

SITE IMPROVEMENT PLANS FOR ANNE OUTTEN POND RETROFIT

SITE PLAN #16-0014 NORFOLK, VIRGINIA

NOVEMBER 8, 2016

UTILITY AND GOVERNING AGENCIES CONTACT LIST

WATER COMPANY
CITY OF NORFOLK
DEPARTMENT OF UTILITIES
NORFOLK, VIRGINIA 23501
TEL: (757) 664-6768

CABLE COMPANY
COX COMMUNICATIONS
225 CLARFIELD AVE
VIRGINIA BEACH, VA 23464
TEL: (757) 369-4819

PUBLIC TRANSPORTATION
HAMPTON ROADS TRANSIT
1500 MONTICELLO AVENUE
NORFOLK, VA 23510
TEL: (757) 222-9000
EXT. 6232

SANITARY SEWER COMPANY
HAMPTON ROADS SANITATION DISTRICT
1424 AIR RAIL AVENUE
VIRGINIA BEACH, VIRGINIA 23455
TEL: (757) 460-7072

POWER COMPANY
DOMINION VIRGINIA POWER
1601 HAMPTON AVENUE
PORTSMOUTH, VA 23707
TEL: (757) 393-3634

NORFOLK SMART TRAFFIC CENTER
CITY OF NORFOLK
TRANSPORTATION DIVISION
810 UNION ST.
ROOM 204
NORFOLK, VIRGINIA 23510
TEL: (757) 664-7304

GAS COMPANY
VIRGINIA NATURAL GAS
2301 CLEVELAND BLVD.
NORFOLK, VA 23502
TEL: (757) 616-7529

LOCAL ENGINEERING OFFICE
CITY OF NORFOLK PUBLIC WORKS
810 UNION ST.
ROOM 700
NORFOLK, VIRGINIA 23510
TEL: (757) 664-4655

TELEPHONE COMPANY
VERIZON
14382 CLEVELAND ST.
VIRGINIA BEACH, VA 23462
TEL: (757) 667-5819

DEPARTMENT OF HEALTH
COMMONWEALTH OF VIRGINIA
DIVISION OF WASTEWATER ENGINEERING
SOUTHERN AREA
5700 THURSTON AVENUE, SUITE 203
VIRGINIA BEACH, VIRGINIA 23455
TEL: (757) 363-3881

SURVEYOR:
KML CONSTRUCTION SERVICES
718 J CLYDE MORRIS BOULEVARD
NEWPORT NEWS, VIRGINIA 23601
TEL: (757) 596-4005
CONTACT: REBECCA SMITH
CONTACT: TODD DRENCH, LS

OWNER:
CITY OF NORFOLK
DEPARTMENT OF PUBLIC WORKS - OPERATIONS
2233 MCKANN AVE
TEL: (757) 623-4008
CONTACT: CW GASKILL, PE

ENGINEER:
KMLEY-HORN AND ASSOCIATES, INC.
4500 MAIN STREET
SUITE 500
VIRGINIA BEACH, VIRGINIA 23462
TEL: (757) 355-6660
CONTACT: REBECCA SMITH
CONTACT: STEPHEN THUN, PE

SITE SUMMARY
SITE ADDRESS: ANNE STREET
GPIN: 1438204510
CENTER OF PROJECT: LAT 36.860593, LONG -76.279845

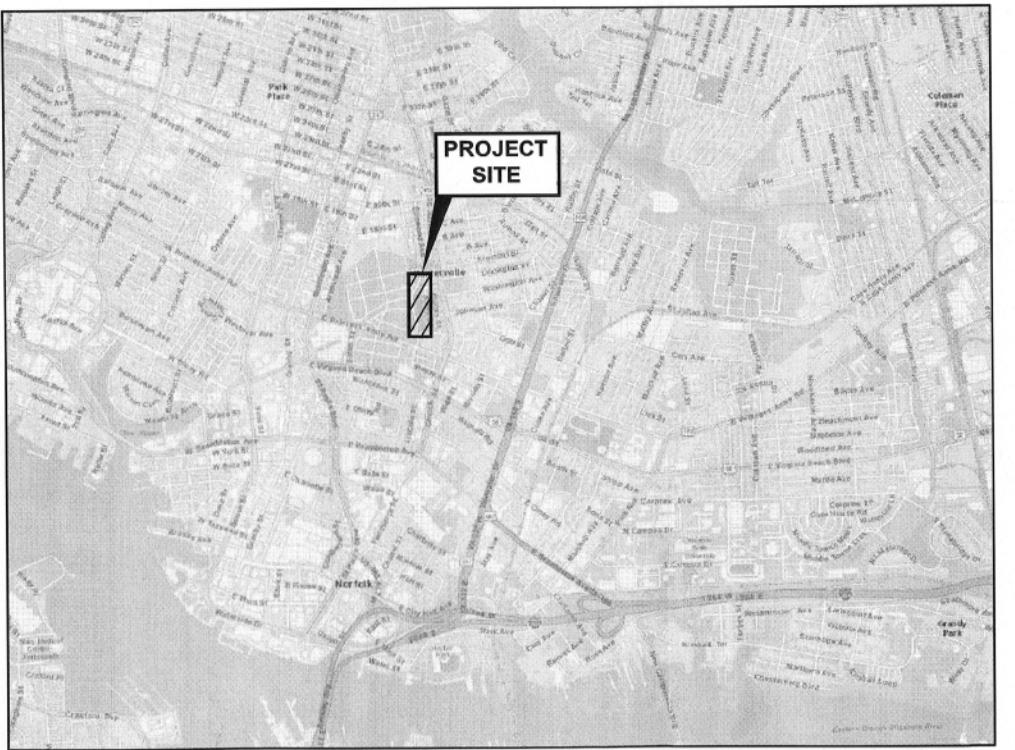
EXISTING USE: POND
PROPOSED USE: POND

TOTAL PARCEL AREA: 4.42 AC
TOTAL DISTURBED AREA: 4.4 AC
ZONING/EXISTING USE: R-9
ZONING/PROPOSED USE: R-9
ADJACENT PROPERTY ZONING: OSP, R-B, R-9, R-13

FLOOD PLAIN
MARKED ON MAP 5101040135E DATED SEPTEMBER 2, 2009. A PORTION OF THIS SUBJECT PROPERTY LIES WITHIN FLOOD ZONE "AE". THESE AREAS ARE SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD WITH BASE FLOOD ELEVATION OF "A". AREAS OF 1% ANNUAL CHANCE FLOOD WITHIN THE SHADED "A" AREAS ARE SUBJECT TO INUNDATION BY THE 0.2% ANNUAL CHANCE FLOOD. AREAS OF 1% ANNUAL CHANCE FLOOD WITH AVERAGE DEPTHS LESS THAN 1 FOOT OR LESS DRAGGED AREA AREAS OF 1% ANNUAL CHANCE FLOOD AREAS PROTECTED BY LEVELS FROM 1% ANNUAL CHANCE FLOOD.

EXISTING IMPERVIOUS COVER: 0 AC
PROPOSED IMPERVIOUS COVER: 0 AC
OWNERSHIP OF BMP: CITY OF NORFOLK
NET POND LEVEL 2
WATER QUALITY TREATMENT VOLUME REQUIRED: 8.08 AC-FT
WATER QUALITY TREATMENT VOLUME PROVIDED: 8.55 AC-FT
DRAINAGE AREA TREATED BY PROPOSED BMP: 99.40 ACRES

RECORD DRAWING AND CONSTRUCTION CERTIFICATION NOTE:
THE STORMWATER MANAGEMENT/BMP FACILITY AND ASSOCIATED STORMWATER CONVEYANCE SYSTEM(S) AS PROPOSED FOR THIS PROJECT WILL REQUIRE THE SUBMISSION, REVIEW AND APPROVAL OF A RECORD DRAWING (AS-BUILT) AND CONSTRUCTION CERTIFICATION. A COPY OF THE RELEASE OF THE CSO RECORD DRAWING AND CONSTRUCTION CERTIFICATION IS REQUIRED TO BE RECORDED AND CHECKED BY A LICENSED SURVEYOR.



VICINITY MAP

SITE NOTES

- CONTRACTOR SHALL CONTACT CITY OF NORFOLK, ENVIRONMENTAL STORM WATER MANAGEMENT AT (757) 823-4089, 48 HOURS (MINIMUM) PRIOR TO LAND DISTURBANCE TO SCHEDULE A PRE-CONSTRUCTION CONFERENCE AND INSPECTION REQUIREMENT WHEN A BMP IS PROPOSED AND ADJACENT TO CITY STORM DRAIN SYSTEM.
- THE CONTRACTOR SHALL CONTACT THE CITY OF NORFOLK, BUREAU OF ENVIRONMENTAL SERVICES AT (757) 664-4368, AT LEAST 30 DAYS PRIOR TO CONSTRUCTION ACTIVITIES SO THAT THE LAND DISTURBING PERMIT CAN BE ISSUED AND A PRE-CONSTRUCTION CONFERENCE CAN BE SCHEDULED.
- THIS SITE REQUIRES A VARIOUS GENERAL PERMIT FOR STORMWATER DISCHARGE FROM CONSTRUCTION ACTIVITIES. THE CONTRACTOR IS REQUIRED TO SECURE PERMIT COVERAGE FROM THE VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY (DEQ) PRIOR TO COMMENCEMENT OF CONSTRUCTION ACTIVITIES AS REQUIRED BY THE PROJECT BY SUBMITTING A COMPLETED REGISTRATION STATEMENT AND PAYING THE APPROPRIATE PERMIT FEE TO THE CITY OF NORFOLK, BUREAU OF ENVIRONMENTAL SERVICES FOR ENSURING PERMIT COMPLIANCE DURING CONSTRUCTION INCLUDING BUT NOT LIMITED TO INSPECTIONS, SWPPP UPDATES, ETC. CONTACT BUREAU OF ENVIRONMENTAL SERVICES AT (757) 664-4368 FOR FURTHER INFORMATION.
- CONTRACTOR SHALL PERFORM NO WORK IN RIGHT OF WAY. CONTRACTOR SHALL NOT USE THE RIGHT OF WAY AS A LAYDOWN OR STORAGE FOR EQUIPMENT.
- THE ROADWAY AND WALKWAY ACCESS ADJACENT TO THE SITE SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION.

RESPONSIBLE LAND DISTURBER DESIGNATION

THE FOLLOWING PERSON IS IDENTIFIED AS THE RESPONSIBLE LAND DISTURBER WHO WILL BE IN CHARGE OF AND RESPONSIBLE FOR CARRYING OUT THE LAND DISTURBING ACTIVITIES. THIS INDIVIDUAL MUST APPLY FOR PERMITS PURSUANT OF VIRGINIA CODE SECTION 10.1-563 AND 10.1-566 BY VIRTUE OF THE FOLLOWING (CHECK THE CATEGORY THAT APPLIES):

RESPONSIBLE LAND DISTURBER CERTIFICATE
 DCR CERTIFICATION FOR COMBINED ADMINISTRATOR, ADMINISTRATOR, PLAN REVIEWER, INSPECTOR, OR CONTRACTOR
 VA PROFESSIONAL ENGINEER, LAND SURVEYOR, LANDSCAPE ARCHITECT OR ARCHITECT

UPON AWARD OF THE CONTRACT AND BEFORE ANY LAND DISTURBING ACTIVITY BEGINS, THE CONTRACTOR SHALL NOTIFY AND SUBMIT A RESPONSIBLE LAND DISTURBER NOTIFICATION FORM TO:

THE DEPARTMENT OF PLANNING, ENVIRONMENTAL SERVICES
RM 508, CITY HALL BUILDING
810 UNION STREET
NORFOLK, VA 23510
TEL: (757) 664-4368



CITY OF NORFOLK APPROVED FOR CONSTRUCTION	DATE
DIRECTOR OF CITY PLANNING Approval <i>Joyce Rugh</i>	12/16/16
REVISIONS DATE BY	

1 NEIR, ENDURED DETENTION, GRADING UPDATES	9/27/16 ACC
© 2016 KMLEY-HORN AND ASSOCIATES, INC. 4500 MAIN STREET, SUITE 500, VIRGINIA BEACH, VA 23462	
PHONE: 757-213-8601 FAX: 757-213-8601	
www.kmley-horn.com	
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1	TITLE SHEET
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3	EXISTING CONDITIONS
4	EROSION AND SEDIMENT CONTROL PLAN
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7	PROFILE
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9	AERATION PLAN
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12	PLANTING DETAILS

ANNE OUTTEN RETROFIT PREPARED FOR CITY OF NORFOLK	TITLE SHEET	APPROVED FOR CONSTRUCTION		PLAN STATUS
		DATE	INITIAL	DESCRIPTION
		11/8/16	SDT	POST-SITE PLAN APPROVAL PLAN REVISION 1
		12/06/16	SDT	CITY SUBMITTAL FOR SIGNATURES AND ISSUED FOR BID
				SHEET NUMBER 1
				CITY OF NORFOLK VIRGINIA

GENERAL NOTES

- THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACING, WITH MATCHING MATERIALS ANY PAVEMENT, DRIVEWAY, WALKS, CURBS, TRAFFIC SIGNAL DEVICES, MARKINGS, ETC. THAT MAY BE CUT, OR THAT ARE DAMAGED DURING CONSTRUCTION.
- THE CONSTRUCTION SITE, ADJACENT AREAS, AND RIGHT-OF-WAYS SHALL BE KEPT CLEAN AND CLEAR OF CONSTRUCTION DEBRIS AT ALL TIMES.
- THE CONTRACTOR SHALL ADHERE TO THE VIRGINIA DEPARTMENT OF TRANSPORTATION SPECIFICATIONS WITH THE CITY OF NORFOLK AS THE CONTRACTOR'S DESIGNER.
- FOR CONSTRUCTION IN OR ADJACENT TO ANY ARTERIAL, AND/OR COLLECTOR STREETS REQUIRING TEMPORARY LANE OR STREET CLOSURE, THE CONTRACTOR MUST SCHEDULE A MEETING WITH THE CITY'S TRAFFIC MITIGATION TEAM. PLEASE CONTACT THE CITY'S TRAFFIC MITIGATION TEAM AT (757) 644-2644 OR (757) 644-2648.
- THE CONTRACTOR SHALL RESTORE ALL DISTURBED AREAS TO PRE-CONSTRUCTION CONDITIONS OR BETTER.

SEQUENCE OF CONSTRUCTION

- OBTAIN NECESSARY PERMITS BEFORE THE START OF CONSTRUCTION.
- CONTRACTOR SHALL CONTACT CITY OF NORFOLK, ENVIRONMENTAL STORM WATER MANAGEMENT AT (757) 823-4089, AND THE BUREAU OF ENVIRONMENTAL SERVICES AT (757) 644-4368 48 HOURS (MINIMUM) PRIOR TO LAND DISTURBANCE ACTIVITIES.
- THE CONTRACTOR SHALL CALL MISSISSIPPI UTILITY 72 HOURS PRIOR TO ANY EXCAVATION WORK.
- INSTALL STABILIZED CONSTRUCTION ENTRANCES.
- INSTALL EROSION AND SEDIMENT CONTROL MEASURES, INCLUDING: INLET PROTECTION, TREE PROTECTION, COMBINATION FILTERS, AND SEDIMENT CONTROLS LOCATED ON THE PLANS.
- BED CLEARING AND GRUBBING OF THE SITE AS INDICATED ON THE PLANS.
- PROVIDE TEMPORARY STABILIZATION FOR DENUDED AREAS THAT WILL NOT BE PERMANENTLY STABILIZED WITHIN A 14 DAY PERIOD.
- GRAVE DREDGE TO MEET PROPOSED ELEVATIONS.
- STABILIZE MUDLINES WITH COIR FIBER PLUGS AND PLANTINGS.
- CONDUCT DUMP OPERATION AND PERMANENT STABILIZATION OF WETLAND CELLS (INCLUDING TOPSOIL, SEEDING, MATTING, AND PLANTINGS). DUMP DOWN OPERATION SHALL INCLUDE SEDIMENT CONTROL IN ACCORDANCE WITH THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK.
- PROMPTLY PROVIDE PERMANENT STABILIZATION IN ACCORDANCE WITH THE GRADING PLAN AND PLANTING PLAN.
- THE PROJECT DESIGNER SHALL PERFORM A FINAL SITE INSPECTION. ALL COMMENTS RECEIVED BY THE CONTRACTOR SHALL BE RESOLVED BY THE PROJECT DESIGNER WITHIN 14 DAYS OR LONGER.
- REMOVAL OF ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES IN ACCORDANCE WITH THE LATEST EDITION OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK. DO NOT REMOVE EROSION CONTROL MEASURES UNTIL THE ENTIRE SITE HAS BEEN PERMANENTLY STABILIZED.

SITE PREPARATION

- THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE EXACT LOCATIONS OF ALL EXISTING UTILITIES WITHIN THE PROJECT AREA PRIOR TO COMMENCEMENT OF CONSTRUCTION OPERATIONS.
- ALL DOWNSTREAM EROSION AND SEDIMENT CONTROL MEASURES SHALL BE DESIGNED AND CONSTRUCTED PRIOR TO THE COMMENCEMENT OF ANY UPSTREAM EARTHWORK ACTIVITIES. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED AND MAINTAINED BY THE CONTRACTOR IN ACCORDANCE WITH THESE PLANS AND THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK.
- THE CONTRACTOR IS RESPONSIBLE FOR LAYOUT AND STAKE-OUT OF ALL WORK COVERED UNDER THESE PLANS.
- ALL CONSTRUCTION AND DEMOLITION ACTIVITIES ASSOCIATED WITH THIS PROJECT SHALL BE ACCOMPLISHED IN SUCH A MANNER THAT CONSTRUCTION AND/OR WASTE MATERIALS DO NOT ENTER AQUATIC RESOURCES.

SITE MAINTENANCE NOTES

- THE CONTRACTOR SHALL REMOVE ALL TRASH AND DEBRIS FROM THE SITE ON A DAILY BASIS AND DISPOSE OF IT ACCORDING TO ALL LOCAL, STATE AND FEDERAL LAWS AND REGULATIONS.
- THE CONTRACTOR SHALL COORDINATE WITH OWNER OR OWNERS REPRESENTATIVE ON STORAGE OF EQUIPMENT AND SUPPLIES.
- THE CONTRACTOR SHALL PROVIDE ALL PROTECTION MEASURES AND DEVICES NECESSARY TO PROTECT THE PROPERTY OF THE OWNER AND OTHERS FROM DAMAGE DUE TO CONSTRUCTION ACTIVITIES.
- ALL EXISTING SITE IMPROVEMENTS TO REMAIN UNPROTECTED FROM DAMAGE, ANY DAMAGE CAUSED BY THE CONTRACTOR SHALL BE REPAID AND/OR REPAID TO THE ORIGINAL CONDITION BY THE CONTRACTOR AT HIS OWN EXPENSE.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING OR PROTECTING THIS EQUIPMENT DURING FLOOD EVENTS. THE CONTRACTOR SHOULD BE AWARE THAT THE SITE LIES WITHIN THE 500 YEAR FLOODplain.

EARHTWORK AND GRADING

- THE CONTRACTOR SHALL PERFORM ALL GRADE EARTHWORK OPERATIONS IN ACCORDANCE WITH THE FINAL GRADES INDICATED ON THE GRADING PLAN, THE CROSS-SECTION, GENERAL DETAILS AND THE ASSOCIATED TECHNICAL DRAWINGS.
- FINAL GRADES SHALL BE WITHIN THE TOLERANCES INCLUDED IN THE SPECIFICATIONS. LONG TERM SETTLING HAS BEEN ACCOUNTED FOR IN THE FINAL GRADES INDICATED ON THE PLANS. ANY DEVIATIONS FROM FINAL GRADES WILL BE ADJUSTED TO THE OWNER'S SATISFACTION TO ADDRESS THE ISSUE.
- NEWLY GRADED AREAS SHALL BE PROTECTED FROM CONSTRUCTION TRAFFIC, EROSION, AND IMEDIATE SETTLEMENTS WHICH MAY OCCUR. THE CONTRACTOR SHALL RESTABLISH GRADED FINAL GRADES AT NO ADDITIONAL EXPENSE TO THE OWNER.
- THE ENGINEER WILL CONDUCT A SITE INSPECTION AT THE COMPLETION OF FINE GRADING AND NOTIFY THE CONTRACTOR ACCORDING TO THE REQUIREMENTS OF THE CONTRACT. THE CONTRACTOR SHALL MAINTAIN THE GRADED AREAS.
- PROPSITE DRAINAGE SHALL BE MAINTAINED BY THE CONTRACTOR DURING EARTHWORK OPERATIONS. SURFACE WATER THAT PROHIBITS EARTHWORK SHALL BE REMOVED OR MITIGATED BY THE CONTRACTOR.
- THE FINAL GRADE WILL INCLUDE 3" OF TOPSOIL.
- THE CONTRACTOR SHALL MAINTAIN A MAINTENANCE PROGRAM TO LOWER THE WATER ELEVATION IN THE POND BY A MINIMUM OF 12 INCHES. THE CONTRACTOR SHALL MAINTAIN THE EARTHWORK, PLANTING, AND SEEDING OPERATIONS.
- IT IS ANTICIPATED THAT THE SHEET PILE WALL, DREDGING, AND EMBANKMENT FILL WILL BE CONDUCTED IN THE "WET" WITH ACCESS FROM THE POOL BANKS AND/OR VIA A BARGE.
- EMBANKMENT FILL SHALL BE COMPRISED OF SP-SP-30 CM WITH A MAXIMUM OF 15% FINES CONTENT. ALL EMBANKMENT FILL SHALL BE MAINTAINED AT A MAXIMUM DENSITY OF AT LEAST 98% OF THE STANDARD PROCTOR. SHOULD THE EMBANKMENT FILL NOT MEET THE REQUIRED DENSITY, AN ADDITIONAL 10% FINE FILL IS PLACED OVER THE EMBANKMENT FILL. THE EMBANKMENT FILL IS APPROXIMATELY 10' THICK PRIOR TO CONSTRUCTION.
- WET, CONVENTIONAL, COMPACTION EFFORTS AND TESTING WILL NOT BE FEASIBLE; HOWEVER, THE CONTRACTOR SHALL MAINTAIN A MAXIMUM DENSITY OF 95% OF THE STANDARD PROCTOR. THE CONTRACTOR SHALL USE VIBRO-COMPACTOR/VIBROFLATATION; THESE METHODS CAN TYPICALLY ACHIEVE RELATIVE DENSITIES OF UP TO 95%+. THE CONTRACTOR SHALL MAINTAIN A MAXIMUM DENSITY OF 95% OF THE STANDARD PROCTOR. THESE METHODS CAN ALSO BE USED FOR COMPACTION EFFORTS. COMPACTION EFFORTS SHOULD BE MONITORED BY A QUALIFIED GEOTECHNICAL ENGINEER.
- WHERE FILL MATERIALS WILL BE PLACED FOR THE EMBANKMENT, OR PLACED UP AGAINST SLOPING GROUND, THE SOIL UPGRADE SHOULD BE SCARRED AND NEW FILL BENCHES OR KEYED INTO THE EXISTING MATERIAL IN ACCORDANCE WITH THE CONTRACTOR'S DESIGNER. THE CONTRACTOR SHALL MAINTAIN THE EMBANKMENT FILL IN ACCORDANCE WITH THE CONTRACTOR'S DESIGNER. IN CONFINED AREAS, SUCH AS UTILITY TRENCHES, PORTABLE COMPACTION EQUIPMENT AND THIN LIFTS OF 4 TO 5 INCHES SHALL BE USED TO MAINTAIN THE EMBANKMENT FILL.
- ANY MATERIAL TO BE USED FOR EMBANKMENT FILL SHALL BE EVALUATED AND TESTED BY A QUALIFIED GEOTECHNICAL ENGINEER PRIOR TO PLACEMENT TO DETERMINE IF THEY ARE SUITABLE FOR THE INTENDED USE. FILL MATERIALS SHALL BE MAINTAINED IN THE EMBANKMENT FILL UNTIL THE CONTRACTOR'S DESIGNER HAS VERIFIED THAT THE SPECIFIED MATERIALS ARE USED AND THE REQUIRED DEGREE OF COMPACTION IS ACHIEVED. CITY INSPECTOR WILL COORDINATE WITH GEOTECHNICAL ENGINEER.
- CONTRACTOR SHALL PRODUCE RECORD DRAWINGS (AS-BUILT) UPON COMPLETION OF THE PROJECT.

PLANTING GENERAL NOTES

- A ONE (1) YEAR WARRANTY, FROM DATE OF ACCEPTANCE OF INITIAL PLANTINGS, IS REQUIRED ON A MINIMUM OF 80% SURVIVAL OF PLANTED MATERIAL WITHIN THE PROJECT LIMITS.
- REPLACEMENT OF ANY DEAD OR DAMAGED PLANT MATERIAL SHALL TAKE PLACE DURING THE FOLLOWING PLANTING SEASON, OR AS DETERMINED BY THE CONTRACTOR'S DESIGNER.
- THE CONTRACTOR SHALL NOT BE RESPONSIBLE FOR PLANT MATERIAL DAMAGED BY FIRE, VANDALISM, OR OTHER ACTIVITY BEYOND THE CONTRACTOR'S CONTROL.
- THE PLANT CONTRACTOR SHALL NOT SUBSTITUTE ANY PLANT MATERIAL WITHOUT PRIOR APPROVAL FROM PROJECT MANAGER.
- THE PLANTING WINDOW FOR THE LISTED WOODY VEGETATION SHALL BE IN ACCORDANCE WITH THE PLANTING DETAILS AS PROVIDED BY THE CONTRACTOR'S DESIGNER. THE CONTRACTOR SHALL NOT PERFORM SEEDING APPLICATION WHEN SOIL IS FROZEN.
- ROOT STOCK OF THE PLANT MATERIAL SHALL BE KEPT MOIST AT ALL TIMES AND BE PROVIDED WITH SHADE DURING HIGH TEMPERATURES AND DURING PLANTING CONSTRUCTION.
- PLANTED AREAS SHALL BE INSPECTED BY THE PROJECT DESIGNER AT THE COMPLETION OF THE PLANTING OPERATIONS.
- PLANT MATERIALS SHALL BE INSTALLED IN A NON-UNIFORM, RANDOM PATTERN. SO PLANTS DO NOT APPEAR TO BE PLANTED IN A LINEAR FASHION.
- ALL PLANT MATERIALS SHALL BE SUPPLIED BY SOURCES WITHIN THE SAME HARDINESS ZONE OF THE PROJECT (WITHIN A 200 MILE RADIUS OF THE PROJECT SITE IF POSSIBLE).
- THE CONTRACTOR SHALL MAINTAIN INSTALLED TREES AND HERBACEOUS PLUGS WITHIN THE PROJECT LIMITS UNTIL FINAL ACCEPTANCE OF THE PROJECT BY THE ENGINEER.

STANDARD WATER AND SEWER UTILITY NOTES

- STANDARD SITE PLAN NOTES
1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACING, WITH MATCHING MATERIALS ANY PAVEMENT, DRIVEWAY, WALKS, CURBS, TRAFFIC SIGNAL DEVICES, MARKINGS, ETC. THAT MAY BE CUT, OR THAT ARE DAMAGED DURING CONSTRUCTION.
- THE CONSTRUCTION SITE, ADJACENT AREAS, AND RIGHT-OF-WAYS SHALL BE KEPT CLEAN AND CLEAR OF CONSTRUCTION DEBRIS AT ALL TIMES.
- THE CONTRACTOR SHALL ADHERE TO THE VIRGINIA DEPARTMENT OF TRANSPORTATION SPECIFICATIONS WITH THE CITY OF NORFOLK AS THE CONTRACTOR'S DESIGNER.
- FOR CONSTRUCTION IN OR ADJACENT TO ANY ARTERIAL, AND/OR COLLECTOR STREETS REQUIRING TEMPORARY LANE OR STREET CLOSURE, THE CONTRACTOR MUST SCHEDULE A MEETING WITH THE CITY'S TRAFFIC MITIGATION TEAM. PLEASE CONTACT THE CITY'S TRAFFIC MITIGATION TEAM AT (757) 644-2644 OR (757) 644-2648.
- THE CONTRACTOR SHALL RESTORE ALL DISTURBED AREAS TO PRE-CONSTRUCTION CONDITIONS OR BETTER.
- THE CONTRACTOR SHALL OBTAIN NECESSARY PERMITS BEFORE THE START OF CONSTRUCTION.
- CONTRACTOR SHALL CONTACT CITY OF NORFOLK, ENVIRONMENTAL STORM WATER MANAGEMENT AT (757) 823-4089, AND THE BUREAU OF ENVIRONMENTAL SERVICES AT (757) 644-4368 48 HOURS (MINIMUM) PRIOR TO LAND DISTURBANCE ACTIVITIES.
- THE CONTRACTOR SHALL CALL MISSISSIPPI UTILITY 72 HOURS PRIOR TO ANY EXCAVATION WORK.
- INSTALL STABILIZED CONSTRUCTION ENTRANCES.
- INSTALL EROSION AND SEDIMENT CONTROL MEASURES, INCLUDING: INLET PROTECTION, TREE PROTECTION, COMBINATION FILTERS, AND SEDIMENT CONTROLS LOCATED ON THE PLANS.
- BED CLEARING AND GRUBBING OF THE SITE AS INDICATED ON THE PLANS.
- PROVIDE TEMPORARY STABILIZATION FOR DENUDED AREAS THAT WILL NOT BE PERMANENTLY STABILIZED WITHIN A 14 DAY PERIOD.
- GRAVE DREDGE TO MEET PROPOSED ELEVATIONS.
- STABILIZE MUDLINES WITH COIR FIBER PLUGS AND PLANTINGS.
- CONDUCT DUMP OPERATION AND PERMANENT STABILIZATION OF WETLAND CELLS (INCLUDING TOPSOIL, SEEDING, MATTING, AND PLANTINGS). DUMP DOWN OPERATION SHALL INCLUDE SEDIMENT CONTROL IN ACCORDANCE WITH THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK.
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- REMOVAL OF ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES IN ACCORDANCE WITH THE LATEST EDITION OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK. DO NOT REMOVE EROSION CONTROL MEASURES UNTIL THE ENTIRE SITE HAS BEEN PERMANENTLY STABILIZED.

RIGHT OF WAY NOTES

IN THE WORK IN THE RIGHT OF WAY IS ANTICIPATED AS PART OF THIS PROJECT.

1. STANDARD SITE PLAN NOTES
EXCAVATION AND CONSTRUCTION IN THE RIGHT OF WAY:

ALL WORK WITHIN THE RIGHT OF WAY SHALL COMPLY WITH THE CITY OF NORFOLK RIGHT OF WAY EXCAVATION & RESTORATION MANUAL (ORDINANCE NO. 40,778), DEPARTMENT OF PUBLIC WORKS AND UTILITY REGULATIONS. THE CONTRACTOR SHALL MAINTAIN A COPY OF THE CITY OF NORFOLK RIGHT OF WAY EXCAVATION & RESTORATION MANUAL (ORDINANCE NO. 40,778) AT THE WORK SITE. IT IS IMPORTANT THAT CONTRACTORS FAMILIARIZE THEMSELVES WITH THE REQUIREMENTS OUTLINED IN THE MANUAL. CONTRACTORS SO MAY NOT BE SUBJECT TO PENALTIES FOR VIOLATIONS.

2. ALL TEE'S, BENDS, PLUGS, AND VALVES SHALL BE PROVIDED WITH MECHANICAL THRUST RESTRAINT AND RESTRAINED TO PROPER LENGTH. PLUGS INSTALLED ON ACTIVE WATER MAINS SHALL BE RESTRAINED. END'S OF EXISTING LINES TO BE RESTRAINED TO PROPER LENGTH.

3. WHERE WATER MAINS PASS OVER SEWER MAINS, THEY MUST BE 18 INCHES ABOVE THE SEWER. THE SEWER MUST BE A 20 FOOT LONG PIECE OF APPROVED PIPE. WHERE WATER LINES PASS BELOW SEWER, 18 INCHES OF CLEARANCE MUST BE PROVIDED. SEWER LINES MUST BE CONSTRUCTED OF APPROVED PIPE (18 FOOT LONG PIECE OF APPROVED PIPE).

4. NEOPRENE PADS SHALL BE USED BETWEEN PROPOSED AND EXISTING UTILITIES AT CROSSINGS WHERE THE VERTICAL CLEARANCE IS LESS THAN 12 INCHES.

5. RIGHT-OF-WAY PIPE MATERIAL SHALL BE PVC, SDR 26 OR CLASS 52, DI-AL, SEWER DUCTILE IRON PIPE SHALL BE LINED WITH PROTEC FOAM COATED APPROVED EQUAL.

6. THE CONTRACTOR SHALL MAINTAIN A COPY OF THE CITY OF NORFOLK RIGHT OF WAY EXCAVATION & RESTORATION MANUAL (ORDINANCE NO. 40,778) AT THE WORK SITE. IT IS IMPORTANT THAT CONTRACTORS FAMILIARIZE THEMSELVES WITH THE REQUIREMENTS OUTLINED IN THE MANUAL. CONTRACTORS SO MAY NOT BE SUBJECT TO PENALTIES FOR VIOLATIONS.

7. PRIOR TO CONSTRUCTION OR EXCAVATION, CONTRACTOR WILL BE RESPONSIBLE FOR LOCATING ALL EXISTING UTILITIES UTILIZING THE APPROPRIATE FIELD INVESTIGATION METHODS. CONTRACTOR WILL BE RESPONSIBLE FOR LOCATING ALL EXISTING UTILITIES UTILIZING THE APPROPRIATE FIELD INVESTIGATION METHODS. CONTRACTOR WILL BE RESPONSIBLE FOR LOCATING ALL EXISTING UTILITIES UTILIZING THE APPROPRIATE FIELD INVESTIGATION METHODS.

8. UTILITIES FIELD ENGINEERING OFFICE SHALL BE CONTACTED AT 823-1001 FIVE (5) DAYS PRIOR TO START OF WORK TO SCHEDULE AN INSPECTOR AND PRECONSTRUCTION CONFERENCE. APPROVED SUBMITTALS REQUIRED FOR ALL INSPECTED MATERIALS.

9. ALL CITY RIGHT-OF-WAY, CITY UTILITY EASEMENT WATER AND SANITARY SEWER WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST HAMPTON ROADS PLANNING DISTRICT COMMISSION REGULATIONS, CITY OF NORFOLK PLANNING AND ZONING COMMISSION REGULATIONS, AND THE CITY OF NORFOLK RIGHT-OF-WAY DESIGN STANDARDS.

10. APPROVED SUBMITTALS ARE REQUIRED FOR ALL EXCAVATION AND CONSTRUCTION ACTIVITIES. APPROVED SUBMITTALS ARE REQUIRED FOR ALL EXCAVATION AND CONSTRUCTION ACTIVITIES. APPROVED SUBMITTALS ARE REQUIRED FOR ALL EXCAVATION AND CONSTRUCTION ACTIVITIES.

11. CONTRACTOR WILL BE RESPONSIBLE FOR MAINTAINING A COPY OF THE CITY OF NORFOLK RIGHT OF WAY EXCAVATION & RESTORATION MANUAL (ORDINANCE NO. 40,778) AT THE WORK SITE. IT IS IMPORTANT THAT CONTRACTORS FAMILIARIZE THEMSELVES WITH THE REQUIREMENTS OUTLINED IN THE MANUAL. CONTRACTORS SO MAY NOT BE SUBJECT TO PENALTIES FOR VIOLATIONS.

12. CONTRACTOR WILL BE RESPONSIBLE FOR MAINTAINING A COPY OF THE CITY OF NORFOLK RIGHT OF WAY EXCAVATION & RESTORATION MANUAL (ORDINANCE NO. 40,778) AT THE WORK SITE. IT IS IMPORTANT THAT CONTRACTORS FAMILIARIZE THEMSELVES WITH THE REQUIREMENTS OUTLINED IN THE MANUAL. CONTRACTORS SO MAY NOT BE SUBJECT TO PENALTIES FOR VIOLATIONS.

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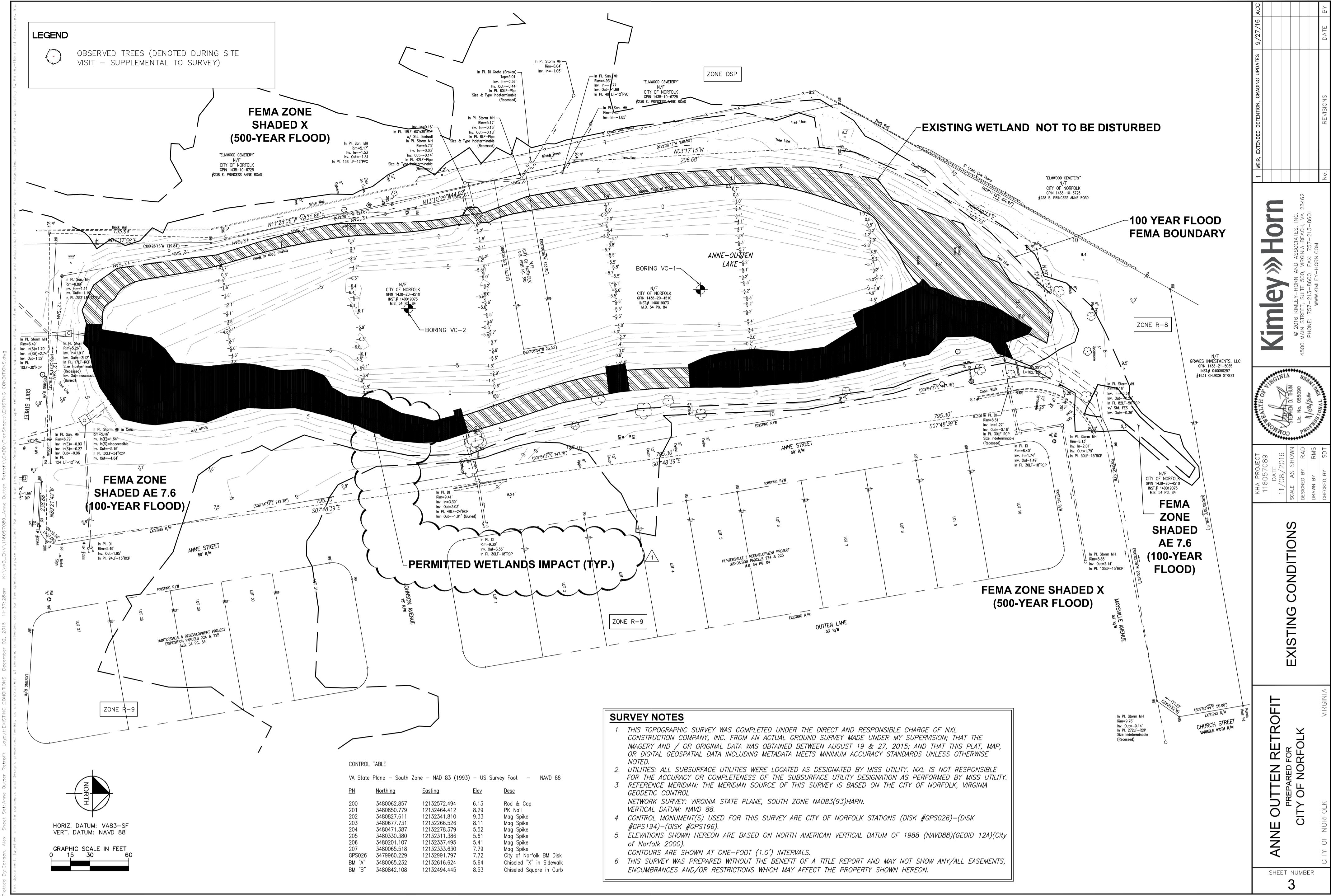
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SHEET NOTES

1. CONTRACTOR SHALL LIMIT TREE REMOVAL AND CLEARING/GRUBBING TO THE AREAS SPECIFIED IN THE PLANS.
2. ANY ADDITIONAL TREE DISTURBANCE WILL REQUIRE A PERMIT AND SHALL BE REVIEWED BY THE CITY FORESTER BEFORE WORK IS DONE. NO TREE REMOVAL OR CLEARING/GRUBBING OUTSIDE THE LIMITS DENOTED UNLESS PRIOR APPROVAL AND A MITIGATION PLAN IS APPROVED BY THE CITY.
3. TEMPORARY STAGING/STOCKPILE AREA(S) AND STILLING BASIN SHALL BE LOCATED TO MINIMIZE IMPACTS TO TREES TO THE GREATEST EXTENT FEASIBLE

FLOOD RISK

AS IDENTIFIED ON MAP 5101040135F DATED SEPTEMBER 2, 2009, A PORTION OF THIS SUBJECT PROPERTY LIES WITHIN FLOOD ZONE "AE". THESE AREAS ARE SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD WITH BASE FLOOD ELEVATION 7.6. A PORTION OF THE SUBJECT PROPERTY LIES WITHIN FLOOD ZONE SHADED "X". THESE AREAS ARE SUBJECT TO INUNDATION BY THE 0.2% ANNUAL CHANCE FLOOD, AREAS OF 1% ANNUAL CHANCE FLOOD WITH AVERAGE DEPTHS LESS THAN 1 FOOT OR WITH DRAINAGE AREAS LESS THAN 1 SQUARE MILE, AND AREAS PROTECTED BY LEVEES FROM 1% ANNUAL CHANCE FLOOD.

LEGEND

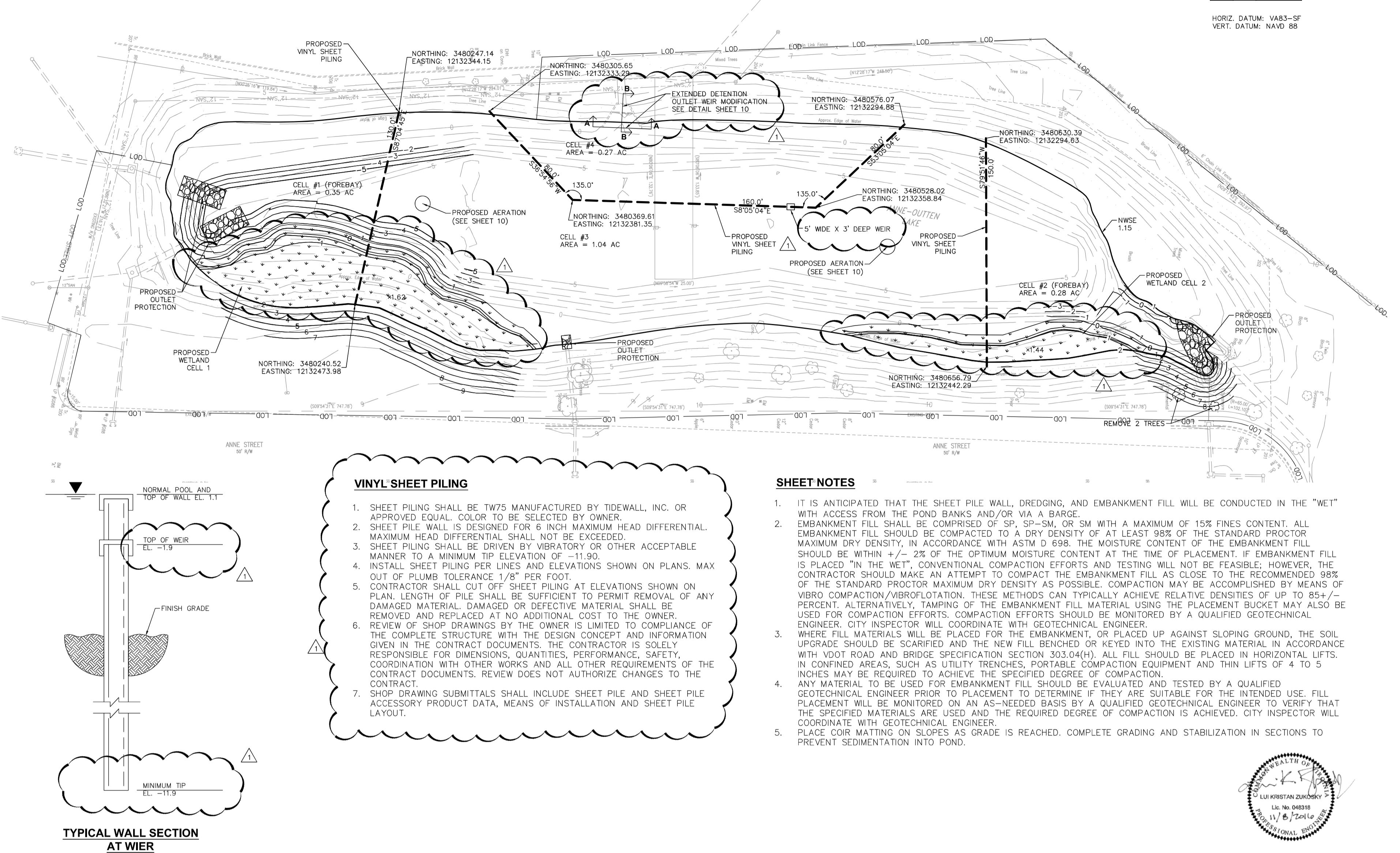
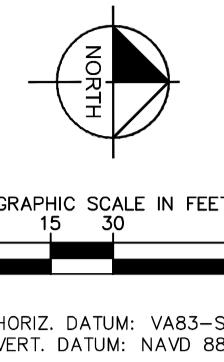
— LOD —	LIMITS OF DISTURBANCE
— SF —	(SF) SILT FENCE
— TP —	TREE PROTECTION
— CF —	COMBINATION FENCE
	INLET PROTECTION
	TEMPORARY CONSTRUCTION ENTRANCE
	OUTLET PROTECTION
	COIR FIBER MATTING
	HAUL ROAD
	OBSERVED TREES (DENOTED DURING SITE VISIT – SUPPLEMENTAL TO SURVEY)



PROPOSED FEATURES LEGEND	
	AERATION
	SHEET PILE WALL
	OUTLET PROTECTION
	WETLAND CELL
x1.15	SPOT ELEVATION

FLOOD RISK

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1	MECH. EXTENDED DETENTION, GRADING UPDATES	9/27/16 ACC
2	1. HORN, KRISTIAN	2. KIMLEY-HORN, INC.
3	3. 116057089	4. 116057089
4	5. 11/08/2016	6. 11/08/2016
5	7. RAJO	8. RAJO
6	9. RMWS	10. RMWS
7	11. 045316	12. 045316
8	13. LUI KRISTIAN ZURKOWSKI	14. LUI KRISTIAN ZURKOWSKI
9	15. KIMLEY-HORN, INC.	16. KIMLEY-HORN, INC.
10	17. 4501 N. MILITARY HIGHWAY, SUITE 100, ALEXANDRIA, VA 22314	18. 4501 N. MILITARY HIGHWAY, SUITE 100, ALEXANDRIA, VA 22314
11	19. PHONE: 703-213-8600	20. PHONE: 703-213-8601
12	21. FAX: 703-213-8601	22. FAX: 703-213-8601
13	23. WWW.KIMLEY-HORN.COM	24. WWW.KIMLEY-HORN.COM
14	25. NO	26. NO
15	27. DATE	28. DATE
16	29. BY	30. BY
17	31. REVISIONS	32. SDT

Kimley»Horn

STATE OF VIRGINIA
NOTARIAL SEAL

WMA PROJECT
116057089
DATE 11/08/2016
SCALE AS SHOWN
DESIGNED BY RAJO
DRAWN BY RMWS
CHECKED BY SDT

ANNE OUTTEN RETROFIT
PREPARED FOR
CITY OF NORFOLK
CITY OF NORFOLK
SHEET NUMBER 6

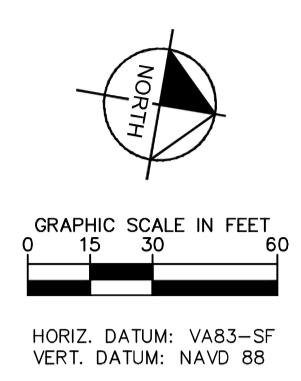
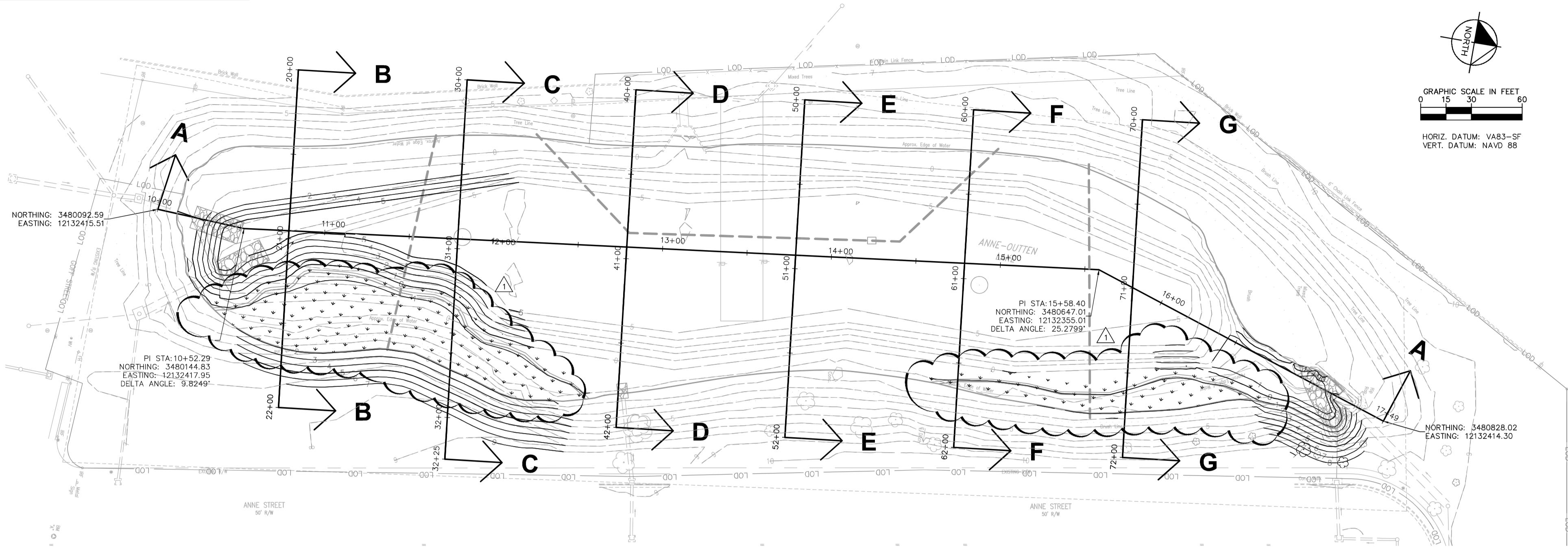
PROPOSED FEATURES LEGEND	
	AERATION
	SHEET PILE WALL
	OUTLET PROTECTION
	WETLAND CELL

SHEET NOTES

1. SEE SHEET 6 FOR CROSS SECTIONS

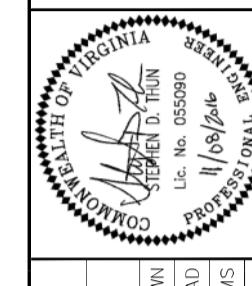
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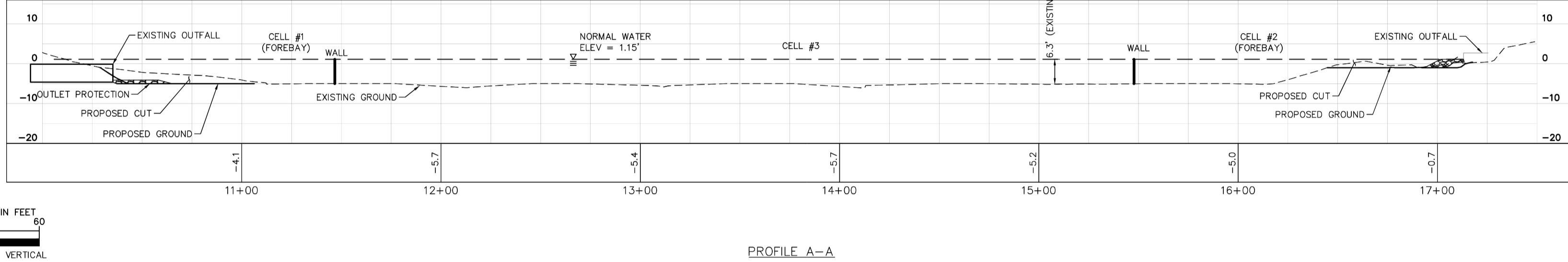
Kimley-Horn

ANNE OUTTEN RETROFIT PROFILE
CITY OF NORFOLK
CITY OF NORFOLK
VIRGINIA
SHEET NUMBER
7

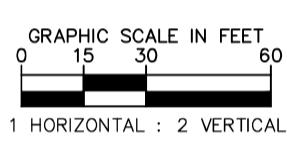


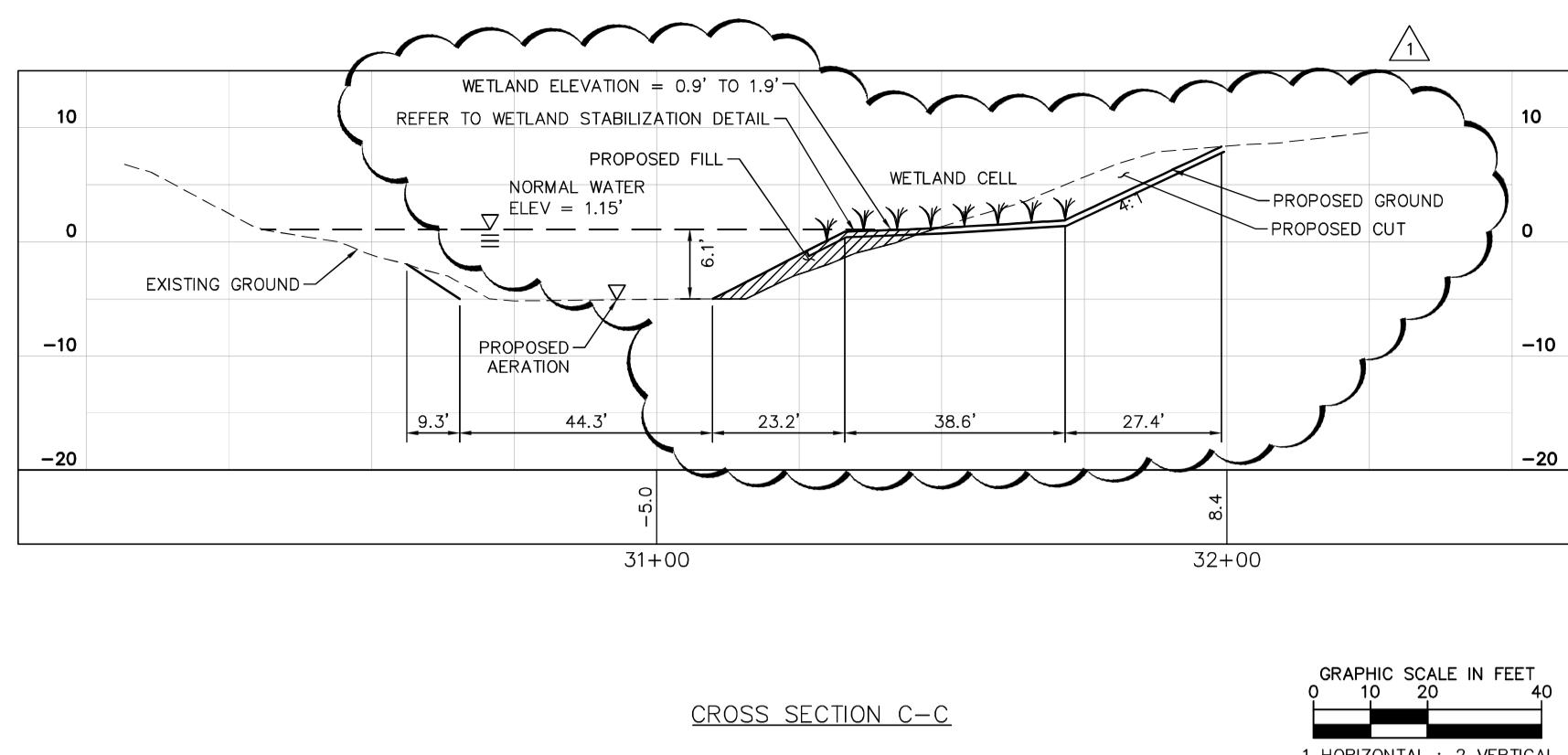
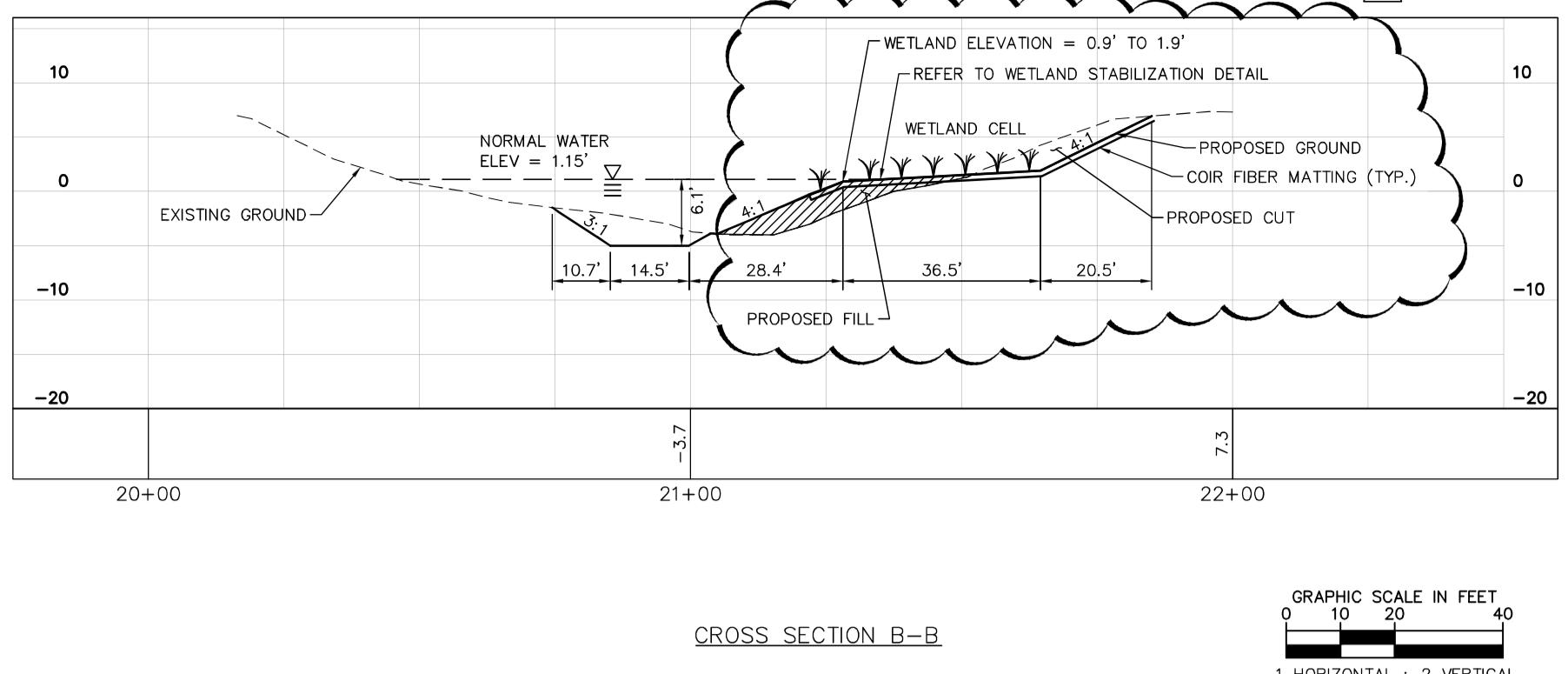
WA PROJECT
116057089
DATE 08/16
SCALE AS SHOWN
DESIGNED BY RAQ
DRAWN BY RMS
CHECKED BY SDT

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4500 BURLINGTON ROAD, SUITE 100, NORFOLK, VA 23502
PHONE: 757-23-8600 FAX: 757-23-8601
WWW.KH.COM



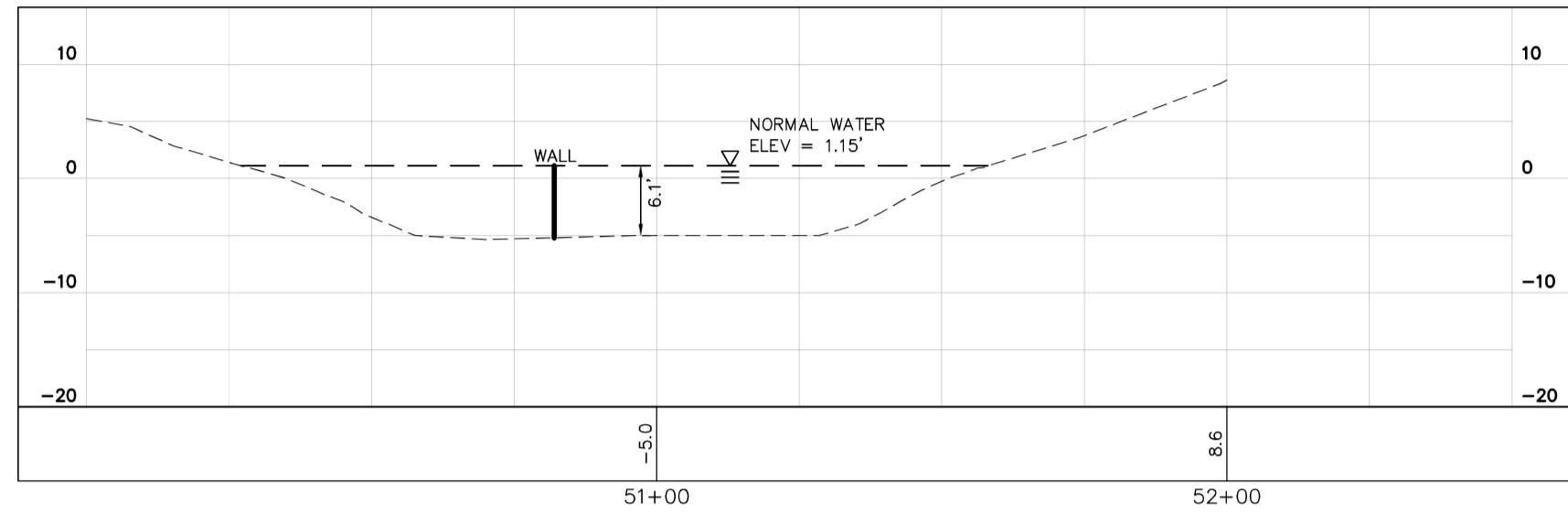
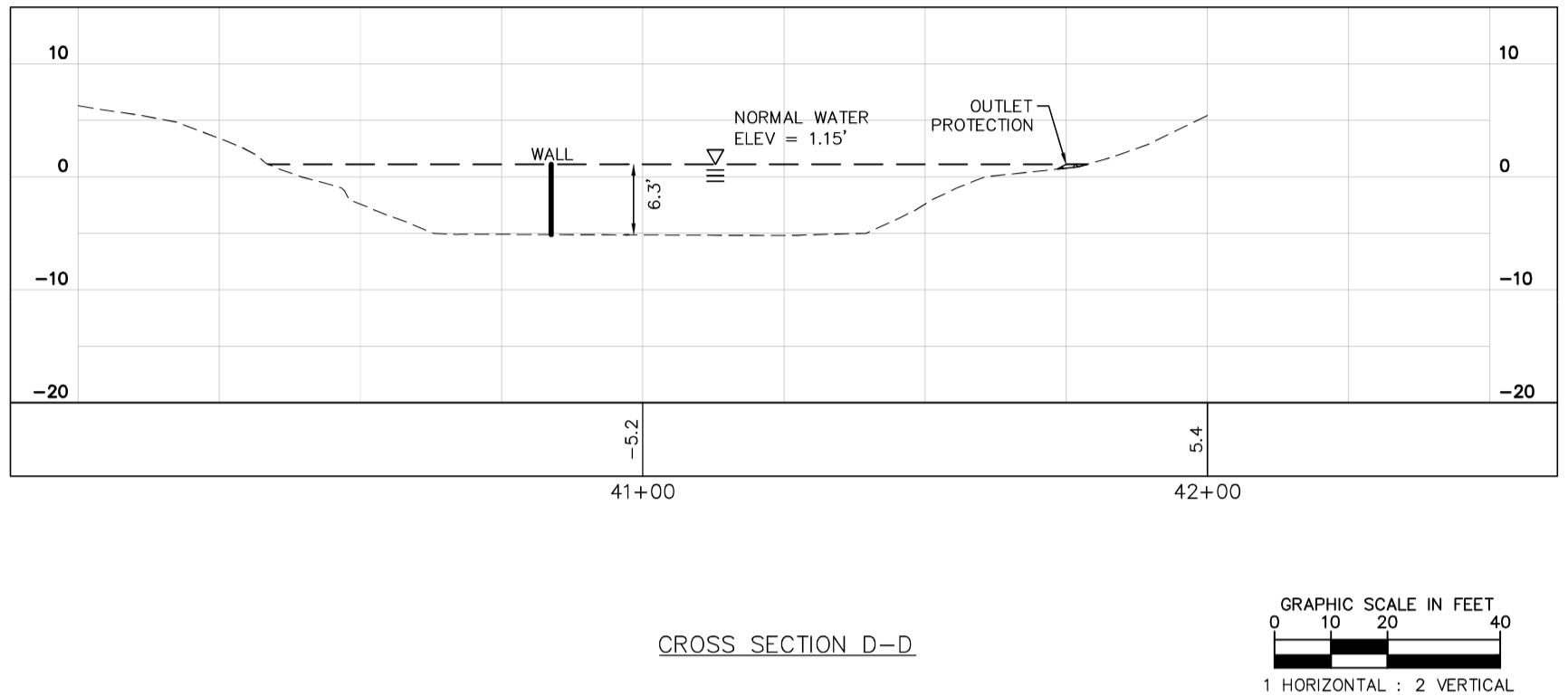
PROFILE A-A





1	WELL EXTENDED DETENTION, GRADING UPDATES	9/27/16 ACC
REVISIONS	NO.	DATE BY

Kimley-Horn
© 2016 KIMLEY-HORN AND ASSOCIATES, INC. 21462
4550 BURLINGTON SUITE 100, BURLINGTON, NC 27220
PHONE: 752-213-8600 FAX: 752-213-8601
WWW.KIMLEY-HORN.COM

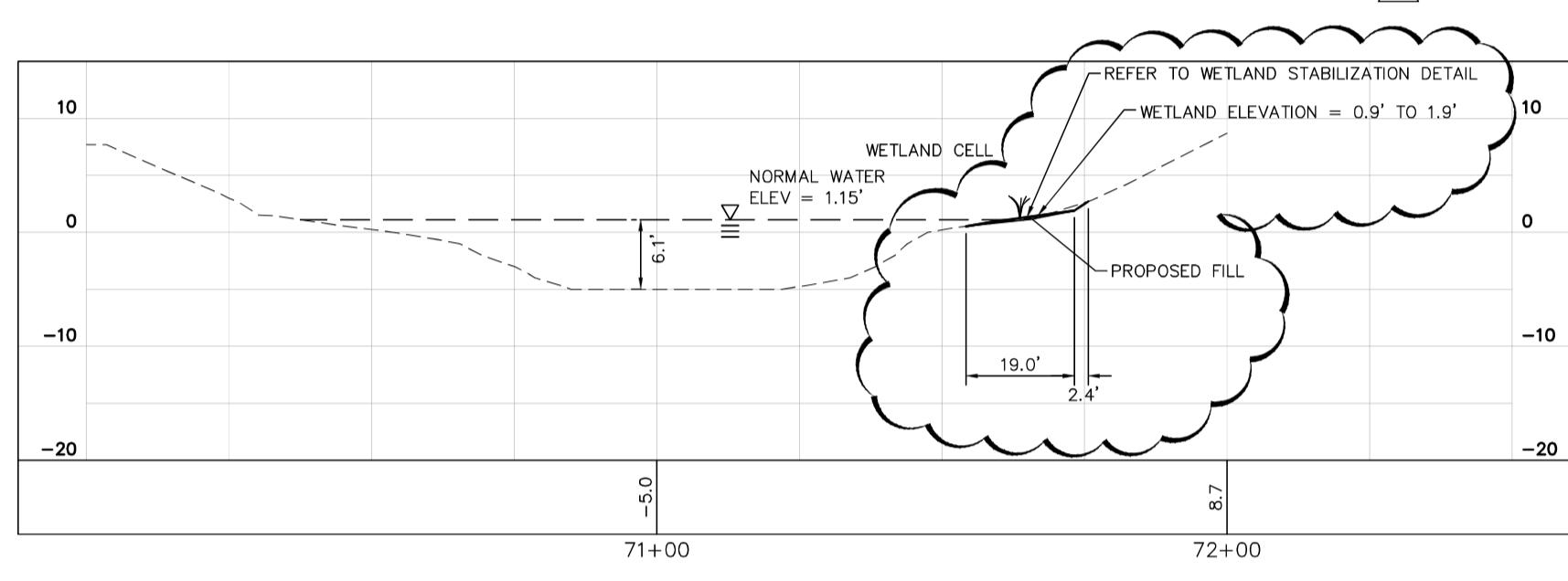
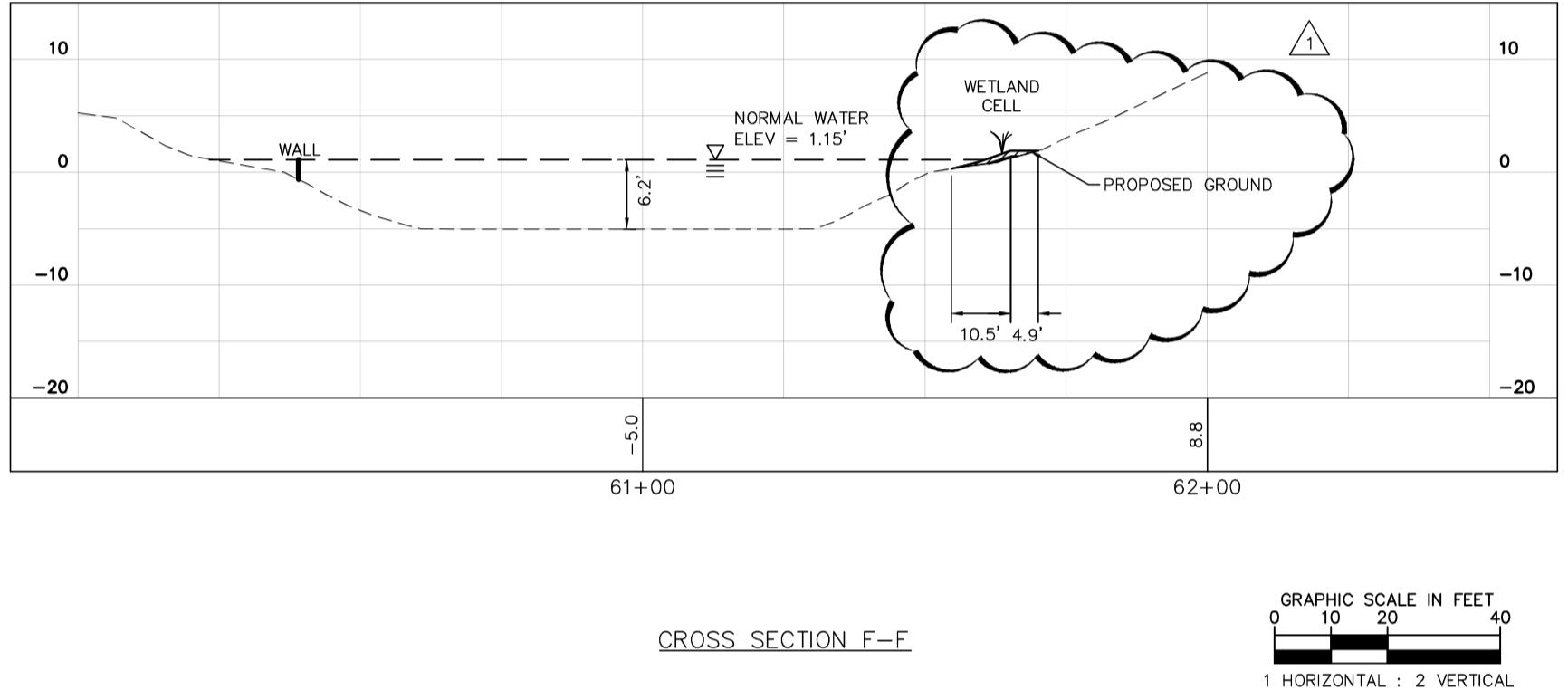


WHA PROJECT 11-6057-089	DATE 11/08/2016	DRAWN BY RAG
SCALE AS SHOWN	DESIGNED BY RMS	DRAINED BY RMS
CHECKED BY SDT		

ANNE OUTTEN RETROFIT
PREPARED FOR
CITY OF NORFOLK
VIRGINIA

CROSS SECTIONS

SHEET NUMBER
8

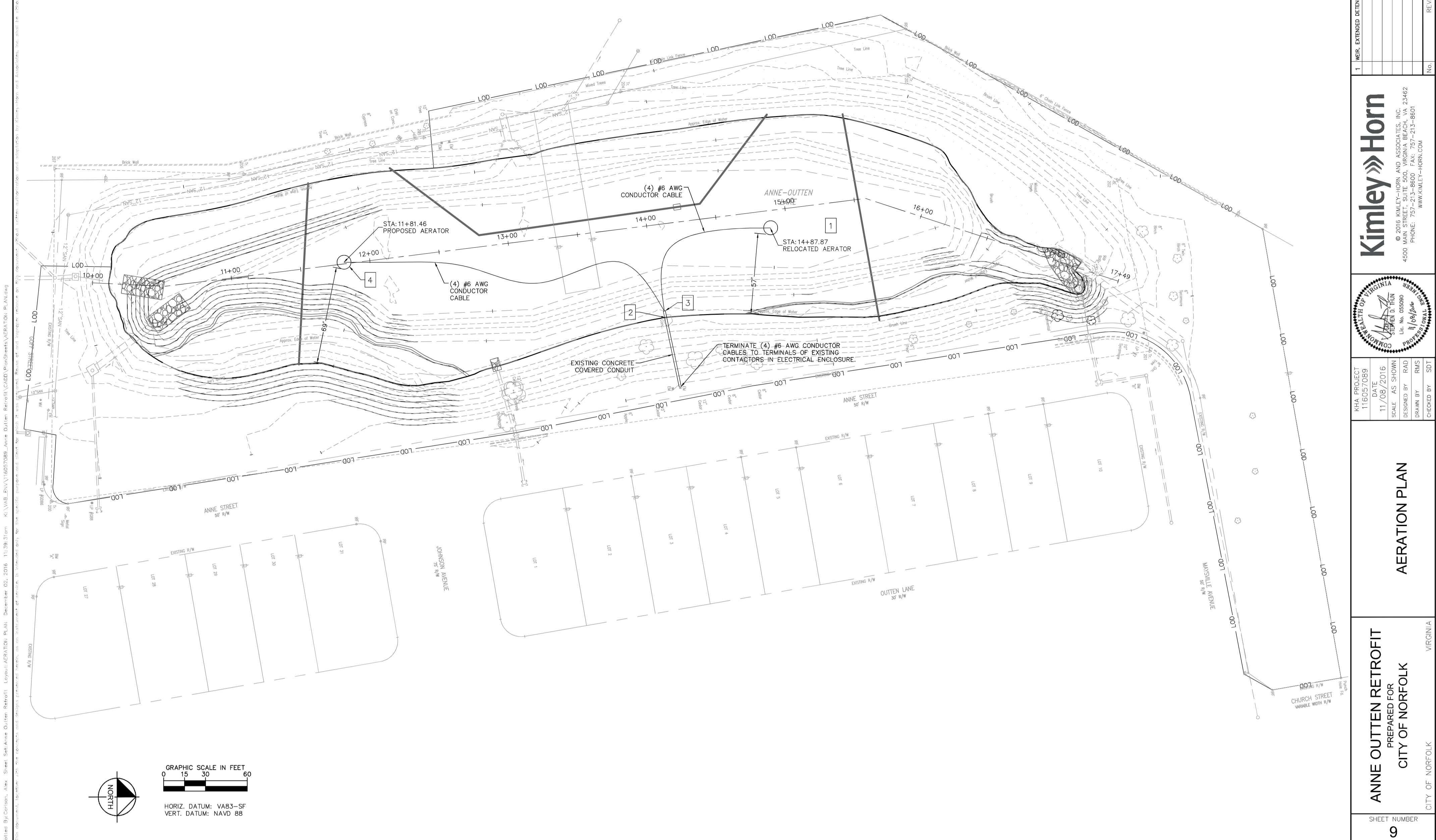


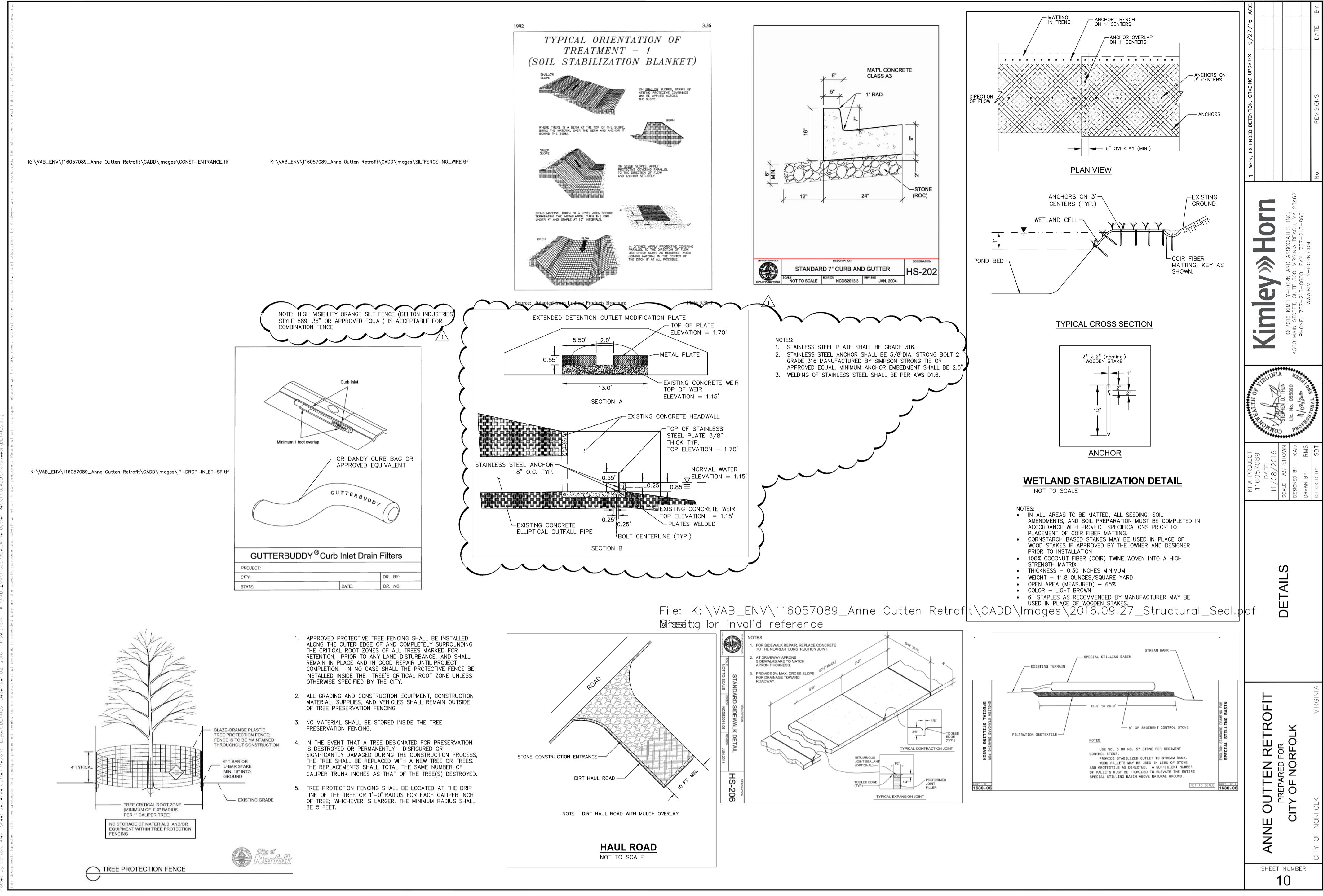
SHEET NOTES

- PRIOR TO START OF DREDGING OPERATIONS, DISCONNECT EXISTING AERATOR AND STORE IN A SAFE AND SECURE LOCATION BEFORE DREDGING OPERATIONS BEGIN. REMOVE EXISTING CONDUCTOR CABLE FROM AERATOR BACK TO ELECTRICAL EQUIPMENT ENCLOSURE.
- REMOVE CONDUIT AND DEMOLISH CONCRETE BACK TO WATER LINE TO ALLOW FOR DREDGING OPERATIONS.
- AFTER DREDGING, EXTEND 2" PVC SCHEDULE 40 CONDUIT 2 FEET BEYOND LOW WATER LINE AND COVER WITH CONCRETE TO MATCH EXISTING INFRASTRUCTURE INSTALLATION.
- PROVIDE ONE AQUA MASTER, MASTER SERIES CROWN & GEYSER, 5 HP MODEL AERATOR TO MATCH EXISTING AERATOR.

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1	REVISIONS	NO
DATE	BY	
Kimley-Horn		
 COMMONWEALTH OF VIRGINIA STATE OF VIRGINIA 11/06/2016 DATE 11/06/2016 SCALE AS SHOWN DRAWN BY RMS DESIGNED BY RAQ APPROVED BY SDT CHECKED BY SDT PROJECT NO. 5101040135F DATE 11/06/2016 DRAWN BY RMS DESIGNED BY RAQ APPROVED BY SDT PHONE: 757-213-8600 FAX: 757-213-8601 WWW.KIMLEY-HORN.COM		
PLANTING PLAN		
ANNE OUTTEN RETROFIT PREPARED FOR CITY OF NORFOLK		
SHEET NUMBER 11		
CITY OF NORFOLK VIRGINIA		

