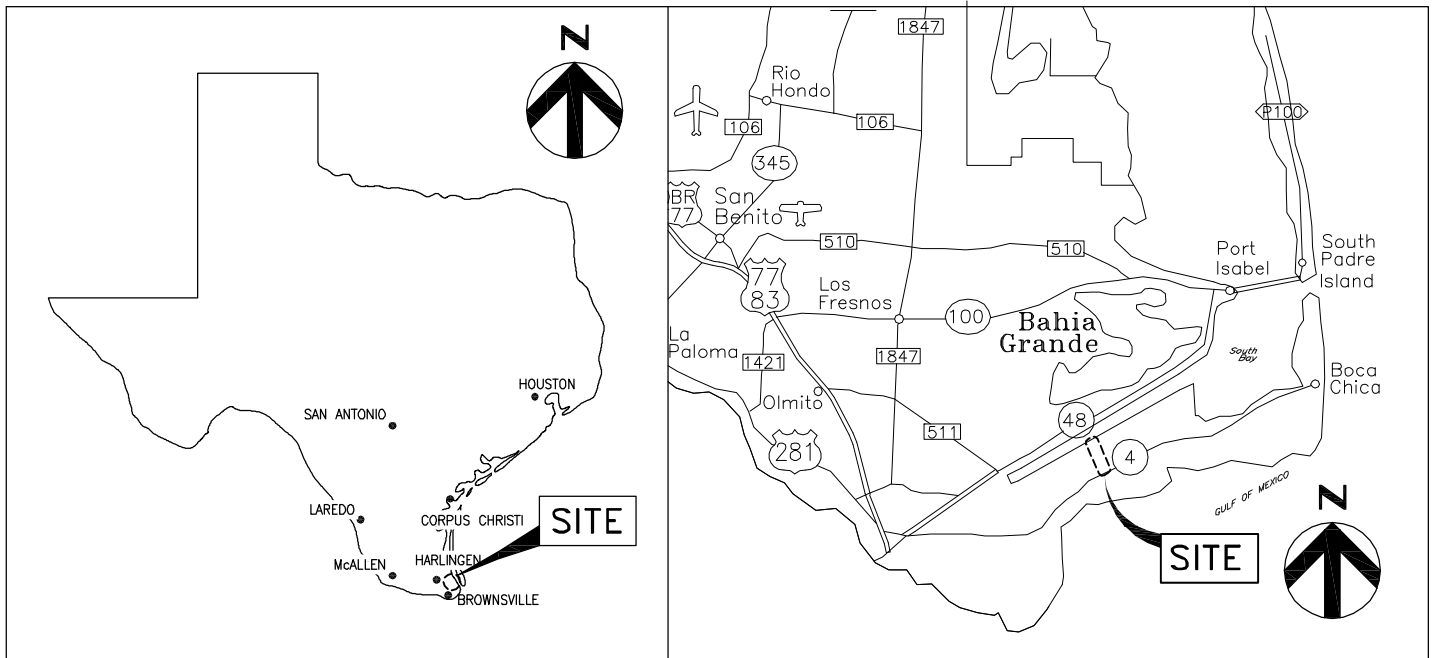
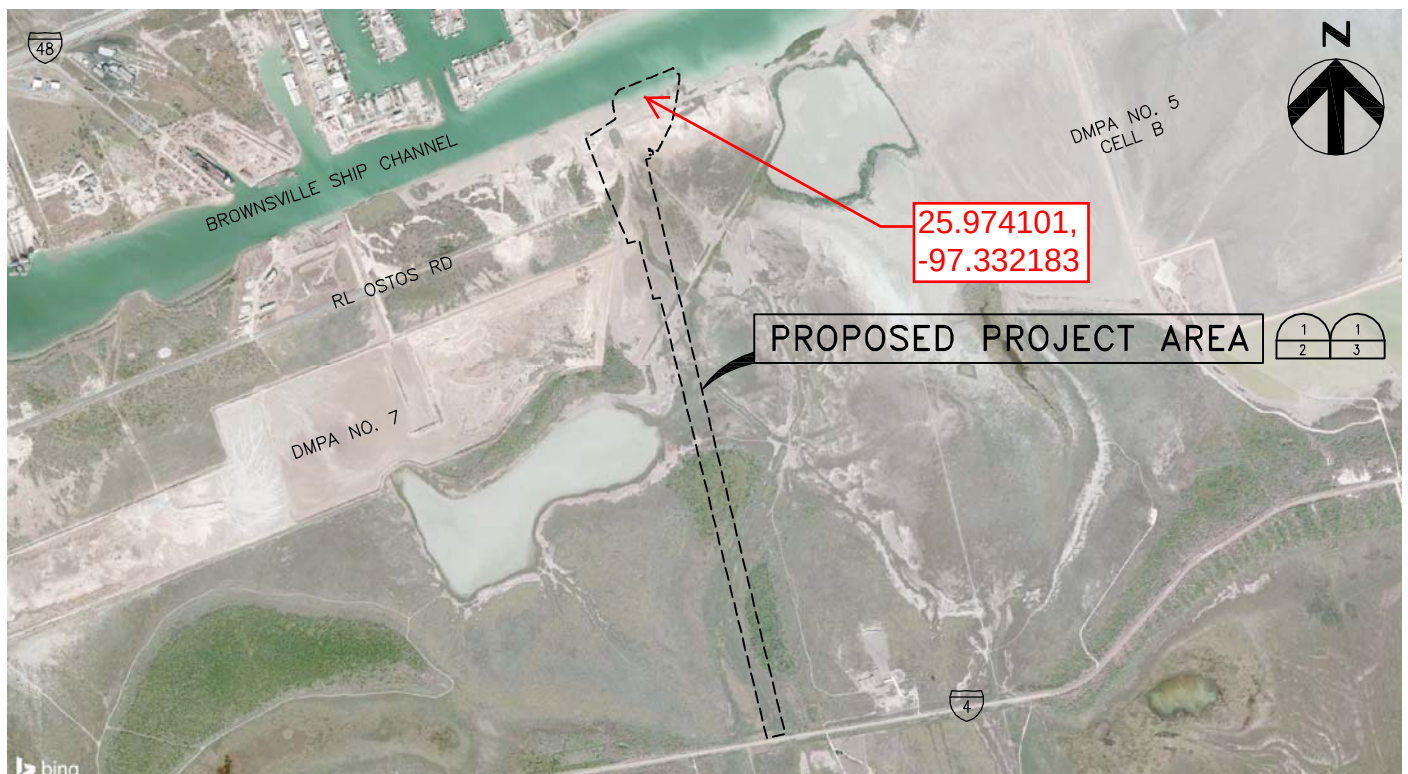


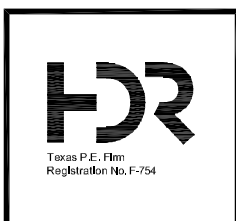


VICINITY MAP

LOCATION MAP



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ACTIVITY: Spool Base – PERMITTING

APPLICANT: Brownsville Navigation District

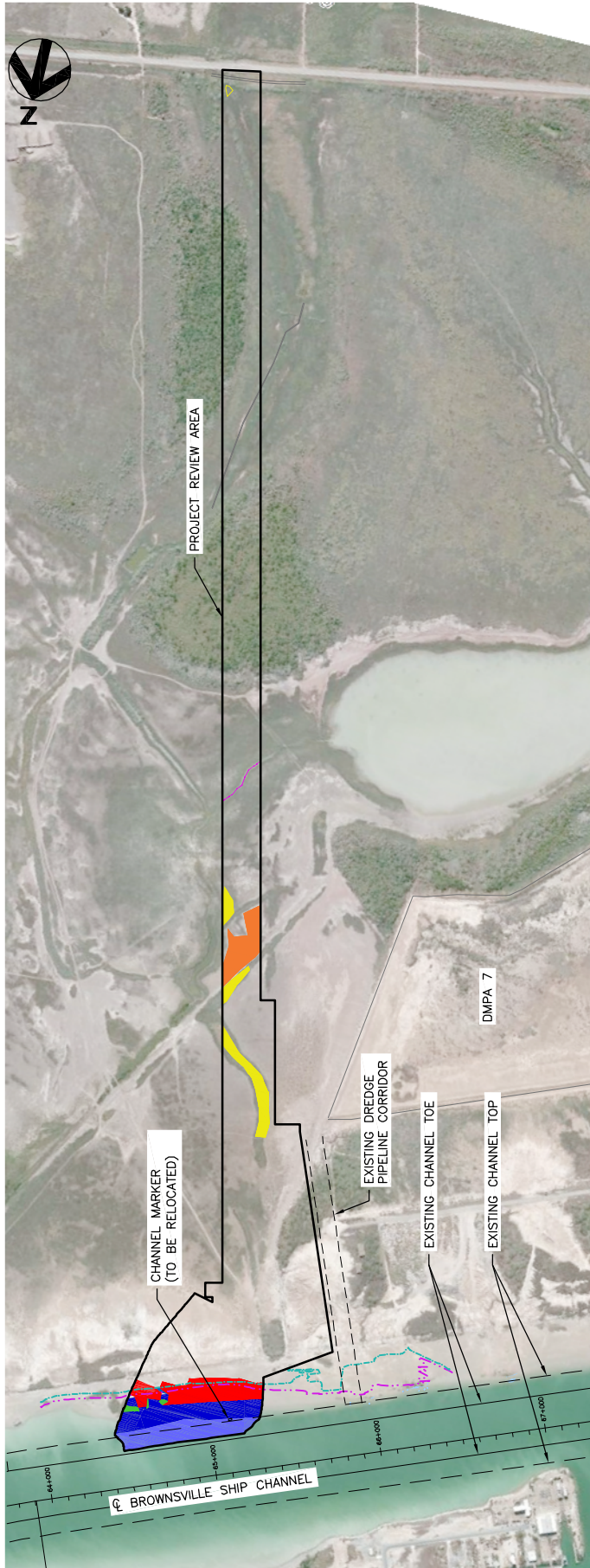
DATUM:

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EXISTING CONDITIONS

SCALE: 1" = 1000'

LEGEND:

- MHW (MEAN HIGH WATER)
- AHT (ANNUAL HIGH TIDE LINE)

EXISTING CONDITIONS - REVIEW AREA	
RESOURCE TYPE	EXISTING (Ac.)
EPHEMERAL STREAM	0.02
ESTUARINE WETLAND	0.02
FRESHWATER WETLAND	1.44
MANGROVES	0.10
OYSTERS	0.04
MUDFLAT	1.32
TIDAL FLAT	2.13
SHALLOW OPEN WATER (0.0' TO -6.0')	3.57
DEEP OPEN WATER (-6.0' TO -42.0')	2.06
UPLANDS	56.54

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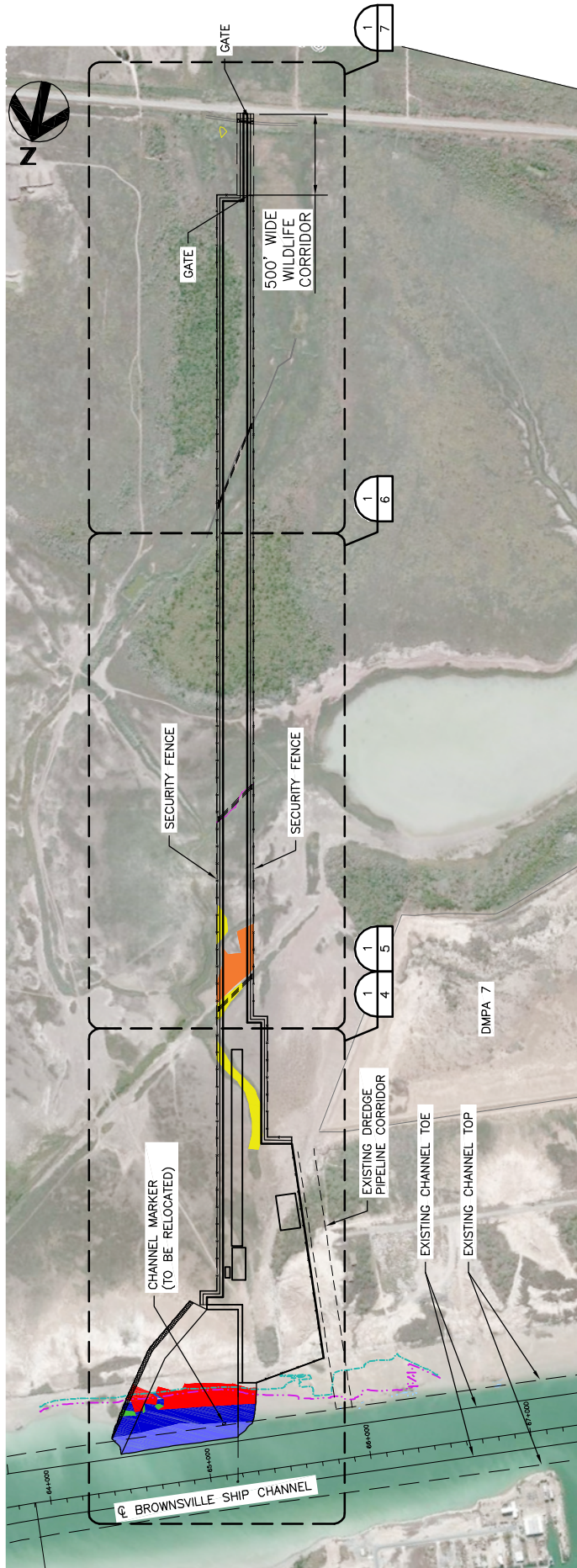
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PROJECT LAYOUT

SCALE: 1" = 1000'

- LEGEND:**
- MHW (MEAN HIGH WATER)
 - AHT (ANNUAL HIGH TIDE LINE)

		HABITAT IMPACT SUMMARY TABLE			
RESOURCE	TYPE	EXISTING (Ac.)	IMPACTED EXCAVATION (Ac.)	IMPACTED FILL (Ac.)	TOTAL IMPACTED
EPHEMERAL STREAM		0.02	0.00	0.02	0.02
ESTUARINE WETLAND		0.02	0.02	0.00	0.02
FRESHWATER WETLAND		1.44	0.00	1.44	1.44
MANGROVES		0.10	0.10	0.00	0.10
OYSTERS		0.04	0.00	0.00	0.00
MUDFLAT		1.32	0.00	1.32	1.32
TIDAL FLAT		2.13	2.03	0.10	2.13
SHALLOW OPEN WATER (0.0' TO -6.0')		3.57	3.43	0.14	3.57
DEEP OPEN WATER (-6.0' TO -42.0')		2.06	2.05	0.01	2.06
UPLANDS		56.54	5.52	51.02	56.54
TOTAL			13.15	54.09	67.24

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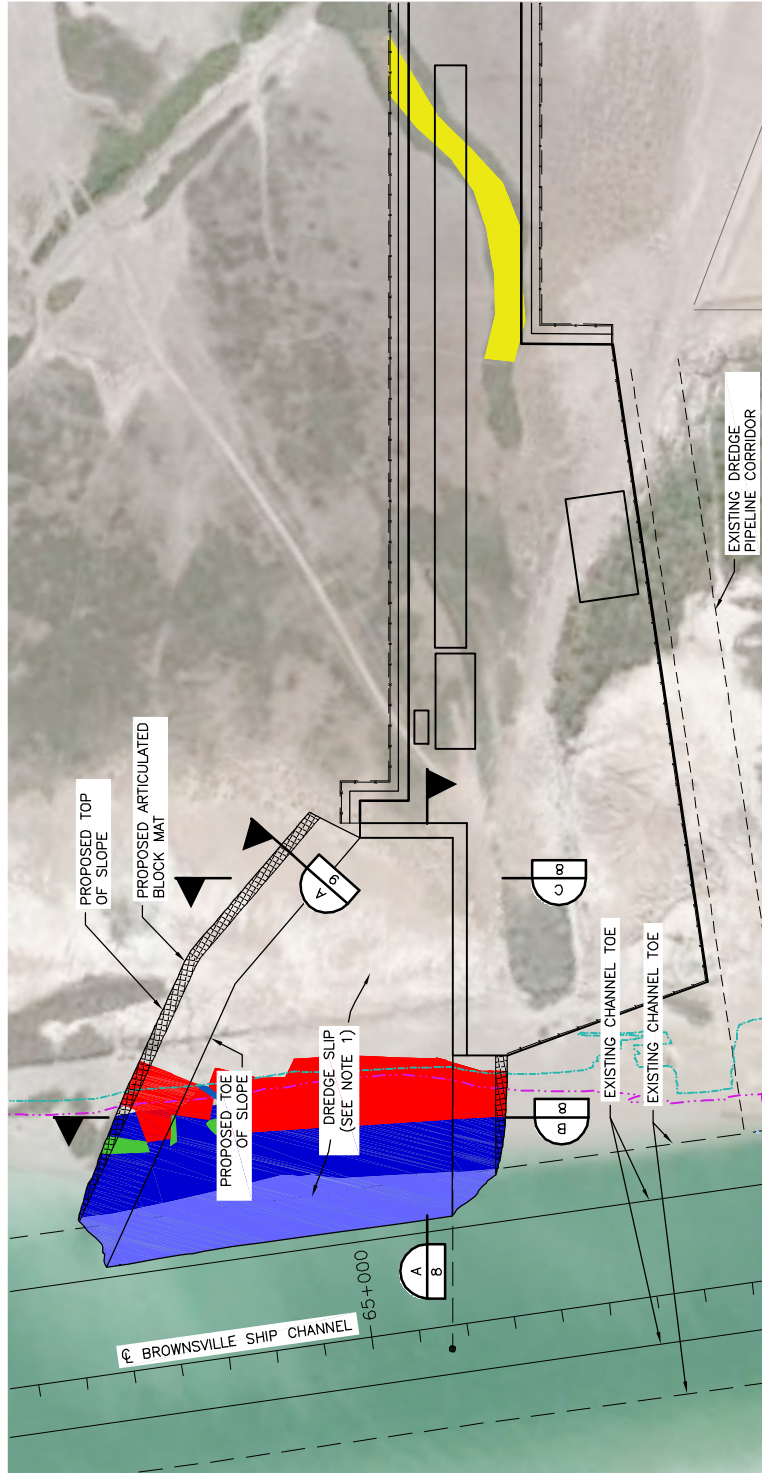
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DREDGE PLAN
SCALE: 1" = 400'

- NOTES:**
1. APPLICANT PROPOSES TO DREDGE TO -35.0' MLT +2.0' ALLOWABLE OVERDEPTH.
 2. DREDGE AREA = 12.60 AC
 3. APPROXIMATELY 654,000 CY OF MATERIAL TO BE HYDRAULICALLY DREDGED AND/OR MECHANICALLY EXCAVATED.
 4. SEE SHEET 16 FOR DREDGED MATERIAL PLACEMENT LOCATIONS.
 5. COORDINATES SHOWN ARE REFERENCED TO NAD83 TEXAS SOUTH ZONE US FEET.

- LEGEND:**
- ESTUARINE WETLAND
 - FRESHWATER WETLAND
 - MANGROVES
 - TIDAL FLAT
 - SHALLOW OPEN WATER
 - DEEP OPEN WATER
 - MHW (MEAN HIGH WATER)
 - AHT (ANNUAL HIGH TIDE LINE)

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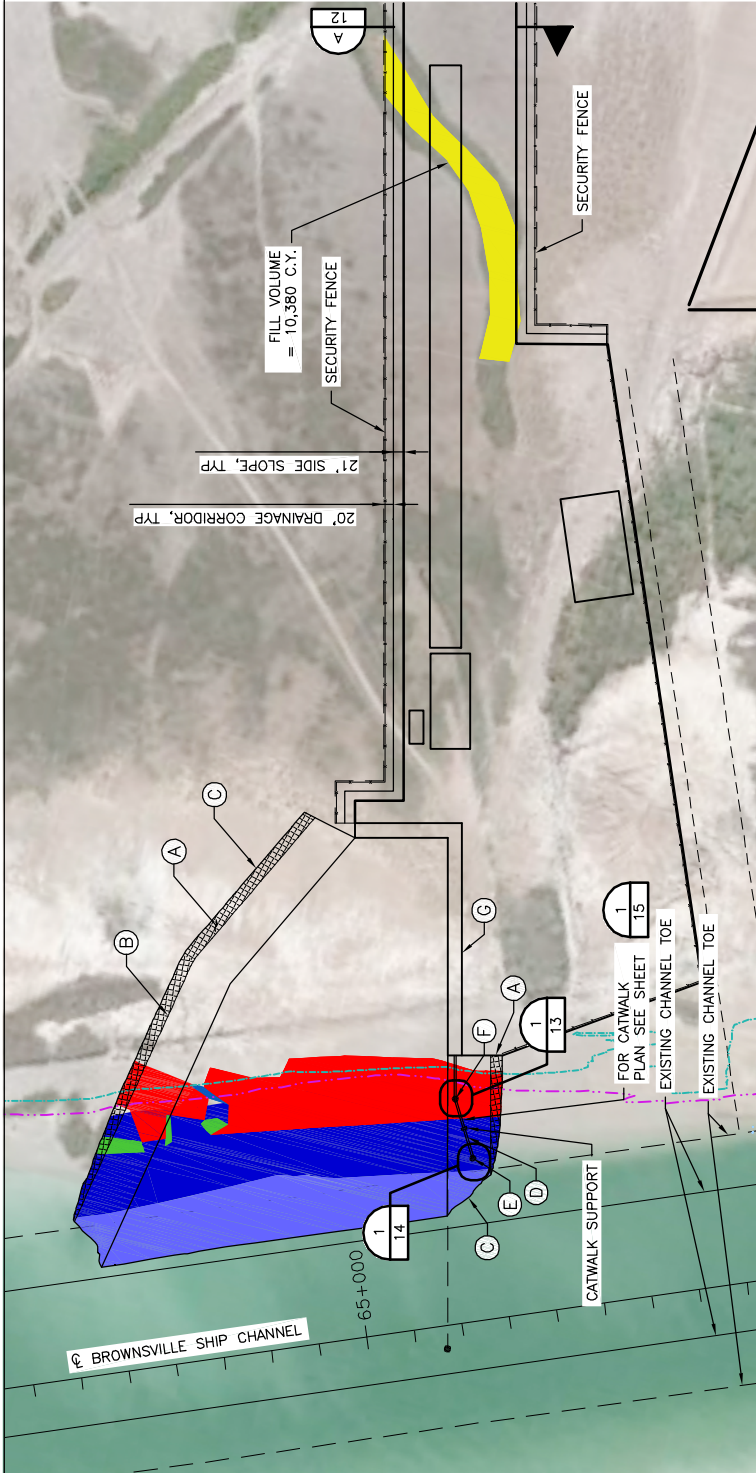
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LEGEND:

- ESTUARINE WETLAND
- FRESHWATER WETLAND
- MANGROVES
- TIDAL FLAT
- SHALLOW OPEN WATER
- DEEP OPEN WATER
- MHW (MEAN HIGH WATER)
- AHT (ANNUAL HIGH TIDE LINE)
- CULVERT

- (A) ARTICULATING BLOCK MAT
- (B) APPROXIMATE TOP OF SLOPE
- (C) AFTER DREDGING ("DAYLIGHT LINE")
- (D) ACCESS CATWALKS (FOOT BRIDGES)
- (E) PROPOSED MOORING DOLPHIN (TYP)
- (F) PROPOSED BREASTING DOLPHIN (TYP)
- (G) PROPOSED BULKHEAD

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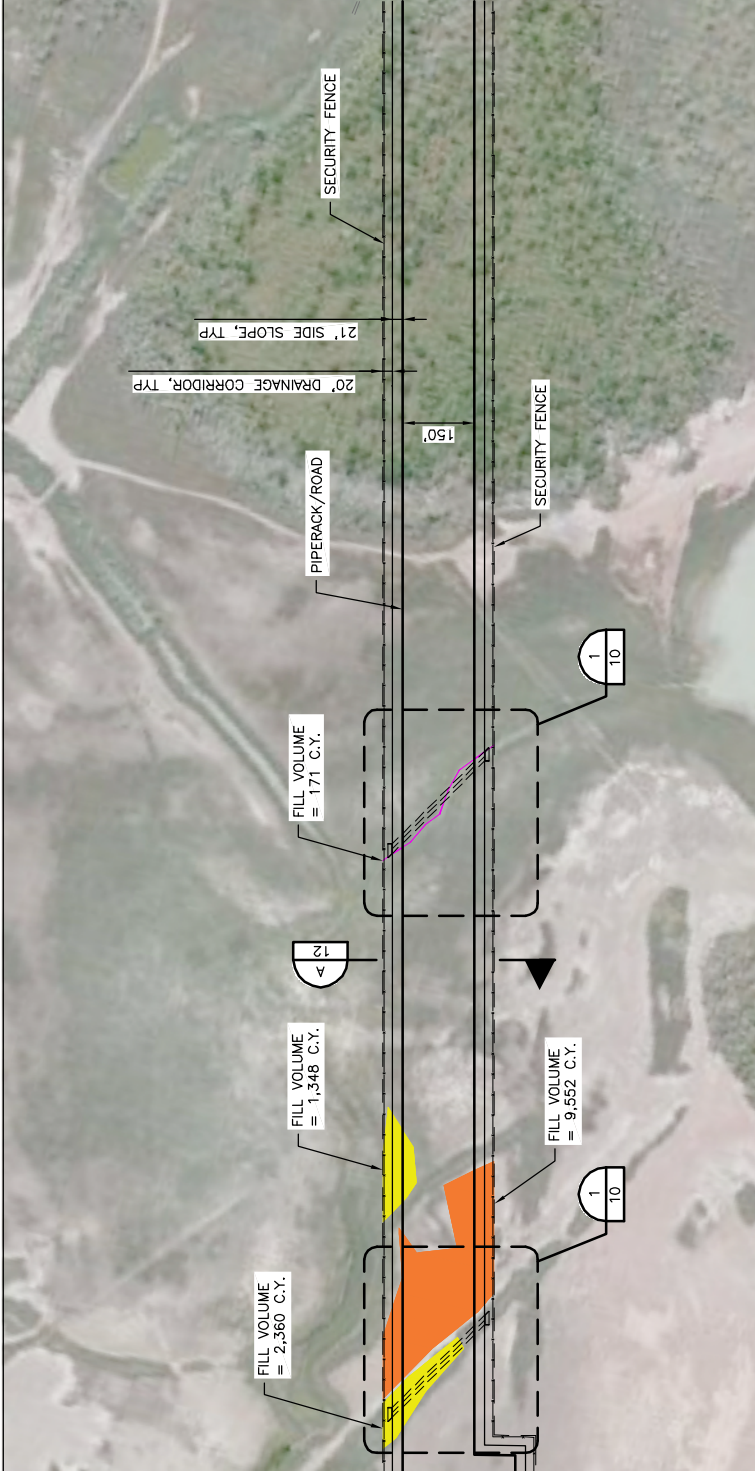


Texas P.E. Firm
Registration No. F-754

DATUM:

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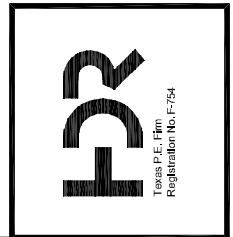
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SCALE: 1"= 400'

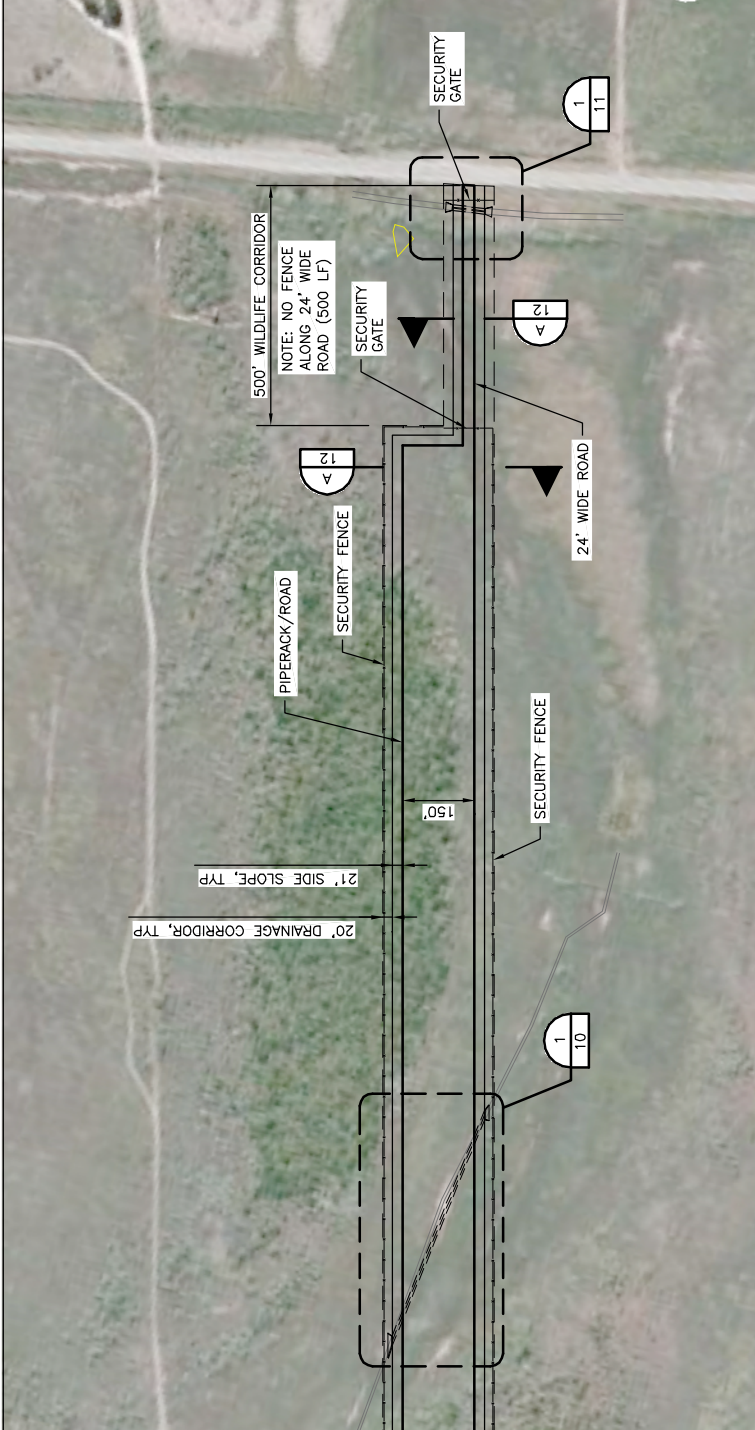
- LEGEND:
- EPHEMERAL STREAM
 - MUDFLAT
 - FRESHWATER WETLAND
 - CULVERT

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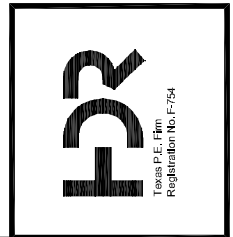
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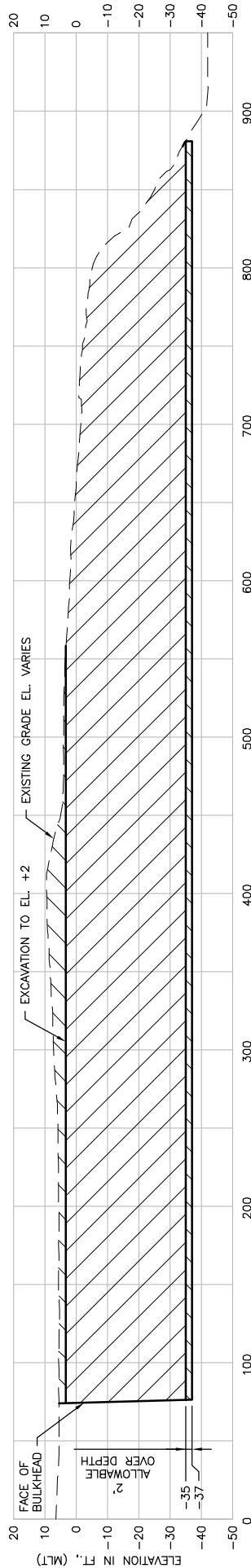
LEGEND:  CULVERT

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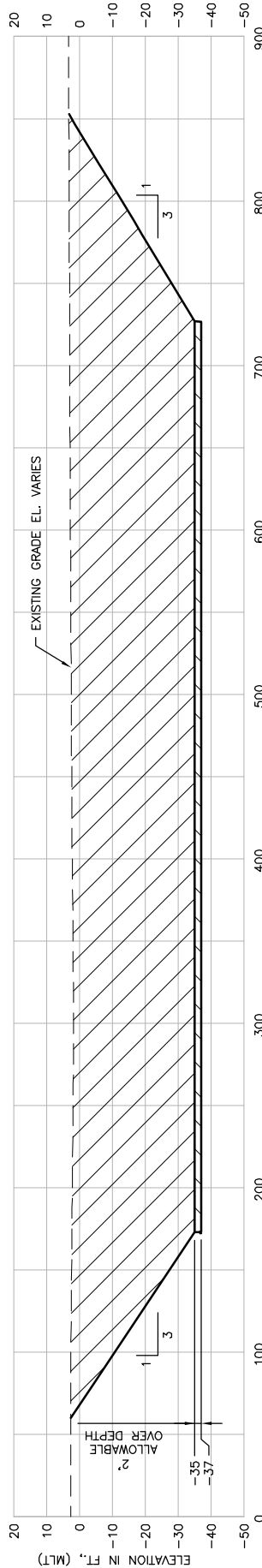
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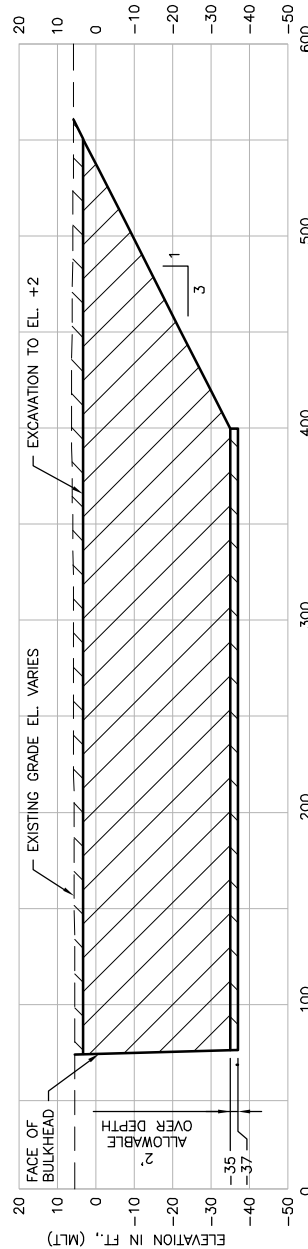




DREDGE SECTION A
SCALE: 1"=100' HORIZ|1"=50' VERT



DREDGE SECTION B
SCALE: 1"=100' HORIZ|1"=50' VERT



DREDGE SECTION C
SCALE: 1"=100' HORIZ|1"=50' VERT

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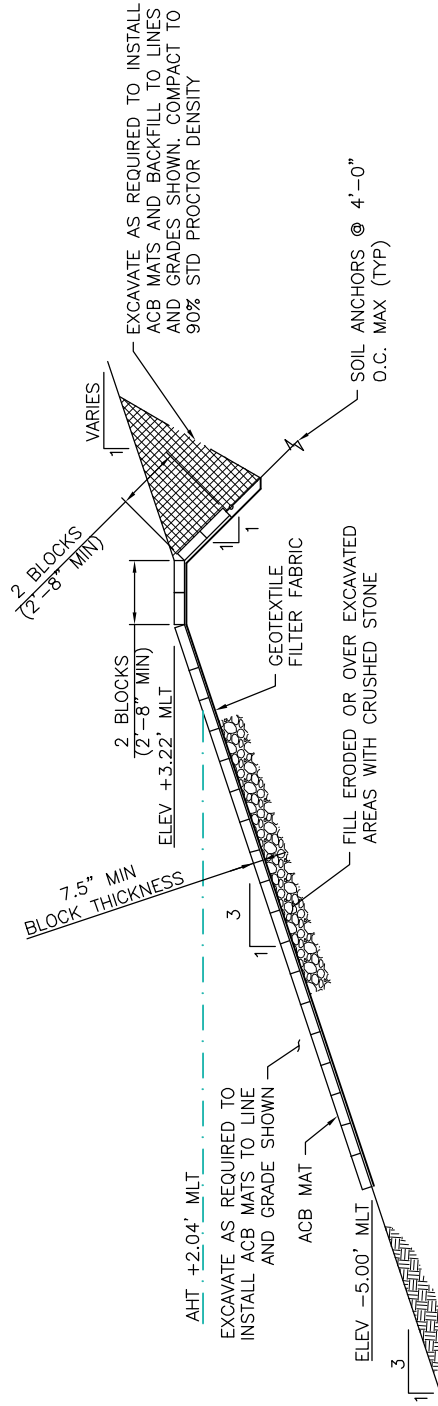
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Texas P.E. Firm
Registration No. F-754



TYPICAL SECTION REVETMENT
SCALE: 1/8" = 1'-0"



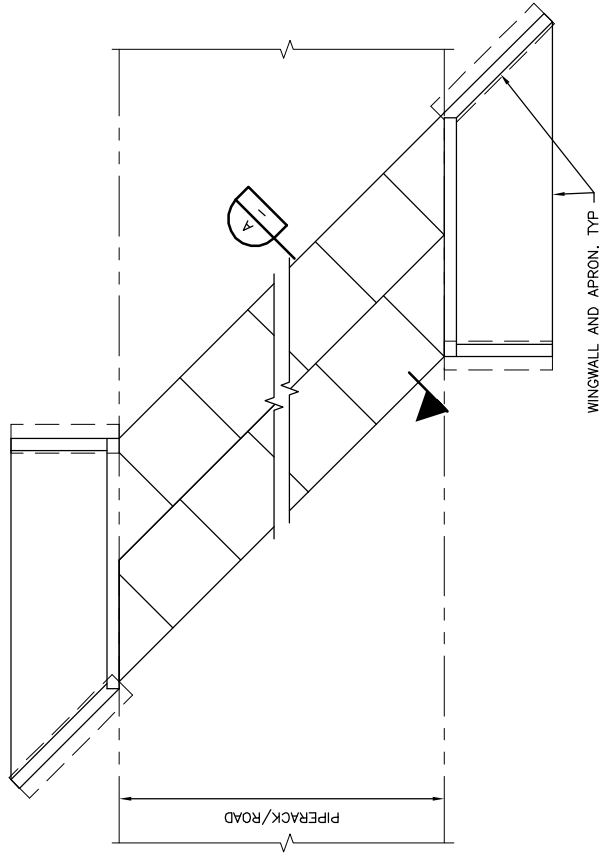
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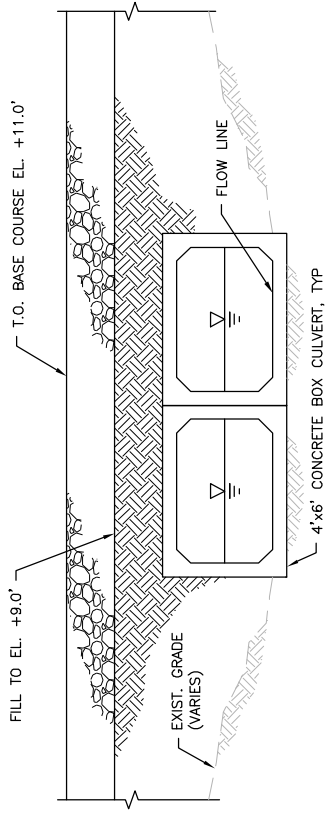


HDR
TEXAS P.E. Firm
 Registration No. F-754



PLAN - CULVERT

SCALE: 1/16" = 1'-0"



SECTION - CULVERT

SCALE: 1/8" = 1'-0"



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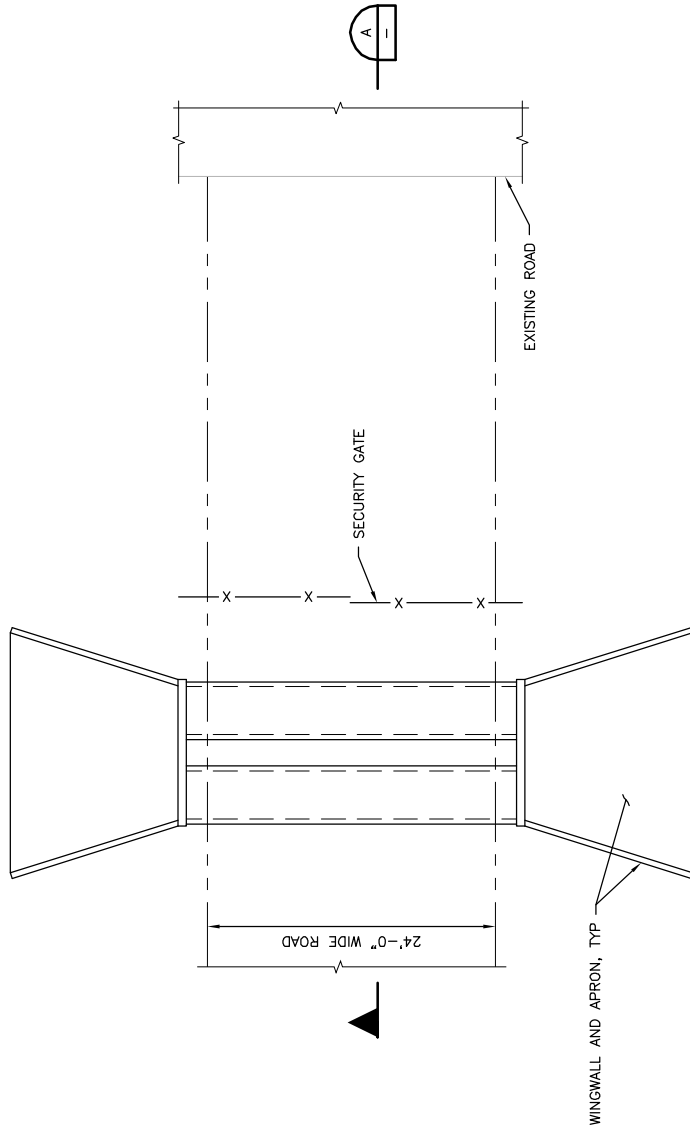
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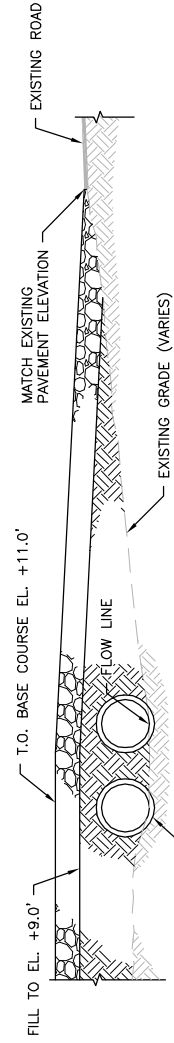
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PLAN — RCP CULVERT
SCALE: 1/16" = 1'-0"



SECTION — RCP CULVERT
SCALE: 1/16" = 1'-0"

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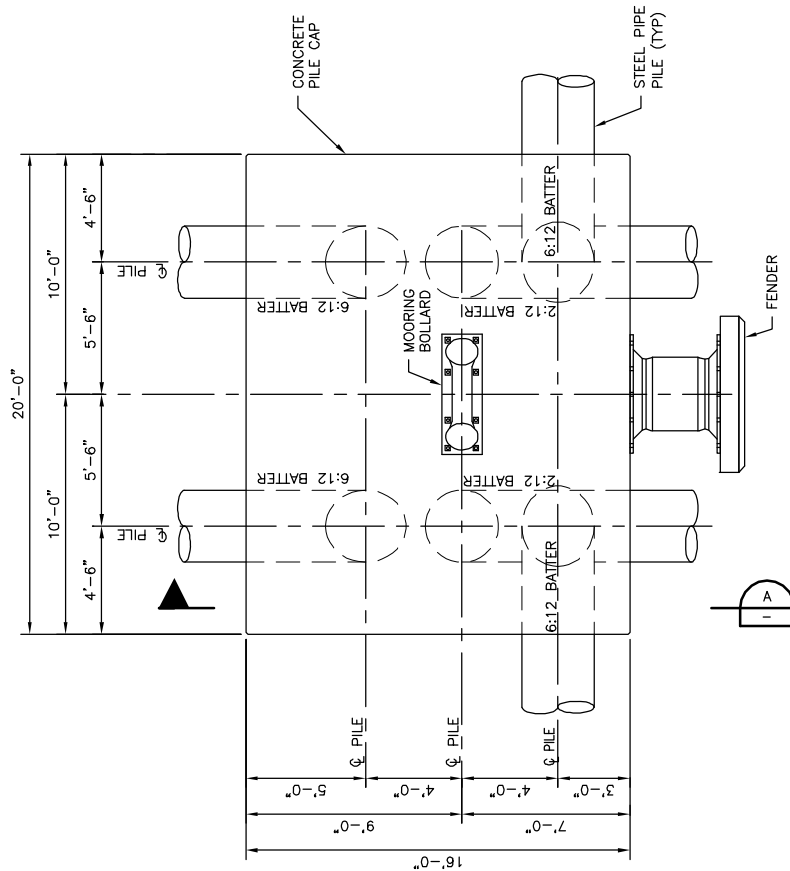
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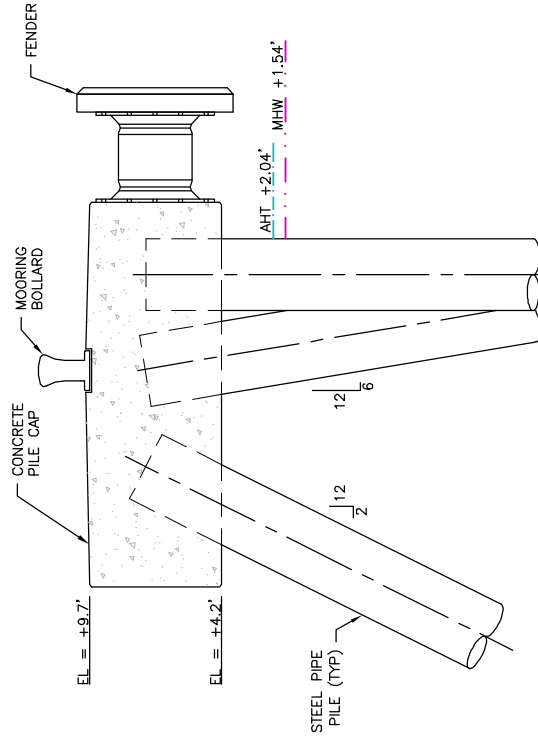


TYPICAL BREASTING DOLPHIN PLAN

SCALE: 1/8" = 1'-0"

TYPICAL BREASTING DOLPHIN SECTION

SCALE: 1/8" = 1'-0"



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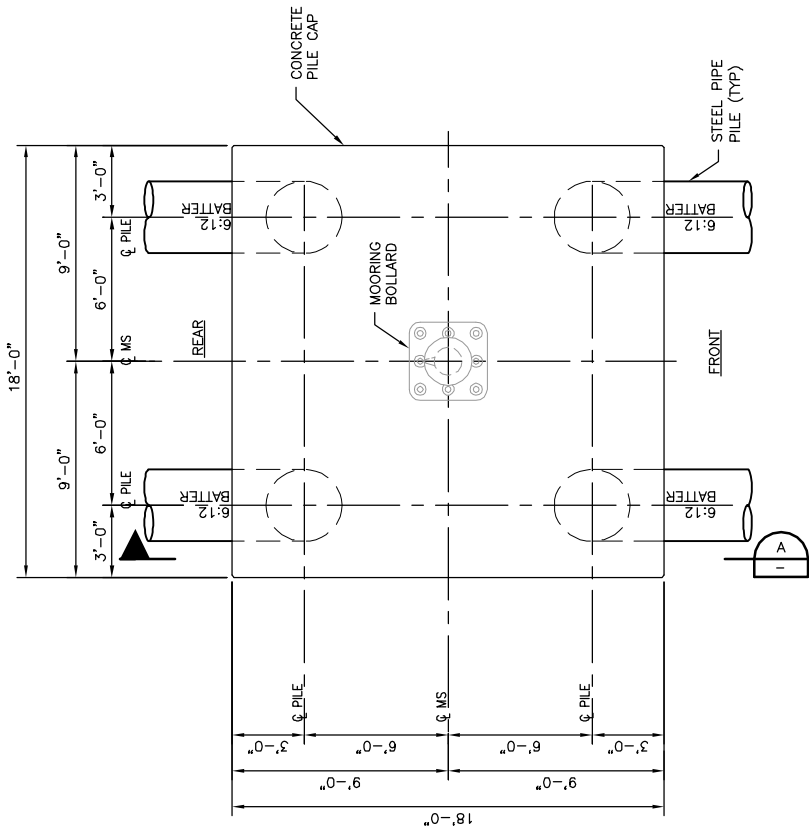
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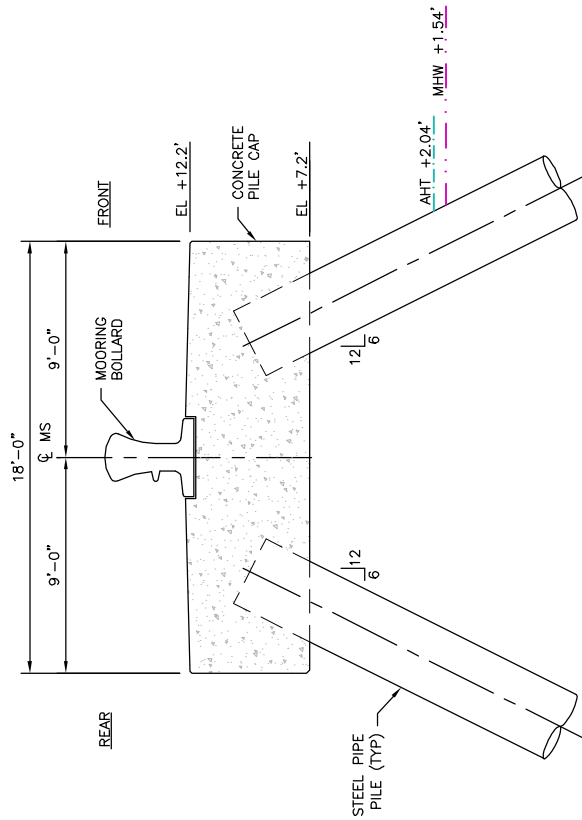
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TYPICAL MOORING DOLPHIN PLAN

SCALE: 1/8" = 1'-0"



TYPICAL MOORING DOLPHIN SECTION

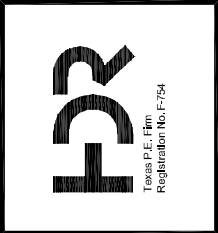
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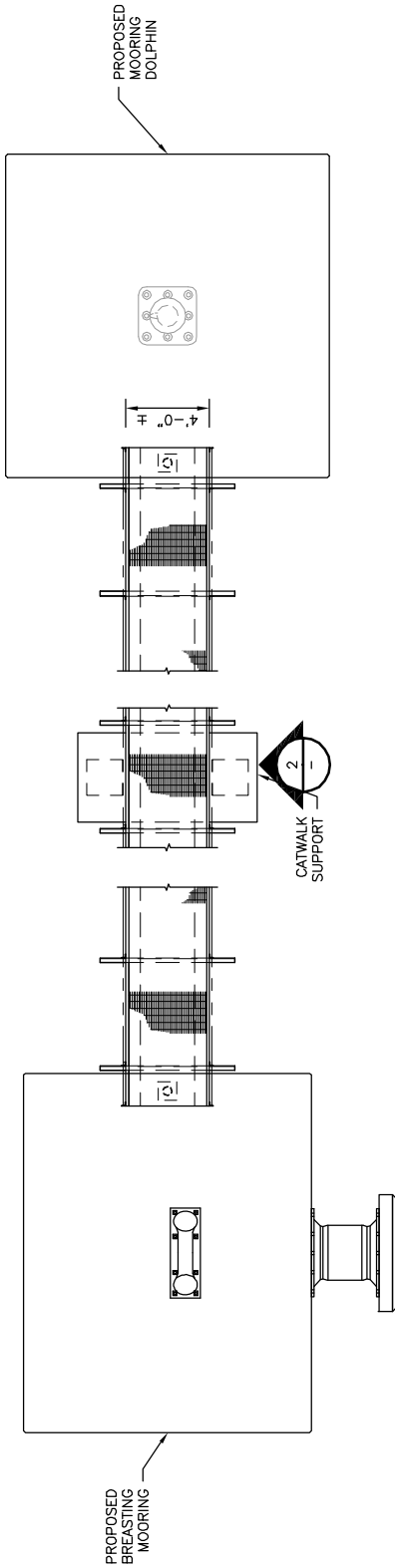


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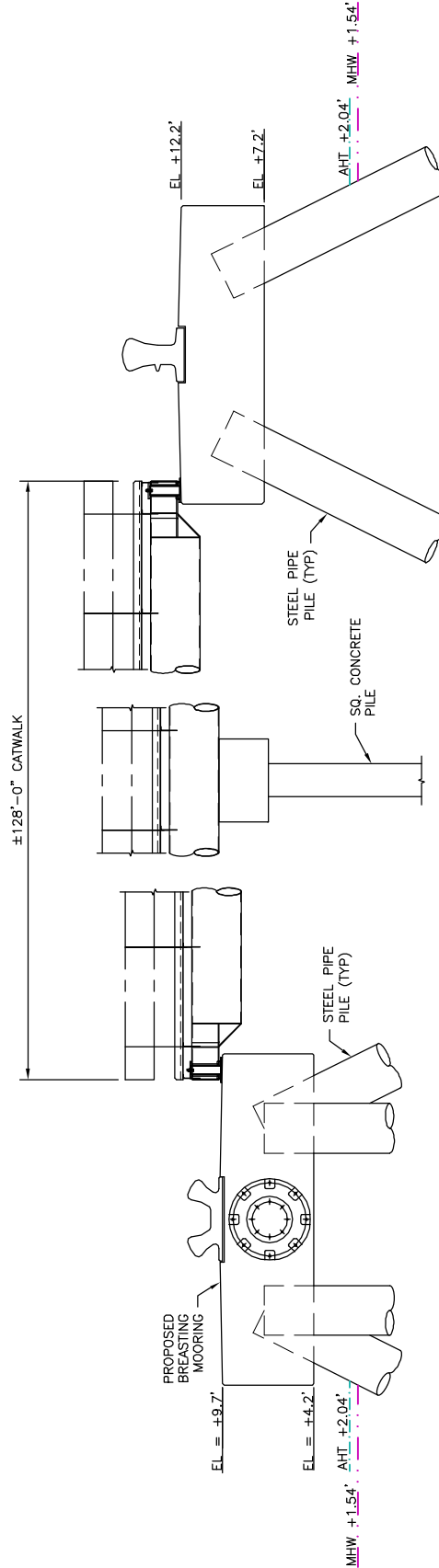
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PROPOSED CATWALK PLAN 1
SCALE: NOT TO SCALE



PROPOSED CATWALK ELEVATION 2
SCALE: NOT TO SCALE

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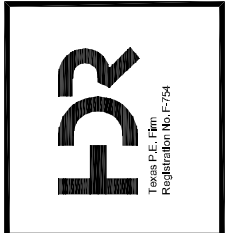
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DREDEGE PLACEMENT MATERIAL AREAS 1

SCALE: 1"=5000'

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