

PLANS FOR BULKHEAD INSTALLATION AT FUTURE CARTERET FERRY TERMINAL AT ARTHUR KILL

BLOCK 304 LOTS 2.01 AND 2.02, BOROUGH OF CARTERET,
MIDDLESEX COUNTY, NEW JERSEY

UTILITIES		
SERVICE	OWNER	CONTACT INFORMATION
ELECTRIC	PUBLIC SERVICE ELECTRIC & GAS COMPANY (PSE&G) 472 WESTERN CANAL ROAD SOMERSET, NJ 08873	ATTN: MR. ROBERT BUCHANAN PHONE: (732) 764-3160 EMAIL: robert.buchanan@pseg.com
GAS	ELIZABETHTOWN GAS COMPANY - UNION DIVISION 520 GREEN LANE UNION, NJ 07083	ATTN: MR. GREGORY BALINT PHONE: (908) 289-5000 EXT. 4351 EMAIL:
WATER	MIDDLESEX WATER COMPANY 1500 RONSON ROAD ISELIN, NJ 08830	ATTN: ISIDRO BUEN PHONE: (732) 638-7533 EMAIL: ibuen@middlesexwater.com
SEWER	BOROUGH OF CARTERET SEWER DEPARTMENT 339 ROOSEVELT AVENUE CARTERET, NJ 07008	ATTN: JOHN DUPONT PHONE: (732) 541-3836 EMAIL: dupontj@carteret.net
TELEPHONE	VERIZON 445 GEORGES ROAD NORTH BRUNSWICK, NJ 08092	ATTN: IAN CHAN PHONE: (732) 683-5146 EMAIL: ian.chan@verizon.com
CABLE	COMCAST CABLE - CONSTRUCTION DIVISION 800 RAHWAY AVENUE UNION, NJ 07083	ATTN: MR. RICHARD GUGULSKI PHONE: (732) 602-7444 EXT. 2293 EMAIL:
<small>LOCATION OF UTILITIES SHOWN ON THESE PLANS ARE NOT WARRANTED AS TO EXACTNESS. CONTRACTOR SHALL DETERMINE EXACT LOCATION AND DEPTH OF UTILITIES PRIOR TO CONSTRUCTION IN ACCORDANCE WITH THE REQUIREMENTS OF THE CONTRACT DOCUMENTS AND OTHER APPLICABLE LAWS.</small>		
<small>PRIOR TO DIGGING CALL 1-800-272-1000</small>		

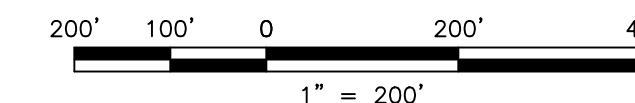


INDEX OF DRAWINGS		
SHEET NO.	DRAWING	DESCRIPTION
1	COV-1	COVER SHEET
2	CL-1	CONSTRUCTION LEGEND AND GENERAL NOTES
3	STE-1	OVERALL SITE PLAN
4	SHT-1	PERMANET SHEETING - PLAN AND DETAILS
5	BOR-1	BORING LOGS

PROJECT INFORMATION:
FILE PATH: G:\Projects\CART_02534\Plans\
FILE NAME: CART02534_SFW_SHT001_COV.dwg
DATE: 28 Apr 2022, 10:14AM
LAST SAVE BY: Hgubson



KEY MAP
SCALE: 1" = 200'



STRUCTURES IN THIS CONTRACT		
NO.	STRUCTURE NO.	DESCRIPTION
BRIDGES		
-	-	-
RETAINING WALLS		
1	1	PERMANENT SHEETING

NEW JERSEY DEPARTMENT OF TRANSPORTATION

2019 STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (US CUSTOMARY ENGLISH UNITS) WITH THE CURRENT SUPPLEMENTARY SPECIFICATIONS, AS MODIFIED BY THE BID SPECIFICATIONS TO GOVERN.

STANDARD CONSTRUCTION DETAILS BOOKLET ROADWAY/ TRAFFIC CONTROL/ BRIDGE, 2016 AND STANDARD ELECTRICAL DETAILS BOOKLET, 2007, INCLUDING ALL BASELINE DOCUMENT CHANGES PUBLISHED TO THE DATE OF THESE PLANS ARE APPLICABLE TO THIS PROJECT EXCEPT FOR THOSE DETAILS CONTAINED HEREIN.



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PREPARED BY
MATTHEW J. WAGNER, P.E.
CONSULTING ENGINEER

MJW
LICENSED PROFESSIONAL ENGINEER
STATE OF NEW JERSEY LICENSE No. 24GE05018200
4/29/2022
DATE

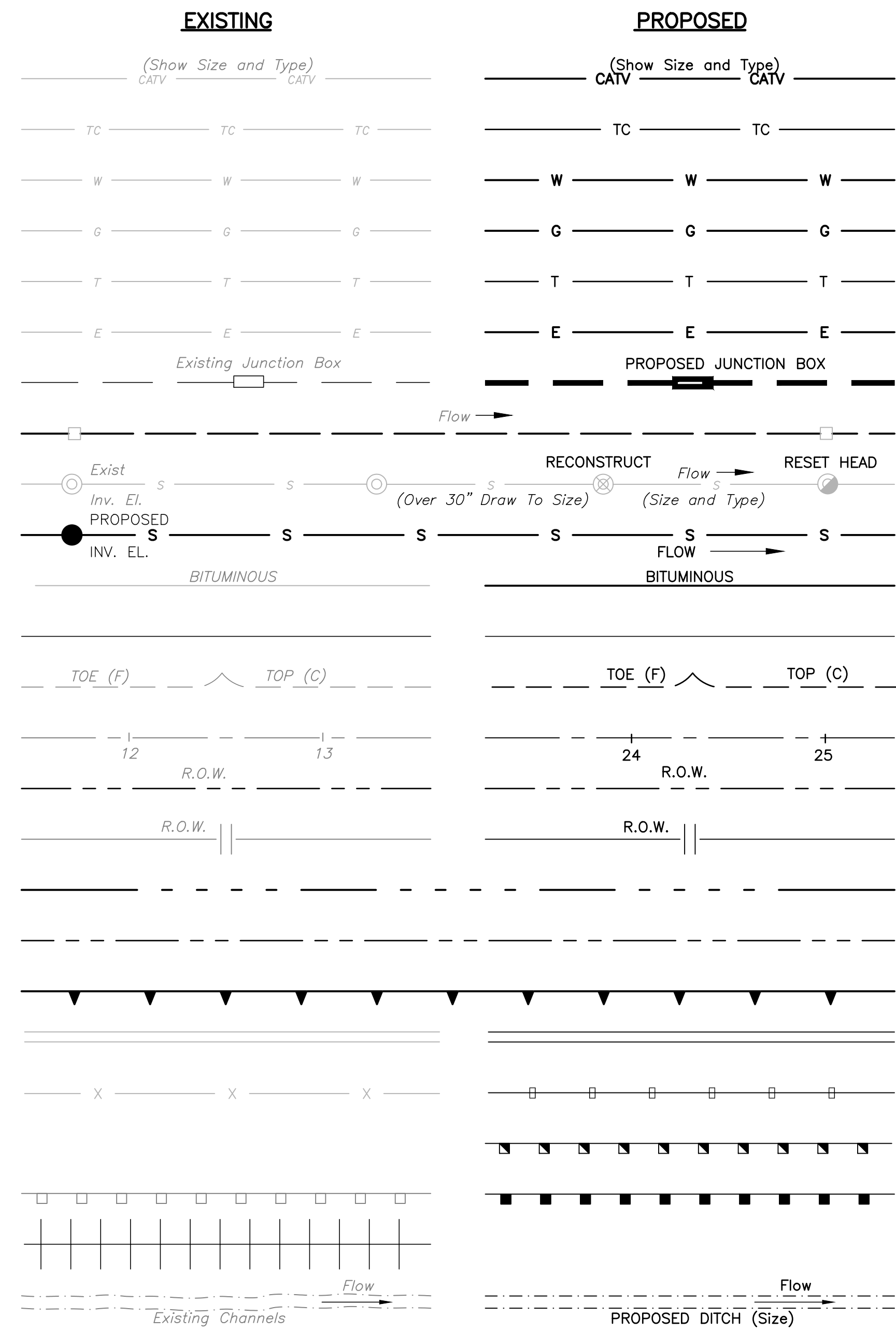
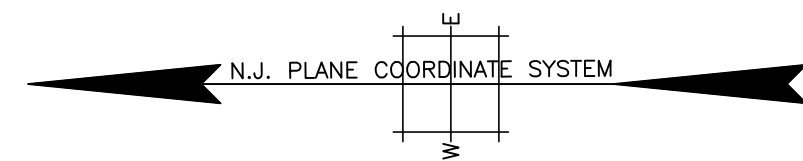


11 TINDALL ROAD
MIDDLETOWN, NJ 07748
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NEW JERSEY BOARD OF PROFESSIONAL ENGINEERS
AND LAND SURVEYORS
CERTIFICATE OF AUTHORIZATION 26G27987500

RECOMMENDED FOR APPROVAL BY BOROUGH ENGINEER:

ENGINEER _____
JOHN P. DuPONT, P.E., CME, P.P. DATE _____
N.J. LICENSE No. 24GE03861700

STANDARD LEGEND



- Exist
- ▣ Existing Monument
- ◇ Sign
- Exist. Light
- WV Water Gate Valve
- Pole No. & Type (Guy, Light, Etc.)
- GV Gas Gate Valve
- Hyd Hydrant
- * Traffic Light
- Traffic Control Box
- △ Exist R.C. End Section Or C.M. Headwall
- ☁ Bush or Brush
- ☀ Deciduous Trees (size, kind)
- ☀ Evergreens
- ☀ Hedges
- BM Existing Bench Mark
- Existing Headwall & Apron
- Existing Headwall
- PROPOSED
- ▣ RESET EXISTING CASTING
- NEW INLET CASTING (TYPE AS SPECIFIED)
- ▣ RECONSTRUCT
- INLETS CONVERTED TO MANHOLE
- NEW MONUMENT
- ▲ PROPOSED R.C. END SECT. OR C.M. HEADWALL
- ▲ PROPOSED HEADWALL & APRON
- ▲ PROPOSED HEADWALL
- ✕ TREE TO BE REMOVED (T.B.R.)
- PROPOSED UTILITY POLE
- BORING TEST LOCATION
- TEST PIT
- ⊕ PROBINGS
- BM BENCH MARK CALLOUT
- PROP. F.G.R.T.
- PROP. T.G.R.T.
- PROP. ANCHORAGE

GENERAL NOTES:

- HORIZONTAL DATUM IS IN THE NEW JERSEY PLANE COORDINATE SYSTEM, NORTH AMERICAN DATUM 1983 (NAD 1983).
- ELEVATIONS REFER TO THE NORTH AMERICAN VERTICAL DATUM 1988 (NAVD 1988). NGVD 1929 = NAVD 1988 + 1.056'
- ALL DIMENSIONS, UNITS, ETC. ARE IN THE U.S. CUSTOMARY SYSTEM.
- EXISTING CONDITIONS:**
 - THE CONTRACTOR SHALL EXAMINE AND VERIFY IN THE FIELD ALL EXISTING CONDITIONS AND DIMENSIONS WITH THOSE SHOWN ON THE PLANS. IF FIELD CONDITIONS AND DIMENSIONS DIFFER FROM THOSE SHOWN ON THE PLANS, THE CONTRACTOR SHALL USE THE FIELD CONDITIONS AND DIMENSIONS AND MAKE THE APPROPRIATE CHANGES TO THOSE SHOWN ON THE PLANS AS APPROVED BY THE RE. THE RESULTS OF THIS CHECK OF CONDITIONS AND DIMENSIONS SHALL BE SO NOTED ON THE DRAWINGS SUBMITTED FOR APPROVAL. THERE SHALL BE NO CLAIM AGAINST THE COUNTY MADE BY THE CONTRACTOR FOR WORK PERTAINING TO MODIFICATIONS AS MAY BE REQUIRED DUE TO ANY DIFFERENCES BETWEEN ACTUAL FIELD CONDITIONS AND THE DETAILS AND DIMENSIONS SHOWN ON THE CONTRACT PLANS.
 - ALL EXISTING DIMENSIONS AND ELEVATIONS SHALL BE VERIFIED BY THE CONTRACTOR IN THE FIELD. ANY DEVIATIONS SHALL BE REPORTED TO THE RE.
 - THE CONTRACTOR SHALL PROTECT ALL SURVEY CONTROL POINT MARKS FROM DAMAGE AND SHALL ESTABLISH OFFSET POINTS AS REQUIRED FOR ITS WORK.
 - THE CONTRACTOR SHALL EXERCISE CAUTION SO AS NOT TO DAMAGE THE ROOT SYSTEM OF ANY PLANTINGS TO REMAIN. ALL ROOTS OF ANY PLANTS OR TREES TO REMAIN WHICH ARE EXPOSED DURING CONSTRUCTION, SHALL BE WATERED AND KEPT SHADED OR COVERED WITH WET STRAW, MOSS OR OTHER SUITABLE MATERIAL UNTIL THE FINAL GRADING IS COMPLETED. THE CONTRACTOR SHALL REPLACE ANY EXISTING PLANTINGS DAMAGED DURING CONSTRUCTION, AS IN THE OPINION OF THE ENGINEER, WITH A PLANTING OF SIMILAR SPECIES, HEIGHT AND/OR CALIPER TO THE SATISFACTION OF THE ENGINEER AT NO ADDITIONAL COST TO THE COUNTY. PLANT ESTABLISHMENT AND REPLACEMENT PERIOD WILL BE SPECIFIED IN THE SPECIAL PROVISIONS FOR THE STANDARD SPECIFICATIONS.
 - THE CONTRACTOR SHALL VERIFY EXISTING GRADES IN ORDER TO CONFIRM PROPOSED GRADING.
- CONSTRUCTION SPECIFICATIONS:**
 - ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE 2019 NJDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION WITH THE CURRENT SUPPLEMENTARY SPECIFICATIONS, AS MODIFIED BY THE BID SPECIFICATIONS.
 - ALL GRADING AND CONSTRUCTION ACTIVITIES TO TAKE PLACE WITHIN THE BANKS OF THE ARTHUR KILLS SHALL BE IN ACCORDANCE WITH:
 - THE NJDEP PERMIT NO. 1201-08-0001.1 LUP20002
 - WATERFRONT DEVELOPMENT INDIVIDUAL PERMIT (WATERWARD)
 - FLOOD HAZARD AREA INDIVIDUAL PERMIT - OTHER
 - FRESHWATER WETLANDS GENERAL PERMIT GP11 OUTFALLS/INTAKE STRUCTURES
 - FRESHWATER WETLANDS GENERAL PERMIT GP7 HUMAN-MADE DITCHES/SWALES IN HEADWATERS
 - VERIFICATION-METHOD 2 (FEMA TIDAL METHOD)
 - WATERFRONT DEVELOPMENT INDIVIDUAL PERMIT-COMMERCIAL (LANDWARD)
 - WATER QUALITY CERTIFICATE
 - U.S. ARMY COPRS OF ENGINEERS NAN-2020-00040-EBR
 - FREEHOLD SOIL CONSERVATION DISTRICT CERTIFICATION (REF. # 2020-0573)
 - A PRECONSTRUCTION MEETING WILL BE HELD WITH THE BOROUGH ENGINEER'S REPRESENTATIVES PRIOR TO BEGINNING ANY CONSTRUCTION ON THE PROJECT.
- SOIL EROSION AND SEDIMENT CONTROL:**
 - ALL WORK IS TO BE PERFORMED IN ACCORDANCE WITH THE LATEST EDITION OF STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL IN NEW JERSEY.
 - SOIL EROSION CONTROL MEASURES SHALL BE IN PLACE PRIOR TO GROUND DISTURBANCE.
- UTILITIES:**
 - THERE ARE NO REPORTED UTILITIES WITHIN THE PROJECT LIMITS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE ALL UTILITY LOCATIONS IN THE FIELD PRIOR TO EXCAVATION.
 - THE INFORMATION SHOWN ON THESE PLANS CONCERNING THE TYPE AND LOCATION OF UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL-INCLUSIVE. THE CONTRACTOR SHALL VERIFY THEIR LOCATION AND COMPLETENESS PRIOR TO THE BEGINNING OF WORK. NO WORK SHALL BEGIN UNTIL THE CONTRACTOR PROVIDES THE ENGINEER WITH THE CONFIRMATION NUMBER OBTAINED FROM THE ONE-CALL SYSTEM IN ACCORDANCE WITH THE UNDERGROUND FACILITY PROTECTION ACT.
 - THE CONTRACTOR SHALL CONTACT UTILITY COMPANIES TO DETERMINE THEIR SCHEDULE FOR PERFORMING UTILITY RELOCATION WORK AND SHALL SCHEDULE WORK ACCORDINGLY SO AS NOT TO INTERFERE WITH THE WORK OF THE UTILITY COMPANIES.
- MAINTENANCE AND PROTECTION OF TRAFFIC:**
 - ALL TRAFFIC CONTROL DEVICES SHALL CONFORM WITH THE CURRENT EDITION OF MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS PUBLISHED BY FEDERAL HIGHWAY ADMINISTRATION (FHWA).
 - THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING DRIVEWAY ACCESS AT ALL LOCATIONS AFFECTED BY THE CONSTRUCTION ACTIVITIES THROUGHOUT THE DURATION OF THE PROJECT. THE COST FOR THIS WORK SHALL BE INCLUDED IN THE LUMP SUM PRICE BID FOR THE ITEM "CLEARING SITE".
 - THE CONTRACTOR SHALL NOTIFY THE CARTERET MUNICIPAL CLERK, THE POLICE DEPARTMENT, FIRE DEPARTMENT, RESCUE SQUADS, AND THE BOARD OF EDUCATION AT LEAST 7 DAYS IN ADVANCE AND 24 HOURS PRIOR TO THE IMPLEMENTATION OF THE MAINTENANCE AND PROTECTION OF TRAFFIC.
- ONLY PAY ITEMS LISTED IN THE PROPOSAL ARE APPLICABLE TO THIS PROJECT. PAY ITEMS NOT IN THE PROPOSAL WILL NOT BE USED.
- NO SEPARATE PAYMENT WILL BE MADE FOR "REMOVE" OR "RELOCATE" ITEMS. ALL COSTS THEREOF ARE TO BE INCLUDED IN THE LUMP SUM PRICE BID FOR THE ITEM "CLEARING SITE".
- THE COST FOR THE REMOVAL OF ALL ITEMS NECESSARY TO COMPLETE THE PROJECT AND NOT OTHERWISE

- INDICATED AS A PAY ITEM, SHALL BE INCLUDED IN THE LUMP SUM PRICE BID FOR THE ITEM "CLEARING SITE".
- STRIPPED MATERIAL SUITABLE FOR USE AS TOPSOIL SHALL BE STORED AND REUSED AS REQUIRED FOR THE PROJECT. EXCESS STRIPPED MATERIAL SHALL BE DISPOSED OF OFF-SITE BY THE CONTRACTOR. THE COST OF STRIPPING SHALL BE INCLUDED IN THE PRICE BID FOR THE ITEM "CLEARING SITE". NO SEPARATE PAYMENT WILL BE MADE FOR THE VOLUME OF MATERIAL STRIPPED.
- EXISTING FEATURES TO BE RESET/RELOCATED OR REMOVED IN THE PROJECT FOR WHICH THERE IS NO PAY ITEM SHALL BE RESET/RELOCATED OR REMOVED UNDER THE LUMP SUM PRICE BID FOR THE ITEM "CLEARING SITE".
- EXISTING PAVEMENT TO BE REMOVED SHALL BE PAID UNDER THE PRICE BID FOR THE ITEM "CLEARING SITE".
- ANY WORK NOT SPECIFICALLY MENTIONED UNDER OTHER ITEMS AND NECESSARY FOR THE SATISFACTORY COMPLETION OF THE PROJECT IN A NEAT AND WORKMAN-LIKE MANNER SHALL BE INCLUDED UNDER "CLEARING SITE".
- THE TOPSOIL USED FOR THIS PROJECT SHALL BE IN STRICT CONFORMANCE TO THE PROJECT SPECIFICATIONS. ANY TOPSOIL NOT MEETING THE ENGINEER'S APPROVAL SHALL BE REMOVED AND REPLACED AT THE CONTRACTOR'S EXPENSE.
- THE CONTRACTOR SHALL ESTABLISH A FULL STAND OF GRASS WITH NO PATCHES, CRABGRASS OR WEEDS.
- THE CONTRACTOR SHALL SUBMIT SEED BAG TICKETS TO THE ENGINEER FOR APPROVAL PRIOR TO PLACING SEED.

ABBREVIATIONS:

A. AVG.	AGGREGATE AVERAGE	MAX. MH	MAXIMUM MANHOLE
B. B	BENCHMARK	MHW	MEAN HIGH WATER
BIT.	BITUMINOUS	MHHW	MEAN HIGHER HIGH WATER
BM.	BENCHMARK	MLW	MEAN LOW WATER
BOT., BOT.	BOTTOM	MLLW	MEAN LOWER LOW WATER
C. C.L.	CENTERLINE	MTL	MEAN TIDE LEVEL
CL.	CLEAR	MI.	MILES
C.	CUT	MIN.	MINIMUM
C. TO C.	CENTER TO CENTER	N	NORTH
CONC.	CONCRETE	N.T.S.	NOT TO SCALE
CONSTR.	CONSTRUCTION	NO.	NUMBER
CONTR.	CONTRACTOR	O.C.	ON CENTER
COV.	COVER	O.D.	OUTER DIAMETER
CFS	CUBIC FEET PER SECOND	O.J.	OPEN JOINT
C.-J.	CONSTRUCTION JOINT	P, P	PROPERTY LINE
CP	CONTROL POINT	P.G.L.	PROFILE GRADE LINE
CORS.	COURSE	PSE&G	PUBLIC SERVICE ELECTRIC AND GAS
CY	CUBIC YARD	PROP.	PROPOSED
Ø, DIA.	DIAMETER	PVMT.	PAVEMENT
DEG.	DEGREE	R	RADIUS
E	EAST	R.C.P.	REINFORCED CONCRETE PIPE
E.F.	EACH FACE	R.F.	REAR FACE
EL., ELEV.	ELEVATION	R.O.W.	RIGHT OF WAY
E.C.	EQUAL SPACE, EACH SIDE	R.R.S.P.	RIPRAP STONE PROTECTION
E.W.	EACH WAY	RCCP	REINFORCED CONCRETE CULVERT PIPE
EX., EXIST.	EXISTING	RE	DEPARTMENT'S FIELD REPRESENTATIVE, RESIDENT ENGINEER
F	FILL	REINF.	REINFORCED
F.F.	FRONT FACE	RT.	RIGHT
FT.	FEET	S	SOUTH
FERT.	FERTILIZER	S.C.F.	SECTION CONTROL FENCE
GAL.	GALLON	SEC.	SECTION
GR.	GRATE/GRADE	STA.	STATION
GRD.	GRADED	SURF.	SURFACE
H.P.	HIGH POINT	SW, SDWK	SIDEWALK
HMA	HOT MIX ASPHALT	SQ.	SQUARE YARD
I.D.	INNER DIAMETER	SQ.	SQUARE
INV.	INVERT	T.	TOP
JT.	JOINT	T.B.E.	TO BE REMOVED
L.P.	LOW POINT	T.O.G.	TOP OF GRATE
LS	LUMP SUM	THK.	THICK
LBS	POUNDS	TYP.	TYPICAL
LF	LINEAR FEET	UN	UNIT
LT.	LEFT	UP	UTILITY POLE
		VAR.	VARIABLE, VARIABLE
		W	WEST
		WP	WORKING POINT
		YR.	YEAR



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ESTIMATE AND DISTRIBUTION OF QUANTITIES

SEQUENCE NO.	NJDOT PAY ITEM NO.	DESCRIPTION	UNIT	CONTRACT QUANTITY	PLAN QUANTITY	IF & WHERE DIRECTED	AS-BUILT QUANTITY
1	151006M	PERFORMANCE BOND AND PAYMENT BOND	DOLL	1	1		
2	153003P	PROGRESS SCHEDULE	LS	1	1		
3	154003P	MOBILIZATION	LS	1	1		
4	157004M	CONSTRUCTION LAYOUT	DOLL	1	1		
5	158045M	FLOATING TURBIDITY BARRIER, TYPE 2	LF	150	150		
6	158072M	OIL ONLY EMERGENCY SPILL KIT, TYPE 1	U	1	1		
7	201003P	CLEARING SITE	LS	1	1		
8	501006P	PERMANENT SHEETING	SF	4,663	4,663		
9	502003P	FURNISHING EQUIPMENT FOR DRIVING PILES	LS	1	1		
10	506003P	STRUCTURAL STEEL	LS	1	1		

BOROUGH OF CARTERET
MARINA STRUCTURE AT
CARTERET FERRY TERMINAL AT ARTHUR KILL
(BLOCK 304 LOTS 2.01 AND 2.02)
 BOROUGH OF CARTERET, MIDDLESEX COUNTY, NEW JERSEY

CONSTRUCTION LEGEND
AND GENERAL NOTES

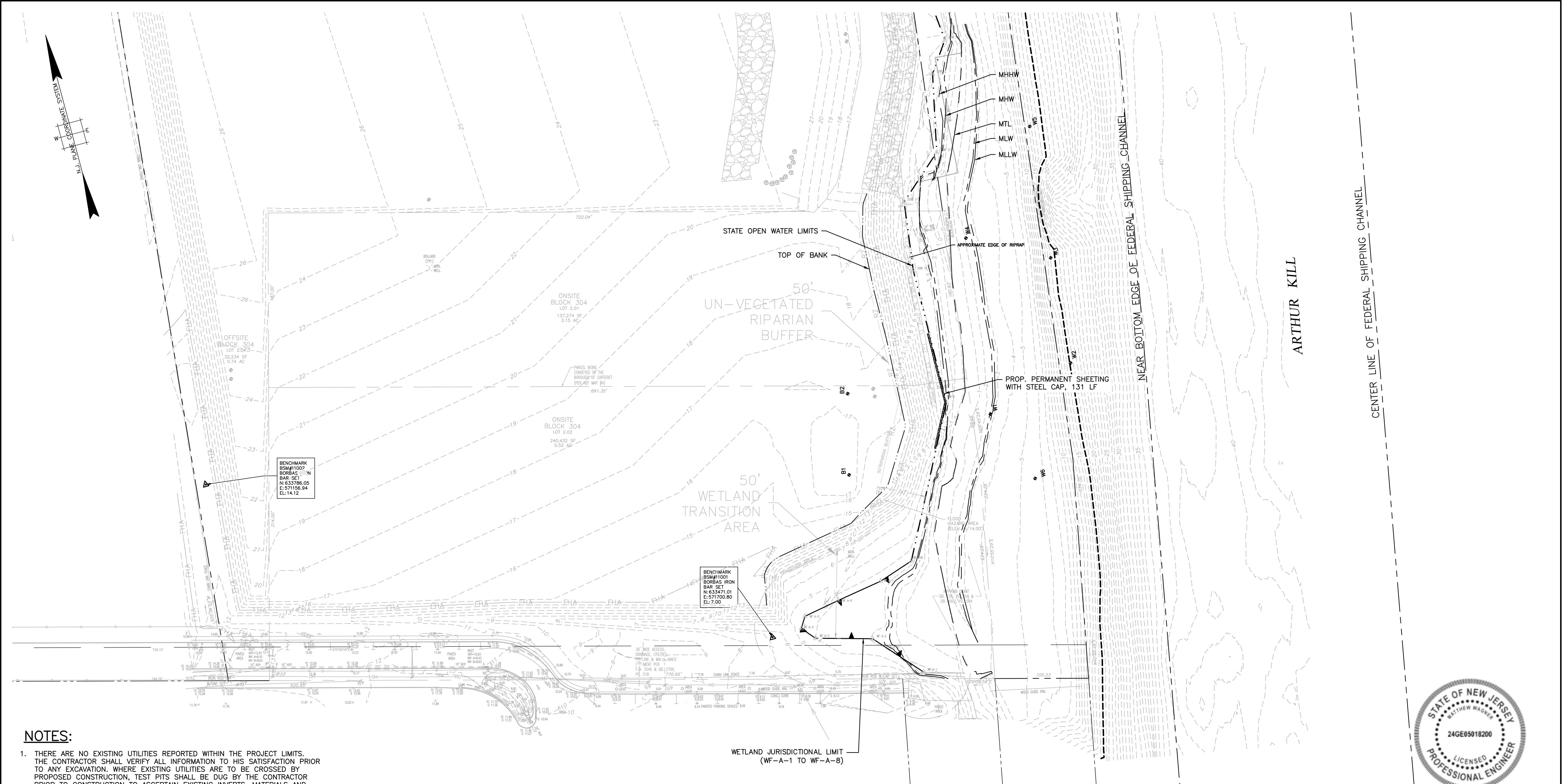
MATTHEW J. WAGNER, P.E.
 CONSULTING ENGINEER

DATE: 4/29/2022
 LICENSED PROFESSIONAL ENGINEER
 STATE OF NJ LICENSE NO. 24GE05018200

SHEET **2** OF **5**

PROJECT INFORMATION:
 FILE PATH: C:\Projects\CART_02534\Plans\
 FILE NAME: CART02534_SPW_SHT002_LEG.dwg
 LAST SAVE BY: Hagaraboni
 LAST SAVE DATE: 26 Apr 2022, 10:00AM

PROJECT INFORMATION:
 FILE PATH: C:\Projects\CART\02534\Plans\...
 FILE NAME: CART02534_SPW_SHT003_LFC.dwg
 LAST SAVE BY: MCGARDIN
 LAST SAVE DATE: 26 Apr 2022, 4:42PM



NOTES:

1. THERE ARE NO EXISTING UTILITIES REPORTED WITHIN THE PROJECT LIMITS. THE CONTRACTOR SHALL VERIFY ALL INFORMATION TO HIS SATISFACTION PRIOR TO ANY EXCAVATION. WHERE EXISTING UTILITIES ARE TO BE CROSSED BY PROPOSED CONSTRUCTION, TEST PITS SHALL BE DUG BY THE CONTRACTOR PRIOR TO CONSTRUCTION TO ASCERTAIN EXISTING INVERTS, MATERIALS AND SIZES. TEST PIT INFORMATION SHALL BE GIVEN TO THE RE PRIOR TO CONSTRUCTION TO PERMIT ADJUSTMENTS AS MAY BE REQUIRED TO AVOID CONFLICTS.
2. EXISTING HYDROGRAPHIC SURVEY INFORMATION SHOWN IS FROM THE SURVEY PERFORMED IN 2018 FROM THE TOE OF SLOPE ALONG THE ARTHUR KILL TO THE EAST OF THE U.S. PIERHEAD LINE.
3. HORIZONTAL SYSTEM IS NAD 1983 COORDINATE SYSTEM AND VERTICAL DATUM IS NAVD 1988. (NGVD29 = NAVD + 1.056').
4. EXISTING TOPOGRAPHY INFORMATION PROVIDED BY BORBAS SURVEYING & MAPPING, LLC IN A CAD FILE TITLED, "120505_2021-04-29_TOPO_CAP_SEND," ON APRIL 29, 2021. GRADES CORRESPOND TO TOPOGRAPHY SHOWN ON APPROVED PLANS TITLED, "TOPOGRAPHIC AS-BUILT SURVEY OF DGA CAP DUPONT (FORMER AGRICO DUPONT SITE) LOTS 1.01, 1.02, & 2.01 BLOCK 5.02, BOROUGH OF CARTERET, MIDDLESEX COUNTY, NEW JERSEY," DATED NOVEMBER 17, 2020, LAST REVISED APRIL 29, 2021.
5. SUBSURFACE MOD INFORMATION TAKEN FROM A PLAN TITLED, "EXHIBIT B, FORMER AGRICO SITE, CARTERET, NJ," PREPARED BY GEOSYNTEC CONSULTANTS, DATED OCTOBER 2018.
6. THE PERMANENT SHEETING IS ANTICIPATED TO BE CONSTRUCTED USING A BARGE, ANCHORED IN THE ARTHUR KILL. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN ANY ADDITIONAL PERMITS REQUIRED TO CONSTRUCT THE SHEETING USING A BARGE SYSTEM. IF THE ACQUISITION OF ANY ADDITIONAL PERMITS RESULTS IN A FINAL COMPLETION DATE BEYOND SPECIFIED IN THE CONTRACT SPECIFICATIONS, THE CONTRACTOR MAY COORDINATE WITH BOROUGH OF CARTERET TO USE THE ADJACENT LAND AS A STAGING AND/OR LAYDOWN AREA. THE CONTRACTOR SHALL NOT ASSUME THE AVAILABILITY OF AREA ADJACENT TO SHEETING FOR STAGING AND/OR LAYDOWN AREA WITHOUT PRIOR APPROVAL FROM THE BOROUGH AND NJDOT.

FLOOD HAZARD NOTES:

1. 100-YEAR FLOOD ELEVATION = 14.00 FT, NAVD 88
2. FLOOD HAZARD ELEVATION IS EQUAL TO THE 100-YEAR FLOOD ELEVATION IN A TIDAL FLOOD HAZARD AREA.
3. FLOOD ELEVATION TAKEN FROM FEMA FLOOD INSURANCE RATE MAP, MAP NUMBER 34023C0079G, REVISED PRELIMINARY JANUARY 30, 2015.
4. THE EXISTING 50' RIPARIAN BUFFER AREA IS UN-VEGETATED AND PREVIOUSLY DISTURBED UNDER PERMIT NO. FHA IP & WFD IP 1201-08-0001.1 LUP20001.

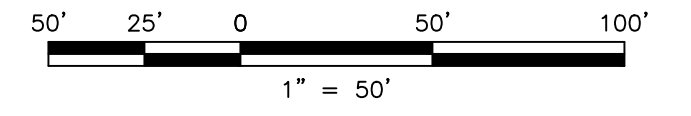
LEGEND:

- BORINGS:**
- B# INDICATES LOCATION OF LAND BORINGS
 - W# INDICATES LOCATION OF WATER BORINGS

TIDAL INFORMATION:

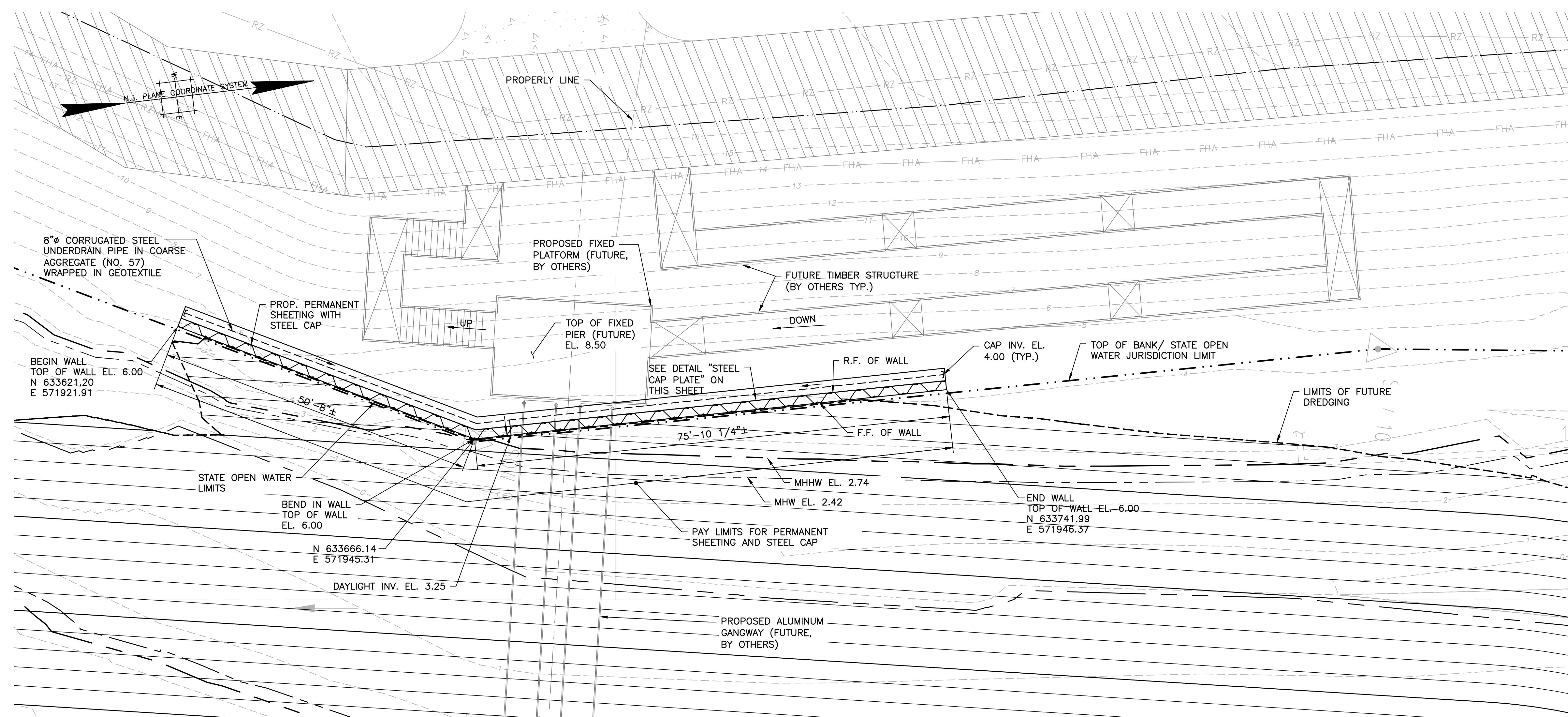
(NOAA STATION: BERGEN POINT WEST REACH, NJ)
 DATUM : NAVD 1988
 MHHW = 2.74
 MHW = 2.42
 MTL = -0.07
 MLW = -2.56
 MLLW = -2.77

THIS IS NOT A BOUNDARY SURVEY
 PROPERTY LINES, R.O.W. LINES AND/OR EASEMENTS DEPICTED HEREON ARE DERIVED PRIMARILY FROM TAX MAP INFORMATION. SAID LINES ARE SUBJECT TO CHANGE IN ACCORDANCE WITH SUCH FACTS AS AN ACCURATE SURVEY AND/OR TITLE SEARCH OF THE ENTIRE TRACT OR TRACTS MAY DISCLOSE.



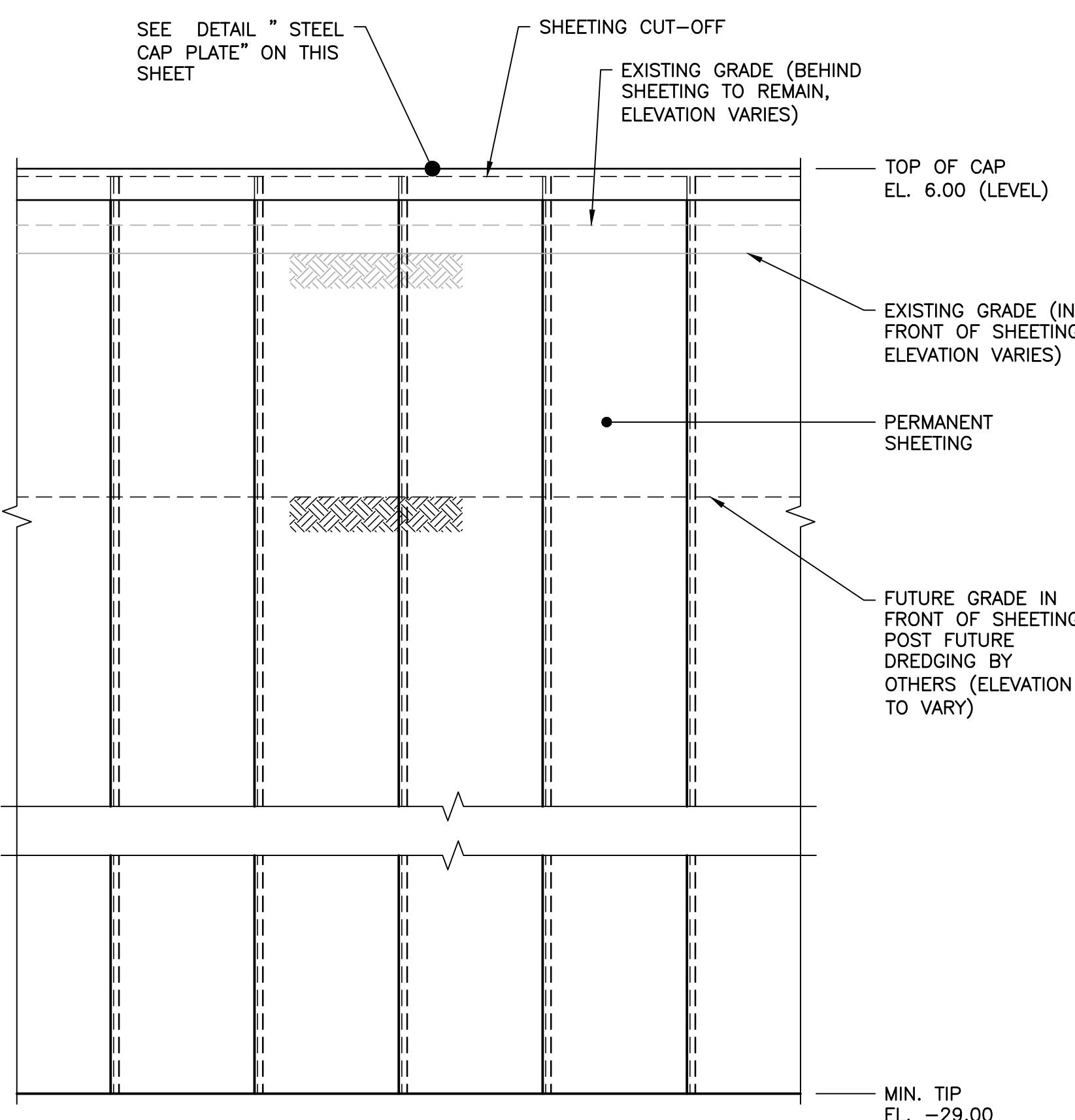
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 YOUR GOALS. OUR MISSION. 11 TINDALL ROAD MIDDLETOWN, NJ 07748 TEL: 732-671-8400 FAX: 732-671-7365 www.landmassassociates.com NEW JERSEY BOARD OF PROFESSIONAL ENGINEERS AND LAND SURVEYORS CERTIFICATE OF AUTHORIZATION 26A27897500	BOROUGH OF CARTERET MARINA STRUCTURE AT CARTERET FERRY TERMINAL AT ARTHUR KILL (BLOCK 304 LOTS 2.01 AND 2.02) BOROUGH OF CARTERET, MIDDLESEX COUNTY, NEW JERSEY	OVERALL SITE PLAN	SHEET 3 OF 5
	MATTHEW J. WAGNER, P.E. CONSULTING ENGINEER LICENSED PROFESSIONAL ENGINEER STATE OF NJ LICENSE NO. 24GE05018200	DATE: 4/29/2022 SCALE: AS SHOWN DRAWING: STE-1	NO. DATE REVISIONS BY CHECKED _____ _____ _____ _____ _____



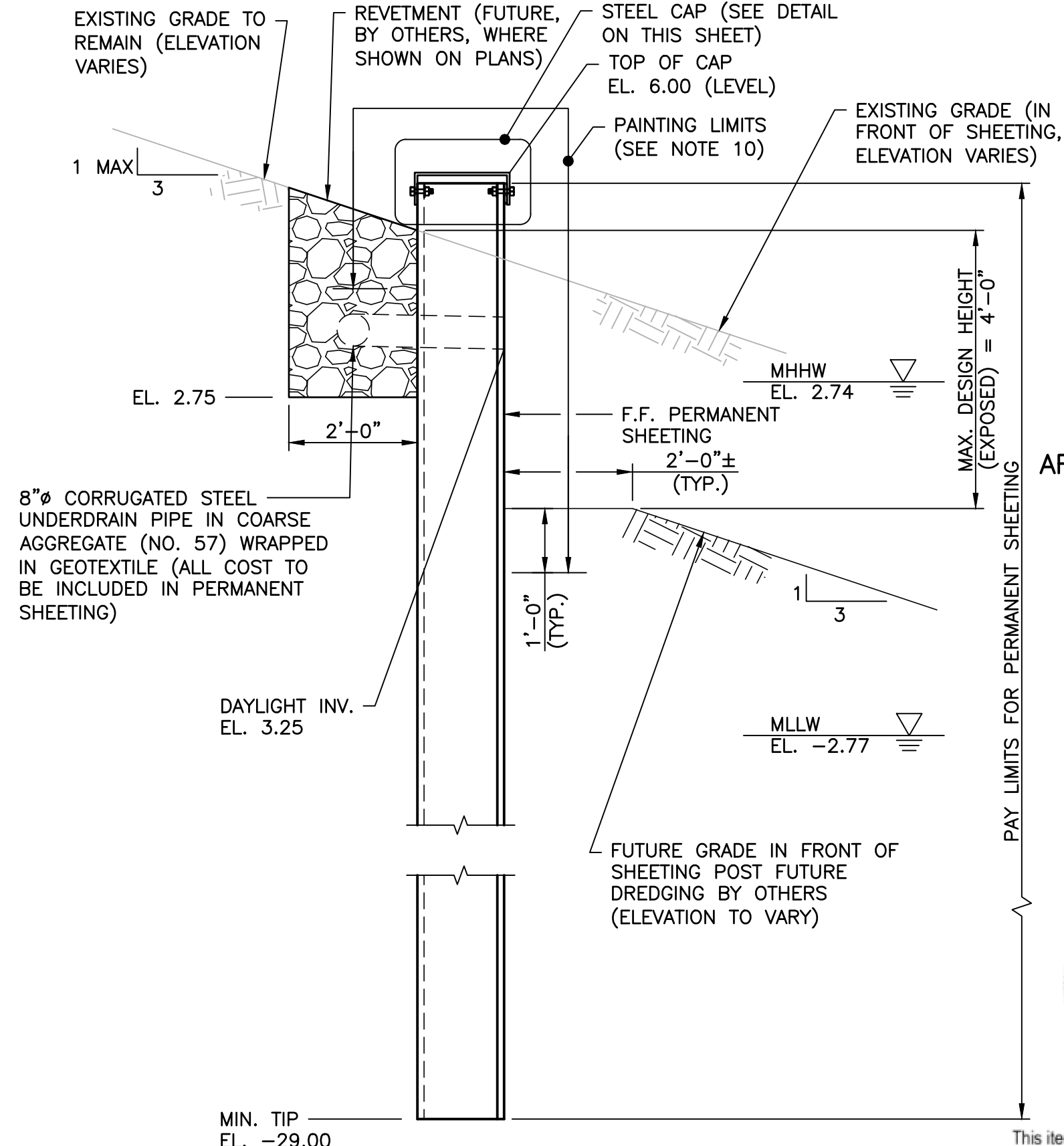
PERMANENT SHEETING - PLAN

SCALE: 1" = 10'



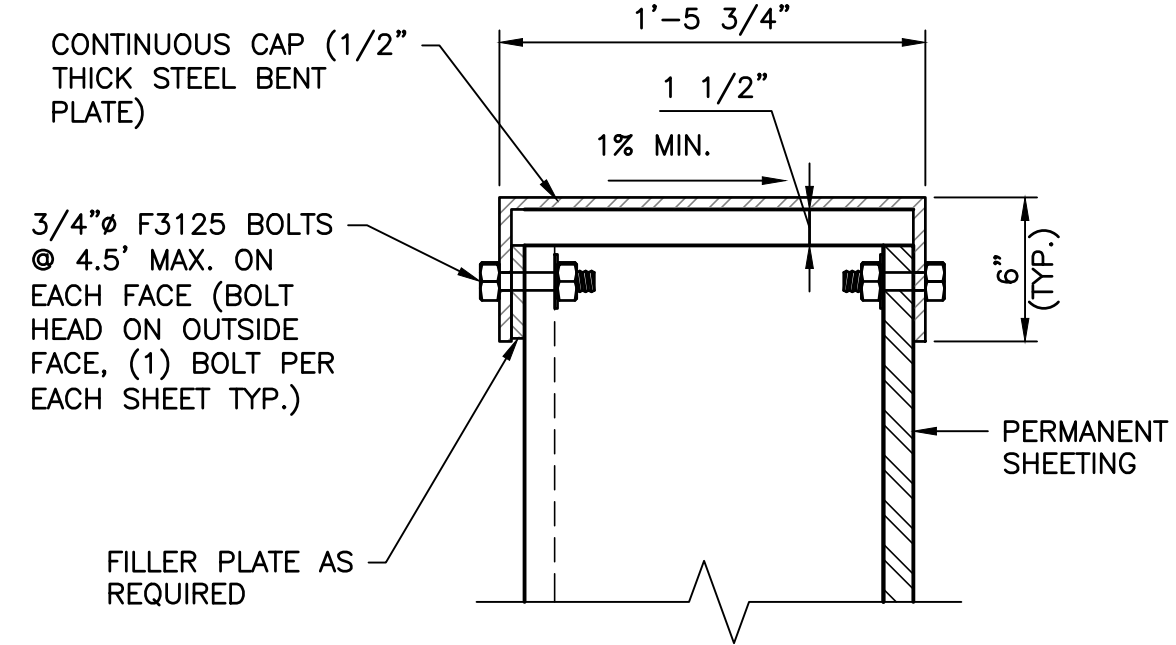
TYPICAL ELEVATION

SCALE: 1/2" = 1'-0"



TYPICAL SECTION

SCALE: 1/2" = 1'-0"



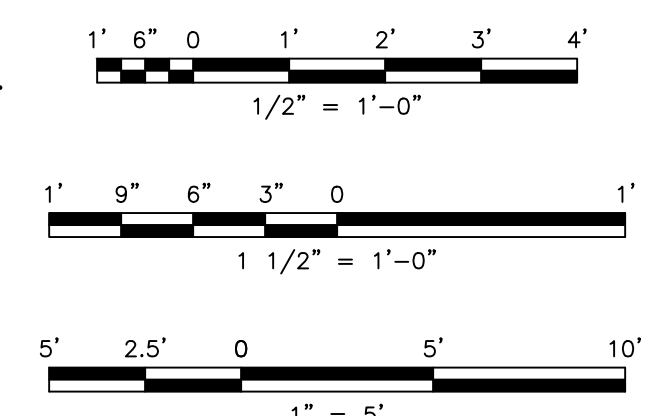
TYPICAL STEEL CAP DETAIL

SCALE: 1 1/2" = 1'-0"

- NOTES:**
- STEEL CAP SHALL BE WELDED AT SPLICE JOINT.
 - STEEL CAP SHALL HAVE THE SAME FINISH AS SHEET PILE.

TIDAL INFORMATION:

(NOAA STATION: BERGEN POINT WEST REACH, NY)
 DATUM : NAVD 1988
 MHHW = 2.74
 MHW = 2.42
 MTL = -0.07
 MLW = -2.56
 MLLW = -2.77



REFERENCE:

- FOR OVERALL EXISTING CONDITIONS, SITE PLAN AND BORING LOCATIONS, SEE DWG. STE-1.



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NO.	DATE	REVISIONS	BY	CHECKED

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GENERAL NOTES:

- DESIGN SPECIFICATIONS:**
2020 (9TH EDITION) AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS AS MODIFIED BY SECTION 3 OF THE NJDOT DESIGN MANUAL FOR BRIDGES AND STRUCTURES, 6TH EDITION, 2016.
- CONSTRUCTION SPECIFICATIONS:**
2019 NJDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION WITH THE CURRENT SUPPLEMENTARY SPECIFICATIONS, AS MODIFIED BY THE SPECIAL PROVISIONS.
- LIVE LOAD:** 80 PSF SURCHARGE
- STRUCTURAL STEEL:**
(a) ALL STRUCTURAL STEEL REQUIRED FOR STEEL CAP SHALL CONFORM TO AASHTO M270M (ASTM 709), GRADE 50. ALL SHIMS/FILLER PLATE SHALL CONFORM TO AASHTO M270M (ASTM 709), GRADE 36.
(b) ALL STRUCTURAL STEEL SHALL BE NEW, CLEAN AND STRAIGHT.
(c) ALL SHOP AND FIELD WELDING SHALL BE PERFORMED BY WELDERS CERTIFIED, AS DESCRIBED IN "AMERICAN WELDING SOCIETY'S STANDARD QUALIFICATION PROCEDURE", AWS D1.5, TO PERFORM THE TYPE OF WORK REQUIRED.
(d) ALL STEEL WELDING RODS SHALL BE E70XX.
(e) ALL BOLTED CONNECTIONS, INCLUDING NUTS, HARDENED WASHERS AND HIGH STRENGTH BOLTS SHALL CONFORM TO ASTM F3125.
(f) ALL FIELD CONNECTIONS SHALL BE MADE WITH 3/4" DIAMETER BOLTS WITH HARDENED WASHERS UNDER TURNED ELEMENTS (NUTS OR BOLT HEAD) UNLESS OTHERWISE NOTED.
(g) MINIMUM BOLT EDGE DISTANCE SHALL BE 1 1/2" UNLESS OTHERWISE NOTED. IF CONNECTION DETAILS REQUIRE ADJUSTMENT BASED ON FIELD CONDITIONS, ALL CHANGES SHALL BE MADE AT NO COST TO THE OWNER.
(h) SUBMIT ALL STEEL SHOP DRAWINGS FOR REVIEW AND APPROVAL PRIOR TO ANY FABRICATION.
(i) THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ADEQUATE TEMPORARY BRACING AS NEEDED AND SHALL INCLUDE IT ON THE SHOP DRAWINGS FOR REVIEW AND APPROVAL BY THE ENGINEER.
- SEISMIC LOAD:**
(a) SEISMIC ACCELERATION COEFFICIENT, "A" = 0.169
(b) SEISMIC PERFORMANCE ZONE = 1
(c) SITE CLASS = D
- ESTIMATED SOIL PROPERTIES:**

EL. > -3.0	SOIL TYPE: FILL	γ: 120 PCF	φ: 32°	c: 100 PSF
EL. -3 TO -13	SOIL TYPE: ORGANICS	γ: 90 PCF	φ: 0°	c: 200 PSF
EL. -13 TO -18	SOIL TYPE: SILT/CLAY	γ: 110 PCF	φ: 27.5°	c: 1750 PSF
EL. < -18	SOIL TYPE: SANDS	γ: 120 PCF	φ: 32°	c: 1750 PSF

FOR LAND AND BORING LOCATIONS, SEE DWG. STE-1.
FOR BORING LOGS, SEE DWG. BOR-1. THE GEOTECHNICAL REPORT WILL BE AVAILABLE AT COUNTY CLERK'S OFFICE, UPON WRITTEN REQUEST.
- ELEVATION DATUM:**
HORIZONTAL DATUM IS THE NEW JERSEY PLANE, COORDINATE SYSTEM, NORTH AMERICAN DATUM 1983.
ELEVATIONS REFER TO THE NORTH AMERICAN VERTICAL DATUM, 1988.
- THE CONTRACTOR SHALL EXAMINE AND VERIFY IN THE FIELD ALL EXISTING CONDITIONS AND DIMENSIONS WITH THOSE SHOWN ON THE PLANS. IF FIELD CONDITIONS AND DIMENSIONS DIFFER FROM THOSE SHOWN ON THE PLANS, THE CONTRACTOR SHALL USE THE FIELD CONDITIONS AND DIMENSIONS AND MAKE THE APPROPRIATE CHANGES TO THOSE SHOWN ON THE PLANS AS APPROVED BY THE ENGINEER. THE RESULTS OF THIS CHECK OF CONDITIONS AND DIMENSIONS SHALL BE SO NOTED ON THE DRAWINGS SUBMITTED FOR APPROVAL.
- THERE SHALL BE NO CLAIM AGAINST THE OWNER MADE BY THE CONTRACTOR FOR WORK PERTAINING TO MODIFICATIONS AS MAY BE REQUIRED DUE TO ANY DIFFERENCES BETWEEN ACTUAL FIELD CONDITIONS AND THE DETAILS AND DIMENSIONS SHOWN ON THE CONTRACT PLANS.
- STEEL SHEETING AND STEEL CAP SHALL BE PAINTED FOR FULL LENGTH TO THE LIMITS SHOWN IN COLOR BLACK IN ACCORDANCE WITH THE CONTRACT SPECIFICATIONS.

PERMANENT SHEETING NOTES:

- THE PERMANENT SHEETING SHALL BE INSTALLED LANDWARD OF THE STATE OPEN WATER JURISDICTION LIMIT AND MHHW LIMIT.
- THE CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS AND ELEVATIONS PRIOR TO FABRICATION AND CONSTRUCTION OF STEEL SHEET PILES FOR PERMANENT SHEETING WALL.
- STEEL SHEET PILE SECTIONS SHALL BE NZ-22 MANUFACTURED BY NUCOR-SKYLINE STEEL OR APPROVED EQUAL. SECTIONS WITH MINIMUM MOMENT OF INERTIA OF 336.9 IN⁴/FT. AND MINIMUM SECTION MODULUS OF 41.47 IN³/FT.
- CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING LENGTH OF SHEET PILES NEEDED TO DRIVE.
- STEEL SHEET PILE SECTIONS SHALL BE MINIMUM OF 0.48" THICK.
- ALL SHEET PILE STEEL SHALL CONFORM TO ASTM A572, GRADE 60.
- COLD FORMED SHEETING WILL NOT BE ALLOWED ON THIS PROJECT.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ADEQUATE TEMPORARY BRACING AS NEEDED AND SHALL INCLUDE IT ON THE SHOP DRAWINGS FOR REVIEW AND APPROVAL BY THE ENGINEER.
- ALL OBSTRUCTIONS/BOULDERS SHOULD BE CLEARED AS NECESSARY FROM THE WALL ALIGNMENT. THE COST SHALL BE INCLUDED IN THE PRICE BID FOR THE PAY ITEM "CLEARING SITE".
- ALL COST OF MATERIAL REQUIRED FOR SHEETING INCLUDING SHIPPING, SHOP DRAWINGS, SHOE, AND ANY INCIDENTAL ITEM REQUIRED TO INSTALL THE SHEETING AS SHOWN ON THE PLAN SHALL BE INCLUDED IN THE PRICE BID FOR THE PAY ITEM "PERMANENT SHEETING".
- ALL COST OF MATERIAL, EQUIPMENT, LABOR AND PERMITS, IF REQUIRED ANY, SHOP DRAWING, REQUIRED FOR INSTALLING THE SHEETING AS SHOWN ON THE PLAN SHALL BE INCLUDED IN THE PRICE BID FOR THE PAY ITEM "FURNISHING EQUIPMENT FOR DRIVING PILES".



BOROUGH OF CARTERET
MARINA STRUCTURE AT
CARTERET FERRY TERMINAL AT ARTHUR KILL
(BLOCK 304 LOTS 2.01 AND 2.02)
 BOROUGH OF CARTERET, MIDDLESEX COUNTY, NEW JERSEY

PERMANENT SHEETING -
PLAN AND DETAILS

MATTHEW J. WAGNER, P.E.
 CONSULTING ENGINEER
 LICENSED PROFESSIONAL ENGINEER
 STATE OF NJ LICENSE NO. 24GE05018200

11 TINDALL ROAD
 MIDDLETOWN, NJ 07748
 TEL 732-671-6400
 FAX 732-671-7365

NEW JERSEY BOARD OF PROFESSIONAL ENGINEERS
 AND LAND SURVEYORS
 CERTIFICATE OF AUTHORIZATION 26A2789750

PROJECT NO. CART02534_SPH_SHT004_SHT.dwg
 PROJECT NO. CART02534
 DATE 4/29/2022
 SCALE AS SHOWN
 SHEET 4 OF 5

PROJECT INFORMATION:
 FILE PATH: C:\Projects\CART02534\Plans\
 FILE NAME: CART02534_SPH_SHT004_SHT.dwg
 DATE: 4/29/2022 9:50AM
 LAST SAVE BY: hcaudon

GENTECH

TEST BORING LOG

140 ROUTE 35 NORTH
CLIFFWOOD BEACH, NJ 07735

DATE START: 8/08/12
DATE FINISH: 8/08/12
DEPTH OF WATER: 9'-6"

BORING NO: B-1
BORING LOCATION: See Plan

CLIENT: T & M Associates
PROJECT: Carteret Ferry
Industrial Rd. Carteret, N.J. - Terminal
JOB NUMBER: 12-51

SAMPLER O.D.: 2"
SAMPLER HAMMER
WT.: 140 lbs. FALL: 30"

GROUND ELEV.:
SHEET 1 OF 3

Table with columns: DEPTH, CASING BLOWS PER FOOT, SAMPLE NO., DEPTHS FROM TO, BLOWS ON SAMPLER PER 6 INCHES, CLASSIFICATION OF MATERIALS. Includes soil descriptions like 'S-1: Red Br. Silt & Clay, some of Sand, crushed concrete, brick, stone (fill)'.

DRILLING CONTRACTOR: Unitech Drilling, Inc.
DRILLING CREW: Cunard Lopez & Brad

BORING LOG B-1 (PAGE 1 OF 3)
N.T.S.

TEST BORING LOG

Table with columns: DEPTH, CASING BLOWS PER FOOT, SAMPLE NO., DEPTHS FROM TO, BLOWS ON SAMPLER PER 6 INCHES, CLASSIFICATION OF MATERIALS. Includes soil descriptions like 'S-10: Grey mf SAND, little Silt'.

DRILLING INSPECTOR: RR/TB

BORING LOG B-1 (PAGE 2 OF 3)
N.T.S.

GENTECH

TEST BORING LOG

140 ROUTE 35 NORTH
CLIFFWOOD BEACH, NJ 07735

DATE START: 8/15/12
DATE FINISH: 8/15/12
DEPTH OF WATER: surface

BORING NO: W-1
BORING LOCATION: See Plan

CLIENT: T & M Associates
PROJECT: Carteret Ferry
Industrial Rd. Carteret, N.J. - Terminal
JOB NUMBER: 12-51

SAMPLER O.D.: 2"
SAMPLER HAMMER
WT.: 140 lbs. FALL: 30"

GROUND ELEV.:
SHEET 3 OF 3

Table with columns: DEPTH, CASING BLOWS PER FOOT, SAMPLE NO., DEPTHS FROM TO, BLOWS ON SAMPLER PER 6 INCHES, CLASSIFICATION OF MATERIALS. Includes soil descriptions like 'S-18: Same as S-17 (highly weathered rock)'.

DRILLING INSPECTOR: RR/TB

BORING LOG B-1 (PAGE 3 OF 3)
N.T.S.

GENTECH

TEST BORING LOG

140 ROUTE 35 NORTH
CLIFFWOOD BEACH, NJ 07735

DATE START: 8/09/12
DATE FINISH: 8/09/12
DEPTH OF WATER: 8'-6"
Wet @ 5'

BORING NO: B-2
BORING LOCATION: See Plan

CLIENT: T & M Associates
PROJECT: Carteret Ferry
Industrial Rd. Carteret, N.J. - Terminal
JOB NUMBER: 12-51

SAMPLER O.D.: 2"
SAMPLER HAMMER
WT.: 140 lbs. FALL: 30"

GROUND ELEV.:
SHEET 1 OF 2

Table with columns: DEPTH, CASING BLOWS PER FOOT, SAMPLE NO., DEPTHS FROM TO, BLOWS ON SAMPLER PER 6 INCHES, CLASSIFICATION OF MATERIALS. Includes soil descriptions like 'S-1: Red Brown m-f SAND, crushed brick & concrete (fill)'.

DRILLING CONTRACTOR: Unitech Drilling, Inc.
DRILLING CREW: Cunard Lopez & Brad

BORING LOG B-2 (PAGE 1 OF 2)
N.T.S.

TEST BORING LOG

Table with columns: DEPTH, CASING BLOWS PER FOOT, SAMPLE NO., DEPTHS FROM TO, BLOWS ON SAMPLER PER 6 INCHES, CLASSIFICATION OF MATERIALS. Includes soil descriptions like 'S-10: Grey mf SAND, some Silt & Clay'.

DRILLING INSPECTOR: RR/TB

BORING LOG B-2 (PAGE 2 OF 2)
N.T.S.

GENTECH

TEST BORING LOG

140 ROUTE 35 NORTH
CLIFFWOOD BEACH, NJ 07735

DATE START: 8/15/12
DATE FINISH: 8/15/12
DEPTH OF WATER: surface

BORING NO: W-1
BORING LOCATION: See Plan

CLIENT: T & M Associates
PROJECT: Carteret Ferry
Industrial Rd. Carteret, N.J. - Terminal
JOB NUMBER: 12-51

SAMPLER O.D.: 2"
SAMPLER HAMMER
WT.: 140 lbs. FALL: 30"

GROUND ELEV.:
SHEET 1 OF 1

Table with columns: DEPTH, CASING BLOWS PER FOOT, SAMPLE NO., DEPTHS FROM TO, BLOWS ON SAMPLER PER 6 INCHES, CLASSIFICATION OF MATERIALS. Includes soil descriptions like 'S-1: Dark Grey, SILT & CLAY, trace f Sand, organics (strong odor)'.

DRILLING CONTRACTOR: Unitech Drilling, Inc.
DRILLING CREW: Jay Freck, Cunard Lopez & Gene

BORING LOG W1
N.T.S.

PROJECT INFORMATION:
FILE PATH: C:\Projects\CART_02534\Plans\
FILE NAME: CART02534_SFW_SHT005_BOR.dwg
LAST SAVE BY: Hagan
LAST SAVE TIME: 15 Apr 2022, 12:23PM



This item has been electronically signed and sealed by Matthew Wagner using a Digital Signature and date. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

REFERENCE:

- 1. FOR BORING LOG LOCATIONS, SEE DWG. STE-1.

Table with columns: NO., DATE, REVISIONS, BY, CHECKED. Includes a copyright notice for T&M Associates.

Logo for AND M with text 'YOUR GOALS. OUR MISSION.' and contact information for T&M Associates. Includes project title 'BOROUGH OF CARTERET MARINA STRUCTURE AT CARTERET FERRY TERMINAL AT ARTHUR KILL' and signature of Matthew J. Wagner, P.E., dated 4/29/2022.