

WASTEWATER TRUNK LINE SYSTEM EXTENSION CONSTRUCTION AND REIMBURSEMENT AGREEMENT

This Wastewater Trunk Line Extension Construction and Reimbursement Agreement ("Agreement") is entered into between the City of Corpus Christi ("City"), a Texas home-rule municipality, and **Grangefield Development, LLC** ("Developer/Owner"), a Texas Limited Liability Company.

WHEREAS, the Developer/Owner, in compliance with the City's Unified Development Code ("UDC"), has a plat, approved by the Planning Commission on **March 23, 2022** to develop a tract of land, to wit approximately **45.523** acres known as **Oso Ranch located in Flour bluff and Encinal Farm and Garden Tracts** as shown in the attached **Exhibit 1**, the content of such exhibit being incorporated by reference into this Agreement;

WHEREAS, under the UDC, the Developer/Owner is responsible for construction of the Trunk Line ("Wastewater Improvements");

WHEREAS, under the UDC, the Developer/Owner is eligible for reimbursement of the Developer/Owner's costs for the construction of Wastewater Improvements;

WHEREAS, it is to the best interest of the City that the Wastewater Improvements be constructed to its ultimate capacity under the City's applicable Master Plan;

WHEREAS, Section 8.5.2.E. of the UDC authorizes the acceptance of applications to be eligible for reimbursement in the future when funds become fully available in the Wastewater Trunk System Trust Fund and are appropriated by the City Council;

WHEREAS, the Developer/Owner has submitted an application for reimbursement of the costs from the Wastewater Trunk System Trust Fund for installing the Wastewater Improvements, as shown in **Exhibit 2**, the content of such exhibit being incorporated by reference into this Agreement;

WHEREAS, the Wastewater Trunk System Trust Fund does not currently have sufficient funds to fully reimburse Developer/Owner for Wastewater Improvements; and

WHEREAS, Developer/Owner may be paid when assets of the Wastewater Trunk System Trust Fund are sufficient, authorized for such purpose, and Developer/Owner has priority per UDC §8.5.2. E.

NOW, THEREFORE, in consideration of the mutual promises and covenants contained in this Agreement, the parties do covenant and agree as follows:

1. TRUSTEE LIABILITY.

- a. The City is executing this agreement as trustee of the Wastewater Trust Fund pursuant to UDC §8.5. The City is acting as trustee to further its governmental functions of providing water and sewer service. Texas Constitution Article 11, Section 3 prohibits the City from becoming a subscriber to the capital of any private corporation or association, or make any appropriation or donation to the same, or in anywise loan its credit. As such, the City's participation as Trustee does not create a loan of its credit. Execution of this agreement constitutes a promise to pay only to the

extent that the assets and future assets of the trust are sufficient for such purpose and it is expressly agreed that any judgment will only be satisfied out of the assets of the trust and not out of the City's assets. The City is excluded from personal liability.

- b. The Wastewater Sanitary Sewer Trunk Line Trust Fund was established by Ordinance No. 17396 to encouraging the orderly development of subdivisions within and surrounding the City of Corpus Christi, Texas and continues pursuant Texas Local Government Code §395.001(4)(C). The revenue generated for funding and continuation of the Wastewater Sanitary Sewer Trunk Line Trust Fund is subject to legislation of the State of Texas and the City of Corpus Christi. Nothing in this agreement guarantees neither the continuation nor future revenues of the Wastewater Sanitary Sewer Trunk Line Trust Fund. The City is not liable for modification or termination of the Wastewater Sanitary Sewer Trunk Line Trust Fund. The Developer/Owner agrees that any modification or termination of the Wastewater Sanitary Sewer Trunk Line Trust Fund is a legislative action and does not constitute a breach of trust, an act of bad faith, an intentional or reckless indifference to the interest of a beneficiary, or a profit derived by the trustee from a breach of trust.

2. PLANS AND SPECIFICATIONS.

- a. Developer/Owner shall contract with a professional engineer licensed in the State of Texas and acceptable to the City's Development Services Engineer to prepare plans and specifications for the Wastewater Improvements, as shown in the attached **Exhibit 3**, the content of such exhibit being incorporated by reference into this Agreement, with the following minimum requirements:

| CONSTRUCTION ITEMS (AS PROVIDED BY OWNER) | | | | | |
|---|---|-------|----------|-------------|--------------------------|
| ITEM NO. | DESCRIPTION | UNITS | ITEM QTY | UNIT PRICE | TOTAL VALUE OF ITEM (\$) |
| 1 | MOBILIZATION (5%) | LS | 1 | \$61,793.18 | \$61,793.18 |
| 2 | BONDS AND INSURANCE (2%) | LS | 1 | \$24,717.27 | \$24,717.27 |
| 3 | SWPP DEVICES | LS | 1 | \$4,500.00 | \$4,500.00 |
| 4 | TRAFFIC CONTROL | LS | 1 | \$15,000.00 | \$15,000.00 |
| 5 | TRENCH SAFETY FOR WASTEWATER LINES | LF | 1,010 | \$17.15 | \$17,321.50 |
| 6 | TRENCH SAFETY FOR WASTEWATER MANHOLE | EA | 4 | \$1,120.00 | \$4,480.00 |
| 7 | 8" SDR 26 PVC | LF | 20 | \$318.00 | \$6,360.00 |
| 8 | 8" CAP | EA | 1 | \$1,620.00 | \$1,620.00 |
| 9 | 12" SDR 26 PVC | LF | 20 | \$414.00 | \$8,280.00 |
| 10 | 12" CAP | EA | 1 | \$1,860.00 | \$1,860.00 |
| 11 | 24" SDR 26 PVC | LF | 991 | \$798.00 | \$790,818.00 |
| 12 | 24" CAP | EA | 1 | \$4,500.00 | \$4,500.00 |
| 13 | WASTEWATER MANHOLE | EA | 3 | \$49,200.00 | \$147,600.00 |
| 14 | WASTEWATER TIE IN | EA | 1 | \$18,600.00 | \$18,600.00 |
| 15 | PAVEMENT REPAIR - HMAC | SF | 170 | \$120.00 | \$20,400.00 |
| 16 | WELL POINTS AND ALL REQUIRED DISCHARGE PIPING | LF | 991 | \$114.00 | \$112,974.00 |
| 17 | EXISTING UTILITY LINE PROTECTION | LF | 100 | \$65.50 | \$6,550.00 |

| | |
|------------------|-----------------------|
| SUBTOTAL: | \$1,247,373.95 |
|------------------|-----------------------|

| | | | |
|--|--|--------------------------|---------------------|
| | | 10% Contingencies | \$124,737.40 |
|--|--|--------------------------|---------------------|

| | |
|------------------|-----------------------|
| SUBTOTAL: | \$1,372,111.35 |
|------------------|-----------------------|

| PROFESSIONAL SERVICES | | | | | |
|------------------------------|---------------------------------------|-------|----------|--------------|--------------------------|
| ITEM NO. | DESCRIPTION | UNITS | ITEM QTY | UNIT PRICE | TOTAL VALUE OF ITEM (\$) |
| 1 | ENGINEERING AND CONSTRUCTION DRAWINGS | LS | 1 | \$107,737.13 | \$107,737.13 |
| SUBTOTAL: | | | | | \$107,737.13 |

| | |
|--|-----------------------|
| TOTAL CONSTRUCTION AND PROFESSIONAL FEES: | \$1,479,848.48 |
|--|-----------------------|

- b. The plan must be in compliance with the City's master plans.
- c. The plans and specifications must comply with the City's Wastewater Standards Detail Sheets and Standard Specifications.
- d. Before the Developer/Owner starts construction, the plans and specifications must be approved by the City's Development Services Engineer

3. REIMBURSEMENT.

- a. The cost for the Wastewater Improvements less \$97,699.80 lot/acreage fee credit is \$1,382,148.68. Subject to the conditions for reimbursement from the Wastewater Trunk Line System Trust Fund and the appropriation of funds, the City will reimburse the developer, the reasonable actual cost of the Wastewater Improvements up to an amount not to exceed \$1,382,148.68 as shown in the attached **Exhibit 4**, the contents of such exhibit being incorporated by reference into this Agreement.
- b. Subject to the conditions for reimbursement from the Wastewater Trunk Line System Trust Fund per the UDC and this agreement, the City agrees to reimburse the Developer/Owner on a monthly basis upon invoicing for work performed. The submitted invoice shall be deemed administratively complete by the City prior to payment. The reimbursement will be made no later than 30 days from the date of the City's administrative approval of the invoice. Developer/Owner shall submit all required performance bonds and proof of required insurance under the provisions of this Agreement.
- c. Cost-supporting documentation to be submitted shall include:
 - 1. Summary of Costs and Work Performed on Form provided by the Development Services Department.
 - 2. Contractor and professional services invoices detailing work performed.

3. The first reimbursement request requires submittal of invoices for work performed. Future disbursements shall provide evidence of payment by the developer/owner through a cancelled check or bank ACH for the previous submittal. The final reimbursement request shall require evidence that all invoices to date have been paid.
- d. To be eligible for reimbursement, the work must be constructed in a good and workmanlike manner and must have been inspected and accepted by the City. The City agrees to conduct periodic inspections and approve the progress of the work at key points during construction.
- e. The final 5% of the total contract reimbursement amount will be held as retainage until such time the City issues acceptance of public infrastructure in accordance with Unified Development Code.
- f. In the event that this Agreement is terminated by the City as a result of an uncured default by the Developer/Owner and at a time when there has been a partial completion and/or partial payment for the improvements, then the City shall only reimburse the Developer/Owner for its costs that were legitimately incurred towards the completion of the improvements that have been inspected and accepted by the City up to the time that the uncured default occurred.

4. PAYMENTS, CREDITS, AND DEFERRED REIMBURSEMENT.

- a. All payments, credits, priority of reimbursement, and deferred reimbursement shall be made in accordance with UDC §8.5. Developer/Owner understands and agrees that if funds are not available in the Wastewater Trunk System Trust Fund, that reimbursement will not be made until such funds are available, appropriated, and Developer/Owner has priority per UDC §8.5.2. Pursuant UDC §8.5.2. E., priority is determined according to the date the reimbursement agreement is approved by the City Council.
- b. Payments will not be paid when funds are not available in the Wastewater Trunk System Trust Fund. Payments may be made when monies are available in and appropriated from the Wastewater Trunk System Trust Fund and the Developer/Owner has priority in accordance with UDC §8.5.2. E.
- c. If the developer is owed funds from the Wastewater Trunk System Trust Fund, the developer will be given credit for lot or acreage fees that are due on subsequent final plats filed with the County Clerk in accordance with UDC §8.5.2. E. The amounts credited will be deducted from the outstanding amounts owed to the developer by the Wastewater Trunk System Trust Fund until the total amount owed has been paid, provided that the lands being platted are within or contiguous to the boundaries of the preliminary plat of the originally developed property, the land will be served by the wastewater trunk line for which the credit was given, and an extension of the trunk line was not required to serve the land.

5. DEVELOPER/OWNER TO COMPLETE IMPROVEMENTS. Developer/Owner shall award a contract and complete the Wastewater Improvements under the approved plans and specifications within 24 months from the date of City Council approval of this agreement.

6. NOTICES.

a. Any notice or other communication required or permitted to be given under this Agreement must be given to the other party in writing at the following address:

1. If to the Developer/Owner:

**Grangefield Development, LLC
P.O. Box 271996
Corpus Christi, Texas 78427**

2. If to the City:

City of Corpus Christi
Attn: Director, Development Services Department
2406 Leopard Street 78401
P. O. Box 9277
Corpus Christi, Texas 78469-9277

with a copy to:

City of Corpus Christi
Attn: Assistant City Manager, Business Support Services
1201 Leopard Street 78401
P. O. Box 9277
Corpus Christi, Texas 78469-9277

b. Notice must be made by United States Postal Service, First Class mail, certified, return receipt requested, postage prepaid; by a commercial delivery service that provides proof of delivery, delivery prepaid; or by personal delivery.

c. Either party may change the address for notices by giving notice of the change under the provisions of this section.

7. REQUIRED CONSTRUCTION. Developer/Owner shall construct the Wastewater Improvements in compliance with the City's UDC, the City's Infrastructure Design Manual, and all local, state and federal laws, codes and regulations, in accordance with the plans and specifications submitted to the City's Development Services Department and reviewed and approved by the City's Development Services Engineer.

8. SITE IMPROVEMENTS. Prior to the start of construction of the Wastewater Improvements, Developer/Owner shall acquire and dedicate to the City the required additional public utility easements ("Easements"), if any, necessary for the completion of the Wastewater Improvements. If any of the property needed for the Easements is owned by a third party and the Developer/Owner is unable to acquire the Easements through reasonable efforts, then the City may use its powers of eminent domain to acquire the Easements. Developer will be responsible for cost of acquisition, payable from the reimbursement agreed to in this agreement.

9. PLATTING FEES. Developer/Owner shall pay to the City the required acreage fees and pro-rata fees as required by the UDC.

10. TIME IS OF THE ESSENCE. Time is of the essence in the performance of this contract.
11. PROMPT AND GOOD FAITH ACTIONS. The parties shall act promptly and in good faith in performing their duties and obligations under this Agreement. If this Agreement calls for review or inspections by the City, then the City's reviews or inspections must be completed thoroughly and promptly.
12. DEFAULT. The following events shall constitute default:
- a. Developer/Owner fails to engage a professional engineer for the preparation of plans and specifications by the 10th calendar day after the date of approval of this Agreement by the City Council.
 - b. Developer/Owner's professional engineer fails to submit the plans and specifications to the City's Director of Engineering Services by the 40th calendar day after the date of approval by City Council.
 - c. Developer/Owner fails to award a contract for the construction of the project, according to the approved plans and specifications, by the 70th calendar day after the date of approval by City Council.
 - d. Developer/Owner's contractor does not reasonably pursue construction of the Wastewater Improvements under the approved plans and specifications.
 - e. Developer/Owner's contractor fails to complete construction of the Wastewater Improvements, under the approved plans and specifications as provided in section 4 of this agreement.
 - f. Either the City or the Developer/Owner otherwise fails to comply with its duties or obligations under this Agreement.
13. NOTICE AND CURE.
- a. In the event of a default by either party under this Agreement, the non-defaulting party shall deliver notice of the default, in writing, to the defaulting party stating, in sufficient detail, the nature of the default and the requirements to cure such default.
 - b. After delivery of the default notice, the defaulting party has 15 business days from the delivery of the default notice ("Cure Period") to cure the default.
 - c. In the event the default is not cured by the defaulting party within the Cure Period, then the non-defaulting party may pursue its remedies in this section.
 - d. Should Developer/Owner fail to perform any obligation or duty of this Agreement, the City shall give notice to Developer/Owner, at the address stated in section 6, of the need to perform the obligation or duty, and should Developer/Owner fail to perform the required obligation or duty within 15 days of receipt of the notice, the City may perform the obligation or duty, charging the cost of such performance to Developer/Owner by reducing the reimbursement amount due Developer/Owner.

e. In the event of an uncured default by the Developer/Owner, after the appropriate notice and Cure Period, the City has all its common law remedies and the City may:

1. Terminate this Agreement after the required notice and opportunity to cure the default;
2. Refuse to record a related plat or issue any certificate of occupancy for any structure to be served by the project; and/or
3. Perform any obligation or duty of the Developer/Owner under this Agreement and charge the cost of such performance to the Developer/Owner. The Developer/Owner shall pay to the City the reasonable and necessary cost of the performance within 30 days from the date the Developer/Owner receives notice of the cost of performance. In the event the Developer/Owner pays the City under the preceding sentence and is not otherwise in default under this Agreement, then the Agreement shall be considered in effect and no longer in default.

f. In the event of an uncured default by the City after the appropriate notice and Cure Period, the Developer/Owner has all its remedies at law or in equity for such default.

14. FORCE MAJEURE.

a. The term "force majeure" as employed in this Agreement means and refers to acts of God; strikes, lockouts, or other industrial disturbances; acts of public enemies; insurrections; riots; epidemics; landslides; lightning; earthquakes; fires; hurricanes; storms; floods; washouts; droughts; arrests; civil disturbances; explosions; or other causes not reasonably within the control of the party claiming the inability.

b. If, by reason of force majeure, either party is rendered wholly or partially unable to carry out its obligations under this Agreement, then the party claiming force majeure shall give written notice of the full particulars of the force majeure to the other party within ten (10) business days after the occurrence or waive the right to claim it as a justifiable reason for delay. The obligations of the party giving the required notice, to the extent affected by the force majeure, are suspended during the continuance of the inability claimed but for no longer period, and the party shall endeavor to remove or overcome such inability with all reasonable dispatch.

15. THIRD-PARTY BENEFICIARY. Developer/Owner's contracts with the professional engineer for the preparation of the plans and specifications for the construction of the Wastewater Improvements, contracts for testing services, and contracts with the contractor for the construction of the Wastewater Improvements must provide that the City is a third-party beneficiary of each contract.

16. PERFORMANCE AND PAYMENT BONDS. Developer/Owner shall, before beginning the work that is the subject of this Agreement, furnish a performance bond payable to the City of Corpus Christi if the contract is in excess of \$100,000 and a payment bond if the contract is in excess of \$50,000. Bonds furnished must meet the requirements of Texas Insurance Code 3503, Texas Government Code 2253, and all other applicable laws and regulations. The performance or payment bond must name the City as an obligee. If the Developer/Owner is not

an obligor, then Developer/Owner shall be named as a joint obligee. The bond must clearly and prominently display on the bond or on an attachment to the bond:

(1) the name, mailing address, physical address, and telephone number, including the area code, of the surety company to which any notice of claim should be sent; or

(2) the toll-free telephone number maintained by the Texas Department of Insurance under Subchapter B, Chapter 521, Insurance Code, and a statement that the address of the surety company to which any notice of claim should be sent may be obtained from the Texas Department of Insurance by calling the toll-free telephone number.

17. DEDICATION OF WASTEWATER IMPROVEMENTS. Upon completion of the construction, dedication of Wastewater Improvements will be subject to City inspection and approval.

18. WARRANTY. Developer/Owner shall fully warranty the workmanship of and function of the Wastewater Improvements and the construction thereof for a period of one year from and after the date of acceptance of the facilities by the City's Director of Engineering Services.

19. INDEMNIFICATION. Developer/Owner covenants to fully indemnify, save and hold harmless the City of Corpus Christi, its officers, employees, and agents, ("indemnitees") against any and all liability, damage, loss, claims, demands suits and causes of action of any nature whatsoever asserted against or recovered from city on account of injury or damage to person including, without limitation on the foregoing, workers compensation and death claims, or property loss or damage of any other kind whatsoever, to the extent any injury, damage, or loss may be incident to, arise out of, be caused by, or be in any way connected with, either proximately or remotely, wholly or in part, the Developer/Owner's failure to comply with its obligations under this agreement or to provide city wastewater service to the development, including injury, loss, or damage which arise out of or are in any manner connected with, or are claimed to arise out of or be in any manner connected with the construction, installation, existence, operation, use, maintenance, repair, restoration, or removal of the public improvements associated with the development described above, including the injury, loss or damage caused by the sole or contributory negligence of the indemnitees or any of them, regardless of whether the injury, damage, loss, violation, exercise of rights, act, or omission is caused or is claimed to be caused by the contributing or concurrent negligence of indemnitees, or any of them, but not if caused by the sole negligence of indemnitees, or any of them, unmixed with the fault of any other person or entity, and including all expenses of

litigation, court costs, and attorneys fees, which arise, or are claimed to arise, out of or in connection with the asserted or recovered incident.

This indemnity specifically includes all claims, damages, and liabilities of whatever nature, foreseen or unforeseen, under any hazardous substance laws, including but not limited to the following:

(a) all fees incurred in defending any action or proceeding brought by a public or private entity and arising from the presence, containment, use, manufacture, handling, creating, storage, treatment, discharge, release or burial on the property or the transportation to or from the property of any hazardous substance. The fees for which the developer/owner shall be responsible under this subparagraph shall include but shall not be limited to the fees charged by (i) attorneys, (ii) environmental consultants, (iii) engineers, (iv) surveyors, and (v) expert witnesses.

(b) any costs incurred attributable to (i) the breach of any warranty or representation made by Developer/Owner in this agreement, or (ii) any cleanup, detoxification, remediation, or other type of response action taken with respect to any hazardous substance on or under the property regardless of whether or not that action was mandated by the federal, state or local government.

This indemnity shall survive the expiration or earlier termination of the agreement.

20. ASSIGNMENT OF AGREEMENT. This Agreement or any rights under this Agreement may not be assigned by the Developer/Owner to another without the written approval and consent of the City's City Manager.

21. DISCLOSURE OF INTEREST. Developer/Owner agrees, in compliance with the Corpus Christi Code of Ordinance Sec. 2-349, to complete, as part of this Agreement, the Disclosure of Interest form attached to this Agreement as **Exhibit 5**.

22. CERTIFICATE OF INTERESTED PARTIES. Developer/Owner agrees to comply with Texas Government Code section 2252.908 and complete Form 1295 Certificate of Interested Parties as part of this agreement.

Form 1295 requires disclosure of "interested parties" with respect to entities that enter contracts with cities. These interested parties include:

- (1) persons with a “controlling interest” in the entity, which includes:
 - a. an ownership interest or participating interest in a business entity by virtue of units, percentage, shares, stock or otherwise that exceeds 10 percent;
 - b. membership on the board of directors or other governing body of a business entity of which the board or other governing body is composed of not more than 10 members; or
 - c. service as an officer of a business entity that has four or fewer officers, or service as one of the four officers most highly compensated by a business entity that has more than four officers.
- (2) a person who actively participates in facilitating a contract or negotiating the terms of a contract with a governmental entity or state agency, including a broker, intermediary, adviser or attorney for the business entity.

Form 1295 must be electronically filed with the Texas Ethics Commission at https://www.ethics.state.tx.us/whatsnew/elf_info_form1295.htm. The form must then be printed, signed, notarized and filed with the City. For more information, please review the Texas Ethics Commission Rules at <https://www.ethics.state.tx.us/legal/ch46.html>.

23. CONFLICT OF INTEREST. Developer/Owner agrees to comply with Chapter 176 of the Texas Local Government Code and file Form CIQ with the City Secretary’s Office, if required. For more information and to determine if you need to file a Form CIQ, please review the information on the City Secretary’s website at <http://www.cctexas.com/government/city-secretary/conflict-disclosure/index>

24. AUTHORITY. All signatories signing this Agreement warrant and guarantee that they have the authority to act on behalf of the entity represented and make this Agreement binding and enforceable by their signature.

25. EFFECTIVE DATE. This Agreement becomes effective and is binding upon and inures to the benefit of the City and the Developer/Owner and their respective heirs, successors, and assigns from and after the date of final execution by all parties.

Remainder of page intentionally left blank; signature page to follow.

EXECUTED IN ONE ORIGINAL this _____ day of _____, 20_____.

ATTEST:

CITY OF CORPUS CHRISTI

Rebecca Huerta
City Secretary

Albert J. Raymond III, AIA, CBO
Director of Development Services

APPROVED AS TO LEGAL FORM:

Buck Brice (Date)
Assistant City Attorney
For City Attorney

DEVELOPER/OWNER:

**Grangefield Development, LLC
P.O. Box 271996
Corpus Christi, Texas 78427**

By: _____
**Jacqueline Azali
President**

**STATE OF TEXAS §
 §
COUNTY OF _____ §**

This instrument was acknowledged before me on _____, 20____, by **Jacqueline Azali, President of Grangefield Development, LLC.**, a Texas Corporation, on behalf of said corporation.

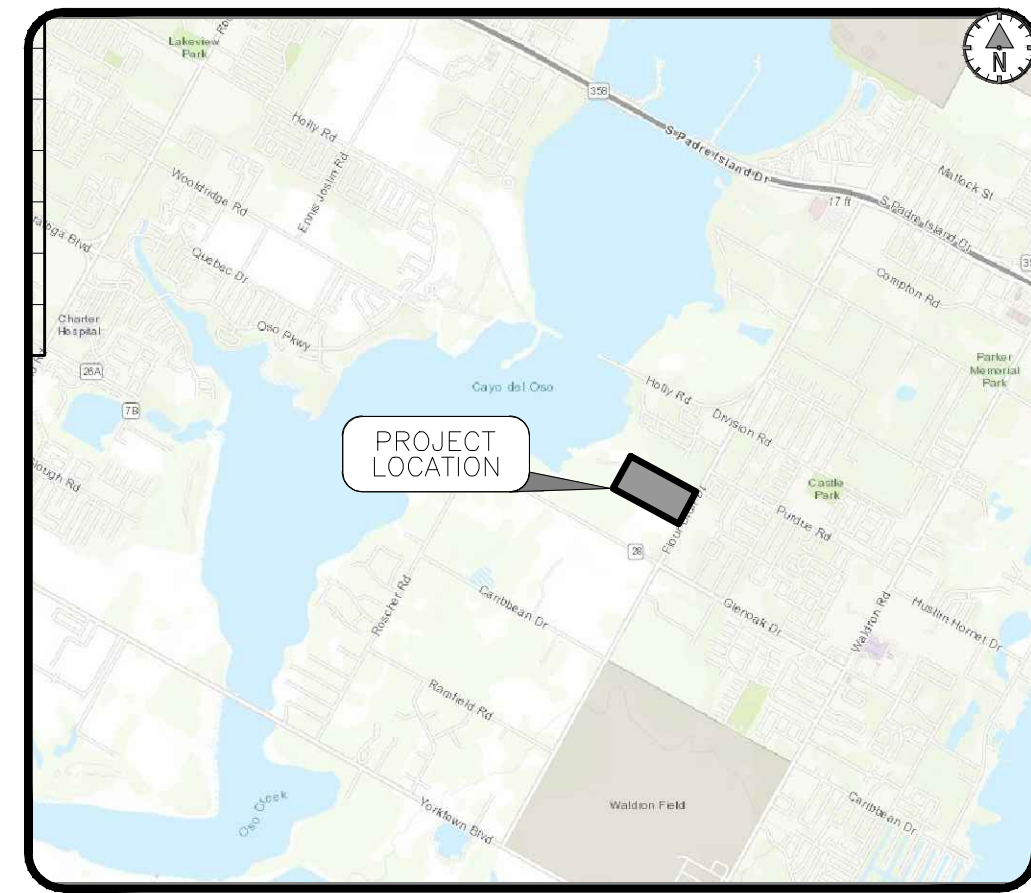
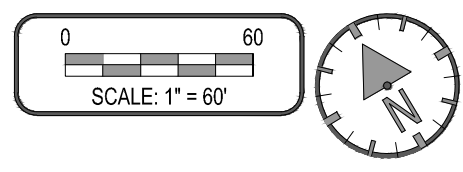
Notary Public's Signature

PRELIMINARY PLAT OF OSO RANCH

APPROVED
MARCH 23, 2022
PLANNING COMMISSION

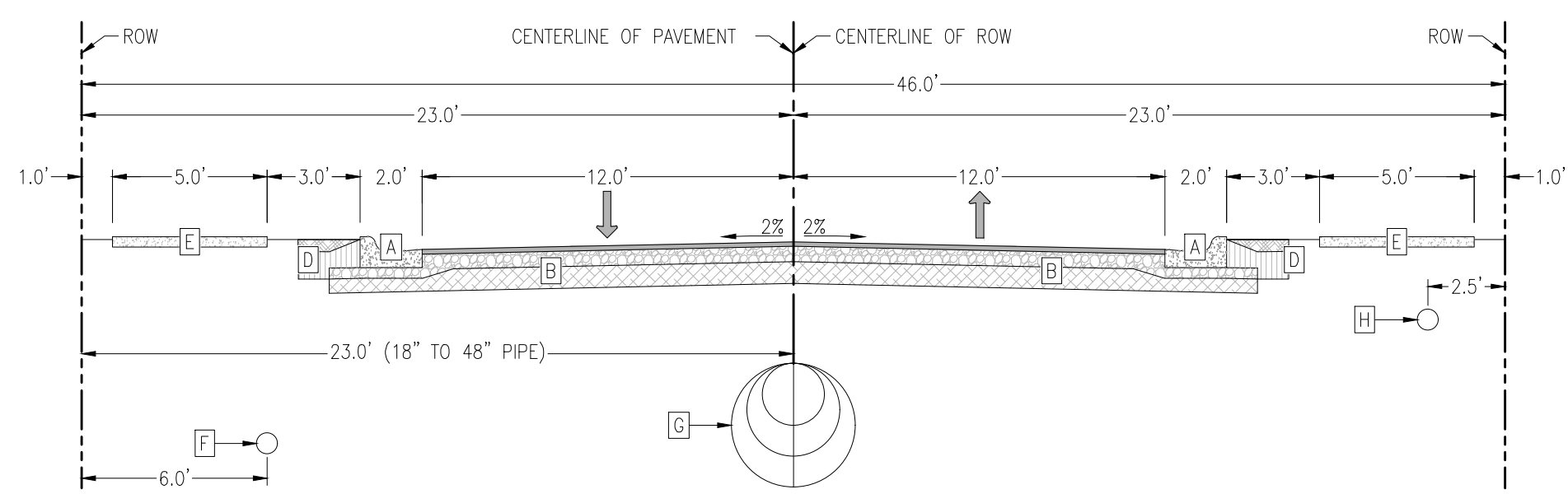
Exhibit 1

A 45.523 ACRE TRACT OUT OF LOTS 11 THRU 17, SECTION 40, FLOUR BLUFF AND ENCINAL FARM AND GARDEN TRACTS, AS SHOWN ON MAP VOLUME A, PAGES 41 - 43, MAP RECORDS NUECES COUNTY, TEXAS. SAID 45.523 ACRE TRACT ALSO BEING OUT OF THE TRACTS DESCRIBED IN DEEDS RECORDED IN DOCUMENT NUMBERS 2021053987 AND 2021053989, OFFICIAL PUBLIC RECORDS OF NUECES COUNTY, TEXAS.



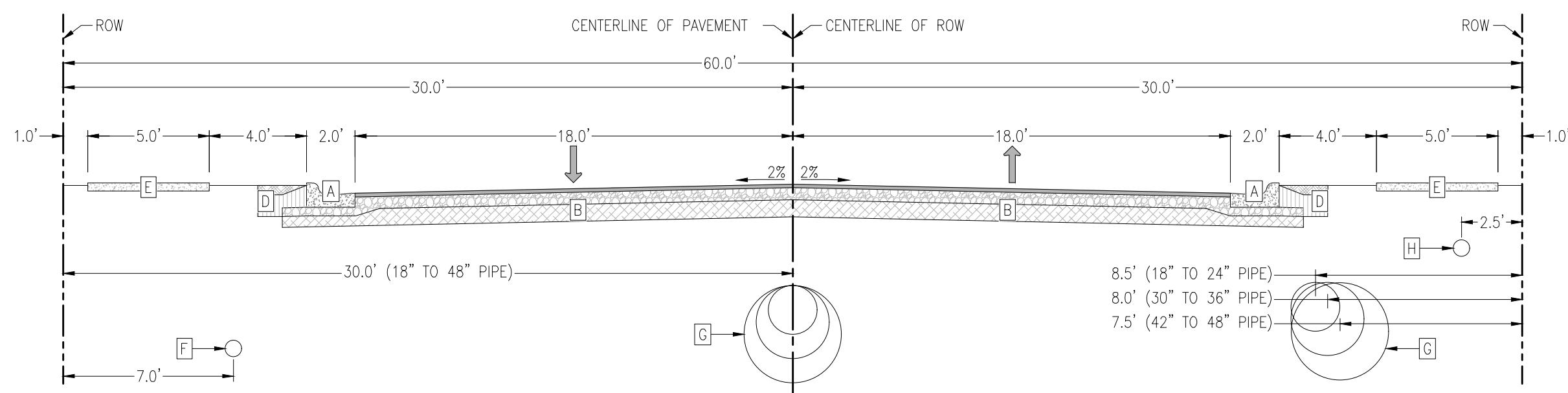
LOCATION MAP

NOT TO SCALE



TYPE L1-C - 46-FOOT RIGHT-OF-WAY
TYPICAL STREET CROSS SECTION

NOT TO SCALE



TYPE C1 - 60-FOOT RIGHT-OF-WAY
TYPICAL STREET CROSS SECTION

NOT TO SCALE

CODED NOTES

- A STANDARD CURB AND GUTTER
- B FLEXIBLE PAVEMENT
- C RIGID PAVEMENT
- D BACKFILL AS PER PAVEMENT TYPE DETAILS
- E SIDEWALK
- WW WASTEWATER UTILITY PIPE
- ST STORMWATER UTILITY PIPE
- WT WATER UTILITY PIPE

15.354 ACRES OUT OF LOTS 17 AND 18, SECTION 40, FLOUR BLUFF AND ENCINAL FARM AND GARDEN TRACTS, VOLUME A, PAGES 41 - 43, M.R.N.C.T. AND AS RECORDED IN VOLUME 2195, PAGES 379 - 381 D.R.N.C.T. (GREGORY SMITH - DOC. NO. 917427, O.P.R.N.C.T.)

SEGER HORSE BARN, BLOCK 1, LOT 1A
VOLUME 66, PAGE 343, M.R.N.C.T.

3.129 ACRES OUT OF LOTS 15, 16, AND 17, SECTION 40, FLOUR BLUFF AND GARDEN TRACTS, VOLUME A, PAGES 41 - 43, M.R.N.C.T. (BRUCE AND NANCY HAWN - DOC. NO. 2011024976, O.P.R.N.C.T.)

3.129 ACRES OF ENCINAL FARM AND GARDEN TRACTS, VOLUME A, PAGES 41 - 43, M.R.N.C.T. (BRUCE A)



ME
MUNDOZ ENGINEERING

Brister Surveying
4455 South Padre Island Drive Suite 51
Corpus Christi, TX 78404
Office: 361-850-1800
Fax: 361-850-1802
bristersurveying@corpusmex.com
Firm Registration No. 10072800

PRELIMINARY PLAT OF
OSO RANCH
A 45.523 ACRE TRACT OUT OF LOTS 11 THRU 17, SECTION 40, FLOUR BLUFF AND ENCINAL FARM AND GARDEN TRACTS, AS SHOWN ON MAP VOLUME A, PAGES 41 - 43, MAP RECORDS NUECES COUNTY, TEXAS. SAID 45.523 ACRE TRACT ALSO BEING OUT OF THE TRACTS DESCRIBED IN DEEDS RECORDED IN DOCUMENT NUMBERS 2021053987 AND 2021053989, OFFICIAL PUBLIC RECORDS OF NUECES COUNTY, TEXAS.

PAGE 1 TOTAL PAGES 3

DATE: 03/23/2022 10:58:11 AM BY: J. HAWKINS, P.E. PROJECT: PRELIMINARY PLAT FOR THE DEVELOPMENT OF 3.129 ACRES OUT OF LOTS 15, 16, AND 17, SECTION 40, FLOUR BLUFF AND ENCINAL FARM AND GARDEN TRACTS, VOLUME 69, PAGE 716 M.R.N.C.T. (BRUCE AND NANCY HAWN - DOC. NO. 2011024976, O.P.R.N.C.T.)

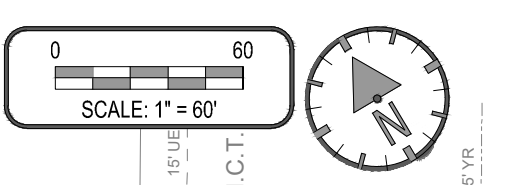
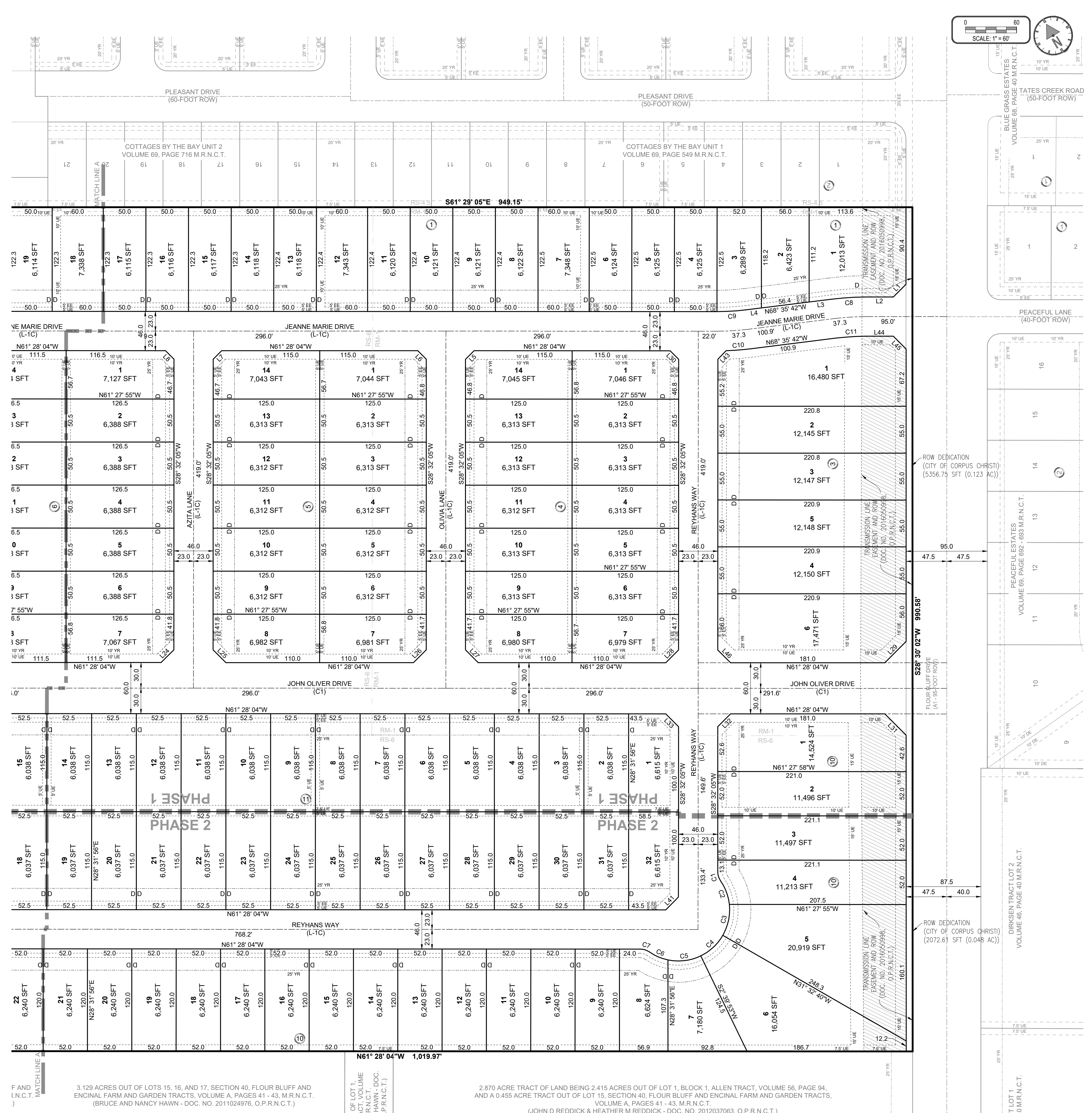
LINE TABLE with columns: LINE ID, LENGTH, BEARING, LINE ID, LENGTH, BEARING. Lists line segments L1 through L23 with their respective measurements.

CURVE TABLE with columns: CURVE ID, LENGTH, RADIUS, DELTA, CHORD BEARING, CHORD LENGTH. Lists curves C1 through C11 with their respective measurements.

APPROVED MARCH 23, 2022 PLANNING COMMISSION

PLAT SPECIAL AREA LEGEND AND REQUIREMENTS. AREA IS GOVERNED BY AN EASEMENT AND RIGHT-OF-WAY DOCUMENT NUMBER 2016050998. ELECTRIC TRANSMISSION TEXAS, LLC (ETT) ITS SUCCESSORS, ASSIGNS, LESSEES AND TENANTS HAVE RIGHTS TO THIS EASEMENT AND RIGHT-OF-WAY. THE AREA IS TO BE USED FOR ABOVE GROUND AND/OR BELOW GROUND ELECTRIC TRANSMISSION LINE AND ASSOCIATED TRANSMISSION, DISTRIBUTION, AND COMMUNICATION CONDUCTORS, WIRES AND CABLES AND APPURTENANT EQUIPMENT AND FIXTURES, BEING, IN, ON, OVER, UNDER, THROUGH AND ACROSS THE INDICATED AREA.

- PLAT NOTES: 1. TOTAL PRELIMINARY PLAT AREA CONTAINS 45.523 ACRES OF LAND, INCLUDING RIGHT-OF-WAYS AND EASEMENTS. 2. LOT INFORMATION: UNIT 1 SINGLE-FAMILY LOTS (RS-6) = 160 MULTI-FAMILY LOTS (RM-1) = 0 UNIT 2 SINGLE-FAMILY LOTS (RS-6) = 66 3. DEVELOPMENT TIMELINE UNIT 1 FINAL PLAT = JANUARY 2022 UNIT 2 FINAL PLAT = NOVEMBER 2022 4. FEMA INFORMATION EFFECTIVE: PLOTTING THE PROPERTY BY SCALE ON FLOOD INSURANCE RATE MAP, COMMUNITY-PANEL NO. 485440315D, MAP REVISED AUGUST 3, 1989, INDICATES THE PROPERTY IS LOCATED IN FLOOD ZONE X AND COMMUNITY-PANEL NO. 483550545G, OCTOBER 23, 2015, INDICATES THE PROPERTY IS LOCATED IN FLOOD ZONE X THIS FLOOD STATEMENT SHALL NOT CREATE LIABILITY ON THE PART OF THE ENGINEER OR SURVEYOR. PRELIMINARY: PLOTTING THE PROPERTY BY SCALE ON FLOOD INSURANCE RATE MAP, COMMUNITY-PANEL NO. 483550545G, OCTOBER 23, 2015, INDICATES THE PROPERTY IS LOCATED IN FLOOD ZONE X THIS FLOOD STATEMENT SHALL NOT CREATE LIABILITY ON THE PART OF THE ENGINEER OR SURVEYOR. 5. RECEIVING WATERS 5.1. OSO BAY DRAINAGE BASIN THE RECEIVING WATER FOR THE STORM WATER RUNOFF FROM THIS PROPERTY IS THE OSO BAY. THE TCEQ HAS CLASSIFIED THE AQUATIC LIFE USE FOR THE OSO BAY AS "EXCEPTIONAL" AND "OYSTER WATERS". TCEQ ALSO CATEGORIZED THE RECEIVING WATER AS "CONTACT RECREATION" USE. 6. ALL BEARINGS ARE GRID BEARINGS BASED ON THE TEXAS COORDINATE SYSTEM FOR THE LAMBERT SOUTH ZONE (NAD83). 7. ALL ELEVATIONS ARE BASED ON NAVD83, GEOID09. 8. THE MINIMUM FINISHED FLOOR ELEVATION SHALL BE A MINIMUM OF 18 INCHES ABOVE THE CENTERLINE OF THE HIGHEST ADJACENT ROADWAY OR AS NOTED ON CONSTRUCTION DRAWINGS FOR THE SUBDIVISION. 9. THE SURVEYOR CAN NOT CERTIFY AS TO UNRECORDED EASEMENTS AND/OR RIGHT-OF-WAY THAT MAY IMPACT THE SUBJECT PROPERTY AND ARE NOT VISIBLE AND APPARENT. CAUTION MUST BE TAKEN WITH PIPELINE MARKERS INDICATING BURIED LINES NOT ON RECORD. 11. THE YARD REQUIREMENTS, AS DEPICTED, IS A REQUIREMENT OF THE UNIFIED DEVELOPMENT CODE (APRIL 2019, LAST AMENDED 2/23/2021) AND IS SUBJECT TO CHANGE AS THE ZONING MAY CHANGE. 12. EACH LOT SHALL CONFORM TO THE UNIFIED DEVELOPMENT CODE (APRIL 2019, LAST AMENDED 2/23/2021). 13. THIS SUBDIVISION IS LOCATED NEAR AIRFIELDS USED BY AIRPLANES AND MAY BE SUBJECT TO AIRCRAFT NOISE, OVER FLIGHT, AND VIBRATION. 14. WATER AND WASTEWATER LOT/ACREAGE AND PARK FEES SHALL BE PAID PRIOR TO RECORDATION OF THE FINAL PLAT. 15. NO PRIVATE DRIVEWAY ACCESS ONTO FLOUR BLUFF DRIVE. 16. TEMPORARY ACCESS EASEMENT AND UTILITY EASEMENT SHALL BE REMOVED UPON THE PLATTING OF THE ADJACENT PROPERTY WHICH SHALL DEDICATE THIS AREA AS RIGHT-OF-WAY. THIS TEMPORARY ACCESS EASEMENT SHALL ALLOW FOR THE CONSTRUCTION OF PUBLIC UTILITY WATER UTILITY, WASTEWATER UTILITY, STORMWATER UTILITY AND APPURTENANCES OF EACH UTILITY, PAVEMENT SUBGRADE, BASE, HMA/CONCRETE, CURB AND GUTTER, SIDEWALK, SIGNAGE, GRADING, AND ALL APPURTENANCES TO FACILITATE CONSTRUCTION OF THE ROADWAY.



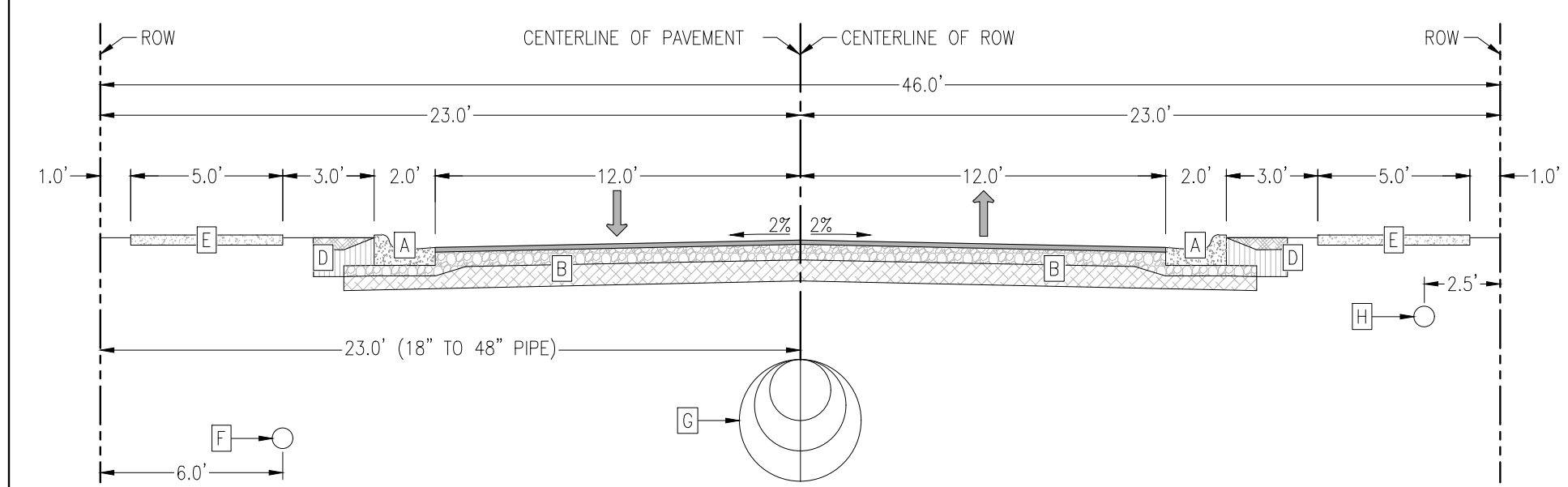
PLAT SYMBOL AND LINE LEGEND and PLAT ABBREVIATION LEGEND. Lists symbols for iron rod found, iron pipe found, 60d nail found, etc., and abbreviations for M.R., VOL., SEC., AC, etc.

F AND MATCHLINE 3.129 ACRES OUT OF LOTS 15, 16, AND 17, SECTION 40, FLOUR BLUFF AND ENCINAL FARM AND GARDEN TRACTS, VOLUME 69, PAGES 41 - 43, M.R.N.C.T. (BRUCE AND NANCY HAWN - DOC. NO. 2011024976, O.P.R.N.C.T.)

2.870 ACRE TRACT OF LAND BEING 2.415 ACRES OUT OF LOT 1, BLOCK 1, ALLEN TRACT, VOLUME 56, PAGE 94, AND A 0.455 ACRE TRACT OUT OF LOT 15, SECTION 40, FLOUR BLUFF AND ENCINAL FARM AND GARDEN TRACTS, VOLUME 69, PAGES 41 - 43, M.R.N.C.T. (JOHN D REDDICK & HEATHER M REDDICK - DOC. NO. 2012037063, O.P.R.N.C.T.)

Brister Surveying logo and contact information. Includes address: 4455 South Padre Island Drive Suite 51, Corpus Christi, TX 78411. Phone: 361-850-1802. Website: bristersurveying.com. Also includes 'PRELIMINARY PLAT OF OSO RANCH' title and page numbers 2 and 3.

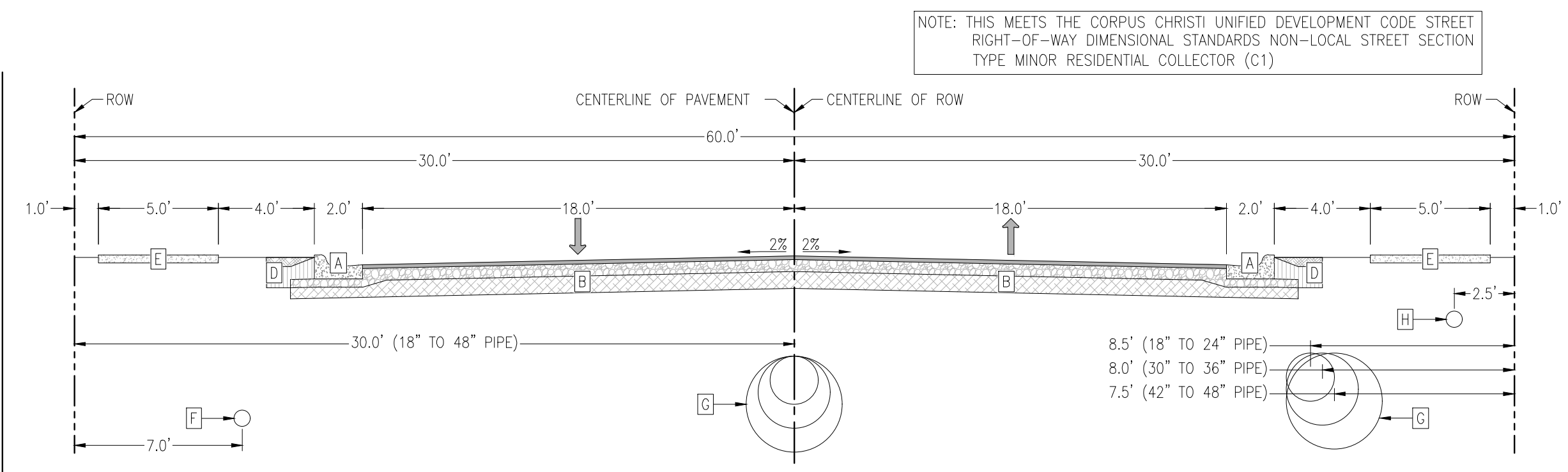
APPROVED
MARCH 23, 2022
PLANNING COMMISSION



TYPE L1-C - 46-FOOT RIGHT-OF-WAY TYPICAL STREET CROSS SECTION

3

NOT TO SCALE



NOTE: THIS MEETS THE CORPUS CHRISTI UNIFIED DEVELOPMENT CODE STREET RIGHT-OF-WAY DIMENSIONAL STANDARDS NON-LOCAL STREET SECTION TYPE MINOR RESIDENTIAL COLLECTOR (C1)

TYPE C1 - 60-FOOT RIGHT-OF-WAY TYPICAL STREET CROSS SECTION

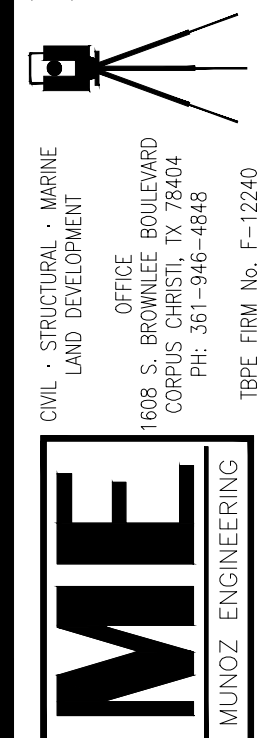
3

NOT TO SCALE

CODED NOTES

| | |
|----|---------------------------------------|
| A | STANDARD CURB AND GUTTER |
| B | FLEXIBLE PAVEMENT |
| C | RIGID PAVEMENT |
| D | BACKFILL AS PER PAVEMENT TYPE DETAILS |
| E | SIDEWALK |
| WW | WASTEWATER UTILITY PIPE |
| ST | STORMWATER UTILITY PIPE |
| WT | WATER UTILITY PIPE |

Brister Surveying
 4455 South Padre Island Drive Suite 51
 Corpus Christi, TX 78411
 Office 361-850-1800
 Fax 361-850-1802
 bristersurveying@corpusweb.com
 Firm Registration No. 10072800



PRELIMINARY PLAT OF
OSO RANCH
 A 16.563 ACRE TRACT OUT OF LOTS 1 THRU 12, SECTION 08, T10N, R10E, B1E, ORIGINAL FARM AND GARDEN TRACT, AS SHOWN ON MAP VOLUME 1, PAGES 29, 30, MAP RECORDS, NUECES COUNTY, TEXAS. THIS ACRE TRACT ALSO BEING OUT OF THE TRACTS DESCRIBED IN DEEDS RECORDED IN DOCUMENT NUMBERS 2021053887 AND 2021053889, OFFICIAL PUBLIC RECORDS OF NUECES COUNTY, TEXAS.

Request for Taxpayer Identification Number and Certification

Give Form to the requester. Do not send to the IRS.

1 Name (as shown on your income tax return). Name is required on this line; do not leave this line blank.
GRANGE FIELD DEVELOPMENT

2 Business name/disregarded entity name, if different from above

3 Check appropriate box for federal tax classification; check only one of the following seven boxes:
 Individual/sole proprietor or single-member LLC
 Limited liability company. Enter the tax classification (D=C corporation, S=S corporation, P=partnership) ▶ _____
 Note: For a single-member LLC that is disregarded, do not check LLC; check the appropriate box in the line above for the tax classification of the single-member owner.
 Other (see instructions) ▶ _____
 C Corporation
 S Corporation
 Partnership
 Trust/estate

4 Exemptions (codes apply only to certain entities, not individuals; see instructions on page 3):
 Exempt payee code (if any) _____
 Exemption from FATCA reporting code (if any) _____
(Applies to payments received outside the U.S.)

5 Address (number, street, and apt. or suite no.)
P.O. BOX 271496

6 City, state, and ZIP code
CORPUS CHRISTI TX. 78427

7 List account number(s) here (optional)

Requester's name and address (optional)

Part I Taxpayer Identification Number (TIN)

Enter your TIN in the appropriate box. The TIN provided must match the name given on line 1 to avoid backup withholding. For individuals, this is generally your social security number (SSN). However, for a resident alien, sole proprietor, or disregarded entity, see the Part I instructions on page 3. For other entities, it is your employer identification number (EIN). If you do not have a number, see How to get a TIN on page 3.

Note: If the account is in more than one name, see the instructions for line 1 and the chart on page 4 for guidelines on whose number to enter.

Social security number
 [] - [] - []

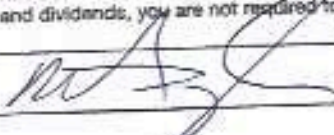
or
 Employer identification number
46-3837764

Part II Certification

Under penalties of perjury, I certify that:

- The number shown on this form is my correct taxpayer identification number (or I am waiting for a number to be issued to me); and
- I am not subject to backup withholding because: (a) I am exempt from backup withholding, or (b) I have not been notified by the Internal Revenue Service (IRS) that I am subject to backup withholding as a result of a failure to report all interest or dividends, or (c) the IRS has notified me that I am no longer subject to backup withholding; and
- I am a U.S. citizen or other U.S. person (defined below); and
- The FATCA code(s) entered on this form (if any) indicating that I am exempt from FATCA reporting is correct.

Certification instructions. You must cross out item 2 above if you have been notified by the IRS that you are currently subject to backup withholding because you have failed to report all interest and dividends on your tax return. For real estate transactions, item 2 does not apply. For mortgage interest paid, acquisition or abandonment of secured property, cancellation of debt, contributions to an individual retirement arrangement (IRA), and generally, payments other than interest and dividends, you are not required to sign the certification, but you must provide your correct TIN. See the instructions on page 3.

Sign Here:  Signature of U.S. person ▶

Date ▶ **7.7.22**

General Instructions

Section references are to the Internal Revenue Code unless otherwise noted.

Future developments. Information about developments affecting Form W-9 (such as legislation enacted after we release it) is at www.irs.gov/w9.

Purpose of Form

An individual or entity (Form W-9 requester) who is required to file an information return with the IRS must obtain your correct taxpayer identification number (TIN) which may be your social security number (SSN), individual taxpayer identification number (ITIN), adoption taxpayer identification number (ATIN), or employer identification number (EIN), to report on an information return the amount paid to you, or other amount reportable on an information return. Examples of information returns include, but are not limited to, the following:

- Form 1099-INT (interest earned or paid)
- Form 1099-DIV (dividends, including those from stocks or mutual funds)
- Form 1099-MISC (various types of income, prizes, awards, or gross proceeds)
- Form 1099-B (stock or mutual fund sales and certain other transactions by brokers)
- Form 1099-S (proceeds from real estate transactions)
- Form 1099-K (merchant card and third party network transactions)

- Form 1098 (home mortgage interest), 1098-E (student loan interest), 1098-T (tuition)
- Form 1099-C (canceled debt)
- Form 1099-A (acquisition or abandonment of secured property)

Use Form W-9 only if you are a U.S. person (including a resident alien), to provide your correct TIN.

If you do not return Form W-9 to the requester with a TIN, you might be subject to backup withholding. See *What is backup withholding?* on page 2.

By signing the filled-out form, you:

- Certify that the TIN you are giving is correct (or you are waiting for a number to be issued).
- Certify that you are not subject to backup withholding, or
- Claim exemption from backup withholding if you are a U.S. exempt payee. If applicable, you are also certifying that as a U.S. person, your allocable share of any partnership income from a U.S. trade or business is not subject to the withholding tax on foreign partners' share of effectively connected income, and
- Certify that FATCA code(s) entered on this form (if any) indicating that you are exempt from the FATCA reporting, is correct. See *What is FATCA reporting?* on page 2 for further information.



Reimbursement Agreement Application

Development Services Department

Submit the Application to: contractsandagreements@ccctexas.com

Mail to: City of Corpus Christi Development Services
2406 Leopard St. Suite 100
Corpus Christi, Texas 78408

Date: 07/06/2022

Approved Plat Name: Oso Ranch Unit 1

Type of Public Improvements: Master Plan Wastewater Improvements

Ownership and authorized signatories to enter into the agreement:
JACQUELINE AZALI

Requested duration of agreement: 36 Months

Point of Contact Information:

Contact Name: JACQUELINE AZALI

Contact Number: 361-815-8390

Name of Company Entering into the agreement (L.L.C.; L.P., Inc.):
Grangefield Development, LLC

Address: PO Box 271996

City: Corpus Christi State: Texas ZIP: 78427

Phone Number: 361-815-8390

The items listed below are required before an application can be processed:

- 1) Application for reimbursement per UDC Section 8.5.1 or 8.5.2
- 2) \$535.00 application fee for new agreements and addendums
- 3) Planning Commission approved plat (Final or Master Preliminary)
- 4) Cost estimate for project from a registered engineer
- 5) Public improvement plans or design memorandum
- 6) Warrantee Deed for the property associated with the project
- 7) Disclosure of Interest Form
- 8) Form 1295, a W-9 Form, and a Corporate Resolution

 Title President

FULL SIZE SHEET = 22 x 34
 MUNOZ ENGINEERING, LLC © 2021 (M:\Projects\Grangefield Development\Drawings\01 OSO RANCH UNIT 1 - DRAWINGS\01 CIVIL\02 PLANS\Master Plan\W Line\C000 - COVER.dwg)
 REVISION NO. 1
 DATE 04/20/2023
 BY TBT
 DESCRIPTION REISSUE OF DRAWING SET TO ADDRESS COMMENTS FROM CITY

Exhibit 3

CONSTRUCTION DRAWINGS FOR PUBLIC IMPROVEMENTS PACKAGE 1 OSO RANCH UNIT 1 CORPUS CHRISTI, NUECES COUNTY, TEXAS

PROJECT INFORMATION

LOCATION

THIS PROJECT IS LOCATED IN CORPUS CHRISTI, NUECES COUNTY, TEXAS.

PROJECT OWNER

GRANGEFIELD DEVELOPMENT, LLC

PROJECT ENGINEER

MUNOZ ENGINEERING, LLC

PROJECT DESCRIPTION

THIS PROJECT CONSISTS OF THE FOLLOWING, BUT NOT LIMITED TO, INSTALLATION OF WASTEWATER UTILITIES, AND ALL INCIDENTALS. ALL WORK SHALL BE IN ACCORDANCE WITH THE CITY OF CORPUS CHRISTI SPECIFICATIONS AND DETAILS AND ANY PERMITS THAT ARE REQUIRED.

A PERMIT IS REQUIRED FOR ANY EXCAVATION IN THE PUBLIC RIGHT-OF-WAY. EXCAVATION MEANS AN ACTIVITY THAT CUTS, PENETRATES, OR BORES UNDER ANY PORTION OF THE PUBLIC RIGHT-OF-WAY THAT HAS BEEN IMPROVED WITH A PAVED SURFACE FOR STREET, SIDEWALK, SURFACE DRAINAGE, OR RELATED PUBLIC TRANSPORTATION INFRASTRUCTURE PURPOSES. PERMITS WILL NOT BE ISSUED FOR EXCAVATION IN ANY PUBLIC RIGHT-OF-WAY THAT HAS BEEN CONSTRUCTED, RECONSTRUCTED, RE-PAVED, OR RESURFACED IN THE PRECEDING FIVE (5) YEARS FROM THE DATE OF ACCEPTANCE BY THE PUBLIC WORKS CONSTRUCTION ENTITY.

PROJECT SITE LEGAL DESCRIPTION

A 45.523 ACRE TRACT OUT OF LOTS 11 THRU 17, SECTION 40, FLOUR BLUFF AND ENCINAL FARM AND GARDEN TRACTS, AS SHOWN ON MAP VOLUME A, PAGES 41 - 43, MAP RECORDS NUECES COUNTY, TEXAS. SAID 45.523 ACRE TRACT ALSO BEING OUT OF THE TRACTS DESCRIBED IN DEEDS RECORDED IN DOCUMENT NUMBERS 2021053987 AND 2021053989, OFFICIAL PUBLIC RECORDS OF NUECES, COUNTY, TEXAS.

PROJECT DATUM

THE EXISTING CONDITIONS WERE SURVEYED BY: BRISTER SURVEYING OF CORPUS CHRISTI, TEXAS
 THE PROJECT IS BASED ON NAD83/NAVD88 TEXAS SOUTH STATE PLANE SOUTH ZONE 4205, DATUM SHALL BE VERIFIED BY THE CONTRACTOR WITH THE SURVEYOR INDICATED ABOVE PRIOR TO COMMENCING ANY CONSTRUCTION.

PROJECT NOTIFICATION

THE CONTRACTOR SHALL NOTIFY THE CITY INSPECTION DEPARTMENT AND THE ENGINEER AT LEAST THREE (3) WORKING DAYS (MONDAY - FRIDAY: 8:00AM TO 5:00PM) PRIOR TO COMMENCING CONSTRUCTION.

GENERAL CONTACT INFORMATION

EMERGENCY: 911

POLICE (NON-EMERGENCY) _____ 886-2600
 FIRE (NON-EMERGENCY) _____ 826-3900

CITY OF CORPUS CHRISTI

CITY CALL CENTER _____ 826-2489
 DEVELOPMENT SERVICES _____ 826-3240
 ENGINEERING SERVICES _____ 826-3500
 ENVIRONMENTAL SERVICES _____ 826-4066
 GAS DEPARTMENT _____ 885-6900

OR 24HRS - 854-4369 / 885-6942

TRAFFIC ENGINEERING _____ 826-2489

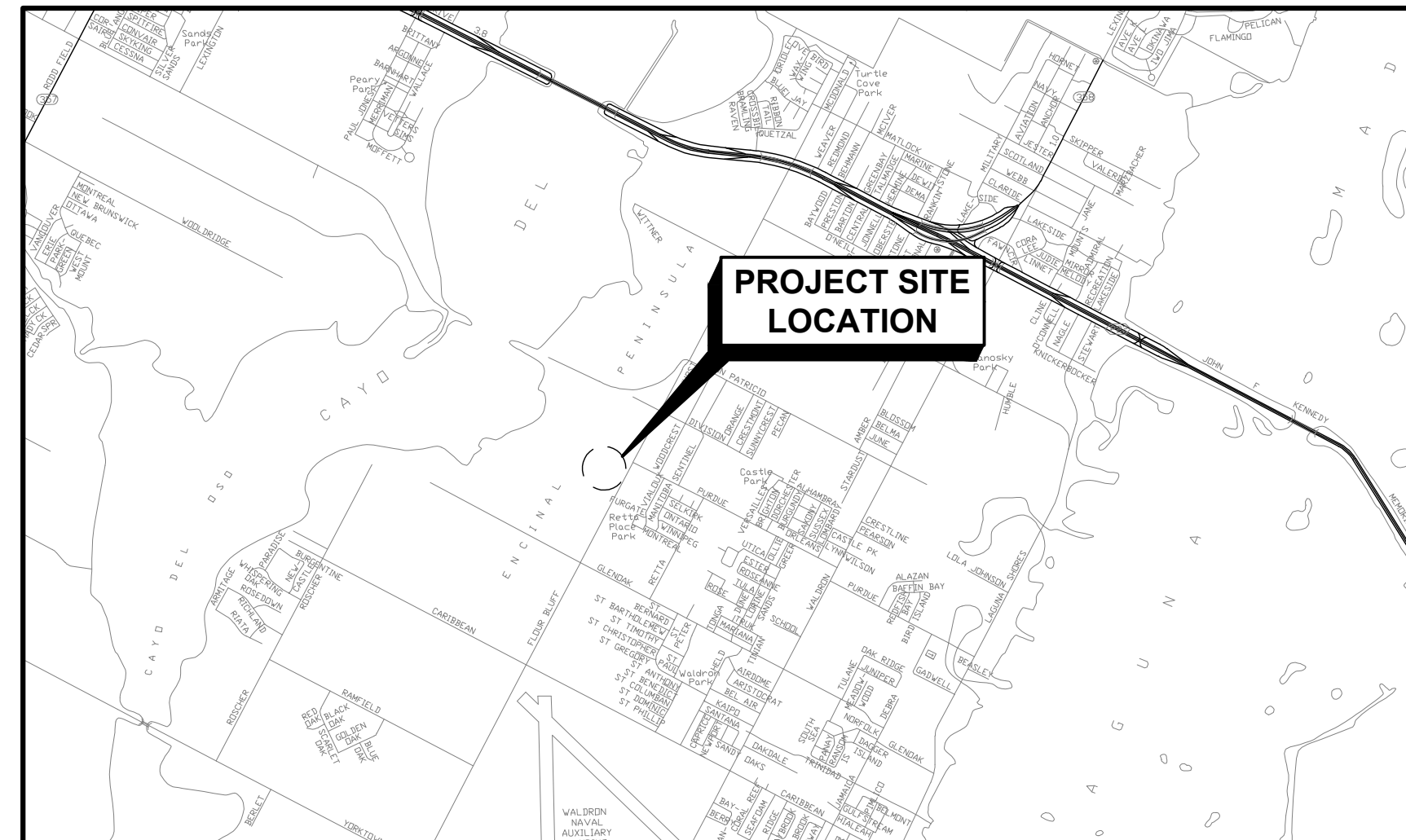
UTILITIES DEPARTMENT _____ 826-2489

OR AFTER 7PM WEEKDAYS AND HOLIDAYS - 885-6942

AEP TEXAS

SERGIO LOPEZ _____ 826-6443

PROJECT LOCATION



VICINITY MAP

SCALE: NTS

CONSTRUCTION NOTES

1. THIS WORK WILL BE INSPECTED BY THE CITY'S CONSTRUCTION INSPECTION DIVISION. CONTRACTOR INSPECTION SHOULD BE CONTACTED AT LEAST 72 HOURS PRIOR TO START OF CONSTRUCTION. THE NUMBER TO CONTACT CONSTRUCTION INSPECTIONS IS (361)826-1738.
2. CONTRACTOR SHALL ENSURE THAT BEST MANAGEMENT PRACTICES TO MINIMIZE EROSION AND SEDIMENTATION ARE BEING USED AND THAT ANY AND ALL TCEQ PERMITS WHERE NEEDED HAVE BEEN OBTAINED.
3. CONTRACTOR SHALL ENSURE THAT TRAFFIC CONTROL MEASURES ARE IMPLEMENTED AS NEEDED. ANY WORK IN THE CITY RIGHT-OF-WAY REQUIRES A PERMIT FROM THE CITY'S TRAFFIC ENGINEERING DIVISION.
4. ALL PUBLIC IMPROVEMENTS SHALL BE WARRANTED BY THE CONTRACTOR FOR TWELVE (12) MONTHS FROM THE DATE OF ACCEPTANCE OF THOSE IMPROVEMENTS BY THE DIRECTOR OF ENGINEERING.
5. A PERMIT IS REQUIRED FOR ANY EXCAVATION IN PUBLIC RIGHT-OF-WAY. EXCAVATION MEANS AN ACTIVITY THAT CUTS, PENETRATES, OR BORES UNDER ANY PORTION OF THE PUBLIC WAY THAT HAS BEEN IMPROVED WITH A PAVED SURFACE FOR STREET, SIDEWALK, SURFACE DRAINAGE, OR RELATED PUBLIC TRANSPORTATION INFRASTRUCTURE PURPOSES.
6. CONTRACTOR WILL ADHERE TO THE STANDARDS AND SPECIFICATION OF THE CITY OF CORPUS CHRISTI.

SHEET INDEX

| SHEET ID | SHEET TITLE |
|----------|---|
| C000 | COVER |
| C010 | GENERAL NOTES |
| C020 | GENERAL LEGEND AND ABBREVIATIONS |
| C030 | ESTIMATED QUANTITIES, MEASUREMENT, PAYMENT, AND TESTING |
| C310 | WASTEWATER PLAN AND PROFILE (1 OF 3) |
| C311 | WASTEWATER PLAN AND PROFILE (2 OF 3) |
| C312 | WASTEWATER PLAN AND PROFILE (3 OF 3) |
| C700 | GENERAL UTILITY NOTES |
| C701 | GENERAL NOTES AND DETAILS |
| C702 | GENERAL UTILITY PAVEMENT REPAIR NOTES AND DETAILS |

NOTICE

THE FOLLOWING CITY OF CORPUS CHRISTI STANDARD DETAILS ARE A PART OF THIS PROJECT:

WASTEWATER STANDARD DETAILS (SHEETS 1 THRU 4)

THE STANDARD SPECIFICATIONS ARE TO BE OBTAINED BY THE CONTRACTOR PRIOR TO CONSTRUCTION FROM THE FOLLOWING WEBSITE:

<http://www.cctexas.com/promo/standard-details>
<http://www.cctexas.com/promo/standard-specifications>

NOTICE

- THE GENERAL CONTRACTOR AND ALL SUBCONTRACTOR(S) WHICH WILL BE PERFORMING ANY WORK INDICATED WITHIN THESE DRAWINGS WILL BE SOLELY RESPONSIBLE FOR CONTACTING TEXAS 811, LONE STAR 811, AND OTHER UTILITY LOCATING COMPANIES AS WELL AS ALL LOCAL UTILITIES (WASTEWATER, STORM, WATER, GAS, TRAFFIC, ETC.) BY ALL MEANS POSSIBLE FOR THE LOCATING AND MARKING OF UNDERGROUND AND ABOVE GROUND UTILITIES PRIOR TO COMMENCING ANY CONSTRUCTION.
- DAMAGES TO UTILITIES WILL BE THE SOLE RESPONSIBILITY AND EXPENSE OF THE GENERAL CONTRACTOR TO PROVIDE A REMEDY TO THE DAMAGE WITH THE UTILITY OWNER.
- THE PROJECT OWNER, PROJECT ENGINEER, OWNER'S AUTHORIZED REPRESENTATIVE (OAR), AND ANY EMPLOYEES OF THESE SHALL NOT BE RESPONSIBLE FOR CONTACTING ANY COMPANY FOR LOCATING OR REMEDYING OF ANY DAMAGE OF ANY UTILITY.



811 OR 1-800-344-8377 OR www.texas811.org
 GIVE 4 WORKING DAYS (M-F) NOTICE

ME PROJECT NO.: 210174

| | | | | |
|-------------|------------|------------|-----------------|------------------|
| DRWN BY: RR | CHK BY: TT | APP BY: TT | SCALE: AS NOTED | DATE: APRIL 2023 |
|-------------|------------|------------|-----------------|------------------|

THOMAS B. TIFFIN, P.E. NO. 111733

MUNOZ ENGINEERING

1608 S. BROWNLEE BOULEVARD
 CORPUS CHRISTI, TX 78404
 OFFICE: 361.946.4848
 TBPELS FIRM F-12240

CIVIL | STRUCTURAL | MARINE | LAND DEVELOPMENT

OSO RANCH ESTATES
 PUBLIC IMPROVEMENT PACKAGE 1
 CORPUS CHRISTI, NUECES COUNTY, TEXAS

SHEET TITLE

C000

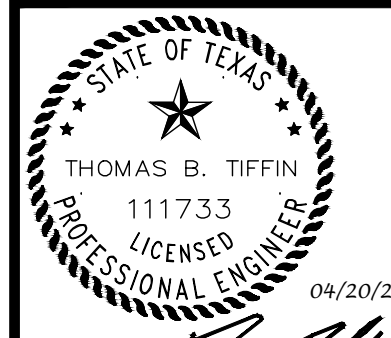
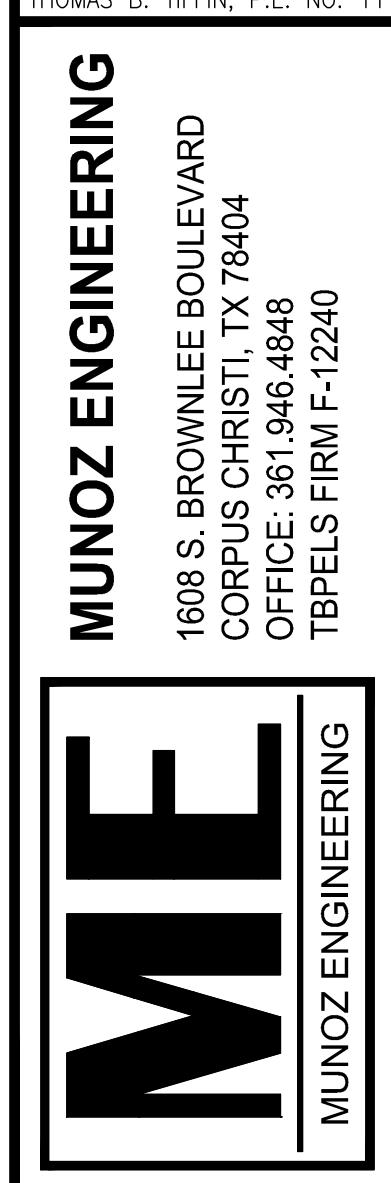
REVISION NO. -

| | | | |
|--------------|------------|--|-----|
| REVISION NO. | DATE | DESCRIPTION | BY |
| 1 | 04/20/2023 | REISSUE OF DRAWING SET TO ADDRESS COMMENTS FROM CITY | TBT |

| | | |
|-----------------------------------|----|------|
| DESCRIPTION | BY | DATE |
| GENERAL DEFINED TERMS | | |
| GENERAL TERMINOLOGY | | |
| GENERAL INFORMATION | | |
| GENERAL CONSTRUCTION REQUIREMENTS | | |
| WORK SITE SAFETY AND SECURITY | | |

| | | |
|---|--|--|
| CONSTRUCTION OF THE PROJECT TO PROTECT THE PUBLIC. | | |
| CONSTRUCTION EQUIPMENT | | |
| LOCATION AND PROTECTION OF EXISTING UTILITIES, STRUCTURES, DITCHES, ROADS, AND OTHER IMPROVEMENTS | | |
| UTILITY ADJUSTMENTS AND INSTALLATION | | |
| ENVIRONMENTALLY SENSITIVE AREAS | | |
| EXISTING VEGETATION AND IRRIGATION SYSTEMS | | |
| MATERIALS AND SUBMITTALS | | |

| | | |
|---|--|--|
| ANY ALTERNATIVES OR SUBSTITUTIONS TO THE MATERIALS NOTED WITHIN THE DRAWINGS OR REQUIRED BY THE SPECIFICATIONS ARE TO BE SUBMITTED BY THE CONTRACTOR TO THE OAR FOR APPROVAL. | | |
| EXCESS, DEMOLITION AND SALVAGED MATERIALS | | |
| FINAL SITE PREPARATION | | |
| PROJECT ACCEPTANCE | | |
| NOTICE | | |

| | |
|---|-----------------|
| ME PROJECT NO.: 210174 | |
| DRWN BY: RR | CHK BY: T |
| APP BY: T | SCALE: AS NOTED |
| DATE: APRIL 2023 | |
|  | |
| THOMAS B. TIFIN, P.E. NO. 111733 | |
|  | |
| MUNOZ ENGINEERING 1608 S. BROWNLEE BOULEVARD CORPUS CHRISTI, TX 78404 OFFICE: 361.946.4848 TBPELS FIRN F-12240 | |
| CIVIL STRUCTURAL MARINE LAND DEVELOPMENT | |
| OSO RANCH ESTATES PUBLIC IMPROVEMENT PACKAGE 1 CORPUS CHRISTI, NUECES COUNTY, TEXAS | |
| GENERAL NOTES | |
| REVISION NO. | - |
| <div style="text-align: center; font-size: 2em; font-weight: bold;">C010</div> | |

GENERAL LEGEND FOR SYMBOLS AND LINES WITHIN THE CONSTRUCTION DRAWINGS

Table containing symbols and lines for construction drawings, including iron rod found, calculated point, block identification, stormwater flow direction, manhole, stabilized construction entrance, gravel surface, concrete surface, sidewalk, traffic sign, gas utility, electrical utility, property boundary, and various utility lines.

ABBREVIATIONS FOR AGENCIES AND ORGANIZATIONS

Table listing abbreviations for agencies and organizations such as ADA, FEMA, IBC, IECC, IFCC, OSHA, TAS, TCEQ, TLDR, TPWD, TxDOT, USACE, USDA, USDS, USFWS, and USDI.

ABBREVIATION DEFINITIONS

Table defining abbreviations used in the drawings, including A=AREA, ABDN=ABANDONED, AC=ACRE, ACP=ASBESTOS CEMENT PIPE, AE=ACCESS EASEMENT, AGGR=AGGREGATE, ALGN=ALIGNMENT, APPROX=APPROXIMATE, ARV=AIR RELEASE VALVE, ASPH=ASPHALT PAVEMENT, At=TOTAL AREA, AVG=AVERAGE, CURB, FC=FENCE CORNER, FD=FOUND, FF=FINISHED FLOOR, FFE=FINISHED FLOOR ELEVATION, FG=FINISH GRADE, FH=FIRE HYDRANT, FL=FLOW LINE, FLG=FLANGE, FM=FARM TO MARKET, FOC=FIBER OPTIC CABLE, FS=FINISHED SURFACE, FT=FOOT / FEET, FV=FIELD VERIFY, FW=FIRE WATER, G=GAS, G=GRADING, GAL=GALLON, GALV=GALVANIZED, GB=GRADE BREAK, GI=GRATE INLET, GM=GAS METER, GT=GUTTER, GV=GAS VALVE, GRVL=GRAVEL, GW=GUY WIRE, H=HEIGHT / HIGH, HDPE=HIGH DENSITY POLYETHYLENE, HDWL=HEADWALL, HG=HYDRAULIC GRADE, HGL=HYDRAULIC GRADE LINE, HORZ=HORIZONTAL, HP=HIGH-PERFORMANCE POLYPROPYLENE, HP=HIGH POINT, HMAC=HOT MIX ASPHALTIC CONCRETE, HWY=HIGHWAY, I=INTENSITY, ID=INSIDE DIAMETER, IND=INDUSTRIAL, INST=INSTALL, INV=INVERT, IR=IRON ROD, IRR=IRRIGATION, IP=IRON PIPE, JNC=JUNCTION, JNT=JOINT, L=LENGTH, LF=LINEAR FEET, LOC=LIMITS OF CONSTRUCTION, LP=LIGHT POLE, LS=LUMP SUM, CR=COUNTY ROAD, CRMP=CURB RAMP, CULV=CULVERT, CVR=COVER, CY=CUBIC YARD, DBL=DOUBLE, DE=DRAINAGE EASEMENT, DEMO=DEMOLITION, DI=DUCTILE IRON, DIA=DIAMETER, DR=DEED RECORDS, DRWY=DRIVEWAY, DS=DOWN STREAM, DT=DITCH, DTCH=DITCH, E=EAST COORDINATE, E=ELECTRIC, EA=EACH, ECP=ELLIPTICAL CONCRETE PIPE, EE=ELECTRICAL EASEMENT, EB=EAST BOUND, EG=EXISTING GRADE, EL=ELEVATION, ELEC=ELECTRICAL, ELEV=ELEVATION, EJ=EXPANSION JOINT, ENGR=ENGINEER, EM=ELECTRIC METER, EOR=EDGE OF RADIUS, EP=EDGE OF PAVEMENT, EW=EACH WAY, EX=EXISTING, EXIST=EXISTING, EXP=EXPANSION, F=FUTURE, FC-FC=FACE OF CURB TO FACE OF CURB, CURB, FC=FENCE CORNER, FD=FOUND, FF=FINISHED FLOOR, FFE=FINISHED FLOOR ELEVATION, FG=FINISH GRADE, FH=FIRE HYDRANT, FL=FLOW LINE, FLG=FLANGE, FM=FARM TO MARKET, FOC=FIBER OPTIC CABLE, FS=FINISHED SURFACE, FT=FOOT / FEET, FV=FIELD VERIFY, FW=FIRE WATER, G=GAS, G=GRADING, GAL=GALLON, GALV=GALVANIZED, GB=GRADE BREAK, GI=GRATE INLET, GM=GAS METER, GT=GUTTER, GV=GAS VALVE, GRVL=GRAVEL, GW=GUY WIRE, H=HEIGHT / HIGH, HDPE=HIGH DENSITY POLYETHYLENE, HDWL=HEADWALL, HG=HYDRAULIC GRADE, HGL=HYDRAULIC GRADE LINE, HORZ=HORIZONTAL, HP=HIGH-PERFORMANCE POLYPROPYLENE, HP=HIGH POINT, HMAC=HOT MIX ASPHALTIC CONCRETE, HWY=HIGHWAY, I=INTENSITY, ID=INSIDE DIAMETER, IND=INDUSTRIAL, INST=INSTALL, INV=INVERT, IR=IRON ROD, IRR=IRRIGATION, IP=IRON PIPE, JNC=JUNCTION, JNT=JOINT, L=LENGTH, LF=LINEAR FEET, LOC=LIMITS OF CONSTRUCTION, LP=LIGHT POLE, LS=LUMP SUM, CR=COUNTY ROAD, CRMP=CURB RAMP, CULV=CULVERT, CVR=COVER, CY=CUBIC YARD, DBL=DOUBLE, DE=DRAINAGE EASEMENT, DEMO=DEMOLITION, DI=DUCTILE IRON, DIA=DIAMETER, DR=DEED RECORDS, DRWY=DRIVEWAY, DS=DOWN STREAM, DT=DITCH, DTCH=DITCH, E=EAST COORDINATE, E=ELECTRIC, EA=EACH, ECP=ELLIPTICAL CONCRETE PIPE, EE=ELECTRICAL EASEMENT, EB=EAST BOUND, EG=EXISTING GRADE, EL=ELEVATION, ELEC=ELECTRICAL, ELEV=ELEVATION, EJ=EXPANSION JOINT, ENGR=ENGINEER, EM=ELECTRIC METER, EOR=EDGE OF RADIUS, EP=EDGE OF PAVEMENT, EW=EACH WAY, EX=EXISTING, EXIST=EXISTING, EXP=EXPANSION, F=FUTURE, FC-FC=FACE OF CURB TO FACE OF CURB, P=PAVE, P=PROPOSED, P&P=PLAN AND PROFILE, PnP=PLAN AND PROFILE, PNP=PLAN AND PROFILE, PAVE=PAVEMENT, PC=POINT OF CURVATURE, PCC=POINT OF COMPOUND CURVATURE, W=WEST COORDINATE, WE=WATER EASEMENT, PE=PRIVATE EASEMENT, PED=PEDESTAL, PED=PEDESTRIAN, PG=PAGE, PG=PROPOSED GRADE, PI=POINT OF INTERSECTION, PID=POINT ID, PIV=POST INDICATOR VALVE, PL=PROPERTY LINE, PP=POWER POLE, PMT=PAD MOUNTED TRANSFORMER, PRO=PROPOSED, PROP=PROPOSED, PT=POINT OF TANGENCY, PVC=POLYVINYL CHLORIDE, PVMT=PAVEMENT, PVT=PRIVATE, Q=FLOW, QTY=QUANTITY, Qt=TOTAL FLOW, R=RADIUS, RC=REINFORCED CONCRETE, RCB=REINFORCED CONCRETE BOX, RCP=REINFORCED CONCRETE PIPE, REFL=REFLECTIVE, RES=RESIDENTIAL, REV=REVISION, ROW=RIGHT-OF-WAY, R.O.W.=RIGHT-OF-WAY, RT=RIGHT, S=SLOPE, S=SOUTH COORDINATE, S.A.D.=SEE ARCHITECTURAL DRAWINGS, SAN=SANITARY / WASTEWATER, SD=SOLID, SE=SANITARY EASEMENT, SECT=SECTION, S.E.D.=SEE ELECTRICAL DRAWINGS, SET=SAFETY END TREATMENT, SERV=SERVICE, SF=SQUARE FEET, SH=STATE HIGHWAY, SHDLR=SHOULDER, SHT=SHEET, SL=STREET LIGHT, S.L.D.=SEE LANDSCAPE DRAWINGS, S.M.D.=SEE MECHANICAL DRAWINGS, S.P.D.=SEE PLUMBING DRAWINGS, S.S.D.=SEE STRUCTURAL DRAWINGS, STA=STATION, STND=STANDARD, STM=STORM, SW=SIDEWALK, SW3P=STORM WATER POLLUTION PREVENTION PLAN, SWPPP=STORM WATER POLLUTION PREVENTION PLAN, SY=SQUARE YARDS, T=TELEPHONE, TC=TOP OF CONCRETE, TD=TRENCH DRAIN, TEL=TELEPHONE, TEMP=TEMPORARY, TG=TOP OF GRATE, THK=THICK OR THICKNESS, TP=TOP OF PAVEMENT, TOE=TOE OF SLOPE, TOD=TOP OF DOCK, TRFR=TRANSFORMER, TRW=TOP OF RETAINING WALL, TSCB=TRAFFIC SIGNAL CONTROL BOX, TS=TOP OF SLOPE, TSW=TOP OF SIDEWALK, TW=TOP OF WALL, TY=TYPE, TYP=TYPICAL, TV=TELEVISION, U=UTILITY, UE=UTILITY EASEMENT, UG=UNDERGROUND, US=UP STREAM, UON=UNLESS OTHERWISE NOTED, V=VERTICAL, VAC=VACANT, VCP=VITRIFIED CLAY PIPE, VERT=VERTICAL, VG=VALLEY GUTTER, VOL=VOLUME, W=WEST COORDINATE, WE=WATER EASEMENT

NOTICE: THIS LEGEND IS TO PROVIDE A GENERAL DEFINITION FOR THE SYMBOLS AND ABBREVIATIONS IS TO PROVIDE A GENERAL LOCATION FOR THAT CAN BE FOUND WITHIN THE CIVIL DRAWINGS ONLY WITHIN THE PLAN SET WHEN MULTIPLE DISCIPLINES ARE IN THE SAME PLAN SET.

NOTICE: THE GENERAL CONTRACTOR AND ALL SUBCONTRACTOR(S) WHICH WILL BE PERFORMING ANY WORK INDICATED WITHIN THESE DRAWINGS WILL BE SOLELY RESPONSIBLE FOR CONTACTING TEXAS 811, LONE STAR 811, AND OTHER UTILITY LOCATING COMPANIES AS WELL AS ALL LOCAL UTILITIES (WASTEWATER, STORM, WATER, GAS, TRAFFIC, ETC.) BY ALL MEANS POSSIBLE FOR THE LOCATING AND MARKING OF UNDERGROUND AND ABOVE GROUND UTILITIES PRIOR TO COMMENCING ANY CONSTRUCTION. DAMAGES TO UTILITIES WILL BE THE SOLE RESPONSIBILITY AND EXPENSE OF THE GENERAL CONTRACTOR TO PROVIDE A REMEDY TO THE DAMAGE WITH THE UTILITY OWNER. THE PROJECT OWNER, PROJECT ENGINEER, OWNER'S AUTHORIZED REPRESENTATIVE (OAR), AND ANY EMPLOYEES OF THESE SHALL NOT BE RESPONSIBLE FOR CONTACTING ANY COMPANY FOR LOCATING OR REMEDIATING OF ANY DAMAGE OF ANY UTILITY.



ME PROJECT NO.: 210174. License information for Thomas B. Tiffin, Professional Engineer, License No. 111733, State of Texas, dated 04/20/2023.

MUNOZ ENGINEERING logo and address: 1608 S. BROWNLEE BOULEVARD, CORPUS CHRISTI, TX 78404. Office: 361.946.4848. License No. 111733.

OSO RANCH ESTATES PUBLIC IMPROVEMENT PACKAGE 1. GENERAL LEGEND AND ABBREVIATIONS. CIVIL | STRUCTURAL | MARINE | LAND DEVELOPMENT. Revision No. C020.

| | | | | |
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| REVISION NO. | DATE | BY | DESCRIPTION | |
| 1 | 04/20/2023 | TBT | REISSUE OF DRAWING SET TO ADDRESS COMMENTS FROM CITY | |

GENERAL DEFINED TERMS

- THE FOLLOWING ARE SOME BUT NOT ALL OF THE TERMS THAT WILL BE FOUND WITHIN THE DRAWINGS AND ARE DEFINED AS INDICATED:
- THE WORDS DEFINED IN THIS SECTION SHALL FOR THE PURPOSE OF THIS SPECIFICATION SHALL HAVE THE MEANINGS ASCRIBED TO THEM.
 - ACRE (AC) – SHALL BE IN UNITED STATES CUSTOMARY SYSTEM (USCS) UNIT OF MEASUREMENT.
 - ALLOWANCE (AL) – SHALL BE THE MAXIMUM AMOUNT ALLOWABLE
 - CALENDAR DAY(S) – SHALL BE WORKING DAYS AND WILL BE CHARGED SUNDAY THROUGH SATURDAY INCLUDING ALL HOLIDAYS AND REGARDLESS OF WEATHER CONDITIONS, MATERIAL AVAILABILITY, OR OTHER CONDITIONS NOT UNDER THE CONTROL OF THE CONTRACTOR.
 - CUBIC YARDS (CY) – SHALL BE IN UNITED STATES CUSTOMARY SYSTEM (USCS) UNIT OF MEASUREMENT OF VOLUME OF A CUBE WITH ALL SIDES HAVING A MEASUREMENT OF 1 YARD (3 FEET).
 - DAY (DY) – SHALL BE MEASURED FROM 12:00 AM TO 11:59 PM
 - SQUARE FEET (SF) – SHALL BE IN UNITED STATES CUSTOMARY SYSTEM (USCS) UNIT OF MEASUREMENT.
 - SQUARE YARDS (SY) – SHALL BE IN UNITED STATES CUSTOMARY SYSTEM (USCS) UNIT OF MEASUREMENT.
 - EACH (EA) – SHALL BE FOR A SINGLE UNIT
 - SACKS (SK) – SHALL BE FOR A SINGLE UNIT IN THE COMMON SIZE
 - LUMP SUM (LS) – SHALL BE FOR ENTIRE UNIT
 - LINEAR FEET (LF) – SHALL BE IN UNITED STATES CUSTOMARY SYSTEM (USCS) UNITS AND MEASURED ALONG THE HORIZONTAL LENGTH OF THE CENTERLINE OF THE INSTALLED MATERIAL, UNLESS OTHERWISE SPECIFIED

MEASUREMENT AND PAYMENT

- UNIT PRICE – SHALL INCLUDE ALL COST(S) FOR THE ITEM(S) INDICATED TO FULLY COMPENSATE THE CONTRACTOR FOR COMPLETING THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND SHALL INCLUDE THE FOLLOWING; BUT NOT LIMITED TO: ALL DIRECT AND INDIRECT COST(S) FOR PERFORMING OR PROVIDING ALL LABOR, SERVICES, AND DOCUMENTATION NECESSARY TO PRODUCE SUCH CONSTRUCTION; FURNISHING, INSTALLING, AND INCORPORATING ALL MATERIALS AND/OR EQUIPMENT INTO SUCH CONSTRUCTION, AND SHALL INCLUDE BUT NOT LIMITED TO ALL LOADING, HAULING, DISPOSAL, MAINTENANCE, REMOVAL, PROTECTION OF EXISTING AND NEW UTILITIES, PROTECTION OF EXISTING AND NEW IMPROVEMENTS; AND MAY INCLUDE RELATED SERVICES SUCH AS TESTING, START-UP, AND COMMISSIONING.
- LUMP SUM PRICE – SHALL INCLUDE ALL COST(S) FOR THE ITEM(S) INDICATED TO FULLY COMPENSATE THE CONTRACTOR FOR COMPLETING THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND SHALL INCLUDE THE FOLLOWING; BUT NOT LIMITED TO: ALL DIRECT AND INDIRECT COST(S) FOR PERFORMING OR PROVIDING ALL LABOR, SERVICES, AND DOCUMENTATION NECESSARY TO PRODUCE SUCH CONSTRUCTION; FURNISHING, INSTALLING, AND INCORPORATING ALL MATERIALS AND/OR EQUIPMENT INTO SUCH CONSTRUCTION, AND SHALL INCLUDE BUT NOT LIMITED TO ALL LOADING, HAULING, DISPOSAL, MAINTENANCE, REMOVAL, PROTECTION OF EXISTING AND NEW UTILITIES, PROTECTION OF EXISTING AND NEW IMPROVEMENTS; AND MAY INCLUDE RELATED SERVICES SUCH AS TESTING, START-UP, AND COMMISSIONING.
- ALLOWANCE PRICE – SHALL INCLUDE ALL COST(S) FOR THE ITEM(S) INDICATED TO FULLY COMPENSATE THE CONTRACTOR FOR COMPLETING THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND SHALL INCLUDE THE FOLLOWING; BUT NOT LIMITED TO: ALL DIRECT AND INDIRECT COST(S) FOR PERFORMING OR PROVIDING ALL LABOR, SERVICES, AND DOCUMENTATION NECESSARY TO PRODUCE SUCH CONSTRUCTION; FURNISHING, INSTALLING, AND INCORPORATING ALL MATERIALS AND/OR EQUIPMENT INTO SUCH CONSTRUCTION, AND SHALL INCLUDE BUT NOT LIMITED TO ALL LOADING, HAULING, DISPOSAL, MAINTENANCE, REMOVAL, PROTECTION OF EXISTING AND NEW UTILITIES, PROTECTION OF EXISTING AND NEW IMPROVEMENTS; AND MAY INCLUDE RELATED SERVICES SUCH AS TESTING, START-UP, AND COMMISSIONING.
- ALTERNATE(S) – SHALL BE MEASURED AND PAID IN ACCORDANCE WITH UNIT PRICE, LUMP SUM PRICE, AND/OR ALLOWANCE AS INDICATED. ALTERNATES MAY BE ACCEPTED OR REJECTED AT THE OPTION OF THE OWNER. ALTERNATES THAT INCLUDE DEDUCTION(S) TO THE BASE BID ITEMS WILL RESULT IN THE BASE BID ITEM BEING MODIFIED OR REMOVED AS REQUIRED BY THE ALTERNATE(S).
- RETAINAGE – AN AMOUNT OF 10-PERCENT (10%), UNLESS OTHERWISE NOTED OR AGREED TO BY THE OWNER, WILL BE WITHHELD ON ALL EARNED AMOUNTS OF THE CONTRACT AND WILL BE RELEASED UPON PROJECT ACCEPTANCE BY THE OWNER, UNLESS OTHERWISE NOTED OR AGREED TO BY THE OWNER.
- MOBILIZATION
 - WHEN INDICATED TO BE ALLOWED AS AN SEPARATE PAY ITEM
 - SHALL INCLUDE ALL COSTS FOR THE PROJECT PREPARATION OF DOCUMENTS REQUIRED BEFORE THE FIRST APPLICATION FOR PAYMENT, TRANSPORTATION AND SETUP OF EQUIPMENT, FIELD OFFICE(S) (WHEN INDICATED), AND STORAGE FACILITIES, AND DEMOBILIZATION. MOBILIZATION PRICE SHALL BE A MAXIMUM OF 5-PERCENT (5%) OF THE TOTAL CONTRACT AMOUNT, UNLESS OTHERWISE NOTED OR AGREED TO BY THE OWNER. WHEN AT LEAST 5-PERCENT (5%) OF THE CONTACT IS EARNED, 75-PERCENT (75%) OF THE MOBILIZATION SUM WILL BE ELIGIBLE FOR PAYMENT, UNLESS OTHERWISE NOTED OR AGREED TO BY THE OWNER. WHEN THE PROJECT HAS REACHED SUBSTANTIAL COMPLETION AND ALL EQUIPMENT AND MATERIALS NOT REQUIRED FOR FINAL COMPLETION, AND ALL DEBRIS HAVE BEEN REMOVED FROM THE PROJECT SITE, THE REMAINING 25-PERCENT (25%) OF THE MOBILIZATION SUM WILL BE ELIGIBLE FOR PAYMENT, UNLESS OTHERWISE NOTED OR AGREED TO BY THE OWNER.
 - WHEN NOT INDICATED AS AN SEPARATE PAY ITEM
 - SHALL CONSIDERED SUBSIDIARY TO THE BID ITEMS AND SHALL INCLUDE ALL COSTS FOR THE PROJECT PREPARATION OF DOCUMENTS REQUIRED BEFORE THE FIRST APPLICATION FOR PAYMENT, TRANSPORTATION AND SETUP OF EQUIPMENT, FIELD OFFICE(S) (WHEN INDICATED), AND STORAGE FACILITIES, AND DEMOBILIZATION.
 - BONDS AND INSURANCE
 - BONDS AND INSURANCE WHEN INDICATED TO BE REQUIRED – WILL BE BASED ON THE RECEIPT OF DOCUMENTATION OF ACTUAL COSTS WITH A MAXIMUM OF 2-PERCENT (2%) OF THE TOTAL CONTRACT AMOUNT, UNLESS OTHERWISE NOTED OR AGREE TO BY THE OWNER. CONTRACTOR SHALL FURNISH SATISFACTORY EVIDENCE OF THE RATE(S) FOR ALL BOND(S) AND INSURANCE(S). CONTRACTOR WILL BE REIMBURSED FOR THE ACTUAL COST OF UNIQUE INSURANCE(S) AS REQUIRED AND OBTAINED SPECIFICALLY FOR THIS PROJECT, NOT INCLUDING THE ROUTINE AND GENERAL COMPANY INSURANCE POLICIES THAT ARE MAINTAINED FOR THE COURSE OF CONDUCTING NORMAL BUSINESS OPERATIONS. CONTRACTOR WILL BE REIMBURSED FOR THE ACTUAL COST OF PROJECT SPECIFIC BOND(S) AND INSURANCE(S), NOT TO EXCEED THE BID AMOUNT OR THE VERIFIABLE COSTS OF PROJECT SPECIFIC BONDS AND INSURANCE INCURRED BY THE CONTRACTOR.
 - INSURANCE ONLY (NO BOND REQUIRED) – WILL BE BASED ON THE RECEIPT OF DOCUMENTATION OF ACTUAL COSTS WITH A MAXIMUM OF 1.5-PERCENT (1.5%) OF THE TOTAL CONTRACT AMOUNT, UNLESS OTHERWISE NOTED OR AGREE TO BY THE OWNER. CONTRACTOR SHALL FURNISH SATISFACTORY EVIDENCE OF THE RATE(S) FOR ALL INSURANCE(S). CONTRACTOR WILL BE REIMBURSED FOR THE ACTUAL COST OF UNIQUE INSURANCE(S) AS REQUIRED AND OBTAINED SPECIFICALLY FOR THIS PROJECT, NOT INCLUDING THE ROUTINE AND GENERAL COMPANY INSURANCE POLICIES THAT ARE MAINTAINED FOR THE COURSE OF CONDUCTING NORMAL BUSINESS OPERATIONS. CONTRACTOR WILL BE REIMBURSED FOR THE ACTUAL COST OF PROJECT SPECIFIC INSURANCE(S), NOT TO EXCEED THE BID AMOUNT OR THE VERIFIABLE COSTS OF PROJECT SPECIFIC INSURANCE INCURRED BY THE CONTRACTOR.
 - TRAFFIC CONTROL BID ITEM(S) SHALL INCLUDE ALL COSTS FOR THE PREPARATION OF DOCUMENTS, PLANS, AND PERMITS, ALL PERMIT FEES, MOBILIZATION AND DEMOBILIZATION OF DEVICES, ALL MATERIALS, EQUIPMENT, LABOR, AND INCIDENTALS FOR THE PLACEMENT, MAINTENANCE, AND REMOVAL FOR THE RESPECTFUL ITEM(S).
 - STORMWATER POLLUTION PREVENTION BID ITEM(S) SHALL INCLUDE ALL COSTS FOR THE PREPARATION OF DOCUMENTS, PLANS, AND PERMITS, ALL PERMIT FEES, MOBILIZATION AND DEMOBILIZATION OF DEVICES, ALL MATERIALS, EQUIPMENT, LABOR, AND INCIDENTALS FOR THE PLACEMENT, MAINTENANCE, AND REMOVAL FOR THE RESPECTFUL ITEM(S).

GENERAL TESTING REQUIREMENTS

- THE OWNER WILL SECURE THE SERVICES OF A COMMERCIAL TESTING LABORATORY TO PERFORM CONSTRUCTION MATERIALS TESTS AND VISUAL INSPECTION SERVICES AS OUTLINED IN THE PROJECT SPECIFICATIONS AND AS LISTED BELOW AND WITHIN THE REQUIREMENTS.
- MOISTURE-DENSITY CURVES SHALL BE GENERATED FOR EACH TYPE OF SOIL MATERIAL USED ON THE PROJECT. IN-PLACE COMPACTION DENSITIES SHALL BE TAKEN AT THE RATE DESCRIBED PER LIFT OF COMPACTED MATERIAL. A MINIMUM OF THREE (3) TESTS SHALL BE TAKEN FOR ANY LIFT OF COMPACTED MATERIAL.
- CONCRETE STRENGTH CYLINDERS SHALL BE MADE AT THE RATE DESCRIBED BELOW, HOWEVER, A MINIMUM OF ONE (1) SET OF CYLINDERS SHALL BE MADE FOR ANY CONCRETE PLACED IN ANY DAY. TEST SHALL BE EVALUATED IN ACCORDANCE WITH ACI 318.
- IF WORKMANSHIP IS FOUND TO BE BELOW THE REQUIREMENTS SET FORTH HEREIN OR IN THE SPECIFICATIONS AS A RESULT OF TESTING AND/OR VISUAL INSPECTION, THE CONTRACTOR SHALL CORRECT OR REPLACE MATERIALS AT NO ADDITIONAL COST TO THE OWNER
- THE CONTRACTOR SHALL COOPERATE AND COORDINATE FULLY WITH THE TESTING LABORATORY AND PROJECT TESTING REQUIREMENTS.
- BELOW IS A GENERAL TESTING SCHEDULE FOR THIS PROJECT AND MAY NOT INDICATE ALL OF THE REQUIRED TESTING WHICH IS REQUIRED BY THE SPECIFICATIONS, CONTRACTOR SHALL SEE SPECIFICATIONS FOR ADDITIONAL TESTING REQUIREMENTS:

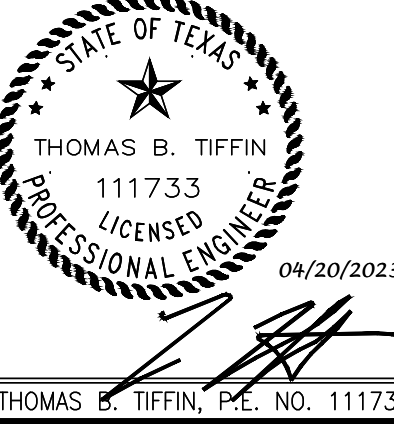
| SOILS | | PAVEMENT | |
|---|---------------------------------------|---|---|
| STANDARD PROCTOR – TRENCH BACKFILL | PER MATERIAL SOURCE | FLEXIBLE PAVEMENT (HOT-MIX ASPHALT (HMA)) | |
| STANDARD PROCTOR – SUBGRADE | PER STREET PER MATERIAL SOURCE | EXTRACTION, SIEVE ANALYSIS | PER 500 TONS OR PER DAY |
| DENSITIES – TRENCH BACKFILL | PER 200 LINEAR FEET TRENCH PER LIFT | LAB DENSITY & STABILITY | PER 500 TONS OR PER DAY |
| DENSITIES – SUBGRADE (ASPHALT STREET) | PER 100 LINEAR FEET PER LANE PER DAY | THEORETICAL DENSITY (RICE METHOD) | PER 500 TONS OR PER DAY |
| DENSITIES – SUBGRADE (CONCRETE STREET) | PER 200 LINEAR FEET PER LANE PER LIFT | TEMPERATURE – DURING LAY-DOWN | CONTINUOUS AS NEEDED |
| DENSITIES – SUBGRADE (DRIVEWAYS) | PER 2 DRIVEWAYS | THICKNESS – IN PLACE (CORE) | PER 1,000 LINEAR FEET OF STREET |
| DENSITIES – SUBGRADE (SIDEWALK) | PER 5,000 SQUARE FEET | % AIR VOIDS – IN PLACE (CORE) | PER 1,000 LINEAR FEET OF STREET |
| DENSITIES – BEHIND CURB AND GUTTER | PER 200 LINEAR FEET | % THEORETICAL DENSITY – IN PLACE (CORE) | PER 1,000 LINEAR FEET OF STREET |
| FLEXIBLE BASE | | RIGID PAVEMENT | |
| SIEVE ANALYSIS | PER 3,000 CUBIC YARDS | COMPRESSION STRENGTH – 7 DAY AND 28 DAY | 1 SET PER 2,500 SQUARE YARDS OR PER DAY |
| ATTERBURG LIMITS | PER 3,000 CUBIC YARDS | FLEXURAL (BEAM) STRENGTH – 7 DAY AND 28 DAY | 1 SET PER 2,500 SQUARE YARDS OR PER DAY |
| MODIFIED PROCTOR | PER 3,000 CUBIC YARDS | AIR CONTENT | 1 SET PER 2,500 SQUARE YARDS OR PER DAY |
| L.A. ABRASION | PER 3,000 CUBIC YARDS | SLUMP | 1 SET PER 2,500 SQUARE YARDS OR PER DAY |
| CBR (STANDARD) | PER MATERIAL SOURCE | | |
| WET BALL MILL TEST | PER MATERIAL SOURCE | | |
| TRAXIAL TEST | PER MATERIAL SOURCE | | |
| DENSITIES OF COMPACTED BASE (ASPHALT STREET) | PER 100 LINEAR FEET PER LANE PER LIFT | | |
| DENSITIES OF COMPACTED BASE (CONCRETE STREET) | PER 200 LINEAR FEET PER LANE PER LIFT | | |
| DENSITIES OF COMPACTED BASE (CURB & GUTTER) | PER 200 LINEAR FEET | | |

| CONCRETE | | NOTES: | |
|---|--|--------|---|
| SHALL ALL BE UNCONFINED COMPRESSION – 7, 14, AND 28 DAY | | 1.1. | THE TESTING RATES ARE MINIMUM GUIDELINES, THE ENGINEER OR LOCAL ENTITY MAY REQUIRE ADDITIONAL TESTING THEIR DISCRETION. RE-TEST FOR FAILURES ARE NOT INCLUDED. |
| CURB AND GUTTER / CURB | 1 SET PER 500 LINEAR FEET OR LESS PER CURB AND GUTTER / CURB | 1.2. | MOISTURE CONTENTS TO BE INCLUDED WITH DENSITY TEST. |
| SIDEWALKS AND CURB RAMPS | 1 SET PER 4,000 SQUARE FEET OR LESS | 1.3. | IN THE EVENT OF FAILURES, ADDITIONAL TESTS WILL BE REQUIRED. IF EXCESSIVE RAIN OR DRY PERIOD OCCURS ON A PREVIOUSLY TESTED SECTION, THE ENGINEER OR LOCAL ENTITY MAY ORDER RE-TESTS AS NECESSARY. |
| DRIVEWAYS | 1 SET PER 2,500 | | |
| CURB, POST AND GRATE INLETS | 1 SET PER 6 EACH OR LESS | | |
| STORM MANHOLES (CAST-IN-PLACE) | 1 SET PER 2 EACH OR LESS | | |
| BOX CULVERTS (CAST-IN-PLACE) | 1 SET PER 100 LINEAR FEET OR LESS FOR EACH BARREL | | |
| WINGWALLS | 1 SET PER EACH | | |
| RIPRAP, APRONS, AND SAFETY END TREATMENTS (SET'S) | 1 SET PER 4,000 SQUARE FEET | | |
| MANHOLE BASE / FOOTING | 1 SET PER 10 EACH | | |
| UTILITIES | | | |
| WASTEWATER (SANITARY SEWER) UTILITY | SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS | | |
| STORM UTILITY | SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS. | | |
| WATER UTILITY | SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS. | | |
| OTHER UTILITY | AS REQUIRED BY UTILITY OPERATOR OR OAR. | | |

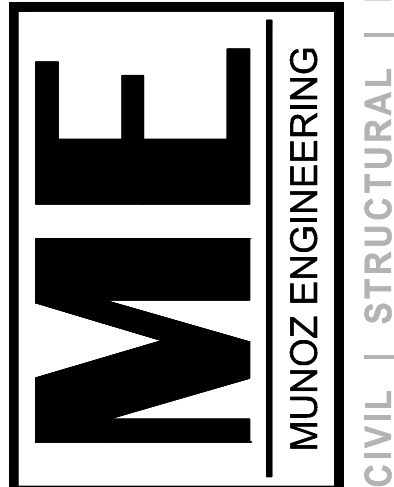
| CONSTRUCTION BID ITEMS | | | |
|------------------------|---|-------|-----------|
| ITEM NO. | DESCRIPTION | UNITS | ITEM QTY. |
| 1 | MOBILIZATION (5%) | LS | 1.00 |
| 2 | BONDS AND INSURANCE (2%) | LS | 1.00 |
| 3 | SWPP DEVICES | LS | 1.00 |
| 4 | TRAFFIC CONTROL | LS | 1.00 |
| 5 | TRENCH SAFETY FOR WASTEWATER LINES | LF | 1,010.00 |
| 6 | TRENCH SAFETY FOR WASTEWATER MANHOLE | EA | 4.00 |
| 7 | 8" SDR 26 PVC | LF | 20.00 |
| 8 | 8" CAP | EA | 1.00 |
| 9 | 12" SDR 26 PVC | LF | 20.00 |
| 10 | 12" CAP | EA | 1.00 |
| 11 | 24" SDR 26 PVC | LF | 991.00 |
| 12 | 24" CAP | EA | 1.00 |
| 13 | WASTEWATER MANHOLE | EA | 4.00 |
| 14 | WASTEWATER TIE IN | EA | 1.00 |
| 15 | PAVEMENT REPAIR - HMAC | SF | 170.00 |
| 16 | WELL POINTS AND ALL REQUIRED DISCHARGE PIPING | LF | 991.00 |
| 17 | EXISTING UTILITY LINE PROTECTION | LF | 100.00 |
| 18 | ALLOWANCE FOR UNANTICIPATED VVM IMPROVEMENTS | LS | 1.00 |

NOTE: ALL QUANTITIES INDICATED ARE APPROXIMATE AND ARE FOR INFORMATIONAL PURPOSES ONLY. NOT ALL REQUIRED MATERIALS MAY BE INDICATED. CONTRACTOR IS TO CONFIRM ALL QUANTITIES AND PROVIDE ALL MATERIALS, EQUIPMENT, LABOR, AND INCIDENTALS REQUIRED TO COMPLETE THE WORK.

| | | | | |
|----------|---------|---------|----------|------------|
| DRWN BY: | CHK BY: | APP BY: | SCALE: | DATE: |
| RR | T | T | AS NOTED | APRIL 2023 |



MUNOZ ENGINEERING
 1608 S. BROWNLEE BOULEVARD
 CORPUS CHRISTI, TX 78404
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 TBPELS FIRN F-12240



OSO RANCH ESTATES
PUBLIC IMPROVEMENT PACKAGE 1
 CORPUS CHRISTI, NUECES COUNTY, TEXAS

ESTIMATED QUANTITIES, MEASUREMENT, PAYMENT AND TESTING

NOTICE

- THE GENERAL CONTRACTOR AND ALL SUBCONTRACTOR(S) WHICH WILL BE PERFORMING ANY WORK INDICATED WITHIN THESE DRAWINGS WILL BE SOLELY RESPONSIBLE FOR CONTACTING TEXAS 811, LONE STAR 811, AND OTHER UTILITY LOCATING COMPANIES AS WELL AS ALL LOCAL UTILITIES (WASTEWATER, STORM, WATER, GAS, TRAFFIC, ETC.) BY ALL MEANS POSSIBLE FOR THE LOCATING AND MARKING OF UNDERGROUND AND ABOVE GROUND UTILITIES PRIOR TO COMMENCING ANY CONSTRUCTION.
- DAMAGES TO UTILITIES WILL BE THE SOLE RESPONSIBILITY AND EXPENSE OF THE GENERAL CONTRACTOR TO PROVIDE A REMEDY TO THE DAMAGE WITH THE UTILITY OWNER.
- THE PROJECT OWNER, PROJECT ENGINEER, OWNER'S AUTHORIZED REPRESENTATIVE (OAR), AND ANY EMPLOYEES OF THESE SHALL NOT BE RESPONSIBLE FOR CONTACTING ANY COMPANY FOR LOCATING OR REMEDYING OF ANY DAMAGE OF ANY UTILITY.

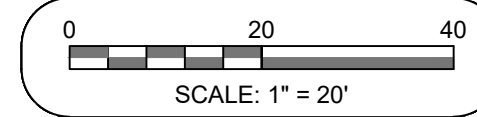
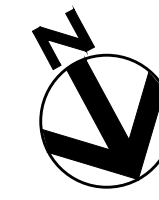
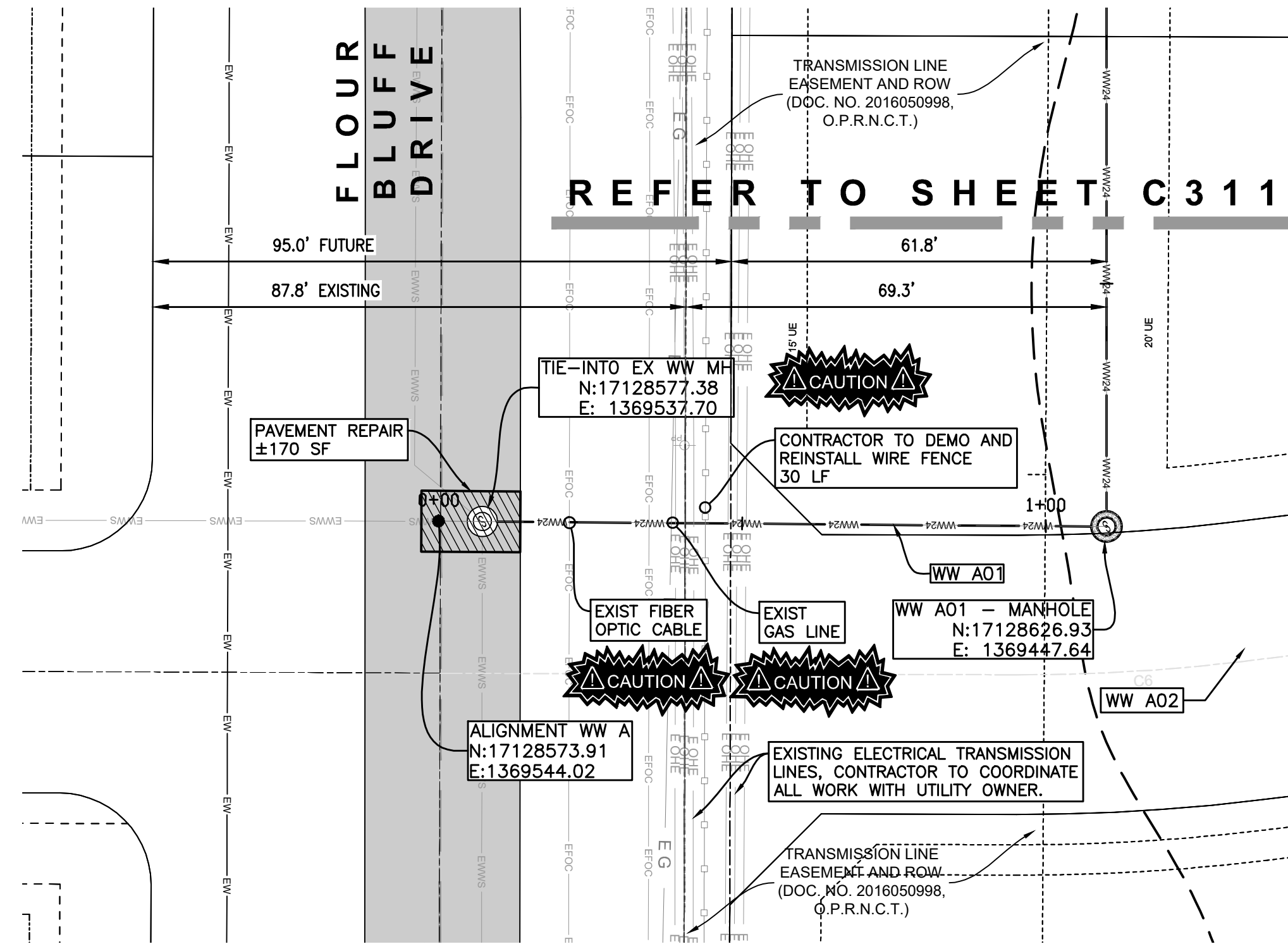


811 OR 1-800-344-8377 OR www.texas811.org
 GIVE 4 WORKING DAYS (M-F) NOTICE

C030

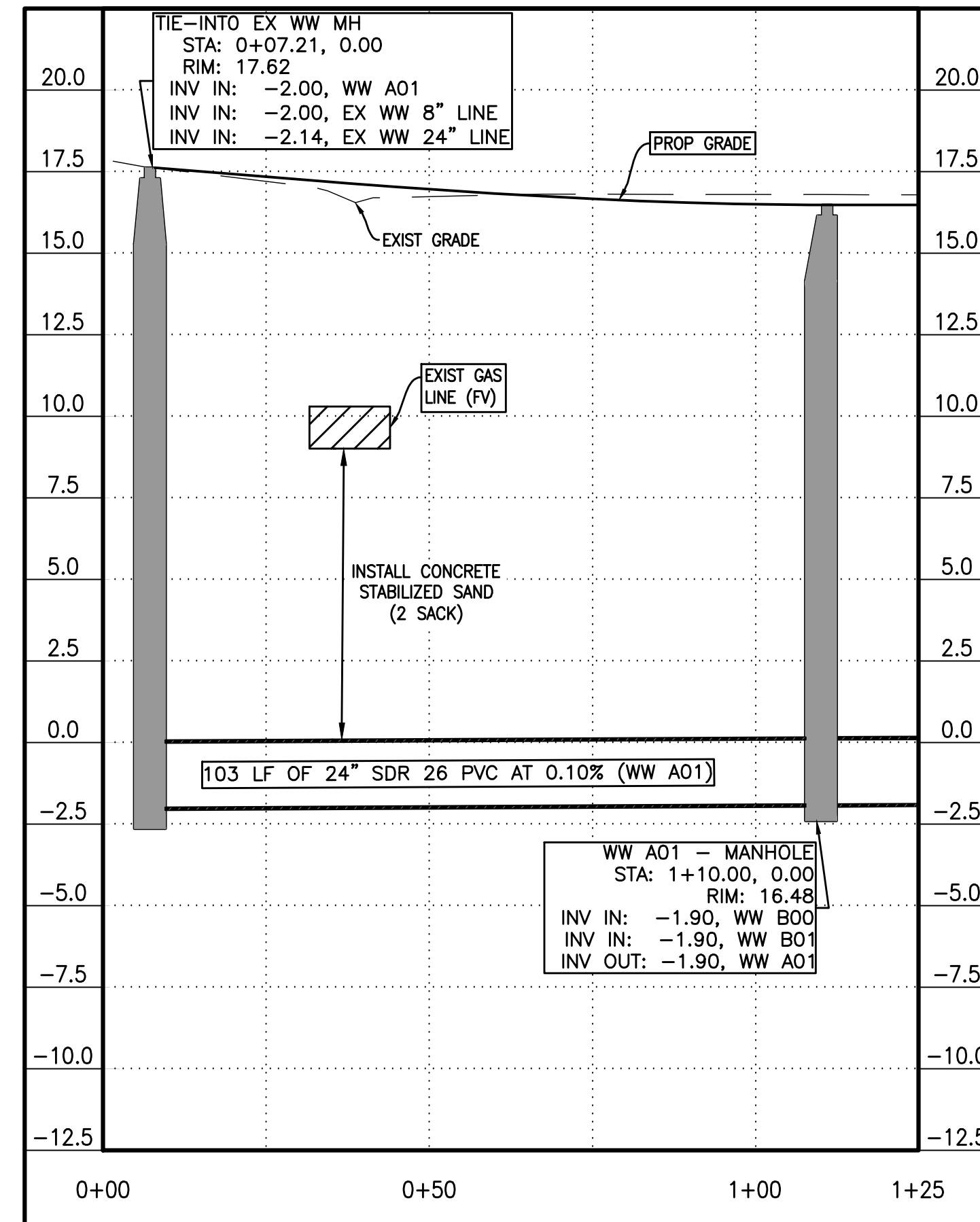
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| 1 | 04/20/2023 | TBT | REISSUE OF DRAWING SET TO ADDRESS COMMENTS FROM CITY |



NOTES

- TIE TO EXISTING MANHOLE WILL REQUIRE EXCAVATION UP TO MANHOLE. THEREFORE FLOUR BLUFF DRIVE WILL BE REQUIRED TO MAINTAIN A SINGLE DRIVE LANE THAT IS CONTROLLED BY FLAGGERS.
- NOTICE: THIS PROJECT WILL REQUIRE DEWATERING. CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL EQUIPMENT, LABOR, PERMITS FOR DEWATERING ALONG THE INSTALLATION AREA. CONTRACTOR WILL BE RESPONSIBLE FOR ALL PIPING REQUIRED FOR DISCHARGE OF EFFLUENT. DISCHARGE SHALL NOT ADVERSELY AFFECT ADJACENT PROPERTIES OR CREATE FLOODING. QUANTITIES PROVIDED IN BID FORM WHEN PROVIDED IS APPROXIMATE AND INCLUDES ONLY THE DEWATERING LENGTH AND NOT ANY ADDITIONAL PIPING FOR THE EFFLUENT.
- CONTRACTOR IS REQUIRED TO COORDINATE ALL WORK WITH ALL UTILITY COMPANIES THAT HAVE UTILITIES WITHIN AND ABOVE THE CONSTRUCTION AND AREA.
- CONTRACTOR TO CONTACT AEP TEXAS (SEE COVER SHEET FOR CONTACT INFORMATION).



ME PROJECT NO.: 210174

DRWN BY: RR
CHK BY: TT
APP BY: TT
SCALE: AS NOTED
DATE: APRIL 2023

STATE OF TEXAS
THOMAS B. TIFFIN
111733
LICENSED PROFESSIONAL ENGINEER
04/20/2023

THOMAS B. TIFFIN, P.E. NO. 111733

MUNOZ ENGINEERING

1608 S. BROWNLEE BOULEVARD
CORPUS CHRISTI, TX 78404
OFFICE: 361.946.4848
TPELS FIRM F-12240

ME

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OSO RANCH ESTATES
PUBLIC IMPROVEMENT PACKAGE 1
CORPUS CHRISTI, NUECES COUNTY, TEXAS

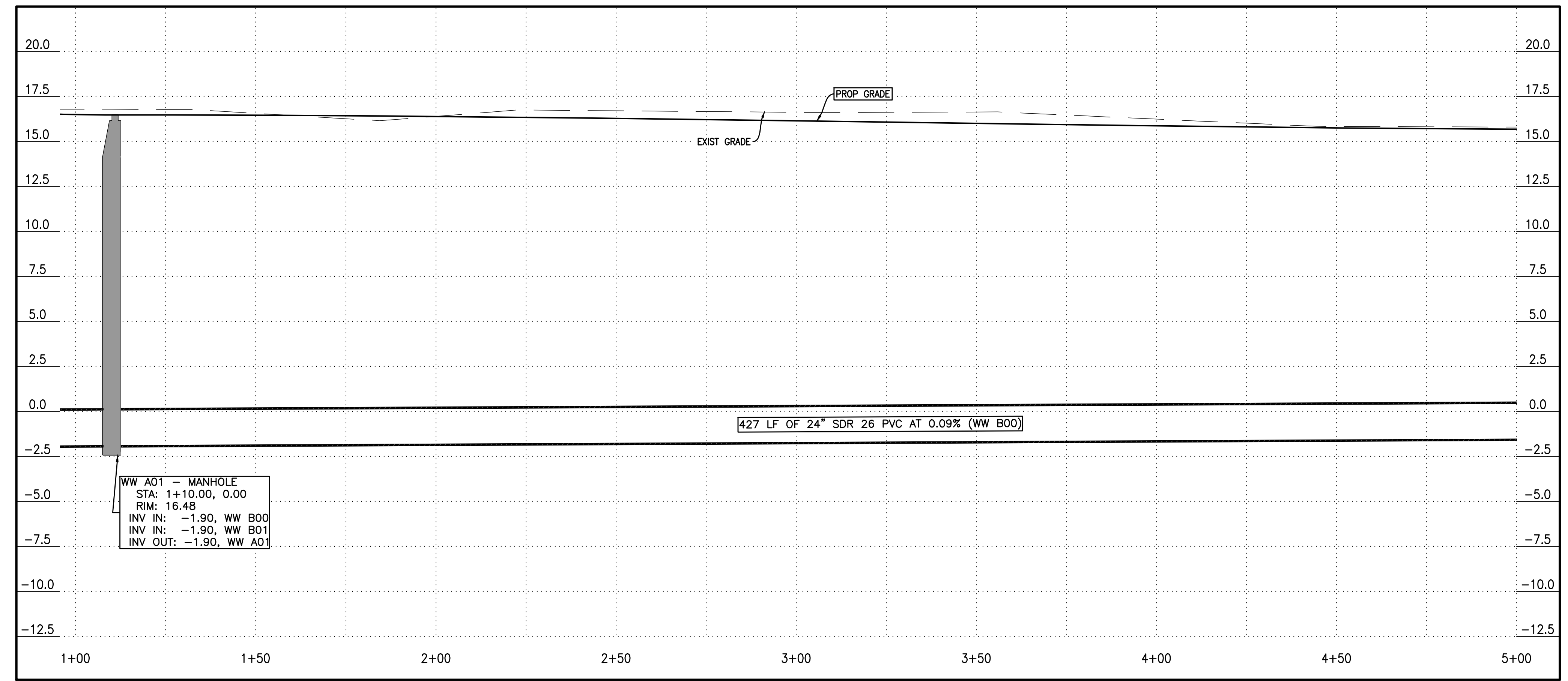
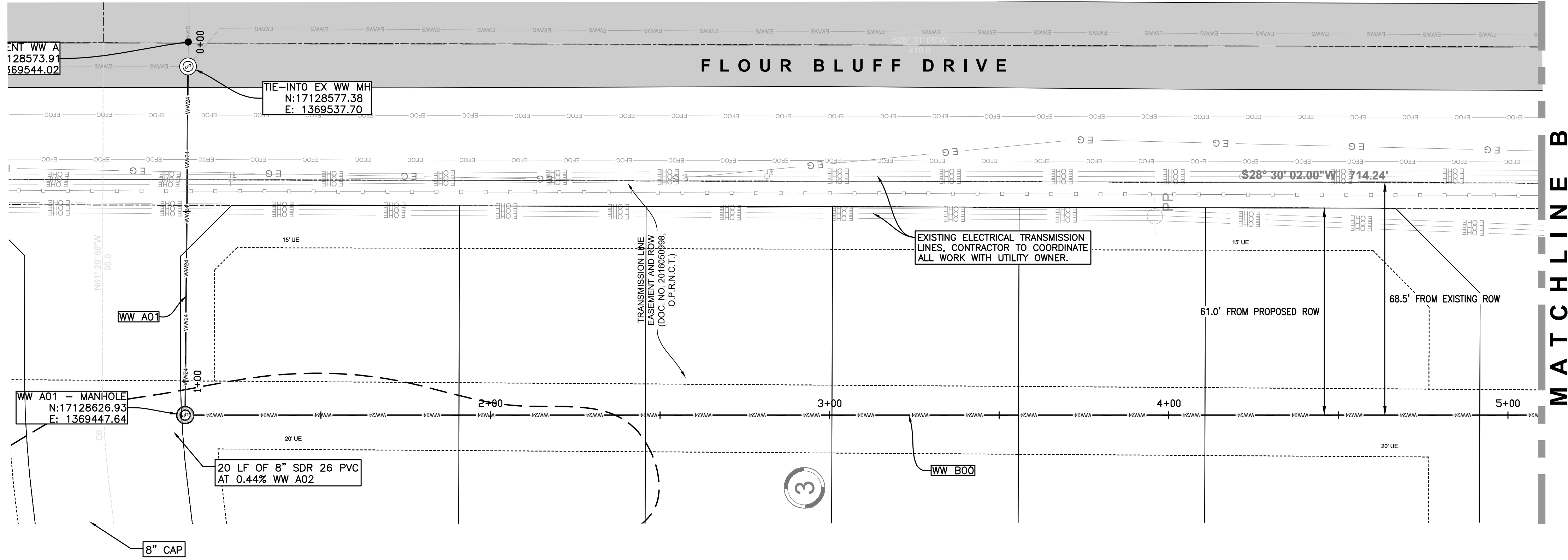
WASTEWATER PLAN AND PROFILE
(1 OF 3)

C310

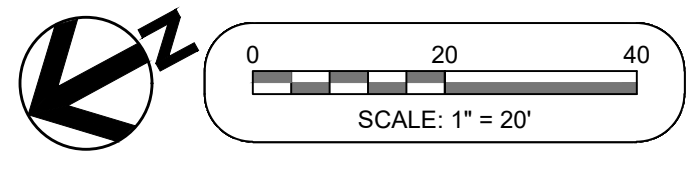
REVISION NO. -

MUNOZ ENGINEERING, LLC © 2021 (M:\Projects\1 - Grandfield Development LLC\Oso Ranch\210174 OSD RANCH UT102 - DRAWINGS\01 CIVIL\02 PLANS\Master Plan WW Line\C310 - WASTEWATER UTILITY PLAN.dwg) FULL SIZE SHEET = 22 x 34

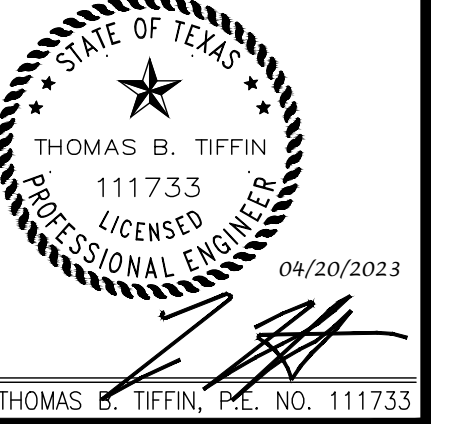
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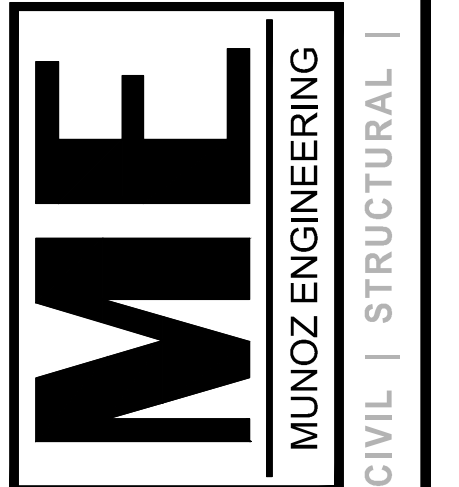
UTILITY PROFILE WW A



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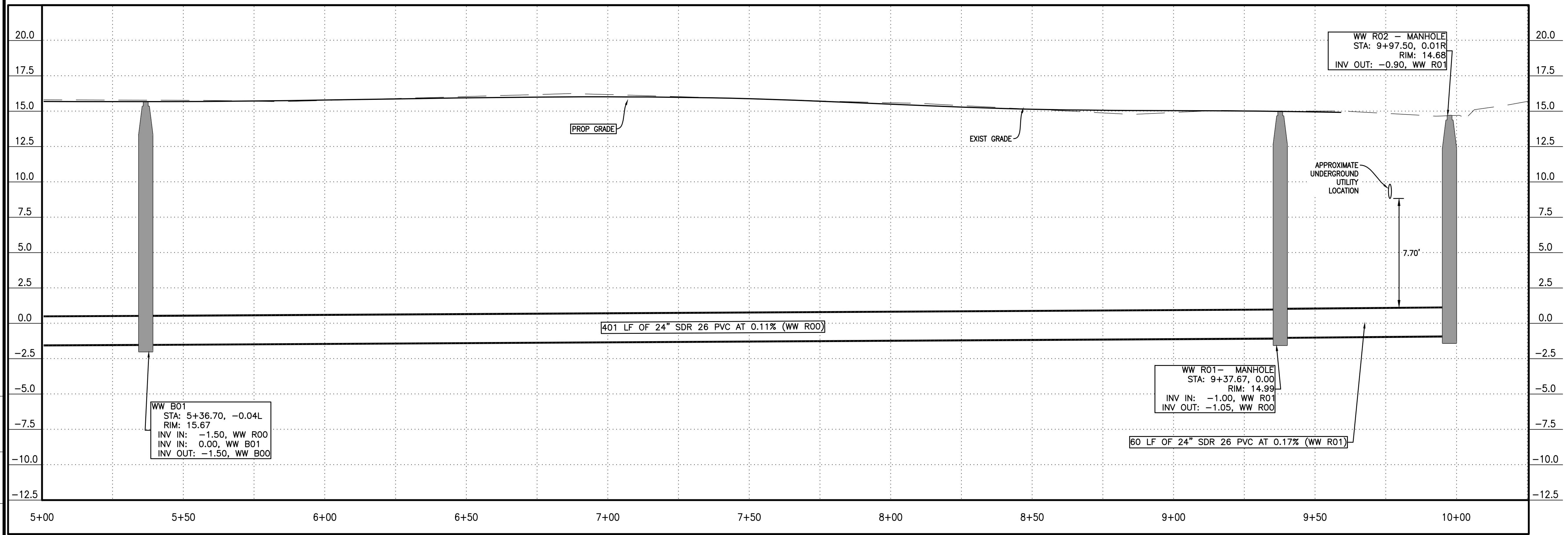
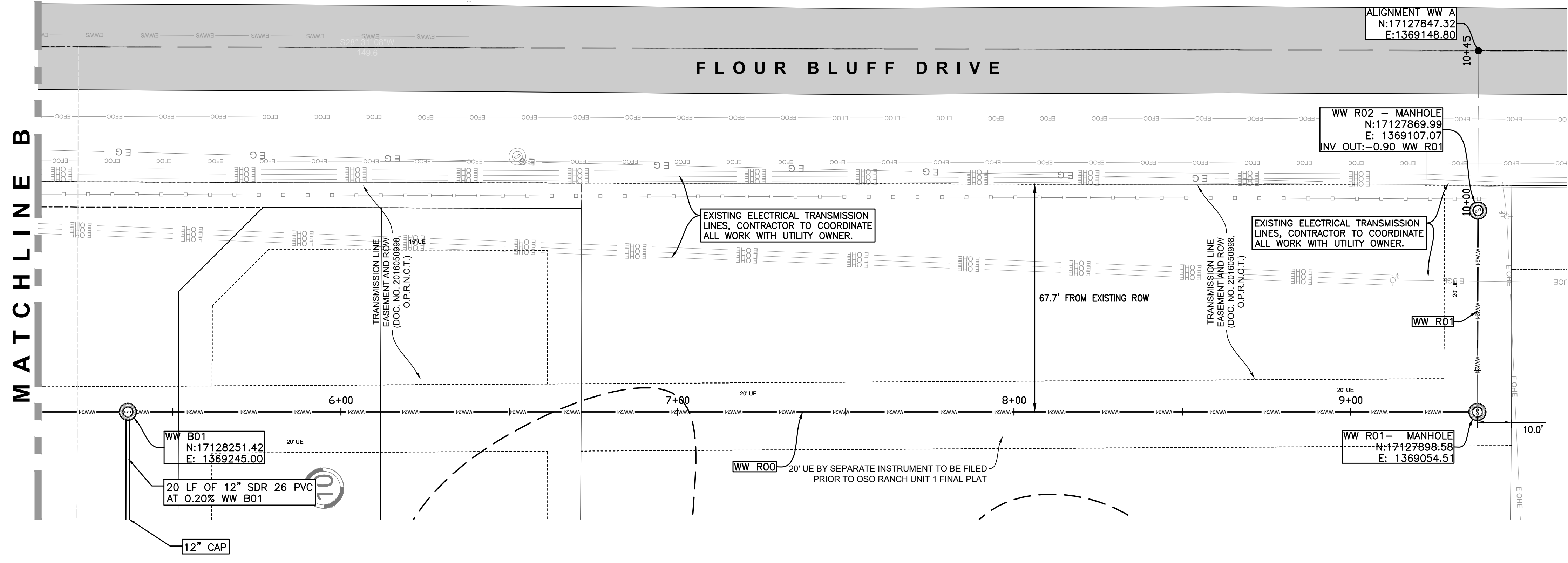
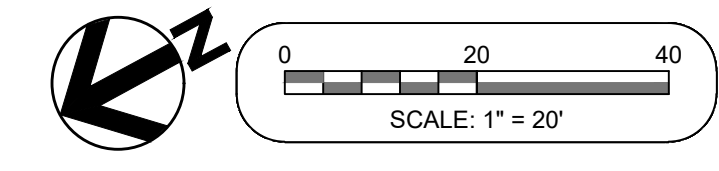
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**OSO RANCH ESTATES
 PUBLIC IMPROVEMENT PACKAGE 1**
 CORPUS CHRISTI, NUECES COUNTY, TEXAS
**WASTEWATER PLAN AND PROFILE
 (2 OF 3)**

C311
 REVISION NO. -

| REVISION NO. | DATE | BY | DESCRIPTION |
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| 1 | 04/20/2023 | TBT | REISSUE OF DRAWING SET TO ADDRESS COMMENTS FROM CITY |



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 PUBLIC IMPROVEMENT PACKAGE 1
 CORPUS CHRISTI, NUECES COUNTY, TEXAS

WASTEWATER PLAN AND PROFILE
 (3 OF 3)

C312

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| 1 | 04/20/2023 | TBT | REISSUE OF DRAWING SET TO ADDRESS COMMENTS FROM CITY |

NOTICE: THIS PAGE DOES NOT CONTAIN ALL PROJECT NOTES OR PROJECT REQUIREMENTS. THIS PAGE MAY CONTAIN NOTES THAT ARE NOT PERTINENT TO THE PROJECT BUT ARE INCLUDED FOR REFERENCE. IT WILL BE THE RESPONSIBILITY OF ALL CONTRACTORS WORKING ON THIS PROJECT TO BE KNOWLEDGEABLE WITH ALL PROJECT CONTRACT DOCUMENTS, WHICH INCLUDES BUT NOT LIMITED TO THE PROJECT GENERAL REQUIREMENTS, SPECIFICATIONS, AND DRAWINGS. ANY AND ALL COSTS RELATED TO THE CONTRACTOR FAILURE OF BEING KNOWLEDGEABLE WITH THE CONTRACT DOCUMENTS WILL BE AT THE SOLE EXPENSE OF THE CONTRACTOR.

ABBREVIATIONS AND DEFINITIONS

- THE FOLLOWING ABBREVIATIONS FOR THE PURPOSE OF THIS SECTION SHALL HAVE THE FOLLOWING MEANINGS ASCRIBED TO THEM:
 - ASTM - AMERICAN SOCIETY FOR TESTING AND MATERIALS
 - TAC - TEXAS ADMINISTRATION CODE
 - TCEQ - TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
 - TxDOT - TEXAS DEPARTMENT OF TRANSPORTATION
 - SSCM - TxDOT STANDARD SPECIFICATION FOR CONSTRUCTION AND MAINTENANCE OF HIGHWAYS, STREETS, AND BRIDGES, LATEST EDITION.
 - OAR - OWNER'S AUTHORIZED REPRESENTATIVE
 - UWWUO - ULTIMATE WASTEWATER UTILITY OWNER
 - USTUO - ULTIMATE STORMWATER UTILITY OWNER
 - UWUO - ULTIMATE WATER UTILITY OWNER

GENERAL WASTEWATER, STORMWATER, AND WATER UTILITY NOTES

- GENERAL
 - ANY CALL OUTS, NOTES, AND/OR TABLES THAT INDICATE MATERIALS AND QUANTITIES ARE APPROXIMATE AND NOT ALL REQUIRED MATERIALS MAY BE INDICATED. ALL MATERIAL QUANTITIES ARE AN ESTIMATE OF IN PLACE QUANTITY AND THE CONTRACTOR WILL BE RESPONSIBLE FOR CALCULATING AND INCLUDING IN BID ITEM ANY ADDITIONAL MATERIAL THAT MAY BE REQUIRED TO COMPLETE THE PROJECT. DURING THE BIDDING PROCESS THE CONTRACTOR IS TO REVIEW ALL CALL OUTS, NOTES, TABLES, DRAWINGS, AND EXISTING CONDITIONS TO PROVIDE A COMPLETE BID OF THE WORK AND MATERIALS REQUIRED.
 - THE LOCATION OF EXISTING WASTEWATER LINES, SERVICE CONNECTIONS, MANHOLES, FITTINGS, AND OTHER ITEMS INDICATED ON THE DRAWINGS ARE APPROXIMATE IN LOCATION AND ARE TO BE FIELD VERIFIED BY THE CONTRACTOR. NOT ALL EXISTING WASTEWATER LINES, SERVICE CONNECTIONS, MANHOLES, FITTINGS, AND OTHER ITEMS MAY BE INDICATED ON THE DRAWINGS.
 - THE LOCATION OF EXISTING STORMWATER LINES, SERVICE CONNECTIONS, INLETS, MANHOLES, OUTFALLS, FITTINGS, AND OTHER ITEMS INDICATED ON THE DRAWINGS ARE APPROXIMATE IN LOCATION AND ARE TO BE FIELD VERIFIED BY THE CONTRACTOR. NOT ALL EXISTING STORMWATER LINES, SERVICE CONNECTIONS, INLETS, MANHOLES, OUTFALLS, FITTINGS, AND OTHER ITEMS MAY BE INDICATED ON THE DRAWINGS.
 - THE LOCATION OF EXISTING WATER LINES, SERVICE CONNECTIONS, VALVES, FIRE HYDRANTS, FITTINGS, AND OTHER ITEMS INDICATED ON THE DRAWINGS ARE APPROXIMATE IN LOCATION AND ARE TO BE FIELD VERIFIED BY THE CONTRACTOR. NOT ALL EXISTING WATER LINES, SERVICE CONNECTIONS, VALVES, FIRE HYDRANTS, FITTINGS, AND OTHER ITEMS MAY BE INDICATED ON THE DRAWINGS.
 - LOCATION OF PROPOSED WASTEWATER LINES, SERVICE CONNECTIONS, MANHOLES, FITTINGS, AND OTHER ITEMS ARE SHOWN IN AN APPROXIMATE LOCATION AND MINOR ADJUSTMENTS SHALL BE ANTICIPATED SUCH THAT THE PROPOSED SYSTEM CAN BE CONSTRUCTED IN ACCORDANCE WITH THE STANDARD DETAILS, REGULATIONS, AND THE UWWUO REQUIREMENTS.
 - LOCATION OF PROPOSED STORMWATER LINES, SERVICE CONNECTIONS, INLETS, MANHOLES, OUTFALLS, FITTINGS, AND OTHER ITEMS ARE SHOWN IN AN APPROXIMATE LOCATION AND MINOR ADJUSTMENTS SHALL BE ANTICIPATED SUCH THAT THE PROPOSED SYSTEM CAN BE CONSTRUCTED IN ACCORDANCE WITH THE STANDARD DETAILS, REGULATIONS, AND THE USTUO REQUIREMENTS.
 - LOCATION OF PROPOSED WATER LINES, SERVICE CONNECTIONS, VALVES, FIRE HYDRANTS, FITTINGS, AND OTHER ITEMS ARE SHOWN IN AN APPROXIMATE LOCATION AND MINOR ADJUSTMENTS SHALL BE ANTICIPATED SUCH THAT THE PROPOSED SYSTEM CAN BE CONSTRUCTED IN ACCORDANCE WITH THE STANDARD DETAILS, REGULATIONS, AND THE UWUO REQUIREMENTS.

GENERAL WASTEWATER, STORMWATER, AND WATER UTILITY CONSTRUCTION NOTES

- CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE DRAWINGS, NOTES, SPECIFICATIONS, MANUFACTURERS RECOMMENDATIONS, ULTIMATE UTILITY OWNER REQUIREMENTS, AND ALL LAWS AND REGULATIONS, AND INDUSTRY STANDARDS.
 - IN THE EVENT A REQUIREMENT AND/OR REGULATION CONFLICTS WITH ANOTHER, THE MORE STRINGENT REQUIREMENT OR REGULATION SHALL BE ADHERED TO, UNLESS OTHERWISE INDICATE BY THE OAR.
- CONTRACTOR IS TO FURNISH ALL MATERIALS, EQUIPMENT, LABOR, WORK, AND INCIDENTALS REQUIRED TO COMPLETE THE PROJECT IN ACCORDANCE WITH DRAWINGS, SPECIFICATIONS, AND INDUSTRY STANDARDS. PAYMENT TO THE CONTRACTOR FOR PROVIDING ALL OF THESE ITEMS SHALL FULLY COMPENSATE THE CONTRACTOR FOR ALL COSTS AND INCLUDE ANY OVERHEAD, STORAGE, DELIVERY, REMOVAL, PROFIT, AND INCIDENTALS. ALL COSTS SHALL BE APPLIED TO THE APPROPRIATE BID ITEM(S).
- TRENCH(ES) FOR ALL UTILITIES
 - CONTRACTOR IS RESPONSIBLE FOR DEVELOPING AND IMPLEMENTING A TRENCH SAFETY PLAN IN ACCORDANCE WITH THE NOTES ON THIS SHEET.
 - ALL TRENCH(ES) SHALL HAVE VERTICAL SIDES.
 - IF THE TRENCH IS BENCHMARKED THE BACKFILL AS INDICATED WITHIN THE DETAIL AT THAT LEVEL SHALL BE EXTENDED OUTWARD TO THE EDGE OF THE EXCAVATION, UNLESS OTHERWISE INDICATED BY THE OAR.
- THE INSTALLATION OF THE UTILITY PIPE AND APPURTENANCES AND ALL MATERIALS WITHIN THE TRENCH SHALL BE COMPLETED IN A MANNER THAT WILL NOT DAMAGE THE PIPE AND APPURTENANCES OR ADJUST THE ALIGNMENT OF THE PIPE OR APPURTENANCES HORIZONTALLY AND/OR VERTICALLY.
- IF DURING CONSTRUCTION ANY PORTION OF AN EXISTING SYSTEM OR PROPOSED SYSTEM IS DAMAGED BY THE CONTRACTOR, THE PORTION THAT IS DAMAGED SHALL BE REPAIRED BY THE CONTRACTOR IN A MANNER THAT IS ACCEPTABLE BY THE ULTIMATE UTILITY OWNER REPRESENTATIVE. NO PATCHES AND/OR SPLICES WILL BE ALLOWED, UNLESS INDICATED BY THE ULTIMATE UTILITY OWNER.
- PRIOR TO COMMENCING ANY PAVING IMPROVEMENTS, ALL UNDERGROUND IMPROVEMENTS, INDICATED WITHIN THE DRAWINGS OR REQUIRED BY OTHERS, INCLUDING BUT NOT LIMITED TO: WASTEWATER UTILITIES, STORM WATER UTILITIES, WATER UTILITIES, SLEEVES FOR ELECTRICAL UTILITIES, SLEEVES FOR IRRIGATION UTILITIES, SLEEVES FOR COMMUNICATION UTILITIES, AND OTHER UNDERGROUND IMPROVEMENTS THAT ARE REQUIRED AND ARE BENEATH AND ADJACENT TO THE PAVING IMPROVEMENTS SHALL BE INSTALLED IN ACCORDANCE WITH THE DRAWINGS AND INDUSTRY STANDARDS, VERIFIED BY THE CONTRACTOR, AND PASS ALL TESTING REQUIREMENTS.
- THE CONTRACTOR MAY PROCEED SOLELY AT THE CONTRACTOR'S OWN RISK IN THE PLACEMENT OF PAVING IMPROVEMENTS PRIOR TO VERIFICATION AND FINAL TESTING OF UNDERGROUND IMPROVEMENTS WITH ANY COSTS RESULTING FROM THE VERIFICATION OR TESTING FAILURE BEING SOLELY AT THE CONTRACTOR'S EXPENSE.
- IF IT IS DETERMINED THAT THE CONTRACTOR HAS FAILED TO PLACE THE UNDERGROUND IMPROVEMENTS AS INDICATED ON THE DRAWINGS OR BY OTHERS AND/OR FAILED TO VERIFY THE LOCATION PRIOR TO PLACEMENT OF PAVING IMPROVEMENTS, THEN ANY COSTS RESULTING FROM ACTIVITIES TO REMEDY THE SITUATION SHALL BE SOLELY AT THE CONTRACTOR'S EXPENSE.
- IF A UTILITY FAILS A TESTING REQUIREMENT, THEN ANY COSTS RESULTING FROM ACTIVITIES TO REMEDY THE SITUATION SHALL BE SOLELY AT THE CONTRACTOR'S EXPENSE.
- ANY DEMOLITION AND REPAIRS TO THE PAVING IMPROVEMENTS WILL BE COMPLETED IN ACCORDANCE WITH THE REQUIREMENTS OF THE OAR.

7. SEPARATION BETWEEN UTILITIES

- GENERAL
 - SEPARATION IS TO BE MEASURED FROM THE OUTSIDE SURFACE OF EACH RESPECTIVE PIECE.
 - DEFLECTION OF WATER PIPE MAY BE REQUIRED TO MAINTAIN PROPER SEPARATION AND MAY NOT BE INDICATED ON THE DRAWINGS. CONTRACTOR IS TO PROVIDE ALL REQUIRED EQUIPMENT, MATERIAL, AND LABOR REQUIRED TO PERFORM THE DEFLECTION.
- WASTEWATER UTILITIES
 - BETWEEN STORMWATER UTILITY, GENERAL UTILITIES, AND DRY UTILITIES (DOES NOT INCLUDE WATER UTILITY)
 - CROSSING
 - SEPARATION OF 6-INCHES TO 2-FEET - CEMENT STABILIZED SAND (MINIMUM OF 10-PERCENT CEMENT PER CUBIC YARD OF SAND) SHALL BE PLACED BETWEEN AND 2-FEET BEYOND EACH UTILITY.
 - SEPARATION OF MORE THAN 2-FEET - BACKFILL SHALL BE AS DRAWINGS INDICATE OR EQUAL TO OR BETTER THAN EXISTING.
 - BETWEEN WATER UTILITY
 - PARALLEL
 - SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS INDICATED ON C701 AND THE UWUO REPRESENTATIVE
 - CROSSING
 - SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS INDICATED ON C701 AND THE UWUO REPRESENTATIVE
 - STORMWATER UTILITIES
 - BETWEEN WASTEWATER UTILITY, WATER UTILITY, GENERAL UTILITIES, AND DRY UTILITIES
 - CROSSING
 - SEPARATION OF 6-INCHES TO 2-FEET - CEMENT STABILIZED SAND (MINIMUM OF 10-PERCENT CEMENT PER CUBIC YARD OF SAND) SHALL BE PLACED BETWEEN AND 2-FEET BEYOND EACH UTILITY.
 - SEPARATION OF MORE THAN 2-FEET - BACKFILL SHALL BE AS DRAWINGS INDICATE OR EQUAL TO OR BETTER THAN EXISTING.
 - WATER UTILITIES
 - BETWEEN STORMWATER UTILITY, GENERAL UTILITIES, AND DRY UTILITIES (DOES NOT INCLUDE WASTEWATER UTILITY)
 - PARALLEL
 - VERTICAL AND HORIZONTAL SEPARATION SHALL BE A MINIMUM OF 2-FEET, UNLESS OTHERWISE NOTED OR DIRECTED BY THE OAR.
 - CROSSING
 - SEPARATION OF 6-INCHES TO 2-FEET - CEMENT STABILIZED SAND (MINIMUM OF 10-PERCENT CEMENT PER CUBIC YARD OF SAND) SHALL BE PLACED BETWEEN AND 2-FEET BEYOND EACH UTILITY.
 - SEPARATION OF MORE THAN 2-FEET - BACKFILL SHALL BE AS DRAWINGS INDICATE OR EQUAL TO OR BETTER THAN EXISTING.
 - BETWEEN WASTEWATER UTILITY
 - PARALLEL
 - SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS INDICATED ON C701 AND THE UWUO REPRESENTATIVE
 - CROSSING
 - SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS INDICATED ON C701 AND THE UWUO REPRESENTATIVE
 - UTILITIES CONVEYING HAZARDOUS MATERIALS (OIL, ETC.)
 - CONTACT ENGINEER FOR REQUIREMENTS.

TRENCH SAFETY REQUIREMENTS FOR ALL WORK ON THE PROJECT

- DEFINITIONS
 - A TRENCH SHALL BE DEFINED AS A NARROW EXCAVATION (IN RELATION TO ITS DEPTH) 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.
 - TRENCH(ES) AS USED HEREIN, SHALL APPLY TO ANY EXCAVATION INTO WHICH STRUCTURES, UTILITIES, OR OTHER ITEMS AS A RESULT OF CONSTRUCTION ARE PLACED REGARDLESS OF DEPTH.
 - TRENCH SAFETY SYSTEM SHALL INCLUDE ALL REQUIRED PERSONNEL, MATERIALS, AND EQUIPMENT AS REQUIRED TO PROVIDE FOR WORKERS SAFETY IN TRENCH(ES), AND IS NOT LIMITED TO: LADDERS, SLOPING, SHEETING, TRENCH BOXES, TRENCH SHIELDS, SHEET PILING, CRIBBING, BRACING, SHORING, DEWATERING METHODS, AND ALL ANCILLARY DEVICES AND WORK REQUIRED.
 - TRENCH SAFETY PLAN AS USED HEREIN, SHALL APPLY TO A PLAN THAT INDICATES ALL METHODS AND MATERIALS USED TO PROVIDE FOR WORKER SAFETY IN EXCAVATION AND TRENCHING OPERATIONS REQUIRED DURING THE PROJECT.
- GENERAL
 - THE CONTRACTOR AND SUBCONTRACTOR(S) ON THE PROJECT ARE SOLELY RESPONSIBLE FOR THE DEVELOPMENT AND IMPLEMENTATION OF A TRENCH SAFETY PLAN THAT IS IN ACCORDANCE WITH THE LATEST EDITION OF PART 1926, SUBPART P - EXCAVATIONS, TRENCHING, AND SHORING OF THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) STANDARDS AND INTERPRETATIONS, TEXAS CODE CHAPTER 756 SUBCHAPTER C - TRENCH SAFETY, AND ANY ADDITIONAL REQUIREMENTS OF LOCAL, STATE, AND FEDERAL REGULATIONS.
 - IT IS THE SOLE RESPONSIBILITY OF THE GENERAL CONTRACTOR AND ALL SUBCONTRACTORS TO DETERMINE AND MONITOR THE SPECIFIC APPLICABILITY OF A TRENCH SAFETY SYSTEM TO THE FIELD CONDITIONS TO BE ENCOUNTERED ON THE JOB SITE DURING THE PROJECT.
 - IT WILL NOT BE THE RESPONSIBILITY OF THE OWNER, ITS OWNER'S AUTHORIZED REPRESENTATIVE (OAR), EMPLOYEES, AND AGENTS, FOR BEING KNOWLEDGEABLE AND ENFORCE ANY REQUIREMENTS OF LOCAL, STATE, FEDERAL REGULATIONS.
 - IT WILL NOT BE THE RESPONSIBILITY OF THE ENGINEERING FIRM, ITS EMPLOYEES AND AGENTS, FOR BEING KNOWLEDGEABLE AND ENFORCE ANY REQUIREMENTS OF LOCAL, STATE, FEDERAL REGULATIONS.
 - IT WILL NOT BE THE RESPONSIBILITY OF THE CITY, COUNTY, DISTRICT, ITS EMPLOYEES AND AGENTS, FOR BEING KNOWLEDGEABLE AND ENFORCE ANY REQUIREMENTS OF LOCAL, STATE, FEDERAL REGULATIONS.
 - IN THE EVENT THAT A TRENCH SAFETY PLAN AND/OR TRENCH SAFETY SYSTEM RESULTS IN A UNSAFE CONDITION OR IS DETERMINED TO NOT MEET THE REQUIREMENTS BY ANY PERSON, ALL WORK ON THE PROJECT WILL BE REQUIRED TO STOP WORK IMMEDIATELY AND REMOVE ALL PERSONNEL FROM THE TRENCH AND IMMEDIATE AREA DETERMINED TO BE UNSAFE UNTIL THE UNSAFE CONDITION IS RESOLVED TO CREATE A SAFE WORK AREA. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR ANY DELAYS OR COSTS ASSOCIATED WITH THE STOP WORK ORDER.
- IMPLEMENTATION
 - THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF THE TRENCH SAFETY SYSTEM IN ACCORDANCE WITH THE TRENCH SAFETY PLAN AND ALL LOCAL, STATE, AND FEDERAL PROVISIONS.
 - A COMPETENT PERSON, AS IDENTIFIED IN THE CONTRACTORS TRENCH SAFETY PLAN, SHALL VERIFY THAT TRENCH SAFETY EQUIPMENT ARE CERTIFIED AND INSTALLED CORRECTLY FOR THE ACTUAL INSTALLATION CONDITIONS.
- INSPECTION AND RECORDS
 - THE CONTRACTOR OR CONTRACTORS INDEPENDENTLY RETAINED CONSULTANT, SHALL MAKE DAILY INSPECTIONS OF THE TRENCH SAFETY SYSTEM(S) TO ENSURE THAT THE INSTALLED SYSTEM(S) AND OPERATIONS MEET THE REQUIREMENTS OF THE TRENCH SAFETY PLAN AND ALL LOCAL, STATE, AND FEDERAL REGULATIONS.
 - IF EVIDENCE OF POSSIBLE CAVE-INS, SLIDES, OR TRENCH SAFETY SYSTEM FAILURE IS APPARENT, THE CONTRACTOR SHALL IMMEDIATELY STOP ALL WORK IN AND AROUND THE TRENCH AND MOVE ALL PERSONNEL AND INDIVIDUALS TO A SAFE LOCATION UNTIL THE NECESSARY PRECAUTIONS HAVE BEEN TAKEN BY THE CONTRACTOR TO SAFEGUARD PERSONNEL ENTERING THE TRENCH.
 - THE CONTRACTOR MUST MAINTAIN A PERMANENT RECORD OF DAILY INSPECTIONS ON SITE THAT ARE AVAILABLE AT ANYTIME ON-SITE.
- INDEMNIFICATION
 - THE CONTRACTOR SHALL INDEMNIFY AND HOLD HARMLESS THE OWNER, ITS OWNER'S AUTHORIZED REPRESENTATIVE (OAR), EMPLOYEES, AND AGENTS, THE ENGINEERING FIRM AND THE EMPLOYEES AND AGENTS, FROM ANY AND ALL DAMAGES, COSTS (INCLUDING, WITHOUT LIMITATION, LEGAL FEES, COURT COSTS, AND THE COST OF INVESTIGATION), JUDGMENTS OR CLAIMS BY ANYONE FOR INJURY OR DEATH OF PERSONS RESULTING FROM THE COLLAPSE OR FAILURE OF TRENCHES CONSTRUCTED UNDER THIS CONTRACT.
 - THE CONTRACTOR ACKNOWLEDGES AND AGREES THAT THIS INDEMNITY PROVISION PROVIDES INDEMNITY FOR THE OWNER, ITS EMPLOYEES AND AGENTS, THE ENGINEERING FIRM AND THE EMPLOYEES AND AGENTS, IN CASE THE OWNER, OR ITS OWNER'S AUTHORIZED REPRESENTATIVE (OAR), EMPLOYEES, AND AGENTS, THE ENGINEERING FIRM AND THE EMPLOYEES AND AGENTS, IS NEGLIGENT EITHER BY ACT OR OMISSION IN PROVIDING FOR TRENCH SAFETY, INCLUDING, BUT NOT LIMITED TO SAFETY PROGRAM AND DESIGN REVIEWS, INSPECTIONS, FAILURES TO ISSUE STOP WORK ORDERS, AND THE HIRING OF THE CONTRACTOR.

PRIVATE UTILITIES NOTE

- FOR ALL PRIVATE PIPING AND APPURTENANCES THAT ARE TO BE INSTALLED OR MODIFIED AS INDICATED IN THE DRAWINGS, THAT WORK WILL BE REQUIRED TO BE COMPLETED BY OR UNDER THE DIRECT SUPERVISION OF A LICENSED PLUMBER IN THE STATE THAT THE WORK IS OCCURRING IN AND LICENSED BY THE ENTITY (CITY, COUNTY, WATER DISTRICT, UTILITY DISTRICT, ETC.) THE WORK IS BEING PERFORMED IN WHEN REQUIRED BY THAT ENTITY.
- THE CONTRACTOR WILL BE REQUIRED TO OBTAIN A BUILDING PERMIT FROM THE LOCAL REGULATION ENTITY AND MUST BE CONSTRUCTED AND INSPECTED IN ACCORDANCE WITH THE REQUIREMENTS OF THE LOCAL REGULATION ENTITY.
- THE CONTRACTOR IS RESPONSIBLE FOR ALL WORK, MATERIALS, AND COORDINATION THAT IS REQUIRED BY THE LOCAL REGULATION ENTITY TO HAVE IT ACCEPTED BY THE ENTITY AT THE END OF THE PROJECT.
- THE CONTRACTOR WILL BE RESPONSIBLE FOR REMEDYING ANY ISSUE(S) FOR ANY WORK PERFORMED WITHOUT THE PROPER AUTHORIZATIONS.

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**OSO RANCH ESTATES
PUBLIC IMPROVEMENT PACKAGE 1**

CORPUS CHRISTI, NUECES COUNTY, TEXAS

GENERAL UTILITY NOTES

NOTICE

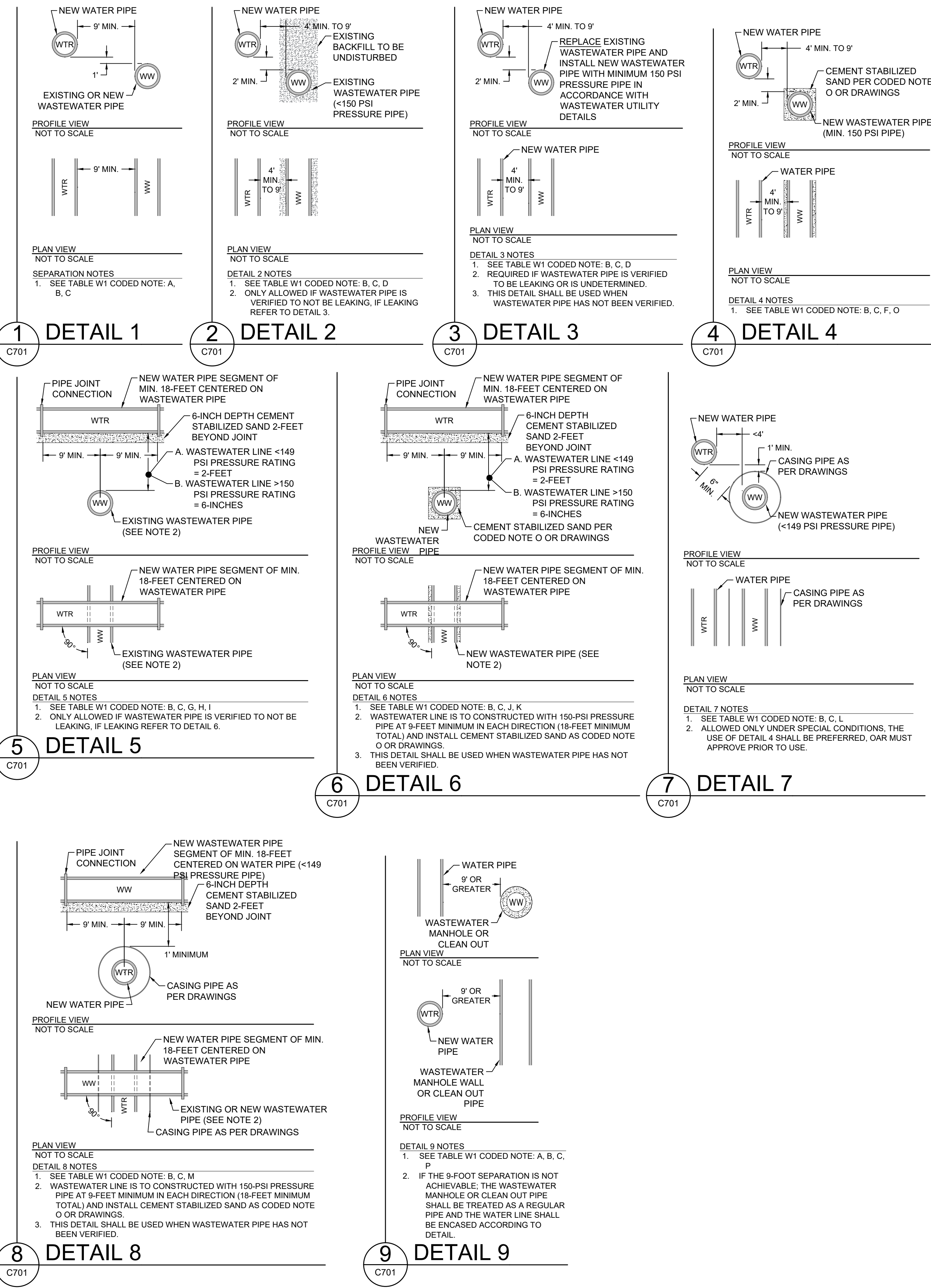
1.1 THE INFORMATION WITHIN TABLE W1 - CODED NOTES FOR THE TEXAS ADMINISTRATIVE CODE REGULATIONS, SHALL APPLY TO THIS PROJECT AS INDICATED AND REQUIRED.
 1.2 THE REGULATIONS WITHIN TABLE W1 - CODED NOTES FOR THE TEXAS ADMINISTRATIVE CODE REGULATIONS, SHALL APPLY FOR WASTEWATER MAINS OR LATERALS, AND WASTEWATER APPURTENANCES. THESE SAME REGULATIONS SHALL BE APPLIED TO ANY PIPE, PIPELINE, AND/OR APPURTENANCES FOR ANY LIQUID (INCLUDING, BUT NOT LIMITED TO: OIL, RAW WATER, REUSE WATER, IRRIGATION WATER, OR GAS) THAT CAN BECOME A POTENTIAL SOURCE OF CONTAMINATION TO THE WATER SYSTEM.

**TABLE W1
CODED GOVERNING REGULATION INFORMATION**

| CODED NOTE ID | TEXAS ADMINISTRATIVE CODE REGULATION SECTION | TEXAS ADMINISTRATIVE CODE INFORMATION * | DETAIL TO REFER TO |
|---------------|---|---|--------------------|
| A | TITLE 30, PART 1, CHAPTER 290, SUBCHAPTER D, RULE § 290.44 (e)(1) | WHEN NEW POTABLE WATER DISTRIBUTION LINES ARE CONSTRUCTED, THEY SHALL BE INSTALLED NO CLOSER THAN NINE FEET IN ALL DIRECTIONS TO WASTEWATER COLLECTION FACILITIES. ALL SEPARATION DISTANCES SHALL BE MEASURED FROM THE OUTSIDE SURFACE OF EACH OF THE RESPECTIVE PIECES. ¹ | 1 |
| B | TITLE 30, PART 1, CHAPTER 290, SUBCHAPTER D, RULE § 290.44 (e)(2) | POTABLE WATER DISTRIBUTION LINES AND WASTEWATER MAINS OR LATERALS THAT FORM PARALLEL UTILITY LINES SHALL BE INSTALLED IN SEPARATE TRENCHES. ¹ | - |
| C | TITLE 30, PART 1, CHAPTER 290, SUBCHAPTER D, RULE § 290.44 (e)(3) | NO PHYSICAL CONNECTION SHALL BE MADE BETWEEN A DRINKING WATER SUPPLY AND A SEWER LINE. ANY APPURTENANCE SHALL BE DESIGNED AND CONSTRUCTED SO AS TO PREVENT ANY POSSIBILITY OF SEWAGE ENTERING THE DRINKING WATER SYSTEM. ¹ | - |
| D | TITLE 30, PART 1, CHAPTER 290, SUBCHAPTER D, RULE § 290.44 (e)(4)(A)(i) | WHERE A NEW POTABLE WATERLINE PARALLELS AN EXISTING, NON-PRESSURE OR PRESSURE RATED WASTEWATER MAIN OR LATERAL AND THE LICENSED PROFESSIONAL ENGINEER LICENSED IN THE STATE OF TEXAS IS ABLE TO DETERMINE THAT THE EXISTING WASTEWATER MAIN OR LATERAL IS NOT LEAKING, THE NEW POTABLE WATERLINE SHALL BE LOCATED AT LEAST TWO FEET ABOVE THE EXISTING WASTEWATER MAIN OR LATERAL, MEASURED VERTICALLY, AND AT LEAST FOUR FEET AWAY, MEASURED HORIZONTALLY, FROM THE EXISTING WASTEWATER MAIN OR LATERAL. EVERY EFFORT SHALL BE EXERTED NOT TO DISTURB THE BEDDING AND BACKFILL OF THE EXISTING WASTEWATER MAIN OR LATERAL. ¹ | 2 |
| E | TITLE 30, PART 1, CHAPTER 290, SUBCHAPTER D, RULE § 290.44 (e)(4)(A)(ii) | WHERE A NEW POTABLE WATERLINE PARALLELS AN EXISTING PRESSURE-RATED WASTEWATER MAIN OR LATERAL AND IT CANNOT BE DETERMINED BY THE LICENSED PROFESSIONAL ENGINEER IF THE EXISTING LINE IS LEAKING, THE EXISTING WASTEWATER MAIN OR LATERAL SHALL BE REPLACED WITH AT LEAST 150 PSI PRESSURE-RATED PIPE. THE NEW POTABLE WATERLINE SHALL BE LOCATED AT LEAST TWO FEET ABOVE THE NEW WASTEWATER LINE, MEASURED VERTICALLY, AND AT LEAST FOUR FEET AWAY, MEASURED HORIZONTALLY, FROM THE REPLACED WASTEWATER MAIN OR LATERAL. ¹ | 3 |
| F | TITLE 30, PART 1, CHAPTER 290, SUBCHAPTER D, RULE § 290.44 (e)(4)(A)(iii) | WHERE A NEW POTABLE WATERLINE PARALLELS AN NEW WASTEWATER MAIN, THE WASTEWATER MAIN OR LATERAL SHALL BE CONSTRUCTED AT LEAST 150 PSI PRESSURE-RATED PIPE. THE NEW POTABLE WATERLINE SHALL BE LOCATED AT LEAST TWO FEET ABOVE THE WASTEWATER MAIN OR LATERAL, MEASURED VERTICALLY, AND AT LEAST FOUR FEET AWAY, MEASURED HORIZONTALLY, FROM THE WASTEWATER MAIN OR LATERAL. ¹ | 4 |
| G | TITLE 30, PART 1, CHAPTER 290, SUBCHAPTER D, RULE § 290.44 (e)(4)(B)(i) | WHERE A NEW POTABLE WATERLINE CROSSES ABOVE A WASTEWATER MAIN OR LATERAL, THE SEGMENT OF THE WATERLINE PIPE SHALL BE CENTERED OVER AND MUST BE PERPENDICULAR TO THE WASTEWATER MAIN OR LATERAL SUCH THAT THE JOINTS OF THE WATERLINE PIPE ARE EQUIDISTANT AND AT LEAST NINE FEET HORIZONTALLY FROM THE CENTERLINE OF THE WASTEWATER MAIN OR LATERAL. WHEN CROSSING AN EXISTING WASTEWATER MAIN OR LATERAL AND IT IS DISTURBED OR SHOWS SIGNS OF LEAKING, THE WASTEWATER MAIN OR LATERAL SHALL BE REPLACED FOR AT LEAST NINE FEET IN BOTH DIRECTIONS (18 FEET TOTAL) WITH AT LEAST 150 PSI PRESSURE-RATED PIPE EMBEDDED IN CEMENT STABILIZED SAND (SEE CLAUSE (V) OF THIS SUBPARAGRAPH) FOR THE TOTAL LENGTH OF ONE PIPE SEGMENT PLUS 12 INCHES BEYOND THE JOINT ON EACH END. ¹ | 5 |
| H | TITLE 30, PART 1, CHAPTER 290, SUBCHAPTER D, RULE § 290.44 (e)(4)(B)(i)(I) | THE POTABLE WATERLINE SHALL BE AT LEAST TWO FEET ABOVE AN EXISTING, NON-PRESSURE RATED WASTEWATER MAIN OR LATERAL. ¹ | 5 |
| I | TITLE 30, PART 1, CHAPTER 290, SUBCHAPTER D, RULE § 290.44 (e)(4)(B)(i)(II) | THE POTABLE WATERLINE SHALL BE AT LEAST SIX INCHES ABOVE AN EXISTING, PRESSURE-RATED WASTEWATER MAIN OR LATERAL. ¹ | 5 |
| J | TITLE 30, PART 1, CHAPTER 290, SUBCHAPTER D, RULE § 290.44 (e)(4)(B)(ii) | WHERE A NEW POTABLE WATERLINE CROSSES ABOVE A NEW, NON-PRESSURE RATED WASTEWATER MAIN OR LATERAL, THE SEGMENT OF THE WATERLINE PIPE SHALL BE CENTERED OVER AND SHALL BE PERPENDICULAR TO THE WASTEWATER MAIN OR LATERAL SUCH THAT THE JOINTS OF THE WATERLINE PIPE ARE EQUIDISTANT AND AT LEAST NINE FEET HORIZONTALLY FROM THE CENTERLINE OF THE WASTEWATER MAIN OR LATERAL. THE POTABLE WATERLINE SHALL BE AT LEAST TWO FEET ABOVE THE WASTEWATER MAIN OR LATERAL, WHENEVER POSSIBLE, THE CROSSING SHALL BE CENTERED BETWEEN THE JOINTS OF THE WASTEWATER MAIN OR LATERAL. THE WASTEWATER PIPE SHALL HAVE A MINIMUM PIPE STIFFNESS OF 115 PSI AT 5.0% DEFLECTION. THE WASTEWATER MAIN OR LATERAL SHALL BE EMBEDDED IN CEMENT STABILIZED SAND (SEE CLAUSE (V) OF THIS SUBPARAGRAPH) FOR THE TOTAL LENGTH OF ONE PIPE SEGMENT PLUS 12 INCHES BEYOND THE JOINT ON EACH END. ¹ | 6 |
| K | TITLE 30, PART 1, CHAPTER 290, SUBCHAPTER D, RULE § 290.44 (e)(4)(B)(iii) | WITHIN NINE FEET HORIZONTALLY OF EITHER SIDE OF THE WATERLINE, THE WASTEWATER PIPE AND JOINTS SHALL BE CONSTRUCTED WITH PIPE MATERIAL HAVING A MINIMUM PRESSURE RATING OF AT LEAST 150 PSI. AN ABSOLUTE MINIMUM VERTICAL SEPARATION DISTANCE OF TWO FEET SHALL BE PROVIDED. THE WASTEWATER MAIN OR LATERAL SHALL BE LOCATED BELOW THE WATERLINE. ¹ | 6 |
| L | TITLE 30, PART 1, CHAPTER 290, SUBCHAPTER D, RULE § 290.44 (e)(4)(B)(iii)(I) | ALL SECTIONS OF WASTEWATER MAIN OR LATERAL WITHIN NINE FEET HORIZONTALLY OF THE WATERLINE SHALL BE ENCASED IN AN 18-FOOT (OR LONGER) SECTION OF PIPE. FLEXIBLE ENCASING PIPE SHALL HAVE A MINIMUM PIPE STIFFNESS OF 115 PSI AT 5.0% DEFLECTION. THE ENCASING PIPE SHALL BE CENTERED ON THE WATERLINE AND SHALL BE AT LEAST TWO NOMINAL PIPE DIAMETERS LARGER THAN THE WASTEWATER MAIN OR LATERAL. THE SPACE AROUND THE CARRIER PIPE SHALL BE SUPPORTED AT FIVE-FOOT (OR LESS) INTERVALS WITH SPACERS OR BE FILLED TO THE SPRINGLINE WITH WASHED SAND. EACH END OF THE CASING SHALL BE SEALED WITH WATERTIGHT NON-SHRINK CEMENT GROUT OR A MANUFACTURED WATERTIGHT SEAL. AN ABSOLUTE MINIMUM SEPARATION DISTANCE OF SIX INCHES BETWEEN THE ENCASEMENT PIPE AND THE WATERLINE SHALL BE PROVIDED. THE WASTEWATER LINE SHALL BE LOCATED BELOW THE WATERLINE. ¹ | 7 |
| M | TITLE 30, PART 1, CHAPTER 290, SUBCHAPTER D, RULE § 290.44 (e)(4)(B)(iii)(II) | WHEN A NEW WATERLINE CROSSES UNDER A WASTEWATER MAIN OR LATERAL, THE WATERLINE SHALL BE ENCASED AS DESCRIBED FOR WASTEWATER MAINS OR LATERALS IN CLAUSE (II) OF THIS SUBPARAGRAPH OR CONSTRUCTED OF DUCTILE IRON OR STEEL PIPE WITH MECHANICAL OR WELDED JOINTS AS APPROPRIATE. AN ABSOLUTE MINIMUM SEPARATION DISTANCE OF ONE FOOT BETWEEN THE WATERLINE AND THE WASTEWATER MAIN OR LATERAL SHALL BE PROVIDED. WHEN A NEW WATERLINE CROSSES UNDER A WASTEWATER MAIN, THE PROCEDURES IN §217.53(D) OF THIS TITLE (RELATING TO PIPE DESIGN) MUST BE FOLLOWED. ¹ | 8 |
| N | TITLE 30, PART 1, CHAPTER 290, SUBCHAPTER D, RULE § 290.44 (e)(4)(B)(iv) | WHERE A NEW POTABLE WATERLINE CROSSES A NEW, PRESSURE RATED WASTEWATER MAIN OR LATERAL, ONE SEGMENT OF THE WATERLINE PIPE SHALL BE CENTERED OVER AND SHALL BE PERPENDICULAR TO THE WASTEWATER LINE SUCH THAT THE JOINTS OF THE WATERLINE PIPE ARE EQUIDISTANT AND AT LEAST NINE FEET HORIZONTALLY FROM THE CENTER LINE OF THE WASTEWATER MAIN OR LATERAL. THE POTABLE WATERLINE SHALL BE AT LEAST SIX INCHES ABOVE THE WASTEWATER MAIN OR LATERAL, WHENEVER POSSIBLE, THE CROSSING SHALL BE CENTERED BETWEEN THE JOINTS OF THE WASTEWATER MAIN OR LATERAL. THE WASTEWATER PIPE SHALL HAVE A MINIMUM PRESSURE RATING OF AT LEAST 150 PSI. THE WASTEWATER MAIN OR LATERAL SHALL BE EMBEDDED IN CEMENT STABILIZED SAND (SEE CLAUSE (V) OF THIS SUBPARAGRAPH) FOR THE TOTAL LENGTH OF ONE PIPE SEGMENT PLUS 12 INCHES BEYOND THE JOINT ON EACH END. ¹ | 6 |
| O | TITLE 30, PART 1, CHAPTER 290, SUBCHAPTER D, RULE § 290.44 (e)(4)(B)(v) | WHERE CEMENT STABILIZED SAND BEDDING IS REQUIRED, THE CEMENT STABILIZED SAND SHALL HAVE A MINIMUM OF 10% CEMENT PER CUBIC YARD OF CEMENT STABILIZED SAND MIXTURE, BASED ON LOOSE DRY WEIGHT VOLUME (AT LEAST 2.5 BAGS OF CEMENT PER CUBIC YARD OF MIXTURE). THE CEMENT STABILIZED SAND BEDDING SHALL BE A MINIMUM OF SIX INCHES ABOVE AND FOUR INCHES BELOW THE WASTEWATER MAIN OR LATERAL. THE USE OF BROWN COLORING IN CEMENT STABILIZED SAND FOR WASTEWATER MAIN OR LATERAL BEDDING IS RECOMMENDED FOR THE IDENTIFICATION OF PRESSURE RATED WASTEWATER MAINS DURING FUTURE CONSTRUCTION. ¹ | - |
| P | TITLE 30, PART 1, CHAPTER 290, SUBCHAPTER D, RULE § 290.44 (e)(5) | WATERLINE AND WASTEWATER MAIN MANHOLE OR LATERAL MANHOLE OR CLEANOUT SEPARATION, THE SEPARATION DISTANCE FROM A POTABLE WATERLINE TO A WASTEWATER MAIN MANHOLE OR LATERAL MANHOLE OR CLEANOUT SHALL BE A MINIMUM OF NINE FEET. WHERE THE NINE-FOOT SEPARATION DISTANCE CANNOT BE ACHIEVED, THE POTABLE WATERLINE SHALL BE ENCASED IN A JOINT OF AT LEAST 150 PSI PRESSURE CLASS PIPE AT LEAST 18 FEET LONG AND TWO NOMINAL SIZES LARGER THAN THE NEW CONVEYANCE. THE SPACE AROUND THE CARRIER PIPE SHALL BE SUPPORTED AT FIVE-FOOT INTERVALS WITH SPACERS OR BE FILLED TO THE SPRINGLINE WITH WASHED SAND. THE ENCASEMENT PIPE SHALL BE CENTERED ON THE CROSSING AND BOTH ENDS SEALED WITH CEMENT GROUT OR MANUFACTURED SEALANT. ¹ | 9 |
| Q | TITLE 30, PART 1, CHAPTER 290, SUBCHAPTER D, RULE § 290.44 (e)(6) | LOCATION OF FIRE HYDRANTS. FIRE HYDRANTS SHALL NOT BE INSTALLED WITHIN NINE FEET VERTICALLY OR HORIZONTALLY OF ANY WASTEWATER MAIN, WASTEWATER LATERAL, OR WASTEWATER SERVICE LINE REGARDLESS OF CONSTRUCTION. ¹ | - |
| R | TITLE 30, PART 1, CHAPTER 290, SUBCHAPTER D, RULE § 290.44 (e)(8) | PROXIMITY OF SEPTIC TANK DRAINFIELDS. WATERLINES SHALL NOT BE INSTALLED CLOSER THAN TEN FEET TO SEPTIC TANK DRAINFIELDS. ¹ | - |

* NOTE: LOCATION OF WATERLINES. THE ABOVE RULES APPLY TO INSTALLATIONS OF WATERLINES, WASTEWATER MAINS OR LATERALS, AND OTHER CONVEYANCES/APPURTENANCES IDENTIFIED AS POTENTIAL SOURCES OF CONTAMINATION. FURTHERMORE, ALL RATINGS SPECIFIED SHALL BE DEFINED BY ASTM OR AWWA STANDARDS UNLESS STATED OTHERWISE. NEW MAINS, SERVICE LINES, OR LATERALS ARE THOSE THAT ARE INSTALLED WHERE NO MAIN, SERVICE LINE, OR LATERAL PREVIOUSLY EXISTED, OR WHERE EXISTING MAINS, SERVICE LINES, OR LATERALS ARE REPLACED WITH PIPES OF DIFFERENT SIZE OR MATERIAL.¹

¹ TEXAS ADMINISTRATIVE CODE, texreg.sos.state.tx.us/public/readactSext.TacPage?sl=R&app=9&g_dir=&p_rloc=&p_lloc=&p_ploc=&pg=1&p_tac=&i=30&pt=1&ch=290&r=44, NOVEMBER 24, 2019



ME PROJECT NO.: 210174

DRWN BY: RR
 CHK BY: TT
 APP BY: TT
 SCALE: AS NOTED
 DATE: APRIL 2023

STATE OF TEXAS
 111733
 LICENSED PROFESSIONAL ENGINEER
 04/20/2023
 THOMAS B. TIFFIN, P.E. NO. 111733

MUNOZ ENGINEERING
 1608 S. BROWNLEE BOULEVARD
 CORPUS CHRISTI, TX 78404
 OFFICE: 361.946.4848
 TBPELS FIRN F-12240

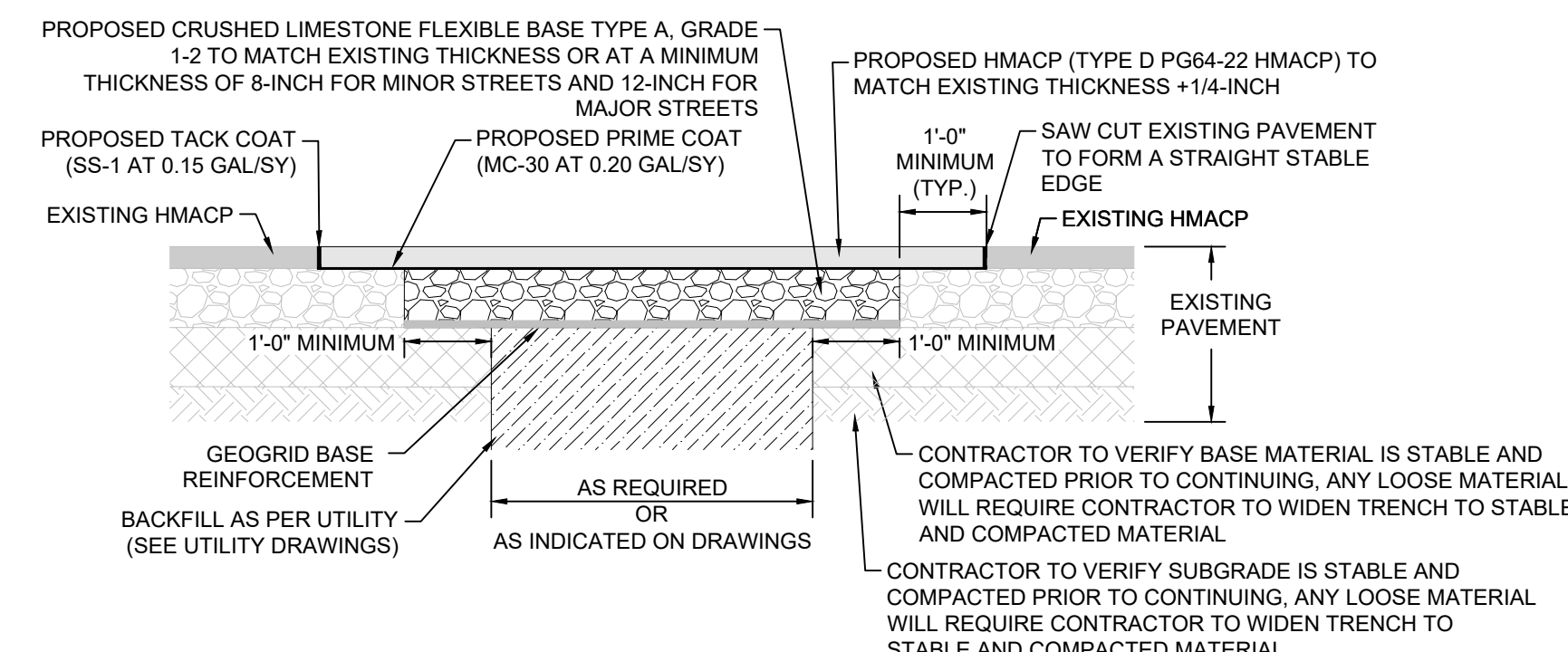
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 CORPUS CHRISTI, NUECES COUNTY, TEXAS

GENERAL UTILITY NOTES AND DETAILS

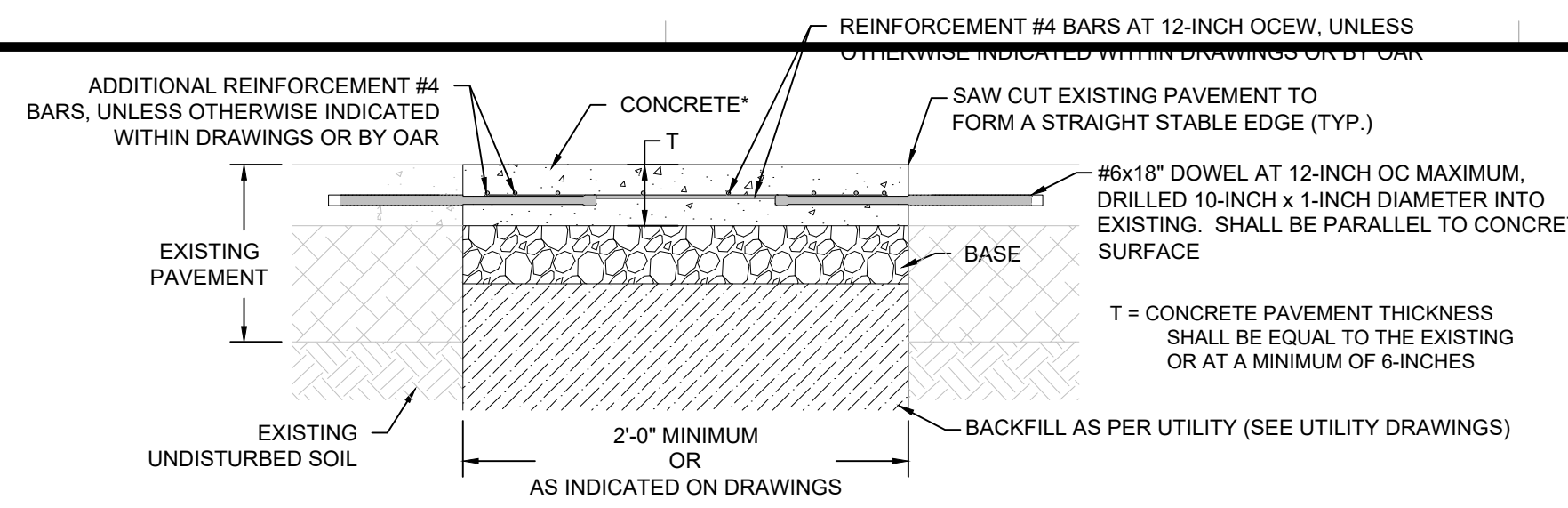
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| REVISION NO. | DATE | DESCRIPTION |
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| 1 | 04/20/2023 | REISSUE OF DRAWING SET TO ADDRESS COMMENTS FROM CITY |



- GENERAL DETAIL**
NOT TO SCALE
- RIGID PAVEMENT NOTES**
- CONSTRUCTION SHALL BE IN ACCORDANCE WITH DRAWINGS, SPECIFICATIONS, AND INDUSTRY STANDARDS.
 - ABBREVIATION
 - TxDOT - TEXAS DEPARTMENT OF TRANSPORTATION
 - SSCM - TxDOT STANDARD SPECIFICATION FOR CONSTRUCTION AND MAINTENANCE OF HIGHWAYS, STREETS, AND BRIDGES, LATEST EDITION.
 - HMACP - HOT-MIX ASPHALTIC CONCRETE PAVEMENT
 - OAR - OWNER'S AUTHORIZED REPRESENTATIVE
 - MATERIALS
 - GEGRID BASE REINFORCEMENT
 - 1.1. SHALL BE BX 3030, ANY SUBSTITUTION SHALL BE SUBMITTED TO OAR FOR APPROVAL.
 - 1.1.1. SUBSTITUTION PRODUCT MUST CLEARLY INDICATE BEING EQUAL TO OR BETTER THAN THE MINIMUM SPECIFICATION OF THE ABOVE INDICATED PRODUCT. THE SHAPE AND CONNECTION POINTS PER NODE SHALL NOT BE LESS THAN THE ABOVE INDICATED PRODUCT.
 - 1.2. INSTALLATION SHALL BE AS PER MANUFACTURERS RECOMMENDATIONS UNLESS OTHERWISE INDICATED BY THE OAR.
 2. BASE MATERIAL
 - 2.1. MATERIAL AND INSTALLATION SHALL BE IN ACCORDANCE WITH TxDOT SSCM ITEM 247 "FLEXIBLE BASE" COMPACTED TO 98-PERCENT MODIFIED PROCTOR DENSITY (ASTM D1557) AT +/- 2-PERCENT OF OPTIMUM MOISTURE CONTENT.
 3. PRIME COAT
 - 3.1. MATERIAL AND INSTALLATION SHALL BE IN ACCORDANCE WITH TxDOT SSCM ITEM 300 "ASPHALTS, OILS, AND EMULSIONS" AND MANUFACTURERS RECOMMENDATIONS.
 - 3.2. A DISTRIBUTOR SHALL BE USED TO PROVIDE AN PRESSURIZED DISTRIBUTION THROUGH NOZZLE(S) TO PRODUCE A UNIFORM COVERAGE GREATER THAN 90-PERCENT AT THE RATE INDICATED.
 4. HMACP
 - 4.1. HOT MIX ASPHALTIC CONCRETE PAVEMENT (HMACP) MATERIAL AND INSTALLATION SHALL BE IN ACCORDANCE WITH TxDOT SSCM ITEM 340 "DENSE-GRADED HOT-MIX ASPHALT" AND ITEM 341 "DENSE-GRADED HOT-MIX ASPHALT".
 5. TACK COAT
 - 5.1. MATERIAL AND INSTALLATION SHALL BE IN ACCORDANCE WITH TxDOT SSCM ITEM 300 "ASPHALTS, OILS, AND EMULSIONS" AND MANUFACTURERS RECOMMENDATIONS.
 - 5.2. SHALL BE INSTALLED UNIFORMLY ACROSS THE ENTIRE PAVEMENT SURFACE THAT WILL RECEIVE PROPOSED HMACP.
 - 5.3. A DISTRIBUTOR NOZZLE SHALL BE USED TO PROVIDE AN PRESSURIZED DISTRIBUTION THROUGH NOZZLE TO PRODUCE A UNIFORM COVERAGE GREATER THAN 90-PERCENT AT THE RATE INDICATED.
 7. HMAC LIFT THICKNESS REQUIREMENTS
 - 7.1. TYPE D
 - 7.1.1. MINIMUM = 1.5-INCHES
 - 7.1.2. MAXIMUM = 3.0-INCHES

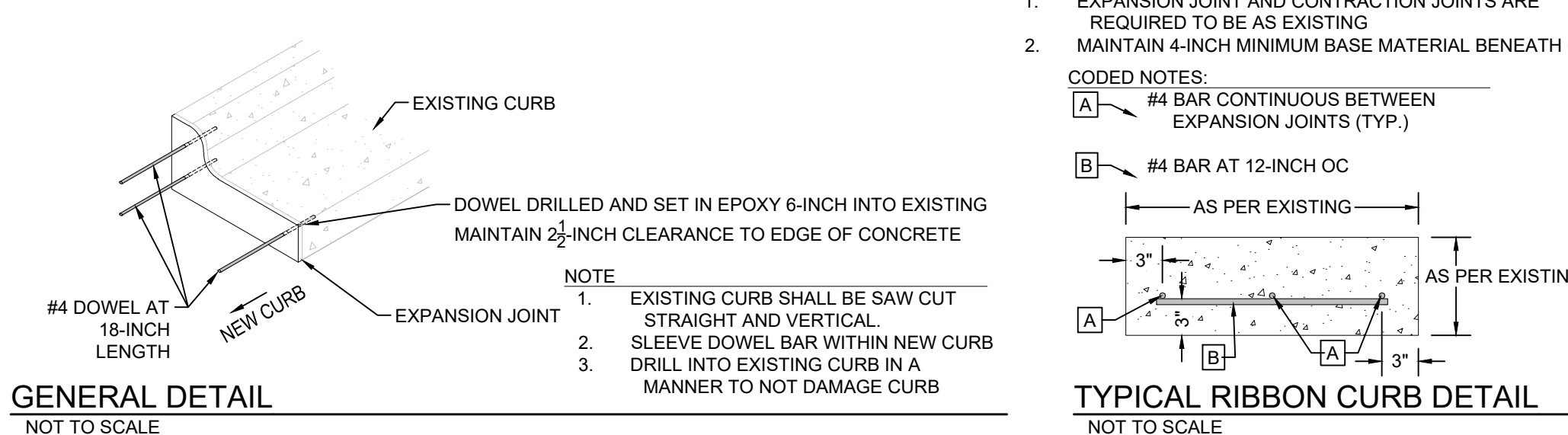
1 TYPICAL HMACP PAVEMENT UTILITY REPAIR
C702 DETAIL SCALE



- GENERAL DETAIL**
NOT TO SCALE
- RIGID PAVEMENT NOTES**
- CONSTRUCTION SHALL BE IN ACCORDANCE WITH DRAWINGS, SPECIFICATIONS, AND INDUSTRY STANDARDS.
 - ABBREVIATION
 - TxDOT - TEXAS DEPARTMENT OF TRANSPORTATION
 - SSCM - TxDOT STANDARD SPECIFICATION FOR CONSTRUCTION AND MAINTENANCE OF HIGHWAYS, STREETS, AND BRIDGES, LATEST EDITION.
 - HMACP - HOT-MIX ASPHALTIC CONCRETE PAVEMENT
 - OAR - OWNER'S AUTHORIZED REPRESENTATIVE
 - RIGID PAVEMENT MAYBE REFERRED TO AS ANY OF THE FOLLOWING WITHIN THE DRAWINGS:
 - CONCRETE
 - CONCRETE PAVEMENT
 - REINFORCED CONCRETE
 - REINFORCED CONCRETE PAVEMENT
 - MATERIALS
 - 4.1. BASE MATERIAL
 - 4.1.1. MATERIAL AND INSTALLATION SHALL BE IN ACCORDANCE WITH TxDOT SSCM ITEM 247 "FLEXIBLE BASE" COMPACTED TO 98-PERCENT MODIFIED PROCTOR DENSITY (ASTM D1557) AT +/- 2-PERCENT OF OPTIMUM MOISTURE CONTENT.
 - 4.2. HYDRAULIC CEMENT CONCRETE (CONCRETE)
 - 4.2.1. MATERIAL AND INSTALLATION SHALL BE IN ACCORDANCE WITH TxDOT SSCM ITEM 360 "CONCRETE PAVEMENT".
 - 4.2.2. SHALL BE MINIMUM 4,000-PSI AT 28-DAYS, UNLESS OTHERWISE NOTED.
 - 4.2.3. ALL CONCRETE SHALL BE AIR ENTRAINED, CONFORMING TO ASTM C-260 MINIMUM AIR CONTENT, 6-PERCENT ANY OTHER ADDITIVES SHALL BE SUBJECT TO PRIOR APPROVAL BY THE OAR.
 - 4.3. REINFORCING STEEL
 - 4.3.1. MATERIAL AND INSTALLATION SHALL BE IN ACCORDANCE WITH TxDOT SSCM ITEM 360 "CONCRETE PAVEMENT" AND AS PER DRAWINGS.
 - 4.3.2. STEEL SHALL BE MINIMUM ASTM A 615, GRADE 60.
 - 4.3.3. LAP AND SPLICES SHALL BE MINIMUM 30 BAR DIAMETERS OF LARGER DIAMETER BAR AND STAGGER ADJACENT BAR SPLICES A MINIMUM OF 24-INCHES.
 - 4.3.4. SHALL BE SECURELY SUPPORTED TO PREVENT VERTICAL AND HORIZONTAL MOVEMENT DURING CONCRETE PLACEMENT.
 - 4.3.5. SHALL BE TIED AT EACH JUNCTION LOCATION AND EVERY 3-INCHES WHEN BARS ARE PARALLEL TO EACH OTHER.
 - 4.4. DOWELS
 - 4.4.1. MATERIAL AND INSTALLATION SHALL BE SMOOTH STEEL BAR REINFORCEMENT IN ACCORDANCE WITH TxDOT SSCM ITEM 360 "CONCRETE PAVEMENT" AND AS PER DRAWINGS.
 - 4.4.2. DOWEL SLEEVE
 - 4.4.2.1. SHALL BE SPEED LOAD™ SYSTEM BY SIKA (PRODUCT CODE PSD3/4X9LT) AND INSTALLED AS PER MANUFACTURER RECOMMENDATIONS OR AS APPROVED.
 - 4.10. WOOD FOR EXPANSION JOINTS
 - 4.10.1. SHALL BE REDWOOD THAT MUST BE AN ALL HEART MERCHANTABLE GRADE OR BETTER, FREE FROM THE PRESENCE OF SAPWOOD, HOLES, DAMAGE, OR WARPED.
 - 4.10.2. JOINT SEALANTS AND FILLERS
 - 4.10.1. MATERIAL AND INSTALLATION SHALL BE IN ACCORDANCE WITH TxDOT SSCM ITEM 360 "CONCRETE PAVEMENT"
 - 4.10.2. JOINT SEALANT COMPOUND SHALL BE CLASS 5, DOWSIL™ 890-SL SILICONE JOINT SEALANT OR APPROVED EQUAL
 - 4.10.3. CELLULAR FOAM PACKING MATERIAL (BACKER ROD) SHALL BE COMPATIBLE WITH THE JOINT SEALANT AND SHALL BE 25-PERCENT LARGER DIAMETER THAN THE EXPANSION JOINT WIDTH.

2 TYPICAL RIGID PAVEMENT UTILITY REPAIR
C702 DETAIL SCALE

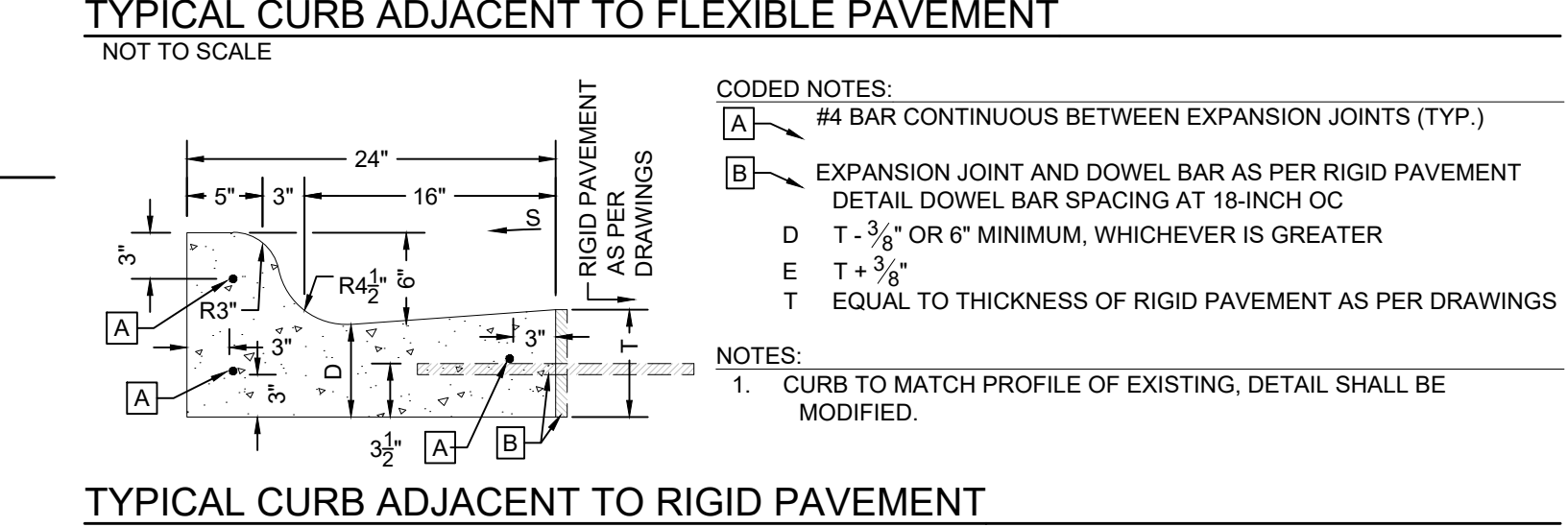
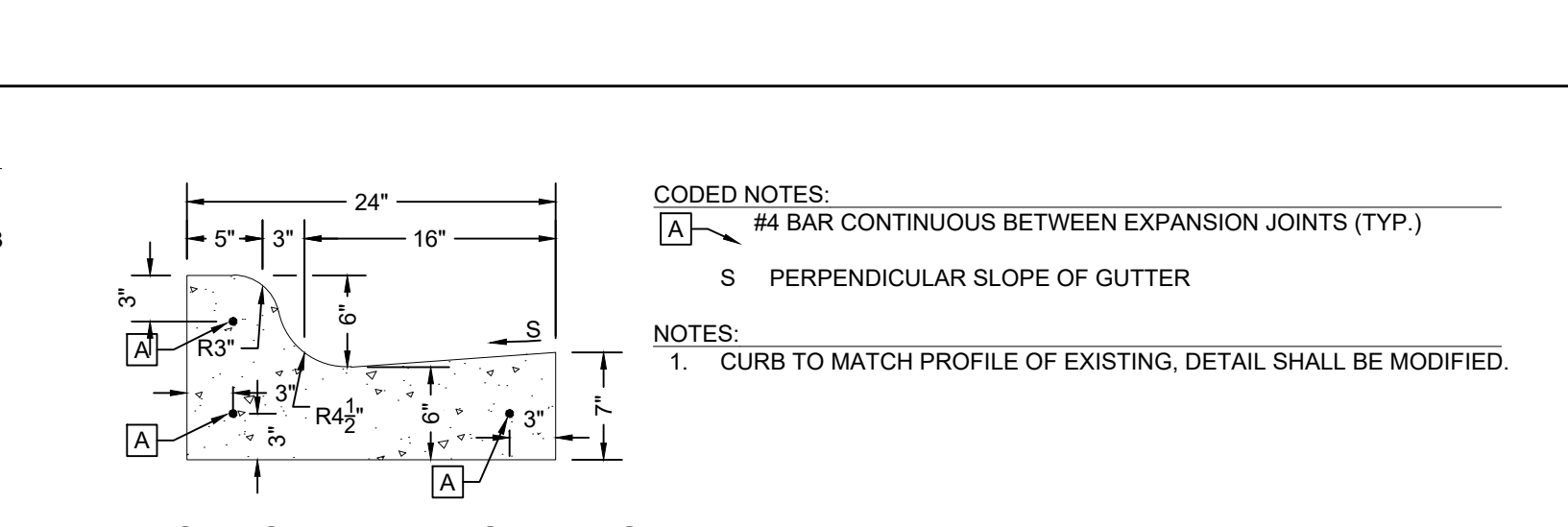
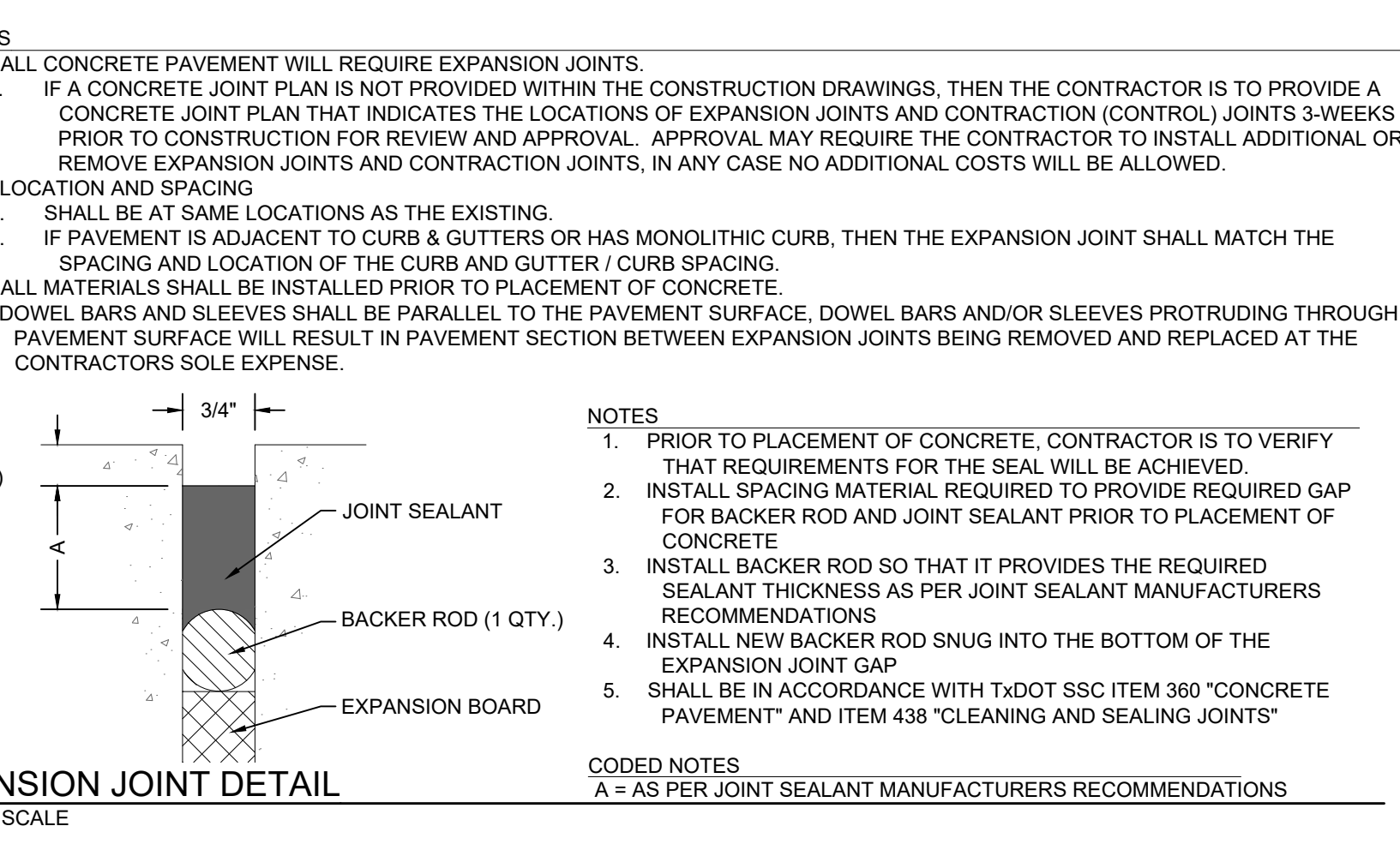
- CURB NOTES**
- CONSTRUCTION SHALL BE IN ACCORDANCE WITH DRAWINGS, SPECIFICATIONS, AND INDUSTRY STANDARDS.
 - ABBREVIATION
 - TxDOT - TEXAS DEPARTMENT OF TRANSPORTATION
 - SSCM - TxDOT STANDARD SPECIFICATION FOR CONSTRUCTION AND MAINTENANCE OF HIGHWAYS, STREETS, AND BRIDGES, LATEST EDITION.
 - OAR - OWNER'S AUTHORIZED REPRESENTATIVE
 - PAVEMENT TYPES:
 - FLEXIBLE - HOT MIX ASPHALTIC CONCRETE (HMAC)
 - RIGID - CONCRETE
 - MATERIALS
 - 3.1. SHALL BE IN ACCORDANCE WITH TxDOT SSCM ITEM 529 "CONCRETE CURB, GUTTER, AND COMBINED CURB AND GUTTER" EXCEPT (REMOVE) THE REQUIREMENT FOR PLACEMENT OF MORTAR, THEREFORE THE CURB SHALL BE FINISHED TO ACTUAL DIMENSIONS AND BE A SMOOTH SURFACE WITH NO VISIBLE AGGREGATE ON THE SURFACE. IF IT IS DETERMINED BY THE OAR THAT THE SURFACE IS NOT SMOOTH AND/OR AGGREGATE IS VISIBLE THEN CONTRACTOR MAY BE REQUIRED TO INSTALL MORTAR AS INDICATED WITHIN TxDOT SSCM ITEM 529 ON ALL CURB WITHIN THE PROJECT AT NO ADDITIONAL COST.
 - 3.2. HYDRAULIC CEMENT CONCRETE (CONCRETE)
 - 3.2.1. MATERIAL AND INSTALLATION SHALL BE IN ACCORDANCE WITH TxDOT SSCM ITEM 421 "HYDRAULIC CEMENT CONCRETE"
 - 3.2.2. SHALL BE CLASS A CONCRETE WITH A MINIMUM 3,000-PSI AT 28-DAYS, UNLESS OTHERWISE NOTED.
 - 3.2.3. ANY ADDITIVES SHALL BE SUBJECT TO PRIOR APPROVAL BY THE OAR.
 - 3.3. REINFORCING STEEL
 - 3.3.1. MATERIAL AND INSTALLATION SHALL BE IN ACCORDANCE WITH TxDOT SSCM ITEM 440 "REINFORCEMENT FOR CONCRETE" AND AS PER DRAWINGS
 - 3.3.2. STEEL SHALL BE MINIMUM ASTM A615, GRADE 60.
 - 3.3.3. LAP AND SPLICES SHALL BE MINIMUM 30 BAR DIAMETERS OF LARGER DIAMETER BAR AND STAGGER ADJACENT BAR SPLICES A MINIMUM OF 24-INCHES.
 - 3.3.4. SHALL BE SECURELY SUPPORTED TO PREVENT VERTICAL AND HORIZONTAL MOVEMENT DURING CONCRETE PLACEMENT.
 - 3.3.5. SHALL BE TIED AT EACH JUNCTION LOCATION AND EVERY 3-INCHES WHEN BARS ARE PARALLEL TO EACH OTHER.
 - 3.4. DOWELS
 - 3.4.1. MATERIAL AND INSTALLATION SHALL BE SMOOTH STEEL BAR REINFORCEMENT IN ACCORDANCE WITH TxDOT SSCM ITEM 440 "REINFORCEMENT FOR CONCRETE" AND AS PER DRAWINGS.
 - 3.4.2. DOWEL SLEEVE
 - 3.4.2.1. SHALL BE SPEED LOAD™ SYSTEM BY SIKA (PRODUCT CODE PSD3/4X9LT) AND INSTALLED AS PER MANUFACTURER RECOMMENDATIONS OR AS APPROVED.
 - 3.5. EPOXY
 - 3.5.1. SHALL BE SIMPSON STRONG-TIE SET-XP INSTALLED IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS
 - 3.6. WOOD FOR EXPANSION JOINTS
 - 3.6.1. SHALL BE REDWOOD THAT MUST BE AN ALL HEART MERCHANTABLE GRADE OR BETTER, FREE FROM THE PRESENCE OF SAPWOOD, HOLES, DAMAGE, OR WARPED.
 - 3.6.2. SHAPE OF WOOD SHALL BE EXACTLY THE PROFILE OF THE CURB AND BE FLUSH TO THE SURFACE ON ALL SIDES OF THE CURB.
 - 3.7. JOINT SEALANTS AND FILLERS
 - 3.7.1. MATERIAL AND INSTALLATION SHALL BE IN ACCORDANCE WITH TxDOT SSCM ITEM 360 "CONCRETE PAVEMENT"
 - 3.7.2. JOINT SEALANT COMPOUND SHALL BE CLASS 5, DOWSIL™ 890-SL SILICONE JOINT SEALANT OR APPROVED EQUAL
 - 3.7.3. CELLULAR FOAM PACKING MATERIAL (BACKER ROD) SHALL BE COMPATIBLE WITH THE JOINT SEALANT AND SHALL BE 25-PERCENT LARGER DIAMETER THAN THE EXPANSION JOINT WIDTH.
 - 3.8. BONDING AGENT
 - 3.8.1. SHALL BE QUICKCRETE CONCRETE BONDING ADHESIVE OR APPROVED EQUAL.



- GENERAL DETAIL**
NOT TO SCALE
- EXPANSION JOINT DETAIL**
NOT TO SCALE
- CONTRACTION JOINT DETAIL**
NOT TO SCALE
- NOTES**
- ALL CURB WILL REQUIRE EXPANSION JOINTS.
 - 1.1. IF A CONCRETE JOINT PLAN IS NOT PROVIDED WITHIN THE CONSTRUCTION DRAWINGS, THEN THE CONTRACTOR IS TO PROVIDE A CONCRETE JOINT PLAN THAT INDICATES THE LOCATIONS OF EXPANSION JOINTS AND CONTRACTION (CONTROL) JOINTS 3-WEEKS PRIOR TO CONSTRUCTION FOR REVIEW AND APPROVAL. APPROVAL MAY REQUIRE THE CONTRACTOR TO INSTALL ADDITIONAL OR REMOVE EXPANSION JOINTS AND CONTRACTION JOINTS, IN ANY CASE NO ADDITIONAL OR DEDUCTION OF COSTS WILL BE ALLOWED.
 - LOCATION AND SPACING
 - 2.1. SHALL BE PERPENDICULAR TRANSVERSE GROOVES MADE IN ALL CURB AT EQUAL DISTANCE BETWEEN EXPANSION JOINTS WITH A 10'-0" OC MAXIMUM, UNLESS CURB IS ADJACENT TO PAVEMENT OR MONOLITHIC TO THE PAVEMENT THEN THE CONTRACTION JOINT SHALL MATCH THE SPACING AND LOCATION OF THE PAVEMENT SPACING WITH A 10'-0" OC MAXIMUM.
 3. SHALL BE TROWELED INTO THE CONCRETE AFTER FINISHING AND AS SOON AS THE CONCRETE HAS HARDENED SUFFICIENTLY.

3 TYPICAL CURB UTILITY REPAIR
C702 DETAIL SCALE

- NOTES**
- ALL CONCRETE PAVEMENT WILL REQUIRE CONTRACTION (CONTROL) JOINTS.
 - 1.1. IF A CONCRETE JOINT PLAN IS NOT PROVIDED WITHIN THE CONSTRUCTION DRAWINGS, THEN THE CONTRACTOR IS TO PROVIDE A CONCRETE JOINT PLAN THAT INDICATES THE LOCATIONS OF EXPANSION JOINTS AND CONTRACTION (CONTROL) JOINTS 3-WEEKS PRIOR TO CONSTRUCTION FOR REVIEW AND APPROVAL. APPROVAL MAY REQUIRE THE CONTRACTOR TO INSTALL ADDITIONAL OR REMOVE EXPANSION JOINTS AND CONTRACTION JOINTS, IN ANY CASE NO ADDITIONAL OR DEDUCTION OF COSTS WILL BE ALLOWED.
 - LOCATION AND SPACING
 - 2.1. SHALL BE AT SAME LOCATIONS AS THE ADJACENT CONTRACTION JOINTS.
 3. SHALL BE SAW-CUT WITHIN 4-HOURS TO 12-HOURS AFTER FINISHING AND AS SOON AS THE CONCRETE HAS HARDENED SUFFICIENTLY TO PREVENT RAVELING OR DISLODGING AGGREGATES BY THE SAW AND IN NO CASE SHALL SAW-CUTTING OCCUR AFTER 24-HOURS.
- CONTRACTION JOINT DETAIL**
NOT TO SCALE
- NOTES**
- LOCATION AND SPACING
 - 1.1. SHALL BE AT SAME LOCATIONS AS THE ADJACENT CONTRACTION JOINTS.
 2. SHALL BE SAW-CUT WITHIN 4-HOURS TO 12-HOURS AFTER FINISHING AND AS SOON AS THE CONCRETE HAS HARDENED SUFFICIENTLY TO PREVENT RAVELING OR DISLODGING AGGREGATES BY THE SAW AND IN NO CASE SHALL SAW-CUTTING OCCUR AFTER 24-HOURS.
- EXPANSION JOINT DETAIL**
NOT TO SCALE
- NOTES**
- ALL CONCRETE PAVEMENT WILL REQUIRE EXPANSION JOINTS.
 - 1.1. IF A CONCRETE JOINT PLAN IS NOT PROVIDED WITHIN THE CONSTRUCTION DRAWINGS, THEN THE CONTRACTOR IS TO PROVIDE A CONCRETE JOINT PLAN THAT INDICATES THE LOCATIONS OF EXPANSION JOINTS AND CONTRACTION (CONTROL) JOINTS 3-WEEKS PRIOR TO CONSTRUCTION FOR REVIEW AND APPROVAL. APPROVAL MAY REQUIRE THE CONTRACTOR TO INSTALL ADDITIONAL OR REMOVE EXPANSION JOINTS AND CONTRACTION JOINTS, IN ANY CASE NO ADDITIONAL COSTS WILL BE ALLOWED.
 - LOCATION AND SPACING
 - 2.1. SHALL BE AT SAME LOCATIONS AS THE EXISTING.
 - 2.2. IF PAVEMENT IS ADJACENT TO CURB & GUTTERS OR HAS MONOLITHIC CURB, THEN THE EXPANSION JOINT SHALL MATCH THE SPACING AND LOCATION OF THE CURB AND GUTTER / CURB SPACING.
 3. ALL MATERIALS SHALL BE INSTALLED PRIOR TO PLACEMENT OF CONCRETE.
 4. DOWEL BARS AND SLEEVES SHALL BE PARALLEL TO THE PAVEMENT SURFACE, DOWEL BARS AND/OR SLEEVES PROTRUDING THROUGH PAVEMENT SURFACE WILL RESULT IN PAVEMENT SECTION BETWEEN EXPANSION JOINTS BEING REMOVED AND REPLACED AT THE CONTRACTORS SOLE EXPENSE.



- NOTES**
- EXPANSION JOINT AND CONTRACTION JOINTS ARE REQUIRED TO BE AS EXISTING
 - MAINTAIN 4-INCH MINIMUM BASE MATERIAL BENEATH CURB
- CODED NOTES:**
- A #4 BAR CONTINUOUS BETWEEN EXPANSION JOINTS (TYP.)
 - B #4 BAR AT 12-INCH OC
- NOTES**
- CURB TO MATCH PROFILE OF EXISTING, DETAIL SHALL BE MODIFIED.
- CODED NOTES:**
- A #4 BAR CONTINUOUS BETWEEN EXPANSION JOINTS (TYP.)
 - B EXPANSION JOINT AND DOWEL BAR AS PER RIGID PAVEMENT DETAIL DOWEL BAR SPACING AT 18-INCH OC
 - D T - 3/8" OR 6" MINIMUM, WHICHEVER IS GREATER
 - E T + 3/8"
 - T EQUAL TO THICKNESS OF RIGID PAVEMENT AS PER DRAWINGS
- NOTES:**
- CURB TO MATCH PROFILE OF EXISTING, DETAIL SHALL BE MODIFIED.
- CODED NOTES:**
- A REINFORCEMENT AS PER PAVEMENT DETAIL
 - B THICKENED EDGE AS PER EXISTING
 - C #4 BAR CONTINUOUS BETWEEN EXPANSION JOINTS (TYP.)
 - E #4 BAR, 12-INCH LENGTH AT 24-INCH OC MAXIMUM
 - T EQUAL TO THICKNESS OF RIGID PAVEMENT AS PER DRAWINGS
- NOTES:**
- CURB TO MATCH PROFILE OF EXISTING, DETAIL SHALL BE MODIFIED.

ME PROJECT NO.: 210174

DRWN BY: RR
CHK BY: T
APP BY: T
SCALE: AS NOTED
DATE: APRIL 2023

STATE OF TEXAS
THOMAS B. TIFIN
111733
LICENSED PROFESSIONAL ENGINEER
04/20/2023
THOMAS B. TIFIN, P.E. NO. 111733

MUNOZ ENGINEERING
1608 S. BROWNLEE BOULEVARD
CORPUS CHRISTI, TX 78404
OFFICE: 361.946.4848
TBPELS FIRIM F-12240

CIVIL | STRUCTURAL | MARINE | LAND DEVELOPMENT

OSO RANCH ESTATES
PUBLIC IMPROVEMENT PACKAGE 1
CORPUS CHRISTI, NUECES COUNTY, TEXAS

GENERAL UTILITY PAVEMENT REPAIR
NOTES AND DETAILS

C702

REVISION NO. -

Exhibit 4

REIMBURSEMENT COST ESTIMATE

ESTIMATE NUMBER:

4

ESTIMATE DATE:

29-Jun-23

DEVELOPMENT NAME:

OSO RANCH

ENGINEERING FIRM:

MUNOZ ENGINEERING, LLC TBPELS F-12240
1608 S BROWNLEE BLVD CORPUS CHRISTI, TX 78404

PROPERTY LEGAL DESCRIPTION:

A 45.523 ACRE TRACT OUT OF LOTS 11 THRU 17, SECTION 40, F.B.&E.F.G. TRACTS, VOL A, PGS 41-43 M.R.N.C.T.

OWNER:

GRANGEFIELD DEVELOPMENT, LLC

ENGINEER:

THOMAS TIFFIN PE. TX 111733

CONSTRUCTION ITEMS (AS PROVIDED BY OWNER)

| ITEM NO. | DESCRIPTION | UNITS | ITEM QTY | UNIT PRICE | TOTAL VALUE OF ITEM (\$) |
|----------|---|-------|------------|------------------|--------------------------|
| 1 | MOBILIZATION (5%) | LS | \$1.00 | \$61,793.18 | \$61,793.18 |
| 2 | BONDS AND INSURANCE (2%) | LS | \$1.00 | \$24,717.27 | \$24,717.27 |
| 3 | SWPP DEVICES | LS | \$1.00 | \$4,500.00 | \$4,500.00 |
| 4 | TRAFFIC CONTROL | LS | \$1.00 | \$15,000.00 | \$15,000.00 |
| 5 | TRENCH SAFETY FOR WASTEWATER LINES | LF | \$1,010.00 | \$17.15 | \$17,321.50 |
| 6 | TRENCH SAFETY FOR WASTEWATER MANHOLE | EA | \$4.00 | \$1,120.00 | \$4,480.00 |
| 7 | 8" SDR 26 PVC | LF | \$20.00 | \$318.00 | \$6,360.00 |
| 8 | 8" CAP | EA | \$1.00 | \$1,620.00 | \$1,620.00 |
| 9 | 12" SDR 26 PVC | LF | \$20.00 | \$414.00 | \$8,280.00 |
| 10 | 12" CAP | EA | \$1.00 | \$1,860.00 | \$1,860.00 |
| 11 | 24" SDR 26 PVC | LF | \$991.00 | \$798.00 | \$790,818.00 |
| 12 | 24" CAP | EA | \$1.00 | \$4,500.00 | \$4,500.00 |
| 13 | WASTEWATER MANHOLE | EA | \$3.00 | \$49,200.00 | \$147,600.00 |
| 14 | WASTEWATER TIE IN | EA | \$1.00 | \$18,600.00 | \$18,600.00 |
| 15 | PAVEMENT REPAIR - HMAC | SF | \$170.00 | \$120.00 | \$20,400.00 |
| 16 | WELL POINTS AND ALL REQUIRED DISCHARGE PIPING | LF | \$991.00 | \$114.00 | \$112,974.00 |
| 17 | EXISTING UTILITY LINE PROTECTION | LF | \$100.00 | \$65.50 | \$6,550.00 |
| | | | | SUBTOTAL: | \$1,247,373.95 |

10% Contingencies \$124,737.40

SUBTOTAL: \$1,372,111.35

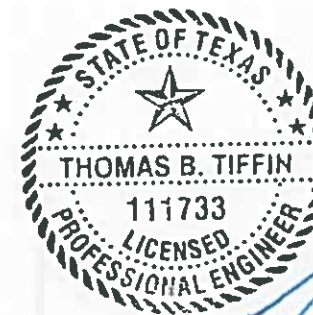
| WASTEWATER LOT FEES | |
|----------------------------------|--------------------|
| WASTEWATER LOTS FEES | \$432.30 |
| UNIT 1 LOT COUNT \$160.00 | |
| UNIT 1 WASTEWATER LOT FEE | \$69,168.00 |
| UNIT 2 LOT COUNT \$66.00 | |
| UNIT 2 WASTEWATER LOT FEE | \$28,531.80 |
| TOTAL WASTEWATER LOT FEES | \$97,699.80 |

| REIMBURSEMENT AMOUNT | |
|--|-----------------------|
| TOTAL CONSTRUCTION AND PROFESSIONAL FEES: | \$1,479,848.48 |
| TOTAL WASTEWATER LOT FEES | \$97,699.80 |
| TOTAL REIMBURSEMENT FROM TRUST FUND | \$1,382,148.68 |

PROFESSIONAL SERVICES

| ITEM NO. | DESCRIPTION | UNITS | ITEM QTY | UNIT PRICE | TOTAL VALUE OF ITEM (\$) |
|----------|---------------------------------------|-------|----------|------------------|--------------------------|
| 1 | ENGINEERING AND CONSTRUCTION DRAWINGS | LS | 1.00 | \$107,737.13 | \$107,737.13 |
| | | | | SUBTOTAL: | \$107,737.13 |

TOTAL CONSTRUCTION AND PROFESSIONAL FEES: \$1,479,848.48



6/29/2023

[Handwritten signature]



Exhibit 5

City of Corpus Christi, Texas
Department of Development Services
P.O. Box 9277
Corpus Christi, Texas 78469-9277
(361) 826-3240
Located at 2406 Leopard Street
(Corner of Leopard St. and Port Ave.)

DISCLOSURE OF INTERESTS

City of Corpus Christi Ordinance 17112, as amended, requires all persons or firms seeking to do business with the City to provide the following information. Every question must be answered. If the question is not applicable, answer with "NA".

NAME: GRANGE FIELD DEVELOPMENT LLC
STREET: 10 BOX 271996 CITY: CORPUS CHRISTI ZIP: 78417
FIRM is: [X] Corporation [] Partnership [] Sole Owner [] Association [] Other

DISCLOSURE QUESTIONS

If additional space is necessary, please use the reverse side of this page or attach separate sheet.

1. State the names of each "employee" of the City of Corpus Christi having an "ownership interest" constituting 3% or more of the ownership in the above named "firm".

Name: N/A Job Title and City Department (if known):

2. State the names of each "official" of the City of Corpus Christi having an "ownership interest" constituting 3% or more of the ownership in the above named "firm".

Name: N/A Title:

3. State the names of each "board member" of the City of Corpus Christi having an "ownership interest" constituting 3% or more of the ownership in the above named "firm".

Name: N/A Board, Commission, or Committee:

4. State the names of each employee or officer of a "consultant" for the City of Corpus Christi who worked on any matter related to the subject of this contract and has an "ownership interest" constituting 3% or more of the ownership in the above named "firm".

Name: N/A Consultant:

CERTIFICATE

I certify that all information provided is true and correct as of the date of this statement, that I have not knowingly withheld disclosure of any information requested, and that supplemental statements will be promptly submitted to the City of Corpus Christi, Texas as changes occur.

Certifying Person: (Print) Alpha Azalea Holdings Family Title: Vice President

Signature of Certifying Person: [Signature] Date: 3/15/12