Effective March 16, 2020, Governor Greg Abbott authorized the temporary suspension of certain statutory provisions of the Texas Open Meetings Act. This meeting of the City Council of the City of Midland is being held pursuant to such authorization and will limit face-to-face interactions for the purpose of slowing the spread of the coronavirus (COVID-19).

CITY OF MIDLAND, TEXAS
AGENDA FOR CITY COUNCIL MEETING
September 8, 2020 - 10:00 AM
300 North Loraine
Midland, Texas
Council Chamber - City Hall

Videoconference Information

Please click this URL to join.
https://zoom.us/j/93303224129?pwd=cWsyWTRRYkM5anlDUHBqV3pRK2hEZz09
Passcode: 765273
Or join by phone:
Dial(for higher quality, dial a number based on your current location):
US: +1 346 248 7799 or +1 669 900 9128 or +1 253 215 8782 or +1 646 558 8656 or +1 301 715 8592 or +1 312 626 6799
Webinar ID: 933 0322 4129
International numbers available:https://zoom.us/u/adejeRMpyz
The City Council may discuss, consider, and take action on any item listed on this agenda.

OPENING ITEMS

1. Invocation – Pastor Bob Pase, Grace Lutheran Church

2. Pledge of Allegiance

BUDGET AND TAX RATE

3. 10110 – AN ORDINANCE OF THE CITY OF MIDLAND PROVIDING FUNDS FOR THE FISCAL YEAR BEGINNING OCTOBER 1, 2020, AND ENDING SEPTEMBER 30, 2021, BY APPROVING THE BUDGET FOR SAID PERIOD AND APPROPRIATING AND SETTING ASIDE THE NECESSARY FUNDS OUT OF THE GENERAL AND OTHER REVENUES AND UNAPPROPRIATED FUND BALANCE OF THE CITY OF MIDLAND FOR SAID FISCAL YEAR FOR THE MAINTENANCE AND OPERATION OF THE VARIOUS DEPARTMENTS AND FOR VARIOUS ACTIVITIES AND IMPROVEMENTS TO THE CITY; AND ORDERING PUBLICATION (FINANCE) (FIRST READING HELD AUGUST 25, 2020)

4. 2020-144 – RESOLUTION RATIFYING THE PROPERTY TAX REVENUE INCREASE REFLECTED IN THE FISCAL YEAR 2020-2021 BUDGET (FINANCE)

5. 10111 – AN ORDINANCE FIXING THE TAX LEVY FOR THE CITY OF MIDLAND, TEXAS, FOR THE FISCAL YEAR BEGINNING ON OCTOBER 1, 2020, AND ENDING ON SEPTEMBER 30, 2021 (FINANCE) (FIRST READING HELD AUGUST 25, 2020)

CONSENT AGENDA

6. MOTION APPROVING THE FOLLOWING MINUTES:

   a. REGULAR CITY COUNCIL MEETING OF AUGUST 25, 2020

7. 2020-145 – RESOLUTION AWARDING A CONTRACT FOR THE WATER, WASTEWATER AND FIRE HYDRANT TAPS EXPANDED 05 PROJECT TO TEC EXCAVATION, INC. OF MIDLAND, TEXAS, AT A TOTAL COST NOT TO EXCEED $1,000,000.00; AND AUTHORIZING PAYMENT (GENERAL SERVICES)

8. 099-2020 – MOTION TO TRANSFER THE SUM OF $1,400,000.00 FROM THE FISCAL YEAR 2020 FACILITIES SERVICES (001041) OPERATING BUDGET TO THE FACILITIES RENOVATION PROJECT (GENERAL SERVICES)

9. 2020-146 – RESOLUTION AUTHORIZING THE PURCHASE OF AN ESTIMATED ANNUAL SUPPLY OF CHEMICALS NEEDED FOR THE TREATMENT OF DRINKING WATER FOR FISCAL YEAR 2021 FROM MULTIPLE BIDDERS, FOR A TOTAL COST OF $1,700,097.20 (GENERAL SERVICES)

10. 100-2020 – MOTION TO AUTHORIZE THE CITY MANAGER TO APPROVE THE PLANS AND SPECIFICATIONS FOR THE WEST WADLEY AVENUE WASTEWATER MAIN EXTENSION PROJECT, SAID PLANS AND SPECIFICATIONS TO BE PLACED ON FILE IN THE CITY SECRETARY'S OFFICE REFERENCED BY THE NUMBER AND DATE OF THIS MOTION, AND TO AUTHORIZE THE CITY MANAGER OR THE CITY MANAGER'S DESIGNEE TO ADVERTISE FOR COMPETITIVE BIDS FOR SAID PROJECT PURSUANT TO THE STATUTES OF THE STATE OF TEXAS FOR ACCOMPLISHING THE WORK SET FORTH IN SAID PLANS AND SPECIFICATIONS (GENERAL SERVICES)

11. 101-2020 – MOTION TO AUTHORIZE THE CITY MANAGER OR THE CITY MANAGER'S DESIGNEE TO ADVERTISE A REQUEST FOR PROPOSALS FOR CONSULTING AND MANAGEMENT OF SENIOR SERVICES ASSOCIATED WITH THE OPERATION OF THE MIDLAND SOUTHEAST SENIOR CENTER AND THE MIDLAND SENIOR CENTER FOR THE COMMUNITY SERVICES DEPARTMENT AND TO NEGOTIATE A PROFESSIONAL SERVICES AGREEMENT FOR SAID SERVICES; PROVIDED, HOWEVER, THAT SAID AGREEMENT SHALL NOT BECOME EFFECTIVE UNTIL APPROVED BY THE CITY COUNCIL (GENERAL SERVICES)

12. 2020-147 – RESOLUTION OF THE CITY COUNCIL OF THE CITY OF MIDLAND, TEXAS, APPROVING A NEGOTIATED SETTLEMENT BETWEEN THE EXECUTIVE COMMITTEE OF CITIES SERVED BY ATMOS WEST TEXAS ("CITIES") AND ATMOS ENERGY CORP., WEST TEXAS DIVISION (THE "COMPANY") REGARDING THE COMPANY'S 2020 RATE REVIEW MECHANISM FILINGS; DECLARING EXISTING RATES TO BE UNREASONABLE; ADOPTING TARIFFS THAT REFLECT RATE ADJUSTMENTS CONSISTENT WITH THE NEGOTIATED SETTLEMENT; FINDING THE RATES TO BE SET BY THE SETTLEMENT TARIFFS TO BE JUST AND REASONABLE AND IN THE PUBLIC INTEREST; APPROVING AN EXHIBIT ESTABLISHING A BENCHMARK FOR PENSIONS AND RETIREE MEDICAL BENEFITS; APPROVING AN EXHIBIT REGARDING AMORTIZATION OF REGULATORY LIABILITY; REQUIRING THE COMPANY TO REIMBURSE CITIES' REASONABLE RATEMAKING EXPENSES; DETERMINING THAT THIS RESOLUTION WAS PASSED IN ACCORDANCE WITH THE REQUIREMENTS OF THE TEXAS OPEN MEETINGS ACT; ADOPTING A SAVINGS CLAUSE; DECLARING AN EFFECTIVE DATE; AND AUTHORIZING AND DIRECTING THE CITY SECRETARY TO DELIVER THIS RESOLUTION TO THE COMPANY AND CITIES' LEGAL COUNSEL (CITY MANAGER'S OFFICE)

13. 102-2020 – MOTION TO TRANSFER THE SUM OF $1,575,302.72 FROM TRANSPORTATION'S FY 2020 OPERATING BUDGET (001085) TO A SLURRY SEAL CAPITAL PROJECT (ENGINEERING SERVICES)

14. 103-2020 – MOTION ACCEPTING A 23.25-ACRE PUBLIC UTILITY EASEMENT OUT OF SECTIONS 3, 4, 9 & 10, BLOCK 39, T-1-S, T & P RR. CO SURVEY, MIDLAND COUNTY, TEXAS, FROM OCCIDENTAL PERMIAN LTD; A COPY OF THE PUBLIC UTILITY EASEMENT BEING ON FILE IN THE CITY SECRETARY'S OFFICE REFERENCED BY THE DATE AND NUMBER OF THIS MOTION; AND ORDERING THE CITY SECRETARY TO RECORD SAID INSTRUMENT IN THE OFFICIAL REAL PROPERTY RECORDS OF MIDLAND COUNTY, TEXAS (UTILITIES)

15. 104-2020 – MOTION AUTHORIZING THE MAYOR TO EXECUTE A SEPARATION AND RELEASE AGREEMENT BETWEEN THE CITY OF MIDLAND AND THE CITY MANAGER

SECOND READINGS

16. 10107 – AN ORDINANCE AMENDING THE ZONING DISTRICT MAP OF THE CITY OF MIDLAND TO GRANT A SPECIFIC USE DESIGNATION WITH TERM FOR A 3,000-SQUARE FOOT PORTION OF BLOCK 1, LESS THE 250-FOOT BY 150-FOOT NORTHWEST CORNER AND LESS THE 224-FOOT BY 150-FOOT SOUTHWEST CORNER, REPLAT OF BLOCKS 1 AND 2, IMPERIAL HEIGHTS ADDITION, CITY AND COUNTY OF MIDLAND, TEXAS (GENERALLY LOCATED ON THE SOUTH SIDE OF WEST WADLEY AVENUE, APPROXIMATELY 310 FEET EAST OF NORTH MIDKIFF ROAD), WHICH IS PRESENTLY ZONED RR, REGIONAL RETAIL DISTRICT, ALLOWING SAID PROPERTY TO BE USED FOR THE SALE OF ALL ALCOHOLIC BEVERAGES IN A SPECIAL EVENTS CENTER FOR ON-PREMISES CONSUMPTION; MAKING SAID DESIGNATION SUBJECT TO CERTAIN CONDITIONS AND RESTRICTIONS CONTAINED HEREIN; CONTAINING A CUMULATIVE CLAUSE; CONTAINING A

SAVINGS AND SEVERABILITY CLAUSE; PROVIDING FOR A MAXIMUM PENALTY OR FINE OF TWO THOUSAND DOLLARS ($2,000.00); AND ORDERING PUBLICATION (DEVELOPMENT SERVICES) (FIRST READING HELD AUGUST 25, 2020)

17. 10108 – AN ORDINANCE AMENDING THE ZONING DISTRICT MAP OF THE CITY OF MIDLAND TO REZONE LOT 6A, BLOCK 12, KELVIEW HEIGHTS ADDITION, SECTION 11, CITY AND COUNTY OF MIDLAND, TEXAS, FROM PD, PLANNED DEVELOPMENT DISTRICT FOR AN OFFICE AND SHOPPING CENTER AS A TRANSITION DISTRICT TO RR, REGIONAL RETAIL DISTRICT (GENERALLY LOCATED AT THE NORTHEAST CORNER OF THE INTERSECTION OF LOMA DRIVE AND WEST PECAN AVENUE); CONTAINING A CUMULATIVE CLAUSE; CONTAINING A SAVINGS AND SEVERABILITY CLAUSE; PROVIDING FOR A MAXIMUM PENALTY OR FINE OF TWO THOUSAND DOLLARS ($2,000.00); AND ORDERING PUBLICATION (DEVELOPMENT SERVICES) (FIRST READING HELD AUGUST 25, 2020)

18. 10109 – AN ORDINANCE AMENDING THE ZONING DISTRICT MAP OF THE CITY OF MIDLAND TO REZONE A 19.17-ACRE TRACT OF LAND OUT OF SECTION 1, BLOCK 39, T-2-S, T&P RR CO. SURVEY, CITY AND COUNTY OF MIDLAND, TEXAS, FROM MF-16, MULTIPLE-FAMILY DWELLING DISTRICT, IN PART, MH, MANUFACTURED HOUSING DISTRICT, IN PART, RR, REGIONAL RETAIL DISTRICT, IN PART, AND BP, I-20 BUSINESS PARK DISTRICT, IN PART, TO MF-22, MULTIPLE-FAMILY DWELLING DISTRICT (GENERALLY LOCATED ON THE NORTH SIDE OF EAST INTERSTATE 20, APPROXIMATELY 714 FEET EAST OF SOUTH LAMESA ROAD); CONTAINING A CUMULATIVE CLAUSE; CONTAINING A SAVINGS AND SEVERABILITY CLAUSE; PROVIDING FOR A MAXIMUM PENALTY OR FINE OF TWO THOUSAND DOLLARS ($2,000.00); AND ORDERING PUBLICATION (DEVELOPMENT SERVICES) (FIRST READING HELD AUGUST 25, 2020)

PUBLIC HEARINGS

The City Council will hold pubic hearings on the following items:

19. 10112 – AN ORDINANCE AMENDING THE ZONING DISTRICT MAP OF THE CITY OF MIDLAND TO REZONE A 15.70-ACRE TRACT OF LAND OUT OF SECTION 7, BLOCK 38, T-1-S, T&P RR CO. SURVEY, CITY AND COUNTY OF MIDLAND, TEXAS, FROM SF-3, SINGLE-FAMILY DWELLING DISTRICT TO PD, PLANNED DEVELOPMENT DISTRICT FOR A HOUSING DEVELOPMENT (GENERALLY LOCATED ON THE SOUTH SIDE OF TIN TRAIL, APPROXIMATELY 130 FEET EAST OF NORTH FAIRGROUNDS ROAD); CONTAINING A CUMULATIVE CLAUSE; CONTAINING A SAVINGS AND SEVERABILITY CLAUSE; PROVIDING FOR A MAXIMUM PENALTY OR FINE OF TWO THOUSAND DOLLARS ($2,000.00); AND ORDERING PUBLICATION (DEVELOPMENT SERVICES)

20. 10113 – AN ORDINANCE AMENDING THE ZONING DISTRICT MAP OF THE CITY OF MIDLAND TO REZONE LOTS 2 THROUGH 10, BLOCK 1, AND LOTS 1 THROUGH 7, BLOCK 2, LONE STAR BUSINESS PARK, SECTION 2, CITY AND COUNTY OF MIDLAND, TEXAS, FROM O-1, OFFICE DISTRICT TO LR, LOCAL RETAIL DISTRICT (GENERALLY LOCATED AT THE SOUTHEAST CORNER OF THE INTERSECTION OF

NORTH STATE HIGHWAY 349 AND OCCIDENTAL PARKWAY); CONTAINING A CUMULATIVE CLAUSE; CONTAINING A SAVINGS AND SEVERABILITY CLAUSE; PROVIDING FOR A MAXIMUM PENALTY OR FINE OF TWO THOUSAND DOLLARS ($2,000.00); AND ORDERING PUBLICATION (DEVELOPMENT SERVICES)

MISCELLANEOUS

21. 10114 – AN ORDINANCE AMENDING TITLE X, "TRAFFIC REGULATIONS", CHAPTER FOUR, "TRAFFIC CONTROL DEVICES", SECTION 11, "SCHOOL ZONES", OF THE MIDLAND CITY CODE, SO AS TO DESIGNATE EACH SCHOOL ZONE WITHIN THE CITY AND REGULATE THE SPEED AND MOVEMENT OF TRAFFIC THEREIN; AUTHORIZING AND DIRECTING THE TRAFFIC ENGINEER TO INSTALL APPROPRIATE SIGNS AND MARKINGS; REPEALING ORDINANCE NO. 9961; CONTAINING A CUMULATIVE CLAUSE; CONTAINING A SAVINGS AND SEVERABILITY CLAUSE; PROVIDING FOR A MAXIMUM PENALTY OR FINE OF TWO HUNDRED DOLLARS ($200.00); AND ORDERING PUBLICATION (ENGINEERING SERVICES)

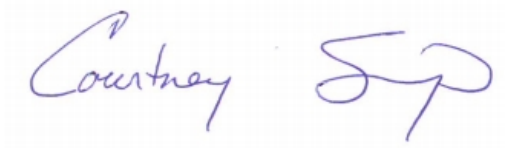
22. 105-2020 – MOTION AUTHORIZING THE CITY MANAGER OR HIS DESIGNEE TO ADVERTISE A REQUEST FOR PROPOSALS FOR COMMERCIAL SALTWATER DISPOSAL OPERATIONS ASSOCIATED WITH CITY-OWNED PROPERTY COMMONLY KNOWN AS T-BAR RANCH LOCATED IN WINKLER AND LOVING COUNTIES, TEXAS. (UTILITIES)

EXECUTIVE SESSION

23. Pursuant to Texas Government Code § 551.101, the City Council will hold an Executive Session, which is closed to the public, to discuss the following matters as permitted under the following sections of the Texas Government Code:

    a. Section 551.072, Deliberation Regarding Real Property
    a.1. Discuss the purchase, exchange, lease, or value of real property.

Respectfully Submitted,



Courtney B. Sharp
City Manager

MEETING ASSISTANCE INFORMATION: The Midland City Hall and Council Chamber are wheelchair accessible. If you need special assistance to participate in this meeting, please contact the City Secretary's Office at (432) 685-7430. Notification 48 hours prior to the meeting will enable the City to make reasonable arrangements to ensure accessibility to this meeting.

City Council Meeting

Item Number: 3

Meeting Date: August 25, 2020

To: City Council / City Manager

From: Jamie Radcliff,

Subject: GATHER PUBLIC INPUT ON THE PROPOSED 2020-2021 BUDGET; AND CONSIDER AN ORDINANCE OF THE CITY OF MIDLAND PROVIDING FUNDS FOR THE FISCAL YEAR BEGINNING OCTOBER 1, 2020, AND ENDING SEPTEMBER 30, 2021, BY APPROVING THE BUDGET FOR SAID PERIOD AND APPROPRIATING AND SETTING ASIDE THE NECESSARY FUNDS OUT OF THE GENERAL AND OTHER REVENUES AND UNAPPROPRIATED FUND BALANCE OF THE CITY OF MIDLAND FOR SAID FISCAL YEAR FOR THE MAINTENANCE AND OPERATION OF THE VARIOUS DEPARTMENTS AND FOR VARIOUS ACTIVITIES AND IMPROVEMENTS TO THE CITY; AND ORDERING PUBLICATION (FINANCE)

Purpose:

Compliance with the Texas Local Government Code requires a public hearing on the proposed budget more than 15 days after the proposed budget is filed with the city Secretary. The budget was filed with the City Secretary on August 3, 2020.

Recommended City Council Action:

Directional / Informational

Fiscal Impact:

The proposed budget is submitted as the City of Midland's general operating plan for the fiscal year beginning October 1, 2020 and ending September 30, 2021.

Discussion:

If the proposed tax rate of 0.364027 is adopted, the General Fund will have a budgeted appropriation of $136,485,964 for FY 2021.

The other major funds would have total budgeted appropriations of $147,717,790 for FY 2021.

City Manager's Office

ORDINANCE NO. _____

AN ORDINANCE OF THE CITY OF MIDLAND PROVIDING FUNDS FOR THE FISCAL YEAR BEGINNING OCTOBER 1, 2020, AND ENDING SEPTEMBER 30, 2021, BY APPROVING THE BUDGET FOR SAID PERIOD AND APPROPRIATING AND SETTING ASIDE THE NECESSARY FUNDS OUT OF THE GENERAL AND OTHER REVENUES AND UNAPPROPRIATED FUND BALANCE OF THE CITY OF MIDLAND FOR SAID FISCAL YEAR FOR THE MAINTENANCE AND OPERATION OF THE VARIOUS DEPARTMENTS AND FOR VARIOUS ACTIVITIES AND IMPROVEMENTS TO THE CITY; AND ORDERING PUBLICATION

WHEREAS, as required by Article IV, Section 14, of the City Charter, the City Manager has prepared and submitted to the City Council a Budget Estimate of expenditures and revenues of all City departments, activities, and offices for the year beginning October 1, 2020, and ending September 30, 2021; and

WHEREAS, said Budget has been filed with the City Secretary of the City of Midland, Texas, as required; and

WHEREAS, notices of a public hearing upon said Budget have been duly and legally made; and

WHEREAS, said public hearing has been held and full and final consideration given said Budget;

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF MIDLAND, TEXAS:

SECTION ONE. That for the purpose of providing the funds necessary and proposed to be expended in the Budget of the City of Midland for the fiscal year beginning October 1, 2020, and ending September 30, 2021, the Budget prepared by the City Manager and submitted to the City Council for its consideration and approval is hereby approved, and the available resources and revenues of the City of Midland as set forth in said Budget for said fiscal year, are hereby appropriated and set aside for the maintenance and operation of the various departments of the Government of the City of Midland, together with the various

activities and improvements as set forth in said Budget; and the appropriations shall be strictly applied for the uses and purposes in the respective departments as provided for in said Budget.

SECTION TWO. That the said Budget for the fiscal year beginning October 1, 2020, and ending September 30, 2021, approved herein shall be attached to and made a part of this ordinance the same as if copied in full herein, said Budget being on file in the City Secretary's office referenced by the number and date of this Ordinance.

SECTION THREE. That expenditures during the fiscal year beginning October 1, 2020, and ending September 30, 2021, shall be made in accordance with the summary Budget approved by this ordinance unless otherwise authorized by a duly enacted resolution or ordinance of the City of Midland and subject to the following provisions and conditions, to wit:

1. That no expenditure may be made without Council approval which shall increase the total appropriation for any one Fund.
2. That the City Manager may make transfers to and between departments and divisions unless such transfers would increase the total appropriation within a Fund.
3. That department managers are hereby authorized to approve transfers of amounts between line items within their departments if such transfers do not significantly change the work program contemplated in the approved Budget.

SECTION FOUR. During each year while there is any liability by reason of the City's Personnel Policies or Employment Agreements, the City Council shall compute and ascertain the rate and amount of ad valorem tax, based on the latest approved tax rolls with full allowance being made for tax collection, which will be sufficient to raise the money required to pay any sums which may be or become due during any such year, in no instance to be less than two percent (2%) of such obligation, together with all interest thereon, because of the obligations assumed by the City's Personnel Policies or Employment

Agreements. Said rate and amount of ad valorem tax will be ordered to be levied against all taxable property in the City for each year while any liability exists by reason of the obligations undertaken by the City's Personnel Policies or Employment Agreements, and said ad valorem tax shall be assessed and collected each year until all of the obligations incurred in the City's Personnel Policies or Employment Agreements shall have been discharged and all liability discharged.

SECTION FIVE. For the purpose of this ordinance, certain words as used herein are defined as follows:

1. The term "agency" wherever used in the said Budget shall mean the same and be synonymous with the term "department" as used in the Charter, ordinances, resolutions, and other official documents and policies of the City of Midland, Texas.
2. The term "organization" wherever used in the said Budget shall mean the same and be synonymous with the term "division" as used in the Charter, ordinances, resolutions and other official documents and policies of the City of Midland, Texas.

SECTION SIX. All departments of the City required to be established by the City Charter, state law, or federal law are deemed to be created.

SECTION SEVEN. That all transfers from the Water and Sewer Fund and Sanitation Fund are made in compliance with Sections 1502.057, 1502.058 and 1502.059 of the Texas Government Code.

SECTION EIGHT. That the City Manager shall give notice of water rate increases to appropriate individuals and entities as required by state law.

SECTION NINE. That the City Manager is hereby authorized and directed to execute contracts for grants of Hotel/Motel Tax funds to the extent that said grants are included in the Budget.

The above and foregoing ordinance was duly proposed, read in full and adopted on first reading, the _____ day of _____, A.D., 2020; and passed to second reading on motion of Council member _____, seconded by Council member _____, by the following vote:

Council members voting "AYE":

Council members voting "NAY":

The above and foregoing ordinance was read in full and finally adopted by the following vote upon motion of Council member _____, seconded by Council member _____, on the _____ day of _____, A.D., 2020, at a regular meeting of the City Council:

Council members voting "AYE":

Council members voting "NAY":

PASSED AND APPROVED THIS _____ day of _____, A.D., 2020.

_____
Patrick N. Payton, Mayor

ATTEST:

_____
Amy M. Turner, City Secretary

APPROVED AS TO CONTENT
AND COMPLETENESS:

_____
Mark Mason, Director of Finance

APPROVED ONLY AS TO FORM:

_____
John Ohnemiller, City Attorney

NOTICE OF PUBLIC HEARING
2020-2021
CITY OF MIDLAND
ANNUAL OPERATING BUDGET

Notice is hereby given that the Mayor and City Council will conduct a Public Hearing at 10:00 A.M. on Tuesday, August 25, 2020 in the City Hall Council Chamber located at 300 North Loraine, Midland, Texas.

THIS BUDGET WILL RAISE MORE TOTAL PROPERTY TAXES THAN LAST YEAR'S BUDGET BY $2,409,112 OR 4.1%, AND OF THAT AMOUNT, $1,605,495 IS TAX REVENUE TO BE RAISED FROM NEW PROPERTY ADDED TO THE TAX ROLL THIS YEAR.

The purpose of the Public Hearing is to allow the public and other interested groups to make comments regarding the 2020-2021 City of Midland Budget.

(Publish by August 4, 2020)

18-point or larger type

City Council Meeting

Item Number: 4

Meeting Date: September 8, 2020

To: City Council / City Manager

From: Jamie Radcliff,

Subject: RESOLUTION RATIFYING THE PROPERTY TAX REVENUE INCREASE REFLECTED IN THE FISCAL YEAR 2020-2021 BUDGET (FINANCE)

Purpose:

Section 102.007 (c) of the Texas Local Government Code states that the adoption of a budget that will require raising more revenue from property taxes than in the previous year requires a separate vote of the governing body to ratify the property tax revenue increase reflected in the budget.

Recommended City Council Action:

Approve

Fiscal Impact:

The adoption of the Fiscal Year 2020-2021 Budget for the City of Midland will raise more total property taxes than last year's budget by $1,583,006 or 2.7%. This total is exclusively tax revenue that will be raised from New Properties added to the tax roll this year.

Discussion:

On August 25th, 2020, the Council voted to adopt a No-New-Revenue tax rate of 0.358928 per $100 valuation. The no-new-revenue tax rate enables the public to evaluate the relationship between taxes for the prior year and for the current year, based on a tax rate that would produce the same amount of taxes if applied to the same properties taxed in both years.

For the 2020 Tax year, the Midland Central Appraisal District provided New Property Valuations that will generate $1,583,006 in new revenue for the City. These are properties that were not included on the tax rolls last year, and therefore would not be included in the calculation of the No-New Revenue Tax Rate.

As a result, the City Council must hold a separate vote authorizing the increase of property tax revenue for the Fiscal Year 2020-2021. This vote needs to occur after the adoption of the Budget and prior to the adoption of the Tax Rate. Last year these items were placed at the beginning of the agenda.

City Manager's Office

RESOLUTION NO. _____

RESOLUTION RATIFYING THE PROPERTY TAX REVENUE INCREASE REFLECTED IN THE FISCAL YEAR 2020-2021 BUDGET

WHEREAS, Section 102.007(c) of the Texas Local Government Code provides that the adoption of a budget that will require raising more revenue from property taxes than in the previous year requires a separate vote of the governing body to ratify the property tax revenue increase reflected in the budget; and

WHEREAS, the adoption of the budget of the City of Midland for the fiscal year beginning October 1, 2020, and ending September 30, 2021 (the "2020-2021 Budget"), will require raising more revenue from property taxes than in the previous year;

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF MIDLAND, TEXAS:

THAT the property tax revenue increase reflected in the 2020-2021 Budget is hereby ratified.

On motion of Council member _____, seconded by Council member _____, the above and foregoing resolution was adopted by the City Council of the City of Midland at a regular meeting on the _____ day of _____, A.D., 2020, by the following vote:

Council members voting "AYE":

Council members voting "NAY":

_____
Patrick N. Payton, Mayor

ATTEST:

_____
Amy M. Turner, City Secretary

RECOMMENDED AND APPROVED:

_____
Courtney Sharp, City Manager

APPROVED AS TO CONTENT AND COMPLETENESS:

_____
Mark Mason, Director of Finance

APPROVED ONLY AS TO FORM:

_____
John Ohnemiller, City Attorney

City Council Meeting

Item Number: 5

Meeting Date: August 25, 2020

To: City Council / City Manager

From: Jamie Radcliff,

Subject: TAX RATE INCREASE FOR FISCAL YEAR 2020-2021; AND CONSIDER AN ORDINANCE FIXING THE TAX LEVY FOR THE CITY OF MIDLAND, TEXAS, FOR THE FISCAL YEAR BEGINNING ON OCTOBER 1, 2020, AND ENDING ON SEPTEMBER 30, 2021 (FINANCE)

Purpose:

The purpose of this item is to provide notification to the public and to allow a public forum for citizen input on the tax increase.

Recommended City Council Action:

Directional / Informational

Fiscal Impact:

The proposed Ad Valorem Tax Rate of 0.364027 per $100 valuation for the fiscal year 2020-2021 operating budget will generate approximately $60,946,439 in revenue for the General Fund.

Discussion:

The proposed rate of 0.364027 is a 1.4% increase above the No-New-Revenue Rate (formerly known as the effective rate).

The proposed rate of 0.364027 is composed of a maintenance and operations rate (0.304488 per $100 dollars valuation) and a debt service levy (0.059539 per $100 valuation).

The proposed rate will raise $2,409,112 more in tax revenue than in the 2019-2020 fiscal year budget, and of that amount, $1,605,495 is tax revenue to be raised from new property added to the tax roll this year.

Attached are the Chief Appraiser's 2020 Certified Estimates of Taxable Value for the City of Midland, the "Notice of Public Hearing on Tax Increase," and the "Notice of Tax Rates."

City Manager’s Office

ORDINANCE NO. _____

AN ORDINANCE FIXING THE TAX LEVY FOR THE CITY OF MIDLAND, TEXAS, FOR THE FISCAL YEAR BEGINNING ON OCTOBER 1, 2020, AND ENDING ON SEPTEMBER 30, 2021

WHEREAS, the Midland City Council voted to propose a tax rate of $0.358928 for each one hundred dollar valuation of taxable property for the fiscal year October 1, 2020, to September 30, 2021; and

WHEREAS, the Midland City Council finds and determines that the City of Midland has fully and timely complied with all notice, hearing and other legal requirements relative to the adoption of this ordinance; and

WHEREAS, THIS TAX RATE WILL NOT RAISE MORE TAXES FOR MAINTENANCE AND OPERATIONS THAN LAST YEAR'S TAX RATE; AND

WHEREAS, THE TAX RATE WILL NOT EFFECTIVELY BE RAISED AND WILL DECREASE TAXES FOR MAINTENANCE AND OPERATIONS ON A $100,000.00 HOME BY APPROXIMATELY $13.51.

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF MIDLAND, TEXAS:

SECTION ONE. That to pay interest and principal on outstanding bonds as they mature, a tax levy of $0.059539 on each $100.00 valuation of all taxable property in the City of Midland, Texas is hereby made and levied for the year 2020 to be credited to the Interest and Sinking Fund of the City.

SECTION TWO. That to raise funds to help defray current General expenses of the City, a levy of $0.299389 on each $100.00 valuation of all taxable property within the City is hereby made and levied for the year 2020. The collections from these levies are to be apportioned and deposited as follows:

Interest and Sinking Fund	$0.059539
General Fund	$0.299389
TOTAL TAX LEVY FOR ALL PURPOSES	$0.358928

SECTION THREE. That the apportionment of taxes collected for the 2010 through 2018 tax years shall be apportioned in the same ratio as the taxes for those same years collected prior to the delinquency date and that the apportionment of taxes collected for 2009 and prior years shall be apportioned in accordance with the schedule for 2009 taxes.

The above and foregoing ordinance was duly proposed, read in full and adopted on first reading, the _____ day of _____, A.D., 2020; and passed to second reading on motion of Council member _____, seconded by Council member _____, by the following vote:

Council members voting "AYE":

Council members voting "NAY":

The above and foregoing ordinance was read in full and finally adopted by the following vote upon motion of Council member _____, seconded by Council member _____, on the _____ day of _____, A.D., 2020, at a regular meeting of the City Council:

Council members voting "AYE":

Council members voting "NAY":

PASSED AND APPROVED THIS _____ day of _____, A.D., 2020.

_____
Patrick N. Payton, Mayor

ATTEST:

_____
Amy M. Turner, City Secretary

APPROVED AS TO CONTENT AND COMPLETENESS:

_____
Mark Mason, Director of Finance

APPROVED AS TO FORM ONLY:

_____
John Ohnemiller, City Attorney

MIDLAND CENTRAL APPRAISAL DISTRICT
4631 ANDREWS HWY.
P. O. BOX 908002 MIDLAND, TEXAS 79708-0002
(432) 699-4991 FAX (432) 689-7185

JERRY BUNDICK
RPA, RTA
Chief Appraiser

July 24, 2020

Ms. Jamie Radcliff
Budget Manager
City of Midland
P. O. Box 1152
Midland, Texas 79702

Dear Jamie:

In accordance with Section 26.01 (a-1) of the Texas Property Tax Code, please find enclosed the Chief Appraiser's 2020 Certified Estimate of Taxable value for the City of Midland.

If you have any questions, please contact me.

Sincerely,

Jerry Bundick, RPA,RTA
Chief Appraiser

JB/cc
Enclosure

2020 CHIEF APPRAISER'S CERTIFIED ESTIMATE
CITY OF MIDLAND

GROSS VALUE	$18,109,508,808
LOSS DUE TO AGRICULTURAL USE	($49,793,500)
CONSTITUTIONAL EXEMPT PROPERTY	($678,832,230)
DISABLED VETERAN EXEMPTION	($5,581,910)
DISABLED VETERAN EXEMPTION FROZEN	$0
DISABLED VETERAN EXEMPTION (100%)	($42,610,693)
GENERAL HOMESTEAD EXEMPTION	$0
GENERAL HOMESTEAD EXEMPTION FROZEN	$0
HOMESTEAD EXEMPTION (LOCAL OPTION)	$0
HOMESTEAD EXEMPTION FROZEN (LOCAL OPTION)	$0
HOMESTEAD EXEMPTION (LOCAL PERCENT OPTION)	$0
HOMESTEAD EXEMPTION (LOCAL PERCENT OPTION) FROZEN	$0
OVER 65 EXEMPTION	$0
FROZEN OVER 65 EXEMPTION	$0
OVER 65 EXEMPTION (LOCAL OPTION)	($57,240,180)
OVER 65 EXEMPTION FROZEN (LOCAL OPTION)	$0
DISABLED EXEMPTION	$0
DISABLED EXEMPTION FROZEN	$0
DISABLED EXEMPTION (LOCAL OPTION)	$0
DISABLED EXEMPTION (LOCAL OPTION) FROZEN	$0
ABATEMENTS	$0
POLLUTION CONTROL	($23,950)
FREEPORT EXEMPTION	($1,324,887)
MINIMUM VALUE LOSS (MINERALS & PERSONAL PROPERTY	($214,630)
PARTIAL YEAR EXEMPTION/ LEASED VEHICLES & OTHER	($1,416,840)
10% CAP LOSS	($205,067,504)
TOTAL TAXABLE VALUE FOR 2020	$17,067,402,484
LESS VALUE STILL UNDER PROTEST	$2,058,960,915
ESTIMATED VALUE THAT WILL BE CERTIFIED BY ARB	($1,733,843,660)
ESTIMATED TOTAL TAXABLE VALUE FOR 2020	$16,742,285,229

I, Jerry M. Bundick, Chief Appraiser for the Midland Central Appraisal District, do solemnly swear or affirm that I have made, or caused to be made, a diligent effort to ascertain all property in the City of Midland subject to appraisal by me and that I have included in the certified estimate, the market and taxable values of property that I am aware of at an appraised value determined as required by law.

Jerry M. Bundick

Jerry M. Bundick
Sworn to and subscribed before me the 24th day of July, 2020

CHIEF APPRAISER'S CERTIFIED ESTIMATE
CITY OF MIDLAND

	REAL ESTATE	P P	P&A MIN	P&A PP	TOTALS
GROSS VALUE	$15,367,892,643	$1,244,322,705	$1,049,622,490	$447,670,970	$18,109,508,808
LOSS DUE TO AGRICULTURAL USE	($49,793,500)	$0	$0	$0	($49,793,500)
CONSTITUTIONAL EXEMPT PROPERTY	($674,063,330)	($3,555,110)	($1,213,790)	$0	($678,832,230)
DISABLED VETERAN EXEMPTION	($5,569,910)	($12,000)	$0	$0	($5,581,910)
DISABLED VETERAN EXEMPTION FROZEN	$0	$0	$0	$0	$0
DISABLED VETERAN EXEMPTION (100%)	($42,580,513)	($30,180)	$0	$0	($42,610,693)
GENERAL HOMESTEAD EXEMPTION	$0	$0	$0	$0	$0
GENERAL HOMESTEAD EXEMPTION FROZEN	$0	$0	$0	$0	$0
HOMESTEAD EXEMPTION (LOCAL OPTION)	$0	$0	$0	$0	$0
HOMESTEAD EXEMPTION FROZEN (LOCAL OPTION)	$0	$0	$0	$0	$0
HOMESTEAD EXEMPTION (LOCAL PERCENT OPTION)	$0	$0	$0	$0	$0
HOMESTEAD EXEMPTION (LOCAL PERCENT OPTION) FROZEN	$0	$0	$0	$0	$0
OVER 65 EXEMPTION	$0	$0	$0	$0	$0
FROZEN OVER 65 EXEMPTION	$0	$0	$0	$0	$0
OVER 65 EXEMPTION (LOCAL OPTION)	($57,052,391)	($187,789)	$0	$0	($57,240,180)
OVER 65 EXEMPTION FROZEN (LOCAL OPTION)	$0	$0	$0	$0	$0
DISABLED EXEMPTION	$0	$0	$0	$0	$0
DISABLED EXEMPTION FROZEN	$0	$0	$0	$0	$0
DISABLED EXEMPTION (LOCAL OPTION)	$0	$0	$0	$0	$0
DISABLED EXEMPTION (LOCAL OPTION) FROZEN	$0	$0	$0	$0	$0
ABATEMENTS	$0	$0	$0	$0	$0
POLLUTION CONTROL	$0	$0	$0	($23,950)	($23,950)
FREEPORT EXEMPTION	$0	($713,797)	$0	($611,090)	($1,324,887)
MINIMUM VALUE LOSS (MINERALS & PERSONAL PROPERTY	$0	($28,910)	($185,720)	$0	($214,630)
PARTIAL YEAR EXEMPTION/ LEASED VEHICLES & OTHER	($1,368,840)	($48,000)	$0	$0	($1,416,840)
10% CAP LOSS	($205,030,864)	($36,640)	$0	$0	($205,067,504)
TOTAL TAXABLE VALUE FOR 2020	$14,332,433,295	$1,239,710,279	$1,048,222,980	$447,035,930	$17,067,402,484
LESS VALUE STILL UNDER PROTEST	$1,954,232,405	$104,728,510	$0	$0	$2,058,960,915
ESTIMATED VALUE THAT WILL BE CERTIFIED BY ARB	($1,640,773,527)	($93,070,132)	$0	$0	($1,733,843,660)
ESTIMATED TOTAL TAXABLE VALUE FOR 2020	$14,018,974,417	$1,228,051,901	$1,048,222,980	$447,035,930	$16,742,285,229

I, Jerry M. Bundick, Chief Appraiser for the Midland Central Appraisal District, do solemnly swear or affirm that I have made, or caused to be made, a diligent effort to ascertain all property in the City of Midland subject to appraisal by me and that I have included in the certified estimate, the market and taxable values of property that I am aware of at an appraised value determined as required by law.

Jerry M Bundick

Jerry M. Bundick
Sworn to and subscribed before me the 24th day of July, 2020

NOTICE OF PUBLIC HEARING ON TAX INCREASE

PROPOSED TAX RATE	0.364027 per $100
NO-NEW REVENUE TAX RATE	0.358928 per $100
VOTER-APPROVAL REVENUE TAX RATE	0.379481 per $100

The no-new-revenue tax rate is the tax rate for the 2020 tax year that will raise the same amount of property tax revenue for City of Midland from the same properties in both the 2019 tax year and the 2020 tax year.

The voter-approval tax rate is the highest tax rate that City of Midland may adopt without holding an election to seek voter approval of the rate.

A public hearing on the proposed tax rate will be held on August 25, 2020 at 10:00 AM at Midland City Council Chambers.

YOUR TAXES OWED UNDER ANY OF THE ABOVE RATES CAN BE CALCULATED AS FOLLOWS:

property tax amount=(tax rate) X (taxable value of your property)/100

The members of the governing body voted on the proposed tax increase as follows:

FOR:

AGAINST:

PRESENT and not voting:

ABSENT:

The 86th Texas Legislature modified the manner in which the voter-approval tax rate is calculated to limit the rate of growth of property taxes in the state.

The following table compares the taxes imposed on the average residence homestead by City of Midland last year to the taxes proposed to be imposed on the average residence homestead by City of Midland this year:

	2019	2020	Change
Total Tax Rate (per $100 of value)	0.364715	0.364027	*decrease of* -$0.000688 OR -0.19%
Average homestead taxable value	269,475	272,361	*increase of* 1.07%
Tax on average homestead	982.82	991.47	*increase of* $9 OR 0.88%
Total tax levy on all properties	58,537,327	60,946,438	*increase of* $2,409,112 OR 4.11%

For assistance with tax calculations, please contact the Budget Manager for City of Midland at 432-685-7214 or jradcliff@midlandtexas.gov, or visit www.midlandtexas.gov for more information.

Form 50-212

Notice of Tax Rates

Property Tax Rates in CITY OF MIDLAND

This notice concerns the 2020 property tax rates for CITY OF MIDLAND

This notice provide information about two tax rates. The no-new-revenue tax rate would Impose the same amount of taxes as last year if you compare properties taxed in both years. The voter-approval tax rate is the hightest tax rate a taxing unit can adopt without holding an election. In each case, these rates are calculated by dividing the total amont of taxes by the current taxable value with adjustments as required by state law. The rates are given per $100 of property value.

This year's no-new-revenue tax rate:

Last year's adjusted taxes *(after subtracting taxes on lost property)*	$57,315,117	/ $100
This year's adjusted taxable value *(after subtracting value of new property)*	$16,301,247,997	/ $100
= This year's no-new-revenue tax rate	$0.358929	/ $100
+ This year's adjustment to the no-new-revenue tax rate	$0.000000	/ $100
= This year's adjusted no-new-revenue tax rate	**$0.358929**	/ $100

This is the maximum rate the taxing unit can propose unless it publishes a notice and holds a hearing.

This year's voter-approval tax rate:

Last year's adjusted operating taxes (*after adjusting as required by law)*	$50,390,828	
This year's adjusted taxable value *(after subtracting value of new property)*	$16,301,247,997	
= This year's voter-approval operating tax rate	$0.309123	/ $100
x (*1.035 or 1.08, as applicable*) = this year's maximum operating rate	$0.319942	/ $100
+ This year's debt rate	$0.059539	/ $100
+ The unused increment rate, if applicable	$0.000000	/ $100
= This year's total voter-approval tax rate	**$0.379481**	/ $100

Unencumbered Fund Balances

The follwing estimated balances will be left in the taxing unit's accounts at the end of the fiscal year. These balances are not encumbered by corresponding debt obligations.

Type of Fund	Balance
Debt Service Fund	$300,000

Current Year Debt Service

The taxing unit plans to pay the following amounts for long-term debts that are secured by property taxes. These amounts will be paid from property tax revenues *(or additional sales tax revenue, if applicable)*.

	Principal or Contract Payment to be Paid From Property Taxes	Interest to be Paid From Property Taxes	Other Amounts to be Paid	Total Payment
2019 CO	$240,000	$338,700	$0	$578,700
2018A-GO 2007 Refunding	$895,000	$1,110,513	$0	$2,005,513
2014 GO-Refunding	$385,000	$7,700	$0	$392,700
2014 CO	$1,000,862	$925,984	$0	$1,926,846
2012 CO	$640,000	$331,494	$0	$971,494
2019 GO-Refunding	$1,005,000	$1,177,325	$0	$2,182,325
2020 GO	$90,000	$1,306,952	$0	$1,396,952
2020 CO	$80,000	$466,092	$0	$546,092

(expand as needed)

Total required for 2020 debt service.....	$10,000,622
-- Amount *(if any)* paid from funds listed in unencumbered funds.....	$0
-- Amount *(if any)* paid from other resources.....	$2,500
-- Excess collections last year.....	$0
= Total to be paid from taxes in 2020	$9,998,122
+ Amount added in anticipation that the taxing unit will collect only 100 % of its taxes in 2020	0
= Total Debt Levy	$9,998,122

This notice contains a summary of the no-new-revenue and voter-approval calculation as

certified by Jerry M. Bundick, Chief Appraiser, August 3, 2020

(designated individual's name and position) (date)

Form developed by: Texas Comptroller of Public Accounts, Property Tax Assistance Division

For additional copies, visit:
comptroller.texas.gov/taxes/property-tax
50-212 • 04-20/16

MIDLAND CITY COUNCIL
MINUTES
August 25, 2020

The City Council convened in regular session in the Council Chamber, City Hall, Midland, Texas, at 10:00 a.m., August 25, 2020.

Council Members present:	Patrick Payton, Spencer Robnett, Michael Trost, Scott Dufford, John Norman, Jack Ladd, Lori Blong
Council Members absent:	None
Staff members present:	City Manager Courtney Sharp, City Attorney John Ohnemiller, Assistant City Manager Robert Patrick, Assistant City Manager Morris WIlliams

The meeting was called to order at 10:06 a.m.

OPENING ITEMS

1. Invocation – Reverend Hailey Malcolm Presbytery of Tres Rios Church

2. Pledge of Allegiance

CONSENT AGENDA

Spencer Robnett moved to approve Consent Agenda items 3-15 excluding items 4, 5, 7, 10, 11, 14, and 15; seconded by Jack Ladd.

The motion passed by the following vote:
AYE: Payton, Robnett, Trost, Dufford, Norman, Ladd, Blong
NAY: None
ABSTAIN: None
ABSENT: None

3. MOTION APPROVING THE FOLLOWING MINUTES:

   a. REGULAR CITY COUNCIL MEETING OF AUGUST 11, 2020

6. 091-2020 – MOTION AUTHORIZING THE EXECUTION OF A CHANGE ORDER WITH MW BUILDERS, INC. REGARDING THE FIRE STATION FIVE (5), FIRE STATION ELEVEN (11) AND FUELING STATION PROJECT; SAID CHANGE ORDER TO BE IN

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THE AMOUNT OF $98,777.00 AND TO PROVIDE FOR UTILITY IMPROVEMENTS FOR FIRE STATION FIVE (5) FOR THE FIRE DEPARTMENT; AND APPROPRIATING $98,777.00 FROM THE ROAD/UTILITY BOND FUND (179) TO SAID PROJECT (900307-005) (GENERAL SERVICES)

8. 093-2020 – MOTION ACCEPTING FEDERAL GRANT #60 IN THE AMOUNT OF $5,449,883.00 AWARDED BY THE FEDERAL AVIATION ADMINISTRATION; SAID GRANT FUNDS TO BE USED FOR CERTAIN PROJECTS AT THE MIDLAND INTERNATIONAL AIR & SPACE PORT; AND AUTHORIZING THE EXECUTION OF ALL DOCUMENTS NECESSARY TO ACCEPT SAID GRANT FUNDS (AIRPORTS)

9. 094-2020 – MOTION RATIFYING THE ACCEPTANCE OF THE CORONAVIRUS AID, RELIEF AND ECONOMIC SECURITY (CARES) ACT GRANT IN THE AMOUNT OF $69,000.00 AWARDED BY THE TEXAS DEPARTMENT OF TRANSPORTATION; SAID GRANT FUNDS TO BE USED FOR CERTAIN ALLOWABLE EXPENDITURES AT MIDLAND AIRPARK (AIRPORTS)

12. 2020-142 – RESOLUTION APPROVING THE ISSUANCE OF PERMITS TO PARSLEY ENERGY OPERATIONS, LLC (“OPERATOR”) TO DRILL THREE OIL AND GAS WELLS LOCATED IN SECTION 1, BLOCK X, H.P. HILLIARD SURVEY, CITY AND COUNTY OF MIDLAND, TEXAS (GENERALLY LOCATED BETWEEN 320 FEET AND 380 FEET SOUTH OF SOLOMON LANE EXTENSION AND 1,541 FEET WEST OF NORTH FAIRGROUNDS ROAD EXTENSION); AND WAIVING THE REQUIREMENT OF A ROAD REPAIR AGREEMENT (DEVELOPMENT SERVICES)

13. 095-2020 – MOTION AUTHORIZING THE SUBMISSION OF A GRANT APPLICATION TO THE 2020 JUSTICE ASSISTANCE GRANT PROGRAM IN ORDER TO RECEIVE $15,811.00 FOR THE PURCHASE OF EQUIPMENT, TECHNOLOGY, AND OTHER MATERIALS DIRECTLY RELATED TO BASIC LAW ENFORCEMENT FOR THE POLICE DEPARTMENT (POLICE)

The following items were pulled from consent agenda and considered individually.

4. 090-2020 – MOTION AUTHORIZING THE EXECUTION OF CHANGE ORDER NUMBER ONE (1) WITH ONYX GENERAL CONTRACTORS, LLC REGARDING THE FISCAL YEAR 2020 RENEWAL OF THE FISCAL YEAR 2018 CITYWIDE CONCRETE PROGRAM CONTRACT; SAID CHANGE ORDER TO BE IN THE AMOUNT OF $250,000.00 AND TO PROVIDE FOR CONCRETE VALLEY GUTTERS FOR DRAINAGE IMPROVEMENTS AND ADA-COMPLIANT RAMPS AT THE FOLLOWING LOCATIONS: TARLETON STREET BETWEEN WADLEY AVENUE AND GOLF COURSE ROAD, SINCLAIR AVENUE BETWEEN MIDLAND DRIVE AND LOOP 250, AND WHITTLE WAY BETWEEN SUNSHINE PARKWAY AND WADLEY AVENUE (GENERAL SERVICES)

Council Member Blong reported she is thankful for seeing concrete go in. Engineering Services Director Jose Ortiz reported the areas where concrete went in first followed by asphalt had some issues. This project, the concrete will go in after the asphalt. Discussion briefly ensued about wheelchair access and the need to put them where they will actually

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be used. Mr Ortiz noted that it does seem odd to put them in where there is no sidewalk, but it has to be done.

Spencer Robnett moved to approve Motion No. 090-2020; seconded by Lori Blong.

The motion passed by the following vote:
AYE: Payton, Robnett, Trost, Dufford, Norman, Ladd, Blong
NAY: None
ABSTAIN: None
ABSENT: None

5. 2020-139 – RESOLUTION RATIFYING THE SOLE-SOURCE PURCHASE IN THE AMOUNT OF $492,650.00 FOR NEPTUNE WATER METERS AND ASSOCIATED PARTS FROM CORE & MAIN, LP; APPROVING THE ADDITIONAL SOLE-SOURCE PURCHASE IN THE AMOUNT OF $358,819.50 FOR NEPTUNE WATER METERS AND ASSOCIATED PARTS FROM CORE & MAIN, LP; AND AUTHORIZING THE EXECUTION OF AN AMENDMENT TO THE SOLE-SOURCE PURCHASE AGREEMENT WITH CORE & MAIN, LP, FOR NEPTUNE WATER METERS AND ASSOCIATED PARTS FOR THE CUSTOMER SERVICE DIVISION OF THE FINANCE DEPARTMENT; SAID AMENDMENT TO PROVIDE FOR A TOTAL COST NOT TO EXCEED $2,850,701.20 (GENERAL SERVICES)

Council Member Blong reported that water meters are a point of concern for her district and asked if the cost benefit analysis still works with this increase. Customer Service Manager Tony Goyang reported that prior to the assessments there was a lot of tampering and these encoders are the best in the market. Other cities have been very satisfied. It was not the lowest bid, but it is the best bid for the City of Midland. Assistant City Manager Robert Patrick added that the accuracy of the product allows customers to pinpoint high usage times and ultimately helps conserve water.

Council Member Blong asked that when these meters are installed that the customers be notified of the change. She shared an example of someone who had a leak and was unable to turn off the water at the meter like they could in the past. Water continued to leak until a part could be purchased and installed.

Jack Ladd moved to approve Resolution No. 2020-139; seconded by Lori Blong.

The motion passed by the following vote:
AYE: Payton, Robnett, Trost, Dufford, Norman, Ladd, Blong
NAY: None
ABSTAIN: None
ABSENT: None

7. 092-2020 – MOTION AUTHORIZING THE EXECUTION OF AN INTERLOCAL AGREEMENT WITH THE PUBLIC EMPLOYEE BENEFITS ALLIANCE, AS AUTHORIZED BY CHAPTER 791 OF THE TEXAS GOVERNMENT CODE; SAID AGREEMENT PROVIDING FOR THE CITY OF MIDLAND'S PARTICIPATION IN THE COOPERATIVE PURCHASING OF CERTAIN EMPLOYEE BENEFITS (ADMINISTRATIVE SERVICES)

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Council Member Blong asked about the costs associated with this agreement. Administrative Services Director Mark Widmann reported the membership is $700 and the proposal maximum is $1,700 for a total maximum of $2,400. There would be a cost with the insurance carriers, but those would come before Council separately.

Jack Ladd moved to approve Motion No. 092-2020; seconded by Michael Trost.

The motion passed by the following vote:
AYE: Payton, Robnett, Trost, Dufford, Norman, Ladd, Blong
NAY: None
ABSTAIN: None
ABSENT: None

10. 2020-140 – RESOLUTION ACCEPTING A GRANT IN THE AMOUNT OF $7,953,000.00 FROM THE TEXAS DIVISION OF EMERGENCY MANAGEMENT FISCAL YEAR 2020 CARES ACT CORONAVIRUS RELIEF FUND GRANT PROGRAM; PROVIDING THAT SAID GRANT SHALL BE USED FOR ELIGIBLE EXPENDITURES INCURRED DUE TO THE CORONAVIRUS DISEASE 2019 PUBLIC HEALTH EMERGENCY; AND AUTHORIZING THE EXECUTION OF ACCEPTANCE DOCUMENTS (CITY MANAGER'S OFFICE)

Council Member Ladd inquired about how the funds could be used. Finance Director Mark Mason noted they planned to use money paid for payroll of public safety personnel. They would then put those funds in a special fund and use them for appropriate programs in the City. The federal program has a deadline of December 30th which is not enough time to develop and implement programs to expend the funds.

Lori Blong moved to approve Resolution No. 2020-140; seconded by John Norman.

The motion passed by the following vote:
AYE: Payton, Robnett, Trost, Dufford, Norman, Ladd, Blong
NAY: None
ABSTAIN: None
ABSENT: None

11. 2020-141 – RESOLUTION APPROVING AN ECONOMIC DEVELOPMENT AGREEMENT WITH MOTRAN ALLIANCE, INC., AS AUTHORIZED BY CHAPTER 501 OF THE TEXAS LOCAL GOVERNMENT CODE (CITY MANAGER'S OFFICE)

Council Member Trost asked how this economic development agreement is financed. City Manager Courtney Sharp reported that both the Midland Development Corporation and Odessa Development Corporation participate in funding the agreement with MOTRAN.

Spencer Robnett moved to approve Resolution No. 2020-141; seconded by Jack Ladd.

The motion passed by the following vote:
AYE: Payton, Robnett, Dufford, Norman, Ladd, Blong
NAY: Trost
ABSTAIN: None

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ABSENT: None

14. 096-2020 – MOTION AUTHORIZING THE EXECUTION OF A RIGHT-OF-WAY LICENSE BETWEEN THE CITY OF MIDLAND AND BETA CRUDE CONNECTOR, LLC, REGARDING CITY-OWNED PROPERTY DESCRIBED AS SECTION 44, BLOCK 38, TOWNSHIP 1 SOUTH, T&P RR CO. SURVEY, MIDLAND COUNTY, TEXAS (UTILITIES)

Council Member Trost asked if this is located in the ETJ; staff confirmed it was.

Council Member Robnett asked if the City has considered collecting the fees up front for the entire contract. Utilities Director Carl Craigo reported they do collect them in entirety for some projects.

Council Member Robnett noted that the City was the cheapest easement game in town and therefore gets more than their fair share of easements. He suggested we consider taking a look at the rate noting it was half of what a private land owner charges. City Attorney John Ohnemiller clarified that this is not a permanent easement, but is a license. The City has the right to terminate the license with one year's notice.

Spencer Robnett moved to approve Motion No. 096-2020 ; seconded by Lori Blong.

The motion passed by the following vote:
AYE: Payton, Robnett, Trost, Dufford, Norman, Ladd, Blong
NAY: None
ABSTAIN: None
ABSENT: None

15. 097-2020 – MOTION ACCEPTING GRANT FUNDS IN THE AMOUNT OF $78,241.00 AWARDED BY THE TEXAS DEPARTMENT OF STATE HEALTH SERVICES; SAID GRANT FUNDS TO BE USED TO FUND THE CITY OF MIDLAND HEALTH AND SENIOR SERVICES DIVISION'S CORONAVIRUS DISEASE 2019 RESPONSE ACTIVITIES; AUTHORIZING THE EXECUTION OF ALL DOCUMENTS NECESSARY TO ACCEPT SAID GRANT FUNDS; AND DEPOSITING THE SUM OF $78,241.00 INTO THE GENERAL FUND (COMMUNITY SERVICES)

Council Member Trost reported his question was answered in another item.

Jack Ladd moved to approve Motion No. 097-2020; seconded by Spencer Robnett.

The motion passed by the following vote:
AYE: Payton, Robnett, Trost, Dufford, Norman, Ladd, Blong
NAY: None
ABSTAIN: None
ABSENT: None

SECOND READINGS

16. 10098 – AN ORDINANCE GRANTING A SPECIAL EXCEPTION FOR LOT 1, BLOCK 43, SOUTH PARK ADDITION, CITY AND COUNTY OF MIDLAND, TEXAS (GENERALLY LOCATED AT THE SOUTHWEST CORNER OF THE INTERSECTION OF EAST HICKS

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AVENUE AND SOUTH DALLAS STREET), BY PERMITTING A REDUCED MINIMUM LOT WIDTH IN THE EVENT THAT THE ZONING DISTRICT MAP OF THE CITY OF MIDLAND IS AMENDED TO REZONE THE PROPERTY FROM SF-3, SINGLE-FAMILY DWELLING DISTRICT TO 2F, TWO-FAMILY DWELLING (DUPLEX) DISTRICT; CONTAINING A CUMULATIVE CLAUSE; CONTAINING A SAVINGS AND SEVERABILITY CLAUSE; PROVIDING FOR A MAXIMUM PENALTY OR FINE OF TWO THOUSAND DOLLARS ($2,000.00); ORDERING RECORDATION BY THE CITY SECRETARY IN THE DEED RECORDS OF MIDLAND COUNTY, TEXAS; AND ORDERING PUBLICATION (DEVELOPMENT SERVICES) (FIRST READING HELD AUGUST 11, 2020)

Deputy City Secretary Jan Hamilton read the caption of Ordinance No. 10098.

Spencer Robnett moved to approve the second and final reading of Ordinance No. 10098; seconded by Jack Ladd.

The motion passed by the following vote:
AYE: Payton, Robnett, Trost, Dufford, Norman, Ladd, Blong
NAY: None
ABSTAIN: None
ABSENT: None

17. 10099 – AN ORDINANCE AMENDING THE ZONING DISTRICT MAP OF THE CITY OF MIDLAND TO REZONE LOT 1, BLOCK 43, SOUTH PARK ADDITION, CITY AND COUNTY OF MIDLAND, TEXAS, FROM SF-3, SINGLE-FAMILY DWELLING DISTRICT TO 2F, TWO-FAMILY DWELLING (DUPLEX) DISTRICT (GENERALLY LOCATED AT THE SOUTHWEST CORNER OF THE INTERSECTION OF EAST HICKS AVENUE AND SOUTH DALLAS STREET); CONTAINING A CUMULATIVE CLAUSE; CONTAINING A SAVINGS AND SEVERABILITY CLAUSE; PROVIDING FOR A MAXIMUM PENALTY OR FINE OF TWO THOUSAND DOLLARS ($2,000.00); AND ORDERING PUBLICATION (DEVELOPMENT SERVICES) (FIRST READING HELD AUGUST 11, 2020)

Deputy City Secretary Jan Hamilton read the caption of Ordinance No. 10099.

Jack Ladd moved to approve the second and final reading of Ordinance No. 10099; seconded by Spencer Robnett.

The motion passed by the following vote:
AYE: Payton, Robnett, Trost, Dufford, Norman, Ladd, Blong
NAY: None
ABSTAIN: None
ABSENT: None

18. 10100 – AN ORDINANCE AMENDING THE ZONING DISTRICT MAP OF THE CITY OF MIDLAND TO GRANT A SPECIFIC USE DESIGNATION WITHOUT TERM FOR LOTS 1 AND 2, BLOCK 3, HINES ADDITION, CITY AND COUNTY OF MIDLAND, TEXAS (GENERALLY LOCATED AT THE SOUTHWEST CORNER OF THE INTERSECTION OF WEST FLORIDA AVENUE AND SOUTH GARFIELD STREET), WHICH IS PRESENTLY ZONED C, COMMERCIAL DISTRICT, ALLOWING SAID PROPERTY TO BE USED FOR AUTOMOBILE OR OTHER MOTORIZED VEHICLE SALES AND SERVICE; MAKING

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SAID DESIGNATION SUBJECT TO CERTAIN CONDITIONS AND RESTRICTIONS CONTAINED HEREIN; CONTAINING A CUMULATIVE CLAUSE; CONTAINING A SAVINGS AND SEVERABILITY CLAUSE; PROVIDING FOR A MAXIMUM PENALTY OR FINE OF TWO THOUSAND DOLLARS ($2,000.00); AND ORDERING PUBLICATION (DEVELOPMENT SERVICES) (FIRST READING HELD AUGUST 11, 2020)

Deputy City Secretary Jan Hamilton read the caption of Ordinance No. 10100.

Lori Blong moved to approve the second and final reading of Ordinance No. 10100; seconded by John Norman.

The motion passed by the following vote:
AYE: Payton, Robnett, Trost, Dufford, Norman, Ladd, Blong
NAY: None
ABSTAIN: None
ABSENT: None

19. 10101 – AN ORDINANCE AMENDING THE ZONING DISTRICT MAP OF THE CITY OF MIDLAND TO GRANT A SPECIFIC USE DESIGNATION WITH TERM FOR A 6,811-SQUARE FOOT PORTION OF LOTS 3 THROUGH 9, BLOCK 138, REPLAT OF BLOCKS 137 AND 138, WILSHIRE PARK, CITY AND COUNTY OF MIDLAND, TEXAS (GENERALLY LOCATED ON THE SOUTH SIDE OF WEST ILLINOIS AVENUE, APPROXIMATELY 160 FEET WEST OF NORTH MIDLAND DRIVE), WHICH IS PRESENTLY ZONED LR, LOCAL RETAIL DISTRICT, ALLOWING SAID PROPERTY TO BE USED FOR THE SALE OF ALL ALCOHOLIC BEVERAGES IN A RESTAURANT FOR ON-PREMISES CONSUMPTION; MAKING SAID DESIGNATION SUBJECT TO CERTAIN CONDITIONS AND RESTRICTIONS CONTAINED HEREIN; CONTAINING A CUMULATIVE CLAUSE; CONTAINING A SAVINGS AND SEVERABILITY CLAUSE; PROVIDING FOR A MAXIMUM PENALTY OR FINE OF TWO THOUSAND DOLLARS ($2,000.00); AND ORDERING PUBLICATION (DEVELOPMENT SERVICES) (FIRST READING HELD AUGUST 11, 2020)

Deputy City Secretary Jan Hamilton read the caption of Ordinance No. 10101.

Jack Ladd moved to approve the second and final reading of Ordinance No. 10101; seconded by Lori Blong.

The motion passed by the following vote:
AYE: Payton, Robnett, Trost, Dufford, Norman, Ladd, Blong
NAY: None
ABSTAIN: None
ABSENT: None

20. 10102 – AN ORDINANCE AMENDING THE ZONING DISTRICT MAP OF THE CITY OF MIDLAND TO REZONE LOT 4A, BLOCK 17, 349 RANCH ESTATES, SECTION 18, CITY AND COUNTY OF MIDLAND, TEXAS, FROM AE, AGRICULTURAL ESTATE DISTRICT, IN PART, AND PD, PLANNED DEVELOPMENT DISTRICT FOR AN INDUSTRIAL DISTRICT, IN PART, TO SF-1, SINGLE-FAMILY DWELLING DISTRICT (GENERALLY LOCATED ON THE NORTH SIDE OF ARAPAHOE ROAD, APPROXIMATELY 830 FEET

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EAST OF NORTH STATE HIGHWAY 349); CONTAINING A CUMULATIVE CLAUSE; CONTAINING A SAVINGS AND SEVERABILITY CLAUSE; PROVIDING FOR A MAXIMUM PENALTY OR FINE OF TWO THOUSAND DOLLARS ($2,000.00); AND ORDERING PUBLICATION (DEVELOPMENT SERVICES) (FIRST READING HELD AUGUST 11, 2020)

Deputy City Secretary Jan Hamilton read the caption of Ordinance No. 10102.

Spencer Robnett moved to approve the second and final reading of Ordinance No. 10102 ; seconded by John Norman.

The motion passed by the following vote:
AYE: Payton, Robnett, Trost, Dufford, Norman, Ladd, Blong
NAY: None
ABSTAIN: None
ABSENT: None

21. 10103 – AN ORDINANCE AMENDING THE ZONING DISTRICT MAP OF THE CITY OF MIDLAND TO REZONE LOTS 1A AND 5, BLOCK 1, ROLLING GREEN ACRES ADDITION, SECTION 3, CITY AND COUNTY OF MIDLAND, TEXAS, FROM PD, PLANNED DEVELOPMENT DISTRICT FOR A TRANSITION DISTRICT TO AN AMENDED PD, PLANNED DEVELOPMENT DISTRICT FOR A TRANSITION DISTRICT (GENERALLY LOCATED ON THE NORTH SIDE OF BUSINESS INTERSTATE 20, APPROXIMATELY 245 FEET WEST OF TODD DRIVE); CONTAINING A CUMULATIVE CLAUSE; CONTAINING A SAVINGS AND SEVERABILITY CLAUSE; PROVIDING FOR A MAXIMUM PENALTY OR FINE OF TWO THOUSAND DOLLARS ($2,000.00); AND ORDERING PUBLICATION (DEVELOPMENT SERVICES) (FIRST READING HELD AUGUST 11, 2020)

Deputy City Secretary Jan Hamilton read the caption of Ordinance No. 10103.

Spencer Robnett moved to approve the second and final reading of Ordinance No. 10103; seconded by Jack Ladd.

The motion passed by the following vote:
AYE: Payton, Robnett, Trost, Dufford, Norman, Ladd, Blong
NAY: None
ABSTAIN: None
ABSENT: None

22. 10104 – AN ORDINANCE AMENDING THE ZONING DISTRICT MAP OF THE CITY OF MIDLAND TO GRANT A SPECIFIC USE DESIGNATION WITH TERM FOR A 1,700-SQUARE FOOT PORTION OF LOT 18, BLOCK 1, PROVIDENCE PARK ADDITION, SECTION 2, CITY AND COUNTY OF MIDLAND, TEXAS (GENERALLY LOCATED ON THE WEST SIDE OF NORTH MIDKIFF ROAD, APPROXIMATELY 150 FEET NORTH OF WEST WADLEY AVENUE), WHICH IS PRESENTLY ZONED RR, REGIONAL RETAIL DISTRICT, ALLOWING SAID PROPERTY TO BE USED FOR THE SALE OF ALL ALCOHOLIC BEVERAGES IN A RESTAURANT FOR ON-PREMISES CONSUMPTION; MAKING SAID DESIGNATION SUBJECT TO CERTAIN CONDITIONS AND

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RESTRICTIONS CONTAINED HEREIN; CONTAINING A CUMULATIVE CLAUSE; CONTAINING A SAVINGS AND SEVERABILITY CLAUSE; PROVIDING FOR A MAXIMUM PENALTY OR FINE OF TWO THOUSAND DOLLARS ($2,000.00); AND ORDERING PUBLICATION (DEVELOPMENT SERVICES) (FIRST READING HELD AUGUST 11, 2020)

Deputy City Secretary Jan Hamilton read the caption of Ordinance No. 10104.

Jack Ladd moved to approve the second and final reading of Ordinance No. 10104 ; seconded by Michael Trost.

The motion passed by the following vote:
AYE: Payton, Trost, Dufford, Norman, Ladd, Blong
NAY: None
ABSTAIN: Robnett
ABSENT: None

23. 10105 – AN ORDINANCE AMENDING THE ZONING DISTRICT MAP OF THE CITY OF MIDLAND TO GRANT A SPECIFIC USE DESIGNATION WITH TERM FOR A 2,233-SQUARE FOOT PORTION OF LOT 23B, BLOCK 40, FAIRMONT PARK ADDITION, SECTION 39, CITY AND COUNTY OF MIDLAND, TEXAS (GENERALLY LOCATED AT THE SOUTHEAST CORNER OF THE INTERSECTION OF NORTH LOOP 250 WEST AND TREMONT AVENUE), WHICH IS PRESENTLY ZONED RR, REGIONAL RETAIL DISTRICT, ALLOWING SAID PROPERTY TO BE USED FOR THE SALE OF ALL ALCOHOLIC BEVERAGES IN A RESTAURANT FOR ON-PREMISES CONSUMPTION; MAKING SAID DESIGNATION SUBJECT TO CERTAIN CONDITIONS AND RESTRICTIONS CONTAINED HEREIN; CONTAINING A CUMULATIVE CLAUSE; CONTAINING A SAVINGS AND SEVERABILITY CLAUSE; PROVIDING FOR A MAXIMUM PENALTY OR FINE OF TWO THOUSAND DOLLARS ($2,000.00); AND ORDERING PUBLICATION (DEVELOPMENT SERVICES) (FIRST READING HELD AUGUST 11, 2020)

Deputy City Secretary Jan Hamilton read the caption of Ordinance No. 10105.

Lori Blong moved to approve the second and final reading of Ordinance No. 10105; seconded by Spencer Robnett.

The motion passed by the following vote:
AYE: Payton, Robnett, Trost, Dufford, Norman, Ladd, Blong
NAY: None
ABSTAIN: None
ABSENT: None

PUBLIC HEARINGS

The City Council will hold public hearings on the following items:

24. 10107 – AN ORDINANCE AMENDING THE ZONING DISTRICT MAP OF THE CITY OF MIDLAND TO GRANT A SPECIFIC USE DESIGNATION WITH TERM FOR A 3,000-SQUARE FOOT PORTION OF BLOCK 1, LESS THE 250-FOOT BY 150-FOOT

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NORTHWEST CORNER AND LESS THE 224-FOOT BY 150-FOOT SOUTHWEST CORNER, REPLAT OF BLOCKS 1 AND 2, IMPERIAL HEIGHTS ADDITION, CITY AND COUNTY OF MIDLAND, TEXAS (GENERALLY LOCATED ON THE SOUTH SIDE OF WEST WADLEY AVENUE, APPROXIMATELY 310 FEET EAST OF NORTH MIDKIFF ROAD), WHICH IS PRESENTLY ZONED RR, REGIONAL RETAIL DISTRICT, ALLOWING SAID PROPERTY TO BE USED FOR THE SALE OF ALL ALCOHOLIC BEVERAGES IN A SPECIAL EVENTS CENTER FOR ON-PREMISES CONSUMPTION; MAKING SAID DESIGNATION SUBJECT TO CERTAIN CONDITIONS AND RESTRICTIONS CONTAINED HEREIN; CONTAINING A CUMULATIVE CLAUSE; CONTAINING A SAVINGS AND SEVERABILITY CLAUSE; PROVIDING FOR A MAXIMUM PENALTY OR FINE OF TWO THOUSAND DOLLARS ($2,000.00); AND ORDERING PUBLICATION (DEVELOPMENT SERVICES)

Deputy City Secretary Jan Hamilton read the caption of Ordinance No. 10107.

Mayor Payton opened the public hearing at 11:10 a.m. There being no one present wishing to speak, the public hearing was immediately closed.

Spencer Robnett moved to approve the first of two readings of Ordinance No. 10107; seconded by Lori Blong.

The motion passed by the following vote:
AYE: Payton, Robnett, Trost, Dufford, Norman, Ladd, Blong
NAY: None
ABSTAIN: None
ABSENT: None

25. 10108 – AN ORDINANCE AMENDING THE ZONING DISTRICT MAP OF THE CITY OF MIDLAND TO REZONE LOT 6A, BLOCK 12, KELVIEW HEIGHTS ADDITION, SECTION 11, CITY AND COUNTY OF MIDLAND, TEXAS, FROM PD, PLANNED DEVELOPMENT DISTRICT FOR AN OFFICE AND SHOPPING CENTER AS A TRANSITION DISTRICT TO RR, REGIONAL RETAIL DISTRICT (GENERALLY LOCATED AT THE NORTHEAST CORNER OF THE INTERSECTION OF LOMA DRIVE AND WEST PECAN AVENUE); CONTAINING A CUMULATIVE CLAUSE; CONTAINING A SAVINGS AND SEVERABILITY CLAUSE; PROVIDING FOR A MAXIMUM PENALTY OR FINE OF TWO THOUSAND DOLLARS ($2,000.00); AND ORDERING PUBLICATION (DEVELOPMENT SERVICES)

Deputy City Secretary Jan Hamilton read the caption of Ordinance No. 10108.

Mayor Payton opened the public hearing at 11:12 a.m. There being no one present wishing to speak, the public hearing was immediately closed.

Lori Blong moved to approve the first of two readings of Ordinance No. 10108; seconded by Jack Ladd.

The motion passed by the following vote:
AYE: Payton, Robnett, Trost, Dufford, Norman, Ladd, Blong
NAY: None

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ABSTAIN: None
ABSENT: None

26. 10109 – AN ORDINANCE AMENDING THE ZONING DISTRICT MAP OF THE CITY OF MIDLAND TO REZONE A 19.17-ACRE TRACT OF LAND OUT OF SECTION 1, BLOCK 39, T-2-S, T&P RR CO. SURVEY, CITY AND COUNTY OF MIDLAND, TEXAS, FROM MF-16, MULTIPLE-FAMILY DWELLING DISTRICT, IN PART, MH, MANUFACTURED HOUSING DISTRICT, IN PART, RR, REGIONAL RETAIL DISTRICT, IN PART, AND BP, I-20 BUSINESS PARK DISTRICT, IN PART, TO MF-22, MULTIPLE-FAMILY DWELLING DISTRICT (GENERALLY LOCATED ON THE NORTH SIDE OF EAST INTERSTATE 20, APPROXIMATELY 714 FEET EAST OF SOUTH LAMESA ROAD); CONTAINING A CUMULATIVE CLAUSE; CONTAINING A SAVINGS AND SEVERABILITY CLAUSE; PROVIDING FOR A MAXIMUM PENALTY OR FINE OF TWO THOUSAND DOLLARS ($2,000.00); AND ORDERING PUBLICATION (DEVELOPMENT SERVICES)

Deputy City Secretary Jan Hamilton read the caption of Ordinance No. 10109.

Mayor Payton opened the public hearing at 11:13 a.m.

Development Services Director Chuck Harrington gave a brief overview of the item noting it is a multi-family lot. What is interesting is that the units are pre-manufactured which cuts down on construction time on the site. The streets are adequate to handle the traffic generated from this project.

John Landgraf, Odessa, reported each apartment is pre-built and put together with steel frame construction. A one bedroom has two modules, a two bedroom has three modules. Each module is picked up and put into place. They are not shipping containers, but pre-built units with plumbing in place. The units are fit into a steel frame with a chase between for the plumbing. The units are manufactured in Temple. They have a staging area set up. As soon as this is approved, they will begin bringing in units.

There being no one else wishing to speak, the public hearing was closed at 11:17 a.m.

Lori Blong moved to approve the first of two readings of Ordinance No. 10109; seconded by Michael Trost.

The motion passed by the following vote:
AYE: Payton, Robnett, Trost, Dufford, Norman, Ladd, Blong
NAY: None
ABSTAIN: None
ABSENT: None

27. 2020-143 – RESOLUTION REAUTHORIZING AND ADOPTING GUIDELINES AND CRITERIA FOR TAX ABATEMENT AGREEMENTS AS AUTHORIZED BY CHAPTER 312 OF THE TEXAS TAX CODE; AND AUTHORIZING THE CITY SECRETARY TO SUBMIT A COPY OF THIS RESOLUTION TO THE TEXAS COMPTROLLER OF PUBLIC ACCOUNTS (DEVELOPMENT SERVICES)

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Mayor Payton opened the public hearing at 11:18 a.m. There being no one present wishing to speak, the public hearing was immediately closed.

Lori Blong moved to approve Resolution No. 2020-143; seconded by John Norman.

The motion passed by the following vote:
AYE: Payton, Robnett, Trost, Dufford, Norman, Ladd, Blong
NAY: None
ABSTAIN: None
ABSENT: None

28. 10110 – AN ORDINANCE OF THE CITY OF MIDLAND PROVIDING FUNDS FOR THE FISCAL YEAR BEGINNING OCTOBER 1, 2020, AND ENDING SEPTEMBER 30, 2021, BY APPROVING THE BUDGET FOR SAID PERIOD AND APPROPRIATING AND SETTING ASIDE THE NECESSARY FUNDS OUT OF THE GENERAL AND OTHER REVENUES AND UNAPPROPRIATED FUND BALANCE OF THE CITY OF MIDLAND FOR SAID FISCAL YEAR FOR THE MAINTENANCE AND OPERATION OF THE VARIOUS DEPARTMENTS AND FOR VARIOUS ACTIVITIES AND IMPROVEMENTS TO THE CITY; AND ORDERING PUBLICATION (FINANCE)

Deputy City Secretary Jan Hamilton read the caption of Ordinance No. 10110.

Finance Director Mark Mason gave a brief overview of the item noting that the budget has to be approved first and the tax rate has to be disposed of second. We will consider the budget and tax rate at the same time. Staff originally came with a budget of $136.5 M on July 28 with a proposed tax rate of $.364027 per $100 of valuation. At this time, that amount is about 1.4% over the no new revenue rate or what used to be called the effective rate. Over the intervening 3 weeks, staff has continued to evaluate the proposed budget and tax rate and is recommending going with the no new revenue rate for two reasons. First they do not want to create an additional burden on taxpayers during this difficult period and second, all other taxing entities are also proposing a no new revenue rate. He asked that Ordinance 10110 be amended to the no new revenue rate.

Mayor Payton opened the public hearing at 10:41 a.m.

Kimberly Crisp, 3304 Douglas Avenue, noted that across the entire budget there is $95 million labeled as miscellaneous. She was told that some of the funds are for depreciation but felt it would be better to have line items to show the actual costs.

Finance Director Mark Mason reported they are looking at that internally and will break those numbers out in the future. Miscellaneous not only includes depreciation but also transfers between fund and debt service. They are looking to add those line items in the future.

There being no one else wishing to speak, the public hearing was closed at 10:47 a.m.

Council Member Trost asked if there is psychological training regularly scheduled for officers. Police Chief Seth Herman noted that currently concern from spouses, peers, frontline supervisors or a traumatic event can trigger psychological evaluations.

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Michael Trost moved to approve approve the second and final reading of Ordinance No. 10110 with the amendment to use the lesser of the two proposed staff budgets ; seconded by Spencer Robnett.

The motion passed by the following vote:
AYE: Payton, Robnett, Trost, Dufford, Norman, Ladd, Blong
NAY: None
ABSTAIN: None
ABSENT: None

29. 10111 – AN ORDINANCE FIXING THE TAX LEVY FOR THE CITY OF MIDLAND, TEXAS, FOR THE FISCAL YEAR BEGINNING ON OCTOBER 1, 2020, AND ENDING ON SEPTEMBER 30, 2021 (FINANCE)

Mayor Payton read the caption of Ordinance No. 10111.

Finance Director Mark Mason reported the title reads as a tax increase but it is a no new revenue rate of $0.358928 per $100 of valuation.

Mayor Payton opened the public hearing at 10:56 a.m. There being no one present wishing to speak, the public hearing was immediately closed.

Spencer Robnett moved to approve the second and final reading of Ordinance No. 10111 with the amendment to adopt the no new revenue rate of $0.358928 per $100 of valuation ; seconded by Lori Blong.

The motion passed by the following vote:
AYE: Payton, Robnett, Trost, Dufford, Norman, Ladd, Blong
NAY: None
ABSTAIN: None
ABSENT: None

MISCELLANEOUS

30. 098-2020 – MOTION REGARDING THE SPORTS AGREEMENT BETWEEN THE CITY OF MIDLAND AND THE GREATER MIDLAND FOOTBALL LEAGUE (GMFL), THE USE AND OPERATION OF THE SCHARBAUER SPORTS COMPLEX AUXILIARY ATHLETIC FIELDS, AND MATTERS RELATED THERETO (CITY ATTORNEY'S OFFICE)

Community Services Director Tina Jauz asked that City Staff be allowed to take a comprehensive look at parks and field use, how we do reservations and how to best allocate time on the field. They visit with all associations quarterly, but they need to pull in folks and take a comprehensive look at how they allocate time on the field.

Mayor Payton noted this was a recommendation from Council Member Norman to look at options for use of fields and to see what other cities do to get everyone playing time.

Adrian Uriquidi, 3000 Virginia, has a son who has moved from GMFL to PBYFL and explained the differences he saw in the programs. He explained that PBYFL is not getting

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playing time on the fields that they need and asked for a compromise to work things out. His main goal is to get access to the fields.

Matt Lawdermilk, Andrews, agreed that PBYFL needed equal access to fields and fair fees noting that they pay fees that they don't feel GMFL pays. He noted that they cannot play their games at night because they would play until after midnight if they started at 6 p.m. They have been told they are not a rec league and that their fees are higher which are reasons for denying them access to the fields. They have open registration and allow anyone can sign up. Once a team is full, they close that team and open the next.

Kent Brown, 6101 Homestead Blvd, noted that youth sports continues to grow in Midland. He has played in both leagues and they both have pros and cons. Society has eliminated the hard truths on what is right and wrong and we are destroying football and need to figure out a way to bring everyone together. He disagreed with Mr. Lawdermilk's comments about the inequality of fees that were being paid and felt that every team does not have the right to practice on turf. The biggest problem is that the schools have cut off access to their fields and he hoped the City could help work that out.

Council Member Norman reported in the spirit of transparency he had a team on PBYFL and they had kids coming on his team that he did not meet until their first practice. He confirmed that both PBYFL and GMFL have open registrations.

Shirley Howard, 405 Magnolia, thought that everyone should have access to play on the fields in Midland. Any taxpayer should be able to reserve a field for their use.

Clint Brunson, 2504 Fairview, reported he is the current president of the Midland Soccer Association. He noted they have lost use of half of their fields to PBYFL and they have to figure out where to put two teams. He noted that true rec leagues have no tryouts. He explained that one person at parks & rec told him they had the fields and then they were told by another person that the fields are first come first served. There are 240 rec teams.

Kyle Huckaba, Midland, reported he has been the president of GMFL for 23 years. They started out playing in a drainage ditch behind the bowling alley and cleared rocks and mesquite trees. They have also put money into numerous other fields to improve them, and added goal posts and fencing. When they ran out of space they worked with City staff to get more fields and now other teams want to use what they have built. They are partnered with the City for kids who do not want to travel for economic reasons. They have applied for their 501c3 status. They have not expanded outside of Midland but invited the Odessa YMCA teams to join their league because otherwise they would have no where else to play. They have an agreement with the City to run the fields for their season.

Ms. Jauz confirmed that they use one rec league from each sport type to run those fields during their season. She would like to allow them to continue the administration of the fields, but her staff would like to look at the use of fields and review the definition of a rec league.

Council Member Blong summarized that there is a shortage in all sports for fields and courts, not just in this community. It needs to be looked at wholistically and it cannot be just about football. To say that the fields can be used 24-hours with lights is not realistic, kids cannot play in the middle of the night. A logistical solution needs to be provided.

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No action was taken on this item.

All the business at hand having been completed, the meeting adjourned at 12:02 p.m.

PASSED AND APPROVED September 8, 2020.

Patrick Payton, Mayor

ATTEST:

Amy M. Turner, City Secretary

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City Council Meeting

Item Number: 7

Meeting Date: September 8, 2020

To: City Council / City Manager

From: Regina Stephenson, Director

Subject: RESOLUTION AWARDING A CONTRACT FOR THE WATER, WASTEWATER AND FIRE HYDRANT TAPS EXPANDED 05 PROJECT TO TEC EXCAVATION, INC. OF MIDLAND, TEXAS, AT A TOTAL COST NOT TO EXCEED $1,000,000.00; AND AUTHORIZING PAYMENT (GENERAL SERVICES)

Purpose:

Approval of a resolution awarding a contract for Water, Wastewater & Fire Hydrant Taps Expanded Program 05 for the Engineering Services Department.

Recommended City Council Action:

Approve

Fiscal Impact:

Not to exceed $1,000,000.00 which is available in the FY21 Water & Wastewater (300335) operating budget

Discussion:

The City Manager approved plans and specifications and authorized advertisement for bids for the Water, Wastewater & Fire Hydrant Taps 05 project. Bid notifications were issued to forty-nine (49) contractors for the Water, Wastewater, & Fire Hydrant Taps Expanded Program 05. We received three (3) responsive bids. Staff recommends awarding the project to the apparent low bidder, TEC Excavation, Inc. of Midland, Texas. Please see the attached memo from Matt Carr, City Engineer, for more information.

Therefore, please consider a resolution awarding a contract for the Water, Wastewater, & Fire Hydrant Taps Expanded Program 05 to TEC Excavation, Inc. of Midland, Texas for a cost not to

exceed of $1,000,000.00 with an option of renewing the program for no more than two (2) additional one (1) year terms for an amount not to exceed $750,000.00 per term.

Morris Williams Jr.

City Manager's Office

RESOLUTION NO. _____

RESOLUTION AWARDING A CONTRACT FOR THE WATER, WASTEWATER AND FIRE HYDRANT TAPS EXPANDED 05 PROJECT TO TEC EXCAVATION, INC. OF MIDLAND, TEXAS, AT A TOTAL COST NOT TO EXCEED $1,000,000.00; AND AUTHORIZING PAYMENT

WHEREAS, the City Manager approved the plans and specifications and advertised for competitive bids for the Water, Wastewater and Fire Hydrant Taps Expanded 05 Project (the "Project"); and

WHEREAS, Bid No. 20003906 was opened on August 5, 2020, with the lowest responsible bidder being TEC Excavation, Inc. of Midland, Texas ("Contractor"), having submitted a bid of $2,242,000.00 to establish unit prices as shown on the bid tabulation, which is attached hereto as Exhibit "A" and incorporated herein for all legal purposes; and

WHEREAS, the total cost of the work to be completed, according to the previously advertised plans and specifications and the unit prices in Exhibit "A", shall not exceed $1,000,000.00; and

WHEREAS, the City Council finds it to be in the public interest to execute a contract with Contractor for said Project;

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF MIDLAND, TEXAS:

SECTION ONE. That the Mayor and City Secretary are hereby authorized and directed to execute and attest, respectively, on behalf of the City of Midland, a contract with Contractor for said Project at a total cost not to exceed $1,000,000.00, said contract being on file in the office of the City Secretary, referenced by the date and number of this resolution.

SECTION TWO. That the City Comptroller is hereby authorized and directed to pay Contractor pursuant to the terms of said contract in an amount not to exceed $1,000,000.00 from funds available in the FY21 Water & Wastewater operating budget upon receipt of proper invoices or statements approved by the City Manager.

On motion of Council member _____, seconded by Council member

_____, the above and foregoing resolution was adopted by the City Council of the City of Midland at a regular meeting on the _____ day of _____, A.D., 2020, by the following vote:

Council members voting "AYE":

Council members voting "NAY":

_____
Patrick N. Payton, Mayor

ATTEST:

_____
Amy M. Turner, City Secretary

RECOMMENDED AND APPROVED:

_____
Courtney Sharp, City Manager

APPROVED AS TO CONTENT
AND COMPLETENESS:

_____
Regina Stephenson, General Services Director

_____
Jose Ortiz, Engineering Services Director

APPROVED ONLY AS TO FORM:

_____
John Ohnemiller, City Attorney

U20-02 WATER, WASTEWATER, & FIRE HYDRANT TAPS EXPANDED PROGRAM 05

City of Midland - Engineering Services; August 5, 2020

BID TAB					Edgardo Madrid & Associates, LLC			J&H Services, Inc.			TEC Excavation, Inc.		
Bid Item	Pay Note	Description	Quantity	Units	Unit Price	Bid Total	Actual Bid Total	Unit Price	Bid Total	Actual Bid Total	Unit Price	Bid Total	Actual Bid Total
1	D1	Removal & Disposal of Existing Utility Mains	100	LF	$ 76.45	$ 7,645.00	$ 7,645.00	$ 15.00	$ 1,500.00	$ 1,500.00	$ 17.00	$ 1,700.00	$ 1,700.00
2	D2	Flowable Fill for Existing Utility Mains Abandoned In Place	20	CY	$ 173.75	$ 3,475.00	$ 3,475.00	$ 130.00	$ 2,600.00	$ 2,600.00	$ 120.00	$ 2,400.00	$ 2,400.00
3	D3	Removal & Disposal of Existing 60" Manhole (0'-5' Depth)	3	EA	$ 5,907.50	$ 17,722.50	$ 17,722.50	$ 2,160.00	$ 6,480.00	$ 6,480.00	$ 1,500.00	$ 4,500.00	$ 4,500.00
4	D4	Removal & Disposal of Existing 60" Manhole Additional Depth (>5')	15	VF	$ 486.50	$ 7,297.50	$ 7,297.50	$ 575.00	$ 8,625.00	$ 8,625.00	$ 290.00	$ 4,350.00	$ 4,350.00
5	D3	Removal & Disposal of Existing 48" Manhole (0'-5' Depth)	10	EA	$ 5,212.50	$ 52,125.00	$ 52,125.00	$ 1,725.00	$ 17,250.00	$ 17,250.00	$ 1,000.00	$ 10,000.00	$ 10,000.00
6	D4	Removal & Disposal of Existing 48" Manhole Additional Depth (>5')	35	VF	$ 486.50	$ 17,027.50	$ 17,027.50	$ 230.00	$ 8,050.00	$ 8,050.00	$ 200.00	$ 7,000.00	$ 7,000.00
1	W1	16" DIP Pressure Class 150	100	LF	$ 136.44	$ 13,649.00	$ 13,644.00	$ 88.00	$ 8,800.00	$ 8,800.00	$ 95.00	$ 9,500.00	$ 9,500.00
2	W1	12" DIP Pressure Class 150	100	LF	$ 116.55	$ 11,655.00	$ 11,655.00	$ 64.00	$ 6,400.00	$ 6,400.00	$ 67.00	$ 6,700.00	$ 6,700.00
3	W1	10" DIP Pressure Class 150	100	LF	$ 107.00	$ 10,700.00	$ 10,700.00	$ 53.00	$ 5,300.00	$ 5,300.00	$ 57.00	$ 5,700.00	$ 5,700.00
4	W1	8" DIP Pressure Class 150	100	LF	$ 103.00	$ 10,313.00	$ 10,300.00	$ 49.00	$ 4,900.00	$ 4,900.00	$ 52.00	$ 5,200.00	$ 5,200.00
5	W1	6" DIP Pressure Class 150	100	LF	$ 96.18	$ 9,618.00	$ 9,618.00	$ 44.00	$ 4,400.00	$ 4,400.00	$ 45.00	$ 4,500.00	$ 4,500.00
6	W1	12" AWWA C-900 DR 18, PVC	100	LF	$ 98.48	$ 9,848.00	$ 9,848.00	$ 46.00	$ 4,600.00	$ 4,600.00	$ 57.00	$ 5,700.00	$ 5,700.00
7	W1	10" AWWA C-900 DR 18, PVC	100	LF	$ 64.84	$ 6,484.00	$ 6,484.00	$ 38.50	$ 3,850.00	$ 3,850.00	$ 50.00	$ 5,000.00	$ 5,000.00
8	W1	8" AWWA C-900 DR 18, PVC	200	LF	$ 59.74	$ 11,948.00	$ 11,948.00	$ 33.50	$ 6,700.00	$ 6,700.00	$ 44.00	$ 8,800.00	$ 8,800.00
9	W1	6" AWWA C-900 DR 18, PVC	200	LF	$ 55.39	$ 11,078.00	$ 11,078.00	$ 29.00	$ 5,800.00	$ 5,800.00	$ 39.00	$ 7,800.00	$ 7,800.00
10	W2	16" Tapping Sleeve	5	EA	$ 2,981.55	$ 14,907.75	$ 14,907.75	$ 5,350.00	$ 26,750.00	$ 26,750.00	$ 4,350.00	$ 21,750.00	$ 21,750.00
11	W2	12" Tapping Sleeve	5	EA	$ 2,217.05	$ 11,085.25	$ 11,085.25	$ 4,170.00	$ 20,850.00	$ 20,850.00	$ 3,720.00	$ 18,600.00	$ 18,600.00
12	W2	10" Tapping Sleeve	5	EA	$ 2,182.30	$ 10,911.50	$ 10,911.50	$ 3,845.00	$ 19,225.00	$ 19,225.00	$ 2,700.00	$ 13,500.00	$ 13,500.00
13	W2	8" Tapping Sleeve	5	EA	$ 2,089.17	$ 10,445.85	$ 10,445.85	$ 3,120.00	$ 15,600.00	$ 15,600.00	$ 2,300.00	$ 11,500.00	$ 11,500.00
14	W2	6" Tapping Sleeve	15	EA	$ 2,050.25	$ 30,753.75	$ 30,753.75	$ 3,080.00	$ 46,200.00	$ 46,200.00	$ 2,100.00	$ 31,500.00	$ 31,500.00
15	W3	16" Gate Valve & Vault (MJxMJ/FL)	8	EA	$ 16,075.35	$ 128,602.80	$ 128,602.80	$ 13,925.00	$ 111,400.00	$ 111,400.00	$ 12,700.00	$ 101,600.00	$ 101,600.00
16	W4	12" Gate Valve & Box (MJxMJ/FL)	15	EA	$ 4,784.30	$ 71,765.70	$ 71,764.50	$ 4,465.00	$ 66,975.00	$ 66,975.00	$ 3,670.00	$ 55,050.00	$ 55,050.00
17	W4	10" Gate Valve & Box (MJxMJ/FL)	8	EA	$ 3,753.00	$ 30,024.00	$ 30,024.00	$ 3,570.00	$ 28,560.00	$ 28,560.00	$ 2,660.00	$ 21,280.00	$ 21,280.00
18	W4	8" Gate Valve & Box (MJxMJ/FL)	15	EA	$ 2,969.04	$ 44,535.60	$ 44,535.60	$ 2,765.00	$ 41,475.00	$ 41,475.00	$ 1,980.00	$ 29,700.00	$ 29,700.00
19	W4	6" Gate Valve & Box (MJxMJ/FL)	30	EA	$ 2,240.68	$ 67,220.40	$ 67,220.40	$ 2,320.00	$ 69,600.00	$ 69,600.00	$ 1,450.00	$ 43,500.00	$ 43,500.00
20	W5	Fire Hydrant (≤ 5' Water Main Bury Depth)	15	EA	$ 4,239.50	$ 63,592.50	$ 63,592.50	$ 4,875.00	$ 73,125.00	$ 73,125.00	$ 3,500.00	$ 52,500.00	$ 52,500.00
21	W6	Fire Hydrant Riser (> 5' Water Main Bury Depth)	50	EA	$ 764.50	$ 38,225.00	$ 38,225.00	$ 1,200.00	$ 60,000.00	$ 60,000.00	$ 750.00	$ 37,500.00	$ 37,500.00
22	W7	Ductile Iron Fittings	2150	LB	$ 7.26	$ 15,609.00	$ 15,609.00	$ 7.50	$ 16,125.00	$ 16,125.00	$ 7.00	$ 15,050.00	$ 15,050.00
23	W8	Anchor Coupling / Foster Adaptor	5	EA	$ 556.00	$ 2,780.00	$ 2,780.00	$ 1,040.00	$ 5,200.00	$ 5,200.00	$ 800.00	$ 4,000.00	$ 4,000.00
24	W9	16" x 2" Tapping Saddle	4	EA	$ 451.75	$ 1,807.00	$ 1,807.00	$ 700.00	$ 2,800.00	$ 2,800.00	$ 560.00	$ 2,240.00	$ 2,240.00
25	W9	16" x 1" Tapping Saddle	5	EA	$ 418.39	$ 2,091.95	$ 2,091.95	$ 615.00	$ 3,075.00	$ 3,075.00	$ 530.00	$ 2,650.00	$ 2,650.00
26	W9	12" x 2" Tapping Saddle	7	EA	$ 511.52	$ 3,580.64	$ 3,580.64	$ 570.00	$ 3,990.00	$ 3,990.00	$ 490.00	$ 3,430.00	$ 3,430.00
27	W9	12" x 1" Tapping Saddle	10	EA	$ 492.06	$ 4,920.60	$ 4,920.60	$ 510.00	$ 5,100.00	$ 5,100.00	$ 475.00	$ 4,750.00	$ 4,750.00
28	W9	10" x 2" Tapping Saddle	7	EA	$ 489.20	$ 3,424.96	$ 3,424.40	$ 505.00	$ 3,535.00	$ 3,535.00	$ 470.00	$ 3,290.00	$ 3,290.00
29	W9	10" x 1" Tapping Saddle	8	EA	$ 465.65	$ 3,725.20	$ 3,725.20	$ 435.00	$ 3,480.00	$ 3,480.00	$ 455.00	$ 3,640.00	$ 3,640.00
30	W9	8" x 2" Tapping Saddle	7	EA	$ 304.41	$ 2,130.87	$ 2,130.87	$ 500.00	$ 3,500.00	$ 3,500.00	$ 460.00	$ 3,220.00	$ 3,220.00
31	W9	8" x 1" Tapping Saddle	15	EA	$ 291.90	$ 4,378.50	$ 4,378.50	$ 435.00	$ 6,525.00	$ 6,525.00	$ 450.00	$ 6,750.00	$ 6,750.00
32	W9	6" x 2" Tapping Saddle	15	EA	$ 261.32	$ 3,919.80	$ 3,919.80	$ 485.00	$ 7,275.00	$ 7,275.00	$ 455.00	$ 6,825.00	$ 6,825.00
33	W9	6" x 1" Tapping Saddle	35	EA	$ 243.25	$ 8,513.75	$ 8,513.75	$ 420.00	$ 14,700.00	$ 14,700.00	$ 440.00	$ 15,400.00	$ 15,400.00
34	W10	2" Water Service Connection	40	EA	$ 2,403.31	$ 96,132.40	$ 96,132.40	$ 1,710.00	$ 68,400.00	$ 68,400.00	$ 3,030.00	$ 121,200.00	$ 121,200.00
35	W10	1" Water Service Connection	60	EA	$ 1,547.07	$ 92,824.20	$ 92,824.20	$ 780.00	$ 46,800.00	$ 46,800.00	$ 2,320.00	$ 139,200.00	$ 139,200.00
36	W11	2" Water Service Lateral	600	LF	$ 15.91	$ 9,546.00	$ 9,546.00	$ 15.50	$ 9,300.00	$ 9,300.00	$ 16.00	$ 9,600.00	$ 9,600.00
37	W11	1" Water Service Lateral	1300	LF	$ 14.59	$ 18,967.00	$ 18,967.00	$ 14.00	$ 18,200.00	$ 18,200.00	$ 15.00	$ 19,500.00	$ 19,500.00
38	W12	Flushing Station Installation	5	EA	$ 7,158.50	$ 35,792.50	$ 35,792.50	$ 5,760.00	$ 28,800.00	$ 28,800.00	$ 5,950.00	$ 29,750.00	$ 29,750.00
39	W13	Sampling Station Installation	5	EA	$ 3,683.50	$ 18,417.50	$ 18,417.50	$ 2,240.00	$ 11,200.00	$ 11,200.00	$ 3,110.00	$ 15,550.00	$ 15,550.00
40	W14	Water Meter Installation (New Service Line)	15	EA	$ 660.25	$ 9,903.75	$ 9,903.75	$ 850.00	$ 12,750.00	$ 12,750.00	$ 290.00	$ 4,350.00	$ 4,350.00
41	W15	Water Meter & Meter Box Installation (Existing Service Line)	40	EA	$ 799.25	$ 11,988.75	$ 31,970.00	$ 1,500.00	$ 60,000.00	$ 60,000.00	$ 475.00	$ 19,000.00	$ 19,000.00
42	W16	Replace Water Meter In Existing Vault	15	EA	$ 938.25	$ 14,073.75	$ 14,073.75	$ 1,000.00	$ 15,000.00	$ 15,000.00	$ 1,000.00	$ 15,000.00	$ 15,000.00

EXHIBIT "A"

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BID TAB					Edgardo Madrid & Associates, LLC			J&H Services, Inc.			TEC Excavation, Inc.		
Bid Item	Pay Note	Description	Quantity	Units	Unit Price	Bid Total	Actual Bid Total	Unit Price	Bid Total	Actual Bid Total	Unit Price	Bid Total	Actual Bid Total
43	W17	Water Service Connection Depth (0' - 12')	500	VF	$ 69.50	$ 34,750.00	$ 34,750.00	$ 57.50	$ 28,750.00	$ 28,750.00	$ 100.00	$ 50,000.00	$ 50,000.00
44	W18	Open Trench Depth (0' - 5')	1300	LF	$ 27.80	$ 36,140.00	$ 36,140.00	$ 25.00	$ 32,500.00	$ 32,500.00	$ 7.00	$ 9,100.00	$ 9,100.00
45	W18	Open Trench Depth (5' - 8')	200	LF	$ 20.85	$ 4,170.00	$ 4,170.00	$ 27.00	$ 5,400.00	$ 5,400.00	$ 9.00	$ 1,800.00	$ 1,800.00
46	W18	Open Trench Depth (8' - 10')	100	LF	$ 25.02	$ 5,004.00	$ 2,502.00	$ 31.00	$ 3,100.00	$ 3,100.00	$ 12.00	$ 1,200.00	$ 1,200.00
47	W18	Open Trench Depth (10' - 12')	100	LF	$ 27.80	$ 5,560.00	$ 2,780.00	$ 35.00	$ 3,500.00	$ 3,500.00	$ 22.00	$ 2,200.00	$ 2,200.00
1	WW1	16" SDR 26 ASTM D2241, PVC	100	LF	$ 80.41	$ 8,041.00	$ 8,041.00	$ 60.00	$ 6,000.00	$ 6,000.00	$ 75.00	$ 7,500.00	$ 7,500.00
2	WW1	12" SDR 26 ASTM D2241, PVC	100	LF	$ 65.81	$ 6,581.00	$ 6,581.00	$ 40.00	$ 4,000.00	$ 4,000.00	$ 54.00	$ 5,400.00	$ 5,400.00
3	WW1	10" SDR 26 ASTM D2241, PVC	100	LF	$ 60.81	$ 6,081.00	$ 6,081.00	$ 35.00	$ 3,500.00	$ 3,500.00	$ 47.00	$ 4,700.00	$ 4,700.00
4	WW1	8" SDR 26 ASTM D2241, PVC	100	LF	$ 56.78	$ 5,678.00	$ 5,678.00	$ 29.00	$ 2,900.00	$ 2,900.00	$ 42.00	$ 4,200.00	$ 4,200.00
5	WW1	6" SDR 26 ASTM D2241, PVC	100	LF	$ 53.55	$ 5,355.00	$ 5,355.00	$ 25.50	$ 2,550.00	$ 2,550.00	$ 38.00	$ 3,800.00	$ 3,800.00
6	WW1	15" SDR 26 ASTM D3034, PS115, PVC	100	LF	$ 76.53	$ 7,653.00	$ 7,653.00	$ 55.00	$ 5,500.00	$ 5,500.00	$ 75.00	$ 7,500.00	$ 7,500.00
7	WW1	12" SDR 26 ASTM D3034, PS115, PVC	100	LF	$ 67.05	$ 6,705.00	$ 6,705.00	$ 41.50	$ 4,150.00	$ 4,150.00	$ 53.00	$ 5,300.00	$ 5,300.00
8	WW1	10" SDR 26 ASTM D3034, PS115, PVC	100	LF	$ 61.53	$ 6,153.00	$ 6,153.00	$ 36.00	$ 3,600.00	$ 3,600.00	$ 48.00	$ 4,800.00	$ 4,800.00
9	WW1	8" SDR 26 ASTM D3034, PS115, PVC	100	LF	$ 56.89	$ 5,689.00	$ 5,689.00	$ 29.00	$ 2,900.00	$ 2,900.00	$ 42.00	$ 4,200.00	$ 4,200.00
10	WW1	6" SDR 26 ASTM D3034, PS115, PVC	100	LF	$ 53.20	$ 5,320.00	$ 5,320.00	$ 25.00	$ 2,500.00	$ 2,500.00	$ 37.00	$ 3,700.00	$ 3,700.00
11	WW1	15" SDR 35 ASTM D3034, PS46, PVC	100	LF	$ 69.36	$ 6,936.00	$ 6,936.00	$ 48.00	$ 4,800.00	$ 4,800.00	$ 71.00	$ 7,100.00	$ 7,100.00
12	WW1	12" SDR 35 ASTM D3034, PS46, PVC	100	LF	$ 62.56	$ 6,256.00	$ 6,256.00	$ 37.00	$ 3,700.00	$ 3,700.00	$ 46.00	$ 4,600.00	$ 4,600.00
13	WW1	10" SDR 35 ASTM D3034, PS46, PVC	100	LF	$ 58.32	$ 5,832.00	$ 5,832.00	$ 33.00	$ 3,300.00	$ 3,300.00	$ 45.00	$ 4,500.00	$ 4,500.00
14	WW1	8" SDR 35 ASTM D3034, PS46, PVC	100	LF	$ 54.82	$ 5,482.00	$ 5,482.00	$ 27.00	$ 2,700.00	$ 2,700.00	$ 41.00	$ 4,100.00	$ 4,100.00
15	WW1	6" SDR 35 ASTM D3034, PS46, PVC	200	LF	$ 52.00	$ 10,418.00	$ 10,400.00	$ 24.00	$ 4,800.00	$ 4,800.00	$ 37.00	$ 7,400.00	$ 7,400.00
16	WW1	4" SDR 35 ASTM D3034, PS46, PVC	200	LF	$ 50.23	$ 10,046.00	$ 10,046.00	$ 20.25	$ 4,025.00	$ 4,050.00	$ 36.00	$ 7,200.00	$ 7,200.00
17	WW2	60" Fiberglass Manhole (0'-5' Deep)	3	EA	$ 9,597.95	$ 28,793.85	$ 28,793.85	$ 7,020.00	$ 21,060.00	$ 21,060.00	$ 5,200.00	$ 15,600.00	$ 15,600.00
18	WW3	60" Manhole Additional Bury Depth (5'-16' Deep)	30	VF	$ 1,390.00	$ 41,700.00	$ 41,700.00	$ 945.00	$ 28,350.00	$ 28,350.00	$ 620.00	$ 18,600.00	$ 18,600.00
19	WW3	60" Manhole Additional Bury Depth (> 16' Deep)	15	VF	$ 2,085.00	$ 31,275.00	$ 31,275.00	$ 1,425.00	$ 21,375.00	$ 21,375.00	$ 620.00	$ 9,300.00	$ 9,300.00
20	WW2	48" Fiberglass Manhole (0'-5' Deep)	10	EA	$ 5,612.82	$ 56,128.20	$ 56,128.20	$ 4,865.00	$ 48,650.00	$ 48,650.00	$ 3,550.00	$ 35,500.00	$ 35,500.00
21	WW3	48" Manhole Additional Bury Depth (5'-16' Deep)	50	VF	$ 834.00	$ 41,700.00	$ 41,700.00	$ 670.00	$ 33,500.00	$ 33,500.00	$ 445.00	$ 22,250.00	$ 22,250.00
22	WW3	48" Manhole Additional Bury Depth (> 16' Deep)	25	VF	$ 1,390.00	$ 34,750.00	$ 34,750.00	$ 1,200.00	$ 30,000.00	$ 30,000.00	$ 445.00	$ 11,125.00	$ 11,125.00
23	WW4	Connect To Existing Manhole	15	EA	$ 3,475.00	$ 52,125.00	$ 52,125.00	$ 1,240.00	$ 18,600.00	$ 18,600.00	$ 1,500.00	$ 22,500.00	$ 22,500.00
24	WW5	Manhole Drop Structure (Internal)	10	EA	$ 1,424.75	$ 14,247.50	$ 14,247.50	$ 3,820.00	$ 38,200.00	$ 38,200.00	$ 1,650.00	$ 16,500.00	$ 16,500.00
25	WW5	Manhole Drop Structure (External)	10	EA	$ 1,424.75	$ 14,247.50	$ 14,247.50	$ 3,100.00	$ 31,000.00	$ 31,000.00	$ 2,800.00	$ 28,000.00	$ 28,000.00
26	WW6	6" Wastewater Service Connection	10	EA	$ 2,128.09	$ 21,280.90	$ 21,280.90	$ 1,015.00	$ 10,150.00	$ 10,150.00	$ 3,300.00	$ 33,000.00	$ 33,000.00
27	WW6	4" Wastewater Service Connection	30	EA	$ 2,085.00	$ 62,550.00	$ 62,550.00	$ 850.00	$ 25,500.00	$ 25,500.00	$ 3,250.00	$ 97,500.00	$ 97,500.00
28	WW7	6" Wastewater Service Lateral	200	LF	$ 49.31	$ 9,862.00	$ 9,862.00	$ 27.00	$ 5,400.00	$ 5,400.00	$ 21.00	$ 4,200.00	$ 4,200.00
29	WW7	4" Wastewater Service Lateral	600	LF	$ 44.67	$ 26,802.00	$ 26,802.00	$ 25.00	$ 15,000.00	$ 15,000.00	$ 20.00	$ 12,000.00	$ 12,000.00
30	WW8	Wastewater Service Connection Depth (0' - 24')	300	VF	$ 166.80	$ 50,040.00	$ 50,040.00	$ 55.25	$ 16,575.00	$ 16,575.00	$ 250.00	$ 75,000.00	$ 75,000.00
31	WW9	Open Trench Depth (0' - 5')	300	LF	$ 25.02	$ 7,506.00	$ 7,506.00	$ 24.00	$ 7,200.00	$ 7,200.00	$ 7.00	$ 2,100.00	$ 2,100.00
32	WW9	Open Trench Depth (5' - 8')	800	LF	$ 16.68	$ 13,344.00	$ 13,344.00	$ 25.00	$ 20,000.00	$ 20,000.00	$ 9.00	$ 7,200.00	$ 7,200.00
33	WW9	Open Trench Depth (8' - 10')	300	LF	$ 16.68	$ 5,004.00	$ 5,004.00	$ 28.00	$ 8,400.00	$ 8,400.00	$ 12.00	$ 3,600.00	$ 3,600.00
34	WW9	Open Trench Depth (10' - 12')	300	LF	$ 16.68	$ 5,004.00	$ 5,004.00	$ 30.00	$ 9,000.00	$ 9,000.00	$ 22.00	$ 6,600.00	$ 6,600.00
35	WW9	Open Trench Depth (12' - 14')	200	LF	$ 25.02	$ 5,004.00	$ 5,004.00	$ 32.00	$ 6,400.00	$ 6,400.00	$ 26.00	$ 5,200.00	$ 5,200.00
36	WW9	Open Trench Depth (14' - 16')	200	LF	$ 33.36	$ 6,672.00	$ 6,672.00	$ 36.00	$ 7,200.00	$ 7,200.00	$ 32.00	$ 6,400.00	$ 6,400.00
37	WW9	Open Trench Depth (16' - 18')	100	LF	$ 36.14	$ 3,614.00	$ 3,614.00	$ 41.50	$ 4,150.00	$ 4,150.00	$ 35.00	$ 3,500.00	$ 3,500.00
38	WW9	Open Trench Depth (18' - 20')	100	LF	$ 38.92	$ 3,892.00	$ 3,892.00	$ 47.50	$ 4,750.00	$ 4,750.00	$ 42.00	$ 4,200.00	$ 4,200.00
39	WW9	Open Trench Depth (20' - 22')	100	LF	$ 47.26	$ 4,726.00	$ 4,726.00	$ 69.00	$ 6,900.00	$ 6,900.00	$ 45.00	$ 4,500.00	$ 4,500.00
40	WW9	Open Trench Depth (22' - 24')	100	LF	$ 50.04	$ 5,004.00	$ 5,004.00	$ 69.00	$ 6,900.00	$ 6,900.00	$ 50.00	$ 5,000.00	$ 5,000.00
1	M1	20" Steel Pipe Casing, 1/4" Wall Thickness	100	LF	$ 107.97	$ 10,797.00	$ 10,797.00	$ 126.00	$ 12,600.00	$ 12,600.00	$ 130.00	$ 13,000.00	$ 13,000.00
2	M1	16" Steel Pipe Casing, 1/4" Wall Thickness	100	LF	$ 83.62	$ 8,362.00	$ 8,362.00	$ 97.00	$ 9,700.00	$ 9,700.00	$ 105.00	$ 10,500.00	$ 10,500.00
3	M1	12" Steel Pipe Casing, 1/4" Wall Thickness	100	LF	$ 67.52	$ 6,752.00	$ 6,752.00	$ 78.00	$ 7,800.00	$ 7,800.00	$ 83.00	$ 8,300.00	$ 8,300.00
4	M1	12" PVC Pipe Casing, SDR 26 ASTM D2241	100	LF	$ 50.06	$ 5,006.00	$ 5,006.00	$ 60.00	$ 6,000.00	$ 6,000.00	$ 65.00	$ 6,500.00	$ 6,500.00
5	M2	Cement Stabilized Sand Bedding (2.5-Sack)	100	LF	$ 73.67	$ 7,367.00	$ 7,367.00	$ 83.00	$ 8,300.00	$ 8,300.00	$ 35.00	$ 3,500.00	$ 3,500.00
6	M3	8" HDPE Force Main	100	LF	$ 37.25	$ 3,725.00	$ 3,725.00	$ 46.70	$ 4,670.00	$ 4,670.00	$ 55.00	$ 5,500.00	$ 5,500.00
7	M3	6" HDPE Force Main	100	LF	$ 31.34	$ 3,134.00	$ 3,134.00	$ 41.00	$ 4,100.00	$ 4,100.00	$ 48.00	$ 4,800.00	$ 4,800.00
8	M4	16" Gate Valve & Vault Replacement / Installation (Stand Alone)	5	EA	$ 20,672.08	$ 103,360.40	$ 103,360.40	$ 18,720.00	$ 93,600.00	$ 93,600.00	$ 20,000.00	$ 100,000.00	$ 100,000.00
9	M5	12" Gate Valve & Box Replacement / Installation (Stand Alone)	10	EA	$ 5,724.02	$ 57,240.20	$ 57,240.20	$ 6,145.00	$ 61,450.00	$ 61,450.00	$ 6,800.00	$ 68,000.00	$ 68,000.00
10	M5	10" Gate Valve & Box Replacement / Installation (Stand Alone)	10	EA	$ 4,461.90	$ 44,619.00	$ 44,619.00	$ 4,550.00	$ 45,500.00	$ 45,500.00	$ 5,700.00	$ 57,000.00	$ 57,000.00

BID TAB					Edgardo Madrid & Associates, LLC			J&H Services, Inc.			TEC Excavation, Inc.		
Bid Item	Pay Note	Description	Quantity	Units	Unit Price	Bid Total	Actual Bid Total	Unit Price	Bid Total	Actual Bid Total	Unit Price	Bid Total	Actual Bid Total
11	M5	8" Gate Valve & Box Replacement / Installation (Stand Alone)	10	EA	$ 4,049.07	$ 40,490.70	$ 40,490.70	$ 3,225.00	$ 32,250.00	$ 32,250.00	$ 4,700.00	$ 47,000.00	$ 47,000.00
12	M5	6" Gate Valve & Box Replacement / Installation (Stand Alone)	10	EA	$ 3,472.22	$ 34,722.20	$ 34,722.20	$ 2,525.00	$ 25,250.00	$ 25,250.00	$ 4,100.00	$ 41,000.00	$ 41,000.00
13	M6	Additional Labor, Downtown Area, Water Improvements	300	LF	$ 34.75	$ 10,425.00	$ 10,425.00	$ 42.00	$ 12,600.00	$ 12,600.00	$ 30.00	$ 9,000.00	$ 9,000.00
14	M7	Additional Labor, Downtown Area, Wastewater Improvements	300	LF	$ 34.75	$ 10,425.00	$ 10,425.00	$ 55.00	$ 16,500.00	$ 16,500.00	$ 30.00	$ 9,000.00	$ 9,000.00
15	M8	Material Mark-Up	N/A	%	20%	20%	20%	20%	20%	20%	15%	15%	15%
16	M9	Labor Mark-Up (regular work hours)	N/A	%	15%	15%	15%	20%	20%	20%	15%	15%	15%
17	M10	Equipment Rental Mark-up (non-standard equipment only)	N/A	%	20%	20%	20%	20%	20%	20%	15%	15%	15%
1	P1	Concrete Utility Cut Repair (6" thickness)	100	SY	$ 120.93	$ 12,093.00	$ 12,093.00	$ 129.00	$ 12,900.00	$ 12,900.00	$ 110.00	$ 11,000.00	$ 11,000.00
2	P2	Asphalt Utility Cut Repair (2" thickness)	1200	SY	$ 79.23	$ 95,076.00	$ 95,076.00	$ 19.00	$ 22,800.00	$ 22,800.00	$ 60.00	$ 72,000.00	$ 72,000.00
3	P3	Base Rock Utility Cut Repair (6" thickness)	400	SY	$ 20.85	$ 8,340.00	$ 8,340.00	$ 10.00	$ 4,000.00	$ 4,000.00	$ 35.00	$ 14,000.00	$ 14,000.00
4	P4	Flowable Fill / 2-Sack Backfill (20" thickness)	1300	SY	$ 87.57	$ 113,841.00	$ 113,841.00	$ 130.00	$ 169,000.00	$ 169,000.00	$ 45.00	$ 58,500.00	$ 58,500.00
5	P5	Erosion/Sediment Control	100	EA	$ 973.00	$ 97,300.00	$ 97,300.00	$ 550.00	$ 55,000.00	$ 55,000.00	$ 75.00	$ 7,500.00	$ 7,500.00
6	P6	Job Site Safety	100	EA	$ 278.00	$ 27,800.00	$ 27,800.00	$ 750.00	$ 75,000.00	$ 75,000.00	$ 50.00	$ 5,000.00	$ 5,000.00
7	P7	Traffic Control for Collector/Local Road Conditions	70	EA	$ 1,181.50	$ 82,705.00	$ 82,705.00	$ 1,500.00	$ 105,000.00	$ 105,000.00	$ 1,500.00	$ 105,000.00	$ 105,000.00
8	P8	Traffic Control for Alley/Easement Conditions	30	EA	$ 903.50	$ 27,105.00	$ 27,105.00	$ 1,000.00	$ 30,000.00	$ 30,000.00	$ 500.00	$ 15,000.00	$ 15,000.00
					Base Bid Total =	$ 2,636,991.17	**$ 2,651,652.66**	Base Bid Total =	$ 2,399,250.00	**$ 2,393,250.00**	Base Bid Total =	$ 2,221,000.00	**$ 2,242,000.00**
							$14,661.49			($6,000.00)			$21,000.00

U20-02 WATER, WASTEWATER, & FIRE HYDRANT TAPS EXPANDED PROGRAM 05

City of Midland - Engineering Services; August 5, 2020

BID TAB					Edgardo Madrid & Associates, LLC			J&H Services, Inc.			TEC Excavation, Inc.		
Bid Item	Pay Note	Description	Quantity	Units	Unit Price	Bid Total	Actual Bid Total	Unit Price	Bid Total	Actual Bid Total	Unit Price	Bid Total	Actual Bid Total
1	D1	Removal & Disposal of Existing Utility Mains	100	LF	$ 76.45	$ 7,645.00	$ 7,645.00	$ 15.00	$ 1,500.00	$ 1,500.00	$ 17.00	$ 1,700.00	$ 1,700.00
2	D2	Flowable Fill for Existing Utility Mains Abandoned In Place	20	CY	$ 173.75	$ 3,475.00	$ 3,475.00	$ 130.00	$ 2,600.00	$ 2,600.00	$ 120.00	$ 2,400.00	$ 2,400.00
3	D3	Removal & Disposal of Existing 60" Manhole (0'-5' Depth)	3	EA	$ 5,907.50	$ 17,722.50	$ 17,722.50	$ 2,160.00	$ 6,480.00	$ 6,480.00	$ 1,500.00	$ 4,500.00	$ 4,500.00
4	D4	Removal & Disposal of Existing 60" Manhole Additional Depth (>5')	15	VF	$ 486.50	$ 7,297.50	$ 7,297.50	$ 575.00	$ 8,625.00	$ 8,625.00	$ 290.00	$ 4,350.00	$ 4,350.00
5	D3	Removal & Disposal of Existing 48" Manhole (0'-5' Depth)	10	EA	$ 5,212.50	$ 52,125.00	$ 52,125.00	$ 1,725.00	$ 17,250.00	$ 17,250.00	$ 1,000.00	$ 10,000.00	$ 10,000.00
6	D4	Removal & Disposal of Existing 48" Manhole Additional Depth (>5')	35	VF	$ 486.50	$ 17,027.50	$ 17,027.50	$ 230.00	$ 8,050.00	$ 8,050.00	$ 200.00	$ 7,000.00	$ 7,000.00
1	W1	16" DIP Pressure Class 150	100	LF	$ 136.44	$ 13,649.00	$ 13,644.00	$ 88.00	$ 8,800.00	$ 8,800.00	$ 95.00	$ 9,500.00	$ 9,500.00
2	W1	12" DIP Pressure Class 150	100	LF	$ 116.55	$ 11,655.00	$ 11,655.00	$ 64.00	$ 6,400.00	$ 6,400.00	$ 67.00	$ 6,700.00	$ 6,700.00
3	W1	10" DIP Pressure Class 150	100	LF	$ 107.00	$ 10,700.00	$ 10,700.00	$ 53.00	$ 5,300.00	$ 5,300.00	$ 57.00	$ 5,700.00	$ 5,700.00
4	W1	8" DIP Pressure Class 150	100	LF	$ 103.00	$ 10,313.00	$ 10,300.00	$ 49.00	$ 4,900.00	$ 4,900.00	$ 52.00	$ 5,200.00	$ 5,200.00
5	W1	6" DIP Pressure Class 150	100	LF	$ 96.18	$ 9,618.00	$ 9,618.00	$ 44.00	$ 4,400.00	$ 4,400.00	$ 45.00	$ 4,500.00	$ 4,500.00
6	W1	12" AWWA C-900 DR 18, PVC	100	LF	$ 98.48	$ 9,848.00	$ 9,848.00	$ 46.00	$ 4,600.00	$ 4,600.00	$ 57.00	$ 5,700.00	$ 5,700.00
7	W1	10" AWWA C-900 DR 18, PVC	100	LF	$ 64.84	$ 6,484.00	$ 6,484.00	$ 38.50	$ 3,850.00	$ 3,850.00	$ 50.00	$ 5,000.00	$ 5,000.00
8	W1	8" AWWA C-900 DR 18, PVC	200	LF	$ 59.74	$ 11,948.00	$ 11,948.00	$ 33.50	$ 6,700.00	$ 6,700.00	$ 44.00	$ 8,800.00	$ 8,800.00
9	W1	6" AWWA C-900 DR 18, PVC	200	LF	$ 55.39	$ 11,078.00	$ 11,078.00	$ 29.00	$ 5,800.00	$ 5,800.00	$ 39.00	$ 7,800.00	$ 7,800.00
10	W2	16" Tapping Sleeve	5	EA	$ 2,981.55	$ 14,907.75	$ 14,907.75	$ 5,350.00	$ 26,750.00	$ 26,750.00	$ 4,350.00	$ 21,750.00	$ 21,750.00
11	W2	12" Tapping Sleeve	5	EA	$ 2,217.05	$ 11,085.25	$ 11,085.25	$ 4,170.00	$ 20,850.00	$ 20,850.00	$ 3,720.00	$ 18,600.00	$ 18,600.00
12	W2	10" Tapping Sleeve	5	EA	$ 2,182.30	$ 10,911.50	$ 10,911.50	$ 3,845.00	$ 19,225.00	$ 19,225.00	$ 2,700.00	$ 13,500.00	$ 13,500.00
13	W2	8" Tapping Sleeve	5	EA	$ 2,089.17	$ 10,445.85	$ 10,445.85	$ 3,120.00	$ 15,600.00	$ 15,600.00	$ 2,300.00	$ 11,500.00	$ 11,500.00
14	W2	6" Tapping Sleeve	15	EA	$ 2,050.25	$ 30,753.75	$ 30,753.75	$ 3,080.00	$ 46,200.00	$ 46,200.00	$ 2,100.00	$ 31,500.00	$ 31,500.00
15	W3	16" Gate Valve & Vault (MJxMJ/FL)	8	EA	$ 16,075.35	$ 128,602.80	$ 128,602.80	$ 13,925.00	$ 111,400.00	$ 111,400.00	$ 12,700.00	$ 101,600.00	$ 101,600.00
16	W4	12" Gate Valve & Box (MJxMJ/FL)	15	EA	$ 4,784.30	$ 71,765.70	$ 71,764.50	$ 4,465.00	$ 66,975.00	$ 66,975.00	$ 3,670.00	$ 55,050.00	$ 55,050.00
17	W4	10" Gate Valve & Box (MJxMJ/FL)	8	EA	$ 3,753.00	$ 30,024.00	$ 30,024.00	$ 3,570.00	$ 28,560.00	$ 28,560.00	$ 2,660.00	$ 21,280.00	$ 21,280.00
18	W4	8" Gate Valve & Box (MJxMJ/FL)	15	EA	$ 2,969.04	$ 44,535.60	$ 44,535.60	$ 2,765.00	$ 41,475.00	$ 41,475.00	$ 1,980.00	$ 29,700.00	$ 29,700.00
19	W4	6" Gate Valve & Box (MJxMJ/FL)	30	EA	$ 2,240.68	$ 67,220.40	$ 67,220.40	$ 2,320.00	$ 69,600.00	$ 69,600.00	$ 1,450.00	$ 43,500.00	$ 43,500.00
20	W5	Fire Hydrant (≤ 5' Water Main Bury Depth)	15	EA	$ 4,239.50	$ 63,592.50	$ 63,592.50	$ 4,875.00	$ 73,125.00	$ 73,125.00	$ 3,500.00	$ 52,500.00	$ 52,500.00
21	W6	Fire Hydrant Riser (> 5' Water Main Bury Depth)	50	EA	$ 764.50	$ 38,225.00	$ 38,225.00	$ 1,200.00	$ 60,000.00	$ 60,000.00	$ 750.00	$ 37,500.00	$ 37,500.00
22	W7	Ductile Iron Fittings	2150	LB	$ 7.26	$ 15,609.00	$ 15,609.00	$ 7.50	$ 16,125.00	$ 16,125.00	$ 7.00	$ 15,050.00	$ 15,050.00
23	W8	Anchor Coupling / Foster Adaptor	5	EA	$ 556.00	$ 2,780.00	$ 2,780.00	$ 1,040.00	$ 5,200.00	$ 5,200.00	$ 800.00	$ 4,000.00	$ 4,000.00
24	W9	16" x 2" Tapping Saddle	4	EA	$ 451.75	$ 1,807.00	$ 1,807.00	$ 700.00	$ 2,800.00	$ 2,800.00	$ 560.00	$ 2,240.00	$ 2,240.00
25	W9	16" x 1" Tapping Saddle	5	EA	$ 418.39	$ 2,091.95	$ 2,091.95	$ 615.00	$ 3,075.00	$ 3,075.00	$ 530.00	$ 2,650.00	$ 2,650.00
26	W9	12" x 2" Tapping Saddle	7	EA	$ 511.52	$ 3,580.64	$ 3,580.64	$ 570.00	$ 3,990.00	$ 3,990.00	$ 490.00	$ 3,430.00	$ 3,430.00
27	W9	12" x 1" Tapping Saddle	10	EA	$ 492.06	$ 4,920.60	$ 4,920.60	$ 510.00	$ 5,100.00	$ 5,100.00	$ 475.00	$ 4,750.00	$ 4,750.00
28	W9	10" x 2" Tapping Saddle	7	EA	$ 489.20	$ 3,424.96	$ 3,424.40	$ 505.00	$ 3,535.00	$ 3,535.00	$ 470.00	$ 3,290.00	$ 3,290.00
29	W9	10" x 1" Tapping Saddle	8	EA	$ 465.65	$ 3,725.20	$ 3,725.20	$ 435.00	$ 3,480.00	$ 3,480.00	$ 455.00	$ 3,640.00	$ 3,640.00
30	W9	8" x 2" Tapping Saddle	7	EA	$ 304.41	$ 2,130.87	$ 2,130.87	$ 500.00	$ 3,500.00	$ 3,500.00	$ 460.00	$ 3,220.00	$ 3,220.00
31	W9	8" x 1" Tapping Saddle	15	EA	$ 291.90	$ 4,378.50	$ 4,378.50	$ 435.00	$ 6,525.00	$ 6,525.00	$ 450.00	$ 6,750.00	$ 6,750.00
32	W9	6" x 2" Tapping Saddle	15	EA	$ 261.32	$ 3,919.80	$ 3,919.80	$ 485.00	$ 7,275.00	$ 7,275.00	$ 455.00	$ 6,825.00	$ 6,825.00
33	W9	6" x 1" Tapping Saddle	35	EA	$ 243.25	$ 8,513.75	$ 8,513.75	$ 420.00	$ 14,700.00	$ 14,700.00	$ 440.00	$ 15,400.00	$ 15,400.00
34	W10	2" Water Service Connection	40	EA	$ 2,403.31	$ 96,132.40	$ 96,132.40	$ 1,710.00	$ 68,400.00	$ 68,400.00	$ 3,030.00	$ 121,200.00	$ 121,200.00
35	W10	1" Water Service Connection	60	EA	$ 1,547.07	$ 92,824.20	$ 92,824.20	$ 780.00	$ 46,800.00	$ 46,800.00	$ 2,320.00	$ 139,200.00	$ 139,200.00
36	W11	2" Water Service Lateral	600	LF	$ 15.91	$ 9,546.00	$ 9,546.00	$ 15.50	$ 9,300.00	$ 9,300.00	$ 16.00	$ 9,600.00	$ 9,600.00
37	W11	1" Water Service Lateral	1300	LF	$ 14.59	$ 18,967.00	$ 18,967.00	$ 14.00	$ 18,200.00	$ 18,200.00	$ 15.00	$ 19,500.00	$ 19,500.00
38	W12	Flushing Station Installation	5	EA	$ 7,158.50	$ 35,792.50	$ 35,792.50	$ 5,760.00	$ 28,800.00	$ 28,800.00	$ 5,950.00	$ 29,750.00	$ 29,750.00
39	W13	Sampling Station Installation	5	EA	$ 3,683.50	$ 18,417.50	$ 18,417.50	$ 2,240.00	$ 11,200.00	$ 11,200.00	$ 3,110.00	$ 15,550.00	$ 15,550.00
40	W14	Water Meter Installation (New Service Line)	15	EA	$ 660.25	$ 9,903.75	$ 9,903.75	$ 850.00	$ 12,750.00	$ 12,750.00	$ 290.00	$ 4,350.00	$ 4,350.00
41	W15	Water Meter & Meter Box Installation (Existing Service Line)	40	EA	$ 799.25	$ 11,988.75	$ 31,970.00	$ 1,500.00	$ 60,000.00	$ 60,000.00	$ 475.00	$ 19,000.00	$ 19,000.00
42	W16	Replace Water Meter In Existing Vault	15	EA	$ 938.25	$ 14,073.75	$ 14,073.75	$ 1,000.00	$ 15,000.00	$ 15,000.00	$ 1,000.00	$ 15,000.00	$ 15,000.00

BID TAB					Edgardo Madrid & Associates, LLC			J&H Services, Inc.			TEC Excavation, Inc.		
Bid Item	Pay Note	Description	Quantity	Units	Unit Price	Bid Total	Actual Bid Total	Unit Price	Bid Total	Actual Bid Total	Unit Price	Bid Total	Actual Bid Total
43	W17	Water Service Connection Depth (0' - 12')	500	VF	$ 69.50	$ 34,750.00	$ 34,750.00	$ 57.50	$ 28,750.00	$ 28,750.00	$ 100.00	$ 50,000.00	$ 50,000.00
44	W18	Open Trench Depth (0' - 5')	1300	LF	$ 27.80	$ 36,140.00	$ 36,140.00	$ 25.00	$ 32,500.00	$ 32,500.00	$ 7.00	$ 9,100.00	$ 9,100.00
45	W18	Open Trench Depth (5' - 8')	200	LF	$ 20.85	$ 4,170.00	$ 4,170.00	$ 27.00	$ 5,400.00	$ 5,400.00	$ 9.00	$ 1,800.00	$ 1,800.00
46	W18	Open Trench Depth (8' - 10')	100	LF	$ 25.02	$ 5,004.00	$ 2,502.00	$ 31.00	$ 3,100.00	$ 3,100.00	$ 12.00	$ 1,200.00	$ 1,200.00
47	W18	Open Trench Depth (10' - 12')	100	LF	$ 27.80	$ 5,560.00	$ 2,780.00	$ 35.00	$ 3,500.00	$ 3,500.00	$ 22.00	$ 2,200.00	$ 2,200.00
1	WW1	16" SDR 26 ASTM D2241, PVC	100	LF	$ 80.41	$ 8,041.00	$ 8,041.00	$ 60.00	$ 6,000.00	$ 6,000.00	$ 75.00	$ 7,500.00	$ 7,500.00
2	WW1	12" SDR 26 ASTM D2241, PVC	100	LF	$ 65.81	$ 6,581.00	$ 6,581.00	$ 40.00	$ 4,000.00	$ 4,000.00	$ 54.00	$ 5,400.00	$ 5,400.00
3	WW1	10" SDR 26 ASTM D2241, PVC	100	LF	$ 60.81	$ 6,081.00	$ 6,081.00	$ 35.00	$ 3,500.00	$ 3,500.00	$ 47.00	$ 4,700.00	$ 4,700.00
4	WW1	8" SDR 26 ASTM D2241, PVC	100	LF	$ 56.78	$ 5,678.00	$ 5,678.00	$ 29.00	$ 2,900.00	$ 2,900.00	$ 42.00	$ 4,200.00	$ 4,200.00
5	WW1	6" SDR 26 ASTM D2241, PVC	100	LF	$ 53.55	$ 5,355.00	$ 5,355.00	$ 25.50	$ 2,550.00	$ 2,550.00	$ 38.00	$ 3,800.00	$ 3,800.00
6	WW1	15" SDR 26 ASTM D3034, PS115, PVC	100	LF	$ 76.53	$ 7,653.00	$ 7,653.00	$ 55.00	$ 5,500.00	$ 5,500.00	$ 75.00	$ 7,500.00	$ 7,500.00
7	WW1	12" SDR 26 ASTM D3034, PS115, PVC	100	LF	$ 67.05	$ 6,705.00	$ 6,705.00	$ 41.50	$ 4,150.00	$ 4,150.00	$ 53.00	$ 5,300.00	$ 5,300.00
8	WW1	10" SDR 26 ASTM D3034, PS115, PVC	100	LF	$ 61.53	$ 6,153.00	$ 6,153.00	$ 36.00	$ 3,600.00	$ 3,600.00	$ 48.00	$ 4,800.00	$ 4,800.00
9	WW1	8" SDR 26 ASTM D3034, PS115, PVC	100	LF	$ 56.89	$ 5,689.00	$ 5,689.00	$ 29.00	$ 2,900.00	$ 2,900.00	$ 42.00	$ 4,200.00	$ 4,200.00
10	WW1	6" SDR 26 ASTM D3034, PS115, PVC	100	LF	$ 53.20	$ 5,320.00	$ 5,320.00	$ 25.00	$ 2,500.00	$ 2,500.00	$ 37.00	$ 3,700.00	$ 3,700.00
11	WW1	15" SDR 35 ASTM D3034, PS46, PVC	100	LF	$ 69.36	$ 6,936.00	$ 6,936.00	$ 48.00	$ 4,800.00	$ 4,800.00	$ 71.00	$ 7,100.00	$ 7,100.00
12	WW1	12" SDR 35 ASTM D3034, PS46, PVC	100	LF	$ 62.56	$ 6,256.00	$ 6,256.00	$ 37.00	$ 3,700.00	$ 3,700.00	$ 46.00	$ 4,600.00	$ 4,600.00
13	WW1	10" SDR 35 ASTM D3034, PS46, PVC	100	LF	$ 58.32	$ 5,832.00	$ 5,832.00	$ 33.00	$ 3,300.00	$ 3,300.00	$ 45.00	$ 4,500.00	$ 4,500.00
14	WW1	8" SDR 35 ASTM D3034, PS46, PVC	100	LF	$ 54.82	$ 5,482.00	$ 5,482.00	$ 27.00	$ 2,700.00	$ 2,700.00	$ 41.00	$ 4,100.00	$ 4,100.00
15	WW1	6" SDR 35 ASTM D3034, PS46, PVC	200	LF	$ 52.00	$ 10,418.00	$ 10,400.00	$ 24.00	$ 4,800.00	$ 4,800.00	$ 37.00	$ 7,400.00	$ 7,400.00
16	WW1	4" SDR 35 ASTM D3034, PS46, PVC	200	LF	$ 50.23	$ 10,046.00	$ 10,046.00	$ 20.25	$ 4,025.00	$ 4,050.00	$ 36.00	$ 7,200.00	$ 7,200.00
17	WW2	60" Fiberglass Manhole (0'-5' Deep)	3	EA	$ 9,597.95	$ 28,793.85	$ 28,793.85	$ 7,020.00	$ 21,060.00	$ 21,060.00	$ 5,200.00	$ 15,600.00	$ 15,600.00
18	WW3	60" Manhole Additional Bury Depth (5'-16' Deep)	30	VF	$ 1,390.00	$ 41,700.00	$ 41,700.00	$ 945.00	$ 28,350.00	$ 28,350.00	$ 620.00	$ 18,600.00	$ 18,600.00
19	WW3	60" Manhole Additional Bury Depth (> 16' Deep)	15	VF	$ 2,085.00	$ 31,275.00	$ 31,275.00	$ 1,425.00	$ 21,375.00	$ 21,375.00	$ 620.00	$ 9,300.00	$ 9,300.00
20	WW2	48" Fiberglass Manhole (0'-5' Deep)	10	EA	$ 5,612.82	$ 56,128.20	$ 56,128.20	$ 4,865.00	$ 48,650.00	$ 48,650.00	$ 3,550.00	$ 35,500.00	$ 35,500.00
21	WW3	48" Manhole Additional Bury Depth (5'-16' Deep)	50	VF	$ 834.00	$ 41,700.00	$ 41,700.00	$ 670.00	$ 33,500.00	$ 33,500.00	$ 445.00	$ 22,250.00	$ 22,250.00
22	WW3	48" Manhole Additional Bury Depth (> 16' Deep)	25	VF	$ 1,390.00	$ 34,750.00	$ 34,750.00	$ 1,200.00	$ 30,000.00	$ 30,000.00	$ 445.00	$ 11,125.00	$ 11,125.00
23	WW4	Connect To Existing Manhole	15	EA	$ 3,475.00	$ 52,125.00	$ 52,125.00	$ 1,240.00	$ 18,600.00	$ 18,600.00	$ 1,500.00	$ 22,500.00	$ 22,500.00
24	WW5	Manhole Drop Structure (Internal)	10	EA	$ 1,424.75	$ 14,247.50	$ 14,247.50	$ 3,820.00	$ 38,200.00	$ 38,200.00	$ 1,650.00	$ 16,500.00	$ 16,500.00
25	WW5	Manhole Drop Structure (External)	10	EA	$ 1,424.75	$ 14,247.50	$ 14,247.50	$ 3,100.00	$ 31,000.00	$ 31,000.00	$ 2,800.00	$ 28,000.00	$ 28,000.00
26	WW6	6" Wastewater Service Connection	10	EA	$ 2,128.09	$ 21,280.90	$ 21,280.90	$ 1,015.00	$ 10,150.00	$ 10,150.00	$ 3,300.00	$ 33,000.00	$ 33,000.00
27	WW6	4" Wastewater Service Connection	30	EA	$ 2,085.00	$ 62,550.00	$ 62,550.00	$ 850.00	$ 25,500.00	$ 25,500.00	$ 3,250.00	$ 97,500.00	$ 97,500.00
28	WW7	6" Wastewater Service Lateral	200	LF	$ 49.31	$ 9,862.00	$ 9,862.00	$ 27.00	$ 5,400.00	$ 5,400.00	$ 21.00	$ 4,200.00	$ 4,200.00
29	WW7	4" Wastewater Service Lateral	600	LF	$ 44.67	$ 26,802.00	$ 26,802.00	$ 25.00	$ 15,000.00	$ 15,000.00	$ 20.00	$ 12,000.00	$ 12,000.00
30	WW8	Wastewater Service Connection Depth (0' - 24')	300	VF	$ 166.80	$ 50,040.00	$ 50,040.00	$ 55.25	$ 16,575.00	$ 16,575.00	$ 250.00	$ 75,000.00	$ 75,000.00
31	WW9	Open Trench Depth (0' - 5')	300	LF	$ 25.02	$ 7,506.00	$ 7,506.00	$ 24.00	$ 7,200.00	$ 7,200.00	$ 7.00	$ 2,100.00	$ 2,100.00
32	WW9	Open Trench Depth (5' - 8')	800	LF	$ 16.68	$ 13,344.00	$ 13,344.00	$ 25.00	$ 20,000.00	$ 20,000.00	$ 9.00	$ 7,200.00	$ 7,200.00
33	WW9	Open Trench Depth (8' - 10')	300	LF	$ 16.68	$ 5,004.00	$ 5,004.00	$ 28.00	$ 8,400.00	$ 8,400.00	$ 12.00	$ 3,600.00	$ 3,600.00
34	WW9	Open Trench Depth (10' - 12')	300	LF	$ 16.68	$ 5,004.00	$ 5,004.00	$ 30.00	$ 9,000.00	$ 9,000.00	$ 22.00	$ 6,600.00	$ 6,600.00
35	WW9	Open Trench Depth (12' - 14')	200	LF	$ 25.02	$ 5,004.00	$ 5,004.00	$ 32.00	$ 6,400.00	$ 6,400.00	$ 26.00	$ 5,200.00	$ 5,200.00
36	WW9	Open Trench Depth (14' - 16')	200	LF	$ 33.36	$ 6,672.00	$ 6,672.00	$ 36.00	$ 7,200.00	$ 7,200.00	$ 32.00	$ 6,400.00	$ 6,400.00
37	WW9	Open Trench Depth (16' - 18')	100	LF	$ 36.14	$ 3,614.00	$ 3,614.00	$ 41.50	$ 4,150.00	$ 4,150.00	$ 35.00	$ 3,500.00	$ 3,500.00
38	WW9	Open Trench Depth (18' - 20')	100	LF	$ 38.92	$ 3,892.00	$ 3,892.00	$ 47.50	$ 4,750.00	$ 4,750.00	$ 42.00	$ 4,200.00	$ 4,200.00
39	WW9	Open Trench Depth (20' - 22')	100	LF	$ 47.26	$ 4,726.00	$ 4,726.00	$ 69.00	$ 6,900.00	$ 6,900.00	$ 45.00	$ 4,500.00	$ 4,500.00
40	WW9	Open Trench Depth (22' - 24')	100	LF	$ 50.04	$ 5,004.00	$ 5,004.00	$ 69.00	$ 6,900.00	$ 6,900.00	$ 50.00	$ 5,000.00	$ 5,000.00
1	M1	20" Steel Pipe Casing, 1/4" Wall Thickness	100	LF	$ 107.97	$ 10,797.00	$ 10,797.00	$ 126.00	$ 12,600.00	$ 12,600.00	$ 130.00	$ 13,000.00	$ 13,000.00
2	M1	16" Steel Pipe Casing, 1/4" Wall Thickness	100	LF	$ 83.62	$ 8,362.00	$ 8,362.00	$ 97.00	$ 9,700.00	$ 9,700.00	$ 105.00	$ 10,500.00	$ 10,500.00
3	M1	12" Steel Pipe Casing, 1/4" Wall Thickness	100	LF	$ 67.52	$ 6,752.00	$ 6,752.00	$ 78.00	$ 7,800.00	$ 7,800.00	$ 83.00	$ 8,300.00	$ 8,300.00
4	M1	12" PVC Pipe Casing, SDR 26 ASTM D2241	100	LF	$ 50.06	$ 5,006.00	$ 5,006.00	$ 60.00	$ 6,000.00	$ 6,000.00	$ 65.00	$ 6,500.00	$ 6,500.00
5	M2	Cement Stabilized Sand Bedding (2.5-Sack)	100	LF	$ 73.67	$ 7,367.00	$ 7,367.00	$ 83.00	$ 8,300.00	$ 8,300.00	$ 35.00	$ 3,500.00	$ 3,500.00
6	M3	8" HDPE Force Main	100	LF	$ 37.25	$ 3,725.00	$ 3,725.00	$ 46.70	$ 4,670.00	$ 4,670.00	$ 55.00	$ 5,500.00	$ 5,500.00
7	M3	6" HDPE Force Main	100	LF	$ 31.34	$ 3,134.00	$ 3,134.00	$ 41.00	$ 4,100.00	$ 4,100.00	$ 48.00	$ 4,800.00	$ 4,800.00
8	M4	16" Gate Valve & Vault Replacement / Installation (Stand Alone)	5	EA	$ 20,672.08	$ 103,360.40	$ 103,360.40	$ 18,720.00	$ 93,600.00	$ 93,600.00	$ 20,000.00	$ 100,000.00	$ 100,000.00
9	M5	12" Gate Valve & Box Replacement / Installation (Stand Alone)	10	EA	$ 5,724.02	$ 57,240.20	$ 57,240.20	$ 6,145.00	$ 61,450.00	$ 61,450.00	$ 6,800.00	$ 68,000.00	$ 68,000.00
10	M5	10" Gate Valve & Box Replacement / Installation (Stand Alone)	10	EA	$ 4,461.90	$ 44,619.00	$ 44,619.00	$ 4,550.00	$ 45,500.00	$ 45,500.00	$ 5,700.00	$ 57,000.00	$ 57,000.00

BID TAB					Edgardo Madrid & Associates, LLC			J&H Services, Inc.			TEC Excavation, Inc.		
Bid Item	Pay Note	Description	Quantity	Units	Unit Price	Bid Total	Actual Bid Total	Unit Price	Bid Total	Actual Bid Total	Unit Price	Bid Total	Actual Bid Total
11	M5	8" Gate Valve & Box Replacement / Installation (Stand Alone)	10	EA	$ 4,049.07	$ 40,490.70	$ 40,490.70	$ 3,225.00	$ 32,250.00	$ 32,250.00	$ 4,700.00	$ 47,000.00	$ 47,000.00
12	M5	6" Gate Valve & Box Replacement / Installation (Stand Alone)	10	EA	$ 3,472.22	$ 34,722.20	$ 34,722.20	$ 2,525.00	$ 25,250.00	$ 25,250.00	$ 4,100.00	$ 41,000.00	$ 41,000.00
13	M6	Additional Labor, Downtown Area, Water Improvements	300	LF	$ 34.75	$ 10,425.00	$ 10,425.00	$ 42.00	$ 12,600.00	$ 12,600.00	$ 30.00	$ 9,000.00	$ 9,000.00
14	M7	Additional Labor, Downtown Area, Wastewater Improvements	300	LF	$ 34.75	$ 10,425.00	$ 10,425.00	$ 55.00	$ 16,500.00	$ 16,500.00	$ 30.00	$ 9,000.00	$ 9,000.00
15	M8	Material Mark-Up	N/A	%	20%	20%	20%	20%	20%	20%	15%	15%	15%
16	M9	Labor Mark-Up (regular work hours)	N/A	%	15%	15%	15%	20%	20%	20%	15%	15%	15%
17	M10	Equipment Rental Mark-up (non-standard equipment only)	N/A	%	20%	20%	20%	20%	20%	20%	15%	15%	15%
1	P1	Concrete Utility Cut Repair (6" thickness)	100	SY	$ 120.93	$ 12,093.00	$ 12,093.00	$ 129.00	$ 12,900.00	$ 12,900.00	$ 110.00	$ 11,000.00	$ 11,000.00
2	P2	Asphalt Utility Cut Repair (2" thickness)	1200	SY	$ 79.23	$ 95,076.00	$ 95,076.00	$ 19.00	$ 22,800.00	$ 22,800.00	$ 60.00	$ 72,000.00	$ 72,000.00
3	P3	Base Rock Utility Cut Repair (6" thickness)	400	SY	$ 20.85	$ 8,340.00	$ 8,340.00	$ 10.00	$ 4,000.00	$ 4,000.00	$ 35.00	$ 14,000.00	$ 14,000.00
4	P4	Flowable Fill / 2-Sack Backfill (20" thickness)	1300	SY	$ 87.57	$ 113,841.00	$ 113,841.00	$ 130.00	$ 169,000.00	$ 169,000.00	$ 45.00	$ 58,500.00	$ 58,500.00
5	P5	Erosion/Sediment Control	100	EA	$ 973.00	$ 97,300.00	$ 97,300.00	$ 550.00	$ 55,000.00	$ 55,000.00	$ 75.00	$ 7,500.00	$ 7,500.00
6	P6	Job Site Safety	100	EA	$ 278.00	$ 27,800.00	$ 27,800.00	$ 750.00	$ 75,000.00	$ 75,000.00	$ 50.00	$ 5,000.00	$ 5,000.00
7	P7	Traffic Control for Collector/Local Road Conditions	70	EA	$ 1,181.50	$ 82,705.00	$ 82,705.00	$ 1,500.00	$ 105,000.00	$ 105,000.00	$ 1,500.00	$ 105,000.00	$ 105,000.00
8	P8	Traffic Control for Alley/Easement Conditions	30	EA	$ 903.50	$ 27,105.00	$ 27,105.00	$ 1,000.00	$ 30,000.00	$ 30,000.00	$ 500.00	$ 15,000.00	$ 15,000.00
					Base Bid Total =	$ 2,636,991.17	**$ 2,651,652.66**	Base Bid Total =	$ 2,399,250.00	**$ 2,393,250.00**	Base Bid Total =	$ 2,221,000.00	**$ 2,242,000.00**
							$14,661.49			($6,000.00)			$21,000.00

INTEROFFICE MEMORANDUM

TO: Erika Martinez; City of Midland, Purchasing Manager

FROM: Matt C. Carr, P.E.; City of Midland, City Engineer

SUBJECT: Water, Wastewater, & Fire Hydrant Taps Expanded Program 05 ♦ Engr. Project No. U20-02 ♦ Bid Tabulation ♦ Funding #_____

DATE: August 26, 2020

Erika,

Engineer staff has reviewed the bid tabulation for the Water, Wastewater, & Fire Hydrant Taps Expanded Program 05. TEC Excavation, Inc. of Midland, Texas, is the apparent successful low bidder. Staff recommends awarding the Water, Wastewater, & Fire Hydrant Taps Expanded Program 05 to TEC Excavation, Inc.

TEC Excavation, Inc. has an established history with the City of Midland of performing work of similar scale and scope to the Water, Wastewater, & Fire Hydrant Taps Expanded Program 05. Furthermore, the unit prices appear to be in line with current pricing trends.

Funding is available for this project.

The agreement specifies awarding an amount not to exceed $1,000,000.00 with a construction period beginning within 15 calendar days of a written notice to proceed for construction and an initial construction deadline of September 30, 2021 with an option of renewing the program for no more than two (2) additional one (1) year terms after the initial construction deadline for an amount not to exceed $750,000.00 per term.

Matt C. Carr, P.E.
City Engineer

Cc: Jose Ortiz
Regina Stephenson

MIDLAND
Engineering Services

SPECIFICATIONS

Project Name: Water, Wastewater, & Fire Hydrant Taps Expanded Program 05

Project Number: U20-02

MAYOR

Patrick Payton

COUNCIL MEMBERS

District 1	Scott Dufford	District 3	Jack Ladd
District 2	John Norman	District 4	Lori Blong
At-Large	Michael Trost	At Large	Spencer Robnett

CITY ENGINEER

Matt C. Carr, P.E.

STATE OF TEXAS
JUL 9 2020
JOSHUA C. FERGUSON
117692
LICENSED
PROFESSIONAL ENGINEER

Jack Ferguson

Prepared by City of Midland, Texas
Engineering Services Division

July 2020

PACKET
7.28
September 8, 2020

NOTICE TO BIDDERS

ATTENTION: Due to the Coronavirus (COVID-19) pandemic, the City of Midland's City Hall is closed to the Public. All bidders are encouraged to mail bid packets to one of the addresses below rather than delivering them in person in the interests of maintaining social distancing:

USPS Mailing Address:		***Physical Address for mail carriers other than USPS:***
City of Midland, Texas		**City of Midland, Texas**
Attn: City Secretary's Office	**OR**	**Attn: City Secretary's Office**
P O Box 1152		**300 North Loraine St, Suite 330**
Midland, TX 79702		**Midland, TX 79701**

If bid packets are delivered in person then bidders must make arrangements in advance to drop the bid packets off at the north doors of City Hall before the bid opening deadline, and social distancing measures will be maintained for the health of all parties involved.

Sealed proposals, addressed to the Mayor and City Council of the City of Midland, Texas, for the furnishing of materials and labor together with other miscellaneous and appurtenant work will be received at the office of the City Secretary, City Hall, Midland, Texas, until 2:00 p.m. on the _5th day of _August_, 2020, and then be publicly opened and read aloud at that time in the City Hall Council Chambers.

ATTENTION: The public bid opening will be shown via the City Council Meeting live feed in order to maintain social distancing due to COVID-19. This can be accessed from the following web address at the time of the bid opening:

http://www.midlandtexas.gov/600/Watch-Council-Meetings

The Proposed Work provides for the furnishing of materials and labor for __Water, Wastewater, & Fire Hydrant Taps Expanded Program 05___ together with other miscellaneous and appurtenant work.

ATTENTION: A NON-MANDATORY PRE-BID MEETING TELECONFERENCE will be held at 3:00 p.m. on _Wednesday_, _July_29th, 2020. There will be no in-person pre-bid meeting due to COVID-19.

TELECONFERENCE CALL IN NUMBER: (866) 528-2256
ACCESS CODE: 4450719

ATTENTION: All questions submitted before or after the Non-Mandatory Pre-Bid Meeting Teleconference must be submitted via email to the following email address:

jferguson@midlandtexas.gov

The deadline for submitting additional questions after the Non-Mandatory Pre-Bid Meeting Teleconference is Noon on Friday, July 31, 2020. Questions submitted before the Noon deadline will be included in the Addendum that will go out that same day along with all discussion items, questions, answers, and any new information resulting from the Non-Mandatory Pre-Bid Meeting Teleconference. Questions submitted after the Noon deadline will not receive any additional information and will instead only be directed to the information already provided.

Bids will be received on a unit price basis. The intent of the proposal is to determine the low bidder based on the total of the quantities and unit prices. Once a low bidder is selected, the project will be awarded in an amount not to exceed $1,000,000.00.

The initial term of the contract will expire on September 30, 2021. If the Owner and Contractor agree in writing, the contract may be renewed for up to two (2) additional one (1) year terms (at an amount not to exceed $750,000.00 per term).

No Bid may be withdrawn within a period of 60 days after the date fixed for opening Bids.

"FAX" or telephone bids or modifications will not be accepted.

Bid Envelopes shall be plainly marked "Proposal for City of Midland".

ATTENTION: Information for bidders, proposal forms, specifications, and plans are available through Dropbox. Contact the Purchasing Agent, Purchasing Department of City Hall for additional information or questions on accessing Dropbox. Documents will only be provided in electronic format to maintain social distancing, there will be no hard copies provided. No fees will be charged since only electronic copies are being provided.

A bid bond or proposal guaranty is to accompany the bid, thereby guaranteeing the good faith of the bidder and that the bidder will enter into the written contract. The guaranty is to amount to five percent (5%) of the total bid and must be in the form of cash or certified check, issued by a bank satisfactory to the City of Midland, or bid bond. If in the form of cash or certified check, it is expressly understood and agreed that the City of Midland is given the right to retain such as liquidated damages if such bidder withdraws its bid anytime after such bid is opened and before official rejection of such bid, or if successful in securing the awarded thereof, such bidder fails to enter into the contract and furnish satisfactory performance and payment bonds. If a bid bond is submitted, it shall be executed on forms contained in these contract documents by a corporate surety authorized to do business in the State of Texas and acceptable to the City of Midland.

WAIVER OF ATTORNEY FEES

BY SUBMITTING A BID, BIDDER AGREES TO WAIVE AND DOES HEREBY KNOWINGLY, CONCLUSIVELY, VOLUNTARILY AND INTENTIONALLY WAIVE ANY CLAIM IT HAS OR MAY HAVE IN THE FUTURE AGAINST THE OWNER, REGARDING THE AWARD OF ATTORNEY'S FEES, WHICH ARE IN ANY WAY RELATED TO THE CONTRACT, OR THE CONSTRUCTION, INTERPRETATION OR BREACH OF THE CONTRACT. THE BIDDER SPECIFICALLY AGREES THAT IF THE BIDDER BRINGS OR COMMENCES ANY LEGAL ACTION OR PROCEEDING RELATED TO THIS CONTRACT, THE CONSTRUCTION, INTERPRETATION, VALIDITY OR BREACH OF THIS CONTRACT, INCLUDING BUT NOT LIMITED TO ANY ACTION PURSUANT TO THE PROVISIONS OF THE TEXAS UNIFORM DECLARATORY JUDGMENTS ACT (TEXAS CIVIL PRACTICE AND REMEDIES CODE SECTION 37.001, ET. SEQ., AS AMENDED), OR CHAPTER 271 OF THE TEXAS LOCAL GOVERNMENT CODE, THE BIDDER AGREES TO ABANDON, WAIVE AND RELINQUISH ANY AND ALL RIGHTS TO THE RECOVERY OF ATTORNEY'S FEES TO WHICH BIDDER MIGHT OTHERWISE BE ENTITLED.

BIDDER AGREES THAT THIS IS THE VOLUNTARY AND INTENTIONAL RELINQUISHMENT AND ABANDONMENT OF A PRESENTLY EXISTING KNOWN RIGHT. THE BIDDER ACKNOWLEDGES THAT IT UNDERSTANDS ALL TERMS AND CONDITIONS OF THE CONTRACT. THE BIDDER FURTHER ACKNOWLEDGES AND AGREES THAT THERE WAS AND IS NO DISPARITY OF BARGAINING POWER BETWEEN THE OWNER AND THE BIDDER. THIS SECTION SHALL NOT BE CONSTRUED OR INTERPRETED AS A WAIVER OF SOVEREIGN IMMUNITY.

THE BIDDER AND OWNER ARE RELYING ON THEIR OWN JUDGMENT. EACH PARTY HAD THE OPPORTUNITY TO DISCUSS THIS CONTRACT WITH COMPETENT LEGAL COUNSEL PRIOR TO ITS EXECUTION.

WAIVER

BIDDER'S WAIVER:

BY SUBMITTING A BID, THE BIDDER AGREES TO WAIVE AND DOES HEREBY VOLUNTARILY AND INTENTIONALLY WAIVE, ABANDON AND RELINQUISH ANY CLAIM THE BIDDER HAS OR MAY HAVE IN THE FUTURE AGAINST THE CITY OF MIDLAND, TEXAS, AND THE CITY'S EMPLOYEES, AGENTS AND OFFICERS, ARISING OUT OF OR IN ANY WAY CONNECTED WITH THE FOLLOWING:

1. **THE ADMINISTRATION, EVALUATION OR RECOMMENDATION OF ANY BID;**

2. **WAIVER OR DELETION OF ANY OF THE REQUIREMENTS UNDER THE BID DOCUMENTS OR THE CONTRACT DOCUMENTS;**

3. **ACCEPTANCE OR REJECTION OF ANY BIDS; OR**

4. **AWARD OF THE CONTRACT**

BY SUBMITTING A BID, THE BIDDER ACKNOWLEDGES THAT THE BIDDER UNDERSTANDS ALL OF THE TERMS OF THE BIDDING DOCUMENTS AND CONSENTS TO THE BIDDING PROCESS AND THE POSSIBILITY OF A NEGATIVE ASSESSMENT. BY SUBMITTING A BID, THE BIDDER ACKNOWLEDGES AND AGREES THAT THERE WAS AND IS NO DISPARITY OF BARGAINING POWER BETWEEN THE BIDDER AND THE CITY OF MIDLAND, TEXAS. THE BIDDER AGREES THAT THIS IS THE INTENTIONAL RELINQUISHMENT OF A PRESENTLY EXISTING KNOWN RIGHT. BY SIGNING THE REQUEST FOR BID AND/OR BELOW, YOUR COMPANY AGREES TO THE ABOVE WAIVER(S).

City of Midland

Amy Turner
City Secretary

Form Revised July 2020

INSTRUCTION AND INFORMATION FOR BIDDERS

1. LOCATION AND EXTENT OF WORK

The work and construction contemplated to be accomplished under this Contract is located in the City of Midland, Texas, and consists of municipal public works projects as set forth in the proposal.

The details for the construction and related work are shown upon a set of drawings dated on or after July 8, 2020. These drawings and plans, together with the specifications, form a part of the Contract. Where figures are shown on the drawings, they shall take precedence over scaled distances and dimensions.

2. TIME AND PLACE OF RECEIVING BIDS

All bids shall be sealed, addressed to the Mayor and City Council of the City of Midland, Texas, and will be received by the City Secretary in her office at City Hall, 300 N. Loraine Street, Midland, Texas, mailing address is P.O. Box 1152, Midland, Texas 79702, until time stated on the Advertisement for Bids.

3. PREPARATION OF BID FORM

Bids shall be submitted only on the forms provided therefore in the Contract Documents, and must not be submitted in letter form or in any other form. They shall be filled out in ink in both script and figures. The Proposal form provided in the Contract Documents sets forth in detail the various items and approximate quantities thereof contained in the Project. Bids submitted in any other form will be considered irregular and will be returned to the Bidder without receiving consideration by the Owner.

All bids must be submitted in sealed envelopes bearing on the outside the name of the Bidder, his address, and the name of the Project for which the bid is submitted. It is the sole responsibility of the Bidder to see that his bid is received in proper time. Any bid received after the scheduled closing time for receipt of bids will be returned to the Bidder unopened.

The bid must be signed in the name of the Bidder and must bear the signature in longhand of the persons duly authorized to sign the bid.

Changes in or additions to the bid form, recapitulations of the work bid upon, alternative proposals, or any other modification of the bid form which is not specifically called for in the Contract Documents may result in the Owner's rejection of the bid as not being responsive to the invitation. No oral or telephonic modification of any bid submitted will be considered and a telegraphic modification may be considered only if the postmark evidences that a confirmation of the telegram duly signed by the Bidder was placed in the mail prior to the opening of bids.

The bid submitted must not contain any erasures, interlineations or other corrections unless each such correction is suitably authenticated by affixing in the margin immediately opposite the correction the surnames of the person or persons signing the bid.

4. EXAMINATION OF SITE, DRAWINGS, ETC

Each Bidder is requested to visit the site of the proposed work and fully acquaint himself with the conditions relating to the construction and labor so that he may fully understand the facilities, difficulties and restrictions attending the execution of the work under the Contract. Bidders shall thoroughly examine and be familiar with the Plans and the Specifications. The failure or omission of any Bidder to receive or examine any form, instrument, addendum or other document or to visit the site and acquaint himself with conditions there existing shall in no way relieve any Bidder from obligations with respect to his bid or to the Contract. The submission of a bid shall be taken as prima-facie evidence of compliance with this section.

5. WITHDRAWAL OF BIDS

Any Bidder may withdraw his bid, either personally, by written request, or by telegraphic request confirmed in the manner specified above, at any time prior to the scheduled closing time for receipt of bids.

6. AGREEMENT AND BONDS

The successful Bidder will be required to furnish a Performance Bond, and a Payment Bond, in an amount equal to one hundred percent (100%) of the total Contract price, such bond to be executed in five (5) original counterparts by a Corporate Surety authorized to do business in the State of Texas, and acceptable to the City of Midland. All Bonds must be executed on forms contained in these Contract Documents. The form of Agreement which the successful Bidder, and Contractor will be required to execute is also included herewith. The form of Agreement and the form of the Bonds should be carefully examined by the Bidder.

7. INTERPRETATION OF PLANS AND DOCUMENTS

If any person contemplating submitting a bid for the proposed Contract is in doubt as to the true meaning of any part of the Plans, Specifications, or other Contract Documents or finds discrepancies in, or omissions from the Plans or Specifications, he may submit to the Owner written request for an interpretation or correction thereof. The person submitting the request will be responsible for its prompt delivery. Any interpretation or correction of the Contract Documents will be made only by Addendum duly issued and a copy of such addendum will be mailed or delivered to each person receiving a set of such Contract Documents. The Owner will not be responsible for any other explanations or interpretations of the Contract Documents. No oral interpretations of any provision in the Contract Documents will be made to any Bidder.

8. BIDDERS INTERESTED IN MORE THAN ONE BID

No person, firm or corporation shall be allowed to make, or file more than one bid for the same work unless alternate bids are specifically called for. A person, firm or corporation that has submitted a sub-proposal to a Bidder, or that has quoted prices of materials to a Bidder is not thereby disqualified from submitting a sub-proposal or quoting prices to other Bidders or making a prime proposal.

9. AWARD OF CONTRACT

The Owner reserves the right to reject any or all bids submitted and not make an award. The Owner also reserves the privilege of accepting any item as a separate contract or the combination of items of a contract. The Owner and Bidder agree that, if the Contract is awarded, that it will be awarded to either the lowest responsible bidder/proposer, or to the bidder/proposer who provides goods or services at the best value for the

City of Midland. In determining the best value for the City of Midland, the City of Midland may consider the criteria enumerated in Section 252.043 of the Texas Local Government Code. Further, the Owner reserves all rights granted by Section 271.027 of the Texas Local Government Code. The Owner reserves the right to award the bid to the lowest responsible bidder.

10. OPENING OF BIDS

Bidders are invited to be present at the opening of the Proposals. All Proposals shall be made and received with the understanding that the Bidder accepts the terms and conditions contained in the Contract Documents.

11. COMPARISON OF BIDS

All bids will be compared on the basis of the Proposal.

12. BID GUARANTY

A Certified Check, Bank Money Order, issued by a bank satisfactory to the Owner, or a Bidder's Bond on the form provided and approved by the City Attorney, in the amount of five percent (5%) of the largest possible lump sum bid submitted, payable without recourse to the Owner, must accompany the Bidder's Proposal, as a guaranty that the Bidder will enter into a Contract and execute the required Performance Bond and Guaranty in the forms provided within fifteen (15) days after notice of award of Contract to him. Bids or Proposals without the required Bid Guaranty will not be considered. All Proposals shall remain in effect for a period of thirty (30) days after date of bid opening.

13. CONTRACT DOCUMENTS

The complete Contract Documents may include the following: (1) Notice to Bidders, (2) Instructions and Information for Bidders, (3) Proposal, (4) Experience Record, (5) Bid Bond, (6) Contract Agreement, (7) Performance Bond, (8) Payment Bond, (9) Insurance Certificate, (10) General Conditions, (11) Special Conditions, (12) Detailed Specifications all of which are bound together, and/or (13) Certificate of Payment. The Contract Documents shall also include Drawings or Detailed Plans for the proposed work. A complete set of the Contract Documents and the detailed plans are on file in the Office of the City Secretary.

14. TIME ELEMENT

The work to be done under this Contract shall be commenced within fifteen (15) days from the date of the notice from the City to the Contractor to commence work. The Contractor shall commence performance of the Contract on the date stated in the City's notice to the Contractor to proceed and shall complete the performance of the Contract without delay.

15. PAYMENTS

Payments to the Contractor will be based upon the prices stated in the proposal and upon basis of the work performed as determined by the Engineer. The Engineer's determination shall be considered as final unless changes are authorized by the City in writing which shall affect the work. Upon issuance of the Certificate of Completion, the Engineer shall proceed to take final measurements and prepare a final statement of the value of all work performed and materials furnished under the terms of the agreement and shall certify same to the Owner who shall pay to the Contractor on or after the 30th day, and before the 35th day, after the date of the

Certificate of Completion, the balance due the Contractor under the terms of this agreement, provided he has fully performed his contractual obligations under the terms of this Contract, and said payment shall become due in any event upon said performance by the Contractor. Notwithstanding any provision of these Contract documents to the contrary, it is expressly understood and agreed by the parties hereto that neither the Certificate of Acceptance, nor the final or any other payment hereunder, nor any partial or total occupancy or possession of the project by the Owner, shall relieve the Contractor of his responsibility for completion of the entire project in a good workmanlike manner and in full compliance with the plans and specifications and the fulfillment of any warranties which may be required in the Contract documents.

Revised July 2020

NOTICE TO BIDDERS

IF THIS PURCHASE REQUIRES A CONTRACT, THE ATTACHED **CONTRACT AND INSURANCE REQUIREMENTS ARE NON-NEGOTIABLE**. MODIFICATIONS BY BIDDER/CONTRACTOR OF ANY MATERIAL TERM(S) TO THE CONTRACT DOCUMENTS WILL BE DEEMED A NON-RESPONSIVE BID. NON-RESPONSIVE BIDS WILL BE REJECTED. BIDDER/CONTRACTOR MUST BE WILLING TO SIGN THE CONTRACT AS IS AND WITHOUT MODIFICATIONS, PROVIDE PROPERLY EXECUTED BONDS (IF APPLICABLE) AND PROVIDE INSURANCE SPECIFICALLY AS REQUIRED WITHIN THE CONTRACT DOCUMENTS **WITHIN 21 DAYS** OF THE DATE OF THE TRANSMITTAL LETTER.

IF THE SELECTED BIDDER/CONTRACTOR CANNOT MEET THE ABOVE REQUIREMENTS, THEN **THE CITY RESERVES THE RIGHT TO AWARD THIS PURCHASE TO ANOTHER BIDDER**.

IMPORTANT NOTICE – IF THE CONTRACT DOCUMENTS REQUIRE WORKER'S COMPENSATION INSURANCE, BIDDER/CONTRACTOR MUST CARRY WORKER'S COMPENSATION INSURANCE TO BE ELIGIBLE FOR THIS CONTRACT. IF YOU CANNOT PROVIDE WORKER'S COMPENSATION INSURANCE AS REQUIRED BY STATE OF TEXAS STATUTE, WE RESPECTFULLY REQUEST THAT YOU "NO BID" THIS WORK.

COMPLIANCE: Company agrees that it shall comply with Texas Government Code Section 2252.908, *et seq.*, as amended. Company agrees that it shall comply with Texas Local Government Code Section 176.006, *et seq.*, as amended. For further instructions on how to comply with Texas Government Code Section 2252.908 and Texas Local Government Code Section 176.006,

please go to https://www.ethics.state.tx.us/whatsnew/elf_info_form1295.htm and https://www.ethics.state.tx.us/filinginfo/conflict_forms.htm.

ANY VENDOR WHO FAILS TO COMPLY WITH THE TERMS OF THE AWARD **MAY BE DECLARED AN IRRESPONSIBLE VENDOR**. BIDS SUBMITTED BY SAID VENDOR SHALL NOT BE CONSIDERED AGAIN FOR A MINIMUM PERIOD OF SIX MONTHS AS DETERMINED BY THE CITY MANAGER.

IMPORTANT NOTICE

Conflict Of Interest Reporting Requirements

Compliance with LOCAL GOVERNMENT CODE TITLE 5. MATTERS AFFECTING PUBLIC OFFICERS AND EMPLOYEES SUBTITLE C. MATTERS AFFECTING PUBLIC OFFICERS AND EMPLOYEES OF MORE THAN ONE TYPE OF LOCAL GOVERNMENT CHAPTER 176. DISCLOSURE OF CERTAIN RELATIONSHIPS WITH LOCAL GOVERNMENT OFFICERS; PROVIDING PUBLIC ACCESS TO CERTAIN INFORMATION.

Form CIQ: This questionnaire reflects changes made to the law by H.B. 23, 84th Leg., Regular Session. This questionnaire shall be filed in accordance with Chapter 176, Local Government Code, by a vendor who has a business relationship as defined by Section 176.001(1-a) with a local governmental entity and the vendor meets requirements under Section 176.006(a). By law this questionnaire must be filed with the records administrator of the local governmental entity not later than the 7th business day after the date the vendor becomes aware of facts that require the statement to be filed. See Section 176.006(a-1), Local Government Code. A vendor commits an offense if the vendor knowingly violates Section 176.006, Local Government Code. An offense under this section is a misdemeanor.

Bidders are responsible for filing Conflict of Interest form "CIQ" in accordance with the above referenced statute. Failure to do so is a class C Misdemeanor. Contracts or Purchase Orders awarded to a vendor that has violated this law is subject to termination at such time that the violation is discovered with no recourse to the City of Midland. The bidder will be subsequently removed from the bidders list for a minimum of one year.

When there is no known conflict of interest as defined by the statute, it is not necessary to file/submit the Form CIQ. The form must be submitted if a conflict is subsequently discovered.

By submitting a response to this request, vendor represents that it complies with the requirements of Chapter 176 of the Texas Local Government Code.

For a current list of the local government officers go to: http://www.midlandtexas.gov/

Upon completion of the form, sign and submit with bid or mail to:

City of Midland
Attn: City Secretary
PO Box 1152
Midland, Texas 79702

CONFLICT OF INTEREST QUESTIONNAIRE

FORM CIQ

For vendor doing business with local governmental entity

This questionnaire reflects changes made to the law by H.B. 23, 84th Leg., Regular Session.

This questionnaire is being filed in accordance with Chapter 176, Local Government Code, by a vendor who has a business relationship as defined by Section 176.001(1-a) with a local governmental entity and the vendor meets requirements under Section 176.006(a).

By law this questionnaire must be filed with the records administrator of the local governmental entity not later than the 7th business day after the date the vendor becomes aware of facts that require the statement to be filed. *See* Section 176.006(a-1), Local Government Code.

A vendor commits an offense if the vendor knowingly violates Section 176.006, Local Government Code. An offense under this section is a misdemeanor.

OFFICE USE ONLY

Date Received

1 **Name of vendor who has a business relationship with local governmental entity.**

2 ☐ **Check this box if you are filing an update to a previously filed questionnaire.** (The law requires that you file an updated completed questionnaire with the appropriate filing authority not later than the 7th business day after the date on which you became aware that the originally filed questionnaire was incomplete or inaccurate.)

3 **Name of local government officer about whom the information is being disclosed.**

_____

Name of Officer

4 **Describe each employment or other business relationship with the local government officer, or a family member of the officer, as described by Section 176.003(a)(2)(A). Also describe any family relationship with the local government officer. Complete subparts A and B for each employment or business relationship described. Attach additional pages to this Form CIQ as necessary.**

A. Is the local government officer or a family member of the officer receiving or likely to receive taxable income, other than investment income, from the vendor?

☐ Yes ☐ No

B. Is the vendor receiving or likely to receive taxable income, other than investment income, from or at the direction of the local government officer or a family member of the officer AND the taxable income is not received from the local governmental entity?

☐ Yes ☐ No

5 **Describe each employment or business relationship that the vendor named in Section 1 maintains with a corporation or other business entity with respect to which the local government officer serves as an officer or director, or holds an ownership interest of one percent or more.**

6 ☐ Check this box if the vendor has given the local government officer or a family member of the officer one or more gifts as described in Section 176.003(a)(2)(B), excluding gifts described in Section 176.003(a-1).

7

_____ _____

Signature of vendor doing business with the governmental entity Date

CONFLICT OF INTEREST QUESTIONNAIRE
For vendor doing business with local governmental entity

A complete copy of Chapter 176 of the Local Government Code may be found at http://www.statutes.legis.state.tx.us/Docs/LG/htm/LG.176.htm. For easy reference, below are some of the sections cited on this form.

Local Government Code § 176.001(1-a): "Business relationship" means a connection between two or more parties based on commercial activity of one of the parties. The term does not include a connection based on:

(A) a transaction that is subject to rate or fee regulation by a federal, state, or local governmental entity or an agency of a federal, state, or local governmental entity;

(B) a transaction conducted at a price and subject to terms available to the public; or

(C) a purchase or lease of goods or services from a person that is chartered by a state or federal agency and that is subject to regular examination by, and reporting to, that agency.

Local Government Code § 176.003(a)(2)(A) and (B):

(a) A local government officer shall file a conflicts disclosure statement with respect to a vendor if:

***

(2) the vendor:

(A) has an employment or other business relationship with the local government officer or a family member of the officer that results in the officer or family member receiving taxable income, other than investment income, that exceeds $2,500 during the 12-month period preceding the date that the officer becomes aware that

(i) a contract between the local governmental entity and vendor has been executed; or

(ii) the local governmental entity is considering entering into a contract with the vendor;

(B) has given to the local government officer or a family member of the officer one or more gifts that have an aggregate value of more than $100 in the 12-month period preceding the date the officer becomes aware that:

(i) a contract between the local governmental entity and vendor has been executed; or

(ii) the local governmental entity is considering entering into a contract with the vendor.

Local Government Code § 176.006(a) and (a-1)

(a) A vendor shall file a completed conflict of interest questionnaire if the vendor has a business relationship with a local governmental entity and:

(1) has an employment or other business relationship with a local government officer of that local governmental entity, or a family member of the officer, described by Section 176.003(a)(2)(A);

(2) has given a local government officer of that local governmental entity, or a family member of the officer, one or more gifts with the aggregate value specified by Section 176.003(a)(2)(B), excluding any gift described by Section 176.003(a-1); or

(3) has a family relationship with a local government officer of that local governmental entity.

(a-1) The completed conflict of interest questionnaire must be filed with the appropriate records administrator not later than the seventh business day after the later of:

(1) the date that the vendor:

(A) begins discussions or negotiations to enter into a contract with the local governmental entity; or

(B) submits to the local governmental entity an application, response to a request for proposals or bids, correspondence, or another writing related to a potential contract with the local governmental entity; or

(2) the date the vendor becomes aware:

(A) of an employment or other business relationship with a local government officer, or a family member of the officer, described by Subsection (a);

(B) that the vendor has given one or more gifts described by Subsection (a); or

(C) of a family relationship with a local government officer.

Form provided by Texas Ethics Commission www.ethics.state.tx.us Revised 11/30/2015

Consideration of Location of Bidder's Principal Place of Business
For Bids of $50,000 up to $100,000 for Services and $500,000 for Commodities
Affidavit of Eligibility

Pursuant to Texas Local Government Code 271.9051, in purchasing real property, personal property that is not affixed to real property, or services, if the City receives one or more bids from a bidder whose principal place of business is in the City of Midland and whose bid is within five percent (5%) of the lowest bid price received by the City from a bidder who is not a resident of the City of Midland, the City may enter into a contract with:

(1) the lowest bidder; or

(2) the bidder whose principal place of business is in the City of Midland if the City Council determines, in writing, that the local bidder offers the City the best combination of contract price and additional economic development opportunities for the City of Midland created by the contract award, including the employment of residents of the City of Midland and increased tax revenues to the City of Midland.

In order to receive consideration, bidders must submit this affidavit to:

Erika Martinez
Purchasing Manager
City of Midland
300 N. Loraine St.,
PO BOX 1152
Midland, TX 79702-1152

Complete all areas below. Incomplete affidavits may be rejected.

Local Business Name: _____

Local Address (must be within the City limits): _____

1. Is the above address the principal place of business for the business named above? ☐ Yes ☐ No
2. How many residents of the City of Midland are employed at the above business location? _____
3. Year your business was established in the City of Midland: _____
4. If you collect sales tax for ANY class of customer, provide the following Reseller information:

   Reseller Permit Number: _____

   Company Name and Address (as it appears on permit):

   _____

   _____

   _____

5. Does your business have more than one office in the State of Texas? ☐ Yes ☐ No
   If Yes, identify the office location considered as the point-of sale for the purpose of sales tax calculation:

   _____

   _____

6. Was the local business required to pay business and/or real property tax for the most recent tax year?

   ☐ Yes ☐ No

   If Yes, did the local business pay any of this tax to the City of Midland? ☐ Yes ☐ No

Under penalty of perjury, the undersigned states that the foregoing statements are true and correct. It is further acknowledged that any person, firm, corporation or entity intentionally submitting false information to the City in an attempt to qualify for eligibility shall be prohibited from bidding on City of Midland products and services for a period of one (1) year.

Authorized Signature: _____ Date: _____

Printed Name and Title: _____

TECHNICAL SPECIFICATIONS

FOR: Water, Wastewater, & Fire Hydrants Taps Expanded Program 05

All construction for this project shall conform to the City of Midland "STANDARD SPECIFICATIONS" issued by the Engineering Services Department which are herein made a part of these specifications by reference.

The bidder/contractor shall pay particular attention to the following items in the "STANDARD SPECIFICATIONS" for this project.

1) Preparation of Right of Way
2) Excavation, Embankment and Preparation of Subgrade
3) Concrete Curb and Gutter, Sidewalks, Driveways, Valley Gutters, Center Drains and Rip Rap
4) Concrete Structures
5) Flexible Base, Caliche
6) Bituminous Prime
7) Bituminous Tack
8) Hot Mix Asphaltic Concrete
9) PVC Pipe Casings
10) Water Line Specifications
11) Gravity Flow Sewers for Waste Water and Storm Water

The "STANDARD SPECIFICATIONS" are available from the Department of Engineering Services, City Hall, 300 North Loraine Street, Suite 510, Midland, Texas.

GENERAL CONDITIONS AND PROVISIONS

1. DEFINITIONS

The following terms as used in this contract shall be defined and interpreted as follows:

(a) “Contract” or “This Contract” or “Agreement”: The particular Contract executed by the Contractor and the Owner of which these general conditions are integral parts.

(b) “Contractor”: The person, firm or corporation to whom this Contract is awarded by the Owner and who is a party thereto.

(c) “Owner”, “City”, or pronouns instead: The entity that is a party to this Contract, contracting under the official name of the City of Midland, Texas or the City Council of the City of Midland.

(d) The words "as directed", "as required", "as permitted", "acceptable to", "satisfactory", and the words of like import, shall mean that the direction, requirement or permission of the Engineer is intended.

(e) “Engineer”: The word “Engineer” used in these specifications or in this Contract means the duly authorized representative or agent of the Owner supervising the performance of the Contract and representing the Owner in his Contractual relations and negotiations with the Contractor during the period of construction. The Engineer will be represented by assistants and inspectors authorized to act for him. On all questions concerning the acceptability of material or equipment, the classifications of material, the execution of the work, conflicting interest of Contractors performing related work and the determination of costs, the decision of the Engineer shall be final, but shall not relieve the Contractor of his responsibility for completion of the entire work in a good and workmanlike manner and in full compliance with the plans and specifications.

Inspectors are required to see that all the provisions of the Contract specifications are faithfully adhered to. Any inspector may, if authorized by the Engineer, stop the work entirely if there is not sufficient quantity of suitable and approved material on the ground to carry it on properly, or for any other good and sufficient cause. Any work done in the absence of an inspector may be ordered opened up for thorough examination, and must be rebuilt or replaced at the Contractors sole expense if found to be deficient or not in accordance with the plans and specifications. But no approval by an inspector shall be construed as an acceptance of defective or improper work or material, which must be rebuilt or properly replaced whenever discovered. Inspectors have not the power to give orders or directions under any possible circumstances, except as herein defined and provided, and on authority of the Engineer

(f) "Subcontractor": Any person, firm or corporation other than an employee of the contractor, supplying, for and under agreement either with the Contractor or any subcontractor of the Contractor, labor or material, or both, at the site of the project in connection with this Contract.

(g) "Project": The structure or improvement to be constructed in whole or in part through the performance of this Contract.

(h) "Work on the Project": Such work as is performed or ordinarily would be performed at the site of the project.

(i) "Surety": Any firm or corporation executing a Surety Bond or Bonds payable to the Owner securing the performance of the Contract either in whole or in part.

(j) Whenever certain articles are specifically mentioned, by brand name or name of the manufacturer, such materials shall be taken as standard and guide for quality, operation, capacity, etc. The term "or equal" shall mean that articles of equal characteristics as required, but of different brand or manufacturer, may be substituted and accepted, subject in all instances to the approval of the Engineer.

(k) "Special Provisions", "Special Conditions", "Project Specific Specification" or "Job Specific Specifications" are included as amendment of and/or additions to the General Conditions and/or Standard Specifications for the particular project in which they are included and will take precedence over the General Conditions and Standard Specifications only in so far as the amendments and/or additions. All other provisions in the General Conditions and/or Standard Specifications will not be affected.

(l) "Drawings" "Contract Drawings", "Plans" "Detail Drawings" "Detail Sheets" or "Plans and Details" refers to the set of drawings which show the details for the construction and related work anticipated on this project and upon which bids are being solicited.

2. CONFLICT OF PROVISIONS

Unless it is specifically provided otherwise, any provision in any other part of this Contract which may be in conflict or inconsistent with any provision in the General Conditions and Provisions shall be void to the extent only of such conflict or inconsistency.

3. DUTIES AND RESPONSIBILITIES OF THE CONTRACTOR

The Contractor shall have charge of and shall be responsible for the entire work under this Contract until its completion and acceptance by the city. A competent superintendent, foreman or other representative, invested with sufficient authority to conduct the work properly, shall be maintained on the work at all times.

It is expressly agreed and understood that no decision of the Engineer or any certificate issued nor payment made to the Contractor nor partial or entire use or occupancy of the work by the Owner, shall be an acceptance of any work or materials not in accordance with this Contract, nor constitute a waiver of the Contractor's responsibility to perform the entire work in a good and workmanlike manner and in accordance with the plans and specifications.

4. TIME ELEMENT

The work shall be commenced and finished within the time set out in the Form of Contract.

The time of completion of this Contract is an essential element and consideration. Since, therefore, time is of the essence thereof, and in the event of delay in the completion of the entire work required hereunder beyond the period prescribed, or beyond the period for which time may be extended by authority of the Owner for good cause shown, the Owner shall be paid damages for such delay. Inasmuch as the amount of such damages is difficult to ascertain, it is hereby stipulated and agreed that such damages shall be liquidated and the Owner shall be paid damages at the rate as set forth in the Special Provisions, said damages to be paid to the Owner for each and every day that the Contractor be in default in completing the entire work required under this Contract. The Owner shall have the right to deduct such amounts from any monies due, or which may become due, under

this Contract. In the event that no amount for such damages is shown in the Special Provisions of these specifications, it is agreed that the amount of damages shall be Five Hundred dollars ($500.00) per day.

If during the progress of the work weather conditions, or other circumstances beyond the control of the Contractor should prevail to the extent that the work cannot be prosecuted and completed within the time specified in the Contract, the Contractor shall file with the Engineer within one week of the occurrence of such delay a request for a credit on the time of completion. Unless the Contractor files such request, the liquidated damages specified above will be enforced.

5. PAYMENT TO CONTRACTOR

ESTIMATED QUANTITIES:

This Contract, including the specifications, plans and estimate, is intended to show clearly all work to be done and material to be furnished hereunder. Where the estimated quantities are shown for the various classes of work to be done and material to be furnished under this Contract, they are approximate and are to be used only as a basis for estimating the probable cost of the work and for comparing the proposals offered for the work. It is understood and agreed that the actual amount of work to be done and material to be furnished under this Contract may differ somewhat from these estimates, and that where the basis for payment under this Contract is the unit price method, payment shall be for the actual amount of such work done and the material furnished.

Where payment is based on the unit price method, the Contractor agrees that he will make no claim for damages, anticipated profits or otherwise on account of any differences which may be found between the quantities of work actually done, the material actually furnished under this Contract and the estimated quantities contemplated and contained in the proposal provided, however, that in case the actual quantity of any major item should become as much as twenty percent (20%) more than, or twenty percent (20%) less than the estimated or contemplated quantity for such items, then either party of this agreement, upon demand, shall be entitled to a revised consideration upon the portion of the work above or below twenty percent (20%) of the estimated quantity.

A "Major Item" shall be construed to be any individual item incurred in the proposal that has a total cost equal to or greater than five percent (5%) of the total Contract cost, computed on the basis of the proposal quantities and the Contract unit price.

Any revised consideration is to be determined by agreement between the parties, otherwise by the terms of this Contract, as provided under "Extra Work".

PAYMENT; RETAINAGE:

On or before the 1st day of each month the Contractor shall prepare an itemized statement showing the total value of the work completed by the Contractor up to and including the 25th day of the preceding month; said statement shall also include the value of all sound materials delivered on the site of the work that are to be fabricated into the work. NO ESTIMATE WILL BE MADE ON UNCOMPLETED PORTIONS OF THE WORK.

After all work is completed by Contractor, including all Change Orders altering the original scope and amount of the contract are completed, and the City has inspected and approved that the work is completed and in compliance with the contract and all subsequent Change Orders, the City may thereafter issue payment to Contractor in the amount of the contract and all Change Orders. The City shall be the final judge of when the

work is completed by Contractor. The City, in its sole discretion, shall determine if the work under the contract and under any Change Orders has been done to the City's requirements.

The City may make periodic payments to Contractor; provided, however, such periodic payments may only be made pursuant to this section, and only after all work and all Change Orders are completed by Contractor and approved by the City. The approval shall be in the City's sole discretion. Requests for progress payments may be made to the extent of the materials and labor completed at the end of each month. Upon approval by the City or the City's representative, the request and invoice shall be forwarded for payment less 5% retainage. The total of these payments shall not exceed 95% of the total contract amount.

FINAL COMPLETION AND ACCEPTANCE:

Within ten (10) days after the Contractor has given the Engineer written notice that the work has been completed, or substantially completed, the Engineer and the Owner shall inspect the work and within said time, if the work be found to be completed or substantially completed in accordance with the Contract documents, the Engineer shall issue to the Owner and the Contractor his Certificate of Completion.

FINAL PAYMENT:

Upon the issuance of the Certificate of Completion, the Engineer shall proceed to make final measurements and prepare final statement of the value of all work performed and materials furnished under the terms of the Contract and shall certify same to the Owner, who shall pay to the Contractor the balance due the Contractor under the terms of this Contract, provided he has fully performed his obligations under the terms of this Contract. Notwithstanding any provision of these Contract Documents to the contrary, it is expressly understood and agreed by the parties hereto that neither the certificate of acceptance, nor the final or any other payment hereunder, nor any partial or total occupancy or possession of the project by the Owner, shall relieve the Contractor of his responsibility for completion of the entire project in a good and workmanlike manner and a full compliance with the plans and specifications and the fulfillment of any warranties which may be required in the Contract Documents.

6. OWNER'S RIGHT TO WITHHOLD CERTAIN AMOUNTS AND MAKE APPLICATION THEREOF

In addition to the amount which the Owner may otherwise retain under the Contract, the Owner may withhold a sufficient amount or amounts of any payment or payment otherwise due to the Contractor, as in this judgment may be necessary to cover:

(a) Payments which may be past due and payable for just claims against the Contractor or any subcontractor for labor or materials furnished for the performance of this Contract.

(b) For defective work not remedied.

(c) For failure of the Contractor to make proper payments to his subcontractors.

7. CERTIFICATE OF PAYMENT

Contractor shall, prior to issuance of final payment pursuant to the terms herein stated, provide proof satisfactory to the owner that all debts, bills and expenses incurred by the Contractor, his agents, employees or subcontractors employed by him, for labor, wages, materials and other purposes, in the furtherance of this

project, have been paid and satisfied in full. Satisfactory proof shall consist of an executed Certificate of Payment.

8. EXTRA, ADDITIONAL OR OMITTED WORK PAYMENT

The Owner, upon proper action by its governing body, may require changes in this Contract, or additions to, or deductions from the work to be performed or the materials to be furnished pursuant to this Contract. No employee, agent or representative of the Owner, with the exception of the governing body authorized to award this Contract, has any power to approve any change in this Contract and it is the responsibility of the Contractor before proceeding with any change to satisfy himself that the change has been properly authorized on behalf of the Owner. No charge for any extra work or other change in the Contract will be allowed unless the extra work or change has been authorized in writing by the Owner, or its duly authorized representative, and the price therefore is stated in such written authority.

Adjustments, if any, in the amounts to be paid the Contractor where such adjustments are made by reason of additions to or deductions from the quantities of units or items bid upon in the proposal schedules, shall be paid for in accordance with the provisions of the Specifications, at the unit and/or lump sum prices bid in such proposal schedules.

Adjustments, if any, in the amounts to be paid the Contractor where such adjustments are made by reason of additions of items not appearing in the proposal schedules, or addition of work of such a nature that unit and/or lumps sum prices contained in the proposal schedules cannot reasonably or equitably be applied to provide proper payment therefore, the payment to the Contractor for such work shall be determined by one or more of the following methods:

(a) By an acceptable lump sum proposal from the Contractor.

(b) By unit prices contained in the Contractor's proposal and incorporated in the Contract or fixed by subsequent agreement between the Owner and the Contractor.

(c) By a cost method pursuant to which the Contractor shall be paid the costs of the change or addition. He shall be required to keep and present in such form as the Owner may direct, a correct account of the cost of the change or addition, together with all vouchers therefore. The cost may include an allowance for overhead and profit not to exceed fifteen percent (15%) of the net cost.

In computing the cost, there shall be considered reasonable and proper net expenditures for labor, materials, power tools and equipment, pro rata charges for foremen, deductions for social security, old age and unemployment benefits and workmen's compensation insurance and surety bond premium. In computing cost of machinery and equipment involved in additional work, the amount to be paid shall be not more than one hundred percent (100%) of the latest schedule of "Equipment Ownership Expense" adopted by Associated General Contractors of America. No overhead and profit shall be allowed on the deductions for Social Security, old age and unemployment benefits. All other expenditures shall be treated as overhead costs.

No extra work shall be performed or change made unless in pursuance of a written order from the Owner stating that the extra work or change is authorized and no claim for an addition to the Contract sum shall be valid unless so ordered; provided, however, that nothing in this Article shall excuse the Contractor from proceeding with the prosecution of the work so changed.

The Contractor shall, when required by the Owner, furnish an itemized breakdown of the quantities and prices used in computing the value of any change, addition or deduction that might be ordered.

If the Contractor should claim that any instruction, request, drawing, specification, action, condition, omission, default, or other situation obligated or may obligate the Owner to pay additional compensation to the Contract, or constitutes a waiver of any provision in the Contract, he shall notify the Owner in writing of such claim within ten (10) days from the date he has actual or constructive notice of the factual basis supporting the claim. The Contractor's failure to notify the Owner within such ten (10) days period shall be deemed a waiver and relinquishment of any such claim against the Owner. The procedure for consideration of such claims shall be as stated in this Article.

9. ASSIGNMENT OF CONTRACT

The Contractor shall not assign this Contract or any part thereof, nor any monies due or to become due thereunder without the prior written consent of the Owner. No assignment of this Contract shall be valid unless it shall contain a provision that the funds to be paid to the assignee under the assignment are subject to a prior lien for services rendered or material supplied for performance of the work called for under this Contract in favor of all persons, firms, or corporations rendering such services or supplying such materials.

10. SUBCONTRACTORS

Specialty subcontractors may be utilized for the performance of such parts of the work under this Contract as, under normal practices, are performed by Specialty subcontractors, unless the Owner determines that the Contractor has heretofore customarily performed such specialty work with his own organization and is equipped to do so, or unless the Owner determines that performance of the specialty work by Specialty subcontractors will result in increased costs or inordinate delays.

The Contractor shall not subcontract any work to be performed or any materials to be furnished in the performance of this Contract without the prior written consent of the Owner. If the Contractor shall subcontract any part of this Contract, the Contractor shall be as fully responsible to the Owner for the acts and omissions of his subcontractor and of the persons either directly or indirectly employed by the subcontractor as he is for the acts and omissions of persons directly employed by himself. Nothing contained in this Contract shall create any Contractual relations between any subcontractor and the Owner. The Contractor shall ensure that the sub contractor has the insurance coverage required by this contract.

The Owner's consent to or approval of any subcontract under this Contract shall not in any way relieve the Contractor of his obligations under this Contract and no such consent or approval shall be deemed to waive any provisions of this Contract.

11. SUSPENSION OF WORK

Pending settlement of disputes on any point of controversy, the Engineer may suspend action on all or any part of the work. The Contractor shall not be entitled to any claim for loss or damage by reason of such, nor shall he be entitled to extension of time, although such extension of time may be granted by the Engineer if he deems it in the interest of the work.

12. RIGHT OF OWNER TO TERMINATE CONTRACT

If, in the opinion of the Engineer, the Contractor shall be improperly performing the work under this Contract, or shall neglect or refuse to take out or rebuild such work as shall have been rejected by the Engineer as being defective or unsuitable, or if, any time, the Engineer shall be of the opinion that the work is unnecessarily delayed and will not be finished within the prescribed time, or if the Contractor shall abandon the work, or shall neglect or refuse to comply with the instructions of the Engineer relative thereto, or shall fail in any manner to comply with the Specifications or Stipulations herein contained, the Engineer shall notify the Contractor to that effect in writing, and if the Contractor shall not within five (5) days thereafter take such measures as will, in the judgment of the Engineer, insure the satisfactory performance or construction of the work, the City may annul and cancel the Contract, in which event it shall notify the Contractor to discontinue all work under this Contract, and the Contractor shall immediately respect such notice and stop work and cease to have any rights to the possession of the ground and shall forfeit his Contract. Such annulment shall not entitle the Contractor to any claim for damages on account thereof, nor shall it affect the right of the City of Midland to recover damages on account of such failure. The City Council may thereupon advertise and re-let a new Contract for the uncompleted work without further ordinance, in the same manner as was followed in the letting of this Contract, and any excess of cost arising there from over and above what would have resulted from the prices set forth in this Contract will be charged against the Contractor and his surety or sureties hereto, who shall be liable therefore.

13. RIGHT OF CONTRACTOR TO TERMINATE CONTRACT

If the work should be stopped under an order of any court or other public authority for a period of three (3) months, through no act or fault of the Contractor or of anyone employed by him, or if the City should fail to make payment to the Contractor within thirty (30) days after such payment is due, as set out in the Contract, then the Contractor may, upon seven (7) days written notice to the City and the Engineer, stop work or terminate his Contract and recover from the City payment for all work executed and for any loss sustained upon any plant or materials and reasonable profit and damages.

14. INCIDENTAL WORK

Any and all minor details of the work not specifically mentioned in the Specifications but obviously necessary for the proper completion of the work, such as the proper connection of new work to old, shall be considered as incidental to and a part of and included with the work for which the prices are named in the Contract Documents. The Contractor will not be entitled to any extra or additional compensation therefore, unless specifically stated otherwise.

15. PERMITS – COMPLIANCE WITH LAW

The Contractor shall, at his expense, obtain all permits and licenses necessary for the performance of this Contract, and give all necessary notices, pay all fees required by law, and comply with all laws, ordinances, rules and regulations governing the Contractor's performance of the Contract.

Portions of this contract qualify for exemption pursuant to the provisions of the Texas Limited Sales, Excise and Use Tax Act. The Contractor shall obtain a sales tax exemption certificate from the City. All labor performed on the project and all materials incorporated into the project qualify for such tax exemption. However, equipment and parts for equipment purchased to be used on the project, but are not incorporated into the project; do not qualify for said tax exemption. Contractor shall issue a resale certificate in lieu of paying such sales tax for all

materials incorporated into the project. Further Contractor shall separate the charges for materials incorporated into the project from the charges for labor.

16. INSPECTION BY OWNER

The Owner and its representatives shall at all times have access to all parts of the work and to the shops wherein the work is in preparation for the purpose of inspection, and the Contractor shall at all times maintain proper facilities and provide safe access for such inspection.

The Owner shall have the right to reject materials and workmanship which are defective, or to require their correction. Rejected workmanship shall be satisfactorily corrected and rejected materials shall be removed from the premises without charge to the Owner. If the Contractor does not correct such rejected work within a reasonable time, fixed by written notice, the Owner may correct same and charge the expense to the Contractor. No inspector shall have the power to waive the obligation resting upon the Contractor to furnish good material or do work as herein prescribed, and any failure or omission of any inspector or the Engineer to condemn any defective material or work shall not release the Contractor from the obligation to at once tear out, remove and properly rebuild the same at any time upon discovery of the defect and upon receipt of notice of the Engineer to do so.

Should it be considered necessary or advisable by the Owner at any time before final acceptance of the entire work to make an examination of work already completed by removing or tearing out any portion thereof, the Contractor shall on request promptly furnish all necessary facilities, labor and materials. If such work is found to be defective in any respect due to the fault of the Contractor or his subcontractor, he shall defray all the expenses of such examinations and of satisfactory reconstruction. If, however, such work is found to meet the requirements of the Contract, the additional cost of labor and materials necessarily involved in such examination and replacement, plus fifteen percent (15%) for overhead and profit, shall be allowed the Contractor.

Where the Specifications require work to be specifically tested or approved, it shall not be tested or covered up without timely notice to the Owner of its readiness for inspection and without the approval or consent thereto by the Owner. Should any such work be covered up without such notice, approval or consent, it must, if required by the Owner, be uncovered for examination at the Contractor's expense.

17. PATENTS

The Contractor shall hold and save the Owner and its officers, agents, servants, and employees harmless from liability of any nature or kind, including all costs and legal expenses, for or on account of, any patented or unpatented invention, process, article or appliance, manufactured for or used in the performance of the Contract, including its use by the Owner, unless otherwise specifically stipulated in the Contract.

18. MUTUAL RESPONSIBILITY OF CONTRACTORS

If, through acts of neglect on the part of the Contractor, any other Contractor or any subcontractor shall suffer loss or damage on the work, the Contractor agrees to settle with such other Contractor or subcontractor by agreement or arbitration, if such other Contractor or subcontractor will so settle. If such other Contractor or subcontractor shall assert any claim against the Owner on account of any damage alleged to have been so sustained, the Owner shall notify the Contractor, who shall indemnify and save harmless the Owner against any such claim.

The Contractor must ascertain to his own satisfaction the scope of the project and the nature of any other Contracts that have been or may be awarded by the Owner in the prosecution of the project to the end that the Contractor may perform this Contract in the light of such other Contract, if any.

Nothing herein contained shall be interpreted as granting the Contractor exclusive occupancy of the site of the project. The Contractor shall not cause any unnecessary hindrance or delay to any other Contractor working on the project. If the performance of any Contract for the project is likely to be interfered with by the simultaneous execution of some other Contract or Contracts, the Owner shall decide which Contractor shall cease work temporarily and which shall continue, or whether the work under the Contracts can be coordinated so that the Contractors may proceed simultaneously. The Owner shall not be responsible for any damages suffered or extra costs incurred by the Contractor, resulting directly or indirectly from the award or performance or attempted performance of any other Contract or Contracts on the project, or caused by any decision or omission of the Owner respective to the order of precedence in the performance of Contracts.

19. NOTICE AND SERVICE THEREOF

Any notice from one party to another under the Contract shall be in writing and shall be dated and signed by the party giving such notice or by duly authorized representative of such party. Any such notice shall not be effective for any purpose whatsoever unless served in the following manner; namely, if the notice is given to the Owner, (a) by personal delivery thereof to the individual duly authorized to direct and supervise the project of the Owner, or (b) by depositing the same in the United States Mail, enclosed in a sealed envelope, addressed to the City of Midland, 300 North Loraine Street, Midland, Texas, 79701, postage prepaid and certified; or if the notice is given to the contractor (a) by personal delivery thereof to the project superintendent or other person authorized to act for the contractor, or (b) by depositing the same in the United States Mail, enclosed in a sealed envelope, addressed to the Contractor at his regular place of business or at such other address as may have been established for the conduct of the work under this Contract, postage prepaid and certified; or (c) if the notice is given to the Surety or any other person by personal delivery to such Surety or other person, or by depositing the same in the United States Mail, enclosed in a sealed envelope addressed to such Surety or other person, at the address of such surety or other person last communicated by him to the party giving the notice, postage prepaid and certified.

20. QUALITY OF MATERIALS AND WORKMANSHIP

It is the intention of this Contract to have only first class materials and the best workmanship throughout, and the methods and appliances adopted by the Contractor must be such as will secure a satisfactory quality of work and will enable him to complete the work in the time agreed upon. If at any time such methods and appliances appear inadequate, the Engineer may order the Contractor to improve their character or increase their efficiency, and the Contractor must conform to such order; but the failure of the Engineer to order such improvement of methods or increase of efficiency will not relieve the Contractor from his obligations to perform good work or finish it in the time agreed upon. The Contractor shall submit samples or specimens of any and all materials proposed to be used in the work when required to do so by the Engineer. All materials must be of specified quality and fully equal to approved samples. All work must be done and completed in a thorough and workmanlike manner. All materials furnished and all work done must be satisfactory to the Engineer and will be subject to rigid inspection, and if not in accordance with the Specifications in the opinion of the Engineer, shall be made to conform thereto.

It is understood that except as otherwise specifically stated in the Contract, the Contractor shall provide and pay for all materials, labor, tools, equipment, water, light, power, transportation, superintendence of temporary

construction of every nature, and all other services and facilities required for the completion of the Contract within the specified time.

21. SPECIAL METHODS

The Engineer may consent to special methods for carrying out the work in difficult cases, but the Contractor will not be relieved of responsibility for the result. The Contractor shall be responsible for the result of all work performed by him whether directed by the Engineer or not.

22. REMOVAL OR REPLACEMENT OF WORK DONE WITHOUT LINES OR GRADES

Any work done without lines or grades given by the Engineer or under his direction or without the supervision of an inspector, may be ordered removed and replaced by the Engineer at the Contractor's expense.

23. COVERING WORK

No work shall be covered until it has been examined and approved by the Engineer.

24. UNFAVORABLE WEATHER

During unfavorable weather and other adverse conditions, only such portions of the work may be done which will not be damaged thereby, unless by special means or precautions approved by the Engineer.

25. ALL WORK SUBJECT TO FINAL INSPECTION

Failure to neglect on the part of the Engineer or his inspectors to condemn or reject bad or inferior work or materials shall not be construed to imply his acceptance of such work or materials if it becomes evident at any time prior to the final acceptance of the work and the release of the Contractor.

26. PUBLIC CONVENIENCE

When materials for construction are brought on the work site they shall be neatly piled so as to cause as little obstruction to travel as possible, and so that they may be conveniently inspected.

No material or other obstruction shall be placed within five (5) feet of fire hydrants, which must at all times be readily accessible to the fire department, nor shall any material be piled within two (2) feet of any trees.

The Contractor shall be responsible for all damages to persons or property that occur as a result of his fault or negligence in connection with the prosecution of the Contract and shall be responsible for the proper care and protection of all materials delivered and work performed until completion, and final acceptance by the Owner.

The Contractor shall provide such heat, covering and enclosures as are necessary to protect all work and materials against damage by weather conditions.

The Contractor shall take adequate precautions to protect existing sidewalks, curbs, pavement, utilities, adjoining property, and structures, and avoid damage thereto, and he shall at his own expense completely repair any damage thereto caused by his operations.

If required by the Engineer, the Contractor shall shore up, brace, underpin, and protect as may be necessary, all foundations, and other parts of all existing structures adjacent and adjoining the site of the Project, which are in any way affected by the excavations or other operations connected with the completion of the work under this Contract. Whenever any notice is required to be given by the Owner or the Contractor to any adjoining or adjacent landowner or other party before commencement of any work under this Contract, such notice shall be given by the Contractor. The Contractor shall indemnify the Owner and save it harmless from any damages on account of settlement or the loss of lateral support of adjoining property and from all loss or expense and all damages for which the Owner may become liable in consequence of such injury or damage to adjoining and adjacent structures and their premises.

During the progress of the work the convenience of the public and of the residents along streets must be provided as far as practicable. Convenient access to driveways, houses and buildings along streets must be maintained whenever possible.

Temporary approaches and crossings of streets and sidewalks must be provided and kept in good condition whenever practicable.

The Contractor shall provide and maintain such fences, barriers, "Street Closed" signs, red lights and watchmen as may be necessary to prevent avoidable accidents to residents and to the public.

The Contractor alone shall be held responsible for all injuries to persons, and for all damages to property of the City or others, caused by or resulting from the negligence of himself, his employees or agents during the progress of or connected with the prosecution of the work, whether within the limits of the work or elsewhere. He must restore all injured public or private property to a condition as good as it was when he entered upon the work, purchasing new materials to replace all that which is injured or destroyed during the course of the work.

In an emergency affecting the safety of life or property, including adjoining property, the Contractor, without special instructions or authorization from the Owner is authorized to act at his discretion to prevent such threatened loss or injury and he shall so act.

27. TRAFFIC CONTROL

It is the policy of the City of Midland to keep at least two travel lanes open to traffic at all times and where possible to have three travel lanes between 7:30 a.m. and 9:00 a.m. and 4 p.m. and 6 p.m. (Two (2) lanes in the direction of peak travel).

At least 48 hours before beginning work the contractor shall present a traffic control and/or barricade plan prepared as per the approved Barricading Standards to the Traffic Engineering Division for review and approval. When approved and barricades are in place, they shall be inspected by the Traffic Engineering Division prior to beginning work.

Traffic control signs, such as stop signs, yield signs, etc., are placed in various intersections for the safety and protection of the traveling public. The contractor shall not move, alter or damage said signs for any reason. If said signs must be removed for construction purposes, contractor shall notify the City of Midland, Traffic Division Operations Superintendent at least 48 hours (not including weekends) before construction activities are scheduled to begin. All construction barricading, warning signs, and other construction traffic control devices shall be in place and shall be in accordance with the Texas Manual on Uniform Traffic Control Devices and approved Barricading Standards included in plans before traffic signs can be removed. The contractor shall notify the Traffic Division Operations Superintendent at least 72 hours (not including weekends) before

scheduled removal of construction barricades, warning signs, and traffic control devices. But in all cases the contractor shall not remove said barricades, warning signs, and traffic control devices until the City of Midland's Traffic Department has replaced stop signs, yield signs, etc., in their proper location. The Contractor shall notify Traffic Engineering Division at least 24 hours in advance of any Traffic Signal modification due to construction (i.e. eliminating left turn phases). Notice shall also be given to the Traffic Engineering Division at least 24 hours prior to removing barricades at signalized intersections.

28. PROTECTION OF NEW WORK

All new work shall be carefully protected by the Contractor, and any work injured from any cause before the completion of the whole project must be rebuilt by the Contractor at his own expense.

29. MONUMENTS OR STAKES

The Contractor must carefully protect from disturbance or injury all monuments, stakes and bench marks, of City County, State or Federal Government and shall not excavate nearer than five (5) feet to any of them without the permission of the Engineer, or until they have been removed, witnessed or otherwise disposed of by the Engineer.

30. USE OF COMPLETED PORTIONS

The City shall have the right to take possession of and use any completed or partially completed portions of the work notwithstanding the time for completing the entire work on such portions may not have expired; but such taking possession and use shall not be deemed an acceptance of any work not completed in accordance with the Contract Documents. If such prior use increases the cost of, or delays the work, the Contractor shall be entitled to such extra compensation or extension of time, or both as the Engineer may determine.

The Owner, in taking possession of completed portions, shall agree to accept the decision of the Engineer on matters relating to responsibility for damages that may occur to any portions of the work during the period of possession preceding acceptance and final payment.

31. USE OF PREMISES

The Contractor shall confine his apparatus, storage of materials and construction operations to such limits as may be directed by the Owner, and shall not unreasonably encumber the premises with his materials.

The Contractor shall enforce any instructions of the Owner regarding advertising, fires, danger signals, barricades and smoking, and shall require all persons employed on the work to comply with all building, post or institutional regulations while on the premises.

32. SAFETY RESTRICTIONS

The following procedures will be followed regarding the subject item on this contract:

A warning sign painted yellow with black letters that are legible at twelve feet shall be placed inside and outside vehicles such as cranes, cranes, derricks, power shovels, drilling rigs, pile drivers, hoisting equipment or similar apparatus. The warning sign shall read as follows:

"WARNING - UNLAWFUL TO OPERATE THIS EQUIPMENT WITHIN SIX FEET OF HIGH VOLTAGE LINES."

Equipment that may be operated within ten feet of high voltage lines shall have an insulating cage type of guard about the boom or arm, except back hoes or dippers, and insulator links on the lift hook connections.

When necessary to work within six feet of high voltage electric lines, notification shall be given to the power company who will erect temporary mechanical barriers, de – energize the line, or raise or lower the line. The notifying department

The Contractor is required to make arrangements with the Power Company for the temporary relocation or raising of high voltage lines at the Contractor's sole cost and expense.

No person shall work within six feet of high voltage line without precautions having been taken and protection provided as outlined in Paragraph (3) above.

33. INSURANCE REQUIREMENTS AND WORKERS COMPENSATION

INSURANCE REQUIREMENTS

Contractor shall at all times during the term of this Contract maintain and keep in full force and effect insurance in the following types and minimum amounts with companies authorized to do business in the State of Texas:

Commercial General Liability (including Contractual liability):	
— Personal Injury:	$1,000,000.00 per person
	$1,000,000.00 per occurrence
— Property Damage:	$500,000.00 per occurrence
Business Automobile Liability:	$250,000.00 combined single limit -
	Personal Injury and Property Damage
Workers' Compensation:	Statutory limits
Employers' Liability:	$500,000.00 per accident or occurrence

The Commercial General Liability shall be on a per project aggregate, including completed operations, and shall be on an occurrence basis. This insurance shall name the City as an additional insured and waive subrogation in favor of the City.

The Business Automobile Liability insurance provided by Contractor shall cover any auto for bodily injury and property damage, including owned vehicles, hired and non-city vehicles, and employee non-ownership, and the amount of such policy shall be a minimum of $250,000.00 covering any vehicle used for the execution of the

work that is the subject of this Contract. This insurance shall name the City as an additional insured and waive subrogation in favor of the City.

The Workers' Compensation coverage provided by Contractor shall inure to the benefit of employees injured during the course and scope of their employment by Contractor pursuant to this Contract. The Workers' Compensation shall waive all rights of subrogation in favor of the City.

All insurance required pursuant to this Contract shall provide for a waiver of subrogation in favor of the City. All insurance required pursuant to this Contract, except for Workers' Compensation Insurance, shall name the City as an additional insured on a claims occurred basis. City shall be provided the notice by Contractor's insurance provider not later than thirty (30) days prior to any reduction or termination of such coverage.

Contractor shall contractually require all contractors, subcontractors, and sub-subcontractors that work on any portion of the work that is the subject of this Contract to obtain insurance coverage that meets or exceeds the policy requirements and minimum amounts specified herein. All contractors, subcontractors, and sub-subcontractors shall obtain insurance policies that provide blanket waivers of subrogation in favor of the City of Midland and policies that name the City of Midland as an additional insured on a claims occurred basis (except workers' compensation).

The parties agree that, prior to the execution of the Contract, Contractor shall provide one or more certificates of insurance specifically stating that these requirements have been met and subject to the approval of the City. The City shall not be required to provide any insurance whatsoever pursuant to this Contract.

The Contractor certifies that the certificate of insurance provided as required herein complies with the requirements of Senate Bill 425, passed during the 82nd regular session of the Texas Legislature, and effective January 1, 2012. The Contractor shall not use an unapproved certificate of insurance or insert inappropriate language on a certificate. Compliance with state law is the sole responsibility of the Contractor.

34. INDEMNIFICATION

INDEMNITY: THE CONTRACTOR SHALL INDEMNIFY AND HOLD HARMLESS AND DEFEND THE OWNER AND ALL OF THE OWNER'S OFFICERS, AGENTS AND EMPLOYEES FROM ALL SUITS, ACTIONS, CLAIMS, DAMAGES, PERSONAL INJURIES, LOSSES, PROPERTY DAMAGE AND EXPENSES OF ANY CHARACTER WHATSOEVER, INCLUDING ATTORNEY'S FEES, BROUGHT FOR OR ON ACCOUNT OF ANY INJURIES OR DAMAGES RECEIVED OR SUSTAINED BY ANY PERSON OR PERSONS OR PROPERTY, ON ACCOUNT OF ANY NEGLIGENT ACT OF THE CONTRACTOR, THEIR AGENTS OR EMPLOYEES, OR ANY SUBCONTRACTOR, IN THE EXECUTION, SUPERVISION AND OPERATIONS GROWING OUT OF OR IN ANY WAY CONNECTED WITH THE PERFORMANCE OF THIS

CONTRACT, AND CONTRACTOR WILL BE REQUIRED TO PAY ANY JUDGMENT WITH COSTS WHICH MAY BE OBTAINED AGAINST THE OWNER OR ANY OF ITS OFFICERS, AGENTS OR EMPLOYEES, INCLUDING ATTORNEY'S FEES.

THE CONTRACTOR SHALL INDEMNIFY AND HOLD HARMLESS AND DEFEND THE OWNER AND ALL OF THE OWNER'S OFFICERS, AGENTS AND EMPLOYEES FROM ALL SUITS, ACTIONS, CLAIMS, DAMAGES, PERSONAL INJURIES, ACCIDENTAL DEATH, PROPERTY DAMAGE, LOSSES, AND EXPENSES OF ANY CHARACTER WHATSOEVER INCLUDING ATTORNEY'S FEES, BROUGHT FOR OR ON ACCOUNT OF ANY INJURIES OR DAMAGES RECEIVED OR SUSTAINED BY ANY PERSON OR PERSONS OR PROPERTY, ON ACCOUNT OF ANY NEGLIGENT ACT OF THE OWNER, THE OWNER'S OFFICERS, AGENTS AND EMPLOYEES, WHETHER SUCH NEGLIGENT ACT WAS THE SOLE PROXIMATE CAUSE OF THE INJURY OR DAMAGE OR A PROXIMATE CAUSE JOINTLY AND CONCURRENTLY WITH THE CONTRACTOR OR THE CONTRACTOR'S EMPLOYEES, AGENTS OR SUBCONTRACTORS NEGLIGENCE IN THE EXECUTION, SUPERVISION AND OPERATIONS GROWING OUT OF OR IN ANY WAY CONNECTED WITH THE PERFORMANCE OF THIS CONTRACT, AND CONTRACTOR WILL BE REQUIRED TO PAY ANY JUDGMENT WITH COSTS WHICH MAY BE OBTAINED AGAINST THE OWNER OR ANY OF ITS OFFICERS, AGENTS OR EMPLOYEES, INCLUDING ATTORNEY'S FEES.

THE CONTRACTOR AGREES THAT HE WILL INDEMNIFY AND SAVE THE OWNER HARMLESS FROM ALL CLAIMS GROWING OUT OF ANY DEMANDS OF SUBCONTRACTORS, LABORERS, WORKMEN, MECHANICS, MATERIALMEN, AND FURNISHERS OF MACHINERY AND PARTS THEREOF, EQUIPMENT, POWER TOOLS, ALL SUPPLIES, INCLUDING COMMISSARY INCURRED IN THE FURTHERANCE OF THE PERFORMANCE OF THIS CONTRACT. WHEN OWNER SO DESIRES, THE CONTRACTOR SHALL FURNISH SATISFACTORY EVIDENCE THAT ALL OBLIGATIONS OF THE NATURE HEREINABOVE DESIGNATED HAVE BEEN PAID, DISCHARGED OR WAIVED. THE CONTRACTOR, ITS SURETIES AND INSURANCE CARRIERS SHALL DEFEND, INDEMNIFY AND SAVE HARMLESS THE OWNER AND ALL OF ITS OFFICERS, AGENTS AND EMPLOYEES FROM ALL SUITS, ACTIONS, OR CLAIMS OF ANY CHARACTER WHATSOEVER, BROUGHT FOR OR ON ACCOUNT OF ANY INJURIES OR DAMAGES RECEIVED OR SUSTAINED BY ANY PERSON OR PERSONS OR PROPERTY, ARISING FROM ANY ACT OF THE CONTRACTOR OR ANY SUBCONTRACTOR, THEIR AGENTS OR EMPLOYEES, IN THE EXECUTION AND SUPERVISION OF THIS CONTRACT, AND WILL BE REQUIRED TO PAY ANY JUDGMENT WITH COSTS WHICH MAY BE OBTAINED AGAINST THE OWNER OR ANY OF ITS OFFICERS, AGENTS, OR EMPLOYEES INCLUDING ATTORNEY'S FEES.

35. RELEASE

NOTWITHSTANDING ANY OTHER PROVISION, CONTRACTOR HEREBY RELEASES, ACQUITS, RELINQUISHES AND FOREVER DISCHARGES OWNER, OWNER'S EMPLOYEES AND OFFICERS, FROM ANY AND ALL DEMANDS, CLAIMS, DAMAGES OR CAUSES OF ACTION OF ANY KIND WHATSOEVER WHICH CONTRACTOR HAS OR MIGHT HAVE IN THE FUTURE, INCLUDING BUT NOT LIMITED TO BREACH OF CONTRACT, QUANTUM MERUIT, CLAIMS UNDER THE DUE PROCESS AND TAKING CLAUSES OF THE TEXAS AND UNITED STATES CONSTITUTIONS, TORT CLAIMS OR OWNER'S NEGLIGENCE.

36. INDEPENDENT CONTRACTOR

It is expressly understood and agreed that Contractor shall perform all work and services described herein as an independent contractor and not as an officer, agent, servant or employee of the Owner; that Contractor shall have exclusive control of and the exclusive right to control the details of the services and work performed hereunder, and all persons performing the same; and shall be solely responsible for the acts and omissions of its officers, agents, employees, contractors and subcontractors; that the doctrine of respondent superior shall not apply as between Owner and Contractor, its officers, agents, employees, contractors and subcontractors; and

that nothing herein shall be construed as creating a partnership or joint enterprise between Owner and Contractor. No person performing any of the work and services described hereunder by Contractor shall be considered an officer, agent, servant or employee of the Owner. Further, it is specifically understood and agreed that nothing in this Contract is intended or shall be construed as creating a "Community of Pecuniary Interest" or "An Equal Right of Control" which would give rise to vicarious liability. Contractor shall be an independent contractor under this Contract and shall assume all of the rights, obligations and liabilities, applicable to it as such independent contractor hereunder. The Owner does not have the power to direct the order in which the work is done. The Owner shall not have the right to control the means, methods or details of the Contractor's work. Contractor shall assume exclusive responsibility for the work. Contractor is entirely free to do the work in its own way.

37. QUALIFICATIONS FOR EMPLOYMENT

Preference shall be given to qualified local residents in the employment of laborers and mechanics for work on the Project under this Contract. No person under the age of sixteen (16) years shall be employed on the project under this Contract. No person whose age or physical condition is such as to make his employment dangerous to his health or safety or to the health or safety of others shall be employed on the Project under this Contract: Provided, that this shall not operate against the employment of physically handicapped persons, otherwise employable, where such persons may be safely assigned to work which they can ably perform. No person currently serving sentence in a penal or correctional institution and no inmate of an institution for mentally defective shall be employed on the project under this contract.

38. PAYROLLS OF CONTRACTOR AND SUBCONTRACTORS

The Contractor and each of his subcontractors shall prepare payrolls for the workers on the Project. Not later than the seventh (7th) day following the payment of wages, the Contractor shall transmit to the Owner, if requested, a certified legible copy and two confirmed copies of such payroll.

Such copies of payrolls shall be accompanied by substantial proof that all bills for services rendered and materials supplied have been duly paid and by such other data as the Owner may require.

39. POSTING WAGE RATES

The Contractor shall post at appropriate conspicuous points at the site of the Project a schedule showing the wage rates for the various classes of laborers and mechanics to be engaged in work on the Project under this Contract and all deductions, if any, required by law to be made from unpaid wages actually earned by the laborers and mechanics so engaged.

40. PAYMENT OF EMPLOYEES

The Contractor shall post at appropriate conspicuous points at the site of the Project a schedule showing the wage rates for the various classes of laborers and mechanics to be engaged in work on the Project under this Contract and all deductions, if any, required by law to be made from unpaid wages actually earned by the laborers and mechanics so engaged.

41. WAGE UNDERPAYMENT AND ADJUSTMENTS

The Contractor agrees that, in case of underpayment of wages to any worker on the project under this Contract by the Contractor or any subcontractor, the Owner shall withhold from the Contractor out of payments due, an amount sufficient to pay such worker the difference between the wages required to be paid under this Contract and the wages actually paid such worker for the total number of hours worked and that the Owner may disburse such amount so withheld by it for and on account of the Contractor to the employee to whom such amount is due. The Contractor further agrees that the amounts to be withheld pursuant to this Article may be in addition to other amounts that may be retained by the Owner pursuant to other provisions of this Contract.

42. COMPUTATION OF WAGES ON 8 – HOUR DAY

The wages of each laborer and mechanic engaged in work on the project under this Contract shall be computed on a basis of eight (8) hours per day, eight (8) hours continuous employment except for lunch periods, constituting a day's work.

Legal holiday work shall be paid for at the regular governing per diem wage rates.

Work in excess of 40 hours per week shall be paid for at 1 ½ times the basic rate of pay.

43. OVERTIME WORK AND WORK ON SUNDAYS AND LEGAL HOLIDAYS

The Contractor will not be permitted to work on Sundays or legal holidays except in an emergency and then only upon written permission of the Engineer.

Any work necessary to be performed after regular working hours and when permitted on Sundays or legal holidays, shall be performed without additional expense to the Owner.

No work on any Contract item will be permitted before daylight or later than one hour after sundown.

44. CONTRACT SECURITY

The Contractor shall furnish a performance bond and payment bond in an amount equal to one hundred percent (l00%) of the amount of the Contract as security for the faithful performance of the Contract, including the payment of all persons performing labor on the project and furnishing of materials in connection with this Contract. All Bonds must be executed in five (5) original counterparts by a corporate surety authorized to do business in the State of Texas. Bonds executed by individuals or any other than recognized and authorized corporate surety companies will not be acceptable.

45. DELAYS

The Contractor shall receive no compensation for delays or hindrances to the work, except when, in the judgment of the Engineer, direct or unavoidable extra cost to the Contractor is caused by such hindrances or delays. When such extra compensation is claimed, a written statement thereof shall be presented by the Contractor, as provided in Paragraph 18 hereof. Such claim, if found correct, will be approved, and the decision of the Engineer whether extra cost has been incurred and the amount thereof, shall be final. If delays are caused by specific orders to stop work, given by the Engineer, or by the performance of extra work, or by unforeseen causes beyond the control of the Contractor, or by the failure of the Owner to provide materials or necessary instructions for carrying on the work, or to provide the necessary right-of-way or site for installation, then delay

will entitle the Contractor to an equivalent extension of time. Application for extension of time must be approved by the Owner and, shall not release the Sureties from their obligations, which shall remain in full force until the discharge of the Contract.

LATE COMPLETION; LIQUIDATED DAMAGES:

It is hereby understood and mutually agreed, by and between Contractor and the City, that the date of beginning and the time for completion as specified in the contract of the work to be done hereunder are ESSENTIAL CONDITIONS of this contract; and it is further mutually understood and agreed that the work embraced in this contract shall be commenced on a date to be specified in the "Notice to Proceed." Contractor agrees that said work shall be prosecuted regularly, diligently, and uninterruptedly at such rate of progress as will insure full completion thereof within the time specified. It is expressly understood and agreed, by and between Contractor and the City, that the time for the completion of the work described herein is a reasonable time for the completion of the same, taking into consideration the average climatic range and usual industrial conditions prevailing in this locality.

In the event Contractor shall neglect, fail or refuse to complete the work within the time herein specified, or any proper extension thereof granted by the City, then Contractor and Contractor's surety, if any, shall be liable for and does hereby agree, as a part consideration for the awarding of this contract, to pay to the City $500.00, not as a penalty but as liquidated damages for such breach of contract as hereinafter set forth, for each and every calendar day that Contractor shall be in default after the time stipulated in the contract for completing the work. Further, the City shall have the right to cancel this contract for such delay. In the event the City cancels this contract pursuant to the terms of this section, the City shall pay to Contractor only those monies deemed appropriate by the City, in its sole discretion, to compensate Contractor for any work actually performed, less any liquidated damages Contractor owes the City.

The said amount is fixed and agreed upon by and between Contractor and the City because of the impracticability and extreme difficulty of fixing and ascertaining the actual damages the City would in such event sustain, and said amount is agreed to be the amount of damages which the City would sustain and said amount shall be retained from time to time by the City from current periodical estimates.

It is further agreed that time is of the essence of each and every portion of this contract and of the specifications wherein a definite and certain length of time is fixed for the performance of any act whatsoever; and where under the contract an additional time is allowed for the completion of any work, the new time limit fixed by such extension shall be of the essence of this contract. Provided, that Contractor shall not be charged with liquidated damages or any excess cost when the City determines, in its sole discretion, that Contractor is without fault and Contractor's reasons for the time extension are acceptable to the City. Provided, further, that Contractor shall not be charged with liquidated damages of any excess cost when the delay in completion of the work is due:

a. To any preference, priority or allocation order duly issued by the Government;

b. To unforeseeable cause beyond the control and without the fault or negligence of Contractor, including, but not restricted to, acts of God, or of the public enemy, acts of the City, acts of another contractor in the performance of a contract with the City, fires, floods, epidemics, quarantine restrictions, strikes, freight embargoes, and severe weather; and

c. To any delays of subcontractors or suppliers occasioned by any of the causes specified in subsections (a) and (b) of this article.

Provided, further, that Contractor shall, within ten (10) calendar days from the beginning of such delay, unless the City shall, in its sole discretion grant a further period of time prior to the date of final settlement of the contract, notify the City, in writing, of the causes of the delay, who shall ascertain the facts and extent of the delay and notify Contractor within a reasonable time of its decision in the matter.

CONTRACTOR AGREES THAT THE PAYMENT OF SUCH LIQUIDATED DAMAGES MAY BE RECOVERED BY THE CITY FROM RETAINAGE HELD BY THE CITY. NOTWITHSTANDING ANY OTHER PROVISION HEREOF, CONTRACTOR HEREBY RELEASES, ACQUITS, RELINQUISHES AND FOREVER DISCHARGES CITY, CITY'S EMPLOYEES AND OFFICERS FROM ANY AND ALL DEMANDS, CLAIMS, DAMAGES, OR CAUSES OF ACTION OF ANY KIND WHATSOEVER ARISING FROM THE CITY WITHHOLDING PAYMENT FROM CONTRACTOR AS LIQUIDATED DAMAGES FOR CONTRACTOR'S FAILURE TO COMPLETE THE WORK WITHIN THE TIME SPECIFIED HEREIN, INCLUDING BUT NOT LIMITED TO BREACH OF CONTRACT, QUANTUM MERUIT, CLAIMS UNDER THE DUE PROCESS AND TAKINGS CLAUSES OF THE TEXAS AND UNITED STATES CONSTITUTIONS, TORT CLAIMS, OR CITY'S NEGLIGENCE.

CONTRACTOR SHALL RECEIVE NO FINANCIAL COMPENSATION FOR DELAY OR HINDRANCE TO THE WORK. IN NO EVENT SHALL THE CITY BE LIABLE TO CONTRACTOR OR ANY SUBCONTRACTOR OR SUPPLIER, ANY OTHER PERSON OR ANY SURETY FOR OR ANY EMPLOYEE OR AGENT OF ANY OF THEM, FOR ANY DAMAGES ARISING OUT OF OR ASSOCIATED WITH ANY DELAY OR HINDRANCE TO THE WORK, REGARDLESS OF THE SOURCE OF THE DELAY OR HINDRANCE, INCLUDING EVENTS OF FORCE MAJEURE, AND EVEN IF SUCH DELAY OR HINDRANCE RESULTS FROM, ARISES OUT OF OR IS DUE, IN WHOLE OR IN PART, TO THE NEGLIGENCE OF THE CITY. CONTRACTOR'S SOLE REMEDY IN ANY SUCH CASE SHALL BE AN EXTENSION OF TIME.

46. ERRORS AND OMISSIONS

The Contractor will not be permitted to take advantage of any error or omission in these specifications. Suitable instructions will be given by the Engineer when such error or omission is discovered.

47. SPECIFICATIONS AND DRAWINGS

The Contractor shall keep on the work a copy of the Specifications and Drawings, and shall at all times give the Engineer access thereto. Any drawings or plans listed in the detailed specifications shall be regarded as part thereof and of the Contract. Anything mentioned in these specifications and not mentioned or shown in the drawings, or shown in the drawings and not mentioned in these specifications, shall be done as though shown or mentioned in both. The Engineer will furnish from time to time, such detailed drawings, plans, profiles and information as he may consider necessary for the Contractor's guidance.

In the event of any discrepancy between the plans and these specifications, the decisions of the Engineer will be decisive thereon. The written dimensions on the plans are to be taken as correct, but the Contractor is required to check carefully all dimensions before beginning work thereon. Should any errors or omissions be discovered, the Engineer's attention shall be called to the same, and the proper corrections made. All notes on the plans shall be carefully observed by the Contractor and are a part of the Contract.

48. CONSTRUCTION STAKING

The Engineer will furnish a complete set of plans and profiles and set control stakes at fifty foot (50') intervals along the entire length of the project and at such control points he deems necessary for proper execution of the work. The Contractor will thereafter be required to lay out the work accurately and furnish at his own expense, all lines, levels, and dimensions necessary to the proper and correct execution of the entire work and be responsible for any errors resulting from his own work.

The Contractor shall give the Engineer at least 36 hours notice in writing before requiring stakes to be set on any new portion of the work, and he shall state clearly in such notice the exact locality or localities where such stakes are needed for immediate use.

The Contractor must satisfy himself, before commencing work, as to the meaning or correctness of all stakes or marks, and no claim will be entertained by the Owner for or on account of any alleged inaccuracies, or for the alterations subsequently rendered necessary on account of such alleged inaccuracies unless the Contractor notifies the Engineer thereof in writing before commencing to work thereon.

The Contractor will at all times conduct the work in such a manner as to prevent damage to construction stakes set by the Engineer. When construction stakes are damaged to such extent that they must be reset, as a result of carelessness or negligence on the part of the Contractor or his workmen, the costs thereof shall be kept by the Engineer and shall be deducted from the moneys due or to become due the Contractor under the terms of his contract.

Benchmark and survey stakes shall be preserved by the Contractor, and in case of their destruction or removal by him or his employees, they will be replaced by the Engineer at the Contractor's expense.

49. SANITATION

The Contractor shall provide suitable drinking water receptacles or containers equipped with dust-tight covers and spigots or faucets. A supply of sanitary paper drinking cups shall be kept on hand for general use near the drinking water containers. The use of common drinking cups or tin cups will not be permitted.

The Contractor shall furnish "Porta-Johns" or other approved sanitary facilities for use by all workers on the Project. Such facilities shall be placed and kept in close proximity of the site where work is being performed. Such facilities shall be properly serviced and maintained.

The Engineer may establish such other sanitary rules and regulations as may seem necessary and desirable to the safe prosecution of the work, such rules and regulations to apply to all forces employed under this Contract, and if, the Contractor fails to observe and enforce these rules, the Engineer may enforce them at the expense of the Contractor.

50. WATER FOR CONSTRUCTION

The Contractor may obtain all water necessary for construction purposes from the Municipal Waterworks System at the regular customer service rate, but the Contractor must make all necessary arrangements with the Director of Utilities for necessary connections and meters. The Contractor must make his own provisions and provide such equipment as is necessary for conveying water from point of service to point of use. No extra compensation will be allowed and the Contractor shall anticipate the expense connected herewith and absorb said expense in the prices bid for the various bid items.

51. SEQUENCE AND SPEED OF WORK

The Engineer shall direct the order and sequence of the work. If at any time before the commencement or during the progress of the work, the materials and appliances used appear to the Engineer as insufficient and improper for securing the quality of work required or the required rate of progress, he may order the Contractor to increase their efficiency or to improve their character and the Contractor shall conform to such order. The

failure of the Engineer to demand any increase of such efficiency or improvement shall not release the Contractor from his obligations to secure the quality of work or the rate of progress specified.

52. INSPECTION AND TESTING OF MATERIAL

The sampling and testing of materials used or proposed to be used in the construction of this project will be made by the Engineer, his designated representative or certified testing laboratory personnel in accordance with methods prescribed by the American Society of Testing Materials and/or the American Association of State Highway Officials, with subsequent approved revisions made prior to the date of the Proposal. The selection of the method of test shall be designated by the Engineer. The Contractor shall bear the cost of all tests required before a material or a method is approved for use on the job, unless the Owner specifically agrees to bear the cost of these tests.

All tests required by the Owner after materials and/or methods have been approved and after they have been incorporated or used in the job will be paid for by the Owner, except if the Owner's tests reveal non-conformance with the specifications, subsequent tests on that part of the work required to determine if the replaced or reworked material meets the specifications, will be paid for by the Contractor. The City will pay only one time for any required testing.

The following is a summary of test required for the approval of materials or methods:

Material	**Test**
Subgrade	Maximum density, optimum moisture
Caliche Base:	Maximum density, optimum moisture, hardness, gradation, liquid limit, plasticity index, Texas Triaxial Classification
Aggregates for hot-mix:	Gradation, unit weight, abrasion, soundness, liquid limit, plasticity index, density
Asphalt, emulsions and tars:	Certified plant test and certificates of compliance with each shipment
Hot- Mix asphaltic concrete:	Design mix, swell test, stripping test
Portland cement concrete pavement:	Design mix with test cylinders

Any materials shipped by the Contractor from the factory prior to having satisfactorily passed such testing and inspection by the Owner’s representative or prior to the receipt of notice from said representative that such testing and inspection will not be required, shall not be incorporated in the work.

The Owner may, at its discretion, approve materials and/or methods for use on this project without testing when they are from sources previously tested and approved for City of Midland projects.

53. CONSTRUCTION SCHEDULE

It shall be the responsibility of the Contractor to furnish the Construction Engineer prior to construction a schedule out – lining the anticipated time each phase of construction will begin and be completed, including sufficient time being allowed for clean – up.

54. PROFILES AND ELEVATIONS

Profiles and elevations of the ground are shown on the plans hereto attached. These profiles and elevations are believed to be reasonably correct, but are not guaranteed to be absolutely so, and are represented only as an approximation. Elevations are referred to datum given by the Engineer.

55. CLEANUP

During the progress of the work, the Contractor shall maintain the work area in a reasonably clean and safe condition. Dirt, debris, excess excavation and other objectionable materials shall be removed from the site and disposed of on a daily basis.

After completion of all the work contemplated to be done in accordance with the detailed plans and these specifications, the premises and area along the entire line of the work shall be thoroughly cleaned up and all remaining structural materials, excess or surplus excavation and debris of any nature shall be removed and disposed of in a satisfactory manner and as directed by the Engineer. The site of all work shall appear neat and finished. All portions of the project when completed shall be ready for use or occupancy.

No compensation or payment shall be made for any cleanup work. The price for such cleanup work shall be absorbed in the items covered in the proposal.

56. GUARANTEE

The contractor shall and hereby does guarantee: (1) all work performed by him directly and all work performed by his subcontractors; (2) that all material specified; and (3) that any defect due to improper workmanship or material discovered and made known to him within one year (1) f the date of final acceptance of the improvements shall be repaired, replaced, corrected or otherwise made good by him without additional expense to the Owner. The Contractor shall, in case of work performed by his subcontractors and where guarantees are required, secure guarantees from said subcontractors and deliver copies of same to the Engineer upon completion of the work.

57. WAIVER OF ATTORNEY FEES:

BY EXECUTING THIS CONTRACT, CONTRACTOR AGREES TO WAIVE AND DOES HEREBY KNOWINGLY, CONCLUSIVELY, VOLUNTARILY AND INTENTIONALLY WAIVE ANY CLAIM IT HAS OR MAY HAVE IN THE FUTURE AGAINST THE OWNER, REGARDING THE AWARD OF ATTORNEY'S FEES, WHICH ARE IN ANY WAY RELATED TO THE CONTRACT, OR THE CONSTRUCTION, INTERPRETATION OR BREACH OF THE CONTRACT. THE CONTRACTOR SPECIFICALLY AGREES THAT IF THE CONTRACTOR BRINGS OR COMMENCES ANY LEGAL ACTION OR PROCEEDING RELATED TO THIS CONTRACT, THE CONSTRUCTION, INTERPRETATION, VALIDITY OR BREACH OF THIS CONTRACT, INCLUDING BUT NOT LIMITED TO ANY ACTION PURSUANT TO THE PROVISIONS OF THE TEXAS UNIFORM DECLARATORY JUDGMENTS ACT (TEXAS CIVIL PRACTICE AND REMEDIES CODE SECTION 37.001, ET. SEQ., AS AMENDED), OR CHAPTER 271 OF THE TEXAS LOCAL GOVERNMENT CODE, THE CONTRACTOR AGREES TO ABANDON, WAIVE AND RELINQUISH ANY AND ALL RIGHTS TO THE RECOVERY OF ATTORNEY'S FEES TO WHICH CONTRACTOR MIGHT OTHERWISE BE ENTITLED.

CONTRACTOR AGREES THAT THIS IS THE VOLUNTARY AND INTENTIONAL RELINQUISHMENT AND ABANDONMENT OF A PRESENTLY EXISTING KNOWN RIGHT. THE CONTRACTOR ACKNOWLEDGES THAT IT UNDERSTANDS ALL TERMS AND CONDITIONS OF THE CONTRACT. THE CONTRACTOR FURTHER ACKNOWLEDGES AND AGREES THAT THERE WAS AND IS NO DISPARITY OF BARGAINING POWER BETWEEN

THE OWNER AND THE CONTRACTOR. THIS SECTION SHALL NOT BE CONSTRUED OR INTERPRETED AS A WAIVER OF SOVEREIGN IMMUNITY.

THE CONTRACTOR AND OWNER ARE RELYING ON THEIR OWN JUDGMENT. EACH PARTY HAD THE OPPORTUNITY TO DISCUSS THIS CONTRACT WITH COMPETENT LEGAL COUNSEL PRIOR TO ITS EXECUTION.

58. GOVERNING LAW AND VENUE

This Contract shall be governed by the laws of the State of Texas. All performance and payment made pursuant to this Contract shall be deemed to have occurred in Midland County, Texas. Exclusive venue for any claims, suits or any other action arising from or connected in any way to this Contract or the performance of this Contract shall be in Midland County, Texas. The obligations and undertakings of each of the parties to this Contract shall be deemed to have occurred in Midland County, Texas. This Contract shall be governed by, interpreted, enforced and construed under the law of the State of Texas. The laws of the State of Texas shall govern, construe and enforce all the rights and duties of the parties, including but not limited to tort claims and any and all contractual claims or disputes, arising from or relating in any way that would direct application of the laws of another jurisdiction.

59. SOVEREIGN IMMUNITY

By executing this Contract, the City is not waiving its right of sovereign immunity. The City is retaining its immunity from suit. The City is not granting consent to be sued by legislative resolution or action.

THERE IS NO WAIVER OF SOVEREIGN IMMUNITY.

60. NO THIRD – PARTY BENEFICIARY

The City's approval of this contract does not create a third party beneficiary. There is no third party beneficiary to this contract. No person or entity who is not a party to this contract shall have any third party beneficiary or other rights hereunder.

61. NOTICE OF ALLEGED BREACH; STATUTORY PREREQUISITES

As a condition precedent to filing suit for alleged damages incurred by an alleged breach of an express or implied provision of this agreement, Contractor or his legal representative, shall give the City Manager or any other reasonable official of the City, notice in writing (consisting of one original and seven copies of notice attached to a copy of this agreement) of such damages, duly verified, within one hundred and twenty (120) days after the same has been sustained. The discovery rule does not apply to the giving of this notice. The notice shall include when, where and how the damages occurred, the apparent extent thereof, the amount of damages sustained, the amount for which the Contractor will settle, the physical and mailing addresses of Contractor at the time and date the claim was presented and the physical and mailing addresses of Contractor for the six months immediately preceding the occurrence of such damages, and the names and addresses of the witnesses upon whom the Contractor relies to establish its claim; and a failure to so notify the City Manager within the time and manner provided herein shall exonerate, excuse and except the City from any liability whatsoever. The City is under no obligation to provide notice to Contractor that Contractor's notice is insufficient. City reserves the right to request additional information regarding the claim. Said additional information shall be supplied within thirty (30) days after receipt of notice.

The statutory prerequisites outlined herein constitute jurisdictional requirements pursuant to Section 271.154 of the Texas Local Government Code and Section 311.034 of the Texas Government Code. Notwithstanding any other provision, Contractor's failure to comply with the requirements herein shall perpetually bar Contractor's claim for damages under Chapter 271 of the Texas Local Government Code, and Section 311.034 of the Texas Government Code, regardless if City has actual or constructive notice or knowledge of said claim or alleged damages. Contractor agrees that the requirements of this entire Agreement are reasonable.

62. ASSIGNMENT

Contractor shall not, either directly or indirectly, assign all or any part of this contract or any interest, right or privilege herein, without the prior written consent of the owner. The issue on whether or not to grant consent to an assignment is in the sole discretion of the owner.

63. FEDERAL WAGE REQUIREMENTS

If applicable, the Davis-Bacon Act, 29 CFR 5.5, and any related acts or regulations are hereby incorporated by reference and made a part of this Contract, and all terms and requirements under said laws, by such incorporation, are made terms and requirements of this Contract, to which the parties to this Contract have agreed to be bound.

64. PROMPT PAY ACT

The owner and contractor agree that Texas Government Code, Chapter 2251, Payment for Goods and Services (the "Prompt Pay Act") does not waive governmental immunity.

Updated May 2020

SPECIAL PROVISIONS

ATTENTION: All Bidders are directed to pay special attention to the NOTICE TO BIDDERS section of the bid packet. The Coronavirus (COVID-19) pandemic has resulted in several changes to the City of Midland's normal bid process, and bidders have sole responsibility for complying with the current bid process requirements. Bidders also have sole responsibility for verifying that any bid submitted is completed correctly and includes all of the required documentation, including addendums

1. SCOPE OF WORK:

Included in this Water, Wastewater, & Fire Hydrant Taps Expanded Program 05 will be the installation, replacement, and removal of water improvements, wastewater improvements, and other assorted utility structures and appurtenances including the necessary excavation, backfill, pavement repair, erosion controls, traffic controls, coordination with City of Midland staff and organizations such as TxDOT, OSHA, franchise utilities, etc. as needed, One Call (Texas 811) notifications for pending work, notifications to adjacent property owners as directed by City of Midland staff, and all other work to be performed as outlined in the Plans and Specifications, to satisfactorily complete the work.

The Owner reserves the right to abandon, without obligation to the Contractor, any part of the program, or the entire program, at any time before the Contractor begins any construction work authorized by the Owner. This applies to the individual projects assigned throughout the course of this program, and does not only refer to the start of work for the program as a whole.

Standard Specifications for Construction of the City of Midland will govern all construction except as modified by these Special Provisions or the accompanying drawings.

2. ORDER OF PRECEDENCE:

The Special Provisions take precedence over the General Conditions in this bid packet anywhere these two sections are not in agreement.

The Special Provisions take precedence over the City of Midland Specifications in this bid packet anywhere these two sections are not in agreement.

The Contractor is to bid the quantities in the Proposal section of the bid packet.

In construction drawing sets any written or noted dimension takes precedence over any dimension measured based on the drawing scale unless otherwise directed by the Engineer.

Any changes or revisions made as part of an Addendum for this project take precedence over the original bid packet and construction drawing set where the documents are in conflict.

3. EXAMINATION OF SITE:

Prospective bidders are to make a careful examination of the entire site of the project and are to make such explorations as may be necessary to determine the subsoil and/or water conditions to be encountered; improvements and obstructions which may be encountered; methods of providing ingress-egress to private as

well as public property; methods of handling traffic during construction and maintenance of the entire project as well as any section thereof, protection of all existing structures both above and below ground; and how the plans fit the proposed project and especially if any discrepancies exist.

4. PAYMENT:

The Contractor will receive full payment from the Owner for each work order when the work order is 100% complete. Payment will not be made prior to a work order being 100% complete.

Payment to be made for material installed, not for material delivery.

Only one Open Trench Depth bid item in the Proposal will apply at a time to any given length of open trench excavation. These bid items are not stacked when determining payment for open trench excavation.

5. SAFETY REQUIREMENTS:

It is the responsibility of the Contractor to follow and comply at all times with Occupational Safety and Health Administration (OSHA) and all other applicable safety regulations and requirements throughout the course of the project's work.

6. SAFETY RESTRICTIONS – WORK NEAR HIGH VOLTAGE LINES:

The following procedure will be followed regarding the subject item on this contract:

1) A warning sign painted yellow with black letters that are legible at twelve feet shall be placed inside and outside vehicles such as cranes, derricks, power shovels, drilling rigs, pile drivers, hoisting equipment or similar apparatus. The warning sign shall read as follows:

   "**WARNING – UNLAWFUL TO OPERATE THIS EQUIPMENT WITHIN SIX FEET OF HIGH VOLTAGE LINES"**

2) Equipment that may be operated within ten feet of high voltage lines shall have an insulation cage-type of guard about the boom or arm, except back hoes or dippers, and insulator links on the lift hook connections.

3) When necessary to work within six feet of high voltage electric lines, notification shall be given to the power company of who will erect temporary mechanical barriers, de-energize the line, or raise or lower the line. The notifying department shall maintain an accurate log of all such calls to the Power Company, and shall record action taken in each case.

4) The Contractor is required to make arrangements with the Power Company for the temporary relocation or raising of high voltage lines at the Contractor's sole cost and expense.

5) No person shall work within six feet of a high voltage line without protection having been taken as outlined in Paragraph (3).

7. TRAFFIC CONTROL:

Traffic control for work performed in arterial streets under this program will be the City of Midland's responsibility. The Contractor is to coordinate construction activities with the Barricade Company operating at

the City of Midland's direction for any work of this nature. If at any time or for any reason there should be traffic control in an arterial street handled by the Contractor rather than the City, then that traffic control is to adhere to the rest of the requirements outlined in 'Special Provisions, 7. Traffic Control' that follows after this paragraph.

All proposed traffic control shall be approved by the City where applicable. All traffic control plans must be submitted to and approved by the Traffic Operations Division no less than two (2) business days prior to starting the construction work. Traffic control for each phase of work must be approved prior to starting that work.

Generic traffic control plans or typical details may be submitted for shoulder work on any class of roadway, or for work on local or collector streets that does not require the closure of any travel lanes (i.e., all lanes are open to traffic on striped roadways, or adequate width remains available for two-way traffic on unstriped roadways). Once a generic traffic control plan or typical detail for a certain type of setup has been approved one time, the Contractor shall only be responsible for notifying the Traffic Operations Division of the location, type of setup, and dates on which they intend to utilize the pre-approved traffic control for the duration of the contract. No additional plan submittals will be required in these cases, except that the City reserves the right to suspend this exception at its discretion. For any work not fitting the above exception, or in the event that the exception is suspended by the City, a site-specific traffic control plan will be required for each work location and time period.

1. All temporary traffic control shall be in general conformance with the *Texas Manual on Uniform Traffic Control Devices* (TMUTCD) (latest edition as adopted by the Texas Department of Transportation), except as specifically directed by the City Engineer or City Traffic Engineer.
2. All temporary traffic control shall be designed, installed, and maintained by competent and qualified personnel with adequate experience in traffic control.
3. All temporary traffic control involving multiple lane closures or traffic shifts, full closures of collector or arterial streets, traffic control extending through a railroad crossing, or any setup reasonably determined by the City to be "complex", shall be implemented only by a contractor with specific experience and expertise in the field of traffic control (i.e., a qualified "barricade company").
4. A Traffic Control Plan (TCP) shall be submitted to the Engineering Services Department, Traffic Operations Division, in advance of any work in the right-of-way that impacts traffic. No work shall occur until an approved TCP has been returned to the Contractor.
5. A copy of the approved TCP shall be kept in the possession of the person responsible for supervising the traffic control at all times while working in the right-of-way. The approved TCP shall be presented to City staff or law enforcement upon demand at any time.
6. Depending on site conditions and the nature of the work, temporary traffic control may be approved by the City for either of the following:
    a. All Times – All traffic control, including closures, may remain in place 24 hours per day until expiration of the approved TCP.
    b. Off-Peak Only – Lane or road closures are NOT permitted from 6:00-9:00 AM and 4:00-7:00 PM on weekdays (Monday through Friday). Other traffic control not related to lane or road closures may remain in place 24 hours per day until expiration of the approved TCP.
7. The contractor setting the temporary traffic control shall be responsible for the maintenance and upkeep of all signs, barricades, and other devices, at all times.
    a. All temporary traffic control setups shall be maintained at least one time per day, including weekends and holidays.

b. More frequent maintenance shall be performed as needed, with particular emphasis to following up after severe weather events or during times of high winds.
c. Maintenance shall include:
    i. Verifying and correcting the location and orientation of all signs, barricades, and other devices;
    ii. Keeping signs and reflective areas of barricades and other devices clean and free of dirt buildup so as to maintain appropriate visibility and legibility; and
    iii. Ensuring the proper location, orientation, and operation of arrow boards or message boards, if present.

8. Arrow boards shall be required for lane closures under the following conditions:
    a. On roadways with a posted speed limit of 55 MPH or greater, for closures lasting more than one (1) hour;
    b. On roadways with a posted speed limit of 45 MPH or greater, for closures lasting more than four (4) hours;
    c. On any roadway if lanes will remain open to traffic travelling in the same direction on both sides of a closed lane during any overnight hours (from 7:00 PM to 6:00 AM); and

At other times as shown on the approved TCP, or as otherwise directed by the City.

8. COMPLETION OF WORK:

Any work assigned to the Contractor is to be considered part of a work order, and completion of the assigned work occurs when the work order is 100% complete. A work order may only be completed after all utility, paving, erosion control, traffic control, and site cleanup work has been completed. All work must be inspected by the City's Inspector or Engineer before being accepted, and the City's Inspector or Engineer and the Contractor must sign or initialize the finalized work order before it is considered 100% complete.

Work orders that are considered 100% complete and signed or initialized are final and no subsequent changes, additions, reductions, or corrections will be made to the quantities listed on the work orders. The only exception that may occur will be at the sole discretion of the Engineer, who may add quantities to the work order for work that was performed but not accounted for in the original signed or initialized work order.

Errors in the unit prices used to calculate totals for work orders may be corrected by the City's Inspector or Engineer after work orders are signed or initialized so long as no change is made to the original work order quantities – OR – the Contractor may request that a new work order with the correct unit prices be provided for fresh signatures or initials. Quantities for work orders will remain fixed after the original work order is signed or initialized regardless of whether or not corrections are made to the unit prices and returned for a second round of signatures or initials, except as stated in the previous paragraph.

9. DETOURS:

The Contractor is to prosecute his work in such a manner as to create a minimum of interruption to traffic and pedestrian facilities and to the flow of vehicular and pedestrian traffic within the project area.

10. PROPERTY AND RIGHT-OF-WAY ACCESS:

Access to adjacent property must be maintained at all times unless otherwise directed by the Engineer. If the contractor will not be working in an area for a period of one week or more, special care is to be taken to address any unsafe conditions such as excavated areas or obstructions outside the worked area that could be tripping hazards, etc.

11. CONSTRUCTION SCHEDULE:

It is the responsibility of the Contractor to furnish the Construction Engineer, prior to construction, with a weekly schedule and progress report outlining the anticipated time each phase of construction (work order) will begin and be completed, including sufficient time being allowed for necessary pavement repair and site clean-up.

12. CONSTRUCTION STAKING:

It is the responsibility of the Contractor to provide the project construction staking at fifty foot (50') intervals along the entire length of the project as well as at such control points as the Contractor deems necessary for proper execution of the work. Construction staking is to include grading and cuts as well as horizontal alignments and construction control points. Cut sheets are to be provided to the Engineer by the Contractor for review and approval.

13. SURVEY:

The Contractor is to provide GPS survey shots for all meters replaced to the City of Midland with each completed work order submittal. Survey data is to be shot in Texas Central Zone with 1983 NAD at 1.0' accuracy or better. Survey data is to be provided in Excel csv. file format with all rounding functions turned off.

14. CONSTRUCTION MATERIALS:

The Contractor is to only provide new materials for permanent installation in any and all parts of this project, and all such materials must comply with the General Conditions, the Bid Packet Specifications, and all applicable City of Midland Standards and Specifications.

Concrete is only to be placed when the ambient temperature is between 40 degrees and 95 degrees Fahrenheit and the ambient temperature in the shade is higher than 40 degrees Fahrenheit or is 40 degrees Fahrenheit and rising.

All concrete pavement joints are to be sealed with Texas Department of Transportation (TxDOT) DMS-6310 SL-2 sealant, an American Society for Testing and Materials (ASTM) D 1190 Hot-Applied Single Component Joint Sealant, or a City of Midland approved equal. This will not apply to curb or sidewalk joints.

No construction materials are to be placed or installed during rain events unless they are necessary to resolve an emergency situation or to facilitate the project site erosion control measures.

15. EROSION CONTROL:

Erosion control is the responsibility of the Contractor and erosion control measures are to be implemented so as to prevent sediment erosion from wind, rain, and other elements from the project site. Should the Owner feel that supplementary erosion control measures are required in addition to those implemented by the Contractor

then the Contractor will include additional erosion control measures within reason to the Owner's satisfaction and/or TCEQ requirements.

Reasonable erosion control measures include but are not limited to: construction entrance(s), concrete washout(s), perimeter silt fence or fiber wattle, rock rip-rap dams for concentrated runoff control, gutter and inlet protection measures such as sand bags, and stabilization of the construction area surfaces when construction work is not actively occurring by means of vegetative cover or seeded erosion control blankets.

Supplemental erosion control measures are ancillary to the program and not paid as a separate item, unless otherwise noted in the Proposal or Pay Notes.

Site cleanup work is to be done for this program as soon as possible as per the General Conditions and will be ancillary to the program and not paid as a separate item, unless otherwise noted in the Proposal or Pay Notes. Site cleanup is to take place throughout the program's construction as needed to maintain a clean and professional looking work area. No more than three calendar days are to elapse after completion of construction before the final roadway and right-of-way cleanup has been completed to the satisfaction of the Engineer.

16. WASTE MATERIAL:

Excess material from excavation and other construction or demolition activity will become the property of the Contractor. Excess excavation will be disposed of at locations secured by the Contractor and if necessary, approved by the Engineer. No material is to be placed on private property or City property without the approval of the Engineer and the property owner. Removal of excess material, excavation, and waste material are ancillary to the program and not paid as a separate item, unless otherwise noted in the Proposal or Pay Notes.

Excess concrete material must be washed out in a concrete washout within the program's job site area, or else any and all other concrete material washout must occur away from the job site area in the Contractor's or concrete Supplier's own operation yards or properties. Under no circumstances are concrete trucks allowed to washout in any job site excavations, channels, public right-of-way, or on private property.

Existing fire hydrants indicated for removal as part of the program are to be returned to the City of Midland by the Contractor and remain City property. This is ancillary to the program and will not be paid as a separate item.

17. TESTING

It is the Contractor's responsibility to perform all required testing for any and all materials and workmanship performed or installed as part of the program's work. The cost of all such testing is to be borne solely by the Contractor unless required by the Engineer for work or materials that had previously been tested and approved and had not experienced any change in condition since that time as a result of the Contractor's work or actions; or unless additional testing outside of the program scope is performed at the request of the Engineer.

Required testing includes:

Concrete Pavement For Trench Repair – A Slump Test is required only if directed by the Engineer for pavement patches that have failed after installation, are equal to or greater than 50 cubic yards (roughly equal to an 8' wide by 340' long by 6" thick pavement section), or if a history of pavement failures installed by the Contractor for this program are observed. The slump test is to be performed once for every cylinder set (3

cylinders), and no less than 1 cylinder set per day when concrete is placed. Test results are to be given to the engineer upon completion of each test. There will be no testing for curb, ramps, and sidewalks.

Asphalt Hot-Mix Pavement For Trench Repair – A Nuclear Gauge Density Test is required only if directed by the Engineer for pavement patches that have failed after installation, are equal to or greater than 620 square yards (roughly equal to an 8' wide by 700' long pavement section), of if a history of pavement failures installed by the Contractor for this program are observed. The laboratory density limits will be a minimum limit of 96%, a maximum limit of 98%, and an optimum limit of 97%. The acceptable field density limit will be a minimum limit of 93%, a maximum limit of 98%, and an optimum limit of 95%. Test results are to be given to the Engineer upon completion of each test.

Water Pipes & Fittings – Perform Pressure Testing and Bacterial Testing (Bac T)/Chlorination testing for all water mains and fire hydrants.

- Pressure Test – Perform test as described in the City of Midland Water Line Specifications, PART 10, Hydrostatic Tests, with the sole difference being that a continuous pressure of 180 pounds per square inch (psi) must be maintained over a continuous period of not less than four (4) hours rather than eight (8) hours. The acceptable field pressure limit will be a minimum 180 psi and a maximum 185 psi. A 2-3 psi drop in the measured pipe pressure during the first two (2) hour period will be acceptable to account for the compression of air within the pipe so long as the minimum and maximum allowed field pressure limits are not exceeded. There can be no variation in the measured pipe pressure during the last two (2) hours of the pressure test.

- Bac T/Chlorination Testing – Perform disinfection and test as described in the City of Midland Water Line Specifications, Part 9, Disinfection Of Pipe Lines.

Wastewater Gravity Pipes/Manholes – Perform air testing, mandrel testing, hydrostatic testing, and closed circuit televising (CCTV) for all wastewater mains and manholes.

- Air Test – Perform test as described in the City of Midland Gravity Flow Pipe Sewers And Fittings For Wastewater And Storm Water, Part 3.14, Testing Gravity Mains And Manholes.

- Mandrel Test – A successful mandrel pull is required for all wastewater pipes installed.

- Hydrostatic Testing – Perform test as described in the City of Midland Gravity Flow Pipe Sewers And Fittings For Wastewater And Stormwater Specifications, Part 3.14, Hydrostatic Testing.

- Closed Circuit Televising (CCTV) – Provide CCTV video of the wastewater mains for the full length of the wastewater system installed, including through all wastewater structures. CCTV video is not required for wastewater laterals unless directed by the Engineer.

Force Mains & Fittings (Wastewater & Storm Drain) – Perform pressure testing for all wastewater and storm drain force mains.

- Pressure Test – Perform test as described in the City of Midland Water Line Specifications, PART 10, Hydrostatic Tests, with the sole difference being that a continuous pressure of 180 pounds per square inch (psi) must be maintained over a continuous period of not less than four (4) hours rather than eight (8) hours. The acceptable field pressure limit will be a minimum 180 psi and a maximum 185 psi. A 2-3 psi drop in the measured pipe pressure during the first two (2) hour period will be acceptable to account

for the compression of air within the pipe so long as the minimum and maximum allowed field pressure limits are not exceeded. There can be no variation in the measured pipe pressure during the last two (2) hours of the pressure test.

Storm Drain Pipes & Structures – Perform as-built survey and closed circuit televising (CCTV) for all storm drain pipes and structures.

- As-Built Survey of Storm Drain Pipes & Culverts – Provide as-built survey shots at fifty-foot (50') intervals along the storm drain pipe or culvert at the top of the pipe or culvert installed.

- As-Built Survey of Storm Drain Structures – Provide as-built survey shots at the inverts of all storm drain structures that are installed to verify the storm drain grades, including all manholes, junction boxes, and inlets.

- Closed Circuit Televising (CCTV) – Provide CCTV video of the storm drain for the full length of the storm drain system installed, including through all storm drain structures. CCTV video is not required for storm drain laterals unless directed by the Engineer.

18. COMPLIANCE:

The said Contractor further agrees to comply with all applicable provisions of the laws and building and construction codes of the City of Midland and the State of Texas, and with any regulations for the protection of workers which may be promulgated by the Government, and will protect such work with all necessary lights, barriers, safeguards, and warnings as provided for in said specifications and the Ordinance regulations.

19. PERSONNEL:

It is the Contractor's responsibility to have a supervising representative of the Contractor on the construction site any time that construction work is taking place. The Contractor's representative must be on the Contractor's direct payroll. Sub-contractors or paid consultants will not satisfy this requirement.

It is also the Contractor's responsibility to provide the City with a reliable contact for issue escalation coordination. Such contacts would include the Contractor's site foreman, the Contractor's construction project manager, etc.

20. INTENT OF THE PROPOSAL:

The intent of the proposal is to determine the lowest responsible bidder based on the total of the quantities and unit prices. Once the lowest responsible bidder is selected, the project will be awarded based on the terms and requirements of the contract outlined in the bid packet and in an amount not to exceed $1,000,000.00. The initial term of the contract will expire on September 30, 2021.

21. RENEWAL OF CONTRACT:

If the Owner and Contractor agree in writing, the contract may be renewed for up to two (2) additional one (1) year terms (for an amount not to exceed $750,000 per term).

All renewal time periods will begin on October 1st of the year the renewal is agreed to and will end on September 30th of the following calendar year.

If the Owner and Contractor do not agree to renew the existing contract then the contract will expire at the end of the term for either the first award period or, if applicable, the first period of contract renewal.

22. WARRANTY PERIOD:

There is no warranty period for this program as all work performed is to be subject to City inspection prior to acceptance. Any work performed without City inspection is subject to re-excavation for inspection, removal, replacement, reinstallation, or any other work deemed necessary by the City Inspector of Engineer to address the failure by the Contractor to have the required inspection performed at the Contractor's sole expense.

23. BID PACKET COMPLETION ITEMS OF NOTE

Bidders must be willing to sign the Contract as is if a bid is submitted. Revisions, alterations, deletions, additions, or any other changes of any kind by the bidder to the bid packet or other bid documents (such as the construction drawing set, addendums, etc.) will result in the bid submittal being deemed 'Non-Responsive' and the bid will not be accepted.

Bidders are reminded to make sure that the Conflict of Interest forms are completed if applicable before submitting a bid.

All bid items in the Proposal section must be completed for a bid submittal to be considered complete. Any bid item left blank or that the bidder indicates they chose to not provide a bid for will be considered incomplete, and the entire bid submittal will also be deemed incomplete, the bid submittal will be deemed 'Non-Responsive', and the bid will not be accepted. Bidders bear sole responsibility for making sure that the Proposal is complete and in accordance with the instructions provided to bidders in the bid packet.

All acknowledgement forms for all addendums that are issued during the bid process for this project must be filled out and be included with any bid submittal for that bid submittal to be considered complete. Any bid submittal lacking these completed addendum acknowledgement forms will be deemed 'Non-Responsive' and the bid will not be accepted. Bidders bear sole responsibility for making sure that they have obtained all addendums issued prior to submitting their bid.

PROPOSAL

TO: Honorable Mayor and City Council
City of Midland
Midland, Texas

Gentlemen: The undersigned bidder, having examined the drawings, specifications and contract documents, the location of the proposed work, and being fully advised as to the extent and character of the work, proposes to furnish all material, equipment, and to perform all labor and work necessary for the completion of the construction of the work described by and in accordance with the attached drawings, specifications, and contract, for the following prices, to wit:

Project Name: Water, Wastewater, & Fire Hydrant Taps Expanded Program 05

Project Number: U20-02

Demolition Items				
Item No.	Quantity	Description	Unit Price	Total Amount
1)	100 LF	Removal & Disposal of Existing Utility Mains, complete and in place, for the sum of: SEVENTEEN dollars and NO cents per linear foot. (Pay Note D1)	$ 17.00	$ 1,700.00
2)	20 CY	Flowable Fill for Existing Utility Mains Abandoned In Place, furnished, installed, complete and in place, for the sum of: ONE HUNDRED TWENTY dollars and NO cents per cubic yard. (Pay Note D2)	$ 120.00	$ 2,400.00
3)	3 EA	Removal & Disposal of Existing 60-Inch Manhole, (0'-5' Depth), complete and in place, for the sum of: FIFTEEN HUNDRED dollars and NO cents per each. (Pay Note D3)	$ 1,500.00	$ 4,500.00
4)	15 VF	Remove & Disposal of Existing 60-Inch Manhole Additional Depth, (> 5'), complete and in place, for the sum of: TWO HUNDRED NINETY dollars and NO cents per vertical foot. (Pay Note D4)	$ 290.00	$ 4,350.00

Demolition Items				
Item No.	Quantity	Description	Unit Price	Total Amount
5)	10 EA	Removal & Disposal of Existing 48-Inch Manhole, (0'-5' Depth), complete and in place, for the sum of: ONE THOUSAND dollars and NO cents per each. (Pay Note D3)	$ 1,000.00	$ 10,000.00
6)	35 VF	Remove & Disposal of Existing 48-Inch Manhole Additional Depth, (> 5'), complete and in place, for the sum of: TWO HUNDRED dollars and NO cents per vertical foot. (Pay Note D4)	$ 200.00	$ 7,000.00
Total Demolition Items 1-6		$ 29,950.00		

Water Items				
Item No.	Quantity	Description	Unit Price	Total Amount
1)	100 LF	16-Inch Ductile Iron Pipe Pressure Class 150, Water Main, furnished, installed, complete and in place, for the sum of: NINETY FIVE dollars and NO cents per linear foot. (Pay Note W1)	$ 95.00	$ 9,500.00
2)	100 LF	12-Inch Ductile Iron Pipe Pressure Class 150, Water Main, furnished, installed, complete and in place, for the sum of: SIXTY SEVEN dollars and NO cents per linear foot. (Pay Note W1)	$ 67.00	$ 6,700.00
3)	100 LF	10-Inch Ductile Iron Pipe Pressure Class 150, Water Main, furnished, installed, complete and in place, for the sum of: FIFTY SEVEN dollars and NO cents per linear foot. (Pay Note W1)	$ 57.00	$ 5,700.00
4)	100 LF	8-Inch Ductile Iron Pipe Pressure Class 150, Water Main, furnished, installed, complete and in place, for the sum of: FIFTY TWO dollars and NO cents per linear foot. (Pay Note W1)	$ 52.00	$ 5,200.00
5)	100 LF	6-Inch Ductile Iron Pipe Pressure Class 150, Water Main, furnished, installed, complete and in place, for the sum of: FORTY FIVE dollars and NO cents per linear foot. (Pay Note W1)	$ 45.00	$ 4,500.00
6)	100 LF	12-Inch AWWA C-900 DR18, PVC, Water Main, furnished, installed, complete and in place, for the sum of: FIFTY SEVEN dollars and NO cents per linear foot. (Pay Note W1)	$ 57.00	$ 5,700.00

Water Items				
Item No.	Quantity	Description	Unit Price	Total Amount
7)	100 LF	10-Inch AWWA C-900 DR18, PVC, Water Main, furnished, installed, complete and in place, for the sum of: FIFTY dollars and NO cents per linear foot. (Pay Note W1)	$ 50.00	$ 5,000.00
8)	200 LF	8-Inch AWWA C-900 DR18, PVC, Water Main, furnished, installed, complete and in place, for the sum of: FORTY FOUR dollars and NO cents per linear foot. (Pay Note W1)	$ 44.00	$ 8,800.00
9)	200 LF	6-Inch AWWA C-900 DR18, PVC, Water Main, furnished, installed, complete and in place, for the sum of: THIRTY NINE dollars and NO cents per linear foot. (Pay Note W1)	$ 39.00	$ 7,800.00
10)	5 EA	16-Inch Tapping Sleeve, furnished, installed, complete and in place, for the sum of: FORTY THREE HUNDRED FIFTY dollars and NO cents per each. (Pay Note W2)	$ 4,350.00	$ 21,750.00
11)	5 EA	12-Inch Tapping Sleeve, furnished, installed, complete and in place, for the sum of: THIRTY SEVEN HUNDRED TWENTY dollars and NO cents per each. (Pay Note W2)	$ 3,720.00	$ 18,600.00
12)	5 EA	10-Inch Tapping Sleeve, furnished, installed, complete and in place, for the sum of: TWENTY SEVEN HUNDRED dollars and NO cents per each. (Pay Note W2)	$ 2,700.00	$ 13,500.00
13)	5 EA	8-Inch Tapping Sleeve, furnished, installed, complete and in place, for the sum of: TWENTY THREE HUNDRED dollars and NO cents per each. (Pay Note W2)	$ 2,300.00	$ 11,500.00

Water Items				
Item No.	Quantity	Description	Unit Price	Total Amount
14)	15 EA	6-Inch Tapping Sleeve, furnished, installed, complete and in place, for the sum of: TWENTY ONE HUNDRED dollars and NO cents per each. (Pay Note W2)	$ 2,100.00	$ 31,500.00
15)	8 EA	16-Inch Gate Valve & Vault (MJxMJ/FL), furnished, installed, complete and in place, for the sum of: TWELVE THOUSAND SEVEN HUNDRED dollars and NO cents per each. (Pay Note W3)	12,700.00	101,600.00
16)	15 EA	12-Inch Gate Valve & Box (MJxMJ/FL), furnished, installed, complete and in place, for the sum of: THIRTY SIX HUNDRED SEVENTY dollars and NO cents per each. (Pay Note W4)	3,670.00 $	55,050.0 $
17)	8 EA	10-Inch Gate Valve & Box (MJxMJ/FL), furnished, installed, complete and in place, for the sum of: TWENTY SIX HUNDRED SIXTY dollars and NO cents per each. (Pay Note W4)	2,660.00 $	21,280.00 $
18)	15 EA	8-Inch Gate Valve & Box (MJxMJ/FL), furnished, installed, complete and in place, for the sum of: NINETEEN HUNDRED EIGHTY dollars and NO cents per each. (Pay Note W4)	1,980.00 $	29,700.00 $
19)	30 EA	6-Inch Gate Valve & Box (MJxMJ/FL), furnished, installed, complete and in place, for the sum of: ONE THOUSAND FOUR HUNDRED FIFTY dollars and NO cents per each. (Pay Note W4)	1,450.00 $	43,500.00 $
20)	15 EA	Fire Hydrant, (≤ 5' Water Main Bury Depth), furnished, installed, complete and in place, for the sum of: THIRTY FIVE HUNDRED dollars and NO cents per each. (Pay Note W5)	3,500.00 $	52,500.00 $

Water Items				
Item No.	Quantity	Description	Unit Price	Total Amount
21)	50 EA	Fire Hydrant Riser, (> 5' Water Main Bury Depth), furnished, installed, complete and in place, for the sum of: SEVEN HUNDRED FIFTY dollars and NO cents per each. (Pay Note W6)	$ 750.00	$ 37,500.00
22)	2150 LB	Ductile Iron Fittings, furnished, installed, complete and in place, for the sum of: SEVEN dollars and NO cents per pound. (Pay Note W7)	$ 7.00	$ 15,050.00
23)	5 EA	Anchor Coupling / Foster Adaptor, furnished, installed, complete and in place, for the sum of: EIGHT HUNDRED dollars and NO cents per each. (Pay Note W8)	$ 800.00	$ 4,000.00
24)	4 EA	16-Inch by 2-Inch Tapping Saddle for water service connection, furnished, installed, complete and in place, for the sum of: FIVE HUNDRED SIXTY dollars and NO cents per each. (Pay Note W9)	$ 560.00	$ 2,240.00
25)	5 EA	16-Inch by 1-Inch Tapping Saddle for water service connection, furnished, installed, complete and in place, for the sum of: FIVE HUNDRED THIRTY dollars and NO cents per each. (Pay Note W9)	$ 530.00	$ 2,650.00
26)	7 EA	12-Inch by 2-Inch Tapping Saddle for water service connection, furnished, installed, complete and in place, for the sum of: FOUR HUNDRED NINETY dollars and NO cents per each. (Pay Note W9)	$ 490.00	$ 3,430.00
27)	10 EA	12-Inch by 1-Inch Tapping Saddle for water service connection, furnished, installed, complete and in place, for the sum of: FOUR HUNDRED SEVENTY FIVE dollars and NO cents per each. (Pay Note W9)	$ 475.00	$ 4,750.00

Water Items				
Item No.	Quantity	Description	Unit Price	Total Amount
28)	7 EA	10-Inch by 2-Inch Tapping Saddle for water service connection, furnished, installed, complete and in place, for the sum of: FOUR HUNDRED SEVENTY dollars and NO cents per each. (Pay Note W9)	$ 470.00	$ 3,290.00
29)	8 EA	10-Inch by 1-Inch Tapping Saddle for water service connection, furnished, installed, complete and in place, for the sum of: FOUR HUNDRED FIFTY FIVE dollars and NO cents per each. (Pay Note W9)	$ 455.00	$ 3,640.00
30)	7 EA	8-Inch by 2-Inch Tapping Saddle for water service connection, furnished, installed, complete and in place, for the sum of: FOUR HUNDRED SIXTY dollars and NO cents per each. (Pay Note W9)	$ 460.00	$ 3,220.00
31)	15 EA	8-Inch by 1-Inch Tapping Saddle for water service connection, furnished, installed, complete and in place, for the sum of: FOUR HUNDRED FIFTY dollars and NO cents per each. (Pay Note W9)	$ 450.00	$ 6,750.00
32)	15 EA	6-Inch by 2-Inch Tapping Saddle for water service connection, furnished, installed, complete and in place, for the sum of: FOUR HUNDRED FIFTY FIVE dollars and NO cents per each. (Pay Note W9)	$ 455.00	$ 6,825.00
33)	35 EA	6-Inch by 1-Inch Tapping Saddle for water service connection, furnished, installed, complete and in place, for the sum of: FOUR HUNDRED FORTY dollars and NO cents per each. (Pay Note W9)	$ 440.00	$ 15,400.00

Water Items				
Item No.	Quantity	Description	Unit Price	Total Amount
34)	40 EA	2-Inch Water Service Connection, furnished, installed, complete and in place, for the sum of: THREE THOUSAND THIRTY dollars and NO cents per each. (Pay Note W10)	$ 3,030.00	$ 121,200.00
35)	60 EA	1-Inch Water Service Connection, furnished, installed, complete and in place, for the sum of: TWENTY THREE HUNDRED TWENTY dollars and NO cents per each. (Pay Note W10)	$ 2,320.00	$ 139,200.00
36)	600 LF	2-Inch Water Service Lateral, furnished, installed, complete and in place, for the sum of: SIXTEEN dollars and NO cents per linear foot. (Pay Note W11)	$ 16.00	$ 9,600.00
37)	1300 LF	1-Inch Water Service Lateral, furnished, installed, complete and in place, for the sum of: FIFTEEN dollars and NO cents per linear foot. (Pay Note W11)	$ 15.00	$ 19,500.00
38)	5 EA	Flushing Station, installed, complete and in place, for the sum of: FIFTY NINE HUNDRED FIFTY dollars and NO cents per each. (Pay Note W12)	$ 5,950.00	$ 29,750.00
39)	5 EA	Sampling Station, installed, complete and in place, for the sum of: THIRTY ONE HUNDRED TEN dollars and NO cents per each. (Pay Note W13)	$ 3,110.00	$ 15,550.00
40)	15 EA	Water Meter Installation (New Service Line), furnished, installed, complete and in place, for the sum of: TWO HUNDRED NINETY dollars and NO cents per each. (Pay Note W14)	$ 290.00	$ 4,350.00

Water Items				
Item No.	Quantity	Description	Unit Price	Total Amount
41)	40 EA	Water Meter & Meter Box Installation (Existing Service Line), furnished, installed, complete and in place, for the sum of: FOUR HUNDRED SEVENTY FIVE dollars and NO cents per each. (Pay Note W15)	$ 475.00	$ 19,000.00
42)	15 EA	Replace Water Meter In Existing Vault, furnished, installed, complete and in place, for the sum of: ONE THOUSAND dollars and NO cents per each. (Pay Note W16)	$ 1,000.00	$ 15,000.00
43)	500 VF	Water Service Connection Depth, (0'-12'), furnished, installed, complete and in place, for the sum of: ONE HUNDRED dollars and NO cents per vertical foot. (Pay Note W17)	$ 100.00	$ 50,000.00
44)	1300 LF	Open Trench Depth, (0'-5') of water main, furnished, installed, complete and in place, for the sum of: SEVEN dollars and NO cents per linear foot. (Pay Note W18)	$ 7.00	$ 9,100.00
45)	200 LF	Open Trench Depth, (5'-8') of water main, furnished, installed, complete and in place, for the sum of: NINE dollars and NO cents per linear foot. (Pay Note W18)	$ 9.00	$ 1,800.00
46)	100 LF	Open Trench Depth, (8'-10') of water main, furnished, installed, complete and in place, for the sum of: TWELVE dollars and NO cents per linear foot. (Pay Note W18)	$ 12.00	$ 1,200.00
47)	100 LF	Open Trench Depth, (10'-12') of water main, furnished, installed, complete and in place, for the sum of: TWENTY TWO dollars and NO cents per linear foot. (Pay Note W18)	$ 22.00	$ 2,200.00
Total Water Items 1-47			$ 984,575.00	

Wastewater Items				
Item No.	Quantity	Description	Unit Price	Total Amount
1)	100 LF	16-Inch SDR 26 ASTM D2241, PVC, Wastewater Main, furnished, installed, complete and in place, for the sum of: SEVENTY FIVE dollars and NO cents per linear foot. (Pay Note WW1)	$ 75.00	$ 7,500.00
2)	100 LF	12-Inch SDR 26 ASTM D2241, PVC, Wastewater Main, furnished, installed, complete and in place, for the sum of: FIFTY FOUR dollars and NO cents per linear foot. (Pay Note WW1)	$ 54.00	$ 5,400.00
3)	100 LF	10-Inch SDR 26 ASTM D2241, PVC, Wastewater Main, furnished, installed, complete and in place, for the sum of: FORTY SEVEN dollars and NO cents per linear foot. (Pay Note WW1)	$ 47.00	$ 4,700.00
4)	100 LF	8-Inch SDR 26 ASTM D2241, PVC, Wastewater Main, furnished, installed, complete and in place, for the sum of: FORTY TWO dollars and NO cents per linear foot. (Pay Note WW1)	$ 42.00	$ 4,200.00
5)	100 LF	6-Inch SDR 26 ASTM D2241, PVC, Wastewater Main, furnished, installed, complete and in place, for the sum of: THIRTY EIGHT dollars and NO cents per linear foot. (Pay Note WW1)	$ 38.00	$ 3,800.00
6)	100 LF	15-Inch SDR 26 ASTM D3034, PS115, PVC, Wastewater Main, furnished, installed, complete and in place, for the sum of: SEVENTY FIVE dollars and NO cents per linear foot. (Pay Note WW1)	$ 75.00	$ 7,500.00

Wastewater Items				
Item No.	Quantity	Description	Unit Price	Total Amount
7)	100 LF	12-Inch SDR 26 ASTM D3034, PS115, PVC, Wastewater Main, furnished, installed, complete and in place, for the sum of: FIFTY THREE dollars and NO cents per linear foot. (Pay Note WW1)	$ 53.00	$ 5,300.00
8)	100 LF	10-Inch SDR 26 ASTM D3034, PS115, PVC, Wastewater Main, furnished, installed, complete and in place, for the sum of: FORTY EIGHT dollars and NO cents per linear foot. (Pay Note WW1)	$ 48.00	$ 4,800.00
9)	100 LF	8-Inch SDR 26 ASTM D3034, PS115, PVC, Wastewater Main, furnished, installed, complete and in place, for the sum of: FORTY TWO dollars and NO cents per linear foot. (Pay Note WW1)	$ 42.00	$ 4,200.00
10)	100 LF	6-Inch SDR 26 ASTM D3034, PS115, PVC, Wastewater Main, furnished, installed, complete and in place, for the sum of: THIRTY SEVEN dollars and NO cents per linear foot. (Pay Note WW1)	$ 37.00	$ 3,700.00
11)	100 LF	15-Inch SDR 35 ASTM D3034, PS46, PVC, Wastewater Main, furnished, installed, complete and in place, for the sum of: SEVENTY ONE dollars and NO cents per linear foot. (Pay Note WW1)	$ 71.00	$ 7,100.00
12)	100 LF	12-Inch SDR 35 ASTM D3034, PS46, PVC, Wastewater Main, furnished, installed, complete and in place, for the sum of: FORTY SIX dollars and NO cents per linear foot. (Pay Note WW1)	$ 46.00	$ 4,600.00

Wastewater Items				
Item No.	Quantity	Description	Unit Price	Total Amount
13)	100 LF	10-Inch SDR 35 ASTM D3034, PS46, PVC, Wastewater Main, furnished, installed, complete and in place, for the sum of: FORTY FIVE dollars and NO cents per linear foot. (Pay Note WW1)	$ 45.00	$ 4,500.00
14)	100 LF	8-Inch SDR 35 ASTM D3034, PS46, PVC, Wastewater Main, furnished, installed, complete and in place, for the sum of: FORTY ONE dollars and NO cents per linear foot. (Pay Note WW1)	$ 41.00	$ 4,100.00
15)	200 LF	6-Inch SDR 35 ASTM D3034, PS46, PVC, Wastewater Main, furnished, installed, complete and in place, for the sum of: THIRTY SEVEN dollars and NO cents per linear foot. (Pay Note WW1)	$ 37.00	$ 7,400.00
16)	200 LF	4-Inch SDR 35 ASTM D3034, PS46, PVC, Wastewater Main, furnished, installed, complete and in place, for the sum of: THIRTY SIX dollars and NO cents per linear foot. (Pay Note WW1)	$ 36.00	$ 7,200.00
17)	3 EA	60-Inch Fiberglass Manhole, (0'-5' deep), furnished, installed, complete and in place, for the sum of: FIFTY TWO HUNDRED dollars and NO cents per each. (Pay Note WW2)	$ 5,200.00	$ 15,600.00
18)	30 VF	60-Inch Manhole Additional Bury Depth, (5'-16' deep), furnished, installed, complete and in place, for the sum of: SIX HUNDRED TWENTY dollars and NO cents per vertical foot. (Pay Note WW3)	$ 620.00	$ 18,600.00
19)	15 VF	60-Inch Manhole Additional Bury Depth, (> 16' deep), furnished, installed, complete and in place, for the sum of: SIX HUNDRED TWENTY dollars and NO cents per vertical foot. (Pay Note WW3)	$ 620.00	$ 9,300.00

Wastewater Items				
Item No.	Quantity	Description	Unit Price	Total Amount
20)	10 EA	48-Inch Fiberglass Manhole, (0'-5' deep), furnished, installed, complete and in place, for the sum of: THIRTY FIVE HUNDRED FIFTY dollars and NO cents per each. (Pay Note WW2)	$ 3,550.00	$ 35,500.00
21)	50 VF	48-Inch Manhole Additional Bury Depth, (5'-16' deep), furnished, installed, complete and in place, for the sum of: FOUR HUNDRED FORTY FIVE dollars and NO cents per vertical foot. (Pay Note WW3)	$ 445.00	$ 22,250.00
22)	25 VF	48-Inch Manhole Additional Bury Depth, (> 16' deep), furnished, installed, complete and in place, for the sum of: FOUR HUNDRED FORTY FIVE dollars and NO cents per vertical foot. (Pay Note WW3)	$ 445.00	$ 11,125.00
23)	15 EA	Connection to Existing Manhole, furnished, installed, complete and in place, for the sum of: FIFTEEN HUNDRED dollars and NO cents per each. (Pay Note WW4)	$ 1,500.00	$ 22,500.00
24)	10 EA	Manhole Drop Structure (Internal), furnished, installed, complete and in place, for the sum of: SIXTEEN HUNDRED FIFTY dollars and NO cents per each. (Pay Note WW5)	$ 1,650.00	$ 16,500.00
25)	10 EA	Manhole Drop Structure (External), furnished, installed, complete and in place, for the sum of: TWENTY EIGHT HUNDRED dollars and NO cents per each. (Pay Note WW5)	$ 2,800.00	$ 28,000.00
26)	10 EA	6-Inch Wastewater Service Connection, furnished, installed, complete and in place, for the sum of: THIRTY THREE HUNDRED dollars and NO cents per each. (Pay Note WW6)	$ 3,300.00	$ 33,000.00

Wastewater Items				
Item No.	Quantity	Description	Unit Price	Total Amount
27)	30 EA	4-Inch Wastewater Service Connection, furnished, installed, complete and in place, for the sum of: THIRTY TWO HUNDRED FIFTY dollars and NO cents per each. (Pay Note WW6)	$ 3,250.00	$ 97,500.00
28)	200 LF	6-Inch Wastewater Service Lateral, furnished, installed, complete and in place, for the sum of: TWENTY ONE dollars and NO cents per linear foot. (Pay Note WW7)	$ 21.00	$ 4,200.00
29)	600 LF	4-Inch Wastewater Service Lateral, furnished, installed, complete and in place, for the sum of: TWENTY dollars and NO cents per linear foot. (Pay Note WW7)	$ 20.00	$ 12,000.00
30)	300 VF	Wastewater Service Connection Depth, (0'-24'), furnished, installed, complete and in place, for the sum of: TWO HUNDRED FIFTY dollars and NO cents per vertical foot. (Pay Note WW8)	$ 250.00	$ 75,000.00
31)	300 LF	Open Trench Depth, (0'-5') of wastewater main, furnished, installed, complete and in place, for the sum of: SEVEN dollars and NO cents per linear foot. (Pay Note WW9)	$ 7.00	$ 2,100.00
32)	800 LF	Open Trench Depth, (5'-8') of wastewater main, furnished, installed, complete and in place, for the sum of: NINE dollars and NO cents per linear foot. (Pay Note WW9)	$ 9.00	$ 7,200.00
33)	300 LF	Open Trench Depth, (8'-10') of wastewater main, furnished, installed, complete and in place, for the sum of: TWELVE dollars and NO cents per linear foot. (Pay Note WW9)	$ 12.00	$ 3,600.00

Wastewater Items				
Item No.	Quantity	Description	Unit Price	Total Amount
34)	300 LF	Open Trench Depth, (10'-12') of wastewater main, furnished, installed, complete and in place, for the sum of: TWENTY TWO dollars and NO cents per linear foot. (Pay Note WW9)	$ 22.00	$ 6,600.00
35)	200 LF	Open Trench Depth, (12'-14') of wastewater main, furnished, installed, complete and in place, for the sum of: TWENTY SIX dollars and NO cents per linear foot. (Pay Note WW9)	$ 26.00	$ 5,200.00
36)	200 LF	Open Trench Depth, (14'-16') of wastewater main, furnished, installed, complete and in place, for the sum of: THIRTY TWO dollars and NO cents per linear foot. (Pay Note WW9)	$ 32.00	$ 6,400.00
37)	100 LF	Open Trench Depth, (16'-18') of wastewater main, furnished, installed, complete and in place, for the sum of: THIRTY FIVE dollars and NO cents per linear foot. (Pay Note WW9)	$ 35.00	$ 3,500.00
38)	100 LF	Open Trench Depth, (18'-20') of wastewater main, furnished, installed, complete and in place, for the sum of: FORTY TWO dollars and NO cents per linear foot. (Pay Note WW9)	$ 42.00	$ 4,200.00
39)	100 LF	Open Trench Depth, (20'-22') of wastewater main, furnished, installed, complete and in place, for the sum of: FORTY FIVE dollars and NO cents per linear foot. (Pay Note WW9)	$ 45.00	$ 4,500.00

Wastewater Items				
Item No.	Quantity	Description	Unit Price	Total Amount
40)	100 LF	Open Trench Depth, (22'-24') of wastewater main, furnished, installed, complete and in place, for the sum of: FIFTY dollars and NO cents per linear foot. (Pay Note WW9)	$ 50.00	$ 5,000.00
Total Wastewater Items 1-40		$ 535,375.00		

Miscellaneous Items				
Item No.	Quantity	Description	Unit Price	Total Amount
1)	100 LF	20" Steel Pipe Casing (¼" Wall Thickness), furnished, installed, complete and in place, for the sum of: ONE HUNDRED THIRTY dollars and NO cents per linear foot. (Pay Note M1)	$ 130.00	$ 13,000.00
2)	100 LF	16" Steel Pipe Casing (¼" Wall Thickness), furnished, installed, complete and in place, for the sum of: ONE HUNDRED FIVE dollars and NO cents per linear foot. (Pay Note M1)	$ 105.00	$ 10,500.00
3)	100 LF	12" Steel Pipe Casing (¼" Wall Thickness), furnished, installed, complete and in place, for the sum of: EIGHTY THREE dollars and NO cents per linear foot. (Pay Note M1)	$ 83.00	$ 8,300.00
4)	100 LF	12" PVC Pipe Casing, SDR 26 ASTM D2241, furnished, installed, complete and in place, for the sum of: SIXTY FIVE dollars and NO cents per linear foot. (Pay Note M1)	$ 65.00	$ 6,500.00
5)	100 LF	Cement Stabilized Sand Bedding (2.5-Sack), furnished, installed, complete and in place, for the sum of: THIRTY FIVE dollars and NO cents per linear foot. (Pay Note M2)	$ 35.00	$ 3,500.00
6)	100 LF	8" HDPE Force Main, furnished, installed, complete and in place, for the sum of: FIFTY FIVE dollars and NO cents per linear foot. (Pay Note M3)	$ 55.00	$ 5,500.00
7)	100 LF	6" HDPE Force Main, furnished, installed, complete and in place, for the sum of: FORTY EIGHT dollars and NO cents per linear foot. (Pay Note M3)	$ 48.00	$ 4,800.00
8)	5 EA	16-Inch Gate Valve & Vault Replacement / Installation (Stand Alone), furnished, installed, complete and in place, for the sum of: TWENTY THOUSAND dollars and NO cents per each. (Pay Note M4)	$ 20,000.00	$ 100,000.00

Miscellaneous Items				
Item No.	Quantity	Description	Unit Price	Total Amount
9)	10 EA	12-Inch Gate Valve & Box Replacement / Installation (Stand Alone), furnished, installed, complete and in place, for the sum of: SIXTY EIGHT HUNDRED dollars and NO cents per each. (Pay Note M5)	$ 6,800.00	$ 68,000.00
10)	10 EA	10-Inch Gate Valve & Box Replacement / Installation (Stand Alone), furnished, installed, complete and in place, for the sum of: FIFTY SEVEN HUNDRED dollars and NO cents per each. (Pay Note M5)	$ 5,700.00	$ 57,000.00
11)	10 EA	8-Inch Gate Valve & Box Replacement / Installation (Stand Alone), furnished, installed, complete and in place, for the sum of: FORTY SEVEN HUNDRED dollars and NO cents per each. (Pay Note M5)	$ 4,700.00	$ 47,000.00
12)	10 EA	6-Inch Gate Valve & Box Replacement / Installation (Stand Alone), furnished, installed, complete and in place, for the sum of: FORTY ONE HUNDRED dollars and NO cents per each. (Pay Note M5)	$ 4,100.00	$ 41,000.00
13)	300 LF	Additional Labor, Downtown Area, Water Improvements, furnished, installed, complete and in place, for the sum of: THIRTY dollars and NO cents per linear foot. (Pay Note M6)	$ 30.00	$ 9,000.00
14)	300 LF	Additional Labor, Downtown Area, Wastewater Improvements, furnished, installed, complete and in place, for the sum of: THIRTY dollars and NO cents per linear foot. (Pay Note M7)	$ 30.00	$ 9,000.00
15)	N/A	Material Mark-up, complete and in place, for the sum of: FIFTEEN percent. (Pay Note M8)	% 15	$ N/A

Miscellaneous Items				
Item No.	Quantity	Description	Unit Price	Total Amount
16)	N/A	Labor Mark-up (regular work hours), complete and in place, for the sum of: FIFTEEN percent. (Pay Note M9)	% 15	$ N/A
17)	N/A	Equipment Rental Mark-up (non-standard equipment only), complete and in place, for the sum of: FIFTEEN percent. (Pay Note M10)	% 15	$ N/A
Total Miscellaneous Items 1-17		$ 383,100.00		

Paving Items				
Item No.	Quantity	Description	Unit Price	Total Amount
1)	100 SY	Concrete Utility Cut Repair (6" thickness), furnished, installed, complete and in place, for the sum of: ONE HUNDRED TEN dollars and NO cents per square yard. (Pay Note P1)	$ 110.00	$ 11,000.00
2)	1200 SY	Asphalt Utility Cut Repair (2" thickness), furnished, installed, complete and in place, for the sum of: SIXTY dollars and NO cents per square yard. (Pay Note P2)	$ 60.00	$ 72,000.00
3)	400 SY	Base Rock Utility Cut Repair (6" thickness), furnished, installed, complete and in place, for the sum of: THIRTY FIVE dollars and NO cents per square yard. (Pay Note P3)	$ 35.00	$ 14,000.00
4)	1300 SY	Flowable Fill / 2-Sack Backfill (20" thickness), furnished, installed, complete and in place, for the sum of: FORTY FIVE dollars and NO cents per square yard. (Pay Note P4)	$ 45.00	$ 58,500.00
5)	100 EA	Erosion/Sediment Control, furnished, installed, complete and in place, for the sum of: SEVENTY FIVE dollars and NO cents per each. (Pay Note P5)	$ 75.00	$ 7,500.00
6)	100 EA	Job Site Safety, furnished, installed, complete and in place, for the sum of: FIFTY dollars and NO cents per each. (Pay Note P6)	$ 50.00	$ 5,000.00
7)	70 EA	Traffic Control for Collector/Local Road Conditions, furnished, installed, complete and in place, for the sum of: FIFTEEN HUNDRED dollars and NO cents per each. (Pay Note P7)	$ 1,500.00	$ 105,000.00

Paving Items				
Item No.	Quantity	Description	Unit Price	Total Amount
8)	30 EA	Traffic Control for Alley/Easement Conditions, furnished, installed, complete and in place, for the sum of: FIVE HUNDRED dollars and NO cents per each. (Pay Note P8)	$ 500.00	$ 15,000.00
Total Paving Items 1-8		$ 288,000.00		

Bid Price For:	
1. Demolition Items	$ 29,950.00
2. Water Items	$ 984,575.00
3. Wastewater Items	$ 535,375.00
4. Miscellaneous Items	$ 383,100.00
5. Paving Items	$ 288,000.00
Total Price	$ 2,221,000.00

In addition to providing the individual prices for the items above, Contract shall write the total bid amount in the sum of

TWO MILLION TWO HUNDRED TWENTY ONE THOUSAND dollars

and NO cents total.

The undersigned bidder hereby declares that he has visited the site of the work and has carefully examined the contract documents pertaining to the work covered by the above bid. The selected contractor will receive written notice to proceed. The initial term of the contract shall expire on September 30, 2021. If the Owner and Contractor agree in writing, the contract may be renewed for up to two (2) additional one (1) year terms (at an amount not to exceed $750,000 per term).

PUBLIC INFORMATION

To the extent that Bidder is submitting a bid for a contract described by Section 552.371 of the Texas Government Code, Bidder agrees as follows in accordance with Section 552.372(b) of the Texas Government Code: The requirements of Subchapter J, Chapter 552, Government Code, may apply to this bid, and the contractor or vendor agrees that the contract can be terminated if the contractor or vendor knowingly or intentionally fails to comply with a requirement of that subchapter.

Enclosed herewith in this proposal is a cashier's check, cash or bid bond on a form approved by the City Attorney, for

Fifty Thousand dollars

and No cents total. ($ 50,000)

which it is agreed shall be collected and retained by the owner as liquidated damages in the event this proposal is accepted by the Owner within thirty days (30) after the date advertised for the reception of bids and the undersigned fails to execute the contract and required bonds with the owner, under the conditions thereof, within (15) days after the date said proposal is accepted; otherwise said check or bond shall be returned to the undersigned on demand.

TEC EXCAVATION, INC.

Name of Contractor

P.O. BOX 80455 MIDLAND, TX 79708

Twyla Clutter Twyla Clutter President

Submitted By Print Name and Title

P.O. BOX 80455

Mailing Address

MIDLAND TX 79708

City State Zip

PAY NOTES

Water, Wastewater, & Fire Hydrant Taps Expanded Program 05

Bid Item		Pay Quantity Note
Demolition		
1	Removal & Disposal of Existing Utility Mains	D1
2	Flowable Fill for Existing Utility Mains Abandoned In Place	D2
3	Removal & Disposal of Existing 60" Manhole (0'-5' Depth)	D3
4	Removal & Disposal of Existing 60" Manhole Additional Depth (>5')	D4
5	Removal & Disposal of Existing 48" Manhole (0'-5' Depth)	D3
6	Removal & Disposal of Existing 48" Manhole Additional Depth (>5')	D4
Water Improvements		
1	16" DIP Pressure Class 150	W1
2	12" DIP Pressure Class 150	W1
3	10" DIP Pressure Class 150	W1
4	8" DIP Pressure Class 150	W1
5	6" DIP Pressure Class 150	W1
6	12" AWWA C-900 DR 18, PVC	W1
7	10" AWWA C-900 DR 18, PVC	W1
8	8" AWWA C-900 DR 18, PVC	W1
9	6" AWWA C-900 DR 18, PVC	W1
10	16" Tapping Sleeve	W2
11	12" Tapping Sleeve	W2
12	10" Tapping Sleeve	W2
13	8" Tapping Sleeve	W2
14	6" Tapping Sleeve	W2
15	16" Gate Valve & Vault (MJxMJ/FL)	W3
16	12" Gate Valve & Box (MJxMJ/FL)	W4
17	10" Gate Valve & Box (MJxMJ/FL)	W4
18	8" Gate Valve & Box (MJxMJ/FL)	W4
19	6" Gate Valve & Box (MJxMJ/FL)	W4
20	Fire Hydrant (≤ 5' Water Main Bury Depth)	W5
21	Fire Hydrant Riser (> 5' Water Main Bury Depth)	W6
22	Ductile Iron Fittings	W7
23	Anchor Coupling / Foster Adaptor	W8
24	16" x 2" Tapping Saddle	W9
25	16" x 1" Tapping Saddle	W9
26	12" x 2" Tapping Saddle	W9
27	12" x 1" Tapping Saddle	W9
28	10" x 2" Tapping Saddle	W9
29	10" x 1" Tapping Saddle	W9
30	8" x 2" Tapping Saddle	W9
31	8" x 1" Tapping Saddle	W9
32	6" x 2" Tapping Saddle	W9
33	6" x 1" Tapping Saddle	W9
34	2" Water Service Connection	W10
35	1" Water Service Connection	W10
36	2" Water Service Lateral	W11
37	1" Water Service Lateral	W11
38	Flushing Station Installation	W12
39	Sampling Station Installation	W13
40	Water Meter Installation (New Service Line)	W14
41	Water Meter & Meter Box Installation (Existing Service Line)	W15
42	Replace Water Meter In Existing Vault	W16
43	Water Service Connection Depth (0' - 12')	W17
44	Open Trench Depth (0' - 5')	W18
45	Open Trench Depth (5' - 8')	W18
46	Open Trench Depth (8' - 10')	W18
47	Open Trench Depth (10' - 12')	W18

Wastewater Improvements

1	16" SDR 26 ASTM D2241, PVC	WW1
2	12" SDR 26 ASTM D2241, PVC	WW1
3	10" SDR 26 ASTM D2241, PVC	WW1
4	8" SDR 26 ASTM D2241, PVC	WW1
5	6" SDR 26 ASTM D2241, PVC	WW1
6	15" SDR 26 ASTM D3034, PS115, PVC	WW1
7	12" SDR 26 ASTM D3034, PS115, PVC	WW1
8	10" SDR 26 ASTM D3034, PS115, PVC	WW1
9	8" SDR 26 ASTM D3034, PS115, PVC	WW1
10	6" SDR 26 ASTM D3034, PS115, PVC	WW1
11	15" SDR 35 ASTM D3034, PS46, PVC	WW1
12	12" SDR 35 ASTM D3034, PS46, PVC	WW1
13	10" SDR 35 ASTM D3034, PS46, PVC	WW1
14	8" SDR 35 ASTM D3034, PS46, PVC	WW1
15	6" SDR 35 ASTM D3034, PS46, PVC	WW1
16	4" SDR 35 ASTM D3034, PS46, PVC	WW1
17	60" Fiberglass Manhole (0'-5' Deep)	WW2
18	60" Manhole Additional Bury Depth (5'-16' Deep)	WW3
19	60" Manhole Additional Bury Depth (> 16' Deep)	WW3
20	48" Fiberglass Manhole (0'-5' Deep)	WW2
21	48" Manhole Additional Bury Depth (5'-16' Deep)	WW3
22	48" Manhole Additional Bury Depth (> 16' Deep)	WW3
23	Connect To Existing Manhole	WW4
24	Manhole Drop Structure (Internal)	WW5
25	Manhole Drop Structure (External)	WW5
26	6" Wastewater Service Connection	WW6
27	4" Wastewater Service Connection	WW6
28	6" Wastewater Service Lateral	WW7
29	4" Wastewater Service Lateral	WW7
30	Wastewater Service Connection Depth (0' - 24')	WW8
31	Open Trench Depth (0' - 5')	WW9
32	Open Trench Depth (5' - 8')	WW9
33	Open Trench Depth (8' - 10')	WW9
34	Open Trench Depth (10' - 12')	WW9
35	Open Trench Depth (12' - 14')	WW9
36	Open Trench Depth (14' - 16')	WW9
37	Open Trench Depth (16' - 18')	WW9
38	Open Trench Depth (18' - 20')	WW9
39	Open Trench Depth (20' - 22')	WW9
40	Open Trench Depth (22' - 24')	WW9

Miscellaneous Improvements

1	20" Steel Pipe Casing, 1/4" Wall Thickness	M1
2	16" Steel Pipe Casing, 1/4" Wall Thickness	M1
3	12" Steel Pipe Casing, 1/4" Wall Thickness	M1
4	12" PVC Pipe Casing, SDR 26 ASTM D2241	M1
5	Cement Stabilized Sand Bedding (2.5-Sack)	M2
6	8" HDPE Force Main	M3
7	6" HDPE Force Main	M3
8	16" Gate Valve & Vault Replacement / Installation (Stand Alone)	M4
9	12" Gate Valve & Box Replacement / Installation (Stand Alone)	M5
10	10" Gate Valve & Box Replacement / Installation (Stand Alone)	M5
11	8" Gate Valve & Box Replacement / Installation (Stand Alone)	M5
12	6" Gate Valve & Box Replacement / Installation (Stand Alone)	M5
13	Additional Labor, Downtown Area, Water Improvements	M6
14	Additional Labor, Downtown Area, Wastewater Improvements	M7
15	Material Mark-Up	M8
16	Labor Mark-Up (regular work hours)	M9
17	Equipment Rental Mark-up (non-standard equipment only)	M10

Paving Improvements

1	Concrete Utility Cut Repair (6" thickness)	P1
2	Asphalt Utility Cut Repair (2" thickness)	P2
3	Base Rock Utility Cut Repair (6" thickness)	P3
4	Flowable Fill / 2-Sack Backfill (20" thickness)	P4
5	Erosion/Sediment Control	P5
6	Job Site Safety	P6
7	Traffic Control for Collector/Local Road Conditions	P7
8	Traffic Control for Alley/Easement Conditions	P8

PAY QUANTITY NOTES

D1 Includes the necessary equipment, labor, materials, and incidentals for the Removal & Disposal of Existing Utility Mains per the construction drawings, including all pipes, fittings, structures, and appurtenances. Measurement and payment to be per linear foot measured along the ground surface following the pipe centerline through all valves, fittings, structures, and appurtenances.

D2 Includes the necessary equipment, labor, materials, and incidentals for the placement of Flowable Fill for Existing Utility Mains Abandoned In Place (Portland Cement 2-Sack = 188 LBS/CY) per the construction drawings and City of Midland standards and specifications, including plugging (wastewater) or caping (water) the main or line to be abandoned. Measurement and payment to be made per cubic yard volume of flowable fill placed in pipe abandoned in place.

D3 Includes the necessary equipment, labor, materials, and incidentals for the Removal & Disposal of Existing Manholes per the construction drawings, including all drop structures, other structures, and appurtenances. Measurement and payment to be made per each manhole removed.

D4 Includes the necessary equipment, labor, materials, and incidentals for the Removal & Disposal of Existing Manholes at depths exceeding 5' per the construction drawings, including all drop structures, other structures, and appurtenances. Measurement and payment to be per vertical foot of existing manhole removed below a depth of 5' measured from the lowest invert at the manhole flowline and rounded up to the nearest 0.5'.

W1 Includes the necessary equipment, labor, materials, and incidentals for the installation of Water Mains per the construction drawings and City of Midland standards and specifications, including all embedment, tracer tape, necessary testing, and appurtenances. Measurement and payment to be per linear foot measured along the ground surface following the pipe centerline through all valves and fittings.

W2 Includes the necessary equipment, labor, materials, and incidentals for the installation of a Tapping Sleeve per the construction drawings and City of Midland standards and specifications, including all joint restraints, embedment, thrust blocking, and appurtenances. Valves included in Pay Notes W3 and W4. Measurement and payment to be per each tapping sleeve installed.

W3 Includes the necessary equipment, labor, materials, and incidentals for the installation of a Gate Valve & Vault per the construction drawings and City of Midland standards and specifications,including all embedment, vault, joint restraint, thrust blocking, concrete collar, and appurtenances. Measurement and payment to be per each valve installed. Includes valves associated with tapping sleeves.

W4 Includes the necessary equipment, labor, materials, and incidentals for the installation of a Gate Valve & Box per the construction drawings and City of Midland standards and specifications, including all embedment, valve box, joint restraint, thrust blocking, concrete collar, and appurtenances. Measurement and payment to be per each valve installed. Includes valves associated with tapping sleeves.

W5 Includes the necessary equipment, labor, materials, and incidentals for the installation of a Fire Hydrant (≤ 5' water main bury depth) per the construction drawings and City of Midland standards and specifications, including all embedment, gravel sump, thrust blocking, necessary testing, and appurtenances. Measurement and payment to be per each fire hydrant installed.

W6 Includes the necessary equipment, labor, materials, and incidentals for the installation of a Fire Hydrant Riser (> 5' water main bury depth) per the construction drawings and City of Midland standards and specifications, including all embedment and appurtenances. Measurement and payment to be per vertical foot of riser below a water main bury depth of 5' measured from the water main invert and rounded up to the nearest 0.5'.

W7 Includes the necessary equipment, labor, materials, and incidentals for the installation of Ductile Iron Fittings per the construction drawings and City of Midland standards and specifications, including all embedment, wrapping, thrust blocking, joint restraints, and appurtenances. All fittings are to be C153 ductile iron compact fittings. Fitting weights are established from Tyler Union Quality Waterworks Products Catalog PC-U2014, December, 2014 and payment will be made at the standard compact weight. Nuts, bolds, glands, and other associated accessories are not included as part of the fitting weight and are considered subsidiary to the weight of the fitting. Any additional required fittings not shown on the drawings will be paid for at weights established in the Tyler Union Waterworks Catalog.

W8 Includes the necessary equipment, labor, materials, and incidentals for the installation of an Anchor Coupling / Foster Adaptor per the constructoin drawings and City of Midland standards and specifications, including all embedment, wrapping, thrust blocking, and appurtenances. Measurement and payment to be per each anchor coupling / foster adapter installed.

W9 Includes the necessary equipment, labor, materials, and incidentals for the installation of a Tapping Saddle for a water service connection per the construction drawings and City of Midland standards and specifications, including all embedment, thrust blocking, and appurtenances. Measurement and payment to be per each saddle installed.

W10 Includes the necessary equipment, labor, materials, and incidentals for the installation of a Water Service Connection to the water main per the construction drawings and City of Midland standards and specifications, including the connection all brass goods from the corporation stop to the brass angle valve (inclusive) as well as the installation of a new meter box and all appurtenances. Water meters are addressed separately in Pay Notes W14, W15, and W16. Measurement and payment to be per each water service connection made.

W11 Includes the necessary equipment, labor, materials, and incidentals for the installation of a Water Service Lateral per the construction drawings and City of Midland standards and specifications, including all pipe, excavation, backfill, and appurtenances. Measurement and payment to be per linear foot measured along the ground surface following the pipe centerline through all valves and fittings.

W12 Includes the necessary equipment, labor, materials, and incidentals to install a Flushing Station per the construction drawings and City of Midland standards and specifications, and at a location directed by the Engineer, including all brass goods between the tapping saddle and the flushing station and all appurtenances. The flushing station shall be provided by the City. Measurement and payment to be per each flushing station installed.

W13 Includes the necessary equipment, labor, materials, and incidentals to install a Sampling Station per the construction drawings and City of Midland standards and specifications, and at a location directed by the Engineer, including all brass goods between the tapping saddle and the sampling station and all appurtenances. The sampling station shall be provided by the City. Measurement and payment to be per each sampling station installed.

W14 Includes the necessary equipment, labor, materials, and incidentals to set a new Water Meter as part of a new water service line installation per the construction drawings and City of MIdland standards and specifications including all appurtenances. The new water meter will be provided by the City of Midland. Measurement and payment to be per each water meter set.

W15 Includes the necessary equipment, labor, materials, and incidentals to set a new Water Meter and a new Water Meter Box on an existing water service line, or to replace an existing water meter and water meter box per the construction drawings and City of Midland standards and specifications including all appurtenances. Return the existing water meter to the City of Midland. The new water meter will be provided by the City of Midland. Measurement and payment to be per each water meter and water meter box set.

W16 Includes the necessary equipment, labor, materials, and incidentals to replace an existing Water Meter in an existing water serivce line vault per the construction drawings and City of Midland standards and specifications including all appurtenances. Return the existing water meter to the City of Midland. The new water meter will be provided by the City of Midland. Measurement and payment to be per each water meter replaced.

W17 Includes the necessary equipment, labor, materials, and incidentals for a Water Service Connection Depth per the construction drawings and City of Midland standards and specifications, including all excavation, backfill, appurtenances, and to provide trench safety and protection for workers to install water service connections between 0' - 12' in depth. Measurement and payment to be per vertical foot of connection depth measured from the existing surface to the invert of the water main being connected to and rounded up to the nearest 0.5'.

W18 Includes the necessary equipment, labor, materials, and incidentals for Open Trenching per the construction drawings and City of Midland standards and specifications, including all pavement saw cutting, pavement removal, excavation, backfill, appurtenances, and to provide trench safety and protection for workers to install water mains and laterals between 0' - 12' in depth. Depth measurement to be measured to the nearest 0.5' from the flowline of the pipe to the existing surface. Measurement and payment to be per linear foot measured along the ground surface following the pipe centerline through all valves, fittings, and appurtenances.

WW1 Includes the necessary equipment, labor, materials, and incidentals for the installation of gravity Wastewater Mains per the construction drawings and City of Midland standards and specifications, including all embedment, tracer tape, necessary testing, and appurtenances. Measurement and payment to be per linear foot measured along the ground surface following the pipe centerline through all structures and appurtenances.

WW2 Includes the necessary equipment, labor, materials, and incidentals for the installation of a Fiberglass Manhole to a depth of 5' per the construction drawings and City of Midland standards and specifications, including all embedment, base, necessary testing, and appurtenances. Measurement and payment to be per each manhole installed.

WW3 Includes the necessary equipment, labor, materials, and incidentals for the installation of Manhole Additional Bury Depth (> 5' wastewater main bury depth) per the construction drawings and City of Midland standards and specifications, including all embedment and appurtenances. Measurement and payment to be per vertical foot measured from the lowest flowline invert at the manhole to 5' below the rim elevation rounded up to the nearest 0.5'.

WW4 Includes the necessary equipment, labor, materials, and incidentals to Connect to Existing Manhole per the construction drawings and City of Midland standards and specifications, including all necessary coring, repairs, and appurtenances. Measurement and payment to be per each connection installed.

WW5 Includes the necessary equipment, labor, materials, and incidentals for the installation of an Internal or External Drop Structure per the construction drawings and City of Midland standards and specifications, including all necessary coring, repairs, and appurtenances for a vertical adjustment of up to 5'. Additional pipe required for a vertical adjustment of more than 5' will be addressed by bid items covered by Pay Note WW1 except that measurement will be per vertical foot rather than per linear foot. Measurement and payment of drop structures to be per each drop structure installed.

WW6 Includes the necessary equipment, labor, materials, and incidentals for the installation of a Wastewater Service Connection to the wastewater main per the construction drawings and City of Midland standards and specifications, including all necesary coring, repairs, and appurtenances. Measurement and payment to be per each wastewater service connection made.

WW7 Includes the necessary equipment, labor, materials, and incidentals for the installation of a Wastewater Service Lateral per the construction drawings and City of Midland standards and specifications, including all pipe excavation, backfill, and appurtenances. Measurement and payment to be per linear foot measured along the ground surface following the pipe centerline through all structures and appurtencances.

WW8 Includes the necessary equipment, labor, materials, and incidentals for a Wastewater Service Connection Depth per the construction drawings and City of Midland standards and specifications, including all excavation, backfill, appurtenances, and to provide trench safety and protection for workers to install wastewater service connections between 0' - 24' in depth. Measurement and payment to be per vertical foot of connection measured from the existing surface to the invert of the wastewater main being connected to and rounded up to the nearest 0.5'.

WW9 Includes the necessary equipment, labor, materials, and incidentals for Open Trenching per the construction drawings and City of Midland standards and specifications, including all pavement saw-cutting, pavement removal, excavation, backfill, appurtenances, and to provide trench safety and protection for workers to install wastewater mains and laterals between 0' - 24' in depth. Depth measurement to be measured to the nearest 0.5' from the flowline of the pipe to the existing surface. Measurement and payment to be per linear foot measured along the ground surface following the pipe centerline through all structures and appurtenances.

M1 Includes the necessary equipment, labor, materials, and incidentals for the installation of Pipe Casings per the construction drawings and City of Midland standards and specifications, including all spacers, grout, embedment, tracer tape, and appurtenances. Measurement and payment to be per linear foot measured along the ground surface following the pipe centerline through all valves, fittings, structures, and appurtenances.

M2 Includes the necessary equipment, labor, materials, and incidentals for the installation of Cement Stabilized Sand Bedding (Portland Cement 2.5 Sack Cement = 235 LBS/CY) per the construction drawings and Texas Administrative Code Title 30, Ch. 290, Sub-Ch. D, Rule§290.44(e)(4)(B)(v). Measurement and payment to be per linear foot measured along the ground surface following the pipe centerline through all valves, fittings, structures, and appurtenances.

M3 Includes the necessary equipment, labor, materials, and incidentals to install HDPE Force Mains per the construction drawings and City of Midland standards and specifications, including all appurtenances. Measurement and payment to be per linear foot measured along the ground surface following the pipe centerline through all structures and appurtenances.

M4 Includes the necessary equipment, labor, materials, and incidentals required to complete work for Gate Valve & Vault Replacement/Installation (Stand Alone) per the construction drawings and the City of Midland standards and specifications including replacement of existing gate valves with new gate valves and vaults or installing new gate valves and vaults at locations identified by the Engineer and including all excavation, backfill, pipe cutting, sleeves, appurtenances, and other necessary work for the valve replacement or installation. Measurement and payment to be per each gate valve and vault replaced or installed.

M5 Includes the necessary equipment, labor, materials, and incidentals required to complete work for Gate Valve & Box Replacement/Installation (Stand Alone) per the construction drawings and the City of Midland standards and specifications including replacement of existing gate valves with new gate valves and boxes or installing new gate valves and boxes at locations identified by the Engineer and including all excavation, backfill, pipe cutting, sleeves, appurtenances, and other necessary work for the valve replacement or installation. Measurement and payment to be per each gate valve and box replaced or installed.

M6 Includes the additonal necessary equipment, labor, materials, and incidentals to complete work for water improvements in the downtown midland area per the construction drawings and the City of Midland standards and specifications. The downtown Midland area is considered to be the area bordered by Kansas Avenue to the north, Lamesa Road to the east, Front Street to the south, and 'A' Street to the west. Measurement and payment to be per linear foot measured along the ground surface following the water pipe centerline through all valves, fittings, and appurtenances. This will be applied solely at the discretion of the Engineer of Record or the City of Midland designee.

M7 Includes the additonal necessary equipment, labor, materials, and incidentals to complete work for wastewater improvements in the downtown midland area per the construction drawings and the City of Midland standards and specifications. The downtown Midland area is considered to be the area bordered by Kansas Avenue to the north, Lamesa Road to the east, Front Street to the south, and 'A' Street to the west. Measurement and payment to be per linear foot measured along the ground surface following the wastewater pipe centerline through all structures and appurtenances. This will be applied solely at the discretion of the Engineer of Record or the City of Midland designee.

M8 Includes the Material Mark-up for material sizes (pipe, valve, etc.) required to complete work for utility improvements not covered by the bid items listed in the Proposal for the Utility Extension Program 04 per the construction drawings and the City of Midland standards and specifications. Measurement and payment to be per the cost of the material in question plus the set percent increase established by this bid item. The Contractor must provide a copy of the invoice for the material cost from the supplier to the Engineer of Record or the City of Midland designee before this bid item may be claimed for any material. This will be applied solely at the discretion of the Engineer of Record or the City of Midland designee.

M9 Includes the Labor Mark-up for labor required to complete work for utility improvements not covered by the bid items listed in the Proposal for the Utility Extension Program 04 per the construction drawings and the City of Midland standards and specifications. Measurement and payment to be per the cost of labor in question plus the set percent increase established by this bid item. The Contractor must provide a typical hourly pay rate for work crews prior to the percent increase along with the number of workers on the crew and the number of hours worked by the crew for the project in question to the Engineer of Record or the City of Midland designee before this bid item may be claimed for any material. This will be applied solely at the discretion of the Engineer of Record or the City of Midland designee.

M10 Includes the Equipment Rental Mark-up (non-standard equipment only) required to complete work for utility improvements not covered by the bid items listed in the Proposal for the Utility Extension Program 04 per the construction drawings and the City of Midland standards and specifications. Measurement and payment to be per the cost of the equipment rental in question plus the set percent increase established by this bid item. The Contractor must provide a copy of the invoice for the rented equipment from the equipment supplier to the Engineer of Record or the City of Midland designee before this bid item may be claimed for any rented equipment. This will be applied solely at the discretion of the Engineer of Record or the City of Midland designee.

P1 Includes the necessary equipment, labor, materials, and incidentals for Concrete Utility Cut Repair (6" thickness) including the installation/replacement of 6" concrete pavement per the construction drawings and City of Midland standards and specifications, including all pavement, jointing, sealing, and appurtenances. Concrete pavement joints are to typically be 10'x10' joints, and are to be no larger than 15'x15' joints. Concrete pavement joints are to typically be saw-cut or expansion joints. All concrete pavement joints must be sealed with TxDOT DMS-6310 SL-2 sealant. Measurement and payment to be per square yard measured along the ground surface.

P2 Includes the necessary equipment, labor, materials, and incidentals for Asphalt Utility Cut Repair (2" thickness) including the installation/replacement of 2" HMAC pavement (Type B, C or D) per the construction drawings and City of Midland standards and specifications, including all pavement, prime, tack, and appurtenances. Measurement and payment to be per square yard measured along the ground surface.

P3 Includes the necessary equipment, labor, materials, and incidentals for Base Rock Utility Cut Repair (6" thickness) including the installation of base rock backfill (City base) per the construction drawings and City of Midland standards and specifications at the Engineer's request including all pavement and appurtenances. Measurement and payment to be per square yard measured along the ground surface.

P4 Includes the necessary equipment, labor, materials, and incidentals for installation of Flowable Fill / 2-Sack Backfill (20" thickness, Portland Cement 2 Sack = 188 LBS/CY) per the construction drawings and City of Midland standards and specifications including all appurtenances. Measurement and payment to be per square yard measured along the ground surface.

P5 Includes the necessary equipment, labor, materials, and incidentals to implement the Erosion Control Plan per the construction drawings and City of Midland standards and specifications. Measurement and payment to be per each from street intersection to street intersection, or per each street crossing between blocks.

P6 Includes the necessary equipment, labor, materials, and incidentals to implement Job Site Safety and to provide a safe work environment for the project work area (including all personal protection equipment, trench safety, etc.) per the construction drawings and in compliance with all applicable Federal, State, and Local requirements or regulations including those of OSHA and the City of Midland. JOB SITE SAFETY IS THE RESPONSABILITY OF THE CONTRACTOR. Measurement and payment to be per each block measured from street intersection to street intersection, or per each street crossing between blocks.

P7 Includes the necessary equipment, labor, materials, and incidentals to implement the Traffic Control for Collector/Local Road Conditions per the approved Traffic Control Plan. Any required traffic control devices are to meet the City of Midland Traffic Division Standards. Measurement and payment to be per each block measured from street intersection to street intersection, or per each collector/local road crossed.

P8 Includes the necessary equipment, labor, materials, and incidentals to implement the Traffic Control for Alley/Easement Conditions per the approved Traffic Control Plan. Any required traffic control devices are to meet the City of Midland Traffic Division Standards. Measurement and payment to be per each block measured from street intersection to street intersection, or per each alley/easement crossed.

Bid Bond

Surety Department

KNOW ALL MEN BY THESE PRESENTS,

That we, **TEC Excavation, Inc.**, as Principal, hereinafter called the Principal, and the **Merchants Bonding Company (Mutual)**, a Corporation created and existing under the laws of the State of **Iowa**, whose principal office is in Des Moines, Iowa, as Surety, hereinafter called the Surety, are held and firmly bound unto the **City of Midland, Texas**, as Obligee, hereinafter called the Obligee, in the sum of **Five Percent (5%) of the Greatest Amount Bid** Dollars ($ ------5%--------), for the payment of which sum, well and truly to be made, the said Principal and the said Surety, bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

Whereas, the Principal has submitted a bid for

Water, Wastewater, & Fire Hydrant Taps
Expanded Program 05

NOW THEREFORE, if the Obligee shall accept the bid of the Principal and the Principal shall enter into a contract with the Obligee in accordance with the terms of such bid, and give such bond or bonds as may be specified in the bidding or contract documents with good and sufficient surety for the faithful performance of such contract and for the prompt payment of labor and material furnished in the prosecution thereof, or in the event of the failure of the Principal to enter such contract and give such bond or bonds, if the Principal shall pay to the Obligee the difference not to exceed the penalty hereof between the amount specified in said bid and such larger amount for which the Obligee may in good faith contract with another party to perform the work covered by said bid, then this obligation shall be null and void, otherwise to remain in full force and effect.

Signed and sealed this **5th** day of **August**, A.D. 20**20**.

Attest:

TEC Excavation, Inc.
(Principal)

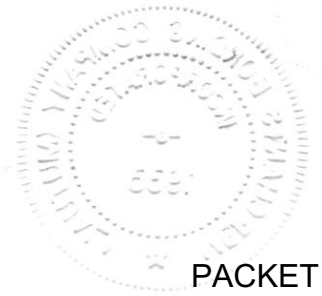
By: _____ By _____ (SEAL)

Witness:

Merchants Bonding Company (Mutual)

_____ By _____ (SEAL)
Kevin J. Dunn, Attorney-in-Fact

Form S-3266-4 Printed in U.S.A. 12-70



MERCHANTS BONDING COMPANY™

POWER OF ATTORNEY

Know All Persons By These Presents, that MERCHANTS BONDING COMPANY (MUTUAL) and MERCHANTS NATIONAL BONDING, INC., both being corporations of the State of Iowa (herein collectively called the "Companies") do hereby make, constitute and appoint, individually,

Kevin J Dunn; Roberta Erb; Steven Tucker; Tracy Tucker; W Lawrence Brown

their true and lawful Attorney(s)-in-Fact, to sign its name as surety(ies) and to execute, seal and acknowledge any and all bonds, undertakings, contracts and other written instruments in the nature thereof, on behalf of the Companies in their business of guaranteeing the fidelity of persons, guaranteeing the performance of contracts and executing or guaranteeing bonds and undertakings required or permitted in any actions or proceedings allowed by law.

This Power-of-Attorney is granted and is signed and sealed by facsimile under and by authority of the following By-Laws adopted by the Board of Directors of Merchants Bonding Company (Mutual) on April 23, 2011 and amended August 14, 2015 and adopted by the Board of Directors of Merchants National Bonding, Inc., on October 16, 2015.

"The President, Secretary, Treasurer, or any Assistant Treasurer or any Assistant Secretary or any Vice President shall have power and authority to appoint Attorneys-in-Fact, and to authorize them to execute on behalf of the Company, and attach the seal of the Company thereto, bonds and undertakings, recognizances, contracts of indemnity and other writings obligatory in the nature thereof."

"The signature of any authorized officer and the seal of the Company may be affixed by facsimile or electronic transmission to any Power of Attorney or Certification thereof authorizing the execution and delivery of any bond, undertaking, recognizance, or other suretyship obligations of the Company, and such signature and seal when so used shall have the same force and effect as though manually fixed."

In connection with obligations in favor of the Florida Department of Transportation only, it is agreed that the power and aut hority hereby given to the Attorney-in-Fact includes any and all consents for the release of retained percentages and/or final estimates on engineering and construction contracts required by the State of Florida Department of Transportation. It is fully understood that consenting to the State of Florida Department of Transportation making payment of the final estimate to the Contractor and/or its assignee, shall not relieve this surety company of any of its obligations under its bond.

In connection with obligations in favor of the Kentucky Department of Highways only, it is agreed that the power and authority hereby given to the Attorney-in-Fact cannot be modified or revoked unless prior written personal notice of such intent has been given to the Commissioner-Department of Highways of the Commonwealth of Kentucky at least thirty (30) days prior to the modification or revocation.

In Witness Whereof, the Companies have caused this instrument to be signed and sealed this 11th day of February , 2020 .

MERCHANTS NATIONAL BONDING, INC. -o- 2003

MERCHANTS BONDING COMPANY (MUTUAL) INCORPORATED -o- 1933

MERCHANTS BONDING COMPANY (MUTUAL)
MERCHANTS NATIONAL BONDING, INC.

By Larry Taylor
President

STATE OF IOWA
COUNTY OF DALLAS ss.
On this 11th day of February 2020 , before me appeared Larry Taylor, to me personally known, who being by me duly sworn did say that he is President of MERCHANTS BONDING COMPANY (MUTUAL) and MERCHANTS NATIONAL BONDING, INC.; and that the seals affixed to the foregoing instrument are the Corporate Seals of the Companies; and that the said instrument was signed and sealed in behalf of the Companies by authority of their respective Boards of Directors.

NOTARIAL SEAL IOWA

POLLY MASON
Commission Number 750576
My Commission Expires
January 07, 2023

Polly Mason
Notary Public

(Expiration of notary's commission does not invalidate this instrument)

I, William Warner, Jr., Secretary of MERCHANTS BONDING COMPANY (MUTUAL) and MERCHANTS NATIONAL BONDING, INC., do hereby certify that the above and foregoing is a true and correct copy of the POWER-OF-ATTORNEY executed by said Companies, which is still in full force and effect and has not been amended or revoked.

In Witness Whereof, I have hereunto set my hand and affixed the seal of the Companies on this 5th day of August, 2020 .

MERCHANTS NATIONAL BONDING, INC. -o- 2003

MERCHANTS BONDING COMPANY (MUTUAL) INCORPORATED -o- 1933

William Warner Jr.
Secretary

BID BOND

THE STATE OF TEXAS §

COUNTY OF MIDLAND § SURETY NO _____

KNOW ALL MEN BY THESE PRESENTS, THAT _____ (Hereinafter called the Principal), as Principal, and _____ (Hereinafter called the Surety, as Surety, are held and firmly bound unto the City of Midland, Texas a home rule municipal corporation of Midland County, Texas, (hereinafter called the Obligee), in the amount of _____ Dollars ($ _____) for the payment whereof the said Principal and surety bind themselves, and their heirs, administrators, executors, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Principal has submitted a Bid or Proposal to enter into a certain written contract for the construction of Water, Wastewater, & Fire Hydrant Taps Expanded Program 05.

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION IS SUCH, that if the said Principal shall faithfully, enter into such written Contract, then this obligation shall be void; otherwise to remain in full force and effect.

IT IS EXPRESSLY UNDERSTOOD AND AGREE that if said Principal should withdraw its Bid anytime after such Bid is opened and before official rejection to such Bid or, if successful in securing the award thereof, said Principal should fail to enter into the Contract and furnish satisfactory Performance Bond and Payment Bond, the Obligee, in either of such events, shall be entitled and is hereby given the right to collect the full amount of this Bid Bond as liquidated damage.

PROVIDED, further that if any legal action be filed upon this Bond venue shall lie in Midland County, Texas.

IN WITNESS WHEREOF, the said Principal and surety do sign and seal this instrument, this _____ day of _____ , 20___.

_____	_____
Principal	Surety
By _____	By _____
Address _____	Address _____
_____	_____
_____	_____

APPROVED AS TO FORM:

_____

City Attorney

NOTE: Attach Power of Attorney

CONTRACT

THE STATE OF TEXAS §

COUNTY OF MIDLAND §

THIS CONTRACT, made and entered into this 9th day of September, 20 20, by and between the City of Midland of the County of Midland and State of Texas, acting through its Mayor thereunto duly authorized so to do, Party of the First Part, hereinafter termed OWNER, and TEC Excavation, Inc. of the City Midland, County of Midland, State of Texas, Party of the Second Part, herein-after termed CONTRACTOR.

WITNESSETH: That for and in consideration of the payments and agreements hereinafter mentioned, to be made and performed by the Party of the first Part (OWNER), and under the conditions expressed in the bond bearing even date herewith, the said Party of the Second Part (CONTRACTOR), hereby agrees with the said Party of the First Part (OWNER) to commence and complete the construction of certain improvements described as follows: Water, Wastewater, & Fire Hydrant Taps Expanded Program 05 together with appurtenances and incidentals.

Conditions of the Contract and at his (or their) own proper cost and expense to furnish all the materials, supplies, machinery, equipment, tools, superintendent, labor, insurance and other accessories and services necessary to complete the said construction in accordance with the conditions and prices stated in the Proposal attached hereto, and in accordance with the Notice to the Contractors, General and Special Conditions of Agreement, Plans and other drawings and printed or written explanatory matter thereof, and the Specifications and addenda therefore as prepared by Engineering and Transportation Department of the City of Midland, Texas, herein entitled the ENGINEER, together with the CONTRACTOR'S written Proposal, the General Conditions of the Contract, and the Performance and Payment Bonds hereto attached; all of which are made a part hereof and collectively evidence and constitute the entire Contract.

The CONTRACTOR hereby agrees to commence work within fifteen (15) calendar days after the written notice to do so. The initial term of the contract shall terminate on September 30, 2021, subject to such extensions of time as are provided by the General and Special Conditions.

The OWNER agrees to pay the CONTRACTOR in current funds the price or prices shown in the proposal, which forms a part of this Contract, such payments to be subject to the General and Special Conditions of the Contract.

The SUM TOTAL of this Contract shall be an amount not to exceed: 1,000,000 Dollars and 00 Cents.

The initial term of the contract shall expire on September 30, 2021. If the Owner and Contractor agree in writing, the contract may be renewed for up to two (2) additional one (1) year terms (at an amount not to exceed $750,000 per term).

INSURANCE

Contractor shall at all times during the term of this Contract maintain and keep in full force and effect insurance in the following types and minimum amounts with companies authorized to do business in the State of Texas:

Commercial General Liability (including Contractual liability):	
— Personal Injury:	$1,000,000.00 per person
	$1,000,000.00 per occurrence
— Property Damage:	$500,000.00 per occurrence
Business Automobile Liability:	$250,000.00 combined single limit - Personal Injury and Property Damage
Workers' Compensation:	Statutory limits
Employers' Liability:	$500,000.00 per accident or occurrence

The Commercial General Liability shall be on a per project aggregate, including completed operations, and shall be on an occurrence basis. This insurance shall name the City as an additional insured and waive subrogation in favor of the City.

The Business Automobile Liability insurance provided by Contractor shall cover any auto for bodily injury and property damage, including owned vehicles, hired and non-city vehicles, and employee non-ownership, and the amount of such policy shall be a minimum of $250,000.00 covering any vehicle used for the execution of the

work that is the subject of this Contract. The insurance shall name the City as an additional insured and waive subrogation in favor of the City.

The Workers' Compensation coverage provided by Contractor shall inure to the benefit of employees injured during the course and scope of their employment by Contractor pursuant to this Contract. The Workers' Compensation shall waive all rights of subrogation in favor of the City.

All insurance required pursuant to this Contract shall provide for a waiver of subrogation in favor of the City. All insurance required pursuant to this Contract, except for Workers' Compensation Insurance, shall name the City as an additional insured on a claims occurred basis. City shall be provided the notice by Contractor's insurance provider not later than thirty (30) days prior to any reduction or termination of such coverage.

Contractor shall contractually require all contractors, subcontractors, and sub-subcontractors that work on any portion of the work that is the subject of this Contract to obtain insurance coverage that meets or exceeds the policy requirements and minimum amounts specified herein. All contractors, subcontractors, and sub-subcontractors shall obtain insurance policies that provide blanket waivers of subrogation in favor of the City of Midland and policies that name the City of Midland as an additional insured on a claims occurred basis (except workers' compensation).

The parties agree that, prior to the execution of the Contract, Contractor shall provide one or more certificates of insurance specifically stating that these requirements have been met and subject to the approval of the City. The City shall not be required to provide any insurance whatsoever pursuant to this Contract.

The Contractor certifies that the certificate of insurance provided as required herein complies with the requirements of Senate Bill 425, passed during the 82nd regular session of the Texas Legislature, and effective January 1, 2012. The Contractor shall not use an unapproved certificate of insurance or insert inappropriate language on a certificate. Compliance with state law is the sole responsibility of the Contractor.

WAIVER OF ATTORNEY FEES

WAIVER OF ATTORNEY FEES: BY EXECUTING THIS CONTRACT, CONTRACTOR AGREES TO WAIVE AND DOES HEREBY KNOWINGLY, CONCLUSIVELY, VOLUNTARILY AND INTENTIONALLY WAIVE ANY CLAIM IT HAS OR MAY HAVE IN THE FUTURE AGAINST THE OWNER, REGARDING THE AWARD OF ATTORNEY'S FEES, WHICH ARE IN ANY WAY RELATED TO THE CONTRACT, OR THE CONSTRUCTION, INTERPRETATION OR BREACH OF THE CONTRACT. THE CONTRACTOR SPECIFICALLY AGREES THAT IF THE CONTRACTOR BRINGS OR COMMENCES

ANY LEGAL ACTION OR PROCEEDING RELATED TO THIS CONTRACT, THE CONSTRUCTION, INTERPRETATION, VALIDITY OR BREACH OF THIS CONTRACT, INCLUDING BUT NOT LIMITED TO ANY ACTION PURSUANT TO THE PROVISIONS OF THE TEXAS UNIFORM DECLARATORY JUDGMENTS ACT (TEXAS CIVIL PRACTICE AND REMEDIES CODE SECTION 37.001, ET. SEQ., AS AMEDED), OR CHAPTER 271 OF THE TEXAS LOCAL GOVERNMENT CODE, THE CONTRACTOR AGREES TO ABANDON, WAIVE AND RELINQUISH ANY AND ALL RIGHTS TO THE RECOVERY OF ATTORNEY'S FEES TO WHICH CONTRACTOR MIGHT OTHERWISE BE ENTITLED.

CONTRACTOR AGREES THAT THIS IS THE VOLUNTARY AND INTENTIONAL RELINQUISHMENT AND ABANDONMENT OF A PRESENTLY EXISTING KNOWN RIGHT. THE CONTRACTOR ACKNOWLEDGES THAT IT UNDERSTANDS ALL TERMS AND CONDITIONS OF THE CONTRACT. THE CONTRACTOR FURTHER ACKNOWLEDGES AND AGREES THAT THERE WAS AND IS NO DISPARITY OF BARGAINING POWER BETWEEN THE OWNER AND THE CONTRACTOR. THIS SECTION SHALL NOT BE CONSTRUED OR INTERPRETED AS A WAIVER OF SOVEREIGN IMMUNITY.

THE CONTRACTOR AND OWNER ARE RELYING ON THEIR OWN JUDGMENT. EACH PARTY HAD THE OPPORTUNITY TO DISCUSS THIS CONTRACT WITH COMPETENT LEGAL COUNSEL PRIOR TO ITS EXECUTION.

SOVEREIGN IMMUNITY

By executing this Contract, the City is not waiving its right of sovereign immunity. The City is retaining its immunity from suit. The City is not granting consent to be sued by legislative resolution or action.

THERE IS NO WAIVER OF SOVEREIGN IMMUNITY.

GOVERNING LAW AND VENUE

This Contract shall be governed by the laws of the State of Texas. All performance and payment made pursuant to this Contract shall be deemed to have occurred in Midland County, Texas. Exclusive venue for any claims, suits or any other action arising from or connected in any way to this Contract or the performance of this Contract shall be in Midland County, Texas. The obligations and undertakings of each of the parties to this Contract shall be deemed to have occurred in Midland County, Texas.

COMPLIANCE – Contractor agrees that it shall comply with Texas Government Code Section 2252.908, *et seq.*, as amended. Contractor agrees that it shall comply with Texas Local Government Code Section 176.006, *et seq.*, as amended.

VERIFICATION

To the extent that Tex. Gov't Code section 2270.002 applies to this Contract, Contractor hereby verifies that Contractor does not boycott Israel and will not boycott Israel during the term of this Contract. If Tex. Gov't Code section 2270.002 does not apply to this Contract, such verification is not required, and Contractor shall be deemed to have not made such verification.

RECORDS RETENTION AND PRODUCTION OF INFORMATION

To the extent that this Contract is a contract described by Section 552.371 of the Texas Government Code, Contractor shall (1) preserve all contracting information related to the Contract as provided by the records retention requirements applicable to the City of Midland for the duration of the contract, (2) promptly provide to the City of Midland any contracting information related to the Contract that is in the custody or possession of Contractor on request of the City of Midland, and (3) on completion of the Contract, either (i) provide at no cost to the City of Midland all contracting information related to the Contract that is in the custody or possession of Contractor, or (ii) preserve the contracting information related to the Contract as provided by the records retention requirements applicable to the City of Midland.

PUBLIC INFORMATION

To the extent that this Contract is a contract described by Section 552.371 of the Texas Government Code, Contractor agrees as follows in accordance with Section 552.372(b) of the Texas Government Code: The requirements of Subchapter J, Chapter 552, Government Code, may apply to this contract, and the contractor or vendor agrees that the contract can be terminated if the contractor or vendor knowingly or intentionally fails to comply with a requirement of that subchapter.

IN WITNESS WHEREOF, the parties to these presents have executed this Agreement in the year and day first above written.

Parties of the First Part (Owner)

By: _____
Patrick Payton, Mayor

ATTEST:

_____
Amy Turner, City Secretary

APPROVED ONLY AS TO FORM:

By: _____
John Ohnemiller, City Attorney

By: _____
Party of the Second Part (CONTRACTOR)

By: _____
Title

THE STATE OF _____ §

COUNTY OF _____ §

BEFORE ME, the undersigned authority, on this _____ day of _____, 20__ personally appeared _____, an officer of TEC Excavation, Inc. _____, known to me to be the person and official whose name is subscribed to the foregoing instrument, and acknowledged to me that he executed the same as an act and deed of said corporation, for the purposes and consideration therein expressed, and in the capacity therein stated.

GIVEN UNDER MY HAND AND SEAL OF OFFICE this _____ day of _____, 20_____

_____
Notary Public

Form Revised July 2020

PERFORMANCE BOND

THE STATE OF TEXAS §

COUNTY OF MIDLAND § SURETY NO _____

KNOW ALL MEN BY THESE PRESENTS, THAT _____ (Hereinafter called the Principal[s]), as Principal(s), and _____ (Hereinafter called the Surety), as Surety, are held and firmly bound unto the City of Midland, Texas a home rule municipal corporation of Midland County, Texas, (hereinafter called the Obligee), in the amount of _____ DOLLARS ($ _____) for the payment whereof the said Principal and surety bind themselves, and their heirs, administrators, executors, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Principal has entered into a certain written contract with the Obligee, dated the _____day of _____ , 20___ , for the furnishing of materials and equipment to perform all labor and work necessary for the construction of ___Water, Wastewater, & Fire Hydrant Taps Expanded Program 05____ , specifically including in the scope of this work and bond, the additional maintenance guaranty provisions set forth in the contract conditions, which contract is hereby referred to and made a part hereof as fully and to the same extent as if copies at length herein, as well as the Principal's primary obligation to perform according to plans and specifications.

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION IS SUCH, that if the said Principal shall faithfully perform the work in accordance with the plans, specifications, instructions to bidder, general and special conditions and other contract documents, including any addendum thereto, then this obligation shall be void; otherwise to remain in full force and effect.

PROVIDED further that if any legal action be filed upon this Bond venue shall lie in Midland County, State of Texas.

Surety, for value received, stipulates and agrees that no change, extension of time, alteration or addition to the terms of the contract, or to the work performed thereunder, or the plans, specifications or drawings accompanying the same, or any assignment of the contract as may be provided for in the instructions to bidders, shall in anywise affect its obligation on this Bond, and it does waive notice of any such change, extension of time, alteration or addition to the terms of the contract, assignment thereof, or the work to be performed thereunder.

IN WITNESS WHEREOF, the said Principal and surety do sign and seal this instrument, this _____ day of _____ , 20___.

_____	_____
Principal	Surety
By _____	By _____
Address _____	Address _____
_____	_____
_____	_____

APPROVED AS TO FORM:

_____

City Attorney

NOTE: Attach Power of Attorney

PAYMENT BOND

THE STATE OF TEXAS §

COUNTY OF MIDLAND § SURETY NO _____

KNOW ALL MEN BY THESE PRESENTS, THAT _____ of the City of _____ of the County of _____ and State of Texas as Principal, and _____, as Surety, are held and firmly bound unto the City of Midland, Texas, as Obligee, in the amount of _____ DOLLARS ($ _____) for the payment whereof the said Principal and Surety bind themselves, their heirs, administrators, executors, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Principal has entered into a certain written contract with the Obligee, dated the _____ day of _____, 20__, for the furnishing of materials, equipment to perform all labor and work necessary for Water, Wastewater, & Fire Hydrant Taps Expanded Program 05, hereof as fully and to the same extent as if copied at length herein.

NOW, THEREFORE, the condition of the obligation is that if the said Principal shall pay all claimants supplying labor and material to him or a subcontractor in the prosecution of the work provided for in said contract, then this obligation shall be null and void; otherwise, it is to remain in full force and effect.

Surety, for value received, stipulates and agrees that no change, extension of time alteration or addition to the terms of the contract, or to the work performed there under, or the plans, specifications of drawings accompanying the same, or any assignment of the contract as may be provided for in the instructions to bidders, shall in anywise affect its obligation on this Bond, and it does waive notice of any such change, extension of

time, alteration or addition to the terms of the contract, assignment thereof, or to the work to be performed there under.

IN WITNESS WHEREOF the said Principal and Surety have signed and sealed this instrument, this _____ day of _____ , 20__ .

_____	_____
Principal	Surety
By _____	By _____
Address _____	Address _____
_____	_____
_____	_____

APPROVED AS TO FORM:

_____

City Attorney

NOTE: Attach Power of Attorney

Form Revised July 2020

CERTIFICATE OF PAYMENT

THE STATE OF TEXAS §

COUNTY OF MIDLAND §

_____Water, Wastewater, & Fire Hydrant Taps Expanded Program 05_____

The undersigned states that all debts, bills, and expenses that were incurred by the undersigned, his agents, or subcontractors employed by him, for labor, wages, materials and other purposes furnished for the above project have been paid and satisfied in full.

The undersigned, as general contractor for the above described project agrees to indemnify, hold harmless and defend the City, its officers, agents, and employees, from and against all claims and suits for damages, expenses, including court costs and attorney fees, arising out of or resulting from the undersigned contractor, his agents or subcontractors employed by him for expenses, warranties for items furnished, or labor performed and for any party that has supplied materials in connection with the repair or construction of the above referenced premises.

The undersigned contractor agrees to waive any and all claims it may have against the City, associated with, resulting from or arising out of the work performed at the above premises.

Further, the undersigned states that all labor performed by the undersigned, his agents, and subcontractors employed by him, has been completed in the usual and customary workmanlike manner and all work performed is accompanied with the usual and appropriate warranties for such work or repair, absent any disclaimer previously approved by the City of Midland.

I, the undersigned, release and relinquish unto the City of Midland, and their assigns the above described lien upon the above referenced property and hereby certify that all debts, bills, and expenses incurred by the undersigned, his agents, or subcontractors employed by him in connection with work done at the above

premises have been fully paid, in exchange for payment in full to be made by the City of Midland for the performance on the above described premises.

WITNESS MY HAND on this _____ day of _____, 20_____.

_____
Signature

_____
Typed or Printed Name

_____
Title

_____
Name of Company

SUBSCRIBED AND SWORN to before me on the _____ day of _____, 20_____.

_____
Notary Public, State of Texas

_____
Typed or printed name

_____
My Commission expires:

Form Revised July 2020

MEMO

TO: All Project Bidders
FR: Joshua C. Ferguson, P.E. / City of Midland
DA: July 15, 2020
RE: Water, Wastewater, & Fire Hydrant Taps Expanded Program 05 – Anticipated Equipment List

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To discuss the comments outlined below, or any other engineering issues related to this project, please call 432.685.7286 to speak with Josh Ferguson or Patricia Kingston. Thank you.

Dept of Engineering Services, Engineering Services Division, has put together an Anticipated Equipment List for the City of Midland Water, Wastewater, & Fire Hydrant Taps Expanded Program 05. The list includes equipment that the contractor may need but is in no way meant to be a final list of all necessary equipment, nor does it relieve the contractor of their obligation to have or acquire any additional equipment necessary to complete the project work. Below is a summary of the list:

- **Water Taps**
  - Water Pump
  - Backhoe or Trenching Machine
  - Dump Truck
  - Crimpers
  - Tapping Machine (different sizes)
- **Sewer Taps**
  - Clay Cutters
  - Backhoe with Ramhoe and Trenching Machine
  - Dump Truck
  - Water Pump
  - Chop Saw
  - Hole Saw (4” & 6")
  - Clay Shell Cutter
  - Closed Circuit Televising
- **Pavement Patching**
  - Pneumatic Roller
  - Excavator and Jack-Hammer
  - Pavement Saw (Asphalt & Concrete)
- **Safety**
  - Shoring
  - Traffic Control Devices
  - Ladders
  - Personnel Safety Gear

If you have any questions, please feel free to call Josh Ferguson or Patricia Kingston at our office.

— PAK

City of Midland ▪ Engineering Services
300 N. Loraine Street ▪ Suite 510 ▪ Midland, TX 79701 ▪ T 432.685.7286 ♦ F 432.685.1786

Sample
Work Orders
And
Calculations

2020-2023 Term - Water Tap - Work Order

Address: _____ Start Date: _____

Completion Date: _____

GIS Sketch Complete: _____

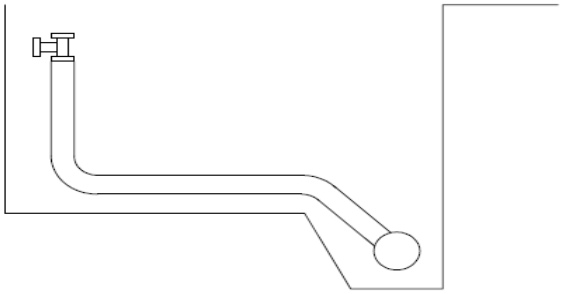
Description of work: _____

_____

_____

Sketch/Measurements

(Attach additional sheet if necessary)



Calculations

(Attach additional sheet if necessary)

Pay Quantities	Quantity	Unit Price	Total	Comment/Description
( )" Water Service Connection				
Water Service Connection Depth (0'-12')				
( )" Water Service Lateral				
( )" Tapping Saddle				
Trench Depth ( )				
Trench Depth ( )				
Concrete Utility Cut Repair				
Asphalt Utility Cut Repair				
Base Rock Utility Cut Repair				
Flowable Fill / 2-Sack Backfill				
Erosion/Sediment Control				
Job Site Safety				
( ) Traffic Control				
TOTAL =	------	------		

(Attach concrete/asphalt tickets)

Contractor Name (Print): _____

Quantities verified (City): _____ Quantities Agreed (Contractor): _____

initial date initial date

2020-2023 Term - Water Tap - Work Order

Address: _____ Start Date: _____

Completion Date: _____

GIS Sketch Complete: _____

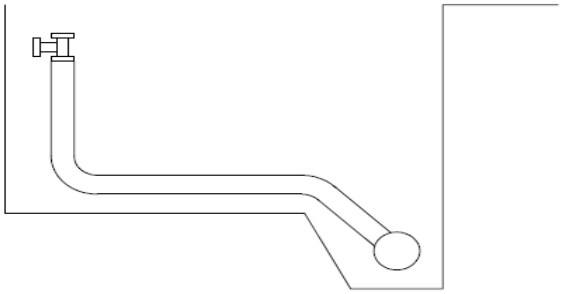
Description of work: _____

_____

_____

Sketch/Measurements

(Attach additional sheet if necessary)



Calculations

(Attach additional sheet if necessary)

Pay Quantities	Quantity	Unit Price	Total	Comment/Description
( )" Water Service Connection				
Water Service Connection Depth (0'-12')				
( )" Water Service Lateral				
( )" Tapping Saddle				
Trench Depth ( )				
Trench Depth ( )				
Concrete Utility Cut Repair				
Asphalt Utility Cut Repair				
Base Rock Utility Cut Repair				
Flowable Fill / 2-Sack Backfill				
Erosion/Sediment Control				
Job Site Safety				
( ) Traffic Control				
TOTAL =	------	------		

(Attach concrete/asphalt tickets)

Contractor Name (Print): _____

Quantities verified (City): _____ Quantities Agreed (Contractor): _____

initial date initial date

2020-2023 Term - Sample Station Tap - Work Order

Address: _____ Start Date: _____

Completion Date: _____

GIS Sketch Complete: _____

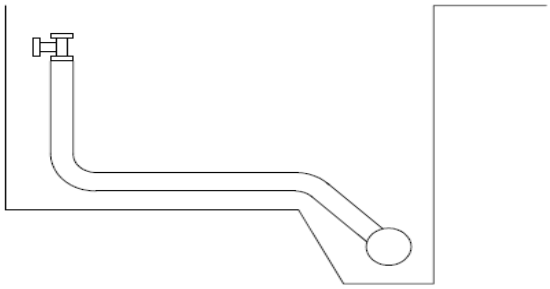
Description of work: _____

_____

_____

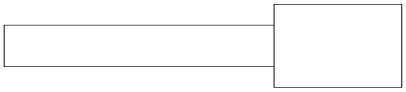
Sketch/Measurements

(Attach additional sheet if necessary)



Calculations

(Attach additional sheet if necessary)



Pay Quantities	Quantity	Unit Price	Total	Comment/Description
(1)" Sample Station Installation				
(1)" Water Service Connection				
Water Service Connection Depth (0'-12')				
(1)" Water Service Lateral				
( )" Tapping Saddle				
Trench Depth ( )				
Trench Depth ( )				
Concrete Utility Cut Repair				
Asphalt Utility Cut Repair				
Base Rock Utility Cut Repair				
Flowable Fill / 2-Sack Backfill				
Erosion/Sediment Control				
Job Site Safety				
( ) Traffic Control				
TOTAL =	------	------		

(Attach concrete/asphalt tickets)

Contractor Name (Print): _____

Quantities verified (City): _____ Quantities Agreed (Contractor): _____

initial date initial date

2020-2023 Term - Flushing Station Tap - Work Order

Address: _____ Start Date: _____

Completion Date: _____

GIS Sketch Complete: _____

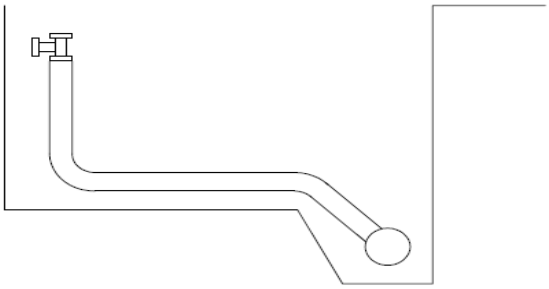
Description of work: _____

_____

_____

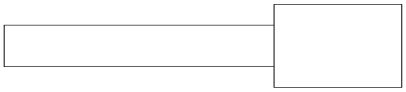
Sketch/Measurements

(Attach additional sheet if necessary)



Calculations

(Attach additional sheet if necessary)



Pay Quantities	Quantity	Unit Price	Total	Comment/Description
(2)" Flushing Station Installation				
(2)" Water Service Connection				
Water Service Connection Depth (0'-12')				
(2)" Water Service Lateral				
( )" Tapping Saddle				
Trench Depth ( )				
Trench Depth ( )				
Concrete Utility Cut Repair				
Asphalt Utility Cut Repair				
Base Rock Utility Cut Repair				
Flowable Fill / 2-Sack Backfill				
Erosion/Sediment Control				
Job Site Safety				
( ) Traffic Control				
TOTAL =	------	------		

(Attach concrete/asphalt tickets)

Contractor Name (Print): _____

Quantities verified (City): _____ Quantities Agreed (Contractor): _____

initial date initial date

PACKET 7.130 September 8, 2020

2020-2023 Term - Fire Tap - Work Order

Address: _____ Start Date: _____

Completion Date: _____

GIS Sketch Complete: _____

Description of work: _____

_____

_____

Sketch/Measurements

(Attach additional sheet if necessary)

Calculations

(Attach additional sheet if necessary)

Pay Quantities	Quantity	Unit Price	Total	Comment/Description
( )" AWWA C-900 DR 18 PVC				
( )" AWWA C-900 DR 18 PVC				
( )" Tapping Sleeve				
( )" Gate Valve (MJ x MJ/F)				
Fire Hydrant Assembly				
Ductile Iron Fittings				
Trench Depth ( )				
Trench Depth ( )				
Concrete Utility Cut Repair				
Asphalt Utility Cut Repair				
Base Rock Utility Cut Repair				
Flowable Fill / 2-Sack Backfill				
Erosion/Sediment Control				
Job Site Safety				
( ) Traffic Control				
TOTAL =	------	------		

(Attach concrete/asphalt tickets)

Contractor Name (Print): _____

Quantities verified (City): _____ Quantities Agreed (Contractor): _____

initial date initial date

2020-2023 Term - Wastewater Tap - Work Order

Address: _____ Start Date: _____

Completion Date: _____

GIS Sketch Complete: _____

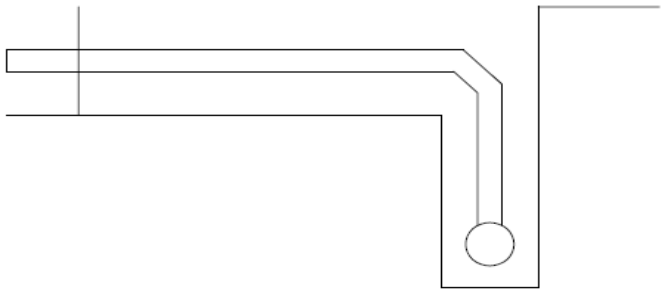
Description of work: _____

_____

_____

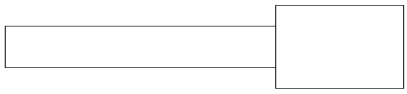
Sketch/Measurements

(Attach additional sheet if necessary)



Calculations

(Attach additional sheet if necessary)



Pay Quantities	Quantity	Unit Price	Total	Comment/Description
( )" Wastewater Service Connection				
( )" Wastewater Service Lateral				
Wastewater Service Connection Depth (0'-24')				
Trench Depth ( )				
Trench Depth ( )				
Concrete Utility Cut Repair				
Asphalt Utility Cut Repair				
Base Rock Utility Cut Repair				
Flowable Fill / 2-Sack Backfill				
Erosion/Sediment Control				
Job Site Safety				
( ) Traffic Control				
TOTAL =	------	------		

(Attach concrete/asphalt tickets)

Contractor Name (Print): _____

Quantities verified (City): _____ Quantities Agreed (Contractor): _____

initial date initial date

2020-2023 Term - Wastewater Tap - Work Order

Address: _____ Start Date: _____

Completion Date: _____

GIS Sketch Complete: _____

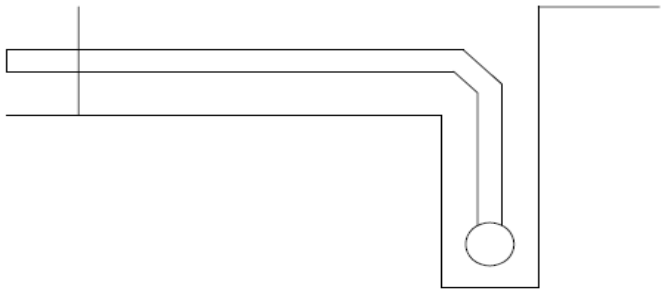
Description of work: _____

_____

_____

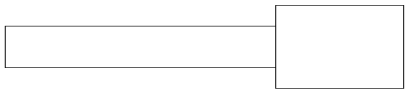
Sketch/Measurements

(Attach additional sheet if necessary)



Calculations

(Attach additional sheet if necessary)



Pay Quantities	Quantity	Unit Price	Total	Comment/Description
( )" Wastewater Service Connection				
( )" Wastewater Service Lateral				
Wastewater Service Connection Depth (0'-24')				
Trench Depth ( )				
Trench Depth ( )				
Concrete Utility Cut Repair				
Asphalt Utility Cut Repair				
Base Rock Utility Cut Repair				
Flowable Fill / 2-Sack Backfill				
Erosion/Sediment Control				
Job Site Safety				
( ) Traffic Control				
TOTAL =	------	------		

(Attach concrete/asphalt tickets)

Contractor Name (Print): _____

Quantities verified (City): _____ Quantities Agreed (Contractor): _____

initial date initial date

2020-2023 Term - Utility Tap - Work Order

Address: _____ Start Date: _____

Completion Date: _____

Description of work: _____

_____

_____

Sketch/Measurements

(Attach additional sheet if necessary)

Calculations

(Attach additional sheet if necessary)

Pay Quantities	Quantity	Unit Price	Total	Comment/Description
TOTAL =	------	------		

(Attach concrete/asphalt tickets)

Contractor Name (Print): _____

Quantities verified (City): _____ date

Quantities Agreed (Contractor): _____ date

2020-2023 Term - Miscellaneous Utility - Work Order

Address: _____ Start Date: _____

Completion Date: _____

Description of work: _____

_____

_____

Sketch/Measurements

(Attach additional sheet if necessary)

Calculations

(Attach additional sheet if necessary)

Pay Quantities	Quantity	Unit Price	Total	Comment/Description
TOTAL =	------	------		

(Attach concrete/asphalt tickets)

Contractor Name (Print): _____

Quantities verified (City): _____ date

Quantities Agreed (Contractor): _____ date

2020-2023 Term - Miscellaneous Utility - Taps 05 Work Order

Address: _____ Start Date: _____

Completion Date: _____

Description of work: _____

_____

_____

Sketch/Measurements

(Attach additional sheet if necessary)

See Attached Sketch

Calculations

(Attach additional sheet if necessary)

See Attached Calculations

Pay Quantities	Quantity	Unit Price	Total	Comment/Description
TOTAL =	------	------		

(Attach concrete/asphalt tickets)

Contractor Name (Print): _____

Quantities verified (City): _____ date Quantities Agreed (Contractor): _____ date

City of Midland Specifications

PREPARATION OF RIGHT OF WAY

1. GENERAL

Includes the preparation of right-of-way for construction by clearing, grubbing, removing and disposing of all obstructions and objectionable material from the right-of-way and designated easements, which is not specifically provided for on the plans.

Obstructions and objectionable material refer to all objects or material that do not meet the quality of standards for the courses of pavement to be constructed or which protrude into the excavation for slopes.

Measurement and Payment - Measurement and payment will be at the units and prices for the applicable bid item in the proposal.

When no specific bid items are included in the bid proposal for work specified under this section this work shall be considered as incidental to other items of work and the cost shall be included in the bid for these items. No separate payment will be made.

2. CONSTRUCTION METHODS

Removal - Obstructions and objectionable material to be removed by blading, plowing, bulldozing, or other methods approved in writing by the Engineer. The use of explosives will not be permitted. Solid objects must be removed to a depth of at least one (1) foot below the finished slope or subgrade elevation. Hollow objects must be removed entirely.

Disposal - Material to be removed from the right-of-way becomes the property of the Contractor. If disposal areas are available, they will be indicated on the plans.

Preservation of Trees and Shrubs - Trees and shrubs to be preserved in the right of way are shown on the plans and must be protected from injury during construction.

Removal of Concrete - Cut concrete at the right-of-way line straight and vertical by sawing or other approved methods prior to the removal of concrete in the right-of-way.

EXCAVATION, EMBANKMENT AND PREPARATION OF SUBGRADE 1
1. GENERAL 2
2. CONSTRUCTION METHODS 2

EXCAVATION, EMBANKMENT AND PREPARATION OF SUBGRADE

1. GENERAL

Includes the excavation, embankment and preparation of subgrade determined by the lines, grades and sections shown on the plans and in accordance with the provisions of the specifications.

Excavation - Includes excavation to planned grade, disposal of the material, removal of unsuitable subgrade material and borrow material when required in the construction. All excavation to be classified as common.

Embankment - Consists of excavated or borrow materials placed and compacted in horizontal layers in accordance with the specifications.

Subgrade - The upper eight inches (8") of embankment or the upper eight inches (8") below the roadway excavation finished grade. The subgrade shall extend from six inches (6") back of curb to six inches (6") back of curb where curb and gutter is to be constructed.

Measurement and Payment - Measurement and payment to be at the units and prices for the applicable bid items in the proposal.

2. CONSTRUCTION METHODS

Excavation - Made at the location and to the lines and grades shown on the plans in areas previously prepared in accordance with provisions of Section 2A. Dispose of excess material not required in the embankment and material that is unsuitable for subgrade. Excavation tolerance to be plus or minus 1/10 foot from the plan grade.

The area between the curb and property line shall be excavated or filled, whichever is necessary, to curb height at back of curb and finished to a straight even surface to the property line. The minimum elevation at the property line shall be the elevation of the top of the curb. The maximum elevation at the property line shall be equal to a rise of 1/4 inch per foot from the back of the curb to the property line.

During the excavation of this project, it will be required that all parkways be excavated and shaped at the same time the roadway is excavated. Excess excavation will be disposed of at locations approved by the Engineer.

Embankment shall be constructed at the locations and to the lines and grades shown on the plans in areas previously prepared in accordance with Section 2A of these specifications. Top eight inches (8") of natural ground to be compacted

to embankment density requirements. Embankment shall be constructed from suitable material obtained from the excavation or borrow free of roots, rocks in excess of three inches (3"), debris and other objectionable material. Excavation deficiencies shall be supplemented from a borrow source approved by the Engineer. Embankment shall be constructed in uniform horizontal layers not to exceed eight inches (8") of loose depth and compact with suitable equipment to a minimum of ninety percent (90%) AASHTO T180. The materials shall be processed by aeration or watering to bring the material to the approximate optimum moisture. Dry layers will not be permitted. Soft spots that develop in the embankment shall be removed and replaced with suitable material. No payment will be made for removal of soft spots. Tolerance for embankment grading shall be one-half foot (1/2) plus or minus the plan grade.

Preparation of Subgrade - Eight inches (8") of the upper portion of the embankment or excavation shall be shaped and compacted to a minimum density of 95 percent (95%) AASHTO T180 and finished within a tolerance of one-half inch (1/2") in ten feet (10'). The finished subgrade shall be protected and maintained in a satisfactory condition until covered by succeeding construction.

Compaction Tests - Field density tests will be made by the Owner or by a laboratory selected by the Owner. The Contractor shall notify the Engineer when compaction has been achieved. The Contractor shall allow 24 hours for scheduling of test. Prior to the taking of subgrade density test, the entire subgrade will be tested by proof-rolling using a pneumatic roller weighing not less than 50,000 lbs. gross with tire pressure being not less than 110 psi. Any soft spots, pumping, or other evidence of weakness shall be remedied before density tests are made. Proof rolling shall be in the presence of the Engineer or his duly authorized representative.

The City will pay the cost of initial density tests made on the subgrade. If the subgrade fails to meet the density requirements on the first test, the contractor will be required to have subsequent density tests made by the commercial lab selected by owner. The cost of all subsequent density tests will be born by the contractor.

08/07

CONCRETE CURB AND GUTTER, SIDEWALKS AND DRIVEWAYS,

VALLEY GUTTERS, CENTER DRAINS AND RIP RAP

1. GENERAL

Includes the construction of concrete curb and gutter, sidewalks, driveways, valley gutters, center drains and rip rap in accordance with lines, grades and the sections shown on the plans and constructed in full compliance with provisions of the specifications.

A proven performance record by the Texas Highway Department shall be supplied by material producers for all materials supplied by them.

2. MATERIALS

Concrete - All concrete other than rip rap shall be Class "A" concrete in accordance with Texas Highway Department specifications Item No. 421. Concrete for rip rap shall be the class as shown on the plans and detail drawings. When no concrete class is shown the plans concrete for rip rap shall be Class "B" concrete.

Concrete batch designs shall be furnished for each project and shall include all classes of concrete proposed for use on the project.

Reinforcing Steel - Reinforcing steel shall be deformed bars or wire mesh fabric conforming to the requirements of "Texas State Department of Highways and Public Transportation 1982 Standard Specifications for Construction of Highways, Streets and Bridges" Item No. 440 and shall be of the sizes and grades as shown on the plans.

The contractor, at his option, may use fiber reinforcing in lieu of the wire mesh for all concrete slab on grade. When fiber reinforcing is used, it shall be "Fiber Mesh" or "Caprolan RC" or approved equal. The material and rate of application shall be approved by the Engineer prior to its use.

Expansion Joints - Bituminous pre-molded joint filler shall be composed of top grade fiber, treated by special impregnation system with water repellent bituminous materials. It shall be a non-extruding type, resilient, expanding on release of compression, preventing open joint crevices. The pre-molded joint filler shall be of such character, that it will not be deformed by handling during hot weather, nor shall it become brittle in cold weather. It shall be free from visible external defects such as holes, ragged or untrue edges, breaks, cracks or tears. It may be covered on both sides with paper to facilitate handling.

The joint filler shall be accurately cut to the dimensions and shapes required. It shall be of the thickness required by the plans, or as specified elsewhere.

3. CONSTRUCTION METHODS

GENERAL

No concrete shall be placed when, in the Engineers opinion, weather or other conditions would be detrimental to the structure placed. No concrete shall be placed on grade when the ground temperature is 35^{o} F or lower. Concrete may be placed when the ground temperature is rising from 35^{o} F. Concrete placed in cold weather shall be protected from freezing for 72 hours after being placed.

CURB AND GUTTER

EXCAVATION AND SUBGRADE - Excavation for curb, gutter, and combined curb and gutter shall be done with the subgrade excavation for the street. Street subgrade shall extend from six inches (6") back of curb to (6") back of curb and shall be compacted for a full width to a minimum of 95% AASHTO T180-61. Where subgrade is more than three inches (3") below bottom of curb, fill shall be compacted caliche base constructed from six inches (6") back of curb to six inches (6") back of curb as specified for base course.

Whenever subgrade or base is dry or dusty, it shall be thoroughly moistened, not made muddy, before the concrete is placed.

Forms - Forms shall be of steel, of a type to be approved by the Engineer, except that curves may be formed with wood sections built up or laminated, upon prior approval by the Engineer.

The forms shall be attached securely to stakes, shall be set true to line and grade, and braced sufficiently to remain true during the placing and tamping of the concrete. Forms shall be thoroughly cleaned and oiled before each use.

Curves - All changes in direction of the curbs shall be by means of true circular curves of the radii as shown on the plans.

Expansion Joints - Expansion joints shall be placed between curb and gutter sections at the tangent points of all curves, at each side of the inlet boxes, drives, alleyways, and at intervals of not more than forty feet (40') in straight runs. The expansion material shall be pre-molded three-fourths inch (3/4") in thickness, and shall conform to the requirements of expansion material as specified herein. It shall be cut to the full size and shape or the cross section of the curb and gutter, less one-half inch (1/2") from the finished surface thereof. The edges of sections against the joint shall be finished with an edging tool and the joint raked clean of concrete.

Finishing - There shall be provided on the job a metal screed or mule designed to give proper shape to the curb and gutter. It shall be bent to the exact shape of the finished curb and gutter and the forward edge turned up slightly to prevent disturbing the mortar. It shall be designed to ride on the forms and when properly manipulated shall leave the curb and gutter in its proper shaped condition. An "S" trowel shall be used to finish the surface and minor imperfections shall be corrected with a mason's trowel. Care shall be taken to finish

the gutter flow line to a true, uniform grade. All edges shall be finished with an edging tool, and joints marked with a jointer. Joint marks shall coincide with actual joints and shall be straight and true.

Curing - The completed curb and gutter, shall be cured in accordance with the requirements of the item "Membrane Curing", Texas Highway Department Item 531.

DRIVEWAYS AND ALLEY RETURNS

Driveways and alley returns shall be constructed of Class "A" concrete to the lines and grades as shown on the plans and detail sheets. All driveways and alley returns shall be reinforced as shown on the detail drawings.

Excavation and Subgrade - Excavation shall be accomplished in the same manner as for streets and curbs. The subgrade for all driveways and alley returns shall be compacted to 95% modified proctor density for 8 inches depth.

Driveways for single family residences and property used for two family residential purposes (duplexes) may be placed on the compacted subgrade. All other driveways shall be considered as commercial driveways and shall be constructed on 6 inches compacted flexible base.

Flexible Base - Commercial driveways and alley returns shall be constructed on 6 inches of flexible base conforming to Section 2-C- Flexible Base, Caliche.

Forms - Forms shall be constructed of steel or, when approved by the engineer, wood conforming to the requirements for curb and gutter forms.

Expansion Joints - Expansion joints shall be placed at the ends of abutting curb and gutter at the end of radii for all driveways and alley returns. In addition, expansion joints shall be placed at the ends of abutting sidewalk sections and at any point where the driveway or alley return abuts another concrete structure. Expansion joint material shall be pre-molded three fourths inch (3/4") in thickness, cut to the shape and dimensions required and shall extend the full depth of the concrete.

Finishing - Shaping and finishing of driveways and alley returns shall be accomplished by using a screed to shape the driveway or alley return to the lines and grade required. Finishing shall be accomplished by use of wooden floats and stiff bristled brushes or brooms. The last finish shall be by brushing or brooming in
A direction transverse to the direction of traffic.

During the entire finishing process care shall be taken to maintain the true gutter invert in line with the street curb and gutter.

Curing - Finished driveways and alley returns shall be cured in accordance with the requirements "membrane curing" "Texas Department of Highways and Public Transportation, 1982 Standard Specifications for Highways, Streets and Bridges", Item Number 531.

CONCRETE VALLEY GUTTERS, CENTER DRAINS AND DRAINWAYS

Concrete slab type street drainage structures with or without curbs, shall be constructed of Class "A" concrete to the lines and grades as shown on the plans and detail sheets or as may be established in the field by the engineer.

Subgrade excavation preparation and compaction and flexible base shall be the same as specified for street construction. All drainage structures within the roadway shall be constructed on a flexible caliche base so that the thickness of the concrete slab plus base is equal to the thickness of the hot mix asphaltic concrete surface plus base.

Forms - Forms shall be as specified for curb and gutter.

Reinforcing - All slab type drainage structures shall be reinforced as shown on the plans and detail drawings. Care shall be taken to maintain all reinforcing in good condition and at its proper location within the slab.

Expansion Joints - Expansion joint material shall be as specified for curb and gutter and for driveways and alley returns.

Expansion joints for valley gutter shall be placed at the ends of radii and at the juncture between the fillet and the cross valley as shown on the detail sheet.

For center drains, expansion joints shall be placed at the ends of widened or transition sections and at each end of a section containing a manhole or other structure and at intervals of sixty feet (60') measured along the center line of the drain.

Additional expansion joints shall be placed where drainage slabs abut backs of curbs, sidewalks and at contact points with other concrete structures.

Contraction Joints - Contraction joints shall be spaced at 15' intervals along the center line of center drains. These contraction joints shall be saw cut 3/8" wide minimum and 1/4 the depth of the slab using an approved concrete saw.

Saw cut contraction joints shall be made after the concrete has set sufficiently to prevent excessive raveling during sawing and shall be completed before the concrete is 48 hours old.

Finishing - Finishing shall be the same as for alley returns and driveways with the last finishing operation for structures subject to vehicular traffic being by broom or stiff brush in a direction transverse to the direction of traffic.

Curing - Curing shall be the same as for curb and gutter and driveways and alley returns.

SIDEWALKS

Sidewalks shall be constructed of Class A" concrete to the lines and grades as shown on the plans and detail drawings or as may be established in the field by the engineer. Sidewalks shall be constructed parallel to the back of the curb and on a grade parallel to

the top of curb grade. The minimum thickness for any sidewalk is 4 inches. The minimum width of any sidewalk is 4 feet.

Excavation and Subgrade - Excavation for sidewalk shall be made with street excavation where applicable. Care shall be exercised in excavating for sidewalks. Any over excavation or any fill required for sidewalk must be brought to grade in lifts not to exceed two inches (2") and thoroughly tamped. Subgrade for sidewalks shall be compacted to at least the density of the adjacent soil or to 85% modified proctor whichever is greater.

When a sidewalk is to be constructed on an embankment the fill must extend at least 3 feet beyond the edge of the sidewalk.

If the subgrade is dry or dusty it must be thoroughly moistened but not made muddy before concrete is placed.

Forms - Forms for sidewalks may be either steel or wood. Forms must be in good shape and true to line and grade. If nominal 2" x 4" lumber is used the subgrade must be finished one half inch (1/2") below the bottom of the form to provide the required 4 inch thickness.

Expansion Joints - Expansion joint material shall be pre-molded conforming to these specifications and shall be one half inch (1/2") thick. The expansion joint shall extend the full depth of the sidewalk.

Expansion joints shall be placed at points where the sidewalk contacts the back of curb, at all junctures between sidewalks all directions, and at all points where the sidewalk abuts a driveway, alley return or other concrete structure including fence foundations.

Transverse expansion joints shall be constructed in the sidewalk at intervals not exceeding twenty eight feet (28') as measured along the centerline of the walk except for sidewalks that are constructed wider than four feet (4') in which case expansion joints may be placed at intervals that are multiples of the width but not exceeding thirty feet (30').

Contraction Joints - Contraction joints consisting of trowel cuts one and one half inches (1-1/2") deep shall be spaced at four foot (4') intervals along the sidewalk. Contraction joints shall be edged using an edging tool with a 1/4 inch or 3/8 inch radius.

For sidewalks wider than four feet (4') contraction joints may be placed at intervals equal to the width of the walk up to but not exceeding ten feet (10').

Finishing - Sidewalks shall be "struck off" with a screed to provide an even surface and float finished using a wooden float.

The final finish on the sidewalk shall be accomplished by brooming or brushing using a stiff bristled brush or broom with the final strokes being in the transverse direction.

Curing - Curing shall be as specified for curb and gutter and driveways and alley returns.

CONCRETE RIP RAP

Concrete rip rap shall be constructed of concrete of the class and to the line and grades as shown on the plans.

Excavation and Subgrade - Care shall be taken not to over excavate for rip rap. The subgrade for rip rap shall be compacted to at least the density of the adjacent undisturbed soil or 85% modified proctor whichever is higher.

Forms - Forms, where required, may be either steel or wood. Forms must be in good condition and true to line and grade.

Expansion Joints - Expansion joints, where required, will meet the requirements of expansion joints materials as specified herein and will be placed as shown on the plans or directed by the engineer.

Finishing - Finishing shall be by screed and wooden float to produce true uniform surface.

Curing - Curing shall be as specified for other concrete herein.

Slope Paving - Slope paving may be required behind the curb or behind sidewalks where street paving requires deeper cuts in developed areas. Slope paving shall be constructed of Class "A" concrete and shall be constructed to the lines and grades as shown on the plans or as established in the field. Slope pavement shall be four inches (4") thick and shall be constructed in accord with the specifications for sidewalks.

When no slope grade is given on the plans the slope gradient shall be l:l.

Unless listed separately on the bid proposal, slope pavement shall be measured and paid for as sidewalk.

4. BACKFILL AND CLEANUP

GENERAL

Backfill and clean up are an integral part of the various items covered by this specification and must be completed for each item before that item will be considered for payment.

CONCRETE STRUCTURES WITHIN THE PAVED AREA OF STREETS

Backfill and clean up for concrete structures within the paved areas of streets, alleys, etc. shall receive special attention to assure the integrity of the street pavement.

Structures constructed in previously paved areas shall have sufficient surface removed along with base and subgrade where necessary to set full face forms for the concrete. As soon as the forms are removed all loose material shall be removed from the form trench and the trench filled to the base level with Portland cement stabilized backfill material

consisting of two (2) sacks Portland cement to one (l) cubic yard of caliche base material or one (l) cubic yard "blow sand". When the cement stabilized backfill has cured the pavement edge shall be saw cut to provide true and straight lines and the pavement restored to its original or revised grade using Hot mix asphaltic concrete conforming to the requirements of Section 2-F of these specifications.

For structures constructed on previously prepared subgrade or base course, clean up and backfill shall be considered complete when the subgrade or base course has been made ready to receive the next course.

When a structure is constructed on a finished base course and it is necessary to remove base material to set forms, backfill and cleanup shall be as described for previously paved areas and shall be considered complete when the base course is made ready to receive the surface course or courses.

BACKFILL BEHIND CURBS AND ALONG SIDEWALKS

Backfill behind curbs and along sidewalks that is to be grassed shall be made using good top soil. Top soil shall be free of caliche, rocks, clods, lumps, debris and other objectionable material. This backfill shall be compacted to at least the density of undisturbed adjacent soil but not less than 85% modified proctor.

Backfill behind curbs and along sidewalks that is to receive paving shall be constructed to conform to the base and subgrade of the adjacent paving and shall be compacted to 95% modified proctor. Or the contractor may elect to backfill to the top of the base with two (2) sack cement stabilized backfill.

In undeveloped areas and in areas where no sidewalks exist the contractor shall slope from the back of the curb to a maximum height of 1/4 inch per foot rise from the top of the curb to the property line on a straight line grade. The minimum elevation at the property lines shall be top of curb elevation.

In deeper cut areas slope paving may be required. When slope paving is required it shall be constructed to the lines and grades shown on the plans. Backfill and shaping beyond the slope paving shall be in accord with the applicable portions of this specification.

08/07

CONCRETE CURB AND GUTTER, SIDEWALKS AND DRIVEWAYS **1**

VALLEY GUTTERS, CENTER DRAINS AND RIP RAP **1**

1. GENERAL 1
2. MATERIALS 1
3. CONSTRUCTION METHODS 2

GENERAL *2*
CURB AND GUTTER *2*
DRIVEWAYS AND ALLEY RETURNS *3*
CONCRETE VALLEY GUTTERS, CENTER DRAINS AND DRAINWAYS *4*
SIDEWALKS *4*
CONCRETE RIP RAP *6*

4. BACKFILL AND CLEANUP 6

GENERAL *6*
CONCRETE STRUCTURES WITHIN THE PAVED AREA OF STREETS *6*
BACKFILL BEHIND CURBS AND ALONG SIDEWALKS *7*

CONCRETE STRUCTURES

1. GENERAL

This specification covers concrete structures including but not limited to junction boxes, culverts, head walls, cast in place manholes, valve vaults, meter vaults and retaining walls.

2. MATERIALS

CONCRETE

Concrete for cast in place manholes, junction boxes, storm sewer inlet boxes, valve vaults and direct traffic culvert and bridge decks shall be a modified class "C" concrete using a minimum of 6 sacks cement per cubic yard with a maximum water content of 5 gallons per sack of cement and producing a concrete with 4000 psi 28 day compressive strength.

Concrete for other structures shall be class "A" as specified in "Texas State Department of Highways and Public Transportation 1982 Standard Specifications for Construction of Highways, Streets and Bridges" item number 421. Concrete for riprap shall be class "B".

Reinforcing steel shall conform to the requirements of item number 440 or "Texas State Department of Highways and Public Transportation 1982 Standard Specifications for Construction of Highways, Streets and Bridges" and shall be of the sizes and grades as shown on the plans.

3. CONSTRUCTION

Construction of concrete structures shall be in accordance with the provisions of item 420 "Texas State Department of Highways and Public Transportation 1982 Standard Specifications for Construction of Highways, Streets and Bridges".

FLEXIBLE BASE, CALICHE 1
1. GENERAL 2
2. MATERIALS 2
3. CONSTRUCTION 3
4. TESTING 3

FLEXIBLE BASE, CALICHE

1. GENERAL

This item consists of the construction of a caliche flexible base course to the lines, grades and thickness shown on the plans and in accordance with the provisions of the specifications.

Qualification of Material Source - There will be no designated material sources, but the source proposed by the Contractor must be approved by the Engineer. The contractor shall furnish evidence of capability to crush and screen the material with suitable equipment.

Measurement and Payment - Measurement and payment to be at the units and price for the applicable bid item in the proposal.

2. MATERIALS

Material from the approved source shall meet the following requirements when tested in accordance with the referenced testing standards:

Gradation - Tested by ASTM C 136-67 to meet the following gradation limits:

Sieve Size	Percent Passing
1-3/4"	100.0
7/8"	65-90
3/8"	50-70
No. 4	30-60
No. 40	15-35

Liquid Limit and Plasticity Index **-** Tested by ASTM D423-66 and D 424-59.

Liquid Limit - 30.0 Maximum
Plasticity Index - 10.0 Maximum
Triaxial Classification - Tested by Texas Highway Department Method TEX 117-E, Part II - minimum class 3.0.

Source Quality Control - The contractor shall exercise caution in the operation of the material source to prevent the inclusion of inferior materials.

3. CONSTRUCTION

A. The subgrade shall be finished true to the lines and grades as shown on the plans or as established by the Engineer and finished within specified tolerances and properly maintained to prevent drying and/or loosening of the surface.

No base material may be dumped on any subgrade until it has been tested and approved by the Engineer.

B. Flexible caliche base material shall be placed in uniform courses and processed to provide a uniformly mixed base course of the proper moisture content for compaction. The processing and compaction procedure used shall provide a uniform base course compacted to ninety-five percent (95%) modified proctor density (YACHT T180) minimum. The minimum thickness of any one compacted course shall be three inches (3"). The maximum thickness of any one compacted course shall be eight inches (8").

Any soft or segregated spots that appear in the base shall be removed, replaced or reprocessed and recompacted prior to final finishing of the base. The finished base shall conform to the lines and grades as shown on the plans or established by the Engineer. Finished tolerances shall not exceed one half inch (1/2") in ten feet (10').

The finished base shall be primed as soon after finishing as practical and shall be protected until the hot mix asphaltic concrete surface is applied. In no case will prime be applied until the finished base has been approved by the Engineer.

4. TESTING

A. All test for approval of the source shall be performed by a commercial lab selected by the owner and shall be paid for by the contractor.

B. Gradation and soil constants tests (ASTM C-136, D423 and D424) and THD Triaxial Test (THD TEX117-E Part II) will be performed for source approval. Should the appearance, workability or other visual checks indicate a possible change in the material being furnished, the Engineer may require the contractor to retest the material for source approval.

C. Field quality control test will consist of the finish tolerance test and density test.

The finish tolerance test will be performed by the contractor at his expense using a 10' rolling straight edge. This test shall be performed at the direction of the Engineer or his representative. When required, the test shall consist of checking one path in each lane with the rolling straight edge.

Density test will be made by the City or a commercial laboratory chosen by the City using Troxler 3411-B nuclear density gauges or approved equal at the minimum rate of one test for each 1000 square yards of base. In no case shall less than three tests be run on any one area processed as a unit. The City will bear the cost of the first test or set of tests only. If the base fails the first test the contractor, at his own expense, will be required to have all subsequent tests performed by the commercial laboratory chosen by the city.

8/07

BITUMINOUS PRIME

1. GENERAL

This item consists of the application of a bituminous prime coat to the finished caliche base in accordance with the provisions of the Specifications.

Qualification of Material Source - Material shall be supplied by a producer with a proven performance record of acceptance by the Texas Highway Department.

Measurement and Payment - Measurement and payment will be at the units and price for the applicable bid item in the proposal.

2. MATERIALS

Cut-back asphalt grade MC-30, Texas Highway Department Item 300.

Source Quality Control - Certificates of compliance to be furnished by the producer to the Engineer.

3. CONSTRUCTION METHODS

Condition of Base - The surface of the base shall be tightly compacted to the line and grade shown on the plans and within the tolerances of the specifications. The surface shall be clean and the base shall contain sufficient moisture to assure the proper penetration of the prime.

The prime shall be applied with an approved distributor to the surface of the base at a rate of between 0.15 and 0.40 gallon per square yard. The application rate shall be varied to meet field conditions and to obtain uniform coverage, and adequate penetration. Properly applied prime coat should penetrate from 3/8" to 1/2" into the base and should cure in approximately 72 hours with ambient temperatures at or near 70 degrees F. The prime shall be applied at a temperature within the range of temperatures recommended in Item 300 of Texas Highway Department Standard Specifications. The temperature shall be varied within this range to provide a viscosity that will assure even spreading and penetration of the base. Air Temperatures at the time of application shall be above 50'F.

BITUMINOUS TACK

1. GENERAL

This item consists of the application of a bituminous tack coat to the primed base or existing asphaltic concrete or Portland cement concrete pavement in accordance with the provisions of the specification.

Qualification of Material Source - Material shall be supplied by producer with a proven performance record of acceptance by the Texas Highway Department.

Measurement and Payment - Measurement and payment will be at the units and price for the applicable bid item in the proposal.

2. MATERIALS

Cut-back asphalt grade RC-250, Texas Highway Department Item 300.

3. CONSTRUCTION METHODS

Conditions of Surface - Prior to application of tack to the base course the prime must be completely penetrated into the base and the surface cleaned of foreign objects.

The tack shall be applied with an approved distributor at a rate of between 0.05 and 0.10 gallons per square yard. The temperature of application shall be within the range recommended by the Texas Highway Department in Item 300. The surface temperature to which tack is being applied shall be above 50 degrees F. at the time of application.

When the asphaltic concrete surface is being placed on primed caliche base, use of the tack coat may be waived by the Engineer if the contractor can show that adequate adhesion of the surface being placed to the base course is achieved without it.

Tack coat shall be placed on all asphaltic concrete or portland cement concrete surfaces on which an additional course of asphaltic concrete surfacing is to be placed. The tack coat shall be rolled with a pneumatic roller to assure even distribution over the entire surface and to achieve proper penetration into and adhesion to the surface being overlayed.

HOT MIX ASPHALTIC CONCRETE

I. GENERAL

Includes the construction of the hot mix asphaltic concrete surface in accordance with lines, grades and the sections shown on the plans and with the provisions of the specifications.

Qualification of Material Sources - Producers of oil asphaltic concrete mixture to have a proven record of acceptance by the Texas Highway Department.

Measurement and Payment - Measurement and payment to be at the units and price for the applicable bid item in the proposal.

2. MATERIALS

Oil Asphalt - Oil asphalt grade AC-l0 or AC-20, Texas Highway Department Item 300. When no asphalt grade is shown on the plans, and unless directed otherwise by the Engineer, asphalt for this project shall be grade AC-10.

Coarse Aggregate - Crushed stone or crushed gravel with a minimum of 75 percent of the aggregates having two or more crushed faces. Additional requirements:

(a) Los Angeles Abrasion: ASTM C l3l, Wear not to exceed 40.

(b) Decantation: Maximum 2.0 percent by weight

Fine Aggregates - Natural sand and screenings crushed from the same or similar material meeting the requirements of the course aggregates. Additional requirements.

(a) Plasticity Index: Maximum of 6.

(b) Sand Equivalents: Minimum of 50 for each individual fine aggregate.

Paving Mixtures - The paving mixture(s) shall be as shown on the plans and details. If no mixtures are shown on the plans surface or wearing courses up to l-3/4 inches thick shall be Type D, base courses up to 2 inches thick shall be Type C and base courses over 2 inches thick shall be Type B or Type A.

(a) Gradation: The master gradations for the paving mixtures are:

TYPE "A" (Coarse Graded Base Course):	Percent Aggregate by weight or volume
Passing 2" sieve	100
Passing l-3/4" sieve	95 to 100
Passing l-3/4" sieve, retained on 7/8" sieve	16 to 42
Passing 7/8" sieve, retained on 3/8" sieve	16 to 42
Passing 3/8" sieve, retained on No. 4 sieve	10 to 26
Passing No. 4 sieve, retained on No. l0 sieve	5 to 21
Total retained on No. l0 sieve	68 to 84
Passing No. l0 sieve, retained on No. 40 sieve	5 to 21
Passing No. 40 sieve, retained on No. 80 sieve	3 to 16
Passing No. 80 sieve, retained on No. 200 sieve	2 to 16
Passing No. 200 sieve	1 to 8

The asphaltic material shall form from 3.5 to 7 percent of the mixture by weight.

TYPE "B" (Fine graded Base or Leveling-up course)	Percent Aggregate by Weight or Volume
Passing l" sieve	100
Passing 78" sieve	95 to 100
Passing 7/8" sieve, retained on 3/8" sieve	21 to 53
Passing 3/8" sieve, retained on No. 4 sieve	11 to 42
Passing No. 4 sieve, retained on No. l0 sieve	5 to 26
Total retained on No. l0 sieve	58 to 74
Passing No. l0 sieve, retained on No. 40 sieve	6 to 32
Passing No. 40 sieve, retained on No. 80 sieve	4 to 21
Passing No. 80 sieve, retained on No. 200 sieve	3 to 21
Passing No. 200 sieve	1 to 8

The asphaltic material shall form from 3.5 to 7 percent of the mixture by weight.

Type "C" (Coarse Graded Surface Course):	Percent Aggregate by Weight or Volume
Passing 7/8" sieve	100
Passing 5/8" sieve	95 to 100
Passing 5/8" sieve, retained on 3/8" sieve	16 to 42
Passing No. 4 sieve, retained on No. l0 sieve	11 to 37
Total retained on No. l0 sieve	54 to 74
Passing No. l0 sieve, retained on No. 40 sieve	6 to 32
Passing No. 40 sieve, retained on No. 80 sieve	4 to 27
Passing No. 80 sieve, retained on No. 200 Sieve	3 to 27
Passing No. 200 sieve	1 to 8

The asphaltic material shall form from 3.5 to 7 percent of the mixture by weight.

TYPE "D" (Fine Graded Surface Course):	Percent Aggregate by Weight or Volume
Passing l/2" sieve	100
Passing 3/8" sieve	85 to 100
Passing 3/8" sieve, retained on 4" sieve	21 to 53
Passing No. 4 sieve, retained on No. l0 sieve	54 to 74
Total retained on No. l0 sieve	54 to 74
Passing No. l0 sieve, retained on No. 40 sieve	6 to 32
Passing No. 40 sieve, retained on No. 80 sieve	4 to 27
Passing No. 80 sieve, retained on No. 200 sieve	3 to 27
Passing No. 200 sieve	1 to 8

The asphaltic material shall form from 4 to 8 percent of the mixture by weight.

TYPE "F" (Fine Graded Surface Course):	Percent Aggregate by Weight or Volume
Passing 3/8" sieve	100
Passing No. 4 sieve	95 to 100
Passing No. 4 sieve, retained on No. l0 sieve	58 to 73
Passing No. l0 sieve, retained on No. 40 sieve	6 to 26
Passing No. 40 sieve, retained on No. 80 sieve	3 to 13
Passing No. 80 sieve, retained on No. 200 sieve	2 to 11
Passing No. 200 sieve	1 to 8

The asphaltic material shall form from 3.5 to 6.5 percent of the mixture by weight.

(b) Tolerances: Deviations from job mix formula limited to:

(l) Sizes larger than the l0 sieve- Plus or Minus 4 percent.

(2) No. l0 sieve and smaller - Plus or Minus 3 percent.

(3) The deviation from the job mix formula shall be further limited in that the total deviation from the job mix formula between any two adjacent aggregate grades shall not exceed the allowable deviation for either one.

(4) Asphalt - Plus or Minus 0.3 percent.

(c) Density - The mixture shall be designed to produce an acceptable mixture within tolerance, at or near optimum density. The mixture molded in the laboratory should have the following percent of maximum theoretical density:

Minimum	Maximum	Optimum
96	98	97

(d) Stability: Minimum of 35 Hveem

Source Quality Control - Paving mixture and plant tests to be performed by laboratory selected and paid by the Owner, except as noted.

Job Mix Formula - The contractor shall submit a job mix formula, prepared by laboratory chosen by the owner, at least l0 days in advance of laying operations to allow time for review by the engineer. Substitution of one or more materials will require a new job mix formula and must be approved by the engineer.

The design of job mix formula whether for original submittal or revisions shall be paid for by the contractor.

Plant Tests - Check of raw material uniformity, quality and flow, hot bin gradations, temperature of mixture, mixture tests for density, stability and percent asphalt and other necessary tests to be performed bythe laboratory selected by the owner for each day's production.

Oil Asphalt - Producer to furnish certificates of compliance to the Engineer.

3. CONSTRUCTION METHODS

A. GENERAL

Condition of Base - The surface of the base shall be tight and free of debris. The prime coat shall be uniformly distributed, well penetrated and completely cured prior to application of the tack coat. If the mixture will adhere to the surface of the base without the application of a tack coat, the tack coat can be eliminated. If the surface of the base is one half (l/2") inch or more lower than the proposed bottom of the asphaltic concrete it shall be corrected by placing and compacting a level up course of the asphaltic concrete before the mat is placed on it.

Stockpiling, Storage, Batching and Mixing - Shall meet the requirements of Item 340, "Texas Highway Department l982 Standard Specifications for Road and Bridge Construction.

Weather Limitations - Shall be the requirements of Item 340,"Texas Highway Department l982 Standard Specifications for Road and Bridge Construction." With the added provision that no asphaltic concrete shall be placed when the surface on which the mat is to be placed is below 50 degrees F.

Thickness - Shall be as shown on plans. Unless shown otherwise on the plans, the maximum compacted thickness of any one course of asphaltic concrete shall be two and one-half (2-l/2) times the maximum aggregate size of the mixture being placed. The minimum shall be one (l) inch or one and one fourth (1-1/4) times the maximum particle size which ever is greater.

B. PLACING

Placing of Asphaltic Concrete shall be accomplished using an approved self propelled spreading and finishing machine with a heated vibrating screed capable of producing a surface that will meet the requirements of the typical cross section and the surface test, and when the mixture is dumped directly into the finishing machine shall have adequate power to propel the delivery vehicles in a satisfactory manner. The finishing machine shall be equipped with a flexible spring and/or hydraulic type hitch sufficient in design and capacity to maintain contact between the rear wheels of the hauling equipment and the pusher rollers of the finishing machine while the mixture is being unloaded.

The use of any vehicle which requires dumping directly into the finishing machine and which the finishing machine cannot push or propel in such a manner as to obtain the desired lines and grades without resorting to hand finishing will not be allowed. Vehicles dumping directly or indirectly into the finishing machine shall be so designed and equipped that unloading into the finishing machine can be mechanically and/or automatically operated in such a manner that overloading the finishing machine being used cannot occur and the required lines and grades shall be obtained without resorting to hand finishing.

Automatic screed controls will be required and shall meet the requirements item, 528 "automatic screed controls for asphaltic concrete spreading and finishing machines "Texas Department of Highways and Public Transportation 1982 Specifications for Construction of Highways, Streets and Bridges".

The screed shall be ski controlled using a ski of not less than l8' in length. Curb shoe control will not be allowed.

The spreading and finishing machine shall be maintained in good working order and operated by competent trained personnel.

The Engineer may require the contractor to place a test strip to prove the capability of the machine and the competency of the operating personnel to produce a satisfactory finished surface.

In dips and on curved surfaces where the ski control cannot be used, the surface will be controlled using a l0' straight edge.

Fillet areas, turn outs and other areas not accessible to the spreading machine may be hand laid provided a satisfactory surface is produced.

C. COMPACTION AND FINISHING

Compaction Requirements - The asphaltic concrete surface shall be compacted so that the compacted mixture will contain not more than seven percent (7%) nor less than three percent (3%) air voids.

The surface of the pavement, after compaction, shall be smooth and true to the established line, grade and cross section, and when tested with a l0 foot rolling straightedge, except as provided herein, the maximum deviation shall not exceed l/8 inch in l0 feet, and any surface not meeting this requirement shall be corrected as directed by the engineer.

Raking and Leveling - Minor leveling may be accomplished using asphalt rakes prior to compacting the surface. The surface shall be leveled by loosening the surface of the asphaltic concrete using an asphalt rake then adding or removing material and smoothing the surface. Any large aggregate worked to the surface in this process shall be removed before compaction. The large aggregate shall not be spread over the new asphaltic concrete surface.

Edges and joints with compacted asphalt or concrete gutters shall be carefully squared and excess material removed before compaction. Care shall be taken to see that NO excess material laps over onto the surface of existing asphaltic concrete paving or concrete gutters. Large aggregate worked to the surface in this process shall be removed. It shall not be spread over the new asphaltic concrete surface.

Rolling - In general rolling shall conform to the requirements of item 340 of the Texas Department of Highways and Transportation 1982 Specifications for Construction of Highways, Streets an Bridges except as modified herein.

It shall be the responsibility of the contractor to have rolling equipment available on the job to properly compact the paving mixture in place as required without delay to the lay down operation. Rollers provided shall meet the qualifications for their type as follows:

PNEUMATIC TIRE ROLLERS: The rollers shall be acceptable medium pneumatic tire rollers conforming to the requirements of the item, "Rolling (pneumatic tire)", Type B, unless otherwise specified on plans.

TWO AXLE TANDEM ROLLER: This roller shall be an acceptable power driven tandem roller weighing not less than 8 tons.

THREE WHEEL ROLLER: This roller shall be an acceptable power driven three wheel roller weighing not less than l0 tons.

THREE AXLE TANDEM ROLLER: This roller shall be an acceptable power driven three axle roller weighing not less than l0 tons.

Vibrating rollers will not be used without prior written approval of the engineer. Written approval will be granted only upon demonstration by the contractor that the roller and operator can produce a satisfactory surface within the tolerances of these specifications. Only the operator or operators thus approved will be allowed to operate the vibrating roller on this project.

Areas not accessible to standard rollers shall be compacted using trench rollers, impact tampers, hand tamps or other approved means that will produce the density and surface required.

JOINTS- Shall be carefully rolled to provide compaction of the asphalt against the existing surface or face of the concrete gutter. Joints between concrete gutters and Hot Mix Asphaltic Concrete shall be placed so that the HMAC will be approximately l/2 inch higher than the concrete when compaction is completed. At transverse joints such as valley gutters and fillet areas where finishing asphalt paving 1/2 inch above the edge of concrete will adversely affect ride quality the asphalt shall be finished 1/4 inch above the edge of the concrete.

Transverse joints shall be rolled in the transverse direction with the first pass extending approximately six (6") inches onto the new asphalt each additional pass shall extend approximately twelve (12") inches further onto the new asphalt until the full width of the roller is on the new asphalt. Longitudinal rolling may begin then.

All transverse joints shall be checked with a l0" straight edge while the material is

still hot enough to roll. Any corrections shall be made by loosening the material using an asphalt rake and adding or removing material and recompacting the surface. The surface shall be rechecked and when the joint is acceptable the asphalt spreading machine may proceed with the pass.

Final or finish rolling shall be accomplished using a two axle tandem roller to remove roller marks. This rolling shall be accomplished after the surface has cooled sufficient to minimize further marking but before it is too cool to respond to rolling.

STRAIGHTEDGES AND TEMPLATES - The contractor shall provide acceptable l0 foot straightedge for surface testing. Satisfactory templates shall be provided as required by the Engineer.

4. FIELD QUALITY CONTROL

Test Lots - Field Quality Control Tests shall be made by lot with a lot being the amount of contiguous surface laid in one day. No lot shall exceed l0,000 S.Y. If a days laying exceeds l0,000 S.Y., that days laying shall be divided into two approximately equal lots. The same lot divisions shall be used for all Quality Control Tests. Each separate block or combination of contingeous (blocks) of paving shall be considered as a separate lot even though they may be placed in a single day and do not comprise l0,000 S.Y. of surface.

Surface Tests - Surface tolerance tests will be performed in both longitudinal and transverse directions. The test for longitudinal surface tolerance will be performed with a ten-foot rolling straightedge furnished by the contractor, and calibrated and used in accordance with the manufacturer's recommendation or other approved method.

The maximum allowable deviation in surface shall be 1/8 inch in 10 feet. Tests for longitudinal surface tolerance will be performed by the contractor, accompanied by the engineer within 24 hours of the completion of a lot. One path in each lane for the length of the entire lot will be tested. The location of the test path (Distance from centerline or pavement edge) will be determined by the engineer through the use of random numbers. Any deviations in the surface finish of a roadway wearing course which exceeds l/4 inch must be corrected. After corrections have been made, the entire lot must meet the l/8 inch surface tolerance.

Thin course "scab on" patching will NOT be permitted. Corrections may be made by planning, milling and patching or by removing and replacing affected surface area.

When milling and patching is used to correct surface defects the minimum depth of removal shall be l".

For milling and patching or surface removal the area removed or milled shall be sufficiently large to avoid the appearance of patching.

When planning is used to correct defects the thickness of the remaining paving shall meet the thickness requirements as shown on the plans.

Surface tolerance test will be performed on the last or wearing course only.

Asphaltic concrete pavement constructed under these specifications that does not meet the surface tolerance requirements and is allowed to remain in place will be paid for at a reduced rate determined by multiplying the price bid for the wearing surface course by a surface tolerance quality factor. This rate shall apply to the entire lot.

Lower courses will not be affected by this quality factor but will be paid for at the price bid or such price as it may be affected by other quality factors.

The surface tolerance quality factor will be determined according to the following schedule:

Linear % of pavement exceeding 1/8 inch surface tolerance	Surface tolerance quality factor
0.0 to 1.0	1.0
1.1 to 1.5	0.9
1.6 to 2.5	0.8
over 2.5	0.5

Roadway surface requirements will not be applied for paved drives, aprons, turnouts, and other irregular sections, however, asphaltic concrete shall be placed in such a manner as to provide a neat and uniform appearance and shall be compacted by methods satisfactory to the engineer.

The contractor may request permission to reconstruct a portion of the pavement when, in his opinion, the surface tolerance quality factor can be improved. Upon approval of the engineer, the contractor shall take sufficient tests to isolate the portion or portions of pavement to be pre- constructed and remove and reconstruct the pavement. All costs in connection with this reconstruction are to be born by the contractor. The minimum width of this reconstruction shall be l/2 the street width unless approved otherwise in writing by the engineer. The portions reconstructed shall be re-tested and the surface tolerance quality factor recomputed using the new information along with the test from the area within the portion of the lot not reconstructed.

When other quality factor reductions are provided for on the plans or in the specifications the effect shall be cumulative ie: QFl x QF2 x QF3 x ....x QFn x unit price.

No payment will be made for pavement with a combined quality factor of less than 0.5.

Thickness Test - Thickness test will be made by the engineer on each course of asphaltic concrete laid. Test specimens shall be made by a commercial laboratory selected by the owner. Test specimens shall be cores having a minimum nominal diameter of 6". These cores shall be made in the presence of the inspector at locations designated by the inspector using an approved power operated coring machine.

For thickness and compaction test, each lot shall be divided into approximately equal sublots corresponding in width to each pass of the lay down machine and containing up to but not exceeding 2,000 square yards each. If a lot contains less than 2,000 square yards the engineer may, at his option, divide the lot into two equal sublots, or, if the contractor has a record of satisfactory workmanship, the engineer may waive tests on said lots.

The engineer will locate one test spot for each l,000 S.Y. and/or fraction thereof in each sub-lot using random numbers. If a spot thus located falls within one foot of a longitudinal joint or lip of gutter or within two feet of an unsupported edge or within l5 feet of the beginning or ending edge of a pass, the engineer will relocate the spot using random numbers. The commercial laboratory chosen by the owner will remove the test specimen from each designated spot, mark the specimen and the adjacent pavement for future reference and perform the required tests. Test specimens shall be removed with special caliper type tongs having circular jaws of the diameter of the specimen being removed. These jaws shall grip at least 1/2 of the circumference of the specimen. Screw drivers or other type of prying instruments shall not be used to remove the specimens.

The thickness of a specimen shall be determined by averaging four (4) measurements made at ninety degree (90) intervals around the specimen. Any thickness less than design thickness shall be considered as deficient.

For hot mix asphaltic concrete pavement less than 2 inches thick the maximum allowable deficiency in any one test specimen is l/8 inch provided that no more than twenty five percent (25%) of the specimens tested show a deficiency. For pavement in excess of 2 inches in thickness the maximum allowable deficiency in any one specimen shall be l/8 inch plus l/l6 inch for each additional inch of thickness provided that no more than twenty five percent (25%) of the test specimens show a deficiency.

When a test specimen has a greater deficiency and less than (25%) of the test specimens show a deficiency the contractor shall, at his own expense, determine the extent of the deficiency and correct it by removing and replacing the surface. The minimum width for such correction will be the full width of the pass or passes of the lay down machine in which the deficiency occurs.

The minimum length of such correction shall be three times the width removed. When more than (25%) of the test specimens show a deficiency the surface may at

the engineers option be declared uniformly deficient and the contractor shall correct the deficiency by removing and reconstructing the surface or by constructing an overlay of not less than l inch thickness over the deficient area. The construction of an overlay will require milling at lip lines and dips.

The corrected surface shall meet all the requirements of these specifications.

Asphaltic concrete pavement constructed under these specifications that is less than design thickness, if allowed to remain in place, will be paid for at a reduced rate determined by multiplying the unit price bid in the bid proposal by a thickness quality factor. This rate shall apply to the entire lot in which the deficiency is found.

The thickness quality factor for hot mix asphaltic concrete pavement less than 2 inches in thickness shall be:

Thickness Deficiency	Quality Factor
Maximum l/8" for any one specimen with no more than 25% of the specimens showing a deficiency.	l.0
Pavement not meeting the 25% limitation with an average specimen deficiency up to l/8 inch.	0.75
Average specimen deficiency of l/8 inch to l/4 inch	.55
Average deficiency of more than l/4 inch	0.0

The thickness quality factor for hot mix asphaltic concrete more than 2 inches thick will be l.0 if the maximum deficiency for any one specimen is l/8 inch plus l/l6 inch for each additional inch of thickness over 2 inches and not more than twenty five percent (25%) of the test specimens in the lot are deficient. For thickness test that fall outside this area either by single specimen thickness deficiency or more than twenty five percent (25%) of the specimens showing deficiency the thickness quality factor shall be computed as follows:

$$\text{Thickness Quality Factor} = \frac{1}{\left(\frac{1}{\text{Thickness Ratio}}\right)^2}$$

The thickness ratio for a lot is the average specimen thickness for that lot, with no allowance for thickness in excess of design, divided by the design thickness. For determining the average specimen thickness, those specimens in excess of design thickness shall be considered at design thickness.

The minimum thickness quality factor for which payment will be allowed is .55. Any pavement with a thickness quality factor below .55 will be considered as having a thickness quality factor of 0. This shall apply only if the contractor requests, in writing, to have this paving remain in place and this request is approved in writing by the engineer.

When the deficient area is in a lower course of a multi-course paving structure the contractor may reduce or correct the deficiency by increasing the thickness of the subsequent course or courses as follows:

When subsequent course is	Maximum increase in course thickness
Type B	1/2"
Type C	3/8"
Type D	1/4"

When corrected in this manner the thickness quality factor shall be determined using the combined thickness of the corrected courses and shall apply to all unit prices applicable to this lot.

The contractor may request permission to reconstruct a portion of the pavement when, in his opinion, the thickness quality factor can be improved. Upon approval of the engineer, the contractor shall take sufficient tests to isolate the portion or portions of pavement to be reconstructed and remove and reconstruct the pavement. All cost in connection with this reconstruction are to be born by the contractor. The minimum width of this reconstruction shall be l/2 the street width unless approved otherwise in writing by the engineer. The portions reconstructed shall be retested and the thickness quality factor recomputed using the new information along with the test from the area within the portion of the lot not reconstructed.

When other quality factor reductions are provided for on the plans or in the specifications the effect shall be cumulative ie: QFl x QF2 x QF3 x....x QFn x unit price.

No payment will be made for pavement with a combined quality factor of less than 0.5.

Compaction Test: Compaction test will be made by the commercial laboratory chosen by the owner on the core samples removed from the paving for thickness testing.

The percent air voids will be calculated using maximum theoretical specific gravity of the mixture.

The contractor may attempt to correct deficiencies in compaction by additional pneumatic rolling upon written permission of the engineer. Requests for permission to conduct additional rolling shall be submitted, in writing, to the engineer no later than three days following notification of the deficiency by the commercial laboratory and the additional rolling shall be completed within ten (l0) days following said notification weather permitting.

In no case shall the additional rolling be delayed beyond thirty (30) days from the date the surface was laid. All cost for additional rolling and additional coring and testing of the re-rolled surface shall be born by the contractor.

Asphaltic concrete pavement not meeting this specification and that is allowed to remain in place shall be paid for at a reduced rate determined by multiplying the price bid in the bid proposal by a compaction quality factor determined according to the following schedule:

Percent air voids (average of all specimens for the lot)	Compaction Quality factor	
less than 3	0	
3.0 to 8.0	1.0	
8.1 to 9.0	0.9	
9.1 to 10.0	0.7	
10.1 to 11.0	0.5	and the engineer may require a chip seal to be applied at the contractor's expense
More than 11		0 and the engineer may require a chip seal to be applied at the contractor's expense.

NOTE: HMAC surfacing with between 11% and 15% air voids may, upon written request by the Contractor, be reviewed by the Engineer to determine if it may be left in place. The Engineer's review will consider the type of street and expected traffic conditions among other factors and a written determination will be issued. If the surface is allowed to remain in place, a chip seal will be required at the Contractor's expense. The quality factor for this paving will remain at 0.

The reduced rate shall apply to the entire lot.

The effect of compaction quality factors shall be cumulative and shall be applied as described for surface quality factors and thickness quality factors.

Cost for Field Quality Control - The surface tolerance test shall be made by the contractor at his expense.

The initial thickness and compaction test will be made at no cost to the contractor except for the cost of materials and labor to repair the holes left when cores are removed.

The cost of all thickness test to isolate a deficient area and the cost of retesting the corrected area shall be born by the contractor.

The cost of all retesting of compaction after additional rolling to correct compaction deficiencies shall be born by the contractor.

Areas reconstructed to remedy deficiencies shall meet all the requirements of these specifications and shall be tested in the same manner as original construction. The cost of all tests on reconstructed areas shall be born by the contractor.

5. ADDITIVES

Anti-stripping: An approved liquid anti-stripping agent shall be added to the asphalt used in the hot mix asphaltic concrete. The rate of application shall be in accordance with the manufacturer's recommendation. The minimum anti-stripping agent added shall be one-half (l/2) of l%.

The anti-stripping agent used shall have a proven record when used with similar aggregate and shall be approved by the engineer in writing prior to the date set for reception of bids.

DOUBLE COURSE ASPHALT SURFACE TREATMENT

1. SCOPE

The work to be done under this section consists of furnishing all labor, materials and equipment necessary to construct a Double Asphalt Surface Treatment on the prepared base course in accordance with the sections shown on the plans and as specified herein or as directed by the Engineer.

2. MATERIALS

2.1 Asphalt

The asphalt used shall be of the grade and type specified below. The material shall be homogeneous and free from water, shall not foam when heated to 347° F., and shall meet the following requirements.

Viscosity Grade AC-5
Texas Highway Department 1982 Specifications

Viscosity 140 F. Stokes	500 +/- 100	
	Min.	Max.
Viscosity 140 F. Stokes	1.4	--
Penetration 77° F. 100 g. 5 sec.	135	--
Flash Point C.O.C.F.	425	--
Solubility in trichlorethylene percent	99.0	--

Tests on residues from thin film oven test:

Viscosity 140 F. Stokes	--	1500
Ductility, 77° F. 5 cms per min. cms.	100	--

Spot Test – negative for all grades.

2.2 Aggregate

All aggregate shall be composed of sound and durable particles of crushed stone or crushed gravel. At least eighty-five percent (85%) of the particles of the aggregate retained on the No. 4 sieve shall have one or more crushed faces. Aggregate particles shall be free from organic matter, clay, loam, or pebbles coated therewith, and shall not contain more that (5%) of slate, shale, schist or soft particles of sandstone. The aggregates shall have a percent of wear of not more than thirty-five (35). (Los Angeles Abrasion Tests of Coarse Aggregate, AASHO Designation

T-96 as revised). Crushed limestone will not be acceptable for this project.

Double Asphalt Surface Treatment

No. 1 Aggregate –	Retained on ¾" Sieve -	0% by weight
(Texas Highway	Retained on 5/8" Sieve -	0 – 2% by weight
Department 1982	Retained on ½" Sieve -	20, 35% by weight
Grade 3)	Retained on 3/8" Sieve -	85 – 100% by weight
	Retained on ¼" Sieve	95 – 100% by weight
	Retained on No. 10 Sieve-	99-100% by weight

No. 2 Aggregate -	Retained on ½" Sieve -	0% by weight
(Texas Highway	Retained on 3/8" Sieve -	0 – 5% by weight
Department 1982	Retained on No. 4 Sieve -	40 – 85% by weight
Grade 5)	retained on No. 10 Sieve -	98 –100% by weight
	Retained on No. 20 Sieve-	99 100% by weight

3. CONSTRUCTION METHODS

3.1 Preparation of base

If the surface of the base course is not in proper condition for placement of surfacing, it shall first be brought true to the section and grade as established. The base shall be checked, and any deviation in excess of ¼-inch from grade or from true cross section shall be corrected by scarifying then adding or removing material, reshaping and re-compacting by sprinkling and rolling. No "scab" or "featheredge" patches will be permitted. After correction of any defects in the base, it shall be cleaned of dirt, dust, or other deleterious material by sweeping or other approved methods and primed.

The base course shall be primed with MC-30 Asphalt as directed by the Engineer. The asphalt used shall meet the 1982 Texas Highway Department Specifications Item 300.

The base course shall be checked at least 24 hours in advance of placing the surfacing and any defects shall be repaired and re-primed. Immediately prior to placing the surfacing, the base shall be cleaned of all dirt, dust, or other deleterious materials by sweeping with rotary and hand brooms or other approved methods.

Prime coats shall not be applied more than 7 days in advance of placing the surface course. Areas that have been primed longer than the time

specified above prior to placing the surface course shall be re-primed at the Contractor's expense.

3.2 Handling and Applying Asphalt

All storage tanks, piping, retorts, booster tanks, and distributors used in storing or handling asphalt shall be kept clean and in good operating condition at all times, and they shall be operated in such a manner that there will be no contamination of the asphalt with foreign material. Asphalt shall not be heated above 400° F. at any time, and when applied, it shall be at a temperature of not less than 300° F. and not more than 350° F. The Engineer will select the temperature of application, and the Contractor shall apply the asphalt at a temperature within 15° of the temperature selected. All asphalt material heated above 400° F. will be rejected. Re-circulating heating equipment shall be equipped with recording temperature gauges.

The prime coat shall not be applied when the air temperature is below 50° F. and falling or when in the opinion of the Engineer weather conditions are not suitable. Prime coat shall not be applied when the temperature of the surface on which it is to be applied is less than 40° F. The prime coat shall be applied at least 24 hours in advance of placing the surface course. Prime coat shall be applied with an approved distributor at a rate of 0.30 gallon per square yard, or as directed by the Engineer.

Double Asphalt Surface Treatment shall not be applied when the temperature of the surface on which it is to be placed is below 50° F. and is falling but may be applied when the air temperature is above 40° F. and rising. No asphalt shall be placed when general weather conditions, in the opinion of the engineer, are unsuitable. No double asphalt surface treatment shall be placed from September 30 to April 15.

Asphalt shall be applied on the clean surface by an approved type of self-propelled pressure distributor so operated as to distribute the material in the quantity specified, evenly and smoothly, under a pressure necessary for proper distribution. The Contractor shall provide necessary facilities for determining the temperature of the asphalt in all of the heating equipment and in the distributor, for determining the rate and pressure at which it is applied, and for securing uniformity at the junction of two distributor loads. The beginning and ending of each shot of asphalt shall start and stop on a strip of heavy craft paper of not less than thirty (30) inches in width.

In areas inaccessible to the distributor, asphalt shall be applied by means of a hose and spray nozzles attached to the distributor. Care shall be

taken during application of any asphalt to shield the curb and gutter from the asphalt spray; satisfactory means of handling this matter will be insisted upon.

3.3 Application of Aggregate

Immediately after making the first application of asphalt, the surface shall be covered with No. 1 aggregate. The aggregate shall be spread with an approved self-propelled continuous feet aggregate spreader box, or approved equal, at rates as specified below or as directed by the Engineer. If necessary to obtain uniform distribution of aggregates, hand brooming and hand spotting of aggregates will be required. After completion of placing the aggregates, all areas shall be bull-wheeled with a three- wheeled roller weighing not less than 8 tons followed immediately by two complete passes with an approved self propelled pneumatic roller.

The second application of asphalt shall then be made and the No. 2 aggregate shall be applied in the same manner as stated above for the No. 1 aggregate. The Contractor shall be responsible for the maintenance of the surface and the distribution of the excess aggregate until the work is accepted.

On the two successive days following completion of the work as specified above, all areas shall be rolled with at least four complete coverage's with a pneumatic roller. This rolling shall be done in the warm part of the day.

3.4 Rate of Application of Materials

The asphalt and aggregate shall be applied at the rates specified in the following schedule:

Double Asphalt Surface Treatment

Application	Aggregate Gal. Asphalt/Sq. Yd.	Aggregate Cu. Yd. To Sq. Yds.	Designation
First	0.30	1:70	No. 1
Second	0.40	1:110	No. 2

3.5 Cleanup

After completion of the asphalt surfacing, all debris resulting from the construction shall be cleaned up and removed from the site of the work to

an approved place of disposal. The ditches, shoulders and back slopes shall be bladed and graded to true grades and cross sections as shown on the plans. The entire premises of the work shall be left in a clean condition satisfactory to the Engineer, and all costs of cleanup shall be included in the contract unit prices for the items of work involved.

DOUBLE COURSE ASPHALT SURFACE TREATMENT 1
1. SCOPE 1
2. MATERIALS 1
2.1 Asphalt 1
Viscosity Grade AC-5 1
Texas Highway Department 1982 Specifications 1
Viscosity 140 F. Stokes 1.4 --..... 1
2.2 Aggregate 1
Double Asphalt Surface Treatment 2
3. CONSTRUCTION METHODS 2
3.1 Preparation of base 2
3.2 Handling and Applying Asphalt 3
3.3 Application of Aggregate 4
3.4 Rate of Application of Materials 4
Double Asphalt Surface Treatment 4
3.5 Cleanup 4

3/2006

PREPARATION OF ASPHALTIC CONCRETE SURFACE FOR OVERLAY OR SEAL COAT

1. GENERAL

This item includes patching, milling and incidentals to prepare the asphaltic concrete surface for tack coating and overlay or for application of a seal coat.

2. MATERIALS

a. Asphalt

Asphalt for hot mix asphaltic concrete shall be Grade ACl0 Texas Highway Department Item 300.

Asphaltic concrete shall be Type D or Type F Texas Highway Department Item 340 except when the overlay is the second phase of phased construction in which case the asphaltic concrete for full depth patching shall be the grade as shown on the plans.

b. Portland Cement Stabilized Base

Cement stabilized base shall conform to Texas Highway Department Item 274 and shall consist of caliche base materials described in Section 2-C of this specification. Stabilized using 2 sacks of Portland cement per cubic yard. Cement stabilized base may be blade mixed at or near the job site if the contractor can produce a uniformly mixed acceptable product by this method.

3. PATCHING

a. Patching Surface Raveling

Where, in the opinion of the engineer, surface raveling has caused sufficient loss of material to require patching, the contractor shall thoroughly clean the area to be patched by brooming, and/or compressed air nozzle. When the patched area is completely free of loose aggregate and other foreign matter the contractor shall lightly brush the area with emulsified asphalt type SS1 and apply Type F hot mix asphaltic concrete. The asphaltic concrete shall be raked using an asphalt rake and finished smooth a little higher than the existing surrounding surface and compacted using a steel wheel roller and/or a pneumatic roller. Rollers shall be sufficient size and weight to achieve

adequate compaction. Small areas may be compacted using vibrating plate compacters when approved by the Engineer.

b. Patching Deteriorated Surface

When, in the opinion of the engineer, the surface has deteriorated to a point where replacement is required the engineer shall mark the area to be removed and replaced. The contractor shall saw cut for the full depth of the asphaltic concrete and remove said pavement. The saw cut shall be rectangular in shape with the edges being parallel to and at 90` to the centerline of the street. The minimum width for any patch shall be one (l') foot. After the surface has been removed the base shall be carefully smoothed and all loose base material shall be removed. When needed the base shall be reprimed using a light shot of RC 250 or MC 30 asphalt. After the prime coat has penetrated the base material, the contractor shall apply tack coat to the sawed edges of the surface and place Type D asphaltic concrete to a sufficient depth above the existing surface to provide a compacted surface slightly higher than the adjacent surface. The patch shall be compacted to a density of 92% to 97% Rice density using steel wheel and or pneumatic rollers.

c. Patching Deteriorated Substructure

When the base and or subgrade have failed and are to be removed, the contractor shall remove the surface as specified for deteriorated surface patching. The weakened base shall be removed to a uniform depth to expose undamaged base or subgrade. The minimum depth of removal shall be six (6") inches. The base and subgrade thus removed shall be replaced with Portland cement stabilize base and compacted to 95% modified proctor density and finished at the level of the abutting base. The finished base shall be primed and the surface replaced as specified for patching deteriorated surface.

4. MILLING

Surface milling shall be accomplished using approved asphalt milling machines. The maximum depth of milling shall be one (l") inch.

Milling shall be as directed by the engineer to remove asphaltic concrete placed at valley gutters, gutters and at the ends of the first phase of phased construction for drainage and to remove the asphaltic concrete placed for a smooth connection between that phase and the existing paving. The Engineer may also direct milling to

remove ridges and ruts that have formed on the pavement surface.

The Contractor shall be responsible for controlling the milling operation so that only these areas which require milling are milled. No measurement or payment will be made for milling where only superficial surface marks are left and from which no material is removed. When milling is required to remove ridges and ruts the low areas between ridges and ruts will be considered as "milled surface" for payment.

If a smooth straight joint can not be made by milling the contractor may be required to saw cut a one (l") inch depth groove at the edge of the milled area and remove material between the saw cut and the milled area by hand. No separate payment will be made for this saw cut when required.

5. MEASUREMENT AND PAYMENT

a. Patching Surface Raveling

Measurement will be made of the actual square footage of surface area patched. Payment will be made at the price bid per square foot for patching surface raveling in the bid proposal.

b. Patching Deteriorated Surface

Measurement will be made of the square yards of street surface replaced.

Payment will be made for the actual number of square yards of street surface replaced at the price bid per square yard for patching deteriorated surface in the bid proposal.

c. Portland Cement Stabilized Base

Measurement will be made of the actual cubic yards of compacted cement stabilized base in place.

Payment will be made at the price per cubic yard bid for compacted in place Portland cement stabilized base in the bid proposal.

d. Saw Cutting

Measurement will be made of the actual length of full depth saw cut made as directed by the engineer. No measurement will be made of the sawing required to square up poor milling edges.

Payment will be made at the price per linear foot of full depth saw cutting for the actual number of feet of saw cut as measured above.

No payment will be made for saw cutting required to square up the edges left by improper, inadequate or poor quality milling.

e. Milling

Measurement will be made of the actual area milled. No measurement will be made of areas where milling leaves only superficial surface marks from which no material was removed.

Payment will be made for the actual number of square yards of surface milling as measured above at the unit price bid per square yard of surface milling in the bid proposal.

01/04

SEAL COAT

I. DESCRIPTION

This item shall consist of the application of liquid asphalt to the existing pavement surface followed by placement of cover aggregate and rolled to increase adhesion, together with other operations necessary to form a complete durable seal coat.

II. MATERIALS

A. Asphaltic Materials

The material shall be homogeneous, shall be free from water, shall not foam when heated to 347 degrees F and shall meet the following requirements:

		VISCOSITY GRADE	
TEST		AC-5 Min/Max	AC-10 Min/Max
Viscosity, 140 F stokes		500+100	1000+200
Viscosity, 275 stokes		1.4	1.9
Penetration, 77F, 100g, 5 sec.		135	85
Flash Point, C.O.C.F.		425	450
Solubility in trichlorethylene	%	99.0	99.0
Tests on residues from thin film oven test: Viscosity, 140 F stokes		1500	3000
Ductility, 77 F 5cms per min, cms		100	70
Spot Test		Negative for all grades	

B. Storage, Heating and Application Temperatures

Asphalt materials should be applied at the temperature which provides proper and uniform distribution and within practical limits avoiding higher temperatures than necessary. Satisfactory application usually should be obtained within the recommended ranges shown below. No material shall be heated above the following maximum temperatures:

Applications and Mixing

TYPE-GRADE	Recommended Range, F	Maximum Allowable, F	Heating and Storage Maximum, F
AC-5, 10	275-350	375	400

NOTE:Heating of asphalt materials (except emulsions) constitutes a fire hazard to various degrees. Proper precautions should be used in all cases and especially with RC cutbacks.

Warning to Contractors: Attention is called to the fact that asphaltic materials are very flammable. The utmost care shall be taken to prevent open flames from coming in contact with the asphaltic materials or the gases of same. The Contractor shall be responsible for damages from any fires or accidents which may result from heating the asphaltic materials.

C. Additives

1. Latex Additive: A minimum of two percent by weight latex additive (solids basis) shall be added to AC-5 asphalt when specified on the plans or in other specifications in the contract. The latex additive shall be governed by the following specifications:

The latex is to be an anionic emulsion of butadiene-styrene low-temperature copolymer in water, stabilized with fatty-acid soap so as to have good storage stability, and possessing the following properties:

Monomer ratio, B/S 70/30
Minimum solids content 67%
Solids content per gal @ 67% ..... 5.3 lbs
Coagulum on 80-mesh screen ..... 0.1% max

Type Anti-oxidant ..... staining
Mooney Viscosity of Polymer
(M/L4 @ 212 F) ....100 min
pH of Latex ..... 9.4 - 10.5
Surface Tension ..... 28-42 dynes/cm^2
Brookfield Viscosity
of Latex ..... 1200 ps max @ 67% solids

The finished latex-asphalt shall meet the following requirements:

Viscosity at 140 F, stokes ..... 1500 max
Ductility at 39.2F, 1cm per min, cm..... 100 min

2. Anti-stripping Agent. An approved liquid anti-stripping agent shall be added to the asphalt used on this project when called for on the plans or elsewhere in the specifications or bid proposal. The rate of application shall be in accordance with the manufacturers recommendations. The minimum anti-stripping agent added shall be one/half (1/2) of 1%. The anti-stripping agent shall be Permatac or approved equal.

D. Regular Aggregate

Regular aggregate shall be Type B Grade 4 or Grade 5 crushed gravel, or crushed stone as specified in Item 302 of the Texas State Department of Highways and Public Transportation (T.S.D.H.P.T.) 1982 Standard Specification for Construction of Highways, Streets, and Bridges with the following exceptions:

1. Limestone other than natural limestone rock asphalt will not be approved for use on this project.

2. Aggregate shall contain not more than 1% by weight of organic matter, clays, loam or pebbles coated therewith and shall contain not more than 5% by weight of any one of or combination of slate, shale, schist or soft particles of sandstone when tested in accordance with Test Method Tex-217-F.

3. Aggregate Gradation, expressed as a percentage of weight, shall be as follows:

Grade 4	Percent by Weight		
Retained on 5/8" sieve			0
Retained on 1/2" sieve	0	-	2
Retained on 3/8" sieve	5	-	35
Retained on No. 4 sieve	80	-	100
Retained on No. 10 sieve	98	-	100
Passing No. 200 sieve	0	-	0.5

Grade 5	Percent by Weight		
Retained on 1/2" sieve			0
Retained on 3/8" sieve	0	-	5
Retained on No. 4 sieve	40	-	85
Retained on No. 10 sieve	98	-	100
Retained on No. 20 sieve	99	-	100

When no aggregate grade is shown on the plans or called for elsewhere in the specifications or bid proposal, Grade 5 aggregate will be furnished.

4. The percent of wear, as determined by ASTM C-131, shall not exceed 25%.

5. The percent loss of the aggregate, as determined by ASTM C-88 using a magnesium sulfate solution and a four cycle test, shall not exceed 30%.

E. Precoated Aggregate

Precoated aggregate shall be Type PB Grade 4 or Grade 5 crushed gravel, or crushed stone as specified in Item 304 of the T.S.D.H.P.T. 1982 Standard Specification for Construction of Highways, Streets, and Bridges with the following exceptions:

1. Those exceptions listed in Paragraph II 2(B) above.

2. The precoated aggregate shall be coated with 1.0 to 2.0 per cent by weight of asphaltic cement of Grade AC-20.

F. Joint Paper

Paper used for starting and stopping asphalt application, as well as making fabricated paper discs to protect manhole covers and valve covers, shall be a non-absorbent, high grade 60# Kraft paper, 30" in width.

The contractor shall cover all manhole and valve box lids with paper discs, furnished by Contractor, immediately before application of asphalt and remove same immediately after application of rock.

G. Delivery Tickets

A legible copy of the delivery tickets for all materials to be used on this project shall be furnished to the City's representative at the time materials are delivered to the project stock pile and storage site.

III. CONSTRUCTION METHODS

A. Equipment

In general, all equipment used on this project shall be in good working order and in sufficient quantity to insure proper expedition of the seal operation.

1. Asphalt Handling Equipment

The asphalt distributor shall have been recently calibrated and the Engineer shall be furnished an accurate and satisfactory record of such calibration. The distributor shall be an approved type of self-propelled pressure distributor so operated as to distribute the material in the quantity specified, evenly and smoothly, under a pressure necessary for proper distribution. The Contractor shall provide all necessary facilities for determining the temperature of the asphaltic material in all of the heating equipment and in the distributor, for determining the rate at which asphalt is applied, and for securing uniformity at the junction of two distributor loads. All storage tanks, piping, retorts, booster tanks, and distributors used in storing or handling asphaltic material shall be kept clean and in good operating

condition at all times, and they shall be operated in such manner that there will be no contamination of the asphalt with foreign material. It shall be the responsibility of the Contractor to provide and maintain in good working order a recording thermometer at the storage heating unit at all times.

2. Drag Broom

A drag broom shall be required if the aggregate is not properly distributed. The drag broom shall be furnished at no additional cost to the City.

3. Pneumatic-tire Roller

Pneumatic-tire rollers shall be of the self-propelled type consisting of not less than 7 pneumatic-tired wheels, running on axles in such manner that the rear group of tires will not follow in the tracks of the forward group, and mounted on a rigid frame and provided with a loading platform or body suitable for ballast loading. The roller shall be not less that 10 tons in weight and carry not less than 50 pounds pressure in each tire.

4. Aggregate Spreader

Aggregate spreader shall be an approved self-propelled continuous feed aggregate spreader. The spreader shall be equipped with a disposable trash box for placing debris removed from spreader box scalping screen.

5. Miscellaneous Equipment

The Contractor shall have available for immediate use at no additional cost one rock blade and one drag broom if their use is required by the Engineer. These pieces of equipment shall not be pulled by rollers. In addition, the Contractor shall furnish one tail gate aggregate spreader and one dump truck, equipped to receive the tail gate spreader.

6. Truck Scale

A truck scale conforming to the requirements of item 520 of "Texas State Department of Highways and Public Transportation 1982 Standard Specifications for Construction of Highways, Streets and Bridges" shall be furnished by the Contractor at aggregate stockpile sites.

B. Surface Preparation

The City of Midland will sweep all streets to be sealed ahead of the Contractor. This sweeping by the City of Midland is not intended to be a final cleaning preparation for the application of asphalt but is intended as an aid to the Contractor.

Prior to placing the seal coat, loose dirt and other objectionable material shall be removed from the existing surface by the Contractor. The surface will be cleaned with rotary brooms. Hand brooms will be used in areas not accessible to the rotary broom. The Engineer shall approve all streets before application of any asphalt.

C. Application of Bituminous Material

Paper shall be spread on the surface for a sufficient distance back form the end of each application so that flow through sprays may be started and stopped on the paper, and so that all sprays will operate properly over the entire length being treated.

No asphaltic material shall be applied when the total of air temperature plus pavement surface temperature is less than 120" F.

No equipment or vehicular traffic shall be allowed to cross over joint paper in place, except the distributor.

Immediately following the application of asphaltic material, the Contractor shall remove all joint paper and load same on a designated vehicle. At the end of each day, all paper shall be disposed of at the City Landfill.

Following all preparation outlined above, the Contractor shall immediately apply asphaltic materials at the specified rates and temperatures designated by the Engineer.

If the Contractor employs only one distributor in the seal operation, he shall be required to seal all designated filets and street stubs in the seal area before moving to another section of the City. If two distributors are used, one distributor will be employed only to seal filets and street stubs.

The use of a second distributor to seal filets and street stubs shall require the following additional equipment; one dump truck equipped with tailgate spreader, and one self-propelled pneumatic roller. All rolling shall be deferred until aggregate is dry.

D. Application of Aggregate

Aggregate shall be immediately and uniformly applied and spread by an approved self-propelled continuous-feed aggregate -8- spreader, unless otherwise authorized by the Engineer. Aggregate shall be applied at the approximately rate directed by the Engineer.

Vehicles used to transport aggregate from stockpiled area to spreading machine shall be weighed and a weight ticket issued for each load. Weight tickets shall show truck identification No., tare weight of truck, gross weight, and net weight of aggregate. The weight ticket shall be delivered to the city's representative at the aggregate spreader.

E. Rolling

A minimum of three (3) rollers shall be employed by the Contractor. Rolling shall be controlled by the Engineer during the entire project. The speed of all rollers will be held to a maximum of 5 miles per hour during the rolling process. When surface moisture is present on aggregate, "Rolling shall be deferred until aggregate is dry.

F. Stockpiling

All aggregate stockpiles shall be placed on a paved surface or areas acceptable to the Engineer.

When dust from the aggregate creates a nuisance or when aggregate fails to adhere to the asphalt the Engineer may require the Contractor to "water down" the aggregate stock pile.

When, directed by the Engineer, or desired by the Contractor, aggregate stockpiles will be "watered down". When the "watered down" aggregate does not adhere to the asphalt properly the Engineer may direct that water for this purpose contain 5% EA10S emulsified asphalt and/or an approved wetting agent. The Engineer may direct the contractor to increase the amount of emulsified asphalt added to the water if, in his opinion, desired results are not being achieved. No separate payment shall be made for emulsified asphalt, water or wetting agent but the cost shall be considered as an incidental cost for furnishing satisfactory aggregate.

G. Cleanup

Clean up shall be maintained on a timely manner as the work progresses. All debris scattered on the sidewalks and driveways shall be swept up by the Contractor. Sweeping debris onto freshly sealed streets shall not be allowed.

City forces will remove excess aggregate from the street and gutters after the project is completed.

H. Maintenance

The Contractor will be required to maintain all sealed streets until final acceptance of the project by the Engineer. Maintenance shall consist of adding additional coverstone when required, rolling, pony blading, or drag brooming.

IV. MEASUREMENT

Asphaltic material shall be measured in gallons at the applied temperature at the point of application.

Aggregate shall be measured by the ton in vehicles as delivered to the aggregate spreader and applied on the street. Trucks will not be allowed to leave the construction area with a partial load. If it becomes necessary for a truck to leave the area because of mechanical failure or other reasons, a second weigh ticket for that truck will be required.

Rolling shall be measured by the hours of actual rolling for each roller.

V. PAYMENT

Payment shall be made as provided under "Measurement" at the unit price bid for "aggregate", "asphalt", and "rolling" and shall be full compensation for furnishing and incorporating the materials "Aggregate" and "Asphalt" (and additives where applicable) into a composite product; for delivering, stockpiling; for brooming, compaction, and rolling; for cleaning the existing surface; for cleaning excess bituminous material; cleaning gutters; for cleaning sidewalks and driveways; for cleaning stockpile sites; for all required maintenance; for pony blading; for drag brooming; for adding additional cover aggregate; for all labor, equipment, supervision, tools, overhead, profit, and any other incidentals necessary to complete the work required under the conditions of these plans and specifications to the satisfaction of the Engineer.

08/07

ASPHALT - RUBBER SEAL COAT

(Stress Absorbing Membrane)

1. SCOPE

This specification covers the material, equipment, and construction procedures for a Stress Absorbing Membrane (seal coat).

2. PREQUALIFICATION OF A NEW ASPHALT-RUBBER MATERIAL

Pre-qualification of a new asphalt-rubber material or applicator may be requested at any time. Pre-qualification will be based on three controlled field applications evaluated after three years' performance under traffic. New asphalt-rubber material that has been evaluated and pre-qualified by an agency recognized nationally may be pre-qualified by that agency upon disclosure of suitable evidence of successful performance. Notwithstanding other agency pre-qualification, the City reserves the right to withhold pre-qualification pending the performance evaluation of local controlled field applications.

3. MATERIALS

3.1 Asphalt

The grade of asphalt cement for the asphalt-rubber mixture shall be AC - 5 or AC - 10 which shall comply with the requirements of Item 300 "Asphalt, oils and emulsions" of Texas State Department of Highways and Public Transportation 1982 Standard Specification for Construction of Highways, Streets and Bridges. The grade selected shall be based on laboratory testing by the asphalt-rubber supplier, to insure compatibility with the granulated reclaimed rubber.

If indicated necessary by laboratory testing, an approved anti-stripping additive may be added to the asphalt cement up to 1.0 percent by weight of asphalt.

3.2 Granulated Reclaimed Rubber

The granulated reclaimed rubber used shall be produced primarily from the processing of automobile and truck tires. The rubber shall be produced by ambient temperature grinding processes only.

The gradation of the granulated reclaimed rubber when tested in accordance with ASTM C-136 and using a 50 gram +/- 1 gram sample, shall meet the

following requirements:

Sieve Sizes	Percent Passing
#8	100
#10	95 - 100
#16	40 - 60
#30	0 - 10
#50	0 - 5

The use of rubber from multiple sources is acceptable provided that the overall blend of rubber meets the gradation requirements.

The individual granulated rubber particles, irrespective of diameter, shall not be greater in length than 3/16 inch (5mm).

The granulated rubber shall have a specific gravity of 1.15 +/- 0.05 and shall be free of loose fabric, wire and other contaminants except that up to 4 percent (by weight of rubber) calcium carbonate or talc may be added to prevent rubber particles from sticking together. The rubber shall be sufficiently dry so as to be free flowing and not produce a foaming problem when blended with the hot asphalt cement.

The granulated reclaimed rubber shall be accepted by certification from the rubber supplier.

3.3 **Diluent**

The diluent shall have the following properties:

Flash Point	130^{o} F Minimum
Initial Boiling Point (ASTM D-86)	340^{o} F Minimum
Dry Point (ASTM D-86)	390^{o} - 415^{o} F
Total Saturates	85% Minimum

3.4 **Asphalt - Rubber**

The asphalt-rubber supplier shall furnish to the engineer a minimum of 10 days before the beginning of membrane placement, the asphalt-rubber mix formulation which shall contain the following information:

Asphalt Cement
Source of Asphalt Cement

Grade of Asphalt Cement
Percentage of Asphalt Cement by total weight of the asphalt-rubber mixture.

Granulated Reclaimed Rubber
Source of Granulated Rubber
Grade of Granulated Rubber
Percentage of Granulated Rubber by total weight of the asphalt-rubber mixture.

If granulated rubber from more than one source is utilized the above information will be required for each granulated rubber used.

Diluent
Source of Diluent
Grade of Diluent
Percentage of Diluent allowable by volume of the asphalt-rubber mixture.

3.5 **Cover Aggregate**

Aggregate shall be composed of a clean and durable crushed rock, crushed gravel or crushed slag conforming to Item 304 "Aggregate for Surface Treatments (pre-coated)" of Texas State Department of Highways and Public Transportation 1982 Standard Specification for Construction of Highways, Streets and Bridges, grade No. 3 or No. 4.

Proposed aggregate samples shall be submitted to the asphalt-rubber supplier a minimum of 21 days prior to application, to test for aggregate stripping characteristics. The results shall be submitted to the engineer. Anti-strip will be included as a contingency bid item.

4. **EQUIPMENT**

4.1 **General**

The equipment used by the contractor shall include a self propelled rotary power broom or mobile pickup broom for pavement cleaning and excess cover material removal.

4.2 **Asphalt-Rubber Equipment**

All equipment utilized in the production and application of the asphalt-rubber shall be so designed and accessible that the Engineer can readily determine

the percentage by weight for each material being incorporated into the mixture and shall be as described as follows:

4.2.1 An asphalt heating tank with a hot oil heat transfer system or retort heating system capable of heating asphalt cement to the necessary temperature for blending with the granulated rubber. This unit shall be capable of heating a minimum of 3,000 gallons of asphalt cement.

4.2.2 An asphalt-rubber mechanical blender with a two stage continuous mixing process capable of producing a homogenous mixture of asphalt cement and granulated rubber, at the mix design specified ratios, as directed by the engineer. This unit shall be equipped with a granulated rubber feed system capable of supplying the asphalt cement feed system, as not to interrupt the continuity of the blending process. A separate asphalt cement feed pump and finished product pump are required. This unit shall have both an asphalt cement totaling meter in gallons and a flow rate meter in gallons per minute.

4.2.3 A truck mounted self powered distributor truck equipped with a retort heating unit, and an internal mixing device capable of maintaining a uniform mixture of asphalt cement and granulated rubber. It shall be equipped with a full circulating spreader bar and a pumping system capable of applying asphalt-rubber material within +/- .05 gallons per square yard tolerance of the specified application rate and must give a uniform covering of the surface to be treated. The distributor shall have a boot board on the rear of the vehicle and a bootman shall accompany the distributor. The bootman shall ride in a position so that all spray bar tips are in full view and readily accessible for unplugging if a plugged tip should occur. The distributor shall also include a tachometer, pressure gauge, volume measuring device and a thermometer.

4.3 Cover Material Spreader

The cover material (chip) spreader shall be a self-propelled machine with an aggregate receiving hopper in the rear, belt conveyors to carry the aggregate to the front, and a spreading hopper equipped with a full-width distribution auger and spread roll. The spreader shall be in good mechanical condition and be capable of applying the cover material uniformly across the spread at the specified rate.

4.4 Rolling Equipment

A minimum of three operational self-propelled pneumatic-tired rollers shall be used for the required rolling of the cover material. The pneumatic tired rollers shall carry a minimum loading of 3,000 pounds on each wheel and a

minimum air pressure of 100 pounds per square inch in each tire.

4.5 **Hauling Equipment**

Trucks for hauling cover material shall be tailgate discharge and shall be equipped with a device to lock onto the hitch at the rear of the cover material spreader. Haul trucks shall also be compatible with the cover aggregate spreader so that the dump bed will not push down on the spreader when fully raised or have too short a bed which results in aggregate spillage while dumping into the receiving hopper.

5. **CONSTRUCTION**

5.1 **General**

Streets to receive the asphalt-rubber stress absorbing membrane or seal coat shall be prepared in accord with Section 2-C-1 "Preparation of Asphaltic Concrete Surface for Overlay or Seal Coat" of these specifications.

Immediately prior to the application of the asphalt-rubber membrane, the surface shall be thoroughly cleaned in order to insure adequate adhesion of the asphalt-rubber to the pavement.

Due to the handling characteristics of asphalt-rubber, when radii and other irregular areas are to be sealed it is recommended that this be done with an RS or CRS chip seal emulsion or paving grade asphalt cement.

5.2 **Asphalt-Rubber Mixing and Reaction**

The percentage of granulated rubber shall be 23 percent plus or minus 3 percent by weight of total asphalt-rubber mixture, the exact granulated rubber content shall be as determined by the mix design submitted by the asphalt-rubber supplier. During membrane placement the granulated rubber percentage shall not fluctuate more than 1 percent by weight of total asphalt-rubber mixture.

The temperature of the asphalt cement shall be between 350^{o} and 400^{o} F at the addition of the granulated rubber. The asphalt and rubber shall be combined and mixed together in the asphalt-rubber blending unit and reacted in the distributor for a period of time as required by the engineer which shall be based on laboratory testing by the asphalt-rubber supplier. The temperature of the asphalt-rubber mixture shall be above 350^{o} F during the reaction period.

After the reaction between asphalt cement and granulated rubber has occurred, the viscosity of the hot asphalt-rubber-mixture may be adjusted for spraying and/or better "wetting" of the cover material by the addition of a diluent. The diluent shall comply with the requirements of Section 3.3 and shall not exceed 7.5 percent by volume of the hot asphalt-rubber mixture.

When a job delay occurs after full reaction, the asphalt-rubber may be allowed to cool. The asphalt-rubber shall be reheated slowly just prior to application but not to a temperature exceeding 350° F. An additional quantity of diluent not exceeding 3 percent by volume of the hot asphalt-rubber mixture may be added after reheating.

5.3 Application of Asphalt-Rubber Material

Placement of the asphalt-rubber membrane shall be made only under the following conditions.

1. The pavement surface temperature shall be 45° F and rising.

2. The pavement surface is clean and absolutely dry.

3. The wind conditions are not excessive.

4. All construction equipment such as asphalt-rubber distributor, cover material spreader, haul trucks with cover material, and rollers are in position and ready to commence membrane placement operations.

5. Rain is not imminent.

The asphalt-rubber mixture shall be applied at a temperature of 300° to 350° F at a rate of between .55 and .65 gallons per square yard. Transverse joints shall be constructed by placing building paper across and over the end of the previous asphalt-rubber application. Once the spraying has progressed beyond the paper, the paper shall be removed immediately and disposed of as directed by the engineer. All longitudinal joints shall not exceed a four inch overlap.

5.4 Application of Cover Material

Cover material shall be applied immediately to the asphalt-rubber after spreading at a rate of 25 to 35 pounds per square yard.
At the time of application to the asphalt-rubber, cover material shall be

surface dry so as to gain proper adhesion to the asphalt-rubber material.

5.5 Rolling

At least three operational pneumatic-tired rollers complying with the requirements of Section 4.4 shall be provided to accomplish the required embedment of the cover material. At some project locations or where production rates dictate, fewer rollers may be utilized as directed by the engineer. At no time shall there be less than two operational pneumatic tired rollers on a project.

Sufficient rollers shall be used for the initial rolling to cover the width of the aggregate spread with one pass. The first pass shall be made immediately behind the cover material spreader, and if the spreading is stopped for an extended period, the cover material spreader shall be moved ahead or off the site so that all cover material may be immediately rolled. Four complete passes with rollers shall be made with all rolling completed within one hour after the application of the cover material.

5.6 Traffic Control

Except when it is necessary that hauling equipment must travel on the newly applied membrane, traffic of all types must be kept off the membrane until it has had time to set properly. The speed of all hauling equipment shall not exceed 15 miles per hour when traveling over a membrane which is not adequately set. The minimum traffic free period shall not be less than one hour.

5.7 Removing Loose Cover Material

Sweeping can begin a minimum of one hour after membrane placement.

5.8 Method of Measurement and Basis of Payment

5.8.1 Asphalt-Rubber

a) Measurement will be made of the actual number of gallons of Asphalt-Rubber including asphalt placed in accord with these specifications.

b) Payment will be made at the price bid per gallon of Asphalt-Rubber in the bid proposal and will be full compensation for furnishing all asphalt, rubber, extender and for all labor,

equipment and incidentals for placing the asphalt-rubber on the Street surface.

5.8.2 **Cover Aggregate**

a) Measurement will be made of the actual number of tons of pre-coated aggregate placed in accord with these specifications.

b) Payment will be made at the price bid per ton of pre-coated aggregate in the bid proposal and shall be full compensation for furnishing all pre-coated aggregate and for all labor and equipment including rollers and rolling for the complete surface in place.

5.8.3 **Rolling**

a) No measurement will be made of rolling but rolling shall be considered as incidental to placing of the cover aggregate.

b) No separate payment will be made for rolling. The cost of rolling shall be included in the price per ton of cover aggregate in the bid proposal.

5.8.4 **Anti strip agent**

a) Anti stripping agent, when used, shall be measured by the gallon.

b) Payment for anti stripping agent shall be made at the price per gallon of anti stripping agent bid in the bid proposal.

08/07

POLYMER MODIFIED SLURRY SEAL (MICRO-SURFACE)

I. SCOPE

This specification covers the design, application, testing, quality control and measurement and payment for a complete in place "polymer modified micro surface" constructed on existing paved surfaces cleaned and prepared in accordance with the item 2-C-1 "PREPARATION OF ASPHALTIC CONCRETE SURFACE FOR OVERLAY OR SEAL".

2. DESCRIPTION

This specification covers all materials, equipment, construction and application procedures for rut filling and/or surfacing of existing paved surfaces. The micro-surfacing shall be a mixture of cationic polymer modified asphalt emulsion, mineral aggregate, mineral filler, water and other additives, properly proportioned, mixed and spread on the paved surface in accordance with this guideline and as directed by the Engineer.

3. MATERIALS

3.1 Emulsified Asphalt

(1.) The emulsified asphalt shall be a cationic emulsified type, designated as CSS-1P and shall comply with the following requirements.

	Min.	Max.
Viscosity, Saybolt Furol, 25 C (77 F), Sec.	**20**	**100**
Storage Stability test, one day, percent	**-**	**1**
Particle charge test		**Positive**
Sieve test, percent	**-**	**0.1**
Distillation:		**-** **-**
Oil distillate, by volume of emulsion, %	**-**	**0.5**
Residue, %		**62** **-**
Test on Residue from Distillation:		
Penetration, 77 F, 100 g, 5 seconds	**55**	**90**
Ductility, 77 F, 5 cm/min, cm	**70**	**-**
Solubility in trichloroethylene , %	**97**	**-**
Softening Point, R. & B., F	**135**	**-**
Viscosity, absolute 60 C (140 F), Poise		**8000** **-**

This standard distillation procedure shall be modified as follows: The temperature on the lower thermometer shall be brought slowly to 350 degrees plus or minus 10 degrees F and maintained at this point for 20 minutes. Complete the total distillation in 60 plus or minus 5 minutes from the first application of heat.

(2). The emulsion shall be modified with an approved Polymer. The distillation residue of the modified emulsion shall contain a minimum of three percent (3%) polymer solids by weight. The modified emulsion shall pass all applicable storage and settlement tests. The polymer material shall be milled into the emulsion or blended into the asphalt cement prior to the emulsification process. The cement-mixing test shall be waived for this emulsion.

(3). The polymer modified emulsified asphalt shall be so formulated that when the paving mixture is applied with the relative humidity at not more than 50% and the ambient temperature at least 75^{o} F, the paving mixture will sufficiently cure so that uniformly moving traffic can be allowed in approximately one hour. Locations such as driveways, Intersections and where sharp turning may take place or where vehicles may accelerate sharply, additional curing time may be required.

(4). The contractor shall notify the Engineer of the source of his asphaltic material prior to the design or production of the surfacing mixture and this source shall not be changed during the course of the project, except on written permission by the Engineer.

3.2 Mineral Aggregate

(1) Description. One Hundred percent (100%) of the mineral aggregate shall be crushed and shall be composed of clean, tough and durable particles of traprock, granite, sandstone or other approved aggregates. A sand equivalent of 65 or higher is required. The aggregate shall have a weight loss of not more than 12% when sodium sulfate is used or 18% when magnesium sulfate is used in accordance with Test Method Tex-411-A, using 5 cycles. The aggregate shall be one that has proven resistant to polishing in roadway surfacing.

(2.) Grades. When tested by Test Method Tex-200-F, Part I, the gradation requirements shall be as follows:

Grade 1 (Fine Graded Surface Course)	Percent Aggregate By Weight
Passing 3/8" sieve	100
Passing No. 4 sieve	98-100
Passing No. 8 sieve	75 -90
Passing No. 16 sieve	50- 75
Passing No. 30 sieve	30- 50
Passing No. 50 sieve	18- 35
Passing No. 200 sieve	5 -15

Grade 2 (Coarse Graded Surface Course)	Percent Aggregate By Weight
Passing 1/2" sieve	100
Passing 3/8" sieve	99-100
Passing No.4 sieve	86- 94
Passing No. 8 sieve	45- 65
Passing No. 16 sieve	25- 46
Passing No. 30 sieve	15 - 35
Passing No. 50 sieve	10 - 25
Passing No. 200 sieve	5- 15

(3.) Mineral Filler. Mineral filler shall be non-air entrained Portland cement that is free of lumps or foreign matter.

3.3 Water

The water shall be portable and shall be free of harmful soluble salts.

3.4 Other Additives

Additives supplied by the emulsion manufacturer may be added to the emulsion mix or to any of the component materials to provide control of the set time in the field.

4. LABORATORY EVALUATION

4.l General

Before work commences, the contractor shall submit a signed mix design covering the specific materials to be used on the project. This design shall be performed by the contractors or suppliers laboratory or by a qualified laboratory chosen by the owner. Once the materials are approved, no substitution will be permitted, unless first tested and approved by the laboratory preparing the mix design. The cost of mix design shall be born by the contractor.

4.2 Designing Job Mix

The qualified laboratory shall develop the job mix design and present certified test results for the contractor approval. Compatibility of the aggregate and modified CSS-1P shall be verified by the mix design. The mix design must be made using samples taken from the actual materials proposed for use in the project and in accordance with the procedures and requirements of Article 5.1 below.

5. PAVING MIXTURE

5.1 Mixture Design.

The mix shall be designed in accordance with Texas State Highway Department Bulletin C-14 and Test Method Tex-204-F, using Test Method Tex-227-F to supplement Test Method Tex-201-F and Tex-202-F to conform to the requirements herein. The above laboratory mixing and curing procedures may be modified as approved by the Engineer. The emulsified asphalt content will be selected by the Engineer to provide an optimum laboratory compacted density within the range of 94 to 97%. A minimum Hveem stability of 35 is required for placements exceeding a depth of twice the maximum aggregate size.

This is a mix design requirement, to be verified by testing of trial batch material prior to placement of project material. Hveem Stability testing will be performed by the selected laboratory. The Engineer will determine the frequency of job control density and stability testing. The Contractor shall furnish the mix design for the type of mixture specified together with applicable design worksheets and data. The Bulk Specified Gravity will be determined for each aggregate to be used in the design mixture. If the determined values vary by 0.300 or more, the mixture design will be by the Volumetric Method, Test Method Tex-204-F, Part II. To substantiate the design, trial mixtures will be produced and tested using all of the proposed project materials and equipment prior to any placement. The Engineer may waive trial mixtures if the same design has been proven to be in conformance with these requirements.

5.2 Composition of Mixture.

The Engineer shall approve the design mix and all micro-surfacing materials and methods prior to use and shall designate the proportions to be used within the following limits.

Residual Asphalt	**6 to 9 percent by weight of dry aggregate or 13.5 to 23 percent by volume of the aggregate**
Mineral Filler	**0.5% to 3.0% by dry weight of aggregate**
Modifier	**As required to provide the specified properties**
Water	**As required to provide proper consistency**

5.3 Type

The paving mixture shall consist of a uniform mixture of coarse aggregate, fine aggregate and asphaltic material. The mix may also contain mineral filler and/or additives when required.

The mixture shall be designed so that the mineral aggregate will produce a gradation, which conforms to the limitations for the master grading for the type specified herein. The gradation will be determined in accordance with Test Method Tex-200-F (Dry Sieve Analysis) and shall be based upon aggregate only. The amount of asphaltic material shall conform to the limitation for the type specified.

The aggregate grade shall be as shown on the plans. If no grade is shown on the plan grade 2 aggregate shall be used.

5.4 Tolerances

The aggregate portion of the paving mixture produced shall not vary from the design gradation by more than the tolerances that follow. The material passing the No. 200 sieve is further restricted to conform to the limitations for the master grading for the type specified. The asphaltic material portion of the paving mixture shall not vary from the design amount by more than the allowed tolerance and is also restricted to conform to the master limits. The method of test for determining the aggregate gradation and asphalt content of the mixture shall be Test Method Tex-210-F or other methods of proven accuracy.

	Percent by Weight or Volume as Applicable
Passing 3/8" sieve, retained on No. 4 sieve	**Plus or minus 5**

Passing No. 4 sieve, retained on No. 8 sieve	**Plus or minus 5**
Total retained on No. 8 sieve	**Plus or minus 5**
Passing No. 8 sieve, retained on No. 16 sieve	**Plus or minus 3**
Passing No. 16 sieve, retained on No. 30 sieve	**Plus or minus 3**
Passing No. 30 sieve, retained on No. 50 sieve	**Plus or minus 3**
Passing No. 50 sieve, retained on No. 200 sieve	**Plus or minus 3**
Passing No. 200 sieve	**Plus or minus 2**

Asphaltic Material Plus or minus 0.5 by wt. or l.2 by vol.

6. EQUIPMENT

6.1 General.

All equipment for the handling of all materials and mixing and placing of the mixture shall be maintained in good repair and operating condition and subject to the approval of the Engineer. Any equipment found to be defective and potentially affecting the quality of the paving mixture will be replaced or, at the option of the Contractor, satisfactorily repaired. It will be the contractor responsibility to prove to the Engineer that the repaired equipment is properly functional.

6.2 Mixing and Proportioning Equipment.

(1.) The material shall be mixed by a self-propelled micro-surfacing mixing machine which shall be a continuous flow mixing unit able to accurately deliver and proportion the aggregate, emulsified asphalt, mineral filler, field control additive and water to a revolving multi-blade twin shafted mixer and discharge the mixed product on a continuous flow basis. The machine shall have sufficient storage capacity for aggregate, emulsified asphalt, mineral filler, field control additive and water to maintain an adequate supply to the proportioning controls. The machine shall be equipped with self-loading devices, which provide for the loading of all materials while continuing to lay micro surfacing.

The machine shall be equipped with opposite side driving stations to optimize longitudinal alignment. The machine shall be equipped to allow the mix operator to have full hydrostatic control of the forward and reverse speed during application of the micro-surfacing material.

The self-loading devices, opposite side driving stations and forward and reverse speed controls shall be original equipment manufacturer design.

(2). Individual volume or weight controls for proportioning each material to be added to the mix shall be provided. Each material control device shall be calibrated and properly marked.

(3) The aggregate feed to the mixer shall be equipped with a revolution counter or similar device so the amount of aggregate used may be determined at any time.

(4) The emulsion pump shall be a positive displacement type and shall be equipped with a revolution counter or similar device so that the amount of emulsion used may be determined at any time.

(5.) The mixing machine shall be equipped with a water pressure system and nozzle type spray bar to provide a water spray immediately ahead of and outside the spreader box.

(6.) The mixing machine shall be equipped with an approved fines feeder that shall provide a uniform, positive, accurately metered, predetermined amount of the specified mineral filler.

6.3 Spreading Equipment.

The paving mixture shall be spread uniformly by means of a mechanical type spreader box attached to the mixer, equipped with paddles, screws or augers to agitate and spread the materials throughout the box. A front seal shall be provided to insure no loss of the mixture at the road contact surface. The rear seal shall act as a final strike off and shall be adjustable and shall break in the middle so that the screed can be adjusted to fit the crown of the street including inverted crowns. The rear seal carrier shall be capable of being fitted with a rubber seal or a steel strike off bar.

The spreading equipment shall be readily adjustable in width so that laying widths can be changed without undue delay before starting each pass if necessary.

The spreader box and rear strike-off shall be so designed and operated that a uniform consistency is achieved to produce a free flow of material to the rear strike-off. The seam where two spreads join, shall be neat appearing and uniform.

7. STOCKPILING AND STORAGE.

7.1 Aggregate Storage.

If the mineral aggregates are stored or stockpiled, they shall be handled in such a manner as to prevent segregation, mixing of the various materials or sizes, and contamination with foreign materials. The grading of aggregates proposed for use and as supplied to the mixing plant shall be uniform. Suitable equipment of acceptable size shall be furnished by the Contractor to work the stockpiles and prevent segregation of the aggregates. The mineral aggregate shall be screened and weighed at the contractor stockpile prior to job site delivery. The Engineer shall approve screens and scales.

7.2 Storage and Heating of Asphaltic Materials.

The asphaltic material storage shall be ample to meet the requirements of the plant. Asphalt shall not be heated to a temperature in excess of that specified
in the Item "Asphalt's, Oils and Emulsions" Texas Highway Department 1982 Standard Specifications. All equipment used in the storage and handling of asphaltic material shall be kept in a clean condition at all times and shall be operated in such manner that there will be no contamination with foreign matter.

8. CONSTRUCTION METHODS

8.1 General

It shall be the responsibility of the Contractor to produce, transport, and place the specified paving mixture in accordance with these specifications and as approved by the Engineer.

8.2 Street Preparation

Prior to starting the micro-surfacing operation, streets designated to be surfaced shall be prepared in accordance with item 2-C-1 "Preparation of Asphaltic Concrete Surface for Overlay or Seal".

8.3 Weather Limitations.

The material shall be spread only when the atmospheric temperature is at least fifty (50 degrees) F and rising and the weather is not foggy or rainy. No material will be placed when the surface on which it is to be placed is below 50^{o} F.

8.4 Final Surface Preparation

Immediately before placing the micro-surface, the area to be sealed shall be thoroughly cleaned of all vegetation, loose aggregate and soil, and moistened. Water for prewetting the surface shall be applied immediately ahead of the spreader box by use of a pressure spray bar equipped with nozzles that produce a fine mist. The rate of application of water shall be sufficient to dampen the entire surface without any free flowing water ahead of the spreader box. The rate of the mist spray shall be adjusted from time to time during the placing operation to accommodate changes in temperature, surface texture, humidity and dryness of the pavement surface.

8.5 Placing the Mix

(1). The mixture shall be spread to fill cracks and minor surface irregularities and leave a uniform skid resistant application of aggregate and asphalt on the surface. The finished surface shall be neat in appearance without drag marks, excessive buildup or other detracting irregularities.

(2). The speed of operation of the surfacing equipment shall be controlled by the mixer operator at forward speeds between 85 and 225 feet per minute depending on conditions and appearance of the newly placed surface.

If transverse rippling occurs the speed of the equipment shall be reduced until the ripples disappear.

(3). The Engineer shall designate either rubber seal/screed or the steel strike off screed according to the Project requirements.

(4). The depth of mixture in the spreader box shall be carefully controlled to prevent transverse ridging and premature setup of material in the corners of the box and ahead of the screed. In general the depth of mixture in the box should be approximately to the mid point of the auger-agitator.

(5). Auxiliary equipment shall be kept in good working order and free of leaks. Any truck or transport used to bring materials on to the street being surfaced that develops leaks either of the material being transported or fuel and/or oil leaks will be removed from the job site and not allowed to return until it has been thoroughly repaired.

Scales and screens used at the contractors stockpile and storage site shall be kept in good working order.

(6). Spills of surfacing materials or fuel, oil or other detrimental substances on the street ahead of the surfacing operation shall be thoroughly removed before the surface is placed. This may required the operation to be shut down until the street has been cleaned.

(7). No excessive streaks shall be left in the finished surface. When such excessive streaking occurs, the operation shall be immediately stopped and corrective action is taken before resuming the operation.

8.6 Joints

(1). Longitudinal joints shall be placed on lane lines. On residential streets an eight-foot parking lane will be assumed with the centerline being the other lane line.

(2). All longitudinal and transverse joints shall be straight and neat in appearance without excessive build up or bare spots. Any irregularity shall be corrected immediately before the material has started to set up.

(3). The overlap at longitudinal joints shall not exceed 4 inches. When the overlapped pass is only partially set care shall be exercised to avoid skid marks. Any skid marks that occur shall be immediately corrected by removing any partially set material that has been displaced and placing fresh mix in the mark and shaping by use of Lutes, squeegees, hand drags, etc.

Overlapping of longitudinal joints shall not leave a visible build up. Any buildup shall be immediately removed by use of lutes, squeegees, hand drags, shovels or other approved means.

8.7 Mix Stability

The modified mixture shall posses sufficient stability so that premature breaking of the material in the spreader box does not occur. The mixture shall be homogeneous during and following mixing and spreading; it shall be free of excess water or emulsion and free of segregation of the emulsion and aggregate fines from the coarser aggregate.

8.8 Hand Work

Areas that cannot be reached with the mixing machine shall be surfaced using hand squeegees to provide complete and uniform coverage. The area to be hand-worked shall be lightly dampened prior to mix placement. Care shall be exercised to leave no unsightly appearance from handwork. The same type finish as applied by the spreader box shall be required. Handwork shall be completed during the machine applying process.

8.9 Lines

Care shall be taken to insure straight lines along curbs and shoulders. No runoff on these areas will be permitted. Lines at intersections will be kept straight to provide a good appearance.

8.10 Work Force

The contractor shall maintain a work force of adequate size to accomplish the work as specified herein, including the loading and transporting of materials to the job site, the placing of the micro surface, the monitoring of joints and surface and the correction of any deficiencies that occur.

If, at any time, the Engineer or his representative determines that the work force is not adequate to perform all the tasks required for the proper completion of the micro surfacing, work on the project will be halted until adequate personnel are provided and/or modifications in procedure are implemented that will assure proper placement of the surfacing material.

8.11 Scratch or Level up course

A scratch or level up course will be required on certain streets as shown on the plans and/or as directed by the Engineer. This course shall be the same material as the polymer modified surface course and will be placed in the same manner except the spreader shall be equipped with a steel strike off screed. This screed shall be set to run as close to the pavement surface as practical.

The appearance of this course is not as critical as the final surface so long as any marks or blemishes that occur are not of such magnitude that they will affect the appearance of the final course.

8.12 Correction of Deficiencies and Blemishes

After the laydown work is completed and before final acceptance by the

Engineer, spot application of micro- surfacing material may be required to correct any deficiencies such as streaks, scuff marks, tire tracks, gaps, etc. to improve the ride quality and overall appearance. The spot application shall be performed with a full width spreader box when required.

9. QUALITY CONTROL

9.1 Materials

The contractor will permit the Engineer and/or the Independent laboratory to take samples of the aggregate and asphalt emulsion used in the project at the Engineers discretion. Gradation and sand equivalent tests may be run on the aggregate and residual asphalt content tests on the emulsion. Test results will be compared to specifications. Tests will be run at the expense of the owner. The owner must notify the contractor immediately if any test fails to meet the specifications.

9.2 Polymer Modified Micro-Surfacing

Samples of the material may be taken directly from the mixing unit(s). Consistency and residual asphalt content tests may be made on the samples and compared to the specifications. Tests will be run at the expense of the owner. The owner must notify the contractor immediately if any test fails to meet specifications.
The Engineer may use the recorders and measuring facilities of the unit to determine application rates, asphalt emulsion content, mineral filler and additive.

9.3 Non-Compliance

If any two successive tests fail on the stockpile material, the job shall be stopped. It is the responsibility of the contractor, at his own expense, to prove to the Engineer that the conditions have been corrected. If any two successive tests on the mix from the same machine fail, the use of the machine shall be suspended. It will be the responsibility of the contractor, at his own expense, to prove to the Engineer that the problems have been corrected and that the
machine is working properly.

10. CLEAN UP

10.1 Protecting and Cleaning Manholes and Valves

Prior to beginning the sealing operation the contractor shall locate all manhole covers and valve boxes in the area to be sealed. Placing one or

more layers of heavy craft paper or other suitable material over them shall protect manhole covers and valve boxes. The protective covering shall be secured in place so that it does not move or tear during the sealing operation. The contractor shall remove the protective covering and any seal material placed over manhole covers and valve boxes as soon as the seal has set sufficiently to prevent damage to the adjoining seal in the process. The edges around manhole covers and valve boxes shall be neat and smooth and shall conform to the shape and size of the manhole cover or valve box.

10.2 Streets

Clean up along streets shall be accomplished as the work progresses and any excess material that is raked onto or otherwise placed on adjoining concrete curb and gutter, valley gutters or fillet areas or on adjacent asphalt or concrete paving shall be removed before it breaks or sets up.

Before a section of street is opened to traffic all clean up work shall be completed on that section.

11. MEASUREMENT AND PAYMENT

11.1 General

Payment will be made for these items listed in the bid proposal only. All work, materials, labor and appurtenance required to complete the project as shown on the plans or called for in the specifications but not listed in the bid proposal shall be considered as incidental and no separate payment will be made. The cost of these incidentals must be included in the price bid for the various items listed in the bid proposal.

11.2 Measurements

(1). Measurement will be made of the actual number of tons of each type or grade of the Composite Polymer Modified Slurry Seal (Micro-Surface) complete in place. For this specification a ton is considered 2000 lbs. and the composite slurry seal mixture is defined as the asphalt,
aggregate and additives.

All materials shall be weighed on certified public scales or the contractor shall place a set of standard truck scales at a site approved by the Engineer. Scales shall conform to the requirements of the item "Weighing and measuring equipment" Texas Highway Department 1982 Standard Specifications.

(2). Aggregate - The quantity of aggregate used in the accepted portions of the work shall be measured by net ticket weight of each individual load of
aggregate shipped to the project from the approved job site scale.

The weight of mineral additive used shall be calculated and included in the total aggregate weight.

(3). Polymer Modified Asphalt Emulsion. The quantity of polymer modified asphalt emulsion in the accepted portion of the work shall be measured by tons of material based on the accepted load tickets issued from the manufacturer. At the completion of the project any unused emulsion shall be weighed back and that quantity deducted from the accepted asphalt emulsion quantity delivered.

11.3 Payment

Payment will be made for the number of tons of micro surface measured at the applicable unit price bid per ton of micro surface in the bid proposal. This payment shall be full and complete compensation for the complete in place micro surface.

08/07

P.V.C. PIPE CASINGS

1. SCOPE

   This item consists of furnishing and installing PVC pipe for casing for future water and electric lines at locations shown on the plans or as directed by the Engineer.

2. MATERIAL

   Pipe shall be ASTM D 1785 schedule 40 PVC pipe or ASTM D 2241 PVC SDR 32.5 pressure pipe. The ASTM designation and schedule or SDR shall be clearly marked on the outside of the pipe.

3. CONSTRUCTION

   Pipe shall be laid in straight alignment and grade in trenches as narrow as the diameter of the pipe can be laid. Pipe shall be placed after the sub grade is prepared but before base material is placed. Bedding under the pipe shall be a minimum of 2 inches in thickness and shall be carefully graded and leveled before pipe is placed. Joints shall be water tight. They may be solvent cement welded using approved materials, or may be made using a gasketed collars or push on gasketed bell and spigot. When collars are used care shall be exercised to assure that the collar is centered over the joint. All joints shall be made in accord with the manufacturer's recommendations. After pipe has been joined and inspected the pipe shall be encased in bedding/encasement material to a thickness of 3 inches above the pipe. Care shall be exercised to be sure the encasement material is worked in under the haunches of the pipe and compacted along the side of the pipe to assure adequate lateral support. The balance of the trench shall be back filled using cement stabilized backfill consisting of 2 sacks of Portland cement to 1 cubic yard of blow sand or crushed caliche mixed with sufficient water to form a stiff place able mixture that can be consolidated in the trench by rodding or vibrating. The back fill shall be "struck off" at the finished sub grade level using square point shovels or suitable screeds. The ends of the pipe shall be tightly plugged to prevent the entrance of water debris or other foreign material. These plugs shall be PVC or rubber stoppers designed to endure until the water lines and/ or electric lines are places.

4. MEASUREMENT AND PAYMENT

   Casing pipe shall be measured by the linear foot along the center of the pipe and shall be paid for at the unit price in the bid proposal.

WATER LINE SPECIFICATIONS

1. SCOPE OF WORK

The work covered by this section consists of all water pipe lines and piping, including valves, valve boxes, tapping sleeves, fire hydrants and other accessories, required to complete the project. The contractor shall furnish all materials, labor, superintendence, tools, equipment and incidentals necessary for the complete construction of this work in accordance with the drawings and these specifications.

2. PIPE AND MATERIAL

2.1 General

Pipe shall be polyvinyl chloride (PVC) AWWA C900, ductile iron AWWA C-151 or steel cylinder concrete pipe AWWA C-303.

2.2 Polyvinyl Chloride (PVC) Pipe

A. PVC pipe furnished for use on this project shall conform to the requirements of AWWA C900 Polyvinyl Chloride (PVC) Pressure Pipe, 4 in. through 12 in., for water distribution pressure class 150, DR18. and shall be NSF approved for potable water supply.

B. The pipe furnished shall have an integral bell designed for joint assembly using elastomeric seals.

C. Markings for the pipe shall include all the requirements of AWWA C900 and the MSF approval stamp.

D. Elastomeric seals shall be furnished by the pipe manufacturer. Seals shall be manufactured to conform with the requirements of ASTM F4 77 and shall be specifically designed for use with the pipe furnished.

E. Lubricants intended for use with PVC pipe and seals (gaskets) shall be compatible with both PVC and the seal material. Lubricant shall not support growth of bacteria and shall not adversely affect the potable quality of the water that is to be transported.

F. Pipe laying lengths shall be 20'.

G. Service taps on PVC water lines shall be made using hinged type or double strap type saddles. Tapping saddles shall support the full circumference of the pipe and shall have a bearing area of sufficient width along the axis of the pipe to prevent distortion of the pipe when saddle is tightened.

No direct taps into the wall of PVC pipe will be permitted.

Seals for tapping saddles shall be recessed into the body of the saddle and shall be

a rubber - compound conforming to the requirements of ASTM F477.

Tapping saddles shall be SMITH-BLAIR Taper Seal Style 313 or DMD Dresser style 194 or approved equal.

H. Tapped connections for water mains and fire lines made on PVC water mains shall be accomplished using full bodied ductile iron tapping sleeves of a pressure rating equal to or greater than the pressure rating of the pipe specified.

I. Bedding for AWWA C900 PVC water pipe shall extend from a minimum depth of 4 inches below the outside of the water line to a minimum cover of 6 inches over the top outside of the water line.

J. AWWA C900 PVC water pipe shall be installed in accord with the applicable requirements for installing ductile iron pipe.

Care shall be taken to install each joint of PVC water pipe to, but not beyond the factory insertion mark on the pipe.

When a joint of PVC water pipe must be cut, the end of the pipe shall be carefully beveled to match the factory bevel on the uncut pipe. An insertion mark matching the factory insertion mark on the uncut pipe must be made before the pipe is inserted into the bell.

When PVC water pipe is to be inserted into a ductile iron fitting or valve, the factory bevel must be removed to form a square plain end pipe.

2.2 (a) Metallic Marking Tape (For PVC Water Pipe)

2.2(a).1 General

When non-metallic pipelines are to be installed, then the Contractor shall furnish and lay, above the pipeline, a continuous strip of metallic identification tape.

2.2 (a).2 Tape Material

The metallic identification tape shall be at least two inches (2”) in width and shall be of corrosive resistant metal of sufficient thickness to be stable and reflect electronic signals to electronic pipeline detector when buried to a dept of twenty-four (24”) below normal ground level.

The metallic tape shall be painted blue on one side and shall have 1-inch high letters painted continuously on the same side of the tape which read, “CAUTION: BURIED WATER LINE BELOW” or other words to this effect.

The marking tape shall be “Detectable Warning Tape”, as manufactured by the Omega Marking Company, or equal approved by the Engineer.

2.2(a).3 Construction Methods

The Contractor shall backfill over non-metallic pipelines to a depth which is less than twenty-four (24”) and not more than twelve inches (12) from the top of the cut of the ditch section in which the pipeline is laid. Contractor shall stop the backfilling material to a generally uniform level. All machine tamping, jetting and other compaction activities shall be accomplished up to this point of height in the backfilling the marking tape is placed in the trench.

The Contractor shall then lay the marking tape in the pipe trench and shall be held in position by the spot placement of backfill materials over it to keep it from sliding t the sides and/or from being blown about in the ditch by the wind. The tape shall be lid with the painted side, which shall also be the side with the identification lettering on it, in the “up” position. The tape shall be laid in the flat position and kept there until backfill is accomplished.

The Contractor shall then complete the backfilling operation in such a manner that the marking tape is not cut, crimped, ruptured or separated by the backfilling work.

2.2(a).4 Measurement and Payment

No separate pay item will be provided for furnish and placing the marking tape. This item shall be considered subsidiary to the non-metallic pipe being placed.

2.3 Ductile Iron Pipe

A. All ductile iron pipe used in the construction of water works improvements shall be Cement Lined and shall be manufactured in accordance with and shall meet the requirements of AWWA Specification C-l5l.

B. Pipe shall be cast in lengths of not less than l2 feet and shall be designed for a working pressure of l50 pounds per square inch. Thickness of ductile iron pipe shall be as shown on the plans and bid proposal or shall be computed in accordance with AWWA Specification C-l50, based on l50 pounds per square inch working pressure for 10 feet of cover and laying condition 2.

C. All ductile iron pipe shall have an exterior, bituminous coating and an inside cement-mortar lining in accordance with the requirements of AWWA Specification C-l04.

2.4 Polyethylene Plastic Tubing

Service lines shall be constructed with polyethylene plastic tubing as specified in ASTM D 2737 with a rating of l60 psi.

2.5 Ductile Iron Pipe Fittings

All fittings for ductile iron pipe and PVC pipe shall be ductile iron and shall be mechanical joint all connections except tees for fire hydrant leads unless shown otherwise on the plans. Tees for connecting fire hydrant leads shall be MJ- with a flange outlet.

All ductile iron fittings shall conform to AWWA Specification C-110, designed for a working pressure of 250 psi. All ductile iron fittings shall have an external coating and shall be cement lined in accordance with the specifications for coating and lining the pipe.

2.6 Pretensioned Concrete Cylinder Pipe

A. The contractor shall furnish and install all concrete cylinder pipe and fittings, including connections and appurtenances complete as shown on the plans and specified herein.

B. The contractor shall submit six (6) sets of full and complete shop drawings on the concrete cylinder pipe and fittings. All of the drawings and data shall be complete and shall include a complete description of the pipe offered, including cuts, tabulated layout and all pertinent engineering data required for a complete evaluation of the submittal. Submittal data shall be in such form and so presented that the Engineer may readily review the data.

C. Prior to delivery of the pipe to the project site, the manufacturer shall furnish an affidavit certifying that all pipe, fittings, and specials, and other products and materials furnished, comply with the applicable provisions of this specification.

D. The pipe manufacturer shall furnish a factory trained, job experienced field representative who shall visit the project periodically during the course of installation. He shall also be subject to call by the contractor and/or engineer to advise and assist with the solution of field problems.

During visits, the representative shall observe all phases of the project including location and condition of pipe strung ahead of the contractor, trench width, if applicable, bedding and backfill, assembly of pipe joints and protection of steel. If, in the opinion of the representative any phase of the installation is unsatisfactory, he shall so advise the contractor's superintendent and also advise the owner or engineer's representative on the job site.

E. All closure sections shall be the jack on type and "field welding" will not be permitted without the written permission of the engineer.

F. Pipe manufacturer will install all necessary taps for the contractor to disinfect and field hydrostatic test the pipe.

G. Pretensioned concrete cylinder pipe, fittings and specials shall be designed, fabricated and tested in accordance with the latest requirements of AWWA C-303, "Reinforced Concrete Pressure Pipe Steel Cylinder Type, Pretensioned, for Water and Other Liquids" with additional requirements or modifications as described herein.

H. Pretensioned concrete cylinder pressure pipe shall be designed for l50 psi, working pressure and manufactured in 32 foot nominal lengths in accordance with the provisions of AWWA Standard C-303.

I. Inspection and Testing

(1) The owner reserves the option to have an independent testing laboratory, at the owner's expense, inspect pipe and fittings at the pipe manufacturer's plant to ensure compliance with the applicable specifications. The owner's testing laboratory and Engineer shall have free access to those parts of the manufacturer's plant that are necessary to ensure compliance with the governing standard. The pipe manufacturer shall notify the owner, in writing, at least two weeks ahead of pipe fabrication as to start of fabrication and fabricating schedule so that the owner can advise the manufacturer as to owners' decision regarding tests to be performed by an independent testing laboratory. In event the owner elects to retain an independent testing laboratory to make material tests and weld test, it is the intent that the tests be limited to one spot testing of each category unless the tests do not show compliance with the standard. If these tests do not show compliance, the owner reserves the right to have the laboratory make additional tests and observations to ensure compliance of the finished product with the standard.

(2) In any event, the manufacturer shall perform the tests described in AWWA C 303, and furnish the owner with a copy of the test reports, if requested, at the expense of the pipe manufacturer. The pipe manufacturer shall furnish the owner with affidavit of compliance as outlined in the standard.

(3) All welds for water tightness in special pipe and fittings that have not been hydrostatically tested may be examined by use of visible dye penetrant system meeting requirement of ASTM El65; however, collar reinforcement and all other lap welds shall be tested by introducing air under l0 psi pressure between the collar and cylinder and checking for leaks around and through the welds with soap solution.

The area to receive the dye penetrant shall be cleaned free from contaminants that might interfere with the penetrant process. The temperature of the steel in the weld area shall be between 60 and l25 degrees F. when the penetrant is applied. Dwell time of six hours shall be allowed after application of the penetrant and developer before interpreting the results.

Defects that are found shall be repaired and the test repeated until all defects

are eliminated. Colored penetrant shall be removed before fittings are lined.

2.7 Casing Pipe

Casing pipe to be installed in bore or open cut may be limited service pipe, corrugated galvanized steel pipe or new straight seam or spiral welded steel pipe. Casing pipe shall be furnished in thickness or gage as shown on the plans.

Limited service pipe proposed for use on this project must be approved a minimum of four (4) working days prior to the time of opening bids and shall be in good condition and shall meet the same service requirements as the corrugated galvanized steel or welded steel pipe.

Welded steel casing pipe shall be coated inside and out using a coal tar epoxy or shall be bituminous coated in side and out by the hot dip method.

2.8 Bedding Materials

A. All water pipelines placed on this project shall be bedded with crushed stone bedding materials to the minimum as shown on the plans and in the Detail Drawings.

B. Granular material furnished for foundation, bedding, encasement, backfill, or other purposes as may be specified, shall consist of any natural or synthetic mineral aggregate such as, crushed gravel, crushed rock, crushed stone, or slag, and shall conform to the following specifications and/or gradation.

Note, all materials used for these purposes shall be crushed and shall have at least two broken faces. Pea gravel will NOT be allowed.

	Foundation	Bedding	Encasement	Backfill
ASTM c33 Grade #57	X			
ASTM C33 Grade #67	X			
ASTM C33 Grade #8		X	X	
THD 1982 ITEM 302 Type "D" Grade #4		X	X	
THD 1982 Item 302 Type "D" Grade #5			X	
Crusher Fines**			*X	X

* 100 percent of crusher fines that are to be used within 12 inches of the top of pipe must pass the 3/4" sieve.

** Approximate Gradation for Crusher Fines

Sieve Size	% Passing
2 inch	100
#4	35 - 100
#10	20 - 100
#40	5 - 35
#200	4 - 10

Crushed stone material proposed as an alternate for use on this project and not meeting the above specifications must be approved in writing at least 48 hours prior to the time scheduled for opening bids.

C. Granular materials provided for Foundation, Bedding, Encasement, or backfill use as required by the contract, either as part of the pipe item work unit or as a separate contract item, shall be classified as to use in accordance with the following:

MATERIAL USE DESIGNATION	ZONE DESIGNATION
Granular Foundation	Placed below the bottom of pipe grade as replacement for unsuitable or unstable soils, to achieve better foundation support.
Granular Bedding	Placed below the midpoint of the pipe prior to pipe installation, to facilitate proper shaping and achieve uniform pipe support. Also for Class B Bedding where specified.
Granular Encasement	Placed below an elevation one half (6") foot above the top of pipe, after pipe installation, for protection of the pipe and to assure proper filling of voids and thorough consolidation of backfill.
Granular Backfill	Placed below the surface base course, if any, as the second stage of backfill, to minimize trench settlement and provide support for surface improvements.

In each case above, unless otherwise indicated, the lower limits of any particular zone shall be the top surface of the next lower course as constructed. The upper limits of each zone are established to define variable needs for material gradation and compaction or void content, taking into consideration the sequence of construction and other conditions. The material use and zone designations described above shall only serve to fulfill the objectives and shall not be construed to restrict the use of any particular material in other zones where the gradation requirements are met.

3. **VALVES AND VALVE BOXES**

3.1 General

A. Valves 4" through l2" shall be resilient seated gate valves with non-rising stems and shall open by turning to the left (counter clock wise).

B. Valves l4" and larger shall be resilient seated butterfly valves and have operators suitable for direct burial and shall open by turning to the left (counter clock wise).

All valves except valves for use in fire hydrant leads shall have mechanical joint ends unless shown otherwise on the plans. Valves for use in fire hydrant leads shall be flange by mechanical joint.

C. All valves and fire hydrants shall be spray coated with a two component thermal setting epoxy to cover all interior wetted ferrous surfaces. Finished coating shall have a minimum thickness of 4 mils. The coating shall conform to the coating section of these specifications.

D. All valves for buried service shall be equipped with 2" square AWWA operating nuts.

3.2 Gate Valves

A. Gate valves shall be iron body, resilient **wedge gate** and shall be in compliance with AWWA Standard C-509-80 or latest revision thereof and shall have the following design features:

B. All valves shall have a working pressure of 200 psi and shall be bottle tight tested at this pressure from both directions. The gate body shall also be hydrostatically tested at 400 psi. Zero leakage will be required in all tests. The body, bonnet, and stuffing box shall be flange together with ASTM A-307 Grade B bolts and nuts to insure repairability.

C. Stems shall be machined from modified manganese bronze rod with an integral forged thrust collar machined to size.

D. Stem seals shall be dual "O" ring type.

E. Valve discs shall be rubber encapsulated or have disc seat rings molded of natural rubber, internally steel reinforced retained to the disc by self-locking type 304 stainless steel screws. Valve gates shall seat against a machined epoxy coated mating surface in the body of the valve.

F. All internal ferrous metal surfaces (machined or cast) shall be factory spray coated with a two component thermosetting epoxy to a nominal thickness of 4 mils and the exterior shall be coated with asphalt varnish as specified for coating of the pipe. (See Sec. 3.4 of these specifications for epoxy coating).

G. Valves shall be Mueller A-**2360** or Dresser-M&H **4067** or approved equal. Any alternate (approved equal) to these specifications **shall have completely interchangeable parts with either of the specified valves.**

3.3 Butterfly Valves

A. General - All butterfly valves shall be of the rubber seated tight-closing type. They shall meet or exceed AWWA Standard C-504, Class l50B. Both valve ends shall be mechanical-joint per AWWA Standard C-lll. Accessories (bolts, glands, and gaskets) shall be supplied by the valve manufacturer.

B. All valves must use full AWWA C-504 Class l50 B valve shaft diameter, and full Class l50 B underground service operator torque rating throughout entire travel, to provide capability for operation in emergency service.

C. Valve body shall be high strength cast iron ASTM A 126 Class B with l8-8 type 304 stainless steel body seat. Valve vane shall be high strength cast iron ASTM A 48 Class 40 or ASTM A 536, Grade 65-45-l2 ductile iron having rubber seat mechanically secured with an integral l8-8 stainless steel clamp ring and l8-8 stainless steel self locking screws.

D. Rubber seat shall be a full circle 360^{o} seat not penetrated by the valve shaft. Valve shall have permanently set two way thrust bearing. Packing shall be designed for permanent duty in underground service.

E. Valve operator shall be of the traveling nut type, sealed, gasketed and lubricated for underground service. It shall be capable of withstanding an overload input torque of 450 ft. lbs. at full open or closed position without damage to the valve or valve operator. It shall be designed to resist submergence in water to 25 ft. head pressure. Number of turns to operate valve shall be as listed below in order to closely resemble conventional distribution valve practices and to minimize water hammer:

Pipe and Valve Size	Turns to close	Pipe and Valve Size	Turns to Close
4" - 6"	16-1/2	14" - 16"	48"
8"	24	18" - 20"	72
10" - 12"	36	24"	90

F. Valves shall be capable of easy closure by one man using standard valve key, even under emergency line-break conditions as severe as those that would - cause a valve maximum opening torque requirement of as much as two times AWWA Class l50 B.

G. All valves shall be tested bottle-tight at rated working pressure by the manufacturer as follows:

l4" up. . . . . l50 psi

In addition a hydrostatic test with vane partially open shall be given to the assembled valve as follow:

l4" up. . . . . 300 psi

H. Valve shafts shall be l8-8 type 304 stainless steel. Shaft bearings shall be of the self lubricating sleeve type.

I. Valve discs or vanes for valves 30" and larger shall be the flow through (bridge or truss) type.

J. Butterfly valves shall be Dresser-M&H Model "450", "4500" or "l450" or Mueller line seal III or approved equal. Alternates (approved equal) to these specifications must be approved in writing 48 hours prior to time bids are received.

3.4 Coating

A. The coating shall be a two part thermosetting epoxy protective coating and shall function as a physical, chemical and electrical barrier between the base metal to which it is applied and the surroundings.

B. The coating shall be non-toxic and shall not impart taste to water. The coating must be formulated from materials deemed acceptable per the FOOD AND DRUG ADMINISTRATION DOCUMENT TITLE 2l of the FEDERAL REGULATIONS ON FOOD ADDITIVES SECTION l2l.25l4 entitled, RESINS AND POLYMERIC COATINGS.

C. The coating shall have a satin finish and shall be suitable for field over coating and touchup with same coating material without sanding or special surface preparation, or application of heat in excess of room temperature.

D. The coating shall have a successful record of performance in valves, pipe or other allied equipment for a minimum of two years.

E. The coating adhesion to the substrate shall exceed cohesion of the coating film as demonstrated by the following test:

(1) Prepare test panel and apply coating per manufacturer's recommendation.

(2) After sample has properly cured per manufacturer's recommendation, scribe an "X" using a sharp knife or scalpel through the coating to the metal substrate.

(3) Then with the point of the knife at the juncture of two scribes, attempt to lift off coating. Coating should not lift off substrate or between coats readily, but should break up leaving coating material on the substrate of this damaged area.

(4) No disbandment of the film shall be noted as tested above after immersion in tap water for l500 hours at l00`F.

F. A falling sand abrasion test using ASTM D968 shall produce an abrasion coefficient of 25-30 liters/mil. As an alternative, a Taber Abrader Test should find 3.5 - 3.7 milligrams coating loss per l00 cycles when using a CSF l0 Wheel (l000 gram weight).

3.5 Valve Boxes

All valves to be used in buried service shall be enclosed in cast iron valve boxes. Care shall be taken to place and maintain the 2" square operating nut in the center of the valve box. The valve box shall be two piece cast iron suitable for use with PVC pipe box risers. The 6 inch diameter cover shall be marked " Water". The PVC riser pipe shall be furnished in lengths as required (minimum pipe cover 42") PVC pipe for valve box riser may be ASTM C-900, ASTM D1785 schedule 40, ASTM D2241 pressure class 125 or ASTM D3034 DR 35. Valve boxes shall have a concrete ring 8" thick and having a radius equal to the radius of the valve box plus one foot (1') cast around them. Valve boxes placed in unpaved areas shall be set level with or slightly higher than the finished ground elevation. Valve boxes set in paved areas shall match the finished pavement surface.

3.6 Fire Hydrants

A. Fire hydrants shall conform to the requirements of AWWA C 502 dry barrel type. The fire hydrants shall be designed for a depth of bury of 4.5 feet, however the depth of bury may vary according to field conditions and extensions or shorter bury depth may be required.

B. The hydrants shall have a 5-l/4 inch valve opening, two 2-l/2 inch hose nozzles and one 4-l/2 inch pumper nozzle.

C. Hose threads shall be National Standard threads.

D. The hydrants shall be sized for 6-inch mains and shall have an inlet connection compatible with the type pipe used. All gaskets, nuts, bolts and other jointing materials shall be considered part of the fire hydrant installation.

E. Operating nut shall be standard l-l/2 inch pentagon opening counter-clockwise. The hydrant shall close with the pressure.

F. Hydrants shall be painted Federal Safety Yellow.

G. Fire hydrants shall have all interior wetted ferrous surfaces epoxy coated as required in the general and coating section of this item.

H. The hydrants shall have a minimum of two (2) drain holes located on opposite sides of the hydrant. The entire drainage channel must be made of non-corrosive material and sealed by acceptable resilient material (metal and/or leather seals are not acceptable).

I. The hydrants shall have a breakable safety flange and breakable stem coupling which breaks cleanly upon impact.

J. The hydrants shall be AWWA improved type hydrants and shall have self-oiling reservoirs.

K. Fire hydrants shall be the Mueller Centurion, the Dresser -M & H 929 Reliant, or The American Darling.

4. EXCAVATION, TRENCHING BEDDING AND BACKFILLING

4.l Trenching

A. The trench shall be excavated to the lines and grades as established by the engineer and as shown on the plans. The depth of cover for all main lines on which the grades and elevations are not shown on the plans, shall in general be Forty-two (42) inches. The amount of cover may vary over or under 42 inches as directed by the engineer but in no case will the amount of cover be less than thirty-six (36) inches. Depth of cover for service lines shall be as shown on the detail drawings.

B. Water lines constructed in proposed streets and service drives shall have the depth of cover measured from the finished grade. The contractor is hereby cautioned that proposed street finished grades are sometimes cut below the existing ground elevation.

C. The minimum width of the trench shall be the outside diameter of the pipe plus twelve (l2) inches for pipe diameter through l8", the outside diameter of the pipe plus eighteen (l8) inches for pipe diameters over l8". The trenching equipment shall be maintained on a sufficiently level road bed to provide substantially vertical trench walls. The maximum horizontal offset of the trench wall from bottom of trench to the top of the trench (under-cutting) shall be four (4) inches.

D. The trench shall be over excavated to an even grade to the depth of required bedding so that the bottom of the pipe will rest on a uniform thickness of bedding material on the bottom of trench throughout the entire length of the pipe. In order to obtain a true even grade, the bedding material shall be fine graded by hand. On lines that are to be laid to established grades batter boards shall be set at fifty foot intervals and the trench graded to the established grade.

E. Any part of the trench excavated below grade shall be corrected by filling with bedding material. The bedding material shall be thoroughly compacted.

E. If large rock, rock fragments or other unyielding materials are encountered in the bottom of the trench they shall be removed to a depth of six inches below grade, and the void filled with thoroughly compacted approved bedding material.

G. Bell holes of ample dimensions shall be dug at each joint to permit the jointing of pipe to be made properly and of sufficient depth to prevent the bell of the pipe from resting on undisturbed materials.

H. Wherever necessary to prevent caving, the trench shall be adequately braced and sheeted. Trench safety shall be in accordance with item l4 "Shoring and Sheeting of this specification.

I. Trench digging machinery may be used to make the trench excavations except in places where operation of same would cause damages to trees, buildings or other existing structures either above or below ground. In such instances hand trenching methods shall be employed.

J. All excavated material shall be stockpiled in a manner that will not endanger the work or existing structures and that will cause the least amount of obstructions to walks and driveways.

K. There will be no classification of the excavated materials and the term excavation shall include all materials encountered in excavating the trenches or structural excavations.

L. The contractor shall take all necessary precautions for protecting paved areas from being damaged by the trenching and backfilling equipment. Any damage done to any paved area, outside of the area set forth in the plans, as a result of the construction work shall be repaired by the contractor at his own expense.

M. Where the lines are located behind curbs, the contractor shall take special precautions to protect trees and shrubs. Care shall be exercised to cause as little damage to lawns as possible.

Where lines cross under curbs, gutters or curbs and gutters, tunneling will be required.

N. Blasting for excavation of solid rock will be permitted only after securing the

approval of the Director of Engineering and Transportation and the engineer and only when proper precautions are taken for protection of persons and property. The hours of blasting will be fixed by the engineer. Any damage caused by blasting shall be paid for by the contractor. The method or procedure relative to blasting shall conform to all state laws and local ordinances.

O. The contractor will be required to locate all known utility lines, including consumer service lines, far enough in advance of the trenching to make proper provisions for protecting the lines and to allow for any deviations that may be required from the established lines and grades.

P. The contractor shall not be allowed to disrupt the service on any utility lines except consumers service lines, which may be taken out of service for short periods of time, if the contractor obtains permission from the engineer and from the owner of the premises being served by the utility.

Q. The contractor shall immediately notify the proper utility company of any damage to utility lines, in order that service may be reestablished with the least possible delay. Repair of any damage to existing lines and the repair of consumer lines which are authorized to be cut or temporarily taken out of service shall be made by the contractor at his own expense, and as directed by an official representative of the utility company involved.

R. All utility lines shall be properly supported to prevent settlement or damage to the line both during and after construction.

S. Any permanent relocations of existing utility lines shall be done by the proper utility company without expense to the contractor.

4.2 Backfill General

A. All pipeline excavations shall be backfilled in a manner that will restore pre-existing conditions as the minimum requirement and fulfill all supplementary requirements indicated in the Plans and Specifications. The backfilling operations shall be started as soon as conditions will permit on each section of pipeline to provide continuity in subsequent operations and restore normal public service as soon as practicable on a section-by- section basis. All operations shall be pursued diligently, with proper and adequate equipment, to assure acceptable results.

B. Depositing of the backfill shall be done so the shock of falling material will not injure the structure. Grading over and around all parts of the work shall be done as directed by the Engineer.

C. Whenever soil types which are determined by the Inspector to be undesirable for backfill are excavated from the trench, such material shall be hauled away and deposited where directed by the Inspector at no additional compensation.

D. In the absence of special work item requirements the backfilling shall be accomplished with the use of suitable materials selected from the excavated

materials to the extent available and practical. Should the materials available from the trench section be unsuitable or insufficient, the required additional materials shall be furnished from outside sources at the Owners expense.

E. Suitable material shall be defined as a mineral soil reasonable free of foreign materials (rubbish, debris, etc.) frozen clumps, oversize stone, rock, concrete or bituminous chunks and other unsuitable materials, that may damage the pipe installation, prevent thorough compaction, or increase the risks of after settlement unnecessarily. Material selection shall be such as to make the best and fullest utilization of what is available, taking into consideration particular needs of different backfill zones. Material containing stone, rock, or chunks of any sort shall only be utilized where and to the extent there will be no detrimental effects.

F. Backfill materials shall be carefully placed in relatively uniform depth layers spread over the full width and length of the trench section in a manner and/or sequence that will provide simultaneous support on both sides of the pipeline. Each layer shall be compacted effectively, by approved mechanical of hand methods, until there is no further visual evidence of increased consolidation. Compaction of the in place layer shall be completed acceptably before placing material for a succeeding layer thereon. The manner of placement, layer thickness, compaction equipment, and procedure effectiveness shall be subject to approval of the Engineer. Water jetting or flooding shall NOT be used to compact trench backfill.

G. Within the pipe bedding and encasement zones described as that portion of the trench which is below an elevation one foot above the top of the pipe, the materials placed shall be limited in particular size to 3/4 inch maximum. For larger pipe in access of 18 inches in diameter the Engineer may allow particle sizes up to 2 inches maximum if it can be shown that the backfill can be satisfactorily compacted without leaving voids or damaging pipe or joints. Above these zones, the placement of material containing stones, boulders, chunks, etc. shall be governed by the layer thickness and compaction equipment capabilities.

H. Compaction of materials placed within the pipe bedding and encasement zones shall be accomplished with portable or hand equipment methods to achieve thorough consolidation under and around the pipe and avoid damage to the pipe. Above the pipe zone material, the use of heavy roller type compaction equipment shall be limited to safe pipe loading.

I. The maximum loose thickness of each backfill layer shall be l2 inches, except that l6 inches will be permitted for Granular Materials placed above an elevation one foot above the top of pipe, and with the provision that, by authority of the Engineer in consideration of the demonstrated capability of special type vibratory compactors, these maximums may be increased at his discretion. "Hydro tamps" or "vibra tamp: or other heavy vibrating equipment shall not be used until the backfill has reached a depth of four (4) feet above the top of the pipe.

J. All surplus or waste materials remaining after completion of the backfilling operations shall be disposed of in an acceptable manner within 24 hours after

completing the backfill work on each particular pipeline section. Disposal at any location within the project limits shall be as specified, or as approved by the Engineer; otherwise, disposal shall be accomplished outside the project limits at the Contractor's discretion. The backfilling and surplus or waste disposal operations shall be a part of the work required under the pipeline installation items, not as work that may be delayed until final cleanup.

K. Until final acceptance of the project, the Contractor shall assume full Responsibility and expense for all backfill settlement and shall refill and restore the work as directed to maintain an acceptable surface condition. All additional materials required shall be furnished without additional cost to the Owner.

4.3 Backfill Procedure above Pipe Zone, in Public Rights-of-way and other areas where settlement is important.

A. Backfill above the pipe zone shall be made using Portland cement stabilized backfill or crushed stone screening (crusher fines).

B. Backfill around structures such as manholes, junction boxes, transformer boxes and valve boxes shall be made using portland cement stabilized backfill material or crushed stone screening (crusher fines).

C. The minimum depth of stabilized backfill or crusher fines shall be twelve (12") inches.

When utilities are being constructed under existing paving, the stabilized backfill or crusher fines shall extend from top of the pipe zone to the top of the base course.

When utilities are being constructed under existing unpaved streets that are not scheduled for immediate pavement construction, the stabilized backfill or crusher fines shall extend from the top of the pipe zone to the existing roadway surface.

When utilities are being constructed in new streets that are scheduled for immediate paving or in streets in a new subdivision for which a paving contract with the property developer has been approved the stabilized backfill or crusher fines shall extend from the top of the pipe zone to the bottom edge of the eight (8") inches of subgrade, or, if the paving contractor has constructed a portion of the roadway prior to the construction of the utilities stabilized backfill shall extend to the top of the course the contractor has finished. In no case shall the backfill extend above the top of the base course.

If the final course of asphaltic concrete has been placed, the street or alley surface shall **NOT** be cut for utility installation.

In new streets where stabilized backfill is required only to the bottom of the subgrade course, the minimum depth of stabilized backfill may be reduced to six (6") inches in which case the maximum depth of the "pipe zone" shall be limited to six (6") inches above the top of the utility line or conduit.

D. Backfill Materials

(1) Portland cement stabilized backfill shall consist of caliche base material, blow sand or native soil stabilized by the addition of Portland cement. Crushed stone or concrete aggregate shall **NOT** be used.

The Contractor shall submit a mix design prepared by an approved Commercial Laboratory that will produce a minimum 7 day compressive strength of 150 psi. In no case shall the minimum cement content of the mix be less than 1 sack per cubic yard.

(2) Cement used in Portland cement stabilized backfill shall be Type I or Type II conforming to the requirements of ASTM Designation C150.

(3) Caliche used for Portland cement stabilized backfill shall be crushed material con-forming to Texas State Department of Highways and Transportation 1982Standard Specifications for Construction of Highways, Streets and Bridges Item 248 Type F, Grade 2.

(4) Blow sand used for Portland cement stabilized backfill shall be clean, free from organic matter, clay lumps, rock and other deleterious matter.

(5) Native soil used for Portland cement stabilized backfill shall be clean, free from clods and organic matter, and rock in excess of 2".

(6) Crushed stone screening (crusher fines) used for back fill shall be sharp grained particles of crushed stone conforming to the following gradation

Sieve Size	% Passing
2"	100
#4	35-100
#10	20-100
#40	5-35
#200	4-10

and may be the by product of crushing stone for other purposes or may be stone specifically crushed for use in backfill. Crusher fines not meeting these specifications may be approved for backfill upon demonstration that the desired results will be obtained.

E. Backfill Construction

(1) Portland cement stabilized caliche backfill or Portland cement stabilized native soil backfill may be constructed using either the "dry" method or the "wet" method.

(a) The dry method of stabilized backfill construction consists of dry mixing of the cement and caliche, sand or soil to produce a homogenous mixture then adding and mixing sufficient water for proper compaction and hydration of the cement. The water content of the mixture will be approximately one to two percent above the optimum moisture for soil compaction. The mixing may be accomplished by using batch mixers or on the job site by "blade Mixing" or other suitable method to produce the desired backfill material. The mixed material shall be placed in lifts of up to a maximum of 12 inches and compacted to ninety five (95%) modified proctor density by use of suitable compacting equipment.

(b) In the "wet" method of cement stabilized backfill construction, the materials shall be mixed in an approved concrete batching plant or mixer to the consistency of concrete and placed as concrete would be placed. The slump of the backfill material shall be such that all voids will be filled, approximately four (4") to six (6") inches. The backfill shall be consolidated by rodding or by the use of mechanical vibrators.

(c) The mix design used must be for the method of placement chosen.

(2) Portland cement stabilized blow sand backfill shall be mixed and placed by the "wet" method as described above.

(3) Crushed stone screening (crusher fines) shall be wetted uniformly throughout with sufficient moisture to assure proper compaction before being placed in the trench.

The moistened crushed stone screening (crusher fines) shall be placed in maximum lifts of twelve (12") inches and consolidated using vibratory type compaction equipment except when it has been demonstrated that the compaction equipment employed will adequately compact deeper lifts in which case the maximum depth of a lift shall be limited by the capabilities of the equipment used.

Tests to determine the compacted density of the backfill shall be ordered by the Engineer if in his opinion the compaction is not adequate. Test showing a minimum compacted density of 90% modified proctor will be deemed adequate compaction.

5. INSTALLATION OF DUCTILE IRON PIPE

5.1 Pipe Laying - General

A. All pipe and accessories shall be unloaded, handled, laid, jointed, tested for defects and for leakage and chlorinated in the manner herein specified.

B. The pipe, fittings, valves, and accessories shall be inspected upon delivery and during the progress of the work and any material found to be defective will be rejected by the engineer and the contractor shall remove such defective material from the site of the work.

C. The contractor shall be responsible for all material furnished by him and he shall replace at his own expense all such material that is found to be defective in manufacturer or has become damaged in handling after delivery.

D. All pipe, fittings, valves, and other accessories shall, unless otherwise directed, be unloaded at the point of delivery, hauled to and distributed at the site of the work by the contractor. Loading and unloading, of pipe and fittings shall be by hoisting or by sliding, or rolling on skidways in such a manner as to avoid shock or damage to the material. Under no circumstances shall pipe or fittings be dropped. Pipe handled on skidways must not be skidded or rolled against pipe already on the ground.

The pipe, fittings and accessories shall be placed along the site in such a manner as to be kept as free as possible from dirt, sand, mud, and other foreign matter.

E. All pipe shall be laid and maintained to the lines and grades shown on the plans
or as established on the ground by the engineer.

F. Wherever it is necessary to deflect pipe from a straight line either in a vertical or horizontal plane to avoid obstructions, to plumb valves and hydrants, or where vertical or horizontal curves are shown or permitted, the degree of deflection at each joint shall not exceed the maximum deflection recommended by the manufacturer of the particular kind of pipe being laid and the degree of deflection shall be approved by the engineer.

G. After the trench grade has been completed and all bell holes dug and the grade inspected, the pipes and accessories my be placed in the trench. All pipe, fittings, valves, and hydrants shall be carefully lowered into the trench piece by piece by means of derricks, ropes, or other suitable tools or equipment, in such a manner as to prevent damage to the material in any way. Under no circumstances shall pipe or accessories be dropped or dumped in the trench.

H. Before lowering into trench the pipe shall be again inspected for defects and the pipe while suspended shall be lightly hammered to detect cracks. Any defective, damaged or unsound pipe and materials shall be rejected.

I. All foreign matter or dirt shall be removed from the inside of the pipe and from all bells, spigots or parts of the pipe used in forming the joint, before the pipe is lowered into the trench, and it shall be kept clean by approved means during and after laying.

5.2 Laying and Jointing Ductile Iron Pipe

A. Unless otherwise directed, pipe shall be laid with bells facing in direction of laying; and for lines on appreciable slopes, bells shall, at the discretion of the engineer, face up grade. Cutting of pipe for inserting valves, fittings or closure pieces shall be done in a neat and workmanlike manner without damage to the pipe or the cement lining.

B. The jointing shall be completed for all pipe laid each day. No open joints will be left in the trench overnight. At times when pipe laying is not in progress, the open ends of pipe shall be closed by approved means. No trench water shall be permitted to enter the pipe.

C. No pipe shall be laid in water, or when the trench conditions or weather is unsuitable for such work, except by written permission of the engineer.

D. Rubber Gasket joints for cast iron or ductile iron pressure pipe and fittings shall conform to AWWA Standard C-lll.

E. Before laying the pipes, all lumps, blisters and excess coal tar coating shall be removed from the bell and spigot ends of each pipe; the outside of the spigot and the inside of the bell shall be wire brushed and wiped clean and dry. Pipe ends shall be kept clean until joints are made.

F. The pipe and fittings shall be properly aligned and free to move in any direction while bolting, and the bolts shall be gradually tightened at a uniform rate around the entire flange.

G. Flange joints where used shall be bolted with flange bolts of best quality mild steel and of the size and length required by AWWA C-ll5: Bolts and nuts shall be provided with standard hexagonal heads. Gasket rings shall be used and shall be made of best quality rubber composition sheet packing one-eighth (l/8) inch thick, of a brand and quality approved by the engineer.

H. Standard plugs shall be inserted into the bells of all dead end pipes, tees, or crosses and spigot ends shall be capped. Plugs or caps shall be jointed to the pipe or fittings in the same manner used in joining the pipe.

6. SPECIFICATIONS FOR INSTALLING PRETENSIONED CONCRETE CYLINDER PIPE

6.l General

The applicable portions of the specifications for installing ductile iron pipe shall apply except as amended or supplemented herein.

6.2 Pipe Laying

A. Pipe and fittings shall be handled with care at all times to avoid damage. They shall be lifted by hoists or slide or rolled on skid-ways in such manner as to avoid shock. Under no circumstances shall they be dropped. Pipe must not be skidded or rolled against other pipe or object.

B. Just before making the joint, the bell and spigot rings shall be thoroughly cleaned by wire-brushing until clean and dry. The gasket and the inside surface of the bell shall be lubricated with a light film or soft vegetable soap compound (flax soap) to facilitate telescoping the joint. The rubber gasket shall be stretched uniformly as it is placed in the spigot groove to insure a uniform volume of rubber around the circumference of the groove.

C. The joint shall be telescoped by pulling directly along the centerline of the pipe so that the spigot enters squarely into the bell. After the spigot has been telescoped into the bell, the bell end of the pipe being laid shall be moved in accordance with the plans to secure proper grade and alignment. After the joint is in place, a thin metal feeler gauge shall be used to check the position of the rubber gasket around the circumference of the joint.

D. The inside joint recess shall be filled immediately prior to placing the pipe together by buttering the bell end with mortar. After the joint is engaged, the joint mortar of pipe l8" in diameter and larger shall be finished off smooth by hand. The mortar in pipe smaller than l8" in diameter shall be smoothed and cleaned with a swab.

E. After the spigot has been telescoped into the bell, the joint checked and found satisfactory, a canvas wrapper shall be placed around the pipe, covering the joint. The canvas type wrapper shall be of the quality manufactured by the Mar-Mac Manufacturing Company or approved equal burlap type, and shall be hemmed at each edge to allow threading with a steel strap to securely fasten the wrapper around the pipe by means of a stretcher and sealer.

The wrapper shall have a minimum width of 7" and sufficient length to encircle the pipe leaving enough space between the ends at the top to allow the cement mortar to be poured. The entire joint shall be poured with cement mortar and rodded or agitated to eliminate voids and settlement. Prior to pouring the cement mortar the joint shall be thoroughly cleaned and saturated with clean water. Any joint showing shrinkage or excessive cracking shall be cleaned and remade. In hot weather,

additional measures may be required to obtain the best quality of joint, such as additional wet burlap, curing membrane, or immediate careful and well controlled backfilling of the joint with damp earth.

F. The mortar used at the exterior joint shall consist of one part Portland cement to 2-l/2 parts fine, sharp, clean sand and mixed with water to the consistency of thick cream. Mortar required at the joint shall not be placed in freezing weather unless adequately protected from freezing.

G. The joints for pipe to be installed in casing shall be made as for pipe laid in trench except that the outside portion of the joint shall be wrapped in a special polyurethane wrap impregnated with unhydrated cement manufactured for this purpose, prior to being jacked into the casing pipe. The wrap shall be "Flex-Protex" as manufactured by Mar-Mag Mfg. Corporation or approved equal. The interior of the joints shall be mortared after the pipe to be installed in casing has been jacked into place. The pipe shall not be moved after interior mortaring is completed. After the water line has been installed in the casing the ends of the casing shall be sealed using concrete or cement mortar.

H. Steel cylinder reinforced concrete pipe shall not be pressure tested until it has been in place a minimum of l4 days.

I. The contractor shall fill the steel cylinder reinforced concrete pipe under slight pressure and allow approximately 24 hours for water absorption by concrete lining before performing pressure test.

7. SETTING VALVES, VALVE BOXES, FIRE HYDRANTS AND FITTINGS

7.1 General

Valves and fittings shall be set at the locations shown on the plans or at locations as established by the engineer, and shall be set and jointed to the pipe in the manner heretofore specified for pipe installation. All valves buried in the ground shall have a cast iron valve box set over the valve and set to grade. All valves shall be set vertical, unless otherwise specified, and shall be thoroughly inspected and checked for operation before installation.

7.2 Valve Boxes

Cast Iron valve boxes shall be firmly supported and maintained centered and plumb over the wrench nut of the valve, with box cover flush with the surface of the ground or street paving.

Valve boxes shall be supported by a ring of concrete as shown on the plans and Detail Drawings. This ring shall be Class "A" concrete having a minimum thickness of six (6") inches and shall extend a minimum of twelve (12") inches in all directions from the outside diameter of the valve box and shall be supported on thoroughly compacted backfill.

7.3 Setting Fire Hydrants

A. Fire hydrants shall be located at points shown on the plans, the exact location of the hydrant to be established by the engineer. All hydrants shall be set plumb, to the grade as established by the engineer, and shall have their nozzles parallel with and/or at right angles to the curb, with the pumper nozzle facing the curb. The hydrants shall be supported in such a manner as not to cause a strain on the fire hydrant lead or branch.

The bowl of the hydrant shall be well braced against unexcavated earth at the end of the trench with concrete blocking. The concrete blocking shall be placed so as not to interfere with the hydrant drains and so that the joints or flanges are accessible.

B. Each hydrant shall be connected to the main with a six (6) inch ductile iron branch controlled by an independent six (6) inch gate valve. Each hydrant shall be set upon a stone or concrete slab not less than four (4) inches thick and not less than one square foot of surface area. Where solid rock exists in the bottom of the trench and same is excavated to the proper depth to form a foundation for the hydrant, the slab of stone or concrete may be omitted.

C. There shall be placed around the base of the hydrant not less than seven (7) cubic feet of sound broken stone or clean gravel, or other suitable material to provide reservoir capacity so that the hydrant will completely drain when closed. The gravel or broken stone shall reach from the bottom of the trench to at least six (6) inches above the waste opening in the hydrant. Each hydrant shall be operated by the contractor to prove to the inspector that the drain hole has not been plugged with concrete or other material.

8. **ANCHORAGE OF BENDS, TEES AND PLUGS, ETC.**

Reaction or thrust blocking shall be applied to all pipe lines at all tees, plugs, caps, valves, fire hydrants, and at bends deflecting ll-1/4 degrees or more. Concrete shall be used for blocking the pipe and fittings. Concrete for thrust block shall have a minimum compressive strength of 3,000 psi and shall conform to Texas Highway Department Class "A" concrete. Before thrust blocking is placed the element to be blocked shall be carefully wrapped in polyethylene sheeting having a minimum thickness of 3 mils. The blocking shall be placed between solid ground and the fitting to be anchored; the area of bearing on pipe and on the ground in each instance shall be that required by the engineer. The blocking shall be so placed that the pipe and fitting joints will be accessible for repair.

9. DISINFECTION OF PIPE LINES

The contractor shall furnish all labor, equipment, and materials necessary to the disinfecting of the new pipe lines which shall be disinfected before being placed in service. The lines shall be disinfected by the application of a chlorinating agent. The chlorinating agent may be a liquid chlorine, liquid chlorine gas water mixture, or a calcium hypochlorite solution, which shall be fed into the lines through a suitable solution feed device, or other methods approved by the engineer. The chlorinating agent shall be readily dissolvable and of a type that will rapidly mix with the water as it is loaded into the water line. Tablets or other solid form shall not be used unless they are dissolved before being placed into the line. The chlorinating agent shall be applied at or near the point from which the line is being filled, and through a corporation stop or other approved connection inserted in the horizontal axis of the newly laid pipe. The water being used to fill the line shall be controlled to flow into the section to be disinfected very slowly, and the rate of application of the chlorinating agent shall be in such proportion to the rate of water entering the pipe that the chlorine dose applied to the water entering the line shall be at least 50 parts per million. The treated water shall be retained in the pipe lines for a period of not less than twenty four (24) hours. At the end of the retention period all treated water shall be thoroughly flushed from the lines until the replacement water in the lines shall have a chlorine residual of not more than 0.2 parts per million. Where it is necessary to place the new lines in service in less than 24 hours, the concentration of chlorine may be increased to 300 ppm and the lines flushed and placed in service in 3 hours. Disinfecting procedures shall conform to AWWA C 60l.

l0. HYDROSTATIC TESTS

All pipe lines constructed under this contract before being accepted, shall be tested at l20% design pressure as described in the following paragraphs. This test shall apply to all newly laid pipe or any valved sections thereof.

The required test pressure (l80 pounds per square inch) shall be maintained over a continuous period of not less than eight (8) hours.

Each valved section of pipe shall be slowly filled with water, being certain that all air is expelled from the pipe by using hydrants, blow-offs or taps at points of highest elevation in the line. The specified pressure shall be applied by means of a pump and flow meter (gpm and amount) connected to the pipe in a manner satisfactory to the engineer. The contractor shall furnish all necessary equipment, materials and labor to satisfactorily make the hydrostatic tests.

After the line section to be tested has been brought to pressure, a visual inspection shall be made of all joints, fittings, valves, and appurtenance. Any leaks thus located shall be corrected before continuing with the test.

If the test indicates a leakage in excess of a rate equal to twenty-five (25) gallons per inch of nominal diameter of pipe line per mile per day (maximum 600 gallon per mile per day total leakage) the cause of such leaks shall be determined and corrected and the line retested until satisfactory results are obtained.

11. **REMOVING AND REPLACING PAVEMENT**

A. When it is necessary to cut existing paving to install utilities the paving shall be repaired as soon after the backfill is consolidated or the cement stabilized backfill has reached sufficient strength as practical. The repair shall be made using Texas Highway Department Type "D" Hot Mix Asphaltic Concrete and shall have a minimum thickness equal to the thickness of the existing surface.

B. Edges along the trenches and around pits shall be saw cut to remove damaged edges and/or surface. Saw cuts shall be straight and parallel to or at right angles to the street or alley center line in so far as practical. Meandering, zig-zag or notched saw lines will not be permitted. The saw cuts shall be such that a minimum of 6" of surface is removed beyond the edges of the trench.

C. The edges of the saw cut and surface of the backfill material shall be tack coated prior to the placing of hot mix asphaltic concrete. The tack coat shall be either RC-250 cut back asphalt or RS2h emulsified asphalt or approved equal. When emulsified asphalt is used for tack coat the asphaltic concrete shall not be placed until the break of the emulsion is complete and all free water has evaporated or has been removed.

D. After the tack coat is cured the hot mix asphaltic concrete shall be placed uniformly throughout the repair area. The edges of the repair shall be squared up and the hot mix asphaltic concrete thoroughly compacted. Any large aggregate that is separated from the mix during the leveling process shall be removed from the surface and disposed of off the project. Care shall be taken that none of the mix over laps the old paving. Any mix that has "scabbed" onto the paving shall be removed before the section is reopened to traffic.

Sufficient mix shall be placed so that the finished repair is from one eight (1/8") inch to one quarter (1/4") inch above the old paving surface to allow for further consolidation by traffic.

12. **TUNNELING UNDER UTILITY LINES, ETC**.

Where pipes, conduits or concrete curbs, gutters or other obstructions are encountered in the construction, the cost of tunneling under such obstructions shall be included as a part of the cost of the pipe line, or other pay items, complete in place.

13. **HIGHWAY CROSSING**

A. The City of Midland will obtain any required permits from the State Highway Department for installation of the water line along and across the highway right-of-way. It shall be the contractor's duty and responsibility to coordinate the time of making the crossing and the manner of handling traffic.

B. Installations of the casing pipe shall be accomplished by boring or open cut trench as indicated on the drawings and in accordance with the Texas Department of Transportation permit and requirements. Equipment used shall be of such size and capacity as to allow the placement of the casing to proceed in a safe and expeditions manner. Installation of the casing and the excavation and removal of the materials

within the casing shall proceed simultaneously.

The boring shall proceed from a pit provided for the boring equipment and workmen. Excavation and location of the pit shall be approved by the Engineer. Boring without the concurrent installation of the casing pipe will not be permitted. The use of water or other fluids in connection with the boring operation will be permitted only to the extent of lubricating cuttings. Jetting will not be permitted. Overcutting in excess of one inch shall be remedied by concrete pressure grouting the entire length of the installation. All joints for casing pipe installed in bore shall be welded. Care shall be taken to keep the casing pipe on the proper line and grade.

C. After the casing pipe has been installed and is accepted by the Engineer, the pipe shall be shoved through the casing. The pipe shall be pushed or pulled through the casing by exerting pressure on the barrel of the pipe and not on the bell, and shall be done in such a manner that the joint is always in compression during the shoving operation. Hardwood, or other suitable material skids shall be banded with stainless steel bands to each joint of pipe In accordance with the pipe manufacturers recommendation. The hardwood skids shall be of sufficient dimensions to allow the bell of the pipe to clear the casing pipe by at least one-half inch. The length of the skid shall be in accordance with the pipe manufacturers recommendations. A minimum of three bands shall be used to secure the skids to the pipe. The skids shall be such that the carrier pipe will be centered in the casing pipe. The design of skids and bonding techniques shall be submitted to the Engineer for approval prior to use.

In general waterline installation in the casing pipe shall conform to AWWA C 600-Section 6 requirements.

After completion of pipe installation in casing, the ends of the casing shall be sealed off by use of concrete grout. The minimum compressive strength of the grout shall be 2,000 psi in 28 days.

14. **SHORING & SHEETING**

14.1 Description

This item shall govern for the Trench Safety Systems required for the construction of all trench excavation to be utilized in the project and including all additional excavation and backfill necessitated by the safety system. A trench shall be defined as a narrow excavation (in relation to its length) made below the surface of the ground. In general, the depth is greater than the width, but the width of a trench (measured at the bottom) is not greater than 15 feet. The depth is five feet or more.

Trench Safety Systems include but are not limited to sloping, sheeting, trench boxes or trench shields, sheet piling, cribbing, bracing, shoring, dewatering or diversion of water to provide adequate drainage.

l4.2 Construction Methods

Trench safety systems shall be accomplished in accordance with the detailed specifications set out in the provisions of Excavation, Trench, and Shoring, Federal Occupational Safety and Health Administration (OSHA) Standards, 29CFR, Part 1926, Subpart P, as amended, including Proposed Rules published in the Federal Register (Vol. 52, No. 72) on Tuesday, October 31, l989. The sections that are incorporated into these specifications by reference include Sections 1926-650 through 1926-652. Legislation that has been enacted by the Texas Legislature, being Tex. Rev. Civ. Stat. Ann. arts. 1015q, 2368a.6 (Vernon Supp. 1988) with regard to Trench Safety Systems, is hereby incorporated, by reference into these specifications.

A reproduction of the OSHA Publication 2226 is attached for the convenience of the Contractor. The City assumes no responsibility for the accuracy of the reproduction or that it reflects current law. The Contractor is responsible for obtaining a copy of this section of the Federal Register for his use.

If the contractor elects to use a trench protective system that, in the Proposed Rules, requires "Design by a qualified person or a qualified engineer," [For example see 1926.652(b) (3) and 1926.652(c) (4)], "a qualified person or qualified engineer" shall be a Professional Engineer registered in the State of Texas. The Contractor is responsible for obtaining boring and soil analysis as required for the planned design. The trench excavation is to be designed in conformance with OSHA standards and regulations.

14.3 Safety Program

The Contractor shall submit a safety program specifically for the construction of trench excavation. The trench safety program shall be in accordance with OSHA standards governing the presence and activities of individuals working in and around trench excavation.

14.4 Inspection

The Contractor shall make daily inspections of the Trench Safety Systems to ensure that the systems meet OSHA requirements. Daily inspection is to be made by a "competent person" provided by the Contractor. If evidence of possible cave-ins, or slides, is apparent, all work in the trench shall cease until the necessary precautions have been taken by the Contractor to safeguard personnel entering the trench. It is the sole duty, responsibility and prerogative of the Contractor, not the owner or the Engineer, to determine the specific applicability of the designed trench safety systems to each field condition encountered on the project. The Contractor shall maintain a permanent record of daily inspections.

14.5. Safety Restrictions - work near high voltage lines

The following procedures will be followed regarding the subject item on this contract:

A. Warning signs painted yellow with black letters that are legible at twelve feet shall be placed inside and outside vehicles such as cranes, derricks, power shovels, drilling rigs, pile drivers, hoisting equipment or similar apparatus. The warning sign shall read as follows:

"WARNING - UNLAWFUL TO OPERATE THIS EQUIPMENT WITHIN SIX FEET OF HIGH VOLTAGE LINES."

B. All equipment except back hoes or dippers that may be operated within ten feet of high voltage lines shall have an insulating cage-type of guard about the boom or arm and insulator links on the lift hook connections.

C. When necessary to work within six feet of high voltage electric lines, notification shall be given the power company who will erect temporary mechanical barriers, de-energize the line, or raise or lower the line. The notifying department shall maintain an accurate log of all such calls to the Power Company, and shall record action taken in each case.

D. The Contractor is required to make arrangements with the Power Company for the temporary relocation or raising of high voltage lines at the Contractor's sole cost and expense.

l5. MEASUREMENT AND PAYMENT

l5.l General

The unit price or lump sum price bid on each item, as stated in the proposal, shall include furnishing all labor, superintendence, machinery, equipment, and materials necessary to complete the various items of work in accordance with the plans and specifications. Cost of work or materials shown on the plans and called for in the specifications and on which no separate payment is made shall be included in the bid price on the various pay items.

l5.2 Water Lines

A. Measurement

The length of pipe lines for the various sizes, classes and types to be paid for will be determined by measurement along the center lines of the pipe installed, measurement being made from the center of fitting to center of fitting or end of pipe, without any deduction for the length of intermediate fittings or valves including pipe installed in casing.

B. Payment

Furnishing and installing approved type pipe of the various sizes and classes shown on the plans or as required will be paid for at the unit price bid per linear foot for furnishing and installing the various sizes and classes of approved pipe complete in place. The unit price bid shall be complete compensation for furnishing and installing the pipe complete in place including all excavation, backfilling, testing and disinfection of lines and shall include any and all incidental work not otherwise included in the bid items or otherwise provided for in the specifications.

l5.3 Solid Rock Excavation

All excavation for pipe trenches shall be unclassified and no extra compensation will be made for solid rock excavation. The contractor is expected to make boring of his own and satisfy himself to the character of material which will be encountered.

l5.4 Gate Valves or Butterfly Valves

A. Measurement

Gate valves or butterfly valves will be counted in the field after installation by the size and type specified and actually installed.

B. Payment

The unit price bid for each type and size valve shall be complete compensation for furnishing and installing the valves, complete in place, including the furnishing and installation of cast iron valve boxes on all valves to the finished grade of the adjacent surface. All valves in paved areas shall be set to finish pavement grades

l5.5 Fire Hydrants

A. Measurement

Fire hydrants will be counted in the field after installation in accordance with the plans and specifications.

B. Payment

The unit price bid shall be complete compensation for furnishing and installing the fire hydrants, complete in place, each, including lead pipe the gravel drain, concrete blocking, extension or additional bury depth as required for a complete installation.

I5.6 Service Connections

A. Measurement

The number of service connections of the type and size specified to be paid for will be counted in the field after complete installation.

B. Payment

The unit price bid shall be complete compensation for furnishing and installing the service connections, complete in place, including the meter box and lid, service line, corporation stop, meter stop and incidentals required for a complete installation.

I5.7 Ductile Iron Fittings

A. Measurement

The weight of the various ductile iron fittings and specials were estimated by using the standard weights for cast iron fittings as established by the American Water Works Association or American Standard Association. Measurement of ductile iron fittings will be made by counting the actual number of fittings installed and multiplying the number of fittings by the catalog weights for those types of fittings actually installed. Allowance will be made for glands and bolts.

B. Payment

The ductile iron fittings or specials required in the construction of the various size pipe lines as shown on the plans or as required will be paid for at the unit price bid per ton for furnishing and installing the ductile iron fittings complete in place. The unit price shall also include all materials, excavation, backfilling, concrete blocking and other incidental work required for the complete installation.

I5.8 Steel Cylinder Concrete Pipe Fittings

A. Measurement

No separate measurement or count of fittings and specials for steel cylinder concrete pipe will be made.

B. Payment

No separate payment will be made for fittings or specials for steel cylinder concrete pipe used on this project, but the cost of same shall be included in the price bid per linear foot for the various classes and sizes of pipe in the bid proposal.

l5.9 Casing Pipe In Bored Hole Or Open Cut

A. Measurement

Measurement of the casing pipe, of the type and size specified, shall be made by the linear foot of casing installed complete in bored hole or installed complete in open cut.

B. Payment

The unit price bid per linear foot for casing in bored hole or for casing in open cut shall be complete compensation for furnishing and installing the casing, complete in place, including all pits, boring equipment, materials and labor required for a complete installation. Payment for carrier pipe installed in the casing will be made as stated under Waterlines above.

l5.l0 Paving Cut and Repair

A. Measurement

Measurement of paving cut and repair will be made by the square yard for replacing pavement of the type specified. The area of the pavement replaced shall be determined by actual measurements on the ground; however, measurement will be limited to areas within widths of cuts as shown on the plans unless additional widths are authorized by the engineer. Any pavement removed or damaged outside of the aforementioned limits shall be replaced as prescribed with these specifications, but will not be measured for payment.

B. Payment

The unit price bid, per square yard, shall be complete compensation for cutting and removing the pavement, and constructing the concrete base and surfacing of the type specified, all as specified herein and as shown on the plans.

15.ll Trench Safety Systems, Sheeting and Shoring

A. Measurement

Trench Safety Systems shall be measured by the linear foot along the centerline of trench including manholes and other line structures.

B. Payment

Payment for Trench Safety Systems, measured as prescribed above, shall be made at the unit price bid per linear foot of "Trench Safety Systems: Payment of all work prescribed under this item shall be full compensation for the Trench Safety Systems including all Engineering cost and any additional excavation and backfill required, for furnishing, placing, maintaining and removing all shoring, sheeting, or bracing; for dewatering or diversion of water; for all jacking and jack removal; and for all other labor, materials, tools, equipment and incidentals necessary to complete the work.

Revised 08/07

GRAVITY FLOW PIPE SEWERS AND FITTINGS
FOR WASTE WATER AND STORM WATER

PART I – GENERAL

1.01 SCOPE

A. The work covered by this specification shall include the furnishing of all material, labor and equipment to construct, complete in place, all Gravity sewers including jointing, gaskets, fittings, castings, mortar, concrete, the placing of sewer pipe, and the construction of manholes and other appurtenance, all in accordance with the details shown on the plans and these specifications for the drainage of sanitary and/or storm sewage.

B. Sanitary and storm sewer lines constructed under these specifications shall be straight in grade and alignment between manholes. Manholes shall be constructed at any change in grade and at any change in alignment. In general manholes are to be constructed at 300 feet intervals or less with the maximum distance between manholes being 350 feet when approved by the Engineer.

1.02 QUALITY ASSURANCE

A. The Contractor, at the Engineer's request, shall furnish a certificate from the manufacturer of the pipe and fittings that the manufacturer is fully competent and capable of manufacturing sewer pipe, fittings, and accessories of the type, size and grade proposed for use in this project that are of uniform texture and strength that will fully comply with these specifications and have so manufactured this class of pipe in sufficient quantities to be certain that it will meet all normal field conditions of usage. The manufacturer must have adequate equipment and quality control facilities to be sure that each extrusion casting or run of pipe is uniform in texture, dimensions, and strength.

B. All PVC, HDPE, or plastic resin based pipe and fittings shall be covered during storage to protect them from excessive heat and direct sunlight.

C. All pipe and accessories shall be stored above ground and fully supported so that they will not bend or deflect excessively under their own weight.

D. Pipe in any way damaged or deformed during storage shall not be incorporated into this project, but at the direction of the Engineer, shall be permanently removed from the job site and project area.

1.03 TYPE OF PIPE

A. Pipe for sanitary sewers 15 inches in diameter and less shall be PVC. Pipe for storm drains 15 inches in diameter and less may be corrugated steel pipe when called for on the plans and in the bid proposal. Pipe 18 inches in diameter and larger shall be of the type shown on the plans and bid proposal.

B. The contractor may be allowed to bid a choice of two or more of the pipe materials when pipe 18 inches in diameter and larger are proposed for use on a project. When such choice is allowed the permissible choices will be clearly stated on the plans and/or bid proposal and a blank space will be provided for the contractor to write in the type of pipe proposed for use on the project. When such blank spaces are provided, the contractor must choose one of the permitted pipe materials as specified in part 2 “Materials” of these specifications and write in the type of pipe bid. Failure to write in the type of pipe bid may be reason to disqualify the bid. One or more types of pipe 18 inches in diameter and larger may be excluded from consideration on any given project by notes on the plans and/or the bid proposal.

PART 2 – MATERIALS

2.01 POLYVINYL CHLORIDE (PVC) PIPE AND FITTINGS FOR SANITARY AND STORM SEWERS

A. GRAVITY SEWERS

(1) Pipe and fittings in nominal diameters from 4-inch through 15-inch shall be manufactured in accordance with ASTM D3034, “Type PSM Polyvinyl Chloride (PVC) Sewer Pipe and Fittings” and pipe and fittings in diameter 18” through 36” shall be manufactured in accordance with ASTM F-679 or ASTM F-794, closed profile, subject to the modifications and limitations below.

B. MODIFICATIONS AND LIMITATIONS

(1) The concrete slab manhole tops shall be reinforced with number 4 steel reinforcing bars spaced at 12 inches on center each way. Additional diagonal bars shall be placed on 4 sides around the manway opening. The diagonal bars shall be number 4 rebar with a minimum length equal to the diameter of the manway opening plus 4 inches. The steel reinforcing mat shall be placed in the bottom of the slab with 1-1/2 inches protective covering.

(2) The term Dimension Ratio (DR) or standard dimension ratio (SDR) is the ratio of the average outside pipe diameter to the minimum wall thickness rounded to the nearest 0.5. The maximum DR for PVC sewer pipe shall be 35. PVC pipe sewers that will have less than 4 feet of cover shall be DR26.

(3) PVC pipe manufactured under ASTM F679 or F794 shall have a wall thickness that will meet or exceed the D.R. and stiffness specified herein. The minimum pipe stiffness for pipe having a DR of 26 shall be 115 psi. The minimum pipe stiffness for DR 35 pipe shall be 46 psi.

(4) Where DR 26 pipe is specified, all necessary fittings shall be the same as for SDR 35 PVC pipe.

(5) Minimum wall thickness for ASTM D-3034 PVC pipe shall be as follows:

Nominal Size (in.)	Min. Wall Thickness (in.)	
	DR 26	DR 35
4	0.162	0.120
6	0.241	0.180
8	0.323	0.240
10	0.404	0.300
12	0.481	0.360
15	0.588	0.437

The minimum wall thickness for PVC pipe meeting ASTM F-679 or F-794 requirements shall be the thickness as set forth in said ASTM specification that will meet or exceed the pipe stiffness and DR required.

(5) The identification markings as shown in Section 12 of ASTM 3034 shall note the specified DR of 26 where applicable.

(6) All pipe and fittings shall have the dimensions for inside diameter, outside diameter, etc. as shown in ASTM D3034 and/or ASTM F-679 except that the inside diameter DR 26 may be reduced by the added wall thickness.

(7) The pipe and fittings shall be homogeneous throughout and free from visible cracks, holes, foreign inclusions, or other injurious defects. The pipe shall be as uniform as commercially practical in color, opacity, density, and other physical properties.

(8) The Contractor shall provide wyes, tees, bends, adapters, and any other fittings called for in the specifications and/or shown on the plans or directed by the Engineer.

(9) The standard length of ASTM, D-3034 SDR 35 or SDR 26 PVC pipe under this specification shall be 20 feet with a minimum of 10 feet, except that all pipe used in service lines shall not exceed 10 feet in length unless otherwise approved by the Engineer. The standard laying length for ASTM F-679 PVC pipe shall be 13 feet. The Engineer must approve other laying lengths.

C. SEWER LATERALS AND CONNECTIONS

Pipe and fittings for service lines shall be the same material and thickness class as required for the main sewer. Schedule 40 PVC pipe may be used for 4” service lines when PVC pipe meeting requirements of ASTM 3034, SDR 35 is required.

D. JOINING SYSTEMS

(1) PIPE JOINTS

The pipe shall be joined with an integral bell, bell and spigot type rubber gasket joint. Each integral bell joint shall consist of a formed bell complete with a single rubber o-ring gasket. Gaskets shall be manufactured in accordance with ASTM F477 and shall be installed in accordance with the pipe manufacturer's instructions using all the necessary materials, lubricants and equipment recommended by the manufacturer.

For pipe 18" through 36" gaskets shall be factory installed and chemically bonded to the bell end of the pipe.

Lubricant shall be water soluble, non-toxic and have no deteriorating effects on gasket or pipe materials and shall not support the growth of bacteria. Lubricant shall be suitable for use at temperatures from 5^{o} to 120^{o} F (-15^{o} to 50^{o} C). Containers shall be labeled with the manufacturer's name and identified as PVC pipe joint lubricant. Each lubricant container shall have printed instructions for usage and joint assembly.

Field welded joints will not be allowed.

(2) FITTING JOINTS

All fittings shall utilize rubber gasket joints of the same type design and specifications as pipe joints.

(3) PIPE SPIGOT

The pipe spigot shall have a bevel and an insertion stop mark. The assembled joint shall be designed so the gasket shall be radially compressed to assure a positive water-tight seal for all installation conditions recommended by the manufacturer and under all combinations of production tolerances for the joint components. Each size joint shall be qualified to no leakage under various test conditions in conformance with ASTM Specification D-3212, "Joints for Drain and Sewer Plastic Pipes Using Flexible Elastomeric Seals."

E. INSPECTION AND TESTING

(1) INSPECTION REQUIREMENTS

Certification: as the basis of the acceptance of the material, the manufacturer will furnish a certificate of conformance to these specifications. The manufacturer will furnish other conformance certification in the form of affidavit of conformances, test results, and copies of test reports.

(2) PHYSICAL TEST REQUIREMENTS

For each 4,000 linear feet of pipe manufactured of each class and size of pipe, the following certified test data shall be required:

1. The basic dimensions shall be measured.
2. The allowable crush load (lbs/ft ^{2}) shall be calculated.
3. Impact resistance, fusion quality and ductility shall be tested.

F. MARKING AND DELIVERY

Each pipe shall be identified with the name of manufacturer, nominal size, cell classification, ASTM designation F794, Uni-Bell Plastic Pipe Association designation Uni-B-9, the pipe stiffness designation “PS-46 psi” and manufacturer’s date code.

1. MANHOLE CONNECTIONS

The Contractor shall provide smooth pieces of pipe for connecting sewer line into manholes. The Contractor shall be required to assist the manhole gasket supplier with the nominal outside diameter of these smooth pieces of pipe, as manufactured. There shall be only one plain end thickness for each diameter of pipe specified for the project.

2. DELIVERY

All pipe couplings and fittings shall be prepared for standard commercial shipment.

The pipe shall be inspected upon delivery to the job site for final acceptance. The contractor shall be responsible for all material furnished by him and he shall replace, at his own expense, all such material that is found to be defective in manufacture or which has become damaged in handling until final acceptance has been made. Pipe, which exhibits excessive ovalty or curvature, shall be rejected.

PVC pipe and fittings shall be covered during storage to protect them from excessive heat and direct sunlight.

All pipe and accessories shall be stored above ground and fully supported so as not to bend or deflect excessively under its own weight.

2.01(a) Metallic Marking Tape (For PVC Sewer Pipe)

2.01 (a).1 General

When non-metallic pipelines are to be installed, then the Contractor shall furnish and lay, above the pipeline, a continuous strip of metallic identification tape.

2.01 (a).2 Tape Material

The metallic identification tape shall be at least two inches (2”) in width and shall be of corrosive resistant metal of sufficient thickness to be stable and reflect electronic signals to electronic pipeline detector when buried to a dept of twenty-four (24”) below normal ground level.

The metallic tape shall be painted green on one side and shall have 1-inch high letters painted continuously on the same side of the tape which read, “CAUTION: BURIED SEWER LINE BELOW” or other words to this effect.

The marking tape shall be “Detectable Marking Tape”, as manufactured by the Omega Marking Company, or equal approved by the Engineer.

2.01(a).3 Construction Methods

The Contractor shall backfill over non-metallic pipelines to a depth which is less than twenty-four (24”) and not more than twelve inches (12) from the top of the cut of the ditch section in which the pipeline is laid. Contractor shall stop the backfilling material to a generally uniform level. All machine tamping, jetting and other compaction activities shall be accomplished up to this point of height in the backfilling the marking tape is placed in the trench.

The Contractor shall then lay the marking tape in the pipe trench and shall be held in position by the spot placement of backfill materials over it to keep it from sliding t the sides and/or from being blown about in the ditch by the wind. The tape shall be lid with the painted side, which shall also be the side with the identification lettering on it, in the “up” position. The tape shall be laid in the flat position and kept there until backfill is accomplished.

The Contractor shall then complete the backfilling operation in such a manner that the marking tape is not cut, crimped, ruptured or separated by the backfilling work.

2.01(a).4 Measurement and Payment

No separate pay item will be provided for furnish and placing the marking tape. This item shall be considered subsidiary to the non-metallic pipe being placed.

2.02 CORRUGATED STEEL PIPE (CSP) FOR STORM SEWERS AND CULVERTS ONLY

1. PIPE

A. STEEL SHEET STOCK

(1) Corrugated steel pipe shall be manufactured using galvanized steel sheet AASHTO M 218 or aluminized steel sheet AASHTO M 274.

(2) The lining for smooth lined corrugated steel pipe shall be polymer coated on both sides. The minimum thickness of the polymer coating shall be 10 mils.

B. PIPE DESIGNATION

(1) Pipe furnished shall be manufactured in accordance with AASHTO Specification M 36.

(2) Corrugated steel pipe shall be one or more of the following type as designated in AASHTO M 36.

Type I - Full circular cross section having helical corrugations.

Type IA - Full circular smooth lined pipe constructed of an outer shell having helical corrugations with a smooth sheet lining attached to the outer shell at helical lock seams.

Type IR - Full circular cross section with helical rib protruding outward.

Type II - Type I pipe formed into a pipe arch.

Type IIA - Type IA pipe formed into a pipe arch.

The type of pipe furnished on this project will be as shown on the plans and in the bid proposal.

When no type of pipe is called for on the plans or in the bid proposal helically corrugated circular single wall pipe (Type I or Type IR) shall be furnished.

C. MANUFACTURERS CERTIFICATION

(1) The pipe manufacturer will be required to certify the adequacy of the pipe furnished for the application and design life of the project.

(2) The design life for storm sewers constructed under this specification is 50 years.

(3) The pipe manufacturer will be required to run soil pH, soil resistivity and such other test as they deem necessary to design pipe thickness and protective coatings required to assure the adequacy of the pipe supplied.

D. CORRUGATION AND MINIMUM THICKNESS

(1) Thickness used in this specification refers to the bare steel thickness before coating is applied. The minimum thickness for any single wall corrugated steel pipe furnished under this specification is 16 gage.

(2) All corrugated steel pipe furnished under these specifications shall have helical corrugations.

(3) Circular corrugated steel pipe 48” in diameter and smaller shall have 2-2/3” x ½” corrugation and shall be a minimum of 16 gage in thickness.

Circular corrugated steel pipe larger than 48” in diameter may have either 2-2/3 x ½” or 3” x 1” corrugations. The minimum thickness for corrugated steel pipe larger than 48” in diameter and having 2-2/3 x ½” corrugation shall be as follows:

54” Diameter - 12 gage
60” Diameter - 10 gage
66” through 90” Diameter - 8 gage

The minimum thickness for circular corrugated steel pipe having 3” x 1” corrugation and diameters of 54” through 90” shall be 14 gage.

(4) For smooth lined corrugated steel pipe the minimum thickness for the lining shall be 20 gage and the minimum thickness for the outer shell shall be 18 gage.

The corrugations for the outer shell shall be 2-2/3” x ½” for pipe 48” diameter and smaller. Larger diameter pipe may use 3” x 1” corrugations in the outer shell. The sum of the thickness for the outer shell and the liner shall be a minimum of one thickness unit greater than the thickness that would be required for single wall pipe of the same diameter or span.

(5) Spiral rib steel pipe (Type IR) shall have outward projecting spiral corrugations of ¾” x 1” at 11-1/2” on center in accord with AASHTO specification M 36 or ¾” x ¾” at 7-1/2” on center as described in AASHTO specification M 196.

The minimum thickness for spiral rib pipe 48” in diameter and smaller shall be 16 gage.

The minimum thickness for spiral rib pipe 54” and 60” in diameter shall be 14 gage.

The minimum thickness for spiral rib pipe 66” and 72” in diameter shall be 12 gage.

The minimum thickness for spiral rib pipe larger than 72” in diameter shall be as shown on the plans.

(6) The corrugations and minimum thickness of corrugated steel pipe arch shall be in accord with the following table:

EQUIV. Dia. (in.)	2-2/3" x ½" Corrugations Span (in.)	Rise (in.)	Gage	3" x 1" Nominal Size Span (in.)	Rise (in.)	Gage
15"	17	13	14			
18"	21	15	14			
24"	28	20	14			
30"	35	24	14			
36"	42	29	14	40	31	16
42"	49	33	12	40	36	14
48"	57	38	10	53	41	12
54"	64	43	10	60	46	12
60"	71	47	8	66	51	12
66"	77	52	8	73	55	12
72"	83	57	8	81	59	12
78"				87	63	12
84"				95	67	12
90"				103	71	12

When 2-2/3" x ½" corrugations are called for on the plans and/or on the bid schedule the substitution of 3" x 1" corrugations will be allowed only upon the demonstration by the contractor that there is sufficient head room to accommodate the higher rise for arch pipe of this cross section.

E. END TREATMENT AND JOINING

(1) The ends of all corrugated steel pipe furnished for this project shall be rolled to provide circumferential corrugations for coupling. The end corrugations for all pipe 48" in diameter and less shall be 2-2/3 x ½". The end corrugations for single wall helically corrugated steel pipe or for smooth lined corrugated steel pipe 54" in diameter and larger shall be the same pitch as the pipe furnished and may be either 2-2/3" x ½" or 3" x 1". The end corrugations for spiral rib (Type IR) corrugated steel pipe shall be 2-2/3" x ½" or 3" x 1" for pipe 54" and larger in diameter.

(2) Coupling bands shall be made of the same material as the pipe and shall be not more than 3 nominal sheet thicknesses lighter than the pipe joined and in no case less than .052 inch.

Jointing devices for joining corrugated steel pipe shall have a gasket and shall produce a joint meeting the infiltration/exfiltration requirements of these specifications.

If it should be necessary to cut a joint of Helically corrugated pipe and join the unreformed end to another section of pipe or fitting extra width bands will be required and special care must be taken to insure a water tight connection.

Locking bands shall be corrugated and shall securely fit into at least one full annular corrugation. The corrugations on the locking band must match the corrugations on the pipe being joined.
The minimum width for locking bands is as follows:

for 2-2/3 x ½ inch corrugations	10-1/2 inches
3 x 1 inch corrugation	12 inches

For helical corrugations that have not been reformed the coupling bands must be at least 2 inches wider than the widths listed above.

Unless shown otherwise on the plans all bolts for coupling or locking bands shall be ½ inch in diameter. Bands 12 inches wide or less shall have a minimum of 2 bolts. Bands wider than 12 inches shall have a minimum of 3 bolts.

Bolts must be galvanized in accordance with AASHTO Designation M232 or ASTM A164 Type RS.

(3) Gaskets for corrugated steel pipe shall be closed cell expanded rubber and shall be formed into a continuous band. Gaskets may be either “O” ring or flat band as recommended by the pipe manufacturer. Flat band gaskets shall be a minimum of 7” wide and 3/8” thick. “O” ring gaskets shall be 13/16” diameter minimum for pipe 36” in diameter or less and 7/8” for pipe larger than 36” diameter and having ½” deep corrugations. “O” ring gaskets shall be a minimum of 1-3/8” diameter for pipe having 1” deep corrugations. When “O” ring gaskets are furnished, an additional flat gasket shall be furnished and placed between the overlapping ends of the coupling band. This flat gasket shall completely fill the gap between the “O” rings. All gasket materials shall be capable of producing a water tight joint that will meet the leakage requirements of these specifications.

2. CORRUGATED STEEL MANHOLE FITTINGS, AND CLEAN OUTS

A. FABRICATION

(1) Corrugated steel manholes and fittings shall be constructed of the same material and type of pipe furnished for the storm sewer line with the exception that manhole risers shall be helical corrugated single wall circular pipe when used with pipe arch sewers or smooth lined corrugated steel pipe. The thickness of the manhole riser shall be the same as would be required for the same type and diameter pipe if it were used for the storm sewer.

(2) Cleanouts for use on shallow storm sewer and inlet leads shall be manufactured from pipe meeting the requirements of these specifications. Cleanouts shall be constructed to the dimensions and in accord with the details shown on the plans.

B. CONNECTION TO MANHOLES AND CLEANOUTS

(1) Stub outs from manholes and cleanouts for connection to storm sewers and inlet leads shall have annular corrugations and shall be compatible with the type and size of pipe being connected. Stub outs provided for connection to PVC pipe storm sewers and inlet leads shall be sized so that the PVC pipe can be inserted into the stub leaving the least amount of annular space between the PVC pipe and the CSP practical. The PVC pipe shall be connected using an approved molded rubber or PVC sleeve connector clamped to both pipes with stainless steel straps.

The connector shall be a flexible coupling as manufactured by Fernco, 300 S. Dayton St., Davison, MI., or approved equal.

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C. LEAKAGE

Manholes, fittings and cleanouts shall meet the leakage requirements of these specifications.

D. SHOP DRAWINGS

The contractor shall submit shop drawings of all manholes, fittings and cleanouts for approval prior to their fabrication. A minimum of 5 sets of drawings for each manhole, each fitting and each cleanout shall be submitted.

E. CONCRETE SLAB TOPS

A reinforced concrete slab top shall be constructed for each manhole and cleanout. The slab shall extend to one foot (1') outside the riser section on all sides and shall have an eccentric 2' diameter opening for the manway located at the outside edge of the riser section. For manholes and cleanouts designated for standard manhole rings and covers the concrete top shall be 8 inches thick and shall be finished smooth to receive the manhole ring.

For manholes designated to receive pressure type manhole rings and covers the concrete slab top shall be a minimum of 12 inches thick and shall have L bolts imbedded in the concrete to fit the requirements of the manhole ring furnished. The slab shall be finished smooth to receive the manhole ring. The manhole ring shall be securely bolted to the slab and sealed using "Ram Nek" or an approved equal bitumastic sealer between the manhole ring and the concrete slab.

The concrete slab manhole tops shall be reinforced with number 4 steel reinforcing bars spaced at 12 inches on center each way. Additional diagonal bars shall be placed on 4 sides around the manway opening. The diagonal bars shall be number 4 rebar with a minimum length equal to the diameter of the manway opening plus 4 inches. The steel reinforcing mat shall be placed in the bottom of the slab with 1-1/2 inches protective covering.

F. PRESSURE MANHOLE RING AND COVER

(1) Pressure type manhole rings and covers shall be Western Iron Works No. 380-24P or approved equal. The manhole cover shall be sealed with an "O" ring gasket in a ring groove and shall be secured to the ring by six (6) 5/8-inch stainless steel bolts.

(2) The ring shall have six (6) 1-1/4 inch bolt holes in the flange for securing the ring to the concrete slab top on the manhole.

3. CORRUGATED STEEL PIPE SLOTTED DRAIN

(1) Corrugated steel pipe slotted drains shall be fabricated from full circle corrugated steel pipe conforming to these specifications.

(2) C.S.P. Slotted drains shall be of a type as manufactured by "Contech Construction Products, Inc.", "Texas Corrugators", "Caldwell Culvert Company" or approved equal.

(3) The upstream end of CSP slotted drains shall be equipped with a bend and a ring and cover of the some size as the pipe from which the slotted drain was fabricated to allow cleaning equipment to be inserted into the slotted drain. The ring and cover shall be Nenah Foundry Co. R-5901 open grate or R-5900 solid lid or approved equal. Unless shown otherwise on the plans the open grate shall be furnished.

(4) When slotted drain is to be connected to PVC leads, molded rubber or PVC flexible connector as specified for connections to manholes and cleanouts shall be furnished.

4. DAMAGED COATING

A. PROTECTION OF PIPE

(1) Pipe fittings and specials shall be handled and stored in a manner that will minimize damage to the coating.

(2) The fabrication process shall be designed to minimize the burning of coatings during welding.

(3) Pipe and/or fittings showing excessive abuse or damage will be rejected.

B. REPAIRING DAMAGE

(1) Pipe on which the metallic coating has been burned by welding or has been otherwise damaged in fabricating or handling, shall be repaired. The repair shall be done so that the completed pipe shall show careful finished workmanship in all particulars.

(2) The damaged area shall be cleaned to bright metal by blast cleaning, power disk sanding, or wire brushing. The cleaned area shall extend at least ½ inch into the undamaged section of the coating. The cleaned area shall be coated within 24 hours and before any rusting or soiling.

(3) Zinc-rich paint shall be applied to a dry film thickness of at least 0.005 inches over the damaged section and surrounding cleaned area. Zinc-rich paint shall be used for repair of damage to all types of metallic coating -zinc, aluminum, and aluminum-zinc alloy.

2.03 CAST-IN-PLACE CONCRETE SEWER PIPE (NON-REINFORCED) FOR STORM SEWERS ONLY

1. DESCRIPTION

This item shall cover machine cast-in-place monolithic non-reinforced concrete pipe, which shall consist of Portland cement concrete placed in a prepared trench at such locations and grades shown on the plans and intended to be used for the conveyance of storm water. Items and item numbers referred to in this specification are the items as given in the "Texas State Department of Highways and Public Transportation 1982 Standard Specifications for Construction of Highways, Streets and Bridges."

2. MATERIALS

The cast-in-place pipe shall be constructed of Class "C" concrete. The concrete shall meet the requirements of Item 421, "Concrete for Structures," and Special Provision thereto, except as otherwise noted herein or on the plans. Type III Portland Cement shall be used.

The minimum compressive strength for concrete used in this item is 4000 psi. Backfilling operations may proceed when the concrete has reached 2000 psi compressive strength.

The coarse aggregate grading for pipe diameters 48 inches or less shall conform to that of Aggregate Grade No. 3, one inch (1") maximum size aggregate under Item 421. For pipe diameters over 48 inches, Coarse Aggregate No. 2, one and one third inch (1-1/3") maximum size aggregate shall be used.

No concrete having a slump in excess of 2" will be permitted for use in pipes with diameters of 48 inches and over. For pipes with diameters less than 48 inches, no concrete having a slump in excess of 3" will be permitted for use. At the option of the Contractor, sections of precast reinforced concrete pipe (D-load) may be substituted for cast-in-place concrete pipe. Pipe and installation shall conform to the requirements of Item 465, "Pipe Sewers." Backfill shall be in accordance with the requirements for other storm sewers in these specifications using crusher fines (chat).

3. PIPE MAKING EQUIPMENT

The pipe shall be constructed with equipment specially designed for constructing cast-in-place monolithic concrete pipe. The equipment shall be acceptable to the Engineer and the Contractor may be required to furnish evidence of successful operation in other work of the equipment he proposes to use. Equipment not suitable to produce the quality of work required for the pipeline will not be permitted to operate on the project.

4. DIMENSIONS AND TOLERANCES

The design shell thickness shall be as specified in Table 1.

TABLE I

Internal Diameter inches	Min. Shell Thickness inches
18	2
24	2-1/2
30	3
36	3-1/2
42	4
48	5
54	5-1/2
60	6
66	6-1/2
72	7
84	8
96	9
108	10
120	11

Variation in the internal diameter shall not exceed plus or minus 3 percent. The maximum allowable deviation form the true grade of the design invert of the pipe shall not exceed ½ inch either side of true grade. Where deviation from true grade occurs, true grade shall be re-established at a maximum departure of one-eighth inch per foot.

5. EXCAVATION AND BACKFILL

Excavation shall be in accordance with the requirement for other types of storm drains, except as modified herein. The trench shall be excavated in the lines and grades shown on the plans or as directed by the Engineer. The width of the trench shall be sufficient to accommodate travel of the pipe machine only. The bottom of the trench shall be shaped to the nominal outside circumference of the pipe. Excavation shall be performed from the outlet to the inlet. If the trench is over-excavated for the bottom 210 degrees of the pipe the excess area shall be filled with concrete. If rock is encountered, it will be removed at least 6 inches below the bottom of the pipe and the trench refilled with material sufficiently compacted to

allow operation of the machine and provide a smooth firm surface. The sidewall of the pipe shall be placed against undisturbed material.

Backfill material will be a crusher fine (chat) as described elsewhere in these Specifications. No backfill other than permitted for curing purposes shall be placed until the line has been inspected and approved by the Engineer. The trench may be completely backfilled after the pipe has been in place at least 24 hours and concrete strength requirements have been reached. Light traffic, axle load less than 6,000 pounds, may be routed over the pipe after backfill has been completed for twenty-four (24) hours. Unrestricted traffic may be permitted over the pipe after the backfill has been in place for forty-eight (48) hours.

All backfill material shall be mechanically compacted to 95% modified proctor or as directed by the Engineer.

6. CONSTRUCTION

All surfaces against which concrete are to be placed shall be free from standing water, mud, and debris. Absorptive surfaces against which concrete are to be placed shall be moistened thoroughly so that moisture will not be drawn from the freshly placed concrete.

The concrete shall be placed in one operation around the full circumference of the pipe by means of a traveling form. The forms shall be of sufficient strength to withstand vibrating or tamping the concrete and to permit workmen to walk on the forms without causing springing or bulging at any point.

As the traveling form moves forward, forms shall be placed inside the newly formed pipe to support a minimum of 230 degrees of the upper portion of the pipe.

The concrete shall be vibrated, rammed, tamped or worked with suitable appliances until the concrete has been consolidated to the maximum practicable density, free of rock pockets, and closes snugly against all surfaces or forms and provides a bond between the pipe shell and supporting earth.

When placing operations cease for any reason, the end of the pipe shall be left rough with a slope of approximately 45 degrees. The ends of the pipeline shall be covered with canvas or other suitable cover material to prevent excessive loss of moisture from the interior of the pipe already placed.

When starting pipe laying operation from a previously laid cast-in-place pipe or section of pre-cast pipe, a construction joint shall be made by excavating a “bell” completely around the end of the existing pipe and constructing a concrete collar to extend at least one foot either side of the joint with a minimum thickness equal to that of the wall of the pipe. The end of the existing pipe shall be clean and damp before continuing pipe making operations. Cleaning of the construction joint shall consist of removing all latency, loose or defective concrete, coatings, and any other deleterious materials.

All forms shall be clean and shall be placed at the trench side at the location of their proposed use for inspection by the Engineer. Forms, which are defective in any way, will not be used, and upon condemnation they shall be removed from the site of the work. The forms shall not vary more than ½ inch from the lower edge of a straightedge laid parallel to the centerline of the form, and shall be free of any holes larger than 5/8 inch in greatest dimension. The pipe machine shall be thoroughly clean and serviced prior to the placing of the concrete. Particular attention will be given to all parts of the machine with which concrete comes into contact.

Concrete chutes or trunks shall be provided to reach within 1 foot of the pipe machine hopper. The end of the chute or trunk shall discharge the concrete at the center of the hopper. Provisions shall be maintained to minimize segregation of the concrete mix in all phases of the operation.

Delays in placing shall be handled as follows or as otherwise directed. The concrete hopper on the pipe laying machine shall be kept ½ full at all times, provided, however, that when placing operations cease or are delayed for any reason for more than 20 minutes, the pipe machine shall be pulled forward until all the concrete is exhausted and until the top troweling skirt is clear of the concrete. If the pipe laying operation proceeds within one hour of the time of the last placement, no further steps need to be taken. However, if longer than one hour has elapsed, then a construction joint must be made as previously described. The end of the pipe shall be left rough and at the natural slope when the machine is moved forward.

All junctions of pipe shall be provided for at the time the cast-in-place pipe is placed.

Inside forms shall be removed from the pipe not sooner than 4 hours nor longer than 24 hours after placement of the concrete. Care shall be taken when removing forms to prevent damage to the pipe. The inside of the pipe shall be carefully inspected for imperfections in placement, and any required repairs or smoothing shall be made immediately to provide a uniform interior surface. No wash, mortar or concrete shall be applied to a surface not properly moistened or cleaned. Visible cracks shall be brushed with cement paste or chipped out and pointed up with cement mortar. Any cracks that appear to go through the shell shall be grooved and filled with mortar. All construction operations and methods for providing a watertight pipeline shall be the responsibility of the Contractor. Mortar shall consist of one part cement; two parts well graded sand passing 1/8-inch sieve. Wash shall consist of four parts cement, one part fire clay. The finished surface of the concrete pipe shall be substantially free of fractures, cracks and surface roughness.

7. CURING CONCRETE

Immediately after the concrete is placed the exposed surface of the concrete shall be cured by covering the top with a sheet of polyethylene film sealed with dirt along the edges. During the curing period following the placement of the concrete, the ends of the pipeline and all other openings into the pipeline shall be covered with canvas or other suitable material, except at locations where work is actually in progress. The inside surface of the pipeline shall not be cured.

8. MANHOLES AND BENDS

Manhole bases shall be hand formed on top of the pipe as soon as the pipe-placing machine has passed. Where required, the extra width for manholes shall be excavated ahead of the pipe placing operation. The base for the manhole shall be formed to receive a standard precast concrete barrel section and shall be shaped and smoothed so that the joint can be sealed water tight by use of “Ram Nek” or other approved joint sealing material.

Bends may be formed and cast in place or fabricated using precast reinforced concrete pipe (load D). Design and shop drawings shall be submitted to and approved by the Engineer before the bends are fabricated or cast.

9. MEASUREMENT

Measurement of manholes shall be as specified elsewhere in these specifications. Measurement of bends shall be as for other storm sewer pipe. The method of pipe measurement shall conform to that for other types of storm drainpipe in the section or storm drains in these specifications.

10. PAYMENT

Payment for cast-in-place non-reinforced pipe sewers, measured as prescribed above, will be made at the unit price bid per linear foot for the various sizes of “Pipe Sewers (Cast-in-Place)” complete in place. Payment for manholes shall be as specified elsewhere in these specifications.

Such payment shall be full compensation for furnishing all concrete materials, precast reinforced concrete pipe used in place of cast-in-place pipe, and for all other materials, tools, labor, equipment, and incidentals required to perform the applicable work prescribed herein.

When precast reinforced concrete pipe at the Contractor’s option is used in a line of cast-in-place pipe the additional excavation for the pipe will be subsidiary.

2.04 CENTRIFUGALLY CAST FIBERGLASS REINFORCED RESIN PIPE SEWERS

A. DIRECT BURY PIPES

1. GENERAL

All pipes, joints and fittings shall be manufactured in accordance with the requirements of the applicable standard given below except as noted herein:

Service	Standard
Non pressure Sanitary Sewer	ASTM D3262
Sewer Force Main and Effluent Lines	ASTM D3754

Pipes shall be centrifugally cast, fiberglass-reinforced polyester resin as manufactured by Hobas USA, Inc. or approved equal.

Minimum pipe stiffness when tested in accordance with ASTM D2412 shall be 46 psi.

2. MATERIALS

The manufacturer shall use only approved polyester resin systems for which he can provide a proven history of performance in these particular applications. The historical data shall have been acquired from a composite material of similar construction and composition as the proposed product.

The reinforcing glass fibers used to manufacture the components shall be of highest quality commercial grade of E-glass filaments with binder and sizing compatible with impregnating resins. Sand shall be minimum 98% silica with a maximum moisture content of 0.2%

3. DIMENSIONS

Pipe outside diameters shall be in accordance with AWWA Standard C151 and C950. For diameters larger than covered in those documents, OD's shall be as shown in Table 1.

TABLE I

*WP/s		0/46		50/46		100/46		150/46		200/46	
Nomin Pipe Sz. (in.)	Pipe OD (in.)	Min. wall (in.)	Wgt. (lb/ ft)	Min. Wall (in.)	Wgt. (lb/ ft)	Min. Wall (in.)	Wgt. (lb/ ft)	Min. Wall (in.)	Wgt. (lb/ ft)	Min. Wall (in.)	Wgt (lb/ ft.)
18	19.50	.42	20	.41	20	.40	19	.38	18	.37	18
20	21.60	.46	25	.45	24	.43	23	.42	22	.40	21
24	25.80	.54	35	.53	34	.51	33	.49	31	.47	30
30	32.00	.66	54	.65	53	.62	51	.60	49	.57	47
36	38.30	.78	77	.77	76	.74	73	.71	70	.68	67
42	44.50	.90	104	.88	101	.85	98	.82	94	.78	89
48	50.80	1.02	134	1.00	131	.96	126	.93	122	.88	115
54	57.10	1.14	169	1.12	166	1.08	160	1.04	155	.99	147
60	62.90	1.26	209	1.23	204	1.19	197	1.14	188	1.09	180
66	69.20	1.38	249	1.35	243	1.30	234	1.25	228		
72	75.40	1.50	298	1.47	292	1.41	280	1.36	270		
78	81.60	1.62	352	1.58	343	1.52	331	1.47	320		
84	88.00	1.74	409	1.70	399	1.64	385				
90	94.30	1.86	468	1.82	458	1.75	440				
96	100.6	1.98	531	1.94	520	1.87	501				

- **Maximum nominal working pressure in psi/pipe stiffness in psi**

Pipe shall be supplied in nominal lengths of 20 feet. Actual laying length shall be the nominal plus or minus 2 inches. At least 90% of the total footage of each size and class of pipe, excluding special order lengths, shall be furnished in nominal length sections.

4. **PRESSURE CLASS & TESTING FOR SEWER FORCE MAINS AND EFFLUENT LINES**

The pipe nominal pressure class (PN) shall be equal to or greater than the maximum sustained operating pressure of the line. The minimum pressure rating for non-pressure pipe shall be 15 psi.

The maximum transient (operating plus surge) pressure of the line shall not exceed the pipe nominal pressure class by more than 40%.

Pipe hoop tensile strength for pressure pipe shall be verified as specified in the applicable standard (D3754 or C950) or by random burst testing at the same sampling frequency. All pipes shall be capable of withstanding a test pressure of 2 times the maximum sustained operating pressure of the line without leaking or cracking. This performance shall be periodically verified at the factory for pressure pipe at least once per lot as defined in D3754, section 7.1.

A. JOINTS

Unless otherwise specified, the pipe shall be field connected with fiberglass sleeve couplings that utilize elastomeric sealing gaskets made of EPDM rubber compound as the sole means to maintain joint water tightness. The joints must meet the performance requirements of ASTM D4161.

B. FITTINGS

Flanges, elbows, reducers, tees, wyes, laterals and other fittings shall, when installed, be capable of withstanding all operating conditions. Acceptable configurations include contact molded or metered fiberglass or properly protected standard ductile iron.

Unbalanced thrust forces shall be restrained with thrust blocks or other approved suitable methods. Fiberglass tees, wyes, laterals, or other similar fittings shall be fully encased in reinforced concrete designed to withstand the pressure forces.

2.05 POLYETHYLENE SEWER PIPE

A. SCOPE

(1) This specification covers Polyethylene (PE) pipe with a corrugated outer wall and a smooth interior wall, for use with non-pressure sanitary sewer systems. The PVC fittings and joints are included in the specification.

B. MATERIAL AND MANUFACTURING

1. PIPE MATERIALS

The pipe shall be made from clean virgin Polyethylene compounds having a cell classification of 324420C as defined by ASTM D-3350.

2. FITTING MATERIALS

The fittings shall be made from clean virgin polyvinyl chloride (PVC) compounds having a cell classification of 12454B, 1245C or 13343C as defined by ASTM D-1784.

Pipe shall be manufactured by simultaneous extrusion of the corrugated and smooth walls with the smooth inner wall fused to the outer corrugated wall.

Fittings shall be molded or fabricated.

3. JOINING MATERIALS

a. Gaskets
b. Elastomeric gaskets shall meet the requirements of ASTM F-477.
c. Lubricants

The lubricants used for assembly shall have no detrimental effect on the gasket or the pipe, and shall be per published recommendations of the pipe manufacture.

4. MATERIAL CERTIFICATION

A manufacture's or an independent laboratory certification shall be furnished to the purchaser/engineer that the products were manufactured, sampled, tested, and inspected at the time of manufacture in accordance with this specification.

C. PIPE DIMENSIONS

Pipe dimensions shall meet the following requirements when tested in accordance with ASTM D-2122.

Nominal Size	Avg. O.D.	Avg. I.D.
4	4.790 (121.7)	4.00 (101.6)
6	6.930 (176.0)	6.00 (152.4)
8	9.145 (232.2)	8.00 (203.2)
10	11.405 (289.7)	10.00 (254.0)
12	14.450 (367.0)	12.00 (304.8)
15	17.530 (445.3)	15.00 (381.0)
18	21/150 (537.2)	18.00 (457.2)

D. INSTALLATION

1. Joint Tightness

Minimum joint performance shall show no leakage when tested in accordance with ASTM D-3212.

2. Supplier Assistance

A manufacturers representative of the above referenced pipe material shall be present at the beginning of the installation as required by the Design Engineer or Contractor and shall remain on site until released by the Design Engineer or Field Inspector/Engineer.

2.06 INLETS FOR STORM SEWERS

A. CURB TYPE INLETS

(1) Curb inlets shall be constructed at the locations and to the lines and grades or shown on the plans or as directed by the Engineer.

(2) Curb inlets shall be constructed of reinforced class “C” concrete in accordance with Section 1-B “Concrete Structures” and the plans and detail drawings.

(3) The curb section and the curb inlet shall conform to the curb and gutter section in which it is placed in so far as it is possible.

B. GRATE TYPE INLETS

(1) Grate inlets shall be constructed at the locations and the lines and grades as shown on the plans or as directed by the Engineer.

(2) Concrete boxes for grate inlets shall be constructed of reinforced Class “C” concrete in accordance with Section 1-B “concrete Structures” and the plans and detail drawings.

(3) Grates shall be constructed of ASTM A-48 gray iron having minimum tensile strength of 35,000 psi or ductile iron having a minimum tensile strength of 60,000 psi and a yield strength of 40,000 psi.

The size, style, shape, type, weight and class shall be as shown on the plans.

Grate frames shall be as manufactured for the grate by the grate fabricator. If more than one type or style or frame is available, the type and/or style shall be as indicated on the plans.

C. COMBINATION INLETS

(1) Combination curb and grate inlets shall be constructed at the locations and to the lines and grades as shown on the plans or as directed by the Engineer.

(2) Combination inlets shall be constructed in accordance with the applicable requirements for “Curb type inlets” and “Grate type inlets” above.

D. INLET LEADS

(1) Inlet leads may be PVC pipe or CSP as shown on the plans and called for in the bid proposal.

(2) Inlet leads shall be constructed in accordance with the specifications for type of material used and the plans and detail drawings.

(3) Where two or more leads are joined together to form a single lead to the storm sewer they shall be joined at a cleanout unless shown otherwise on the plans.

(4) Inlet leads shall be connected to the storm sewer at a manhole. The leads shall enter the manhole at a point that will match the .8 points of the two pipes as near as practical.

E. CLEANOUT FOR STORM SEWER INLET LEADS

Cleanouts at the juncture of inlet leads shall be constructed in accordance with the dimensions and requirements shown on the plans and detail drawings.

F. CORRUGATED STEEL SLOTTED DRAINS

(1) Corrugated steel slotted drains shall be as specified in section 2.02-3 of these specifications and shall be furnished in the lengths and diameters as shown on the drawings and in the bid proposal.

(2) Corrugated steel slotted drains are approved for nuisance water inlets only and are sized to allow for considerable clogging before they will cease to function in this capacity.

2.07 MANHOLES

1. GENERAL

A. **CONCRETE MANHOLES ARE NOT TO BE USED FOR SANITARY SEWERS AFTER DECEMBER 31, 2002. FIBERGLASS MANHOLES ARE TO BE USED FOR ALL SANITARY SEWERS**. Concrete manholes can be used for storm water sewers.

All manholes furnished for this project shall be precast unless noted otherwise on the plans and or bid proposal.

Precast manholes shall conform to the requirements of ASTM Specification C-478 with the modifications given in this article.

Concrete used for precast manholes shall have a minimum 28-day compressive strength of 4,000 psi and shall have a minimum cement content of 7 sacks per cubic yards.

All manhole sections shall be furnished with tongue and groove type joints suitable for sealing water tight with rubber or bituminous joint sealer or gaskets.

B. When cast in place components for manholes are called for on the plans the concrete used shall have a minimum 28 day compressive strength of 4,000 psi and a minimum cement content of 7 sacks per cubic yard and shall conform to the requirements of ASTM Specification C-478 with wall thickness as shown on the plans and detail drawings.

Aggregate for the concrete shall meet the sodium sulfate and magnesium sulfate test as required in ASTM Specification C-33.

C. Mortar for filling and shaping the inverts in precast manhole bases and for mortaring precast grade rings and cast iron rings and covers shall consist of one part Portland cement ASTM C150 Type 1 to 3 parts washed sand mixed with just enough water to make a workable mix.

D. Manholes for corrugated steel pipe may be precast concrete or corrugated steel as described in Article 2.02. The type and material shall be as shown on the plans and called for on the bid proposal.

2. PRECAST MANHOLES

A. Manhole base sections shall be cast with an integral floor and shall be constructed in accordance with the details shown on the plans.

B. Manhole riser sections shall be constructed in accordance with the plans and details and these specifications. When pipe openings are required in manhole riser sections they shall be of the same type and meet the same requirements as the pipe openings in the precast bases.

Manhole riser sections for each manhole shall be furnished in the proper combination of lengths to construct the manhole in conjunction with the other components to the finished grade shown on the plans.

C Eccentric cone sections shall be constructed in the same manner as other components except the top of the cone will have a flat surface to accommodate the manhole ring and cover or grade adjusting rings instead of a tongue or groove.

Generally openings will not be required in the wall of the cone section of the manhole.

D. Manhole grade rings shall comply with all the requirements for manhole riser sections except they shall be cast smooth both sides without tongues and/or grooves.

Manhole grade rings shall be sized to fit the smooth small end of the cone section and shall be cast in heights of 2", 4" or 6".

E. Joint seals for precast concrete manholes shall be a bitumastic sealer such as Ram-Nek or approved equal, a soft rubber sealer such as Butyl-Lok or approved equal or an approved "O" ring gasket or a combination of the above if required to achieve a water tight joint.

F. All water tight Storm Sewer Manholes constructed on this project shall have Neenah R-1755-C watertight manhole rings and covers or approved equal.

No separate payment will be made for the protective plastic manhole linings or for the water tight manhole rings and covers but the cost of these items shall be included in the price bid for water tight Storm Sewer Manholes.

In addition to the markings required by ASTM Specification C-478, all components of each manhole shall be, marked with location identifying information such as manhole number or line number and station value where manhole is to be installed. If the manhole has openings for installation of branch lines above the base section, each manhole section shall be clearly marked with the sequence of installation to assure the branch opening will be at the correct elevation.

3. FIBERGLASS MANHOLES

A. SCOPE

Fiberglass reinforced polyester manholes shall be manufactured from commercial grade polyester resin or other suitable polyester or vinyl resins, with fiberglass reinforcements and in accordance with the latest edition of ASTM D 3 753 (Standard Specification for Glass-Fiber Reinforced Polyester Manholes). Fiberglass manholes shall be used with fiberglass or plastic sewer pipe.

B. MATERIALS

1. **Resin:** The resins used shall be a commercial grade unsaturated polyester resin.

2. **Reinforcing Materials**: The reinforcing materials shall be commercial Grade "E" type glass in the form of mat, continuous roving, chopped roving, roving fabric, or a combination of the above, having a coupling agent that will provide a suitable bond with the resin and leave a resin rich surface.

3. **Surfacing Materials**: If reinforcing materials are used on the surface exposed to the contained substance, they shall be a commercial grade chemical-resistant glass organic surfacing mat having a coupling agent that will provide a suitable bond with the resin and leave a resin rich surface.

4. **Fillers and Additives**: Fillers, when used, shall be inert to the environment and wet well construction. Additives, such as thixotropic agents, catalysts, promoters, etc., may be added as required by the specific manufacturing process to be used. The resulting reinforced plastic material must meet the requirement of this specification.

C. FABRICATION

1. **Exterior Surface**: The exterior surface shall be relatively smooth with no sharp projections. Handwork finish is acceptable if enough resin is present to eliminate fiber show. The exterior surface shall be free of blisters larger than ½ inch in diameter, de-lamination and fiber show.

2. **Interior Surface**: The interior surface shall be resin rich with no exposed fibers. The surface shall be free of crazing, de-lamination, blisters larger than ½ inch in diameter, and wrinkles of 1/8 inch or greater in depth. Surface pits shall be permitted up to 6 per square foot if they are less than ¾ inch in diameter and less than 1/16 inch deep.

3. **Defects not permitted**:

Exposed fibers: glass fibers not wet out with resin.
Resin runs: runs of resin and sand on the surface
Dry areas: areas with glass not wet out with resin.
De-lamination: separation in the laminate.
Blisters: light colored areas larger than ½ inch in diameter.
Crazing: cracks caused by sharp objects
Pits or Voids: air pockets.
Wrinkles: smooth irregularities in the surface.
Sharp projection: fiber or resin projection necessitation gloves for handling.

D. PHYSICAL REQUIREMENTS

1. **Load Rating**: The complete manholes shall have a minimum dynamic-load rating of 16,000 ft-lbs. when tested in accordance with this standard. In order to establish this rating, the complete manhole shall not leak, crack, or suffer other damage when load

tested to 40,000 ft-lbs. and shall not deflect vertically downward more than ¼ inch at the point of load application when loaded to 24,000 lbs.

2. **Stiffness**: The manhole cylinder shall have a minimum pipe stiffness value as shown below when tested in accordance with A.S.T.M. 3753 8.5 (note 1)

Depth Ft.	F/dy.psi
3 – 6.5	0.75
7 – 12.5	1.26
13 – 20.5	2.01
21 – 25.5	3.02
26 – 35	5.24

3. **Soundness:** In order to determine soundness, apply an air or water pressure test to the manhole test sample. Test pressure shall not be less than 3 psig or greater than 5 psig. While holding at the established pressure, inspect the entire manhole for leaks. Any leakage through the laminate is cause for failure of the test. Refer to A.S.T.M. 3753 8.6.

4. **Chemical Resistance**: The fiberglass manhole and all related components shall be fabricated from corrosion proof material suitable for atmospheres containing hydrogen sulfide and dilute sulfuric acid as well as other gases associated with the wastewater collection.

5. **Physical Properties**:

	Hoop Direction	Axial Direction
a. Tensile Strength (pi)	18,000	5,000
b. Tensile Modulus (pi)	0.6×10^6	0.7×10^6
c. Flexural Strength (psi)	26,000	4,500
d. Flexural Modulus (psi)	1.4×10^6	0.7×10^6
e. Compressive (psi)	18,000	10,000

6. **Minimum Wall Thickness**: Shall be 0.48” nominal at all depths of the manholes.

E. TEST METHODS: All tests shall be performed as specified in A.S.T.M 3753 latest edition, section 8. Test method D-790 (see note 5) and test method D-695.

F. QUALITY CONTROL: Each completed manhole shall be examined for dimensional requirements, hardness, and workmanship. All required A.S.T.M 3753 testing shall be completed and records of all testing shall be kept and copies of test records shall be presented to customer upon formal written request within a reasonable time period.

G. CERTIFICATIONS: As a basis of acceptance the manufacturer shall provide a independent certification which consist of a copy of the manufacturer’s test report and accompanied by a copy of the test results that the manhole has been sampled, tested,

and inspected in accordance with the provisions of this specification and meets all requirements.

H. SHIPPING AND HANDLING: Do not drop or impact the fiberglass manhole. Fiberglass manhole may be lifted by inserting a 4" x 4" x 30" timber into the top of manhole with cable attached or by a sling or "choker" connection around center of manhole, lift as required. Use of chains or cables in contact with the manhole surface is prohibited.

I. CONCRETE:

1. **Fiberglass Bottom**: Manholes may have fiberglass bottoms that are a minimum of 6" below the OD of the pipe invert when concrete is used to form the invert. Manufactured fiberglass inverts and bench areas are allowed, or concrete may be used to form bench area and invert. Concrete is to be used on top of anti-flotation ring and around the reducer section as required for buoyancy.

2. **Concrete Bottom**: Lower manhole into wet concrete until it rests at the proper elevation, with a minimum of 4 inches of fiberglass manhole inserted into the wet concrete below flow line, then move manhole to plumb. The concrete shall extend a minimum of one foot from the outside wall of the manhole and a minimum of 6 inches above incoming lines. On the inside concrete shall form the bench and invert area and rise a minimum of 4 inches above incoming lines. If required by Engineer concrete may be used around reducer section for buoyancy control.

BACKFILL:

1. **Backfill Material**: Unless shown otherwise on drawings and approved by the Engineer, sand, crushed stone, or crushed gravel shall be used for backfill around the manhole for a minimum distance of one foot from the outside surface and extending from the bottom of the excavation to the top of the reducer section. Suitable material chosen from the excavation may be used for the remainder of the backfill. The material chosen shall be free of large lumps or clods, which will not readily break down under compaction. This material will be subject to approval by Engineer.

2. **Backfill Procedure**: Backfill shall be placed in layers of not more than 12 loose measure inches and mechanically tamped to 95% Modified Proctor Density, unless otherwise approved by Engineer. Backfill shall be placed in such a manner as to prevent any wedging action against the fiberglass manhole structure.

K. MARKING and IDENTIFICATION: Each manhole shall be marked on the inside and outside with the following information:

Manufacturer's name or trademark
Manufacturer's factory location
Manufacturer's serial number
Total length

4. MANHOLE RINGS AND COVERS

A. Manhole rings and covers furnished for this project shall be pattern No. 300-24 as produced by Western Iron Works, Inc., 21 E. 6th St., San Angelo, Texas 76903-5493 or Bass and Hays Foundry, Inc., 238 South Bagdad Rd., Grand Prairie, Texas 75050, or approved equal.

B. WATER TIGHT MANHOLE COVERS

(1) Water tight manhole rings and covers furnished for this project shall be number R-1755-C as manufactured by Neenah Foundry Company, P.O. Box 729, Neenah, Wisconsin 54957, or approved equal.

(2) When watertight replacement sanitary sewer manhole rings and covers are called for on the plans and in the bid proposal they shall be Neenah Foundry Co. No. R-1755-C or approved equal.

No separate payment will be made for adjusting to grade of the replacement watertight manhole rings and covers. The contractor shall schedule this work to coincide with other manhole and water valve adjustments and any costs that might be involved shall be included in the price bid for replacement water tight manhole rings and covers.

(3) Manhole vents shall be used in conjunction with watertight rings and covers spaced every third manhole or as indicated on the plans. Vents shall be constructed as indicated on City design and construction standards.

C. Pressure type manhole rings and covers may be required for certain storm sewer applications. When pressure type manhole rings and covers are called for on the plans and/or bid schedule they shall be Western Iron Works Pattern #380-24P or approved equal. The manhole cover shall be sealed with an “O” ring gasket in a ring groove and shall be secured to the ring by six (6) five-eighths inch (5/8”) stainless steel bolts. The ring shall have six (6) one and one quarter inch (1-1/4”) bolt holes in the flanges for securing the ring to the concrete slab top on the manhole.

D. All manhole covers except grate type shall have two blind pick holes or pick bar cast into them. The blind pick holes or pick bars shall be placed on opposite sides of the cover.

E. All manhole covers except grate type shall have cast into their tops in letters 2 inches high minimum one of the following:

CITY OF MIDLAND
SANITARY SEWER
OR
CITY OF MIDLAND
STORM DRAIN

which ever is applicable.

2.08 GRANULAR MATERIALS

A. GRANULAR MATERIAL GRADATION CLASSIFICATIONS:

Granular materials furnished for foundation, bedding, encasement, backfill, or other purposes as may be specified, shall consist of any natural or synthetic mineral aggregate such as sharp grained sand, crushed gravel, crushed rock, crushed stone, or slag, and shall conform to the following specifications and/or gradation.

Note all materials used for these purposes shall be crushed and shall have at least two broken faces. Pea gravel will NOT be allowed.

	Foundation	Bedding	Encasement	Backfill
ASTM C33 Grade #57	x			
ASTM C33 Grade #67	x			
ASTM C33 Grade #8		x	x	
THD 1982 Item 302 Type D Grade 4		x	x	
THD 1982 Item 302 Type D Grade 5			x	
Crusher fines**			*x	x

*100 percent of crusher fines that are to be used within 12 inches of the top of pipe must pass the ¾" sieve.

** Approximate Gradation for Crusher Fines.

Sieve Size	% Passing
2 inch	100
# 4	35 - 100
# 10	20 - 100
# 40	5 - 35
#200	4 - 10

Crushed stone material proposed as an alternate for use on this project and not meeting the above specifications must be approved in writing at least 48 hours prior to the time scheduled for opening bids.

B. GRANULAR MATERIAL USE DESIGNATIONS:

Granular materials provided for Foundation, Bedding, Encasement, or Backfill use as required by the contract, either as part of the pipe item work unit or as a separate contract item, shall be classified as to use in accordance with the following:

MATERIAL USE DESIGNATION	ZONE DESIGNATION
Granular Foundation	Placed below the bottom of pipe grade as replacement for unsuitable or unstable soils, to achieve better foundation support.
Granular Bedding	Placed below the midpoint of the pipe prior to pipe installation, to facilitate proper shaping and achieve uniform pipe support. Also for Class B bedding where specified.
Granular Encasement	Placed below an elevation one half foot (6") above the top of pipe, after pipe installation, for protection of the pipe and to assure proper filling of voids and thorough consolidation of backfill.

In each case above, unless otherwise indicated, the lower limits of any particular zone shall be the top surface of the next lower course as constructed. The upper limits of each zone are established to define variable needs for material gradation and compaction or void content, taking into consideration the sequence of construction and other conditions. The material use and zone designations described above shall only serve to fulfill the objectives and shall not be construed to restrict the use of any particular material in other zones where the gradation requirements are met.

PART 3 – EXECUTION

3.01 LOCATION OF WORK

A. The work will be located as shown on the plans.

B. It may be necessary for the Engineer to shift lines as reasonable amount to avoid an obstruction to the construction or to reduce right of way difficulties. The Contractor will not be allowed any additional compensation due to shift of lines. Additional compensation will be allowed only for lengthening of lines.

3.02 PROTECTION OF SURFACE STRUCTURES

A. All surface structures and features located outside the permissible excavation limits for underground installations, together with those within the construction areas which are indicated in the Plans as being saved, shall be properly protected against damage and shall not be disturbed or removed without approval by the Engineer.

B. Obstructions such as street signs, guard posts, mail boxes and other items of prefabricated construction may be temporarily removed during construction provided that essential service is maintained in a relocated setting as

approved by the Engineer and that non-essential items are properly stored for the duration of construction. Upon completion of the underground work, all such items shall be replaced in their proper setting. This removal, relocation and replacement shall be at the sole expense of the Contractor.

In the event of damage to any surface structures or improvements, either privately or publicly owned, in the absence of construction necessity, the Contractor will be required to replace or repair the damaged property to the satisfaction of the Engineer and without cost to the Owner.

3.03 INTERFERENCE OF UNDERGROUND STRUCTURES

A. When any underground structure interferes with the planned placement of the pipeline or appurtenances to such an extent that alterations in the work are necessary to eliminate the conflict or avoid endangering effects on either the existing or proposed facilities, the Contractor shall immediately notify the Engineer and the Owner of the affected structure. When any existing facilities are endangered by the Contractor's operations, he shall cease his operations at the site and take such precautions as may be necessary to protect the in place structures until a decision is made as to how the conflict will be resolved.

B. Without specific authorization from the Engineer, no essential utility service shall be disrupted, nor shall any change be made in either the existing structures or the planned installations to overcome the interference. Alterations in existing facilities will be allowed only to the extent that service will not be curtailed unavoidably and then only when the encroachment or relocation will satisfy all applicable regulations and conditions.

C. Wherever alterations are required as a result of unforeseen underground interference not due to any fault or negligence of the Contractor, the Engineer will issue a written order covering any additional or extra work involved and specifying the revised basis of payment, if any. Any alterations made strictly for the convenience of the Contractor shall be subject to prior approval and shall be at the Contractor's expense.

D. No extra compensation will be allowed for delays caused by the interference of underground structures.

3.04 SEPARATION BETWEEN SANITARY SEWERS AND WATER MAINS

A. Sanitary sewers and service lines shall be installed so that the separation between the sewer and water mains is not less than 9 feet in all directions. The 9 feet shall be measured between the nearest outside edges of the pipe.

B. When the required 9 foot minimum separation cannot be maintained and a sanitary sewer must be constructed parallel to a water main, the sanitary sewer shall be constructed of ductile iron or PVC pipe meeting AWWA specification or having NSF approval for potable water pipe, with a pressure rating of 100 psi for both the pipe and the joint. The sanitary sewer line shall

be installed in a separate trench and may be placed no closer than 2 feet vertically and 4 feet horizontally from the water main, with the separation being measured from the nearest outside walls of the pipes. The sanitary sewer shall be constructed lower than the water main.

C. When a sanitary sewer must cross a water main and the 9 feet required separation cannot be maintained, the sanitary sewer may be constructed with a minimum clear separation between the outside diameters of the two pipes of 6 inches if that part of the sanitary sewer within 9 feet of the water main is constructed of ductile iron pipe or PVC pipe meeting AWWA specifications, having a 150 psi pressure rating and equipped with pressure type joints. One length of the sewer pipe must be centered on the water main and where possible, the sanitary sewer should pass under the water line.

D. When the 9 foot required separation cannot be maintained and a sanitary sewer force main must be constructed parallel to a water main, the sanitary sewer force main shall be constructed of ductile iron or PVC pipe meeting AWWA specifications and having a pressure rating of 150 psi and equipped with pressure type joints. The force main must be constructed with a minimum vertical separation of 2 feet and a minimum horizontal separation of 4 feet measured between the outside diameters of the pipes. The force main must be constructed lower than water main.

Table I showing separation of water and sewer lines and construction materials allowed:

TABLE 1
SEPARATION OF WATER AND SEWER LINES

Condition	Location	Material		Separation (Min.)		Comments
		Water	Sewer	Vert.	Horiz.	
NEW WATER AND NEW SEWER SYSTEM						
New Water & New Sewer Gravity Sanitary Sewer Parallel to Water Main	Water above Sewer	Std.	CI DI PVC 150 PSI	2’	4’	Separate Trenches
Gravity Sanitary Sewer Crossing Water Main	Water above Sewer or Sewer above Water	Std	CI DI PVC. 150 PSI	6”	NA	Center one joint of sewer pipe on water main
Gravity Sewer Crossing Water Main	Water above Sewer	Std	ABS, Clay Conc. composite	2’	NA	Cement stabilize sand initial backfill zone each side of crossing. Center of sewer for 9 ft one joint of sewer pipe on water Main
NEW WATER AND EXISTING SANITARY SEWER						
New Water Parallel Existing Sewer	Water above Sewer	Std.	Clay, Conc. ABS CI DI PVC	2’	4’	If sewer shows no sign of leakage, then leave sewer alone. If Sewer shows signs of leakage, then repair or replace.
New Water Crossing Existing Sewer	Water above Sewer	Std	Clay, ABS Conc. composite	2”	NA	If sewer shows no sign of leakage, then leave sewer alone if sewer shows signs of leakage then repair or replace.
New Water Crossing Existing Sewer	Sewer above Water	Std	Clay, ABS Conc. composite	2’	NA	Replace existing sewer with one joint CI,DI,PVC-150 Centering over waterline
New Water Parallel to Existing Sewer	Sewer above Water	Std	Clay, ABS Conc. composite	2’	4’	Replace existing sewer with CI, DI, PVC – 150 PSI or Cement Stabilized sand back- fill initial Backfill none of sewer where parallel closer than 9 ft., or Encase the water in 150 PSI Pipe two nominal sizes larger.

EXISTING WATER AND NEW SANITARY SEWER						
New Sewer parallel Existing Water	Water above Sewer Or Sewer above Water	Std	CI DI PVC 150 PSI	2'	4'	Separate trenches
New Sewer crossing Existing Water	Water above Sewer or Sewer above water	Std	CI DI PVC 150 PSI	6"	NA	Center one joint of sewer pipe on water main.
New Sewer crossing Existing Water	Water Above Sewer	Std	Clay, ABS Conc. composite	2'	NA	Cement Stabilize sand initial backfill zone of sewer for 9 ft each side of crossing. Center one joint of sewer pipe on water main.

3.05 EXCAVATION

A. Excavation of every description and of whatever materials encountered shall be made to the alignment and depth shown on the plans or as directed by the Engineer. Excavation shall be made by open cut. Sides of trenches shall be kept as nearly vertical as possible and the trench shall be so braced, sheeted and drained that workmen may work safely and efficiently therein. The trenches shall be sufficiently straight between designated angle points to permit the pipe to be laid true to line in the approximate center of the trench.

B. The trench width may vary with and depend upon the depth of trench, the diameter of pipe to be laid and the nature of the material to be excavated; but in any case shall be of ample width to permit the pipe to be laid and jointed properly and the backfill to be placed and compacted properly. The minimum width of unsheeted trench shall be 18 inches. The maximum clear width of trench at the top of the pipe shall be not more than two (2) feet greater than the outside diameter of the pipe for pipes up to 33" diameter except by consent of the Engineer. Whenever, for any reason, the maximum trench width is exceeded, the Contractor shall provide, at his own expense, pipe of higher class and/or bedding adequate to sustain the increased soil load as calculated by the Engineer.

C. Trenches shall be undercut to provide for the class bedding specified and/or shown on the plans. Bell holes shall be excavated to insure the pipe resting for its entire length upon the bedding material. Where trenches are under-cut beyond the depth required for bedding the trench shall be brought to grade by using crushed aggregate as specified for foundation herein. The use of loose native soil will NOT be permitted for this purpose.

D. No pipe shall be laid in water. Where the ground water table is at or above trench bottom, the Contractor shall de-water the trench to permit the pipe to be laid on a solid foundation.

   Costs for de-watering by whatever method selected shall be considered incidental to the price bid per foot of pipe.

   The Contractor shall discharge pumps to the natural drainage channels, or if permitted, to other sewer or drains.

Where sewer pipelines are located in or across streambeds or drainage ditches, the Contractor shall divert the stream flow and de-water each section as the work progresses.

E. Temporary support, adequate protection and maintenance of all underground and surface utility structures, drains, sewers, and other obstructions encountered in the progress of the work shall be furnished by the Contractor at his own expense under the direction of the Engineer.

F. Whenever wet, soft or unstable soil, incapable of properly supporting the pipe, manholes or other structure is encountered in the trench, a further depth and/or width shall be excavated and refilled to trench bottom grade with gravel or other approved suitable material thoroughly compacted to assure a firm foundation for the pipe.

G. Rock, boulders and large stones shall be removed to provide a clearance of at least six (6) inches below the outside barrel of the pipes, valves, or fittings and to a clear width of six (6) inches on each side of all pipe and appurtenances for pipe 15 inches in diameter or less, and a clear width of nine (9) inches on each side of all pipe and appurtenances for pipe larger than 15 inches in diameter. Adequate clearance for properly joining pipe laid in rock trenches shall be provided at bell holes. The space between the rock at the bottom of the trench and the bottom of the pipe barrel shall be filled with compacted bedding material.

H. The Engineer shall be notified of any need for blasting to remove materials which cannot be broken up mechanically, and there shall be no blasting operations conducted until the Engineer's approval has been secured. Blasting operations will be allowed only when proper precautions are taken to protect life and property, and then shall be restricted as the Engineer directs. The Contractor shall assume full responsibility for any damage caused by blasting, regardless of the requirements for notification and approval. The Contractor shall secure any required permits for blasting and shall conduct blasting operations in conformance with all applicable State and local laws, regulations and ordinances.

I. In the event the Contractor desires to employ tunneling in locations other than as shown on the Plans in order to avoid replacement of sidewalks, etc., he shall do so only upon receipt of specific permission from the Engineer. Tunneling of this nature shall be considered incidental.

J. Excavated materials will be classified for reuse as being either suitable or unsuitable for backfill or other specified use.

3.06 SPECIAL SAFETY PROVISIONS

1. TRENCH SAFETY SYSTEMS

A. DESCRIPTION

This item shall govern for the Trench Safety Systems required for the construction of all trench excavation to be utilized in the project and including all additional excavation and backfill necessitated by the safety system. A trench shall be defined as a narrow excavation (in relation to its length) made below the surface of the ground. In general, the depth is greater than the width, but the width of a trench (measured at the bottom) is not greater than 15 feet. The depth is five feet or more. Trench Safety Systems include but are not limited to sloping, sheeting, trench boxes or trench shields, sheet piling, cribbing, bracing, shoring, de-watering or diversion of water to provide adequate drainage.

B. CONSTRUCTION METHODS

Trench safety systems shall be accomplished in accordance with the detailed specifications set out in the provisions of Excavation, Trench, and Shoring, Federal Occupational Safety and Health Administration (OSHA) Standards, 29CFR, Part 1926, Subpart P, as amended, including Proposed Rules published in the Federal Register (Vol. 52, No. 72) on Tuesday, October 31, 1989. The sections that are incorporated into these specifications by reference include Sections 1926-650 through 1926-652. Legislation that has been enacted by the Texas Legislature, being Tex. Rev. Civ. Stat. Ann. Arts. 1015q, 2368a.6 (Vernon Supp. 1988) with regard to Trench Safety Systems, is hereby incorporated, by reference into these specifications.

A reproduction of the OSHA Publication 2226 is attached for the convenience of the Contractor. The City assumes no responsibility for the accuracy of the reproduction or that it reflects current law. The Contractor is responsible for obtaining a copy of this section of the Federal Register for his use.

If the contractor elects to use a trench protective system that, in the Proposed Rules, requires “Design by a qualified person or a qualified engineer,” [For example see 1926.652 (b) (3) and 1926.652 (c) (4)], a “qualified person or qualified engineer” shall be a Professional Engineer registered in the State of Texas. The Contractor is responsible for obtaining boring and soil analysis as required for the planned design. The trench excavation is to be designed in conformance with OSHA standards and regulations.

C. TRENCH SAFETY PROGRAM

The Contractor shall submit a safety program specifically for the construction of trench excavation. The trench safety program shall be in accordance with OSHA standards governing the presence and activities of individuals working in and around trench excavation.

D. INSPECTION

The Contractor shall make daily inspections of the Trench Safety Systems to ensure that the systems meet OSHA requirements. Daily inspection is to be made by a "competent person" provided by the Contractor. If evidence of possible cave-ins, or slides, is apparent, all work in the trench shall cease until the necessary precautions have been taken by the Contractor to safeguard personnel entering the trench. It is the sole duty, responsibility and prerogative of the Contractor, not the owner or the Engineer, to determine the specific applicability of the designed trench safety systems to each field condition encountered on the project. The Contractor shall maintain a permanent record of daily inspections.

2. SAFETY RESTRICTIONS - work near high voltage lines

The following procedures will be followed regarding the subject item on this contract:

A. Warning signs painted yellow with black letters that are legible at twelve feet shall be placed inside and outside vehicles such as cranes, derricks, power shovels, drilling rigs, pile drivers, hoisting equipment or similar apparatus. The warning sign shall read as follows:

"WARNING - UNLAWFUL TO OPERATE THIS EQUIPMENT WITHIN SIX FEET OF HIGH VOLTAGE LINES."

B. All equipment except back hoes or dippers that may be operated within ten feet of high voltage lines shall have an insulating cage-type of guard about the boom or arm and insulator links on the lift hook connections.

C. When necessary to work within six feet of high voltage electric lines, notification shall be given the power company who will erect temporary mechanical barriers, de-energize the line, or raise or lower the line. The notifying department shall maintain an accurate log of all such calls to the Power Company, and shall record action taken in each case.

D. The Contractor is required to make arrangements with the Power Company for the temporary relocation or raising of high voltage lines at the Contractor's sole cost and expense.

3.07 PIPE LAYING

A. All gravity pipe shall be laid using approved grade boards, furnished and set by the Contractor at no additional cost to the Owner, according to the grade stakes established by the Engineer. The maximum spacing of grade boards shall be fifty (50) feet. No sewer shall be laid unless there is a minimum of three grade boards set to check the proper grade and alignment ahead. The Contractor shall provide and use a suitable grade rod to insure the proper grade of the pipe.

B. The Contractor may use the laser beam method of setting a line and grade for the sewer by using the laser beam coaxially through the center of the sewer being laid. The laser beam projector is to be rigidly mounted to its support platforms, with a two-point suspension, or equivalent, assuring that all ground and equipment vibrations are kept to an absolute minimum. The Contractor shall furnish all equipment including equipment necessary to control atmospheric conditions in the pipe to keep line and grade to acceptable standards of accuracy. Competent experienced people who have been properly trained to operate the equipment used must operate the laser beam system.

C. The Contractor shall stake check pegs at all manholes throughout the job. Check pegs midway between manholes and any other checkpoints deemed necessary to assure accuracy of the equipment shall be provided by the contractor.

D. Each piece of pipe and special fitting shall be carefully inspected before it is placed and no defective pipe shall be laid in the trench. Pipe laying shall proceed upgrade, starting at the lower end of the grade and with the bells uphill. No pipe shall be laid except in the presence of an inspector representing the Engineer. Any pipe laid except in the presence of an inspector representing the Engineer shall be subject, at the contractor's expense, to a television camera inspection and survey by the city. Trench bottoms found to be unsuitable for foundations after pipe laying operations have started shall be corrected and brought to exact line and grade with approved compacted granular material as specified for foundation in Item 2.07 A. of these specifications.

E. Pipe laying shall proceed up-grade with spigot or tongue ends pointing in the direction of flow. The spigot shall be centered in the bell, and pipe shoved into position, and brought into true alignment. It shall be secured there with bedding material carefully tamped under and on each side of it, excepting at bell holes. Care shall be taken to prevent dirt from entering the joint space.

F. Any defective or damaged pipe discovered after the line is laid or any gravity pipe, which has had its grade or joint, disturbed after laying shall be removed and replaced or relayed. The section of line in which such damaged or displaced section is discovered shall be retested after corrections are made.

G. Where excavation for buildings or other portions of the work have been carried below the line and grades of the pipe, thorough tamping of approved crushed stone backfill and the use of adequate bracing and blocking under the pipe will be required to insure against settling and shearing of the pipe. In areas where noted on plans, Portland cement stabilized material or concrete shall be used for backfill to provide adequate bracing for pipe and protection of structures.

H. All manhole connections for PVC or other Polymer based pipe shall be made using "A Lok Gaskets" or "Kor-N-Seal" boots or other approved water stop devices. Only Portland cement grout that expands upon curing or approved non-shrink grout will be incorporated into any manhole connection.

I. Connections to manholes for other types of pipe shall be in accord with the pipe manufacturers specifications and other applicable requirements of these specifications. The resulting joint shall meet the leakage test requirements of these specifications.

J. The exposed end of all pipes shall be fully protected with a stopper or bulkhead at the end of each day's work to prevent earth, debris, small animals, or other substances from entering the pipe. The interior of the sewer shall be carefully freed from all dirt, jointing compound, or superfluous material of every description as the work progresses.

3.08 CONNECTION AND ASSEMBLY OF JOINTS

1. JOINING PVC OR OTHER POLYMER BASED PIPE

A. The type of joint and the material to be used shall be as shown on the plans or specified herein. Factory cast compression joints shall be free of dirt and lubricated before inserting the barrel into the bell. After the spigot is centered in the bell, the pipe shall be shoved home solidly by using a wood block and bar. The Contractor shall keep the ends of the pipe closed to prevent dirt and other material from entering the pipe during placement. All joints must be water tight, and any leaks or defects discovered must be repaired immediately. Any pipe, which has been disturbed after being laid, must be taken up, the joint cleaned and properly relayed as directed by the Engineer.

Lubricant used shall be as recommended by the pipe manufacturer.

B. Field-cut pipe must be beveled for insertion into the gasketed bell or coupling. Bevels can be made with a hand or power tool. Bevels shall be made to pipe manufacturer's specifications. If pipe manufacturers specifications are not available the bevel may be made at 15 degrees to the longitudinal axis of the pipe through one half (l/2) the wall thickness.

C. After pipe has been cut and beveled, a new full insertion mark located as recommended by the pipe manufacture shall be made using a felt tip pen. The contractor may determine the location of the insertion mark by measuring the mark location on a factory marked joint of pipe if manufacturer's specifications are not available.

2. JOINTING CORRUGATED STEEL PIPE

A. Gaskets for corrugated steel pipe shall be "O" Ring or sleeve types. Sleeve gasket shall be carefully placed on one joint of pipe. When the pipe is aligned and brought end to end the gasket shall be carefully centered over the joint between the ends of the pipe. "O" ring gasket shall be installed in accordance with the manufacturer's recommendation.

B. When "O" ring gaskets are furnished a flat gasket shall be furnished and placed between the overlapping portions of the band. The gasket shall extend the full width of the band and shall be of sufficient depth to assure a watertight joint.

C. The coupling band shall be carefully centered over the joints and tightened to the pipe manufacturer specifications. Care shall be taken during the tightening process to assure a snug uniform fit for the entire circumference of the pipe.

3. PROTECTING AND COVERING JOINTS

A. The contractor shall keep the ends of the pipe closed during the time of construction to prevent the entry of dirt, debris, small animals and other foreign objects.

B. Joints shall not be covered until approved by Engineer or his representative. Connections, which are for future use, shall be properly capped.

3.09 CONNECTIONS TO EXISTING STRUCTURES

A. Where shown on the plans, the contractor shall connect the new sewer to existing manholes. If no stub out is present in the existing manhole for such connection, the contractor shall construct such connection by making a hole in the side of the existing manhole using a coring machine or other approved method and installing a “KOR N Seal” boot as manufactured by N.P.C. Systems, Inc. or other approved water tight manhole connector.

The contractor shall use caution in constructing the connection to the existing manhole. Damage to the manhole that, in the opinion of the Engineer, would impair the use and/or function of the manhole shall be just cause to require the contractor to reconstruct the manhole at contractor’s expense. Such damage shall include but not be limited to cracking of the manhole riser section, spalling around the connection significantly reducing manhole wall thickness or excessive oversize in the opening for the new connection requiring any filler other than the manhole connector and/or non-shrink grout specified.

The contractor shall make such changes in the invert of the manhole as may be necessary to provide a smooth flow of the water through the manhole. Any connection to existing structures required in the Plans shall be accomplished by the Contractor and shall be incidental item with no direct compensation being made unless listed as a pay item in the bid proposal.

B. If the work consists of the construction of a sewer that is to replace an existing sewer, all of the existing service lines shall be kept in operation and connected to the new line.

C. Connections shall be made to all existing sewer lines in the vicinity of the work by removing a section of the sewer for the existing line and inserting in the space a tee branch of proper size, or by the construction of a manhole, regulator chamber of other structure as shown on the Drawings.

D. Connections to building services shall be made in a neat and workman like manner. Clean out plugs shall be installed wherever feasible, by making the connections with a standard wye or tee-wye. When clean out plugs are installed they should be located as near the right of way line as practical.

3.10 BACKFILL OPERATIONS

1. GENERAL

A. All pipeline excavations shall be backfilled in a manner that will restore pre-existing conditions as the minimum requirement and fulfill all supplementary requirements indicated in the Plans and Specifications. The backfilling operations shall be started as soon as conditions will permit on each section of pipeline, so as to provide continuity in subsequent operations and restore normal public service as soon as practicable on a section-by-section basis. All operations shall be pursued diligently, with proper and adequate equipment, to assure acceptable results.

B. For this specification backfill is defined as any material placed in the trench above the bedding zone other than the pipe or conduit and appurtenance.

For flexible pipe the backfill between the bedding material and the crown of the pipe shall be crushed stone suitable for encasement as specified in article 2.07 of the specifications. When Portland cement stabilized backfill is used above the pipe zone; the crushed stone encasement shall extend to 1' above the crown of the pipe.

C. Depositing of the backfill shall be done so the shock of falling material will not injure the structure. Grading over and around all parts of the work shall be done as directed by the Engineer.

D. Whenever soil types which are determined by the Inspector to be undesirable for backfill are excavated from the trench, such material shall be hauled away and deposited at locations shown on the plans or as directed by the Engineer at no additional compensation.

E. Backfill materials placed in the pipe zone shall be carefully placed in relatively uniform depth layers spread over the full width and length of the trench section in a manner and/or sequence that will provide simultaneous support on both sides of the pipeline. Each layer shall be compacted effectively, by approved mechanical of hand methods, until there is no further visual evidence of increased consolidation. Above the pipe zone the backfill material shall be placed uniformly across and along the trench in depth suitable for the compaction method used and compacted to a minimum of the density specified for the material used and the trench location. Compaction of the in place layer shall be completed acceptably before placing material for a succeeding layer thereon.

The manner of placement, layer thickness, compaction equipment, and procedure effectiveness shall be subject to approval of the Engineer. Water jetting or flooding shall NOT be used to compact trench backfill.

F. Compaction of materials placed within the pipe bedding and encasement zones shall be accomplished with portable or hand equipment methods, so as to achieve thorough consolidation under and around the pipe and avoid damage to the pipe. Above the pipe zone, the use of heavy roller type compaction equipment shall be limited to safe pipe loading.

G. The maximum loose thickness of each backfill layer placed above the pipe zone shall be 12 inches, except that 16 inches will be permitted for Granular Materials placed above an elevation one foot above the top of pipe, and with the provision that, by authority of the Engineer and in consideration of the demonstrated capability of special type vibratory compactors, these maximums may be increased at his discretion. “Hydro tamps”, “vibra tamps” or other heavy compacting equipment shall not be used until the backfill has reached a depth of four (4) feet above the top of the pipe.

H. All surplus or waste materials remaining after completion of the backfilling operations shall be disposed of in an acceptable manner within 24 hours after completing the backfill work on each particular pipeline section. Disposal at any location within the project limits shall be as specified, or as approved by the Engineer; otherwise, disposal shall be accomplished outside the project limits at the Contractor’s discretion. The backfilling and surplus or waste disposal operations shall be a part of the work required under the pipeline installation items, not as work that may be delayed until final cleanup.

I. For the duration of the warranty period of the project, the Contractor shall assume full responsibility and expense for all backfill settlement and shall refill and restore the work as directed to maintain an acceptable surface condition. All additional materials required shall be furnished without additional cost to the Owner.

2. BACKFILL IN PUBLIC RIGHTS-OF-WAY AND OTHER AREAS WHERE SETTLEMENT IS CRITICAL

A. GENERAL REQUIREMENTS

(1). Backfill above the pipe zone in public rights-of-way and under paved parking lots, near structures or other utilities where settlement can cause damage shall be made using Portland cement stabilized backfill or crushed stone screenings (crusher fines).

The pipe zone is defined as that portion of the trench extending from the bottom of the trench to 12” above the crown of the pipe or conduit.

(2) Backfill around structures such as manholes, junction boxes, transformer boxes and valve boxes shall be made using Portland cement stabilized backfill material or crushed stone screening (crusher fines).

(3) The minimum depth of stabilized backfill or crusher fines shall be twelve (12”) inches.

When utilities are being constructed under existing paving, the stabilized backfill or crusher fines shall extend from top of the pipe zone to the top of the base course.
When utilities are being constructed under existing unpaved streets that are not scheduled for immediate pavement construction, the stabilized backfill or crusher fines shall extend from the top of the pipe zone to the existing roadway surface.

When utilities are being constructed in streets that are scheduled for immediate paving, the stabilized backfill or crusher fines shall extend from the top of the pipe zone to the bottom edge of the eight (8”) inches of subgrade, or, if the paving contractor has constructed a portion of the roadway prior to the construction of the utilities the backfill shall extend to the top of the course the contractor has finished, or the top of the base course, which ever is lower.

If the final course of asphaltic concrete has been placed, the street or alley surface shall not be cut for utility installation.

In streets where stabilized backfill is required only to the bottom of the subgrade course, the minimum depth of stabilized backfill may be reduced to six (6”) inches in which case the maximum depth of the “pipe zone” shall be limited to six (6”) inches above the top of the utility line or conduit.

B. BACKFILL MATERIALS

(1) Portland cement stabilized backfill shall consist of caliche base material, blow sand or native soil stabilized by the addition of Portland cement. Crushed stone or concrete aggregate shall NOT be used.

When Portland cement stabilized backfill is to be used, the contractor shall submit a mix design prepared by an approved commercial laboratory for approval before the trenching operation is begun. When native soil is to be used samples may be taken along the proposed route by boring or other approved means. Samples must be representative of the full trench depth.

The mix design shall be such that the minimum 7-day compressive strength is 150 psi when tested according to test method Tex 418-A.

The minimum cement content for Portland cement stabilized backfill shall be 1 sack per cubic yard.

Cement used in Portland cement stabilized backfill shall be Type I or Type II conforming to the requirements of ASTM Designation C150.

Caliche used for Portland cement stabilized backfill shall be crushed material conforming to Texas State Department of Highways and Transportation 1982 Standard Specifications for Construction of Highways, Streets and Bridges Item 248 Type F, Grade 2.

Blow sand used for Portland cement stabilized backfill shall be clean, free from organic matter, clay lumps, rock and other deleterious matter.

Native soil used for Portland cement stabilized backfill shall be clean, free of clods and organic matter, and free of rock in excess of 2”.

(2) Crushed stone screening (crusher fines) used for back fill shall be sharp grained particles of crushed stone conforming to the requirements of Article 2.07 of these specifications.

(3) Trencher excavated rock material shall be screened so that the largest diameter material is less than 2". The screened rock material used for backfill shall have sufficient moisture added so that the backfill will bind with the fines. The rock material backfill shall be tamped or compacted in two (2) foot lifts. A sheeps foot roller shall not be used unless there is two (2) feet or more compacted backfill above the pipe bedding.

C. BACKFILL CONSTRUCTION

(1) Portland cement stabilized caliche backfill or Portland cement stabilized native soil backfill may be constructed using either the "dry" method or the "wet" method.

(a) The dry method of stabilized backfill construction consists of dry mixing of the cement and caliche or soil to produce a homogenous mixture then adding and mixing sufficient water for proper compaction and hydration of the cement. The water content of the mixture will be approximately one to two percent above the optimum moisture for soil compaction. The mixing may be accomplished by using batch mixers or on the job site by "blade mixing" or other suitable method to produce the desired backfill material. The mixed material shall be placed in lifts of up to a maximum of 12 inches and compacted to ninety-five (95%) modified proctor densities by use of suitable compacting equipment.

(b) In the "wet" method of cement stabilized backfill construction, the materials shall be mixed in an approved concrete batching plant or mixer to the consistency of concrete and placed as concrete would be placed. The slump of the backfill material shall be such that all voids will be filled, approximately four (4") to six (6") inches. The backfill shall be consolidated by rodding or by the use of mechanical vibrators.

Portland cement stabilized blow sand backfill shall be mixed and placed by the "wet" method as described above.

Crushed stone screening (crusher fines) shall be wetted uniformly throughout with sufficient moisture to assure proper compaction before being placed in the trench. The moistened crushed stone screening (crusher fines) shall be placed in maximum lifts of twelve inches and consolidated using vibratory type compaction equipment except when it has been demonstrated that the compaction equipment employed will adequately compact deeper lifts in which case the maximum depth of a lift shall be limited by the capabilities of the equipment used.

Tests to determine the compacted density of the backfill shall be ordered by the Engineer if in his opinion the compaction is not adequate. Test showing a minimum compacted density of 90%-modified proctor will be deemed adequate.

3. BACKFILL OUTSIDE OF PUBLIC RIGHTS-OF-WAY WHERE SETTLEMENT IS NOT CRITICAL

A. In areas outside of public rights-of-way and in the absence of special work item requirements the backfilling shall be accomplished with the use of suitable materials selected from the excavated materials to the extent available and practical. Should the materials available from the trench section be unsuitable or insufficient, the required additional materials shall be furnished from outside sources at the Owners expense.

B. Suitable material shall be defined as a mineral soil reasonably free of foreign materials (rubbish, debris, etc.) frozen clumps, oversize stone, rock, concrete or bituminous chunks and other unsuitable materials, that may damage the pipe installation, prevent thorough compaction, or increase the risks of after settlement unnecessarily. Material selection shall be such as to make the best and fullest utilization of what is available, taking into consideration particular needs of different backfill zones. Material containing stone, rock, or chunks of any sort shall only be utilized where and to the extent there will be no detrimental effects.

C. The backfill material placed in this area shall be compacted by suitable means to a minimum density equal to the density of the undisturbed surrounding soil. City Engineer MUST approve water flooding as a means of compaction.

4. TRENCH BACKFILL BEHIND CURB AND GUTTER

A. When utilities are placed behind the curb in paved streets and other landscaped areas the backfill shall be the same as elsewhere in the right-of-way or other applicable location except that in grassed areas and in flower beds the top six (6") inches of backfill shall be good quality top soil. When utilities are placed behind the curb in grassed or landscaped areas where no sidewalk is to be constructed and the edge of the trench is a minimum of 2 feet from the back of curb or where sidewalk is to be constructed and the minimum distance from both the back of curb and the edge of the sidewalk to the edge of the trench is 2 feet the contractor may elect to use suitable native soil for backfill. The native soil backfill shall be compacted to 95% modified proctor density to within 6" of the top of curb height. The top 6" of backfill shall be good topsoil and shall be compacted to the density of the adjacent soil.

B. Sidewalks shall be repaired by removing and replacing the complete section or sections that have been damaged. Strip patching through sidewalks will not be permitted.

The replacement sidewalk shall be of the same design and section as the walk removed and shall be of equal or better workmanship.

C. When utilities are placed in paved areas behind curbs the pavement shall be repaired as specified for street pavement.

D. Grassed areas and flowerbeds shall be restored as nearly as possible to the original condition. Care shall be taken to avoid damage to sprinkler systems.

Mail boxes and other appurtenance in the construction area. Any damage to said items shall be repaired immediately.

E. All repairs made behind the curb shall be to the satisfaction of the property owner responsible for their maintenance and/or to the satisfaction to the City Engineer.

3.11 INLET STRUCTURES AND LEADS AND CLEANOUTS FOR STORM SEWERS

A. Corrugated Galvanized Steel Slotted Drains for Nuisance water inlets only.

(1) Slotted drains shall be the sizes and lengths as shown on the plans and constructed at the locations as shown on the plans or at locations to be established on the job site.

(2) Slotted drains shall not be installed under asphalt pavement but shall have a section of concrete gutter constructed around it as shown on the detail drawings.

Slotted drains shall be protected from the entrance of debris, concrete or HMAC by closing the slot with one or two layers of heavy duct tape or similar material. In addition, the slot for slotted drain shall have a 2-½ inch or ¾ inch board attached to use as a guide for placing and edging the concrete.

Unless otherwise approved or directed by the Engineer the removal of tape and planking from the slotted drain should be accomplished as part of the final clean up.

B. Curb inlets, grate inlets and combination inlets

(1) General

Curb inlets, grate inlets and combination inlets may be pre-cast or cast-in-place at the contractor's option unless specifically shown otherwise on the plans and bid proposal.

(2) Pre-cast inlet boxes

(a) Construction and finish for pre-cast inlet boxes shall conform to details shown on the plans and all applicable requirements for pre-cast manholes.

(b) Tops for curb inlets and combination inlets may be cast in place or pre-cast. Extra care will be required in setting pre-cast tops to assure curb and gutter match.

(c) Pipe connections, bedding, setting and backfill for pre-cast inlets shall be in accord with the applicable requirements for pre-cast manholes article 3.12 of these specifications.

(3) Cast in place inlets

(a) Cast in place inlets shall be constructed of class "C" reinforced concrete as specified in item 1-B "Concrete for Structure" in these specifications.

(b) Forms for cast in place inlets shall be straight, clean and in good condition. Forms shall be properly cleaned and oiled before concrete is placed.

(c) Construction joints may be placed in cast in place inlets at locations shown on the plans. When construction joints are used, extra care will be required to assure that the joints are watertight.

(d) Cast in place inlets may be cast without outside forms if the soil conditions are such that true vertical walls can be cut and will stand during construction without sloughing or otherwise incorporation foreign materials into the concrete.

(e) When inlets are cast without outside forms, a plastic sheet lining may be required to prevent excessive loss of moisture from the concrete and/or to prevent incorporation of foreign material into the concrete.

A. Inlet Leads

(1) Inlet leads shall be constructed of corrugated steel pipe, PVC pipe or other material as called for on the plans and in the bid proposal.

(2) Construction of inlet leads shall be in accord with the applicable requirements for the type of pipe used.

(3) Junctions where two or more inlet leads are joined shall be made at clean outs or manholes.

B. Cleanouts

(1) Clean outs shall be constructed in accord with the plans and detail drawings.

(2) Construction and connections shall be in accord with the applicable specifications for construction of corrugated steel pipe manholes.

3.12 SANITARY SEWER SERVICES AND PLUGGED STUBS

A. Sanitary Sewer Services:

(1) On new sewer main construction all sewer laterals shall be constructed as part of the initial installation. Sewer wye fittings for sewer laterals in new construction shall be molded or fabricated with all gasketed connections. Four (4”) inch laterals shall be installed at all single-family residences and duplex. Laterals installed for apartment complexes, commercial and industrial areas shall be a minimum of six (6”) inches. Depth of laterals will be determined by depth of sewer main and applicable building codes. Laterals shall be installed using tee wyes or wyes and bends so that they will be at 90 degrees to the sewer main. Laterals shall extend to 3’ minimum beyond the property line of the served lot or tract. The contractor shall install sewer laterals according to the typical sewer lateral detail and the most current revisions of the Plumbing Code.

(2) Taps into existing lines shall use a gasketed fitting in conjunction with a full circle repair sleeve coupling, except that taps into existing ductile iron sewer may be made using the Genco Model DF sewer pipe saddle (The General Engineering Co., Frederic, MD Drawing No. R-3220-D dated 12/29/82) or approved equal.

(3) Cemented mitered connections without socket reinforcement shall not be permitted. The contractor will be permitted to use fittings, which are prefabricated, using pipe sections, molded saddles and PVC solvent cement, provided the solvent cement used in fabrication has cured for at least 24 hours prior to the installation. All solvent cement fittings shall e manufactured in the shop under controlled conditions.

(4) All caps and plugs shall be braced, staked, anchored, wired on or otherwise secured to the pipe to prevent leakage under maximum anticipated thrust from internal abnormal operating conditions or test pressures from water or air.

(5) It shall be the duty of the Contractor to keep a record of sewer service wye locations with respect to the nearest downstream manhole, but the Engineer will record ties on the end of all sewer services at the property line. When installing sewer services the Contractor shall, before backfilling, contact the Engineer or his representatives, and assist him in making ties to the end of the service in the open trench. At least two ties shall be made for each service, and if backfilling proceeds before such ties are made, the Contractor shall dig up the end of all such services, with no additional compensation, for the purpose of making ties. During backfilling the Contractor shall furnish and place a vertical steel post or 2 inch by 2 inch wooden stake set flush with finished ground surface, and extending down to the end of the sewer service, a nail shall be placed in the top of the stake to allow location of the service by metal finder.

(6) The main sewer service connection shall consist of installing an in-line wye section in the main sewer line at designated locations. Saddle wye installations will be permitted only when specifically called for. Orientation of service connection fittings shall be as shown in the standard drawings unless otherwise directed by the Engineer.

(7) Where the depth of cover over the main sewer invert is greater than 8 feet (or such other maximum as may be indicated), the service connection shall be extended outward then upward by use of bends to prevent excess loading on the sewer main in accordance with the details shown in the drawings.

(8) The Contractor shall provide the necessary wyes, tees and bends to bring the service to the proper place at the property line.

(9) Wherever service line connections to the main sewer are permitted or required to be made by the open cutout method in the absence of a built-in tee or wye fitting, the connection shall be made by using an approved type coring machine or by other approved methods producing a uniform, smooth circular cut-out as required for proper fit. The cutout discs shall be retrieved and shall not be allowed to remain within the main sewer pipe. The saddle tee shall be securely fastened to the main sewer pipe by means of epoxy resin or other approved adhesive. The entire connection fitting shall be encased in concrete to a minimum thickness of six inches and as may be shown in the standard drawings.

(10)Wherever service line connections to the main sewer are required to be made by means of built-in branch tee or wye fittings, the Contractor shall, in the absence of such fitting, remove a section of the main sewer pipe and replace it with the required branch tee wye or wye section connected by means of an approved sleeve coupling.

(11)Connections of service lines to the main sewer are required to be made by means of built-in branch tee or wye fittings, the Contractor shall, in the absence of such fitting, remove a section of the main sewer pipe and replace it with the required branch tee wye or wye section connected by means of an approved sleeve coupling.

(12)The end of all service connections shall be plugged with PVC plug and sealed with plastic joint material.

(13)Crushed stone bedding and backfill material, concrete encasement and protection, etc., for service line installation shall be the same as for the sewer lines.

(14)No service connections or laterals shall be covered until they have been inspected and located by the Engineer.

B. INSTALLATION OF PLUGGED STUBS ON SANITARY SEWERS

Plugged pipe stubs for future connections to manholes and sewerage structures shall be installed where shown on the Drawings or directed by the Engineer. The pipe stubs shall be installed in accordance with the specifications and details shown on the Drawings for connecting the type of pipe used to manholes.

3.13 MANHOLES

1. General

The manholes shall be constructed at the locations shown on the plans or as directed by the Engineer and in accordance with the details shown on the plans and as specified herein. After the excavation has been completed, the subgrade for the manhole base shall be graded and leveled. A crushed stone foundation having a minimum thickness of 6 inches shall then be placed on the subgrade. The crushed stone foundation shall be leveled and consolidated before the section of the manhole is placed. Pre-cast base sections shall sit in place level and plumb and to the lines and grade as shown on the plans. Cast in place bases shall be placed around the existing sewer line in accord with the plans and detail sheet. When pre-cast manhole bases are used, riser construction may proceed when the base is set on line and grade. When cast in place manhole bases are used, riser construction may proceed when the base has set sufficiently to support the weight of the riser.

Manholes shall be of the type and material shown on the plans and called for in the bid proposal and shall conform to these specifications.

All lift holes shall be filled with approved non shrink grout and bituminous material before final acceptance. Use of bituminous material or other flowable material alone to plug lift holes will not be permitted. Voids in the invert around the sewer pipe on the

inside wall of the manhole shall be grouted with cement rich grout, to conform to the rest of the wash, in accordance with the standard manhole details.

The backfill around the manhole shall be done in accordance with the details shown on the plans and trench backfill specifications.

The Contractor shall take whatever precautions necessary to protect the manholes that are under construction. At the end of the day or at such time as the Contractor deems necessary, all manholes not completed shall be covered, sealed, plugged, etc. to prevent the inflow of storm water or other objectionable material, and to prevent animals and humans from getting into the manhole.

2. PRE-CAST CONCRETE

A. Pre-cast tub bottom sections of manholes shall be set on a crushed stone foundation or bedding according to the details shown on the plans. Care shall be exercised to assure true alignment and grade for the pipe openings.

The invert of the manhole shall be constructed of cement rich grout and shall be formed to true lines; grades and curvature to assure smooth flow through the manhole. The invert shall have a steel trowel finish.

Joints for pre-cast concrete manhole riser sections shall be made Watertight by use of bitumastic or rubber sealers or “O” ring gaskets. Both sides of the tongue and groove joint shall be painted with a bitumastic primer before assembly.

The bitumastic or rubber sealer shall be clean and pliable and shall deform under the pressure of joint closure to assure a complete water tight seal. Care shall be exercised to assure proper alignment of the joint. The walls of the completed manhole shall be straight and vertical.

B. Pre-cast eccentric cone sections and precast slab manhole tops with eccentrically located manway shall be set with the manway adjacent to the up stream side of the manhole. The joints between the cone or slab top and the manhole riser shall be sealed in the same manner as the joints between the riser section. Care shall be taken in placing the cone and or slab tops to assure the manhole ring and cover can be set to match the finished paving.

C. Pre-cast grade rings will be used, when required, to bring the manhole ring and cover up to the finished grade. Grade rings may be set using cement rich grout or bitumastic seal and such as Ram-Nek or approved equal. When cement rich grout is used, care shall be taken that the space between the cone or slab top and the first grade ring and between the grade rings are completely filled without voids.

When bitumastic sealer is used the joints shall be constructed in the same manner as the joints between the riser sections.

When pre-cast manholes with PVC or other approved polymer lining are called for on the plans and bid proposal and are furnished under this contract they shall be constructed as other pre-cast concrete manholes.

In addition the joints in the lining shall be sealed by hot air welding, use of epoxy coating, or other approved means.

3. CAST IN PLACE MANHOLE BASES

A. Cast in place manhole bases shall be used only where shown on the plans or as directed by the Engineer and shall be constructed in accord with the details shown on the plans.

B. Special care shall be taken in casting the surfaces that will mate with the first risersection to assure a smooth even fit and a watertight joint.

C. The first riser section to be used with cast in place manhole bases shall be castwithout tongue or groove. The joint between the riser section and the cast in place base shall be sealed with a bitumastic or rubber sealant in the same manner as the joints in the pre-cast riser sections.

D. Care shall be taken in forming the invert of the manhole around existing sewers to assure adequate opening for the insertion of a “go – no go” mandrel or other testing equipment and cleaning tools.

4. MANHOLE RING AND COVER

A. The tops of the manhole frame and cover (ring) shall be built to the grade shown on the plans. The cast iron frame shall be firmly embedded in mortar.

B. When pressure type manhole rings and cover are specified on storm sewer manholes they shall be bolted to the concrete slab top using the “L” bolts cast into the slab for this purpose. The joint between the ring and the concrete slab top shall be made watertight using a bitumastic or rubber seal and conforming to the requirements of these specifications.

5. CORRUGATED STEEL MANHOLES

A. Corrugated steel manholes shall be constructed in accord with the details shown on the plans and in accord with the applicable requirements for the construction of corrugated steel pipe sewers.

B. Care shall be taken during the placing of backfill around corrugated steel pipe manholes to maintain the horizontal and vertical alignment of the manhole.

C. Since full contact of the flat top slab with the cement stabilized backfill is critical the backfill shall be finished smooth and to the proper grade. A thin layer of cement rich grout shall be placed on the cement stabilized backfill immediately prior to placing the concrete slab top. The grout shall be sufficient t fill all voids between the backfill and the slab and of a consistency to be forced into the voids under the weight of the slab.

3.14 TESTING GRAVITY SEWER MAINS AND MANHOLES

A. Upon completion of the sewer construction including all wyes and service laterals and before any house drains or services are connected, all sewers shall be cleaned and lamped. All runs of sewer between manholes shall be straight and true. Leakage tests shall be made to determine the amount of ground water infiltration into the sewers. Infiltration tests shall be made when groundwater level is 18 inches or more above the top of the outside of the pipe. Measurement will be taken by means of a weir placed in the lines. The maximum allowable rate of leakage shall be 25 gallons per inch diameter per mile of pipe per 24 hours, for any section of pipe with a maximum total leakage of 200 gallons per mile per 24 hours for sanitary sewers with the exception that the maximum leakage for storm drains shall be 200 gallons per inch of diameter per mile per 24 hours with a total maximum leakage of 6,000 gallons per mile per 24 hours.

When the groundwater is not at sufficient height for infiltration testing the Contractor shall use exfiltration to test the sewer lines.

B. In lieu of the infiltration or exfiltration tests the Contractor may perform air tests on the sewers.

C. If the infiltration, exfiltration, or air tests fail to meet requirements specified herein, the Engineer reserves the right to request television work to be done to locate leaks. The Contractor shall furnish all materials and equipment necessary to accomplish all infiltration, exfiltration, air or television testing.

The Contractor shall receive no additional compensation for this testing or inspection work or for repairs of corrective work required to be done to the sewers. The exfiltration tests shall be used in areas where no ground water is present.

D. Test Procedure Hydrostatic (Exfiltration)

(1) The test section shall be bulk headed and the pipe subject to a hydrostatic pressure produced by a head of water at a depth of three (3) feet above the invert of the sewer at the upper manhole under test. In areas where ground water exists, this head of water shall be three feet above the existing water table.

(2) This head of water shall be maintained for a period of one hour during which it is presumed that full absorption of the concrete manhole body has taken place and thereafter for a further period of one (1) hour for the actual test of leakage. Fiber glass manholes are exempt from the one hour absorption requirement. During this one (1) hour test period, the measured maximum allowable rate of exfiltration for any section of sewer shall be the same as allowed for the infiltration test.

E. TEST PROCEDURE AIR

(1) Where the Contractor elects to air test, he shall perform these tests with equipment similar to Air-Loc equipment manufactured by Cherne Industrial, Inc. Hopkins, Minnesota.

(2) The air test shall be made when the sewer is clean. The line shall be plugged at each manhole with pneumatic balls. Low pressure air shall be introduced into the plugged line until the internal air pressure reaches 4.0 psig greater than the average

back pressure of any ground water pressure that may submerge the pipe. At least two (2) minutes shall be allowed for the air temperature to stabilize before readings are taken and the timing started.

(3) When testing pipes 14 inches and less in diameter between consecutive manholes, the portion being tested shall pass if it does not lose air at a rate to cause the pressure to drop from 4.0 to 3.0 psig (greater than the average back pressure of any groundwater that may submerge the pipe) in less time than listed as calculated from Table 1.

When testing pipes greater than 15 inches in diameter between consecutive manholes the portion being tested shall pass if it does not lose air at a rate to cause the pressure to drop from 3.5 psig 3.0 psig (greater than the average back pressure of any groundwater that may submerge the pipe) in less time than that shown in or calculated from Table II.

TABLE I
Specification Time Required for a 1.0 PSIG Pressure Drop for Size and Length of Pipe indicated for Q = 0.0015

Specification Time for Length (L) Shown (min: sec)											
1	2	3	4 (xL)	100 ft.	150 ft.	200 ft.	250 ft.	300 ft.	350 ft.	400 ft.	450 ft.
4	3:46	597	.380	3:46	3:46	3:46	3:46	3:46	3:46	3:46	3:46
6	5:40	398	.854	5:40	5:40	5:40	5:40	5:40	5:40	5:42	5:42
8	7:34	298	1.520	7:34	7:34	7:34	7:34:	7:36	8:52	10:08	11:24
10	9:26	239	2.374	9:26	9:26	9:26	9:53	11:52	13:51	15:49	17:48
12	11:20	199	3.418	11:20	11:20	11:24	14:15	17:05	19:56	22:47	25:38
15	14:10	159	5.342	14:10	14:10	17:48	22:15	26:42	31:09	35:36	40:04
18	17:00	133	7.692	17:00	19:13	25:38	32:03	38:27	44:52	51:16	57:41
21	19:50	114	10.470	19:50	26:10	34:54	43:37	52:21	61:00	69:48	78:31
24	22:40	99	13.674	22:47	34:11	45:34	56:58	68:22	79:46	91:10	102:33
27	25:30	88	17.306	28:51	43:16	57:41	72:07	86:32	100:57	115:22	129:48
30	28:20	80	21.366	35:37	53:25	71:13	89:02	106:50	124:38	142:26	160:15
33	31:10	72	25.852	43:05	64:38	86:10	107:43	129:16	150:43	172:21	193:53
36	34:00	66	30.768	51:17	75:55	102.34	128:12	153:50	179:29	205:07	230:46

1. Pipe Diameter (in.)
Minimum Time (min:sec)
Length for Minimum Time (ft.)
Time for Longer Length (sec)

NOTE: When using column 4 multiply the number in column 4 opposite the pipe diameter by the length of pipe of that diameter and sum the times for the various pipe size in the run being tested. Computations shall include lengths for service connection laterals.

Table II
Specification Time Required for 0.5 PSIG Pressure Drop for Size and Length of Pipe Indicated for Q + 0.0015

Specification Time for Length (L) Shown (min: sec)											
1	2	3	4 (xL)	100 ft.	150 ft.	200 ft.	250 ft.	300 ft.	350 ft.	400 ft.	450 ft.
4	1:53	597	.190	1:53	1:53	1:53	1:53	1:53	1:53	1:53	1:53
6	2:50	398	.427	2:50	2:50	2:50	2:50	2:50	2:50	2:51	3:12
8	3:47	298	.760	3:47	3:47	3:47	3:47	3:48	4:26	5:04	5:42
10	4:43	239	1.187	4:43	4:43	4:43	4:57	5:56	6:55	7;54	8:54
12	5:40	199	1.709	5:40	5:40	5:40	7:08	8:33	9:58	11:24	12:50
15	7:05	159	2.671	7:05	7:05	8:54	11:08	13:21	15:35	17:48	20:02
18	8:30	133	3.846	8:30	9:37	12:49	16:01	19:14	22:26	25:38	28:51
21	9:55	114	5.235	9:55	13:05	17:27	21:49	26:11	30:32	34:54	39:16
24	11:20	99	6.837	11:24	17:57	22:48	28:30	34:11	39:53	45:35	51:17
27	12:45	88	8.653	14:25	21:38	28:51	36:04	43:16	50:30	57:42	46:54

30 33 36	14:10 15:35 17:00	80 72 66	10.683 12.926 15:384	17:48 21:33 25:39	26:43 32:19 38:28	35:37 43:56 51:17	44:31 53:52 64:06	53:25 64:38 75:55	62:19 75:24 89:44	71:13 86:10 102:34	80:07 96:57 115:23

1 Pipe Diameter (in.)
2 Minimum Time (min:sec)
3 Length for Minimum Time (ft.)
4 Time for Longer Length (sec)

NOTE: When using column 4 multiply the number in column 4 opposite the pipe diameter by the length of pipe of that diameter and sum the times for the various pipe size in the run being tested. Computations shall include lengths for service connection laterals. All service plugs shall be secured in place to prevent displacement during testing operation.

F: DEFLECTION TEST

Deflection tests shall be performed on all flexible pipe, the tests shall be conducted after the backfill has been in place at least 30 days. No pipe shall exceed a deflection of 5 percent. The deflection tests shall be run using a Go-No-Go mandrel having a diameter equal to 95 percent of the inside diameter of the pipe. The tests shall be performed without mechanical pulling device, any pipe not meeting the deflection test shall be excavated and re-bedded at no cost to the owner.

The Contractor at no additional cost to the owner shall furnish the Go-No-GO Mandrel.

Upon completion of all tests, the Contractor shall provide personnel to remove each manhole cover in the presence of the Engineer's representative for inspection and depth measurement.

G. TESTING SANITARY SEWER MANHOLES

All sanitary sewer manholes shall be tested for water tightness by one of the following methods.

Manholes, except those in streets scheduled for immediate paving, shall be complete, having all adjusting rings and cover rings in place and shall be backfilled prior to testing.

Manholes in streets scheduled for immediate paving shall be complete as described above except those acceptance tests shall be made at the top of the cone section.

(1.) Vacuum Test

a. General

This item will govern the testing of all sanitary sewer manholes. All connections to manholes including drop connections shall be in place before testing.

b. Equipment

Equipment for vacuum testing manholes shall be:
MANHOLE VACUUM TESTER as manufactured by:

P.A. Glazier, Inc.
P.O. Box 1002
Worcester, MA. 01613

Or

THE CHERNE AIR-LOC MANHOLE TESTER as manufactured by:

Cherne Industries, Inc.
5700 Lincoln Dr.
Minneapolis, MN 55436-1695

Or approved equal.

c. Preparation for Testing

All connections to the manhole; except plugged stubs for future line extensions, shall be plugged using suitable pneumatic plugs. Line plugs shall be placed at a point outside of the manhole wall (approximately 8" to 10" into the sewer pipe). Drop connections shall be plugged at a point up stream from the drop.
All plugs, pipe connections and plugged stub outs shall be adequately braced to prevent them being drawn into the manhole when vacuum is applied.

d. Testing

The contractor shall set the test equipment in place and operate it in accord with the manufacturer instructions. A copy of these instructions shall be kept on the job site and shall be available to the inspector when tests are performed. When equipment is properly set up a vacuum of 10" of mercury (Hg) shall be drawn and the vacuum line valve closed. After the vacuum pump is shut off the hose shall be disconnected before the test is started.

Note: Vacuum must be at 10" Hg when test is started. The contractor may wish to draw up to 10.5" Hg vacuum and then bleed back to 10" Hg before starting the test. The test shall pass when the minimum time for the vacuum to drop from 10" Hg to 9" Hg is greater than the time shown in the following table:

TABLE 1: Minimum test times for various manhole diameters.

	DIAMETER		
Depth Feet	48"	60"	72"
8'	0:20	0:26	0:33
10'	0:25	0:33	0:41
12'	0:30	0:39	0:49
14'	0:35	0:46	0:57
16'	0:40	0:52	1:05
18'	0:45	0:59	1:13
20'	0:50	1:05	1:21
* ADD	0:05	0:06.5	0:08

Any manhole that fails the test shall be repaired and retested until it passes the test.

e. Contractors Optional Test

The contractor, at his option may wish to test manholes before they are backfilled to assure himself that the manhole is sound.
Manholes that fail the test prior to being backfilled may be repaired under vacuum by coating the area of the leak with a liquid quick setting grout allowing the grout to be drawn into the opening until the leak is stopped.

Manholes will not be accepted on the bases of this test.

f. Fiberglass Manholes

Fiberglass manholes may be tested in the same manner as concrete manholes except that all repairs to the fiberglass body of the manhole shall be made using materials furnished by the manufacturer. Repairs shall be made in accord with the manufacturer instructions.

g. No separate payment will be made for vacuum testing of manholes, but the cost shall be considered incidental to furnishing and construction of manholes as bid in the bid proposal.

2. HYDROSTATIC TESTING

a. General

This item shall govern the hydrostatic testing of manholes and may be used as an alternative to vacuum testing by the contractor.

All connections to manholes including drop connections shall be in place prior to testing manholes.

b. Testing

All connections to the manhole, except plugged stubs installed for future line extensions, shall be plugged upstream from the drop.

Plugs in pipe connections must be placed outside the manhole wall (approximately 8” to 10” into the pipe).

The manhole shall then be filled to the top of the cast iron ring (or top of the cone section for manholes in streets scheduled for immediate paving) and allowed to stand for a minimum of one hour to allow for absorption by the components of the manhole. The inspector may extend the absorption period if it appears that the manhole has not reached a stable state.

The manhole shall then be refilled to the top of the ring (or cone) and allowed to stand for up to 24 hours.

The manhole shall be checked at the end of 4 hours and will be deemed to have passed if no perceptible loss has occurred – if loss has occurred the manhole will be checked after the 24 hour period and will be considered to have passed if loss does not exceed the following schedule

Depth Ft.	Loss Inches
0 - 10’	.2
10 – 20’	.4
20 - 30’	.6

c. No separate payment will be made for Hydrostatic Testing of manholes but the cost shall be considered as incidental to furnishing and constructing manholes as bid in the bid proposal.

H. TELEVISING NEW SEWER LINES

It is the city’s intention to televise all new sanitary sewer lines for record purposes.

Immediately after the contractor completes all testing of sanitary sewer lines and manholes he shall leave all manholes accessible for televising and make allowances for the city’s camera crews working on the project site.

The contractor at his own expense before final acceptance must correct any defects discovered during the televising of sanitary sewers.

3.15 RESTORATION

A. Whenever any surface improvements such as pavement, curbing, pedestrian walks, fencing, or turf have been removed, damaged or otherwise disturbed by the Contractor’s operations, they shall be repaired or replaced to the Engineers satisfaction, to restore the improvement in kind and structure to the pre-existing condition. Each item of restoration work shall be done as soon as practicable after completion of installation and backfilling operations on each section of pipeline.

B. In absence of specific payment provisions, as separate Contract Items, the restoration work shall be compensated for as part of the work required under those Contract Items, which necessitated the destruction and replacement or repair, and there will be no separate payment therefor. If separate pay items are provided for restoration work, only that portion of the repair or reconstruction, which was necessitated by the contract, will be measured for payment. Any improvements removed or damaged unnecessarily shall be replaced or repaired at the Contractor’s expense.

C. Turf restoration shall be accomplished by sod replacement except where seeding is specifically allowed or required.

Caliche or gravel surfaced streets and driveway shall be restored to their original condition by salvaging and replacing the pre-existing caliche or gravel. If the Contractor does not salvage sufficient material during excavation operation, he will be required to furnish material to restore the surface to the depth of the original section. This caliche or gravel restoration shall be considered a part of excavation and backfill and no extra compensation will be made.

E. Bituminous and concrete surfaced streets and driveways will be restored to equal or better condition than existed prior to sewer construction. Measurement will be made of the actual quantities required to be replaced by the sewer construction and paid for at the price bid in the appropriate bid items in the proposal.

No measurement or payment will be made for work done outside the lines considered necessary for sewer construction. The Contractor will be required to replace damage outside these lines at his own expense.

F. Reconstruction of caliche base courses and concrete or bituminous surface courses shall be in substantial compliance with all applicable City of Midland Specifications pertaining to the item being restored.

3.16 CLEANUP

After completing each section of the sewer line, the Contractor shall remove all debris, construction materials, and equipment from the site of the work, grade and smooth over the surface on both sides of the line and leave the entire right-of-way in a clean, neat, and serviceable condition. No separate compensation shall be made for clean up.

3.17 PAYMENT

A. General

Payment in accordance with the following items, at the unit price bid for the work, shall constitute full and complete payment for the entire project including all incidental terms necessary for the complete and successful prosecution of the work in accordance with the intent of the plans and specifications.

Materials and work required to complete the project for which there is no bid item in the bid proposal shall be considered as incidental and the cost shall be included in the prices bid for the various items in the bid proposal.

Where payment is to be made on a unit price basis, it shall be made on the actual measured quantities as constructed in the work.

B. Sewer Pipe in Place

Unit prices bid shall cover furnishing and installation of pipe and jointing materials, including tests and all other necessary work and material to install the pipe complete in place at the depth specified. The unit of work shall be the lineal foot of the various types and sizes as shown in the proposal form. The pipe installation shall be measured

along the centerline of the sewer from center to center of manholes with no deduction in footage for manholes, wye branches, riser bases or other structure.

C. Foundation Corrections Materials

Payment for foundation correction materials shall be made at the unit price bid per cubic yard for material furnished and placed to pro vide adequate pipe base in unstable soil. The unit price shall include extra excavation below pipe grade, the material, placing and tamping.

Additional material required to backfill excess depth of excavation caused by neglect or error on the part of the Contractor or wet conditions, shall be furnished and placed at his own expense.

Removal of Street Surfacing

The Contractor shall receive no extra compensation for the removal of street surfacing including cutting of a straight edge.

E. Trench Safety Systems, Sheeting and Shoring

Measurement: Trench Safety Systems shall be measured by the linear foot of "Trench Safety Systems": Payment for work prescribed under this item shall be full compensation for the Trench Safety Systems including any Engineering and/or consulting fees and any additional excavation and backfill required, for furnishing, placing, maintaining and removing all shoring, sheeting, or bracing; for de-watering or diversion of water; for all jacking and jack removal; and for all other labor, materials, tools, equipment and incidentals necessary to complete the work.

F. Manholes

Payment will be made for the various types of manholes at the unit prices bid for the various types of manholes 0 to 6' deep which price shall include excavation, furnishing and installing all materials pumping where necessary, and backfilling and all incidentals for the complete manhole in place. Measurement for manholes over 6 feet in depth shall be made of the depth of manhole in excess of six (6) feet. Manholes will be measured from the invert to the top of the casting as set.

Payment will be made for the manhole depth in excess of 6 feet at the vertical foot price bid in the bid proposal for extra depth of manhole over 6 feet for each type of manhole furnished.

G. Drop Connections to Manholes

Payment shall be made for drop connections to manhole for each drop connection made as counted in the field at the price bid in the proposal.

Said payment shall be complete compensation for furnishing all materials and fittings and making all connections to the manhole including 2' of vertical depth as measured from the invert of the incoming line to the invert of the manhole.

H. Drop Section for Manholes

Drop sections shall be paid for on a vertical footage basis as measured from the invert of the incoming line to the invert of the manhole less 2 feet and shall be paid for at the price bid per vertical foot for the various size drop connections in the bid proposal.

The price bid per vertical foot includes all fittings, granular material, if used and concrete and shall be full compensation for the complete in service drop connection.

I. Service Lines

Service lines will be measured from centerline of the sewer main to the plug end and paid for at the unit price bid per linear foot of each type of pipe as specified and as shown on the typical details.

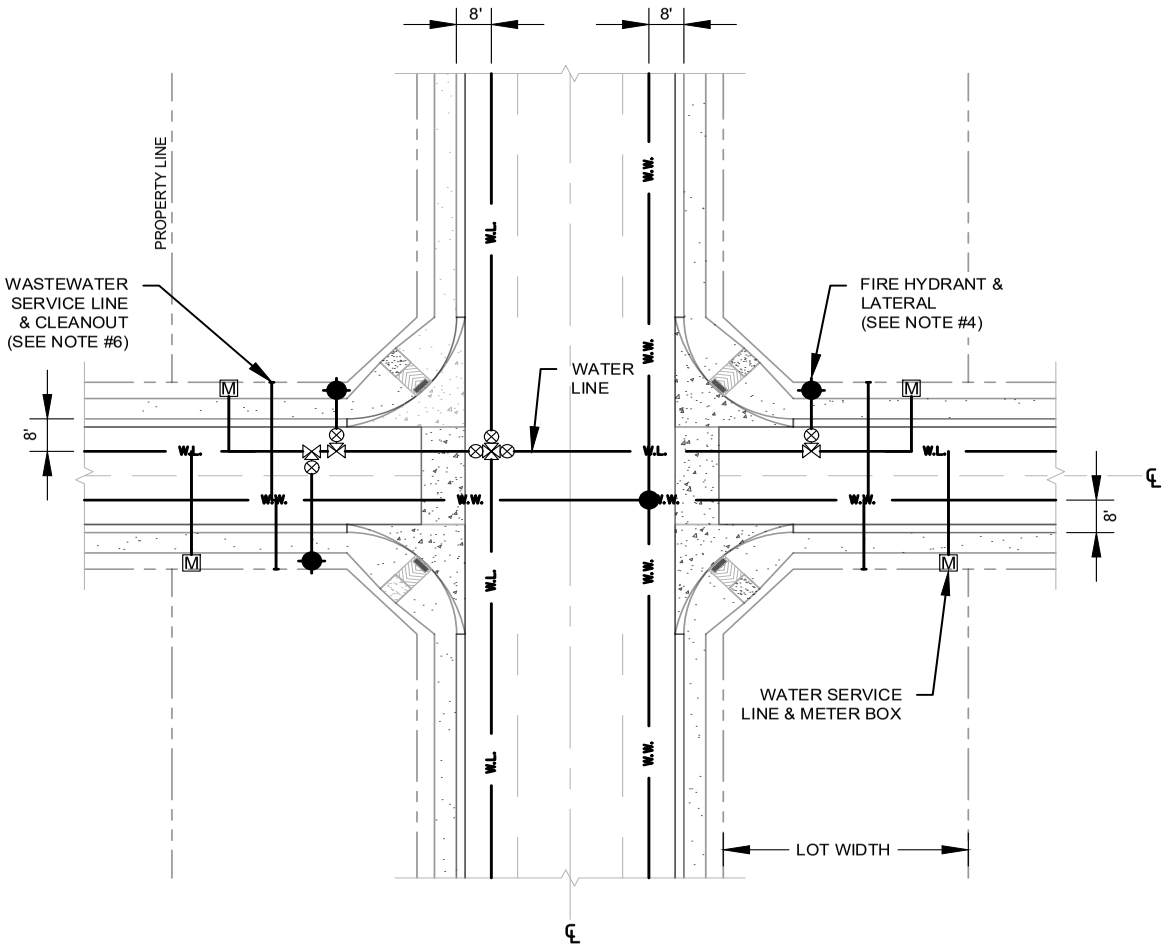
J. Barricading and Traffic Control

The lump sum price bid in the bid proposal shall be full compensation for furnishing flag persons when required and all barricades, signs and other barricading and traffic control devices and for furnishing barricading plans and erecting and maintaining all such devices and signs as required for the duration of the period.

Updated
08/07

City of Midland

Water, Wastewater, & Fire Hydrant Taps Expanded Program 05 Details



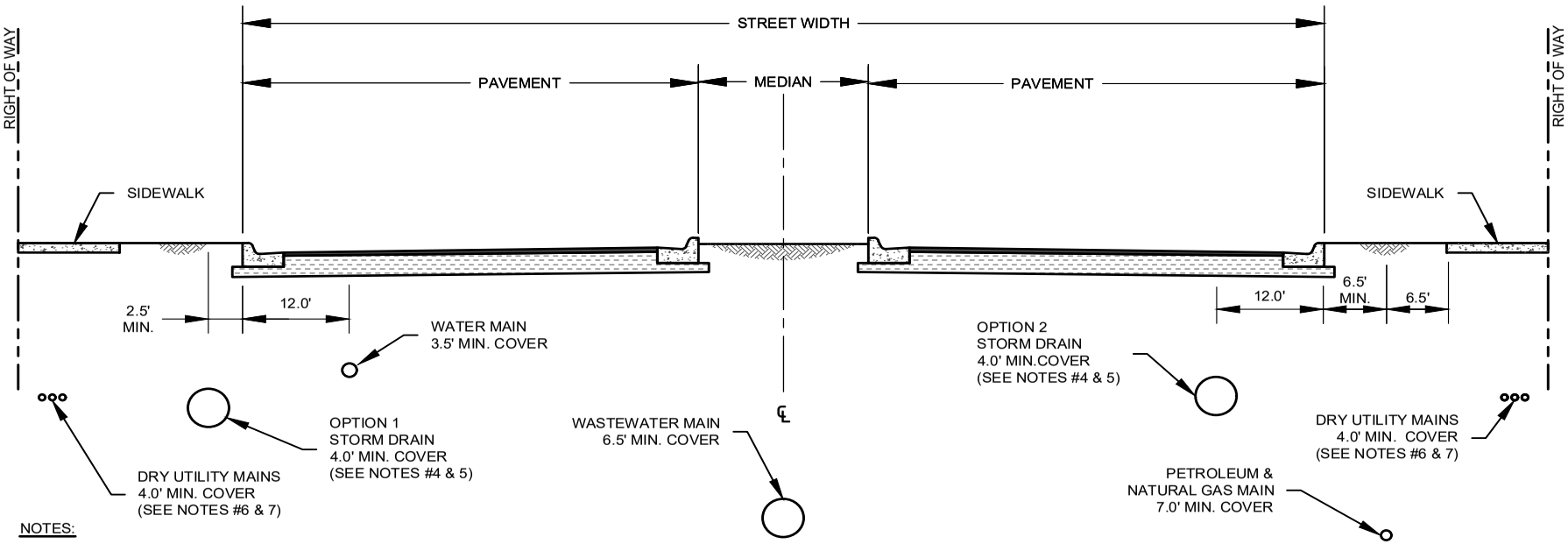
LEGEND

- W.L. — WATER MAIN
- W.W. — WASTE WATER MAIN
- GATE VALVE
- CROSS FITTING
- TEE FITTING
- FIRE HYDRANT
- M — WATER METER
- MANHOLE

NOTES:

1. IF A SITE INCLUDES ALLEYS, OR IS ADJACENT TO EXISTING ALLEYS, THEN THE WASTEWATER MAIN IS TO BE LOCATED IN THE ALLEY AND NOT THE STREET RIGHT OF WAY.
2. ALL DIMENSIONS SHOWN ARE FROM BACK OF CURB. WHEN BIKE LANES ARE PRESENT CENTER UTILITIES IN THE OUTER VEHICLE TRAVEL LANE.
3. FIRE HYDRANTS PLACED AT INTERSECTIONS TO BE PLACED IN LINE WITH A FILLET BEGINNING-OF-RADIUS OR A FILLET END-OF-RADIUS.
4. FIRE HYDRANTS PLACED AT MID-BLOCK TO BE PLACED IN LINE WITH A LOT LINE.
5. FIRE HYDRANT COVERAGE DOES NOT EXTEND ACROSS ARTERIALS OR MAJOR COLLECTORS. FIRE HYDRANTS MAY BE REQUIRED ON BOTH SIDES OF A STREET OR INTERSECTION AT THESE LOCATIONS.
6. CLEANOUTS ARE TO BE INSTALLED BY THE PROPERTY OWNER.
7. MATERIALS AND CONSTRUCTION METHODS TO CONFORM TO CITY OF MIDLAND STANDARDS AND SPECIFICATIONS.
8. CONSTRUCT AS SHOWN UNLESS OTHERWISE APPROVED IN WRITING BY THE CITY ENGINEER.

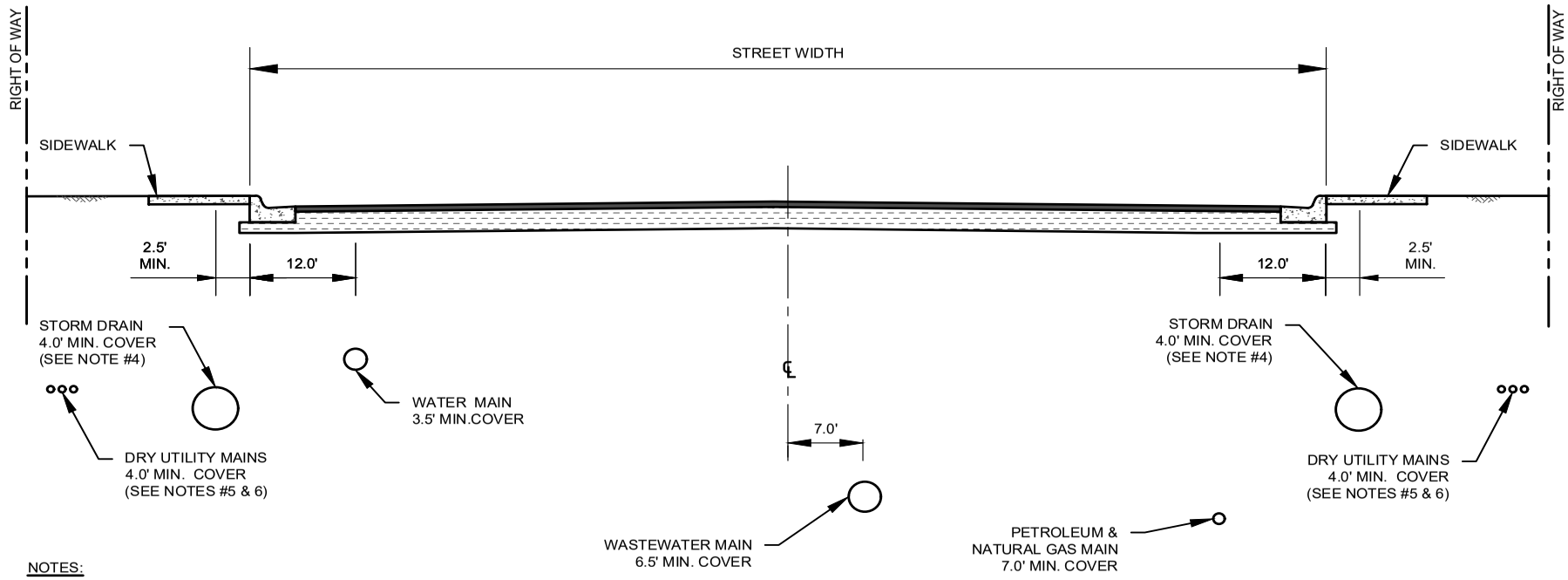
MIDLAND Engineering Services	DRAWN: DPM CHECKED: JCF APPROVED: MCC	EFFECTIVE DATE: 10/01/2018	SCALE: NTS	DETAIL:
		TYPICAL UTILITY LAYOUT		301



NOTES:

1. IF A SITE INCLUDES ALLEYS, OR IS ADJACENT TO EXISTING ALLEYS, THEN THE WASTEWATER MAIN IS TO BE LOCATED IN THE ALLEY AND NOT THE STREET RIGHT OF WAY.
2. ALL COVERS ARE FROM THE GUTTER FLOWLINE TO THE TOP OF PIPE.
3. ADDITIONAL UTILITY DEPTH MAY BE REQUIRED TO ACCOMMODATE LATERALS.
4. STORM DRAINS MAY BE LOCATED ON EITHER SIDE OR BOTH SIDES OF STREET AS NEEDED.
5. LOCATE STORM DRAIN BENEATH PAVEMENT IF ON SAME SIDE OF STREET AS PETROLEUM & NATURAL GAS MAIN, OTHERWISE LOCATE STORM DRAIN BEHIND BACK-OF-CURB.
6. DRY UTILITY MAINS MUST MAINTAIN 7.0' MINIMUM COVER WHEN CROSSING ULTIMATE STREET WIDTH. DRY UTILITY SERVICE LATERALS MUST MAINTAIN 2.0' MINIMUM COVER IN THE RIGHT OF WAY.
7. ALL DRY UTILITY MAINS AND SERVICE LATERALS MUST BORE TO CROSS EXISTING ARTERIAL PAVEMENT. NO OPEN TRENCHING.
8. MATERIALS AND CONSTRUCTION METHODS TO CONFORM TO CITY OF MIDLAND STANDARDS AND SPECIFICATIONS.
9. CONSTRUCT AS SHOWN UNLESS OTHERWISE APPROVED IN WRITING BY THE CITY ENGINEER.

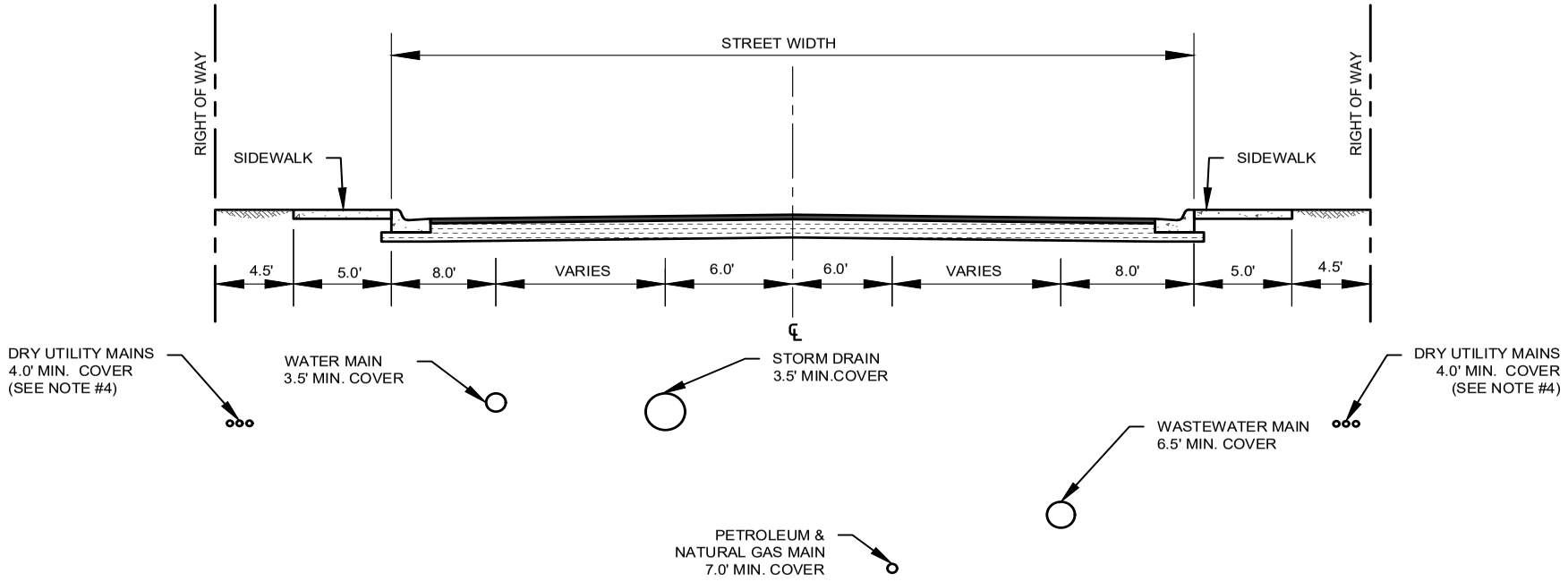
MIDLAND Engineering Services	DRAWN: DPM CHECKED: JCF APPROVED: MCC	EFFECTIVE DATE: 10/01/2018	SCALE: NTS	DETAIL:
		ARTERIAL STREET UTILITY MAIN SPACING		302



NOTES:

1. IF A SITE INCLUDES ALLEYS, OR IS ADJACENT TO EXISTING ALLEYS, THEN THE WASTEWATER MAIN IS TO BE LOCATED IN THE ALLEY AND NOT THE STREET RIGHT OF WAY.
2. ALL COVERS ARE FROM THE GUTTER FLOWLINE TO THE TOP OF PIPE.
3. ADDITIONAL UTILITY DEPTH MAY BE REQUIRED TO ACCOMMODATE LATERALS.
4. STORM DRAINS MAY BE LOCATED ON EITHER SIDE OR BOTH SIDES OF STREET AS NEEDED.
5. DRY UTILITY MAINS MUST MAINTAIN 7.0' MINIMUM COVER WHEN CROSSING RIGHT OF WAY. DRY UTILITY SERVICE LATERALS MUST MAINTAIN 2.0' MINIMUM COVER IN THE RIGHT OF WAY.
6. ALL DRY UTILITY MAINS AND SERVICE LATERALS MUST BORE TO CROSS EXISTING MAJOR COLLECTOR PAVEMENT. NO OPEN TRENCHING.
7. MATERIALS AND CONSTRUCTION METHODS TO CONFORM TO CITY OF MIDLAND STANDARDS AND SPECIFICATIONS.
8. CONSTRUCT AS SHOWN UNLESS OTHERWISE APPROVED IN WRITING BY THE CITY ENGINEER.

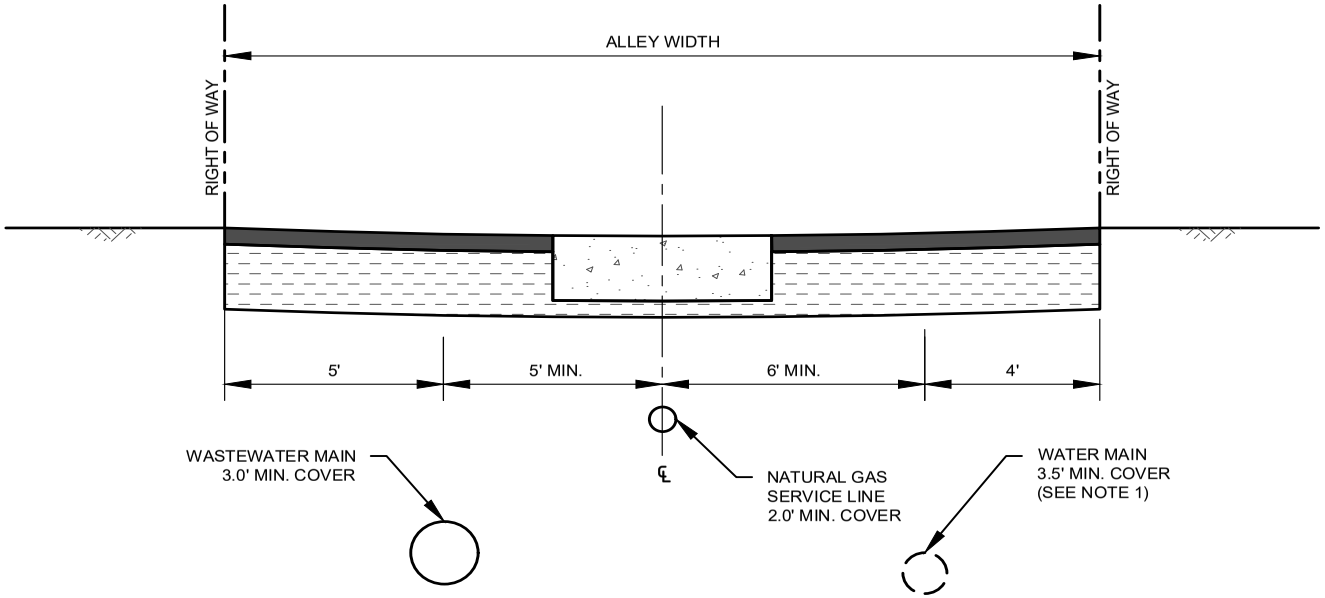
MIDLAND Engineering Services	DRAWN: DPM CHECKED: JCF APPROVED: MCC	EFFECTIVE DATE: 10/01/2018	SCALE: NTS	DETAIL:
		COLLECTOR STREET UTILITY MAIN SPACING		303



NOTES:

1. IF A SITE INCLUDES ALLEYS, OR IS ADJACENT TO EXISTING ALLEYS, THEN THE WASTEWATER MAIN IS TO BE LOCATED IN THE ALLEY AND NOT THE STREET RIGHT OF WAY.
2. ALL COVERS ARE FROM THE GUTTER FLOWLINE TO THE TOP OF PIPE.
3. ADDITIONAL UTILITY DEPTH MAY BE REQUIRED TO ACCOMMODATE LATERALS.
4. DRY UTILITY MAINS MUST MAINTAIN 7.0' MINIMUM COVER WHEN CROSSING RIGHT OF WAY. DRY UTILITY SERVICE LATERALS MUST MAINTAIN 2.0' MINIMUM COVER IN THE RIGHT OF WAY.
5. MATERIALS AND CONSTRUCTION METHODS TO CONFORM TO CITY OF MIDLAND STANDARDS AND SPECIFICATIONS.
6. CONSTRUCT AS SHOWN UNLESS OTHERWISE APPROVED IN WRITING BY THE CITY ENGINEER.

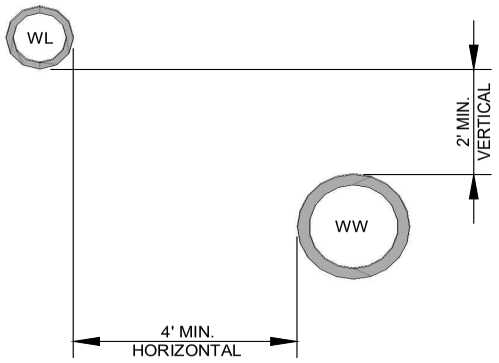
MIDLAND Engineering Services	DRAWN: DPM CHECKED: JCF APPROVED: MCC	EFFECTIVE DATE: 10/01/2018	SCALE: NTS	DETAIL:
		LOCAL STREET UTILITY MAIN SPACING		304



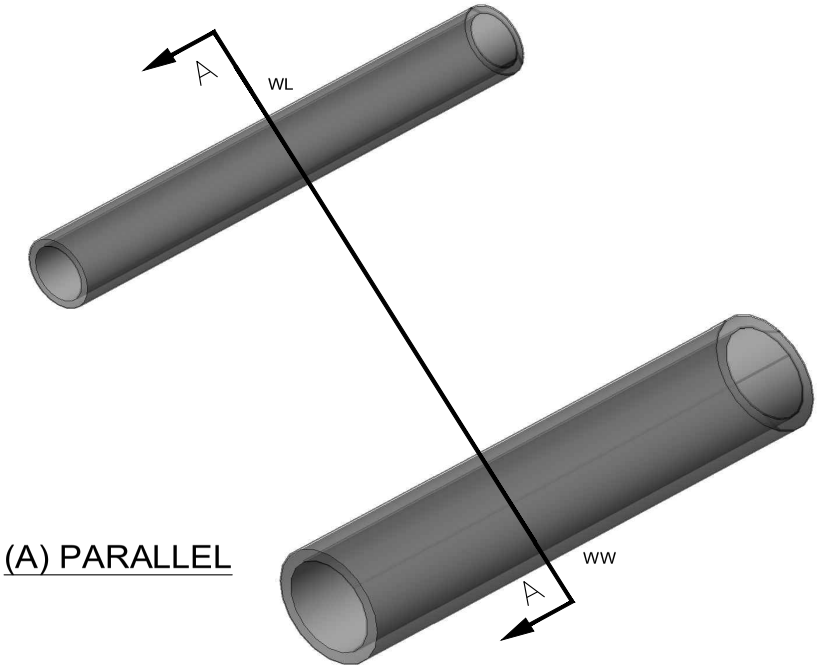
NOTES:

1. WATER MAIN LOCATION APPLIES FOR EXCEPTIONS ONLY. THE CITY STANDARD REMAINS LOCATING WATER MAINS IN STREETS. WHEN WATER MAINS ARE NOT EXISTING OR PROPOSED IN AN ALLEY THE EXPECTATION IS FOR DRY UTILITIES TO UTILIZE THIS ALIGNMENT LOCATION.
2. ALL COVERS ARE FROM THE ALLEY INVERT TO THE TOP OF PIPE.
3. ADDITIONAL UTILITY DEPTH MAY BE REQUIRED TO ACCOMMODATE LATERALS.
4. ALL DRY UTILITY LINES MUST MAINTAIN 2.0' MINIMUM COVER WHEN CROSSING RIGHT OF WAY, AND MUST MAINTAIN 5.0' MINIMUM HORIZONTAL SEPARATION DISTANCE FROM ALL PUBLIC UTILITY MAINS.
5. MATERIALS AND CONSTRUCTION METHODS TO CONFORM TO CITY OF MIDLAND STANDARDS AND SPECIFICATIONS.
6. CONSTRUCT AS SHOWN UNLESS OTHERWISE APPROVED IN WRITING BY THE CITY ENGINEER.

MIDLAND Engineering Services	DRAWN: DPM CHECKED: JCF APPROVED: MCC	EFFECTIVE DATE: 10/01/2018	SCALE: NTS	DETAIL:
		STANDARD ALLEY UTILITY MAIN SPACING		305



SECTION 'A-A'



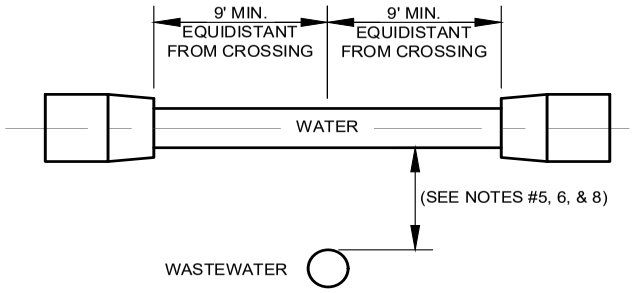
(A) PARALLEL

NOTES:

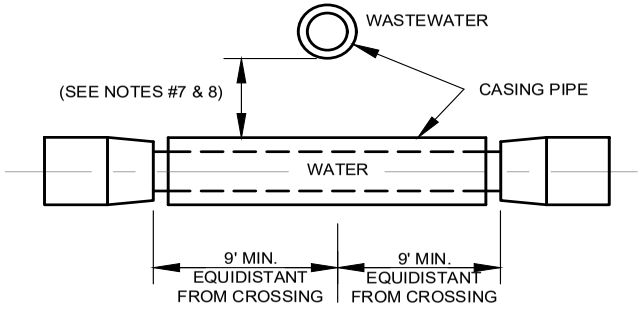
1. SEE CITY DETAIL 807 FOR NEW PETROLEUM OR NATURAL GAS LINE REQUIREMENTS WHEN IN PARALLEL WITH A WATER MAIN. REQUIREMENTS FOR WATER MAINS IN PARALLEL WITH PETROLEUM OR NATURAL GAS LINES ARE THE SAME AS WHEN THEY ARE PARALLEL WITH WASTEWATER MAINS UNLESS STATED OTHERWISE IN CITY DETAIL 807.
2. IF AN EXISTING PETROLEUM OR NATURAL GAS LINE PREDATES A PUBLIC ROW OR EASEMENT THAT THE WATER MAIN IS LOCATED IN THEN THE WATER MAIN DESIGN AND CONSTRUCTION MAY BE SUBJECT TO ADDITIONAL REQUIREMENTS AS PER THE PETROLEUM OR NATURAL GAS LINE OWNER'S STANDARDS.
3. WASTEWATER MAINS AND MANHOLES MUST BE LOCATED AT LEAST 9.0' FROM ALL WATER MAINS IN ALL DIRECTIONS. IF THIS IS NOT POSSIBLE THEN AN ENGINEERING REPORT IS REQUIRED PER TAC TO JUSTIFY WHY, AND THE REQUIREMENTS OF THIS DETAIL WILL APPLY. THIS DETAIL IS INTENDED TO COMPLY WITH TAC 217.53(d) AND TAC 290.44(e). IF TAC AND THIS DETAIL DIFFER THEN THE MORE RESTRICTIVE STANDARD GOVERNS.
4. WHERE WATER MAINS ARE LOCATED IN PARALLEL WITH NEW WASTEWATER MAINS, WASTEWATER MAINS MUST BE CONSTRUCTED AT LEAST 150 PSI PRESSURE CLASS, CORROSION RESISTANT, NON-BRITTLE PIPE SUCH AS CIP, DIP, OR PVC PIPE THAT IS DESIGNED TO SEAL AT ATMOSPHERIC PRESSURE. EXISTING WASTEWATER MAINS IN PARALLEL THAT ARE LEAKING OR ARE DISTURBED AND THEN BEGIN TO LEAK MUST BE REPLACED WITH 150 PSI PRESSURE-RATED PIPE.
5. MATERIALS AND CONSTRUCTION METHODS TO CONFORM TO CITY OF MIDLAND STANDARDS AND SPECIFICATIONS.
6. CONSTRUCT AS SHOWN UNLESS OTHERWISE APPROVED IN WRITING BY THE CITY ENGINEER.

MIDLAND Engineering Services	DRAWN: DPM CHECKED: JCF APPROVED: MCC	EFFECTIVE DATE: 10/01/2018	SCALE: NTS	DETAIL:
		PARALLEL WATER & WASTEWATER SPACING		306

NEW WATER OVER WASTEWATER



NEW WATER UNDER WASTEWATER

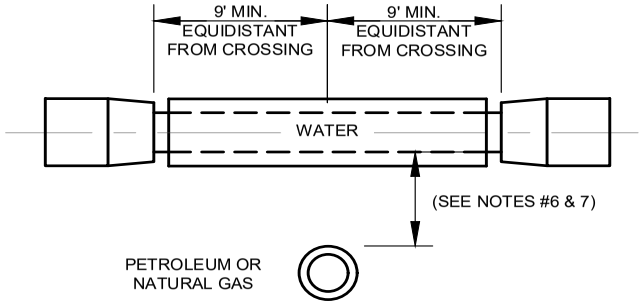


NOTES:

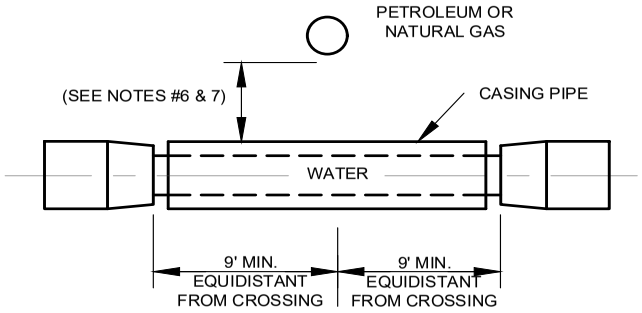
1. SEE CITY DETAIL 309 FOR NEW WASTEWATER MAIN REQUIREMENTS AT WATER MAIN CROSSINGS.
2. WASTEWATER MAINS AND MANHOLES MUST BE LOCATED AT LEAST 9.0' FROM ALL WATER MAINS IN ALL DIRECTIONS. IF THIS IS NOT POSSIBLE THEN AN ENGINEERING REPORT IS REQUIRED PER TAC TO JUSTIFY WHY, AND THE REQUIREMENTS OF THIS DETAIL WILL APPLY.
3. THIS DETAIL IS INTENDED TO COMPLY WITH TAC 217.53(d) AND TAC 290.44(e). IF TAC AND THIS DETAIL DIFFER THEN THE MORE RESTRICTIVE STANDARD GOVERNS.
4. CENTER NEW WATER MAIN PIPE SEGMENT ON CROSSING SO THAT ALL PIPE SEGMENT JOINTS ARE EQUIDISTANT AND AT LEAST 9.0' HORIZONTALLY FROM THE CENTERLINE OF THE CROSSING. NEW WATER MAIN IS TO CROSS WASTEWATER MAIN AT 90° ANGLE.
5. NEW WATER MAINS ARE TO HAVE NO LESS THAN 2.0' VERTICAL SEPARATION OVER THE OUTER EDGE OF ANY EXISTING NON-PRESSURE RATED WASTEWATER MAIN, AND NO LESS THAN 0.5' VERTICAL SEPARATION OVER THE OUTER EDGE OF ANY EXISTING PRESSURE-RATED (150 PSI) WASTEWATER MAIN.
6. VERTICAL SEPARATION DIMENSION REQUIREMENTS FOR NEW WATER MAINS CROSSING OVER NEW WASTEWATER MAINS ARE COVERED IN CITY DETAIL 309.
7. NEW WATER MAIN CROSSING BENEATH NEW OR EXISTING WASTEWATER MAIN TO HAVE NO LESS THAN 2.0' VERTICAL SEPARATION FROM WASTEWATER MAIN WITH MINIMUM 18.0' LONG PIPE ENCASEMENT CENTERED ON THE CROSSING. SEE CITY DETAIL 805 FOR PIPE CASING.
8. VERTICAL SEPARATION DIMENSIONS TO BE MEASURED FROM OUTER EDGE OF ALL PIPE ENCASEMENTS..
9. WHEN CROSSING AN EXISTING WASTEWATER MAIN AND IT IS DISTURBED OR SHOW SIGNS OF LEAKING, THE WASTEWATER MAIN MUST BE REPLACED AT LEAST 9.0' IN BOTH DIRECTIONS FROM THE CROSSING WITH AT LEAST 150 PSI PRESSURE-RATED PIPE EMBEDDED IN CEMENT STABILIZED SAND ENCASEMENT (2.5 SACKS / CUBIC YARD) FOR A TOTAL LENGTH OF ONE PIPE SEGMENT PLUS 1.0' BEYOND THE JOINT ON EACH END.
10. MATERIALS AND CONSTRUCTION METHODS TO CONFORM TO CITY OF MIDLAND STANDARDS AND SPECIFICATIONS.
11. CONSTRUCT AS SHOWN UNLESS OTHERWISE APPROVED IN WRITING BY THE CITY ENGINEER.

MIDLAND Engineering Services	DRAWN: DPM CHECKED: JCF APPROVED: MCC	EFFECTIVE DATE: 10/01/2018	SCALE: NTS	DETAIL:
		NEW WATER MAIN CROSSING WASTEWATER MAIN		307

NEW WATER OVER PETROLEUM & NATURAL GAS



NEW WATER UNDER PETROLEUM & NATURAL GAS

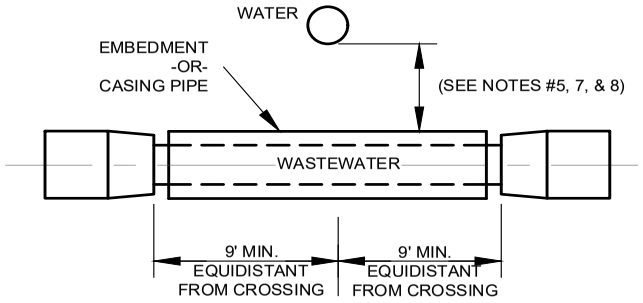


NOTES:

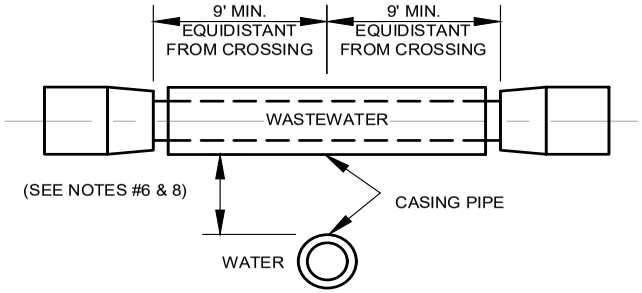
1. SEE CITY DETAIL 808 FOR NEW PETROLEUM OR NATURAL GAS LINE REQUIREMENTS AT WATER MAIN CROSSINGS. REQUIREMENTS FOR WATER MAINS CROSSING WITH PETROLEUM OR NATURAL GAS LINES ARE THE SAME AS WHEN THEY ARE CROSSING WASTEWATER MAINS UNLESS STATED OTHERWISE IN CITY DETAIL 808.
2. IF AN EXISTING PETROLEUM OR NATURAL GAS LINE PREDATES A PUBLIC ROW OR EASEMENT THAT THE WATER MAIN IS LOCATED IN THEN THE WATER MAIN DESIGN AND CONSTRUCTION MAY BE SUBJECT TO ADDITIONAL REQUIREMENTS AS PER THE PETROLEUM OR NATURAL GAS LINE OWNER'S STANDARDS.
3. PETROLEUM OR NATURAL GAS LINES AND MUST BE LOCATED AT LEAST 9.0' FROM ALL WATER MAINS IN ALL DIRECTIONS. IF THIS IS NOT POSSIBLE THEN AN ENGINEERING REPORT IS REQUIRED PER TAC TO JUSTIFY WHY, AND THE REQUIREMENTS OF THIS DETAIL WILL APPLY.
4. THIS DETAIL IS INTENDED TO COMPLY WITH TAC 217.53(d) AND TAC 290.44(e). IF TAC AND THIS DETAIL DIFFER THEN THE MORE RESTRICTIVE STANDARD GOVERNS.
5. CENTER NEW WATER MAIN PIPE SEGMENT ON CROSSING SO THAT ALL PIPE SEGMENT JOINTS ARE EQUIDISTANT AND AT LEAST 9.0' HORIZONTALLY FROM THE CENTERLINE OF THE CROSSING. WATER MAIN TO CROSS PETROLEUM OR NATURAL GAS LINE AT 90° ANGLE.
6. NEW WATER MAIN CROSSING OVER OR BENEATH NEW OR EXISTING PETROLEUM OR NATURAL GAS LINES TO BE ENCASED IN MINIMUM 18'.0' LONG PIPE ENCASEMENT CENTERED ON THE CROSSING. SEE CITY DETAIL 805 FOR PIPE CASING. VERTICAL SEPARATION FROM OUTER EDGE OF PETROLEUM OR NATURAL GAS LINES TO BE NO LESS THAN 2.0'.
7. VERTICAL SEPARATION DIMENSIONS TO BE MEASURED FROM OUTER EDGE OF ALL PIPE ENCASEMENTS.
8. MATERIALS AND CONSTRUCTION METHODS TO CONFORM TO CITY OF MIDLAND STANDARDS AND SPECIFICATIONS.
9. CONSTRUCT AS SHOWN UNLESS OTHERWISE APPROVED IN WRITING BY THE CITY ENGINEER.

MIDLAND Engineering Services	DRAWN: DPM CHECKED: JCF APPROVED: MCC	EFFECTIVE DATE: 10/01/2018	SCALE: NTS	DETAIL:
		NEW WATER MAIN CROSSING PETROLEUM AND NATURAL GAS LINE		308

NEW WASTEWATER UNDER WATER



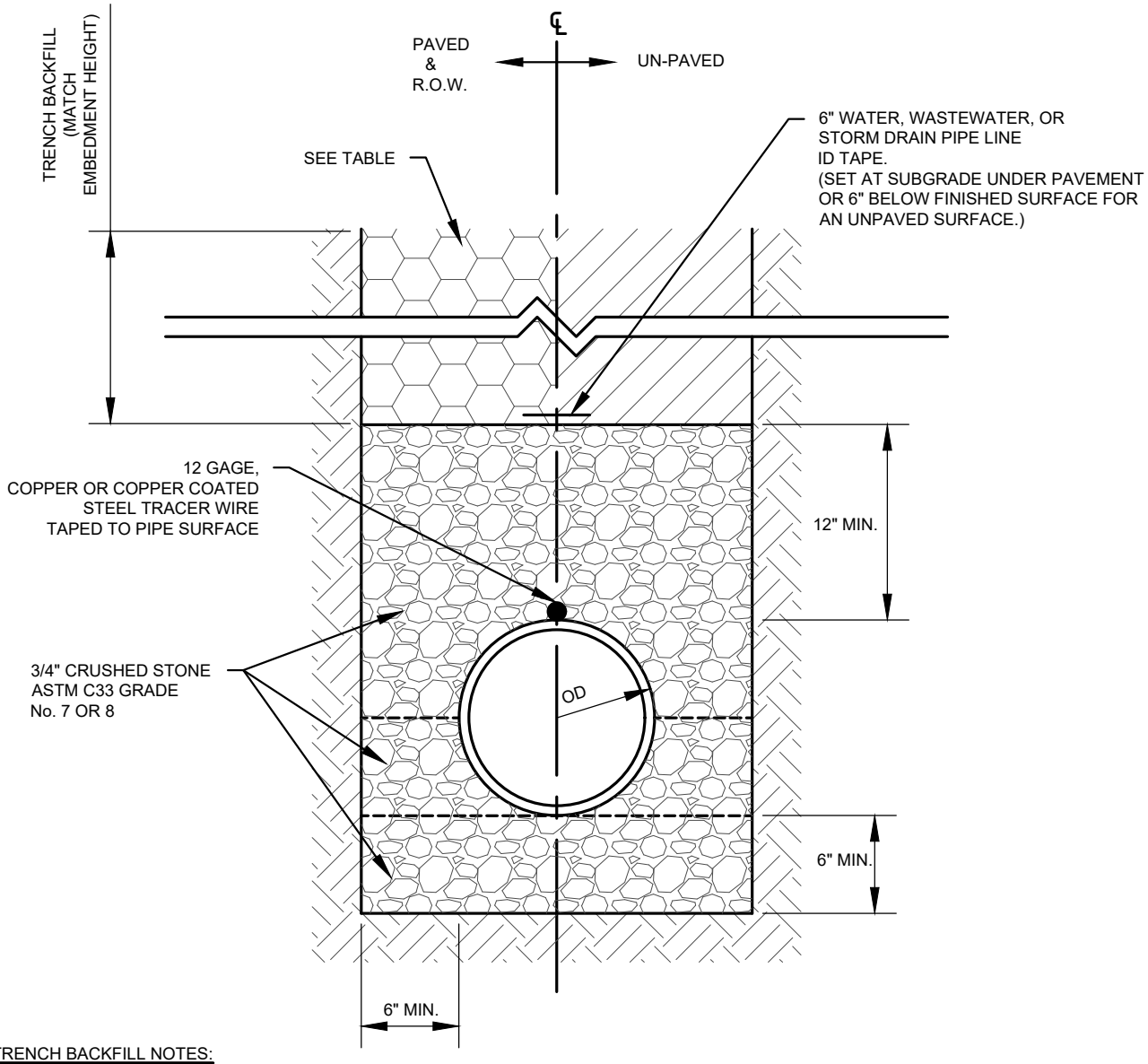
NEW WASTEWATER OVER WATER



NOTES:

1. SEE CITY DETAIL 307 FOR NEW WATER MAIN REQUIREMENTS AT WASTEWATER MAIN CROSSINGS.
2. WASTEWATER MAINS AND MANHOLES MUST BE LOCATED AT LEAST 9.0' FROM ALL WATER MAINS IN ALL DIRECTIONS. IF THIS IS NOT POSSIBLE THEN AN ENGINEERING REPORT IS REQUIRED PER TAC TO JUSTIFY WHY, AND THE REQUIREMENTS OF THIS DETAIL WILL APPLY.
3. THIS DETAIL IS INTENDED TO COMPLY WITH TAC 217.53(d) AND TAC 290.44(e). IF TAC AND THIS DETAIL DIFFER THEN THE MORE RESTRICTIVE STANDARD GOVERNS.
4. CENTER NEW WASTEWATER MAIN PIPE SEGMENT ON CROSSING SO THAT ALL PIPE SEGMENT JOINTS ARE EQUIDISTANT AND AT LEAST 9.0' HORIZONTALLY FROM THE CENTERLINE OF THE CROSSING. WASTEWATER MAIN IS TO CROSS WATER MAIN AT 90° ANGLE.
5. NEW WASTEWATER MAIN CROSSING BENEATH NEW OR EXISTING WATER MUST COMPLY WITH ONE OF THE FOLLOWING:
   A. WASTEWATER MAIN PIPE TO BE PRESSURE RATED SDR-26 D2241 PIPE OR APPROVED EQUAL FROM MANHOLE TO MANHOLE WITH MINIMUM 18.0' LONG CEMENT STABILIZED SAND ENCASEMENT (2.5 SACKS/CUBIC YARD) CENTERED ON THE CROSSING. VERTICAL SEPARATION FROM OUTER EDGE OF WATER MAIN TO BE NO LESS THAN 2.0'.
   B. WASTEWATER MAIN PIPE TO BE HEAVY-WALL GRAVITY PIPE SDR-26 D3034 OR APPROVED EQUAL FROM MANHOLE TO MANHOLE WITH MINIMUM 18.0' LONG PIPE ENCASEMENT CENTERED ON THE CROSSING. SEE CITY DETAIL 805 FOR PIPE CASING. VERTICAL SEPARATION FROM OUTER EDGE OF WATER MAIN TO BE NO LESS THAN 0.5'.
6. NEW WASTEWATER MAIN CROSSING OVER NEW OR EXISTING WATER MAIN TO BE PRESSURE RATED SDR-26 D2241 PIPE OR APPROVED EQUAL FROM MANHOLE TO MANHOLE WITH MINIMUM 18.0' LONG PIPE ENCASEMENT CENTERED ON THE CROSSING. SEE CITY DETAIL 805 FOR PIPE CASING. VERTICAL SEPARATION FROM OUTER EDGE OF WATER MAIN TO BE NO LESS THAN 2.0'.
7. NEW WATER MAINS CROSSING OVER EXISTING WASTEWATER MAINS ARE COVERED IN CITY DETAIL 307.
8. VERTICAL SEPARATION DIMENSIONS TO BE MEASURED FROM OUTER EDGE OF ALL PIPE ENCASEMENTS.
9. MATERIALS AND CONSTRUCTION METHODS TO CONFORM TO CITY OF MIDLAND STANDARDS AND SPECIFICATIONS.
10. CONSTRUCT AS SHOWN UNLESS OTHERWISE APPROVED IN WRITING BY THE CITY ENGINEER.

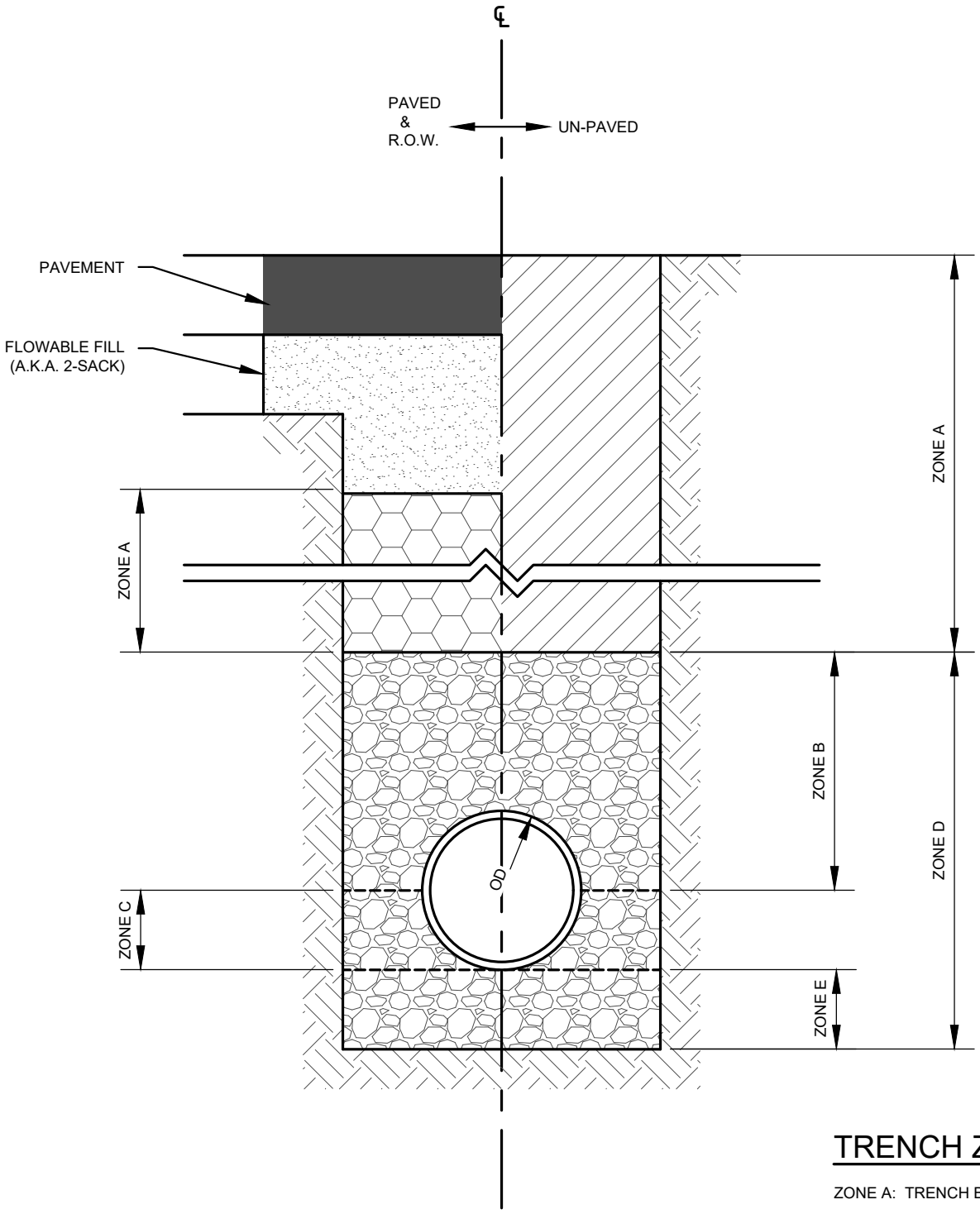
MIDLAND Engineering Services	DRAWN: DPM CHECKED: JCF APPROVED: MCC	EFFECTIVE DATE: 10/01/2018	SCALE: NTS	DETAIL:
		NEW WASTEWATER MAIN CROSSING WATER MAIN		309



TRENCH BACKFILL NOTES:

1. APPLIES TO ALL PIPE TYPES. (DUCTILE IRON, PVC, ETC.)
2. UTILIZE SELECT FILL BACKFILL BENEATH ALL PAVED SURFACES. NATIVE MATERIAL BACKFILL CAN ONLY BE USER FOR UNPAVED TRENCH CONDITIONS IF BACKFILL MATERIAL IS ≤ 30LL AND ≤ 15 PI.
3. NATIVE MATERIAL TO BE EXISTING EXCAVATED SOIL FROM TRENCH WITH ALL MATERIAL BROKEN DOWN ≤ 2".
4. MOISTURE CONDITION ALL BACKFILL MATERIAL PRIOR TO PLACING IN TRENCH.
5. PLACE TRENCH BACKFILL MATERIAL IN MAXIMUM 12" LOOSE LIFTS AND COMPACT TO MAXIMUM 8" COMPACTED LIFTS.
6. REFER TO CITY DETAILS 311 AND 312 FOR TRENCH PAVEMENT REPLACEMENT REQUIREMENTS.
7. PLACE LAYERS B, C, AND E FOUND ON CITY DETAIL 310(B) AS SEPARATE LAYERS.
8. MATERIALS AND CONSTRUCTION METHODS TO CONFORM TO CITY OF MIDLAND STANDARDS AND SPECIFICATIONS.
9. CONSTRUCT AS SHOWN UNLESS OTHERWISE APPROVED IN WRITING BY THE CITY ENGINEER.

DRAWN: DPM	CHECKED: JCF	APPROVED: MCC	
MIDLAND Engineering Services	EFFECTIVE DATE: 10/01/2018	SCALE: NTS	DETAIL:
	TRENCHING AND BEDDING		310(A)



TRENCH ZONES:

ZONE A: TRENCH BACKFILL

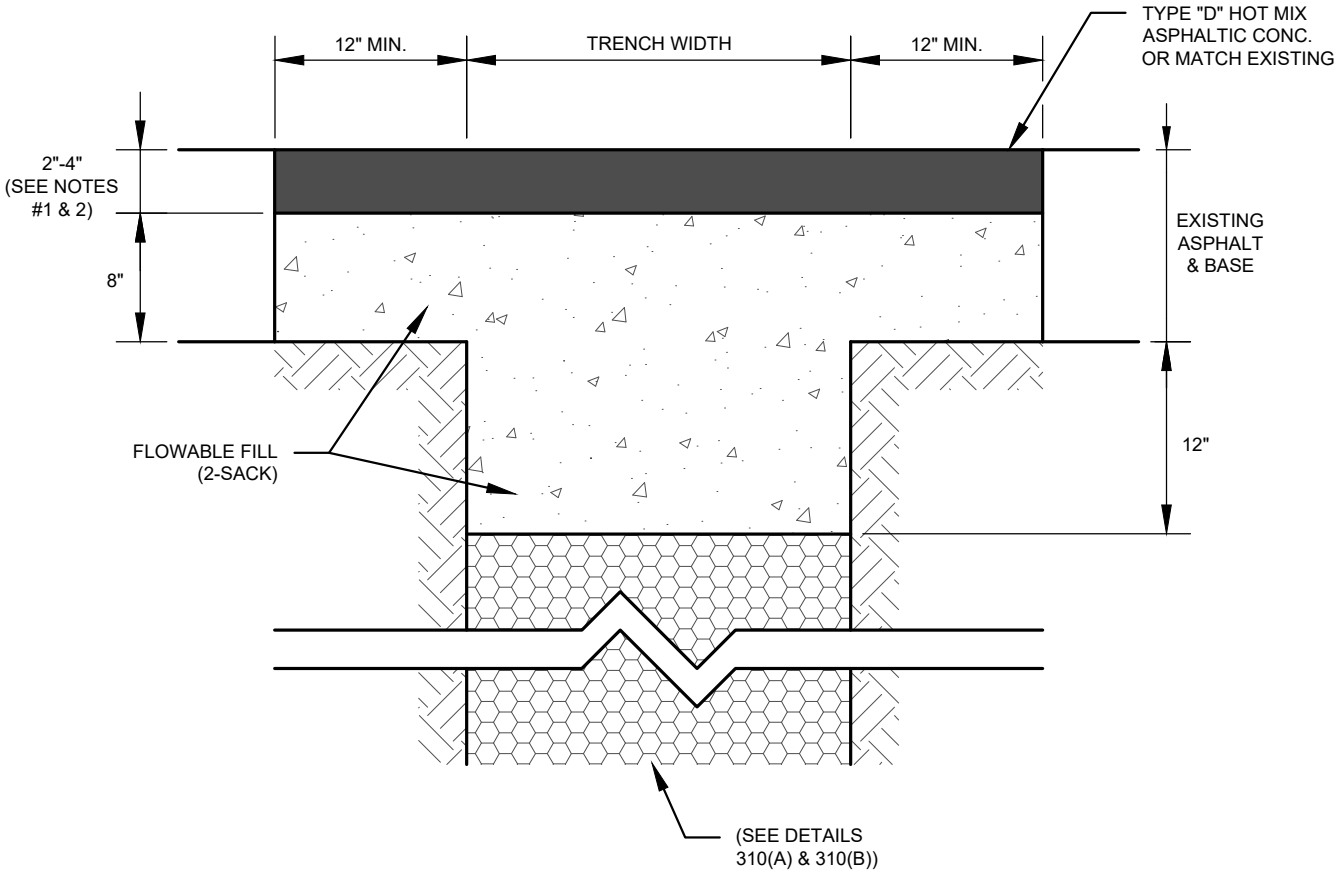
ZONE B: PIPE BACKFILL

ZONE C: HAUNCHING

ZONE D: PIPE EMBEDMENT

ZONE E: BEDDING

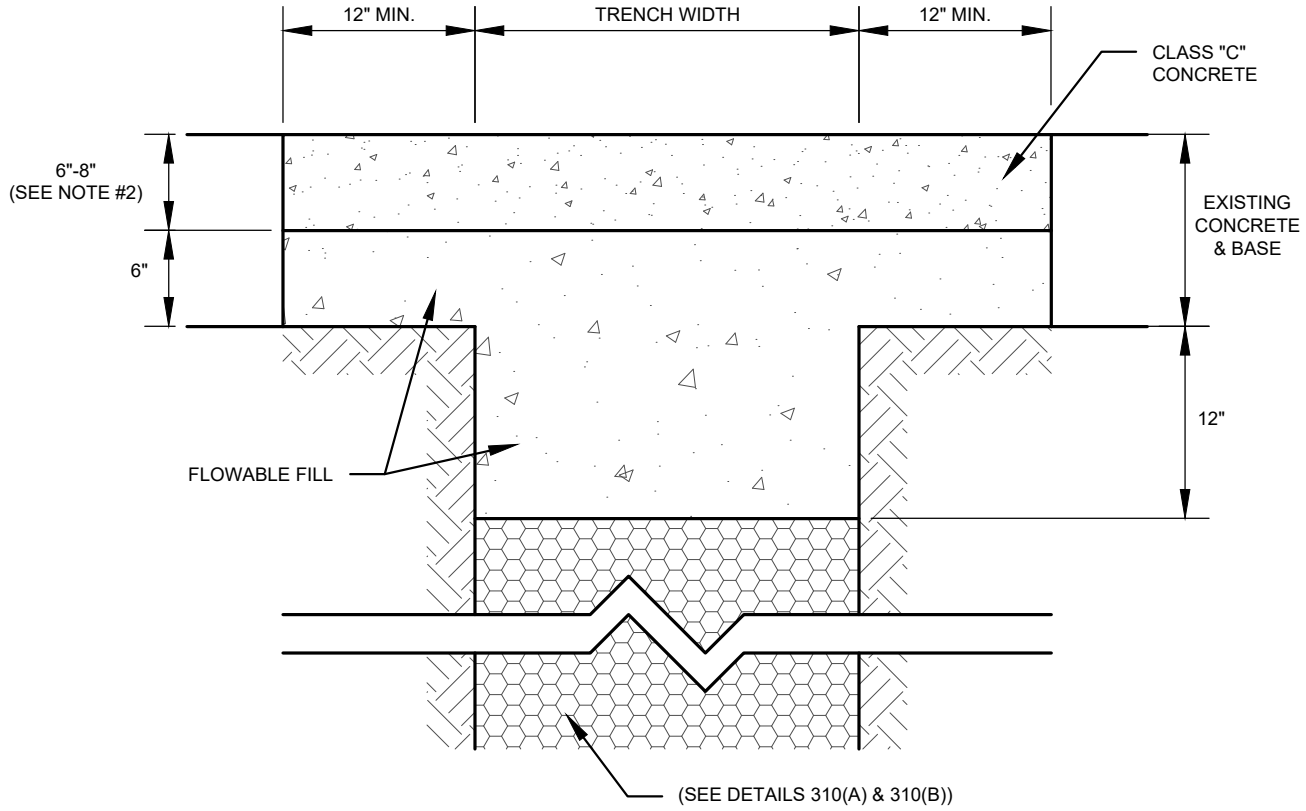
DRAWN: DPM	CHECKED: JCF	APPROVED: MCC	
MIDLAND Engineering Services	EFFECTIVE DATE: 10/01/2018	SCALE: NTS	DETAIL:
	TRENCHING AND BEDDING		310(B)



NOTES:

1. ASPHALT PAVEMENT THICKNESS TO BE A MINIMUM OF 2" OR MATCH THE EXISTING ASPHALT THICKNESS IF IT IS GREATER THAN 2" THICK.
2. PLACE ASPHALT PAVEMENT IN MAXIMUM 2" LIFTS, 95% MODIFIED COMPACTION.
3. PLACE ALL FLOWABLE FILL 2-SACK (2 SACK = 188 LBS/CY, PORTLAND CEMENT) AS A SINGLE CONTINUOUS POUR.
4. EXTEND BOTH ASPHALT AND FLOWABLE FILL 12" BEYOND THE EDGE OF THE TRENCH ON BOTH SIDES.
5. SEE DETAILS 310(A) AND 310(B) REGARDING TRENCH BACKFILL REQUIREMENTS BENEATH THE FLOWABLE FILL.
6. MATERIALS AND CONSTRUCTION METHODS TO CONFORM TO CITY OF MIDLAND STANDARDS AND SPECIFICATIONS.
7. CONSTRUCT AS SHOWN UNLESS OTHERWISE APPROVED IN WRITING BY THE CITY ENGINEER.

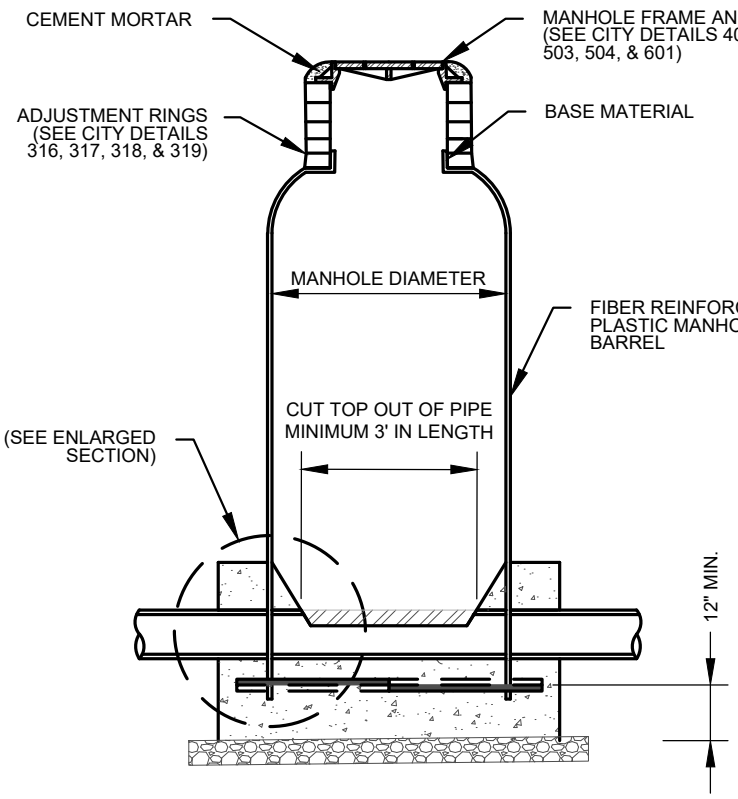
DRAWN: DPM	CHECKED: JCF	APPROVED: MCC	
MIDLAND Engineering Services	EFFECTIVE DATE: 10/01/2018	SCALE: NTS	DETAIL:
	ASPHALT TRENCH PAVEMENT REPLACEMENT		311



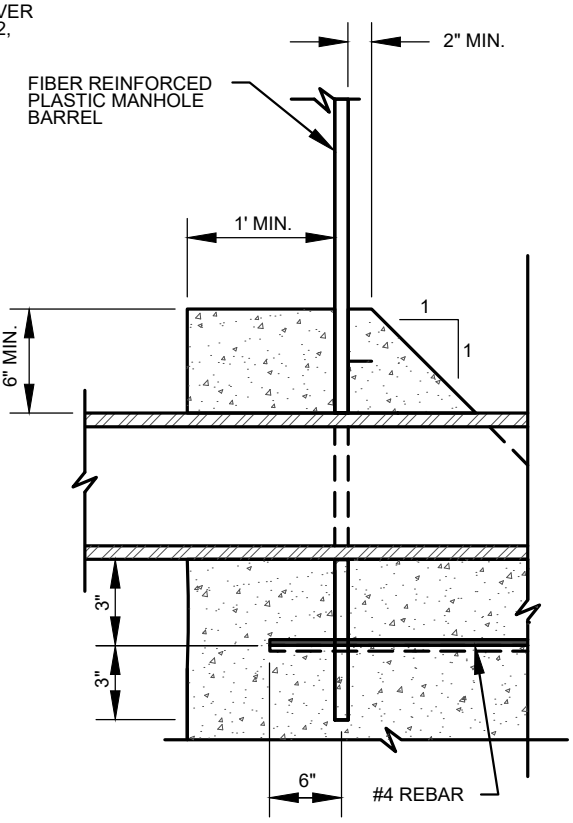
NOTES:

1. CONCRETE TO BE CITY OF MIDLAND CLASS "C" CONCRETE, 3600 PSI. USE FIBER REINFORCED CONCRETE PAVEMENT THROUGHOUT.
2. CONCRETE PAVEMENT THICKNESS TO BE A MINIMUM OF 6" OR MATCH THE EXISTING CONCRETE THICKNESS IF IT IS GREATER THAN 6" THICK. CONCRETE PAVEMENT THICKNESS TO BE MINIMUM 8" FOR ARTERIAL PAVEMENT.
3. PLACE ALL FLOWABLE FILL 2-SACK (2 SACK = 188 LBS/CY, PORTLAND CEMENT) AS A SINGLE CONTINUOUS POUR.
4. EXTEND BOTH CONCRETE AND FLOWABLE FILL 12" BEYOND THE EDGE OF THE TRENCH ON BOTH SIDES.
5. SEE DETAILS 310(A) AND 310(B) REGARDING TRENCH BACKFILL REQUIREMENTS BENEATH THE FLOWABLE FILL.
6. MATERIALS AND CONSTRUCTION METHODS TO CONFORM TO CITY OF MIDLAND STANDARDS AND SPECIFICATIONS.
7. CONSTRUCT AS SHOWN UNLESS OTHERWISE APPROVED IN WRITING BY THE CITY ENGINEER.

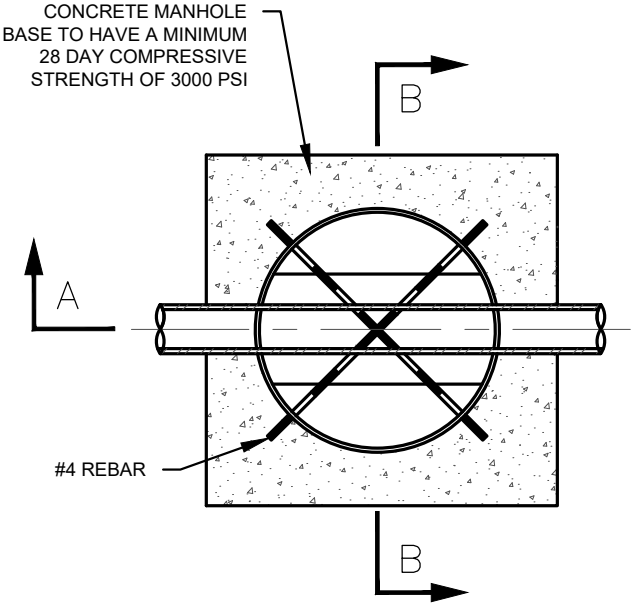
DRAWN: DPM	CHECKED: JCF	APPROVED: MCC	
MIDLAND Engineering Services	EFFECTIVE DATE: 10/01/2018	SCALE: NTS	DETAIL:
	CONCRETE TRENCH PAVEMENT REPLACEMENT		312

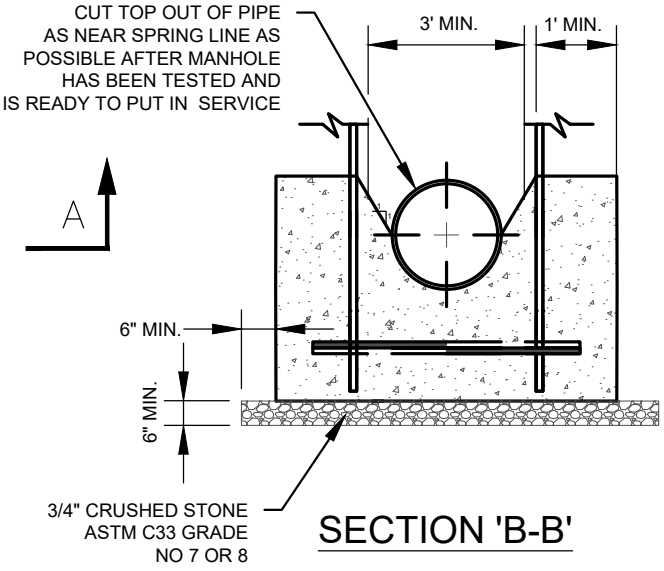


SECTION 'A-A"



ENLARGED SECTION





SECTION 'B-B'

DRAWN: DPM	CHECKED: JCF	APPROVED: MCC	
	EFFECTIVE DATE: 10/01/2018	SCALE: NTS	DETAIL:

MIDLAND Engineering Services PACKET

TYPICAL FIBERGLASS MANHOLE

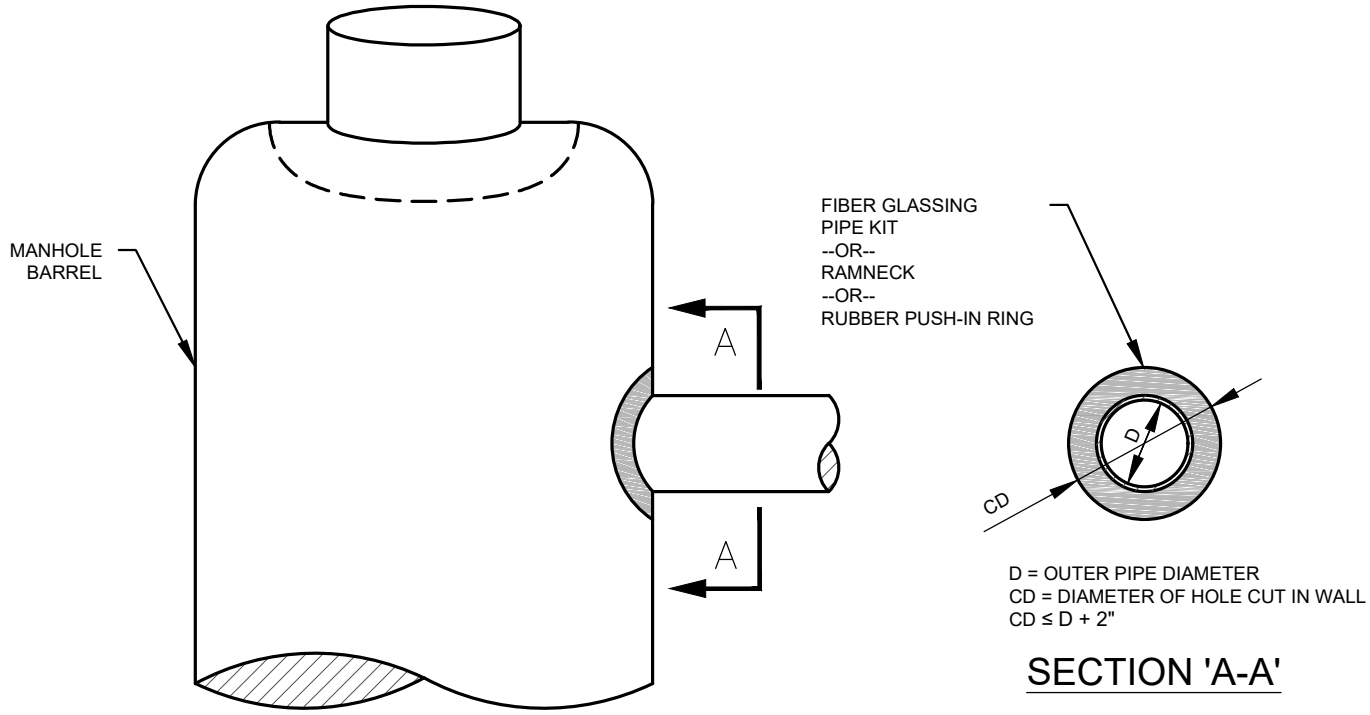
7.3.20 September 8, 2020

313(A)

NOTES:

1. 48" DIAMETER MANHOLES TO BE USED FOR PIPE DIAMETERS OF 24" OR SMALLER ONLY.
2. INSTALL DROPS AND INTERSECTING PIPES ONLY WHEN CALLED FOR IN CONSTRUCTION DRAWINGS.
3. SET MANHOLE FRAME IN SEALANT PER CITY OF MIDLAND STANDARD SPECIFICATIONS.
4. NEW MANHOLE TO HAVE SEAMLESS AND CONTINUOUS NECK, SHOULDER, AND BARREL.
5. ALL CONCRETE TO BE CLASS "A" CONCRETE.
6. MATERIALS AND CONSTRUCTION METHODS TO CONFORM TO CITY OF MIDLAND STANDARDS AND SPECIFICATIONS.
7. CONSTRUCT AS SHOWN UNLESS OTHERWISE APPROVED IN WRITING BY THE CITY ENGINEER.

DRAWN: DPM	CHECKED: JCF	APPROVED: MCC	
MIDLAND Engineering Services	EFFECTIVE DATE: 10/01/2018	SCALE: NTS	DETAIL:
PACKET	TYPICAL FIBERGLASS MANHOLE	September 8, 2020	313(B)

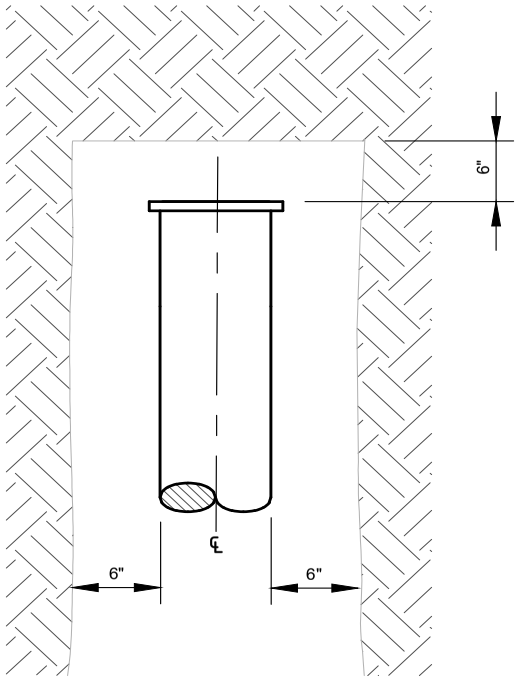


SECTION 'A-A'

NOTES:

1. THE DIAMETER OF THE CUTOUT IN THE MANHOLE BARREL IS TO BE NO MORE THAN 2.0" WIDER THAN THE OUTER WALL DIAMETER OF THE PENETRATING PIPE.
2. THE PENETRATING PIPE IS TO BE CENTERED IN THE MANHOLE BARREL CUTOUT.
3. PIPES PENETRATING MANHOLE MUST BE MINIMUM 6" DIAMETER, AND SERVICE LINES MUST BE CONSTRUCTED TO CITY WASTEWATER MAIN OR STORM DRAIN STANDARDS WITHIN PUBLIC RIGHT OF WAY OR EASEMENT.
4. FORM FLOW SURFACE AND MOUND CONCRETE AROUND PIPE PENETRATIONS, TO FORM A SEAL, IN ONE CONTINUOUS PLACEMENT OPERATION.
5. MATERIALS AND CONSTRUCTION METHODS TO CONFORM TO CITY OF MIDLAND STANDARDS AND SPECIFICATIONS.
6. CONSTRUCT AS SHOWN UNLESS OTHERWISE APPROVED IN WRITING BY THE CITY ENGINEER.

DRAWN: DPM	CHECKED: JCF	APPROVED: MCC	
MIDLAND Engineering Services	EFFECTIVE DATE: 10/01/2018	SCALE:	DETAIL:
	TYPICAL FIBERGLASS MANHOLE PIPE PENETRATION		314

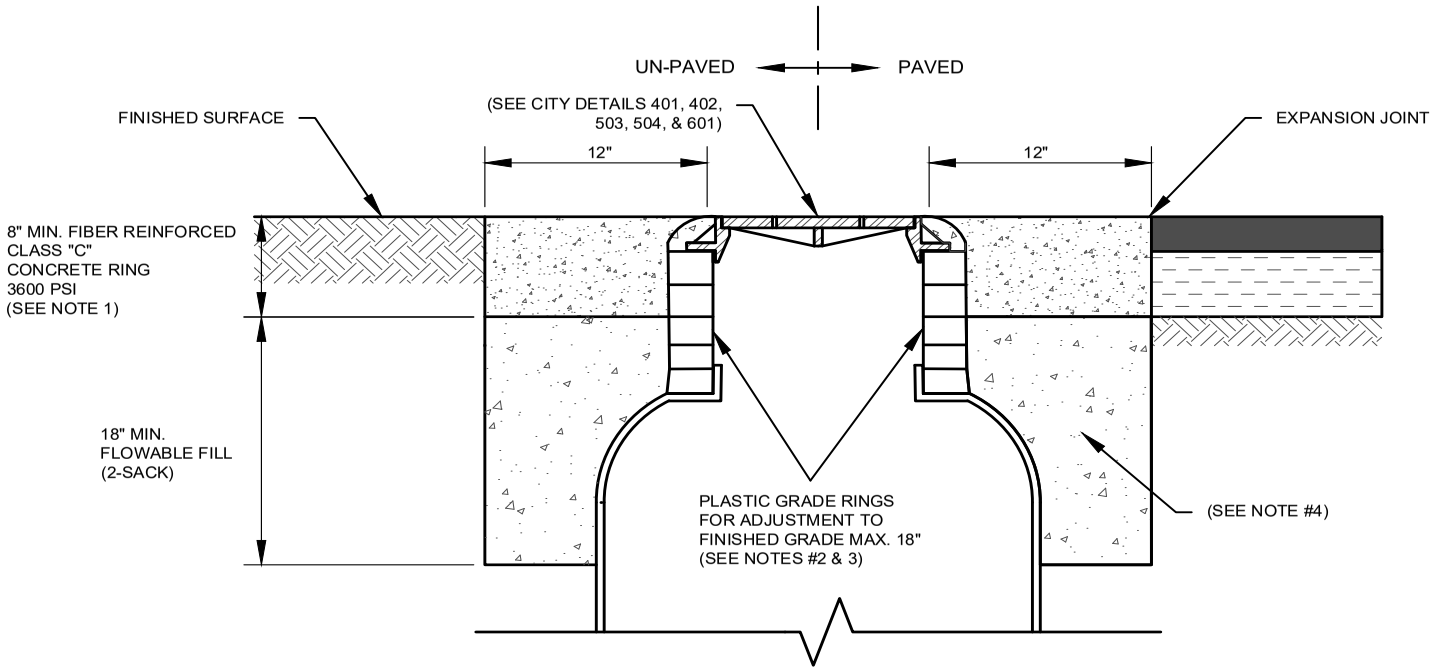


PLUG BLOCKING

NOTES:

1. PLUG ALL WASTEWATER MAIN AND STORM DRAIN STUB OUTS. SECURE PLASTIC PLUG TO END OF STORM DRAIN.
2. FITTINGS TO BE POLY WRAPPED BEFORE BACKFILLING.
3. MATERIALS AND CONSTRUCTION METHODS TO CONFORM TO CITY OF MIDLAND STANDARDS AND SPECIFICATIONS.
4. CONSTRUCT AS SHOWN UNLESS OTHERWISE APPROVED IN WRITING BY THE CITY ENGINEER.

MIDLAND Engineering Services	DRAWN: DPM CHECKED: JCF APPROVED: MCC	EFFECTIVE DATE: 10/01/2018	SCALE: NTS	DETAIL:
		GRAVITY MAIN PLUG		315

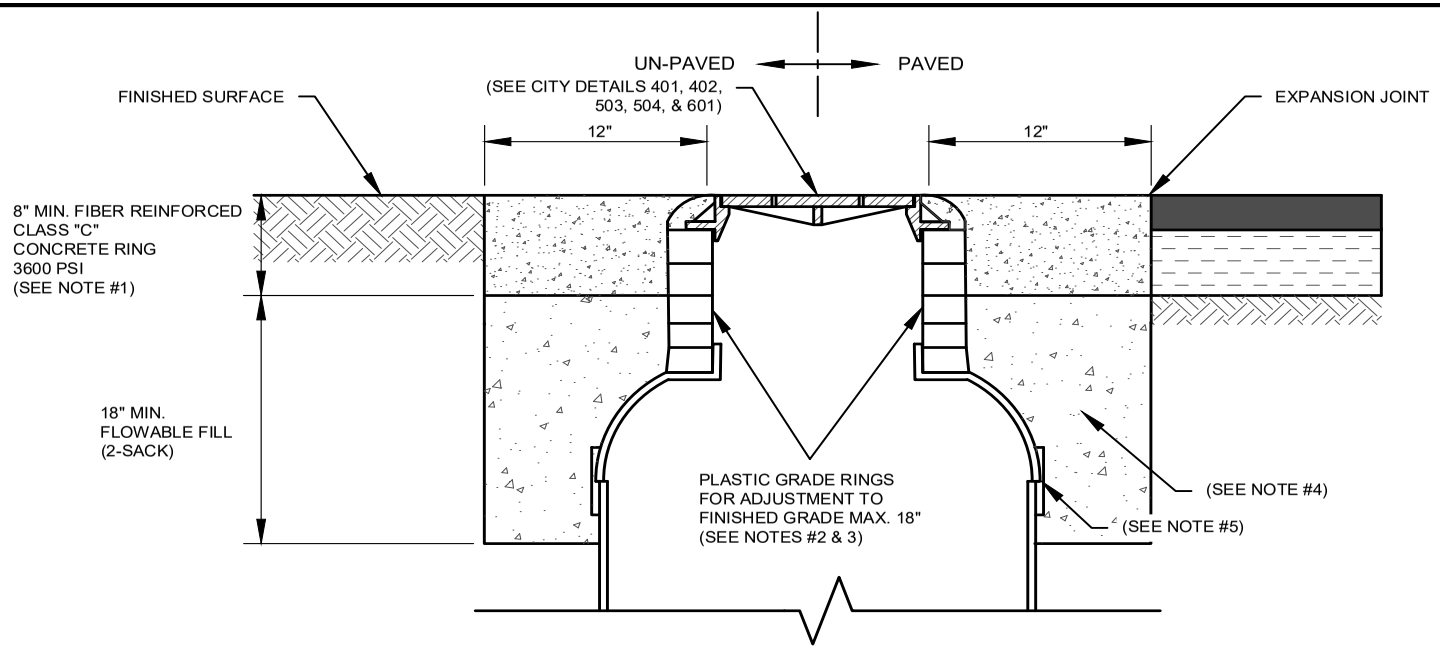


NEW MANHOLE ADJUSTMENT

NOTES:

1. INSTALL 12" MIN. FIBER REINFORCED CLASS "C" CONCRETE RING,3600 PSI, WHEN MANHOLE IS LOCATED IN AN ARTERIAL R.O.W.
2. GRADE RINGS TO MEET ASTM STANDARD A48 AND TO BE 2", 4", OR 6" THICKNESS AS REQUIRED. INSTALL ASPHALT TAR IN THICK, UNIFORM COATING OVER ALL OUTER ADJUSTMENT RING SURFACES AND JOINTS.
3. ENGINEERING SERVICES REPRESENTATIVE AND UTILITY SERVICES REPRESENTATIVE MAY ALLOW GREATER ADJUSTMENT RING DEPTH TO ACCOMMODATE PAVING STRUCTURES.
4. REMOVE ALL MATERIAL EXCAVATED FROM SITE AND EXCAVATION, AND FILL TO FINISHED BASE ELEVATION WITH FLOWABLE FILL 2-SACK (2 SACK = 188 LBS/CY, PORTLAND CEMENT).
5. MATERIALS AND CONSTRUCTION METHODS TO CONFORM TO CITY OF MIDLAND STANDARDS AND SPECIFICATIONS.
6. CONSTRUCT AS SHOWN UNLESS OTHERWISE APPROVED IN WRITING BY THE CITY ENGINEER.

MIDLAND Engineering Services	DRAWN: DPM CHECKED: JCF APPROVED: MCC	EFFECTIVE DATE: 10/01/2018	SCALE: NTS	DETAIL: 316
		NEW MANHOLE ADJUSTMENT		

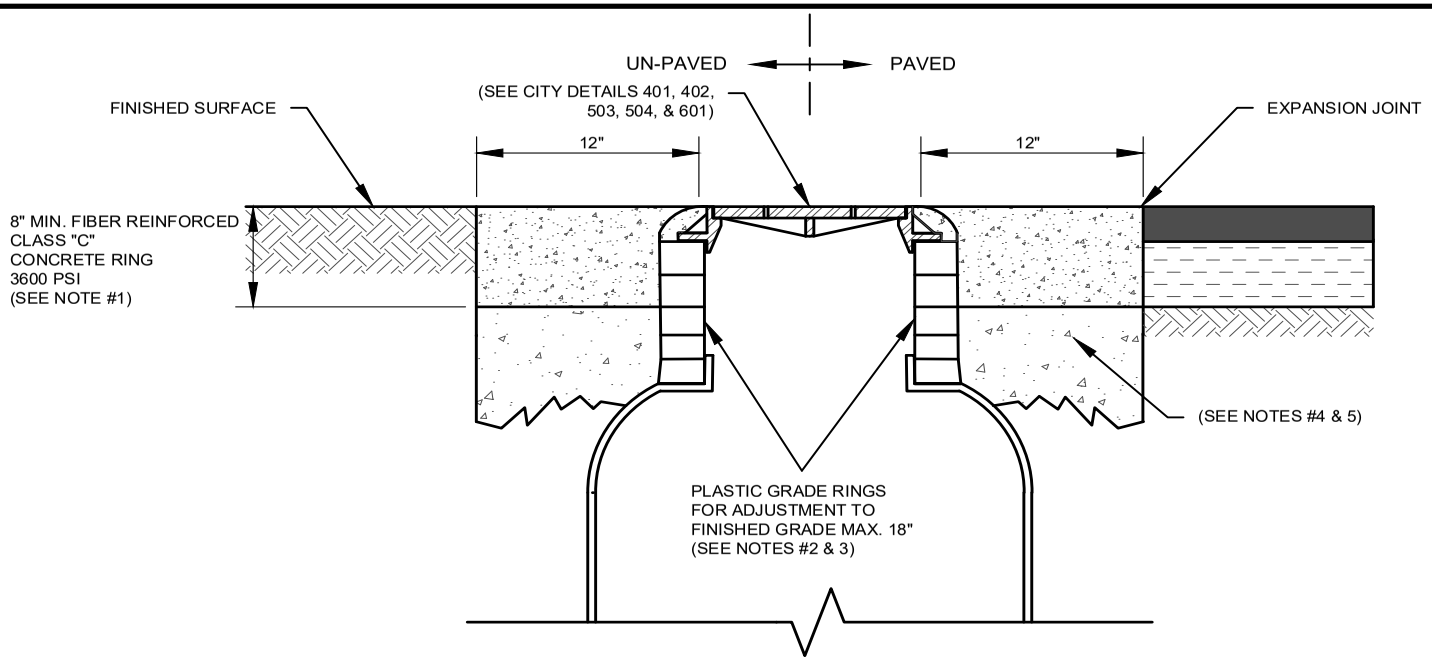


EXISTING MANHOLE BARREL ADJUSTMENT

NOTES:

1. INSTALL 12" MIN. FIBER REINFORCED CLASS "C" CONCRETE RING, 3600 PSI, WHEN MANHOLE IS LOCATED IN AN ARTERIAL R.O.W.
2. GRADE RINGS TO MEET ASTM STANDARD A48 AND TO BE 2", 4", OR 6" THICKNESS AS REQUIRED. INSTALL ASPHALT TAR IN THICK, UNIFORM COATING OVER ALL OUTER ADJUSTMENT RING SURFACES AND JOINTS.
3. ENGINEERING SERVICES REPRESENTATIVE AND UTILITY SERVICES REPRESENTATIVE MAY ALLOW GREATER ADJUSTMENT RING DEPTH TO ACCOMMODATE PAVING STRUCTURES.
4. REMOVE ALL MATERIAL EXCAVATED FROM SITE AND EXCAVATION, AND FILL TO FINISHED BASE ELEVATION WITH FLOWABLE FILL 2-SACK (2 SACK = 188 LBS/CY, PORTLAND CEMENT).
5. MANUFACTURED WATERTIGHT CONNECTOR, CORE DRILL AND INSTALL PER MANUFACTURER'S RECOMMENDATIONS.
6. MATERIALS AND CONSTRUCTION METHODS TO CONFORM TO CITY OF MIDLAND STANDARDS AND SPECIFICATIONS.
7. CONSTRUCT AS SHOWN UNLESS OTHERWISE APPROVED IN WRITING BY THE CITY ENGINEER.

MIDLAND Engineering Services	DRAWN: DPM CHECKED: JCF APPROVED: MCC	EFFECTIVE DATE: 10/01/2018	SCALE: NTS	DETAIL: 317
		EXISTING MANHOLE BARREL ADJUSTMENT		

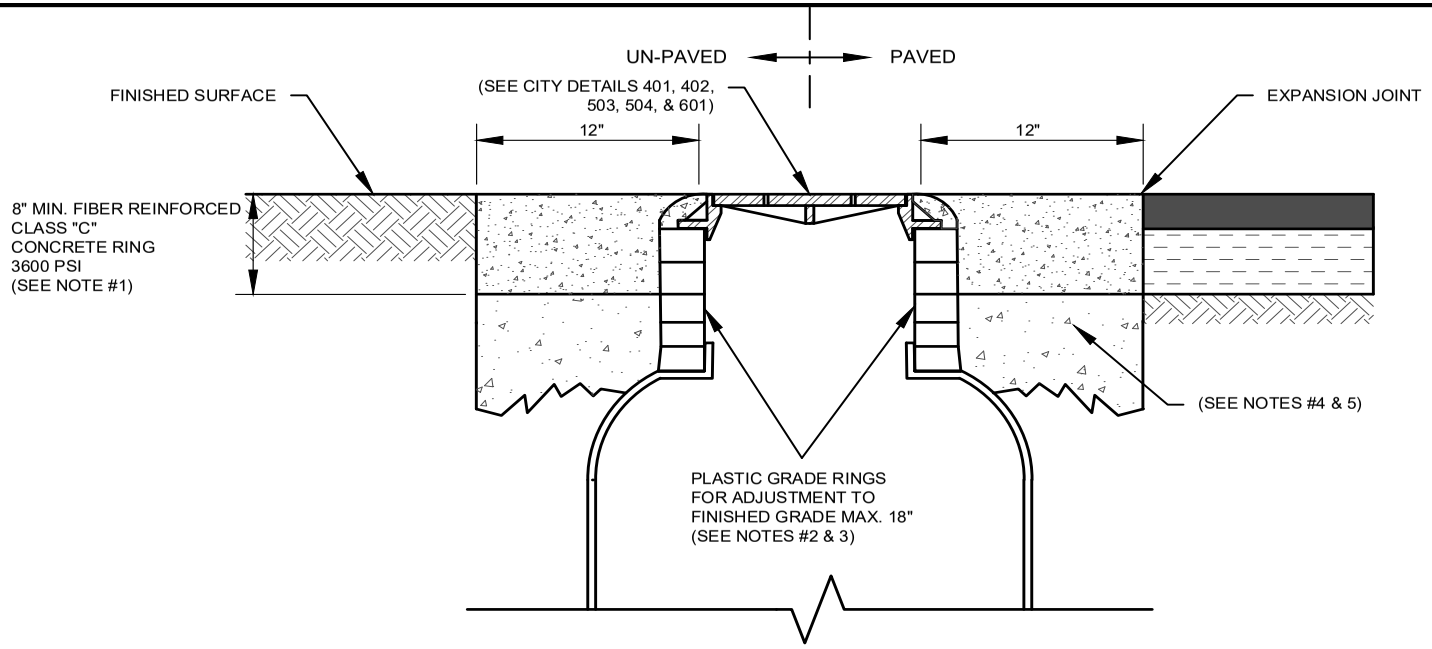


NEW MANHOLE RING & COVER ADJUSTMENT

NOTES:

1. INSTALL 12" MIN. FIBER REINFORCED CLASS "C" CONCRETE RING, 3600 PSI, WHEN MANHOLE IS LOCATED IN AN ARTERIAL R.O.W.
2. GRADE RINGS TO MEET ASTM STANDARD A48 AND TO BE 2", 4", OR 6" THICKNESS AS REQUIRED. INSTALL ASPHALT TAR IN THICK, UNIFORM COATING OVER ALL OUTER ADJUSTMENT RING SURFACES AND JOINTS.
3. ENGINEERING SERVICES REPRESENTATIVE AND UTILITY SERVICES REPRESENTATIVE MAY ALLOW GREATER ADJUSTMENT RING DEPTH TO ACCOMMODATE PAVING STRUCTURES.
4. REMOVE ALL MATERIAL EXCAVATED FROM SITE AND EXCAVATION.
5. FILL ANY OVER-EXCAVATION WITH FLOWABLE FILL 2-SACK (2-SACK = 188 LBS/CY, PORTLAND CEMENT).
6. MATERIALS AND CONSTRUCTION METHODS TO CONFORM TO CITY OF MIDLAND STANDARDS AND SPECIFICATIONS.
7. CONSTRUCT AS SHOWN UNLESS OTHERWISE APPROVED IN WRITING BY THE CITY ENGINEER.

MIDLAND Engineering Services	DRAWN: DPM CHECKED: JCF APPROVED: MCC	EFFECTIVE DATE: 10/01/2018	SCALE: NTS	DETAIL: 318
		NEW MANHOLE RING & COVER ADJUSTMENT		

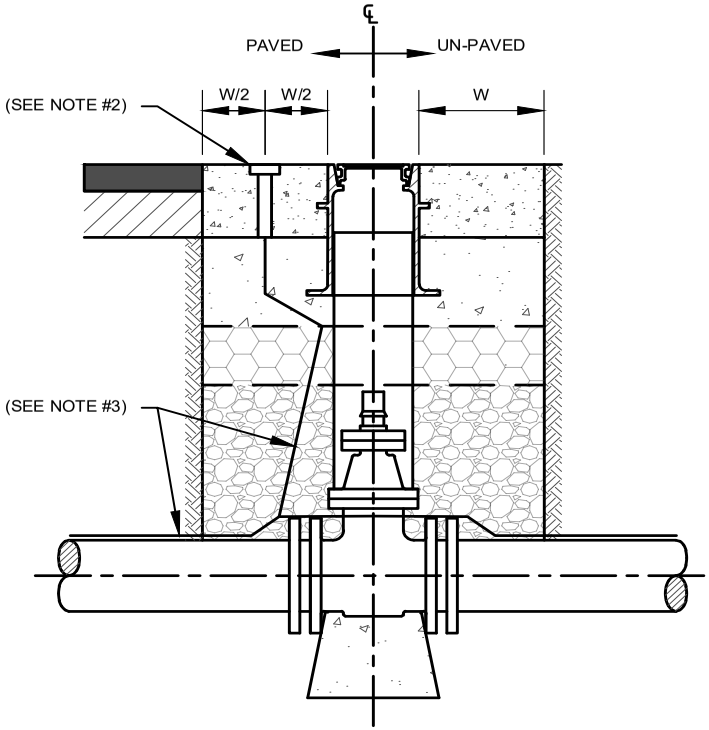


EXISTING MANHOLE RING & COVER ADJUSTMENT

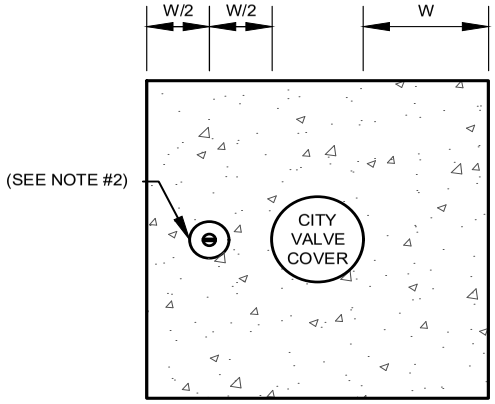
NOTES:

1. INSTALL 12" MIN. FIBER REINFORCED CLASS "C" CONCRETE RING, 3600 PSI, WHEN MANHOLE IS LOCATED IN AN ARTERIAL R.O.W.
2. GRADE RINGS TO MEET ASTM STANDARD A48 AND TO BE 2", 4", OR 6" THICKNESS AS REQUIRED. INSTALL ASPHALT TAR IN THICK, UNIFORM COATING OVER ALL OUTER ADJUSTMENT RING SURFACES AND JOINTS.
3. ENGINEERING SERVICES REPRESENTATIVE AND UTILITY SERVICES REPRESENTATIVE MAY ALLOW GREATER ADJUSTMENT RING DEPTH TO ACCOMMODATE PAVING STRUCTURES.
4. REMOVE ALL MATERIAL EXCAVATED FROM SITE AND EXCAVATION.
5. FILL ANY OVER-EXCAVATION WITH FLOWABLE FILL 2-SACK (2-SACK = 188 LBS/CY, PORTLAND CEMENT).
6. MATERIALS AND CONSTRUCTION METHODS TO CONFORM TO CITY OF MIDLAND STANDARDS AND SPECIFICATIONS.
7. CONSTRUCT AS SHOWN UNLESS OTHERWISE APPROVED IN WRITING BY THE CITY ENGINEER.

MIDLAND Engineering Services	DRAWN: DPM CHECKED: JCF APPROVED: MCC	EFFECTIVE DATE: 10/01/2018	SCALE: NTS	DETAIL: 319
		EXISTING MANHOLE RING & COVER ADJUSTMENT		



CROSS SECTION VIEW

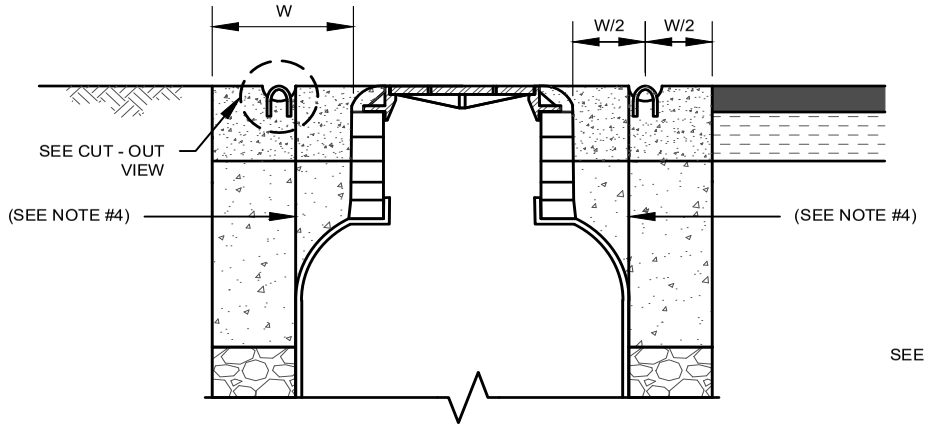


PLAN VIEW

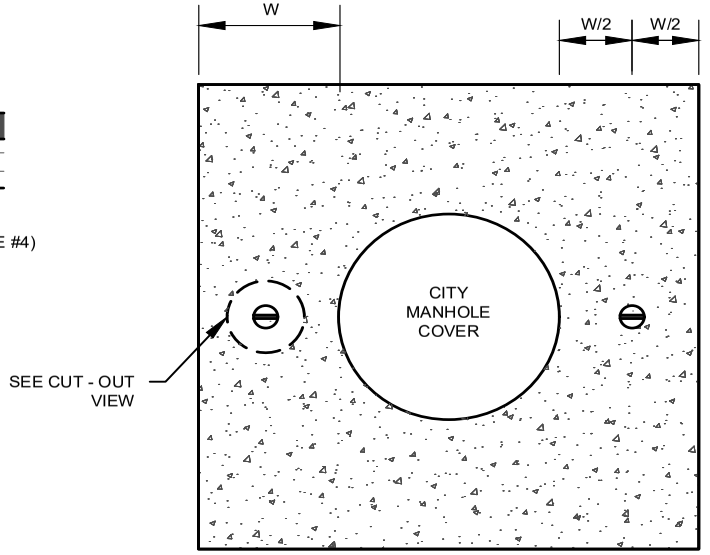
NOTES:

1. SEE OTHER CITY STANDARD DETAILS FOR INFORMATION REGARDING VALVES, COVERS, CONCRETE RINGS, ETC.
2. TRAFFIC RATED COPPERHEAD SNAKEPIT TEST STATION OR APPROVED EQUAL. SET FLUSH WITH FINISHED SURFACE OF CONCRETE RING.
3. TRACER WIRE PER DETAIL 310 (A) TO BE TAPED TO SIDE OF VALVE BOX AND FASTENED SECURELY TO END OF TEST STATION. TRACER WIRE TO REMAIN ENTIRELY COVERED.
4. MATERIALS AND CONSTRUCTION METHODS TO CONFORM TO CITY OF MIDLAND STANDARDS AND SPECIFICATIONS.
5. CONSTRUCT AS SHOWN UNLESS OTHERWISE APPROVED IN WRITING BY THE CITY ENGINEER.

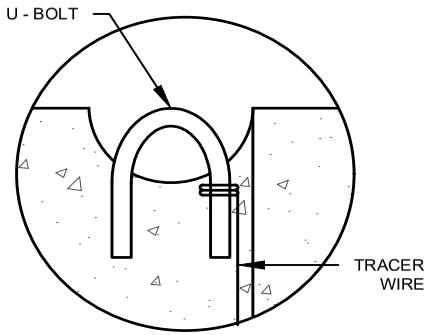
MIDLAND Engineering Services	DRAWN: DPM CHECKED: JCF APPROVED: MCC	EFFECTIVE DATE: 10/01/2018	SCALE: NTS	DETAIL:
		VALVE DETECTOR WIRE END		320



CROSS SECTION VIEW



PLAN VIEW



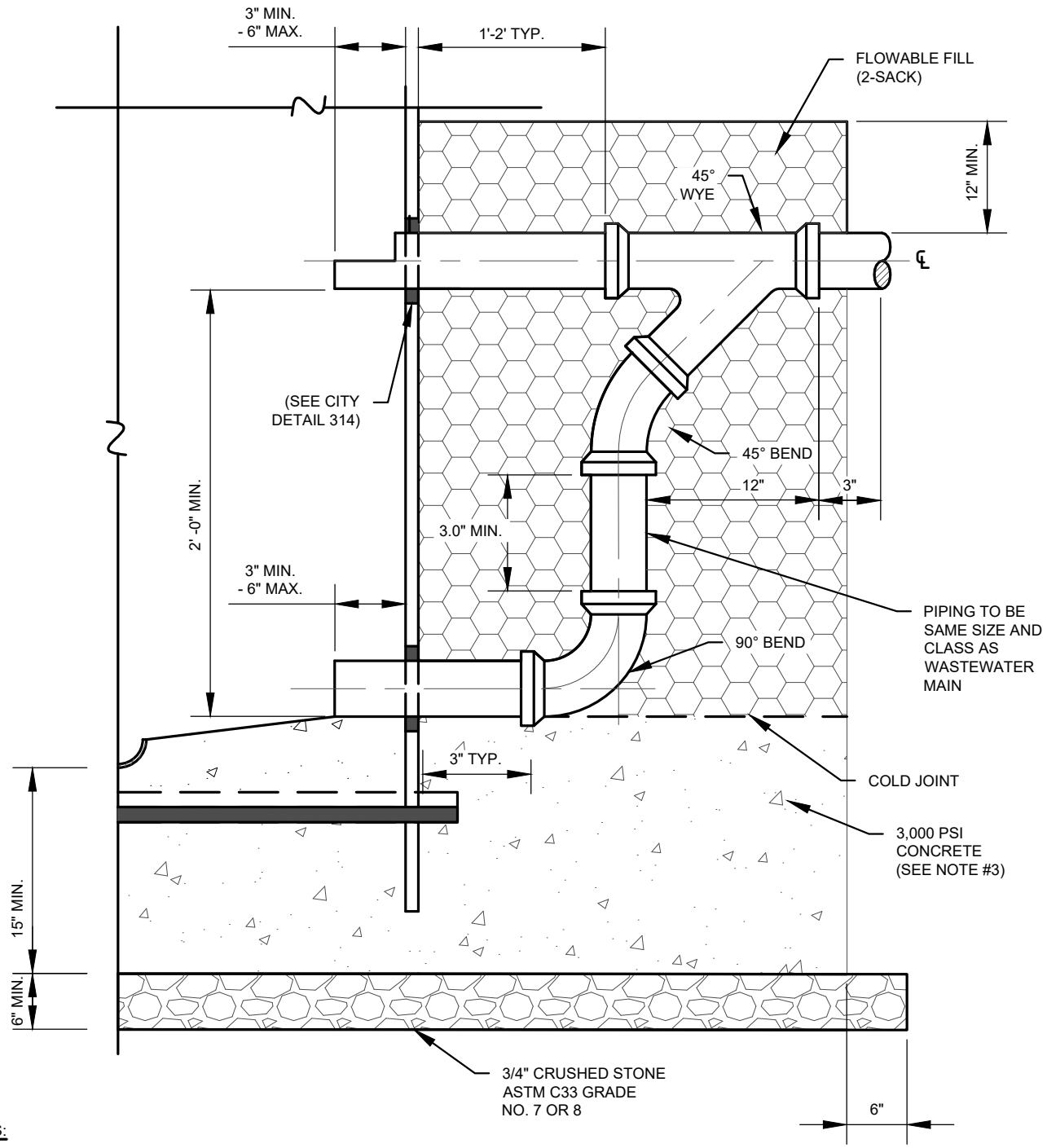
CUT - OUT VIEW

NOTES:

1. SEE OTHER CITY STANDARD DETAILS FOR INFORMATION REGUARDING MANHOLES, COVERS, CONCRETE RINGS, ETC.
2. U - BOLT IS TO BE GALVANIZED STEEL RATED FOR OUDOOR EXPOSURE, 1.0" DIAMETER.
3. U - BOLT IS TO BE SET FLUSH WITH FINISHED SURFACE OF CONCRETE RING. THERE IS TO BE A SMALL DEPRESSION IN THE CONCRETE SUFFICIENT TO ALLOW A CLAMP OR WIRE TO BE PLACED AROUND THE EXPOSED METAL.
4. TRACER WIRE PER DETAIL 310(A) TO BE TAPED TO SIDE OF MANHOLE AND WRAPPED SECURELY TO END OF U-BOLT WHEN INSTALLED. TRACER WIRE IS TO REMAIN ENTIRELY COVERED.
5. MATERIALS AND CONSTRUCTION METHODS TO CONFORM TO CITY OF MIDLAND STANDARDS AND SPECIFICATIONS.
6. CONSTRUCT AS SHOWN UNLESS OTHERWISE APPROVED IN WRITING BY THE CITY ENGINEER.

MIDLAND Engineering Services

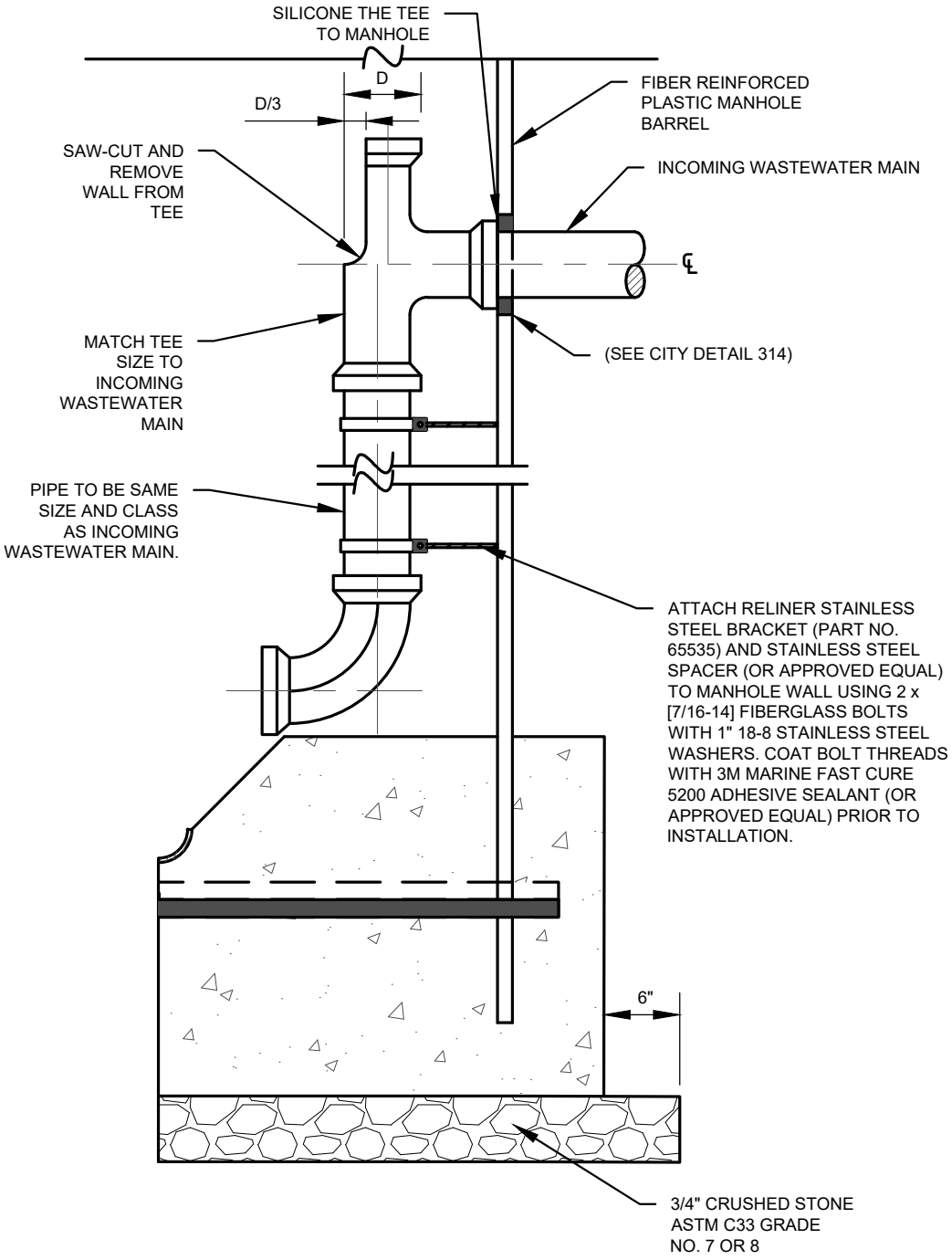
DRAWN: DPM	EFFECTIVE DATE: 10/01/2018	SCALE: NTS	DETAIL:
CHECKED: JCF	MANHOLE DETECTOR WIRE END		321
APPROVED: MCC			



NOTES:

1. FLOWABLE FILL 2-SACK (2 SACK = 188 LBS/CY, PORTLAND CEMENT). REQUIRED FOR ALL OVER EXCAVATION BACKFILL.
2. INSTALL BEND AND WYE AS NEAR TO MANHOLE WALL AS PRACTICAL, USUALLY 3"-4" FROM THE BEND AT THE BOTTOM.
3. ALL CONCRETE TO BE CLASS "A" CONCRETE.
4. MATERIALS AND CONSTRUCTION METHODS TO CONFORM TO CITY OF MIDLAND STANDARDS AND SPECIFICATIONS.
5. CONSTRUCT AS SHOWN UNLESS OTHERWISE APPROVED IN WRITING BY THE CITY ENGINEER.

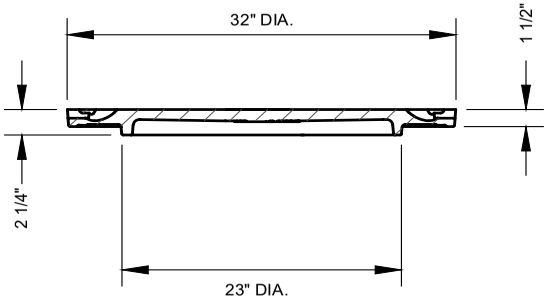
DRAWN: DPM	CHECKED: JCF	APPROVED: MCC	
MIDLAND Engineering Services	EFFECTIVE DATE: 10/01/2018	SCALE: NTS	DETAIL:
	EXTERNAL DROP STRUCTURE		501



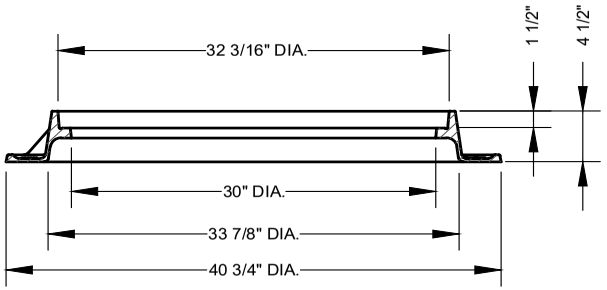
NOTES:

1. THIS DETAIL MAY ONLY BE USED WHEN CONNECTING TO AN EXISTING MANHOLE AND WITH THE PERMISSION OF BOTH THE CITY ENGINEER AND UTILITY DEPARTMENT REPRESENTATIVE.
2. FLOWABLE FILL 2-SACK (2 SACK = 188 LBS/CY, PORTLAND CEMENT). REQUIRED FOR ALL OVER EXCAVATION BACKFILL.
3. MATERIALS AND CONSTRUCTION METHODS TO CONFORM TO CITY OF MIDLAND STANDARDS AND SPECIFICATIONS.
4. CONSTRUCT AS SHOWN UNLESS OTHERWISE APPROVED IN WRITING BY THE CITY ENGINEER.

DRAWN: DPM	CHECKED: JCF	APPROVED: MCC	
MIDLAND Engineering Services	EFFECTIVE DATE: 10/01/2018	SCALE:	DETAIL:
	INTERNAL DROP STRUCTURE		502



COVER SECTION



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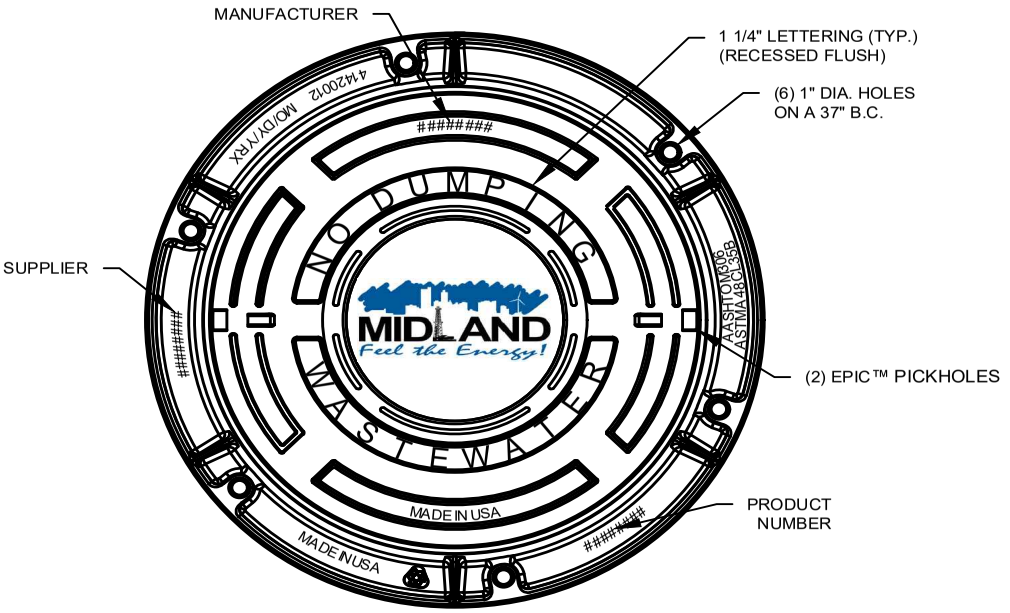
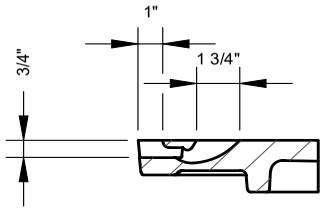




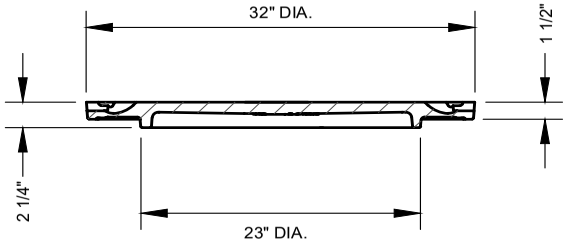
PICKHOLE DETAIL

NOTES:

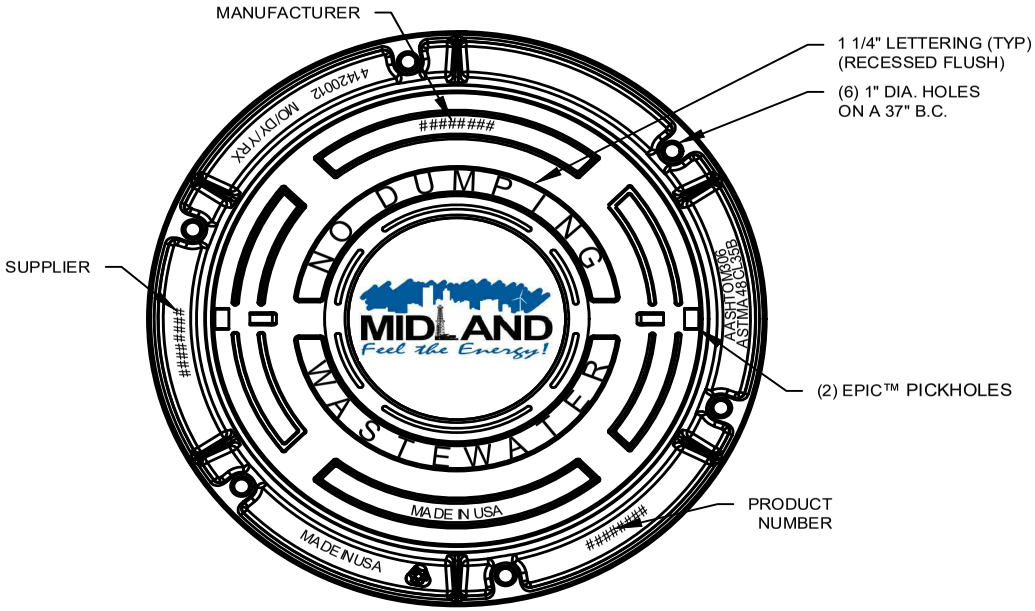
1. MANHOLE COVERS TO BE CAST WITH THE FOLLOWING:
   "NO DUMPING"
   CITY OF MIDLAND LOGO
   "WASTEWATER"

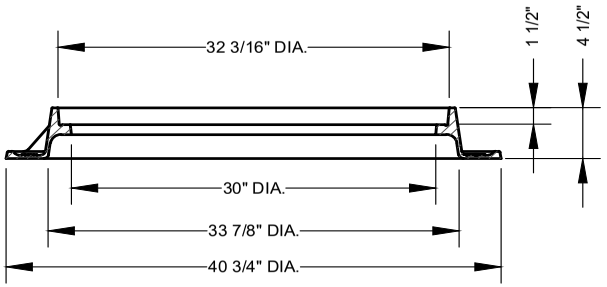
   EAST JORDAN V1420Z1/V1430A ASSEMBLY
   OR APPROVED EQUAL
2. MATERIALS AND CONSTRUCTION METHODS TO CONFORM TO CITY OF MIDLAND STANDARDS AND SPECIFICATIONS.
3. CONSTRUCT AS SHOWN UNLESS OTHERWISE APPROVED IN WRITING BY THE CITY ENGINEER.

MIDLAND Engineering Services	DRAWN: DPM CHECKED: JCF APPROVED: MCC	EFFECTIVE DATE: 10/01/2018	SCALE: NTS
TYPICAL WASTEWATER MANHOLE COVER			DETAIL: 503



COVER SECTION





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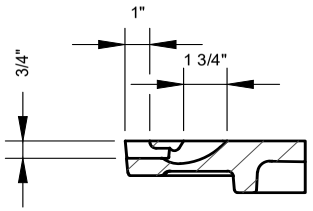


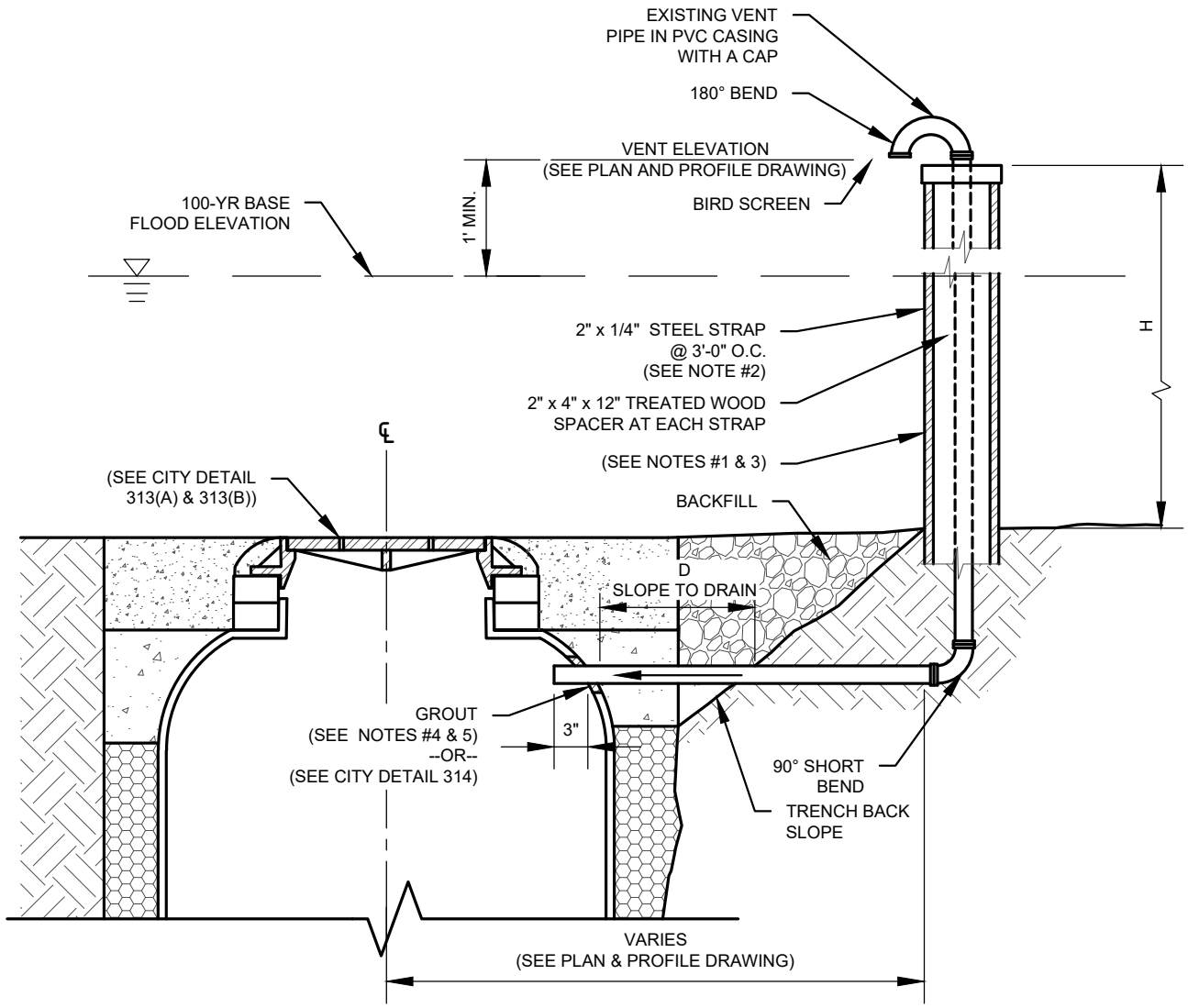
PICKHOLE DETAIL

NOTES:

1. MANHOLE COVERS TO BE CAST WITH THE FOLLOWING:
   "NO DUMPING"
   CITY OF MIDLAND LOGO
   "WASTEWATER"

   EAST JORDAN V1420ZPT/V1430APT ASSEMBLY OR APPROVED EQUAL
2. MATERIALS AND CONSTRUCTION METHODS TO CONFORM TO CITY OF MIDLAND STANDARDS AND SPECIFICATIONS.
3. CONSTRUCT AS SHOWN UNLESS OTHERWISE APPROVED IN WRITING BY THE CITY ENGINEER.

MIDLAND Engineering Services	DRAWN: DPM CHECKED: JCF APPROVED: MCC	EFFECTIVE DATE: 10/01/2018	SCALE: NTS	DETAIL:
		WATER TIGHT WASTEWATER MANHOLE COVER		504

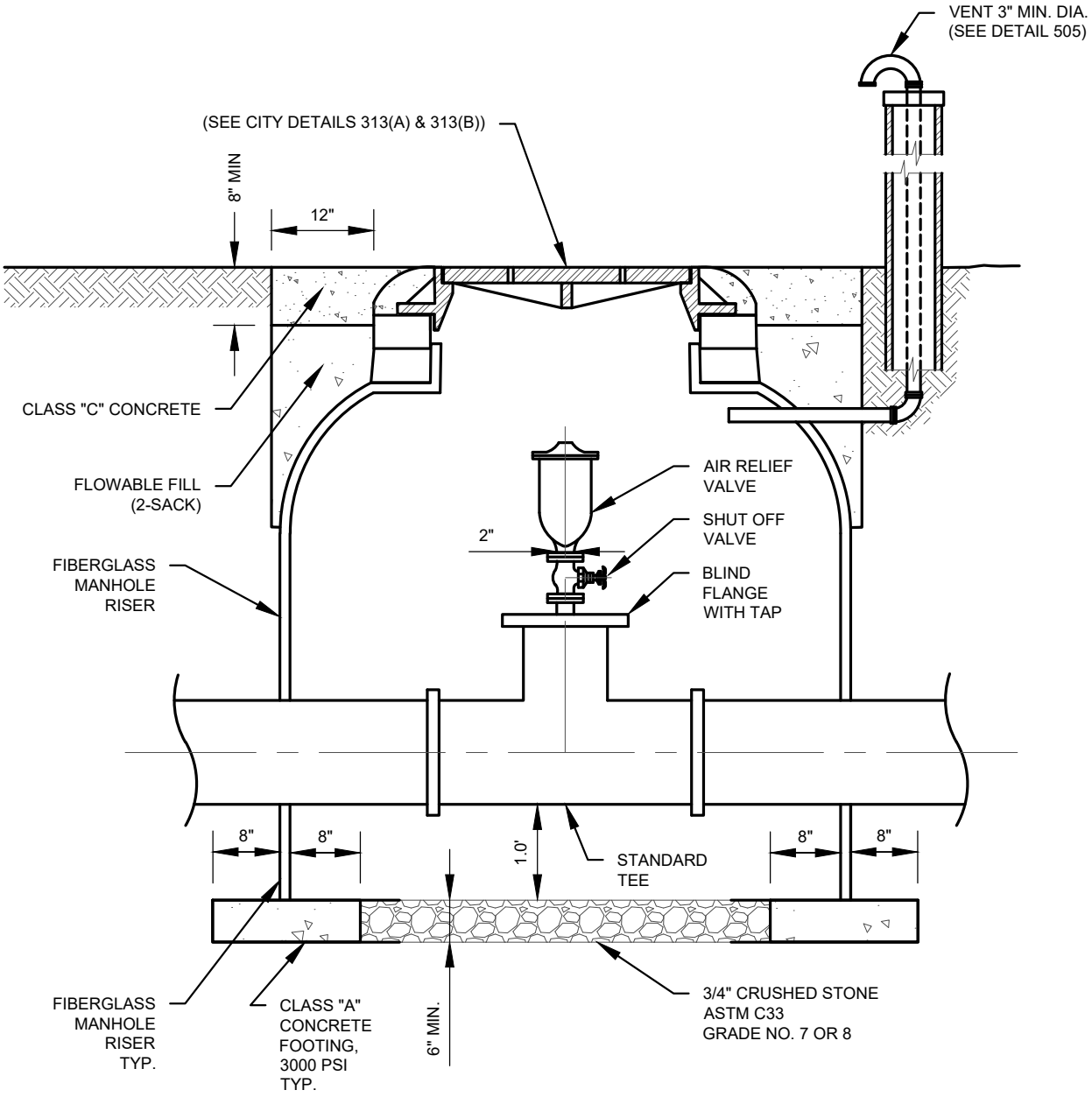


REMOTE VENT PIPE

NOTES:

1. ALL PIPING TO BE 3" DIA. DUCTILE IRON WITH FLANGED JOINTS COATED INSIDE AND OUTSIDE.
2. PAINT ALL STRAPPING WITH 2 COATS OF ALL WEATHER EPOXY.
3. PAINT ALL EXPOSED PIPING WITH 2 COATS OF ALL WEATHER EPOXY.
4. APPROVED WATER TIGHT MANHOLE CONNECTOR INSTALLED PER SPECIFICATION AND/OR MANUFACTURER'S INSTRUCTIONS.
5. GROUT TO BE APPROVED NON-SHRINK TYPE.
6. MANHOLE VENT TO BE USED IN CONJUNCTION WITH WATER TIGHT MANHOLE RINGS AND COVERS SPACED EVERY THIRD MANHOLE OR AS SHOWN ON THE PLANS.
7. MATERIALS AND CONSTRUCTION METHODS TO CONFORM TO CITY OF MIDLAND STANDARDS AND SPECIFICATIONS.
8. CONSTRUCT AS SHOWN UNLESS OTHERWISE APPROVED IN WRITING BY THE CITY ENGINEER.

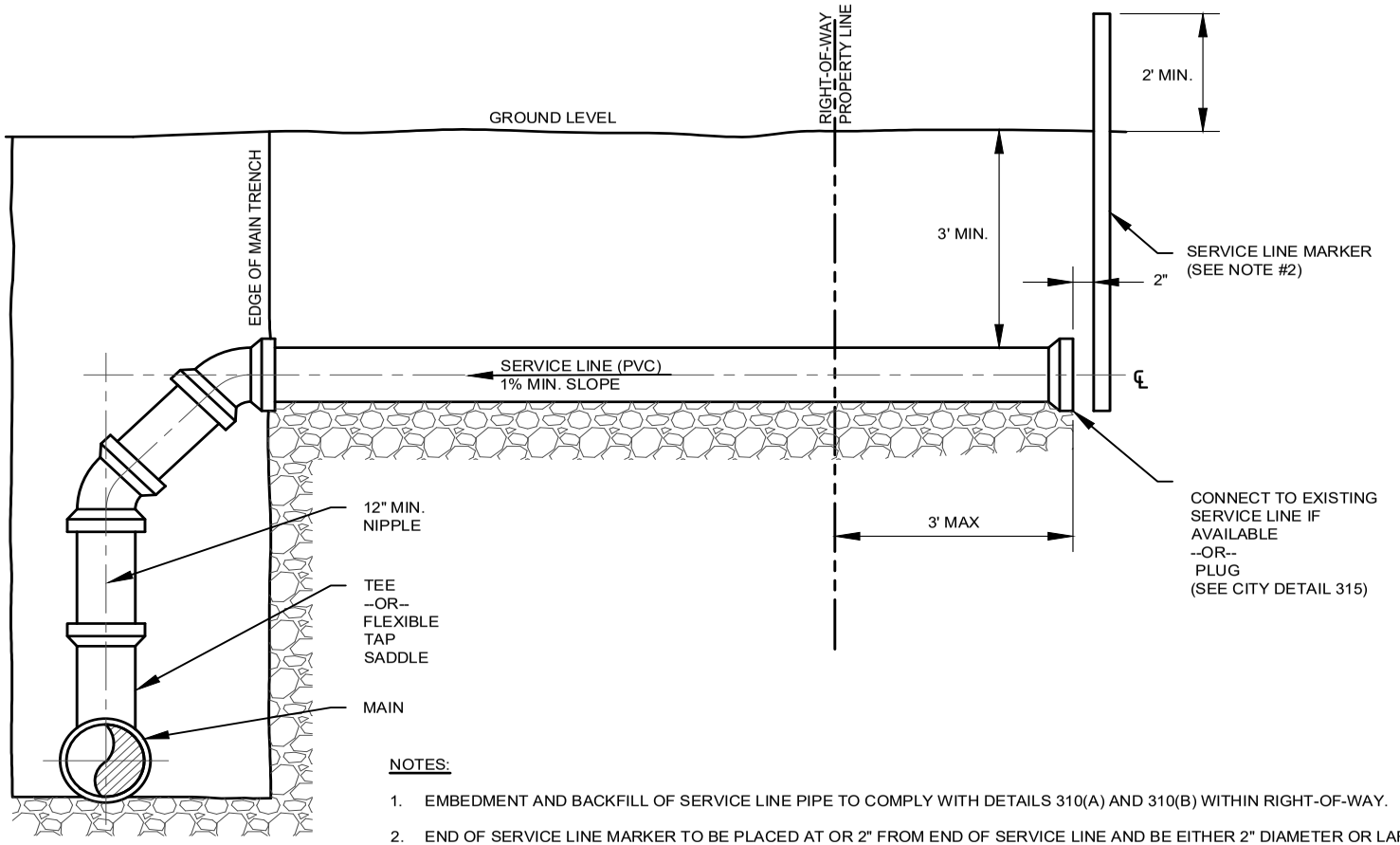
DRAWN: DPM	CHECKED: JCF	APPROVED: MCC	
MIDLAND Engineering Services	EFFECTIVE DATE: 10/01/2018	SCALE: NTS	DETAIL:
	REMOTE VENT PIPE		505



NOTES:

1. IF AIR RELIEF VALVE IS LOCATED IN PAVEMENT THE COVER IS TO BE A GRATE COVER AND NO VENT PIPES ARE TO BE UTILIZED.
2. ALL CONCRETE PAVEMENT TO BE CLASS "C" CONCRETE, 3600 PSI.
3. PLACE ALL FLOWABLE FILL 2-SACK (2 - SACK = 188 LBS/CY, PORTLAND CEMENT) AS A SINGLE CONTINUOUS POUR.
4. MATERIAL AND CONSTRUCTION METHODS TO CONFORM TO CITY OF MIDLAND STANDARDS AND SPECIFICATIONS.
5. CONSTRUCT AS SHOWN UNLESS OTHERWISE APPROVED IN WRITING BY THE CITY ENGINEER.

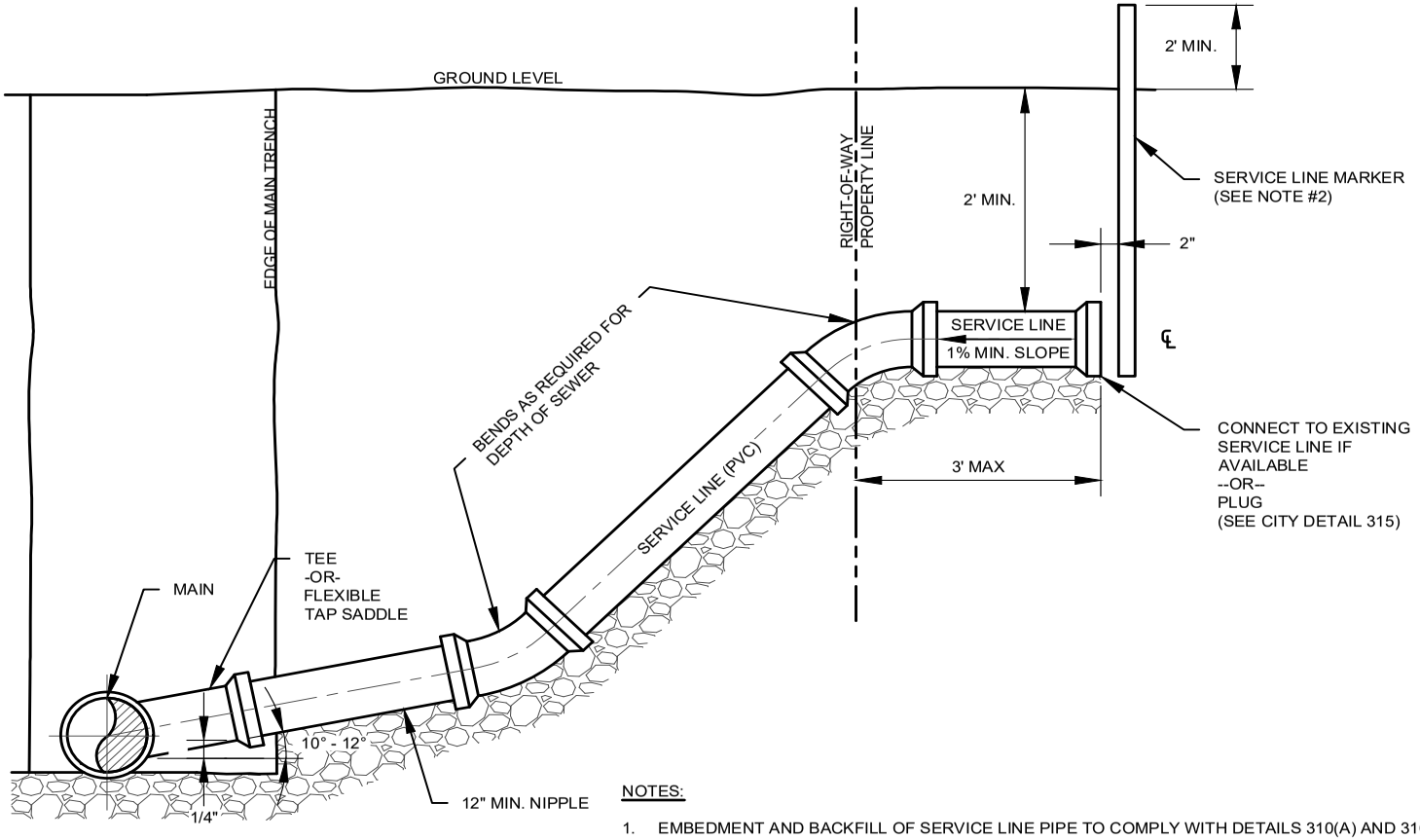
DRAWN: DPM	CHECKED: JCF	APPROVED: MCC	
MIDLAND Engineering Services	EFFECTIVE DATE: 10/01/2018	SCALE: NTS	DETAIL:
	FORCE MAIN RELIEF VALVE		506



NOTES:

1. EMBEDMENT AND BACKFILL OF SERVICE LINE PIPE TO COMPLY WITH DETAILS 310(A) AND 310(B) WITHIN RIGHT-OF-WAY.
2. END OF SERVICE LINE MARKER TO BE PLACED AT OR 2" FROM END OF SERVICE LINE AND BE EITHER 2" DIAMETER OR LARGER PVC OR FLEXIBLE POLYETHYLENE PIPE.
3. MATERIALS AND CONSTRUCTION METHODS TO CONFORM TO CITY OF MIDLAND STANDARDS AND SPECIFICATIONS.
4. CONSTRUCT AS SHOWN UNLESS OTHER WISE APPROVED IN WRITING BY THE CITY ENGINEER.

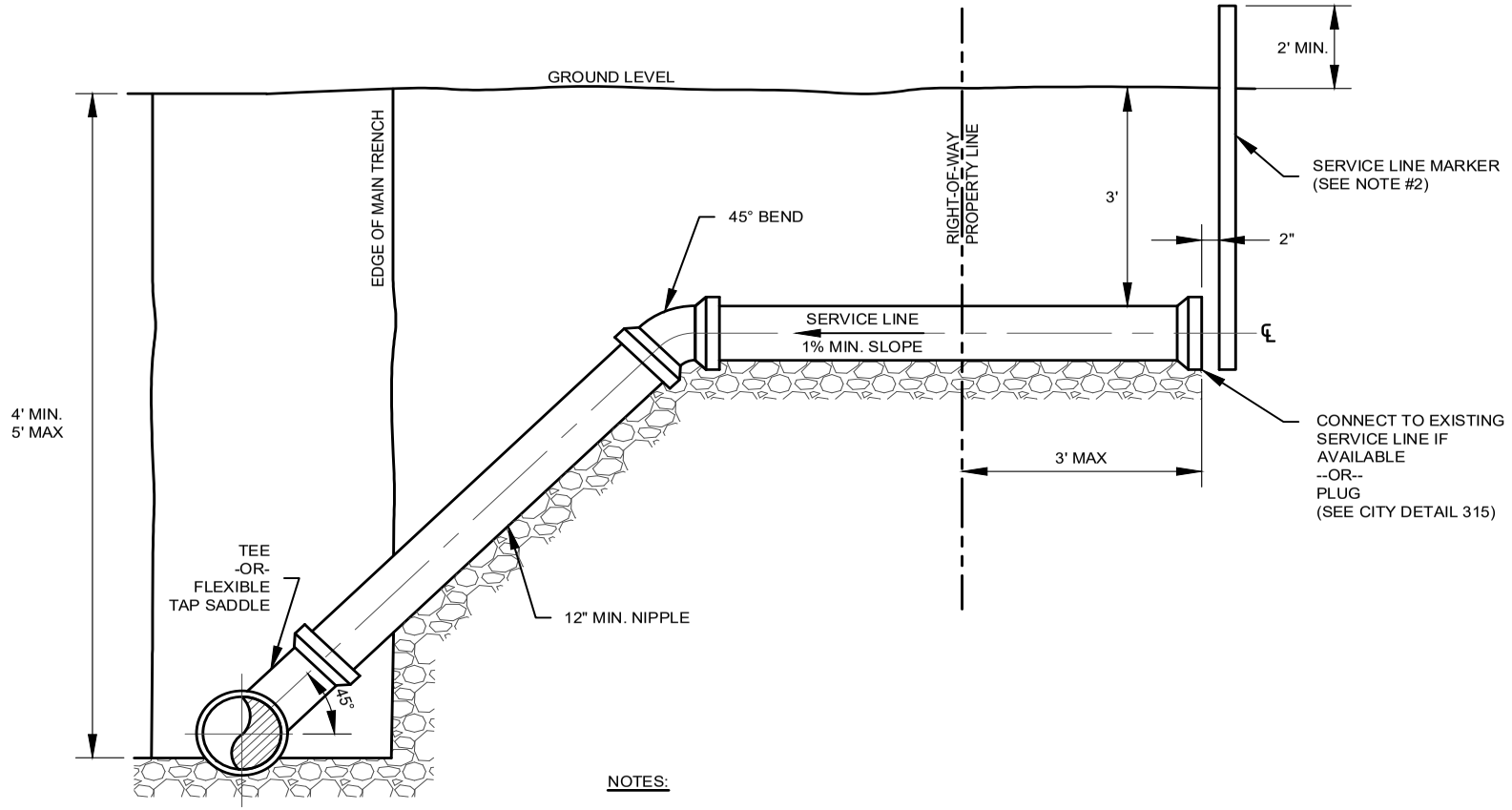
MIDLAND Engineering Services	DRAWN: DPM CHECKED: JCF APPROVED: MCC	EFFECTIVE DATE: 10/01/2018	SCALE:
		4" AND 6" WASTEWATER SERVICE LATERAL TAP OPTION 1	DETAIL: 507



NOTES:

1. EMBEDMENT AND BACKFILL OF SERVICE LINE PIPE TO COMPLY WITH DETAILS 310(A) AND 310(B) WITHIN RIGHT-OF-WAY.
2. END OF SERCIVE LINE MARKER TO BE PLACED 2" FROM END OF SERVICE LINE AND BE EITHER 2" DIAMETER OR LARGER PVC OR FLEXIBLE POLYETHYLENE PIPE.
3. MATERIALS AND CONSTRUCTION METHODS TO CONFORM TO CITY OF MIDLAND STANDARDS AND SPECIFICATIONS.
4. CONSTRUCT AS SHOWN UNLESS OTHER WISE APPROVED IN WRITING BY THE CITY ENGINEER.

MIDLAND Engineering Services	DRAWN: DPM CHECKED: JCF APPROVED: MCC	EFFECTIVE DATE: 10/01/2018	SCALE: NTS
4" AND 6" WASTEWATER SERVICE LATERAL TAP OPTION 2			DETAIL: 508



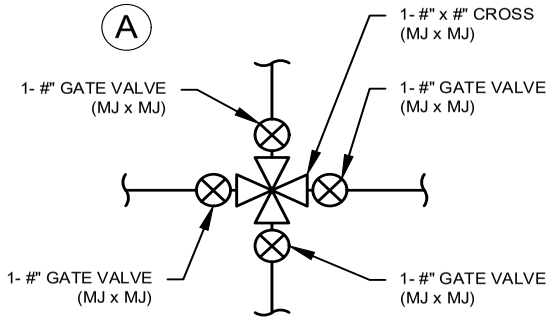
NOTES:

1. EMBEDMENT AND BACKFILL OF SERVICE LINE PIPE TO COMPLY WITH DETAILS 310(A) AND 310(B) WITHIN RIGHT-OF-WAY.
2. END OF SERVICE LINE MARKER TO BE PLACED 2" FROM END OF SERVICE LINE AND BE EITHER 2" DIAMETER OR LARGER PVC OR FLEXIBLE POLYETHYLENE PIPE.
3. MATERIALS AND CONSTRUCTION METHODS TO CONFORM TO CITY OF MIDLAND STANDARDS AND SPECIFICATIONS.
4. CONSTRUCT AS SHOWN UNLESS OTHERWISE APPROVED IN WRITING BY THE CITY ENGINEER.

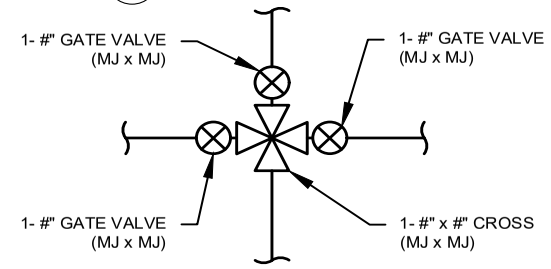
MIDLAND Engineering Services	DRAWN: DPM CHECKED: JCF APPROVED: MCC	EFFECTIVE DATE: 10/01/2018	SCALE: NTS	DETAIL:
		4" AND 6" WASTEWATER SERVICE LATERAL TAP OPTION 3		509

CROSS FITTING RESTRAINTS

A

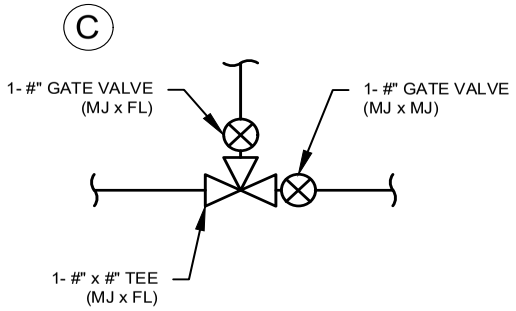


B



TEE FITTING RESTRAINTS

C



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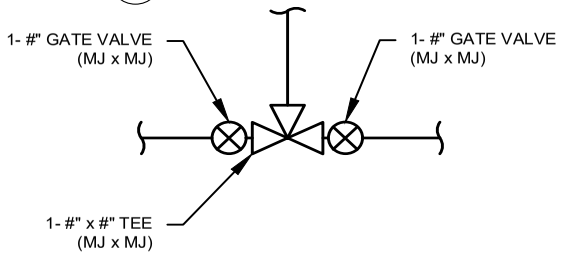
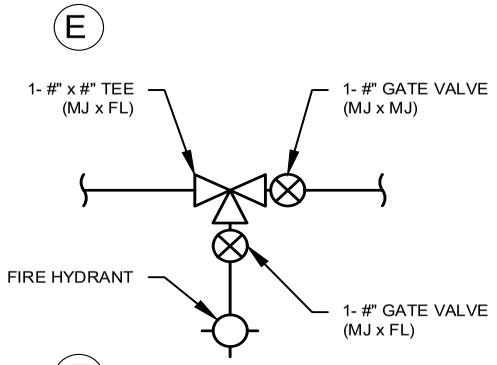


FIRE HYDRANT RESTRAINTS

E



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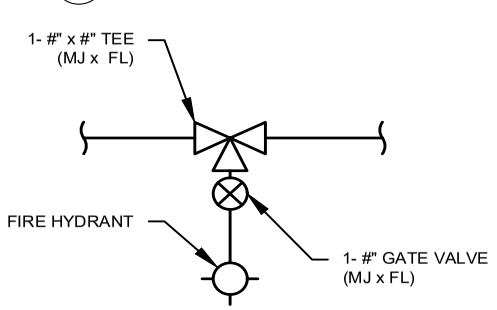
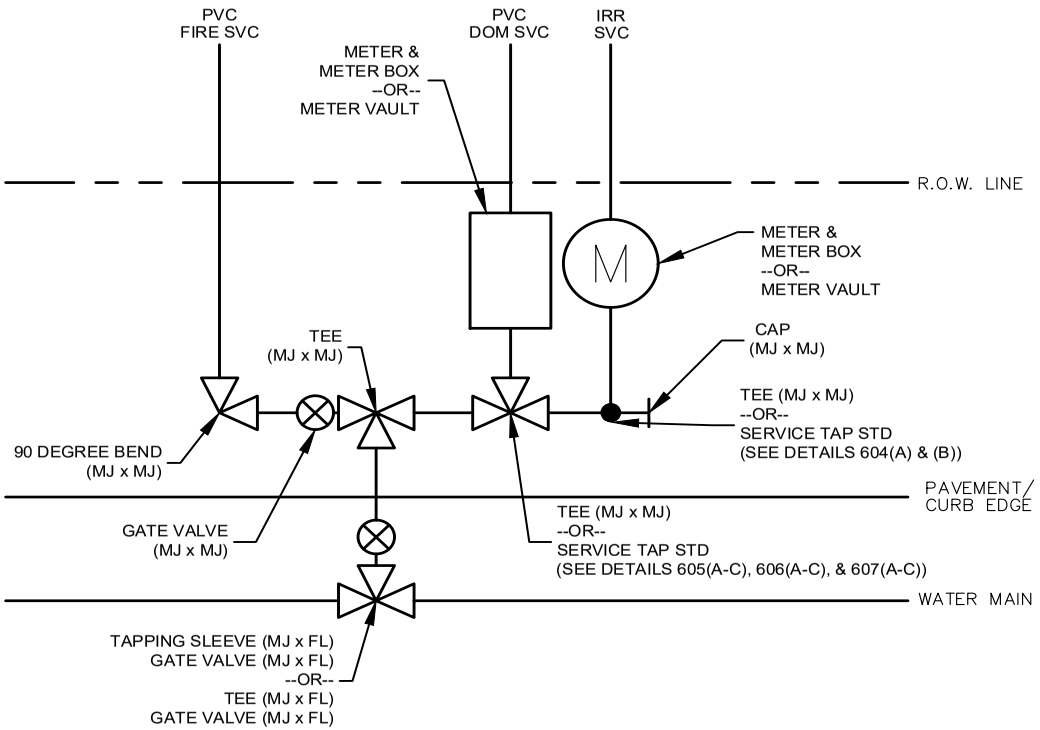


NOTES:

1. ALL MECHANICAL JOINT (MJ) FITTINGS TO BE RESTRAINED.
2. ALL FLANGES (FL) TO BE ON THE BRANCH SIDE OF TEE FITTINGS.
3. MATERIALS AND CONSTRUCTION METHODS TO CONFORM TO CITY OF MIDLAND STANDARDS AND SPECIFICATIONS.
4. CONSTRUCT AS SHOWN UNLESS OTHERWISE APPROVED IN WRITING BY THE CITY ENGINEER.

MIDLAND Engineering Services	DRAWN: DPM CHECKED: JCF APPROVED: MCC	EFFECTIVE DATE: 10/01/2018	SCALE: NTS	DETAIL:
		TYPICAL FITTING RESTRAINT CONFIGURATIONS		601



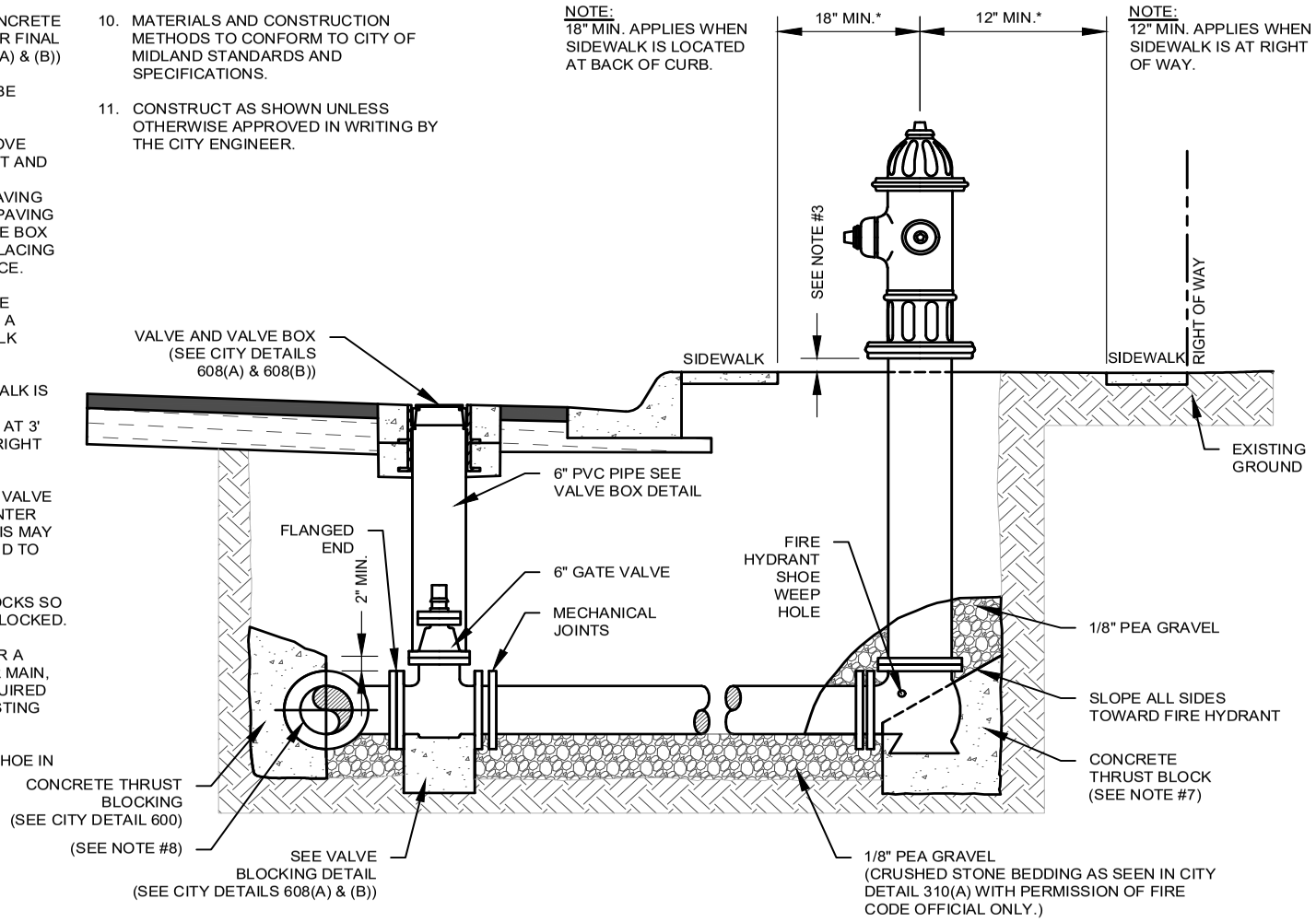
NOTES:

1. MATERIALS AND CONSTRUCTION METHODS TO CONFORM TO CITY OF MIDLAND STANDARDS AND SPECIFICATIONS.
2. CONSTRUCT AS SHOWN UNLESS OTHERWISE APPROVED IN WRITING BY THE CITY ENGINEER.

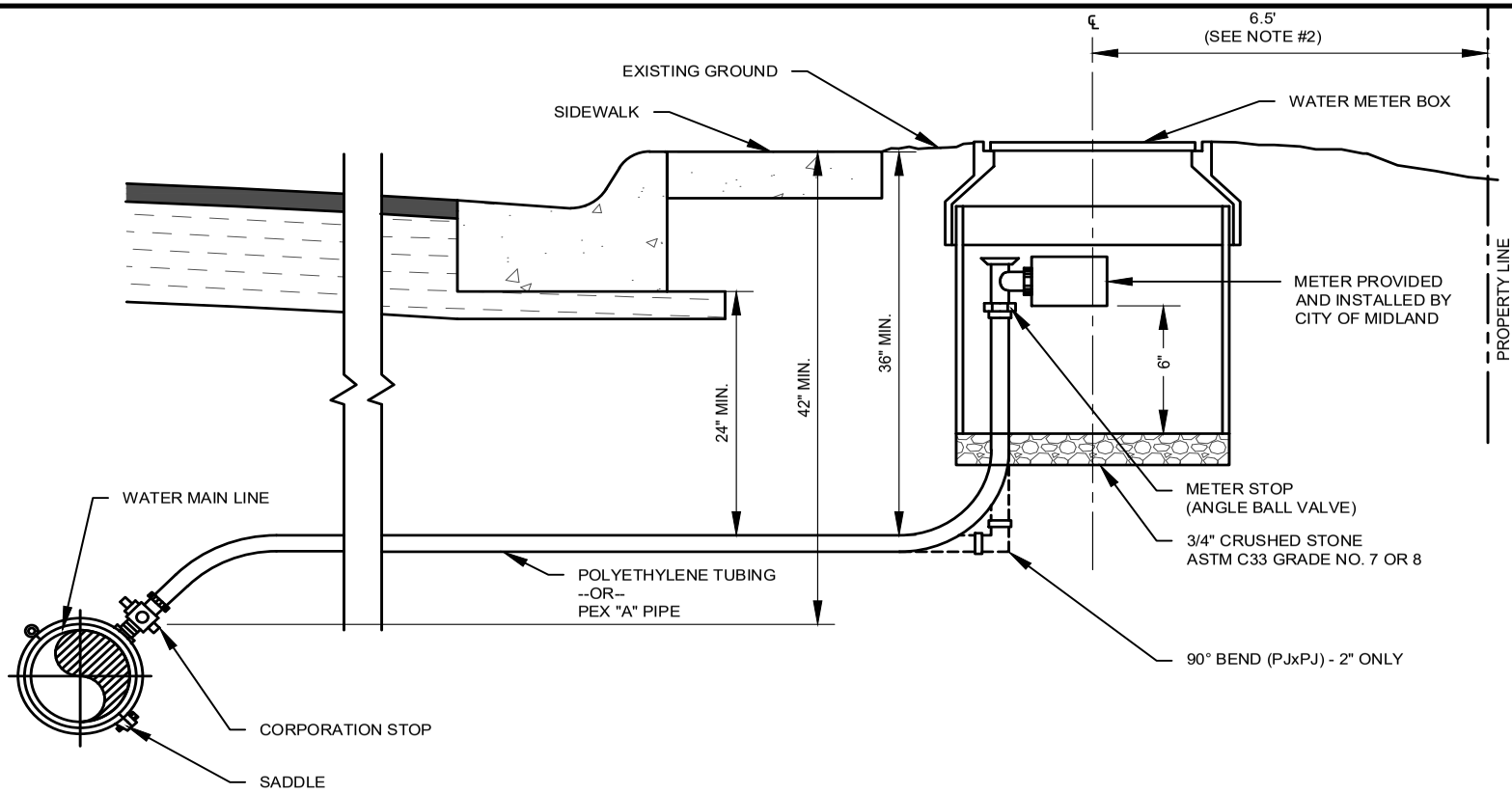
MIDLAND Engineering Services	DRAWN: DPM CHECKED: JCF APPROVED: MCC	EFFECTIVE DATE: 10/01/2018	SCALE:	DETAIL:
		STANDARD MULTI-FAMILY & COMMERCIAL WATER SERVICE MANIFOLD		602

NOTES:

1. SET ALL VALVE BOXES IN A CONCRETE COLLAR WHEN PLACED AT THEIR FINAL GRADE. (SEE CITY DETAILS 608(A) & (B))
2. ALL CONCRETE PAVEMENT TO BE CLASS "C" CONCRETE, 3600 PSI.
3. LEAVE VALVE BOX 6" TO 10" ABOVE GRADE FOR NEW DEVELOPMENT AND OTHER STREETS AND ALLEYS SCHEDULED FOR IMMEDIATE PAVING UNTIL STREET WORK IS DONE. PAVING CONTRACTOR TO ADJUST VALVE BOX TO FINISHED GRADE BEFORE PLACING LAST COURSE OF HMAC SURFACE.
4. SET FRANGIBLE FLANGE OF FIRE HYDRANT A MINIMUM OF 2" AND A MAXIMUM OF 6" ABOVE SIDEWALK ELEVATION.
5. ON STREETS WHERE NO SIDEWALK IS TO BE CONSTRUCTED, SET CENTERLINE OF FIRE-HYDRANT AT 3' FROM PROPERTY LINE WITHIN RIGHT OF WAY.
6. PLACE FIRE HYDRANT CUT-OFF VALVE A MINIMUM OF 3' FROM THE CENTER LINE OF THE FIRE HYDRANT. THIS MAY REQUIRE THE USE OF A 90° BEND TO OFFSET THE FIRE HYDRANT.
7. SHAPE CONCRETE THRUST BLOCKS SO THAT NO WATER DRAINS ARE BLOCKED.
8. A TEE FITTING IS REQUIRED FOR A CONNECTION TO A NEW WATER MAIN, AND A TAPPING SLEEVE IS REQUIRED FOR A CONNECTION TO AN EXISTING WATER MAIN.
9. DO NOT WRAP FIRE HYDRANT SHOE IN PLASTIC.
10. MATERIALS AND CONSTRUCTION METHODS TO CONFORM TO CITY OF MIDLAND STANDARDS AND SPECIFICATIONS.
11. CONSTRUCT AS SHOWN UNLESS OTHERWISE APPROVED IN WRITING BY THE CITY ENGINEER.



MIDLAND Engineering Services	DRAWN: DPM CHECKED: JCF APPROVED: MCC	EFFECTIVE DATE: 10/01/2018	SCALE: NTS	DETAIL:
		FIRE HYDRANT NEW WATER MAIN		603



NOTES:

1. ALL WATER SERVICES TO BE 1" OR 2" DIAMETER.
2. THE DISTANCE FROM PROPERTY LINE SHOWN IS FOR 5' SIDEWALK AT THE PROPERTY LINE. WHEN 5' SIDEWALK IS PLACED AT THE BACK OF CURB, PLACE METER BOXES A MINIMUM OF 6.5' FROM THE BACK OF CURB.
3. TWO ADJACENT SERVICE LATERALS MAY BE PLACED IN THE SAME TRENCH. EACH TAP MUST BE SEPARATE AND HAVE BOTH A CORPORATION STOP AND A METER STOP. ("BULLHEAD TAPS ARE NOT PERMITTED".)
4. MATERIALS AND CONSTRUCTION METHODS TO CONFORM TO CITY OF MIDLAND STANDARDS AND SPECIFICATIONS.
5. CONSTRUCT AS SHOWN UNLESS OTHERWISE APPROVED IN WRITING BY THE CITY ENGINEER.

MIDLAND Engineering Services	DRAWN: DPM CHECKED: JCF APPROVED: MCC	EFFECTIVE DATE: 10/01/2018	SCALE: NTS	DETAIL:
		1" AND 2" WATER METER AND SERVICE CONNECTION		604(A)

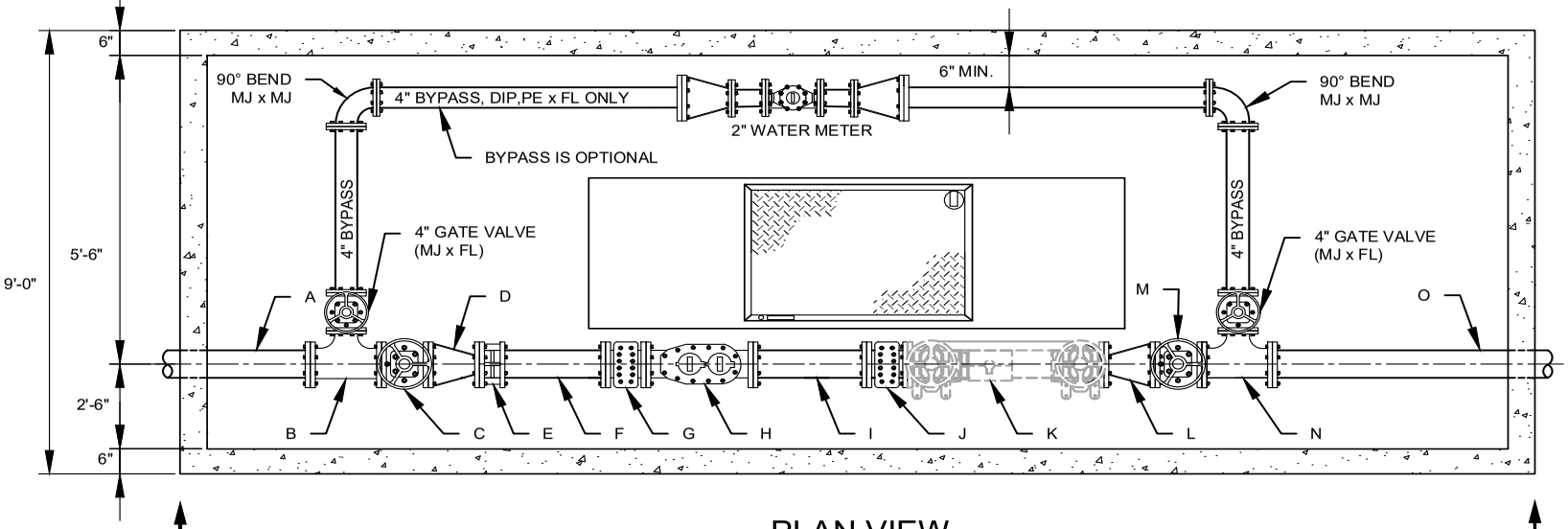
APPROVED COMPONENT LIST

1" WATER METER SERVICE	2" WATER METER SERVICE
SADDLE OPTION 1: DUCTILE IRON W/DUAL BAND CC THREAD STEEL STRAP 1. FORD FCD202 SADDLE 2. MUELLER DR 2 S SERIES 3. A.Y. MCDONALD SERIES 4855A 4. OR APPROVED EQUAL SADDLE OPTION 2: BRASS W/DUAL BAND CC THREAD STEEL STRAP 1. FORD 202BSD SADDLE 2. MUELLER BR 2 S SERIES 3. A.Y. MCDONALD SERIES 3855 4. OR APPROVED EQUAL	SADDLE OPTION 1: DUCTILE IRON W/DUAL BAND CC THREAD STEEL STRAP 1. FORD FCD202 SADDLE 2. MUELLER DR 2 S SERIES 3. A.Y. MCDONALD SERIES 4855A 4. OR APPROVED EQUAL SADDLE OPTION 2: BRASS W/DUAL BAND CC THREAD STEEL STRAP 1. FORD 202BSD SADDLE 2. MUELLER BR 2 S SERIES 3. A.Y. MCDONALD SERIES 3855 4. OR APPROVED EQUAL
CORPORATION STOP 1. FORD FB1000-4-G-NL 2. MUELLER B-25008N 3. A.Y. MCDONALD SERIES 74701B-22 1 4. OR APPROVED EQUAL	CORPORATION STOP 1. FORD FB1000-7-G-NL 2. MUELLER B-25008N 3. A.Y. MCDONALD SERIES 74701B-22 2 4. OR APPROVED EQUAL
CURB STOP METER VALVE 1. FORD BA43-444W-G-NL 2. MUELLER B-25172N 3. A.Y. MCDONALD SERIES 74602B-22 1 4. OR APPROVED EQUAL	CURB STOP METER VALVE 1. FORD BFA43-777W-G-NL 2. MUELLER B-25172N 3. A.Y. MCDONALD SERIES 74602B-22 2 4. OR APPROVED EQUAL
WATER METER BOX 1. EAST JORDAN 32197099A02 2. OR APPROVED EQUAL	WATER METER BOX 1. EAST JORDAN 32244000A01 2. OR APPROVED EQUAL
SERVICE LINE PIPE 1. ASTM D-2737 POLYETHYLENE TUBING 2. MUNICI PEX 'A' PIPE 3. OR APPROVED EQUAL	SERVICE LINE PIPE 1. ASTM D-2737 POLYETHYLENE TUBING 2. MUNICI PEX 'A' PIPE 3. OR APPROVED EQUAL

NOTES:

1. ALL COMPONENTS OF ANY WATER METER SERVICE LINE MUST COME FROM THE SAME BRAND WHENEVER POSSIBLE.
2. PLASTIC WRAP ALL SADDLES.
3. MATERIALS AND CONSTRUCTION METHODS TO CONFORM TO CITY OF MIDLAND STANDARDS AND SPECIFICATIONS.
4. CONSTRUCT AS SHOWN UNLESS OTHERWISE APPROVED IN WRITING BY THE CITY ENGINEER.

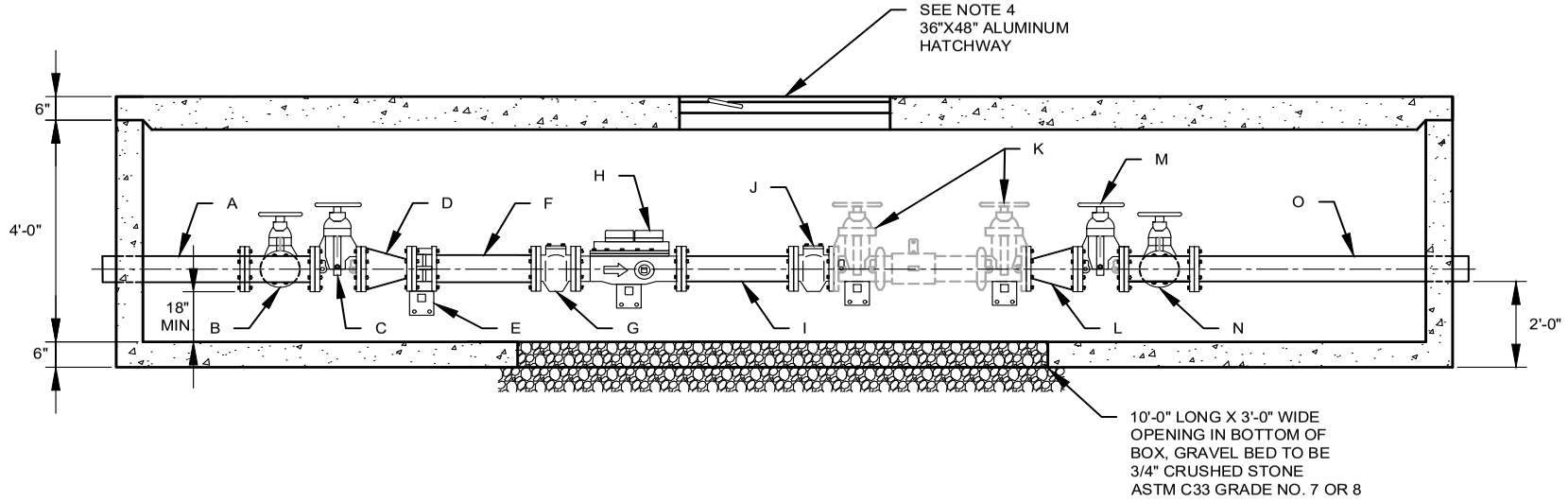
DRAWN: DPM	CHECKED: JCF	APPROVED: MCC	
MIDLAND Engineering Services	EFFECTIVE DATE: 10/01/2018	SCALE: NTS	DETAIL:
1" AND 2" WATER METER AND SERVICE CONNECTION			604(B)



NOTES:

1. ALL FITTINGS COMPACT OR STD DUCTILE IRON.
2. ALL MJ FITTING TO BE RESTRAINED.
3. CLASS I/II CONCRETE WITH DESIGN STRENGTH OF 4500 PSI AT 28 DAYS . UNIT IS OF MONOLITHIC CONSTRUCTION AT FLOOR AND FIRST STAGE OF WALL WITH SECTIONAL RISER TO REQUIRED LENGTH.
4. GRADE 60 REINFORCED STEEL REBAR CONFORMING TO ASTM A615 ON REQUIRED CENTERS OR EQUAL.
5. ALUMINUM DIAMOND PLATE COVER WITH EXTRUDED ALUMINUM FRAME. HATCH TO BE FURNISHED WITH STAINLESS STEEL SLAM LOCK AND HINGES. (300 P S.F. LIVE LOAD)
6. UNISTRUT CHANNEL SUPPORT AND END BRACKET.
7. MATERIALS AND CONSTRUCTION METHODS TO CONFORM TO CITY OF MIDLAND STANDARDS AND SPECIFICATIONS.
8. CONSTRUCT AS SHOWN UNLESS OTHERWISE APPROVED IN WRITING BY THE CITY ENGINEER.

MIDLAND Engineering Services	DRAWN: DPM CHECKED: JHC APPROVED: MCC	EFFECTIVE DATE: 10/01/2018	SCALE: NTS	DETAIL:
		3 INCH DOMESTIC COMPOUND WATER METER ASSEMBLIES		605(A)



SECTION VIEW 'A-A'

SEE DETAIL 605(A) & 605(C)

MIDLAND Engineering Services	DRAWN: DPM CHECKED: JHC APPROVED: MCC	EFFECTIVE DATE: 10/01/2018	SCALE: NTS	DETAIL:
		3 INCH DOMESTIC COMPOUND WATER METER ASSEMBLIES		605(B)

NO	DESCRIPTION	LENGTH
	..... VAULT WALL	
A	CLEARANCE SPACE	12"
B	TYLER UNION 4" x 4" TEE (MJ x FL)	8"
C	MUELLER 4" GATE VALVE (MJ x MJ)	8"
D	TYLER UNION 4" X 3" REDUCER (MJ X FL)	7"
E	JCM #304 3" DISMANTLING JOINT	12"
F	DUCTILE IRON PIPE SPOOL	12"
G	NEPTUNE 3" DIA. STRAINER	6"
H	NEPTUNE 3" TRU/FLO METER	17"
I	DUCTILE IRON PIPE SPOOL (FL x FL)	12"
J	WATTS #77F 3" DIA. STRAINER	10"
K	WATTS #757 3" DIA. DCVA	32"
L	TYLER UNION 4" X 3" REDUCER (MJ x FL)	7"
M	MUELLER 4" GATE VALVE (MJ x MJ)	8"
N	TYLER UNION 4" X 3" TEE (MJ x FL)	8"
O	CLEARANCE SPACE	12"
	..... VAULT WALL	

* THESE COMPONENTS ARE SET BY THE CITY

** DCVA - DOUBLE CHECK VALVE ASSEMBLY

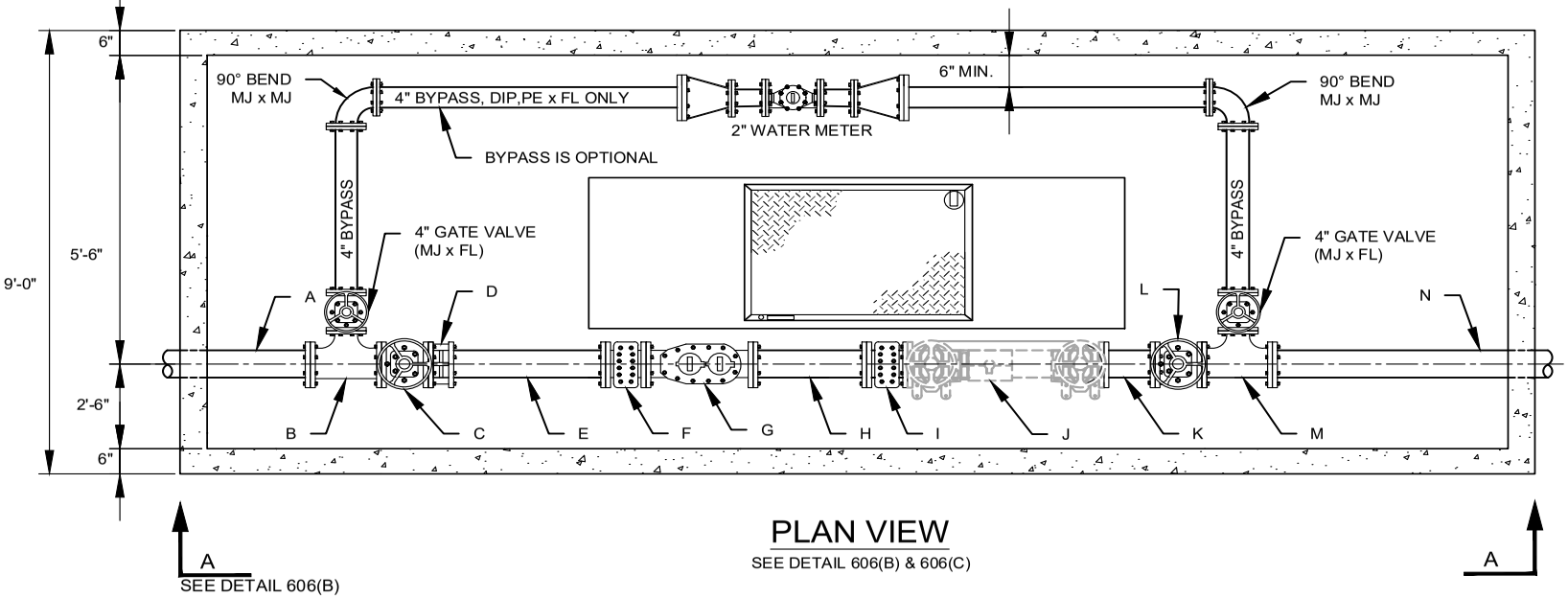
*** TOTAL INSIDE VAULT LENGTH WITH BACKFLOW PREVENTER = 171.0" - OR - 14.25'

**** TOTAL INSIDE VAULT LENGTH WITHOUT BACKFLOW PREVENTER = 129.0" - OR 10.75'

NOTES:

1. ALL PIPE WITHIN VAULT STRUCTURE TO BE DUCTILE IRON PIPE.
2. APPROVED EQUAL COMPONENTS MAY BE USED UNLESS OTHERWISE NOTED.
3. DOUBLE CHECK VALVE ASSEMBLY BACKFLOW PREVENTION ONLY REQUIRED FOR METER VAULTS ON LOOPED WATER MAIN/LINES.
4. BYPASS PIPE MAY BE LOCATED INSIDE VAULT STRUCTURE IF DESIRED. VAULT WALL TO BE LOCATED A MINIMUM 12" FROM INSIDE VAULT WALL EDGE TO OUTSIDE EDGE OF BYPASS PIPE, WITH NO CHANGE TO OTHER VAULT DETAIL DIMENSIONS.
5. MATERIALS AND CONSTRUCTION METHODS TO CONFORM TO CITY OF MIDLAND STANDARDS AND SPECIFICATIONS.
6. CONSTRUCT AS SHOWN UNLESS OTHERWISE APPROVED IN WRITING BY THE CITY ENGINEER.

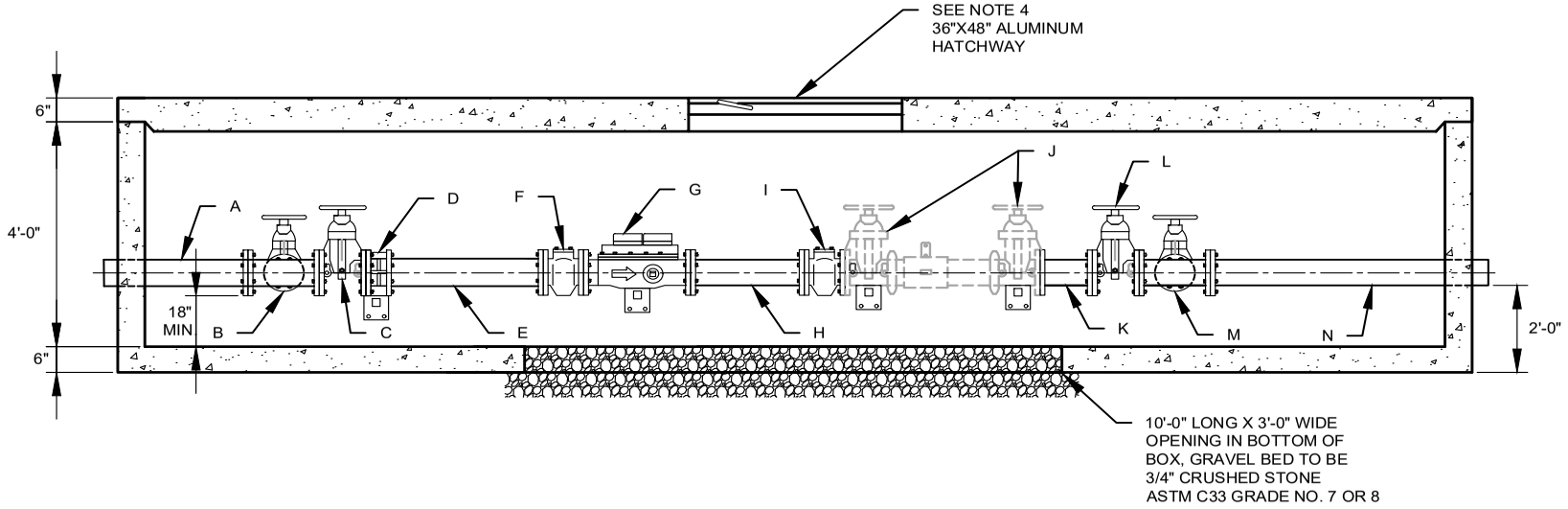
DRAWN: DPM	CHECKED: JCF	APPROVED: MCC	
MIDLAND PACKET Engineering Services	EFFECTIVE DATE: 10/01/2018	SCALE: NTS	DETAIL:
	3 - INCH COMPOUND METER 7.346 & VAULT	September 8, 2020	605(C)



NOTES:

1. ALL FITTINGS COMPACT OR STD DUCTILE IRON.
2. ALL MJ FITTING TO BE RESTRAINED.
3. CLASS I/II CONCRETE WITH DESIGN STRENGTH OF 4500 PSI AT 28 DAYS . UNIT IS OF MONOLITHIC CONSTRUCTION AT FLOOR AND FIRST STAGE OF WALL WITH SECTIONAL RISER TO REQUIRED LENGTH.
4. GRADE 60 REINFORCED STEEL REBAR CONFORMING TO ASTM A615 ON REQUIRED CENTERS OR EQUAL.
5. ALUMINUM DIAMOND PLATE COVER WITH EXTRUDED ALUMINUM FRAME. HATCH TO BE FURNISHED WITH STAINLESS STEEL SLAM LOCK AND HINGES. (300 P S.F. LIVE LOAD)
6. UNISTRUT CHANNEL SUPPORT AND END BRACKET.
7. MATERIALS AND CONSTRUCTION METHODS TO CONFORM TO CITY OF MIDLAND STANDARDS AND SPECIFICATIONS.
8. CONSTRUCT AS SHOWN UNLESS OTHERWISE APPROVED IN WRITING BY THE CITY ENGINEER.

MIDLAND Engineering Services	DRAWN: DPM CHECKED: JHC APPROVED: MCC	EFFECTIVE DATE: 10/01/2018	SCALE: NTS	DETAIL:
		4 INCH DOMESTIC COMPOUND WATER METER ASSEMBLIES		606(A)



SECTION VIEW 'A-A'

SEE DETAIL 606(A) & 606(C)

MIDLAND Engineering Services	DRAWN: DPM CHECKED: JHC APPROVED: MCC	EFFECTIVE DATE: 10/01/2018	SCALE: NTS	DETAIL:
		4 INCH DOMESTIC COMPOUND WATER METER ASSEMBLIES		606(B)

NO	DESCRIPTION	LENGTH
	VAULT WALL	
A	CLEARANCE SPACE	12"
B	TYLER UNION 4" x 4" TEE (MJ x FL)	8"
C	MUELLER 4" GATE VALVE (MJ x MJ)	9"
D	JCM #304 4" DISMANTLING JOINT	12"
E	DUCTILE IRON PIPE SPOOL	16"
F	NEPTUNE 4" DIA. STRAINER	8"
G	NEPTUNE 4" TRU/FLO METER	20"
H	DUCTILE IRON PIPE SPOOL (FL X FL)	16"
I	WATTS #77F 4" DIA. STRAINER	12"
J	WATTS #757 4" DIA. DCVA	34"
K	DUCTILE IRON PIPE SPOOL	12"
L	MUELLER 4" GATE VALVE (MJ X MJ)	9"
M	TYLER UNION 4" X 4" TEE (MJ x FL)	8"
N	CLEARANCE SPACE	12"
	VAULT WALL	

* THESE COMPONENTS ARE SET BY THE CITY

** DCVA - DOUBLE CHECK VALVE ASSEMBLY

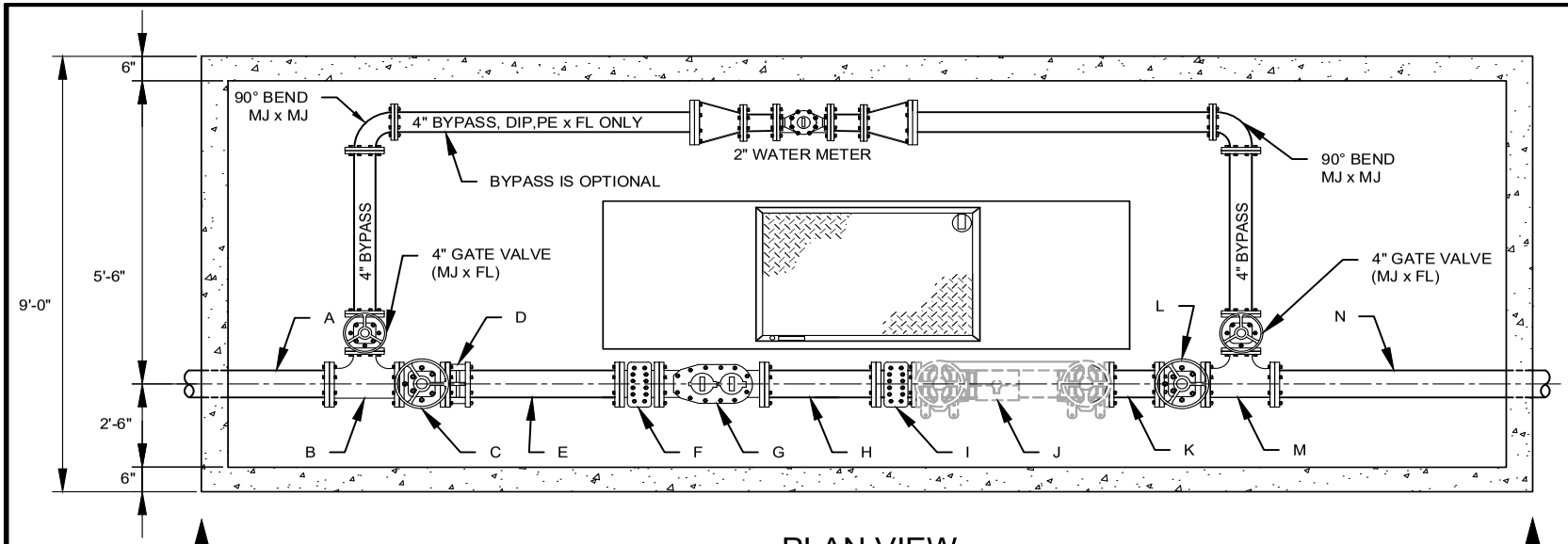
*** TOTAL INSIDE VAULT LENGTH WITH BACKFLOW PREVENTER = 188.0" - OR - 15.67'

**** TOTAL INSIDE VAULT LENGTH WITHOUT BACKFLOW PREVENTER = 142.0" - OR - 11.83'

NOTES:

1. ALL PIPE WITHIN VAULT STRUCTURE TO BE DUCTILE IRON PIPE.
2. APPROVED EQUAL COMPONENTS MAY BE USED UNLESS OTHERWISE NOTED.
3. DOUBLE CHECK VALVE ASSEMBLY BACKFLOW PREVENTION ONLY REQUIRED FOR METER VAULTS ON LOOPED WATER MAIN/LINES.
4. BYPASS PIPE MAY BE LOCATED INSIDE VAULT STRUCTURE IF DESIRED. VAULT WALL TO BE LOCATED A MINIMUM 12" FROM INSIDE VAULT WALL EDGE TO OUTSIDE EDGE OF BYPASS PIPE, WITH NO CHANGE TO OTHER VAULT DETAIL DIMENSIONS.
5. MATERIALS AND CONSTRUCTION METHODS TO CONFORM TO CITY OF MIDLAND STANDARDS AND SPECIFICATIONS.
6. CONSTRUCT AS SHOWN UNLESS OTHERWISE APPROVED IN WRITING BY THE CITY ENGINEER.

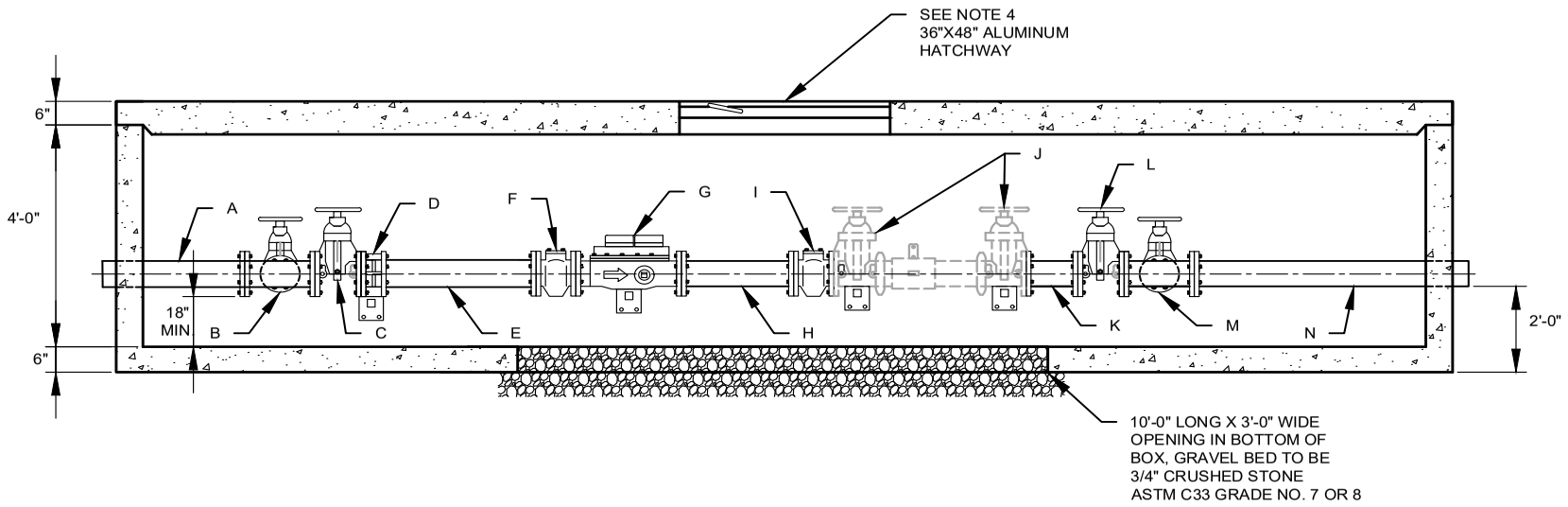
DRAWN: DPM	CHECKED: JCF	APPROVED: MCC	
MIDLAND PACKET Engineering Services	EFFECTIVE DATE: 10/01/2018	SCALE: NTS	DETAIL:
	4 - INCH COMPOUND METER 7.349 & VAULT	September 8, 2020	606(C)



NOTES:

1. ALL FITTINGS COMPACT OR STD DUCTILE IRON.
2. ALL MJ FITTING TO BE RESTRAINED.
3. CLASS I/II CONCRETE WITH DESIGN STRENGTH OF 4500 PSI AT 28 DAYS . UNIT IS OF MONOLITHIC CONSTRUCTION AT FLOOR AND FIRST STAGE OF WALL WITH SECTIONAL RISER TO REQUIRED LENGTH.
4. GRADE 60 REINFORCED STEEL REBAR CONFORMING TO ASTM A615 ON REQUIRED CENTERS OR EQUAL.
5. ALUMINUM DIAMOND PLATE COVER WITH EXTRUDED ALUMINUM FRAME. HATCH TO BE FURNISHED WITH STAINLESS STEEL SLAM LOCK AND HINGES. (300 P S.F. LIVE LOAD)
6. UNISTRUT CHANNEL SUPPORT AND END BRACKET.
7. MATERIALS AND CONSTRUCTION METHODS TO CONFORM TO CITY OF MIDLAND STANDARDS AND SPECIFICATIONS.
8. CONSTRUCT AS SHOWN UNLESS OTHERWISE APPROVED IN WRITING BY THE CITY ENGINEER.

MIDLAND Engineering Services	DRAWN: DPM CHECKED: JHC APPROVED: MCC	EFFECTIVE DATE: 10/01/2018	SCALE: NTS	DETAIL:
		6 INCH DOMESTIC COMPOUND WATER METER ASSEMBLIES		607(A)



SECTION VIEW 'A-A'

SEE DETAIL 607(B) & 607(C)

MIDLAND Engineering Services	DRAWN: DPM CHECKED: JHC APPROVED: MCC	EFFECTIVE DATE: 10/01/2018	SCALE: NTS	DETAIL:
		6 INCH DOMESTIC COMPOUND WATER METER ASSEMBLIES		607(B)

NO	DESCRIPTION	LENGTH
	VAULT WALL	
A	CLEARANCE SPACE	12"
B	TYLER UNION 6" x 4" TEE (MJ x FL)	8"
C	MUELLER 6" GATE VALVE (MJ x MJ)	10.5"
D	JCM #304 4" DISMANTLING JOINT	16"
E	DUCTILE IRON PIPE SPOOL	24"
F	NEPTUNE 6" DIA. STRAINER	9"
G	NEPTUNE 6" TRU/FLO METER	24"
H	DUCTILE IRON PIPE SPOOL (FL X FL)	24"
I	WATTS #77F 6" DIA. STRAINER	18.5"
J	WATTS #757 6" DIA. DCVA	44"
K	DUCTILE IRON PIPE SPOOL	12"
L	MUELLER 6" GATE VALVE (MJ X MJ)	10.5"
M	TYLER UNION 6" X 4" TEE (MJ x FL)	8"
N	CLEARANCE SPACE	12"
	VAULT WALL	

* THESE COMPONENTS ARE SET BY THE CITY

** DCVA - DOUBLE CHECK VALVE ASSEMBLY

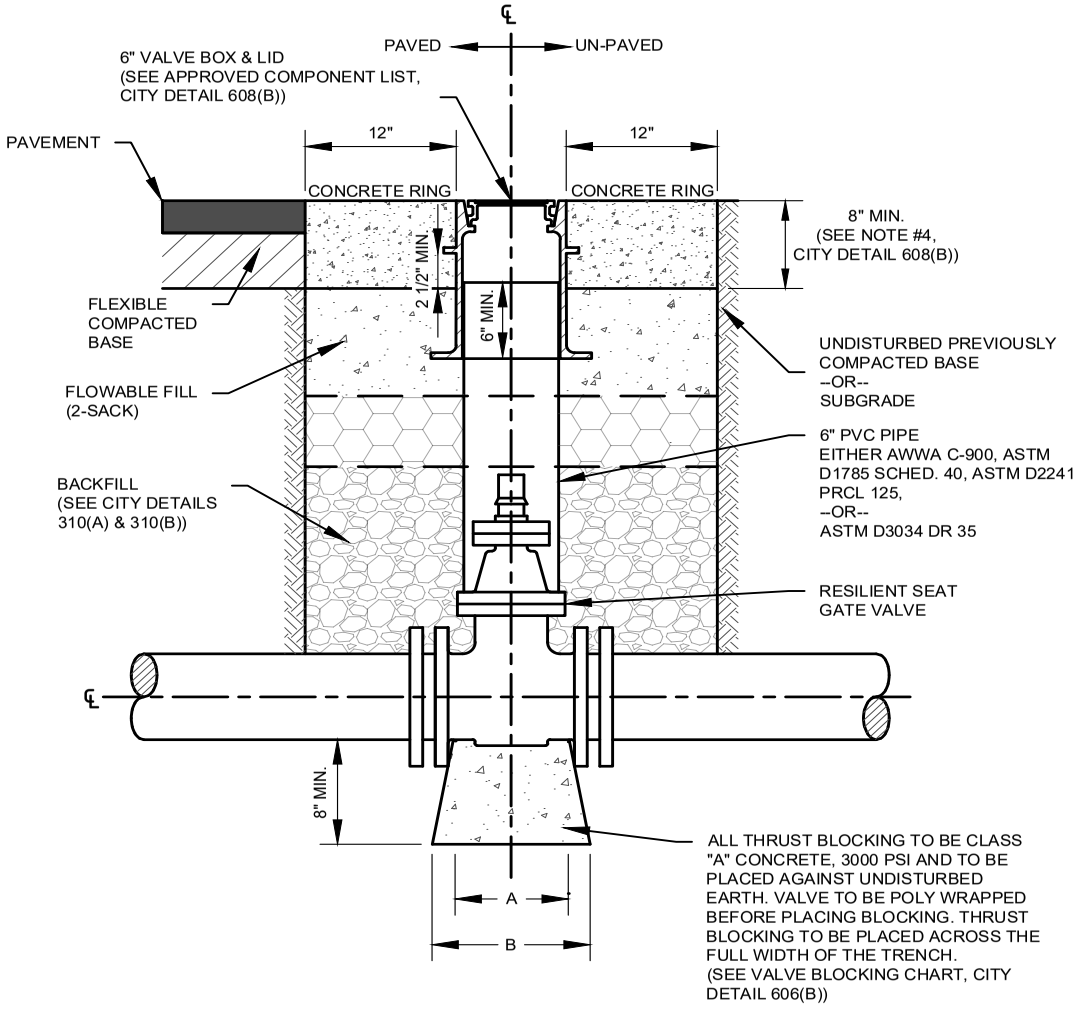
*** TOTAL INSIDE VAULT LENGTH WITH BACKFLOW PREVENTER = 232.5" - OR - 19.38'

**** TOTAL INSIDE VAULT LENGTH WITHOUT BACKFLOW PREVENTER = 170.0" - OR - 14.17'

NOTES:

1. ALL PIPE WITHIN VAULT STRUCTURE TO BE DUCTILE IRON PIPE.
2. APPROVED EQUAL COMPONENTS MAY BE USED UNLESS OTHERWISE NOTED.
3. DOUBLE CHECK VALVE ASSEMBLY BACKFLOW PREVENTION ONLY REQUIRED FOR METER VAULTS ON LOOPED WATER MAIN/LINES.
4. BYPASS PIPE MAY BE LOCATED INSIDE VAULT STRUCTURE IF DESIRED. VAULT WALL TO BE LOCATED A MINIMUM 12" FROM INSIDE VAULT WALL EDGE TO OUTSIDE EDGE OF BYPASS PIPE, WITH NO CHANGE TO OTHER VAULT DETAIL DIMENSIONS.
5. MATERIALS AND CONSTRUCTION METHODS TO CONFORM TO CITY OF MIDLAND STANDARDS AND SPECIFICATIONS.
6. CONSTRUCT AS SHOWN UNLESS OTHERWISE APPROVED IN WRITING BY THE CITY ENGINEER.

DRAWN: DPM	CHECKED: JCF	APPROVED: MCC	
MIDLAND Engineering Services PACKET	EFFECTIVE DATE: 10/01/2018	SCALE: NTS	DETAIL:
6 - INCH COMPOUND METER 7.352 & VAULT		September 8, 2020	607(C)



MIDLAND Engineering Services	DRAWN: DPM CHECKED: JCF APPROVED: MCC	EFFECTIVE DATE: 10/01/2018	SCALE: NTS	DETAIL:
		TYPICAL VALVE AND VALVE BOX		608(A)

APPROVED COMPONENT LIST			
NO.	VALVES	VALVE COVERS	VALVE BOX
1	MUELLER 2360 M/J	MUELLER 2360 FL X FL	BASS & HAYS STANDARD 390-1 "SHORTY"
2	M & H 4067 M/J	M & H 4067-0	OR APPROVED EQUAL
3	CL0W 2838 M/J	CL0W 2840 FL X FL	
4	OR APPROVED EQUAL	OR APPROVED EQUAL	

VALVE BLOCKING CHART		
PIPE SIZE	A	B
4"	5.0"	10.5"
6"	6.5"	1'-.0"
8"	6.5"	1'-.0"
10"	8.0"	1'-1.0"
12"	8.5"	1'-2.0"

NOTES:

1. FOR VALVES ON WATER MAIN PIPES LARGER THAN 12" SEE CITY DETAIL 609.
2. SETTING VALVE BOX TO GRADE MAY REQUIRE ADDING PVC PIPE. IF ADDITIONAL PIPE IS REQUIRED, USE BELL SECTION WITH GASKET AND SET BELL DOWN OVER EXISTING PIPE RISER. A GASKETED SELF CENTERING COLLAR MAY BE USED IN LIEU OF THE BELL SECTION.
3. CONCRETE RING TO BE CITY OF MIDLAND CLASS "C", 3600 PSI, UNLESS OTHERWISE NOTED.
4. USE FIBER REINFORCEMENT FOR ALL CONCRETE , WHETHER PAVEMENT OR THRUST BLOCKING.
5. 12" MINIMUM FOR CONCRETE RING IN AN ARTERIAL ROADWAY.
6. FLOWABLE FILL 2-SACK (2 SACK = 188 LBS/CY, PORTLAND CEMENT.) REQUIRED BENEATH ALL CONCRETE RINGS.
7. FLOWABLE FILL 2-SACK (2 SACK = 188 LBS/CY, PORTLAND CEMENT.) REQUIRED FOR ALL OVER EXCAVATION BACKFILL.
8. MATERIALS AND CONSTRUCTION METHODS TO CONFORM TO CITY OF MIDLAND STANDARDS AND SPECIFICATIONS.
9. CONSTRUCT AS SHOWN UNLESS OTHERWISE APPROVED IN WRITING BY THE CITY ENGINEER.

MIDLAND Engineering Services

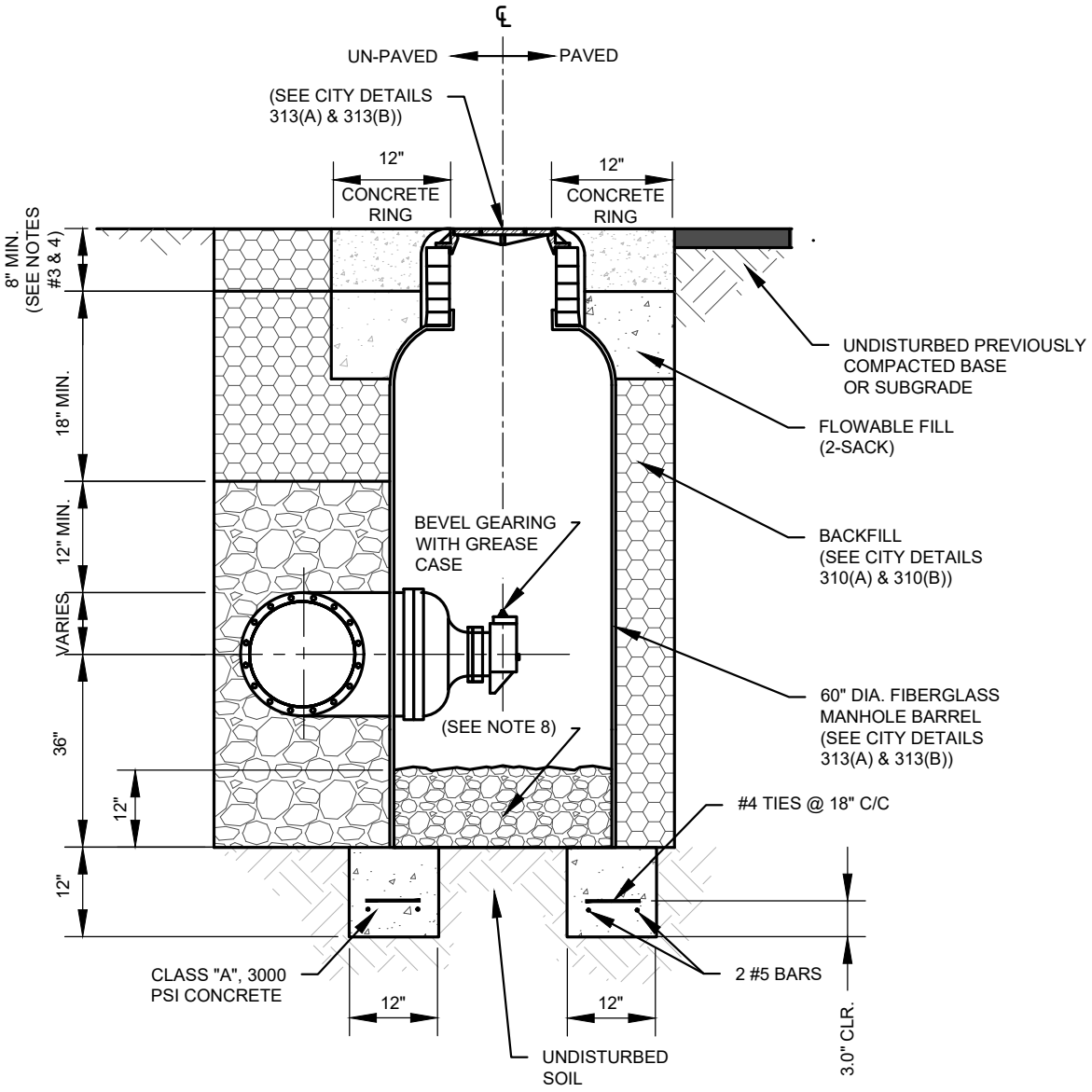
DRAWN: DPM
CHECKED: JCF
APPROVED: MCC

EFFECTIVE DATE: 10/01/2018

SCALE: NTS

DETAIL: 608(B)

TYPICAL VALVE AND VALVE BOX DETAILS

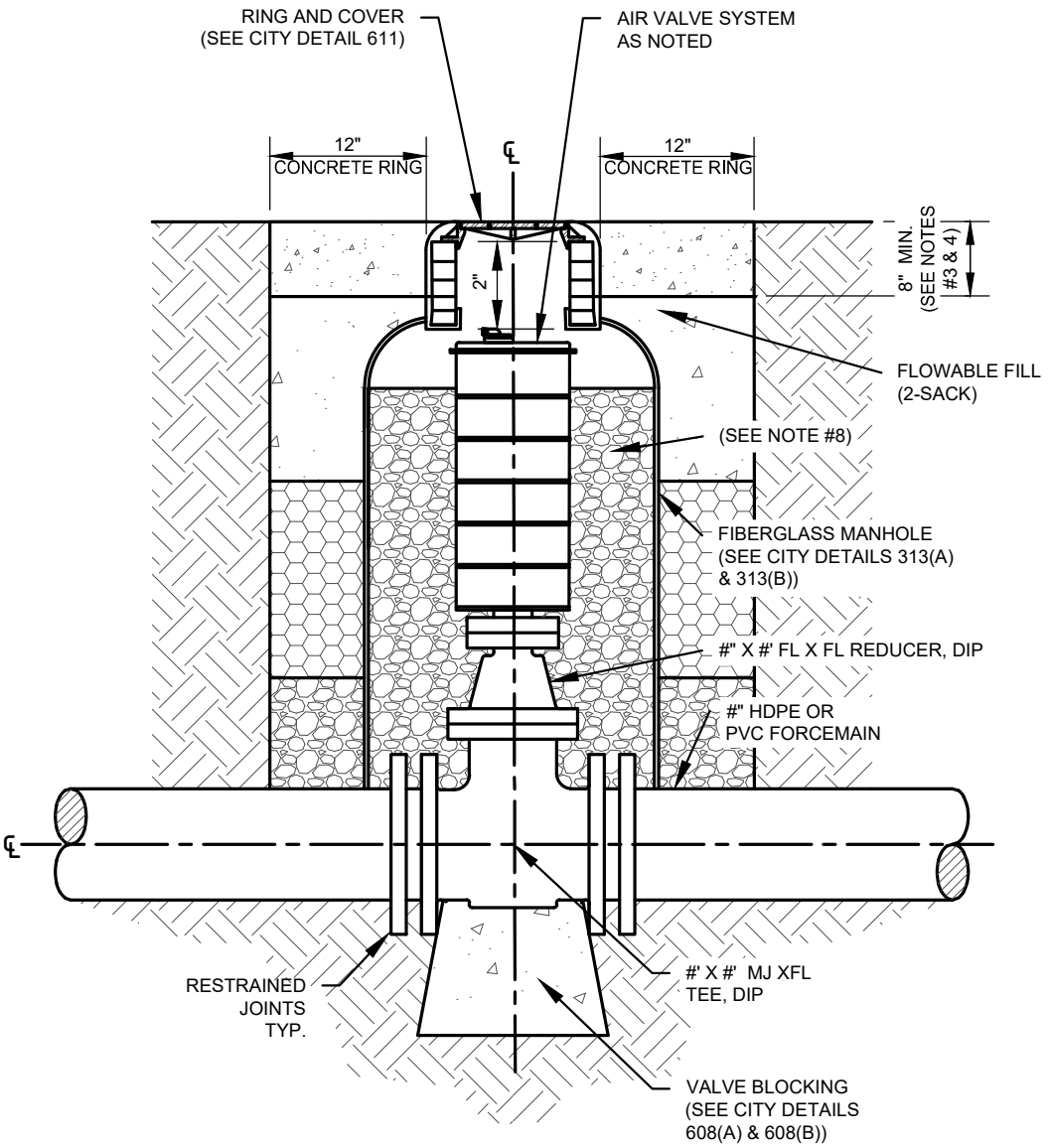


NOTES:

1. THIS DETAIL IS FOR 16" GATE VALVES AND LARGER. SEPARATE DESIGN FOR GATE VALVES LARGER THAT 16" MUST BE PROVIDED AT THE DISCRETION OF THE CITY ENGINEER.
2. ALL GATE VALVES ARE TO BE RESILIENT WEDGE TYPE, HORIZONTAL MOUNTED, MECHANICAL JOINT, BEVEL GEAR OPERATOR. ALL FITTINGS ARE TO BE RESTRAINED JOINTS.
3. CONCRETE RING TO BE CITY OF MIDLAND CLASS "C" CONCRETE, 3600 PSI.
4. 12" MINIMUM FOR CONCRETE RING IN AN ARTERIAL ROADWAY.
5. USE FIBER REINFORCEMENT FOR ALL CONCRETE, WHETHER PAVEMENT OR THRUST BLOCKING.
6. FLOWABLE FILL 2-SACK (2 SACK = 188 LBS/CY, PORTLAND CEMENT). REQUIRED BENEATH ALL CONCRETE RINGS.
7. FLOWABLE FILL 2-SACK (2 SACK = 188 LBS/CY, PORTLAND CEMENT). REQUIRED FOR ALL OVER EXCAVATION BACKFILL.
8. WASHED PEA GRAVEL OR WASHED 3/4" CRUSHED STONE ASTM C33 GRADE NO. 7 OR 8.
9. MATERIAL AND CONSTRUCTION METHODS TO CONFORM TO CITY OF MIDLAND STANDARDS AND SPECIFICATIONS.
10. CONSTRUCT AS SHOWN UNLESS OTHERWISE APPROVED IN WRITING BY THE CITY ENGINEER.

DRAWN: DPM	CHECKED: JCF	APPROVED: MCC	
MIDLAND Engineering Services	EFFECTIVE DATE: 10/01/2018	SCALE: NTS	DETAIL:
	HORIZONTAL GATE VALVE AND VAULT	September 8, 2020	609

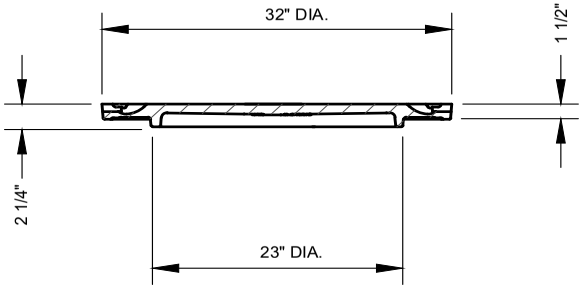
PACKET 7 of 55



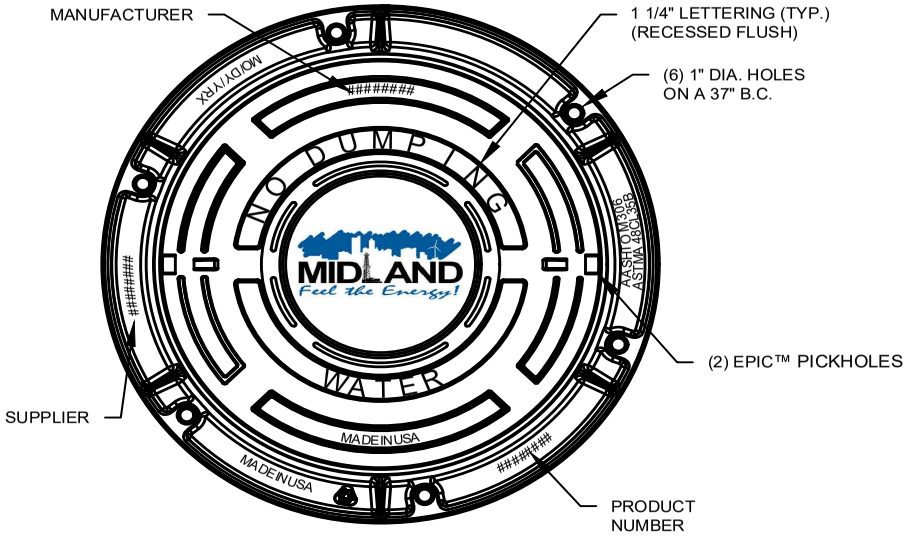
NOTES:

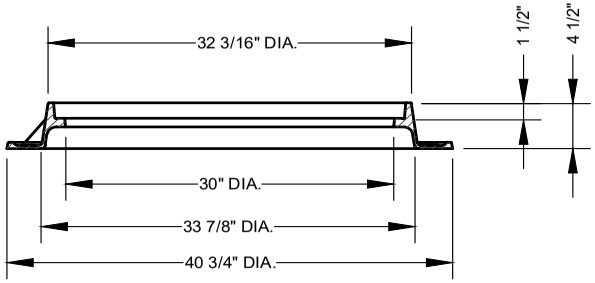
1. USE AN A.R.I. D-025 SB WITH A 4" TUBE LENGTH OR APPROVED EQUAL FOR ALL AIR VALVE INSTALLATIONS.
2. EQUIP EACH AIR VALVE SYSTEM WITH A NON-SLAM, DISCHARGE THROTTLING ATTACHMENT (SLOW RELEASE ONE WAY ATTACHMENT).
3. CONCRETE RING TO BE CITY OF MIDLAND CLASS "C" CONCRETE, 3600 PSI.
4. 12" MINIMUM FOR CONCRETE RING IN AN ARTERIAL ROADWAY.
5. USE FIBER REINFORCEMENT FOR ALL CONCRETE, WHETHER PAVEMENT OR THRUST BLOCKING.
6. FLOWABLE FILL 2-SACK (2 SACK = 188 LBS/CY, PORTLAND CEMENT). REQUIRED BENEATH ALL CONCRETE RINGS.
7. FLOWABLE FILL 2-SACK (2 SACK = 188 LBS/CY, PORTLAND CEMENT). REQUIRED FOR ALL OVER EXCAVATION BACKFILL.
8. MAY BE EITHER PEA GRAVEL OR 3/4" CRUSHED STONE ASTM C33 GRADE N. 7 OR 8
9. MATERIAL AND CONSTRUCTION METHODS TO CONFORM TO CITY OF MIDLAND STANDARDS AND SPECIFICATIONS.
10. CONSTRUCT AS SHOWN UNLESS OTHERWISE APPROVED IN WRITING BY THE CITY ENGINEER.

DRAWN: DPM	CHECKED: JCF	APPROVED: MCC	
MIDLAND Engineering Services	EFFECTIVE DATE: 10/01/2018	SCALE: NTS	DETAIL:
	WATER AIR RELIEF VALVE		610

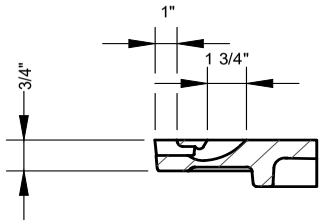


COVER SECTION





FRAME SECTION



PICKHOLE DETAIL

NOTES:

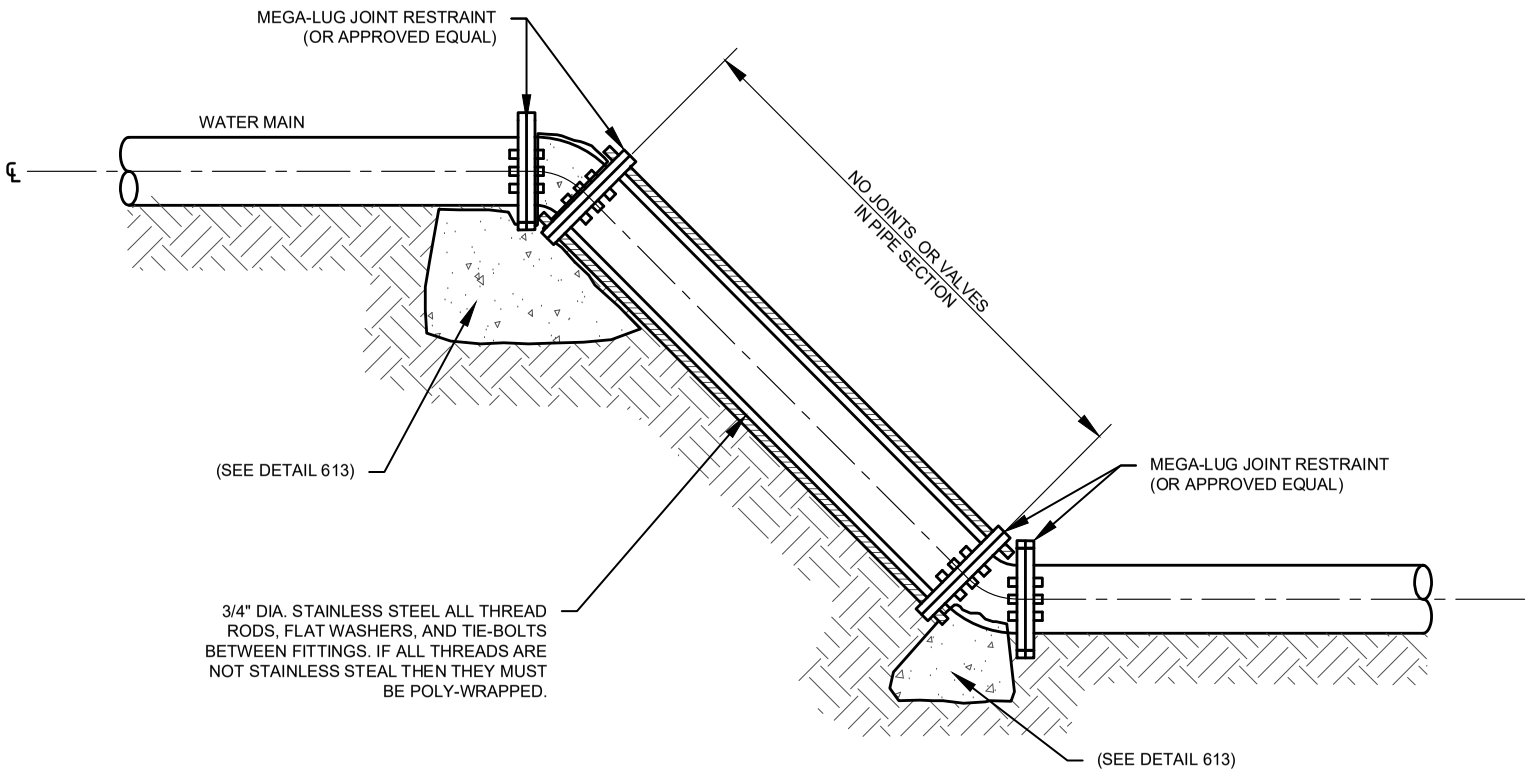
1. MANHOLE COVERS TO BE CAST WITH THE FOLLOWING:
   "NO DUMPING"
   CITY OF MIDLAND LOGO
   "WATER"

   EAST JORDAN V1420Z1/V1430A ASSEMBLY OR APPROVED EQUAL

2. MATERIAL AND CONSTRUCTION METHODS TO CONFORM TO CITY OF MIDLAND STANDARDS AND SPECIFICATIONS.

3. CONSTRUCT AS SHOWN UNLESS OTHERWISE APPROVED IN WRITING BY THE CITY ENGINEER.

MIDLAND Engineering Services	DRAWN: DPM CHECKED: JCF APPROVED: MCC	EFFECTIVE DATE: 10/01/2018	SCALE: NTS	DETAIL:
		WATER HORIZONTAL & AIR RELIEF VALVE COVER		611



NOTES:

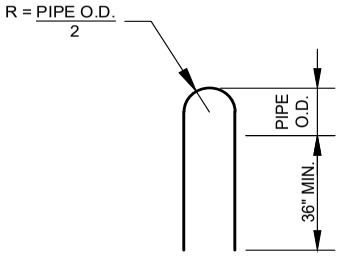
1. FORM ALL CONCRETE THRUST BLOCKING. DO NOT PLACE UN-FORMED THRUST BLOCKING.
2. ALL THRUST BLOCKING TO BE CLASS "A" CONCRETE, 3000 PSI, AND TO BE PLACED AGAINST UNDISTURBED EARTH. USE FIBER REINFORCEMENT THROUGHOUT.
3. FITTINGS TO BE POLY WRAPPED BEFORE BLOCKING IS PLACED.
4. MATERIALS AND CONSTRUCTION METHODS TO CONFORM TO CITY OF MIDLAND STANDARDS AND SPECIFICATIONS.
5. CONSTRUCT AS SHOWN UNLESS OTHERWISE APPROVED IN WRITING BY THE CITY ENGINEER.

MIDLAND Engineering Services	DRAWN: DPM CHECKED: JCF APPROVED: MCC	EFFECTIVE DATE: 10/01/2018	SCALE: NTS	DETAIL:
		WATER MAIN VERTICAL OFFSET		612

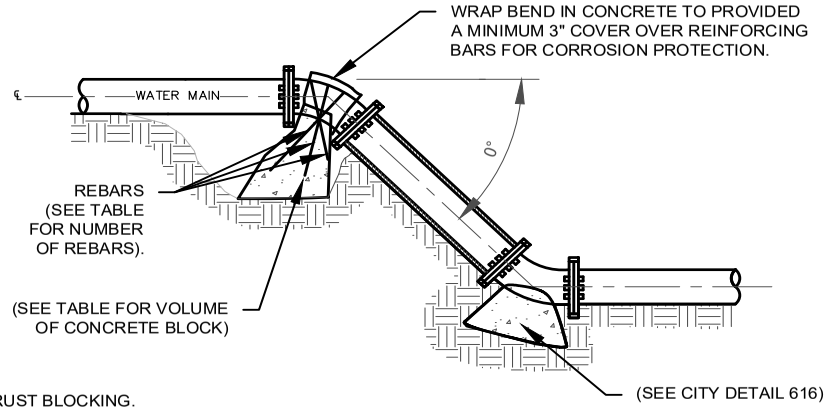
DIA. OF PIPE	DEGREE OF BEND θ							
	11 1/4°		22 1/2°		45°		90°	
	VOLUME BLOCK	REBAR NO. SIZE	VOLUME BLOCK	REBAR NO. SIZE	VOLUME BLOCK	REBAR NO. SIZE	VOLUME BLOCK	REBAR NO. SIZE
4"	3 C.F.	2-#3	6 C.F.	2-#3	12 C.F.	2-#3	22 C.F.	2-#3
6"	7 C.F.	2-#3	13 C.F.	2-#3	26 C.F.	2-#3	1.0 C.Y.	2-#3
8"	12 C.F.	2-#3	24 C.F.	2-#3	2.0 C.Y.	2-#4	3.0 C.Y.	2-#4
10"	19 C.F.	2-#3	1.5 C.Y.	2-#4	3.0 C.Y.	2-#4	5.0 C.Y.	2-#6
12"	1.0 C.Y.	2-#3	2.0 C.Y.	2-#4	4.0 C.Y.	2-#6	7.0 C.Y.	2-#8
14"	1.5 C.Y.	2-#4	3.0 C.Y.	2-#4	5.5 C.Y.	2-#6	*	*
16"	2.0 C.Y.	2-#4	3.5 C.Y.	2-#4	7.0 C.Y.	2-#7	*	*

BLOCK FOR EXTERNAL VERTICAL BENDS
DESIGN PRESSURE 180 PSI

* BLOCKING FOR 14" AND 16" 90° BENDS AND FOR ALL BENDS LARGER THAN 16" WILL BE SHOWN ON THE PLANS.



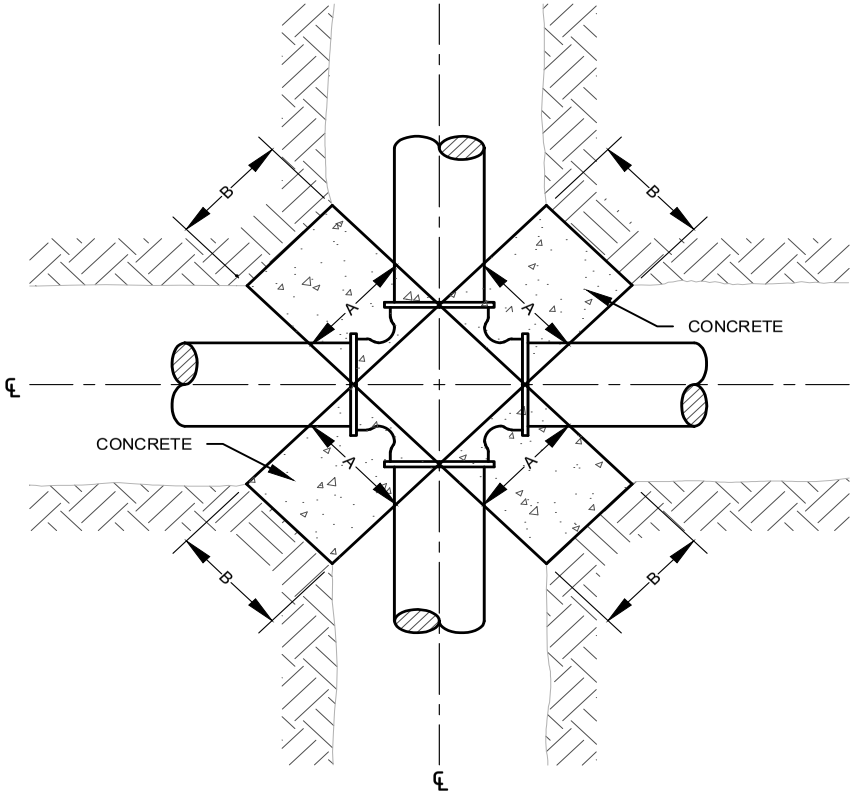
BAR BEND DETAIL



NOTES:

1. FORM ALL CONCRETE THRUST BLOCKING. DO NOT PLACE UN-FORMED THRUST BLOCKING.
2. ALL THRUST BLOCKING TO BE CLASS "A" CONCRETE, 3000 PSI, AND TO BE PLACED AGAINST UNDISTURBED EARTH. USE FIBER REINFORCEMENT THROUGHOUT.
3. FITTINGS TO BE POLY WRAPPED BEFORE BLOCKING IS PLACED.
4. MATERIALS AND CONSTRUCTION METHODS TO CONFORM TO CITY OF MIDLAND STANDARDS AND SPECIFICATIONS.
5. CONSTRUCT AS SHOWN UNLESS OTHERWISE APPROVED IN WRITING BY THE CITY ENGINEER.

MIDLAND Engineering Services	DRAWN: DPM CHECKED: JCF APPROVED: MCC	EFFECTIVE DATE: 10/01/2018	SCALE: NTS
		BLOCKING FOR VERTICAL BEND	DETAIL: 613



CROSS BLOCKING

CROSS BLOCKING
DESIGN 180 PSI LINE PRESSURE
SOIL BEARING CAP 2K/SF

CROSS DIA.	BLOCKING DIMENSIONS		
	A	B	*C
4"x 4"	0'-11"	1'-0"	1'-0"
6"x 6"	1'-2"	1'-7"	1'-0"
8"x 8"	1'-4"	2'-2"	2'-2"
10"x 10"	1'-8"	2'-8"	2'-8"
12"x 12"	1'-10"	3'-2"	3'-2"
14"x 14"	2'-2"	3'-8"	3'-8"
16"x 16"	2'-4"	4'-3"	4'-3"

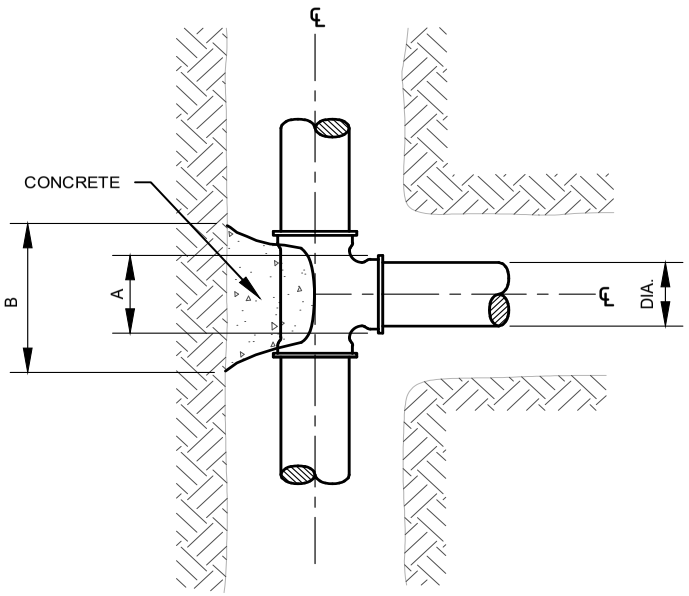
*C - VERTICAL DEPTH OF CONCRETE
BEARING ON UNDISTURBED EARTH

NOTES:

1. FORM ALL CONCRETE THRUST BLOCKING. DO NOT PLACE UN-FORMED THRUST BLOCKING
2. BLOCK CROSSES WITH DIFFERENT SIZE RUNS FOR THE LARGER RUN IN ALL DIRECTIONS.
3. BLOCKING FOR CROSSES LARGER THAN 16" WILL BE AS SHOWN ON THE PLANS.
4. ALL THRUST BLOCKING TO BE CLASS "A" CONCRETE, 3000 PSI, AND TO BE PLACED AGAINST UNDISTURBED EARTH. USE FIBER REINFORCEMENT THROUGHOUT.
5. FITTINGS TO BE POLY WRAPPED BEFORE BLOCKING IS PLACED.
6. MATERIALS AND CONSTRUCTION METHODS TO CONFORM TO CITY OF MIDLAND STANDARDS AND SPECIFICATIONS.
7. CONSTRUCT AS SHOWN UNLESS OTHERWISE APPROVED IN WRITING BY THE CITY ENGINEER.

MIDLAND Engineering Services

DRAWN: DPM	EFFECTIVE DATE:	10/01/2018	SCALE: NTS	DETAIL:
CHECKED: JCF	BLOCKING FOR CROSS			614
APPROVED: MCC				



TEE

"T" BLOCKING
DESIGN 180 PSI LINE PRESSURE
SOIL BEARING CAP 2K/SF

"T" RUN DIA.	STEM DIA.	BLOCKING DIMENSIONS		
		A	B	*C
TEE				
4"	ALL	11"	1'-0"	1'-0"
6"	ALL	1'-2"	1'-7"	1'-0"
8"	ALL	1'-4"	2'-2"	2'-2"
10"	ALL	1'-8"	2'-8"	2'-8"
1'-0"	THRU 6"	1'-10"	1'-10"	1'-8"
1'-0"	OVER 6"	1'-10"	3'-2"	3'-2"
1'-2"	THRU 8"	2'-2"	2'-2"	1'-11"
1'-2"	OVER 8"	2'-2"	3'-8"	3'-8"
1'-4"	THRU 8"	2'-4"	2'-4"	2'-2"
1'-4"	OVER 8"	2'-4"	4'-3"	4'-3"

*C - VERTICAL DEPTH OF CONCRETE
BEARING ON UNDISTURBED EARTH

NOTE:

1. FORM ALL CONCRETE THRUST BLOCKING. DO NO PLACE UN-FORMED THRUST BLOCKING.
2. BLOCKING FOR TEES LARGER THAN 16" RUN TO BE SHOWN ON THE PLANS.
3. ALL THRUST BLOCKING TO BE CLASS "A" CONCRETE, 3000 PSI, AND TO BE PLACED AGAINST UNDISTURBED EARTH. USE FIBER REINFORCEMENT THROUGHOUT.
4. FITTING TO BE POLY WRAPPED BEFORE BLOCKING IS PLACED.
5. MATERIALS AND CONSTRUCTION METHODS TO CONFORM TO CITY OF MIDLAND STANDARDS AND SPECIFICATIONS.
6. CONSTRUCT AS SHOWN UNLESS OTHERWISE APPROVED IN WRITING BY THE CITY ENGINEER.

MIDLAND Engineering Services

DRAWN: DPM
CHECKED: JCF
APPROVED: MCC

EFFECTIVE DATE: 10/01/2018 | SCALE: NTS | DETAIL:

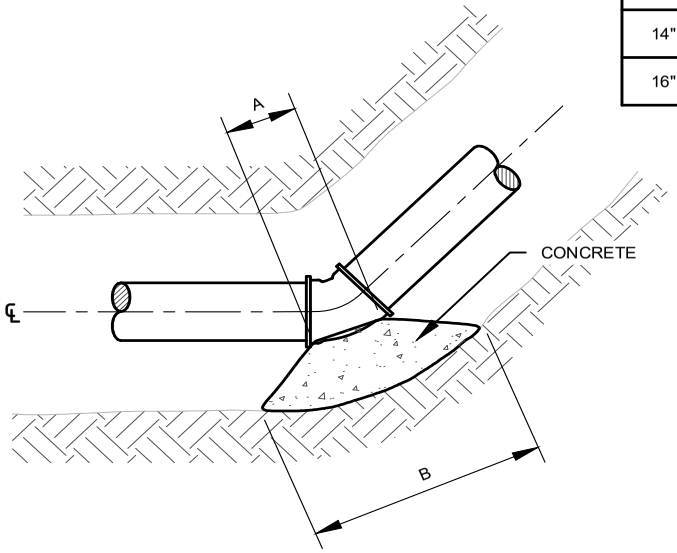
BLOCKING FOR TEE

615

BLOCKING FOR HORIZONTAL BENDS
DESIGN 180 PSI LINE PRESSURE
SOIL BEARING CAP 2K/SF

DIA. OF PIPE	DEGREE OF BEND											
	11 1/4°			22 1/2°			45°			90°		
	A	B	*C	A	B	*C	A	B	*C	A	B	*C
4"	0'-4"	1'-0"	1'-0"	0'-5"	1'-0"	1'-0"	0'-6"	1'-0"	1'-0"	0'-11"	1'-3"	1'-3"
6"	0'-7"	1'-0"	1'-0"	0'-7"	1'-0"	1'-0"	0'-8"	1'-5"	1'-5"	1'-3"	1'-11"	1'-11"
8"	0'-8"	0'-10"	1'-2"	0'-9"	1'-4"	1'-4"	0'-10"	1'-10"	1'-10"	1'-6"	2'-6"	2'-6"
10"	0'-10"	1'-0"	1'-5"	0'-11"	1'-8"	1'-8"	1'-1"	2'-4"	2'-4"	1'-11"	3'-2"	3'-2"
12"	1'-0"	1'-3"	1'-8"	1'-1"	2'-0"	2'-0"	1'-3"	2'-10"	2'-10"	2'-2"	3'-10"	3'-10"
14"	0'-11"	1'-5"	1'-11"	1'-1"	2'-4"	2'-4"	1'-3"	3'-3"	3'-3"			
16"	1'-1"	1'-8"	2'-2"	1'-2"	2'-8"	2'-8"	1'-5"	3'-9"	3'-9"			

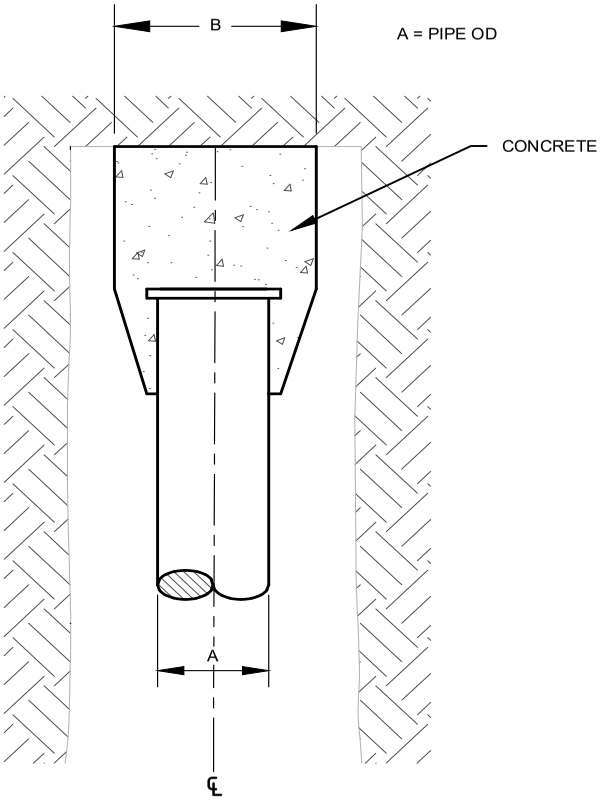
*C - VERTICAL DEPTH OF CONCRETE
BEARING ON UNDISTURBED EARTH



NOTES:

1. FORM ALL CONCRETE THRUST BLOCKING. DO NOT PLACE UN-FORMED THRUST BLOCKING.
2. ALL THRUST BLOCKING TO BE CLASS "A" CONCRETE, 3000 PSI, AND TO BE PLACED AGAINST UNDISTURBED EARTH. USE FIBER REINFORCEMENT THROUGHOUT.
3. FITTING TO BE POLY WRAPPED BEFORE BLOCKING IS PLACED.
4. MATERIALS AND CONSTRUCTION METHODS TO CONFORM TO CITY OF MIDLAND STANDARDS AND SPECIFICATIONS.
5. CONSTRUCT AS SHOWN UNLESS OTHERWISE APPROVED IN WRITING BY THE CITY ENGINEER.

MIDLAND Engineering Services	DRAWN: DPM CHECKED: JCF APPROVED: MCC	EFFECTIVE DATE: 10/01/2018	SCALE: NTS	DETAIL:
		BLOCKING FOR HORIZONTAL BENDS		616



CAP BLOCKING

PIPE OD A	BLOCKING DIMENSIONS	
	B	*C
4"	1'-0"	1'-0"
6"	1'-7"	1'-0"
8"	2'-2"	2'-2"
10"	2'-8"	2'-8"
12"	3'-2"	3'-2"
14"	3'-8"	3'-8"
16"	4'-3"	4'-3"

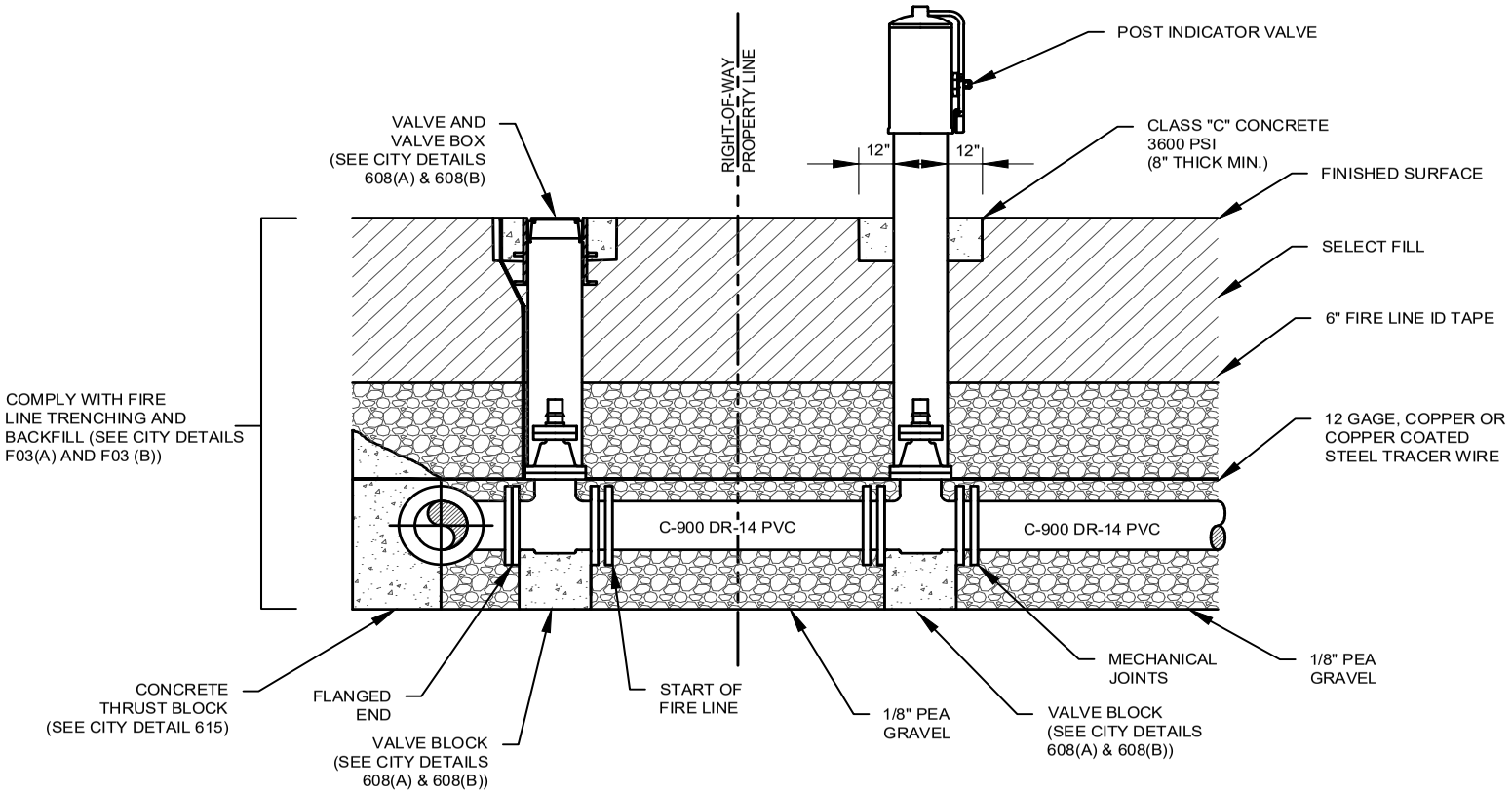
*C - VERTICAL DEPTH OF CONCRETE BEARING ON UNDISTURBED EARTH

NOTES:

1. CAP ALL WATER MAIN STUB OUTS.
2. FORM ALL CONCRETE THRUST BLOCKING . DO NOT PLACE UN-FORMED THRUST BLOCKING.
3. ALL THRUST BLOCKING TO BE CLASS "A" CONCRETE, 3000 PSI, AND TO BE PLACED AGAINST UNDISTURBED EARTH. USE FIBER REINFORCEMENT THROUGHOUT.
4. FITTINGS TO BE POLY WRAPPED BEFORE BLOCKING IS PLACED.
5. THRUST BLOCKING DESIGN TO BE PROVIDED IN CONSTRUCTION DRAWINGS FOR PIPES LARGER THAN 16" DIAMETER.
6. MATERIALS AND CONSTRUCTION METHODS TO CONFORM TO CITY OF MIDLAND STANDARDS AND SPECIFICATIONS.
7. CONSTRUCT AS SHOWN UNLESS OTHERWISE APPROVED IN WRITING BY THE CITY ENGINEER.

MIDLAND Engineering Services

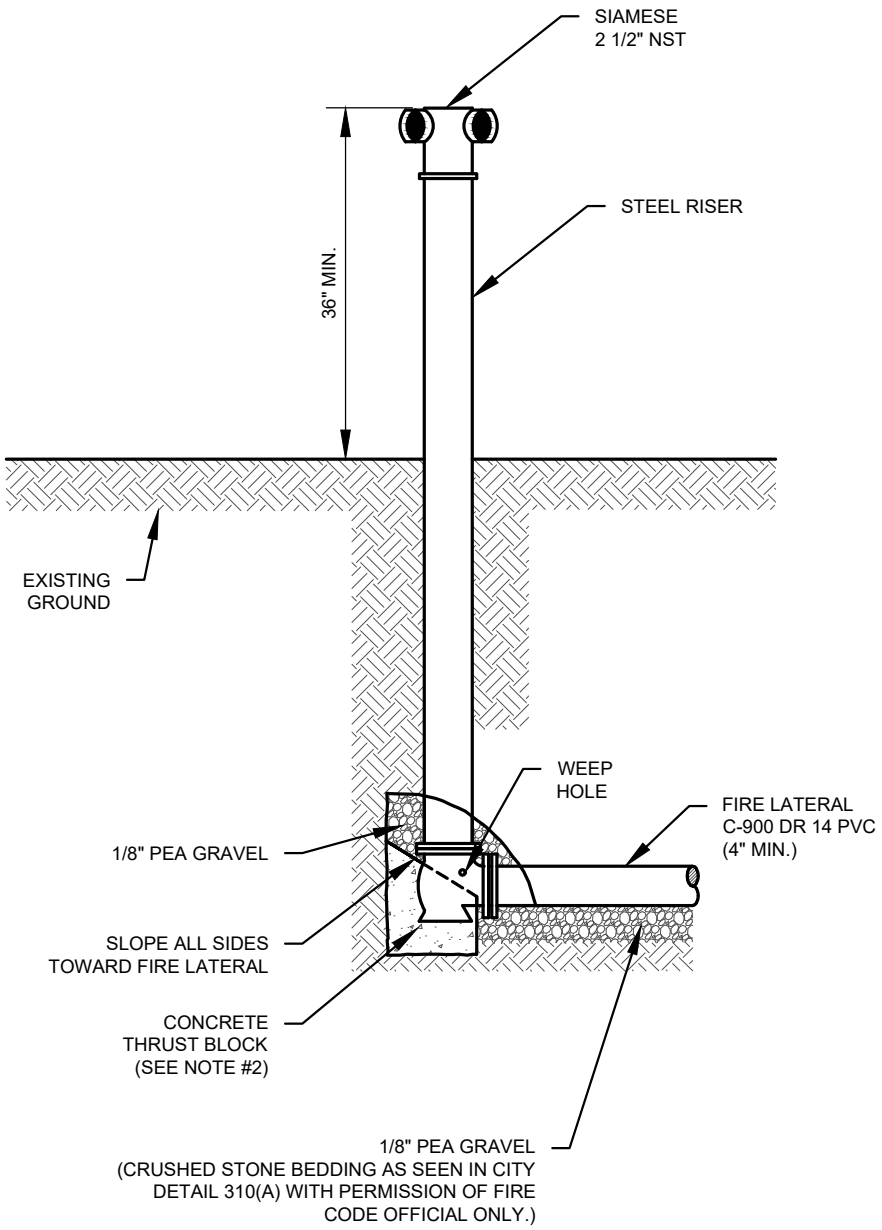
DRAWN: DPM	EFFECTIVE DATE:	10/01/2018	SCALE: NTS	DETAIL:
CHECKED: JCF	BLOCKING FOR CAP			617
APPROVED: MCC				



NOTES:

1. ALL VALVE BOXES TO BE SET IN CONCRETE COLLARS AND BE FLUSH WITH THE FINAL SURFACE GRADE.
2. A TEE FITTING IS REQUIRED FOR A CONNECTION TO A NEW WATER MAIN, AND A TAPPING SLEEVE IS REQUIRED FOR A CONNECTION TO AN EXISTING WATER MAIN.
3. MATERIALS AND CONSTRUCTION METHODS TO CONFORM TO CITY OF MIDLAND STANDARDS AND SPECIFICATIONS.
4. CONSTRUCT AS SHOWN UNLESS OTHERWISE APPROVED IN WRITING BY THE FIRE CODE OFFICIAL.

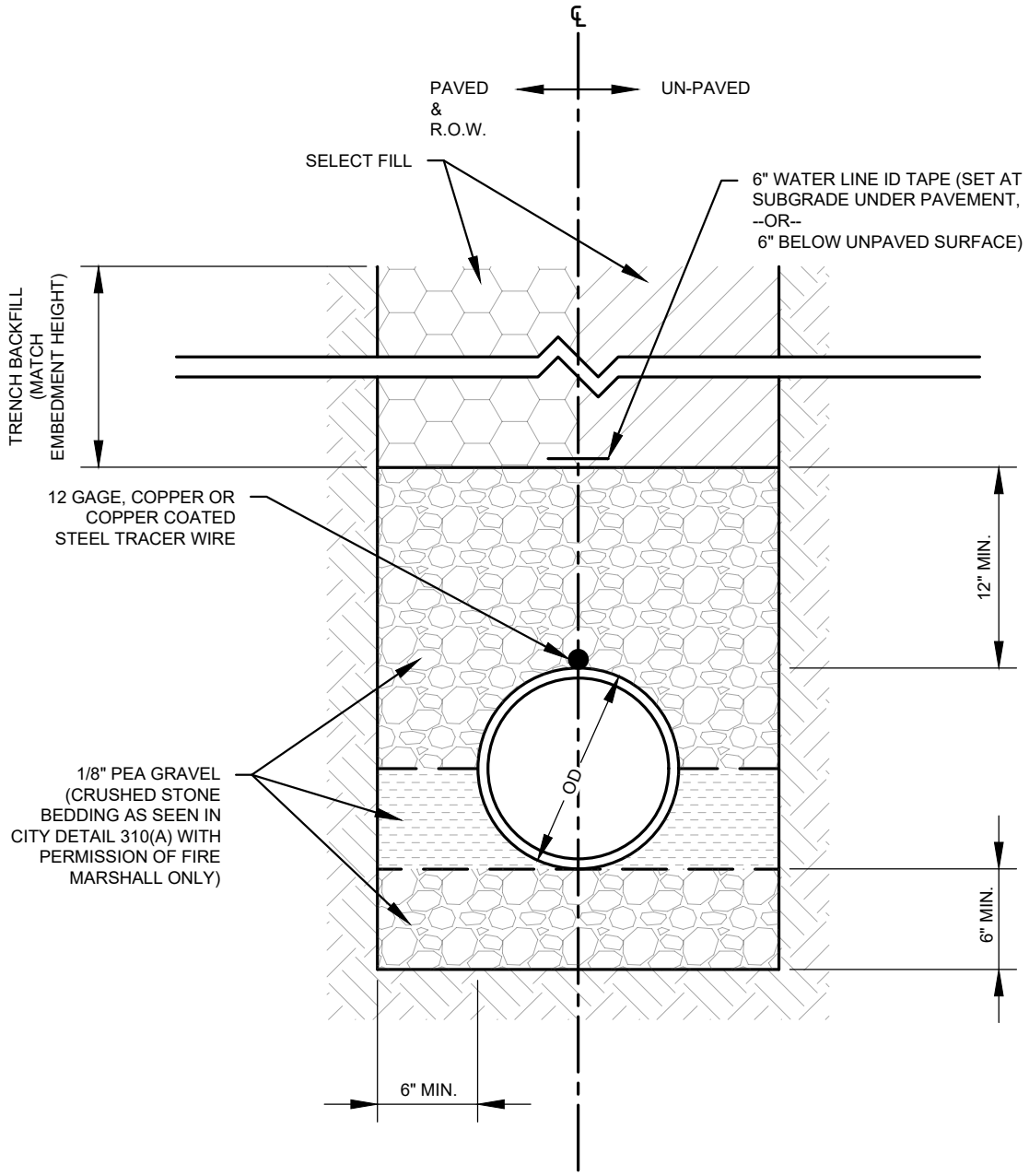
MIDLAND Engineering Services	DRAWN: DPM CHECKED: JCF APPROVED: MCC	EFFECTIVE DATE: 10/01/2018	SCALE: NTS	DETAIL:
		FIRE SERVICE LINE		F01



NOTES:

1. FDC SHOE TO BE SAME AS TYPICAL FIRE HYDRANT SHOE. DO NOT WRAP SHOE IN PLASTIC.
2. SHAPE CONCRETE THRUST BLOCKS SO THAT NO WATER DRAINS ARE BLOCKED.
3. MATERIALS AND CONSTRUCTION METHODS TO CONFORM TO CITY OF MIDLAND STANDARDS AND SPECIFICATIONS.
4. CONSTRUCT AS SHOWN UNLESS OTHERWISE APPROVED IN WRITING BY THE FIRE CODE OFFICIAL.

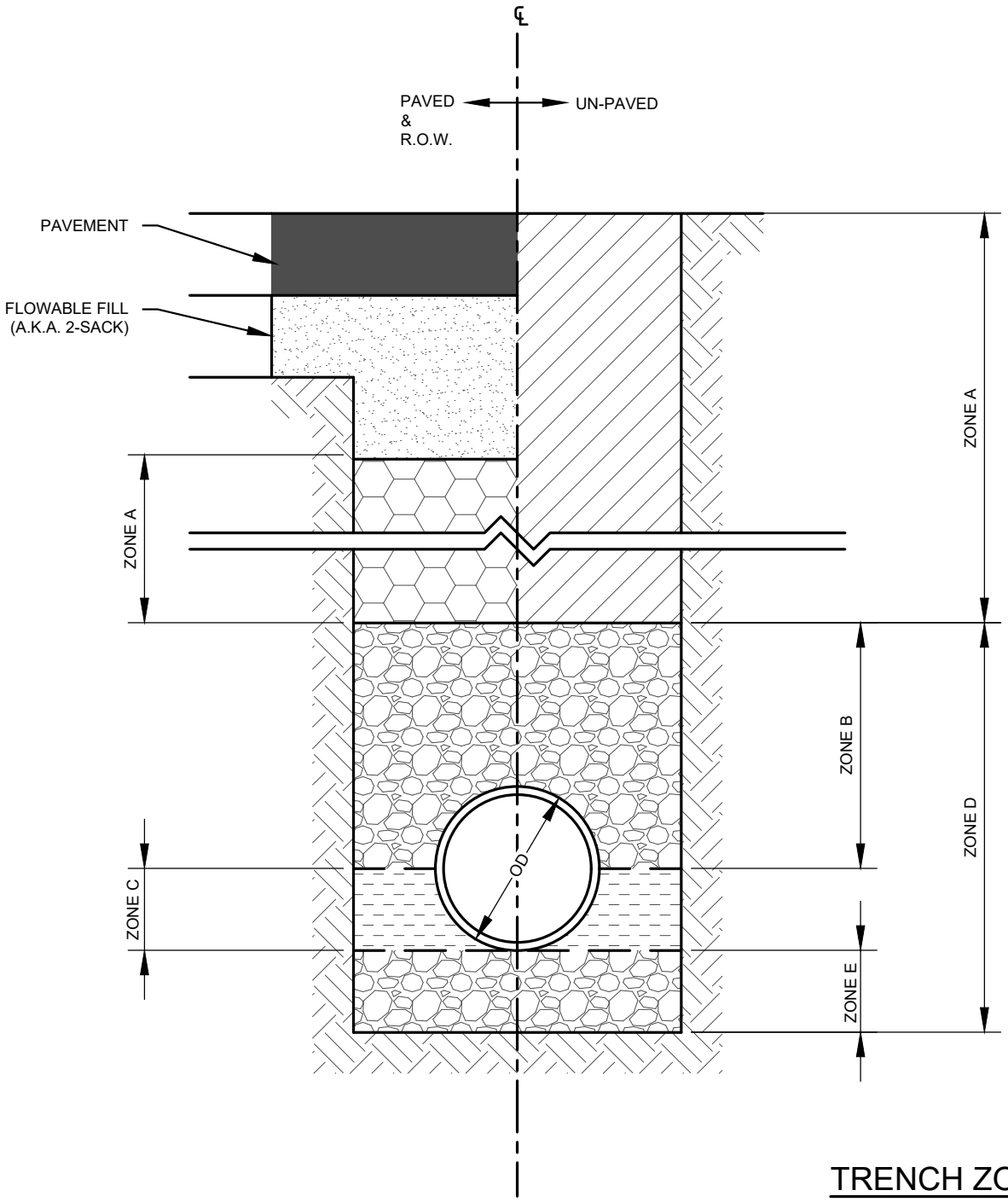
DRAWN: DPM	CHECKED: JCF	APPROVED: MCC	
MIDLAND Engineering Services	EFFECTIVE DATE: 10/01/2018	SCALE: NTS	DETAIL:
	REMOTE FDC	September 8, 2020	F02



NOTES:

1. APPLIES TO ALL PIPE TYPES. (DUCTILE IRON, PVC, ETC.)
2. USE SELECT FILL FOR ALL BACKFILL MATERIAL.
3. MOISTURE CONDITION ALL BACKFILL MATERIAL PRIOR TO PLACING IN TRENCH.
4. PLACE BACKFILL MATERIAL IN MAXIMUM 12" LOOSE LIFTS AND COMPACT TO MAXIMUM 8" COMPACTED LIFTS.
5. REFER TO CITY DETAILS 311 AND 312 FOR TRENCH PAVEMENT REPLACEMENT REQUIREMENTS
6. MATERIALS AND CONSTRUCTION METHODS TO CONFORM TO CITY OF MIDLAND STANDARDS AND SPECIFICATIONS.
7. CONSTRUCT AS SHOWN UNLESS OTHERWISE APPROVED IN WRITING BY THE FIRE CODE OFFICIAL.

DRAWN: DPM	CHECKED: JCF	APPROVED: MCC	
MIDLAND Engineering Services	EFFECTIVE DATE: 10/01/2018	SCALE: NTS	DETAIL:
	FIRE LINE TRENCHING AND BEDDING		F03(A)



TRENCH ZONES:

ZONE A: TRENCH BACKFILL

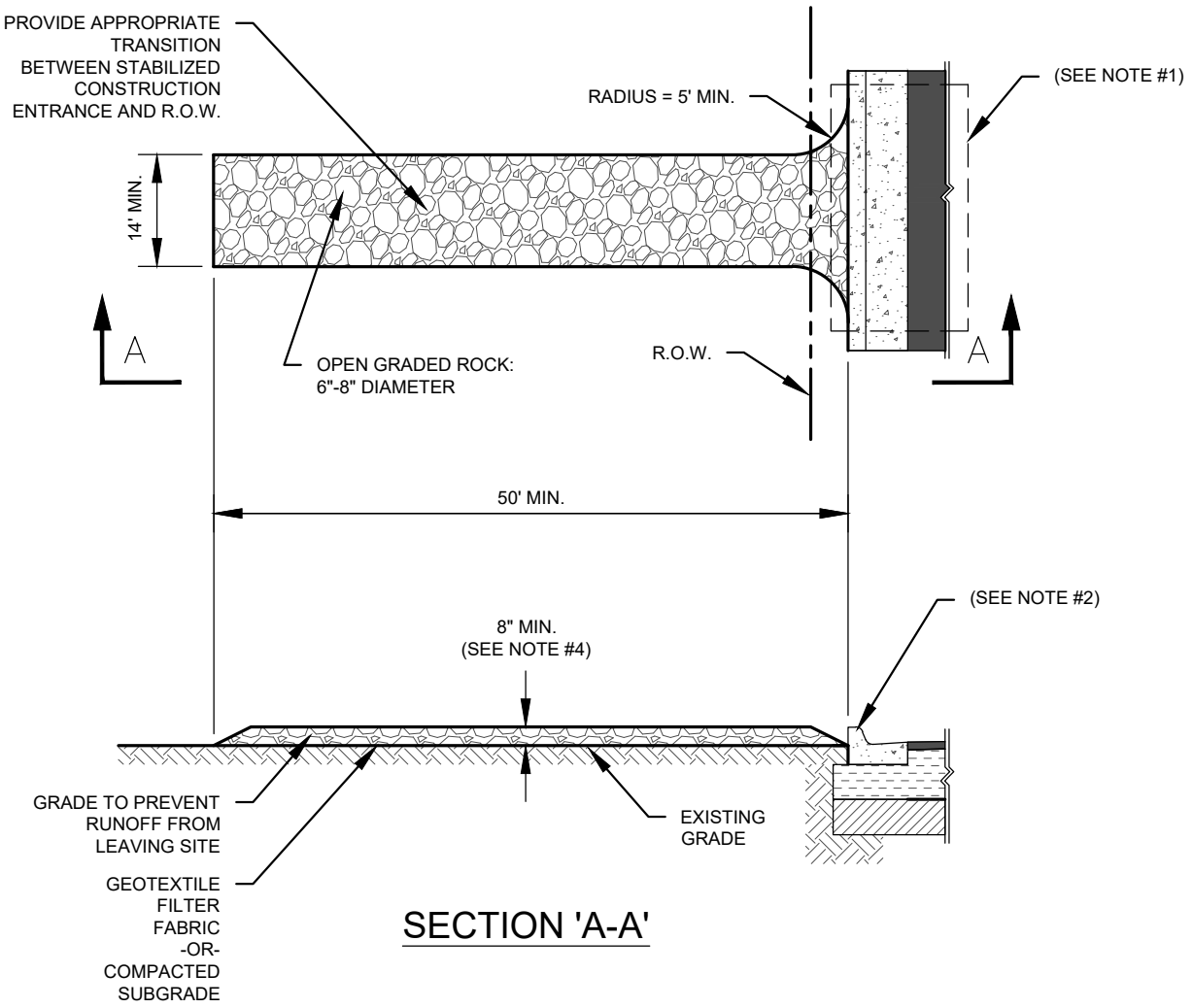
ZONE B: PIPE BACKFILL

ZONE C: HAUNCHING

ZONE D: PIPE EMBEDMENT

ZONE E: BEDDING

DRAWN: DPM	CHECKED: JCF	APPROVED: MCC	
MIDLAND Engineering Services	EFFECTIVE DATE: 10/01/2018	SCALE: NTS	DETAIL:
	FIRE LINE TRENCHING AND BEDDING		F03(B)

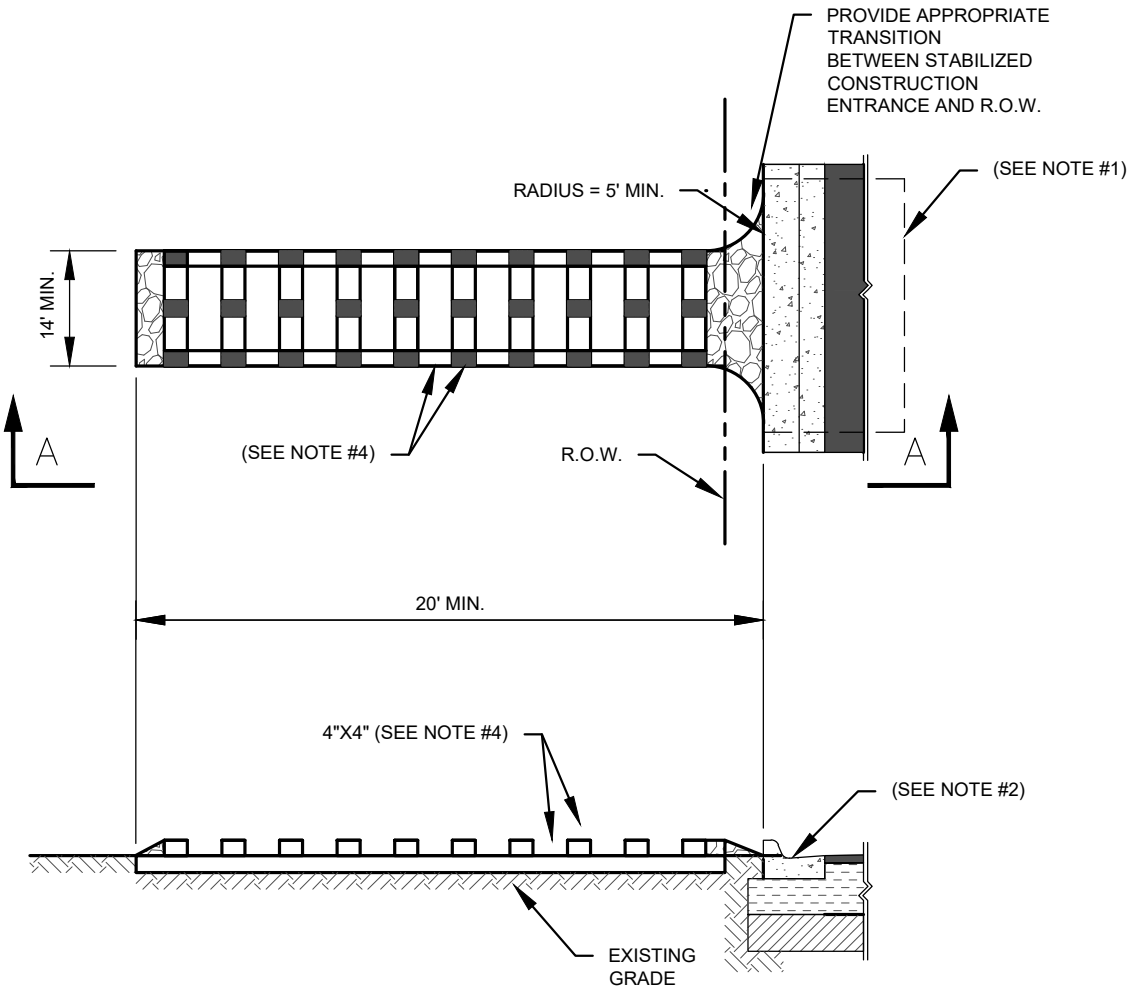


SECTION 'A-A'

NOTES:

1. IF CURB DOES NOT EXIST OR IF EXISTING CURB IS REMOVED DURING CONSTRUCTION THEN STABILIZED CONSTRUCTION ENTRANCE IS TO EXTEND TO THE EDGE OF PAVEMENT.
2. IF CURB IS LEFT IN PLACE DURING CONSTRUCTION THEN INSTALL TEMPORARY CURB PROTECTION AS PER CITY DETAIL 713.
3. LENGTH SHALL BE AS SHOWN ON THE CONSTRUCTION DRAWINGS, BUT NOT LESS THAN FIFTY (50) FEET.
4. THICKNESS OF OPEN GRADED ROCK TO BE NO LESS THAN EIGHT (8) INCHES.
5. WIDTH SHALL BE NO LESS THAN FOURTEEN (14) FEET OR THE FULL WIDTH OF ALL POINTS OF INGRESS OR EGRESS, WHICHEVER IS WIDER.
6. STABILIZED CONSTRUCTION ENTRANCE TO BE REMOVED UPON COMPLETION OF CONSTRUCTION.
7. MATERIALS AND CONSTRUCTION METHODS TO CONFORM TO CITY OF MIDLAND STANDARDS AND SPECIFICATIONS
8. CONSTRUCT AS SHOWN UNLESS OTHERWISE APPROVED IN WRITING BY THE CITY ENGINEER.

DRAWN: DPM	CHECKED: JCF	APPROVED: MCC	
MIDLAND Engineering Services	EFFECTIVE DATE: 10/01/2018	SCALE: NTS	DETAIL:
	STABILIZED CONSTRUCTION ENTRANCE OPTION 1		701

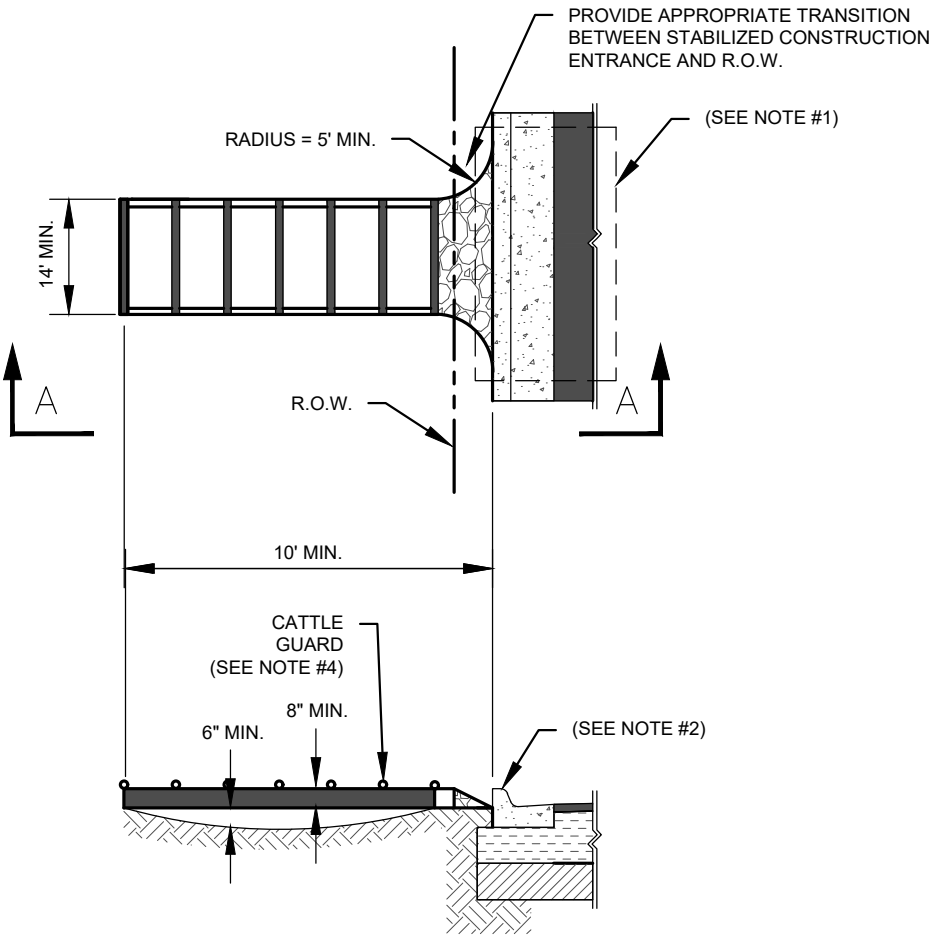


SECTION 'A-A'

NOTES:

1. IF CURB DOES NOT EXIST OR IF EXISTING CURB IS REMOVED DURING CONSTRUCTION THEN STABILIZED CONSTRUCTION ENTRANCE IS TO EXTEND TO THE EDGE OF PAVEMENT.
2. IF CURB IS LEFT IN PLACE DURING CONSTRUCTION THEN INSTALL TEMPORARY CURB PROTECTION AS PER CITY DETAIL 713.
3. LENGTH SHALL BE AS SHOWN ON THE CONSTRUCTION DRAWINGS, BUT NOT LESS THAN TWENTY (20) FEET.
4. BOARDS TO ALL BE 4"X4" WOOD BOARDS IN GOOD CONDITION. PLACE BOARDS ON BOTTOM LAYER TO RUN ALONG ENTRYWAY WITH 2.0' SPACING BETWEEN BOARDS. PLACE BOARDS ON TOP LAYER TO RUN ACROSS ENTRYWAY WITH 4.0" SPACING BETWEEN BOARDS. BOLT BOARDS ON TOP LAYER TO BOARDS ON BOTTOM LAYER.
5. WIDTH SHALL BE NO LESS THAN FOURTEEN (14) FEET OR THE FULL WIDTH OF ALL POINTS OF INGRESS OR EGRESS, WHICHEVER IS WIDER.
6. STABILIZED CONSTRUCTION ENTRANCE TO BE REMOVED UPON COMPLETION OF CONSTRUCTION.
7. MATERIALS AND CONSTRUCTION METHODS TO CONFORM TO CITY OF MIDLAND STANDARDS AND SPECIFICATIONS
8. CONSTRUCT AS SHOWN UNLESS OTHERWISE APPROVED IN WRITING BY THE CITY ENGINEER.

DRAWN: DPM	CHECKED: JCF	APPROVED: MCC	
MIDLAND Engineering Services	EFFECTIVE DATE: 10/01/2018	SCALE: NTS	DETAIL:
	STABILIZED CONSTRUCTION ENTRANCE OPTION 2		702

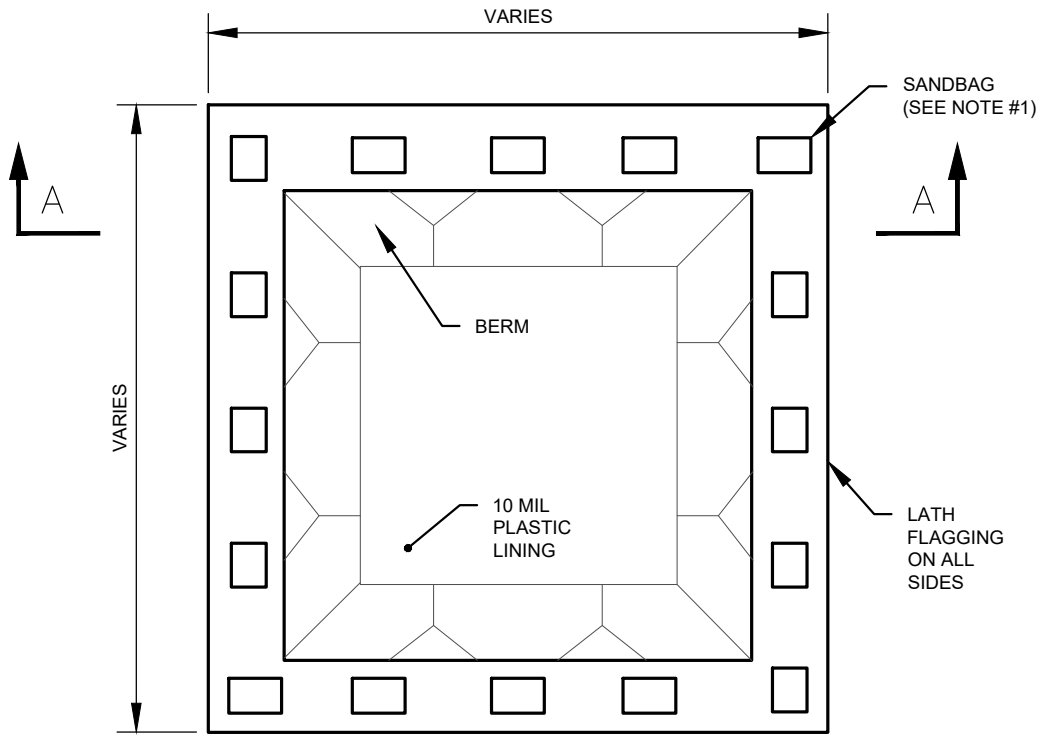


SECTION 'A-A'

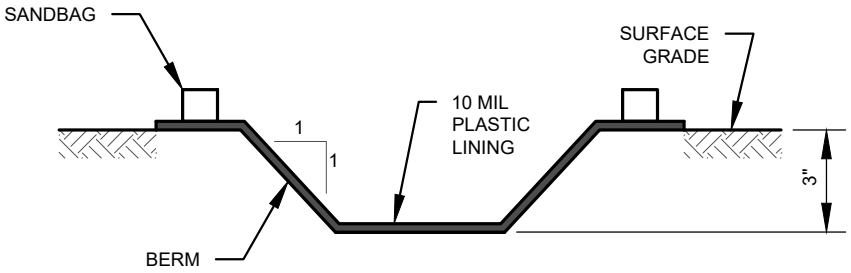
NOTES:

1. IF CURB DOES NOT EXIST OR IF EXISTING CURB IS REMOVED DURING CONSTRUCTION THEN STABILIZED CONSTRUCTION ENTRANCE IS TO EXTEND TO THE EDGE OF PAVEMENT.
2. IF CURB IS LEFT IN PLACE DURING CONSTRUCTION THEN INSTALL TEMPORARY CURB PROTECTION AS PER CITY DETAIL 713.
3. LENGTH SHALL BE AS SHOWN ON THE CONSTRUCTION DRAWINGS, BUT NOT LESS THAN TEN (10) FEET.
4. CATTLE GUARD TO BE STEEL, HEAVY VEHICLE LOAD RATED, AND UTILIZE TOP LEVEL BEAM OR PIPE CROSSINGS OF 4"-6" DIAMETER SPACED NO MORE THAN 8.0" APART. STRUCTURE MAY BE PRE-FABRICATED.
5. WIDTH SHALL BE NO LESS THAN FOURTEEN (14) FEET OR THE FULL WIDTH OF ALL POINTS OF INGRESS OR EGRESS, WHICHEVER IS WIDER.
6. STABILIZED CONSTRUCTION ENTRANCE TO BE REMOVED UPON COMPLETION OF CONSTRUCTION.
7. MATERIALS AND CONSTRUCTION METHODS TO CONFORM TO CITY OF MIDLAND STANDARDS AND SPECIFICATIONS
8. CONSTRUCT AS SHOWN UNLESS OTHERWISE APPROVED IN WRITING BY THE CITY ENGINEER.

DRAWN: DPM	CHECKED: JCF	APPROVED: MCC	
MIDLAND Engineering Services	EFFECTIVE DATE: 10/01/2018	SCALE: NTS	DETAIL:
	STABILIZED CONSTRUCTION ENTRANCE OPTION 2		703



DEPRESSED WASHOUT

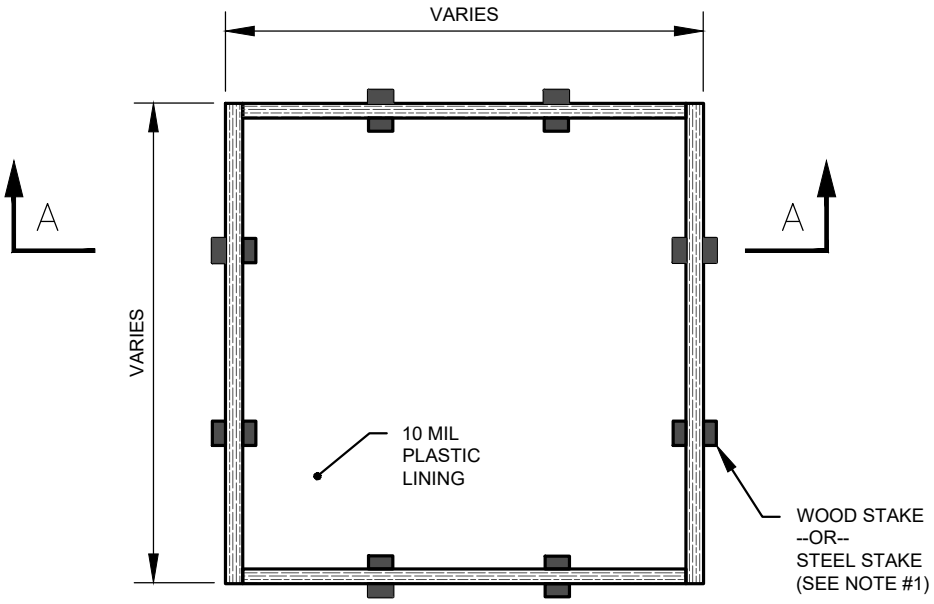


SECTION 'A-A'

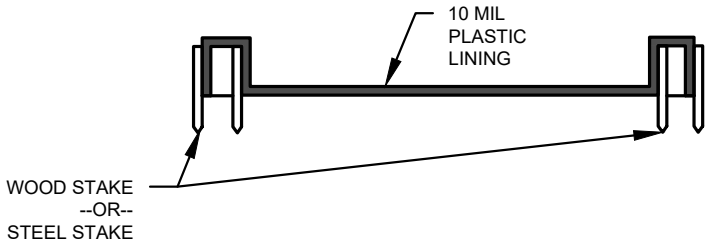
NOTES:

1. SECURE WASHOUT STRUCTURES AND LININGS WITH SANDBAGS OR TWO SECURELY FASTENED STAKES AROUND ENTIRE WASHOUT PERIMETER.
2. MATERIALS AND CONSTRUCTION METHODS TO CONFORM TO CITY OF MIDLAND STANDARDS AND SPECIFICATIONS.
3. CONSTRUCT AS SHOWN UNLESS OTHERWISE APPROVED IN WRITING BY THE CITY ENGINEER.

DRAWN: DPM	CHECKED: JCF	APPROVED: MCC	
MIDLAND Engineering Services	EFFECTIVE DATE: 10/01/2018	SCALE: NTS	DETAIL:
	CONCRETE WASHOUT OPTION 1		704



ELEVATED WASHOUT

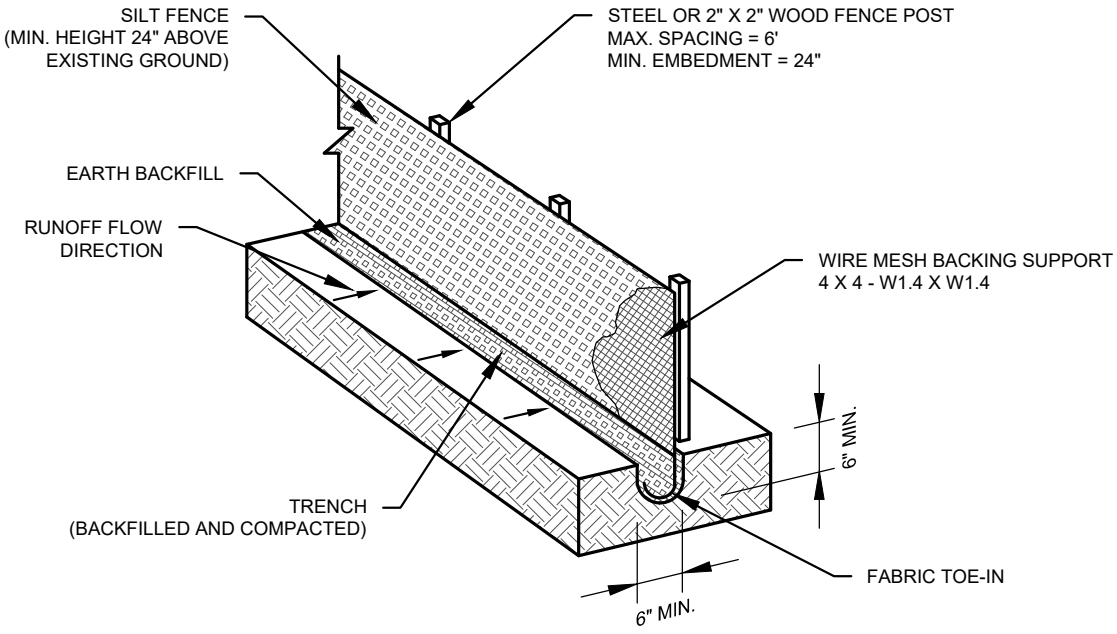


SECTION 'A-A'

NOTES:

1. THIS WASHOUT CONFIGURATION MAY NOT BE USED IN PAVED AREAS.
2. WOOD FRAME IS TO BE EQUAL TO OR BETTER THAN TWO-STACKED 2X12 ROUGH WOOD FRAME.
3. MATERIALS AND CONSTRUCTION METHODS TO CONFORM TO CITY OF MIDLAND STANDARDS AND SPECIFICATIONS.
4. CONSTRUCT AS SHOWN UNLESS OTHERWISE APPROVED IN WRITING BY THE CITY ENGINEERING.

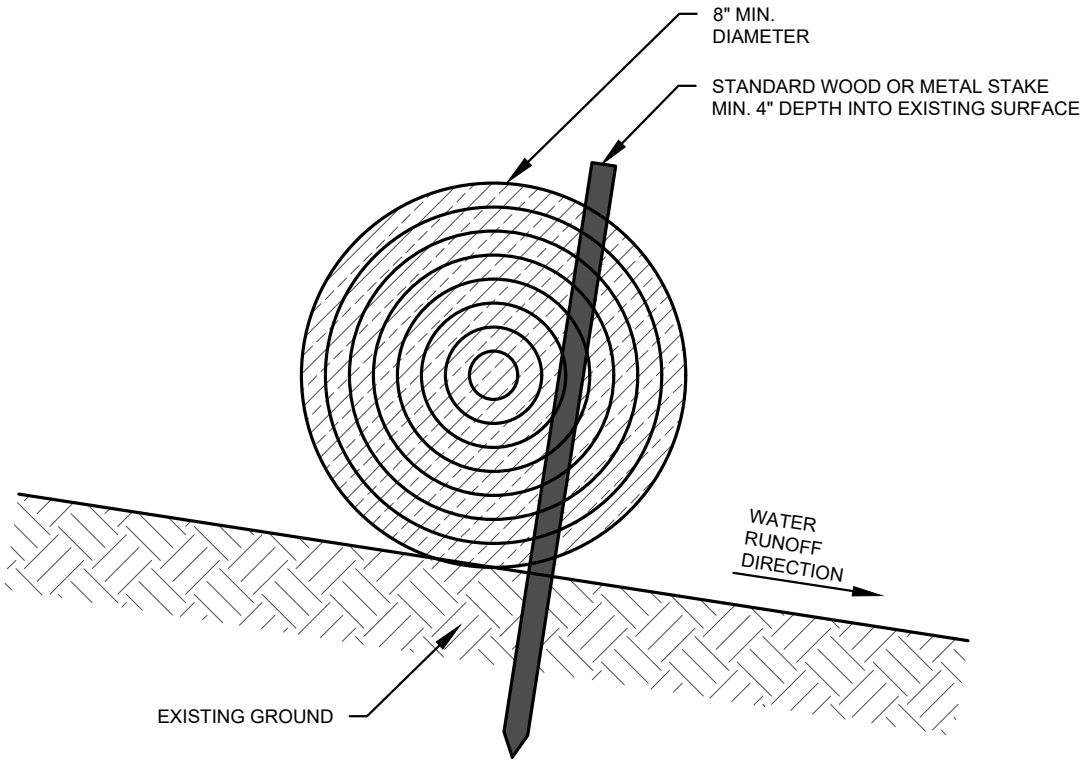
DRAWN: DPM	CHECKED: JCF	APPROVED: MCC	
MIDLAND Engineering Services	EFFECTIVE DATE: 10/01/2018	SCALE: NTS	DETAIL:
	CONCRETE WASHOUT OPTION 2		705



NOTES:

1. THIS DETAIL IS TO BE USED FOR SHEET FLOW CONDITIONS ONLY. DO NOT USE SILT FENCE FOR POINT FLOW OR CONCENTRATED FLOW CONDITIONS.
2. INSTALL STEEL OR WOOD POSTS, WHICH SUPPORT THE SILT FENCE, WITH A SLIGHT ANGLE TOWARD THE ANTICIPATED RUNOFF SOURCE. POSTS MUST BE EMBEDDED A MINIMUM OF ONE (1) FOOT.
3. TRENCH THE TOE OF THE SILT FENCE IN WITH A SPADE OR MECHANICAL TRENCHER, SO THAT THE DOWNSLOPE FACE OF THE TRENCH IS FLAT AND PERPENDICULAR TO THE LINE OF FLOW. WHERE THE FENCE CANNOT BE TRENCHED IN (E.G.PAVEMENT), WEIGHT DOWN FABRIC FLAP WITH WASHED GRAVEL ON UPHILL SIDE TO PREVENT FLOW UNDER FENCE.
4. THE TRENCH MUST BE A MINIMUM OF SIX (6) INCHES DEEP AND SIX (6) INCHES WIDE TO ALLOW FOR THE SILT FENCE FABRIC TO BE LAID IN THE GROUND AND BACKFILLED WITH COMPACTED MATERIAL.
5. SECURELY FASTEN SILT FENCE TO EACH STEEL SUPPORT POST OR TO WOVEN WIRE, WHICH IN TURN IS TO BE ATTACHED TO THE STEEL OR WOOD FENCE POST. INCLUDE A SIX (6) INCH DOUBLE OVERLAP, SECURELY FASTENED, WHERE ENDS OF FABRIC MEET.
6. REMOVE SILT FENCE WHEN THE SITE IS COMPLETELY STABILIZED SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.
7. REMOVE ACCUMULATED SILT WHEN IT REACHES A DEPTH OF SIX (6) INCHES. DISPOSE OF THE SILT ONSITE IN AN APPROVED LOCATION AND IN SUCH A MANNER AS TO NOT CONTRIBUTE TO ADDITIONAL SILTATION.
8. MATERIALS AND CONSTRUCTION METHODS TO CONFORM TO CITY OF MIDLAND STANDARDS AND SPECIFICATIONS.
9. CONSTRUCT AS SHOWN UNLESS OTHERWISE APPROVED IN WRITING BY THE CITY ENGINEER.

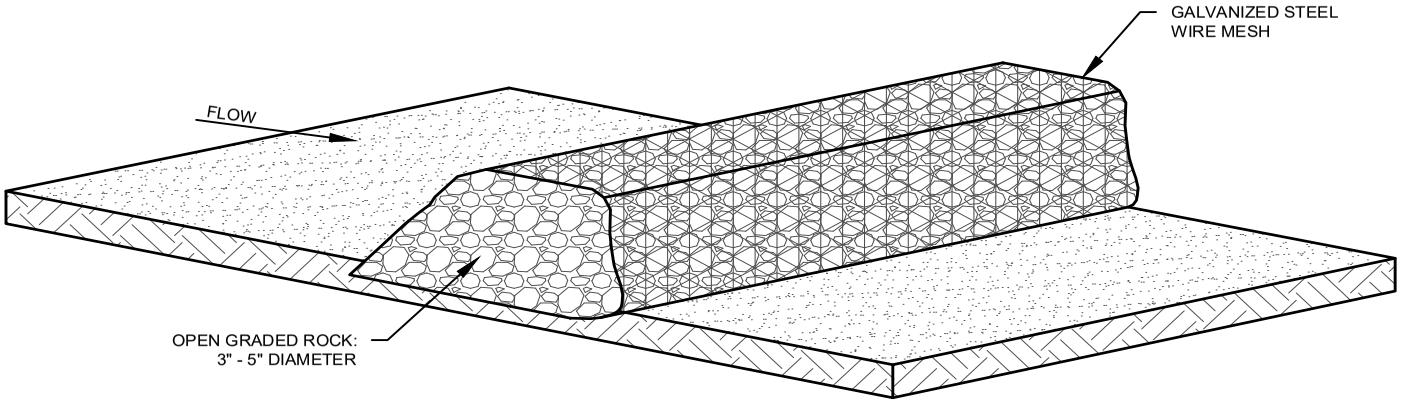
DRAWN: DPM	CHECKED: JCF	APPROVED: MCC	
MIDLAND Engineering Services	EFFECTIVE DATE: 10/01/2018	SCALE: NTS	DETAIL:
	SILT FENCE	September 8, 2020	706



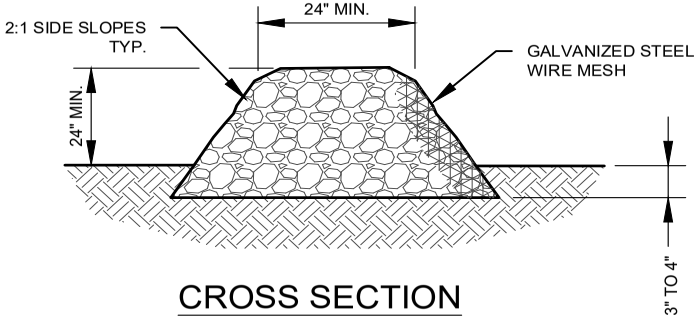
NOTES:

1. THIS DETAIL IS TO USED FOR SHEET FLOW CONDITIONS ONLY. DO NOT USE FILTER SOCK FOR POINT FLOW OR CONCENTRATED FLOW CONDITIONS.
2. DO NOT USE FILTER SOCK FOR SHEET FLOW WATERSHEDS LARGER THAN ONE (1) ACRE.
3. USE POLYPROPYLENE NETTING, BURLAP, OR JUTE FABRIC TO CONSTRUCT THE FILTER SOCK.
4. FILL FILTER SOCK WITH STRAW, HAY, COCONUT FIBER, OR COMPOSITE MATERIAL.
5. PLACE STAKING EVERY THREE (3) TO FOUR (4) FEET AT A MINIMUM.
6. MATERIALS AND CONSTRUCTION METHODS TO CONFORM TO CITY OF MIDLAND STANDARDS AND SPECIFICATIONS.
7. CONSTRUCT AS SHOWN UNLESS OTHERWISE APPROVED IN WRITING BY THE CITY ENGINEER.

DRAWN: DPM	CHECKED: JCF	APPROVED: MCC	
MIDLAND Engineering Services	EFFECTIVE DATE: 10/01/2018	SCALE: NTS	DETAIL:
	FILTER SOCK	September 8, 2020	707



ISOMETRIC VIEW

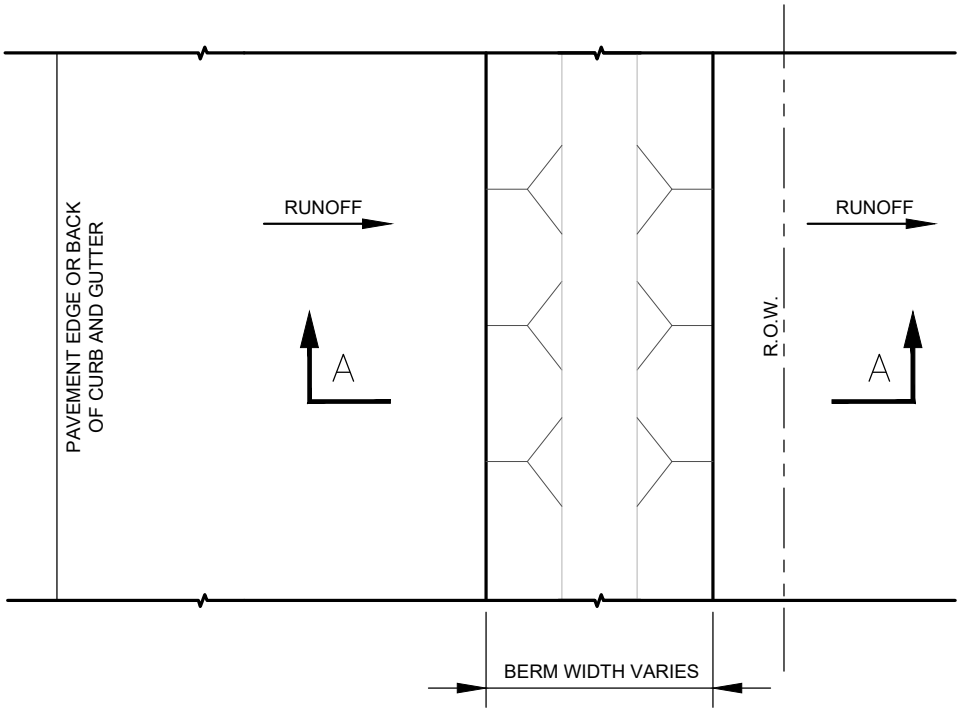


CROSS SECTION

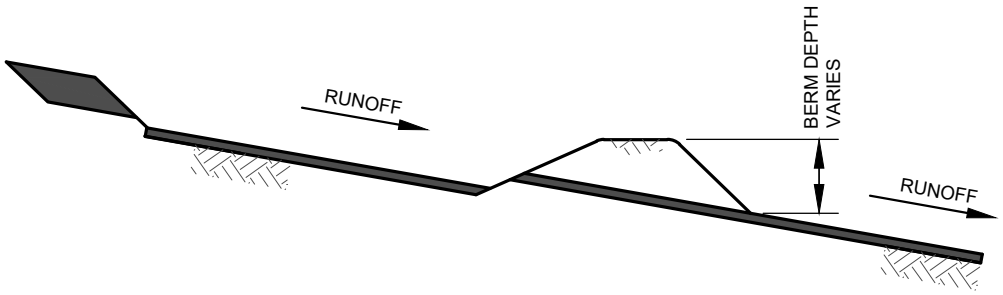
NOTES:

1. MATERIALS AND CONSTRUCTION METHODS TO CONFORM TO CITY OF MIDLAND STANDARDS AND SPECIFICATIONS.
2. CONSTRUCT AS SHOWN UNLESS OTHERWISE APPROVED IN WRITING BY THE CITY ENGINEER.

MIDLAND Engineering Services	DRAWN: DPM CHECKED: JCF APPROVED: MCC	EFFECTIVE DATE: 10/01/2018	SCALE: NTS	DETAIL:
		ROCK FILTER DAM		708



PLAN

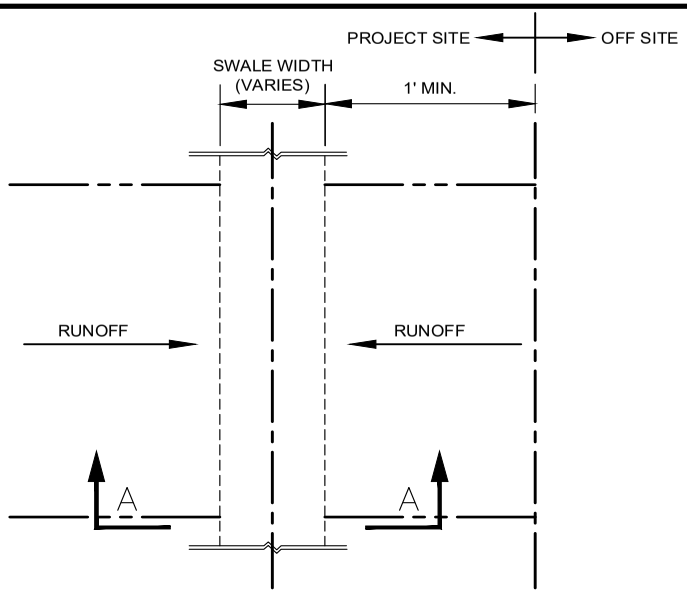


SECTION 'A-A'

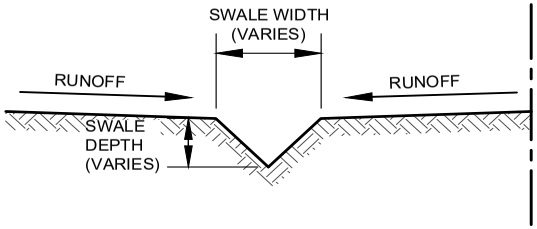
NOTES:

1. CONSTRUCT WIND ROW BERM FROM EXISTING TOPSOIL (4" TO 6" USUAL) TO INTERCEPT RUNOFF.
2. WHERE OVERTOPPING OF BERM OCCURS, PLACE ADDITIONAL EROSION CONTROL DEVICES AS REQUIRED BY THE ENGINEER.
3. MATERIALS AND CONSTRUCTION METHODS TO CONFORM TO CITY OF MIDLAND STANDARDS AND SPECIFICATIONS.
4. CONSTRUCT AS SHOWN UNLESS OTHERWISE APPROVED IN WRITING BY THE CITY ENGINEER.

DRAWN: DPM	CHECKED: JCF	APPROVED: MCC	
MIDLAND Engineering Services	EFFECTIVE DATE: 10/01/2018	SCALE: NTS	DETAIL:
	WIND ROW BERM		709



DRAINAGE SWALE BUFFER

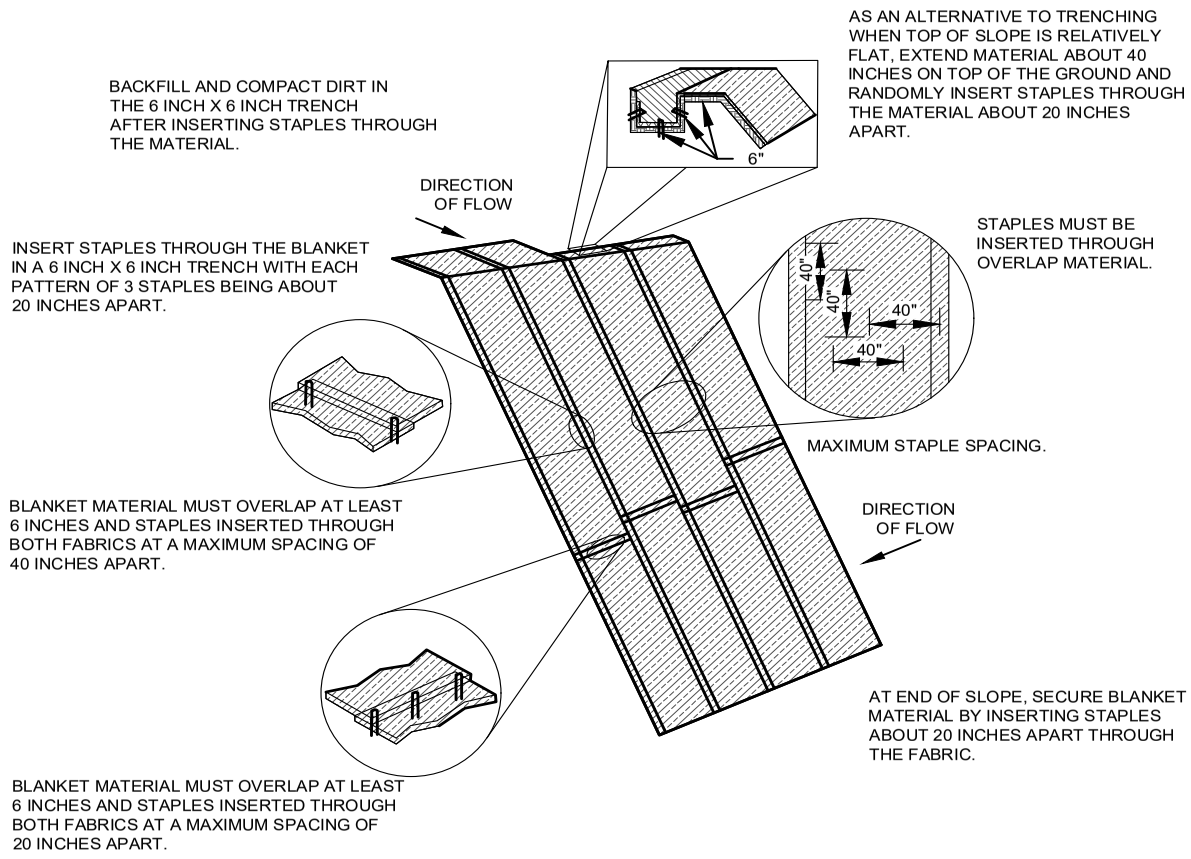


SECTION 'A-A'

NOTES:

1. SIZE DRAINAGE SWALE BUFFER TO CONTAIN ALL RUNOFF DIRECTED TOWARDS IT SO THAT NO OVERTOPPING OF SWALE OCCURS.
2. MATERIALS AND CONSTRUCTION METHODS TO CONFORM TO CITY OF MIDLAND STANDARDS AND SPECIFICATIONS
3. CONSTRUCT AS SHOWN UNLESS OTHERWISE APPROVED IN WRITING BY THE CITY ENGINEER.

MIDLAND Engineering Services	DRAWN: DPM CHECKED: JCF APPROVED: MCC	EFFECTIVE DATE: 10/01/2018	SCALE: NTS	DETAIL:
		DRAINAGE SWALE BUFFER		710

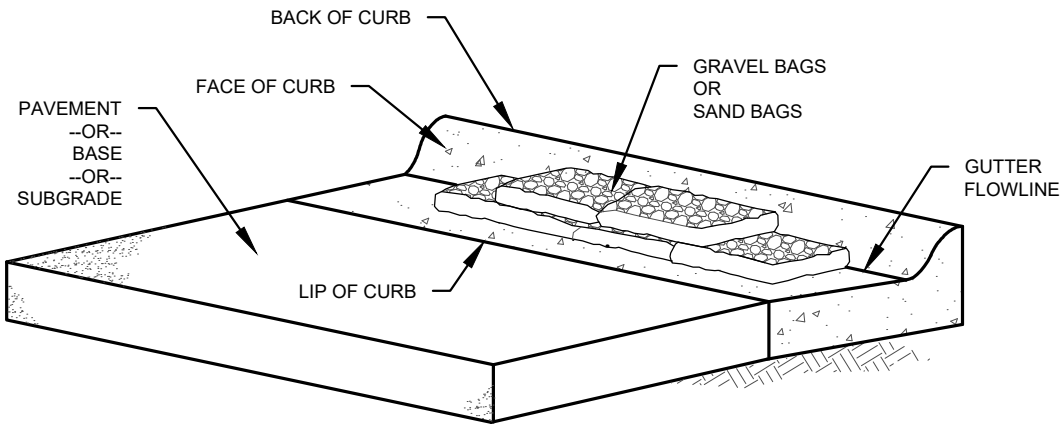


NOTES:

1. THE FOLLOWING PRODUCTS, OR AN EQUAL APPROVED BY THE ENGINEERING SERVICES REPRESENTATIVE MAY BE USED;
   ECS S-1 STANDARD STRAW
   ECS HIGH VELOCITY STRAW
   LANDLOK BON-TERRA S2, ENS2 OR ENCS2
   NORTH AMERICAN GREEN S75, S75BN, S150, S150BN, OR SC150
2. APPLY SEED AS RECOMMENDED BY MANUFACTURER'S SPECIFICATIONS.
3. LAY BLANKETS PARALLEL TO THE DIRECTION OF WATER FLOW. SPREAD BLANKETS EVENLY WITHOUT STRETCHING SO FIBERS ARE IN DIRECT CONTACT WITH THE SOIL.
4. BURY THE UPSLOPE END OF EACH BLANKET AT LEAST 6 INCHES IN A VERTICAL TRENCH WITH THE SOIL PRESSED FIRMLY AGAINST THE EMBEDDED MAT. ADDITIONAL CHECK TRENCHES AT 50 FEET INTERVALS MAY BE DESIRABLE ON STEEP GRADES OR LONG FLOW AREAS.
5. STAPLE STRIP ENDS AND END OVERLAPS WITH NOT MORE THAN 20 INCHES BETWEEN STAPLES. STAPLE ALL OTHER JOINTS AND EDGES AT 40 INCH INTERVALS.
6. USE U-SHAPED STAPLES TO ANCHOR BLANKETS THAT ARE 11 GAUGE OR HEAVIER STEEL WIRE HAVING A SPAN WIDTH OF 1 INCH AND A LENGTH OF 6 INCHES OR MORE FROM TOP TO BOTTOM AFTER BENDING.
7. MATERIALS AND CONSTRUCTION METHODS TO CONFORM TO CITY OF MIDLAND STANDARDS AND SPECIFICATIONS.
8. CONSTRUCT AS SHOWN UNLESS OTHERWISE APPROVED IN WRITING BY THE CITY ENGINEER.

MIDLAND Engineering Services

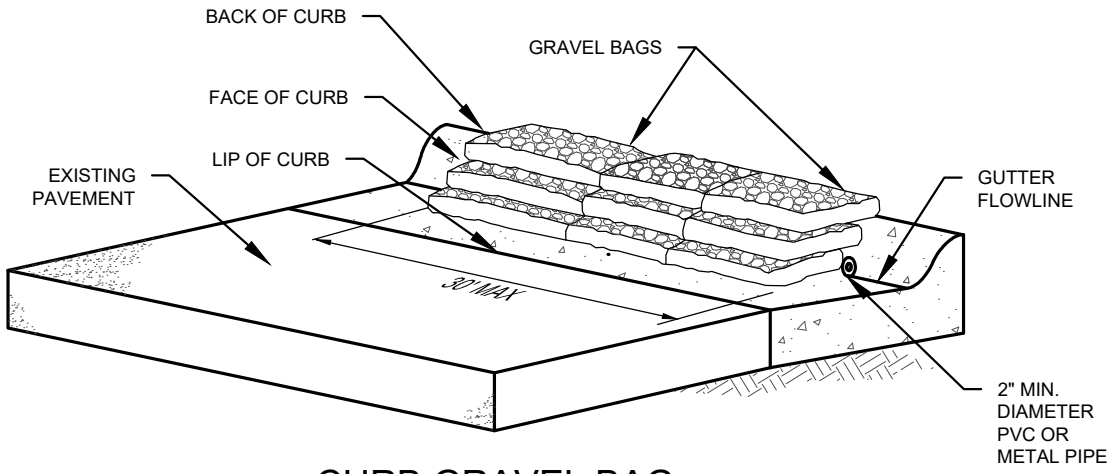
DRAWN: DPM	EFFECTIVE DATE: 10/01/2018	SCALE: NTS	DETAIL:
CHECKED: JCF	EROSION CONTROL BLANKET AND VEGETATION		711
APPROVED: MCC			



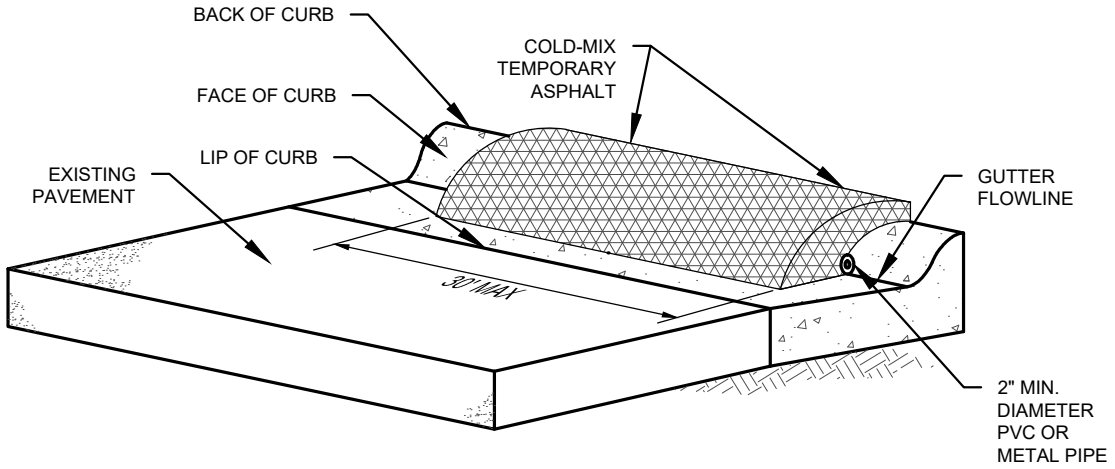
NOTES:

1. FILL BAGS TO 60% CAPACITY WITH EITHER CLEAN GRAVEL OR CLEAN SAND.
2. GRAVEL TO BE NO LESS THAN 1" DIAMETER OR GREATER THAN 2" DIAMETER.
3. PLACE BAGS WITH BAG OPENINGS SECURED AND FACE UP, AND SO THAT EACH BAG IS FLAT AND HAS THE GREATEST POSSIBLE SURFACE AREA CONTACT WITH THE CURB.
4. PLACE BAGS AGAINST THE FACE-OF-CURB AND DO NOT PLACE BAGS BEYOND THE LIP-OF-CURB.
5. DO NOT BLOCK ADA RAMPS OR WALKWAYS WITH BAGS.
6. MATERIALS AND CONSTRUCTION METHODS TO CONFORM TO CITY OF MIDLAND STANDARDS AND SPECIFICATIONS.
7. CONSTRUCT AS SHOWN UNLESS OTHERWISE APPROVED IN WRITING BY THE CITY ENGINEER.

DRAWN: DPM	CHECKED: JCF	APPROVED: MCC	
MIDLAND Engineering Services	EFFECTIVE DATE: 10/01/2018	SCALE: NTS	DETAIL:
	CURB GRAVEL OR SAND BAGS		712



CURB GRAVEL BAG

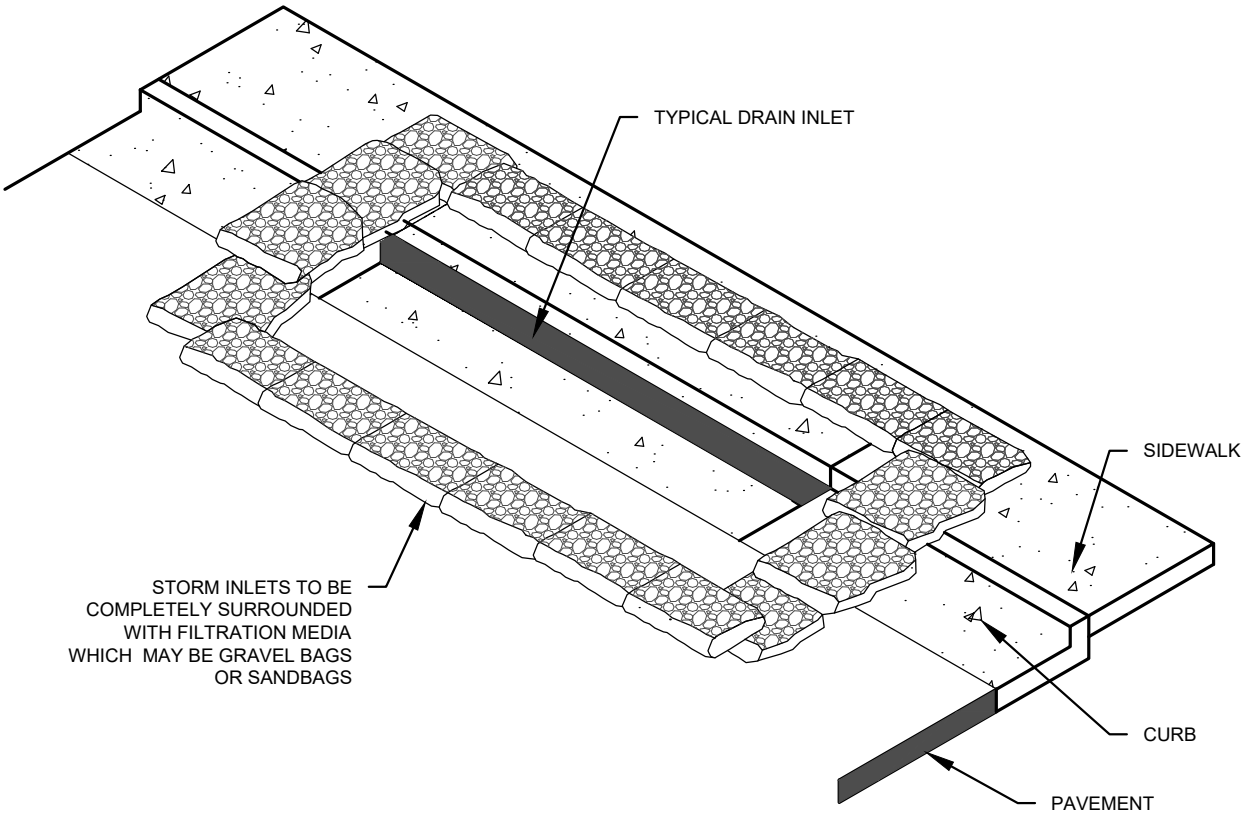


CURB COLD-MIX TEMPORARY ASPHALT

NOTES:

1. UTILIZE THIS DETAIL WHEN ACCESSING PROJECT SITE OVER EXISTING CURB ONLY IF NO USABLE CURB OPENING EXISTS.
2. FILL BAGS TO 60% CAPACITY WITH CLEAN GRAVEL NO LESS THAN 1" DIAMETER AND NO GREATER THAN 2" DIAMETER.
3. PLACE BAGS WITH BAG OPENINGS SECURED AND FACE UP, AND SO THAT EACH BAG IS FLAT AND HAS THE GREATEST POSSIBLE SURFACE AREA CONTACT WITH THE CURB.
4. PLACE BAGS AGAINST THE PIPE AND FACE-OF-CURB . DO NOT PLACE BAGS BEYOND THE LIP-OF-CURB.
5. DO NOT BLOCK ADA RAMPS OR WALKWAYS WITH BAGS.
6. DO NOT PLACE TEMPORARY ASPHALT BEYOND LIP-OF-CURB.
7. PIPE MUST EXTEND ACROSS FULL LENGTH OF TEMPORARY CURB PROTECTION AND BE COMPLETELY EXPOSED AT BOTH ENDS.
8. MINIMUM 4" THICK LAYER OF GRAVEL OR ASPHALT REQUIRED OVER ALL PARTS OF AFFECTED CURB.
9. MAXIMUM WIDTH OF CURB PROTECTION IS 30'.
10. MATERIALS AND CONSTRUCTION METHODS TO CONFORM TO CITY OF MIDLAND STANDARDS AND SPECIFICATIONS.
11. CONSTRUCT AS SHOWN UNLESS OTHERWISE APPROVED IN WRITING BY THE CITY ENGINEER.

DRAWN: DPM	CHECKED: JCF	APPROVED: MCC	
MIDLAND Engineering Services	EFFECTIVE DATE: 10/01/2018	SCALE: NTS	DETAIL:
	TEMPORARY CURB PROTECTION		713

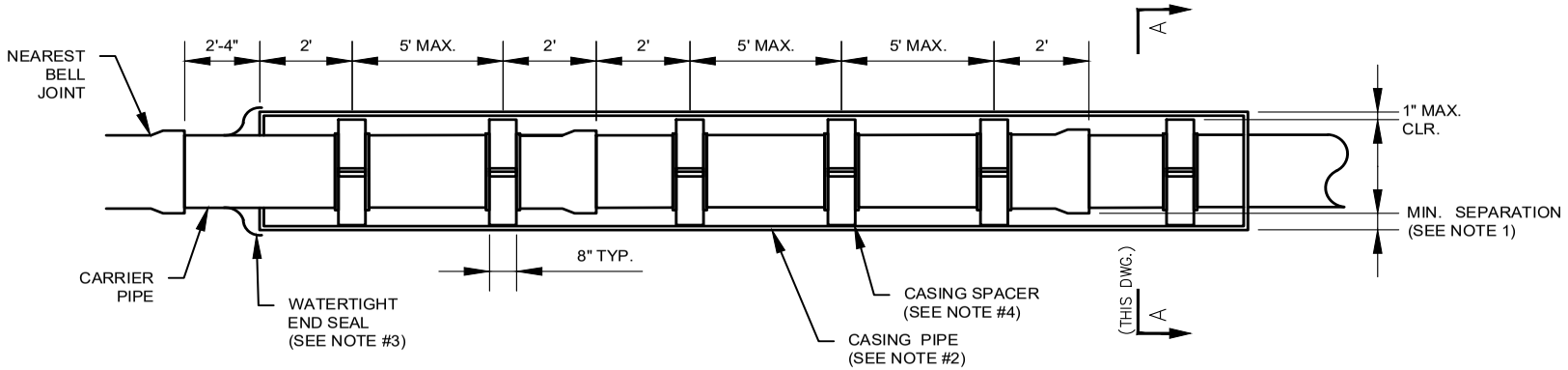


GRAVEL BAGS OR SANDBAGS

NOTES:

1. FILL BAGS TO 60% CAPACITY WITH CLEAN GRAVEL OR CLEAN SAND.
2. PLACE BAGS WITH BAG OPENINGS SECURED AND FACE UP, AND SO THAT EACH BAG IS FLAT AND HAS THE GREATEST POSSIBLE SURFACE AREA CONTACT WITH THE SURFACE.
3. GRAVEL TO BE NO LESS THAN 1" DIAMETER OR GREATER THAN 2" DIAMETER.
4. MATERIALS AND CONSTRUCTION METHODS TO CONFORM TO CITY OF MIDLAND STANDARDS AND SPECIFICATIONS
5. CONSTRUCT AS SHOWN UNLESS OTHERWISE APPROVED IN WRITING BY THE CITY ENGINEER.

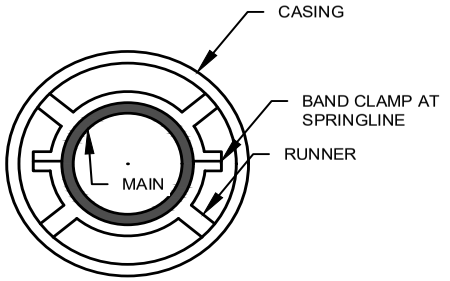
DRAWN: DPM	CHECKED: JCF	APPROVED: MCC	
MIDLAND Engineering Services	EFFECTIVE DATE: 10/01/2018	SCALE: NTS	DETAIL:
	CURB INLET PROTECTION		714



CROSS SECTION VIEW

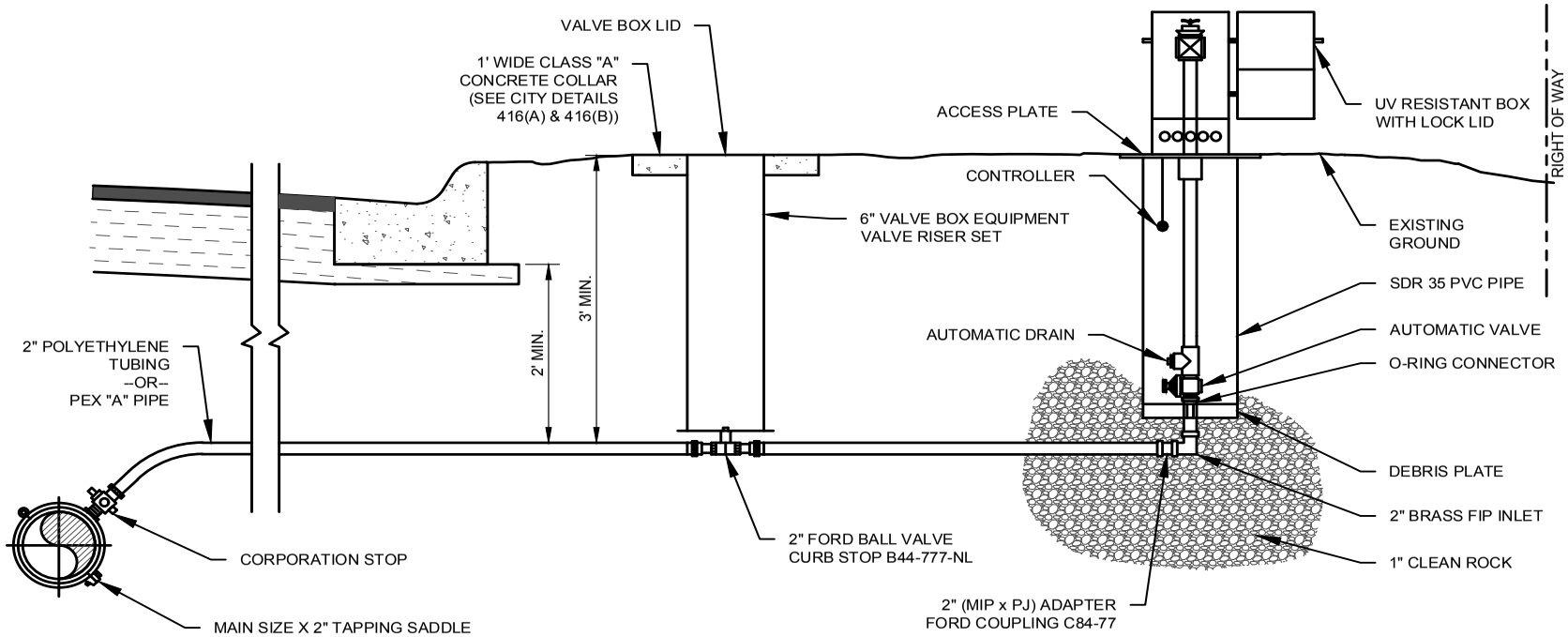
NOTES:

1. CASING PIPE TO BE MINIMUM TWO (2) NOMINAL SIZES LARGER IN DIAMETER THAN CARRIER PIPE.
2. CASING PIPE TO BE NO LESS THAN 12" DIAMETER PIPE. 12"-16" DIAMETER CASING PIPE MAY BE STEEL OR PVC PIPE. CASING PIPE LARGER THAN 16" DIAMETER MUST BE STEEL PIPE. STEEL CASING PIPE TO BE MINIMUM 1/4" WALL THICKNESS. PVC CASING PIPE TO BE SDR-26 D2241 OR C-900.
3. CASING PIPE TO BE STEEL OR PVC.
4. WATER TIGHT END SEAL TO BE GROUT OR APPROVED MANUFACTURED SEAL.
5. CASING SPACERS TO BE HDPE OR APPROVED EQUAL, MINIMUM FOUR (4) EQUALLY SPACED RUNNERS, WITH BAND CLAMP JOINT LOCATED AT SPRINGLINE. SPACERS FOR CASING PIPE LARGER THAN 24" DIAMETER REQUIRE MINIMUM SIX (6) EQUALLY SPACED RUNNERS.
6. CASING INSTALLED IN OPEN TRENCH IS TO BE BACKFILLED PER CURRENT CITY STANDARDS FOR AN UN-ENCASED MAIN.
7. MATERIALS AND CONSTRUCTION METHODS TO CONFORM TO CITY OF MIDLAND STANDARDS AND SPECIFICATIONS.
8. CONSTRUCT AS SHOWN UNLESS OTHERWISE APPROVED IN WRITING BY THE CITY ENGINEER.



SECTION 'A-A'

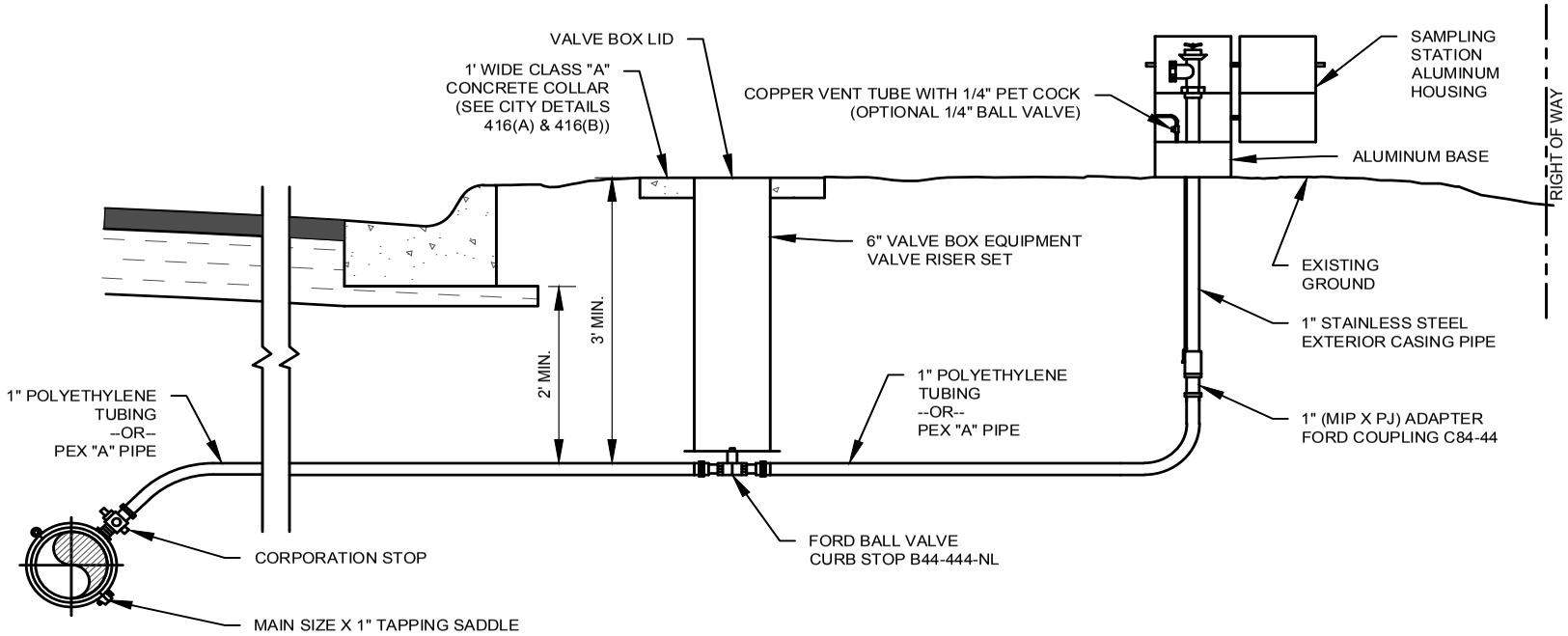
MIDLAND Engineering Services	DRAWN: DPM CHECKED: JCF APPROVED: MCC	EFFECTIVE DATE: 10/01/2018	SCALE: NTS
		# TYPICAL PIPE CASING DETAIL	DETAIL: 805



NOTES

1. AUTOMATIC FLUSHING DEVICE TO HAVE A 2" BRASS FIP INLET, LEADING VERTICALLY INTO A 2" AUTOMATIC SOLENOID VALVE. AUTOMATIC SOLENOID VALVE SHALL HAVE A 150 PSI RATING. EACH UNIT SHALL BE FURNISHED WITH A STAND-ALONE VALVE CONTROLLER. VALVE CONTROLLER WILL NOT REQUIRE A SECOND HAND-HELD DEVICE FOR PROGRAMMING, MUST HAVE A MINIMUM OF 12 POSSIBLE FLUSHING CYCLES PER DAY AT UP TO 6 HOURS OF FLUSH TIME PER CYCLE, SHALL BE SUBMERSIBLE TO 12', OPERATE WITH A 9 VOLT BATTERY (COMPARTMENT HOLDS TWO BATTERIES) AND HAVE A DOUBLE VALVE, ALL BRASS SAMPLING POINT. REMOVAL OF THE 2" SOLENOID VALVE SHALL BE POSSIBLE VIA AN O-RING CONNECTOR LOCATED UNDER THE VALVE AFTER REMOVAL OF THE STAINLESS STEEL ACCESS PLATE, UNDERGROUND PARTS SHALL BE HOUSED IN A PVC ENCLOSURE AND EACH UNIT SHALL BE SELF-DRAINING, NON-FREEZING. ALL ABOVE-GROUND COMPONENTS SHALL BE CONTAINED WITHIN A UV-RESISTANT LOCKING DOMED COVER.
2. ALL CONNECTION COMPONENTS (NOT INCLUDING THE STATION) MUST BE THE COMPONENTS LISTED OR APPROVED EQUALS. ALL COMPONENTS USED MUST BE FROM THE SAME MANUFACTURER.
3. ONLY TO BE INSTALLED IF APPROVED BY CITY ENGINEER/UTILITIES DIRECTOR.
4. MATERIALS AND CONSTRUCTION METHODS TO CONFORM TO CITY OF MIDLAND STANDARDS AND SPECIFICATIONS.
5. CONSTRUCT AS SHOWN UNLESS OTHERWISE APPROVED IN WRITING BY BOTH THE ENGINEERING SERVICES REPRESENTATIVE AND THE UTILITY DEPARTMENT REPRESENTATIVE.

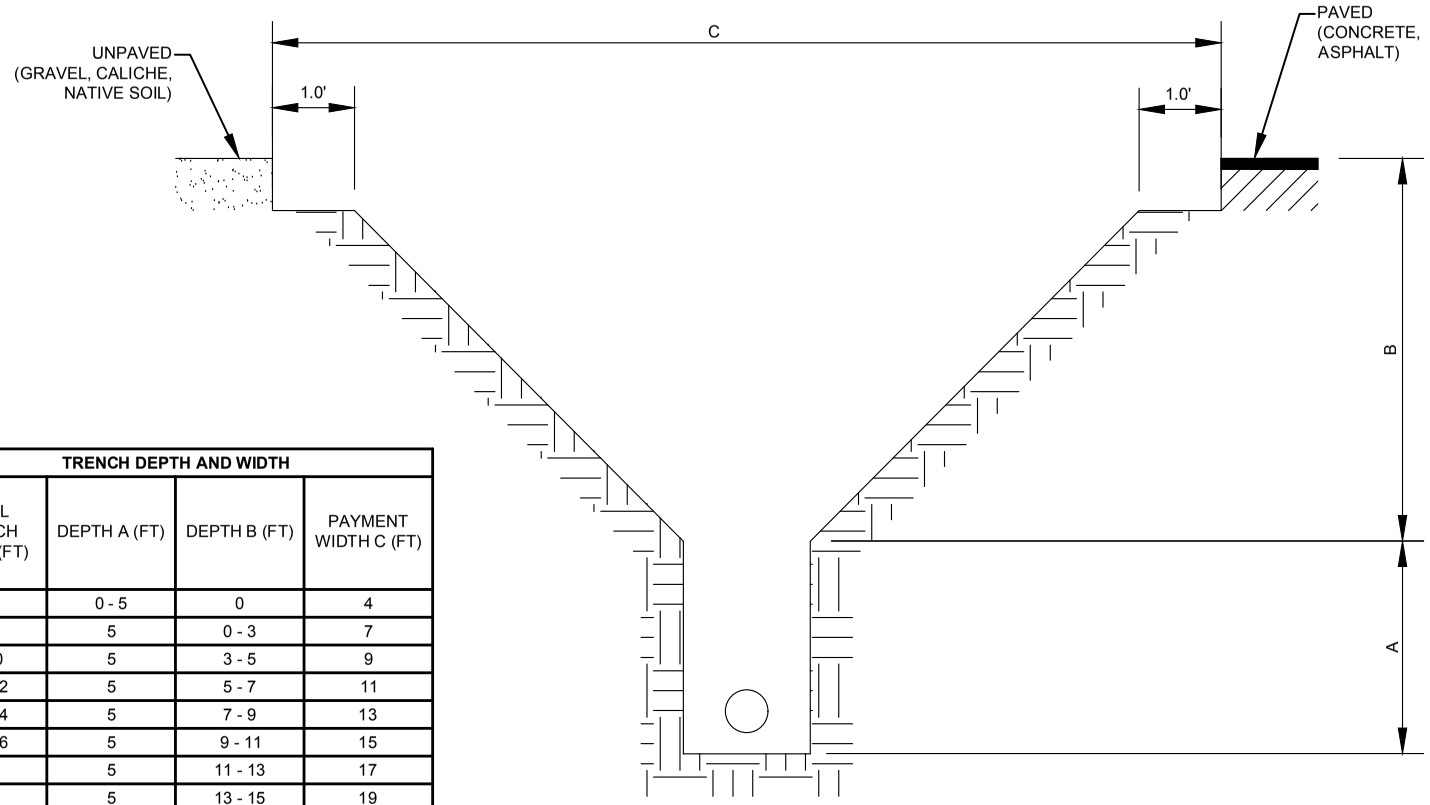
MIDLAND Engineering Services	DRAWN: DPM CHECKED: JCF APPROVED: MCC	EFFECTIVE DATE:	SCALE: NTS	DETAIL:
		WATER FLUSHING STATION		4##



NOTES

1. SAMPLING STATION TO BE BURIED, WITH A 3/4" FIP INLET, AND A (3/4" HOSE OR UNTHREADED) NOZZLE.
2. ALL STATIONS TO BE ENCLOSED IN A LOCKABLE, NONREMOVABLE, ALUMINUM-CAST HOUSING.
3. WHEN OPENED, THE STATION WILL REQUIRE NO KEY FOR OPERATION, AND THE WATER WILL FLOW IN AN ALL BRASS WATERWAY.
4. ALL WORKING PARTS WILL ALSO BE OF BRASS AND BE REMOVABLE FROM ABOVE GROUND WITH NO DIGGING. EXTERIOR PIPING TO BE BRASS OR GALVANIZED.
5. A COPPER VENT TUBE WILL ENABLE EACH STATION TO BE PUMPED FREE OF STANDING WATER TO PREVENT FREEZING AND TO MINIMIZE BACTERIA GROWTH.
6. ALL CONNECTION COMPONENTS (NOT INCLUDING THE STATION) MUST BE THE COMPONENTS LISTED OR APPROVED EQUALS. ALL COMPONENTS USED MUST BE FROM THE SAME MANUFACTURER.
7. ONLY TO BE INSTALLED IF APPROVED BY CITY ENGINEER/ UTILITIES DIRECTOR.
8. MATERIALS AND CONSTRUCTION METHODS TO CONFORM TO CITY OF MIDLAND STANDARDS AND SPECIFICATIONS.
9. CONSTRUCT AS SHOWN UNLESS OTHERWISE APPROVED IN WRITING BY BOTH THE ENGINEERING SERVICES REPRESENTATIVE AND THE UTILITY DEPARTMENT REPRESENTATIVE.

MIDLAND Engineering Services	DRAWN: DPM CHECKED: JCF APPROVED: MCC	EFFECTIVE DATE:	SCALE: NTS	DETAIL:
		WATER SAMPLING STATION		4##



TRENCH DEPTH AND WIDTH			
TOTAL TRENCH DEPTH (FT)	DEPTH A (FT)	DEPTH B (FT)	PAYMENT WIDTH C (FT)
0 - 5	0 - 5	0	4
5 - 8	5	0 - 3	7
8 - 10	5	3 - 5	9
10 - 12	5	5 - 7	11
12 - 14	5	7 - 9	13
14 - 16	5	9 - 11	15
16	5	11 - 13	17
18	5	13 - 15	19
20	5	15 - 17	21
22	5	17 - 19	23

MIDLAND Engineering Services

DRAWN: DPM

CHECKED: JCF

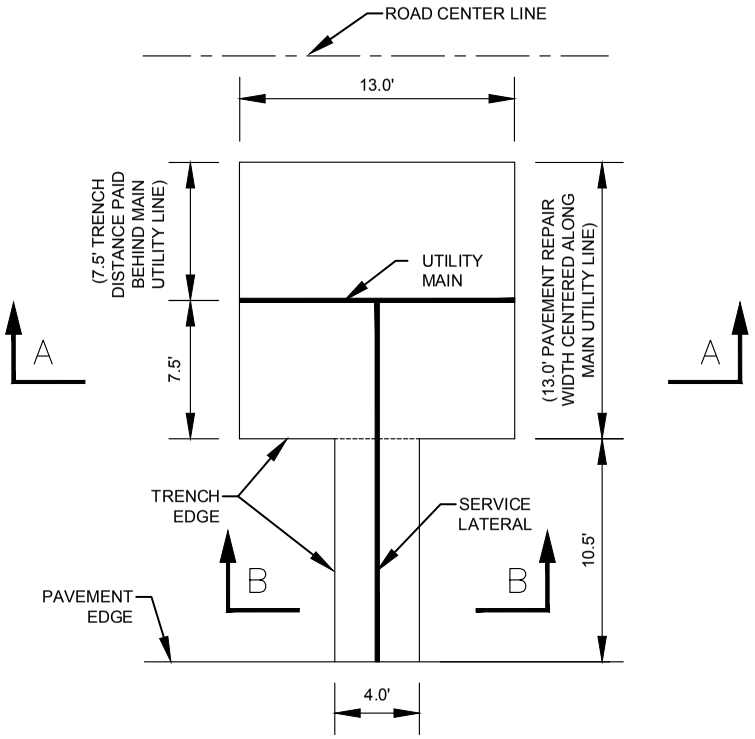
APPROVED: MCC

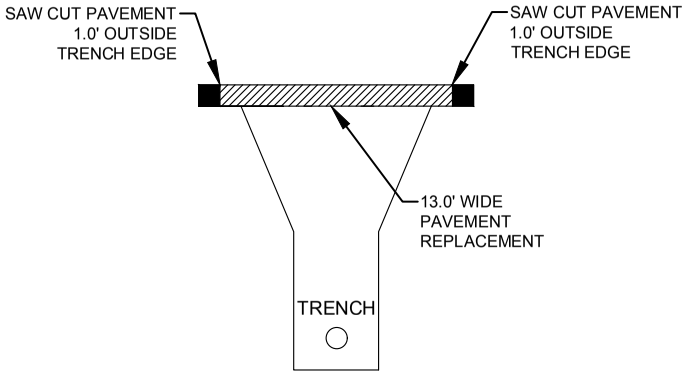
EFFECTIVE DATE:

TRENCH DEPTH, WIDTH, & EXAMPLE CALCULATIONS

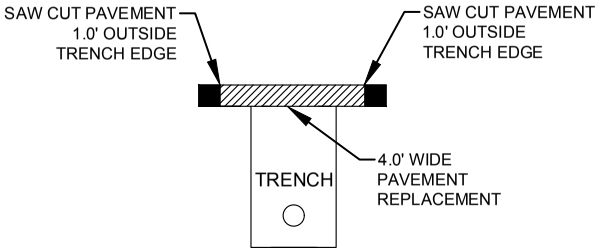
DETAIL:

PART(A)





SECTION 'A-A'



SECTION 'B-B'

EXAMPLE CALCULATION: 14.0' DEEP TAP, 18.0' LONG, UNDER ASPHALT PAVED ROAD.

1. PAYMENT WIDTH FOR 14.0' DEEP TAP IS 13.0' AND PAVEMENT WIDTH FOR 5.0' DEEP TRENCH IS 4.0'.
2. PAVEMENT REPLACEMENT QUANTITY IS:

   (10.5' X 4.0') + (13.0' X 13.0') = 211.0 SF = 23.4 SY
3. CONTRACTOR WILL BE PAID FOR 23.5 SY OF PAVEMENT REPLACEMENT ON THIS TAP.

MIDLAND Engineering Services	DRAWN: DPM CHECKED: JCF APPROVED: MCC	EFFECTIVE DATE:	DETAIL:
		TRENCH DEPTH, WIDTH, & EXAMPLE CALCULATIONS	PART(B)

ADDENDUM #01
Project Number U20-02

TO ALL BIDDERS ON THE SUBJECT BID: **Water, Wastewater, & Fire Hydrant Taps Expanded Program 05**

ADDENDUM #01

DATE: July 31, 2020

1. Q/A and Clarification
2. Non-Mandatory Pre-Bid Meeting Teleconference Agenda
3. Non-Mandatory Pre-Bid Meeting Teleconference Attendance

PLEASE RETURN THIS ADDENDUM WITH YOUR BID BY THE CLOSING DATE.

All other terms and conditions shall remain the same.

TEC Excavation Inc
Company Name

Twyla Clutter
Bidder Authorized Signature

8.5.2020
Date

Twyla Clutter
Please Print Above Name

432.682.2619
Phone

Water, Wastewater, & Fire Hydrant Taps Expanded Program 05
Project Number U20-02

Q/A and Clarification

During the Pre-Bid Meeting, the following questions were raised by one or more bidders. Below is a list of the questions along with the answers and clarifications.

Clarification: Contractor must possess either a Water Operator D license, a Wastewater D license, or a Class 1 Collections license for the first fiscal year of the program. Any bid from a bidder who cannot provide proof of meeting this requirement will be rejected as a non-responsive bid. If after the first fiscal year of the program both the City of Midland and the Contractor wish to renew the program for a second fiscal year, then the Contractor must possess both a Water Operator D license and either a Wastewater D license or a Class 1 Collections license for the rest of the program's duration. If the Contractor cannot provide proof of meeting this requirement prior to the renewal taking place then the renewal will not be allowed to occur.

Clarification: All addendum acknowledgement forms must be included with the bid for the bid to be considered complete. Bidders have sole responsibility for making sure they have and acknowledge all addendums provided for this project bid.

Clarification: Contractor must be willing to sign contract as is.

Clarification: Check that all insurance forms are in order when submitting bids.

Clarification: Check that all conflict of interest forms are completed if applicable.

Clarification: Contractor must fill out all bid items in the Proposal for the bid to be considered complete.

Clarification: Contractor is responsible for all construction staking.

Clarification: All invoice submittals are to be itemized and match the approved Work Orders and Proposal line items.

Clarification: Utility covers matching City Details are now available. All utility covers and cover patterns are to match the City standard details.

Clarification: Traffic control in arterials will be the responsibility of the City of Midland, and Contractor will be required to coordinate with the barricade company under contract with the City of Midland in such cases. Contractor is responsible for all other traffic control during this program.

Clarification: Contractor is responsible for notifying all adjacent properties of any planned service interruptions no less than two (2) business days in advance of any such interruptions. Service interruptions are to be kept as short as is reasonably possible. This requirement does not apply in emergency situations.

Clarification: Contractor is responsible for maintaining access to all adjacent properties at all times, barring those times when actual construction activity necessary to complete the work is taking place in front of driveway approaches or similar points of access. When such work is not occurring then access must be restored by means of traffic rated steel plates or other equivalent means until such time as the work is completed.

Clarification: Contractor is to return all existing fire hydrants removed during this project to the City of Midland Utilities. Fire hydrant removal is considered subsidiary to the bid items listed in the Proposal.

Clarification: Saw-cutting is considered subsidiary to the bid items listed in the Proposal.

Clarification: Bidders are to note that Contractors are required to provide Closed Circuit Televising of all wastewater mains installed, but this requirement does not apply to wastewater laterals.

Clarification: Contractor is required to have at least one construction crew dedicated to this program at all times. Contractor may also assign more than one crew to this program if they wish to do so.

Clarification: Additional Labor, Downtown Area, Water Improvements and Additional Labor, Downtown Area, Wastewater Improvements are covered by miscellaneous Bid Items 13 and 14 in the Proposal and Pay Notes M6 and M7.

Question: Are bidders required to have a performance bond for the full amount of the contract? Is there any possibility that the performance bond amount might be lowered since the full program amount for the year may not be awarded? Or because only smaller projects will be awarded at a time for part of the total program amount, and not the whole thing at one time?

Answer: Bids are required to have a performance bond for the full contract amount. At this time the City has no plans to change this requirement. This has historically not been an issue for past City projects and programs, including the previous versions of the Taps Program. Additionally, while most individual projects assigned for the Taps Program tend to be small the City also tends to assign groups of taps or small projects together at a time rather than one by one. It is also not possible to know for certain ahead of time what size every task issued will be as some have occasionally proven to be larger than normal in the past. Finally, if the Contractor who is awarded the program is willing to assist with emergency work for the city, being able to cover the Performance Bond for the full program is one way to ensure the Contractor could also be used for emergencies that might be considerably larger than a normal Taps Program project.

Question: Are the items and quantities in the Proposal accurate for the actual program work? Are they based on projects that the City already knows they will be issuing?

Answer: The quantities listed in the Proposal are representative of the type of work that has occurred for past versions of this program in order to establish the bid item unit prices, but the quantities are not based on known future projects for this program as

the nature of this program does not make that possible. This program is intended to be flexible enough to be used for whatever the City of Midland's highest priority task is at the time that falls within the program's scope. In the past some years of the program were dedicated almost exclusively to taps, other years have seen more water valve replacements or installations, other years had more manhole replacements, etc.

Question: Will the City be removing the one-year warranty language from the contract?
Answer: There is no warranty period for work performed under this program, and the bid packet does not call for a warranty. Special Provisions, Section 22. WARRANTY PERIOD states in the first sentence that:

"There is no warranty period for this program as all work performed is to be subject to City inspection prior to acceptance."

Question: Will hydrovac operations be performed by the Contractor or by the City?
Answer: For the purpose of this bid all Bidders are to assume hydrovac operations will be performed by the Contractor and will be considered subsidiary to the program scope and not paid for as an additional bid item.

Question: When the City has an emergency situation come up, is the winner of this bid going to be required to help the City resolve the emergency situation if the City asks them to?
Answer: No. If an emergency situation occurs that the City feels it needs help with, it will likely first request help from Contractors who are already under contract with the City as that is the easiest option for City Staff to justify. However, if the Contractor who is awarded this program cannot perform or is not willing to perform the emergency work requested by the City there is no obligation for them to do so, nor will this decision have any bearing on the operation or execution of this program.

Question: Who will be the program's City Inspector?
Answer: Bidders are directed to bid with the assumption that they may be working with any of the City Inspectors at any given time during the course of this program. Clint Harmon or Richie Borrego are the City Inspectors most likely to be assigned to this program currently, however this could change depending on the needs and work load of City Staff. As this is potentially a multi-year program there is no guarantee that the City Inspector who starts with the program will still be assigned to it at the end of the program. Additionally, if the City Inspector assigned to the program is unavailable when an inspection is needed due to illness, vacation, etc. then another City Inspector would take their place as needed.

Question: Since the bid requires the winning contractor will perform, or hire third party, all of the traffic control, that the city does not cover. Does the contractor have to have, the Texas DOT, traffic control certificates, that it takes to legally preform this task in the streets? This would require that the contractor have 2 certified persons, in the field, on the payroll at all times, to install, and maintain the traffic control devises. If this is a requirement, then it should be made clear, just like the requirement to have the necessary license from the state in install water and sewer, that is now mandatory, to get a permit, in the City of Midland, Texas.

Answer: The City's standard requirement is that all temporary traffic control shall be designed, installed, and maintained by competent and qualified personnel with adequate experience in traffic control. No formal certifications are required.

Question: In the teleconference, there was a question about lowering the bond amount for this bid, the reasoning was that a million dollars' worth of work, would not be required at any one time. If this is allowed to be changed, will it be allowed, in other city bids?

Answer: Bids are required to have a performance bond for the full contract amount. At this time the City has no plans to change this requirement.

Question: In the past on other city bids, there has been a requirement for the contractor to show that they had the needed equipment to preform the work. If they did not have the needed equipment, then they would have to show that they would be willing and able to obtain the equipment by rental, lease, or purchase. Will this be a requirement on this bid?

Answer: There is an Anticipated Equipment List located on page 94 of the bid packet after the Certificate Of Payment. The second sentence of the second paragraph states:

"The list includes equipment that the contractor may need but is in no way meant to be a final list of all necessary equipment, nor does it relieve the contractor of their obligation to have or acquire any additional equipment necessary to complete the project work."

Question: Will the bidders need to provide proof of past performance with the type of work, that they will be called to perform, on this contract?

Answer: If the apparent low bidder is a Contractor that the City of Midland doesn't have any prior experience with on City projects, then the City conducts reference checks as part of our standard process, and this includes the Contractor providing proof of past experience successfully performing projects of a similar nature and scope to the one being bid. If the apparent low bidder is a Contractor who has performed work on City of Midland projects before, then the City generally utilize our direct knowledge of the Contractor's performance on those projects.

Question: On water items #40-42 the meter sizes are not specified; can you provide what size meters will need to be installed?

Answer: These bid items will be paid the same regardless of the size of the water meter installed because the new meters are provided by the City of Midland per Pay Notes W14, W15, and W16 which correspond to water Bid Items 40, 41, and 42. Bid Items 40 and 41 typically involve 1" or 2" water meters. Bid Item 42 typically involves 3", 4", or 6" meters. New meters are to utilize reducers if needed to connect to existing plumbing pipes that may be of a different size than the new meter, and this is considered subsidiary to the program scope and will not be paid for as an additional bid item.

Water, Wastewater, & Fire Hydrant Taps Expanded Program 05
Pre-Bid Teleconference Meeting Agenda
Project No. U20-02
July 29, 2020

Teleconference Call In Number: (866) 528-2256
Access Code: 4450719

Discussion Items

1. Sign-In Sheet
   - Please email jferguson@midlandtexas.gov if you plan to attend the teleconference so your name and contact information can be added to the attendance roll and to ensure you receive a copy of the Addendum following the pre-bid teleconference meeting.

2. Personnel Overview
   - Matt Carr – City Engineer
   - Mike Pacelli – Traffic Engineer
   - Cory Moose – Assistant Utilities Director
   - Josh Ferguson – Engineering Manager – CIP, project engineer
   - Bobby Wojciechowski – Construction Manager, construction management & inspections
   - Leroy Montez – Utilities Superintendent
   - Taha Sakrani – Associate Traffic Engineer
   - Troy Clabaugh – Sr. Transportation Technician
   - Gabe McClelland – Transportation Manager
   - Jesus Perez – Project Manager
   - Natalie Burgard – Administrative Assistant, document processing
   - Regina Stephenson – Purchasing Manager, conduct bid process & bid opening

3. Program Scope
   - Program includes the installation, replacement, repair, relocation, and removal of water, fire, and wastewater improvements along with all necessary safety requirements, traffic controls, erosion controls, etc.
   - Program is intended primarily for utility service taps, meter installation/replacement, valve installation/replacement, manhole installation/replacement, or short utility repairs or extensions.

4. Bid Process
   - Pre-Bid Meeting Teleconference attendance is non-mandatory to bid on this project.
   - ATTENTION: All questions submitted before or after the Non-Mandatory Pre-Bid Meeting Teleconference must be submitted via email to the following email address: jferguson@midlandtexas.gov.
   - Purpose of bids is to establish unit prices.
   - The amount to be awarded for the Water, Wastewater, & Fire Hydrant Taps Expanded Program 05 is set at an amount not to exceed $1.0-million.
   - Quantities listed in the Proposal are not indicative of or guarantees of the actual project work quantities that may be assigned under this program.
   - Addendum distributed by email the Friday afternoon following the Pre-Bid Meeting.
     - The deadline to ask or send questions for the addendum is this Friday, July 31, 2020 at Noon.

- Questions asked after the Noon deadline will be directed to the information already provided in the bid documents or included in the Addendum.

- ATTENTION: Due to the Coronavirus (COVID-19) pandemic, the City of Midland's City Hall is closed to the Public. All bidders are encouraged to mail bid packets to one of the addresses below rather than delivering them in person in the interests of maintaining social distancing:

  USPS Mailing Address:
  City of Midland, Texas
  Attn: City Secretary's Office
  P O Box 1152
  Midland, TX 79702

  – OR –

  Physical Address for mail carriers other than USPS:
  City of Midland, Texas
  Attn: City Secretary's Office
  300 North Loraine St, Suite 330
  Midland, TX 79701

  If bid packets are delivered in person then bidders must make arrangements in advance to drop the bid packets off at the north doors of City Hall before the bid opening deadline, and social distancing measures will be maintained for the health of all parties involved.

- Bid Opening is Wednesday, August 5, 2020 at 2:00 PM in the City Secretary office located on the 3rd Floor of Midland's City Hall.
  - ATTENTION: The public bid opening will be shown via the City Council Meeting live feed in order to maintain social distancing due to COVID-19. This can be accessed from the following web address at the time of the bid opening: http://www.midlandtexas.gov/600/Watch-Council-Meetings
  - No late bids will be accepted.
  - Bidders must be willing to sign the contract as is.
  - Bidders must complete the conflict of interest forms if applicable.
  - Bidders must fill out all bid items in the Proposal. If bid items are left blank then the bid will be considered non-responsive.
  - Bidders have sole responsibility for making sure they have and acknowledge all addendums provided. If all acknowledgement forms are not included with the bid packet submittal then the bid will be considered non-responsive.

5. Notice to Proceed
   - Date of Notice to Proceed to be determined at the Pre-Construction Meeting, but will be no later than October 1, 2020.
   - Pre-Construction Meeting date will be set after the project bid is awarded.

6. Payment
   - Payment made after 100% work completion. No partial payments or payment for material delivery/mobilization. Work is considered 100% complete when the project Work Order is completed and signed by both the City Inspector and the Contractor.

7. Work Schedule
   - City Inspector must be notified of all work occurring and be able to perform inspection on any construction or installation that occurs.
   - Typically Monday – Friday from 8:00 AM – 5:00 PM. No work earlier than 7:00 AM or later than 8:00 PM without City permission unless for emergency conditions.
   - Work is not to occur on Sundays or legal holidays unless required for emergency situations.
   - Work is not to occur on Saturdays unless requested by Contractor in writing at least 48-hours in advance and approved by the City Engineer.

8. Program Specifics
   - Open Trench Depth bid items.
   - Additional Labor, Downtown Area bid items.

- Material/Labor/Equipment Rental Mark-up line items.
- Design and Detail drawings.
- Erosion Control – will be emphasized.
- Traffic Control – work performed in arterial streets under this program will be City of Midland's responsibility. Contractor is responsible for all other Traffic Control for this project. If at any time traffic control in arterial ROW is to be handled by the Contractor rather than by the City, then the Contractor is to adhere to all requirements outlined in Special Provisions, 7. Traffic Control of the program's bid packet.
- Construction staking is solely the responsibility of the Contractor.
- Construction testing is solely the responsibility of the Contractor.
- Comply with all OSHA and other applicable safety requirements and regulations at all times.
- Personnel
- Weekly Progress Meetings
- Program Duration & Renewals
- Example Projects & Work Orders

9. Any Additional Questions

Please direct all questions or comments following the Pre-Bid Meeting to Josh Ferguson with the City of Midland.

Engineering Services

Josh Ferguson
Office Phone: (432) 685-7290
Cell Phone: (432) 241-5078
Email: jferguson@midlandtexas.gov

Pre-Bid Meeting Attendance

U20-02

Water, Wastewater, & Fire Hydant Taps Expanded Program 05

Date: 07/29/2020 - 3:00 PM

☑	Name *(Please Print)*	Company Name *(Please Print)*	Phone Number	Fax Number	Email
√	Josh Ferguson	City of Midland	(432) 241-5078		jferguson@midlandtexas.gov
√	Regina Stephenson	City of Midland			rstephenson@midlandtexas.gov
√	Bobby Wojciechowski	City of Midland			bwojciechowski@midlandtexas.gov
√	Carl Craigo	City of Midland			ccraigo@midlandtexas.gov
√	Cory Moose	City of Midland			cmoose@midlandtexas.gov
√	David Chandler	Red Deer			david@reddeerconstructiontx.com
√	Trey Chandler	Red Deer			trey@reddeerconstructiontx.com
√	Eric Clutter	TEC Excavation			eclutter@tecexcavation.com
√	Alberto Caballero	Entrench			alberto@entrenchinc.com
√	Ever Rodriguez	Entrench			ever@entrenchinc.com
√	Edgardo Madrid	Edgardo Madrid & Associates			edgardo@edgardomadrid.com

PACKET 7.395 September 8, 2020

MIDLAND
Engineering Services

ADDENDUM #02
Project Number U20-02

TO ALL BIDDERS ON THE SUBJECT BID: **Water, Wastewater, & Fire Hydrant Taps Expanded Program 05**

ADDENDUM #02

DATE: August 3, 2020

1. Revised Proposal

PLEASE RETURN THIS ADDENDUM WITH YOUR BID BY THE CLOSING DATE.

All other terms and conditions shall remain the same.

TEC EXCAVATION, INC.
Company Name

Twyla Clutter
Bidder Authorized Signature

8/5/2020
Date

Twyla Clutter
Please Print Above Name

432-682-2619
Phone

Water, Wastewater, & Fire Hydrant Taps Expanded Program 05
Project Number U20-02

Q/A and Clarification

Below are clarifications to the program.

Clarification: All information and answers provided in Addendum 01 remain in effect unless specifically addressed in Addendum 02.

Clarification: The Proposal section of the bid packet has been revised. The revised version is attached to this addendum. Bidders are to remove the original Proposal section in its entirety and replace it with the attached revision. The Proposal section is specifically revised on Page 22 of the Proposal for the amount of the cashier's check, cash, or bid bond retained as liquidated damages. Liquidated damages are to be five percent (5%) of the contract amount, and in this case the contract amount of one million dollars ($1,000,000) is known. Therefor the liquidated damages for this contract amount should be Fifty Thousand ($50,000) rather than the Thirty-Five Thousand ($35,000) originally listed.

PROPOSAL

TO: Honorable Mayor and City Council
City of Midland
Midland, Texas

Gentlemen: The undersigned bidder, having examined the drawings, specifications and contract documents, the location of the proposed work, and being fully advised as to the extent and character of the work, proposes to furnish all material, equipment, and to perform all labor and work necessary for the completion of the construction of the work described by and in accordance with the attached drawings, specifications, and contract, for the following prices, to wit:

Project Name: Water, Wastewater, & Fire Hydrant Taps Expanded Program 05

Project Number: U20-02

Demolition Items				
Item No.	Quantity	Description	Unit Price	Total Amount
1)	100 LF	Removal & Disposal of Existing Utility Mains, complete and in place, for the sum of: _____dollars and _____cents per linear foot. (Pay Note D1)	$_____	$_____
2)	20 CY	Flowable Fill for Existing Utility Mains Abandoned In Place, furnished, installed, complete and in place, for the sum of: _____dollars and _____cents per cubic yard. (Pay Note D2)	$_____	$_____
3)	3 EA	Removal & Disposal of Existing 60-Inch Manhole, (0'-5' Depth), complete and in place, for the sum of: _____dollars and _____cents per each. (Pay Note D3)	$_____	$_____
4)	15 VF	Remove & Disposal of Existing 60-Inch Manhole Additional Depth, (> 5'), complete and in place, for the sum of: _____dollars and _____cents per vertical foot. (Pay Note D4)	$_____	$_____

Demolition Items				
Item No.	Quantity	Description	Unit Price	Total Amount
5)	10 EA	Removal & Disposal of Existing 48-Inch Manhole, (0'-5' Depth), complete and in place, for the sum of: _____dollars and _____cents per each. (Pay Note D3)	$_____	$_____
6)	35 VF	Remove & Disposal of Existing 48-Inch Manhole Additional Depth, (> 5'), complete and in place, for the sum of: _____dollars and _____cents per vertical foot. (Pay Note D4)	$_____	$_____
Total Demolition Items 1-6		$_____		

Water Items				
Item No.	Quantity	Description	Unit Price	Total Amount
1)	100 LF	16-Inch Ductile Iron Pipe Pressure Class 150, Water Main, furnished, installed, complete and in place, for the sum of: _____dollars and _____cents per linear foot. (Pay Note W1)	$_____	$_____
2)	100 LF	12-Inch Ductile Iron Pipe Pressure Class 150, Water Main, furnished, installed, complete and in place, for the sum of: _____dollars and _____cents per linear foot. (Pay Note W1)	$_____	$_____
3)	100 LF	10-Inch Ductile Iron Pipe Pressure Class 150, Water Main, furnished, installed, complete and in place, for the sum of: _____dollars and _____cents per linear foot. (Pay Note W1)	$_____	$_____
4)	100 LF	8-Inch Ductile Iron Pipe Pressure Class 150, Water Main, furnished, installed, complete and in place, for the sum of: _____dollars and _____cents per linear foot. (Pay Note W1)	$_____	$_____
5)	100 LF	6-Inch Ductile Iron Pipe Pressure Class 150, Water Main, furnished, installed, complete and in place, for the sum of: _____dollars and _____cents per linear foot. (Pay Note W1)	$_____	$_____
6)	100 LF	12-Inch AWWA C-900 DR18, PVC, Water Main, furnished, installed, complete and in place, for the sum of: _____dollars and _____cents per linear foot. (Pay Note W1)	$_____	$_____

Water Items				
Item No.	Quantity	Description	Unit Price	Total Amount
7)	100 LF	10-Inch AWWA C-900 DR18, PVC, Water Main, furnished, installed, complete and in place, for the sum of: _____dollars and _____cents per linear foot. (Pay Note W1)	$_____	$_____
8)	200 LF	8-Inch AWWA C-900 DR18, PVC, Water Main, furnished, installed, complete and in place, for the sum of: _____dollars and _____cents per linear foot. (Pay Note W1)	$_____	$_____
9)	200 LF	6-Inch AWWA C-900 DR18, PVC, Water Main, furnished, installed, complete and in place, for the sum of: _____dollars and _____cents per linear foot. (Pay Note W1)	$_____	$_____
10)	5 EA	16-Inch Tapping Sleeve, furnished, installed, complete and in place, for the sum of: _____dollars and _____cents per each. (Pay Note W2)	$_____	$_____
11)	5 EA	12-Inch Tapping Sleeve, furnished, installed, complete and in place, for the sum of: _____dollars and _____cents per each. (Pay Note W2)	$_____	$_____
12)	5 EA	10-Inch Tapping Sleeve, furnished, installed, complete and in place, for the sum of: _____dollars and _____cents per each. (Pay Note W2)	$_____	$_____
13)	5 EA	8-Inch Tapping Sleeve, furnished, installed, complete and in place, for the sum of: _____dollars and _____cents per each. (Pay Note W2)	$_____	$_____

Water Items				
Item No.	Quantity	Description	Unit Price	Total Amount
14)	15 EA	6-Inch Tapping Sleeve, furnished, installed, complete and in place, for the sum of: _____dollars and _____cents per each. (Pay Note W2)	$_____	$_____
15)	8 EA	16-Inch Gate Valve & Vault (MJxMJ/FL), furnished, installed, complete and in place, for the sum of: _____dollars and _____cents per each. (Pay Note W3)		
16)	15 EA	12-Inch Gate Valve & Box (MJxMJ/FL), furnished, installed, complete and in place, for the sum of: _____dollars and _____cents per each. (Pay Note W4)	$_____	$_____
17)	8 EA	10-Inch Gate Valve & Box (MJxMJ/FL), furnished, installed, complete and in place, for the sum of: _____dollars and _____cents per each. (Pay Note W4)	$_____	$_____
18)	15 EA	8-Inch Gate Valve & Box (MJxMJ/FL), furnished, installed, complete and in place, for the sum of: _____dollars and _____cents per each. (Pay Note W4)	$_____	$_____
19)	30 EA	6-Inch Gate Valve & Box (MJxMJ/FL), furnished, installed, complete and in place, for the sum of: _____dollars and _____cents per each. (Pay Note W4)	$_____	$_____
20)	15 EA	Fire Hydrant, (≤ 5' Water Main Bury Depth), furnished, installed, complete and in place, for the sum of: _____dollars and _____cents per each. (Pay Note W5)	$_____	$_____

Water Items				
Item No.	Quantity	Description	Unit Price	Total Amount
21)	50 EA	Fire Hydrant Riser, (> 5' Water Main Bury Depth), furnished, installed, complete and in place, for the sum of: _____dollars and _____cents per each. (Pay Note W6)	$_____	$_____
22)	2150 LB	Ductile Iron Fittings, furnished, installed, complete and in place, for the sum of: _____dollars and _____cents per pound. (Pay Note W7)	$_____	$_____
23)	5 EA	Anchor Coupling / Foster Adaptor, furnished, installed, complete and in place, for the sum of: _____dollars and _____cents per each. (Pay Note W8)	$_____	$_____
24)	4 EA	16-Inch by 2-Inch Tapping Saddle for water service connection, furnished, installed, complete and in place, for the sum of: _____dollars and _____cents per each. (Pay Note W9)	$_____	$_____
25)	5 EA	16-Inch by 1-Inch Tapping Saddle for water service connection, furnished, installed, complete and in place, for the sum of: _____dollars and _____cents per each. (Pay Note W9)	$_____	$_____
26)	7 EA	12-Inch by 2-Inch Tapping Saddle for water service connection, furnished, installed, complete and in place, for the sum of: _____dollars and _____cents per each. (Pay Note W9)	$_____	$_____
27)	10 EA	12-Inch by 1-Inch Tapping Saddle for water service connection, furnished, installed, complete and in place, for the sum of: _____dollars and _____cents per each. (Pay Note W9)	$_____	$_____

Water Items				
Item No.	Quantity	Description	Unit Price	Total Amount
28)	7 EA	10-Inch by 2-Inch Tapping Saddle for water service connection, furnished, installed, complete and in place, for the sum of: _____dollars and _____cents per each. (Pay Note W9)	$_____	$_____
29)	8 EA	10-Inch by 1-Inch Tapping Saddle for water service connection, furnished, installed, complete and in place, for the sum of: _____dollars and _____cents per each. (Pay Note W9)	$_____	$_____
30)	7 EA	8-Inch by 2-Inch Tapping Saddle for water service connection, furnished, installed, complete and in place, for the sum of: _____dollars and _____cents per each. (Pay Note W9)	$_____	$_____
31)	15 EA	8-Inch by 1-Inch Tapping Saddle for water service connection, furnished, installed, complete and in place, for the sum of: _____dollars and _____cents per each. (Pay Note W9)	$_____	$_____
32)	15 EA	6-Inch by 2-Inch Tapping Saddle for water service connection, furnished, installed, complete and in place, for the sum of: _____dollars and _____cents per each. (Pay Note W9)	$_____	$_____
33)	35 EA	6-Inch by 1-Inch Tapping Saddle for water service connection, furnished, installed, complete and in place, for the sum of: _____dollars and _____cents per each. (Pay Note W9)	$_____	$_____

Water Items				
Item No.	Quantity	Description	Unit Price	Total Amount
34)	40 EA	2-Inch Water Service Connection, furnished, installed, complete and in place, for the sum of: _____dollars and _____cents per each. (Pay Note W10)	$_____	$_____
35)	60 EA	1-Inch Water Service Connection, furnished, installed, complete and in place, for the sum of: _____dollars and _____cents per each. (Pay Note W10)	$_____	$_____
36)	600 LF	2-Inch Water Service Lateral, furnished, installed, complete and in place, for the sum of: _____dollars and _____cents per linear foot. (Pay Note W11)	$_____	$_____
37)	1300 LF	1-Inch Water Service Lateral, furnished, installed, complete and in place, for the sum of: _____dollars and _____cents per linear foot. (Pay Note W11)	$_____	$_____
38)	5 EA	Flushing Station, installed, complete and in place, for the sum of: _____dollars and _____cents per each. (Pay Note W12)	$_____	$_____
39)	5 EA	Sampling Station, installed, complete and in place, for the sum of: _____dollars and _____cents per each. (Pay Note W13)	$_____	$_____
40)	15 EA	Water Meter Installation (New Service Line), furnished, installed, complete and in place, for the sum of: _____dollars and _____cents per each. (Pay Note W14)	$_____	$_____

Water Items				
Item No.	Quantity	Description	Unit Price	Total Amount
41)	40 EA	Water Meter & Meter Box Installation (Existing Service Line), furnished, installed, complete and in place, for the sum of: _____dollars and _____cents per each. (Pay Note W15)	$_____	$_____
42)	15 EA	Replace Water Meter In Existing Vault, furnished, installed, complete and in place, for the sum of: _____dollars and _____cents per each. (Pay Note W16)	$_____	$_____
43)	500 VF	Water Service Connection Depth, (0'-12'), furnished, installed, complete and in place, for the sum of: _____dollars and _____cents per vertical foot. (Pay Note W17)	$_____	$_____
44)	1300 LF	Open Trench Depth, (0'-5') of water main, furnished, installed, complete and in place, for the sum of: _____dollars and _____cents per linear foot. (Pay Note W18)	$_____	$_____
45)	200 LF	Open Trench Depth, (5'-8') of water main, furnished, installed, complete and in place, for the sum of: _____dollars and _____cents per linear foot. (Pay Note W18)	$_____	$_____
46)	100 LF	Open Trench Depth, (8'-10') of water main, furnished, installed, complete and in place, for the sum of: _____dollars and _____cents per linear foot. (Pay Note W18)	$_____	$_____
47)	100 LF	Open Trench Depth, (10'-12') of water main, furnished, installed, complete and in place, for the sum of: _____dollars and _____cents per linear foot. (Pay Note W18)	$_____	$_____
Total Water Items 1-47		$_____		

Wastewater Items				
Item No.	Quantity	Description	Unit Price	Total Amount
1)	100 LF	16-Inch SDR 26 ASTM D2241, PVC, Wastewater Main, furnished, installed, complete and in place, for the sum of: _____dollars and _____cents per linear foot. (Pay Note WW1)	$_____	$_____
2)	100 LF	12-Inch SDR 26 ASTM D2241, PVC, Wastewater Main, furnished, installed, complete and in place, for the sum of: _____dollars and _____cents per linear foot. (Pay Note WW1)	$_____	$_____
3)	100 LF	10-Inch SDR 26 ASTM D2241, PVC, Wastewater Main, furnished, installed, complete and in place, for the sum of: _____dollars and _____cents per linear foot. (Pay Note WW1)	$_____	$_____
4)	100 LF	8-Inch SDR 26 ASTM D2241, PVC, Wastewater Main, furnished, installed, complete and in place, for the sum of: _____dollars and _____cents per linear foot. (Pay Note WW1)	$_____	$_____
5)	100 LF	6-Inch SDR 26 ASTM D2241, PVC, Wastewater Main, furnished, installed, complete and in place, for the sum of: _____dollars and _____cents per linear foot. (Pay Note WW1)	$_____	$_____
6)	100 LF	15-Inch SDR 26 ASTM D3034, PS115, PVC, Wastewater Main, furnished, installed, complete and in place, for the sum of: _____dollars and _____cents per linear foot. (Pay Note WW1)	$_____	$_____

Wastewater Items				
Item No.	Quantity	Description	Unit Price	Total Amount
7)	100 LF	12-Inch SDR 26 ASTM D3034, PS115, PVC, Wastewater Main, furnished, installed, complete and in place, for the sum of: _____dollars and _____cents per linear foot. (Pay Note WW1)	$_____	$_____
8)	100 LF	10-Inch SDR 26 ASTM D3034, PS115, PVC, Wastewater Main, furnished, installed, complete and in place, for the sum of: _____dollars and _____cents per linear foot. (Pay Note WW1)	$_____	$_____
9)	100 LF	8-Inch SDR 26 ASTM D3034, PS115, PVC, Wastewater Main, furnished, installed, complete and in place, for the sum of: _____dollars and _____cents per linear foot. (Pay Note WW1)	$_____	$_____
10)	100 LF	6-Inch SDR 26 ASTM D3034, PS115, PVC, Wastewater Main, furnished, installed, complete and in place, for the sum of: _____dollars and _____cents per linear foot. (Pay Note WW1)	$_____	$_____
11)	100 LF	15-Inch SDR 35 ASTM D3034, PS46, PVC, Wastewater Main, furnished, installed, complete and in place, for the sum of: _____dollars and _____cents per linear foot. (Pay Note WW1)	$_____	$_____
12)	100 LF	12-Inch SDR 35 ASTM D3034, PS46, PVC, Wastewater Main, furnished, installed, complete and in place, for the sum of: _____dollars and _____cents per linear foot. (Pay Note WW1)	$_____	$_____

Wastewater Items				
Item No.	Quantity	Description	Unit Price	Total Amount
13)	100 LF	10-Inch SDR 35 ASTM D3034, PS46, PVC, Wastewater Main, furnished, installed, complete and in place, for the sum of: _____dollars and _____cents per linear foot. (Pay Note WW1)	$_____	$_____
14)	100 LF	8-Inch SDR 35 ASTM D3034, PS46, PVC, Wastewater Main, furnished, installed, complete and in place, for the sum of: _____dollars and _____cents per linear foot. (Pay Note WW1)	$_____	$_____
15)	200 LF	6-Inch SDR 35 ASTM D3034, PS46, PVC, Wastewater Main, furnished, installed, complete and in place, for the sum of: _____dollars and _____cents per linear foot. (Pay Note WW1)	$_____	$_____
16)	200 LF	4-Inch SDR 35 ASTM D3034, PS46, PVC, Wastewater Main, furnished, installed, complete and in place, for the sum of: _____dollars and _____cents per linear foot. (Pay Note WW1)	$_____	$_____
17)	3 EA	60-Inch Fiberglass Manhole, (0'-5' deep), furnished, installed, complete and in place, for the sum of: _____dollars and _____cents per each. (Pay Note WW2)	$_____	$_____
18)	30 VF	60-Inch Manhole Additional Bury Depth, (5'-16' deep), furnished, installed, complete and in place, for the sum of: _____dollars and _____cents per vertical foot. (Pay Note WW3)	$_____	$_____
19)	15 VF	60-Inch Manhole Additional Bury Depth, (> 16' deep), furnished, installed, complete and in place, for the sum of: _____dollars and _____cents per vertical foot. (Pay Note WW3)	$_____	$_____

Wastewater Items				
Item No.	Quantity	Description	Unit Price	Total Amount
20)	10 EA	48-Inch Fiberglass Manhole, (0'-5' deep), furnished, installed, complete and in place, for the sum of: _____dollars and _____cents per each. (Pay Note WW2)	$_____	$_____
21)	50 VF	48-Inch Manhole Additional Bury Depth, (5'-16' deep), furnished, installed, complete and in place, for the sum of: _____dollars and _____cents per vertical foot. (Pay Note WW3)	$_____	$_____
22)	25 VF	48-Inch Manhole Additional Bury Depth, (> 16' deep), furnished, installed, complete and in place, for the sum of: _____dollars and _____cents per vertical foot. (Pay Note WW3)	$_____	$_____
23)	15 EA	Connection to Existing Manhole, furnished, installed, complete and in place, for the sum of: _____dollars and _____cents per each. (Pay Note WW4)	$_____	$_____
24)	10 EA	Manhole Drop Structure (Internal), furnished, installed, complete and in place, for the sum of: _____dollars and _____cents per each. (Pay Note WW5)	$_____	$_____
25)	10 EA	Manhole Drop Structure (External), furnished, installed, complete and in place, for the sum of: _____dollars and _____cents per each. (Pay Note WW5)	$_____	$_____
26)	10 EA	6-Inch Wastewater Service Connection, furnished, installed, complete and in place, for the sum of: _____dollars and _____cents per each. (Pay Note WW6)	$_____	$_____

Wastewater Items				
Item No.	Quantity	Description	Unit Price	Total Amount
27)	30 EA	4-Inch Wastewater Service Connection, furnished, installed, complete and in place, for the sum of: _____dollars and _____cents per each. (Pay Note WW6)	$_____	$_____
28)	200 LF	6-Inch Wastewater Service Lateral, furnished, installed, complete and in place, for the sum of: _____dollars and _____cents per linear foot. (Pay Note WW7)	$_____	$_____
29)	600 LF	4-Inch Wastewater Service Lateral, furnished, installed, complete and in place, for the sum of: _____dollars and _____cents per linear foot. (Pay Note WW7)	$_____	$_____
30)	300 VF	Wastewater Service Connection Depth, (0'-24'), furnished, installed, complete and in place, for the sum of: _____dollars and _____cents per vertical foot. (Pay Note WW8)	$_____	$_____
31)	300 LF	Open Trench Depth, (0'-5') of wastewater main, furnished, installed, complete and in place, for the sum of: _____dollars and _____cents per linear foot. (Pay Note WW9)	$_____	$_____
32)	800 LF	Open Trench Depth, (5'-8') of wastewater main, furnished, installed, complete and in place, for the sum of: _____dollars and _____cents per linear foot. (Pay Note WW9)	$_____	$_____
33)	300 LF	Open Trench Depth, (8'-10') of wastewater main, furnished, installed, complete and in place, for the sum of: _____dollars and _____cents per linear foot. (Pay Note WW9)	$_____	$_____

Wastewater Items				
Item No.	Quantity	Description	Unit Price	Total Amount
34)	300 LF	Open Trench Depth, (10'-12') of wastewater main, furnished, installed, complete and in place, for the sum of: _____dollars and _____cents per linear foot. (Pay Note WW9)	$_____	$_____
35)	200 LF	Open Trench Depth, (12'-14') of wastewater main, furnished, installed, complete and in place, for the sum of: _____dollars and _____cents per linear foot. (Pay Note WW9)	$_____	$_____
36)	200 LF	Open Trench Depth, (14'-16') of wastewater main, furnished, installed, complete and in place, for the sum of: _____dollars and _____cents per linear foot. (Pay Note WW9)	$_____	$_____
37)	100 LF	Open Trench Depth, (16'-18') of wastewater main, furnished, installed, complete and in place, for the sum of: _____dollars and _____cents per linear foot. (Pay Note WW9)	$_____	$_____
38)	100 LF	Open Trench Depth, (18'-20') of wastewater main, furnished, installed, complete and in place, for the sum of: _____dollars and _____cents per linear foot. (Pay Note WW9)	$_____	$_____
39)	100 LF	Open Trench Depth, (20'-22') of wastewater main, furnished, installed, complete and in place, for the sum of: _____dollars and _____cents per linear foot. (Pay Note WW9)	$_____	$_____

Wastewater Items				
Item No.	Quantity	Description	Unit Price	Total Amount
40)	100 LF	Open Trench Depth, (22'-24') of wastewater main, furnished, installed, complete and in place, for the sum of: _____dollars and _____cents per linear foot. (Pay Note WW9)	$_____	$_____
Total Wastewater Items 1-40		$_____		

Miscellaneous Items				
Item No.	Quantity	Description	Unit Price	Total Amount
1)	100 LF	20" Steel Pipe Casing (¼" Wall Thickness), furnished, installed, complete and in place, for the sum of: _____dollars and _____cents per linear foot. (Pay Note M1)	$_____	$_____
2)	100 LF	16" Steel Pipe Casing (¼" Wall Thickness), furnished, installed, complete and in place, for the sum of: _____dollars and _____cents per linear foot. (Pay Note M1)	$_____	$_____
3)	100 LF	12" Steel Pipe Casing (¼" Wall Thickness), furnished, installed, complete and in place, for the sum of: _____dollars and _____cents per linear foot. (Pay Note M1)	$_____	$_____
4)	100 LF	12" PVC Pipe Casing, SDR 26 ASTM D2241, furnished, installed, complete and in place, for the sum of: _____dollars and _____cents per linear foot. (Pay Note M1)	$_____	$_____
5)	100 LF	Cement Stabilized Sand Bedding (2.5-Sack), furnished, installed, complete and in place, for the sum of: _____dollars and _____cents per linear foot. (Pay Note M2)	$_____	$_____
6)	100 LF	8" HDPE Force Main, furnished, installed, complete and in place, for the sum of: _____dollars and _____cents per linear foot. (Pay Note M3)	$_____	$_____
7)	100 LF	6" HDPE Force Main, furnished, installed, complete and in place, for the sum of: _____dollars and _____cents per linear foot. (Pay Note M3)	$_____	$_____
8)	5 EA	16-Inch Gate Valve & Vault Replacement / Installation (Stand Alone), furnished, installed, complete and in place, for the sum of: _____dollars and _____cents per each. (Pay Note M4)	$_____	$_____

Miscellaneous Items				
Item No.	Quantity	Description	Unit Price	Total Amount
9)	10 EA	12-Inch Gate Valve & Box Replacement / Installation (Stand Alone), furnished, installed, complete and in place, for the sum of: _____dollars and _____cents per each. (Pay Note M5)	$_____	$_____
10)	10 EA	10-Inch Gate Valve & Box Replacement / Installation (Stand Alone), furnished, installed, complete and in place, for the sum of: _____dollars and _____cents per each. (Pay Note M5)	$_____	$_____
11)	10 EA	8-Inch Gate Valve & Box Replacement / Installation (Stand Alone), furnished, installed, complete and in place, for the sum of: _____dollars and _____cents per each. (Pay Note M5)	$_____	$_____
12)	10 EA	6-Inch Gate Valve & Box Replacement / Installation (Stand Alone), furnished, installed, complete and in place, for the sum of: _____dollars and _____cents per each. (Pay Note M5)	$_____	$_____
13)	300 LF	Additional Labor, Downtown Area, Water Improvements, furnished, installed, complete and in place, for the sum of: _____dollars and _____cents per linear foot. (Pay Note M6)	$_____	$_____
14)	300 LF	Additional Labor, Downtown Area, Wastewater Improvements, furnished, installed, complete and in place, for the sum of: _____dollars and _____cents per linear foot. (Pay Note M7)	$_____	$_____
15)	N/A	Material Mark-up, complete and in place, for the sum of: _____percent. (Pay Note M8)	%_____	$_N/A_____

Miscellaneous Items				
Item No.	Quantity	Description	Unit Price	Total Amount
16)	N/A	Labor Mark-up (regular work hours), complete and in place, for the sum of: _____percent. (Pay Note M9)	%_____	$_N/A_____
17)	N/A	Equipment Rental Mark-up (non-standard equipment only), complete and in place, for the sum of: _____percent. (Pay Note M10)	%_____	$_N/A_____
Total Miscellaneous Items 1-17		$_____		

Paving Items				
Item No.	Quantity	Description	Unit Price	Total Amount
1)	100 SY	Concrete Utility Cut Repair (6" thickness), furnished, installed, complete and in place, for the sum of: _____dollars and _____cents per square yard. (Pay Note P1)	$_____	$_____
2)	1200 SY	Asphalt Utility Cut Repair (2" thickness), furnished, installed, complete and in place, for the sum of: _____dollars and _____cents per square yard. (Pay Note P2)	$_____	$_____
3)	400 SY	Base Rock Utility Cut Repair (6" thickness), furnished, installed, complete and in place, for the sum of: _____dollars and _____cents per square yard. (Pay Note P3)	$_____	$_____
4)	1300 SY	Flowable Fill / 2-Sack Backfill (20" thickness), furnished, installed, complete and in place, for the sum of: _____dollars and _____cents per square yard. (Pay Note P4)	$_____	$_____
5)	100 EA	Erosion/Sediment Control, furnished, installed, complete and in place, for the sum of: _____dollars and _____cents per each. (Pay Note P5)	$_____	$_____
6)	100 EA	Job Site Safety, furnished, installed, complete and in place, for the sum of: _____dollars and _____cents per each. (Pay Note P6)	$_____	$_____
7)	70 EA	Traffic Control for Collector/Local Road Conditions, furnished, installed, complete and in place, for the sum of: _____dollars and _____cents per each. (Pay Note P7)	$_____	$_____

Paving Items				
Item No.	Quantity	Description	Unit Price	Total Amount
8)	30 EA	Traffic Control for Alley/Easement Conditions, furnished, installed, complete and in place, for the sum of: _____dollars and _____cents per each. (Pay Note P8)	$_____	$_____
Total Paving Items 1-8		$_____		

Bid Price For:	
1. Demolition Items	$_____
2. Water Items	$_____
3. Wastewater Items	$_____
4. Miscellaneous Items	$_____
5. Paving Items	$_____
Total Price	$_____

In addition to providing the individual prices for the items above, Contract shall write the total bid amount in the sum of

_____dollars

and _____ cents total.

The undersigned bidder hereby declares that he has visited the site of the work and has carefully examined the contract documents pertaining to the work covered by the above bid. The selected contractor will receive written notice to proceed. The initial term of the contract shall expire on September 30, 2021. If the Owner and Contractor agree in writing, the contract may be renewed for up to two (2) additional one (1) year terms (at an amount not to exceed $750,000 per term).

PUBLIC INFORMATION

To the extent that Bidder is submitting a bid for a contract described by Section 552.371 of the Texas Government Code, Bidder agrees as follows in accordance with Section 552.372(b) of the Texas Government Code: The requirements of Subchapter J, Chapter 552, Government Code, may apply to this bid, and the contractor or vendor agrees that the contract can be terminated if the contractor or vendor knowingly or intentionally fails to comply with a requirement of that subchapter.

Enclosed herewith in this proposal is a cashier's check, cash or bid bond on a form approved by the City Attorney, for

_____Fifty Thousand_____dollars

and _____No_____ cents total. ($_____50,000_____)

which it is agreed shall be collected and retained by the owner as liquidated damages in the event this proposal is accepted by the Owner within thirty days (30) after the date advertised for the reception of bids and the undersigned fails to execute the contract and required bonds with the owner, under the conditions thereof, within (15) days after the date said proposal is accepted; otherwise said check or bond shall be returned to the undersigned on demand.

_____

Name of Contractor

_____

Submitted By	Print Name and Title	
Mailing Address		
City	State	Zip

City Council Meeting

Item Number: 8

Meeting Date: September 8, 2020

To: City Council / City Manager

From: Regina Stephenson, Director

Subject: Motion to transfer the sum of $1,400,000.00 from the Fiscal Year 2020 Facilities Services (001041) operating budget to the Facilities Renovation Project. (GENERAL SERVICES)

Purpose:

Approval of a motion transferring the sum of $1,400,000.00 from the Fiscal Year 2020 Facilities Services (001041) operating budget to the Facilities Renovation Project.

Recommended City Council Action:

Approve

Fiscal Impact:

$1,400,000.00 is available in the General Fund Facilities (001041) Operating Budget and will be transferred to a project in the Capital Projects Fund

Discussion:

Staff is requesting the transfer of one million four hundred thousand dollars ($1,400,000.00) from the Fiscal Year 2020 Facilities Services (001041) operating budget to the Facilities Renovation Project. The requested funds are anticipated to be used for lead paint abatement and repairing and painting the Linebery House structures. Also, the Health Department has requested funds to renovate additional space in the Kingsway Mall facility when the Utilities laboratory moves to another facility.

Estimated Cost:

Five (5) Linebery House Structures – Lead paint Abatement	$400,000.00
Five (5) Linebery House Structures – Repair and Paint	$700,000.00
Renovate space at Health Department	$300,000.00

Therefore, please consider approval of a resolution transferring one million four hundred thousand dollars ($1,400,000.00) from the Facilities Services (001041) operating budget to the Facilities Renovation Project.

Morris Williams Jr.

City Manager's Office

City Council Meeting

Item Number: 9

Meeting Date: September 8, 2020

To: City Council / City Manager

From: Regina Stephenson, Director

Subject: RESOLUTION AUTHORIZING THE PURCHASE OF AN ESTIMATED ANNUAL SUPPLY OF CHEMICALS NEEDED FOR THE TREATMENT OF DRINKING WATER FOR FISCAL YEAR 2021 FROM MULTIPLE BIDDERS, FOR A TOTAL COST OF $1,700,097.20 (GENERAL SERVICES)

Purpose:

Approval of a resolution approving the purchase of an estimated annual supply of 605,000 pounds and 40 – 150 pound cylinders of chlorine; 350,000 gallons of liquid ammonium sulfate 40%; 2,000 tons of aluminum sulfate; 20,000 gallons of polymer; 4,400 gallons of polymer for dewatering; 25 tons of powered activated carbon; 10,000 gallons of liquid copper sulfate pentahydrate 25%; 20,000 pounds of potassium permanganate and 75,000 pounds of sodium permanganate – 20% solution for the treatment of drinking water for Fiscal Year 2021 for the Utilities Department.

Recommended City Council Action:

Approve

Fiscal Impact:

$1,700,097.20 is available in the Operating Budget of the Water and Sewer Fund Divisions Purification Plant (300320) and the Airport Well Fields Tower (300306).

Discussion:

The City Manager approved specifications and authorized advertisement for bids for an estimated annual supply of chemicals for the treatment of the City's drinking water. Sixty (60) bid requests were issued. We received twelve (10) bids. Staff recommends awarding each chemical to the respective low, most advantageous or sole bidders as shown in the table below. Please see the attached memo from Raymond Saddler, Water Purification Plant Superintendent,

for more information.

Therefore, please consider a resolution awarding an estimated annual supply of water treatment chemicals as shown in the table below:

Items	Bidders	Cost
1 thru 3	DPC Industries, Inc. of Sweetwater, Texas	$262,985.00
4, 5, 6 & 10	Chameleon Industries, Inc. of Mesquite, Texas	$1,162,000.00
7 & 8	Polydyne, Inc. of Riceboro, Georgia	$155,987.20
9	Brenntag Southwest, Inc. of Houston, Texas	$29,975.00
11 & 12	Shannon Chemical Inc.	$89,150.00
	Total estimated cost for Fiscal Year 2020	**$1,700,097.20**

Morris Williams Jr.

City Manager's Office

INTEROFFICE MEMORANDUM

TO: Regina Stephenson, Director of General Services

FROM: Raymond Saddler, Water Purification Plant Superintendent

SUBJECT: Drinking water treatment chemicals for FY2021

DATE: August 24, 2020

The recommendation for the drinking water treatment chemicals this year are as follows:

Items 1 through 3 for chlorine should be awarded to DPC Industries, Inc. We are recommending accepting the single bid from DPC Industries, Inc. DPC Industries has been the single bidder for the last 11 years. See chart below:

	2010	2011	2012	2013	2014	2015	2016	2017
Liquid Chlorine	.3435	.346	.354	.359	.347	.3365	.353	.367
Chlorine Cylinders	178.00	178.00	178.00	178.00	171.00	169.00	178.00	187.50
	2018	**2019**	**2020**					
Liquid Chlorine	.397	.417	.421					
Chlorine Cylinders	192.00	207.00	207.00					

Item 4 & 5 for liquid ammonium sulfate should be awarded to the low bidder, Chameleon Industries

Item 6 for aluminum sulfate should be awarded to the low bidder, Chameleon Industries.

Item 7 for polymer should be awarded to the Non-low bidder Polydyne,Inc. Due to the fact that the low bidders (Brenntag, Sterling Water & Chameleon) failed to complete in plant testing of proposed chemical to prove compatibility & efficiency with the City's water supply.

Item 8 for dewatering polymer should be awarded to the low bidder Polydyne,Inc.

Item 9 for powdered activated carbon should be awarded to the low bidder, Brenntag Southwest, Inc.

Item 10 for liquid copper sulfate 25% should be awarded to the Non-low bidder, Chameleon Industries. The alternate chemical offered by BioSafe is not in accordance with the Bid specs and is therefore not suitable for our treatment purposes

Item 11 for potassium permanganate should be awarded to the low bidder, Shannon Chemical Inc.

Item 12 for sodium permanganate should be awarded to the low bidder, Shannon Chemical, Inc.

RESOLUTION NO. _____

RESOLUTION AUTHORIZING THE PURCHASE OF AN ESTIMATED ANNUAL SUPPLY OF CHEMICALS NEEDED FOR THE TREATMENT OF DRINKING WATER FOR FISCAL YEAR 2021 FROM MULTIPLE BIDDERS, FOR A TOTAL COST OF $1,700,097.20

WHEREAS, the City Manager approved the specifications and authorized the advertisement for bids for 605,000 pounds and 40-150 pound cylinders of chlorine; 350,000 gallons of liquid ammonium sulfate 40%; 2,000 tons of aluminum sulfate; 20,000 gallons of polymer; 4,400 gallons of polymer for dewatering; 25 tons of powdered activated carbon; 10,000 gallons of liquid copper sulfate pentahydrate 25%; 20,000 pounds of potassium permanganate; and 75,000 pounds of sodium permanganate for the treatment of drinking water for fiscal year 2021; and

WHEREAS, No. 21000000 Bid was opened on August 21, 2020 with the lowest and/or most advantageous bids being submitted as follows and as shown on the bid tabulation attached hereto as Exhibit "A" and incorporated herein for all legal purposes:

Items	Bidders	Cost
1 thru 3	DPC Industries, Inc. of Sweetwater, Texas	$262,985.00
4, 5, 6 & 10	Chameleon Industries, Inc. of Mesquite, Texas	$1,162,000.00
7 & 8	Polydyne, Inc. of Riceboro, Georgia	$155,987.20
9	Brenntag Southwest, Inc. of Houston, Texas	$29,975.00
11 & 12	Shannon Chemical Inc.	$89,150.00
	Total estimated cost for Fiscal Year 2020	**$1,700,097.20**

WHEREAS, the Council finds the price proposed by the bidders as shown above to be fair and reasonable; and

WHEREAS, the City Council finds it to be in the public interest to authorize the purchase of chemicals for the treatment of the City's drinking water from DPC Industries, Inc., of Sweetwater, Texas, Chameleon Industries, Inc. of Mesquite, Texas, Polydyne, Inc. of Riceboro, Georgia, Brenntag Southwest, Inc. of Houston, Texas and Shannon Chemical Inc.;

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF MIDLAND, TEXAS:

SECTION ONE. That the City Manager is hereby authorized and directed to purchase chemicals for the treatment of the City's drinking water from DPC Industries, Inc., of Sweetwater, Texas, Chameleon Industries, Inc. of Mesquite, Texas, Polydyne, Inc. of Riceboro, Georgia., Brenntag Southwest, Inc. of Houston, Texas and Shannon Chemical Inc., for a total cost of $1,700,097.20.

SECTION TWO. That upon receipt of proper invoice or statement approved by the City Manager, the City Comptroller is hereby authorized and directed to pay for said chemicals for the treatment of the City's drinking water out of funds available in the Operating Budget of the Water and Sewer Fund Divisions Purification Plant (300320) and the Airport Well Fields Tower (300306).

On motion of Council member _____, seconded by Council member _____, the above and foregoing resolution was adopted by the City Council of the City of Midland at a regular meeting on the _____ day of _____, A.D., 2020, by the following vote:

Council members voting "AYE":

Council members voting "NAY":

_____
Patrick N. Payton

ATTEST:

_____
Amy M. Turner, City Secretary

RECOMMENDED AND APPROVED:

_____
Courtney Sharp, City Manager

APPROVED AS TO CONTENT
AND COMPLETENESS:

_____
Regina Stephenson, General Services Director

APPROVED ONLY AS TO FORM:

_____
John Ohnemiller, City Attorney

City of Midland - Bid Tabulation

BID # 21000000
Chemicals for Drinking Water
OPENED August 21, 2020

ITEM	QTY	DESCRIPTION	BioSafe Systems, LLC 22 Meadow St. East Hartford, CT 06108 336-402-4449		Carbon Activated Corporation 2250 S. Central Avenue Compton, CA 90220 310-885-4555		Chemrite, Inc. 5202 Belle Wood Court, Ste 104 Buford, GA 30518 770-271-5576		Sterling Water Technologies, LLC P.O. Box 602 Columbia, TN 38402 931-540-1334		Chameleon Industries Inc. P.O. Box 853027 Mesquite, TX 75185 972-880-1493		Polydyne Inc. 1 Chemical Plant Road Riceboro, GA 31323 912-880-2035		Shannon Chemical Corporation P.O. Box 376 Malvern, PA 19355 610-363-9090		DPC Industries, Inc. No. 8 Place Industrial Drive Drawer 158 Sweetwater, TX 79556 877-236-6636		Chemtrade Chemicals US LLC 90 East Halsey Road Parsippany, NJ 07054 800-441-2659		Brenntag Southwest, Inc. 704 E Wintergreen Road Lancaster, TX 70784 713-330-8570	
			COST EA.	TOTAL	COST EA.	TOTAL	COST EA.	TOTAL	COST EA.	TOTAL	COST EA.	TOTAL	COST EA.	TOTAL	COST EA.	TOTAL	COST EA.	TOTAL	COST EA.	TOTAL	COST EA.	TOTAL	COST EA.	TOTAL
1	555,000	Chlorine - City of Midland Water Purification Plant	NO BID	NO BID	NO BID	NO BID	NO BID	NO BID	NO BID	NO BID	NO BID	NO BID	NO BID	NO BID	NO BID	NO BID	$0.421	$233,655.00	NO BID	NO BID	NO BID	NO BID
	lbs																					
2	40	150 lb cylinders of Chlorine - Airport Wellfield	NO BID	NO BID	NO BID	NO BID	NO BID	NO BID	NO BID	NO BID	NO BID	NO BID	NO BID	NO BID	NO BID	NO BID	$207.00	$8,280.00	NO BID	NO BID	NO BID	NO BID
	ea																					
3	50,000	Chlorine - T-Bar Chlorination Station	NO BID	NO BID	NO BID	NO BID	NO BID	NO BID	NO BID	NO BID	NO BID	NO BID	NO BID	NO BID	NO BID	NO BID	$0.421	$21,050.00	NO BID	NO BID	NO BID	NO BID
	lbs																					
4	300,000	Liquid Ammonium Sulfate - Water Purification Plant	NO BID	NO BID	NO BID	NO BID	NO BID	NO BID	NO BID	NO BID	$1.12	$336,000.00	NO BID	NO BID	NO BID	NO BID	NO BID	NO BID	$1.56	$468,000.00	$1.190	$356,910.00
	gals																					
5	50,000	Liquid Ammonium Sulfate - T-Bar Chlorination Station	NO BID	NO BID	NO BID	NO BID	NO BID	NO BID	NO BID	NO BID	$1.12	$56,000.00	NO BID	NO BID	NO BID	NO BID	NO BID	NO BID	$1.56	$78,000.00	$1.9650	$98,250.00
	gals																					
6	2,000	Aluminum Sulfate - Water Purification Plant	NO BID	NO BID	NO BID	NO BID	NO BID	NO BID	NO BID	NO BID	$315.00	$630,000.00	NO BID	NO BID	NO BID	NO BID	NO BID	NO BID	$445.00	$890,000.00	$490.0000	$980,000.00
	tons																					
7	20,000	Polymer - Water Purification Plant	NO BID	NO BID	NO BID	NO BID	NO BID	NO BID	$4.8211	$96,422.00	$4.950	$99,000.00	$5.2830	$105,660.00	NO BID	NO BID	NO BID	NO BID	NO BID	NO BID	$4.6400	$92,800.00
	gals								Magnafloc LT 7999				gal									
									Min 45000 lbs/dely				Clarifloc C-338									
8	4,400	Polymer for dewatering - Water Purification Plant	NO BID	NO BID	NO BID	NO BID	NO BID	NO BID	$12.0551	$53,042.44	NO BID	NO BID	$11.438	$50,327.20	NO BID	NO BID	NO BID	NO BID	NO BID	NO BID	NO BID	NO BID
	gals								Zeta8812S Min 4 totebins/dely				gal									
													Clarifloc C-6240									
9	25	Powdered Activated Carbon	NO BID	NO BID	$2,640.00	$66,000.00	$1,580.00	$39,500.00	NO BID	NO BID	NO BID	NO BID	NO BID	NO BID	NO BID	NO BID	NO BID	NO BID	NO BID	NO BID	$1,199.000	$29,975.00
	tons				1.32 per pound																	
10	10,000	Liquid Copper Sulfate 25%	$12.00	$120,000.00	NO BID	NO BID	$15.50	$155,000.00	NO BID	NO BID	$14.00	$140,000.00	NO BID	NO BID	$19.19	$191,900.00	NO BID	NO BID	NO BID	NO BID	$24.00	$240,000.00
	gals		ALTERNATIVE: GreenClean Liquid 5.0												SLI-6400-25							
11	20,000	Potassium Permanganate	NO BID	NO BID	NO BID	NO BID	$1.598	$31,960.00	NO BID	NO BID	NO BID		NO BID	NO BID	$1.570	$31,400.00	NO BID	NO BID	NO BID	NO BID	$1.61	$32,180.00
	lbs														SE-3955 F							
12	75,000	Sodium Permanganate - 20% Solution	NO BID	NO BID	NO BID	NO BID	$0.830	$62,250.00	NO BID	NO BID	NO BID		NO BID	NO BID	$0.770	$57,750.00	NO BID	NO BID	NO BID	NO BID	$1.0700	$0.00
	lbs														SE-2355-20							
		Cash Discount:																				
		TOTALS:		$120,000.00		$66,000.00		$288,710.00		$149,464.44		$1,261,000.00		$155,987.20		$281,050.00		$262,985.00		$1,436,000.00		$1,830,115.00

Bidding Summary:

60 **Bid requests were issued.**

10 **Bids listed above**

5 **NO BIDS were received.**

45 **Bidders did not respond.**

City of Midland - Bid Tabulation

BID # 21000000 **Chemicals for Drinking Water** **OPENED** August 21, 2020			BioSafe Systems, LLC 22 Meadow St. East Hartford, CT 06108 336-402-4449		Carbon Activated Corporation 2250 S. Central Avenue Compton, CA 90220 310-885-4555		Chemrite, Inc. 5202 Belle Wood Court, Ste 104 Buford, GA 30518 770-271-5576		Sterling Water Technologies, LLC P.O. Box 602 Columbia, TN 38402 931-540-1334		Chameleon Industries Inc. P.O. Box 853027 Mesquite, TX 75185 972-880-1493		Polydyne Inc. 1 Chemical Plant Road Riceboro, GA 31323 912-880-2035		Shannon Chemical Corporation P.O. Box 376 Malvern, PA 19355 610-363-9090		DPC Industries, Inc. No. 8 Place Industrial Drive Drawer 158 Sweetwater, TX 79556 877-236-6636		Chemtrade Chemicals US LLC 90 East Halsey Road Parsippany, NJ 07054 800-441-2659		Brenntag Southwest, Inc. 704 E Wintergreen Road Lancaster, TX 70784 713-330-8570	
ITEM	QTY	DESCRIPTION	COST EA.	TOTAL	COST EA.	TOTAL	COST EA.	TOTAL	COST EA.	TOTAL	COST EA.	TOTAL	COST EA.	TOTAL	COST EA.	TOTAL	COST EA.	TOTAL	COST EA.	TOTAL	COST EA.	TOTAL
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	gals								Magnafloc LT 7999				gal									
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		Cash Discount:																				
		TOTALS:		$120,000.00		$66,000.00		$288,710.00		$149,464.44		$1,261,000.00		$155,987.20		$281,050.00		$262,985.00		$1,436,000.00		$1,830,115.00

Bidding Summary:

60 **Bid requests were issued.**

10 **Bids listed above**

5 **NO BIDS were received.**

45 **Bidders did not respond.**

City Council Meeting

Item Number: 10

Meeting Date: September 8, 2020

To: City Council / City Manager

From: Regina Stephenson, Director

Subject: **Motion to authorize the City Manager to approve the plans and specifications for the West Wadley Avenue Wastewater Main Extension project, said plans and specifications to be placed on file in the City Secretary's office referenced by the number and date of this motion, and to authorize the City Manager or the City Manager's designee to advertise for competitive bids for said project pursuant to the statutes of the State of Texas for accomplishing the work set forth in said plans and specifications. (GENERAL SERVICES)**

Purpose:

Approval of motion to authorize the City Manager to approve the plans and specifications for the West Wadley Avenue Wastewater Main Extension project, said plans and specifications to be placed on file in the City Secretary's office referenced by the number and date of this motion, and to authorize the City Manager or the City Manager's designee to advertise for competitive bids for said project pursuant to the statutes of the State of Texas for accomplishing the work set forth in said plans and specifications.

Recommended City Council Action:

Approve

Fiscal Impact:

Funding is not required at this time.

Discussion:

Please consider approval of a resolution authorizing the City Manager to approve plans, specifications and authorize advertisement for bids for the West Wadley Avenue Wastewater Main Extension Project. Wastewater mains will be constructed between State Highway 158 and

the existing wastewater main located approximately one quarter mile west of the existing west end of Wadley Avenue along the future route of the Wadley Avenue pavement extension. Please see the attached memo from Jose Ortiz, Engineering Services Director, for additional information.

Therefore, please consider a motion authorizing the City Manager to approve the plans and specifications for the West Wadley Avenue Wastewater Main Extension project, said plans and specifications to be placed on file in the City Secretary's office referenced by the number and date of this motion, and to authorize the City Manager or the City Manager's designee to advertise for competitive bids for said project pursuant to the statutes of the State of Texas for accomplishing the work set forth in said plans and specifications.

Morris Williams Jr.

City Manager's Office

INTEROFFICE MEMORANDUM

TO: Regina Stephenson, Director of General Services

FROM: Jose Ortiz, Engineering Services Director

SUBJECT: Motion to authorize the City Manager to approve the plans and specifications for the West Wadley Avenue Wastewater Main Extension project, said plans and specifications to be placed on file in the City Secretary's office referenced by the number and date of this motion, and to authorize the City Manager or the City Manager's designee to advertise for competitive bids for said project pursuant to the statutes of the State of Texas for accomplishing the work set forth in said plans and specifications.

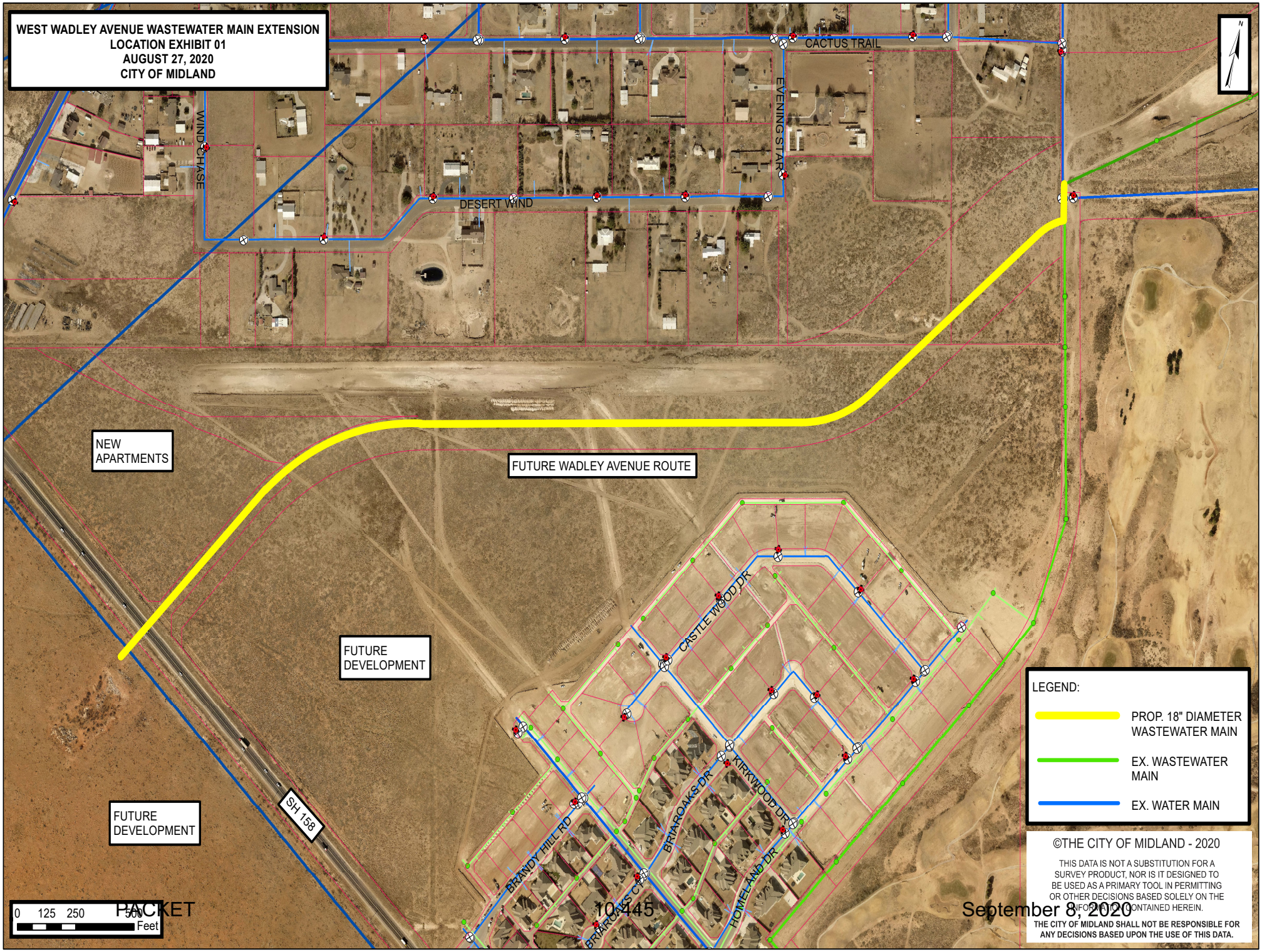
DATE: 8/26/2020 **COUNCIL MEETING DATE:** 9/08/2020

Please carry a motion to council to authorize the City Manager to approve and advertise a project for bid. The West Wadley Avenue Wastewater Main Extension project will construct wastewater mains between State Highway 158 and the existing wastewater main located approximately one quarter mile west of the existing west end of Wadley Avenue along the future route of the Wadley Avenue pavement extension.

The project is necessary to extend wastewater service prior to the extension of the Wadley Avenue pavement to State Highway 158 and to support regional development in the surrounding areas.

Funding will be determined prior to awarding the project. Let me know if you have any questions.

cc: Carl Craigo, P.E.
Matt Carr, P.E.
Erika Martinez


WEST WADLEY AVENUE WASTEWATER MAIN EXTENSION
LOCATION EXHIBIT 01
AUGUST 27, 2020
CITY OF MIDLAND
CACTUS TRAIL
EVENING STAR
WIND CHASE
DESERT WIND
NEW APARTMENTS
FUTURE WADLEY AVENUE ROUTE
FUTURE DEVELOPMENT
FUTURE DEVELOPMENT
SH 158
CASTLE WOOD DR
BRIARCREST CT
BRIARCREST DR
BRIARCREST CT
KIRKWOOD DR
HOMELAND DR
BRANDY HILL RD
0 125 250 500 Feet
LEGEND:
PROP. 18" DIAMETER WASTEWATER MAIN
EX. WASTEWATER MAIN
EX. WATER MAIN
©THE CITY OF MIDLAND - 2020
THIS DATA IS NOT A SUBSTITUTION FOR A SURVEY PRODUCT, NOR IS IT DESIGNED TO BE USED AS A PRIMARY TOOL IN PERMITTING OR OTHER DECISIONS BASED SOLELY ON THE INFORMATION CONTAINED HEREIN.
THE CITY OF MIDLAND SHALL NOT BE RESPONSIBLE FOR ANY DECISIONS BASED UPON THE USE OF THIS DATA.

City Council Meeting

Item Number: 11

Meeting Date: September 8, 2020

To: City Council / City Manager

From: Regina Stephenson, Director

Subject: **Motion to authorize the City Manager or the City Manager's designee to advertise a request for proposals for consulting and management of senior services associated with the operation of the Midland Southeast Senior Center and the Midland Senior Center for the Community Services Department and to negotiate a professional services agreement for said services; provided, however, that said agreement shall not become effective until approved by the City Council.(GENERAL SERVICES)**

Purpose:

Approval of a motion to authorize the City Manager or the City Manager's designee to advertise a request for proposals for Consulting and Management of Senior Services and to conduct the operation of the Midland Southeast Senior Center and the Midland Senior Center for the Community Services Department.

Recommended City Council Action:

Approve

Fiscal Impact:

Funding is not required at this time.

Discussion:

Staff recommends issuing a request for proposals to contract with an agency for consulting and management of Senior Services. The agency will be responsible for management of the Midland Southeast Senior Center and the Midland Senior Services Center. Please see the attached memo from Tina Jauz, Community Services Director, for additional information.

Therefore, please consider a motion authorizing the issuance of a request for proposals for

Consulting and Management of Senior Services and to conduct the operation of the Midland Southeast Senior Center and the Midland Senior Center.

Morris Williams Jr.

City Manager's Office

CITY OF MIDLAND
Community Services Department
Interoffice Memorandum

Date: August 27, 2020
To: Robert Patrick, Assistant City Manager
From: Tina Jauz, Community Services Director
Subject: Request for Proposals – Consulting and Management of Senior Services

This Request for Proposals is to engage an agency in consulting and management of Senior Services for the City of Midland.

The current one-year agreement with Senior Life expires on October 31, 2020.

The organization must be qualified to provide the following in the scope of their work:

1) Manage, Supervise, and Operate the Midland Southeast Senior Center, located at 1803 East Indiana, Midland, Texas, and the Midland Senior Services Center, located at 3303 West Illinois
2) Provide all programs, services, and operations
3) Provide all employees needed for the efficient operation, coordination and continuity of the Southeast Senior Center and the Senior Services Center. The firm shall provide all management personnel, clerical support, and custodial/maintenance staff to include development, training, and recruitment as needed.

Proposals will be due on September 30, 2020. They will be reviewed and evaluated.

If a qualified proposal is identified, with city council approval, a contract for consulting and management of Senior Services would be executed this fall.

Request for Proposals

RFP for Consulting & Management Services

The City of Midland

For

Consulting & Management Services and Conduct the Operation of the Midland Southeast Senior Center and Midland Senior Center

Proposals for this requirement will be accepted until 2:00 P.M. on September 30, 2020

Proposals May be Mailed or Delivered to:

City Secretary
City of Midland
Suite 340
P.O. BOX 1152
Midland, Texas 79702-1153
(300 N. Loraine, Suite 340 Midland, TX 79701)

No Late Proposals Will Be Accepted

NOTICE TO PROPOSERS:

1. THE ATTACHED CONTRACT AND INSURANCE REQUIREMENTS ARE **NON-NEGOTIABLE**. MODIFICATIONS BY PROPOSER/CONTRACTOR OF ANY MATERIAL TERM(S) TO THE CONTRACT DOCUMENTS WILL BE DEEMED A NON-RESPONSIVE PROPOSAL. NON-RESPONSIVE PROPOSALS WILL BE REJECTED. PROPOSER/CONTRACTOR MUST BE WILLING TO SIGN THE CONTRACT AS IS AND WITHOUT MODIFICATIONS, PROVIDE PROPERLY EXECUTED BONDS (IF APPLICABLE) AND PROVIDE INSURANCE SPECIFICALLY AS REQUIRED WITHIN THE CONTRACT DOCUMENTS **WITHIN 21 DAYS** OF THE DATE OF THE TRANSMITTAL LETTER.

2. IF THE SELECTED PROPOSER/CONTRACTOR CANNOT MEET THE REQUIREMENTS OF PARAGRAPH 1, THEN THE CITY RESERVES THE RIGHT TO AWARD THIS PURCHASE TO ANOTHER PROPOSER.

3. **IMPORTANT NOTICE** – IF THE CONTRACT DOCUMENTS REQUIRE WORKER'S COMPENSATION INSURANCE, PROPOSER/CONTRACTOR MUST CARRY WORKER'S COMPENSATION INSURANCE TO BE ELIGIBLE FOR THIS CONTRACT. IF YOU CANNOT PROVIDE WORKER'S COMPENSATION INSURANCE AS REQUIRED BY STATE OF TEXAS STATUTE WE RESPECTFULLY REQUEST THAT YOU "NO BID" THIS WORK

4. COMPLIANCE. – COMPANY AGREES THAT IT SHALL COMPLY WITH TEXAS GOVERNMENT CODE SECTION 2252.908, *ET SEQ.*, AS AMENDED. COMPANY AGREES THAT IT SHALL COMPLY WITH TEXAS LOCAL GOVERNMENT CODE SECTION 176.006, *ET SEQ.*, AS

See Section 1.9 for Pre-proposal Meeting Information

TABLE OF CONTENTS

Page
SCHEDULE OF EVENTS iii
Special Terms and Conditions iv
1. General Information 1
2. Proposal Waivers: 5
3. Scope Of Project 6
4. Requirements 6
5. Narrative 6
6. Vendor Qualifications 6
7. Evaluation Process 7
8. Proposal Contents 8
EXECUTION OF OFFER 9

SCHEDULE OF EVENTS

RFP

For

Consulting & Management Services And Conduct The Operation Of The Midland Southeast Senior Center And Midland Senior Center

Event	Date*
RFP Released	September 9, 2020
Pre-proposal Conference	September 16, 2020
Cutoff Date for inquiries and clarification	September 23, 2020
Proposal Due Date	September 30, 2020
Present Recommendation to Council for Consideration (if BFO is NOT required)	October 13, 2020
Call for Best and Final Offers (if required)	October 5, 2020
Final Offer Due Date (if required)	October 12, 2020
Present Recommendation to Council for Consideration (if BFO is required)	October 27, 2020
Intended Date for Contract Award	November 1, 2020

*These dates are our intended schedule; however, they may be changed as necessary without further notice.

NOTE:

From the issuance date of this RFP until a Contractor(s) is selected, all verbal communication is not binding. The City will only be bound by written comments submitted by the Purchasing Office.

SPECIAL TERMS AND CONDITIONS

Proposal Requirements /Terms

1. Unless otherwise called for, the number of copies specified in the RFP, shall be submitted typewritten or printed in ink. Many Requests for Proposals are in a word format that can be completed on your computer and will be noted on the cover page if available.

2. Each proposal should be placed in a separate envelope completely and properly identified with the RFP number, due time and date. Proposal must be time stamped at the appointed receipt location before the hour and date specified for the proposal receipt. Responsibility for having the proposal properly marked and to the opening location by the specified date and time is solely the offeror's. All copies of the proposal may be delivered in the same box/package.

3. Any Proposal may be withdrawn in writing prior to the date and time set for receipt of proposals. Any proposals not so withdrawn shall constitute an irrevocable offer, for a minimum period as stated in the RFP following the final acceptance date, to provide the commodity or service set forth in the attached specifications, or until a selection has been made by the City.

4. Late proposals will not be accepted under any circumstances.

5. Proposal should give full firm name and address of Offeror. Failure to manually sign the proposal will disqualify it. The person signing the proposal should show title or authority to bind his/her firm in contract. Insert your Federal Employer's Identification Number _____ or Sole owner should enter SSN _____-____-_____.

6. Purchases made for City use are exempt from State Sales Tax and Federal Excise Tax. Do not include tax in your proposal. Tax exemption certificates will be furnished by the City upon request.

7. Telephone proposals are not acceptable when in response to an RFP.

Conditions

The City of Midland is requesting proposals with the intent of awarding a contract for the requirement contained in this RFP. However, the City is not obligated to award a contract on this solicitation and reserves the right to reject any and all proposals and award the proposal to best serve the interests of the City.

1. Offerors electing to respond to this RFP are responsible for all costs of proposal preparation. The City is not liable for any costs incurred by a offeror in response to this RFP.

2. No public disclosures or news releases pertaining to this RFP shall be made without prior written approval from purchasing.

3. In case of a tie between two or more offerors, the award will be made in accordance with preferences as outlined by statute.

4. The Offeror agrees to protect the City from claims involving infringement of patents or copyrights.

5. The Offeror hereby assigns to Purchaser, any and all claims for overcharges associated with any contract resulting from this RFP which arise under the antitrust laws of the United States 15 U.S.C.A. Section 1, et seq. 1973 and which arise under the antitrust laws of the State of Texas, Texas Business and Commercial Code Ann. Sec. 15.01, et seq. (1967).

6. No substitutions or cancellation permitted without the written approval of the City Purchasing Agent. Deliveries made pursuant to a resulting contract shall be made during normal working hours only, unless approval for late delivery has been obtained.

7. Contractor shall submit two copies of an itemized invoice to Accounts Payable, The City of Midland, Texas, P.O. Box 1152, Midland Texas 79702. Each copy of the invoice shall reference the P.O. and the RFP numbers.

8. In the event of a conflict between the standard proposal requirements and conditions and the attached detail specification, the detail specifications shall govern.

9. Governing Law & Venue: This agreement shall be governed by and construed in accordance with the laws of the State of Texas. Venue for any disputes or lawsuits arising from the performance of this contract shall be exclusively in Midland County, Texas. The parties agree that all performance under this contract shall take place in Midland, County, Texas. The Contractor and City agree that all payments made under this contract shall take place in Midland County, Texas.

10. This obligation and undertakings of each of the parties to this contract shall be deemed to have been performed in Midland County, Texas.

1. GENERAL INFORMATION

1.1. INTRODUCTION

The City of Midland (hereinafter referred to as "the City") is pleased to invite you to submit a proposal for consulting and management services and conduct the operation of the Midland Southeast Senior Center and the Midland Senior Services Center as specified herein. Proposals submitted in response to the specifications contained herein shall comply with the following instructions and procedures.

Request for Proposal Standard Information

This Request for Proposal (RFP) is issued in accordance with City of Midland Policy, the RFP Manual and the statutes of the State of Texas. The RFP process is a procurement option allowing the award to be evaluated based on stated criteria. The RFP states the relative importance of all criteria. No other criteria, other than as outlined in the Request for Proposal, will be used.

1.2. INITIAL EVALUATION

Upon receipt, the proposal information will be disclosed only to persons participating in the evaluation or contracting process until the proposal has been reviewed and all marked trade secrets have been removed (see “Trade Secrets and Other Withheld Information” statement below). After this review, all remaining proposal materials will be available under the open records act. The proposals will be initially evaluated by the committee as being “responsive” or “non-responsive”.

1.3. DISCUSSION/NEGOTIATION

Although proposals may be accepted and a contract awarded without discussion, the City may initiate discussions should clarification or negotiation be necessary. Offerors should be prepared to send qualified personnel to Midland, Texas to discuss technical and contractual aspects of the proposal.

1.4. BEST AND FINAL OFFER

The "Best and Final Offer" is an option available to the City under the RFP process allowing one or more offerors to submit a best and final offer. Offerors may be contacted, asking that they submit their best and final offer, which must include the discussed and/or negotiated changes.

1.5. AWARD

1.5.1. If the Contract is awarded, it will be awarded to either the lowest responsible bidder, or to the bidder who provides goods or services at the best value for the City of Midland. In determining the best value for the City of Midland, the City of Midland may consider the criteria enumerated in Section 252.043 of the Texas Local Government Code.

1.6. TRADE SECRETS

1.6.1. All information received in response to this RFP will be available to the public except for:

1.6.1.1. trade secrets meeting the requirements of Texas Government Code Title 5, Chapter 552, Subchapter C, § 552.110; and

1.6.1.2. matters involving individual safety as determined by the department.

1.6.2. In order for an offeror to claim trade secret material, the following conditions must be met. Information to be withheld must be clearly marked and separated from the rest of the proposal.

1.6.2.1. The proposal may not contain trade secret matter in the cost or price.

1.6.2.2. An affidavit from the offeror's legal counsel attesting to and explaining the validity of the trade secret claim must be attached to each proposal containing trade secrets. In addition, offerors submitting a proposal containing trade secrets must be prepared to pay all legal costs and fees associated with defending the claim for trade secret protection in the event of an open records request from another party.

1.6.3. Documents not meeting all of the requirements of (1) and (2) will be available for public inspection, including copyrighted materials.

1.7. LATE PROPOSALS

Proposals received after the time specified for receipt of proposals will be destroyed or returned at the offeror's expense after consultation with the offeror. There are no exceptions to this deadline.

1.8. PREPARING A RESPONSE

This RFP contains the instructions governing the proposals to be submitted and a description of the mandatory requirements. To be eligible for consideration, an offeror must meet the intent of all mandatory requirements. Compliance with the intent of a mandatory requirement will be determined by the Purchasing Office. When imperative language (shall, will, must) appears in any section of the RFP, it is considered to be mandatory.

1.8.1. Offerors shall promptly notify the City of any ambiguity, inconsistency or error, which they may discover upon examination of this RFP.

Section 1.9 is optional:

1.9. PRE-PROPOSAL CONFERENCE:

A Pre-Proposal Conference will be held at 3:00 PM on Wednesday September 16, 2020. There will be no in-person pre-proposal meeting. The teleconference call in number is (866) 528-2256. The access code is 4450719. Offerors may use this opportunity to notify the City of any ambiguity, inconsistency, or error, which they may discover upon examination of this RFP. All responses to questions at the Pre-Proposal Conference will be oral and in no way binding on the City.

1.10. CLARIFICATION/ INTERPRETATION

Offerors requiring clarification or interpretation of any section or sections contained in this RFP shall make a written request to the City Purchasing Agent by the deadline described in the Schedule of Events. All written correspondence must be addressed to:

The City Of Midland
Office of the Purchasing Agent
P.O. Box 1152
Midland, TX 79702

OR

FAX: (432) 685-0523

e-mail: purchasing@midlandtexas.gov

1.11. FORMAT FOR INQUIRIES:

Each offeror submitting written questions must clearly address each question by reference to a specific section, page and item of this RFP. An official written answer will be provided to all questions received. Verbal responses shall not be considered binding.

1.12. INTERPRETATION:

Any interpretation, correction or change of this RFP will be made by written Addendum. Interpretations, corrections or changes of this RFP made in any other manner will not be binding and offerors shall not rely upon such interpretations, corrections or changes.

The City of Midland Purchasing Office will issue any necessary Addenda.

A point-by-point response to all numbered sections, subsections, paragraphs, subparagraphs and appendices must be submitted by each offeror in order to be considered for selection.

1.13. PROPOSAL ORGANIZATION AND SUBMISSION

Offerors must organize proposals into sections following the format of this RFP, with tabs separating each section. If no exception, explanation, or clarification is required in the offeror's response to a specific subsection, the offeror shall indicate so in the point-by-point response with the following:

"(Offeror's Name)", understands and will comply.

1.14. OFFER PRICING

Offerors must respond to this RFP by utilizing the RFP Cost Summary. The cost summary will be used as the primary representation of each offeror's cost, and will be used extensively during proposal evaluations. Additional information should be included as necessary to explain in detail the offeror's cost.

Proposals should be complete to the degree that all of the information sought by this RFP is supplied in the order requested.

1.15. SUBMITTING A SEALED PROPOSAL

1.15.1. Number of copies and Location:

1.15.1.1. Offerors must submit one original, 2 hard copies and one (1) soft copy (PDF or Word) to the City Secretary. Sealed Proposals must be received by the date before the time stated on the face of the Request for Proposal Cover Page, local time. Sealed Proposals received after this time will not be accepted for consideration. Facsimile copies are not acceptable.

1.15.1.2. Please be sure to label the outermost package of the RFP whether it is an envelope, box or overnight package with the RFP number, RFP description and closing date so that it is visible when received by the City.

1.15.2. Each Offeror who submits a proposal represents that:

1.15.2.1. The proposal is based upon an understanding of the specifications and requirements described in this RFP.

1.15.2.2. Costs for developing and delivering responses to this RFP and any subsequent presentations of the proposal as requested by the City are entirely the responsibility of the offeror. The City is not liable for any expense incurred by the offerors in the preparation and presentation of their proposals.

1.15.2.3. All materials submitted in response to this RFP become the property of the City and are to be appended to any formal documentation, which would further define or expand any contractual relationship between the City and offeror resulting from this RFP process.

1.15.3. The proposals must be signed in ink by an individual authorized to legally bind the business submitting the proposal.

1.15.4. A proposal may not be modified, withdrawn or canceled by the offeror for a 120-day period following the deadline for proposal submission,

or receipt of best and final offer, if required, as defined in the Schedule of Events, and offeror so agrees in submitting the proposal.

1.16. RIGHTS RESERVED

While the City has every intention to award a contract as a result of this RFP, issuance of the RFP in no way constitutes a commitment by the City of Midland to award a contract. Upon a determination, such actions would be in its best interests, the City in its sole discretion reserves the right to:

A) waive any formality;

b) cancel or terminate this RFP;

c) reject any or all proposals received in response to this document;

d) waive any undesirable, inconsequential, or inconsistent provisions of this document, which would not have significant impact on any proposal; not award, or if awarded, terminate any contract if the City determines adequate City funds are not available.

1.17. BONDING REQUIREMENTS

Intentionally Omitted

1.18. OFFEROR INTERVIEW / PRODUCT DEMONSTRATION

After receipt of all proposals and before the determination of the award, respondents may be required to make an oral presentation and product demonstration in Midland, Texas to clarify their response or to further define their offer. Oral presentations and product demonstrations, if requested, shall be at the offeror's expense.

1.19. INSURANCE REQUIREMENTS

See Agreement

1.20. CONTRACTOR'S RESPONSIBILITIES

The successful offeror shall keep informed of, and shall comply with all applicable laws, ordinances, rules, regulations and orders of the City, County, State, Federal or public bodies having jurisdiction affecting any work to be done to provide the services required. The offeror shall provide all necessary safeguards for safety and protection, as set forth by the United States Department of Labor, Occupational Safety and Health Administration.

1.21. OFFEROR COMPETITION

The City encourages free and open competition among offerors. Whenever possible, specifications, proposal requests and conditions are designed to accomplish this objective, consistent with the necessity to satisfy the City's need to procure technically sound, cost-effective services.

The offeror's signature on a proposal in response to this RFP guarantees that the prices quoted have been established without collusion of other eligible offerors and without effort to preclude the City of Midland from obtaining the best possible price.

1.22. CONTRACT PROVISIONS AND TERMS

1.22.1. Contract Execution

1.22.1.1. The City will execute a contract with the successful offeror(s). The City requires that the RFP and the terms and conditions attached to it, the offeror's response, the best and final offer (if required), and any formal addenda to the RFP be included as part of any contract documents.

1.22.2. Terms and Conditions

Agreement that will be executed by the successful offeror and the City is attached.

1.22.3. Exceptions to Contract Terms & Conditions

Offerors should notify the City of any terms within the sample contract that either precludes them from responding to the RFP or add unnecessary cost.

1.22.4. The initial contract(s) term is for a period of five (5) years. Renewals of the contract may be made at one year intervals, not to exceed a total of seven (7) years, at the City's option.

1.22.5. Contract Extension

The offeror agrees that, through the term of the initial contract and any agreed-upon extension, the City will be entitled to any price reductions at least equal to any lower prices made available to any other customer of comparable volume.

2. PROPOSAL WAIVERS:

2.1. WAIVER OF ATTORNEY FEES: BY SUBMITTING THIS PROPOSAL, OFFEROR AGREES TO WAIVE AND DOES HEREBY KNOWINGLY, CONCLUSIVELY, VOLUNTARILY AND INTENTIONALLY WAIVE ANY CLAIM IT HAS OR MAY HAVE IN THE FUTURE AGAINST THE CITY, REGARDING THE AWARD OF ATTORNEY'S FEES, WHICH ARE IN ANY WAY RELATED TO THE PROPOSAL, THE CONSTRUCTION, VALIDITY OR INTERPRETATION OF THE PROPOSAL DOCUMENTS, OR THE CONSTRUCTION, VALIDITY, INTERPRETATION, AWARD, OR BREACH OF THE CONTRACT. THE OFFEROR SPECIFICALLY AGREES THAT IF THE OFFEROR BRINGS OR COMMENCES ANY LEGAL ACTION OR PROCEEDING RELATED TO THIS PROPOSAL, THE CONSTRUCTION, VALIDITY OR INTERPRETATION OF THE PROPOSAL DOCUMENTS, OR THE CONSTRUCTION, VALIDITY, INTERPRETATION, AWARD, OR BREACH OF THE CONTRACT, INCLUDING BUT NOT LIMITED TO ANY ACTION PURSUANT TO THE PROVISIONS OF THE TEXAS UNIFORM DECLARATORY JUDGMENTS ACT (TEXAS CIVIL PRACTICE AND REMEDIES CODE SECTION 37.001, ET. SEQ., AS AMENDED), OR CHAPTER 271 OF THE TEXAS LOCAL GOVERNMENT CODE, THE OFFEROR AGREES TO ABANDON, WAIVE AND RELINQUISH ANY AND ALL RIGHTS TO THE RECOVERY OF ATTORNEY'S FEES TO WHICH OFFEROR MIGHT OTHERWISE BE ENTITLED.

2.2. OFFEROR AGREES THAT THIS IS THE VOLUNTARY AND INTENTIONAL RELINQUISHMENT AND ABANDONMENT OF A PRESENTLY EXISTING KNOWN RIGHT. THE OFFEROR ACKNOWLEDGES THAT IT UNDERSTANDS ALL TERMS AND CONDITIONS OF THE PROPOSAL DOCUMENTS INCLUDING BUT NOT LIMITED TO THE CONTRACT. THE OFFEROR FURTHER ACKNOWLEDGES AND AGREES THAT THERE WAS AND IS NO DISPARITY OF BARGAINING POWER BETWEEN THE CITY AND THE OFFEROR. THIS SECTION SHALL NOT BE CONSTRUED OR INTERPRETED AS A WAIVER OF SOVEREIGN IMMUNITY.

2.3. THE OFFEROR AND CITY ARE RELYING ON THEIR OWN JUDGMENT. EACH PARTY HAD THE OPPORTUNITY TO DISCUSS THESE PROPOSAL DOCUMENTS, INCLUDING THE CONTRACT, WITH COMPETENT LEGAL COUNSEL PRIOR TO SUBMISSION OF THE PROPOSAL OR EXECUTION OF THE CONTRACT.

2.4. <u>WAIVER:</u>

2.5. BY SUBMITTING A PROPOSAL, THE OFFEROR AGREES TO WAIVE AND DOES HEREBY VOLUNTARILY AND INTENTIONALLY WAIVE, ABANDON AND RELINQUISH ANY CLAIM THE OFFEROR HAS OR MAY HAVE IN THE FUTURE AGAINST THE CITY OF MIDLAND, TEXAS, AND THE CITY'S EMPLOYEES, AGENTS AND OFFICERS, ARISING OUT OF OR IN ANY WAY CONNECTED WITH THE FOLLOWING:

2.5.1. THE ADMINISTRATION, EVALUATION OR RECOMMENDATION OF ANY PROPOSAL;

2.5.2. WAIVER OR DELETION OF ANY OF THE REQUIREMENTS UNDER THE PROPOSAL DOCUMENTS OR THE CONTRACT DOCUMENTS;

2.5.3. ACCEPTANCE OR REJECTION OF ANY PROPOSALS; OR

2.5.4. AWARD OF THE CONTRACT.

2.6. BY SUBMITTING A PROPOSAL, THE OFFEROR ACKNOWLEDGES THAT THE OFFEROR UNDERSTANDS ALL OF THE TERMS OF THE PROPOSAL DOCUMENTS AND CONSENTS TO THE PROPOSAL PROCESS AND THE POSSIBILITY OF A NEGATIVE ASSESSMENT. BY SUBMITTING A PROPOSAL, THE OFFEROR ACKNOWLEDGES AND AGREES THAT THERE WAS AND IS NO DISPARITY OF BARGAINING POWER BETWEEN THE OFFEROR AND THE CITY OF MIDLAND, TEXAS. THE OFFEROR AGREES THAT THIS IS THE INTENTIONAL RELINQUISHMENT OF A PRESENTLY EXISTING KNOWN RIGHT. BY SIGNING THE PROPOSAL AND/OR BELOW, YOUR COMPANY AGREES TO THE ABOVE WAIVER(S).

2.7. BY SIGNING THE EXECUTION OF OFFER, YOUR COMPANY AGREES TO THE ABOVE WAIVER(S). IF THIS FORM IS NOT SIGNED AND INCLUDED WITH YOUR PROPOSAL DOCUMENTS YOUR PROPOSAL WILL BE CONSIDERED NON-RESPONSIVE AND WILL BE REJECTED.

3. SCOPE OF PROJECT

The organization must be qualified to provide the following in the scope of their work:

1) Manage, Supervise, and Operate the Midland Southeast Senior Center, located at 1803 East Indiana, Midland, Texas, and the Midland Senior Services Center, located at 3303 West Illinois
2) Provide all programs, services, and operations
3) Provide all employees needed for the efficient operation, coordination, and continuity of the Southeast Senior Center and the Senior Services Center. The firm shall provide all management personnel, clerical support, and custodial/maintenance staff to include development, training and recruitment as needed.

4. NARRATIVE

The following will be considered when evaluating the qualifications and selecting a consultant:

1) Firm experience and capability; credentials and experience of staff assigned to the operation;
2) References and quality of comparable work performed for other municipalities;
3) Quality and organization of the proposal; tailoring of the proposal to the City of Midland needs;
4) Long range vision;
5) Methodology;

In addition, the city reserves the right to request additional information from consultants submitting proposals. All proposals are considered public records. The City reserves the right to reject any or all qualifications and the right, in its sole discretion, to accept the proposal it considers most favorable to the City's interest. The City further reserves the right to reject all proposals and seek new proposals when such procedure is deemed reasonable and in its best interest.

5. VENDOR QUALIFICATIONS

The Consultant qualifications shall include the following information:

1) Description of the firm's interest in participating in the project.

2) Names and titles of professionals and support staff who will work for the centers, a brief description of experience in this field, and copies of their resumes.
3) Work history of the company.
4) A proposed list of services and programs as a response to the scope of work in this RFP.
5) Description of relevant experience.
6) Your current firm's workload and how much time you anticipate devoting to this service.
7) Names, addresses, and telephone numbers of references or clients.
8) A description of your agency's structure and list of managing board members.

5.1. INFORMATION VERIFICATION

The City may make such investigations as deemed necessary to determine the ability of the offeror to supply the products and perform the services specified.

5.2. RIGHT TO REJECT

The City reserves the right to reject any proposal if the evidence submitted by, or investigation of, the offeror fails to satisfy the City that offeror is properly qualified to carry out the obligations of the contract.

5.3. VENDOR CAPABILITIES

In determining the capabilities of an offeror to perform the services specified herein, the following informational requirements must be met by the offeror and will be weighed by the City. (Note: Each item must be thoroughly addressed. Taking exception to any requirements listed in this Section may disqualify the proposal):

5.3.1. References

5.3.1.1. Offeror shall provide a minimum of three references that are using services of the type proposed in this RFP. The references should fall within the categories identified below. At a minimum, the offeror shall provide the company name, the location where the services were provided, contact person(s), customer telephone number, a complete description of the service type, and dates the services were provided. The City reserves the right to use any information or additional references deemed necessary to establish the ability of the offerors to perform the conditions of the contract. Negative references may be grounds for proposal disqualification.

5.3.1.2. These references should include City government and universities where the offeror, preferably within the last three years, has successfully completed management of senior services.

5.3.2. Vendor Stability

5.3.2.1. Offerors shall demonstrate their financial stability to supply, install and support the services specified.

5.3.2.2. Provide financial statements, preferably audited, for the five consecutive years immediately preceding the issuance of this RFP.

5.3.2.3. Provide copies of any quarterly financial statements that have been prepared since the end of the period reported by your most recent annual report.

5.3.2.4. Offerors shall specify how long the company submitting the proposal has been in business.

6. EVALUATION PROCESS

Section 6 needs to be tailored to each project.

6.1. EVALUATION PROCEDURE

6.1.1. Committee Actions

6.1.1.1. The evaluation committee will separate proposals into "responsive" and "non-responsive" proposals. Non-responsive proposals will be eliminated from further consideration.

6.1.1.2. The evaluation committee will evaluate the remaining proposals and determine whether to award the contract to the best proposal or to seek a best and final offer before awarding a contract. Selection and award will be based on the offeror's proposal and other items outlined in this RFP.

6.1.1.3. Responses must be complete and address all the criteria listed. Information or materials presented by offerors outside the formal response or subsequent "best and final offer," if requested, will not be considered and will have no bearing on any award.

6.2. EVALUATION CRITERIA

The evaluation committee will review and evaluate the offers according to the following criteria:

These should be customized appropriately to fit the requirements of the RFP

6.2.1. Firm experience and capability; references and quality of comparable work performed for other public agencies credentials and experience of staff assigned to the project = 25%

6.2.2. Cost = 25%

6.2.3. Quality and organization of the proposal; tailoring of the proposal to the City of Midland needs = 20%

6.2.4. Long range vision = 15%

6.2.5. Methodology = 15%

7. PROPOSAL CONTENTS

This needs to be structured to coincide with the requirements set forth in the RFP

The following items constitute the RFP submittal in response to the request herein:

7.1. THE RFP

7.2. THE COST SUMMARY OR PROPOSAL FORM

7.3. REQUESTED ATTACHMENTS

7.3.1. References

7.3.2. Resumes

7.3.3. Business Plan

7.3.4. Financial Information

7.3.5. Signed Execution of Offer

8. TEXAS PUBLIC INFORMATION ACT

Notwithstanding any other provisions, this request for proposals, along with any associated contract, is subject to the Texas Public Information Act.

EXECUTION OF OFFER

Date:

In compliance with this RFP, and subject to all the conditions herein, the undersigned offers and agrees to furnish any or all commodities or services at the prices quoted.

By executing this offer, Offeror affirms that he/she has not given, offered to give, nor intends to give at anytime hereafter, any economic opportunity, future employment, gift, loan, gratuity, special discount, trip, favor, or service to a public servant in connection with the submitted offer. Failure to sign the offer, or signing it with a false statement, shall void the submitted offer or any resulting contracts, and the Offeror shall be removed from all proposal lists.

By the signature hereon affixed, the Offeror hereby certifies that neither the Offeror or the firm, corporation, or institution represented by the Offeror or anyone acting for such firm, corporation, or institution has violate the antitrust laws of this State, codified in Section 15.01, et seq., Texas Business and Commerce Code, or the Federal antitrust laws, nor communicated directly or indirectly the offer being made to any competitor or any other person in such line of business. By signing this offer, Offeror certifies that if a Texas address is shown as the address of the Offeror, Offeror qualifies as a Texas Resident Offeror as defined in Rule 1 TAC 113.8.

This offer consists of pages number 1 through _____.

Offeror/ COMPANY: _____

SIGNATURE (INK): _____

NAME: (TYPED/PRINTED) _____

TITLE: _____

STREET: _____

CITY/STATE/ZIP: _____

TELEPHONE: _____ FAX: _____

E-MAIL ADDRESS: _____

Company's Name

PROPOSAL
RFP #21000002

To: Purchasing Manager
City of Midland
Midland, Texas

Gentlemen: The undersigned bidder, having examined the plans, specifications and contract documents, the location of the proposed work and being fully advised as to the extent and character of the work proposes to furnish all materials, equipment and to perform all labor and work necessary for the complete work described by and in accordance with the attached plans, specifications and contract for the sum of:

Cost per Quarter:		Cost per Year:		Cost for 5 Years:
$ _____	X 4 quarters =	$ _____	X 5 Years =	$ _____

The undersigned bidder hereby declares that he has visited the site of the work and has carefully examined the Contract Documents pertaining to the work covered by the above bid and he further agrees to commence work within ten (10) days after the date of written notice to do so and to substantially complete same within _____ calendar days.

VENDOR CONTACT:
All potential vendors shall direct ALL questions, areas for bid clarification and specification verification to the Purchasing Agent IN WRITING, via mail or fax as follows:

The City Of Midland
Office of the Purchasing Manager
P.O. Box 1152
Midland, TX 79702

OR

FAX: (432) 685-0523

E-mail: purchasing@midlandtexas.gov

All vendors on the bid list will then be notified of the questions and presented an answer. Verbal responses shall not be considered binding.

NOTE: Bid and Proposal terms are interchangeable.

AWARD
If the Contract is awarded, it will be awarded to either the lowest responsible bidder, or to the bidder who provides goods or services at the best value for the City of Midland. In determining the best value for the City of Midland, the City of Midland may consider the criteria enumerated in Section 252.043 of the Texas Local Government Code.

BID WAIVERS:

A. WAIVER OF ATTORNEY FEES: BY SIGNING THIS PROPOSAL, BIDDER AGREES TO WAIVE AND DOES HEREBY KNOWINGLY, CONCLUSIVELY, VOLUNTARILY AND INTENTIONALLY WAIVE ANY CLAIM IT HAS OR MAY HAVE IN THE FUTURE AGAINST THE CITY, REGARDING THE AWARD OF ATTORNEY'S FEES, WHICH ARE IN ANY WAY RELATED TO THE CONTRACT, OR THE CONSTRUCTION, INTERPRETATION OR BREACH OF THE CONTRACT. THE BIDDER SPECIFICALLY AGREES THAT IF THE BIDDER BRINGS OR COMMENCES ANY LEGAL ACTION OR PROCEEDING RELATED TO THIS CONTRACT, THE CONSTRUCTION, INTERPRETATION, VALIDITY OR BREACH OF THIS CONTRACT, INCLUDING BUT NOT LIMITED TO ANY ACTION PURSUANT TO THE PROVISIONS OF THE TEXAS UNIFORM DECLARATORY JUDGMENTS ACT (TEXAS CIVIL PRACTICE AND

REMEDIES CODE SECTION 37.001, ET SEQ., AS AMENDED), OR CHAPTER 271 OF THE TEXAS LOCAL GOVERNMENT CODE, THE BIDDER AGREES TO ABANDON, WAIVE AND RELINQUISH ANY AND ALL RIGHTS TO THE RECOVERY OF ATTORNEY'S FEES TO WHICH BIDDER MIGHT OTHERWISE BE ENTITLED.

BIDDER AGREES THAT THIS IS THE VOLUNTARY AND INTENTIONAL RELINQUISHMENT AND ABANDONMENT OF A PRESENTLY EXISTING KNOWN RIGHT. THE BIDDER ACKNOWLEDGES THAT IT UNDERSTANDS ALL TERMS AND CONDITIONS OF THE CONTRACT. THE BIDDER FURTHER ACKNOWLEDGES AND AGREES THAT THERE WAS AND IS NO DISPARITY OF BARGAINING POWER BETWEEN THE CITY AND THE BIDDER.

THIS SECTION SHALL NOT BE CONSTRUED OR INTERPRETED AS A WAIVER OF SOVEREIGN IMMUNITY.

THE BIDDER AND THE CITY ARE RELYING ON THEIR OWN JUDGMENT. EACH PARTY HAD THE OPPORTUNITY TO DISCUSS THIS CONTRACT WITH COMPETENT LEGAL COUNSEL PRIOR TO ITS EXECUTION.

B. WAIVER: BY SUBMITTING A BID, THE BIDDER AGREES TO WAIVE AND DOES HEREBY VOLUNTARILY AND INTENTIONALLY WAIVE, ABANDON AND RELINQUISH ANY CLAIM THE BIDDER HAS OR MAY HAVE IN THE FUTURE AGAINST THE CITY OF MIDLAND, TEXAS, AND THE CITY'S EMPLOYEES, AGENTS AND OFFICERS, ARISING OUT OF OR IN ANY WAY CONNECTED WITH THE FOLLOWING:

1. **THE ADMINISTRATION, EVALUATION OR RECOMMENDATION OF ANY BID;**
2. **WAIVER OR DELETION OF ANY OF THE REQUIREMENTS UNDER THE BID DOCUMENTS OR THE CONTRACT DOCUMENTS;**
3. **ACCEPTANCE OR REJECTION OF ANY BIDS; OR**
4. **AWARD OF THE CONTRACT.**

BY SUBMITTING A BID, THE BIDDER ACKNOWLEDGES THAT THE BIDDER UNDERSTANDS ALL OF THE TERMS OF THE BIDDING DOCUMENTS AND CONSENTS TO THE BIDDING PROCESS AND THE POSSIBILITY OF A NEGATIVE ASSESSMENT. BY SUBMITTING A BID, THE BIDDER ACKNOWLEDGES AND AGREES THAT THERE WAS AND IS NO DISPARITY OF BARGAINING POWER BETWEEN THE BIDDER AND THE CITY OF MIDLAND, TEXAS. THE BIDDER AGREES THAT THIS IS THE INTENTIONAL RELINQUISHMENT OF A PRESENTLY EXISTING KNOWN RIGHT. BY SIGNING THE REQUEST FOR BID AND/OR BELOW, YOUR COMPANY AGREES TO THE ABOVE WAIVER(S).

C. Notice of Alleged Breach; Statutory Prerequisites: As a condition precedent to filing suit for alleged damages incurred by an alleged breach of an express or implied provision of this Contract, Bidder or his legal representative, shall give the City Manager, or any other reasonable official of the City, notice in writing (consisting of one original and seven copies of notice attached to a copy of this Contract) of such damages, duly verified, within one-hundred fifty (150) days after the same has been sustained. The discovery rule does not apply to the giving of this notice. The notice shall include when, where and how the damages occurred, the apparent extent thereof, the amount of damages sustained, the amount for which the Bidder will settle, the physical and mailing addresses of Bidder at the time and date the claim was presented and the physical and

mailing addresses of Bidder for the six months immediately preceding the occurrence of such damages, and the names and addresses of the witnesses upon whom the Bidder relies to establish its claim; and a failure to so notify the City Manager within the time and manner provided herein shall exonerate, excuse and except the City from any liability whatsoever. The City is under no obligation to provide notice to Bidder that Bidder's notice is insufficient. The City reserves the right to request reasonable additional information regarding the claim. Said additional information shall be supplied within thirty (30) days after receipt of notice.

The statutory prerequisites outlined herein constitute jurisdictional requirements pursuant to Section 271.154 of the Texas Local Government Code and Section 311.034 of the Texas Government Code. Notwithstanding any other provision, Bidder's failure to comply with the requirements herein shall perpetually bar Bidder's claim for damages under Chapter 271 of the Texas Local Government Code, and Section 311.034 of the Texas Government Code, regardless if the City has actual or constructive notice or knowledge of said claim or alleged damages. Bidder agrees that the requirements of this entire Contract are reasonable.

By Signing below, your company agrees to the above waiver(s). If this form is not signed and included with your bid documents your bid will be considered non-responsive and will be rejected.

SOVEREIGN IMMUNITY: By Executing this contract the City is not waiving its right of Sovereign immunity. the City is retaining its IMMUNITY from suit. the City is not granting consent to be sued by legislative resolution or action.

THERE IS NO WAIVER OF SOVEREIGN IMMUNITY.

Bidder	Authorized Signature	Telephone
Address, City and State	Please Print above Name	Fax

Bidder's Enclosure Check List: (Bidder - Please review the following list and check to ensure that you have included the documents with your bid.)

☐ PROOF OF AUTOMOBILE, WORKER'S COMPENSATION AND GENERAL LIABILITY INSURANCE COVERAGE AS REQUIRED BY THE TERMS OF THE CONTRACT. (**Upon award and prior to execution of the contract The City of Midland will have to be added to the policy as an additional insured and a certificate issued reflecting that provision) including a waiver of subrogation as stated in the contract)**

PLEASE NOTE:

FAILURE TO INCLUDE ANY OF THE REQUIRED DOCUMENTS ON THE CHECK LIST, MAY CAUSE REJECTION OF YOUR BID.

***FAILURE TO PROVIDE LIABILITY OR WORKER'S COMPENSATION INSURANCE AND SUBSEQUENT CERTIFICATES; OR, PAYMENT AND/OR PERFORMANCE BONDS AS REQUIRED BY THE CONTRACT MAY CAUSE FORFEITURE OF YOUR BID BOND OR OTHER SURETY (I.E.- CASH OR CASHIERS CHECK).**

AGREEMENT

SAMPLE

THIS AGREEMENT is made and effective the ___day of ____ 20____, by and between the CITY OF MIDLAND, TEXAS, a municipal corporation, hereinafter called "CITY," and, _____hereinafter referred to as "COMPANY."

ARTICLE I. PURPOSE

The purpose of this Agreement is to state the terms and conditions under which COMPANY shall perform _____ services for the City of Midland.

ARTICLE II. SERVICES TO BE PERFORMED

1. COMPANY shall provide those services described in Exhibit "A".

2. COMPANY shall perform all the services under this Agreement consistent with the same level of skill and care as others in approximately the same region at approximately the same point in time and for the same types of projects. COMPANY represents that any employee who performs services under this Agreement shall be fully qualified and competent to perform the services described in Exhibit "A".

ARTICLE III. FINANCIAL CONSIDERATIONS

CITY agrees to pay COMPANY in an amount not to exceed $_____ per quarter for the services described in Exhibit "A." CITY agrees to pay COMPANY according to the schedule set forth in Exhibit "A", which is attached hereto and incorporated herein for all purposes, upon presentation of a monthly invoice. The monthly invoice shall set forth all service fees for the month and those expenses described in Exhibit "A" incurred during the previous month which have received advance written approval from the City Manager. The City Manager must approve all additional expenses and reimbursable expenses in advance. Within 30 days of the date COMPANY's invoice is received by CITY, CITY shall pay the full amount of such invoice; provided, however, that if CITY objects to any portion of an invoice, CITY shall notify COMPANY of CITY's objection and the grounds therefor within 15 days of the date of receipt of the invoice, and the parties immediately shall make every effort to settle the disputed portion of the invoice. CITY in any event shall pay every portion of the invoice that is not in dispute within the 30-day period for payment.

ARTICLE IV. TERM

The term of this Agreement shall be from ___, 202 until ___, 202 , unless the project is completed sooner

or the Agreement is terminated as provided below.

ARTICLE V. TERMINATION AT WILL

CITY may terminate this Agreement at will for no or any reason upon giving at least one-hundred-eighty (180) days written notice to COMPANY. The parties to this Agreement understand and agree that it is in CITY'S sole discretion to cancel the Agreement during the term of the Agreement without penalty to CITY. COMPANY has no expectation and has received no guarantees that this Agreement will not be terminated before the end of the Agreement term. The parties have bargained for the flexibility of terminating this Agreement upon tender of the requisite notice at any time during the term of the Agreement. All work and services under the Agreement shall be suspended upon termination of the Agreement becoming effective.

ARTICLE VI. ASSIGNMENT

COMPANY shall not, either directly or indirectly, assign all or any part of this Agreement or any interest, right or privilege herein, without the prior written consent of CITY. The issue on whether or not to grant consent to an assignment is in the sole discretion of CITY.

ARTICLE VII. OWNERSHIP AND CONFIDENTIALITY OF DOCUMENTS AND OTHER WORK PRODUCT

All reports, information and other data ("instruments of service"), given to, prepared or assembled by COMPANY under this Agreement, and any other related documents or items shall become the sole property of CITY and shall be delivered to CITY, without restriction, except that COMPANY may make copies of any and all instruments of service for its files. CITY shall not make any modification to the plans and specifications or make them available for use by third parties without the prior written authorization of COMPANY, which consent shall not be unreasonably withheld.

ARTICLE VIII. INDEPENDENT CONTRACTOR

It is expressly understood and agreed that COMPANY shall perform all work and services described herein as an independent contractor and not as an officer, agent, servant or employee of CITY; that COMPANY shall have exclusive control of and the exclusive right to control the details of the services and work performed hereunder, and all persons performing the same; and shall be solely responsible for the acts and omissions of its officers, agents, employees, contractors and subcontractors; that the doctrine of respondeat superior shall not apply as between CITY and

COMPANY, its officers, agents, employees, contractors and subcontractors; and that nothing herein shall be construed as creating a partnership or joint enterprise between CITY and COMPANY. No person performing any of the work and services described hereunder by COMPANY shall be considered an officer, agent, servant or employee of CITY. Further, it is specifically understood and agreed that nothing in this Agreement is intended or shall be construed as creating a "Community of Pecuniary Interest" or "An Equal Right of Control" which would give rise to vicarious liability. COMPANY shall be an independent contractor under this Agreement and shall assume all of the rights, obligations and liabilities, applicable to it as such independent contractor hereunder. CITY does not have the power to direct the order in which the work is done. CITY shall not have the right to control the means, methods or details of COMPANY'S work. COMPANY shall assume exclusive responsibility for the work. COMPANY is entirely free to do the work in its own way.

ARTICLE IX. INSURANCE

COMPANY shall at all times during the term of this Agreement maintain and keep in full force and effect insurance in the following types and minimum amounts with companies authorized to do business in the State of Texas:

Commercial General Liability (including Contractual liability):	
-Personal Injury:	$1,000,000.00 per person
	$1,000,000.00 per occurrence
-Property Damage:	$500,000.00 per occurrence
Business Automobile Liability:	$250,000.00 combined single limit - Personal Injury and Property Damage
Workers' Compensation:	Statutory limits
Employers' Liability:	$500,000.00 per accident or occurrence

The Commercial General Liability shall be on a per project aggregate, including completed operations, and shall be on a claims-occurred basis. This insurance shall name CITY as an additional insured and waive subrogation in favor of CITY.

The Business Automobile Liability insurance provided by COMPANY shall cover any auto for bodily injury and property damage, including owned vehicles, hired and non-city vehicles, and employee non-ownership, and the amount of such policy shall be a minimum of $250,000.00 covering any vehicle used for the execution of the work that is the subject of this Agreement. This insurance shall name CITY as an additional insured and waive subrogation in favor of CITY.

The Workers' Compensation coverage provided by COMPANY shall inure to the benefit

of employees injured during the course and scope of their employment by COMPANY pursuant to this Agreement. The Workers' Compensation shall waive all rights of subrogation in favor of CITY.

All insurance required pursuant to this Agreement shall provide for a waiver of subrogation in favor of CITY. All insurance required pursuant to this Agreement, except for Workers' Compensation Insurance, shall name CITY as an additional insured on a claims occurred basis. CITY shall be provided the notice by COMPANY'S insurance provider not later than thirty (30) days prior to any reduction or termination of such coverage.

COMPANY shall contractually require all contractors, subcontractors, and sub-subcontractors that work on any portion of the work that is the subject of this Agreement to obtain insurance coverage that meets or exceeds the policy requirements and minimum amounts specified herein. All contractors, subcontractors, and sub-subcontractors shall obtain insurance policies that provide blanket waivers of subrogation in favor of the City of Midland and policies that name the City of Midland as an additional insured on a claims occurred basis (except workers' compensation).

The parties agree that, prior to the execution of the Agreement, COMPANY shall provide one or more certificates of insurance specifically stating that these requirements have been met and subject to the approval of CITY. CITY shall not be required to provide any insurance whatsoever pursuant to this Agreement.

COMPANY certifies that the certificate of insurance provided as required herein complies with the requirements of Chapter 1811 of the Texas Insurance Code. COMPANY shall not use an unapproved certificate of insurance or insert inappropriate language on a certificate. Compliance with state law is the sole responsibility of COMPANY.

ARTICLE X. ATTORNEY FEES

BY EXECUTING THIS AGREEMENT, COMPANY AGREES TO WAIVE AND DOES HEREBY KNOWINGLY, CONCLUSIVELY, VOLUNTARILY AND INTENTIONALLY WAIVE ANY CLAIM IT HAS OR MAY HAVE IN THE FUTURE AGAINST CITY, REGARDING THE AWARD OF ATTORNEY'S FEES, WHICH ARE IN ANY WAY RELATED TO THE AGREEMENT, OR THE CONSTRUCTION, INTERPRETATION OR BREACH OF THE AGREEMENT. COMPANY SPECIFICALLY AGREES THAT IF COMPANY BRINGS OR COMMENCES ANY LEGAL ACTION OR PROCEEDING RELATED TO THIS AGREEMENT, THE CONSTRUCTION, INTERPRETATION, VALIDITY OR BREACH OF THIS AGREEMENT, INCLUDING BUT NOT LIMITED

TO ANY ACTION PURSUANT TO THE PROVISIONS OF THE TEXAS UNIFORM DECLARATORY JUDGMENTS ACT (TEXAS CIVIL PRACTICE AND REMEDIES CODE SECTION 37.001, ET SEQ., AS AMENDED), OR CHAPTER 271 OF THE TEXAS LOCAL GOVERNMENT CODE, COMPANY AGREES TO ABANDON, WAIVE AND RELINQUISH ANY AND ALL RIGHTS TO THE RECOVERY OF ATTORNEY'S FEES TO WHICH COMPANY MIGHT OTHERWISE BE ENTITLED.

COMPANY AGREES THAT THIS IS THE VOLUNTARY AND INTENTIONAL RELINQUISHMENT AND ABANDONMENT OF A PRESENTLY EXISTING KNOWN RIGHT. COMPANY ACKNOWLEDGES THAT IT UNDERSTANDS ALL TERMS AND CONDITIONS OF THE AGREEMENT. COMPANY FURTHER ACKNOWLEDGES AND AGREES THAT THERE WAS AND IS NO DISPARITY OF BARGAINING POWER BETWEEN CITY AND COMPANY. THIS SECTION SHALL NOT BE CONSTRUED OR INTERPRETED AS A WAIVER OF GOVERNMENTAL IMMUNITY.

COMPANY AND CITY ARE RELYING ON THEIR OWN JUDGMENT. EACH PARTY HAD THE OPPORTUNITY TO DISCUSS THIS AGREEMENT WITH COMPETENT LEGAL COUNSEL PRIOR TO ITS EXECUTION.

ARTICLE XI. GOVERNMENTAL IMMUNITY

By executing this agreement CITY is not waiving its right of governmental immunity. CITY is retaining its immunity from suit. CITY is not granting consent to be sued by legislative resolution or action.

THERE IS NO WAIVER OF GOVERNMENTAL IMMUNITY.

ARTICLE XII. NO THIRD PARTY BENEFICIARIES

CITY'S approval of this agreement does not create a third party beneficiary. There is no third party beneficiary to this Agreement. No person or entity who is not a party to this Agreement shall have any third party beneficiary or other rights hereunder.

ARTICLE XIII. RELEASE

NOTWITHSTANDING ANY OTHER PROVISIONS, COMPANY HEREBY RELEASES, ACQUITS, RELINQUISHES AND FOREVER DISCHARGES CITY, CITY'S EMPLOYEES AND OFFICERS, FROM ANY AND ALL DEMANDS, CLAIMS, DAMAGES, OR CAUSES OF ACTION OF ANY KIND WHATSOEVER WHICH

COMPANY HAS OR MIGHT HAVE IN THE FUTURE, INCLUDING BUT NOT LIMITED TO BREACH OF AGREEMENT, QUANTUM MERUIT, CLAIMS UNDER THE DUE PROCESS AND TAKINGS CLAUSES OF THE TEXAS AND UNITED STATES CONSTITUTIONS, TORT CLAIMS, OR CITY'S NEGLIGENCE.

ARTICLE XIV. GENERAL PROVISIONS

A. Waiver. No waiver by CITY of a breach of any covenant, condition, or restriction of this Agreement shall be construed or held to be a waiver of any succeeding or preceding breach of the same or any other covenant, condition, or restriction contained in this Agreement.

B. Governing Law and Venue. This Agreement shall be governed by the laws of the State of Texas. All performance and payment made pursuant to this Agreement shall be deemed to have occurred in Midland County, Texas. Exclusive venue for any claims, suits or any other action arising from or connected in any way to this Agreement or the performance of this Agreement shall be in Midland County, Texas. The obligations and undertakings of each of the parties to this Agreement shall be deemed to have occurred in Midland County, Texas. This Agreement shall be governed by, interpreted, enforced and construed under the laws of the State of Texas. The laws of the State of Texas shall govern, construe and enforce all the rights and duties of the parties, including but not limited to tort claims and any and all contractual claims or disputes, arising from or relating in any way to the subject matter of this Agreement, without regard to conflict of laws and rules that would direct application of the laws of another jurisdiction.

C. Notice. Any notice or demand that shall be made regarding this Agreement, shall be made in writing and delivered either in person or by certified or registered mail. Notice by mail shall be complete upon deposit of the paper, postage prepaid, in a post office or official depository under the care and custody of the United States Postal Service addressed as follows:

If to CITY: City Manager's Office
P.O. Box 1152
Midland, Texas 79702

If to COMPANY:

The parties hereto may change the above-designated addresses by giving notice pursuant to the terms of this Section.

D. Severability. In case any one or more of the provisions contained in this Agreement shall for any reason be held to be invalid, illegal, or unenforceable in any respect, this invalidity, illegality, or unenforceability shall not affect any other provision of the Agreement, and this Agreement shall be construed as if the invalid, illegal, or unenforceable provision had never been contained herein.

E. Use of Language. Words in the singular shall be held to include the plural, unless the context otherwise requires.

F. Amendments, Modifications, Alterations. No amendment, modification, or alteration of the terms of this Agreement shall be binding unless it is in writing, dated subsequent to the date of this Agreement, and duly executed by the parties to this Agreement.

G. Counterparts. This Agreement may be executed in multiple counterparts, each of which shall be deemed as original, and all of which shall constitute one and the same instrument.

H. Federal Wage Requirements. If applicable, the Davis-Bacon Act, 29 CFR 5.5, and any related acts or regulations are hereby incorporated by reference and made a part of this Agreement, and all terms and requirements under said laws, by such incorporation, are made terms and requirements of this Agreement, to which the parties to this Agreement have agreed to be bound.

I. Notice of Alleged Breach; Statutory Prerequisites. As a condition precedent to filing suit for alleged damages incurred by an alleged breach of an express or implied provision of this Agreement, COMPANY or his legal representative, shall give the City Manager, or any other reasonable official of CITY, notice in writing (consisting of one original and seven copies of notice attached to a copy of this Agreement) of such damages, duly verified, within one-hundred fifty (150) days after the same has been sustained. The discovery rule does not apply to the giving of this notice. The notice shall include when, where and how the damages occurred, the apparent extent thereof, the amount of damages sustained, the amount for which COMPANY will settle, the physical and mailing addresses of COMPANY at the time and date the claim was presented

and the physical and mailing addresses of COMPANY for the six months immediately preceding the occurrence of such damages, and the names and addresses of the witnesses upon whom COMPANY relies to establish its claim; and a failure to so notify the City Manager within the time and manner provided herein shall exonerate, excuse and except CITY from any liability whatsoever. CITY is under no obligation to provide notice to COMPANY that COMPANY'S notice is insufficient. CITY reserves the right to request reasonable additional information regarding the claim. Said additional information shall be supplied within thirty (30) days after receipt of notice.

The statutory prerequisites outlined herein constitute jurisdictional requirements pursuant to Section 271.154 of the Texas Local Government Code and Section 311.034 of the Texas Government Code. Notwithstanding any other provision, COMPANY'S failure to comply with the requirements herein shall perpetually bar COMPANY'S claim for damages under Chapter 271 of the Texas Local Government Code, and Section 311.034 of the Texas Government Code, regardless if CITY has actual or constructive notice or knowledge of said claim or alleged damages. COMPANY agrees that the requirements of this entire Agreement are reasonable.

J. **PROMPT PAY ACT** - CITY and COMPANY agree that Texas Government Code, Chapter 2251, Payment for Goods and Services (the "Prompt Pay Act") does not waive governmental immunity.

K. Compliance. – Company agrees that it shall comply with Texas Government Code Section 2252.908, *et seq.*, as amended. Company agrees that it shall comply with Texas Local Government Code Section 176.006, *et seq.*, as amended.

L. To the extent that Tex. Gov't Code section 2270.002 applies to this Agreement, Company hereby verifies that Company does not boycott Israel and will not boycott Israel during the term of this Agreement. If Tex. Gov't Code section 2270.002 does not apply to this Agreement, such verification is not required, and Company shall be deemed to have not made such verification.

M. **Records Retention and Production of Information.** To the extent that this Agreement is a contract described by Section 552.371 of the Texas Government Code, Company shall (1) preserve all contracting information related to the Agreement as provided by the records retention requirements applicable to City for the duration of the contract, (2) promptly provide to City any contracting information related to the Agreement that is in the custody or possession of Company on request of City, and (3) on completion of the Agreement, either (i) provide at no cost to City all contracting information related to the Agreement that is in the custody or possession of Company,

or (ii) preserve the contracting information related to the Agreement as provided by the records retention requirements applicable to City.

N. **Public Information.** To the extent that this Agreement is a contract described by Section 552.371 of the Texas Government Code, Company agrees as follows in accordance with Section 552.372(b) of the Texas Government Code: The requirements of Subchapter J, Chapter 552, Government Code, may apply to this contract, and the contractor or vendor agrees that the contract can be terminated if the contractor or vendor knowingly or intentionally fails to comply with a requirement of that subchapter.

O. **Conflict of Terms.** If a conflict of terms or language exists between (i) any of the provisions of this Agreement and (ii) any of the provisions contained in Exhibit A, precedence shall be given to the provisions of this Agreement. For the avoidance of any doubt, the provisions contained in this Agreement shall supersede any and all conflicting provisions contained in Exhibit A

ARTICLE XV. INDEMNITY

THE COMPANY SHALL INDEMNIFY AND HOLD HARMLESS AND DEFEND THE CITY AND ALL OF THE CITY'S OFFICERS, AGENTS AND EMPLOYEES FROM ALL SUITS, ACTIONS, CLAIMS, DAMAGES, PERSONAL INJURIES, ACCIDENTAL DEATH, LOSSES, PROPERTY DAMAGE AND EXPENSES OF ANY CHARACTER WHATSOEVER, INCLUDING ATTORNEY'S FEES, BROUGHT FOR OR ON ACCOUNT OF ANY INJURIES OR DAMAGES RECEIVED OR SUSTAINED BY ANY PERSON OR PERSONS OR PROPERTY, ON ACCOUNT OF ANY NEGLIGENT ACT OF THE COMPANY, THEIR AGENTS OR EMPLOYEES, OR ANY SUBCONTRACTOR, IN THE EXECUTION, SUPERVISION AND OPERATIONS GROWING OUT OF OR IN ANY WAY CONNECTED WITH THE PERFORMANCE OF THIS AGREEMENT, AND COMPANY WILL BE REQUIRED TO PAY ANY JUDGMENT WITH COSTS WHICH MAY BE OBTAINED AGAINST THE CITY OR ANY OF ITS OFFICERS, AGENTS OR EMPLOYEES, INCLUDING ATTORNEY'S FEES.

THE COMPANY SHALL INDEMNIFY AND HOLD HARMLESS AND DEFEND THE CITY AND ALL OF THE CITY'S OFFICERS, AGENTS AND EMPLOYEES FROM ALL SUITS, ACTIONS, CLAIMS, DAMAGES, PERSONAL INJURIES, ACCIDENTAL DEATH, PROPERTY DAMAGE, LOSSES, AND EXPENSES OF ANY CHARACTER

WHATSOEVER INCLUDING ATTORNEY'S FEES, BROUGHT FOR OR ON ACCOUNT OF ANY INJURIES OR DAMAGES RECEIVED OR SUSTAINED BY ANY PERSON OR PERSONS OR PROPERTY, ON ACCOUNT OF ANY NEGLIGENT ACT OF THE CITY, THE CITY'S OFFICERS, AGENTS AND EMPLOYEES, WHETHER SUCH NEGLIGENT ACT WAS THE SOLE PROXIMATE CAUSE OF THE INJURY OR DAMAGE OR A PROXIMATE CAUSE JOINTLY AND CONCURRENTLY WITH THE COMPANY OR THE COMPANY'S EMPLOYEES, AGENTS OR SUBCONTRACTORS NEGLIGENCE IN THE EXECUTION, SUPERVISION AND OPERATIONS GROWING OUT OF OR IN ANY WAY CONNECTED WITH THE PERFORMANCE OF THIS AGREEMENT, AND COMPANY WILL BE REQUIRED TO PAY ANY JUDGMENT WITH COSTS WHICH MAY BE OBTAINED AGAINST THE CITY OR ANY OF ITS OFFICERS, AGENTS OR EMPLOYEES, INCLUDING ATTORNEY'S FEES.

THE COMPANY AGREES THAT IT WILL INDEMNIFY AND SAVE THE CITY HARMLESS FROM ALL CLAIMS GROWING OUT OF ANY DEMANDS OF SUBCONTRACTORS, LABORERS, WORKMEN, MECHANICS, MATERIALMEN, AND FURNISHERS OF MACHINERY AND PARTS THEREOF, EQUIPMENT, POWER TOOLS AND ALL SUPPLIES, INCURRED IN THE FURTHERANCE OF THE PERFORMANCE OF THIS AGREEMENT. WHEN CITY SO DESIRES, THE COMPANY SHALL FURNISH SATISFACTORY EVIDENCE THAT ALL OBLIGATIONS OF THE NATURE HEREINABOVE DESIGNATED HAVE BEEN PAID, DISCHARGED OR WAIVED. THE COMPANY, ITS SURETIES AND INSURANCE CARRIERS SHALL DEFEND, INDEMNIFY AND SAVE HARMLESS THE CITY AND ALL OF ITS OFFICERS, AGENTS AND EMPLOYEES FROM ALL SUITS, ACTIONS, OR CLAIMS OF ANY CHARACTER WHATSOEVER, BROUGHT FOR OR ON ACCOUNT OF ANY INJURIES OR DAMAGES RECEIVED OR SUSTAINED BY ANY PERSON OR PERSONS OR PROPERTY, ARISING FROM ANY ACT OF THE COMPANY OR ANY SUBCONTRACTOR, THEIR AGENTS OR EMPLOYEES, IN THE EXECUTION AND SUPERVISION OF THIS AGREEMENT, AND WILL BE REQUIRED TO PAY ANY JUDGMENT WITH COSTS WHICH MAY BE OBTAINED AGAINST THE CITY OR ANY OF ITS OFFICERS, AGENTS, OR EMPLOYEES INCLUDING ATTORNEY'S FEES.

EXECUTED IN DUPLICATE the day and year first above mentioned.

THE CITY OF MIDLAND, TEXAS

By: _____
Courtney B. Sharp, City Manager

ATTEST

_____
Amy M. Turner, City Secretary

APPROVED ONLYAS TO FORM

_____
John Ohnemiller, City Attorney

COMPANY:

By: _____

Name:_____

Title: _____

STATE OF _____§

§

COUNTY OF _____§

BEFORE ME, the undersigned authority, on this ____ day of _____, 20____ personally appeared, _____, an officer of _____, known to me to be the person and official whose name is subscribed to the forgoing instrument, and acknowledged to me that he executed the same as the act and deed of said corporation, for the purposes and consideration therein expressed, and in the capacity therein stated.

GIVEN UNDER MY HAND AND SEAL OF OFFICE this the ____day of _____, 20____.

_____

Notary Public, State of Texas

IMPORTANT NOTICE

Conflict Of Interest Reporting Requirements

Compliance with LOCAL GOVERNMENT CODE TITLE 5. MATTERS AFFECTING PUBLIC OFFICERS AND EMPLOYEES SUBTITLE C. MATTERS AFFECTING PUBLIC OFFICERS AND EMPLOYEES OF MORE THAN ONE TYPE OF LOCAL GOVERNMENT CHAPTER 176. DISCLOSURE OF CERTAIN RELATIONSHIPS WITH LOCAL GOVERNMENT OFFICERS; PROVIDING PUBLIC ACCESS TO CERTAIN INFORMATION.

Form CIQ: This questionnaire reflects changes made to the law by H.B. 23, 84th Leg., Regular Session. This questionnaire shall be filed in accordance with Chapter 176, Local Government Code, by a vendor who has a business relationship as defined by Section 176.001(1-a) with a local governmental entity and the vendor meets requirements under Section 176.006(a). By law this questionnaire must be filed with the records administrator of the local governmental entity not later than the 7th business day after the date the vendor becomes aware of facts that require the statement to be filed. See Section 176.006(a-1), Local Government Code. A vendor commits an offense if the vendor knowingly violates Section 176.006, Local Government Code. An offense under this section is a misdemeanor.

Bidders are responsible for filing Conflict of Interest form "CIQ" in accordance with the above referenced statute. Failure to do so is a class C Misdemeanor. Contracts or Purchase Orders awarded to a vendor that has violated this law is subject to termination at such time that the violation is discovered with no recourse to the City of Midland. The bidder will be subsequently removed from the bidders list for a minimum of one year.

When there is no known conflict of interest as defined by the statute, it is not necessary to file/submit the Form CIQ. The form must be submitted if a conflict is subsequently discovered.

By submitting a response to this request, vendor represents that it complies with the requirements of Chapter 176 of the Texas Local Government Code.

For a current list of the local government officers go to: http://www.midlandtexas.gov/

Upon completion of the form, sign and submit with bid or mail to:

City of Midland
Attn: City Secretary
PO Box 1152
Midland, Texas 79702

CONFLICT OF INTEREST QUESTIONNAIRE

FORM CIQ

For vendor doing business with local governmental entity

This questionnaire reflects changes made to the law by H.B. 23, 84th Leg., Regular Session.

This questionnaire is being filed in accordance with Chapter 176, Local Government Code, by a vendor who has a business relationship as defined by Section 176.001(1-a) with a local governmental entity and the vendor meets requirements under Section 176.006(a).

By law this questionnaire must be filed with the records administrator of the local governmental entity not later than the 7th business day after the date the vendor becomes aware of facts that require the statement to be filed. *See* Section 176.006(a-1), Local Government Code.

A vendor commits an offense if the vendor knowingly violates Section 176.006, Local Government Code. An offense under this section is a misdemeanor.

OFFICE USE ONLY

Date Received

1 **Name of vendor who has a business relationship with local governmental entity.**

2 ☐ **Check this box if you are filing an update to a previously filed questionnaire.** (The law requires that you file an updated completed questionnaire with the appropriate filing authority not later than the 7th business day after the date on which you became aware that the originally filed questionnaire was incomplete or inaccurate.)

3 **Name of local government officer about whom the information is being disclosed.**

_____

Name of Officer

4 **Describe each employment or other business relationship with the local government officer, or a family member of the officer, as described by Section 176.003(a)(2)(A). Also describe any family relationship with the local government officer. Complete subparts A and B for each employment or business relationship described. Attach additional pages to this Form CIQ as necessary.**

A. Is the local government officer or a family member of the officer receiving or likely to receive taxable income, other than investment income, from the vendor?

☐ Yes ☐ No

B. Is the vendor receiving or likely to receive taxable income, other than investment income, from or at the direction of the local government officer or a family member of the officer AND the taxable income is not received from the local governmental entity?

☐ Yes ☐ No

5 **Describe each employment or business relationship that the vendor named in Section 1 maintains with a corporation or other business entity with respect to which the local government officer serves as an officer or director, or holds an ownership interest of one percent or more.**

6 ☐ Check this box if the vendor has given the local government officer or a family member of the officer one or more gifts as described in Section 176.003(a)(2)(B), excluding gifts described in Section 176.003(a-1).

7

_____ _____

Signature of vendor doing business with the governmental entity Date

CONFLICT OF INTEREST QUESTIONNAIRE
For vendor doing business with local governmental entity

A complete copy of Chapter 176 of the Local Government Code may be found at http://www.statutes.legis.state.tx.us/Docs/LG/htm/LG.176.htm. For easy reference, below are some of the sections cited on this form.

Local Government Code § 176.001(1-a): "Business relationship" means a connection between two or more parties based on commercial activity of one of the parties. The term does not include a connection based on:

(A) a transaction that is subject to rate or fee regulation by a federal, state, or local governmental entity or an agency of a federal, state, or local governmental entity;

(B) a transaction conducted at a price and subject to terms available to the public; or

(C) a purchase or lease of goods or services from a person that is chartered by a state or federal agency and that is subject to regular examination by, and reporting to, that agency.

Local Government Code § 176.003(a)(2)(A) and (B):

(a) A local government officer shall file a conflicts disclosure statement with respect to a vendor if:

***

(2) the vendor:

(A) has an employment or other business relationship with the local government officer or a family member of the officer that results in the officer or family member receiving taxable income, other than investment income, that exceeds $2,500 during the 12-month period preceding the date that the officer becomes aware that

(i) a contract between the local governmental entity and vendor has been executed; or

(ii) the local governmental entity is considering entering into a contract with the vendor;

(B) has given to the local government officer or a family member of the officer one or more gifts that have an aggregate value of more than $100 in the 12-month period preceding the date the officer becomes aware that:

(i) a contract between the local governmental entity and vendor has been executed; or

(ii) the local governmental entity is considering entering into a contract with the vendor.

Local Government Code § 176.006(a) and (a-1)

(a) A vendor shall file a completed conflict of interest questionnaire if the vendor has a business relationship with a local governmental entity and:

(1) has an employment or other business relationship with a local government officer of that local governmental entity, or a family member of the officer, described by Section 176.003(a)(2)(A);

(2) has given a local government officer of that local governmental entity, or a family member of the officer, one or more gifts with the aggregate value specified by Section 176.003(a)(2)(B), excluding any gift described by Section 176.003(a-1); or

(3) has a family relationship with a local government officer of that local governmental entity.

(a-1) The completed conflict of interest questionnaire must be filed with the appropriate records administrator not later than the seventh business day after the later of:

(1) the date that the vendor:

(A) begins discussions or negotiations to enter into a contract with the local governmental entity; or

(B) submits to the local governmental entity an application, response to a request for proposals or bids, correspondence, or another writing related to a potential contract with the local governmental entity; or

(2) the date the vendor becomes aware:

(A) of an employment or other business relationship with a local government officer, or a family member of the officer, described by Subsection (a);

(B) that the vendor has given one or more gifts described by Subsection (a); or

(C) of a family relationship with a local government officer.

Consideration of Location of Bidder's Principal Place of Business
For Bids of $50,000 up to $100,000 for Services and $500,000 for Commodities
Affidavit of Eligibility

Pursuant to Texas Local Government Code 271.9051, in purchasing real property, personal property that is not affixed to real property, or services, if the City receives one or more bids from a bidder whose principal place of business is in the City of Midland and whose bid is within five percent (5%) of the lowest bid price received by the City from a bidder who is not a resident of the City of Midland, the City may enter into a contract with:

(1) the lowest bidder; or

(2) the bidder whose principal place of business is in the City of Midland if the City Council determines, in writing, that the local bidder offers the City the best combination of contract price and additional economic development opportunities for the City of Midland created by the contract award, including the employment of residents of the City of Midland and increased tax revenues to the City of Midland.

In order to receive consideration, bidders must submit this affidavit to:

Erika Martinez
Purchasing Manager
City of Midland
300 N. Loraine St.,
PO BOX 1152
Midland, TX 79702-1152

Complete all areas below. Incomplete affidavits may be rejected.

Local Business Name: _____

Local Address (must be within the City limits): _____

1. Is the above address the principal place of business for the business named above? ☐ Yes ☐ No
2. How many residents of the City of Midland are employed at the above business location? _____
3. Year your business was established in the City of Midland: _____
4. If you collect sales tax for ANY class of customer, provide the following Reseller information:

   Reseller Permit Number: _____

   Company Name and Address (as it appears on permit):

   _____

   _____

   _____

5. Does your business have more than one office in the State of Texas? ☐ Yes ☐ No
   If Yes, identify the office location considered as the point-of sale for the purpose of sales tax calculation:

   _____

   _____

6. Was the local business required to pay business and/or real property tax for the most recent tax year?

   ☐ Yes ☐ No

   If Yes, did the local business pay any of this tax to the City of Midland? ☐ Yes ☐ No

Under penalty of perjury, the undersigned states that the foregoing statements are true and correct. It is further acknowledged that any person, firm, corporation or entity intentionally submitting false information to the City in an attempt to qualify for eligibility shall be prohibited from bidding on City of Midland products and services for a period of one (1) year.

Authorized Signature: _____ Date: _____

Printed Name and Title: _____

please go to https://www.ethics.state.tx.us/whatsnew/elf_info_form1295.htm and https://www.ethics.state.tx.us/filinginfo/conflict_forms.htm.

ANY VENDOR WHO FAILS TO COMPLY WITH THE TERMS OF THE AWARD **MAY BE DECLARED AN IRRESPONSIBLE VENDOR**. BIDS SUBMITTED BY SAID VENDOR SHALL NOT BE CONSIDERED AGAIN FOR A MINIMUM PERIOD OF SIX MONTHS AS DETERMINED BY THE CITY MANAGER.

City Council Meeting

Item Number: 12

Meeting Date: September 8, 2020

To: City Council / City Manager

From: Morris WIlliams, Assistant City Manager

Subject: RESOLUTION OF THE CITY COUNCIL OF THE CITY OF MIDLAND, TEXAS, APPROVING A NEGOTIATED SETTLEMENT BETWEEN THE EXECUTIVE COMMITTEE OF CITIES SERVED BY ATMOS WEST TEXAS ("CITIES") AND ATMOS ENERGY CORP., WEST TEXAS DIVISION (THE "COMPANY") REGARDING THE COMPANY'S 2020 RATE REVIEW MECHANISM FILINGS; DECLARING EXISTING RATES TO BE UNREASONABLE; ADOPTING TARIFFS THAT REFLECT RATE ADJUSTMENTS CONSISTENT WITH THE NEGOTIATED SETTLEMENT; FINDING THE RATES TO BE SET BY THE SETTLEMENT TARIFFS TO BE JUST AND REASONABLE AND IN THE PUBLIC INTEREST; APPROVING AN EXHIBIT ESTABLISHING A BENCHMARK FOR PENSIONS AND RETIREE MEDICAL BENEFITS; APPROVING AN EXHIBIT REGARDING AMORTIZATION OF REGULATORY LIABILITY; REQUIRING THE COMPANY TO REIMBURSE CITIES' REASONABLE RATEMAKING EXPENSES; DETERMINING THAT THIS RESOLUTION WAS PASSED IN ACCORDANCE WITH THE REQUIREMENTS OF THE TEXAS OPEN MEETINGS ACT; ADOPTING A SAVINGS CLAUSE; DECLARING AN EFFECTIVE DATE; AND AUTHORIZING AND DIRECTING THE CITY SECRETARY TO DELIVER THIS RESOLUTION TO THE COMPANY AND CITIES' LEGAL COUNSEL (CITY MANAGER'S OFFICE)

Purpose:

The City, along with 66 other West Texas cities served by Atmos Energy Corporation, West Texas Division ("Atmos West Texas" or "Company"), is a member of Cities Served by Atmos West Texas ("Cities"). In 2007, the Cities and Atmos West Texas settled a rate application filed by the Company pursuant to Section 104.301 of the Texas Utilities Code for an interim rate adjustment commonly referred to as a GRIP filing (arising out of the Gas Reliability Infrastructure Program legislation). That settlement created a substitute rate review process, referred to as Rate Review Mechanism ("RRM"), as a substitute for future filings under the

GRIP statute.

Recommended City Council Action:

Approve

Fiscal Impact:

None

Discussion:

BACKGROUND AND SUMMARY
The City, along with 66 other West Texas cities served by Atmos Energy Corporation, West Texas Division ("Atmos West Texas" or "Company"), is a member of Cities Served by Atmos West Texas ("Cities"). In 2007, the Cities and Atmos West Texas settled a rate application filed by the Company pursuant to Section 104.301 of the Texas Utilities Code for an interim rate adjustment commonly referred to as a GRIP filing (arising out of the Gas Reliability Infrastructure Program legislation). That settlement created a substitute rate review process, referred to as Rate Review Mechanism ("RRM"), as a substitute for future filings under the GRIP statute.
Since 2007, there have been several modifications to the original RRM Tariff. The most recent iteration of an RRM Tariff was reflected in an ordinance adopted by Cities in 2018. On or about March 31, 2020, the Company filed a rate request pursuant to the RRM Tariff adopted by Cities. The Company claimed that its cost of service in a test year ending December 31, 2019, entitled it to additional revenues system-wide of $7.1 million.
Application of the standards set forth in the Cities' RRM Tariff reduces the Company's request for additional revenues from Cities to $6.6 million. After a review of Cities' consultants' report and negotiations with Cities' Executive Committee, Atmos agreed to a rate increase of $5.9 million, with an Effective Date of December 1, 2020. That Effective Date reflects two months' delay beyond the October 1 date specified in your RRM Ordinance, which saves approximately $800,000 off the rates designed to yield $5.9 million. Since your consultants recommended an increase of $5.3 million, the settlement at $5.9 million with a two month delay in the Effective Date is functionally equivalent to or better than a best case scenario.
PROOF OF REVENUES
Atmos generated proof of revenues associated with the Resolution and attached rate tariffs. That proof is attached as Attachment 1 to this Staff Report. Cities' consultants have confirmed the accuracy of the proof.
BILL IMPACT
The impact of this increase in revenues to an average residential customer's bill is an increase of approximately $3.04 per month. A bill impact estimate for each customer class is attached as Attachment 2. Comparison of the new rates to rates in effect for areas not under the RRM process reveals that settling Cities will maintain a slight economic monthly advantage over rates in effect in Amarillo, Lubbock, and Environs. See Attachment 3.
CITIES' OBJECTION TO THE SECTION 104.301 GRIP PROCESS
Cities strongly opposed the GRIP process because it constitutes piecemeal ratemaking by ignoring declining expenses and increasing revenues and rewarding the Company for

increasing capital investment. The GRIP process does not allow any review of the reasonableness of capital investment and does not allow cities to participate in the Railroad Commission's review of annual GRIP filings or allow Cities to recover their rate case expenses. The Railroad Commission undertakes a mere administrative review of GRIP filings (instead of a full hearing), and rate increases go into effect without any material adjustments. In the Executive Committee's view, the GRIP process unfairly raises customers' rates without any regulatory oversight. In contrast, the RRM process has allowed for a more comprehensive rate review and annual evaluation of expenses and revenues, as well as capital investment.

City Manager's Office

RESOLUTION NO. _____

RESOLUTION OF THE CITY COUNCIL OF THE CITY OF MIDLAND, TEXAS, APPROVING A NEGOTIATED SETTLEMENT BETWEEN THE EXECUTIVE COMMITTEE OF CITIES SERVED BY ATMOS WEST TEXAS ("CITIES") AND ATMOS ENERGY CORP., WEST TEXAS DIVISION (THE "COMPANY") REGARDING THE COMPANY'S 2020 RATE REVIEW MECHANISM FILINGS; DECLARING EXISTING RATES TO BE UNREASONABLE; ADOPTING TARIFFS THAT REFLECT RATE ADJUSTMENTS CONSISTENT WITH THE NEGOTIATED SETTLEMENT; FINDING THE RATES TO BE SET BY THE SETTLEMENT TARIFFS TO BE JUST AND REASONABLE AND IN THE PUBLIC INTEREST; APPROVING AN EXHIBIT ESTABLISHING A BENCHMARK FOR PENSIONS AND RETIREE MEDICAL BENEFITS; APPROVING AN EXHIBIT REGARDING AMORTIZATION OF REGULATORY LIABILITY; REQUIRING THE COMPANY TO REIMBURSE CITIES' REASONABLE RATEMAKING EXPENSES; DETERMINING THAT THIS RESOLUTION WAS PASSED IN ACCORDANCE WITH THE REQUIREMENTS OF THE TEXAS OPEN MEETINGS ACT; ADOPTING A SAVINGS CLAUSE; DECLARING AN EFFECTIVE DATE; AND AUTHORIZING AND DIRECTING THE CITY SECRETARY TO DELIVER THIS RESOLUTION TO THE COMPANY AND CITIES' LEGAL COUNSEL

WHEREAS, the City of Midland, Texas (the "City") is a gas utility customer of Atmos Energy Corp., West Texas Division (the "Company"), and a regulatory authority with an interest in the rates and charges of the Company; and

WHEREAS, the City is a member of Cities Served by Atmos West Texas ("Cities"), a coalition of similarly-situated cities served by the Company that have joined together to facilitate the review of, and response to, natural gas issues affecting rates charged in the Company's service area; and

WHEREAS, Cities and the Company worked collaboratively to develop a new Rate Review Mechanism ("RRM") tariff that allows for an expedited rate review process by Cities as a substitute to the Gas Reliability Infrastructure Program ("GRIP") process instituted by the Legislature, and that will establish rates for Cities based on the system-wide cost of serving the Atmos West Texas service area; and

WHEREAS, the RRM tariff was adopted by the City in a rate ordinance in 2018; and

WHEREAS, on about March 31, 2020, the Company filed its 2020 RRM rate request with Cities based on a test year ending December 31, 2019; and

WHEREAS, Cities coordinated its review of the Company's 2020 RRM filing through its Executive Committee, assisted by Cities' attorneys and consultants, to resolve issues identified in the Company's RRM filing; and

WHEREAS, the Executive Committee, as well as Cities' counsel and consultants, recommends that Cities approve an increase in base rates for the Company of $5.9 million with an effective date of December 1, 2020; and

WHEREAS, the tariffs attached hereto as Exhibit A, which implement new rates, are consistent with the recommendation of Cities' Executive Committee, are agreed to by the Company, and are just, reasonable, and in the public interest; and

WHEREAS, the settlement agreement sets a new benchmark for pensions and retiree medical benefits as shown in Exhibit B, which is attached hereto; and

WHEREAS, the settlement agreement establishes an amortization schedule for regulatory liability as shown in Exhibit C, which is attached hereto; and

WHEREAS, the RRM Tariff contemplates reimbursement of Cities' reasonable expenses associated with RRM applications;

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF MIDLAND, TEXAS:

SECTION ONE. That the findings set forth in this Resolution are hereby in all things approved.

SECTION TWO. That, without prejudice to future litigation of any issue identified by Cities, the City Council finds that the settled amount of an increase in revenues of $5.9 million for Cities represents a comprehensive settlement of gas utility rate issues affecting the rates, operations, and services offered by the Company within the municipal limits arising

from the Company's 2020 RRM filing, is in the public interest, and is consistent with the City's authority under Section 103.001 of the Texas Utilities Code.

SECTION THREE. That the existing rates for natural gas service provided by the Company are unreasonable. The new tariffs attached hereto and incorporated herein as Exhibit A are just and reasonable and are designed to allow the Company to recover annually an additional $5.9 million in revenue from customers in Cities, over the amount allowed under currently approved rates. Such tariffs are hereby adopted.

SECTION FOUR. That the ratemaking treatment for pensions and retiree medical benefits in the Company's next RRM filing shall be as set forth on Exhibit B, which is attached hereto and incorporated herein.

SECTION FIVE. That subject to any future settlement or decision regarding the balance of excess deferred income tax to be refunded to ratepayers, the amortization of regulatory liability shall be consistent with the schedule found in Exhibit C, which is attached hereto and incorporated herein.

SECTION SIX. That the Company shall reimburse the reasonable ratemaking expenses of Cities in processing the Company's 2020 RRM filing.

SECTION SEVEN. That to the extent any resolution or ordinance previously adopted by the Council is inconsistent with this Resolution, it is hereby repealed.

SECTION EIGHT. That the meeting at which this Resolution was approved was in all things conducted in strict compliance with the Texas Open Meetings Act, Texas Government Code, Chapter 551.

SECTION NINE. That if any one or more sections or clauses of this Resolution is adjudged to be unconstitutional or invalid, such judgment shall not affect, impair, or invalidate the remaining provisions of this Resolution, and the remaining provisions of the Resolution shall be interpreted as if the offending section or clause never existed.

SECTION TEN. That consistent with the City ordinance that established the RRM

process, this Resolution shall become effective from and after its passage with rates authorized by attached tariffs to be effective for bills rendered on or after December 1, 2020.

SECTION ELEVEN. That the City Secretary is hereby authorized and directed to send copies of this Resolution to Atmos West Texas, care of Philip Littlejohn, Vice President of Rates and Regulatory Affairs, West Texas Division, 6606 66th Street, Lubbock, Texas 79424, and Geoffrey Gay, General Counsel to Cities, at Lloyd Gosselink Rochelle & Townsend, P.C., 816 Congress Avenue, Suite 1900, Austin, Texas 78701.

On motion of Council member _____, seconded by Council member _____, the above and foregoing resolution was adopted by the City Council of the City of Midland at a regular meeting on the _____ day of _____, A.D., 2020, by the following vote:

Council members voting "AYE":

Council members voting "NAY":

_____
Patrick N. Payton, Mayor

ATTEST:

_____
Amy M. Turner, City Secretary

RECOMMENDED AND APPROVED:

_____
Courtney Sharp, City Manager

APPROVED AS TO CONTENT
AND COMPLETENESS:

_____
Morris Williams, Assistant City Manager

APPROVED ONLY AS TO FORM:

_____
John Ohnemiller, City Attorney

S:\Resolutions\Administration\2020\Atmos\Approve Settlement.wpd

Exhibit A
to 2020 RRM Resolution or Ordinance

Tariffs Effective December 1, 2020

WEST TEXAS DIVISION
ATMOS ENERGY CORPORATION

RATE SCHEDULE:	**RESIDENTIAL GAS SERVICE**
APPLICABLE TO:	**WEST TEXAS CITIES SERVICE AREA – Inside City Limits (ICL)**
EFFECTIVE DATE:	**Bills Rendered on and after 12/01/2020**

Availability

This schedule is applicable to general use by Residential customers for heating, cooking, refrigeration, water heating and other similar type uses. This schedule is not available for service to premises with an alternative supply of natural gas.

Monthly Rate

Charge	Amount
Customer Charge	$ 17.50
Consumption Charge	$ 0.27574 per Ccf

The West Texas Division Gas Cost Adjustment Rider applies to this schedule.

The West Texas Division Weather Normalization Adjustment Rider applies to this schedule.

The West Texas Division Rider TAX applies to this schedule.

The West Texas Division Rider FF applies to this schedule.

The West Texas Division Rider RRM applies to this schedule.

Miscellaneous Charges: Plus an amount for miscellaneous charges calculated in accordance with the applicable rider(s).

WEST TEXAS DIVISION
ATMOS ENERGY CORPORATION

RATE SCHEDULE:	**COMMERCIAL GAS SERVICE**
APPLICABLE TO:	**WEST TEXAS CITIES SERVICE AREA – Inside City Limits (ICL)**
EFFECTIVE DATE:	**Bills Rendered on and after 12/01/2020**

Availability

This schedule is applicable to Commercial customers, including hospitals and churches, for heating, cooking, refrigeration, water heating and other similar type uses. This schedule is not available for service to premises with an alternative supply of natural gas.

Monthly Rate

Charge	Amount
Customer Charge	$ 51.50
Consumption Charge	$ 0.16254 per Ccf

The West Texas Division Gas Cost Adjustment Rider applies to this schedule.

The West Texas Division Weather Normalization Adjustment Rider applies to this schedule.

The West Texas Division Rider TAX applies to this schedule.

The West Texas Division Rider FF applies to this schedule.

The West Texas Division Rider RRM applies to this schedule.

Miscellaneous Charges: Plus an amount for miscellaneous charges calculated in accordance with the applicable rider(s).

WEST TEXAS DIVISION
ATMOS ENERGY CORPORATION

RATE SCHEDULE:	**INDUSTRIAL GAS SERVICE**
APPLICABLE TO:	**WEST TEXAS CITIES SERVICE AREA – Inside City Limits (ICL)**
EFFECTIVE DATE:	**Bills Rendered on and after 12/01/2020**

Availability

This schedule is applicable to the sales to any industrial or commercial customer whose predominant use of natural gas is other than space heating, cooking, water heating or other similar type uses. Service under this schedule is available to eligible customers following execution of a contract specifying the maximum hourly load. This schedule is not available for service to premises with an alternative supply of natural gas.

Monthly Rate

Charge	Amount
Customer Charge	$ 527.25
Consumption Charge	$ 0.10070 per Ccf

The West Texas Division Gas Cost Adjustment Rider applies to this schedule.

The West Texas Division Rider TAX applies to this schedule.

The West Texas Division Rider FF applies to this schedule.

The West Texas Division Rider RRM applies to this schedule.

Miscellaneous Charges: Plus an amount for miscellaneous charges calculated in accordance with the applicable rider(s).

WEST TEXAS DIVISION
ATMOS ENERGY CORPORATION

RATE SCHEDULE:	**PUBLIC AUTHORITY GAS SERVICE**
APPLICABLE TO:	**WEST TEXAS CITIES SERVICE AREA – Inside City Limits (ICL)**
EFFECTIVE DATE:	**Bills Rendered on and after 12/01/2020**

Availability

This schedule is applicable to general use by Public Authority type customers, including public schools, for heating, cooking, refrigeration, water heating and other similar type uses. This schedule is not available for service to premises with an alternative supply of natural gas.

Monthly Rate

Charge	Amount
Customer Charge	$ 144.75
Consumption Charge	$ 0.14207 per Ccf

The West Texas Division Gas Cost Adjustment Rider applies to this schedule.

The West Texas Division Weather Normalization Adjustment Rider applies to this schedule.

The West Texas Division Rider TAX applies to this schedule.

The West Texas Division Rider FF applies to this schedule.

The West Texas Division Rider RRM applies to this schedule.

Miscellaneous Charges: Plus an amount for miscellaneous charges calculated in accordance with the applicable rider(s).

WEST TEXAS DIVISION
ATMOS ENERGY CORPORATION

RATE SCHEDULE:	**TRANSPORTATION SERVICE**
APPLICABLE TO:	**WEST TEXAS CITIES SERVICE AREA – Inside City Limits (ICL)**
EFFECTIVE DATE:	**Bills Rendered on and after 12/01/2020**

Application
Applicable, in the event that Company has entered into a Transportation Agreement, to a customer directly connected to the Atmos Energy Corp., West Texas Division Distribution System for the transportation of all natural gas supplied by Customer or Customer's agent at one Point of Delivery for use in Customer's facility with an estimated annual usage greater than 100,000 Ccf per meter.

Type of Service
Where service of the type desired by Customer is not already available at the Point of Delivery, additional charges and special contract arrangements between Company and Customer may be required prior to service being furnished.

Monthly Rate
Customer's bill will be calculated by adding the following Customer and Ccf charges to the amounts and quantities due under the riders listed below:

Charge	Amount
Customer Charge per Meter	$ 527.25 per month
Consumption Charge	$ 0.10070 per Ccf

Upstream Transportation Cost Recovery: The customer is responsible for all upstream transportation costs.

Retention Adjustment: Plus a quantity of gas equal to the Company's most recently calculated financial L&U percentage for the twelve months ended September multiplied by the gas received into Atmos Energy Corporation's West Texas Division for transportation to the customer.

Franchise Fee Adjustment: Plus an amount for franchise fees calculated in accordance with Rider FF. Rider FF is only applicable to customers inside the corporate limits of any incorporated municipality.

Tax Adjustment: Plus an amount for tax calculated in accordance with Rider TAX.

Surcharges: Plus an amount for surcharges calculated in accordance with the applicable rider(s).

Miscellaneous Charges: Plus an amount for miscellaneous charges calculated in accordance with the applicable rider(s).

The West Texas Division Rider RRM applies to this schedule.

Conversions: Units may be converted from Ccf to Mcf or Mmbtu as necessary to comply with the underlying transportation agreement.

WEST TEXAS DIVISION
ATMOS ENERGY CORPORATION

RATE SCHEDULE:	**TRANSPORTATION SERVICE**
APPLICABLE TO:	**WEST TEXAS CITIES SERVICE AREA – Inside City Limits (ICL)**
EFFECTIVE DATE:	**Bills Rendered on and after 12/01/2020**

Imbalance Fees
All fees charged to Customer under this Rate Schedule will be charged based on the quantities determined under the applicable Transportation Agreement and quantities will not be aggregated for any Customer with multiple Transportation Agreements for the purposes of such fees.

Monthly Imbalance Fees
Customer shall pay Company a monthly imbalance fee at the end of each month as defined in the applicable Transportation Agreement,

Curtailment Overpull Fee
Upon notification by Company of an event of curtailment or interruption of Customer's deliveries, Customer will, for each MMBtu delivered in excess of the stated level of curtailment or interruption, pay Company 200% of the "Index" price reported for the month of delivery in Inside FERC's Gas Market Report under the heading "West Texas Waha".

Replacement Index
In the event the "Index" price reported for the month of delivery in Inside FERC's Gas Market Report under the heading "West Texas Waha" is no longer published, Company will calculate the applicable imbalance fees utilizing a daily price index recognized as authoritative by the natural gas industry and most closely approximating the applicable index.

Agreement
A transportation agreement is required.

Notice
Service hereunder and the rates for services provided are subject to the orders of regulatory bodies having jurisdiction and to the Company's Tariff for Gas Service.

Special Conditions
In order to receive transportation service under this tariff, customer must have the type of meter, instrumentation, and communication required by Company. Customer must pay Company all costs associated with the acquisition and installation of the required equipment.

Exhibit B
to 2020 RRM Resolution or Ordinance

Schedule for Pensions and Retiree Medical Benefits

ATMOS ENERGY CORPORATION
WEST TEXAS CITIES ("WTX CITIES") RATE REVIEW MECHANISM
PENSIONS AND RETIREE MEDICAL BENEFITS FOR APPROVAL
TEST YEAR ENDING DECEMBER 31, 2019

Line No.	Description	Shared Services		WTX			
		Pension Account Plan	Post-Employment Benefit Plan	Pension Account Plan	Post-Employment Benefit Plan	Supplemental Executive Benefit Plan	Total
	(a)	(b)	(c)	(d)	(e)	(f)	(g)
	Proposed Benefits Benchmark -						
1	Fiscal Year 2020 Willis Towers Watson Report	$ 3,479,556	$ 3,716,125	$ 1,233,879	$ 1,388,236	$ 49,475	
2	Allocation Factor	8.48%	8.48%	96.17%	96.17%	96.17%	
	Proposed Benefits Benchmark Costs (Excluding Removed Cost Centers)						
3	Allocated to West Texas (Ln 1 x Ln 2)	$ 295,036	$ 315,095	$ 1,186,608	$ 1,335,051	$ 47,580	
4	O&M and Capital Factor	100.00%	100.00%	100.00%	100.00%	100.00%	
	Proposed Benefits Benchmark Costs To Approve						
5	(Excluding Removed Cost Centers) (Ln 3 x Ln 4)	$ 295,036	$ 315,095	$ 1,186,608	$ 1,335,051	$ 47,580	$ 3,179,370
6							
7							
8	Summary of Expense Costs to Approve:						
9							
10	O&M Expense Factor (WP_F-2.3, Ln 2)	79.56%	79.56%	50.80%	50.80%	100.00%	
11							
12	Total Pension Account Plan	$ 234,716		$ 602,774			$ 837,491
13	Total Post-Employment Benefit Plan		$ 250,674		$ 678,181		928,855
14	Total Supplemental Executive Benefit Plan					$ 47,580	47,580
15	Total (Sum Ln 12 through Ln 14)	$ 234,716	$ 250,674	$ 602,774	$ 678,181	$ 47,580	$ 1,813,925

September 8, 2020
12.497
PACKET

Exhibit C
to 2020 RRM Resolution or Ordinance

Schedule for Amortization of Regulatory Liability

ATMOS ENERGY CORPORATION
WEST TEXAS CITIES ("WTX CITIES") RATE REVIEW MECHANISM
AMORTIZATION OF REGULATORY LIABILITY
TEST YEAR ENDING DECEMBER 31, 2019

Line No.	Year Ended Dec. 31	Beginning of Year Rate Base Adjustment Amount (1)	Annual Amortization	End of Year Rate Base Adjustment Amount	Corrected Balance for Dec. 31, 2017
	(a)	(b)	(c)	(d)	
1	2017			$ 59,210,604	$ 59,210,604
2	2018	59,210,604	2,647,939	56,562,665	
3	2019	56,562,665	2,451,651	54,111,014	
4	2020	54,111,014	2,352,653	51,758,361	
5	2021	51,758,361	2,352,653	49,405,709	
6	2022	49,405,709	2,352,653	47,053,056	
7	2023	47,053,056	2,352,653	44,700,403	
8	2024	44,700,403	2,352,653	42,347,750	
9	2025	42,347,750	2,352,653	39,995,097	
10	2026	39,995,097	2,352,653	37,642,445	
11	2027	37,642,445	2,352,653	35,289,792	
12	2028	35,289,792	2,352,653	32,937,139	
13	2029	32,937,139	2,352,653	30,584,486	
14	2030	30,584,486	2,352,653	28,231,833	
15	2031	28,231,833	2,352,653	25,879,181	
16	2032	25,879,181	2,352,653	23,526,528	
17	2033	23,526,528	2,352,653	21,173,875	
18	2034	21,173,875	2,352,653	18,821,222	
19	2035	18,821,222	2,352,653	16,468,570	
20	2036	16,468,570	2,352,653	14,115,917	
21	2037	14,115,917	2,352,653	11,763,264	
22	2038	11,763,264	2,352,653	9,410,611	
23	2039	9,410,611	2,352,653	7,057,958	
24	2040	7,057,958	2,352,653	4,705,306	
25	2041	4,705,306	2,352,653	2,352,653	
26	2042	2,352,653	2,352,653	-	
27					
28	Note:				
29	1. The annual amortization of a 25 year recovery period is based on the Reverse South Georgia Method.				

Attachment 1
2020 RRM Settlement
Cities' Model Staff Report

PROOF OF REVENUES

ATMOS ENERGY CORPORATION
WEST TEXAS CITIES ("WTX CITIES") RATE REVIEW MECHANISM
PROOF OF REVENUES - AFFECTED CITIES
TEST YEAR ENDING DECEMBER 31, 2019

Line No.	Customer Class	Current	Proposed	Bills	Ccf	Current Revenues	Proposed Revenues	Increase
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
1	**Residential**							
2	Customer Charge	$ 16.80	$ 17.50	1,539,906		$ 25,870,427	$ 26,948,361	
3	Consumption Charge	$ 0.23158	$ 0.27574		75,746,595	17,541,397	20,886,366	
4	Total Class Revenue					$ 43,411,823	$ 47,834,727	$ 4,422,904
5								
6	**Commercial**							
7	Customer Charge	$ 47.00	$ 51.50	125,508		$ 5,898,879	$ 6,463,665	
8	Consumption Charge	$ 0.14656	$ 0.16254		31,092,270	4,556,883	5,053,738	
9	Total Class Revenue					$ 10,455,762	$ 11,517,402	$ 1,061,641
10								
11	**Industrial & Transportation**							
12	Customer Charge	$ 460.75	$ 527.25	476		$ 219,317	$ 250,971	
13	Consumption Charge	$ 0.09494	$ 0.10070		4,809,367	456,601	484,303	
14	Total Class Revenue					$ 675,918	$ 735,274	$ 59,356
15								
16	**Public Authority**							
17	Customer Charge	$ 132.25	$ 144.75	16,200		$ 2,142,410	$ 2,344,906	
18	Consumption Charge	$ 0.12761	$ 0.14207		10,636,665	1,357,345	1,511,151	
19	Total Class Revenue					$ 3,499,755	$ 3,856,057	$ 356,302
20								
21	Total, Excluding Other Revenue					$ 58,043,258	$ 63,943,461	$ 5,900,203

Attachment 2
2020 RRM Settlement
Cities' Model Staff Report

AVERAGE BILL COMPARISON

ATMOS ENERGY CORPORATION
WEST TEXAS CITIES ("WTX CITIES") RATE REVIEW MECHANISM
AVERAGE BILL COMPARISON
TEST YEAR ENDING DECEMBER 31, 2019

Line No.	Description							Current	Proposed	Change Amount	Change Percent
	(a)							(b)	(c)	(d)	(e)
1	**RESIDENTIAL**										
2	Customer Charge							$ 16.80			
3	Consumption Charge	49.1	CCF	X	$	0.23158	=	11.37			
4	Rider GCA	49.1	CCF	X	$	0.20067	=	9.85			
5	Subtotal							$ 38.02			
6	Rider FF & Rider TAX		$ 38.02	X		5.94%	=	2.26			
7	Total							$ 40.28			
8											
9	Customer Charge								$ 17.50		
10	Consumption Charge	49.1	CCF	X	$	0.27574	=		13.54		
11	Rider GCA	49.1	CCF	X	$	0.20067	=		9.85		
12	Subtotal								$ 40.89		
13	Rider FF & Rider TAX		$ 40.89			5.94%	=		2.43		
14	Total								$ 43.32	$ 3.04	7.54%
15											
16	**COMMERCIAL**										
17	Customer Charge							$ 47.00			
18	Consumption Charge	247.7	CCF	X	$	0.14656	=	36.30			
19	Rider GCA	247.7	CCF	X	$	0.20067	=	49.71			
20	Subtotal							$ 133.01			
21	Rider FF & Rider TAX		$ 133.01	X		5.94%	=	7.90			
22	Total							$ 140.91			
23											
24	Customer Charge								$ 51.50		
25	Consumption Charge	247.7	CCF	X	$	0.16254	=		40.26		
26	Rider GCA	247.7	CCF	X	$	0.20067	=		49.71		
27	Subtotal								$ 141.47		
28	Rider FF & Rider TAX		$ 141.47			5.94%	=		8.41		
29	Total								$ 149.87	$ 8.96	6.36%
30											

ATMOS ENERGY CORPORATION
WEST TEXAS CITIES ("WTX CITIES") RATE REVIEW MECHANISM
AVERAGE BILL COMPARISON
TEST YEAR ENDING DECEMBER 31, 2019

Line No.	Description							Current	Proposed	Change Amount	Change Percent
			(a)					(b)	(c)	(d)	(e)
31	**INDUSTRIAL**										
32	Customer Charge							$ 460.75			
33	Consumption Charge	3,595.6	CCF	X	$	0.09494	=	341.37			
34	Rider GCA	3,595.6	CCF	X	$	0.20067	=	721.52			
35	Subtotal							$ 1,523.63			
36	Rider FF & Rider TAX		$ 1,523.63	X		5.94%	=	90.54			
37	Total							$ 1,614.17			
38											
39	Customer Charge								$ 527.25		
40	Consumption Charge	3,595.6	CCF	X	$	0.10070	=		362.08		
41	Rider GCA	3,595.6	CCF	X	$	0.20067	=		721.52		
42	Subtotal								$ 1,610.84		
43	Rider FF & Rider TAX		$ 1,610.84			5.94%	=		95.72		
44	Total								$ 1,706.57	$ 92.39	5.72%
45											
46	**TRANSPORTATION**										
47	Customer Charge							$ 460.75			
48	Consumption Charge	25,108.3	CCF	X	$	0.09494	=	2,383.78			
49	Rider GCA (1)	25,108.3	CCF	X	$	-	=	-			
50	Subtotal							$ 2,844.53			
51	Rider FF & Rider TAX		$ 2,844.53	X		5.94%	=	169.03			
52	Total							$ 3,013.57			
53											
54	Customer Charge								$ 527.25		
55	Consumption Charge	25,108.3	CCF	X	$	0.10070	=		2,528.41		
56	Rider GCA (1)	25,108.3	CCF	X	$	-	=		-		
57	Subtotal								$ 3,055.66		
58	Rider FF & Rider TAX		$ 3,055.66			5.94%	=		181.58		
59	Total								$ 3,237.24	$223.67	7.42%
60											

ATMOS ENERGY CORPORATION
WEST TEXAS CITIES ("WTX CITIES") RATE REVIEW MECHANISM
AVERAGE BILL COMPARISON
TEST YEAR ENDING DECEMBER 31, 2019

Line No.	Description							Current	Proposed	Change Amount	Change Percent
	(a)							(b)	(c)	(d)	(e)
61	**PUBLIC AUTHORITY**										
62	Customer Charge							$ 132.25			
63	Consumption Charge	656.5	CCF	X	$	0.12761	=	83.78			
64	Rider GCA	656.5	CCF	X	$	0.20067	=	131.74			
65	Subtotal							$ 347.76			
66	Rider FF & Rider TAX		$ 347.76	X		5.94%	=	20.67			
67	Total							$ 368.43			
68											
69	Customer Charge								$ 144.75		
70	Consumption Charge	656.5	CCF	X	$	0.14207	=		93.27		
71	Rider GCA	656.5	CCF	X	$	0.20067	=		131.74		
72	Subtotal								$ 369.76		
73	Rider FF & Rider TAX		$ 369.76			5.94%	=		21.97		
74	Total								$ 391.73	$ 23.30	6.32%
75											
76	Note:										
77	1. Rider GCA does not apply to the Transportation Tariff. Therefore, the GCA Rate has been set to zero.										

Attachment 3
2020 RRM Settlement
Cities' Model Staff Report

RESIDENTIAL AVERAGE RATE COMPARISON
WITH AMARILLO, LUBBOCK, AND ENVIRONS

ATMOS ENERGY CORP., WEST TEXAS DIVISION
RESIDENTIAL AVERAGE RATE COMPARISON
TEST YEAR ENDING DECEMBER 31, 2019

	WT Cities Settled	Amarillo Filing	Lubbock Filing	Environs Filing
Cust Charge	$17.50	$27.67	$27.67	$21.46
Monthly Ccf	53.8	53.8	53.8	53.8
Cons Charge	$0.27574	$0.09205	$0.11738	$0.21224
Average Mo Bill	$32.33	$32.62	$33.99	$32.88
		-$0.29	-$1.65	-$0.54

Exhibit A
to 2020 RRM Resolution or Ordinance

Tariffs Effective December 1, 2020

WEST TEXAS DIVISION
ATMOS ENERGY CORPORATION

RATE SCHEDULE:	**RESIDENTIAL GAS SERVICE**
APPLICABLE TO:	**WEST TEXAS CITIES SERVICE AREA – Inside City Limits (ICL)**
EFFECTIVE DATE:	**Bills Rendered on and after 12/01/2020**

Availability

This schedule is applicable to general use by Residential customers for heating, cooking, refrigeration, water heating and other similar type uses. This schedule is not available for service to premises with an alternative supply of natural gas.

Monthly Rate

Charge	Amount
Customer Charge	$ 17.50
Consumption Charge	$ 0.27574 per Ccf

The West Texas Division Gas Cost Adjustment Rider applies to this schedule.

The West Texas Division Weather Normalization Adjustment Rider applies to this schedule.

The West Texas Division Rider TAX applies to this schedule.

The West Texas Division Rider FF applies to this schedule.

The West Texas Division Rider RRM applies to this schedule.

Miscellaneous Charges: Plus an amount for miscellaneous charges calculated in accordance with the applicable rider(s).

WEST TEXAS DIVISION
ATMOS ENERGY CORPORATION

RATE SCHEDULE:	**COMMERCIAL GAS SERVICE**
APPLICABLE TO:	**WEST TEXAS CITIES SERVICE AREA – Inside City Limits (ICL)**
EFFECTIVE DATE:	**Bills Rendered on and after 12/01/2020**

Availability

This schedule is applicable to Commercial customers, including hospitals and churches, for heating, cooking, refrigeration, water heating and other similar type uses. This schedule is not available for service to premises with an alternative supply of natural gas.

Monthly Rate

Charge	Amount
Customer Charge	$ 51.50
Consumption Charge	$ 0.16254 per Ccf

The West Texas Division Gas Cost Adjustment Rider applies to this schedule.

The West Texas Division Weather Normalization Adjustment Rider applies to this schedule.

The West Texas Division Rider TAX applies to this schedule.

The West Texas Division Rider FF applies to this schedule.

The West Texas Division Rider RRM applies to this schedule.

Miscellaneous Charges: Plus an amount for miscellaneous charges calculated in accordance with the applicable rider(s).

WEST TEXAS DIVISION
ATMOS ENERGY CORPORATION

RATE SCHEDULE:	**INDUSTRIAL GAS SERVICE**
APPLICABLE TO:	**WEST TEXAS CITIES SERVICE AREA – Inside City Limits (ICL)**
EFFECTIVE DATE:	**Bills Rendered on and after 12/01/2020**

Availability

This schedule is applicable to the sales to any industrial or commercial customer whose predominant use of natural gas is other than space heating, cooking, water heating or other similar type uses. Service under this schedule is available to eligible customers following execution of a contract specifying the maximum hourly load. This schedule is not available for service to premises with an alternative supply of natural gas.

Monthly Rate

Charge	Amount
Customer Charge	$ 527.25
Consumption Charge	$ 0.10070 per Ccf

The West Texas Division Gas Cost Adjustment Rider applies to this schedule.

The West Texas Division Rider TAX applies to this schedule.

The West Texas Division Rider FF applies to this schedule.

The West Texas Division Rider RRM applies to this schedule.

Miscellaneous Charges: Plus an amount for miscellaneous charges calculated in accordance with the applicable rider(s).

WEST TEXAS DIVISION
ATMOS ENERGY CORPORATION

RATE SCHEDULE:	**PUBLIC AUTHORITY GAS SERVICE**
APPLICABLE TO:	**WEST TEXAS CITIES SERVICE AREA – Inside City Limits (ICL)**
EFFECTIVE DATE:	**Bills Rendered on and after 12/01/2020**

Availability

This schedule is applicable to general use by Public Authority type customers, including public schools, for heating, cooking, refrigeration, water heating and other similar type uses. This schedule is not available for service to premises with an alternative supply of natural gas.

Monthly Rate

Charge	Amount
Customer Charge	$ 144.75
Consumption Charge	$ 0.14207 per Ccf

The West Texas Division Gas Cost Adjustment Rider applies to this schedule.

The West Texas Division Weather Normalization Adjustment Rider applies to this schedule.

The West Texas Division Rider TAX applies to this schedule.

The West Texas Division Rider FF applies to this schedule.

The West Texas Division Rider RRM applies to this schedule.

Miscellaneous Charges: Plus an amount for miscellaneous charges calculated in accordance with the applicable rider(s).

WEST TEXAS DIVISION
ATMOS ENERGY CORPORATION

RATE SCHEDULE:	**TRANSPORTATION SERVICE**
APPLICABLE TO:	**WEST TEXAS CITIES SERVICE AREA – Inside City Limits (ICL)**
EFFECTIVE DATE:	**Bills Rendered on and after 12/01/2020**

Application
Applicable, in the event that Company has entered into a Transportation Agreement, to a customer directly connected to the Atmos Energy Corp., West Texas Division Distribution System for the transportation of all natural gas supplied by Customer or Customer's agent at one Point of Delivery for use in Customer's facility with an estimated annual usage greater than 100,000 Ccf per meter.

Type of Service
Where service of the type desired by Customer is not already available at the Point of Delivery, additional charges and special contract arrangements between Company and Customer may be required prior to service being furnished.

Monthly Rate
Customer's bill will be calculated by adding the following Customer and Ccf charges to the amounts and quantities due under the riders listed below:

Charge	Amount
Customer Charge per Meter	$ 527.25 per month
Consumption Charge	$ 0.10070 per Ccf

Upstream Transportation Cost Recovery: The customer is responsible for all upstream transportation costs.

Retention Adjustment: Plus a quantity of gas equal to the Company's most recently calculated financial L&U percentage for the twelve months ended September multiplied by the gas received into Atmos Energy Corporation's West Texas Division for transportation to the customer.

Franchise Fee Adjustment: Plus an amount for franchise fees calculated in accordance with Rider FF. Rider FF is only applicable to customers inside the corporate limits of any incorporated municipality.

Tax Adjustment: Plus an amount for tax calculated in accordance with Rider TAX.

Surcharges: Plus an amount for surcharges calculated in accordance with the applicable rider(s).

Miscellaneous Charges: Plus an amount for miscellaneous charges calculated in accordance with the applicable rider(s).

The West Texas Division Rider RRM applies to this schedule.

Conversions: Units may be converted from Ccf to Mcf or Mmbtu as necessary to comply with the underlying transportation agreement.

WEST TEXAS DIVISION
ATMOS ENERGY CORPORATION

RATE SCHEDULE:	**TRANSPORTATION SERVICE**
APPLICABLE TO:	**WEST TEXAS CITIES SERVICE AREA – Inside City Limits (ICL)**
EFFECTIVE DATE:	**Bills Rendered on and after 12/01/2020**

Imbalance Fees
All fees charged to Customer under this Rate Schedule will be charged based on the quantities determined under the applicable Transportation Agreement and quantities will not be aggregated for any Customer with multiple Transportation Agreements for the purposes of such fees.

Monthly Imbalance Fees
Customer shall pay Company a monthly imbalance fee at the end of each month as defined in the applicable Transportation Agreement,

Curtailment Overpull Fee
Upon notification by Company of an event of curtailment or interruption of Customer's deliveries, Customer will, for each MMBtu delivered in excess of the stated level of curtailment or interruption, pay Company 200% of the "Index" price reported for the month of delivery in Inside FERC's Gas Market Report under the heading "West Texas Waha".

Replacement Index
In the event the "Index" price reported for the month of delivery in Inside FERC's Gas Market Report under the heading "West Texas Waha" is no longer published, Company will calculate the applicable imbalance fees utilizing a daily price index recognized as authoritative by the natural gas industry and most closely approximating the applicable index.

Agreement
A transportation agreement is required.

Notice
Service hereunder and the rates for services provided are subject to the orders of regulatory bodies having jurisdiction and to the Company's Tariff for Gas Service.

Special Conditions
In order to receive transportation service under this tariff, customer must have the type of meter, instrumentation, and communication required by Company. Customer must pay Company all costs associated with the acquisition and installation of the required equipment.

Exhibit B
to 2020 RRM Resolution or Ordinance

Schedule for Pensions and Retiree Medical Benefits

ATMOS ENERGY CORPORATION
WEST TEXAS CITIES ("WTX CITIES") RATE REVIEW MECHANISM
PENSIONS AND RETIREE MEDICAL BENEFITS FOR APPROVAL
TEST YEAR ENDING DECEMBER 31, 2019

Line No.	Description	Shared Services		WTX			
		Pension Account Plan	Post-Employment Benefit Plan	Pension Account Plan	Post-Employment Benefit Plan	Supplemental Executive Benefit Plan	Total
	(a)	(b)	(c)	(d)	(e)	(f)	(g)
	Proposed Benefits Benchmark -						
1	Fiscal Year 2020 Willis Towers Watson Report	$ 3,479,556	$ 3,716,125	$ 1,233,879	$ 1,388,236	$ 49,475	
2	Allocation Factor	8.48%	8.48%	96.17%	96.17%	96.17%	
	Proposed Benefits Benchmark Costs (Excluding Removed Cost Centers)						
3	Allocated to West Texas (Ln 1 x Ln 2)	$ 295,036	$ 315,095	$ 1,186,608	$ 1,335,051	$ 47,580	
4	O&M and Capital Factor	100.00%	100.00%	100.00%	100.00%	100.00%	
	Proposed Benefits Benchmark Costs To Approve						
5	(Excluding Removed Cost Centers) (Ln 3 x Ln 4)	$ 295,036	$ 315,095	$ 1,186,608	$ 1,335,051	$ 47,580	$ 3,179,370
6							
7							
8	Summary of Expense Costs to Approve:						
9							
10	O&M Expense Factor (WP_F-2.3, Ln 2)	79.56%	79.56%	50.80%	50.80%	100.00%	
11							
12	Total Pension Account Plan	$ 234,716		$ 602,774			$ 837,491
13	Total Post-Employment Benefit Plan		$ 250,674		$ 678,181		928,855
14	Total Supplemental Executive Benefit Plan					$ 47,580	47,580
15	Total (Sum Ln 12 through Ln 14)	$ 234,716	$ 250,674	$ 602,774	$ 678,181	$ 47,580	$ 1,813,925

September 8, 2020
12.516
PACKET

Exhibit C
to 2020 RRM Resolution or Ordinance

Schedule for Amortization of Regulatory Liability

ATMOS ENERGY CORPORATION
WEST TEXAS CITIES ("WTX CITIES") RATE REVIEW MECHANISM
AMORTIZATION OF REGULATORY LIABILITY
TEST YEAR ENDING DECEMBER 31, 2019

Line No.	Year Ended Dec. 31	Beginning of Year Rate Base Adjustment Amount (1)	Annual Amortization	End of Year Rate Base Adjustment Amount	Corrected Balance for Dec. 31, 2017
	(a)	(b)	(c)	(d)	
1	2017			$ 59,210,604	$ 59,210,604
2	2018	59,210,604	2,647,939	56,562,665	
3	2019	56,562,665	2,451,651	54,111,014	
4	2020	54,111,014	2,352,653	51,758,361	
5	2021	51,758,361	2,352,653	49,405,709	
6	2022	49,405,709	2,352,653	47,053,056	
7	2023	47,053,056	2,352,653	44,700,403	
8	2024	44,700,403	2,352,653	42,347,750	
9	2025	42,347,750	2,352,653	39,995,097	
10	2026	39,995,097	2,352,653	37,642,445	
11	2027	37,642,445	2,352,653	35,289,792	
12	2028	35,289,792	2,352,653	32,937,139	
13	2029	32,937,139	2,352,653	30,584,486	
14	2030	30,584,486	2,352,653	28,231,833	
15	2031	28,231,833	2,352,653	25,879,181	
16	2032	25,879,181	2,352,653	23,526,528	
17	2033	23,526,528	2,352,653	21,173,875	
18	2034	21,173,875	2,352,653	18,821,222	
19	2035	18,821,222	2,352,653	16,468,570	
20	2036	16,468,570	2,352,653	14,115,917	
21	2037	14,115,917	2,352,653	11,763,264	
22	2038	11,763,264	2,352,653	9,410,611	
23	2039	9,410,611	2,352,653	7,057,958	
24	2040	7,057,958	2,352,653	4,705,306	
25	2041	4,705,306	2,352,653	2,352,653	
26	2042	2,352,653	2,352,653	-	
27					

28 Note:
29 1. The annual amortization of a 25 year recovery period is based on the Reverse South Georgia Method.

City Council Meeting

Item Number: 13
Meeting Date: September 8, 2020
To: City Council / City Manager
From: Gabe McClelland, Transportation Manager
Subject: MOTION TO TRANSFER THE SUM OF $1,575,302.72 FROM TRANSPORTATION'S FY 2020 OPERATING BUDGET (001085) TO A SLURRY SEAL CAPITAL PROJECT (ENGINEERING SERVICES)

Purpose:

Transfer funds from Transportation's FY 2020 Operating Budget to Transportation's Fiscal Year 2021 Microsurfacing and Slurry Seal Project

Recommended City Council Action:

Approve

Fiscal Impact:

$1,575,302.72 will be transferred from the General Fund (001085) to a capital project in the Capital Project Fund 005

Discussion:

In March 2020, a resolution awarding a contract for the Fiscal Year 2020 Slurry Seal Project to Intermountain Slurry Seal, Inc. was defeated due to concerns about the local economy and the uncertainty associated with the COVID-19 pandemic. When forced to reduce expenditures during economic downturns, deferred maintenance becomes a concern. The streets selected for the Slurry Seal Project are due a surface treatment, and Slurry Seal is predicted to increase the useful life of the streets 7 to 8 years.

The Transportation Division is currently planning for a Fiscal Year 2021 Microsurfacing and Slurry Seal Project. The Transportation Division recommends using the funds originally planned for a FY 2020 Slurry Seal Project combined with funds available for a FY 2021 Project for a large Microsurfacing and Slurry Seal Project. One large project may be more attractive to bidders, so lower unit prices may result. Additionally, the Transportation Division will be able to

reduce the amount of deferred maintenance and extend the life of the streets selected for the project.

Therefore, please consider a motion to transfer the sum of $1,575,302.72 from the Transportation Division's Fiscal Year 2020 Operating Budget (001085) in the General Fund to the Transportation's Fiscal Year 2021 Microsurfacing and Slurry Seal Project in the Capital Projects Fund 005.

City Manager's Office

City Council Agenda

Approved for Agenda:

City Manager's Office

MEETING DATE: 09/08/2020

TO: City Council / City Manager

FROM: John Simmons, Right-of-Way Manager

SUBJECT: **RESOLUTION AUTHORIZING THE ACCEPTANCE OF A 22.21-ACRE UTILITY EASEMENT OUT OF SECTIONS 9, 10 AND 11, BLOCK 39, T-1-S, T&P RR CO. SURVEY, MARTIN AND MIDLAND COUNTIES, TEXAS, AT A COST NOT TO EXCEED $500,000.00; AND ORDERING RECORDATION BY THE CITY SECRETARY**

Purpose:

This resolution accepts a Public Utility Easement from Occidental Permian LTD., for a 60' wide right of way for the construction and operation of the 24" Northeast water transmission pipeline.

Recommended City Council Action

☒ Approve ☐ Deny ☐ Directional / Informational

Fiscal Impact:

Compensation of $500,000.00 for this right of way is based on current land values and costs incurred to relocate multiple existing surface and subsurface oilfield structures.

Discussion:

This 22.21-acre section of Right of Way is the largest single land section for the Northeast Water Transmission line

The Public Utility Easement is attached, as is a plat showing the proposed easement, Staff supports accepting this dedication.

NOTICE OF CONFIDENTIALITY RIGHTS: IF YOU ARE A NATURAL PERSON, YOU MAY REMOVE OR STRIKE ANY OR ALL OF THE FOLLOWING INFORMATION FROM ANY INSTRUMENT THAT TRANSFERS AN INTEREST IN REAL PROPERTY BEFORE IT IS FILED FOR RECORD IN THE PUBLIC RECORDS: YOUR SOCIAL SECURITY NUMBER OR YOUR DRIVER'S LICENSE NUMBER.

PUBLIC UTILITY EASEMENT

THE STATE OF TEXAS §
§ KNOW ALL MEN BY THESE PRESENTS:
COUNTY OF MIDLAND §

THAT **Occidental Permian LTD.** ("Grantor"), a Texas limited partnership, whose mailing address is 5 Greenway Plaza, Suite 110, Houston, Texas 77046, for and in consideration of the sum of TEN AND NO/100 DOLLARS ($10.00) and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, does hereby GRANT AND CONVEY, without warranties or covenants of title, express or implied, to the **CITY OF MIDLAND, TEXAS** ("Grantee"), a home-rule municipal corporation, whose address is 300 North Loraine, Midland, Texas 79701, an easement and right-of-way to construct, install, operate, use, maintain, repair, modify and replace public utilities, including a water line or a sewer line or both a water line and a sewer line, and any necessary appurtenant facilities (collectively, the "Utilities"), in, on, upon, over, under, across, along and through the following described property owned by Grantor:

A 22.21-acre tract of land located in Sections 9, 10 and 11, Block 39, T-1-S, T&P RR CO. Survey, Martin and Midland Counties, Texas, being more fully described in the attached **Exhibit A**, which is attached hereto and incorporated herein for all purposes (the "Easement Tract").

Grantee and its employees, contractors, agents, successors, and assigns, shall have the free and uninterrupted right of passage in, on, upon, over, under, across, along and through the Easement Tract described herein for the purpose of establishing, laying, constructing, reconstructing, installing, realigning, modifying, replacing, improving, altering, operating, maintaining, accessing, inspecting, repairing, and removing said public utilities and appurtenant facilities, together with the right of ingress, egress and regress for such purposes in, on, upon, over, under, across, along and through the Easement Tract. This Easement shall operate in conjunction with that certain easement made effective between Grantor and Grantee on July 12, 2016, being Instrument Number 2016-22809 in the Records of Midland County, Texas.

Grantee retains unto itself, its successors, assigns, lessees, agents, and licenses, the right to use and enjoy all of the Easement Tract; however, Grantor shall not exercise such use and enjoyment in a manner that will unreasonably interfere with the rights granted herein. Grantor expressly covenants and agrees for itself, its legal representatives, successors and/or assigns, that no building of any kind will be placed on the Easement Tract.

Grantee agrees to comply with all laws, rules and regulation (including those related to the environment) applicable to the rights granted herein.

THIS GRANT IS MADE WITHOUT WARRANTY OF ANY KIND WHATSOEVER, EITHER EXPRESSED OR IMPLIED, provided that this grant is made expressly subject to and subordinate to all previously recorded leases, instruments and encumbrances, and the existing rights of persons in possession.

TO THE EXTENT PERMITTED BY LAW, GRANTEE HEREBY AGREES TO INDEMNIFY, DEFEND AND HOLD GRANTOR, ITS AFFILIATES AND THEIR RESPECTIVE SUCCESSORS AND ASSIGNS HARMLESS FROM AND AGAINST ANY AND ALL LOSSES, LIABILITY, CLAIMS, DEMANDS, SUITS, CAUSES OF ACTION, JUDGMENTS, DAMAGES, FEES, COSTS OR EXPENSES (INCLUDING WITHOUT LIMITATION, ATTORNEYS' FEES AND COSTS OF DISPUTE RESOLUTION) OF ANY KIND OR NATURE ARISING OUT OF OR RELATED TO (i) GRANTEE'S USE OF THE EASEMENT TRACT (INCLUDING THE CONSTRUCTION, MAINTENANTCE, OPERATION, AND REPAIR OF THE UTILITIES) OR CONSTRUCTION OF THE UTILITIES WITHIN OR UNDER THE EASEMENT TRACT; AND/OR (ii) THE PERFORMANCE OF OR FAILURE TO PERFORM ANY DUTY, RESPONSIBILITY OR OBLIGATION OF THE GRANTEE WITH RESPECT TO THE EASEMENT. GRANTEE DOES HEREBY AGREE THAT THE DUTIES AND OBLIGATIONS IN THIS PARAGRAPH SHALL BE BINDING ON ITS SUCCESSORS AND ASSIGNS.

This instrument does not constitute a conveyance of any part of the Easement Tract nor of the mineral rights therein and thereunder, nor of any surface rights other than the Easement Area herein specifically described to the extent necessary to accomplish the purpose herein expressed, and any and all other rights, the exercise of which will not unduly interfere with the rights herein granted, are hereby reserved to Grantor.

Any assignment by Grantee of any of the rights granted by this instrument, in whole or in part, without first obtaining written consent of Granter, shall be void unless expressly ratified in writing by Grantor, and the granting of any such consent by Grantor shall not have the effect of waiving this limitation as to any future, further or additional assignments.

TO HAVE AND TO HOLD the right to use the Easement Tract as herein provided unto Grantee, its successors and assigns, until such time as the Utilities are constructed or installed and then for so long thereafter as they are maintained on the Easement Tract, subject however, to automatic termination, extinguishment and reversion if (1) Grantee, its successors or assigns, fails to commence construction of the Utilities within ten (10) years from the Effective Date or fails to complete the construction of the Utilities within twenty four (24) months from the date of commencement of the construction, or (2) after completion or construction of the Utilities, the Utilities cease to be used for the purpose herein expressed for twenty four (24) consecutive months, or (3) Grantor's rights in and to the Easement Tract existing solely by virtue of an existing lease or other agreement should cease. In the event of such termination, Grantee shall immediately prepare and record a release of this instrument, and furnish a copy of same to Grantor.

This agreement embodies and includes the entire agreement between the two undersigned parties with respect to the subject matter herein and no reliance is placed upon previous writing, communications or implied representations, inducements or understandings of any kind whatsoever and they are excluded herefrom. This agreement may not be amended except by written instrument executed by both parties.

The provisions hereof shall be covenants running with the lands and shall be binding upon and inure to the benefit of Grantor and Grantee and their respective successors and assigns.

IN WITNESS WHEREOF, this instrument is executed this _____ day of _____ A.D. 20__.

GRANTOR

OCCIDENTAL PERMIAN LTD.

By: David J. Woest
Attorney-in Fact

THE STATE OF TEXAS §
§
COUNTY OF HARRIS §

This instrument was acknowledged before me on the 29th day of July, 2020, by David J. Woest, Attorney-in-Fact of OCCIDENTAL PERMIAN, LTD., a Texas limited partnership.

MY COMMISSION EXPIRES

6-12-2023

Notary Public, State of Texas

RHETT D LAFLEUR
Notary ID #130258282
My Commission Expires
June 12, 2023

GRANTEE

CITY OF MIDLAND, TEXAS

By: Courtney Sharp

ATTEST:

Amy M. Turner, City Secretary

FIELD NOTES
FOR
A 22.21 ACRE EASEMENT
OUT OF
SECTIONS 9, 10, AND 11,
BLOCK 39, T-1-S,
T.& P. RR. CO. SURVEY
MIDLAND COUNTY, TEXAS

BEING a 22.21 acre tract out of Sections 9, 10, and 11, Block 39, T-1-S, T&P RR Co. Survey, Midland County, Texas, as conveyed to Occidental Permian LTD, recorded in Document No. 2010-17172, Official Public Records, Midland County, Texas, said 22.21 acre tract being more particularly described as follows:

Bearings and distances are grid, NAD 83 Texas Central Zone based on GPS observations

BEGINNING at (N= 10,721,307.29' and E= 1,736,532.25') a found 1/2 inch iron rod on the West line of said Section 9 for the southwest corner of this easement, same being the southwest corner of a 44.59 acre easement recorded in Document No. 2016-22809, Official Public Records, Midland County, Texas, where a found 1/2 inch iron rod at southwest corner of Section 9 bears 3,206.4' S 14°21'04"E.

THENCE North 14 degrees 21 minutes 11 seconds West a distance of 60.00 feet to a point, where a found 1/2 inch iron rod on the West line of said Section 9 for the northwest corner of a 44.59 acre easement recorded in Document No. 2016-22809, Official Public Records, Midland County, Texas bears 60.0' N 14°21'11" W;

THENCE North 75 degrees 52 minutes 06 seconds East a distance of 8,126.66 feet to a point;

THENCE with a curve turning to the left having a delta angle of 28 degrees 26 minutes 41 seconds, a radius of 997.61 feet, an arc length of 495.27 feet, and a chord bearing North 61 degrees 38 minutes 45 seconds East a distance of 490.20' to a point;

THENCE North 47 degrees 30 minutes 35 seconds East a distance of 100.61 feet to a point;

THENCE with a curve turning to the right having a delta angle of 27 degrees 35 minutes 43 seconds, a radius of 1,002.70 feet, an arc length of 482.93 feet, and a chord bearing North 61 degrees 18 minutes 27 seconds East a distance of 478.28' to a point;

THENCE North 75 degrees 09 minutes 06 seconds East a distance of 5,131.43 feet to a point;

THENCE with a curve turning to the right having a delta angle of 36 degrees 33 minutes 23 seconds, a radius of 1,000.29 feet, an arc length of 638.22 feet, and a chord bearing South 86 degrees 34 minutes 13 seconds East a distance of 627.44' to a point;

THENCE South 68 degrees 18 minutes 05 seconds East a distance of 673.66 feet to a point;

THENCE with a curve turning to the left having a delta angle of 08 degrees 09 minutes 50 seconds, a radius of 748.40 feet, an arc length of 106.63 feet, and a chord bearing South 72 degrees 20 minutes 45 seconds East a distance of 106.54' to a point;

THENCE North 89 degrees 12 minutes 03 seconds East a distance of 115.82 feet to a point;

THENCE North 75 degrees 40 minutes 31 seconds East at a distance of 252.35 feet to a point in the west right-of-way line of Business State Highway 349, where a found, bent 1/2 inch iron rod at the northeast corner of said 44.59 acre easement bears 20.13' N 14°30'15" W;

THENCE South 14 degrees 30 minutes 15 seconds East a distance of 60.00 feet to a point in the west right-of-way line of Business State Highway 349, where a found 1/2 inch iron rod with plastic cap marked "PLS 1974" at the southeast corner of said 44.59 acre easement bears 79.90' S 14°30'15 E;

THENCE South 75 degrees 40 minutes 31 seconds West a distance of 259.65 feet to a point;

THENCE South 89 degrees 12 minutes 03 seconds West a distance of 130.35 feet to a point on the south line of said 44.59 acre easement;

THENCE, along the south line of said 44.59 acre easement, with a curve turning to the right having a delta angle of 08 degrees 42 minutes 36 seconds, a radius of 808.40 feet, an arc length of 122.89 feet, and a chord bearing North 72 degrees 37 minutes 08 seconds West a distance of 122.77' to a found 1/2 inch iron rod with plastic cap marked "PLS 1974" at the end of the curve;

THENCE North 68 degrees 18 minutes 05 seconds West, along the south line of said 44.59 acre easement, a distance of 673.63 feet to a point;

THENCE, along the south line of said 44.59 acre easement, with a curve turning to the left having a delta angle of 36 degrees 32 minutes 15 seconds, a radius of 940.76 feet, an arc length of 599.92 feet, and a chord bearing North 86 degrees 34 minutes 13 seconds West a distance of 589.81' to a found 1/2 inch iron rod with plastic cap marked "PLS 1974";

THENCE South 75 degrees 09 minutes 06 seconds West, along the south line of said 44.59 acre easement, a distance of 5,131.38 to a found 1/2 inch iron rod with plastic cap marked "PLS 1974";

THENCE, along the south line of said 44.59 acre easement, with a curve turning to the left having a delta angle of 27 degrees 41 minutes 18 seconds, a radius of 939.60 feet, an arc length of 454.06 feet, and a chord bearing South 61 degrees 18 minutes 27 seconds West a distance of 449.66' to a 1/2 inch iron rod;

THENCE South 47 degrees 30 minutes 35 seconds West, along the south line of said 44.59 acre easement, a distance of 100.57 feet to a found 1/2 inch iron rod with plastic cap marked "PLS 1974";

THENCE, along the south line of said 44.59 acre easement, with a curve turning to the right having a delta angle of 28 degrees 16 minutes 29 seconds, a radius of 1,063.75 feet, an arc length of 524.95 feet, and a chord bearing South 61 degrees 38 minutes 50 seconds West a distance of 519.63' to a point;

THENCE South 75 degrees 52 minutes 06 seconds West, along the south line of said 44.59 acre easement, at 2,967.26 feet passing a found 1/2 inch iron rod with plastic cap marked "PLS 1974", at 3,127.13 feet passing a found 1/2 inch iron rod with plastic cap marked "PLS 1974", continuing for a total distance of 8,126.42 feet to the Point of Beginning containing an area of 22.21 acres. Surveyed on the ground April 10, 2019. See attached plat.

I, RILEY ELMER GRIFFITH, R.P.L.S. #5863 DO HEREBY CERTIFY THAT THE PLAT HEREON WAS PREPARED FROM AN ACTUAL SURVEY MADE ON THE GROUND DURING THE MONTH OF APRIL, 2019.

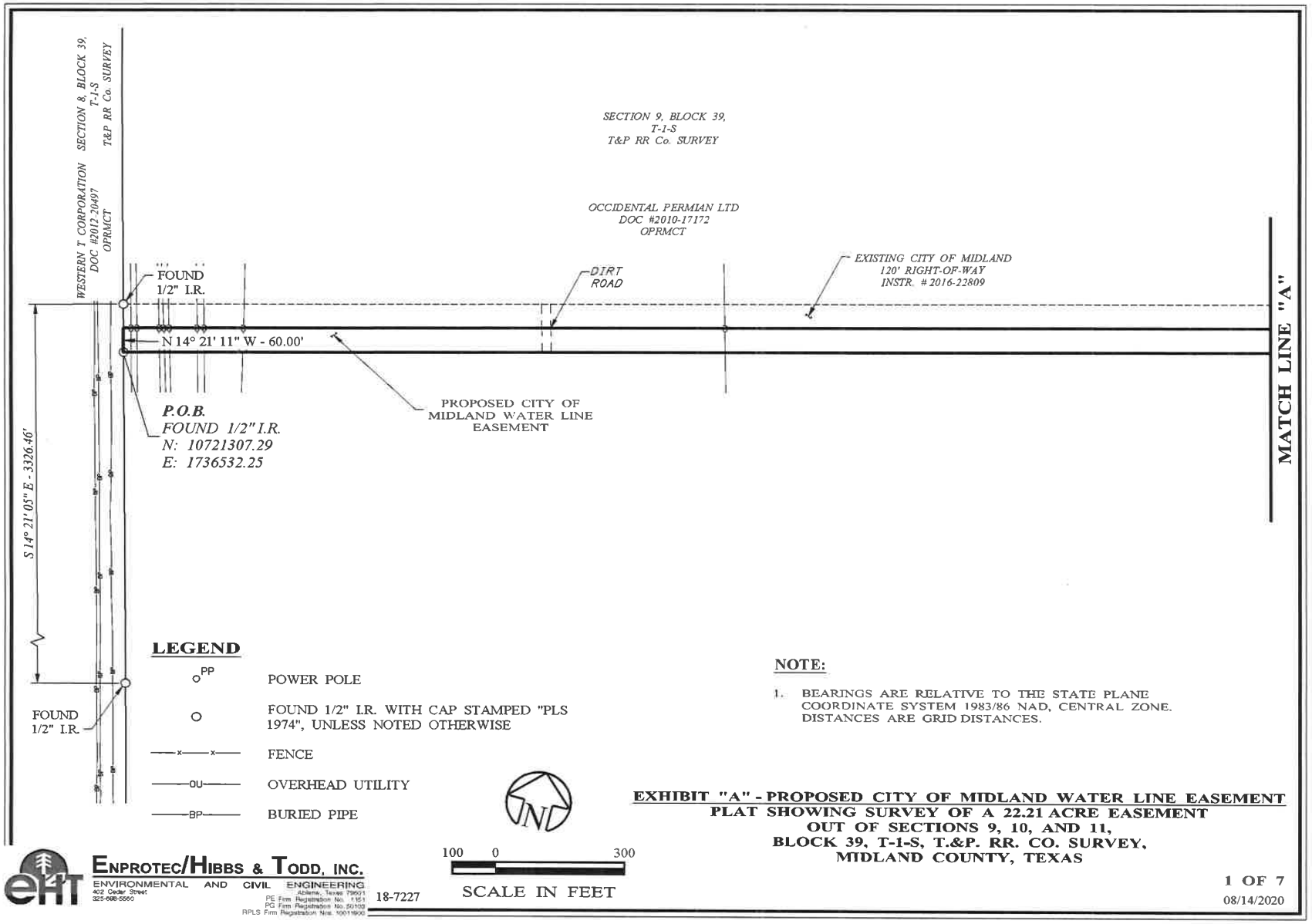
RILEY ELMER GRIFFITH, R.P.L.S. #5863

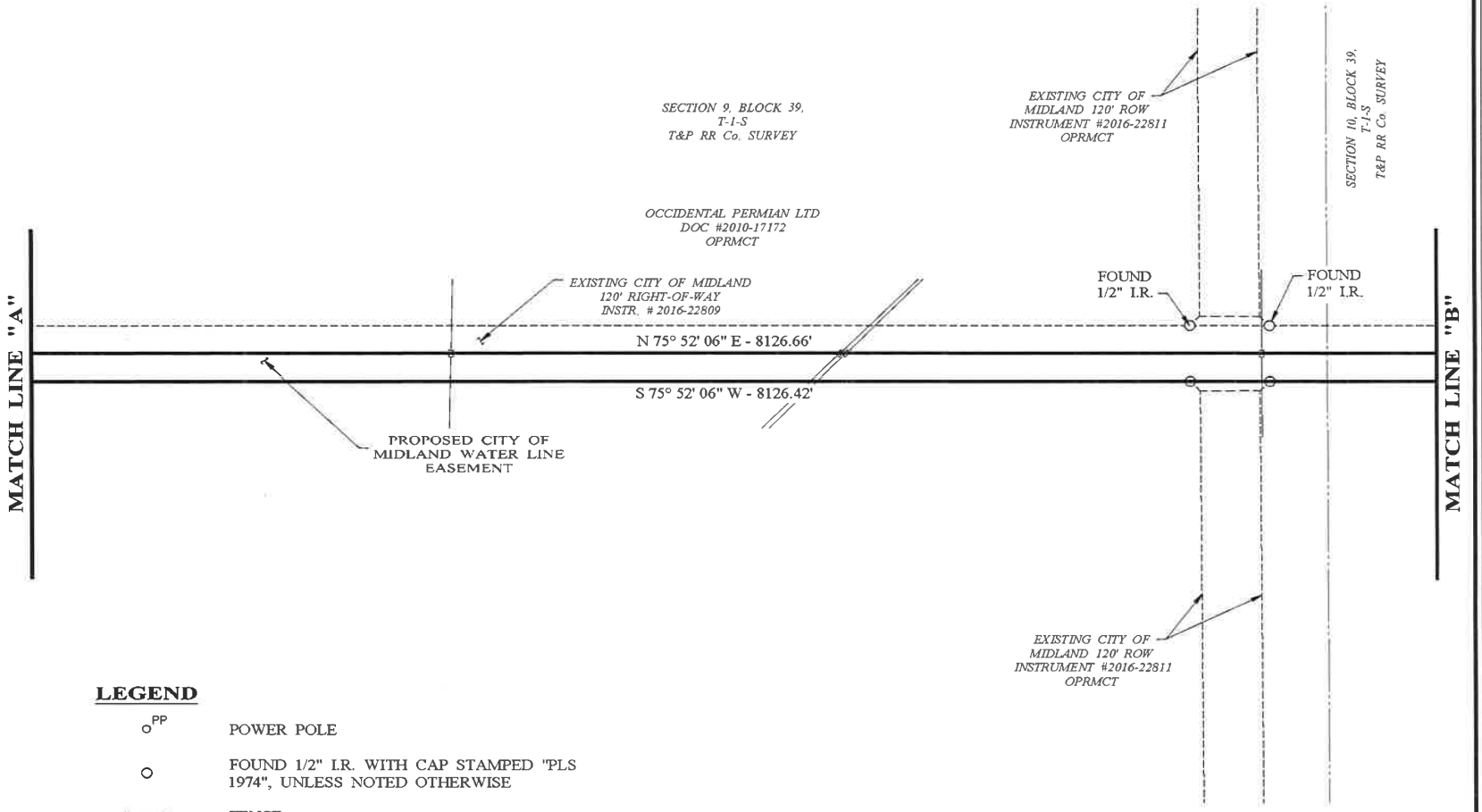
DATE 08/14/2020

ENPROTEC/HIBBS & TODD, INC.
ENVIRONMENTAL AND CIVIL ENGINEERING
402 Cedar Street
325-998-6580
Abilene, Texas 79601
PE Firm Registration No. 1151
PG Firm Registration No. 50103
RPLS Firm Registration No. 10011900

18-7227

PACKET
14.526
September 8, 2020


WESTERN T CORPORATION SECTION 8, BLOCK 39, T-1-S T&P RR Co. SURVEY
DOC #2012-20497
OPRMCT
SECTION 9, BLOCK 39, T-1-S T&P RR Co. SURVEY
OCCIDENTAL PERMIAN LTD
DOC #2010-17172
OPRMCT
EXISTING CITY OF MIDLAND 120' RIGHT-OF-WAY INSTR. # 2016-22809
DIRT ROAD
FOUND 1/2" I.R.
N 14° 21' 11" W - 60.00'
P.O.B.
FOUND 1/2" I.R.
N: 10721307.29
E: 1736532.25
PROPOSED CITY OF MIDLAND WATER LINE EASEMENT
MATCH LINE "A"
S 14° 21' 05" E - 3326.46'
FOUND 1/2" I.R.
LEGEND
PP
POWER POLE
FOUND 1/2" I.R. WITH CAP STAMPED "PLS 1974", UNLESS NOTED OTHERWISE
FENCE
OU
OVERHEAD UTILITY
BP
BURIED PIPE
NOTE:
1. BEARINGS ARE RELATIVE TO THE STATE PLANE COORDINATE SYSTEM 1983/86 NAD, CENTRAL ZONE. DISTANCES ARE GRID DISTANCES.
100 0 300
SCALE IN FEET
EXHIBIT "A" - PROPOSED CITY OF MIDLAND WATER LINE EASEMENT
PLAT SHOWING SURVEY OF A 22.21 ACRE EASEMENT
OUT OF SECTIONS 9, 10, AND 11,
BLOCK 39, T-1-S, T.&P. RR. CO. SURVEY,
MIDLAND COUNTY, TEXAS
ENPROTEC/HIBBS & TODD, INC.
ENVIRONMENTAL AND CIVIL ENGINEERING
402 Cedar Street
325-698-5560
Abilene, Texas 79601
PE Firm Registration No. 1151
PG Firm Registration No. 50105
RPLS Firm Registration No. 10011900
18-7227
1 OF 7
08/14/2020



LEGEND

- PP — POWER POLE
- FOUND 1/2" I.R. WITH CAP STAMPED "PLS 1974", UNLESS NOTED OTHERWISE
- FENCE
- OU — OVERHEAD UTILITY
- BP — BURIED PIPE

100 0 300

SCALE IN FEET

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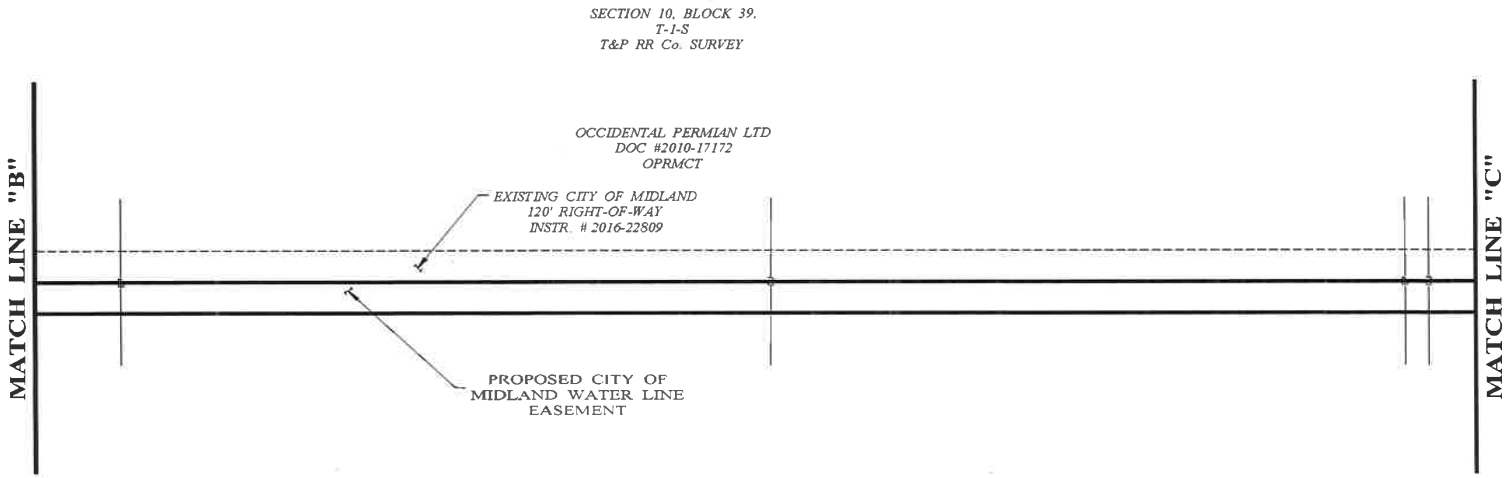
325-698-5560
Abilene, Texas 79601
PE Firm Registration No. 1151
PG Firm Registration No. 50103
RPLS Firm Registration Nos 10011900

18-7227



LEGEND

o PP	POWER POLE
o	FOUND 1/2" I.R. WITH CAP STAMPED "PLS 1974", UNLESS NOTED OTHERWISE
——x——x——	FENCE
——OU——	OVERHEAD UTILITY
——BP——	BURIED PIPE

100 0 300

SCALE IN FEET

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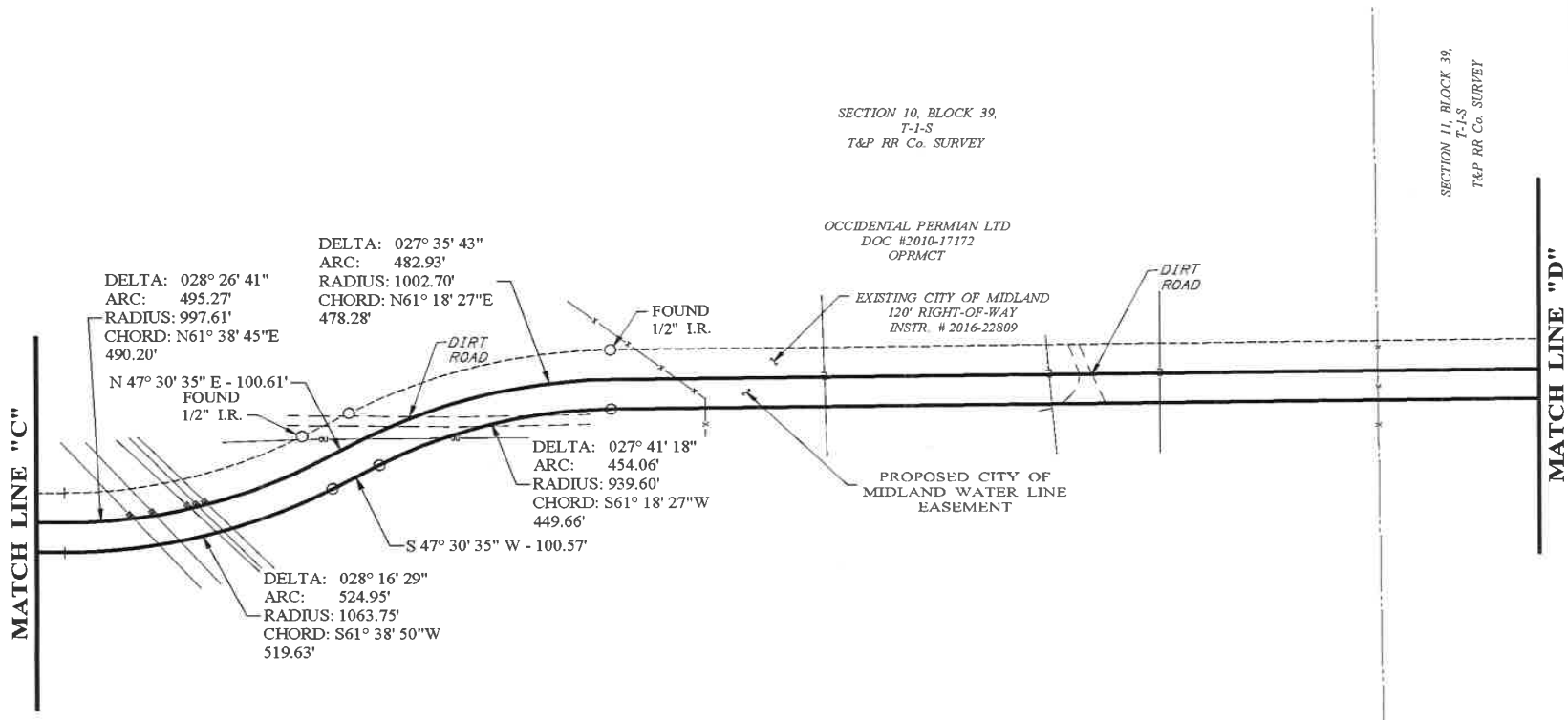

LEGEND

o PP	POWER POLE
o	FOUND 1/2" I.R. WITH CAP STAMPED "PLS 1974", UNLESS NOTED OTHERWISE
—x—x—	FENCE
—OU—	OVERHEAD UTILITY
—BP—	BURIED PIPE

N

100 0 300

SCALE IN FEET

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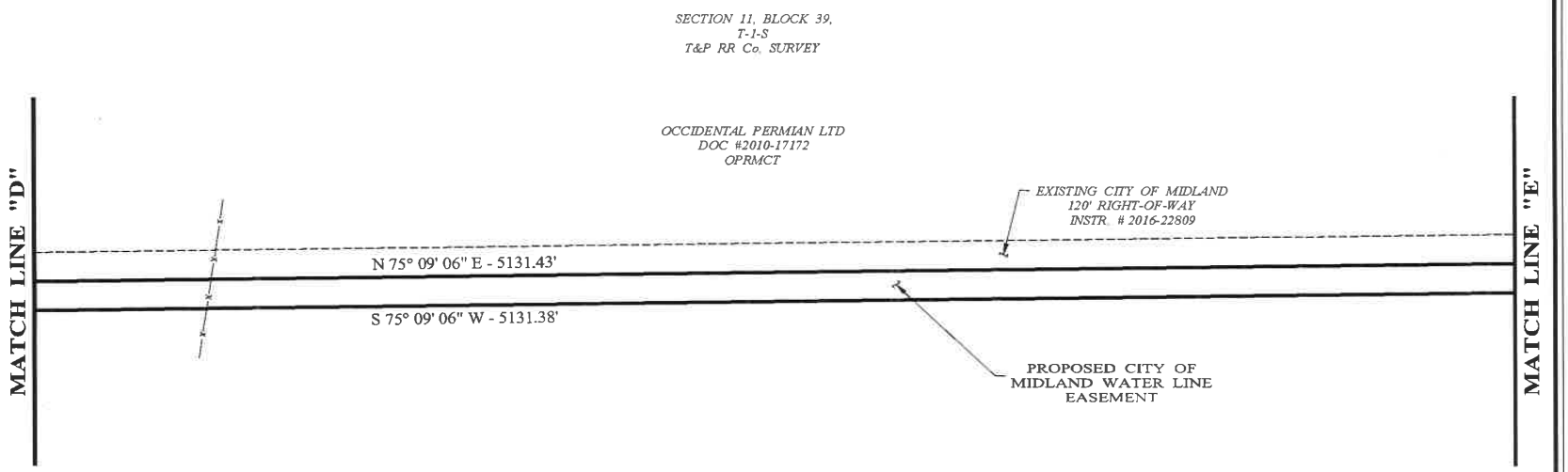
402 Cedar Street
325-698-5560
Abilene, Texas 79601
PE Firm Registration No. 1151
PG Firm Registration No. 50109
RPLS Firm Registration Nos. 10011500

18-7227

08/14/2020



LEGEND

o PP	POWER POLE
o	FOUND 1/2" I.R. WITH CAP STAMPED "PLS 1974", UNLESS NOTED OTHERWISE
——x——x——	FENCE
——OU——	OVERHEAD UTILITY
——BP——	BURIED PIPE

100 0 300

SCALE IN FEET

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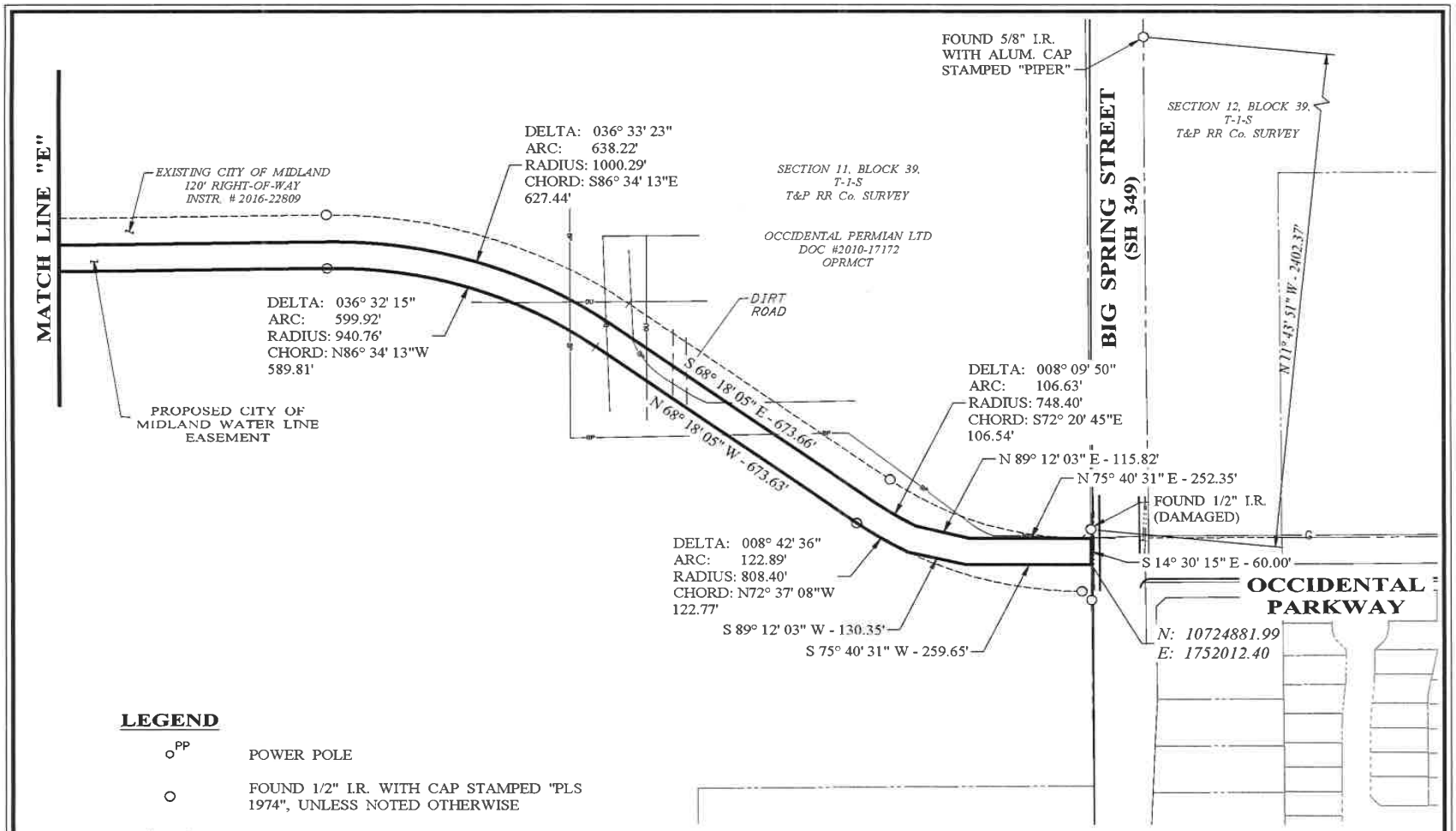
RPLS Firm Registration Nos. 10019400

18-7227

5 OF 7

08/14/2020



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402 Cedar Street
325-698-5560
Abilene, Texas 79601
PE Firm Registration No. 1151
PG Firm Registration No. 50103
RPLS Firm Registration Nos. 10011900

18-7227

Occidental Permian Ltd.

5 Greenway Plaza, Suite 110, Houston, TX 77046
Phone: 713.215.7000

Rhett D. LaFleur, CPL, Surface Land Manager
Office: 713.366.5316
E-mail: Rhett_LaFleur@oxy.com

July 29, 2020

Via FedEx

John Simmons
Right-of-Way Manager
City of Midland
300 N. Loraine
Midland, TX 79701

RE: **Public Utility Easement**
South Curtis Ranch
Martin and Midland Counties, TX

Dear John:

Please find enclosed two (2) executed and notarized originals of a Public Utility Easement by and between Occidental Permian, Ltd. as Grantor and the City of Midland, Texas as Grantee covering lands owned by Oxy in Martin and Midland Counties, Texas as described in the instruments.

Please return one (1) fully executed original of the easement and payment in the amount of $500,000.00 to my attention at the address below and once the easement is recorded in the records of the appropriate counties, please provide a scanned copy of the document with recording information to me at the email address herein.

If you have any questions or concerns, please contact me at (713) 366-5316 or via email at Rhett_LaFleur@oxy.com. I may also be contacted in writing, to my attention, at OXY, 5 Greenway Plaza, Suite 110, Houston, Texas 77046.

Respectfully,

Rhett D. LaFleur, CPL
Surface Land Manager
Occidental Permian Ltd.

Enclosures

PACKET
14.533
September 8, 2020

YOU ARE NOT AUTHORIZED TO FILE THIS OPINION OF RECORD INDEPENDENTLY OR AS AN ATTACHMENT TO ANY DOCUMENT

OPINION

DOWN THROUGH: November 8, 2019

DATE: November 25, 2019

EXACT LEGAL DESCRIPTION

A 44.59 acre easement located in Sections 9, 10, and 11, Block 39, T-1-S, T&P RR Co Survey, Midland County, Texas, and being more fully described in **Exhibit "A"**, which is attached hereto and included herein for all purposes.

My examination is based upon:

1. Plant Records of WEST TEXAS ABSTRACT & TITLE CO., INC.
2. PREVIOUS FILES: GF-
3. OTHER: Current run sheet.

I find record, fee simple title to be vested in: OCCIDENTIAL PERMIAN, LTD.

EXCEPTIONS

1. All visible and apparent easements and all underground easements, the existence of which may arise by unrecorded grant or by use.
2. Rights of parties in possession.
3. Rights of parties in possession under any unrecorded, written or oral lease agreements by and between the present owner and/or their predecessors in title as lessor and unknown persons as lessees covering any or the herein described property.
4. Any and all unrecorded leaseholds, rights of vendors and holders of security interests on personal property installed upon the property by tenants, and rights of tenants to remove trade fixtures at the expiration or the term of leases.
5. Visible and apparent easements.
6. Portion of the property that may lie within any roadway.
7. Any encroachment, encumbrance, violation, variation, or adverse circumstance affecting the title that would be disclosed by an accurate and complete land survey or the land.
8. Affidavit executed by City of Midland to Billy Dickie dated March 31, 2010 and recorded April 16, 2010 in Document Number 2010-7070, Official Records of Midland County, Texas.
9. Restrictive Covenants in Deed executed by Scharbauer Minerals to South Curtis Ranch, LP dated May 4, 2010 and recorded May 5, 2010 in Document Number 2010-8402, Official Records of Midland County, Texas.
10. Right of Way executed by Occidental Permian LTD to Enterprise Crude Pipeline LLC dated September 21, 2011 and recorded October 13, 2011 in Document Number 2011-20677, Official Records of Midland County, Texas.
11. Right of Way executed by Occidental Permian LTD to Blue Stem Energy Assets LLC dated December 1, 2011 and recorded January 19, 2012 in Document Number 2012-1041, Official Records of Midland County, Texas.
12. Agreement executed by Occidental Permian LTD to WTG Gas Processing LP dated June 8, 2012 and recorded August 14, 2012 in Document Number 2012-17418, Official Records of Midland County, Texas.
13. Right of Way executed by Occidental Permian LTD and Occidental Permian Manager LLC to Centurion Pipeline GP INC and Centurion Pipeline LP dated August 14, 2012 and recorded August 30, 2012 in Document Number 2012-18883, Official Records of Midland County, Texas.
14. Right of Way executed by Occidental Permian LTD and Occidental Permian Manager LLC to Centurion Pipeline GP INC and Centurion Pipeline LP dated August 24, 2011 and recorded October 17, 2012 in Document Number 2012-22679, Official Records of Midland County, Texas.
15. Right of Way executed by Occidental Permian LTD and Occidental Permian Manager LLC to Lone Star NGL Asset GP LLC and Lone Star NGL Pipeline LP dated December 6, 2012 and

recorded January 10, 2013 in Document Number 2013-878, Official Records of Midland County, Texas.

16. Right of Way executed by Occidental Permian LTD and Occidental Permian Manager LLC to Coronado Midstream LLC dated February 24, 2014 and recorded March 21, 2014 in Document Number 2014-6253, Official Records of Midland County, Texas.
17. Right of Way executed by Occidental Permian LTD and Occidental Permian Manager LLC to Coronado Midstream LLC dated January 15, 2015 and recorded February 6, 2015 in Document Number 2015-2822, Official Records of Midland County, Texas.
18. Right of Way executed by Occidental Permian LTD and Occidental Permian Manager LLC to Rangeland Rio Pipeline LLC dated October 23, 2014 and recorded March 12, 2015 in Document Number 2015-5494, Official Records of Midland County, Texas.
19. Right of Way executed by Occidental Permian LTD and Occidental Permian Manager LLC to Diamondback E&P LLC dated June 1, 2016 and recorded June 24, 2016 in Document Number 2016-17455, Official Records of Midland County, Texas.
20. Right of Way executed by Occidental Permian LTD and Occidental Permian Manager LLC to City of Midland Texas dated July 12, 2016 and recorded August 12, 2016 in Document Number 2016-22809, Official Records of Midland County, Texas.
21. Right of Way executed by Occidental Permian LTD and Occidental Permian Manager LLC to City of Midland Texas dated July 12, 2016 and recorded August 12, 2016 in Document Number 2016-22811, Official Records of Midland County, Texas.
22. Right of Way executed by Oncor Electric Delivery Company LLC and RSP Permian LLC dated October 25, 2016 and recorded November 8, 2016 in Document Number 2016-31590, Official Records of Midland County, Texas.
23. Right of Way executed by Occidental Permian LTD to Enlink Energy GP LLC and Enlink North Texas Gathering LP dated January 1, 2017 and recorded June 14, 2017 in Document Number 2017-17684, Official Records of Midland County, Texas.
24. Right of Way executed by Occidental Permian LTD and Occidental Permian Manager LLC to Enlink Energy GP LLC and Enlink North Texas Gathering LP dated July 23, 2019 and recorded August 7, 2019 in Document Number 2019-24148, Official Records of Midland County, Texas.
25. Right of Way executed by Occidental Permian LTD and Occidental Permian Manager LLC to Parsley Energy LP and Parsley GP LLC dated July 29, 2019 and recorded August 20, 2019 in Document Number 2019-25499, Official Records of Midland County, Texas.
26. Donation Deed from Clarence Scharbauer Jr. to State of Texas recorded December 11, 2007 and recorded on Volume 2969, Page 295, Deed Records of Midland County, Texas.
27. Restrictive Covenants in Warranty Deed executed by South Curtis Ranch to Occidental Permian LTD, dated and recorded August 31, 2010 in Document No. 2010-17172, Official Records of Midland County, Texas.
28. Right of Way executed by Occidental Permian LTD to Lone Star NGL Pipeline LP dated June 4, 2012 and recorded June 15, 2012 in Document Number 2012-12571, Official Records of Midland County, Texas.
29. Right of Way executed by Occidental Permian LTD to Lone Star NGL Pipeline LP dated June 4, 2012 and recorded June 15, 2012 in Document Number 2012-12570, Official Records of Midland County, Texas.
30. Right of Way executed by Occidental Permian LTD to Lone Star NGL Pipeline LP dated June 4, 2012 and recorded June 15, 2012 in Document Number 2012-12572, Official Records of Midland County, Texas.
31. Right of Way executed by Occidental Permian LTD and Occidental Permian Manager LLC to Reliance Gathering LLC dated March 1, 2017 and recorded September 1, 2017 in Document Number 2017-26014, Official Records of Midland County, Texas.
32. Memorandum from Oxy USA Inc, High Sky Partners LLC, Occidental Permian LTD, Oxy Midstream Stategic Development LLC, Atty in Fact to Coronado Midstream LLC and Midmar Gas LLC dated August 1, 2017 and recorded October 19, 2018 in Document Number 2018-30559, Official Records of Midland County, Texas.
33. Deed executed by Diamondback E&P LLC, Diamondback O&G LLC, Cumberland & Western Resources LLC, Sushir LTD, Occidental Permian LTD, City of Midland, P Bar Parks Bell Ranch LLC, Fasken Land and Minerals LTD, Autry C. Stephens, and Western T Corporation to Rattler Midstream LLC dated November 29, 2018 and recorded November 30, 2018 in Document Number 2018-34998, Official Records of Midland County, Texas.
34. Right of Way executed by Occidental Permian LTD and Occidental Permian Manager LLC to Nustar Permian Transportation and Storage LLC dated July 9, 2019 and recorded August 20, 2019 in Document Number 2019-25518, Official Records of Midland County, Texas.
35. Memorandum of Lease executed by Oxy USA Inc to Sharyland Distribution and Transmission Services LLC dated September 12, 2014 and recorded November 10, 2014 in Document Number 2014-26498, Official Records of Midland County, Texas.

36. Right of Way executed by Occidental Permian LTD and Occidental Permian Manager LLC to Sunoco Logistics Partners Operations GP LLC and Sunoco Pipeline LP dated September 25, 2015 and recorded October 8, 2015 in Document Number 2015-26027, Official Records of Midland County, Texas.
37. Right of Way executed by Occidental Permian LTD and Occidental Permian Manager LLC to Sunoco Logistics Partners Operations GP LLC and Sunoco Pipeline LP dated March 9, 2016 and recorded March 29, 2016 in Document Number 2016-8409, Official Records of Midland County, Texas.
38. Right of Way executed by Ceniza Air LLC to Sharyland Utilities LP dated August 2, 2016 and recorded August 15, 2015 in Document Number 2016-22886, Official Records of Midland County, Texas.
39. Right of Way executed by Occidental Permian LTD and Occidental Permian Manager LLC to Oncor Electric Delivery Company LLC dated July 5, 2016 and recorded August 15, 2016 in Document Number 2016-22893, Official Records of Midland County, Texas.
40. Right of Way executed by Occidental Permian LTD to Enlink North Texas Gathering LP, dated September 9, 2016 and recorded September 28, 2016 in Document Number 2016-27690, Official Records of Midland County, Texas.
41. Right of Way executed by Occidental Permian LTD and Occidental Permian Manager LLC to RSP Permian LCC dated December 21, 2016 and recorded February 13, 2017 in Document Number 2017-4463, Official Records of Midland County, Texas.
42. Right of Way executed by Occidental Permian LTD and Occidental Permian Manager LLC to Navitas Midstream Midland Basin LLC dated May 1, 2017 and recorded July 21, 2017 in Document Number 2017-21619, Official Records of Midland County, Texas.
43. Right of Way executed by Occidental Permian LTD and Occidental Permian Manager LLC to City of Midland and Courtney Sharp dated July 31, 2017 and recorded October 6, 2017 in Document Number 2017-29514, Official Records of Midland County, Texas.
44. Right of Way executed by Occidental Permian LTD and Occidental Permian Manager LLC to West Texas LPG Pipeline Limited Partnership and Oneok Permian NGL Operating Company LLC dated March 1, 2018 and recorded April 18, 2018 in Document Number 2018-10970, Official Records of Midland County, Texas.
45. Right of Way executed by Occidental Permian LTD and Occidental Permian Manager LLC to Nustar Permian Transportation and Storage LLC dated May 30, 2018 and recorded July 26, 2018 in Document Number 2018-21475, Official Records of Midland County, Texas.
46. Correction Deed executed by Scharbauer Minerals LP to South Curtis Ranch LP dated August 30, 2010 and recorded August 31, 2010 in Document Number 2010-17171, Official Records of Midland County, Texas.

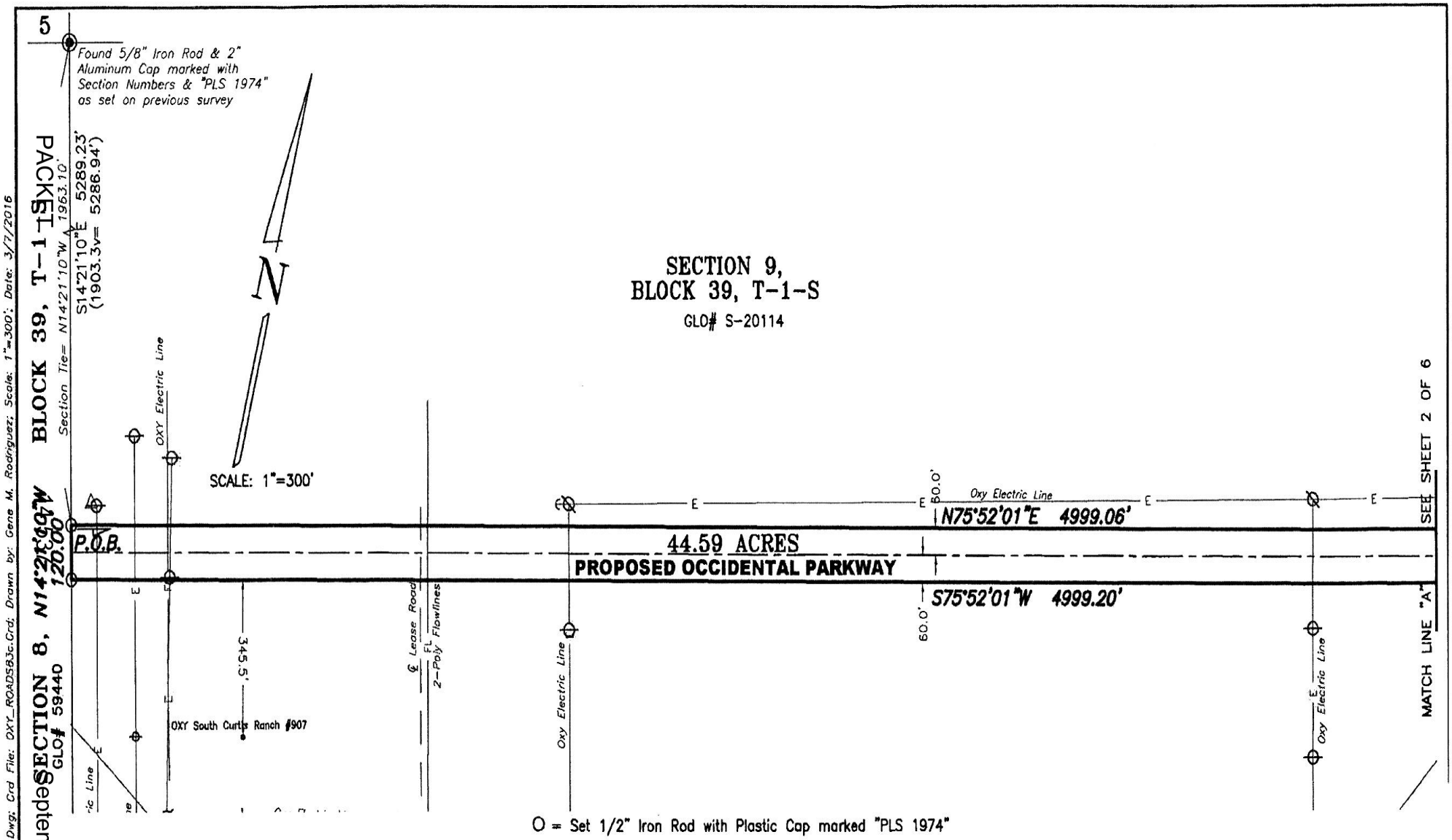
REQUIREMENTS

FOR INFORMATION PURPOSES ONLY: Our Office has performed a twenty-four (24) month deed search on the subject property and finds the following conveyance of record: (1) Warranty Deed executed by South Curtis Ranch, LP to Occidental Permian LTD, dated and recorded August 31, 2010 in Document No. 2010-17172, Official Records of Midland County, Texas; (2) Easement from Occidental Permian Ltd. recorded under Instrument Numbers 2016-22809, 2016-22811 and 2017-29514, Official Records of Midland County, Texas.

COMMENTS

1. **This opinion does not cover title to or effect of any oil, gas and/or minerals exploration or development, in, on and under the property herein described.**
2.

J. Brian Martin,
Examining Attorney



O = Set 1/2" Iron Rod with Plastic Cap marked "PLS 1974"

EXHIBIT "A"–PROPOSED OCCIDENTAL PARKWAY

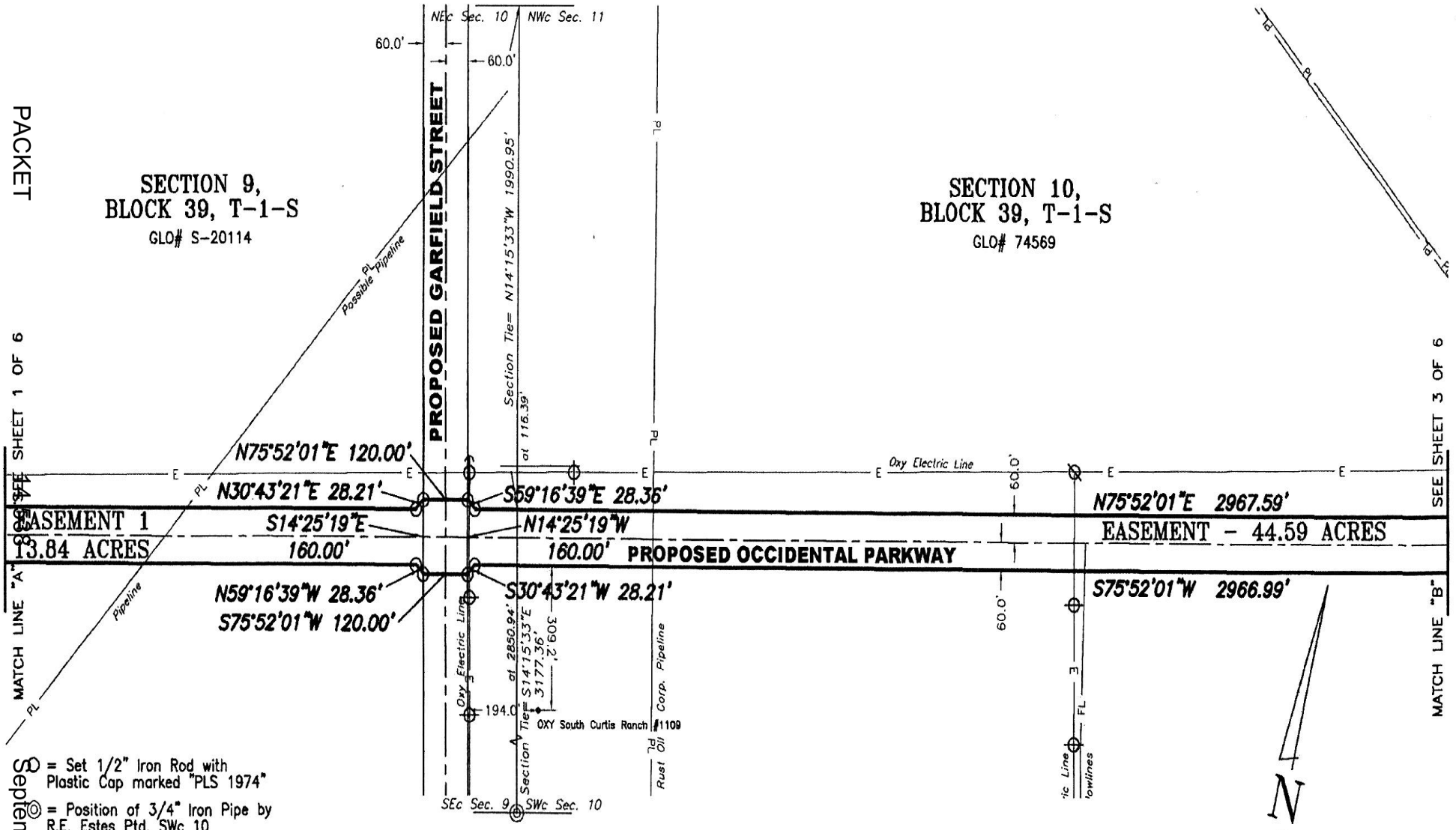
PLAT SHOWING SURVEY OF A 44.59 ACRE EASEMENT LOCATED IN SECTIONS 9, 10, AND 11, BLOCK 39, T-1-S, T.&P. RR. CO. SURVEY, MIDLAND COUNTY, TEXAS

Drawing File: PSC-OXYRoads83c.Dwg; Crd File: OXY_ROADS83c.Crd; Drawn by: Gene M. Rodriguez; Scale: 1"=300'; Date: 3/7/2016

September 8, 2020

PIPER SURVEYING P.O. BOX 60432; MIDLAND, TEXAS 79711; 432.550.7810; FIRM NO. 10155200

228109



● = Set 1/2" Iron Rod with Plastic Cap marked "PLS 1974"

◎ = Position of 3/4" Iron Pipe by R.E. Estes Ptd. SWc 10

EXHIBIT "A"–PROPOSED OCCIDENTAL PARKWAY

PLAT SHOWING SURVEY OF A 44.59 ACRE EASEMENT LOCATED IN SECTIONS 9, 10, AND 11, BLOCK 39, T-1-S, T.&P. RR. CO. SURVEY, MIDLAND COUNTY, TEXAS

SCALE: 1"=300'

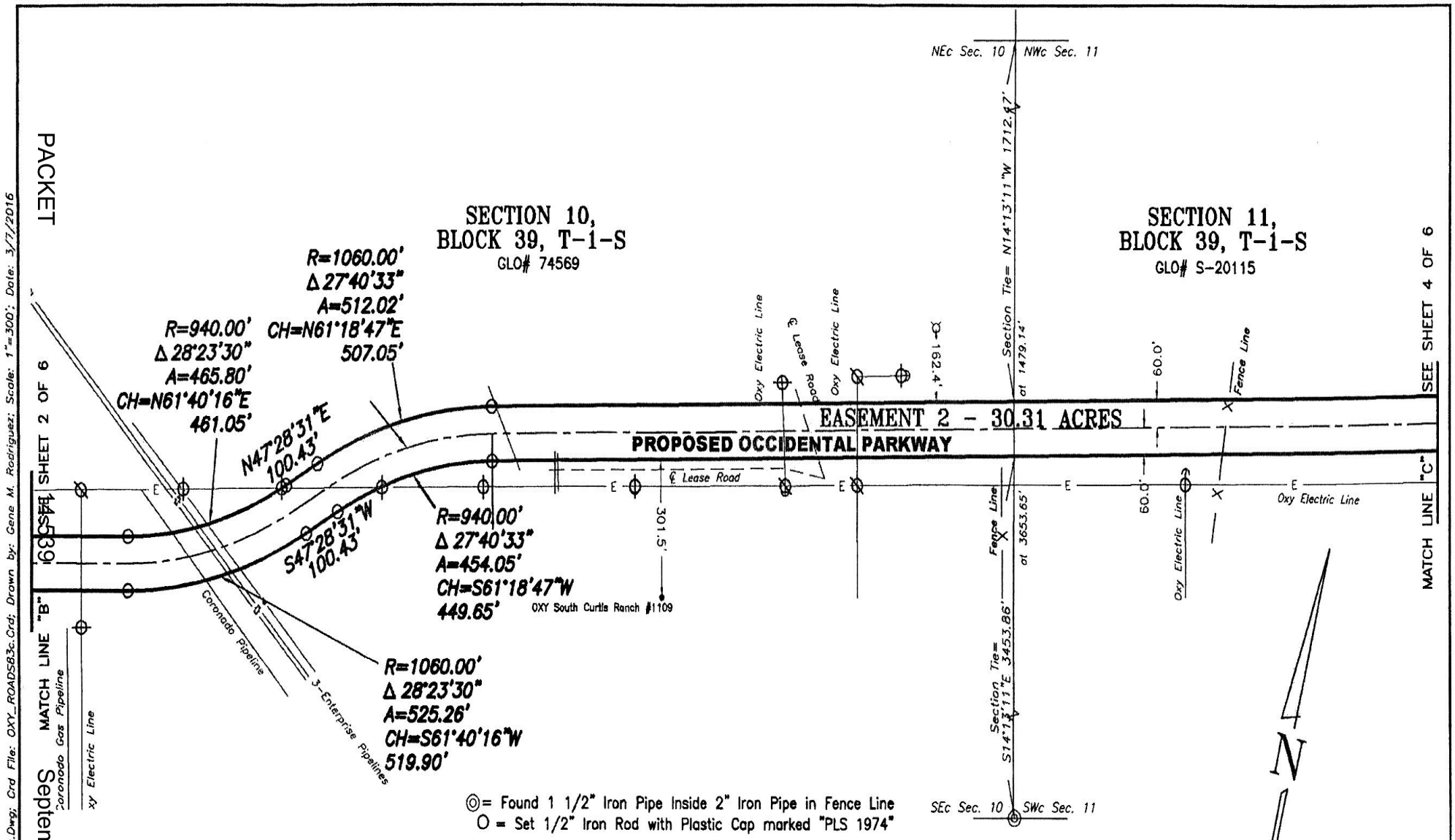
September 8, 2020

22809

PACKET

Drawing File: PSC-OXYRoads83c.Dwg; Crd File: OXY_ROADS83c.Crd; Drawn by: Gene M. Rodriguez; Scale: 1"=300'; Date: 3/7/2016

PIPER SURVEYING P.O. BOX 60432; MIDLAND, TEXAS 79711; 432.550.7810; FIRM NO. 10155200



◎= Found 1 1/2" Iron Pipe Inside 2" Iron Pipe in Fence Line
O = Set 1/2" Iron Rod with Plastic Cap marked "PLS 1974"

SEc Sec. 10 SWc Sec. 11

EXHIBIT "A"–PROPOSED OCCIDENTAL PARKWAY

PLAT SHOWING SURVEY OF A 44.59 ACRE EASEMENT LOCATED IN SECTIONS 9, 10, AND 11, BLOCK 39, T-1-S, T.&P. RR. CO. SURVEY, MIDLAND COUNTY, TEXAS

PIPER SURVEYING P.O. BOX 60432; MIDLAND, TEXAS 79711; 432.550.7810; FIRM NO. 10155200

22819

PACKET
September 8, 2020
Drawing File: PSC-OXY\Roads83c.Dwg; Crd File: OXY_ROADS83c.Crd; Drawn by: Gene M. Rodriguez; Scale: 1"=300'; Date: 3/7/2016

Drawing File: PSC-OXYRoads83c.Dwg; Crd File: OXY_ROADS83c.Crd; Drawn by: Gene M. Rodriguez; Scale: 1"=300'; Date: 3/7/2016

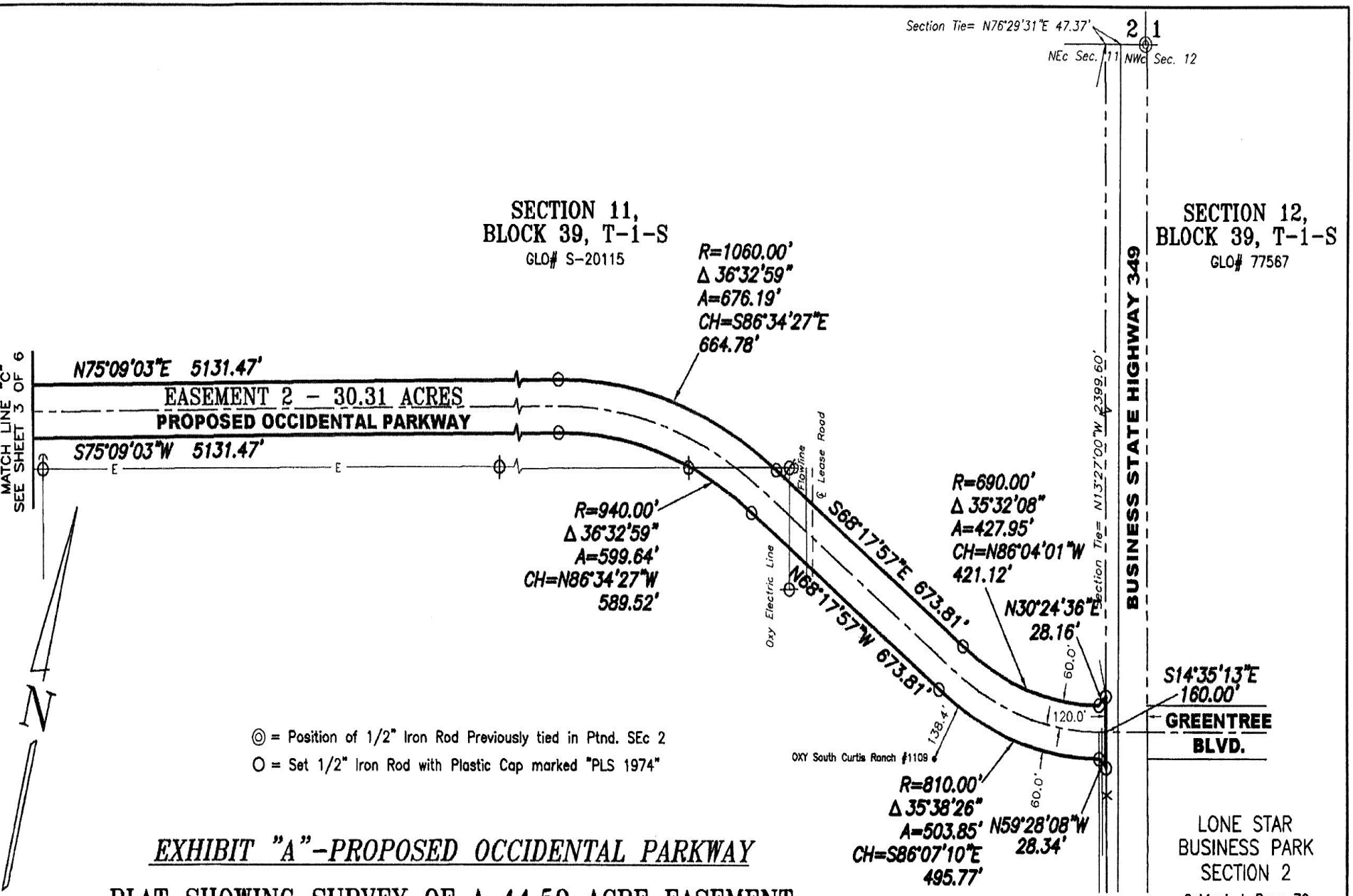


EXHIBIT "A"-PROPOSED OCCIDENTAL PARKWAY

PLAT SHOWING SURVEY OF A 44.59 ACRE EASEMENT LOCATED IN SECTIONS 9, 10, AND 11, BLOCK 39, T-1-S, T.&P. RR. CO. SURVEY, MIDLAND COUNTY, TEXAS

PIPER SURVEYING P.O. BOX 60432; MIDLAND, TEXAS 79711; 432.550.7810; FIRM NO. 10155200

22809

EXHIBIT "A"–PROPOSED OCCIDENTAL PARKWAY

LEGAL DESCRIPTION OF A 44.59 ACRE EASEMENT LOCATED IN SECTIONS 9, 10, AND 11, BLOCK 39, T–1–S, T.&P. RR. CO. SURVEY, MIDLAND COUNTY, TEXAS

22809

Boundary of Easement being further described by metes and bounds as follows:

BEGINNING at (N= 10,721,423.43' and E= 1,736,502.76') a 1/2" iron rod with plastic cap marked "PLS 1974" set on the West line of of said Section 9 at the Northwest corner of this easement, from whence a 5/8" iron rod & 2" aluminum cap marked with section numbers and "PLS 1974" previously set at the Northwest corner of said Section 9 bears N14°21'10"W, a distance of 1963.10 feet;

THENCE N75°52'01"E, a distance of 4999.06 feet to a 1/2" iron rod with plastic cap marked "PLS 1974" set at an interior corner of this easement;

THENCE N30°43'21"E, a distance of 28.21 feet to a 1/2" iron rod with plastic cap marked "PLS 1974" set at an exterior corner of this easement;

THENCE N75°52'01"E, a distance of 120.00 feet to a 1/2" iron rod with plastic cap marked "PLS 1974" set at an exterior corner of this easement;

THENCE S59°16'39"E, a distance of 28.36 feet to a 1/2" iron rod with plastic cap marked "PLS 1974" set at an interior corner of this easement;

THENCE N75°52'01"E, at 116.39 feet pass the common corner of said Sections 9 and 10 continuing for a total distance of 2967.59 feet to a 1/2" iron rod with plastic cap marked "PLS 1974" set at a point of curvature of this easement;

THENCE around a curve to the left in a Northeasterly direction with a radius of 940.00 feet, a delta angle of 28°23'30", an arc length of 465.80 feet and a chord distance of 461.05 feet which bears N61°40'16"E to a 1/2" iron rod with plastic cap marked "PLS 1974" set point of tangency of this easement;

THENCE N47°28'31"E, a distance of 100.43 feet to a 1/2" iron rod with plastic cap marked "PLS 1974" set at point of curvature of this easement;

THENCE around a curve to the right in a Northeasterly direction with a radius of 1060.00 feet, a delta angle of 27°40'33", an arc length of 512.02 feet and a chord distance of 507.05 feet which bears N61°18'47"E to a 1/2" iron rod with plastic cap marked "PLS 1974" set point of tangency of this easement;

THENCE N75°09'03"E, at 1479.14 feet pass the common corner of said Sections 10 and 11 continuing for a total distance of 5131.47 feet to a 1/2" iron rod with plastic cap marked "PLS 1974" set at a point of curvature of this easement;

THENCE around a curve to the right in a Southeasterly direction with a radius of 1060.00 feet, a delta angle of 36°32'59", an arc length of 676.19 feet and a chord distance of 664.78 feet which bears S86°34'27"E to a 1/2" iron rod with plastic cap marked "PLS 1974" set point of tangency of this easement;

THENCE S68°17'57"E, a distance of 673.81 feet to a 1/2" iron rod with plastic cap marked "PLS 1974" set at point of curvature of this easement;

THENCE around a curve to the left in a Southeasterly direction with a radius of 690.00 feet, a delta angle of 35°32'08", an arc length of 427.95 feet and a chord distance of 421.12 feet which bears S86°04'01"E to a 1/2" iron rod with plastic cap marked "PLS 1974" set at an interior corner of this easement;

THENCE N30°24'36"E, a distance of 28.16 feet to a 1/2" iron rod with plastic cap marked "PLS 1974" set at the Northeast corner of this easement, from whence the Northeast corner of said Section 11 bears N13°27'00"W, a distance of 2399.60 feet and N76°29'31"E, a distance of 47.37 feet;

THENCE S14°35'13"E with the West right–of–way line of Business State Highway 349, a distance of 160.00 feet to a 1/2" iron rod with plastic cap marked "PLS 1974" set at the Southeast corner of this easement;

THENCE N59°28'08"W, a distance of 28.34 feet to a 1/2" iron rod with plastic cap marked "PLS 1974" set at an interior corner of this easement;

THENCE around a curve to the right in a Northwesterly direction with a radius of 810.00 feet, a delta angle of 35°38'26", an arc length of 503.85 feet and a chord distance of 495.77 feet which bears N86°07'10"W to a 1/2" iron rod with plastic cap marked "PLS 1974" set a point of tangency of this easement;

THENCE N68°17'57"W, a distance of 673.81 feet to a 1/2" iron rod with plastic cap marked "PLS 1974" set at point of curvature of this easement;

CONTINUED ON SHEET 6 OF 6

Drawing File: P:\14-541\dgn\boundary.dgn; Drawn by: Gene M. Rodriguez; Scale: 1"=300'; Date: 9/1/2016; Revised: 9/1/16 by GMR

EXHIBIT "A"–PROPOSED OCCIDENTAL PARKWAY

LEGAL DESCRIPTION OF A 44.59 ACRE EASEMENT LOCATED IN SECTIONS 9, 10, AND 11, BLOCK 39, T–1–S, T.&P. RR. CO. SURVEY, MIDLAND COUNTY, TEXAS

22809

CONTINUED FROM SHEET 5 OF 6

THENCE around a curve to the left in a Northwesterly direction with a radius of 940.00 feet, a delta angle of 36°32'59", an arc length of 599.64 feet and a chord distance of 589.52 feet which bears N86°34'27"W to a 1/2" iron rod with plastic cap marked "PLS 1974" set at a point of tangency of this easement;

THENCE S75°09'03"W, at 3653.65 feet pass the common line of said Sections 9 and 10 continuing for a total distance of 5131.47 feet to a 1/2" iron rod with plastic cap marked "PLS 1974" set at a point of curvature of this easement;

THENCE around a curve to the left in a Southwesterly direction with a radius of 940.00 feet, a delta angle of 27°40'33", an arc length of 454.05 feet and a chord distance of 449.65 feet which bears S61°18'47"W to a 1/2" iron rod with plastic cap marked "PLS 1974" set a point of tangency of this easement;

THENCE S47°28'31"W, a distance of 100.43 feet to a 1/2" iron rod with plastic cap marked "PLS 1974" set at point of curvature of this easement;

THENCE around a curve to the right in a Southwesterly direction with a radius of 1060.00 feet, a delta angle of 28°23'30", an arc length of 525.26 feet and a chord distance of 519.90 feet which bears S61°40'16"W to a 1/2" iron rod with plastic cap marked "PLS 1974" set at a point of tangency of this easement;

THENCE S75°52'01"W, at 2850.94 feet pass the common line of said Sections 9 and 10 continuing for a total distance of 2966.99 feet to a 1/2" iron rod with plastic cap marked "PLS 1974" set at an interior corner of this easement;

THENCE S30°43'21"W, a distance of 28.21 feet to a 1/2" iron rod with plastic cap marked "PLS 1974" set at an exterior corner of this easement;

THENCE S75°52'01"W, a distance of 120.00 feet to a 1/2" iron rod with plastic cap marked "PLS 1974" set at an exterior corner of this easement;

THENCE N59°16'39"W, a distance of 28.36 feet to a 1/2" iron rod with plastic cap marked "PLS 1974" set at an interior corner of this easement;

THENCE S75°52'01"W, a distance of 4999.20 feet to a 1/2" iron rod with plastic cap marked "PLS 1974" set at the Southwest corner of this easement;

THENCE N14°21'10"W with the West line of said Section 9, a distance of 120.00 feet to the PLACE OF BEGINNING.

Easement contains 44.59 acres of land.

Bearings are relative to the State Plane Coordinate System 1983/86 NAD, Central Zone. Distances are Grid Distances.

I, J. Stan Piper, Professional Land Surveyor do hereby certify that this plat is true and correct to the best of my knowledge and ability as surveyed on the ground on February 18, 2016.

J. Stan Piper
Regeistered Professional Land Surveyor #1974

STATE OF TEXAS
REGISTERED
J. STAN PIPER
1974
PROFESSIONAL
LAND SURVEYOR

Prepared for:
City of Midland
%Parkhill, Smith & Cooper, Inc.
Attn.: Eric West
1700 W. Wall Street, Suite 100
Midland, Texas 79701

Drawing file: P:\14-542\Drawings\14542_Exhibit A.dwg; Drawn by: Gene M. Rodriguez; Scale: 1"=200'; Date: 3/17/2016; Revised: 9/17/20 by GMR

RESOLUTION NO. _____

RESOLUTION AUTHORIZING THE ACCEPTANCE OF A 22.21-ACRE UTILITY EASEMENT OUT OF SECTIONS 9, 10 AND 11, BLOCK 39, T-1-S, T&P RR CO. SURVEY, MARTIN AND MIDLAND COUNTIES, TEXAS, AT A COST NOT TO EXCEED $500,000.00; AND ORDERING RECORDATION BY THE CITY SECRETARY

WHEREAS, the City Council finds it to be in the public interest to authorize the acceptance of a 22.21-acre easement out of Sections 9, 10 and 11, Block 39, T-1-S, T&P RR Co. Survey, Martin and Midland Counties, Texas, at a cost not to exceed $500,000.00, for the use and benefit of the public for utility purposes (the "Easement"), a copy of the instrument granting to the City said Easement being attached hereto as Exhibit "1" and incorporated herein for all legal purposes; and

WHEREAS, the City Council finds the price proposed for said utility easement to be fair and reasonable;

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF MIDLAND, TEXAS:

SECTION ONE. That the Easement is hereby accepted.

SECTION TWO. That the City Secretary is hereby authorized and directed to file the instrument granting to the City said Easement in the Deed Records of Midland County, Texas.

SECTION THREE. That upon receipt of proper invoice or statement approved by the City Manager, the City Comptroller is hereby authorized and directed to pay for said utility easement out of funds available in the Capital Project for the Northeast Water System Improvements in Fund 179.

On motion of Council member _____, seconded by Council member _____, the above and foregoing resolution was adopted by the City Council of the City of Midland at a regular meeting on the _____ day of _____, A.D., 2020, by the following vote:

Council members voting "AYE":

Council members voting "NAY":

_____
Patrick N. Payton, Mayor

ATTEST:

_____
Amy M. Turner, City Secretary

RECOMMENDED AND APPROVED:

_____
Courtney Sharp, City Manager

APPROVED AS TO CONTENT
AND COMPLETENESS:

_____
Robert Patrick, Assistant City Manager

_____
Carl Craigo, Utilities Director

APPROVED ONLY AS TO FORM:

_____
John Ohnemiller, City Attorney

C:\Users\kbailey\Desktop\Occidental Permian - Utility Easement.wpd

NOTICE OF CONFIDENTIALITY RIGHTS: IF YOU ARE A NATURAL PERSON, YOU MAY REMOVE OR STRIKE ANY OR ALL OF THE FOLLOWING INFORMATION FROM ANY INSTRUMENT THAT TRANSFERS AN INTEREST IN REAL PROPERTY BEFORE IT IS FILED FOR RECORD IN THE PUBLIC RECORDS: YOUR SOCIAL SECURITY NUMBER OR YOUR DRIVER'S LICENSE NUMBER.

PUBLIC UTILITY EASEMENT

THE STATE OF TEXAS §
§ KNOW ALL MEN BY THESE PRESENTS:
COUNTY OF MIDLAND §

THAT **Occidental Permian LTD.** ("Grantor"), a Texas limited partnership, whose mailing address is 5 Greenway Plaza, Suite 110, Houston, Texas 77046, for and in consideration of the sum of TEN AND NO/100 DOLLARS ($10.00) and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, does hereby GRANT AND CONVEY, without warranties or covenants of title, express or implied, to the **CITY OF MIDLAND, TEXAS** ("Grantee"), a home-rule municipal corporation, whose address is 300 North Loraine, Midland, Texas 79701, an easement and right-of-way to construct, install, operate, use, maintain, repair, modify and replace public utilities, including a water line or a sewer line or both a water line and a sewer line, and any necessary appurtenant facilities (collectively, the "Utilities"), in, on, upon, over, under, across, along and through the following described property owned by Grantor:

A 22.21-acre tract of land located in Sections 9, 10 and 11, Block 39, T-1-S, T&P RR CO. Survey, Martin and Midland Counties, Texas, being more fully described in the attached **Exhibit A**, which is attached hereto and incorporated herein for all purposes (the "Easement Tract").

Grantee and its employees, contractors, agents, successors, and assigns, shall have the free and uninterrupted right of passage in, on, upon, over, under, across, along and through the Easement Tract described herein for the purpose of establishing, laying, constructing, reconstructing, installing, realigning, modifying, replacing, improving, altering, operating, maintaining, accessing, inspecting, repairing, and removing said public utilities and appurtenant facilities, together with the right of ingress, egress and regress for such purposes in, on, upon, over, under, across, along and through the Easement Tract. This Easement shall operate in conjunction with that certain easement made effective between Grantor and Grantee on July 12, 2016, being Instrument Number 2016-22809 in the Records of Midland County, Texas.

Grantee retains unto itself, its successors, assigns, lessees, agents, and licenses, the right to use and enjoy all of the Easement Tract; however, Grantor shall not exercise such use and enjoyment in a manner that will unreasonably interfere with the rights granted herein. Grantor expressly covenants and agrees for itself, its legal representatives, successors and/or assigns, that no building of any kind will be placed on the Easement Tract.

Grantee agrees to comply with all laws, rules and regulation (including those related to the environment) applicable to the rights granted herein.

THIS GRANT IS MADE WITHOUT WARRANTY OF ANY KIND WHATSOEVER, EITHER EXPRESSED OR IMPLIED, provided that this grant is made expressly subject to and subordinate to all previously recorded leases, instruments and encumbrances, and the existing rights of persons in possession.

TO THE EXTENT PERMITTED BY LAW, GRANTEE HEREBY AGREES TO INDEMNIFY, DEFEND AND HOLD GRANTOR, ITS AFFILIATES AND THEIR RESPECTIVE SUCCESSORS AND ASSIGNS HARMLESS FROM AND AGAINST ANY AND ALL LOSSES, LIABILITY, CLAIMS, DEMANDS, SUITS, CAUSES OF ACTION, JUDGMENTS, DAMAGES, FEES, COSTS OR EXPENSES (INCLUDING WITHOUT LIMITATION, ATTORNEYS' FEES AND COSTS OF DISPUTE RESOLUTION) OF ANY KIND OR NATURE ARISING OUT OF OR RELATED TO (i) GRANTEE'S USE OF THE EASEMENT TRACT (INCLUDING THE CONSTRUCTION, MAINTENANTCE, OPERATION, AND REPAIR OF THE UTILITIES) OR CONSTRUCTION OF THE UTILITIES WITHIN OR UNDER THE EASEMENT TRACT; AND/OR (ii) THE PERFORMANCE OF OR FAILURE TO PERFORM ANY DUTY, RESPONSIBILITY OR OBLIGATION OF THE GRANTEE WITH RESPECT TO THE EASEMENT. GRANTEE DOES HEREBY AGREE THAT THE DUTIES AND OBLIGATIONS IN THIS PARAGRAPH SHALL BE BINDING ON ITS SUCCESSORS AND ASSIGNS.

This instrument does not constitute a conveyance of any part of the Easement Tract nor of the mineral rights therein and thereunder, nor of any surface rights other than the Easement Area herein specifically described to the extent necessary to accomplish the purpose herein expressed, and any and all other rights, the exercise of which will not unduly interfere with the rights herein granted, are hereby reserved to Grantor.

Any assignment by Grantee of any of the rights granted by this instrument, in whole or in part, without first obtaining written consent of Grantor, shall be void unless expressly ratified in writing by Grantor, and the granting of any such consent by Grantor shall not have the effect of waiving this limitation as to any future, further or additional assignments.

TO HAVE AND TO HOLD the right to use the Easement Tract as herein provided unto Grantee, its successors and assigns, until such time as the Utilities are constructed or installed and then for so long thereafter as they are maintained on the Easement Tract, subject however, to automatic termination, extinguishment and reversion if (1) Grantee, its successors or assigns, fails to commence construction of the Utilities within ten (10) years from the Effective Date or fails to complete the construction of the Utilities within twenty four (24) months from the date of commencement of the construction, or (2) after completion or construction of the Utilities, the Utilities cease to be used for the purpose herein expressed for twenty four (24) consecutive months, or (3) Grantor's rights in and to the Easement Tract existing solely by virtue of an existing lease or other agreement should cease. In the event of such termination, Grantee shall immediately prepare and record a release of this instrument, and furnish a copy of same to Grantor.

This agreement embodies and includes the entire agreement between the two undersigned parties with respect to the subject matter herein and no reliance is placed upon previous writing, communications or implied representations, inducements or understandings of any kind whatsoever and they are excluded herefrom. This agreement may not be amended except by written instrument executed by both parties.

The provisions hereof shall be covenants running with the lands and shall be binding upon and inure to the benefit of Grantor and Grantee and their respective successors and assigns.

IN WITNESS WHEREOF, this instrument is executed this _____ day of _____ A.D. 20__.

GRANTOR

OCCIDENTAL PERMIAN LTD.

By: David J. Woest
Attorney-in Fact

THE STATE OF TEXAS §
§
COUNTY OF HARRIS §

This instrument was acknowledged before me on the 29th day of July, 2020, by David J. Woest, Attorney-in-Fact of OCCIDENTAL PERMIAN, LTD., a Texas limited partnership.

MY COMMISSION EXPIRES

6-12-2023

Notary Public, State of Texas

RHETT D LAFLEUR
Notary ID #130258282
My Commission Expires
June 12, 2023

GRANTEE

CITY OF MIDLAND, TEXAS

By: Courtney Sharp

ATTEST:

Amy M. Turner, City Secretary

FIELD NOTES
FOR
A 22.21 ACRE EASEMENT
OUT OF
SECTIONS 9, 10, AND 11,
BLOCK 39, T-1-S,
T.& P. RR. CO. SURVEY
MIDLAND COUNTY, TEXAS

BEING a 22.21 acre tract out of Sections 9, 10, and 11, Block 39, T-1-S, T&P RR Co. Survey, Midland County, Texas, as conveyed to Occidental Permian LTD, recorded in Document No. 2010-17172, Official Public Records, Midland County, Texas, said 22.21 acre tract being more particularly described as follows:

Bearings and distances are grid, NAD 83 Texas Central Zone based on GPS observations

BEGINNING at (N= 10,721,307.29' and E= 1,736,532.25') a found 1/2 inch iron rod on the West line of said Section 9 for the southwest corner of this easement, same being the southwest corner of a 44.59 acre easement recorded in Document No. 2016-22809, Official Public Records, Midland County, Texas, where a found 1/2 inch iron rod at southwest corner of Section 9 bears 3,206.4' S 14°21'04"E.

THENCE North 14 degrees 21 minutes 11 seconds West a distance of 60.00 feet to a point, where a found 1/2 inch iron rod on the West line of said Section 9 for the northwest corner of a 44.59 acre easement recorded in Document No. 2016-22809, Official Public Records, Midland County, Texas bears 60.0' N 14°21'11" W;

THENCE North 75 degrees 52 minutes 06 seconds East a distance of 8,126.66 feet to a point;

THENCE with a curve turning to the left having a delta angle of 28 degrees 26 minutes 41 seconds, a radius of 997.61 feet, an arc length of 495.27 feet, and a chord bearing North 61 degrees 38 minutes 45 seconds East a distance of 490.20' to a point;

THENCE North 47 degrees 30 minutes 35 seconds East a distance of 100.61 feet to a point;

THENCE with a curve turning to the right having a delta angle of 27 degrees 35 minutes 43 seconds, a radius of 1,002.70 feet, an arc length of 482.93 feet, and a chord bearing North 61 degrees 18 minutes 27 seconds East a distance of 478.28' to a point;

THENCE North 75 degrees 09 minutes 06 seconds East a distance of 5,131.43 feet to a point;

THENCE with a curve turning to the right having a delta angle of 36 degrees 33 minutes 23 seconds, a radius of 1,000.29 feet, an arc length of 638.22 feet, and a chord bearing South 86 degrees 34 minutes 13 seconds East a distance of 627.44' to a point;

THENCE South 68 degrees 18 minutes 05 seconds East a distance of 673.66 feet to a point;

THENCE with a curve turning to the left having a delta angle of 08 degrees 09 minutes 50 seconds, a radius of 748.40 feet, an arc length of 106.63 feet, and a chord bearing South 72 degrees 20 minutes 45 seconds East a distance of 106.54' to a point;

THENCE North 89 degrees 12 minutes 03 seconds East a distance of 115.82 feet to a point;

THENCE North 75 degrees 40 minutes 31 seconds East at a distance of 252.35 feet to a point in the west right-of-way line of Business State Highway 349, where a found, bent 1/2 inch iron rod at the northeast corner of said 44.59 acre easement bears 20.13' N 14°30'15" W;

THENCE South 14 degrees 30 minutes 15 seconds East a distance of 60.00 feet to a point in the west right-of-way line of Business State Highway 349, where a found 1/2 inch iron rod with plastic cap marked "PLS 1974" at the southeast corner of said 44.59 acre easement bears 79.90' S 14°30'15 E;

THENCE South 75 degrees 40 minutes 31 seconds West a distance of 259.65 feet to a point;

THENCE South 89 degrees 12 minutes 03 seconds West a distance of 130.35 feet to a point on the south line of said 44.59 acre easement;

THENCE, along the south line of said 44.59 acre easement, with a curve turning to the right having a delta angle of 08 degrees 42 minutes 36 seconds, a radius of 808.40 feet, an arc length of 122.89 feet, and a chord bearing North 72 degrees 37 minutes 08 seconds West a distance of 122.77' to a found 1/2 inch iron rod with plastic cap marked "PLS 1974" at the end of the curve;

THENCE North 68 degrees 18 minutes 05 seconds West, along the south line of said 44.59 acre easement, a distance of 673.63 feet to a point;

THENCE, along the south line of said 44.59 acre easement, with a curve turning to the left having a delta angle of 36 degrees 32 minutes 15 seconds, a radius of 940.76 feet, an arc length of 599.92 feet, and a chord bearing North 86 degrees 34 minutes 13 seconds West a distance of 589.81' to a found 1/2 inch iron rod with plastic cap marked "PLS 1974";

THENCE South 75 degrees 09 minutes 06 seconds West, along the south line of said 44.59 acre easement, a distance of 5,131.38 to a found 1/2 inch iron rod with plastic cap marked "PLS 1974";

THENCE, along the south line of said 44.59 acre easement, with a curve turning to the left having a delta angle of 27 degrees 41 minutes 18 seconds, a radius of 939.60 feet, an arc length of 454.06 feet, and a chord bearing South 61 degrees 18 minutes 27 seconds West a distance of 449.66' to a 1/2 inch iron rod;

THENCE South 47 degrees 30 minutes 35 seconds West, along the south line of said 44.59 acre easement, a distance of 100.57 feet to a found 1/2 inch iron rod with plastic cap marked "PLS 1974";

THENCE, along the south line of said 44.59 acre easement, with a curve turning to the right having a delta angle of 28 degrees 16 minutes 29 seconds, a radius of 1,063.75 feet, an arc length of 524.95 feet, and a chord bearing South 61 degrees 38 minutes 50 seconds West a distance of 519.63' to a point;

THENCE South 75 degrees 52 minutes 06 seconds West, along the south line of said 44.59 acre easement, at 2,967.26 feet passing a found 1/2 inch iron rod with plastic cap marked "PLS 1974", at 3,127.13 feet passing a found 1/2 inch iron rod with plastic cap marked "PLS 1974", continuing for a total distance of 8,126.42 feet to the Point of Beginning containing an area of 22.21 acres. Surveyed on the ground April 10, 2019. See attached plat.

I, RILEY ELMER GRIFFITH, R.P.L.S. #5863 DO HEREBY CERTIFY THAT THE PLAT HEREON WAS PREPARED FROM AN ACTUAL SURVEY MADE ON THE GROUND DURING THE MONTH OF APRIL, 2019.

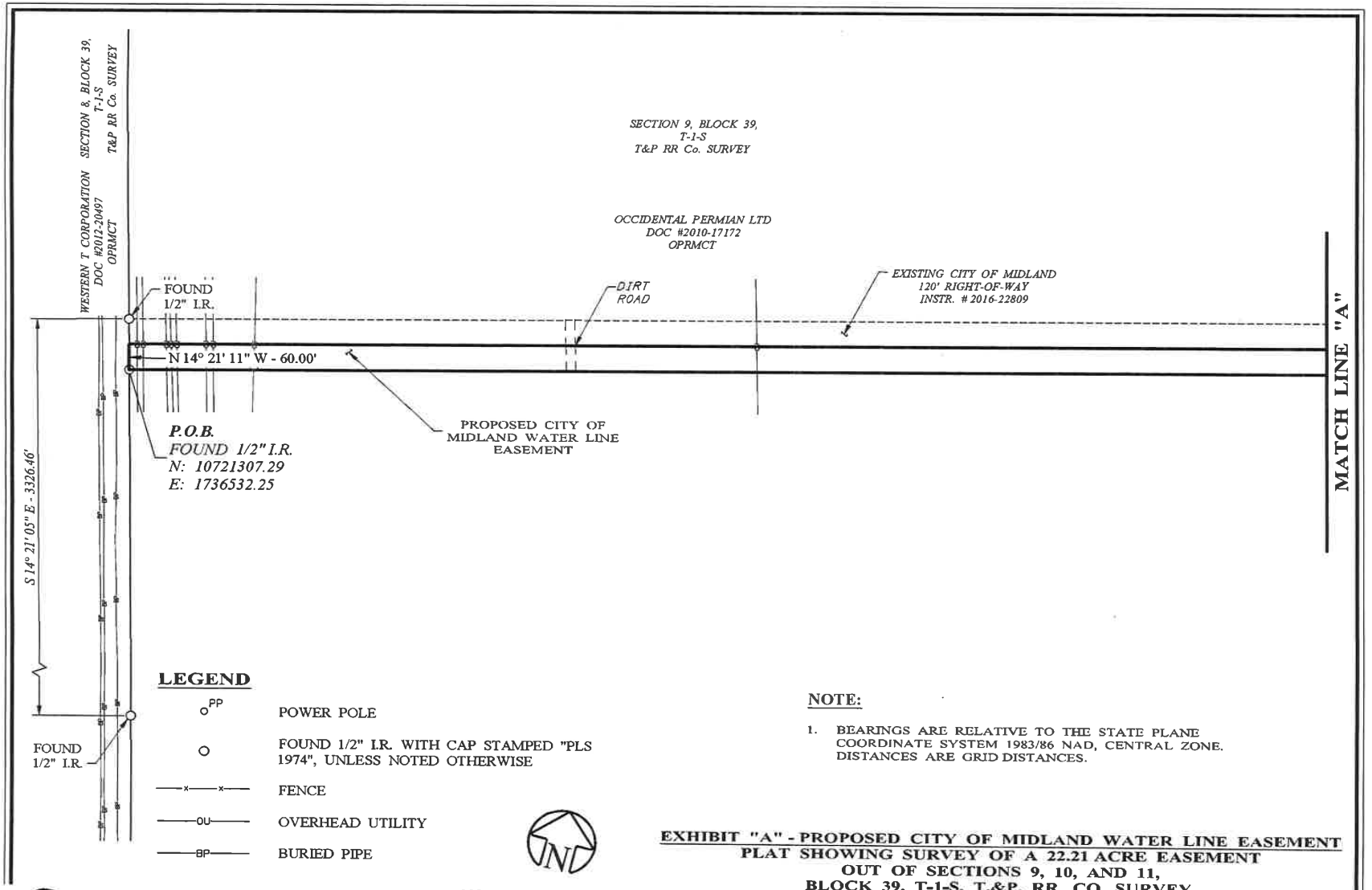
RILEY ELMER GRIFFITH, R.P.L.S. #5863

DATE 08/14/2020

ENPROTEC/HIBBS & TODD, INC.
ENVIRONMENTAL AND CIVIL ENGINEERING
402 Cedar Street
Abilene, Texas 79601
325-698-5560
PE Firm Registration No. 1151
PG Firm Registration No. 50103
RPLS Firm Registration No. 10011900

18-7227

PACKET
14.548
September 8, 2020



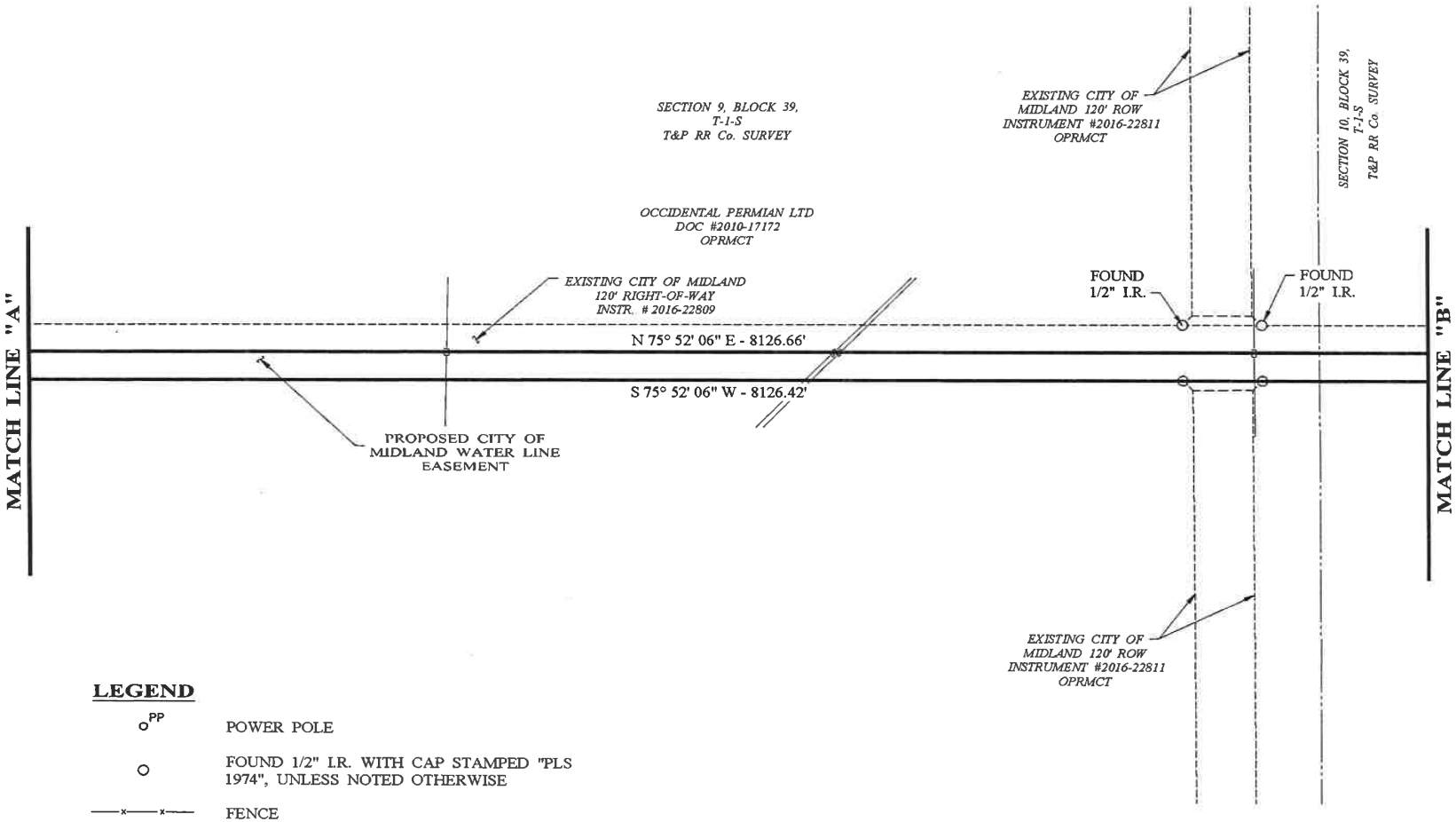
NOTE:

1. BEARINGS ARE RELATIVE TO THE STATE PLANE COORDINATE SYSTEM 1983/86 NAD, CENTRAL ZONE. DISTANCES ARE GRID DISTANCES.

EXHIBIT "A" - PROPOSED CITY OF MIDLAND WATER LINE EASEMENT
PLAT SHOWING SURVEY OF A 22.21 ACRE EASEMENT
OUT OF SECTIONS 9, 10, AND 11,
BLOCK 39, T-1-S, T.&P. RR. CO. SURVEY,
MIDLAND COUNTY, TEXAS

ENPROTEC/HIBBS & TODD, INC.
ENVIRONMENTAL AND CIVIL ENGINEERING
402 Cedar Street Abilene, Texas 79601
325-686-5550
PE Firm Registration No. 1151
PG Firm Registration No. 50102
RPLS Firm Registration Nos. 10011800

18-7227



LEGEND

o PP	POWER POLE
o	FOUND 1/2" I.R. WITH CAP STAMPED "PLS 1974", UNLESS NOTED OTHERWISE
——x——x——	FENCE
——OU——	OVERHEAD UTILITY
——BP——	BURIED PIPE

N

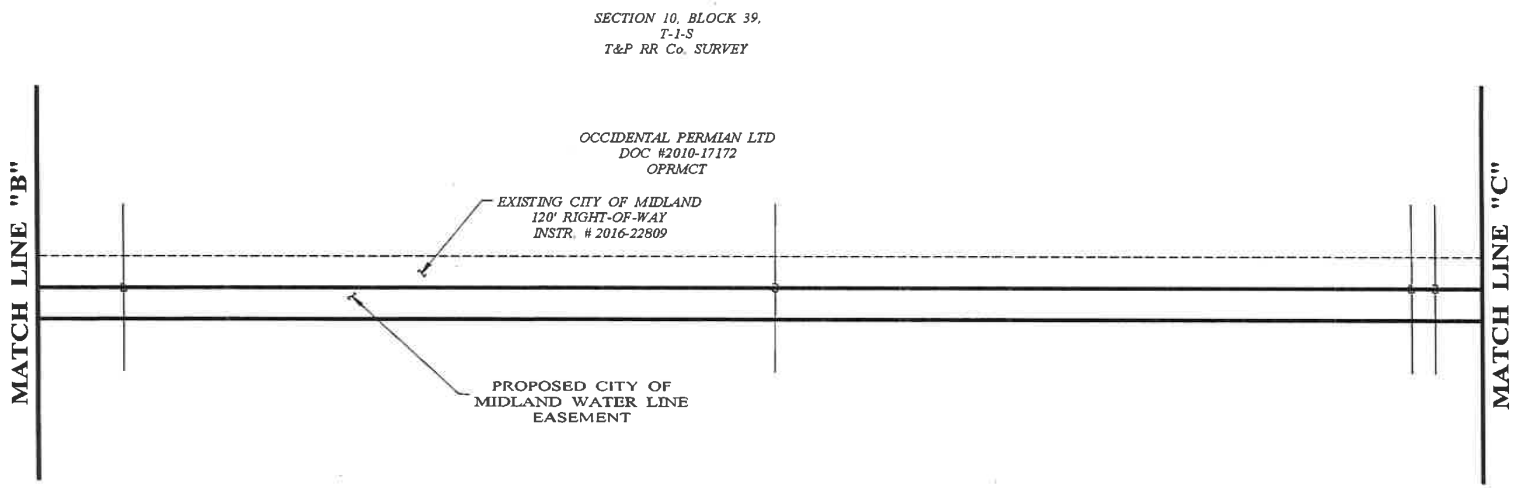
100 0 300

SCALE IN FEET

EXHIBIT "A" - PROPOSED CITY OF MIDLAND WATER LINE EASEMENT
PLAT SHOWING SURVEY OF A 22.21 ACRE EASEMENT
OUT OF SECTIONS 9, 10, AND 11,
BLOCK 39, T-1-S, T.&P. RR. CO. SURVEY,
MIDLAND COUNTY, TEXAS

ENPROTEC/HIBBS & TODD, INC.
ENVIRONMENTAL AND CIVIL ENGINEERING
402 Cedar Street
325-698-5560
Abilene, Texas 79601
PE Firm Registration No. 1151
PG Firm Registration No. 50102
RPLS Firm Registration Nos. 10011900

18-7227



LEGEND

o PP	POWER POLE
o	FOUND 1/2" I.R. WITH CAP STAMPED "PLS 1974", UNLESS NOTED OTHERWISE
——x——x——	FENCE
——OU——	OVERHEAD UTILITY
——BP——	BURIED PIPE

100 0 300

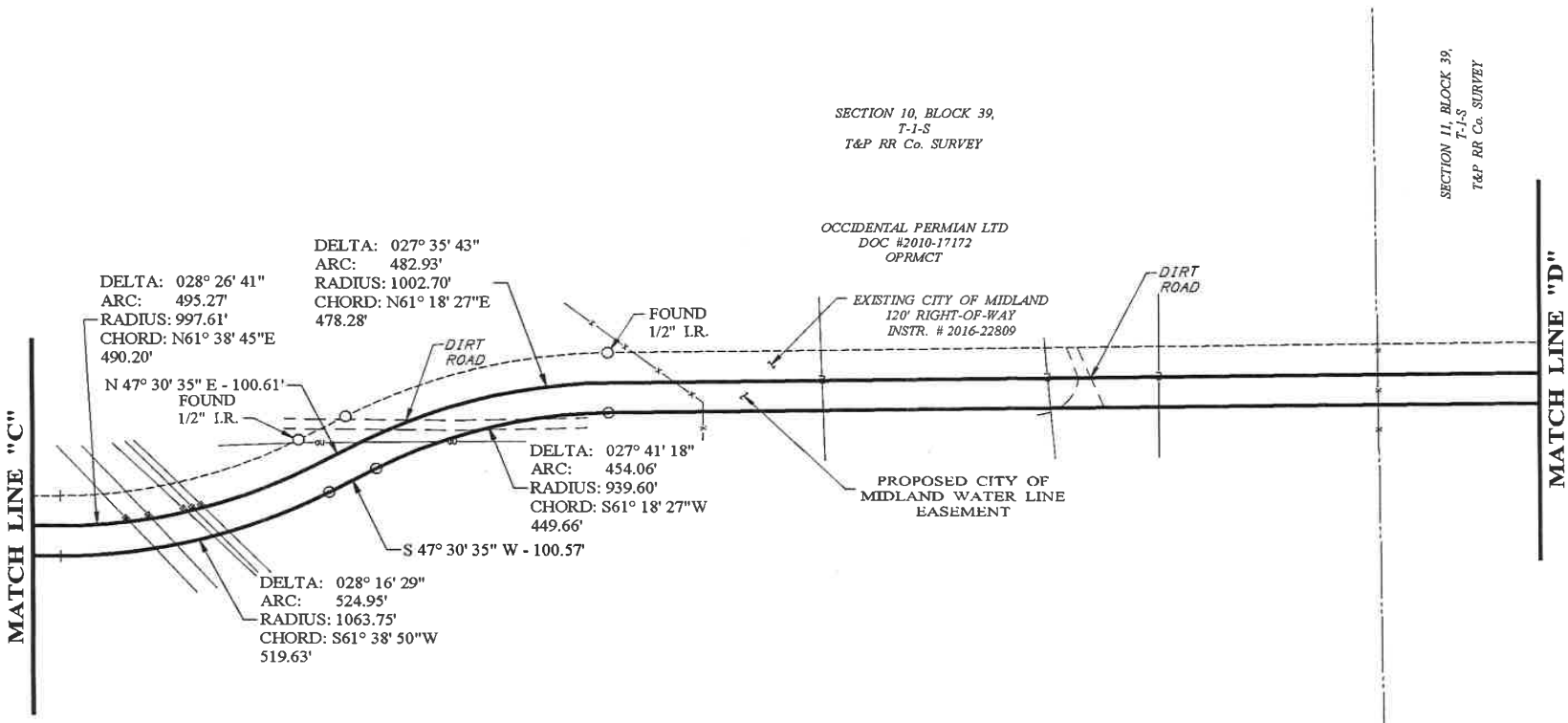
SCALE IN FEET

EXHIBIT "A" - PROPOSED CITY OF MIDLAND WATER LINE EASEMENT
PLAT SHOWING SURVEY OF A 22.21 ACRE EASEMENT
OUT OF SECTIONS 9, 10, AND 11,
BLOCK 39, T-1-S, T.&P. RR. CO. SURVEY,
MIDLAND COUNTY, TEXAS

ENPROTEC/HIBBS & TODD, INC.
ENVIRONMENTAL AND CIVIL ENGINEERING
402 Cedar Street
Abilene, Texas 79601
325-668-5560
PE Firm Registration No. 1151
PG Firm Registration No. 50103
APLS Firm Registration Nos 10011900

18-7227

08/14/2020



LEGEND

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——x——x——	FENCE
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100 0 300

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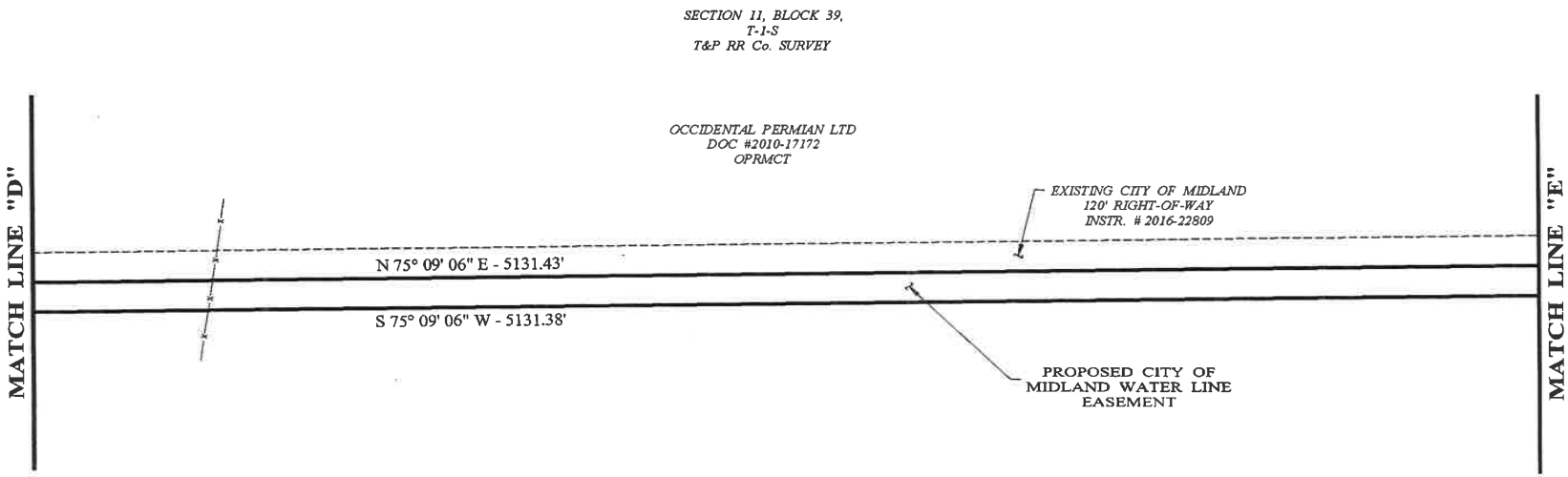

LEGEND

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18-7227

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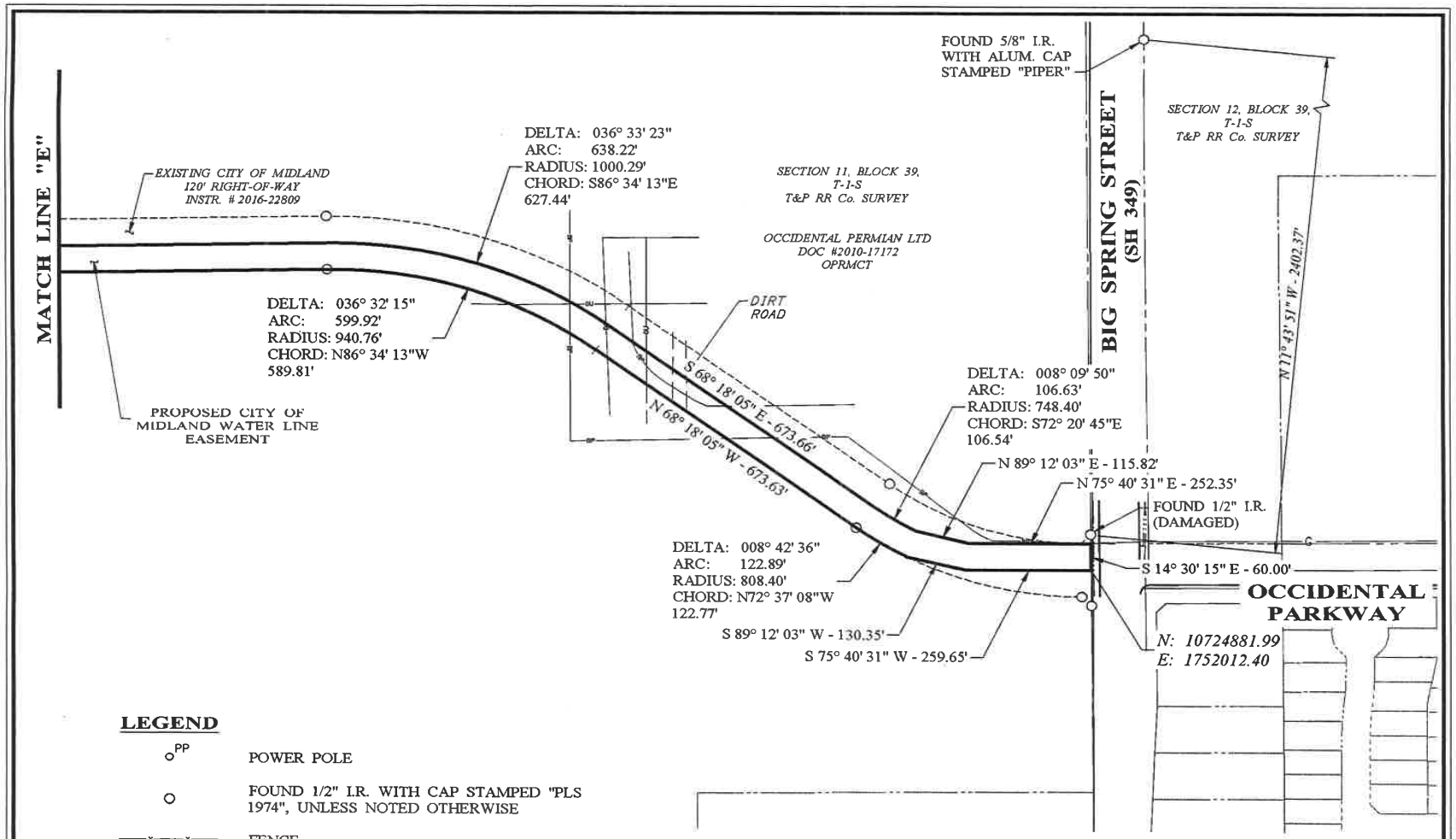
08/14/2020



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RPLS Firm Registration Nos. 10011900

18-7227

City of Midland

Office Memorandum

DATE: September 1, 2020

TO: The Honorable Mayor and City Council Members

FROM: John Ohnemiller, City Attorney

SUBJECT: Motion authorizing the Mayor to execute a Separation and Release Agreement between the City of Midland and the City Manager.

The proposed motion would authorize the Mayor to execute a Separation and Release Agreement between the City of Midland and City Manager Courtney Sharp. A copy of the proposed Separation and Release Agreement is included in your agenda packet for review.

Should you have any questions regarding this matter, please do not hesitate to contact me.

SEPARATION AND RELEASE AGREEMENT

THIS SEPARATION AND RELEASE AGREEMENT ("*Agreement*") is effective as of the last signature date below ("*Effective Date*"), by and between the CITY OF MIDLAND, TEXAS ("*City*") and COURTNEY SHARP ("*Employee*").

THIS AGREEMENT CONTAINS A TOTAL AND COMPLETE RELEASE AND WAIVER OF YOUR RIGHTS UNDER THE AGE DISCRIMINATION IN EMPLOYMENT ACT AS WELL AS OTHER FEDERAL, STATE AND LOCAL LAWS PROTECTING EMPLOYEE RIGHTS. IF YOU SIGN THIS AGREEMENT, YOU ARE WAIVING ALL OF YOUR RIGHTS TO ASSERT ANY CLAIMS UNDER THESE LAWS. PLEASE READ THIS AGREEMENT CAREFULLY AND, IF YOU WISH, SEEK THE ADVICE OF AN ATTORNEY REGARDING THE LEGAL EFFECT OF SIGNING THIS AGREEMENT.

1. **Resignation.** City and Employee acknowledge and agree that Employee's employment with City terminates at 5:00 p.m. on September 18, 2020, as a result of Employee's voluntary and irrevocable resignation. A copy of Employee's letter of resignation to City is attached hereto as **Exhibit A**, and is incorporated herein for all legal purposes.

2. **Consideration to Employee.** If Employee executes this Agreement during the Review Period (as defined in Section 4), and provided Employee does not revoke this Agreement during the Revocation Period (as defined in Section 4), then City agrees to pay and Employee agrees to accept a lump sum severance payment ("*Severance Payment*") in the total amount of One Hundred Fifty-Two Thousand Nine Hundred Seventy-Nine and 84/100 Dollars ($152,979.84), as detailed below:

a. One Hundred Twelve Thousand Six Hundred Seventy-Three and 66/100 Dollars ($112,673.66), as six (6) months' base salary and longevity pay;

b. Thirty Thousand Eight Hundred Six and 18/100 Dollars ($30,806.18), as payment in full for Employee's accrued and unused vacation and sick leave; and

c. Nine Thousand Five Hundred and No/100 Dollars ($9,500.00), as additional consideration to cover the cost of Employee obtaining and maintaining health insurance coverage for Employee and eligible members of Employee's family for a period of six (6) months.

Without limiting any other provision contained herein, City agrees to pay Employee the Severance Payment in a reasonably prompt manner, expressly conditioned upon (a) Employee executing and delivering this Agreement to City during the Review Period, and (b) Employee not revoking this Agreement during the Revocation Period.

The Severance Payment will be subject to deductions for retirement plan contributions, federal income tax withholding, contributions under the Federal Insurance Contributions Act, and all other applicable deductions.

3. FULL, FINAL & COMPLETE RELEASE. IN CONSIDERATION OF CITY'S AGREEMENT TO PAY THE SUMS SET OUT IN SECTION 2, EMPLOYEE AGREES NOT TO INSTITUTE OR HAVE INSTITUTED ON EMPLOYEE'S BEHALF CLAIMS, CAUSES OF ACTION OR LAWSUITS OF ANY NATURE AGAINST CITY, ITS EMPLOYEES, COUNCIL MEMBERS, OFFICIALS, OR AGENTS, EITHER INDIVIDUALLY OR IN THEIR OFFICIAL CAPACITY, WITH RESPECT TO ANY VIOLATIONS OF FEDERAL OR STATE LAWS OR REGULATIONS, INCLUDING BUT NOT LIMITED TO, ANY CLAIMS, CAUSES OF ACTIONS OR SUITS WHICH MIGHT HAVE BEEN ALLEGED AS A RESULT OF EVENTS OCCURRING DURING EMPLOYEE'S EMPLOYMENT WITH CITY, INCLUDING BUT NOT LIMITED TO, EVENTS RELATED TO EMPLOYEE'S RESIGNATION FROM EMPLOYMENT WITH CITY.

NOTWITHSTANDING ANY OTHER PROVISION OF THIS AGREEMENT, EMPLOYEE FOR EMPLOYEE AND EMPLOYEE'S HEIRS, EXECUTORS, ADMINISTRATORS, ASSIGNS, AND LEGAL REPRESENTATIVES HEREBY FULLY, FINALLY AND COMPLETELY RELEASES, ACQUITS, RELINQUISHES AND FOREVER DISCHARGES CITY, ITS EMPLOYEES, COUNCIL MEMBERS, OFFICIALS, AND AGENTS, BOTH INDIVIDUALLY AND IN THEIR OFFICIAL CAPACITY, FROM ANY AND ALL DEMANDS, CLAIMS, DAMAGES, CAUSES OF ACTION OR SUITS OF ANY KIND WHATSOEVER THAT EMPLOYEE HAS OR MIGHT HAVE IN THE FUTURE, INCLUDING BUT NOT LIMITED TO COMPENSATORY DAMAGES (INCLUDING, BUT NOT LIMITED TO, BACK PAY, FRONT PAY, OVERTIME PAY, OR LOST FUTURE EMPLOYMENT BENEFITS), PUNITIVE DAMAGES, BREACH OF CONTRACT, QUANTUM MERUIT, TORT CLAIMS, CITY'S NEGLIGENCE, ATTORNEY FEES, COURT COSTS, MENTAL PAIN AND ANGUISH, DAMAGE TO REPUTATION, SLANDER, DEFAMATION, OR OTHER PERSONAL INJURY, ALL CLAIMS ARISING FROM COMMON LAW, THE UNITED STATES AND TEXAS CONSTITUTIONS, FEDERAL OR STATE LAWS OR REGULATIONS, INCLUDING BUT NOT LIMITED TO, THE AGE DISCRIMINATION IN EMPLOYMENT ACT, AS AMENDED, THE OLDER WORKERS BENEFITS PROTECTION ACT, AS AMENDED, THE FAIR LABOR STANDARDS ACT, AS AMENDED, THE FAMILY MEDICAL LEAVE ACT, AS AMENDED, THE CIVIL RIGHTS ACT OF 1991, AS AMENDED, TEXAS LABOR CODE § 451.001 ET SEQ., THE AMERICANS WITH DISABILITIES ACT, AS AMENDED, AND ANY AND ALL SIMILAR FEDERAL OR TEXAS STATUTES WHICH PROHIBIT DISCRIMINATION ON THE BASIS OF RACE, GENDER, AGE, NATIONAL ORIGIN, DISABILITY, OR RELATE TO THE PAYMENT OF OVERTIME, AND TEXAS GOVERNMENT CODE § 554.001 ET SEQ.

EMPLOYEE AND CITY ACKNOWLEDGE THAT THIS AGREEMENT DOES NOT PROHIBIT EMPLOYEE OR ANY THIRD PARTY FROM FILING A COMPLAINT OF ALLEGED DISCRIMINATION WITH THE EQUAL EMPLOYMENT OPPORTUNITY COMMISSION, THE TEXAS HUMAN RIGHTS COMMISSION, OR THE TEXAS WORKFORCE COMMISSION BUT DOES, HOWEVER, BAR EMPLOYEE AND EMPLOYEE'S HEIRS, EXECUTORS, LEGAL REPRESENTATIVES, AND ASSIGNS FROM RECEIVING ANY RECOVERY OF ANY NATURE, INCLUDING BUT NOT LIMITED TO ATTORNEY FEES, RESULTING DIRECTLY OR INDIRECTLY FROM THE FILING OF SUCH COMPLAINT.

4. ADEA RELEASE. Employee hereby represents and agrees that Employee knowingly and voluntarily enters into this Agreement with the purpose of waiving and releasing any and all claims under the Age Discrimination in Employment Act of 1967 ("*ADEA*"), as amended, and the Older Workers Benefit Protection Act ("*OWBPA*"), as amended, as set forth in Section 3, and as such, Employee acknowledges and agrees that:

a. this Agreement is worded in an understandable way;

b. any rights or claims arising under the ADEA and OWBPA are waived;

c. claims under the ADEA and OWBPA that may arise after the date of this Agreement are not waived;

d. the rights and claims waived in this Agreement are in exchange for additional consideration over and above anything to which Employee was already entitled;

e. Employee has been advised in writing to consult with an attorney prior to executing this Agreement, and has had an opportunity to do so; and

f. Employee has been given twenty-one (21) days, if desired, to consider this Agreement (the "*Review Period*"), and understands that Employee may revoke Employee's waiver and release of any ADEA (age discrimination) or OWBPA claims covered by this Agreement in the seven (7) day period following Employee's execution of this Agreement (the "*Revocation Period*").

5. Taxes. City and Employee shall report, as may be required by law for income tax purposes, their respective payment(s) and receipt of payment(s) hereunder. Each party shall bear its respective tax liabilities, if any, arising from this Agreement. Employee acknowledges and agrees that City has made no representations to Employee regarding the tax consequences of any amount received by Employee pursuant to the terms of this Agreement. Employee represents and warrants to City that Employee has made an independent evaluation of the claims released

and consequences, including tax consequences, of this Agreement and has not relied on any representation by City in this regard except as may be set forth in this Agreement.

6. No Liability. It is expressly agreed and understood by Employee that this Agreement is not in any form or fashion an admission of any liability on the part of City, or any of City's employees, council members, officials, or agents.

7. Entire Agreement. This Agreement embodies the complete agreement of the parties and supersedes all prior oral and written agreements between the parties relating to this Agreement. This Agreement cannot be changed, modified or amended, in whole or in part, without a written agreement of the parties.

8. Knowing & Voluntary. Employee represents and warrants that Employee enters into this Agreement both knowingly and voluntarily in exchange for the good and valuable consideration recited herein, and not based on any representations or statements of any kind by City or any of City's employees, council members, officials, or agents.

9. Use. Employee further understands and agrees that this Agreement shall not be used as evidence against City, its employees, council members, officials, or agents in either their individual or official capacity, as to any actions occurring on or prior to the Effective Date of this Agreement.

10. Venue; Governing Law. All performance and payment made pursuant to this Agreement shall be deemed to have occurred in Midland County, Texas. The obligations and undertakings of each of the parties to this Agreement shall be deemed to have occurred in Midland County, Texas. The sole, exclusive, and mandatory venue for any claims, suits, disputes or any other action arising from, relating to or concerning in any way this Agreement or the performance of this Agreement shall be in Midland County, Texas. This Agreement shall be governed by, interpreted, enforced and construed under the laws of the State of Texas. The laws of the State of Texas shall govern, construe and enforce all the rights and duties of the parties, including but not limited to tort claims and any and all contractual claims or disputes, arising from or relating in any way to the subject matter of this Agreement, without regard to conflict of laws and rules that would direct application of the laws of another jurisdiction.

11. Legal Construction. If one or more of the provisions contained in this Agreement shall for any reason be held invalid, illegal or unenforceable in any respect, such invalidity, illegality or unenforceability shall not affect any other provision hereof and this Agreement shall be construed as if such invalid, illegal or unenforceable provision had never been contained herein.

12. Consideration. City and Employee agree that this Agreement is supported by good and valuable consideration, the receipt and sufficiency of which is acknowledged by each party hereto.

13. Public Record. Employee acknowledges and agrees that this Agreement is subject to the provisions of the Texas Public Information Act.

14. Additional Terms. The parties agree that (a) the terms of this Agreement are to the mutual benefit of the parties, and (b) Employee was neither asked to resign nor resigned in lieu of termination. If Employee applies for unemployment benefits with the Texas Workforce Commission, then City agrees not to contest such application or appeal an award of such benefits.

15. Continued Cooperation. Employee acknowledges and agrees that events may occur that would necessitate City requesting information from Employee. As part of the consideration for this Agreement, Employee agrees to timely respond to requests for information from City and to assist City in any litigation, claims, or other such matters that may arise.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement on the dates indicated below.

COURTNEY SHARP

Courtney Sharp

Date: 9/02/2020

STATE OF TEXAS §
§
COUNTY OF MIDLAND §

BEFORE ME, the undersigned authority, on this day personally appeared COURTNEY SHARP, known to me to be the person whose name is subscribed to the foregoing instrument and acknowledged to me that he executed the same for the purposes and consideration therein expressed.

GIVEN UNDER MY HAND AND SEAL OF OFFICE THIS 2nd day of September 2020.

Marcia Bentley-German

Notary Public, State of Texas

MARCIA BENTLEY-GERMAN
Notary Public, State of Texas
Comm. Expires 12-06-2021
Notary ID 131372487

CITY OF MIDLAND, TEXAS

By:_____
Patrick N. Payton, Mayor

Date:_____

STATE OF TEXAS §
§
COUNTY OF MIDLAND §

BEFORE ME, the undersigned authority, on this day personally appeared PATRICK N. PAYTON, known to me to be the person whose name is subscribed to the foregoing instrument and acknowledged to me that he executed the same on behalf of the CITY OF MIDLAND, TEXAS, for the purposes and consideration therein expressed.

GIVEN UNDER MY HAND AND SEAL OF OFFICE THIS ____ day of _____ 2020.

_____
Notary Public, State of Texas

MIDLAND
Feel the Energy!

Office of the City Manager

September 1, 2020

To: Mayor and City Council

Re: Letter of Resignation

Dear Mayor and City Council,

I would first like to begin by thanking you for the opportunity to serve the great City of Midland as the City Manager for the past 12 years. I appreciate your confidence and continued support.

I am proud of my accomplishments during my time with the City of Midland. During the past year, I have leaned heavily on the Assistant City Managers and City Staff to ensure that the City of Midland was able to successfully carry on. I truly believe we have the best employees on staff.

At this time, I feel it is best that I step away from the role of City Manager. My last day with the City of Midland will be September 18, 2020 at 5:00 p.m.

Again, thank you for your continued support during my tenure. I wish nothing but success for the City of Midland.

Sincerely,

Courtney Sharp

Exhibit "A"

300 N. Loraine, Midland TX 79701 • 432-685-7202 • Fax 432-686-1600

City Council Meeting

Item Number: 16

Meeting Date: September 8, 2020

To: City Council / City Manager

From: Elizabeth Shaughnessy, Senior Planner

Subject: AN ORDINANCE AMENDING THE ZONING DISTRICT MAP OF THE CITY OF MIDLAND TO GRANT A SPECIFIC USE DESIGNATION WITH TERM FOR A 3,000-SQUARE FOOT PORTION OF BLOCK 1, LESS THE 250-FOOT BY 150-FOOT NORTHWEST CORNER AND LESS THE 224-FOOT BY 150-FOOT SOUTHWEST CORNER, REPLAT OF BLOCKS 1 AND 2, IMPERIAL HEIGHTS ADDITION, CITY AND COUNTY OF MIDLAND, TEXAS (GENERALLY LOCATED ON THE SOUTH SIDE OF WEST WADLEY AVENUE, APPROXIMATELY 310 FEET EAST OF NORTH MIDKIFF ROAD), WHICH IS PRESENTLY ZONED RR, REGIONAL RETAIL DISTRICT, ALLOWING SAID PROPERTY TO BE USED FOR THE SALE OF ALL ALCOHOLIC BEVERAGES IN A SPECIAL EVENTS CENTER FOR ON-PREMISES CONSUMPTION; MAKING SAID DESIGNATION SUBJECT TO CERTAIN CONDITIONS AND RESTRICTIONS CONTAINED HEREIN; CONTAINING A CUMULATIVE CLAUSE; CONTAINING A SAVINGS AND SEVERABILITY CLAUSE; PROVIDING FOR A MAXIMUM PENALTY OR FINE OF TWO THOUSAND DOLLARS ($2,000.00); AND ORDERING PUBLICATION (DEVELOPMENT SERVICES)

Purpose:

The applicant, Keysha Kidd, is requesting a Specific Use Designation with Term, for the sale of all alcoholic beverages, for on-premises consumption, in a Special Events Center known as The Studio by Kidd's and Canvas located at 3211 W. Wadley, Suite 5.

Recommended City Council Action:

Approve

Fiscal Impact:

This proposal does not have a significant financial impact to the City.

Discussion:

Current Zoning:

RR, Regional Retail District.

Surrounding Zoning and Land Use:

The properties to the north, east, and west are zoned RR, Regional Retail District, and the location of Imperial Shopping Center, which consists of various retail stores. The properties to the south are zoned SF-2, Single-Family Dwelling District, and the location single-family houses.

Analysis:

The property located at 3211 W. Wadley, Suite 5 is currently zoned RR, Regional Retail District, which permits the sale of alcoholic beverages for on-premises consumption with the approval of a Specific Use Designation.

The floor plan provided, attached hereto as Exhibit A, shows the proposed alcohol serviceable area will have a total square footage of 2,900 square feet.

The applicant is requesting the following alcohol serviceable hours.

Monday through Thursday from 10:00 a.m. to 10:00 p.m.,
Friday and Saturday from 10:00 a.m. to 12:00 a.m. (midnight) and
Sunday from 1:00 p.m. to 7:00 p.m.

The operating hours for the Art Studio are the same as mentioned above.

Per Midland City Code, Section 5-4-4, Prohibited Places of Business:

The sale of any alcoholic beverage is hereby prohibited by any person, where the place of business of any such dealer is within 300 feet of any church, public school, public school ground, athletic stadium used by any public school or public hospital, the measurements to be along the property lines of the street fronts and from front door to front door and in a direct line across intersections where they occur.

There are no schools or churches within 300 feet of the property using the front door to door distance measurement.

This request has been circulated to and reviewed by respective City departments for internal review and their comments, conditions, and requirements are as follows:

Engineering: (Approved)

No objection.

Fire: (Approved)

No objections.

Transportation: (Approved)

No objection.

Code Administration: (Approved)

The SUD is acceptable provided that no major changes have taken place including increased sizing of the dining/seating area or increases to the building footprint. The property must adhere to the current maximum occupant load of 89 persons in accordance to the plans provided. Occupancy loads must be posted in accordance with section 1004.3 of the 2015 International Fire Code.

Planning:

The request is in compliance with the *Tall City Tomorrow Comprehensive Plan, Chapter 6-Character Plan Goal 4, which is to* "Encourage the development of places where Midland residents can gather and socialize to build connections." (Tall City Tomorrow page 137).

This request was recommended for approval at the August 3, 2020 Planning and Zoning Commission Meeting and was approved at the August 25, 2020 City Council meeting.

This request meets all requirements; therefore, staff recommends approval of the Specific Use Designation with Term for the sale of all alcoholic beverages, for on-premises consumption, in a Special Events Center, subject to Conditions A thought E.

Conditions:

A. **That the alcoholic serviceable area of the Special Events Center shall be limited to approximately 2,900 square feet as shown in Exhibit "A", which is attached hereto and incorporated herein for all purposes.**

B. **That the occupancy of the establishment shall not exceed the maximum occupancy determined by the Building Code and Fire Code.**

C. **That the establishment shall meet all requirements of the Fire Department and Code Administration.**

D. That the sale and on-premises consumption of alcoholic beverages shall conform to applicable state and local laws.

E. That the days and hours of alcoholic beverages sales and consumption shall be limited to:

Monday through Thursday from 10:00 a.m. to 10:00 p.m.,
Friday and Saturday from 10:00 a.m. to 12:00 a.m. (midnight) and
Sunday from 1:00 p.m. to 7:00 p.m

Letters of Objection:

As of August 19, 2020, staff has not received any letters of objections.

Attachments:

Site Plan and Floor Plan (Exhibit A)
Application
Maps

Robert Patrick

City Manager's Office

ORDINANCE NO. _____

AN ORDINANCE AMENDING THE ZONING DISTRICT MAP OF THE CITY OF MIDLAND TO GRANT A SPECIFIC USE DESIGNATION WITH TERM FOR A 3,000-SQUARE FOOT PORTION OF BLOCK 1, LESS THE 250-FOOT BY 150-FOOT NORTHWEST CORNER AND LESS THE 224-FOOT BY 150-FOOT SOUTHWEST CORNER, REPLAT OF BLOCKS 1 AND 2, IMPERIAL HEIGHTS ADDITION, CITY AND COUNTY OF MIDLAND, TEXAS (GENERALLY LOCATED ON THE SOUTH SIDE OF WEST WADLEY AVENUE, APPROXIMATELY 310 FEET EAST OF NORTH MIDKIFF ROAD), WHICH IS PRESENTLY ZONED RR, REGIONAL RETAIL DISTRICT, ALLOWING SAID PROPERTY TO BE USED FOR THE SALE OF ALL ALCOHOLIC BEVERAGES IN A SPECIAL EVENTS CENTER FOR ON-PREMISES CONSUMPTION; MAKING SAID DESIGNATION SUBJECT TO CERTAIN CONDITIONS AND RESTRICTIONS CONTAINED HEREIN; CONTAINING A CUMULATIVE CLAUSE; CONTAINING A SAVINGS AND SEVERABILITY CLAUSE; PROVIDING FOR A MAXIMUM PENALTY OR FINE OF TWO THOUSAND DOLLARS ($2,000.00); AND ORDERING PUBLICATION

WHEREAS, the City Planning and Zoning Commission and the Governing Body of the City of Midland, Texas, in compliance with the City Charter, the City Code, and State law, have given the requisite notices by United States mail, publication and otherwise; and after holding due hearings affording a full and fair hearing to all of the property owners generally, and particularly to those interested persons situated in the affected area and in the vicinity thereof, the Governing Body of the City of Midland finds that the public convenience will be best served by granting a Specific Use Designation With Term for a 3,000-square foot portion of Block 1, less the 250-foot by 150-foot northwest corner and less the 224-foot by 150-foot southwest corner, Replat of Blocks 1 and 2, Imperial Heights Addition, City and County of Midland, Texas (the "Property") as set out hereinafter;

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF MIDLAND, TEXAS:

SECTION ONE. That the Zoning District Map of the City of Midland, Texas, is hereby amended to grant the Property a Specific Use Designation With Term for the sale of

all alcoholic beverages for on-premises consumption in a special events center (the "Establishment"), together with the uses permitted in the present RR, Regional Retail District.

SECTION TWO. That the Property shall be subject to the following conditions and restrictions:

A. That the serviceable area of the Establishment shall be limited to approximately 2,900 contiguous square feet as shown in Exhibit "A", which is attached hereto and incorporated herein for all purposes.

B. That the sale and on-premises consumption of alcoholic beverages shall conform to all applicable state and local laws.

C. That the days and hours of alcoholic beverage sales and consumption shall be limited to the following:

Monday through Thursday from 10:00 a.m. to 10:00 p.m.;
Friday and Saturday from 10:00 a.m. to 12:00 a.m. (midnight); and
Sunday from 1:00 p.m. to 7:00 p.m.

D. That the occupancy of the Establishment shall not exceed the maximum occupancy determined by the Building Code and Fire Code.

E. That the Establishment shall meet the requirements of the Fire Department and the Code Administration Division.

SECTION THREE. The provisions of this ordinance are to be cumulative of all other ordinances or parts of ordinances governing or regulating the same subject matter as that covered herein; provided, however, that all prior ordinances or parts of ordinances, inconsistent with or in conflict with any of the provisions of this ordinance are hereby expressly repealed to the extent of any such inconsistency or conflict.

SECTION FOUR. If any section, subsection, sentence, clause or phrase of this ordinance is, for any reason, held to be unconstitutional or invalid, such holding shall not affect the validity of the remaining portions of this ordinance. The Council of the City of Midland hereby declares that it would have passed this ordinance and each section, subsection, sentence, clause, or phrase hereof irrespective of the fact that any one or more sections, subsections, sentences, clauses, or phrases be declared unconstitutional or invalid.

SECTION FIVE. The penalty for violation of this ordinance shall be in accordance with the general penalty provisions contained in Section 1-3-1 of the City Code of Midland, Texas, which provides for a fine not exceeding two thousand dollars ($2,000.00).

SECTION SIX. The City Secretary is hereby authorized and directed to publish the descriptive caption of this ordinance in the manner and for the length of time prescribed by the law as an alternative method of publication.

The above and foregoing ordinance was duly proposed, read in full and adopted on first reading, the _____ day of _____, A.D., 2020; and passed to second reading on motion of Council member _____, seconded by Council member _____, by the following vote:

Council members voting "AYE":

Council members voting "NAY":

The above and foregoing ordinance was read in full and finally adopted by the following vote upon motion of Council member _____, seconded by Council member _____, on the _____ day of _____, A.D., 2020, at a regular meeting of the City Council:

Council members voting "AYE":

Council members voting "NAY":

PASSED AND APPROVED THIS _____ day of _____, A.D., 2020.

_____
Patrick N. Payton, Mayor

ATTEST:

_____
Amy M. Turner, City Secretary

APPROVED AS TO CONTENT
AND COMPLETENESS:

_____
Robert Patrick, Assistant City Manager

_____
Charles Harrington, Director of Development Services

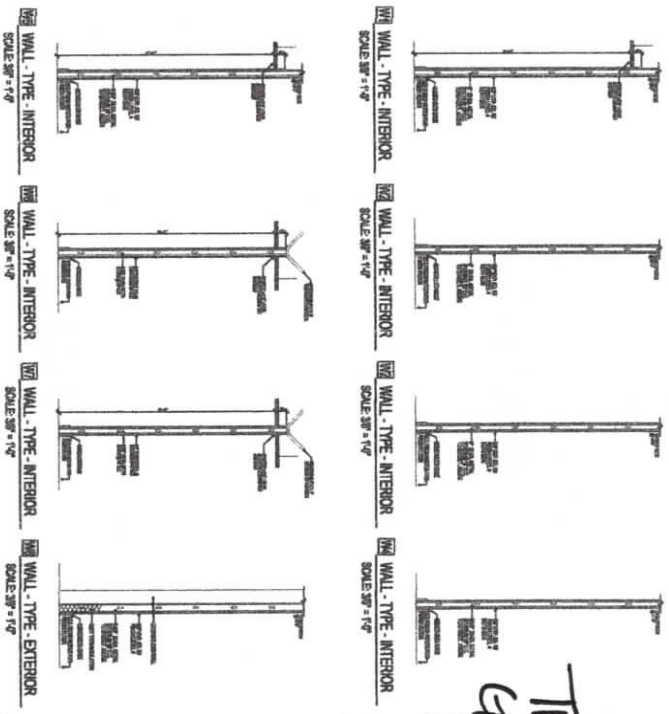
APPROVED ONLY AS TO FORM:

_____
John Ohnemiller, City Attorney

EXHIBIT "A"

RECEIVED
JUN 2 6 2020

BY: .....



DOOR AND FRAME SCHEDULE

MARK	SIZE WD	SIZE HGT	SIZE THK	MATERIAL	FRAME MATL	HARDWARE KEYSIDE RM NO	HARDWARE	NOTES
1	6'-0"	7'-0"	1 3/4"	-	METAL	-	-	-
2	3'-0"	7'-0"	1 3/4"	-	METAL	-	-	-
3	3'-0"	7'-0"	1 3/4"	-	METAL	-	-	-
4	3'-0"	7'-0"	1 3/4"	-	METAL	-	-	-
5	3'-0"	7'-0"	1 3/4"	-	METAL	-	-	-
6	3'-0"	7'-0"	1 3/4"	-	METAL	-	-	-
7	3'-0"	7'-0"	1 3/4"	-	METAL	-	-	-
8	3'-0"	7'-0"	1 3/4"	-	METAL	-	-	-
9	3'-0"	7'-0"	1 3/4"	-	METAL	-	-	-
10	3'-0"	7'-0"	1 3/4"	-	METAL	-	-	-
11	3'-0"	7'-0"	1 3/4"	-	METAL	-	-	-
12	3'-0"	7'-0"	1 3/4"	-	METAL	-	-	-
13	3'-0"	7'-0"	1 3/4"	-	METAL	-	-	-
14	3'-0"	7'-0"	1 3/4"	-	METAL	-	-	-
15	3'-0"	7'-0"	1 3/4"	-	METAL	-	-	-
16	3'-0"	7'-0"	1 3/4"	-	METAL	-	-	-

ROOM FINISH SCHEDULE

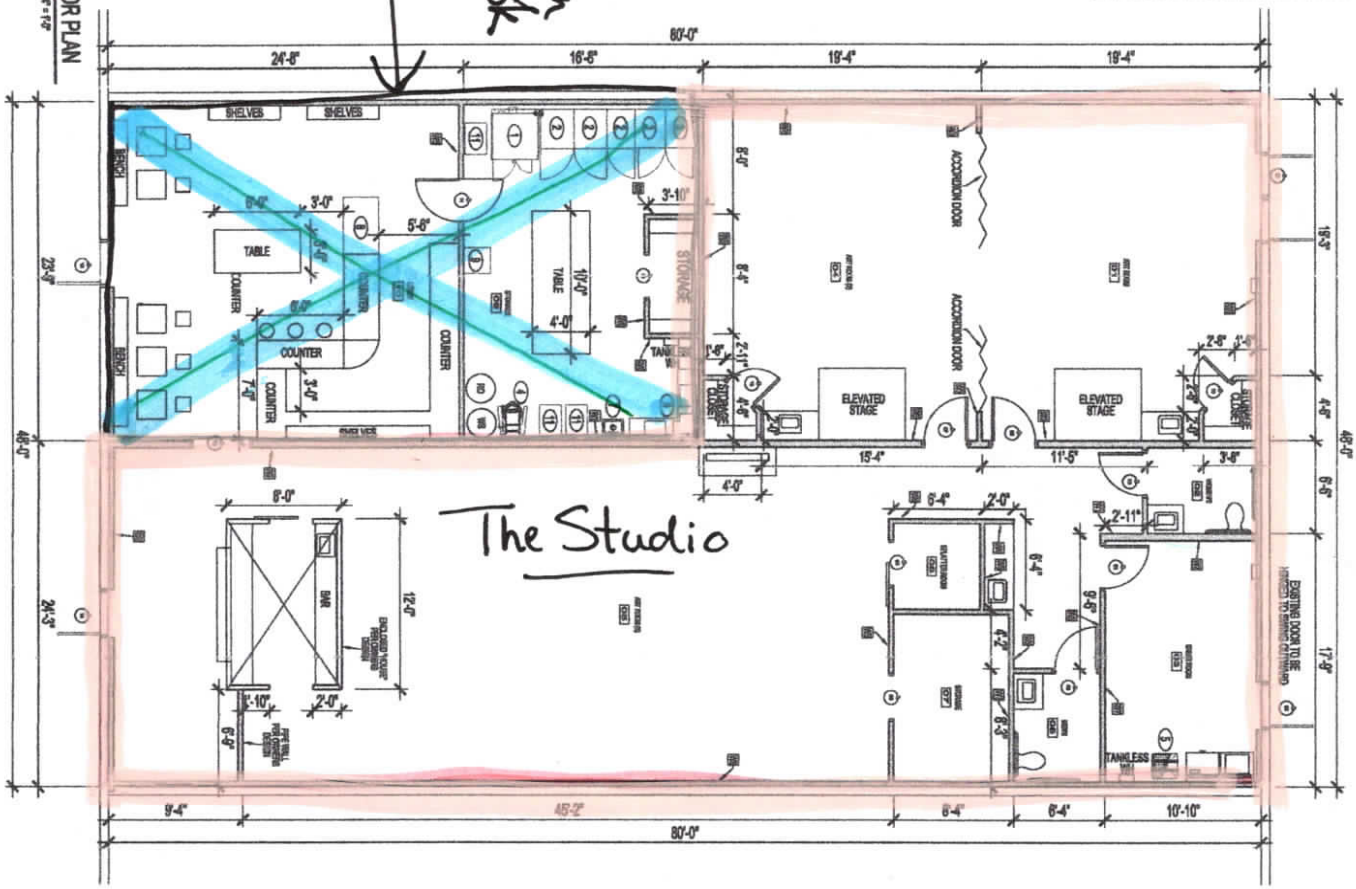
ROOM NO	ROOM NAME	FLOOR	Area	CEILING MATL	Wall Finish	Base Color	Base Matl	NOTES
01	ART ROOM (S)	CONC.	447.917	DECK	-	-	-	-
02	BREAK ROOM	CONC.	127.698	DECK	-	-	-	-
03	ART ROOM	CONC.	447.917	DECK	-	-	-	-
04	ART ROOM (S)	CONC.	1498.42	DECK	-	-	-	-
05	WOMEN'S	CONC.	49.5	DRYWALL	-	-	-	-
06	MEN'S	CONC.	49.5	DRYWALL	-	-	-	-
07	STORAGE	CONC.	58	DRYWALL	-	-	-	-
08	SPLIT ROOM STORAGE	CONC.	369.472	DRYWALL	-	-	-	-

FURNITURE SCHEDULE

ITEM	DESCRIPTION	SIZE	QTY
1	CONCESSION COUNTER	7'-0" / 7'-3" / 10'-0" / 10'-3"	1
1	REFRIGERATOR/FREEZER	7'-0" / 7'-3" / 10'-0" / 10'-3"	1
1	TRASH/RECYCLE	3'-7 1/2" / 4'-0" / 5'-0" / 5'-3"	1
1	4 SEAT COUNTER BAR	3'-7 1/2" / 4'-0" / 5'-0" / 5'-3"	1
1	4 SEAT COUNTER BAR	3'-7 1/2" / 4'-0" / 5'-0" / 5'-3"	1
1	CONCESSION	3'-7 1/2" / 4'-0" / 5'-0" / 5'-3"	1
1	FRIDGE	2'-7 1/2" / 3'-0" / 3'-7 1/2" / 4'-0"	1
1	DISPLAY CASE W/ REFRIGERATION	4'-7 1/2" / 5'-0" / 5'-7 1/2" / 6'-0"	1
1	42 SINGLE CASE STYLE	3'-7 1/2" / 4'-0" / 5'-0" / 5'-3"	1
1	DESSERT CASE	3'-7 1/2" / 4'-0" / 5'-0" / 5'-3"	1
1	TABLE	3'-7 1/2" / 4'-0" / 5'-0" / 5'-3"	1
1	SPEAKER/SPEAKER/MIXER	3'-7 1/2" / 4'-0" / 5'-0" / 5'-3"	1
1	COFFEE GRINDER	3'-7 1/2" / 4'-0" / 5'-0" / 5'-3"	1
1	HOOD	3'-7 1/2" / 4'-0" / 5'-0" / 5'-3"	1
1	HOOD SHELL	3'-7 1/2" / 4'-0" / 5'-0" / 5'-3"	1

A-1.0 FLOOR PLAN
SCALE: 3/8" = 1'-0"

The Golden Whisk



1	FINAL PLANS	01/28/20

KIDD'S AND CANVAS-GOLDEN WHISK
3211 W WADLEY SUITE 5
MIDLAND, TEXAS
LOT: 0010, BLOCK: 001
IMPERIAL HEIGHTS

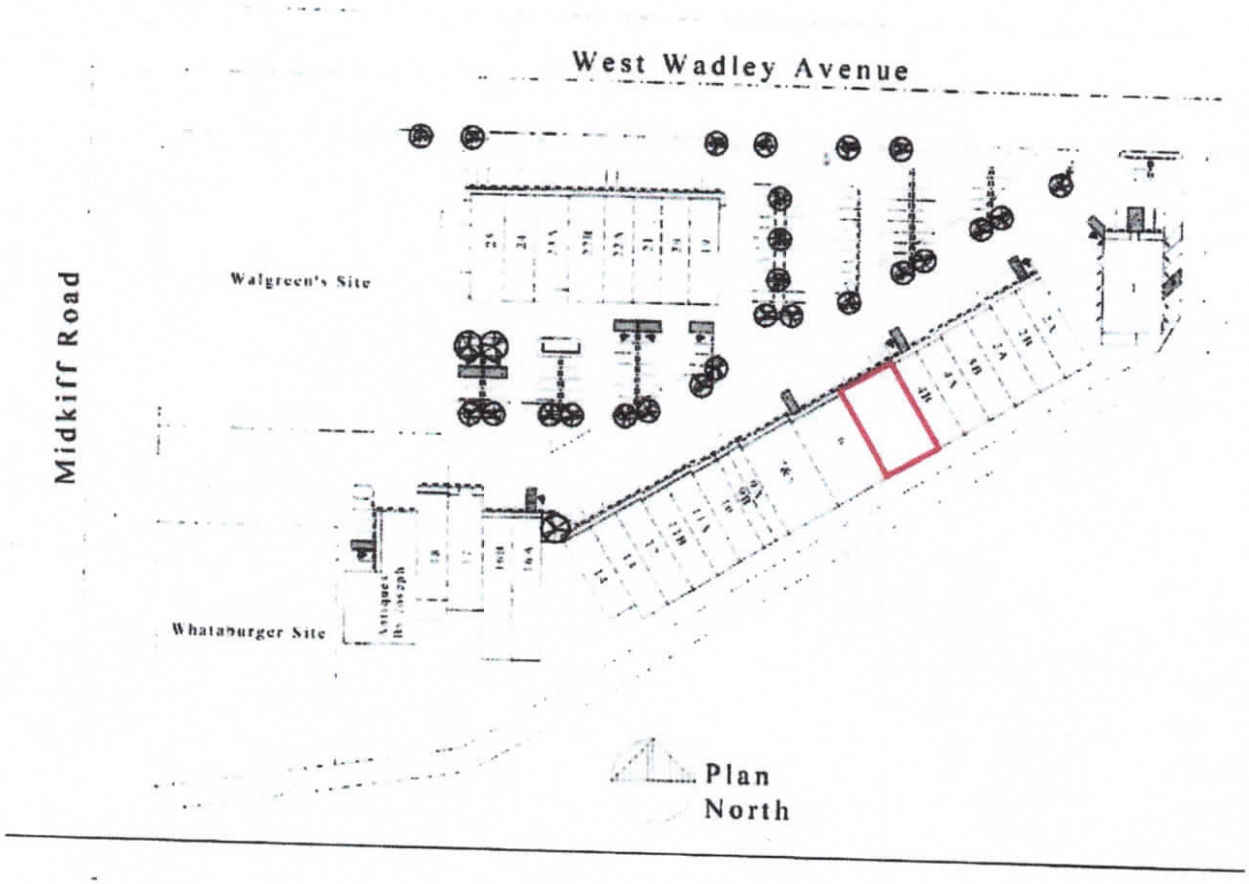
CHAD WALTERS
432-553-0788
CHAD@MIDLAND-DCI.COM
WWW.MIDLAND-DCI.COM

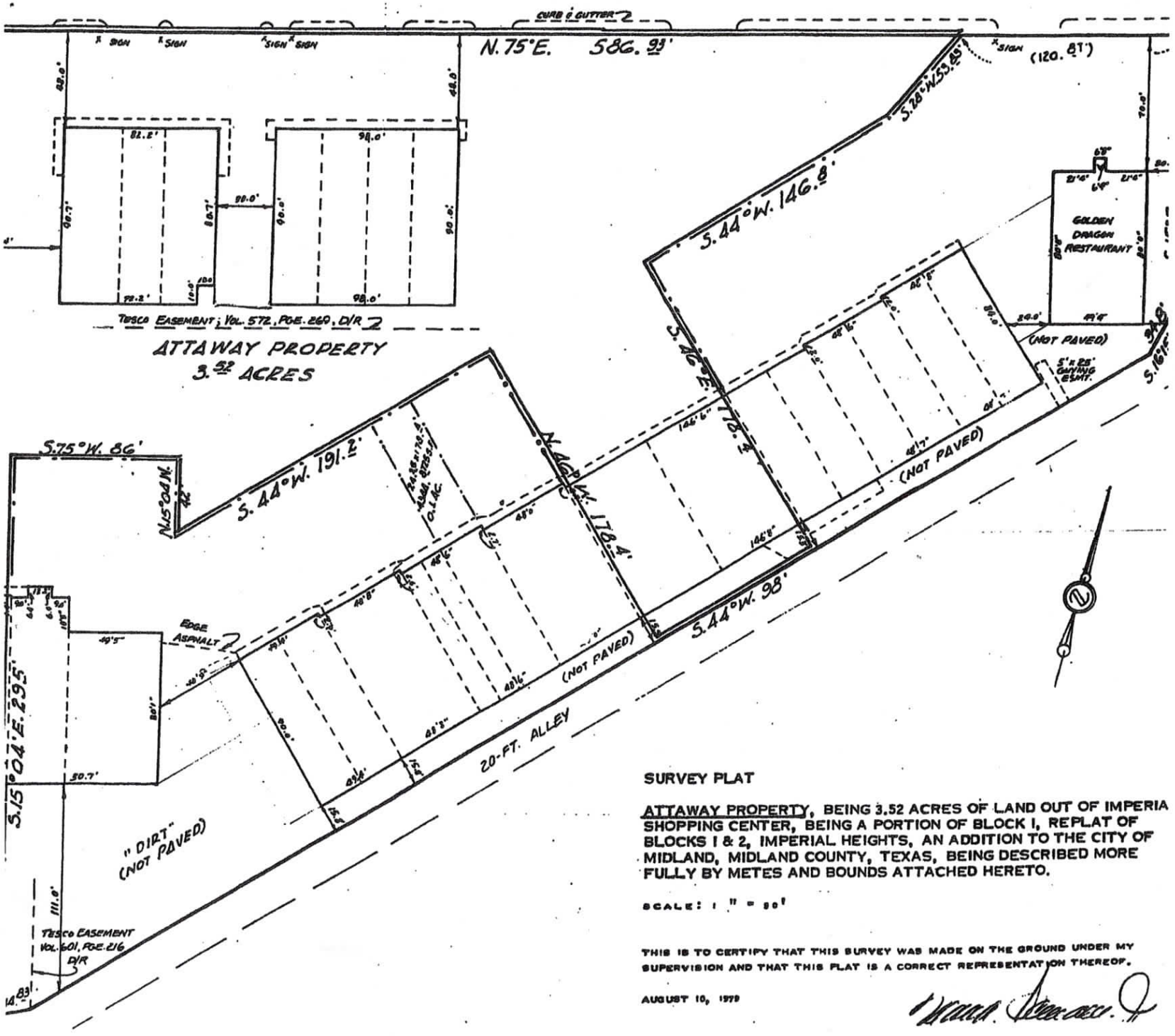
A-1

PARKING + LOT

EXHIBIT A

LEASING PLAN





SURVEY PLAT

ATTAWAY PROPERTY, BEING 3.52 ACRES OF LAND OUT OF IMPERIA SHOPPING CENTER, BEING A PORTION OF BLOCK I, REPLAT OF BLOCKS I & 2, IMPERIAL HEIGHTS, AN ADDITION TO THE CITY OF MIDLAND, MIDLAND COUNTY, TEXAS, BEING DESCRIBED MORE FULLY BY METES AND BOUNDS ATTACHED HERETO.

SCALE: 1" = 50'

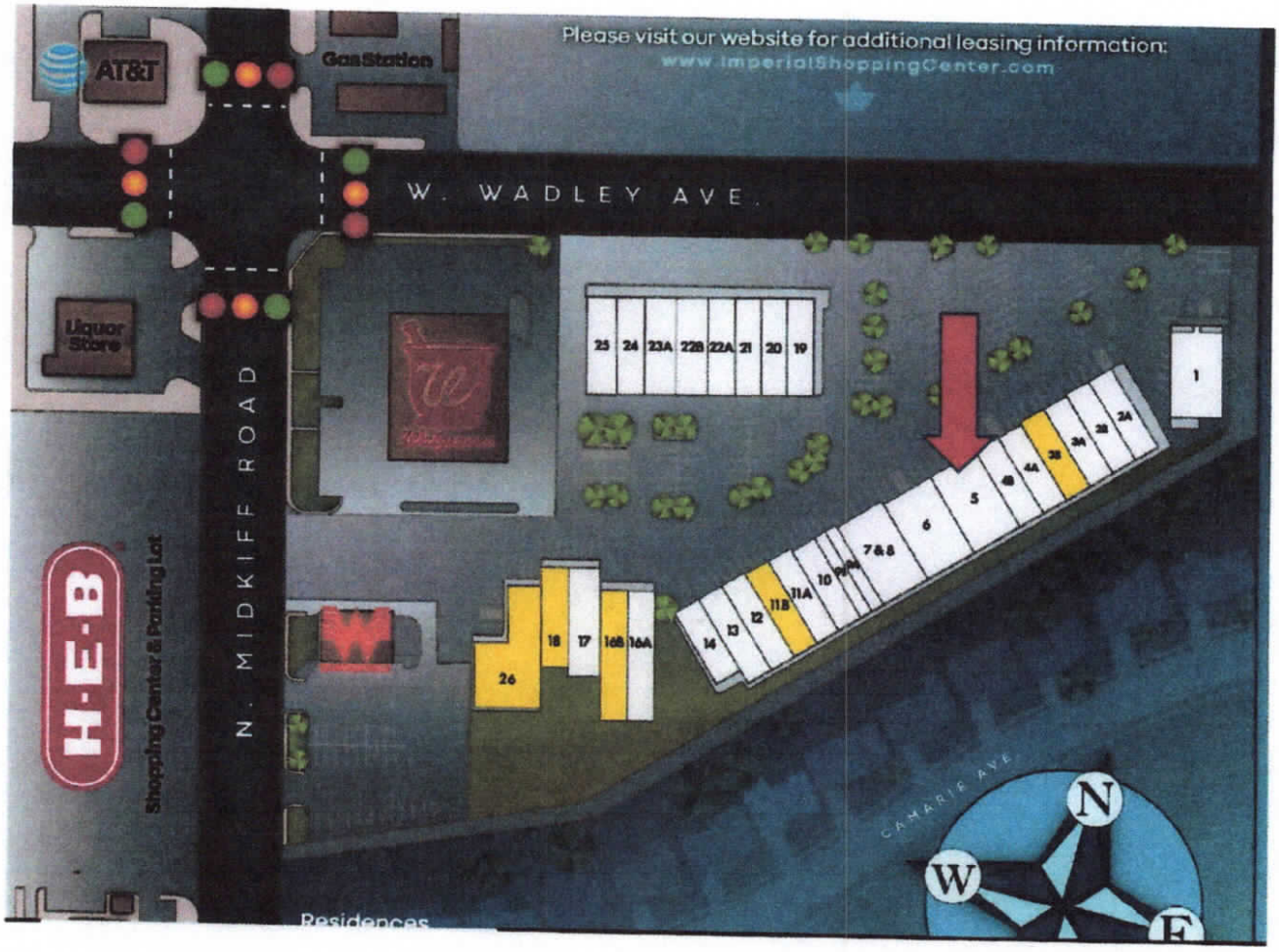
THIS IS TO CERTIFY THAT THIS SURVEY WAS MADE ON THE GROUND UNDER MY SUPERVISION AND THAT THIS PLAT IS A CORRECT REPRESENTATION THEREOF.

AUGUST 10, 1979

RECEIVED
JUN 26 2020
BY:

EXHIBIT A

LEASE PLAN



RECEIVED
JUN 26 2020
BY:

DOOR AND FRAME SCHEDULE

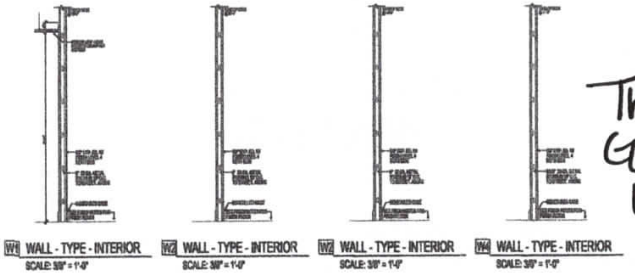
MARK	DOOR SIZE WD	HGT	THK	MATERIAL	FRAME MATL	HARDWARE KEYSIDE RM NO	NOTES
1	6'-0"	7'-0"	1 3/4"	-	METAL	-	EXISTING
2	3'-0"	7'-0"	1 3/4"	-	METAL	-	EXISTING
3	3'-0"	7'-0"	1 3/4"	-	METAL	-	-
4	3'-0"	7'-0"	1 3/4"	-	METAL	-	-
5	3'-0"	7'-0"	1 3/4"	-	METAL	-	-
6	2'-0"	7'-0"	1 3/4"	-	METAL	-	-
7	2'-0"	7'-0"	1 3/4"	-	METAL	-	-
8	5'-0"	7'-0"	NA	-	METAL	-	W SWING DOOR
9	3'-0"	7'-0"	NA	-	METAL	-	-
10	5'-0"	7'-0"	NA	-	METAL	-	-
11	3'-0"	7'-0"	1 1/2"	-	METAL	-	-
12	4'-0"	7'-0"	NA	-	METAL	-	-
13	3'-0"	7'-0"	1 3/4"	-	METAL	-	EXISTING
14	3'-0"	7'-0"	1 3/4"	-	METAL	-	EXISTING
15	2'-0"	7'-0"	1 3/4"	-	METAL	-	-
16	2'-0"	7'-0"	1 3/4"	-	METAL	-	-

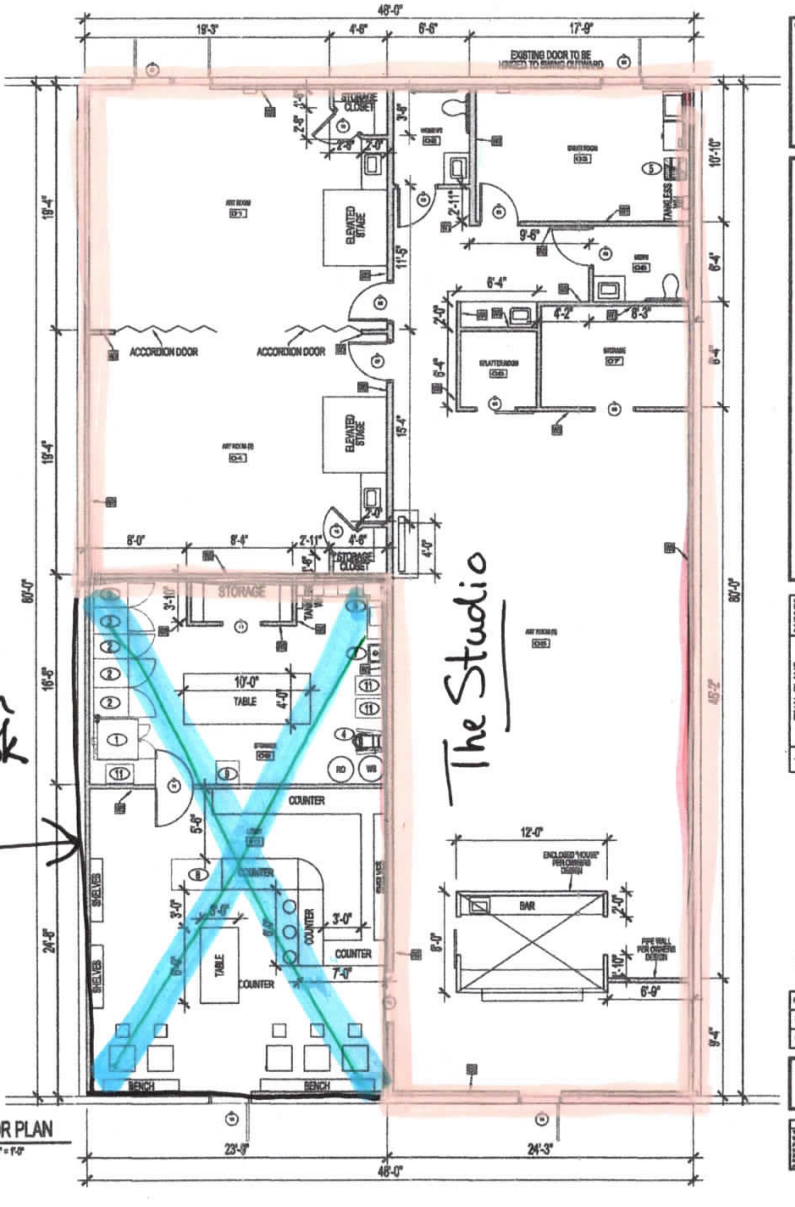
FURNITURE SCHEDULE

ITEM	DESCRIPTION	SIZE	QTY
1	CONVECTION OVEN, ELECTRIC	N/A	1
2	REACH-IN REFRIGERATOR	27-0" X 32-3/4" X 81-0 5/8"H	1
3	REACH-IN FREEZER	27-0" X 32-3/4" X 81-0 5/8"H	1
4	PLATE/BATTERY RACK	32" X 24-1/2" X 47-1/2"H	1
5	CHC CONVENIENT SINK	24" X 20-1/2" X 40-5/8"H	1
6	CORNER SINK	18-1/2" X 18-1/2" X 44"H	1
7	WELL SINK	14" X 18"	1
8	DISPLAY CASE, REFRIGERATED BAKERY	48" X 30-3/8" X 60"H	1
9	ICE MAKER, CUBE STYLE	N/A	1
10	MICROWAVE OVEN	N/A	1
11	UNIVERSAL PANWICK	18" X 22" X 12"	3
12	DOUGH SHEETER	17"X 29"	1
13	ESPRESSO CAPPUCCINO MACHINE	N/A	1
14	COFFEE GRINDER	N/A	1
15	HOOD 1	CUSTOM	1
16	HOOD 2	N/A	1

ROOM FINISH SCHEDULE

ROOM NO	ROOM NAME	FLOOR	Area	CEILING MATL	Wall Finish	Base Color	Base Matl	NOTES
04	ART ROOM (2)	CONC.	444.817	DECK	-	-	-	-
10	LOBBY	CONC.	662	DECK	-	-	-	-
02	BREAK ROOM	CONC.	177.626	LAY-IN	-	-	-	-
01	ART ROOM	CONC.	444.917	DECK	-	-	-	-
05	ART ROOM (3)	CONC.	1495.42	DECK	-	-	-	-
02	WOMEN'S	CONC.	48.5	DRYWALL	-	-	-	-
03	MEN'S	CONC.	48.5	DRYWALL	-	-	-	-
07	STORAGE	CONC.	84	LAY-IN	-	-	-	-
06	SPLATTER ROOM	CONC.	36	DRYWALL	-	-	-	-
09	STORAGE	CONC.	382.472	LAY-IN	-	-	-	-





A-1.0 FLOOR PLAN
SCALE: 1/4" = 1'-0"

KIDD'S AND CANVAS-GOLDEN WHISK
3211 W WADLEY SUITE 5
MIDLAND, TEXAS
LOT: 0010, BLOCK: 001
IMPERIAL HEIGHTS

1	FINAL PLANS	01/26/20

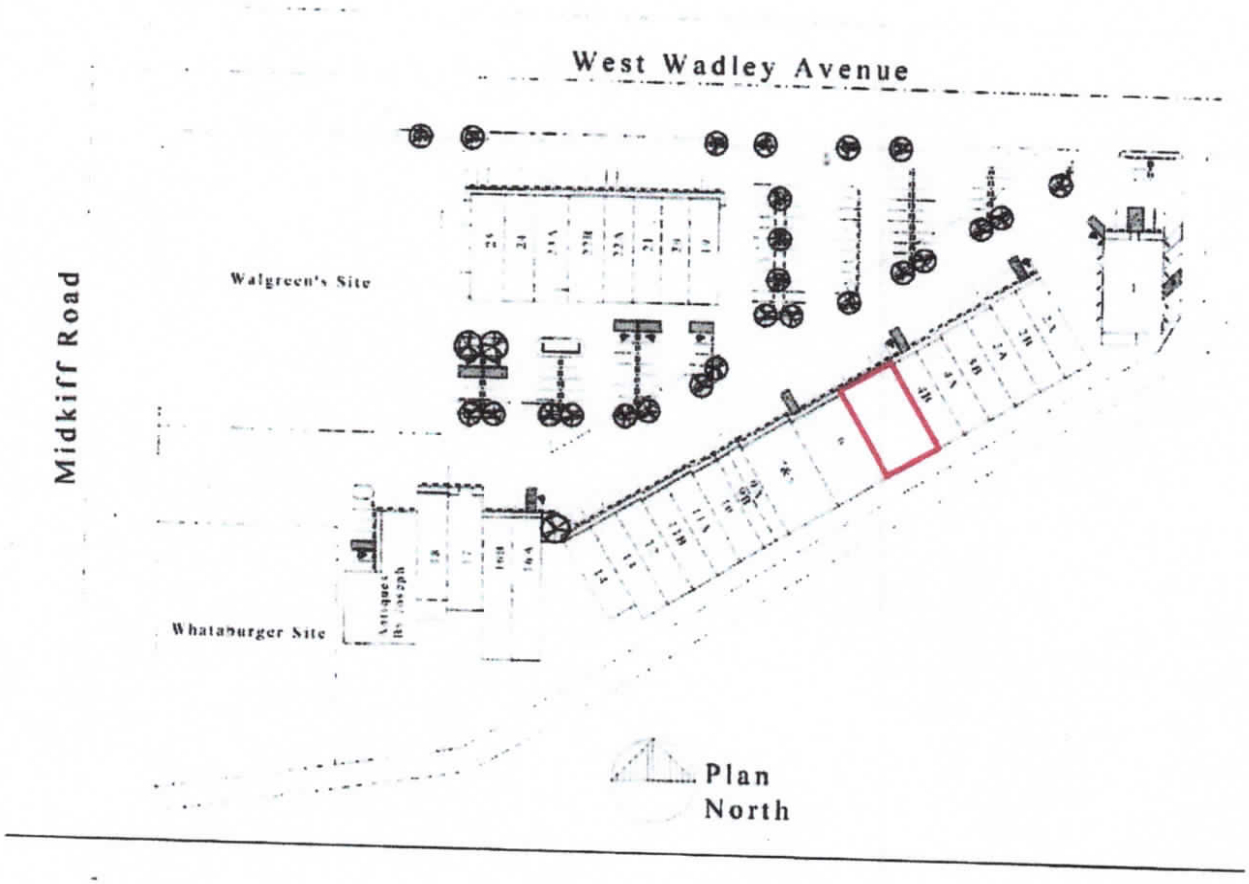
DCI
CHAD WALTERS
432-352-0788
CHAD@MIDLAND-DCI.COM
WWW.MIDLAND-DCI.COM

A-1.0

PARKING + LOT

EXHIBIT A

LEASING PLAN



MIDLAND Planning Division

Specific Use Designation with Term for the Sale of Alcoholic Beverages for On-Premises Consumption

Project Number: SUP-20-0081

Case Number:

Applicant *(if acting as Agent, see affidavit on page 2)* Printed Name: KEYSHA KIDD - THE STUDIO by KIDD'S + CANVAS		Phone (432) 978-8894 Email 432-312-0273 Keysha@thestudiomtx.com	
Address 3211 W. WADLEY AVE STE 5	City MIDLAND	State TX	Zip 79705
Property Owner Printed Name: IMPERIAL SHOPPING CENTER I, LTD		Phone (432) 697-6401 Email debi@imperialshoppingcenter.c	
Address 3211 W. WADLEY AVE	City MIDLAND	State TX	Zip 79705
Representative *(if different from Applicant or Property Owner)* Firm: Printed Name:		Phone ( ) Email	
Address	City	State	Zip

Street Address: 3211 W. Wadley Ave. Ste 5

Business Name: THE STUDIO by KIDD'S + CANVAS

Legal Description
Lot: A 0.20 Block: 1 Subdivision: Imperial Heights

Current Zoning: RR

Reason for Request: Wine & Canvas (similar to)

Type of Business *(restaurant, bar, lounge, nightclub, etc.)*: ART ENTERTAINMENT

Proposed/Current Days and Hours of Operation: M-TH 10 AM - 10PM, F+S 10 AM - 12 AM, SUN 1PM - 7PM

Proposed Days and Hours of Alcohol Service: MON - TH 10 AM - 10 PM F+SAT 10 AM to 12 AM, SUN 1 PM - 7PM

Total Square Footage of Business: 3000 Sq ft.

Square Footage of Alcohol Serviceable Area: 2900 sft

Restroom Fixtures:	*Men*	**Toilets/Urinals:**	1 /	**Bathroom Sinks:**	1
	Women	**Toilets:**	1	**Bathroom Sinks:**	1

RECEIVED
JUN 26 2020
BY: DK

Submittal and Fees

Items to be submitted with this application form:

- Application Fee – Payable to the 'City of Midland'
- Dimensioned Floor Plan showing:
  - Seating
  - Exits
  - Restrooms
  - Kitchen (if applicable)
  - Total Square Footage
  - Serviceable Square Footage
- Dimensioned Site Plan showing:
  - Parking
  - Business Footprint
- Digital Copies of Floor Plan & Site Plan (PDF/JPEG)

Signatures

Applicant (signature): Keysha K Bb Date: 6-11-2020

Applicant (printed): KEYSHA KYBD

Property Owner (signature): Daniel A Molloy Date: 6/13/20

Property Owner (printed): Daniel A. Molloy

The Specific Use Designation with Term for the sale of all alcoholic beverages shall be considered officially received in the Planning office only when it has been submitted in full compliance with the provisions of Section 212 of the Texas Local Government Code and the Zoning Code of Ordinances of the City of Midland and when such required items for the application are also received.

All materials, including exhibits, submitted in support of an application, or displayed during a public hearing, shall remain the property of the City of Midland.

If an agent is authorized by the property owner to file and execute the application on behalf of the property owner, the agent must complete the affidavit below.

STATE OF TEXAS
COUNTY OF MIDLAND

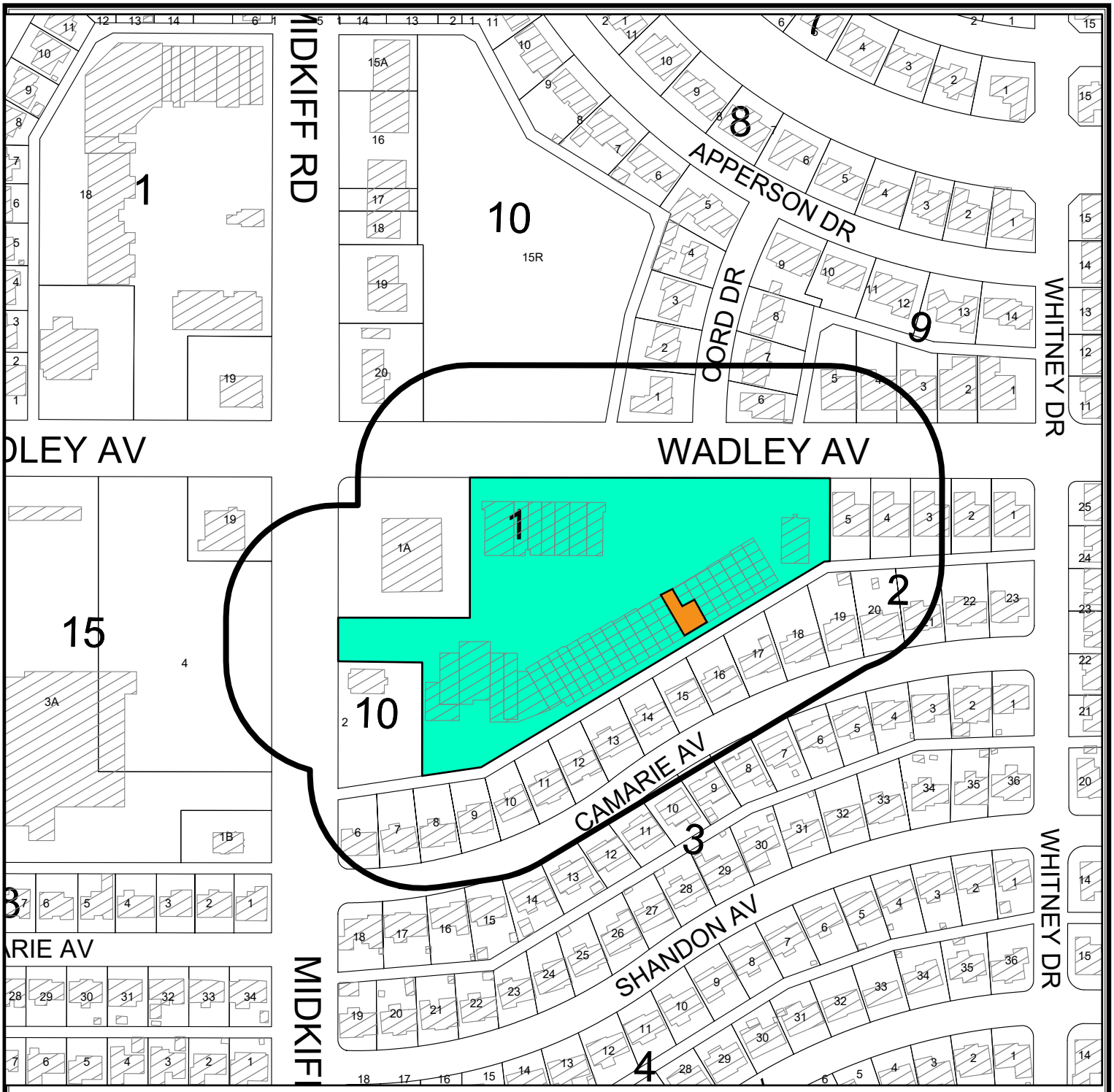
Before me, the undersigned authority, on this day personally appeared _____ who, being by me duly sworn, upon oath says: That (s)he is authorized by _____, the owner of the above described property, to fully represent him/her in this application and that (s)he had the legal right, power and authority to sign said owner's name hereto as his/her attorney in fact.

_____
Authorized Agent (*signature*)

Subscribed and sworn to before me, this _____ day of _____, 20 ___, to certify which witness my hand and seal of office.

_____
NOTARY PUBLIC, MIDLAND COUNTY, TEXAS

****Application will not be considered for scheduling until reviewed by a planner.****



LOCATION MAP

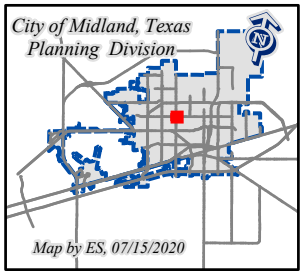
SUD-20-0081 **Scale: 1" = 250'**

Consider an ordinance on a request by Keysha Kidd, for a Specific Use Designation with Term for the Sale of all Alcoholic Beverages, for on premises consumption in a Special Events Center on a 3,000 square foot portion of Block 1, less the 250 x 150 NW corner and less the 224 x 150 SW corner, Re-plat of Blocks 1 and 2, Imperial Heights Addition, City and County of Midland, Texas.

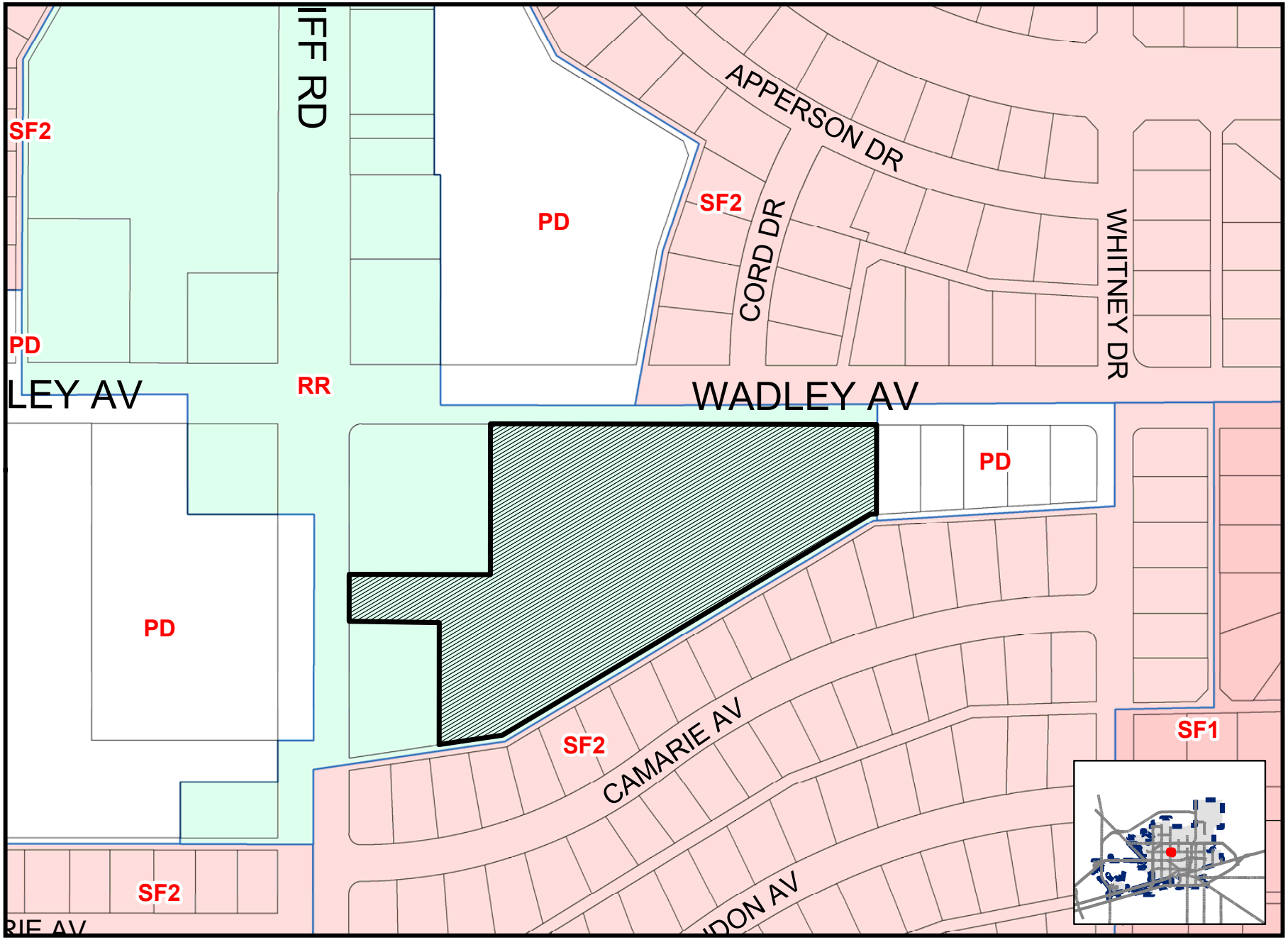
Generally located on the south side of West Wadley Avenue, approximately 310 feet east of North Midkiff Road. Council District 3

LEGEND

- CITY LIMITS
- PARCEL
- PRIVATE BLDGS



September 8, 2020



Map By ES, 7/15/2020

SUD-20-0081

Scale: 1" = 200'

ZONING MAP

PACKET
16.18
September 8, 2020

BUS
STOP

PENGUINN
REFRIGERATION, INC.
Armstrong McCall

City Council Meeting

Item Number: 17

Meeting Date: September 8, 2020

To: City Council / City Manager

From: Joseph Marynak, Planner

Subject: AN ORDINANCE AMENDING THE ZONING DISTRICT MAP OF THE CITY OF MIDLAND TO REZONE LOT 6A, BLOCK 12, KELVIEW HEIGHTS ADDITION, SECTION 11, CITY AND COUNTY OF MIDLAND, TEXAS, FROM PD, PLANNED DEVELOPMENT DISTRICT FOR AN OFFICE AND SHOPPING CENTER AS A TRANSITION DISTRICT TO RR, REGIONAL RETAIL DISTRICT (GENERALLY LOCATED AT THE NORTHEAST CORNER OF THE INTERSECTION OF LOMA DRIVE AND WEST PECAN AVENUE); CONTAINING A CUMULATIVE CLAUSE; CONTAINING A SAVINGS AND SEVERABILITY CLAUSE; PROVIDING FOR A MAXIMUM PENALTY OR FINE OF TWO THOUSAND DOLLARS ($2,000.00); AND ORDERING PUBLICATION (DEVELOPMENT SERVICES)

Purpose:

The applicant, Maverick Engineering, is requesting a zone change from PD, Planned Development for an Office and Shopping Center as a Transition District to RR, Regional Retail District, to develop a retail facility at 2600 Loma Drive.

Recommended City Council Action:

Approve

Fiscal Impact:

Processing this request does not require any City funds.

Discussion:

Current Zoning:

PD, Planned Development District for an Office and Shopping Center as a Transition District.

(Ordinance No. 6048)

Surrounding Zoning and Land Use:

The property to the north is zoned PD, Planned Development District for and Office and Shopping Center as a Transition District and is the location of an office. The properties to the east are zoned PD, Planned Development District for a Transition District and RR, Regional Retail District and the locations of retail businesses. The property to the south is zoned PD, Planned Development District for a Transition District and the location of a restaurant. The property to the west is zoned MF-16, Multiple Family Dwelling District and the location of a single family residence.

Analysis:

The property located at 2600 Loma Drive is currently zone PD, Planned Development District for an Office and Shopping Center as a Transition District (regulated by Ordinance No. 6048), which allows for the development of an office per the adopted site plan. The applicant, 5 Figure Five, LLC, is requesting a zone change to RR, Regional Retail District to develop a retail establishment with a drive-thru. If approved, the development will need to conform to Section 5.05, Nonresidential Zoning District Dimensional Regulations and Section 6.01 through 6.05, Zoning Development Regulations of the Zoning Ordinance.

This proposed zone change has been circulated to and reviewed by respective City departments for internal review and their comments, conditions, and requirements are as follows:

Fire: (Approved)

No objections

Building: (Approved)

No issues. All future structures must adhere to the 2018 International Building Codes, the 2015 International Energy Code, the 2017 NEC requirements, the 2015 International Fire Codes, local city ordinances, zoning requirements, established setbacks, and floodplain requirements if necessary.

Engineering: (Approved)

No objections to zoning/zone change.

Site drainage, utilities, driveway access, and traffic circulation may be adjusted during construction drawing review as necessary to receive building permit approval from Engineering and Traffic Operations.

Code: (Approved)

No Oil or Gas wells identified within 500 ft. permitted well radius or in the 135 ft. non-permitted

well radius of location on plat.

Transportation: (Approved)

Site drainage, utilities, driveway access, and traffic circulation may be adjusted during construction drawing review as necessary to receive building permit approval from Engineering and Traffic Operations.

No objection to zone change.

Planning:

This proposed development fits with Chapter 3, An Integrated Land Use Vision, Future Land Use Map of the Tall City Tomorrow comprehensive plan as this area is called for Urban Medium. This district calls for “vibrant urban areas that draw customers and employees from outside the immediate area.”

The prevailing land uses in this area are residential to the west and office and retail uses to the north, east, and south. This retail establishment would fit into the character of the area and will provide a new retail service, which will increase economic activity in the area.

This request was recommended for approval at the August 3, 2020 Planning and Zoning Commission meeting and approved at the August 25, 2020 City Council meeting.

Therefore, staff recommends approval of this zone change, subject to condition A.

Conditions:

A. **That the use and development of this property shall conform to the regulations of the RR, Regional Retail District.**

Letters of Objection:

Staff has not received any letters of objection as of August 19, 2020.

Attachments:

Application
Maps
Proposed Site Plan
Ordinance No. 6048

City Manager's Office

ORDINANCE NO. _____

AN ORDINANCE AMENDING THE ZONING DISTRICT MAP OF THE CITY OF MIDLAND TO REZONE LOT 6A, BLOCK 12, KELVIEW HEIGHTS ADDITION, SECTION 11, CITY AND COUNTY OF MIDLAND, TEXAS, FROM PD, PLANNED DEVELOPMENT DISTRICT FOR AN OFFICE AND SHOPPING CENTER AS A TRANSITION DISTRICT TO RR, REGIONAL RETAIL DISTRICT (GENERALLY LOCATED AT THE NORTHEAST CORNER OF THE INTERSECTION OF LOMA DRIVE AND WEST PECAN AVENUE); CONTAINING A CUMULATIVE CLAUSE; CONTAINING A SAVINGS AND SEVERABILITY CLAUSE; PROVIDING FOR A MAXIMUM PENALTY OR FINE OF TWO THOUSAND DOLLARS ($2,000.00); AND ORDERING PUBLICATION

WHEREAS, the City Planning and Zoning Commission and the Governing Body of the City of Midland, in compliance with the City Charter, the City Code, and State law, have given the requisite notices by United States mail, publication and otherwise; and after a full and fair hearing to all of the property owners generally and particularly to those interested persons situated in the affected area and in the vicinity thereof, the Governing Body finds that the public health, safety and general welfare will be best served by rezoning Lot 6A, Block 12, Kelview Heights Addition, Section 11, City and County of Midland, Texas (the "Property") to RR, Regional Retail District, as set out hereinafter;

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF MIDLAND, TEXAS:

SECTION ONE. That the Zoning District Map of the City of Midland, Texas, is hereby amended to rezone the Property from PD, Planned Development District for an Office and Shopping Center as a Transition District to RR, Regional Retail District.

SECTION TWO. That the definitions given in the zoning regulations contained in the City Code of the City of Midland, Texas, shall be applicable to such of those terms as are used herein.

SECTION THREE. The provisions of this ordinance are to be cumulative of all other ordinances or parts of ordinances governing or regulating the same subject matter as

that covered herein; provided, however, that all prior ordinances or parts of ordinances inconsistent with or in conflict with any of the provisions of this ordinance are hereby expressly repealed to the extent of any such inconsistency or conflict.

SECTION FOUR. If any section, subsection, sentence, clause or phrase of this ordinance is, for any reason, held to be unconstitutional or invalid, such holding shall not affect the validity of the remaining portions of this ordinance. The Council of the City of Midland hereby declares that it would have passed this ordinance and each section, subsection, sentence, clause, or phrase hereof irrespective of the fact that any one or more sections, subsections, sentences, clauses, or phrases be declared unconstitutional or invalid.

SECTION FIVE. The penalty for violation of this ordinance shall be in accordance with the general penalty provisions contained in Section 1-3-1 of the City Code of Midland, Texas, which provides for a fine not exceeding two thousand dollars ($2,000.00).

SECTION SIX. The City Secretary is hereby authorized and directed to publish the descriptive caption of this ordinance in the manner and for the length of time prescribed by the law as an alternative method of publication.

The above and foregoing ordinance was duly proposed, read in full and adopted on first reading, the _____ day of _____, A.D., 2020; and passed to second reading on motion of Council member _____, seconded by Council member _____, by the following vote:

Council members voting "AYE":

Council members voting "NAY":

The above and foregoing ordinance was read in full and finally adopted by the following vote upon motion of Council member _____, seconded by Council member _____, on the _____ day of _____, A.D., 2020, at a regular meeting of the City Council:

Council members voting “AYE”:

Council members voting “NAY”:

PASSED AND APPROVED THIS _____ day of _____, A.D., 2020.

_____
Patrick N. Payton, Mayor

ATTEST:

_____
Amy M. Turner, City Secretary

APPROVED AS TO CONTENT
AND COMPLETENESS:

_____
Robert Patrick, Assistant City Manager

_____
Charles Harrington, Director of Development Services

APPROVED ONLY AS TO FORM:

_____
John Ohnemiller, City Attorney

MIDLAND
Planning Division

Zone Change/Planned District Amendment/Site Plan Approval

Project Number: 2-20-0188

Case Number: _____

Applicant *(if acting as Agent, see affidavit on page 2)* Printed Name: 5 Figure Five, LLC		Phone ( ) Email	
Address 2600 Loma Drive	City Midland	State TX	Zip 79705

Property Owner Printed Name:		Phone ( ) Email	
Address	City	State	Zip

Representative *(if different from Applicant or Property Owner)* Firm: Maverick Engineering Printed Name: Paladin Huckaba		Phone (432-) 266-8289 Email phuckaba@maverick-eng.com	
Address 1909 W. Wall St. Suite K	City Midland	State TX	Zip 79701

Street Address: 2600 Loma Drive

Legal Description
Lot: 6A Block: 12 Subdivision: Kelview Heights, Section 11

Current Zoning: PD

Proposed Zone: RR
(List by tracts if more than one district is requested)

Reason for Zone Change Request: Advance the development of site as proposed.

Present Use of Property: Vacant parking facilities

Proposed Use of Property: Retail

How would this zone change affect the public health, safety and welfare?
Zone change will improve retail facilities for the developer's current business operations in serving the public.

Describe how conditions affecting the property have changed since present zoning designation: Parking lot improvements

Submittal and Fees
Items to be submitted with this application form:

- Application Fee – Payable to the 'City of Midland'
- Dimensioned Site Plan
- Digital Copies of Site Plan (PDF/JPEG)

Signature *(by property owner only – authorized agent must sign affidavit below)*	
Applicant (signature):	Date:
Applicant (printed):	
Property Owner (signature): John C. Scharbauer	Date: 6/17/2020
Property Owner (printed): John C. Scharbauer	

The Zone Change/Planned District Amendment/Site Plan Approval shall be considered officially received in the Planning office only when it has been submitted in full compliance with the provisions of Section 212 of the Texas Local Government Code and the Zoning Code of Ordinances of the City of Midland and when such required items for the application are also received.

All materials, including exhibits, submitted in support of an application, or displayed during a public hearing, shall remain the property of the City of Midland.

If an agent is authorized by the property owner to file and execute the application on behalf of the property owner, the agent must complete the affidavit below.

STATE OF TEXAS
COUNTY OF MIDLAND

Before me, the undersigned authority, on this day personally appeared Andrew L. Meller who, being by me duly sworn, upon oath says: That (s)he is authorized by 5 Figure Five LLC, the owner of the above described property, to fully represent him/her in this application and that (s)he had the legal right, power and authority to sign said owner's name hereto as his/her attorney in fact.

Andrew L. Meller
Authorized Agent (*signature*)

Subscribed and sworn to before me, this 30th day of June, 2020, to certify which witness my hand and seal of office.

Kelsey Ann Stine
NOTARY PUBLIC, MIDLAND COUNTY, TEXAS

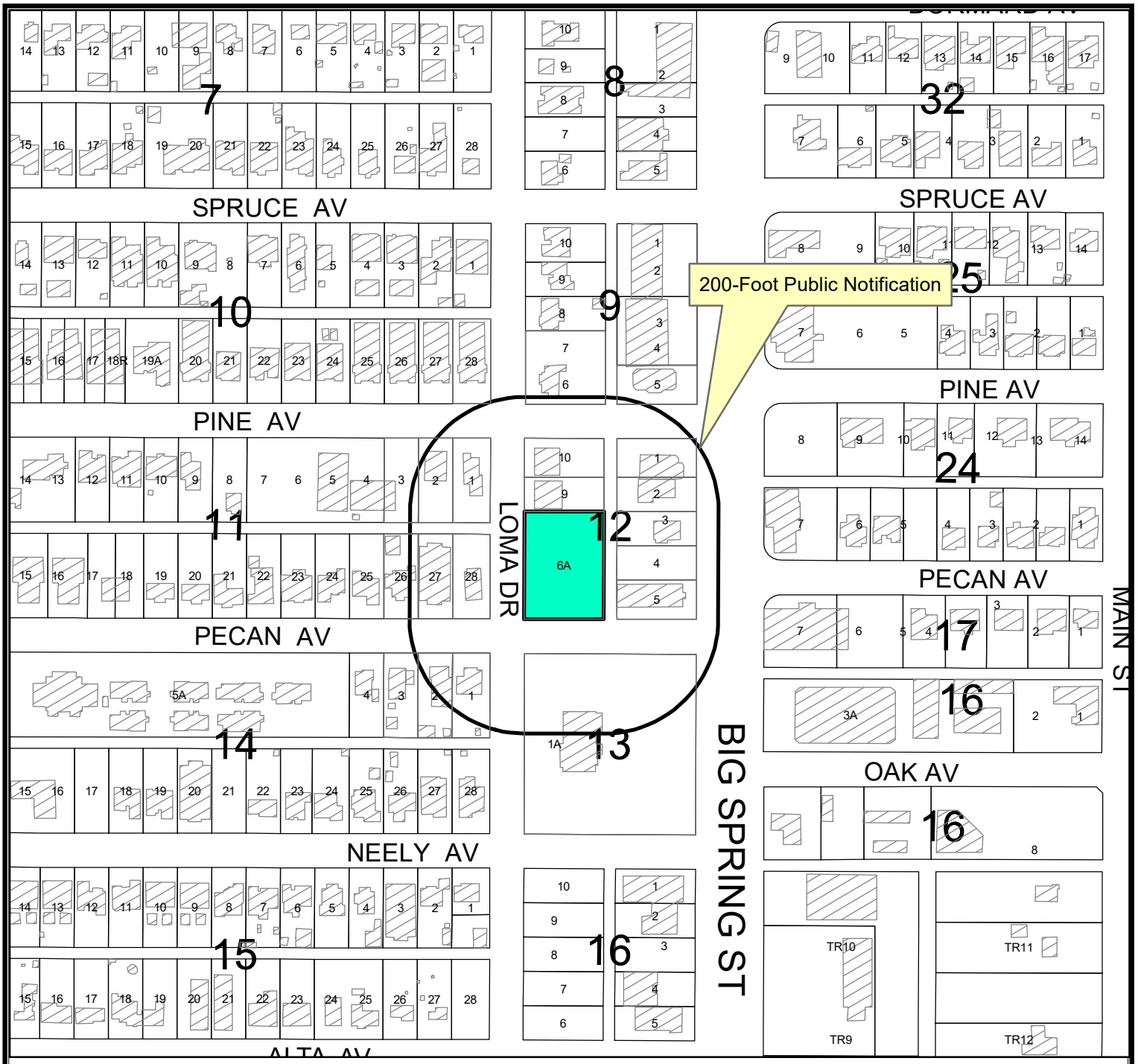
NOTARY PUBLIC STATE OF TEXAS
Kelsey Ann Stine
My Commission Expires
02/19/2022
ID No. 131456388

FOR OFFICE USE ONLY

☒ Property Owner Authorization	☒ Dimensioned Site Plan
☒ Application Fee	☒ Plans in Digital Format (PDF/JPEG)
Check # 3176	
Received By:	Date: 07/01/2020

RECEIVED
JUL 01 2020
BY:

****Application will not be considered for scheduling until reviewed by a planner.****



LOCATION MAP

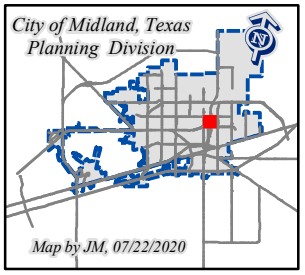
Z-20-0188 **Scale: 1" = 250'**

Consider a request by Maverick Engineering for a zone change from PD, Planned Development District for an Office and Shopping Center as a Transition District to RR, Regional Retail District on Lot 6A, Block 12, Kelview Heights, Section 11, City and County of Midland, Texas.

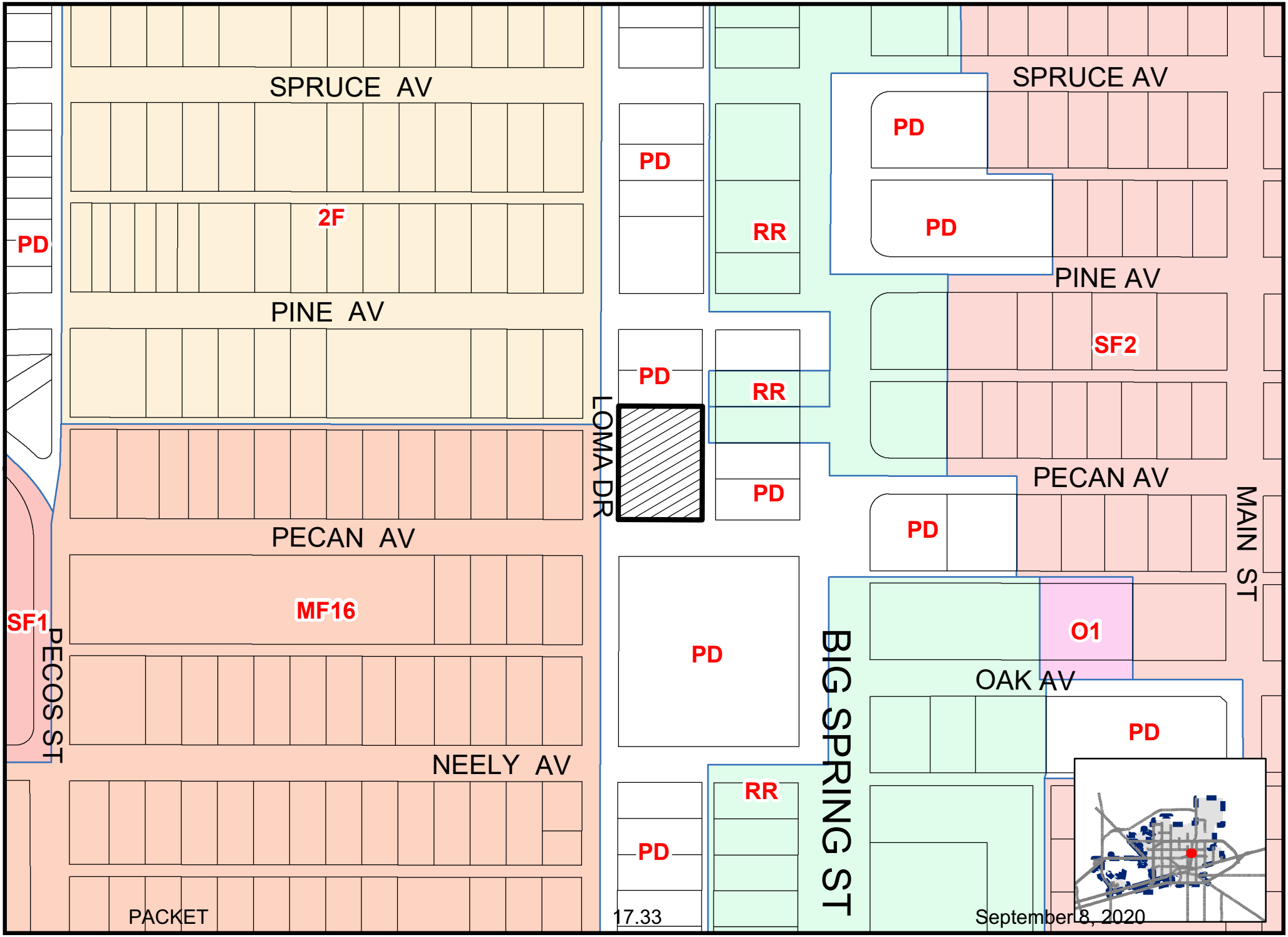
Generally located on the northeast corner of the intersection of Loma Drive and West Pecan Avenue. (Council District 5)

LEGEND

- CITY LIMITS
- PARCEL
- PRIVATE BLDGS



©THE CITY OF MIDLAND - 2020
THIS DATA IS NOT A SUBSTITUTION FOR A SURVEY DOCUMENT NOR IS IT DESIGNED TO BE USED AS THE ONLY TOOL IN PERMITTING OR OTHER DECISIONS BASED SOLELY ON THE INFORMATION CONTAINED HEREIN.
THE CITY OF MIDLAND SHALL NOT BE RESPONSIBLE FOR ANY DECISIONS BASED UPON THE USE OF THIS DATA.



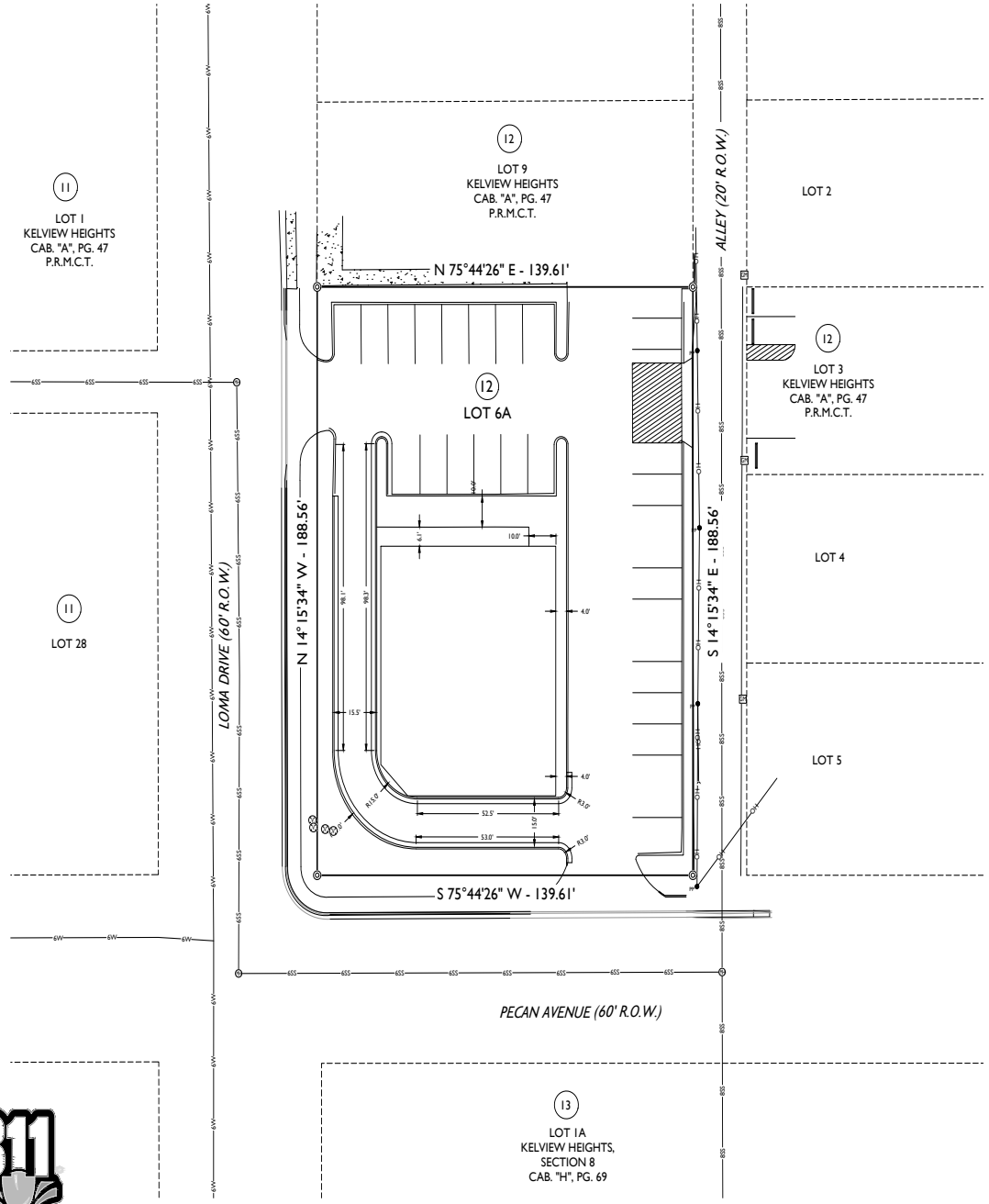
Map By Jm, 07/28/2020

Z-20-0188

Scale: 1" = 200'

ZONING MAP

© THE CITY OF MIDLAND - 2020: THIS DATA IS NOT A SUBSTITUTION FOR A SURVEY PRODUCT, NOR IS IT DESIGNED TO BE USED AS A PRIMARY TOOL IN PERMITTING OR OTHER DECISIONS BASED SOLELY ON THE INFORMATION CONTAINED HEREIN. THE CITY OF MIDLAND SHALL NOT BE RESPONSIBLE FOR ANY DECISIONS BASED UPON THE USE OF THIS DATA.



0' 10' 20' 30'
SCALE 1" = 10'

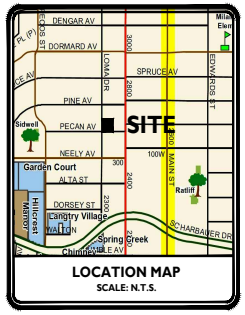
BENCHMARK

BEARINGS, DISTANCES AND COORDINATES SHOWN HEREON ARE RELATIVE TO THE TEXAS STATE PLANE COORDINATE SYSTEM, TEXAS CENTRAL ZONE, NORTH AMERICAN DATUM OF 1983.

GENERAL:	SITE PLAN OF A PROPOSED 0.604 ACRE RETAIL DEVELOPMENT IN MIDLAND TEXAS, ON THE NORTH WEST SIDE OF THE INTERSECTION OF PECAN AVE. AND LOMA DRIVE. AND AVALON DR. THE DEVELOPMENT WILL CONSIST OF 1 RETAIL BUILDING (RESTRAINT).
ACCESS:	PRIMARY SITE ACCESS WILL BE A DRIVEWAY ONTO LOMA DRIVE THIS DRIVEWAY. A SECONDARY DRIVEWAY ONTO PECAN AVE.
BLDG HEIGHT:	THE RETAIL BUILDINGS WILL HAVE ONE STORIES.
PARKING :	30 TOTAL PARKING SPACES PROVIDED
UTILITIES:	THE SITE WILL CONNECT TO THE PUBLIC WATER AND SEWER LINES CURRENTLY LOCATED ON SITE PROVIDED SH.
TRASH :	DUMPSTERS WILL BE PLACED AS SHOWN. ENCLOSURES WILL BE CONSTRUCTED TO MATCH THE COLOR AND STYLE OF THE BUILDINGS.
DRAINAGE :	DRAINAGE WILL BE ROUTED INTO AN EXISTING PLAYA LAKE LOCATED IN LOT 2, JUST NORTHEAST OF THE SITE. THE PLAYA WILL BE DESIGNATED AS A REGIONAL DRAINAGE AREA FOR THE SUBDIVISION, AND WILL BE ENLARGED AS NECESSARY TO ACCOMMODATE THE INCREASED RUNOFF FROM THE DEVELOPMENT.
FIRE LANES :	24' FIRE LANES HAVE BEEN PROVIDED AS SHOWN THROUGH THE SITE. THE FIRE LANES WILL BE IDENTIFIED BY PAINTED STRIPES AND CURBS PER THE CITY OF MIDLAND'S REQUIREMENTS.
LANDSCAPE:	LANDSCAPING AND SHADE TREES WILL BE PROVIDED IN ACCORDANCE WITH THE CITY OF MIDLAND LANDSCAPE ORDINANCE.

NOTICE TO CONTRACTOR

1. ALL DIMENSIONS SHOWN ARE TO FACE OF CURB UNLESS NOTED OTHERWISE.
2. ALL PROPOSED SIDEWALKS ARE TO BE 5.0' UNLESS NOTED OTHERWISE.



FEMA FIRM NOTES:

COMMUNITY NUMBER	PANEL NUMBER	SUFFIX	DATE OF FIRM	ZONE
48329	0089	F	[illegible]	[illegible]

MAVERICK
ENGINEERING / SURVEY / WATER RESOURCES
1909 W Wall St, Ste. "K", Midland, TX 79701
Tel: (432) 262-0999 Fax: (432) 262-0989
ENGINEER FIRM #: F-13089
SURVEY FIRM #: 10194452
www.Maverick-Eng.com

BY	APPR.	DATE

REVISIONS

DRAWN BY:	CAD
CHECKED BY:	ALM
APPROVED BY:	ALM
DATE:	06.01.2020
JOB:	200078

ZONING SITE PLAN

MIDLAND MEAT MARKET DRIVE-THRU

LOT 6A, BLOCK 12 KELVIEW HEIGHTS, SECTION 11
CITY AND COUNTY OF MIDLAND, TEXAS

PRELIMINARY REVIEW:

THESE PLANS ARE RELEASED UNDER THE SEAL OF ANDREW L. MELLEN, P.E. #106572 AND MAVERICK ENGINEERING (FIRM # F-13089) ON THIS DAY 06/23/2020, FOR THE PURPOSES OF INTERIM/PRELIMINARY REVIEW. THEY SHALL NOT BE USED FOR THE PURPOSES OF CONSTRUCTION.

PD-SP 01

© COPYRIGHT 2020 ALL RIGHTS RESERVED 200078-FIVE FIGURE S-MEAT COMPANY DRIVE THRU REF 180031\DRAWINGS\EXHIBITS\PD SITE PLAN.DWG

811 Know what's below. Call before you dig.

PACKET

September 8, 2020

pr

ORDINANCE NO. 6048

AN ORDINANCE AMENDING CHAPTER ONE, TITLE XI, OF THE CITY CODE OF MIDLAND, TEXAS, BY PERMITTING THE PROPERTY DESCRIBED IN SECTION ONE HEREOF, WHICH IS PRESENTLY ZONED "LR-2", LOCAL RETAIL DISTRICT, "MF-1", MULTIPLE-FAMILY DWELLING DISTRICT, AND "2F", TWO-FAMILY DWELLING DISTRICT, TO BE USED AS A "PLANNED DISTRICT" FOR AN OFFICE AND SHOPPING CENTER AS A TRANSITION DISTRICT; PROVIDING FOR SUCH USE TO BE SUBJECT TO CERTAIN SPECIAL CONDITIONS AND RESTRICTIONS AS SET OUT HEREIN; PROVIDING THAT THE PROPERTY SHALL BE IMPROVED ACCORDING TO THE SITE PLAN, ORDINANCES AND OTHER SPECIFICATIONS SET OUT AND REFERRED TO HEREIN; ADDING A PORTION OF THE PROPERTY DESCRIBED HEREIN TO THE FIRE DISTRICT; CONTAINING A CUMULATIVE CLAUSE; CONTAINING A SAVINGS AND SEVERABILITY CLAUSE; AND ORDERING PUBLICATION

WHEREAS, the City Planning and Zoning Commission and the Governing Body of the City of Midland, in compliance with the City Charter and the state law with reference to the creation of "Planned Districts" under the zoning ordinance regulations and zoning map have given the requisite notices by United States mail, publication and otherwise; and after a full and fair hearing to all of the property owners generally and particularly to those interested persons situated in the affected area in the vicinity thereof, the Governing Body finds that the public health, safety and general welfare will be best served by the creation of the "Planned District" as set out hereinafter and subject to the conditions and restrictions set out hereinafter; and

WHEREAS, the Council, by Ordinance No. 4531, created a Fire District within the City limits of Midland, Texas, and adopted a Fire District Map, appropriately shaded; and

WHEREAS, because of the less restrictive zoning being established for the property involved herein, the Council finds it to be in the public interest to amend the Fire District so as to add a portion of the premises described in Section One hereof hereto;

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF MIDLAND, TEXAS:

SECTION ONE. That Chapter One, Title XI, of the City Code of Midland, Texas, and the official zoning map of the City of Midland, Texas, are hereby amended insofar as the hereinafter described property is concerned, which is presently zoned "LR-2", Local Retail District, "MF-1", Multiple-Family Dwelling District, and "2F", Two-Family Dwelling District, and it shall be used as a "Planned District" for an Office and Shopping Center as a Transition District, subject to the special conditions and restrictions hereinafter set out:

Said property is described as follows:

Lots 1, 2, 6, 7, 8, 9 and 10, Block 12, Kelview Heights Addition to the City of Midland, Midland County, Texas.

SECTION TWO. That said property shall be subject to the following conditions and restrictions:

1. That the use and development of Lots 1 and 2 shall conform to all regulations applicable to an "LR-2", Local Retail District, except as specified otherwise on the attached site plan.

2. That the use and development of Lots 6 through 10 shall conform to all regulations applicable to an "O-1", Office District, except as specified otherwise on said attached site plan.

3. That the development of said property shall conform to said site plan, landscape plan and elevations consisting of four (4) sheets, in all respects.

SECTION THREE. That the Fire District be amended so as to add thereto a portion of the premises described in Section One hereof, to wit: Lots 6 through 12, Block 12, Kelview Heights Addition to the City of Midland, and the Building Inspector is authorized and directed to add to the Fire District Map said premises.

SECTION FOUR. That definitions given in the zoning regulations contained in the City Code of the City of Midland, Texas, shall be applicable to such of those terms as are used herein.

SECTION FIVE. The provisions of this ordinance are to be cumulative of all other ordinances or parts of ordinances governing or regulating the same subject matter as that covered herein;

provided, however, that all prior ordinances or parts of ordinances inconsistent with or in conflict with any of the provisions of this ordinance are hereby expressly repealed to the extent of any such inconsistency or conflict.

SECTION SIX. If any section, subsection, sentence, clause or phrase of this ordinance is, for any reason, held to be unconstitutional or invalid, such holding shall not affect the validity of the remaining portions of this ordinance. The Council of the City of Midland hereby declares that it would have passed this ordinance and each section, subsection, sentence, clause, or phrase hereof irrespective of the fact that any one or more sections, subsections, sentences, clauses, or phrases be declared unconstitutional or invalid.

SECTION SEVEN. The City Secretary is hereby authorized and directed to publish the descriptive caption of this ordinance, together with the general penalty provision contained in Section 1-3-1 of the City Code of Midland, Texas, in the manner and for the length of time prescribed by law as an alternative method of publication.

The above and foregoing ordinance was duly proposed, read in full and adopted on first reading, the 10th day of August, A.D., 1982; and passed to second reading on motion of Councilman Sloan, seconded by Councilman Hatfield, by the following vote:

Councilmen voting "AYE":	Sloan, Hatfield, Marcum, and Davidson
Councilmen voting "NAY":	None

The above and foregoing ordinance was read in full and finally adopted by the following vote upon motion of Councilman Sloan, seconded by Councilman Hatfield, on the 24th day of August, A.D., 1982, at a regular meeting of the City Council:

Councilmen voting "AYE": Sloan, Hatfield, Thomas, and Marcum

Councilmen voting "NAY": None
Councilmen ABSTAINING: Akins
PASSED AND APPROVED THIS 24th day of August, A.D., 1982.

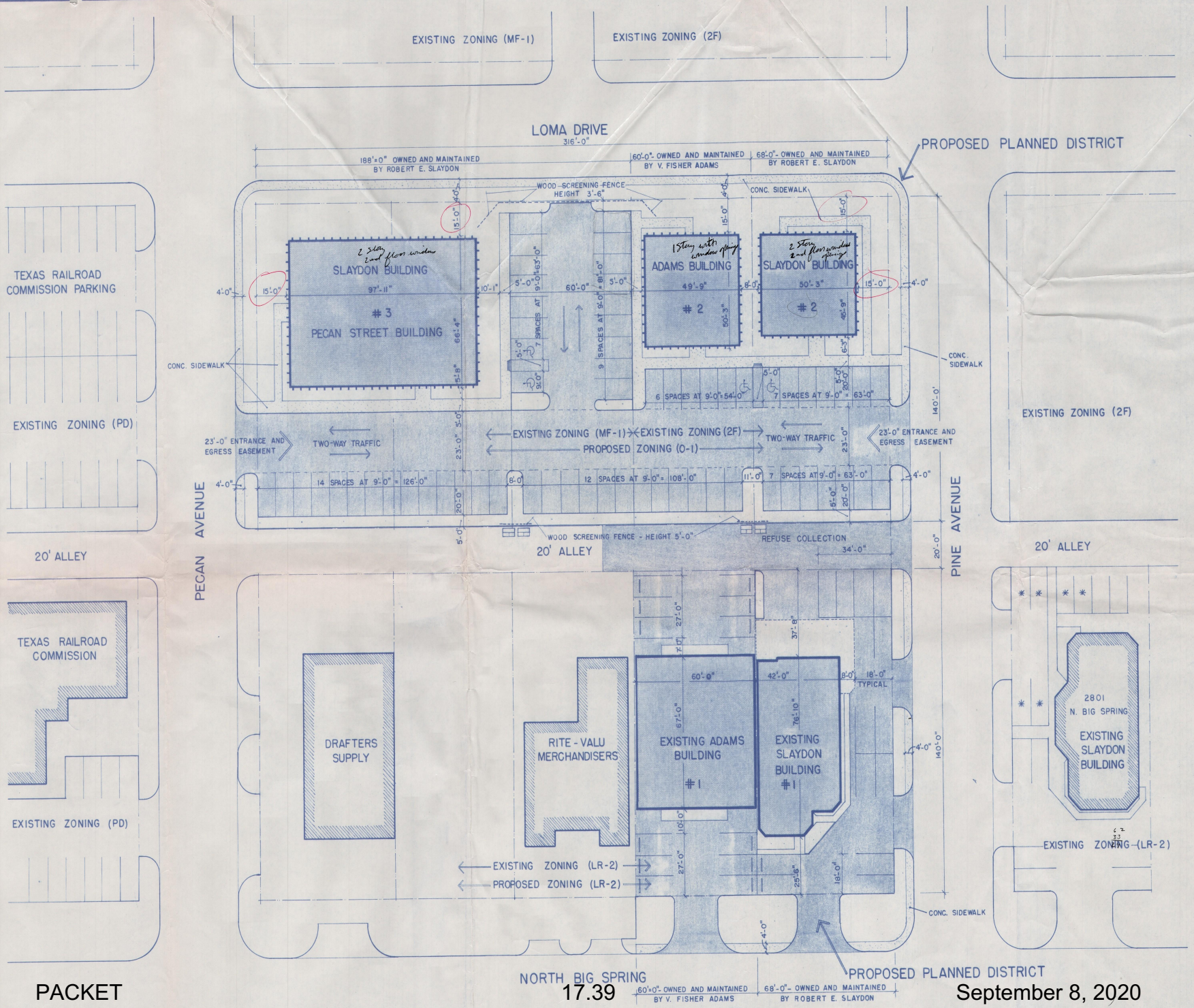
G. Thane Akins, Mayor

ATTEST:

J. W. McCullough, City Secretary

APPROVED AS TO FORM:

J. M. Nuessle, City Attorney



SLAYDON - ADAMS REZONING - SITE PLAN

SCALE 1" = 20'-0"

NOTE: ✳ DENOTES PARKING SPACES DEDICATED TO THE EXISTING SLAYDON BUILDING #1.

PMA Pate - McLaughlin Architects
1030 Andrews Highway Suite 211
(915) 697-3175 Midland, Texas 79701

SLAYDON - ADAMS REZONING

MIDLAND, TEXAS

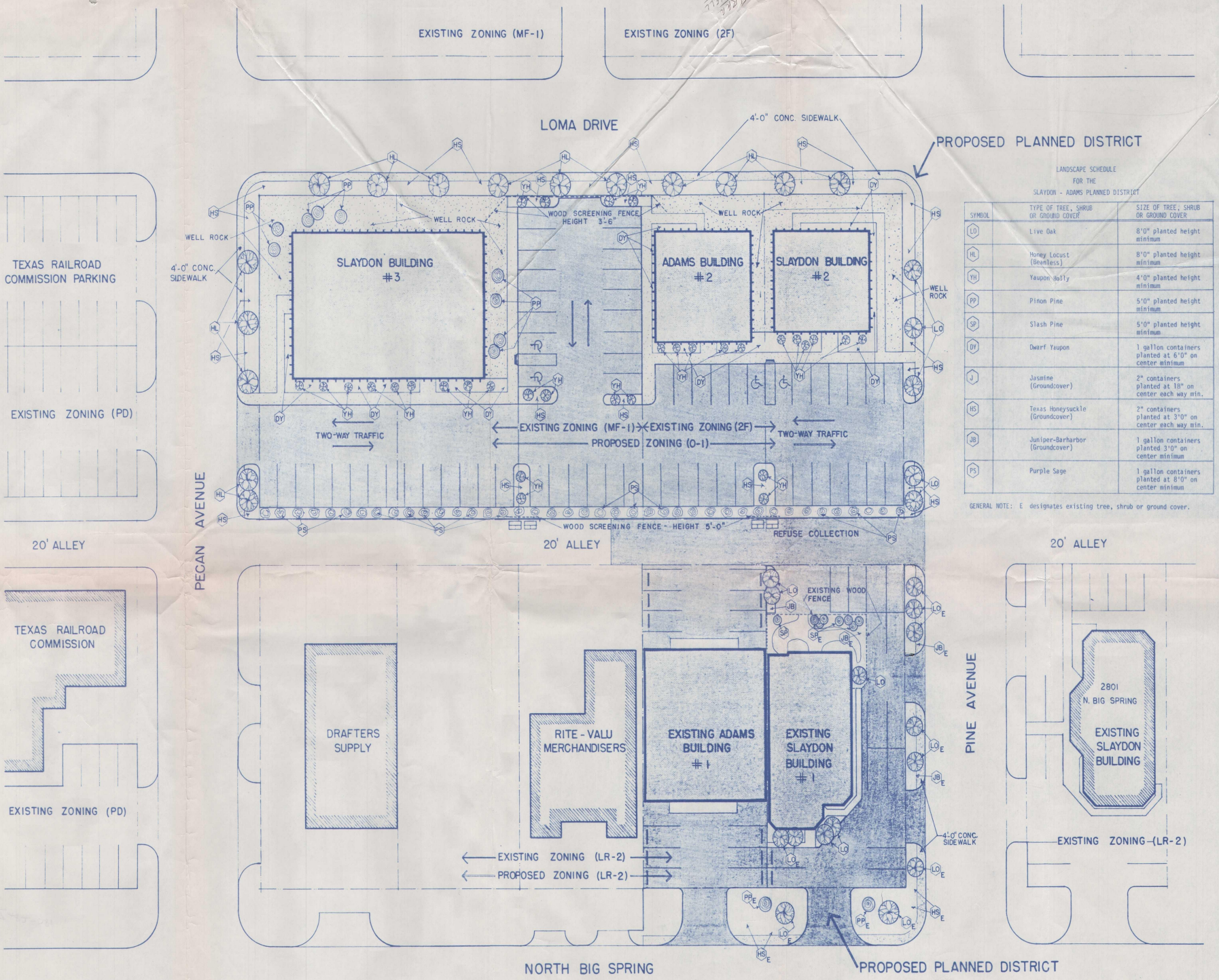
2-62-081 PATE McLAUGHLIN

DATE	ISSUED / REVISED
7/7/82	SUBMITTED FOR APPROVAL
7/21/82	REVISED & SUBMITTED FOR COUNCIL APPROVAL
8/5/82	REVISED & RESUBMITTED AS PER PLANNING & ZONING REQUESTS FOR COUNCIL APPROVAL

SHEET NUMBER

OF SHEET

JOB NO.



LANDSCAPE SCHEDULE
FOR THE
SLAYDON - ADAMS PLANNED DISTRICT

SYMBOL	TYPE OF TREE, SHRUB OR GROUND COVER	SIZE OF TREE, SHRUB OR GROUND COVER
LO	Live Oak	8'0" planted height minimum
HL	Honey Locust (Beanless)	8'0" planted height minimum
YH	Yaupon Holly	4'0" planted height minimum
PP	Pinon Pine	5'0" planted height minimum
SP	Slash Pine	5'0" planted height minimum
DY	Dwarf Yaupon	1 gallon containers planted at 6'0" on center minimum
J	Jasmine (Groundcover)	2" containers planted at 18" on center each way min.
HS	Texas Honeysuckle (Groundcover)	2" containers planted at 3'0" on center each way min.
JB	Juniper-Barharbor (Groundcover)	1 gallon containers planted 3'0" on center minimum
PS	Purple Sage	1 gallon containers planted at 8'0" on center minimum

GENERAL NOTE: E designates existing tree, shrub or ground cover.

PMA
Pate - McLaughlin Architects
1030 Andrews Highway Suite 211
(915) 697-3175 Midland, Texas 79701

SLAYDON - ADAMS REZONING
MIDLAND, TEXAS

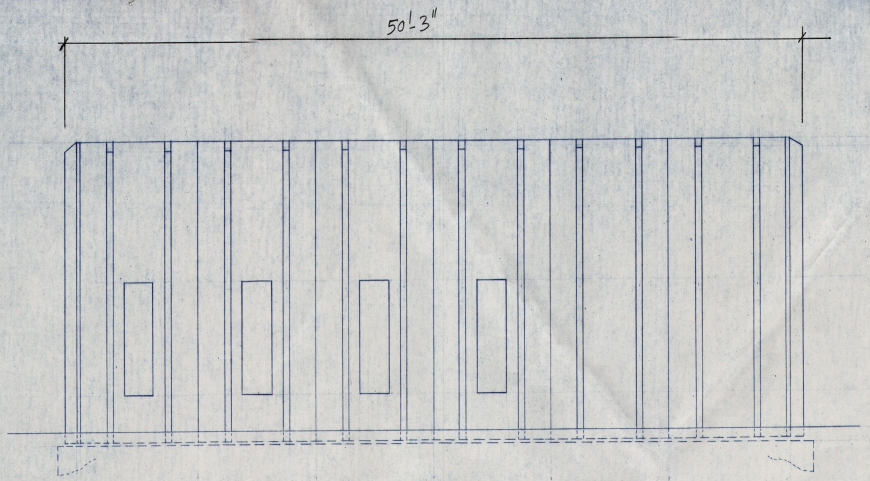
DATE	ISSUED/REVISED
7/7/82	SUBMITTED FOR APPROVAL
7/21/82	REVISED & SUBMITTED FOR COUNCIL APPROVAL
8/5/82	REVISED & RESUBMITTED AS PER PLANNING & ZONING REQUESTS FOR COUNCIL APPROVAL

SHEET NUMBER
OF SHEET
JOB NO.

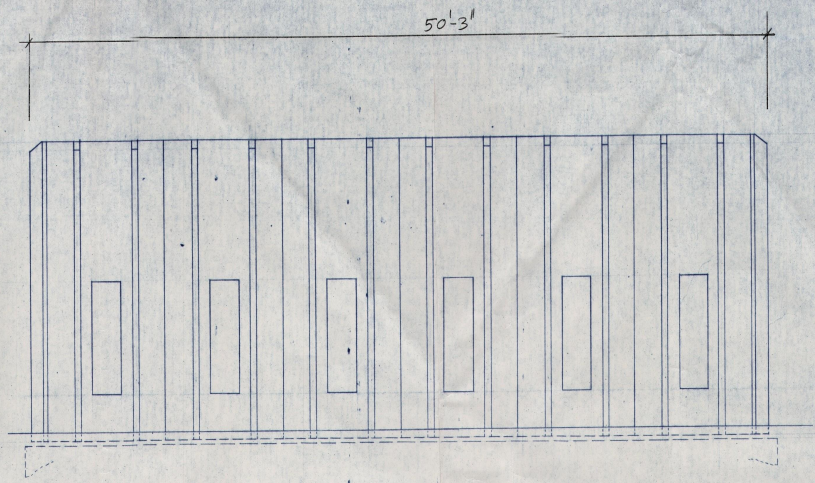
NORTH

SLAYDON - ADAMS REZONING - LANDSCAPE PLAN

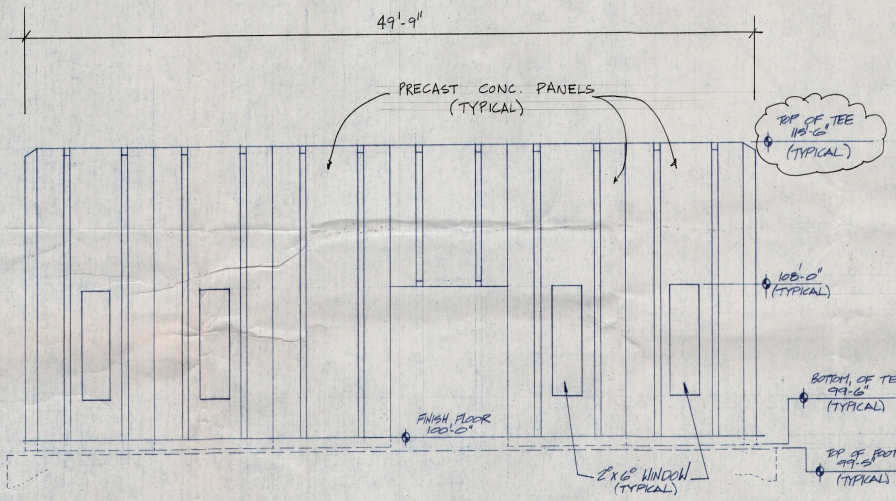
SCALE 1" = 20'-0"



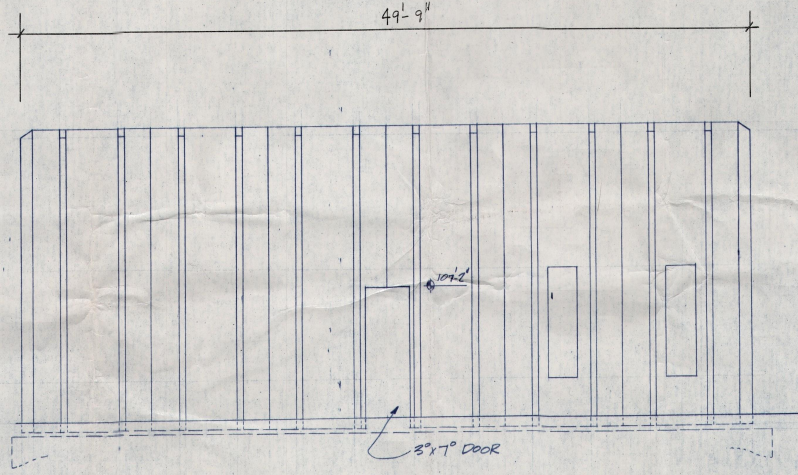
NORTH ELEVATION



SOUTH ELEVATION



EAST ELEVATION



WEST ELEVATION

NOTES: ALL TYPICAL 2'-0"x6'-0" WINDOWS TO BE HOLLOW METAL FRAMES W/ TINTED GLASS.

ALL ENTRIES & EXITS TO CONSIST OF HOLLOW METAL STOREFRONT SYSTEM W/ TINTED GLASS

ADAM'S BUILDING #2

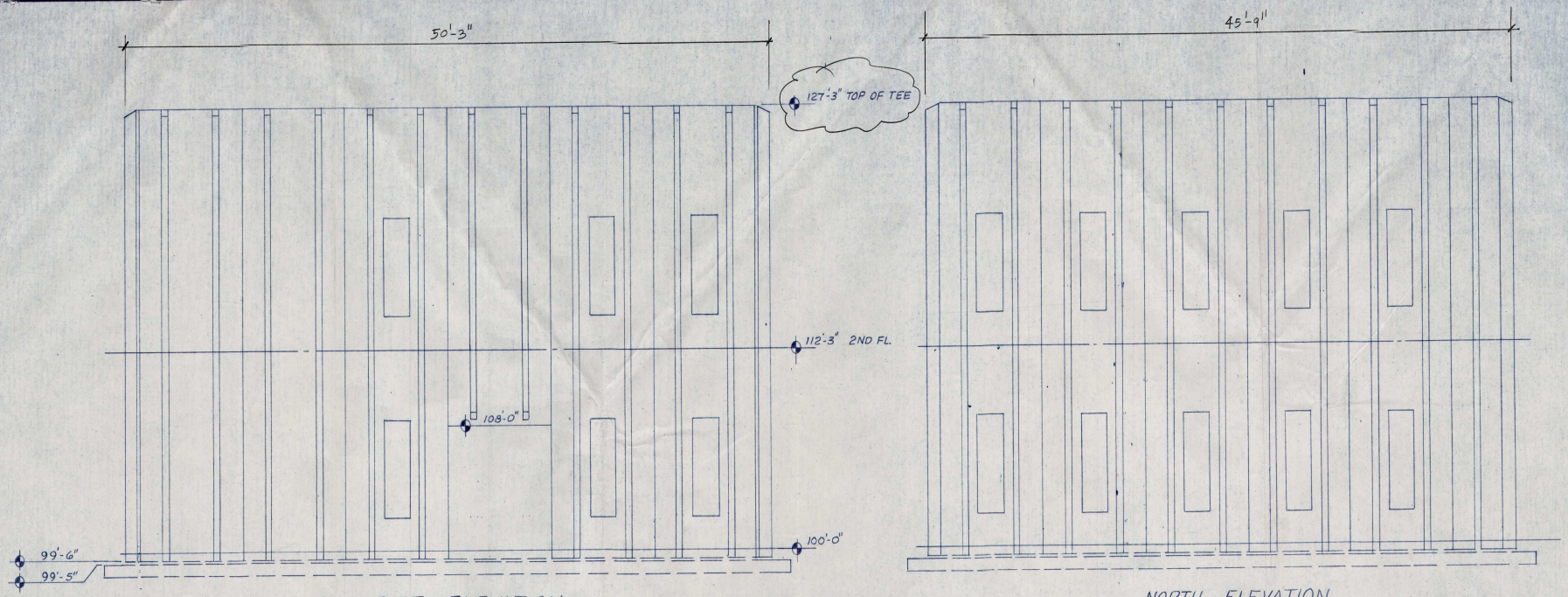
REVISED & SUBMITTED FOR COUNCIL APPROVAL 7/21/82

RECEIVED
JUL 22 1982
PLANNING, INSP. & C.D.
CITY OF MIDLAND

ARCHITECT'S APPROVAL
☐ APPROVED
☐ APPROVED AS CORRECTED
☐ MAKE CORRECTIONS SHOWN & RESUBMIT
SIGNED _____ DATE _____
CONTRACTOR'S APPROVAL
VERIFY DIMENSIONS AND QUANTITIES
APPROVED BY _____ DATE _____
PRODUCTION CAN NOT BE SCHEDULED UNTIL APPROVED SHOP DRAWINGS ARE RECEIVED.

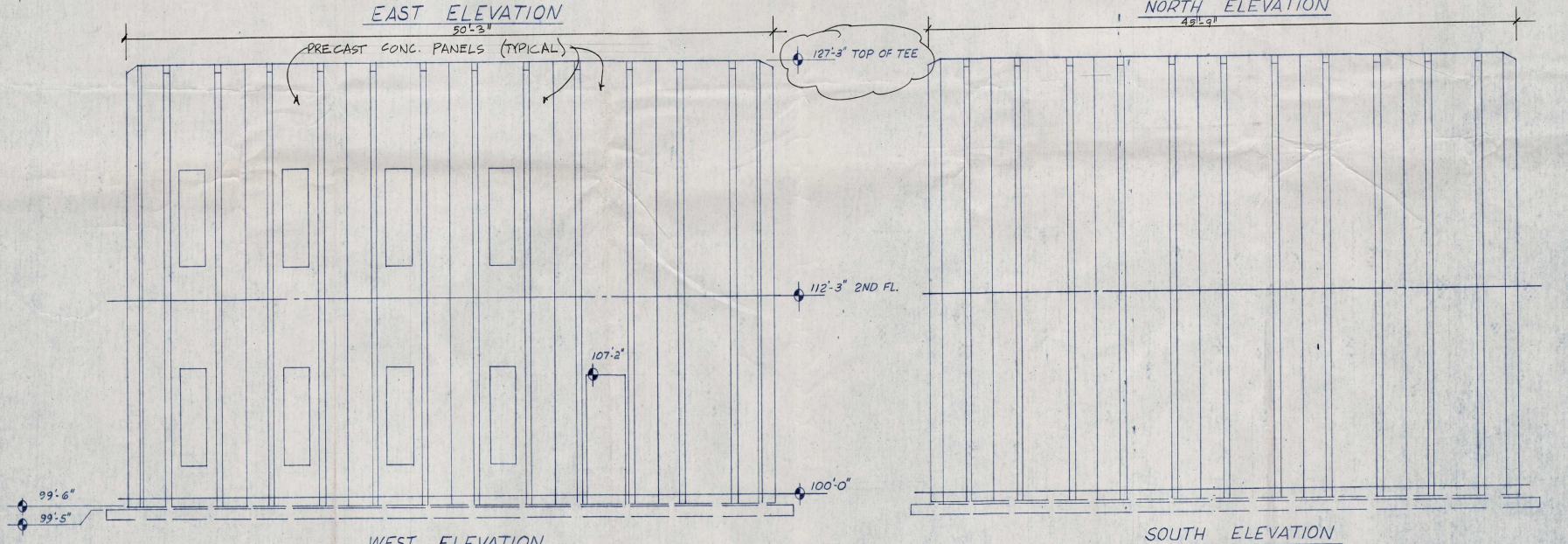
PROJECT: FISHER ADAMS OFFICE BLDG MIDLAND, TEXAS
FOR: BOB SLAYDON MIDLAND, TEXAS
CROWE-GULDE INC.
PRECAST / PRESTRESSED DIVISION
BOX 9026 AMARILLO TEXAS 79105
AC 806 373-4205
ELEVATIONS

JOB NO.
DATE:
SCALE: NTS
DESIGN BY:
DRAWN BY: JWC
CHECKED BY:
DWG. NO. 3336
SHT. 3 OF
REVISIONS:



EAST ELEVATION

NORTH ELEVATION



WEST ELEVATION

SOUTH ELEVATION

RECEIVED
JUL 22 1982
PLANNING, INSP. & C.D.
CITY OF MIDLAND

SLAYDON BUILDING #2

REVISED & SUBMITTED FOR COUNCIL APPROVAL 7/21/82

NOTES: ALL TYPICAL 2'×6' WINDOWS TO BE HOLLOW METAL FRAMES W/ TINTED GLASS.

ALL ENTRIES & EXITS TO CONSIST OF HOLLOW METAL STOREFRONT SYSTEM W/ TINTED GLASS.

ARCHITECT'S APPROVAL

- ☐ APPROVED
- ☐ APPROVED AS CORRECTED
- ☐ MAKE CORRECTIONS SHOWN & RESUBMIT

SIGNED _____ DATE _____

CONTRACTOR'S APPROVAL

VERIFY DIMENSIONS AND QUANTITIES

APPROVED BY _____ DATE _____

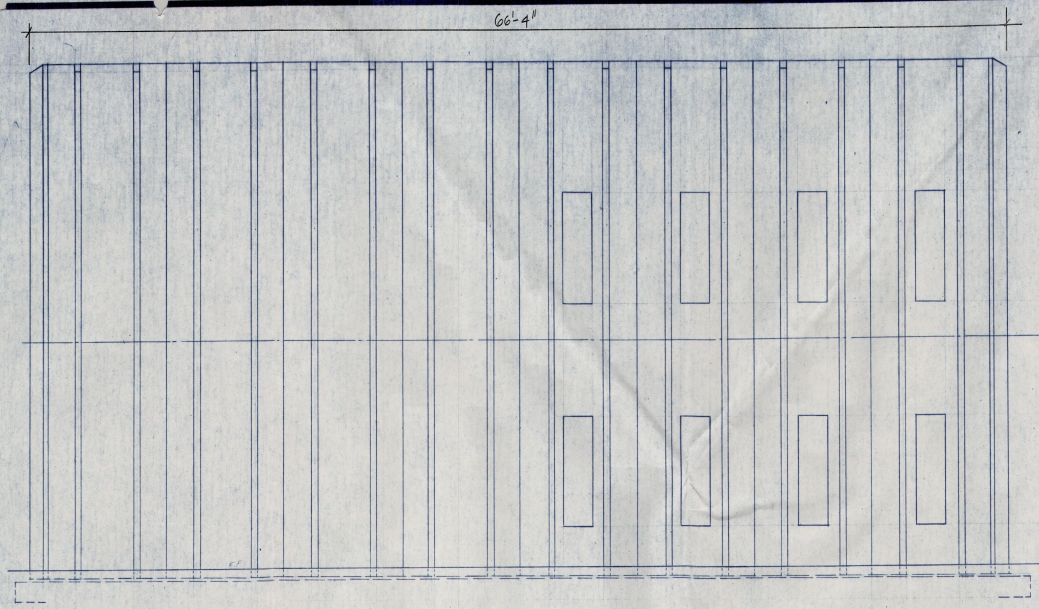
PRODUCTION CAN NOT BE SCHEDULED UNTIL APPROVED SHOP DRAWINGS ARE RECEIVED.

PROJECT: PINE STREET BUILDING
MIDLAND, TEXAS

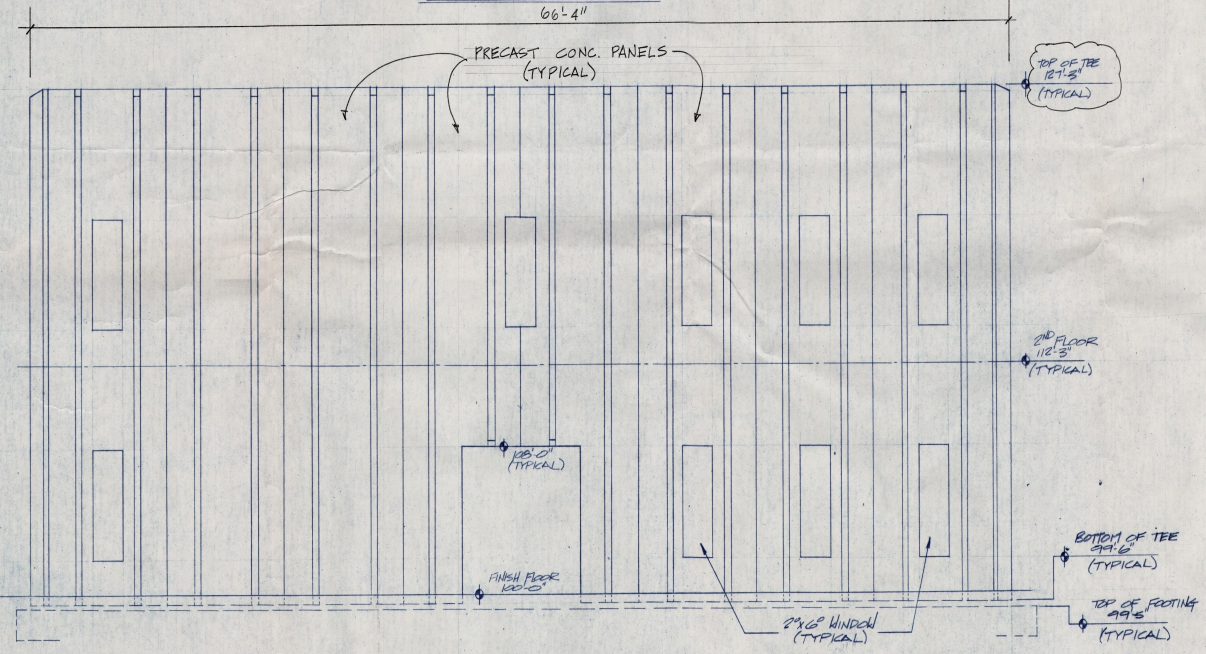
FOR: BOB SLAYDON
MIDLAND, TEXAS

CROWE-GULDE INC.
PRECAST / PRESTRESSED DIVISION

JOB NO.
DATE: 6-29-82
SCALE: N.T.S.
DESIGN BY:
DRAWN BY: RWM
CHECKED BY:
DWG. NO. 338
SHT. ___ OF ___
REVISIONS:



NORTH ELEVATION



SOUTH ELEVATION

NOTES: ALL TYPICAL 2'x6' WINDOWS TO BE HOLLOW METAL FRAMES W/ TINTED GLASS

ALL ENTRIES & EXITS TO CONSIST OF HOLLOW METAL STOREFRONT SYSTEM W/ TINTED GLASS

SLAYDON BUILDING #3

REVISED & SUBMITTED FOR COUNCIL APPROVAL 7/21/82

RECEIVED
JUL 22 1982
PLANNING, INSP. & C.D.
CITY OF MIDLAND

ARCHITECT'S APPROVAL
☐ APPROVED
☐ APPROVED AS CORRECTED
☐ MAKE CORRECTIONS SHOWN & RESUBMIT
SIGNED _____ DATE _____
CONTRACTOR'S APPROVAL
VERIFY DIMENSIONS AND QUANTITIES
APPROVED BY _____ DATE _____
PRODUCTION CAN NOT BE SCHEDULED UNTIL APPROVED SHOP DRAWINGS ARE RECEIVED.

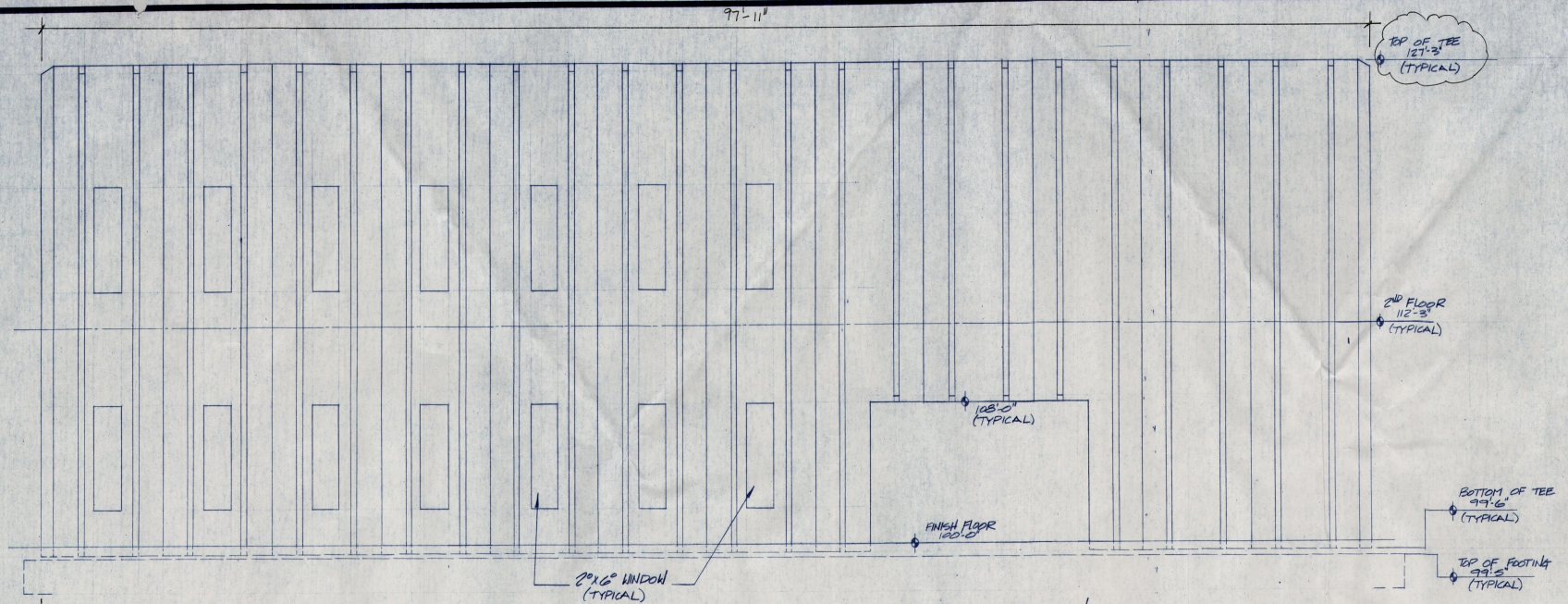
PROJECT: PECAN STREET BLDG. MIDLAND, TEXAS.
FOR: BOB SLAYDON MIDLAND, TEXAS.

CGI
BOX 9026 AMARILLO TEXAS 79105
AC 806 373-4205
CROWE-GULDE INC.
PRECAST / PRESTRESSED DIVISION

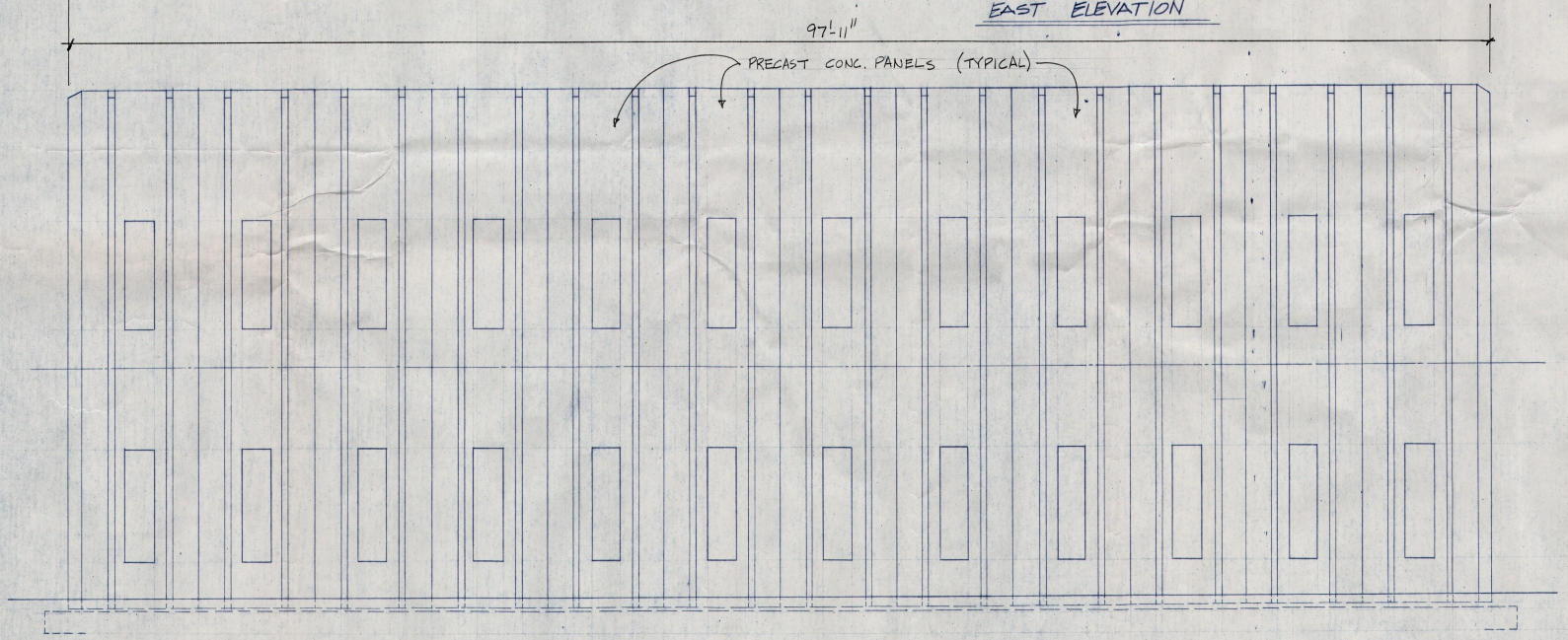
ELEVATIONS

JOB NO.
DATE:
SCALE: NTS
DESIGN BY:
DRAWN BY: WK
CHECKED BY:
DWG. NO. 3337
SHT. 3 OF
REVISIONS:

PACKET
September 8, 2
17.43



EAST ELEVATION



WEST ELEVATION

SLAYDON BUILDING #3

REVISED & SUBMITTED FOR COUNCIL APPROVAL 7/21/02

NOTES: ALL 2'-0"x6'-0" WINDOWS TO BE HOLLOW METAL FRAMES W/ TINTED GLASS

ALL ENTRIES & EXITS TO CONSIST OF HOLLOW METAL STOREFRONT SYSTEM W/ TINTED GLASS.

RECEIVED
JUL 22 1902
PLANNING, INSP. & C.D.
CITY OF MIDLAND

ARCHITECT'S APPROVAL
☐ APPROVED
☐ APPROVED AS CORRECTED
☐ MAKE CORRECTIONS SHOWN & RESUBMIT
SIGNED _____ DATE _____
CONTRACTOR'S APPROVAL
VERIFY DIMENSIONS AND QUANTITIES
APPROVED BY _____ DATE _____
PRODUCTION CAN NOT BE SCHEDULED UNTIL APPROVED SHOP DRAWINGS ARE RECEIVED.

PROJECT: PECAN STREET BLDG. MIDLAND, TEXAS
FOR: BOB SLAYDON MIDLAND, TEXAS
JOB NO.
DATE:
SCALE: 1/8"=1'-0"
DESIGN BY:
DRAWN BY: JMC
CHECKED BY:
DWG. NO. 3337
SHT. 4 OF
REVISIONS:

CROWE-GULDE INC.
PRECAST / PRESTRESSED DIVISION
BOX 9026 AMARILLO TEXAS 79105
AC 806 373-4205

ELEVATIONS

Rosa's
Cafe

City Council Meeting

Item Number: 18

Meeting Date: September 8, 2020

To: City Council / City Manager

From: Joseph Marynak, Planner

Subject: AN ORDINANCE AMENDING THE ZONING DISTRICT MAP OF THE CITY OF MIDLAND TO REZONE A 19.17-ACRE TRACT OF LAND OUT OF SECTION 1, BLOCK 39, T-2-S, T&P RR CO. SURVEY, CITY AND COUNTY OF MIDLAND, TEXAS, FROM MF-16, MULTIPLE-FAMILY DWELLING DISTRICT, IN PART, MH, MANUFACTURED HOUSING DISTRICT, IN PART, RR, REGIONAL RETAIL DISTRICT, IN PART, AND BP, I-20 BUSINESS PARK DISTRICT, IN PART, TO MF-22, MULTIPLE-FAMILY DWELLING DISTRICT (GENERALLY LOCATED ON THE NORTH SIDE OF EAST INTERSTATE 20, APPROXIMATELY 714 FEET EAST OF SOUTH LAMESA ROAD); CONTAINING A CUMULATIVE CLAUSE; CONTAINING A SAVINGS AND SEVERABILITY CLAUSE; PROVIDING FOR A MAXIMUM PENALTY OR FINE OF TWO THOUSAND DOLLARS ($2,000.00); AND ORDERING PUBLICATION (DEVELOPMENT SERVICES)

Purpose:

The applicant, Landgraf, Crutcher, & Associates is requesting a zone change to MF-22, Multiple Family Dwelling District on a 19.17-acre tract of land located in Section 1, Block 39, T-2-S, T & P RR Co. Survey, City and County of Midland, Texas, to develop an apartment complex.

Recommended City Council Action:

Approve

Fiscal Impact:

Processing this request does not require any City funds.

Discussion:

Current Zoning:

MF-16, Multiple Family Dwelling District, in part; MH, Manufactured Housing District, in part; RR, Regional Retail District, in part; and BP, I-20 Business Park District, in part.

Surrounding Zoning and Land Use:

The property to the north is zoned MF-16, Multiple Family Dwelling District and the location of an apartment complex. The property to the east is zoned MF-16, Multiple Family Dwelling District, in part; MH, Manufactured Housing District, in part; and BP, I-20 Business Park District, in part; and the location of vacant land. The properties to the south are zoned BP, I-20 Business Park District and RR, Regional Retail District and the location of a pump jack and vacant land. The properties to the west are zoned RR, Regional Retail District and the location of vacant land.

Analysis:

The applicant is requesting this zone change to develop multi-family housing in an area east of South Lamesa Road between Latta Street and Interstate 20. This property is currently raw land and is zoned a variety of residential and nonresidential zoning districts. The applicant, Landgraf Crutcher & Associates, is requesting a zone change to MF-22, Multiple Family Dwelling District to bring the property under one zoning district and to build apartments. If approved, the development will need to conform to the adopted site plan and other regulations and standards required by the Zoning Ordinance.

The site plan shows nine (9) buildings consisting of 342 units of which 120 will be one bedroom, one bath units; 84 will be two bedroom, two bath units; 18 will be three bedroom, two bath units; and 120 will be studio or micro units. The proposed density of the development is approximately 18 units per acre. Amenities such as a clubhouse, pool, and dog park are also being proposed. The parking required for this development is 518 spaces; however, the site plan shows 531 spaces provided, including the required amount of garages. Adequate storage is also being proposed within the garage buildings.

The elevations provided illustrate three-story buildings with a proposed maximum height of 36 feet, 4 inches, which is below the allowed maximum height of the MF-22, Multiple Family Dwelling District.

This proposed zone change has been circulated to and reviewed by respective City departments for internal review and their comments, conditions, and requirements are as follows:

Fire: (Approved)

No objections

Building: (Approved)

No issues. All future structures must adhere to the 2018 International Building Codes, the 2015 International Energy Code, the 2017 NEC requirements, the 2015 International Fire Codes, local city ordinances, zoning requirements, established setbacks, and floodplain requirements if necessary.

Engineering: (Approved)

No objection to zone change.

Depending on the nature and scale of the proposed development, a Pressure and Volume study and a Capacity study for new developments tying to the public water distribution system and public wastewater collection system MAY be required prior to approval of construction drawings.

Site drainage, utilities, driveway access, and traffic circulation may be adjusted during construction drawing review as necessary to receive building permit approval from Engineering and Traffic Operations.

Code: (Approved)

No Oil or Gas wells identified within 500 ft. permitted well radius or in the 135 ft. non-permitted well radius of location on plat.

Transportation: (Approved)

Depending on the nature and scale of the proposed development, a Traffic Impact Analysis MAY be required prior to approval of construction drawings.

Site drainage, utilities, driveway access, and traffic circulation may be adjusted during construction drawing review as necessary to receive building permit approval from Engineering and Traffic Operations.

No objection to zone change.

Planning:

This proposed development fits with Chapter 3, An Integrated Land Use Vision, Future Land Use Map of the Tall City Tomorrow comprehensive plan as this area calls for Employment Reserve uses. This designation calls for multi-family housing when integrated with holistic development. Based on pre-development meetings conducted for this project, plans exist to expand the scope of this property into a mixed use development that integrates housing and employment opportunities. Additionally, the access to a major arterial in North Lamesa Road and access to Interstate 20 make this an ideal place to locate higher density housing. Access to these large and established transportation routes will allow for quick and direct transportation to trip destinations across the area.

The prevailing land uses in this area are multi-family housing and vacant land. Therefore, this development would be consistent with the character and be compatible with the surrounding

land uses.

This request was recommended for approval at the August 3, 2020 Planning and Zoning Commission meeting and approved at the August 25, 2020 City Council meeting.

Therefore, staff recommends approval of this zone change, subject to conditions A through C.

Conditions:

A. **That the use and development of this property shall conform to the regulations of the MF-22, Multiple Family Dwelling District, except as stated below.**

B. **That the development of this site will significantly follow the site plan, attached hereto and incorporated herein, as Exhibit B.**

C. **That the landscaping shall conform to the regulations set forth in Title XI, Chapter 9 of the City Code.**

Letters of Objection:

Staff has not received any letters of objection as of August 19, 2020.

Attachments:

Metes and Bounds (Exhibit A)
Site Plan (Exhibit B)
Building Plans
Application
Maps

Robert Patrick

City Manager's Office

ORDINANCE NO. _____

AN ORDINANCE AMENDING THE ZONING DISTRICT MAP OF THE CITY OF MIDLAND TO REZONE A 19.17-ACRE TRACT OF LAND OUT OF SECTION 1, BLOCK 39, T-2-S, T&P RR CO. SURVEY, CITY AND COUNTY OF MIDLAND, TEXAS, FROM MF-16, MULTIPLE-FAMILY DWELLING DISTRICT, IN PART, MH, MANUFACTURED HOUSING DISTRICT, IN PART, RR, REGIONAL RETAIL DISTRICT, IN PART, AND BP, I-20 BUSINESS PARK DISTRICT, IN PART, TO MF-22, MULTIPLE-FAMILY DWELLING DISTRICT (GENERALLY LOCATED ON THE NORTH SIDE OF EAST INTERSTATE 20, APPROXIMATELY 714 FEET EAST OF SOUTH LAMESA ROAD); CONTAINING A CUMULATIVE CLAUSE; CONTAINING A SAVINGS AND SEVERABILITY CLAUSE; PROVIDING FOR A MAXIMUM PENALTY OR FINE OF TWO THOUSAND DOLLARS ($2,000.00); AND ORDERING PUBLICATION

WHEREAS, the City Planning and Zoning Commission and the Governing Body of the City of Midland, in compliance with the City Charter, the City Code, and State law, have given the requisite notices by United States mail, publication and otherwise; and after a full and fair hearing to all of the property owners generally and particularly to those interested persons situated in the affected area and in the vicinity thereof, the Governing Body finds that the public health, safety and general welfare will be best served by rezoning a 19.17-acre tract of land out of Section 1, Block 39, T-2-S, T&P RR Co. Survey, City and County of Midland, Texas, said tract being more specifically described by metes and bounds in Exhibit "A", which is attached hereto and incorporated herein (the "Property") to MF-22, Multiple-Family Dwelling District and adopting a site plan therefor, as set out hereinafter;

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF MIDLAND, TEXAS:

SECTION ONE. That the Zoning District Map of the City of Midland, Texas, is hereby amended to rezone the Property from MF-16, Multiple-Family Dwelling District, in part, MH, Manufactured Housing District, in part, RR, Regional Retail District, in part, and BP, I-20 Business Park District, in part, to MF-22, Multiple-Family Dwelling District.

SECTION TWO. That a site plan, which is attached hereto as Exhibit "B" and

incorporated herein for all purposes, is hereby adopted, and the use and development of the Property shall be subject to the following conditions and restrictions:

A. That the use and development of the Property shall conform to (1) the regulations of the MF-22, Multiple-Family Dwelling District and (2) the site plan attached as Exhibit "B".

B. That the landscaping shown in Exhibit "B" shall be considered illustrative. The landscaping shall conform to the regulations set forth in Title XI, Chapter 9 of the City Code.

SECTION THREE. That the definitions given in the zoning regulations contained in the City Code of the City of Midland, Texas, shall be applicable to such of those terms as are used herein.

SECTION FOUR. The provisions of this ordinance are to be cumulative of all other ordinances or parts of ordinances governing or regulating the same subject matter as that covered herein; provided, however, that all prior ordinances or parts of ordinances inconsistent with or in conflict with any of the provisions of this ordinance are hereby expressly repealed to the extent of any such inconsistency or conflict.

SECTION FIVE. If any section, subsection, sentence, clause or phrase of this ordinance is, for any reason, held to be unconstitutional or invalid, such holding shall not affect the validity of the remaining portions of this ordinance. The Council of the City of Midland hereby declares that it would have passed this ordinance and each section, subsection, sentence, clause, or phrase hereof irrespective of the fact that any one or more sections, subsections, sentences, clauses, or phrases be declared unconstitutional or invalid.

SECTION SIX. The penalty for violation of this ordinance shall be in accordance with the general penalty provisions contained in Section 1-3-1 of the City Code of Midland, Texas, which provides for a fine not exceeding two thousand dollars ($2,000.00).

SECTION SEVEN. The City Secretary is hereby authorized and directed to publish the descriptive caption of this ordinance in the manner and for the length of time prescribed by the law as an alternative method of publication.

The above and foregoing ordinance was duly proposed, read in full and adopted on first reading, the _____ day of _____, A.D., 2020; and passed to second reading on motion of Council member _____, seconded by Council member _____, by the following vote:

Council members voting "AYE":

Council members voting "NAY":

The above and foregoing ordinance was read in full and finally adopted by the following vote upon motion of Council member _____, seconded by Council member _____, on the _____ day of _____, A.D., 2020, at a regular meeting of the City Council:

Council members voting "AYE":

Council members voting "NAY":

PASSED AND APPROVED THIS _____ day of _____, A.D., 2020.

_____
Patrick N. Payton, Mayor

ATTEST:

_____
Amy M. Turner, City Secretary

APPROVED AS TO CONTENT
AND COMPLETENESS:

_____
Robert Patrick, Assistant City Manager

_____
Charles Harrington, Director of Development Services

APPROVED ONLY AS TO FORM:

_____
John Ohnemiller, City Attorney

EXHIBIT "A"

ENVIRONMENTAL • CIVIL ENGINEERING • LAND SURVEYING

lca@lcaodessa.com
521 N. Texas Ave. • Odessa, Texas 79761
(432) 332-5058 or 580-8812 • Fax (432) 332-8812
Engineering Firm# 001363 • Surveying Firm# 10034300

METES & BOUNDS DESCRIPTION
OF A 19.17-ACRE TRACT
LOCATED IN SECTION 1, BLOCK 39, T-2-S
T&P RR CO. SURVEY
MIDLAND COUNTY, TEXAS

BEING A 19.17-ACRE REMAINDER OF THAT CERTAIN 101.49-ACRE TRACT AS DESCRIBED IN DOCUMENT NO. 2010-4195 OF THE OFFICIAL PUBLIC RECORDS OF MIDLAND COUNTY, TEXAS, LOCATED IN SECTION 1 BLOCK 39, T-2-S, T&P RR CO. SURVEY, MIDLAND COUNTY TEXAS AND BEING MORE PARTICULARLY DESCRIBED BY METES AND BOUNDS AS FOLLOWS:

COMMENCING AT (Y=10,687,919.78' & X= 1,761,676.41') A ½" IRON ROD WITH CAP MARKED "LCA ODESSA TX" (CONTROL MONUMENT) FOUND AT THE SOUTHEAST CORNER OF LAMESA ROAD AND ALBERT AVENUE AS DESCRIBED ON THAT CERTAIN PLAT OF TAHOE LAKES ADDITION, AS RECORDED IN CABINET I, PAGE 190 OF THE MIDLAND COUNTY PLAT RECORDS AND ALSO BEING THE NORTHWEST CORNER OF THAT CERTAIN 0.16-ACRE TRACT, ALSO KNOWN AS (AKA) LOT 26, BLOCK 7 OF SAID CAROL CREST ADDITION, AN UNRECORDED SUBDIVISION, AS DESCRIBED IN DOCUMENT NO. 2011-401 OF SAID OFFICIAL PUBLIC RECORDS OF MIDLAND COUNTY, TEXAS;

THENCE NORTH 75°39'45" EAST WITH THE NORTH LINE OF SAID AKA LOT 26 OF THE NORTH LINE OF LOT 1 OF BLOCK 7 OF SAID CAROL CREST ADDITION, AN UNRECORDED SUBDIVISION, AND THE SOUTH RIGHT-OF-WAY LINE OF SAID ALBERT AVENUE A DISTANCE OF 270.54 FEET TO A ½" IRON ROD WITH CAP MARKED "LCA ODESSA TX" (Y= 10,687,986.78' & X= 1,761,938.53') FOUND ON THE EAST LINE OF SAID CAROL CREST ADDITION, AN UNRECORDED SUBDIVISION, AND THE SOUTH RIGHT-OF-WAY OF SAID ALBERT AVENUE AND TO THE POINT OF THE BEGINNING OF THIS SURVEY;

THENCE NORTH 75°39'43" EAST PASS THE SOUTHEAST CORNER OF SAID ALBERT AVENUE AND THE SOUTHWEST CORNER OF LOT 1, BLOCK 1 OF SAID TAHOE LAKES ADDITION AT 61.21 FEET, CONTINUING WITH THE SOUTH LINE OF SAID LOT 1, A TOTAL DISTANCE OF 649.23 FEET TO A 3/8" IRON ROD (CONTROL MONUMENT) FOUND AT A POINT OF DEFLECTION OF THIS SURVEY;

THENCE NORTH 32°04'31" EAST WITH THE SOUTHERN LINE OF SAID LOT 1, PASS THE A 3/8" IRON ROD (CONTROL MONUMENT) FOUND AT THE EASTERNMOST SOUTHEAST CORNER OF SAID LOT 1 AND AT 605.40 FEET, CONTINUING FOR A TOTAL DISTANCE OF 667.33 FEET TO A ½" IRON ROD WITH CAP MARKED "LCA ODESSA TX" SET FOR THE NOTHERNMOST NORTHEAST CORNER OF THIS TRACT;

THENCE SOUTH 22°42'31" EAST, A DISTANCE OF 86.39 FEET TO A ½" IRON ROD WITH CAP MARKED "LCA ODESSA TX" SET AT THE POINT OF CURVATURE OF A CURVE TO THE RIGHT;

THENCE ALONG SAID CURVE TO THE RIGHT IN A SOUTHEASTERLY DIRECTION, HAVING A RADIUS LENGTH OF 556.30 FEET, A DELTA ANGLE OF 44°23'54", AN ARC LENGTH OF 431.07 FEET, A CHORD LENGTH OF 420.37 FEET BEARING SOUTH 00°30'36" EAST TO A ½" IRON ROD WITH PLASTIC CAP MARKED "LCA ODESSA TX" SET AT THE POINT OF TANGENCY;

THENCE SOUTH 21°41'20" EAST, A DISTANCE OF 522.76 FEET TO A ½" IRON ROD WITH CAP MARKED "LCA ODESSA TX" SET AT THE POINT OF CURVATURE OF A CURVE TO THE LEFT;

THENCE ALONG SAID CURVE TO THE LEFT IN A SOUTHEASTERLY DIRECTION, HAVING A RADIUS LENGTH OF 530.00 FEET, A DELTA ANGLE OF 27°47'11", AN ARC LENGTH OF 257.03 FEET, A CHORD LENGTH OF 254.52 FEET BEARING SOUTH 07°47'45" EAST TO A ½" IRON ROD WITH PLASTIC CAP MARKED "LCA ODESSA TX" SET AT THE POINT ON SAID CURVE;

THENCE NORTH 75°37'36" EAST, A DISTANCE OF 333.79 FEET TO A ½" IRON ROD WITH CAP MARKED "LCA ODESSA TX" SET ON A CURVE TO THE LEFT;

THENCE SOUTH 14°19'58" EAST, A DISTANCE OF 424.98 FEET TO A ½" IRON ROD WITH CAP MARKED "LCA ODESSA TX" SET ON THE CURVED NORTH RIGHT-OF-WAY LINE OF INTERSTATE HIGHWAY 20, A VARIABLE WIDTH PUBLIC RIGHT-OF-WAY, FOR THE SOUTHEAST CORNER OF THIS TRACT HAVING A RADIAL BEARING OF NORTH 16°35'48" WEST;

THENCE ALONG SAID CURVE TO THE RIGHT IN A SOUTHWESTERLY DIRECTION, HAVING A RADIUS LENGTH OF 11,309.20 FEET, A DELTA ANGLE OF 00°15'13", AN ARC LENGTH OF 50.03 FEET, A CHORD LENGTH OF 50.03 FEET BEARING SOUTH 73°31'49" WEST TO A ½" IRON ROD WITH PLASTIC CAP MARKED "LCA ODESSA TX" SET FOR THE SOUTHWEST CORNER OF THIS TRACT;

THENCE NORTH 14°19'58" WEST, A DISTANCE OF 376.81 FEET TO A ½" IRON ROD WITH CAP MARKED "LCA ODESSA TX" SET FOR AN ELL CORNER OF THIS TRACT;

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THENCE SOUTH 14°37'56" EAST, A DISTANCE OF 123.46 FEET TO A A ½" IRON ROD WITH CAP MARKED "LCA ODESSA TX" SET FOR AN ELL CORNER OF THIS TRACT;

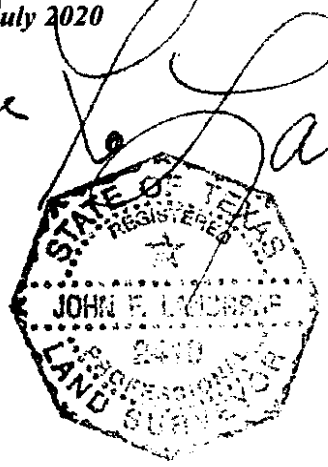
THENCE SOUTH 75°41'31" WEST, PASS A ½" IRON ROD WITH CAP (CONTROL MONUMENT) FOUND AT A POINT OF TANGENCY OF THAT CERTAIN 3.30-ACRE TRACT AS DESCRIBED IN VOLUME 1198 PAGE 204 OF SAID DEED RECORDS OF MIDLAND COUNTY TEXAS AT 349.07 FEET, IN ALL A TOTAL DISTANCE OF 687.02 FEET TO A ½" IRON ROD WITH CAP MARKED "LCA ODESSA TX", WHENCE A ½" IRON ROD BEARS SOUTH 75°41' WEST, A DISTANCE OF 0.9 FEET;

THENCE NORTH 14°20'29" WEST WITH THE EAST LINE OF LOTS 13 THRU 1, BLOCK 7 OF SAID CAROL CREST ADDITION, AN UNRECORDED SUBDIVISION, A DISTANCE OF 865.18 FEET TO THE POINT OF THE BEGINNING CONTAINING 19.17 SURFACE ACRES.

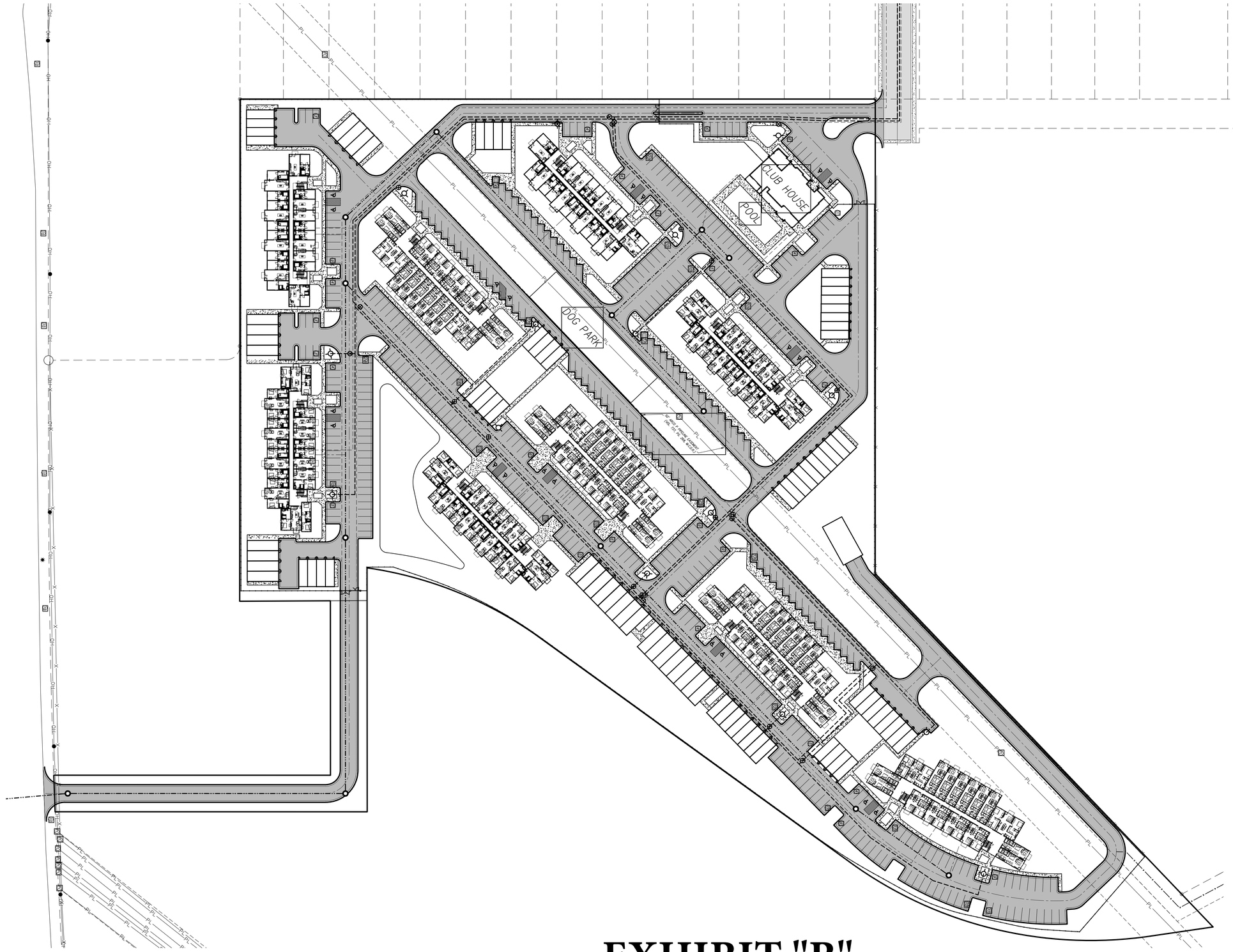
THIS DOCUMENT WAS PREPARED UNDER 22 TAC 663.21, AND IS NOT TO BE USED TO CONVEY OR ESTABLISH INTEREST IN REAL PROPERTY EXCEPT THOSE RIGHTS AND INTEREST IMPLIED OR ESTABLISHED BY THE CREATION OR RECONFIGURATION OF THE BOUNDARY OF THE POLITICAL SUBDIVISION FOR WHICH IT WAS PREPARED.

LCA

John F. Landgraf, RPLS 2410
6 July 2020



LCA Project no. 2020-038



PARKING TABULATION

UNITS TYPE	UNITS QUANTITY	PARKING REQUIRED
1/1	120	180
2/2	84	168
3/2	18	45
EXTRA SPACES FOR 3/2 AT 1/FOUR UNITS		5
STUDIO/MICRO	120	120
TOTAL UNITS	342	
TOTAL SPACES REQUIRED		**518**
SPACES PROVIDED/SURFACE		445
SPACES PROVIDED/GARAGE		86
TOTAL SPACES PROVIDED		**531**

GARAGE & STORAGE TABULATION

Storage Units Required	342
Storage Units Provided	342
Garages Required	86
Garage Provided	86

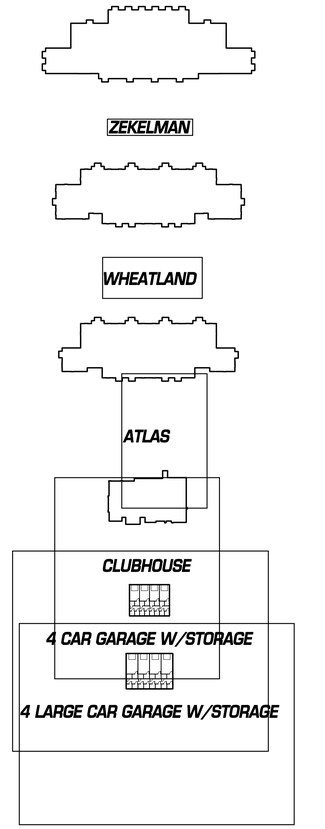


EXHIBIT "B"

ENG. _____ E.T. _____
SVY. _____ DFT. _____
LCA JOB No. 0000.000

LCA ENVIRONMENTAL • CIVIL ENGINEERING • LAND SURVEYING
Personal Service, Today and Tomorrow
521 North Texas, Odessa Tx. 79761 F-001363 F-10034300
Phone # (432) 332-5058 E-Mail : lca@lcaodessa.com

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LCA

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lca@lcaodessa.com
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(432) 332-5058 or 580-8812 • Fax (432) 332-8812
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OF A 19.17-ACRE TRACT
LOCATED IN SECTION 1, BLOCK 39, T-2-S
T&P RR CO. SURVEY
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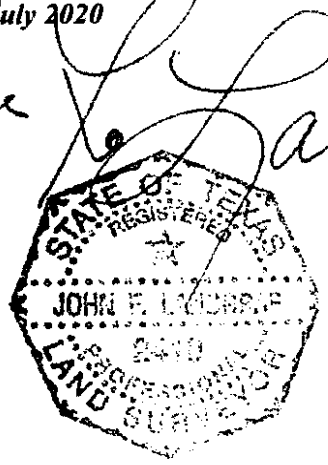
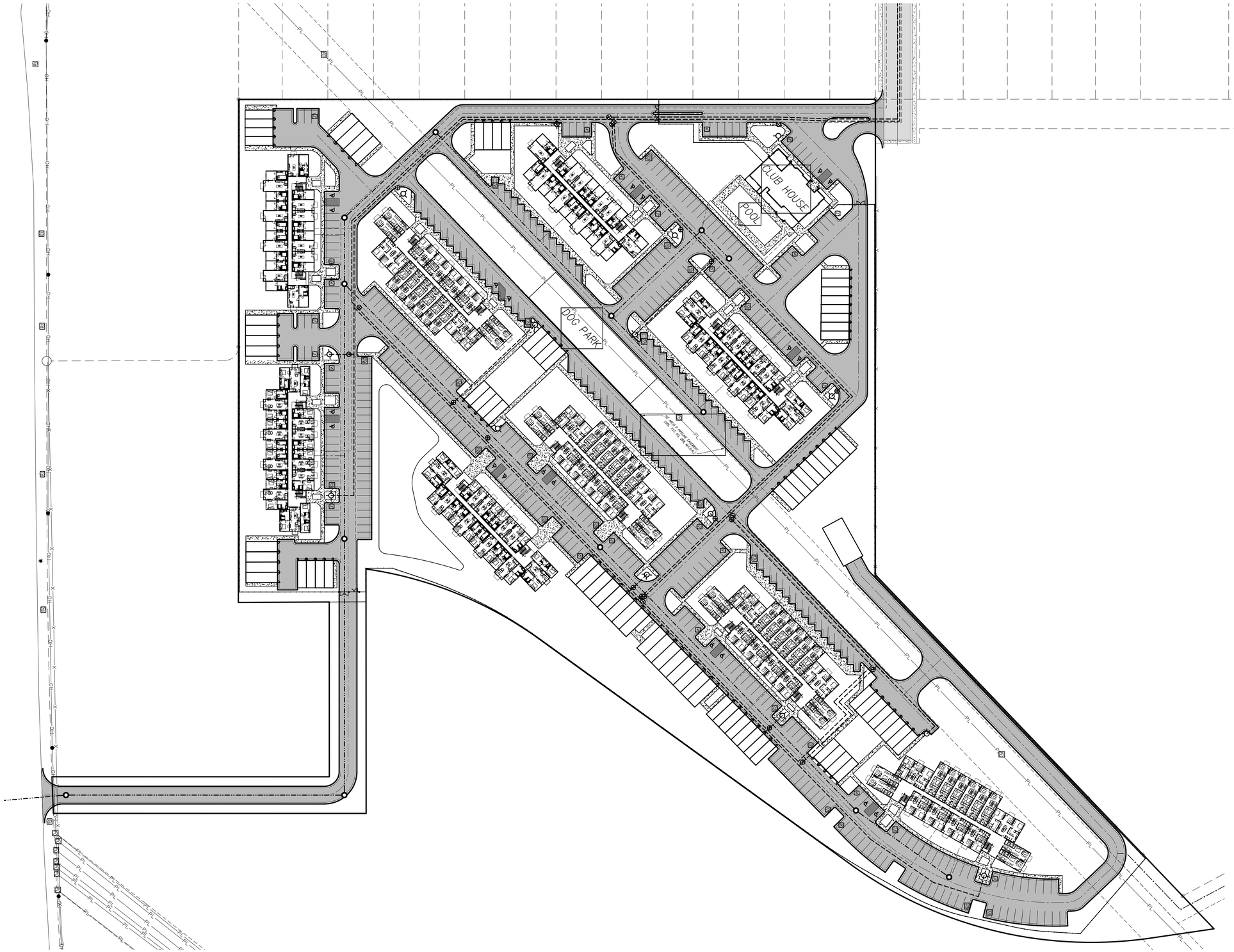
THIS DOCUMENT WAS PREPARED UNDER 22 TAC 663.21, AND IS NOT TO BE USED TO CONVEY OR ESTABLISH INTEREST IN REAL PROPERTY EXCEPT THOSE RIGHTS AND INTEREST IMPLIED OR ESTABLISHED BY THE CREATION OR RECONFIGURATION OF THE BOUNDARY OF THE POLITICAL SUBDIVISION FOR WHICH IT WAS PREPARED.

LCA

John F. Landgraf, RPLS 2410
6 July 2020



LCA Project no. 2020-038

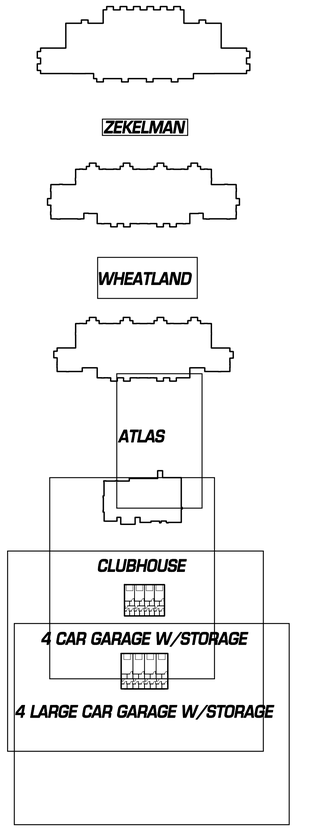


PARKING TABULATION

UNITS TYPE	UNITS QUANTITY	PARKING REQUIRED
1/1	120	180
2/2	84	168
3/2	18	45
EXTRA SPACES FOR 3/2 AT 1/FOUR UNITS		5
STUDIO/MICRO	120	120
TOTAL UNITS	342	
TOTAL SPACES REQUIRED		**518**
SPACES PROVIDED/SURFACE		445
SPACES PROVIDED/GARAGE		86
TOTAL SPACES PROVIDED		**531**

GARAGE & STORAGE TABULATION

Storage Units Required	342
Storage Units Provided	342
Garages Required	86
Garage Provided	86



ENG. _____ E.T. _____
SVY. _____ DFT. _____
LCA JOB No. 0000.000

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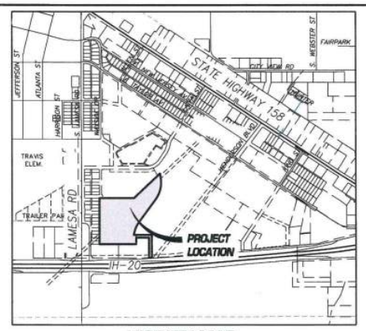
Personal Service, Today and Tomorrow
521 North Texas, Odessa Tx. 79761 F-001363 F-10034300
Phone # (432) 332-5058 E-Mail : lca@lcaodessa.com

E:\2020\2020-038\E-Mail\Sent\2020-07-16 (CAD File)\2020-038 Base.dwg, 7/30/2020 8:29:20 AM, AutoCAD PDF (General Documentation).pc3

PRELIMINARY PLAT

TAHOE LAKES ADDITION, SECTION 2

19.17 ACRE TRACT LOCATED IN SECTION 1, BLOCK 39, T-2-S, T&P RR CO. SURVEY
CITY AND COUNTY OF MIDLAND, TEXAS



VICINITY MAP

SCALE: N.T.S.

THE STATE OF TEXAS
COUNTY OF MIDLAND

BEING A 19.17-ACRE REMAINDER OF THAT CERTAIN 101.49-ACRE TRACT AS DESCRIBED IN DOCUMENT NO. 2010-4195 OF THE OFFICIAL PUBLIC RECORDS OF MIDLAND COUNTY, TEXAS, LOCATED IN SECTION 1 BLOCK 39, T-2-S, T&P RR CO. SURVEY, MIDLAND COUNTY TEXAS AND BEING MORE PARTICULARLY DESCRIBED BY METES AND BOUNDS AS FOLLOWS:

COMMENCING AT (Y=10,687,919.78' & X= 1,761,676.41') A ½" IRON ROD WITH CAP MARKED "LCA ODESSA TX" (CONTROL MONUMENT) FOUND AT THE SOUTHEAST CORNER OF LAMESA ROAD AND ALBERT AVENUE AS DESCRIBED ON THAT CERTAIN PLAT OF TAHOE LAKES ADDITION, AS RECORDED IN CABINET 1, PAGE 198 OF THE MIDLAND COUNTY PLAT RECORDS AND ALSO BEING THE NORTHWEST CORNER OF THAT CERTAIN 0.16-ACRE TRACT, ALSO KNOWN AS (ALE-1) LOT 24, BLOCK 7 OF SAID CAROL CREST ADDITION, AN UNRECORDED SUBDIVISION, AS DESCRIBED IN DOCUMENT NO. 2011-401 OF SAID OFFICIAL PUBLIC RECORDS OF MIDLAND COUNTY, TEXAS;

THENCE NORTH 75°39'45" EAST WITH THE NORTH LINE OF SAID AKA LOT 24 OF THE NORTH LINE OF LOT 1 OF BLOCK 7 OF SAID CAROL CREST ADDITION, AN UNRECORDED SUBDIVISION, AND THE SOUTH RIGHT-OF-WAY LINE OF SAID ALBERT AVENUE A DISTANCE OF 270.34 FEET TO A ½" IRON ROD WITH CAP MARKED "LCA ODESSA TX" (Y= 10,687,986.78' & X= 1,761,938.53') FOUND ON THE EAST LINE OF SAID CAROL CREST ADDITION, AN UNRECORDED SUBDIVISION, AND THE SOUTH RIGHT-OF-WAY OF SAID ALBERT AVENUE AND TO THE POINT OF THE BEGINNING OF THIS SURVEY;

THENCE NORTH 75°39'43" EAST PASS THE SOUTHEAST CORNER OF SAID ALBERT AVENUE AND THE SOUTHWEST CORNER OF LOT 1, BLOCK 1 OF SAID TAHOE LAKES ADDITION AT 61.21 FEET; CONTINUING WITH THE SOUTH LINE OF SAID LOT 1, A TOTAL DISTANCE OF 649.23 FEET TO A 5/8" IRON ROD (CONTROL MONUMENT) FOUND AT A POINT OF DEFLECTION OF THIS SURVEY;

THENCE NORTH 32°04'31" EAST WITH THE SOUTHERN LINE OF SAID LOT 1, PASS THE A 3/8" IRON ROD (CONTROL MONUMENT) FOUND AT THE EASTERNMOST SOUTHEAST CORNER OF SAID LOT 1 AND AT 605.48 FEET, CONTINUING FOR A TOTAL DISTANCE OF 667.33 FEET TO A ½" IRON ROD WITH CAP MARKED "LCA ODESSA TX" SET FOR THE NOTHERNMOST NORTHEAST CORNER OF THIS TRACT;

THENCE SOUTH 22°42'31" EAST, A DISTANCE OF 86.39 FEET TO A ½" IRON ROD WITH CAP MARKED "LCA ODESSA TX" SET AT THE POINT OF CURVATURE OF A CURVE TO THE RIGHT;

THENCE ALONG SAID CURVE TO THE RIGHT IN A SOUTHEASTERLY DIRECTION, HAVING A RADIUS LENGTH OF 556.38 FEET, A DELTA ANGLE OF 44°23'54", AN ARC LENGTH OF 431.07 FEET, A CHORD LENGTH OF 420.37 FEET BEARING SOUTH 00°30'36" EAST TO A ½" IRON ROD WITH PLASTIC CAP MARKED "LCA ODESSA TX" SET AT THE POINT OF TANGENCY;

THENCE SOUTH 21°41'28" EAST, A DISTANCE OF 522.76 FEET TO A ½" IRON ROD WITH CAP MARKED "LCA ODESSA TX" SET AT THE POINT OF CURVATURE OF A CURVE TO THE LEFT;

THENCE ALONG SAID CURVE TO THE LEFT IN A SOUTHEASTERLY DIRECTION, HAVING A RADIUS LENGTH OF 530.00 FEET, A DELTA ANGLE OF 27°47'11", AN ARC LENGTH OF 257.03 FEET, A CHORD LENGTH OF 254.52 FEET BEARING SOUTH 07°47'45" EAST TO A ½" IRON ROD WITH PLASTIC CAP MARKED "LCA ODESSA TX" SET AT THE POINT ON SAID CURVE;

THENCE NORTH 75°37'36" EAST, A DISTANCE OF 333.79 FEET TO A ½" IRON ROD WITH CAP MARKED "LCA ODESSA TX" SET ON A CURVE TO THE LEFT;

THENCE SOUTH 14°19'58" EAST, A DISTANCE OF 424.98 FEET TO A ½" IRON ROD WITH CAP MARKED "LCA ODESSA TX" SET ON THE CURVED NORTH RIGHT-OF-WAY LINE OF INTERSTATE HIGHWAY 20, A VARIABLE WIDTH PUBLIC RIGHT-OF-WAY, FOR THE SOUTHEAST CORNER OF THIS TRACT HAVING A RADIAL BEARING OF NORTH 14°15'48" WEST;

THENCE ALONG SAID CURVE TO THE RIGHT IN A SOUTHWESTERLY DIRECTION, HAVING A RADIUS LENGTH OF 11,309.20 FEET, A DELTA ANGLE OF 00°51'31", AN ARC LENGTH OF 50.83 FEET, A CHORD LENGTH OF 50.83 FEET BEARING SOUTH 75°31'49" WEST TO A ½" IRON ROD WITH PLASTIC CAP MARKED "LCA ODESSA TX" SET FOR THE SOUTHWEST CORNER OF THIS TRACT;

THENCE NORTH 14°19'58" WEST, A DISTANCE OF 376.81 FEET TO A ½" IRON ROD WITH CAP MARKED "LCA ODESSA TX" SET FOR AN ELL CORNER OF THIS TRACT;

THENCE SOUTH 75°17'34" WEST, A DISTANCE OF 218.69 FEET TO A ½" IRON ROD WITH CAP MARKED "LCA ODESSA TX" SET FOR AN ELL CORNER OF THIS TRACT;

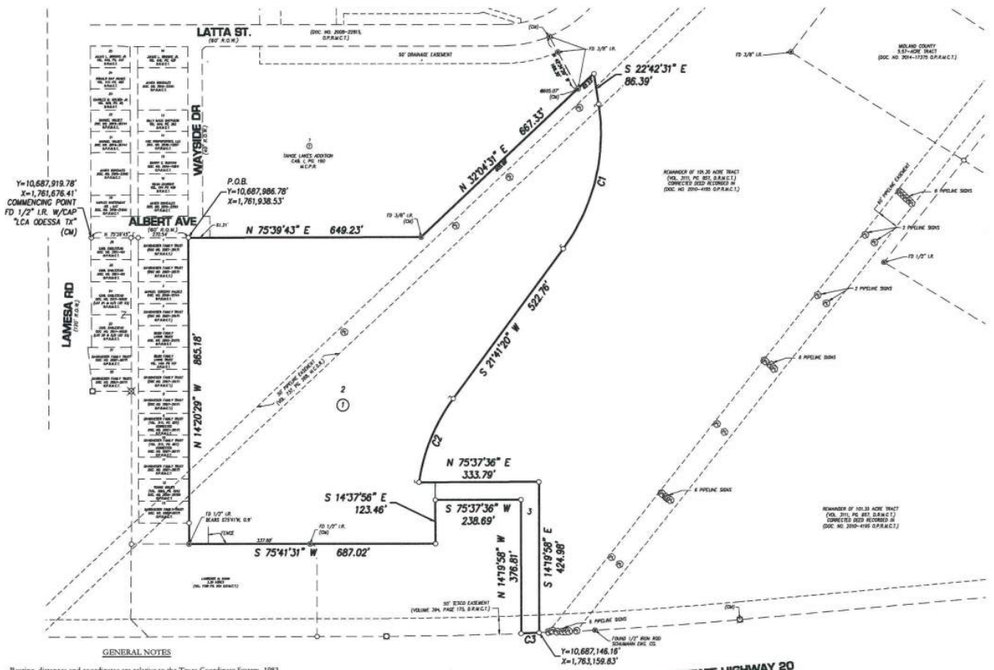
THENCE SOUTH 14°57'56" EAST, A DISTANCE OF 123.46 FEET TO A A ½" IRON ROD WITH CAP MARKED "LCA ODESSA TX" SET FOR AN ELL CORNER OF THIS TRACT;

THENCE SOUTH 75°41'31" WEST, PASS A ½" IRON ROD WITH CAP (CONTROL MONUMENT) FOUND AT A POINT OF TANGENCY OF THAT CERTAIN 3.38-ACRE TRACT AS DESCRIBED IN VOLUME 1198 PAGE 304 OF SAID DEED RECORDS OF MIDLAND COUNTY TEXAS AT 549.67 FEET; IN ALL A TOTAL DISTANCE OF 687.02 FEET TO A ½" IRON ROD WITH CAP MARKED "LCA ODESSA TX", WHENCE A ½" IRON ROD BEARS SOUTH 75°41' WEST, A DISTANCE OF 8.9 FEET;

THENCE NORTH 14°20'29" WEST WITH THE EAST LINE OF LOTS 13 THRU 1, BLOCK 7 OF SAID CAROL CREST ADDITION, AN UNRECORDED SUBDIVISION, A DISTANCE OF 865.18 FEET TO THE POINT OF THE BEGINNING CONTAINING 19.17 SURFACE ACRES.

CURVE TABLE					
Curve #	DELTA	RADIUS	LENGTH	CD. BEARING	CD. DIST.
C1	44°23'54"	556.30'	431.07'	S 00°30'36" E	420.37'
C2	27°47'11"	530.00'	257.03'	S 07°47'45" W	254.52'
C3	00°51'31"	11,309.20'	50.03'	S 75°31'49" W	50.03'

ENG. _____ S.V. _____
SVY. _____ DFT. _____
LCA_TLS No. 2020-028



GENERAL NOTES

1. Bearing, distances and coordinates are relative to the Texas Coordinate System, 1983 NAD, Central Zone, Based on the City of Midland GPS Control Monument "LAM 20". (Y=10,686,841.66' and X=1,761,908.42', Elevation = 2775.01 NAVD 29) with a Theta Angle of -00°53'17" with a Combined Grid Factor of 0.9998936673 as published in US Survey Feet. Elevations are NAVD 29.
2. This property lies in Zone X per the FEMA/FIRM map number 48329C0206F, dated September 16, 2005.
3. Initial Impact Fees will be assessed during the final platting process. Implementation and collection of impact fees will take place during the building permit process. Additional impact fees or increase in fees may not be assessed against the tract unless the number of service units to be developed on the tract increases.
4. "Comply with the existing drainage analysis titled XXXXXXXXXXX, sealed by XXXXXXXX, P.E., and approved by the City of Midland on XXXXXXXXXXX, or any revisions, corrections, amendments, or replacements of this drainage analysis that are approved by the City of Midland."
5. Selling a portion of this addition by metes and bounds may be a violation of city ordinance and state law subject to fines and withholding of utilities and building permits.
6. Approval of a site plan by the City of Midland may be required before these lot(s) may be developed and before building permit(s) may be obtained.
7. Initial Impact Fees will be assessed during the final platting process. Implementation and collection of impact fees will take place during the building permit process. Additional impact fees or increase in fees may not be assessed against the tract unless the number of service units to be developed on the tract increases.
8. Approval of a site plan by the City of Midland may be required before these lot(s) may be developed and before building permit(s) may be obtained.

CERTIFICATE OF APPROVAL

For approval by the Commission:

This is to certify that the above and foregoing Plat of Tahoe Lake Addition, Section 2, was approved by proper action of the City Planning and Zoning Commission of the City of Midland, Texas

on this _____ day of _____, 2020.

SIGNED: _____
CHAIRMAN OF PLANNING & ZONING
JOSH SPARKS

SIGNED: _____
SECRETARY OF PLANNING & ZONING
CHRISTINA ODENBORG BURNS

THE UTILITY COMPANIES CERTIFICATE

This plat has been checked for accessibaiy of utilities

_____ ATMOS ENERGY
_____ AT&T TELEPHONE COMPANY
_____ ONCOR ELECTRIC
_____ SUDDENLINK COMMUNICATIONS
_____ GRANDE COMMUNICATIONS

150' 0 150'
SCALE : 1" = 150'

LEGEND

- ● FOUND 1/2" I.R. W/CAP MARKED "LCA ODESSA TX" UNLESS OTHERWISE NOTED
- ○ SET 1/2" I.R. W/CAP MARKED "LCA ODESSA TX"
- □ TXDOT R.O.W. MONUMENT
- ⊠ BROKEN TXDOT R.O.W. MONUMENT
- Ⓟ EXISTING PIPELINE MARKER
- (CM) CONTROL MONUMENT
- ⌂ PC OR PT

NOW, THEREFORE, KNOW ALL MEN BY THESE PRESENTS:

That I, XXXXXXX, do hereby adopt this plat designating the herein described property as Tahoe Lake Addition, Section 2, and do hereby dedicate to the public use forever the streets, alley and easements shown thereon for the purpose and consideration therein expressed, and an easement of egress and ingress for trash collection, and location and maintenance of trash containers, and as a condition of said easement that no construction shall commence on the said lot or lots until the exact location of said containers there with have been selected and approved by the Director of Utilities.

WITNESS our hands at Midland, Texas this the _____ day of _____ 2020.

_____
DAVIDHEISER FAMILY TRUST
XXXXXXX

THE STATE OF TEXAS
COUNTY OF MIDLAND

Before me, the undersigned authority, a Notary Public in and for the State of Texas, on this day personally appeared _____ known to me to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that he executed the same for the purposes and consideration therein expressed, and in the capacity therein stated.

Given under my hand and seal of office this _____ day of _____ 2020.

My commission expires: _____

_____
NOTARY PUBLIC IN AND FOR THE STATE OF TEXAS

SURVEYOR'S CERTIFICATE
KNOW ALL MEN BY THESE PRESENTS:

That I, John F. Landgraf, a Registered Professional Land Surveyor of the State of Texas, do hereby certify that this plat was prepared from an actual and accurate survey of the land and that the corner monuments shown thereon were properly placed under my personal supervision, in accordance with the subdivision regulations of the City of Midland, Texas.

PRELIMINARY
THIS DOCUMENT SHALL NOT BE RECORDED FOR ANY PURPOSE AND SHALL NOT BE USED, FOR, VIEWED OR RELIED UPON AS A FINAL SURVEY DOCUMENT.
JOHN F. LANDGRAF, R.P.L.S. # 2410

OWNER: DAVIDHEISER FAMILY TRUST
1222 CALLE LAS CASAS
THOUSAND OAKS, CA 91360

ENGINEER: LCA
521 NORTH TEXAS
ODESSA, TEXAS 79761-5131
PHONE: (432) 332-5058

TAHOE LAKE ADDITION, SECTION 2

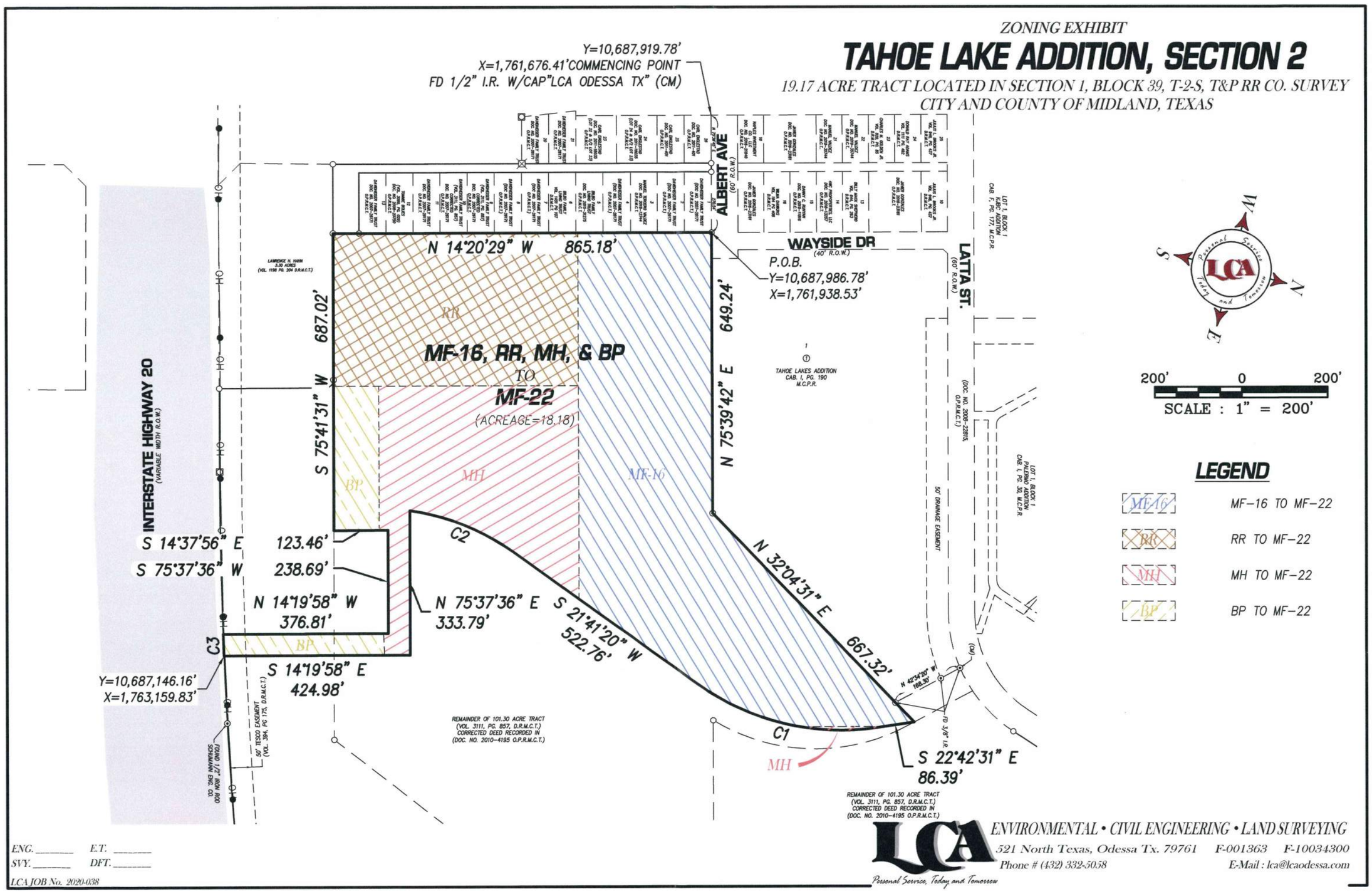
LCA ENVIRONMENTAL • CIVIL ENGINEERING • LAND SURVEYING
521 North Texas, Odessa Tx. 79761 F-001368 F-10034300
Phone # (432) 333-5058 E-Mail : lca@lcaodessa.com

Personal Service, Today and Tomorrow

ZONING EXHIBIT

TAHOE LAKE ADDITION, SECTION 2

19.17 ACRE TRACT LOCATED IN SECTION 1, BLOCK 39, T-2-S, T&P RR CO. SURVEY
CITY AND COUNTY OF MIDLAND, TEXAS



ENG. _____ E.T. _____
SVY. _____ DFT. _____

LCA JOB No. 2020-038

ENVIRONMENTAL • CIVIL ENGINEERING • LAND SURVEYING
521 North Texas, Odessa Tx. 79761 F-001363 F-10034300
Phone # (432) 332-5038 E-Mail : lca@lcaodessa.com
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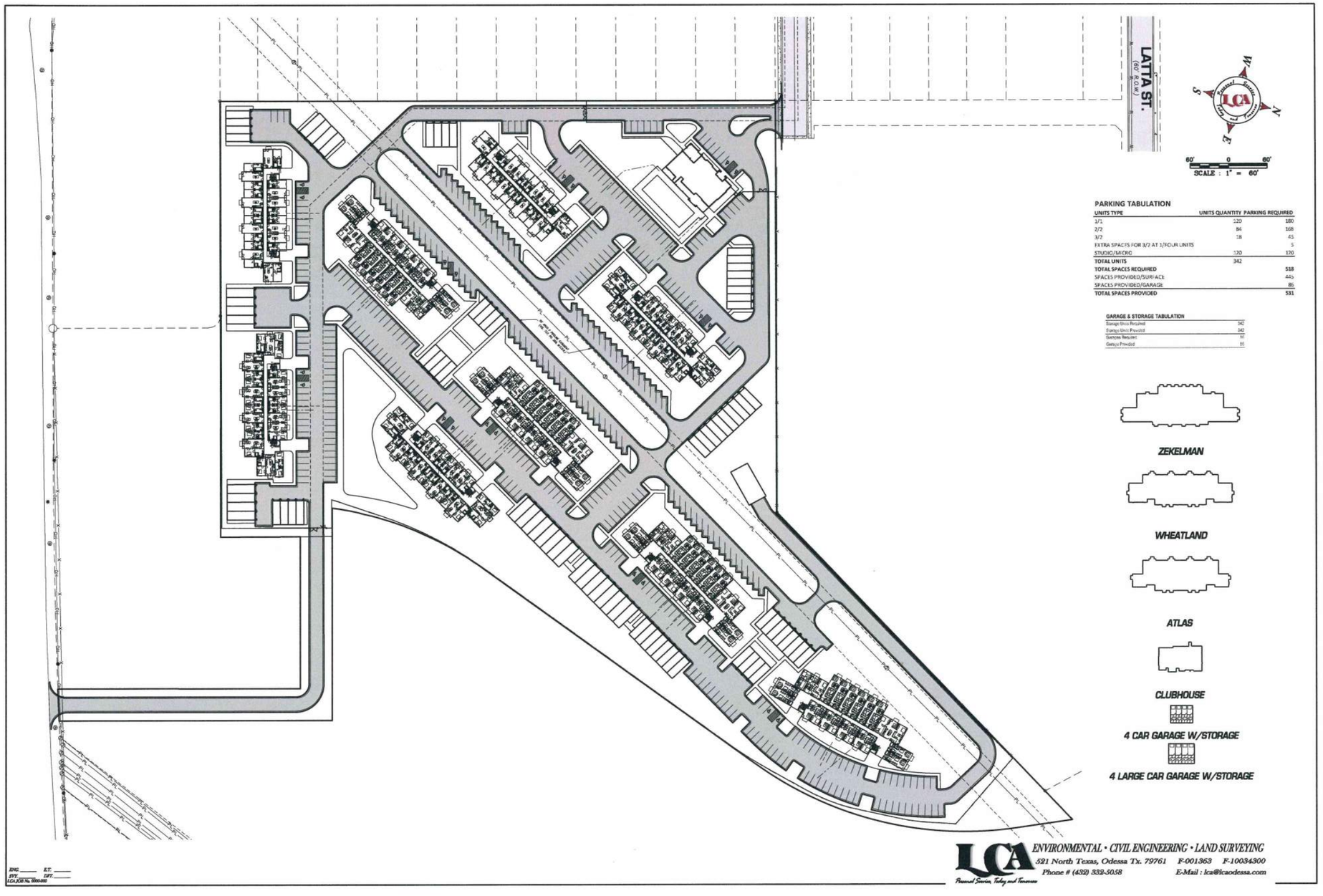
2020\2020-038\Dwg\Drafting\Exhibit\2020-038 Zoning Exhibitt.dwg, 7/6/2020 3:56:08 PM, IASkalfa 32521



PARKING TABULATION

UNITS TYPE	UNITS QUANTITY	PARKING REQUIRED
1/1	120	180
2/2	84	168
3/2	18	45
EXTRA SPACES FOR 3/2 AT 1/FOUR UNITS		5
STUDIO/MICRO	120	120
TOTAL UNITS	342	
TOTAL SPACES REQUIRED		518
SPACES PROVIDED/SURFACE		445
SPACES PROVIDED/GARAGE		86
TOTAL SPACES PROVIDED		531

GARAGE & STORAGE TABULATION

Garage Units Required	342
Garage Units Provided	342
Garages Required	86
Garage Provided	86

ZEKELMAN

WHEATLAND

ATLAS

CLUBHOUSE

4 CAR GARAGE W/STORAGE

4 LARGE CAR GARAGE W/STORAGE

ENG. _____ E.T. _____
SVY. _____ DFT. _____
LCA JOB No. 0000-00

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521 North Texas, Odessa Tx. 79761 F-001363 F-10034300
Phone # (432) 332-5058 E-Mail : lca@lcaodessa.com
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Z Modular™
A DIVISION OF ZEKELMAN INDUSTRIES

TEXAS

PROJECT NO: B4-179-1902

BASE4

BASE4
2901 CLINT MOORE ROAD, #114
BOCA RATON, FLORIDA 33496
888-901-8008 www.base-4.com

RICARDO J. MUNIZ - GUILLET, AIA
5453 NW 106TH DR
CORAL SPRINGS, FL 33076

Seal:

REGISTERED ARCHITECT
RICARDO J. MUNIZ-GUILLET
26199
STATE OF TEXAS

Owner:

Z Modular™
A DIVISION OF ZEKELMAN INDUSTRIES

Warren Hayes
100 W Big Beaver Rd. Suite 390, Troy,
MI 48084
WARREN.HAYES@ZEKELMAN.COM
512.845.6319

Z MODULAR GARDENSTYLE
APARTMENT
1/2 BEDROOM OPTION 30 UNITS

ISSUE NO.	DELTA	ISSUE DATE	DESCRIPTION
3	A3	2019.10.23	ADDENDUM#2

CURRENT ISSUE

ISSUED FOR PERMIT

CURRENT ISSUE DATE
2019.11.07

DRAWN BY
SJ

CHECKED BY
JGC/ NBL

PROJECT NO.
B4-179-1902

SHEET NAME

TITLE SHEET

DRAWINGS NO.

G-000

PROJECT GENERAL NOTES

GENERAL

1. THE INFORMATION HEREIN IS OF A PROPRIETARY NATURE AND IS SUBMITTED IN CONFIDENCE FOR USE BY BASE4 ARCHITECTS, INC. CLIENTS ONLY. IT HAS BEEN PREPARED FOR THIS PROJECT AT THIS SITE AND IS NOT TO BE USED FOR ANY OTHER PURPOSE, LOCATION OR OWNER WITHOUT WRITTEN CONSENT OF BASE4 ARCHITECTS, INC. UNAUTHORIZED REPRODUCTION, PUBLICATION OR DISSEMINATION, IN WHOLE OR IN PART IS EXPRESSLY PROHIBITED. INFORMATION CONTAINED HEREIN REMAINS PROPERTY OF BASE4 ARCHITECTS, INC., AND RECEIPT OR POSSESSION OF THIS INFORMATION CONFERS NO RIGHT IN OR LICENSE TO USE OR DISCLOSE TO OTHERS THE SUBJECT MATTER CONTAINED HEREIN FOR ANY BUT AUTHORIZED PURPOSES. ALL RIGHTS RESERVED.
2. THE CONTRACT DOCUMENTS CONSIST OF THE AGREEMENT BETWEEN OWNER AND CONTRACTOR, CONDITIONS OF THE CONTRACT (GENERAL, SUPPLEMENTARY, AND OTHER CONDITIONS), DRAWINGS, SPECIFICATIONS, ADDENDA ISSUED PRIOR TO AGREEMENT AND MODIFICATIONS ISSUED AFTER EXECUTION OF THE CONTRACT.
3. ANY DOCUMENT IN THIS SET WHICH HAS BEEN PREPARED BY ANY SUBCONTRACTOR, DESIGNER, AND/OR SUBCONSULTANT WHO IS UNDER A CONTRACT DIRECTLY WITH THE OWNER AND/OR CONTRACTOR IS ONLY INCLUDED IN THIS SET FOR PURPOSES OF REFERENCE AND COORDINATION. BASE4 ARCHITECTS DISCLAIMS ALL LIABILITY RELATING TO THE DRAWING AND CONSTRUCTION OF THE IMPROVEMENTS OR SYSTEMS IT DEPICTS EXCEPT AS E SPECIFICALLY ASSUMED IN A WRITTEN CONTRACT SIGNED BY BASE4 AND THE OWNER.
4. THE DRAWINGS, SPECIFICATIONS AND OTHER DOCUMENTS, INCLUDING THOSE IN ELECTRONIC FORM, PREPARED BY THE ARCHITECT, AND THE ARCHITECT'S CONSULTANTS ARE INSTRUMENTS OF SERVICE THROUGH WHICH THE WORK TO BE EXECUTED BY THE CONTRACTOR IS DESCRIBED. UNLESS INDICATED OTHERWISE, THE ARCHITECT AND ARCHITECTS CONSULTANTS SHALL BE DEEMED THE AUTHORS OF THEM AND WILL RETAIN ALL COMMON l LAW, STATUTORY AND OTHER RESERVED RIGHTS, IN ADDITION TO THE COPYRIGHTS.
5. IF COORDINATION OF ARCHITECTURAL, CIVIL, LANDSCAPE, STRUCTURAL, MECHANICAL, ELECTRICAL, PLUMBING AND SPRINKLER ELEMENTS RESULT IN CONFLICT, GC SHALL NOTIFY ARCHITECT IN WRITING IMMEDIATELY PRIOR TO COMMENCING ANY WORK OF ELEMENTS RESULTING CONFLICTS.
6. SLOPE ALL GRADES AT PLANTING AREAS, SIDEWALKS AND ASPHALT PARKING PAVING WITHIN 5' OF A BUILDING AWAY FROM THE BUILDING. IF CONFLICTS OCCUR, NOTIFY ARCHITECT IMMEDIATELY. SEE CIVIL DRAWINGS FOR FINISHED GRADES ADJACENT TO BUILDINGS.
7. CONTRACTOR IS SOLELY RESPONSIBLE FOR CONSTRUCTION MEANS AND METHODS AND SHALL MAINTAIN THE STRUCTURAL INTEGRITY OF CONSTRUCTION UNTIL FINAL COMPLETION. SEE STRUCTURAL DRAWINGS.
8. CONTRACTOR IS RESPONSIBLE FOR VERIFICATION AND COORDINATION OF SUBCONTRACTOR WORK, COMPLIANCE WITH DRAWINGS AND SPECIFICATIONS, AND ACCURATE LOCATION OF STRUCTURAL MEMBERS, OPENINGS FOR MECHANICAL, ELECTRICAL, AND MISCELLANEOUS EQUIPMENT. CONTRACTOR SHALL VERIFY DIMENSIONS AND OPENING SIZES (CLEARANCES REQUIRED) FROM THE MANUFACTURERS PRIOR TO CONSTRUCTION OF OR INSTALLATION OF EQUIPMENT, FURNISHINGS, AND ACCESSORIES.
9. PROVIDE ACCESS PANELS AS REQUIRED. PROVIDE RATED ACCESS PANELS WITH THE SAME RATING AS THE ASSEMBLY IN WHICH THEY ARE INSTALLED. ACCESS PANELS IN SHAFT WALLS, RATED FLOORCEILINGS OR RATED ROOFCEILINGS SHALL BE SMOKE SEALED.
10. THE FRANCHISE BRAND STANDARDS DESIGN DOCUMENT SHALL BE CONSIDER AS AN INTEGRAL PART OF THE CONSTRUCTION DOCUMENTS. ALL CONTRACTORS SHALL ENSURE THEY OBTAIN, READ, AND FAMILIARIZE THEMSELVES WITH THE BRAND STANDARD DOCUMENT BEFORE BIDDING AND ALSO THROUGHOUT THE CONSTRUCTION STAGES. IF THERE ARE ANY DISCREPANCIES BETWEEN THE CONSTRUCTION DOCUMENTS AND THE FRANCHISE BRAND STANDARDS, THE CONTRACTOR SHALL ISSUE AN RFI TO THE ADR AND EOR.

SPECIFICATIONS

1. 1. SEE SPECIFICATION FOR GENERAL BUILDING ELEMENTS, FINISHES, MATERIALS, BUILDING ACCESSORIES, TOILET AND BATHROOM ACCESSORIES, TOILET PARTITIONS AND URINAL SCREENS, ETC UNLESS NOTED OTHERWISE. MATERIALS, PRODUCTS, SYSTEMS ETC IDENTIFIED ON THE DRAWINGS WITH "(XYP-1, EXP-JT-2) , ETC", REFER TO THE SPECIFICATION FOR SPECIFIC PRODUCT SELECTIONS AND OTHER REQUIREMENTS.

DRAWINGS

1. PLANS, SECTIONS AND ELEVATIONS INDICATE SPEQIFIC INFORMATION, SEE TYPICAL MOUNTING HEIGHTS, PARTITION DETAILS, DOOR DETAILS, CASEWORK TYPES AND DETAILS, TOP TYPES, SHELF TYPES, NOTES AND TYPICAL DETAILS FOR TYPICAL INFORMATION, INSTALLATION AND CONSTRUCTION UNLESS INDICATED OTHERWISE.
2. ALL DRAWINGS SHALL BE READ IN CONJUNCTION WITH ALL OTHER DRAWINGS, PROJECT MANUAL/SPECIFICATION, PROJECT PRODUCT MANUAL, THESE NOTES, DRAWING SYMBOLS, MATERIAL LEGEND, REFLECTED CEILING LEGEND AND GENERAL INFORMATION ON THIS SHEET AND ABBREVIATIONS.
3. DO NOT SCALE DRAWINGS, USE FIGURED DIMENSIONS ONLY. VERIFY ALL DIMENSIONS PRIOR TO COMMENCEMENT OF ANY WORK. VERIFY ALL DISCREPANCIES BETWEEN FIELD CONDITIONS AND THE CONTRACT DOCUMENTS. IN THE EVENT OF DISCREPANCY, NOTIFY THE ARCHITECT AND/OR ENGINEER TO OBTAIN RESOLUTION BEFORE PROCEEDING. FAILURE TO NOTIFY THE ARCHITECT AND/OR ENGINEER WILL NOT RELIEVE THE CONTRACTOR OF RESPONSIBILITY TO PERFORM THE WORK AS INTENDED BY THE CONTRACT DOCUMENTS. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY AND ALL WORK ARISING FROM SUCH FAILURE TO COORDINATE DISCREPANCIES TO THE SATISFACTION OF THE ARCHITECT.

DIMENSIONS

1. DIMENSIONS ARE SHOWN TO FACE OF STUD, FACE OF CONCRETE, FACE OF MASONRY, GRID/COLUMN LINE, CENTERLINE OF ELEMENT, COUNTERTOP EDGE, OR AS NOTED.
2. DIMENSION NOTED AS CLEAR, ARE FROM WALL FINISH TO WALL FINISH.
3. DIMENSIONS TAKE PRECEDENCE OVER DRAWINGS, DO NOT SCALE DRAWINGS, NOTIFY ARCHITECT, IN WRITING, OF ANY DISCREPANCIES PRIOR TO PROCEEDING WITH THE WORK.

VERIFY CONDITIONS

1. VERIFY ALL EXISTING FIELD CONDITIONS PRIOR TO COMMENCEMENT OF ANY WORK TO LOCATE ANY DISCREPANCIES BETWEEN FIELD CONDITIONS AND THE CONTRACT DOCUMENTS. IN THE EVENT OF DISCREPANCY, NOTIFY THE ARCHITECT AND OBTAIN RESOLUTION BEFORE PROCEEDING. FAILURE TO NOTIFY THE ARCHITECT WILL NOT RELIEVE THE CONTRACTOR OF RESPONSIBILITY TO PERFORM THE WORK AS INTENDED BY THE CONTRACT DOCUMENTS. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY AND ALL WORK ARISING FROM SUCH FAILURE TO COORDINATE DISCREPANCIES TO THE SATISFACTION OF THE ARCHITECT.

COORDINATION

1. THE GENERAL CONTRACTOR IS RESPONSIBLE TO COORDINATE THE ENTIRE PROJECT INCLUDING ALL BUILDING ELEMENTS, SITE, EQUIPMENT, FITTINGS, FIXTURES, FURNITURE, MECH AND ELEC ITEMS.
2. VERIFY AND COORDINATE THE FOLLOWING WITH THE RESPECTIVE DISCIPLINES AND TRADES:
   A. VERIFY ALL EXISTING CONDITIONS, SIZES AND LOCATIONS OF MECH AND/OR ELEC PENETRATIONS PRIOR TO COMMENCEMENT OF ANY WORK.
   B. LOCATIONS FOR BACKING/BLOCKING REQUIRED FOR MOUNTING ARCH, MECH AND/OR ELEC EQUIPMENT, OWNER FURNISHED EQUIPMENT, FURNITURE, ARTWORK AND SYSTEMS.
   C. CUTTING AND PATCHING FOR WORK REQUIRED BY MECH AND/OR ELEC.
   D. SIZES AND LOCATIONS OF MECH AND/OR ELEC CONCRETE CURBS AND HOUSE KEEPING PADS. SEE ALSO TYPICAL INTERIOR CONCRETE DETAILS UNO.
   E. SIZES AND LOCATIONS OF MECH AND/OR ELEC EXTERIOR WALL, CEILING AND ROOF EQUIPMENT, DEVICES AND PENETRATIONS.

LIFE SAFETY

1. LIFE SAFETY PLANS INDICATE FIRE AND SMOKE RATED PARTITIONS. SEE LIFE SAFETY PLANS FOR PARTITION RATING AND ASSEMBLY DETAILS FOR PARTITION TYPES AND CONSTRUCTION.
2. ALL SLEEVES, OPENINGS, PENETRATIONS, ETC. FOR CONDUITS, CABLE TRAYS, PIPES AND DUCTS, ETC. THROUGH RATED PARTITIONS, FLOORS AND ROOF SLABS ARE TO BE FIRE STOPPED IN ACCORDANCE WITH THE REQUIRED FIRE RATED ASSEMBLY DESIGN, APPLICABLE CODES AND LOCAL FIRE AUTHORITY REQUIREMENTS.
3. ALL FIRE EXITS SHALL BE KEPT CLEAR AND ACCESSIBLE AT ALL TIMES.

SPRINKLER SYSTEM

1. SPRINKLER HEADS SHOWN ON THE RCP'S ARE THOSE OF DESIGN CONCERN. ALL AREAS ARE REQUIRED TO BE SPRINKLERED. SPRINKLER HEADS AT GYPSUM BOARD CEILINGS MUST BE FULLY RECESSED AND COVERED WITH METAL PLATES FINISHED TO MATCH ADJACENT SURFACE.

ROOM OPENINGS

1. FLOOR PLANS INDICATE ROOM OPENING NUMBERS. FOR DOOR AND DOOR BORROWED LIGHT FRAME TYPES, FRAME PROFILES, NOTES AND TYPICAL DETAILS. SEE ROOM DOOR SCHEDULE AND A713.
2. LOCATE DOORS AND OTHER OPENINGS IN PARTITIONS ADJACENT TO PERPENDICULAR WALLS. MAINTAIN MINIMUM ACCESSIBILITY DOOR LATCH SIDE CLEARANCE REQUIREMENTS. PUSH SIDE 12" MIN. 4'-0" DEEP IF DOOR IS PROVIDED WITH A CLOSER AND PULL SIDE 1'-6" MIN. 4'-0" DEEP IF DOOR IS PROVIDED WITH A CLOSER.

CASEWORK AND MILLWORK

1. CASEWORK TYPES, TOP TYPES, SHELF TYPES, NOTES AND SPECIFIC DETAILS ARE AS SHOWN ON PLANS AND INTERIOR ELEVATIONS, SEE A830 FOR TYPICAL COUNTER TOP TYPES, UNDERCOUNTER TASK LIGHTING, SUPPORT BRACKET TYPES, COUNTER TOP CORNER, GROMMET, GYSPUM SOFFIT TYPES, NOTES AND DETAILS, ROOM FINISHES SCHEDULE AND/OR FINISHES PLANS.
2. CASEWORK FINISHES, SEE ROOM FINISHES SCHEDULE AND NOTES.

ROOM FINISHES

1. FINISHES ARE INDICATED IN THE FINISH SCHEDULE AND/OR FINISH PLANS, SEE TYPICAL FINISH TRANSITION DETAILS.

FLOOR DRAINS

1. SET FLOOR DRAINS AND FLOOR SINKS WITH TOP OF FINISH TILE/POURED FLOOR. SEE PLUMBING DRAWINGS.
2. SLOPE CONCRETE FLOOR AT 1/8" PER FOOT TOWARDS FLOOR DRAINS AND AWAY FROM ALL WALLS.

FURNITURE, EQUIPMENT, FITTING, FIXTURES AND ACCESSORIES

1. FURNITURE, EQUIPMENT, FITTING, FIXTURES AND ACCESSORIES INSTALLATION SHALL BE IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS AND THE TYPICAL MOUNTING HEIGHT SHEET UNO.
2. REFER TO FURNITURE AND EQUIPMENT DRAWINGS AND INSTRUCTIONS FOR INSTALLATION RESPONSIBILITIES. PROVIDE ALL BLOCKING & ANCHORAGE AS NECESSARY FOR PROPER INSTALLATION OF ANY WALL MOUNTED OR HUNG ITEMS, SEE PARTITION BLOCKING DETAILS.

CURBS AND PADS

1. CONCRETE CURBS AND PADS FOR EQUIPMENT, LOCATIONS MAY BE NOTED ON THE ARCHITECTURAL AND/OR CIVIL DRAWINGS. SEE MECHANICAL AND ELECTRICAL DRAWINGS FOR LOCATIONS AND SPECIFIC SIZE AND CONFIGURATION OF THE EQUIPMENT TO CONFIRM SIZE OF PAD OR CURB PRIOR TO INSTALL.
2. GC SHALL CONTACT AND COORDINATE WITH LOCAL MUNICIPALITY FOR SITE OR EQUIPMENT SPECIFIC REQUIREMENTS FOR CURB AND PADS.

PARTITIONS

1. ALIGN PARTITIONS WITH FACE OF OTHER PARTITIONS OR COLUMNS, UNLESS NOTED OTHERWISE. THE FACE OF EVERY PARTITION SHALL BE FLUSH WITHOUT OFFSETS. CHANGES IN PARTITION THICKNESS SHALL OCCUR AT CORNERS. PARTITION INTERSECTIONS OR OTHER FEATURES WHICH INTERRUPT THE PLANE OF THE PARTITION. FACE OF CORRIDOR PARTITIONS SHALL BE FLUSH FOR THE ENTIRE LENGTH OF THE CORRIDOR REGARDLESS OF CHANGES IN PARTITION THICKNESS. ALL ADJUSTMENTS SHALL BE MADE TO THE ROOM SIDE OF THE CORRIDOR PARTITION AND AT CORNERS.
2. FLOOR PLANS INDICATE PARTITION TYPES, SEE PARTITION NOTES AND DETAILS FOR TYPICAL CONSTRUCTION UNLESS INDICATED OTHERWISE.

WALL BLOCKING AND ANCHORAGE

1. PROVIDE PLYWOOD WALL BLOCKING WHERE ARTWORK, MARKER BOARDS (MBD) AND TACKBOARDS (TBD) ARE SHOWN. EXTENT OF BLOCKING TO MATCH SIZE OF ARTWORK, MARKER BOARDS (MBD) AND TACKBOARDS (TBD). SEE PARTITION BLOCKING DETAILS.
2. PROVIDE WALL BLOCKING FOR FURNITURE, EQUIPMENT, FITTINGS, FIXTURES AND ACCESSORIES IN ACCORDANCE WITH MANUFACTURER RECOMMENDATIONS AND REQUIREMENTS. SEE PARTITION BLOCKING DETAILS. DESIGN LOAD FOR FITTINGS AND FIXTURES MUST INCLUDED MIN. 250 LB VERTICAL AND HORIZONTAL FORCES.

WALL PROTECTION

1. CORNER GUARDS AND OTHER WALL PROTECTION TYPES AS INDICATED ON THE DRAWINGS.
2. CORNER GUARDS ARE MOUNTED ABOVE FLOOR FINISH BASE AND UP TO UNDERSIDE OF CEILING OR CEILING BULKHEAD, WHICH EVER IS APPLICABLE.
3. FOR INSTALLATION OF CORNER GUARDS, WALL PROTECTION, HANDRAILS, CRASH RAILS, ETC, SEE MANUFACTURERS INSTRUCTIONS.

CEILINGS

1. CEILING HEIGHT: SEE RCP FOR GUESTROOMS, ELEVATOR LOBBIES, CORRIDORS, PASSAGES, ETC. ABOVE FLOOR LEVEL UNLESS OTHERWISE NOTED. SEE ALSO ROOM FINISH SCHEDULE.
2. COORDINATE AND VERIFY ALL CEILING ACCESS PANEL SIZES AND LOCATIONS WITH MECH AND ELEC CONTRACTORS. PROVIDE FLUSH ACCESS PANELS AT ALL EQUIPMENT, VALVES, DAMPERS, CONTROLS, CLEANOUTS, ETC. PAINT TO MATCH CEILING FINISH..
3. CENTER CEILING GRID IN ROOM UNLESS NOTED OTHERWISE.
4. CENTER SPRINKLER HEADS, DIFFUSERS, LIGHT FIXTURES, AND OTHER RECESSED OR SURFACE MOUNTED ITEMS IN CEILING TILES UNLESS NOTED OTHERWISE.

FIRE PROTECTION REQUIREMENTS

1. GC SHALL PERFORM AND PROVIDE ALL FIRE PROTECTION AS REQRED BY CODE, WHETHER OR NOT ALL REQUIREMENTS ARE INDICATED ON THE DRAWINGS.
2. FIRE PROTECTION SHALL INCLUDE BUT NOT BE LIMITED TO: FIRE SUPPRESSION SYSTEMS, PARTITIONS, FLOOR ASSEMBLIES, ROOFS, STRUCTURAL STEEL, GLAZING, CONCEALED SPACES, ETC. AS INDICATED IN BUILDING CODE EVALUATION SUMMARY SHEET.
3. REFER TO BCES TABLE 601 FOR REQUIRED FIRE RESISTANCE RATINGS OF MAIN BUILDING ELEMENTS.
4. REFER TO ASSEMBLY SHEETS AND DETAILS FOR ADDITIONAL FIRE PROTECTION REQUIREMENTS. REFER TO ASSEMBLY SHEETS AND DETAILS FOR ADDITIONAL FIRE PROTECTION REQUIREMENTS.
5. GC SHALL NOTIFY ARCHITECT IN WRITING OF ANY DISCREPANCIES OR QUESTIONS IN FIRE PROTECTION DOCUMENTATION PRIOR TO PROCEED.

BLOCKING

1. GC SHALL PROVIDE ALL ADDITIONAL, NON-PROTOTYPICAL BLOCKING (NOT SHOWN IN ELEVATIONS) AS REQUIRED TO ENSURE ADEQUATE FASTENING OF RELATED ELEMENT (SHOWER ROD, SHELVING, SIGNAGE, ETC.)

FIRE SEPARATION DISTANCES

1. MINIMUM DISTANCE FROM ADJACENT BUILDING IS 30'.

SCOPE OF WORK

1. THIS BUILDING IS FACTORY MODULAR ROOMS AND SITE BUILT FOUNDATION SYSTEMS.

OTHER NOTES

1. FUEL SUPPLY IS DESIGNED FOR NATURAL GAS.
2. SPECIAL CONDITIONS AND/OR LIMITATIONS : COMPLETION OF VISUAL INSPECTION OR BLOWER DOOR TEST. IF VISUAL INSPECTION IS USED, THE RESCHECK INSPECTION CHECKLIST NEEDS TO BE COMPLETED IN THE FIELD AND RETURNED TO OAK TREE. TESTING OF DUCT SYSTEM FOR COMPLETED SYSTEM ON SITE BY OTHERS.
3. THIS STRUCTURE HAS NOT BEEN DESIGNED TO BE LOCATED WITHIN THE FLOOD HAZARD LOCATIONS, OR COASTAL A ZONES. WHEN SITE IS LOCATED IN A FLOOD HAZARD AREA AS DETERMINED BY THE LOCAL AUTHORITY HAVING JURISDICTION OR FLOOD HAZARD MAPS, THE UNIT SHALL HAVE THE LOWEST FLOOR ELEVATED ABOVE THE DESIGN FLOOD ELEVATION. FOUNDATION AND ANCHORAGE DESIGNERS SHALL BE PROVIDED BY A LOCAL ENGINEER IN CONFORMANCE WITH LOCALLY ADAPTED BUILDING CODES AND ASCE-7-94-14. THIS BUILDING HAS NOT BEEN DESIGNED FOR LOCATIONS DESIGNATED AS CATASTROPHE AREA AS DEFINED BY THE TEXAS DEPARTMENT OF INSURANCE (TDI). IF HOME LOCATED WITHIN CATASTROPHE AREA, HOME SHALL NOT BE DESIGNED BY OTHERS TO ALSO COMPLY WITH THE TDI ADAPTED CODES AND AMENDMENTS.

PROJECT DIRECTORY

Contractors shall send all bidding questions and RFI's to the general contractor. The GC shall then forward inquiries to the appointed Base4 Construction Administration Project Manager, who will be introduced at the beginning of bidding and construction phase. Please reference the project number and project title in your email subject line to ensure that your request is forwarded to the proper team.

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COMMUNICATION FEATURES
1. AS PER TEXAS ACCESSIBILITY STANDARD (2012) SECTION 233.3.1.2 RESIDENTIAL DWELLING UNITS WITH COMMUNICATION FEATURES AT LEAST 2 PERCENT, BUT NO FEWER THAN ONE UNIT. OF THE TOTAL NUMBER OF RESIDENTIAL DWELLING UNITS SHALL PROVIDE COMMUNICATION FEATURES.

MOBILITY FEATURES
1. AS PER TEXAS ACCESSIBILITY STANDARD (2012) SECTION 233.3.1.1 RESIDENTIAL DWELLING UNITS WITH MOBILITY FEATURES AT LEAST 5 PERCENT, BUT NO FEWER THAN ONE UNIT, OF THE TOTAL NUMBER OF RESIDENTIAL DWELLING UNITS SHALL PROVIDE MOBILITY FEATURES.

STRUCTURAL DESIGN CRITERIA

CODES:

1. INTERNATIONAL BUILDING CODE (IBC) - 2015
2. AMERICAN SOCIETY OF CIVIL ENGINEERS - MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES - ASCE 7-10

ROOF LOADING:

DESIGN ROOF LIVE LOAD: 20 PSF

GROUND SNOW LOAD: 20 PSF
FLAT ROOF SNOW LOAD: 20 PSF
SNOW EXPOSURE FACTOR, Ce = 1.1
SNOW LOAD IMPORTANCE FACTOR, Is = 1.0
THERMAL FACTOR, Ct = 1.0
SNOW DRIFTING EFFECTS WERE NOT ADDED
RAIN LOAD: 20.8 PSF

FLOOR LOADING:

LIVE LOAD: 40 PSF IN PRIVATE AREAS
100 PSF IN PUBLIC AREAS

WIND LOADING:

WIND SPEED: 115 MPH
WIND IMPORTANCE FACTOR: 1.0
RISK CATEGORY: II
WIND EXPOSURE CATEGORY: C
INTERNAL PRESSURE COEFFICIENT: ± 0.18

DESIGN WIND PRESSURE TO BE USED FOR EXTERIOR COMPONENT AND CLADDING MATERIALS - SEE COMPONENT AND CLADDING WIND LOADING DIAGRAM ON THIS DRAWING

SEISMIC:

RISK CATEGORY: II
SEISMIC IMPORTANCE FACTOR, Ie = 1.0

MAPPED SPECTRAL RESPONSE ACCELERATIONS
SHORT PERIOD, S: 0.32
ONE SECOND PERIOD, S: 0.12

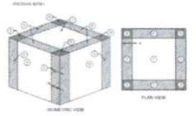
SEISMIC DESIGN CATEGORY: B

RESPONSE MODIFICATION FACTOR, R = 3.0

SEISMIC RESPONSE COEFFICIENT, Cs = 0.053

BASE SHEAR
NORTH - SOUTH DIRECTION: 91 KIPS
EAST - WEST DIRECTION: 91 KIPS
ANALYSIS PROCEDURE: EQUIVALENT LATERAL FORCE

COMPONENT AND CLADDING WIND LOAD DIAGRAM



PROJECT INFORMATION

UNIT MATRIX

ROOM NAME	LEVEL	ROOM COUNT
1ST FLOOR		
ONE BEDROOM	1ST FLOOR	5
ONE BEDROOM ACCESSIBLE	1ST FLOOR	1
TWO BEDROOM	1ST FLOOR	3
TWO BEDROOM ACCESSIBLE	1ST FLOOR	1
1ST FLOOR: 10		10
2ND FLOOR		
ONE BEDROOM	2ND FLOOR	6
TWO BEDROOM	2ND FLOOR	4
2ND FLOOR: 10		10
3RD FLOOR		
ONE BEDROOM	3RD FLOOR	6
TWO BEDROOM	3RD FLOOR	4
3RD FLOOR: 10		10
		30

UNIT MIX

ROOM NAME	ROOM COUNT	ROOM MIX	AREA	AVG. ILLUMINATION PERCENTAGE	AVG. VENTILATION PERCENTAGE
ONE BEDROOM	17	57%	772 SF	12.06%	6.03%
ONE BEDROOM ACCESSIBLE	1	3%	774 SF	12.1%	6.06%
	18	60%			
TWO BEDROOM	11	37%	1137 SF	10.9%	5.5%
TWO BEDROOM ACCESSIBLE	1	3%	1130 SF	11.03%	5.5%
	12	40%			
Grand total	30	100%			

GROSS AREA

LEVEL	AREA
1ST FLOOR	11,601 SF
2ND FLOOR	11,588 SF
3RD FLOOR	11,588 SF
TOTAL: 3	34,778 SF

UNIT MIX - ROOM NUMBER

ROOM NAME	TOTAL ROOMS	NUMBER
ONE BEDROOM	17	
ONE BEDROOM ACCESSIBLE	1	101
	18	
TWO BEDROOM	11	
TWO BEDROOM ACCESSIBLE	1	102
	12	
Grand total	30	

NOTE:-
ROOM NUMBER 101 HAS BEEN DESIGNATED AS A COMMUNICATION ROOM IN THE BUILDING.

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Owner:

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Z MODULAR GARDENSTYLE
APARTMENT
1/2 BEDROOM OPTION 30 UNITS

ISSUE NO.	DELTA	ISSUE DATE	DESCRIPTION
10	A10	2020.02.19	CB3
9	A9	2020.01.17	CB2
8	A8	2020.01.07	CB1
2	A2	2019.09.26	NTA COMMENTS

CURRENT ISSUE

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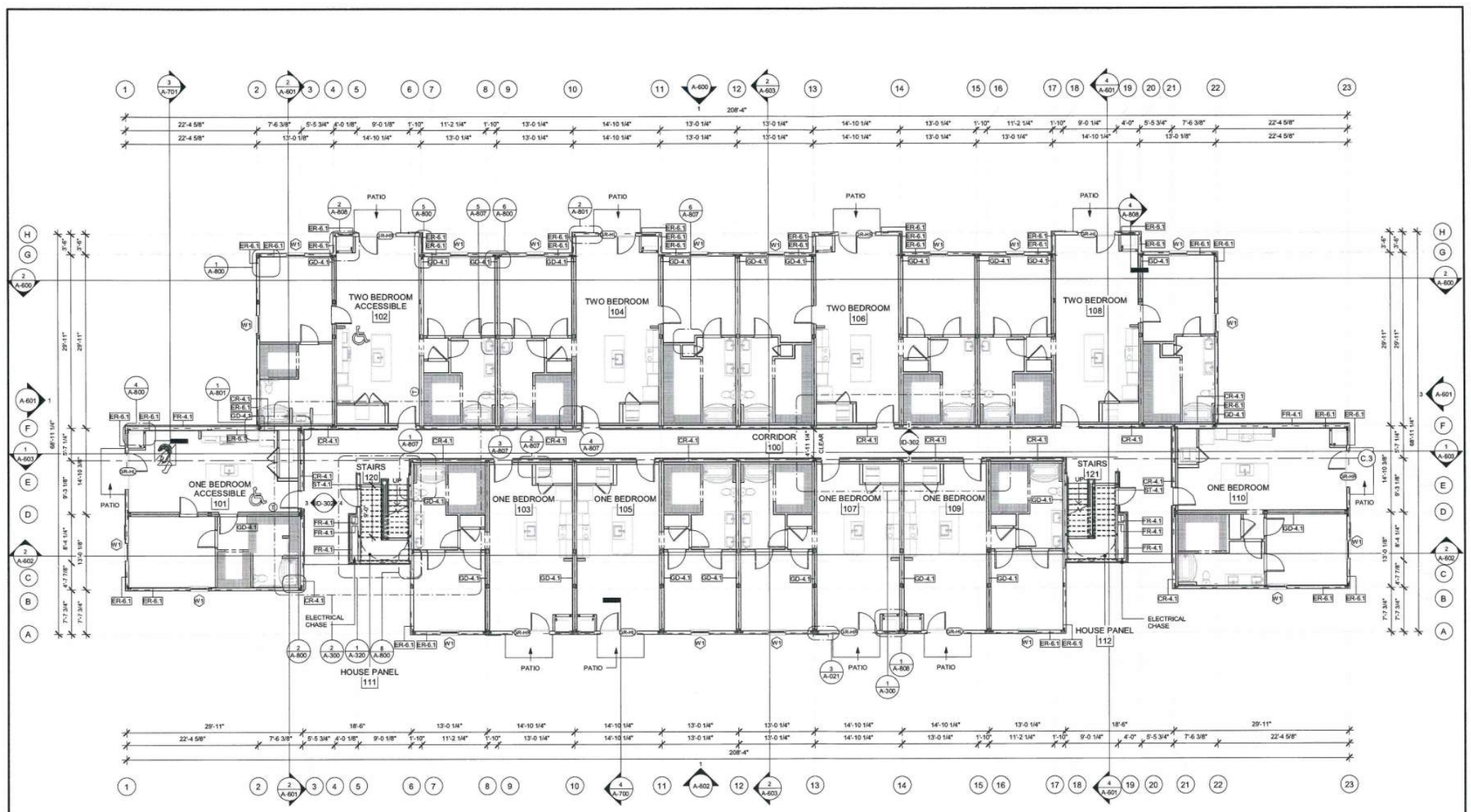
CURRENT ISSUE DATE: 2019.11.07
DRAWN BY: SJ
CHECKED BY: JGC/ NBL
PROJECT NO.: B4-179-1902

SHEET NAME

PROJECT INFORMATION AND GENERAL NOTES

DRAWINGS NO.

G-002



1 A-100 1ST FLOOR PLAN
1/8" = 1'-0"

GENERAL FLOOR PLAN NOTES

BASE4 NOTES

1. ALL DIMENSIONS TO FACE OF STUD UNLESS OTHERWISE NOTED
2. EXTERIOR AND CORRIDOR GRIDLINE ALIGNMENT IS ON FACE OF STUD UNLESS OTHERWISE NOTED
3. INTERIOR GRIDLINE ALIGNMENT IS ON CENTERLINE OF AIRGAP UNLESS OTHERWISE NOTED
4. INTERIOR DOORS TO BE MIN. OF 4" FROM ADJACENT WALLS AS SHOWN ON PLANS.
5. GYPSUM WALLBOARD CONTROL JOINTS TO BE 30'-0" MAX. O.C. AND AT DOOR JAMBS FROM HEAD TO TERMINATION OF GYPSUM WALLBOARD.
6. REFER TO G-002 FOR ACCESSIBLE UNITS & COMMUNICATION ROOM NOTE.
7. REFER TO SHEETS STARTING ON A-400 FOR ENLARGED UNIT INFORMATION.
8. ROOF COVERING TO BE CLASS B
9. DATA PLATE AND TEXAS STATE INSIGNIA MUST BE LOCATED ON THE UNIT WHERE THEY WILL BE VISIBLE AFTER ERECTION. THIS MUST BE PERMANENTLY AFFIXED TO THE UNIT SO THAT THEY MAY NOT BE REMOVED WITHOUT DESTRUCTION OF THE INSIGNIA OR DATA PLATE.

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3	A3	2019.10.23	ADDENDUM#2
1	A1	2019.09.26	ADDENDUM#1

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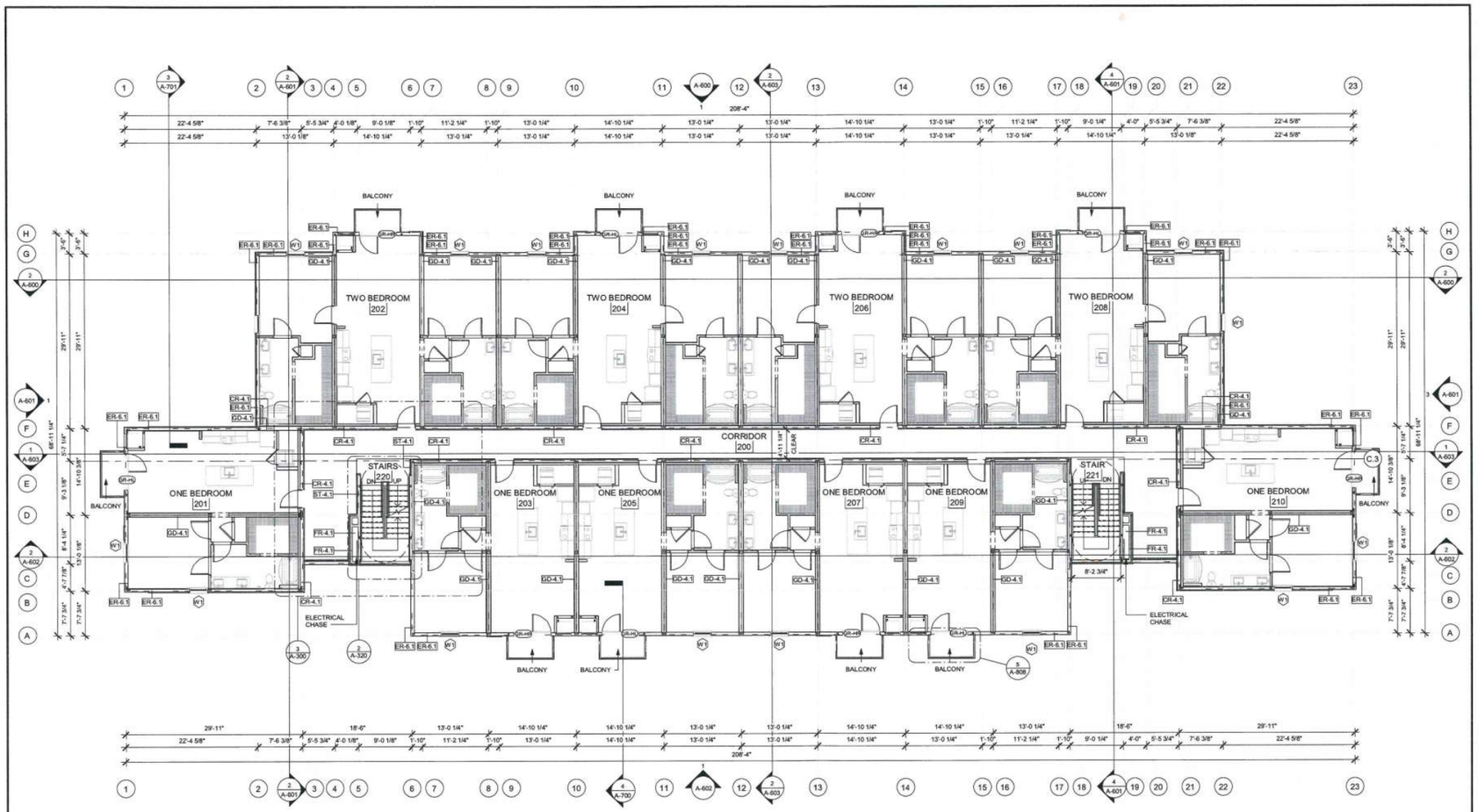
DRAWINGS NO.: **A-100**



1 A-101 2ND FLOOR PLAN
1/8" = 1'-0"

GENERAL FLOOR PLAN NOTES

BASE4 NOTES

1. ALL DIMENSIONS TO FACE OF STUD UNLESS OTHERWISE NOTED
2. EXTERIOR AND CORRIDOR GRIDLINE ALIGNMENT IS ON FACE OF STUD UNLESS OTHERWISE NOTED
3. INTERIOR GRIDLINE ALIGNMENT IS ON CENTERLINE OF ARCAP UNLESS OTHERWISE NOTED
4. INTERIOR DOORS TO BE MIN. OF 4" FROM ADJACENT WALLS AS SHOWN ON PLANS
5. GYPSUM WALLBOARD CONTROL JOINTS TO BE 30'-0" MAX O.C. AND AT DOOR JAMBS FROM HEAD TO TERMINATION OF GYPSUM WALLBOARD.
6. REFER TO G-002 FOR ACCESSIBLE UNITS & COMMUNICATION ROOM NOTE.
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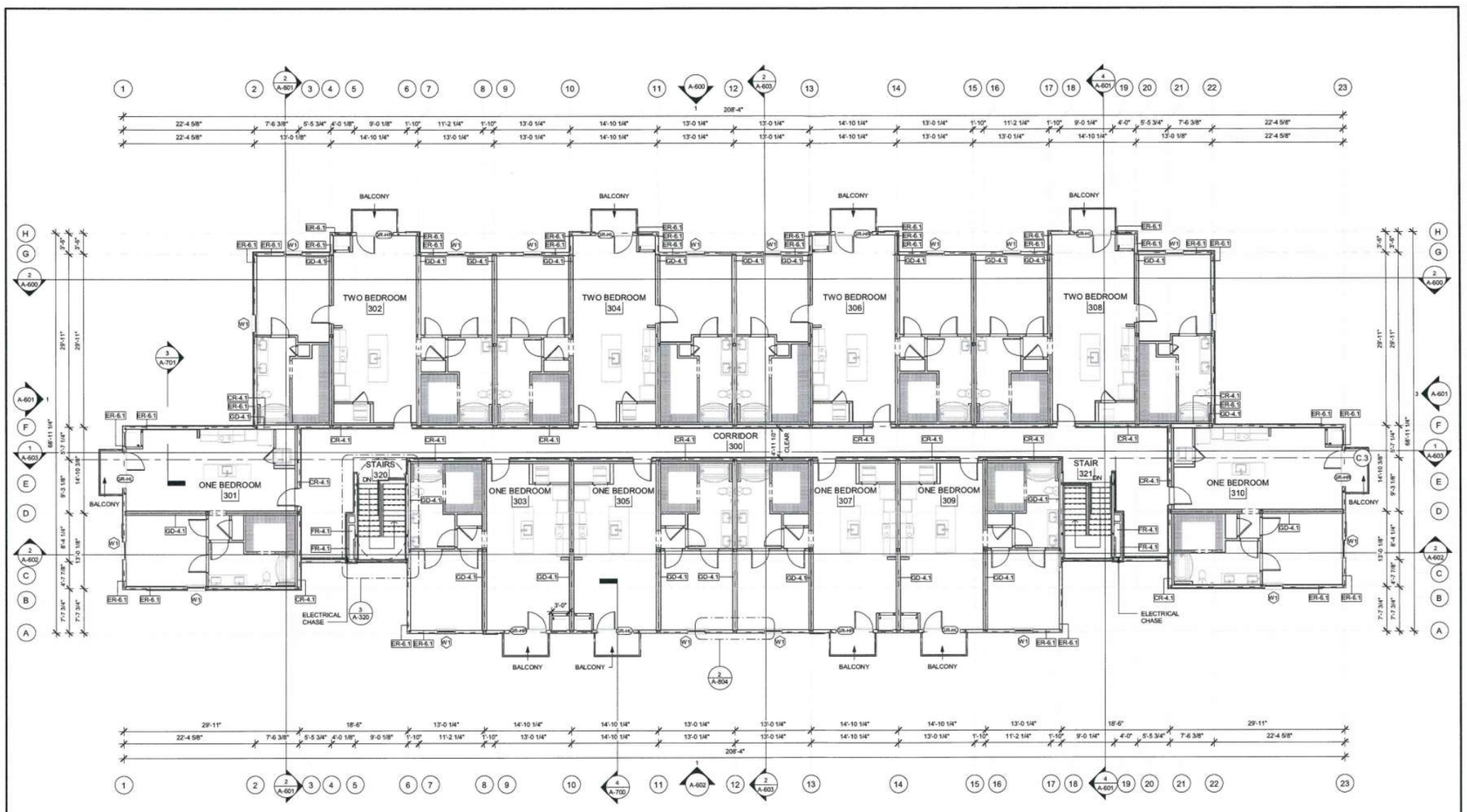
SHEET NAME
2ND FLOOR PLAN

DRAWINGS NO.
A-101



1 A-102 3RD FLOOR PLAN
1/8" = 1'-0"

GENERAL FLOOR PLAN NOTES

BASE4 NOTES

1. ALL DIMENSIONS TO FACE OF STUD UNLESS OTHERWISE NOTED
2. EXTERIOR AND CORRIDOR GRIDLINE ALIGNMENT IS ON FACE OF STUD UNLESS OTHERWISE NOTED
3. INTERIOR GRIDLINE ALIGNMENT IS ON CENTERLINE OF AIRGAP UNLESS OTHERWISE NOTED
4. INTERIOR DOORS TO BE MIN. OF 4" FROM ADJACENT WALLS AS SHOWN ON PLANS.
5. GYPSUM WALLBOARD CONTROL JOINTS TO BE 30'-0" MAX O.C. AND AT DOOR JAMBS FROM HEAD TO TERMINATION OF GYPSUM WALLBOARD.
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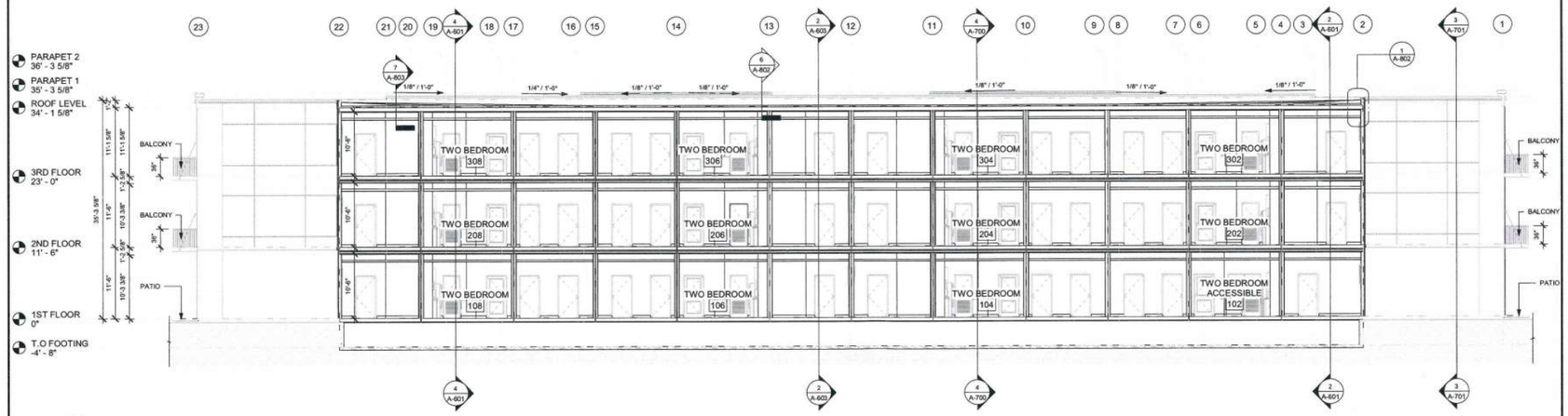
SHEET NAME

3RD FLOOR PLAN

DRAWINGS NO.

A-102

1 A-600 BUILDING ELEVATION - 1
1/8" = 1'-0"



2 A-600 BUILDING SECTION - 1
1/8" = 1'-0"

GENERAL ELEVATION NOTES

1. REVIEW ALL SIGHTLINES AROUND PROPERTY BEFORE LOCATING ROOFTOP EQUIPMENT.VERIFY ALL EQUIPMENT IS ADEQUATELY SCREENED.
2. GC TO PROVIDE A MOCK WALL SHOWING A FULL WINDOW INSTALL WITH FLASHING.GC CAN USE A PROPORTIONALLY SCALED DOWN WINDOW IN LUE OF FULL SIZE WINDOW.
3. ALL EXTERIOR VENTS, GRILLES, MECHANICAL LOUVERS AND EXTERIOR HOLLOW METAL DOORS TO BE FINISHED TO MATCH ADJACENT EXTERIOR MATERIAL
4. ALL BUILDING PERMITS TO BE CONSISTENT WITH THE APPROVED SITE PLAN. THE PLANNING DEPARTMENT DOES NOT REVIEW BUILDING PERMIT PLAN SETS, SO IT IS THE DEVELOPER'S RESPONSIBILITY TO ENSURE THAT ELEVATIONS SUBMITTED IN THE BUILDING PERMIT SET MATCH THOSE APPROVED DURING THE SITE PLAN REVIEW PROCESS. IF THE ELEVATIONS DO NOT MATCH THOSE IN THE SITE PLAN, IT WILL DELAY THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY AT THE END OF CONSTRUCTION, AND MAY NECESSITATE MODIFICATIONS TO THE CONSTRUCTED BUILDING.
5. ALL VENT PIPES, ETC. EXTENDING ABOVE THE ROOF SURFACE MUST BE PAINTED A COLOR THAT BLENDS WITH THE ROOF COLOR.
6. ARCHITECTURAL FINISH FLOOR ELEVATIONS REFER TO TOP OF FINISH FLOOR ASSEMBLY. SEE STRUCTURAL DWGS FOR TOP OF STRUCTURE AND BEARING HEIGHT ELEVATIONS

ENERGY CODE INFORMATION

REFER TO SHEET G-003 FOR MORE INFORMATION.

EXTERIOR FINISH LEGEND

MARK	MATERIAL-BRAND	MATERIAL & FINISH	IMAGE
LS-01	JAMES HARDIE - LAP SIDING	HORIZONTAL LAP SIDING - KHAKI BROWN	
LS-02	JAMES HARDIE - LAP SIDING	VERTICAL LAP SIDING - NIGHT GRAY	
SC-01	STUC-O-FLEX	314 - WHETSTONE	
SC-02	STUC-O-FLEX	PT06 (L/D)	
TB-01	JAMES HARDIE	HARDIE TRIM - TRIM WHITE	

A11

GENERAL BUILDING SECTION NOTES

1. ARCHITECTURAL FINISH FLOOR ELEVATIONS REFER TO TOP OF FINISH FLOOR ASSEMBLY. SEE STRUCTURAL DWGS FOR TOP OF STRUCTURE AND BEARING HEIGHT ELEVATIONS.
2. REFER TO BALCONY SHOP DRAWINGS FOR BALCONIES AND RAILING DETAILS.

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Z MODULAR GARDENSTYLE APARTMENT
1/2 BEDROOM OPTION 30 UNITS

ISSUE NO.	DELTA	ISSUE DATE	DESCRIPTION
11	A11	2020.04.03	CB4
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8	A8	2020.01.07	CB1
1	A1	2019.09.26	ADDENDUM#1

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ISSUED FOR PERMIT

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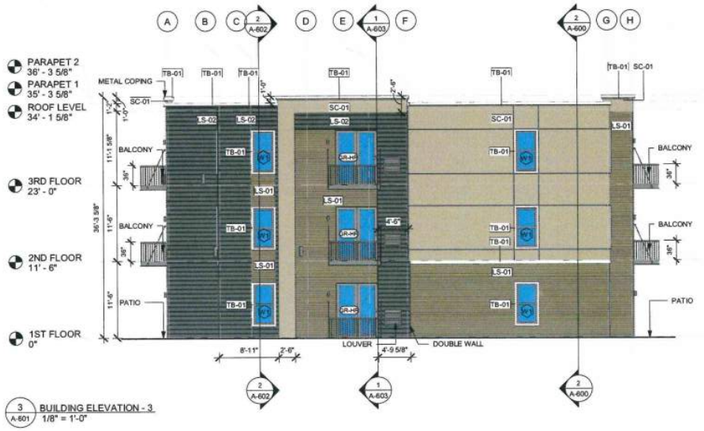
DRAWN BY: SJ
CHECKED BY: JGC/ NBL
PROJECT NO.: B4-179-1902

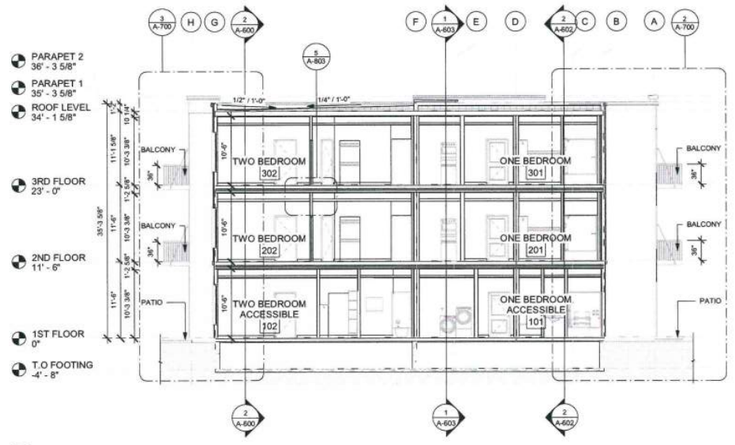
SHEET NAME
EXTERIOR ELEVATION & BUILDING SECTION-1

DRAWINGS NO.
A-600

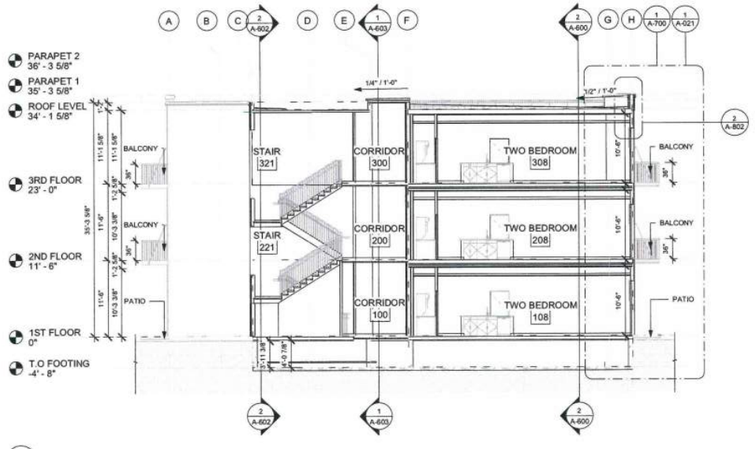
1 A-601 BUILDING ELEVATION - 2
1/8" = 1'-0"



3 A-601 BUILDING ELEVATION - 3
1/8" = 1'-0"



2 A-601 BUILDING SECTION - 2
1/8" = 1'-0"



4 A-601 BUILDING SECTION - 3
1/8" = 1'-0"

GENERAL ELEVATION NOTES

1. REVIEW ALL SIGHTLINES AROUND PROPERTY BEFORE LOCATING ROOFTOP EQUIPMENT. VERIFY ALL EQUIPMENT IS ADEQUATELY SCREENED.
2. GC TO PROVIDE A MOCK WALL SHOWING A FULL WINDOW INSTALL WITH FLASHING GC CAN USE A PROPORTIONALLY SCALED DOWN WINDOW IN LUE OF FULL SIZE WINDOW.
3. ALL EXTERIOR VENTS, GRILLES, MECHANICAL LOUVERS AND EXTERIOR HOLLOW METAL DOORS TO BE FINISHED TO MATCH ADJACENT EXTERIOR MATERIAL.
4. ALL BUILDING PERMITS TO BE CONSISTENT WITH THE APPROVED SITE PLAN. THE PLANNING DEPARTMENT DOES NOT REVIEW BUILDING PERMIT PLAN SETS, SO IT IS THE DEVELOPER'S RESPONSIBILITY TO ENSURE THAT ELEVATIONS SUBMITTED IN THE BUILDING PERMIT SET MATCH THOSE APPROVED DURING THE SITE PLAN REVIEW PROCESS. IF THE ELEVATIONS DO NOT MATCH THOSE IN THE SITE PLAN, IT WILL DELAY THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY AT THE END OF CONSTRUCTION, AND MAY NECESSITATE MODIFICATIONS TO THE CONSTRUCTED BUILDING.
5. ALL VENT PIPES, ETC. EXTENDING ABOVE THE ROOF SURFACE MUST BE PAINTED A COLOR THAT BLENDS WITH THE ROOF COLOR.
6. ARCHITECTURAL FINISH FLOOR ELEVATIONS REFER TO TOP OF FINISH FLOOR ASSEMBLY. SEE STRUCTURAL DWGS FOR TOP OF STRUCTURE AND BEARING HEIGHT ELEVATIONS

ENERGY CODE INFORMATION

REFER TO SHEET G-003 FOR MORE INFORMATION.

EXTERIOR FINISH LEGEND

MARK	MATERIAL-BRAND	MATERIAL & FINISH	IMAGE
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LS-02	JAMES HARDIE - LAP SIDING	VERTICAL LAP SIDING - NIGHT GRAY	
SC-01	STUC-O-FLEX	314 - WHETSTONE	
SC-02	STUC-O-FLEX	PT06 (LJO)	
TB-01	JAMES HARDIE	HARDIE TRIM - TRIM WHITE	

A11

GENERAL BUILDING SECTION NOTES

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2. REFER TO BALCONY SHOP DRAWINGS FOR BALCONIES AND RAILING DETAILS.

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APARTMENT
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CHECKED BY: JGC/ NBL
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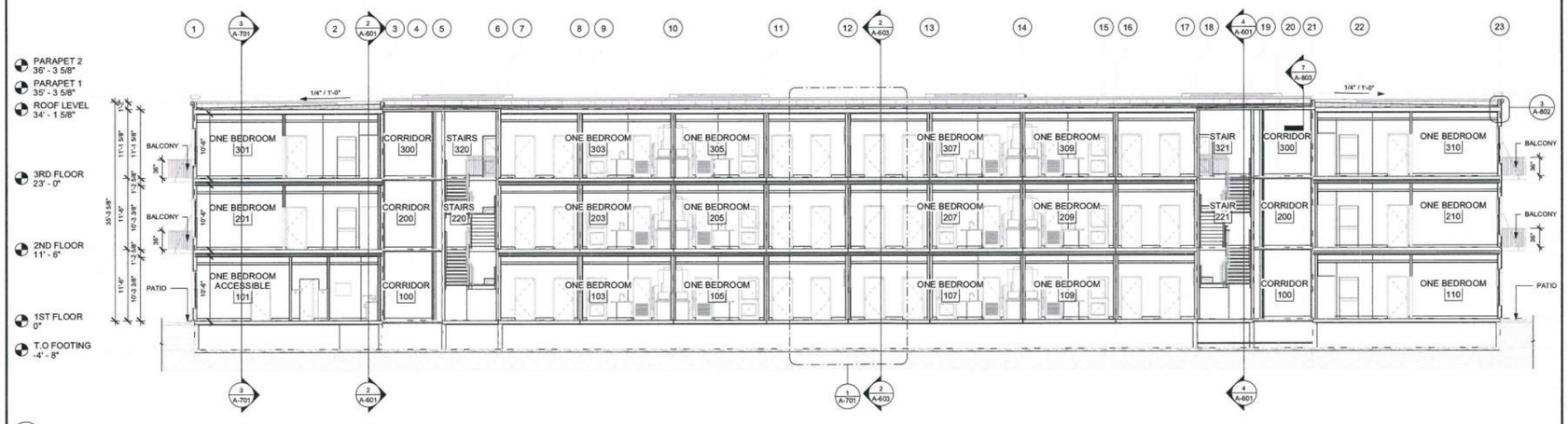
SHEET NAME
EXTERIOR ELEVATION & BUILDING SECTION-2

DRAWINGS NO.
A-601

1 A-602 BUILDING ELEVATION - 4
1/8" = 1'-0"



2 A-602 BUILDING SECTION - 4
1/8" = 1'-0"

GENERAL ELEVATION NOTES

1. REVIEW ALL SIGHTLINES AROUND PROPERTY BEFORE LOCATING ROOFTOP EQUIPMENT. VERIFY ALL EQUIPMENT IS ADEQUATELY SCREENED.
2. GC TO PROVIDE A MOCK WALL SHOWING A FULL WINDOW INSTALL WITH FLASHING.GC CAN USE A PROPORTIONALLY SCALED DOWN WINDOW IN LIEU OF FULL SIZE WINDOW.
3. ALL EXTERIOR VENTS, GRILLES, MECHANICAL LOUVERS AND EXTERIOR HOLLOW METAL DOORS TO BE FINISHED TO MATCH ADJACENT EXTERIOR MATERIAL.
4. ALL BUILDING PERMITS TO BE CONSISTENT WITH THE APPROVED SITE PLAN. THE PLANNING DEPARTMENT DOES NOT REVIEW BUILDING PERMIT PLAN SETS. SO IT IS THE DEVELOPER'S RESPONSIBILITY TO ENSURE THAT ELEVATIONS SUBMITTED IN THE BUILDING PERMIT SET MATCH THOSE APPROVED DURING THE SITE PLAN REVIEW PROCESS. IF THE ELEVATIONS DO NOT MATCH THOSE IN THE SITE PLAN, IT WILL DELAY THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY AT THE END OF CONSTRUCTION, AND MAY NECESSITATE MODIFICATIONS TO THE CONSTRUCTED BUILDING.
5. ALL VENT PIPES, ETC. EXTENDING ABOVE THE ROOF SURFACE MUST BE PAINTED A COLOR THAT BLENDS WITH THE ROOF COLOR.
6. ARCHITECTURAL FINISH FLOOR ELEVATIONS REFER TO TOP OF FINISH FLOOR ASSEMBLY. SEE STRUCTURAL DWGS FOR TOP OF STRUCTURE AND BEARING HEIGHT ELEVATIONS

ENERGY CODE INFORMATION

REFER TO SHEET G-003 FOR MORE INFORMATION.

EXTERIOR FINISH LEGEND

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GENERAL BUILDING SECTION NOTES

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SHEET NAME
EXTERIOR ELEVATION & BUILDING SECTION-3

DRAWINGS NO.
A-602

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TEXAS

PROJECT NO: B4-179-1902

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Z MODULAR GARDENSTYLE APARTMENT
1/2/3 BEDROOM OPTION 30 UNITS

ISSUE NO.	DELTA	ISSUE DATE	DESCRIPTION
1	A0	2019.11.29	ISSUED FOR PERMIT

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ISSUED FOR PERMIT

CURRENT ISSUE DATE
2019.11.29

DRAWN BY
SJ

CHECKED BY
JGC/ NBL

PROJECT NO.
B4-179-1902 (A)

SHEET NAME

TITLE SHEET

DRAWINGS NO.

G-000

PROJECT GENERAL NOTES

GENERAL

1. THE INFORMATION HEREIN IS OF A PROPRIETARY NATURE AND IS SUBMITTED IN CONFIDENCE FOR USE BY BASE4 ARCHITECTS, INC. CLIENTS ONLY. IT HAS BEEN PREPARED FOR THIS PROJECT AT THIS SITE AND IS NOT TO BE USED FOR ANY OTHER PURPOSE, LOCATION OR OWNER WITHOUT WRITTEN CONSENT OF BASE4 ARCHITECTS, INC. UNAUTHORIZED REPRODUCTION, PUBLICATION OR DISSEMINATION, IN WHOLE OR IN PART IS EXPRESSLY PROHIBITED. INFORMATION CONTAINED HEREIN REMAINS PROPERTY OF BASE4 ARCHITECTS, INC., AND RECEIPT OR POSSESSION OF THIS INFORMATION CONFERS NO RIGHT IN OR LICENSE TO USE OR DISCLOSE TO OTHERS THE SUBJECT MATTER CONTAINED HEREIN FOR ANY BUT AUTHORIZED PURPOSES. ALL RIGHTS RESERVED.
2. THE CONTRACT DOCUMENTS CONSIST OF THE AGREEMENT BETWEEN OWNER AND CONTRACTOR, CONDITIONS OF THE CONTRACT (GENERAL, SUPPLEMENTARY, AND OTHER CONDITIONS), DRAWINGS, SPECIFICATIONS, ADDENDA ISSUED PRIOR TO AGREEMENT AND MODIFICATIONS ISSUED AFTER EXECUTION OF THE CONTRACT.
3. ANY DOCUMENT IN THIS SET WHICH HAS BEEN PREPARED BY ANY SUBCONTRACTOR, DESIGNER, AND/OR SUBCONSULTANT WHO IS UNDER A CONTRACT DIRECTLY WITH THE OWNER AND/OR CONTRACTOR IS ONLY INCLUDED IN THIS SET FOR PURPOSES OF REFERENCE AND COORDINATION. BASE4 ARCHITECTS DISCLAIMS ALL LIABILITY RELATING TO THE DRAWING AND CONSTRUCTION OF THE IMPROVEMENTS OR SYSTEMS IT DEPICTS EXCEPT AS SPECIFICALLY ASSUMED IN A WRITTEN CONTRACT SIGNED BY BASE4 AND THE OWNER.
4. THE DRAWINGS, SPECIFICATIONS AND OTHER DOCUMENTS, INCLUDING THOSE IN ELECTRONIC FORM, PREPARED BY THE ARCHITECT, AND THE ARCHITECT'S CONSULTANTS ARE INSTRUMENTS OF SERVICE THROUGH WHICH THE WORK TO BE EXECUTED BY THE CONTRACTOR IS DESCRIBED. UNLESS INDICATED OTHERWISE, THE ARCHITECT AND ARCHITECTS CONSULTANTS SHALL BE DEEMED THE AUTHORS OF THEM AND WILL RETAIN ALL COMMON LAW, STATUTORY AND OTHER RESERVED RIGHTS, IN ADDITION TO THE COPYRIGHTS.
5. IF COORDINATION OF ARCHITECTURAL, CIVIL, LANDSCAPE, STRUCTURAL, MECHANICAL, ELECTRICAL, PLUMBING AND SPRINKLER ELEMENTS RESULT IN CONFLICT, GC SHALL NOTIFY ARCHITECT IN WRITING IMMEDIATELY PRIOR TO COMMENCING ANY WORK OF ELEMENTS RESULTING CONFLICTS
6. SLOPE ALL GRADES AT PLANTING AREAS, SIDEWALKS AND ASPHALT PARKING PAVING WITHIN 5' OF A BUILDING AWAY FROM THE BUILDING. IF CONFLICTS OCCUR, NOTIFY ARCHITECT IMMEDIATELY. SEE CIVIL DRAWINGS FOR FINISHED GRADES ADJACENT TO BUILDINGS.
7. CONTRACTOR IS SOLELY RESPONSIBLE FOR CONSTRUCTION MEANS AND METHODS AND SHALL MAINTAIN THE STRUCTURAL INTEGRITY OF CONSTRUCTION UNTIL FINAL LATERAL AND VERTICAL CARRYING SYSTEMS ARE COMPLETED.
8. CONTRACTOR IS RESPONSIBLE FOR VERIFICATION AND COORDINATION OF SUBCONTRACTOR WORK, COMPLIANCE WITH DRAWINGS AND SPECIFICATIONS, AND ACCURATE LOCATION OF STRUCTURAL MEMBERS, OPENINGS FOR MECHANICAL, ELECTRICAL, AND MISCELLANEOUS EQUIPMENT. CONTRACTOR SHALL VERIFY DIMENSIONS AND OPENING SIZES (CLEARANCES REQUIRED) FROM THE MANUFACTURERS PRIOR TO CONSTRUCTION OF OR INSTALLATION OF EQUIPMENT, FURNISHINGS, AND ACCESSORIES.
9. PROVIDE ACCESS PANELS AS REQUIRED. PROVIDE RATED ACCESS PANELS WITH THE SAME RATING AS THE ASSEMBLY IN WHICH THEY ARE INSTALLED ACCESS PANELS IN SHAFT WALLS, RATED FLOOR/CEILINGS OR RATED ROOF/CEILINGS SHALL BE SMOKE SEALED.
10. THE FRANCHISE BRAND STANDARDS DESIGN DOCUMENT SHALL BE CONSIDER AS AN INTEGRAL PART OF THE CONSTRUCTION DOCUMENTS. ALL CONTRACTORS SHALL ENSURE THEY OBTAIN, READ, AND FAMILIARIZE THEMSELVES WITH THE BRAND STANDARD DOCUMENT BEFORE BIDDING AND ALSO THROUGHOUT THE CONSTRUCTION STAGES. IF THERE ARE ANY DISCREPANCIES BETWEEN THE CONSTRUCTION DOCUMENTS AND THE FRANCHISE BRAND STANDARDS, THE CONTRACTOR SHALL ISSUE AN RFI TO THE AOR AND EOR.

SPECIFICATIONS

1. 1. SEE SPECIFICATION FOR GENERAL BUILDING ELEMENTS, FINISHES, MATERIALS. BUILDING ACCESSORIES, TOILET AND BATHROOM ACCESSORIES, TOILET PARTITIONS AND URINAL SCREENS, ETC UNLESS NOTED OTHERWISE. MATERIALS, PRODUCTS, SYSTEMS ETC IDENTIFIED ON THE DRAWINGS WITH "GYP-11, EXP-JT-21, ETC". REFER TO THE SPECIFICATION FOR SPECIFIC PRODUCT SELECTIONS AND OTHER REQUIREMENTS.

DRAWINGS

1. PLANS, SECTIONS AND ELEVATIONS INDICATE SPECIFIC INFORMATION, SEE TYPICAL MOUNTING HEIGHTS, PARTITION DETAILS, DOOR DETAILS, CASEWORK TYPES AND DETAILS, TOP TYPES, SHELF TYPES, NOTES AND TYPICAL DETAILS FOR TYPICAL INFORMATION, INSTALLATION AND CONSTRUCTION UNLESS INDICATED OTHERWISE.
2. ALL DRAWINGS SHALL BE READ IN CONJUNCTION WITH ALL OTHER DRAWINGS, PROJECT MANUAL, SPECIFICATION, PROJECT PRODUCT MANUAL, THESE NOTES, DRAWING SYMBOLS, MATERIAL LEGEND, REFLECTED CEILING LEGEND AND GENERAL INFORMATION ON THIS SHEET AND ABBREVIATIONS.
3. DO NOT SCALE DRAWINGS. USE FIGURED DIMENSIONS ONLY. VERIFY ALL DIMENSIONS PRIOR TO COMMENCEMENT OF ANY WORK. VERIFY ALL DISCREPANCIES BETWEEN FIELD CONDITIONS AND THE CONTRACT DOCUMENTS. IN THE EVENT OF DISCREPANCY, NOTIFY THE ARCHITECT AND/OR ENGINEER TO OBTAIN RESOLUTION BEFORE PROCEEDING. FAILURE TO NOTIFY THE ARCHITECT AND/OR ENGINEER WILL NOT RELIEVE THE CONTRACTOR OF RESPONSIBILITY TO PERFORM THE WORK AS INTENDED BY THE CONTRACT DOCUMENTS. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY AND ALL WORK ARISING FROM SUCH FAILURE TO COORDINATE DISCREPANCIES TO THE SATISFACTION OF THE ARCHITECT.

DIMENSIONS

1. DIMENSIONS ARE SHOWN TO FACE OF STUD, FACE OF CONCRETE, FACE OF MASONRY, GRID/COLUMN LINE, CENTERLINE OF ELEMENT, COUNTERTOP EDGE, OR AS NOTED.
2. DIMENSION NOTED AS CLEAR, ARE FROM WALL FINISH TO WALL FINISH.
3. DIMENSIONS TAKE PRECEDENCE OVER DRAWINGS, DO NOT SCALE DRAWINGS. NOTIFY ARCHITECT, IN WRITING, OF ANY DISCREPANCIES PRIOR TO PROCEEDING WITH THE WORK.

VERIFY CONDITIONS

1. VERIFY ALL EXISTING FIELD CONDITIONS PRIOR TO COMMENCEMENT OF ANY WORK TO LOCATE ANY DISCREPANCIES BETWEEN FIELD CONDITIONS AND THE CONTRACT DOCUMENTS. IN THE EVENT OF DISCREPANCY, NOTIFY THE ARCHITECT AND OBTAIN RESOLUTION BEFORE PROCEEDING. FAILURE TO NOTIFY THE ARCHITECT WILL NOT RELIEVE THE CONTRACTOR OF RESPONSIBILITY TO PERFORM THE WORK AS INTENDED BY THE CONTRACT DOCUMENTS. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY AND ALL WORK ARISING FROM SUCH FAILURE TO COORDINATE DISCREPANCIES TO THE SATISFACTION OF THE ARCHITECT.

COORDINATION

1. THE GENERAL CONTRACTOR IS RESPONSIBLE TO COORDINATE THE ENTIRE PROJECT INCLUDING ALL BUILDING ELEMENTS, SITE, EQUIPMENT, FITTINGS, FIXTURES, FURNITURE, MECH AND ELEC ITEMS.
2. VERIFY AND COORDINATE THE FOLLOWING WITH THE RESPECTIVE DISCIPLINES AND TRADES:
   A. VERIFY ALL EXISTING CONDITIONS, SIZES AND LOCATIONS OF MECH AND/OR ELEC PENETRATIONS PRIOR TO COMMENCEMENT OF ANY WORK.
   B. LOCATIONS FOR BACKING/BLOCKING REQUIRED FOR MOUNTING AIRCH., MECH AND/OR ELEC EQUIPMENT, OWNER FURNISHED EQUIPMENT, FURNITURE, ARTWORK AND SYSTEMS
   C. CUTTING AND PATCHING FOR WORK REQUIRED BY MECH AND/OR ELEC.
   D. SIZES AND LOCATIONS OF MECH AND/OR ELEC CONCRETE CURBS AND HOUSE KEEPING PADS. SEE ALSO TYPICAL INTERIOR CONCRETE DETAILS UNO.
   E. SIZES AND LOCATIONS OF MECH AND/OR ELEC EXTERIOR WALL, CEILING AND ROOF EQUIPMENT, DEVICES AND PENETRATIONS.

LIFE SAFETY

1. LIFE SAFETY PLANS INDICATE FIRE AND SMOKE RATED PARTITIONS. SEE LIFE SAFETY PLANS FOR PARTITION RATING AND ASSEMBLY DETAILS FOR PARTITION TYPES AND CONSTRUCTION.
2. ALL SLEEVES, OPENINGS, PENETRATIONS, ETC. FOR CONDUITS, CABLE TRAYS, PIPES AND DUCTS, ETC. THROUGH RATED PARTITIONS, FLOORS AND ROOF SLABS ARE TO BE FIRE STOPPED IN ACCORDANCE WITH THE REQUIRED FIRE RATED ASSEMBLY DESIGN, APPLICABLE CODES AND LOCAL FIRE AUTHORITY REQUIREMENTS.
3. ALL FIRE EXITS SHALL BE KEPT CLEAR AND ACCESSIBLE AT ALL TIMES.

SPRINKLER SYSTEM

1. SPRINKLER HEADS SHOWN ON THE RCP'S ARE THOSE OF DESIGN CONCERN. ALL AREAS ARE REQUIRED TO BE SPRINKLERED. SPRINKLER HEADS AT GYPSUM BOARD CEILINGS MUST BE FULLY RECESSED AND COVERED WITH METAL PLATES FINISHED TO MATCH ADJACENT SURFACE.

ROOM OPENINGS

1. FLOOR PLANS INDICATE ROOM OPENING NUMBERS. FOR DOOR AND DOOR BORROWED LIGHT FRAME TYPES, FRAME PROFILES, NOTES AND TYPICAL DETAILS, SEE ROOM DOOR SCHEDULE AND A712.
2. LOCATE DOORS AND OTHER OPENINGS IN PARTITIONS ADJACENT TO PERPENDICULAR WALLS. MAINTAIN MINIMUM ACCESSIBILITY DOOR LATCH SIDE CLEARANCE REQUIREMENTS. PUSH SIDE 12" MIN. 4'-0" DEEP IF DOOR IS PROVIDED WITH A CLOSER AND PULL SIDE 1'-6" MIN. 4'-0" DEEP IF DOOR IS PROVIDED WITH A CLOSER.

CASEWORK AND MILLWORK

1. CASEWORK TYPES, TOP TYPES, SHELF TYPES, NOTES AND SPECIFIC DETAILS ARE AS SHOWN ON PLANS AND INTERIOR ELEVATIONS. SEE A830 FOR TYPICAL COUNTER TOP TYPES. UNDERCOUNTER TASK LIGHTING, SUPPORT BRACKET TYPES, COUNTER TOP CORNER, GROMMET, GYP/PLAM SOFFIT TYPES, NOTES AND DETAILS. ROOM FINISHES SCHEDULE AND/OR FINISHES PLANS.
2. CASEWORK FINISHES, SEE ROOM FINISHES SCHEDULE AND NOTES.

ROOM FINISHES

1. FINISHES ARE INDICATED IN THE FINISH SCHEDULE AND/OR FINISH PLANS, SEE TYPICAL FINISH TRANSITION DETAILS.

FLOOR DRAINS

1. SET FLOOR DRAINS AND FLOOR SINKS WITH TOP OF FINISH TILE/POURED FLOOR, SEE PLUMBING DRAWINGS.
2. SLOPE CONCRETE FLOOR AT 1/8" PER FOOT TOWARDS FLOOR DRAINS AND AWAY FROM ALL WALLS.

FURNITURE, EQUIPMENT, FITTING, FIXTURES AND ACCESSORIES

1. FURNITURE, EQUIPMENT, FITTING, FIXTURES AND ACCESSORIES INSTALLATION SHALL BE IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS AND THE TYPICAL MOUNTING HEIGHT SHEET UNO.
2. REFER TO FURNITURE AND EQUIPMENT DRAWINGS AND INSTRUCTIONS FOR INSTALLATION RESPONSIBILITIES. PROVIDE ALL BLOCKING & ANCHORAGE AS NECESSARY FOR PROPER INSTALLATION OF ANY WALL MOUNTED OR HUNG ITEMS, SEE PARTITION BLOCKING DETAILS.

CURBS AND PADS

1. CONCRETE CURBS AND PADS FOR EQUIPMENT, LOCATIONS MAY BE NOTED ON THE ARCHITECTURAL AND/OR CIVIL DRAWINGS. SEE MECHANICAL AND ELECTRICAL DRAWINGS FOR LOCATIONS AND SPECIFIC SIZE AND CONFIGURATION OF THE EQUIPMENT TO CONFIRM SIZE OF PAD OR CURB, PRIOR TO INSTALL.
2. GC SHALL CONTACT AND COORDINATE WITH LOCAL MUNICIPALITY FOR SITE OR EQUIPMENT SPECIFIC REQUIREMENTS FOR CURB AND PADS.

PARTITIONS

1. ALIGN PARTITIONS WITH FACE OF OTHER PARTITIONS OR COLUMNS, UNLESS NOTED OTHERWISE. THE FACE OF EVERY PARTITION SHALL BE FLUSH WITHOUT OFFSETS. CHANGES IN PARTITION THICKNESS SHALL OCCUR AT CORNERS. PARTITION INTERSECTIONS OR OTHER FEATURES WHICH INTERRUPT THE PLANE OF THE PARTITION. FACE OF CORRIDOR PARTITIONS SHALL BE FLUSH FOR THE ENTIRE LENGTH OF THE CORRIDOR REGARDLESS OF CHANGES IN PARTITION THICKNESS. ALL ADJUSTMENTS SHALL BE MADE TO THE ROOM SIDE OF THE CORRIDOR PARTITION AND AT CORNERS.
2. FLOOR PLANS INDICATE PARTITION TYPES, SEE PARTITION NOTES AND DETAILS FOR TYPICAL CONSTRUCTION UNLESS INDICATED OTHERWISE.

WALL BLOCKING AND ANCHORAGE

1. PROVIDE PLYWOOD WALL BLOCKING WHERE ARTWORK, MARKER BOARDS (MBD) AND TACKBOARDS (TBD) ARE SHOWN. EXTENT OF BLOCKING TO MATCH SIZE OF ARTWORK, MARKER BOARDS (MBD) AND TACKBOARDS (TBD). SEE PARTITION BLOCKING DETAILS.
2. PROVIDE WALL BLOCKING FOR FURNITURE, EQUIPMENT, FITTINGS, FIXTURES AND ACCESSORIES IN ACCORDANCE WITH MANUFACTURER RECOMMENDATIONS AND REQUIREMENTS. SEE PARTITION BLOCKING DETAILS. DESIGN LOAD FOR FITTINGS AND FIXTURES MUST INCLUDED MIN. 250 LB VERTICAL AND HORIZONTAL FORCES.

WALL PROTECTION

1. CORNER GUARDS AND OTHER WALL PROTECTION TYPES AS INDICATED ON THE DRAWINGS.
2. CORNER GUARDS ARE MOUNTED ABOVE FLOOR FINISH BASE AND UP TO UNDERSIDE OF CEILING OR CEILING BULKHEAD, WHICH EVER IS APPLICABLE.
3. FOR INSTALLATION OF CORNER GUARDS, WALL PROTECTION, HANDRAILS, CRASH RAILS, ETC. SEE MANUFACTURERS INSTRUCTIONS.

CEILINGS

1. CEILING HEIGHT: SEE RCP FOR GUESTROOMS, ELEVATOR LOBBIES, CORRIDORS, PASSAGES, ETC. ABOVE FLOOR LEVEL UNLESS OTHERWISE NOTED. SEE ALSO ROOM FINISH SCHEDULE.
2. COORDINATE AND VERIFY ALL CEILING ACCESS PANEL SIZES AND LOCATIONS WITH MECH AND ELEC CONTRACTORS. PROVIDE FLUSH ACCESS PANELS AT ALL EQUIPMENT, VALVES, DAMPERS, CONTROLS, CLEANOUTS, ETC. PAINT TO MATCH CEILING FINISH..
3. CENTER CEILING GRID IN ROOM UNLESS NOTED OTHERWISE.
4. CENTER SPRINKLER HEADS, DIFFUSERS, LIGHT FIXTURES, AND OTHER RECESSED OR SURFACE MOUNTED ITEMS IN CEILING TILES UNLESS NOTED OTHERWISE.

FIRE PROTECTION REQUIREMENTS

1. GC SHALL PERFORM AND PROVIDE ALL FIRE PROTECTION AS REQRED BY CODE, WHETHER OR NOT ALL REQUIREMENTS ARE INDICATED ON THE DRAWINGS.
2. FIRE PROTECTION SHALL INCLUDE BUT NOT BE LIMITED TO: FIRE SUPPRESSION SYSTEMS, PARTITIONS, FLOOR ASSEMBLIES, ROOFS, STRUCTURAL STEEL, GLAZING, CONCEALED SPACES, ETC. AS INDICATED IN BUILDING CODE EVALUATION SUMMARY SHEET.
3. REFER TO BCES TABLE 601 FOR REQUIRED FIRE RESISTANCE RATINGS OF MAIN BUILDING ELEMENTS.
4. REFER TO ASSEMBLY SHEETS AND DETAILS FOR ADDITIONAL FIRE PROTECTION REQUIREMENTS REFER TO ASSEMBLY SHEETS AND DETAILS FOR ADDITIONAL FIRE PROTECTION REQUIREMENTS.
5. GC SHALL NOTIFY ARCHITECT IN WRITING OF ANY DISCREPANCIES OR QUESTIONS IN FIRE PROTECTION DOCUMENTATION PRIOR TO PROCEED.

BLOCKING

1. GC SHALL PROVIDE ALL ADDITIONAL, NON-PROTOTYPICAL BLOCKING (NOT SHOWN IN ELEVATIONS) AS REQUIRED TO ENSURE ADEQUATE FASTENING OF RELATED ELEMENT (SHOWER ROD, SHELVING, SIGNAGE, ETC.)

FIRE SEPARATION DISTANCES

1. MINIMUM DISTANCE FROM ADJACENT BUILDING IS 30'.

SCOPE OF WORK

1. THIS BUILDING IS FACTORY MODULAR ROOMS AND SITE BUILT FOUNDATION SYSTEMS.

OTHER NOTES

1. FUEL SUPPLY IS DESIGNED FOR NATURAL GAS.
2. SPECIAL CONDITIONS AND/OR LIMITATIONS - COMPLETION OF VISUAL INSPECTION OR BLOWER DOOR TEST. IF VISUAL INSPECTION IS USED, THE RESCHECK INSPECTION CHECKLIST NEEDS TO BE COMPLETED IN THE FIELD AND RETURNED TO OAK TREE. TESTING OF DUCT SYSTEM FOR COMPLETED SYSTEM ON SITE BY OTHERS.
3. THIS STRUCTURE HAS NOT BEEN DESIGNED TO BE LOCATED WITHIN THE FLOOD HAZARD LOCATIONS, OR COASTAL A ZONES. WHEN SITE IS LOCATED IN A FLOOD HAZARD AREA AS DETERMINED BY THE LOCAL AUTHORITY HAVING JURISDICTION OR FLOOD HAZARD MAPS, THE UNIT SHALL HAVE THE LOWEST FLOOR ELEVATED ABOVE THE DESIGN FLOOD ELEVATION. FOUDLATION AND ANCHORAGE DESIGNERS SHALL BE PROVIDED BY A LOCAL ENGINEER IN CONFORMANCE WITH LOCALLY ADAPTED BUILDING CODES AND ASCE-24-14. THIS BUILDING HAS NOT BEEN DESIGNED FOR LOCATIONS DESIGNATED AS CATASTROPHE AREA AS DEFINED BY THE TEXAS DEPARTMENT OF INSURANCE (TDI). IF HOME LOCATED WITHIN CATASTROPHE AREA, HOME SHALL NOT BE DESIGNED BY OTHERS TO ALSO COMPLY WITH THE TDI ADAPTED CODES AND AMENDMENTS.

PROJECT DIRECTORY

Contractors shall send all bidding questions and RFI's to the general contractor. The GC shall then forward inquiries to the appointed Base4 Construction Administration Project Manager, who will be introduced at the beginning of bidding and construction phase. Please reference the project number and project title in your email subject line to ensure that your request is forwarded to the proper team.

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COMMUNICATION FEATURES
1. AS PER TEXAS ACCESSIBILITY STANDARD (2012) SECTION 233.3.1.2 RESIDENTIAL DWELLING UNITS WITH COMMUNICATION FEATURES AT LEAST 2 PERCENT, BUT NO FEWER THAN ONE UNIT, OF THE TOTAL NUMBER OF RESIDENTIAL DWELLING UNITS SHALL PROVIDE COMMUNICATION FEATURES.

MOBILITY FEATURES
1. AS PER TEXAS ACCESSIBILITY STANDARD (2012) SECTION 233.3.1.1 RESIDENTIAL DWELLING UNITS WITH MOBILITY FEATURES AT LEAST 4 PERCENT, BUT NO FEWER THAN ONE UNIT, OF THE TOTAL NUMBER OF RESIDENTIAL DWELLING UNITS SHALL PROVIDE MOBILITY FEATURES.

STRUCTURAL DESIGN CRITERIA

CODES:

1. INTERNATIONAL BUILDING CODE (IBC) - 2015
2. AMERICAN SOCIETY OF CIVIL ENGINEERS - MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES - ASCE 7-10

ROOF LOADING:

DESIGN ROOF LIVE LOAD: 20 PSF

GROUND SNOW LOAD: 20 PSF
FLAT ROOF SNOW LOAD: 20 PSF
SNOW EXPOSURE FACTOR, Ce = 1.1
SNOW LOAD IMPORTANCE FACTOR, Is = 1.0
THERMAL FACTOR = 1.0
SNOW DRIFTING EFFECTS WERE NOT ADDED
WIND LOAD: 20.6 PSF

FLOOR LOADING:

LIVE LOAD: 40 PSF IN PRIVATE AREAS
100 PSF IN PUBLIC AREAS

WIND LOADING:

WIND SPEED: 115 MPH
WIND IMPORTANCE FACTOR, I = 1.0
RISK CATEGORY: II
WIND EXPOSURE CATEGORY: C
INTERNAL PRESSURE COEFFICIENT: ±0.18

DESIGN WIND PRESSURE TO BE USED FOR EXTERIOR COMPONENT AND CLADDING MATERIALS - SEE COMPONENT AND CLADDING WIND LOADING DIAGRAM ON THIS DRAWING

SEISMIC

RISK CATEGORY: II
SEISMIC IMPORTANCE FACTOR, Ie = 1.0

MAPPED SPECTRAL RESPONSE ACCELERATIONS:
SHORT PERIOD, Ss: 0.32
ONE SECOND PERIOD, S1: 0.12

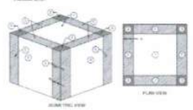
SEISMIC DESIGN CATEGORY: D

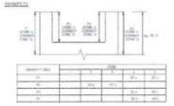
RESPONSE MODIFICATION FACTOR, R = 2.0

SEISMIC RESPONSE COEFFICIENT, Cs = 0.0513

BASE SHEAR:
NORTH - SOUTH DIRECTION: 91 KIPS
EAST - WEST DIRECTION: 91 KIPS
ANALYSIS PROCEDURE: EQUIVALENT LATERAL FORCE

COMPONENT AND CLADDING WIND LOAD DIAGRAM





PROJECT INFORMATION

UNIT MATRIX

ROOM NAME	LEVEL	ROOM COUNT
1ST FLOOR		
ONE BEDROOM	1ST FLOOR	3
ONE BEDROOM ACCESSIBLE	1ST FLOOR	1
THREE BEDROOM	1ST FLOOR	1
THREE BEDROOM ACC	1ST FLOOR	1
TWO BEDROOM	1ST FLOOR	3
TWO BEDROOM ACCESSIBLE	1ST FLOOR	1
1ST FLOOR: 10		10
2ND FLOOR		
ONE BEDROOM	2ND FLOOR	4
THREE BEDROOM	2ND FLOOR	2
TWO BEDROOM	2ND FLOOR	4
2ND FLOOR: 10		10
3RD FLOOR		
ONE BEDROOM	3RD FLOOR	4
THREE BEDROOM	3RD FLOOR	2
TWO BEDROOM	3RD FLOOR	4
3RD FLOOR: 10		10
		30

UNIT MIX

ROOM NAME	ROOM MIX	AVG. ILLUMINATION PERCENTAGE	AVG. VENTILATION PERCENTAGE
ONE BEDROOM	26%	12.6%	6.3%
	26%		
ONE BEDROOM ACCESSIBLE	2%	12.2%	6.1%
	2%		
THREE BEDROOM	21%	11.7%	
THREE BEDROOM	14%	11.7%	5.8%
	36%		
THREE BEDROOM ACC	7%	11.9%	5.9%
	7%		
TWO BEDROOM	26%	10.9%	5.5%
	26%		
TWO BEDROOM ACCESSIBLE	2%	11.03%	5.5%
	2%		
Grand total	100%		

GROSS AREA

LEVEL	AREA
1ST FLOOR	12,860 SF
2ND FLOOR	12,842 SF
3RD FLOOR	12,842 SF
TOTAL: 3	38,545 SF

UNIT MIX - ROOM NUMBER

ROOM NAME	TOTAL ROOMS	NUMBER
ONE BEDROOM ACCESSIBLE	1	103
	1	
TWO BEDROOM ACCESSIBLE	1	102
	1	

NOTE -
ROOM NUMBER 101 HAS BEEN DESIGNATED AS A COMMUNICATION ROOM IN THE BUILDING.

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Z MODULAR GARDENSTYLE APARTMENT
1/2/3 BEDROOM OPTION 30 UNITS

ISSUE NO.	DELTA	ISSUE DATE	DESCRIPTION
6	A5	2020.02.19	CB2
5	A4	2020.02.05	CB1
4	A3	2020.01.27	ADDENDUM #2
2	A1	2020.01.03	ADDENDUM #1
1	A0	2019.11.29	ISSUED FOR PERMIT

CURRENT ISSUE

ISSUED FOR PERMIT

CURRENT ISSUE DATE
2019.11.29

DRAWN BY
SJ

CHECKED BY
JGC/ NBL

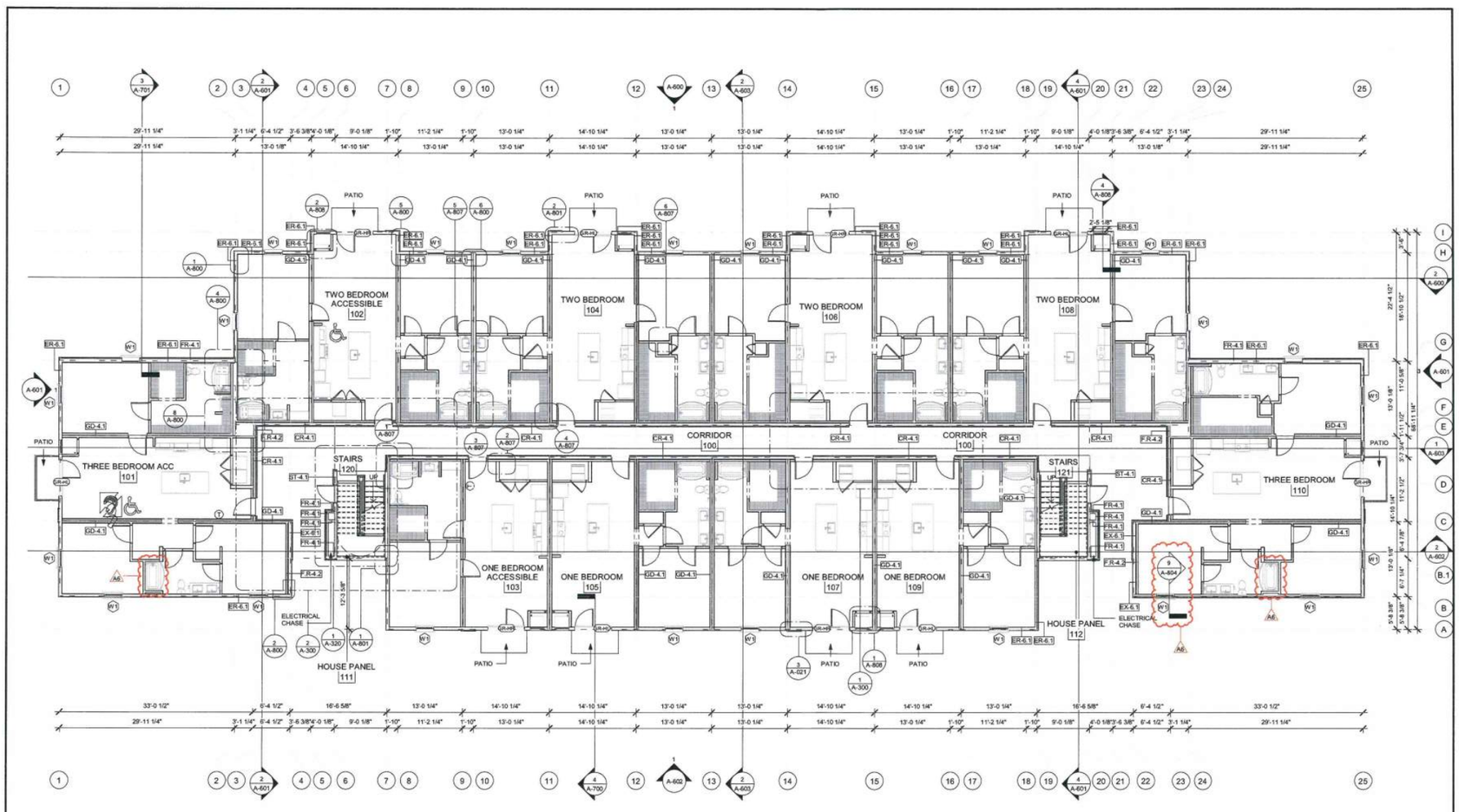
PROJECT NO
B4-179-1902 (A)

SHEET NAME

PROJECT INFORMATION AND GENERAL NOTES

DRAWINGS NO.

G-002



1 A-100 1ST FLOOR PLAN
1/8" = 1'-0"

GENERAL FLOOR PLAN NOTES

BASE4 NOTES

1. ALL DIMENSIONS TO FACE OF STUD UNLESS OTHERWISE NOTED
2. EXTERIOR AND CORRIDOR GRIDLINE ALIGNMENT IS ON FACE OF STUD UNLESS OTHERWISE NOTED
3. INTERIOR GRIDLINE ALIGNMENT IS ON CENTERLINE OF ARG4P UNLESS OTHERWISE NOTED
4. INTERIOR DOORS TO BE MIN. OF 4" FROM ADJACENT WALLS AS SHOWN ON PLANS.
5. GYPSUM WALLBOARD CONTROL JOINTS TO BE 30'-0" MAX O.C. AND AT DOOR JAMBS FROM HEAD TO TERMINATION OF GYPSUM WALLBOARD.
6. REFER TO G-002 FOR ACCESSIBLE UNITS & COMMUNICATION ROOM NOTE.
7. REFER TO SHEETS STARTING ON A-400 FOR ENLARGED UNIT INFORMATION.
8. ROOF COVERING TO BE CLASS B
9. DATA PLATE AND TEXAS STATE INSIGNIA MUST BE LOCATED ON THE UNIT WHERE THEY WILL BE VISIBLE AFTER ERECTION. THIS MUST BE PERMANENTLY AFFIXED TO THE UNIT SO THAT THEY MAY NOT BE REMOVED WITHOUT DESTRUCTION OF THE INSIGNIA OR DATA PLATE.

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ISSUE NO.	DELTA	ISSUE DATE	DESCRIPTION
7	A6	2020.06.29	CB3
6	A5	2020.02.19	CB2
5	A4	2020.02.05	CB1
4	A3	2020.01.27	ADDENDUM #2
2	A1	2020.01.03	ADDENDUM #1
1	A0	2019.11.29	ISSUED FOR PERMIT

CURRENT ISSUE

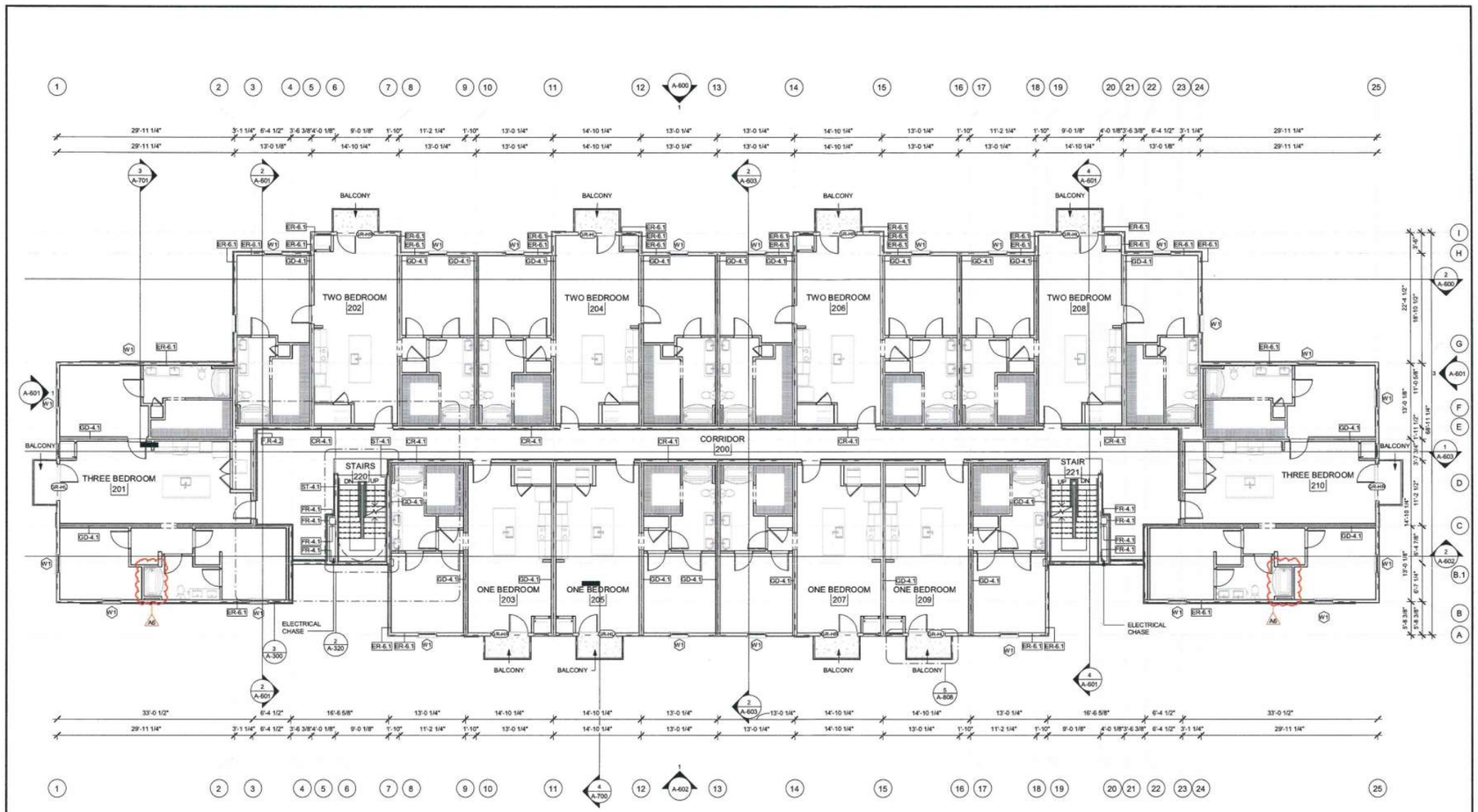
ISSUED FOR PERMIT

CURRENT ISSUE DATE: 2019.11.29
DRAWN BY: SJ
CHECKED BY: JGC/ NBL
PROJECT NO.: B4-179-1902 (A)
SHEET NAME

1ST FLOOR PLAN

DRAWINGS NO.

A-100



1 A-101 2ND FLOOR PLAN
1/8" = 1'-0"

GENERAL FLOOR PLAN NOTES

BASE4 NOTES

1. ALL DIMENSIONS TO FACE OF STUD UNLESS OTHERWISE NOTED
2. EXTERIOR AND CORRIDOR GRIDLINE ALIGNMENT IS ON FACE OF STUD UNLESS OTHERWISE NOTED
3. INTERIOR GRIDLINE ALIGNMENT IS ON CENTERLINE OF AIRGAP UNLESS OTHERWISE NOTED
4. INTERIOR DOORS TO BE MIN. OF 4" FROM ADJACENT WALLS AS SHOWN ON PLANS.
5. GYPSUM WALLBOARD CONTROL JOINTS TO BE 30'-0" MAX O.C. AND AT DOOR JAMBS FROM HEAD TO TERMINATION OF GYPSUM WALLBOARD.
6. REFER TO G-002 FOR ACCESSIBLE UNITS & COMMUNICATION ROOM NOTE.
7. REFER TO SHEETS STARTING ON A-400 FOR ENLARGED UNIT INFORMATION.
8. ROOF COVERING TO BE CLASS B
9. DATA PLATE AND TEXAS STATE INSIGNIA MUST BE LOCATED ON THE UNIT WHERE THEY WILL BE VISIBLE AFTER ERECTION.THIS MUST BE PERMANENTLY AFFIXED TO THE UNIT SO THAT THEY MAY NOT BE REMOVED WITHOUT DESTRUCTION OF THE INSIGNIA OR DATA PLATE.

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ISSUE NO.	DELTA	ISSUE DATE	DESCRIPTION
7	A6	2020.05.29	CB3
6	A5	2020.02.19	CB2
5	A4	2020.02.05	CB1
4	A3	2020.01.27	ADDENDUM #2
2	A1	2020.01.03	ADDENDUM #1
1	A0	2019.11.29	ISSUED FOR PERMIT

CURRENT ISSUE

ISSUED FOR PERMIT

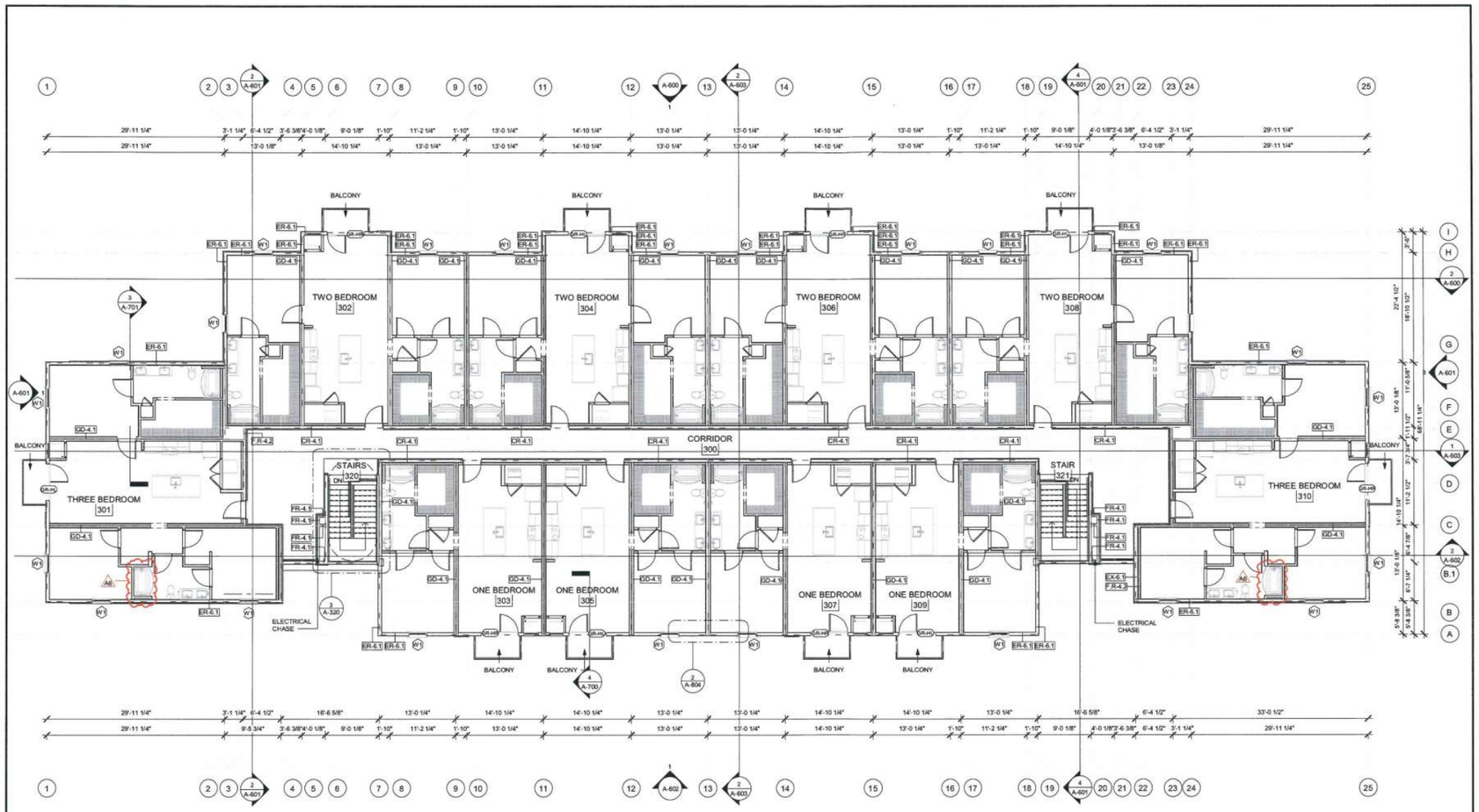
CURRENT ISSUE DATE: 2019.11.29
DRAWN BY: SJ
CHECKED BY: JGC/ NBL
PROJECT NO.: B4-179-1902 (A)

SHEET NAME

2ND FLOOR PLAN

DRAWINGS NO.

A-101



1 / A-102 3RD FLOOR PLAN
1/8" = 1'-0"

GENERAL FLOOR PLAN NOTES

BASE4 NOTES

1. ALL DIMENSIONS TO FACE OF STUD UNLESS OTHERWISE NOTED
2. EXTERIOR AND CORRIDOR GRIDLINE ALIGNMENT IS ON FACE OF STUD UNLESS OTHERWISE NOTED
3. INTERIOR GRIDLINE ALIGNMENT IS ON CENTERLINE OF AIRGAP UNLESS OTHERWISE NOTED
4. INTERIOR DOORS TO BE MIN. OF 4" FROM ADJACENT WALLS AS SHOWN ON PLANS.
5. GYPSUM WALLBOARD CONTROL JOINTS TO BE 30'-0" MAX O.C. AND AT DOOR JAMBS FROM HEAD TO TERMINATION OF GYPSUM WALLBOARD.
6. REFER TO G-002 FOR ACCESSIBLE UNITS & COMMUNICATION ROOM NOTE
7. REFER TO SHEETS STARTING ON A-400 FOR ENLARGED UNIT INFORMATION.
8. ROOF COVERING TO BE CLASS B
9. DATA PLATE AND TEXAS STATE INSIGNIA MUST BE LOCATED ON THE UNIT WHERE THEY WILL BE VISIBLE AFTER ERECTION.THIS MUST BE PERMANENTLY AFFIXED TO THE UNIT SO THAT THEY MAY NOT BE REMOVED WITHOUT DESTRUCTION OF THE INSIGNIA OR DATA PLATE.

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ISSUE NO.	DELTA	ISSUE DATE	DESCRIPTION
7	A6	2020.05.29	CB3
6	A5	2020.02.19	CB2
5	A4	2020.02.05	CB1
4	A3	2020.01.27	ADDENDUM #2
2	A1	2020.01.03	ADDENDUM #1
1	A0	2019.11.29	ISSUED FOR PERMIT

CURRENT ISSUE

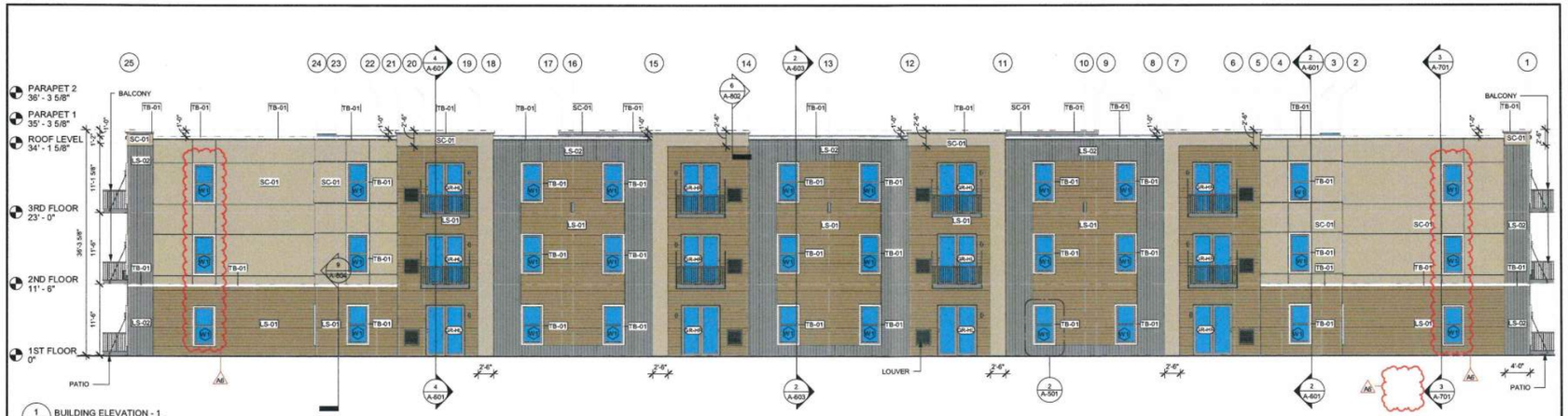
ISSUED FOR PERMIT

CURRENT ISSUE DATE: 2019.11.29
DRAWN BY: SJ
CHECKED BY: JGC/ NBL
PROJECT NO: B4-179-1902 (A)
SHEET NAME

3RD FLOOR PLAN

DRAWINGS NO.

A-102



1 A-600 BUILDING ELEVATION - 1
1/8" = 1'-0"

2 A-600 BUILDING SECTION - 1
1/8" = 1'-0"

GENERAL ELEVATION NOTES

1. REVIEW ALL SIGHTLINES AROUND PROPERTY BEFORE LOCATING ROOFTOP EQUIPMENT.VERIFY ALL EQUIPMENT IS ADEQUATELY SCREENED.
2. GC TO PROVIDE A MOCK WALL SHOWING A FULL WINDOW INSTALL WITH FLASHING.GC CAN USE A PROPORTIONALLY SCALED DOWN WINDOW IN LIE OF FULL SIZE WINDOW.
3. ALL EXTERIOR VENTS, GRILLES, MECHANICAL LOUVERS AND EXTERIOR HOLLOW METAL DOORS TO BE FINISHED TO MATCH ADJACENT EXTERIOR MATERIAL.
4. ALL BUILDING PERMITS TO BE CONSISTENT WITH THE APPROVED SITE PLAN. THE PLANNING DEPARTMENT DOES NOT REVIEW BUILDING PERMIT PLAN SETS, SO IT IS THE DEVELOPER'S RESPONSIBILITY TO ENSURE THAT ELEVATIONS SUBMITTED IN THE BUILDING PERMIT SET MATCH THOSE APPROVED DURING THE SITE PLAN REVIEW PROCESS. IF THE ELEVATIONS DO NOT MATCH THOSE IN THE SITE PLAN, IT WILL DELAY THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY AT THE END OF CONSTRUCTION, AND MAY NECESSITATE MODIFICATIONS TO THE CONSTRUCTED BUILDING.
5. ALL VENT PIPES, ETC. EXTENDING ABOVE THE ROOF SURFACE MUST BE PAINTED A COLOR THAT BLENDS WITH THE ROOF COLOR.
6. ARCHITECTURAL FINISH FLOOR ELEVATIONS REFER TO TOP OF FINISH FLOOR ASSEMBLY. SEE STRUCTURAL DWGS FOR TOP OF STRUCTURE AND BEARING HEIGHT ELEVATIONS

ENERGY CODE INFORMATION

1. REFER TO SHEET G-003 FOR MORE INFORMATION

EXTERIOR FINISH LEGEND

MARK	MATERIAL-BRAND	MATERIAL & FINISH	MATERIAL IMAGE
LS-01	JAMES HARDIE - LAP SIDING	HORIZONTAL LAP SIDING - KHAKI BROWN	
LS-02	JAMES HARDIE - LAP SIDING	VERTICAL LAP SIDING - NIGHT GRAY	
SC-01	STUC-O-FLEX	314 - WHETSTONE	
SC-02	STUC-O-FLEX	PT-06 (L/D)	
TB-01	JAMES HARDIE	HARDIE TRIM - TRIM WHITE	

GENERAL BUILDING SECTION NOTES

1. ARCHITECTURAL FINISH FLOOR ELEVATIONS REFER TO TOP OF FINISH FLOOR ASSEMBLY. SEE STRUCTURAL DWGS FOR TOP OF STRUCTURE AND BEARING HEIGHT ELEVATIONS.
2. REFER TO BALCONY SHOP DRAWINGS FOR BALCONIES AND RAILING DETAILS.

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7	A6	2020.05.29	CB3
6	A5	2020.02.19	CB2
5	A4	2020.02.05	CB1
4	A3	2020.01.27	ADDENDUM #2
2	A1	2020.01.03	ADDENDUM #1
1	A0	2019.11.29	ISSUED FOR PERMIT

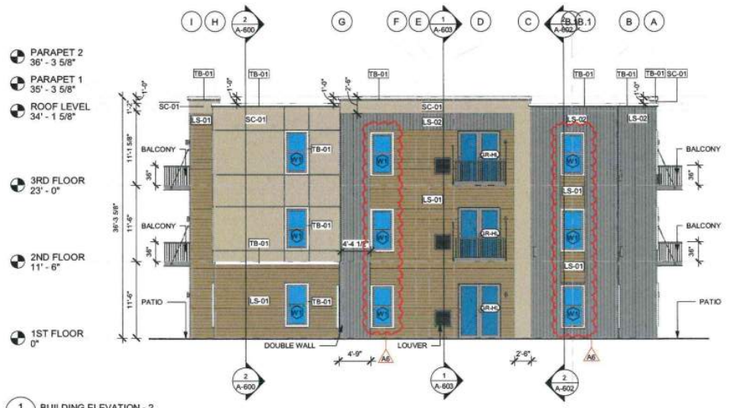
CURRENT ISSUE

ISSUED FOR PERMIT

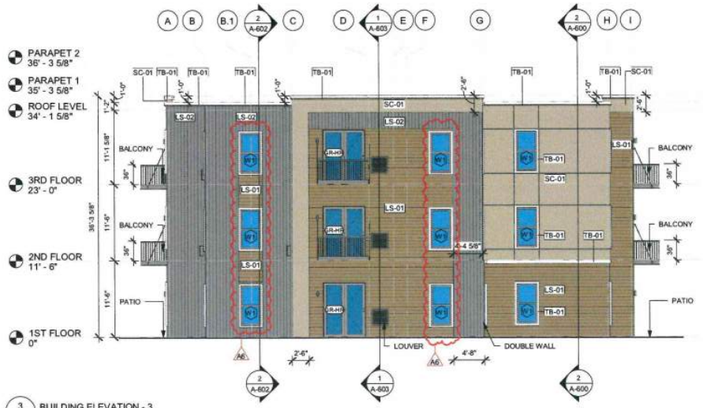
CURRENT ISSUE DATE: 2019.11.29
DRAWN BY: SJ
CHECKED BY: JGC/ NBL
PROJECT NO.: B4-179-1902 (A)

SHEET NAME
EXTERIOR ELEVATION & BUILDING SECTION-1

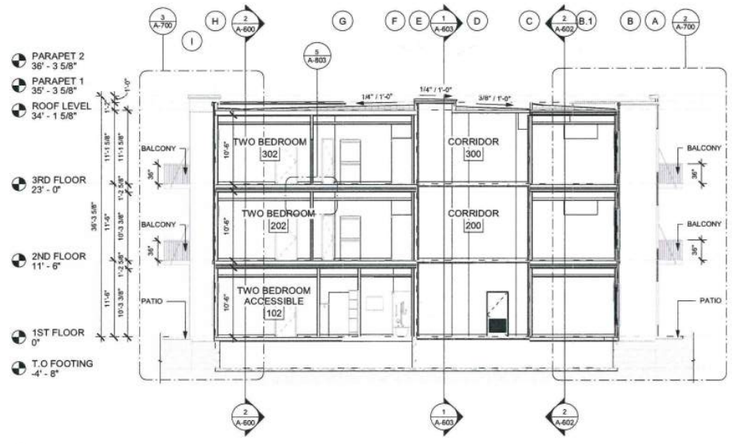
DRAWINGS NO.
A-600



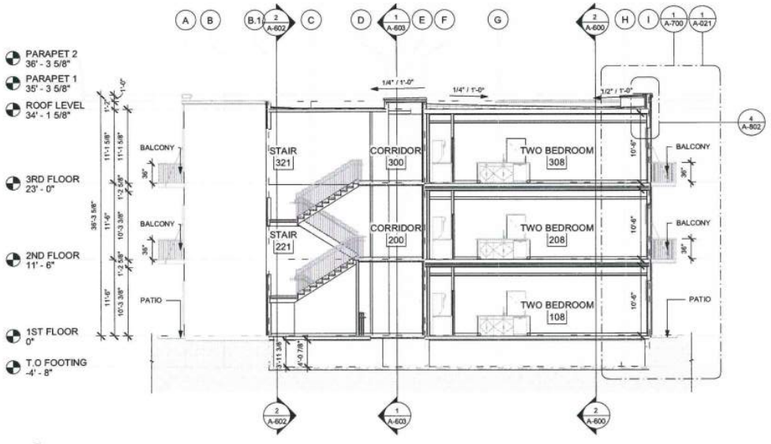
1 BUILDING ELEVATION - 2
A-601 1/8" = 1'-0"



3 BUILDING ELEVATION - 3
A-601 1/8" = 1'-0"



2 BUILDING SECTION - 2
A-601 1/8" = 1'-0"



4 BUILDING SECTION - 3
A-601 1/8" = 1'-0"

GENERAL ELEVATION NOTES

1. REVIEW ALL SIGHTLINES AROUND PROPERTY BEFORE LOCATING ROOFTOP EQUIPMENT. VERIFY ALL EQUIPMENT IS ADEQUATELY SCREENED.
2. GC TO PROVIDE A MOCK WALL SHOWING A FULL WINDOW INSTALL WITH FLASHING.GC CAN USE A PROPORTIONALLY SCALED DOWN WINDOW IN LIUE OF FULL SIZE WINDOW.
3. ALL EXTERIOR VENTS, GRILLES, MECHANICAL LOUVERS AND EXTERIOR HOLLOW METAL DOORS TO BE FINISHED TO MATCH ADJACENT EXTERIOR MATERIAL.
4. ALL BUILDING PERMITS TO BE CONSISTENT WITH THE APPROVED SITE PLAN. THE PLANNING DEPARTMENT DOES NOT REVIEW BUILDING PERMIT PLAN SETS, SO IT IS THE DEVELOPER'S RESPONSIBILITY TO ENSURE THAT ELEVATIONS SUBMITTED IN THE BUILDING PERMIT SET MATCH THOSE APPROVED DURING THE SITE PLAN REVIEW PROCESS. IF THE ELEVATIONS DO NOT MATCH THOSE IN THE SITE PLAN, IT WILL DELAY THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY AT THE END OF CONSTRUCTION, AND MAY NECESSITATE MODIFICATIONS TO THE CONSTRUCTED BUILDING.
5. ALL VENT PIPES, ETC. EXTENDING ABOVE THE ROOF SURFACE MUST BE PAINTED A COLOR THAT BLENDS WITH THE ROOF COLOR.
6. ARCHITECTURAL FINISH FLOOR ELEVATIONS REFER TO TOP OF FINISH FLOOR ASSEMBLY. SEE STRUCTURAL DWGS FOR TOP OF STRUCTURE AND BEARING HEIGHT ELEVATIONS

ENERGY CODE INFORMATION

1. REFER TO SHEET G-003 FOR MORE INFORMATION

A6

EXTERIOR FINISH LEGEND

MARK	MATERIAL-BRAND	MATERIAL & FINISH	MATERIAL IMAGE
LS-01	JAMES HARDIE - LAP SIDING	HORIZONTAL LAP SIDING - KHAKI BROWN	
LS-02	JAMES HARDIE - LAP SIDING	VERTICAL LAP SIDING - NIGHT GRAY	
SC-01	STUC-O-FLEX	314 - WHETSTONE	
SC-02	STUC-O-FLEX	PT-06 (LID)	
TB-01	JAMES HARDIE	HARDIE TRIM - TRIM WHITE	

GENERAL BUILDING SECTION NOTES

1. ARCHITECTURAL FINISH FLOOR ELEVATIONS REFER TO TOP OF FINISH FLOOR ASSEMBLY. SEE STRUCTURAL DWGS FOR TOP OF STRUCTURE AND BEARING HEIGHT ELEVATIONS.
2. REFER TO BALCONY SHOP DRAWINGS FOR BALCONIES AND RAILING DETAILS.

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CHANDLER ARIZONA PLANT
6205 South Arizona Avenue, Chandler, AZ 85248

Z MODULAR GARDENSTYLE APARTMENT
1/2/3 BEDROOM OPTION 30 UNITS

ISSUE NO.	DELTA	ISSUE DATE	DESCRIPTION
7	A6	2020.06.29	CB3
6	A5	2020.02.19	CB2
5	A4	2020.02.05	CB1
4	A3	2020.01.27	ADDENDUM #2
3	A2	2020.01.03	NTA COMMENTS
2	A1	2020.01.03	ADDENDUM #1
1	A0	2019.11.29	ISSUED FOR PERMIT

CURRENT ISSUE

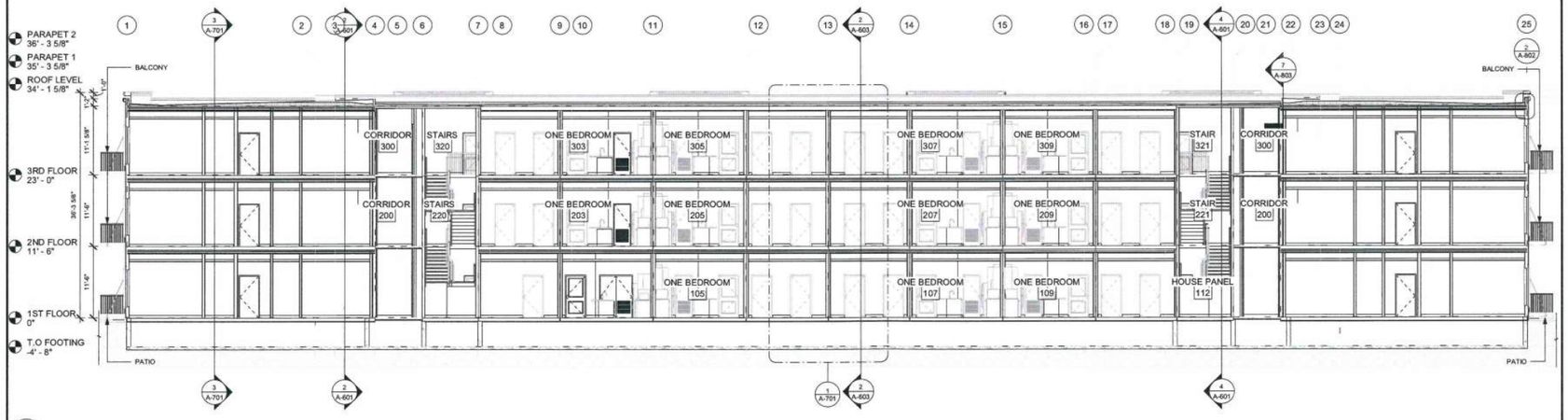
ISSUED FOR PERMIT

CURRENT ISSUE DATE: 2019.11.29
DRAWN BY: SJ
CHECKED BY: JGC/ NBL
PROJECT NO.: B4-179-1902 (A)

SHEET NAME
EXTERIOR ELEVATION & BUILDING SECTION-2

DRAWINGS NO.
A-601

1 A-602 BUILDING ELEVATION - 4
1/8" = 1'-0"



2 A-602 BUILDING SECTION - 4
1/8" = 1'-0"

GENERAL ELEVATION NOTES

1. REVIEW ALL SIGHTLINES AROUND PROPERTY BEFORE LOCATING ROOFTOP EQUIPMENT.VERIFY ALL EQUIPMENT IS ADEQUATELY SCREENED.
2. GC TO PROVIDE A MOCK WALL SHOWING A FULL WINDOW INSTALL WITH FLASHING.GC CAN USE A PROPORTIONALLY SCALED DOWN WINDOW IN LUE OF FULL SIZE WINDOW.
3. ALL EXTERIOR VENTS, GRILLES, MECHANICAL LOUVERS AND EXTERIOR HOLLOW METAL DOORS TO BE FINISHED TO MATCH ADJACENT EXTERIOR MATERIAL.
4. ALL BUILDING PERMITS TO BE CONSISTENT WITH THE APPROVED SITE PLAN. THE PLANNING DEPARTMENT DOES NOT REVIEW BUILDING PERMIT PLAN SETS, SO IT IS THE DEVELOPER'S RESPONSIBILITY TO ENSURE THAT ELEVATIONS SUBMITTED IN THE BUILDING PERMIT SET MATCH THOSE APPROVED DURING THE SITE PLAN REVIEW PROCESS. IF THE ELEVATIONS DO NOT MATCH THOSE IN THE SITE PLAN, IT WILL DELAY THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY AT THE END OF CONSTRUCTION, AND MAY NECESSITATE MODIFICATIONS TO THE CONSTRUCTED BUILDING.
5. ALL VENT PIPES, ETC. EXTENDING ABOVE THE ROOF SURFACE MUST BE PAINTED A COLOR THAT BLENDS WITH THE ROOF COLOR.
6. ARCHITECTURAL FINISH FLOOR ELEVATIONS REFER TO TOP OF FINISH FLOOR ASSEMBLY. SEE STRUCTURAL DWGS FOR TOP OF STRUCTURE AND BEARING HEIGHT ELEVATIONS

ENERGY CODE INFORMATION

1. REFER TO SHEET G-003 FOR MORE INFORMATION

EXTERIOR FINISH LEGEND

MARK	MATERIAL-BRAND	MATERIAL & FINISH	MATERIAL IMAGE
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SC-01	STUC-O-FLEX	314 - WHETSTONE	
SC-02	STUC-O-FLEX	PT-06 (L/D)	
TB-01	JAMES HARDIE	HARDIE TRIM - TRIM WHITE	

GENERAL BUILDING SECTION NOTES

1. ARCHITECTURAL FINISH FLOOR ELEVATIONS REFER TO TOP OF FINISH FLOOR ASSEMBLY. SEE STRUCTURAL DWGS FOR TOP OF STRUCTURE AND BEARING HEIGHT ELEVATIONS.
2. REFER TO BALCONY SHOP DRAWINGS FOR BALCONIES AND RAILING DETAILS.

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Owner:

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CURRENT ISSUE DATE
2019.11.29

DRAWN BY
SJ

CHECKED BY
JGC/ NBL

PROJECT NO.
B4-179-1902 (A)

SHEET NAME
EXTERIOR ELEVATION & BUILDING SECTION-3

DRAWINGS NO.
A-602

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TEXAS

PROJECT BO: B4-179-1904

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2020.05.28

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ISSUE NO.	DELTA	ISSUE DATE	DESCRIPTION
2	A1	2020.06.28	ADDENDUM #1
1	A0	2020.06.01	ISSUED FOR NTA REVIEW

CURRENT ISSUE
ISSUED FOR NTA REVIEW

CURRENT ISSUE DATE: 2020.05.28

DRAWN BY: ST

CHECKED BY: JGC/JM

PROJECT NO: B4-179-1904

SHEET NAME

TITLE SHEET

DRAWINGS NO.

G-000

PROJECT GENERAL NOTES

GENERAL

1. THE INFORMATION HEREIN IS OF A PROPRIETARY NATURE AND IS SUBMITTED IN CONFIDENCE FOR USE BY BASE4 ARCHITECTS, INC. CLIENTS ONLY. IT HAS BEEN PREPARED FOR THIS PROJECT AT THIS SITE AND IS NOT TO BE USED FOR ANY OTHER PURPOSE, LOCATION OR OWNER WITHOUT WRITTEN CONSENT OF BASE4 ARCHITECTS, INC. UNAUTHORIZED REPRODUCTION, PUBLICATION OR DISSEMINATION, IN WHOLE OR IN PART IS EXPRESSLY PROHIBITED. INFORMATION CONTAINED HEREIN REMAINS PROPERTY OF BASE4 ARCHITECTS, INC., AND RECEIPT OR POSSESSION OF THIS INFORMATION CONFERS NO RIGHT IN OR LICENSE TO USE OR DISCLOSE TO OTHERS THE SUBJECT MATTER CONTAINED HEREIN FOR ANY BUT AUTHORIZED PURPOSES. ALL RIGHTS RESERVED.
2. THE CONTRACT DOCUMENTS FOR THIS PROJECT CONSIST OF THE AGREEMENT BETWEEN OWNER AND CONTRACTOR (AGREEMENT), SUPPLEMENTARY AND OTHER CONDITIONS, DRAWINGS, SPECIFICATIONS, ADDENDA ISSUED PRIOR TO AGREEMENT AND MODIFICATIONS ISSUED AFTER EXECUTION OF THE CONTRACT.
3. ANY DOCUMENT IN THIS SET WHICH HAS BEEN PREPARED BY ANY SUBCONTRACTOR, DESIGNER, AND/OR SUBCONSULTANT WHO IS UNDER A CONTRACT DIRECTLY WITH THE OWNER AND/OR CONTRACTOR IS ONLY INCLUDED IN THIS SET FOR PURPOSES OF REFERENCE AND COORDINATION. BASE4 ARCHITECTS DISCLAIMS ALL LIABILITY RELATING TO THE DRAWING AND CONSTRUCTION OF THE IMPROVEMENTS OR SYSTEMS IT DEPICTS EXCEPT AS SPECIFICALLY ASSUMED IN A WRITTEN AGREEMENT WITH THE OWNER.
4. THE DRAWINGS, SPECIFICATIONS AND OTHER DOCUMENTS, INCLUDING THOSE IN ELECTRONIC FORM, PREPARED BY THE ARCHITECT, AND THE ARCHITECT'S CONSULTANTS ARE INSTRUMENTS OF SERVICE THROUGH WHICH THE WORK TO BE EXECUTED BY THE CONTRACTOR IS DESCRIBED. UNLESS INDICATED OTHERWISE, THE ARCHITECT AND ARCHITECT'S CONSULTANTS SHALL BE DEEMED THE AUTHORS OF THEIR WORK AND WILL RETAIN ALL COMMON LAW, STATUTORY AND OTHER RESERVED RIGHTS, IN ADDITION TO THE COPYRIGHTS.
5. IF COORDINATION OF ARCHITECTURAL, CIVIL, LANDSCAPE, STRUCTURAL, MECHANICAL, ELECTRICAL, PLUMBING AND SPRINKLER ELEMENTS RESULT IN CONFLICT, GC SHALL NOTIFY ARCHITECT IN WRITING IMMEDIATELY PRIOR TO COMMENCING ANY WORK OF ELEMENTS RESULTING CONFLICTS
6. GC SHALL VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS PRIOR TO COMMENCEMENT OF ANY WORK. BUILDING AWAY FROM THE BUILDING IF CONFLICTS OCCUR. NOTIFY ARCHITECT IMMEDIATELY. SEE CIVIL DRAWINGS FOR FINISHED GRADES ADJACENT TO BUILDINGS.
7. CONTRACTOR IS SOLELY RESPONSIBLE FOR CONSTRUCTION MEANS AND METHODS AND SHALL MAINTAIN THE STRUCTURAL INTEGRITY OF CONSTRUCTION UNTIL FINAL LATERAL AND VERTICAL CARRYING SYSTEMS ARE COMPLETED.
8. CONTRACTOR IS RESPONSIBLE FOR VERIFICATION AND COORDINATION OF SUBCONTRACTOR WORK, COMPLIANCE WITH DRAWINGS AND SPECIFICATIONS, DIMENSIONS AND OPENING SIZES OF STRUCTURAL MEMBERS, OPENINGS FOR MECHANICAL, ELECTRICAL AND MISCELLANEOUS EQUIPMENT. CONTRACTOR SHALL VERIFY DIMENSIONS AND OPENING SIZES (CLEARANCES REQUIRED) FROM THE MANUFACTURERS PRIOR TO CONSTRUCTION OF OR INSTALLATION OF EQUIPMENT, FURNISHINGS, AND ACCESSORIES
9. PROVIDE ACCESS PANELS AS REQUIRED. PROVIDE RATED ACCESS PANELS WITH THE SAME RATING AS THE ASSEMBLY IN WHICH THEY ARE INSTALLED. ACCESS PANELS IN SHAFT WALLS, RATED FLOOR/CEILINGS OR RATED ROOF/CEILINGS SHALL BE SMOKE SEALED.
10. THE FRANCHISE BRAND STANDARDS DESIGN DOCUMENT SHALL BE CONSIDER AS AN INTEGRAL PART OF THE CONSTRUCTION DOCUMENTS. ALL CONTRACTORS SHALL ENSURE THEY OBTAIN, READ, AND FAMILIARIZE THEMSELVES WITH THE BRAND STANDARD DOCUMENT BEFORE BIDDING AND ALSO THROUGHOUT THE CONSTRUCTION PROCESS. IN THE EVENT OF ANY DISCREPANCIES BETWEEN THE CONSTRUCTION DOCUMENTS AND THE FRANCHISE BRAND STANDARDS, THE CONTRACTOR SHALL ISSUE AN RFI TO THE ARCHITECT FOR RESOLUTION.
11. BUILDING SHALL HAVE A MINIMUM SETBACK OF 20' ON ALL FOUR SIDES TO COMPLY WITH FRONTAGE INCREASE CALCULATIONS

SPECIFICATIONS

1. SEE SPECIFICATION FOR GENERAL BUILDING ELEMENTS, FINISHES, MATERIALS, BUILDING ACCESSORIES, TOILET AND BATHROOM ACCESSORIES, TOILET PARTITIONS AND LIVING SCREENS, ETC UNLESS NOTED OTHERWISE. MATERIALS, PRODUCTS, SYSTEMS ETC IDENTIFIED ON THE DRAWINGS WITH "QXY-11, EXP-JT-21, ETC." REFER TO THE SPECIFICATION FOR SPECIFIC PRODUCT SELECTIONS AND OTHER REQUIREMENTS.

DRAWINGS

1. PLANS, SECTIONS AND ELEVATIONS INDICATE SPECIFIC INFORMATION. SEE TYPICAL MOUNTING HEIGHTS, PARTITION DETAILS, DOOR DETAILS, CASEWORK TYPES AND DETAILS, TOP TYPES, SHELF TYPES, NOTES AND TYPICAL DETAILS FOR TYPICAL INFORMATION, INSTALLATION AND CONSTRUCTION UNLESS INDICATED OTHERWISE.
2. DRAWINGS SHALL BE READ IN CONJUNCTION WITH ALL OTHER CONTRACT DRAWINGS, SPECIFICATIONS AND ADDENDA AND MANUAL. THESE NOTES, DRAWING SYMBOLS, MATERIAL LEGEND, REFLECTED CEILING LEGEND AND GENERAL INFORMATION ON THIS SHEET ARE ABBREVIATIONS.
3. DO NOT SCALE DRAWINGS. USE FIGURED DIMENSIONS ONLY. VERIFY ALL DIMENSIONS PRIOR TO COMMENCEMENT OF ANY WORK. VERIFY ALL DISCREPANCIES BETWEEN FIELD CONDITIONS AND THE CONTRACT DOCUMENTS. IN THE EVENT OF DISCREPANCY, NOTIFY THE ARCHITECT AND OBTAIN RESOLUTION BEFORE PROCEEDING. FAILURE TO NOTIFY THE ARCHITECT AND/OR ENGINEER BEFORE PROCEEDING, FAILURE TO NOTIFY THE ARCHITECT AND/OR ENGINEER WILL NOT RELIEVE THE CONTRACTOR OF RESPONSIBILITY TO PERFORM THE WORK AS INTENDED BY THE CONTRACT DOCUMENTS. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY AND ALL WORK ARISING FROM SUCH FAILURE TO COORDINATE DISCREPANCIES TO THE SATISFACTION OF THE ARCHITECT.

DIMENSIONS

1. DIMENSIONS ARE SHOWN TO FACE OF STUD, FACE OF CONCRETE, FACE OF MASONRY, GRID/COLUMN LINE, CENTERLINE OF ELEMENT, COUNTERTOP EDGE, OR AS NOTED.
2. DIMENSION NOTED AS CLEAR, ARE FROM WALL FINISH TO WALL FINISH.
3. DIMENSIONS TAKE PRECEDENCE OVER DRAWINGS, DO NOT SCALE DRAWINGS. NOTIFY ARCHITECT, IN WRITING, OF ANY DISCREPANCIES PRIOR TO PROCEEDING WITH THE WORK.

VERIFY CONDITIONS

1. VERIFY ALL EXISTING FIELD CONDITIONS PRIOR TO COMMENCEMENT OF ANY WORK TO LOCATE ANY DISCREPANCIES BETWEEN FIELD CONDITIONS AND THE CONTRACT DOCUMENTS. IN THE EVENT OF DISCREPANCY, NOTIFY THE ARCHITECT AND OBTAIN RESOLUTION BEFORE PROCEEDING. FAILURE TO NOTIFY THE ARCHITECT WILL NOT RELIEVE THE CONTRACTOR OF RESPONSIBILITY TO PERFORM THE WORK AS INTENDED BY THE CONTRACT DOCUMENTS. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY AND ALL WORK ARISING FROM SUCH FAILURE TO COORDINATE DISCREPANCIES TO THE SATISFACTION OF THE ARCHITECT.

COORDINATION

1. THE GENERAL CONTRACTOR IS RESPONSIBLE TO COORDINATE THE ENTIRE PROJECT INCLUDING ALL BUILDING ELEMENTS, SITE, EQUIPMENT, FITTINGS, FIXTURES, FURNITURE, MECH AND ELEC ITEMS.
2. COORDINATION SHALL INCLUDE THE FOLLOWING WITH THE RESPECTIVE DISCIPLINES AND TRADES:
   A. VERIFY ALL EXISTING CONDITIONS, SIZES AND LOCATIONS OF MECH AND/OR ELEC PENETRATIONS PRIOR TO COMMENCEMENT OF ANY WORK.
   B. LOCATIONS FOR BACKING/BLOCKING REQUIRED FOR MOUNTING ARCH, MECH AND/OR ELEC EQUIPMENT, OWNER FURNISHED EQUIPMENT, FURNITURE, ARTWORK AND SYSTEMS.
   C. CUTTING AND PATCHING FOR WORK REQUIRED BY MECH AND/OR ELEC.
   D. SIZES AND LOCATIONS OF MECH AND/OR ELEC CONCRETE CURBS AND HOUSE KEEPING PADS. SEE ALSO TYPICAL INTERIOR CONCRETE DETAILS UNO.
   E. SIZES AND LOCATIONS OF MECH AND/OR ELEC EXTERIOR WALL, CEILING AND ROOF EQUIPMENT, DEVICES AND PENETRATIONS.

LIFE SAFETY

1. LIFE SAFETY PLANS INDICATE FIRE AND SMOKE RATED PARTITIONS. SEE LIFE SAFETY PLANS FOR PARTITION RATING AND ASSEMBLY DETAILS FOR PARTITION TYPES AND CONSTRUCTION.
2. ALL SLEEVES, OPENINGS, PENETRATIONS, ETC. FOR CONDUITS, CABLE TRAYS, PIPES AND DUCTS, ETC. THROUGH RATED PARTITIONS, FLOORS AND ROOF SLABS ARE TO BE SEALED AS REQUIRED IN ACCORDANCE WITH THE REQUIRED FIRE RATED ASSEMBLY DESIGN. APPLICABLE CODES AND LOCAL FIRE AUTHORITY REQUIREMENTS.
3. ALL FIRE EXITS SHALL BE KEPT CLEAR AND ACCESSIBLE AT ALL TIMES.

SPRINKLER SYSTEM

1. SPRINKLER HEADS SHOWN ON THE RCPS ARE THOSE OF DESIGN CONCERN. ALL AREAS ARE REQUIRED TO BE SPRINKLERED. SPRINKLER HEADS AT GYPSUM BOARD CEILINGS MUST BE FULLY RECESSED AND COVERED WITH METAL PLATES FINISHED TO MATCH ADJACENT SURFACES.

ROOM OPENINGS

1. FLOOR PLANS INDICATE ROOM OPENING NUMBERS. FOR DOOR AND DOOR BORROWED LIGHT FRAME TYPES, FRAME PROFILES, NOTES AND TYPICAL DETAILS, SEE ROOM DOOR SCHEDULE AND A712.
2. LOCATE DOORS AND OTHER OPENINGS IN PARTITIONS ADJACENT TO PERPENDICULAR WALLS, MAINTAIN MINIMUM ACCESSIBILITY DOOR LATCH SIDE CLEARANCE REQUIREMENTS. PUSH SIDE 12" MIN. 4'-0" DEEP IF DOOR IS PROVIDED WITH A CLOSER AND PULL SIDE 5'-0" MIN. 4'-0" DEEP IF DOOR IS PROVIDED WITH A CLOSER.

CASEWORK AND MILLWORK

1. CASEWORK TYPES, TOP TYPES, SHELF TYPES, NOTES AND SPECIFIC DETAILS ARE AS SHOWN ON PLANS AND INTERIOR ELEVATIONS. SEE A550 FOR TYPICAL COUNTER TOP TYPES, UNDERCOUNTER TASK LIGHTING, SUPPORT BRACKET TYPES, COUNTER TOP CORNER, GROMMET, GYP/PLAN/SOFFIT TYPES, NOTES AND DETAILS. ROOM FINISHES SCHEDULE AND/OR FINISHES PLANS.
2. CASEWORK FINISHES, SEE ROOM FINISHES SCHEDULE AND NOTES.

ROOM FINISHES

1. FINISHES ARE INDICATED IN THE FINISH SCHEDULE AND/OR FINISH PLANS, SEE TYPICAL FINISH TRANSITION DETAILS.

FLOOR DRAINS

1. SET FLOOR DRAINS AND FLOOR SINKS WITH TOP OF FINISH TS/EPOURED FLOOR, SEE PLUMBING DRAWINGS.
2. SLOPE CONCRETE FLOOR AT 1/8" PER FOOT TOWARDS FLOOR DRAINS AND AWAY FROM ALL WALLS.

FURNITURE, EQUIPMENT, FITTING, FIXTURES AND ACCESSORIES

1. FURNITURE, EQUIPMENT, FITTING, FIXTURES AND ACCESSORIES INSTALLATION SHALL BE IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS AND THE TYPICAL MOUNTING HEIGHT SHEET UNO.
2. REFER TO FURNITURE AND EQUIPMENT DRAWINGS AND INSTRUCTIONS FOR INSTALLATION RESPONSIBILITIES. PROVIDE ALL BLOCKING & ANCHORAGE AS NECESSARY FOR PROPER INSTALLATION OF ANY WALL MOUNTED OR HUNG ITEMS. SEE PARTITION BLOCKING DETAILS.

CURBS AND PADS

1. CONCRETE CURBS AND PADS FOR EQUIPMENT. LOCATIONS MAY BE NOTED ON THE ARCHITECTURAL AND/OR CIVIL DRAWINGS. SEE MECHANICAL AND ELECTRICAL DRAWINGS FOR LOCATIONS AND SPECIFIC SIZE AND CONFIGURATION OF THE EQUIPMENT TO CONFIRM SIZE OF PAD OR CURB. PRIOR TO INSTALL.
2. GC SHALL CONTACT AND COORDINATE WITH LOCAL MUNICIPALITY FOR SITE OR EQUIPMENT SPECIFIC REQUIREMENTS FOR CURB AND PADS.

PARTITIONS

1. ALIGN PARTITIONS WITH FACE OF OTHER PARTITIONS OR COLUMNS, UNLESS NOTED OTHERWISE. THE FACE OF EVERY PARTITION SHALL BE FLUSH WITHOUT OFFSETS. CHANGES IN PARTITION THICKNESS SHALL OCCUR AT CORNERS. PARTITION INTERSECTIONS OR OTHER FEATURES WHICH INTERRUPT THE PLANE OF THE PARTITION FACE OF CORRIDOR PARTITIONS SHALL BE FLUSH FOR THE ENTIRE LENGTH OF THE CORRIDOR REGARDLESS OF CHANGES IN PARTITION THICKNESS. ALL ADJUSTMENTS SHALL BE MADE TO THE ROOM SIDE OF THE CORRIDOR PARTITION AND AT CORNERS.
2. FLOOR PLANS INDICATE PARTITION TYPES, SEE PARTITION NOTES AND DETAILS FOR TYPICAL CONSTRUCTION UNLESS INDICATED OTHERWISE.

WALL BLOCKING AND ANCHORAGE

1. PROVIDE PLYWOOD WALL BLOCKING WHERE ARTWORK, MARKER BOARDS (MBO) AND TACKBOARDS (TBD) ARE SHOWN. EXTENT OF BLOCKING TO MATCH SIZE OF ARTWORK, MARKER BOARDS (MBO) AND TACKBOARDS (TBD). SEE PARTITION BLOCKING DETAILS.
2. PROVIDE WALL BLOCKING FOR FURNITURE, EQUIPMENT, FITTINGS, FIXTURES AND ACCESSORIES IN ACCORDANCE WITH MANUFACTURER RECOMMENDATIONS AND REQUIREMENTS. SEE PARTITION BLOCKING DETAILS. DESIGN LOAD FOR FITTINGS AND FIXTURES MUST INCLUDED MIN. 250 LB VERTICAL AND HORIZONTAL FORCE.

WALL PROTECTION

1. CORNER GUARDS AND OTHER WALL PROTECTION TYPES AS INDICATED ON THE DRAWINGS.
2. CORNER GUARDS ARE MOUNTED ABOVE FLOOR FINISH BASE AND UP TO UNDERSIDE OF CEILING OR CEILING BULKHEAD, WHICH EVER IS APPLICABLE.
3. FOR INSTALLATION OF CORNER GUARDS, WALL PROTECTION, HANDRAILS, CRASH RAILS, ETC. SEE MANUFACTURERS INSTRUCTIONS.

CEILINGS

1. CEILING HEIGHT: SEE RCP FOR UNITS, ELEVATOR LOBBIES, CORRIDORS, PASSAGES, ETC. ABOVE FLOOR LEVEL UNLESS OTHERWISE NOTED. SEE ALSO ROOM FINISH SCHEDULE.
2. COORDINATE AND VERIFY ALL CEILING ACCESS PANEL SIZES AND LOCATIONS WITH MECH AND ELEC CONTRACTORS. PROVIDE FLUSH ACCESS PANELS AT ALL EQUIPMENT, VALVES, DAMPERS, CONTROLS, CLEANOUTS, ETC. PAINT TO MATCH CEILING FINISH.
3. EQUIPMENT, VALVES IN ROOMS UNLESS NOTED OTHERWISE, ETC.
4. CENTER SPRINKLER HEADS, DIFFUSERS, LIGHT FIXTURES, AND OTHER RECESSED OR SURFACE MOUNTED ITEMS IN CEILING TILES UNLESS NOTED OTHERWISE.

FIRE PROTECTION REQUIREMENTS

1. GC SHALL PERFORM AND PROVIDE ALL FIRE PROTECTION AS REQIRED BY CODE, WHETHER OR NOT ALL REQUIREMENTS ARE INDICATED ON THE DRAWINGS.
2. REFER TO DRAWINGS FOR LOCATIONS OF FIRE RATED WALLS, PARTITIONS, FLOOR ASSEMBLIES, ROOFS, STRUCTURAL STEEL, GLAZING, CONCEALED SPACES, ETC. AS INDICATED IN BUILDING CODE EVALUATION SUMMARY SHEET.
3. REFER TO BCES TABLE 601 FOR REQUIRED FIRE RESISTANCE RATINGS OF MAIN BUILDING ELEMENTS.
4. REFER TO ASSEMBLY SHEETS AND DETAILS FOR ADDITIONAL FIRE PROTECTION REQUIREMENTS REFER TO ASSEMBLY SHEETS AND DETAILS FOR ADDITIONAL FIRE PROTECTION REQUIREMENTS.
5. GC SHALL NOTIFY ARCHITECT IN WRITING OF ANY DISCREPANCIES OR QUESTIONS IN FIRE PROTECTION DOCUMENTATION PRIOR TO PROCEED

BLOCKING

1. GC SHALL PROVIDE ALL ADDITIONAL, NON-PROTOTYPICAL BLOCKING (NOT SHOWN IN ELEVATIONS) AS REQUIRED TO ENSURE ADEQUATE FASTENING OFRELATED ELEMENT (SHOWER ROD, SHELVING, SIGNAGE, ETC..)

FIRE SEPERATION DISTANCES

MINIMUM DISTANCE FROM ADJACENT BUILDING IS 30'.

SCOPE OF WORK

1. THIS BUILDING IS FACTORY MODULAR ROOMS AND SITE BUILT FOUNDATION SYSTEMS.

OTHER NOTES

1. FUEL SUPPLY IS DESIGNED FOR NATURAL GAS.
2. THIS STRUCTURE HAS NOT BEEN DESIGNED TO BE LOCATED WITHIN THE FLOOD HAZARD LOCATIONS, OR COASTAL A ZONES. WHEN SITE IS LOCATED IN A FLOOD HAZARD AREA AS DETERMINED BY THE LOCAL AUTHORITY HAVING JURISDICTION OR FLOOD HAZARD MAPS. THE UNIT SHALL HAVE THE LOWEST FLOOR ELEVATED ABOVE THE DESIGN FLOOD ELEVATION. FOUNDATION AND ANCHORAGE DESIGNERS SHALL BE PROVIDED BY A LOCAL ENGINEER IN CONFORMANCE WITH LOCALLY ADOPTED BUILDING CODES AND ASCE 24-14. THIS BUILDING HAS NOT BEEN DESIGNED FOR LOCATIONS DESIGNATED AS CATASTROPHE AREA AS DEFINED BY THE TEXAS DEPARTMENT OF INSURANCE (TDI). IF HOME LOCATED WITHIN CATASTROPHE AREA, HOME SHALL NOT BE DESIGNED BY OTHERS TO ALSO COMPLY WITH THIS TDI ADAPTED CODES AND AMENDMENTS.
3. GC SHALL VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS PRIOR TO COMMENCEMENT OF ANY WORK. VERIFY ALL DISCREPANCIES BETWEEN FIELD CONDITIONS AND THE CONTRACT DOCUMENTS. IN THE EVENT OF DISCREPANCY, NOTIFY THE ARCHITECT AND OBTAIN RESOLUTION BEFORE PROCEEDING. FAILURE TO NOTIFY THE ARCHITECT AND/OR ENGINEER BEFORE PROCEEDING, FAILURE TO NOTIFY THE ARCHITECT AND/OR ENGINEER WILL NOT RELIEVE THE CONTRACTOR OF RESPONSIBILITY TO PERFORM THE WORK AS INTENDED BY THE CONTRACT DOCUMENTS. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY AND ALL WORK ARISING FROM SUCH FAILURE TO COORDINATE DISCREPANCIES TO THE SATISFACTION OF THE ARCHITECT.
4. REFER TO CONSTRUCTION MANUAL FOR GENERAL NOTES. UNIT IS TO BE SITED A MIN. OF 6"F.F. FROM THE LOT LINE. FUEL SUPPLY IS DESIGNED FOR NATURAL GAS. SPECIAL CONDITIONS AND/OR LIMITATIONS: COMPLETION OF VISUAL INSPECTION OR BLOWER DOOR TEST. IF VISUAL INSPECTION IS USED: THE RESCHECK INSPECTION CHECKLIST NEEDS TO BE COMPLETED IN THE FIELD AND RETURNED TO OAK TREE. TESTING OF DUCT SYSTEM FOR COMPLETED SYSTEM ON SITE BY OTHERS.
5. THIS STRUCTURE HAS NOT BEEN DESIGNED TO BE LOCATED WITHIN THE FLOOD HAZARD LOCATIONS, OR COASTAL A ZONES. WHEN SITE IS LOCATED IN A FLOOD HAZARD AREA AS DETERMINED BY THE LOCAL AUTHORITY HAVING JURISDICTION OR FLOOD HAZARD MAPS. THE UNIT SHALL HAVE THE LOWEST FLOOR ELEVATED ABOVE THE DESIGN FLOOD ELEVATION. FOUNDATION AND ANCHORAGE DESIGNERS SHALL BE PROVIDED BY A LOCAL ENGINEER IN CONFORMANCE WITH LOCALLY ADOPTED BUILDING CODES AND ASCE 24-14.
6. THIS BUILDING HAS NOT BEEN DESIGNED FOR LOCATIONS DESIGNATED AS CATASTROPHE AREAS AS DEFINED BY TEXAS DEPARTMENT OF INSURANCE (TDI). IF HOME IS LOCATED WITHIN CATASTROPHE AREA, HOME SHALL BE DESIGNED BY OTHERS TO ALSO COMPLY WITH THE TDI ADAPTED CODES AND AMENDMENTS.

A1

PROJECT DIRECTORY

Contractors shall send all bidding questions and RFI's to the general contractor. The GC shall then forward inquiries to the appointed Based Construction Administration Project Manager, who will be introduced at the beginning of bidding and construction phase. Please reference the project number and project title in your email subject line to ensure that your request is forwarded to the proper team.

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INTERIOR DESIGN CONTACT
ZModular
Chris Schmidt
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COMMUNICATION FEATURES
1. AS PER TEXAS ACCESSIBILITY STANDARD (2012) SECTION 232.3.1.2 RESIDENTIAL DWELLING UNITS WITH COMMUNICATION FEATURES AT LEAST 2 PERCENT, BUT NO FEWER THAN ONE UNIT, OF THE TOTAL NUMBER OF RESIDENTIAL DWELLING UNITS SHALL PROVIDE COMMUNICATION FEATURES.

MOBILITY FEATURES
1. AS PER TEXAS ACCESSIBILITY STANDARD (2012) SECTION 233.3.1.1 RESIDENTIAL DWELLING UNITS WITH MOBILITY FEATURES AT LEAST 5 PERCENT, BUT NO FEWER THAN ONE UNIT, OF THE TOTAL NUMBER OF RESIDENTIAL DWELLING UNITS SHALL PROVIDE MOBILITY FEATURES.

STRUCTURAL DESIGN CRITERIA

CODES
1. INTERNATIONAL BUILDING CODE(IBC)-2015
2. AMERICAN SOCIETY OF CIVIL ENGINEERS- MINIMUM DESIGN LOADS FOR BUILDING AND OTHER STRUCTURES -ASCE 7-10

ROOF LOADING
DESIGN ROOF LIVE LOAD: 20PSF

GROUND SNOW LOAD:20PSF
FLAT-ROOF SNOW LOAD:20PSF
SNOW EXPOSURE FACTOR, Ce1:1
SNOW IMPORTANCE FACTOR, Is=1.0
THERMAL FACTOR, Ct1:0
SNOW DRIFTING EFFECTS WERE NOT ADDED
RAIN LOAD:20.8 PSF

FLOOR LOADING:

LIVE LOAD: 40PSF IN PRIVATE AREAS
100PSF IN PUBLIC AREAS

WIND LOADING:

WIND SPEED:115MPH
WIND IMPORTANCE FACTOR:1.0
RISK CATEGORY:II
WIND EXPOSURE CATEGORY: C
INTERNAL PRESSURE COEFFECIENT:+/-0.18

DESIGN WIND PRESSURE TO BE USED FOR EXTERIOR COMPONENT AND CLADDING MATERIALS-SEE COMPONENT AND CLADDING WIND LOADING DIAGRAM ON THIS DRAWING

SEISMIC:

RISK CATEGORY:II
SEISMIC IMPORTANCE FACTOR, Ie:1.0
MAPPED SPECTRAL RESPONSE ACCELERATIONS:
SHORT PERIODS s: 0.32
ONE SECOND PERIODS : 0.12

SEISMIC DESIGN CATEGORY:B

RESPONSE MODIFICATION FACTOR, R =3.0

SEISMIC RESPONSE COEFFICIENT, Cs:-0.0513

BASE SHEAR:
NORTH/SOUTH DIRECTION: 91KIPS
EAST/WEST DIRECTION: 91 KIPS
ANALYSIS PROCEDURE: EQUIVALENT LATERAL FORCE

PROJECT INFORMATION

UNIT MATRIX

ROOM NAME	LEVEL	ROOM COUNT
1ST FLOOR		
DOUBLE ROOM(DBA)	1ST FLOOR	1
MICRO UNIT(A)	1ST FLOOR	5
SINGLE ROOM(SBA)	1ST FLOOR	4
STUDIO(ST)	1ST FLOOR	4
TYPE A DOUBLE ROOM(DAA)	1ST FLOOR	1
2ND FLOOR		
DOUBLE ROOM(DBA)	2ND FLOOR	2
MICRO UNIT(A)	2ND FLOOR	6
SINGLE ROOM(SBA)	2ND FLOOR	4
STUDIO(ST)	2ND FLOOR	4
3RD FLOOR		
DOUBLE ROOM(DBA)	3RD FLOOR	2
MICRO UNIT(A)	3RD FLOOR	6
SINGLE ROOM(SBA)	3RD FLOOR	4
STUDIO(ST)	3RD FLOOR	4
		48

GROSS AREA

LEVEL	AREA
1ST FLOOR	15603 SF
2ND FLOOR	15603 SF
3RD FLOOR	15603 SF
TOTAL: 3	46809 SF

ILLUMINATION & VENTILATION SCHEDULE

ROOM TYPE	AVERAGE ILLUMINATION PERCENTAGE	AVERAGE VENTILATION PERCENTAGE
DOUBLE ACCESSIBLE ROOM	11.9%	9.6%
DOUBLE ROOM	11.9%	9.6%
MICRO UNIT	14%	14%
SINGLE ROOM	20%	17.7%
STUDIO	13.7%	13.7%

UNIT MIX

ROOM NAME	ROOM COUNT	ROOM MIX
MICRO UNIT(A)	18	38%
SINGLE ROOM(SBA)	12	25%
STUDIO(ST)	12	25%
	42	88%
DOUBLE ROOM(DBA)	5	10%
TYPE A DOUBLE ROOM(DAA)	1	2%
	6	13%
TOTAL	48	100%

NAMING SCHEDULE

UNIT NAMING SCHEDULE

UNIT NAME	UNIT NUMBER	FRAMING NAME	ENGINEERING NAME(MOD 1)	ENGINEERING NAME(MOD 2)	ENGINEERING NAME(MOD 3)	CORE NAME	CORE(MOD 1)	CORE(MOD 2)	CORE(MOD 3)
1ST FLOOR									
DOUBLE ROOM(DBA)	114	1DBF.1	1DBS.1	1DBL.1	1DBS.2	DBA	DBA1	DBA2	DBA3
MICRO UNIT(A)	104	1MUF.1	1MU.1			MUA			
MICRO UNIT(A)	106	1MUF.2	1MU.2			MUA			
MICRO UNIT(A)	108	1MUF.2	1MU.2			MUA			
MICRO UNIT(A)	110	1MUF.2	1MU.2			MUA			
MICRO UNIT(A)	112	1MUF.2	1MU.2			MUA			
MICRO UNIT(A)	113	1MUF.3	1MU.3			MUA			
SINGLE ROOM(SBA)	111	1SBF.3	1SBL.2	1SBS.2		SBA	SBA2	SBA1	
SINGLE ROOM(SBA)	109	1SBF.2	1SBL.2	1SBS.1		SBA	SBA2	SBA1	
SINGLE ROOM(SBA)	107	1SBF.2	1SBL.2	1SBS.1		SBA	SBA2	SBA1	
SINGLE ROOM(SBA)	105	1SBF.1	1SBL.1	1SBS.1		SBA	SBA2	SBA1	
STUDIO(ST)	115	1STF.3	1ST.3			STA			
STUDIO(ST)	116	1STF.4	1ST.4			STA			
STUDIO(ST)	102	1STF.2	1ST.2			STA			
STUDIO(ST)	101	1STF.1	1ST.1			STA			
TYPE A DOUBLE ROOM(DAA)	103	1DAF.1	1DAS.1	1DAL.1	1DAS.2	DAA	DAA1	DAA2	DAA3
1ST FLOOR: 16									
2ND FLOOR									
DOUBLE ROOM(DBA)	214	1DBF.1	1DBS.1	1DBL.1	1DBS.2	DBA	DBA1	DBA2	DBA3
DOUBLE ROOM(DBA)	203	1DBF.2	1DBS.3	1DBL.1	1DBS.4	DBA	DBA1	DBA2	DBA3
MICRO UNIT(A)	204	1MUF.1	1MU.1			MUA			
MICRO UNIT(A)	206	1MUF.2	1MU.2			MUA			
MICRO UNIT(A)	208	1MUF.2	1MU.2			MUA			
MICRO UNIT(A)	210	1MUF.2	1MU.2			MUA			
MICRO UNIT(A)	212	1MUF.2	1MU.2			MUA			
MICRO UNIT(A)	213	1MUF.3	1MU.2			MUA			
SINGLE ROOM(SBA)	211	1SBF.3	1SBL.2	1SBS.2		SBA	SBA2	SBA1	
SINGLE ROOM(SBA)	209	1SBF.2	1SBL.2	1SBS.1		SBA	SBA2	SBA1	
SINGLE ROOM(SBA)	207	1SBF.2	1SBL.2	1SBS.1		SBA	SBA2	SBA1	
SINGLE ROOM(SBA)	205	1SBF.1	1SBL.1	1SBS.1		SBA	SBA2	SBA1	
STUDIO(ST)	215	1STF.3	1ST.3			STA			
STUDIO(ST)	216	1STF.4	1ST.4			STA			
STUDIO(ST)	202	1STF.2	1ST.2			STA			
STUDIO(ST)	201	1STF.1	1ST.1			STA			
2ND FLOOR: 16									
3RD FLOOR									
DOUBLE ROOM(DBA)	314	3DBF.2	3DBS.3	3DBL.1	3DBS.4	DBA	DBA1	DBA2	DBA3
DOUBLE ROOM(DBA)	303	3DBF.1	3DBS.1	3DBL.1	3DBS.2	DBA	DBA1	DBA2	DBA3
MICRO UNIT(A)	304	3MUF.1	3MU.1			MUA			
MICRO UNIT(A)	306	3MUF.2	3MU.2			MUA			
MICRO UNIT(A)	308	3MUF.2	3MU.2			MUA			
MICRO UNIT(A)	310	3MUF.2	3MU.2			MUA			
MICRO UNIT(A)	312	3MUF.2	3MU.2			MUA			
MICRO UNIT(A)	313	3MUF.2	3MU.3			MUA			
SINGLE ROOM(SBA)	311	3SBF.3	3SBL.2	3SBS.2		SBA	SBA2	SBA1	
SINGLE ROOM(SBA)	309	3SBF.2	3SBL.2	3SBS.1		SBA	SBA2	SBA1	
SINGLE ROOM(SBA

1 A-100 1ST FLOOR PLAN
1/8" = 1'-0"

GENERAL FLOOR PLAN NOTES

BASE4 NOTES

1. ALL DIMENSIONS TO FACE OF STUD UNLESS OTHERWISE NOTED
2. EXTERIOR AND CORRIDOR GRIDLINE ALIGNMENT IS ON FACE OF STUD UNLESS OTHERWISE NOTED
3. INTERIOR GRIDLINE ALIGNMENT IS ON CENTERLINE OF AIRGAP UNLESS OTHERWISE NOTED
4. INTERIOR DOORS TO BE MIN. OF 4" FROM ADJACENT WALLS AS SHOWN ON PLANS
5. GYPSUM WALLBOARD CONTROL JOINTS TO BE 30'-0" MAX O.C. AND AT DOOR JAMBS FROM HEAD TO TERMINATION OF GYPSUM WALLBOARD.
6. REFER TO G-002 FOR ACCESSIBLE UNITS & COMMUNICATION ROOM NOTE.
7. REFER TO SHEETS STARTING ON A-400 FOR ENLARGED UNIT INFORMATION.
8. ROOF COVERING TO BE CLASS B
9. DATA PLATE AND TEXAS STATE INSIGNIA MUST BE LOCATED ON THE UNIT WHERE THEY WILL BE VISIBLE AFTER ERECTION. THIS MUST BE PERMANENTLY AFFIXED TO THE UNIT SO THAT THEY MAY NOT BE REMOVED WITHOUT DESTRUCTION OF THE INSIGNIA OR DATA PLATE.
10. GRAB BAR FOR ACCESIBILITY USE SHOWN ON PLANS AND ELEVATION ARE OPTIONAL

EXTERIOR FINISH LEGEND

MARK	MATERIAL-BRAND	MATERIAL & FINISH	MATERIAL IMAGE
LS-01	JAMES HARDIE - LAP SIDING	HORIZONTAL LAP SIDING	
LS-02	JAMES HARDIE - LAP SIDING	VERTICAL LAP SIDING - NIGHT GRAY	
SC-01	STUCCO-FLEX	314 - WHETSTONE	
SC-03	STUCCO-FLEX	LIGHT GREY	
TS-01	JAMES HARDIE	HARDIE TRIM - TRIM WHITE	

SCOPE LEGEND

MODULAR SCOPE
SITE SCOPE

A1

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2020.05.28

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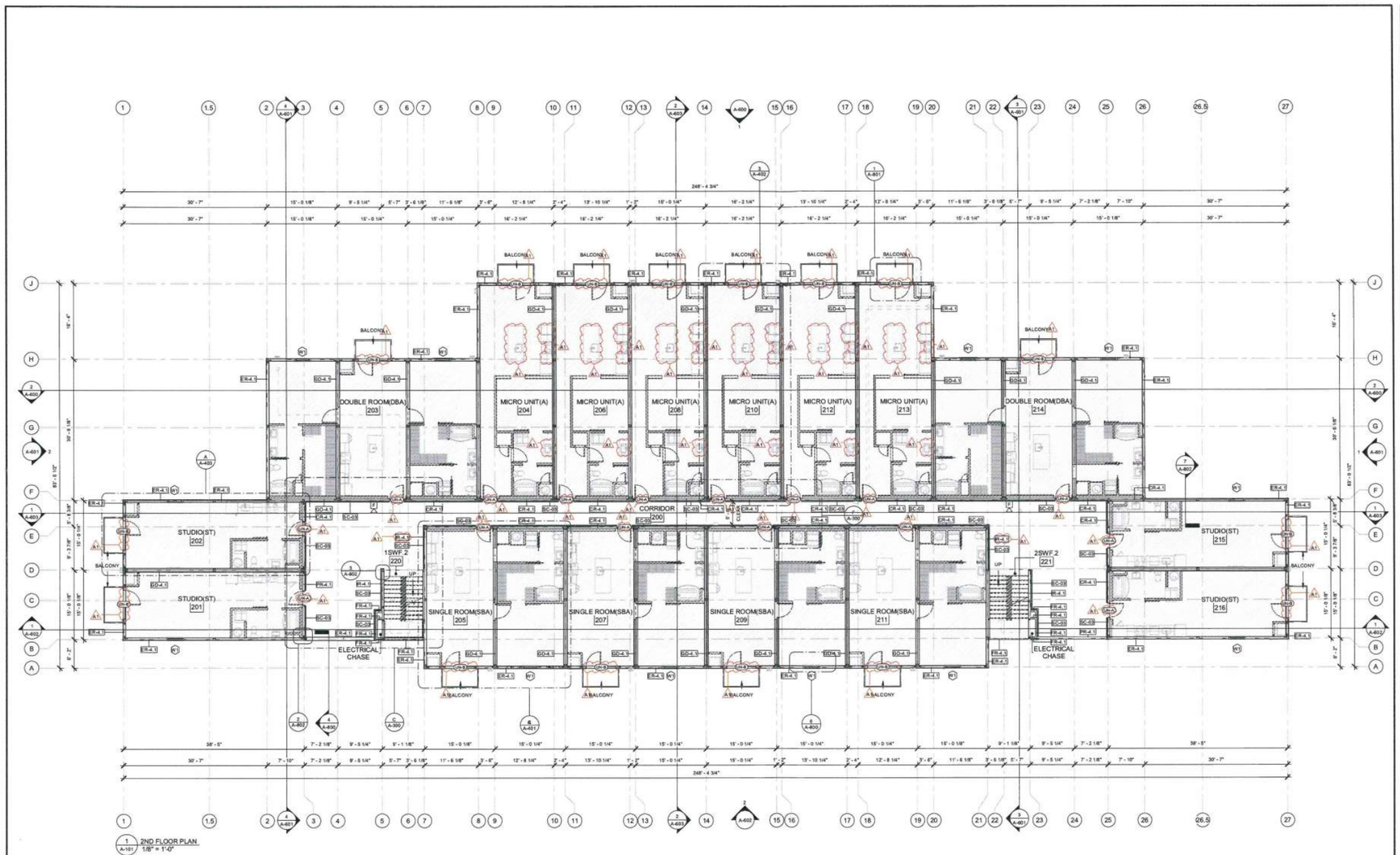
ISSUE NO.	DELTA	ISSUE DATE	DESCRIPTION
2	A1	2020.05.28	ADDENDUM #1
1	A0	2020.05.01	ISSUED FOR NTA REVIEW

CURRENT ISSUE
ISSUED FOR NTA REVIEW

CURRENT ISSUE DATE: 2020.05.28
DRAWN BY: ST
CHECKED BY: JGC/JM
PROJECT NO: B4-179-1904
SHEET NAME: 1ST FLOOR PLAN
DRAWINGS NO.: **A-100**



1 2ND FLOOR PLAN
1/8" = 1'-0"

GENERAL FLOOR PLAN NOTES

BASE4 NOTES

1. ALL DIMENSIONS TO FACE OF STUD UNLESS OTHERWISE NOTED
2. EXTERIOR AND CORRIDOR GRIDLINE ALIGNMENT IS ON FACE OF STUD UNLESS OTHERWISE NOTED
3. INTERIOR GRIDLINE ALIGNMENT IS ON CENTERLINE OF AIRGAP UNLESS OTHERWISE NOTED
4. INTERIOR DOORS TO BE MIN. OF 4" FROM ADJACENT WALLS AS SHOWN ON PLANS.
5. GYPSUM WALLBOARD CONTROL JOINTS TO BE 30'-0" MAX O.C. AND AT DOOR JAMBS FROM HEAD TO TERMINATION OF GYPSUM WALLBOARD.
6. REFER TO G-002 FOR ACCESSIBLE UNITS & COMMUNICATION ROOM NOTE.
7. REFER TO SHEETS STARTING ON A-400 FOR ENLARGED UNIT INFORMATION.
8. ROOF COVERING TO BE CLASS B
9. DATA PLATE AND TEXAS STATE INSIGNIA MUST BE LOCATED ON THE UNIT WHERE THEY WILL BE VISIBLE AFTER ERECTION THIS MUST BE PERMANENTLY AFFIXED TO THE UNIT SO THAT THEY MAY NOT BE REMOVED WITHOUT DESTRUCTION OF THE INSIGNIA OR DATA PLATE.
10. GRAB BAR FOR ACCESSIBILITY USE SHOWN ON PLANS AND ELEVATION ARE OPTIONAL

EXTERIOR FINISH LEGEND

MARK	MATERIAL-BRAND	MATERIAL & FINISH	MATERIAL IMAGE
LS-01	JAMES HARDIE - LAP SIDING	HORIZONTAL LAP SIDING	
LS-02	JAMES HARDIE - LAP SIDING	VERTICAL LAP SIDING - NIGHT GRAY	
SC-01	STUC-O-FLEX	314 - WHETSTONE	
SC-03	STUC-O-FLEX	LIGHT GREY	
TB-01	JAMES HARDIE	HARDIE TRIM - TRIM WHITE	

SCOPE LEGEND

MODULAR SCOPE
SITE SCOPE

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Seal:

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2020.05.28

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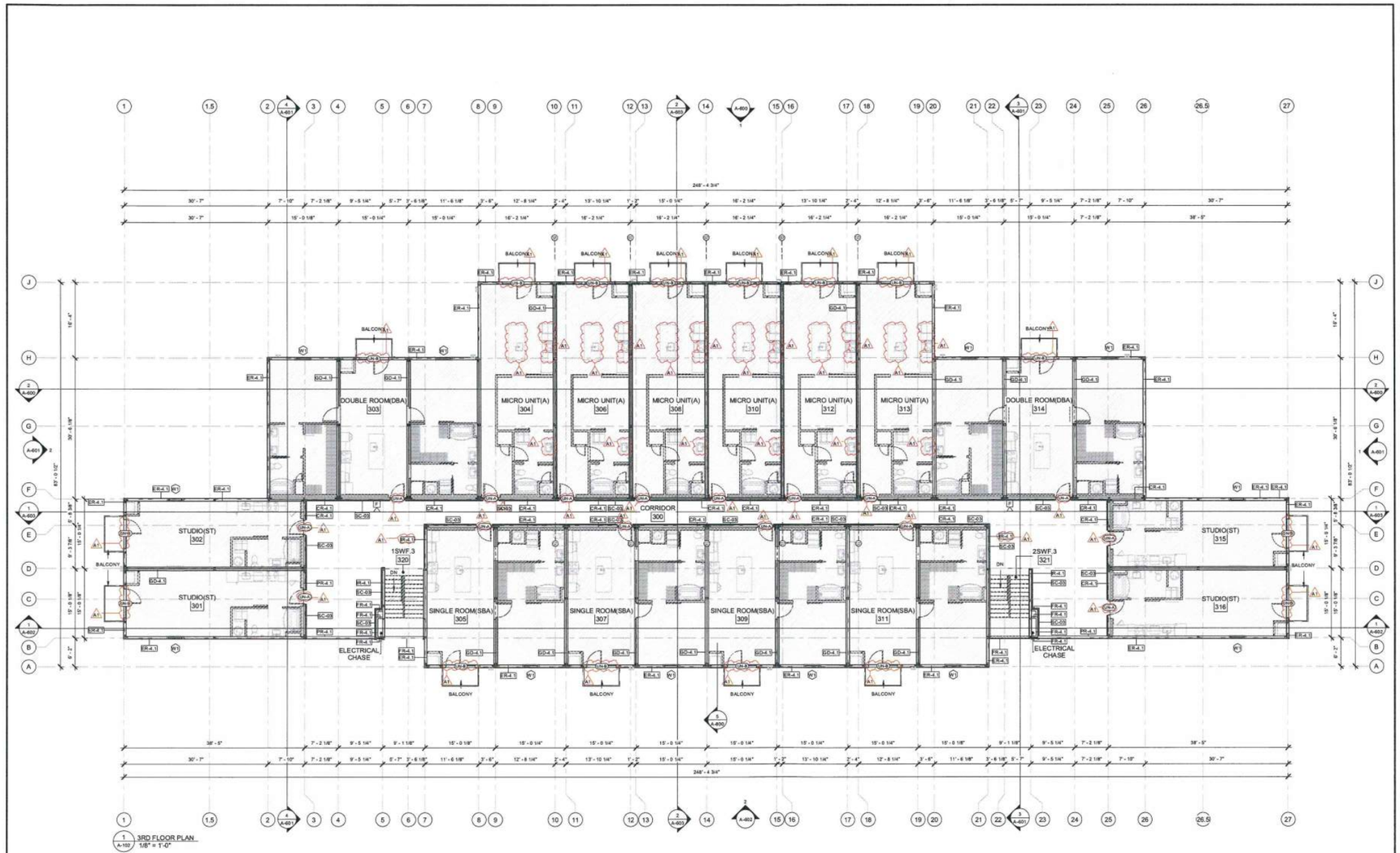
ISSUE NO	DELTA	ISSUE DATE	DESCRIPTION
2	A1	2020.05.28	ADDENDUM #1
1	A0	2020.05.01	ISSUED FOR NTA REVIEW

CURRENT ISSUE
ISSUED FOR NTA REVIEW

CURRENT ISSUE DATE: 2020.05.28
DRAWN BY: ST
CHECKED BY: JGC/JM
PROJECT NO: B4-179-1904

SHEET NAME
2ND FLOOR PLAN

DRAWINGS NO.
A-101



1 3RD FLOOR PLAN
A-102 1/8" = 1'-0"

GENERAL FLOOR PLAN NOTES

BASE4 NOTES

1. ALL DIMENSIONS TO FACE OF STUD UNLESS OTHERWISE NOTED
2. EXTERIOR AND CORRIDOR GRIDLINE ALIGNMENT IS ON FACE OF STUD UNLESS OTHERWISE NOTED
3. INTERIOR GRIDLINE ALIGNMENT IS ON CENTERLINE OF AIRGAP UNLESS OTHERWISE NOTED
4. INTERIOR DOORS TO BE MIN. OF 4" FROM ADJACENT WALLS AS SHOWN ON PLANS.
5. GYPSUM WALLBOARD CONTROL JOINTS TO BE 30'-0" MAX O.C. AND AT DOOR JAMBS FROM HEAD TO TERMINATION OF GYPSUM WALLBOARD.
6. REFER TO G-002 FOR ACCESSIBLE UNITS & COMMUNICATION ROOM NOTE.
7. REFER TO SHEETS STARTING ON A-400 FOR ENLARGED UNIT INFORMATION.
8. ROOF COVERING TO BE CLASS B
9. DATA PLATE AND TEXAS STATE INSIGNIA MUST BE LOCATED ON THE UNIT WHERE THEY WILL BE VISIBLE AFTER ERECTION. THIS MUST BE PERMANENTLY AFFIXED TO THE UNIT SO THAT THEY MAY NOT BE REMOVED WITHOUT DESTRUCTION OF THE INSIGNIA OR DATA PLATE.
10. GRAB BAR FOR ACCESSIBILITY USE SHOWN ON PLANS AND ELEVATION ARE OPTIONAL

EXTERIOR FINISH LEGEND

MARK	MATERIAL-BRAND	MATERIAL & FINISH	MATERIAL IMAGE
LS-01	JAMES HARDIE - LAP SIDING	HORIZONTAL LAP SIDING	
LS-02	JAMES HARDIE - LAP SIDING	VERTICAL LAP SIDING - NIGHT GRAY	
SC-01	STUC-O-FLEX	314 - WHETSTONE	
SC-03	STUC-O-FLEX	LIGHT GREY	
TS-01	JAMES HARDIE	HARDIE TRIM - TRIM WHITE	

SCOPE LEGEND

MODULAR SCOPE
SITE SCOPE
A1

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2020.05.28

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ISSUE NO	DELTA	ISSUE DATE	DESCRIPTION
2	A1	2020.06.26	ADDENDUM #1
1	A0	2020.05.01	ISSUED FOR NTA REVIEW

CURRENT ISSUE
ISSUED FOR NTA REVIEW

CURRENT ISSUE DATE: 2020.05.28
DRAWN BY: ST
CHECKED BY: JGC/JM
PROJECT NO: B4-179-1904

SHEET NAME
3RD FLOOR PLAN

DRAWINGS NO.
A-102

1 A-600 REAL ELEVATION 1/8" = 1'-0"

2 A-600 SECTION 1/8" = 1'-0"

GENERAL ELEVATION NOTES

1. REVIEW ALL SIGHTLINES AROUND PROPERTY BEFORE LOCATING ROOFTOP EQUIPMENT. VERIFY ALL EQUIPMENT IS ADEQUATELY SCREENED.
2. GC TO PROVIDE A MOCK WALL SHOWING A FULL WINDOW INSTALL WITH FLASHING.GC CAN USE A PROPORTIONALLY SCALED DOWN WINDOW IN LIE OF FULL SIZE WINDOW.
3. ALL EXTERIOR VENTS, GRILLES, MECHANICAL LOUVERS AND EXTERIOR HOLLOW METAL DOORS TO BE FINISHED TO MATCH ADJACENT EXTERIOR MATERIAL.
4. ALL BUILDING PERMITS TO BE CONSISTENT WITH THE APPROVED SITE PLAN. THE PLANNING DEPARTMENT DOES NOT REVIEW BUILDING PERMIT PLAN SETS, SO IT IS THE DEVELOPER'S RESPONSIBILITY TO ENSURE THAT ELEVATIONS SUBMITTED IN THE BUILDING PERMIT SET MATCH THOSE APPROVED DURING THE SITE PLAN REVIEW PROCESS. IF THE ELEVATIONS DO NOT MATCH THOSE IN THE SITE PLAN, IT WILL DELAY THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY AT THE END OF CONSTRUCTION, AND MAY NECESSITATE MODIFICATIONS TO THE CONSTRUCTED BUILDING.
5. ALL VENT PIPES, ETC. EXTENDING ABOVE THE ROOF SURFACE MUST BE PAINTED A COLOR THAT BLENDS WITH THE ROOF COLOR.
6. ARCHITECTURAL FINISH FLOOR ELEVATIONS REFER TO TOP OF FINISH FLOOR ASSEMBLY. SEE STRUCTURAL DWGS FOR TOP OF STRUCTURE AND BEARING HEIGHT ELEVATIONS

EXTERIOR FINISH LEGEND

MARK	MATERIAL-BRAND	MATERIAL & FINISH	MATERIAL IMAGE
LS-01	JAMES HARDIE - LAP SIDING	HORIZONTAL LAP SIDING	
LS-02	JAMES HARDIE - LAP SIDING	VERTICAL LAP SIDING - NIGHT GRAY	
SC-01	STUCO-O-FLEX	314 - WHETSTONE	
SC-03	STUCO-O-FLEX	LIGHT GREY	
TS-01	JAMES HARDIE	HARDIE TRIM - TRIM WHITE	

GENERAL BUILDING SECTION NOTES

1. ARCHITECTURAL FINISH FLOOR ELEVATIONS REFER TO TOP OF FINISH FLOOR ASSEMBLY. SEE STRUCTURAL DWGS FOR TOP OF STRUCTURE AND BEARING HEIGHT ELEVATIONS

SCOPE LEGEND

MODULAR SCOPE
SITE SCOPE

NOTE: FOR **ENERGY CODE INFORMATION** REFER TO SHEET G-003

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Seal:

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2020.05.28

Owner:

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2	A1	2020.06.2n	ADDENDUM #1
1	A0	2020.06.01	ISSUED FOR NTA REVIEW

CURRENT ISSUE
ISSUED FOR NTA REVIEW

CURRENT ISSUE DATE
2020.05.28

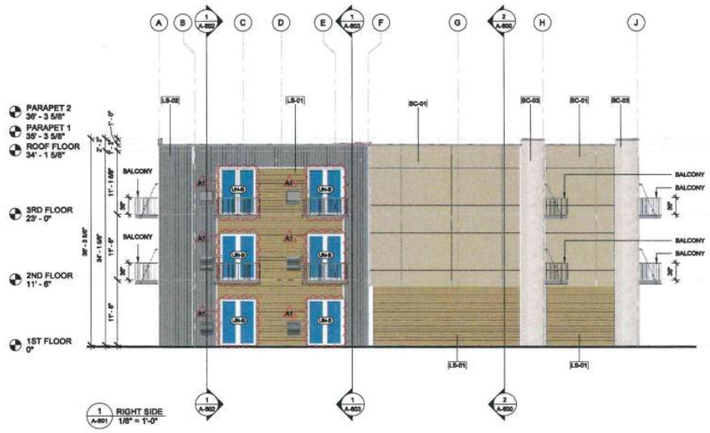
DRAWN BY
ST

CHECKED BY
JG/CJM

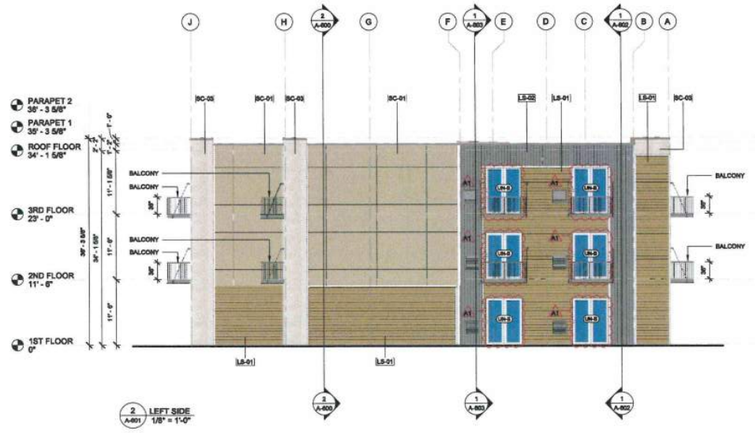
PROJECT NO.
B4-179-1904

SHEET NAME
EXTERIOR ELEVATION & BUILDING SECTION-1

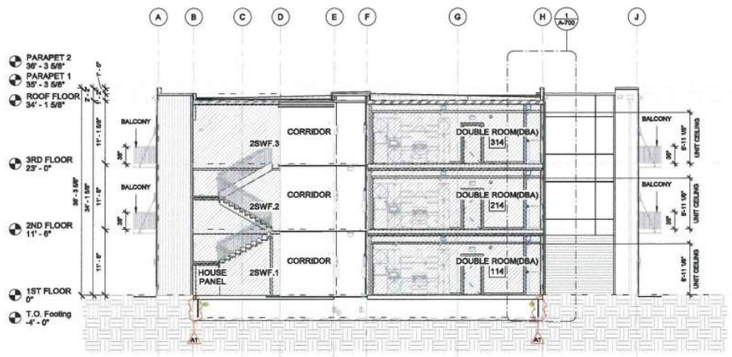
DRAWINGS NO.
A-600



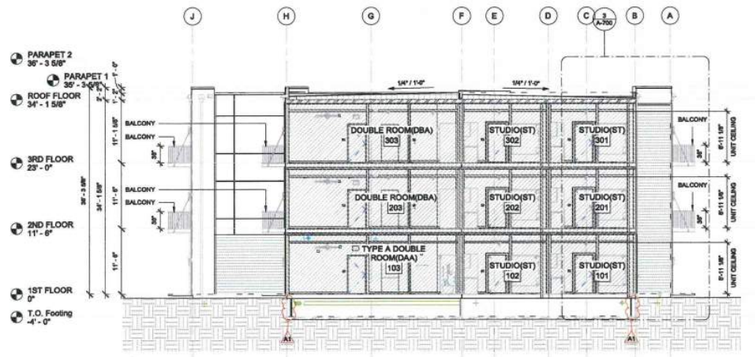
1 RIGHT SIDE
A-601 1/8" = 1'-0"



2 LEFT SIDE
A-601 1/8" = 1'-0"



3 BUILDING SECTION
A-601 1/8" = 1'-0"



4 BUILDING SECTION
A-601 1/8" = 1'-0"

GENERAL ELEVATION NOTES

1. REVIEW ALL SIGHTLINES AROUND PROPERTY BEFORE LOCATING ROOFTOP EQUIPMENT.VERIFY ALL EQUIPMENT IS ADEQUATELY SCREENED.
2. GC TO PROVIDE A MOCK WALL SHOWING A FULL WINDOW INSTALL WITH FLASHING GC CAN USE A PROPORTIONALLY SCALED DOWN WINDOW IN LIEU OF FULL SIZE WINDOW.
3. ALL EXTERIOR VENTS, GRILLES, MECHANICAL LOUVERS AND EXTERIOR HOLLOW METAL DOORS TO BE FINISHED TO MATCH ADJACENT EXTERIOR MATERIAL.
4. ALL BUILDING PERMITS TO BE CONSISTENT WITH THE APPROVED SITE PLAN. THE BUILDING DEPARTMENT DOES NOT REVIEW BUILDING PERMIT PLAN SETS, SO IT IS THE DEVELOPER'S RESPONSIBILITY TO ENSURE THAT BUILDING CD SUBMITTED IN THE BUILDING PERMIT SET MATCH THOSE APPROVED DURING THE SITE PLAN REVIEW PROCESS. IF THE ELEVATIONS DO NOT MATCH THOSE IN THE SITE PLAN, IT WILL DELAY THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY AT THE END OF CONSTRUCTION, AND MAY NECESSITATE MODIFICATIONS TO THE CONSTRUCTED BUILDING.
5. ALL VENT PIPES, ETC. EXTENDING ABOVE THE ROOF SURFACE MUST BE PAINTED A COLOR THAT BLENDS WITH THE ROOF COLOR.
6. ARCHITECTURAL FINISH FLOOR ELEVATIONS REFER TO TOP OF FINISH FLOOR ASSEMBLY. SEE STRUCTURAL DWGS FOR TOP OF STRUCTURE AND BEARING HEIGHT ELEVATIONS

EXTERIOR FINISH LEGEND

MARK	MATERIAL-BRAND	MATERIAL & FINISH	MATERIAL IMAGE
LS-01	JAMES HARDIE - LAP SIDING	HORIZONTAL LAP SIDING	
LS-02	JAMES HARDIE - LAP SIDING	VERTICAL LAP SIDING - NIGHT GRAY	
SC-01	STUCO-O-FLEX	314 - WHETSTONE	
SC-02	STUCO-O-FLEX	LIGHT GREY	
TS-01	JAMES HARDIE	HARDIE TRIM - TRIM WHITE	

GENERAL BUILDING SECTION NOTES

1. ARCHITECTURAL FINISH FLOOR ELEVATIONS REFER TO TOP OF FINISH FLOOR ASSEMBLY. SEE STRUCTURAL DWGS FOR TOP OF STRUCTURE AND BEARING HEIGHT ELEVATIONS

NOTE: FOR **ENERGY CODE INFORMATION** REFER TO SHEET G-003

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RICARDO J. MUNIZ - GUILLET, AIA
5453 NW 106TH DR
CORAL SPRINGS, FLORIDA 33076

Seal:

2020.05.28

Owner:

ZModular
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Warren Hayes
100 W Big Beaver Rd, Suite 390, Troy,
MI 48084
WARREN.HAYES@ZEKELMAN.COM
612.845.5319

ISSUE NO.	DELTA	ISSUE DATE	DESCRIPTION
2	A1	2020.06.29	ADDENDUM #1
1	A0	2020.06.01	ISSUED FOR NTA REVIEW

CURRENT ISSUE
ISSUED FOR NTA REVIEW

CURRENT ISSUE DATE
2020.05.28

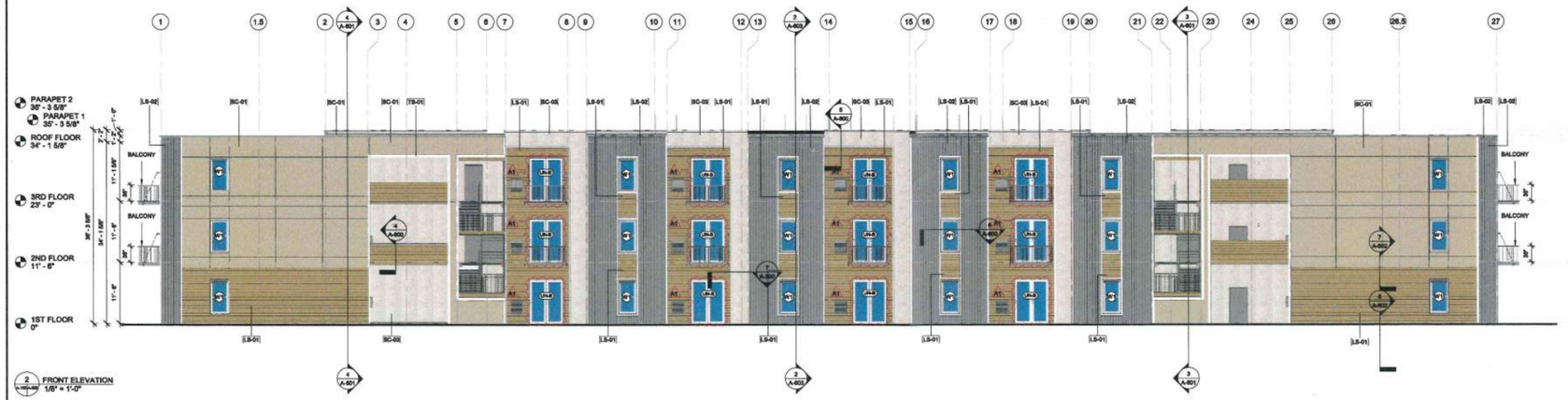
DRAWN BY
ST

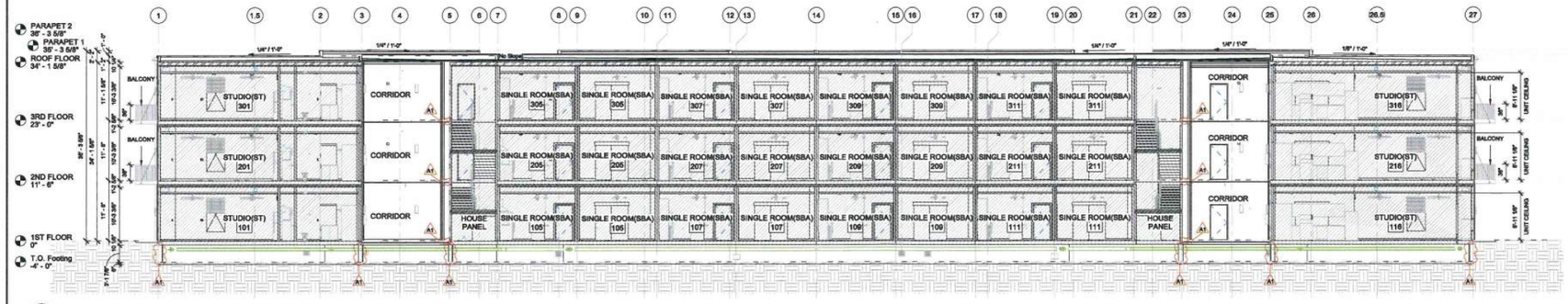
CHECKED BY
JGC/JM

PROJECT NO.
B4-179-1904

SHEET NAME
EXTERIOR ELEVATION & BUILDING SECTION-2

DRAWINGS NO.
A-601





GENERAL ELEVATION NOTES

1. REVIEW ALL SIGHTLINES AROUND PROPERTY BEFORE LOCATING ROOFTOP EQUIPMENT. VERIFY ALL EQUIPMENT IS ADEQUATELY SCREENED.
2. GC TO PROVIDE A MOCK WALL SHOWING A FULL WINDOW INSTALL WITH FLASHING GC CAN USE A PROPORTIONALLY SCALED DOWN WINDOW IN LIEU OF FULL SIZE WINDOW.
3. ALL EXTERIOR VENTS, GRILLES, MECHANICAL LOUVERS AND EXTERIOR HOLLOW METAL DOORS TO BE FINISHED TO MATCH ADJACENT EXTERIOR MATERIAL.
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EXTERIOR FINISH LEGEND

MARK	MATERIAL-BRAND	MATERIAL & FINISH	MATERIAL IMAGE
LS-01	JAMES HARDIE - LAP SIDING	HORIZONTAL LAP SIDING	
LS-02	JAMES HARDIE - LAP SIDING	VERTICAL LAP SIDING - NIGHT GRAY	
SC-01	STUCO-O-FLEX	314 - WHETSTONE	
SC-03	STUCO-O-FLEX	LIGHT GREY	
TS-01	JAMES HARDIE	HARDIE TRIM - TRIM WHITE	

GENERAL BUILDING SECTION NOTES

1. ARCHITECTURAL FINISH FLOOR ELEVATIONS REFER TO TOP OF FINISH FLOOR ASSEMBLY. SEE STRUCTURAL DWGS FOR TOP OF STRUCTURE AND BEARING HEIGHT ELEVATIONS

NOTE: FOR **ENERGY CODE INFORMATION** REFER TO SHEET G-003

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2020.05.28

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ISSUE NO.	DELTA	ISSUE DATE	DESCRIPTION
2	A1	2020.06.26	ADDENDUM #1
1	A0	2020.06.01	ISSUED FOR NTA REVIEW

CURRENT ISSUE
ISSUED FOR NTA REVIEW

CURRENT ISSUE DATE
2020.05.26

DRAWN BY
ST

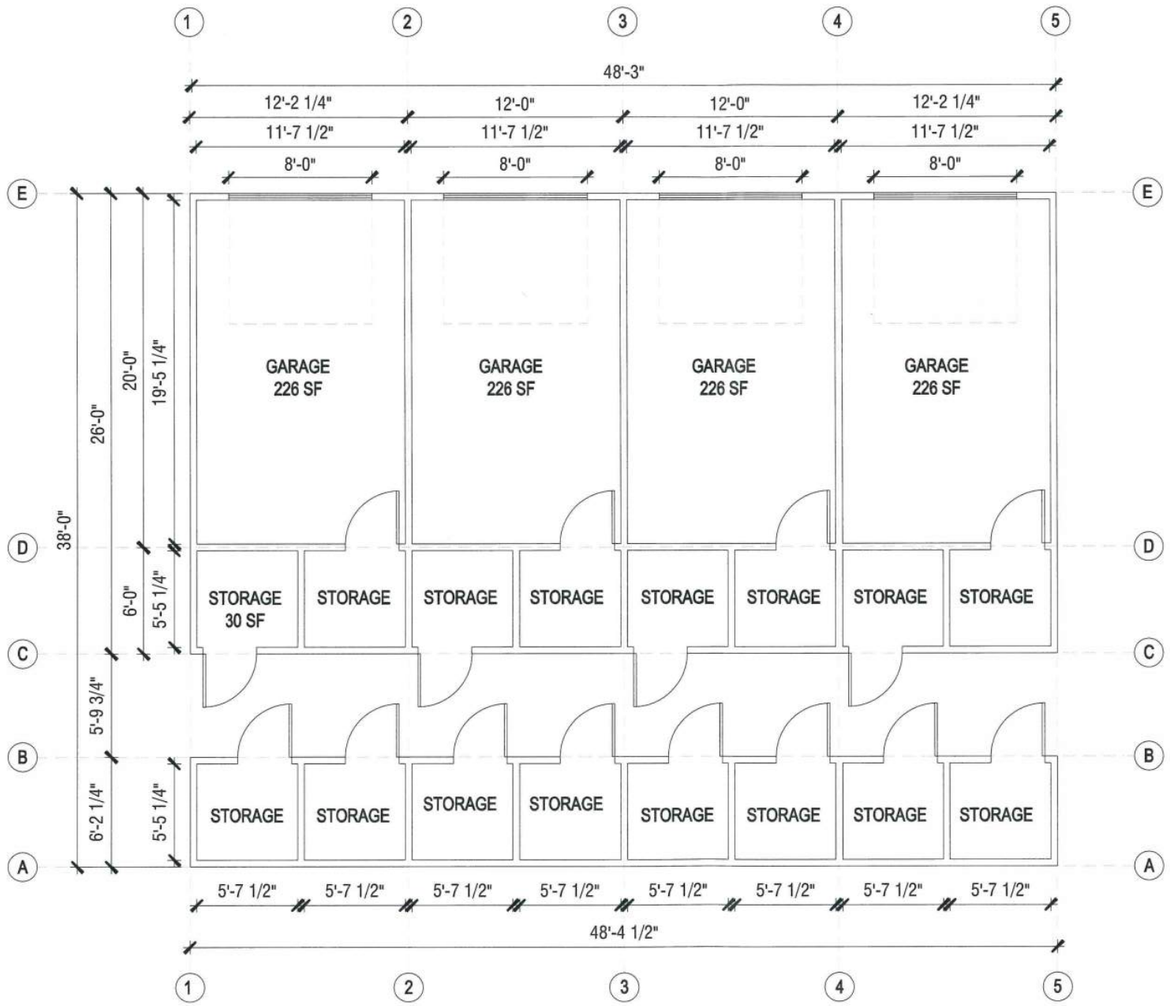
CHECKED BY
JGC/JM

PROJECT NO.
B4-179-1904

SHEET NAME
EXTERIOR ELEVATION & BUILDING SECTION-3

DRAWINGS NO.
A-602

PROJECT MATRIX - STANDARD		
ROOM MATRIX		
ROOM TYPE	1ST	SF
GARAGE	4	226
STORAGE	16	30
GRAND TOTAL	20	256
FLOOR AREA (SF)		
1ST LEVEL FLOOR PLAN		1,838
TOTAL		1,838



1 GARAGE - STANDARD
SCALE: 1/3"=1'-0"

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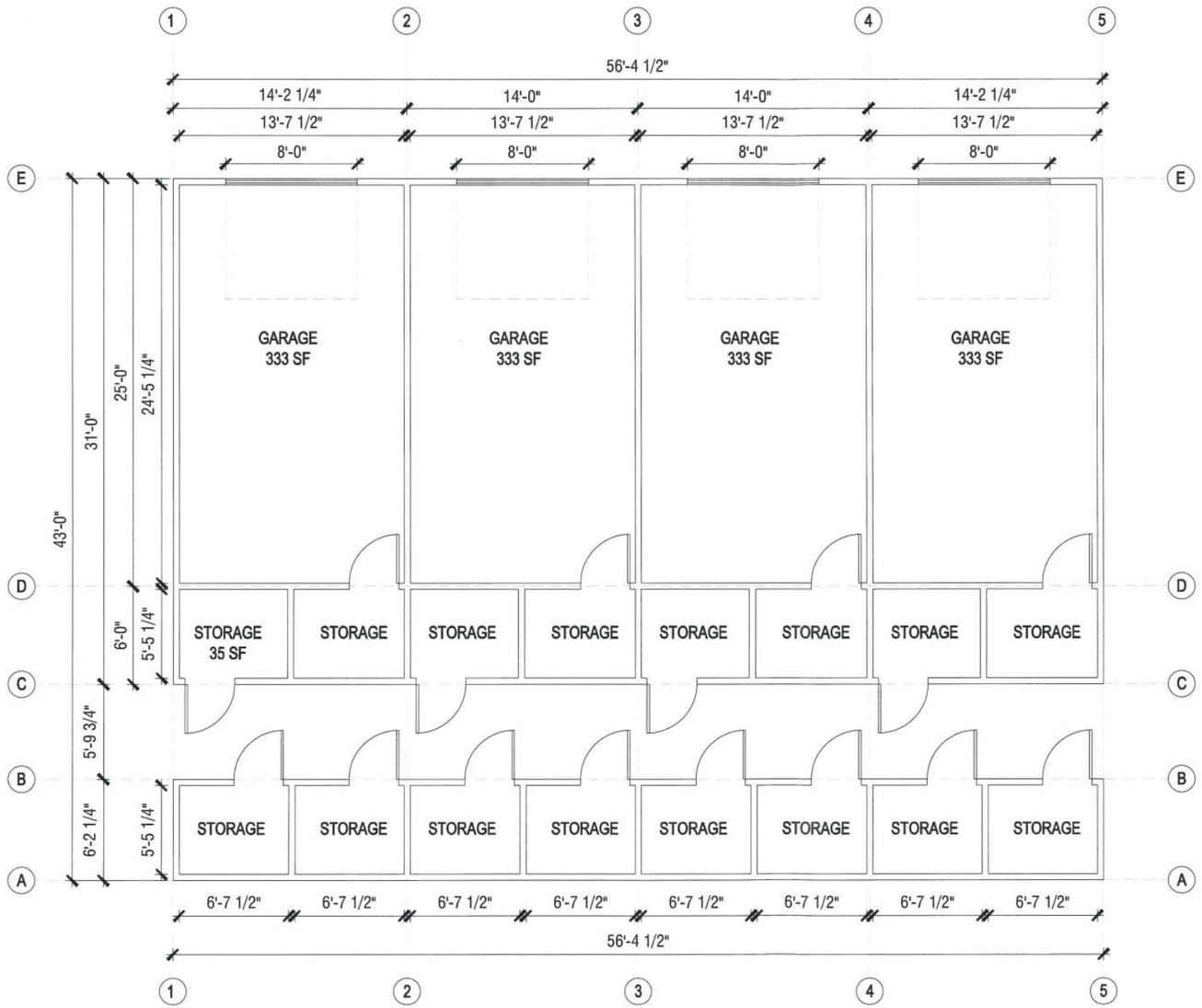
THE TENLEY
MIDLAND,TX

No.	ISSUE DATE	PROJECT STATUS

DATE	2020.06.11
DRAWN BY	SAB
CHECKED BY	DH
SCALE	AS NOTED
PROJECT NO.	B4-179-1906

SHEET NAME
FLOOR PLANS

DRAWING NO.
A2.1



1 GARAGE - OVERSIZED
SCALE: 1/3"=1'-0"

PROJECT MATRIX - OVERSIZED		
ROOM MATRIX		
ROOM TYPE	1ST	SF
GARAGE	4	333
STORAGE	16	35
GRAND TOTAL	20	868
FLOOR AREA (SF)		
1ST LEVEL FLOOR PLAN		2,424
TOTAL		2,424

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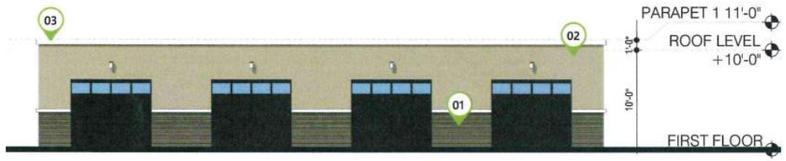
THE TENLEY
MIDLAND,TX

No.	ISSUE DATE	PROJECT STATUS

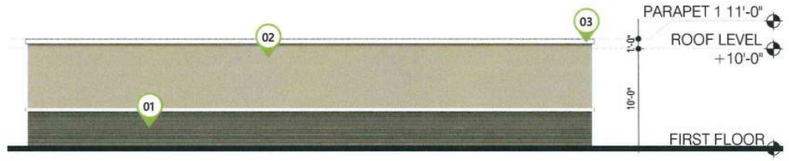
DATE	2020.06.11
DRAWN BY	SAB
CHECKED BY	DH
SCALE	AS NOTED
PROJECT NO.	B4-179-1906

SHEET NAME
FLOOR PLANS

DRAWING NO.
A2.2



3 ELEVATION 3
SCALE: 3/16"= 1'-0"

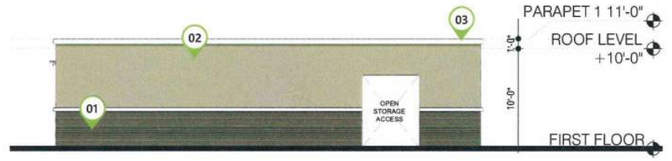


4 ELEVATION 4
SCALE: 3/16"= 1'-0"

LEGEND-EXTERIOR FINISHES

MARK	MTL-BRAND	FINISH-COLOR	IMAGE
01	JAMES HARDIE LAP SIDING	HORIZONTAL LAP SIDING	
02	STUC-O-FLEX	314-WHETSTONE	
03	JAMES HARDIE	HARDIE TRIM-TRIM WHITE	

1 ELEVATION 1
SCALE: 3/16"= 1'-0"



2 ELEVATION 2
SCALE: 3/16"= 1'-0"

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Owner:

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THE TENLEY-GARAGES
MIDLAND,TX

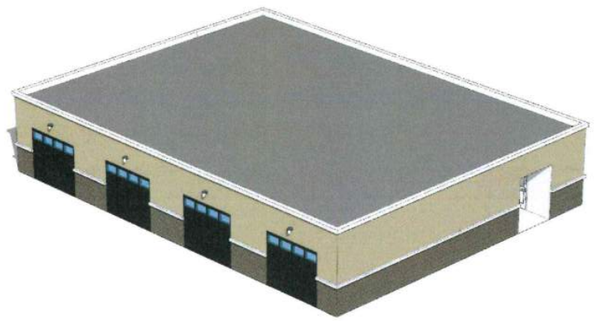
No.	ISSUE DATE	PROJECT STATUS

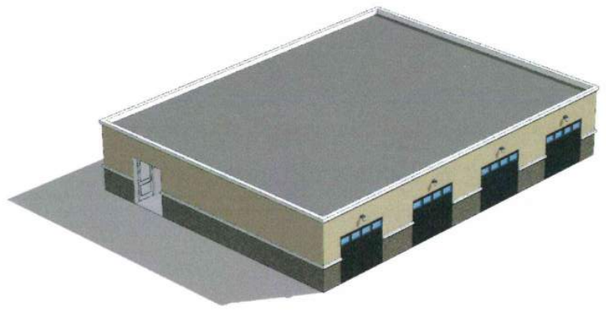
DATE	2020.06.19
DRAWN BY	AZ
CHECKED BY	DH
SCALE	AS NOTED
PROJECT NO.	B4-179-1906

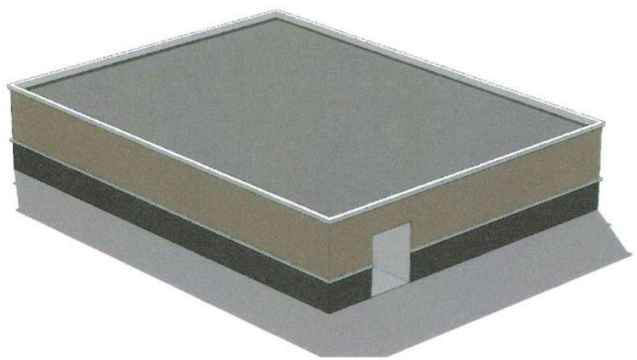
SHEET NAME

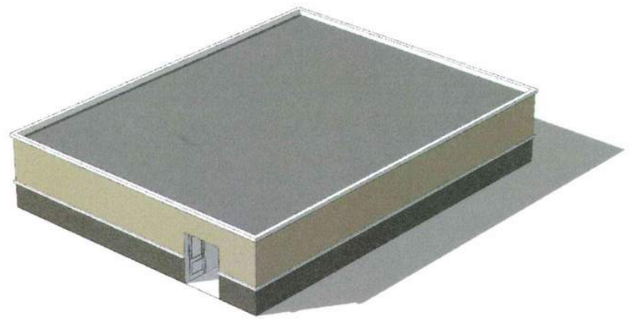
ELEVATIONS

DRAWING NO.
A3.1









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Owner:

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THE TENLEY-GARAGES
MIDLAND,TX

No.	ISSUE DATE	PROJECT STATUS

DATE	2020.06.19
DRAWN BY	AZ
CHECKED BY	DH
SCALE	AS NOTED
PROJECT NO.	B4-179-1906

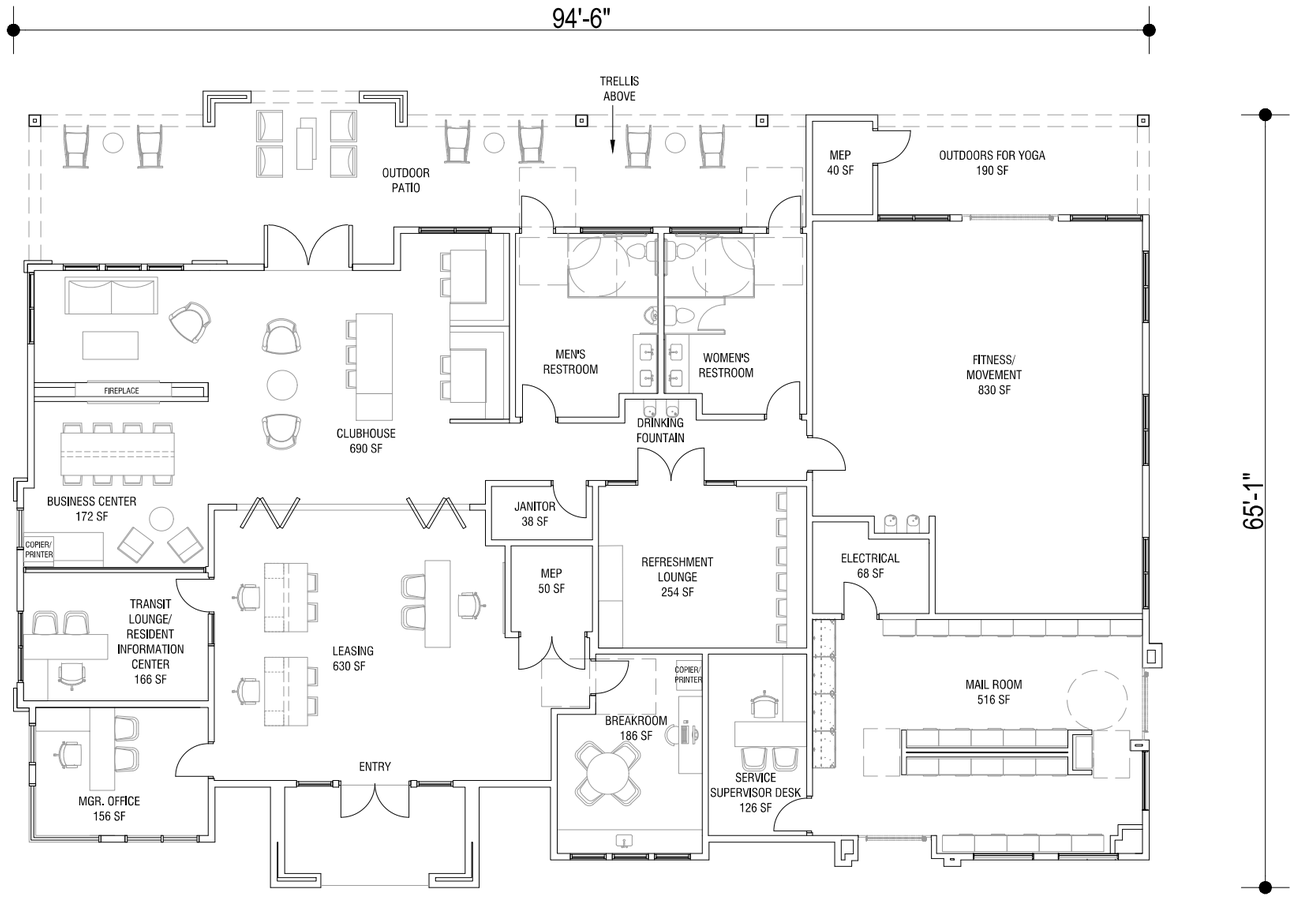
SHEET NAME

VIEWS

DRAWING NO.

A3.2

PROJECT MATRIX	
FLOOR AREA (SF)	
CURRENT CLUB-HOUSE AREA	4,908
PREVIOUS CLUBHOUSE AREA	6,414
TOTAL	-1,506



1 FIRST FLOOR PLAN
SCALE: 3/16"=1'-0"

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Owner:

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CLUBHOUSE
MIDLAND, TX

No.	ISSUE DATE	PROJECT STATUS

DATE	2020.07.01
DRAWN BY	SD
CHECKED BY	DH
SCALE	AS NOTED
PROJECT NO.	B4-179-1906 (A)

SHEET NAME
FLOOR PLANS OPTION-2

DRAWING NO.
A2.1

PACKET
18.96
September 8, 2020

LEGEND-EXTERIOR FINISHES			
MARK	MTL-BRAND	FINISH-COLOR	IMAGE
01	LAP SIDING JAMES HARDIE		
03	STUCCO-STO		
04	LAP SIDING JAMES HARDIE	NIGHT GRAY LINE	
05	STUCCO	SW-7001 MARSHMALLOW	

2 RIGHT ELEVATION
SCALE: 3/16" = 1'-0"

1 FRONT ELEVATION
SCALE: 3/16" = 1'-0"

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CLUBHOUSE
MIDLAND, TX

No.	ISSUE DATE	PROJECT STATUS

DATE	2020.07.01
DRAWN BY	AZ
CHECKED BY	DH
SCALE	AS NOTED
PROJECT NO.	B4-179-1906 (A)
SHEET NAME	

ELEVATIONS

DRAWING NO.
A3.1

PACKET
18.97
September 8, 2020

LEGEND-EXTERIOR FINISHES			
MARK	MTL-BRAND	FINISH-COLOR	IMAGE
01	LAP SIDING JAMES HARDIE		
03	STUCCO-STO		
04	LAP SIDING JAMES HARDIE	NIGHT GRAY LINE	
05	STUCCO	SW-7001 MARSHMALLOW	

2 LEFT ELEVATION
SCALE: 3/16" = 1'-0"

1 REAR ELEVATION
SCALE: 3/16" = 1'-0"

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CLUBHOUSE
MIDLAND, TX

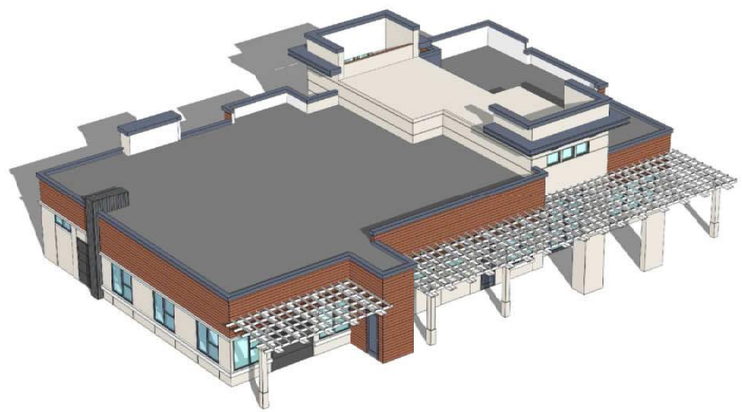
No.	ISSUE DATE	PROJECT STATUS

DATE	2020.07.01
DRAWN BY	AZ
CHECKED BY	DH
SCALE	AS NOTED
PROJECT NO.	B4-179-1906 (A)
SHEET NAME	

ELEVATIONS

DRAWING NO.
A3.2

PACKET
18.98
September 8, 2020



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CLUBHOUSE
MIDLAND, TX

No.	ISSUE DATE	PROJECT STATUS

DATE	2020.07.01
DRAWN BY	AZ
CHECKED BY	DH
SCALE	AS NOTED
PROJECT NO.	B4-179-1906 (A)

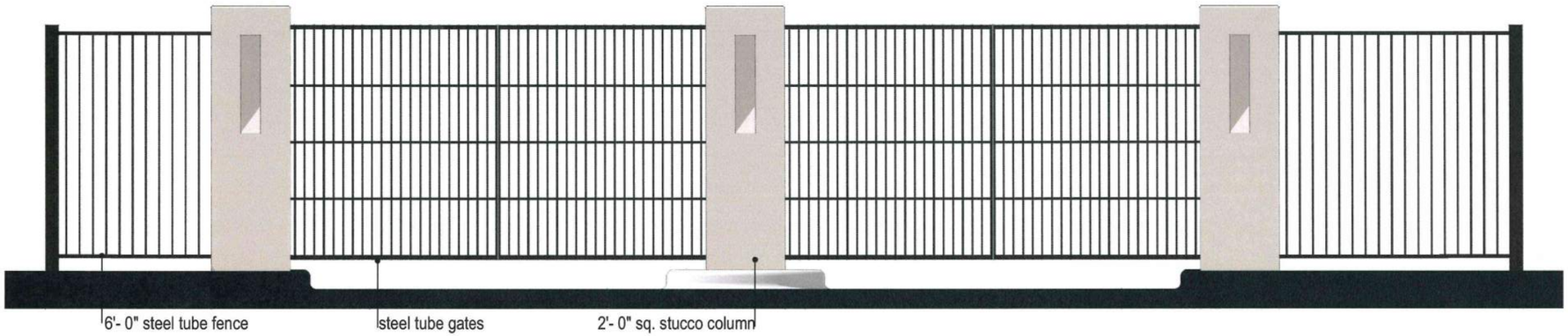
SHEET NAME

VIEWS

DRAWING NO.

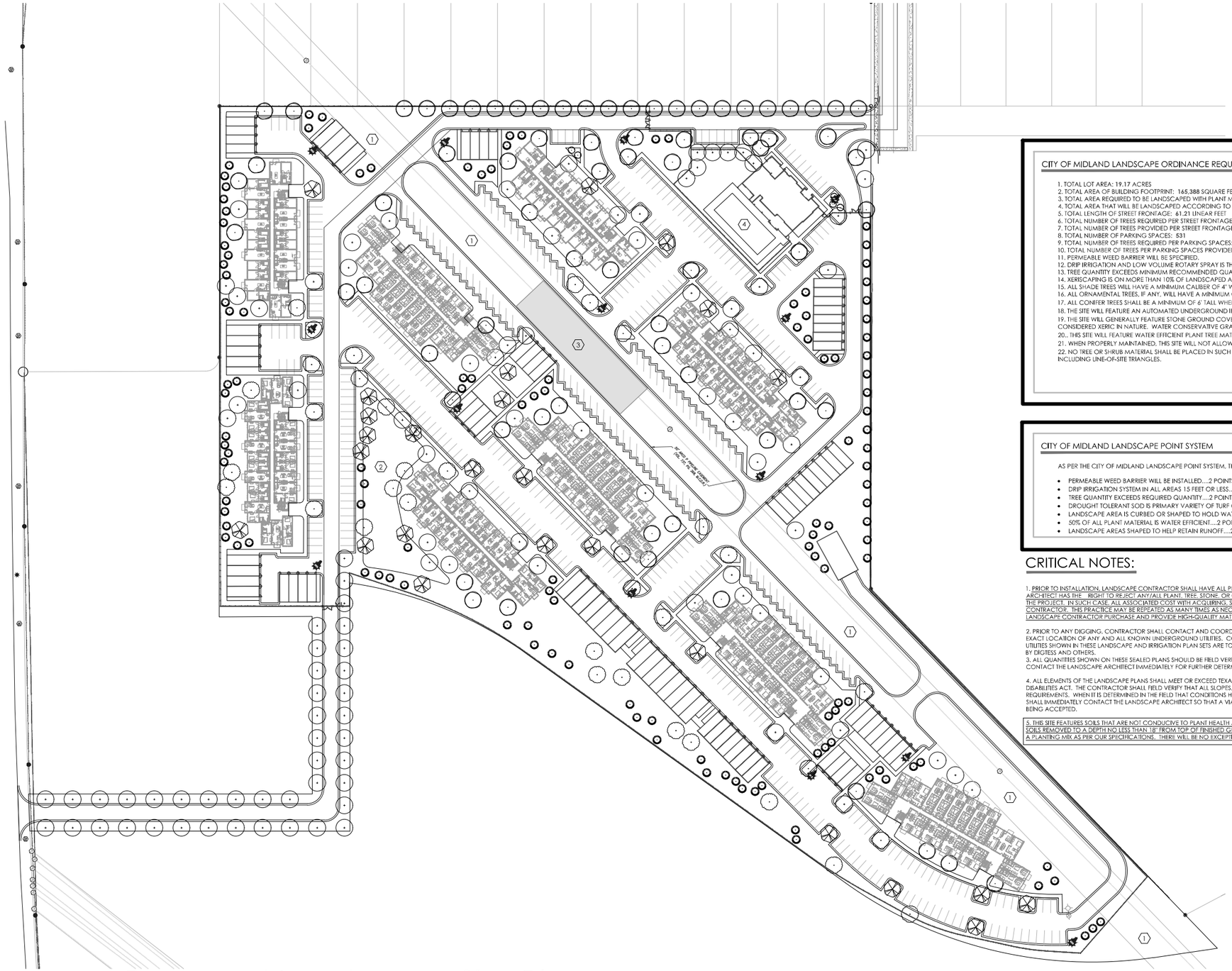
A3.3

PACKET
18.99
September 8, 2020



TENLEY GATED ENTRY

concept elevation


1
2
3
4
1
1
1

LANDSCAPE NOTES:

1. VERIFY EXISTING SITE INFORMATION, INCLUDING STRUCTURES, UTILITIES, PROPERTY LINES, LIMITS OF ROADWAYS, AND CURB/GUTTERS, THAT MAY EFFECT THE SCOPE OF WORK PRIOR TO BEGINING SITE CONSTRUCITON.

2. EXISTING UTILITIES ARE INDICATED FOR INFORMATION ONLY AND NOT INTENDED TO SHOW EXACT LOCATION. THE OWNER'S REPRESENTATIVE IS NOT RESPONSIBLE FOR THE LOCATION OF UNDERGROUND UTILITIES OR STRUCTURES WHETHER OR NOT SHOWN OR DETAILED AND INSTALLED BY ANY OTHER CONTRACT. THE CONTRACTOR SHALL LOCATE ALL UTILITIES AND MAINTAIN THE LOCATION DURING ALL PHASES OF THE WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO UTILITIES OR STRUCTURES AND ANY INJURIES THEREFROM. RESTORATION OF ANY UTILITIES DAMAGED BY THE CONTRACTOR SHALL BE AT THE CONTRACTORS EXPENSE TO THE SATISFACTION OF THE OWNER.

3. THE CONTRACTOR SHALL TAKE ALL NECESSARY STEPS AS REQUIRED TO PROPERLY PROTECT AND MAINTAIN HIS WORK FOR THE DURATION OF THIS CONTRACT. EQUIPMENT SHALL BE REMOVED OR SECURELY AFFIXED TO SITE AT END OF WORK DAY. DAMAGE OR THEFT OF EQUIPMENT IS SOLELY THE RESPONSIBILITY OF THE CONTRACTOR, AND ANY INJURY OR OTHER LIABILITY ARISING FROM EQUIPMENT OR MATERIALS LEFT OR STORED ON SITE SHALL SOLELY BE THE RESPONSIBILITY OF THE CONTRACTOR.

4. PROVIDE WRITTEN NOTIFICATION OF ALL DISCREPANCIES BETWEEN EXISTING AND PROPOSED SITE IMPROVEMENTS.

5. ALL WORK SHALL COMPLY WITH ALL APPLICABLE CODES AND ORDINANCES OF THE CITY IN WHICH THE PROJECT IS LOCATED, AND THE STATE OF TEXAS.

6. ANYTHING MENTIONED IN THE TECHNICAL SPECIFICATIONS AND NOT SHOWN ON THE DRAWINGS, OR SHOWN ON THE DRAWINGS AND NOT MENTIONED IN THE TECHNICAL SPECIFICATIONS SHALL BE OF LIKE EFFECT AS IF SHOWN OR MENTIONED IN BOTH. IN CASE OF A DISCREPANCY BETWEEN THE DRAWINGS AND TECHNICAL SPECIFICATIONS, THE MATTER SHALL BE IMMEDIATELY SUBMITTED TO THE OWNERS REPRESENTATIVE, WITHOUT HIS DECISIONS, SAID DISCREPENCY SHALL NOT BE ADJUSTED BY THE CONTRACTOR, SAVE ONLY AT HIS OWN RISK AND EXPENSE.

7. CONTRACTOR SHALL STAKE OUT PLAN TO ITS FULL EXTENT AND SHALL OBTAIN THE APPROVAL OF THE LANDSCAPE ARCHITECT AND OWNER, MAKING MODIFICATIONS AS REQUIRED PRIOR TO PROCEEDING WITH THE WORK.

8. NOTES AND DETAILS ON SPECIFIED DRAWINGS TAKE PRECEDENCE OVER GENERAL NOTES AND TYPICAL DETAILS. GRAPHIC QUANTITIES DRAWIN TAKE PRECEDENCE OVER WRITTEN QUANTITY ESTIMATES.

9. ALL FINISHED GRADES SHALL PROVIDE FOR NATURAL RUNOFF OF WATER WITHOUT LOW SPOTS OR POCKETS. UNLESS SPECIFICALLY DRAWN AND DETAILED, ALL FLOW SHALL BE AWAY FROM ALL STRUCTURES OR PLAYING FIELDS ON SITE, AND SHALL NOT CROSS SIDEWALKS OR OTHER PEDESTRIAN FLOW AREAS.

10. HOLD FINISHED GRADES FOR PLANTING LAWN AREAS 1.5" BELOW TOP OF ADJACENT PAVEMENT. ALL FINISHED GRADES FOR PLANTING BEDS SHALL BE HELD AT 3" BELOW TOP OF ADJACENT PAVEMENT.

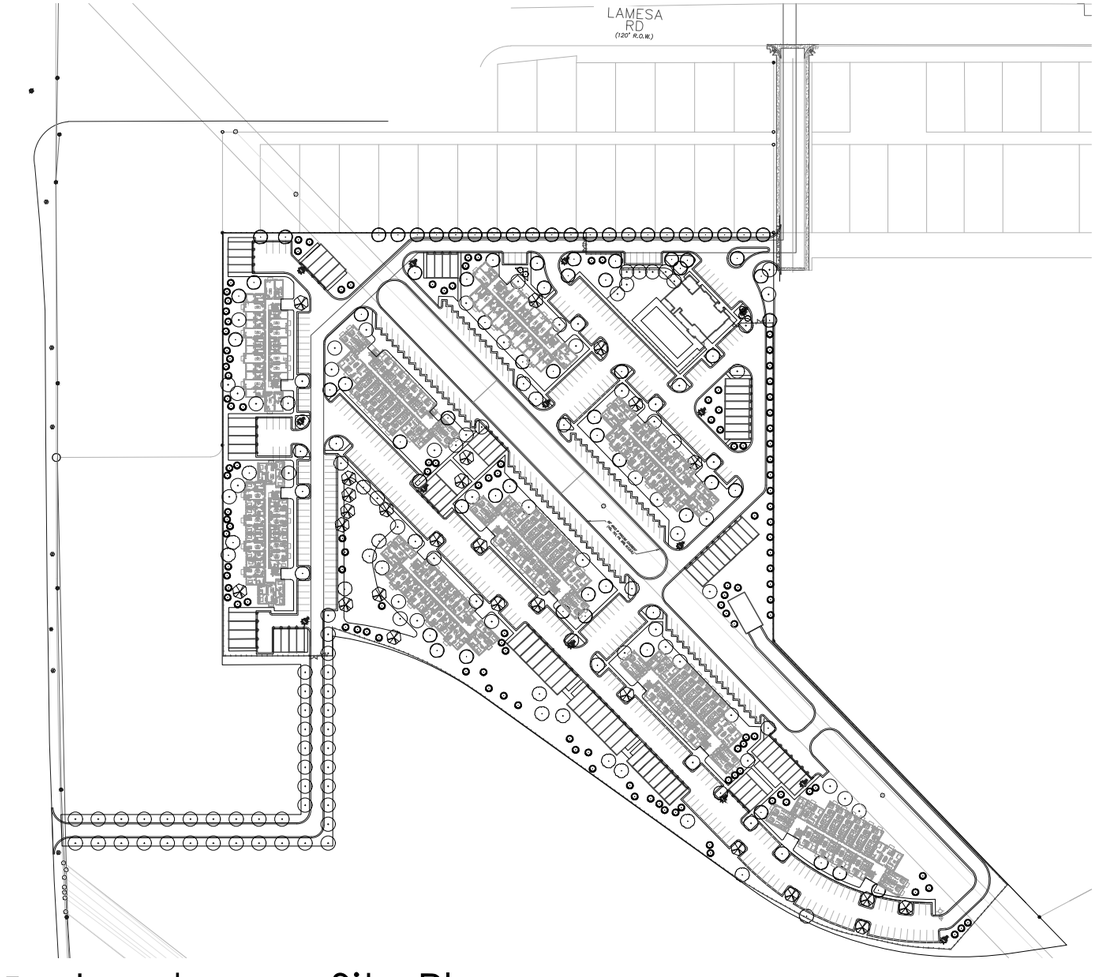
11. GRADUALLY ROUND OFF TOPS AND TOES OF ALL PLANTED SLOPES TO PRODUCE A SMOOTH ARCHITECTURAL TRANSITION BETWEEN RELATIVELY LEVEL AREAS AND SLOPES, UNLESS SPECIFICALLY DETAILED IN THE LANDSCAPE GRADING DETAILS.

12. GRADES SHOWN ARE FINISHED GRADES. SUBGRADES NEEDED TO ATTAIN FILL OR TOPSOIL PLACEMENT ARE NOT REFLECTED.

13. IF USED IN THE PLAN, ALL RETAINING WALL TOPS ARE LEVEL UNLESS OTHERWISE INDICATED.

14. PLANS DO NOT INDICATE ALL SLEEVE LOCATIONS! SLEEVES AND CONDUITS SHALL BE INSTALLED 18" BELOW ANY PAVEMENT, AND UNDER ALL SIDEWALKS OR PAVEMENT AREAS WHICH ARE WIDER THAN 48 INCHES. INSTALLING SUCH SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR WHO SHALL COORDINATE HIS WORK WITH ALL TRADES WHO MAY NEED SLEEVE ACCESS. UNLESS OTHERWISE INDICATED, ALL SLEEVES SHALL BE 4" SCHEDULE 40 PVC, AND SHALL EXTEND A MINIMUM OF 12" BEYOND THE PAVEMENT. WHERE MAINLINES ARE 3" OR LARGER, SLEEVES SHALL BE 6" SCHEDULE 40 PVC. ENDS SHALL BE CLEARLY MARKED WITH FLAGGING TAPE, PIPE, SURVEY FLAGS, OR OTHER SEMI-PERMANENT MARK.

15. UNLESS SPECIFICALLY INDICATED, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION, MAINTENANCE, AND RESTORATION OF ANY ELECTRICAL, IRRIGATION AND DRAINAGE SYSTEMS ON SITE.



01 Landscape Site Plan

1" = 100'

CRITICAL NOTES:

1. PRIOR TO INSTALLATION, LANDSCAPE CONTRACTOR SHALL HAVE ALL PLANT AND TREE MATERIAL REVIEWED IN A LOCAL NURSERY/HOLDING AREA. LANDSCAPE ARCHITECT HAS THE RIGHT TO REJECT ANY/ALL PLANT, TREE, STONE, OR OTHER CONSTRUCTION MATERIALS IF HE FEELS THAT THEY DO NOT MEET THE INTENDED QUALITY OF THE PROJECT. IN SUCH CASE, ALL ASSOCIATED COST WITH ACQUIRING, SHIPPING, AND INSTALLING NEW MATERIAL SHALL SOLELY BE AT THE COST OF THE LANDSCAPE CONTRACTOR. THIS PRACTICE MAY BE REPEATED AS MANY TIMES AS NECESSARY IN ORDER TO ACHIEVE THE DESIRED QUALITY. THEREFORE, IT IS CRITICAL THAT THE LANDSCAPE CONTRACTOR PURCHASE AND PROVIDE HIGH-QUALITY MATERIAL UPON SUCCESSFUL BIDDING AND AWARD OF THE PROJECT.

2. PRIOR TO ANY DIGGING, CONTRACTOR SHALL CONTACT AND COORDINATE WITH 1-800-DIG-TESS. www.DIGTESS.COM, IN ORDER TO VERIFY EXISTENCE AND DETERMINE EXACT LOCATION OF ANY AND ALL KNOWN UNDERGROUND UTILITIES. CONTRACTOR SHALL NOT DIG PRIOR TO DIGTESS SITE RESULTS AND MARKINGS. ALL UNDERGROUND UTILITIES SHOWN IN THESE LANDSCAPE AND IRRIGATION PLAN SETS ARE TO BE CONSIDERED DIAGRAMMATIC AND GENERAL IN LOCATION PRIOR TO EXACT DETERMINATION BY DIGTESS AND OTHERS.

3. ALL QUANTITIES SHOWN ON THESE SEALED PLANS SHOULD BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO BIDDING. WHERE DISCREPANCIES ARISE, CONTRACTOR TO CONTACT THE LANDSCAPE ARCHITECT IMMEDIATELY FOR FURTHER DETERMINATION ON QUANTITIES TO BE PLACED IN THE FIELD.

4. ALL ELEMENTS OF THE LANDSCAPE PLANS SHALL MEET OR EXCEED TEXAS ACCESSIBILITY STANDARDS AS WELL AS STANDARDS SET FORTH BY THE AMERICANS WITH DISABILITIES ACT. THE CONTRACTOR SHALL FIELD VERIFY THAT ALL SLOPES, DISTANCES, OR OTHER MEASUREMENTS AND STANDARDS MEET STATE AND FEDERAL ACCESSIBILITY REQUIREMENTS. WHEN IT IS DETERMINED IN THE FIELD THAT CONDITIONS HAVE INFLUENCED THE CAPACITY OF THE DESIGN TO MEET THESE STANDARDS, THE CONTRACTOR SHALL IMMEDIATELY CONTACT THE LANDSCAPE ARCHITECT SO THAT A VIABLE SOLUTION CAN BE AGREED UPON. FAILURE TO DO SO MAY RESULT IN THE PROJECT NOT BEING ACCEPTED.

5. THIS SITE FEATURES SOILS THAT ARE NOT CONDUCIVE TO PLANT HEALTH AND GROWTH. ALL SOILS IN ALL PLANTING BEDS MUST BE EXCAVATED AND HAVE THEIR EXISTING SOILS REMOVED TO A DEPTH NO LESS THAN 18" FROM TOP OF FINISHED GRADE. NEW SANDY-LOAM TOPSOILS SHALL THEN BE BROUGHT ONTO SITE AND PREPARED WITH A PLANTING MIX AS PER OUR SPECIFICATIONS. THERE WILL BE NO EXCEPTION TO THIS ITEM.

GENERAL PLANTING KEYS

TREE PLANTING KEY (TOTALS)

PLAN INDEX	COMMON NAME	SCIENTIFIC NAME	QTY.	SIZE	DESCRIPTION
1	CEDAR ELM	Ulmus crassifolia	?	8" caliper	B&B w/min. 72" dia. root ball. Lowest limb at 6' from grade. Min. 20' high x 12' wide matching canopys.
2	CEDAR ELM	Ulmus crassifolia	?	10" caliper	B&B w/min. 72" dia. root ball. Lowest limb at 6' from grade. Min. 24' high x 13' wide matching canopys.
3	LIVE OAK	Quercus virginiana	?	6" caliper	Container grown in min. 6' boxed root ball container. Min. 15' high x 12' wide w/matching canopys.
4	LACEBARK ELM	Ulmus parvifolia	?	4" caliper	Container grown in min. 95 gallon root ball container. Min. 12' high x 12' wide w/matching canopys.
5	BRADFORD PEAR	Pyrus calleryana 'Bradford'	?	2" caliper	Container grown in min. 45 gallon root ball container. Min. 10' high x 30" wide w/matching canopys.
6	REDBUD	Cercis canadensis 'Texensis'	?	3" caliper	Container grown in min. 45 gallon root ball container. Min. 8' high x 48" wide single trunk.
7	DESERT WILLOW	Chilopsis linearis	?	3" caliper	Container grown in min. 45 gallon root ball container. Min. 10' high x 54" wide single trunk.
8	CHINESE PISTACHE	Pistacia chinensis	?	4" caliper	Container grown in min. 95 gallon root ball container. Min. 12' high x 54" wide w/very full canopy.
9	ELDARICA PINE	Pinus eldarica	?	8' tall	Container grown in min. 30 gallon root ball container. Non-sheared. Free of pine tip moth traces.

SHRUB PLANTING KEY (TOTALS)

PLAN INDEX	COMMON NAME	SCIENTIFIC NAME	QTY.	SIZE	SPACING AND DESCRIPTION
1	TAMS JUNIPER	Juniperus sabina 'Tamariscifolia'	?	1 gallon	Space at 36" on center. Min. 10" high x 12" wide. Well rooted. Very full top.
2	RED YUCCA	Hesperaloe parviflolia	?	5 gallon	Space at 30" on center. Min. 14" high x 16" wide. Well rooted. Very full top.
3	HAMELN FOUNTAIN GRASS	Pennisetum alopecuroides 'Hameln'	?	5 gallon	Space at 30" on center. Min. 12" tall x 14" wide. Well rooted. Very full top.
4	SILVERADO SAGE	Leucophyllum frutescens 'Silverado'	?	5 gallon	Space at 36" on center. Min. 20" tall x 18" wide. Well rooted. Very full top.
5	SALVIA GREGGII	Salvia greggii 'Coral'	?	3 gallon	Space at 30" on center. Min. 16" tall x 14" wide. Well rooted. Very full top.
6	SNOW WHITE HAWTHORN	Raphiolepsis indica 'Snow White'	?	5 gallon	Space at 36" on center. Min. 20" tall x 24" wide. Well rooted. Very full top.
7	MAIDENHAIR GRASS	Miscanthus sinensis 'Gracillimus'	?	5 gallon	Space at 36" on center. Min. 30" tall x 24" wide. Well rooted. Very full top.
8	LANTANA	Lantana 'Spreading Sunset'	?	1 gallon	Space at 18" on center. Approved equal may be subst. Min. 8" high x 16" wide. Very full top w/even runners.
9	BIG BLUE LILLY TURF	Liriope muscari 'Big Blue'	?	4" pot	Space at 6" on center. Min. 6" tall x 4" wide. Well rooted. Very full top.
10	DWARF YAUPON HOLLY	Ilex vomitoria "Stokes"	?	5 gallon	Space at 30" on center. Min. 15" tall x 15" wide. Well rooted. Very full top.

GENERAL POOL NOTES:

*CONTRACTOR TO PROVIDE FULL SUBMITTAL SHEETS ON ALL POOL EQUIPMENT, AND SHALL BE RESPONSIBLE FOR PROVIDING SCHEMATIC PLUMBING ROOM EQUIPMENT LAYOUTS AS WELL AS ALL PLUMBING LINE LAYOUTS. DURING CONSTRUCTION, CONTRACTOR SHALL ACCURATELY NOTE ALL LINE AND VALVE LAYOUTS. FULL AND ACCURATE AS-BUILTS TO BE PROVIDED AT CLOSE-OUT. ALL AS-BUILT SHEETS SHALL ALSO BE SCALED AS NEEDED TO LANDMARKS AND PERMANENTLY MOUNT ON OPEN WALL OF OWNER'S OFFICE OR IN PERMANENT STORAGE FILE.

ELEVATIONS INSIDE OF POOL ARE TOTAL ACTUAL WATER DEPTH. SEE CIVIL FOR DECK DRAINAGE AND DETAILS.

ALL CONCRETE USED FOR POOL SHELL SHALL BE A MINIMUM OF 4,000 PSI AFTER 28 DAYS OF CURING. ALL POOL AND FOUNTAIN SHELLS SHALL BE REINFORCED WITH #4 REBAR WITH 8" X 8" O.C. SPACING THROUGHOUT. CONTRACTOR TO USE GROUNDING METHOD APPROVED BY THE CITY OF MIDLAND TO GROUND POOL BEAM, COPING, AND DECKING AS REQUIRED.

POOL EQUIPMENT LIST:

640-4720 12" X 36" VGB COMPLIANT FRAME AND GRATE AS MANUFACTURED BY WATERWAY OR APPROVED EQUAL.
SP-1057 W/SP-1055 COLLECTOR HYDRO-RELEF VALVE BY HAYWARD OR APPROVED EQUAL.
18" X 18" X 18" MAIN DRAIN SUMPS BY PENTAIR.
THS 4284 42" O.D. HORIZONTAL H.R.S. FILTER W/ALL GAUGES AND VALVES. FILTER BY PENTAIR OR APPROVED EQUAL.
PUMP FOR POOL AND SCUPPERS TO BE PENTAIR 2 HP. WHISPER-FLOWS OR APPROVED EQUAL. VERIFY SIZE REQUIREMENTS.
CF-30600P, 6" 250 - 1050 GPM FLOW METER BY BLUE WHITE OR APPROVED EQUAL.
PRESSURE GAUGE TO BE 2 1/2" FACE, 0-60 PSI BY BLUE WHITE OR APPROVED EQUAL.
VACUUM GAUGE TO BE 2 1/2" FACE, 0-30" VACUUM BY BLUE WHITE OR APPROVED EQUAL.
CHLORINATOR TO BE PENTAIR RAINBOW HC 3330 CHLORINATOR WITH FLOW METER.
CHEMICAL FEEDER TO BE STENNER 45M-5 W/26 GALLON LOCKABLE CHEMICAL CROCK.
WATER CHEMISTRY MONITOR TO BE HAYWARD CAT-2000.
FILL SPOUT TO BE A FILL TUBE IN EQUIPMENT ROOM.
HANDRAIL TO BE S.R. SMITH OR EQUAL. SIZE AS NEEDED.
3 TREAD LADDER TO BE S.R. SMITH LFB-24-38 S.S. WITH SLIP RESISTANT TREADS. SIZE AS NEEDED TO ACCOMODATE COPING/GUTTER.
LARGE LIGHTS TO BE 6" PARAMOUNT 12-VOLT CHANGING COLOR LED.
ALL POOL TILE TO BE 1" X 2" GLASS TILE BY FUJIWAH OR APPROVED EQUAL. SUBMIT PHYSICAL COLOR SAMPLES FOR APPROVAL.
SMALL LIGHTS TO BE 3" PARAMOUNT 12-VOLT CHANGING COLOR LED.
POOL HEATERS TO BE RHEAM/RAYPACK OR APPROVED EQUAL. SUBMIT SIZING FOR APPROVAL.
SAND FILTERS TO BE (2) T-100C BY PENTAIR OR APPROVED EQUAL.

KDC Associates
Planning + Design Solutions
4525 N. Big Spring, Ste. 205 Midland, Texas 79705 www.kdcassociates.com #2248-0721

CITY REVIEW

FOR REVIEW ONLY
NOT FOR REGULATORY APPROVAL, PERMITTING, OR CONSTRUCTION.

Texas 811
Know what's below. Call before you dig.

Landscape Development Plans

THE TENLEY
Midland, Texas

Date: 7.7.2020
Revisions:

Scale: As Shown
Data
Sheet No.
L-2

PACKET
18.102
September 8, 2020

LCA Job # 20-038

MIDLAND Planning Division

Zone Change/Planned District Amendment/Site Plan Approval

Project Number: 2-20-0189

Case Number: _____

Applicant *(if acting as Agent, see affidavit on page 2)* Printed Name: LCA (Agent)		Phone (432) 332-5058 Email lca@lcaodessa.com	
Address 521 N. Texas Avenue	City Odessa	State TX	Zip 79761

Property Owner Printed Name: Davidheiser Family Trust		Phone ( ) Email	
Address 1222 Calle Los Casas	City Thousand Oaks	State CA	Zip 91360

Representative *(if different from Applicant or Property Owner)* Firm: Landgraf, Crutcher & Associates Printed Name: LCA		Phone (432) 332-5058 Email lca@lcaodessa.com	
Address 521 N. Texas Avenue	City Odessa	State TX	Zip 79761

Street Address: N/A - Proposed Tahoe Lakes Addition Section 2 (Lots 2 & 3 Block 1)

Legal Description Proposed
Lot: 2 & 3 Block: 1 Subdivision: Tahoe Lakes Addition Section 2

Current Zoning: MF-16, RR, MH, BP	**Proposed Zone:** MF-22 *(List by tracts if more than one district is requested)*

Reason for Zone Change Request: to accommodate zoning requirement for a MF- 22 apartment site

Present Use of Property: Vacant

Proposed Use of Property: Future apartment site

How would this zone change affect the public health, safety and welfare?
Zone change would be similar to the surround area. An existing apartment side its located under "Tahoe Lakes Addition"

Describe how conditions affecting the property have changed since present zoning designation: Land is vacant, the current zoning has not affected the site.

Submittal and Fees

Items to be submitted with this application form:

- Application Fee – Payable to the 'City of Midland'
- Dimensioned Site Plan
- Digital Copies of Site Plan (PDF/JPEG)

Signature *(by property owner only -- authorized agent must sign affidavit below)*	
Applicant (signature):	Date:
Applicant (printed):	
Property Owner (signature):	Date:
Property Owner (printed) :	

The Zone Change/Planned District Amendment/Site Plan Approval shall be considered officially received in the Planning office only when it has been submitted in full compliance with the provisions of Section 212 of the Texas Local Government Code and the Zoning Code of Ordinances of the City of Midland and when such required items for the application are also received.

All materials, including exhibits, submitted in support of an application, or displayed during a public hearing, shall remain the property of the City of Midland.

If an agent is authorized by the property owner to file and execute the application on behalf of the property owner, the agent must complete the affidavit below.

STATE OF TEXAS
COUNTY OF MIDLAND

Before me, the undersigned authority, on this day personally appeared George E. Thornley who, being by me duly sworn, upon oath says: That (s)he is authorized by Davidheiser Family Trust, the owner of the above described property, to fully represent him/her in this application and that (s)he had the legal right, power and authority to sign said owner's name hereto as his/her attorney in fact.

George E. Thornley
Authorized Agent (*signature*)

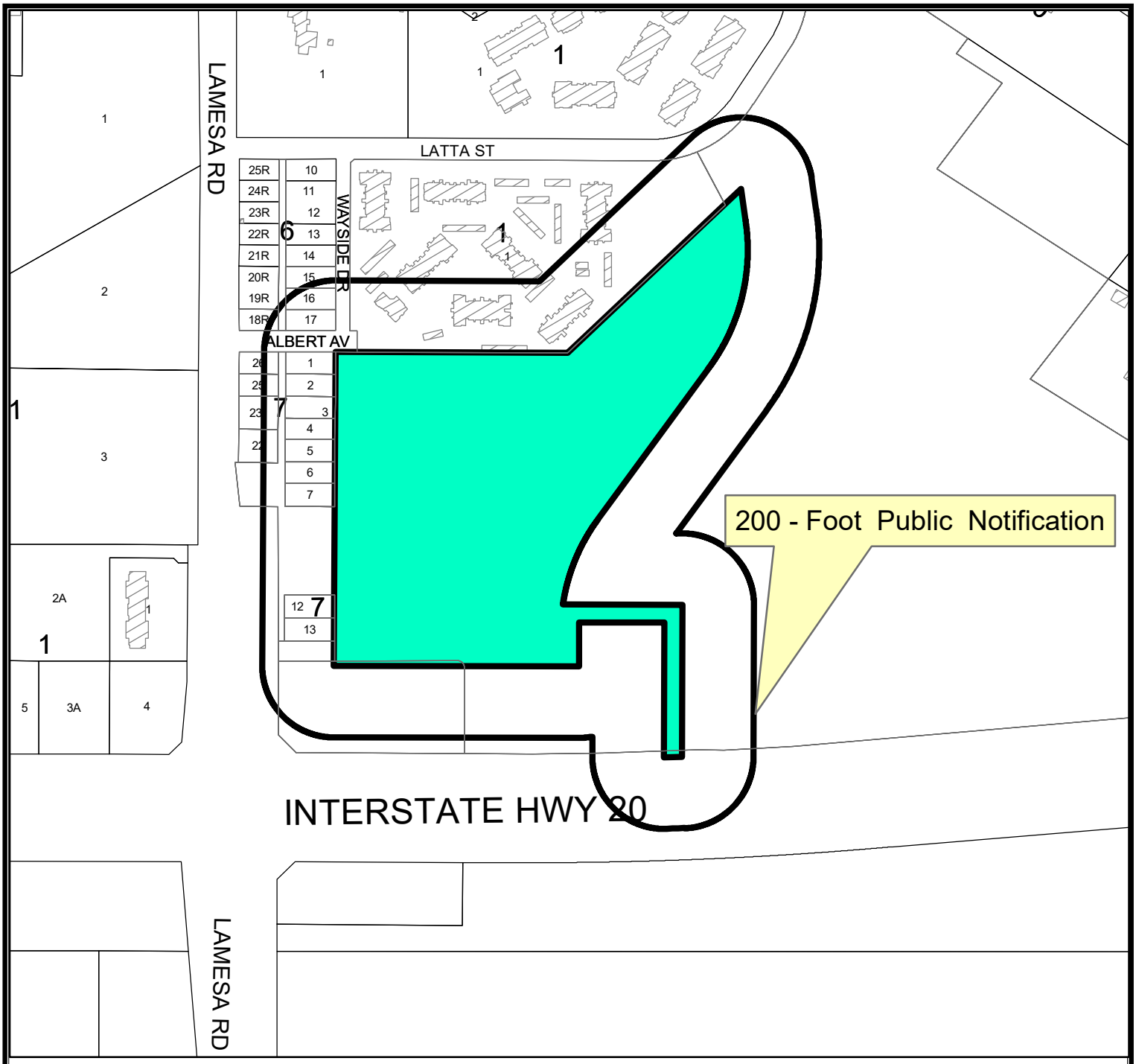
Subscribed and sworn to before me, this 6th day of July, 2020, to certify which witness my hand and seal of office.

Melanie Martinez
My Commission Expires
12/09/2022
ID No 130046270

Melanie Martinez
NOTARY PUBLIC, MIDLAND COUNTY, TEXAS

FOR OFFICE USE ONLY	
☐ Property Owner Authorization	☐ Dimensioned Site Plan
☐ Application Fee	☐ Plans in Digital Format (PDF/JPEG)
Check #_____	
Received By:	Date:

****Application will not be considered for scheduling until reviewed by a planner.****



LOCATION MAP

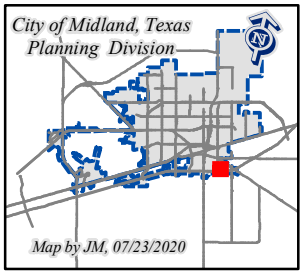
Z-20-0189 **Scale: 1" = 400'**

Consider a request by Landgraf, Crutcher & Associates for a zone change from MF-16, Multiple Family Dwelling District, in part; MH, Manufactured Housing District, in part; RR, Regional Retail District, in part; and BP, I-20 Business Park, in part on 19.17-acre tract of land located in Section 1, Block 39, T-2-S, T & P RR Co. Survey, City and County of Midland, Texas.

Generally located on the north side of East Interstate 20, approximately 714 feet east of South Lamesa Road. (Council District 2)

LEGEND

- CITY LIMITS
- PARCEL
- PRIVATE BLDGS



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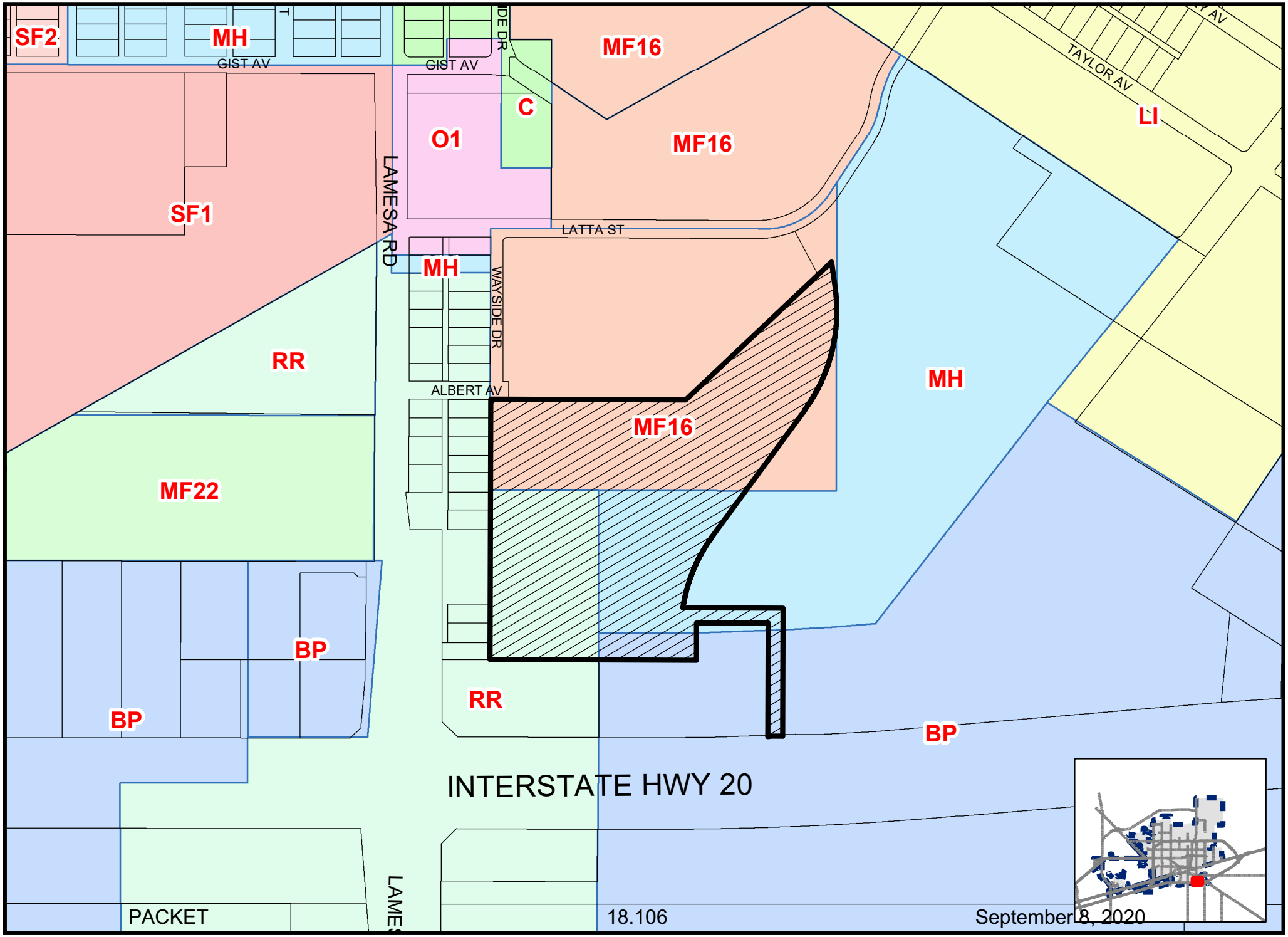
THIS DATA IS NOT A SUBSTITUTION FOR A SURVEY NOR IS IT DESIGNED TO BE USED AS THE ONLY TOOL IN PERMITTING OR OTHER DECISIONS BASED SOLELY ON THE INFORMATION CONTAINED HEREIN.
THE CITY OF MIDLAND SHALL NOT BE RESPONSIBLE FOR ANY DECISIONS BASED UPON THE USE OF THIS DATA.



Map By JM, 07/29/2020

Z-20-0189

Scale: 1" = 400'

ZONING MAP

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City Council Meeting

Item Number: 19

Meeting Date: September 8, 2020

To: City Council / City Manager

From: Elizabeth Shaughnessy, Senior Planner

Subject: AN ORDINANCE AMENDING THE ZONING DISTRICT MAP OF THE CITY OF MIDLAND TO REZONE A 15.70-ACRE TRACT OF LAND OUT OF SECTION 7, BLOCK 38, T-1-S, T&P RR CO. SURVEY, CITY AND COUNTY OF MIDLAND, TEXAS, FROM SF-3, SINGLE-FAMILY DWELLING DISTRICT TO PD, PLANNED DEVELOPMENT DISTRICT FOR A HOUSING DEVELOPMENT (GENERALLY LOCATED ON THE SOUTH SIDE OF TIN TRAIL, APPROXIMATELY 130 FEET EAST OF NORTH FAIRGROUNDS ROAD); CONTAINING A CUMULATIVE CLAUSE; CONTAINING A SAVINGS AND SEVERABILITY CLAUSE; PROVIDING FOR A MAXIMUM PENALTY OR FINE OF TWO THOUSAND DOLLARS ($2,000.00); AND ORDERING PUBLICATION (DEVELOPMENT SERVICES)

Purpose:

The applicant, Betenbough Homes, LLC is requesting approval of a zone change to allow for the development of smaller, more affordable homes.

Recommended City Council Action:

Approve

Fiscal Impact:

This proposal does not have a significant financial impact to the city.

Discussion:

Surrounding Zoning and Land Use:

The properties to the north, east, and south are zoned SF-3 Single Family Dwelling District,

and the location of residential homes and vacant land. The properties to the west are zoned AE, Agricultural Estate District, and the location of vacant land.

Analysis:

The applicant, Betenbough Homes, LLC is requesting approval of a zone change for the development of smaller, more affordable homes. This proposed subdivision will have a total of eighty (80) residential lots and one (1) common area, which will be a drainage easement. The current zoning of this property is SF-3, Single-Family Dwelling District, which requires a minimum lot area of 5,500 square feet. With this zone change, the developer will be able to plat thirty-four (34) lots with a width of 45 feet ranging in areas of 5,001 to 5,175 square feet. Additionally, the common area/drainage easement lot will have an area of 4,600 square feet.

The appropriate setbacks and maximum height of future development must meet the regulations as described in Section 5.04 Residential Zoning District Dimensional Regulations chart.

This proposed zone change has been circulated to and reviewed by respective City departments and their comments, conditions, and requirements are as follows:

Engineering: (Approved)

No objection to zone change.

Site drainage, utilities, driveway access, and traffic circulation may be adjusted during construction drawing review as necessary to receive building permit approval from Engineering and Traffic Operations.

Fire: (Approved)

No objections.

Building: (Approved)

No objections.

Code Compliance: (Approved)

No Oil or Gas wells identified within 500 ft. permitted well radius or in the 135 ft. non-permitted well radius of location on plat.

Transportation: (Approved)

Site drainage, utilities, driveway access, and traffic circulation may be adjusted during construction drawing review as necessary to receive building permit approval from Engineering

and Traffic Operations.

No objection to zone change.

Planning:

This request is in compliance with the Tall City Tomorrow Comprehensive Plan, Chapter 3 An Integrated Land Use Vision, Principle 8, “Land use policies and regulations should create and support balanced neighborhoods.” (Tall City Tomorrow, Page 59) This request will aid in promoting balanced neighborhoods offering a variety of housing options.

The Planning and Zoning Commission recommended approval of this request with a 4 to 2 vote at the August 17, 2020 meeting.

Staff recommends approval of the zone change from a SF-3, Single-Family Dwelling District and to PD, Planned Development District for a Housing Development, subject to conditions A through D.

Conditions:

A. That the use and development of this property shall conform to the regulations of the SF-3, Single-Family Dwelling District, except as stated below.

B. That this property shall significantly conform to the site plan, attached hereto and incorporated herein as Exhibit B.

C. That the minimum lot width shall be 45 feet.

D. That the minimum lot area shall be 5,001 square feet.

Letters of Objection:

As of September 2, 2020, staff has not received any letters of objection.

Attachments:

Application
Maps
Metes and Bounds (Exhibit A)
Site Plan (Exhibit B)

City Manager's Office

ORDINANCE NO. _____

AN ORDINANCE AMENDING THE ZONING DISTRICT MAP OF THE CITY OF MIDLAND TO REZONE A 15.70-ACRE TRACT OF LAND OUT OF SECTION 7, BLOCK 38, T-1-S, T&P RR CO. SURVEY, CITY AND COUNTY OF MIDLAND, TEXAS, FROM SF-3, SINGLE-FAMILY DWELLING DISTRICT TO PD, PLANNED DEVELOPMENT DISTRICT FOR A HOUSING DEVELOPMENT (GENERALLY LOCATED ON THE SOUTH SIDE OF TIN TRAIL, APPROXIMATELY 130 FEET EAST OF NORTH FAIRGROUNDS ROAD); CONTAINING A CUMULATIVE CLAUSE; CONTAINING A SAVINGS AND SEVERABILITY CLAUSE; PROVIDING FOR A MAXIMUM PENALTY OR FINE OF TWO THOUSAND DOLLARS ($2,000.00); AND ORDERING PUBLICATION

WHEREAS, the City Planning and Zoning Commission and the Governing Body of the City of Midland, in compliance with the City Charter, the City Code, and State law, have given the requisite notices by United States mail, publication and otherwise; and after a full and fair hearing to all of the property owners generally and particularly to those interested persons situated in the affected area and in the vicinity thereof, the Governing Body finds that the public health, safety and general welfare will be best served by rezoning a 15.70-acre tract of land out of Section 7, Block 38, T-1-S, T&P RR Co. Survey, City and County of Midland, Texas, said tract being more specifically described by metes and bounds in Exhibit "A", which is attached hereto and incorporated herein (the "Property"), to PD, Planned Development District for a Housing Development and adopting a site plan therefor, as set out hereinafter;

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF MIDLAND, TEXAS:

SECTION ONE. That the Zoning District Map of the City of Midland, Texas, is hereby amended to rezone the Property from SF-3, Single-Family Dwelling District to PD, Planned Development District for a Housing Development.

SECTION TWO. That the base zoning district to which the use and development of the Property shall conform, except as modified by Section Three of this ordinance, is the

SF-3, Single-Family Dwelling District.

SECTION THREE. That a site plan, which is attached hereto as Exhibit "B" and incorporated herein for all purposes, is hereby adopted, and the use and development of the Property shall be subject to the following conditions and restrictions:

A. That the Property shall significantly conform to the site plan attached hereto as Exhibit "B".

B. That the minimum lot width shall be 45 feet.

C. That the minimum lot area shall be 5,001 square feet.

SECTION FOUR. That the definitions given in the zoning regulations contained in the City Code of the City of Midland, Texas, shall be applicable to such of those terms as are used herein.

SECTION FIVE. The provisions of this ordinance are to be cumulative of all other ordinances or parts of ordinances governing or regulating the same subject matter as that covered herein; provided, however, that all prior ordinances or parts of ordinances inconsistent with or in conflict with any of the provisions of this ordinance are hereby expressly repealed to the extent of any such inconsistency or conflict.

SECTION SIX. If any section, subsection, sentence, clause or phrase of this ordinance is, for any reason, held to be unconstitutional or invalid, such holding shall not affect the validity of the remaining portions of this ordinance. The Council of the City of Midland hereby declares that it would have passed this ordinance and each section, subsection, sentence, clause, or phrase hereof irrespective of the fact that any one or more sections, subsections, sentences, clauses, or phrases be declared unconstitutional or invalid.

SECTION SEVEN. The penalty for violation of this ordinance shall be in accordance with the general penalty provisions contained in Section 1-3-1 of the City Code of Midland, Texas, which provides for a fine not exceeding two thousand dollars ($2,000.00).

SECTION EIGHT. The City Secretary is hereby authorized and directed to publish the descriptive caption of this ordinance in the manner and for the length of time prescribed by the law as an alternative method of publication.

The above and foregoing ordinance was duly proposed, read in full and adopted on first reading, the _____ day of _____, A.D., 2020; and passed to second reading on motion of Council member _____, seconded by Council member _____, by the following vote:

Council members voting "AYE":

Council members voting "NAY":

The above and foregoing ordinance was read in full and finally adopted by the following vote upon motion of Council member _____, seconded by Council member _____, on the _____ day of _____, A.D., 2020, at a regular meeting of the City Council:

Council members voting "AYE":

Council members voting "NAY":

PASSED AND APPROVED THIS _____ day of _____, A.D., 2020.

_____
Patrick N. Payton, Mayor

ATTEST:

_____
Amy M. Turner, City Secretary

APPROVED AS TO CONTENT
AND COMPLETENESS:

_____
Robert Patrick, Assistant City Manager

_____
Charles Harrington, Director of Development Services

APPROVED ONLY AS TO FORM:

_____
John Ohnemiller, City Attorney

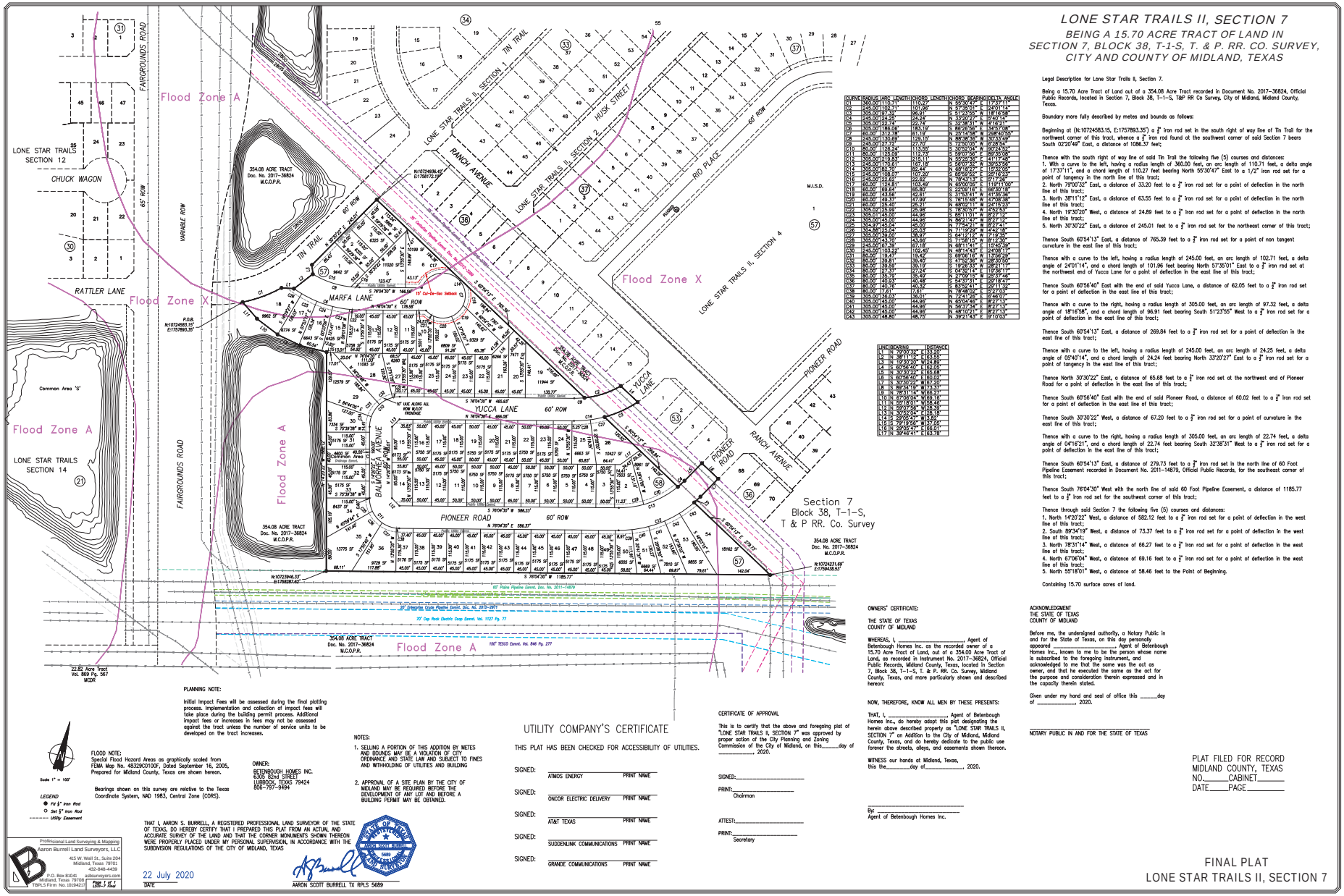
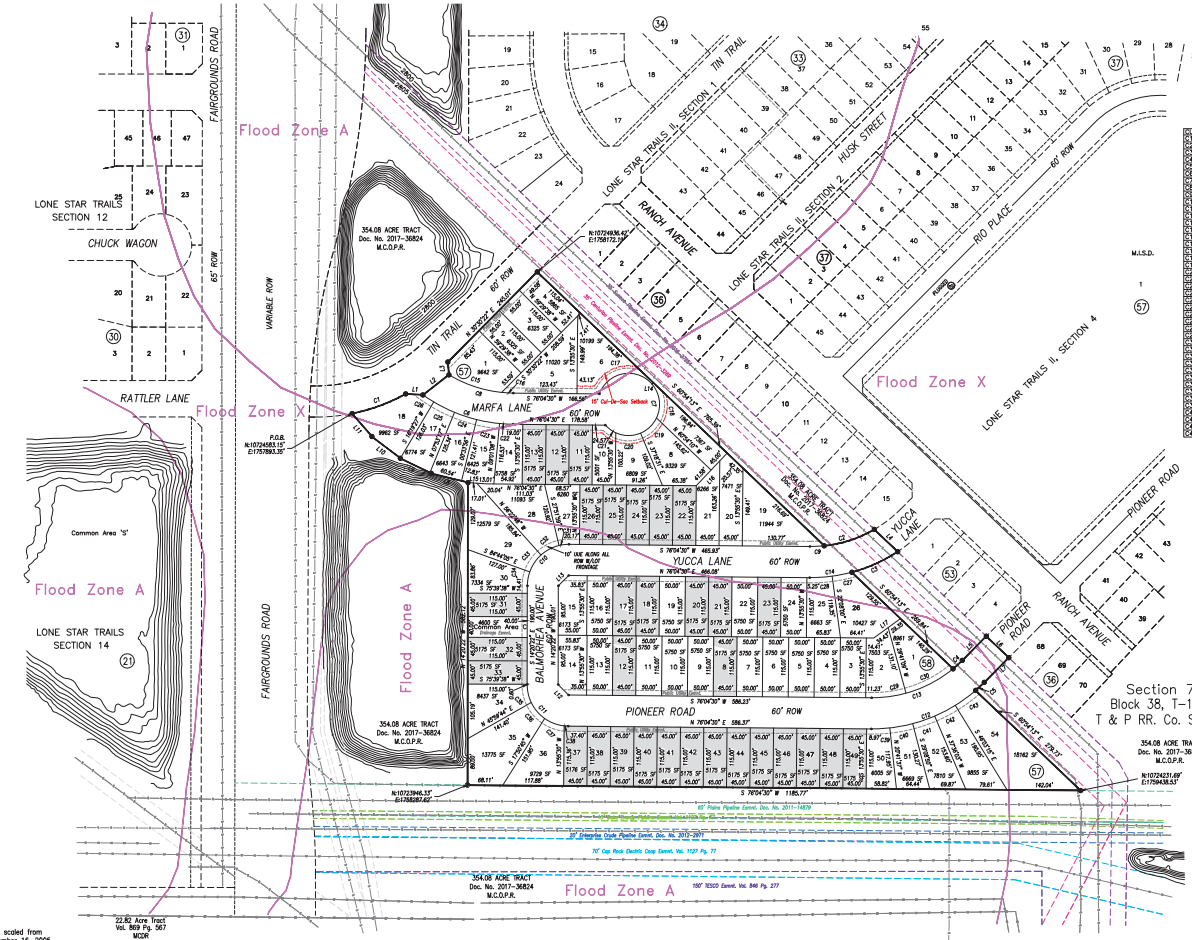


EXHIBIT "A"

PACKET
19.9
September 8, 2020

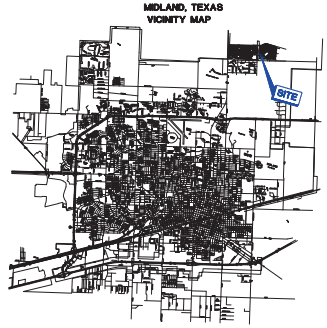
SITE PLAN

LONE STAR TRAILS II, SECTION 7
BEING A 15.70 ACRE TRACT OF LAND IN SECTION 7, BLOCK 38, T-1-S, T. & P. RR. CO. SURVEY, CITY AND COUNTY OF MIDLAND, TEXAS



CURVE	RADIUS	ARC LENGTH	CHORD LENGTH	CHORD BEARING	DELTA ANGLE
C1	360.00'	119.71'	119.22'	N 85°30'47" E	19°03'11"
C2	240.00'	108.71'	107.78'	N 87°53'01" E	25°57'14"
C3	305.00'	87.32'	86.91'	S 51°23'05" W	16°24'08"
C4	245.00'	54.56'	54.44'	S 33°50'24" E	12°45'14"
C5	305.00'	92.74'	92.74'	S 32°38'51" W	17°25'41"
C6	305.00'	186.06'	183.19'	S 85°27'05" W	34°57'08"
C7	60.00'	312.78'	61.19'	N 29°14'58" W	298°40'56"
C8	245.00'	130.69'	129.15'	N 89°38'38" W	30°33'49"
C9	245.00'	27.72'	27.70'	S 72°50'05" W	6°29'34"
C10	80.00'	198.24'	113.59'	S 30°58'05" W	141°59'53"
C11	80.00'	125.09'	112.73'	S 59°07'56" E	89°35'08"
C12	305.00'	218.83'	214.11'	S 69°25'58" E	41°07'45"
C13	245.00'	170.61'	167.18'	S 59°07'32" W	39°54'56"
C14	305.00'	82.70'	82.44'	N 69°18'29" E	15°32'05"
C15	245.00'	108.07'	107.20'	S 69°48'54" E	25°16'23"
C16	245.00'	22.82'	22.82'	N 79°43'13" E	5°17'28"
C17	60.00'	124.81'	103.49'	N 65°00'05" E	119°11'00"
C18	60.00'	66.64'	65.80'	S 22°09'16" E	66°30'15"
C19	60.00'	43.56'	42.61'	S 31°53'41" W	41°35'46"
C20	60.00'	48.37'	47.09'	N 76°15'48" W	47°08'58"
C21	60.00'	25.40'	25.21'	N 68°05'11" W	24°15'23"
C22	305.00'	25.99'	25.98'	S 76°37'07" W	4°52'53"
C23	305.01'	45.00'	44.96'	S 85°11'01" W	8°27'14"
C24	305.00'	45.00'	44.96'	N 86°21'47" W	8°27'14"
C25	304.97'	45.04'	45.00'	N 77°54'21" W	8°27'41"
C26	304.88'	25.04'	25.03'	N 71°19'28" W	4°42'18"
C27	305.00'	58.00'	58.97'	S 64°12'12" W	7°19'30"
C28	305.00'	43.70'	43.66'	S 71°58'15" W	8°12'36"
C29	245.00'	67.19'	67.18'	N 68°11'41" E	15°43'09"
C30	245.00'	103.22'	102.49'	N 48°14'43" E	24°08'39"
C31	80.00'	19.47'	19.42'	S 69°08'16" W	13°56'29"
C32	80.00'	39.81'	39.40'	N 41°52'34" W	28°30'43"
C33	80.00'	39.99'	39.19'	S 19°28'41" W	28°21'17"
C34	80.00'	27.77'	27.64'	S 04°32'14" E	19°53'46"
C35	80.00'	50.73'	50.49'	S 22°09'15" E	36°20'46"
C36	80.00'	40.83'	40.44'	S 54°37'31" E	29°14'42"
C37	80.00'	40.76'	40.32'	S 83°52'41" E	29°11'39"
C38	80.00'	17.67'	17.63'	N 78°48'58" E	12°39'43"
C39	305.00'	16.03'	16.01'	N 72°41'26" E	2°46'07"
C40	305.00'	45.00'	44.96'	N 67°04'34" E	8°27'14"
C41	305.00'	45.00'	44.96'	N 58°37'34" E	8°27'14"
C42	305.00'	45.00'	44.96'	N 50°10'20" E	8°27'14"
C43	305.00'	48.80'	48.75'	N 39°21'43" E	9°10'03"

LINE	BEARING	DISTANCE
L1	N 20°00'32" E	15.20'
L2	N 18°11'13" E	53.55'
L3	N 27°30'56" E	54.89'
L4	S 69°56'40" E	59.06'
L5	N 20°30'04" E	59.00'
L6	S 69°56'40" E	60.00'
L7	S 20°30'04" W	59.00'
L8	S 69°41'19" W	13.37'
L9	N 69°11'19" E	13.37'
L10	N 67°06'04" W	59.16'
L11	N 69°18'01" W	58.46'
L12	N 59°07'56" W	28.39'
L13	N 30°52'04" E	15.18'
L14	S 29°05'47" W	15.82'
L15	S 29°19'56" W	137.06'
L16	N 29°05'47" E	166.01'
L17	N 39°48'41" E	163.78'



Scale 1" = 100'

LEGEND
- Fd ½" Iron Rod
- Set ½" Iron Rod
- Utility Easement

FLOOD NOTE: Special Flood Hazard Areas as graphically scaled from FEMA Map No. 48329C0100F, Dated September 16, 2005, Prepared for Midland County, Texas are shown hereon.

Bearings shown on this survey are relative to the Texas Coordinate System, NAD 1983, Central Zone (CORS).

LOT COUNT
Residential: 80 lots
Common Area/Drainage: 1 lot

OWNER:
BETENBOUGH HOMES INC.
6305 82nd STREET
LUBBOCK, TEXAS 79424
806-797-9494

22 July 2020

Professional Land Surveying & Mapping
Aaron Burrell Land Surveyors, LLC
415 W. Wall St., Suite 904
Midland, Texas 79701
432-848-4439
P.O. Box 81041 | absurveyors.com
Midland, Texas 79708 | TBPLS Firm No. 10194277

Date: 7 of 7
Job # 20-7 Site P

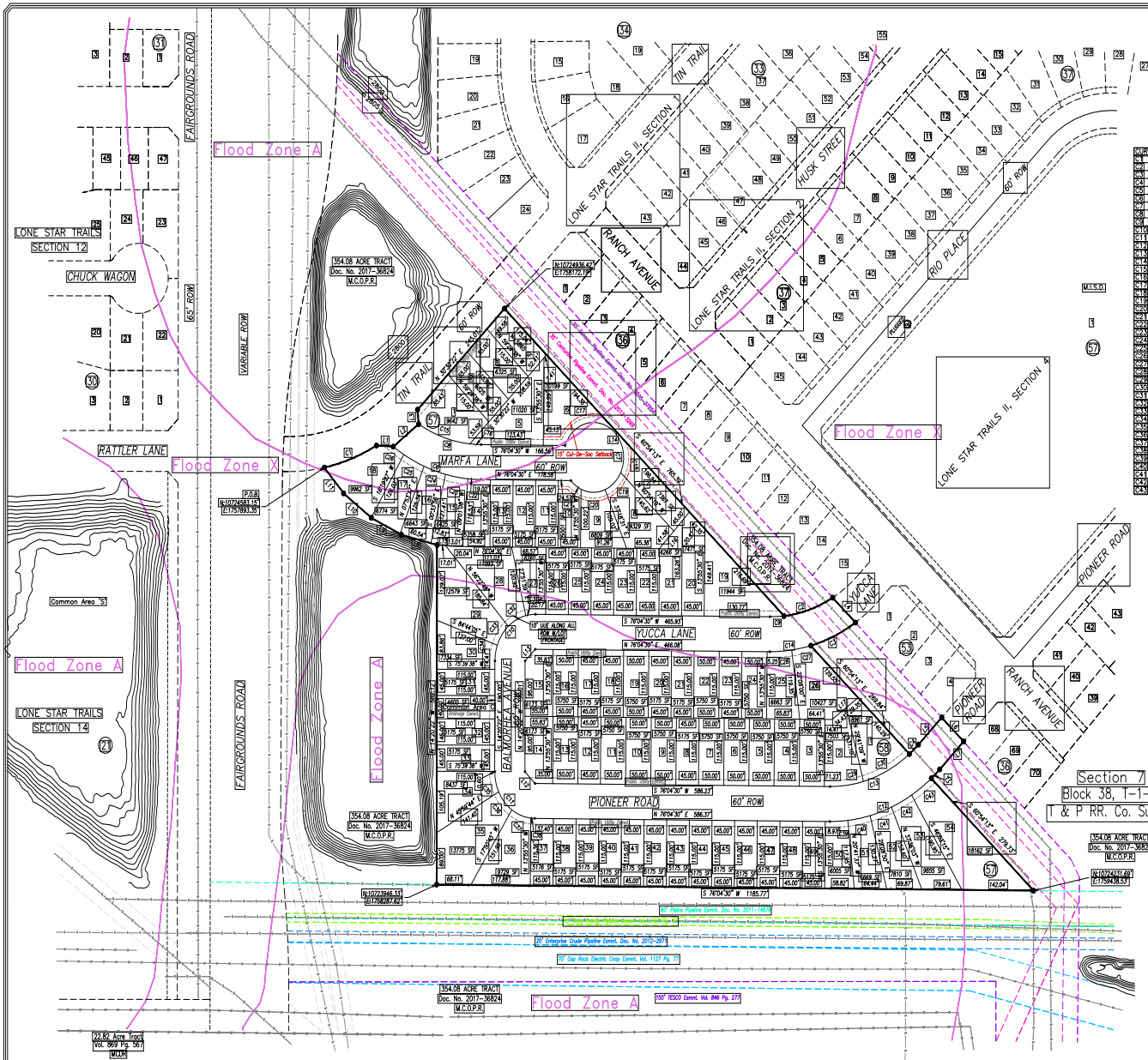
SITE PLAN
LONE STAR TRAILS II, SECTION 7

EXHIBIT "B"

PACKET
19.10
September 8, 2020

LONE STAR TRAILS II, SECTION 7

BEING A 15.70 ACRE TRACT OF LAND IN SECTION 7, BLOCK 38, T-1-S, T. & P. RR. CO. SURVEY, CITY AND COUNTY OF MIDLAND, TEXAS



CURVE	RADIUS	ARC LENGTH	CHORD LENGTH	CHORD BEARING	DELTA ANGLE
C1	360.00	110.71	110.27	N 88°29'47" E	17°37'11"
C2	245.00	102.71	101.98	N 79°30'01" E	24°01'14"
C3	305.00	17.47	17.47	N 51°43'59" W	3°16'58"
C4	245.00	65.60	65.41	N 53°20'27" E	15°20'14"
C5	305.00	22.74	22.73	S 32°38'51" W	4°16'21"
C6	305.00	156.03	154.30	S 59°52'32" W	29°19'03"
C7	60.00	119.26	81.19	N 29°14'58" W	228°05'54"
C8	245.00	130.69	129.15	N 88°38'58" W	30°33'49"
C9	245.00	17.47	17.47	N 77°20'09" W	4°05'24"
C10	60.00	126.24	114.55	S 30°42'25" W	120°32'56"
C11	60.00	125.09	112.73	S 59°07'56" E	89°35'08"
C12	305.00	112.81	112.19	S 59°52'56" E	41°17'48"
C13	245.00	170.61	167.18	S 69°07'39" E	39°54'56"
C14	305.00	97.10	96.71	S 84°18'27" E	18°14'55"
C15	245.00	108.07	107.20	S 85°02'52" E	25°16'23"
C16	245.00	22.82	22.82	N 78°43'15" E	5°20'26"
C17	60.00	124.81	104.49	N 88°00'05" E	119°14'00"
C18	60.00	10.63	10.63	S 72°09'09" E	10°09'19"
C19	60.00	53.56	42.61	S 51°43'41" W	41°04'46"
C20	60.00	69.37	47.99	S 78°18'48" W	47°06'38"
C21	60.00	15.40	15.41	N 88°09'11" W	14°42'23"
C22	305.00	25.99	25.98	S 78°30'59" W	4°53'03"
C23	305.00	45.00	44.96	S 85°11'01" W	8°27'12"
C24	305.00	45.00	44.96	N 86°21'47" W	8°27'12"
C25	304.97	45.04	45.00	N 77°54'34" W	8°27'41"
C26	304.88	45.04	45.00	N 71°19'28" W	8°27'18"
C27	305.00	59.00	58.97	S 84°12'19" W	11°05'21"
C28	305.00	43.70	43.66	S 71°58'15" W	8°12'39"
C29	245.00	19.47	19.47	N 78°43'15" E	4°33'26"
C30	245.00	103.24	102.52	N 88°14'54" E	24°09'12"
C31	80.00	19.47	19.42	S 89°06'16" W	13°56'29"
C32	80.00	98.51	92.20	S 71°29'28" W	70°33'50"
C33	80.00	49.50	48.70	S 31°26'34" W	35°27'40"
C34	80.00	47.97	47.23	S 04°32'14" E	13°46'17"
C35	80.00	58.93	57.59	N 42°09'15" E	42°12'46"
C36	80.00	50.86	50.04	N 84°27'41" E	36°25'47"
C37	80.00	40.76	40.32	S 83°22'21" E	29°11'32"
C38	80.00	7.31	7.31	N 72°48'09" E	5°14'33"
C39	245.00	156.61	154.01	N 74°41'49" E	36°37'39"
C40	305.00	45.60	44.96	N 65°04'48" E	8°34'13"
C41	305.00	45.00	44.96	N 56°37'36" E	8°27'12"
C42	305.00	45.00	44.96	N 48°10'24" E	8°27'12"
C43	305.00	48.80	48.75	N 39°21'43" E	9°10'03"

LINE	BEARING	DISTANCE
L1	N 72°09'09" E	63.20
L2	N 38°11'12" E	63.55
L3	N 19°30'20" W	24.89
L4	S 69°56'40" E	62.05
L5	N 30°30'22" E	65.68
L6	S 60°56'40" E	60.02
L7	N 30°30'22" E	67.20
L8	S 89°43'19" W	13.77
L9	N 78°31'14" W	66.27
L10	N 67°06'04" W	69.16
L11	N 55°18'01" W	58.46
L12	N 49°07'56" W	28.19
L13	N 30°42'22" E	45.16
L14	S 29°05'47" W	13.82
L15	S 78°43'15" E	57.65
L16	N 29°05'47" E	58.00
L17	N 39°48'41" E	63.78

Section 7
Block 38, T-1-S,
T & P RR. Co. Survey

Legal Description for Lone Star Trails II, Section 7.

Being a 15.70 Acre Tract of Land out of a 354.08 Acre Tract recorded in Document No. 2017-36824, Official Public Records, located in Section 7, Block 38, T-1-S, T&P RR Co Survey, City of Midland, Midland County, Texas.

Boundary more fully described by metes and bounds as follows:

Beginning at (N:10724583.15, E:1757893.35') a ½" iron rod set in the south right of way line of Tin Trail for the northwest corner of this tract, whence a ½" iron rod found at the southwest corner of said Section 7 bears South 02°20'49" East, a distance of 1086.37 feet;

Thence with the south right of way line of said Tin Trail the following five (5) courses and distances:
1. With a curve to the left, having a radius length of 360.00 feet, an arc length of 110.71 feet, a delta angle of 17°37'11", and a chord length of 110.27 feet bearing North 55°30'47" East to a 1/2" iron rod set for a point of tangency in the north line of this tract;
2. North 79°00'32" East, a distance of 33.20 feet to a ½" iron rod set for a point of deflection in the north line of this tract;
3. North 38°11'12" East, a distance of 63.55 feet to a ½" iron rod set for a point of deflection in the north line of this tract;
4. North 19°30'20" West, a distance of 24.89 feet to a ½" iron rod set for a point of deflection in the north line of this tract;
5. North 30°30'22" East, a distance of 245.01 feet to a ½" iron rod set for the northeast corner of this tract;

Thence South 60°54'13" East, a distance of 765.39 feet to a ½" iron rod set for a point of non tangent curvature in the east line of this tract;

Thence with a curve to the left, having a radius length of 245.00 feet, an arc length of 102.71 feet, a delta angle of 24°01'14", and a chord length of 101.96 feet bearing North 57°35'01" East to a ½" iron rod set at the northwest end of Yucca Lane for a point of deflection in the east line of this tract;

Thence South 60°56'40" East with the end of said Yucca Lane, a distance of 62.05 feet to a ½" iron rod set for a point of deflection in the east line of this tract;

Thence with a curve to the right, having a radius length of 305.00 feet, an arc length of 97.32 feet, a delta angle of 18°16'56", and a chord length of 96.91 feet bearing South 51°23'55" West to a ½" iron rod set for a point of deflection in the east line of this tract;

Thence South 60°54'13" East, a distance of 269.84 feet to a ½" iron rod set for a point of deflection in the east line of this tract;

Thence with a curve to the left, having a radius length of 245.00 feet, an arc length of 24.25 feet, a delta angle of 05°40'14", and a chord length of 24.24 feet bearing North 33°20'27" East to a ½" iron rod set for a point of tangency in the east line of this tract;

Thence North 30°30'22" East, a distance of 65.68 feet to a ½" iron rod set at the northwest end of Pioneer Road for a point of deflection in the east line of this tract;

Thence South 60°56'40" East with the end of said Pioneer Road, a distance of 60.02 feet to a ½" iron rod set for a point of deflection in the east line of this tract;

Thence South 30°30'22" West, a distance of 67.20 feet to a ½" iron rod set for a point of curvature in the east line of this tract;

Thence with a curve to the right, having a radius length of 305.00 feet, an arc length of 22.74 feet, a delta angle of 04°16'21", and a chord length of 22.74 feet bearing South 32°38'31" West to a ½" iron rod set for a point of deflection in the east line of this tract;

Thence South 60°54'13" East, a distance of 279.73 feet to a ½" iron rod set in the north line of 60 Foot Pipeline Easement recorded in Document No. 2011-14879, Official Public Records, for the southeast corner of this tract;

Thence South 76°04'30" West with the north line of said 60 Foot Pipeline Easement, a distance of 1185.77 feet to a ½" iron rod set for the southwest corner of this tract;

Thence through said Section 7 the following five (5) courses and distances:
1. North 14°20'22" West, a distance of 582.12 feet to a ½" iron rod set for a point of deflection in the west line of this tract;
2. South 89°34'19" West, a distance of 73.37 feet to a ½" iron rod set for a point of deflection in the west line of this tract;
3. North 78°31'14" West, a distance of 66.27 feet to a ½" iron rod set for a point of deflection in the west line of this tract;
4. North 67°06'04" West, a distance of 69.16 feet to a ½" iron rod set for a point of deflection in the west line of this tract;
5. North 55°18'01" West, a distance of 58.46 feet to the Point of Beginning.

Containing 15.70 surface acres of land.

PLANNING NOTE:
Initial Impact Fees will be assessed during the final platting process. Implementation and collection of impact fees will take place during the building permit process. Additional impact fees or increases in fees may not be assessed against the tract unless the number of service units to be developed on the tract increases.

FLOOD NOTE:
Special Flood Hazard Areas as graphically scaled from FEMA Map No. 48329C0100F, Dated September 16, 2005. Prepared for Midland County, Texas are shown hereon.

Bearings shown on this survey are relative to the Texas Coordinate System, NAD 1983, Central Zone (CORS).

Scale 1" = 100'

LEGEND:
- ● Fd ½" Iron Rod
- ○ Set ½" Iron Rod
- ------ Utility Easement

OWNERS:
BETENBOUGH HOMES INC.
6305 82ND STREET
LUBBOCK, TEXAS 79424
806-797-9494

NOTES:
1. SELLING A PORTION OF THIS ADDITION BY METES AND BOUNDS MAY BE A VIOLATION OF CITY ORDINANCE AND STATE LAW AND SUBJECT TO FINES AND WITHHOLDING OF UTILITIES AND BUILDING.
2. APPROVAL OF A SITE PLAN BY THE CITY OF MIDLAND MAY BE REQUIRED BEFORE THE DEVELOPMENT OF ANY LOT AND BEFORE A BUILDING PERMIT MAY BE OBTAINED.

UTILITY COMPANY'S CERTIFICATE

THIS PLAT HAS BEEN CHECKED FOR ACCESSIBILITY OF UTILITIES.

SIGNED: _____ ATMOS ENERGY PRINT NAME
SIGNED: _____ ONCOR ELECTRIC DELIVERY PRINT NAME
SIGNED: _____ AT&T TEXAS PRINT NAME
SIGNED: _____ SUDDENLINK COMMUNICATIONS PRINT NAME
SIGNED: _____ GRANDE COMMUNICATIONS PRINT NAME

CERTIFICATE OF APPROVAL

This is to certify that the above and foregoing plat of "LONE STAR TRAILS II, SECTION 7" was approved by proper action of the City Planning and Zoning Commission of the City of Midland, on this _____day of _____, 2020.

SIGNED:_____
PRINT:_____
Chairman

ATTEST:_____
PRINT:_____
Secretary

OWNERS' CERTIFICATE:

THE STATE OF TEXAS
COUNTY OF MIDLAND

WHEREAS, I, _____, Agent of Betenbough Homes Inc. as the recorded owner of a 15.70 Acre Tract of Land, out of a 354.00 Acre Tract of Land, as recorded in Instrument No. 2017-36824, Official Public Records, Midland County, Texas, located in Section 7, Block 38, T-1-S, T. & P. RR. Co. Survey, Midland County, Texas, and more particularly shown and described hereon:

NOW, THEREFORE, KNOW ALL MEN BY THESE PRESENTS:

THAT, I, _____, Agent of Betenbough Homes Inc., do hereby adopt this plat designating the herein above described property as "LONE STAR TRAILS II, SECTION 7" an Addition to the City of Midland, Midland County, Texas, and do hereby dedicate to the public use forever the streets, alleys, and easements shown thereon.

WITNESS our hands at Midland, Texas, this the_____day of_____, 2020.

By: _____
Agent of Betenbough Homes Inc.

ACKNOWLEDGMENT
THE STATE OF TEXAS
COUNTY OF MIDLAND

Before me, the undersigned authority, a Notary Public in and for the State of Texas, on this day personally appeared _____, Agent of Betenbough Homes Inc., known to me to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that the same was the act as owner, and that he executed the same as the act for the purpose and consideration therein expressed and in the capacity therein stated.

Given under my hand and seal of office this _____day of _____, 2020.

_____
NOTARY PUBLIC IN AND FOR THE STATE OF TEXAS

PLAT FILED FOR RECORD
MIDLAND COUNTY, TEXAS
NO._____CABINET_____
DATE_____PAGE_____

THAT I, AARON SCOTT BURRELL, REGISTERED PROFESSIONAL LAND SURVEYOR OF THE STATE OF TEXAS, DO HEREBY CERTIFY THAT I PREPARED THIS PLAT FROM AN ACTUAL AND ACCURATE SURVEY OF THE LAND AND THAT THE CORNER MONUMENTS SHOWN THEREON WERE PROPERLY PLACED UNDER MY PERSONAL SUPERVISION, IN ACCORDANCE WITH THE SUBDIVISION REGULATIONS OF THE CITY OF MIDLAND, TEXAS

22 July 2020
DATE

AARON SCOTT BURRELL TX RPLS 5689

19.11

September 8, 2020

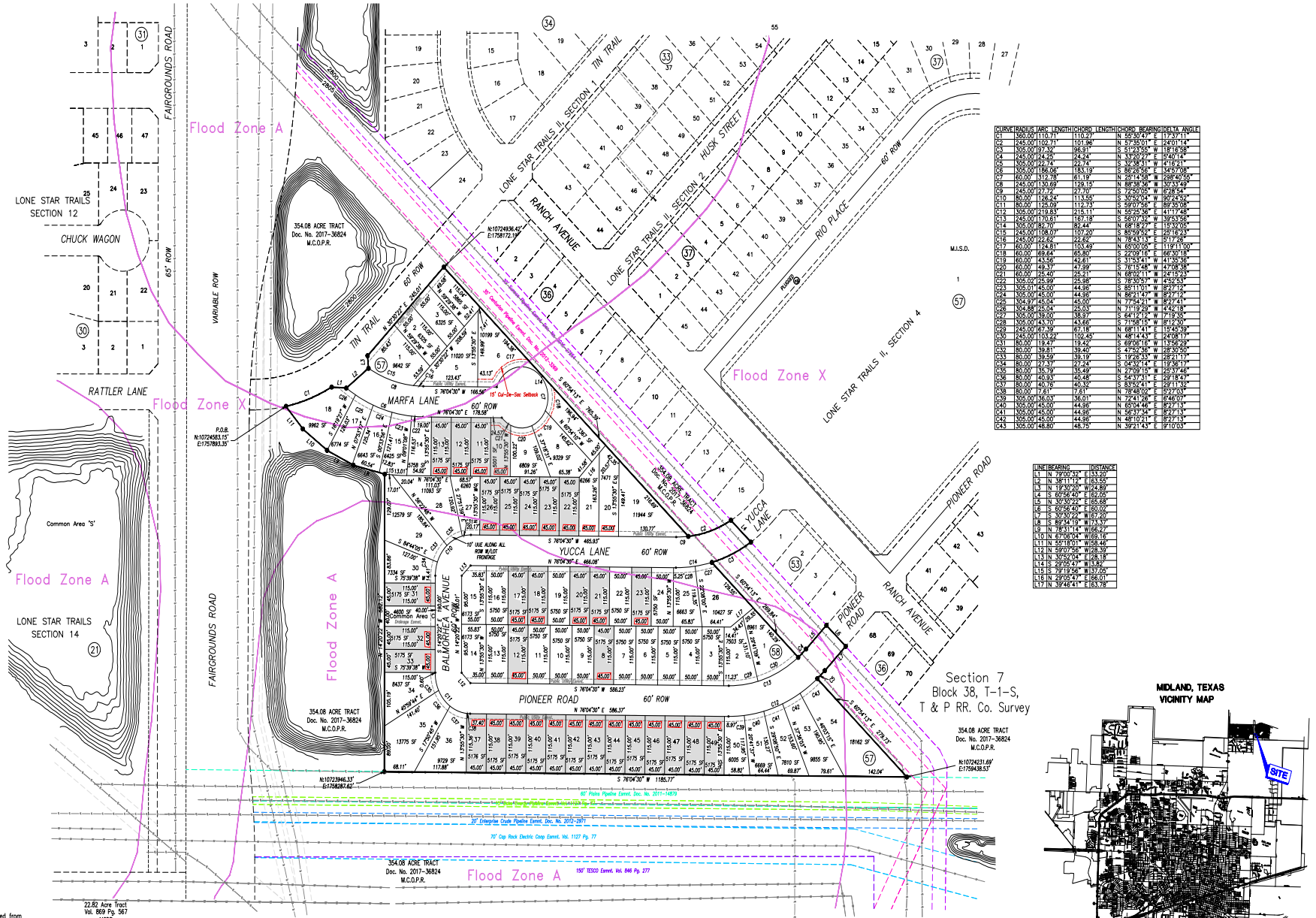
Professional Land Surveying & Mapping
Aaron Burrell Land Surveyors, LLC
415 W. Wall St., Suite 204
Midland, Texas 79701
432-848-4439
P.O. Box 81041
Midland, Texas 79708
TBPLS Firm No. 10194217
ashsurveyors.com

Page 1 of 1
Lone-7 Final

FINAL PLAT
LONE STAR TRAILS II, SECTION 7

SITE PLAN

LONE STAR TRAILS II, SECTION 7
BEING A 15.70 ACRE TRACT OF LAND IN SECTION 7, BLOCK 38, T-1-S, T. & P. RR. CO. SURVEY, CITY AND COUNTY OF MIDLAND, TEXAS



CURVE	RADIUS	ARC LENGTH	CHORD LENGTH	CHORD BEARING	DELTA ANGLE
C1	360.00'	110.71'	110.27'	N 55°30'47" E	17°37'11"
C2	245.00'	102.71'	101.96'	N 57°35'01" E	24°01'14"
C3	305.00'	97.32'	96.91'	S 51°23'56" W	18°16'58"
C4	245.00'	24.25'	24.24'	N 53°07'27" E	5°40'12"
C5	305.00'	22.74'	22.74'	S 39°48'31" W	4°16'21"
C6	305.00'	186.06'	183.19'	S 86°26'56" E	34°57'08"
C7	60.00'	312.78'	61.19'	N 25°14'58" W	298°40'55"
C8	245.00'	130.69'	129.15'	N 89°38'36" W	30°33'49"
C9	245.00'	27.72'	27.70'	S 77°50'05" W	6°28'54"
C10	80.00'	126.24'	113.55'	S 30°04'04" W	90°24'52"
C11	80.00'	125.09'	112.73'	S 59°07'56" E	89°35'08"
C12	305.00'	219.83'	215.11'	N 50°25'36" E	41°17'48"
C13	245.00'	170.61'	167.18'	S 58°07'35" W	39°53'56"
C14	305.00'	82.70'	82.44'	N 69°18'27" E	15°32'05"
C15	245.00'	108.07'	107.20'	S 85°59'52" E	25°16'23"
C16	245.00'	22.62'	22.62'	N 78°43'13" E	5°17'26"
C17	60.00'	124.61'	103.49'	N 60°00'05" E	119°01'00"
C18	60.00'	69.64'	65.80'	S 27°09'16" E	66°30'18"
C19	60.00'	43.56'	42.61'	S 31°53'41" W	41°35'36"
C20	60.00'	48.37'	47.09'	S 76°15'48" W	47°08'38"
C21	60.00'	26.40'	26.21'	N 68°02'11" W	24°15'23"
C22	305.00'	25.99'	25.98'	S 26°30'57" W	4°52'54"
C23	305.01'	45.00'	44.96'	S 80°11'01" W	8°27'12"
C24	305.00'	45.00'	44.96'	N 88°21'47" W	8°27'12"
C25	305.00'	45.04'	45.00'	N 79°54'34" W	8°27'41"
C26	304.88'	28.04'	28.03'	N 71°19'29" W	5°42'18"
C27	305.00'	39.00'	38.97'	S 64°12'12" W	7°19'35"
C28	305.00'	43.70'	43.66'	S 71°58'15" W	8°12'50"
C29	245.00'	67.39'	67.18'	N 68°11'41" E	15°45'39"
C30	245.00'	103.69'	102.45'	N 48°14'43" E	24°08'17"
C31	80.00'	19.47'	19.42'	S 69°06'18" W	13°56'29"
C32	80.00'	39.81'	39.40'	S 47°52'36" W	28°30'50"
C33	80.00'	39.59'	39.19'	S 19°26'33" W	28°21'17"
C34	80.00'	27.37'	27.24'	S 04°37'41" E	19°36'17"
C35	80.00'	35.79'	35.49'	N 27°09'15" W	25°37'46"
C36	80.00'	40.93'	40.48'	S 54°37'31" E	29°18'47"
C37	80.00'	40.76'	40.32'	S 83°52'41" E	29°11'02"
C38	80.00'	7.61'	7.61'	N 78°48'02" E	5°27'03"
C39	305.00'	36.03'	36.01'	N 72°41'26" E	6°46'07"
C40	305.00'	45.00'	44.96'	N 65°04'48" E	8°27'13"
C41	305.00'	45.00'	44.96'	N 56°37'34" E	8°27'13"
C42	305.00'	45.00'	44.96'	N 48°10'21" E	8°27'13"
C43	305.00'	46.80'	46.75'	N 39°21'43" E	9°10'03"

LINE	BEARING	DISTANCE
L1	N 79°00'32" E	33.20'
L2	N 38°11'11" E	63.55'
L3	N 19°30'29" E	24.80'
L4	S 60°56'40" E	62.05'
L5	N 30°30'22" E	60.68'
L6	S 60°56'40" E	60.02'
L7	S 30°30'22" W	67.20'
L8	S 60°34'19" E	173.37'
L9	N 78°31'14" W	166.27'
L10	N 67°06'04" W	69.16'
L11	N 55°18'01" W	158.48'
L12	N 59°07'56" W	28.39'
L13	N 30°52'04" E	28.18'
L14	S 29°05'47" W	41.92'
L15	S 79°19'56" W	37.05'
L16	N 29°05'47" E	66.01'
L17	N 39°46'41" E	63.78'

Scale 1" = 100'

LEGEND
- Fd ½" Iron Rod
- Set ½" Iron Rod
- Utility Easement

FLOOD NOTE:
Special Flood Hazard Areas as graphically scaled from FEMA Map No. 48329C0100F, Dated September 16, 2005, Prepared for Midland County, Texas are shown hereon.

Bearings shown on this survey are relative to the Texas Coordinate System, NAD 1983, Central Zone (CORS).

PACKET

19.12

LOT COUNT
Residential: 80 lots
Common Area/Drainage: 1 lot

September 8, 2020

OWNER:
BETENBOUGH HOMES INC.
6305 82nd STREET
LUBBOCK, TEXAS 79424
806-797-9494

22 July 2020

Professional Land Surveying & Mapping
Aaron Burrell Land Surveyors, LLC
415 W. Wall St., Suite 204
Midland, Texas 79701
432-848-4439
P.O. Box 81041
Midland, Texas 79708
ablsurveyors.com
TBPLS Firm No. 10194227

Page 1 of 1
L256-7 Site P

SITE PLAN
LONE STAR TRAILS II, SECTION 7

MIDLAND
Planning Division

Zone Change/Planned District Amendment/Site Plan Approval

Project Number: Z-20-0191

Case Number:

Applicant *(if acting as Agent, see affidavit on page 2)*		Phone (806) 412 - 6611	
Printed Name: Ronnie Wallace, Betenbough Homes		Email Ronniew@betenbough.com	
Address 6305 82nd Street	City Lubbock	State Texas	Zip 79424

Property Owner		Phone (806) 412 - 6611	
Printed Name: Betenbough Homes		Email Ronniew@betenbough.com	
Address 6305 82nd Street	City Lubbock	State Texas	Zip 79424

Representative *(if different from Applicant or Property Owner)*		Phone ( )	
Firm: N / A		Email N / A	
Printed Name:			
Address	City	State	Zip

Street Address: See Attached Plat

Legal Description
Lot: See Attached Plat Block: See Attached Plat Subdivision: Lone Star Trails II, Section 7 (Being a 15.70 Acre Tract of Land in Section 7, Block 38, T-1-S, T. & P. RR. Co. Survey, City and County of Midland, Texas

Current Zoning: SF-3

Proposed Zone: PD (Planned District)
(List by tracts if more than one district is requested)

Reason for Zone Change Request: Wanting to build affordable, smaller homes on lots less than 5,500 Total Square Feet and therefore requesting PD (Planned District) Zone designation.

Present Use of Property: Currently in Development for Single Family Homes with SF-3 zoning.

Proposed Use of Property: Single Family Homes

How would this zone change affect the public health, safety and welfare?
Our smaller homes provide an additional, affordable option for new homeowners in Midland.

Describe how conditions affecting the property have changed since present zoning designation: We want to meet the needs of future homebuyers in Midland, especially with the current economic climate.

Submittal and Fees

Items to be submitted with this application form:

- Application Fee – Payable to the 'City of Midland' $650 (Fee for PD)
- Dimensioned Site Plan
- Digital Copies of Site Plan (PDF/JPEG)

Signature *(by property owner only – authorized agent must sign affidavit below)*	
Applicant (signature):	Date: July 22, 2020
Applicant (printed): Ronnie Wallace, Land Planner, Betenbough Homes	
Property Owner (signature):	Date: July 22, 2020
Property Owner (printed) : Ronnie Wallace, Land Planner, Betenbough Homes	

The Zone Change/Planned District Amendment/Site Plan Approval shall be considered officially received in the Planning office only when it has been submitted in full compliance with the provisions of Section 212 of the Texas Local Government Code and the Zoning Code of Ordinances of the City of Midland and when such required items for the application are also received.

All materials, including exhibits, submitted in support of an application, or displayed during a public hearing, shall remain the property of the City of Midland.

If an agent is authorized by the property owner to file and execute the application on behalf of the property owner, the agent must complete the affidavit below.

STATE OF TEXAS
COUNTY OF MIDLAND

Before me, the undersigned authority, on this day personally appeared _____ who, being by me duly sworn, upon oath says: That (s)he is authorized by _____, the owner of the above described property, to fully represent him/her in this application and that (s)he had the legal right, power and authority to sign said owner's name hereto as his/her attorney in fact.

_____
Authorized Agent (*signature*)

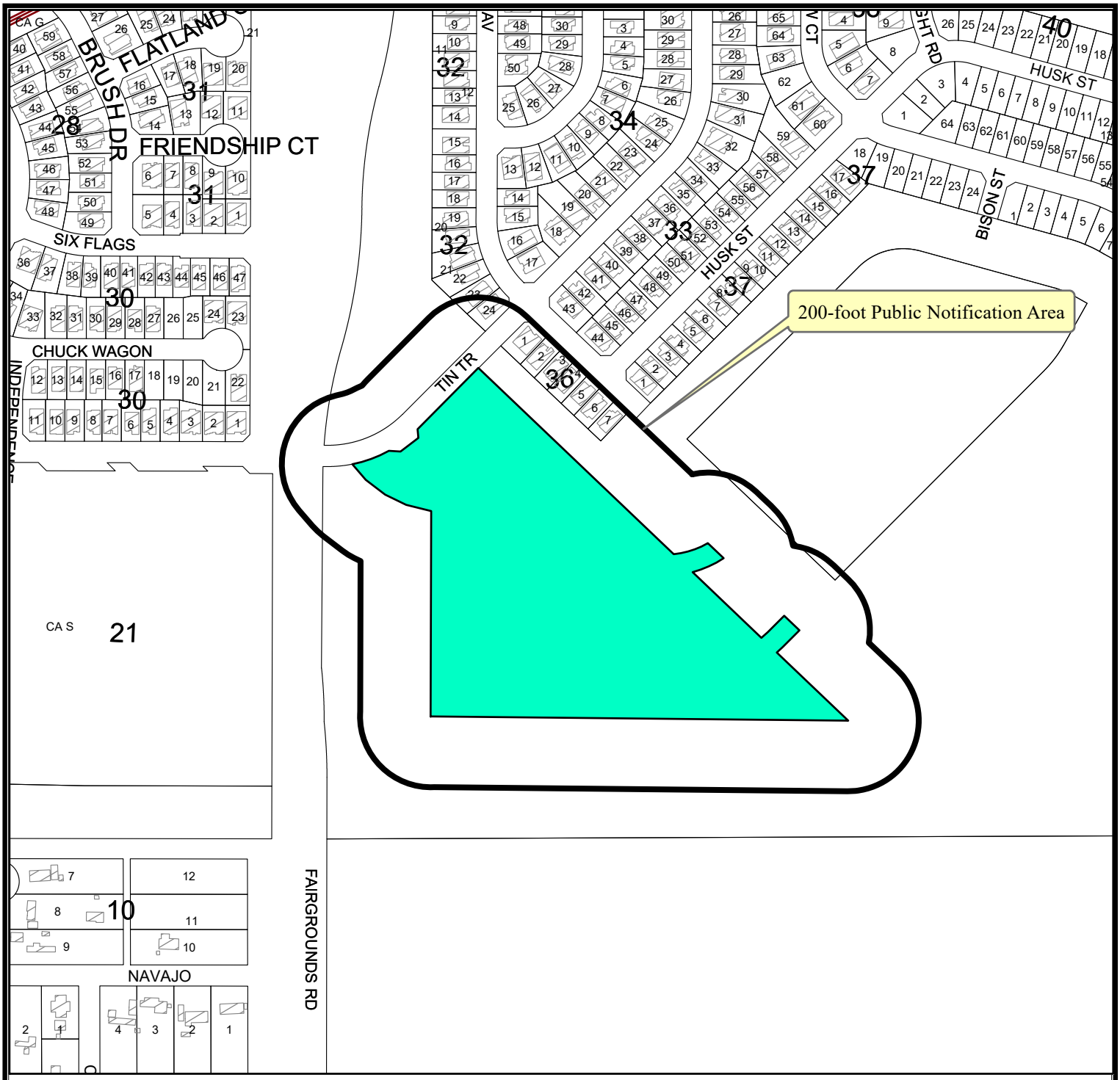
Subscribed and sworn to before me, this _____ day of _____, 20 ___, to certify which witness my hand and seal of office.

_____
NOTARY PUBLIC, MIDLAND COUNTY, TEXAS

FOR OFFICE USE ONLY

☐ Property Owner Authorization	☐ Dimensioned Site Plan
☐ Application Fee	☐ Plans in Digital Format (PDF/JPEG)
Check #_____	
Received By:	Date:

****Application will not be considered for scheduling until reviewed by a planner.****



LOCATION MAP

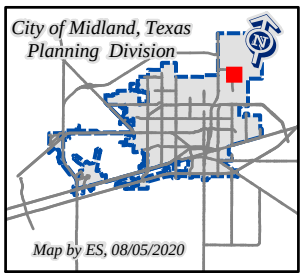
Z-20-0191 **Scale: 1" = 250'**

Consider a request by Betenbough Homes for a Zone Change from SF-3, Single Family Dwelling District to PD, Planned Development District for a Housing Development on a 15.70 acre tract of land located in Section 7, Block 38, T-1-S, T. & P. RR. Co. Survey, City and County of Midland, Texas.

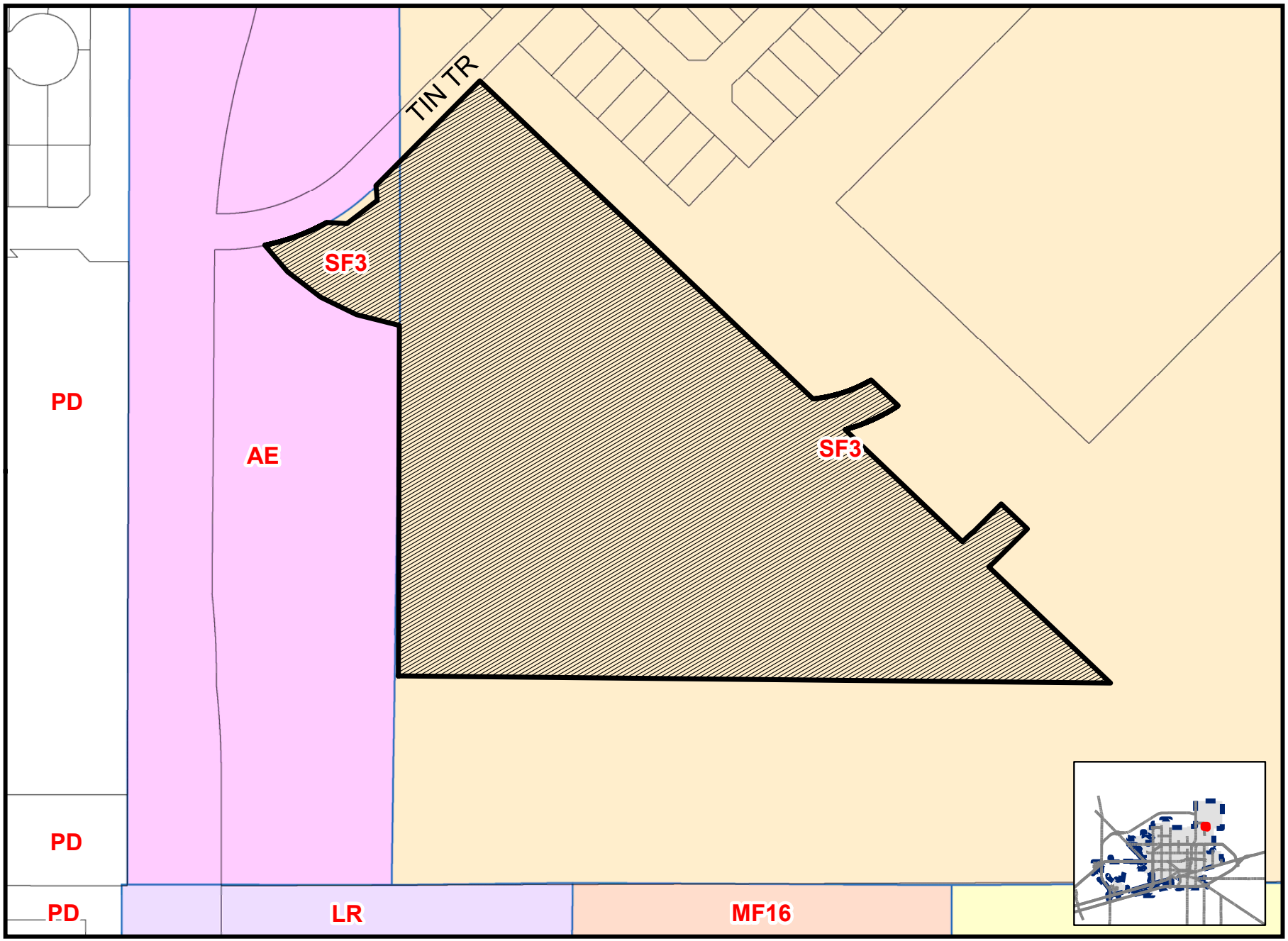
Generally located on the south side of Tin Trail, approximately 130 feet east of N. Fairgrounds Road. (Council District 1)

LEGEND

- CITY LIMITS
- PARCEL
- PRIVATE BLDGS



September 8, 2020



Map By ES, 8/4/2020

Z-20-0191

Scale: 1" = 200'

ZONING MAP

PACKET
19.16
September 8, 2020

STOP
CROSS TRAFFIC
DOES NOT STOP
MIDLAND

City Council Meeting

Item Number: 20

Meeting Date: September 8, 2020

To: City Council / City Manager

From: Elizabeth Shaughnessy, Senior Planner

Subject: AN ORDINANCE AMENDING THE ZONING DISTRICT MAP OF THE CITY OF MIDLAND TO REZONE LOTS 2 THROUGH 10, BLOCK 1, AND LOTS 1 THROUGH 7, BLOCK 2, LONE STAR BUSINESS PARK, SECTION 2, CITY AND COUNTY OF MIDLAND, TEXAS, FROM O-1, OFFICE DISTRICT TO LR, LOCAL RETAIL DISTRICT (GENERALLY LOCATED AT THE SOUTHEAST CORNER OF THE INTERSECTION OF NORTH STATE HIGHWAY 349 AND OCCIDENTAL PARKWAY); CONTAINING A CUMULATIVE CLAUSE; CONTAINING A SAVINGS AND SEVERABILITY CLAUSE; PROVIDING FOR A MAXIMUM PENALTY OR FINE OF TWO THOUSAND DOLLARS ($2,000.00); AND ORDERING PUBLICATION (DEVELOPMENT SERVICES)

Purpose:

The applicant, Betenbough Homes, LLC, is requesting approval of a zone change for the development of local retail.

Recommended City Council Action:

Approve

Fiscal Impact:

This proposal does not have a significant financial impact to the city.

Discussion:

Surrounding Zoning and Land Use:

The properties to the north are zoned AE, Agricultural Estate District, and the location vacant land. The properties to the east are zoned PD, Planned District for a Housing Development,

and the location of residential homes. The property to the south is zoned O-1, Office District, and the location of vacant land. The properties to the west are located in the ETJ, Extraterritorial Jurisdiction and the location of vacant land and an office.

Analysis:

The properties are located at 6700 through 6716 and 6800 through 6812 N. State Highway 349 and are currently vacant. The current zoning of this property is O-1, Office District and is the location of vacant lots. Since the properties remain unsold and unimproved, the applicant is requesting to change the zoning to LR, Local Retail District to better suit the surrounding neighborhood and to develop a buffer from the residential housing and N. State Highway 349.

The setbacks and maximum height of future development must meet the regulations as described in Section 5.05 Nonresidential Zoning District Dimensional Regulations chart.

This proposed zone change has been circulated to and reviewed by respective City departments and their comments, conditions, and requirements are as follows:

Engineering: (Approved)

No objection to zone change.

Site drainage, utilities, driveway access, and traffic circulation may be adjusted during construction drawing review as necessary to receive building permit approval from Engineering and Traffic Operations.

Fire: (Approved)

No objections.

Building: (Approved)

No issues. All future structures must adhere to the 2018 International Building Codes, the 2015 International Energy Code, the 2017 NEC requirements, the 2015 International Fire Codes, local city ordinances, zoning requirements, established setbacks, and floodplain requirements if necessary.

Code Compliance: (Approved)

Existing permitted oil well- Operator Pioneer -Mabee E #3 to the south of lot 6700 has a variance of 200 ft.

Transportation: (Approved)

Access spacing will be required to adhere to the TxDOT Access Management Standards along the state highway.
Depending on the nature and scale of the proposed development, a Traffic Impact Analysis

MAY be required prior to approval of construction drawings.

Site drainage, utilities, driveway access, and traffic circulation may be adjusted during construction drawing review as necessary to receive building permit approval from Engineering and Traffic Operations.

No objection to zone change.

Planning:

Per the Future Land Use map, this location calls for Urban Medium uses. Potential zoning for this area include Office-District and Local Districts, this zone change is in compliance with the Future Land Use plan.

The Planning and Zoning commission recommended approval of this request at the August 17, 2020 meeting.

Staff recommends approval of this zone change, subject to condition A.

Conditions:

A. **That the use and development of this property shall conform to the regulations of the LR, Local Retail District.**

Letters of Objection:

As of September 2, 2020, staff has not received any letters of objection.

Attachments:

Application
Maps
Lone Star Business Park, Section 2

Robert Patrick

City Manager's Office

ORDINANCE NO. _____

AN ORDINANCE AMENDING THE ZONING DISTRICT MAP OF THE CITY OF MIDLAND TO REZONE LOTS 2 THROUGH 10, BLOCK 1, AND LOTS 1 THROUGH 7, BLOCK 2, LONE STAR BUSINESS PARK, SECTION 2, CITY AND COUNTY OF MIDLAND, TEXAS, FROM O-1, OFFICE DISTRICT TO LR, LOCAL RETAIL DISTRICT (GENERALLY LOCATED AT THE SOUTHEAST CORNER OF THE INTERSECTION OF NORTH STATE HIGHWAY 349 AND OCCIDENTAL PARKWAY); CONTAINING A CUMULATIVE CLAUSE; CONTAINING A SAVINGS AND SEVERABILITY CLAUSE; PROVIDING FOR A MAXIMUM PENALTY OR FINE OF TWO THOUSAND DOLLARS ($2,000.00); AND ORDERING PUBLICATION

WHEREAS, the City Planning and Zoning Commission and the Governing Body of the City of Midland, in compliance with the City Charter, the City Code, and State law, have given the requisite notices by United States mail, publication and otherwise; and after a full and fair hearing to all of the property owners generally and particularly to those interested persons situated in the affected area and in the vicinity thereof, the Governing Body finds that the public health, safety and general welfare will be best served by rezoning Lots 2 through 10, Block 1, and Lots 1 through 7, Block 2, Lone Star Business Park, Section 2, City and County of Midland, Texas (the "Property") to LR, Local Retail District, as set out hereinafter;

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF MIDLAND, TEXAS:

SECTION ONE. That the Zoning District Map of the City of Midland, Texas, is hereby amended to rezone the Property from O-1, Office District to LR, Local Retail District.

SECTION TWO. That the definitions given in the zoning regulations contained in the City Code of the City of Midland, Texas, shall be applicable to such of those terms as are used herein.

SECTION THREE. The provisions of this ordinance are to be cumulative of all other ordinances or parts of ordinances governing or regulating the same subject matter as

that covered herein; provided, however, that all prior ordinances or parts of ordinances inconsistent with or in conflict with any of the provisions of this ordinance are hereby expressly repealed to the extent of any such inconsistency or conflict.

SECTION FOUR. If any section, subsection, sentence, clause or phrase of this ordinance is, for any reason, held to be unconstitutional or invalid, such holding shall not affect the validity of the remaining portions of this ordinance. The Council of the City of Midland hereby declares that it would have passed this ordinance and each section, subsection, sentence, clause, or phrase hereof irrespective of the fact that any one or more sections, subsections, sentences, clauses, or phrases be declared unconstitutional or invalid.

SECTION FIVE. The penalty for violation of this ordinance shall be in accordance with the general penalty provisions contained in Section 1-3-1 of the City Code of Midland, Texas, which provides for a fine not exceeding two thousand dollars ($2,000.00).

SECTION SIX. The City Secretary is hereby authorized and directed to publish the descriptive caption of this ordinance in the manner and for the length of time prescribed by the law as an alternative method of publication.

The above and foregoing ordinance was duly proposed, read in full and adopted on first reading, the _____ day of _____, A.D., 2020; and passed to second reading on motion of Council member _____, seconded by Council member _____, by the following vote:

Council members voting "AYE":

Council members voting "NAY":

The above and foregoing ordinance was read in full and finally adopted by the following vote upon motion of Council member _____, seconded by Council member _____, on the _____ day of _____, A.D., 2020, at a regular meeting of the City Council:

Council members voting “AYE”:

Council members voting “NAY”:

PASSED AND APPROVED THIS _____ day of _____, A.D., 2020.

_____
Patrick N. Payton, Mayor

ATTEST:

_____
Amy M. Turner, City Secretary

APPROVED AS TO CONTENT
AND COMPLETENESS:

_____
Robert Patrick, Assistant City Manager

_____
Charles Harrington, Director of Development Services

APPROVED ONLY AS TO FORM:

_____
John Ohnemiller, City Attorney

Zone Change/Planned District Amendment/Site Plan Approval

Project Number:_____

Case Number:_____

Applicant *(if acting as Agent, see affidavit on page 2)* Printed Name: Betenbough Homes, LLC		Phone (806) 789-9558 Email ChrisB@Betenbough.com	
Address 6305 82nd Street	City Lubbock	State TX	Zip 79424

Property Owner Printed Name: Betenbough Homes, LLC		Phone (806) 789-9558 Email ChrisB@Betenbough.com	
Address 6305 82nd Street	City Lubbock	State TX	Zip 79424

Representative *(if different from Applicant or Property Owner)* Firm: _____ Printed Name:		Phone ( ) Email	
Address	City	State	Zip

Street Address: 6812 through 6800 and 6716 through 6700 N HWY 349

Legal Description
Lot: Block: Subdivision: Lonestar Business Park Setion 2

Current Zoning: O-1	**Proposed Zone:** *(List by tracts if more than one district is requested)*

Reason for Zone Change Request: We feel that a commercial distric is better suited for this area off of N HWY 349. We have had O-1 here and have had little traffic. Commercial seems to better fit the adjacency to 349

Present Use of Property: o-1

Proposed Use of Property: Local Retail

How would this zone change affect the public health, safety and welfare? minimal impact

Describe how conditions affecting the property have changed since present zoning designation: nothing has currently changed. land remains improved and unsold

Submittal and Fees

Items to be submitted with this application form:

- Application Fee – Payable to the 'City of Midland'
- Dimensioned Site Plan
- Digital Copies of Site Plan (PDF/JPEG)

Signature *(by property owner only – authorized agent must sign affidavit below)*	
Applicant (signature):	Date: July 22nd, 2020
Applicant (printed): Chris Berry	
Property Owner (signature):	Date: July 22nd, 2020
Property Owner (printed) : Chris Berry	

The Zone Change/Planned District Amendment/Site Plan Approval shall be considered officially received in the Planning office only when it has been submitted in full compliance with the provisions of Section 212 of the Texas Local Government Code and the Zoning Code of Ordinances of the City of Midland and when such required items for the application are also received.

All materials, including exhibits, submitted in support of an application, or displayed during a public hearing, shall remain the property of the City of Midland.

If an agent is authorized by the property owner to file and execute the application on behalf of the property owner, the agent must complete the affidavit below.

STATE OF TEXAS
COUNTY OF MIDLAND

Before me, the undersigned authority, on this day personally appeared _____ who, being by me duly sworn, upon oath says: That (s)he is authorized by _____, the owner of the above described property, to fully represent him/her in this application and that (s)he had the legal right, power and authority to sign said owner's name hereto as his/her attorney in fact.

_____
Authorized Agent (*signature*)

Subscribed and sworn to before me, this _____ day of _____, 20 ___, to certify which witness my hand and seal of office.

_____
NOTARY PUBLIC, MIDLAND COUNTY, TEXAS

FOR OFFICE USE ONLY	
☐ Property Owner Authorization	☐ Dimensioned Site Plan
☐ Application Fee	☐ Plans in Digital Format (PDF/JPEG)
Check #_____	
Received By:	Date:

****Application will not be considered for scheduling until reviewed by a planner.****

LOCATION MAP

Z-20-0190 **Scale: 1" = 250'**

Consider a request by Betenbough Homes, LLC for a Zone Change from O-1, Office District to LR, Local Retail District on Lots 2 through 10, Block 1, and Lots 1 through 7, Block 2, Lone Star Business Park, Section 2, City and County of Midland, Texas.

Generally located on the southeast corner of the intersection of North State Highway 349 and Occidental Parkway.((Council District 1)

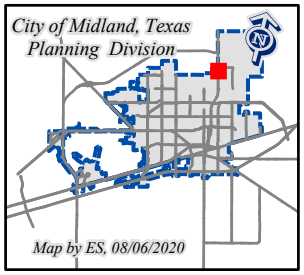
PACKET 20.29

LEGEND

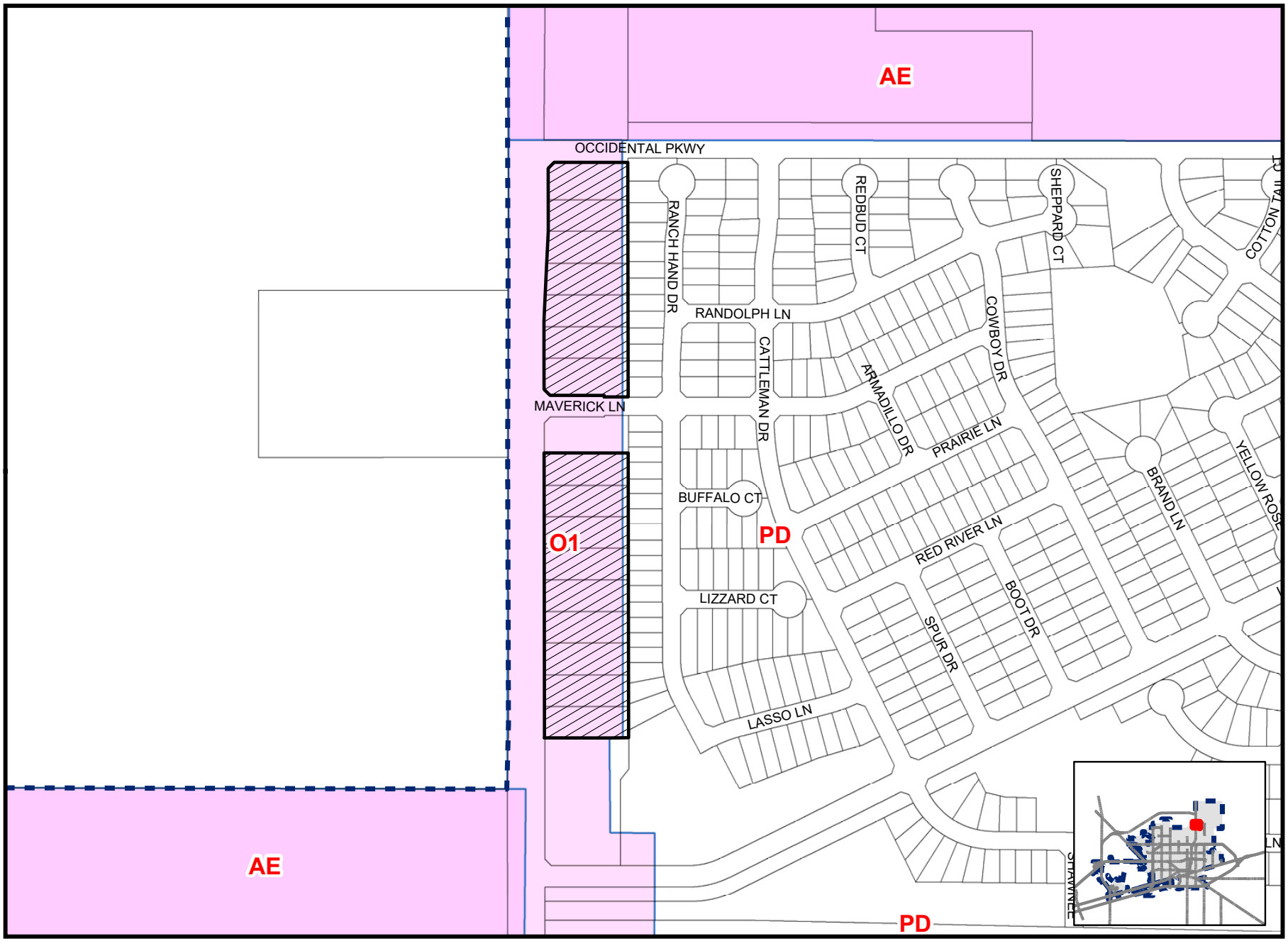
CITY LIMITS

PARCEL

PRIVATE BLDGS



September 8, 2020



Map By ES, 8/7/2020

Z-20-0190

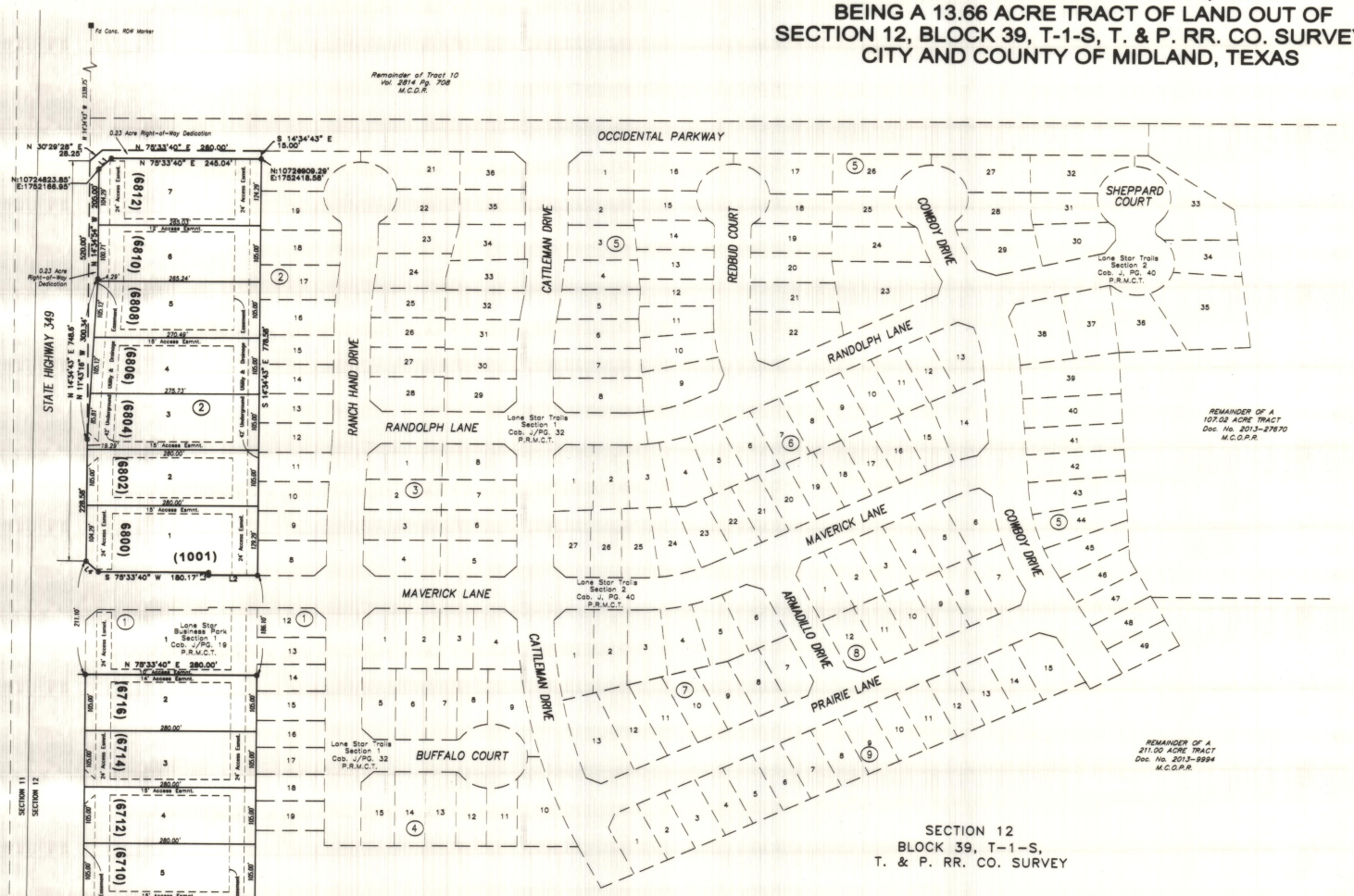
Scale: 1" = 400'

ZONING MAP

PACKET
20.30
September 8, 2020

LONE STAR BUSINESS PARK, SECTION 2

BEING A 13.66 ACRE TRACT OF LAND OUT OF SECTION 12, BLOCK 39, T-1-S, T. & P. RR. CO. SURVEY, CITY AND COUNTY OF MIDLAND, TEXAS



LINE	BEARING	DISTANCE
L1	N 30°29'23" E	28.25'
L2	S 75°33'40" W	79.85
L3	N 14°17'58" W	5.00
L4	N 59°30'32" W	28.32
L5	S 23°56'55" W	44.70'
L6	N 59°39'02" W	28.42

LEGEND

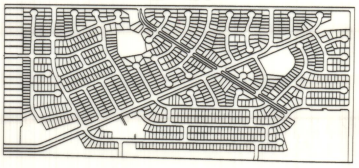
- ⊕ 1/2" Iron Rod with cap mkd. "RPLS 4413"
- ----- Easement as noted

Lot Corner Monuments are set 1/2" iron rod with yellow plastic cap marked "RPLS 4413" unless noted otherwise.

100 0 100 200 300 Feet

ALL BEARINGS, DISTANCES AND COORDINATES SHOWN HEREON ARE RELATIVE TO THE TEXAS STATE PLANE COORDINATE SYSTEM, CENTRAL ZONE, NAD 83. ACREAGES SHOWN ARE SURFACE VALUES.

KEY MAP



THIS PLAT HAS BEEN CHECKED FOR ACCESSIBILITY OF UTILITIES.

UTILITY COMPANY'S CERTIFICATE

SIGNED: _____ ATMOS ENERGY — MARK KIRB PRINT NAME

SIGNED: _____ XCEL ELECTRIC DELIVERY — JAMES RICHARDSON PRINT NAME

SIGNED: _____ AT&T TEXAS — JEREMY VANDERSAND PRINT NAME

SIGNED: _____ SUCCESSLINK COMMUNICATIONS — Robert L. Christensen PRINT NAME

SIGNED: _____ SHAMROCK UTILITIES — DOUG McGEE PRINT NAME

SIGNED: _____ GRANDE COMMUNICATIONS — RODNEY WEBER PRINT NAME

OWNERS' CERTIFICATE:

THE STATE OF TEXAS
COUNTY OF MIDLAND

WHEREAS, I, KEITH SMITH, Vice President of Real Property Resources, Inc. as the recorded owner of a 13.66 Acre Tract of Land, being 8.59 acres out of a 211.00 Acre Tract of land, as recorded in Instrument No. 2013-9994, Official Public Records, Midland County, Texas, 5.07 acres out of a 107.02 Acre Tract of Land, as recorded in Instrument No. 2013-27670, Official Public Records, Midland County, Texas, located in Section 12, Block 39, T-1-S, T. & P. RR. Co. Survey, Midland County, Texas, and more particularly shown hereon:

NOW, THEREFORE, KNOW ALL MEN BY THESE PRESENTS:

THAT, I, KEITH SMITH, Vice President of Real Property Resources, Inc., do hereby adopt this plat designating the herein above described property as "LONE STAR BUSINESS PARK, SECTION 2" an Addition to the City of Midland, Midland County, Texas, and do hereby dedicate to the public use forever the streets, alleys, and easements shown thereon.

WITNESS our hands at Midland, Texas, this the 2 day of April, 2015.

KEITH SMITH, Vice President of Real Properties Resources, Inc.

ACKNOWLEDGMENT
THE STATE OF TEXAS
COUNTY OF MIDLAND

Before me, the undersigned authority, a Notary Public in and for the State of Texas, on this day personally appeared KEITH SMITH, Vice President of Real Property Resources Inc., known to me to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that the same was the act as owner, and that he executed the same as the act for the purpose and consideration therein expressed and in the capacity therein stated.

Given under my hand and seal of office this 2nd day of April, 2015.

NOTARY PUBLIC IN AND FOR THE STATE OF TEXAS

CERTIFICATE OF APPROVAL

This is to certify that the above and foregoing plat of "LONE STAR BUSINESS PARK, SECTION 2" was approved by proper action of the City Planning and Zoning Commission of the City of Midland, on this _____ day of May, 2015.

SIGNED: KEVIN WILTON – Chairman

ATTEST: BOB BARONTI – Secretary

NOTES:

1. SELLING A PORTION OF THIS ADDITION BY METES AND BOUNDS MAY BE A VIOLATION OF CITY ORDINANCE AND STATE LAW AND SUBJECT TO FINES AND WITHHOLDING OF UTILITIES AND BUILDING PERMITS.
2. APPROVAL OF A SITE PLAN BY THE CITY OF MIDLAND MAY BE REQUIRED BEFORE THE DEVELOPMENT OF ANY LOT AND BEFORE A BUILDING PERMIT MAY BE OBTAINED.

THAT I, AARON SCOTT BURRELL A REGISTERED PROFESSIONAL LAND SURVEYOR OF THE STATE OF TEXAS, DO HEREBY CERTIFY THAT I PREPARED THIS PLAT FROM AN ACTUAL AND ACCURATE SURVEY OF THE LAND AND THAT THE CORNER MONUMENTS SHOWN THEREON WERE PROPERLY PLACED UNDER MY PERSONAL SUPERVISION, IN ACCORDANCE WITH THE SUBDIVISION REGULATIONS OF THE CITY OF MIDLAND, TEXAS

1 April 2015

AARON SCOTT BURRELL
TEXAS REGISTRATION NUMBER – 5689

PREPARED BY:
STANFORD SURVEYING COMPANY
P.O. BOX 8490
MIDLAND, TEXAS 79708-8490
432-699-5708
TBPLS Firm No. 10128400

AMD Engineering, LLC
2807 74th Street, Suite 8
Lubbock, TX 79423
Phone: 806-771-0879
Fax: 806-771-7888
CIVIL ENGINEERING
LAND SURVEYING
Accuracy - Efficiency - Integrity

OWNER:
REAL PROPERTY RESOURCES, INC.
6305 82nd STREET
LUBBOCK, TEXAS 79424
806-797-8484

PLAT FILED FOR RECORD
MIDLAND COUNTY, TEXAS
NO. 2015-10012 CABINET J
DATE 4-10-15 TIME 9:00

FINAL PLAT
LONE STAR BUSINESS PARK, SECTION 2

PACKET 20.31 September 8, 2020

CAUTION
KEEP TO
RIGHT
2214
MIDLAND

City Council Meeting

Item Number: 21

Meeting Date: September 8, 2020

To: City Council / City Manager

From: Michael Pacelli, City Traffic Engineer

Subject: AN ORDINANCE AMENDING TITLE X, "TRAFFIC REGULATIONS", CHAPTER FOUR, "TRAFFIC CONTROL DEVICES", SECTION 11, "SCHOOL ZONES", OF THE MIDLAND CITY CODE, SO AS TO DESIGNATE EACH SCHOOL ZONE WITHIN THE CITY AND REGULATE THE SPEED AND MOVEMENT OF TRAFFIC THEREIN; AUTHORIZING AND DIRECTING THE TRAFFIC ENGINEER TO INSTALL APPROPRIATE SIGNS AND MARKINGS; REPEALING ORDINANCE NO. 9961; CONTAINING A CUMULATIVE CLAUSE; CONTAINING A SAVINGS AND SEVERABILITY CLAUSE; PROVIDING FOR A MAXIMUM PENALTY OR FINE OF TWO HUNDRED DOLLARS ($200.00); AND ORDERING PUBLICATION (ENGINEERING SERVICES)

Purpose:

To revise school zone speed limit regulations at select locations.

Recommended City Council Action:

Approve

Fiscal Impact:

None

Discussion:

The Legal Department has prepared an ordinance replacing the existing ordinance for "School Zones and Crossings" within the City of Midland, authorizing revisions to school zones as described below.

The revisions are minor adjustments to the times that school zones are in effect based on

schedule adjustments made by school administration at Midland Academy Charter School, Sam Houston Elementary School, and Travis Elementary School.

Staff recommends approval.

City Manager's Office

ORDINANCE NO. _____

AN ORDINANCE AMENDING TITLE X, "TRAFFIC REGULATIONS", CHAPTER FOUR, "TRAFFIC CONTROL DEVICES", SECTION 11, "SCHOOL ZONES", OF THE MIDLAND CITY CODE, SO AS TO DESIGNATE EACH SCHOOL ZONE WITHIN THE CITY AND REGULATE THE SPEED AND MOVEMENT OF TRAFFIC THEREIN; AUTHORIZING AND DIRECTING THE TRAFFIC ENGINEER TO INSTALL APPROPRIATE SIGNS AND MARKINGS; REPEALING ORDINANCE NO. 9961; CONTAINING A CUMULATIVE CLAUSE; CONTAINING A SAVINGS AND SEVERABILITY CLAUSE; PROVIDING FOR A MAXIMUM PENALTY OR FINE OF TWO HUNDRED DOLLARS ($200.00); AND ORDERING PUBLICATION

WHEREAS, Section 10-1-1(A)(44) of the City Code defines school zones as areas, whether adjacent to schools or not, when properly marked by signs or pavement markings designating them as school zones; and

WHEREAS, the City Traffic Engineer has recommended the establishment of certain locations within the City to be designated as school zones and certain changes in existing school zones, all based on engineering and traffic investigations; and

WHEREAS, the Council finds it to be in the public interest to follow the recommendations of the City Traffic Engineer in this matter;

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF MIDLAND, TEXAS:

SECTION ONE. That Midland City Code Title X, "Traffic Regulations", Chapter 4, "Traffic Control Devices", Section 11, "School Zones", shall hereby be amended to read in its entirety as follows:

10-4-11. SCHOOL ZONES.

The following described areas or locations are hereby designated "School Zones" and are reduced speed zones designated on streets by the City of Midland to facilitate safe crossing of the streets by children going to or leaving public or private elementary or secondary schools during the times the reduced speed limits apply. No person shall drive a motor vehicle in such areas or locations at a speed greater than is reasonable and prudent under the circumstances then existing. The speed limits specified hereinafter shall be lawful, but any speed in excess of the limits specified below during the hours set out hereinafter for each location or when flashing lights are in place and operating shall be prima facie evidence

that the speed is not reasonable or prudent and is unlawful on the days schools are in session.

(A) Abell Junior High School - 20 mph - 7:00 a.m. to 5:00 p.m.

1. Heritage Boulevard from the centerline of Wadley Avenue to a point 170 feet south of the centerline of Highland Boulevard/Highland Court.

2. Highland Boulevard from the centerline of Heritage Boulevard to a point 830 feet west of the centerline of Heritage Boulevard.

(B) Abell Junior High School - 20 mph - 7:00 a.m. to 9:00 a.m. and 4:00 p.m. to 5:00 p.m.

Wadley Avenue from a point 100 feet east of the centerline of Heritage Boulevard to a point 830 feet west of the centerline of Heritage Boulevard.

(C) Alamo Junior High School - 25 mph - 7:00 a.m. to 9:00 a.m. and 3:00 p.m. to 5:00 p.m.

Illinois Avenue - from a point 211 feet east of the centerline of McDonald Street to a point 200 feet west of the centerline of McDonald Street.

(D) Alamo Junior High School - See "Bonham Elementary School and Alamo Junior High School."

(E) Anson Jones Elementary School - 20 mph - 7:00 a.m. to 9:00 a.m. and 2:30 p.m. to 4:30 p.m.

Illinois Avenue - from a point 210 feet east of the centerline of Stoneybrook Drive to a point 210 feet west of the centerline of Stoneybrook Drive.

(F) Anson Jones Elementary School - 20 mph - 7:00 a.m. to 5:00 p.m.

1. Stoneybrook Drive - from a point 88 feet north of the centerline of Shadylane Drive to the centerline of Shadylane Drive.

2. Shadylane Drive - from a point 160 feet north of the centerline of Thomason Drive to a point 150 feet east of the centerline of Thornridge Drive.

3. Thornridge Drive - from a point 160 feet north of the centerline of Thomason Drive to the centerline of Shadylane Drive.

(G) Ben Milam Elementary School - 20 mph - 7:00 a.m. to 9:00 a.m. and 2:30 p.m. to 4:30 p.m.

1. Wadley Avenue - from a point 293 feet east of the centerline of Edwards Street at its easternmost intersection with Wadley Avenue to a point 280 feet west of the centerline of Edwards Street at its easternmost intersection with Wadley Avenue.

2. Lamesa Road - from a point 200 feet north of the centerline of the west

leg of Dormard Avenue to a point 200 feet south of the centerline of the west leg of Dormard Avenue.

3. Main Street - from a point 175 feet north of the centerline of Dormard Avenue to a point 175 feet south of the centerline of Dormard Avenue.

(H) Ben Milam Elementary School - 20 mph - 7:00 a.m. to 4:30 p.m.

1. Shandon Avenue - from a point 230 feet west of the centerline of Edwards Street to a point 300 feet east of the centerline of Barber Drive.

2. Dengar Avenue - from a point 230 feet west of the centerline of Edwards Street to the centerline of Edwards Street.

3. Dengar Avenue - from the centerline of Barber Drive to a point 295 feet east of the centerline of Barber Drive.

4. Dormard Avenue - from a point 300 feet west of the centerline of Edwards Street to a point 230 feet east of the centerline of Barber Drive.

5. Edwards Street - from a point 205 feet south of the centerline of Dormard Avenue to a point 160 feet north of the centerline of Shandon Avenue.

6. Barber Drive - from a point 175 feet south of the centerline of Dormard Avenue to a point 155 feet north of the centerline of Shandon Avenue.

(I) Bonham Elementary School and Alamo Junior High School - 20 mph - 7:00 a.m. to 9:00 a.m. and 3:00 p.m. to 5:00 p.m.

Midland Drive - from a point 205 feet north of the centerline of Crockett Avenue to a point 185 feet south of the centerline of Storey Avenue.

(J) Bonham Elementary School and Alamo Junior High School - 20 mph - 7:00 a.m. to 5:00 p.m.

1. Cuthbert Avenue - from a point 235 feet west of the centerline of Delmar Street to a point 185 feet east of the centerline of Bonham Street.

2. Storey Avenue - from a point 450 feet west of the centerline of Delmar Street to the centerline of McDonald Street.

3. Storey Avenue - from the centerline of Bonham Street to a point 220 feet east of the centerline of Bonham Street.

4. Delmar Street - from a point 195 feet south of the centerline of Storey Avenue to the centerline of Storey Avenue.

5. Delmar Street - from a point 170 feet north of the centerline of Cuthbert

Avenue to the centerline of Cuthbert Avenue.

6. McDonald Street - from a point 200 feet south of the centerline of Storey Avenue to a point 115 feet north of the centerline of Cuthbert Avenue.

7. Bonham Street - from a point 170 feet south of the centerline of Storey Avenue to a point 118 feet north of the centerline of Cuthbert Avenue.

8. Dunbar Street - from a point 115 feet north of the centerline of Cuthbert Avenue to the centerline of Cuthbert Avenue.

(K) Bowie Elementary School - 20 mph - 7:00 a.m. to 9:00 a.m. and 2:30 p.m. to 4:30 p.m.

1. "A" Street - from a point 140 feet north of the centerline of Elk Avenue to a point 175 feet south of the centerline of Douglas Avenue.

2. Douglas Avenue - from the centerline of "A" Street to a point 195 feet east of the centerline of "A" Street.

3. Douglas Avenue - from a point 205 feet east of the centerline of "D" Street to a point 175 feet west of the centerline of "D" Street.

(L) Bowie Elementary School - 20 mph - 7:00 a.m. to 4:30 p.m.

1. Elk Avenue - from the centerline of "B" Street to the centerline of "A" Street.

2. Douglas Avenue - from a point 90 feet east of the centerline of "C" Street to the centerline of "B" Street.

3. Princeton Avenue - from a point 255 feet west of the centerline of "B" Street to the centerline of "B" Street.

4. "B" Street - from a point 150 feet north of the centerline of Elk Avenue to a point 160 feet south of the centerline of Princeton Avenue.

(M) Bunche Elementary School - 20 mph - 7:00 a.m. to 4:30 p.m.

1. Pennsylvania Avenue - from a point 165 feet east of the centerline of Carver Street to a point 190 feet east of the centerline of Jackson Street.

2. Adams Street - from the centerline of Pennsylvania Avenue to a point 135 feet north of the centerline of Pennsylvania Avenue.

3. Jackson Street - from a point 140 feet north of the centerline of Pennsylvania Avenue to a point 215 feet north of the centerline of Cloverdale Road.

4. California Avenue - from the centerline of Jackson Street to a point 200 feet east of the centerline of Jackson Street.

(N) Burnett Elementary School - 20 mph - 7:00 a.m. to 4:30 p.m.

1. Spraberry Drive - from a point 175 feet north of the centerline of Devonian Drive to a point 130 feet north of the centerline of Pleasant Drive.

2. Ruby Drive - from the centerline of Canyon Drive to a point 165 feet north of the centerline of Devonian Drive.

3. Raymond Drive - from a point 185 feet north of the centerline of Canyon Drive to a point 50 feet north of the centerline of Pleasant Drive.

4. Devonian Drive - from a point 230 feet west of the centerline of Spraberry Drive to the centerline of Spraberry Drive.

5. Canyon Drive - from the centerline of Spraberry Drive to a point 280 feet east of the centerline of Raymond Drive.

6. Pasadena Drive - from the centerline of Spraberry Drive to a point 230 feet west of the centerline of Spraberry Drive.

7. Howard Drive - from the centerline of Raymond Drive to a point 295 feet east of the centerline of Raymond Drive.

(O) Bush Elementary School - 20 mph - 7:00 a.m. to 9:00 a.m. and 2:30 p.m. to 4:30 p.m.

Whittle Way - from a point 175 feet north of the centerline of Preston Avenue to a point 200 feet south of the centerline of Preston Avenue.

(P) Bush Elementary School - 20 mph - 7:00 a.m. to 4:30 p.m.

1. Idlewilde Drive - from a point 90 feet north of the centerline of Rainbow Road to the centerline of Preston Drive.

2. Preston Drive - from a point 150 feet east of the centerline of Idlewilde Drive to a point 150 feet west of the centerline of Sunburst Drive.

3. Sunburst Drive - from a point 90 feet north of the centerline of Rainbow Road to a point 150 feet north of the centerline of Preston Drive.

(Q) Carver Center - 20 mph - 7:00 a.m. to 4:30 p.m.

1. Carver Street - from a point 175 feet north of the centerline of Texas Avenue to a point 160 feet south of the centerline of Wall Street.

2. Texas Avenue - from a point 150 feet west of the centerline of Carver Street to the centerline of Carver Street.

3. Adams Street - from a point 150 feet south of the centerline of Wall

Street to the centerline of Wall Street.

4. Jesse Street - from a point 100 feet north of the centerline of Wall Street to the centerline of Wall Street.

(R) Coleman High School - 20 mph - 7:00 a.m. to 4:30 p.m.

1. Golf Course Road - from a point 60 feet west of the centerline of Benton Street to a point 120 feet west of the centerline of Tilden Street.

2. Tilden Street - from a point 70 feet north of the centerline of Jax Street to the centerline of Golf Course Road.

(S) DeZavala Elementary School - 20 mph - 7:00 a.m. to 9:00 a.m. and 2:30 p.m. to 4:30 p.m.

1. Lamesa Road - from a point 300 feet north of the centerline of Louisiana Avenue to a point 250 feet south of the centerline of Louisiana Avenue.

2. Louisiana Avenue - from a point 200 feet west of the centerline of Lamesa Road to a point 150 feet east of the centerline of Lamesa Road.

3. Garden Lane - from a point 180 feet west of the centerline of Lee Street to a point 191 feet east of the centerline of Lee Street.

4. Walnut Lane - from a point 184 feet west of the centerline of Lee Street to a point 196 feet east of the centerline of Lee Street.

(T) DeZavala Elementary School - 20 mph - 7:00 a.m. to 4:30 p.m.

1. Orchard Lane - from the centerline of Lee Street to a point 175 feet east of the centerline of Lee Street.

2. Lee Street - from a point 325 feet north of the centerline of Mesquite Street to a point 50 feet north of the centerline of South Street.

3. Mesquite Street - from the centerline of Lee Street to a point 175 feet east of the centerline of Lee Street.

(U) Emerson Elementary School and Goddard Junior High School - 20 mph - 7:00 a.m. to 5:00 p.m.

1. Ward Street - from a point 250 feet south of the centerline of Haynes Drive to a point 135 feet north of the centerline of Emerson Place.

2. Moss Avenue - from a point 465 feet east of the centerline of Whitney Drive to the centerline of Ward Street.

3. Goddard Drive - from a point 185 feet east of the centerline of Ward Street to the centerline of Ward Street.

4. Emerson Drive - from a point 185 feet east of the centerline of Ward Street to the centerline of Ward Street.

5. Lanham Street - from a point 85 feet north of the centerline of Goddard Street to a point140 feet south of the centerline of Haynes Drive.

6. Haynes Drive - from a point 175 feet east of the centerline of Lanham Street to a point 150 feet west of the centerline of Ward Street.

(V) Fannin Elementary School - 20 mph - 7:00 a.m. to 9:00 a.m. and 2:30 p.m. to 4:30 p.m.

1. Neely Avenue - from a point 290 feet east of the centerline of Lanham Street to a point 300 feet west of the centerline of Lanham Street.

2. Garfield Street - from a point 466 feet south of the centerline of Cimmaron Drive to a point 135 feet north of the centerline of Dengar Avenue.

3. Ward Street - from a point 150 feet north of the centerline of Fannin Avenue to a point 160 feet south of the centerline of Fannin Avenue.

(W) Fannin Elementary School - 20 mph - 7:00 a.m. to 4:30 p.m.

1. Cimmaron Avenue - from a point 285 feet west of the centerline of Lanham Street to a point 250 feet east of the centerline of Mogford Street.

2. Frontier Avenue - from a point 295 feet west of the centerline of Lanham Street to the centerline of Lanham Street.

3. Fannin Avenue - from a point 255 feet west of the centerline of Lanham Street to a point 325 feet east of the centerline of Mogford Street.

4. Lanham Street - from a point 160 feet south of the centerline of Fannin Avenue to a point 180 feet north of the centerline of Cimmaron Avenue.

5. Mogford Street - from a point 155 feet south of the centerline of Fannin Avenue to a point 170 feet north of the centerline of Cimmaron Avenue.

(X) Fasken Elementary School - 25 mph - 7:00 a.m. to 9:00 a.m. and 2:30 p.m. to 4:30 p.m.

Holiday Hill Road - from a point 200 feet north of the centerline of Sherwood Drive to a point 200 feet south of Sherwood Drive.

(Y) Fasken Elementary School - 20 mph - 7:00 a.m. to 4:30 p.m.

1. Sherwood Drive - from a point 100 feet east of the centerline of

Sandstone Drive to a point 100 feet west of the centerline of Val Verde Drive.

2. Sandstone Drive - from a point 100 feet north of the centerline of Sherwood Drive to a point 100 feet south of the centerline of Val Verde Drive.

3. Val Verde Drive - from the centerline of Sherwood Drive to the centerline of Sandstone Drive.

4. Becker Drive - from the centerline of Sandstone Drive to a point 100 feet south of the centerline of Sandstone Drive.

(Z) General Tommy Franks Elementary School - 20 mph - 7:00 a.m. to 4:30 p.m.

1. Jax Avenue - from a point 190 feet west of the centerline of Fort Worth Street to the centerline of Terrell Street.

2. Parker Avenue - from a point 190 feet west of the centerline of Fort Worth Street to a point 155 feet east of the centerline of Terrell Street.

3. Fort Worth Street - from the centerline of Parker Avenue to a point 160 feet south of the centerline of Hamby Avenue.

4. Terrell Street - from the centerline of Parker Avenue to a point 100 feet north of the centerline of Jax Avenue.

5. Dallas Street - from the centerline of Parker Avenue to a point 180 feet south of the centerline of Parker Avenue.

(AA) General Tommy Franks Elementary School - 20 mph - 7:00 a.m. to 9:00 a.m. and 2:30 p.m. to 4:30 p.m.

Lamesa Road - from a point 135 feet south of the centerline of Parker Avenue at its southernmost intersection with Lamesa Road to a point 200 feet north of the centerline of Parker Avenue at its southernmost intersection with Lamesa Road.

(AB) Goddard Junior High School - See "Emerson Elementary School and Goddard Junior High School."

(AC) Greathouse Elementary School 25 mph - 7:00 a.m. to 9:00 a.m. and 2:30 p.m. to 4:30 p.m.

Briarwood Avenue - from a point 540 feet east of the centerline of Mathis Street to a point 450 feet west of the centerline of Mathis Street.

(AD) Greathouse Elementary School 20 mph - 7:00 a.m. to 9:00 a.m. and 2:30 p.m. to 4:30 p.m.

Oriole Drive - from a point 220 feet north of the centerline of Woodhollow Drive to a point 198 feet south of the centerline of Woodhollow Drive.

(AE) Greathouse Elementary School - 20 mph - 7:00 a.m. to 4:30 p.m.

1. Mathis Street - from a point 515 feet north of the centerline of Briarwood Avenue to a point 100 feet north of the centerline of Greathouse Avenue.

2. Greathouse Avenue - from a point 180 feet south of the centerline of Mathis Street to a point 450 feet north of the centerline of Mathis Street.

3. Quicksand Drive - from the centerline of Mathis Street to a point 180 feet west of the centerline of Mathis Street.

4. Woodhollow Drive - from the centerline of Mathis Street to a point 390 feet east of the centerline of Mathis Street.

(AF) Henderson Elementary School - 20 mph - 7:00 a.m. to 4:30 p.m.

1. Bentwood Drive - from a point 265 feet north of the centerline of Graceland Drive to a point 138 feet south of the centerline of Joy Drive.

2. Wilshire Drive - from the centerline of Graceland Drive to a point 160 feet north of the centerline of Graceland Drive.

3. Erie Drive - from the centerline of Graceland Drive to a point 205 feet north of the centerline of Graceland Drive.

4. Eisenhower Drive - from a point 135 feet north of the centerline of Graceland Drive to a point 135 feet south of the centerline of Graceland Drive.

5. Graceland Drive - from a point 130 feet west of the centerline of Bentwood Drive to a point 135 feet east of the centerline of Eisenhower Drive.

(AG) Hillander Private School - 20 mph - 7:30 a.m. to 9:00 a.m. and 1:30 p.m. to 4:00 p.m.

1. Wadley Avenue - from a point 275 feet east of the centerline of "I" Street to a point 560 feet west of the centerline of "I" Street.

2. "I" Street - from a point 170 feet north of the centerline of Wadley Avenue to a point 215 feet south of the centerline of Wadley Avenue.

(AH) Jane Long Elementary School - 20 mph - 7:00 a.m. to 4:30 p.m.

1. Devonian Drive - from a point 180 feet north of the centerline of Tanner Drive to a point 200 feet south of the centerline of Cedar Spring Drive.

2. Leddy Drive - from the centerline of Cedar Spring Drive to a point 165 feet north of the centerline of Tanner Drive.

3. Tanner Drive - from a point 250 feet west of the centerline of Devonian Drive to a point 215 feet east of the centerline of Leddy Drive.

4. Beckley Drive - from the centerline of Cedar Spring Drive to a point 150 feet south of the centerline of Cedar Spring Drive.

5. Aberdeen Drive - from the centerline of Cedar Spring Drive to a point 250 feet south of the centerline of Cedar Spring Drive.

6. Mercedes Drive - from a point 240 feet west of the centerline of Devonian Drive to the centerline of Devonian Drive.

7. Avondale Drive - from the centerline of Leddy Drive to a point 85 feet east of the centerline of Leddy Drive.

8. Cedar Spring Drive - from a point 125 feet west of the centerline of Devonian Drive to a point 185 feet east of the centerline of Leddy Drive.

(AI) Lamar Elementary School - 20 mph - 7:00 a.m. to 9:00 a.m. and 2:30 p.m. to 4:30 p.m.

Illinois Avenue - from a point 330 feet east of the centerline of Crestview Road to a point 240 feet west of the centerline of Crestview Road.

(AJ) Lamar Elementary School - 20 mph - 7:00 a.m. to 4:30 p.m.

1. Kessler Avenue - from a point 120 feet east of the centerline of Midkiff Road to a point 220 feet east of the centerline of Crestview Road.

2. Peach Street - from a point 165 feet south of the centerline of Illinois Avenue to the centerline of Kessler Avenue.

3. Crestview Road - from a point 185 feet south of the centerline of Illinois Avenue to a point 170 feet south of the centerline of Kessler Avenue.

4. Barkley Street - from a point 180 feet east of the centerline of Crestview Road to the centerline of Crestview Road.

(AK) Lee Freshman High School - 20 mph - 7:00 a.m. to 9:00 a.m. and 4:00 p.m. to 5:00 p.m.

Scharbauer Drive - from a point 195 feet west of the centerline of Butternut Lane to a point 202 feet east of the centerline of Butternut Lane.

(AL) Lee Freshman High School - 20 mph - 7:00 a.m. to 5:00 p.m.

1. Oak Avenue - from a point 150 feet west of the centerline of Butternut Lane to a point 200 feet east of the centerline of Lincoln Street.

2. Lincoln Street - from a point 145 feet north of the centerline of Oak Avenue to a point 145 feet north of the centerline of Magnolia Avenue.

3. Maple Avenue - from a point 229 feet east of the centerline of Lincoln Street to the centerline of Lincoln Street.

4. Butternut Lane - from a point 150 feet north of the centerline of Oak Avenue to a point 50 feet north of the centerline of Magnolia Avenue.

(AM) Lee High School - See "Rusk Elementary School and Lee High School."

(AN) Midland Academy Charter School - 20 mph - 6:30 a.m. to 8:00 a.m. and 2:30 p.m. to 3:30 p.m.

1. Baird Street - from a point 97 feet north of the centerline of Michigan Avenue to a point 145 feet south of the centerline of Tennessee Avenue.

2. Michigan Avenue - from a point 180 feet east of the centerline of Weatherford Street to a point 180 feet west of the centerline of Baird Street.

3. Tennessee Avenue - from a point 180 feet east of the centerline of Weatherford Street to a point 180 feet west of the centerline of Baird Street.

4. Weatherford Street - from a point 95 feet north of the centerline of Michigan Avenue to a point 165 feet south of the centerline of Tennessee Avenue.

(AO) Midland Christian School - 20 mph - 7:30 a.m. to 8:30 a.m. and 3:00 p.m. to 4:30 p.m.

Neely Avenue - from a point 175 feet east of the centerline of Culver Drive to a point 225 feet west of the centerline of Culver Drive.

(AP) Midland Christian School - 20 mph - 7:30 a.m. to 4:30 p.m.

1. Culver Drive - from the centerline of Gulf Avenue to a point 385 feet north of the centerline of Gulf Avenue.

2. Gulf Avenue - from a point 190 feet east of the centerline of Culver Drive to the centerline of Culver Drive.

3. Northrup Drive - from a point 384 feet south of the centerline of Sinclair Avenue to a point 135 feet north of the centerline of Gulf Avenue.

4. Sinclair Avenue - from a point 158 feet east of the centerline of Culver Drive to the centerline at Northrup Drive.

(AQ) Midland Classical Academy School - 20 mph - 7:30 a.m. to 4:00 p.m.

Whitman Drive - from a point 87 feet north of the centerline of Mockingbird Lane to a point 650 feet south of the centerline of Savoy Place.

(AR) Midland Freshman High School - 25 mph - 7:00 a.m. to 9:00 a.m. and 4:00 p.m. to 5:00 p.m.

Rankin Highway - from a point 265 feet north of the centerline of Hicks Avenue to a point 170 feet south of the centerline of Hicks Avenue.

(AS) Midland Freshman High School - 20 mph - 7:00 a.m. to 5:00 p.m.

1. Main Street - from a point 180 feet north of the centerline of Hicks Avenue to a point 180 feet south of the centerline of Gist Avenue.

2. Baird Street - from the centerline of Hicks Avenue to a point 150 feet north of the centerline of Hicks Avenue.

3. Weatherford Street - from the centerline of Hicks Avenue to a point 150 feet north of the centerline of Hicks Avenue.

4. Hicks Avenue - from a point 200 feet west of the centerline of Main Street to a point 175 feet east of the centerline of Weatherford Street.

5. Montgomery Avenue - from the centerline of Main Street to a point 210 feet west of the centerline of Main Street.

6. Gist Avenue - from a point 200 feet west of the centerline of Main Street to a point 1040 feet east of the centerline of Main Street.

(AT) Midland High School - 20 mph - 7:00 a.m. to 5:00 p.m.

1. Ohio Avenue - from a point 150 feet east of the centerline of San Angelo Street to the centerline of "A" Street.

2. "C" Street - from a point 130 feet south of the centerline of Illinois Avenue to the centerline of Illinois Avenue.

3. "D" Street - from a point 115 feet south of the centerline of Illinois Avenue to a point 45 feet north of the centerline of Ohio Avenue.

4. Illinois Avenue - from a point 267 feet west of the centerline of "E" Street to a point 185 feet east of the centerline of "A" Street.

5. "A" Street - from a point 85 feet south of the centerline of Tennessee Avenue to a point 280 feet south of the centerline of Illinois Avenue.

6. Tennessee Avenue - from a point 103 feet west of the centerline of "B" Street to a point 60 feet east of the centerline of "A" Street.

(AU) Midland Montessori School - 20 mph - 7:30 a.m. to 4:30 p.m.

Austin Street - from a point 200 feet north of the centerline of Cuthbert

Avenue to a point 80 feet south of the centerline of Bedford Avenue.

(AV) Pease Elementary School - 20 mph - 7:00 a.m. to 4:30 p.m.

1. Magnolia Avenue - from a point 280 feet west of the centerline of Benton Street to a point 295 feet east of the centerline of Peterson Street.

2. Hickory Avenue - from a point 340 feet west of the centerline of Benton Street to the centerline of Benton Street.

3. Scharbauer Drive - from a point 335 feet west of the centerline of Benton Street to a point 290 feet east of the centerline of Peterson Street.

4. Benton Street - from a point 215 feet north of the centerline of Scharbauer Drive to a point 290 feet east of the centerline of Peterson Street.

5. Peterson Street - from the centerline of Scharbauer Drive to a point 200 feet north of the centerline of Magnolia Avenue.

(AW) Quanah Parker Elementary School - 30 mph - 7:00 a.m. to 9:00 a.m. and 2:30 p.m. to 4:30 p.m.

Midland Drive - from a point 340 feet north of the centerline of St. Andrews Drive to a point 350 feet south of the centerline of St. Andrews Drive.

(AX) Quanah Parker Elementary School - 20 mph - 7:00 a.m. to 9:00 a.m. and 2:30 p.m. to 4:30 p.m.

Godfrey Drive - from a point 150 feet north of the centerline of St. Andrews Drive to a point 135 feet south of the centerline of St. Andrews Drive.

(AY) Quanah Parker Elementary School - 20 mph - 7:00 a.m. to 4:30 p.m.

1. St. Andrews Drive - from a point 150 feet west of the centerline of Casady Court to a point 140 feet west of the centerline of Norwood Street.

2. Greenbriar Drive - from a point 150 feet south of the centerline of St. Andrews Drive to the centerline of St. Andrews Drive.

3. Merrill Drive - from a point 150 feet west of the centerline of Norwood Street to the centerline of Norwood Street.

4. Russell Drive - from a point 175 feet west of the centerline of Norwood Street to the centerline of Norwood Street.

5. Norwood Street - from the centerline of St. Andrews Drive to a point 150 feet north of the centerline of Russell Drive.

(AZ) Rusk Elementary School and Lee High School - 20 mph - 7:00 a.m. to 5:00 p.m.

1. Neely Avenue - from a point 175 feet west of the centerline of McDonald Street to a point 250 feet east of the centerline of Tarleton Street.

2. McDonald Street - from a point 155 feet south of the centerline of Neely Avenue to a point 115 feet north of the centerline of Cimmaron Avenue.

3. Wedgewood Street - from a point 200 feet south of the centerline of Neely Avenue to the centerline of Cimmaron Avenue.

4. Cimmaron Avenue - from a point 205 feet west of the centerline of McDonald Street to a point 170 feet east of the centerline of Shandon Avenue.

5. Fannin Avenue - from the centerline of McDonald Street to a point 200 feet west of the centerline of McDonald Street.

6. Shandon Avenue - from a point 235 feet north of the centerline of Cimmaron Avenue to the centerline of Cimmaron Avenue.

7. Imperial Avenue - from a point 235 feet north of the centerline of Cimmaron Avenue to the centerline of Cimmaron Avenue.

8. Godfrey Street - from a point 145 feet south of the centerline of Neely Avenue to a point 158 feet north of the centerline of Rebel Drive.

(BA) Rusk Elementary School - 20 mph - 7:00 a.m. to 5:00 p.m.

1. Dengar Avenue - from a point 250 feet east of the centerline of Tarleton Street to the centerline of Tarleton Street.

2. Fannin Avenue - from the centerline of Tarleton Street to a point 240 feet east of the centerline of Tarleton Street.

3. Cimmaron Avenue - from the centerline of Tarleton Street to a point 295 feet east of the centerline of Tarleton Street.

4. Tarleton Street - from a point 175 feet south of the centerline of Neely Avenue to a point 140 feet north of the centerline of Dengar Avenue.

(BB) St. Ann's School - 20 mph - 7:00 a.m. to 4:00 p.m.

1. Texas Avenue - from a point 195 feet west of the centerline of "N" Street to a point 30 feet west of the centerline of "L" Street.

2. "N" Street - from the centerline of Illinois Avenue to a point 180 feet south of the centerline of Texas Avenue.

3. "M" Street - from the centerline of Illinois Avenue to a point 180 feet south of the centerline of Texas Avenue.

(BC) Sam Houston Elementary School - 20 mph - 6:30 a.m. to 8:00 a.m. and 4:30 p.m. to 6:30 p.m.

1. Cuthbert Avenue - from a point 335 feet east of the centerline of "N" Street at its easternmost intersection with Cuthbert Avenue to a point 297 feet west of the centerline of "N" Street at its easternmost intersection with Cuthbert Avenue.

2. Michigan Avenue - from a point 180 feet east of the centerline of North "N" Street to a point 180 feet west of the centerline of North "N" Street.

(BD) Sam Houston Elementary School - 20 mph - 6:30 a.m. to 6:30 p.m.

1. Louisiana Avenue - from a point 285 feet east of the centerline of Garfield Street to a point 40 feet east of the centerline of "L" Street.

2. "L" Street - from a point 238 feet south of the centerline of Louisiana Avenue to a point 150 feet north of the centerline of Louisiana Avenue.

3. "N" Street - from a point 315 feet south of the centerline of Louisiana Avenue to a point 750 feet north of the centerline of Louisiana Avenue.

4. "M" Street - from a point 250 feet south of the centerline of Louisiana Avenue to the centerline of Louisiana Avenue.

(BE) San Jacinto Junior High School - 20 mph - 7:00 a.m. to 9:00 a.m. and 4:00 p.m. to 5:00 p.m.

1. Golf Course Road - from a point 208 feet east of the centerline of "N" Street to a point 185 feet west of the centerline of "N" Street.

2. Garfield Street - from a point 287 feet south of the centerline of Community Lane to a point 287 feet north of the centerline of Community Lane.

(BF) San Jacinto Junior High School - 20 mph - 7:00 a.m. to 5:00 p.m.

1. Community Lane - from a point 160 feet east of the centerline of Garfield Street to a point 120 feet east of the centerline of "N" Street.

2. Douglas Avenue - from the centerline of "N" Street to a point 190 feet east of the centerline of "N" Street.

3. Hodges Street - from the centerline of Community Lane to a point 225 feet north of the centerline of Community Lane.

4. "N" Street - from a point 340 feet north of the centerline of Community Lane to a point 170 feet south of the centerline of Douglas Avenue.

(BG) Santa Rita Elementary School - 20 mph - 7:00 a.m. to 9:00 a.m. and 2:30 p.m. to 4:30 p.m.

Bluebird Lane - from a point 215 feet east of the centerline of Whitman Street to a point 200 feet west of the centerline of Whitman Street.

(BH) Santa Rita Elementary School - 20 mph - 7:00 a.m. to 4:30 p.m.

Whitman Drive - from a point 760 feet north of the centerline of Bluebird Lane to a point 920 feet south of the centerline of Mockingbird Lane.

(BI) Scharbauer Elementary School - 20 mph - 7:00 a.m. to 4:30 p.m.

1. Crowley Boulevard - from a point 250 feet south of the centerline of Hereford Boulevard to a point 575 feet north of the centerline of Hereford Boulevard.

2. Hereford Boulevard - from a point 250 feet south of the centerline of Homestead Boulevard to a point 136 feet north of the centerline of Crowley Boulevard.

3. Homestead Boulevard - from the centerline of Hereford Boulevard to a point 425 feet west of the centerline of Hereford Boulevard.

(BJ) South Elementary School - 20 mph - 7:00 a.m. to 9:00 a.m. and 2:30 p.m. to 4:30 p.m.

Big Spring Street - from a point 220 feet north of the centerline of Dakota Street to a point 165 feet south of the centerline of Dakota Street.

(BK) South Elementary School - 20 mph - 7:00 a.m. to 4:30 p.m.

1. Dakota Avenue - from a point 155 feet west of the centerline of Colorado Street to a point 240 feet east of the centerline of Main Street.

2. New Jersey Avenue - from a point 205 feet west of the centerline of Colorado Street to a point 235 feet east of the centerline of Main Street.

3. Colorado Street - from a point 145 feet south of the centerline of New Jersey Avenue to a point 230 feet north of the centerline of Dakota Avenue.

4. Loraine Street from a point 230 feet south of the centerline of New Jersey Avenue to the centerline of New Jersey Avenue.

5. Loraine Street - from the centerline of Dakota Avenue to a point 175 feet north of the centerline of Dakota Avenue.

6. Main Street - from a point 120 feet south of the centerline of New Jersey Avenue to a point 200 feet north of the centerline of Dakota Avenue.

(BL) Travis Elementary School - 20 mph - 6:30 a.m. to 4:00 p.m.

1. Gist Avenue - from a point 190 feet west of the centerline of Marshall Street to a point 170 feet east of the centerline of Atlanta Street.

2. Marshall Street - from the centerline of Gist Avenue to a point 205 feet north of the centerline of Gist Avenue.

3. Jefferson Street - from the centerline of Gist Avenue to a point 215 feet north of the centerline of Gist Avenue.

4. Atlanta Street - from the centerline of Gist Avenue to a point 190 feet north of the centerline of Gist Avenue.

(BM) Trinity Private School - 25 mph - 7:30 a.m. to 8:30 a.m. and 2:45 p.m. to 4:45 p.m.

Wadley Avenue - from a point 150 feet west of the centerline of Godfrey Street to the centerline of Tarleton Street.

(BN) Trinity Private School - 20 mph - 7:30 a.m. to 8:30 a.m. and 2:45 p.m. to 4:45 p.m.

1. Godfrey Street - from a point 150 feet south of the centerline of Wadley Avenue to a point 265 feet south of the centerline of Trinity Drive.

2. Jordan Avenue - from a point 150 feet south of the centerline of Wadley Avenue to the centerline of Wadley Avenue.

(BO) Washington Elementary School - 20 mph - 7:00 a.m. to 9:00 a.m. and 2:30 p.m. to 4:30 p.m.

Indiana Avenue - from a point 225 feet west of the centerline of Tilden Street to a point 210 feet east of the centerline of Tilden Street.

(BP) Washington Elementary School - 20 mph - 7:00 a.m. to 4:30 p.m.

1. Wall Street - from a point 150 feet west of the centerline of Carver Street to the centerline of Calhoun Street.

2. Tilden Street - from a point 155 feet north of the centerline of Wall Street to a point 100 feet north of the centerline of Indiana Avenue.

3. Donald Street - from a point 100 feet north of the centerline of Wall Street to the centerline of Wall Street.

4. Lincoln Street - from a point 100 feet north of the centerline of Wall Street to the centerline of Wall Street.

5. Jackson Street - from a point 100 feet north of centerline of Wall Street to the centerline of Wall Street.

(BQ) West Elementary School - 20 mph - 7:00 a.m. to 4:30 p.m.

1. Missouri Avenue - from a point 40 feet east of the centerline of Garfield Street to a point 255 feet east of the centerline of "N" Street.

2. Indiana Avenue - from a point 40 feet east of the centerline of Garfield Street to a point 155 feet east of the centerline of "N" Street.

3. "N" Street - from a point 200 feet north of the centerline of Missouri Avenue to a point 215 feet south of the centerline of Indiana Avenue.

4. "O" Street - from a point 165 feet north of the centerline of Missouri Avenue to the centerline of Missouri Avenue.

(BR) Yarbrough Elementary School - 20 mph - 7:00 a.m. to 4:30 p.m.

1. Shea Lane - from a point 340 feet east of the centerline of Hall of Fame Boulevard to a point 90 feet north of the centerline of Legends Boulevard.

2. Legends Boulevard - from the centerline of Shea Lane to a point 170 feet east of the centerline of Wagner Drive.

3. Wagner Street / Drive from a point 100 feet north of the centerline of Legends Boulevard to a point 100 feet south of the centerline of Riverfront Drive.

4. Riverfront Drive - from a point 215 feet west of the centerline of Coliseum Court to the centerline of Wagner Drive.

(BS) Yarbrough Elementary School - 25 mph - 7:00 a.m. to 9:00 a.m. and 2:30 p.m. to 4:30 p.m.

Avalon Drive - from a point 200 feet north of the centerline of Hall of Fame Boulevard to a point 200 feet south of the centerline of Hall of Fame Boulevard.

SECTION TWO. The Traffic Engineer is hereby authorized and directed to erect and install appropriate signs and markings at the designated locations, in conformance with the State Highway Department's manual and specifications, indicating and carrying out the provisions of this ordinance.

SECTION THREE. That Ordinance No. 9961 is hereby expressly repealed; and the provisions of this ordinance are to be cumulative of all other ordinances or parts of ordinances governing or regulating the same subject matter as that covered herein; provided, however, that all prior ordinances or parts of ordinances inconsistent with or in conflict with

any of the provisions of this ordinance are hereby expressly repealed to the extent of any such inconsistency or conflict.

SECTION FOUR. That the repeal of the ordinances or parts of ordinances effectuated by the enactment of this ordinance shall not be construed as abating any actions now pending under or by virtue of such ordinances or as discontinuing, abating, modifying, or altering any penalty accruing or as affecting the liability of any person, firm or corporation or as waiving any right of the municipality under any section or provision existing at the time of the passage of this ordinance.

SECTION FIVE. If any section, subsection, sentence, clause or phrase of this ordinance is, for any reason, held to be unconstitutional or invalid, such holding shall not affect the validity of the remaining portions of this ordinance. The Council of the City of Midland hereby declares that it would have passed this ordinance and each section, subsection, sentence, clause, or phrase hereof irrespective of the fact that any one or more sections, subsections, sentences, clauses, or phrases be declared unconstitutional or invalid.

SECTION SIX. The penalty for violation of this ordinance shall be in accordance with the general penalty provisions contained in Section 1-3-1 of the City Code of Midland, Texas, which provides for a fine not exceeding two hundred dollars ($200.00).

SECTION SEVEN. The City Secretary is hereby authorized and directed to publish the descriptive caption of this ordinance in the manner and for the length of time prescribed by the law as an alternative method of publication.

The above and foregoing ordinance was duly proposed, read in full and adopted on first reading, the _____ day of _____, A.D., 2020; and passed to second reading on motion of Council member _____, seconded by Council member _____, by the following vote:

Council members voting "AYE":

Council members voting “NAY”:

The above and foregoing ordinance was read in full and finally adopted by the following vote upon motion of Council member _____, seconded by Council member _____, on the _____ day of _____, A.D., 2020, at a regular meeting of the City Council:

Council members voting “AYE”:

Council members voting “NAY”:

PASSED AND APPROVED THIS _____ day of _____, A.D., 2020.

_____
Patrick N. Payton, Mayor

ATTEST:

_____
Amy M. Turner, City Secretary

APPROVED AS TO CONTENT
AND COMPLETENESS:

_____
Robert Patrick, Assistant City Manager

_____
Michael Pacelli, City Traffic Engineer

APPROVED ONLY AS TO FORM:

_____
John Ohnemiller, City Attorney

City Council Meeting

Item Number: 22

Meeting Date: September 8, 2020

To: City Council / City Manager

From: Robert Patrick, Assistant City Manager

Subject: Motion authorizing the City Manager or his designee to advertise a request for proposals for commercial saltwater disposal operations associated with City-owned property commonly known as T-Bar Ranch located in Winkler and Loving Counties, Texas. (UTILITIES) (UTILITIES)

Purpose:

To authorize the City Manager or his designee to advertise a request for proposals for commercial saltwater disposal operations associated with City-owned property commonly known as T-Bar Ranch located in Winkler and Loving Counties, Texas. (UTILITIES)

Recommended City Council Action:

Approve

Fiscal Impact:

None at this time.

Discussion:

There have been multiple requests to allow commercial saltwater disposal operations. To ensure protection of our water source, and to evaluate which request in the best interest of the City of Midland, staff is requesting Council approval to advertise RFP's for these services.

City Manager's Office