

F:\SDSKPROJ\2012-870_SLPFAE ID-10 Coastal Engineering Services - 17th Street Canal_vets to old hammond hwy\dwg-permit.dwg 12-870-001-G title-17th st-East side.dwg Dec 29, 2023 - 10:46am Plot Scale: 1:1 Plotted By: bchoipol

PLANS OF PROPOSED
**SOUTHEAST LOUISIANA
FLOOD PROTECTION AUTHORITY - EAST**

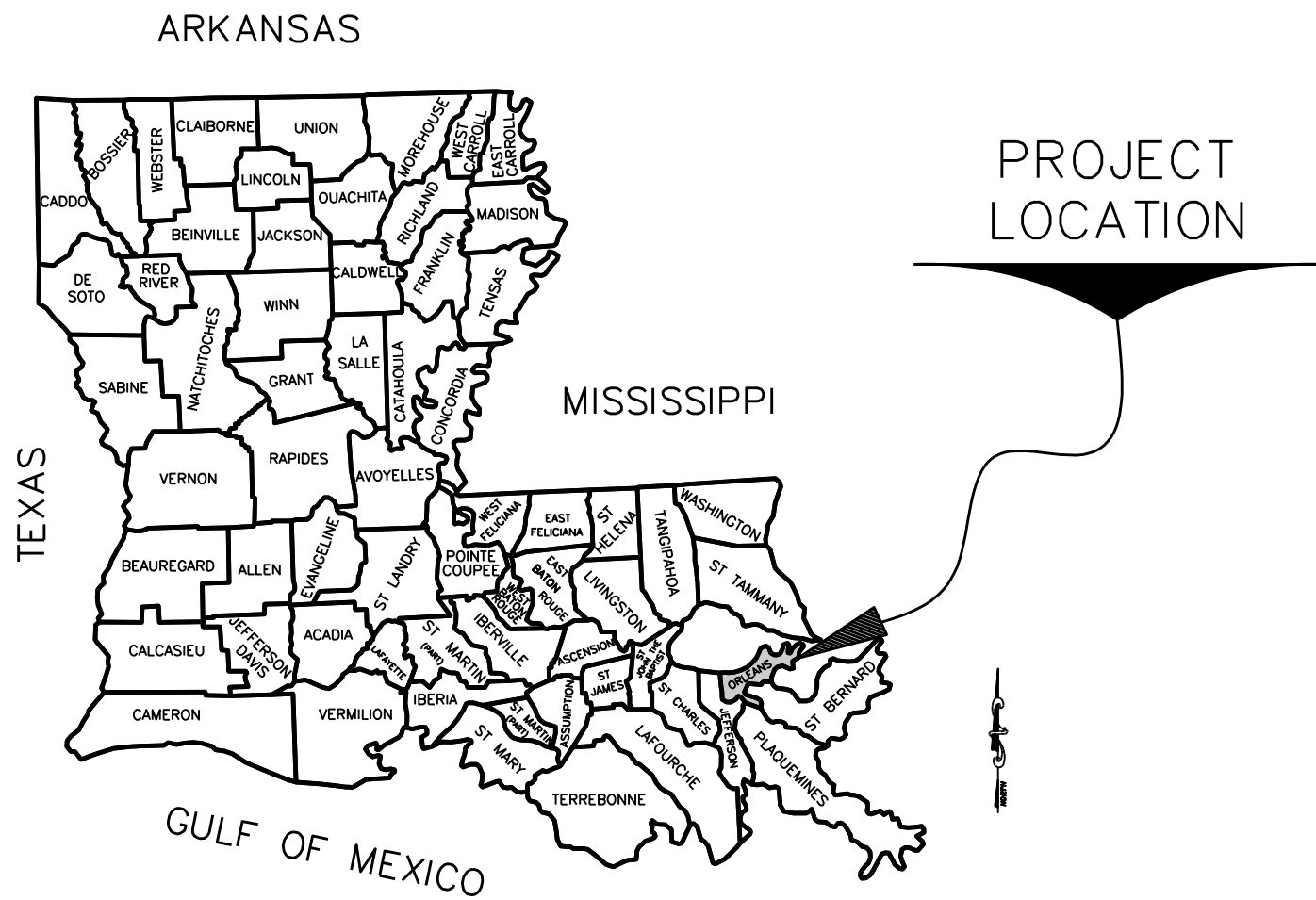
O.L.D. No. 02430326
MITIGATION OF OUTFALL CANAL EROSION
17th STREET CANAL
(VETERANS BLVD. to OLD HAMMOND HWY.)

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LAYOUT MAP
N.T.S.



VICINITY MAP

RECOMMENDED FOR APPROVAL
EVANS-GRAVES ENGINEERS, INC.

P. STEPHEN LUNDGREN JR., P.E.

DATE _____



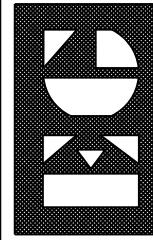
SOUTHEAST LOUISIANA
FLOOD PROTECTION AUTHORITY - EAST
O.L.D. No. 02430326
MITIGATION OF OUTFALL CANAL EROSION
17th STREET CANAL (VETERANS BLVD. TO OLD HAMMOND HWY.)

MARK	DESCRIPTION	DATE	BY

SCALE: NO SCALE			
DATE: DECEMBER, 2023			
DESIGNED BY: K.M.M.	CHECKED BY: P.S.L.		
DRAWN BY: E.J.F., B.M.C.	CHECKED BY: K.M.M.		
EG PROJ. No.: 2012-870	CADD DWG No.: 12-870-001-G		
SHEET 1-G	OF 13		



EVANS-GRAVES ENGINEERS, INC.
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F:\SDS\PROJ\2012-870_SLP\AE ID-10 Coastal Engineering Services - 17th Street Canal-vets to old hammond hwy\dwg-permit.dwg 12-870-002-G-East Side-legend and general notes.dwg Dec 28, 2023 - 10:47am Plt Scale: 1:1 Plotted By: beharajal

GENERAL NOTES

1. GENERAL NOTES ARE INTENDED TO AUGMENT THE DRAWINGS AND SPECIFICATIONS. SHOULD CONFLICTS BETWEEN DRAWINGS AND SPECIFICATIONS EXIST, STRICTEST PROVISION SHALL PREVAIL. ANY SPECIFICATION, STANDARD, OR NOTE NOT MENTIONED IN EITHER SPECIFICATIONS OR DRAWINGS OR BETWEEN DRAWINGS IS ASSUMED TO BE IN BOTH DOCUMENTS.
2. CONTRACTOR HAS RESPONSIBILITY TO FOLLOW ALL APPLICABLE OSHA SAFETY AND OTHER REGULATORY CODES/REGULATIONS DURING ALL PHASES OF CONSTRUCTION, ESPECIALLY WHEN WORKING NEAR POWER LINES AND IN EXCAVATED AREAS.
3. CONTRACTOR SHALL CONFIRM ALL LOCAL, STATE, AND FEDERAL PERMITS HAVE BEEN ISSUED.
4. CONTRACTOR IS RESPONSIBLE FOR ALL OF HIS OFFICE, SANITARY, AND UTILITY SERVICES. OWNER FACILITIES CANNOT BE USED.
5. AERIAL PHOTOGRAPHY ORIGINATED FROM THE U.S. GEOLOGICAL SURVEY, PUBLICATION DATED 2011--SPATIAL REFERENCE INFORMATION -- UTM ZONE NUMBER 15 IN METERS. USING RASTER DESIGN, AERIALS WERE CONVERTED TO LA STATE PLANE 1702 SOUTH NAD83 AND FEET.
6. ADOPTED BASELINE HAS BEEN ESTABLISHED FOR EACH CANAL SHOWING THE N & E COORDINATES FOR THE BEGINNING AND END OF EACH HORIZONTAL CONTROL ALIGNMENT. CONTRACTOR MAY USE THESE COORDINATES TO ESTABLISH ITS' OWN CONSTRUCTION HORIZONTAL CONTROL.
7. CONTRACTOR SHALL VERIFY ALL STATIONS DIMENSIONS AND EXISTING ELEVATIONS PRIOR TO COMMENCEMENT OF CONSTRUCTION.
8. EXISTING CROSS SECTIONS SHOWN ARE DERIVED FROM COMPUTER GENERATED SURFACES AND ARE FOR INFORMATIONAL PURPOSES ONLY AND SHALL BE CONTRACTOR VERIFIED.
9. PLAN SHEETS SHOWING N & E COORDINATES FOR GEOCELL PANELS REFLECT A PERPENDICULAR OFFSET (90 DEGREES) FROM THE ADOPTED BASELINE TO BEGINNING OF GEOCELL PANELS.
10. THE CONTRACTOR SHALL, AT HIS OWN EXPENSE, PERFORM ANY ADDITIONAL EXAMINATIONS, INVESTIGATIONS, EXPLORATIONS, TESTS AND STUDIES, AND OBTAIN ANY ADDITIONAL INFORMATION AND DATA WHICH PERTAIN TO THE PHYSICAL CONDITIONS (SURFACE, SUBSURFACE AND UNDERGROUND FACILITIES) AT OR CONTIGUOUS TO THE SITE OR OTHERWISE WHICH MAY AFFECT COST, PROGRESS, PERFORMANCE, OR BID PRICE. FAILURE TO DO SO MAY EXCLUDE CONTRACTOR FROM ADDITIONAL CLAIMS.
11. ALL AREAS DISTURBED BY THE CONTRACTOR, HIS WORKERS, OR SUBCONTRACTORS, SHALL BE RETURNED TO PRE--CONSTRUCTION APPEARANCE. ANY GRASS AREAS DISTURBED DURING CONSTRUCTION WILL BE HYDRO SEEDED WITH A SIMILAR TURF UPON COMPLETION OF ACTIVITIES. SUFFICIENT PRE--CONSTRUCTION PHOTOS OF ADJACENT ROADS, PROPERTIES, FACILITIES, UTILITIES, AND SERVITUDES ARE TO BE FILED WITH THE OWNER AND ENGINEER DEPICTING CONDITIONS PRIOR TO COMMENCEMENT OF CONSTRUCTION.
12. CONTRACTOR WILL BE RESPONSIBLE FOR REGULAR CLEAN UP OF THE CONSTRUCTION AREA AND PROPER DISPOSAL OF ANY DEBRIS/MATERIAL REMOVED FROM THE SITE. AT A MINIMUM, CLEAN UP WILL BE PERFORMED WEEKLY.
13. ANY DISCREPANCIES DISCOVERED ON THE PLANS OR DRAWINGS, OR BETWEEN THE PLANS AND DRAWINGS, SHALL BE REPORTED TO THE ENGINEER BEFORE ANY WORK BEGINS. FAILURE TO DO SO MAY RESULT IN THE REMOVAL OF RECENT WORK AT NO ADDITIONAL COST TO OWNER.
14. CONTRACTOR SHALL TAKE REASONABLE MEASURES TO AVOID UNNECESSARY NOISE LEVELS ABOVE WHAT IS APPROPRIATE FOR THE CONSTRUCTION SITE AND SURROUNDING AREA.
15. CONTRACTOR SHALL TAKE REASONABLE MEASURES TO PREVENT UNNECESSARY DUST LEAVING THE CONSTRUCTION SITE.
16. CONTRACTOR SHALL PROTECT ADJACENT PROPERTY AND IMPROVEMENTS FROM DAMAGE AND REPLACE ANY PORTIONS DAMAGED THROUGH HIS OPERATION AT HIS OWN COST. ALL REPAIR WORK SHALL BE SUBJECT TO APPROVAL OF THE ENGINEER AND OWNER.
17. ALL REQUESTS FOR SUBSTITUTIONS FOR EITHER MATERIAL OR EQUIPMENT SHALL BE SUBMITTED TO THE ENGINEER NO LATER THAN 6 DAYS PRIOR TO BID OPENING.
18. CONTRACTOR IS TO VERIFY THE LOCATION AND ELEVATIONS OF FORMS AND EQUIPMENT TO BE INSTALLED WITH THE ENGINEER AND OWNER PRIOR TO INSTALLATION.
19. CONTRACTOR IS REQUIRED TO FURNISH AS BUILT PLANS TO THE ENGINEER AND OWNER PRIOR TO FINAL PAYMENT.
20. ALL WORK SHALL CONFORM TO THE CITY OF NEW ORLEANS DEPARTMENT OF PUBLIC WORKS' ENGINEERING DATA MANUAL DATED JUNE 2012 AND THE ORLEANS LEEVE DISTRICT.
21. B.M. = BENCH MARK , EL. = ELEVATION
REFERENCE B.M. = D 3185 A LAGS, EL. = 4.11'
22. ALL MATERIAL SPILLED, DROPPED, WASHED, OR TRACKED FROM VEHICLES ON SITE ONTO ROADWAY IS TO BE REMOVED IMMEDIATELY.
23. NO ATTEMPT HAS BEEN MADE BY EVANS--GRAVES ENGINEERS, INC. TO VERIFY TITLE, ACTUAL LEGAL OWNERSHIP, SERVITUDES, EASEMENTS, RIGHTS OF WAY OR OTHER BURDENS ON THE PROPERTY, OTHER THAN THAT FURNISHED BY THE CLIENT OR THEIR REPRESENTATIVE.
24. CONTRACTOR SHALL VISIT THE SITE OF WORK AND GET COMPLETELY FAMILIARIZED WITH THE PROJECT PRIOR TO CONSTRUCTION.
25. ALL WORK AROUND POWER LINES SHALL BE IN ACCORDANCE WITH OSHA AND ENTERGY REQUIREMENTS.
26. THE CONTRACTOR SHALL MAKE HIS OWN INTERPRETATION OF THE CHARACTER AND CONDITION OF MATERIALS WHICH WILL BE ENCOUNTERED. THE CONTRACTOR, AT HIS OWN EXPENSE, MAY MAKE ADDITIONAL SURVEYS AND INVESTIGATIONS AS HE DEEMS NECESSARY TO DETERMINE CONDITIONS WHICH WILL AFFECT THE PERFORMANCE OF THE WORK.
27. CONTRACTOR IS ALLOWED TO STAGE EQUIPMENT ON OWNER'S LOTS ON BELLAIRE DRIVE AS SHOWN ON PLANS. THIS AREA MAY ALSO BE USED AS ACCESS TO THE FLOODWALL. FPA WILL DELINEATE THE ALLOWABLE AREA IN THE FIELD PRIOR TO MOBILIZATION.
28. CONTRACTOR MUST PERFORM ALL OPERATIONS FROM THE BANKS AND FROM WITHIN THE CANAL.
29. UPON COMPLETION, CONTRACTOR SHALL SUPPLY THREE (3) FINAL SETS OF DRAWINGS REFLECTING "AS BUILT" CONDITIONS, THREE (3) SETS OF O&M MANUALS AND THREE (3) SETS OF SUBMITTAL DOCUMENTS AND SHOP DRAWINGS IN THREE RING BINDER.

DRAINAGE NOTES

1. PROPER DRAINAGE OF THE CONSTRUCTION SITE MUST BE MAINTAINED AT ALL TIMES. FLOW IN THE CANALS CAN NOT BE BLOCKED.
2. CONTRACTOR SHALL NOT BLOCK OR RESTRICT ANY DRAINAGE STRUCTURE.
3. CONTRACTOR IS RESPONSIBLE FOR SUPPLYING ANY TEMPORARY PUMPING AND SERVICING REQUIRED DURING CONSTRUCTION.

UTILITY NOTES

1. CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR LOCATING AND PROTECTING ALL UTILITIES INCLUDING THOSE NOT DEPICTED ON THE PLANS AND ARE DISCOVERED DURING CONSTRUCTION.
2. CONTRACTOR SHALL NOT EXPOSE, CUT, TAP, OR CONNECT TO ANY EXISTING SEWER OR WATER LINES WITHOUT FIRST OBTAINING PERMISSION FROM THE UTILITY COMPANY.
3. THE CONTRACTOR SHALL CONTACT LOUISIANA ONE CALL (1-800-272-3020) A MINIMUM OF 48 HOURS PRIOR TO THE COMMENCEMENT OF ANY EXCAVATION OR DEMOLITION ACTIVITY.

EXCAVATIONS

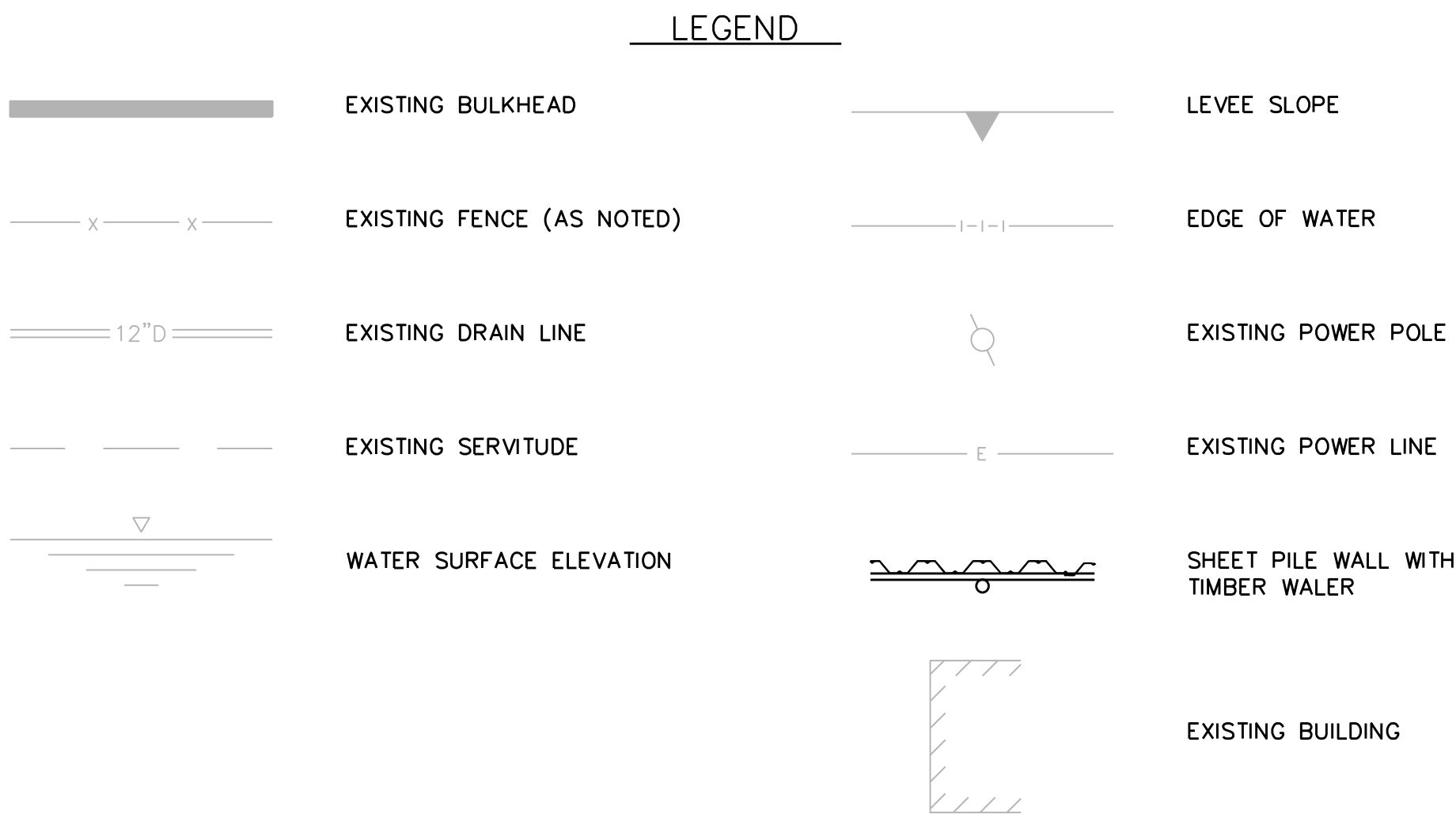
1. ALL SHORING FOR EXCAVATIONS SHALL HAVE SUFFICIENT DEPTH AND BRACING TO PREVENT DAMAGE TO ADJACENT BRIDGE ABUTMENTS, FLOOD WALLS, SLOPE PAVING, ROADS, PROPERTIES, FACILITIES, UTILITIES, AND SERVITUDES. ANY DAMAGE TO ADJACENT BRIDGE ABUTMENTS, FLOOD WALLS, SLOPE PAVING, ROADS, PROPERTIES, FACILITIES, UTILITIES, AND SERVITUDES SHALL BE REPAIRED TO PRE--PROJECT CONDITION OR BETTER AT CONTRACTOR'S EXPENSE.
2. CONTRACTOR SHALL SUBMIT A STAMPED SHORING PLAN FOR APPROVAL BY ENGINEER AND OWNER PRIOR TO CONSTRUCTION.

STEEL NOTES:

1. ALL STRUCTURAL STEEL SHALL BE ASTM A572 GRADE 50, UNLESS OTHERWISE NOTED.
2. TO PREVENT CORROSION BY MOISTURE BETWEEN STEEL SURFACES IN CONTACT. ALL SUCH CONTACTS SHALL BE SEALED WARTERTIGHT BY RUNNING A CONTINUOUS FILLET WELD ALONG ALL EDGES OF THE CONTACT, UNLESS OTHERWISE NOTED.
3. ALL WELDING SHALL BE ELECTRIC WELDING, WORKMANSHIP AND TECHNIQUE, WHERE APPLICABLE, SHALL CONFORM TO THE AMERICAN WELDING SOCIETY STRUCTURAL WELDING CODE, SEE SPECIFICATIONS.
4. WELDING SYMBOLS SHOWN ARE THOSE ADOPTED BY THE AMERICAN WELDING SOCIETY AND INDICATE ONLY SIZE AND TYPE OF WELDS REQUIRED. DETAILED INFORMATION SHALL BE SHOWN ON THE SHOP DRAWINGS AND SUBMITTED BY THE CONTRACTOR FOR APPROVAL.
5. DIMENSIONS SHOWN OR CALLED FOR ARE THE FINAL DIMENSIONS. ALLOWANCES MUST BE MADE FOR MACHINING.
6. ITEMS MARKED C.R.S. SHALL BE CORROSION RESISTANT STEEL (STAINLESS STEEL), SEE SPECIFICATIONS.
7. STEEL SHEET PILE SURFACE PREPARATION AND PAINTING SHALL BE IN ACCORDANCE WITH SPECIFICATIONS.

PERMIT NOTES

1. CONTRACTOR SHALL PLACE FABRIC, MATS, OR OTHER MATERIAL UNDER ROCK AND RIPRAP STOCK PILES, SO MATERIAL WILL NOT SINK INTO LEEVE OR OTHERWISE DISTURB EXISTING GROUND.
2. IF AT ANY TIME WILDLIFE DIVERSITY PROGRAM (WPD) TRACKED SPECIES ARE ENCOUNTERED WITHIN THE PROJECT AREA, PLEASE CONTACT THE DEPARTMENT OF NATURAL RESOURCES OFFICE OF COASTAL MANAGEMENT BIOLOGIST AT 225-765-2643.
3. ALL FILL MATERIAL SHALL BE CLEAN AND FREE OF CONTAMINANTS AND SHALL NOT CONTAIN HAZARDOUS MATERIALS SUCH AS ASBESTOS OR ASBESTOS RESIDUE, SHINGLES, TIRES, OIL/GREASE RESIDUE, EXPOSED REBAR, PROTRUDING OBJECTS, ETC.
4. ALL LOGS, STUMPS AND OTHER DEBRIS ENCOUNTERED DURING DREDGING ACTIVITIES SHALL BE REMOVED FROM THE SITE DURING OR IMMEDIATELY AFTER THE ACTIVITY AND DISPOSED OF IN ACCORDANCE WITH ALL APPLICABLE LAWS AND REGULATIONS.
5. ALL FILL AND/OR DREDGED MATERIAL TO BE HAULED OFF-SITE SHALL BE DISPOSED OF AT A STATE APPROVED FACILITY.
6. CONTRACTOR SHALL ENSURE THAT ALL SANITARY SEWAGE AND/OR RELATED DOMESTIC WASTES GENERATED DURING THE PROJECT ACTIVITY AND AT THE SITE SHALL NOT BE DISCHARGED INTO ANY OF THE STREAMS OR ADJACENT WATERS OF THE AREA WITHOUT AUTHORIZATION FROM DH AND/OR DEQ OR, IN THE CASE OF TOTAL CONTAINMENT, SHALL BE DISPOSED OF IN APPROVED SEWERAGE AND SEWAGE TREATMENT FACILITIES, AS IS REQUIRED BY THE STATE SANITARY CODE AND DEQ REGULATIONS.



GENERAL NOTES

ORIGINAL DATA COMPILED UNLESS OTHERWISE NOTED

ALL ELEVATIONS ARE EXPRESSED IN FEET AND REFER LEVELING (2004.65) UNLESS OTHERWISE STATED


EXISTING SURVEY PROVIDED BY BH&A, JUNE 2019.

PERMIT NOTES CONTINUED

7. ANY DAMAGE TO THE PUMP STATION, FLOODWALL, EMBANKMENT, AND/OR BANK RESULTING FROM THE WORK SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
8. NO VEHICLES OR EQUIPMENT CAN BE PLACED BELOW THE DRIP LINE OF ANY TREES ADJACENT TO STAGING AREAS. IN THE EVENT THAT THE CONTRACTOR ELECTS TO USE STAGING AREAS IN THE OPEN AREAS TEMPORARY CONSTRUCTION FENCING WILL BE REQUIRED TO PROTECT DRIP LINES.
9. ALL WORK EQUIPMENT SHALL BE DEMOBILIZED AND THE CONSTRUCTION AREA SECURED 5 DAYS PRIOR TO ANTICIPATED LANDFALL OF ANY NAMED HURRICANE OR TROPICAL STORM ALONG THE LOUISIANA OR MISSISSIPPI COAST. A SEPARATE BID ITEM IS INCLUDED FOR THIS WORK.
10. CONTRACTOR SHALL COMPLY WITH ALL REQUIREMENTS AND STIPULATIONS OF PERMITS RECEIVED AND ATTACHED AS SPECIFICATIONS APPENDICES.
11. THIS PROJECT'S PERMITS ARE ONLY FOR STATED WORK WITHIN OR IN THE VICINITY OF THE LEEVE DISTRICT RIGHT--OF--WAY, AND MUST BE ACCOMPLISHED IN ACCORDANCE WITH THE DETAILS SET FORTH IN THE OWNER'S PERMIT REQUEST AND THE CONDITIONS CONTAINED HEREIN. ANY CHANGES TO THE LIMITS OR SCOPE OF THE PROPOSED WORK MUST BE SUBMITTED FOR ADDITIONAL REVIEW. THE LEEVE DISTRICT MUST BE CONTACTED IN WRITING PRIOR TO COMMENCEMENT AND AT THE END OF ACTIVITIES. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING AND PROVIDING COPIES OF ANY PERMITS OR LEASE AGREEMENTS NECESSARY FROM ANY OTHER APPLICABLE AGENCIES PRIOR TO THE INITIATION OF THE WORK. THE CONTRACTOR IS RESPONSIBLE FOR ADHERING TO THE PROVISIONS OF ANY EXISTING PERMITS. THE PROPOSED WORK MUST NOT RESTRICT THE LEEVE DISTRICT'S MAINTENANCE OPERATIONS, OR ANY POTENTIAL FLOOD FIGHT ACTIVITIES AT THE LEEVE, NOR SHALL IT OBSTRUCT OR IMPEDE DRAINAGE, OR CREATE AREAS OF STANDING WATER ON THE LEEVE BATTURE. THE CONTRACTOR MUST EMPLOY AND MAINTAIN SUITABLE EROSION PROTECTION MEASURES AT THE PROJECT SITE TO THE SATISFACTION OF THE LEEVE DISTRICT. THE CONTRACTOR MUST IMMEDIATELY NOTIFY THE LEEVE DISTRICT OF ANY SEEPAGE OR SAND BOILS THAT OCCUR DURING HIGH WATER CONDITIONS. ALL MATERIALS ASSOCIATED WITH THE PROPOSED WORK MUST BE REMOVED FROM THE AREA UPON COMPLETION OF THE PROJECT AND THE AREA MUST BE RETURNED TO ITS ORIGINAL STATE OF EXISTENCE OR BETTER. ANY DAMAGE DONE TO THE LEEVE, FLOODWALL OR OTHER FLOOD CONTROL STRUCTURE, REVETMENT, OR SURROUNDING PROJECT AREA, RESULTING FROM THE PROPOSED WORK MUST BE REPAIRED OR REPLACED BY THE CONTRACTOR.
12. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING THE EXISTING LEVEL OF FLOOD PROTECTION AT ALL TIMES TO THE SATISFACTION OF THE LEEVE DISTRICT.



EVANS--GRAVES ENGINEERS, INC.
ENGINEERING CONSULTANTS
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SOUTHEAST LOUISIANA
FLOOD PROTECTION AUTHORITY -- EAST

O.L.D. No. 02438326
MITIGATION OF OUTFALL CANAL EROSION
17th STREET CANAL (VETERANS BLVD. TO OLD HAMMOND HWY.)

LEGEND AND GENERAL NOTES

MARK	DESCRIPTION	DATE	BY

SCALE:
NOT TO SCALE

DATE:
DECEMBER, 2023

DESIGNED BY:
K.M.M.

CHECKED BY:
P.S.L.

DRAWN BY:
E.J.F., B.M.C.

CHECKED BY:
K.M.M.

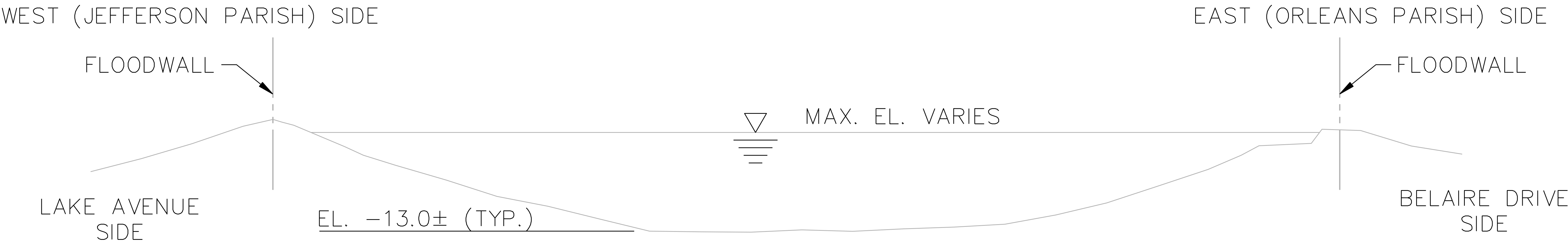
EG PROJ. No.:
2012-870

CADD DWG No.:
12-870-002-G

SHEET
2-G

OF
13

F:\SDS\PROJ\2012-870-SUPPAE ID-10 Coastal Engineering Services - 17th Street Canal_vets to old hammond hwy\dwg-permit\dwg\12-870-003-G 17th-street-canal-typical-existing-section.dwg Dec 29, 2023 10:45am Plt Scale: 1:10 Plotted By: bchajjal



TYPICAL EXISTING SECTION
17TH STREET CANAL
(LOOKING NORTH)
N.T.S.

HYDRAULIC DATA:
(SOURCE: USACE, APRIL 2017 UPDATE)

PUMPING CAPACITY: INTERIM 9,000 CFS; FINAL 12,600 CFS
SWB DPS #6: 9,480 CFS
CANAL ST CANAL DPS: 160 CFS
I-10 DPS: 860 CFS

ESTIMATED FLOW VELOCITY AT MAXIMUM PUMPING CAPACITY: 4.80 FPS

MHW: (+) 1.8 FT
MLW: (-) 1.0

NOTE:
ALL WORK TO TAKE PLACE FROM WITHIN THE CANAL AND ON THE INTERIOR (FLOOD SIDE)
OF THE FLOOD PROTECTION STRUCTURES.
MAX. ALLOWABLE DRAFT OF FULLY-LOADED BARGE IS 6 FEET.





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SOUTHEAST LOUISIANA
FLOOD PROTECTION AUTHORITY - EAST
O.L.D. No. 02438326
MITIGATION OF OUTFALL CANAL EROSION
17TH STREET CANAL (VETERANS BLVD. TO OLD HAMMOND HWY.)
17TH STREET CANAL TYPICAL EXISTING SECTION

MARK	DESCRIPTION	DATE	BY

SCALE: AS NOTED
DATE: DECEMBER, 2023
DESIGNED BY: K.M.M. CHECKED BY: P.S.L.
DRAWN BY: E.J.F., B.M.C. CHECKED BY: K.M.M.
EG PROJ. No.: 2012-870 CADD DWG No.: 12-870-003-G
SHEET 3-G OF 13

F:\SDS\PROJ\2012-870-SUPAE ID-10 Coastal Engineering Services - 17th Street Canal-verts to old hammond hwy\dwg-permit-degs\12-870-004-G-1 cellular-confinement-system-typical-section.dwg Dec 29, 2023 10:49am Plt Scale: 1:1 Plotted By: bchepial

LAND SIDE

CANAL SIDE

ADOPTED BASELINE

NOTE:

GEOTEXTILE SHALL BE INSTALLED WITH THE ROLL DIRECTION PERPENDICULAR TO THE SLOPE CREST W/3' MINIMUM OVERLAP BETWEEN ADJACENT PANEL

DEPTH VARIES
(MIN. = 7.0 FT.,
MAX. = 8.0 FT.)

- 1.) DUCKBILL ANCHOR (SERIES II MODEL 68 DBD) OR APPROVED EQUAL WITH WORKING LOAD NOT LESS THAN 1,100 LBS.
- 2.) ONE ANCHOR DRIVEN @ 3 TO 2 SLOPE PER TENDON AND TWO TENDONS PER GEOCELL PANEL

ONE 24" J-HOOK ANCHOR
EACH CELL ALONG CREST
OF EMBANKMENT (TYP)

TYPICAL PROPOSED SECTION (A)

N.T.S.

APPLIES STA. 148+60 TO 152+74

24" J-HOOK (GALVANIZED)
PLACED EVERY 2 CELLS
HORIZONTALLY AND 3 CELLS
LONGITUDINALLY.

NOTE:

WHERE J-HOOKS ARE PLACED BELOW THE WATER SURFACE, LENGTH OF THE J-HOOKS SHOULD BE 48" (MIN. LENGTH)

EXISTING FLOODWALL
(TYP)

DISTANCE VARIES

WIDTH VARIES

(MIN. = 24.0 FT, MAX. = 30.0 FT.)

4.00'
(TYP)

SLOPE CREST
& TOP BANK

EL. VARIES
(SEE X-SECTS)

CELLULAR CONFINEMENT SYSTEM
(SLOPE 3 FT. HOR. (MIN.) TO 1 FT. VERT.)

GEOCELL PANEL (STRATAWEB 712-6"
OR APPROVED EQUAL)

3" TO 1" CRUSHED STONE
PLACED INSIDE GEOCELL PANELS

TYP. ELEV. 1.0 (±)*

* MHW: (+)1.8
MLW: (-)1.0

EL. (-)2.0'

PREPARED
SUBGRADE

NONWOVEN GEOTEXTILE
(STRATATEX ST-180 OR
APPROVED EQUAL) PLACED
ON COMPACTED BACKFILL

2,090 lbs PER TENDON (TYP)
TWO PER GEOCELL PANEL.
SECURE TO GEOCELL WALL
EVERY THREE CELLS AT
J-HOOK LOCATIONS. SECURE
TO DUCKBILL ANCHOR AT
EMBANKMENT CREST

48" J-HOOK (GALVANIZED)
PLACED EVERY 2 CELLS
HORIZONTALLY AND 3 CELLS
LONGITUDINALLY. ONE J-HOOK
ANCHOR EACH CELL ALONG
BOTTOM (TYP).

N & E COORDINATES
SHOWN ON PLANS
(BASED ON OFFSETS
FROM X-SECTS)

COMPACTED BACKFILL

6" MIN CLEARING, GRUBBING
AND EXCAVATION



EVANS-GRAVES ENGINEERS, INC.

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DESIGNED BY: K.M.M. CHECKED BY: P.S.L.

DRAWN BY: E.J.F., B.M.C. CHECKED BY: K.M.M.

EG PROJ. No.: 2012-870 CADD DWG No.: 12-870-004-G-1

SHEET 4-G.1 OF 13

F:\SDS\PROJ\2012-870-SUPAE ID-10 Coastal Engineering Services - 17th Street Canal-vets to old hammond hwy\dwg-permit-degs\12-870-004-G-2 cellular-confinement-system-typical-section.dwg Dec 29, 2023 10:50am Plotted By: bchaplaid

LAND SIDE

CANAL SIDE

ADOPTED BASELINE

NOTE:

GEOTEXTILE SHALL BE INSTALLED WITH THE ROLL DIRECTION PERPENDICULAR TO THE SLOPE CREST W/3' MINIMUM OVERLAP BETWEEN ADJACENT PANEL

DEPTH VARIES
(MIN. = 4.5 FT.,
MAX. = 10.5 FT.)

- 1.) DUCKBILL ANCHOR (SERIES II MODEL 68 DBD) OR APPROVED EQUAL WITH WORKING LOAD NOT LESS THAN 1,100 LBS.
2.) ONE ANCHOR DRIVEN @ 3 TO 2 SLOPE PER TENDON AND TWO TENDONS PER GEOCELL PANEL

ONE 24" J-HOOK ANCHOR EACH CELL ALONG CREST OF EMBANKMENT (TYP)

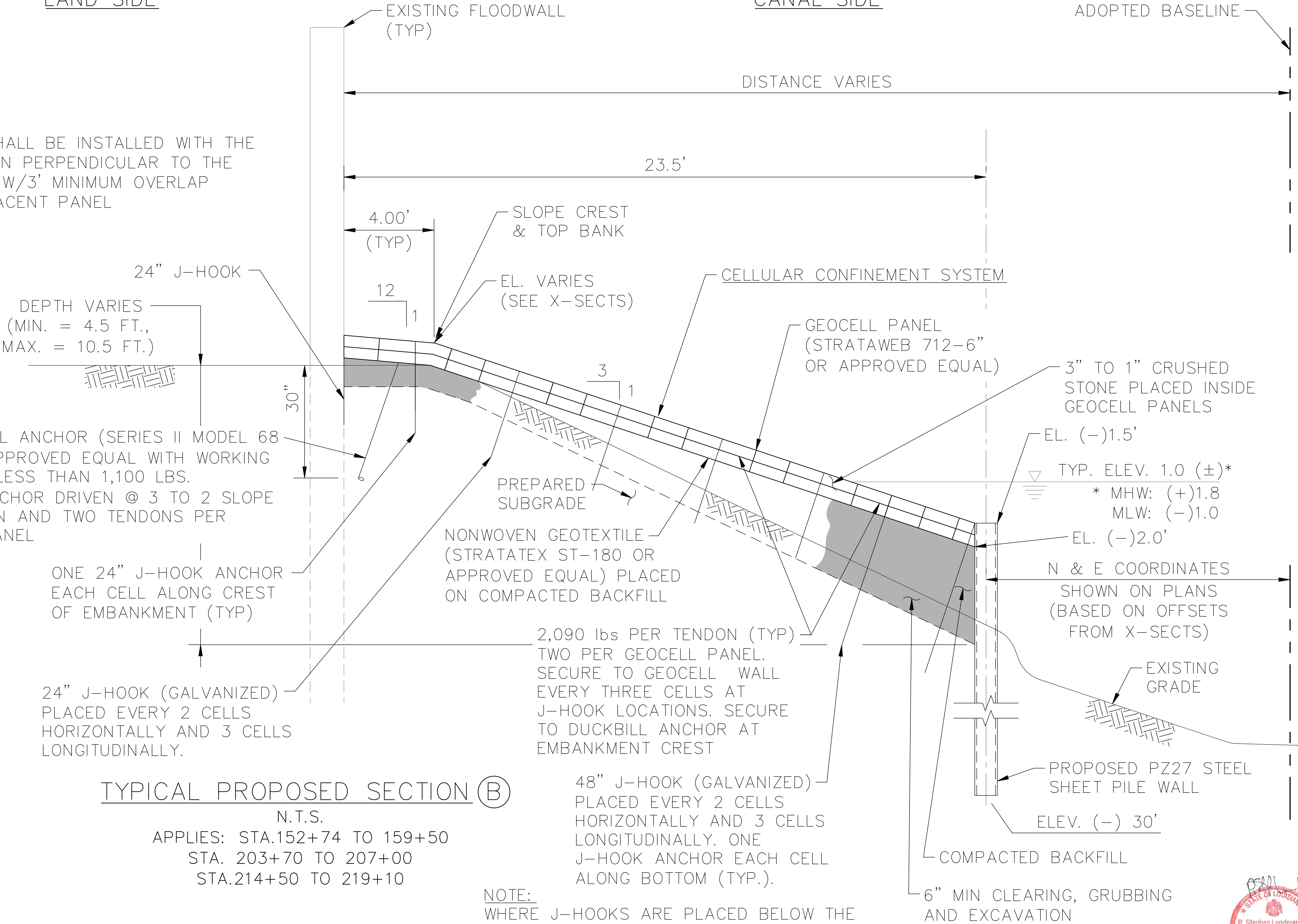
24" J-HOOK (GALVANIZED) PLACED EVERY 2 CELLS HORIZONTALLY AND 3 CELLS LONGITUDINALLY.

TYPICAL PROPOSED SECTION (B)

N.T.S.

APPLIES: STA.152+74 TO 159+50
STA. 203+70 TO 207+00
STA.214+50 TO 219+10

NOTE:
WHERE J-HOOKS ARE PLACED BELOW THE WATER SURFACE, LENGTH OF THE J-HOOKS SHOULD BE 48" (MIN. LENGTH)



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SCALE: AS NOTED

DATE: DECEMBER, 2023

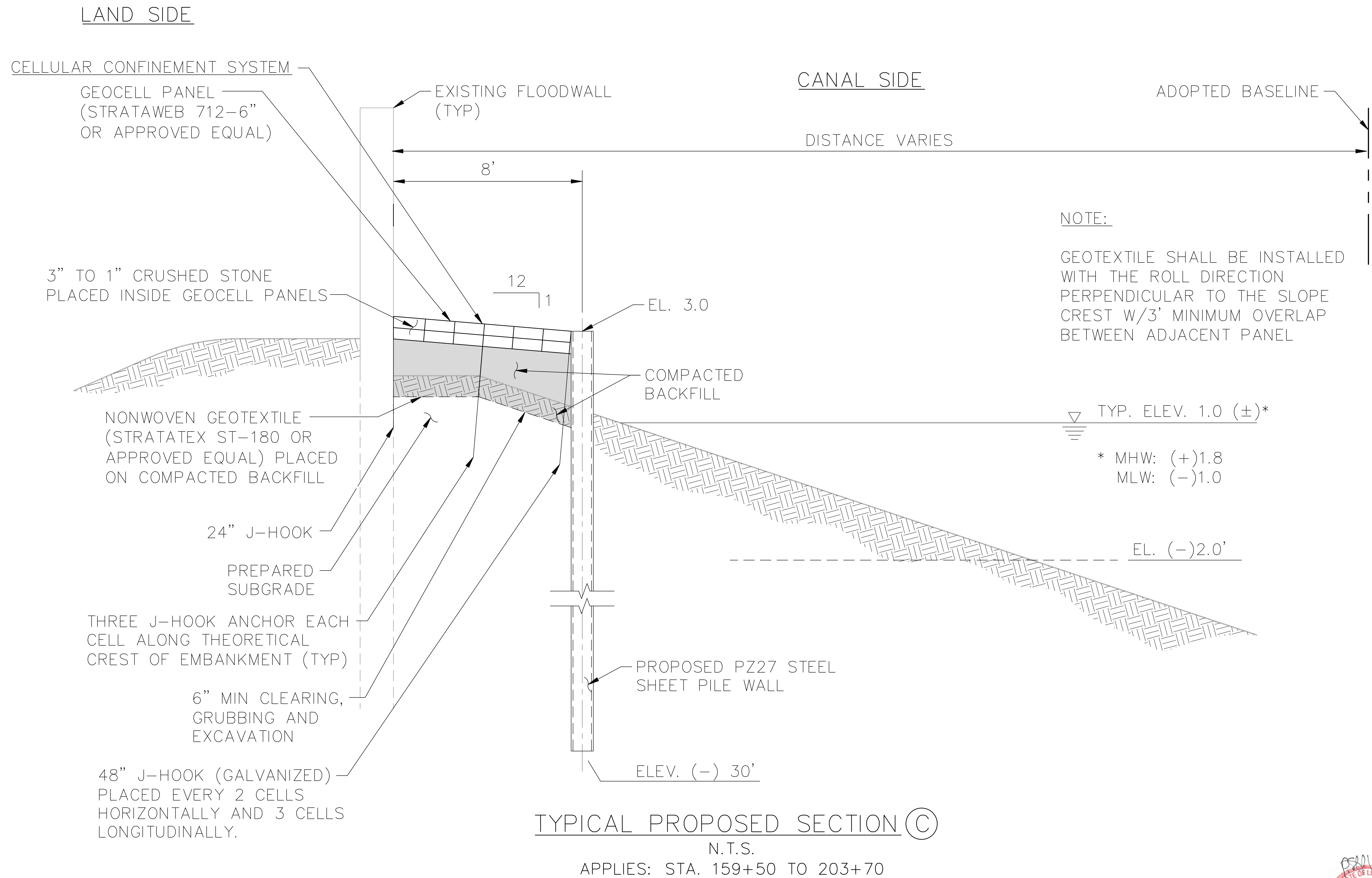
DESIGNED BY: K.M.M. CHECKED BY: P.S.L.

DRAWN BY: E.J.F., B.M.C. CHECKED BY: K.M.M.

EG PROJ. No.: 2012-870 CADD DWG No.: 12-870-004-G-2

SHEET 4-G-2 OF 13

F:\SDSKPRO\2012-870-SUPAE ID-10 Coastal Engineering Services - 17th Street Canal-vets to old hammond hwy\dwg-permit.dwg 12-870-004-G.3 cellular-confinement-system-with sheet pile -typical-section.dwg Dec 29, 2023 - 10:51am Plotted By: behapida



TYPICAL PROPOSED SECTION ©
N.T.S.
APPLIES: STA. 159+50 TO 203+70



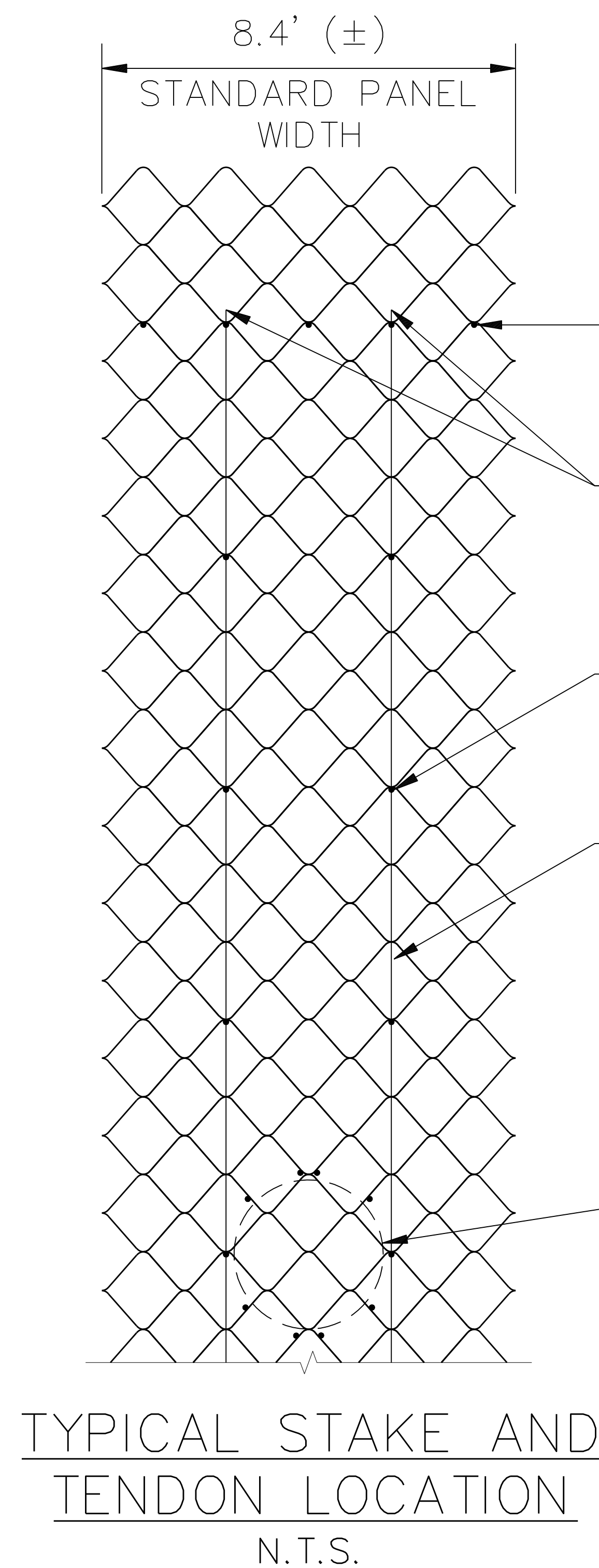
SOUTHEAST LOUISIANA FLOOD PROTECTION AUTHORITY - EAST O.L.D. No. 02438326 MITIGATION OF OUTFALL CANAL EROSION 17th STREET CANAL (VETERANS BLVD. TO OLD HAMMOND HWY.)				CELLULAR CONFINEMENT SYSTEM TYPICAL SECTION C			
SCALE:	DATE:	DESIGNED BY:	CHECKED BY:	MARK	DESCRIPTION	DATE	BY
AS NOTED	DECEMBER, 2023	P. Stephen Lundgren, Jr. REG. No. 28222	P.S.L.				
EG PROJ. No.: 2012-870	CADD DWG No.: 12-870-004-G	DRAWN BY: E.J.F., B.M.C.	CHECKED BY: K.M.M.				
SHEET 4-G.3	OF 13						



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NEW ORLEANS, LA 70112
(504) 385-8190

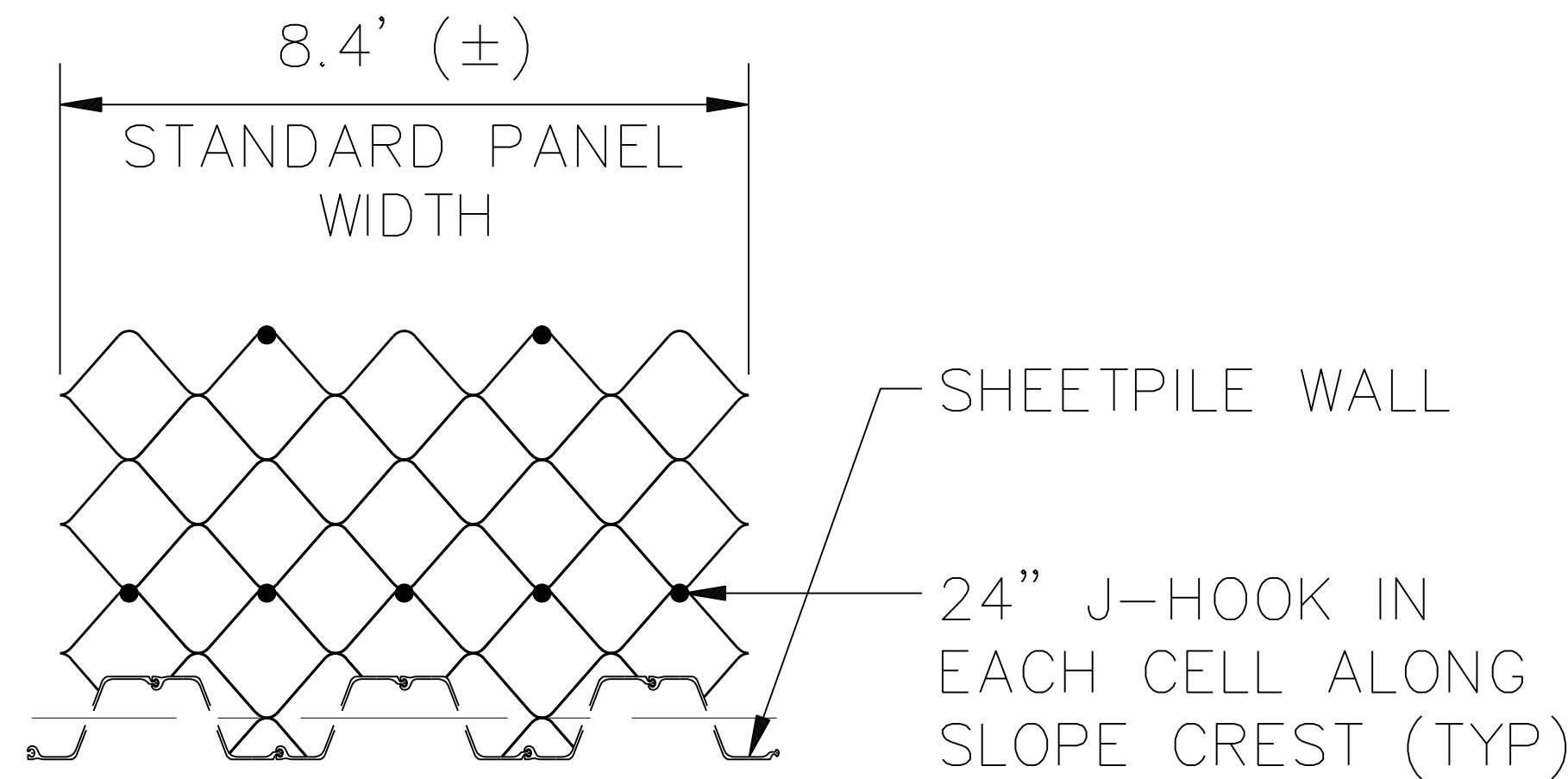
EG

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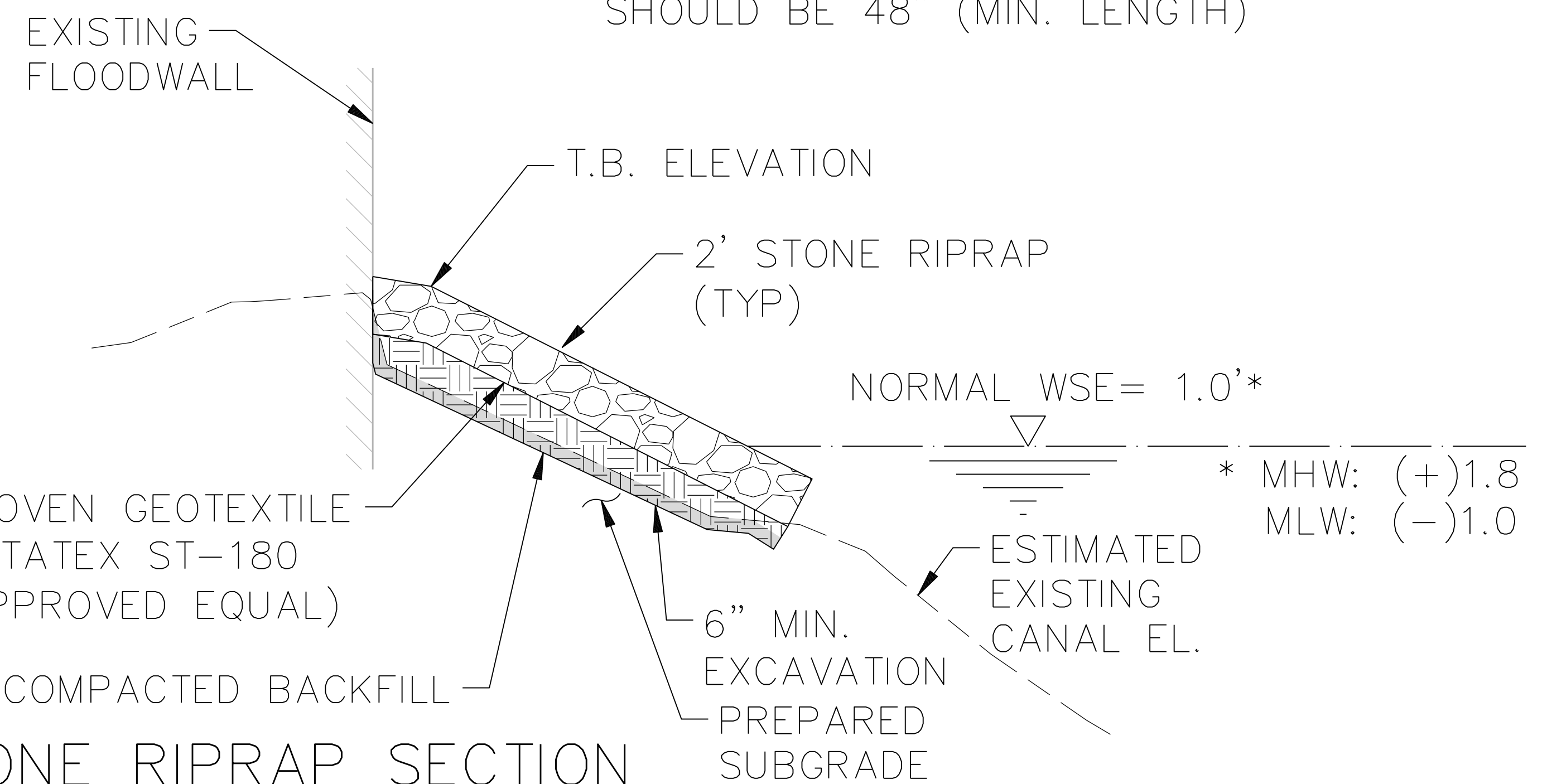


TYPICAL STAKE AND TENDON LOCATION-2
N.T.S.

- 24" J-HOOK IN EACH CELL ALONG SLOPE CREST (TYP)
- SECURE TENDON TO DUCKBILL ANCHOR (OR APPROVED EQUAL) (TYP)
- J-HOOK PLACED IN 2 HORIZONTAL BY 3 LONGITUDINAL PATTERN
- TWO (2) TENDON HOLES PER PANEL. TWO (2) TENDONS EACH PER STANDARD PANEL WIDTH WITH 2,090 LB (MIN) BREAK STRENGTH
- CONTRACTOR SHALL REMOVE PORTIONS OF GEOCELL PANEL WHEN BEING PLACED AROUND CONCRETE LIGHT BASE, EXISTING DRAIN LINES, OR OTHER VERTICAL OBSTRUCTIONS WHEN ENCOUNTERED. J-HOOKS ARE TO BE PLACED OVER PANELS SURROUNDING OBJECT. ALL TO BE INCLUDED IN THE COST OF INSTALLATION OF THE GEOCELL PANELS

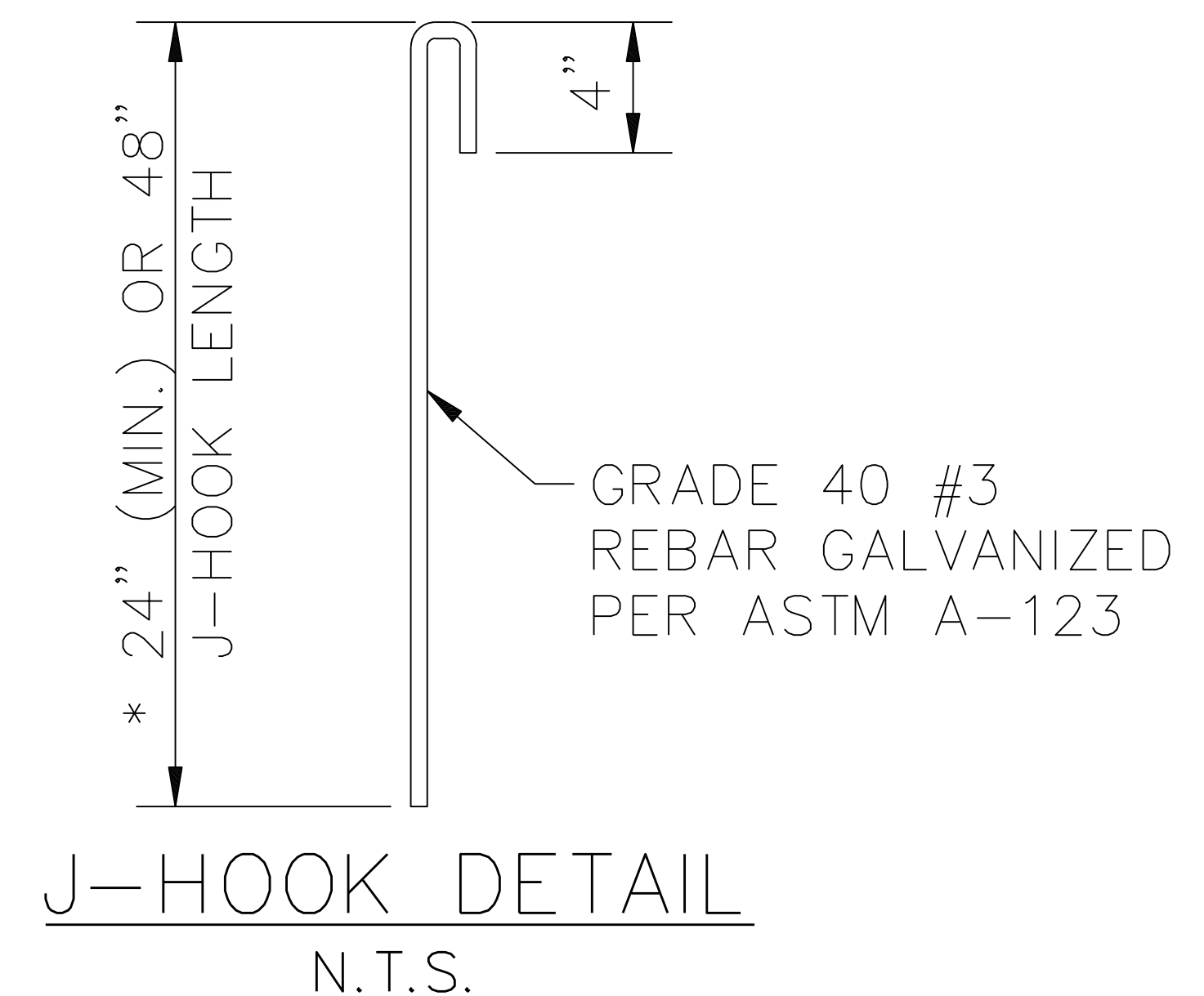


STRATAWEB 712 6 INCH DETAIL
N.T.S.



STONE RIPRAP SECTION
N.T.S.
STA. 148+34 TO 148+60
STA. 207+00 TO 207+20
STA. 214+30 TO 214+50
STA. 219+10 TO 219+30

* USE 48" IN AREAS AT OR BELOW ELEV. 1.0 OR AS OTHERWISE CALLED OUT ON TYPICAL SECTION



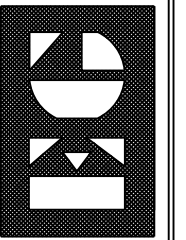
NOTE:
WHERE J-HOOKS ARE PLACED BELOW THE WATER SURFACE, LENGTH OF THE J-HOOKS SHOULD BE 48" (MIN. LENGTH)



SOUTHEAST LOUISIANA
FLOOD PROTECTION AUTHORITY - EAST
O.L.D. No. 02438326
MITIGATION OF OUTFALL CANAL EROSION
17th STREET CANAL (VETERANS BLVD. TO OLD HAMMOND HWY.)

MARK	DESCRIPTION	DATE	BY

SCALE: NOT TO SCALE
DATE: DECEMBER, 2023
DESIGNED BY: K.M.M. CHECKED BY: P.S.L.
DRAWN BY: E.J.F., B.M.C. CHECKED BY: K.M.M.
EG PROJ. No.: 2012-870 CADD DWG No.: 12-870-005-G
SHEET 5-G OF 13



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809 Poydras Street
Suite 3650
New Orleans, LA 70112
(504) 556-8190



SCALE: 1" = 60'-0"

STA. 145+00 TO STA. 160+00



SOUTHEAST LOUISIANA
FLOOD PROTECTION AUTHORITY – EAST
O.L.D. No. 02430326
MITIGATION OF OUTFALL CANAL EROSION
1717TH STREET CANAL (VETERANS BLVD. TO OLD HAMMOND HWY.)
17TH STREET CANAL PLANS

[illegible]

SCALE:	
1" = 60'-0"	
DATE:	
DECEMBER, 2023	
DESIGNED BY:	CHECKED BY:
K.M.M.	P.S.L.
DRAWN BY:	CHECKED BY:
E.J.F, B.M.C.	K.M.M.
EG PROJ. No.:	CADD DWG No.
2012-870	12-870-000
SHEET OF	
6-S	13

EVANS-GRAVES ENGINEERS, INC.
ENGINEERING CONSULTANTS
909 PODRAS STREET
SUITE 3050
NEW ORLEANS, LA. 70112
(504) 836-8190

909 POYDRAS STREET SUITE 3050
NEW ORLEANS, LA 70112 (504) 836-8190

F:\SDSKPRO\2012-870_SLP\PAE ID-10 Coastal Engineering Services - 17th Street Canal.vets to old hammond hwy\dwg-permit.dwg 12-870-007-S 17th-street-canal-plan.dwg Dec 29, 2023 10:55am Plot Scale: 1:60 Plotted By: bhopalad



GRAPHIC SCALE

(IN FEET)

SCALE: 1" = 60'-0"

STA. 160+00 TO STA. 175+00

1" = 60'-0"

DATE: DECEMBER, 2023

DESIGNED BY: K.M.M. CHECKED BY: P.S.L.

DRAWN BY: E.J.F., B.M.C. CHECKED BY: K.M.M.

EG PROJ. No.: 2012-870 CADD DWG No.: 12-870-007-S

SHEET 7-S OF 13

STATE OF LOUISIANA

P. Stephen Lundgren, Jr.

REGISTERED PROFESSIONAL ENGINEER

CIVIL ENGINEERING

12-21-23

EVANS-GRAVES ENGINEERS, INC.

ENGINEERING CONSULTANTS

809 PONDIA STREET
NEW ORLEANS, LA 70112

PHONE: (504) 385-8190

SOUTHEAST LOUISIANA
FLOOD PROTECTION AUTHORITY - EAST

O.L.D. No. 02438326

MITIGATION OF OUTFALL CANAL EROSION
17th STREET CANAL (VETERANS BLVD. TO OLD HAMMOND HWY.)

17th STREET CANAL PLAN

MARK	DESCRIPTION	DATE	BY

F:\GIS\PROJ\2012-870_SLP\PAE ID-10 Coastal Engineering Services - 17th Street Canal.vets to old hammond hwy\drag-permit.dwg 12-870-008-S 17th-street-canal-plan.dwg Dec 29, 2023 10:56am Plot Scale: 1:60 Plotted By: bchoipal



MATCHLINE STA. 175+00

MATCHLINE STA. 190+00

STA. 177+00
Q. STEEL SHEETPILE,
GEOCELL PANEL
N: 550435.8000
E: 3664148.7349
WIDTH= 8'

EXISTING
FLOODWALL

STA. 180+00
Q. STEEL SHEETPILE,
GEOCELL PANEL
N: 550735.1107
E: 3664169.0611
WIDTH= 8'

LIMITS OF DREDGING
AND EXCAVATION

STA. 183+00
Q. STEEL SHEETPILE,
GEOCELL PANEL
N: 551034.3967
E: 3664189.7465
WIDTH= 8'

STA. 186+00
Q. STEEL SHEETPILE,
GEOCELL PANEL
N: 551333.6834
E: 3664210.4220
WIDTH= 8'

PROPOSED GEOCELL
PANEL CONSTRUCTION

STA. 189+00
Q. STEEL SHEETPILE,
GEOCELL PANEL
N: 551632.9832
E: 3664230.9078
WIDTH= 8'

DESIGN SEGMENT SE2.5
LENGTH = 4420'

PROPOSED SECTION (C)

BELLAIRE DRIVE

LAKE AVENUE

ORPHEUM AV

SE2.5 CANAL 171

GRAPHIC SCALE



(IN FEET)
SCALE: 1" = 60'-0"

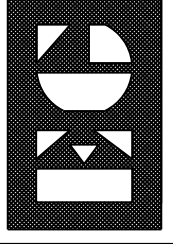
STA. 175+00 TO STA. 190+00



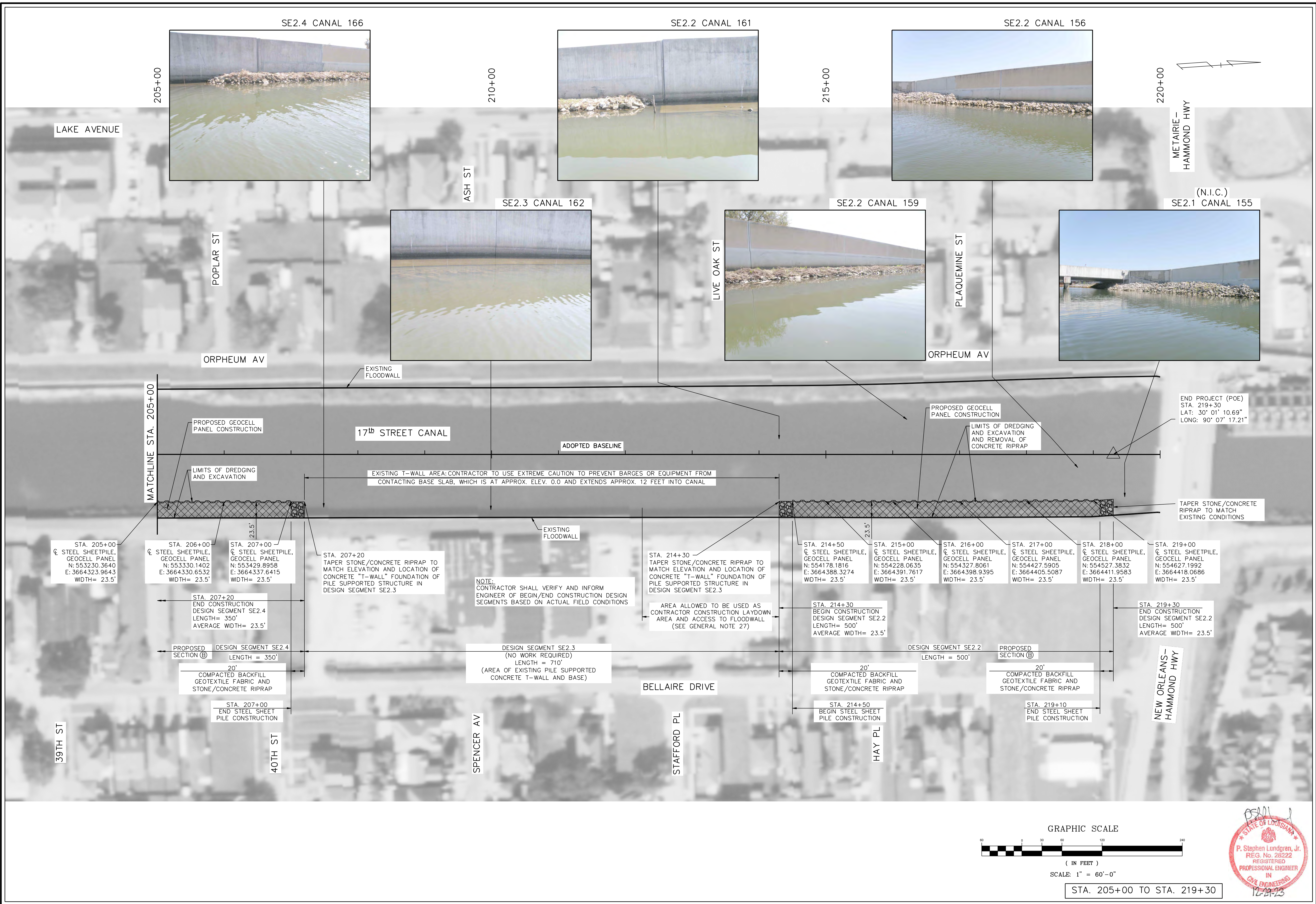
SOUTHEAST LOUISIANA
FLOOD PROTECTION AUTHORITY - EAST
O.L.D. No. 02438326
MITIGATION OF OUTFALL CANAL EROSION
17th STREET CANAL (VETERANS BLVD. TO OLD HAMMOND HWY.)

MARK	DESCRIPTION	DATE	BY

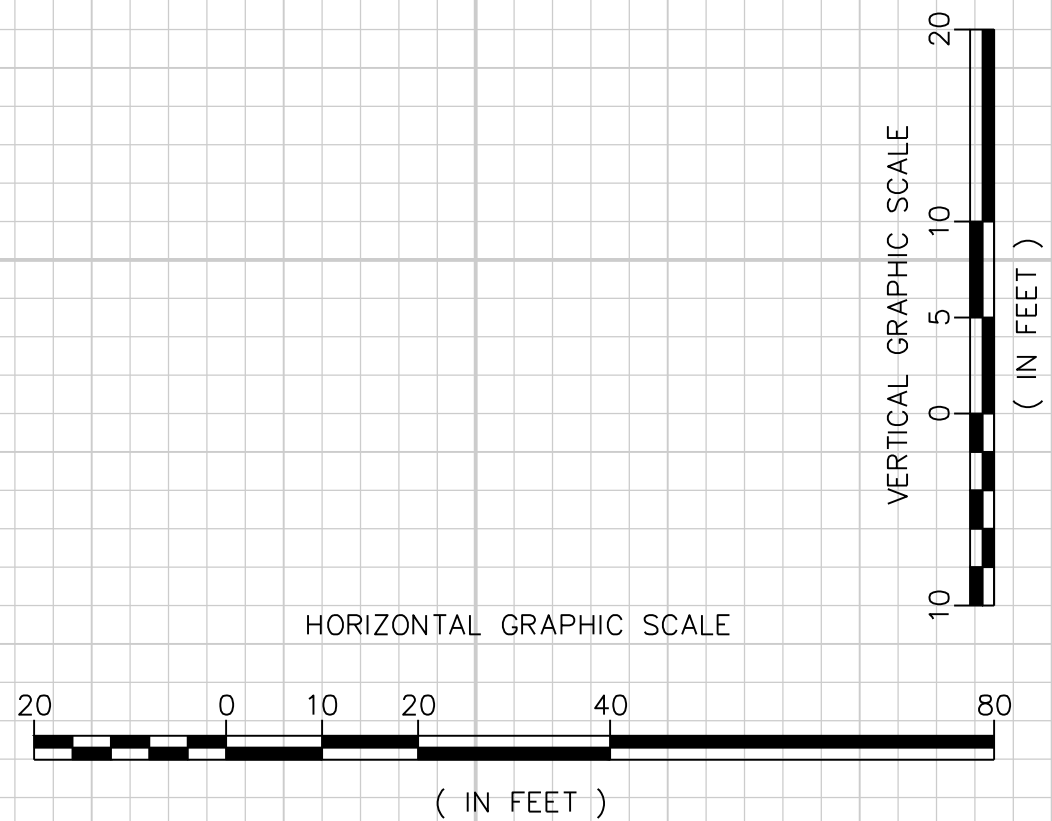
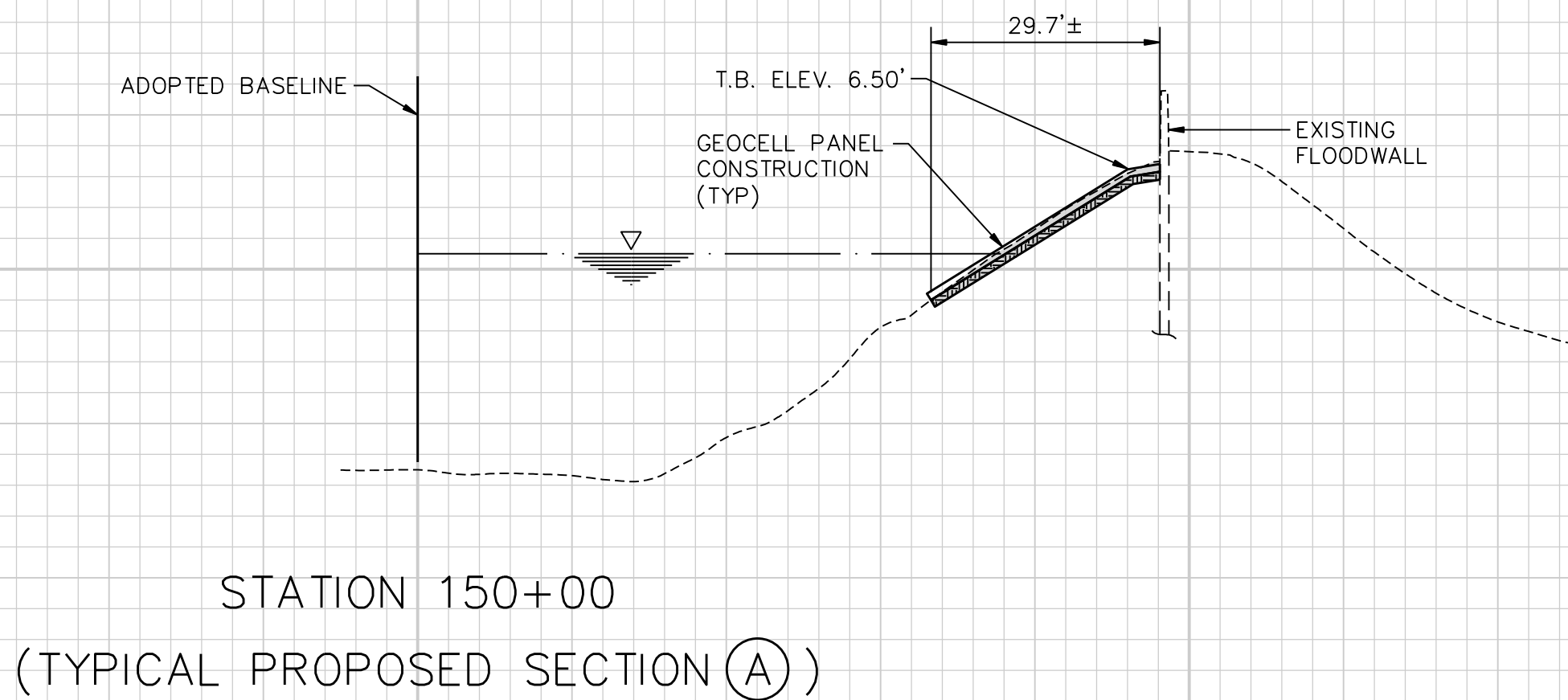
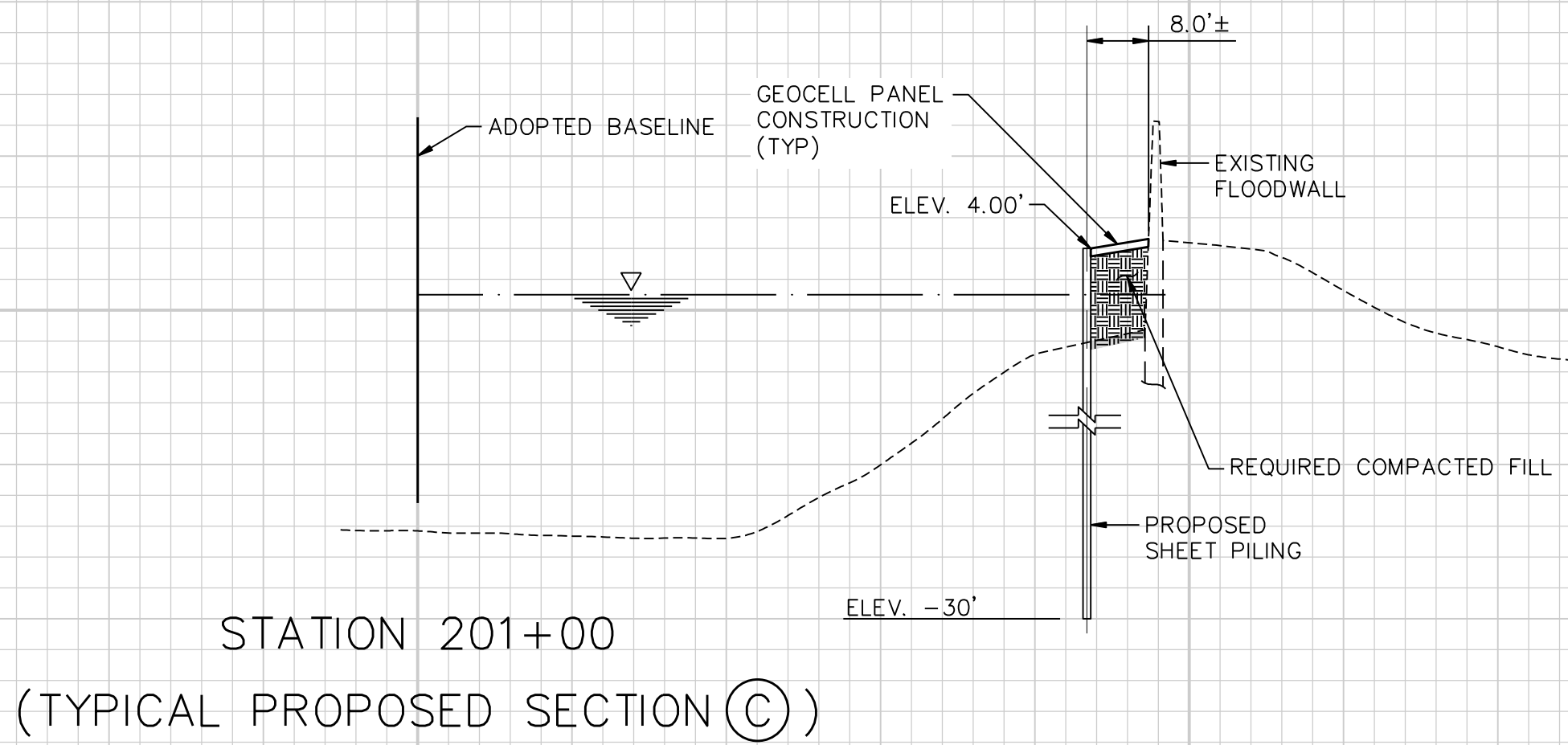
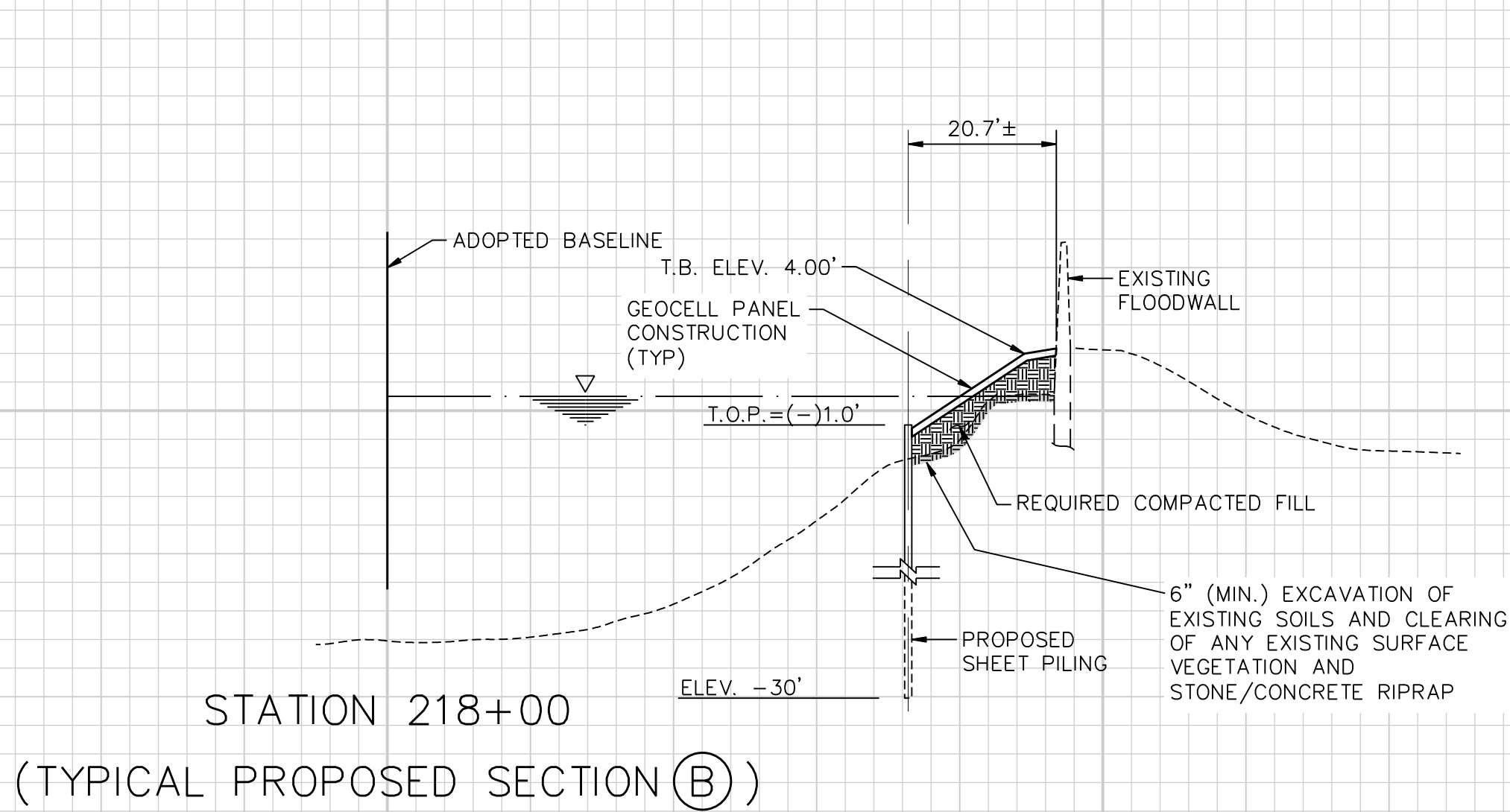
SCALE: 1" = 60'-0"	DATE: DECEMBER, 2023
DESIGNED BY: K.M.M.	CHECKED BY: P.S.L.
DRAWN BY: E.J.F., B.M.C.	CHECKED BY: K.M.M.
EG PROJ. No.: 2012-870	CADD DWG No.: 12-870-008-S
SHEET 8-S	OF 13



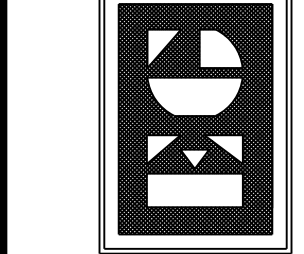
EVANS-GRAVES ENGINEERS, INC.
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609 PONDIA STREET
NEW ORLEANS, LA 70112
PHONE: (504) 385-8190
FAX: (504) 385-8190



F:\SDSKPRO\2012-870_SLP\PAE ID-10 Coastal Engineering Services - 17th Street Canal_vets to old hammond hwy\dwg-permit dwg\12-870-011-S 17th street canal cross sections.dwg Dec 29, 2023 - 11:00am Plot Scale: 1:20 Plotted By: bchoptal



SOUTHEAST LOUISIANA
FLOOD PROTECTION AUTHORITY - EAST
O.L.D. No. 02438326
MITIGATION OF OUTFALL CANAL EROSION
17th STREET CANAL (VETERANS BLVD. TO OLD HAMMOND HWY.)
17TH STREET CANAL TYPICAL CROSS SECTIONS



EVANS-GRAVES ENGINEERS, INC.
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809 Poydras Street
New Orleans, LA 70112
Suite 2550
(504) 586-8190

SCALE: AS NOTED
DATE: DECEMBER, 2023
DESIGNED BY: K.M.M. CHECKED BY: P.S.L.
DRAWN BY: E.J.F., B.M.C. CHECKED BY: K.M.M.
EG PROJ. No.: 2012-870 CADD DWG No.: 12-870-011-S
SHEET 11-S OF 13