COMPENSATORY WETLAND MITIGATION PLAN
SWG-2007-1539, BOLIVAR VANGUARD LTD.

Bolivar Vanguard Ltd. (Applicant) proposes to construct a residential development community and marina known as the Bolivar Yacht Basin in Galveston County, Texas.

In order to construct the proposed residential development, the Applicant proposes to impact 7.81 acres of tidal and non-tidal wetlands, and 0.45 acres of Section 10 deep water habitat to be dredged. The Applicant is temporarily impacting 0.33 acres of adjacent jurisdictional wetlands. The Applicant is avoiding 53.18 acres of adjacent tidal wetlands on-site.

1) Goals & Objectives

The Applicant, Bolivar Vanguard Ltd.., acquired the 208 acre subject property with the business objective of the development of a waterfront, single family canal residential development located along SH 87 adjacent to the Gulf Intra-Coastal Waterway (GIWW) on Bolivar Peninsula, Galveston County, Texas.

The Applicant is proposing to create/enhance wetlands on and off-site in order to compensate for impacts made to jurisdictional wetlands and Waters of the U.S.

2) Baseline Information

Mitigation Tract

To compensate for the proposed impact to 7.81 acres of adjacent tidal and non-tidal wetlands and 0.45 acres of Section 10 deep water habitat within the 208.4 acre project area, the Applicant, Bolivar Vanguard Ltd., is proposing to construct a 2.29 acre onsite, in addition to creating 10.62 acres of wetlands, preserving 32.95 acres of wetlands and enhancing 0.10 acres of wetlands on an off-site mitigation tract. The off-site mitigation tract is located approximately 1,880 feet to the northeast of the project site. The off-site mitigation area is located at the UTM, NAD 83, Zone 15 North at 3 353 21mE, 32 568 48mN, which is the center of the tract.

The 0.72 acre low marsh living shoreline will be planted with saltmarsh cordgrass (*Spartina alterniflora*) and maritime bulrush (*Scirpus robustus*). The high marsh living shoreline will be planted with saltgrass (*Distichlis spicata*) and saltmeadow cordgrass (*Spartina patens*). The 2.29 acres of on-site mitigation wetlands will be planted with desirable hydrophytic plant species.

The Applicant is proposing to create/enhance 10.72 acres of adjacent wetlands on the off-site tract and preserve/avoid 27.22 acres of adjacent wetlands. The 55 acre off-site tract will consist of creating in-kind wetlands within the 55 acre area and planting the area on 3-foot centers with mature plugs of desirable herbaceous hydrophytic vegetation species, which include Marshhay cordgrass *(Spartina patens)* and needlerush *(Juncus roemerianus)* within the high marsh area and Olneyi three-square *(Scirpus americanus)* and saltgrass *(Distichlis spicata)* within the low marsh along the edge of the created tidal channel. The donor sites will not be overharvested as to cause degradation or loss of function. Hydrology for the created wetland area will be provided by a connection to existing wetlands. The created wetland will be preserved and within one year will designate a third party certified land trust that will take the mitigation area and implement a long-term maintenance plan.

3) Site Selection & Alternative Analysis

The 55 acre off-site mitigation tract was selected because no mitigation credits are available on Bolivar peninsula as all currently approved mitigation banks in the Galveston District were to exclude the barrier islands and the peninsula from their service areas. In addition, the off-site mitigation is in close proximity to the on-site development tract and met all of the necessary requirements for a mitigation site.

4) Mitigation Work Plan

The following is a list of site-specific mitigation conditions for the permanent impacts:

A) Mitigation includes the creation of 10.72 acres of in-kind wetlands within the 55 acre tract located adjacent to Elm Bayou, the creation of 2.29 acres of on-site wetlands and a 0.72 acre living shoreline. The created wetlands will be created by excavating and reshaping uplands into a tidal marsh matching the bottom elevation of high quality tidal marsh located within the proposed mitigation tract and connect to existing wetland areas.

B) The created adjacent wetlands will be planted on 3-foot centers with mature plugs of desirable herbaceous hydrophytic vegetation species that are present within the preserved wetland, which include Marshhay cordgrass (*Spartina patens*) and needlerush (*Juncus roemerianus*) within the high marsh area and Olneyi three-square (*Scirpus americanus*) and saltgrass (*Distichlis spicata*) within the low marsh. Plants will be collected from the adjacent donor sites or purchased and transplanted on the tract. The donor sites will not be overharvested as to cause degradation or loss of function.

C) The wetlands to be created will be excavated to the matching elevation of the wetland areas within the mitigation tract.

D) The construction of the mitigation areas will begin once the impacts are deemed permanent (see Restoration Plan) and the U.S. Army Corps of Engineers, Regulatory Branch Chief, Compliance Section will be notified in writing when the mitigation and project construction has begun.

E) The mitigation areas will be completed, including planting, within 12 months of the impacts being deemed permanent. Within 60 days following the completion of the mitigation area, the U.S. Army Corps of Engineers, Regulatory Branch Chief, Compliance Section will be supplied with the following information: A) an as-built plain view drawing in which the boundaries of the depressions were documented using Global Positioning System (GPS) satellite equipment to locate the boundary of the jurisdictional areas based upon the USACE, Galveston District, October 22, 2003 memorandum titled “SWG-Standard Operating Procedures (SOP); Recording Jurisdictional Delineations Using Global Positioning Systems”., and B) based on the survey, total acreage of excavated depressions.

F) The Applicant agrees to maintain the integrity of the mitigation areas so as to inhibit degradation due to structural erosion during the monitoring period. In addition, the mitigation areas will be monitored for noxious plant species in the created wetland areas. Noxious plant species referred to herein are defined as woodrush flatsedge (*Cyperus entrerianus*), Chinese

tallow (*Sapium sebiferum*), cattails (*Typha spp.*), and willow (*Salix spp*) and will be eradicated by physical removal or careful hand application of herbicide approved for use in aquatic areas if they exceed 10% of the created wetland areas.

G) Once the mitigation area has reached minimum success, the mitigation area will be deed restricted in perpetuity as a preservation site. A copy of the deed restriction will be submitted to the U.S. Army Corps of Engineers within 90 days once the mitigation area has met the success.

5) Site Protection and Maintenance

The Applicant will place a USACE approved Deed Restriction on the 55 acre tract of land after construction is complete. The Applicant will provide the USACE, Regulatory Branch, Chief of Compliance a copy of the recorded Deed Restriction within thirty (30) days from the date the restriction is recorded. The Applicant will submit a copy of the Deed Restriction to the USACE for approval prior to recording the Deed Restriction with the county clerk. The Applicant will also work to find a third party conservation easement holder and plans to place a conservation easement on the mitigation tract once the third party easement holder is identified.

The Applicant will be responsible for the maintenance of the mitigation area during the monitoring period until minimum success criteria is met. The Applicant will notify the USACE prior to any change in ownership of the mitigation area during the monitoring period. If the Applicant does transfer ownership, the Applicant's obligations with respect to the mitigation area hereunder shall transfer to any such subsequent owner of the mitigation area. The Applicant will also transfer the permit to the subsequent owner and will notify the USACE that the permit has been transferred prior to change of ownership during the monitoring period.

6) Performance Standards

The Applicant agrees to maintain the integrity of the mitigation area so as to inhibit its degradation due to structural erosion during the monitoring period. In addition, the mitigation area will be monitored for noxious plant species in the established wetland areas. Noxious plant species referred to herein are defined as woodrush flatsedge (*Cyperus entrerianus*), Chinese tallow (*Sapium sebiferum*), cattails (*Typha spp.*), and willow (*Salix spp*) and will be eradicated by physical removal or careful hand application of herbicide approved for use in aquatic areas if they exceed 10% of the created wetland areas.

The mitigation site will be considered to have met minimum success criteria (MSC) if the mitigation area, for two consecutive years, meets seventy percent (70%) areal coverage of "desirable" native vegetative which are considered FACW or OBL. Once the mitigation area has been determined to have met the MSC, the USACE, Regulatory Branch, Chief of Compliance will be notified in writing within thirty (30) days that the mitigation area has met MSC. The USACE, Regulatory Branch, Chief of Compliance will make the final determination that the mitigation area has met MSC and will decide when monitoring of the mitigation area will cease, with monitoring not exceeding five (5) years if MSC is met during the five (5) year monitoring period.

7) Monitoring Plan

The Applicant will conduct an initial Transplant Survival Survey (TSS) seven (7) days after the site has been planted and will conduct a follow up survey forty-five (45) days post initial planting. A copy of the TSS results will be sent in to the USACE, Regulatory Branch, Chief of Compliance with information relating to the total number of plant species planted and total number of plant species survived. If less than 50% of the planted species survive, additional planting efforts will

take place in order to achieve a minimum 50% survivability rate.

The mitigation area will be monitored on a quarterly basis for the first year following the completion of the constructed mitigation areas and transplant survival survey. The mitigation area will be monitored annually on the approximate construction anniversary for an additional four (4) years and a copy of the annual monitoring report will be submitted to the USACE, Regulatory Branch Chief of Compliance until MSC has been met. Monitoring shall not exceed five (5) years if the mitigation has met the MSC.

Mitigation monitoring reports will be submitted to the USACE, Regulatory Branch, Chief of Compliance and will include the following information: A) a summary of the percent ground cover and species composition at fixed pre-established observation points, B) list of dominant vegetation and their indicator status, and C) photo documentation of the mitigation area.

8) Long Term Management Plan

Once the mitigation area is established, the created wetlands will be self-sustaining. Hydrology into and out of the mitigation area will be controlled by engineering design of the surrounding area. The sole source of hydrology will be natural precipitation, runoff from natural precipitation from surrounding areas, and flooding from East Galveston Bay during heavy rainfall events. With normal rainfall fluctuations, the created wetlands will function as natural wetlands do in the surrounding areas of Galveston County. The Applicant is responsible for the management of the mitigation area during the monitoring period.

9) Adaptive Management Plan

The mitigation areas will be re-planted if 70% areal coverage of “desirable” vegetation species is not achieved within three (3) years following the completion of the construction.

If the mitigation area does not meet MSC after the fifth year of monitoring, the Applicant will re-coordinate with the USACE, Regulatory Branch, Chief of Compliance to review the mitigation plan. At that time, appropriate changes to the mitigation plan will be made until the mitigation area meets the MSC.

In the event of Force Majeure that significantly impacts the success of the mitigation area; the Owner will work with the USACE to develop a restoration plan for the mitigation area.

Force Majeure is defined as substantial damage caused by a natural or human-caused catastrophic event or a deliberate or unlawful act, that the USACE in consultation with the Applicant, determined has had significant adverse impact on the quality of aquatic functions, native vegetation, soils, or wildlife of the mitigation area and is beyond control of the Applicant. A natural catastrophic event includes, but is not limited to, a flood of equal or greater magnitude than the 100-year flood event, as well as debilitating disease, wildfire, or regional pest infestation. A human-caused catastrophic event includes, but is not limited to war, insurrection, riot or other civil disorders, spill of a hazardous or toxic substance, or fire. A deliberate and unlawful act includes, but is not limited to, the dumping of a hazardous or toxic substance, as well as significant acts of vandalism or arson.

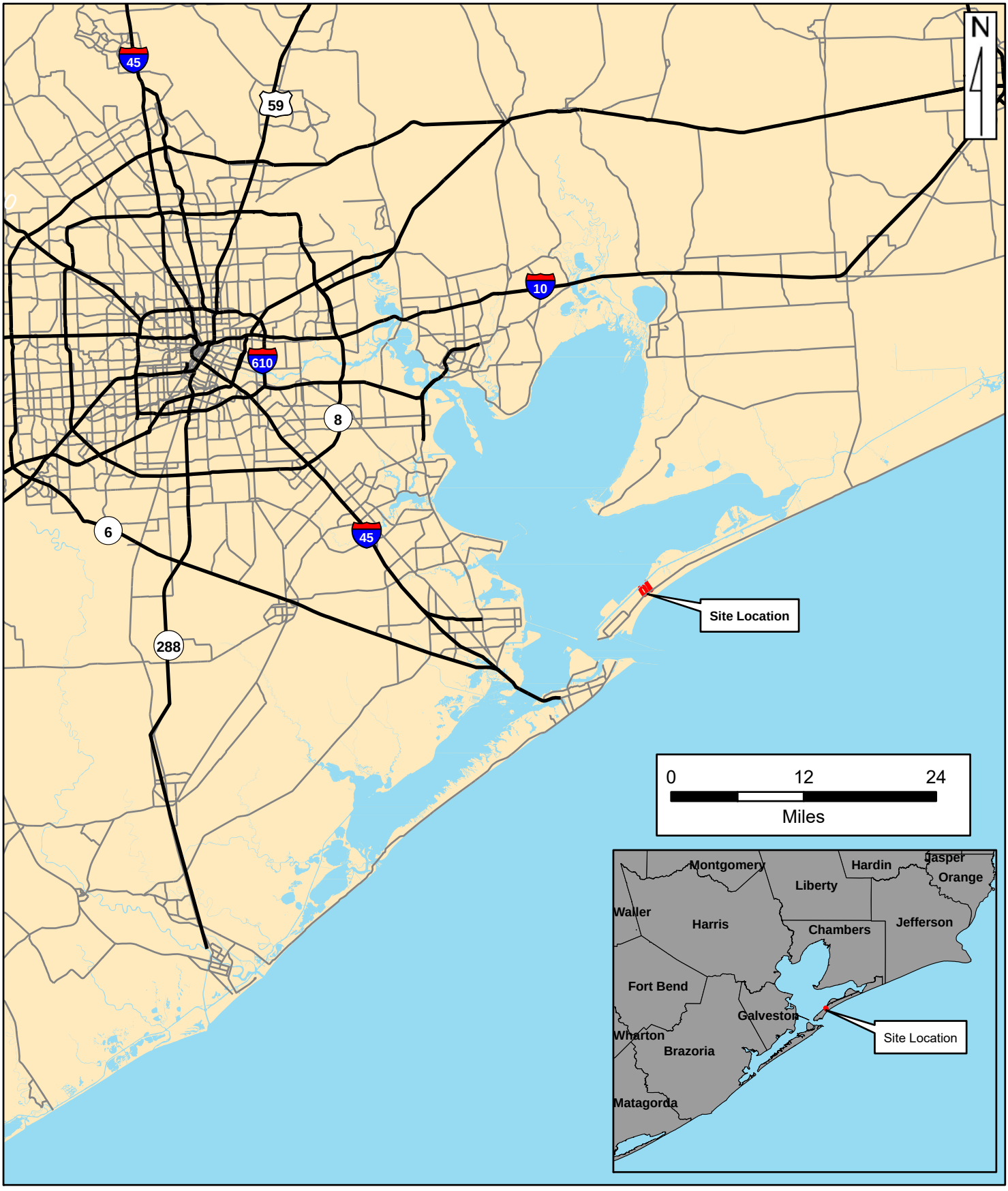
10) Financial Assurances

The Applicant will be responsible for the financial assurances necessary to construct, monitor,

and maintain the mitigation areas during the monitoring period. The applicant will establish a performance bond equal to the amount of construction of the mitigation area. The performance bond will be released once the mitigation area has met minimum success criteria.

11) Long Term Financing

Once the mitigation area has met minimum success criteria, a line item will be created in the Applicant's annual operating budget for maintenance of the mitigation area.



SITE VICINITY MAP

Project #: 7445
For: Bolivar Vanguard, Ltd.
Location: Bolivar Peninsula, Texas
Galveston County, Texas

REVISIONS
Dec. 5, 2011 by MDB

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SITE LOCATION MAP

Project #: 7445
For: Bolivar Vanguard, Ltd.
Location: Bolivar Peninsula, Texas
Galveston County, Texas

REVISIONS
Dec. 5, 2011 by MDB

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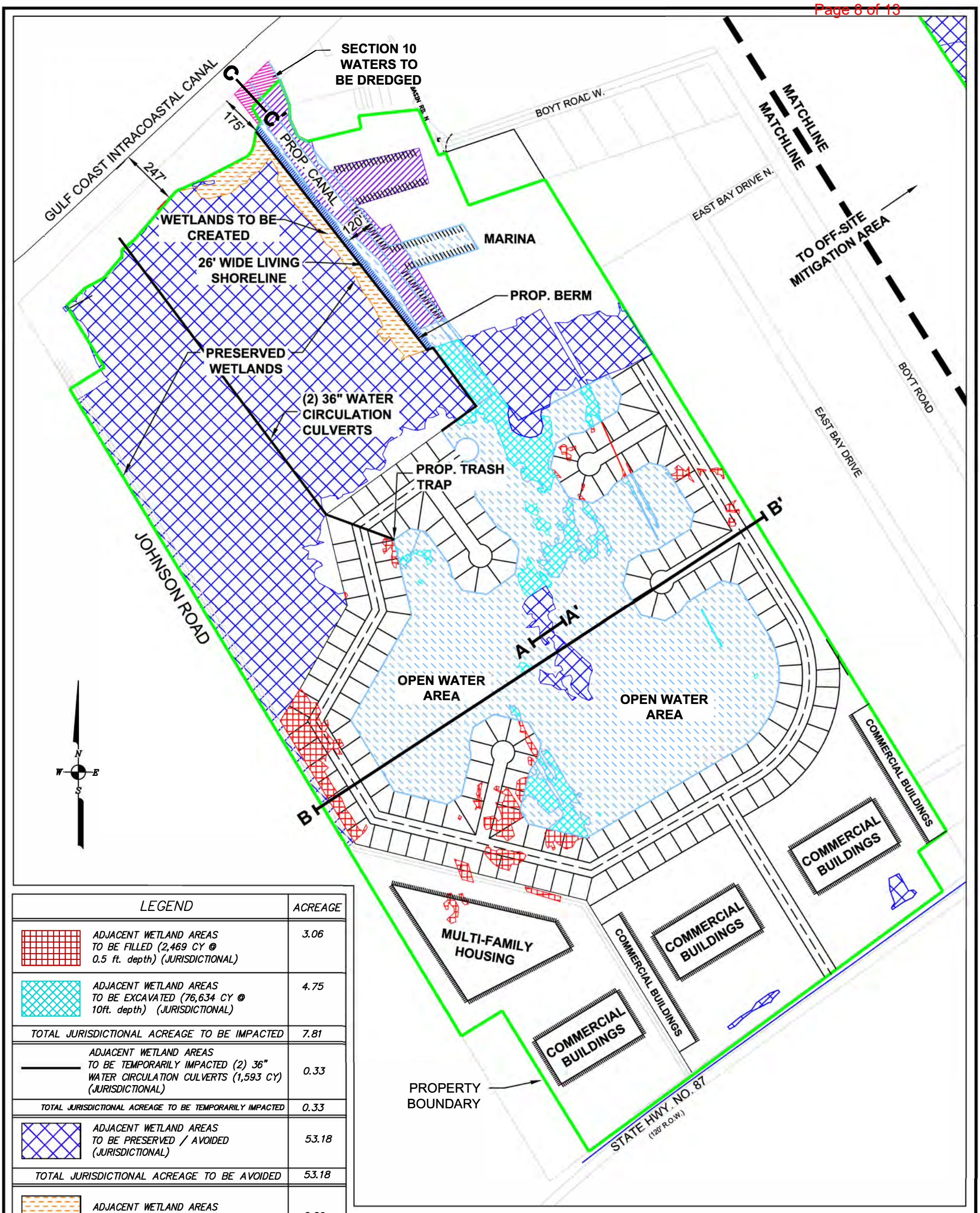

LEGEND	ACREAGE
ADJACENT WETLAND AREAS TO BE FILLED (2,469 CY @ 0.5 ft. depth) (JURISDICTIONAL)	3.06
ADJACENT WETLAND AREAS TO BE EXCAVATED (76,634 CY @ 10ft. depth) (JURISDICTIONAL)	4.75
TOTAL JURISDICTIONAL ACREAGE TO BE IMPACTED	7.81
ADJACENT WETLAND AREAS TO BE TEMPORARILY IMPACTED (2) 36" WATER CIRCULATION CULVERTS (1,593 CY) (JURISDICTIONAL)	0.33
TOTAL JURISDICTIONAL ACREAGE TO BE TEMPORARILY IMPACTED	0.33
ADJACENT WETLAND AREAS TO BE PRESERVED / AVOIDED (JURISDICTIONAL)	53.18
TOTAL JURISDICTIONAL ACREAGE TO BE AVOIDED	53.18
ADJACENT WETLAND AREAS TO BE CREATED	2.29
ADJACENT WETLANDS (LIVING SHORELINE) TO BE CREATED – 1,198 LF	0.72
TOTAL WETLAND ACREAGE TO BE CREATED	3.01
SECTION 10 WATERS TO BE DREDGED	0.45
TOTAL SECTION 10 WATERS ACREAGE TO BE DREDGED	0.45

LEGEND (Cont.)	ACREAGE
SECTION 10 WATERS TO BE AVOIDED EXISTING CANAL DEVELOPMENT (JURISDICTIONAL)	4.41
PROPOSED OPEN WATER/CANAL (UPLANDS TO BE EXCAVATED)	39.18
PROJECT BOUNDARY	208.4

159 TOTAL LOTS

0 200 400 800

SCALE (Feet)

BOLIVAR YACHT BASIN
PREFERRED PLAN

PROJECT #: 7445
FOR: BOLIVAR VANGUARD, LTD.
LOCATION: BOLIVAR PENINSULA, TEXAS
GALVESTON COUNTY, TEXAS

REVISIONS:
March 17, 2010 by MDB
April 7, 2010 by MDB
Dec. 5, 2011 by MDB

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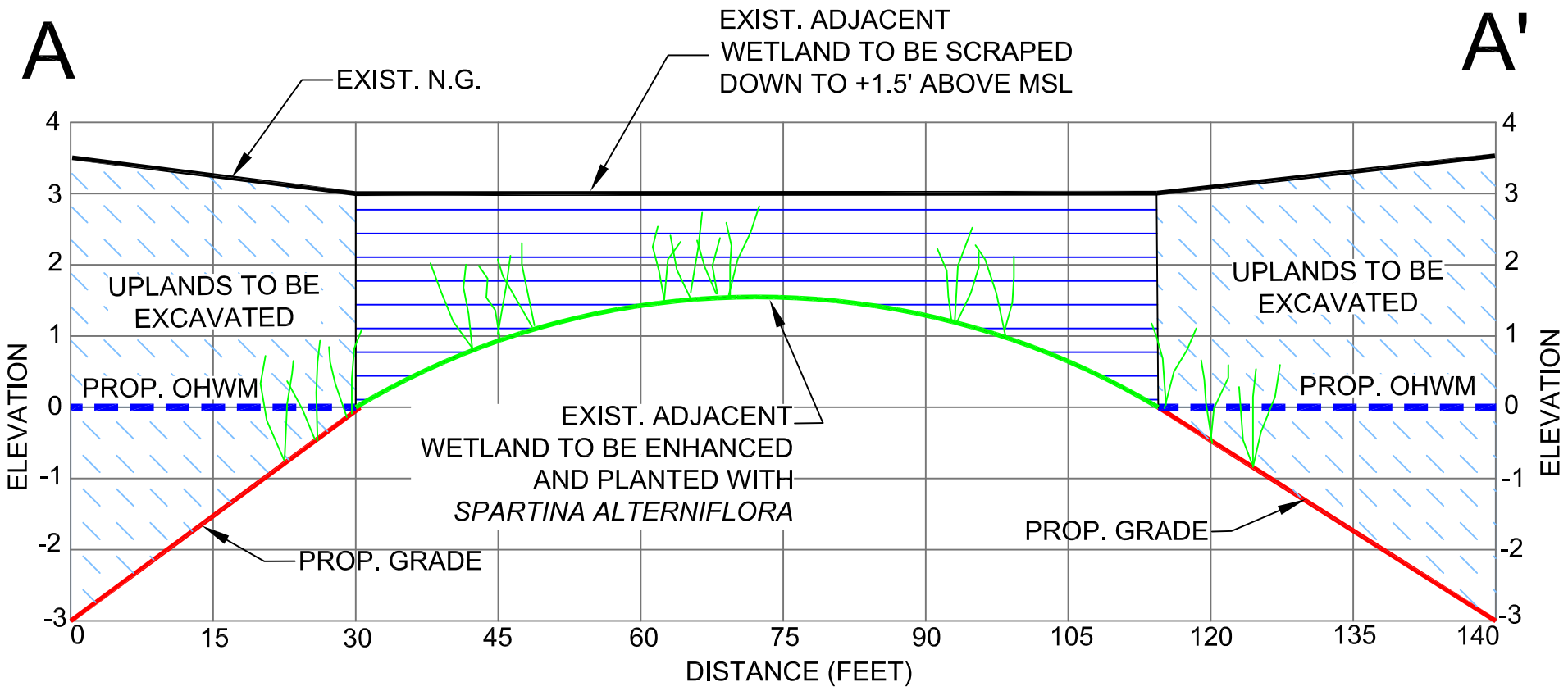

NOTE: ELEVATIONS ARE RELATIVE TO MEAN SEA LEVEL

BOLIVAR YACHT BASIN
SECTION A–A'

PROJECT #: *7445*
FOR: *BOLIVAR VANGUARD, LTD.*
LOCATION: *BOLIVAR PENINSULA, TEXAS*
GALVESTON COUNTY, TEXAS

REVISIONS:
April 7, 2010 by MDB
Dec. 5, 2011 by MDB

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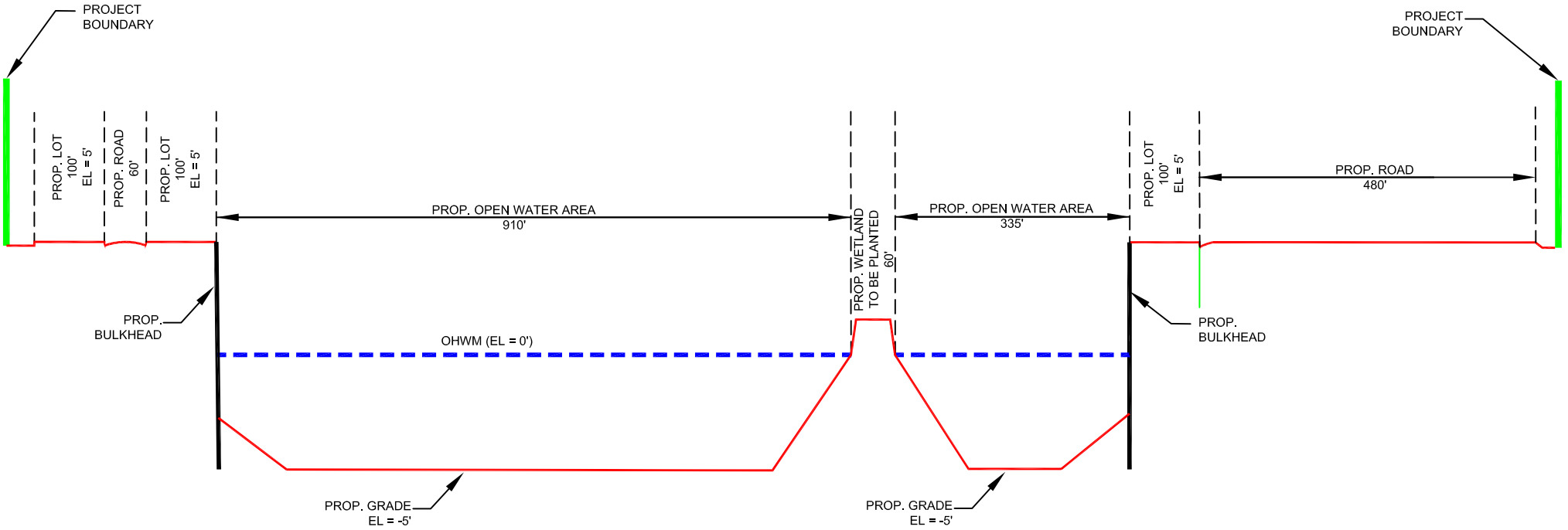

NOTE: ELEVATIONS ARE RELATIVE TO MEAN SEA LEVEL

BOLIVAR YACHT BASIN
CROSS SECTION B–B'

PROJECT #: *7445*
FOR: *BOLIVAR VANGUARD, LTD.*
LOCATION: *BOLIVAR PENINSULA, TEXAS*
GALVESTON COUNTY, TEXAS

REVISIONS:
Dec. 5, 2011 by MDB

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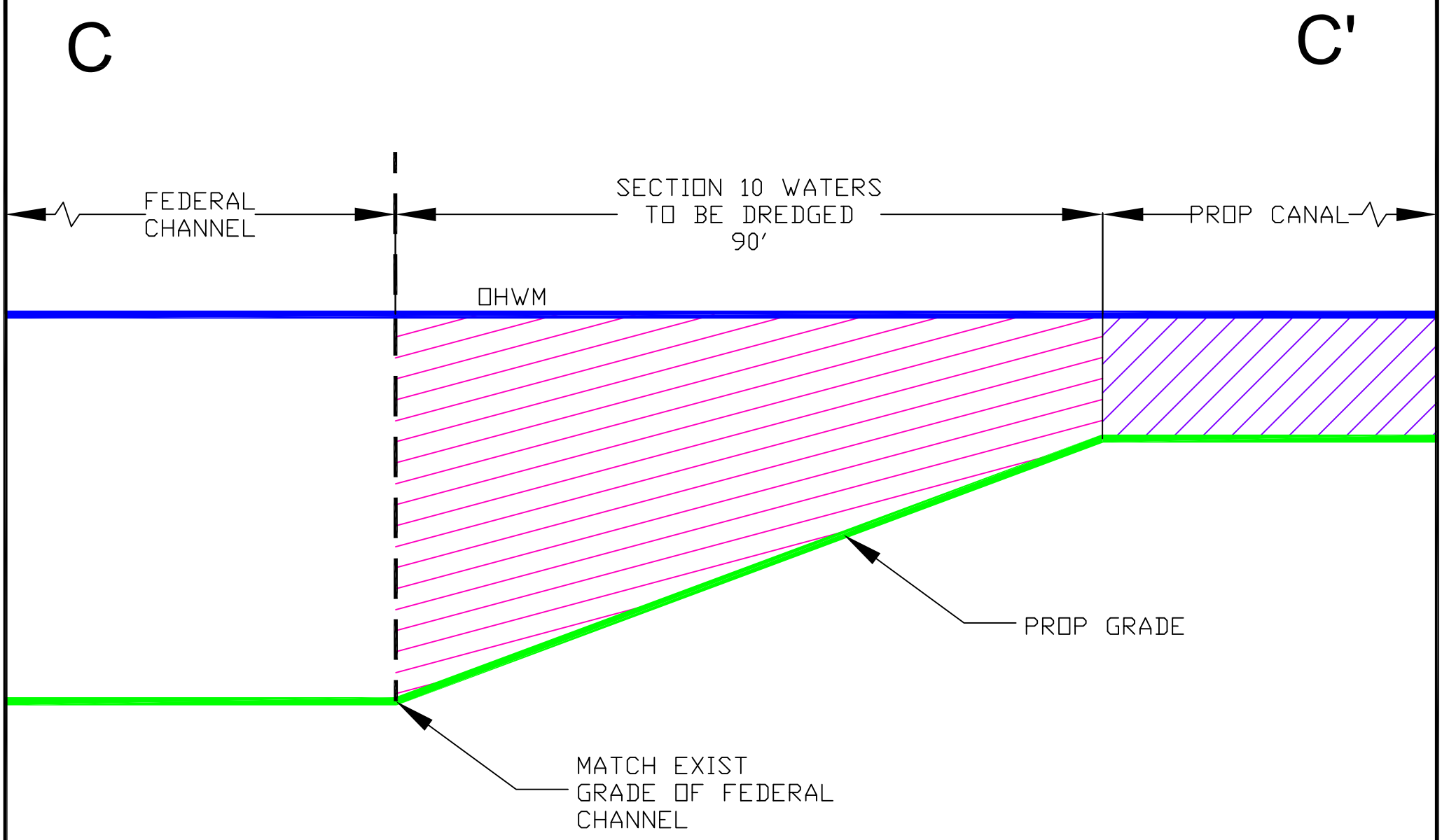

BOLIVAR YACHT BASIN
SECTION C–C'

PROJECT #: 7445
FOR: BOLIVAR VANGUARD, LTD.
LOCATION: BOLIVAR PENINSULA, TEXAS
GALVESTON COUNTY, TEXAS

REVISIONS:
April 7, 2010 by MDB
Dec. 5, 2011 by MDB

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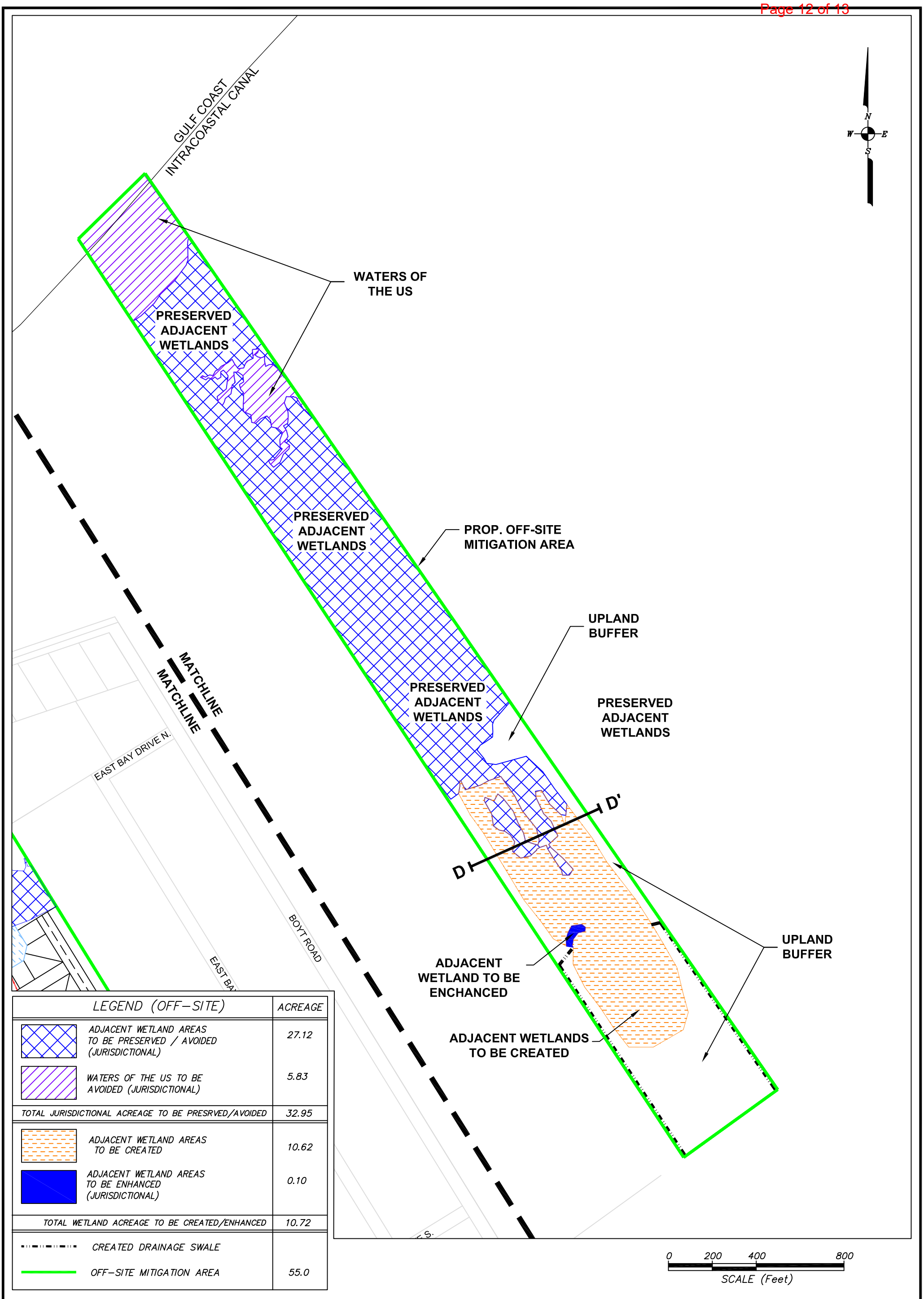

LEGEND (OFF–SITE)	ACREAGE
ADJACENT WETLAND AREAS TO BE PRESERVED / AVOIDED (JURISDICTIONAL)	27.12
WATERS OF THE US TO BE AVOIDED (JURISDICTIONAL)	5.83
TOTAL JURISDICTIONAL ACREAGE TO BE PRESRVED/AVOIDED	32.95
ADJACENT WETLAND AREAS TO BE CREATED	10.62
ADJACENT WETLAND AREAS TO BE ENHANCED (JURISDICTIONAL)	0.10
TOTAL WETLAND ACREAGE TO BE CREATED/ENHANCED	10.72
CREATED DRAINAGE SWALE	
OFF–SITE MITIGATION AREA	55.0

0 200 400 800

SCALE (Feet)

BOLIVAR YACHT BASIN
OFF–SITE MITIGATION AREA

PROJECT #: 7445
FOR: BOLIVAR VANGUARD, LTD.
LOCATION: BOLIVAR PENINSULA, TEXAS
GALVESTON COUNTY, TEXAS

REVISIONS:
March 17, 2010 by MDB
April 7, 2010 by MDB
Dec. 5, 2011 by MDB
Jan. 12, 2021 by MDB

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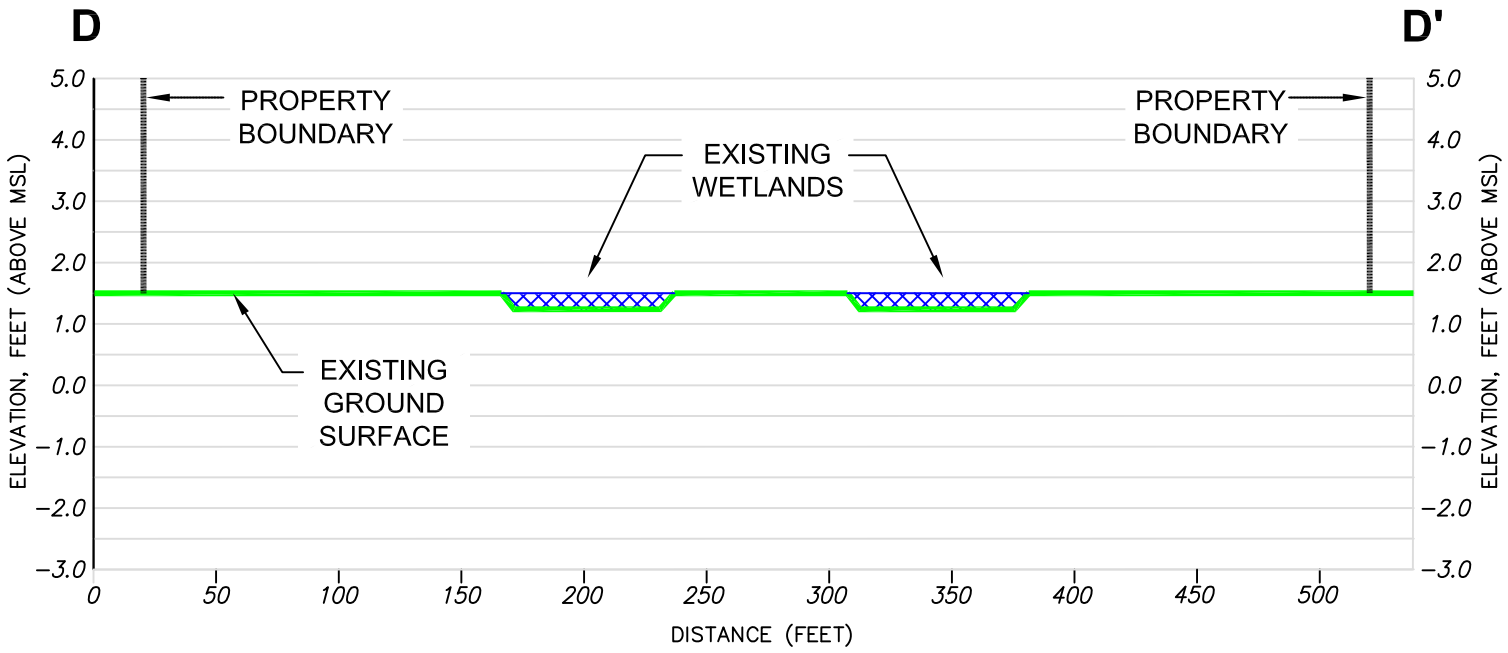
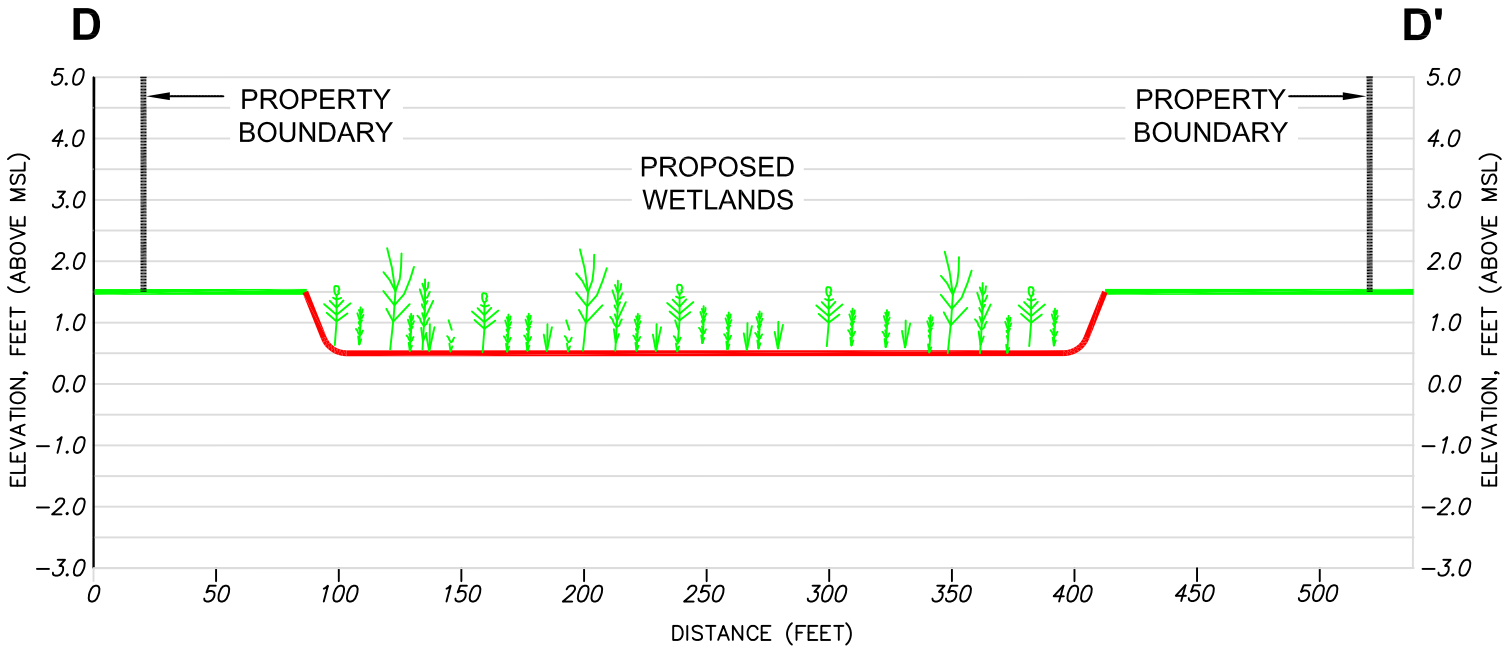


EXISTING D-D'



PROPOSED D-D'

NOTE: VERTICAL ELEVATIONS ARE IN FEET ABOVE MEAN SEA LEVEL. HORIZONTAL UNITS ARE IN FEET.

BOLIVAR YACHT BASIN
CROSS SECTION D–D'

PROJECT #: 7445
FOR: BOLIVAR VANGUARD, LTD.
LOCATION: BOLIVAR PENINSULA
GALVESTON COUNTY, TEXAS

REVISIONS:
July 13, 2007 by LFM
Oct. 21, 2009 by MDB
Dec. 5, 2011 by MDB

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