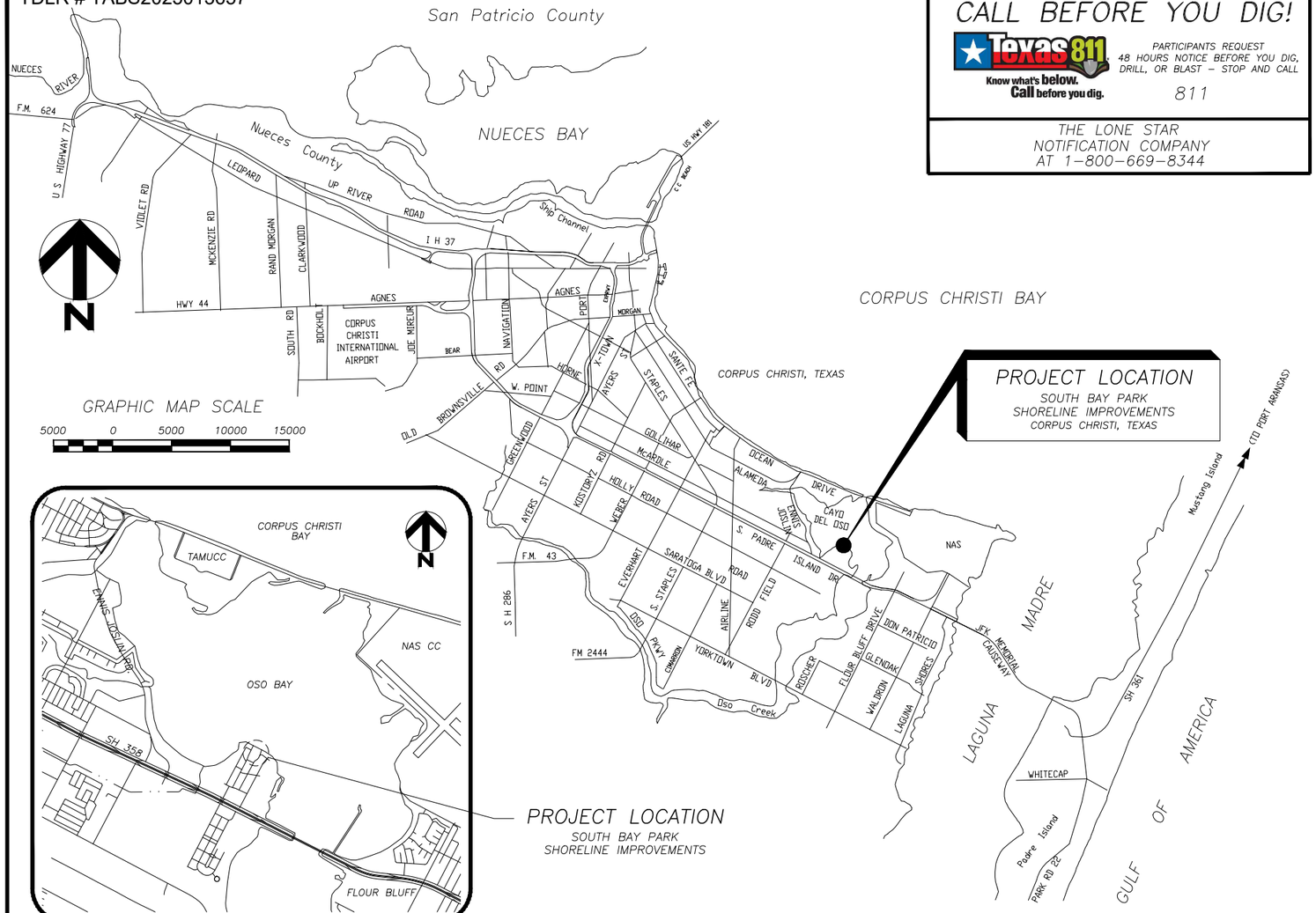
TDLR # TABS2025013657



VICINITY MAP
N.T.S

PLANS FOR

SOUTH BAY PARK
SHORELINE IMPROVEMENTS

PROJECT # 23035

PREPARED BY

HDR ENGINEERING INC.

CALL BEFORE YOU DIG!

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PARTICIPANTS REQUEST 48 HOURS NOTICE BEFORE YOU DIG, DRILL, OR BLAST – STOP AND CALL 811

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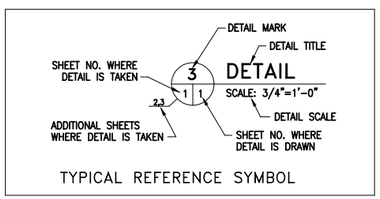

TYPICAL REFERENCE SYMBOL

APPROVED:

Director of Engineering Services — Date

PRINTED HALF-SIZE

UPDATED: 3/10/2026

REVISION NO.	DATE	BY	DESCRIPTION
--	03/10/2026	DJH	INTERIM CHECK PLOT (PRE-FINAL DESIGN, PRE-NOA)
B	02/2025	DJH	90% PRELIMINARY DESIGN REVIEW
A	10/2024	DJH	60% PRELIMINARY DESIGN REVIEW

CONSULTANT'S SHEET NO.
00G-01

100% DESIGN, PRE-NOA PRELIMINARY

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF INTERIM REVIEW AND SHALL NOT BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

ENGINEER: DANIEL J. HEILMAN
LICENSE NO.: 86936
DATE: 03/10/2026

HDR
TBPELS Firm Registration No. F-754
Project No. 10400452

CITY of CORPUS CHRISTI
TEXAS
Department of Engineering Services

SOUTH BAY PARK
SHORELINE IMPROVEMENTS

COVER SHEET

SHEET 01 of 26
RECORD DRAWING NO.
CP-XXX
CITY PROJECT # 23035

GENERAL NOTES:

1. EXCEPT WHERE OTHERWISE NOTED, AERIAL PHOTOGRAPHY SHOWN ON THESE DRAWINGS WAS OBTAINED BY GOOGLE EARTH PRO, VERSION 7.3.6.9796, DATED JANUARY 2024.
2. U.S. ARMY CORPS OF ENGINEERS PERMIT FOR THIS PROJECT IS INCLUDED IN APPENDIX 1 OF THE SPECIFICATIONS. CONTRACTOR SHALL BE FAMILIAR WITH THE REQUIREMENTS OF THIS PERMIT.
3. GEOTECHNICAL INVESTIGATION WAS PERFORMED DURING SEPTEMBER 2023 BY ROCK ENGINEERING AND TESTING LABORATORY. REFER TO APPENDIX 2 IN THE SPECIFICATIONS FOR GEOTECHNICAL INFORMATION.
4. NOT ALL EXISTING UTILITIES, PIPELINES, STRUCTURES, AND OTHER OBSTRUCTIONS ARE SHOWN. CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS PRIOR TO COMMENCING CONSTRUCTION ACTIVITIES.
5. CONTRACTOR SHALL TAKE MEASURES TO PROTECT EXISTING IMPROVEMENTS ADJACENT TO AND WITHIN THE WORK AREA, INCLUDING CONSTRUCTION ACCESS POINTS. ANY RUTTING OR STRUCTURAL DAMAGE CAUSED BY CONTRACTOR'S ACTIVITIES SHALL BE REPAIRED AT THE EXPENSE OF CONTRACTOR TO THE SATISFACTION OF OWNER. CONTRACTOR SHALL REPAIR AND REPLACE PAVEMENT SECTIONS, STREET SECTIONS, SIDEWALK, FENCES, UTILITY POLES, TREES, AND ANY OTHER EXISTING FEATURES DAMAGED DURING CONSTRUCTION.
6. ALL WORK AREAS SHALL BE SECURED AND SURROUNDED BY CONSTRUCTION BARRICADES, SAFETY FENCE, AND OTHER MEASURES SELECTED BY CONTRACTOR AS NECESSARY TO PROTECT THE PUBLIC. FLAGMEN SHALL DIRECT TRAFFIC AT LOCATIONS WHERE TRUCKS ENTER AND EXIT PUBLIC STREETS.
7. CONTRACTOR SHALL TAKE PRECAUTIONS AND SECURE EQUIPMENT AGAINST ADVERSE WEATHER AND MARINE CONDITIONS.
8. CONSTRUCTION EQUIPMENT SHALL NOT OPERATE ON PRIVATE PROPERTY OR OUTSIDE DESIGNATED WORK LIMITS.
9. INGRESS AND EGRESS OF CONTRACTOR'S VEHICLES SHALL BE KEPT TO A MINIMUM. ALL VEHICLES SHALL USE COMMON PATHWAYS WHENEVER POSSIBLE.
10. CONTRACTOR MAY USE AREA SHOWN ON SHEET 3 FOR STAGING EQUIPMENT. PROPOSED LIMITS OF STAGING AREA AND CONSTRUCTION ACCESS CORRIDOR SHALL BE STAKED BY CONTRACTOR FOR REVIEW BY OAR PRIOR TO USE OF STAGING AREA. STAGING AREA(S) SHALL BE DELINEATED BY SILT FENCE AS MAY BE REQUIRED BY STORM WATER POLLUTION PREVENTION PLAN. CONTRACTOR SHALL PROVIDE A CHAIN LINK FENCE TO PROMOTE ADDED SECURITY AND/OR PUBLIC SAFETY. ANY SILT FENCE AND/OR CHAIN LINK FENCE THAT IS CONSTRUCTED SHALL BE PROVIDED AT NO ADDITIONAL COST TO OWNER. UPON COMPLETION OF CONSTRUCTION, STAGING AREA(S) SHALL BE LEFT IN EQUAL OR BETTER CONDITION THAN EXISTED PRIOR TO WORK.
11. CONTRACTOR SHALL PLACE AND MAINTAIN TEMPORARY SEDIMENT CONTROL PADS AT ALL CONSTRUCTION EXITS WHERE TRUCKS WILL ACCESS PUBLIC ROADWAYS. SEDIMENT CONTROL PADS SHALL CONSIST OF 4" TO 8" COARSE AGGREGATE OR OTHER MATERIAL APPROVED BY OAR. PADS SHALL BE REMOVED AT COMPLETION OF WORK AND NATURAL GROUND SHALL BE RESTORED BY GRADING AND SEEDING.
12. REFER TO GENERAL CONDITIONS FOR RESTRICTIONS ON WORKING HOURS. NOISE SHALL BE MINIMIZED FROM 7:00 PM THROUGH 7:00 AM. WORK BEFORE 7:00 AM AND AFTER 7:00 PM SHALL BE PLANNED TO MINIMIZE NOISE FROM BACKUP ALARMS, PROLONGED IDLING OF EQUIPMENT, AND OTHER EQUIPMENT THAT MAY DISTURB THE PUBLIC. LIGHTING SHALL BE KEPT TO A MINIMUM AND SHALL NOT BE DIRECTED TOWARDS ADJACENT HOUSES.
13. EXISTING UTILITIES SHOWN ON THE DRAWINGS ARE BASED ON A COMBINATION OF INFORMATION OBTAINED FROM THE SURVEY, EXISTING CITY BASE MAPS, EXISTING G.I.S. BASE MAPS, AND RECORD DRAWINGS, AND ARE PROVIDED FOR INFORMATIONAL PURPOSES ONLY. THE ACCURACY AND COMPLETENESS OF SUCH INFORMATION IS NOT GUARANTEED. IT IS THE CONTRACTOR'S SOLE AND COMPLETE RESPONSIBILITY TO INVESTIGATE AND LOCATE ALL UNDERGROUND UTILITIES AND STRUCTURES SUFFICIENTLY IN ADVANCE OF TRENCHING AND EXCAVATION OPERATIONS TO AVOID DAMAGING EXISTING UTILITIES OR CAUSING UNNECESSARY DELAYS. THIS INCLUDES EXPOSING UTILITY TIE-INS AND CROSSINGS FOR VERIFICATION PRIOR TO LAYING NEW LINES. THERE SHALL BE NO SEPARATE PAYMENT FOR THE EXPLORATORY EXCAVATIONS, WHICH ARE SUBSIDIARY TO THE COST OF THE RELATED UTILITY OR APPLICABLE FEATURE.
14. WHERE THE CONCRETE WORK IS TO MATCH EXISTING SIDEWALK, THE CONTRACTOR SHALL SAW CUT AND PROVIDE AN EXPANSION JOINT AS SHOWN ON PLANS. IN CASE OF AN EXISTING EXPANSION JOINT LOCATED CLOSE TO PROPOSED TIE-IN POINT, THE CONTRACTOR SHALL EXTEND OR SHORTEN TRANSITIONS TO MATCH EXISTING EXPANSION JOINTS ONLY AS DIRECTED BY THE OAR. WHEN CONSTRUCTING CONCRETE SIDEWALK ADJACENT TO EXISTING CONCRETE STRUCTURES WITH DOWELS OR REBAR TIES, A MINIMUM OF 8" OF THE EXISTING DOWELS OR REBAR SHOULD BE TIED INTO THE PROPOSED SIDEWALK OR CURB. IF 8 INCHES WAS UNABLE TO BE PRESERVED OR IF NO TIE BARS EXISTED, DRILL INTO THE EXISTING CONCRETE SIDEWALK OR CURB A MINIMUM OF 8 INCHES TO ACCOMMODATE #3 TIE BARS. THE TIE BAR SPACING SHALL CONFORM TO THE APPROPRIATE CONCRETE DETAIL REQUIREMENTS SHOWN ON THE COCC STANDARD CURB, GUTTER AND SIDEWALK DETAILS UNLESS DIRECTED OTHERWISE BY THE OAR. ACCOMMODATION OF EXISTING TIE BARS AND DRILLING INTO CONCRETE STRUCTURES IS NOT PAID FOR DIRECTLY BUT IS SUBSIDIARY TO THE PERTINENT BID ITEMS.
15. EXPANSION JOINTS & TRANSVERSE GROOVES SHALL BE MADE STRAIGHT & PERPENDICULAR TO THE PROPOSED CONCRETE WORK.
16. ANY CLEARING, GRUBBING AND SUBSEQUENT DISPOSAL WITHIN THE WORK AREA TO FACILITATE INSTALLATION SHALL BE INCLUDED IN THE UNIT PRICE BID FOR EACH PERTINENT BID ITEM.
17. GROUNDWATER AT THE SITE WILL VARY DEPENDING ON RAINFALL AND SUBSURFACE CONDITIONS. THERE SHALL NOT BE ANY ADDITIONAL PAYMENT OR EXTENSION OF CONTRACT TIME FOR WORKING WITH SATURATED SOILS OR HANDLING GROUNDWATER SEEPAGE DUE TO RAINFALL, RUNOFF AND INFILTRATION.

SURVEY NOTES:

1. TOPOGRAPHIC AND BATHYMETRIC SURVEYING WAS PERFORMED BY CIVILCORP DURING 2023 AND 2024. THESE DRAWINGS REPRESENT THE CONDITIONS THAT EXISTED AT THE TIMES OF THE SURVEYS.
2. COORDINATES SHOWN ARE IN U.S. FEET AND REFERENCED TO STATE PLANE, TEXAS SOUTH ZONE, NAD '83.
3. ELEVATIONS SHOWN ARE IN FEET AND REFERENCED TO NAVD '88 (GEOID 18) .
4. THE FOLLOWING SHALL BE APPLIED AS SURVEY CONTROL FOR THE REQUIRED WORK UNDER THIS PROJECT (SEE SHEET 3 FOR LOCATION):

IDENTIFICATION	NORTHING	EASTING	ELEVATION (NAVD '88)	LOCATION
SO 70	17,141,863.26'	1,366,816.04'	9	TOP OF CONCRETE SLAB

SURVEY CONTROL EMPLOYED DURING CONSTRUCTION SHALL MATCH CONTROL PUBLISHED IN THESE CONTRACT DOCUMENTS. NO OTHER SURVEY CONTROL SHALL BE CONSIDERED OR APPLIED WITHOUT ENGINEER'S CONCURRENCE. TO MAINTAIN CONSISTENCY BETWEEN PROJECT DESIGN AND CONSTRUCTED WORK, UPDATES, CORRECTIONS, OR OTHER CHANGES PUBLISHED BY NGS AND/OR OTHER ENTITIES FOR THESE CONTROL MONUMENTS SHALL NOT BE APPLIED WITHOUT WRITTEN CONCURRENCE FROM ENGINEER.

5. CONTRACTOR SHALL VERIFY ACCURACY OF SURVEY CONTROL MONUMENTS PRIOR TO CONSTRUCTION. IMMEDIATELY REPORT ANY DISCREPANCIES TO ENGINEER.
6. THE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION (NOAA) PROVIDES THE FOLLOWING TIDAL STATISTICS FOR THE PROJECT REGION. CONTRACTOR SHALL BE AWARE THAT ACTUAL DAILY TIDES MAY VARY BY SEVERAL FEET FROM THESE STATISTICAL TIDES DUE TO METEOROLOGICAL FORCES SUCH AS WIND.

DATUM	ELEVATION, FT. (NAVD)	
	NOAA 8775792 PACKERY CHANNEL	NOAA 8775296 USS LEXINGTON
MHHW	+0.79'	+0.82'
MSL	+0.59'	+0.76'
MLLW	+0.37'	+0.42'

BEACH NOURISHMENT NOTES:

1. ALL BEACH FILL MATERIAL SHALL BE PLACED WITHIN THE LINES AND GRADES SHOWN FOR THE BEACH NOURISHMENT AREA AS SHOWN ON SHEET 12
2. ALL BEACH FILL MATERIAL SHALL BE TRANSPORTED TO THE PROJECT SITE IN TRUCKS. DELIVERY BY BARGES IS NOT PERMITTED.
3. THE FINISHED BEACH SURFACE SHALL BE SMOOTHLY AND UNIFORMLY GRADED AND DRESSED TO ELIMINATE HUMPS AND DEPRESSIONS. DRESSING THE FILL BELOW THE WATER LINE IS NOT REQUIRED. CONSTRUCTION TOLERANCE FOR BEACH NOURISHMENT CREST ELEVATION IS +/- 0.2 FT.
4. REFER TO SHEET 12 FOR BEACH NOURISHMENT CONSTRUCTION TEMPLATE.

STORM WATER:

1. ALL CURB INLETS SHALL HAVE A 5' THROAT, UNLESS NOTED OTHERWISE.
2. ALL STORM WATER PIPE SHALL BE CLASS III REINFORCED CONCRETE PIPE WITH TYPE B WALL, TONGUE AND GROOVE JOINTS PER ASTM C76.
3. TIES OR CONNECTIONS OF PROPOSED STORM WATER LINES TO EXISTING STRUCTURES SHALL NOT BE PAID FOR DIRECTLY BUT CONSIDERED SUBSIDIARY TO THE VARIOUS BID ITEMS.
4. ALL STORM WATER LINE JUNCTIONS SHALL BE CONSTRUCTED UTILIZING CITY OF CORPUS CHRISTI STANDARD MANHOLES OR INLETS, AS SHOWN ON THE PLAN SHEETS.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING STORM WATER DRAINAGE BETWEEN COMPLETED SECTIONS AND EXISTING SECTIONS DURING CONSTRUCTION OPERATIONS.
6. THE SEDIMENT AND STORM WATER POLLUTION CONTROL MEASURES SHALL CONSIST OF USING THE BID ITEM "SILT FENCE" AS SHOWN ON THE PLANS AND DETAILS. IF INLETS AND MANHOLES ARE BUILT IN STAGES, SILT FENCE SHALL BE PLACED AROUND THE STRUCTURE, ONCE IN PLACE SILT FENCE MUST REMAIN IN PLACE UNTIL REMOVAL IS APPROVED BY OAR.
7. ALL SWPPP BMP's SHALL REMAIN IN PLACE THROUGHOUT THE PROJECT DURATION, AS REQUIRED BY THE TCEQ TPDES GENERAL PERMIT TXR150000. HOWEVER, IN CASE OF DAMAGING FLOOD DUE TO SIGNIFICANT RAIN EVENT, THE CONTRACTOR SHALL NOTIFY THE OAR IMMEDIATELY AND SHALL TEMPORARILY REMOVE, IF SO DIRECTED BY THE OAR, ANY SWPPP BMP MATERIALS USED THAT RESTRICT PROPER DRAINAGE WITHIN AND SURROUNDING PROJECT LIMITS. THIS WORK SHALL NOT BE PAID FOR DIRECTLY BUT CONSIDERED SUBSIDIARY TO THE VARIOUS BID ITEMS
8. THE CITY OF CORPUS CHRISTI RESERVES THE RIGHT TO DIRECT THE CONTRACTOR TO REMOVE ALL SILT FENCE AND/OR SWPPP ITEMS IN ANTICIPATION OF A SIGNIFICANT RAIN EVENT. FOLLOWING THIS EVENT THE CONTRACTOR WILL BE RESPONSIBLE TO RE-INSTALL ALL DAMAGED AND/OR REMOVED ITEMS. THIS WORK WILL NOT BE PAID FOR DIRECTLY BUT CONSIDERED SUBSIDIARY TO THE VARIOUS BID ITEMS.
9. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING ADEQUATE DRAINAGE DURING ALL PHASES OF CURB INLET INSTALLATION UNTIL FINAL HMAC SURFACE IS PLACED.
10. CEMENT STABILIZED BACKFILL IS NOT A PAY ITEM, AND SHALL BE SUBSIDIARY TO THE APPROPRIATE BID ITEMS.
11. ALL INCOMPLETE STORM WATER INLETS LEFT OVERNIGHT SHALL BE ENCLOSED WITH ORANGE SAFETY FENCE.
12. PIPE JOINTS FOR STORM DRAINAGE PIPE ON THIS PROJECT SHALL BE WRAPPED. THE WRAP SHALL BE AT LEAST 2 FEET WIDE AND SHALL BE CENTERED ON EACH JOINT. GEOTEXTILE FOR WRAPPING JOINTS SHALL BE CLASS 1 GEOTEXTILE FOR SUBSURFACE DRAINAGE WITH AN AVERAGE OPENING SIZE, AOS, OF .22 MM. AND IN ACCORDANCE AASHTO M288.
13. THE USE OF COLLARS FOR STORM WATER TIE INS ARE CONSIDERED SUBSIDIARY.

UPDATED: 3/10/2026

RAMP NOTES:

GENERAL CONSTRUCTION NOTES:

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADEQUATE DESIGN AND CONSTRUCTION OF ALL FORMS, SHORING AND TEMPORARY BRACING. THE CONTRACTOR SHALL PROVIDE ALL MEASURES NECESSARY TO PROTECT THE STRUCTURE AND SAFETY OF WORKERS DURING CONSTRUCTION.
   A. DO NOT PLACE CONSTRUCTION MATERIALS OR OTHER CONSTRUCTION LOADS ON THE STRUCTURE SUCH THAT THE LOADS PLACED EXCEED THE CAPACITY OF STRUCTURE. THE RAMP STRUCTURE IS DESIGNED FOR A 100 PSF LIVE LOAD.
   B. THE FULL STRUCTURAL CAPACITY OF MANY STRUCTURAL MEMBERS IS NOT REALIZED UNTIL STRUCTURAL ASSEMBLY IS COMPLETE. THE RAMP BEAMS REQUIRE TEMPORARY BRACING UNTIL THE SLAB HAS BEEN IN PLACE FOR AT LEAST 3 DAYS.
   C. PROVIDE TEMPORARY BRACING AND GUYING TO PROVIDE STABILITY AND RESIST ALL LOADS TO WHICH THE PARTIALLY COMPLETE STRUCTURE MAY BE SUBJECTED, INCLUDING ERECTION EQUIPMENT AND ITS OPERATION. ADEQUACY OF TEMPORARY BRACING AND GUYING FOR THIS PURPOSE IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

CONCRETE AND REINFORCING:

1. VERTICAL FACES OF PIER CAPS, GRADE BEAMS, AND PILASTERS SHALL BE FORMED EXCEPT WHERE NOTED OTHERWISE.
2. LOCATION OF CONSTRUCTION JOINTS OR POUR JOINTS SHALL BE AS INDICATED ON APPROVED SHOP DRAWINGS.
3. ALL CONCRETE SHALL BE VIBRATED DURING PLACEMENT.
4. NO STAKES, STEEL OR WOOD SHALL BE PERMITTED IN ANY CONCRETE POUR. SUSPEND FORMS FROM ABOVE GRADE.
5. ANCHOR RODS, DOWELS, REINFORCING STEEL, INSERTS, ETC., SHALL BE SECURELY TIED IN PLACE PRIOR TO POURING CONCRETE. CONCRETE BLOCKS ONLY SHALL BE USED TO SUPPORT REINFORCING OFF GRADE.
6. ALL REINFORCEMENT SHALL BE DETAILED, FABRICATED AND PLACED IN ACCORDANCE WITH ACI. TOP BARS IN BEAMS AND SLABS SHALL BE SPLICED AT MIDSPAN BETWEEN SUPPORTS, UNO. BOTTOM BARS IN BEAMS AND SLABS SHALL BE SPLICED AT SUPPORTS, UNO.
7. CORING OF SLABS, BEAMS, AND COLUMNS IS NOT PERMITTED. PROVIDE SLEEVES FOR ALL PENETRATIONS PRIOR TO PLACING CONCRETE.
8. REQUIRED SUBMITTALS FOR CONCRETE AND REINFORCING LISTED BELOW. REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS FOR THESE SUBMITTALS.
   - CONCRETE MIX DESIGNS
   - PIER REPORTS
   - PIER REINFORCING
   - RAMP REINFORCING-WALLS AND SLAB
   - STEEL EMBEDS
   - HANDRAIL SUBMITTAL WITH CALCULATIONS (DELEGATED DESIGN)
   - PENETRATIONS THROUGH STRUCTURE
   - PROPOSED CONSTRUCTION JOINT LOCATIONS (POUR SEQUENCING)

CONCRETE EXPOSURE CLASSES:
F0, S1, W2 & C2

CONCRETE MIX DESIGN REQUIREMENTS:

CEMENT TYPE:	II (ASTM C150)
MINIMUM f'c:	5000 PSI
MAXIMUM w/cm:	0.40
MAXIMUM WATER SOLUBLE CHLORIDE ION CONTENT:	0.15
AIR CONTENT:	4.5%
MAXIMUM AGGREGATE SIZE:	1 IN
MINIMUM CONCRETE SLUMP FOR PIERS:	5-7 IN
MINIMUM CONCRETE SLUMP FOR BEAMS/SLABS	4-6 IN
CLEAR COVER:	
SLABS:	
BOTTOM= 2IN	
SIDES= 2IN	
TOP= 1 1/2IN	
BEAMS:	
BOTTOM= 3IN	
SIDES= 3IN	
TOP= 2IN	
PIER:	
TOP, BOTTOM & SIDES= 3IN	

ITEM	DESCRIPTION	UNIT	ESTIMATED
	BASE BID		
PART A - GENERAL (PER SECTION 01 29 01 MEASUREMENT AND BASIS FOR PAYMENT)			
A1	MOBILIZATION (MAX. 15% OF PART A)	AL	1
A2	BONDS & INSURANCE	AL	1
A3	CONSTRUCTION SURVEYS	LS	1
A4	AERIAL PHOTOGRAPHY	LS	1
A5	STORM WATER POLLUTION PREVENTION	LS	1
A6	DEMOLITION, REMOVAL, AND DISPOSAL	LS	1
A7	SITE FILLING	CY	250
A8	SITE GRADING	SY	6,000
A9	BLOCK SODDING	SY	6,000
PART B - ACCESSIBILITY IMPROVEMENTS (PER SECTION 01 29 01 MEASUREMENT AND BASIS FOR PAYMENT)			
B1	MOBILIZATION (MAX. 15% OF PART B)	AL	1
B2	6 FT WIDE CONCRETE SIDEWALK	SF	2,870
B3	WALKWAY RAMP (EXCLUDING DRILLED PIERS)	SF	375
B4	WALKWAY RAMP (DRILLED PIERS)	LF	224
B5	ALLOWANCE FOR UNANTICIPATED ACCESSIBILITY IMPROVEMENTS	AL	1
PART C - STORM WATER IMPROVEMENTS (PER SECTION 01 29 01 MEASUREMENT AND BASIS FOR PAYMENT)			
C1	MOBILIZATION (MAX. 15% OF PART C)	AL	1
C2	DEMOLITION AND REMOVAL OF EXISTING INLET OR MANHOLE	EA	1
C3	DEMO, REMOVE, AND BACKFILL EXISTING REINF CONCRETE PIPES (12" & 18")	LF	450
C4	4' X 4' STANDARD POST INLET	EA	2
C5	24" DIAMETER REINFORCED CONCRETE PIPE (CLASS III)	LF	235
C6	TRENCH SAFETY (STORM WATER INLETS AND MANHOLES)	EA	2
C7	TRENCH SAFETY (STORM WATER LINE)	LF	235
C8	CONNECT TO EXISTING PIPE	EA	1
C9	ALLOWANCE FOR UNANTICIPATED STORM WATER IMPROVEMENTS	AL	1
PART D - SHORELINE IMPROVEMENTS (PER SECTION 01 29 01 MEASUREMENT AND BASIS FOR PAYMENT)			
D1	MOBILIZATION (MAX. 15% OF PART D)	AL	1
D2	ABM REVETMENT	LF	270
D3	GRADED RIPRAP GROINS WITH CONCRETE CAPS	EA	2
D4	ADDITIONAL GRADED RIPRAP	LS	1
D5	BEACH NOURISHMENT	CY	2,235
D6	DAYBEACONS	EA	2
D7	ALLOWANCE FOR UNANTICIPATED SHORELINE IMPROVEMENTS	AL	1

LEGEND:

	SURVEY CONTROL POINT
+7.3	EXISTING SPOT ELEVATION, FT.
	SOIL BORING
	ELEVATION
SA-4	STAGING AREA POINTS
	EXISTING LIGHT POLE
	APPROXIMATE EXISTING GRADE
	CONSTRUCTION ACCESS AND WORK BOUNDARY
W	EXISTING WATER LINE
G	EXISTING GAS LINE
T	EXISTING TELEPHONE LINE
SAN	EXISTING SANITARY SEWER LINE
SD	EXISTING STORM DRAIN
OHE	EXISTING OVERHEAD ELECTRICAL LINE
-8	ELEVATION CONTOURS
	FEMA VELOCITY ZONE
	TEMPORARY SILT FENCE
	PROPOSED STORM DRAIN
	ABM (SECTION)
	CONSTRUCTION ACCESS ROUTE
	EXISTING GRADE
	BEACH NOURISHMENT PLACEMENT AREA
	STAGING AREA
	GRADED RIPRAP
	ARTICULATED BLOCK MATS
	EXISTING WALKWAY
	NEW WALKWAY
	GROIN CAP
	DEMOLITION AND REMOVAL
	EXCAVATION
	SAND FILL (BEACH NOURISHMENT)
	FILL

ABM	ARTICULATING BLOCK MAT
ALT.	ALTERNATE
APPROX.	APPROXIMATE
CJ	CONTROL JOINT
CMP	CORRUGATED METAL PIPE
CONT	CONTINUOUS
DWL	DOWEL
EL.	ELEVATION
ELEV.	ELEVATION
EW	EACH WAY
GRR	GRADED RIPRAP
HORIZ	HORIZONTAL
MIN.	MINIMUM
N.I.C.	NOT IN CONTRACT
N.T.S.	NOT TO SCALE
OAR	OWNER'S AUTHORIZED REPRESENTATIVE
REINF	REINFORCING
T&B	TOP & BOTTOM
TOC	TOP OF CONCRETE
TYP.	TYPICAL

PRINTED HALF-SIZE

REVISION NO.	DATE	BY	DESCRIPTION
--	03/10/2026	DJH	INTERIM CHECK PLOT (PRE-FINAL DESIGN, PRE-NOA)
B	02/2025	DJH	90% PRELIMINARY DESIGN REVIEW
A	10/2024	DJH	60% PRELIMINARY DESIGN REVIEW

CONSULTANT'S SHEET NO.
00G-02

100% DESIGN, PRE-NOA PRELIMINARY

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ENGINEER: DANIEL J. HEILMAN
LICENSE NO.: 86936
DATE: 03/10/2026

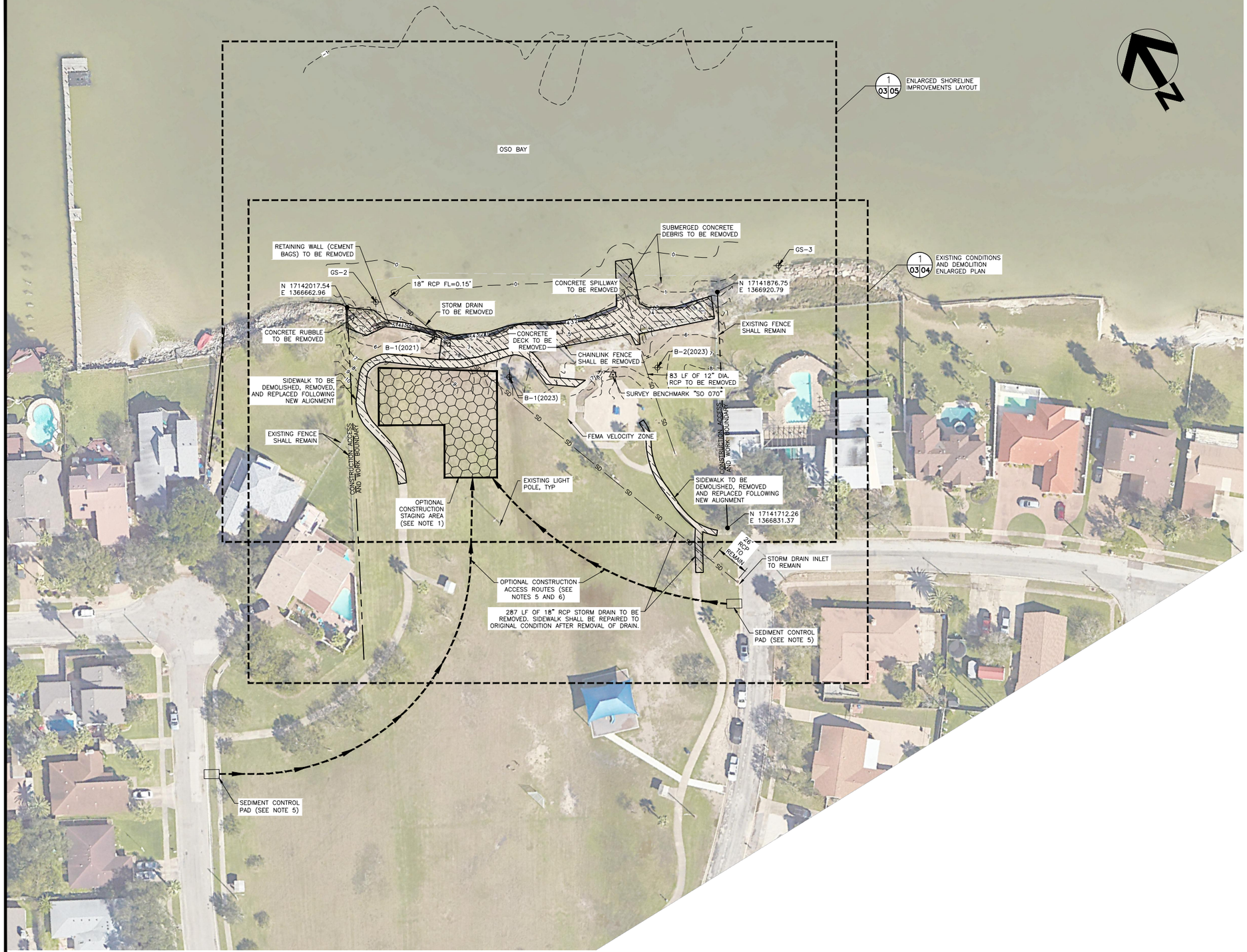
FTR
TBPELS Firm Registration No. F-754
Project No. 10400452

CITY of CORPUS CHRISTI
TEXAS
Department of Engineering Services

SOUTH BAY PARK
SHORELINE IMPROVEMENTS

GENERAL NOTES AND LEGEND

SHEET 02 of 26
RECORD DRAWING NO.
CP-XXX
CITY PROJECT #23035



NOTES:

1. CONTRACTOR MAY USE OPTIONAL CONSTRUCTION STAGING AREA SHOWN ON THIS SHEET. REFER TO NOTES ON SHEET 2 FOR STAGING AREA AND CONSTRUCTION ACCESS CORRIDOR REQUIREMENTS.
2. DEMOLISH, REMOVE, AND DISPOSE EXISTING CONCRETE RUBBLE, SLABS, PIPES, TIE-BACK RODS, PVC PIPE, BRICK, AND OTHER DEBRIS ALONG THE SHORELINE WITHIN THE LIMITS OF THE REQUIRED WORK. REFER TO SPECIFICATION SECTION 02 10 80 (REMOVING ABANDONED STRUCTURES) FOR ADDITIONAL REQUIREMENTS.
3. PLACE SURPLUS AND IMPORTED SOIL AS FILL IN ANY LOW AREAS, RUTS, OR DEPRESSIONS LEFT AFTER DEMOLITION AND REMOVAL OF DESIGNATED FEATURES.
4. ALL DISTURBED GROUND SHALL BE SEEDED AT COMPLETION OF CONSTRUCTION.
5. STAKE CONSTRUCTION ACCESS AND WORK BOUNDARY FOR REVIEW BY ENGINEER PRIOR TO CONSTRUCTION. STAKES SHALL BE MAINTAINED THROUGH DURATION OF CONSTRUCTION. REFER TO SHEET 2 FOR REQUIREMENTS FOR TEMPORARY SEDIMENT CONTROL PADS AT CONSTRUCTION EXITS.
6. ANY DAMAGE CAUSED BY CONTRACTOR TO EXISTING CURBS, SIDEWALKS, TREES, AND OTHER EXISTING IMPROVEMENTS ALONG CONSTRUCTION ACCESS ROUTES SHALL BE REPAIRED AT CONTRACTOR'S EXPENSE. REGRADE AND SEED ANY RUTS CREATED ON NATURAL GROUND.

BORING LOCATIONS

POINT NO.	NORTHING	EASTING
B-1(2021)	17141961.58	1366710.14
B-1(2023)	17141903.88	1366744.61
B-2(2023)	17141849.82	1366849.18
GS-2	17142009.37	1366684.58
GS-3	17141869.68	1366973.19

EXISTING CONDITIONS AND DEMOLITION PLAN

SCALE: 1" = 40'

0 40' 80'

PRINTED HALF-SIZE

UPDATED: 3/10/2026

REVISION NO.	DATE	BY	DESCRIPTION
B	02/2025	DJH	90% PRELIMINARY DESIGN REVIEW
A	10/2024	DJH	60% PRELIMINARY DESIGN REVIEW
--	03/10/2026	DJH	INTERIM CHECK PLOT (PRE-FINAL DESIGN, PRE-NOA)

CONSULTANT'S SHEET NO.
01C-01

100% DESIGN, PRE-NOA PRELIMINARY

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF INTERIM REVIEW AND NOT INTENDED TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

ENGINEER: DANIEL J. HEILMAN
LICENSE NO.: 86936
DATE: 03/10/2026

FDR
TBPELS Firm Registration No. F-754
Project No. 10400452

CITY of CORPUS CHRISTI
TEXAS
Department of Engineering Services

SOUTH BAY PARK
SHORELINE IMPROVEMENTS

EXISTING CONDITIONS AND DEMOLITION PLAN

SHEET 03 of 26
RECORD DRAWING NO.
CP-XXX
CITY PROJECT #23035

1 / 03 | 04 **EXISTING CONDITIONS AND DEMOLITION ENLARGED PLAN**
SCALE: 1" = 20'

PRINTED HALF-SIZE

NOTES:

1. CONTRACTOR MAY USE OPTIONAL CONSTRUCTION STAGING AREA SHOWN ON THIS SHEET. REFER TO NOTES ON SHEET 02 FOR STAGING AREA AND CONSTRUCTION ACCESS CORRIDOR REQUIREMENTS. PLACE BLOCK SODDING TO RESTORE TURF WITHIN STAGING AREA AFTER COMPLETION OF SITE WORK.
2. CONTRACTOR SHALL DEMOLISH, REMOVE, AND DISPOSE EXISTING CONCRETE RUBBLE, SLABS, PIPES, TIE-BACK RODS, PVC PIPE, BRICK, AND OTHER DEBRIS ALONG THE SHORELINE WITHIN THE LIMITS OF THE REQUIRED WORK. REFER TO SPECIFICATION SECTION 02 10 80 (REMOVING ABANDONED STRUCTURES) FOR ADDITIONAL REQUIREMENTS.
3. WHERE OPTION TO ABANDON STORM DRAIN IN-PLACE IS STATED ON DRAWINGS, ABANDONED SECTION SHALL BE PLUGGED IN ACCORDANCE WITH SPECIFICATION 02 20 20 (EXCAVATION AND BACKFILL FOR UTILITIES).

STAGING AREA POINTS		
POINT NO.	NORTHING	EASTING
SA-1	17141924.44	1366636.20
SA-2	17141963.65	1366659.54
SA-3	17141912.77	1366738.63
SA-4	17141840.58	1366695.26
SA-5	17141862.06	1366659.50
SA-6	17141897.79	1366680.97

4. CONTRACTOR IS RESPONSIBLE FOR COORDINATION WITH ELECTRICAL UTILITY OWNER FOR TEMPORARY DISCONNECTION AND RECONNECTION OF ELECTRICITY AT LIGHT POLE.

REVISION NO.	DATE	BY	DESCRIPTION
--	03/10/2026	DJH	INTERIM CHECK PLOT (PRE-FINAL DESIGN, PRE-NOA)
B	02/2025	DJH	90% PRELIMINARY DESIGN REVIEW
A	10/2024	DJH	60% PRELIMINARY DESIGN REVIEW

CONSULTANT'S SHEET NO.
01C-02

100% DESIGN, PRE-NOA PRELIMINARY
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ENGINEER: DANIEL J. HEILMAN
LICENSE NO.: 86936
DATE: 03/10/2026

TBPELS Firm Registration No. F-754
Project No. 10400452

CITY of CORPUS CHRISTI
TEXAS
Department of Engineering Services

SOUTH BAY PARK
SHORELINE IMPROVEMENTS

EXISTING CONDITIONS AND DEMOLITION ENLARGED PLAN

SHEET 04 of 26
RECORD DRAWING NO.
CP-XXX
CITY PROJECT #23035

UPDATED: 3/10/2026

NOTES:

1. REFER TO NOTES ON SHEET 02.
2. REFER TO SHEET 20 FOR SITE GRADING REQUIREMENTS.
3. PLACE TIMBER MATS, EARTHEN PAD, OR OTHER TEMPORARY MEASURES TO PROTECT ABM REVETMENT FROM ANY HEAVY EQUIPMENT THAT CROSSES OVER REVETMENT DURING CONSTRUCTION. ANY DAMAGE TO ABM REVETMENT CAUSED BY CONTRACTOR SHALL BE REPAIRED AT CONTRACTOR'S EXPENSE.

1 03 05 ENLARGED SHORELINE IMPROVEMENTS LAYOUT
SCALE: 1" = 20'

0 20' 40'

PRINTED HALF-SIZE

UPDATED: 3/10/2026

REVISION NO.	DATE	BY	DESCRIPTION
--	03/10/2026	DJH	INTERIM CHECK PLOT (PRE-FINAL DESIGN, PRE-NOA)

REVISION NO.	DATE	BY	DESCRIPTION
B	02/2025	DJH	90% PRELIMINARY DESIGN REVIEW
A	10/2024	DJH	60% PRELIMINARY DESIGN REVIEW

CONSULTANT'S SHEET NO.
02C-01

100% DESIGN, PRE-NOA PRELIMINARY

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ENGINEER: DANIEL J. HEILMAN
LICENSE NO.: 86936
DATE: 03/10/2026

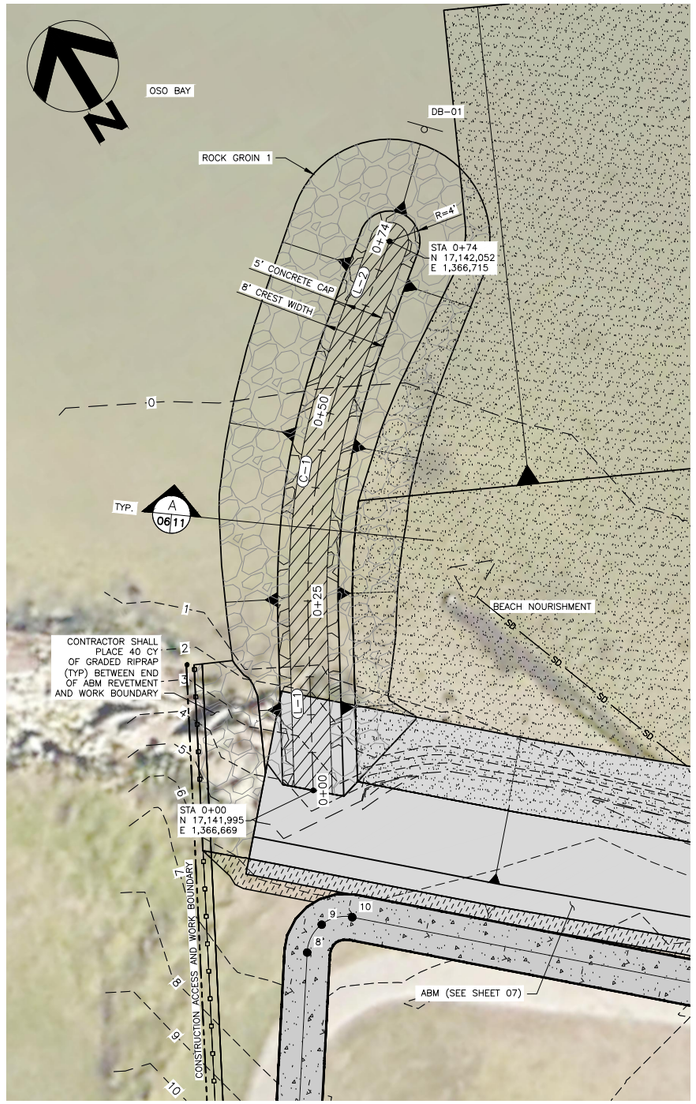
TBPELS Firm Registration No. F-754
Project No. 10400452

CITY of CORPUS CHRISTI
TEXAS
Department of Engineering Services

SOUTH BAY PARK
SHORELINE IMPROVEMENTS

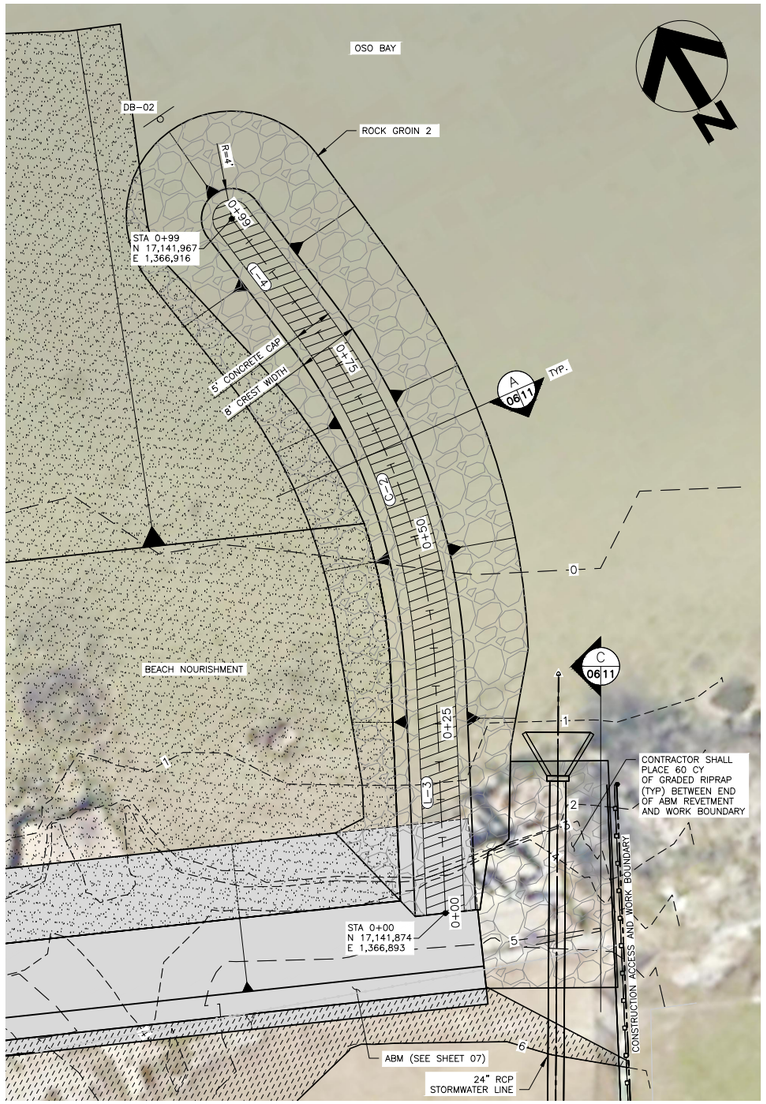
ENLARGED SHORELINE IMPROVEMENTS LAYOUT

SHEET 05 of 26
RECORD DRAWING NO.
CP-XXX
CITY PROJECT #23035



1 05|06 **ROCK GROIN 1 ALIGNMENT**
SCALE: 1" = 10'

ROCK GROIN 1 BASELINE								
NUMBER	PI STA	START STATION	END STATION	LENGTH	RADIUS	LINE/CHORD DIRECTION	START NORTHING START EASTING	END NORTHING END EASTING
L-1	NA	0+00	0+23	23'	NA	N29°17'28"E	17,141,995 1,366,669	17,142,015 1,366,680
C-1	0+42	0+23	0+61	38'	97.50'	N40°22'56"E	17,142,015 1,366,680	17,142,043 1,366,704
L-2	NA	0+61	0+74	13'	NA	N51°28'24"E	17,142,043 1,366,704	17,142,052 1,366,715



2 05|06 **ROCK GROIN 2 ALIGNMENT**
SCALE: 1" = 10'

ROCK GROIN 2 BASELINE								
NUMBER	PI STA	START STATION	END STATION	LENGTH	RADIUS	LINE/CHORD DIRECTION	START NORTHING START EASTING	END NORTHING END EASTING
L-3	NA	0+00	0+32	32'	NA	N28°34'32"E	17,141,874 1,366,893	17,141,902 1,366,908
C-2	0+58	0+32	0+82	50'	83'	N11°08'04"E	17,141,902 1,366,908	17,141,950 1,366,918
L-4	NA	0+82	0+99	17'	NA	N06°18'24"W	17,141,950 1,366,918	17,141,967 1,366,916

NOTES:

1. REFER TO NOTES ON SHEET 02.

0 10' 20'

PRINTED HALF-SIZE

REVISION NO.	DATE	BY	DESCRIPTION
B	02/2025	DJH	90% PRELIMINARY DESIGN REVIEW
A	10/2024	DJH	60% PRELIMINARY DESIGN REVIEW
--	03/10/2026	DJH	INTERIM CHECK PLOT (PRE-FINAL DESIGN, PRE-NOA)

CONSULTANT'S SHEET NO.
03C-01

100% DESIGN, PRE-NOA PRELIMINARY
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ENGINEER: DANIEL J. HEILMAN
LICENSE NO.: 86936
DATE: 03/10/2026

TBPELS Firm Registration No. F-754
Project No. 10400452

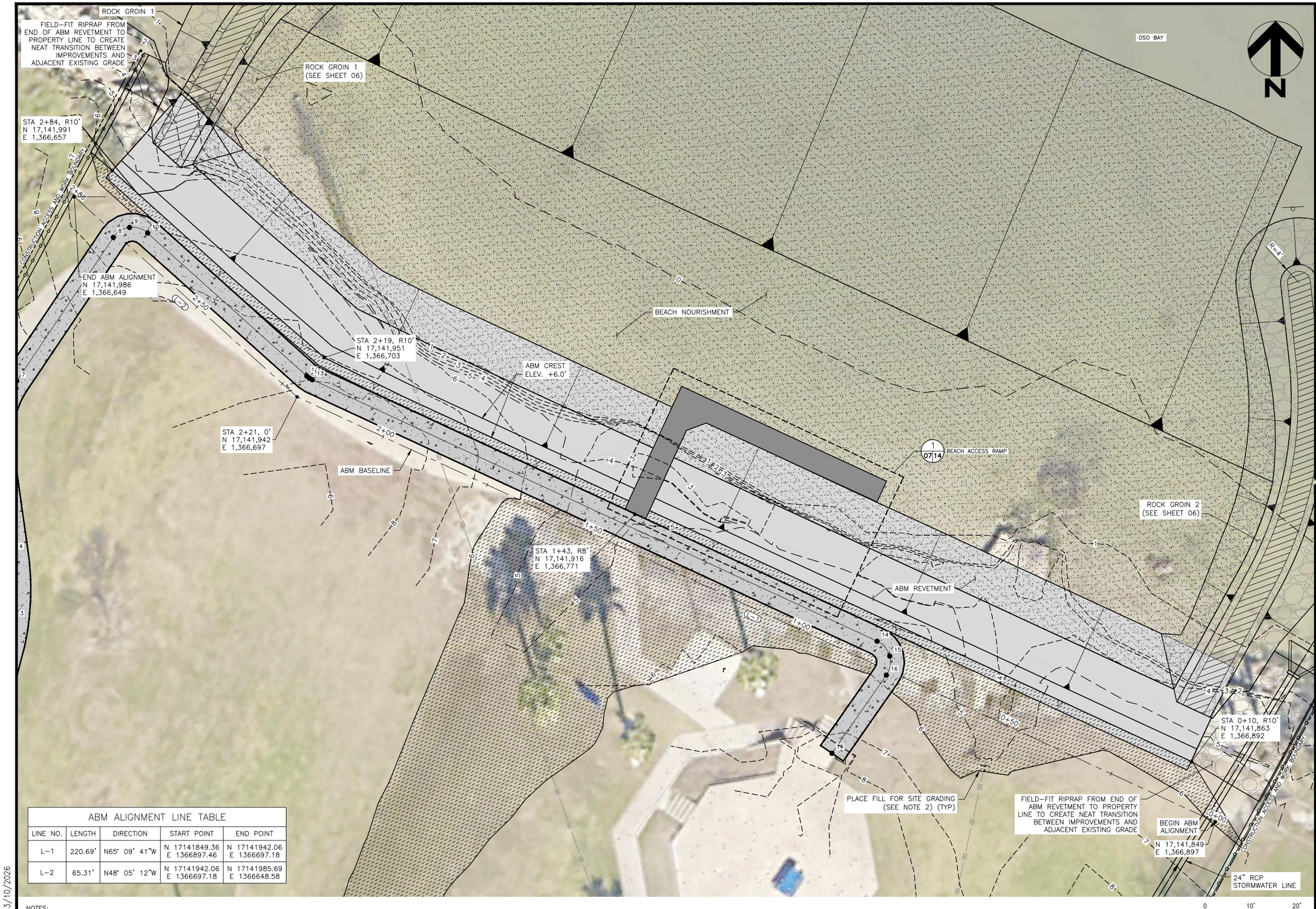
CITY of CORPUS CHRISTI
TEXAS
Department of Engineering Services

SOUTH BAY PARK
SHORELINE IMPROVEMENTS

ROCK GROIN ALIGNMENTS

SHEET 06 of 26
RECORD DRAWING NO.
CP-XXX
CITY PROJECT #23035

UPDATED: 3/10/2026



ABM ALIGNMENT LINE TABLE				
LINE NO.	LENGTH	DIRECTION	START POINT	END POINT
L-1	220.69'	N65° 09' 41"W	N 17141849.36 E 1366897.46	N 17141942.06 E 1366697.18
L-2	65.31'	N48° 05' 12"W	N 17141942.06 E 1366697.18	N 17141985.69 E 1366648.58

NOTES:

1. REFER TO NOTES ON SHEET 02.
2. REFER TO SHEET 19 FOR GRADING PLAN.

1 / 05|07 ABM ALIGNMENT
SCALE: 1" = 10'

0 10' 20'

PRINTED HALF-SIZE

UPDATED: 3/10/2026

REVISION NO.	DATE	BY	DESCRIPTION
--	03/10/2026	DJH	INTERIM CHECK PLOT (PRE-FINAL DESIGN, PRE-NOA)
B	02/2025	DJH	90% PRELIMINARY DESIGN REVIEW
A	10/2024	DJH	60% PRELIMINARY DESIGN REVIEW

CONSULTANT'S SHEET NO.
04C-01

100% DESIGN, PRE-NOA PRELIMINARY

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ENGINEER: DANIEL J. HEILMAN
LICENSE NO.: 86936
DATE: 03/10/2026

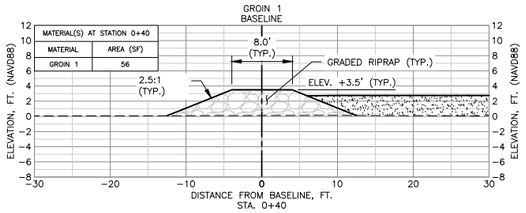
TBPELS Firm Registration No. F-754
Project No. 10400452

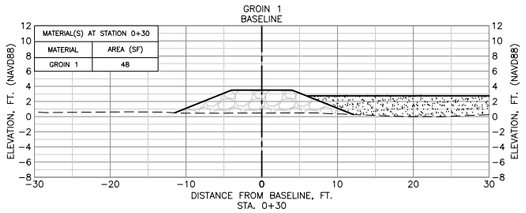
CITY of CORPUS CHRISTI
TEXAS
Department of Engineering Services

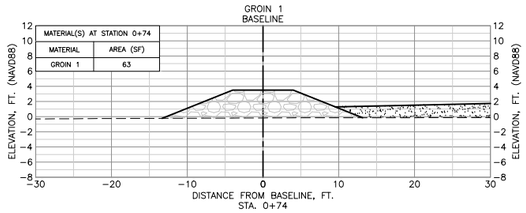
SOUTH BAY PARK
SHORELINE IMPROVEMENTS

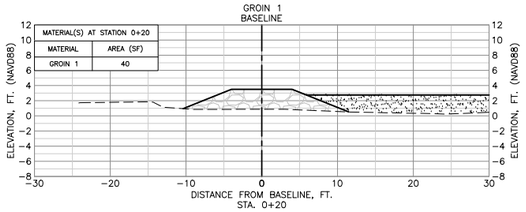
ABM ALIGNMENT

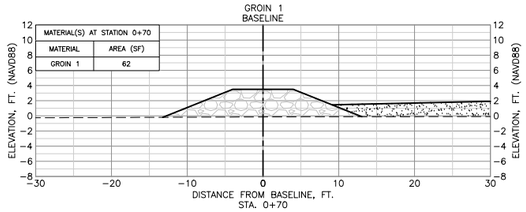
SHEET 07 of 26
RECORD DRAWING NO.
CP-XXX
CITY PROJECT #23035

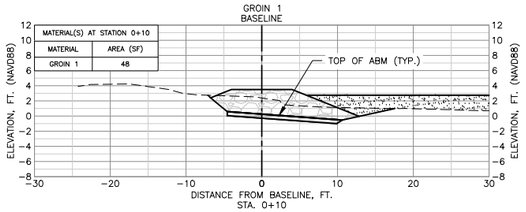


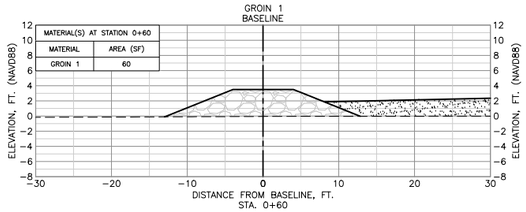


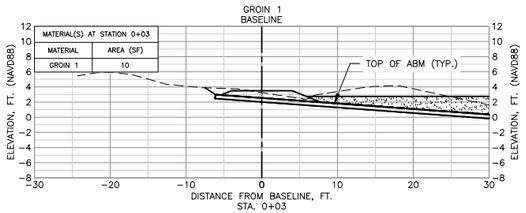


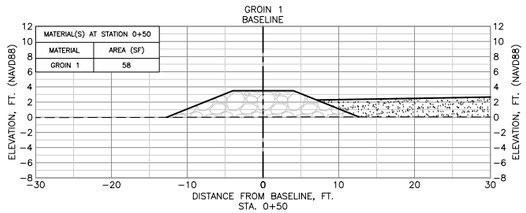












NOTES:

1. SECTIONS VIEWED LOOKING TOWARDS INCREASING STATIONS.
2. CONCRETE GROIN CAP NOT SHOWN FOR CLARITY, REFER TO SHEET 12.

0 10' 20'

PRINTED HALF-SIZE

REVISION NO.	DATE	BY	DESCRIPTION
--	03/10/2026	DJH	INTERIM CHECK PLOT (PRE-FINAL DESIGN, PRE-NOA)

REVISION NO.	DATE	BY	DESCRIPTION
B	02/2025	DJH	90% PRELIMINARY DESIGN REVIEW
A	10/2024	DJH	60% PRELIMINARY DESIGN REVIEW

CONSULTANT'S SHEET NO.
05C-01

100% DESIGN, PRE-NOA PRELIMINARY

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ENGINEER: DANIEL J. HEILMAN
LICENSE NO.: 86936
DATE: 03/10/2026

TBPELS Firm
Registration No. F-754
Project No. 10400452

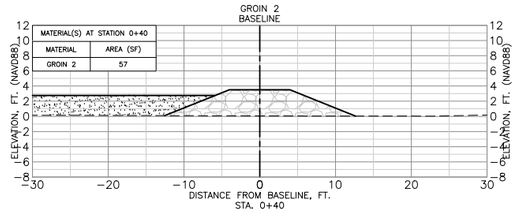
CITY of CORPUS CHRISTI
TEXAS
Department of Engineering Services

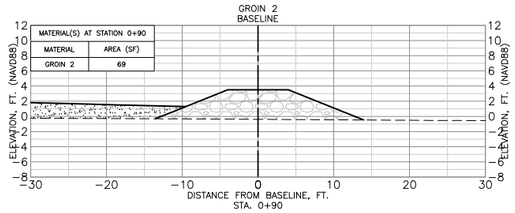
SOUTH BAY PARK
SHORELINE IMPROVEMENTS

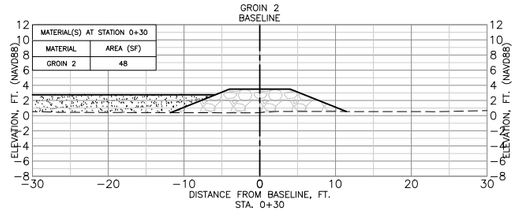
ROCK GROIN
CROSS-SECTIONS 01

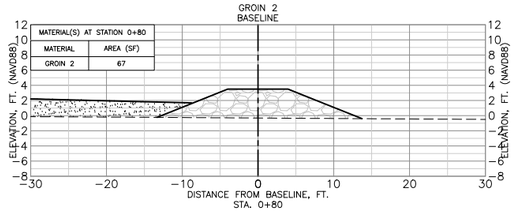
SHEET 08 of 26
RECORD DRAWING NO.
CP-XXX
CITY PROJECT #23035

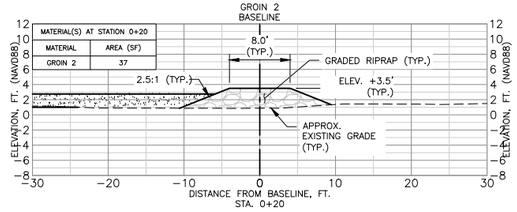
UPDATED: 3/10/2026

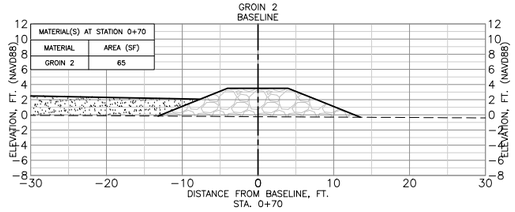


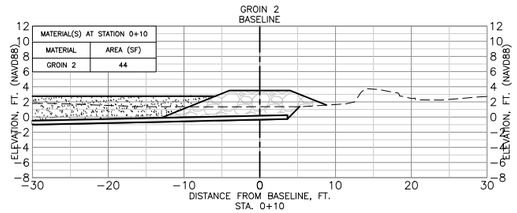


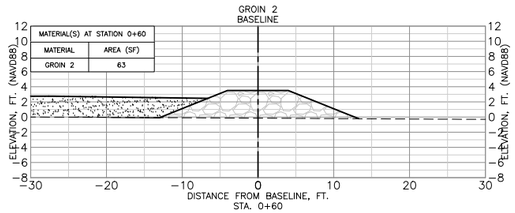


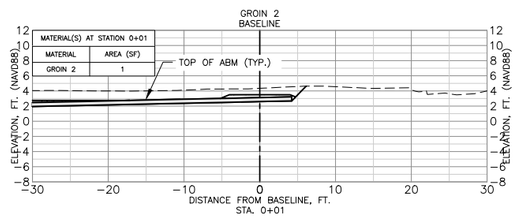


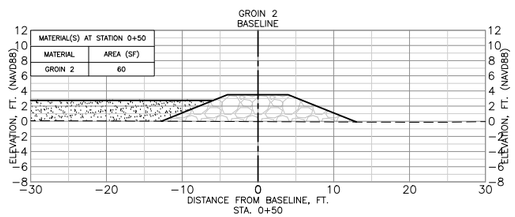












NOTES:

1. SECTIONS VIEWED LOOKING TOWARDS INCREASING STATIONS.
2. CONCRETE GROIN CAP NOT SHOWN FOR CLARITY, REFER TO SHEET 12.

0 10' 20'

PRINTED HALF-SIZE

REVISION NO.	DATE	BY	DESCRIPTION
--	03/10/2026	DJH	INTERIM CHECK PLOT (PRE-FINAL DESIGN, PRE-NOA)

REVISION NO.	DATE	BY	DESCRIPTION
B	02/2025	DJH	90% PRELIMINARY DESIGN REVIEW
A	10/2024	DJH	60% PRELIMINARY DESIGN REVIEW

CONSULTANT'S SHEET NO.
05C-02

100% DESIGN, PRE-NOA PRELIMINARY

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ENGINEER: DANIEL J. HEILMAN
LICENSE NO.: 86936
DATE: 03/10/2026

TBPELS Firm Registration No. F-754
Project No. 10400452

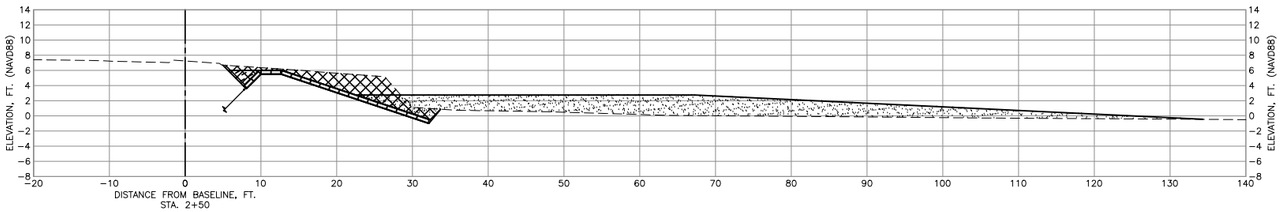
CITY of CORPUS CHRISTI
TEXAS
Department of Engineering Services

SOUTH BAY PARK
SHORELINE IMPROVEMENTS

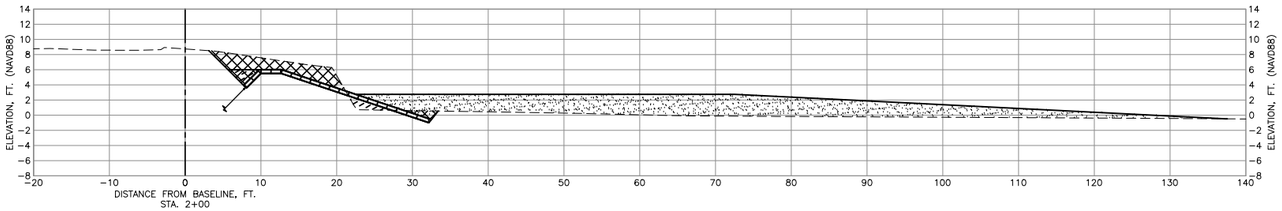
ROCK GROIN
CROSS-SECTIONS 02

SHEET 09 of 26
RECORD DRAWING NO.
CP-XXX
CITY PROJECT #23035

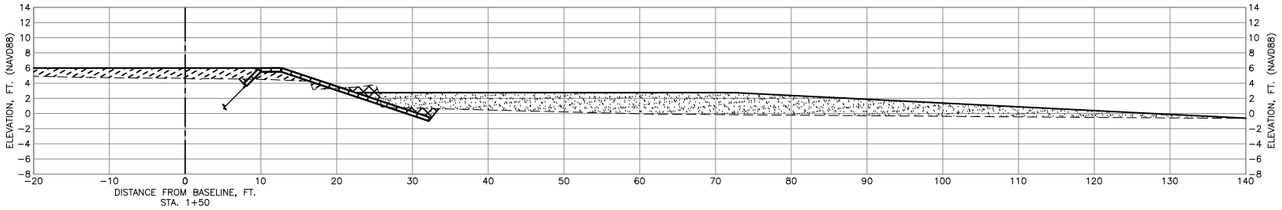
UPDATED: 3/10/2026



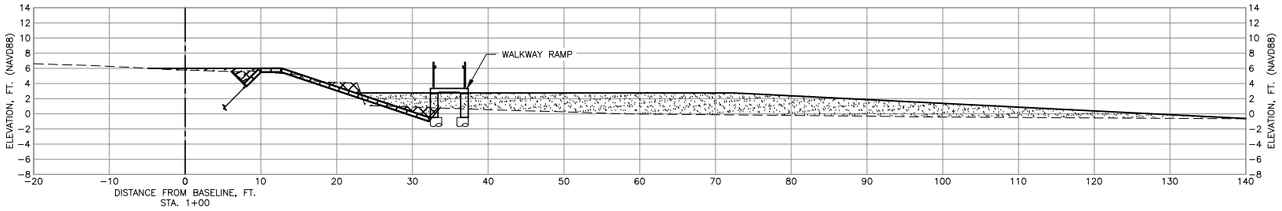
MATERIAL(S) AT STATION 2+50			
MATERIAL NAME	AREA (SF)	VOLUME (CY)	CUMULATIVE VOLUME (CY)
ABM	13.12	24.18	115.46
BEACH	190.04	369.82	1713.09
EXCAVATION	45.69	74.61	207.22
SAND FILL BELOW ABM	0.00	3.84	30.41



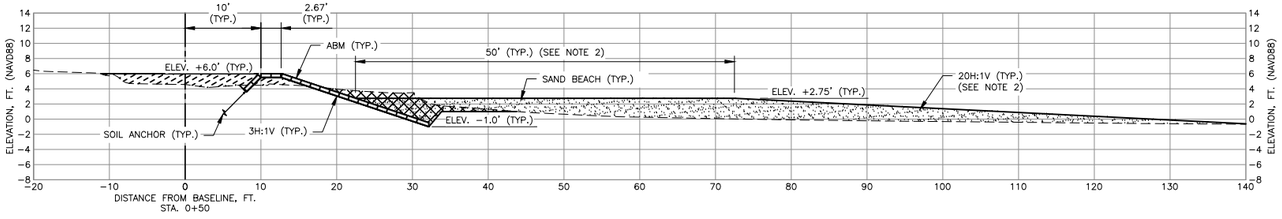
MATERIAL(S) AT STATION 2+00			
MATERIAL NAME	AREA (SF)	VOLUME (CY)	CUMULATIVE VOLUME (CY)
ABM	13.18	24.51	91.28
BEACH	212.23	403.37	1343.27
EXCAVATION	35.47	40.72	132.61
SAND FILL BELOW ABM	4.18	10.14	26.57



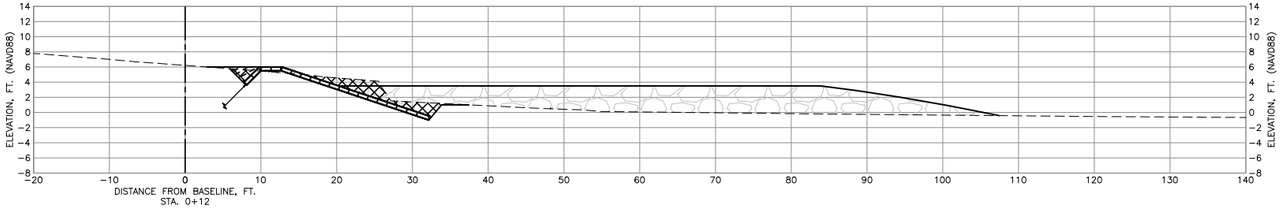
MATERIAL(S) AT STATION 1+50			
MATERIAL NAME	AREA (SF)	VOLUME (CY)	CUMULATIVE VOLUME (CY)
ABM	13.11	24.27	66.77
BEACH	220.32	407.88	939.90
EXCAVATION	8.20	16.92	91.88
SAND FILL BELOW ABM	6.70	7.30	16.43



MATERIAL(S) AT STATION 1+00			
MATERIAL NAME	AREA (SF)	VOLUME (CY)	CUMULATIVE VOLUME (CY)
ABM	13.11	24.27	42.49
BEACH	220.19	391.35	532.02
EXCAVATION	10.08	37.54	74.97
SAND FILL BELOW ABM	1.19	5.46	9.12



MATERIAL(S) AT STATION 0+50			
MATERIAL NAME	AREA (SF)	VOLUME (CY)	CUMULATIVE VOLUME (CY)
ABM	13.11	18.22	18.22
BEACH	202.46	140.68	140.68
EXCAVATION	30.47	37.43	37.43
SAND FILL BELOW ABM	4.70	3.67	3.67



MATERIAL(S) AT STATION 0+12			
MATERIAL NAME	AREA (SF)	VOLUME (CY)	CUMULATIVE VOLUME (CY)
ABM	13.11	0.00	0.00
BEACH	0.00	0.00	0.00
EXCAVATION	23.40	0.00	0.00
SAND FILL BELOW ABM	0.57	0.00	0.00

NOTES:

1. SECTIONS VIEWED LOOKING TOWARDS INCREASING STATIONS.
2. BEACH NOURISHMENT SLOPE MAY BE CONSTRUCTED STEEPER THAN 20H:1V, BUT SHALL BE NOT STEEPER THAN 10H:1V. CONSTRUCTING SLOPE STEEPER THAN 20H:1V WILL REQUIRE INCREASING BERM WIDTH TO SATISFY CONTRACT QUANTITY.

0 10' 20'

PRINTED HALF-SIZE

UPDATED: 3/10/2026

REVISION NO.	DATE	BY	DESCRIPTION
--	03/10/2026	DJH	INTERIM CHECK PLOT (PRE-FINAL DESIGN, PRE-NOA)
B	02/2025	DJH	90% PRELIMINARY DESIGN REVIEW
A	10/2024	DJH	60% PRELIMINARY DESIGN REVIEW

CONSULTANT'S SHEET NO.
06C-01

100% DESIGN, PRE-NOA PRELIMINARY

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ENGINEER: DANIEL J. HEILMAN
LICENSE NO.: 86936
DATE: 03/10/2026

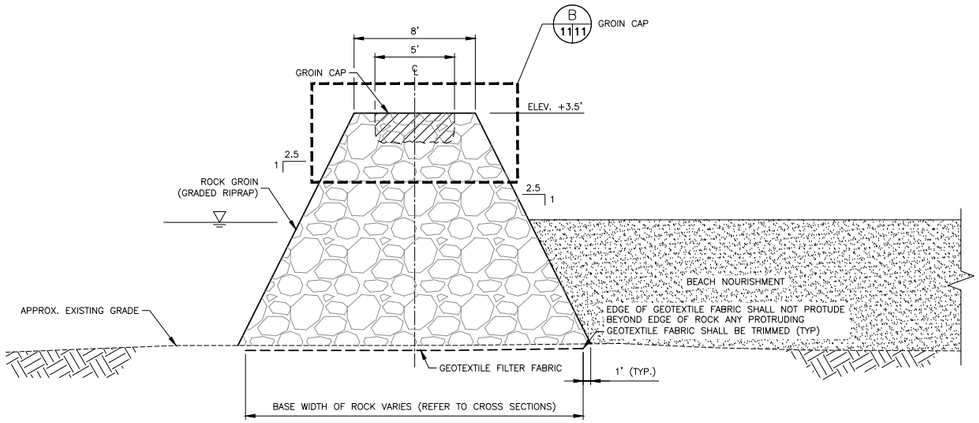
TBPELS Firm Registration No. F-754
Project No. 10400452

CITY of CORPUS CHRISTI
TEXAS
Department of Engineering Services

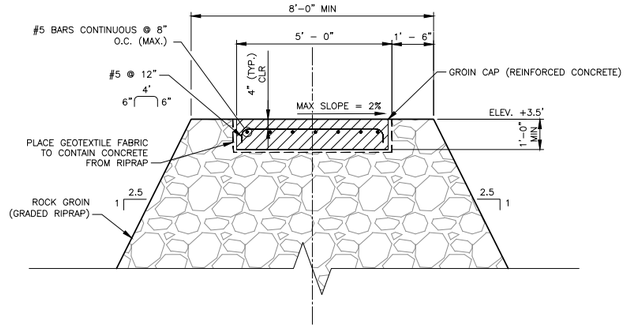
SOUTH BAY PARK
SHORELINE IMPROVEMENTS

ABM CROSS-SECTIONS 01

SHEET 10 of 26
RECORD DRAWING NO.
CP-XXX
CITY PROJECT #23035



A 06|11 **TYPICAL SECTION – ROCK GROIN**
SCALE: 1" = 5'



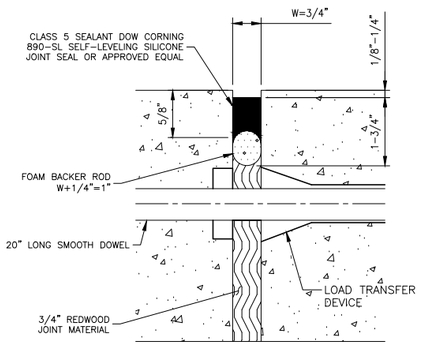
B –|– **TYPICAL SECTION – GROIN CAP**
SCALE: N.T.S.

NOTES:

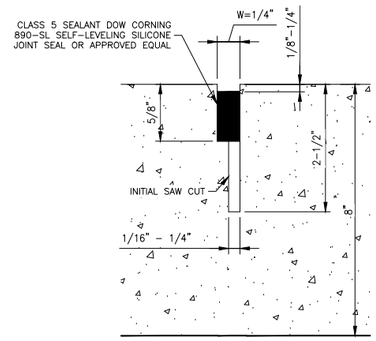
1. CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTION OF PARTIALLY COMPLETED WORK PRIOR TO PLACEMENT OF FULL/FINISHED RIPRAP LAYER.
2. ALL VERTICAL TOLERANCES ARE +/– 0.2FT UNLESS STATED OTHERWISE. MINUS TOLERANCE SHALL NOT APPLY TO ELEVATIONS STATED AS 'MIN'.
3. ALL STONE PLACEMENT SHALL MAXIMIZE CONTACT BETWEEN INDIVIDUAL STONES ON ALL SIDES WITH EACH STONE HAVING AT LEAST THREE POINTS OF CONTACT WITH OTHER STONES.
4. ROUGH BROOM FINISH SHALL BE PROVIDED ON TOP SURFACE OF GROIN CAP.
5. DAYBEACONS SHALL BE LOCATED APPROXIMATELY 10 FEET FROM SEAWARD TOE OF BREAKWATER. ALL DAYBEACON LOCATIONS SHALL BE COORDINATED WITH ENGINEER PRIOR TO DAYBEACON INSTALLATION.
6. COMPACTED FILL PLACED UNDER GRADED RIPRAP SHALL COMPLY WITH THE REQUIREMENTS FOR CONTRACTOR–FURNISHED FILL MATERIAL IN SPECIFICATION 31 22 13 (SITE EXCAVATION AND GRADING).

JOINT NOTES:

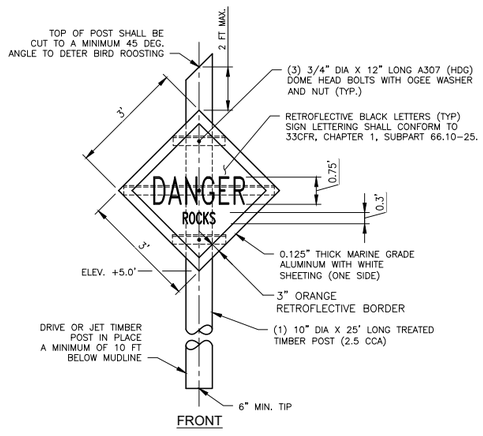
1. THE JOINT RESERVOIR FOR SEALANT SHALL BE SAWED UNLESS OTHERWISE SHOWN ON THE PLANS FOR THE CONSTRUCTION JOINTS.
2. THE JOINTS SHALL BE CLEANED IN ACCORDANCE WITH THE SEALANT MANUFACTURE'S RECOMMENDATION. PRIOR TO BEGINNING OPERATIONS, THE CONTRACTOR SHALL SUBMIT A STATEMENT FROM THE SEALANT MANUFACTURER SHOWING THE RECOMMENDED EQUIPMENT AND INSTALLATION PROCEDURES TO BE USED.
3. EXPANSION JOINTS SHALL BE PLACED AT A MAXIMUM SPACING OF 40 FT. AND A MINIMUM SPACING OF 10 FT. AND SHALL BE THE FULL DEPTH OF GROIN CAP. GROIN CAP REINFORCEMENT SHALL TERMINATE 3" CLR OF EXPANSION JOINT.
4. SPACING OF CONTROL JOINTS SHALL NOT EXCEED 8FT. CONTROL JOINT DEPTHS SHALL NOT BE LESS THAN A QUARTER OF THE DEPTH OF THE GROIN CAP.
5. AT CONTRACTORS OPTION, CONSTRUCTION JOINT CAN BE USED INSTEAD OF CONTROL JOINT.



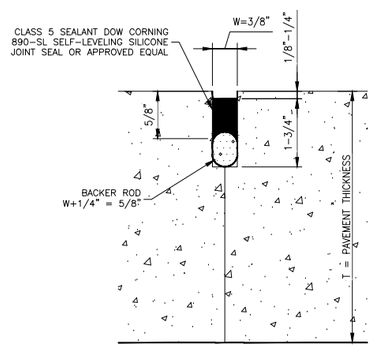
1 –|– **DETAIL – EXPANSION JOINT**
SCALE: N.T.S.



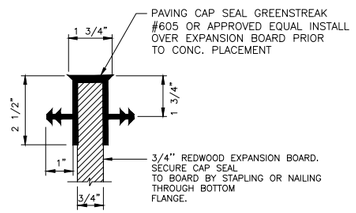
2 –|– **DETAIL – CONTROL JOINT**
SCALE: N.T.S.



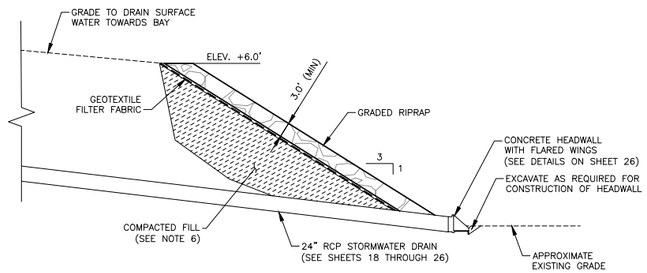
5 05|11 **TYPICAL DETAIL – DAYBEACON**
SCALE: N.T.S.



3 –|– **DETAIL – CONSTRUCTION JOINT**
SCALE: N.T.S. (SEE JOINT NOTE 6)



4 –|– **DETAIL – NEW CONCRETE TO NEW CONCRETE CAP SEAL**
SCALE: N.T.S.



C 06|11 **TYPICAL ELEVATION – RIPRAP AT STORM DRAIN OUTFALL**
SCALE: N.T.S.

0 5' 10'

PRINTED HALF-SIZE

UPDATED: 3/10/2026

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CONSULTANT'S SHEET NO.
07C–01

100% DESIGN, PRE-NOA PRELIMINARY
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ENGINEER: DANIEL J. HEILMAN
LICENSE NO.: 86936
DATE: 03/10/2026

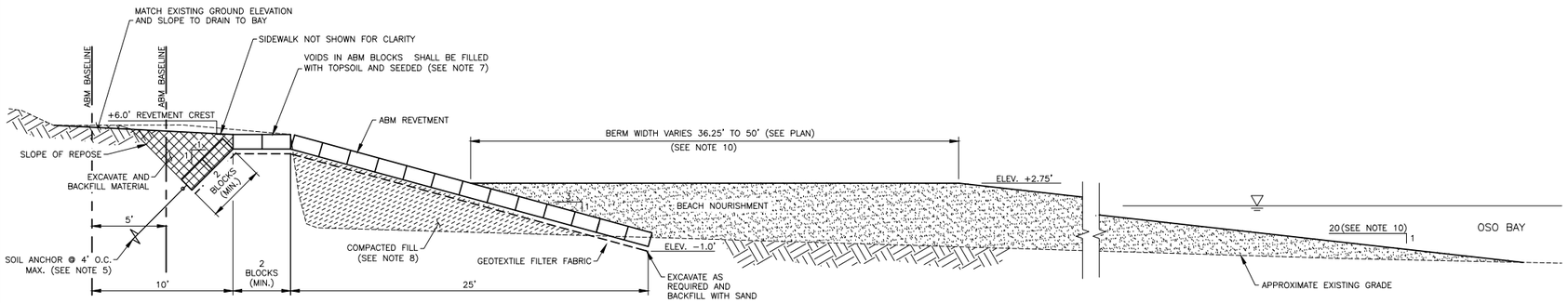
TBPELS Firm Registration No. F-754
Project No. 10400452

CITY of CORPUS CHRISTI
TEXAS
Department of Engineering Services

SOUTH BAY PARK
SHORELINE IMPROVEMENTS

TYPICAL SECTIONS 01

SHEET 11 of 26
RECORD DRAWING NO.
CP–XXX
CITY PROJECT #23035



A 05 12 **TYPICAL SECTION – ABM REVETMENT AND BEACH NOURISHMENT**
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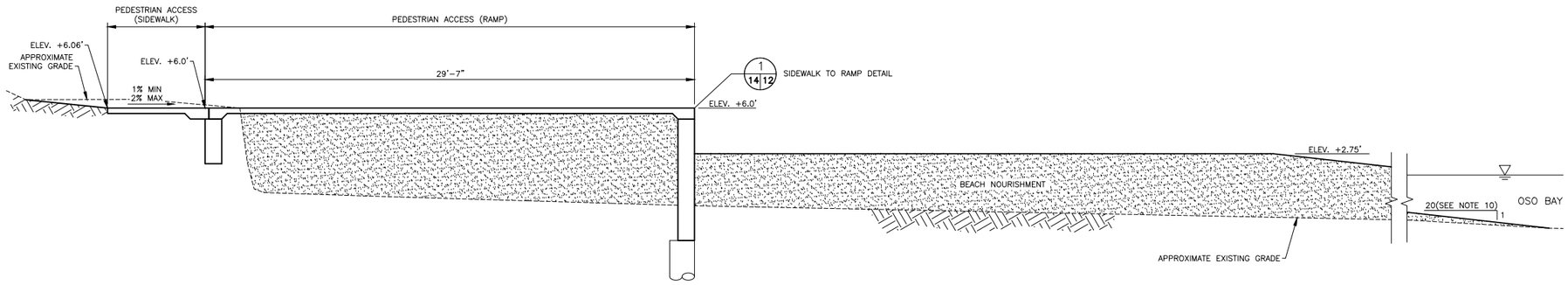
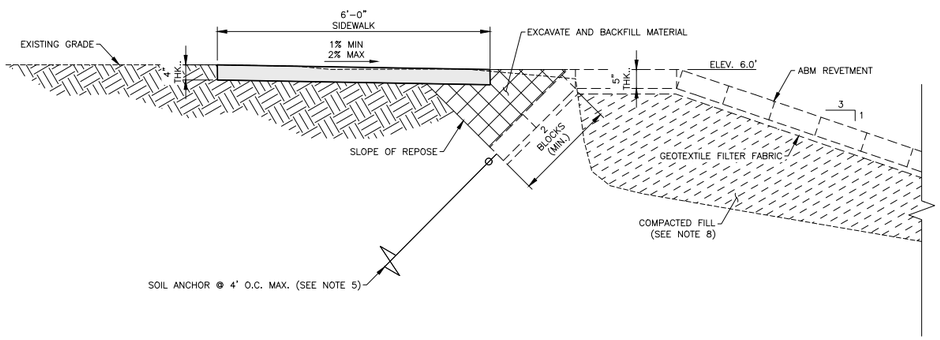


B 05 12 **TYPICAL SECTION – RAMP**
SCALE: N.T.S.



C 05 12 **TYPICAL SECTION – ABM REVETMENT AND SIDEWALK**
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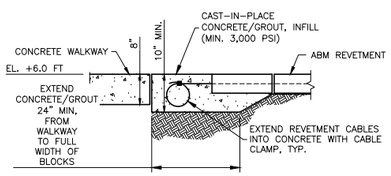
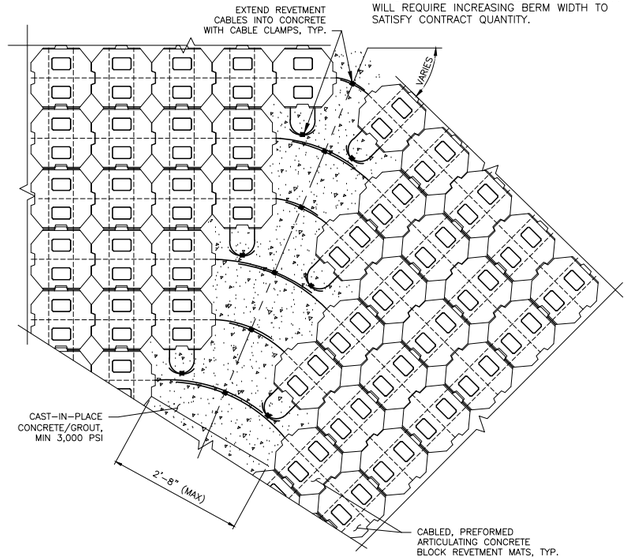


D 12 14 **TYPICAL SECTION – ABM REVETMENT AND WALKWAY**
SCALE: N.T.S.



1 −|− **PLAN – TYPICAL ABM LAYOUT AT CURVE**
SCALE: N.T.S.

NOTES:

1. REMOVE/CLEAR EXISTING VEGETATION FROM CREST OF ABM REVETMENT GRADE PRIOR TO PLACEMENT OF GEOTEXTILE FILTER FABRIC.
2. ABM BLOCKS SHALL BE OPEN−CELLED. ABM BLOCK SHAPE SHOWN IS INTENDED FOR GRAPHIC PRESENTATION ONLY. ACTUAL BLOCK SHAPE MAY VARY IN ACCORDANCE WITH SPECIFICATION SECTION 35 31 19.20.
3. ALL ABM CABLES IN ADJACENT MATS SHALL BE ATTACHED TO EACH OTHER USING CABLE CLAMPS.
4. MITERED JOINTS WITHIN ABM REVETMENT BENDS SHALL BE DETAILED BY THE ABM MANUFACTURER AND SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO MAT FABRICATION. CONTINUITY OF ALL CABLES (CLAMPED TOGETHER) SHALL BE MAINTAINED ACROSS MITERED JOINTS AND/OR CONCRETE/GROUT INFILL SECTIONS.
5. ALL PROJECTING CABLES AT TOP EDGE OF ABM SHALL BE GATHERED, CLAMPED TOGETHER, AND ATTACHED TO SOIL ANCHORS. THERE SHALL BE NO UNATTACHED CABLES.
6. MATERIAL EXCAVATED TO PREPARE GRADE FOR REVETMENT TOE SHALL BE PLACED IN TEMPORARY STOCKPILE ON THE ADJACENT BANK OR ADJACENT BAY BOTTOM. IF WET MATERIAL IS PLACED ON ADJACENT BANK, CONTRACTOR SHALL CONTROL/ROUTE RUNOFF OF WATER AND PLACE TEMPORARY EROSION CONTROL DEVICES TO PREVENT EROSION AND/OR GULLING FROM RUNOFF. IF PLACED ON ADJACENT BAY BOTTOM, STOCKPILES SHALL BE REMOVED PRIOR TO PLACEMENT OF SAND FOR BEACH FILL. ANY SURPLUS MATERIAL SHALL BE PLACED AS UPLAND FILL WITHIN DESIGNATED AREAS OR REMOVED FROM THE PROJECT SITE.
7. VOIDS WITHIN AND BETWEEN EXPOSED ABM BLOCKS ABOVE ELEVATION +2.75 FT SHALL BE FILLED WITH TOPSOIL AND SEEDED IN ACCORDANCE WITH SPECIFICATION SECTION 02 80 20 (SEEDING). ALSO SEED THE AREA BETWEEN CREST OF REVETMENT AND EDGE OF SIDEWALK.
8. COMPACTED FILL PLACED UNDER ABM REVETMENT SHALL COMPLY WITH THE REQUIREMENTS FOR CONTRACTOR−FURNISHED FILL MATERIAL IN SPECIFICATION 31 22 13 (SITE EXCAVATION AND GRADING).
9. ABM SHALL NOT BE INSTALLED BENEATH PEDESTRIAN RAMP. ABM ABUTTING EITHER SIDE OF RAMP WALLS SHALL HAVE CABLES MECHANICALLY ATTACHED TO RAMP. ALL VOIDS BETWEEN ABM BLOCKS AND RAMP WALLS SHALL BE SEALED WITH CONCRETE/GROUT.
10. BEACH NOURISHMENT SLOPE MAY BE CONSTRUCTED STEEPER THAN 20H:1V, BUT SHALL NOT BE STEEPER THAN 10H:1V. CONSTRUCTING SLOPE STEEPER THAN 20H:1V WILL REQUIRE INCREASING BERM WIDTH TO SATISFY CONTRACT QUANTITY.

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CONSULTANT'S SHEET NO.
07C−02

100% DESIGN, PRE-NOA PRELIMINARY
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ENGINEER: DANIEL J. HEILMAN
LICENSE NO.: 86936
DATE: 03/10/2026

TBPELS Firm Registration No. F-754
Project No. 10400452

CITY of CORPUS CHRISTI
TEXAS
Department of Engineering Services

SOUTH BAY PARK
SHORELINE IMPROVEMENTS

TYPICAL SECTIONS 02

SHEET 12 of 26
RECORD DRAWING NO.
CP−XXX
CITY PROJECT #23035

PRINTED HALF-SIZE

UPDATED: 3/10/2026

1 PHOTO 1
SCALE: N.T.S.

2 PHOTO 2
SCALE: N.T.S.

3 PHOTO 3
SCALE: N.T.S.

4 PHOTO 4
SCALE: N.T.S.

5 PHOTO 5
SCALE: N.T.S.

6 PHOTO 6
SCALE: N.T.S.

NOTES:

1. PHOTOS WERE TAKEN 09/08/2023.

PRINTED HALF-SIZE

UPDATED: 3/10/2026

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CONSULTANT'S SHEET NO.
08C-01

100% DESIGN, PRE-NOA PRELIMINARY

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LICENSE NO.: 86936
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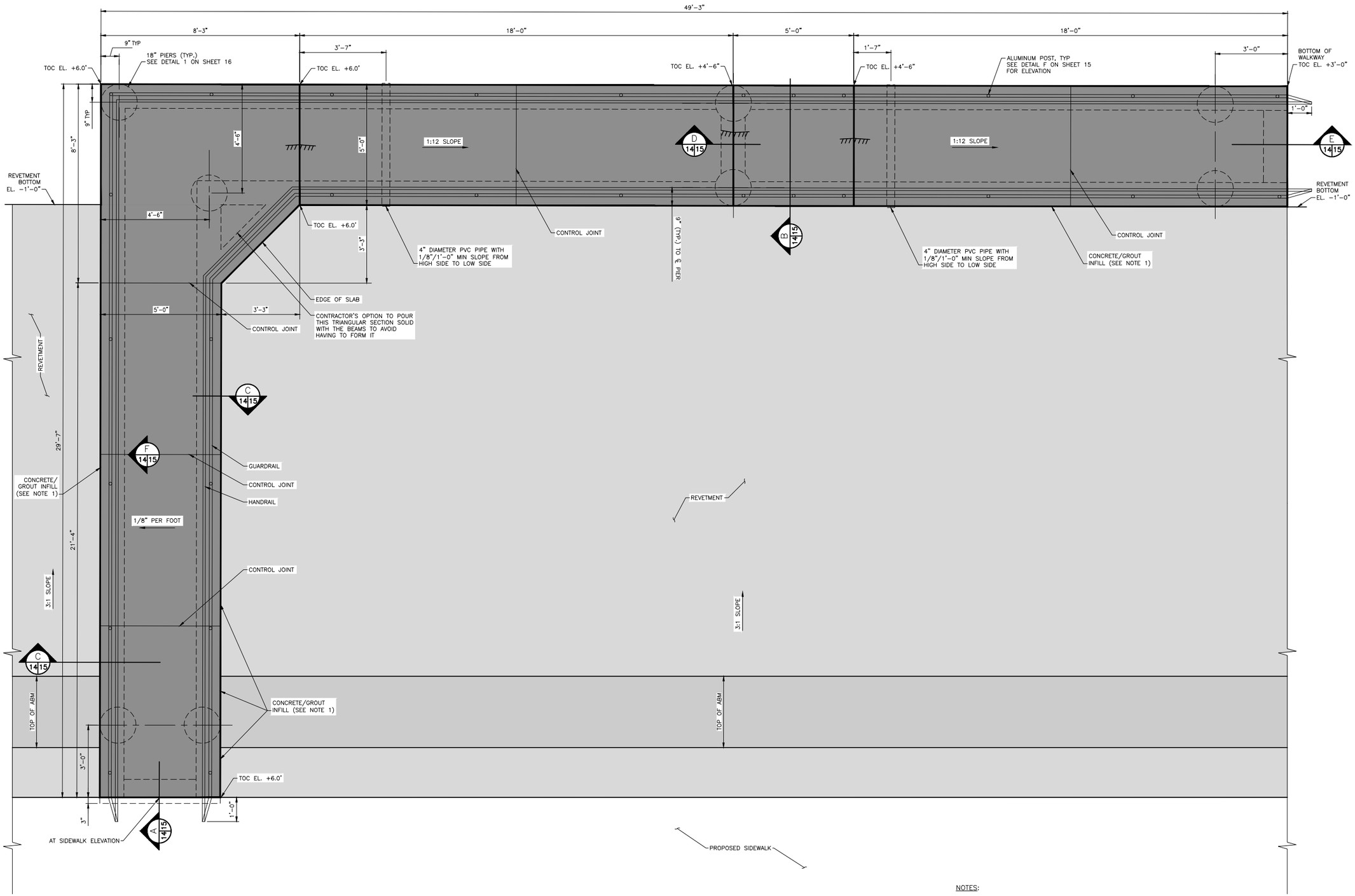
CITY of CORPUS CHRISTI
TEXAS
Department of Engineering Services

SOUTH BAY PARK
SHORELINE IMPROVEMENTS

SITE PHOTOS

SHEET 13 of 26
RECORD DRAWING NO.
CP-XXX
CITY PROJECT #23035



1 / 05|14 PLAN – SIDEWALK TO RAMP DETAIL
SCALE: 1" = 2' – 0"

NOTES:

1. CAST–IN–PLACE CONCRETE/GROUT INFILL SHALL BE PLACED TO CREATE CONTINUOUS INTERFACE ALONG ALL EDGES WHERE ABM ABUTS SIDES OF CONCRETE WALKWAY, INCLUDING SLOPES. REFER TO SECTION B ON SHEET 15 FOR INFILL REQUIREMENTS.

0 2' 4'
1"=2'-0"

PRINTED HALF-SIZE

UPDATED: 3/10/2026

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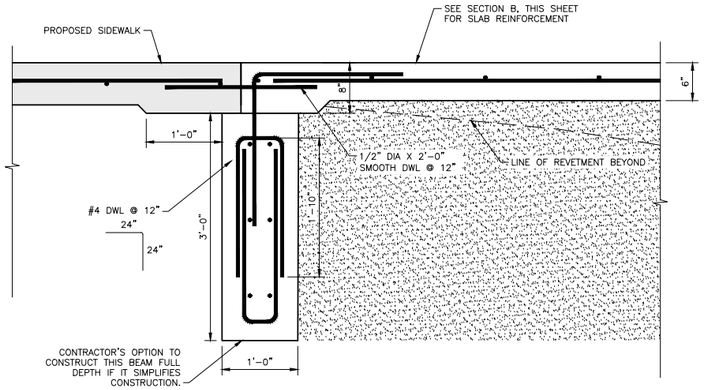
CITY of CORPUS CHRISTI
TEXAS
Department of Engineering Services

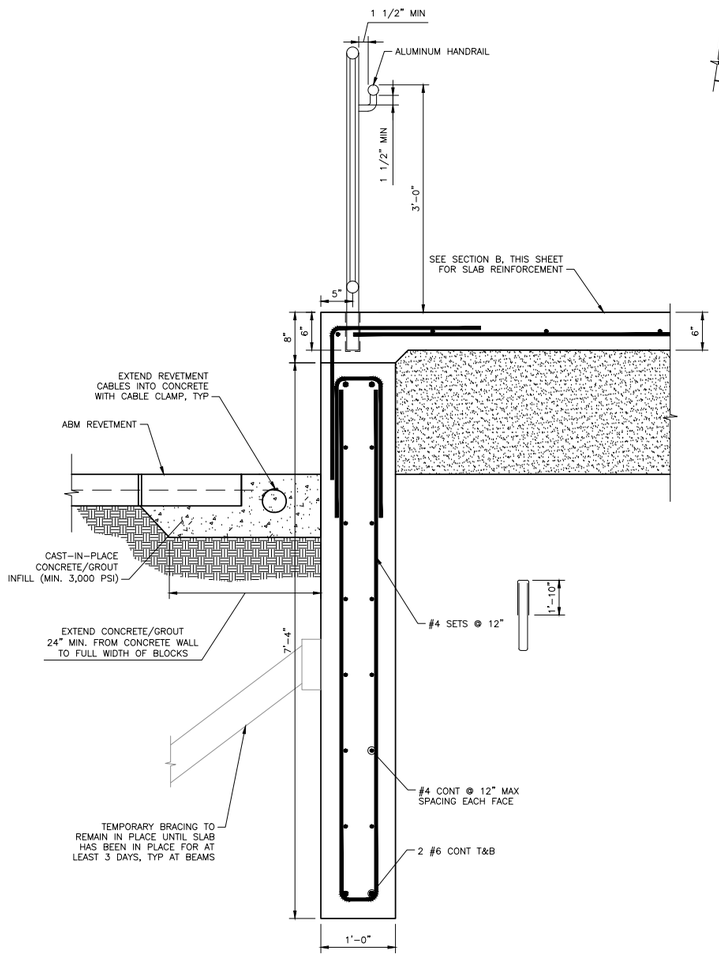
SOUTH BAY PARK
SHORELINE IMPROVEMENTS

RAMP DETAILS 1

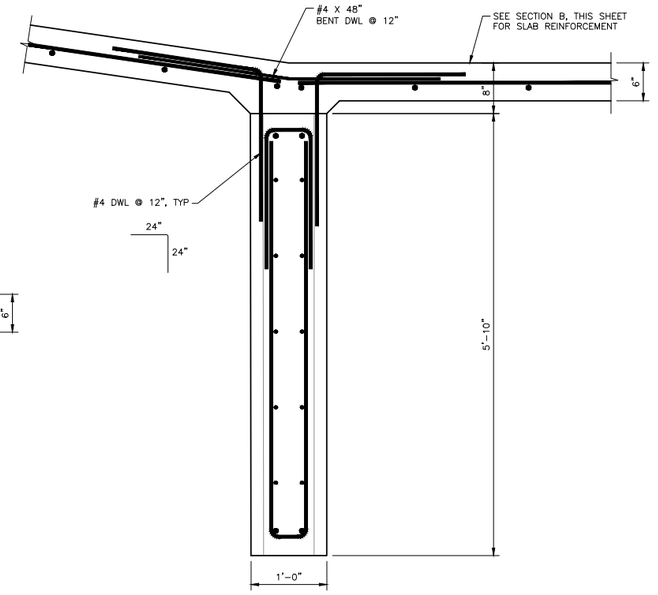
SHEET 14 of 26
RECORD DRAWING NO.
CP–XXX
CITY PROJECT #23035



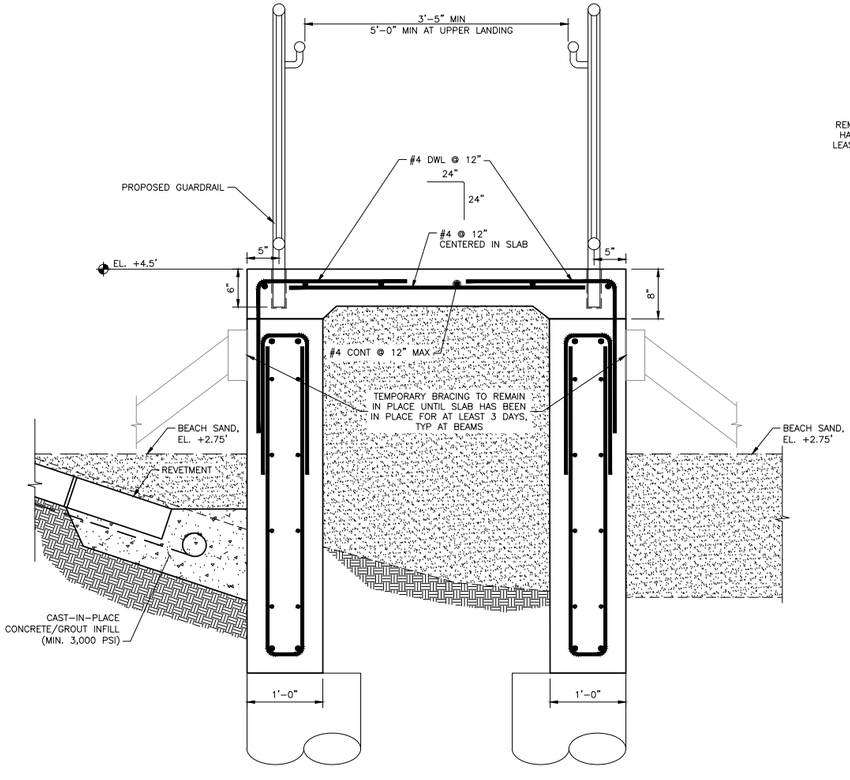
A 14 15 **SECTION – RAMP TO SIDEWALK TRANSITION**
SCALE: 1" = 1'-0"



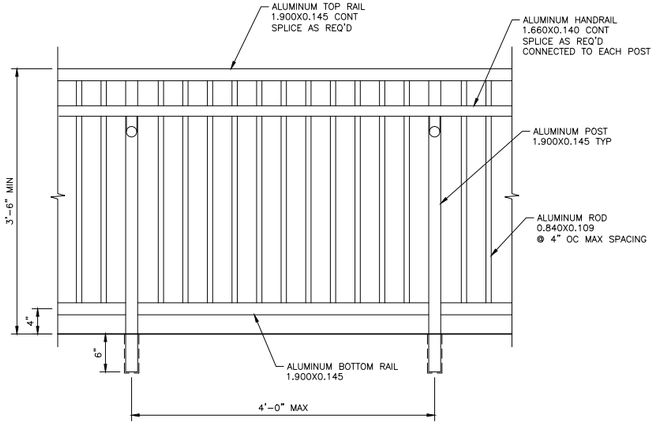
C 14 15 **SECTION – TYPICAL RAMP DETAIL**
SCALE: 1" = 1'-0"



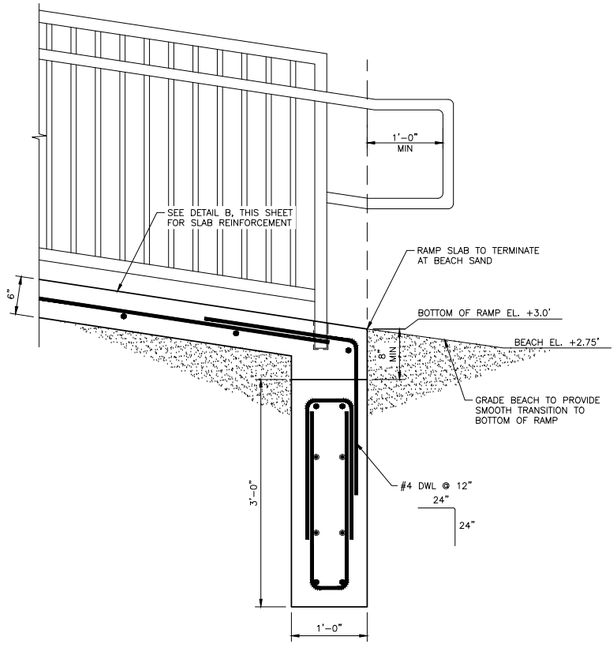
D 14 15 **SECTION – RAMP AT SLOPE TRANSITION**
SCALE: 1" = 1'-0"



B 14 15 **SECTION – RAMP INTERMEDIATE LANDING**
SCALE: 1" = 1'-0"



F 14 15 **ELEVATION – GUARDRAIL**
SCALE: 1" = 1'-0"



E 14 15 **SECTION – RAMP TERMINATION**
SCALE: 1" = 1'-0"

PRINTED HALF-SIZE

UPDATED: 3/10/2026

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09C-02

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ENGINEER: DANIEL J. HEILMAN
LICENSE NO.: 86936
DATE: 03/10/2026

HDR
TBPELS Firm Registration No. F-754
Project No. 10400452

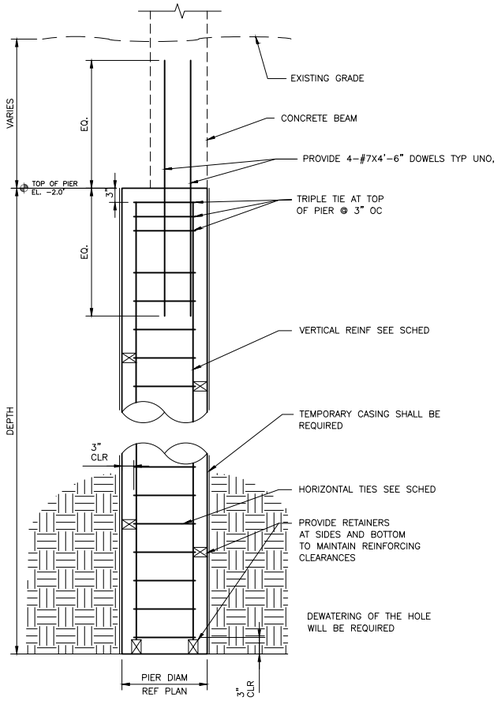
CITY of CORPUS CHRISTI
TEXAS
Department of Engineering Services

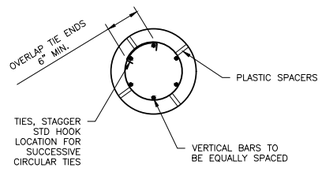
SOUTH BAY PARK
SHORELINE IMPROVEMENTS

RAMP DETAILS 2

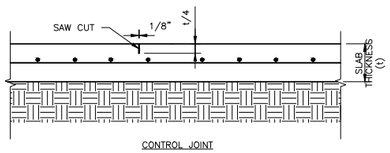
SHEET 15 of 26
RECORD DRAWING NO.
CP-XXX
CITY PROJECT #23035

DRILLED PIER SCHEDULE				
DIAMETER	REINFORCEMENT		PIER DEPTH	CAPACITY (K) SERVICE LEVEL
SHAFT	VERTICAL	HORIZONTAL TIES		
1'-6"	(6) - #6	#3 @ 18"	28'-0"	48

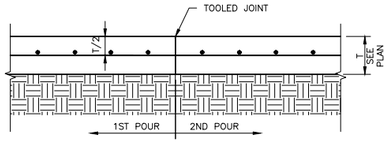




1 TYPICAL DRILLED PIER DETAIL
SCALE: 3/4" = 1'-0"

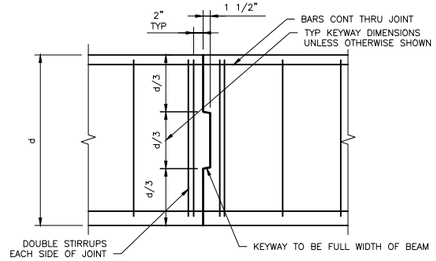


CONTROL JOINT



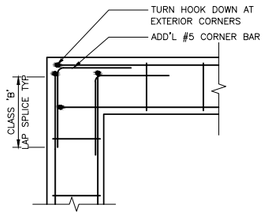
CONSTRUCTION JOINT

2 SLAB-ON-GRADE TYPICAL DETAIL
SCALE: 3/4" = 1'-0"

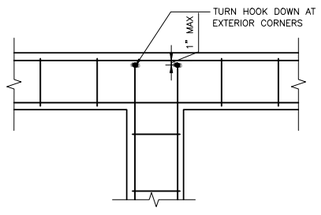


NOTE: LOCATE CONSTRUCTION JOINT WITHIN MIDDLE THIRD OF SPAN BETWEEN SUPPORTS.

3 TYPICAL BEAM CONSTRUCTION JOINT ELEVATION
SCALE: 3/4" = 1'-0"



BEAM CORNER PLAN DETAIL



BEAM INTERSECTION PLAN DETAIL

4 TYPICAL BEAM REINFORCEMENT PLAN DETAIL
SCALE: 3/4" = 1'-0"

UPDATED: 3/10/2026

REVISION NO.	DATE	BY	DESCRIPTION
--	03/10/2026	DJH	INTERIM CHECK PLOT (PRE-FINAL DESIGN, PRE-NOA)
B	02/2025	DJH	90% PRELIMINARY DESIGN REVIEW
A	10/2024	DJH	60% PRELIMINARY DESIGN REVIEW

CONSULTANT'S SHEET NO.
09C-03

100% DESIGN, PRE-NOA PRELIMINARY

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ENGINEER: DANIEL J. HEILMAN
LICENSE NO.: 86936
DATE: 03/10/2026

TBPELS Firm Registration No. F-754
Project No. 10400452

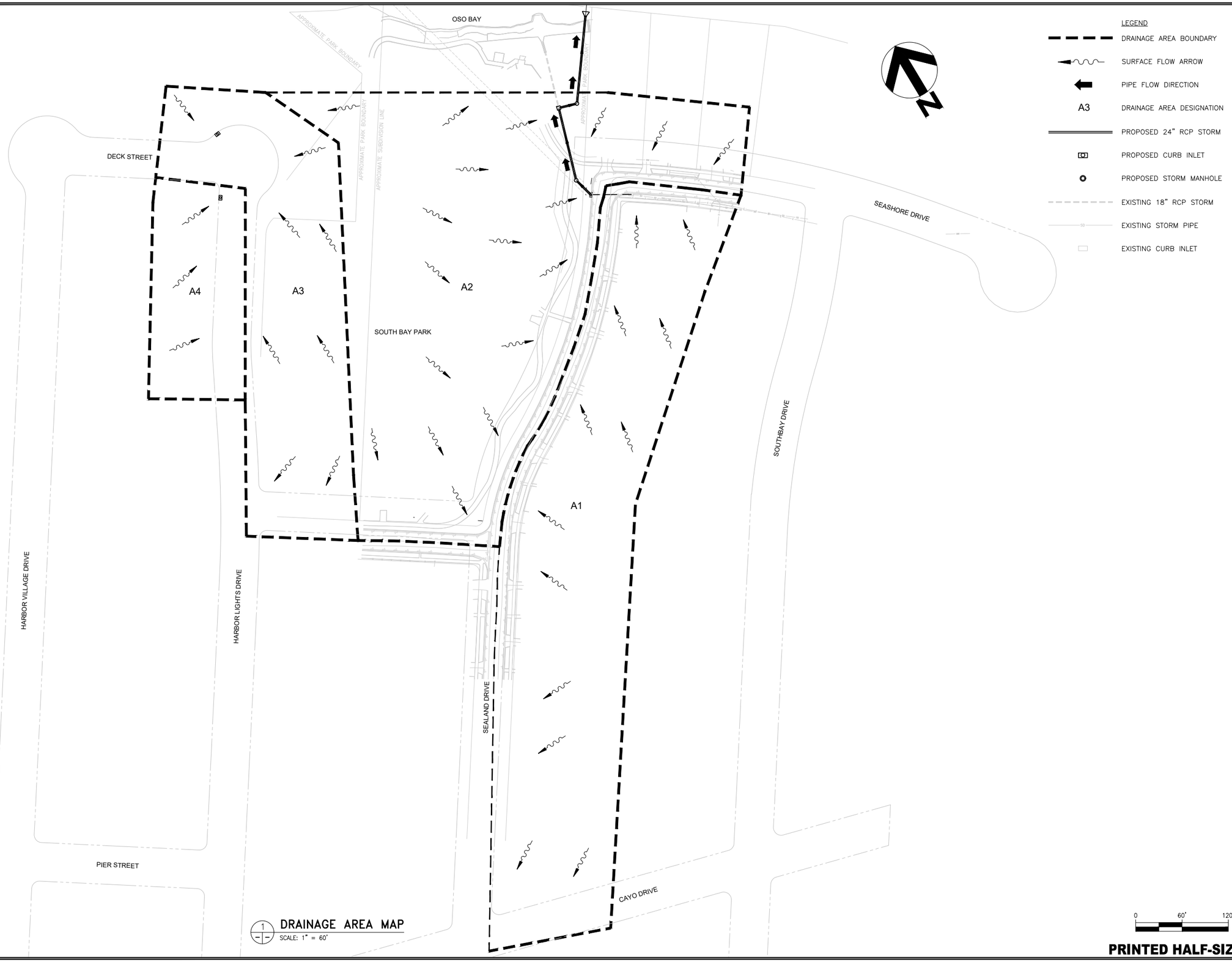
CITY of CORPUS CHRISTI
TEXAS
Department of Engineering Services

SOUTH BAY PARK
SHORELINE IMPROVEMENTS

RAMP DETAILS 3

SHEET 16 of 26
RECORD DRAWING NO.
CP-XXX
CITY PROJECT #23035

PRINTED HALF-SIZE



1 DRAINAGE AREA MAP
SCALE: 1" = 60'

PRINTED HALF-SIZE

UPDATED: 3/10/2026

REVISION NO.	DATE	BY	DESCRIPTION
--	03/10/2026	DJH	INTERIM CHECK PLOT (PRE-FINAL DESIGN, PRE-NOA)
B	02/2025	DJH	90% PRELIMINARY DESIGN REVIEW
A	10/2024	DJH	60% PRELIMINARY DESIGN REVIEW

CONSULTANT'S SHEET NO.
10C-01

100% DESIGN, PRE-NOA PRELIMINARY

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ENGINEER: DANIEL J. HELLMAN
LICENSE NO.: 86936
DATE: 03/10/2026

TBPELS Firm Registration No. F-754
Project No. 10400452

CITY of CORPUS CHRISTI
TEXAS
Department of Engineering Services

SOUTH BAY PARK
SHORELINE IMPROVEMENTS

DRAINAGE AREA MAP

SHEET 17 of 26
RECORD DRAWING NO.
CP-XXX
CITY PROJECT #23035

ALIGNMENT PROPOSED STORM LINE TABLE							
NUMBER	START STA	LENGTH	RADIUS	LINE/CHORD DIRECTION	START POINT (N,E)	END POINT (N,E)	END STATION
L–1	1+00	26.47'	NA	N19°30'36"W	17141670.13, 1366819.83	17141695.08, 1366810.99	1+26.47
L–2	1+26.47	96.32'	NA	N12°14'23"E	17141695.08, 1366810.99	17141789.21, 1366831.41	2+22.79
L–3	2+22.79	24.32'	NA	S77°45'37"E	17141789.21, 1366831.41	17141784.06, 1366855.18	2+47.11
L–4	2+47.11	127.89'	NA	N31°22'13"E	17141784.06, 1366855.18	17141893.25, 1366921.75	3+75

ALIGNMENT PROPOSED ABM WALKWAY CURVE TABLE							
NUMBER	START STA	LENGTH	RADIUS	LINE/CHORD DIRECTION	START POINT (N,E)	END POINT (N,E)	END STATION
L–5	0+00	5.24'	NA	N21°36'54"E	17141874.48, 1366630.18	17141879.35, 1366632.11	0+05.24
C–1	0+20.20	29.25'	56.46'	N6°46'21"E	17141879.35, 1366632.11	17141908.08, 1366635.52	0+34.49
L–7	0+34.49	21.97'	NA	N8°04'13"W	17141908.08, 1366635.52	17141929.83, 1366632.44	0+56.46
C–2	0+65.09	16.48'	22.47'	N12°56'10"E	17141929.83, 1366632.44	17141945.53, 1366636.04	0+72.94
L–8	0+72.94	37.72'	NA	N33°56'33"E	17141945.53, 1366636.04	17141976.82, 1366657.11	1+10.66
C–3	1+16.41	8.55'	5.00'	N82°55'40"E	17141976.82, 1366657.11	17141977.75, 1366664.60	1+19.21
L–9	1+19.21	46.62'	NA	S48°05'12"E	17141977.75, 1366664.60	17141946.61, 1366699.29	1+65.83
C–4	1+66.58	1.49'	5.00'	S56°37'27"E	17141946.61, 1366699.29	17141945.79, 1366700.53	1+67.32
L–10	1+67.32	135.76'	NA	S65°09'41"E	17141945.79, 1366700.53	17141888.76, 1366823.73	3+03.08
C–5	3+09.05	8.73'	5.00'	S15°07'47"E	17141888.76, 1366823.73	17141881.37, 1366825.73	3+11.81
L–11	3+11.81	20.75'	NA	S34°54'07"W	17141881.37, 1366825.73	17141864.34, 1366813.86	3+32.57

ALIGNMENT PROPOSED EAST WALKWAY CURVE TABLE							
NUMBER	START STA	LENGTH	RADIUS	LINE/CHORD DIRECTION	START POINT (N,E)	END POINT (N,E)	END STATION
C–6	0+15.85	30.03'	38.03'	N27°31'56"W	17141713.05, 1366822.19	17141738.99, 1366808.67	0+30.03
L–12	0+30.03	20.73'	NA	N4°54'42"W	17141738.99, 1366808.67	17141759.65, 1366806.89	0+50.76
C–7	0+73.70	44.61'	77.64'	N11°32'49"E	17141759.65, 1366806.89	17141802.75, 1366815.70	0+95.37
L–13	0+95.37	1.58'	NA	N28°00'21"E	17141802.75, 1366815.70	17141804.15, 1366816.44	0+96.95
C–8	1+02.79	11.40'	21.46'	N12°46'45"E	17141804.15, 1366816.44	17141815.14, 1366818.93	1+08.35
L–14	1+08.35	3.94'	NA	N2°26'50"W	17141815.14, 1366818.93	17141819.07, 1366818.77	1+12.29

ALIGNMENT PROPOSED WALKWAY PATCH LINE TABLE							
NUMBER	START STA	LENGTH	RADIUS	LINE/CHORD DIRECTION	START POINT (N,E)	END POINT (N,E)	END STATION
L–15	0+00	25.76'	NA	N29°16'46"E	17141693.39, 1366794.13	17141715.86, 1366806.73	0+25.76
L–16	0+25.76	10.75'	NA	N33°24'58"E	17141715.86, 1366806.73	17141724.83, 1366812.65	0+36.50

ABM WALKWAY			
POINT NO.	NORTHING	EASTING	ELEVATION (FT.)
1	17141874.48	1366630.18	8.5
2	17141879.35	1366632.11	8.3
3	17141893.49	1366635.69	8.0
4	17141908.08	1366635.52	8.0
5	17141929.83	1366632.44	9.1
6	17141938.01	1366632.79	9.3
7	17141945.53	1366636.04	9.1
8	17141976.82	1366657.11	6.4
9	17141978.99	1366660.64	6.0
10	17141977.75	1366664.60	6.0
11	17141946.61	1366699.29	6.0
12	17141946.15	1366699.88	6.0
13	17141945.78	1366700.53	6.0
14	17141888.76	1366823.73	6.0
15	17141885.53	1366826.46	6.0
16	17141881.37	1366825.73	6.0
17	17141864.34	1366813.86	8.5

EAST SIDEWALK			
POINT NO.	NORTHING	EASTING	ELEVATION (FT.)
18	17141713.05	1366822.19	0.00
19	17141738.99	1366808.67	6.35
20	17141749.80	1366807.34	6.63
21	17141762.41	1366806.71	7.07
22	17141783.19	1366808.47	8.01
23	17141802.75	1366815.70	8.39
24	17141804.15	1366816.44	8.38
25	17141809.48	1366818.42	8.23
26	17141815.14	1366818.93	8.33
27	17141819.07	1366818.77	8.52

SIDEWALK PATCH			
POINT NO.	NORTHING	EASTING	ELEVATION (FT.)
28	17141693.39	1366794.13	0.00
29	17141715.86	1366806.73	0.00
30	17141724.83	1366812.65	0.00

REVISION NO.	DATE	BY	DESCRIPTION
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B	02/2025	DJH	90% PRELIMINARY DESIGN REVIEW
A	10/2024	DJH	60% PRELIMINARY DESIGN REVIEW

CONSULTANT'S SHEET NO.
10C–02

100% DESIGN, PRE-NOA PRELIMINARY

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ENGINEER: DANIEL J. HEILMAN
LICENSE NO.: 86936
DATE: 03/10/2026

TBPELS Firm Registration No. F-754
Project No. 10400452

CITY of CORPUS CHRISTI
TEXAS
Department of Engineering Services

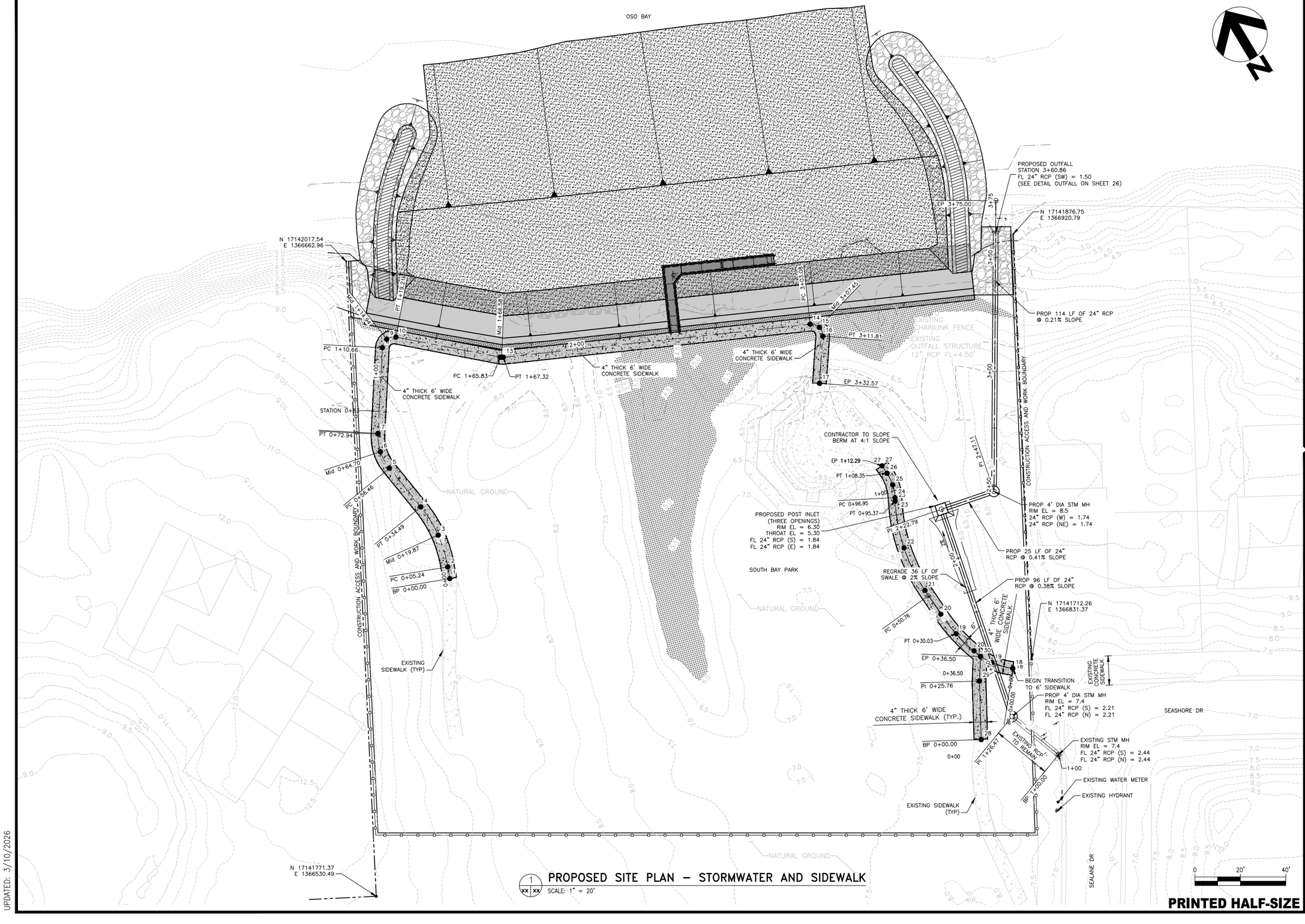
SOUTH BAY PARK
SHORELINE IMPROVEMENTS

ALIGNMENT DATA SHEET

SHEET 18 of 26
RECORD DRAWING NO.
CP–XXX
CITY PROJECT #23035

PRINTED HALF-SIZE

UPDATED: 3/10/2026



1 / XX | XX — PROPOSED SITE PLAN – STORMWATER AND SIDEWALK

SCALE: 1" = 20'

PRINTED HALF-SIZE

UPDATED: 3/10/2026

REVISION NO.	DATE	BY	DESCRIPTION
--	03/10/2026	DJH	INTERIM CHECK PLOT (PRE-FINAL DESIGN, PRE-NOA)

REVISION NO.	DATE	BY	DESCRIPTION
B	02/2025	DJH	90% PRELIMINARY DESIGN REVIEW
A	10/2024	DJH	60% PRELIMINARY DESIGN REVIEW

CONSULTANT'S SHEET NO.

10C-03

100% DESIGN, PRE-NOA PRELIMINARY

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ENGINEER: DANIEL J. HEILMAN

LICENSE NO.: 86936

DATE: 03/10/2026

HDR
TBPELS Firm Registration No. F-754
Project No. 10400452

CITY of CORPUS CHRISTI
TEXAS
Department of Engineering Services

SOUTH BAY PARK
SHORELINE IMPROVEMENTS

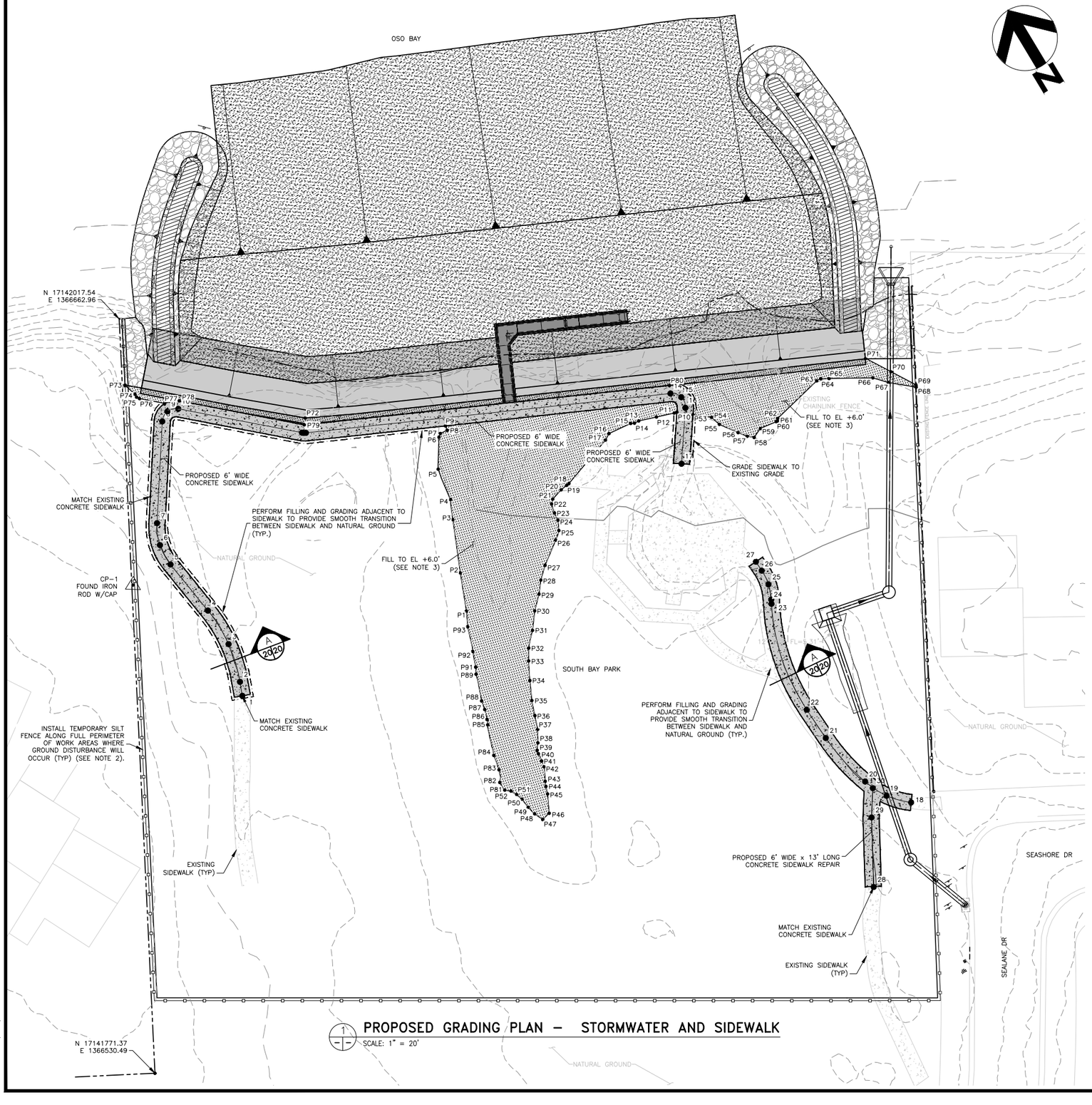
PROPOSED SITE PLAN – STORMWATER AND SIDEWALK

SHEET 19 of 26

RECORD DRAWING NO.

CP-XXX

CITY PROJECT #23035



1 / – / – PROPOSED GRADING PLAN – STORMWATER AND SIDEWALK

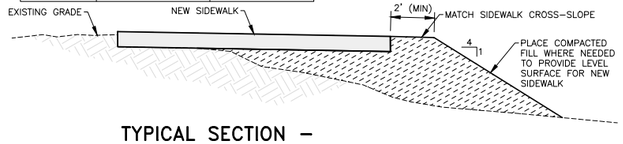
SCALE: 1" = 20'

NOTES:

1. NO GRADING OR OTHER GROUND DISTURBANCE SHALL OCCUR BEYOND THE CONSTRUCTION ACCESS AND WORK BOUNDARY SHOWN ON THESE DRAWINGS. CONTRACTOR SHALL NOT ACCESS OR DISTURB ADJACENT PRIVATE PROPERTY.
2. TEMPORARY SILT FENCE SHALL BE INSTALLED PRIOR TO GRADING OR OTHER SITEWORK THAT RESULTS IN GROUND DISTURBANCE. COST FOR TEMPORARY SILT FENCE IS SUBSIDIARY TO MOBILIZATION COSTS UNDER BID ITEMS A-1, B-1, C-1, AND D-1 AS STATED IN SPECIFICATION SECTION 01 29 01 (MEASUREMENT AND BASIS FOR PAYMENT). NO SEPARATE PAYMENT WILL BE MADE FOR PROCUREMENT, INSTALLATION, MAINTENANCE, OR REMOVAL OF SILT FENCE.
3. PLACE CONTRACTOR-FURNISHED FILL MATERIAL WHERE NEEDED TO COMPLETE SPECIFIED SITE FILLING AND GRADING. REFER TO SECTION 31 22 13 (SITE EXCAVATION AND GRADING) FOR CONTRACTOR-FURNISHED FILL MATERIAL REQUIREMENTS.
4. UPON COMPLETION OF SITE FILLING AND FINISHED GRADING, BLOCK SODDING SHALL BE INSTALLED AT ALL NATURAL GROUND SURFACES WHERE GROUND DISTURBANCES OCCURRED. REFER TO SPECIFICATION 02 80 40 FOR SOD REQUIREMENTS.

BOUNDARY COORDINATES FOR SITE FILLING		
POINT NO.	NORTHING	EASTING
P1	17141858.65	1366717.49
P2	17141871.92	1366722.81
P3	17141890.24	1366730.61
P4	17141897.10	1366733.69
P5	17141909.03	1366735.58
P6	17141919.07	1366741.94
P7	17141919.95	1366743.09
P8	17141919.69	1366745.85
P9	17141921.39	1366746.10
P10	17141881.58	1366822.22
P11	17141881.83	1366821.19
P12	17141883.96	1366814.80
P13	17141886.10	1366808.40
P14	17141886.19	1366806.65
P15	17141886.87	1366805.41
P16	17141887.76	1366796.57
P17	17141886.37	1366794.24
P18	17141879.55	1366774.35
P19	17141879.38	1366773.25
P20	17141879.05	1366770.70
P21	17141877.70	1366766.23
P22	17141876.37	1366764.94
P23	17141872.95	1366764.13
P24	17141870.00	1366763.86
P25	17141866.53	1366762.18
P26	17141864.11	1366759.36
P27	17141858.13	1366751.16
P28	17141854.27	1366747.02
P29	17141850.13	1366743.76
P30	17141845.69	1366739.20
P31	17141839.89	1366734.76
P32	17141834.99	1366730.22
P33	17141830.94	1366727.71
P34	17141824.46	1366724.34
P35	17141817.77	1366721.20
P36	17141812.41	1366719.27
P37	17141807.49	1366717.55
P38	17141803.16	1366715.08
P39	17141800.93	1366713.36
P40	17141799.60	1366713.13
P41	17141796.69	1366712.76
P42	17141794.37	1366712.42
P43	17141789.58	1366710.03
P44	17141787.81	1366709.28
P45	17141785.10	1366708.37
P46	17141778.68	1366705.24
P47	17141777.92	1366701.96

BOUNDARY COORDINATES FOR SITE FILLING		
POINT NO.	NORTHING	EASTING
P48	17141781.25	1366700.47
P49	17141784.53	1366699.67
P50	17141788.37	1366699.24
P51	17141790.86	1366698.45
P52	17141793.00	1366697.30
P53	17141877.72	1366826.85
P54	17141873.36	1366832.24
P55	17141869.64	1366833.34
P56	17141863.42	1366837.76
P57	17141860.56	1366839.92
P58	17141858.86	1366841.92
P59	17141860.44	1366845.60
P60	17141859.60	1366851.98
P61	17141859.64	1366852.45
P62	17141860.40	1366853.02
P63	17141864.89	1366872.53
P64	17141864.78	1366874.26
P65	17141863.23	1366876.92
P66	17141855.14	1366890.94
P67	17141850.67	1366895.04
P68	17141843.91	1366902.94
P69	17141844.65	1366903.34
P70	17141853.65	1366897.86
P71	17141862.65	1366892.39
P72	17141950.62	1366703.11
P73	17141995.44	1366652.21
P74	17141990.72	1366653.56
P75	17141989.42	1366653.58
P76	17141988.42	1366654.22
P77	17141982.00	1366661.19
P78	17141980.14	1366666.43
P79	17141948.64	1366701.52
P80	17141891.51	1366824.96
P81	17141794.49	1366695.51
P82	17141797.88	1366695.40
P83	17141802.02	1366697.59
P84	17141807.59	1366698.68
P85	17141818.45	1366702.54
P86	17141820.29	1366703.34
P87	17141823.89	1366704.50
P88	17141827.21	1366705.15
P89	17141836.75	1366708.52
P91	17141839.07	1366709.74
P92	17141844.61	1366711.80
P93	17141853.41	1366714.87



A / 20 / 20 TYPICAL SECTION – FILL PLACEMENT FOR SIDEWALK SUBGRADE

SCALE: N.T.S.

0 20' 40'

PRINTED HALF-SIZE

UPDATED: 3/10/2026

REVISION NO.	DATE	BY	DESCRIPTION
–	03/10/2026	DJH	INTERIM CHECK PLOT (PRE-FINAL DESIGN, PRE-NOA)
B	02/2025	DJH	90% PRELIMINARY DESIGN REVIEW
A	10/2024	DJH	60% PRELIMINARY DESIGN REVIEW

CONSULTANT'S SHEET NO.
10C-04

100% DESIGN, PRE-NOA PRELIMINARY

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ENGINEER: DANIEL J. HELMAN
LICENSE NO.: 86936
DATE: 03/10/2026

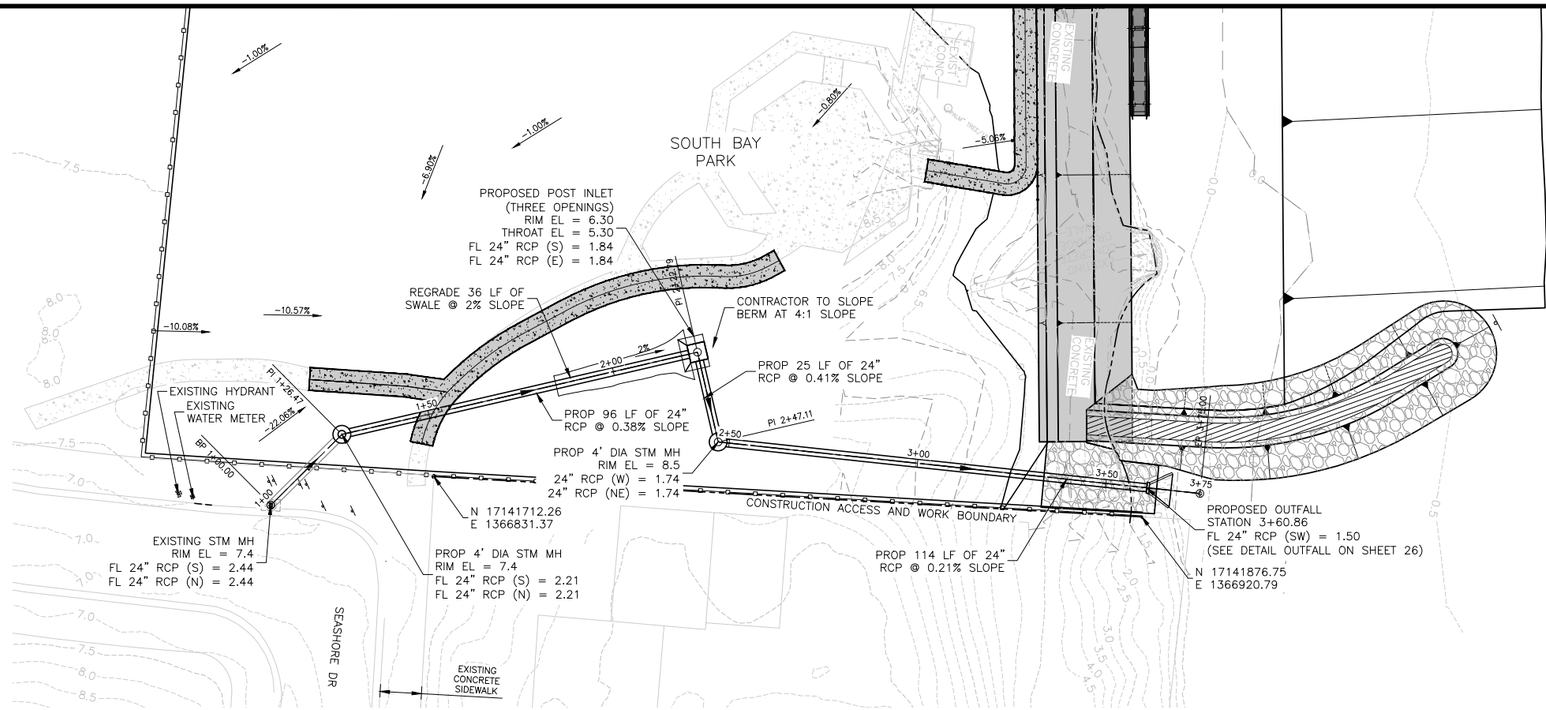
TBPELS Firm Registration No. F-754
Project No. 10400452

CITY of CORPUS CHRISTI
TEXAS
Department of Engineering Services

SOUTH BAY PARK
SHORELINE IMPROVEMENTS

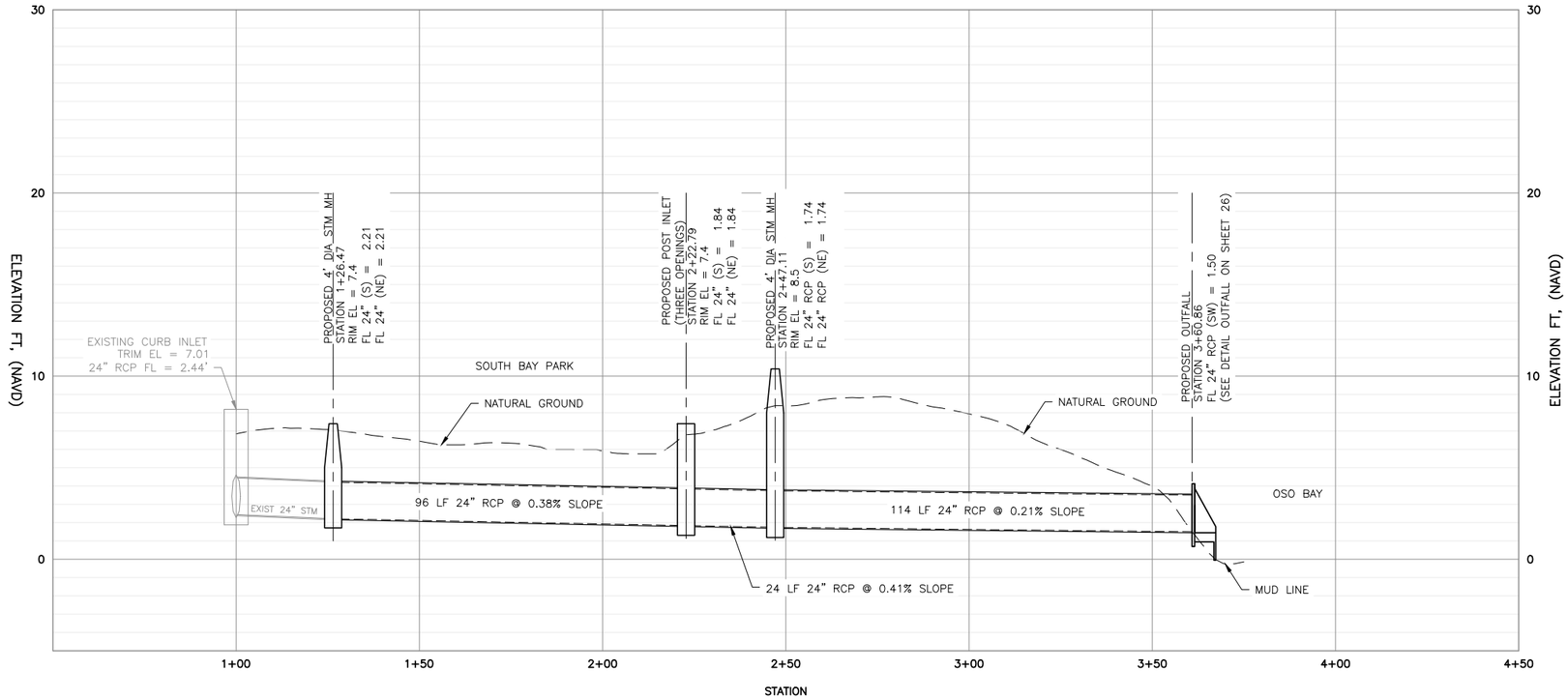
PROPOSED GRADING PLAN – STORMWATER AND SIDEWALK

SHEET 20 of 26
RECORD DRAWING NO.
CP-XXX
CITY PROJECT #23035



1 PROPOSED STORMWATER PLAN

SCALE: 1" = 40' HORIZONTAL SCALE



1 PROPOSED STORMWATER PROFILE

SCALE: 1" = 40' HORIZONTAL SCALE
SCALE: 1" = 4' VERTICAL SCALE

0 1' 2' 4'
1/4"=1'-0"
VERTICAL SCALE

0 20' 40'
HORIZONTAL SCALE

PRINTED HALF-SIZE

UPDATED: 3/10/2026

REVISION NO.	DATE	BY	DESCRIPTION
--	03/10/2026	DJH	INTERIM CHECK PLOT (PRE-FINAL DESIGN, PRE-NOA)
B	02/2025	DJH	90% PRELIMINARY DESIGN REVIEW
A	10/2024	DJH	60% PRELIMINARY DESIGN REVIEW

CONSULTANT'S SHEET NO.
10C-05

100% DESIGN, PRE-NOA PRELIMINARY

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ENGINEER: DANIEL J. HEILMAN
LICENSE NO.: 86936
DATE: 03/10/2026

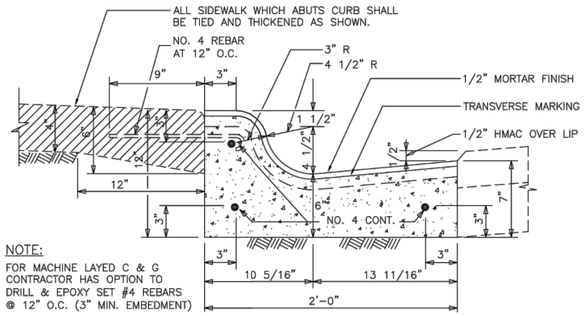
TBPELS Firm Registration No. F-754
Project No. 10400452

CITY of CORPUS CHRISTI
TEXAS
Department of Engineering Services

SOUTH BAY PARK
SHORELINE IMPROVEMENTS

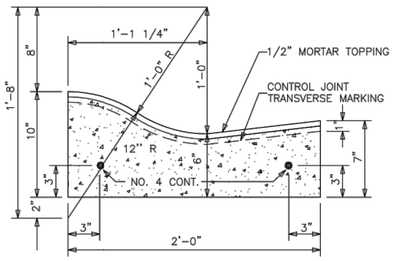
PROPOSED STORMWATER PLAN & PROFILE

SHEET 21 of 26
RECORD DRAWING NO.
CP-XXX
CITY PROJECT #23035



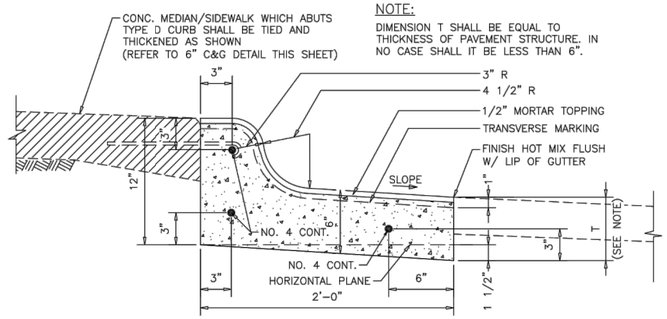
TYPICAL 6" CURB & GUTTER DETAIL

NOT TO SCALE



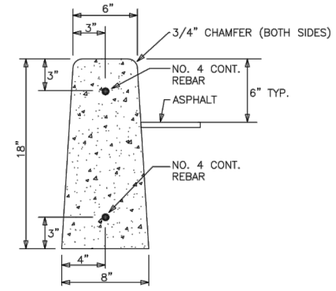
4" CURB & GUTTER DETAIL

NOT TO SCALE



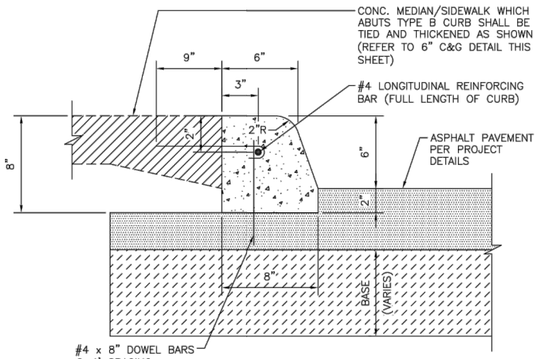
6" REVERSE CURB & GUTTER DETAIL

NOT TO SCALE



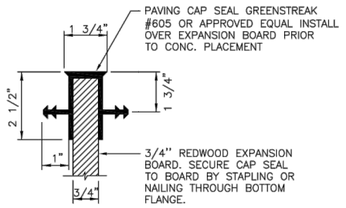
TYPE 'A' HEADER CURB DETAIL

NOT TO SCALE



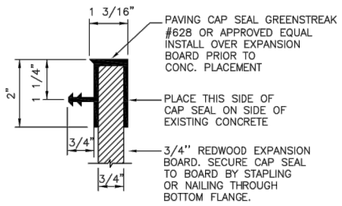
TYPE 'B' HEADER CURB DETAIL

NOT TO SCALE



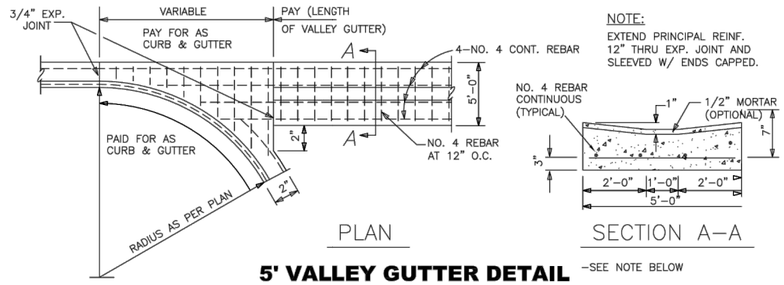
CAP SEAL DETAIL NEW CONC. TO NEW CONC.

NOT TO SCALE



CAP SEAL DETAIL NEW CONC. TO EXIST. CONC.

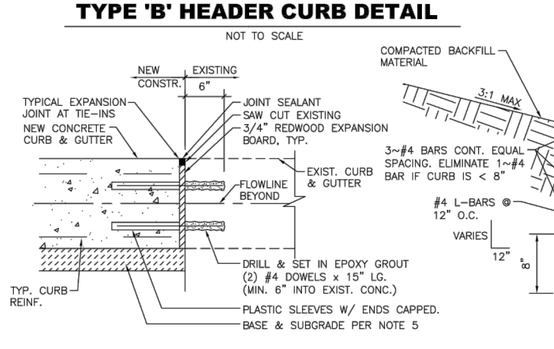
NOT TO SCALE



5' VALLEY GUTTER DETAIL

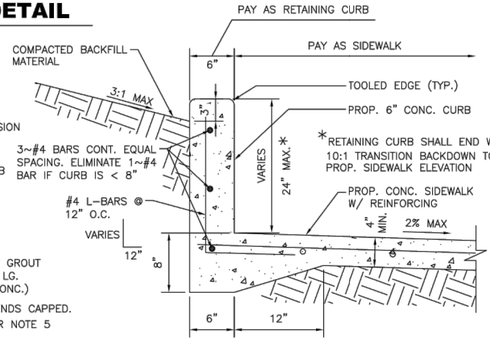
NOT TO SCALE

-SEE NOTE BELOW



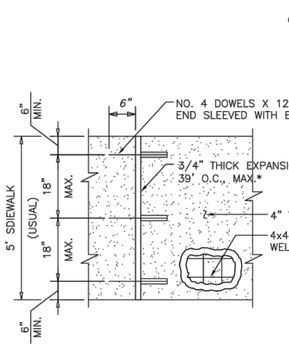
CURB AND GUTTER TIE-IN DETAIL

NOT TO SCALE



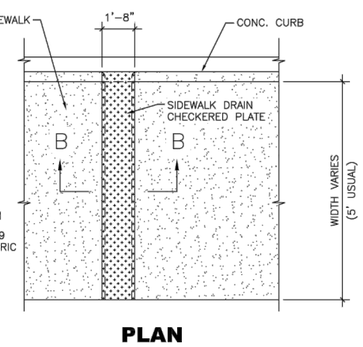
SIDEWALK RETAINING CURB DETAIL

NOT TO SCALE



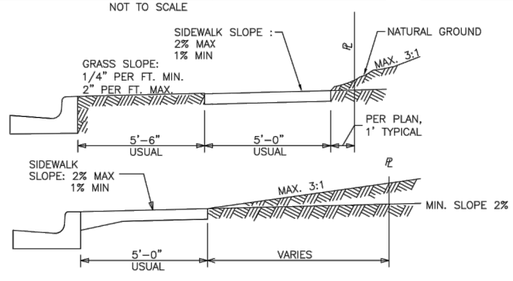
PLAN FOR SIDEWALK

NOT TO SCALE



PLAN SIDEWALK DRAIN

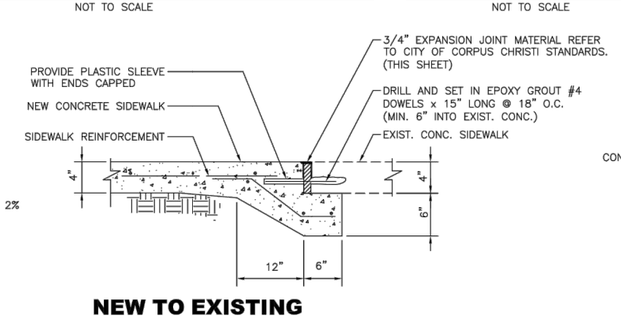
NOT TO SCALE



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

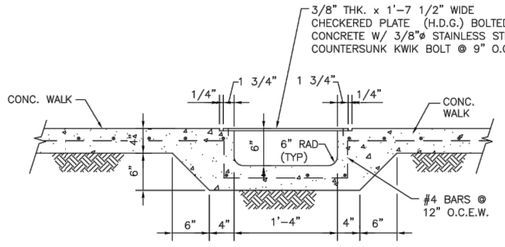
SURFACE & SIDEWALK SLOPE BEHIND CURB

NOT TO SCALE



NEW TO EXISTING SIDEWALK TIE-IN DETAIL

NOT TO SCALE



SECTION B-B

NOT TO SCALE

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 & 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.

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.

PRINTED HALF-SIZE

UPDATED: 3/10/2026

REVISION NO.	DATE	BY	DESCRIPTION
--	03/10/2026	DJH	INTERIM CHECK PLOT (PRE-FINAL DESIGN, PRE-NOA)
A	10/2024	DJH	60% PRELIMINARY DESIGN REVIEW
B	02/2025	DJH	90% PRELIMINARY DESIGN REVIEW

CONSULTANT'S SHEET NO.
11C-01

100% DESIGN, PRE-NOA PRELIMINARY

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF INTERIM REVIEW AND IS NOT INTENDED TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

ENGINEER: DANIEL J. HELLMAN
LICENSE NO.: 86936
DATE: 03/10/2026

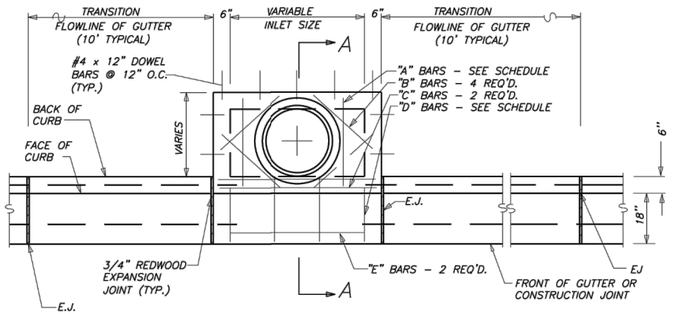
TBPELS Firm Registration No. F-754
Project No. 10400452

CITY of CORPUS CHRISTI
TEXAS
Department of Engineering Services

SOUTH BAY PARK
SHORELINE IMPROVEMENTS

COCC CURB GUTTER & SIDEWALK STANDARD DETAILS

SHEET 22 of 26
RECORD DRAWING NO.
CP-XXX
CITY PROJECT #23035

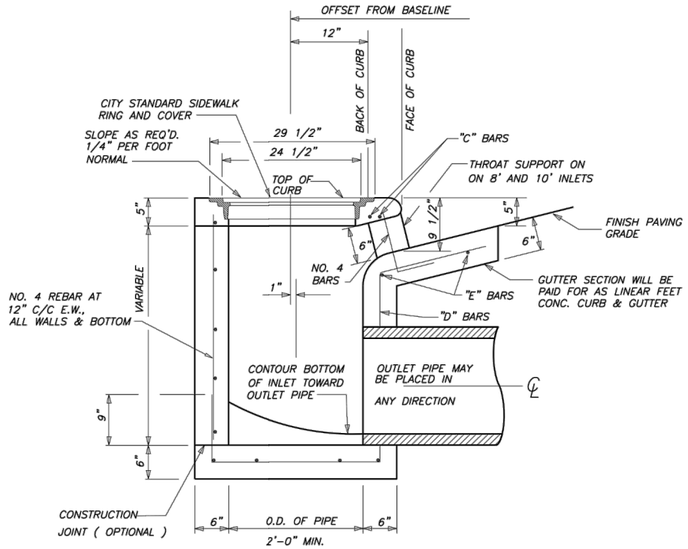


PLAN OF 5' STANDARD INLET

NOT TO SCALE

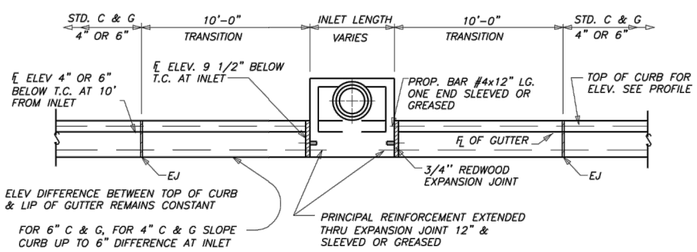
SPECIAL NOTE:

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.



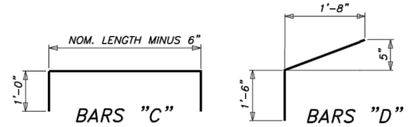
SECTION A-A

NOT TO SCALE



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

NOT TO SCALE

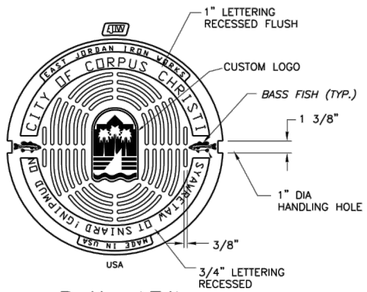


** THROAT OPENINGS SHALL HAVE A 6" X 6" CONCRETE SUPPORT PLACED AT MID-THROAT

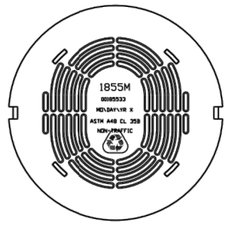
* NOMINAL LENGTH OF INLET SHALL BE DESIGNATED AS THE CLEAR WIDTH OPENING.

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

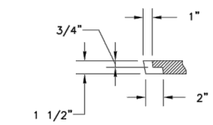
a = O.D. + 8", 2'-8" MIN. MAX. PIPE I.D. = 48 INCHES



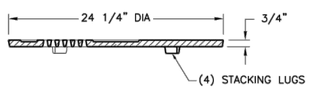
PLAN VIEW



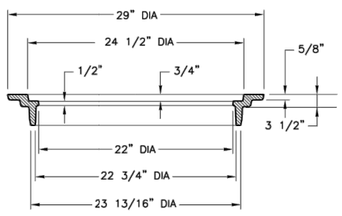
GRATE BLOCK



PICKSLOT DETAIL



GRATE SECTION



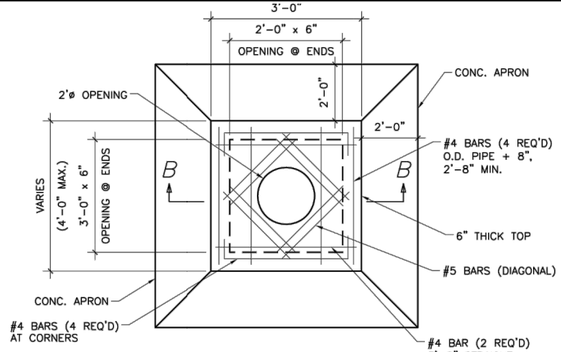
RING SECTION

CITY STANDARD INLET AND SIDWALK MANHOLE RING & COVER CASTING DETAILS

NOT TO SCALE

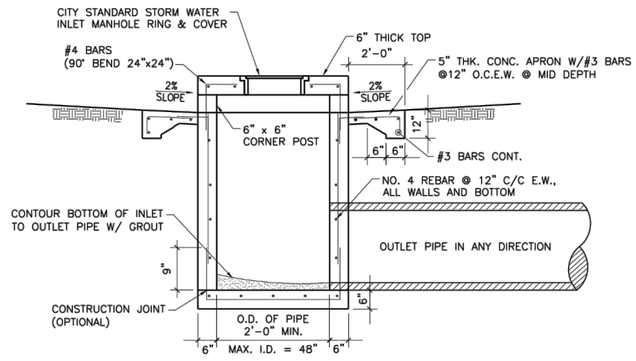
INLET AND SIDEWALK MANHOLE RING & COVER NOTES

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.



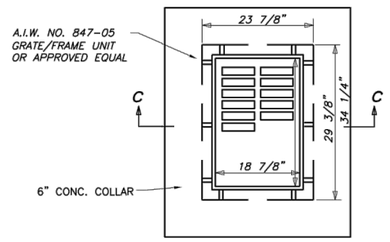
PLAN OF POST INLET

NOT TO SCALE



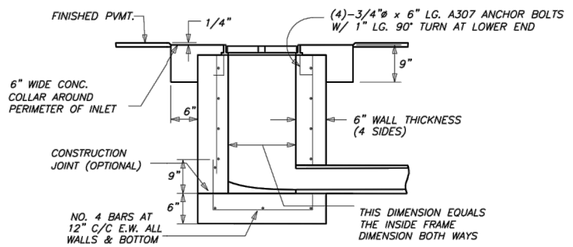
SECTION B-B

NOT TO SCALE



PLAN OF STANDARD GRATE INLET

NOT TO SCALE



SECTION C-C

NOT TO SCALE

UPDATED: 3/10/2026

PRINTED HALF-SIZE

REVISION NO.	DATE	BY	DESCRIPTION
B	02/2025	DJH	90% PRELIMINARY DESIGN REVIEW
A	10/2024	DJH	60% PRELIMINARY DESIGN REVIEW
--	03/10/2026	DJH	INTERIM CHECK PLOT (PRE-FINAL DESIGN, PRE-NOA)

CONSULTANT'S SHEET NO.
11C-02

100% DESIGN, PRE-NOA PRELIMINARY

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF INTERIM REVIEW AND SHALL NOT BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

ENGINEER: DANIEL J. HEILMAN
LICENSE NO.: 86936
DATE: 03/10/2026

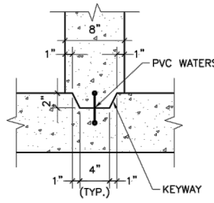
TBPELS Firm Registration No. F-754
Project No. 10400452

CITY of CORPUS CHRISTI
TEXAS
Department of Engineering Services

SOUTH BAY PARK
SHORELINE IMPROVEMENTS

COCC STORMWATER STANDARD
DETAILS SHEET 1 OF 3

SHEET 23 of 26
RECORD DRAWING NO.
CP-XXX
CITY PROJECT #23035



PRE-CAST CONC. MANHOLE NOTES:

HS20 LOADING

CONCRETE 28 DAY COMPRESSIVE STRENGTH – 5000 PSI

REINFORCEMENT STEEL – 60,000 PSI

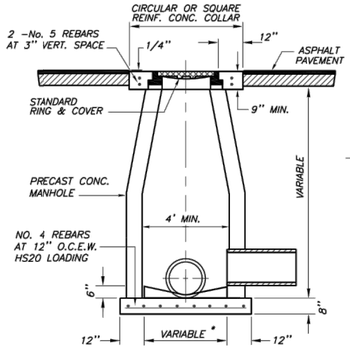
REBAR MIN. SPLICE LENGTHS: #4–22" #5–28" #6–33"

MANHOLE WALL/RISER REINFORCED PER ASTM C–478

REFER TO NOTE 12 ON THIS SHEET, AND TABLE 1 ON SHEET 25, FOR BEDDING AND BACKFILL REQUIREMENTS.

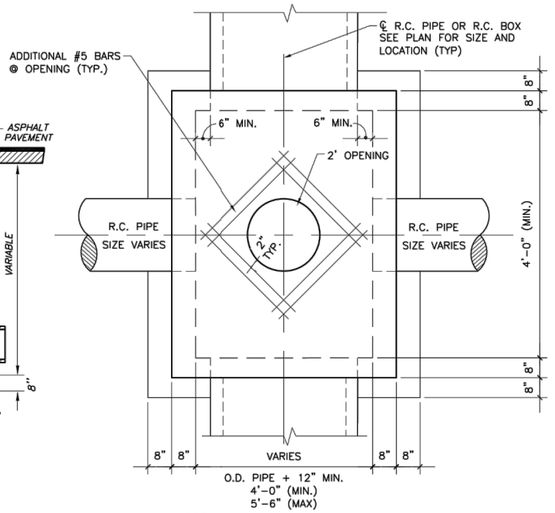
KEYWAY DETAIL

NOT TO SCALE



TYPE "A" MANHOLE

NOT TO SCALE

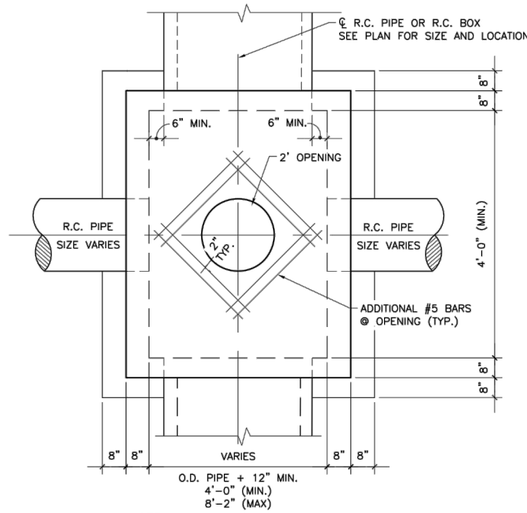


NOTE:

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

PLAN
TYPE 'B' MANHOLE

NOT TO SCALE

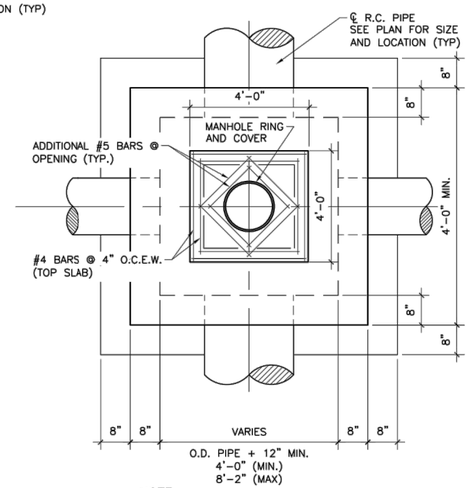


NOTE:

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

PLAN
TYPE 'C' MANHOLE

NOT TO SCALE

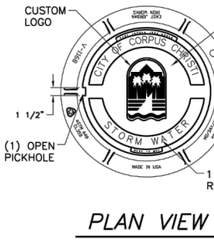


NOTE:

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

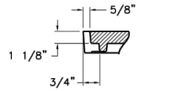
PLAN
TYPE 'D' MANHOLE

NOT TO SCALE

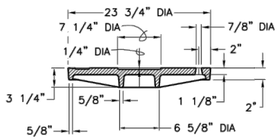


PLAN VIEW

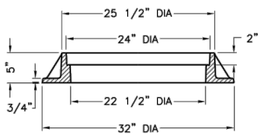
COVER BACK



PICKSLOT DETAIL



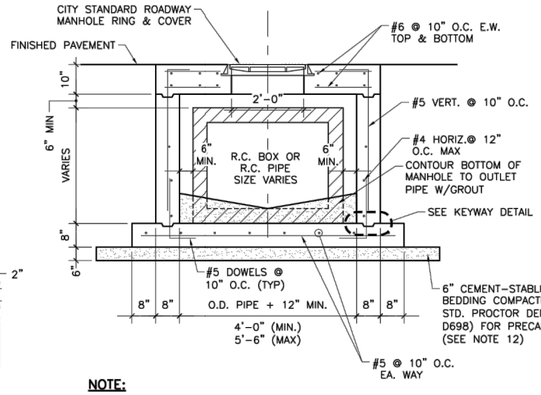
COVER SECTION



FRAME SECTION

CITY STANDARD ROADWAY MANHOLE RING & COVER CASTING DETAIL

NOT TO SCALE

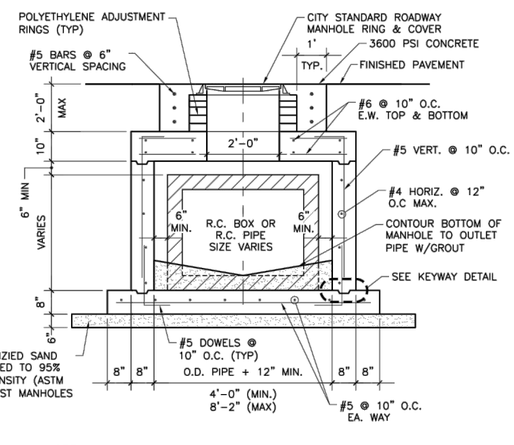


NOTE:

LATERAL PIPES NOT SHOWN FOR CLARITY

SECTION
TYPE 'B' MANHOLE

NOT TO SCALE

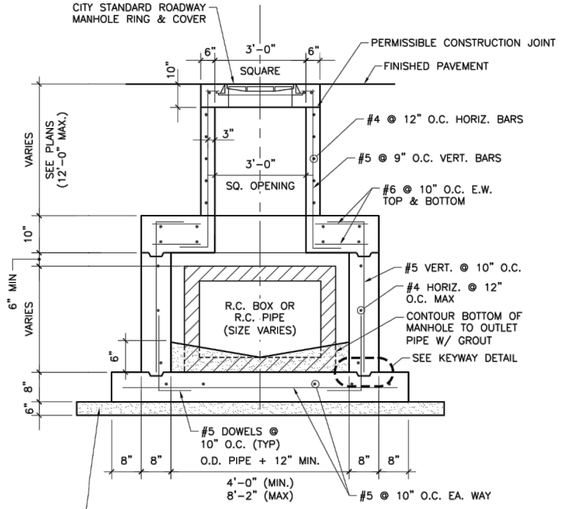


NOTE:

LATERAL PIPES NOT SHOWN FOR CLARITY

SECTION
TYPE 'C' MANHOLE

NOT TO SCALE



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.

PRINTED HALF-SIZE

UPDATED: 3/10/2026

REVISION NO.	DATE	BY	DESCRIPTION
--	03/10/2026	DJH	INTERIM CHECK PLOT (PRE–FINAL DESIGN, PRE–NOA)
A	10/2024	DJH	60% PRELIMINARY DESIGN REVIEW
B	02/2025	DJH	90% PRELIMINARY DESIGN REVIEW

CONSULTANT'S SHEET NO.
11C–03

100% DESIGN, PRE-NOA PRELIMINARY

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ENGINEER: DANIEL J. HEILMAN
LICENSE NO.: 86936
DATE: 03/10/2026

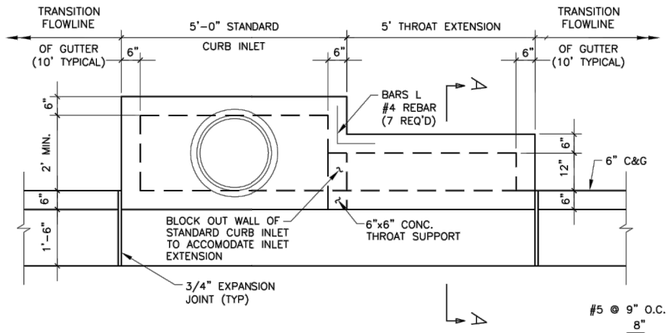
TBPELS Firm Registration No. F-754
Project No. 10400452

CITY of CORPUS CHRISTI
TEXAS
Department of Engineering Services

SOUTH BAY PARK
SHORELINE IMPROVEMENTS

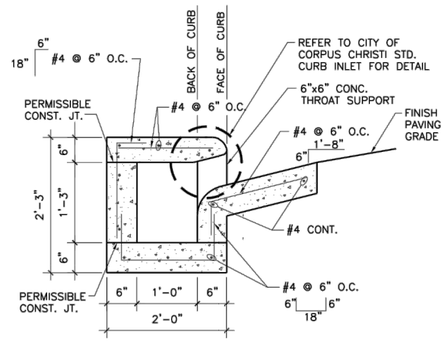
COCC STORMWATER STANDARD
DETAILS SHEET 2 OF 3

SHEET 24 of 26
RECORD DRAWING NO.
CP–XXX
CITY PROJECT #23035



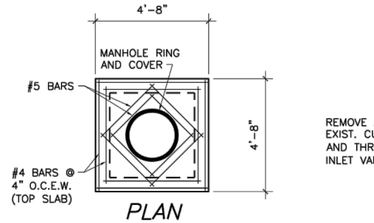
CURB INLET THROAT EXTENSION PLAN

NOT TO SCALE

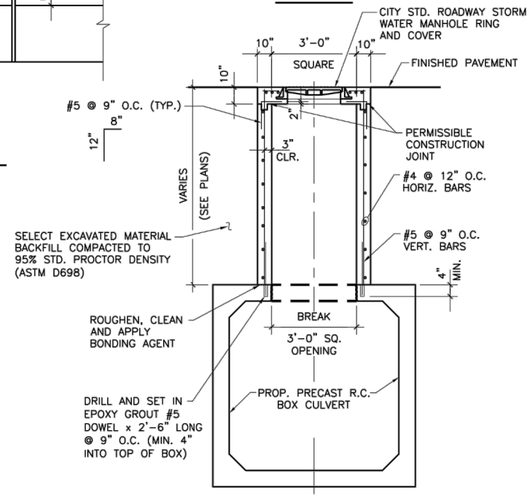


SECTION A-A

NOT TO SCALE



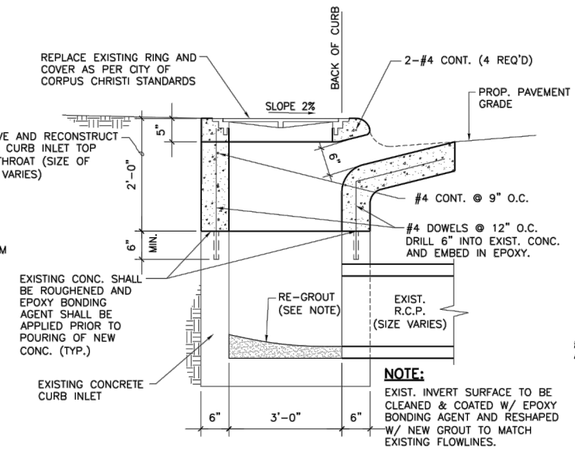
PLAN



SECTION

MANHOLE RISER DETAIL

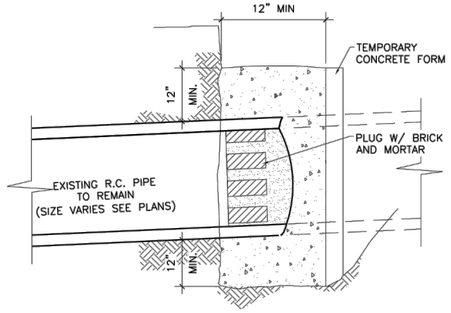
NOT TO SCALE



NOTE:
EXIST. INVERT SURFACE TO BE CLEANED & COATED W/ EPOXY BONDING AGENT AND RESHAPED W/ NEW GROUT TO MATCH EXISTING FLOWLINES.

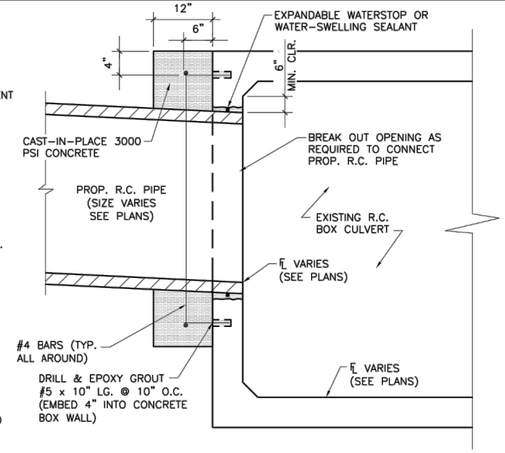
REMOVE AND REPLACE TOP OF EXISTING CURB INLET DETAIL

NOT TO SCALE



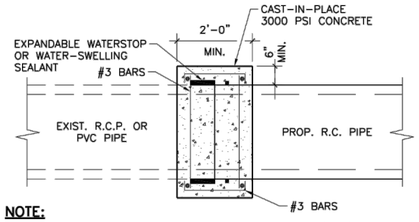
EXISTING R.C. PIPE PLUG

NOT TO SCALE



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

NOT TO SCALE

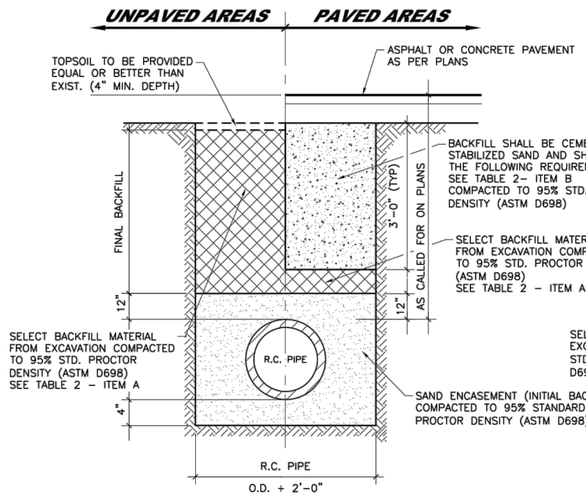


NOTE:
PIPE COLLAR SHALL BE USED WHERE A TIGHT JOINT CANNOT BE PLACED, SUCH AS A BREAK IN ALIGNMENT, DAMAGED PIPE ENDS OR TIE-IN TO EXISTING PIPE OR STRUCTURES.

2" 20" 2"

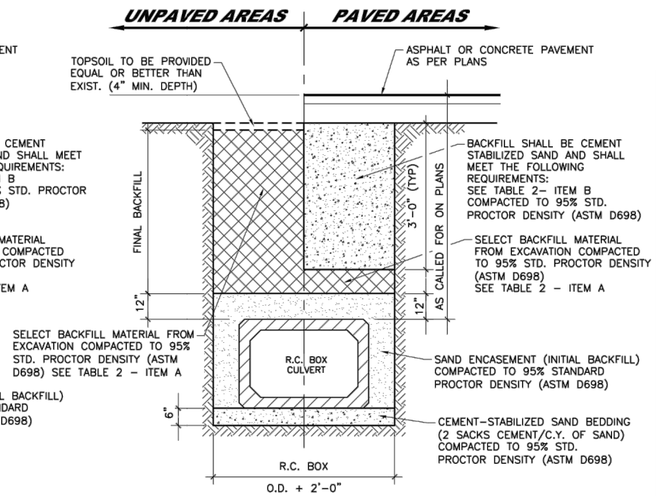
CONCRETE COLLAR DETAIL

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.

UPDATED: 3/10/2026

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--	03/10/2026	DJH	INTERIM CHECK PLOT (PRE-FINAL DESIGN, PRE-NOA)
A	10/2024	DJH	60% PRELIMINARY DESIGN REVIEW
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CONSULTANT'S SHEET NO.
11C-04

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ENGINEER: DANIEL J. HEILMAN
LICENSE NO.: 86936
DATE: 03/10/2026

TBPELS Firm Registration No. F-754
Project No. 10400452

CITY of CORPUS CHRISTI
TEXAS
Department of Engineering Services

SOUTH BAY PARK
SHORELINE IMPROVEMENTS

COCC STORMWATER STANDARD
DETAILS SHEET 3 OF 3

SHEET 25 of 26
RECORD DRAWING NO.
CP-XXX
CITY PROJECT #23035

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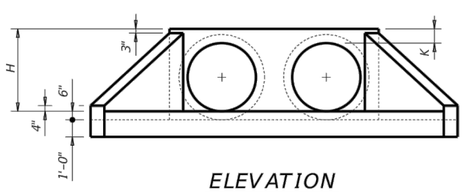
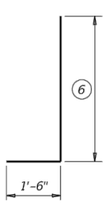
TABLE OF VARIABLE DIMENSIONS AND QUANTITIES FOR ONE HEADWALL (5)

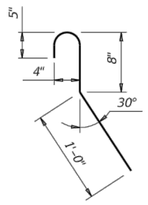
Slope	Dia of Pipe (D)	Values for One Pipe W	X	Y	L	Reinf (Lbs)	Conc (CY) (1)	Values to be Added for Each Addt'l Pipe X and W	Reinf (Lbs)	Conc (CY) (1)
2:1	12"	4' – 7 ½"	2' – 6"	2' – 10"	3' – 3 ¼"	88	0.6	1' – 9"	20	0.2
	15"	5' – 5 ¾"	2' – 9 ½"	3' – 4"	3' – 10 ¼"	103	0.7	2' – 2"	24	0.3
	18"	6' – 4 ¼"	3' – 1"	3' – 10"	4' – 5"	124	0.9	2' – 8"	32	0.3
	21"	7' – 2 ¾"	3' – 4 ½"	4' – 4"	5' – 0"	143	1.1	3' – 1"	43	0.4
	24"	8' – 2 ½"	3' – 9 ½"	4' – 10"	5' – 7"	164	1.3	3' – 7"	50	0.5
	27"	9' – 1"	4' – 1"	5' – 4"	6' – 2"	179	1.5	3' – 11"	56	0.6
	30"	9' – 11 ½"	4' – 4 ½"	5' – 10"	6' – 8 ¾"	203	1.7	4' – 4"	65	0.8
	33"	10' – 10"	4' – 8"	6' – 4"	7' – 3 ¾"	224	2.0	4' – 8"	71	0.9
	36"	11' – 8 ¼"	4' – 11 ½"	6' – 10"	7' – 10 ¾"	249	2.2	5' – 1"	81	1.0
	42"	13' – 5 ¼"	5' – 6 ½"	7' – 10"	9' – 0 ½"	298	2.8	5' – 10"	97	1.3
	48"	15' – 9"	6' – 1 ½"	9' – 4"	10' – 9 ¼"	360	3.8	6' – 7"	117	1.7
	54"	17' – 5 ¾"	6' – 8 ½"	10' – 4"	11' – 11 ¼"	427	4.5	7' – 6"	151	2.1
	60"	19' – 2 ¾"	7' – 3 ½"	11' – 4"	13' – 1"	481	5.3	8' – 3"	174	2.5
	66"	20' – 11 ½"	7' – 10 ½"	12' – 4"	14' – 3"	544	6.2	8' – 9"	194	2.9
	72"	22' – 8 ½"	8' – 5 ½"	13' – 4"	15' – 4 ¾"	601	7.1	9' – 4"	213	3.3
3:1	12"	6' – 3"	2' – 6"	4' – 3"	4' – 11"	118	0.8	1' – 9"	22	0.2
	15"	7' – 5"	2' – 9 ½"	5' – 0"	5' – 9 ¼"	137	1.1	2' – 2"	28	0.3
	18"	8' – 6 ¾"	3' – 1"	5' – 9"	6' – 7 ¾"	170	1.3	2' – 8"	37	0.5
	21"	9' – 8 ¾"	3' – 4 ½"	6' – 6"	7' – 6"	195	1.6	3' – 1"	48	0.6
	24"	11' – 0"	3' – 9 ½"	7' – 3"	8' – 4 ½"	227	2.0	3' – 7"	58	0.7
	27"	12' – 2"	4' – 1"	8' – 0"	9' – 2 ¾"	251	2.3	3' – 11"	67	0.8
	30"	13' – 4"	4' – 4 ½"	8' – 9"	10' – 1 ¼"	293	2.7	4' – 4"	77	1.0
	33"	14' – 5 ¾"	4' – 8"	9' – 6"	10' – 11 ¾"	318	3.1	4' – 8"	84	1.2
	36"	15' – 7 ¾"	4' – 11 ½"	10' – 3"	11' – 10"	351	3.5	5' – 1"	96	1.4
	42"	17' – 11 ½"	5' – 6 ½"	11' – 9"	13' – 6 ¾"	432	4.5	5' – 10"	119	1.7
	48"	21' – 1 ¾"	6' – 1 ½"	14' – 0"	16' – 2"	537	6.1	6' – 7"	146	2.3
	54"	23' – 5 ½"	6' – 8 ½"	15' – 6"	17' – 10 ¾"	630	7.3	7' – 6"	186	2.9
	60"	25' – 9 ¼"	7' – 3 ½"	17' – 0"	19' – 7 ½"	719	8.7	8' – 3"	219	3.4
	66"	28' – 1"	7' – 10 ½"	18' – 6"	21' – 4 ¼"	811	10.1	8' – 9"	242	3.9
	72"	30' – 4 ¾"	8' – 5 ½"	20' – 0"	23' – 1 ¼"	924	11.7	9' – 4"	272	4.4
4:1	12"	7' – 10 ¾"	2' – 6"	5' – 8"	6' – 6 ½"	148	1.1	1' – 9"	24	0.3
	15"	9' – 4"	2' – 9 ½"	6' – 8"	7' – 8 ½"	181	1.5	2' – 2"	32	0.4
	18"	10' – 9 ½"	3' – 1"	7' – 8"	8' – 10 ¼"	221	1.9	2' – 8"	42	0.5
	21"	12' – 2 ¾"	3' – 4 ½"	8' – 8"	10' – 0"	260	2.3	3' – 1"	57	0.7
	24"	13' – 9 ½"	3' – 9 ½"	9' – 8"	11' – 2"	301	2.8	3' – 7"	67	0.9
	27"	15' – 3"	4' – 1"	10' – 8"	12' – 3 ¾"	334	3.3	3' – 11"	77	1.0
	30"	16' – 8 ¼"	4' – 4 ½"	11' – 8"	13' – 5 ¾"	385	3.8	4' – 4"	89	1.3
	33"	18' – 1 ¾"	4' – 8"	12' – 8"	14' – 7 ½"	425	4.5	4' – 8"	101	1.4
	36"	19' – 7"	4' – 11 ½"	13' – 8"	15' – 9 ¼"	472	5.1	5' – 1"	115	1.7
	42"	22' – 5 ¾"	5' – 6 ½"	15' – 8"	18' – 1"	583	6.5	5' – 10"	141	2.1
	48"	26' – 6 ¼"	6' – 1 ½"	18' – 8"	21' – 6 ¾"	730	8.9	6' – 7"	175	2.8
	54"	29' – 5"	6' – 8 ½"	20' – 8"	23' – 10 ¼"	875	10.7	7' – 6"	226	3.6
	60"	32' – 3 ¾"	7' – 3 ½"	22' – 8"	26' – 2"	996	12.7	8' – 3"	264	4.3
	66"	35' – 2 ½"	7' – 10 ½"	24' – 8"	28' – 5 ¾"	1,140	14.9	8' – 9"	300	4.9
	72"	38' – 1 ¼"	8' – 5 ½"	26' – 8"	30' – 9 ½"	1,297	17.3	9' – 4"	334	5.6
6:1	12"	11' – 2"	2' – 6"	8' – 6"	9' – 9 ¾"	224	1.9	1' – 9"	28	0.4
	15"	13' – 2 ¼"	2' – 9 ½"	10' – 0"	11' – 6 ½"	268	2.5	2' – 2"	37	0.5
	18"	15' – 2 ½"	3' – 1"	11' – 6"	13' – 3 ¼"	330	3.2	2' – 8"	50	0.7
	21"	17' – 2 ¾"	3' – 4 ½"	13' – 0"	15' – 0 ¼"	387	3.9	3' – 1"	69	0.9
	24"	19' – 4 ½"	3' – 9 ½"	14' – 6"	16' – 9"	453	4.8	3' – 7"	80	1.2
	27"	21' – 4 ¾"	4' – 1"	16' – 0"	18' – 5 ¾"	512	5.7	3' – 11"	96	1.4
	30"	23' – 5 ¼"	4' – 4 ½"	17' – 6"	20' – 2 ½"	593	6.7	4' – 4"	110	1.7
	33"	25' – 5 ½"	4' – 8"	19' – 0"	21' – 11 ¼"	675	7.8	4' – 8"	127	2.0
	36"	27' – 5 ¾"	4' – 11 ½"	20' – 6"	23' – 8"	735	9.0	5' – 1"	144	2.3
	42"	31' – 6 ¼"	5' – 6 ½"	23' – 6"	27' – 1 ½"	922	11.5	5' – 10"	179	3.0
	48"	37' – 3 ½"	6' – 1 ½"	28' – 0"	32' – 4"	1,191	15.9	6' – 7"	231	4.0
	54"	41' – 4 ¼"	6' – 8 ½"	31' – 0"	35' – 9 ½"	1,424	19.2	7' – 6"	300	5.0
	60"	45' – 4 ¾"	7' – 3 ½"	34' – 0"	39' – 3"	1,631	22.9	8' – 3"	353	6.0



ELEVATION
(Showing dimensions.)



BARS V



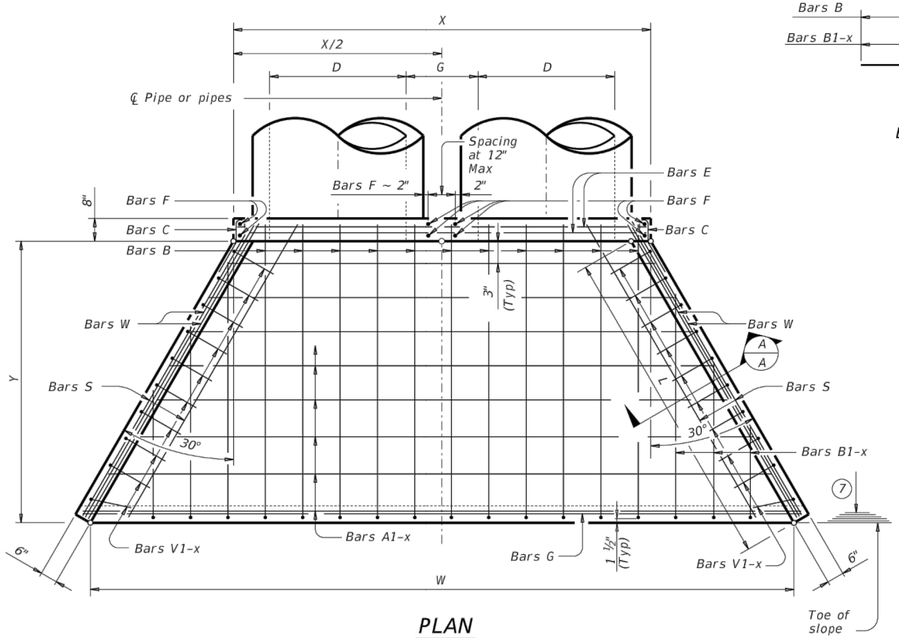
BARS CL
(Length = 2'-5")

TABLE OF (5) REINFORCING STEEL

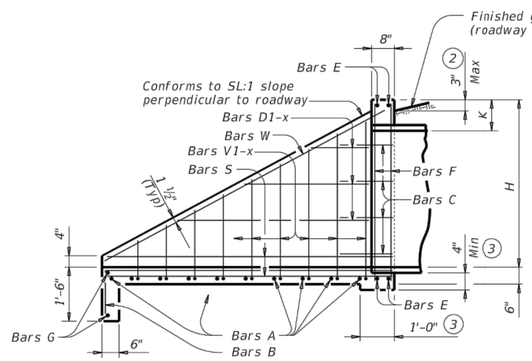
Bar	Size	Spa	No.
A	#4	1' – 0"	~
B	#3	1' – 6"	~
C	#4	1' – 0"	~
D	#3	1' – 0"	~
E	#5	~	4
F	#5	~	~
G	#3	~	2
S	#4	~	6
V	#4	1' – 0"	~
W	#5	~	4

TABLE OF CONSTANT DIMENSIONS

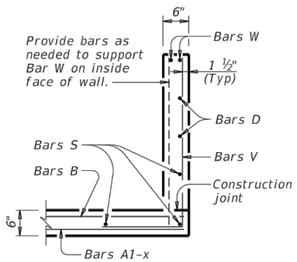
Dia of Pipe (D)	G	K (4)	H
12"	0' – 9"	1' – 0"	2' – 0"
15"	0' – 11"	1' – 0"	2' – 3"
18"	1' – 2"	1' – 0"	2' – 6"
21"	1' – 4"	1' – 0"	2' – 9"
24"	1' – 7"	1' – 0"	3' – 0"
27"	1' – 8"	1' – 0"	3' – 3"
30"	1' – 10"	1' – 0"	3' – 6"
33"	1' – 11"	1' – 0"	3' – 9"
36"	2' – 1"	1' – 0"	4' – 0"
42"	2' – 4"	1' – 0"	4' – 6"
48"	2' – 7"	1' – 3"	5' – 3"
54"	3' – 0"	1' – 3"	5' – 9"
60"	3' – 3"	1' – 3"	6' – 3"
66"	3' – 3"	1' – 3"	6' – 9"
72"	3' – 4"	1' – 3"	7' – 3"



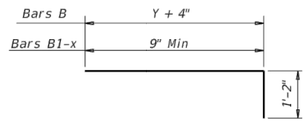
PLAN



TYPICAL WING ELEVATION



SECTION A-A



BARS B and B1-x

(1) Quantities shown are for concrete pipe and will increase slightly for metal pipe installations.

(2) For vehicle safety, construct curbs no more than 3" above finished grade. Reduce curb heights, if necessary, to meet these requirements. No changes will be made in quantities and no additional compensation will be allowed for this work.

(3) Provide a 1'–0" footing as shown where required to maintain 4" minimum cover for pipes.

(4) Dimensions shown are usual and maximum.

(5) Quantities shown are for one structure end only (one headwall).

(6) Min Length = $6" + 3" \times \left(\frac{12 \times H - 7}{12 \times L}\right)$

Max Length = $12 \times H - 3" \times \left(\frac{12 \times H - 7}{12 \times L}\right) - 1"$

(7) Lengths of wings based on SL:1 slope along this line.

MATERIAL NOTES:
Provide Grade 60 reinforcing steel.
Provide Class C concrete (f'c = 3,600 psi).

GENERAL NOTES:
Designed according to AASHTO LRFD Bridge Design Specifications.
Do not mount bridge rails of any type directly to these culvert headwalls.
This standard may not be used for wall heights, H, exceeding the values shown.

Cover dimensions are clear dimensions, unless noted otherwise. Reinforcing dimensions are out-to-out of bars.

Texas Department of Transportation — Bridge Division Standard

CONCRETE HEADWALLS
WITH FLARED WINGS FOR 0° SKEW PIPE CULVERTS

CH-FW-0

FILE: CD-CH-FW0-20.dgn	DN: TxDOT	CK: TxDOT	DW: TxDOT	CK: TxDOT
©TxDOT February 2020	CONT	SECT	JOB	HIGHWAY
REVISIONS				
	DIST	COUNTY		SHEET NO.

REVISION NO.	DATE	DESCRIPTION	BY
--	03/10/2026	INTERIM CHECK PLOT (PRE-FINAL DESIGN, PRE-NOA)	DJH
B	02/2025	90% PRELIMINARY DESIGN REVIEW	DJH
A	10/2024	60% PRELIMINARY DESIGN REVIEW	DJH

CONSULTANT'S SHEET NO.
12C-01

100% DESIGN, PRE-NOA PRELIMINARY
THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF INTERIM REVIEW AND SHALL NOT BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.
ENGINEER: DANIEL J. HEILMAN
LICENSE NO.: 86936
DATE: 03/10/2026

TBPELS Firm Registration No. F-754
Project No. 10400452

CITY of CORPUS CHRISTI
TEXAS
Department of Engineering Services

SOUTH BAY PARK
SHORELINE IMPROVEMENTS

TXDOT STANDARD DETAILS FLARED WINGS FOR 30 DEG SKEW CH-FW-0

SHEET 26 of 26
RECORD DRAWING NO.
CP-XXX
CITY PROJECT #23035

UPDATED: 3/10/2026

PRINTED HALF-SIZE