

PACKERY CHANNEL NATURE PARK

SHORELINE ENHANCEMENT PROJECT



DIRECTIONS:

FROM CORPUS CHRISTI, TRAVEL SOUTH ON TX-286. EXIT TX-286 SOUTH TOWARDS TX-358 EAST AND JOHN F KENNEDY MEMORIAL CAUSEWAY TOWARDS SOUTH PADRE ISLAND DRIVE/PARK ROAD 22. CONTINUE SOUTH ON SOUTH PADRE ISLAND DRIVE/PARK ROAD 22 TO NORTH PADRE ISLAND. ON NORTH PADRE ISLAND TURN LEFT ONTO PACKERY CHANNEL PARK ROAD. THE PROJECT WILL BE LOCATED ALONG THE SHORELINE OF PACKERY CHANNEL AT THE TERMINUS OF PACKERY CHANNEL PARK ROAD.

NATURE OF ACTIVITY:

THE APPLICANT PROPOSES TO CONSTRUCT SIX PRIMARY BREAKWATER STRUCTURES AND FIVE GAP PROTECTION STRUCTURES PARALLEL TO SHORE TO MITIGATE EROSION AND REDUCE WAVE ENERGY IMPACTING THE EXISTING SHORELINE. THE PROPOSED BREAKWATERS WILL BE CONSTRUCTED ATOP APPROXIMATELY 0.49 ACRES OF UNVEGETATED BAY BOTTOM. A PILE-SUPPORT PIER WILL ALSO BE CONSTRUCTED TO FACILITATE FISHING, BIRDWATCHING, AS WELL AS PUBLIC AND EDUCATIONAL ENGAGEMENT. THE PIER FOOTPRINT TOTALS APPROXIMATELY 0.1 ACRE WITH APPROXIMATELY 3,740 SQUARE FEET POSITIONED SEAWARD OF THE MHW, OF WHICH 1,355 SQUARE FEET WILL OCCUR ATOP PROPOSED BREAKWATER STRUCTURES. THE PROJECT ALSO INCLUDES MARSH PLANTING ATOP APPROXIMATELY 0.35 ACRES OF UNVEGETATED BAY BOTTOM SITUATED BETWEEN THE PROPOSED BREAKWATER AND THE EXISTING SHORELINE.



LOCATION MAP

PERMIT

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2	EXISTING SITE PLAN
3	PROPOSED SITE PLAN
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OCTOBER 31, 2024

SHEET 1 OF 6

APPLICANT: COUNTY OF NUECES

COUNTY: NUECES

STATE: TEXAS

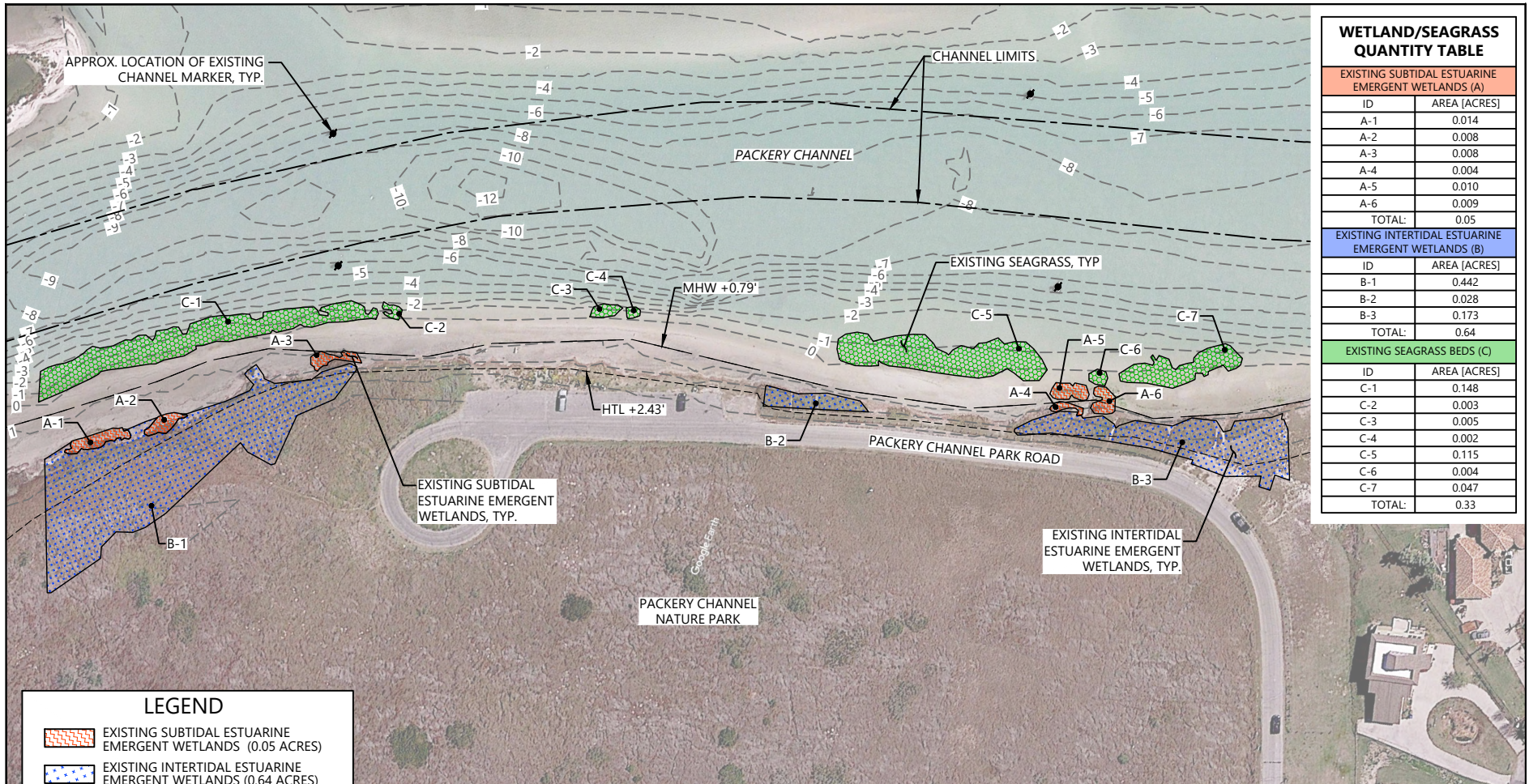
VERTICAL DATUM: NAVD88

HORIZ. DATUM: TX STATE PLANE S., NAD83-FT

SITE ADDRESS: 27°37'41.49"N 97°13'1.73"W

PACKERY CHANNEL NATURE PARK -
SHORELINE ENHANCEMENT PROJECT

VICINITY - LOCATION MAP



WETLAND/SEAGRASS QUANTITY TABLE

EXISTING SUBTIDAL ESTUARINE EMERGENT WETLANDS (A)	
ID	AREA (ACRES)
A-1	0.014
A-2	0.008
A-3	0.008
A-4	0.004
A-5	0.010
A-6	0.009
TOTAL:	0.05
EXISTING INTERTIDAL ESTUARINE EMERGENT WETLANDS (B)	
ID	AREA (ACRES)
B-1	0.442
B-2	0.028
B-3	0.173
TOTAL:	0.64
EXISTING SEAGRASS BEDS (C)	
ID	AREA (ACRES)
C-1	0.148
C-2	0.003
C-3	0.005
C-4	0.002
C-5	0.115
C-6	0.004
C-7	0.047
TOTAL:	0.33

LEGEND

- EXISTING SUBTIDAL ESTUARINE EMERGENT WETLANDS (0.05 ACRES)
- EXISTING INTERTIDAL ESTUARINE EMERGENT WETLANDS (0.64 ACRES)
- EXISTING SEAGRASS BEDS (0.33 ACRES)
- EXISTING CONTOURS
- MEAN HIGH WATER (MHW) +0.79'
- HIGH TIDE LINE (HTL) +2.43'
- CHANNEL LIMITS
- CHANNEL MARKER (APPROX.)

NOTES:

- AERIAL PHOTOGRAPH SOURCE IS GOOGLE EARTH FROM MARCH 23, 2022 AND IS ONLY REPRESENTATIVE OF CONDITIONS AT THE TIME THE PHOTOGRAPH WAS TAKEN.
- CONTOURS SHOWN REPRESENT BATHYMETRIC SURVEY DATA SET FROM T. BAKER SMITH, LLC ON JUNE 21-22 & 26.

TIDAL WATER LEVELS (NAVD88)

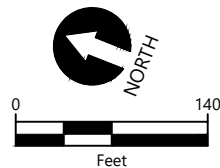
HIGH TIDE LINE (HTL)	+2.43'
MEAN HIGH WATER (MHW)	+0.79'
MEAN SEA LEVEL (MSL)	+0.59'
MEAN LOW WATER (MLW)	+0.36'

TIDE STATION 8775792, PACKERY CHANNEL, TX

PERMIT



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SHEET 2 OF 6

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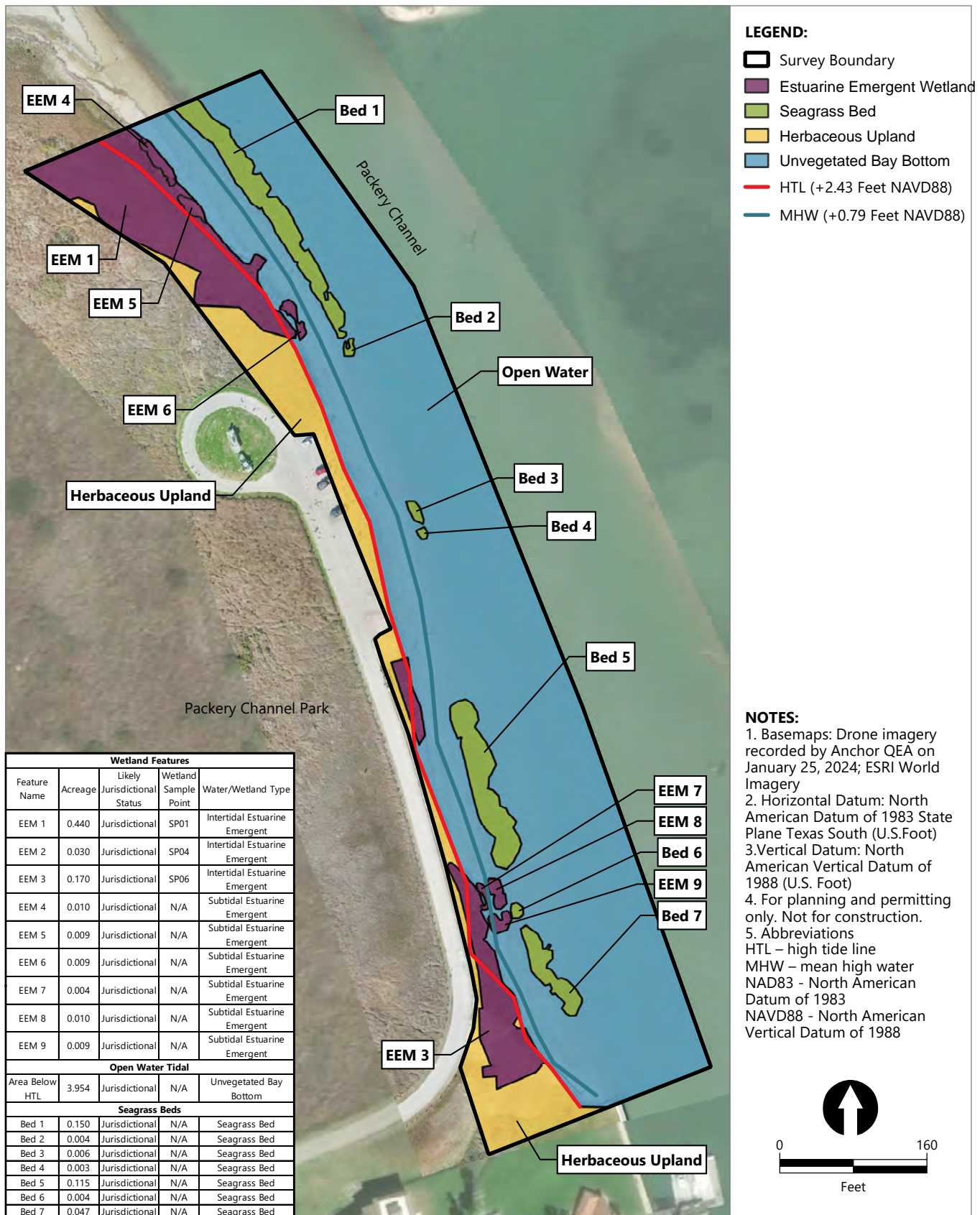
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PACKERY CHANNEL NATURE PARK - SHORELINE ENHANCEMENT PROJECT

EXISTING SITE PLAN



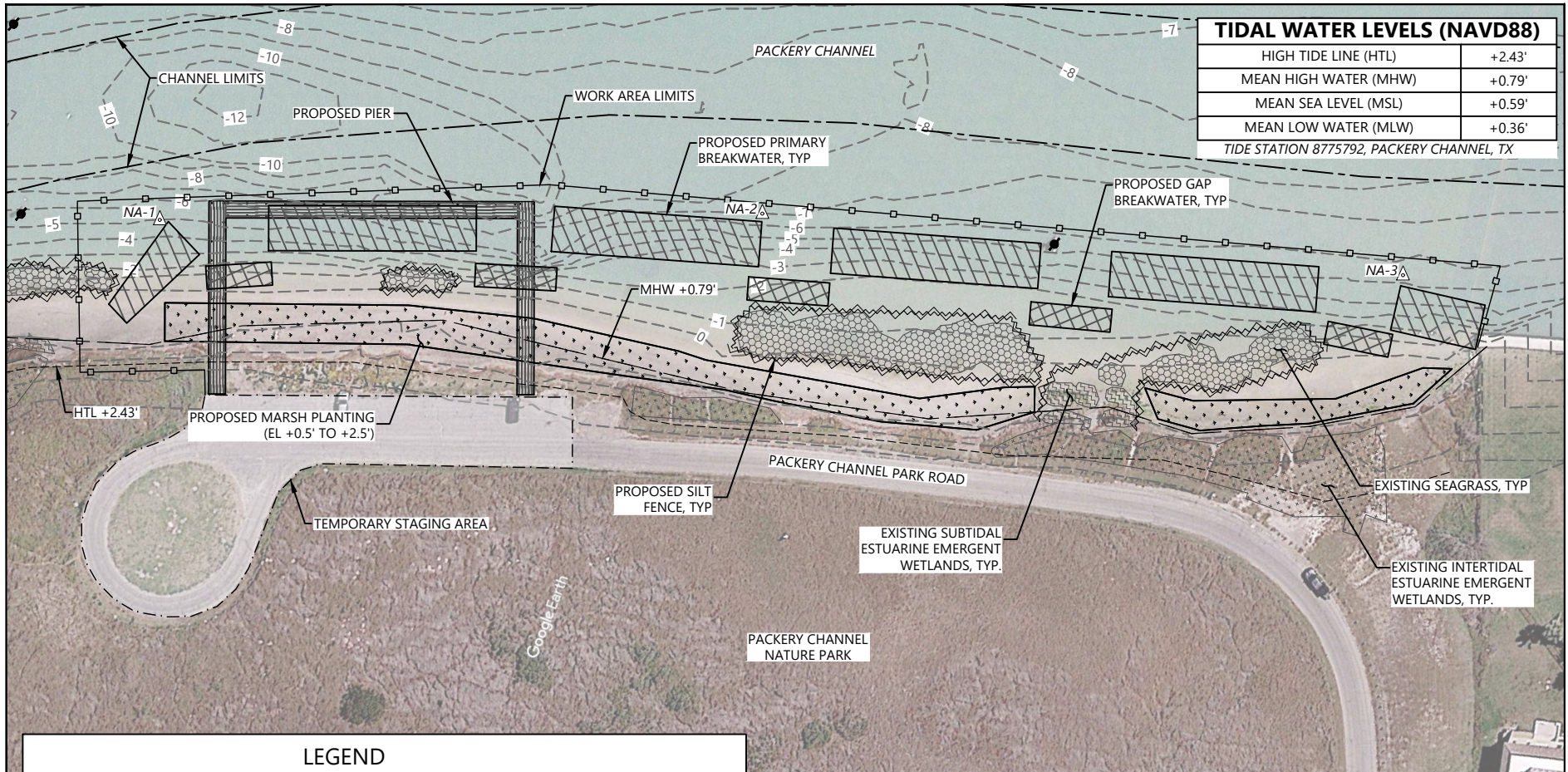
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Figure 9a
Waters of the U.S. Delineation/Summerged Aquatic Resources Survey Results Overview

Summary of Findings Report: Waters of the U.S. Delineation and Submerged Aquatic Resources Survey
Packery Channel Nature Park and Shoreline Enhancement Project



TIDAL WATER LEVELS (NAVD88)

HIGH TIDE LINE (HTL)	+2.43'
MEAN HIGH WATER (MHW)	+0.79'
MEAN SEA LEVEL (MSL)	+0.59'
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TIDE STATION 8775792, PACKERY CHANNEL, TX

LEGEND

	EXISTING SUBTIDAL ESTUARINE EMERGENT WETLANDS (0.05 ACRES)		WORK AREA LIMITS
	EXISTING INTERTIDAL ESTUARINE EMERGENT WETLANDS (0.64 ACRES)		PROPOSED SILT FENCE
	EXISTING SEAGRASS BEDS (0.33 ACRES)		PROPOSED MARSH PLANTING (0.35 ACRES)
	EXISTING CONTOURS		PROPOSED PRIMARY BREAKWATER (0.41 ACRES)
	MEAN HIGH WATER (MHW) +0.79'		PROPOSED GAP BREAKWATER (0.08 ACRES)
	HIGH TIDE LINE (HTL) +2.43'		TEMP. STAGING AREA
			PROPOSED NAVIGATION AID

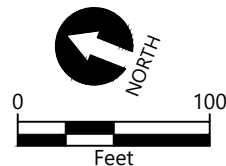
NOTES:

1. AERIAL PHOTOGRAPH SOURCE IS GOOGLE EARTH FROM MARCH 23, 2022 AND IS ONLY REPRESENTATIVE OF CONDITIONS AT THE TIME THE PHOTOGRAPH WAS TAKEN.
2. CONTOURS SHOWN REPRESENT BATHYMETRIC SURVEY DATA SET FROM T. BAKER SMITH, LLC ON JUNE 21-22 & 26.
3. SEE SHEET 4 FOR ADDITIONAL NOTES, AND IMPACT SUMMARY TABLE.

PERMIT



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OCTOBER 31, 2024

SHEET 3 OF 6

APPLICANT: COUNTY OF NUECES

COUNTY: NUECES

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PACKERY CHANNEL NATURE PARK -
SHORELINE ENHANCEMENT PROJECT

PROPOSED SITE PLAN

GENERAL NOTES:

- BREAKWATERS MAY BE CONSTRUCTED OF COMMERCIALY PROCURED MATERIAL OR UNITS COMPOSED OF CONCRETE, STEEL, MESH, GEOGRID, GEOTEXTILE, STONE, PILES, CHAINS, ANCHORS, OYSTER SHELL, OR SIMILAR. PROPOSED BREAKWATER LOCATIONS, QUANTITIES, AND ELEVATIONS ARE APPROXIMATE ONLY AND SUBJECT TO CHANGE DURING FINAL DESIGN AND/OR DURING CONSTRUCTION. FLEXIBILITY IN CONSTRUCTION MATERIAL IS NECESSARY DURING THE CONSTRUCTION BIDDING PROCESS BASED ON PUBLIC PROCUREMENT REQUIREMENTS AND TO ALLOW REVIEW OF CONSTRUCTION COST FOR VARIOUS PROJECT APPROACHED. NO HAZARDOUS MATERIALS, TRASH, GARBAGE, DEBRIS OR SIMILAR SHALL BE CONSIDERED FOR BREAKWATER MATERIAL TYPES AND ALL MATERIALS WILL BE SUITABLE FOR USE IN THE MARINE ENVIRONMENT.
- NAVIGATION AIDS WILL BE PLACED IN ACCORDANCE WITH THE U.S. COAST GUARD REQUIREMENTS. AIDS TO NAVIGATION DETAILS TO BE FINALIZED BASED ON US COAST GUARD STANDARDS.
- CONTRACTOR SHALL INSTALL TURBIDITY CURTAINS AND/OR APPROVED EQUAL BMPS TO MINIMIZE DISTURBANCE TO THE SHORELINE AND VEGETATION.
- CONTRACTOR SHALL USE CONSTRUCTION MATS OR SIMILAR WITHIN LAND ACCESS AREAS TO MINIMIZE DISTURBANCE TO THE SHORELINE AND VEGETATION.
- PERMANENT IMPACTS WATERWARD OF THE HTL WILL BE WITHIN UNVEGETATED BAY BOTTOM. NO IMPACTS TO EXISTING SEAGRASS, OYSTERS, OR WETLANDS ARE PROPOSED AS PART OF PROJECT CONSTRUCTION.
- NO FILL MATERIAL WILL BE PLACED WITHIN THE PROPOSED MARSH PLANTING AREA. MARSH PLANTING WILL OCCUR IN AREAS SITUATED AT SUITABLE MARSH ELEVATIONS BASED ON SURVEYS CONDUCTED AT REFERENCE HABITATS IN THE PROJECT AREA. THE COMBINATION OF PROPOSED BREAKWATERS AND MARSH PLANTING IS ANTICIPATED TO RESULT IN MATERIAL ACCRETION BETWEEN THE EXISTING SHORELINE AND THE PROPOSED BREAKWATERS. AS ACCRETION OCCURS, ADDITIONAL AREAS OF SUITABLE MARSH ELEVATION ARE EXPECTED TO DEVELOP AND ARE ANTICIPATED TO VEGETATE VIA NATURAL RECRUITMENT.

TIDAL WATER LEVELS (NAVD88)	
HIGH TIDE LINE (HTL)	+2.43'
MEAN HIGH WATER (MHW)	+0.79'
MEAN SEA LEVEL (MSL)	+0.59'
MEAN LOW WATER (MLW)	+0.36'

TIDE STATION 8775792, PACKERY CHANNEL, TX

PROJECT IMPACT SUMMARY TABLE

PROPOSED FEATURE	IMPACT TYPE	HABITAT TYPE	FILL AREA BELOW HTL (ACRES)	VOLUME OF MATERIAL BELOW HTL (CY)	OVER-WATER STRUCTURE BELOW MHW (ACRES)
PRIMARY BREAKWATER	PERMANENT	UNVEGETATED BAY BOTTOM	0.41	3,510	0
GAP BREAKWATER	PERMANENT	UNVEGETATED BAY BOTTOM	0.08	475	0
PIER	N/A	UNVEGETATED BAY BOTTOM	0	0	0.09

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SHEET 4 OF 6

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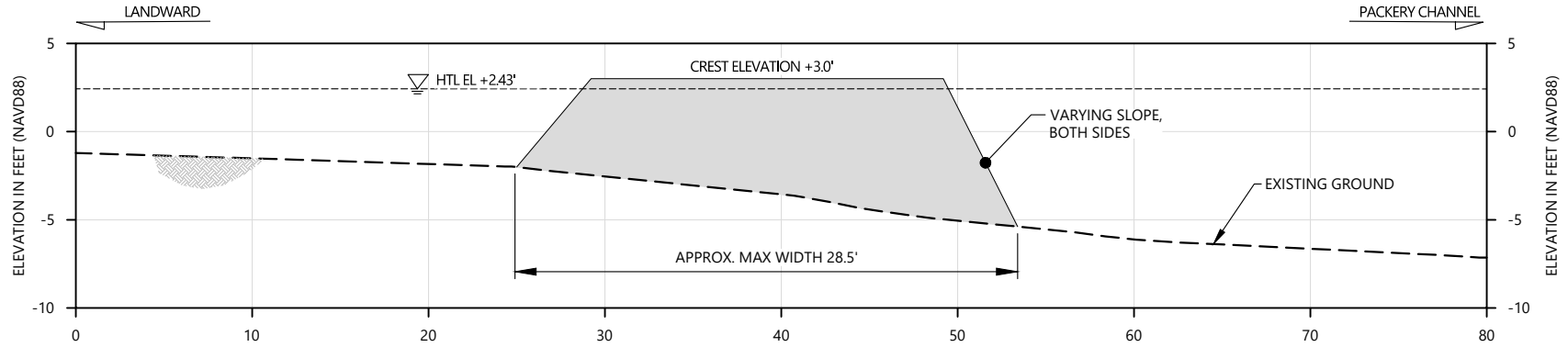
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HORIZ. DATUM: TX STATE PLANE S., NAD83-FT

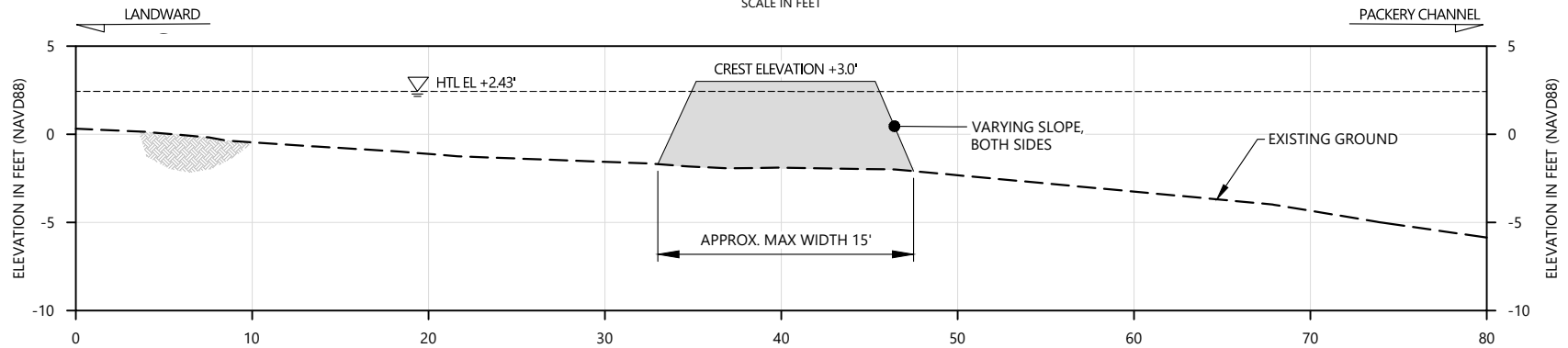
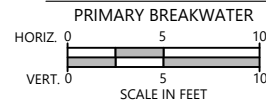
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PACKERY CHANNEL NATURE PARK - SHORELINE ENHANCEMENT PROJECT

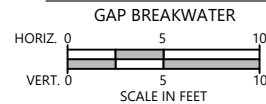
GENERAL NOTES



TYPICAL SECTION



TYPICAL SECTION



NOTES:

1. PROPOSED BREAKWATER LOCATIONS, QUANTITIES, AND ELEVATIONS ARE APPROXIMATE ONLY AND SUBJECT TO CHANGE DURING FINAL DESIGN.
2. BREAKWATERS MAY BE CONSTRUCTED OF MATERIAL OR UNITS COMPOSED OF CONCRETE, STEEL, MESH, GEOTEXTILE, BEDDING STONE, PILES, ROCK, CHAINS, ANCHORS, FLOATING PLATFORMS, OYSTER SHELL, OR SIMILAR. NO HAZARDOUS MATERIALS SHALL BE CONSIDERED FOR BREAKWATER MATERIAL TYPES.

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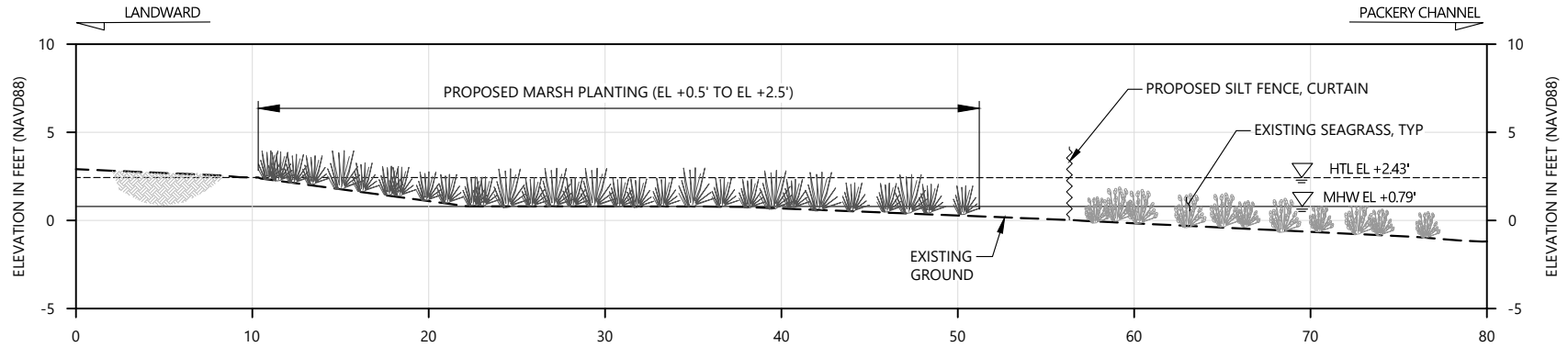
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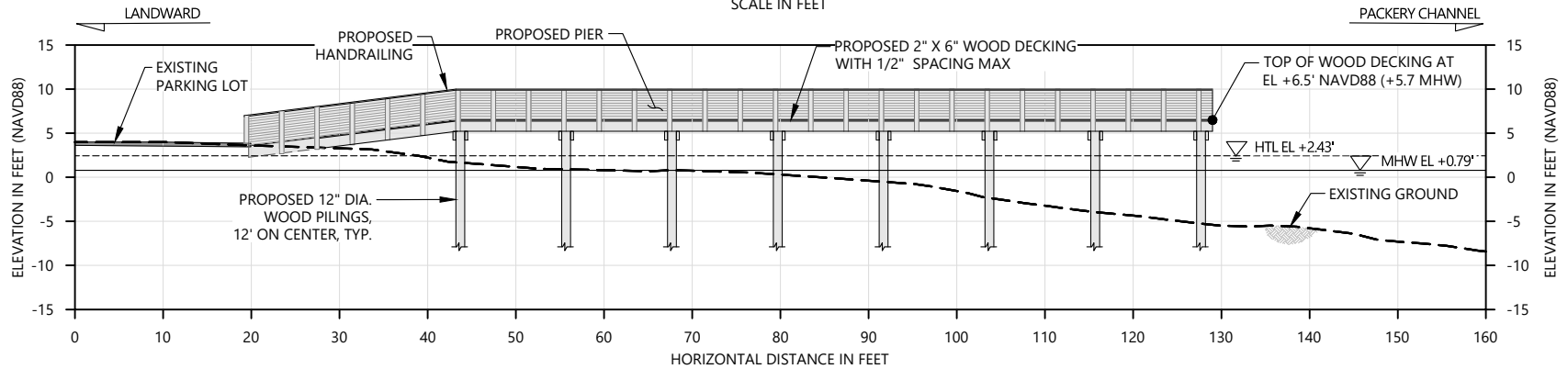
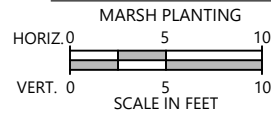
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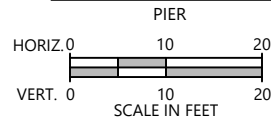
CROSS SECTIONS - 1



TYPICAL SECTION



TYPICAL SECTION



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SHEET 6 OF 6

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PACKERY CHANNEL NATURE PARK - SHORELINE ENHANCEMENT PROJECT

CROSS SECTIONS - 2