WATER ARTERIAL TRANSMISSION AND GRID MAIN CONSTRUCTION AND REIMBURSEMENT AGREEMENT

This Water Arterial Transmission and Grid Main Reimbursement Agreement ("Agreement") is entered into between the City of Corpus Christi ("City"), a Texas home-rule municipality, and **MST, LLC**, (“Developer/Owner”), a Domestic 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 **December 13, 2023** to develop a tract of land, to wit: approximately **19.49** acres known as **Kaspian Subdivision located south of FM 43 and east of CR 43** 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 Arterial Transmission and Grid main extension (“Water Improvements”);

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

WHEREAS, it is in the best interests of the City to have the Water Improvements be constructed to its ultimate capacity under the City’s applicable Master Plan;

WHEREAS, Section 8.5.1.C. of the UDC authorizes the acceptance of applications to be eligible for reimbursement in the future when certain funds become fully available in the Arterial Transmission and Grid Main Line Trust Fund and are appropriated by the City Council; and

WHEREAS, Developer/Owner has submitted an application for reimbursement of the costs of extending Water Improvements as shown in **Exhibit 2**, the content of such exhibit being incorporated by reference into this Agreement**.**

WHEREAS, the Water Arterial Transmission and Grid Main Trust Fund does not currently have sufficient funds to fully reimburse Developer/Owner for Water Improvements; and

WHEREAS, Developer/Owner may be paid when assets of the Water Arterial Transmission and Grid Main Trust Fund are sufficient, authorized for such purpose, and Developer/Owner has priority per UDC §8.5.1. C.

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 Water 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 Water Arterial Transmission and Grid Main Trust Fund was established by Ordinance No. 17092 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 Water Arterial Transmission and Grid Main 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 Water Arterial Transmission and Grid Main Trust Fund. The City is not liable for modification or termination of the Water Arterial Transmission and Grid Main Trust Fund. The Developer/Owner agrees that any modification or termination of the Water Arterial Transmission and Grid Main 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 Water 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:

	Water Arterial Grid Main Construction				
	Item	Quantity	Unit	Unit Cost	Item Cost
1	16" PVC water line	3,990.00	L.F.	$190	$ 758,100
2	16" Bevelled gear valve & valve box	9.00	Ea.	$20,500	$ 184,500
3	16" x 16" x 16" M.J. tee	5.00	L.F.	$1,800	$ 9,000
4	16" x 16" Tapping sadple, valve, & valve box	1.00	Ea.	$22,000	$ 22,000
5	16" in line M.J. joint r(;!straints	10.00	Ea.	$500	$ 5,000
6	16" x 12" M.J. reducer	1.00	Ea.	$1,200	$ 1,200
7	16" x 8" M.J. reducer	1.00	Ea.	$800	$ 800
8	16" x 6" M.J. reducer	3	Ea.	$800	$ 2,400
9	16" M.J. cap	1.00	Ea.	$800	$ 800
10	12" M.J. valve	1.00	Ea.	$2,400	$ 2,400
11	811 M.J. valve	1.00	Ea.	$1,200	$ 1,200
12	6" M.J. valve	3.00	Ea.	$1,000	$ 3,000
13	Fire hydrant assembly	3.00	Ea.	$6,500	$ 19,500
14	Trench protection	3,990.00	L.F.	$3	$ 11,970
15	Stormwater Pollution Prevention	1.00	LS.	$7,500	$ 7,500
	Sub-Total Construction Costs				$ 1,029,370
				Engineering @ 8%	$ 82,350
				Construction Staking Supervision @ 2%	$ 20,587
				TOTAL	$ 1,132,307
				Contigency 10%	$ 113,231
				Total Construction Cost	$ 1,245,538

STATE OF TEXAS
JUAN PERALES, JR.
66652
REGISTERED
PROFESSIONAL ENGINEER
12/6/2023
Juan Perales, P.E.

b. The plan must be in compliance with the City's master plans.

c. The plans and specifications must comply with City Water Distribution Standards 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 Water Improvements is $1,245,538.00 Subject to the conditions for reimbursement from the Water Arterial Transmission and Grid Main Trust Fund and the appropriation of funds, the City will reimburse the developer, the reasonable actual cost of the Water Improvements up to an amount not to exceed $1,245,538.00 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 Water Arterial Transmission and Grid Main Trust Fund per the UDC, this agreement, and the appropriation of funds, 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 at a time when there has been a partial completion and partial payment for the improvements, then the City shall only reimburse 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 there is an uncured default by the Developer/Owner.

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 Water Arterial Transmission and Grid Main Trust Fund, that reimbursement will not be made until such funds are available, appropriated, and Developer/Owner has priority per UDC §8.5.1. Pursuant UDC §8.5.1. C., 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 Water Arterial Transmission and Grid Main Trust Fund. Payments may be made when monies are available in and appropriated from the Water Arterial Transmission and Grid Main Trust Fund and the Developer/Owner has priority in accordance with UDC §8.5.1. C.

5. DEVELOPER/OWNER TO COMPLETE IMPROVEMENTS

Developer/Owner shall award a contract and complete the Water 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:

MST, LLC
5626 Ocean Drive
Corpus Christi, Texas 78412

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 may 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 Water 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 Water Improvements, Developer/Owner shall acquire and dedicate to the City the required additional utility easements "Easements", if necessary for the completion of the Water Improvements. If any of the property needed for the Easements is owned by a third party and 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 or 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 Water Improvements under the approved plans and specifications.

e. Developer/Owner's contractor fails to complete construction of the Water Improvements, under the approved plans and specifications as provided in section 4 of this agreement.

f. Either the City or 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 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 Developer/Owner. Developer/Owner shall pay to City the reasonable and necessary cost of the performance within 30 days from the date Developer/Owner receives notice of the cost of performance. In the event that 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 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; epidemic; 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 Water Improvements contracts for testing services, and with the contractor for the construction of the Water 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 WATER IMPROVEMENTS.

Upon completion of the construction, dedication of Water Improvements will be subject to City inspection and approval

18. WARRANTY

Developer/Owner shall fully warranty the workmanship of and function of the Water 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 water 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 INTERESTS

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 Interests form attached hereto 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 shall be executed in one original, which shall be considered one instrument. *This Agreement becomes effective and is binding upon, and inures to the benefit of the City and Developer/Owner from and after the date that all original copies have been executed by all signatories.

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

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

ATTEST:

_____
Rebecca Huerta
City Secretary

CITY OF CORPUS CHRISTI

_____
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:

MST, LLC
5626 Ocean Drive
Corpus Christi, Texas 78412

By: MST, LLC, a Texas Limited Liability Company, its general partner.

_____
George Mostaghasi,
Managing Member

STATE OF TEXAS §
§
COUNTY OF _____ §

This instrument was acknowledged before me on _____, 20___, by **George Mostaghasi, Managing Member of MST, LLC, a Domestic Limited Liability Company** on behalf of said company.

_____
Notary Public's Signature

EXHIBIT 1

STATE OF TEXAS
COUNTY OF NUECES

We, the Mostaghasi Investment Trust, hereby certify that we are the owners of the land embraced within the boundaries of the foregoing plat, subject to a lien in favor of Spirit of Texas Bank, that we have survey and subdivided as shown; that street shown ae dedicated to the public use forever; that easements as shown are dedicated to the public use for the installation, operation and use of public utilities; and that this map was made for the purpose of description and dedication.

this _____ day of _____ 20____.

_____
Hossein Mostaghasi, Trustee

STATE OF TEXAS
COUNTY OF NUECES

This instrument was acknowledged before me by Hossien Mostaghasi as Trustee of the Mostaghasi Investment Trust.

this _____ day of _____ 20____.

_____
Notary public in and for the State of Texas.

STATE OF TEXAS
COUNTY OF NUECES

We, Spirit of Texas Bank Hereby certify that we are the holders of a Lien on the land embraced within the boundaries of the foregoing map and that we approve the subdivision and dedication for the purposes and considerations therein expressed.

BY: _____

TITLE: _____

STATE OF TEXAS
COUNTY OF NUECES

This final plat of the herein described property was approved by the Department of Development Services of the City of Corpus Christi, Texas.

This the_____ day of _____ 20____.

_____
Bria A. Whitmire, P.E., C.F.M., C.P.M.
Development Services Engineer

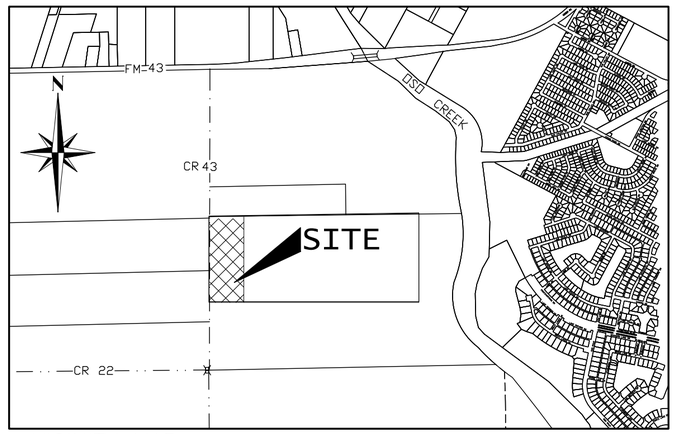
STATE OF TEXAS
COUNTY OF NUECES

This final plat of the herein described property was approved on behalf of the City of Corpus Christi, Texas by the Planning Commission.

This the_____ day of _____ 20____.

_____
Michael M. Miller
Chairman

_____
Al Raymond III, AIA
Secretary



VICINITY MAP NOT TO SCALE

PLAT of
KASPIAN SUBDIVISION - UNIT 1

LEGAL DESCRIPTION:
BEING A TOTAL OF 19.491 ACRE TRACT OUT OF A CALLED 99.517 ACRE TRACT OF LAND BEING OUT OF A 284.6048 ACRE TRACT OF LAND, MORE OR LESS, COMPRISING THE SOUTH ONE-HALF OF SECTION NO. SIX (6) OF THE LAURELES FARM TRACTS, AS SURVEYED BY FRENCH AND HABERER SURVEYORS, AND BEING OUT OF A LARGER GRANT OF LAND KNOWN AS "EL RINCON DE CORPUS CHRISTI GRANT", AS SHOWN BY MAP OF SAID SUBDIVISION OF RECORD IN VOLUME 3, PAGE 15 OF THE MAP RECORDS OF NUECES COUNTY, TEXAS. SAID 284.6048 ACRE TRACT ALSO BEING DESCRIBED IN THE SPECIAL WARRANTY DEED WITH VENDOR'S LIEN CONVEYING PROPERTY FROM BENJAMIN C. TISDALE, III AND WIFE, VERONICA DAWN TISDALE, TO JOHN C. TAMEZ AS RECORDED UNDER DOCUMENT NO. 2002021903 OF THE OFFICIAL PUBLIC RECORDS OF NUECES COUNTY, TEXAS. SAID 99.517 ACRE TRACT ALSO BEING DESCRIBED IN THE WARRANTY DEED WITH VENDOR'S LEIN CONVEYING PROPERTY FROM JOHN C. TAMEZ TO THE MOSTAGHASI INVESTMENT TRUST AS RECORDED UNDER DOCUMENT NO. 2021022985 OF THE OFFICIAL PUBLIC RECORDS OF NUECES COUNTY, TEXAS.

State of Texas
County of Nueces

I, Kara Sands, Clerk of the County Court in and for said County, do hereby certify that the foregoing instrument dated the ___ day of _____, 20____, with its certificate of authentication was filed for record in my office the ___ day of _____, 20____. At ____ O'clock ____M., and duly recorded the ___ day of _____, 20____, at ____ O'clock ___M., in said County in Volume _____, Page _____, Map Records.

Witness my hand and seal of the County Court, in and for said County, at office in Corpus Christi, Texas, the day and year last written.

No._____
Filed for Record

at _____ O'clock _____M.
_____ ____, 20_____

_____
Kara Sands, County Clerk
Nueces County, Texas

By:_____

State of Texas
County of Nueces

I, Fred C. Hayden, Jr., a Registered Professional Land Surveyor for Hayden Surveying, Inc. Have prepared the foregoing map from a survey made on the ground under my direction and is true and correct to the best of my knowledge, information and belief; I have been engaged under contract to set all Lot and Block corners as shown hereon and to complete such operations with due and reasonable diligence consistent with sound professional practice.

This the_____ day of _____ 20_____.

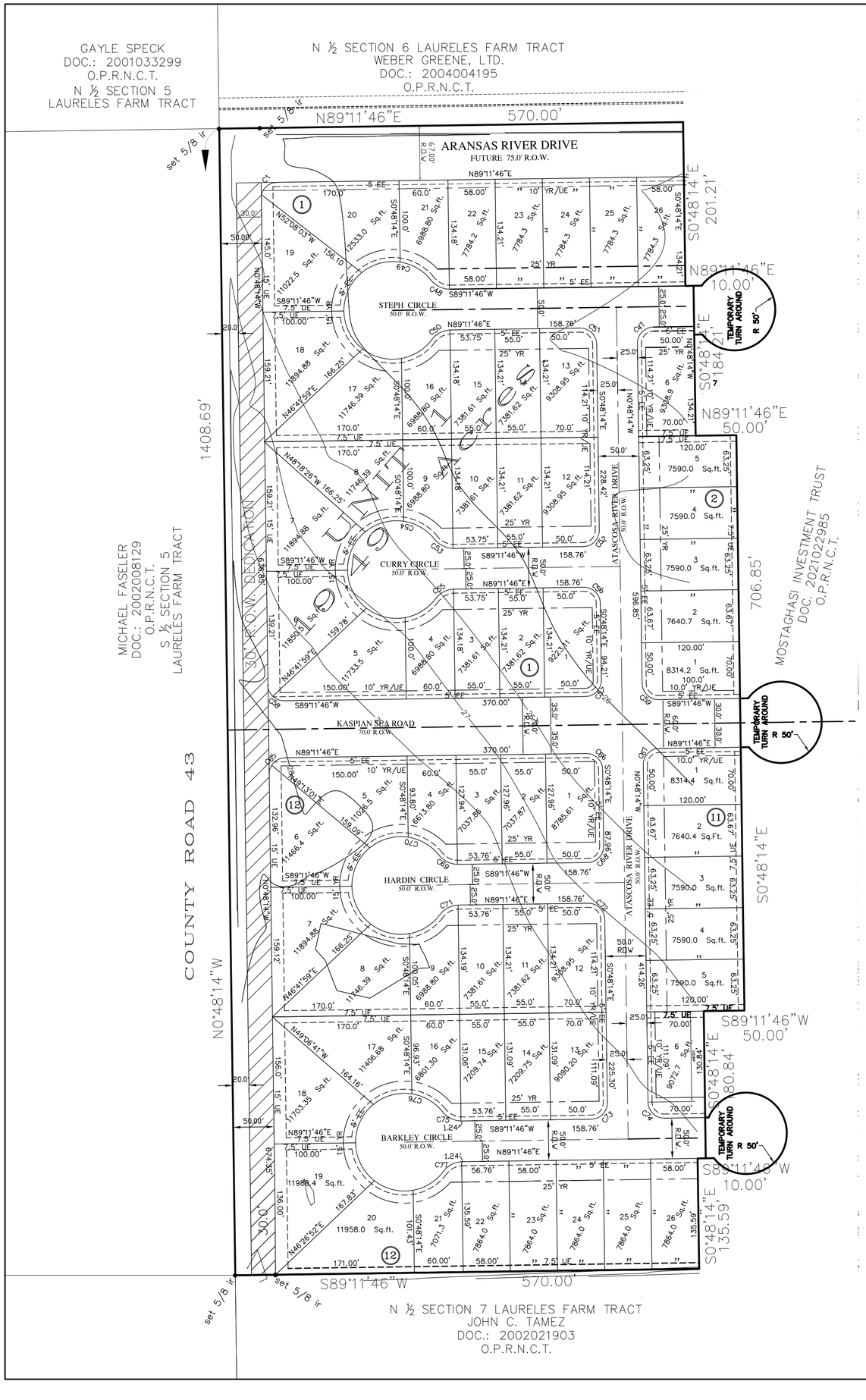
_____
Texas License No. 4486

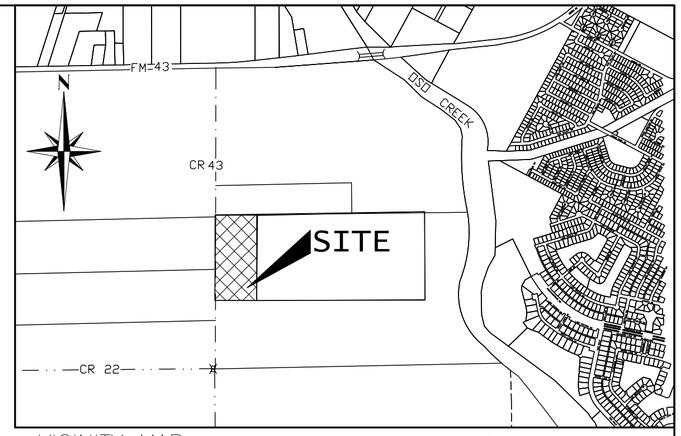
NOTES

1) TOTAL PLATTED AREA CONTAINS 19.491 ACRES OF LAND INCLUDING STREET DEDICATIONS.
2) A 5/8"DIAMETER STEEL REBAR WAS FOUND AT EVERY CORNER, EXCEPT AS SPECIFIED OTHERWISE.
3) PER FLOOD INSURANCE RATE MAP, MAP NUMBER 48355C0520G, PRELIMINARY REVISION, DATED MAY 5, 2018, THE SUBJECT PROPERTY IS NOT LOCATED WITHIN ANY SPECIAL FLOOD HAZARD AREAS. THIS FLOODING STATEMENT SHALL NOT CREATE LIABILITY ON THE PART OF THE SURVEYOR OR ENGINEER.
4) ALL PROPOSED FINISHED FLOOR ELEVATIONS WILL BE A MINIMUM OF 18 INCHES ABOVE CROWN ELEVATIONS OF FRONTING STREETS AND A MINIMUM OF 1 FOOT ABOVE THE PRELIMINARY OR EFFECTIVE 100 YEAR BASE FLOOD ELEVATION, WHICHEVER IS HIGHER.
5) THE RECEIVING WATER BODY FOR THE STORM WATER RUNOFF FOR THIS PROPERTY IS THE OSO CREEK. THE TCEQ HAS NOT CLASSIFIED THE AQUATIC LIFE FOR THE OSO CREEK, BUT IT IS RECOGNIZED AS AN ENVIRONMENTALLY SENSITIVE AREA. THE OSO CREEK DRAINS DIRECTLY INTO THE OSO BAY. THE TCEQ HAS CLASSIFIED THE AQUATIC LIFE USE FOR THE OSO BAY AS "EXCEPTIONAL" AND "OYSTER WATERS", AND HAS CATEGORIZED THE RECEIVING WATERS AS "CONTACT RECREATION" USE.
6) THERE ARE NO KNOWN NATURAL WATER BODIES, JURISDICTIONAL WETLANDS, ENDANGERED SPECIES HABITATS, STATE OF TEXAS SUBMERGED LANDS, OR CRITICAL DUNES ON THE SITE.
7) ALL BEARINGS ARE GRID BEARINGS BASED ON THE TEXAS COORDINATE SYSTEM FOR THE LAMBERT SOUTH ZONE NAD 83 (CORS 96) EPOCH 2011. ALL DISTANCES SHOWN ARE SURFACE DISTANCES.
8) THE YARD REQUIREMENT, AS DEPICTED, IS A REQUIREMENT OF THE UNIFIED DEVELOPMENT CODE AND IS SUBJECT TO CHANGE AS THE ZONING MAY CHANGE
9) PRIVATE DRIVEWAY ACCESS ALONG COUNTY ROAD 43 IS PROHIBITED.
10) COUNTY ROAD 43 MUST BE BUILT TO A MINIMUM OF A 24-FT PAVEMENT WIDTH. ONCE 50% OF THE DENSITY OF THE SUBDIVISION IS PLATTED VIA FINAL PLAT, COUNTY ROAD 43 MUST BE BUILT TO THE REQUIRED UTP STANDARD.
11) AS THE SUBJECT PROPERTY IS BEING SERVED VIA A LIFT STATION, ONCE THE LIFT STATION REACHES 75% CAPACITY, NO FURTHER HOMES MAY BE CONSTRUCTED UNTIL PERMANENT WASTEWATER IMPROVEMENTS HAVE BEEN CONSTRUCTED.

Approved by the Planning Commission on December 13, 2023

Hayden Surveying, Inc.
5866 S. STAPLES, SUITE 315
CORPUS CHRISTI, TEXAS 78413
PH: 361-728-7188





FINAL PLAT of KASPIAN SUBDIVISION - UNIT 1

LEGAL DESCRIPTION:
BEING A TOTAL OF 19.491 ACRE TRACT OUT OF A CALLED 99.517 ACRE TRACT OF LAND BEING OUT OF A 284.6048 ACRE TRACT OF LAND, MORE OR LESS, COMPRISING THE SOUTH ONE-HALF OF SECTION NO. SIX (6) OF THE LAURELES FARM TRACTS, AS SURVEYED BY FRENCH AND HABERER SURVEYORS, AND BEING OUT OF A LARGER GRANT OF LAND KNOWN AS "EL RINCON DE CORPUS CHRISTI GRANT", AS SHOWN BY MAP OF SAID SUBDIVISION OF RECORD IN VOLUME 3, PAGE 15 OF THE MAP RECORDS OF NUECES COUNTY, TEXAS. SAID 284.6048 ACRE TRACT ALSO BEING DESCRIBED IN THE SPECIAL WARRANTY DEED WITH VENDOR'S LIEN CONVEYING PROPERTY FROM BENJAMIN C. TISDALE, III AND WIFE, VERONICA DAWN TISDALE, TO JOHN C. TAMEZ AS RECORDED UNDER DOCUMENT NO. 2002021903 OF THE OFFICIAL PUBLIC RECORDS OF NUECES COUNTY, TEXAS. SAID 99.517 ACRE TRACT ALSO BEING DESCRIBED IN THE WARRANTY DEED WITH VENDOR'S LEIN CONVEYING PROPERTY FROM JOHN C. TAMEZ TO THE MOSTAGHASI INVESTMENT TRUST AS RECORDED UNDER DOCUMENT NO. 2021022985 OF THE OFFICIAL PUBLIC RECORDS OF NUECES COUNTY, TEXAS.

NUM	DELTA	ARC	RADIUS	BEARING	DISTANCE
C1	53°28'33"	18.67'	20.00'	S44°11'49"W	28.28'
C47	90°00'00"	31.42'	20.00'	S44°11'46"W	28.28'
C48	52°19'48"	27.40'	30.00'	S64°38'19"E	26.46'
C49	75°20'23"	78.90'	60.00'	S0°48'14"E	73.33'
C50	52°19'48"	27.40'	30.00'	S63°01'52"W	26.46'
C51	90°00'00"	31.42'	20.00'	N45°48'14"W	28.28'
C52	51°52'57"	18.11'	20.00'	N44°11'46"E	28.28'
C53	52°19'48"	27.40'	30.00'	S64°38'19"E	26.46'
C54	75°20'23"	78.90'	60.00'	S0°48'14"E	73.33'
C55	52°19'48"	27.40'	30.00'	S63°01'52"W	26.46'
C56	51°52'57"	18.11'	20.00'	N45°48'14"W	28.28'
C57	54°04'17"	18.87'	20.00'	N44°11'46"E	28.28'
C58	54°04'20"	18.87'	20.00'	S45°48'17"E	28.28'
C59	53°56'09"	18.83'	20.00'	S45°48'14"E	28.28'
C65	53°28'30"	18.67'	20.00'	S44°11'46"W	28.28'
C66	54°04'20"	18.87'	20.00'	N45°48'16"W	28.28'
C67	53°56'09"	18.83'	20.00'	S44°11'46"W	28.28'
C68	90°00'00"	31.42'	20.00'	N44°11'46"E	28.28'
C69	52°19'48"	27.40'	30.00'	S64°38'19"E	26.46'
C70	75°20'23"	78.90'	60.00'	S0°48'14"E	73.33'
C71	52°19'48"	27.40'	30.00'	S63°01'52"W	26.46'
C72	90°00'00"	31.42'	20.00'	N45°48'14"W	28.28'
C73	90°00'00"	31.42'	20.00'	N44°11'46"E	28.28'
C74	90°00'00"	31.42'	20.00'	S45°48'14"E	28.28'
C75	52°19'48"	27.40'	30.00'	S64°38'19"E	26.46'
C76	75°20'23"	78.90'	60.00'	S0°48'14"E	73.33'
C77	52°19'48"	27.40'	30.00'	S63°01'52"W	26.46'

Hayden Surveying, Inc.
5866 S. STAPLES, SUITE 315
CORPUS CHRISTI, TEXAS 78413
PH: 361-728-7188

EXHIBIT 2

Reimbursement Agreement Application

Development Services Department

Submit the Application to: contractsandagreements@cctexas.com

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

Date: **Dec. 12, 2023**

Approved Plat Name: Kaspian Subdivision Unit 1

Type of Public Improvements: water distribution system

Ownership and authorized signatories to enter into the agreement:
Hossein Mostaghasi, MST, LLC on behalf of the Mostaghasi Investment Trust

Requested duration of agreement: 36 Months

Point of Contact Information:

Contact Name: Hossein Mostaghasi Managing Member & Senior Trust Officer

Contact Number: (361)765-4422

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

Address: 5626 Ocean Drive

City: Corpus Christi State: TX ZIP: 78412

Phone Number: (361)765-4422

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

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

Applicant's Signature

Managing Member & Senior Trust Officer
Title

EXHIBIT 3

PUBLIC IMPROVEMENT PLANS
for
KASPIAN SUBDIVISION – UNIT 1
CORPUS CHRISTI , TEXAS

REFERENCE DESIGN DOCUMENTS:
CITY OF CORPUS CHRISTI INFRASTRUCTURE DESIGN MANUAL
CITY OF CORPUS CHRISTI URBAN TRANSPORTATION PLAN
CITY OF CORPUS CHRISTI WATER MASTER PLAN
CITY OF CORPUS CHRISTI WASTEWATER MASTER PLAN
CITY OF CORPUS CHRISTI STORMWATER MASTER PLAN
NUECES COUNTY SUBDIVISION REGULATIONS AND PLATTING REQUIREMENTS

GENERAL DESIGN CRITERIA:

CALCULATED WASTEWATER FLOW GENERATION:
UNIT 1 INCLUDES 64 SINGLE FAMILY RESIDENTIAL LOTS
64 LOTS X 3.5 CAPITA PER LOT = 224 RESIDENTS
PER 30 TAC 217.32(a)(3) TABLE B.1, MAXIMUM ESTIMATED WASTEWATER FLOW PER PERSON = 100 GPD
TOTAL AVERAGE DAILY WASTEWATER FLOW FOR UNIT 1 = 22,400 GPD

CALCULATED WATER DISTRIBUTION SYSTEM CAPACITY:
THE CAPACITY OF THE PROPOSED PUBLIC WATER DISTRIBUTION SYSTEM WILL MEET OR EXCEED THE REQUIREMENTS OF 30 TAC 290.44(d) FOR FLOW AND PRESSURE.

AS THE SUBJECT PROPERTY IS BEING SERVED VIA A PUBLIC WASTEWATER LIFT STATION, ONCE THE LIFT STATION REACHES 75% CAPACITY, NO FURTHER HOMES MAY BE CONSRUCTED UNTIL PERMANENT IMPROVEMENTS TO INCREASE LIFT STATION CAPACITY HAVE BEEN CONSTRUCTED.

COUNTY ROAD 43 MUST BE IMPROVED TO A MINIMUM OF A 24 FOOT PAVEMENT WIDTH. ONCE 50% OF THE DENSITY OF THE SUBDIVISION IS PLATTED VIA FINAL PLAT, COUNTY ROAD 43 MUST BE BUILT TO THE REQUIRED CITY OF CORPUS CHRISTI URBAN TRANSPORTATION PLAN STANDARD.

DEVELOPER INFORMATION

THE MOSTAGHASI INVESTMENT TRUST
5626 OCEAN DRIVE
CORPUS CHRISTI, TX. 78412

Texas 811
Know what's below.
CALL before you dig.

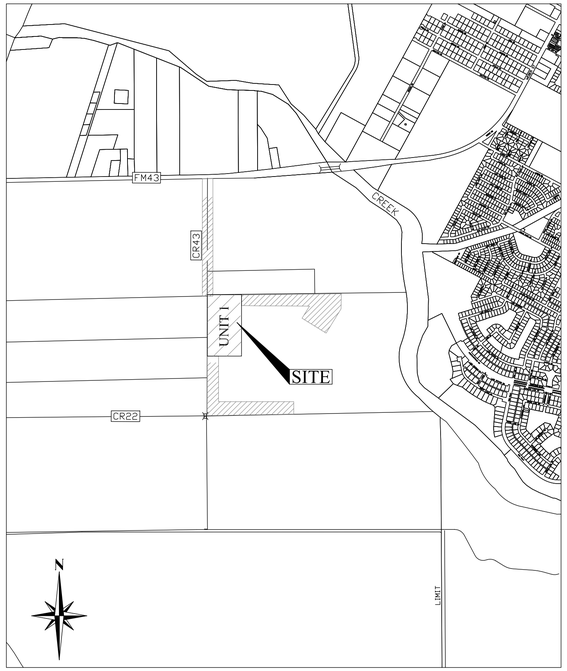
CALL BEFORE YOU DIG!

DIG TESS PARTICIPANTS REQUEST 48 HOURS NOTICE BEFORE YOU DIG, DRILL, OR BLAST – STOP AND CALL

DIG TESS
1.800.344.8377

VERIZON DIG ALERT
AT 1.800.483.6279

THE LONE STAR NOTIFICATION COMPANY
AT 1.800.669.8344



VICINITY MAP
SCALE: N.T.S.

DRAWING INDEX:

1. TITLE SHEET
2. GENERAL NOTES
3. SITE PLAN
3A. OFF SITE IMPROVEMENT SITE PLAN
3B. COUNTY ROAD 43 – IMPROVEMENT
4. CITY BASE MAPS
5. PAVING & GRADING PLAN UNIT 1
5A. TEMPORARY OFF-SITE DRAINAGE / DETENTION DITCH
6. ARANSAS RIVER DR. STA. 1+00 TO STA. 6+70
7. STEPH CIR. STA. 0+51 TO STA. 5+20
8. KASPIAN SEA RD. STA. 0+65 TO STA. 6+30
9. COUNTY ROAD 43 STA. 40+00 TO STA. 45+75
10. COUNTY ROAD 43 STA. 45+75 TO STA. 51+40
11. COUNTY ROAD 43 STA. 51+40 TO STA. 54+60
12. ATASCOSA RIVER DR. STA. 0+15 TO STA. 6+20
13. ATASCOSA RIVER DR. STA. 6+20 TO STA. 12+00
14. COUNTY ROAD 43 STA. 54+60 TO STA. 59+40
15. COUNTY ROAD 43 STA. 59+40 TO STA. 64+40
16. COUNTY ROAD 43 STA. 64+40 TO STA. 69+60
17. COUNTY ROAD 43 STA. 69+60 TO STA. 74+60
18. COUNTY ROAD 43 STA. 74+60 TO STA. 79+40
19. COUNTY ROAD 43 STA. 79+40 TO STA. 80+25
20. CURRY CIRCLE STA. 0+00 TO STA. 4+00
21. HARDIN CIRCLE STA. 0+00 TO STA. 4+00
22. BARKLEY CIRCLE STA. 0+00 TO STA. 4+70
22A. COUNTY ROAD 43 STA. 27+47 TO STA. 29+20
22B. COUNTY ROAD 43 STA. 29+20 TO STA. 34+00
22C. COUNTY ROAD 43 STA. 34+00 TO STA. 40+00
23. UTILITY PLAN UNIT 1
23A. UTILITY PLAN – UNIT 1 OFFSITE WASTEWATER SYSTEM
24. OFFSITE W.W. PLAN & PROFILE STA. 0+00 TO STA. 5+80
25. OFFSITE W.W. PLAN & PROFILE STA. 5+80 TO STA. 11+40
26. OFFSITE W.W. PLAN & PROFILE STA. 11+40 TO STA. 17+00
27. OFFSITE W.W. PLAN & PROFILE STA. 17+00 TO STA. 22+60
28. OFFSITE W.W. PLAN & PROFILE STA. 22+60 TO STA. 28+00
29. OFFSITE W.W. PLAN & PROFILE STA. 28+00 TO STA. 29+29
30. OFFSITE W.W. PLAN & PROFILE (CR 43) STA. 29+29 TO STA. 35+00
31. OFFSITE W.W. PLAN & PROFILE (CR 43) STA. 35+00 TO STA. 40+40
32. COUNTY ROAD 43 W.W. PLAN & PROFILE STA. 40+40 TO STA. 46+00
33. COUNTY ROAD 43 W.W. PLAN & PROFILE STA. 46+00 TO STA. 51+60
34. COUNTY ROAD 43 W.W. PLAN & PROFILE STA. 51+60 TO STA. 54+40
35. ATASCOSA RIVER DR. W.W. PLAN & PROFILE STA. 0+00 TO STA. 5+80
36. ATASCOSA RIVER DR. W.W. PLAN & PROFILE STA. 5+80 TO STA. 10+40
37. STEPH CIRCLE W.W. PLAN & PROFILE STA. 1+00 TO STA. 4+70
38. CURRY CIRCLE W.W. PLAN & PROFILE STA. 1+00 TO STA. 4+00
39. KASPIAN SEA ROAD W.W. PLAN & PROFILE STA. 0+20 TO STA. 6+27
40. HARDIN CIRCLE W.W. PLAN & PROFILE STA. 0+00 TO STA. 4+00
41. BARKLEY CIRCLE W.W. PLAN & PROFILE STA. 0+00 TO STA. 4+80
42. POLLUTION PREVENTION PLAN
43. POLLUTION PREVENTION DETAILS
44. STORM WATER MANAGEMENT PLAN
44A. STORM WATER MANAGEMENT PLAN
45. STORM WATER MANAGEMENT TABLES
46. SIGNS, MARKING AND LIGHTING PLAN
47.–50. SIGNS & MARKING DETAILS
51. OVER ALL UTILITY PLAN
52. C.R. 43 & ARANSAS RIVER DR. INTERSECTION DETAIL

CITY OF CORPUS CHRISTI STANDARD DETAIL SHEETS:

53–55 ADA CURB RAMP DETAILS
56–57 CURB, GUTTER & SIDEWALK DETAILS
58–61 STANDARD WASTEWATER DETAILS
62–64 STANDARD STORM WATER DETAILS
65–68 STANDARD WATER DETAILS

RELEASED FOR CONSTRUCTION
Bria A. Whitmire, P.E., CFM, CPM
Development Services Engineer
City of Corpus Christi
Note: Construction Plans will expire based on the the conditions stated in UDC 3.8.5.F.

DRAWN BY: RT | SCALE: SHOWN
APPROVED BY: JP | DATE: 11-10-23 | DRAWING #: 210237 | PAGE: 1 OF: 68

STATE OF TEXAS · JUAN PERALES, JR. · 66632 · REGISTERED PROFESSIONAL ENGINEER
Juan Perales Jr, P.E. 11/10/2023

TITLE SHEET

KASPIAN SUBDIVISION UNIT 1
CORPUS CHRISTI , TEXAS

J. Perales Civil Engineering and Planning Services
TBPE FIRM No. F-14207
jperales@jperalesengineering.com
5866 S. Staples St. - # 315
Corpus Christi, Texas 78411
Tel: (361) 728-7188

LEGEND:

- EXISTING FIELD ENTITIES:
- ALUMINUM LIGHT POLE
- ALUMINUM POWER POLE
- BOLLARD/POST
- BOREHOLE LOCATION
- BBNK — BOTTOM OF BANK
- CHAINLINK FENCE
- CLEANOUT
- CONCRETE INLET
- CONCRETE POWER POLE
- 26 — CONTOUR
- ELECTRICAL BOX
- +26.0 — EXISTING ELEVATION
- FIRE HYDRANT
- FOOTING
- GAS PIPELINE MARKER
- GAS METER
- GAS VALVE
- GRATE INLET
- GRATE INLET
- HOSE BIB
- LIGHT POLE
- MANHOLE COVER
- † 26.0 — NATURAL GRADE
- POST STORM INLET
- POSTAL MAILBOX
- POWER POLE
- POWER POLE, DOWN GUY
- PROPERTY/ROW LINE
- RTA PEDESTRIAN BENCH
- 2+00 — STATIONING & BASELINE
- STORM MANHOLE/CONC INLET
- STORM MANHOLE
- TELEPHONE MANHOLE
- TELEPHONE PEDESTAL
- TELE UNDERGROUND MARKER
- TBNK — TOP OF BANK
- TRAFFIC SIGN
- TRAFFIC SIGNAL BOX
- TRAFFIC SIGNAL LIGHT
- WASTEWATER MANHOLE
- WATER METER
- WATER VALVE
- WOOD FENCE
- CENTER LINE R.O.W.
- UTILITY EASEMENT
- BUILDING LINE/YR

VEGETATION:

- BUSH OR SHRUB
- TREE AND PALM

B–VILLEA	BOUGAINVILLEA
C–BERRY	CHINABERRY
C–TALLOW	CHINESETALLOW
C–WOOD	COTTONWOOD
H–BERRY	HACKBERRY
K–QUAT	KUMQUAT
O–MENTAL	ORNAMENTAL
S–AMORE	SYCAMORE

CURVE DATA: D=DELTA, R=RADIUS
T=TANGENT, L=ARC LENGTH
C=CHORD DISTANCE

ABBREVIATIONS:

ACP	ASBESTOS CEMENT PIPE
AEP	AMERICAN ELECTRIC POWER
AGMT	AGREEMENT
ARV	AIR RELEASE VALVE
ASPH	ASPHALT
AVE	AVENUE
B–B	BACK TO BACK (CURB)
BBNK	BOTTOM OF BANK
BDRY	BOUNDARY
BL	BUILDING LINE
BLK	BLOCK
BLVD	BOULEVARD
BM	BENCHMARK
BOC	BACK OF CURB
BSL	BASELINE
BY SI	BY SEPARATE INSTRUMENT
CATV	CABLE TV
CIP	CAST IRON PIPE
CL	CENTERLINE
CMP	CORRUGATED METAL PIPE
CO	CLEANOUT
CONC	CONCRETE
COP	CORRUGATED POLY PIPE
CPL	CENTRAL POWER LIGHT
DE	DRAINAGE EASEMENT
DH	DRILL HOLE
DIA	DIAMETER
DIP	DUCTILE IRON PIPE
DR	DRIVE/DRIVEWAY
DRNCT	DEED RECORDS NUECES COUNTY TEXAS
EL	ELEVATION
ELEV	ELEVATION
EOA	EDGE OF ASPHALT
EOC	EDGE OF CONCRETE
EOP	EDGE OF PAVEMENT
EOR	EDGE OF ROAD
ESMT	EASEMENT
ESP	EXTRA STRENGHT PIPE
EX	EXISTING
EXIST	EXISTING
FD	FOUND
FE	FENCE EASEMENT
FF	FINISHED FLOOR
FH	FIRE HYDRANT
FL	FLOWLINE
FM	FORCE MAIN
FOC	FIBER OPTIC CABLE
GAS	GAS LINE
GB	GRADE BREAK
GPM	GAS PIPELINE MARKER
GR	GROUND/GRADE
GV	GAS VALVE
HC	BARRIER FREE RAMP (ADA)
HDPE	HIGH DENSITY POLY PIPE
HORZ	HORIZONTAL
HPG	HIGH PRESSURE GAS
INV	INVERT
IP	IRON PIPE
IR	IRON ROD
JT	JOINT
LF	LINEAR FEET
LT	LEFT
MAX	MAXIMUM
MCD	MULTI–CONDUCTOR DUCT
MH	MANHOLE
MIN	MINIMUM
MJ	MECHANICAL JOINT
MON	MONUMENT
MRNCT	MAP RECORDS NUECES COUNTY TEXAS
NO	NUMBER
OHE	OVERHEAD ELECTRIC
OHS	OVERHEAD SECONDARY
OPRNCT	OFFICIAL PUBLIC RECORDS NUECES COUNTY TEXAS
PBM	PROJECT BENCHMARK
PC	POINT OF CURVE
PG	PAGE
PSI	POUNDS SQUARE INCH
PT	POINT OF TANGENCY
PVC	POLYVINYL CHLORIDE
PVMT	PAVEMENT
RCB	REINFORCED CONCRETE BOX
RCP	REINFORCED CONCRETE PIPE
REQ'D	REQUIRED
ROW	RIGHT–OF–WAY
RT	RIGHT
SCH	SCHEDULE
SF	SQUARE FEET
SR	STEEL ROD
ST	STREET
STA	STATION/STATIONING
STO	STORM
SWB	SOUTHWESTERN BELL
SWMH	STORM WATER MANHOLE
TBM	TEMPORARY BENCHMARK
TBNK	TOP OF BANK
TC	TOP OF CURB
TCE	TEMPORARY CONSTRUCTION ESMT
TELE DUCT	TELEPHONE DUCT
TP	TOP OF PIPE
TPED	TELEPHONE PEDESTAL
TSB	TRAFFIC SIGNAL BOX
TSL	TRAFFIC SIGNAL LIGHT
TSM	TRAFFIC SIGNAL MAST
TSN	TRAFFIC SIGN
TUM	TELE UNDERGROUND MARKER
TYP	TYPICAL
UE	UTILITY EASEMENT
UGE	UNDERGROUND ELECTRIC
UGL	UNDERGROUND LINE
UGT	UNDERGROUND TELEPHONE
VCP	VITRIFIED CLAY PIPE
VERT	VERTICAL
VG	VALLEY GUTTER
VOL	VOLUME
VPI	VERTICAL POINT INFLECTION
WTR	WATER
WV	WATER VALVE
WWMH	WASTEWATER MANHOLE
WWTR	WASTEWATER LINE
X	MARK IN CONCRETE (MON)
YR	YARD REQUIREMENT

CITY STANDARD SPECIFICATIONS:

CONSTRUCT ALL IMPROVEMENTS ON THIS PROJECT IN ACCORDANCE WITH CITY OF CORPUS CHRISTI, DEPARTMENT OF ENGINEERING SERVICES, STANDARD SPECIFICATIONS AS LISTED BELOW. THE WORD "ENGINEER" AS USED IN SAID CITY STANDARD SPECIFICATIONS SHALL REFER TO CITY ENGINEER. CONTRACTOR SHALL OBTAIN A COPY OF THESE SPECIFICATIONS PRIOR TO BIDDING THE PROJECT AND PRIOR TO CONSTRUCTION.

021020	SITE CLEARING AND STRIPPING
021040	SITE GRADING
022020	EXCAVATION AND BACKFILL FOR UTILITIES AND SEWERS
022022	TRENCH SAFETY FOR EXCAVATIONS
022040	STREET EXCAVATION
022080	EMBANKMENT
022420	SILT FENCE
023020	JACKING, BORING & TUNNELING
025210	LIME STABILIZATION
025220	FLEXIBLE BASE CALICHE
025404	ASPHALTS, OILS AND EMULSIONS
025412	PRIME COAT
025424	HOT MIX ASPHALTIC CONCRETE PAVEMENT
025610	CONCRETE CURB AND GUTTER
025612	CONCRETE SIDEWALKS AND DRIVEWAYS
025614	CONCRETE CURB RAMPS
025802	TEMPORARY TRAFFIC CONTROLS DURING CONSTRUCTION
026201	WATER LINE RISER ASSEMBLY
026202	HYDROSTATIC TESTING OF PRESSURE SYSTEMS
026206	DUCTILE IRON PIPE AND FITTINGS
026210	PVC PIPE–AWWA C–900 AND C–905
026402	INSTALLATION OF WATER LINES
026404	WATER SERVICES
026411	GATE VALVES FOR WATER LINES
026416	FIRE HYDRANTS
027202	MANHOLES
027203	VACUUM TESTING OF SANITARY SEWER MANHOLES AND STRUCTURES
027205	FIBERGLASS MANHOLES
027402	REINFORCED CONCRETE PIPE CULVERTS
027602	GRAVITY SANITARY SEWERS
027606	SANITARY SERVICE LINES
030020	PORTLAND CEMENT CONCRETE
032020	REINFORCING STEEL
038000	CONCRETE STEEL
055420	FRAMES, GRATES, RINGS AND COVERS

CONSTRUCTION NOTES:

GENERAL:

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS TO COMPLETE THE PROPOSED CONSTRUCTION. NO SEPARATE PAYMENT WILL BE MADE FOR SUCH PERMITS.
2. ALL CONSTRUCTION, MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH CITY OF CORPUS CHRISTI STANDARD DETAILS AND SPECIFICATIONS. ANY DEVIATION OF THESE PLANS AND SPECIFICATIONS FROM SUCH STANDARDS THAT WILL AFFECT THE CONTRACT PRICE SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER AT LEAST 10 DAYS PRIOR TO THE BID SUBMISSION DATE FOR REVIEW AND ACTION.
3. ALL WATER AND SEWER MAINS AND MANHOLES ARE TO BE LOCATED IN THE R.O.W. UNLESS OTHERWISE NOTED.
4. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH THE CITY OF CORPUS CHRISTI DEPARTMENT OF DEVELOPMENT SERVICES TO OBTAIN ENGINEERING PERMITS, UTILITY TAP APPLICATIONS AND PAYING ALL APPLICABLE FEES PRIOR TO COMMENCING CONSTRUCTION.
5. CONTRACTOR IS REQUIRED TO GIVE A 72 HOUR ADVANCE NOTIFICATION TO CITY'S CONSTRACTION INSPECTION ACTIVITY PRIOR TO COMMENCING WORK. THE CONTACT NUMBER IS 361–826–1738.
6. RIGHT OF WAY PERMITS ARE REQUIRED PRIOR TO COMMENCING WORK WITHIN PUBLIC RIGHT OF WAY OR A CITY EASEMENT. THE CONTRACTOR SHALL CONTACT ENGINEERING SERVICES (TRAFFIC ENGINEERING) TO DETERMINE ALL APPLICABLE REQUIREMENTS (PERMITS, TRAFFIC CONTROL PLAN, FEE, ETC.). A 72 HOUR ADVANCE NOTICE IS REQUIRED FOR PUBLIC NOTIFICATION.

EXISTING UTILITIES & STRUCTURES:

1. THE UTILITIES SHOWN ON THESE PLANS WERE LOCATED BASED ON AS–BUILT CONSTRUCTION PLANS FROM THE CITY OF CORPUS CHRISTI AS WELL AS AN ON THE GROUND SURVEY PERFORMED BY TEXAS GEO–TECH. ALL INFORMATION SHOWN IS INTENDED TO AID THE CONTRACTOR IN ESTABLISHING THE APPROXIMATE LOCATIONS OF EXISTING UTILITIES. ALL UTILITIES MAY NOT BE SHOWN OR ACCURATELY LOCATED. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY ALL THE LOCAL UTILITY COMPANIES OF THE PROPOSED CONSTRUCTION AND REQUEST EXACT LOCATIONS OF ALL AFFECTED UTILITIES PRIOR TO CONSTRUCTION.
2. IT IS THE CONTRACTOR'S RESPONSIBILITY TO LOCATE AND PROTECT ALL UTILITIES AND PRIVATE OR PUBLIC PROPERTY ON OR NEAR THE PROJECT FROM DAMAGE DURING CONSTRUCTION. ANY DAMAGE TO EXISTING UTILITIES AND PRIVATE OR PUBLIC PROPERTY SHALL BE REMEDIED AND PAID FOR IN WHOLE BY THE CONTRACTOR.
3. IT IS THE CONTRACTOR'S RESPONSIBILITY TO MAKE OR OTHERWISE PROVIDE FOR THE ADJUSTMENT OR RELOCATION OF ANY UTILITIES AS REQUIRED TO COMPLETE THE PROPOSED CONSTRUCTION. CONTRACTOR SHALL COORDINATE WITH THE UTILITY COMPANIES AS NECESSARY TO IMPLEMENT THE PROPOSED CONSTRUCTION. NO SEPARATE PAYMENT WILL BE MADE FOR ANY SUCH ADJUSTMENTS OR RELOCATIONS, FORESEEN OR UNFORESEEN.
4. CONTRACTOR SHALL NOTIFY THE FOLLOWING AGENCIES AT LEAST 48 HOURS PRIOR TO THE START OF CONSTRUCTION:
   LONE STAR > 1–800–669–8344
   SOUTHWESTERN BELL TELEPHONE > 1–800–395–0440
   1–800–DIG–TESS
   TEXAS EXCAVATION SAFETY SYSTEM 1–600–344–8377

SAFETY:

1. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE SAFETY OF HIS EMPLOYEES AND THE PUBLIC DURING ALL PHASES OF THE CONSTRUCTION. THE CONTRACTOR SHALL COMPLY WITH ALL FEDERAL, STATE AND LOCAL SAFETY REGULATIONS.
2. THE ENGINEER OR ENGINEER'S REPRESENTATIVE SHALL BE AT THE SITE SOLELY FOR THE PURPOSE OF PROVIDING SURVEY CONTROL FOR CONSTRUCTION, GENERAL OBSERVATION OF THE CONTRACTOR'S COMPLIANCE WITH THE DESIGN, PROGRESS REVIEW AND DESIGN PROBLEM RESOLUTION. THE ENGINEER SHALL NOT SUPERVISE THE CONSTRUCTION OR BE RESPONSIBLE FOR SAFETY PRECAUTIONS OR COMPLIANCE.
3. TRAFFIC CONTROL SHALL BE THE RESPONSABILITY OF THE CONTRACTOR AND SHALL COMPLY WITH ALL LOCAL, STATE AND FEDERAL REGULATIONS. TRAFFIC CONTROL PLANS SHALL BE SUBMITTED TO THE CITY FOR APPROVAL PRIOR TO THE START OF CONSTRUCTION.

CONCRETE NOTES:

1. ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE ACI–318 BUILDING CODE.
2. ALL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI AT 28 DAYS, UNLESS OTHERWISE NOTED.
3. ALL REINFORCING STEEL MATERIAL TO BE A615–GRADE 60.
4. ALL REINFORCING STEEL PLACEMENT AND SPLICING SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE ACI–318 BUILDING CODE.
5. ALL BARS ARE TO BE SUPPORTED IN THE FORMS AND SLAB WITH CHAIRS AND TIED AT EVERY OTHER INTERSECTION.
6. ALL CONDUIT, GROUND WIRES, DRAINS ETC., ARE TO BE IN PLACE PRIOR TO POURING CONCRETE.
7. ALL REINFORCING STEEL SHALL HAVE 3" MIN. CLEAR COVER UNLESS NOTED OTHERWISE.
8. VEHICLES SUCH AS READY MIX CONCRETE OR DUMP TRUCKS AND OTHER CONSTRUCTION EQUIPMENT SHALL NOT BE WASHED AT LOCATIONS WHERE THE RUNOFF WILL FLOW DIRECTLY INTO A WATERCOURSE OR STORM WATER CONVEYANCE SYSTEM. SPECIAL AREAS SHALL BE DESIGNATED FOR WASHING VEHICLES. THESE AREAS SHALL BE LOCATED WHERE THE RUNOFF CAN BE COLLECTED IN A TEMPORARY HOLDING BASIN.

STORM SEWER:

1. ALL EXCAVATION FOR STORM SEWER CONSTRUCTION SHALL BE WITHIN THE LIMITS OF THE PLATTED DRAINAGE EASEMENT OR PUBLIC RIGHT–OF–WAY. NO EXCAVATION SHALL BE ALLOWED BEYOND THE DRAINAGE EASEMENT, OR RIGHT OF WAY.
2. ALL TRENCH BACKFILL SHALL BE COMPACTED TO 95% OF THE STANDARD PROCTOR DENSITY IN LIFTS NOT TO EXCEED 6 INCHES.

PAVING:

1. CONTRACTOR SHALL COORDINATE WITH ALL UTILITY COMPANIES TO PROVIDE ADEQUATELY SIZED PVC SLEEVES UNDER THE STREETS TO SERVE EACH UTILITIES NEEDS WITHOUT ANY ROAD BORINGS OR CROSSINGS.
2. ALL SLOPES SHOWN FOR CURB AND GUTTER INDICATE A SMOOTH, STRAIGHT AND UNIFORMLY SLOPED STRUCTURE WITH NO LOW OR HIGH SPOTS BETWEEN EACH OF THE TOP OF CURB (TC) ELEVATIONS SHOWN; WITH SLOPE AS INDICATED ON THE PLANS. THE CONTRACTOR SHALL MAINTAIN A MINIMUM SLOPE OF 0.3% ON ALL CURB AND GUTTER.
3. SIDEWALKS SHALL BE CONSTRUCTED WITH THE TOP LEVEL WITH FINISHED GRADES AS INDICATED FOR THE GROUND SURFACE ON THE PLANS. A 2.0% CROSS–SLOPE SHALL BE PROVIDED ON ALL SIDEWALKS TOWARD THE STREET.
4. PUBLIC PRDESTRIAN ACCESS ROUTES SHALL COMPLY WITH THE CURRENTLY ADOPTED VERSION OF THE TEXAS ACCESSIBILTY STANDARDS.

GRADING AND EARTHWORK:

1. ALL EXCESS EXCAVATED MATERIALS TO BE SPREAD IN AREA SHOWN ON GRADING PLAN OR POLUTION PREVENTION PLAN. IF SUCH AREAS ARE NOT SHOWN IN THE PLANS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOING THE MATERIALS FROM THE JOB SITE.
2. AREAS THAT RECEIVE MORE THAN 12" OF FILL MATERIAL SHALL BE COMPACTED TO A MINIMUM DENSITY OF 95% OF THE STANDARD PROCTOR DENSITY PER ASTM D–698 AND A MOISTURE CONTENT WITHIN +3% TO –1% OF OPTIMUM. FILL MATERIAL SHALL BE PLACED IN LIFTS NOT TO EXCEED 6" ON UNDISTURBED SOIL FREE OF DEBRIS AND ORGANIC MATERIALS. TEST REPORTS FOR COMPACTED FILL SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

WATER NOTES:

1. JOINT RESTRAINT – FIRE HYDRANTS & RELATED FITTINGS INCLUDING TEE IN MAIN, 90° EL, NIPPLES, VALVE & FIRE HYDRANT, SHALL HAVE FULLY RESTRAINED JOINTS. THE 90° EL FITTING AND CAP FITTING ON PROP. 6" MAIN SHALL BE FULLY RESTRAINED AT THE JOINT TO ADJACENT PIPE AND A MINIMUM OF 4 JOINTS OF PIPE (72 LF) SHALL BE RESTRAINED TOGETHER IN EACH DIRECTION FROM 90° EL AND IN ONE DIRECTION FROM CAP. RESTRAINING DEVICES SHALL BE MANUFACTURED BY EBAA IRON FOR PVC PIPE AND DUCTILE IRON FITTINGS.
2. PROVIDE CAST IRON BOXES AND PVC PIPE EXTENSIONS WITH CONCRETE AT GATE VALVES PURSUANT TO DETAILS AS SHOWN.
3. CONSTRUCT WATER SERVICE LINES AND CONNECTIONS PURSUANT TO THE NOTES AND DETAILS AS SHOWN.
4. ALL WATER MAINS SHALL BE C900 & C905 DR18 PVC WITH DUCTILE IRON MECHANICAL JOINT FITTINGS AND SHALL BE BEDDED IN (ENCASED IN) SAND TO 6" ALL AROUND PIPE.
5. PROVIDE MINIMUM CLEARANCE BETWEEN WATER AND SANITARY SEWER LINE AND/OR MANHOLES AS REQUIRED BY THE TEXAS ADMINISTRATIVE CODE 317–3, APPENDIX "E" SEPARATION DISTANCE (AS REQUIRED BY TEXAS STATE WATER HYGIENE LAW).
6. ALL WATER SERVICE LINES SHALL BE 2" DIAMETER, UNLESS OTHERWISE NOTED ON THE PLANS.
7. MATERIALS AND INSTALLATION OF WATER DISTRIBUTION SYSTEM IMPROVMENTS SHALL MEET ALL REQUIREMENTS OF 30 TAC 290.

WASTEWATER CONSTRUCTION NOTES:

1. SET ENDS OF SERVICE LINES MID LOT FRONTAGE UNLESS SHOWN OTHERWISE ON THE PLANS.
2. ALL SANITARY SEWER MANHOLES SHALL BE FIBERGLASS, 48" MINIMUM DIAMETER 0.5" (MINIMUM) WALL AND CONSTRUCTED IN ACCORDANCE WITH CITY STANDARD SPECIFICATIONS.
3. ALL GRAVITY SEWER PIPES 6" AND LARGER SHALL BE GREEN PVC, SDR 26 AND SHALL BE ACCORDANCE WITH ASTM D3034 AND THE BEDDED IN SAND WITH PI LESS THAN 10, TO 6" BELOW AND 6" TO SIDES OF PIPE (FULL HEIGHT OF PIPE). IN ACCORDANCE WITH CITY STANDARD SPECIFICATIONS. BED 4" AND SMALLER PIPES IN EARTH FROM THE EXCAVATION.
4. CONTRACTOR WILL PROVIDE TESTING SCHEDULES AND RESULTS TO ENGINEERING SERVICES/ CONSTRUCTION INSPECTION, WASTEWATER DEPARTMENT, AND DEVELOPMENT SERVICES/ SPECIAL SERVICES.
5. MATERIALS AND INSTALLATION OF ALL WASTEWATER COLLECTION SYSTEM IMPROVMENTS SHALL MEET THE REQUIREMENTS OF 30 TAC 217.

RELEASED FOR CONSTRUCTION

Bria A. Whitmire, P.E., CFM, CPM
Development Services Engineer
City of Corpus Christi

Note: Construction Plans will expire based on the the conditions stated in UDC 3.8.8.F.

DRAWN BY: RT
APPROVED BY: JP
SCALE: SHOWN
DATE: 11-10-23
DRAWING #: 210237
PAGE: 2 OF: 68

STATE OF TEXAS — JUAN PERALES, JR. — 66652 — REGISTERED PROFESSIONAL ENGINEER — 11/10/2023

GENERAL NOTES

KASPIAN SUBDIVISION UNIT 1
CORPUS CHRISTI , TEXAS

J. Perales Civil Engineering and Planning Services
TBPE FIRM No. F-14207
jperales@peralesengineering.com
5866 S. Staples St. - # 315
Corpus Christi, Texas 78411
Tel: (361) 728-7188

N

GRAPHIC SCALE

120 0 120 240 360

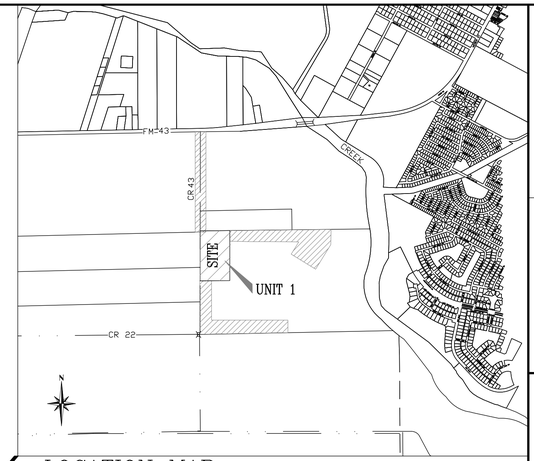
Scale: 1" = 120 feet

** BOTTOM OF ENTRANCE SIGNS TO BE MINIMUM OF 36" ABOVE GRADE. SIGNS TO BE 3/4" NOM.THICKNESS TREATED PLYWOOD MOUNTED ON 2 4X4 TREATED POSTS EMBEDED 36" INTO THE GROUND

PROJECT
BENCHMARK / CONTROL POINTS:
CP 1 5/8" I.R. SET IN CONC.
N 17137840.363 E 1327944.667 ELE.= 26.27
CP 2 5/8" I.R. SET IN CONC.
N 17136431.887 E 1327964.400 ELE.=27.87

VERTICAL DATUM: NAVD 1988

HORIZONTAL DATUM : TEXAS COORDINATE SYSTEM FOR THE LAMBERT SOUTH ZONE NAD 83 (CORS 96) EPOCH 2011.



LOCATION MAP SCALE: N.T.S.

✱ NOTE:
NO UNIT 1 CONSTRUCTION ACTIVITIES WILL TAKE PLACE WITHIN THE 100 YEAR FLOOD PLAIN

GAYLE SPECK
DOC.: 2001033299
O.P.R.N.C.T.
N ½ SECTION 5
URELES FARM TRACT

N ½ SECTION 6 LAURELES FARM TRACT
WEBER GREENE, LTD.
DOC.: 2004004195
O.P.R.N.C.T.

N ½ SECTION 6 LAURELES FARM TRACT
WEBER GREENE, LTD.
DOC.: 2004004195
O.P.R.N.C.T.

DENTON - FORTWORTH
DOC.: 1997005133
O.P.R.N.C.T.

set 5/8 "

CP 1 5/8 IR SET SET IN CONC.

**36"x36" ENTRANCE SIGN FOR TCEQ NOI POSTING, ETC.

570.00'

639.75'

3288.37'

203.20'

ARANSAS RIVER DRIVE
FUTURE 75.0' R.O.W.

S0°48'14"E 201.21'

N89°11'46"E 10.00'

TEMPORARY TURNAROUND BY A SEPARATE INSTRUMENT DOC.#

N89°11'46"E 50.00'

S0°48'14"E 184.21'

S89°11'46"W 50.00'

S0°48'14"E 180.84'

S89°11'46"W 10.00'

S0°48'14"E 35.59'

BM
N 17137630.484
E 1327837.235

1408.69'

30' R.O.W. DEDICATION

MICHAEL FASELER
DOC.: 2002038129
O.P.R.N.C.T.
S ½ SECTION 5
LAURELES FARM TRACT

COUNTY ROAD 43

UNIT 2
19.71 Acres

UNIT 3
19.2 Acres

UNIT 4
18.66 Acres

UNIT 5
22.5 Acres

706.85'

669.85'

5.19'

STEPH CIRCLE
CURRY CIRCLE
HARDIN CIRCLE
BARKLEY CIRCLE
ATASCOSA RIVER DRIVE
NUECES RIVER DRIVE
SAN MIGUEL CREEK CIRCLE
FRIO RIVER CIRCLE
MEDINA RIVER CIRCLE
SAN ANTONIO RIVER CIRCLE
GUADALUPE RIVER CIRCLE
COLORADO RIVER CIRCLE
BRAZOS RIVER CIRCLE
SABINE RIVER CIRCLE
SHELL RIDGE ROAD
CHELTEN'S CREEK DRIVE
BOSQUE RIVER DRIVE
LAMPASAS RIVER DRIVE
KASPIAN SEA ROAD
BLANCO CREEK CIRCLE
MEDIO CREEK CIRCLE
LITTLE RIVER CIRCLE
BLANCO CREEK DRIVE

TEMPORARY TURNAROUND BY A SEPARATE INSTRUMENT DOC.#

WET LANDS

FLOOD PLAIN LINE
ZONE AE

381.88'

196.25'

44.67'

set 5/8 "

**36"x36" ENTRANCE SIGN FOR TCEQ NOI POSTING, ETC.

CP 2 5/8 IR SET SET IN CONC.

570.00'

645.00'

2892.92'

N ½ SECTION 7 LAURELES FARM TRACT
JOHN C. TAMEZ
DOC.: 2002021903
O.P.R.N.C.T.

N ½ SECTION 7 LAURELES FARM TRACT
JOHN C. TAMEZ
DOC.: 2002021903
O.P.R.N.C.T.

RELEASED FOR CONSTRUCTION

Bria A. Whitmire, P.E., CFM, CPM
Development Services Engineer
City of Corpus Christi

Note: Construction Plans will expire based on the the conditions stated in UDC 3.8.5.F.

APPROVED BY: JP
DATE: 11-10-23
DRAWN BY: RT
SCALE: SHOWN
DRAWING #: 210237
PAGE: 3 OF: 68

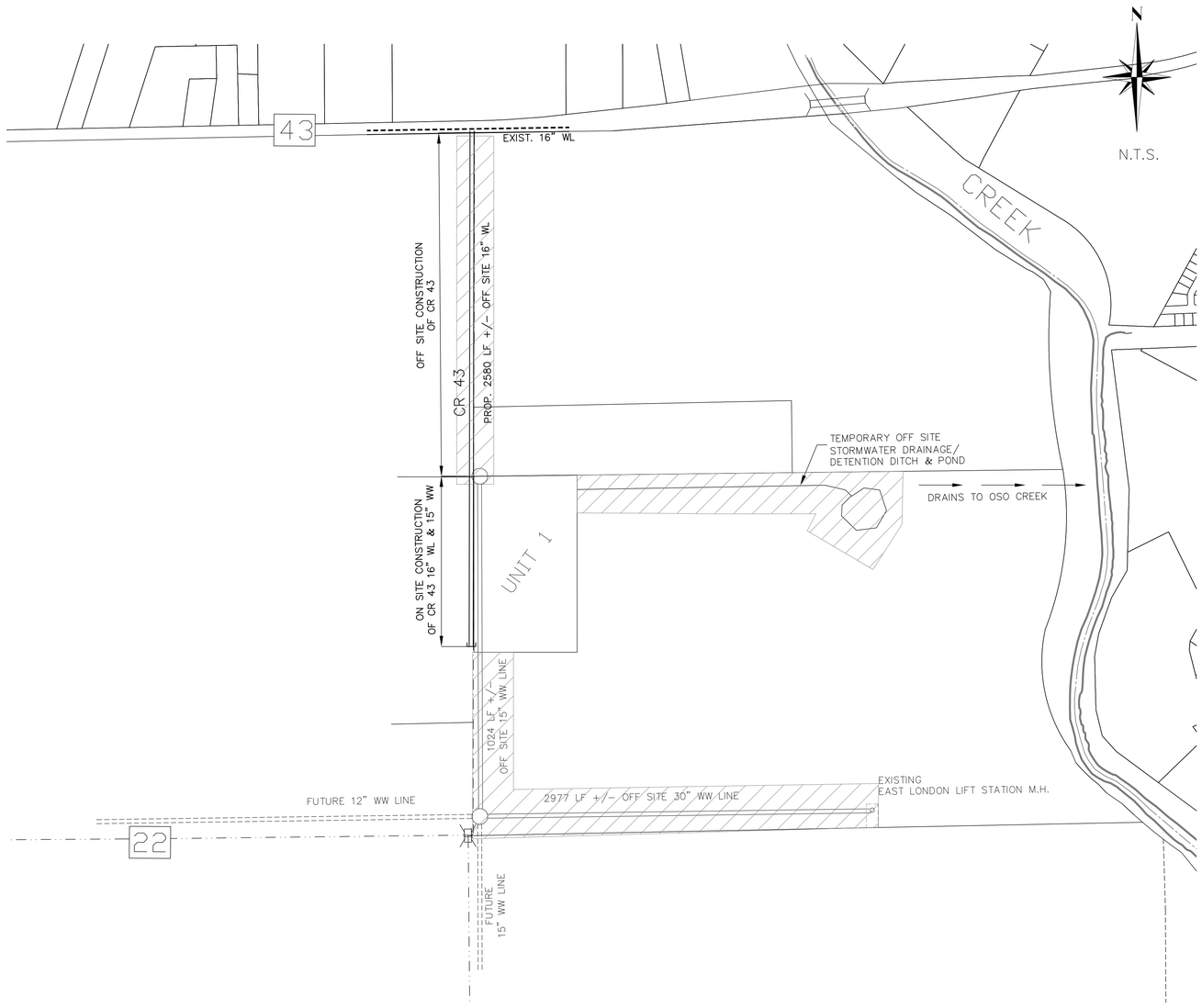
STATE OF TEXAS
JUAN PERALES, JR.
66652
REGISTERED
PROFESSIONAL ENGINEER
11/10/2023

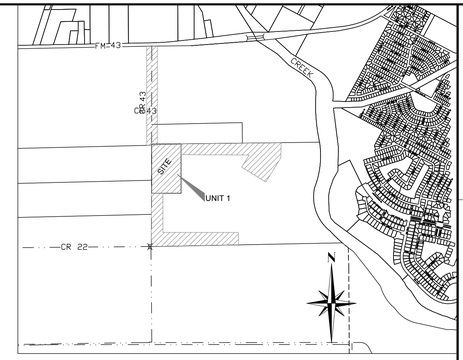
SITE PLAN

KASPIAN SUBDIVISION UNIT 1

CORPUS CHRISTI , TEXAS

J. Perales Civil Engineering and Planning Services
TBPE FIRM No. F-14207
jperales@jperalesengineering.com
5866 S. Staples St. - # 315
Corpus Christi, Texas 78411
Tel: (361) 728-7188





LOCATION MAP
SCALE: N.T.S.

NOTES:
THE PROPOSED 16" WATERLINE EXTENSION IS IN ACCORDANCE WITH THE CITY OF CORPUS CHRISTI WATER MASTER PLAN.

THE PROPOSED 15" AND 30" WASTEWATER LINE EXTENSIONS ARE IN ACCORDANCE WITH THE CITY OF CORPUS CHRISTI WASTEWATER MASTER PLAN.

THE PROPOSED CONSTRUCTION OF CR 43 IS IN ACCORDANCE WITH THE CITY OF CORPUS CHRISTI TRANSPORTATION MASTER PLAN COMPONENTS PROVIDED FOR IN THE APPROVED PRELIMINARY PLAT DOCUMENTS FOR THE KASPIAN SUBDIVISION.

PROPOSED TEMPORARY OFF SITE STORMWATER DRAINAGE/DETENTION FACILITIES COMPLY WITH THE CITY OF CORPUS CHRISTI DRAFT STORMWATER MASTER PLAN AND STORMWATER MANAGEMENT PLAN INCLUDED WITH THE APPROVED PRELIMINARY PLAT FOR THE KASPIAN SUBDIVISION.

NO CONSTRUCTION IS PROPOSED WITHIN ANY DELINEATED JURISDICTIONAL WETLAND AREAS.

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DRAWING #: 210237	
PAGE: 3A	OF: 68

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11/10/2023

OFF SITE IMPROVEMENT SITE PLAN

KASPIAN SUBDIVISION UNIT 1

CORPUS CHRISTI , TEXAS

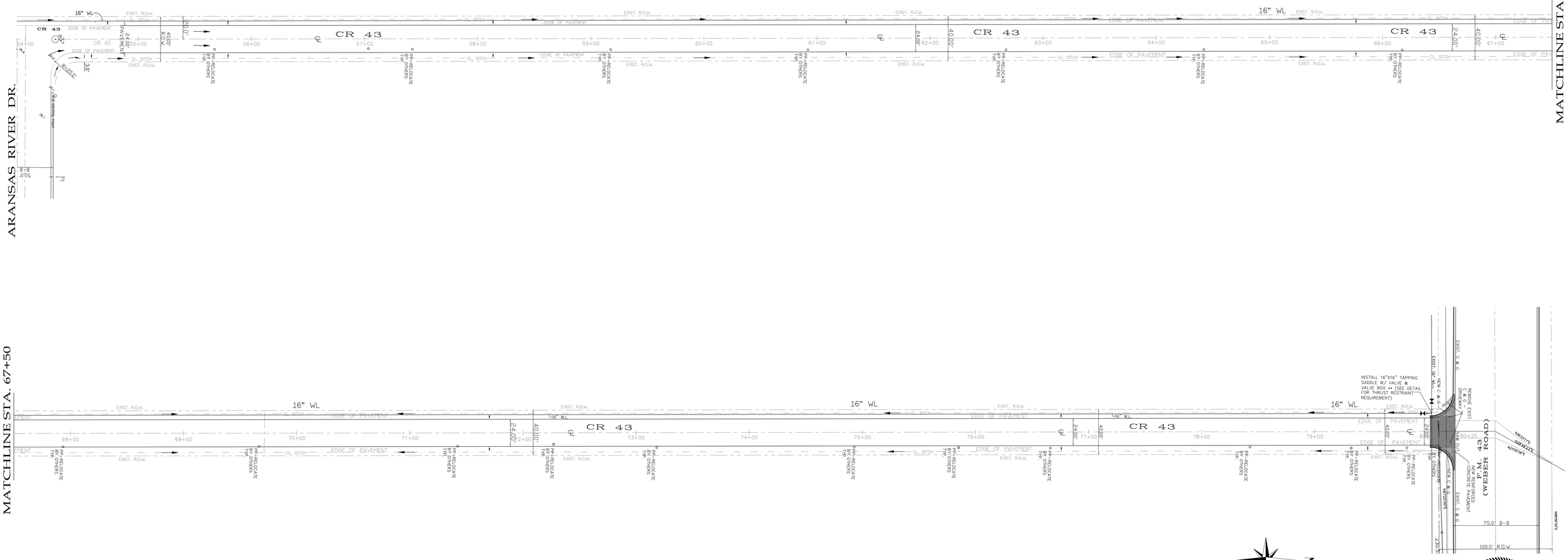
RELEASED FOR CONSTRUCTION

Bria A. Whitmire, P.E., CFM, CPM
Development Services Engineer
City of Corpus Christi

Note: Construction Plans will expire based on the the conditions stated in UDC 3.8.5.F.

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GAYLE SPECK
DOC.: 2001033299
O.P.R.N.C.T.
N ½ SECTION 5
LAURELES FARM TRACT



LOCATION MAP
SCALE: N.T.S.

STATE OF TEXAS
JUAN PERALES, JR.
66652
REGISTERED
PROFESSIONAL ENGINEER
Juan Perales Jr., P.E.
11/13/2023

KASPIAN SUBDIVISION
COUNTY ROAD 43 - IMPROVEMENT

OFFSITE 16" WATER GRID MAIN EXTENSION

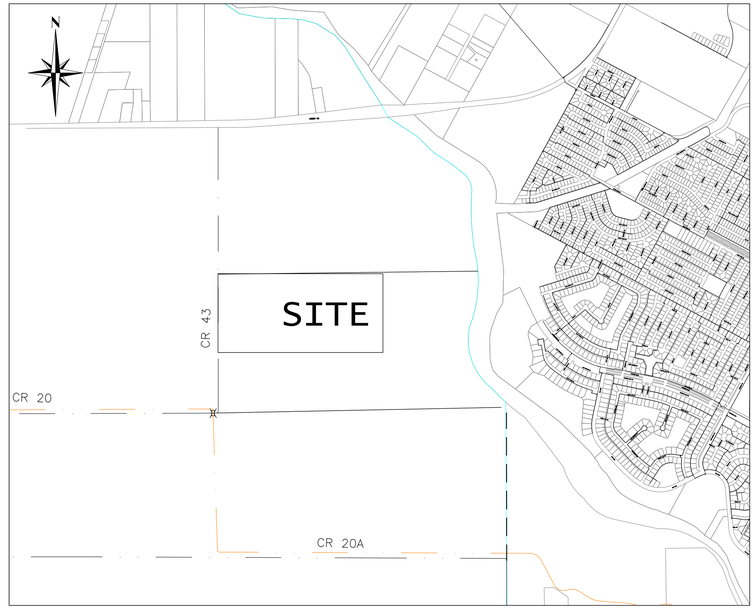
RELEASED FOR CONSTRUCTION

Bria A. Whitmire, P.E., CFM, CPM
Development Services Engineer
City of Corpus Christi
Note: Construction Plans will expire based on the the conditions stated in UDC 3.8.5.F.

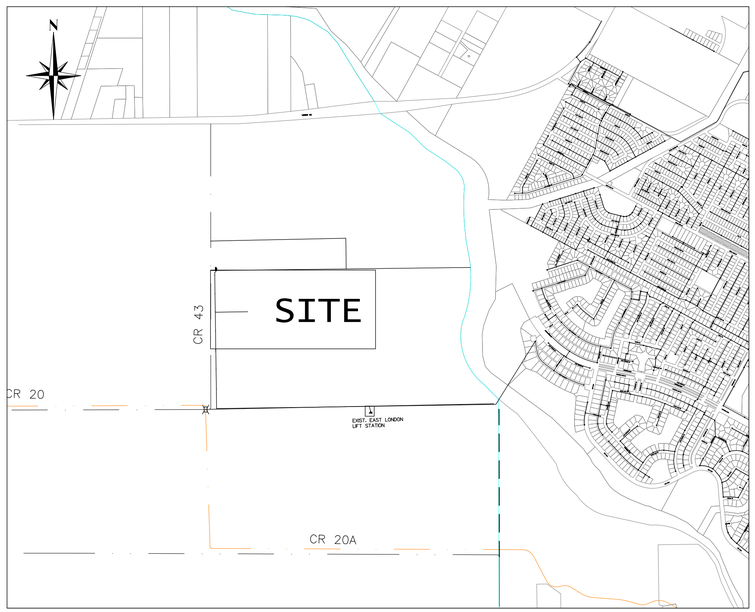
J. Perales Civil Engineering and Planning Services
TBPE FIRM No. F-14207
jperales@jperalesengineering.com
P.O. BOX 260547
Corpus Christi, Texas 78426
Tel: (361) 728-7188



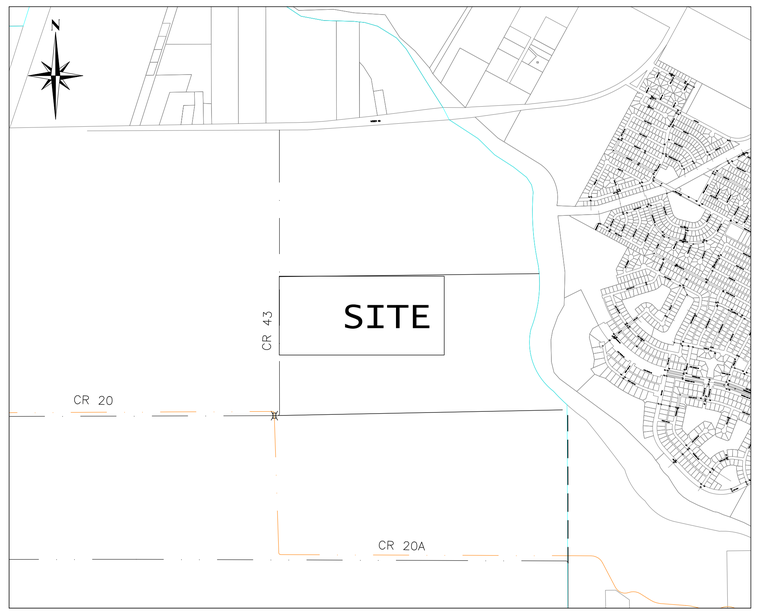
WATER MAP



GAS MAP



WASTEWATER MAP



STORM MAP

RELEASED FOR CONSTRUCTION

Bria A. Whitmire, P.E., CFM, CPM
Development Services Engineer
City of Corpus Christi

Note: Construction Plans will expire based on the the conditions stated in UDC 3.8.5.F.

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		PAGE: 4	OF: 68

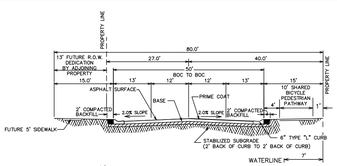
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CITY BASE MAPS

KASPIAN SUBDIVISION UNIT 1

CORPUS CHRISTI , TEXAS

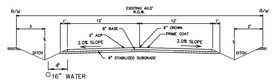
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Tel: (361) 728-7188



NOTE: FINISHED ASPHALT SURFACE 1/2" ABOVE LIP OF GUTTER
SPECIFICATIONS:
SURFACE: 4" TxDOT TYPE D HOT MIX ASPHALTIC CONCRETE.
BASE: 11" CRUSHED LIMESTONE BASE COMPACTED TO 98% OF STANDARD PROCTOR DENSITY, (TYPE A, GRADE 1-2 TxDOT ITEM 247)
SUBGRADE: SCARIFY, LIME STABILIZE AND RECOMPACT TOP 8" OF RAW SUBGRADE TO 95% OF STANDARD PROCTOR DENSITY, WITH 8% MINIMUM HYDRATED LIME BY WEIGHT.
PRIME COAT: MS-1 OR MC-30, 0.15 GALLONS PER SQUARE YARD.
BACK OF CURB: ALL CURB BACKFILL SHALL BE COMPACTED TO 95% OF STANDARD PROCTOR DENSITY

TYPICAL 80' R.O.W.-C3 COLLECTOR STREET SECTION W/ SHARED BICYCLE & PEDESTRIAN PATHWAY (ARANSAS RIVER DRIVE)

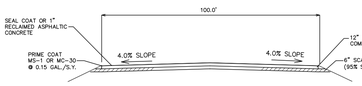
SCALE: N.T.S.



PROPOSED CR 43 ROAD SECTION (FROM LIMITS OF DEVELOPMENT TO F.M. 43 (WEBER ROAD))

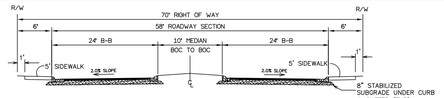
SCALE: N.T.S.

SPECIFICATIONS:
SURFACE: 2" HOT MIX ASPHALTIC CONCRETE TxDOT TYPE D.
PRIME COAT: MS-1 OR MC-30 @ 0.15 GALLONS PER SQUARE YARD.
BASE: 8" CRUSHED LIMESTONE BASE COMPACTED TO 98% OF STANDARD PROCTOR DENSITY (TYPE A, GRADE 1-2 TxDOT ITEM 247)
SUBGRADE: SCARIFY, LIME STABILIZE AND RECOMPACT TOP 8" OF RAW SUBGRADE TO 95% OF STANDARD PROCTOR DENSITY, WITH 8% MINIMUM HYDRATED LIME BY WEIGHT.



TEMPORARY CUL-DE-SAC

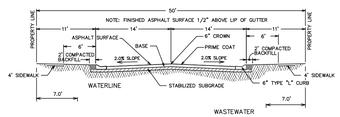
SCALE: N.T.S.



SPECIFICATIONS:
- SURFACE: 4" TxDOT TYPE D HOT MIX ASPHALTIC CONCRETE.
- BASE: 11" CRUSHED LIMESTONE BASE COMPACTED TO 98% OF STANDARD PROCTOR DENSITY, (TYPE A, GRADE 1)
- SUBGRADE: SCARIFY, LIME STABILIZE AND RECOMPACT TOP 8" OF RAW SUBGRADE TO 95% OF STANDARD PROCTOR DENSITY, WITH 8% MINIMUM HYDRATED LIME BY WEIGHT.
- PRIME COAT: MS-1 OR MC-30, 0.15 GALLONS PER SQUARE YARD.
- BACK OF CURB: ALL CURB BACKFILL SHALL BE COMPACTED TO 95% OF STANDARD PROCTOR DENSITY

TYPICAL 70' WITH 58' ROADWAY SECTION (KASPIAN SEA ROAD) MINOR RESIDENTIAL COLLECTOR (COLLECTOR STREET PAVEMENT SECTION PER 10M TABLE 6.3.7.C.)

SCALE: N.T.S.

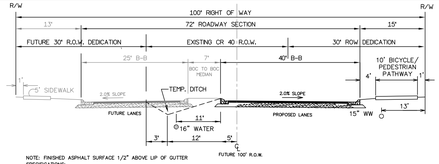


SPECIFICATIONS:
SURFACE: 2" HOT MIX ASPHALTIC CONCRETE TxDOT TYPE D.
PRIME COAT: MS-1 OR MC-30 @ 0.15 GALLONS PER SQUARE YARD.
BASE: 6" CRUSHED LIMESTONE BASE COMPACTED TO 98% OF STANDARD PROCTOR DENSITY. (TYPE A, GRADE 1-2 TxDOT ITEM 247)
SUBGRADE: SCARIFY, LIME STABILIZE AND RECOMPACT TOP 8" OF RAW SUBGRADE TO 95% OF STANDARD PROCTOR DENSITY, WITH 8% MINIMUM HYDRATED LIME BY WEIGHT.
BACK OF CURB: ALL CURB BACKFILL SHALL BE COMPACTED TO 95% OF STANDARD PROCTOR DENSITY

TYPICAL 50' R.O.W.-SECTION (L1 LOCAL STREET PAVEMENT SECTION PER 10M TABLE 6.3.7.C.)

SCALE: N.T.S.

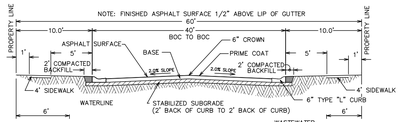
CONSTRUCTION NOTE FOR ALL STREET CROSS SECTIONS: IN AREAS WHERE FILL IS REQUIRED TO ESTABLISH DESIGN PAVEMENT SECTION SUBGRADE ELEVATIONS, SAID FILL MATERIALS AND OPERATIONS SHALL BE IN ACCORDANCE WITH CITY OF CORPUS CHRISTI STANDARD CONSTRUCTION SPECIFICATION 22080, "EMBANKMENT".



NOTE: FINISHED ASPHALT SURFACE 1/2" ABOVE LIP OF GUTTER
SPECIFICATIONS:
SURFACE: 4" TxDOT TYPE D HOT MIX ASPHALTIC CONCRETE.
BASE: 12" CRUSHED LIMESTONE BASE COMPACTED TO 98% OF STANDARD PROCTOR DENSITY, (TYPE A, GRADE 1-2 TxDOT ITEM 247)
SUBGRADE: SCARIFY, LIME STABILIZE AND RECOMPACT TOP 8" OF RAW SUBGRADE TO 95% OF STANDARD PROCTOR DENSITY, WITH 8% MINIMUM HYDRATED LIME BY WEIGHT.
PRIME COAT: MS-1 OR MC-30, 0.15 GALLONS PER SQUARE YARD.
BACK OF CURB: ALL CURB BACKFILL SHALL BE COMPACTED TO 95% OF STANDARD PROCTOR DENSITY

INTERIM C2 COLLECTOR IN LIEU OF A2-HALF STREET SECTION - C.R. 43 (EMILY DRIVE)

SCALE: N.T.S.



SPECIFICATIONS:
- SURFACE: 2" TxDOT TYPE D HOT MIX ASPHALTIC CONCRETE.
- BASE: 8" CRUSHED LIMESTONE BASE COMPACTED TO 98% OF STANDARD PROCTOR DENSITY. (TYPE A, GRADE 1- TxDOT ITEM 247)
- SUBGRADE: SCARIFY, LIME STABILIZE AND RECOMPACT TOP 8" OF RAW SUBGRADE TO 95% OF STANDARD PROCTOR DENSITY, WITH 8% MINIMUM HYDRATED LIME BY WEIGHT.
- PRIME COAT: MS-1 OR MC-30, 0.15 GALLONS PER SQUARE YARD.
- BACK OF CURB: ALL CURB BACKFILL SHALL BE COMPACTED TO 95% OF STANDARD PROCTOR DENSITY

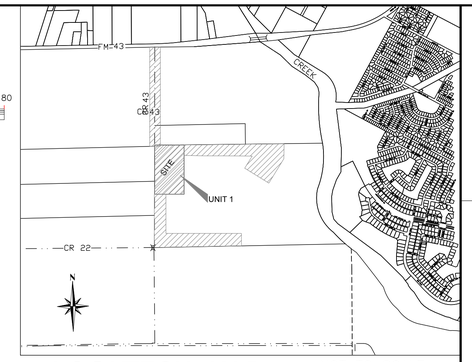
TYPICAL 60' R.O.W.-SECTION (KASPIAN SEA ROAD)

SCALE: N.T.S.

(MINOR RESIDENTIAL COLLECTOR)
REFER. IDM TABLE 6.3.7.C

GRAPHIC SCALE
60 0 60 120 180
Scale: 1" = 60 feet

NOTE:
SEE SIGNS AND MARKING PLAN FOR ADA RAMP LOCATION AND IDENTIFICATION



LOCATION MAP

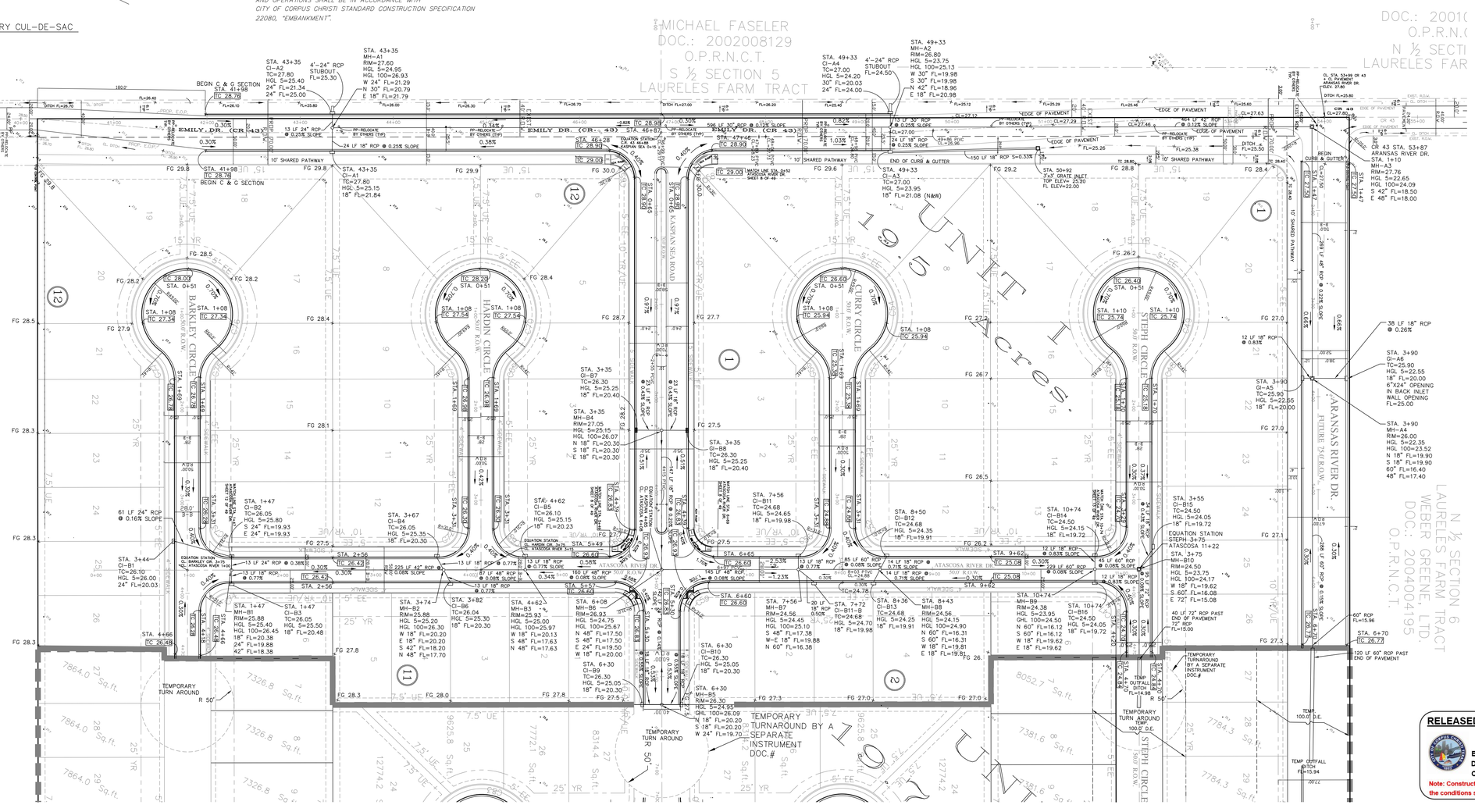
NOT TO SCALE

NOTES:
THE PROPERTY IS CURRENTLY ZONED FOR RS-6 SINGLE FAMILY RESIDENTIAL USE. THERE ARE NO CHANGES PROPOSED TO THE CURRENT ZONING.

EACH LOT WIDTH AND AREA SHALL COMPLY WITH THE APPLICABLE ZONING STANDARDS.

WATER, WASTEWATER LOT AND/OR ACREAGE FEES AND PARK FEES SHALL BE PAID PRIOR TO RECORDATION OF ANY FINAL PLATS. NO PRIVATE DRIVEWAY ACCESS SHALL BE ALLOWED ONTO KASPIAN SEA ROAD, OSO PARKWAY, ARANSAS RIVER ROAD, OR MISSION RIVER ROAD.

THE PROPERTY OWNER SHALL BE RESPONSIBLE FOR ENSURING THAT ANY PROPOSED CONSTRUCTIONS OR ALTERATIONS OCCURING ON SAID PROPERTY WILL COMPLY WITH 14 CFR, &77 (TITLE 14, PART 77), FEDERAL REGULATIONS. THE PROPERTY OWNER SHALL ENSURE ALL DEVELOPMENT IS WITHIN ALL LAND COMPATIBILITY USE (TITLE 14, PART 150) FEDERAL REGULATIONS.



RELEASED FOR CONSTRUCTION

Bria A. Whitmire, P.E., CFM, CPM
Development Services Engineer
City of Corpus Christi

Note: Construction Plans will expire based on the conditions stated in UDC 3.8.5.F.

J. Perales Civil Engineering and Planning Services
TBPE FIRM No. F-14207
jperales@jperalesengineering.com
5866 S. Staples St. - # 315
Corpus Christi, Texas 78411
Tel: (361) 728-7188

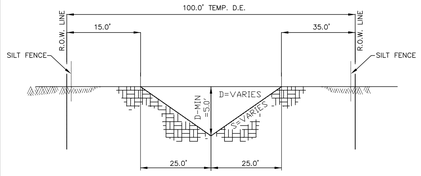
STATE OF TEXAS · JUAN PERALES, JR. · 66632 · REGISTERED PROFESSIONAL ENGINEER · 11/10/2023

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PAGE: 5

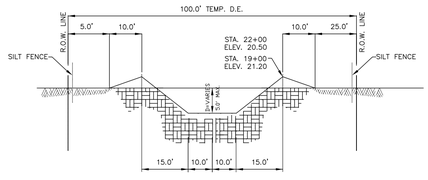
PAVING & GRADING PLAN UNIT 1

KASPIAN SUBDIVISION UNIT 1

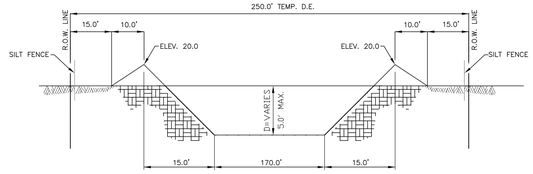
CORPUS CHRISTI , TEXAS



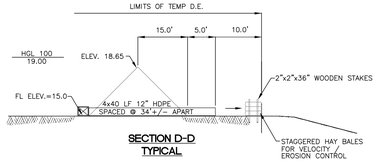
SECTION A-A
TYPICAL



SECTION B-B
TYPICAL



SECTION C-C
TYPICAL

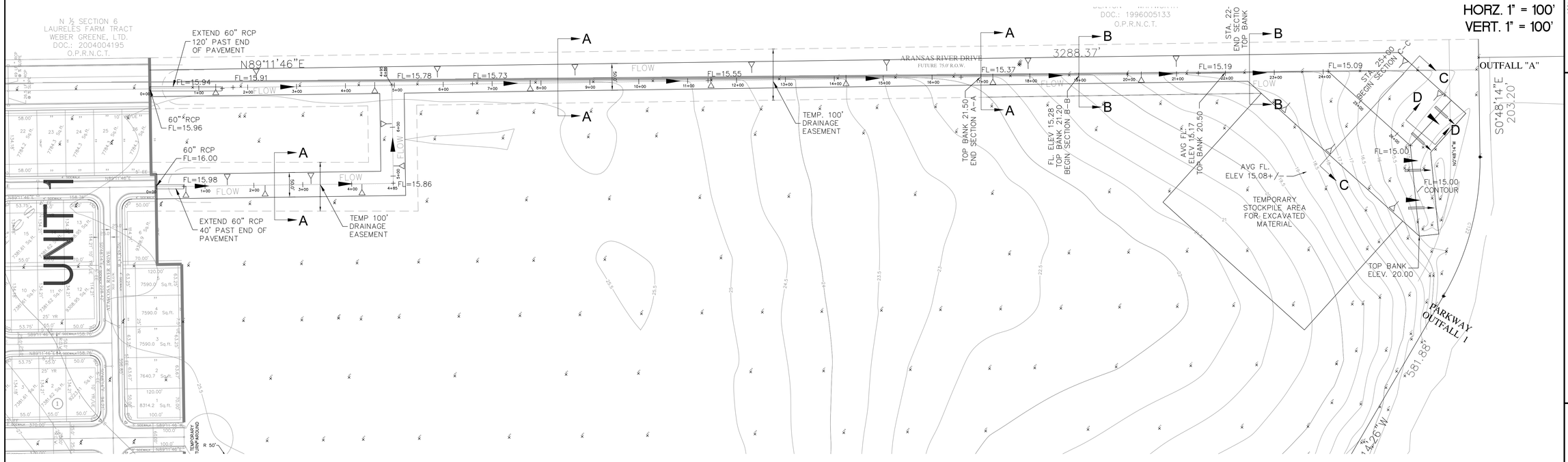


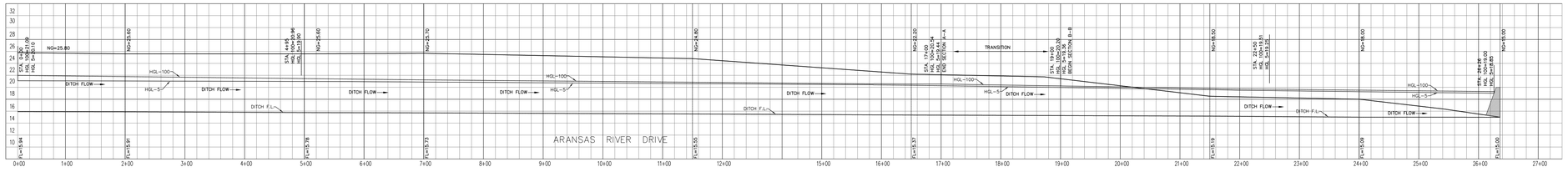
SECTION D-D
TYPICAL

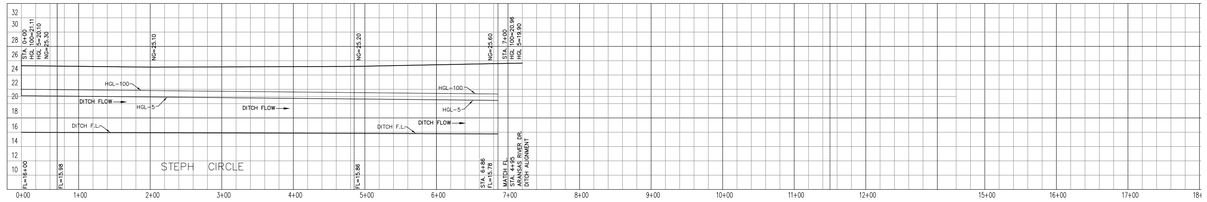
UNIT 1 - TEMPORARY OFF SITE DRAINAGE / DETENTION DITCH

PLAN & PROFILES

HORZ. 1" = 100'
VERT. 1" = 100'







RELEASED FOR CONSTRUCTION

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Development Services Engineer
City of Corpus Christi

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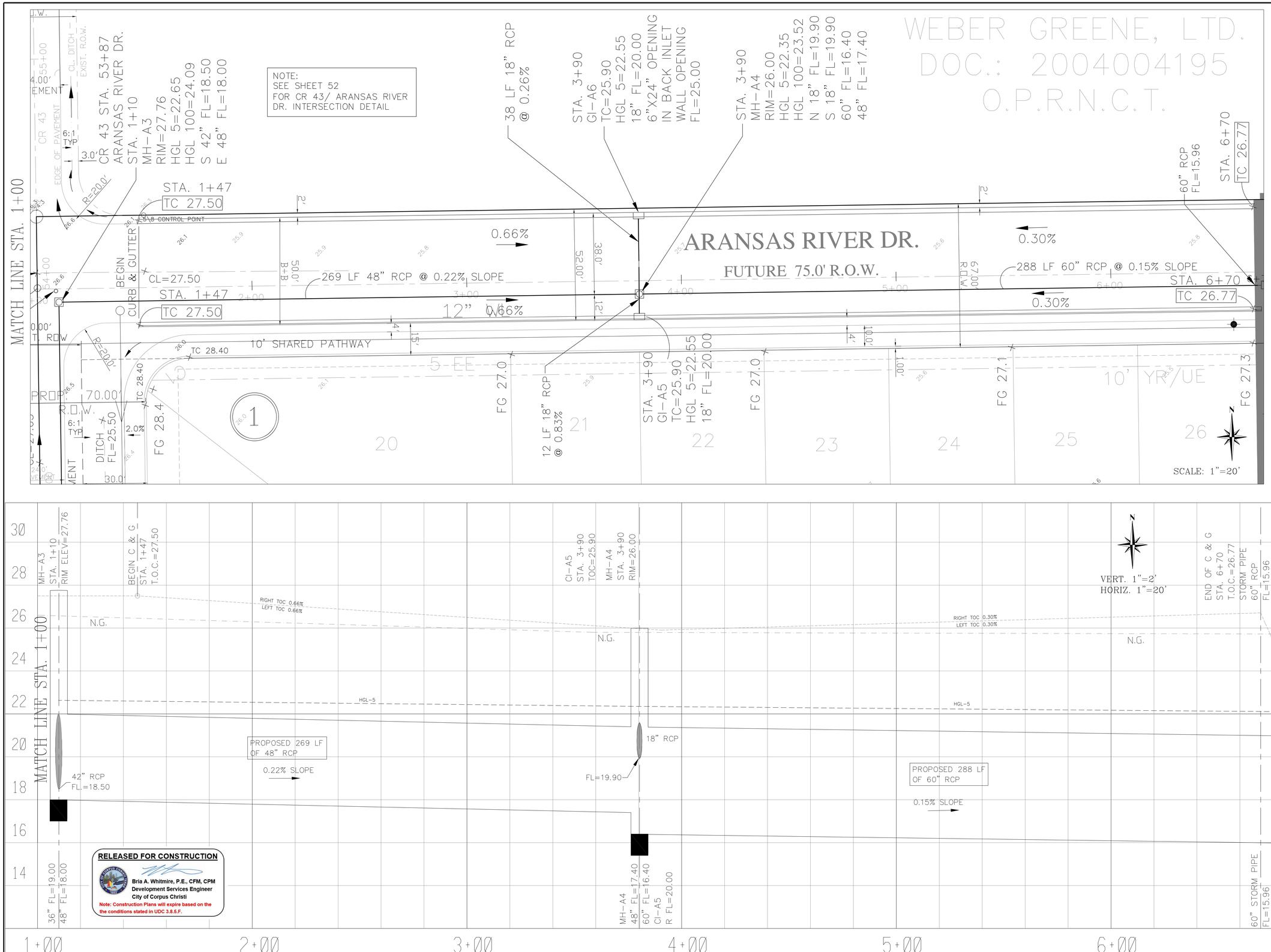
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JUAN PERALES, JR.
66652
REGISTERED
PROFESSIONAL
ENGINEER
11/10/2023

TEMPORARY OFF-SITE
DRAINAGE / DETENTION DITCH

KASPIAN SUBDIVISION UNIT 1
CORPUS CHRISTI, TEXAS

J. Perales Civil Engineering and Planning Services
TBPE FIRM No. F-14207
jperales@jperalesengineering.com
5866 S. Staples St. - # 315
Corpus Christi, Texas 78411
Tel: (361) 728-7188



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Development Services Engineer
City of Corpus Christi

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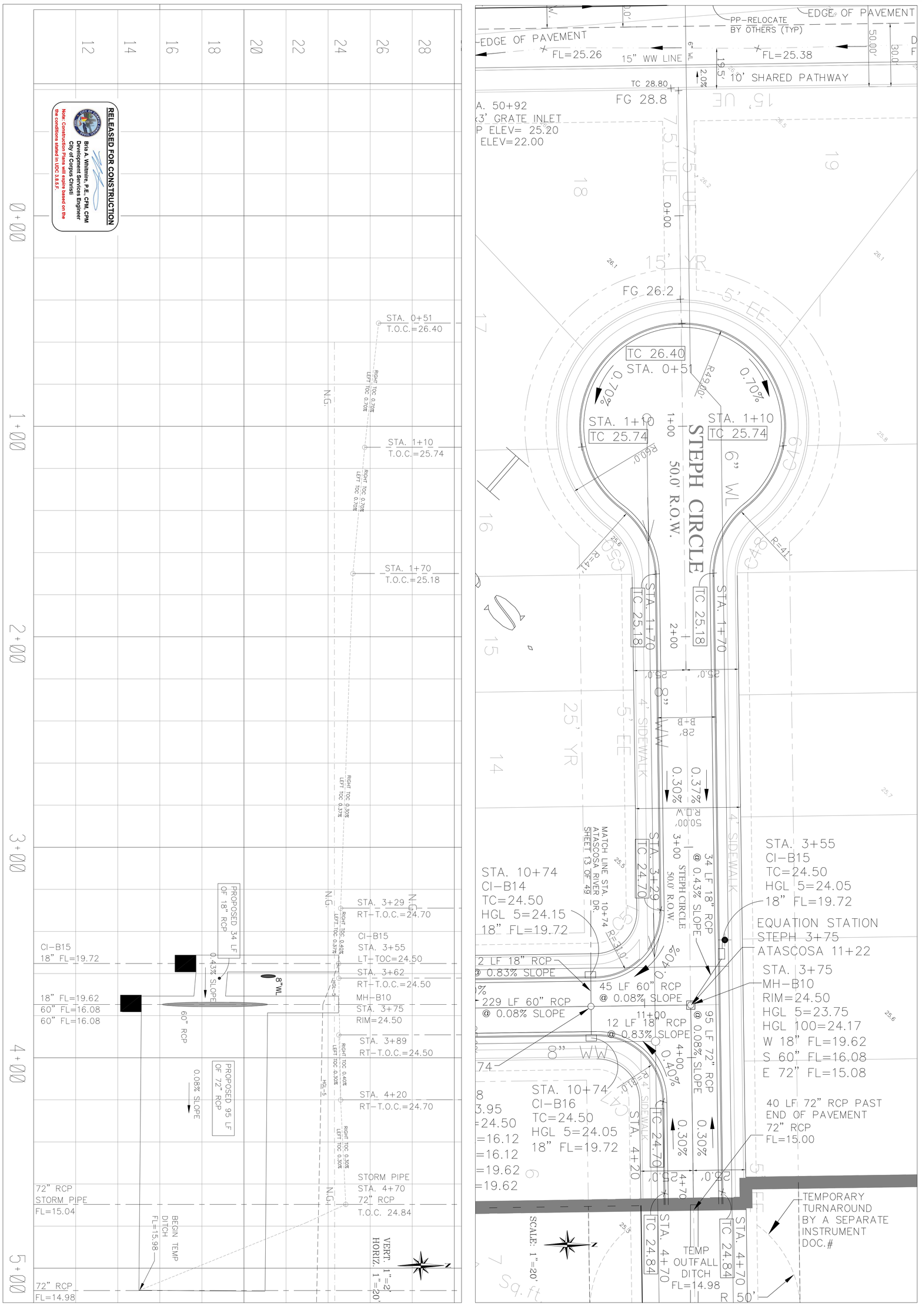
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PAGE: 6 OF: 68

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ARANSAS RIVER DR.
STA. 1+00 TO STA. 6+70

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STEPH CIRCLE
STA. 0+51 TO STA. 5+20

KASPIAN SUBDIVISION UNIT 1
CORPUS CHRISTI , TEXAS

STATE OF TEXAS
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66652
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DATE: 11-10-23	SCALE: SHOWN
DRAWING #: 210237	
PAGE: 7	OF: 68

MATCH LINE STA. 0+65 SHEET 10

ATASCOSA SHEET

KASPIAN SEA ROAD

70.0' R.O.W.

STA. 0+65
TC 28.90

0.97%

1+00 2+00

0.97%

240'

S80°00'E

P.B.

70.00' R.O.W.

10'

3+00

2+55 PCVC

23 LF 18" RCP
@ 0.43% SLOPE

23 LF 18" RCP
@ 0.43% SLOPE

0.51%

350'

0.51%

147 LF 18" RCP @ 0.20% SLOPE

4+15 PTVC

4+00

KASPIAN SEA ROAD
50.0' R.O.W.

EQUATION STATION
CL. KASPIAN 4+85
CL. ATASCOSA 6+08

STA. 4+39
TC 26.83

TC 26.93

STA. 4+39
TC 26.83

MATCH LINE STA. 6+69
ATASCOSA RIVER DR.
SHEET 8 OF 49

MATCH LINE STA. 5+49
ATASCOSA RIVER DR.
SHEET 8 OF 49

ATASCOSA RIVER DR.

STA. 3+35
GI-B8
TC=26.30
HGL 5=25.25
18" FL=20.40

STA. 3+35
GI-B7
TC=26.30
HGL 5=25.25
18" FL=20.40

STA. 3+35
MH-B4
RIM=27.05
HGL 5=25.15
HGL 100=26.07
N 18" FL=20.30
S 18" FL=20.30
E 18" FL=20.30

FG 27.5
FG 27.7
FG 28.7
FG 28.2
FG 30.0
FG 29.00

10' YR/UE
5' EE
8" WW
5' SIDEWALK
ADA RAMP
R=30'
R=10'
R=310'

STA. 5+49
TC 26.60

STA. 5+57
TC 26.60

STA. 6+08
MH-B6
RIM=26.93
HGL 5=24.75
HGL 100=25.67
N 48" FL=17.50
S 48" FL=17.50
E 24" FL=19.50
W 18" FL=20.00

160 LF 48" RCP 50.0' R.O.W.
@ 0.08% SLOPE

0.58%

145 LF 48" RCP
@ 0.08% SLOPE

1.70%

STA. 6+60
TC 26.60

STA. 6+65
TC 26.60

STA. 6+30
CI-B10
TC=26.30
HGL 5=25.05
18" FL=20.30

STA. 6+30
MH-B5
RIM=26.30
HGL 5=24.95
HGL 100=26.09
N 18" FL=20.20
S 18" FL=20.20

STA. 6+30
CI-B9
TC=26.30
HGL 5=25.05
18" FL=20.30

5' SIDEWALK
18 LF 18" RCP
@ 0.55% SLOPE
0.53%

142 LF 24" RCP @ 0.14%
5+00 SLOPE
0.53%

18 LF 18" RCP
@ 0.55% SLOPE
5' SIDEWALK

STA. 5+30
TC 26.83

STA. 5+30
TC 26.83

STA. 6+00

6+00

6+15

6+93

0.40%

R=310'

R=310'

FG 27.5

FG 27.5

SCALE: 1"=20'

THERE IS NO WORK PAST HERE

TEMPORARY

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DRAWING #:	210237		
PAGE:	8	OF:	68

STATE OF TEXAS
JUAN PERALES, JR.
66652
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ENGINEER
11/10/2023

KASPIAN SEA RD.
STA. 0+65 TO STA. 6+30

KASPIAN SUBDIVISION UNIT 1
CORPUS CHRISTI , TEXAS

MATCH LINE STA. 0+65 SHEET 10

30 28 26 24 22 20 18 16 14 12

STA. 0+65
T.O.C.=28.90
LT & RT

N.G.

RIGHT TOC -0.96%
LEFT TOC -0.96%

VERTICAL CURVE DATA: KASPIAN SEA ROAD

STATION	CL ELEV	
2+55	27.55	PCVC
2+65	27.46	
2+75	27.38	
2+85	27.30	
2+95	27.34	
3+05	27.18	
3+15	24.14	
3+25	24.11	
3+35	27.07	
3+45	27.06	
3+55	27.05	
3+65	27.05	
3+75	27.06	
3+85	27.08	
3+95	27.11	
4+05	27.15	
4+15	27.19	PTVC

PCVC STA. 2+55
INSIDE CURB
ELEV.=27.55

MH-B4
STA. 3+35
RIM=27.05

PIVC
STA. 3+35
INSIDE CURB
ELEV.=26.78

CI-B7
STA. 3+35
TOC=26.30

CI-B8
STA. 3+35
TOC=26.30

PTVC STA. 4+15
INSIDE CURB
ELEV.=27.19

STA. 4+39
T.O.C.=26.83

STA. 4+55
T.O.C.=26.93

STA. 4+70
T.O.C.=26.60 RT
26.00 LT

MH-B6
STA. 4+85
RIM=26.93

STA. 4+98
T.O.C.=26.64 RT
26.00 LT

STA. 5+14
T.O.C.=26.93

STA. 5+30
T.O.C.=26.83

+0.40%
-1.70% LT
-0.47%RT
+1.70% LT
+0.58% RT
-0.40%

RIGHT TOC +0.51%
LEFT TOC +0.51%

RIGHT TOC -0.55%
LEFT TOC -0.55%

HGL-5

N.G.

PROPOSED 147 LF
OF 18" RCP

0.20% SLOPE

PROPOSED 142 LF
OF 24" RCP

0.14% SLOPE

8"WL

VERT. 1"=2'
HORIZ. 1"=20'

MH-B5
STA. 6+30
RIM=26.30

CI-B9
STA. 6+30
TOC=26.30

CIB10
STA. 6+30
TOC=26.30

GI-B7
18" FL=20.40

N 18" FL=20.30
S 18" FL=20.30
E 18" FL=20.30

GI-B8
FL=20.40

48" FL=17.50
42" FL=18.00
24" FL=19.50
18" FL=20.00

CI-B9
18" FL=20.30

18" FL=20.20
18" FL=20.20
24" FL=19.70

CI-B10
18" FL=20.30

1+00 2+00 3+00 4+00 5+00 6+00

THERE IS NO WORK PAST HERE

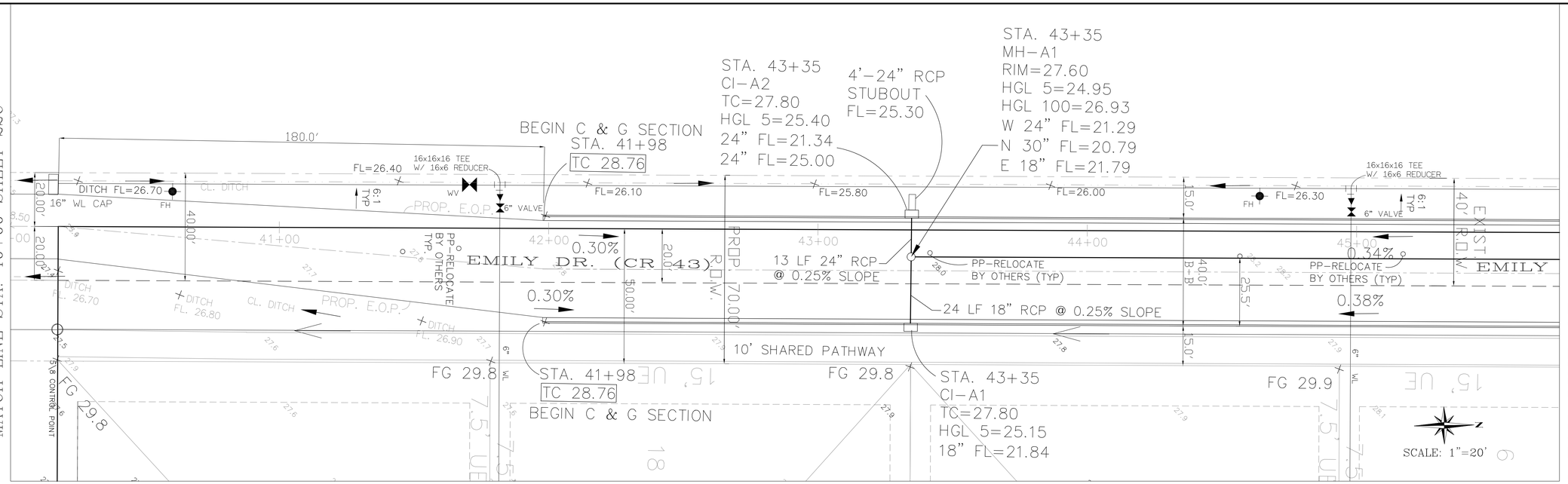
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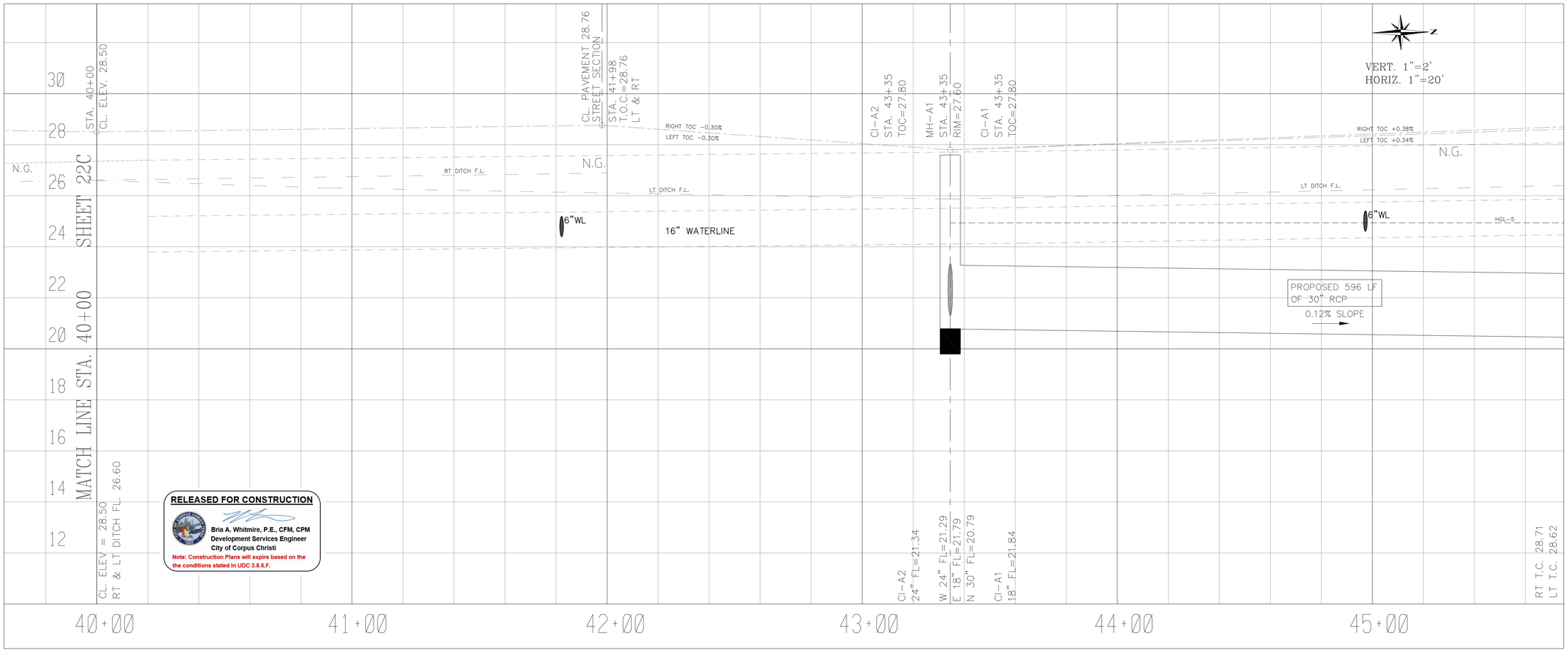
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MATCH LINE STA. 40+00 SHEET 22C





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MATCH LINE STA. 45+75 SHEET 10

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PAGE: 9 OF: 68

STATE OF TEXAS
JUAN PERALES, JR.
66652
REGISTERED
PROFESSIONAL ENGINEER
11/10/2023

COUNTY ROAD 43
STA. 40+00 TO STA. 45+75

KASPIAN SUBDIVISION UNIT 1
CORPUS CHRISTI, TEXAS

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MATCH LINE STA. 45+75 SHEET 9

O.P.R.N.C.T.
S ½ SECTION 5
LAURELES FARM TRACT

STA. 49+33
CI-A4
TC=27.00
HGL 5=24.20
30" FL=20.03
24" FL=24.00

4'-24" RCP
STUBOUT
FL=24.50

MH-A2
RIM=26.80
HGL 5=23.75
HGL 100=25.13
W 30" FL=19.98
S 30" FL=19.98
N 42" FL=18.96
E 18" FL=20.98

16x16x16 TEE
W/ 16x6 REDUCER

6" VALVE

FL=26.70 | DITCH FL=27.00 | 6:1 TYP | 16" WL | FL=26.20 | FL=25.40 | FL=25.12 | 6:1 TYP | FL=25.29

46+00 | 47+00 | 48+00 | 49+00 | 50+00 | 51+00

-0.82% | TC 28.98 | 0.30% | 596 LF 30" RCP @ 0.12% SLOPE | 0.82% | 1.03%

DR. (CR 43) STA. 46+87 | PP-RELOCATE BY OTHERS (TYP) | EMILY DR. (CR 43) | PP-RELOCATE BY OTHERS TYP. | PROP. 70.00' R.O.W.

STA. 46+28
TC 28.90
EQUATION STATION
C.R. 43 46+88
KASPIAN SEA 0+15

TC 29.00 | ADA RAMP | 0.40% | FG 30.0 | R=30' | STA. 0+65 | TC 28.90

STA. 47+46
TC 28.90

48+09 PVC
CL.=28.23

48+06 PCVC
CL.=27.73

48+96 PIVC
CL.=26.80

10' SHARED PATHWAY | FG 29.6

MATCH LINE STA. 0+52
ATASCOSA RIVER DR.
SHEET 8 OF 49

CL=27.00 | 13 LF 30" RCP @ 0.25% SLOPE | 24 LF 18" RCP @ 0.25% SLOPE | 49+86 PIVC CL.=26.96

CL=27.12 | EDGE OF PAVEMENT | 50+00 | 51+00 CL=27.29 | EDGE OF PAVE

150 LF 18" RCP S=0.33%

END OF CURB & GUTTER

STA. 49+33
CI-A3
TC=27.00
HGL 5=23.95
18" FL=21.08 (N&W)

FG 29.2

STA. 50+92
3'x3' GRATE INLE
TOP ELEV= 25.20
FL ELEV=22.00

SCALE: 1"=20'

MATCH LINE STA. 51+40 SHEET 11

VERT. 1"=2'
HORIZ. 1"=20'

CL. PAVEMENT & RIGHT TOC +0.30% | LEFT TOC +0.30% | +0.40% | -0.40% | + 0.30% LT. T.O.C. | LEFT TOC -0.82% | RIGHT TOC -1.03% | CL. PAVEMENT | N.G. | CL. PAVEMENT | +0.18%

HGL-5 | HGL-5 | 6"WL

PROPOSED 596 LF OF 30" RCP | 0.12% SLOPE | PROPOSED 150 LFOF 18" RCP @ 0.38% SLOPE | 0.12% SLOPE | PROPOSED 464 LF OF 42" RCP

PCVC STA. 46+09 CL. ELEV.=28.90 | PIVC STA. 46+99 CL. ELEV.=29.17 | PTVC STA. 47+89 CL ELEV.=28.23 | PCVC STA. 48+06 CL. ELEV.=27.73 | PIVC STA. 48+96 ELEV.=26.80 | PTVC STA. 49+86 ELEV.=26.96

STA. 46+28 R T.O.C.=28.90 | STA. 46+44 RT T.O.C.=29.00 | STA. 46+59 RT T.O.C.=28.90 | STA. 46+87 RT T.O.C.=28.98 | STA. 47+16 RT T.O.C.=28.90 | STA. 47+31 RT T.O.C.=29.00 | STA. 47+46 RT T.O.C.=28.90 CL. PAVEMENT = 28.90

CI-A4 STA. 49+33 TOC=27.00 | MH-A2 STA. 49+33 RIM=26.80 | CI-A3 STA. 49+33 TOC=27.00 | END OF C & G SECTION | C.L. PAVEMENT 27.00

3'x3' G.I. STA. 50+92 TOP=25.20 | 18" FL=22.00 | STA. 51+00 CL. PAVEMENT ELEV. 27.35 | STA. 50+97 ELEV. 27.29 C.L. PAVEMENT

CI-A4 24" FL=20.53 | E 18" FL=20.98 | W 24" FL=20.48 | S 30" FL=19.98 | N 42" FL=18.96 | CI-A3 18" FL=21.48

VERTICAL CURVE DATA: CR 43 CURVE #1 (CREST)

STA	CL ELEV	
46+09	28.90	PCVC
46+19	28.94	
46+29	28.98	
46+39	29.02	
46+49	29.08	
46+59	29.14	
46+69	29.21	
46+79	29.29	
46+89	29.38	
46+99	29.47	
47+09	29.29	
47+19	29.13	
47+29	28.98	
47+39	28.84	
47+49	28.70	
47+59	28.56	
47+69	28.46	
47+79	28.34	
47+89	28.23	PTVC

VERTICAL CURVE DATA: CR 43 CURVE #2 (SAG)

STA	CL ELEV	
48+06	27.73	PCVC
48+16	27.64	
48+26	27.54	
48+36	27.45	
48+46	27.37	
48+56	27.30	
48+66	27.23	
48+76	27.17	
48+86	27.13	
48+96	27.07	
49+06	27.04	
49+16	27.00	
49+26	26.98	
49+36	26.96	
49+46	26.95	
49+56	26.95	
49+66	26.96	
49+76	26.96	
49+86	26.96	PTVC

RELEASED FOR CONSTRUCTION

Bria A. Whitmire, P.E., CFM, CPM
Development Services Engineer
City of Corpus Christi

Note: Construction Plans will expire based on the the conditions stated in UDC 3.8.5.F.

MATCH LINE STA. 45+75 SHEET 9

MATCH LINE STA. 51+40 SHEET 11

30 | 28 | 26 | 24 | 22 | 20 | 18 | 16 | 14 | 12

46+00 | 47+00 | 48+00 | 49+00 | 50+00 | 51+00

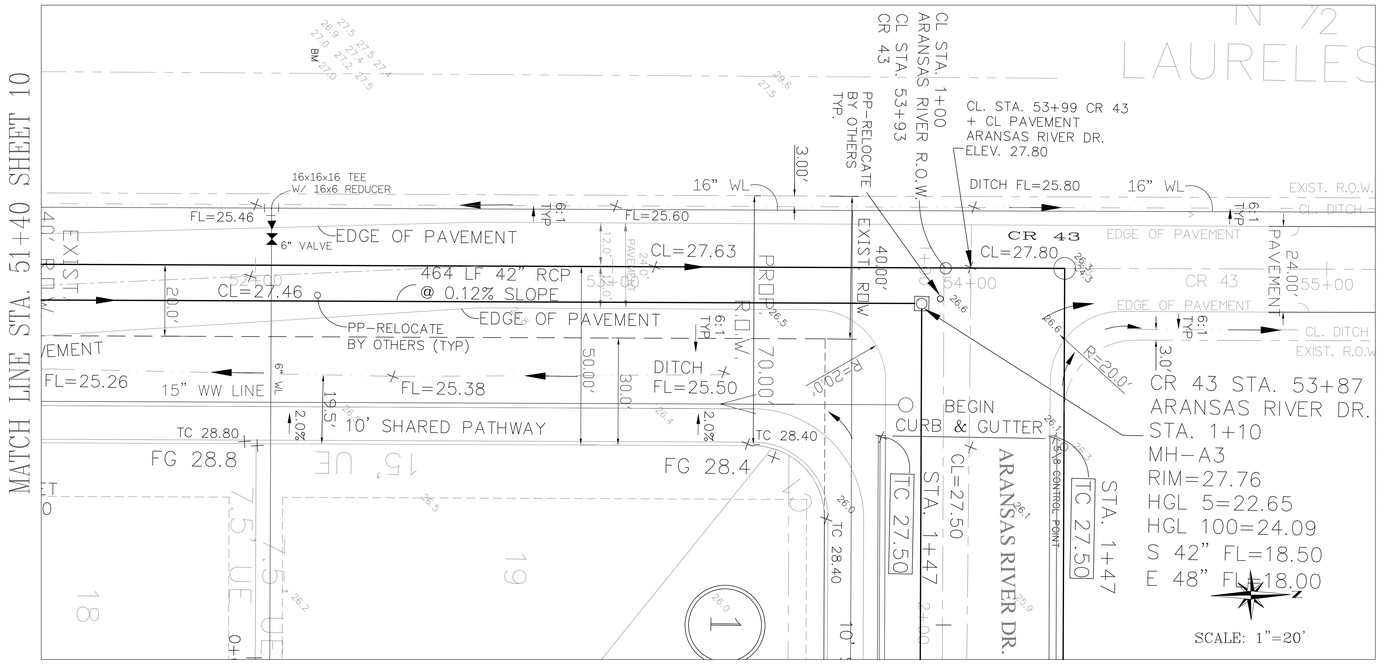
DRAWN BY: RT
APPROVED BY: JP
SCALE: SHOWN
DATE: 11-10-23
DRAWING #: 210237
PAGE: 10 OF: 68

STATE OF TEXAS | JUAN PERALES, JR. | 66652 | REGISTERED | ENGINEER | PERALES CIVIL
11/10/2023

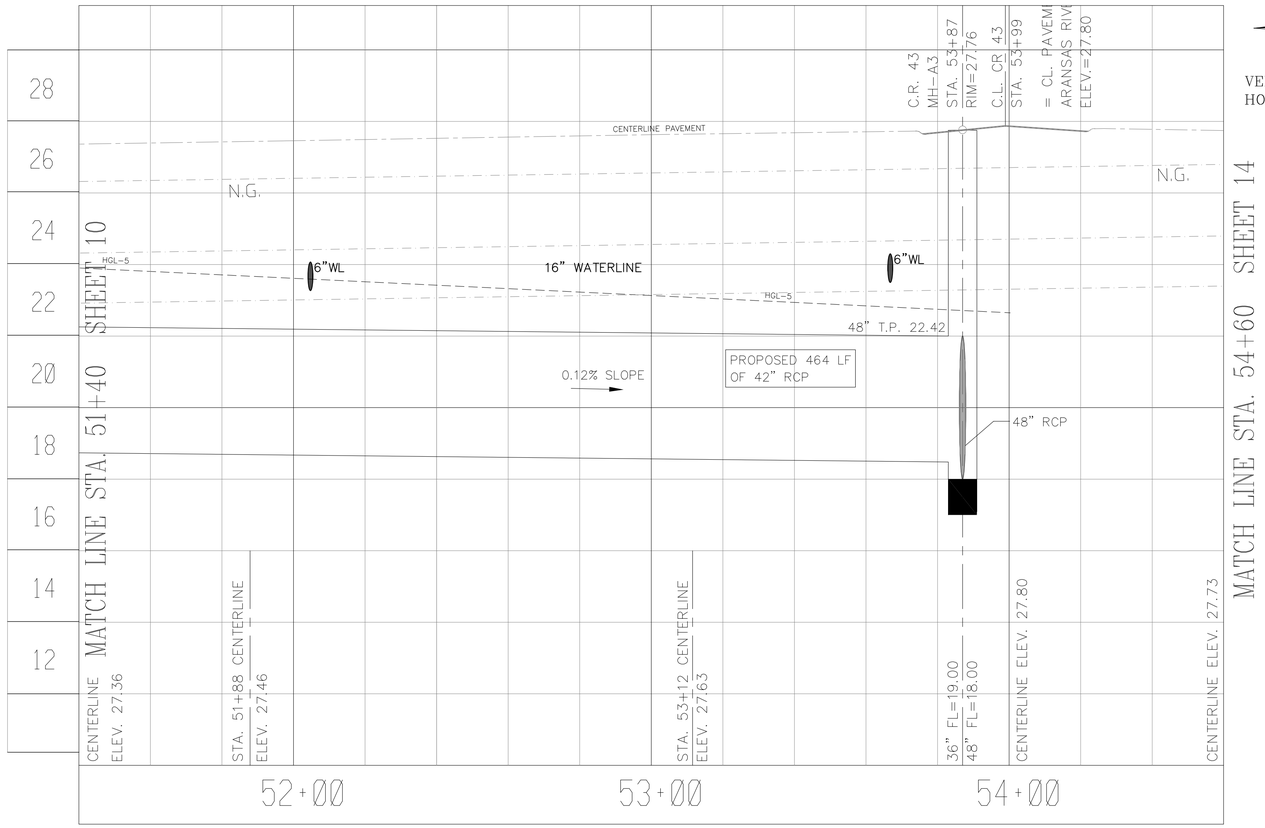
COUNTY ROAD 43
STA. 45+75 TO STA. 51+40

KASPIAN SUBDIVISION UNIT 1
CORPUS CHRISTI, TEXAS

J. Perales Civil Engineering and Planning Services
TBPE FIRM No. F-14207
jperales@jperalesengineering.com
5866 S. Staples St. - # 315
Corpus Christi, Texas 78411
Tel: (361) 728-7188



NOTE:
SEE SHEET 52
FOR CR 43 / ARANSAS RIVER DR.
INTERSECTION DETAILS



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Development Services Engineer
City of Corpus Christi

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PAGE: 11	OF: 68

STATE OF TEXAS
JUAN PERALES, JR.
66652
REGISTERED
PROFESSIONAL ENGINEER
11/10/2023

COUNTY ROAD 43
STA. 51+40 TO 54+60

KASPIAN SUBDIVISION UNIT 1
CORPUS CHRISTI, TEXAS

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TBPE FIRM No. F-14207
jperales@jperalesengineering.com
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Corpus Christi, Texas 78411
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MATCH LINE STA. 2+82 (BARKLEY CIRCLE) SHEET 22

MATCH LINE STA. 2+88 (HARDIN CIRCLE) SHEET 21

MATCH LINE STA. 3+90 (KASPIAN SEA RD) SHEET 8

SCALE: 1"=20'

61 LF 24" RCP @ 0.16% SLOPE

STA. 3+44
CI-B1
TC=26.10
HGL 5=26.00
24" FL=20.03

STA. 1+47
CI-B2
TC=26.05
HGL 5=25.80
S 24" FL=19.93
E 24" FL=19.93

STA. 3+67
CI-B4
TC=26.05
HGL 5=25.35
18" FL=20.30

STA. 4+62
CI-B5
TC=26.10
HGL 5=25.15
18" FL=20.23

BARKLEY CIRCLE 50.0' R.O.W.

HARDIN CIRCLE 50.0' R.O.W.

KASPIAN SEA ROAD 50.0' R.O.W.

ATASCOSA RIVER DR.

EQUATION STATION
CL. BARKLEY CIR. 3+75
CL. ATASCOSA RIVER 1+00

EQUATION STATION
CL. HARDIN CIR. 3+75
CL. ATASCOSA RIVER 3+15

EQUATION STATION
CL. KASPIAN 4+85
CL. ATASCOSA 6+08

13 LF 24" RCP @ 0.38%

13 LF 18" RCP @ 0.77%

225 LF 42" RCP @ 0.08% SLOPE

13 LF 18" RCP @ 0.77%

87 LF 48" RCP @ 0.08% SLOPE

160 LF 48" RCP @ 0.08% SLOPE

142 LF 24" RCP @ 0.14% SLOPE

13 LF 18" RCP @ 0.77%

STA. 1+47
MH-B1
RIM=25.88
HGL 5=25.40
HGL 100=26.45
18" FL=20.38
24" FL=19.88
42" FL=18.38

STA. 1+47
CI-B3
TC=26.05
HGL 5=25.50
18" FL=20.48

STA. 3+74
MH-B2
RIM=25.88
HGL 5=25.20
HGL 100=26.30
W 18" FL=20.20
E 18" FL=20.20
S 42" FL=18.20
N 48" FL=17.70

STA. 3+82
CI-B6
TC=26.04
HGL 5=25.30
18" FL=20.30

STA. 4+62
MH-B3
RIM=25.93
HGL 5=25.00
HGL 100=25.97
W 18" FL=20.13
S 48" FL=17.63
N 48" FL=17.63

STA. 6+08
MH-B6
RIM=26.93
HGL 5=24.75
HGL 100=25.67
N 48" FL=17.50
S 48" FL=17.50
E 24" FL=19.50
W 18" FL=20.00

MATCH LINE STA. 6+20 SHEET 13

MATCH LINE STA. 4+70 (END OF C & G STREET)

MATCH LINE STA. 5+82 (KASPIAN SEA RD)

VERT. 1"=2'
HORIZ. 1"=20'

CI-B1 STA. 0+15 TOC=26.10
CI-B1 24" FL=20.03

STA. 1+14 45' LT & RT T.O.C.=26.28
MH-B1 STA. 1+47 RIM=25.88
CI-B2 STA. 1+47 TOC=26.05
CI-B2 24" FL=19.93 24" FL=19.93
MH-B1 18" FL=20.38 24" FL=19.88 36" FL=18.88

CI-B3 STA. 1+47 TOC=26.05
CI-B3 18" FL=20.48

STA. 2+56 T.O.C.=26.42

CI-B4 STA. 3+67 TOC=26.05
CI-B4 18" FL=20.30

MH-B2 STA. 3+74 RIM=25.88
MH-B2 S 36" FL=18.70 N 42" FL=18.20 E 18" FL=20.20 W 18" FL=20.20

CI-B6 STA. 3+82 TOC=26.04
CI-B6 18" FL=20.30

STA. 4+08 45' LT. T.O.C.=26.30

STA. 4+29 45' LT. T.O.C.=26.30

MH-B3 STA. 4+62 RIM=25.93
CI-B5 STA 4+62. TOC=26.10
CI-B5 18" FL=20.23
MH-B3 W 18" FL=20.13 S 42" FL=18.13 N 42" FL=18.13

STA. 5+49 LT. T.O.C.=26.60

STA. 5+57 RT. T.O.C.=26.64

STA. 5+80 45' LT. T.O.C.=26.

STA. 5+89 45' RT. T.O.C.=26.

MH-B6 STA. 6+08 RIM=26.53
MH-B6 W 18" FL=20.00 E 24" FL=19.50 S 42" FL=18.00 N 48" FL=17.50

RIGHT TOC +0.30%
LEFT TOC +0.30%
RT & LT TOC -0.40%
HGL-5
RIGHT TOC - 0.30%
LEFT TOC -0.30%
LT TOC +0.40%
LEFT TOC -0.40%
RIGHT TOC + 0.34%
LEFT TOC +0.58%
LT & RT TC + 0.40%

N.G.

6"W.L.

PROPOSED 225 LF OF 36" RCP

PROPOSED 61 LF OF 24" RCP

PROPOSED 87 LF OF 42" RCP

PROPOSED 160 LF OF 42" RCP

0.16% SLOPE

0.08% SLOPE

8" W.W. PVC LINE
FL. ELEV = 14.89

RELEASED FOR CONSTRUCTION
Bria A. Whitmire, P.E., CFM, CPM
Development Services Engineer
City of Corpus Christi
Note: Construction Plans will expire based on the the conditions stated in UDC 3.8.5.F.

1+00 2+00 3+00 4+00 5+00 6+00

MATCH LINE STA. 6+20 SHEET 13

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PAGE: 12
OF: 68

STATE OF TEXAS
JUAN PERALES, JR.
93652
REGISTERED
PROFESSIONAL ENGINEER
11/10/2023

ATASCOSA RIVER DR.
STA. 0+15 TO STA. 6+20

KASPIAN SUBDIVISION UNIT 1
CORPUS CHRISTI , TEXAS

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TBPE FIRM No. F-14207
jperales@jperalesengineering.com
5866 S. Staples St. - # 315
Corpus Christi, Texas 78411
Tel: (361) 728-7188

MATCH LINE STA. 4+03 (KASPIAN SEA RD) SHEET 8

MATCH LINE STA. 3+00 (CURRY CIRCLE) SHEET 20

MATCH LINE STA. 3+00 (STEPH CIRCLE) SHEET 7

MATCH LINE STA. 6+20 SHEET 12

KASPIAN SEA ROAD
50.0' R.O.W.

ATASCOSA RIVER DR.
50.0' R.O.W.

CURRY CIRCLE
50.0' R.O.W.

STEPH CIRCLE
50.0' R.O.W.

STA. 6+30
CI-B10
TC=26.30
HGL 5=25.05
18" FL=20.30

18 LF 18" RCP @ 0.55% SLOPE

5' SIDEWALK

STA. 6+60
TC 26.60

STA. 6+65
TC 26.60

FG 27.5

1.70%

145 LF 48" RCP @ 0.08% SLOPE

-2.53%

-1.23%

13 LF 18" RCP @ 0.77%

STA. 7+56
MH-B7
RIM=24.56
HGL 5=24.45
HGL 100=25.10
S 48" FL=17.38
W-E 18" FL=19.88
N 60" FL=16.38

20 LF 18" RCP 0.50%

STA. 7+72
CI-B11-B
TC=24.68
HGL 5=24.70
18" FL=19.98

85 LF 60" RCP @ 0.08% SLOPE

8+03 PTVC
CL.=24.88

TC=24.78

STA. 8+36
CI-B13
TC=24.68
HGL 5=24.25
18" FL=19.91

14 LF 18" RCP @ 0.71% SLOPE

STA. 8+43
MH-B8
RIM=24.56
HGL 5=24.15
HGL 100=24.90
N 60" FL=16.31
S 60" FL=16.31
W 18" FL=19.81
E 18" FL=19.81

STA. 8+50
CI-B12
TC=24.68
HGL 5=24.35
18" FL=19.91

14 LF 18" RCP @ 0.71% SLOPE

STA. 9+62
TC 25.08

229 LF 60" RCP @ 0.08% SLOPE

STA. 10+74
MH-B9
RIM=24.38
HGL 5=23.95
GHL 100=24.50
N 60" FL=16.12
S 60" FL=16.12
W 18" FL=19.62
E 18" FL=19.62

STA. 10+74
CI-B16
TC=24.50
HGL 5=24.05
18" FL=19.72

STA. 10+74
CI-B14
TC=24.50
HGL 5=24.15
18" FL=19.72

12 LF 18" RCP @ 0.83% SLOPE

45 LF 60" RCP @ 0.08% SLOPE

34 LF 18" RCP @ 0.43% SLOPE

95 LF 72" RCP @ 0.08% SLOPE

STA. 3+55
CI-B15
TC=24.50
HGL 5=24.05
18" FL=19.72

EQUATION STATION
STEPH 3+75
ATASCOSA 11+22

STA. 3+75
MH-B10
RIM=24.50
HGL 5=23.75
HGL 100=24.17
W 18" FL=19.62
S 60" FL=16.08
E 72" FL=15.08

40 LF 72" RCP PAST END OF PAVEMENT
72" RCP
FL=15.00

SEE SHEET 5A FOR STORMWATER OUTFALL DETAILS

TEMP OUTFALL

TEMPORARY TURNAROUND BY A SEPARATE INSTRUMENT
DOC.#
SCALE: 1" =20'

VERT. 1"=2'
HORIZ. 1"=20'

STA. 6+43 RT-T.O.C.=26+93
STA. 6+45 LT-T.O.C.=26.33
STA. 6+40 RT-T.O.C.=26.00
STA. 6+65 LT-T.O.C.=26.00
PCVC STA. 6+97 CL. ELEV.= 25.32

RT-T.O.C.=26.00
CL.=26.73

LEFT TOC -1.45%
RIGHT TOC -1.17%
-1.70%
-1.70%

CI-B11 STA. 7+56 LT-TOC=24.68
MH-B7 STA. 7+56 RIM=24.56
PIVC STA. 7+50 CL. ELEV.=24.67
CI-B11-B STA. 7+72 RT-TOC=24.68
PTVC STA. 8+03 Cl. ELEV.= 24.88
STA. 7+89 LT. T.O.C.=24.88
CI-B13 STA. 8+36 RT-TOC=24.68
STA. 8+17 LT. T.O.C.=24.88
MH-B8 STA. 8+43 RIM=24.56
CI-B12 STA. 8+50 LT-TOC=24.68
STA. 9+62 T.O.C.= 25.08 CL.= 24.98
CI-B14 STA. 10+74 TOC=24.50
MH-B9 STA. 10+74 RIM=24.38
CI-B16 STA. 10+74 TOC=24.50
STA. 11+07 LT & RT T.O.C.=24.70
MH-B10 STA. 11+21 RIM=24.50
CI-B15 STA. 11+36 TOC=24.50

LT TOC +0.40%
RT TOC +0.30%
RT TOC -0.30%
LT TOC -0.40%
RIGHT TOC +0.30%
LEFT TOC +0.30%
RIGHT TOC -0.30%
LEFT TOC -0.30%
HGL-5

N.G.

PROPOSED 145 LF OF 48" RCP
0.08% SLOPE

18" RCP

PROPOSED 85 LF OF 48" RCP
0.08% SLOPE

18" RCP

PROPOSED 229 LF OF 60" RCP
0.08% SLOPE

18" RCP

PROPOSED 45 LF OF 60" RCP
0.08% SLOPE

PROPOSED 34 LF OF 18" RCP
0.43% SLOPE

72" RCP

8" W.W. PVC LINE
FL. ELEV = 12.74

8" W.W. PVC LINE
FL. ELEV = 11.34

12" W.W. PVC LINE
FL. ELEV = 8.91

VERTICAL CURVE DATA: ATASCOSA RIVER DRIVE

STATION	CL ELEV	
6+97	25.32	PCVC
7+00	25.28	
7+10	25.15	
7+20	25.03	
7+30	24.94	
7+40	24.87	
7+50	24.82	
7+60	24.78	
7+70	24.78	
7+80	24.78	
7+90	24.82	
8+00	24.86	
8+03	24.88	PTVC

CI-B11 18" FL=19.98
MH-B7 N 48" FL=17.38 S 48" FL=17.38 E,W 18" FL=19.88
CI-B11-B 18" FL=19.98
CI-B12 18" FL=19.91
MH-B8 N 60" FL=16.31 S 48" FL=17.31 E 18" FL=19.81 W 18" FL=19.81
CI-B3 18" FL=19.91
CI-B14 18" FL=19.72
MH-B9 N 60" FL=16.12 S 60" FL=16.12 E 18" FL=19.62 W 18" FL=19.62
CI-B16 18" FL=19.72
MH-B10 W 18" FL=19.62 S 60" FL=16.08 E 72" FL=15.08
CI-B15 18" FL=19.72

6+00 7+00 8+00 9+00 10+00 11+00 12+00

RELEASED FOR CONSTRUCTION

Bria A. Whitmire, P.E., CFM, CPM
Development Services Engineer
City of Corpus Christi

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DATE: 11-10-23
DRAWING #: 210237
OF: 68
PAGE: 13

STATE OF TEXAS
JUAN PERALES JR.
66652
REGISTERED
PROFESSIONAL ENGINEER
11/10/2023

ATASCOSA RIVER DR.
STA. 6+20 TO STA. 12+00

KASPIAN SUBDIVISION UNIT 1
TEXAS
CORPUS CHRISTI , TEXAS

J. Perales Civil Engineering and Planning Services
TBPE FIRM No. F-14207
jperales@jperalesengineering.com
5866 S. Staples St. - # 315
Corpus Christi, Texas 78411
Tel: (361) 728-7188

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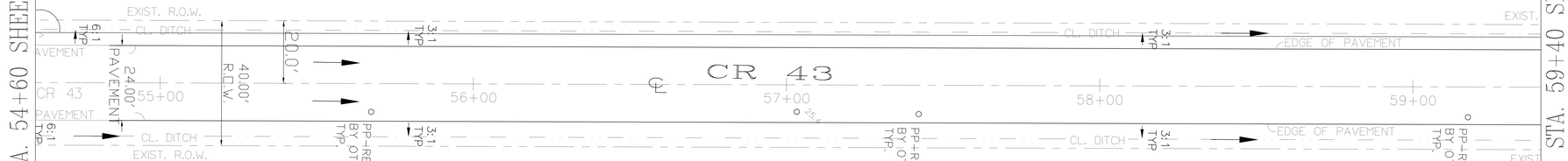
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City of Corpus Christi
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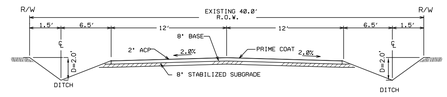
N ½ SECTION 5
URELES FARM TRACT

MATCH LINE STA. 54+60 SHEET 11

43 STA. 53+87
ANSAS RIVER DR.
. 1+10
-A3
=27.76
. 5=22.65
. 100=24.09
2" FL=18.50
8" FL=18.00

NOTE:
SEE SHEET 52 OF 52
FOR CR 43/ ARANSAS RIVER
DR. INTERSECTION DETAIL

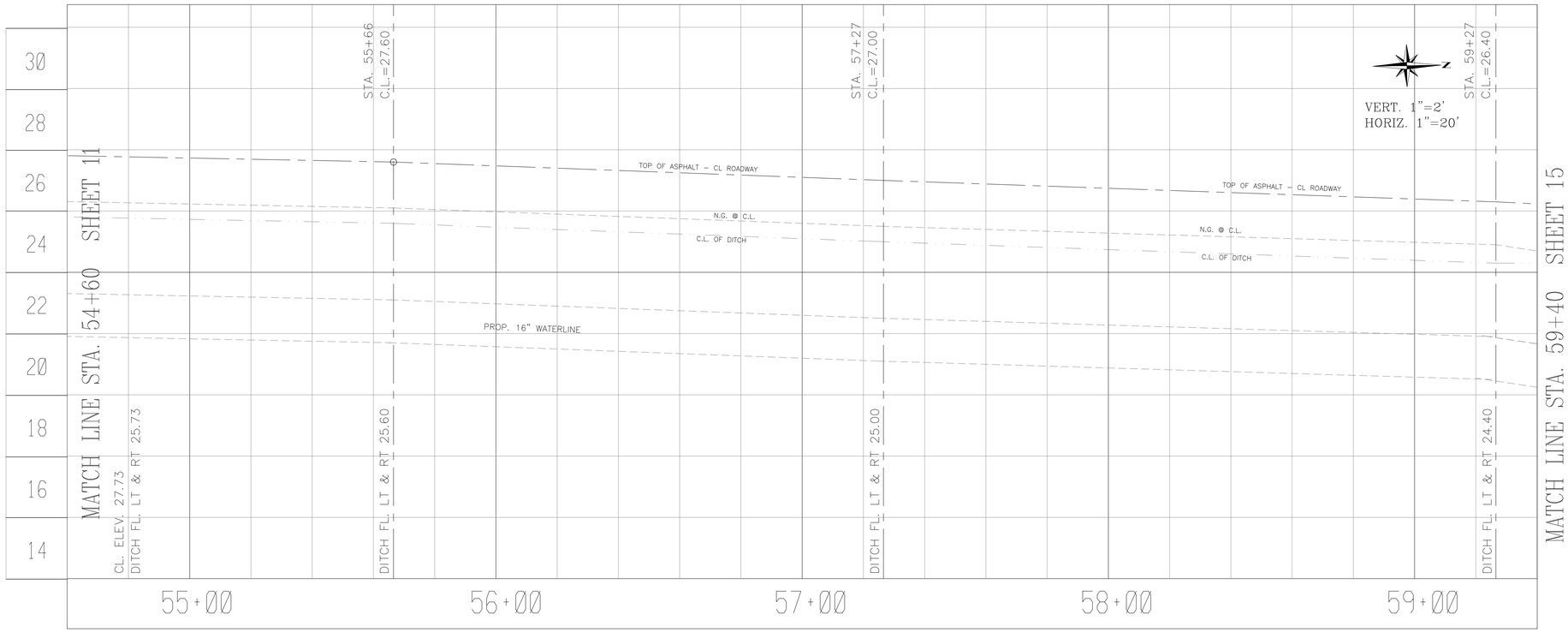




C.R. 43 - TYPICAL SECTION
(FROM LIMITS OF DEVELOPMENT TO F.M. 43 (WEBER ROAD)
SCALE: N.T.S.

SCALE: 1"=20'

MATCH LINE STA. 59+40 SHEET 15



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STATE OF TEXAS · JUAN PERALES, JR. · 66652 · REGISTERED · ENGINEER · PROFESSIONAL
Juan Perales Jr, P.E.
11/10/2023

COUNTY ROAD 43
STA. 54+60 TO STA. 59+40

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CORPUS CHRISTI , TEXAS

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PAGE: 15	OF: 68		

STATE OF TEXAS · JUAN PERALES, JR. · 66652 · REGISTERED PROFESSIONAL ENGINEER
Juan Perales Jr, P.E. 11/10/2023

COUNTY ROAD 43
STA. 59+40 TO STA. 64+40

KASPIAN SUBDIVISION UNIT 1
CORPUS CHRISTI , TEXAS

J. Perales Civil Engineering and Planning Services
TBPE FIRM No. F-14207
jperales@jperalesengineering.com
5866 S. Staples St. - # 315
Corpus Christi, Texas 78411
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City of Corpus Christi

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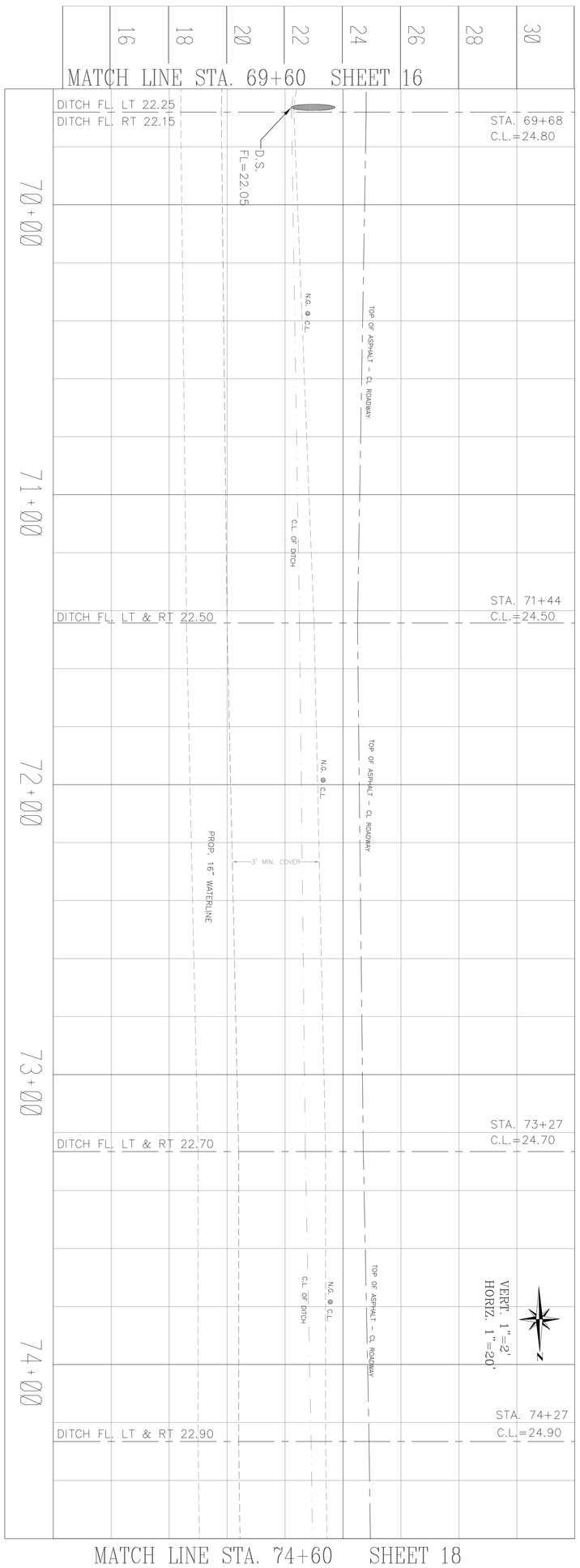
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PAGE: 16	OF: 68		

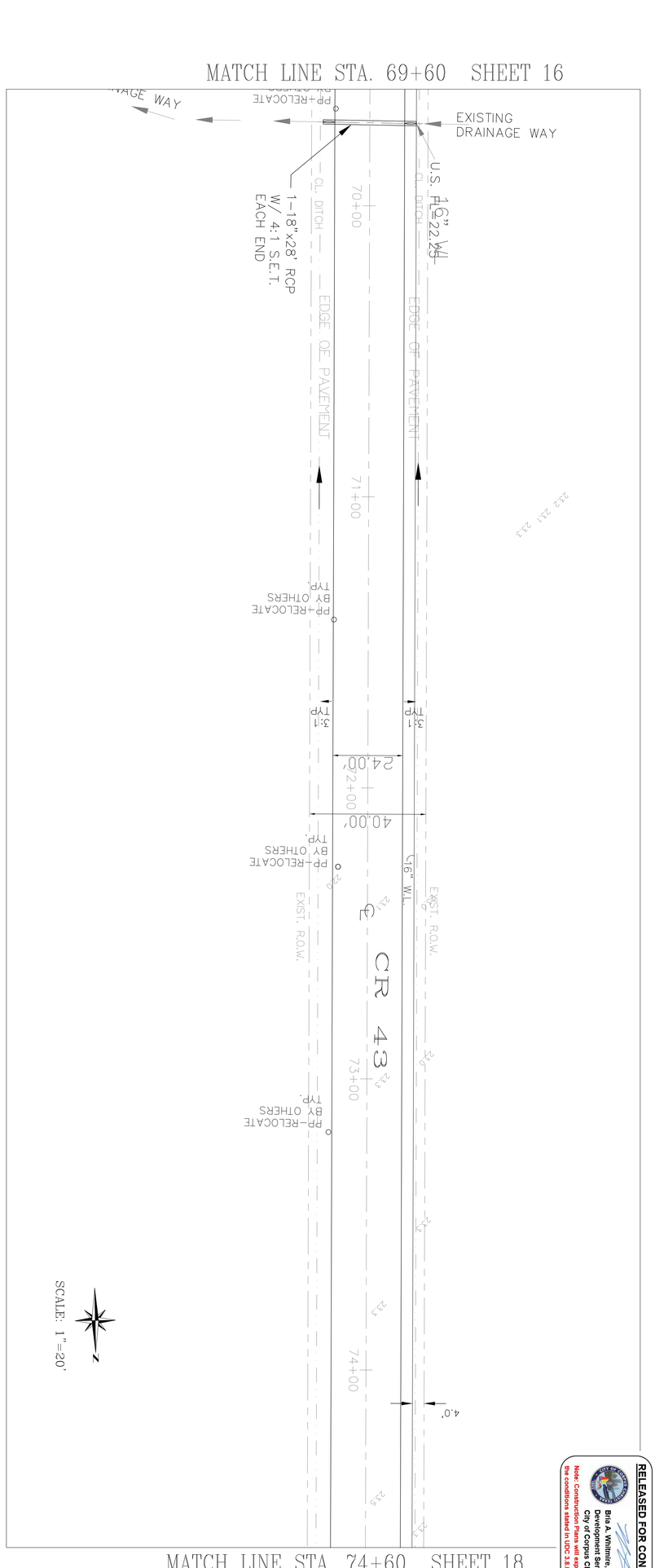
STATE OF TEXAS
JUAN PERALES JR.
66632
REGISTERED
PROFESSIONAL
ENGINEER
Juan Perales Jr., P.E.
11/10/2023

COUNTY ROAD 43
STA. 64+40 TO STA. 69+60

KASPIAN SUBDIVISION UNIT 1
CORPUS CHRISTI , TEXAS

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TBPE FIRM No. F-14207
jperales@jperalesengineering.com
5866 S. Staples St. - # 315
Corpus Christi, Texas 78411
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RELEASED FOR CONSTRUCTION

Bria A. Wiltmire, P.E., CFM, CPM
Development Services Engineer
City of Corpus Christi

Note: Construction Plans will expire based on the conditions stated in UDC 3.8.6.F

J. Perales Civil Engineering and Planning Services
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jperales@jperalesengineering.com
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Corpus Christi, Texas 78411
Tel: (361) 728-7188

COUNTY ROAD 43
STA. 69+60 TO STA. 74+60

KASPIAN SUBDIVISION UNIT 1
CORPUS CHRISTI , TEXAS

STATE OF TEXAS
JUAN PERALES, JR.
66652
REGISTERED
PROFESSIONAL ENGINEER
11/10/2023

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PAGE: 17	OF: 68

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City of Corpus Christi

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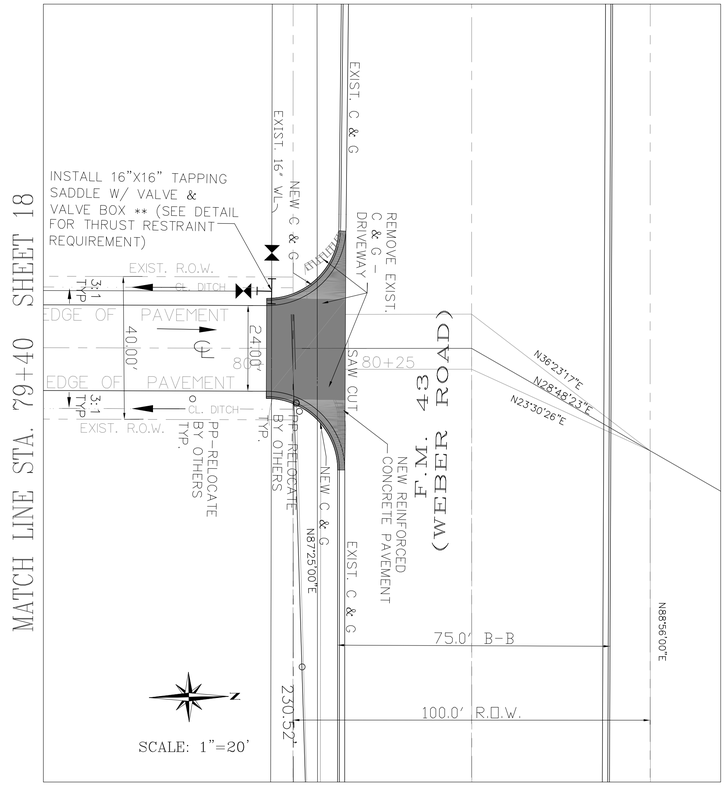
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PAGE: 18	OF: 68		

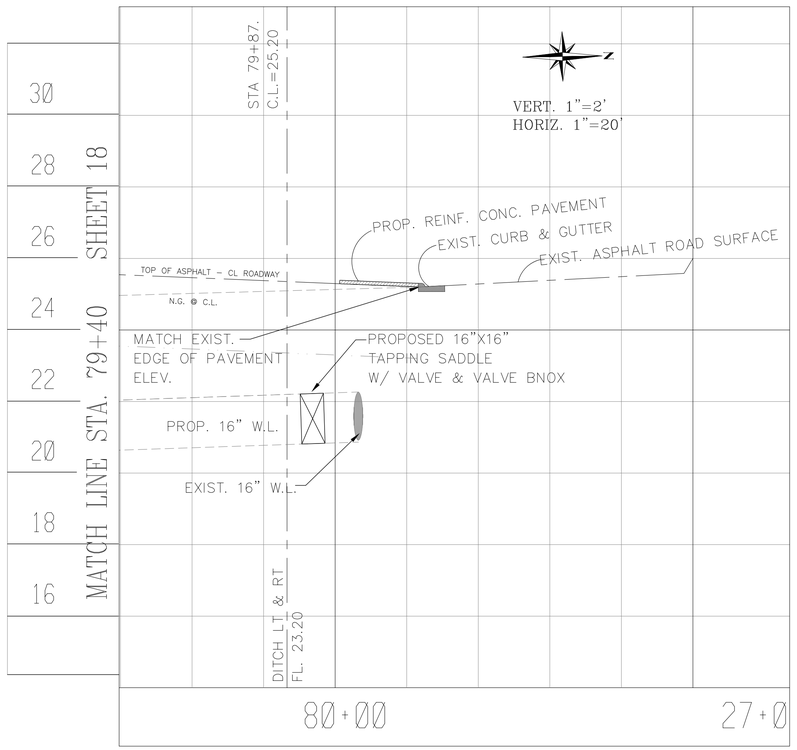
STATE OF TEXAS
JUAN PERALES, JR.
66652
REGISTERED
ENGINEERING
PROFESSIONAL
Juan Perales Jr., P.E.
11/10/2023

COUNTY ROAD 43
STA. 74+60 TO STA. 79+40

KASPIAN SUBDIVISION UNIT 1
CORPUS CHRISTI, TEXAS

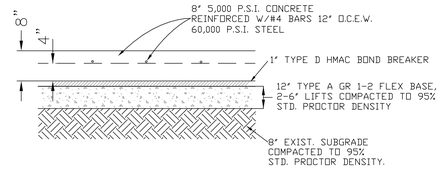
J. Perales Civil Engineering and Planning Services
TBPE FIRM No. F-14207
jperales@jperalesengineering.com
5866 S. Staples St. - # 315
Corpus Christi, Texas 78411
Tel: (361) 728-7188





GENERAL NOTES FOR CONCRETE PAVEMENT

1. ALL REINFORCING STEEL LAPS SHALL BE 30 BAR DIAMETERS. BAR LENGTHS SHALL BE SUCH TO PROVIDE A CLEARANCE OF AT LEAST 2" ALONG PAVEMENT EDGES AND AT JOINTS WHERE THE REINFORCING STEEL IS NOT TO BE CONTINUOUS.
2. EXPANSION JOINT FILLER SHALL BE REDWOOD JOINT SEAL COMPOUND SHALL BE VULKEM 245/255 OR EQUAL, TWO PART POLYURETHANE JOINT SEALANT. IT SHALL MEET THE REQUIREMENTS OF A.S.T.M. C920-87 TYPE M, GRADE P, CLASS 25, USE T, M, A AND O.
3. CONCRETE PAVEMENT SHALL BE 5000 P.S.I. MIN.
4. REINFORCING STEEL SHALL BE SUPPORTED DURING CONSTRUCTION TO MAINTAIN NOT LESS THAN 4 INCHES AND NOT GREATER THAN 5 INCHES COVER FROM TOP OF SLAB.

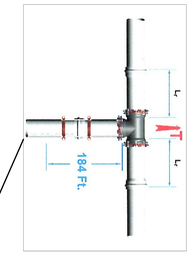


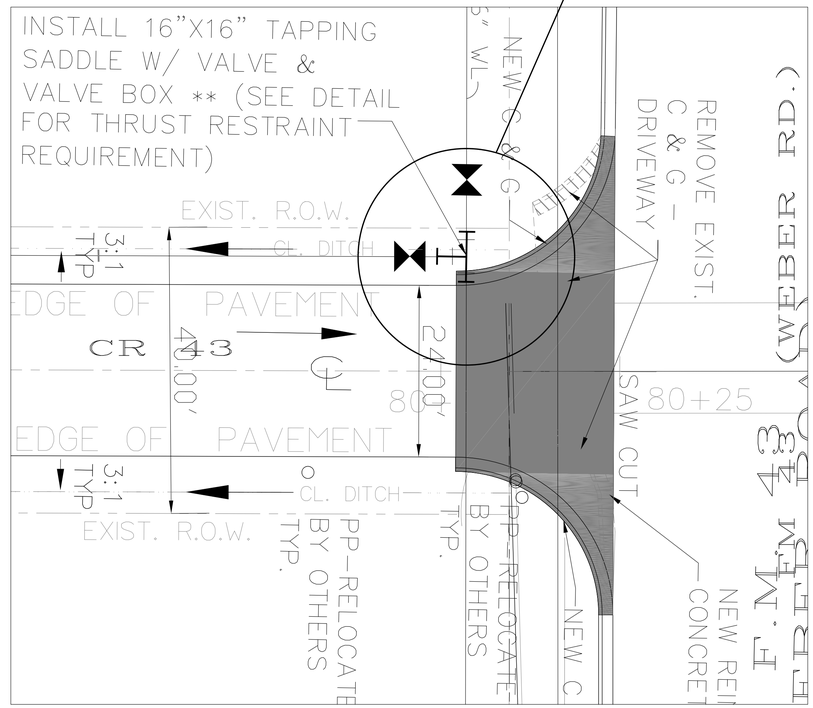
CONCRETE PAVEMENT DETAIL
N.T.S.

RELEASED FOR CONSTRUCTION

Bria A. Whitmire, P.E., CFM, CPM
Development Services Engineer
City of Corpus Christi
Note: Construction Plans will expire based on the the conditions stated in UDC 3.8.5.F.

** THRUST RESTRAINT DETAIL





PROPOSED 16 INCH WATERLINE TIE IN THRUST RESTRAINT SUMMARY
PIPE MATERIAL = PVC
NOMINAL SIZE = 16 INCH
TRENCH TYPE = 5
DEPTH OF BURY = 3.0 FT.
TEST PRESSURE = 150 PSI
SOIL TYPE = CH WITH GRANULAR TRENCH BACKFILL
SAFETY FACTOR = 2.0
ASSUMED RESTRAINED PIPE RUN LENGTH, LEFT AND RIGHT = 0 FT.
CALCULATED MINIMUM RESTRAINED PIPE BRANCH LENGTH = 184 FT.

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DRAWING #: 210237 | PAGE: 19 OF: 68

STATE OF TEXAS – JUAN PERALES, JR. – 66652 – REGISTERED PROFESSIONAL ENGINEER – 11/10/2023

COUNTY ROAD 43
STA. 79+40 TO STA. 80+25

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CORPUS CHRISTI , TEXAS

J. Perales Civil Engineering and Planning Services
TBPE FIRM No. F-14207
jperales@jperalesengineering.com
5866 S. Staples St. - # 315
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VERT. 1"=20'
HORIZ. 1"=20'

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PAGE: 20 | OF: 68

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11/10/2023

CURRY CIRCLE
STA. 0+00 TO STA. 4+00

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jperales@jperalesengineering.com
5866 S. Staples St. - # 315
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PAGE:	21
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OF:	68

STATE OF TEXAS · JUAN PERALES, JR. · 66652 · REGISTERED · ENGINEER · PROFESSIONAL
Juan Perales Jr., P.E. 11/10/2023

HARDIN CIRCLE
STA. 0+00 TO STA. 4+00

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jperales@jperalesengineering.com
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DRAWING #: 210237
PAGE: 22 | OF: 68

STATE OF TEXAS
JUAN PERALES, JR.
66632
REGISTERED
PROFESSIONAL
ENGINEER
11/10/2023

BARKLEY CIRCLE
STA. 0+00 TO STA. 4+70

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MATCH LINE STA. 29+20
SHEET 22B

MATCH LINE STA. 29+20
SHEET 22B

CULVERT DETAIL
CR 43 CL. STA. 29+10
SCALE: N.T.S.

RELEASED FOR CONSTRUCTION

Bria A. Whitmire, P.E., CFM, CPM
Development Services Engineer
City of Corpus Christi
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DRAWING #: 210237	
PAGE: 22A	OF: 68

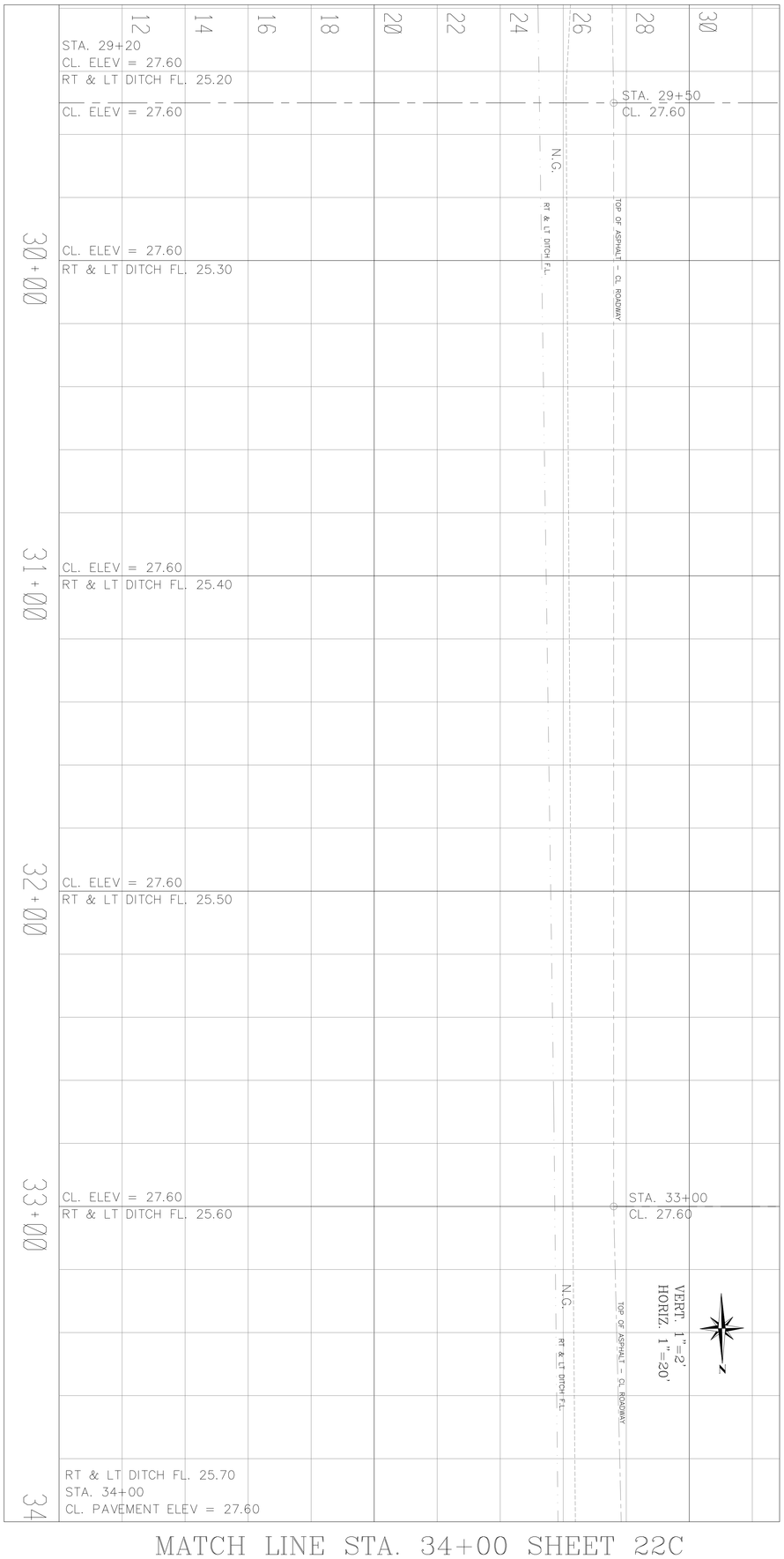
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66652
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PROFESSIONAL ENGINEER
11/10/2023

COUNTY ROAD 43
STA. 27+47 TO STA. 29+20

KASPIAN SUBDIVISION UNIT 1
CORPUS CHRISTI, TEXAS

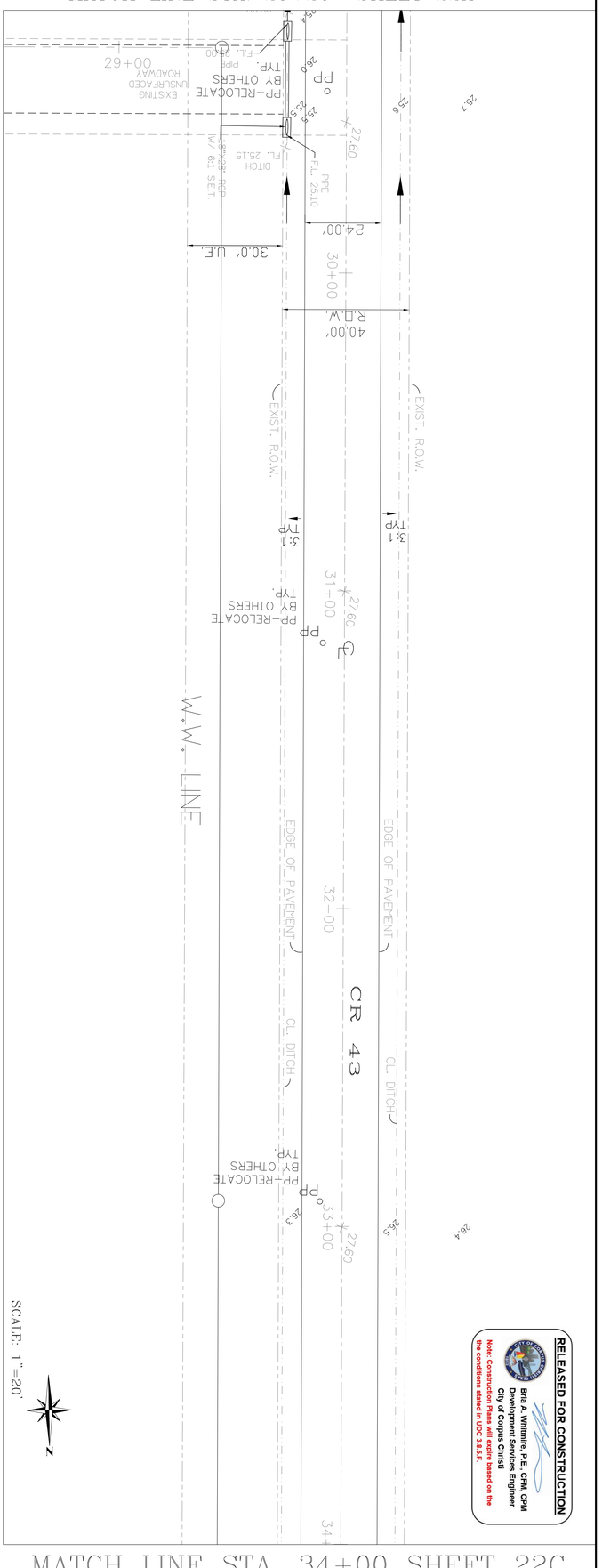
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MATCH LINE STA. 29+20 SHEET 22A



MATCH LINE STA. 34+00 SHEET 22C

MATCH LINE STA. 29+20 SHEET 22A



MATCH LINE STA. 34+00 SHEET 22C

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COUNTY ROAD 43
STA. 29+20 TO STA. 34+00

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JUAN PERALES, JR.
66652
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11/10/2023

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DRAWING #: 210237	
PAGE: 22B	OF: 68

MATCH LINE STA. 34+00 SHEET 22B

MATCH LINE STA. 40+00 SHEET 9

MATCH LINE STA. 34+00 SHEET 22B

MATCH LINE STA. 40+00 SHEET 9

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DRAWING #: 210237
PAGE: 22C
OF: 68

JUAN PERALES, JR. 6652 REGISTERED PROFESSIONAL ENGINEER STATE OF TEXAS
11/10/2023

COUNTY ROAD 43
STA. 34+00 TO STA. 40+00

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CORPUS CHRISTI , TEXAS

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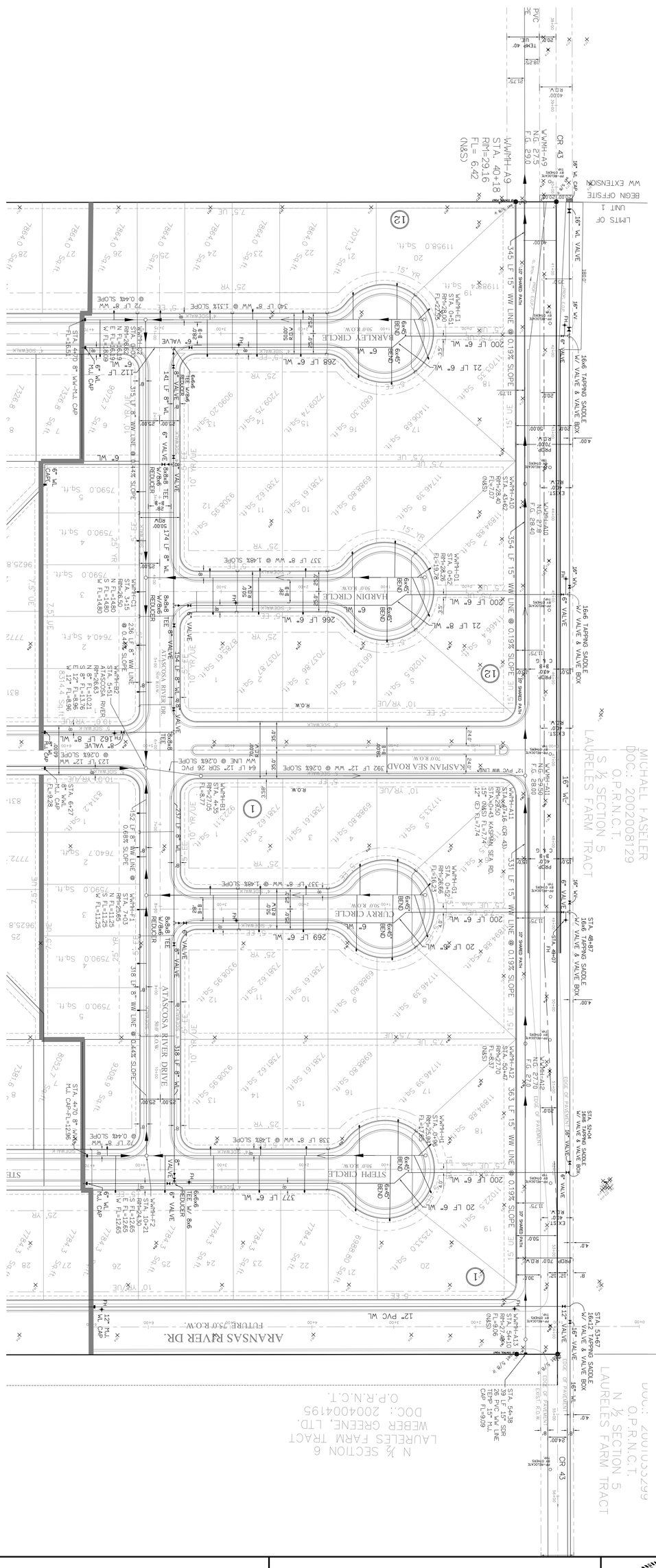
NOTES:

UNIT 1 INCLUDES 64 SINGLE FAMILY RESIDENTIAL LOTS

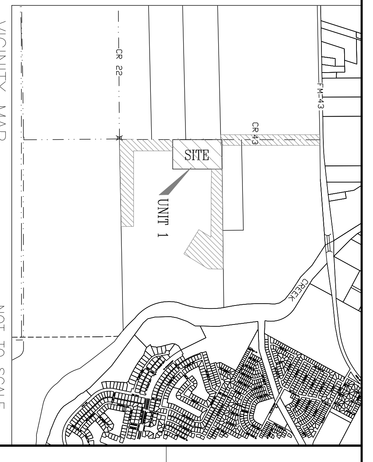
64 LOTS X 3.5 CAPITA PER LOT = 224

ESTIMATED AVERAGE DAILY FLOW = 22,400 GAL PER DAY

ESTIMATED PEAK HOURLY FLOW = 62 GAL PER MINUTE



VICINITY MAP



NOT TO SCALE

RELEASED FOR CONSTRUCTION

Bria A. Whitmire, P.E., CFM, CPM
City of Corpus Christi
Development Services Engineer

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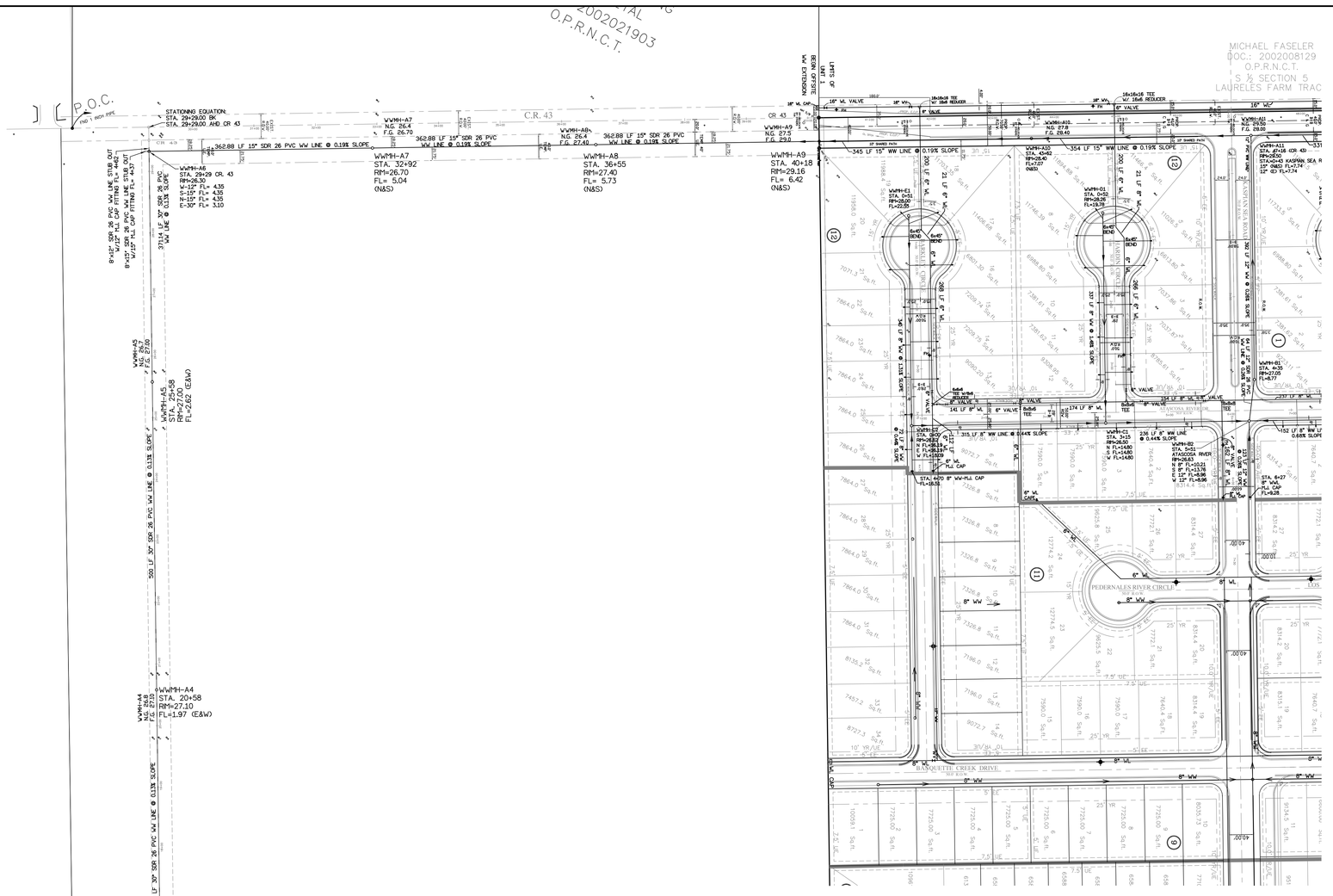
UTILITY PLAN

KASPIAN SUBDIVISION UNIT 1

CORPUS CHRISTI , TEXAS

STATE OF TEXAS
JUAN PERALES, JR.
66652
REGISTERED
PROFESSIONAL ENGINEER
Juan Perales Jr., P.E.
11/10/2023

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DATE: 11-10-23	SCALE: SHOWN
DRAWING #: 210237	
PAGE: 23	OF: 68



PER INFRASTRUCTURE DESIGN MANUAL:
SECTION S.02.09, PIPE SLOPE FOR 30"
DIAMETER PIPE MUST BE CALCULATED
BY MANNINGS EQUATION.

MANNINGS EQUATION:

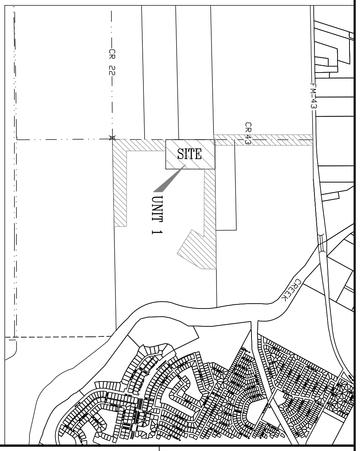
$V = 1.486/n \; R^{2/3} \; S^{1/2}$

$S_{min} = [\, V_{min} \,(n/1.486 \,) / R^{2/3} \,]^2$

$S_{min} = [\, 3.0 \text{ ft/sec} \,(0.013/1.486 \,) / (\, 0.625 \text{ ft})^{2/3} \,]^2$

$S_{min} = 0.0013 \text{ ft/ft}$

RELEASED FOR CONSTRUCTION
Eric A. Whitmire, P.E. CFM, CPM
Development Services Engineer
City of Corpus Christi
Note: Construction Plans will expire based on the
the conditions stated in UDC 3.5.5.F

VICINITY MAP
NOT TO SCALE


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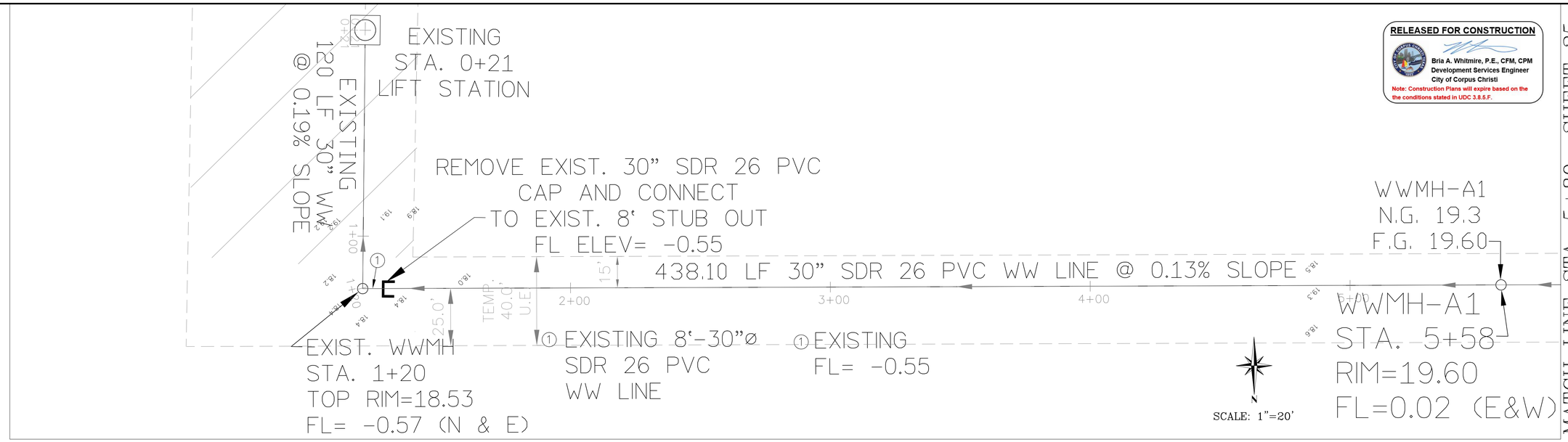
UTILITY PLAN
OFFSITE WASTEWATER SYSTEM

KASPIAN SUBDIVISION UNIT 1

CORPUS CHRISTI , TEXAS

STATE OF TEXAS
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PAGE: 23A	OF: 68



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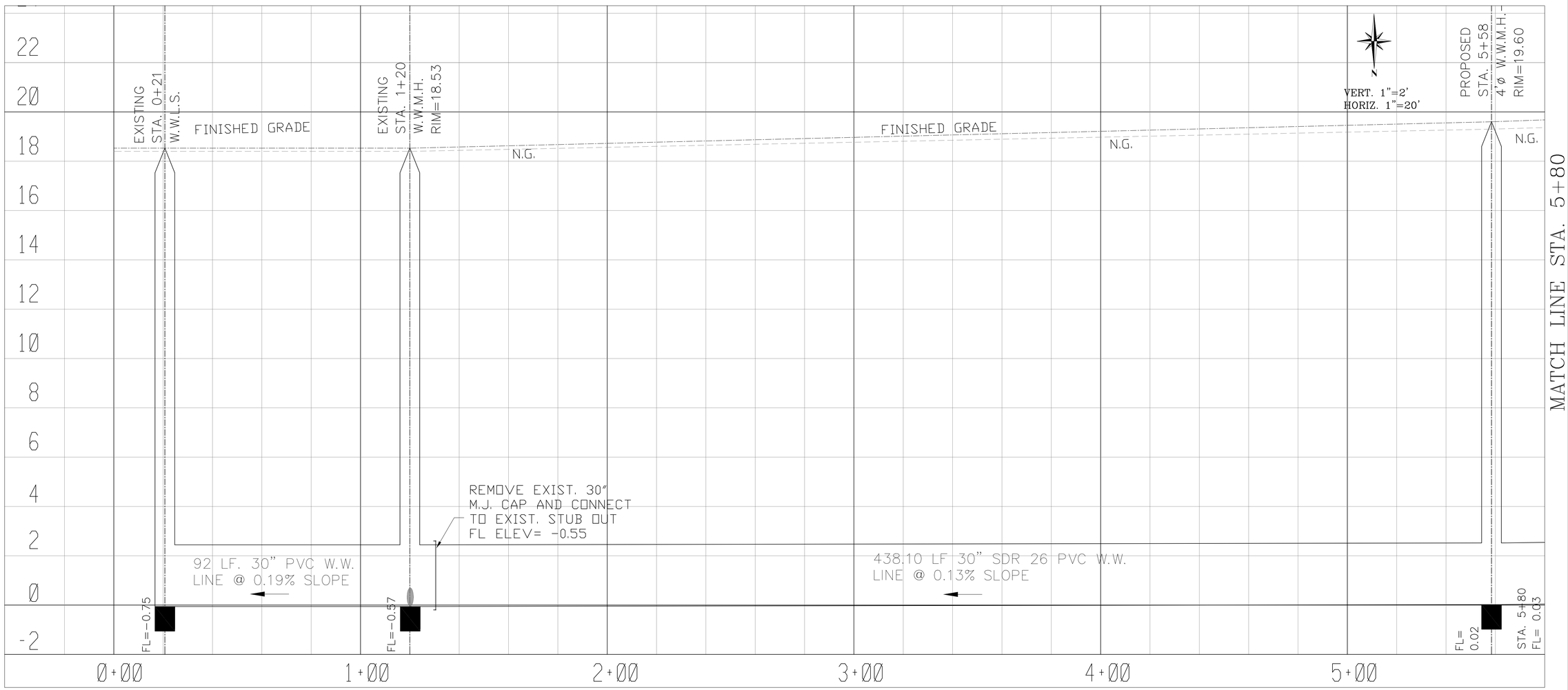
Bria A. Whitmire, P.E., CFM, CPM
Development Services Engineer
City of Corpus Christi

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MATCH LINE STA. 5+80 SHEET 25

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DRAWING #: 210237			
PAGE: 24	OF: 68		



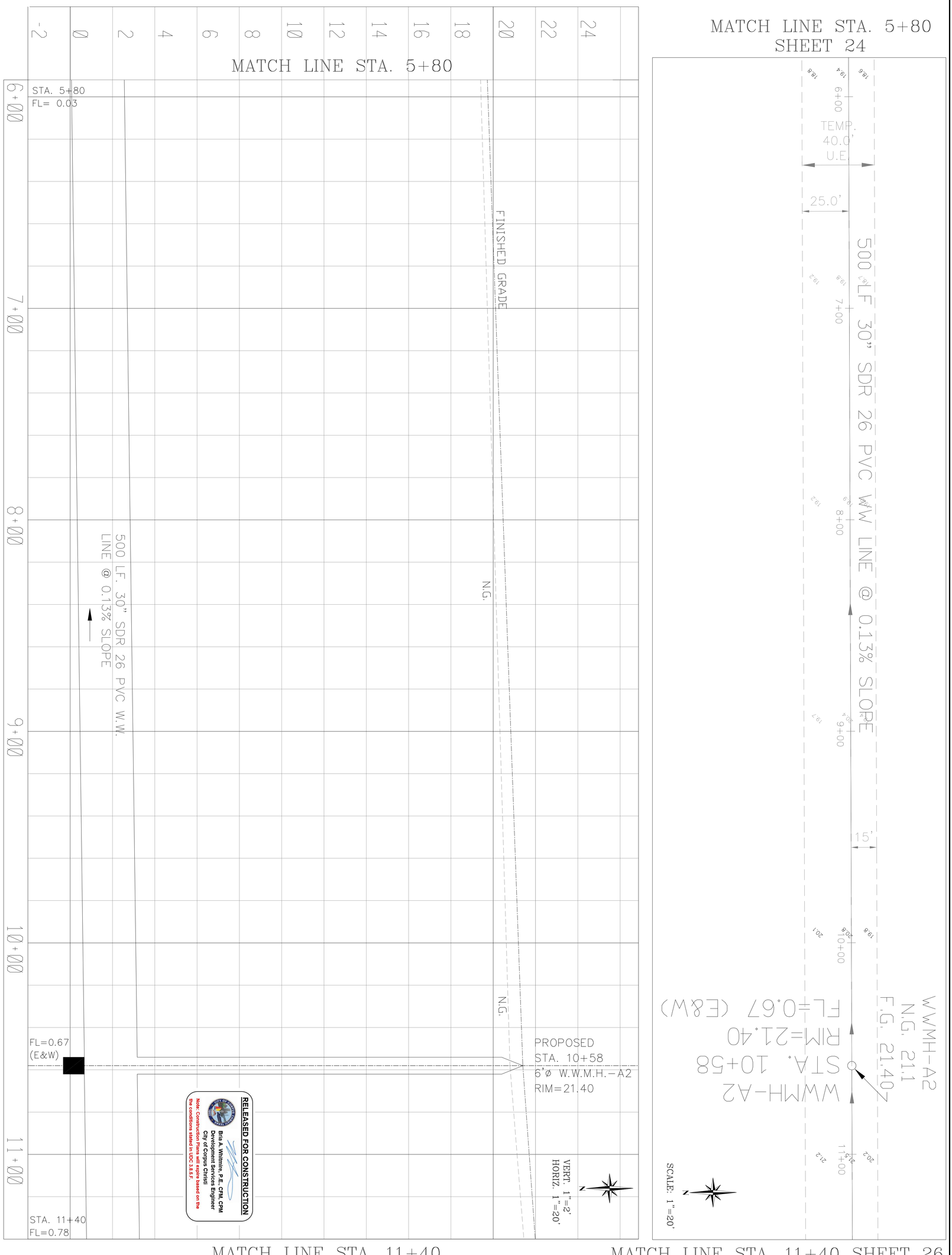


MATCH LINE STA. 5+80

OFFSITE W.W. PLAN & PROFILE
STA. 0+00 TO STA. 5+80

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OFFSITE W.W. PLAN & PROFILE STA. 5+80 TO STA. 11+40

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DRAWING #: 210237	
PAGE: 25	OF: 68

MATCH LINE STA. 11+40
SHEET 25

40' TEMPORARY UTILITY EASEMENT

500 LF 30" SDR 26 PVC WW LINE @ 0.13% SLOPE

TEMP. 40.0' U.E.

25.0'

12+00 13+00 14+00 15+00 16+00 17

WWMH-A3
N.G. 24.7
F.G. 25.00

WWMH-A3
STA. 15+58
RIM=25.00
FL=1.32 (E&W)

15'

25.0'

TEMP. 40.0' U.E.

SCALE: 1"=20'

MATCH LINE STA. 17+00 SHEET 27

PROPOSED
STA. 15+58
6'ø W.W.M.H.-A3
RIM=25.00

N.G.

FINISHED GRADE

N.G.

N.G.

VERT. 1"=2'
HORIZ. 1"=20'

24
22
20
18
16
14
12
10
8
6
4
2
0
-2

MATCH LINE STA. 11+40

STA. 11+40
FL=0.78

500 LF. 30" SDR 26 PVC W.W. LINE @ 0.13% SLOPE

FL=1.32 (E&W)

STA. 17+00
FL=1.50

12+00 13+00 14+00 15+00 16+00 17

MATCH LINE STA. 17+00

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Development Services Engineer
City of Corpus Christi

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PAGE: 26

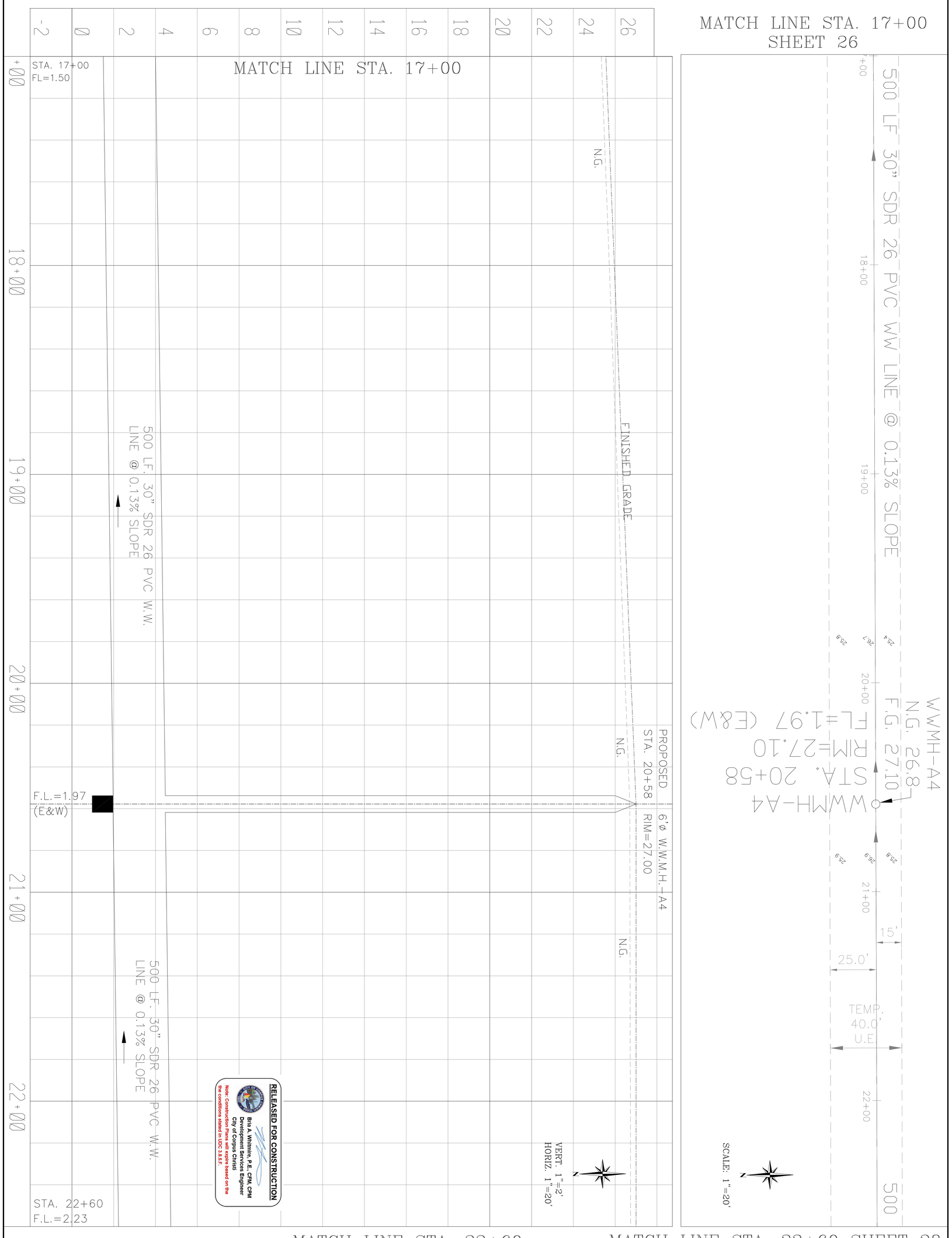
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11/10/2023

OFFSITE W.W. PLAN & PROFILE
STA. 11+40 TO STA. 17+00

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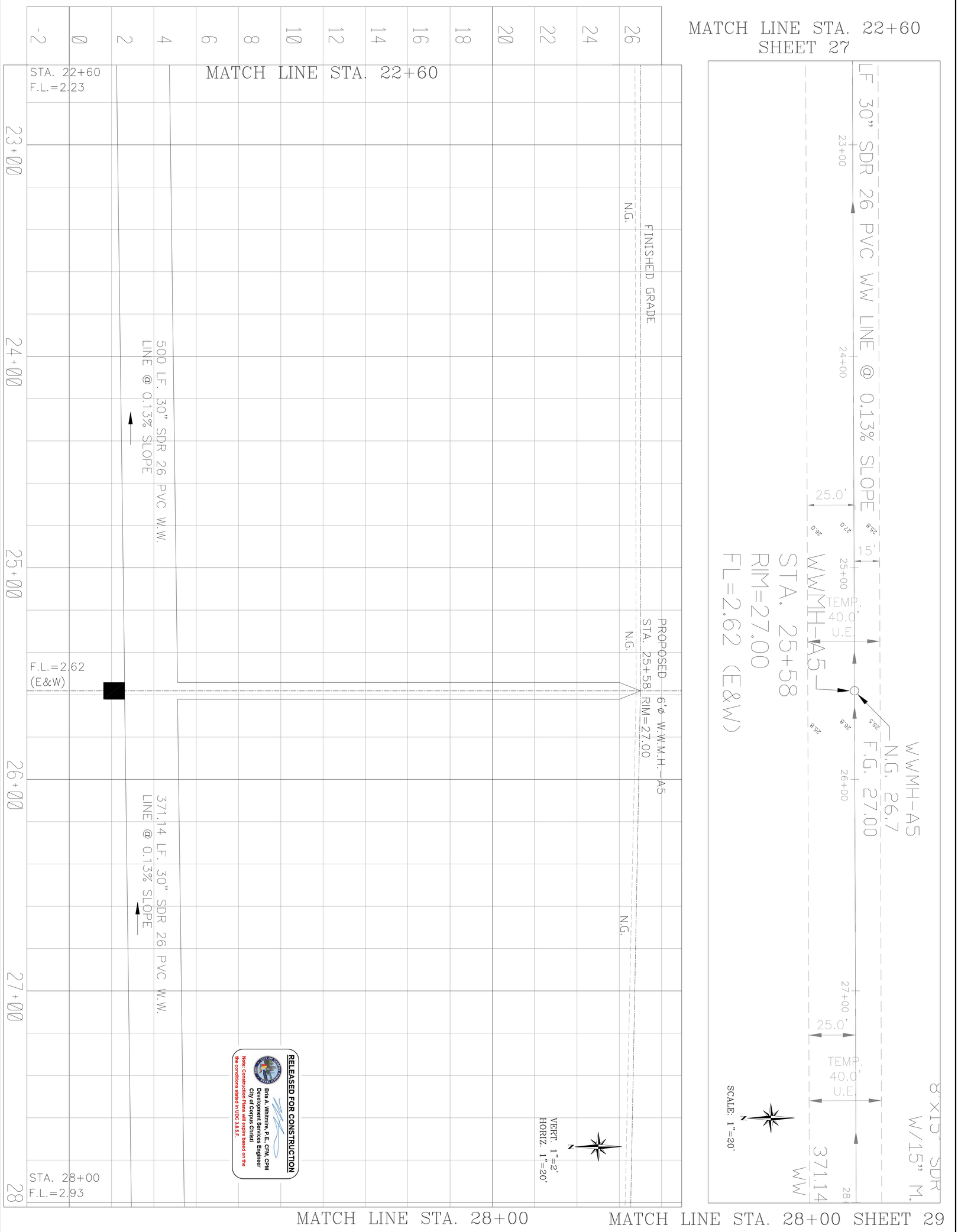
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OFFSITE W.W. PLAN & PROFILE STA. 17+00 TO STA. 22+60

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66652
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PAGE: 27	OF: 68



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Development Services Engineer
City of Corpus Christi

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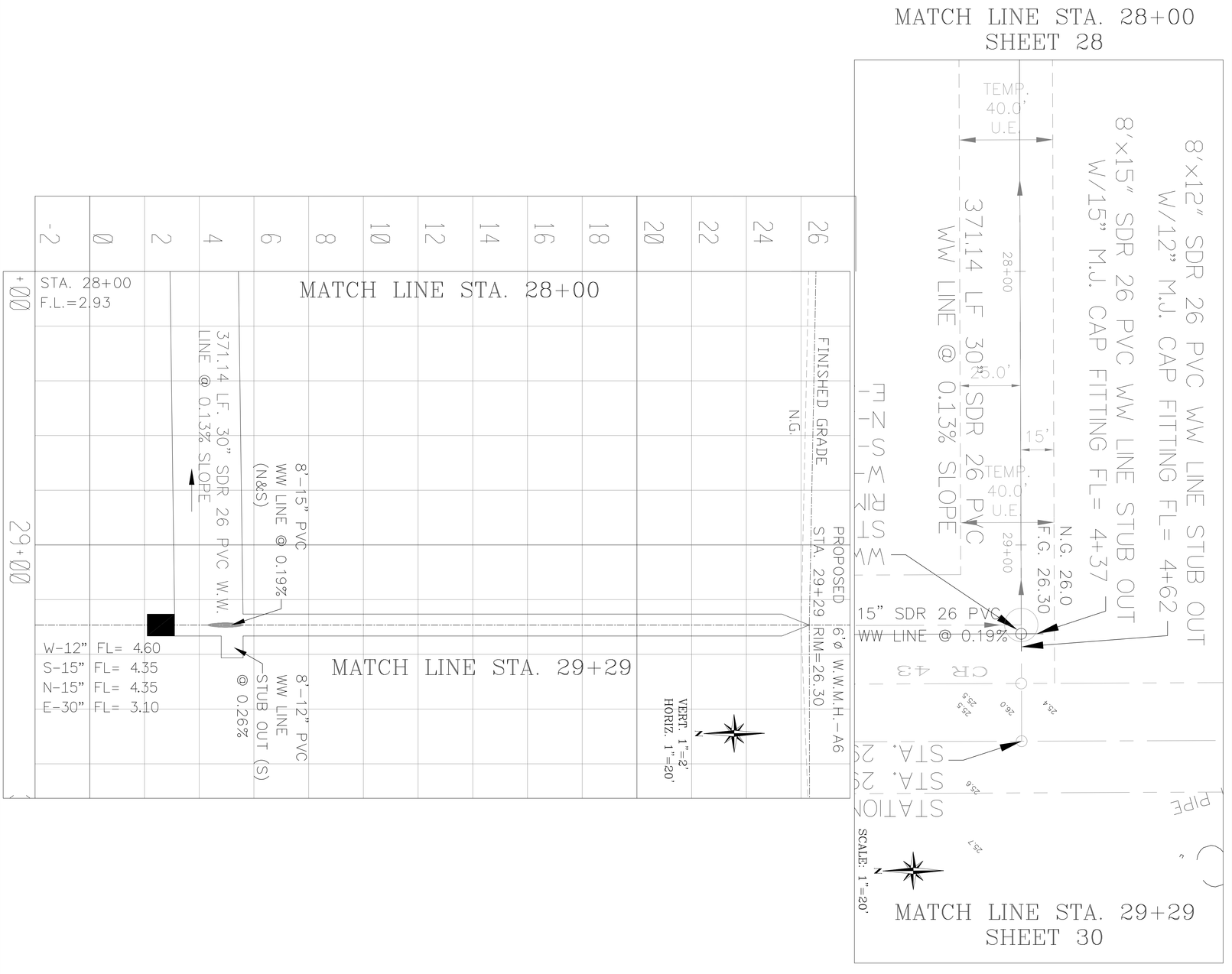
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OFFSITE W.W. PLAN & PROFILE STA. 22+60 TO STA. 28+00

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PAGE:	28	OF:	68



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Eric A. Whitmire, P.E., CFM, CPM
Development Services Engineer
City of Corpus Christi

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OFFSITE W.W. PLAN & PROFILE STA. 28+00 TO STA. 29+29

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DATE:	11-10-23	SCALE:	SHOWN
DRAWING #:	210237		
PAGE:	29	OF:	68

MATCH LINE STA. 29+29 SHEET 29

STATIONING EQUATION:
STA. 29+29.00 BK
STA. 29+29.00 AHD CR 43

CR 43

EXIST. 40000' R.O.W.

18.25'

40.0' TEMP. U.E.

21.75'

362.88 LF 15" SDR 26 PVC WW LINE @ 0.19% SLOPE

W LINE STUB OUT
TING FL= 4+37
N.G. 26.0
F.G. 26.30

15'

DR 26 PVC
13% SLOPE

WWMH-A6
STA. 29+29 CR. 43
RIM=26.30
W-12" FL= 4.35
S-15" FL= 4.35
N-15" FL= 4.35

WWMH-A7
N.G. 26.4
F.G. 26.70

362.88 LF 15" SDR 26 PVC
WW LINE @ 0.19% SLOPE

WWMH-A7
STA. 32+92
RIM=26.70
FL= 5.04
(N&S)

SCALE: 1"=20'

MATCH LINE STA. 35+00 SHEET 31

PROPOSED
STA. 29+29
6'ø W.W.M.H.-A6
RIM=26.30

FINISHED GRADE

N.G.

PROPOSED
STA. 32+92
4'ø W.W.M.H.-A7
RIM=26.70

VERT. 1"=2'
HORIZ. 1"=20'

MATCH LINE STA. 29+29

MATCH LINE STA. 35+00

15" PVC

12" PVC STUB OUT

362.88 LF. 15" SDR 26 PVC W.W. LINE @ 0.19% SLOPE

362.88 LF. 15" SDR 26 PVC W.W. LINE @ 0.19% SLOPE

W-12" FL= 4.60
S-15" FL= 4.35
N-15" FL= 4.35
E-30" FL= 3.10

FL=5.04 (N&S)

STA. 35+00 FL=5.44

RELEASED FOR CONSTRUCTION
Bria A. Whitmire, P.E., CFM, CPM
Development Services Engineer
City of Corpus Christi
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PAGE: 30
OF: 68

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REGISTERED
PROFESSIONAL ENGINEER
11/10/2023

OFFSITE W.W. PLAN & PROFILE
(CR 43)
STA. 29+29 TO STA. 35+00

KASPIAN SUBDIVISION UNIT 1
CORPUS CHRISTI, TEXAS

J. Perales Civil Engineering and Planning Services
TBPE FIRM No. F-14207
jperales@jperalesengineering.com
5866 S. Staples St. - # 315
Corpus Christi, Texas 78411
Tel: (361) 728-7188

MATCH LINE STA. 35+00 SHEET 30

C.R. 43

CENTERLINE EXISTING 40' R.O.W.

EXISTING R.O.W. LINE

400' TEMP. U.E.

WWMH-A8
N.G. 26.4
F.G. 27.40

362.88 LF 15" SDR 26 PVC
WW LINE @ 0.19% SLOPE

20.0'

TEMP 40' U.E.

18.25'

21.75'

40000' R.O.W.

WWMH-A8
STA. 36+55
RIM=27.40
FL= 5.73
(N&S)

CR 43

16" WL CAP

20.00'

20.00'

PP-RELOCATE BY OTHERS TYP.

set 5/8 "

WWMH-A9
N.G. 27.5
F.G. 29.0

WWMH-A9
STA. 40+18
RIM=29.16
FL= 6.42
(N&S)

SCALE: 1"=20'

MATCH LINE STA. 40+40 SHEET 32

PROPOSED
STA. 36+55
4'ø W.W.M.H.-A8
RIM=27.40

N.G.

FINISHED GRADE

PROPOSED
STA. 40+18
4'ø W.W.M.H.-A9
RIM=29.16

N.G.

VERT. 1"=2'
HORIZ. 1"=20'

MATCH LINE STA. 35+00

MATCH LINE STA. 40+40

STA. 35+00
FL=5.44

362.88 LF. 15" SDR 26 PVC W.W. LINE @ 0.19% SLOPE

362.88 LF. 15" SDR 26 PVC W.W. LINE @ 0.19% SLOPE

FL=5.73
(N&S)

FL=6.42
(N&S)

STA. 40+40
FL=6.46

28 26 24 22 20 18 16 14 12 10 8 6 4

36+00 37+00 38+00 39+00 40+00

RELEASED FOR CONSTRUCTION

Bria A. Whitmire, P.E., CFM, CPM
Development Services Engineer
City of Corpus Christi

Note: Construction Plans will expire based on the the conditions stated in UDC 3.8.5.F.

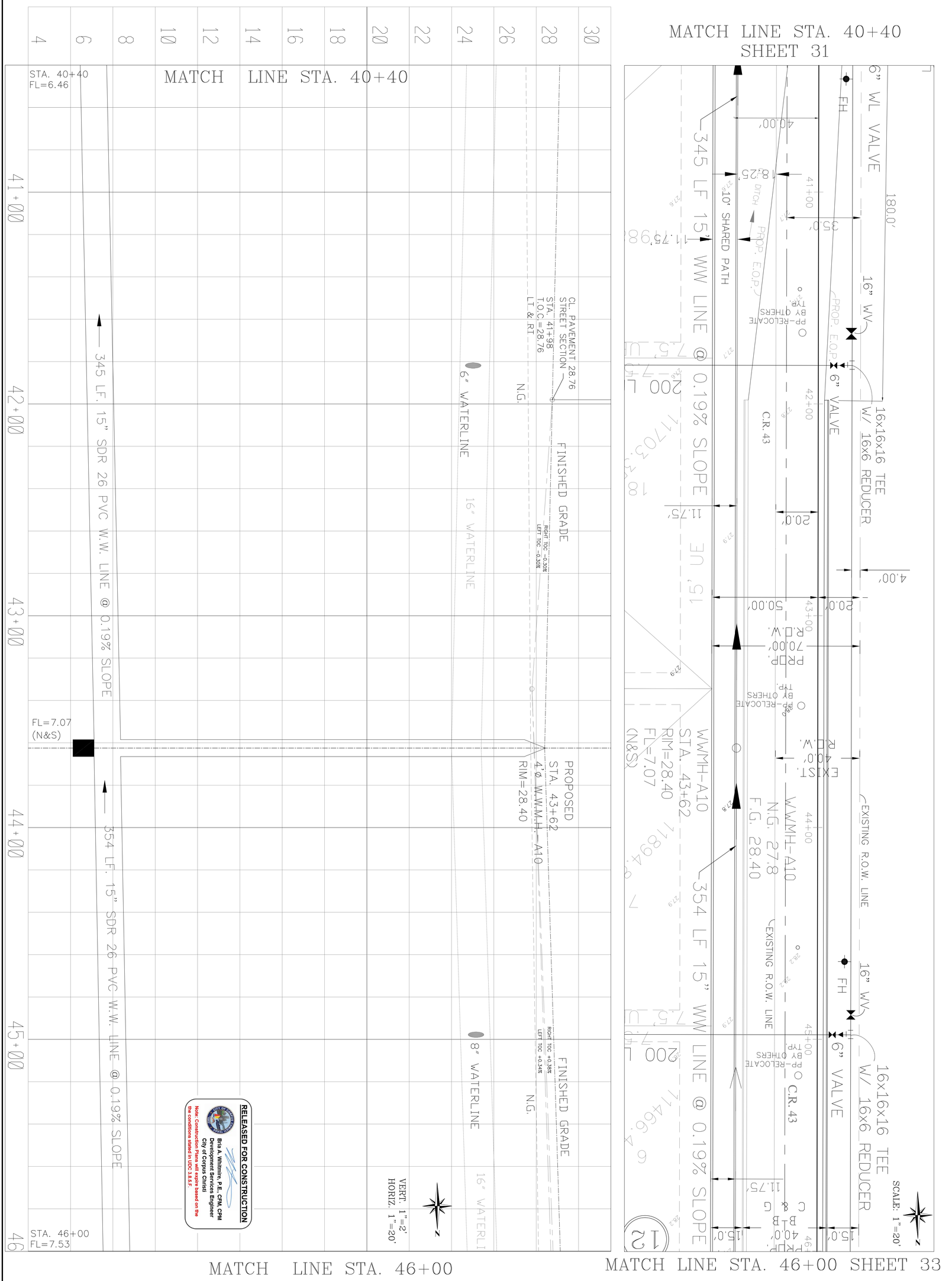
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DATE: 11-10-23 | SCALE: SHOWN
DRAWING #: 210237 | DF: 68
PAGE: 31

STATE OF TEXAS · JUAN PERALES, JR. · 66652 · REGISTERED PROFESSIONAL ENGINEER · 11/10/2023

OFFSITE W.W. PLAN & PROFILE
(CR 43)
STA. 35+00 TO STA. 40+40

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CORPUS CHRISTI, TEXAS

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C.R. 43 W.W. PLAN & PROFILE STA. 40+40 TO STA. 46+00

KASPIAN SUBDIVISION UNIT 1
CORPUS CHRISTI , TEXAS

STATE OF TEXAS
JUAN PERALES, JR.
66652
REGISTERED
PROFESSIONAL ENGINEER
Juan Perales Jr., P.E.
11/10/2023

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DATE: 11-10-23	SCALE: SHOWN
DRAWING #: 210237	
PAGE: 32	OF: 68

S ½ SECTION 5
LAURELES FARM TRACT

MATCH LINE STA. 46+00
SHEET 32

MATCH LINE STA. 51+60 SHEET 34

SCALE: 1"=20'

EXISTING R.O.W. LINE

16" WL

16" WV

STA. 48+87
16x16x16 TEE
W/ 6 REDUCER

6" VALVE

STA. 49+07
FH

EXIST. 40.0' R.O.W.

PROP. 40.0' R.O.W.

PROP. 70.0' R.O.W.

EDGE OF PAVEMENT 16'

STA.
16x1
W/

20.0'

15.0'

11.75'

18.25'

4.00'

PP-RELOCATE BY OTHERS TYP.

WWMH-A11
N.G. 29.50
F.G. 28.00

WWMH-A12
N.G. 27.70
F.G. 27.0

EDGE OF PAVEM

C.R. 43

C & G

B-B

10' SHARED PATH

12" PVC WW LINE

331 LF 15" WW LINE @ 0.19% SLOPE

WWMH-A11
STA. 47+16 (CR 43)
RIM=29.50
STA.=0+43 KASPIAN SEA RD.
15" (N&S) FL=7.74
12" (E) FL=7.74

200 LF

WWMH-A12 340 LF 15"
STA. 50+47
RIM=27.70
FL=8.37
(N&S)

15' UE

7.5' UE

47+00 48+00 49+00 50+00 51+00

PROPOSED
STA. 47+16
4'ø W.W.M.H.–A11
RIM=29.50

FINISHED GRADE

N.G.

PROPOSED
STA. 50+47
4'ø W.W.M.H.–A12
RIM=27.70

VERT. 1"=2'
HORIZ. 1"=20'

6" WATERLINE

16" WATERLINE

28
26
24
22
20
18
16
14
12
10
8
6
4

MATCH LINE STA. 46+00

MATCH LINE STA. 51+60

354 LF. 15" SDR 26 PVC
W.W. LINE @ 0.19% SLOPE

12" SDR 26
PVC WW LINE

331 LF. 15" SDR 26 PVC W.W. LINE @ 0.19% SLOPE

340 LF. 15" SDR 26 PVC
W.W. LINE @ 0.19% SLOPE

STA. 46+00
FL=7.53

FL=7.74
15" (N&S)
12" E

FL=8.37
(N&S)

STA. 51+60
FL=8.57

RELEASED FOR CONSTRUCTION

Bria A. Whitmire, P.E., CFM, CPM
Development Services Engineer
City of Corpus Christi

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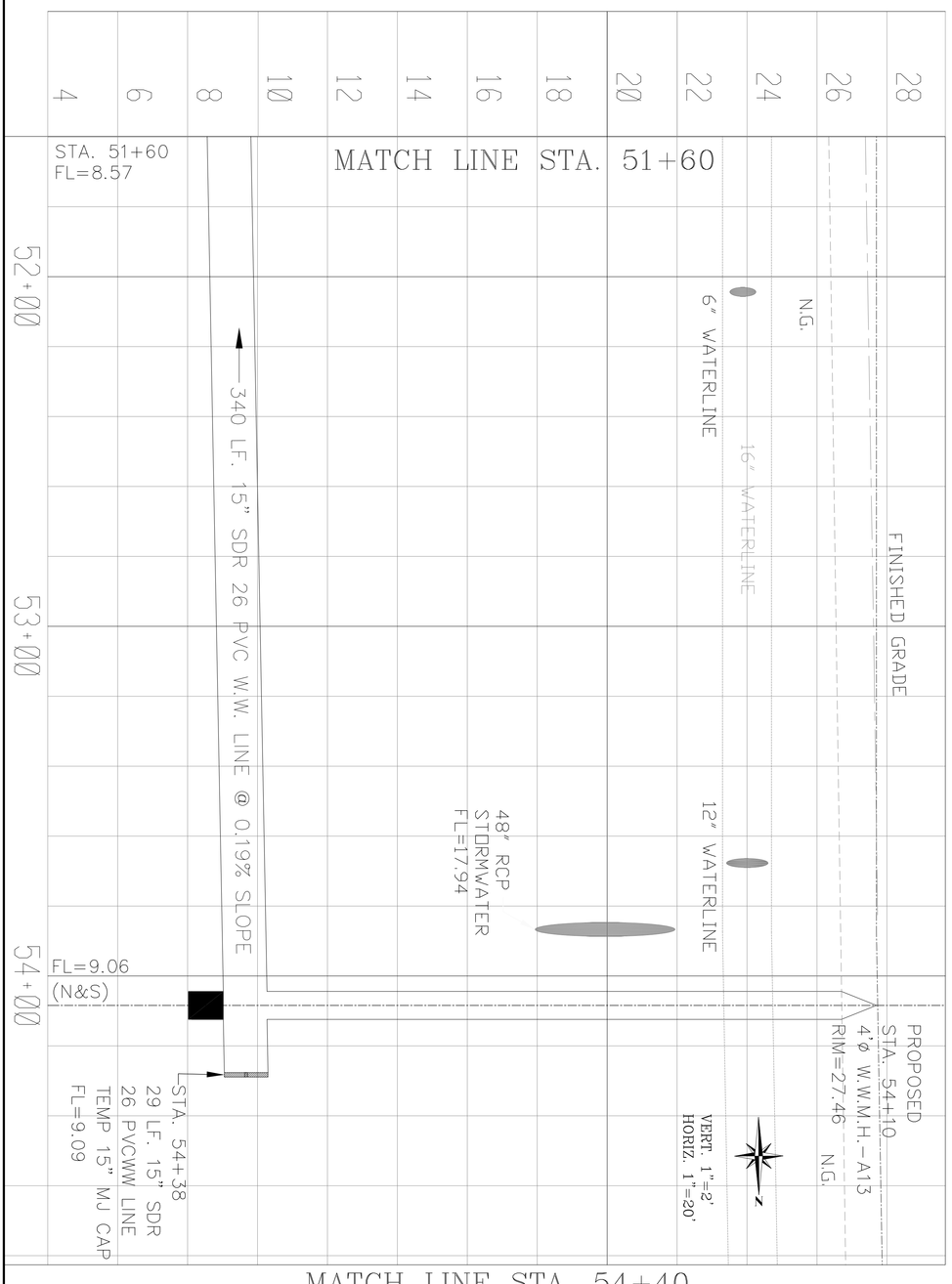
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DRAWING #: 210237
PAGE: 33
OF: 68

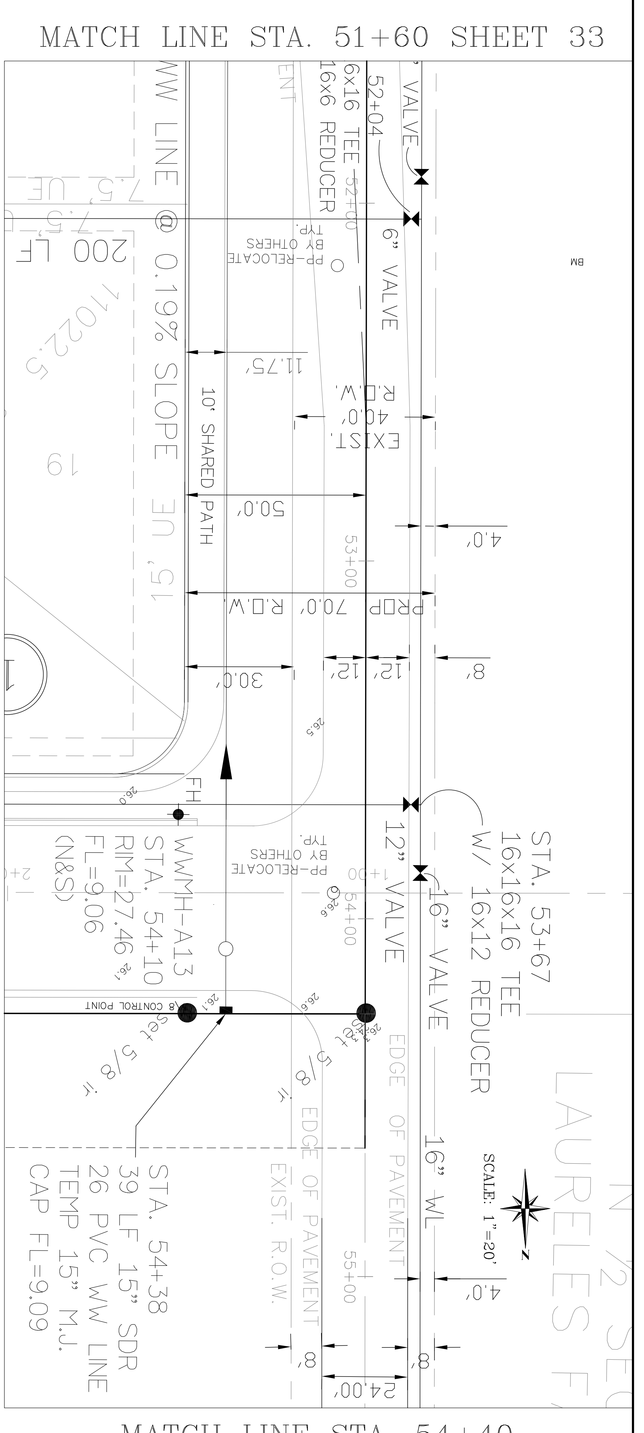
STATE OF TEXAS
JUAN PERALES, JR.
66632
REGISTERED
PROFESSIONAL
ENGINEER
11/10/2023

C.R. 43 W.W. PLAN & PROFILE
STA. 46+00 TO STA. 51+60

KASPIAN SUBDIVISION UNIT 1
CORPUS CHRISTI, TEXAS

J. Perales Civil Engineering and Planning Services
TBPE FIRM No. F-14207
jperales@jperalesengineering.com
5866 S. Staples St. - # 315
Corpus Christi, Texas 78411
Tel: (361) 728-7188





RELEASED FOR CONSTRUCTION
Eric A. Whitmire, P.E., CFM, CPM
Development Services Engineer
City of Corpus Christi
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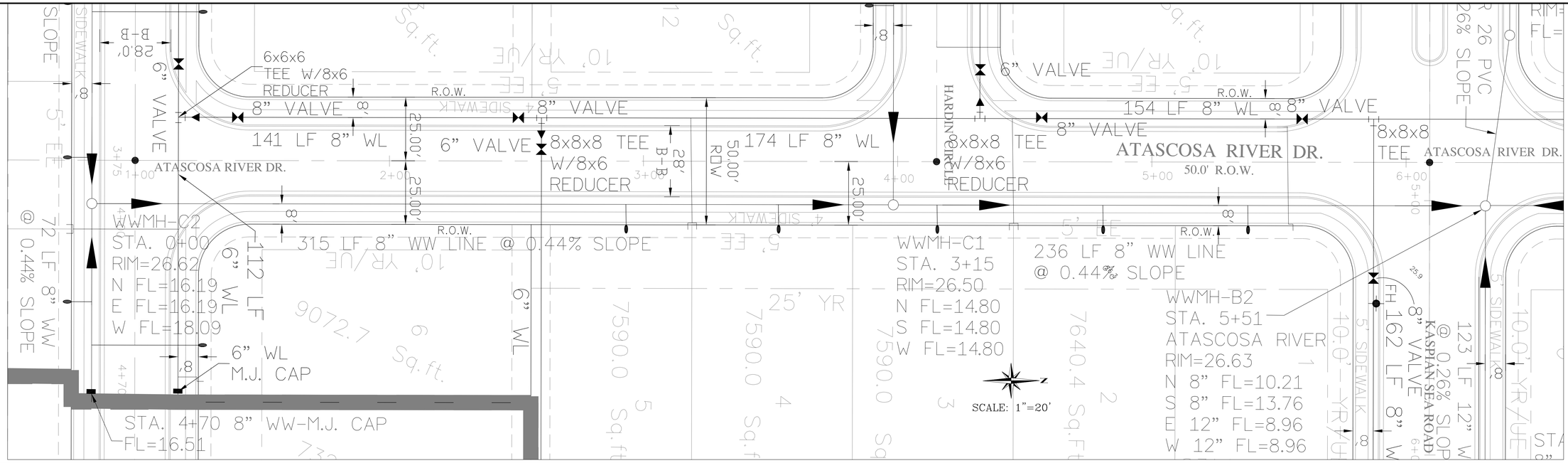
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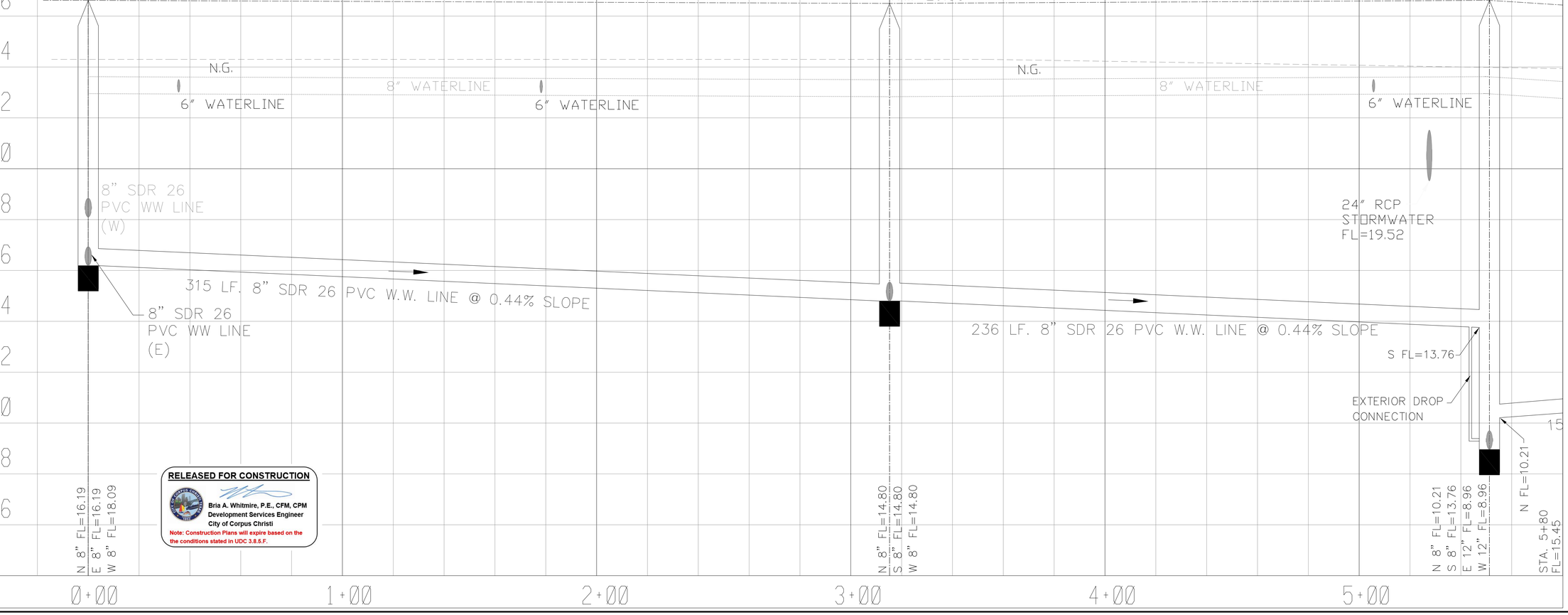
C.R. 43 W.W. PLAN & PROFILE
STA. 51+60 TO STA. 54+40

KASPIAN SUBDIVISION UNIT 1
CORPUS CHRISTI , TEXAS

STATE OF TEXAS
JUAN PERALES, JR.
66652
REGISTERED
PROFESSIONAL ENGINEER
Juan Perales Jr., P.E.
11/10/2023

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PAGE: 34	OF: 68		





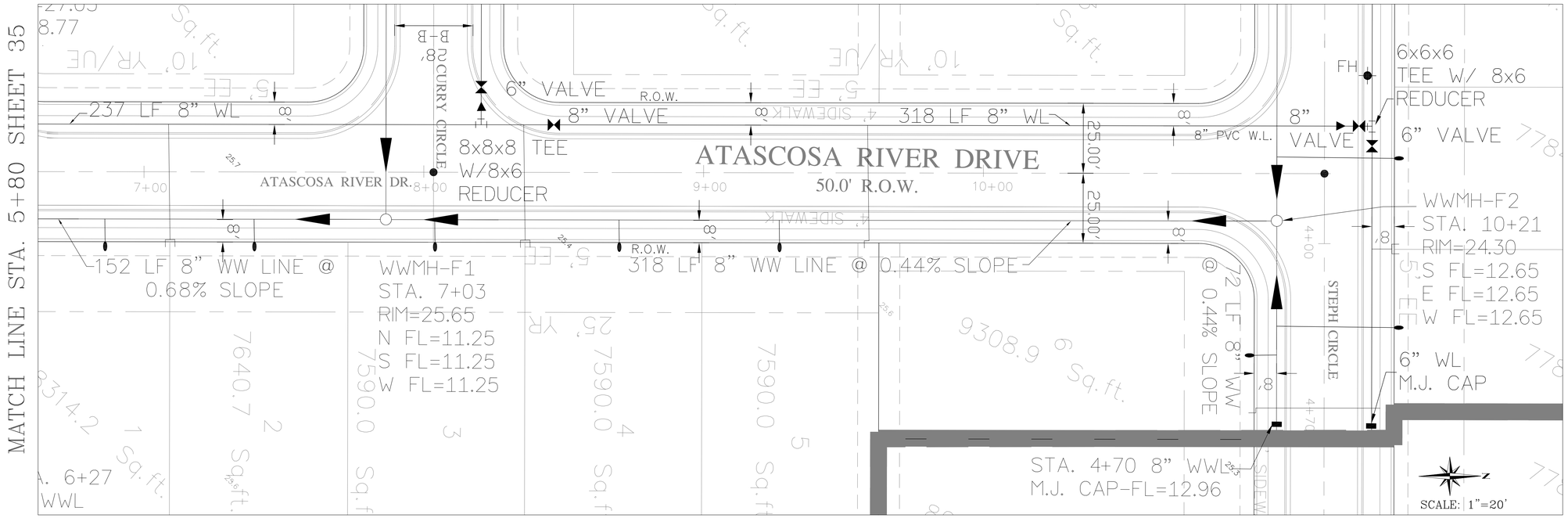
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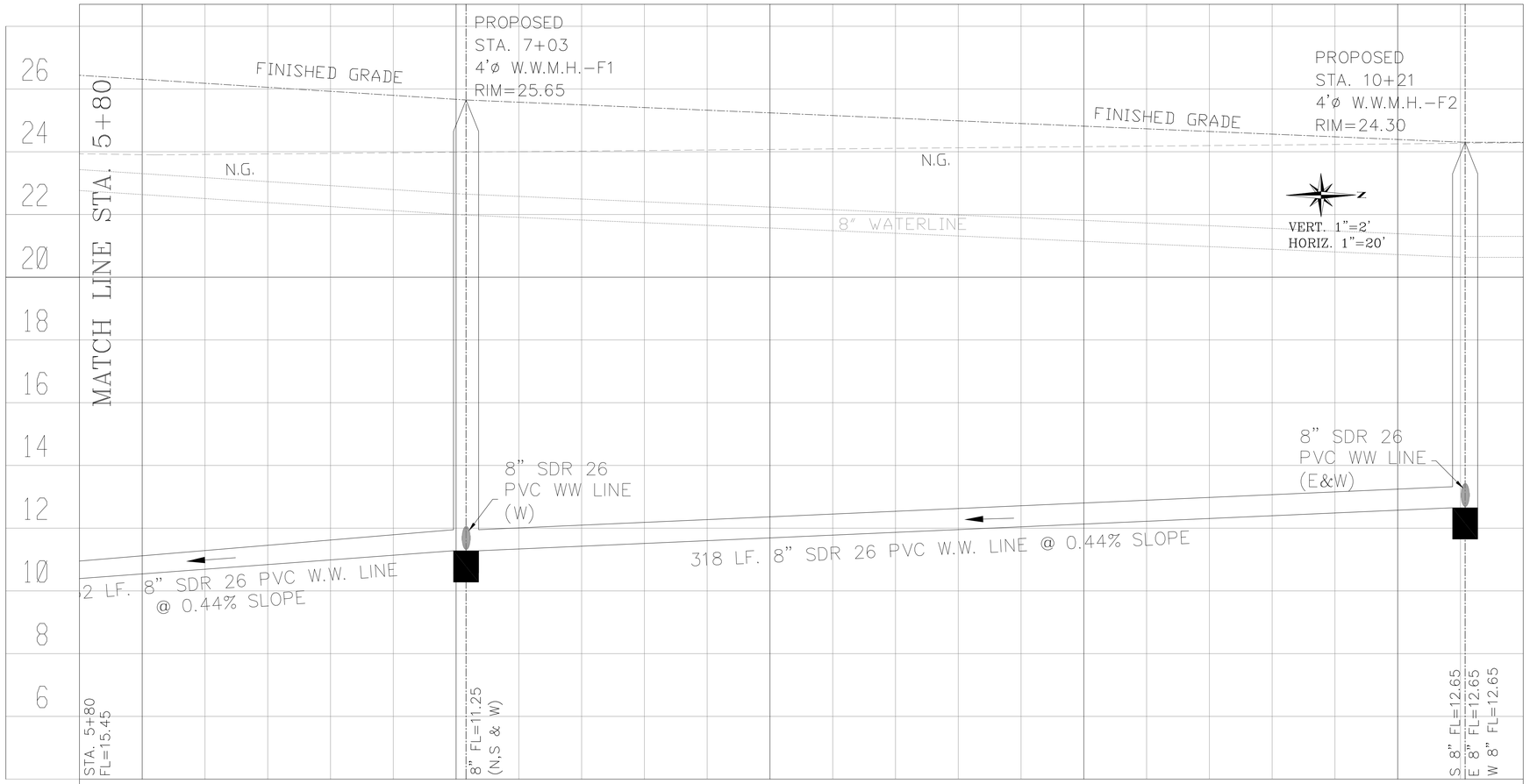
JUAN PERALES, JR. 66632 REGISTERED PROFESSIONAL ENGINEER STATE OF TEXAS
11/10/2023

ATASCOSA RIVER DR.
W.W. PLAN & PROFILE
STA. 0+00 TO STA. 5+80

KASPIAN SUBDIVISION UNIT 1
CORPUS CHRISTI, TEXAS

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DRAWING #: 210237
PAGE: 36
OF: 68

STATE OF TEXAS
JUAN PERALES, JR.
66632
REGISTERED
PROFESSIONAL ENGINEER
11/10/2023

ATASCOSA RIVER DR.
W.W. PLAN & PROFILE
STA. 5+80 TO STA. 10+40

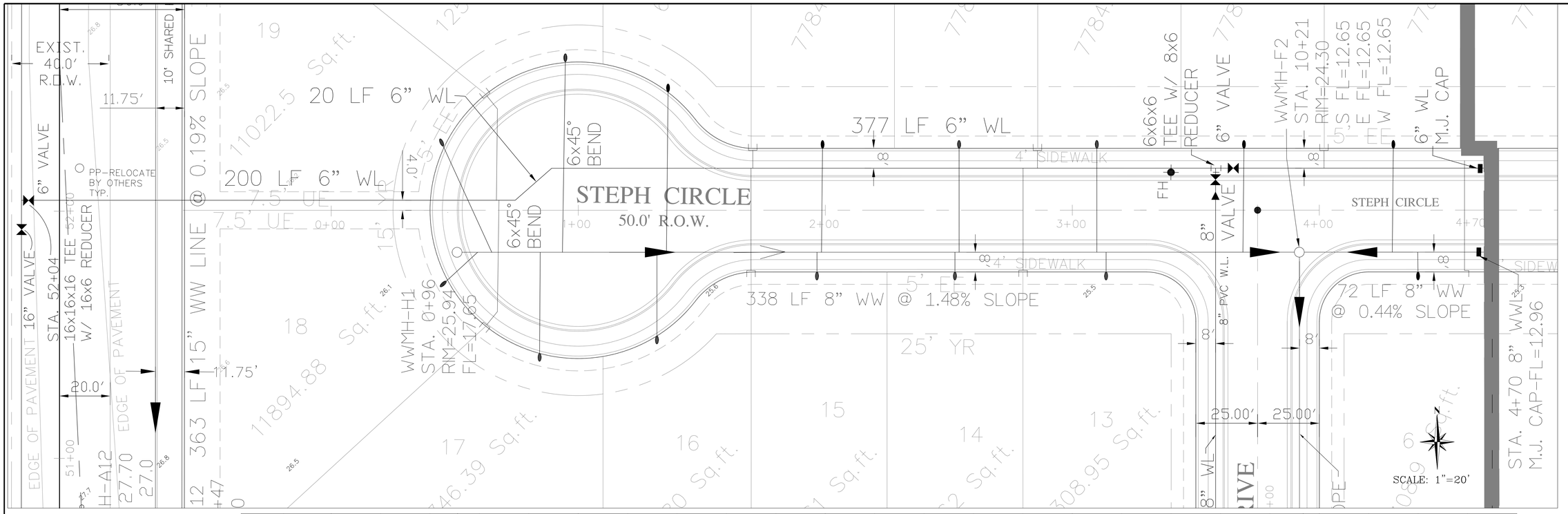
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CORPUS CHRISTI, TEXAS

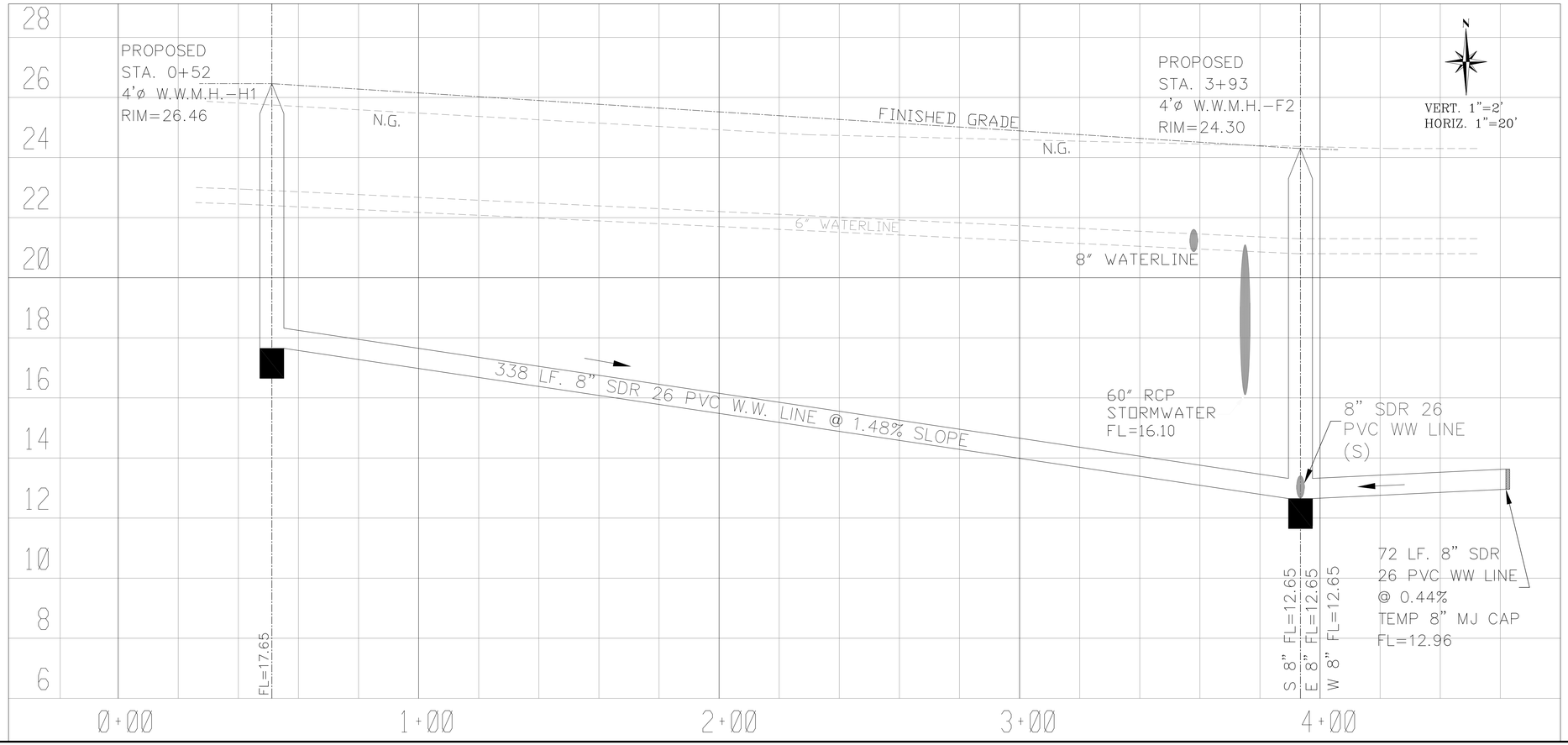
RELEASED FOR CONSTRUCTION

Bria A. Whitmire, P.E., CFM, CPM
Development Services Engineer
City of Corpus Christi

Note: Construction Plans will expire based on the the conditions stated in UDC 3.8.5.F.

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Development Services Engineer
City of Corpus Christi

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DRAWING #:	210237
PAGE:	37
OF:	68

STATE OF TEXAS
JUAN PERALES, JR.
66652
REGISTERED
PROFESSIONAL ENGINEER
11/10/2023

STEPH CIRCLE
W.W. PLAN & PROFILE
STA. 1+00 TO STA. 4+70

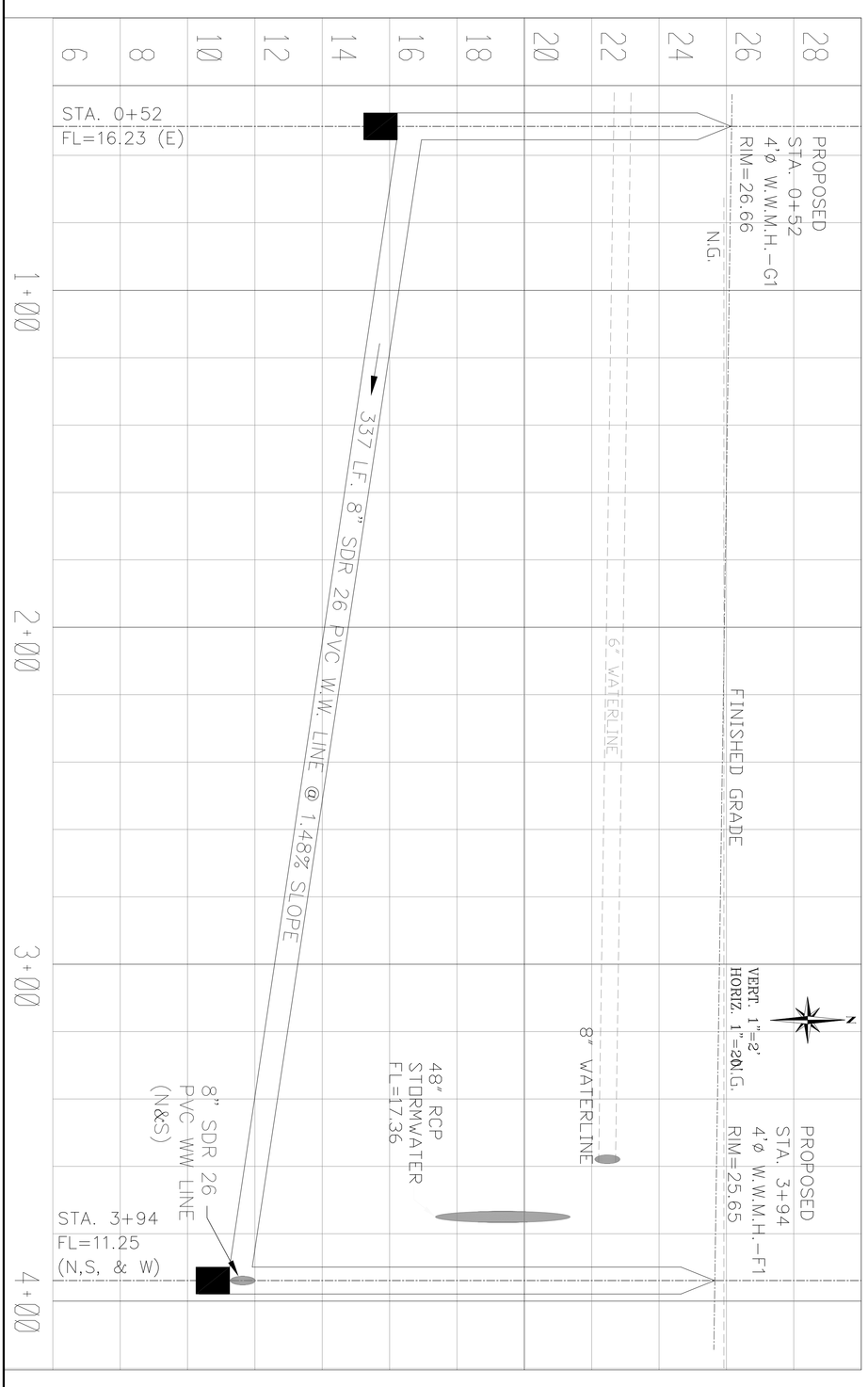
KASPIAN SUBDIVISION UNIT 1
CORPUS CHRISTI , TEXAS

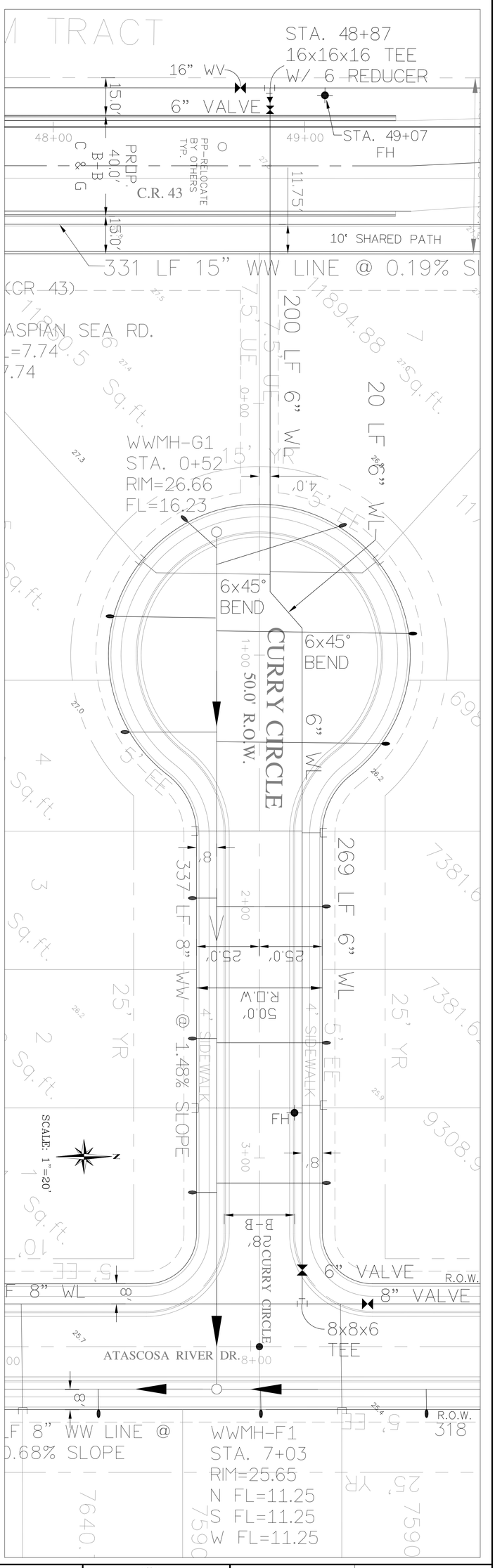
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Corpus Christi, Texas 78411
Tel: (361) 728-7188

RELEASED FOR CONSTRUCTION

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Development Services Engineer
City of Corpus Christi

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CURRY CIRCLE
W.W. PLAN & PROFILE
STA. 1+00 TO STA. 4+00

KASPIAN SUBDIVISION UNIT 1
CORPUS CHRISTI , TEXAS

STATE OF TEXAS
JUAN PERALES, JR.
66652
REGISTERED
PROFESSIONAL ENGINEER
11/10/2023

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DRAWING #: 210237			
PAGE: 38	OF: 68		

MATCH LINE STA. 0+40 SHEET 30

C.R. 43
F.G. 28.00

WWMH-A11
STA.=47+16 (CR 43)
RIM=29.50
STA.=0+43 KASPIAN SEA
15" (N&S) FL=7.74
12" (E) FL=7.74

12" PVC WW LINE

RELOCATE OTHERS

R.O.W. LINE

KASPIAN SEA ROAD
70.0' R.O.W.

24.0'
24.0'

5' SIDEWALK
5' EE
10' YR/UE
R.O.W.

11733.5 Sq.ft.
6988.80 Sq.ft.
7381.61 Sq.ft.
7381.62 Sq.ft.
9223.11 Sq.ft.
7640.7 Sq.ft.
8314.2 Sq.ft.

1 2 3 4 5

392 LF 12" WW @ 0.26% SLOPE

3.58'
35.0'
35.0'
58.00' B-B
70.00' R.O.W.

64 LF 12" SDR 26 PVC WW LINE @ 0.26% SLOPE

WWMH-B1
STA. 4+35
RIM=27.05
FL=8.77

237 LF 8" WL

152 LF 8" WW @ 0.68% SLOPE

ATASCOSA RIVER DR.

8x8x8 TEE

STA. 6+27
8" WWL
M.J. CAP
FL=9.28

123 LF 12" WW @ 0.26% SLOPE

8" VALVE
FH
162 LF 8" WL

8" WL M.J. CAP

60.00'

SCALE: 1"=20'

PROPOSED
STA. 0+43
4'ø W.W.M.H.-A11
RIM=29.50

FINISHED GRADE

N.G.

PROPOSED
STA. 4+85
4'ø W.W.M.H.-B1
RIM=27.05

PROPOSED
STA. 5+04
4'ø W.W.M.H.-B2
RIM=26.63

8" WATERLINE

6" WATERLINE

48" RCP
STORMWATER
FL=17.48

VERT. 1"=2'
HORIZ. 1"=20'

RELEASED FOR CONSTRUCTION

Bria A. Whitmire, P.E., CFM, CPM
Development Services Engineer
City of Corpus Christi

Note: Construction Plans will expire based on the the conditions stated in UDC 3.8.5.F.

8" PVC WW LINE (S)
W/ EXT. DROP CONNECTION

8" PVC WW LINE (N)

15" PVC WW LINE
FL=7.74 (N&S)

443 LF. 12" SDR 26 PVC W.W. LINE @ 0.26% SLOPE

64 LF. 12" SDR 26 PVC W.W. LINE @ 0.26% SLOPE

123 LF. 12" SDR 26 PVC W.W. LINE @ 0.26% SLOPE

STA. 6+27
123 LF. 12" SDR
26 PVC WW LINE
TEMP 12" MJ CAP
FL=9.28

FL=7.74
15" (N&S)
12" (E)

FL=8.77
(12" (E&W)

FL=8.96
(12" E&W)
FL=10.21
(8" N)
FL=13.76
(8" S)

30 28 26 24 22 20 18 16 14 12 10 8 6 4

1+00 2+00 3+00 4+00 5+00 6+00

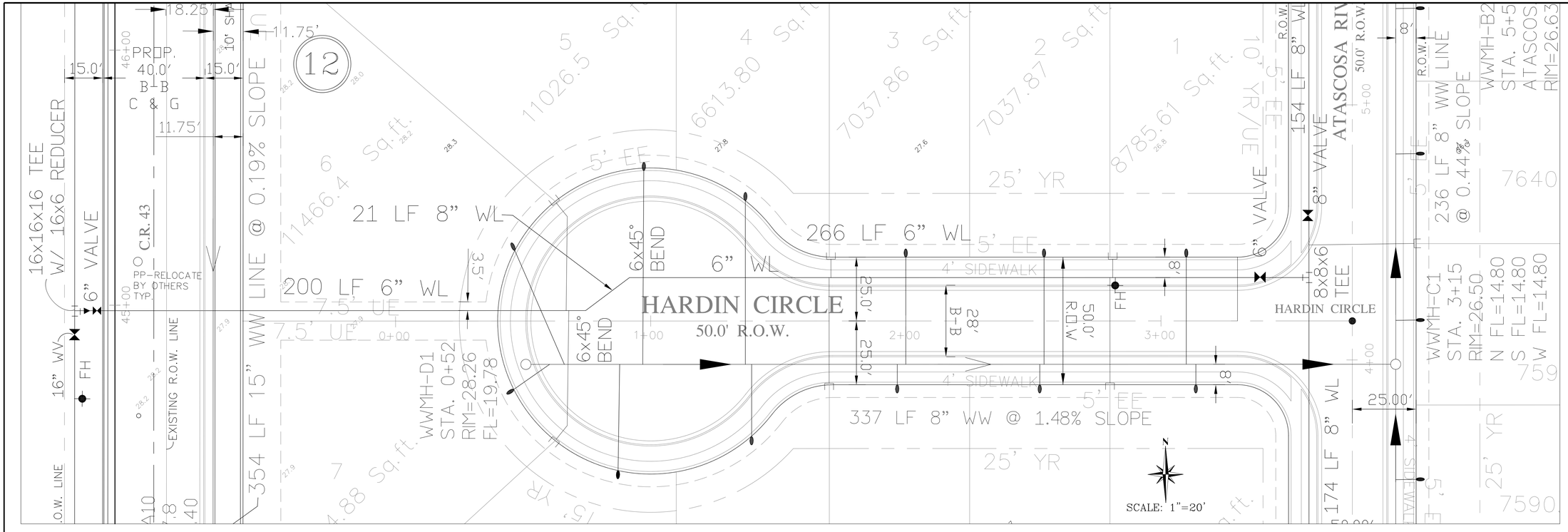
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PAGE: 39
OF: 68

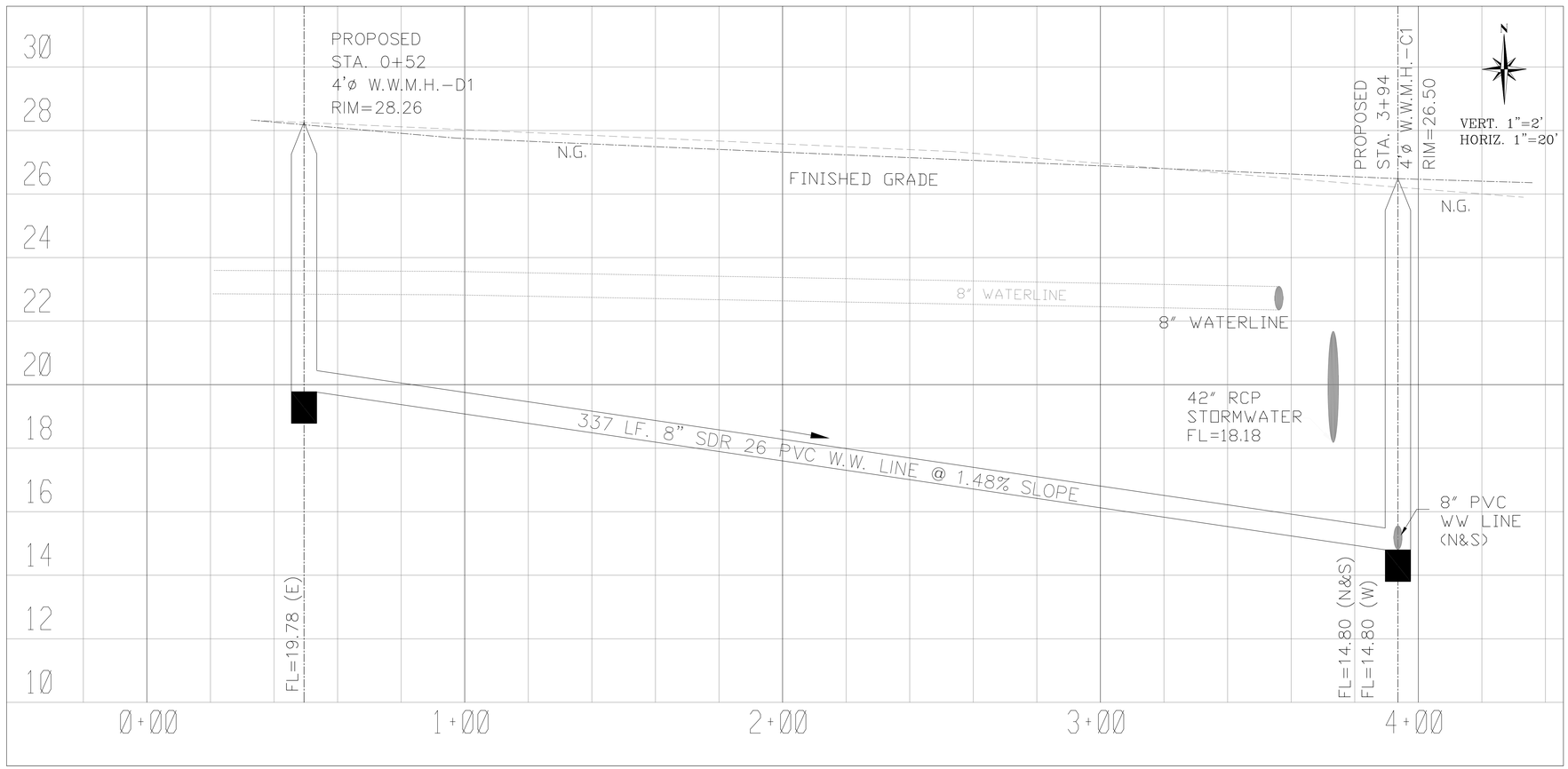
STATE OF TEXAS
JUAN PERALES, JR.
96632
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PROFESSIONAL ENGINEER
11/10/2023

KASPIAN SEA ROAD
W.W. PLAN & PROFILE
STA. 0+20 TO STA. 6+27

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CORPUS CHRISTI, TEXAS

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RELEASED FOR CONSTRUCTION

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City of Corpus Christi

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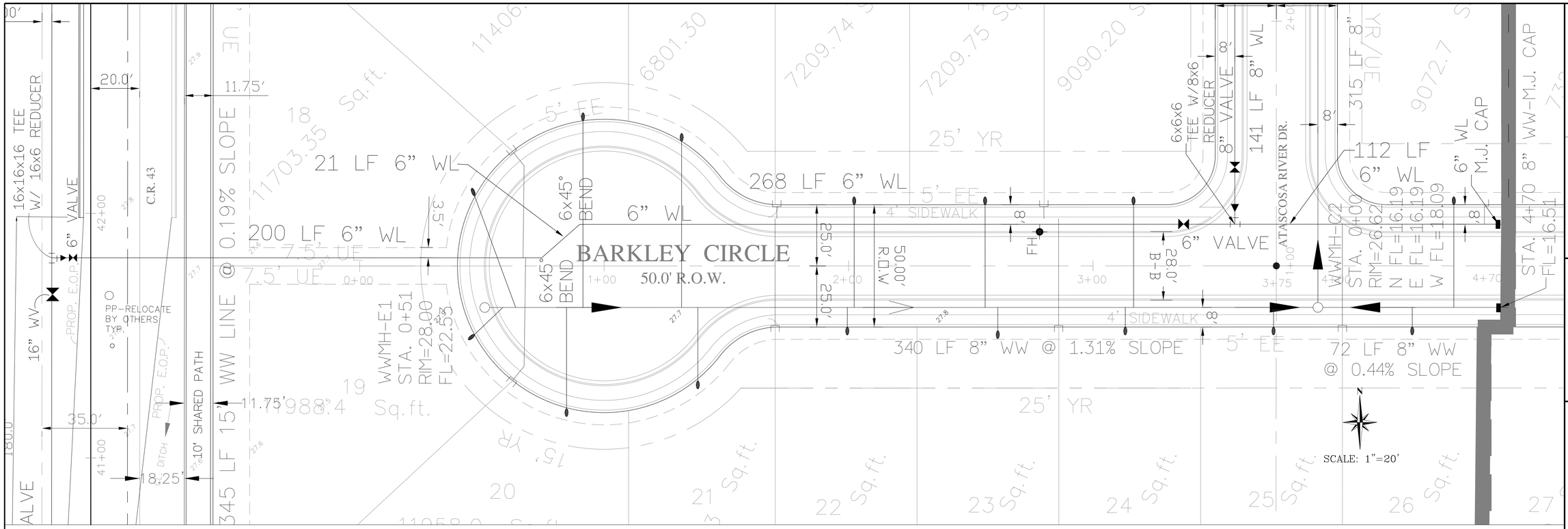
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PAGE: 40	OF: 68		

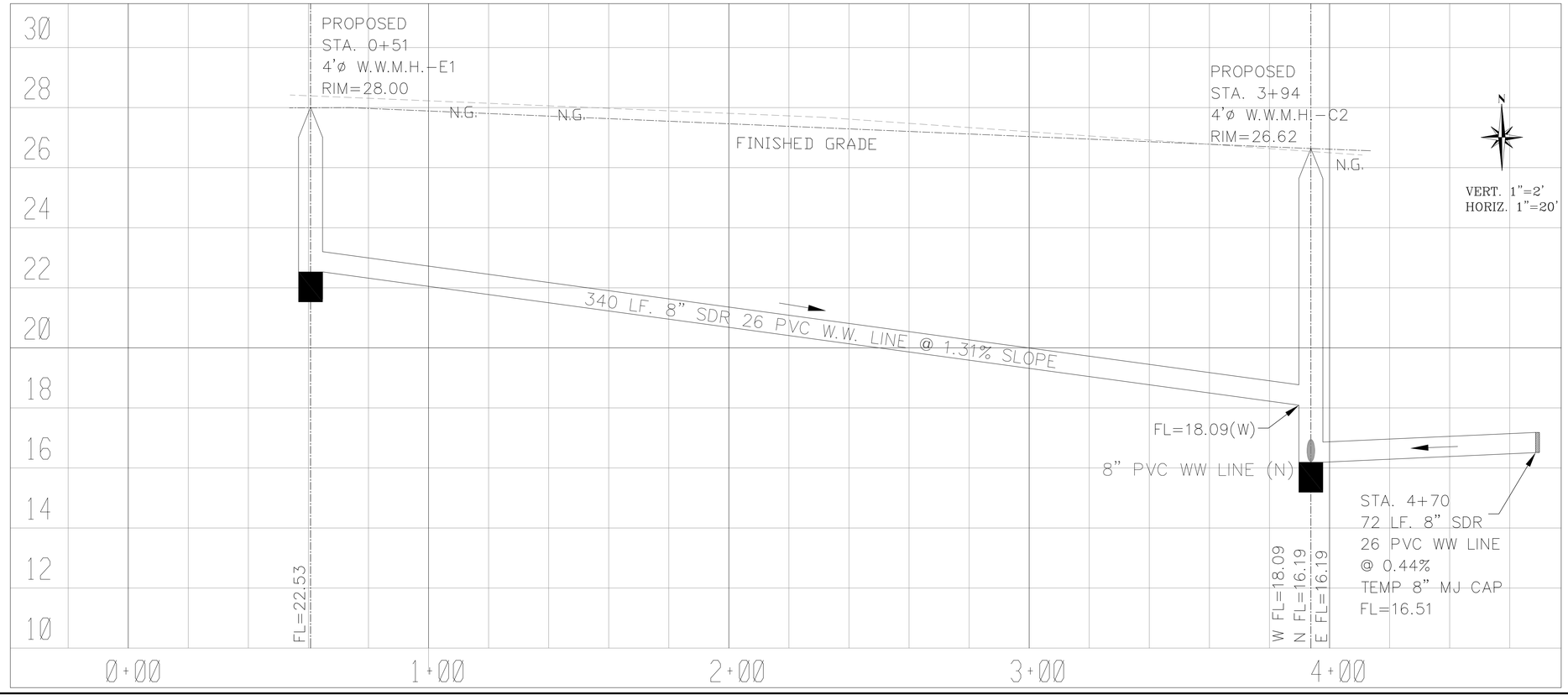
STATE OF TEXAS · JUAN PERALES, JR. · 66632 · REGISTERED PROFESSIONAL ENGINEER · 11/10/2023

HARDIN CIRCLE
W.W. PLAN PROFILE
STA. 0+00 TO STA. 4+00

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RELEASED FOR CONSTRUCTION

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Development Services Engineer
City of Corpus Christi

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PAGE: 41 OF: 68

STATE OF TEXAS
JUAN PERALES, JR.
66632
REGISTERED
PROFESSIONAL ENGINEER
11/10/2023

BARKLEY CIRCLE
W.W. PLAN & PROFILE
STA. 0+00 TO STA. 4+80

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EXIST. 16" WL

N

SCALE: N.T.S.

FILTER FABRIC FENCE

(E +/- OFF SITE 16" WL

FILTER FABRIC FENCE

WETLANDS BOUNDARIES SHOWN ARE TAKEN FROM THE U.S. FISH AND WILDLIFE NATIONAL WETLANDS INVENTORY ON LINE MAP

STRUCTURAL PRACTICES:
- [x] SILT FENCES
- [x] HAY BALES
- [ ] ROCK BERMS
- [ ] DIVERSION, INTERCEPTOR, OR PERIMETER DIKES
- [ ] DIVERSION, INTERCEPTOR, OR PERIMETER SWALES
- [ ] DIVERSION DIKE AND SWALE COMBINATIONS
- [ ] PIPE SLOPE DRAINS
- [ ] PAVED FLUMES
- [ ] ROCK BEDDING AT CONSTRUCTION EXIT
- [ ] TIMBER MATTING AT CONSTRUCTION EXIT
- [ ] CHANNEL LINERS
- [ ] SEDIMENT TRAPS
- [ ] SEDIMENT BASINS
- [ ] STORM INLET SEDIMENT TRAPS
- [ ] STORM OUTLET STRUCTURES
- [ ] CURBS AND GUTTERS
- [ ] STORM SEWERS
- [ ] VELOCITY CONTROL DEVICES
- [ ] CONCRETE RIPRAP

EROSION AND SEDIMENT CONTROLS
SOIL STABILIZATION PRACTICES:
- [ ] TEMPORARY SEEDING
- [ ] PERMANENT MULCH SODDING
- [ ] MULCHING
- [ ] SOIL RETENTION BLANKET
- [ ] BUFFER ZONES
- [x] PRESERVATION OF NATURAL RESOURCES

OFFSITE VEHICLE TRACKING
- [ ] HAUL ROADS SAMPENED FOR DUST CONTROL
- [x] LOADED HAUL TRUCKS TO BE COVERED W/TARPAULIN
- [x] EXCESS DIRT ON ROAD REMOVED DAILY
- [x] STABILIZED CONSTRUCTION ENTRANCE

LEGEND:

TEMPORARY CONSTRUCTION ROAD ENTRANCE / EXIT

FILTER FABRIC FENCE

CONSTRUCTION SITE POLLUTION PLAN REQUIREMENTS:

PROJECT DESCRIPTION
THE PROJECT CONSISTS OF PAVING, GRADING, DRAINAGE, WATER AND WASTEWATER IMPROVEMENTS FOR A TRACT OF LAND WHERE RESIDENTIAL ARE PROPOSED.

DISTURBED AREA:
THE AREA ON THE SITE EXPECTED TO BE DISTURBED IS 9.00 ACRES

WEIGHTED RUNOFF COEFFICIENT:
THE WEIGHTED RUNOFF COEFFICIENT OF THE PROJECT SITE AFTER ALL IMPROVEMENTS ARE COMPLETE IS ESTIMATED AT 0.50

NAME OF RECEIVING WATERS:
THE RECEIVING WATER FOR THE STORM WATER RUNOFF FROM THIS PROPERTY IS OSO BAY.
THE TCEQ HAS CLASSIFIED THE AQUATIC LIFE USE FOR OSO BAY AS "EXCEPTIVAL" AND
" OYSTER WATERS" AND CATEGORIZED THE RECEIVING WATER AS " PRIMARY CONTACT RECREATION " USE.

SOIL TYPE:
THE SOIL IS CLAYEY SOIL.

EXISTING CONDITION OF SOIL AND VEGETATION COVER:
THE SOIL CONDITION IS PRESENTLY UNDISTURBED
PREVIUSLY FARMED CLAYEY SOIL.
THE VEGETATION COVER IS APPROXIMATELY 90%

SCHEDULING OF CONTROL MEASURES:
THE ORDER OF ACTIVITIES WILL BE AS FOLLOWS:
(PRIOR TO BEGINNING WORK AT ANY PHASE, AREA FOR PRESERVATION OF NATURAL RESOURCES SHALL BE IDENTIFIED.)
SEQUENCE OF CONSTRUCTION

ERECT ALL PROJECT BARRICADES AND SIGNS.
INSTALL SILT FENCE, DRAINAGE DITCH SEDIMENT TRAPS.
PROCEED WITH PAVEMENT OPERATIONS.

PLANNING OPERATIONS.
STORM SEWER, SANITARY SEWER AND WATERLINE OPERATIONS.
CONCRETE SITE WORK OPERATIONS.

REMOVE STORM INLET SEDIMENT TRAPS.
REMOVE PROJECT BARRICADES.

INSPECTION:
AN INSPECTION WILL BE PERFORMED BY THE CONTRACTOR EVERY WEEK AS WELL AS AFTER EVERY HALF INCH OR MORE OF RAIN HAS RECORDED ON A RAIN GAUGE TO BE LOCATED AT THE PROJECT SITE). AN INSPECTION AND MAINTENANCE REPORT WILL BE MADE PER EACH INSPECTION, AND CONTROLS SHALL BE REVISED AS INDICATED BY THIS INSPECTION REPORT.

REMARKS:
CONTRACTOR SHALL TAKE NECESSARY MEASURES TO CONTROL AND LIMIT DUST DURING PLANNING OPERATIONS.

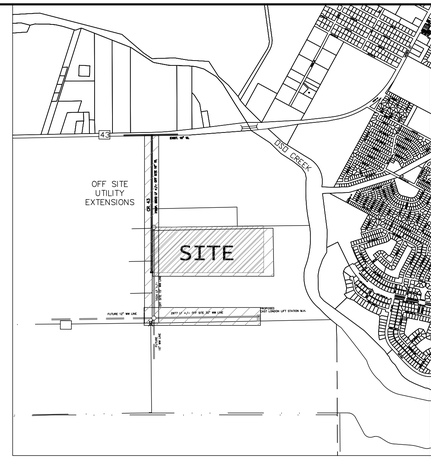
STORM WATER MANAGEMENT:
STORM WATER DRAINAGE WILL BE PROVIDED BY AREA INLETS AND STORM SEWER SYSTEMS. THESE WILL CARRY DRAINAGE DIRECTLY TO AN ADJACENT CHANNEL.

OTHER EROSION AND SEDIMENT CONTROLS:
MAINTENANCE:
ALL EROSION AND SEDIMENT CONTROLS WILL BE MAINTAINED IN GOOD WORKING ORDER. IF A REPAIR IS NECESSARY, IT WILL BE DONE AT THE EARLIEST DATE POSSIBLE.

SANITARY WASTE:
ALL SANITARY WASTE WILL BE COLLECTED FROM PORTABLE UNITS AS NECESSARY, OR AS REQUIRED BY LOCAL REGULATION, BY A LICENSED SANITARY WASTE MANAGEMENT CONTRACTOR.

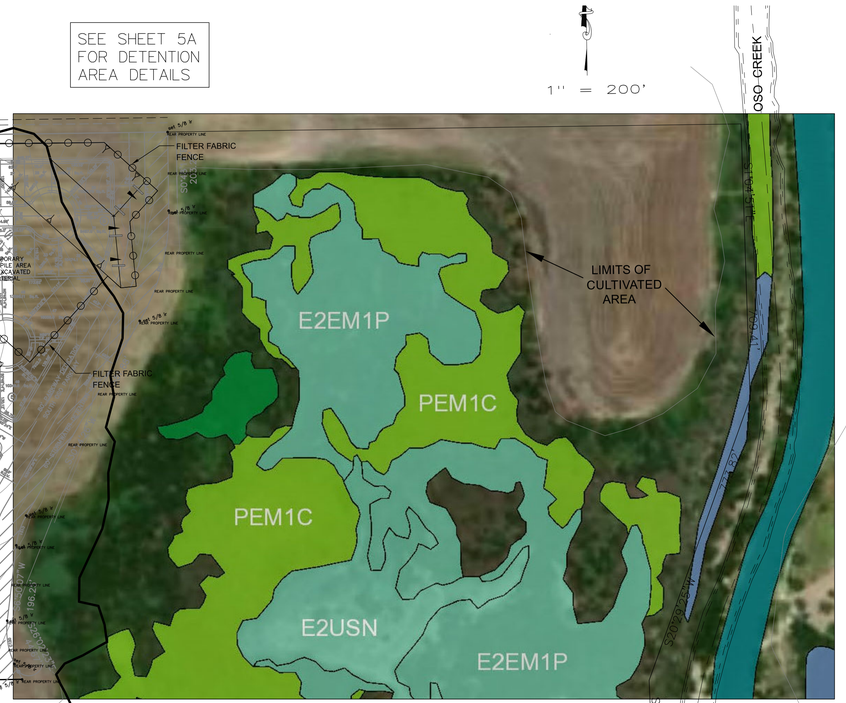
WASTE MATERIALS:
WASHOUT AREAS FOR CONCRETE TRUCKS WILL CONSIST OF DESIGNATED "PIT" AREAS LINED WITH MINIMUM 2 LAYERS OF 6 MIL POLTETHYLENE FILM.
ALL MEASURES SHALL BE TAKEN TO PROTECT THE SURROUNDING AREA FROM CONTAMINATION. ALL WASTE MATERIAL SHALL BE COLLECTED AND SECURELY STORED UNTIL REMOVED FROM JOBSITE. NO CONSTRUCTION WASTE MATERIAL SHALL BE BURIED ON SITE.

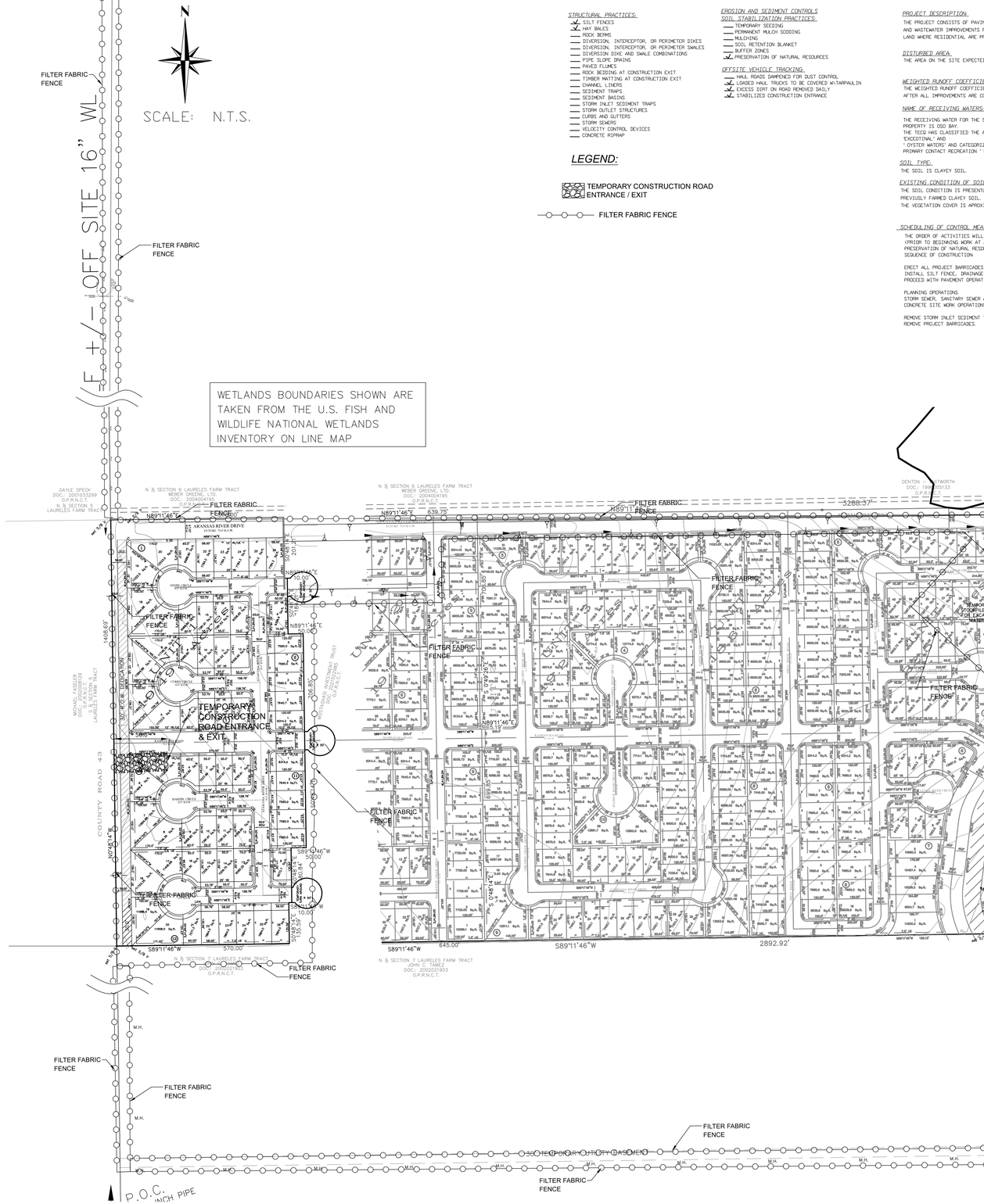
HAZARDOUS WASTE (INCLUDING SPILL REPORTING):
AT A MINIMUM, ANY PRODUCTS IN THE FOLLOWING CATEGORIES ARE CONSIDERED TO BE HAZARDOUS: PAINTS, ADHESIVES, PETROLEUM PRODUCTS, CLEANING SOLVENTS, ASPHALT PRODUCTS, OR CONCRETE CURING COMPOUNDS AND ADDITIVES. IN THE EVENT OF A SPILL WHICH MAY BE HAZARDOUS, THE SPILL COORDINATOR SHALL BE CONTACTED IMMEDIATELY. ALL PRODUCTS USED SHALL BE STORED IN PROPERLY LABELED CONTAINERS, AND REMOVED FROM THE JOBSITE WHEN NO LONGER NEEDED.



N.T.S.

SEE SHEET 5A FOR DETENTION AREA DETAILS





RELEASED FOR CONSTRUCTION
Bria A. Whitmire, P.E., CFM, CPM
Development Services Engineer
City of Corpus Christi
Note: Construction Plans will expire based on the conditions stated in UDC 3.8.6.F.

DRAWN BY: RT
APPROVED BY: JP
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DATE: 11-10-23
DRAWING #: 210237
PAGE: 42 OF: 68

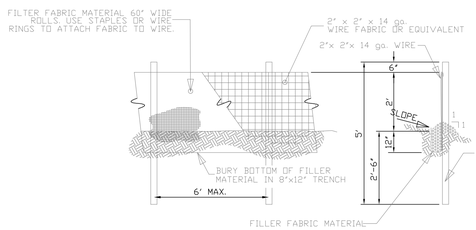
STATE OF TEXAS · JUAN PERALES, JR. · 66632 · REGISTERED · PROFESSIONAL · ENGINEER
Juan Perales 11/10/2023

POLLUTION PREVENTION PLAN

KASPIAN SUBDIVISION UNIT 1

CORPUS CHRISTI , TEXAS

J. Perales Civil Engineering and Planning Services
TBPE FIRM No. F-14207
jperales@jperalesengineering.com
5866 S. Staples St. - # 315
Corpus Christi, Texas 78411
Tel: (361) 728-7188



FILTER FABRIC FENCE DETAIL

STANDARD NOTES:

A. THE FILTER FABRIC SHALL BE PURCHASED IN A CONTINUOUS ROLL CUT TO THE LENGTH OF THE BARRIER TO AVOID USE OF JOINTS. WHEN JOINTS ARE NECESSARY, FILTER CLOTH SHALL BE SPLICED TOGETHER ONLY AT A SUPPORT POST, WITH A MINIMUM 6-INCH OVERLAP, AND BOTH ENDS SECURELY FASTENED TO THE POST.

B. THE FILTER FABRIC FENCE SHALL BE INSTALLED TO FOLLOW THE CONTOURS (WHERE FEASIBLE). THE FENCE POSTS SHALL BE SPACED A MAXIMUM OF 6 FEET APART AND DRIVEN SECURELY INTO THE GROUND (MINIMUM OF 30 INCHES).

C. A TRENCH SHALL BE EXCAVATED, ROUGHLY 8 INCHES WIDE AND 12 INCHES DEEP, UPSLOPE AND ADJACENT TO THE WOOD POST TO ALLOW THE FILTER FABRIC TO BE BURIED.

D. WHEN STANDARD STRENGTH FILTER FABRIC IS USED, A WIRE MESH SUPPORT FENCE SHALL BE FASTENED SECURELY TO THE UPSLOPE SIDE OF THE POSTS USING HEAVY-DUTY WIRE STAPLES AT LEAST 1 INCH LONG, TIE WIRES OR HOG RINGS. THE WIRE SHALL EXTEND INTO THE TRENCH A MINIMUM OF 4 INCHES AND SHALL NOT EXTEND MORE THAN 36 INCHES ABOVE THE ORIGINAL GROUND SURFACE.

E. THE STANDARD STRENGTH FILTER FABRIC SHALL BE STAPLED OR WIRED TO THE FENCE, AND 26 INCHES OF THE FABRIC SHALL BE EXTENDED INTO THE TRENCH. THE FABRIC SHALL NOT EXTEND MORE THAN 36 INCHES ABOVE THE ORIGINAL GROUND SURFACE. FILTER FABRIC SHALL NOT BE STAPLED TO EXISTING TREES.

F. WHEN EXTRA-STRENGTH FILTER FABRIC AND CLOSER POST SPACING ARE USED, THE WIRE MESH SUPPORT FENCE MAY BE ELIMINATED. IN SUCH A CASE, THE FILTER FABRIC IS STAPLED OR WIRED DIRECTLY TO THE POSTS WITH ALL OTHER PROVISIONS OF STANDARD NOTE "E" APPLYING.

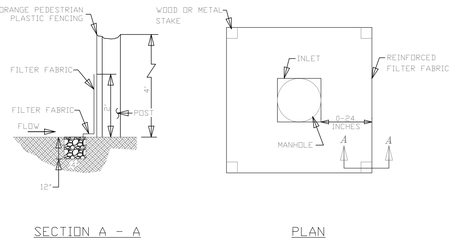
G. THE TRENCH SHALL BE BACK FILLED AND HAND TAMPED.

H. FILTER FABRIC FENCES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFUL PURPOSE, BUT NOT BEFORE THE UPSLOPE AREA HAS BEEN PERMANENTLY STABILIZED.

I. FILTER FABRIC FENCES SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY.

FILTER FABRIC FENCE DETAIL

NOT TO SCALE

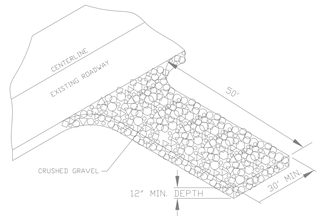


SECTION A - A

PLAN

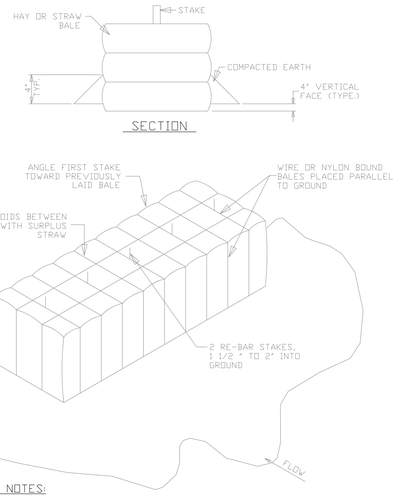
INLET & MANHOLE PROTECTION BARRIER

NOT TO SCALE



TEMPORARY STABILIZED CONSTRUCTION ROAD ENTRANCE / EXIT DETAIL

NOT TO SCALE

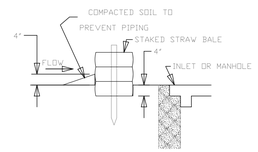


GENERAL NOTES:

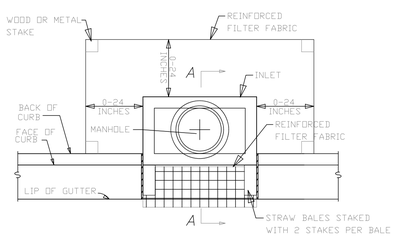
1. BALES SHALL BE PLACED IN A ROW WITH ENDS TIGHTLY ABUTTING THE ADJACENT BALES. FILL THE VOIDS BETWEEN BALES WITH SURPLUS STRAW. PLACE BALES WITH BINDING PARALLEL TO GROUND SURFACE.
2. WHERE POSSIBLE EACH BALE SHALL BE EMBEDDED IN THE SOIL A MINIMUM OF 4 INCHES.
3. BALES SHALL BE SECURELY ANCHORED IN PLACE BY 3/8-INCH REBAR STAKES DRIVEN THROUGH THE BALES. THE FIRST STAKE IN EACH BALE SHALL BE ANGLED TOWARDS THE PREVIOUS BALE TO FORCE THE BALES TOGETHER.
4. BALES SHALL BE BOUND BY EITHER WIRE OR NYLON ROPE TIED ACROSS THE HAY BALES.
5. INSPECTION SHALL BE FREQUENT AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY BY CONTRACTOR, AS NEEDED.
6. BALES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFULNESS SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.
7. ACCUMULATED SILT SHALL BE REMOVED WHEN IT REACHES A DEPTH OF 6 INCHES.

HAY BALES BARRIER FENCE

NOT TO SCALE



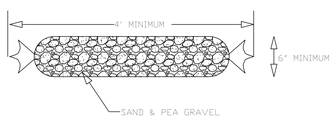
SECTION A - A

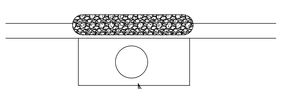


PLAN

CURB INLET INLET PROTECTION BARRIER

NOT TO SCALE





PLAN

GENERAL NOTES:

1. BAGS SHALL BE PLACED IN A ROW WITH ENDS TIGHTLY ABUTTING THE ADJACENT BAGS. PLACE BALES WITH BINDING PARALLEL TO GROUND SURFACE.
2. BAGS SHALL BE APPROVED BY THE EPA IN ORANGE COLOR WITH HIGH UV RESISTANT
3. FILL BAGS WITH A 75% SAND AND 25% GRAVEL TO INSURE THE BEST WATER FILTRATION
5. INSPECTION SHALL BE FREQUENT AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY BY CONTRACTOR, AS NEEDED.
6. BAGS SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFULNESS SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.
7. ACCUMULATED SILT SHALL BE REMOVED WHEN IT REACHES A DEPTH OF 6 INCHES.

SNAKE BAG INLET PROTECTION

NOT TO SCALE

EQUIPMENT MAINTENANCE AND REPAIR:

THE CONTRACTOR'S MAINTENANCE AND REPAIR OF CONSTRUCTION MACHINERY AND EQUIPMENT SHOULD BE CONFINED TO AREAS SPECIFICALLY DESIGNATED FOR THAT PURPOSE. SUCH DESIGNATED AREAS SHOULD BE LOCATED AND DESIGNED SO THAT OILS, GASOLINE, GREASE, SOLVENTS, AND OTHER POTENTIAL POLLUTANTS CANNOT BE WASHED DIRECTLY INTO RECEIVING STREAMS OR STORM WATER CONVEYANCE SYSTEMS. THE CONTRACTOR SHALL PROVIDE THESE AREAS WITH ADEQUATE WASTE DISPOSAL RECEPTACLES FOR LIQUID AS WELL AS SOLID WASTE. MAINTENANCE AREAS SHOULD BE INSPECTED AND CLEANED DAILY.

×ON A CONSTRUCTION SITE WHERE DESIGNATED EQUIPMENT MAINTENANCE AREAS ARE NOT FEASIBLE, THE CONTRACTOR SHALL TAKE CARE DURING EACH INDIVIDUAL REPAIR OR MAINTENANCE OPERATION TO PREVENT POTENTIAL POLLUTANTS FROM BECOMING AVAILABLE TO BE WASHED INTO STREAMS OR STORM SEWER CONVEYANCE SYSTEMS. TEMPORARY WASTE DISPOSAL RECEPTACLES SHALL BE PROVIDED BY THE CONTRACTOR AS NECESSARY.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR MONITORING ALL ONSITE VEHICLES AND EQUIPMENT FOR LEAKS AND PERFORM REGULAR PREVENTATIVE MAINTENANCE TO REDUCE THE CHANCE OF LEAKAGE. PETROLEUM PRODUCTS SHALL BE STORED IN TIGHTLY SEALED CONTAINERS WHICH ARE CLEARLY LABELED.

WASTE COLLECTION AND DISPOSAL:

THE CONTRACTOR SHALL FORMULATE A PLAN FOR THE COLLECTION AND DISPOSAL OF WASTE MATERIALS ON THE CONSTRUCTION SITE. THIS PLAN SHALL DESIGNATE LOCATIONS FOR TRASH AND WASTE RECEPTACLES AND ESTABLISH A SPECIAL COLLECTION SCHEDULE. METHODS FOR ULTIMATE DISPOSAL OF WASTE SHALL BE SPECIFIED AND CARRIED OUT IN ACCORDANCE WITH APPLICABLE LOCAL STATE, AND FEDERAL HEALTH AND SAFETY REGULATIONS. SPECIAL PROVISIONS SHALL BE MADE FOR THE COLLECTION DISPOSAL OF LIQUID WASTES AND TOXIC OR HAZARDOUS MATERIALS.

THE CONTRACTOR SHALL KEEP RECEPTACLES AND OTHER WASTE COLLECTION AREAS NEAT AND ORDERLY TO THE EXTENT POSSIBLE. WASTE SHALL NOT BE ALLOWED TO OVERFLOW ITS CONTAINER OR ACCUMULATE FOR EXCESSIVELY LONG PERIODS OF TIME. TRASH COLLECTION POINTS SHALL BE LOCATED WHERE THEY WILL LEAST LIKELY BE AFFECTED BY CONCENTRATED STORM WATER RUNOFF.

STORAGE OF CONSTRUCTION MATERIALS, CHEMICALS, ETC.:

SITES WHERE CHEMICALS, CEMENTS, SOLVENTS, PAINTS OR OTHER POTENTIAL WATER POLLUTANTS ARE TO BE STORED SHALL BE ISOLATED BY THE CONTRACTOR IN AREAS WHERE THEY WILL NOT CAUSE RUNOFF POLLUTION.
FERTILIZERS USED SHALL BE APPLIED ONLY IN THE MINIMUM AMOUNTS RECOMMENDED BY THE MANUFACTURER. FERTILIZER SHALL BE STORED IN A COVERED SHED. THE CONTENTS OF ANY PARTIALLY USED BAGS OF FERTILIZER WILL BE TRANSFERRED TO A SEALABLE PLASTIC BIN TO AVOID SPILLS.

TOXIC AND/OR OTHER HAZARDOUS CHEMICALS AND MATERIALS, SUCH AS PESTICIDES, PAINTS, AND ACIDS SHALL BE STORED IN ACCORDANCE WITH MANUFACTURERS GUIDELINES. THE CONTRACTOR SHALL PROTECT GROUNDWATER RESOURCES FROM LEACHING BY PLACING A PLASTIC MAT, PACKED CLAY, TAR PAPER, OR OTHER IMPERVIOUS MATERIALS ON ANY AREAS WHERE TOXIC AND/OR HAZARDOUS LIQUIDS ARE TO BE OPENED AND STORED.

SPILLS OF TOXIC AND/OR HAZARDOUS SUBSTANCES ARE TO BE CLEANED AND TREATED IMMEDIATELY AFTER DISCOVERY IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS.
MANUFACTURER'S RECOMMENDED METHODS FOR SPILL CLEANUP WILL BE CLEARLY POSTED ON SITE AND CONTRACTOR'S PERSONNEL WILL BE MADE AWARE OF THE PROCEDURES AND THE LOCATION OF THE INFORMATION AND CLEANUP SUPPLIES.

THE CONTRACTOR SHALL KEEP MATERIALS AND EQUIPMENT NECESSARY FOR SPILL CLEANUP IN THE MATERIALS STORAGE AREA ONSITE. EQUIPMENT AND MATERIALS SHALL INCLUDE BUT IS NOT LIMITED TO BROOMS, DUST PANS, MOPS, RAGS, GLOVES, GOGGLES, KITTY LITTER, SAND, SAWDUST, AND PLASTIC AND METAL TRASH CONTAINERS SPECIFICALLY FOR THIS PURPOSE.

DEMOLITION:

DEMOLITION OF EXISTING IMPROVEMENTS MAY GENERATE DUST WITH SIGNIFICANT CONCENTRATIONS OF HEAVY METALS AND/OR OTHER TOXIC POLLUTANTS. THE CONTRACTOR SHALL EMPLOY DUST CONTROL TECHNIQUES TO LIMIT THE TRANSPORT OF AIRBORNE POLLUTANTS. HOWEVER, WATER OR SLURRY USED TO CONTROL DUST SHALL BE RETAINED ON THE SITE AND NOT BE ALLOWED TO RUN DIRECTLY INTO WATERCOURSES OR STORM WATER CONVEYANCE SYSTEMS.

TOPSOILING:

WHEN TOPSOILING, THE CONTRACTOR SHALL MAINTAIN EROSION AND SEDIMENTATION CONTROL SYSTEMS, SUCH AS DIKES, SWALES, GRADE STABILIZATION STRUCTURES, WATERWAYS, AND SEDIMENT BASINS OPERATIONAL.

PROTECTION OF TREES:

THE CONTRACTOR SHALL PROTECT TREES DESIGNATED TO REMAIN IN CONSTRUCTION AREAS. HEAVY EQUIPMENT, VEHICULAR TRAFFIC, AND STOCKPILES OF CONSTRUCTION MATERIALS, INCLUDING TOPSOIL, ARE NOT PERMITTED WITHIN THE DRIP LINE OF ANY TREE TO BE RETAINED. TREE TRUNKS, EXPOSED ROOTS, AND LIMBS OF TREES DESIGNATED TO BE RETAINED WHICH ARE DAMAGED DURING CONSTRUCTION OPERATIONS SHALL BE CARED FOR BY A LICENSED TREE EXPERT. SPECIMEN TREES SHALL BE BOXED OR FENCED.

DUST CONTROL:

THE CONTRACTOR SHALL CONTROL DUST BLOWING AND MOVEMENT ON CONSTRUCTION SITES AND ROADS TO PREVENT LOSS OF SOIL SURFACE, TO REDUCE ONSITE AND OFFSITE DAMAGE, TO PREVENT HEALTH HAZARDS, AND TO IMPROVE TRAFFIC SAFETY.

THE CONTRACTOR SHALL CONTROL DUST BLOWING BY UTILIZING ONE OR MORE OF THE FOLLOWING METHODS. DUST CONTROL METHODS SHALL BE IMPLEMENTED IMMEDIATELY WHENEVER DUST CAN BE OBSERVED BLOWING ON THE PROJECT SITE.

A. MULCHES BOUND WITH CHEMICAL BINDERS SUCH AS A CURASOL, TERRATACK, OR APPROVED EQUAL.
B. TEMPORARY VEGETATIVE COVER.
C. SPRAY-ON ADHESIVES ON MINERAL SOILS WHEN NOT USED BY TRAFFIC.
D. IRRIGATION BY WATER SPRINKLING.
E. BARRIERS USING SOLID BOARD FENCES, SNOW FENCES, BURLAP FENCES, CRATE WALLS, BALES OF HAY, OR SIMILAR MATERIALS.

WASHING AREAS:

VEHICLES SUCH AS READY MIX CONCRETE OR DUMP TRUCKS AND OTHER CONSTRUCTION EQUIPMENT SHALL NOT BE WASHED AT LOCATIONS WHERE THE RUNOFF WILL FLOW DIRECTLY INTO A WATERCOURSE OR STORM WATER CONVEYANCE SYSTEM. SPECIAL AREAS SHALL BE DESIGNATED FOR WASHING VEHICLES. THESE AREAS SHALL BE LOCATED WHERE THE WATER WILL SPREAD OUT AND EVAPORATE OR INFILTRATE DIRECTLY INTO THE GROUND, OR WHERE THE RUNOFF CAN BE COLLECTED IN A TEMPORARY HOLDING OR SEEPAGE BASIN. WASH AREAS SHALL HAVE GRAVEL OR CRUSHED STONE BASES.

SANITARY FACILITIES:

THE CONTRACTOR SHALL PROVIDE THE CONSTRUCTION SITE WITH ADEQUATE SANITARY FACILITIES FOR WORKERS IN ACCORDANCE WITH APPLICABLE HEALTH REGULATIONS.

PESTICIDES:

PESTICIDES USED DURING CONSTRUCTION SHALL BE STORED AND USED IN ACCORDANCE WITH MANUFACTURER'S GUIDELINE AND WITH LOCAL STATE AND FEDERAL REGULATIONS. OVERUSE SHALL BE AVOIDED AND GREAT CARE SHALL BE TAKEN TO PREVENT ACCIDENTAL SPILLAGE. PESTICIDE CONTAINERS SHALL NEVER BE WASHED IN OR NEAR FLOWING STREAMS OR STORM WATER CONVEYANCE SYSTEMS.

FILTER FABRIC SPECIFICATIONS:

THE FILTER FABRIC SHOWN IN THE VARIOUS DETAILS AND SPECIFICATIONS SHALL MEET THE FOLLOWING SPECIFICATIONS:

GRAB STRENGTH SHALL BE 100 POUNDS MINIMUM IN ANY PRINCIPAL DIRECTION WHEN TESTED IN ACCORDANCE WITH ASTM TEST PROCEDURE D-1682.

MULLEN BURST STRENGTH SHALL BE 260 PSI MINIMUM WHEN TESTED IN ACCORDANCE WITH ASTM TEST PROCEDURE D-3786.

EQUIVALENT STANDARD SIEVE OPENING SIZE SHALL BE BETWEEN 80 AND 140.

WATER FLOW RATE SHALL BE A MINIMUM OF 10 GAL/MIN/SQ. FEET AT 50 mm CONSTANT HEAD AS DETERMINED BY MULTIPLYING PERMITIVITY IN 1/SEC AS DETERMINED BY ASTM TEST PROCEDURE D-4491.

THE FILTER FABRIC SHALL CONTAIN ULTRAVIOLET RAY INHIBITORS AND STABILIZERS AS NECESSARY TO PROVIDE AND EXPECTED USEABLE LIFE COMPARABLE TO THE ANTICIPATED DURATION OF CONSTRUCTION.

RELEASED FOR CONSTRUCTION

Bria A. Whitmire, P.E., CFM, CPM
Development Services Engineer
City of Corpus Christi
Note: Construction Plans will expire based on the conditions stated in UDC 3.8.5.F.

APPROVED BY: JP | DRAWN BY: RT
DATE: 11-10-23 | SCALE: SHOWN
DRAWING #: 210237 | PAGE: 43 OF: 68

STATE OF TEXAS — JUAN PERALES, JR. — 86652 — REGISTERED PROFESSIONAL ENGINEER — 11/10/2023

POLLUTION PREVENTION DETAILS

KASPIAN SUBDIVISION UNIT 1

CORPUS CHRISTI, TEXAS

J. Perales Civil Engineering and Planning Services
TBPE FIRM No. F-14207
jperales@jperalesengineering.com
5866 S. Staples St. - # 315
Corpus Christi, Texas 78411
Tel: (361) 728-7188

OVERALL DEVELOPMENT STORMWATER MANAGEMENT CONCEPT

THE SUBDIVISION PROPERTY INCLUDES 99.5 ACRES. AS SHOWN IN THE ON AND OFF SITE DRAINAGE OVERVIEW MAP, THE PROPERTY NATURALLY DRAINS IN AN EASTWARD DIRECTION TOWARD THE OSO CREEK.

DRAINAGE FROM A 6.3 ACRE OFFSITE AREA WEST OF THE PROPERTY AS SHOWN IN THE ON AND OFF SITE DRAINAGE OVERVIEW MAP MUST ALSO BE ACCOUNTED FOR IN THE SUBDIVISION?S PROPOSED STORMWATER COLLECTION SYSTEM.

THE PROPOSED STORMWATER COLLECTION SYSTEM FOR THE SUBDIVISION IS DIVIDED INTO TWO SUB-SYSTEMS, IDENTIFIED AS SYSTEM "A" AND SYSTEM "B".

SYSTEM "A" WILL COLLECT STORMWATER RUNOFF FROM UNITS 1 AND 2 AND APPROXIMATELY 1.8 ACRES OUT OF UNIT 3 INTO A PROPOSED TRUNKLINE WHICH WILL RUN DOWN ARANSAS RIVER DRIVE TO A PRIMARY OUTFALL AT OSO PARKWAY.

SYSTEM "B" WILL COLLECT STORMWATER RUNOFF FROM UNITS 3, 4, AND 5 INTO A PROPOSED TRUNKLINE WHICH WILL RUN DOWN KASPIAN SEA DRIVE TO A PRIMARY OUTFALL AT OSO PARKWAY.

A 2 ACRE PORTION AT THE SOUTHEAST CORNER OF UNIT 5 WILL DRAIN TO A THIRD OUTFALL AT OSO PARKWAY.

INTERIM STORMWATER DETENTION FOR UNITS 1 AND 2 WILL BE PROVIDED BY A TEMPORARY DETENTION DITCH SYSTEM TO BE CONSTRUCTED WITH UNIT 1 IMPROVEMENTS. REFER TO SHEET 5A OF THE PLANS FOR DETAILS OF CONSTRUCTION.

THE PERMANENT DETENTION DITCH ALONG OSO PARKWAY WILL BE CONSTRUCTED AS PART OF UNITS 3, 4, AND 5 IMPROVEMENTS.

DRAINAGE SYSTEM CONSTRUCTION SEQUENCE:

UNIT 1 IMPROVEMENTS WILL INCLUDE ALL PROPOSED STORMWATER COLLECTION SYSTEM WITHIN THE LIMITS OF UNIT 1 AND THE CONSTRUCTION OF THE TEMPORARY DETENTION DITCH SYSTEM GENERALLY ALONG ARANSAS RIVER DRIVE AS SHOWN ON SHEET 5A OF THE PLANS.

UNIT 2 IMPROVEMENTS WILL INCLUDE ALL PROPOSED STORMWATER COLLECTION SYSTEM WITHIN THE LIMITS OF UNIT 2 AND THE EXTENSION OF THE SYSTEM "A" TRUNKLINE THROUGH THE LIMITS OF UNIT 2 ALONG ARANSAS RIVER DRIVE.

UNIT 3 IMPROVEMENTS WILL INCLUDE ALL PROPOSED STORMWATER COLLECTION SYSTEM WITHIN THE LIMITS OF UNIT 3 AND EXTENSION OF SYSTEM "A" AND SYSTEM "B" TRUNKLINES THROUGH THE LIMITS OF UNIT 3. A TEMPORARY OUTFALL DITCH WILL ALSO BE CONSTRUCTED ALONG KASPIAN SEA DRIVE FROM THE EASTERLY LIMITS OF UNIT 3 TO OSO PARKWAY. APPROXIMATELY 25% OF THE PERMANENT STORMWATER DETENTION DITCH ALONG OSO PARKWAY WILL ALSO BE CONSTRUCTED TO PROVIDE DETENTION FOR UNIT 3.

UNIT 4 IMPROVEMENTS WILL INCLUDE ALL PROPOSED STORMWATER COLLECTION SYSTEM WITHIN THE LIMITS OF UNIT 4 AND EXTENSION OF SYSTEM "A" AND SYSTEM "B" TRUNKLINES THROUGH THE LIMITS OF UNIT 4. AN ADDITIONAL 25% OF THE PERMANENT STORMWATER DETENTION DITCH ALONG OSO PARKWAY WILL ALSO BE INCLUDED WITH UNIT 4 CONSTRUCTION.

UNIT 5 IMPROVEMENTS WILL INCLUDE ALL PROPOSED STORMWATER COLLECTION SYSTEM WITHIN THE LIMITS OF UNIT 5 AND EXTENSION OF SYSTEM "A" AND SYSTEM "B" TRUNKLINES THROUGH THE LIMITS OF UNIT 5 TO THE PERMANENT OSO PARKWAY DETENTION DITCH. UNIT 5 CONSTRUCTION WILL ALSO INCLUDE REMOVAL OF THE TEMPORARY DETENTION DITCH AND COMPLETION OF THE REMAINING 50% OF THE PERMANENT STORMWATER DITCH ALONG OSO PARKWAY.

STORMWATER RUNOFF ESTIMATES

TOTAL PROPERTY AREA = 99.5 ACRES

OFFSITE CONTRIBUTONG AREA = 6.1 ACRES

EXISTING LAND USE IS CULTIVATED FARMLAND WITH CLAYEY SOIL AND OVERLAND SLOPE < 1%

RUNOFF COEFFICIENT, C = 0.35

PER DRAFT DRAINAGE DESIGN MANUAL TABLE 4-1

ESTIMATED RUNOFF VELOCITY = 1.0 FT/SEC

PER DRAFT DRAINAGE DESIGN MANUAL EXHIBIT 4-1

L = 2200 FT.

TC EXISTING = 36.7 MIN

I5 EXISTING = 79/(36.7 + 8.7)0.794 = 3.82 IN/HR

I25 EXISTING = 91/(36.7 + 8.7)0.759 = 5.03 IN/HR

I100 EXISTING = 99/(36.7 + 9.4)0.730 = 6.04 IN/HR

Q5 EXISTING = (0.35)(3.82)(105.6) = 141.2 CFS

Q25 EXISTING = (0.35)(5.03)(105.6) = 185.9 CFS

Q100 EXISTING = (0.35)(6.04)(105.6) = 223.2 CFS

PROPOSED LAND USE SINGLE FAMILY RESIDENTIAL WITH LOTS LESS THAN 1/3 ACRE IN SIZE AND OVERLAND SLOPE >1%, <3.5%

RUNOFF COEFFICIENT, C = 0.55

PER DRAFT DRAINAGE DESIGN MANUAL TABLE 4-1

ESTIMATED RUNOFF VELOCITY = 2.0 FT/SEC FOR OVERLAND FLOW PER DRAFT DRAINAGE DESIGN MANUAL EXHIBIT 4-1, AND 2.0 FT/SEC FOR PIPE FLOW

L OVERLAND = 800 FT. T = 6.7 MIN

L PIPE = 3200 FT. T = 26.7 MIN

TC TOTAL = 33.4 MIN

I5 PROPOSED = 79/(33.4 + 8.7)0.794 = 4.05 IN/HR

I25 PROPOSED = 91/(33.4 + 8.7)0.759 = 5.32 IN/HR

I100 PROPOSED = 99/(33.4 + 9.4)0.730 = 6.37 IN/HR

Q5 PROPOSED = (0.55)(4.05)(105.6) = 235.2 CFS

Q25 PROPOSED = (0.55)(5.32)(105.6) = 309.0 CFS

Q100 PROPOSED = (0.55)(6.37)(105.6) = 370.0 CFS

CALCULATED DETENTION VOLUME REQUIREMENTS:

APPLYING U.S. SOIL CONSERVATION SERVICE TRIANGULAR UNIT HYDROGRAPH PROCEDURE (FOR AREAS OF LESS THAN 200 ACRES),

TL = 2/3 TC MAX = 2/3 (33.4 MIN.) = 22.2 MIN.

TD = 8/3 TL = 8/3 (22.2 MIN.) = 59.2 MIN.

REQUIRED Q100 DETENTION VOLUME

= ((370.0 - 223.2 CFS) X 60 CFM/CFS X 59.2 MIN.)/2) = 260717 CUBIC FEET

DETENTION VOLUME PROVIDED BY DETENTION CHANNEL = 326409 CUBIC FEET

=> 100 YEAR EVENT DETENTION PROVIDED EXCEEDS DETENTION REQUIRED

N

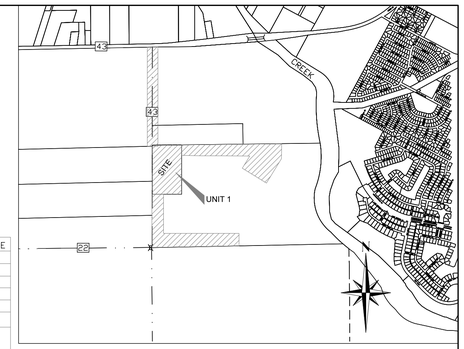
GRAPHIC SCALE

200 0 200 400 600

Scale: 1" = 200 feet

FLOW & DETENTION SUMMARY TABLE

UNIT NO.	AREA	C EXIST	I5	Q5	I25	Q25	I100	Q100	C PROP	I5	Q5	I25	Q25	I100	Q100	5 YR DETENTION VOLUME	25 YR DETENTION VOLUME	100 YR DETENTION VOLUME
	ACRES		IN/HR	CFS	IN/HR	CFS	IN/HR	CFS		IN/HR	CFS	IN/HR	CFS	IN/HR	CFS	CUBIC FEET	CUBIC FEET	CUBIC FEET
1	25.80	0.35	3.82	34.5	5.03	45.4	6.04	54.5	0.55	4.33	61.4	5.68	80.6	6.78	96.2	47774	62515	74059
2	19.70	0.35	3.82	26.3	5.03	34.7	6.04	41.6	0.55	4.33	46.9	5.68	61.5	6.78	73.5	36586	47597	56654
3	19.20	0.35	3.82	25.7	5.03	33.8	6.04	40.6	0.55	4.33	45.7	5.68	60.0	6.78	71.6	35520	46531	55056
4	18.60	0.35	3.82	24.9	5.03	32.7	6.04	39.3	0.55	4.33	44.3	5.68	58.1	6.78	69.4	34454	45110	53458
5	22.50	0.35	3.82	30.1	5.03	39.6	6.04	47.6	0.55	4.33	53.6	5.68	70.3	6.78	83.9	41736	54523	64469
TOTAL	105.80			141		186		224			252		331	395		196070	256276	303696
NOTE: UNIT 1 INCLUDES 19.5 ACRES PLUS 6.3 ACRES OFFSITE FLOW												UNITS 1 & 2 SUBTOTAL				84360	110112	130713
TOTAL PERMANENT STORMWATER DETENTION PROVIDED BY OSO PARKWAY DETENTION DITCH																		326409
TOTAL STORMWATER DETENTION PROVIDED BY TEMPORARY ARANSAS RIVER DRIVE DETENTION DITCH (WITH 1' FREEBOARD)																		175358



LOCATION MAP N.T.S.

LEGEND:

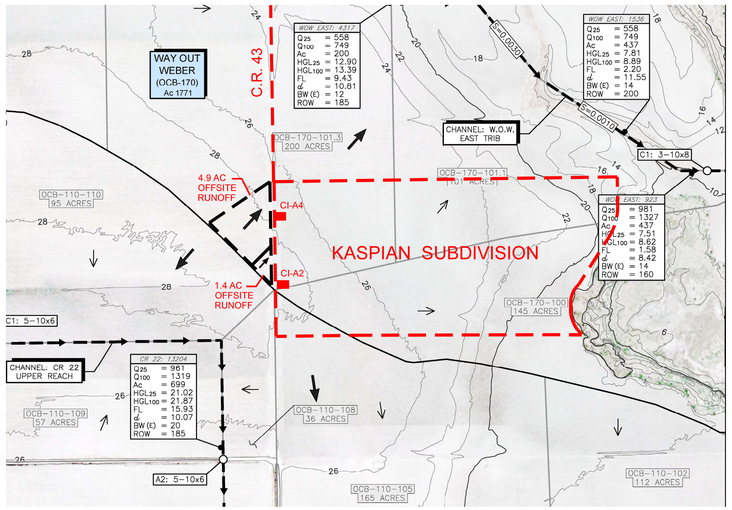
SUBDIVISION BOUNDARY (TYP)

CITY STORM WATER BASIN BOUNDARY (TYP)

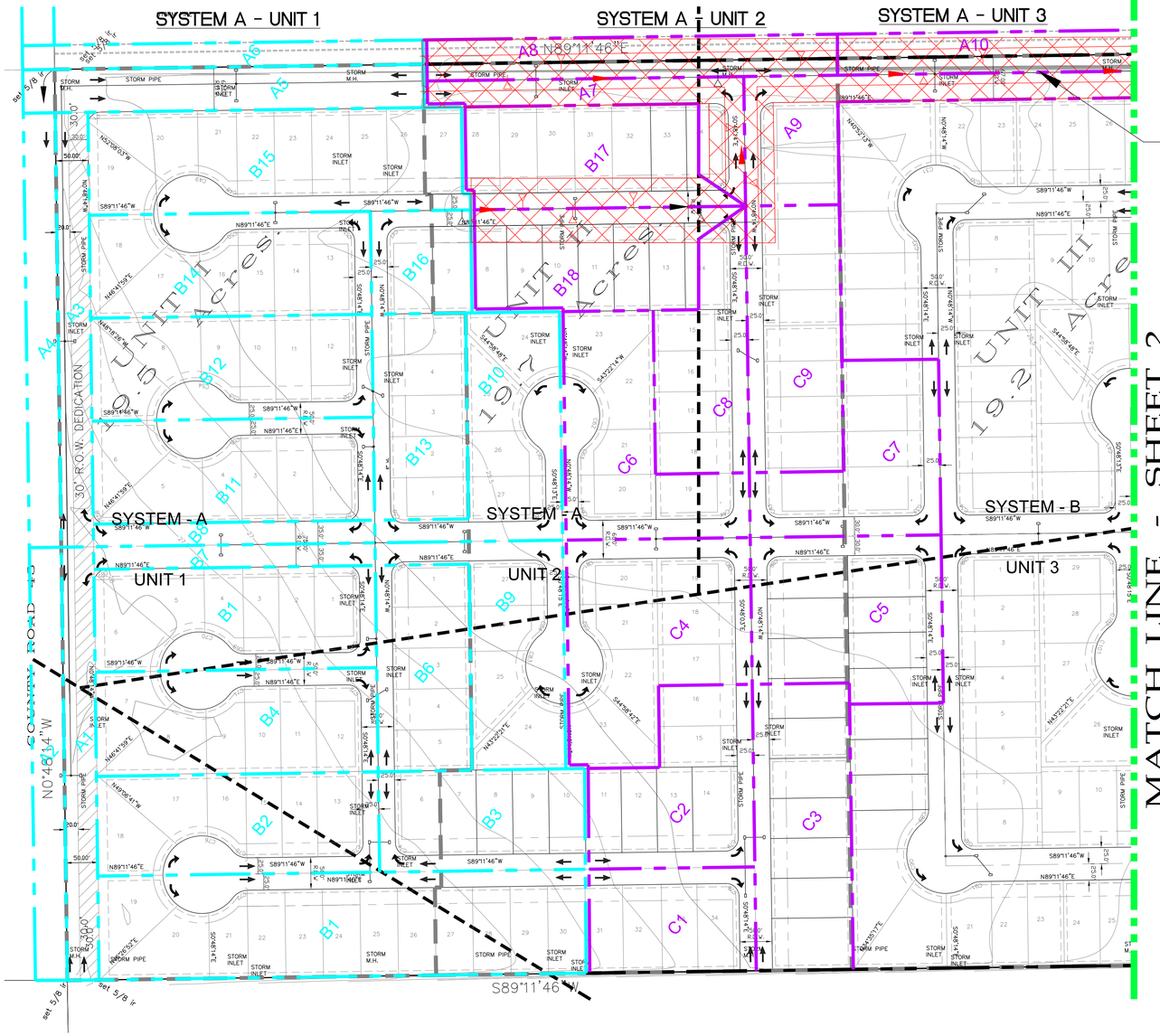
SUBDIVISION PHASE BOUNDARY (TYP)

NOTE:
CONTOURS SHOWN ARE EXISTING

TEMPORARY UNIT 1 OFF SITE STORMWATER OUTFALL & DETENTION AREA (SEE SHEET 5A FOR DETAILS)



OFF -SITE
DRAINAGE OVERVIEW



GENERAL NOTES

1) EXISTING LAND USE IS CULTIVATED FARMLAND. PROPOSED LAND USE IS SINGLE FAMILY RESIDENTIAL DISTRICT WITH LOTS LESS THAN 1/3 ACRE. THE SITE IS INSIDE THE CORPUS CHRISTI CITY LIMITS AND IS CURRENTLY ZONED RS-6 SINGLE FAMILY RESIDENTIAL USE.
2) TOTAL ACREAGE OF THE PROPOSED SUBDIVISION IS 99.5 ACRES
3) ALL PROPOSED FINISHED FLOOR ELEVATIONS WILL BE A MINIMUM OF 18 INCHES ABOVE CROWN ELEVATIONS OF FRONTING STREETS.
4) A STORM WATER POLLUTION PREVENTION PLAN WILL BE SUBMITTED WITH THE DETAILED CONSTRUCTION PLANS FOR THE SUBDIVISION.
5) DRAINAGE IS IN SUBTANTIAL COMPLIANCE WITH THE CITY'S MASTER DRAINAGE PLAN.
6) NORTHERLY PORTIONS OF THE PROPOSED DEVELOPMENT FALL WITHIN SECTIONS OCB-170-101.1 AND OCB-170-101.3 OUT OF THE WAY OUT WEBER SUB-BASIN (OCB-170) WITHIN THE OSO CREEK STORM WATER DRAINAGE BASIN.
7) SOUTHERLY PORTIONS OF THE PROPOSED DEVELOPMENT FALL PRIMARILY WITHIN SECTION OCB-170-100 OUT OF THE WAY OUT WEBER (OCB-170) SUB-BASIN WITHIN THE OSO CREEK STORM WATER DRAINAGE BASIN.
8) THE RECEIVING WATER BODY FOR THE STORM WATER RUNOFF FOR THIS PROPERTY IS THE OSO CREEK BASIN. THE TCEQ HAS NOT CLASSIFIED THE AQUATIC LIFE FOR THE OSO CREEK, BUT IT IS RECOGNIZED AS AN ENVIRONMENTALLY SENSITIVE AREA. THE OSO CREEK DRAINS DIRECTLY INTO THE OSO BAY. THE TCEQ HAS CLASSIFIED THE AQUATIC LIFE USE FOR THE OSO BAY AS "EXCEPTIONAL" AND "OYSTER WATERS", AND HAS CATEGORIZED THE RECEIVING WATERS AS "CONTACT RECREATION" USE.
9) THERE ARE NO KNOWN NATURAL WATER BODIES, JURISDICTIONAL WETLANDS, ENDANGERED SPECIES HABITATS, STATE OF TEXAS SUBMERGED LANDS, OR CRITICAL DUNES WITHIN THE PROPERTY BOUNDARIES.
10) THE SITE DOES NOT LIE WITHIN A VELOCITY ZONE, NOR IS ADJACENT TO THE NUECES RIVER WATER SUPPLY.
11) PER FLOOD INSURANCE RATE MAP, MAP NUMBER 48355C0520G, PRELIMINARY REVISION, DATED MAY 5, 2018, THE SUBJECT PROPERTY IS NOT LOCATED WITHIN ANY SPECIAL FLOOD HAZARD AREAS. THIS FLOODING STATEMENT SHALL NOT CREATE LIABILITY ON THE PART OF THE SURVEYOR OR ENGINEER.
12) ALL BEARINGS ARE GRID BEARINGS BASED ON THE TEXAS COORDINATE SYSTEM FOR THE LAMBERT SOUTH ZONE NAD 83 (CORS 96) EPOCH 2002. ALL DISTANCES SHOWN ARE SURFACE DISTANCES.

STORM WATER MANAGEMENT PLAN
KASPIAN SUBDIVISION

RELEASED FOR CONSTRUCTION

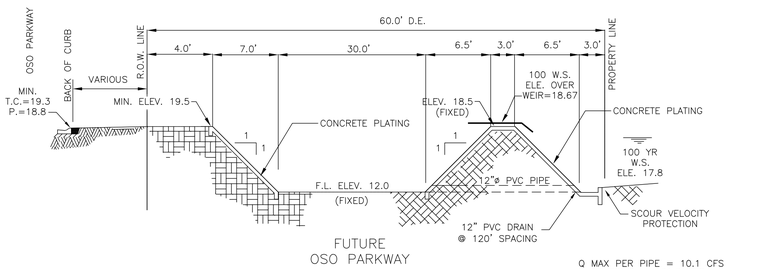
Bria A. Whitmire, P.E., CFM, CPM
Development Services Engineer
City of Corpus Christi

Note: Construction Plans will expire based on the conditions stated in UDC 3.8.5.F.

STATE OF TEXAS
JUAN PERALES, JR.
66652
REGISTERED
PROFESSIONAL ENGINEER

Juan Perales Jr., P.E.
10/02/2023

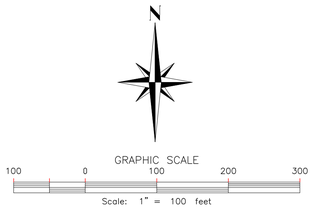
J. Perales Civil Engineering and Planning Services
TBPE FIRM No. F-14207
jperales@jperalesengineering.com
5866 S. Staples St. - # 315
Corpus Christi, Texas 784116
Tel: (361) 728-7188

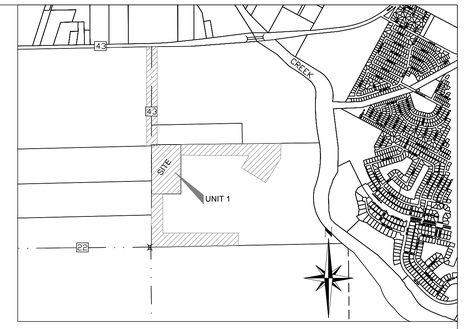


Q MAX PER PIPE = 10.1 CFS
X 13 PIPES = 131.3 CFS
PRE-DEVELOPMENT Q5= 141.2 CFS

DETENTION CHANNEL TYPICAL CROSS SECTION

N.T.S.





LOCATION MAP

N.T.S.

WETLANDS BOUNDARIES SHOWN ARE TAKEN FROM THE U.S. FISH AND WILDLIFE NATIONAL WETLANDS INVENTORY ON LINE MAP

TEMPORARY UNIT 1 OFF SITE STORMWATER OUTFALL & DETENTION AREA (SEE SHEET 5A FOR DETAILS)

LEGEND:
SUBDIVISION BOUNDARY (TYP)
CITY STORM WATER BASIN BOUNDARY (TYP)
SUBDIVISION PHASE BOUNDARY (TYP)

NOTE:
CONTOURS SHOWN ARE EXISTING

SYSTEM A - UNIT 4

SYSTEM A - UNIT 5

MATCH LNE - SHEET 1

SYSTEM - B

UNIT 4

UNIT 5

TEMPORARY STOCKPILE AREA FOR EXCAVATED MATERIAL

OUTFALL "A"

PARKWAY OUTFALL 1

PARKWAY OUTFALL 2

80' PARKWAY DEDICATION SOUTH OSO PARKWAY

80' STORMWATER DETENTION AREA

OUTFALL B

WETLANDS ZONE AE

ZONE X

WETLAND AREAS

OSO CREEK

S04°48'14"E 173.82'

S30°14'26"W

S50°07'W

S26°02'23"E

S20°29'25"W

RELEASED FOR CONSTRUCTION
Bria A. Whitmire, P.E., CFM, CPM
Development Services Engineer
City of Corpus Christi
Note: Construction Plans will expire based on the the conditions stated in UDC 3.8.5.F.

STATE OF TEXAS
JUAN PERALES, JR.
66652
REGISTERED PROFESSIONAL ENGINEER
Juan Perales Jr., P.E.
11/12/2023

J. Perales Civil Engineering and Planning Services
TBPE FIRM No. F-14207
jperales@jperalesengineering.com
5866 S. Staples St. - # 315
Corpus Christi, Texas 784116
Tel: (361) 728-7188

STORM WATER MANAGEMENT PLAN

KASPIAN SUBDIVISION

KASPIAN SUBDIVISION UNIT 1 STORMWATER CALCULATION SUMMARY

Drainage Area ID	Area, Ac	C	I5, in/hr	I25, in/hr	I100, in/hr	Q5, cfs	Q25, cfs	Q100, cfs			Pipe Segment	Contributing Areas	Q5, cfs	Q25, cfs	Q100, cfs	Pipe size, in	Pipe material	Length, ft	U.S. flowline	U.S. HGL5	H, ft.	Pipe slope, %	D.S. flowline	D.S. HGL5
A1	0.6	0.80	3.91	5.39	7.04	1.9	2.6	3.4			UNIT 1	CIA1-MHA1	A1	1.9	2.6	3.4	1 - 18"	RCP	20	21.84	25.15	0.20	0.25	21.79	24.95
A2	3.1	0.80	3.91	5.39	7.04	9.7	13.4	17.5			UNIT 1	CIA2-MHA1	A2	9.7	13.4	17.5	1 -24"	RCP	20	21.34	25.40	0.45	0.25	21.29	24.95
A3	0.6	0.80	3.91	5.39	7.04	1.9	2.6	3.4			UNIT 1	MHA1-MHA2	A1, A2	11.6	16.0	20.8	1 -30"	RCP	596	20.79	24.95	1.20	0.12	19.98	23.75
A4	5.5	0.80	3.91	5.39	7.04	17.2	23.7	31.0			UNIT 1	CIA3-MHA2	A3	1.9	2.6	3.4	1 -18"	RCP	20	21.48	23.95	0.20	0.25	20.98	23.75
A5	0.6	0.80	3.91	5.39	7.04	1.9	2.6	3.4			UNIT 1	CIA4-MHA2	A4	17.2	23.7	31.0	1 -30"	RCP	20	20.03	24.20	0.45	0.25	19.98	23.75
A6	0.6	0.80	3.91	5.39	7.04	1.9	2.6	3.4			UNIT 1	MHA2-MHA3	A1-A4	30.7	42.3	55.2	1 -42"	RCP	464	19.48	23.75	1.10	0.12	19.00	22.65
A7	0.6	0.80	3.91	5.39	7.04	1.9	2.6	3.4			UNIT 1	SET A17-MHA3	A17	3.8	5.2	6.8	1 -24"	RCP	100		22.85	0.20			22.65
A8	0.6	0.80	3.91	5.39	7.04	1.9	2.6	3.4			UNIT 1	MHA3-MHA4	A1-A4, A17	34.4	47.4	62.0	1 -48"	RCP	270	18.00	22.65	0.30	0.22	17.40	22.35
A9	0.7	0.80	3.91	5.39	7.04	2.2	3.0	3.9			UNIT 1	CIA5-MHA4	A5	1.9	2.6	3.4	1 -18"	RCP	25	20.00	22.55	0.20	0.40	19.90	22.35
A10	0.7	0.80	3.91	5.39	7.04	2.2	3.0	3.9			UNIT 1	CIA6-MHA4	A6	1.9	2.6	3.4	1 -18"	RCP	25	20.00	22.55	0.20	0.40	19.90	22.35
A11	1.8	0.55	3.91	5.39	7.04	3.9	5.3	7.0			UNIT 1	MHA4-MHA5	A1-A6, A17	38.2	52.6	68.7	1 -60"	RCP	462	16.40	22.35	0.20	0.15	15.71	22.15
A12	0.6	0.80	3.91	5.39	7.04	1.9	2.6	3.4			UNIT 2	CIA7-MHA5	A7	1.9	2.6	3.4	1 -18"	RCP	25						
A13	1.7	0.55	3.91	5.39	7.04	3.7	5.0	6.6			UNIT 2	CIA8-MHA5	A8	1.9	2.6	3.4	1 -18"	RCP	25						
A14	0.5	0.80	3.91	5.39	7.04	1.6	2.2	2.8			UNIT 2	MHA5-MHA6	A1-A8, A17	41.9	57.8	75.5	1 -60"	RCP	320	15.71	22.15	0.20	0.63	13.70	21.95
A15	0.6	0.80	3.91	5.39	7.04	1.9	2.6	3.4			UNIT 1	CIB1-CIB2	B1	6.0	8.3	10.8	1 -24"	RCP	58	19.60	26.00	0.20	2.43	18.19	25.80
A16	0.6	0.80	3.91	5.39	7.04	1.9	2.6	3.4			UNIT 1	CIB2-MHB1	B1, B2	9.5	13.0	17.0	1 -24"	RCP	14	19.60	25.80	0.40	10.60	18.12	25.40
A17	1.2	0.80	3.91	5.39	7.04	3.8	5.2	6.8			UNIT 1	CIB3-MHB1	B3	2.6	3.6	4.6	1 -18"	RCP	14	20.10	25.50	0.10	10.60	18.62	25.40
B1	2.8	0.55	3.91	5.39	7.04	6.0	8.3	10.8			UNIT 1	MHB1-MHB2	B1-B3	12.0	16.6	21.7	1 -42"	RCP	226	17.12	25.40	0.20	0.08	16.94	25.20
B2	1.6	0.55	3.91	5.39	7.04	3.4	4.7	6.2			UNIT 1	CIB4-MHB2	B4	3.4	4.7	6.2	1 -18"	RCP	16	20.10	25.35	0.15	10.40	18.44	25.20
B3	1.2	0.55	3.91	5.39	7.04	2.6	3.6	4.6			UNIT 1	CIB6-MHB2	B6	2.4	3.3	4.3	1 -18"	RCP	16	20.10	25.30	0.10	10.40	18.44	25.20
B4	1.6	0.55	3.91	5.39	7.04	3.4	4.7	6.2			UNIT 1	MHB2-MHB3	B1-B4, B6	17.8	24.6	32.1	1 -48"	RCP	86	16.44	25.20	0.20	0.08	16.37	25.00
B5	1.6	0.55	3.91	5.39	7.04	3.4	4.7	6.2			UNIT 1	CIB5-MHB3	B5	3.4	4.7	6.2	1 -18"	RCP	14	20.10	25.15	0.15	12.30	18.37	25.00
B6	1.1	0.55	3.91	5.39	7.04	2.4	3.3	4.3			UNIT 1	MHB3-MHB6	B1-B6	21.3	29.3	38.3	1 -48"	RCP	160	16.37	25.00	0.25	0.08	16.25	24.75
B7	0.4	0.80	3.91	5.39	7.04	1.1	1.5	2.0			UNIT 1	CIB7-MHB4	B7	1.1	1.5	2.0	1 -18"	RCP	24	20.30	25.25	0.10	4.58	19.20	25.15
B8	0.4	0.80	3.91	5.39	7.04	1.1	1.5	2.0			UNIT 1	CIB8-MHB4	B8	1.1	1.5	2.0	1 -18"	RCP	24	20.30	25.25	0.10	4.58	19.20	25.15
B9	1.2	0.55	3.91	5.39	7.04	2.6	3.6	4.6			UNIT 1	MHB4-MHB6	B7, B8	2.2	3.0	3.9	1 -18"	RCP	147	19.20	25.15	0.40	0.40	18.25	24.75
B10	1.2	0.55	3.91	5.39	7.04	2.6	3.6	4.6			UNIT 1	CIB9-MHB5	B9	2.6	3.6	4.6	1 -18"	RCP	20	20.30	25.05	0.10	3.35	19.63	24.95
B11	1.6	0.55	3.91	5.39	7.04	3.4	4.7	6.2			UNIT 1	CIB10-MHB5	B10	2.6	3.6	4.6	1 -18"	RCP	20	20.30	25.05	0.10	3.35	19.63	24.95
B12	1.6	0.55	3.91	5.39	7.04	3.4	4.7	6.2			UNIT 1	MHB5-MHB6	B9, B10	5.2	7.1	9.3	1 -24"	RCP	138	19.13	24.95	0.20	1.00	17.75	24.75
B13	1.0	0.55	3.91	5.39	7.04	2.2	3.0	3.9			UNIT 1	MHB6-MHB7	B1-B10	28.6	39.5	51.6	1 -48"	RCP	148	15.75	24.75	0.30	0.08	15.63	24.45
B14	1.6	0.55	3.91	5.39	7.04	3.4	4.7	6.2			UNIT 1	CIB11-MHB7	B11	3.4	4.7	6.2	1 -18"	RCP	14	18.25	24.65	0.20	0.86	18.13	24.45
B15	2.1	0.55	3.91	5.39	7.04	4.5	6.2	8.1			UNIT 1	MHB7-MHB8	B1-B11	32.1	44.2	57.8	1 -60"	RCP	84	15.63	24.45	0.30	0.08	15.56	24.15
B16	0.6	0.55	3.91	5.39	7.04	1.3	1.8	2.3			UNIT 1	CIB12-MHB8	B12	3.4	4.7	6.2	1 -18"	RCP	16	18.75	24.35	0.20	4.30	18.06	24.15
B17	1.5	0.55	3.91	5.39	7.04	3.2	4.4	5.8			UNIT 1	CIB13-MHB8	B13	2.2	3.0	3.9	1 -18"	RCP	16	18.75	24.25	0.10	4.30	18.06	24.15
B18	1.5	0.55	3.91	5.39	7.04	3.2	4.4	5.8			UNIT 1	MHB8-MHB9	B1-B13	37.7	51.9	67.8	1 -60"	RCP	226	14.56	24.15	0.20	0.08	14.38	23.95
C1	1.0	0.55	3.91	5.39	7.04	2.2	3.0	3.9			UNIT 1	CIB14-MHB9	B14	3.4	4.7	6.2	1 -18"	RCP	14	18.75	24.15	0.20	6.20	17.88	23.95
C2	1.4	0.55	3.91	5.39	7.04	3.0	4.2	5.4			UNIT 1	CIB16-MHB9	B16	1.3	1.8	2.3	1 -18"	RCP	14	18.75	24.05	0.10	6.20	17.88	23.95
C3	1.5	0.55	3.91	5.39	7.04	3.2	4.4	5.8			UNIT 1	MHB9-MHB10	B1-B14, B16	42.4	58.5	76.3	1 -60"	RCP	52	14.38	23.95	0.20	0.10	14.33	23.75
C4	2.0	0.55	3.91	5.39	7.04	4.3	5.9	7.7			UNIT 1	CIB15-MHB10	B15	4.5	6.2	8.1	1 -18"	RCP	20	17.88	24.05	0.30	0.25	17.83	23.75
C5	1.7	0.55	3.91	5.39	7.04	3.7	5.0	6.6			UNIT 1	MHB10-MHB11	B1-B16	46.9	64.7	84.5	1 -72"	RCP	316	14.33	23.75	0.45	0.08	14.08	23.30
C6	1.5	0.55	3.91	5.39	7.04	3.2	4.4	5.8			UNIT 2	CIB17-MHB11	B17	3.2	4.4	5.8	1 -18"	RCP	14						
C7	1.2	0.55	3.91	5.39	7.04	2.6	3.6	4.6			UNIT 2	CIB18-MHB11	B18	3.2	4.4	5.8	1 -18"	RCP	14						
C8	1.1	0.55	3.91	5.39	7.04	2.4	3.3	4.3			UNIT 1	MHB11-MHB12	B1-B18	53.4	73.6	96.1	1 -72"	RCP	262	14.08	23.30	0.45	0.08	13.87	22.85
C9	1.4	0.55	3.91	5.39	7.04	3.0	4.2	5.4			UNIT 2	CIC1-CIC2	C1	2.2	3.0	3.9			84						
											UNIT 2	CIC2-MHC1	C1, C2	5.2	7.1	9.3			14						
											UNIT 2	CIC3-MHC1	C3	3.2	4.4	5.8			14						
											UNIT 2	MHC1-MHC4	C1-C3	8.4	11.6	15.1	1 - 36"	RCP	464	17.14	23.80	0.20	0.08	16.77	23.60
											UNIT 2	CIC4-MHC2	C4	4.3	5.9	7.7			20						
											UNIT 2	CIC6-MHC2	C6	3.2	4.4	5.8			20						
											UNIT 2	MHC2-MHC4	C4, C6	7.5	10.4	13.6	1 -24"	RCP	142	17.39	24.05	0.45	0.08	17.27	23.60
											UNIT 2	CIC5-MHC3	C5	3.7	5.0	6.6			20						
											UNIT 2	CIC7-MHC3	C7	2.6	3.6	4.6			20						
											UNIT 2	MHC3-MHC4	C5, C7	6.2	8.6	11.2	1 -24"	RCP	142	17.39	23.95	0.35	0.08	17.27	23.60
											UNIT 2	MHC4-MHC5	C1-C7	22.2	30.5	39.9	1 -42"	RCP	280	15.77	23.60	0.45	0.08	15.55	23.15
											UNIT 2	CIC8-MHC5	C8	2.4	3.3	4.3			20						
											UNIT 2	CIC9-MHC5	C9	3.0	4.2	5.4			20						
											UNIT 2	MHC5-MHB12	C1-C9	27.5	37.9	49.6	1 -48"	RCP	230	15.05	23.15	0.30	0.08	14.87	22.85
											UNIT 2	MHB12-MHA6	B1-B18, C1-C9	80.9	111.5	145.7	1 -60"	RCP	212	13.87	22.85	0.90	0.08	13.70	21.95
											UNIT 2	MHA6-MHA7	A1-A8, B1-B18, C1-C9	122.8	169.3	221.1	2 -60"	RCP	294	13.70	21.95	0.55	0.08	13.46	21.40
											UNIT 2	CIA9-MHA7	A9	2.2	3.0	3.9			25						
											UNIT 2	CIA10-MHA7	A10	2.2	3.0	3.9			25						
											UNIT 3	MHA7-MHA8	A1-A10, B1-B18, C1-C9	127.2	175.3	229.0	2 - 72" OR 2-4'X8' BOX	RCP	730	13.46	21.40	1.10	0.08	12.88	20.30
											UNIT 2	CIA11-MHA8	A11	3.9	5.3	7.0			25						
											UNIT 2	CIA12-MHA8	A12	1.9	2.6	3.4			25						
											UNIT 4	MHA8-MHA9	A1-A12, B1-B18, C1-C9	132.9	183.3	239.4	2 - 72" OR 2-4'X8' BOX	RCP	282	12.88	20.30	0.30	0.08	12.65	20.00
											UNIT 2	CIA13-MHA9	A13	3.7	5.0	6.6			25						
											UNIT 2	CIA14-MHA9	A14	1.6	2.2	2.8			25						
											UNIT 5	MHA9-MHA10	A1-A14, B1-BA8, C1-C9	138.2	190.5	248.8	2 - 72" OR 2-4'X8' BOX	RCP	614	12.65	20.00	0.45	0.08	12.16	19.55
											UNIT 2	CIA15-MHA10	A15	1.9	2.6	3.4			25						
											UNIT 2	CIA16-MHA10	A16	1.9	2.6	3.4			25						
											UNIT 5	MHA10-JBA11	A1-A16, B1-B18, C1-C9	141.9	195.6	255.5	2 - 72" OR 2-4'X8' BOX	RCP	212	12.16	19.55	0.30	0.10	12.05	19.25
											UNIT 5	JBA11-OUTFALL	A1-A16, B1-B18, C1-C9	141.9	195.6	255.5	2 - 72" OR 2-4'X8' BOX	RCP	48	12.05	19.25	0.25	0.10	12.00	19.00
																							(OVERFLOW WEIR ELEV. 18.50)			
																							(DETENTION FLOWLINE ELEV. 12.00)			

DESIGN ASSUMPTIONS

C = 0.55 (Single family lots < 1/4 acre w slope 1% > <3.5% - per City of CC Infrastructure Design Manual Table 3.1

**C = 0.80 (Asphalt streets/paving - per City of CC Infrastructure Design Manual Table 3.1

L max = 400 ft.

V = 1.0 ft/sec per CC Drainage Design Manual Exhibit 4-1

Tc to first inlet = 7 min

Tc pipe flow = 4000 Lf @ 3.0 fps = 22 min

Use total TC = 30.0 min

Based on USGS Scientific investigations report 2004-5041 for Nueces County

Tc = 30 min	e5	b5	d5	i5	e25	b25	d25	i25	e100	b100	d100	i100
	0.8191	83.7500	12.0900	3.9100	0.8167	117.8500	13.6800	5.3900	0.8110	154.8900	15.2500	7.0400

Minimum pipe slopes per IDM Table 3.3

18	0.12
24	0.08
30	0.058
36	0.046
42	0.037
48	0.03
60	0.02
72	0.02

INLET/ MANHOLE ID#

	PIPE SIZE N	PIPE SIZE E	PIPE SIZE S	PIPE SIZE W	DIMENSIONS	DEPTH, FT.	TYPE
CI A1	n/a	n/a	n/a	18"	5'-0" X 2'-0"	5.96	STD CURB
CI A2	n/a	24"	n/a	15"	5'-0" X 2'-0"	6.46	STD CURB
CI A3	18"	n/a	n/a	18"	5'-0" X 2'-0"	5.92	STD CURB
CI A4	n/a	30"	n/a	24"	5'-0" X 2'-0"	6.47	STD CURB
CI A5	18"	n/a	n/a	n/a	5'-0" X 2'-0"	5.90	STD CURB
GI A6	n/a	n/a	18"	n/a	5'-0" X 2'-0"	5.90	GRATE
CI B1	24"	n/a	n/a	n/a	5'-0" X 2'-0"	6.07	STD CURB
CI B2	n/a	24"	n/a	24"	5'-0" X 2'-0"	6.12	STD CURB
CI B3	n/a	n/a	n/a	18"	5'-0" X 2'-0"	5.57	STD CURB
CI B4	n/a	18"	n/a	n/a	5'-0" X 2'-0"	5.75	STD CURB
CI B5	n/a	18"	n/a	n/a	5'-0" X 2'-0"	5.87	STD CURB
CI B6	n/a	n/a	n/a	18"	5'-0" X 2'-0"	5.74	STD CURB
GI B7	18"	n/a	n/a	n/a	5'-0" X 2'-0"	5.90	GRATE
GI B8	n/a	n/a	18"	n/a	5'-0" X 2'-0"	5.90	GRATE
CI B9	18"	n/a	n/a	n/a	5'-0" X 2'-0"	6.00	STD CURB
CI B10	n/a	n/a	18"	n/a	5'-0" X 2'-0"	6.00	STD CURB
CI B11	n/a	18"	n/a	n/a	5'-0" X 2'-0"	4.70	STD CURB
CI B11-B	n/a	n/a	n/a	18"	5'-0" X 2'-0"	4.70	STD CURB
CI B12	n/a	18"	n/a	n/a	5'-0" X 2'-0"	4.77	STD CURB
CI B13	n/a	n/a	n/a	18"	5'-0" X 2'-0"	4.77	STD CURB
CI B14	n/a	18"	n/a	n/a	5'-0" X 2'-0"	4.78	STD CURB
CI B15	n/a	n/a	18"	n/a	5'-0" X 2'-0"	4.78	STD CURB
CI B16	n/a	n/a	n/a	18"	5'-0" X 2'-0"	4.78	STD CURB
MH A1	30"	18"	n/a	24"	4'-0" x 4'-6"	6.81	TYPE C
MH A2	36"	18"	30"	30"	4'-6" x 5'-0"	7.32	TYPE C
MH A3	n/a	48"	36"	n/a	5'-0" x 6'-0"	9.76	TYPE D
MH A4	18"	60"	18"	48"	6'-0" x 7'-0"	9.60	TYPE D
MH B1	36"	18"	n/a	24"	4'-0" x 5'-0"	7.00	TYPE C
MH B2	42"	18"	36"	18"	4'-0" x 6'-6"	7.68	TYPE C
MH B3	42"	n/a	42"	18"	4'-0" x 6'-6"	7.80	TYPE C
MH B4	18"	18"	18"	n/a	4'-0" x 4'-0"	6.75	TYPE C
MH B5	18"	n/a	18"	24"	4'-0" x 4'-0"	6.60	TYPE C
MH B6	48"	24"	42"	18"	4'-0" x 6'-0"	9.03	TYPE D
MH B7	48"	18"	48"	18"	4'-0" X 6'-0"	7.18	TYPE C
MH B8	60"	18"	48"	18"	4'-0" X 7'-0"	8.25	TYPE C
MH B9	60"	18"	60"	18"	4'-0" X 7'-0"	8.26	TYPE C
MH B10	18"	60"	60"	n/a	7'-0" X 7'-0"	8.42	TYPE C

RELEASED FOR CONSTRUCTION

Bria A. Whitmire, P.E., CFM, CPM
Development Services Engineer
City of Corpus Christi

Note: Construction Plans will expire based on the the conditions stated in UDC 3.8.5.F.

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SCALE: SHOWN
DATE: 11-10-23
DRAWING #: 210237
PAGE: 45
OF: 68

STATE OF TEXAS · JUAN PERALES, JR. · 66452 · REGISTERED PROFESSIONAL ENGINEER · 11/10/2023

STORM WATER MANAGEMENT TABLES

KASPIAN SUBDIVISION UNIT 1
CORPUS CHRISTI, TEXAS

J. Perales Civil Engineering and Planning Services
TBPE FIRM No. F-14207
jperales@jperalesengineering.com
5866 S. Staples St. - # 315
Corpus Christi, Texas 78411
Tel: (361) 728-7188

GRAPHIC SCALE

50 0 50 100 150

Scale: 1" = 50 feet

TRANSPORTATION MASTER PLAN NOTES:

* EMILY DR. (CR 43) IS DESIGNATED AS AN A2 ARTERIAL STREET
* ARANSAS RIVER DR. IS DESIGNATED AS A C3 COLLECTOR STREET
* ALL OTHER STREETS ARE CATEGORIZED AS LOCAL STREETS

NOTE:
SEE SHEET 52 FOR CR 43 & ARANSAS RIVER DR. INTERSECTION DETAIL AND ADDITIONAL SIGN / MARKING REQUIREMENTS

MICHAEL FASELER
DOC.: 2002008129
O.P.R.N.C.T.
S ½ SECTION 5
LAURELES FARM TRACT

GAYLE S
DOC.: 200
O.P.R.N
N ½ SEC
LAURELES FA

N ½ SECTION 6
LAURELES FARM TRACT
WEBER GREENE, LTD.
DOC.: 2004004195
O.P.R.N.C.T.

EMILY DR. (CR 43)
CR 43
ARANSAS RIVER DR.
FUTURE 75.0' R.O.W.
10' SHARED SIDEWALK
70W LED STREET LIGHT W/ CONC. POLE & 4' ARM (TYP)
43W LED STREET LIGHT W/ CONC. POLE & 4' ARM (TYP)
70W TWN LED STREET LIGHT W/ CONC. POLE & 6' ARMS (TYP)
ADA RAMP TYPE 2
ADA RAMP TYPE 6
ADA RAMP TYPE 10
BARKLEY CIRCLE 1+00 50.0' R.O.W.
HARDIN CIRCLE 1+00 50.0' R.O.W.
KASPIAN SEA ROAD 1+00 50.0' R.O.W.
CURRY CIRCLE 1+00 50.0' R.O.W.
STEPH CIRCLE 1+00 50.0' R.O.W.
ATASCOSA RIVER DR. 50.0' R.O.W.
TEMPORARY TURNAROUND BY A SEPARATE INSTRUMENT DOC.#
TEMPORARY TURN AROUND R 50'
TYPE III BARRICADE W/3-OM 4-2 (RED & BLACK)
W1-7T (36" x 96")
W14-2 36" x 36"
W2-4 (30"x30") SIGN
NO OUTLET
STOP 30"x30" R1-1
SPEED LIMIT 30 R2-1 24" x 30"

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APPROVED BY: JP
DATE: 11-10-23
SCALE: SHOWN
DRAWING #: 210237
PAGE: 46 OF: 68

SIGNS, MARKING AND LIGHTING PLAN

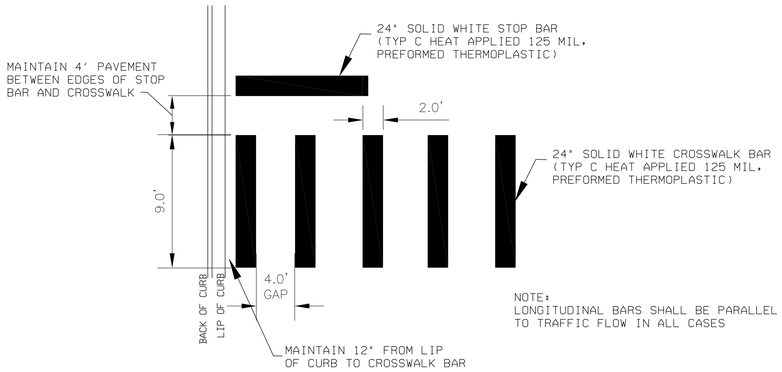
KASPIAN SUBDIVISION UNIT 1

CORPUS CHRISTI , TEXAS

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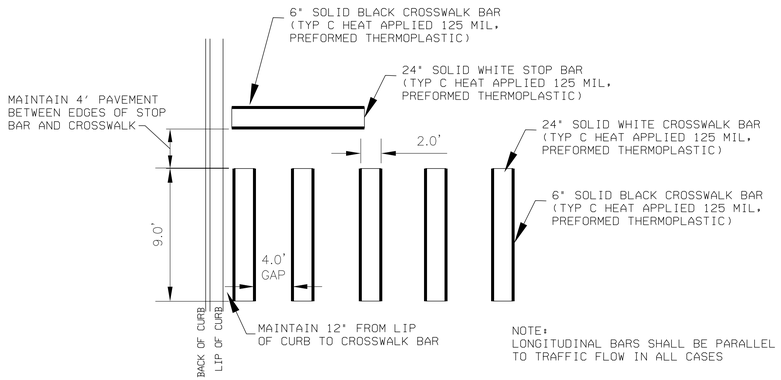
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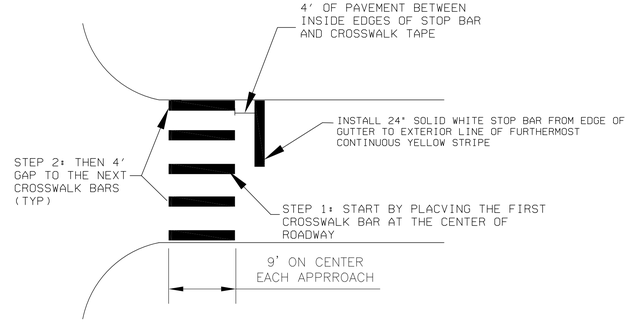
LONGITUDINAL CROSSWALK - DETAIL

FOR ASPHALT ROADWAYS - N.T.S.



HIGH CONTRAST CROSSWALK - DETAIL

FOR CONCRETE ROADWAYS - N.T.S.



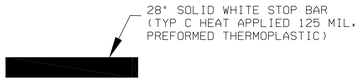
PLAN VIEW

CROSSWALK PAVEMENT MARKINGS

N.T.S.

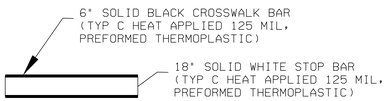
NOTE:

1. ALL STOP BAR AND CROSSWALK PAVEMENT MARKINGS SHALL BE 24" SOLID WHITE, TYPE C HEAT APPLIED, 125 MIL PREFORMED THERMOPLASTIC. HIGH CONTRAST CROSSWALK INCLUDES 24" SOLID BLACK ON BOTH SIDES (TYPE C HEAT AP HEAT APPLIED, 125 MIL, PERFORMED THERMOPLASTIC).
2. CONTRACTOR SHALL PREMARK STRIPING LAYOUT FOR CITY APPROVAL PRIOR TO THE PLACEMENT OF ANY FINAL PAVEMENT MARKINGS.
3. THE PLACEMENT OF CROSSWALK BARS SHALL START BY PLACING THE FIRST CROSSWALK BAR AT THE CENTER OF THE ROADWAY, AND THEN 4' TO THE NEXT CROSSWALK BARS.
4. DO NOT STRIPE STREET WITH ROADWAY SURFACE TEMPERATURE LESS 55°F.
5. ALL CROSSWALK AND STOP BARS SHALL BE IN ACCORDANCE WITH THIS DETAIL AND THE 2011 TEXAS MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (TUMUCD).



SCHOOL ZONE BAR - DETAIL

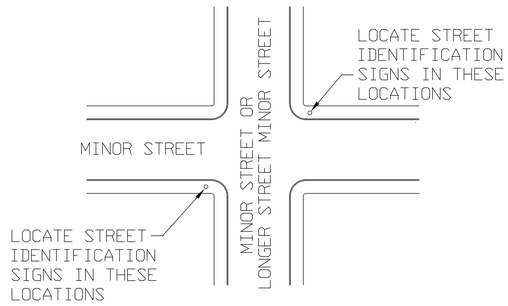
FOR ASPHALT ROADWAYS - SCALE: N.T.S.

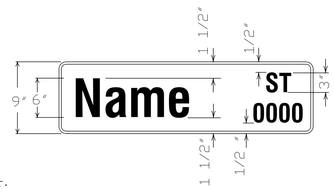


HIGH CONTRAST SCHOOL ZONE BAR - DETAIL

FOR CONCRETE ROADWAYS - N.T.S.

STREET NAME BLADE SIGN





NOTE:

1. STREET NAME BLADES MATERIAL SHALL CONSIST OF EXTRUDED ALUMINUM. THE HEIGHT OF NAME BLADES SHALL BE 9" AND THE HEIGHT OF LETTERING SHALL BE 6". STREET NAME LEGEND SHALL CONSIST OF INITIAL CASE. FONT ON STREET NAME BLADES SHALL BE SERIES B. WHEN TWO STREET NAME BLADES WILL BE ON THE SAME ASSEMBLY. THESE TWO STREET NAME BLADES SHALL HAVE THE SAME WIDTH.
2. ANTI-GRAFFITI COATING ON FRONT OF THE SIGN PLAQUE (APPLICABLE TO ALL SIGNS EXCEPT FOR NAME BLADES).
3. SIGNS AND PAVEMENT MARKINGS SHALL MEET 2011 TEXAS MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES(TMUTCD), AND TX DOT STANDARDS.

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DRAWING #: 210237			
PAGE: 47	OF: 68		

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SIGNS & MARKING DETAILS

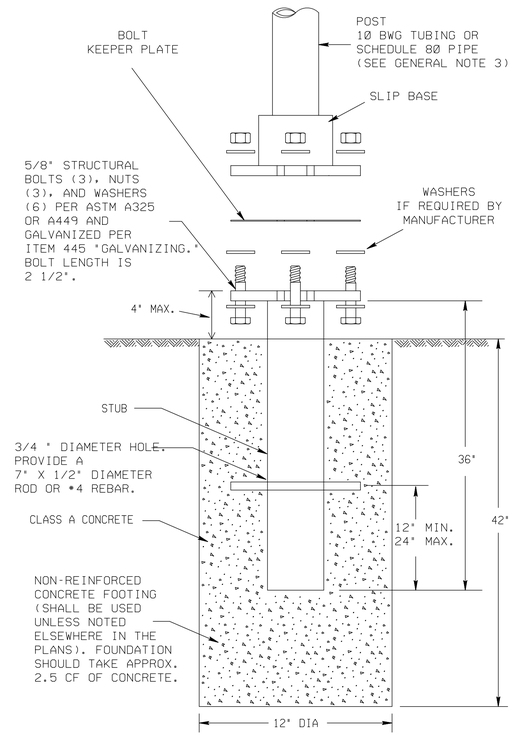
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DISCLAIMER: THE USE OF THIS STANDARD IS GOVERNED BY THE "TEXAS ENGINEERING PRACTICE ACT". NO WARRANTY OF ANY KIND IS MADE BY TXDOT FOR ANY PURPOSE WHATSOEVER. TXDOT ASSUMES NO RESPONSIBILITY FOR THE CONVERSION OF THIS STANDARD TO OTHER FORMATS OR FOR INCORRECT RESULTS OR DAMAGES RESULTING FROM ITS USE.

DATE:
FILE:

TRIANGULAR SLIPBASE INSTALLATION GENERAL REQUIREMENTS



SM RD SGN ASSM TY XXXXX(X)SA(X-XXXX)

NOTE

THERE ARE VARIOUS DEVICES APPROVED FOR THE TRIANGULAR SLIPBASE SYSTEM. PLEASE REFERENCE THE MATERIAL PRODUCER LIST FOR APPROVED SLIP BASE SYSTEMS. HTTP://WWW.TXDOT.GOV/BUSINESS/PRODUCER_LIST.HTM THE DEVICES SHALL BE INSTALLED PER MANUFACTURERS' RECOMMENDATIONS. INSTALLATION PROCEDURES SHALL BE PROVIDED TO THE ENGINEER BY CONTRACTOR.

GENERAL NOTES:

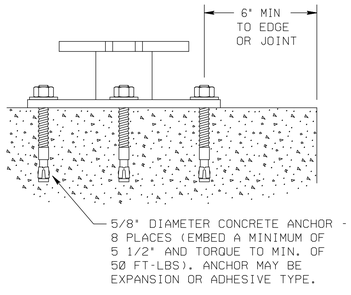
1. SLIP BASE SHALL BE PERMANENTLY MARKED TO INDICATE MANUFACTURER. METHOD, DESIGN, AND LOCATION OF MARKING ARE SUBJECT TO APPROVAL OF THE TXDOT TRAFFIC STANDARDS ENGINEER.
2. MATERIAL USED AS POST WITH THIS SYSTEM SHALL CONFORM TO THE FOLLOWING SPECIFICATIONS:
   10 BWG TUBING (2.875" OUTSIDE DIAMETER)
   0.134" NOMINAL WALL THICKNESS
   SEAMLESS OR ELECTRIC-RESISTANCE WELDED STEEL TUBING OR PIPE
   STEEL SHALL BE HSLAS GR 55 PER ASTM A1011 OR ASTM A1008
   OTHER STEELS MAY BE USED IF THEY MEET THE FOLLOWING:
   55,000 PSI MINIMUM YIELD STRENGTH
   70,000 PSI MINIMUM TENSILE STRENGTH
   20% MINIMUM ELONGATION IN 2"
   WALL THICKNESS (UNCOATED) SHALL BE WITHIN THE RANGE OF 0.122" TO 0.138"
   OUTSIDE DIAMETER (UNCOATED) SHALL BE WITHIN THE RANGE OF 2.867" TO 2.883"
   GALVANIZATION PER ASTM A123 OR ASTM A653 G210. FOR PRECOATED STEEL TUBING (ASTM A653), RECOAT TUBE OUTSIDE DIAMETER WELD SEAM BY METALLIZING WITH ZINC WIRE PER ASTM B833.
   SCHEDULE 80 PIPE (2.875" OUTSIDE DIAMETER)
   0.276" NOMINAL WALL THICKNESS
   STEEL TUBING PER ASTM A500 GR C
   OTHER SEAMLESS OR ELECTRIC-RESISTANCE WELDED STEEL TUBING OR PIPE WITH EQUIVALENT
   OUTSIDE DIAMETER AND WALL THICKNESS MAY BE USED IF THEY MEET THE FOLLOWING:
   46,000 PSI MINIMUM YIELD STRENGTH
   62,000 PSI MINIMUM TENSILE STRENGTH
   21% MINIMUM ELONGATION IN 2"
   WALL THICKNESS (UNCOATED) SHALL BE WITHIN THE RANGE OF 0.248" TO 0.304"
   OUTSIDE DIAMETER (UNCOATED) SHALL BE WITHIN THE RANGE OF 2.855" TO 2.895"
   GALVANIZATION PER ASTM A123
3. SEE THE TRAFFIC OPERATIONS DIVISION WEBSITE FOR DETAILED DRAWINGS OF SIGN CLAMPS AND TEXAS UNIVERSAL TRIANGULAR SLIPBASE SYSTEM COMPONENTS. THE WEBSITE ADDRESS IS: HTTP://WWW.TXDOT.GOV/PUBLICATIONS/TRAFFIC.HTM
4. SIGN SUPPORTS SHALL NOT BE SPLICED EXCEPT WHERE SHOWN. SIGN SUPPORT POSTS SHALL NOT BE SPLICED.

ASSEMBLY PROCEDURE

FOUNDATION
1. PREPARE 12-INCH DIAMETER BY 42-INCH DEEP HOLE. IF SOLID ROCK IS ENCOUNTERED, THE DEPTH OF THE FOUNDATION MAY BE REDUCED SUCH THAT IT IS EMBEDDED A MINIMUM OF 18 INCHES INTO THE SOLID ROCK.
2. THE ENGINEER MAY PERMIT BATCHES OF CONCRETE LESS THAN 2 CUBIC YARDS TO BE MIXED WITH A PORTABLE, MOTOR-DRIVEN CONCRETE MIXER. FOR SMALL PLACEMENTS LESS THAN 0.5 CUBIC YARDS, HAND MIXING IN A SUITABLE CONTAINER MAY BE ALLOWED BY ENGINEER. CONCRETE SHALL BE CLASS A.
3. PUSH THE PIPE END OF THE SLIP BASE STUB INTO THE CENTER OF THE CONCRETE. ROTATE THE STUB BACK AND FORTH WHILE PUSHING IT DOWN INTO THE CONCRETE TO ASSURE GOOD CONTACT BETWEEN THE CONCRETE AND STUB. CONTINUE TO WORK THE STUB INTO THE CONCRETE UNTIL IT IS BETWEEN 2 TO 4 INCHES ABOVE THE GROUND.
4. PLUMB THE STUB. ALLOW A MINIMUM OF 4 DAYS TO SET, UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
5. THE TRIANGULAR SLIPBASE SYSTEM IS MULTIDIRECTIONAL AND IS DESIGNED TO RELEASE WHEN STRUCK FROM ANY DIRECTION.

SUPPORT
1. CUT SUPPORT SO THAT THE BOTTOM OF THE SIGN WILL BE 7 TO 7.5 FEET ABOVE THE EDGE OF THE TRAVELWAY (I.E., EDGE OF THE CLOSEST LANE) WHEN SLIP PLATE IS BELOW THE EDGE OF PAVEMENT OR 7 TO 7.5 FEET ABOVE SLIP PLATE WHEN THE SLIP PLATE IS ABOVE THE EDGE OF THE TRAVELWAY. THE CUT SHALL BE PLUMB AND STRAIGHT.
2. ATTACH SIGN TO SUPPORT USING CONNECTIONS SHOWN. WHEN MULTIPLE SIGNS ARE INSTALLED ON THE SAME SUPPORT, ENSURE THE MINIMUM CLEARANCE BETWEEN EACH SIGN IS MAINTAINED. SEE SMD(SLIP-2) FOR CLEARANCES BASED ON SIGN TYPES.

CONCRETE ANCHOR



SM RD SGN ASSM TY XXXXX(X)SB(X-XXXX)

CONCRETE ANCHOR CONSISTS OF 5/8" DIAMETER STUD BOLT WITH UNC SERIES BOLT THREADS ON THE UPPER END. HEAVY HEX NUT PER ASTM A563, AND HARDENED WASHER PER ASTM F436. THE STUD BOLT SHALL HAVE A MINIMUM YIELD AND ULTIMATE TENSILE STRENGTH OF 50 AND 75 KSI, RESPECTIVELY. NUTS, BOLTS AND WASHERS SHALL BE GALVANIZED PER ITEM 445, "GALVANIZING." ADHESIVE TYPE ANCHORS SHALL HAVE STUD BOLTS INSTALLED WITH TYPE III EPOXY PER DMS-6100, "EPOXIES AND ADHESIVES." ADHESIVE ANCHORS MAY BE LOADED AFTER ADEQUATE EPOXY CURE TIME PER THE MANUFACTURER'S RECOMMENDATIONS. TOP OF BOLT SHALL EXTEND AT LEAST FLUSH WITH TOP OF THE NUT WHEN INSTALLED. THE ANCHOR, WHEN INSTALLED IN 4000 PSI NORMAL-WEIGHT CONCRETE WITH A 5 1/2" MINIMUM EMBEDMENT, SHALL HAVE A MINIMUM ALLOWABLE TENSION AND SHEAR OF 3900 AND 3100 PSI, RESPECTIVELY.

TEXAS DEPARTMENT OF TRANSPORTATION
TRAFFIC OPERATIONS DIVISION

SIGN MOUNTING DETAILS SMALL ROADSIDE SIGNS TRIANGULAR SLIPBASE SYSTEM

SMD(SLIP-1)-08

JULY 2002	DN: TXDOT		CK: TXDOT	DW: TXDOT	CK: TXDOT
REVISIONS	CONT	SECT	JOB	HIGHWAY	
9-08					
	DIST	COUNTY		SHEET NO.	

26B

RELEASED FOR CONSTRUCTION
Bria A. Whitmire, P.E., CFM, CPM
Development Services Engineer
City of Corpus Christi
Note: Construction Plans will expire based on the the conditions stated in UDC 3.8.5.F.

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APPROVED BY: JP
SCALE: SHOWN
DATE: 11-10-23
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PAGE: 48
OF: 68

STATE OF TEXAS · JUAN PERALES, JR. · 66632 · REGISTERED PROFESSIONAL ENGINEER · 11/10/2023

SIGNS & MARKING DETAILS

KASPIAN SUBDIVISION UNIT 1
CORPUS CHRISTI, TEXAS

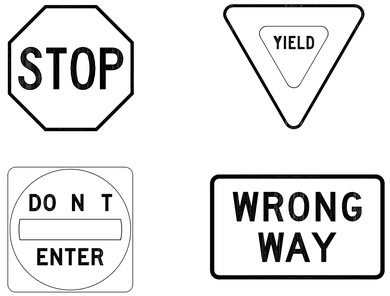
J. Perales Civil Engineering and Planning Services
TBPE FIRM No. F-14207
jperales@jperalesengineering.com
5866 S. Staples St. # 315
Corpus Christi, Texas 78411
Tel: (361) 728-7188

DISCLAIMER:
THE USE OF THIS STANDARD IS GOVERNED BY THE "TEXAS ENGINEERING PRACTICE ACT". NO WARRANTY OF ANY KIND IS MADE BY TXDOT FOR ANY PURPOSE WHATSOEVER. TXDOT ASSUMES NO RESPONSIBILITY FOR THE CONVERSION OF THIS STANDARD TO OTHER FORMATS OR FOR INCORRECT RESULTS OR DAMAGES RESULTING FROM ITS USE.

DATE:
FILE:

REQUIREMENTS FOR RED BACKGROUND REGULATORY SIGNS

(STOP, YIELD, DO NOT ENTER AND WRONG WAY SIGNS)



REQUIREMENTS FOR FOUR SPECIFIC SIGNS ONLY

SHEETING REQUIREMENTS		
USAGE	COLOR	SIGN FACE MATERIAL
BACKGROUND	RED	TYPE B OR C SHEETING
BACKGROUND	WHITE	TYPE B OR C SHEETING
LEGEND & BORDERS	WHITE	TYPE B OR C SHEETING
LEGEND	RED	TYPE B OR C SHEETING

REQUIREMENTS FOR WHITE BACKGROUND REGULATORY SIGNS

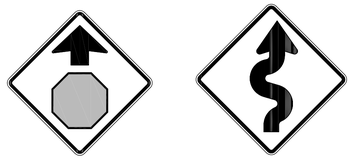
(EXCLUDING STOP, YIELD, DO NOT ENTER AND WRONG WAY SIGNS)



TYPICAL EXAMPLES

SHEETING REQUIREMENTS		
USAGE	COLOR	SIGN FACE MATERIAL
BACKGROUND	WHITE	TYPE A SHEETING
BACKGROUND	ALL OTHERS	TYPE B OR C SHEETING
LEGEND, BORDERS AND SYMBOLS	BLACK	ACRYLIC NON-REFLECTIVE FILM
LEGEND, BORDERS AND SYMBOLS	ALL OTHER	TYPE B OR C SHEETING

REQUIREMENTS FOR WARNING SIGNS



TYPICAL EXAMPLES

SHEETING REQUIREMENTS		
USAGE	COLOR	SIGN FACE MATERIAL
BACKGROUND	FLOURESCENT YELLOW	TYPE B_{FL} OR C_{FL} SHEETING
LEGEND & BORDERS	BLACK	ACRYLIC NON-REFLECTIVE FILM
LEGEND & SYMBOLS	ALL OTHER	TYPE B OR C SHEETING

REQUIREMENTS FOR SCHOOL SIGNS



TYPICAL EXAMPLES

SHEETING REQUIREMENTS		
USAGE	COLOR	SIGN FACE MATERIAL
BACKGROUND	WHITE	TYPE A SHEETING
BACKGROUND	FLOURESCENT YELLOW GREEN	TYPE B_{FL} OR C_{FL} SHEETING
LEGEND, BORDERS AND SYMBOLS	BLACK	ACRYLIC NON-REFLECTIVE FILM
SYMBOLS	RED	TYPE B OR C SHEETING

GENERAL NOTES

1. SIGNS TO BE FURNISHED SHALL BE AS DETAILED ELSEWHERE IN THE PLANS AND/OR AS SHOWN ON SIGN TABULATION SHEET. STANDARD SIGN DESIGNS AND ARROW DIMENSIONS CAN BE FOUND IN THE "STANDARD HIGHWAY SIGN DESIGNS FOR TEXAS" (SHSD).
2. SIGN LEGEND SHALL USE THE FEDERAL HIGHWAY ADMINISTRATION (FHWA) STANDARD HIGHWAY ALPHABETS (B, C, D, E, EMOD OR F).
3. LATERAL SPACING BETWEEN LETTERS AND NUMERALS SHALL CONFORM WITH THE SHSD, AND ANY APPROVED CHANGES THERETO. LATERAL SPACING OF LEGEND SHALL PROVIDE A BALANCED APPEARANCE WHEN SPACING IS NOT SHOWN.
4. BLACK LEGEND AND BORDERS SHALL BE APPLIED BY SCREENING PROCESS OR CUT-OUT ACRYLIC NON-REFLECTIVE BLACK FILM TO BACKGROUND SHEETING, OR COMBINATION THEREOF.
5. WHITE LEGEND AND BORDERS SHALL BE APPLIED BY SCREENING PROCESS WITH TRANSPARENT COLORED INK, TRANSPARENT COLORED OVERLAY FILM TO WHITE BACKGROUND SHEETING OR CUT-OUT WHITE SHEETING TO COLORED BACKGROUND SHEETING, OR COMBINATION THEREOF.
6. COLORED LEGEND SHALL BE APPLIED BY SCREENING PROCESS WITH TRANSPARENT COLORED INK, TRANSPARENT COLORED OVERLAY FILM OR COLORED SHEETING TO BACKGROUND SHEETING, OR COMBINATION THEREOF.
7. SIGN SUBSTRATE SHALL BE ANY MATERIAL THAT MEETS THE DEPARTMENTAL MATERIAL SPECIFICATION REQUIREMENTS OF DMS-7110 OR APPROVED ALTERNATIVE.
8. MOUNTING DETAILS FOR ROADSIDE MOUNTED SIGNS ARE SHOWN IN THE "SMD SERIES" STANDARD PLAN SHEETS.

ALUMINUM SIGN BLANKS THICKNESS	
SQUARE FEET	MINIMUM THICKNESS
LESS THAN 7.5	0.080
7.5 TO 15	0.100
GREATER THAN 15	0.125

DEPARTMENTAL MATERIAL SPECIFICATIONS	
ALUMINUM SIGN BLANKS	DMS-7110
SIGN FACE MATERIALS	DMS-8300

THE STANDARD HIGHWAY SIGN DESIGNS FOR TEXAS (SHSD) CAN BE FOUND AT THE FOLLOWING WEBSITE.

http://www.txdot.gov/

Texas Department of Transportation | Traffic Operations Division Standard

TYPICAL SIGN REQUIREMENTS

TSR(4)-13

FILE: TSR4-13.DGN	DN: TXDOT	CK: TXDOT	DW: TXDOT	CK: TXDOT
©TXDOT OCTOBER 2003	CONT	SECT	JOB	HIGHWAY
REVISIONS				
12-03 7-13	DIST	COUNTY		SHEET NO.
9-08				

4

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Development Services Engineer
City of Corpus Christi
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DATE: 11-10-23 | SCALE: SHOWN
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PAGE: 49

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Juan Perales Jr., P.E. 11/10/2023

SIGNS & MARKING DETAILS

KASPIAN SUBDIVISION UNIT 1
CORPUS CHRISTI, TEXAS

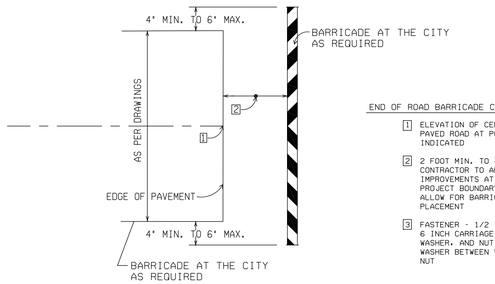
J. Perales Civil Engineering and Planning Services
TBPE FIRM No. F-14207
jperales@jperalesengineering.com
5866 S. Staples St. - # 315
Corpus Christi, Texas 78411
Tel: (361) 728-7188

NOTES

1. CONTRACTOR TO PROVIDE AND INSTALL IN ACCORDANCE WITH THE DRAWINGS, SPECIFICATIONS, MANUFACTURER RECOMMENDATIONS, AND INDUSTRY STANDARDS.
   1.1. IN THE EVENT THAT A SPECIFICATION, RECOMMENDATION, OR STANDARD CONFLICTS WITH ANOTHER, THE PRODUCT WILL NOT PERFORM AS INTENDED.
2. CONTRACTOR IS TO INSTALL THE BARRICADE PRIOR TO OPENING THE STREET TO THE PUBLIC.
3. BARRICADE SHALL BE INSTALLED AT LOCATIONS INDICATED WITHIN THE DRAWINGS AND/OR AS INDICATED BY THE OAR.
4. BARRICADE SHALL EXTEND ACROSS THE ROADWAY WITH THE STRIPES SLOPING DOWNWARD TOWARDS THE CENTER OF THE ROADWAY.
5. ANY IDENTIFICATION MARKINGS SHALL BE ON THE BACK OF THE BARRIADE RAILS WITH A MAXIMUM HEIGHT OF ANY LETTERS AND/OR LOGOS USED BEING NO LARGER THAN 1-INCH.
6. PROJECT WARRANTY OF 14-MONTHS FROM DATE OF RELEASE OF RETAINAGE IN FULL WILL GOVERN THIS ITEM UNLESS OTHERWISE INDICATED WITHIN THE PROJECT DOCUMENTS OR BY THE OAR.

MATERIALS AND INSTALLATION

1. ALL PRODUCTS SHALL BE AS INDICATED UNLESS OTHERWISE INDICATED ON THE DRAWINGS OR AS INDICATED BY THE OAR.
2. WOOD
   2.1. ALL WOOD SHALL BE PRESSURE TREATED SOUTHERN YELLOW PINE (SYP) THAT MEETS OR EXCEEDS THE SOUTHERN PINE INSPECTION BUREAU (SPIB) GRADE 2 WHICH IS TREATED TO AMERICAN WOOD PRESERVERS ASSOCIATION (AWPA) UC4B, FREE OF SUBSTANTIAL KNOTS, DEFECTS THAT PREVENT THE MATERIAL FROM SUPPORTING ITSELF, SUBSTANTIAL EDGE DAMAGE THAT REDUCES THE WIDE FLAT SURFACE WIDTH BY MORE THAN ?-INCH, DELETERIOUS MATERIAL THAT WILL PREVENT THE TREATMENT, PAINT, OR DECALS FROM PENETRATING OR ADHERING TO THE WOOD MATERIAL.
3. FASTENERS
   3.1. ALL FASTENERS SHALL BE HOT-DIPPED GALVANIZED FASTENERS AND CONNECTORS, OR BETTER OF SIZE AND LENGTHS AS INDICATED, UNLESS OTHERWISE NOTED OR INDICATED BY THE OAR.
4. PAINT AND SHEET MATERIAL
   4.1. NOTICE: THE WOOD MATERIAL WILL BE REQUIRED TO DRY IN A MANNER THAT PREVENTS THE MATERIAL FROM WARPING AND/OR CRACKING TO A POINT THAT THE WOOD MEMBER EASILY ACCEPTS WATER WHEN IT IS POURED ON IT, TEST OF SMALL AREAS IS REQUIRED PRIOR TO PAINTING AND WILL REQUIRE AREA TO DRY PRIOR TO PROCEEDING WITH PAINTING.
   4.2. INSTALL AN EXTERIOR GRADE LATEX WHITE PRIMER THAT IS RECOMMENDED FOR TREATED WOOD IN ACCORDANCE WITH PAINT MANUFACTURER RECOMMENDATIONS. IF PAINTED PRIOR TO INSTALLATION THE CONTRACTOR WILL BE REQUIRED TO PRIME ANY CUT EDGES.
   4.3. INSTALL TWO (2) COATS OF EXTERIOR SEMI-GLOSS LATEX WHITE PAINT THAT IS RECOMMENDED FOR TREATED WOOD IN ACCORDANCE WITH PAINT MANUFACTURER RECOMMENDATIONS ON ALL WOOD MATERIAL, ANY SCRATCHES AND ACROSS ALL JOINTS, TWO (2) COATS ACROSS ALL FASTENERS AND PRIMED ENDS, ONCE INSTALLATION IS COMPLETE.
   4.4. SHEETING SHALL BE RETROREFLECTIVE TYPE A CONFORMING TO TxDOT DMS-8300 UNLESS OTHERWISE INDICATED BY THE OAR.
4.5. CLEAN-UP OF PAINT SHALL BE IN ACCORDANCE WITH MANUFACTURER RECOMMENDATION.



PLAN VIEW

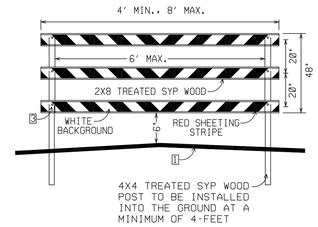
TYPE BARRICADE PLACEMENT
N.T.S.

END OF ROAD BARRICADE CODED NOTES

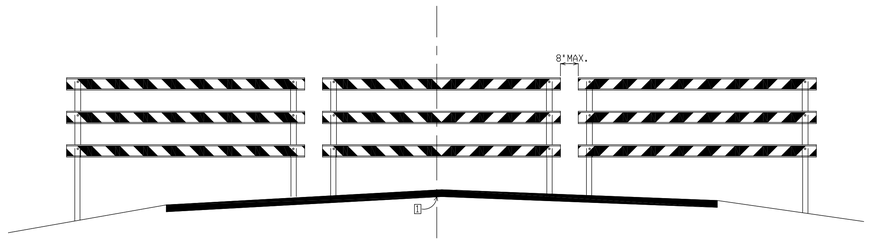
1. ELEVATION OF CENTER OF PAVED ROAD AT POINT INDICATED
2. 2 FOOT MIN. TO 4 FOOT MAX. CONTRACTOR TO ADJUST IMPROVEMENTS AT THE PROJECT BOUNDARY TO ALLOW FOR BARRICADE PLACEMENT
3. FASTENER - 1/2 INCH X 6 INCH CARRIAGE BOLT, WASHER, AND NUT. PLACE WASHER BETWEEN WOOD AND NUT



TYPICAL STRIPING DETAIL
N.T.S.



TYPICAL PANEL DETAIL
N.T.S.



MULTIPLE BARRICADE PLACEMENT
N.T.S.

TYPE A END OF ROAD BARRICADE
N.T.S.

RELEASED FOR CONSTRUCTION
Bria A. Whitmire, P.E., CFM, CPM
Development Services Engineer
City of Corpus Christi
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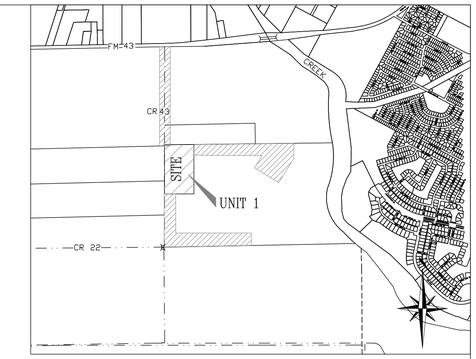
SIGNS & MARKING DETAILS

KASPIAN SUBDIVISION UNIT 1
CORPUS CHRISTI , TEXAS

J. Perales Civil Engineering and Planning Services
TBPE FIRM No. F-14207
jperales@jperalesengineering.com
5866 S. Staples St. - # 315
Corpus Christi, Texas 78411
Tel: (361) 728-7188

OVER ALL UTILITY PLAN

KASPIAN SUBDIVISION



GRAPHIC SCALE
200 0 200 400 600
Scale: 1" = 200 feet

SEE SHEET 13
BOTTOM 60" RCP
STORM WATER - ELEV = 15.58
8" PVC W.W. - FL. ELEV = 12.74
CLEARANCE = 2.1'

SEE SHEET 13
BOTTOM 60" RCP
STORM WATER - ELEV = 15.79
8" PVC W.W. - FL. ELEV = 11.34
CLEARANCE = 4.4'

SEE SHEET 13
BOTTOM 48" RCP
STORM WATER - ELEV = 17.02
12" PVC W.W. - FL. ELEV = 8.91
CLEARANCE = 7.0'+/-

SEE SHEET 12
BOTTOM 42" RCP
STORM WATER - ELEV = 17.76
8" PVC W.W. - FL. ELEV = 14.89
CLEARANCE = 2.1'

PROPOSED FIRE HYDRANT LOCATION (TYP)

UNIT I 19.1 Acres'
UNIT II 19.7 Acres'
UNIT III 19.2 Acres'
UNIT IV 18.6 Acres'
UNIT V 22.5 Acres'

KASPIAN SEA ROAD
STEPH CIRCLE
CHERRY CIRCLE
HARDIN CIRCLE
BARKLEY CIRCLE
COUNTY ROAD 43

OUTFALL "A"
PARKWAY OUTFALL 1
OUTFALL B
PARKWAY OUTFALL 2
WET LANDS

TO NEW LIFT STATION

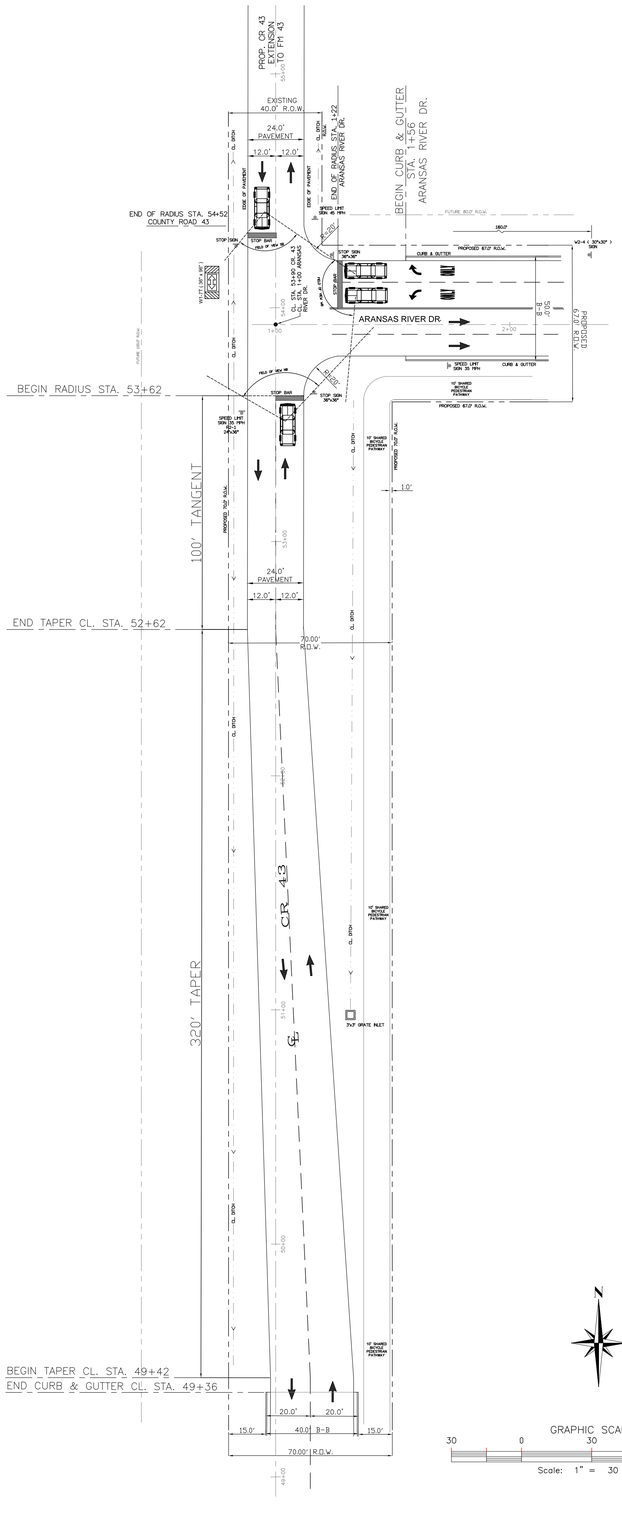
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JUAN PERALES, JR.
66652
REGISTERED
PROFESSIONAL ENGINEER
Juan Perales Jr., P.E.
11/12/2021

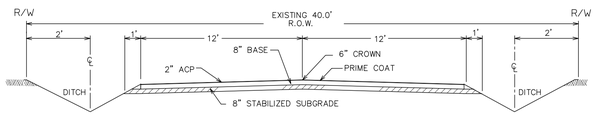
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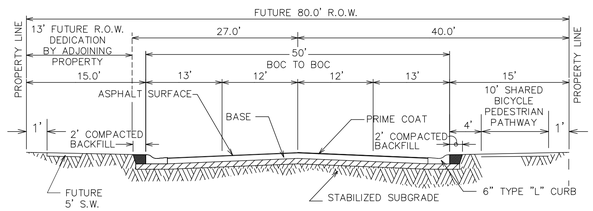
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J. Perales Civil Engineering and Planning Services
TBPE FIRM No. F-14207
jperales@jperalesengineering.com
P.O. BOX 260547
Corpus Christi, Texas 78426
Tel: (361) 728-7188

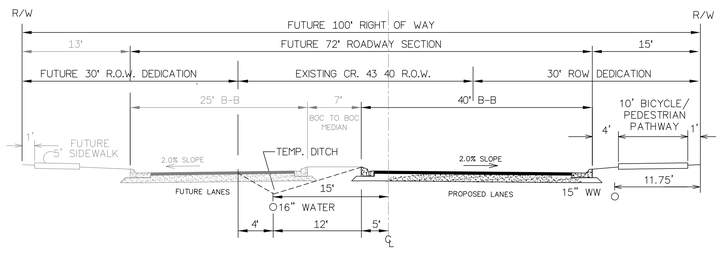




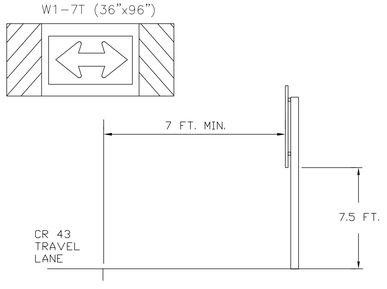
COUNTY ROAD 43
RURAL ROADWAY SECTION
STA. 52+62 TO STA. 80+00



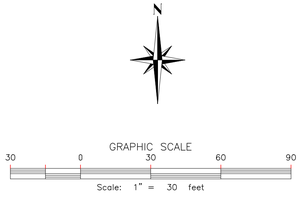
ARANSAS RIVER DRIVE
SECTION
STA. 1+00 TO STA. 6+70

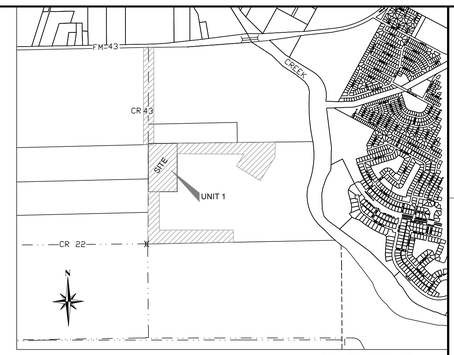


COUNTY ROAD 43
CURB & GUTTER SECTION
STA. 40+18 TO STA. 49+36



SIGNAGE AT END
OF
ARANSAS RIVER DR.





LOCATION MAP NOT TO SCALE

APPROVED BY: JP	DRAWN BY: RT		
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CR 43 & ARANSAS RIVER DRIVE INTERSECTION DETAIL

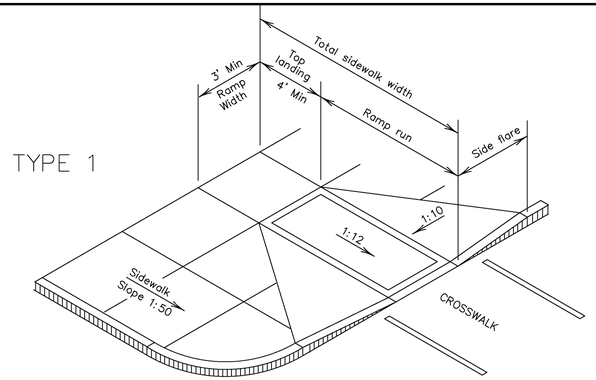
KASPIAN SUBDIVISION UNIT 1

CORPUS CHRISTI , TEXAS

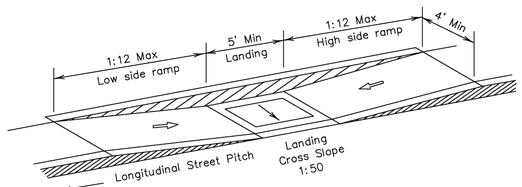
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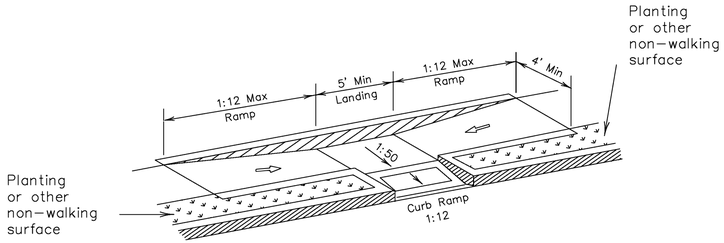
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5866 S. Staples St. - # 315
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Tel: (361) 728-7188



PERPENDICULAR CURB RAMPS

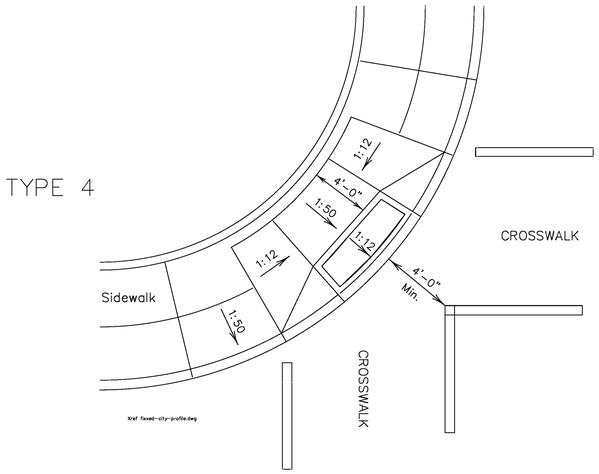


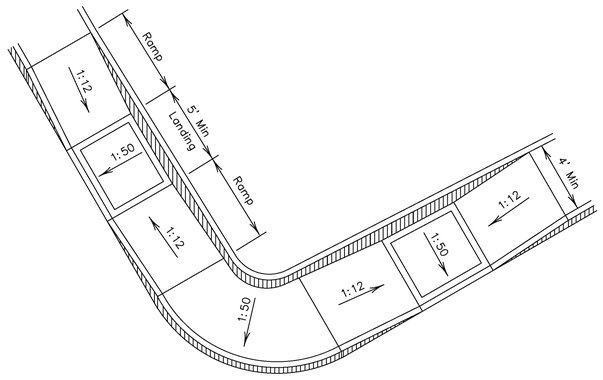
TYPE 2



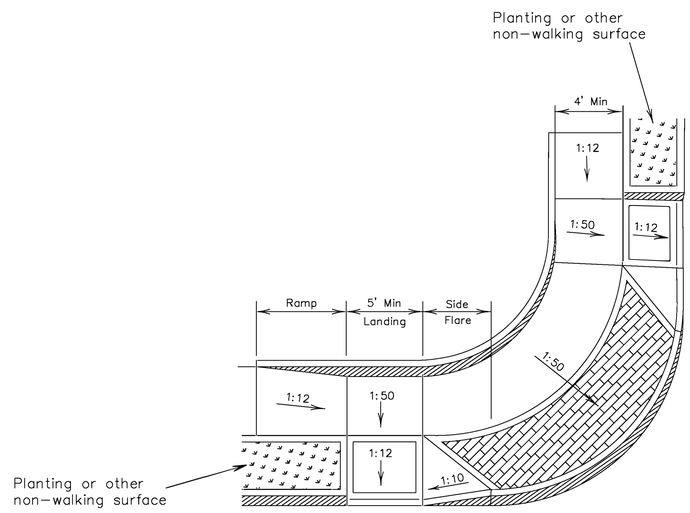
TYPE 3

PARALLEL CURB RAMPS





TYPE 5

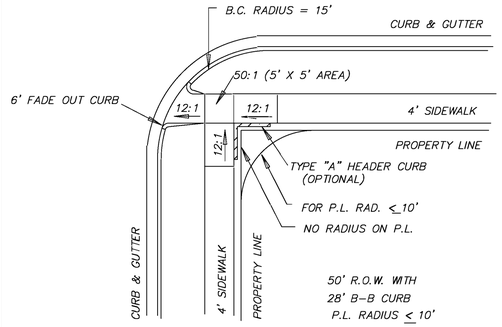


TYPE 6

COMBINATION (PERPENDICULAR / PARALLEL) CURB RAMPS

SINGLE DIAGONAL CURB RAMP
- PERPENDICULAR TO THE TANGENT OF THE CURB RADIUS.
- REQUIRED TO BE CONTAINED IN CROSSWALK.
- REQUIRED TO HAVE LANDING.

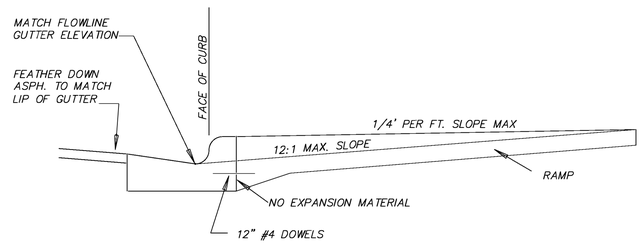
CURB RAMP TYPE
- THE USE OF SINGLE DIRECTIONAL RAMPS ARE REQUIRED ON NEW STREET CONSTRUCTION PROJECTS.
- ON STREET RECONSTRUCTION OR PAVEMENT REHABILITATION PROJECTS THE TYPE OF RAMPS ARE REQUIRED TO BE DIRECTIONAL OR PARALLEL.
- DIAGONAL CURB RAMPS MAY BE ALLOWED WHEN PHYSICAL CONSTRAINTS/ OBSTRUCTIONS ARE PRESENT AND DIRECTIONAL CURB RAMPS CAN NOT BE CONSTRUCTED IN COMPLIANCE WITH TEXAS DEPARTMENT OF LICENSING AND REGULATION GUIDELINES.



TYPE 7

DETACHED SIDEWALKS BOTH SIDES CROSS ONE DIRECTION

NOT TO SCALE



CURB RAMP PROFILE

NOT TO SCALE

Texas Department of Transportation
Design Division (Roadway)

RELEASED FOR CONSTRUCTION

Bria A. Whitmire, P.E., CFM, CPM
Development Services Engineer
City of Corpus Christi

Note: Construction Plans will expire based on the the conditions stated in UDC 3.8.5.F.

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SCALE: SHOWN
DRAWING #:
PAGE: 53
OF: 68

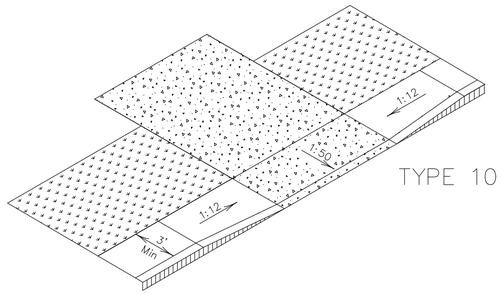
APPROVED BY: JP
DATE:

STATE OF TEXAS
JUAN PERALES, JR.
66652
REGISTERED PROFESSIONAL ENGINEER
01/20/2023

ADA CURB RAMP DETAILS

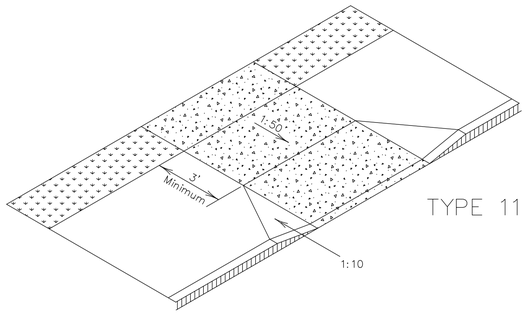
KASPIAN SUBDIVISION UNIT 1
CORPUS CHRISTI, TEXAS

J. Perales Civil Engineering and Planning Services
TBPE FIRM No. F-14207
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5866 S. Staples St. - # 315
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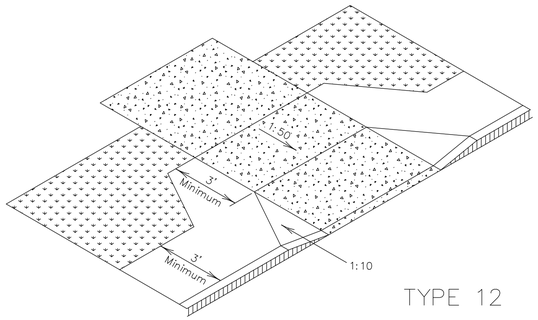
TYPE 10

Ramp sidewalk



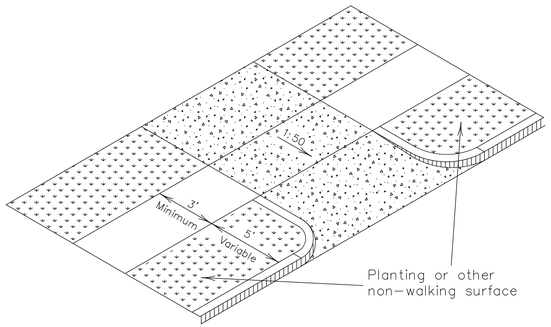
TYPE 11

Wide sidewalk



TYPE 12

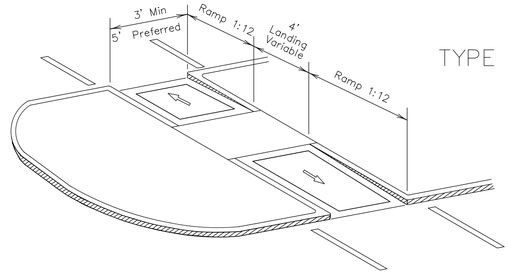
Apron offset sidewalk



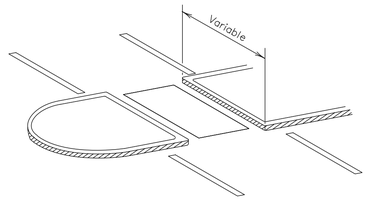
TYPE 13

Setback sidewalk

DRIVEWAY APRONS



TYPE 20



TYPE 21

CURB RAMPS AT MEDIAN ISLANDS

GENERAL NOTES

1. REFERENCE STANDARD SPECIFICATION 025614, "CONCRETE CURB RAMPS".
2. SLOPE SUMMARY:

   RAMPS: fixed-city-profile.dwg
   - LONGITUDINAL MAX. 1" PER FOOT
   - CROSS SLOPE 1/8" TO 1/4" PER FOOT MAX
   - SIDE FLARE (IF REQUIRED) MAX 10:1

   ADJOINING AREAS:
   - LONGITUDINAL MAX. 1/2"
   - CROSS SLOPE (IF APPLICABLE) 1/8" TO 1/4" PER FT.
   - CURBS ARE NOT RESTRICTED, IF NOT PEDESTRIAN PATH.

3. THE DETAILS SHOWN ARE FOR 6" CURB AND GUTTER ALONG STREETS AND INTERSECTIONS AND ARE NOT APPLICABLE FOR DRIVEWAYS.
4. LOCATION OF RAMP MAY BE SHIFTED TO CLEAR OBSTRUCTIONS, AS APPROVED BY THE CITY.
5. CURB RAMPS, SHALL HAVE TEXTURED SURFACES. DRIVEWAYS ARE NOT RAMPS AND DO NOT REQUIRE TEXTURED SURFACES AS RAMPS. DRIVEWAYS SHALL NOT BE CONSIDERED A SUBSTITUTE FOR A RAMP.
6. REBAR SHALL BE 4x4-W2.9 #6 AND CONCRETE SHALL BE CLASS "A". RAMPS SHALL TYPICALLY BE 4" THICK. EXPANSION JOINTS SHALL TYPICALLY BE USED AT MATCH-LINE WITH ADJOINING AREAS.
7. ALL SLOPES ARE MAXIMUM ALLOWABLE. FLATTER SLOPES THAT WILL STILL DRAIN PROPERLY ARE ENCOURAGED.
8. FOR PURPOSES OF WARNING, THE CURB RAMPS SHALL HAVE A COLOR AND TEXTURE THAT SIGNIFICANTLY CONTRASTS WITH THAT OF ADJOINING PEDESTRIAN ROUTES.
9. TEXTURES MAY CONSIST OF PAVERS WITH TRUNCATED DOMED SURFACES OR GROOVES. TEXTURES ARE REQUIRED TO BE DETECTABLE UNDERFOOT. SURFACES THAT WOULD ALLOW WATER TO ACCUMULATE ARE PROHIBITED
10. COLOR CONTRAST, WILL BE ACHIEVED WITH TERRA COTTA COLORED CONCRETE PAVERS THAT HAVE TRUNCATED DOMES OR BY TERRA COTTA COLOR STAINED CONCRETE WITH GROOVES, EITHER OF WHICH WOULD PROVIDE A CONTRAST WITH TYPICALLY LIGHT COLORED CONCRETE.
11. RAISED MEDIANS SEPARATE OPPOSING DIRECTIONS OF TRAFFIC AND PROVIDE A REFUGE AREA FOR PEDESTRIANS IF THEY ARE UNABLE TO CROSS THE ENTIRE ROADWAY IN THE ALLOTTED SIGNAL PHASE. TO SERVE AS A REFUGE AREA, THE MEDIAN SHOULD BE A MINIMUM OF 4 FEET WIDE. MEDIANS SHOULD BE DESIGNED TO PROVIDE ACCESSIBLE PASSAGE OVER OR THROUGH THEM.
12. ANY PART OF THE ACCESSIBLE ROUTE WITH A SLOPE GREATER THAN 1:20 (5%) SHALL BE CONSIDERED A RAMP. IF A RAMP HAS A RISE GREATER THAN 6 INCHES OR A HORIZONTAL PROJECTION GREATER THAN 72 INCHES, THEN IT SHALL HAVE HANDRAILS ON BOTH SIDES WITH THE FOLLOWING EXCEPTIONS.
    - * HANDRAILS ARE NOT REQUIRED ON CURB RAMPS. CURB RAMPS SHALL BE PROVIDED WHEREVER AN ACCESSIBLE ROUTE CROSSES (PENETRATES) A CURB.
    - * THE LEAST POSSIBLE GRADE SHOULD BE USED TO MAXIMIZE ACCESSIBILITY. THE RUNNING SLOPE OF SIDEWALKS, WITHIN THE PUBLIC RIGHT OF WAY MAY FOLLOW THE GRADE OF THE ADJACENT ROADWAY WITHOUT INVOKING TEXAS ACCESSIBILITY STANDARDS (TAS) VARIANCES. WHERE A CONTINUOUS GRADE GREATER THAN 5% MUST BE PROVIDED, HANDRAILS MAY BE DESIRABLE ON ONE OR BOTH SIDES OF THE SIDEWALK TO BE IMPROVE ACCESSIBILITY. HANDRAILS MAY ALSO BE NEEDED TO PROTECT PEDESTRIANS FROM POTENTIALLY HAZARDOUS CONDITIONS.
13. TRAFFIC SIGNAL OR ILLUMINATION POLES, GROUND BOXES, CONTROLLER BOXES, SIGNS, DRAINAGE FACILITIES AND OTHER ITEMS SHALL BE PLACED SO NOT TO OBSTRUCT THE ACCESSIBLE ROUTE.
14. THESE STANDARDS DO NOT PRECLUDE THE RESPONSIBILITY OF THE PROJECT ENGINEER TO MEET ALL TEXAS DEPARTMENT OF LICENSE & REGULATION REQUIREMENTS.
15. ALL PLANS AND SPECIFICATIONS FOR CONSTRUCTION OR FOR THE SUBSTANTIAL RENOVATION, MODIFICATION, OR ALTERATION OF A BUILDING OR FACILITY THAT HAS AN ESTIMATED CONSTRUCTION COST OF $50,000 OR MORE AND THAT IS SUBJECT TO THE PROVISIONS OF THIS ARTICLE SHALL BE SUBMITTED TO TDLR FOR REVIEW AND APPROVAL (TEXAS CIVIL STATUTES-ARCHITECTURAL BARRIERS ARTICLE 9102, SECTION 5(j)).
16. THE PROJECT ENGINEER IS REQUIRED TO SUBMIT PLANS TO TDLR FOR REVIEW AND APPROVAL WITHIN 5 DAYS OF SEALING SUCH PLANS (TEXAS CIVIL STATUTES-ARCHITECTURAL BARRIERS ARTICLE 9102, SECTION5,(k)).

RELEASED FOR CONSTRUCTION

Bria A. Whitmire, P.E., CFM, CPM
Development Services Engineer
City of Corpus Christi

Note: Construction Plans will expire based on the the conditions stated in UDC 3.8.5.F.

Texas Department of Transportation
Design Division (Roadway)

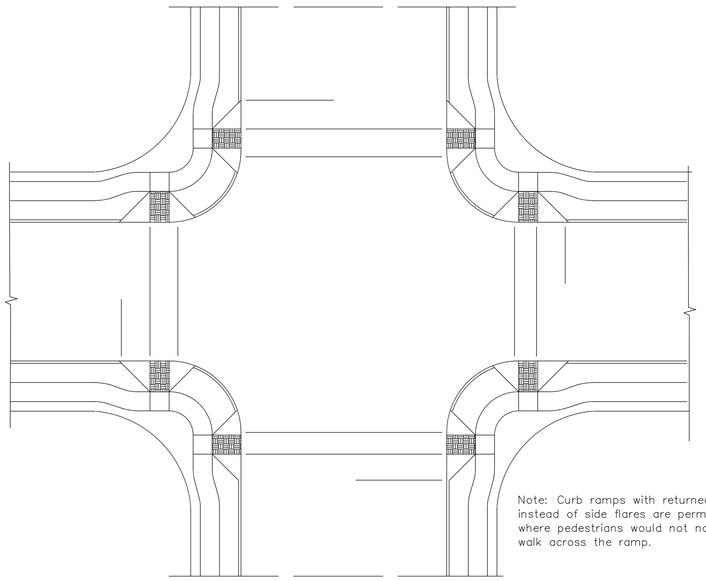
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PAGE: 54 | DF: 68

STATE OF TEXAS · JUAN PERALES, JR. · 66652 · REGISTERED PROFESSIONAL · 01/20/2023
Juan Perales Jr., P.E. 01/20/2023

ADA CURB RAMP DETAILS

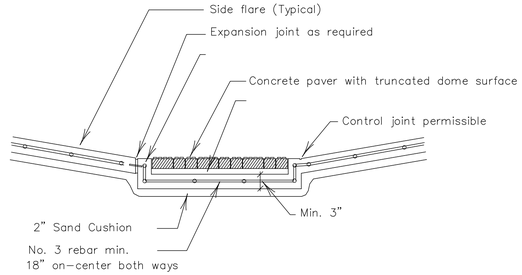
KASPIAN SUBDIVISION UNIT 1
CORPUS CHRISTI , TEXAS

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5866 S. Staples St. - # 315
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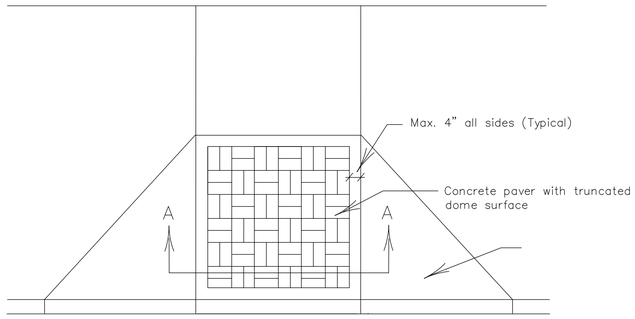


Note: Curb ramps with returned curbs instead of side flares are permitted where pedestrians would not normally walk across the ramp.

TYPICAL INTERSECTION LAYOUT WITH OFFSET SIDEWALKS

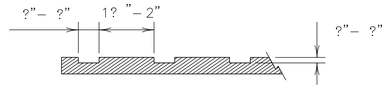


Section A-A

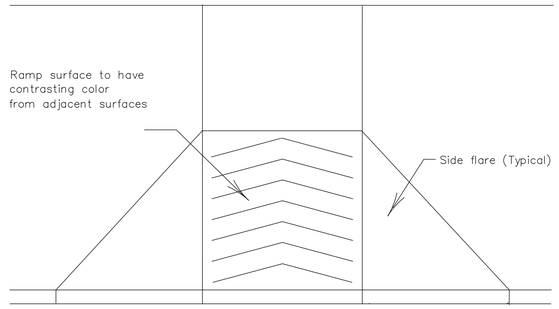


TYPE A

Truncated Dome Pattern Curb Ramp



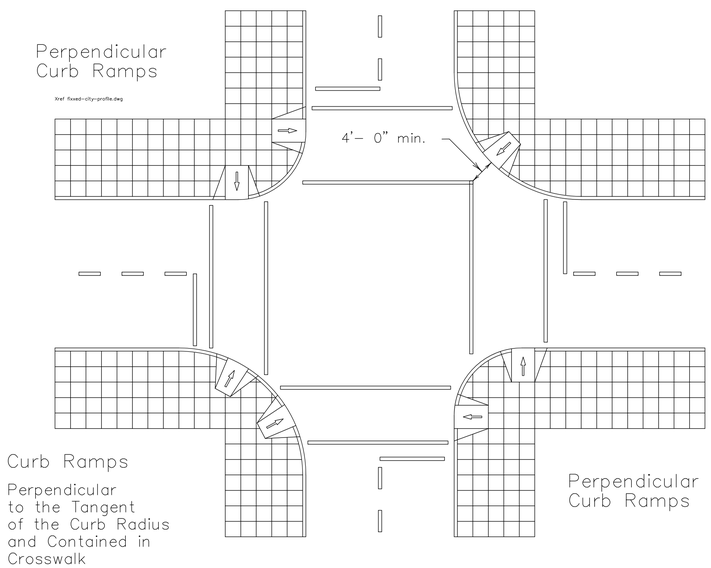
Groove pattern



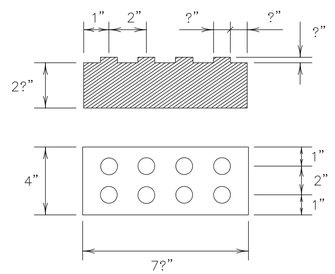
TYPE B

Groove Pattern Curb Ramp
(15 Degree to Horizontal)

Single Diagonal Curb Ramp



TYPICAL CURB RAMP PLACEMENTS AT INTERSECTIONS



Concrete paver with truncated dome surface

General Notes

Concrete paver units shall meet all requirements of ASTM C-636, C-33, and shall be laid in a two by two unit basket weave pattern, unless shown otherwise in the plans.

Concrete paver units shall have a truncated dome top surface for detectable warning to pedestrians.

Concrete paver unit color for the ramp shall be a contrasting color to the adjacent surfaces. The color of the concrete paver units shall be light brow, according to Pavestone colors. (Adjacent surfaces include side flares).

Concrete paver units shall be saw cut only and any cut unit shall be not less than 25 percent of a full unit.

General Notes

Concrete surface areas that are identified in the plans to receive sealer/stain treatment, shall not be treated w/ curing compound (retardant) and shall be allowed to cure a minimum of 30 days prior to application of the sealer/stain.

The sealer/stain for the ramp shall be a contrasting color to the adjacent surfaces (adjacent surfaces include the side flares). The color of the sealer/stain shall be Rustic copper.

Sealer/stain shall be applied in accordance with applicable specifications.

Areas receiving sealer/stain treatment shall be cleaned using a "dry" (sand) blast cleaning method in accordance with applicable specifications.

CURB RAMP TEXTURING

RELEASED FOR CONSTRUCTION
Bria A. Whitmire, P.E., CFM, CPM
Development Services Engineer
City of Corpus Christi
Note: Construction Plans will expire based on the the conditions stated in UDC 3.8.5.F.

Texas Department of Transportation
Design Division (Roadway)

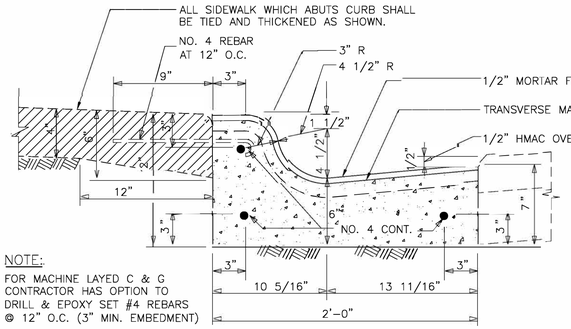
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PAGE: 55
OF: 68

STATE OF TEXAS
JUAN PERALES, JR.
66652
REGISTERED
LICENSED
PROFESSIONAL
ENGINEER
01/20/2023

ADA CURB RAMP DETAILS

KASPIAN SUBDIVISION UNIT 1
CORPUS CHRISTI , TEXAS

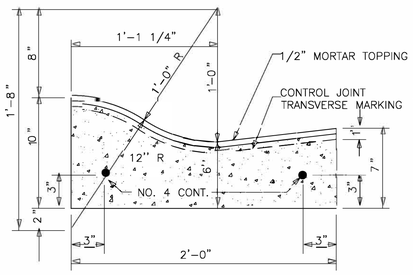
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NOTE:
FOR MACHINE LAYED C & G CONTRACTOR HAS OPTION TO DRILL & EPOXY SET #4 REBARS @ 12" O.C. (3" MIN. EMBEDMENT)

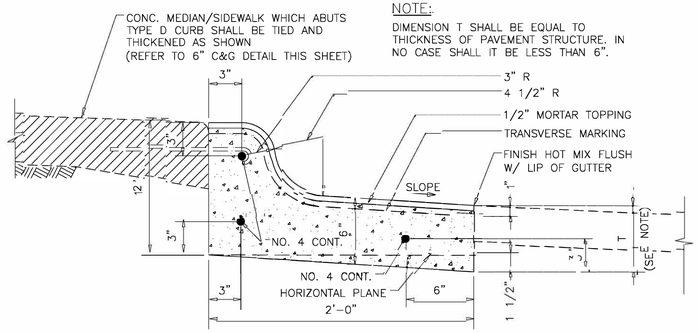
TYPICAL 6" CURB & GUTTER DETAIL

NOT TO SCALE



4" CURB & GUTTER DETAIL

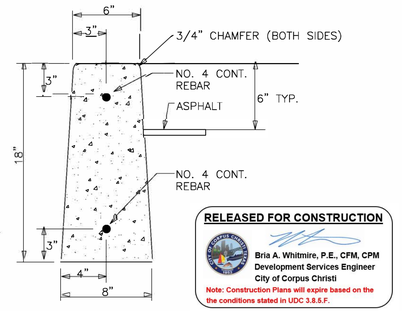
NOT TO SCALE



NOTE:
DIMENSION T SHALL BE EQUAL TO THICKNESS OF PAVEMENT STRUCTURE. IN NO CASE SHALL IT BE LESS THAN 6".

6" REVERSE CURB & GUTTER DETAIL

NOT TO SCALE



TYPE 'A' HEADER CURB DETAIL

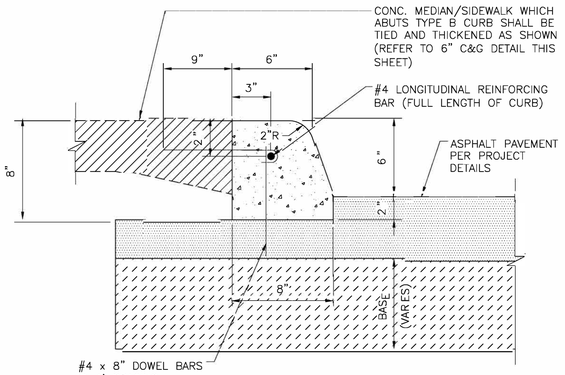
NOT TO SCALE

RELEASED FOR CONSTRUCTION

Bris A. Whitmire, P.E., CFM, CPM
Development Services Engineer
City of Corpus Christi

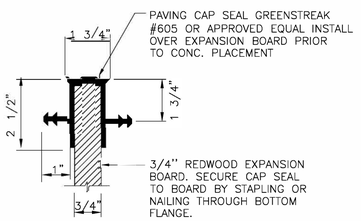
Note: Construction Plans will expire based on the conditions stated in UDC 3.8.5.F.

THE CONSTRUCTION DETAILS SHOWN HEREON ARE STANDARD CONSTRUCTION DETAILS DEVELOPED AND ADOPTED BY THE CITY OF CORPUS CHRISTI, AND BY THIS SEAL AND SIGNATURE ARE INCORPORATED INTO THE ATTACHED PLAN SET IN THEIR ENTIRETY WITHOUT CHANGE OR EDIT.



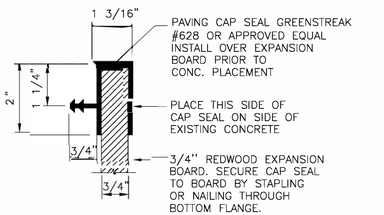
TYPE 'B' HEADER CURB DETAIL

NOT TO SCALE



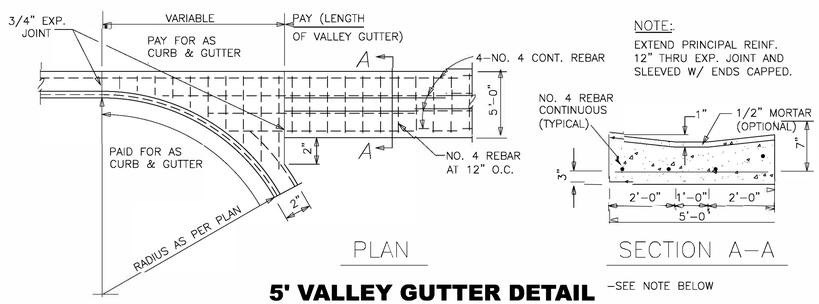
CAP SEAL DETAIL NEW CONC. TO NEW CONC.

NOT TO SCALE



CAP SEAL DETAIL NEW CONC. TO EXIST. CONC.

NOT TO SCALE



NOTE:
EXTEND PRINCIPAL REINF. 12" THRU EXP. JOINT AND SLEEVED W/ ENDS CAPPED.

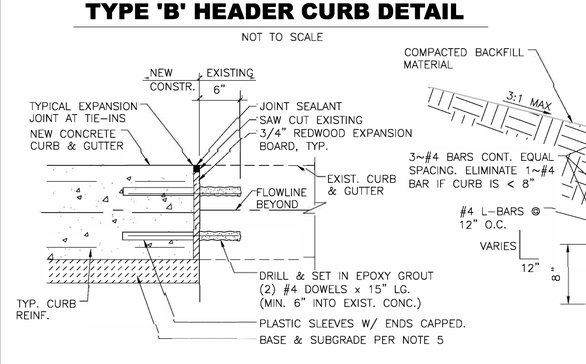
-SEE NOTE BELOW

5' VALLEY GUTTER DETAIL

NOT TO SCALE

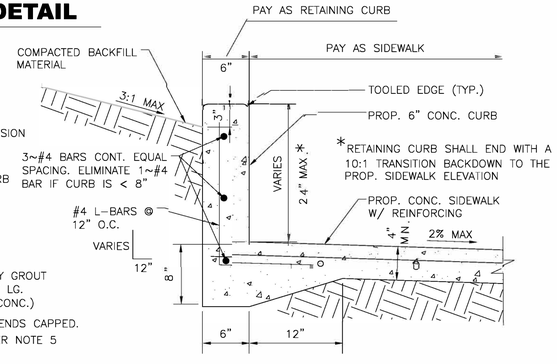
VALLEY GUTTER NOTE:

1. USE OF VALLEY GUTTERS ON CITY STREETS ARE NOT ALLOWED PER CITY STANDARDS. THIS DETAIL IS INCLUDED ONLY FOR ISOLATED OR TEMPORARY USE IN LOCATIONS WHERE NO OTHER DRAINAGE OPTIONS EXIST, AND SHALL ONLY BE USED WITH PRIOR APPROVAL FROM THE CITY.



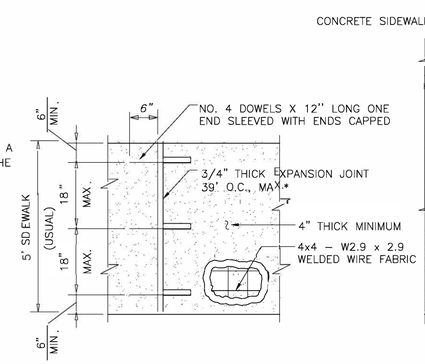
CURB AND GUTTER TIE-IN DETAIL

NOT TO SCALE



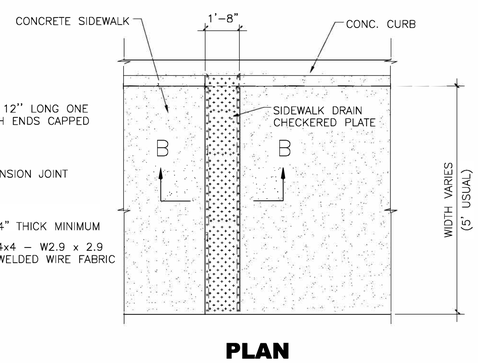
SIDEWALK RETAINING CURB DETAIL

NOT TO SCALE



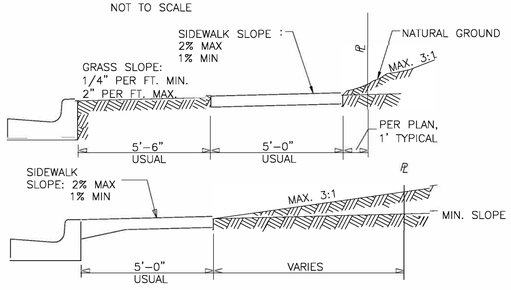
PLAN FOR SIDEWALK

NOT TO SCALE



PLAN SIDEWALK DRAIN

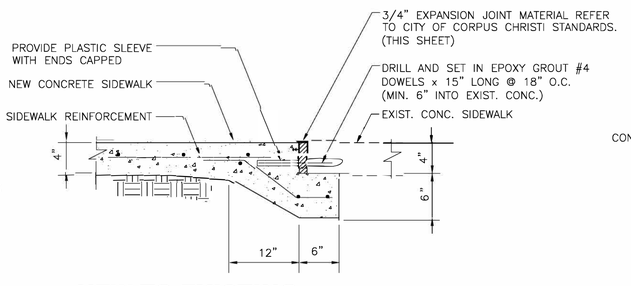
NOT TO SCALE



*ENGINEER MAY AUTHORIZE LESSER SLOPE ON AN INDIVIDUAL LOCATION BASIS.

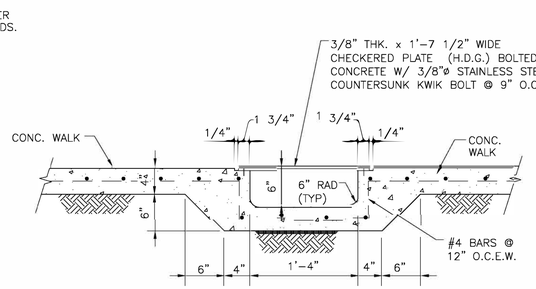
SURFACE & SIDEWALK SLOPE BEHIND CURB

NOT TO SCALE



NEW TO EXISTING SIDEWALK TIE-IN DETAIL

NOT TO SCALE



SECTION B-B

NOT TO SCALE

SIDEWALK NOTES:

1. ALL EXPANSION JOINTS TO BE 3/4" REDWOOD EXPANSION BOARD, UNLESS OTHERWISE NOTED.
2. ALL CONCRETE CLASS "A", 3,000 psi. ALL STEEL, GRADE 60, fy = 60,000 psi.
3. CONCRETE TO RECEIVE BROOM FINISH.
4. TRANSVERSE CONTRACTION JOINTS 1/8": WIDE BY 1/2" DEEP SHALL BE CUT IN ALL SIDEWALKS AT 5'-0" INTERVALS (TYPICAL) OR THE INTERVALS SHALL BE SPACED TO MATCH THE WIDTH OF THE SIDEWALK.

CURB & GUTTER AND HEADER CURB NOTES:

1. ALL CONCRETE CLASS "A" 3,000 P.S.I. ALL STEEL GRADE 60 fy = 60,000 P.S.I., MIN.
2. TRANSVERSE GROOVES 1/8" WIDE BY 1/2" DEEP SHALL BE MADE IN ALL CURB & GUTTER AND HEADER CURB AT 10' O.C. (MAXIMUM).
3. 3/4" THICK EXPANSION JOINTS SHALL BE PROVIDED AT 39'-0" CENTERS* (MAXIMUM). REINFORCEMENT SHALL CONSIST OF THE NO. 4 DOWELS X 15" LONG SPACED AS INDICATED . THE NO. 4 DOWEL SHALL BE EXTENDED ACROSS THE JOINT 9 INCHES AND THIS END SHALL BE SLEEVED WITH ENDS CAPPED.
4. WHERE NEW CURB & GUTTER OR HEADER CURB JOINS EXISTING CURB & GUTTER, TRANSITION THE LAST 10' OF THE NEW TO MATCH THE OLD IN SHAPE.
5. BASE, SUB-BASE, AND SUBGRADE THICKNESS UNDER CONCRETE CURB AND GUTTER TO BE AS SPECIFIED IN THE PROJECT SPECIFICATIONS AND PROJECT DETAILS, PER LOADING DESIGN CONDITIONS. REFER TO THE PROJECT SPECIFIC STREET SECTION(S) AND RELATED PROJECT DETAILS SHOWN ON THE DRAWINGS. BOTH THE TREATED SUBGRADE (8" MINIMUM) AND THE FLEXIBLE BASE (4" MINIMUM) OR EQUIVALENT SHALL EXTEND A MINIMUM OF 1' BEYOND THE BACK OF CURB.
6. TYPICAL 6" CURB & GUTTER DETAIL IS CITY STANDARD AND SHALL BE USED IN MOST CASES. DETAILS FOR 4" CURB & GUTTER, 6" REVERSE CURB & GUTTER, AND HEADER CURBS ARE SPECIALTY ITEMS AND ARE PROVIDED FOR USE AS NEEDED TO ADDRESS PROJECT SPECIFIC CONDITIONS. USE IS SUBJECT TO CITY APPROVAL.
7. FINAL ACCEPTANCE OF THE PROJECT SHALL BE CONTINGENT UPON THE CONTRACTOR PROVIDING THE CITY WITH A CERTIFICATION LETTER, FROM THE TEXAS DEPARTMENT OF LICENSING AND REGULATION (TDLR), POLICY AND STANDARDS DIVISION, ARCHITECTURAL BARRIERS SECTION, THAT ALL ADA (AMERICANS WITH DISABILITIES ACT) HANDICAP IMPROVEMENTS, AS CONSTRUCTED, COMPLY WITH THE TEXAS ACCESSIBILITY STANDARDS (TAS) OF THE ARCHITECTURAL BARRIERS ACT ARTICLE 9102, TEXAS CIVIL STATUTES.
8. AT LEAST 1' OF THE AREA BEHIND THE CURB SHALL BE BACKFILLED AND COMPACTED (MINIMUM 95% STANDARD PROCTOR DENSITY) IN ACCORDANCE WITH THE SPECIFICATIONS AS SOON AS POSSIBLE AND NO LATER THAN 48 HOURS OF REMOVAL OF FORMS (OR SOONER IN THE EVENT OF INCLEMENT WEATHER) IN ORDER TO PROTECT THE MOISTURE OF THE PAVEMENT STRUCTURE.

(5-1-2015)

CONSULTANT'S SHEET No.



J. Perales Civil Engineering and Planning Services
TBPE FIRM No. F-14207
jperales@jperalesengineering.com
P.O. BOX 260547
Corpus Christi, Texas 78426
Tel: (361) 728-7188

CITY of CORPUS CHRISTI TEXAS
Department of Capital Programs

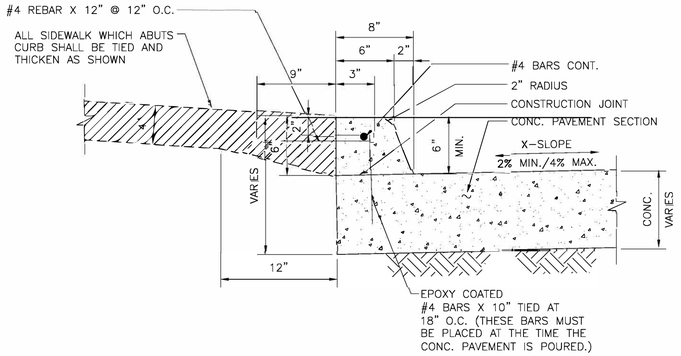
KASPIAN SUBDIVISION UNIT 1
CORPUS CHRISTI , TEXAS

CITY OF CORPUS CHRISTI
CURB, GUTTER AND SIDEWALK STANDARD DETAILS

REVISION NO.	DATE	BY	DESCRIPTION

SHEET 56 of 68
RECORD DRAWING NO.

CITY PROJECT #

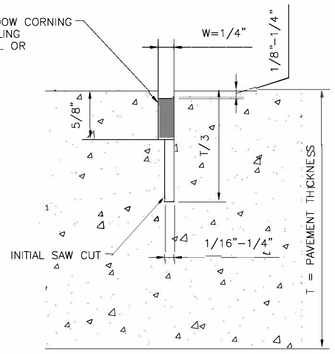


TYPICAL 6" CURB DETAIL

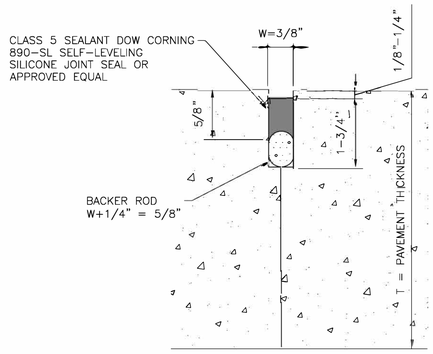
NOT TO SCALE

6" CURB NOTES:

1. EXPANSION AND CONSTRUCTION JOINTS OF THE 6" SEPARATE CURB SHALL MATCH THOSE OF THE TIED SIDEWALK AND/OR CONCRETE PAVEMENT, AND SHALL NOT EXCEED 39' O.C. (MAX) SPACING.
2. TRANSVERSE GROOVES 1/8" WIDE BY 1/2" DEEP SHALL BE MADE AT 10' O.C. (MAXIMUM).
3. WHERE NEW CURB JOINS EXISTING CURB AND GUTTER, TRANSITION THE LAST 10' OF THE NEW TO MATCH THE OLD IN SHAPE.
4. EXPANSION JOINTS ON ALL SIDEWALK AND CURB SHALL BE REDWOOD. ALL JOINTS IN 6" SEPARATE CURB SHALL BE SEALED WITH JOINT SEALANT.
5. TRANSVERSE CONTRACTION JOINTS 1/8"; WIDE BY 1/2" DEEP SHALL BE CUT IN ALL SIDEWALKS AT 5'-0" INTERVALS (MAXIMUM).

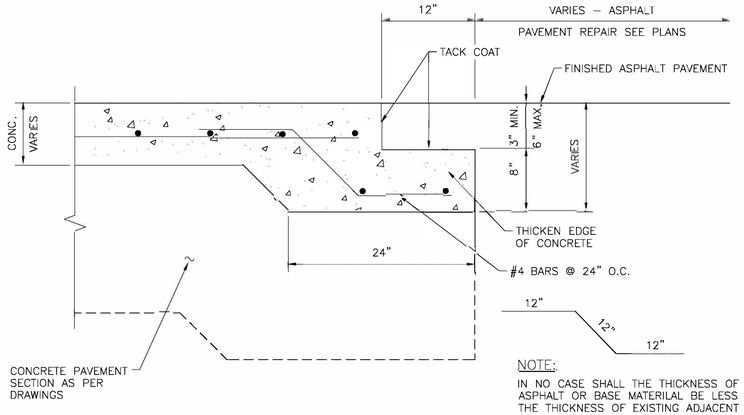


SAWED LONGITUDINAL JOINT



LONGITUDINAL OR TRANSVERSE CONSTRUCTION JOINT

THE CONSTRUCTION DETAILS SHOWN HEREON ARE STANDARD CONSTRUCTION DETAILS DEVELOPED AND ADOPTED BY THE CITY OF CORPUS CHRISTI, AND BY THIS SEAL AND SIGNATURE ARE INCORPORATED INTO THE ATTACHED PLAN SET IN THEIR ENTIRETY WITHOUT CHANGE OR EDIT.

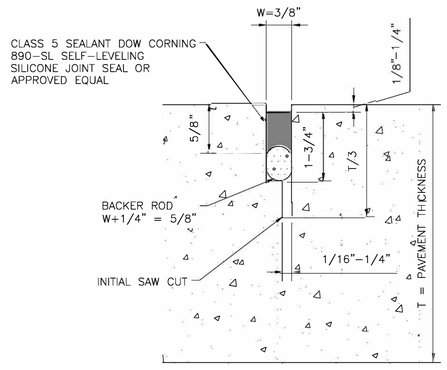


NOTE:

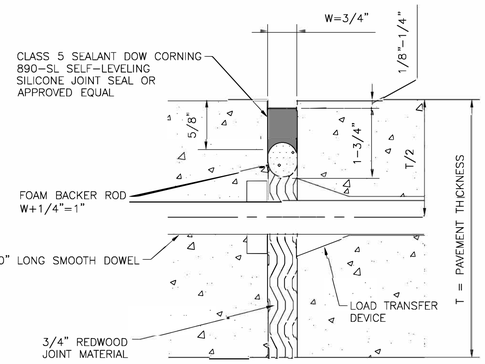
IN NO CASE SHALL THE THICKNESS OF THE ASPHALT OR BASE MATERILAL BE LESS THAN THE THICKNESS OF EXISTING ADJACENT MATERIAL.

CONCRETE TO ASPHALT PAVEMENT SECTION TIE-IN DETAIL

NOT TO SCALE



TRANSVERSE SAWED CONTRACTION JOINT



EXPANSION JOINT

JOINT SEALANT COMPOUND

NOT TO SCALE

GENERAL NOTES:

1. THE LOCATION OF JOINTS SHALL BE AS SHOWN ELSEWHERE IN THE DRAWINGS.
2. THE JOINT RESERVOIR FOR SEALANT SHALL BE SAWED UNLESS OTHERWISE SHOWN ON THE PLANS FOR THE LONGITUDINAL AND TRANSVERSE CONSTRUCTION AND THE TWO SAWED JOINTS.
3. THE JOINTS SHALL BE CLEANED IN ACCORDANCE WITH THE SEALANT MANUFACTURE'S RECOMMENDATION. PRIOR TO BEGINNING OPERATIONS, THE CONTRACTOR SHALL SUBMIT A STATEMENT FROM THE SEALANT MANUFACTURER SHOWING THE RECOMMENDED EQUIPMENT AND INSTALLATION PROCEDURES TO BE USED.
4. THE SAW CUT FOR THE LONGITUDINAL JOINT SHALL BE ONE FOURTH THE SLAB THICKNESS WHEN CRUSHED LIMESTONE IS USED AS THE COARSE AGGREGATE.

RELEASED FOR CONSTRUCTION

Bria A. Whitmire, P.E., CFM, CPM
Development Services Engineer
City of Corpus Christi

Note: Construction Plans will expire based on the the conditions stated in UDC 3.8.5.F.

CONSULTANT'S SHEET No.

STATE OF TEXAS — JUAN PERALES, JR. — 86652 — REGISTERED PROFESSIONAL ENGINEER
Juan Perales Jr., P.E. 04/11/2023

J. Perales Civil Engineering and Planning Services
TBPE FIRM No. F-14207
jperales@jperalesengineering.com
P.O. BOX 260547
Corpus Christi, Texas 78426
Tel: (361) 728-7188

CITY of CORPUS CHRISTI TEXAS
Department of Capital Programs

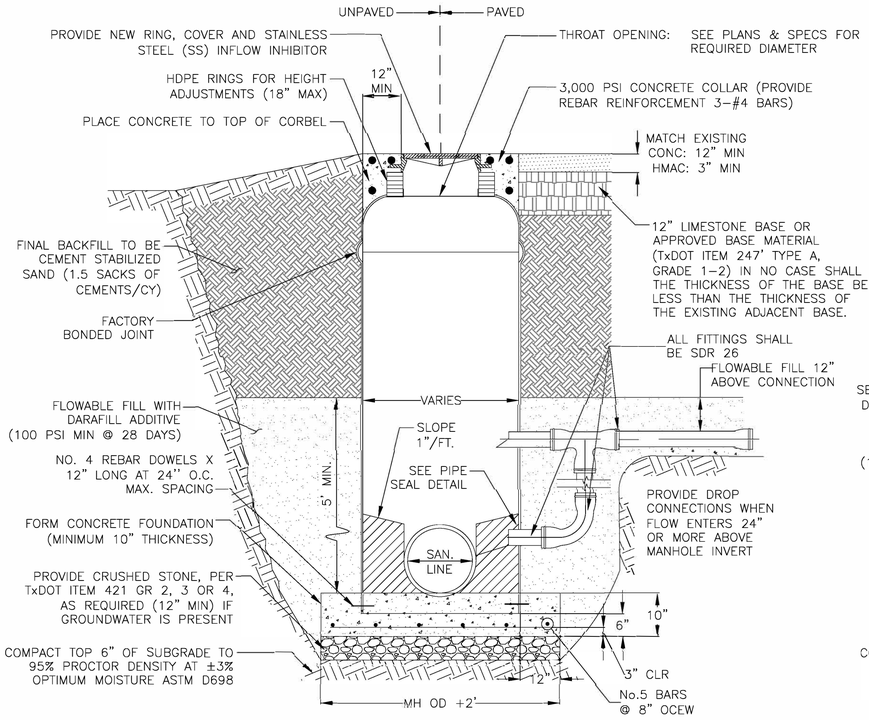
KASPIAN SUBDIVISION UNIT 1
CORPUS CHRISTI , TEXAS

CITY OF CORPUS CHRISTI
CONCRETE PAVEMENT
STANDARD DETAILS

SHEET 57 68
RECORD DRAWING NO.

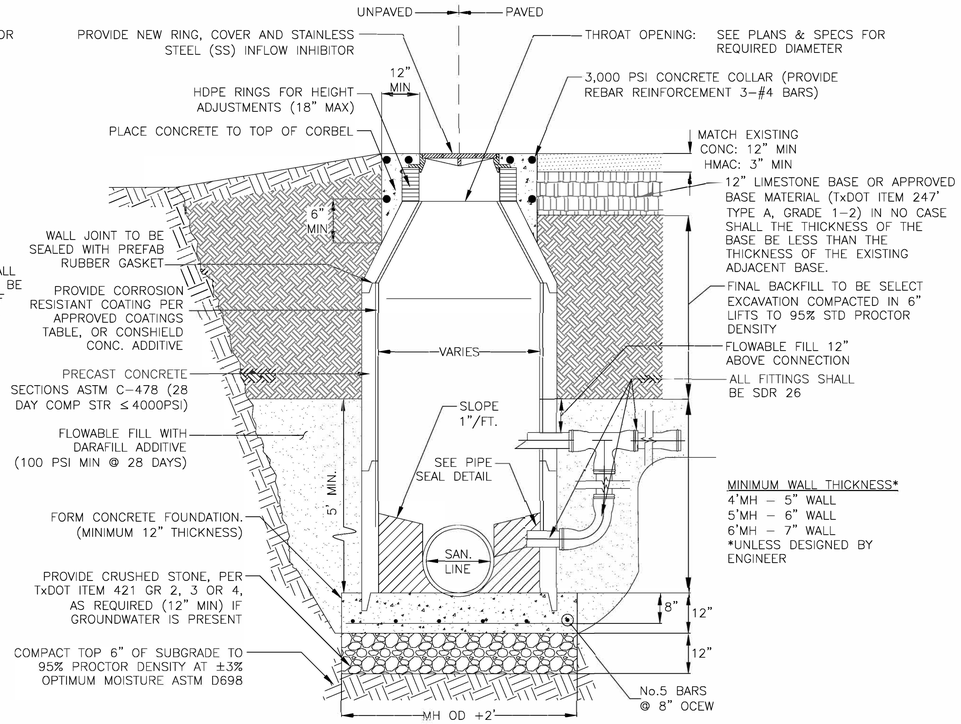
CITY PROJECT #

REVISION NO.	DATE	BY	DESCRIPTION



FIBERGLASS MANHOLE

NOT TO SCALE



MINIMUM WALL THICKNESS*
4'MH – 5" WALL
5'MH – 6" WALL
6'MH – 7" WALL
*UNLESS DESIGNED BY ENGINEER

CONCRETE MANHOLE

NOT TO SCALE

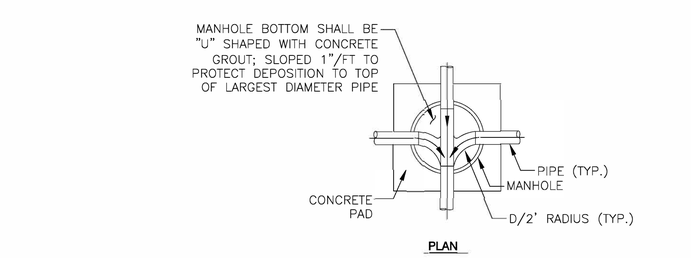
MANHOLE REQUIREMENTS	
PIPE DIAMETER	MANHOLE DIAMETER
≤18"	4'
18"< TO ≤36"	5'
36"< TO ≤42"	6'

APPROVED COATINGS TABLE	
MANUFACTURER	MODEL NAME
JEFFCOAT	JEFFCOAT 326
RAVEN LINING SYSTEM	RAVEN 405
SHERWIN WILLIAMS	DURAPLATE 5800
CARBOLINE	PHENOLINE 309

NOTE:
COAT ALL CONCRETE SURFACES INCLUDING BENCH & WALLS.

RELEASED FOR CONSTRUCTION
Bria A. Whitmire, P.E., CFM, CPM
Development Services Engineer
City of Corpus Christi
Note: Construction Plans will expire based on the the conditions stated in UDC 3.8.6.F.

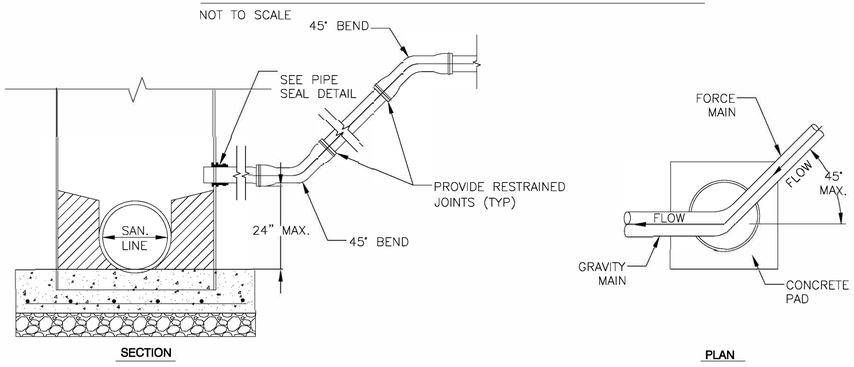
THE CONSTRUCTION DETAILS SHOWN HEREON ARE STANDARD CONSTRUCTION DETAILS DEVELOPED AND ADOPTED BY THE CITY OF CORPUS CHRISTI, AND BY THIS SEAL AND SIGNATURE ARE INCORPORATED INTO THE ATTACHED PLAN SET IN THEIR ENTIRETY WITHOUT CHANGE OR EDIT.



PLAN

WASTEWATER MANHOLE (BOTTOM)

NOT TO SCALE

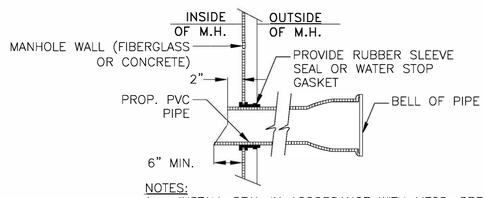


SECTION PLAN

NOTES:
1. ALL BENDS SHALL BE DUCTILE IRON WITH RESTRAINED JOINTS.
2. INFLUENT FORCE MAIN MUST BE NO MORE THAN 45° FROM PARALLEL WITH DOWNSTREAM FLOW DIRECTION.

FORCE MAIN DISCHARGE MANHOLE DETAIL

NOT TO SCALE



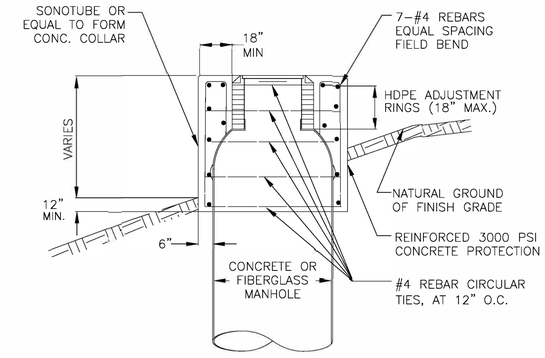
NOTES:
1. INSTALL SEAL IN ACCORDANCE WITH MFGS. SPECS.
2. USE RUBBER SEAL ASSEMBLY APPROVED BY UTILITY DEPARTMENT. (TPSMHA OR PIPECONX OR INSERT A TEE)

PIPE SEAL DETAIL

NOT TO SCALE

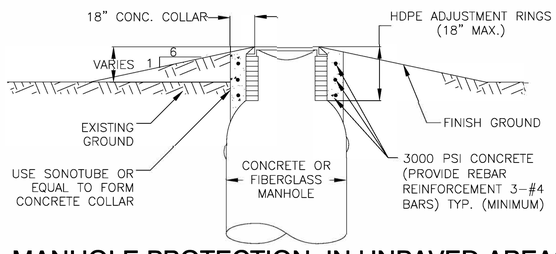
GENERAL WASTEWATER CONSTRUCTION NOTES:

1. THE CONTRACTOR SHALL VISIT THE SITE OF THE WORK AND EXAMINE LOCAL CONDITIONS TO BE ENCOUNTERED, IMPROVEMENTS TO BE PROTECTED, AND PERMITS AND FEES TO BE REQUIRED, ALONG WITH OTHER RESEARCH THAT IS NECESSARY TO ENSURE THAT THE CONTRACTOR THOROUGHLY UNDERSTANDS THE PROJECT AND IS FULLY AWARE OF ALL THE CONDITIONS AND CONSTRAINTS THAT MAY BE ENCOUNTERED DURING THE COURSE OF CONSTRUCTION.
2. THE CONTRACTOR SHALL ADHERE TO ALL TCEQ REGULATIONS PER 30 TAC CHAPTER 217 AND TRENCH SAFETY FOR EXCAVATIONS.
3. THE CONTRACTOR IS RESPONSIBLE FOR ALL TRAFFIC CONTROL AND MUST ADHERE TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
4. ALL FIBERGLASS MANHOLES SHALL BE MONOLITHIC WITH 0.50" MINIMUM WALL THICKNESS. IF PROVIDED OR REQUIRED, FIBERGLASS BOTTOM SHALL BE DESIGNED TO WITHSTAND HYDROSTATIC HEAD PRESSURE UNDER ALL CONDITIONS.
5. THE MANHOLE WALL PENETRATIONS FOR PIPE (8"–15" DIAMETER PIPE) ABOVE THE FLOWLINE OF THE MANHOLE SHALL BE CORED AND SEALED WITH APPROVED SEAL GASKET WATER STOP ASSEMBLY.
6. FOR FIBERGLASS MANHOLES, THE MANHOLE FOUNDATION MAY BE PRECAST ON GROUND SURFACE. (PROCEDURE MUST BE SUBMITTED TO THE ENGINEERING SERVICES CONSTRUCTION ENGINEER FOR APPROVAL.)
7. THE CONTRACTOR SHALL PROVIDE PROTECTIVE COATING ON ALL EXPOSED CONCRETE SURFACES, INCLUDING CORBEL AREA, MANHOLE WALLS AND MANHOLE BENCH.
8. FOR FIBERGLASS MANHOLES WITH WATERTIGHT BOTTOM, ADHERE TO ALL MANUFACTURER REQUIREMENTS. FIBERGLASS BOTTOM AND BENCH MUST ALSO BE FACTORY INSTALLED.



MANHOLE PROTECTION IN UNPAVED AREAS (CULTIVATED/SPECIAL)

NOT TO SCALE



MANHOLE PROTECTION IN UNPAVED AREAS (RESIDENTIAL)

NOT TO SCALE

CONSULTANT'S SHEET NO.

TEXAS REGISTERED PROFESSIONAL ENGINEER JUAN PERALES, JR. 66852 04/11/2023

J. Perales Civil Engineering and Planning Services
TBPE FIRM No. F-14207
jperales@jperalesengineering.com
P.O. BOX 260547
Corpus Christi, Texas 78426
Tel: (361) 728-7188

CITY OF CORPUS CHRISTI
TEXAS
Department of Engineering Services

KASPIAN SUBDIVISION UNIT 1
CORPUS CHRISTI , TEXAS

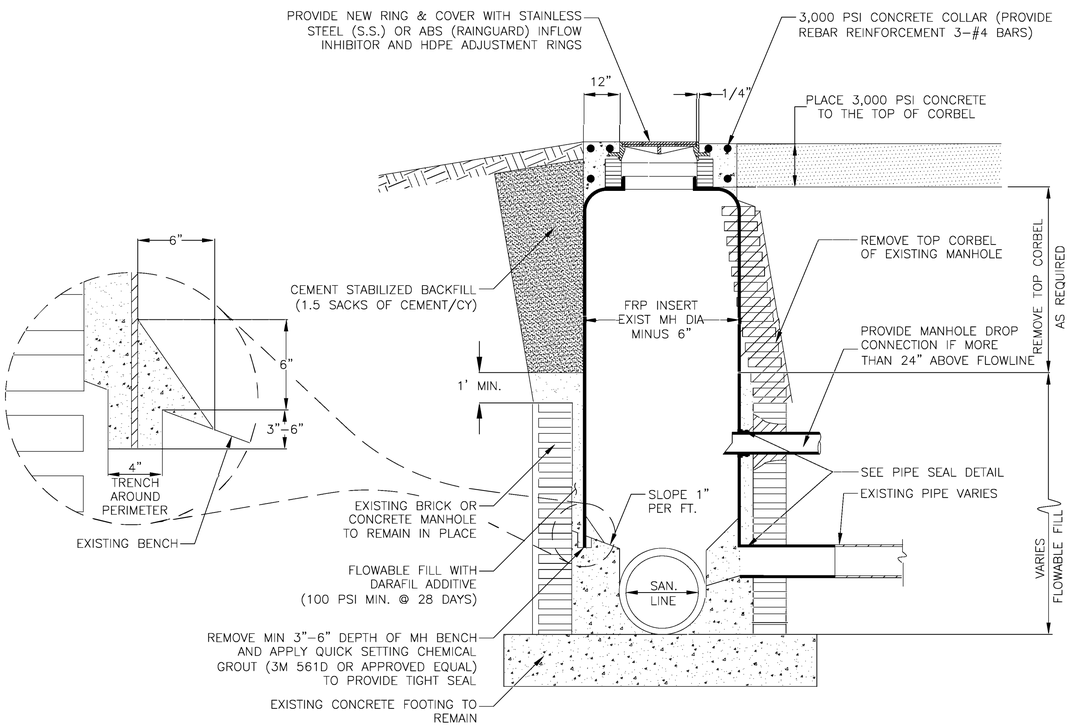
CITY OF CORPUS CHRISTI
WASTEWATER STANDARD DETAILS
MANHOLE INSTALLATION

1 OF 4

SHEET 58 of 68
RECORD DRAWING NO.

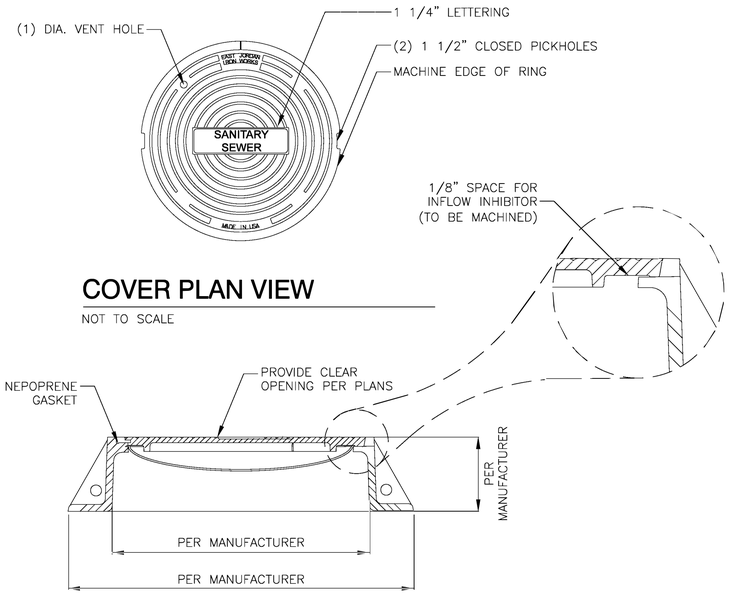
CITY PROJECT #

REVISION NO.	DATE	BY	DESCRIPTION



FRP INSERT REHABILITATION OF EXISTING MANHOLE

NOT TO SCALE



COVER PLAN VIEW

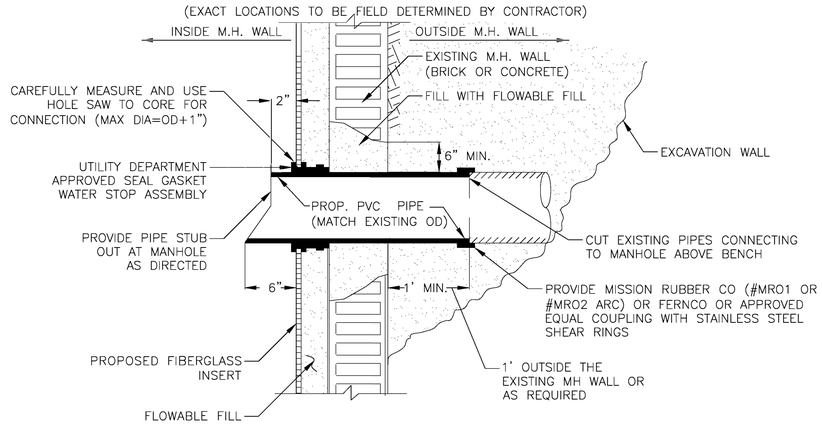
NOT TO SCALE

SECTION OF RING & COVER

NOT TO SCALE

FRP INSERT REHABILITATION OF EXISTING MANHOLE NOTES:

1. THE CONTRACTOR SHALL FIELD-VERIFY THE EXISTING MANHOLE DIAMETER, FLOW LINE, RIM ELEVATION, NUMBER OF LATERALS, LOCATIONS, SIZES, AND OTHER INFORMATION NEEDED TO REHABILITATE EACH MANHOLE.
2. PRIOR TO INSTALLING CONTROL OF FLOW OR INITIATING MANHOLE REPAIRS, THE CONTRACTOR SHALL PLACE BARRICADES AND SIGNS TO DIVERT TRAFFIC AND PEDESTRIANS PER THE APPROVED TRAFFIC CONTROL PLAN, AS REQUIRED.
3. THE CONTRACTOR SHALL PREPARE THE INTERIOR OF THE EXISTING FOUNDATION STRUCTURE BY REMOVING ALL DEFECTIVE GROUT AND DEBRIS/BLOCKAGES, MECHANICALLY ROUGHEN THE ENTIRE INVERT, AND CLEAN THE INTERIOR WITH A HIGH-PRESSURE WATER JET.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DISPOSAL OF THE RESULTING SLUDGE AND DEBRIS AT AN APPROVED SITE, ACCORDING TO ALL PERTINENT WASTE DISPOSAL REGULATIONS.
5. THE CONTRACTOR SHALL USE QUICK-SETTING, NON-SHRINK CONCRETE GROUT TO SEAL AND RESHAPE THE BOTTOM. SUBMIT PROPOSED MATERIALS TO BE USED TO THE ENGINEER FOR APPROVAL.
6. PROVIDE COATING TO EXPOSED CONCRETE SURFACES WITH APPROVED SYSTEM TO PREVENT CORROSION.
7. FRP INSERT SHALL COMPLY WITH ASTM D3753 WITH SINGLE PIECE MONOLITHIC BARREL AND CORBEL CONSTRUCTION WITHOUT SEAMS, JOINTS OR SECTIONS. WALL THICKNESS SHALL PROVIDE AN AASHTO H-20 LOAD RATING AND WALL STIFFNESS OF 36 PSI MIN.
8. CUT BOTTOM OF FRP INSERT TO FIT EVENLY ON BENCHES OR CHIP BENCHES OUT TO EVENLY SUPPORT INSERT.
9. SEAL ANNULAR SPACE AROUND EXIST LINES WITH JUTE ROPE AND CHEMICAL GROUT.



FRP INSERT PIPE SEAL DETAIL

NOT TO SCALE

ROADWAY MANHOLE RING AND COVER:

1. THE CONTRACTOR SHALL PROVIDE STAINLESS STEEL (S.S.) INFLOW INHIBITOR WITH SS TETHER SECURED TO MANHOLE WALL, SUCH THAT THE INNER LID IS FLUSH WITH THE OUTER LID.
2. TRAFFIC SHALL BE RESTRICTED FROM MANHOLE FOR 48 HOURS AFTER THE PLACEMENT OF CONCRETE, AND COLLAR SHALL PROVIDE A SUFFICIENT, CLEAR OPENING TO ACCOMMODATE THE SPECIFIED MANHOLE COVER.
3. AASHTO-M-306 (LATEST REVISION) PROOF LOAD TESTING IS REQUIRED (40,000 LBS) AND MUST BE INSPECTED. PRIOR TO INSTALLATION, THE RESULTS OF THE TEST SHALL BE SUBMITTED TO THE CITY.
4. THE MANUFACTURING FACILITIES FOR ALL PROVIDED RING AND COVER ASSEMBLIES SHALL MEET OR EXCEED ALL EPA ENVIRONMENTAL STANDARDS AND OSHA SAFETY STANDARDS. THE CASTINGS SHALL BE MANUFACTURED FROM RECYCLED MATERIALS. THE CONTRACTOR SHALL PROVIDE CERTIFICATION.

CLEAR OPENING	MANUFACTURER (1)	MODEL NUMBER*	INFLOW INHIBITOR
24"	EAST JORDAN IRON WORKS	V-1168	REQUIRED ON ALL INSTALLATIONS PER CITY SPECIFICATIONS
	U.S. FOUNDRY	COVER- #8018538 FRAME- #8022247	
	NEENAH FOUNDRY	R-1930-24	
30" (2)	EAST JORDAN IRON WORKS	COVER- V1430 FRAME- V1420	
	U.S. FOUNDRY	COVER- #9210048 FRAME- #8021361	
	NEENAH FOUNDRY	DF-1274	

(1) OR APPROVED EQUAL (MADE IN THE USA)
(2) UNLESS NOTED IN THE PLANS, ALL COVERS SHALL BE 24" DIAMETER AND NOT INTENDED FOR MANNED ENTRY.

RING & COVER APPROVED LIST

RELEASED FOR CONSTRUCTION

Bria A. Whitmire, P.E., CFM, CPM
Development Services Engineer
City of Corpus Christi

Note: Construction Plans will expire based on the the conditions stated in UDC 3.8.5.F.

THE CONSTRUCTION DETAILS SHOWN HEREON ARE STANDARD CONSTRUCTION DETAILS DEVELOPED AND ADOPTED BY THE CITY OF CORPUS CHRISTI, AND BY THIS SEAL AND SIGNATURE ARE INCORPORATED INTO THE ATTACHED PLAN SET IN THEIR ENTIRETY WITHOUT CHANGE OR EDIT.

CONSULTANT'S SHEET NO.

STATE OF TEXAS — JUAN PERALES, JR. — 66662 — REGISTERED ENGINEER — 04/11/2023

J. Perales Civil Engineering and Planning Services
TBPE FIRM No. F-14207
jperales@jperalesengineering.com
P.O. BOX 260547
Corpus Christi, Texas 78426
Tel: (361) 728-7188

CITY OF CORPUS CHRISTI
TEXAS
Department of Engineering Services

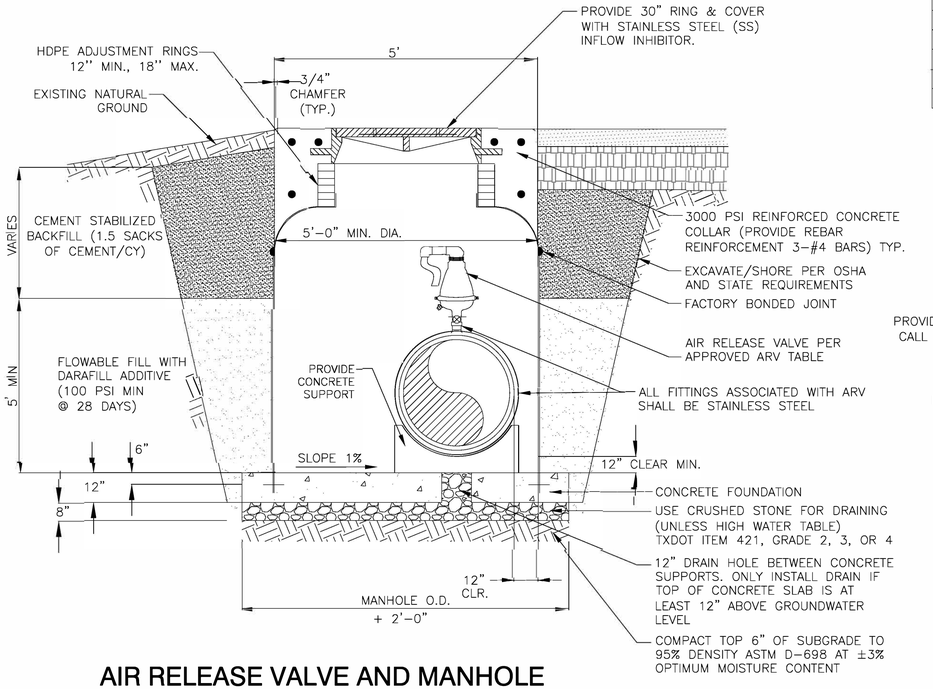
KASPIAN SUBDIVISION UNIT 1
CORPUS CHRISTI , TEXAS

CITY OF CORPUS CHRISTI
WASTEWATER STANDARD DETAILS
REHABILITATION OF EXISTING MANHOLE & MANHOLE RING AND COVER DETAILS
2 OF 4

SHEET 59 of 68
RECORD DRAWING NO.

CITY PROJECT #

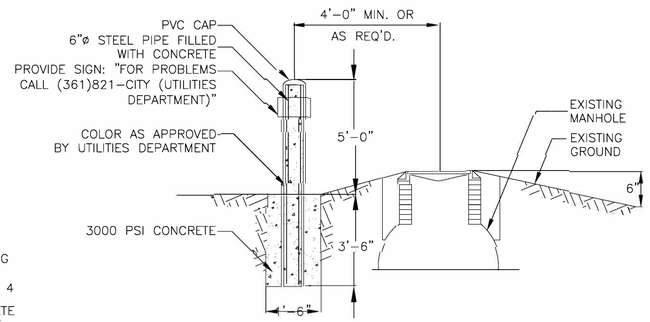
REVISION NO.	DATE	BY	DESCRIPTION



AIR RELEASE VALVE AND MANHOLE

NOT TO SCALE

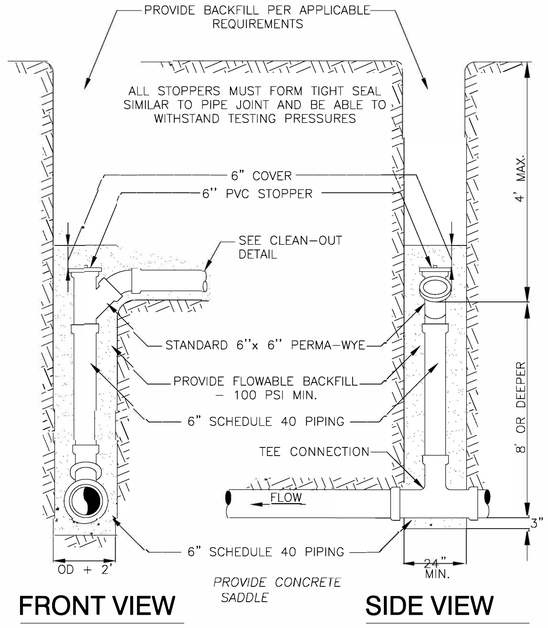
APPROVED ARVs		
MANUFACTURER	MODEL NAME	MATERIAL
A.R.I.	D-025 OR D-025 SHORT	316 SS
H-TEC	MODEL 986 (SS) AND 988	
VENT OMAT	MODEL RGXII (ST. STEEL)	
VALMATIC	VM 48AS OR VM 49AS	



NOTE:
FOR BOLLARD LOCATION AND QUANTITY, SEE CONSTRUCTION PLANS

BOLLARD DETAIL

NOT TO SCALE



DEEP CUT SERVICE CONNECTION

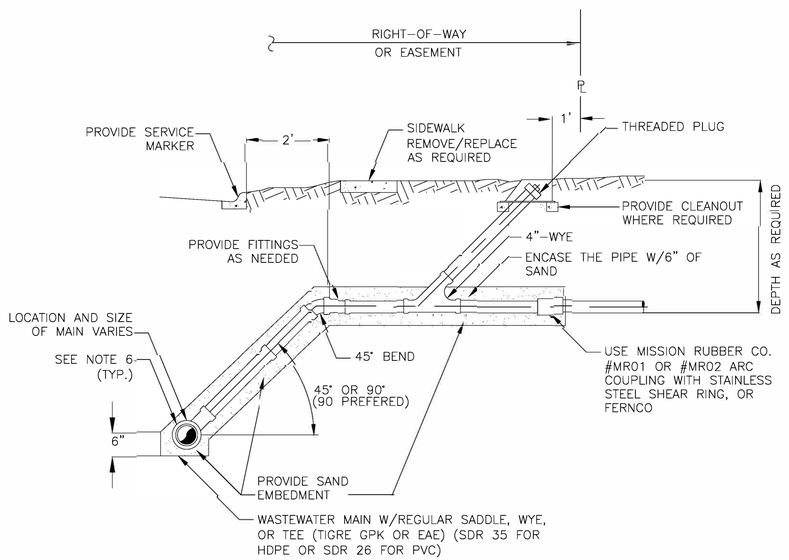
NOT TO SCALE

THE CONSTRUCTION DETAILS SHOWN HEREON ARE STANDARD CONSTRUCTION DETAILS DEVELOPED AND ADOPTED BY THE CITY OF CORPUS CHRISTI, AND BY THIS SEAL AND SIGNATURE ARE INCORPORATED INTO THE ATTACHED PLAN SET IN THEIR ENTIRETY WITHOUT CHANGE OR EDIT.

RELEASED FOR CONSTRUCTION

Bria A. Whitmire, P.E., CFM, CPM
Development Services Engineer
City of Corpus Christi

Note: Construction Plans will expire based on the conditions stated in UDC 3.8.5.F.

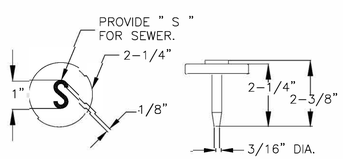


SERVICE CONNECTION DETAILS

NOT TO SCALE

SERVICE CONNECTION NOTES:

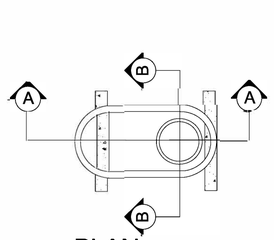
1. CONTRACTOR TO PROVIDE SERVICE CONNECTION TAP TO THE R.O.W. LINE & CONNECT EXIST. SERVICE LINE OUTSIDE EASEMENT AS SHOWN AND REQUIRED.
2. ALL SERVICE PIPE AND FITTINGS TO BE SOLVENT WELD SCH 40 PVC UNLESS SHOWN OTHERWISE IN THE PLANS.
3. FOR EXISTING MAIN PIPE MATERIAL – PVC AND/OR VCP USE UTILITY DEPARTMENT APPROVED CONNECTOR.
4. FOR NEW PVC MAIN AND SERVICE, USE PVC WYE OR TEE AS DIRECTED AT SERVICE CONNECTION.
5. IF PIPE LENGTH, ON SERVICE LINE, IS GREATER THAN 50', USE 6" PVC SCH 40 FROM CLEANOUT WYE TO THE MAIN LINE.



NOTE:
IF NO CURB BURY 12" PIECE OF REBAR WITH POLY PROTECTIVE END CAP ON EACH END.

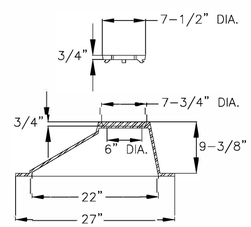
STANDARD SERVICE MARKER

BRASS – ONE REQUIRED EACH STREET TAP
NOT TO SCALE



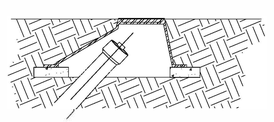
PLAN

NOT TO SCALE



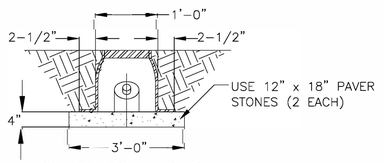
CLEAN-OUT BOOT

NOT TO SCALE



SECTION A-A

NOT TO SCALE



SECTION B-B

NOT TO SCALE

TYPICAL CAST IRON CLEAN-OUT BOOT

NOT TO SCALE

CONSULTANT'S SHEET NO.

J. Perales Civil Engineering and Planning Services
TBPE FIRM No. F-14207
jperales@jperalesengineering.com
P.O. BOX 260547
Corpus Christi, Texas 78426
Tel: (361) 728-7188

CITY OF CORPUS CHRISTI
TEXAS
Department of Engineering Services

KASPIAN SUBDIVISION UNIT 1
CORPUS CHRISTI, TEXAS

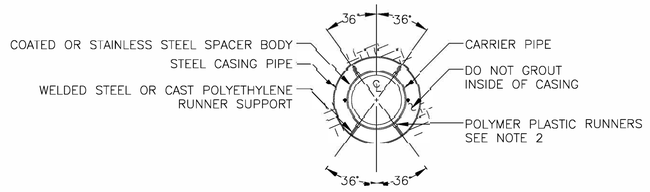
CITY OF CORPUS CHRISTI
WASTEWATER STANDARD DETAILS
AIR RELEASE VALVE, BOLLARD AND SERVICE CONNECTION DETAILS

3 OF 4

SHEET 60 of 68
RECORD DRAWING NO.

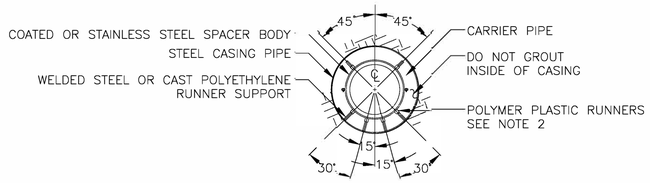
CITY PROJECT #

REVISION NO.	DATE	BY	DESCRIPTION



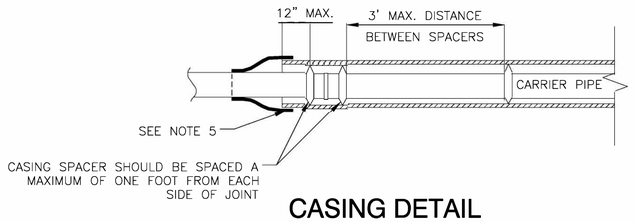
4" TO 10" CASING DETAIL

NOT TO SCALE



12" TO 36" CASING DETAIL

NOT TO SCALE

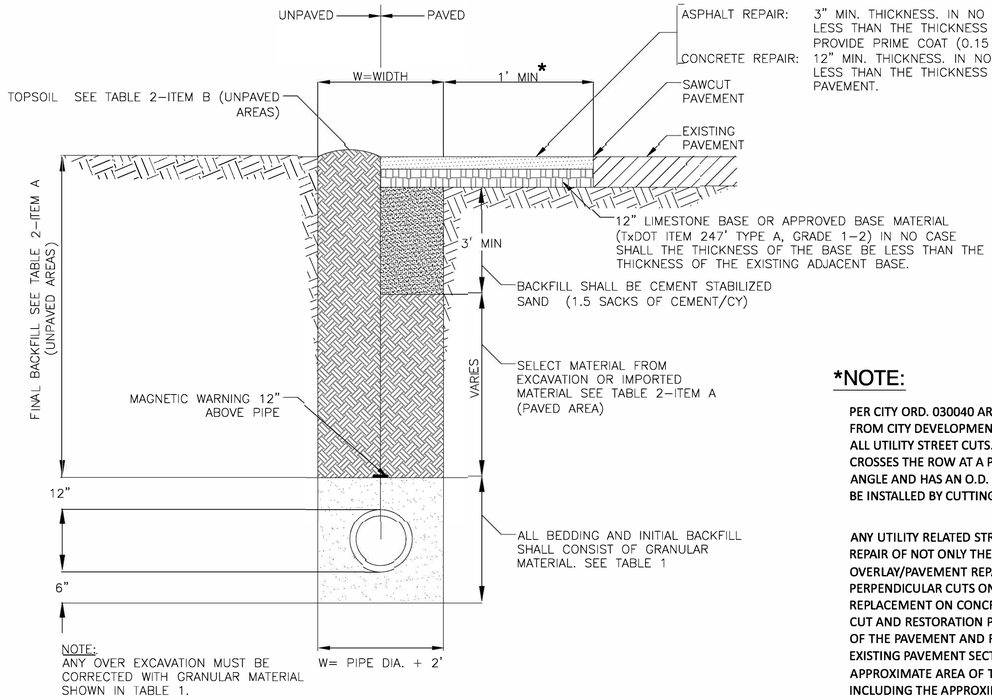


CASING DETAIL

NOT TO SCALE

CASING NOTES:

1. CASING DIAMETER, LENGTH, LOCATION, AND WALL THICKNESS SHALL BE PER PROJECT SPECIFIC REQUIREMENTS. (MINIMUM SCHEDULE 40)
2. ALL CARRIER PIPES IN INSTALLED CASINGS SHALL BE SUPPORTED BY BOLT–ON STYLE CASING SPACERS ("ADVANCED PRODUCTS" OR APPROVED EQUAL).
3. THE CONTRACTOR SHALL PROVIDE MECHANICALLY RESTRAINED JOINTS FOR FORCE MAINS ONLY ON CARRIER PIPES. "MEGALUG" TYPE JOINT RESTRAINTS OR APPROVED EQUAL SHALL BE USED.
4. CASING SPACERS SHALL BE SIZED TO SECURELY FASTEN TO THE CARRIER PIPE O.D. AND SHALL BE FURNISHED WITH A MINIMUM RUNNER HEIGHT TO MAINTAIN SEPARATION BETWEEN THE MAXIMUM O.D. OF THE CARRIER PIPE AND THE CASING WALL.
   A. POSITIONING OF THE SPACERS SHALL ENSURE THAT THE CARRIER PIPE IS ADEQUATELY SUPPORTED THROUGHOUT ITS LENGTH.
   B. SPACERS AT EACH END SHALL NOT BE FURTHER THAN 12" FROM THE END OF THE CASING.
   C. CASING SPACERS SHALL BE INSTALLED IN THE CENTER OF THE PIPE SECTION. THE MAXIMUM SPACING OF THE CASING SPACERS SHALL BE 3 FEET.
5. THE TWO ENDS OF THE CASING PIPE SHALL BE SEALED WATERTIGHT WITH AN ADVANCED PRODUCTS SYSTEM, INC. MODEL AZ – ZIPPER, PSI MODEL C END SEAL, OR AN APPROVED EQUAL.



TRENCH BACKFILL FOR WASTEWATER LINES AND PAVEMENT REPAIR FOR UTILITIES

NOT TO SCALE

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RELEASED FOR CONSTRUCTION

Bria A. Whitmire, P.E., CFM, CPM
Development Services Engineer
City of Corpus Christi

Note: Construction Plans will expire based on the the conditions stated in UDC 3.8.6.F.

*NOTE:

PER CITY ORD. 030040 ARTICLE III CUTS AND EXCAVATIONS, A PERMIT FROM CITY DEVELOPMENT SERVICES DEPARTMENT IS REQUIRED FOR ALL UTILITY STREET CUTS. THE INSTALLATION OF A UTILITY THAT CROSSES THE ROW AT A PERPENDICULAR OR NEAR PERPENDICULAR ANGLE AND HAS AN O.D. OF 6" OR LESS WILL NOT BE PERMITTED TO BE INSTALLED BY CUTTING THE ROAD SECTION.

ANY UTILITY RELATED STREET EXCAVATION/CUT SHALL INCLUDE REPAIR OF NOT ONLY THE IMPACTED TRENCH, BUT ALSO A FULL LANE OVERLAY/PAVEMENT REPAIR FOR PARALLEL CUTS OR 12' WIDE FOR PERPENDICULAR CUTS ON ASPHALT STREETS, AND FULL PANEL REPLACEMENT ON CONCRETE STREETS. A SITE SPECIFIC PAVEMENT CUT AND RESTORATION PLAN THAT INDICATES THE GENERAL NATURE OF THE PAVEMENT AND ROADWAY TO BE CUT AND RESTORED, THE EXISTING PAVEMENT SECTION (IF KNOWN), THE LOCATION AND APPROXIMATE AREA OF THE EXCAVATION/PAVEMENT REPAIR, INCLUDING THE APPROXIMATE LENGTH AND WIDTH OF THE PAVEMENT REPAIR IN RELATION TO THE ROADWAY TRAVEL LANE(S), MUST BE INCLUDED IN THE DRAWINGS/PERMIT APPLICATION.

GENERAL NOTES FOR BACKFILL

TABLE 1
BEDDING AND INITIAL BACKFILL
(BELOW PIPE TO 12" ABOVE PIPE)

ALL BEDDING AND INITIAL BACKFILL SHALL CONSIST OF THE FOLLOWING OR REFER TO DESIGN ENGINEER REQUIREMENTS: GRANULAR BACKFILL CONSISTING OF EITHER NATURAL SAND OR SANDY GRAVEL, OR MATERIAL PRODUCED BY CRUSHING OF NATURAL STONE OR GRAVEL:

(1.) EXCAVATIONS <20 FT. DEEP AND ABOVE WATER TABLE, USE MATERIAL MEETING THE FOLLOWING CRITERIA.

MEETING REQUIREMENTS OF ASTM D2487 FOR:

SP	GP
SW	GW
SP–SM	GP–GM
SW–SM	GW–GM

AND IN ADDITION:
PASSING 1/2" SIEVE – 100%
PASSING #4 SIEVE – 30% MINIMUM
PLASTICITY INDEX (PI) – NP TO 10 MAX.

(2.) IN DEEP EXCAVATIONS (>20') OR BELOW WATER TABLE, USE CRUSHED STONE OR CRUSHED GRAVEL MEETING GRADATION OF:

A. CONCRETE COARSE AGGREGATE; TxDOT ITEM 421; GRADE 2, 3, OR 4.

OR

B. CRUSHED LIMESTONE PER TxDOT ITEM 421' GRADE 2, 3, OR 4.

TABLE 2
FINAL BACKFILL
(GREATER THAN 12" ABOVE PIPE)

UNPAVED AREAS

A. FROM 12" ABOVE PIPE TO BOTTOM OF TOPSOIL BACKFILL SHALL BE APPROVED SELECT MATERIAL FROM THE EXCAVATION; OR IMPORTED MATERIAL; ALL TO BE FREE OF ROCKS, DEBRIS, OR ANY CLUMPS GREATER THAN 2" IN DIAMETER; LOOSE LIFTS TO BE PLACED 10" MAX.

COMPACT MATERIAL TO 95% STD. PROCTOR (D698).

MOISTURE TO BE ADJUSTED TO ± 3% OF OPTIMUM.

B. TOPSOIL TO BE PROVIDED EQUAL OR BETTER THAN EXISTING; AND MATCH EXISTING TOPSOIL DEPTH. COMPACT TO EXISTING ADJACENT TOP–SOIL THICKNESS. (CONSTRUCTION TO BE PERFORMED BY "DOUBLE DITCH" METHOD–TOP SOIL SALVAGED TO BE PLACED ON TOP)

PAVED AREAS

A. FROM 12" ABOVE PIPE TO 3' BELOW BOTTOM OF ROAD BASE: BACKFILL SHALL BE SELECT MATERIAL FROM EXCAVATION OR IMPORTED MATERIAL. IN EITHER CASE, ALL MATERIAL SHALL MEET THE FOLLOWING:

LL<35
PI 8–20
NO CLUMPS > 2" DIA.
MOISTURE – 1 TO +3%
COMPACT 95% D698 STD PROCTOR

LOOSE LIFTS OF 12" MAX
OR IF SELECT MATERIAL FROM EXCAVATION DOES NOT
MEET REQUIREMENTS, THEN USE CEMENT STABILIZED SAND.
SEE TABLE 2–ITEM B BELOW.

B. FROM 3' BELOW BOTTOM OF ROAD BASE TO BOTTOM OF ROAD BASE:

BACKFILL SHALL BE CEMENT STABILIZED SAND (1.5 SK/C.Y.) AND SHALL MEET THE FOLLOWING REQUIREMENTS:

SAND GRADATION:

% PASSING	
#4	55–100
#10	40–100
#40	25–100
#200	10–20
PI	NP–10

COMPACT TO 95% OF D588. MOISTURE TO BE ADJUSTED TO
TO (+/–2%) OF OPTIMUM.

CONSULTANT'S SHEET NO.

STATE OF TEXAS · JUAN PERALES, JR. · 66662 · REGISTERED PROFESSIONAL ENGINEER
Juan Perales Jr, P.E. 04/11/2023

J. Perales Civil Engineering and Planning Services
TBPE FIRM No. F-14207
jperales@jperalesengineering.com
P.O. BOX 260547
Corpus Christi, Texas 78426
Tel: (361) 728-7188

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TEXAS
Department of Engineering Services

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CORPUS CHRISTI , TEXAS

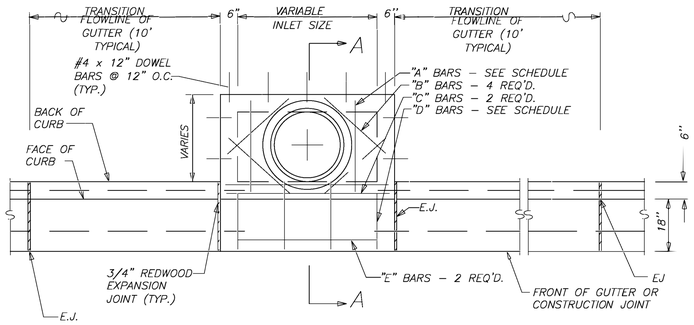
CITY OF CORPUS CHRISTI
WASTEWATER STANDARD DETAILS
PAVEMENT REPAIR/BACKFILL/GENERAL NOTES/CASING DETAILS

4 OF 4

SHEET 61 of 68
RECORD DRAWING NO.

CITY PROJECT #

REVISION NO.	DATE	BY	DESCRIPTION

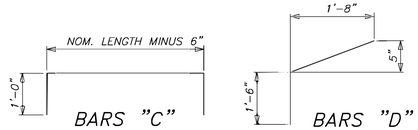


PLAN OF 5' STANDARD INLET

NOT TO SCALE

SPECIAL NOTE:

1. CONTRACTOR TO PROVIDE #4 x 12" DOWELS @ 12" O.C. WHERE PROP. SIDEWALK ABUTS INLET. (NO SEPARATE PAYMENT)
2. FOR CURB INLET THROAT EXTENSION DETAILS REFER TO STORM WATER STANDARD DETAIL SHEET 3 OF 3.

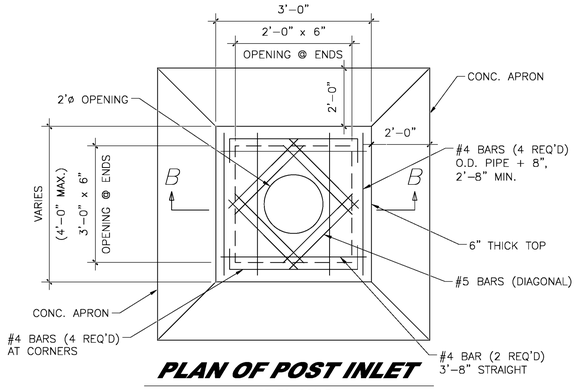


** THROAT OPENINGS SHALL HAVE A 6" X 6" CONCRETE SUPPORT PLACED AT MID-THROAT

* NOMINAL LENGTH OF INLET SHALL BE DESIGNATED AS THE CLEAR WIDTH OPENING.

STANDARD CURB INLET STEEL SCHEDULE					
	ALL BARS No. 4 PREFORMED				
INLET SIZE (Nom. Length)	NO. REQ'D./LENGTH				
	"A" BARS	"B" BARS	"C" BARS	"D" BARS	"E" BARS
4'	2/a	4/1'-10"	2/5'-6"	4/3'-2"	2/4'-6"
5'	2/a	4/3'-2"	2/6'-6"	4/3'-2"	2/5'-6"
6'	4/a	4/4'-0"	2/7'-6"	6/3'-2"	2/6'-6"
* * 8'	4/a	4/4'-0"	2/9'-6"	6/3'-2"	2/8'-6"
* * 10'	6/a	4/4'-0"	2/11'-6"	7/3'-2"	2/10'-6"
BENDING	STRAIGHT	STRAIGHT	SEE DET.	SEE DET.	STRAIGHT

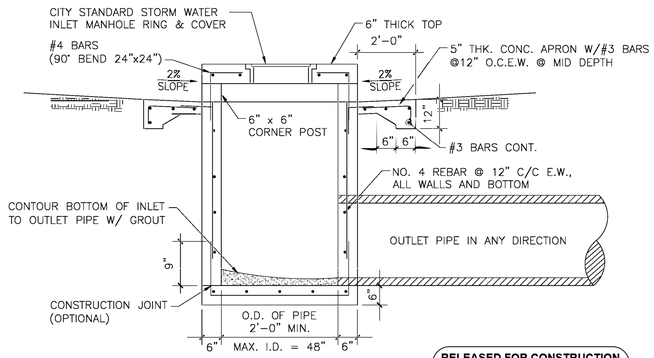
a = O.D. + 8", 2'-8" MIN. MAX. PIPE I.D. = 48 INCHES

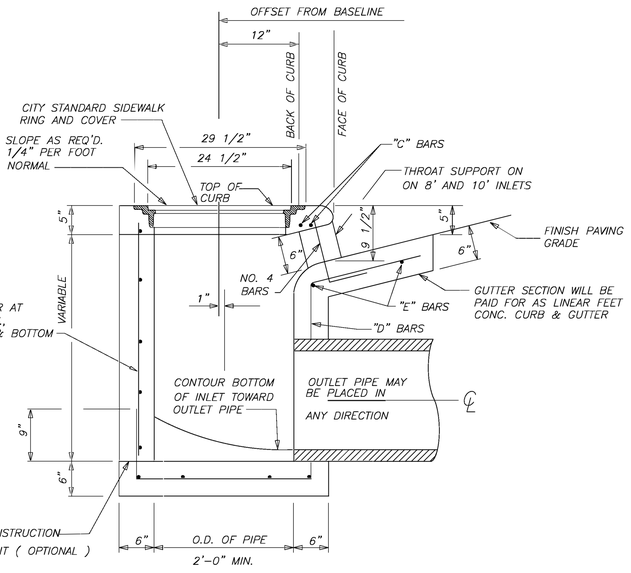


PLAN OF POST INLET

NOT TO SCALE

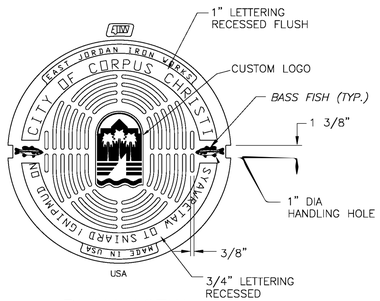
THE CONSTRUCTION DETAILS SHOWN HEREON ARE STANDARD CONSTRUCTION DETAILS DEVELOPED AND ADOPTED BY THE CITY OF CORPUS CHRISTI, AND BY THIS SEAL AND SIGNATURE ARE INCORPORATED INTO THE ATTACHED PLAN SET IN THEIR ENTIRETY WITHOUT CHANGE OR EDIT.



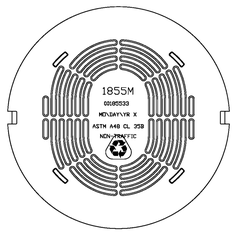


SECTION A-A

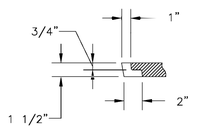
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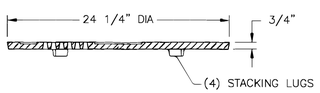
PLAN VIEW



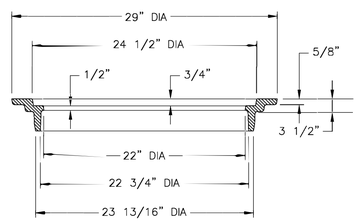
GRATE BLOCK



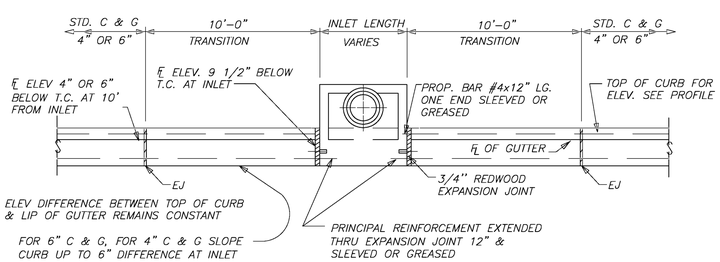
PICKSLOT DETAIL



GRATE SECTION



RING SECTION



FLOWLINE TRANSITION AT INLET FOR 4" OR 6" STD. CURB AND GUTTER

NOT TO SCALE

CITY STANDARD INLET AND SIDWALK MANHOLE RING & COVER CASTING DETAILS

NOT TO SCALE

INLET AND SIDEWALK MANHOLE RING & COVER NOTES

1. MANHOLE RING & COVER SHALL BE EAST JORDAN MANHOLE ASSEMBLY FOR LOAD RATING NON-TRAFFIC.
2. THESE DETAILS SHOW GREY-IRON CASTINGS, FILLETED AT ANGLES WITH SHARP AND PERFECT ARISES.
3. CASTING SHALL BE TRUE TO PATTERN, FORM, AND DIMENSIONS, FREE FROM CRACKS, SPONGINESS AND BLOWHOLES.
4. MACHINE SURFACES TO YIELD FIT WHICH WILL NOT RATTLE WITH PASSING TRAFFIC LOAD.
5. TRAFFIC SHALL BE RESTRICTED FROM M.H. FOR 36 HOURS AFTER PLACEMENT OF RING.
6. RING AND COVER SHALL BE DIPPED IN COAL TAR OR ASPHALT.
7. OTHER CASTING PATTERNS FOR RING & COVERS MAY BE SUBMITTED FOR APPROVAL PROVIDED THE PLAN PATTERN OF COVER IS THE SAME AS SHOWN ON THIS SHEET AND PROVIDED OTHER CASTINGS SHALL BE COMPLETELY INTERCHANGEABLE, I.E., THE COVERS OF THIS SHEET SHALL FIT PROPERLY, THE RINGS OF OTHER CASTING DETAILS AND THE COVERS OF OTHER CASTINGS SHALL FIT THE RINGS OF THIS SHEET.
8. MINIMUM WEIGHTS OF FINISHED CASTINGS: THE COVER = 60 POUNDS, THE RING = 135 POUNDS.

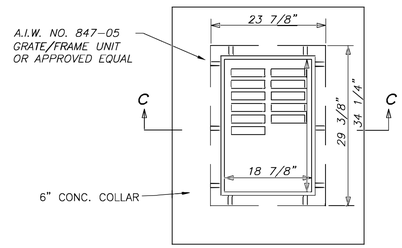
SECTION B-B

NOT TO SCALE

RELEASED FOR CONSTRUCTION

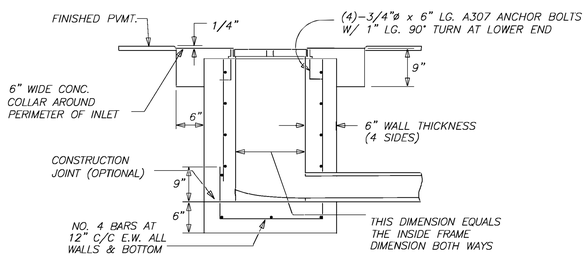
Bria A. Whitmire, P.E., CFM, CPM
Development Services Engineer
City of Corpus Christi

Note: Construction Plans will expire based on the the conditions stated in UDC 3.8.5.F.



PLAN OF STANDARD GRATE INLET

NOT TO SCALE



SECTION C-C

NOT TO SCALE

CONSULTANT'S SHEET No.



J. Perales Civil Engineering and Planning Services
TBPE FIRM No. F-14207
jperales@jperalesengineering.com
P.O. BOX 260547
Corpus Christi, Texas 78426
Tel: (361) 728-7188

CITY of CORPUS CHRISTI TEXAS
Department of Capital Programs

KASPIAN SUBDIVISION UNIT 1
CORPUS CHRISTI , TEXAS

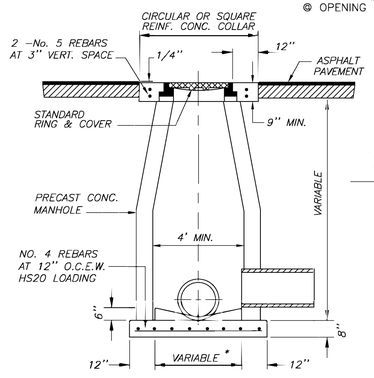
CITY OF CORPUS CHRISTI
STORM WATER STANDARD DETAILS

1 OF 3

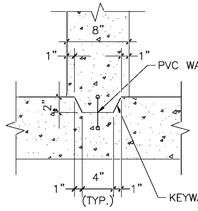
SHEET 62 of 68
RECORD DRAWING NO.

CITY PROJECT #

REVISION NO. | DATE | BY | DESCRIPTION



* 1 1/2 TIMES NOMINAL DIA. OF PIPE (MIN. 4'–0")

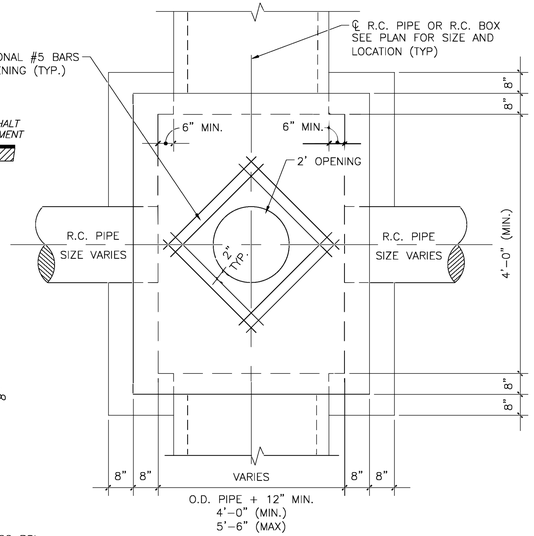


PRE–CAST CONC. MANHOLE NOTES:

HS20 LOADING
CONCRETE 28 DAY COMPRESSIVE STRENGTH – 5000 PSI
REINFORCEMENT STEEL – 60,000 PSI
REBAR MIN. SPLICE LENGTHS: #4–22" #5–28" #6–33"
MANHOLE WALL/RISER REINFORCED PER ASTM C–478

KEYWAY DETAIL
NOT TO SCALE

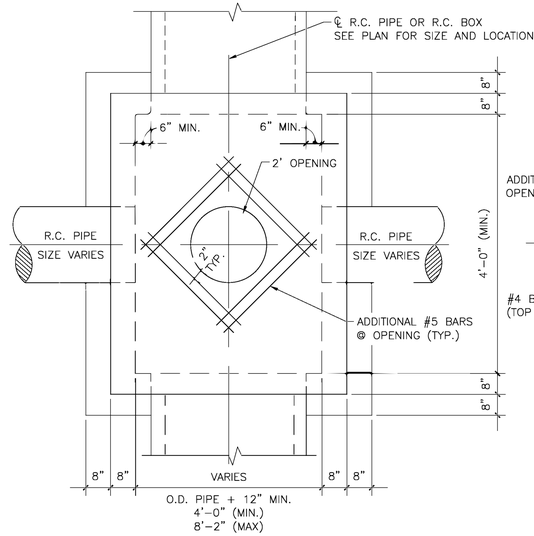
TYPE "A" MANHOLE
NOT TO SCALE



O.D. PIPE + 12" MIN.
4'–0" (MIN.)
5'–6" (MAX)

NOTE:
FOR R.C. PIPE SIZES, DIRECTION, AND FLOWLINES, REFER TO STREET AND STORM WATER PLAN AND PROFILES

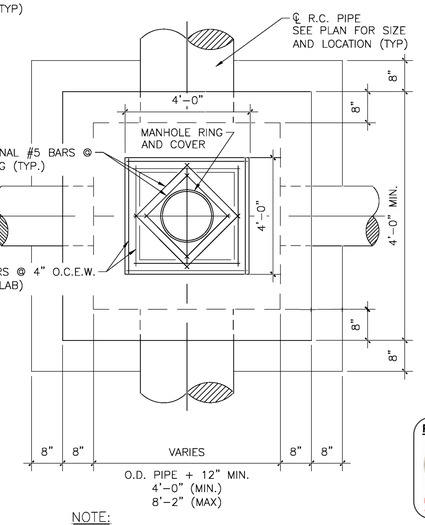
PLAN
TYPE 'B' MANHOLE
NOT TO SCALE



O.D. PIPE + 12" MIN.
4'–0" (MIN.)
8'–2" (MAX)

NOTE:
FOR R.C. PIPE SIZES, DIRECTION, AND FLOWLINES, REFER TO STREET AND STORM WATER PLAN AND PROFILES

PLAN
TYPE 'C' MANHOLE
NOT TO SCALE



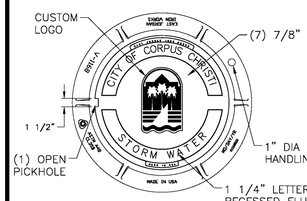
O.D. PIPE + 12" MIN.
4'–0" (MIN.)
8'–2" (MAX)

NOTE:
FOR R.C. PIPE SIZES, DIRECTION, AND FLOWLINES, REFER TO STREET AND STORM WATER PLAN AND PROFILES

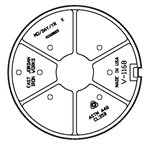
PLAN
TYPE 'D' MANHOLE
NOT TO SCALE

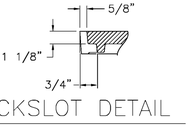
THE CONSTRUCTION DETAILS SHOWN HEREON ARE STANDARD CONSTRUCTION DETAILS DEVELOPED AND ADOPTED BY THE CITY OF CORPUS CHRISTI, AND BY THIS SEAL AND SIGNATURE ARE INCORPORATED INTO THE ATTACHED PLAN SET IN THEIR ENTIRETY WITHOUT CHANGE OR EDIT.

RELEASED FOR CONSTRUCTION
Bria A. Whitmire, P.E., CFM, CPM
Development Services Engineer
City of Corpus Christi
Note: Construction Plans will expire based on the the conditions stated in UDC 3.8.5.F.

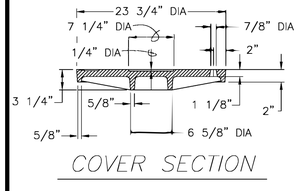


PLAN VIEW

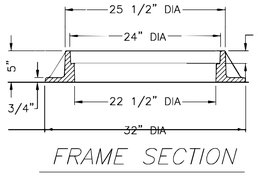




PICKSLOT DETAIL

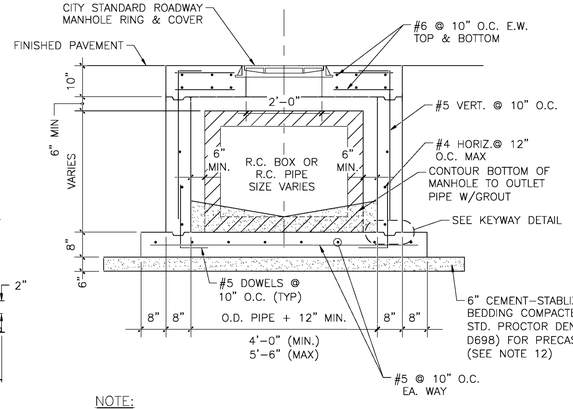


COVER SECTION



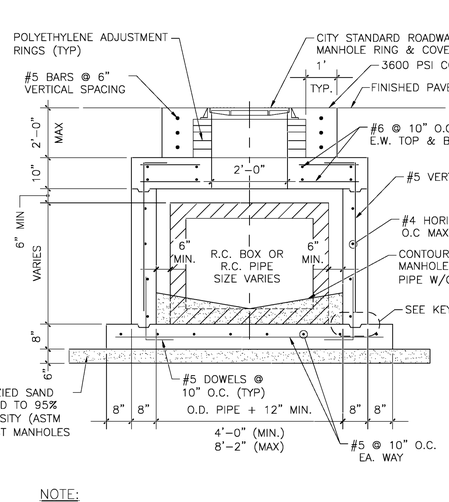
FRAME SECTION

CITY STANDARD ROADWAY MANHOLE RING & COVER CASTING DETAIL
NOT TO SCALE



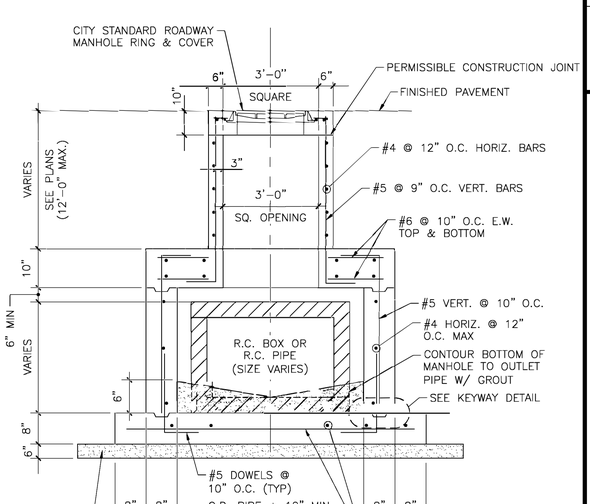
NOTE:
LATERAL PIPES NOT SHOWN FOR CLARITY

SECTION
TYPE 'B' MANHOLE
NOT TO SCALE



NOTE:
LATERAL PIPES NOT SHOWN FOR CLARITY

SECTION
TYPE 'C' MANHOLE
NOT TO SCALE



6" CEMENT–STABLIZIED SAND BEDDING COMPACTED TO 95% STD. PROCTOR DENSITY (ASTM D698) FOR PRECAST MANHOLES (SEE NOTE 12)

SECTION
TYPE 'D' MANHOLE
NOT TO SCALE

NOTE:
LATERAL PIPES NOT SHOWN FOR CLARITY

ROADWAY MANHOLE RING & COVER NOTES

1. MANHOLE RING & COVER SHALL BE EAST JORDAN V 1168 ASSEMBLY AND FOR SCHOOL ZONE SHALL BE EAST JORDAN BOLTED–IN 1168 ASSEMBLY LOAD RATING HEAVY DUTY.
2. THESE DETAILS SHOW GREY–IRON CASTINGS, FILLETED AT ANGLES WITH SHARP AND PERFECT ARISES.
3. CASTING SHALL BE TRUE TO PATTERN, FORM, AND DIMENSIONS, FREE FROM CRACKS, SPONGINESS AND BLOWHOLES.
4. MACHINE SURFACES TO YIELD FIT WHICH WILL NOT RATTLE WITH PASSING TRAFFIC LOAD.
5. TRAFFIC SHALL BE RESTRICTED FROM M.H. FOR 36 HOURS AFTER PLACEMENT OF RING.
6. RING AND COVER SHALL BE DIPPED IN COAL TAR OR ASPHALT.
7. OTHER CASTING PATTERNS FOR RING & COVERS MAY BE SUBMITTED FOR APPROVAL PROVIDED THE PLAN PATTERN OF COVER IS THE SAME AS SHOWN ON THIS SHEET AND PROVIDED OTHER CASTINGS SHALL BE COMPLETELY INTERCHANGEABLE, I.E., THE COVERS OF THIS SHEET SHALL FIT PROPERLY, THE RINGS OF OTHER CASTING DETAILS AND THE COVERS OF OTHER CASTINGS SHALL FIT THE RINGS OF THIS SHEET.
8. MINIMUM WEIGHTS OF FINISHED CASTINGS : THE COVER = 160 POUNDS, THE RING = 180 POUNDS.
9. POLYETHYLENE MANHOLE ADJUSTMENT RINGS SHALL BE DESIGNED TO SUPPORT HS 20 TRAFFIC LOADING.

GENERAL NOTES FOR CONCRETE DRAINAGE STRUCTURES:

1. ALL CONCRETE SHALL BE CLASS "C" (3600 PSI) EXCEPT CITY STANDARD CURB INLETS AND CONCRETE COLLARS MAY BE CLASS "A".
2. ALL REINFORCING STEEL SHALL BE GRADE 60.
3. DIMENSIONS RELATING TO REINFORCING STEEL ARE TO CENTERS OF BARS.
4. VERTICAL STEEL MAY BE SPLICED (15" MIN. LAP) IN THE LOWER ONE–HALF OF ALL INLET WALLS.
5. IN AREAS OF CONFLICT BETWEEN REINFORCING STEEL, PIPES AND MANHOLE FRAME, THE REINFORCEMENT SHALL BE BENT OR ADJUSTED TO CLEAR AS DIRECTED BY THE ENGINEER.
6. CHAMFER ALL EXPOSED EDGES 3/4".
7. PROVIDE CITY STANDARD SIDEWALK MANHOLE RING AND COVER FOR CITY STANDARD CURB INLET. PROVIDE CITY STANDARD ROADWAY STORM WATER MANHOLE RING AND COVER FOR SPECIAL CURB INLET.
8. THE CONTRACTOR MAY PROPOSE ALTERNATE PROCEDURES FOR THE CONSTRUCTION OF INLETS AND MANHOLES, INCLUDING PRECAST UNITS. PLANS FOR SUCH PROPOSED ALTERNATES SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL BEFORE CONSTRUCTION. PRECAST MANHOLE WITHIN THE ROADWAY SHAL BE DESIGNED TO SUPPORT HS 20 TRAFFIC LOADING AND SEALED BY A LICENSED ENGINEER.
9. ALL INLET WALLS SHALL BE FORMED EXCEPT WHERE THE NATURE OF THE SURROUNDING MATERIAL IS SUCH THAT IT CAN BE TRIMMED TO A SMOOTH VERTICAL FACE. WHEN INLET WALLS ARE PLACED TO NEAT EXCAVATION LINES THE WALL THICKNESS SHALL NOT EXCEED 10 INCHES. PAYMENT FOR INLET AT THE CONTRACT PRICE SHALL INCLUDE THE TRANSITION CURB.
10. INVERT OF INLET SHALL BE SLOPED 1:20 WITH GROUT.
11. NO SPLICING OF REINFORCING STEEL SHALL BE PERMITTED EXCEPT WHERE OTHERWISE NOTED ON THE PLANS OR PERMITTED IN WRITING BY THE ENGINEER.
12. IN DEEP EXCAVATIONS (> 20') OR BELOW WATER TABLE, USE CRUSHED STONE OR CRUSHED GRAVEL MEETING GRADATION OF CONCRETE COARSE AGGREGATE; TxDOT ITEM 421; GRADE 2, 3, OR 4.

CONSULTANT'S SHEET No.

STATE OF TEXAS · JUAN PERALES, JR. · 66652 · REGISTERED PROFESSIONAL ENGINEER
Juan Perales Jr, P.E. 04/11/2023

J. Perales Civil Engineering and Planning Services
TBPE FIRM No. F-14207
jperales@jperalesengineering.com
P.O. BOX 260547
Corpus Christi, Texas 78426
Tel. (361) 728-7188

CITY of CORPUS CHRISTI
TEXAS
Department of Capital Programs

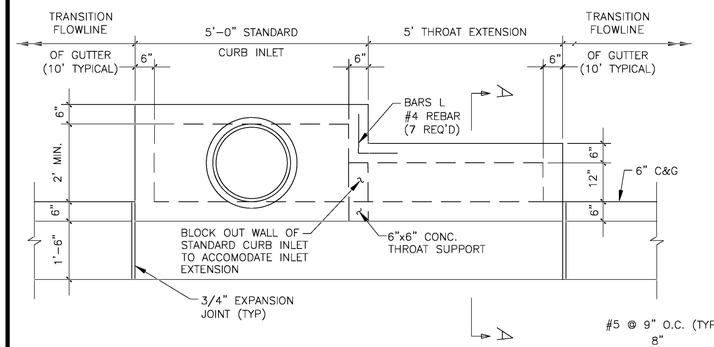
KASPIAN SUBDIVISION UNIT 1
CORPUS CHRISTI , TEXAS

CITY OF CORPUS CHRISTI
STORM WATER STANDARD DETAILS 2 OF 3

SHEET 63 of 68
RECORD DRAWING NO.

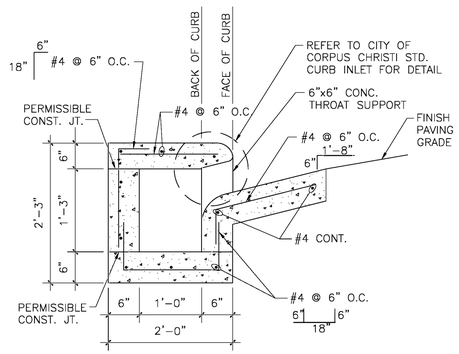
CITY PROJECT #

REVISION NO.	DATE	BY	DESCRIPTION



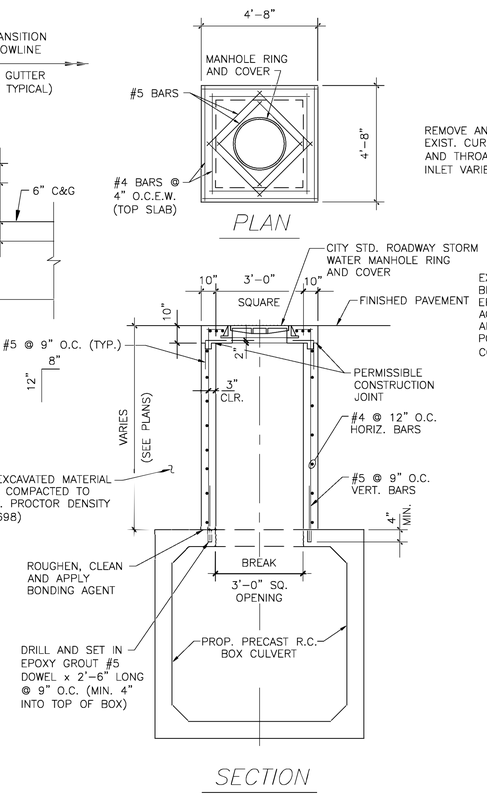
CURB INLET THROAT EXTENSION PLAN

NOT TO SCALE



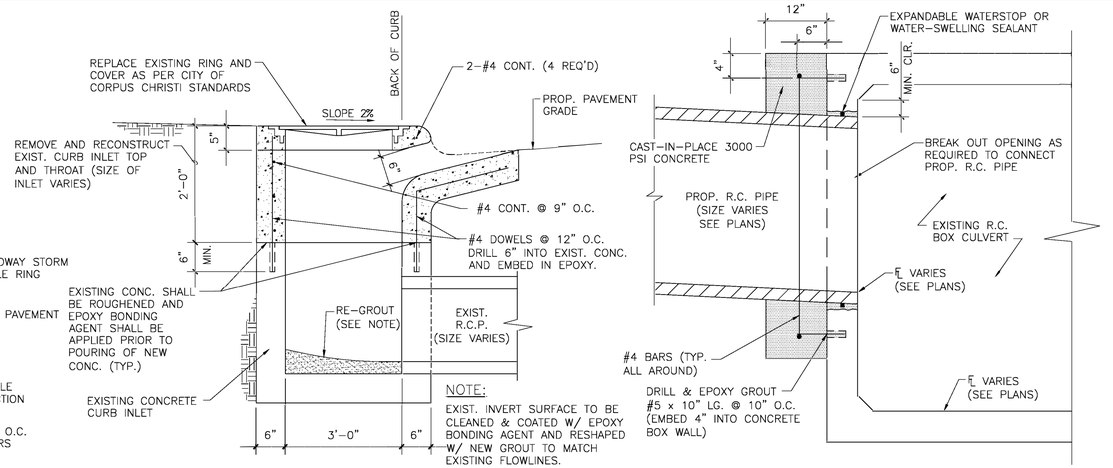
SECTION A-A

NOT TO SCALE



MANHOLE RISER DETAIL

NOT TO SCALE

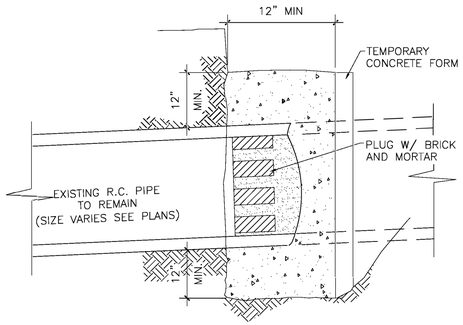


REMOVE AND REPLACE TOP OF EXISTING CURB INLET DETAIL

NOT TO SCALE

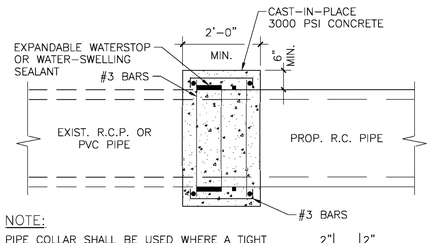
PROP. PIPE TO EXISTING R.C. BOX CONNECTION DETAIL

NOT TO SCALE



EXISTING R.C. PIPE PLUG

NOT TO SCALE

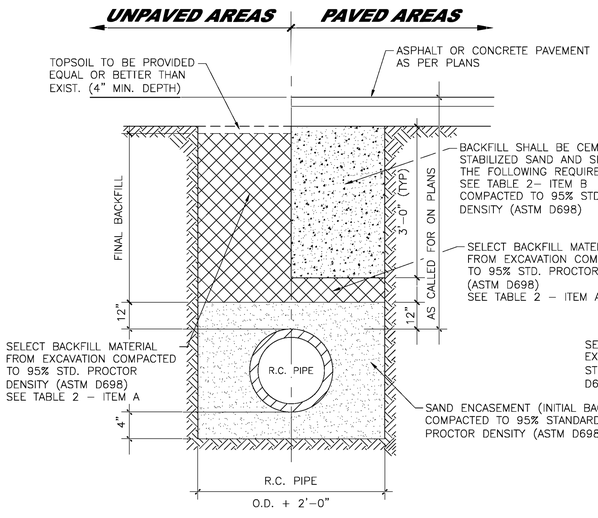


NOTE:

PIPE COLLAR SHALL BE USED WHERE A TIGHT JOINT CANNOT BE PLACED, SUCH AS A BREAK IN ALIGNMENT, DAMAGED PIPE ENDS OR TIE-IN TO EXISTING PIPE OR STRUCTURES.

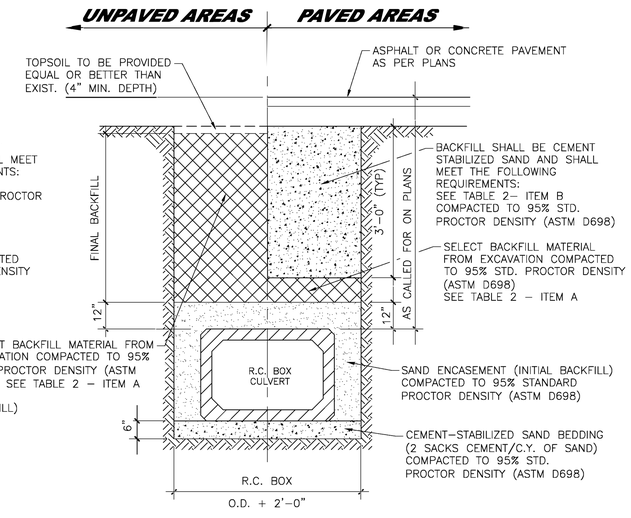
CONCRETE COLLAR DETAIL

NOT TO SCALE



TRENCH BACKFILL FOR STORM WATER PIPES

NOT TO SCALE



NOTE: (CONCRETE PAVEMENT ONLY)

CONTRACTOR HAS OPTION TO USE CEMENT STABILIZED SAND OR BACKFILL WITH SELECT BACKFILL MATERIAL.

TRENCH BACKFILL FOR STORM WATER R.C. BOX CULVERTS

NOT TO SCALE

GENERAL NOTES FOR BACKFILL

TABLE 1
BEDDING AND INITIAL BACKFILL
(BELOW PIPE TO 12" ABOVE PIPE)

ALL BEDDING AND INITIAL BACKFILL SHALL CONSIST OF GRANULAR MATERIAL CONSISTING OF EITHER NATURAL SAND OR SANDY GRAVEL, OR MATERIAL PRODUCED BY CRUSHING OF NATURAL STONE OR GRAVEL. SEWER LINES:

1. *EXCAVATIONS <20FT. DEEP AND ABOVE WATER TABLE, USE MATERIAL MEETING THE FOLLOWING CRITERIA.*

   MEETING REQUIREMENTS OF ASTM D2487 FOR:
   SP GP
   SW GW
   SP-SM GP-GM
   SW-SM GW-GM

   AND IN ADDITION:
   PASSING 1/2" SIEVE - 100%
   PASSING #4 SIEVE - 30% MINIMUM
   PLASTICITY INDEX (PI) - NP TO 10 MAX.

2. *IN DEEP EXCAVATIONS (>20') OR BELOW WATER TABLE, USE CRUSHED STONE OR CRUSHED GRAVEL MEETING GRADATION OF:*

   A. CONCRETE COARSE AGGREGATE; TxDOT ITEM 421; GRADE 2, 3, OR 4.

FOR ALL UTILITIES:

1. *FOR PIPE DIAMETER EQUAL TO OR SMALLER THAN 16", USE 4" MINIMUM BEDDING UNDER PIPE.*
2. *FOR PIPE DIAMETER GREATER THAN 16", USE 6" MINIMUM BEDDING UNDER PIPE.*

TABLE 2
FINAL BACKFILL
(GREATER THAN 12" ABOVE PIPE)

UNPAVED AREAS

A. FOR 12" ABOVE PIPE TO BOTTOM OF TOPSOIL BACKFILL SHALL BE APPROVED SELECT MATERIAL FROM THE EXCAVATION; OR IMPORTED MATERIAL; ALL TO BE FREE OF ROCKS, DEBRIS, OR ANY CLUMPS GREATER THAN 2" IN DIAMETER; LOOSE LIFTS TO BE PLACED 10" MAX.

COMPACT MATERIAL TO 95% STD. PROCTOR (D698).

MOISTURE TO BE ADJUSTED TO ± 3% OF OPTIMUM.

B. TOPSOIL TO BE PROVIDED EQUAL OR BETTER THAN EXISTING; AND MATCH EXISTING TOPSOIL DEPTH. (4" MIN.) COMPACT TO FIX CONFLICT TO EXISTING ADJACENT TOPSOIL. (CONSTRUCTION TO BE PERFORMED BY "DOUBLE DITCH" METHOD TOP SOIL SALVAGED TO BE PLACED ON TOP)

PAVED AREAS

A. FOR 12" ABOVE PIPE TO 3' BELOW BOTTOM OF ROAD BASE: BACKFILL SHALL BE SELECT MATERIAL FROM EXCAVATION OR TO BE IMPORTED MATERIAL AND SHALL MEET THE FOLLOWING:

LL<35
PI 8-20
NO CLUMPS > 2" DIA.
MOISTURE 0 TO +3%
COMPACT 95% D698 STD PROCTOR

LOOSE LIFTS OF 10" MAX OR IF SELECT MATERIAL FROM EXCAVATION DOES NOT MEET REQUIREMENTS, THEN USE CEMENT STABILIZED SAND SEE TABLE 2-ITEM B

B. FOR 3' BELOW BOTTOM OF ROAD BASE TO BOTTOM OF ROAD BASE:

BACKFILL SHALL BE CEMENT STABILIZED SAND AND SHALL MEET THE FOLLOWING REQUIREMENTS:

SAND GRADATION:
% PASSING

1/2"	*100%*
#4	*55-100*
#10	*40-100*
#40	*25-100*
#200	*10-20*
PI	*NP-10*

2 SACKS CEMENT/C.Y. OF SAND.

COMPACT TO 95% OF D698. MOISTURE TO BE ADJUSTED TO (+/-2%) OF OPTIMUM.

RELEASED FOR CONSTRUCTION

Bria A. Whitmire, P.E., CFM, CPM
Development Services Engineer
City of Corpus Christi

Note: Construction Plans will expire based on the the conditions stated in UDC 3.8.5.F.

THE CONSTRUCTION DETAILS SHOWN HEREON ARE STANDARD CONSTRUCTION DETAILS DEVELOPED AND ADOPTED BY THE CITY OF CORPUS CHRISTI, AND BY THIS SEAL AND SIGNATURE ARE INCORPORATED INTO THE ATTACHED PLAN SET IN THEIR ENTIRETY WITHOUT CHANGE OR EDIT.

CONSULTANT'S SHEET No.

STATE OF TEXAS — JAMY PERALES JR. — 86652 — REGISTERED PROFESSIONAL ENGINEER — 04/11/2023

J. Perales Civil Engineering and Planning Services
TBPE FIRM No. F-14207
jperales@jperalesengineering.com
P.O. BOX 260547
Corpus Christi, Texas 78426
Tel: (361) 728-7188

CITY of CORPUS CHRISTI
TEXAS
Department of Capital Programs

KASPIAN SUBDIVISION UNIT 1
CORPUS CHRISTI , TEXAS

CITY OF CORPUS CHRISTI
STORM WATER STANDARD DETAILS

3 OF 3

SHEET 64 of 68
RECORD DRAWING NO.

CITY PROJECT #

REVISION NO.	DATE	BY	DESCRIPTION

WATER DISTRIBUTION SYSTEM GENERAL NOTES

1. PROPOSED WATER DISTRUBUTION SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH CITY OF CORPUS CHRISTI WATER DIVISION DISTRIBUTION SYSTEM STANDARDS.
2. THE CITY RESERVES THE RIGHT TO ACCEPT THE SYSTEM FOR OPERATION AT ANY TIME, BUT THE DATE OF OFFICIAL ACCEPTANCE OF THE SYSTEM WILL BE UPON COMPLETION OF THE PROJECT AND SATISFACTORY TEST RESULTS.
3. THE EXISTING SYSTEM SHALL REMAIN IN SERVICE UNTIL THE PROPOSED SYSTEM IS PUT INTO SERVICE. THE CONTRACTOR SHALL PROTECT THE EXISTING SYSTEM UNTIL IT IS TAKEN OUT OF SERVICE.
4. THE CONTRACTOR SHALL FURNISH ALL MATERIAL, LABOR AND EQUIPMENT REQUIRED TO INSTALL THE PROPOSED SYSTEM.
5. TESTING OF LINES (STERILIZATION AND PRESSURED) SHALL BE DONE BY THE CONTRACTOR UNDER THE SUPERVISION OF THE WATER DIVISION. WATER FOR FILLING THE NEW WATER LINE AND PERFORMING TESTS WILL BE FURNISHED TO THE CONTRACTOR BY THE CITY OF CORPUS CHRISTI THROUGH A STANDARD WATER CONSTRUCTION METER CONNECTION. STANDARD WATER CONSTRUCTION METER AND GAUGE WILL BE SUPPLIED BY THE CITY AFTER THE CONTRACTOR HAS PAID ALL APPLICABLE FEES FOR THE WATER CONSTRUCTION METER. ALL WATER DISCHARGE MUST BE DECHLORINATED IN ACCORDANCE WITH TNRCC & NPDES REGULATIONS.
6. THE CONTRACTOR SHALL RECOVER AND STOCK-PILE AT A LOCATION DESIGNATED BY THE WATER DIVISION INSPECTOR, ALL FIRE HYDRANTS, VALVES, AND FITTINGS THAT ARE TAKEN OUT OF SERVICE . THESE MATERIALS MAY BE SALVAGED BY THE CITY . HOWEVER, ALL ITEMS NOT CLAIMED BY THE CITY PRIOR TO THE FINAL INSPECTION SHALL BE DISPOSED OF BY THE CONTRACTOR.
7. THE CONTRACTOR SHALL BEAR ALL COST ASSOCIATED WITH WATERLINE REPAIRS (WHICH RESULT FROM DAMAGE CAUSED BY THE CONTRACTOR) UPON COMPLETION OF PROJECTS. ALL WATER LINES SHALL BE FREE OF ALL PATCHES AND SPLICES.
8. ALL PHYSICAL TIES OF THE PROPOSED SYSTEM INTO THE EXISTING WATERLINE SHALL BE RECONNECTED AND BE MADE UNDER SUPERVISION OF THE WATER DIVISION INSPECTOR. THE CONTRACTOR SHALL FURNISH ALL MATERIALS AND ALL EQUIPMENT THAT IS REQUIRED TO MAKE TIE-INS. CITY WATER DIVISION CREWS WILL MAKE TAPS ON CITY MAINS ARRANGED THROUGH WATER DIVISION INSPECTOR (72 HOUR NOTIFICATION).
9. ALL EXISTING SERVICE CONNECTIONS TIED ONTO THE EXISTING WATERLINE SHALL BE RECONNECTED BY THE CONTRACTOR, INCLUDING RELOCATING EXISTING WATER METERS. IT SHALL BE THE CONTRACTOR'S SOLE RESPONSIBILITY TO NOTIFY AND COORDINATE WITH THE WATER DIVISION INSPECTOR SAID RECONNECTIONS / RELOCATIONS IN ADVANCE OF CONSTRUCTION TO AVOID DELAYS. (NO SEPARATE COSTS)
10. MINOR LENGTH OF DUCTILE IRON PIPE ADJACENT TO FITTINGS MAY BE REQUIRED AS DIRECTED BY THE WATER DIVISION INSPECTOR BASED ON CONDITIONS ENCOUNTERED IN THE FIELD. THE CONTRACTOR SHALL USE D.I.P. AS DIRECTED AND SHALL BE PAID AT THE UNIT PRICE BID FOR THE APPROPRIATE SIZE WATERLINE. A MINOR LENGTH IS DEFINED AS A SINGLE LOCATION REQUIRING THE USE OF TWO JOINTS OR LESS.
11. MINOR ADJUSTMENTS IN THE LOCATIONS OF FITTINGS, VALVES, FIRE HYDRANTS, ETC. CAN BE ANTICIPATED. THE CONTRACTOR SHALL MAKE SAID MINOR ADJUSTMENTS AS DIRECTED BY THE ENGINEER AND/OR WATER DIVISION INSPECTOR AT NO INCREASE OF CONTRACT PRICE. WATER DIVISION WILL BE NOTIFIED PRIOR TO ALL CHANGES.
12. ALL NIPPLES BETWEEN FITTINGS AND VALVES ALONG MAINS SHALL BE DUCTILE IRON.
13. ALL DUCTILE IRON PIPES, VALVES, AND FITTINGS SHALL BE WRAPPED WITH (2) THICKNESSES OF 8 MIL. POLYETHYLENE AND SHALL BE RESTRAINED WITH "MEGALUG", MECHANICAL JOINT RESTRAINT OR ENGINEER APPROVED EQUAL AT ALL FITTINGS. CONCRETE THRUST BLOCKS SHALL BE PLACED BEHIND ALL FITTINGS EXCEPT WHERE LOCKING OR SWIVEL FITTINGS ARE UTILIZED, UNLESS OTHERWISE SPECIFIED BY THE WATER DIVISION ENGINEER.
14. ALL OFFSETS ARE TO BE DUCTILE IRON PIPE ASSEMBLIES LOCKED TOGETHER BY RETAINER GLANDS. DUCTILE IRON BENDS SHALL BE UTILIZED FOR ANY CHANGES IN ALIGNMENT OR GRADE.
15. IF A WATER LINE IS TO BE ABANDONED, THE CONTRACTOR WILL FILL WITH CONTROLLED LOW STRENGTH MATERIAL, "DARAFILL" BRAND OR ENGINEER APPROVED EQUAL, VALVES WILL BE REMOVED OR FILLED AS REQUIRED BY WATER DIVISION INSPECTOR.
16. CONTRACTOR SHALL COORDINATE WITH WATER DIVISION INSPECTOR AND NOTIFY ALL AFFECTED CUSTOMERS 24 HOURS PRIOR TO KILLOUT OF EXISTING WATER SYSTEM.
17. WATER DISTRIBUTION SYSTEM STANDARDS CALL FOR MAXIMUM 48" COVER ON WATERLINES. WHEN DEPTHS EXCEED 48" COVER TO AVOID OBSTRUCTION, THE USES OF BENDS COULD BE REQUIRED.
18. CONTRACTOR SHALL KEEP ALL EXISTING VALVES ACCESSIBLE DURING ALL PHASES OF CONSTRUCTION.
19. ALL NEW WATER MAINS SHALL BE INSTALLED SO THAT PIPE IDENTIFICATION MARKINGS ARE LOCATED ON THE TOP OF THE PIPE.
20. ALL SERVICE LINES UNDER PAVEMENT SHALL BE ONE INCH, INSIDE DIAMETER, MINIMUM.

SPECIAL NOTE:

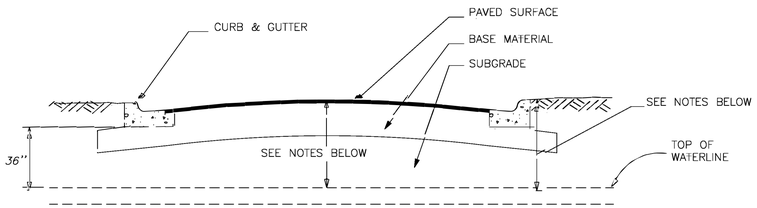
ENGINEER SHALL CONTACT THE UTILITY DEPARTMENT FOR WATER VAULT DESIGN COORDINATION.

SEPARATION OF WATER AND WASTEWATER LINES

1. THE SEPARATION OF WATER AND WASTEWATER LINES AND THE MATERIAL USED SHALL BE IN ACCORDANCE WITH THE "RULES & REGULATIONS FOR PUBLIC WATER SYSTEMS" OF TEXAS NATURAL RESOURCE CONSERVATION COMMISSION AND THE CITY WATER DETAILS .
2. WHENEVER WATER & WASTEWATER LINES CROSS, ONE JOINT OF C900 PVC WATER LINE SHALL BE CENTERED OVER THE WASTEWATER LINE IN ADDITION TO ANY REQUIREMENTS AS DICTATED BY ITEM 1 ABOVE .

NOTES:

CONTRACTOR MAY BE REQUIRED BY THE WATER DIVISION INSPECTOR TO INSTALL CENTERED JOINTS OF DUCTILE IRON PIPE AT WATERLINE CROSSINGS OF EXISTING HAZARDOUS PRODUCT FLOWLINES.

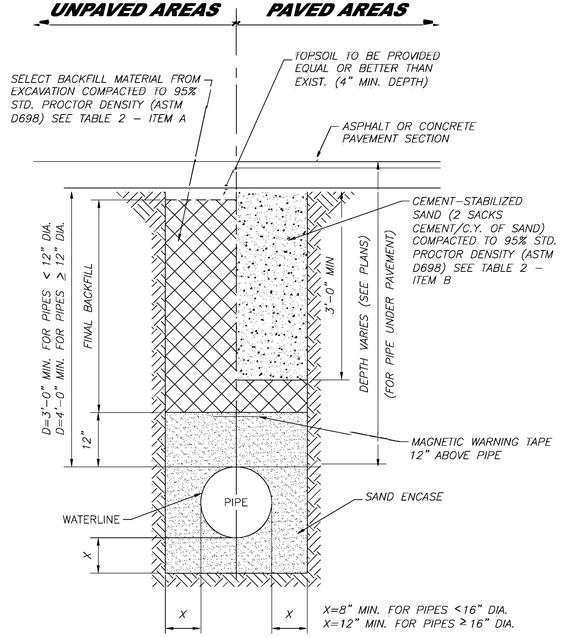


WATERLINE MINIMUM COVER REQUIREMENTS

NOT TO SCALE

NOTES:

1. ALL MAINS IN THE STREET SHALL HAVE A MINIMUM OF 36" OF COVER AND BE 12" MINIMUM BELOW SUBGRADE AT ALL POINTS AND HAVE VALVE CLEARANCES IN ACCORDANCE WITH THE VALVE DETAIL.
2. ALL TRANSMISSION MAINS (12" DIAMETER & ABOVE) IN THE STREET SHALL HAVE 48" OF COVER AT ALL POINTS.
3. ALL MAINS NOT UNDER THE STREET SHALL HAVE A MINIMUM OF 36" OF COVER AT ALL POINTS.



TYP. PIPE TRENCHING, BEDDING AND BACKFILL FOR WATERLINE

NOT TO SCALE

NOTE: (CONCRETE PAVEMENT ONLY)

CONTRACTOR HAS OPTION TO USE CEMENT STABILIZED SAND OR BACKFILL WITH SELECT BACKFILL MATERIAL

GENERAL NOTES FOR BACKFILL

TABLE 1
BEDDING AND INITIAL BACKFILL
(BELOW PIPE TO 12" ABOVE PIPE)

ALL BEDDING AND INITIAL BACKFILL SHALL CONSIST OF THE FOLLOWING OR REFER TO DESIGN ENGINEER REQUIREMENTS:
GRANULAR BACKFILL CONSISTING OF EITHER NATURAL SAND OR SANDY GRAVEL, OR MATERIAL PRODUCED BY CRUSHING OF NATURAL STONE OR GRAVEL.

WATER LINES:

1. EXCAVATIONS <20FT. DEEP AND ABOVE WATER TABLE, USE MATERIAL MEETING THE FOLLOWING CRITERIA.

   MEETING REQUIREMENTS OF ASTM D2487 FOR:

SP	GP
SW	GW
SP-SM	GP-GM
SW-SM	GW-GM

   AND IN ADDITION:
   PASSING 1/2" SIEVE – 100%
   PASSING #4 SIEVE – 30% MINIMUM
   PLASTICITY INDEX (PI) – NP TO 10 MAX.

2. IN DEEP EXCAVATIONS (>20') OR BELOW WATER TABLE, USE CRUSHED STONE OR CRUSHED GRAVEL MEETING GRADATION OF:

   A. CONCRETE COARSE AGGREGATE; TxDOT ITEM 421; GRADE 2, 3, OR 4.

TABLE 2
FINAL BACKFILL
(GREATER THAN 12" ABOVE PIPE)

UNPAVED AREAS

A. FOR 12" ABOVE PIPE TO BOTTOM OF TOPSOIL BACKFILL SHALL BE APPROVED SELECT MATERIAL FROM THE EXCAVATION; OR IMPORTED MATERIAL; ALL TO BE FREE OF ROCKS, DEBRIS, OR ANY CLUMPS GREATER THAN 2" IN DIAMETER; LOOSE LIFTS TO BE PLACED 10" MAX.

   COMPACT MATERIAL TO 95% STD. PROCTOR (D698).

   MOISTURE TO BE ADJUSTED TO ± 3% OF OPTIMUM.

B. TOPSOIL TO BE PROVIDED EQUAL OR BETTER THAN EXISTING; AND MATCH EXISTING TOPSOIL DEPTH. COMPACT TO FIX CONFLICT TO EXISTING ADJACENT TOPSOIL. (CONSTRUCTION TO BE PERFORMED BY "DOUBLE DITCH" METHOD TOP SOIL SALVAGED TO BE PLACED ON TOP)

PAVED AREAS

A. FOR 12" ABOVE PIPE TO 3' BELOW BOTTOM OF ROAD BASE: BACKFILL SHALL BE SELECT MATERIAL FROM EXCAVATION OR TO BE IMPORTED MATERIAL IN EITHER CASE, ALL MATERIAL SHALL MEET THE FOLLOWING:

   LL<35
   PI 8-20
   NO CLUMPS > 2" DIA.
   MOISTURE 0 TO +3%
   COMPACT 95% D698 STD PROCTOR

   LOOSE LIFTS OF 10" MAX OR IF SELECT MATERIAL FROM EXCAVATION DOES NOT MEET REQUIREMENTS, THEN USE CEMENT STABILIZED SAND SEE TABLE 2-ITEM B BELOW (OR PER DESIGN ENGINEER)

B. FOR 3' BELOW BOTTOM OF ROAD BASE TO BOTTOM OF ROAD BASE:

   BACKFILL SHALL BE CEMENT STABILIZED SAND (2 SK/C.Y.) AND SHALL MEET THE FOLLOWING REQUIREMENTS:

   SAND GRADATION:
   % PASSING

#4	55-100
#10	40-100
#40	25-100
#200	10-20
PI	NP-10

   (OR AS PER DESIGN ENGINEER)

   COMPACT TO 95% OF D698. MOISTURE TO BE ADJUSTED TO (+/-2%) OF OPTIMUM.

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RELEASED FOR CONSTRUCTION
Bria A. Whitmire, P.E., CPM
Development Services Engineer
City of Corpus Christi
Note: Construction Plans will expire based on the the conditions stated in UDC 3.8.6.F.

CONSULTANT'S SHEET No.

STATE OF TEXAS – JUAN PERALES, JR. – 86652 – REGISTERED PROFESSIONAL ENGINEER – 04/11/2023

J. Perales Civil Engineering and Planning Services
TBPE FIRM No. F-14207
jperales@jperalesengineering.com
P.O. BOX 260547
Corpus Christi, Texas 78426
Tel: (361) 728-7188

CITY of CORPUS CHRISTI
TEXAS
Department of Capital Programs

KASPIAN SUBDIVISION UNIT 1
CORPUS CHRISTI , TEXAS
CITY OF CORPUS CHRISTI

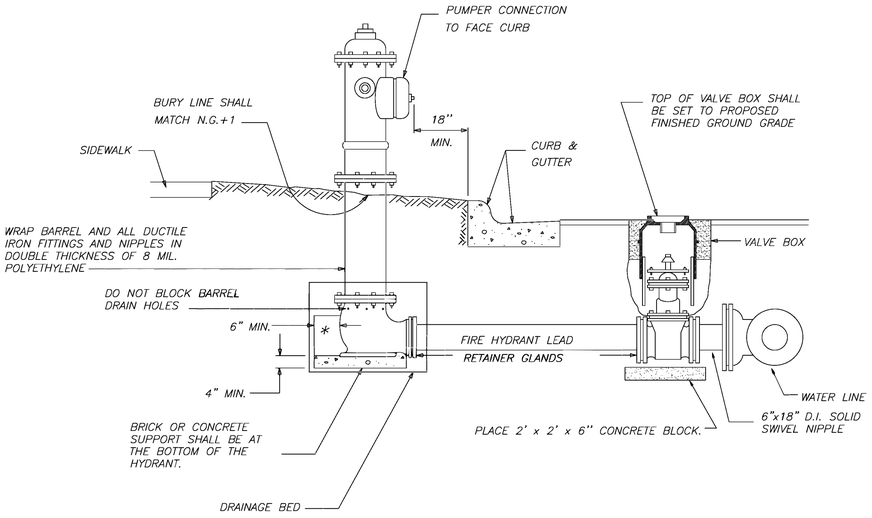
WATER STANDARD DETAILS
WATER DISTRIBUTION SYSTEM GENERAL NOTES & BACKFILL AND EMBEDMENT DETAILS

1 OF 4

SHEET 65 of 68
RECORD DRAWING NO.

CITY PROJECT #

REVISION NO	DATE	BY	DESCRIPTION



* NOTE:

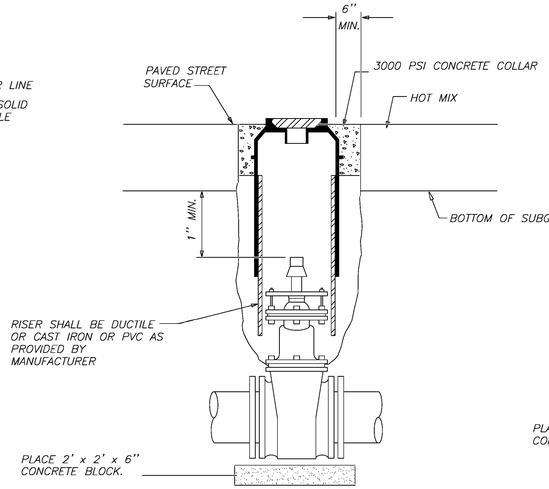
1. ANYTHING LESS THAT 20' WILL BE DUCTILE IRON LOCKED TO THE VALVE.
2. ANYTHING MORE THAN 20' SHALL REQUIRE CONCRETE THRUST BLOCK BEHIND HYDRANT AGAINST UNDISTURBED SOIL.

FIRE HYDRANT ASSEMBLY DETAIL (TYPE 1)

NOT TO SCALE

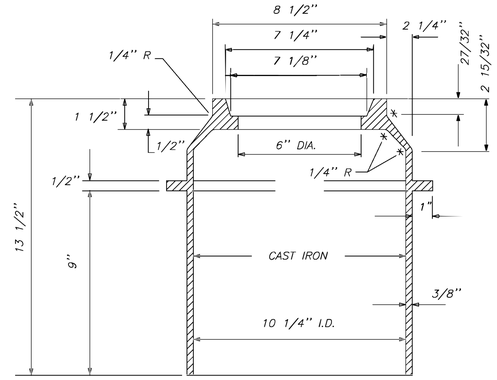
FIRE HYDRANTS:

1. DRAINAGE BED SHALL CONSIST OF CRUSHED STONE OR COARSE GRAVEL W/ COARSE SAND, MIN. VOLUME 7 CU. FT., DRAIN BED SHALL EXTEND A MIN. 6" ABOVE DRAIN OUTLET.
2. ALL FIRE HYDRANT FITTINGS SHALL BE LOCKED TOGETHER BY LOCKING RETAINER GLANDS.
3. FIRE HYDRANT TO BE BLOCKED AGAINST FIRM SOIL AS SHOWN.
4. ALL HYDRANTS SHALL BE INSTALLED PLUMB.
5. LARGE NOZZLE FACES ROAD, UNLESS OTHERWISE NOTED. ROTATE BARREL AS REQUIRED.
6. HYDRANT SHOULD NOT BE SET CLOSER THAN 4' TO OBSTRUCTIONS THAT ARE IN LINE WITH NOZZLE.
7. FIRE HYDRANT SHALL BE SET TO MANUFACTURER'S BURY LINE AT PROPOSED/EXISTING GRADE PLUS 1".
8. NO TAPS ARE TO BE MADE ON FIRE HYDRANT LEAD.



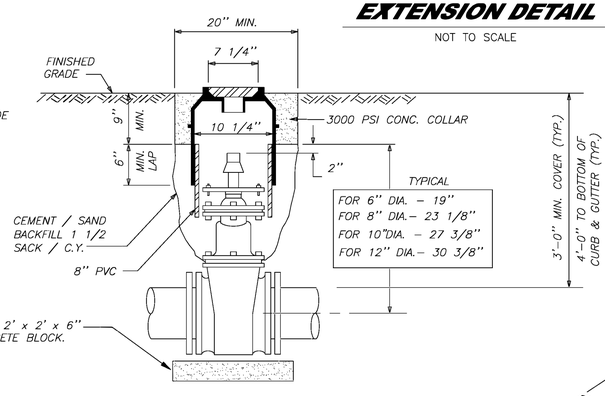
VALVE BOX DETAIL @ PAVEMENT

NOT TO SCALE



EXTENSION DETAIL

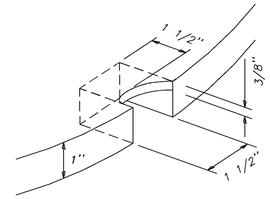
NOT TO SCALE



VALVE BOX DETAIL @ NATURAL GROUND

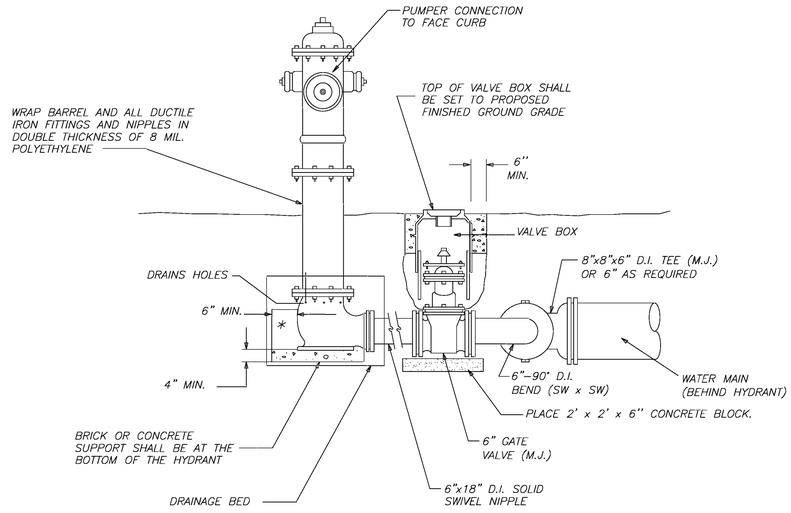
NOT TO SCALE

ALL VALVES SHALL BE HOUSED IN APPROVED VALVE BOXES



PICK NOTCH

NOT TO SCALE



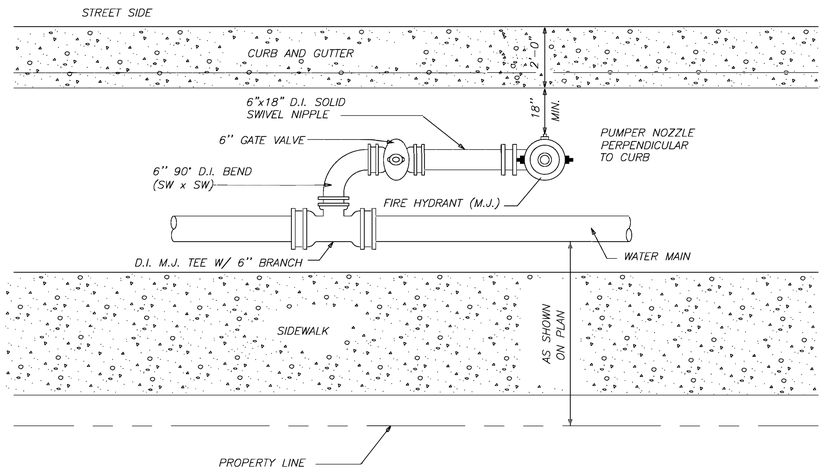
* NOTE:

1. ANYTHING LESS THAT 20' WILL BE DUCTILE IRON LOCKED TO THE VALVE.
2. ANYTHING MORE THAN 20' SHALL REQUIRE CONCRETE THRUST BLOCK BEHIND HYDRANT AGAINST UNDISTURBED SOIL.

FIRE HYDRANT ASSEMBLY DETAIL (TYPE 2)

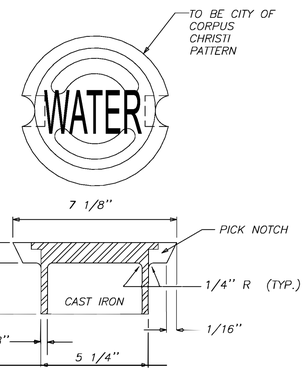
WATER LINE BEHIND CURB

NOT TO SCALE



FIRE HYDRANT ASSEMBLY DETAIL (TYPE 2)

NOT TO SCALE



LID DETAIL

NOT TO SCALE

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RELEASED FOR CONSTRUCTION

Bria A. Whitmire, P.E., CFM, CPM
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Juan Perales Jr., P.E. 04/11/2023

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KASPIAN SUBDIVISION UNIT 1
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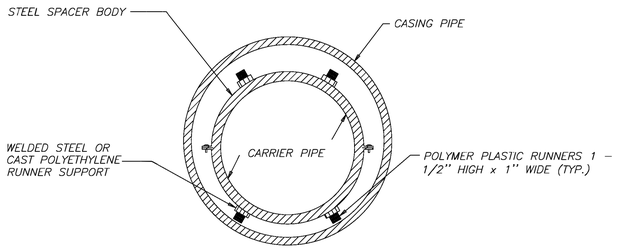
CITY OF CORPUS CHRISTI
WATER STANDARD DETAILS
FIRE HYDRANT, VALVE BOX AND LID

2 OF 4

SHEET 66 of 68
RECORD DRAWING NO.

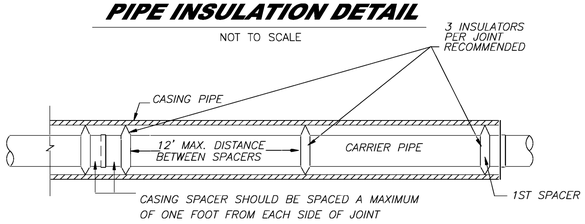
CITY PROJECT #

REVISION NO.	DATE	BY	DESCRIPTION



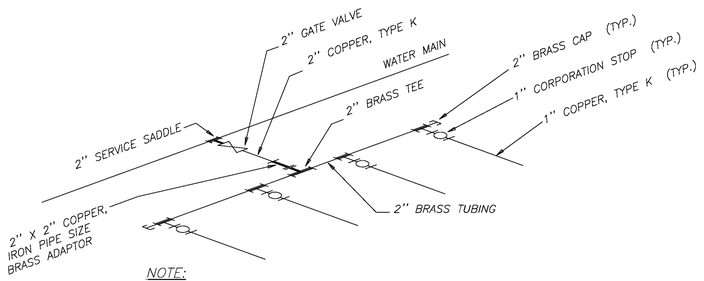
PIPE INSULATION DETAIL

NOT TO SCALE



INSULATOR SPACING DETAIL

NOT TO SCALE



NOTE:

MANIFOLDS LARGER THAN SIX CONNECTIONS WILL REQUIRE APPROVAL FROM THE CITY OF CORPUS CHRISTI WATER DEPARTMENT FOR ANOTHER WATER TAP AND SERVICE.

THREE TO SIX WATER CONNECTIONS

NOT TO SCALE

CASING SPACERS

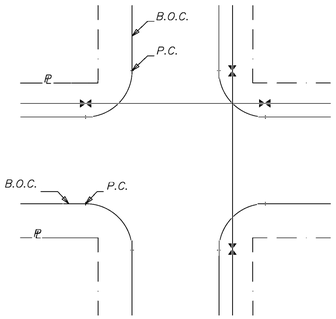
A. ALL CARRIER PIPE IN CASING INSTALLED BY JACKING OR BORING SHALL BE SUPPORTED BY BOLT–ON STYLE CASING SPACERS, AS MANUFACTURED BY ADVANCE PRODUCTS INC. OR ENGINEER APPROVED EQUAL.

B. CASING SPACERS FOR PIPE INSTALLED IN CASING SHALL HAVE A FUSION BONDED EPOXY CARBON STEEL BODY, NEOPRENE OR PVC LINER. STEEL SUPPORTS AND U.H.M.W. POLYETHYLENE RUNNERS.

C. CASING SPACERS SHALL BE SIZED TO SECURELY FASTEN ON TO THE CARRIER PIPE BARRIER O.D. AND SHALL BE FURNISHED WITH A MINIMUM RUNNER HEIGHT TO PREVENT THE PIPE FROM RESTING OR SLIDING ON ITS JOINTS DURING THE INSTALLATION.

1. POSITIONING OF SPACERS SHOULD ENSURE THAT THE CARRIER PIPE IS ADEQUATELY SUPPORTED THROUGHOUT ITS LENGTH.
2. SPACERS AT EACH END SHALL NOT BE FURTHER THAN 6" FROM THE END OF CASING REGARDLESS OF SIZE OF CASING AND CARRIER PIPE OR TYPE OF SPACER USED.

D. FOR PIPE WITH MECHANICAL JOINTS, FLANGES OR BELL AND SPIGOT JOINTS, CASING SPACERS SHALL BE INSTALLED WITHIN ONE FOOT ON EACH SIDE OF THE BELL OR FLANGE AND ONE IN THE CENTER OF THE JOINT WHEN 18 TO 20 FOOT LONG JOINTS ARE USED. MAXIMUM SPACING FOR SPACERS IS 12 FEET.

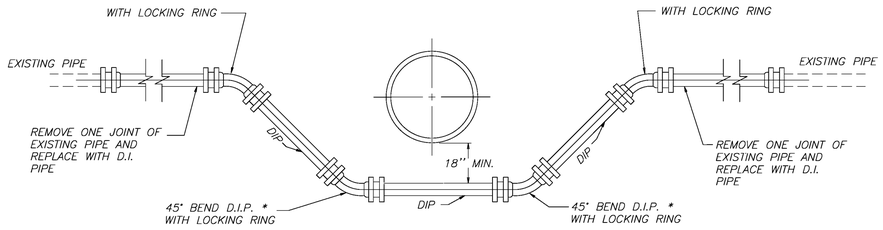


NOTE:

VALVES SHALL BE INSTALLED AT THE POINT OF CURVATURE (P.C.) OF THE CURB WHENEVER POSSIBLE.

TYPICAL VALVE INSTALLATION AT INTERSECTIONS

NOT TO SCALE



* ALL BENDS TO BE MECH. JOINT FITTING

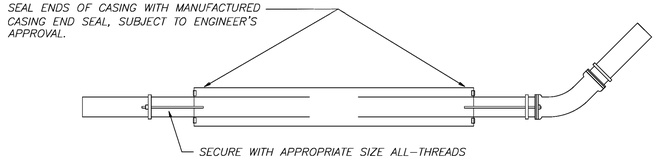
* ALL FITTINGS SHALL BE RESTRAINED BY MECHANICAL JOINT RESTRAINT DEVICE "MEGALUG" AS INDICATED BY PLANS AND SPECS., OR ENGINEER APPROVED EQUAL, AND CONCRETE THRUST BLOCK, AS DESIGNATED BY WATER DIVISION INSPECTOR

WATERLINE ADJUSTMENT DETAIL

NOT TO SCALE

NOTE:

SEE #18 UNDER GENERAL NOTES



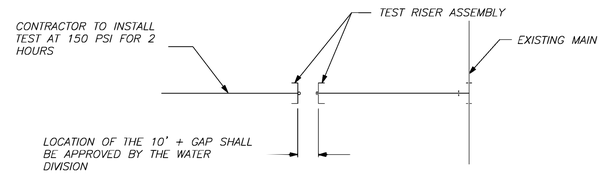
NOTE:

CASING SHALL BE STEEL.

TYPICAL CASING DETAIL

NOT TO SCALE

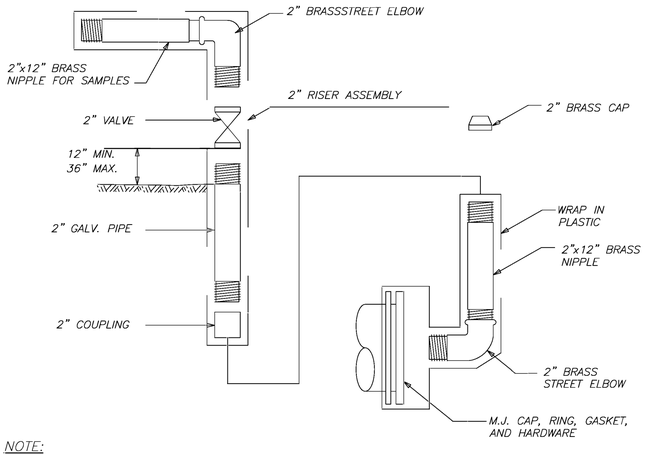
THE CONSTRUCTION DETAILS SHOWN HEREON ARE STANDARD CONSTRUCTION DETAILS DEVELOPED AND ADOPTED BY THE CITY OF CORPUS CHRISTI, AND BY THIS SEAL AND SIGNATURE ARE INCORPORATED INTO THE ATTACHED PLAN SET IN THEIR ENTIRETY WITHOUT CHANGE OR EDIT.



1. HYDROSTATIC TEST: WATER FOR FILLING THE NEW WATER LINE AND PERFORMING TESTS WILL BE FURNISHED TO THE CONTRACTOR BY THE CITY OF CORPUS CHRISTI THROUGH A STANDARD WATER CONSTRUCTION METER CONNECTION. STANDARD WATER CONSTRUCTION METER AND GAUGE WILL BE SUPPLIED BY THE CITY AFTER THE CONTRACTOR HAS PAID ALL APPLICABLE FEES FOR THE WATER CONSTRUCTION METER. THE TEST PUMP WITH APPROPRIATE CONNECTION POINTS AS APPROVED BY THE WATER SUPERINTENDENT FOR THE INSTALLATION OF METER AND GAUGE SHALL BE FURNISHED BY THE CONTRACTOR. THE METER SHALL BE DIRECTLY CONNECTED TO THE MAIN OR PIPE BEING TESTED BY THE USE OF COPPER TUBING OR AN APPROVED REINFORCED HOSE. THE METER SHALL BE PROTECTED AGAINST EXTREME PRESSURES BY THE USE OF A ONE (1") INCH SAFETY RELIEF VALVE SET AT THE TEST PRESSURE PLUS TEN POUNDS PER SQUARE INCH AND FURNISHED BY THE CITY (48 HOURS NOTIFICATION).
2. BACTERIOLOGICAL TEST: CONTRACTOR SHALL FURNISH AND INSTALL TEST RISER ASSEMBLY. AFTER BACTERIOLOGICAL SAMPLE PASSES TEST, CONTRACTOR SHALL REMOVE TEST RISER ASSEMBLIES AND TIE NEW SYSTEM TO EXISTING UNDER THE SUPERVISION OF THE WATER DIVISION INSPECTOR. CONTRACTOR SHALL FURNISH ALL MATERIALS, LABOR AND EQUIPMENT THAT IS REQUIRED TO MAKE TIE / CONNECTION. CONTRACTOR WILL SCHEDULE & COORDINATE WITH WATER DIVISION INSPECTOR ON DATE & TIME OF TIE–IN. (24 HOURS NOTIFICATION)
3. CONTRACTOR SHALL FURNISH AND INSTALL TAPPING SLEEVE OR SADDLE AND TAPPING GATE VALVE AND VALVE BOX COMPLETE. CITY TO MAKE TAP (72 HOURS NOTIFICATION)

DETAIL "A" TEST RISER ASSEMBLY CONNECTION

NOT TO SCALE



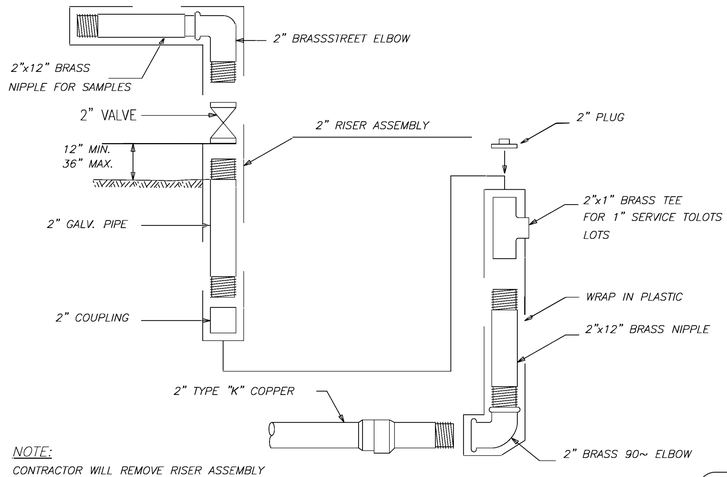
NOTE:

AFTER BACTERIOLOGICAL SAMPLE PASSES TEST, CONTRACTOR WILL REMOVE RISER ASSEMBLY AND INSTALL 2" BRASS CAP

DETAIL "B" TEST RISER ASSEMBLY

NOT TO SCALE

FURNISHED AND INSTALLED BY CONTRACTOR



NOTE:

CONTRACTOR WILL REMOVE RISER ASSEMBLY AND INSTALL 2" BRASS PLUG ON 2"x1" BRASS TEE AFTER SAMPLE PASSES

DETAIL "C" TEST RISER ASSEMBLY

NOT TO SCALE

FURNISHED AND INSTALLED BY CONTRACTOR

RELEASED FOR CONSTRUCTION

Bria A. Whitmire, P.E., CFM, CPM
Development Services Engineer
City of Corpus Christi

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CITY of CORPUS CHRISTI TEXAS
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KASPIAN SUBDIVISION UNIT 1
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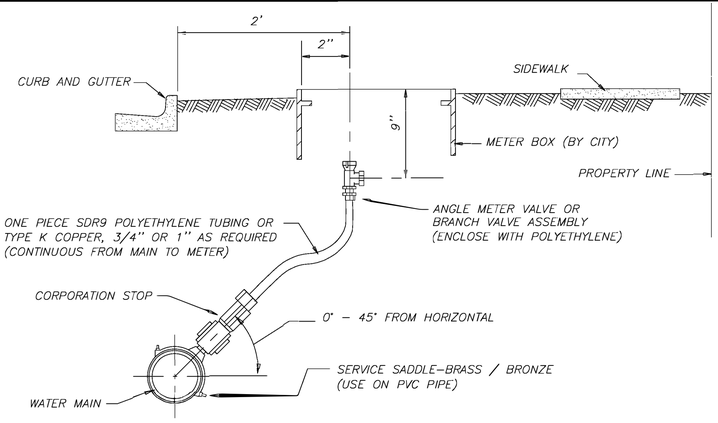
CITY OF CORPUS CHRISTI
WATER STANDARD DETAILS
ADJUSTMENTS, CASING DETAILS, RISER DETAILS & TYP. VALVE LAYOUT

3 OF 4

SHEET 67 of 68
RECORD DRAWING NO.

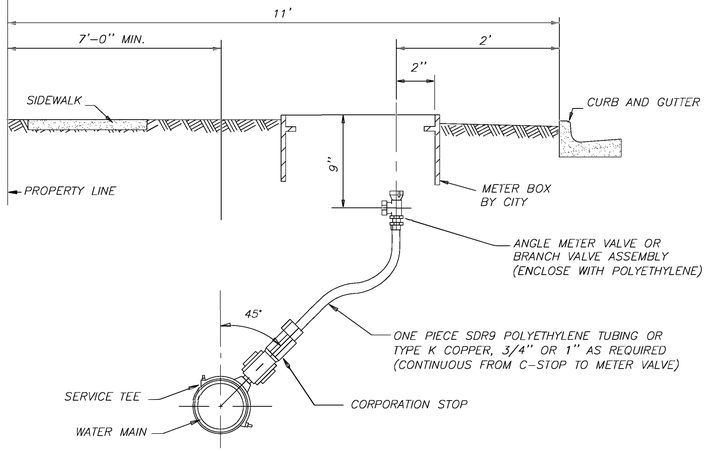
CITY PROJECT #

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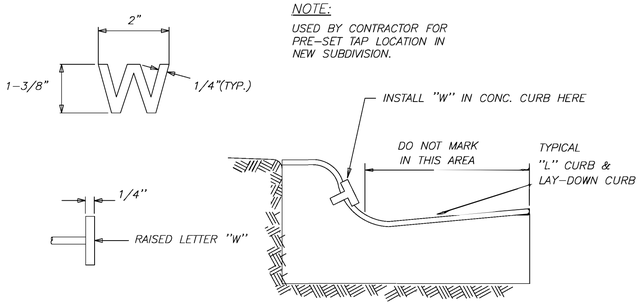
SERVICE WITH SIDEWALK

NOT TO SCALE



TYPICAL CUL-DE-SAC SERVICE

NOT TO SCALE



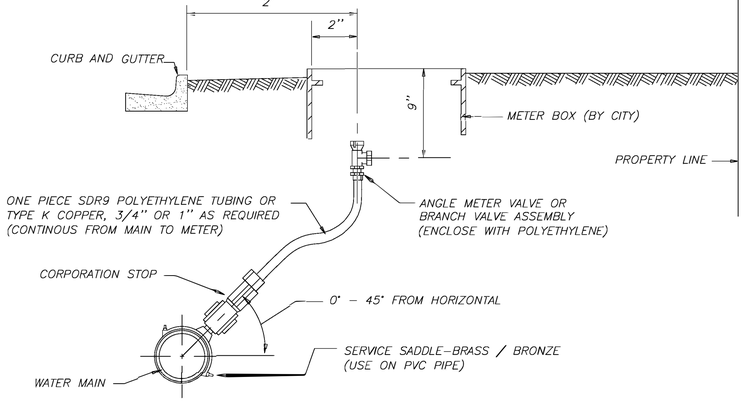
BRASS "W" DETAIL

MARKER LOCATION

PRE-SET SERVICE LINE MARKER DETAILS

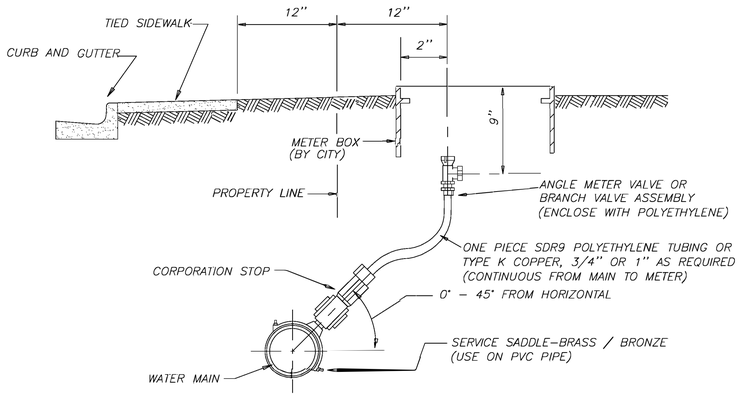
NOT TO SCALE

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SERVICE WITHOUT SIDEWALK

NOT TO SCALE

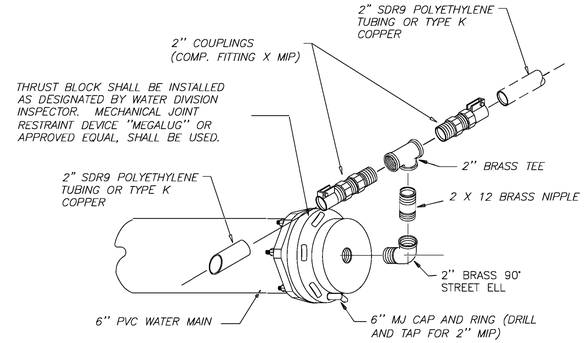


SERVICE WITH SIDEWALK TIED TO CURB

NOT TO SCALE

NOTES:

1. IF THERE IS LESS THAN 2' FROM BACK OF SIDEWALK TO PROPERTY LINE, THE METER BOX SHALL BE PLACED 1' BEHIND PROPERTY LINE AND UTILITY EASEMENT WILL BE REQUIRED.
2. IF THERE IS MORE THAN 2' FROM BACK OF SIDEWALK TO PROPERTY LINE, THE METER BOX SHALL BE PLACED BEHIND SIDEWALK.
3. THE WATER DIVISION WILL APPROVE ANY PLACEMENT OF A SERVICE LINE IN A TIEDISIDEWALK SITUATION.

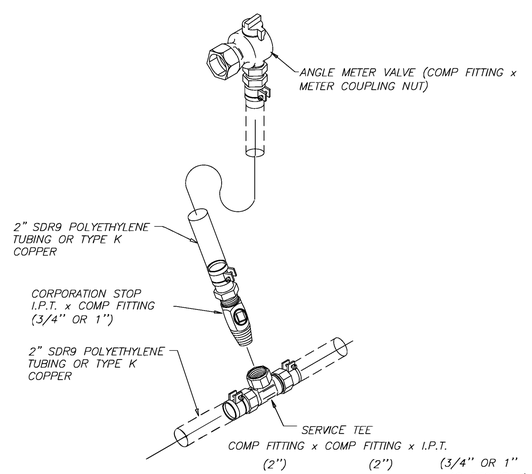


NOTE:

NO MORE THAN 3 LOTS SHALL BE SERVED PER LEG.

TYPICAL CONNECTION DETAIL

NOT TO SCALE



TYPICAL CONNECTION DETAIL

NOT TO SCALE

SERVICE LINE MATERIALS

SERVICE CLAMPS
FOR 3/4", 1", 1 1/2" I.P. THREAD TAPS FOR 6" MAINS; 2" I.P. THREAD CLAMP TAP CONNECTION ALLOWED FOR 8" AND LARGER MAINS.

CORPORATION STOPS
3/4", 1", 1 1/2". AND 2" REQUIRED WITH I.P. THREAD INLET BY COPPER COMPRESSION OUTLET WITH CLAMP – CORPORATION STOP REQUIRED AT ALL SERVICE TAPS.

ONE PIECE SDR9 POLYETHYLENE TUBING OR TYPE K COPPER
REQUIRED FOR ALL SERVICE LINES BETWEEN MAIN TO METER – SIZES REQUIRED 3/4", 1", 1 1/2", AND 2" (NO SPLICES ALLOWED)

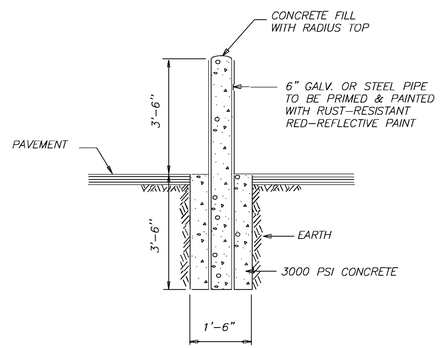
ANGLE METER STOP
REQUIRED AT ALL METERS – SIZES 3/4" & 1" – INSTALL 3/4" UNLESS DIRECTED OTHERWISE – COPPER COMPRESSION W/ CLAMP INLET BY METER COUPLING NUT OUTLET.

METER (BY OTHERS)
METER ADAPTER AND CHECK VALVE (BY OTHERS)
REQUIRED AT ALL METERS – SIZES 3/4" & 1" – INSTALL 3/4" UNLESS DIRECTED OTHERWISE – METER NUT INLET BY 3/4" MALE I.P. OUTLET.

ADAPTER COUPLING (BY OTHERS)
REQUIRED AT ALL METERS – 3/4" & 1" – FEMALE I.P. BY PVC COMPRESSION.

METER BOX
CAST IRON W/ HOT TAR DIP SHALL BE PROVIDED BY THE CONTRACTOR FOR 3/4" METER SETTINGS, IF EXISTING STRUCTURE DOES NOT HAVE ONE. BOXES FOR LARGER (1" & UP) METER SETTINGS SHALL BE FURNISHED BY THE CITY.

BRASS FITTINGS
BRASS FITTINGS SHALL COMPLY WITH A.W.W.A. C800–66 AND BE WRAPPED IN POLYETHYLENE.



NOTE:

DO NOT PLACE BOLLARD IN FRONT OF HOSE OUTLETS

BOLLARD DETAIL

NOT TO SCALE

RELEASED FOR CONSTRUCTION

Bria A. Whitmire, P.E., CFM, CPM
Development Services Engineer
City of Corpus Christi

Note: Construction Plans will expire based on the the conditions stated in UDC 3.8.5.F.

CONSULTANT'S SHEET No.

STATE OF TEXAS — JUAN PERALES, JR. — 66652 — REGISTERED PROFESSIONAL ENGINEER
Juan Perales Jr., P.E. 04/11/2023

J. Perales Civil Engineering and Planning Services
TBPE FIRM No. F-14207
jperales@jperalesengineering.com
P.O. BOX 260547
Corpus Christi, Texas 78426
Tel: (361) 728-7188

CITY of CORPUS CHRISTI
TEXAS
Department of Capital Programs

KASPIAN SUBDIVISION UNIT 1
CORPUS CHRISTI , TEXAS

CITY OF CORPUS CHRISTI
WATER STANDARD DETAILS
MAIN TO SERVICE DETAILS AND OTHERS

4 OF 4

SHEET 68 of 68
RECORD DRAWING NO.

CITY PROJECT #

REVISION NO.	DATE	BY	DESCRIPTION

EXHIBIT 4

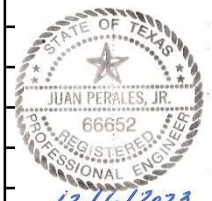
Exhibit 4

ENGINEER'S ESTIMATE OF REIMBURSABLE COSTS FOR

PUBLIC WATER IMPROVEMENTS

KASPIAN SUBDIVISION UNIT 1, CORPUS CHRISTI, TX

	Water Arterial Grid Main Construction					
	Item	Quantity	Unit	Unit Cost		Item Cost
1	16" PVC water line	3,990.00	L.F.	$ 190	$	758,100
2	16" Bevelled gear valve & valve box	9.00	Ea.	$ 20,500	$	184,500
3	16" x 16" x 16" M.J. tee	5.00	L.F.	$ 1,800	$	9,000
4	16" x 16" Tapping sadple, valve, & valve box	1.00	Ea.	$ 22,000	$	22,000
5	16" in line M.J. joint r(;!straints	10.00	Ea.	$ 500	$	5,000
6	16" x 12" M.J. reducer	1.00	Ea.	$ 1,200	$	1,200
7	16" x 8" M.J. reducer	1.00	Ea.	$ 800	$	800
8	16" x 6" M.J. reducer	3	Ea.	$ 800	$	2,400
9	16" M.J. cap	1.00	Ea.	$ 800	$	800
10	12" M.J. valve	1.00	Ea.	$ 2,400	$	2,400
11	811 M.J. valve	1.00	Ea.	$ 1,200	$	1,200
12	6" M.J. valve	3.00	Ea.	$ 1,000	$	3,000
13	Fire hydrant assembly	3.00	Ea.	$ 6,500	$	19,500
14	Trench protection	3,990.00	L.F.	$ 3	$	11,970
15	Stormwater Pollution Prevention	1.00	LS.	$ 7,500	$	7,500
				Sub-Total Construction Costs	$	1,029,370
				Engineering @ 8%	$	82,350
			Construction Staking	Supervision @ 2%	$	20,587
				TOTAL	$	1,132,307
				Contigency 10%	$	113,231
				Total Construction Cost	$	1,245,538



12/6/2023

Juan Perales, P.E.

EXHIBIT 5

DISCLOSURE OF INTERESTS

Development Services Department

2406 Leopard St. Corpus Christi, TX 78408 | Phone: 361.826.3240 | platapplication@cctexas.com

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: MST, LLC

STREET: 5626 Ocean Drive **CITY:** Corpus Christi **ZIP:** 78412

FIRM is: ☐ Corporation ☐ Partnership ☐ Sole Owner ☐ Association ■ Other LLC

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	Job Title and City Department (if known)
n/a	

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	Title
n/a	

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	Board, Commission, or Committee
n/a	

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	Consultant
n/a	

CERTIFICATE (To Be Notarized)

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: Hossein Mostaghasi Title: Senior Trust Officer

(Print)

Signature of Certifying Person: Date: 12/6/2023