



U.S. Army Corps
of Engineers
Baltimore District

Public Notice

In Reply to Application Number
**CENAB-OPR-MN 2018-62153-M07 (TOPGOLF USA
BALTIMORE LLC)**

PN 19-14

Comment Period: March 7, 2019 to April 8, 2019

THE PURPOSE OF THIS PUBLIC NOTICE IS TO SOLICIT COMMENTS FROM THE PUBLIC REGARDING THE WORK DESCRIBED BELOW. NO DECISION HAS BEEN MADE AS TO WHETHER OR NOT A PERMIT WILL BE ISSUED AT THIS TIME.

This District has received an application for a Department of the Army permit pursuant to **Section 10 of the Rivers and Harbors Act of 1899 and/or Section 404 of the Clean Water Act (33. U.S.C. 1344)** as described below:

APPLICANT: Mr. Tanner Micheli
Topgolf USA Baltimore LLC
8750 N. Central Expressway, Suite 1200
Dallas, TX 75231

WATERWAYS AND LOCATIONS OF THE PROPOSED WORK: The proposed project is located along Warner and Stockholm Streets, within the northern portion of the Middle Branch Patapsco River, Baltimore City, Maryland.

PROPOSED WORK AND PURPOSE: The applicant proposes to discharge clean fill into approximately 13,535 square feet of tidal wetlands not to exceed a maximum of 150 feet channelward of the approximate mean high water shoreline for the establishment of a golf complex outfield and a living shoreline consisting of a transitional planting zone, high and low marsh, and low profile oyster bag containment structure; and relocate an existing stormwater outfall by constructing a 300-foot long by 12-foot wide culvert extension that would outfall into a 58-foot long by 50-foot wide riprap plunge pool to a maximum depth of -4 feet below mean low water. The project would result in permanent impacts to approximately 16,890 square feet/0.39 acres of tidal wetlands and approximately 11,227 square feet/0.26 acres of open water; and temporary impacts to approximately 2,425 square feet/0.06 acres of tidal wetlands and approximately 22,713 square feet/0.52 acres of open water. Additionally, the applicant proposes mitigation for approximately 0.65 acres of permanent impacts through enhancement of approximately 0.69 acres of tidal marsh and creation of approximately 0.69 acres of open water (1.38 acres total) not to exceed a maximum of 100 feet channelward of the mean high water shoreline located off-site at Ridgely's Cove in tidal waters channelward of Warner Street between Alluvion and Bayard Streets.

The limits of the regulated work is confined to open tidal waters and tidal wetlands. The work is associated with the construction of a golf entertainment complex including an outfield with dartboard-like targets within the ground, stormwater outfall, stream diversion, shoreline stabilization, and mitigation. Several design iterations have identified a minimization of impacts to aquatic resources. Through preapplication consultation with the agencies, the applicant has reduced the permanent impacts to tidal wetlands and tidal open waters from 2.13 acres to 0.65

acres.

The purpose of the project is to construct a golf entertainment complex for recreation, in the Baltimore City area, and stabilize and protect the shoreline for erosion control. All work will be completed in accordance with the enclosed plans dated December 2018. If you have any questions concerning this matter, please contact Ms. Maria N. Teresi, CENAB-OPR-M, 2 Hopkins Plaza, Baltimore, Maryland, 21201 or maria.teresi@usace.army.mil

As part of the planning process for the proposed projects, steps were taken to ensure avoidance and minimization of impacts to waters of the United States to the maximum extent practicable. Compensatory mitigation is being proposed by the applicant for impacts to open water tidal waters and tidal wetland habitat.

The decision whether to issue a permit will be based on an evaluation of the probable impacts, including cumulative impacts of the proposed activities on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefits, which reasonable may be expected to accrue from the proposal, must be balanced against its reasonably foreseeable detriments. All factors, which may be relevant to the proposals will be considered, including the cumulative effects thereof; among those are conservation, economic, aesthetics, general environmental concerns, wetlands, cultural values, fish and wildlife values, flood hazards, flood plain values, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, and consideration of property ownership and in general, the needs and welfare of the people.

The evaluation of the impacts of the work described above on the public interest will include application of the Clean Water Act 404(b)(1) Guidelines promulgated by the Administrator, U.S. Environmental Protection Agency, under authority of Section 404 of the Clean Water Act.

The Corps of Engineers is soliciting comments from the public; Federal, State, and local agencies and officials; Indian Tribes; and other interested parties in order to consider and evaluate the impacts of these proposed activities. Any comments received will be considered by the Corps of Engineers to determine whether to issue, modify, condition or deny permits for these proposals. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments provided will become part of the public record for these actions. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

Written comments concerning the work described above related to the factors listed above or other pertinent factors must be received by the District Engineer, U.S. Army Corps of Engineers, Baltimore District, Attn: Ms. Maria N. Teresi, CENAB-OPR-M, 2 Hopkins Plaza, Baltimore, Maryland, 21201 or maria.teresi@usace.army.mil within the comment period specified above.

ESSENTIAL FISH HABITAT: The Magnuson-Stevens Fishery Conservation and Management Act (MSFCMA), as amended by the Sustainable Fisheries Act of 1996 (Public Law 04-267), requires all Federal agencies to consult with the National Marine Fisheries Service (NMFS) on all actions, or proposed actions, permitted, funded, or undertaken by the agency that may

adversely affect Essential Fish Habitat (EFH).

The project site lies in or adjacent to EFH as described under MSFCMA for windowpane flounder (*Scopthalmus aquosus*) juvenile and adult; blue fish (*Pomatomus saltatrix*) juvenile and adult; summer flounder (*Paralichthys dentatus*) juvenile and adult; and egg, larvae, juvenile and adult stages of red drum (*Sciaenops ocellatus*), king mackerel (*Scomberomorus cavalla*), spanish mackerel (*Scomberomorus maculatus*), and cobia (*Rachycentron canadum*), all managed species under the MSFCMA.

The project has the potential to adversely affect EFH or the species of concern by loss of spawning, nursery, forage and/or shelter habitat as described under the MSFCMA for the species and life stages identified above. This habitat consists of a mostly sand and silt substrate which does not support submerged aquatic vegetation (SAV). According to the Maryland Aquatic Siting Tool survey maps, there is no SAV within the project area. The Baltimore District has made a preliminary determination that site-specific impacts would not be substantial and an abbreviated consultation will be conducted with NMFS. No mitigative measures are recommended at this time to minimize adverse effects on EFH. This preliminary determination may be modified if additional information indicates otherwise and could change the Corps' preliminary determination.

WATER QUALITY CERTIFICATION: The applicant is required to obtain a water quality certification in accordance with Section 401 of the Clean Water Act from the Maryland Department of the Environment. Any written comments concerning the work described above which relate to water quality certification must be received by the Wetlands and Waterways Program, Maryland Department of the Environment, Montgomery Park Business Center, 1800 Washington Boulevard, Suite 430, Baltimore, Maryland 21230-1708 within the comment period as specified above to receive consideration. The Section 401 certifying agency has a statutory limit of one year from the date of this public notice to make its decision.

COASTAL ZONE MANAGEMENT PROGRAMS: Where applicable, the applicant has certified in this application that the proposed activity complies with and will be conducted in a manner consistent with the approved Coastal Zone Management (CZM) Program. By this public notice, we are requesting the State concurrence or objection to the applicant's consistency statement. MDE has a statutory limit of 6 months to make its consistency determination.

The applicant must obtain any State or local government permits which may be required.

ENDANGERED SPECIES: A preliminary review of this application indicates that the proposed work will not affect Federal listed threatened or endangered species or their critical habitat, pursuant to Section 7 of the Endangered Species Act, as amended. As the evaluation of this application continues, additional information may become available which could modify this preliminary determination.

CULTURAL RESOURCES: Review of the latest published version of the National Register of Historic Places indicates that no registered properties listed as eligible for inclusion, therein, is located at the site of the proposed work. Currently, unknown archeological, scientific, prehistoric, or historical data may be lost or destroyed by the work to be accomplished under the requested permit.

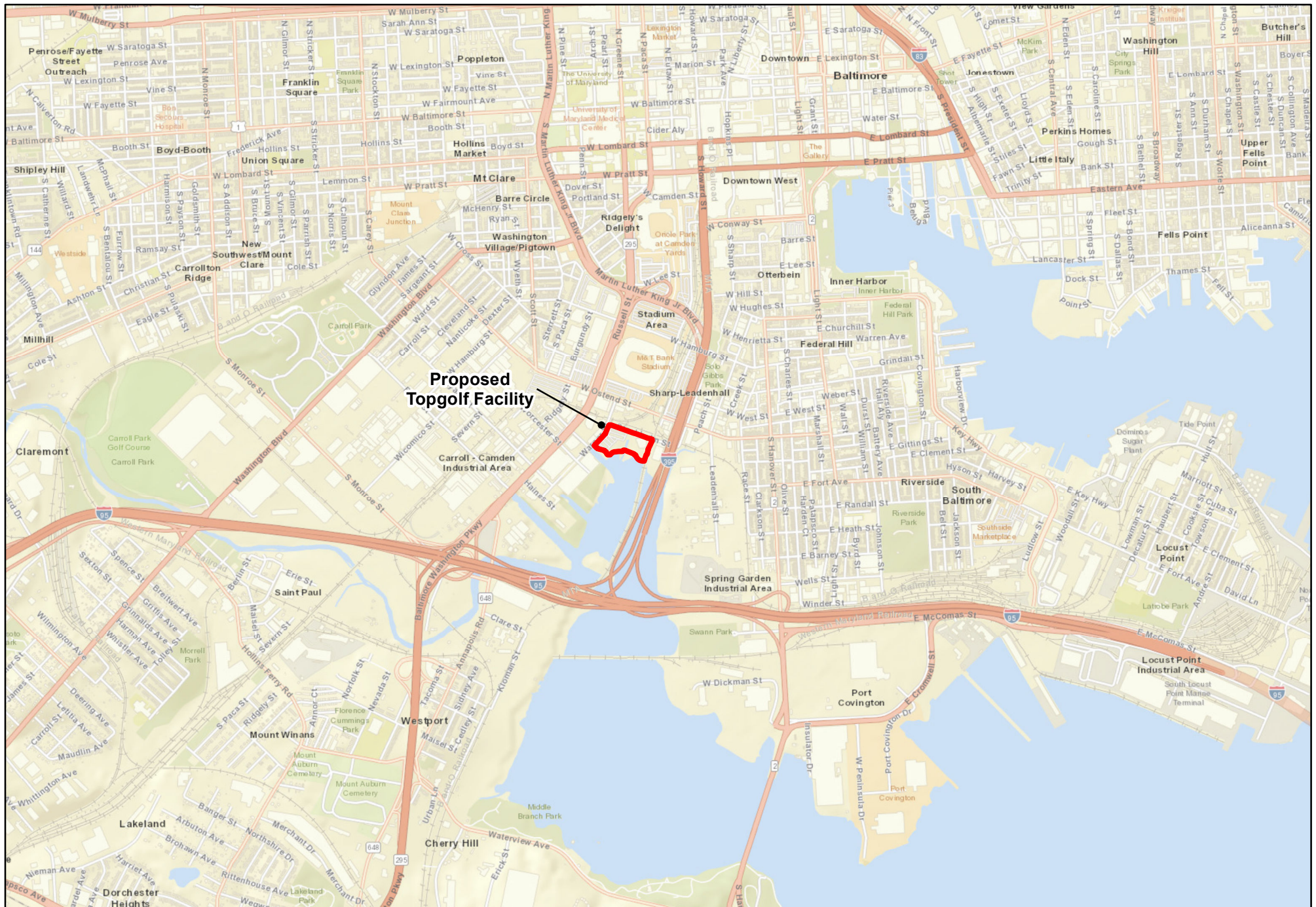
SECTION 408: The Corps is reviewing the proposed activity, pursuant to 33 USC 408 (Section 408). A determination has not been made at this time.

Any person who has an interest which may be adversely affected by the issuance of this permit may request a public hearing. The request, which must be in writing, must be received by the District Engineer, U.S. Army Corps of Engineers, Baltimore District, Attn: Ms. Maria N. Teresi, CENAB-OPR-M, 2 Hopkins Plaza, Baltimore, Maryland, 21201 or maria.teresi@usace.army.mil, within the comment period as specified above to receive consideration. Also, it must clearly set forth the interest which may be adversely affected by these activities and the manner in which the interest may be adversely affected.

It is requested that you communicate this information concerning the proposed work to any persons know by you to be interested and not being known to this office, who did not receive a copy of this notice.

FOR THE DISTRICT ENGINEER:

Joseph P. DaVia
Chief, Maryland Section Northern



**Proposed
Topgolf Facility**

 Project Area



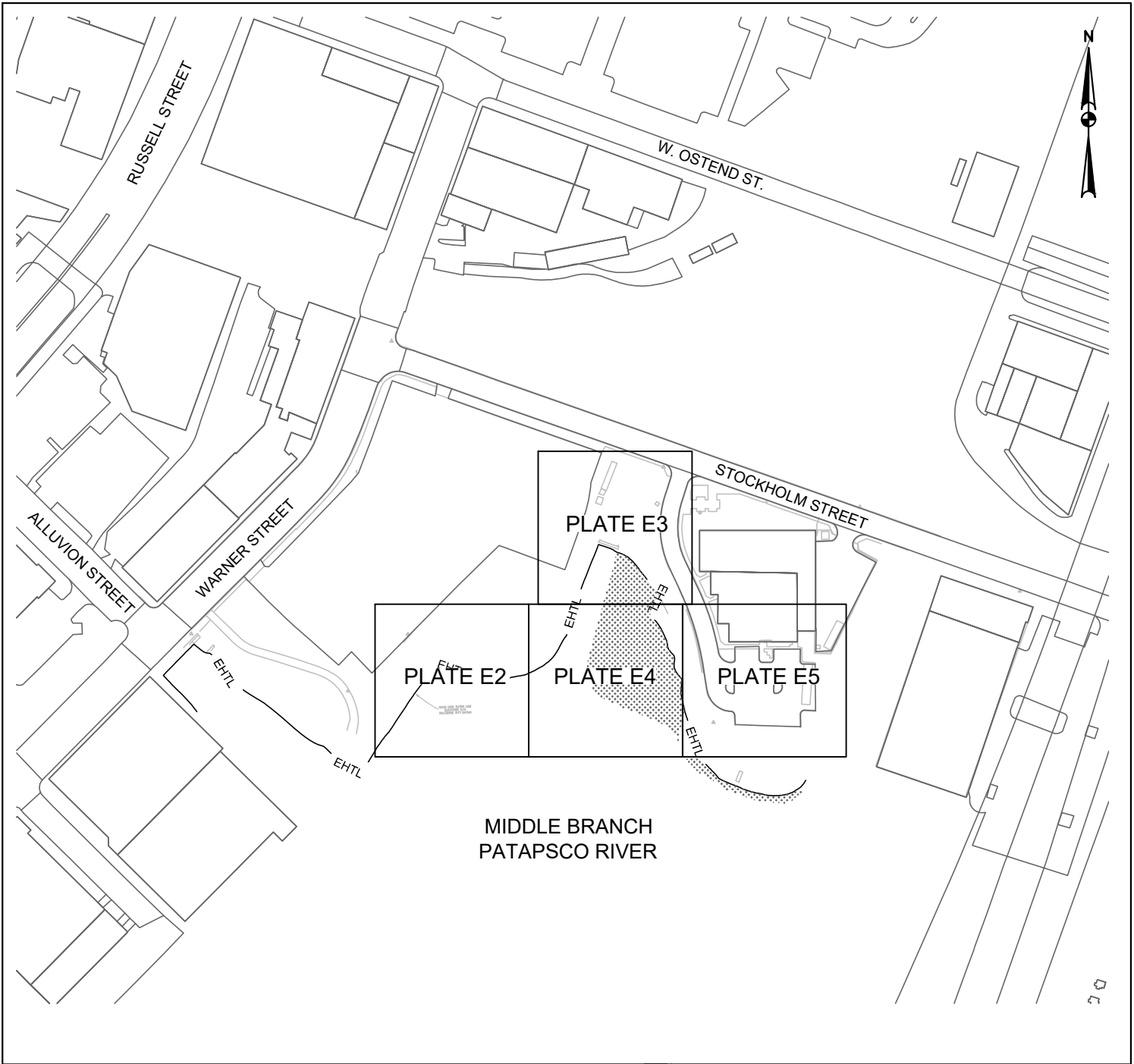
TOPGOLF BALTIMORE VICINITY MAP



0 1,000 2,000
1" = 2,000'

**FIGURE
1**

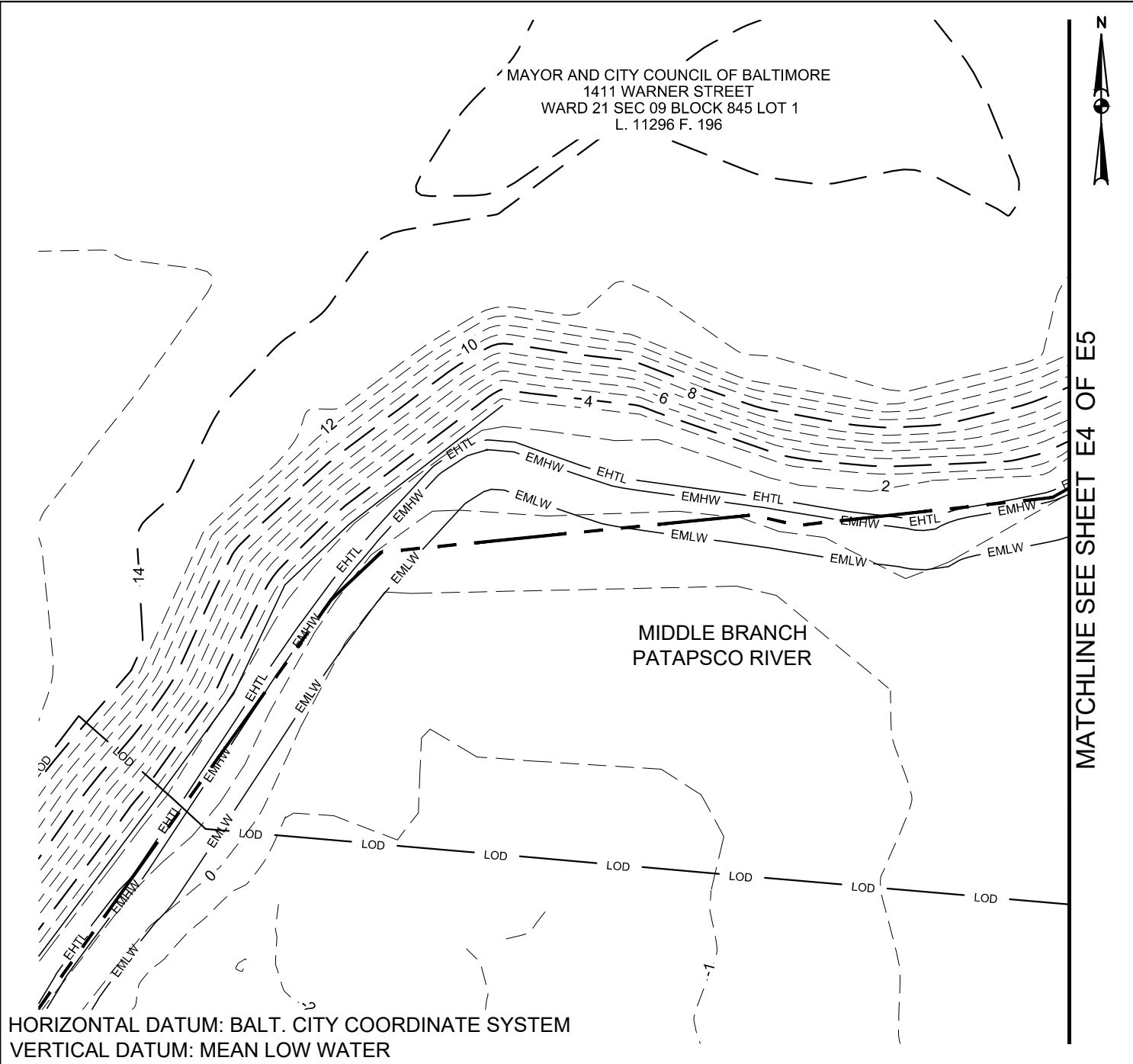
\\balsrv05\2015\2015\15183_topgolf\CADD\Plans\Impact Plates - Existing.dwg




IMPACTS	
<p>NOTE: SEE IMPACT PLATES FOR PROPOSED WORK AND PROJECT IMPACTS.</p>	

  <small>RUMMEL, KLEPPER & KAPLE, LLP ENGINEERS • CONSTRUCTION MANAGERS • PLANNERS • SCIENTISTS RESPONSIVE PEOPLE • CREATIVE SOLUTIONS 700 E. Pratt St., Ste 500 Baltimore, MD 21202</small>	
TOPGOLF BALTIMORE EXISTING CONDITIONS KEY SHEET	
CITY: BALTIMORE	CONTRACT NO.:
DATE: DECEMBER 2018	REVISION DATE:
SCALE: 1" = 200'	PLATE E1 OF E5

\\balsrv05\2015\2015\15183_topgolf\CADD\Plans\Impact Plates - Existing.dwg



LEGEND

- PROPERTY BOUNDARY
- EMHW --- EX. MEAN HIGH WATER (EL. 1.15')
- EMLW --- EX. MEAN LOW WATER (EL. 0.0')
- LOD --- LIMIT OF DISTURBANCE
-  TIDAL WETLAND
- EHTL --- HIGH TIDE LINE (EL. 1.98')
- 4 --- EX. CONTOURS
- SD --- EX. STORM DRAIN



TOPGOLF

RK&K

RUAMMEL, KLEPPER & KAPAL, LLP
ENGINEERS/CONSTRUCTION MANAGERS/PLANNERS/SCIENTISTS
RESPONSIVE PEOPLE • CREATIVE SOLUTIONS
700 E. Pratt St., Ste 500 Baltimore, MD 21202

TOPGOLF BALTIMORE
EXISTING CONDITIONS PLATES

CITY: BALTIMORE

CONTRACT NO.:

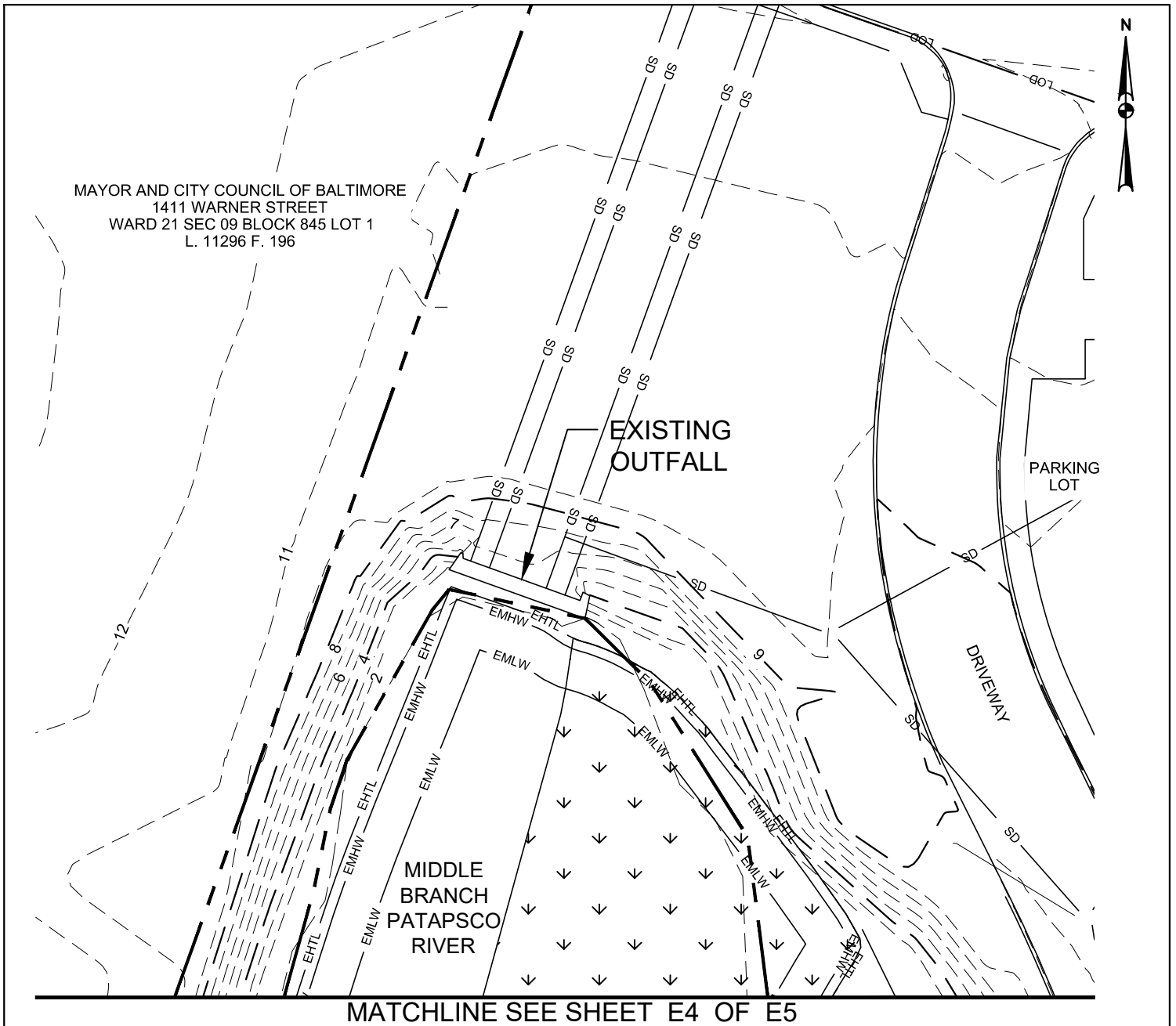
DATE: DECEMBER 2018

REVISION DATE:

SCALE: 1" = 30'


PLATE E2 OF E5

\\balsrv05\2015\2015\15183_topgolf\CADD\Plans\Impact Plates - Existing.dwg



HORIZONTAL DATUM: BALT. CITY COORDINATE SYSTEM
VERTICAL DATUM: MEAN LOW WATER

LEGEND

- PROPERTY BOUNDARY
- EMHW — EX. MEAN HIGH WATER (EL. 1.15')
- EMLW — EX. MEAN LOW WATER (EL. 0.0')
- LOD — LIMIT OF DISTURBANCE
-  TIDAL WETLAND
- EHTL — HIGH TIDE LINE (EL. 1.98')
- 4 --- EX. CONTOURS
- SD — EX. STORM DRAIN



TOPGOLF®

RK&K

RUMMEL, KLEPPER & KAPLE, LLP
ENGINEERS/CONSTRUCTION MANAGERS/PLANNERS/SCIENTISTS
RESPONSIVE PEOPLE • CREATIVE SOLUTIONS
700 E. Pratt St., Ste 500 Baltimore, MD 21202

TOPGOLF BALTIMORE EXISTING CONDITIONS PLATES

CITY: BALTIMORE

CONTRACT NO.:

DATE: DECEMBER 2018

REVISION DATE:

SCALE: 1" = 30'

PLATE E3 OF E5

\\balsrv05\2015\2015\15183_topgolf\CADD\Plans\Impact Plates - Existing.dwg

MATCHLINE SEE SHEET E3 OF E5

MATCHLINE SEE SHEET E2 OF E5

MATCHLINE SEE SHEET E5 OF E5











MAYOR AND CITY
COUNCIL OF
BALTIMORE
1411 WARNER STREET
WARD 21 SEC 09
BLOCK 845 LOT 1
L. 11296 F. 196

MIDDLE BRANCH
PATAPSCO RIVER

LOD LOD LOD LOD LOD LOD LOD LOD LOD LOD

HORIZONTAL DATUM: BALT. CITY COORDINATE SYSTEM
VERTICAL DATUM: MEAN LOW WATER

LEGEND

-  PROPERTY BOUNDARY
-  EX. MEAN HIGH WATER (EL. 1.15')
-  EX. MEAN LOW WATER (EL. 0.0')
-  LIMIT OF DISTURBANCE
-  TIDAL WETLAND
-  HIGH TIDE LINE (EL. 1.98')
-  EX. CONTOURS
-  EX. STORM DRAIN



TOPGOLF®

RK&K

RUSSELL, KLEPPER & KAPAL, LLP
ENGINEERS/CONSTRUCTION MANAGERS/PLANNERS/SCIENTISTS
RESPONSIVE PEOPLE • CREATIVE SOLUTIONS
700 E. Pratt St., Ste 500 Baltimore, MD 21202

TOPGOLF BALTIMORE EXISTING CONDITIONS PLATES

CITY: BALTIMORE

CONTRACT NO.:

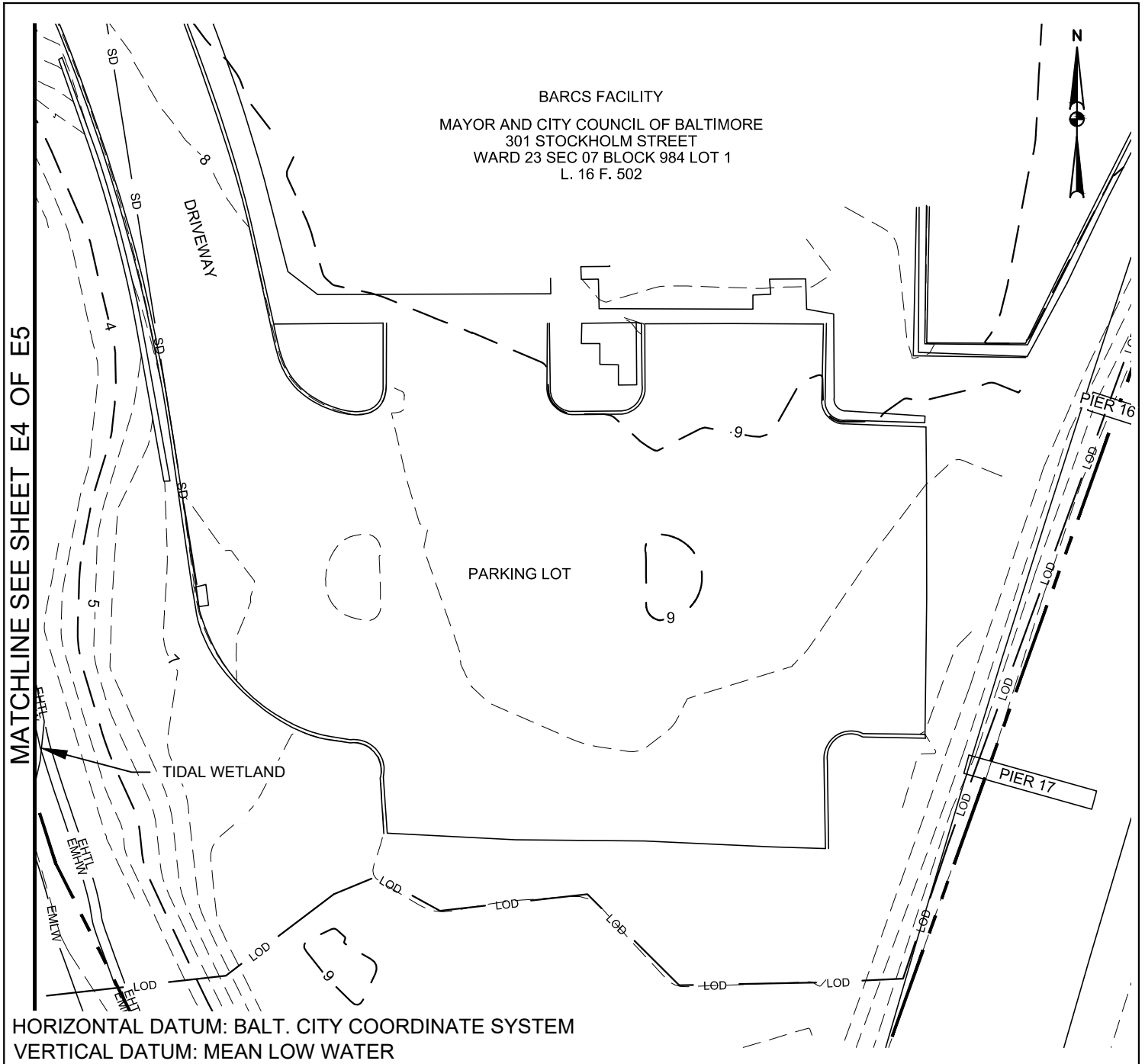
DATE: DECEMBER 2018

REVISION DATE:


SCALE: 1" = 30'

PLATE E4 OF E5

\\balsrv05\2015\2015\15183_topgolf\CADD\Plans\Impact Plates - Existing.dwg



LEGEND

- PROPERTY BOUNDARY
- EMLW --- EX. MEAN HIGH WATER (EL. 1.15')
- EMLW --- EX. MEAN LOW WATER (EL. 0.0')
- LOD --- LIMIT OF DISTURBANCE
-  TIDAL WETLAND
- EHTL --- HIGH TIDE LINE (EL. 1.98')
- 4 --- EX. CONTOURS
- SD --- EX. STORM DRAIN



TOPGOLF®

RK&K

RUAMMEL, KLEPPNER & KAHLE, LLP
ENGINEERS/CONSTRUCTION MANAGERS/PLANNERS/SCIENTISTS
RESPONSIVE PEOPLE • CREATIVE SOLUTIONS
700 E. Pratt St., Ste 500 Baltimore, MD 21202

TOPGOLF BALTIMORE EXISTING CONDITIONS PLATES

CITY: BALTIMORE

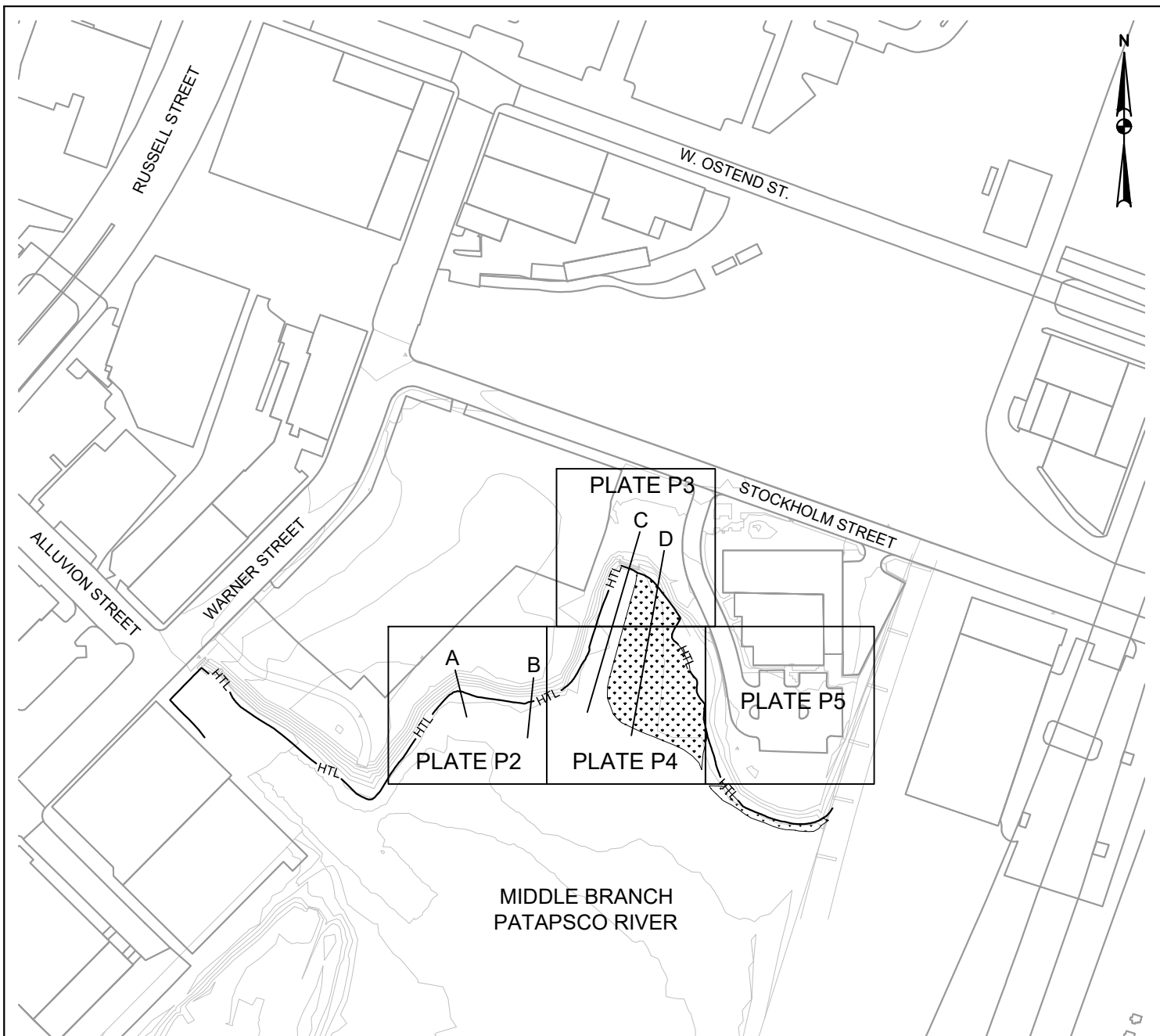
CONTRACT NO.:

DATE: DECEMBER 2018

REVISION DATE:

SCALE: 1" = 30'

PLATE E5 OF E5



HORIZONTAL DATUM: BALT. CITY COORDINATE SYSTEM
VERTICAL DATUM: MEAN LOW WATER

IMPACTS

TIDAL WETLAND IMPACTS:

TEMPORARY: 2,425 SF

PERMANENT: 16,890 SF

WATERS OF THE U.S. IMPACTS:

TEMPORARY: 22,713 SF

PERMANENT: 11,227 SF



TOPGOLF®

RK&K

RUMMEL, KLEPPER & KAHL, LLP
ENGINEERS | CONSTRUCTION MANAGERS | PLANNERS | SCIENTISTS
RESPONSIVE PEOPLE • CREATIVE SOLUTIONS
700 E. Pratt St., Ste 500 Baltimore, MD 21202

TOPGOLF BALTIMORE
IMPACT PLATES - KEY SHEET

CITY: BALTIMORE

CONTRACT NO.:

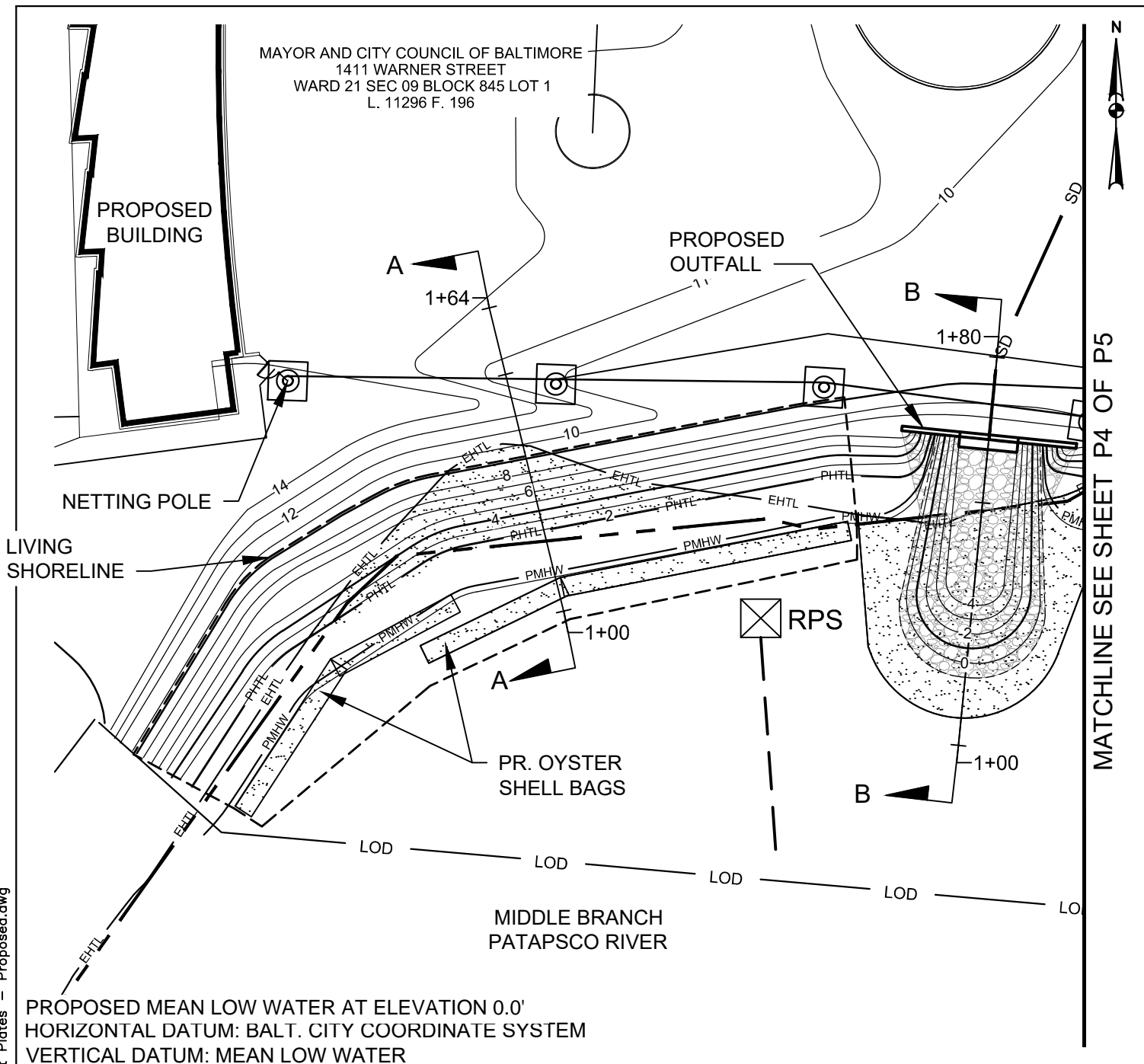
DATE: DECEMBER 2018

REVISION DATE:

SCALE: 1" = 200'

PLATE P1 OF P5

\\balrsv05\2015\2015\15183_topgolf\CADD\Plans\Impact Plates - Proposed.dwg



LEGEND

— LOD —	LIMITS OF DISTURBANCE		TIDAL WETLAND
— 14 —	PROPOSED CONTOURS	— EHTL —	EXISTING HIGH TIDE LINE (EL. 1.98')
— RPS —	REMOVABLE PUMPING STATION	— PHTL —	PROPOSED HIGH TIDE LINE (EL. 1.98')
— PMHW —	PROPOSED MEAN HIGH WATER (EL. 1.15')		
— SD —	PROPOSED STORM DRAIN		

IMPACTS

TEMPORARY

PERMANENT

TIDAL WETLANDS	0 S.F.	0 S.F.	
WATERS OF THE U.S.	9,839 S.F.	3,251 S.F.	



TOPGOLF®

RK&K

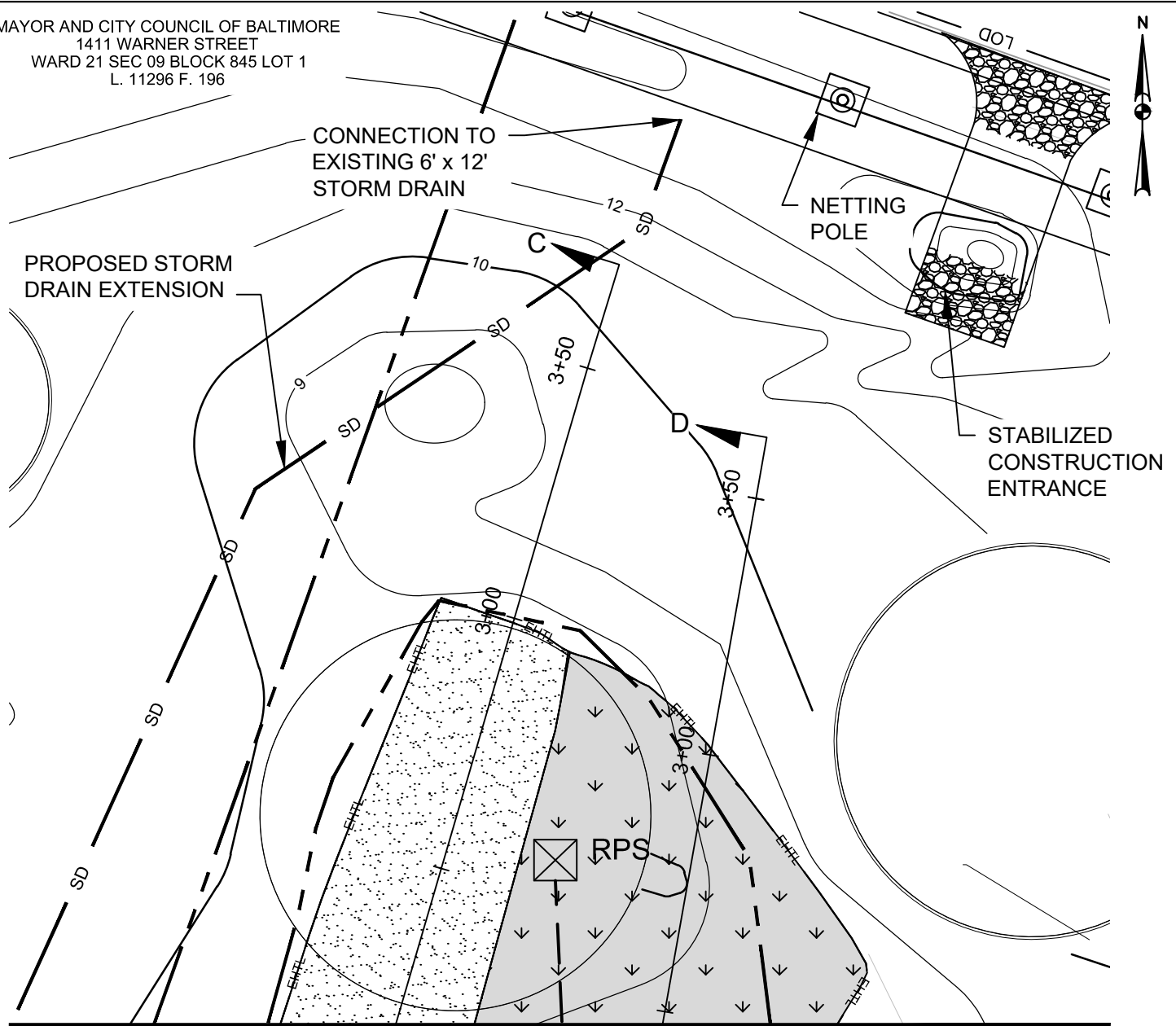
RUAMMEL, KLEPPER & KAPAL, LLP
ENGINEERS • CONSTRUCTION MANAGERS • PLANNERS • SCIENTISTS
RESPONSIVE PEOPLE • CREATIVE SOLUTIONS
700 E. Pratt St., Ste 500 Baltimore, MD 21202

TOPGOLF BALTIMORE

IMPACT PLATES

CITY: BALTIMORE	CONTRACT NO.:
DATE: DECEMBER 2018	REVISION DATE:
SCALE: 1" = 30'	PLATE P2 OF P5

MAYOR AND CITY COUNCIL OF BALTIMORE
1411 WARNER STREET
WARD 21 SEC 09 BLOCK 845 LOT 1
L. 11296 F. 196



MATCHLINE SEE SHEET P4 OF P5

PROPOSED MEAN LOW WATER AT ELEVATION 0.0'
HORIZONTAL DATUM: BALT. CITY COORDINATE SYSTEM
VERTICAL DATUM: MEAN LOW WATER

LEGEND

— LOD —	LIMITS OF DISTURBANCE		TIDAL WETLAND
— 14 —	PROPOSED CONTOURS	— EHTL —	EXISTING HIGH TIDE LINE (EL. 1.98')
— RPS —	REMOVABLE PUMPING STATION	— PHTL —	PROPOSED HIGH TIDE LINE (EL. 1.98')
— — —	PROPOSED LIVING SHORELINE BOUNDARY	— PMHW —	PROPOSED MEAN HIGH WATER (EL. 1.15')
— SD —	PROPOSED STORM DRAIN		

IMPACTS

TEMPORARY

PERMANENT

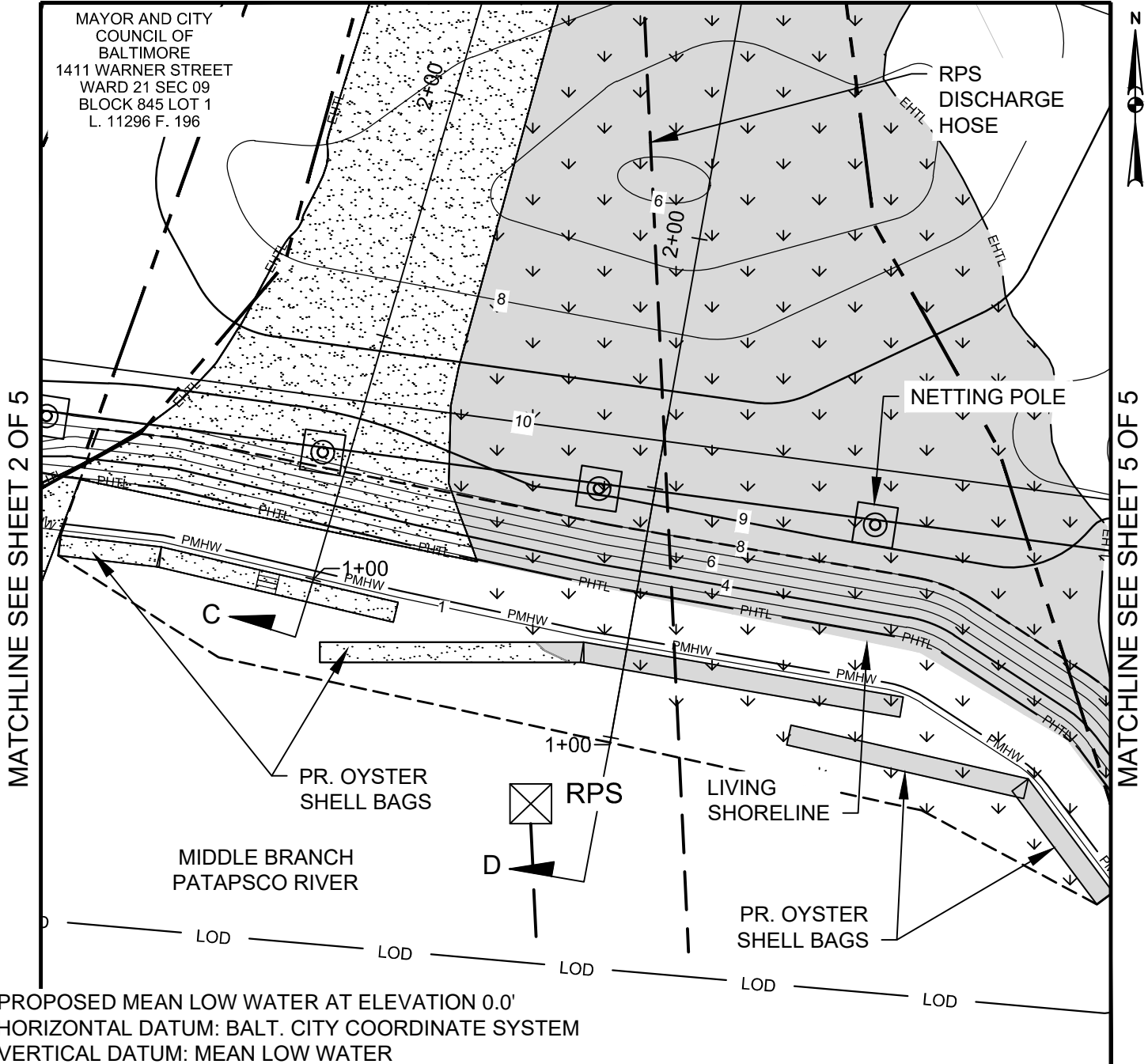
TIDAL WETLANDS	0 S.F.	3,330 S.F.	
WATERS OF THE U.S.	0 S.F.	2,610 S.F.	



TOPGOLF BALTIMORE IMPACT PLATES

CITY: BALTIMORE	CONTRACT NO.:
DATE: DECEMBER 2018	REVISION DATE:
SCALE: 1" = 30'	PLATE P3 OF P5

MATCHLINE SEE SHEET 3 OF 5



PROPOSED MEAN LOW WATER AT ELEVATION 0.0'
HORIZONTAL DATUM: BALT. CITY COORDINATE SYSTEM
VERTICAL DATUM: MEAN LOW WATER

LEGEND

— LOD —	LIMITS OF DISTURBANCE		TIDAL WETLAND
---	PROPERTY BOUNDARY	— EHTL —	EXISTING HIGH TIDE LINE (EL. 1.98')
— 14 —	PROPOSED CONTOURS	— PHTL —	PROPOSED HIGH TIDE LINE (EL. 1.98')
— RPS —	REMOVABLE PUMPING STATION	— PMHW —	PROPOSED MEAN HIGH WATER (EL. 1.15')
---	PROPOSED LIVING SHORELINE BOUNDARY		
— SD —	PROPOSED STORM DRAIN		

IMPACTS

TEMPORARY

PERMANENT

TIDAL WETLANDS	2,425 S.F.	13,535 S.F.	
WATERS OF THE U.S.	12,223 S.F.	5,366 S.F.	



TOPGOLF

RK&K

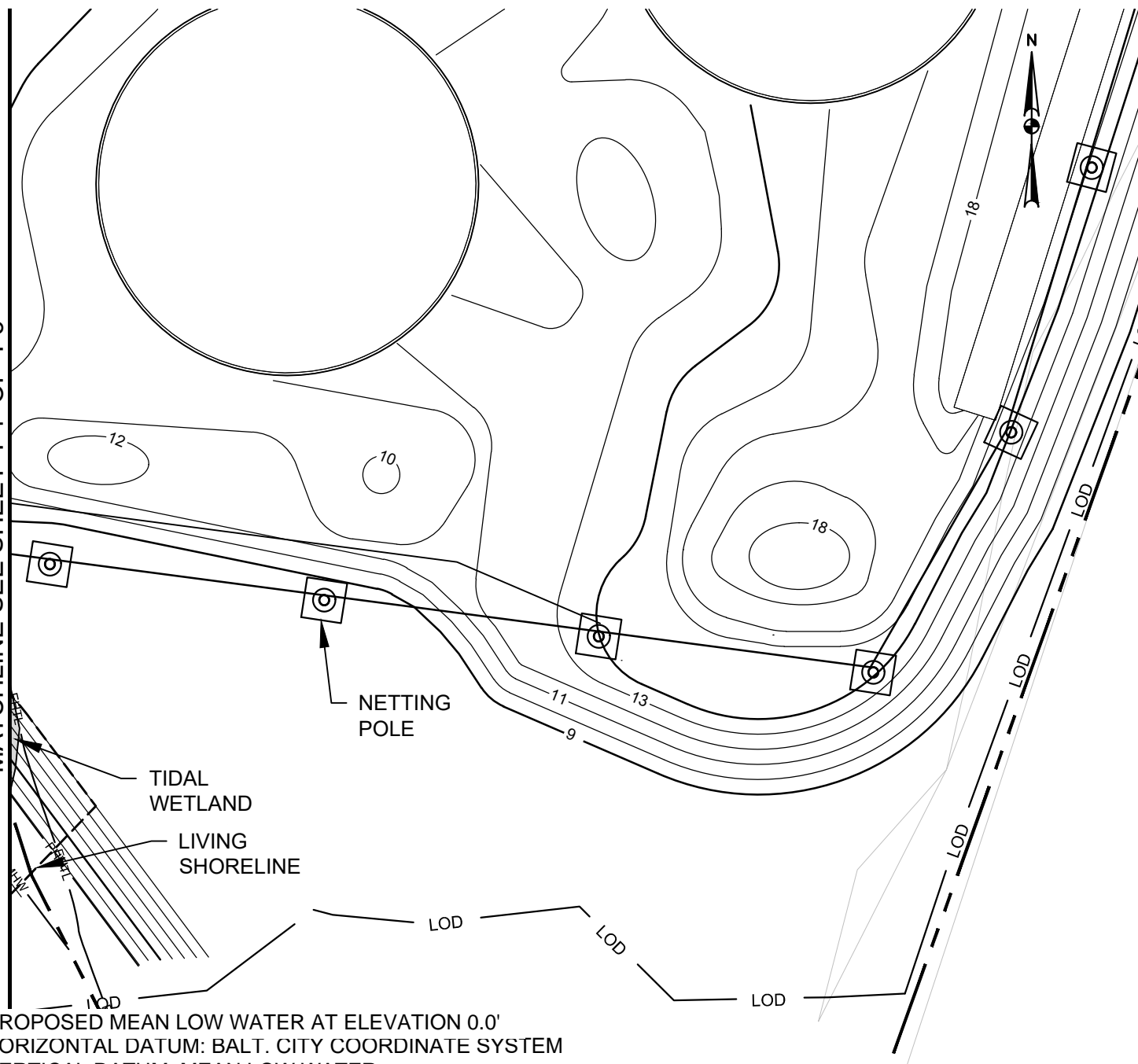
PLANNING, DESIGN, CONSTRUCTION, AND MAINTENANCE
ENGINEERS, ARCHITECTS, AND PLANNERS
700 E. Pratt St., Ste 500 Baltimore, MD 21202

TOPGOLF BALTIMORE

IMPACT PLATES

CITY: BALTIMORE	CONTRACT NO.:
DATE: DECEMBER 2018	REVISION DATE:
SCALE: 1" = 30'	PLATE P4 OF P5

MATCHLINE SEE SHEET P4 OF P5



PROPOSED MEAN LOW WATER AT ELEVATION 0.0'
HORIZONTAL DATUM: BALT. CITY COORDINATE SYSTEM
VERTICAL DATUM: MEAN LOW WATER

LEGEND

— LOD —	LIMITS OF DISTURBANCE		TIDAL WETLAND
---	PROPERTY BOUNDARY	— EHTL —	EXISTING HIGH TIDE LINE (EL. 1.98')
— 14 —	PROPOSED CONTOURS	— PHTL —	PROPOSED HIGH TIDE LINE (EL. 1.98')
— RPS —	REMOVABLE PUMPING STATION	— PMHW —	PROPOSED MEAN HIGH WATER (EL. 1.15')
---	PROPOSED LIVING SHORELINE BOUNDARY		
— SD —	PROPOSED STORM DRAIN		

IMPACTS

TEMPORARY

PERMANENT

TIDAL WETLANDS	0 S.F.	25 S.F.	
WATERS OF THE U.S.	651 S.F.	0 S.F.	



TOPGOLF®

RK&K

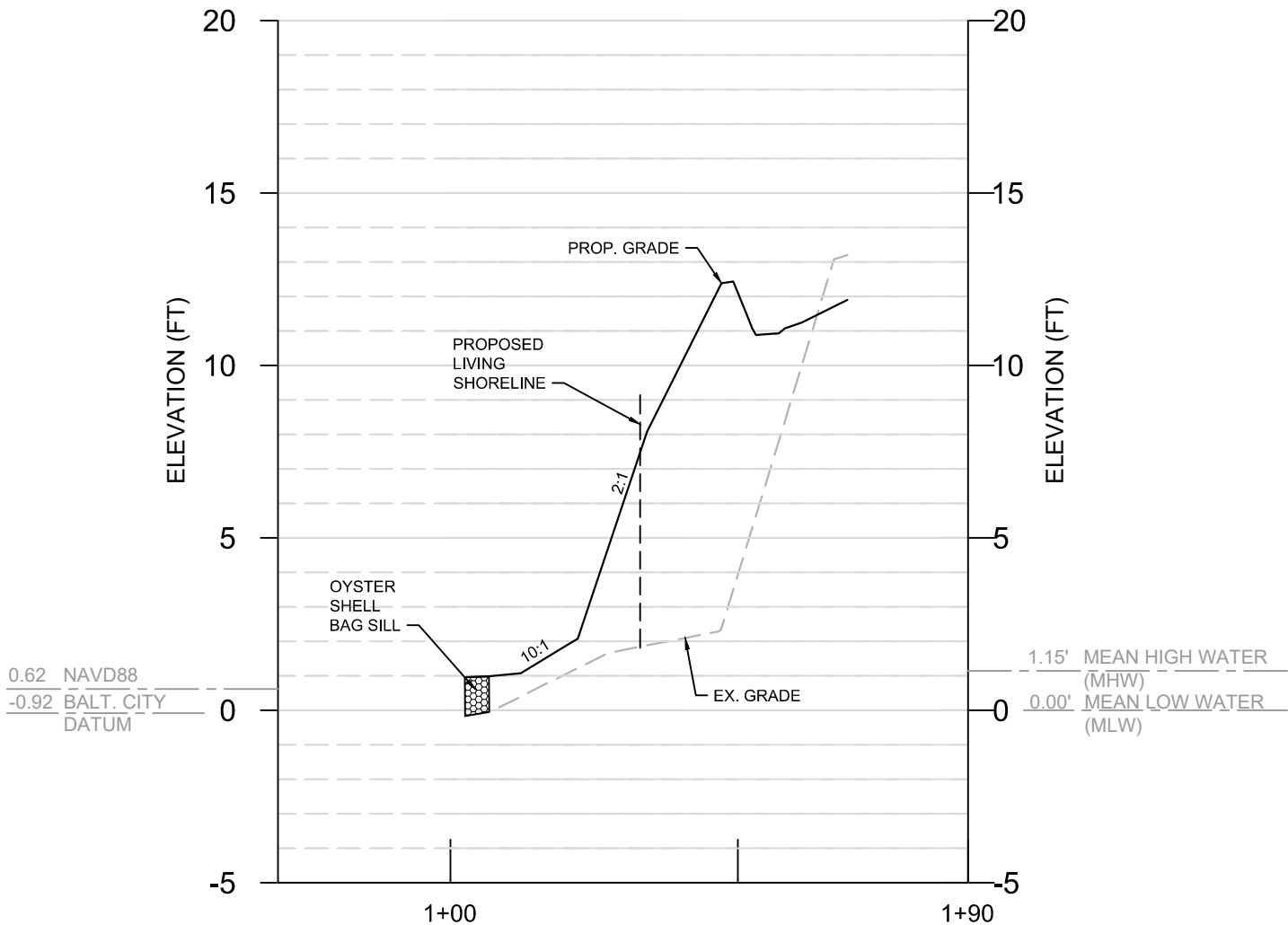
RUAMMEL, KLEPPER & KAPAL, LLP
ENGINEERS • CONSTRUCTION MANAGERS • PLANNERS • SCIENTISTS
RESPONSIVE PEOPLE • CREATIVE SOLUTIONS
700 E. Pratt St., Ste 500 Baltimore, MD 21202

TOPGOLF BALTIMORE

IMPACT PLATES

CITY: BALTIMORE	CONTRACT NO.:
DATE: DECEMBER 2018	REVISION DATE:
SCALE: 1" = 30'	PLATE P5 OF P5

HORIZONTAL DATUM: BALT. CITY COORDINATE SYSTEM
 VERTICAL DATUM: MEAN LOW WATER



SECTION A-A
 SCALE: HORIZ: 1" = 30'
 VERT: 1" = 5'



TOPGOLF

RK&K

RUMMEL, KLEPPER & KAHL, LLP
 ENGINEERS/CONSTRUCTION MANAGERS/PLANNERS/SCIENTISTS
 RESPONSIVE PEOPLE. CREATIVE SOLUTIONS.
 700 E. Pratt St., Ste 500 Baltimore, MD 21202

TOPGOLF BALTIMORE
 IMPACT PLATES - CROSS SECTIONS

CITY: BALTIMORE

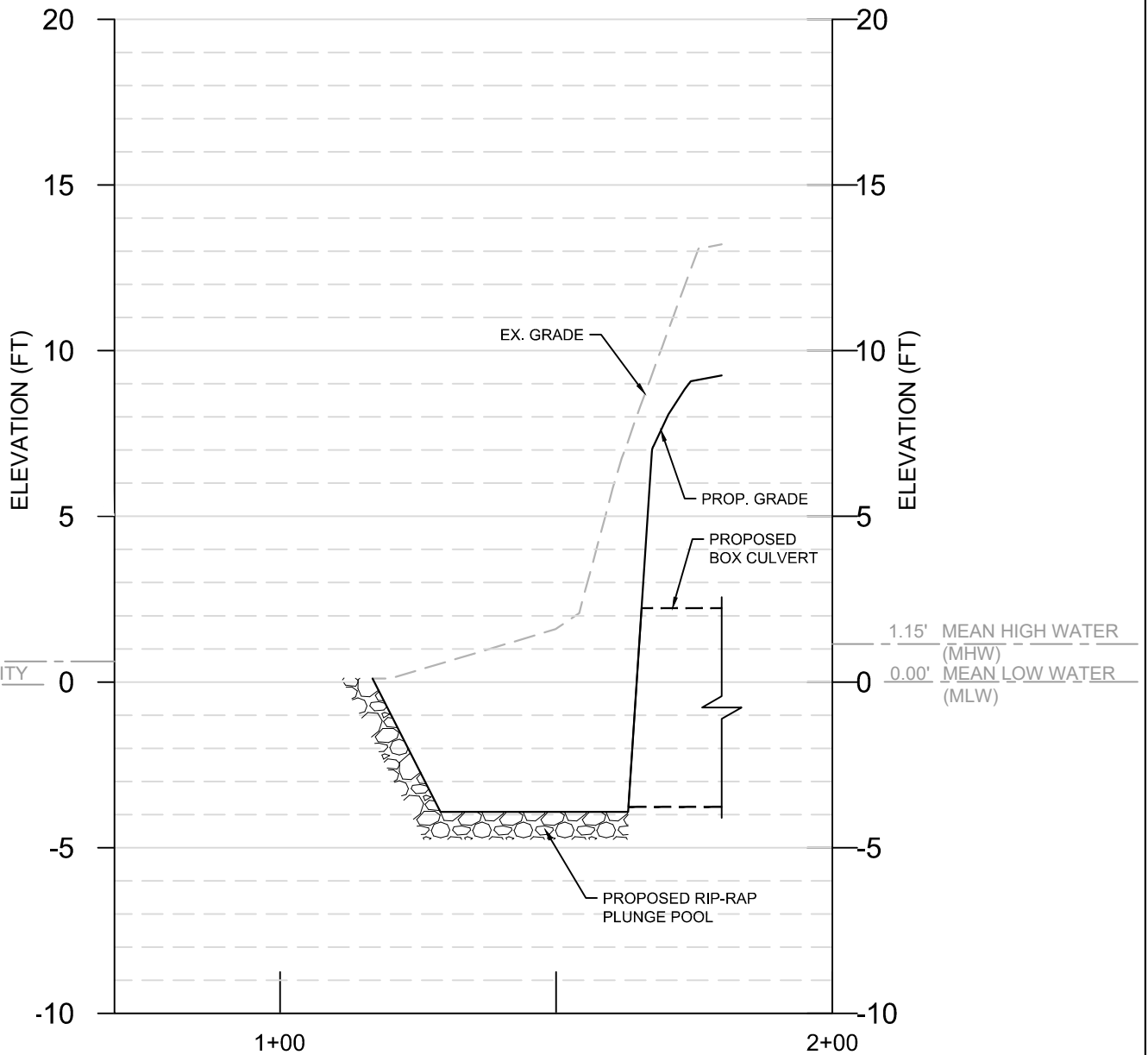
CONTRACT NO.:

DATE: DECEMBER 2018

REVISION DATE:

SCALE: 1" = 30'

HORIZONTAL DATUM: BALT. CITY COORDINATE SYSTEM
 VERTICAL DATUM: MEAN LOW WATER



SECTION B-B
 SCALE: HORIZ: 1" = 30'
 VERT: 1" = 5'



TOPGOLF

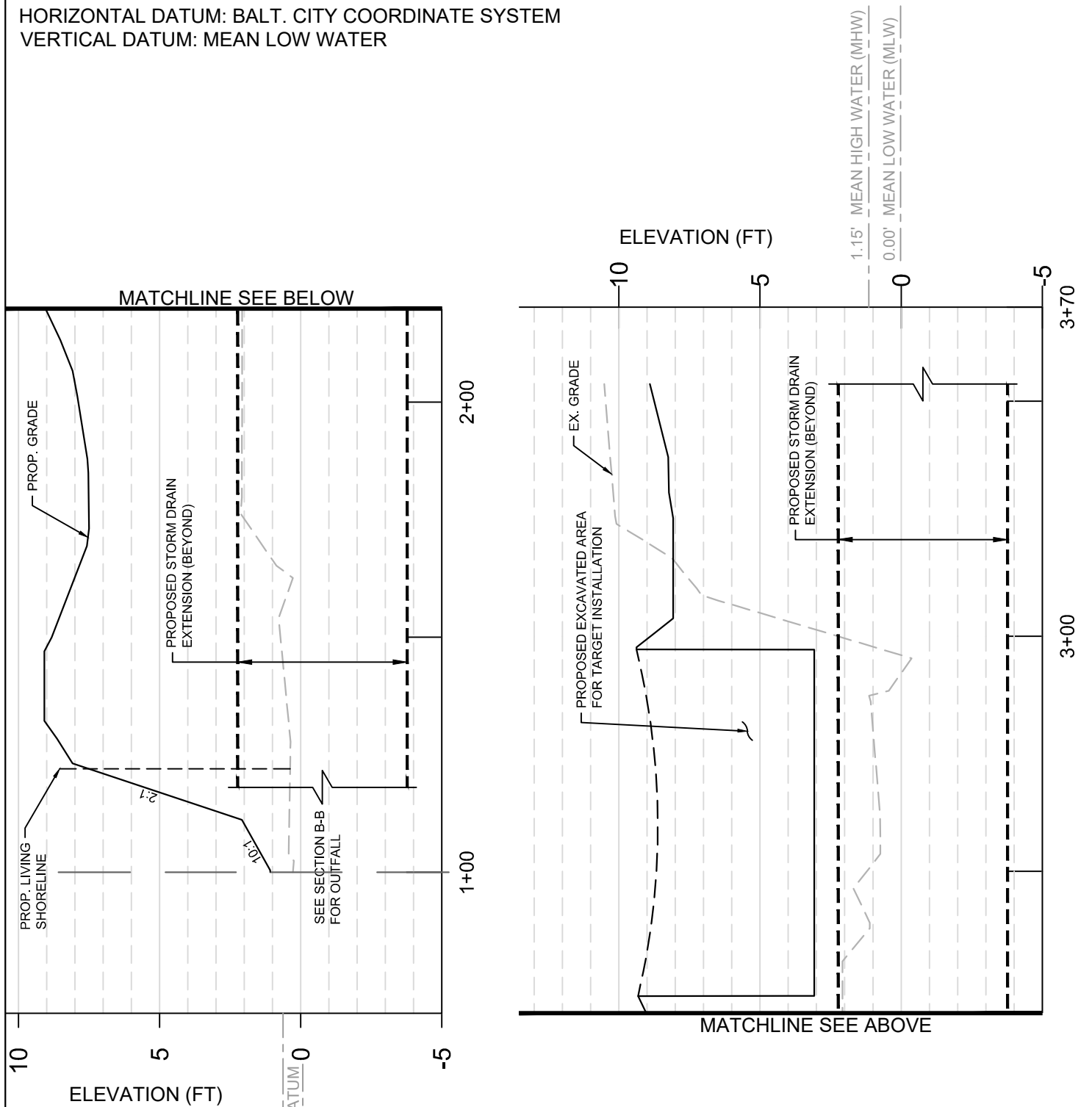
RK&K

RUMMEL, KLEPPER & KAHL, LLP
 ENGINEERS/CONSTRUCTION MANAGERS/PLANNERS/SCIENTISTS
 RESPONSIVE PEOPLE. CREATIVE SOLUTIONS.
 700 E. Pratt St., Ste 500 Baltimore, MD 21202

TOPGOLF BALTIMORE
 IMPACT PLATES - CROSS SECTIONS

CITY: BALTIMORE	CONTRACT NO.:
DATE: DECEMBER 2018	REVISION DATE:
SCALE: 1" = 30'	

HORIZONTAL DATUM: BALT. CITY COORDINATE SYSTEM
 VERTICAL DATUM: MEAN LOW WATER



SECTION C-C
 SCALE: HORIZ: 1" = 30'
 VERT: 1" = 5'



TOPGOLF



RUMMEL, KLEPPER & KAHL, LLP
 ENGINEERS/CONSTRUCTION MANAGERS/PLANNERS/SCIENTISTS
 RESPONSIVE PEOPLE. CREATIVE SOLUTIONS.
 700 E. Pratt St., Ste 500 Baltimore, MD 21202

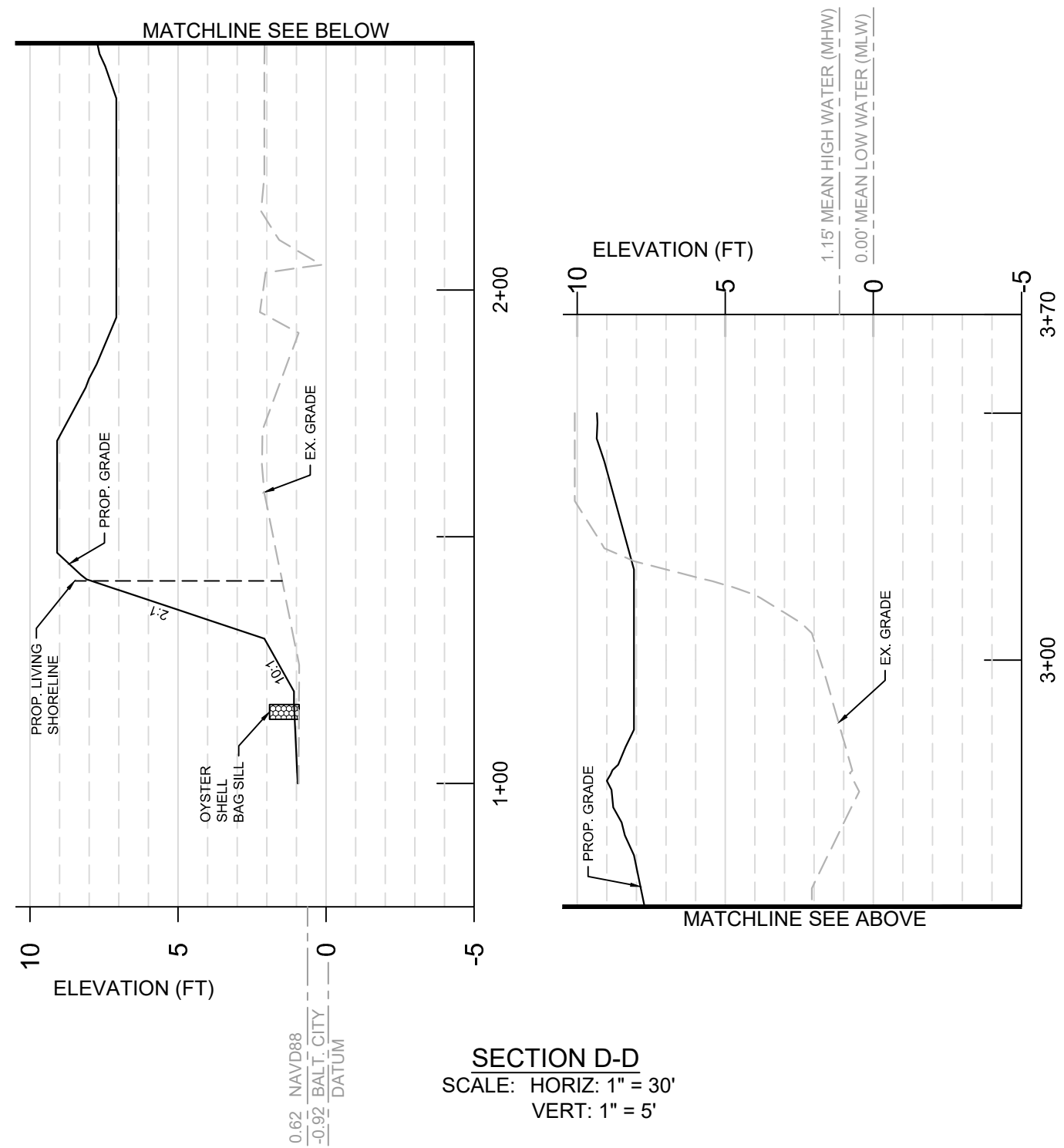
TOPGOLF BALTIMORE



IMPACT PLATES - CROSS SECTIONS

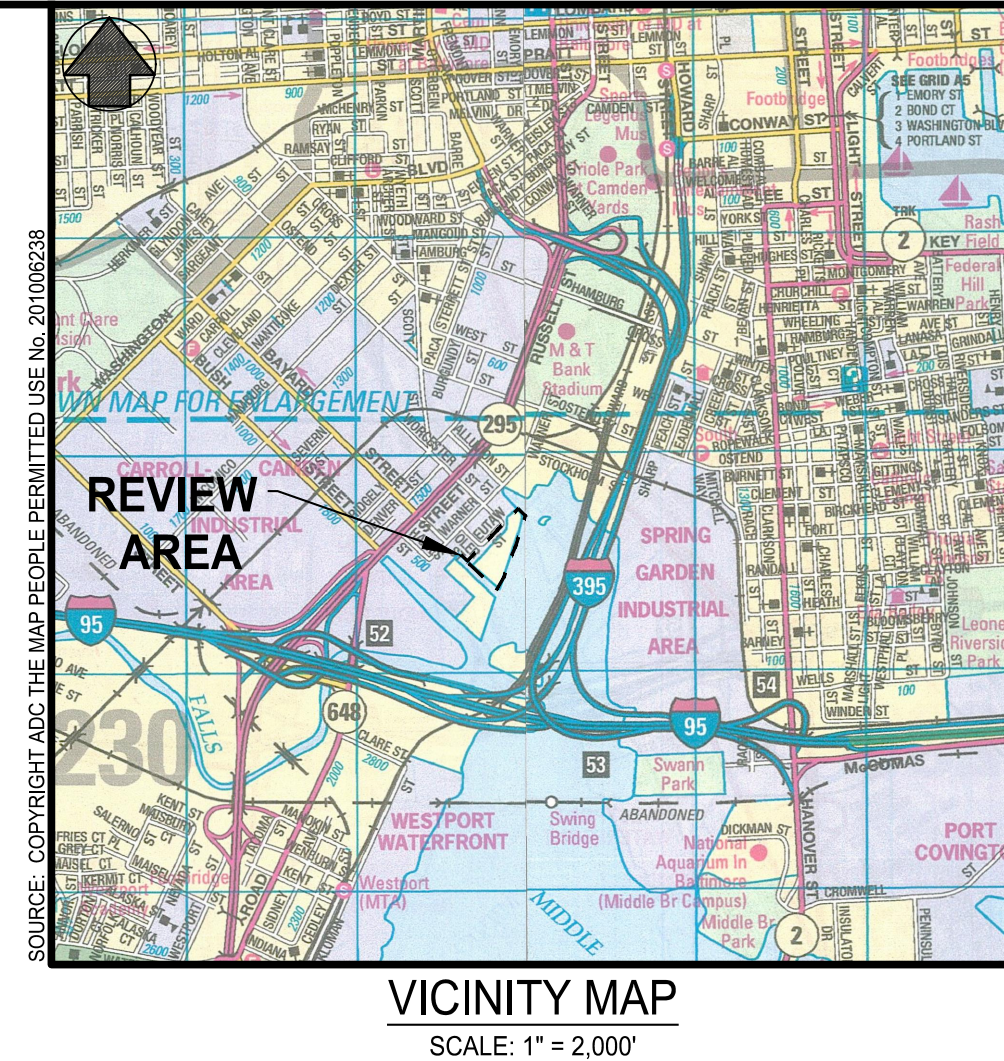
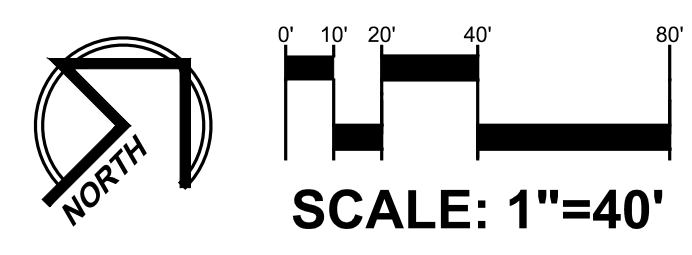
CITY: BALTIMORE	CONTRACT NO.:
DATE: DECEMBER 2018	REVISION DATE:
SCALE: 1" = 30'	

\\balsrv05\2015\2015\15183_topgolf\CADD\Plans\Impact Plates - Proposed.dwg

HORIZONTAL DATUM: BALT. CITY COORDINATE SYSTEM
VERTICAL DATUM: MEAN LOW WATER



 TOPGOLF	
 RK&K <small>RUMMEL, KLEPPER & KAHL, LLP ENGINEERS/CONSTRUCTION MANAGERS/PLANNERS/SCIENTISTS RESPONSIVE PEOPLE. CREATIVE SOLUTIONS. 700 E. Pratt St., Ste 500 Baltimore, MD 21202</small>	
TOPGOLF BALTIMORE IMPACT PLATES - CROSS SECTIONS	
CITY: BALTIMORE	CONTRACT NO.:
DATE: DECEMBER 2018	REVISION DATE:
SCALE: 1" = 30'	



GENERAL NOTES

- 1. PROJECT LOCATION: SOUTHEAST OF WARNER STREET, BETWEEN THE TERMINUS OF WORCESTER STREET AND BAYARD STREET WITHIN THE RIDGELY'S COVE AREA OF THE BALTIMORE HARBOR
- 2. OWNER: MAYOR AND CITY COUNCIL OF BALTIMORE
100 HOLIDAY STREET
BALTIMORE, MARYLAND 21202
- 3. PLAN PREPARED FOR: BALTIMORE DEVELOPMENT CORPORATION
CHARLES CENTER STATION
36 SOUTH CHARLES STREET, SUITE 2100
BALTIMORE, MARYLAND 21201
ATTN: MS. KIM CLARK
- 4. PLAN PREPARER: GEO-TECHNOLOGY ASSOCIATES, INC. (GTA)
3445-A BOX HILL CORPORATE CENTER DRIVE
ABINGDON, MARYLAND 21009
ATTN: MATTHEW JENNETTE
PHONE: 410-515-9446
EMAIL: MJENNETTE@GTAENG.COM
- 5. TAX MAP/LOTS: TAX MAP 0021 / LOTS 5A, 6, 7, 8, AND AN APPROXIMATE RIGHT-OF-WAY
- 6. REVIEW AREA: 5± ACRES
- 7. THIS PLAN WAS PREPARED ON A TOPOGRAPHIC AND EXISTING CONDITIONS BASE MAP PROVIDED BY MORRIS & RITCHIE ASSOCIATES, INC.
- 8. A WETLAND DELINEATION OF THE REVIEW AREA WAS PERFORMED BY GTA IN JULY 2018. WETLAND FLAG LOCATIONS WITHIN THE REVIEW AREA WERE LOCATED BY GTA USING A GLOBAL POSITIONING SYSTEM (GPS) UNIT RATED WITH SUBMETER ACCURACY. AS A RESULT OF THE REVIEW OF THE SITE, IT IS GTA'S PROFESSIONAL OPINION THAT THERE ARE JURISDICTIONAL WETLANDS PRESENT WITHIN THE REVIEW AREA.
- 9. THE REVIEW AREA DRAINS TOWARDS THE PATAPSCO RIVER, EAST OF THE REVIEW AREA. THE PATAPSCO RIVER IS A TRIBUTARY TO THE BALTIMORE HARBOR (BASIN NUMBER 02-13-0903). IN THE VICINITY OF THE REVIEW AREA, TIDAL TRIBUTARIES TO THE PATAPSCO RIVER CLASSIFIED IN THE CODE OF MARYLAND REGULATIONS (COMAR) 26.08.02.08 AS DESIGNATED USE "CLASS II: SUPPORT OF ESTUARINE AND MARINE AQUATIC LIFE AND SHELLFISH HARVESTING" WATERS.
- 10. THIS PLAN WAS PREPARED BY GTA FOR THE SOLE AND EXCLUSIVE USE OF BALTIMORE DEVELOPMENT CORPORATION. ANY REPRODUCTION OF THIS PLAN BY ANY OTHER PERSON WITHOUT THE EXPRESSED WRITTEN PERMISSION OF GTA AND BALTIMORE DEVELOPMENT CORPORATION IS UNAUTHORIZED, AND SUCH USE IS AT THE SOLE RISK OF THE USER.

LEGEND

- EX. PROPERTY LINE
- EX. 1' CONTOUR
- EX. PAVING
- EX. TREELINE
- EX. SOIL BOUNDARY
- EX. BUILDING
- EX. FEMA 100-YEAR FLOODPLAIN
- EX. FIELD-DELINEATED TIDAL WETLAND
- 100' CRITICAL AREA BUFFER
- APPROXIMATE LIMITS OF PROPOSED WETLAND ENHANCEMENT AREA
- APPROXIMATE LIMITS OF PROPOSED WETLAND CREATION AREA

SOILS CHART

SYMBOL ¹	NAME/DESCRIPTION ¹	HYDRIC SOIL ²	HYDRIC COMPONENT ²	PERCENTAGE OF MAPPING UNIT ²	POSITION IN LANDSCAPE ²
43U	URBAN LAND - UDORTHENTS COMPLEX, OCCASIONALLY FLOODED	YES	UNNAMED SOILS	3	FLATS
44UC	URBAN LAND, 0 TO 15 PERCENT SLOPES	NO	-	-	-
37	SULFAQUEPTS, FREQUENTLY FLOODED	YES	SULFAQUEPTS	100	FLATS
W	WATER	NO	-	-	-

1. SOURCE: THE UNITED STATES DEPARTMENT OF AGRICULTURE, NATURAL RESOURCE CONSERVATION SERVICE'S WEB SOIL SURVEY, CONSULTED ON AUGUST 2, 2018, AVAILABLE ON-LINE AT <HTTP://WEB.SOILSURVEY.NRCS.USDA.GOV/APPHOME.PAGE.HTM>
2. HYDRIC SOILS INFORMATION AVAILABLE FROM THE STATE SOIL DATA ACCESS HYDRIC SOILS LIST, AT <HTTPS://WWW.NRCS.USDA.GOV/INTERNET/FSE_DOCUMENTS/NRCSSEPRD1316619.HTML#REPORTREF>, ACCESSED AUGUST 2, 2018.

PROPOSED MITIGATION

TYPE	ACREAGE
WETLAND CREATION	0.69
WETLAND ENHANCEMENT	0.69
TOTAL	1.38

GEO-TECHNOLOGY ASSOCIATES, INC.
GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

3445-A BOX HILL CORPORATE CENTER DRIVE
ABINGDON, MARYLAND 21009
410-515-9446
FAX: 410-515-4895
WWW.GTAENG.COM

© 2018 GEO-TECHNOLOGY ASSOCIATES, INC.

PHASE 1 WETLAND MITIGATION PLAN
RIDGELY'S COVE

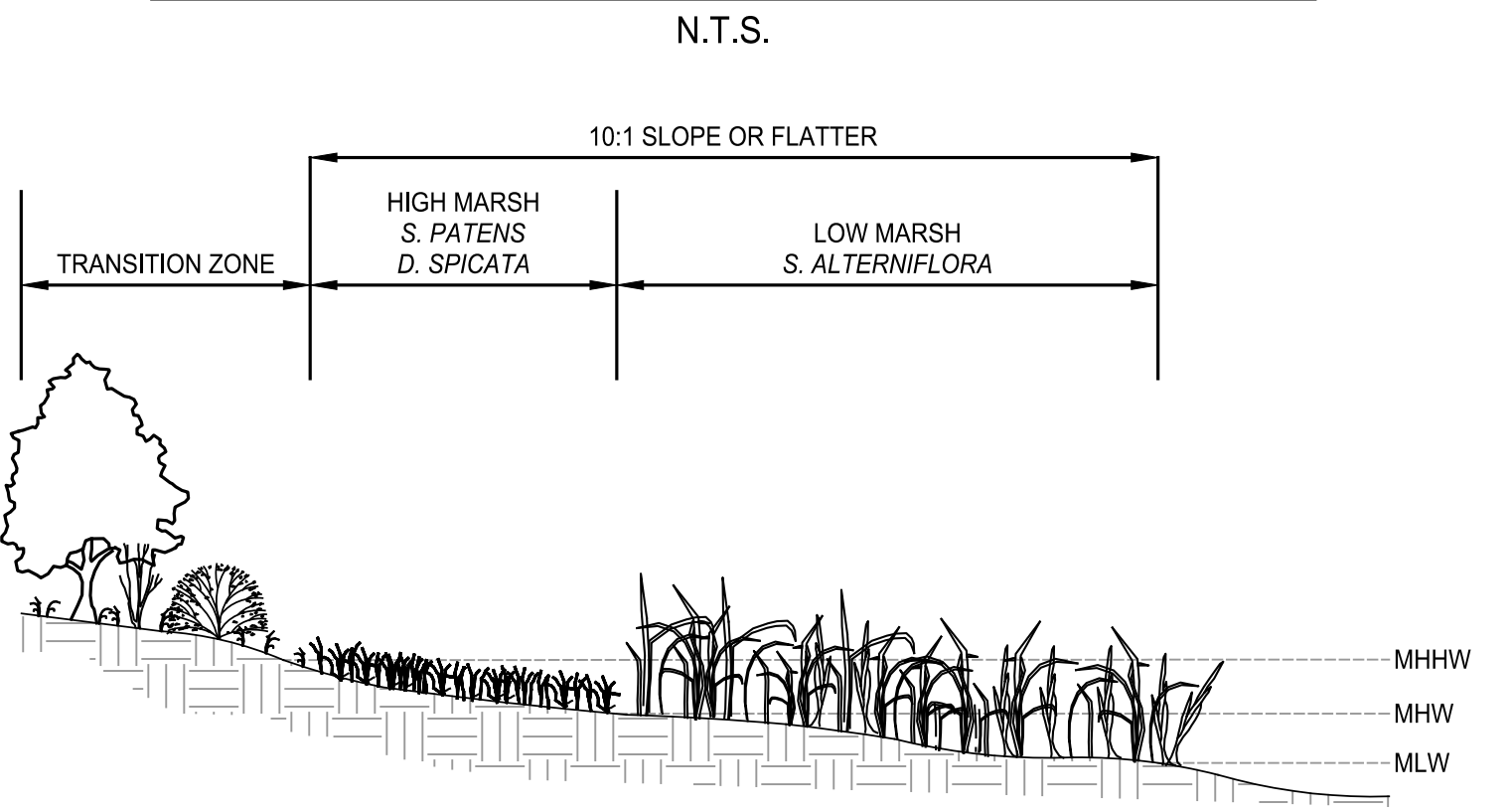
BALTIMORE CITY, MARYLAND

REVISIONS:

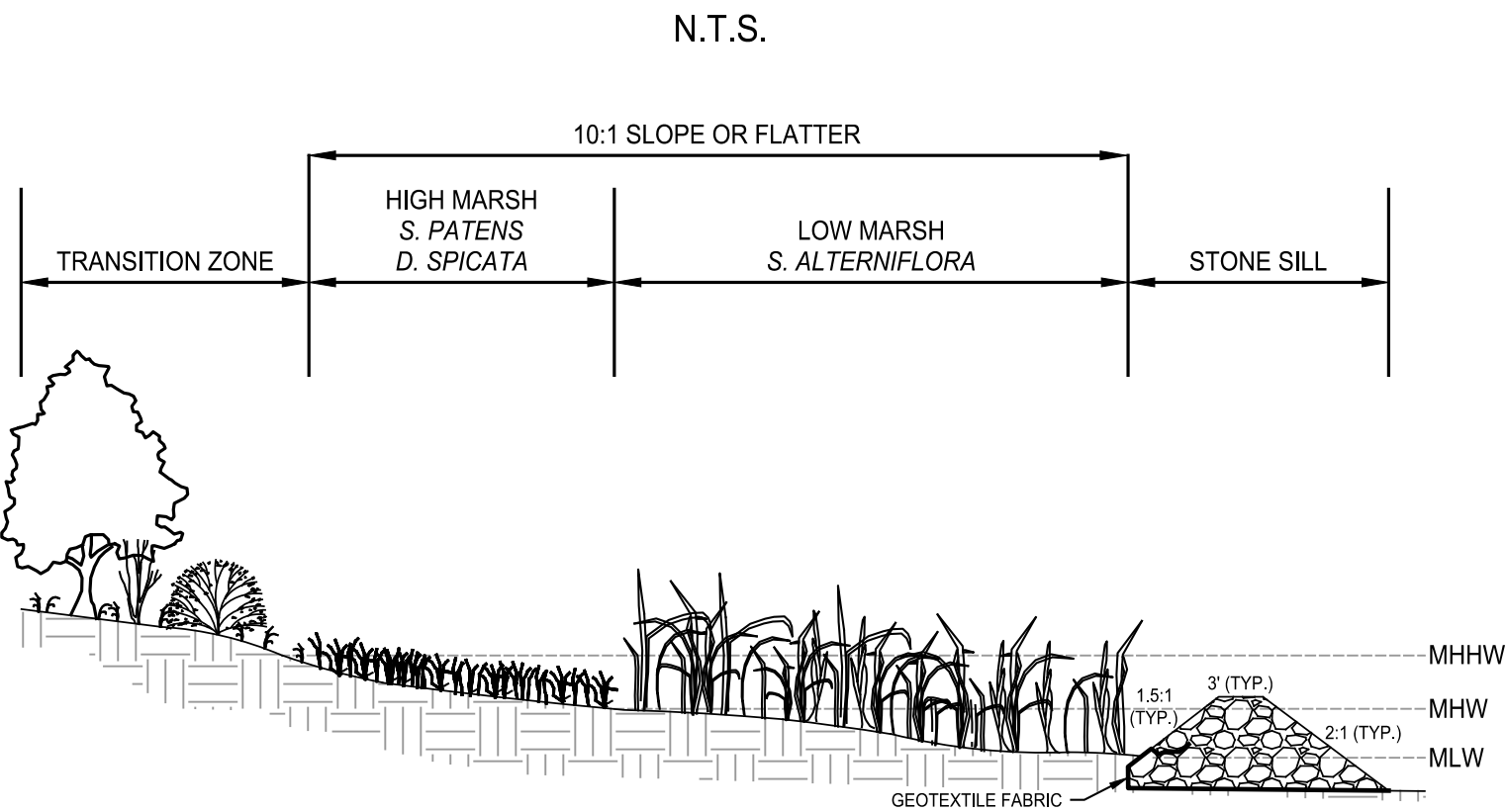
JOB NO:	31162228
SCALE:	1" = 40'
DATE:	NOVEMBER 8, 2018
DRAWN BY:	MAJ
DESIGN BY:	MAJ
REVIEW BY:	MAJ/TAS
SHEET:	1 OF 1

"P:\BNC-DATA\gta\Shared\Env\Wetlands_Reports\2018 Wetland Projects\1162228 Ridgely's Cove\WETLAND\CD\Plots\1162228 P1 Wet Mit Revised 2018-11-08.dwg"

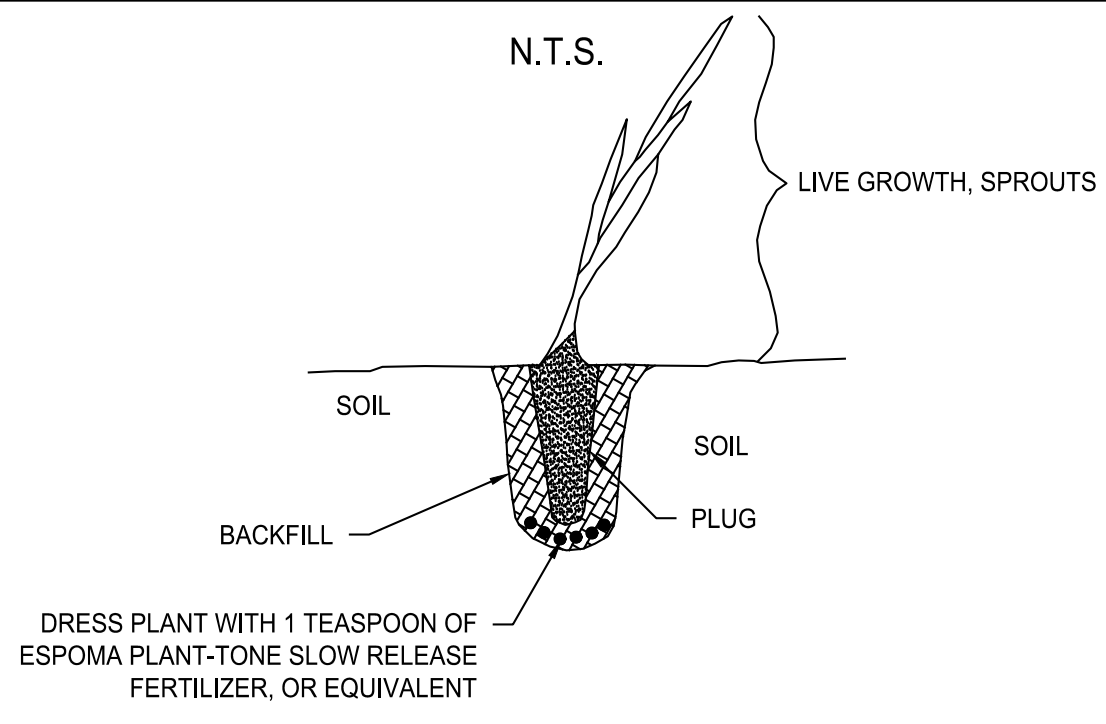
TIDAL MARSH CREATION



TIDAL MARSH CREATION WITH SILL



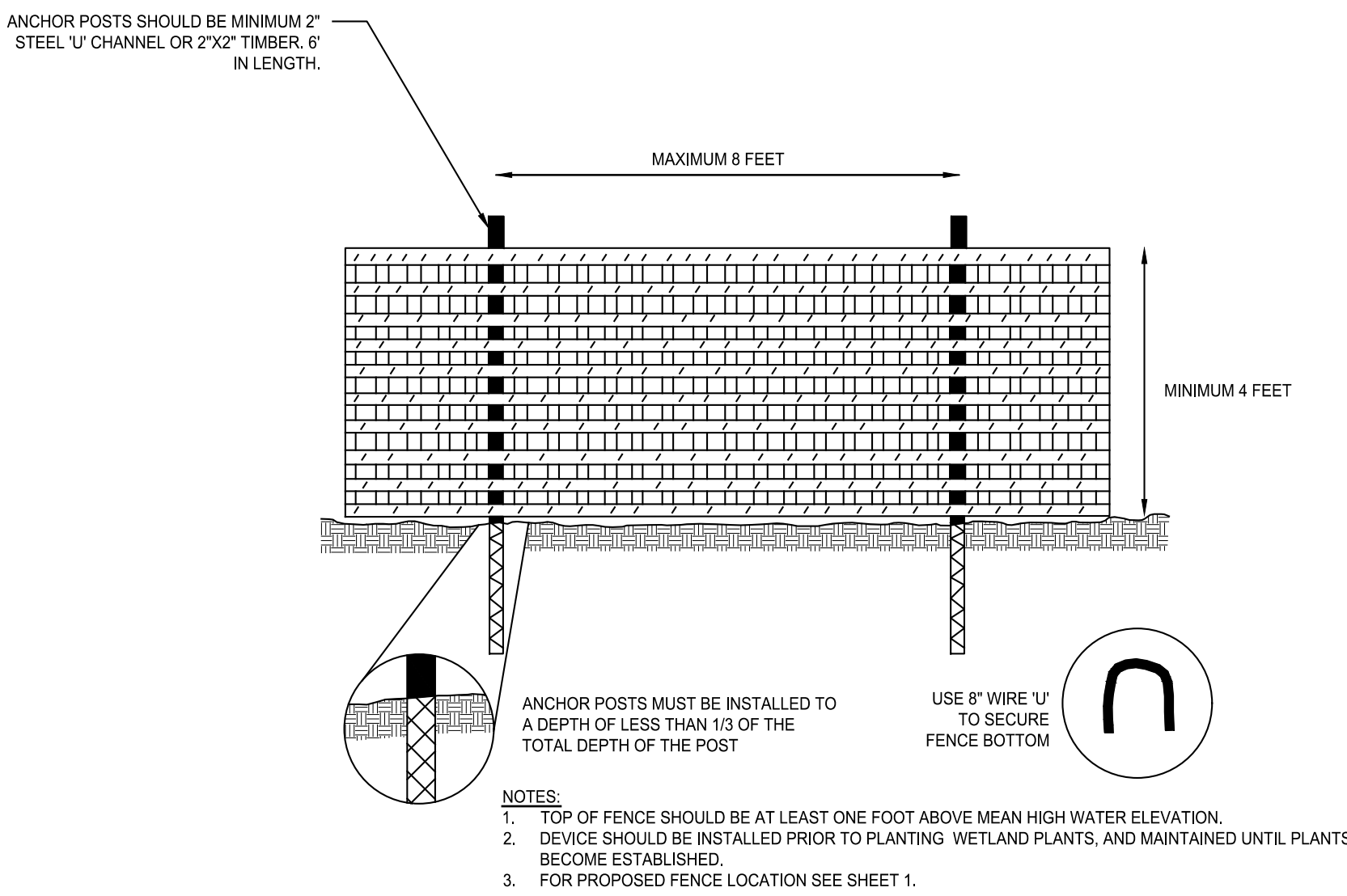
HERBACEOUS PLUG PLANTING DETAIL




HERBACEOUS PLANTING SPECIFICATIONS

COMMON NAME	SCIENTIFIC NAME	INDICATOR STATUS	SPACING (FEET)	PLANTING SPECIFICATIONS
SMOOTH CORDGRASS	<i>SPARTINA ALTERNIFLORA</i>	OBL	2	DIG SMALL HOLE AS DEEP AS PLUG HEIGHT AND TWICE THE SIZE OF PLUG ROOT BALL'S DIAMETER. DRESS WITH ONE TEASPOON OF SLOW RELEASE FERTILIZER. REMOVE PLUG FROM NURSERY PLAT AND PLACE IN HOLE SO THAT THE TOP OF THE PLUG'S ROOT MASS IS LEVEL WITH THE GROUND. BACKFILL WITH QUALITY SOIL AND PACK SOIL FIRMLY AROUND PLANT WITH HANDS. SOILS SHOULD BE INUNDATED WITH 3-INCHES OF WATER OR SATURATED WHEN PLANTING PLUGS.
SALTMEADOW CORDGRASS	<i>SPARTINA PATENS</i>	FACW	2	
SALTGRASS	<i>DISTICHLIS SPICATA</i>	OBL	2	

BLAZE ORANGE PLASTIC MESH FOR TRASH EXCLUSION





GEO-TECHNOLOGY ASSOCIATES, INC.
GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

3445-A BOX HILL CORPORATE CENTER DRIVE
ABINGDON, MARYLAND 21009
410-515-9446
FAX: 410-515-4895
WWW.GTAENG.COM

© 2018 GEO-TECHNOLOGY ASSOCIATES, INC.

PHASE 1 WETLAND MITIGATION PLAN

RIDGELY'S COVE

BALTIMORE CITY, MARYLAND

REVISIONS:

JOB NO:	31162228
SCALE:	1" = 40'
DATE:	NOVEMBER 8, 2018
DRAWN BY:	MAJ
DESIGN BY:	MAJ
REVIEW BY:	MAJ/TAS
SHEET:	1 OF 1