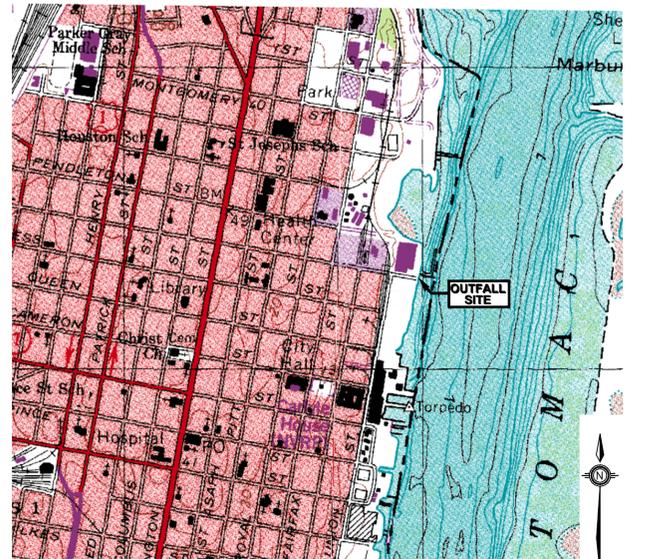


SEDIMENT REMEDIATION DESIGN DESIGN DRAWINGS

ALEXANDRIA TOWN GAS - ORONOCO SITE ALEXANDRIA, VIRGINIA

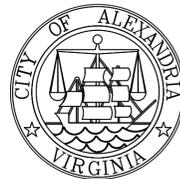
60% COMPLETE

NOT TO BE USED
FOR CONSTRUCTION



VICINITY MAP
SCALE: 1 INCH = 1,000 FEET
1,000' 0 1,000'

VA. COORDINATE
SYSTEM OF 1983



OWNER OF RECORD:

CITY OF ALEXANDRIA TRANSPORTATION AND ENVIRONMENTAL SERVICES
301 KING STREET, SUITE 3000
ALEXANDRIA, VIRGINIA 22314

PROJECT ENGINEER:

CARDNO, INC.
10988 RICHARDSON ROAD, ASHLAND, VIRGINIA 23005
JAMES L. DOUGLASS, P.E.
VIRGINIA LICENSE NO. 30484

NOTES:

- THIS DRAWING SET PRESENTS DESIGNS, METHODS AND MATERIALS TO BE USED IN DREDGING AND REMEDIATING SEDIMENT IN THE VICINITY OF THE ORONOCO STREET STORM SEWER PIPELINE LOCATED IN OLD TOWN, ALEXANDRIA. THE PURPOSE OF THE SYSTEM IS TO REMOVE TAR-RELATED SUBSTANCES HAVE MIGRATED FROM THE ADJACENT FORMER ALEXANDRIA TOWN GAS (ATG) MANUFACTURED GAS PLANT (MGP) SITE TO A NEAR-SHORE PORTION OF THE POTOMAC RIVER.
- DRAWING SET HAS ACCOMPANYING SPECIFICATIONS BOOK TITLED: CITY OF ALEXANDRIA DEPARTMENT OF TRANSPORTATION AND ENVIRONMENTAL SERVICES ALEXANDRIA TOWN GAS - ORONOCO SITE SEDIMENT REMEDIATION DESIGN SPECIFICATIONS MANUAL 100 BLOCK OF ORONOCO STREET ALEXANDRIA, VIRGINIA [DATE]

DRAWING NO.	DESCRIPTION
GENERAL	
G00	DRAWING LIST AND VICINITY MAP
G01A	PROJECT NOTES
G01B	PROJECT NOTES
G02	EXISTING CONDITIONS - SITE PLAN
G03	SITE PLAN
G04	SITE CONTROL AND WORK AREA LAYOUT PLAN AND DETAILS

CIVIL	
C01	DREDGING DEPTH MAP
C02	SEDIMENT CAP LAYOUT - PLAN VIEW
C03	SEDIMENT CAP - TYPICAL CROSS SECTIONS
C04	SEDIMENT CAP TYPICAL SECTION DETAILS
C05	DEMOLITION & RESTORATION PLAN

STRUCTURAL	
S_	[RESERVED]

MECHANICAL	
M_	[RESERVED]

ELECTRICAL	
E_	[RESERVED]

MISCELLANEOUS DETAILS	
D00	QUANTITY ESTIMATES



LOCATION MAP
SCALE: 1 INCH = 50 FEET
50' 0 50'



VA. COORDINATE
SYSTEM OF 1983



DESIGNED:	JLD	NO.	DATE	REVISION
DRAWN:	RF, JLD			
CHECKED:	JLD			
DATE:	09/20/2013			
SCALE:	1"=20'			
FILE NO.:	K:DBA:COA204			
PROJECT NO.:	COA204			
OFFICE LOC.:	BLUEFIELD			

ALEXANDRIA TOWN GAS
ORONOCO SITE
ALEXANDRIA, VIRGINIA
DRAWING LIST AND
VICINITY MAP

Figure

G00

EXISTING CONDITIONS SURVEY NOTES

1. HORIZONTAL DATUM* NORTH AMERICAN DATUM OF 1983, NAD83
VERTICAL DATUM** NORTH AMERICAN VERTICAL DATUM OF 1988, NAVD88

2. UTILITY INFORMATION, AS SHOWN ON THIS PLAN, IS TAKEN FROM THE RECORDS AND/OR FIELD SURVEY COMPLETED BY CITY OF ALEXANDRIA SURVEY DEPARTMENT, AND CANNOT BE GAURANTEED. FOR EXACT LOCATIONS OF EXISTING UNDERGROUND UTILITIES, NOTIFY MISS UTILITY AT 1-800-257-7777 AND 811 72 HOURS BEFORE THE START OF ANY EXCAVATION OR CONSTRUCTION. THE CONSTRUCTION WORKERS AND CONTRACTOR(S) ARE ENCOURAGED TO VISIT DOMINION VIRGINIA POWER WEB SITE AT WWW.DOM.COM (KEYWORD SAFETY) FOR ADDITIONAL SAFETY INSTRUCTIONS.

3. LOCATION AND DEPTH OF ALL EXISTING UNDERGROUND UTILITIES TO BE VERIFIED BY CONTRACTOR PRIOR TO CONSTRUCTION. CONTRACTOR/ENGINEER SHOULD DIG TEST PITS BY HAND AT ALL UTILITY CROSSINGS TO VERIFY EXACT LOCATION.

4. THE BOUNDARY INFORMATION FOR THE SUBJECT SITE IS BASED ON A CURRENT FIELD SURVEY PREPARED BY THE CITY OF ALEXANDRIA SURVEY DEPARTMENT DATED JUNE 29, 2010 REV/ NOVEMBER 11, 2010 IN ACCORDANCE WITH THE REQUIREMENTS OF VIRGINIA ASSOCIATION OF LAND SURVEYORS.

* PER MEMORANDUM TO INDUSTRY, JULY 20, 2005: THE PLAN SHALL BE PREPARED USING VIRGINIA STATE PLANE (NORTH ZONE) COORDINATES BASED ON NAD83 AND NAVD88; HOWEVER, IF THE CURRENT DRAWINGS ARE PREPARED USING NORTH AMERICAN DATUM OF 1927 (NAD27) AND NORTH GEODETIC VERTICAL DATUM OF 1929 (NGVD29) THEN THE AS-BUILT DRAWINGS SHALL PROVIDE A CONVERSION TABLE OF SANITARY AND STORM SEWER DATA IN THE NAD83 AND NAVD88 DATUMS.

5. BATHYMETRIC SURVEY: The topographic contours shown in the dredge area are based on a bathymetric survey prepared for the OWNER in June 1982. A copy of the bathymetric survey is provided in Appendix B OF THE SPECIFICATIONS for use by the CONTRACTOR. While the OWNER and ENGINEER believe that the current conditions are approximately similar, no assurance can be made that current conditions do not in fact differ substantially from those illustrated in the 1982 survey.

CITY STANDARD GENERAL NOTES

1. THE SUBJECT SITE IS LOCATED WITHIN THE RIGHT OF WAY OF THE ZERO BLOCK OF ORONOCO STREET AND ADJOINING PORTION OF THE POTOMAC RIVER

2. OWNER: CITY OF ALEXANDRIA

3. ADDRESS: ZERO BLOCK OF ORONOCO STREET SOUTH OF NORTH UNION STREET

4. AREA TABULATION (TOTAL DISTURBED AREA): 0.62 AC (27,000 SQUARE FEET).

5. THE NATURAL SOILS AT THE SITE CONSIST OF LOOSE SILTY SAND (SM) TO SANDY CLAY (CL); SEE SITE-SPECIFIC NOTES FOR NOTES ON SITE CONDITIONS.

6. THE SITE IS LOCATED IN THE POTOMAC RIVER WATERSHED.

7. CONSTRUCTION PERMITS ARE REQUIRED FOR THIS PROJECT. THE APPROVED SITE PLAN MUST BE ATTACHED TO THE PERMIT APPLICATION THAT FULLY DETAILS THE CONSTRUCTION AS WELL AS LAYOUTS AND SCHEMATICS OF ANY MECHANICAL, ELECTRICAL, AND PLUMBING SYSTEMS.

8. ALL PUBLIC AND PRIVATE EASEMENTS OR ALL KNOWN PUBLIC AND PRIVATE EASEMENTS, INCLUDING ALL UTILITY, EGRESS, AND CONSERVATION RESTRICTIONS ARE SHOWN. THE APPLICANT SHALL NOT CONSTRUCT ANY PERMANENT STRUCTURES OVER ANY EXISTING OR PROPOSED PUBLIC AND/OR PRIVATE EASEMENTS UNLESS OTHERWISE APPROVED BY THE PLANNING COMMISSION AND CITY OF ALEXANDRIA COUNCIL.

9. PLAT SUBJECT TO RESTRICTIONS OF RECORD.

10. ALL NEW CONSTRUCTION SHALL CONFORM TO THE CURRENT STANDARDS AND SPECIFICATIONS OF THE CITY OF ALEXANDRIA AND TO THE VIRGINIA UNIFORM STATEWIDE BUILDING CODE (USBC).

11. PRIOR TO COMMENCING NEW WORK, THE CONTRACTOR SHALL PROTECT FROM DAMAGE ALL EXISTING ADJACENT AREAS. IF CITY'S EXISTING PUBLIC INFRASTRUCTURE, INCLUDING BUT NOT LIMITED, TO STREETS, ALLEYS, DRIVEWAY APRONS, SANITARY AND STORM SEWERS, STREET LIGHTING, TRAFFIC AND PEDESTRIAN SIGNALS, SIDEWALKS, CURB AND GUTTER, AND STORM WATER DROP-INLET STRUCTURES ARE DAMAGED BY THE CONTRACTOR OR BY ACTIVITIES RELATING TO THE SITE CONSTRUCTION THEN THE APPLICANT SHALL REPAIR THE SAME TO THE SATISFACTION OF DIRECTOR, TRANSPORTATION AND ENVIRONMENTAL SERVICES (T&ES). A PRE-CONSTRUCTION WALK/SURVEY OF THE SITE SHALL OCCUR WITH CONSTRUCTION AND INSPECTION STAFF TO DOCUMENT EXISTING CONDITIONS PRIOR TO ANY LAND DISTURBING ACTIVITY.

12. ALL IMPROVEMENTS TO THE CITY'S RIGHT-OF-WAY SUCH AS CURB, GUTTER, SIDEWALK, AND DRIVEWAY APRONS, ETC., ARE DESIGNED PER THE CITY OF ALEXANDRIA STANDARDS AND SPECIFICATIONS.

13. ALL STREET CUT AND PATCH WORK LOCATED IN PUBLIC RIGHT-OF-WAYS, REQUIRED FOR ANY UTILITY INSTALLATION SHALL BE PERFORMED IN STRICT ACCORDANCE WITH THE CITY OF ALEXANDRIA STANDARDS AND SPECIFICATIONS AND TO THE SATISFACTION OF THE DIRECTOR OF TRANSPORTATION AND ENVIRONMENTAL SERVICES (T&ES).

14. CONTRACTOR MUST ENSURE THAT THERE IS NO DISTURBANCE ON ADJACENT PROPERTIES WITHOUT RECORDED EASEMENT OR NOTARIZED LETTER OF PERMISSION FROM THE ADJACENT PROPERTY OWNERS.

15. ALL REQUIRED STATE AND FEDERAL PERMITS, WHICH COULD INCLUDE PERMITS FROM THE VIRGINIA DEPARTMENT OF CONSERVATION AND RECREATION (VDOR), VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY (VDEQ), VIRGINIA DEPARTMENT OF HISTORIC RESOURCES (VDRH), UNITED STATES ENVIRONMENTAL PROTECTION AGENCY (USEPA), ARMY CORPS OF ENGINEERS AND VIRGINIA MARINE RESOURCES, MUST BE IN PLACE FOR ALL PROJECT CONSTRUCTION AND MITIGATION WORK PRIOR TO RELEASE OF THE FINAL SITE PLAN. THIS INCLUDES THE STATE REQUIREMENT FOR A VIRGINIA STORMWATER MANAGEMENT PROGRAM (VSMMP) GENERAL PERMIT FOR DISCHARGES OF STORMWATER FROM CONSTRUCTION ACTIVITIES FOR LAND DISTURBING ACTIVITIES GREATER THAN 2,500. INFORMATION REGARDING THE VSMMP GENERAL PERMIT CAN BE FOUND ONLINE AT: [HTTP://WWW.DCR.VIRGINIA.GOV/SOIL_AND_WATER/VSMMP.SHTML](http://www.dcr.virginia.gov/soil_and_water/vsmmp.shtml).

16. PERMITS FROM THE CITY OF ALEXANDRIA OFFICE OF ENVIRONMENTAL QUALITY (OEO), TRANSPORTATION AND ENVIRONMENTAL SERVICES (T&ES), AND BUILDING AND FIRE CODE ADMINISTRATION SHALL BE OBTAINED BY THE APPLICANT, AS REQUIRED AND DOCUMENTED HEREIN. THE CONTRACTOR CAN CONTACT ALEXANDRIA FIRE AND CODE ADMINISTRATION DEPARTMENT AT (703) 838-4644 OR (703) 746-4200 FOR ANY QUESTIONS OR ADDITIONAL INFORMATION.

17. ANY WORK IN THE PUBLIC RIGHT OF WAY SHALL REQUIRE A SEPARATE PERMIT FROM THE DIRECTOR, TRANSPORTATION AND ENVIRONMENTAL SERVICES. THE CONTRACTOR CAN CONTACT THE DEPARTMENT OF TRANSPORTATION AND ENVIRONMENTAL SERVICES AT (703) 746-4035 FOR ANY QUESTIONS OR ADDITIONAL INFORMATION.

18. ALL WATER FACILITY CONSTRUCTION SHALL CONFORM TO VIRGINIA AMERICAN WATER COMPANY STANDARDS AND SPECIFICATIONS. CONTRACTOR SHALL CONTACT VIRGINIA AMERICAN WATER COMPANY AT (703) 549-7080 TO COORDINATE CONSTRUCTION AND INSPECTION OF WATER FACILITIES.

19. THE SIDEWALKS SHALL REMAIN OPENED DURING CONSTRUCTION OR PEDESTRIAN ACCESS SHALL BE MAINTAINED TO THE SATISFACTION OF THE DIRECTOR OF TRANSPORTATION AND ENVIRONMENTAL SERVICES THROUGHOUT THE CONSTRUCTION OF THE PROJECT.

20. PRIOR TO THE RELEASE OF THE FINAL SITE PLAN, A TRAFFIC CONTROL PLAN FOR CONSTRUCTION DETAILING PROPOSED CONTROLS TO TRAFFIC MOVEMENT, LANE CLOSURES, CONSTRUCTION ENTRANCES, HAUL ROUTES, AND STORAGE AND STAGING SHALL BE PROVIDED FOR INFORMATION PURPOSE; HOWEVER, AN AMENDED TRAFFIC CONTROL PLAN, IF REQUIRED BY THE DIRECTOR OF TRANSPORTATION AND ENVIRONMENTAL SERVICES SHALL BE SUBMITTED TO THE DIRECTOR OF TRANSPORTATION AND ENVIRONMENTAL SERVICES ALONG WITH THE BUILDING PERMIT APPLICATION. THE FINAL SITE PLAN SHALL INCLUDE A STATEMENT FOR INFORMATION ONLY ON THE TRAFFIC CONTROL PLAN SHEETS.

GENERAL EROSION AND SEDIMENT CONTROL NOTES

1. AN EROSION AND SEDIMENT CONTROL PLAN MUST BE APPROVED BY THE DIRECTOR OF TRANSPORTATION AND ENVIRONMENTAL SERVICES PRIOR TO ANY LAND DISTURBING ACTIVITY GREATER THAN 2,500 SQUARE FEET.

2. ALL VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE CONSTRUCTED AND MAINTAINED ACCORDING TO MINIMUM STANDARDS AND SPECIFICATIONS OF THE CITY OF ALEXANDRIA AND VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK (VESCH), VIRGINIA REGULATIONS §4VAC50-30 EROSION AND SEDIMENT CONTROL REGULATIONS.

3. AN EROSION AND SEDIMENT CONTROL PLAN IS INCLUDED WITH THESE FINAL PLANS FOR APPROVAL BY THE DIRECTOR, TRANSPORTATION AND ENVIRONMENTAL SERVICES FOR REFERENCE BY THE EROSION AND SEDIMENT CONTROL PERMIT.

4. A "CERTIFIED LAND DISTURBER" (CLD) SHALL BE NAMED IN A LETTER TO THE DIVISION CHIEF OF CONSTRUCTION AND INSPECTION (C&I), DEPARTMENT OF TRANSPORTATION AND ENVIRONMENTAL SERVICES PRIOR TO ANY LAND DISTURBING ACTIVITIES. IF THE CLD CHANGES DURING THE PROJECT, THAT CHANGE MUST BE NOTED IN A LETTER TO THE DIVISION CHIEF. A NOTE TO THIS EFFECT SHALL BE PLACED ON THE PHASE 1 EROSION AND SEDIMENT CONTROL SHEETS ON THE SITE PLAN.

5. THE DEPARTMENT OF TRANSPORTATION AND ENVIRONMENTAL SERVICES, CONSTRUCTION AND INSPECTION (C&I) DIVISION MUST BE NOTIFIED ONE WEEK PRIOR TO THE PRE-CONSTRUCTION CONFERENCE, ONE WEEK PRIOR TO THE COMMENCEMENTS OF LAND DISTURBING ACTIVITY, AND ONE WEEK PRIOR TO THE FINAL INSPECTION. THE RESPONSIBLE CERTIFIED LAND DISTURBER (CLD) SHALL ATTEND THE PRE-CONSTRUCTION MEETING.

6. SEDIMENT BASINS AND TRAPS, PERIMETER DIKES, SEDIMENT BARRIERS AND ALL OTHER EROSION AND SEDIMENT CONTROL MEASURES INTENDED TO CONTROL EROSION AND TRAP SEDIMENT SHALL BE CONSTRUCTED AS A FIRST STEP IN ANY LAND-DISTURBING ACTIVITY AND SHALL BE MADE FUNCTIONAL BEFORE UPSLOPE LAND DISTURBANCE TAKES PLACE.

7. CONSTRUCTION SHALL BE SEQUENCED SUCH THAT GRADING OPERATION CAN BEGIN AND END AS QUICKLY AS POSSIBLE. AREAS NOT TO BE DISTURBED MUST BE CLEARLY MARKED OR FLAGGED.

8. AN INSPECTION BY THE CITY OF ALEXANDRIA IS REQUIRED AFTER INITIAL INSTALLATION OF EROSION AND SEDIMENT CONTROL MEASURES AND BEFORE ANY CLEARING OR GRADING CAN BEGIN.

9. A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN SHALL BE MAINTAINED ON THE SITE AT ALL TIMES.

10. PRIOR TO COMMENCING LAND DISTURBING ACTIVITIES IN AREAS OTHER THAN THOSE INDICATED ON THESE PLANS INCLUDING, BUT NOT LIMITED TO, OFF-SITE BORROW OR WASTE AREAS, THE CONTRACTOR SHALL SUBMIT A SUPPLEMENTARY EROSION CONTROL PLAN TO THE OWNER FOR REVIEW AND APPROVAL BY THE CITY OF ALEXANDRIA.

11. THE DEVELOPER AND CONTRACTORS ARE TO KEEP DENUDED AREAS TO A MINIMUM. PERMANENT OR TEMPORARY SOIL STABILIZATION SHALL BE APPLIED TO DENUDED AREAS WITHIN SEVEN DAYS AFTER FINAL GRADE IS REACHED ON ANY PORTION OF THE SITE. TEMPORARY SOIL STABILIZATION SHALL BE APPLIED WITHIN SEVEN DAYS TO DENUDED AREAS THAT MAY NOT BE AT FINAL GRADE BUT WILL REMAIN DORMANT FOR LONGER THAN 30 DAYS. PERMANENT STABILIZATION SHALL BE APPLIED TO AREAS THAT ARE TO BE LEFT DORMANT FOR MORE THAN ONE YEAR. ANY STOCKPILED MATERIAL WHICH WILL REMAIN IN PLACE LONGER THAN 10 DAYS MUST BE SEEDED FOR TEMPORARY VEGETATION AND MULCHED WITH STRAW MULCH OR OTHERWISE STABILIZED.

12. ALL DISTURBED AREAS ARE TO DRAIN TO APPROVED SEDIMENT CONTROL MEASURES AT ALL TIMES DURING LAND DISTURBING ACTIVITIES AND DURING SITE DEVELOPMENT UNTIL FINAL STABILIZATION IS ACHIEVED.

13. DURING DEWATERING OPERATIONS, WATER SHALL BE PUMPED THROUGH AN APPROVED FILTERING DEVICE OR PASSED THROUGH AN APPROVED SEDIMENT TRAPPING DEVICE, OR BOTH, AND DISCHARGED IN A MANNER THAT DOES NOT ADVERSELY IMPACT FLOWING STREAMS OR OFF-SITE PROPERTY.

14. THE CONTRACTOR SHALL INSPECT ALL EROSION CONTROL MEASURES DAILY AND AFTER EACH RUNOFF-PRODUCING RAINFALL EVENT. ANY NECESSARY REPAIRS OR CLEANUP TO MAINTAIN THE EFFECTIVENESS OF THE EROSION CONTROL DEVICES SHALL BE MADE IMMEDIATELY.

15. THE CONTRACTOR IS RESPONSIBLE FOR INSTALLATION OF ANY ADDITIONAL EROSION CONTROL MEASURES AS NECESSARY TO PREVENT EROSION AND SEDIMENTATION AND AS DETERMINED BY THE DIRECTOR OF TRANSPORTATION AND ENVIRONMENTAL (T&ES) SERVICES OF THE CITY OF ALEXANDRIA.

16. ANY DENUDED SLOPES, EITHER DISTURBED OR CREATED BY THIS PLAN THAT EXCEED 2500 SQUARE FEET SHALL BE SODDED AND PEGGED FOR STABILITY AND EROSION CONTROL. AT THE COMPLETION OF THE PROJECT AND PRIOR TO THE RELEASE OF THE BOND, ALL DISTURBED AREAS SHALL BE STABILIZED PERMANENTLY AND ALL TEMPORARY EROSION AND SEDIMENT CONTROLS SHALL BE REMOVED.

17. INSTALL SILT FENCE AND TREE PROTECTION, WHERE APPLICABLE.

18. DUST CONTROL SHALL BE ACCOMPLISHED BY TEMPORARY VEGETATIVE COVER AND BY IRRIGATION AS NEEDED.

SEQUENCE OF CONSTRUCTION FOR INSTALLATION OF EROSION AND SEDIMENT CONTROL DEVICES

1. INSTALL PERIMETER EROSION AND SEDIMENT CONTROLS; AND STABILIZE CONSTRUCTION ENTRANCE AS SHOWN ON THIS PLAN.

2. ALL VEGETATION PRESERVATION AND PROTECTION METHODS SHALL BE APPROVED / VERIFIED IN FIELD BY THE CITY ARBORIST PRIOR TO COMMENCEMENT OF ANY GROUND DISTURBING ACTIVITY.

3. INSTALL INLET PROTECTION AT EXISTING STORM DRAIN INLETS AS NECESSARY AND AS SHOWN ON THIS PLAN.

4. INSTALL ADDITIONAL EROSION AND SEDIMENT CONTROL PRACTICES AS NECESSARY AND AS DIRECTED BY THE EROSION AND SEDIMENT CONTROL INSPECTOR.

5. CONDUCT DEMOLITION, CONSTRUCTION AND GRADING ACTIVITIES ACCORDING TO THE APPLICABLE PLANS.

6. AS CONTRIBUTORY DRAINAGE AREAS ARE STABILIZED AND WITH THE PERMISSION OF THE EROSION AND SEDIMENT CONTROL INSPECTOR, REMOVE INDIVIDUAL EROSION AND SEDIMENT CONTROL PRACTICES.

7. UPON COMPLETION OF DEMOLITION, CONSTRUCTION AND GRADING ACTIVITIES; PROVIDE PERMANENT STABILIZATION ACCORDING TO APPROVED METHODS AND REMOVE ALL REMAINING EROSION AND SEDIMENT CONTROL MEASURES WITH THE APPROVAL OF THE EROSION AND SEDIMENT CONTROL INSPECTOR.

ENVIRONMENTAL SITE ASSESSMENT

1. THERE ARE NO TIDAL WETLANDS, TIDAL SHORES, TRIBUTARY STREAMS, FLOODPLAINS, CONNECTED TIDAL WETLANDS, ISOLATED WETLANDS, HIGHLY ERODIABLE/PERMEABLE SOILS OR BUFFER AREAS ASSOCIATED WITH SHORES, STREAMS, OR WETLANDS LOCATED ON THE SITE. FURTHER, THERE ARE NO WETLAND PERMITS REQUIRED FOR THIS DEVELOPMENT PROJECT. THE AREA SURROUNDING THE STORM WATER PIPE THAT RUNS DOWN THE MIDDLE OF ORONOCO STREET IS KNOWN TO BE IMPACTED BY MIGRATING CONTAMINANTS FROM THE FORMER MANUFACTURED GAS PLANT AT THE INTERSECTION OF ORONOCO AND LEE STREETS.

2. THE CITY OF ALEXANDRIA DEPARTMENT OF TRANSPORTATION AND ENVIRONMENTAL SERVICES, OFFICE OF ENVIRONMENTAL QUALITY MUST BE NOTIFIED IF UNUSUAL OR UNANTICIPATED CONTAMINATION OR UNDERGROUND STORAGE TANKS, DRUMS, AND CONTAINERS ARE ENCOUNTERED AT THE SITE. IF THERE IS ANY DOUBT ABOUT PUBLIC SAFETY OR A RELEASE TO THE ENVIRONMENT, THE ALEXANDRIA FIRE DEPARTMENT MUST BE CONTACTED IMMEDIATELY BY CALLING 911. THE TANK OR CONTAINER'S REMOVAL, ITS CONTENTS, ANY ADDITIONAL SOIL CONTAMINATION AND RELEASES TO THE ENVIRONMENT WILL BE HANDLED IN ACCORDANCE WITH FEDERAL, STATE, AND CITY REGULATIONS.

3. ALL WELLS TO BE DEMOLISHED IN THIS PROJECT, INCLUDING MONITORING WELLS MUST BE CLOSED IN ACCORDANCE WITH VIRGINIA STATE WATER CONTROL BOARD (VSWCB) REQUIREMENTS. CONTACT ENVIRONMENTAL HEALTH SPECIALIST AND COORDINATE WITH THE ALEXANDRIA HEALTH DEPARTMENT AT 703-838-4400 EXT 267/255.

4. ALL CONSTRUCTION ACTIVITIES MUST COMPLY WITH THE ALEXANDRIA NOISE CONTROL CODE TITLE 11, CHAPTER 5, WHICH PERMITS CONSTRUCTION ACTIVITIES TO OCCUR BETWEEN THE FOLLOWING HOURS:

- MONDAY THROUGH FRIDAY FROM 7 AM TO 6 PM AND
- SATURDAYS FROM 9 AM TO 6 PM.
- NO CONSTRUCTION ACTIVITIES ARE PERMITTED ON SUNDAYS.

PILE DRIVING IS FURTHER RESTRICTED TO THE FOLLOWING HOURS:

- MONDAY THROUGH FRIDAY FROM 9 AM TO 6 PM AND
- SATURDAYS FROM 10 AM TO 4 PM.

STORMWATER BEST MANAGEMENT PRACTICES (BMP) NOTES

THE STORMWATER BEST MANAGEMENT PRACTICES (BMP) REQUIRED FOR THIS PROJECT SHALL BE CONSTRUCTED AND INSTALLED UNDER THE DIRECT SUPERVISION OF THE DESIGN ENGINEER OR HIS DESIGNATED REPRESENTATIVE. THE DESIGN ENGINEER SHALL MAKE A WRITTEN CERTIFICATION TO THE CITY THAT THE BMPs ARE CONSTRUCTED AND INSTALLED AS DESIGNED AND IN ACCORDANCE WITH THE APPROVED SITE PLAN. IN ADDITION, AGGREGATE LAYERS AND COLLECTOR PIPES MAY NOT BE INSTALLED UNLESS THE DESIGN ENGINEER OR HIS REPRESENTATIVE IS PRESENT.

THE CONTRACTOR SHALL FURNISH THE CITY WITH AN OPERATION AND MAINTENANCE MANUAL FOR ALL BMPs ON THE PROJECT. THE MANUAL SHALL INCLUDE AN EXPLANATION OF THE FUNCTIONS AND OPERATIONS OF EACH BMP AND ANY SUPPORTING UTILITIES, CATALOG CUTS ON ANY MECHANICAL OR ELECTRICAL EQUIPMENT AND A SCHEDULE OF ROUTINE MAINTENANCE FOR THE BMPs AND SUPPORTING EQUIPMENT.

UTILITY WORKS

UNDERGROUND UTILITY LINES SHALL BE INSTALLED IN ACCORDANCE WITH THE FOLLOWING MINIMUM STANDARDS DESCRIBED IN SECTION 4VAC50-30-40 OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK (VESCH) AND ADDITIONAL APPLICABLE PRACTICES FOLLOWED BY THE CITY OF ALEXANDRIA:

- a. ALL THE EXISTING AND PROPOSED PUBLIC AND PRIVATE UTILITIES AND EASEMENTS SHALL BE SHOWN AND A DESCRIPTIVE NARRATION OF VARIOUS UTILITIES SHALL BE PROVIDED ON THE PLAN.
- b. IT IS THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN UTILITY SERVICES AT ALL TIMES DURING CONNECTION AND/OR CONSTRUCTION.
- c. NO MORE THAN 500 LINEAR FEET OF TRENCH MAY BE OPENED AT ONE TIME.
- d. EXCAVATED MATERIAL SHALL BE PLACED ON THE UPHILL SIDE OF TRENCHES.
- e. EFFLUENT FROM DEWATERING OPERATIONS SHALL BE FILTERED OR PASSED THROUGH AN APPROVED SEDIMENT TRAPPING DEVICE, OR BOTH, AND DISCHARGED IN A MANNER THAT DOES NOT ADVERSELY AFFECT FLOWING STREAMS OR OFF-SITE PROPERTY.
- f. MATERIAL USED FOR BACKFILLING TRENCHES SHALL BE PROPERLY COMPACTED IN ACCORDANCE WITH THE CITY OF ALEXANDRIA STANDARDS AND SPECIFICATIONS TO MINIMIZE EROSION AND PROMOTE STABILIZATION.
- g. SHOULD UTILITY CONSTRUCTION BE PERFORMED AFTER COMPLETING EARTHWORK, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ACHIEVING 98 PERCENT OF THE MODIFIED PROCTOR MAXIMUM DRY DENSITY (ASTM D-1551) COMPACTION IN ALL TRENCH BACKFILL.
- h. RE-STABILIZATION SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THE VIRGINIA REGULATIONS §4VAC50-30 EROSION AND SEDIMENT CONTROL REGULATIONS, VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK (VESCH).
- i. APPLICABLE SAFETY REGULATIONS SHALL BE COMPLIED WITH.
- j. THE CONTRACTOR IS RESPONSIBLE FOR INSTALLATION OF ANY ADDITIONAL CONTROL MEASURES AS NECESSARY TO PREVENT EROSION AND SEDIMENTATION, AS DETERMINED BY THE DIRECTOR OF TRANSPORTATION AND ENVIRONMENTAL SERVICES, CITY OF ALEXANDRIA.
- k. A REMEDIATION PLAN SHALL BE SUBMITTED DETAILING HOW CONTAMINATED SOILS AND/OR GROUNDWATER WILL BE DEALT WITH, INCLUDING PLANS TO REMEDIATE UTILITY CORRIDORS.
- l. UTILITY CORRIDORS IN CONTAMINATED SOIL SHALL BE OVER EXCAVATED BY 2 FEET AND BACKFILLED WITH "CLEAN" SOIL.
- m. GRADING CAN BE PERFORMED ON INSTALLATION OF UTILITIES.
- n. ALL UTILITIES SUCH AS ELECTRICAL LINES, GAS PIPES, COMMUNICATION CABLES, INCLUDING WATER AND SEWER LATERALS ON PRIVATE PROPERTY IN THE CITY OF ALEXANDRIA SHALL BE PROVIDED WITH MINIMUM 3" WIDE 5 MIL OVERALL THICKNESS DETECTABLE UNDERGROUND WARNING TAPE (DUWT). THE DUWT SHALL BE INSTALLED AT DEPTHS OF 12" TO 18" FOR DUWT WIDTHS OF 3" AND 24" FOR WIDTHS OF 6" SO AS TO MAKE UNDERGROUND INSTALLATIONS EASY TO FIND USING A NON-FERROUS LOCATOR. THE DUWT SHALL BE WITH ALUMINUM BACKING OR SOLID ALUMINUM CORE LAMINATED WITH A PROTECTIVE CLEAR FILM ON BOTH SIDES, SEALING AND PROTECTING THE GRAPHIC FROM UNDERGROUND MOISTURE, ACIDS, ALKALIS, AND OTHER SOL SUBSTANCES. ALL DUWT TAPES SHALL BE PRINTED IN BLACK INK ON AMERICAN PUBLIC WORKS ASSOCIATION (APWA) APPROVED COLORS TO MEET OR EXCEED INDUSTRY STANDARDS.
- o. COLOR CODES: RED CAUTION BURIED ELECTRIC POWER LINES, CABLES, CONDUITS, AND LIGHTING CABLES YELLOW CAUTION GAS, OIL, STEAM, PETROLEUM, OR GASEOUS MATERIALS ORANGE CAUTION COMMUNICATIONS, ALARM OR SIGNAL LINES, CABLES, OR CONDUITS BLUE CAUTION POTABLE WATER PURPLE CAUTION RECLAIMED WATER, IRRIGATION AND SLURRY LINES GREEN CAUTION SEWER, DRAIN LINES, AND FORCE MAIN

LANDSCAPE NOTES

1. ALL PROTECTION AND PRESERVATION MEASURES FOR EXISTING VEGETATION, INCLUDING MAINTENANCE AND PENALTIES SHALL BE PREPARED IN COMPLIANCE WITH LANDSCAPE GUIDELINES OF THE CITY OF ALEXANDRIA AND APPROVED BY THE CITY ARBORIST IN-FIELD PRIOR TO COMMENCEMENT OF ANY SITE DISTURBING AND CONSTRUCTION ACTIVITIES.
2. ALL VEGETATION PRESERVATION AND PROTECTION METHODS SHALL BE APPROVED / VERIFIED IN FIELD BY THE CITY ARBORIST PRIOR TO COMMENCEMENT OF ANY GROUND DISTURBING ACTIVITY.
3. LOCATION AND METHOD FOR PROTECTION AND PRESERVATION OF EXISTING TREES WILL BE SHOWN ON SEDIMENT AND EROSION CONTROL AND LANDSCAPE PLAN SHEETS.
4. IT IS THE CONTRACTOR'S RESPONSIBILITY TO MAKE SURE THAT ANY EXISTING LANDSCAPING WHICH IS TO BE RELOCATED ON THE SITE WILL BE CAREFULLY STORED IN A DESIGNATED AREA BEFORE BEING REPLANTED. COORDINATION WITH THE OWNER FOR MUTUALLY AGREEABLE STORAGE LOCATIONS FOR LANDSCAPE MATERIAL SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPLACEMENT OF PLANT MATERIAL THAT DOES NOT SURVIVE STORAGE AND REPLANTING.
5. INCLUDE SPECIFIC CONSTRUCTION STAGING INFORMATION ON THE PLAN THAT INDICATES THE METHODS, AND PROCEDURES TO BE IMPLEMENTED FOR PROTECTION OF EXISTING ON-SITE AND OFF-SITE VEGETATION.
6. PROPOSED PLANTING SHALL BE PROVIDED IN COMPLIANCE WITH LANDSCAPE GUIDELINES OF THE CITY OF ALEXANDRIA.
7. SPECIFICATION FOR ALL PLANTINGS SHALL BE IN ACCORDANCE WITH THE CURRENT AND MOST UP TO DATE EDITION OF ANSI-Z60.1, THE AMERICAN STANDARD FOR NURSERY STOCK AS PRODUCED BY THE AMERICAN ASSOCIATION OF NURSERYMEN; WASHINGTON, D.C.
8. IN LIEU OF MORE STRENUOUS SPECIFICATIONS, ALL LANDSCAPE RELATED WORK SHALL BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH THE CURRENT AND MOST UP-TO-DATE EDITION (AT TIME OF CONSTRUCTION) OF LANDSCAPE SPECIFICATION GUIDELINES AS PRODUCED BY THE LANDSCAPE CONTRACTORS ASSOCIATION OF MARYLAND, DISTRICT OF COLUMBIA AND VIRGINIA; GAITHERSBURG, MARYLAND.
9. PRIOR TO COMMENCEMENT OF LANDSCAPE INSTALLATION/PLANTING OPERATIONS, A PRE-INSTALLATION/CONSTRUCTION MEETING WILL BE SCHEDULED WITH THE CITY'S ARBORIST AND LANDSCAPE ARCHITECTS TO REVIEW THE SCOPE OF INSTALLATION PROCEDURES AND PROCESSES.
10. AS-BUILT DRAWINGS FOR THIS LANDSCAPE PLAN AND/OR IRRIGATION/WATER MANAGEMENT SYSTEM WILL BE PROVIDED IN COMPLIANCE WITH CITY OF ALEXANDRIA LANDSCAPE GUIDELINES. AS-BUILT DRAWINGS SHALL INCLUDE CLEAR IDENTIFICATION OF ALL VARIATION(S) AND CHANGES FROM APPROVED DRAWINGS INCLUDING LOCATION, QUANTITY AND SPECIFICATION OF ALL PROJECT ELEMENTS.

DEMOLITION NOTES

1. ALL WORK SHALL BE PERFORMED IN STRICT COMPLIANCE WITH THE MOST CURRENT APPLICABLE FEDERAL, STATE, AND LOCAL LAWS AND REGULATIONS, INCLUDING BUT NOT LIMITED, TO ENVIRONMENTAL PROTECTION AGENCY (EPA), OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA), VIRGINIA OCCUPATIONAL AND SAFETY HEALTH COMPLIANCE PROGRAM (VOSH ENFORCEMENT), VIRGINIA OVERHEAD HIGH VOLTAGE LINE SAFETY ACT, NATIONAL EMISSIONS STANDARDS FOR HAZARDOUS AIR POLLUTANTS (NESHAPS), AND NATIONAL INSTITUTE OF OCCUPATIONAL SAFETY AND HEALTH (NIOSH).
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COORDINATION OF WORK WITH REPRESENTATIVE UTILITY COMPANIES AND FOR THE IMPLEMENTATION OF REQUIRED UTILITY-RELATED WORK.
3. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OWNER'S REPRESENTATIVE UPON ENCOUNTERING ANY HAZARDOUS MATERIALS DURING DEMOLITION AND/OR CONSTRUCTION ACTIVITIES. THE CONTRACTOR SHALL DOCUMENT SAME TO THE OWNER'S REPRESENTATIVE AND OBTAIN DIRECTION AS TO THE APPROPRIATE ACTION(S) TO BE TAKEN.
4. PRIOR TO REMOVAL OF MATERIALS OVER EXISTING UTILITY SYSTEMS, THE CONTRACTOR SHALL DOCUMENT EXISTING CONDITIONS AND, IF AT VARIANCE WITH CONDITIONS AS REPRESENTED ON THE PLANS, NOTIFY THE OWNER'S REPRESENTATIVE AND OBTAIN DIRECTIONS AS TO THE APPROPRIATE ACTION(S) TO BE TAKEN.
5. THE CONTRACTOR SHALL BACKFILL EXCAVATED AREAS WITH APPROVED MATERIALS / CLEAN FILL AS PER THE REQUIREMENTS OF VIRGINIA DEPARTMENT OF TRANSPORTATION (VDOT).
6. THE CONTRACTOR SHALL PROTECT AND PREVENT DAMAGE TO EXISTING ON-SITE UTILITY DISTRIBUTION FACILITIES THAT ARE TO REMAIN. ACTIVE UTILITY DISTRIBUTION FACILITIES ENCOUNTERED DURING DEMOLITION AND/OR CONSTRUCTION ACTIVITIES SHALL BE SHUT OFF AT THE SERVICE MAIN WITH THE APPROVAL OF THE OWNER'S REPRESENTATIVE.
7. DURING DEMOLITION AND/OR CONSTRUCTION ACTIVITIES, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OWNER'S REPRESENTATIVE UPON ENCOUNTERING ANY EXISTING UTILITIES AND/OR UTILITY SYSTEM STRUCTURES NOT SHOWN ON THESE PLANS. THE CONTRACTOR SHALL DOCUMENT THE SAME AND FORWARD THE INFORMATION TO THE RESIDENT ENGINEER / OWNER'S REPRESENTATIVE, AND OBTAIN DIRECTION AS TO THE APPROPRIATE ACTION(S) TO BE TAKEN.
8. THE CONTRACTOR OR APPLICANT SHALL WORK WITH THE CITY STAFF TO REUSE THE EXISTING, LEFTOVER, UNUSED, AND/OR DISCARDED BUILDING MATERIALS AS PART OF THE DEMOLITION PROCESS OR THE CONSTRUCTION DEBRIS MUST BE REMOVED TO AN APPROVED LANDFILL WITH ADEQUATE FREQUENCY IN ACCORDANCE WITH THE VIRGINIA STATE LITTER CONTROL ACT.

CONSTRUCTION NOTES

1. THE EXISTING UNDERGROUND UTILITIES SHOWN HEREON ARE BASED UPON AVAILABLE INFORMATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE EXACT LOCATION OF ALL UTILITIES BEFORE COMMENCING WORK AND FOR ANY DAMAGES WHICH MAY OCCUR BY HIS FAILURE TO LOCATE OR PRESERVE THESE UNDERGROUND UTILITIES. IF DURING CONSTRUCTION OPERATIONS, THE CONTRACTOR SHOULD ENCOUNTER UTILITIES OTHER THAN THOSE SHOWN ON THE PLANS, HE SHALL IMMEDIATELY NOTIFY THE ENGINEER AND TAKE NECESSARY ACTION AND PROPER STEPS TO PROTECT THE FACILITY AND ASSURE THE CONTINUATION OF SERVICE.
2. THE CONTRACTOR SHALL DIG TEST PITS AS REQUIRED FOLLOWING NOTIFICATION AND MARKING OF ALL EXISTING UTILITIES TO VERIFY THE LOCATION AND DEPTH OF EXISTING UTILITIES TEST HOLES TO BE PERFORMED AT LEAST 30 DAYS PRIOR TO START OF CONSTRUCTION. ANY DISCREPANCIES ARE TO BE REPORTED IMMEDIATELY TO THE OWNER AND ENGINEER. REDESIGN AND APPROVAL BY REVIEWING AGENCIES SHALL BE OBTAINED, IF REQUIRED.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING THE OWNER AND THE ENGINEER OF ANY CHANGES OR CONDITIONS ATTACHED TO PERMITS OBTAINED FROM ANY AUTHORITY ISSUING PERMITS.
4. THE CONTRACTOR SHALL VISIT THE SITE AND SHALL VERIFY EXISTING CONDITIONS PRIOR TO STARTING CONSTRUCTION.
5. THE CONTRACTOR SHALL CLEAR THE SITE OF ALL TREES WITHIN THE LIMITS OF CONSTRUCTION UNLESS OTHERWISE SPECIFIED, AND SHALL BE RESPONSIBLE FOR ENSURING THAT EXISTING UTILITIES ARE DISCONNECTED.
6. ALL AREAS, ON OR OFF-SITE, WHICH ARE DISTURBED BY THIS CONSTRUCTION AND WHICH ARE NOT PAVED OR BUILT UPON, SHALL BE ADEQUATELY STABILIZED TO CONTROL EROSION AND SEDIMENTATION. THE MINIMUM ACCEPTABLE STABILIZATION SHALL CONSIST OF PERMANENT GRASS, SEED MIXTURE TO BE AS RECOMMENDED BY THE CITY AGENT. ALL SLOPES 3:1 AND GREATER SHALL BE SODDED AND PEGGED OF OTHERWISE STABILIZED IN A MANNER APPROVED BY THE CITY OF ALEXANDRIA.
7. ALL ABOVE GROUND UTILITIES SERVING THE SITE SHALL BE RELOCATED AS REQUIRED BY THE OWNING UTILITY COMPANIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAKING ALL ARRANGEMENTS AND COORDINATING ALL WORK REQUIRED FOR THE NECESSARY RELOCATIONS.
8. PRIOR TO BEGINNING OF CONSTRUCTION, CONTRACTOR SHALL VERIFY FROM THE ARCHITECTURAL DRAWINGS ALL DIMENSIONS, DETAILS, AND TREATMENTS FOR THE PROPOSED BUILDINGS, WALKWAYS, AND OTHER PROPOSED CONSTRUCTION WHERE INDICATED ON THE PLANS.
9. THE CONTRACTOR IS TO VERIFY INVERT, SIZE, AND LOCATION OF BUILDING UTILITY CONNECTIONS WITH THE MECHANICAL PLANS PRIOR TO PLACEMENT OF UNDERGROUND UTILITIES.
10. EXISTING BUILDINGS, FENCES AND OTHER EXISTING PHYSICAL FEATURES ARE TO BE REMOVED AS REQUIRED BY THE CONSTRUCTION.
11. EXISTING CONSTRUCTION SHALL BE REMOVED TO NEAREST JOINT. NEW CONSTRUCTION SHALL BE PROVIDED AS SHOWN AND ANY DAMAGED AREA SHALL BE REPAIRED TO MATCH CONDITIONS EXISTING PRIOR TO CONSTRUCTION OR TO THE SATISFACTION OF DIRECTOR, TRANSPORTATION AND ENVIRONMENTAL SERVICES.
12. TOPS OF EXISTING STRUCTURES WHICH REMAIN IN USE ARE TO BE ADJUSTED IN ACCORDANCE WITH THE GRADING PLAN. ALL PROPOSED STRUCTURE TOP ELEVATIONS ARE TO BE VERIFIED BY THE CONTRACTOR WITH THE SITE GRADING PLANS. IN CASE OF CONFLICT, THE GRADING PLAN SHALL SUPERSEDE PROFILE ELEVATIONS. MINOR ADJUSTMENTS TO MEET FINISHED GRADE ELEVATIONS, IF REQUIRED, SHALL BE MADE IN THE FIELD WITH THE APPROVAL OF THE SITE INSPECTOR OF THE DEPARTMENT OF TRANSPORTATION AND ENVIRONMENTAL SERVICES.
13. THE DESIGN, CONSTRUCTION, FIELD PRACTICES, AND METHODS SHALL CONFORM TO THE REQUIREMENTS SET FORTH BY THE CITY OF ALEXANDRIA ZONING ORDINANCE AND DESIGN AND CONSTRUCTION STANDARDS MANUAL. FAILURE TO COMPLY WITH THE CODE, APPLICABLE MANUALS, AND PROVISIONS OF THE CONSTRUCTION AND ESCROW AGREEMENTS OR THE PERMITS SHALL BE DEEMED A VIOLATION.
14. CONSTRUCTION TAKEOUT SHALL BE UNDER THE DIRECT SUPERVISION OF A LICENSED LAND SURVEYOR IN THE COMMONWEALTH OF VIRGINIA.
15. THE CONTRACTOR IS REFERRED TO STRUCTURAL, GEOTECHNICAL, MECHANICAL, AND ARCHITECTURAL PLANS FOR FOUNDATION TREATMENT INCLUDING, BUT NOT LIMITED TO, SHEETING AND SHORING FOR BUILDING EXCAVATION, WATERPROOFING FOR FILL AGAINST BUILDINGS, LOCATION OF MECHANICAL EQUIPMENT, AND CONNECTIONS AT THE FACES OF BUILDINGS.

60% COMPLETE
USED
FOR CONSTRUCTION



DESIGNED:	JLD	NO.	DATE	REVISION
DRAWN:	RF, JLD			
CHECKED:	JLD			
DATE:	09/20/2013			
SCALE:	1"=20'			
FILE NO.:	K:DBA:COA204			
PROJECT NO.:	COA204			
OFFICE LOC.:	BLUEFIELD			

ALEXANDRIA TOWN GAS
ORONOCO SITE
ALEXANDRIA, VIRGINIA

Figure

PROJECT NOTES

G01A

15. THE CONTRACTOR IS REFERRED TO STRUCTURAL, GEOTECHNICAL, MECHANICAL, AND ARCHITECTURAL PLANS FOR FOUNDATION TREATMENT INCLUDING, BUT NOT LIMITED TO, SHEETING AND SHORING FOR BUILDING EXCAVATION, WATERPROOFING FOR FILL AGAINST BUILDINGS, LOCATION OF MECHANICAL EQUIPMENT, AND CONNECTIONS AT THE FACES OF BUILDINGS.
16. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAKING A SMOOTH TRANSITION TO EXISTING CURB AND SIDEWALKS, IF APPLICABLE.
17. THE CALIFORNIA BEARING RATIO (CBR) VALUES OF IN-SITU MATERIALS SHALL BE DETERMINED BY FIELD AND/OR LABORATORY TESTS FOR ACTUAL DETERMINATION OF REQUIRED THICKNESSES OF SURFACE, BASE, SUB-BASE, AND SUB GRADE MATERIALS. THE PAVEMENT SECTION SHALL BE DESIGNED BY A GEOTECHNICAL /LICENSED PROFESSIONAL ENGINEER TO THE SATISFACTION OF DIRECTOR, TRANSPORTATION AND ENVIRONMENTAL SERVICES FOR ALL PAVEMENTS INCLUDING EMERGENCY VEHICLE EASEMENT (EVE) TO SUPPORT H-20 LOADING. IN THE CASE OF PAVEMENT PATCHES, PAVEMENT SECTION MUST MEET OR EXCEED EXISTING SECTION.
18. THE THICKNESSES OF SUB-BASE, BASE, AND WEARING COURSE SHALL BE DESIGNED USING 'CALIFORNIA METHOD' AS SET FORTH ON PAGE 3-76 OF THE SECOND EDITION OF A BOOK ENTITLED, 'DATA BOOK FOR CIVIL ENGINEERS, VOLUME ONE, DESIGN' WRITTEN BY ELWIN E. SEELYE. AN ALTERNATE PAVEMENT SECTION DESIGNED TO THE SATISFACTION OF DIRECTOR, TRANSPORTATION AND ENVIRONMENTAL SERVICES FOR ALL PAVEMENTS INCLUDING EMERGENCY VEHICLE EASEMENT (EVE) TO SUPPORT H-20 LOADING BASED ON CBR AND VIRGINIA DEPARTMENT OF TRANSPORTATION (VDOT) METHOD (VASWANI METHOD) AND STANDARD MATERIAL SPECIFICATIONS SHALL BE ACCEPTABLE.
19. EMERGENCY VEHICLE EASEMENTS (EVE) AND AMERICAN WITH DISTABILITY (ADA) ACCESSIBLE PARKING SPACES MUST BE DELINEATED WITH PAVEMENT MARKINGS PER THE CITY OF ALEXANDRIA STANDARD SIGNAGE AND AMERICAN WITH DISABILITIES (ADA) REQUIREMENTS.
20. ALL STRIPING SHALL MEET THE REQUIREMENTS OF MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) STANDARDS (LATEST EDITION) AND SHALL BE THERMOPLASTIC UNLESS OTHERWISE SPECIFIED.
21. ALL EARTHWORK OPERATIONS ARE TO BE PERFORMED UNDER THE FULL TIME, ON-SITE SUPERVISION OF A REGISTERED GEOTECHNICAL ENGINEER WITH GEOTECHNICAL TESTING IN ACCORDANCE WITH CONSTRUCTION SPECIFICATIONS AND GEOTECHNICAL REPORT REQUIREMENTS.
22. THE CONTRACTORS SHALL NOT CAUSE OR PERMIT VEHICLES TO IDLE FOR MORE THAN 10 MINUTES WHEN PARKED.

RESOURCE PROTECTION AREA NOTES

- THE SUBJECT PROPERTY LIES WITHIN A CITY OF ALEXANDRIA RESOURCE PROTECTION AREA (RPA). FIELD DEMARCATED/VERIFIED 50 FEET AND 100 FEET RESOURCE PROTECTION AREA LINES ARE SHOWN ON THE SITE PLAN.
- RESOURCE PROTECTION AREA ENCROACHMENTS SHALL BE MITIGATED ACCORDING TO THE GUIDELINES SUGGESTED IN THE 'RIPARIAN BUFFERS MODIFICATION & MITIGATION GUIDANCE MANUAL' BY THE CHESAPEAKE BAY LOCAL ASSISTANCE DEPARTMENT.
- DEVELOPMENT AND USES PROPOSED IN THE RPA ARE IN COMPLIANCE WITH THE REQUIREMENTS OF ARTICLE 13-107 OF THE ALEXANDRIA ZONING ORDINANCE (AZO).

FLOOD PLAIN NOTES

- THE SITE LIES WITHIN 100-YEAR FLOOD PLAIN WATER SURFACE ELEVATION (WSE) AND THE 100-YEAR FLOOD PLAIN WSE IS SHOWN ON THE SITE PLAN PER THE DEMARCATION OF THE CURRENT FLOOD INSURANCE RATE MAP (FIRM) PUBLISHED BY FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA).
- THE PLAN DEMONSTRATES COMPLIANCE WITH FLOOD PLAIN ORDINANCE SECTION 6-300 TO SECTION 6-311 OF ARTICLE VI SPECIAL AND OVERLAY ZONES OF THE ALEXANDRIA ZONING ORDINANCE (AZO).

ARCHAEOLOGY NOTES

- ALL REQUIRED ARCHAEOLOGICAL PRESERVATION MEASURES SHALL BE COMPLETED PRIOR TO GROUND-DISTURBING ACTIVITIES (SUCH AS CORING, GRADING, FILLING, VEGETATION REMOVAL, UNDERGROUNDING UTILITIES, PILE DRIVING, LANDSCAPING AND OTHER EXCAVATIONS AS DEFINED IN SECTION 2-151 OF THE ZONING ORDINANCE) OR A RESOURCE MANAGEMENT PLAN MUST BE IN PLACE TO PRESERVE AND/OR RECOVER SIGNIFICANT RESOURCES IN CONCERT WITH CONSTRUCTION ACTIVITIES. TO CONFIRM, CALL ALEXANDRIA ARCHAEOLOGY AT (703) 838-4399.
- CALL ALEXANDRIA ARCHAEOLOGY (703/838-4399) TWO WEEKS BEFORE THE STARTING DATE OF ANY GROUND DISTURBANCE SO THAT AN INSPECTION OR MONITORING SCHEDULE FOR CITY ARCHAEOLOGISTS CAN BE ARRANGED. (THE SUBMITTING ENGINEER MUST CONFIRM WITH ALEXANDRIA ARCHAEOLOGY AT (703) 838-4399 BEFORE INCLUDING THIS NOTE ON THE PLAN)
- THE APPLICANT SHALL CALL ALEXANDRIA ARCHAEOLOGY IMMEDIATELY (703-838-4399) IF ANY BURIED STRUCTURAL REMAINS (WALL FOUNDATIONS, WELLS, PRIVIES, CISTERNS, ETC.) OR CONCENTRATIONS OF ARTIFACTS ARE DISCOVERED DURING DEVELOPMENT. WORK MUST CEASE IN THE AREA OF THE DISCOVERY UNTIL A CITY ARCHAEOLOGIST COMES TO THE SITE AND RECORDS THE FINDS.
- THE APPLICANT SHALL NOT ALLOW ANY METAL DETECTION AND/OR ARTIFACT COLLECTION TO BE CONDUCTED ON THE PROPERTY, UNLESS AUTHORIZED BY ALEXANDRIA ARCHAEOLOGY. FAILURE TO COMPLY SHALL RESULT IN PROJECT DELAYS.

CEMETRY AND/OR BURIAL GROUNDS

THERE IS NO OBSERVABLE, HISTORICAL, OR ARCHAEOLOGICAL EVIDENCE OF CEMETERIES OR BURIAL GROUNDS ON THIS PROPERTY.

RODENT ABATEMENT NOTE

- PRIOR TO THE ISSUANCE OF A DEMOLITION PERMIT OR LAND DISTURBANCE PERMIT, A RODENT ABATEMENT PLAN SHALL BE SUBMITTED TO THE CITY OF ALEXANDRIA BUILDING AND FIRE CODE ADMINISTRATION THAT WILL OUTLINE STEPS THAT WILL BE TAKEN TO PREVENT THE SPREAD OF RODENTS FROM THE CONSTRUCTION SITE TO THE SURROUNDING COMMUNITY AND SEWERS. THE CONTRACTOR CAN CONTACT ALEXANDRIA BUILDING AND FIRE CODE ADMINISTRATION DEPARTMENT AT (703) 838-4644 OR (703) 746-4200 FOR ANY QUESTIONS OR ADDITIONAL INFORMATION.

SITE SPECIFIC NOTES:

- DETAILED NOTES AND DESCRIPTIONS ARE PRESENTED IN THE SPECIFICATIONS DOCUMENT THAT HAS BEEN PREPARED TO ACCOMPANY THIS PLAN SET. THE NOTES PRESENTED HEREIN ARE NOT COMPREHENSIVE AND DO NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY FOR READING AND UNDERSTANDING THE SPECIFICATIONS DOCUMENT.
- THE CONTRACTOR IS ADVISED THAT COAL-TAR RELATED CONSTITUENTS ARE PRESENT IN SOIL AND GROUND WATER FROM A FORMER MANUFACTURED GAS PLANT. THE CONTRACTOR SHALL PREPARE A SITE-SPECIFIC HEALTH AND SAFETY PLAN (HASP) THAT DESCRIBES APPROPRIATE PERSONAL PROTECTIVE EQUIPMENT, TRAINING AND WORK PROCEDURES TO BE REQUIRED FOR ON-SITE PERSONNEL. THE HASP SHALL BE SUBMITTED TO THE CITY PRIOR TO THE INITIATION OF ANY SITE DISTURBANCE ACTIVITIES.
- INFORMATION ON SOILS AND GROUND WATER CONDITIONS ARE SUMMARIZED IN THE CARDNO MM&A REMEDIAL ACTION PLAN DATED FEBRUARY 1, 2013 (FEBRUARY 2013 REPORT). A COPY OF THIS REPORT IS INCLUDED IN THE SPECIFICATIONS DOCUMENT PREPARED TO ACCOMPANY THIS PLAN SET.
- REASONABLE CARE HAS BEEN USED TO ASSURE THAT THE INFORMATION PRESENTED FOR THIS PROJECT REFLECTS ACTUAL SITE CONDITIONS; HOWEVER THE USE OF THESE DATA BY THE CONTRACTOR IS AT HIS OWN RISK. THE CONTRACTOR IS EXPECTED TO PRACTICE INDEPENDENT DUE DILIGENCE PRIOR TO BEGINNING WORK ON THIS PROJECT. NO WARRANTY OR ASSURANCE IS EXPRESSED OR IMPLIED.
- THE CONTRACTOR SHALL COLLECT ALL EXCAVATED SOIL/DEMOLITION MATERIAL FOR DISPOSAL IN A PROPER MANNER. THE CITY WILL PROVIDE A SYSTEM FOR THE DISPOSAL OF EXCAVATED MATERIAL GENERATED BY THE CONTRACTOR. THE CONTRACTOR SHALL PROVIDE ALL LABOR AND MATERIALS NECESSARY TO DELIVER SAID MATERIAL TO THE DISPOSAL AREA, AS NOTED ON SHEET C06.
- THE UTILITIES ARE SHOWN ON SHEET G02 FOR INFORMATIONAL/PLANNING PURPOSES ONLY; LOCATIONS MAY BE APPROXIMATE AND/OR INCOMPLETE. THE INFORMATION PRESENTED SHALL NOT RELIEVE THE CONTRACTOR OF HIS OBLIGATION TO LOCATE UTILITIES PRIOR TO INITIATING CONSTRUCTION ACTIVITIES.

CONSTRUCTION SEQUENCE

The anticipated general construction sequence is as follows:

- All required permits are obtained by the CONTRACTOR prior to beginning field activities. All plans required as a condition of permit shall be prepared and submitted prior to field work.
- Define and secure construction limits with fencing, barricades, signage and environmental protective measures.
- Remove and dispose of all floating debris under Robinson Terminal pier.
- Demolish and remove pier and designated landscaping to allow for work progress.
- Stage replacement cap materials in laydown areas.
- Perform bathymetric surveying as needed to confirm existing conditions.
- Demolish and remove concrete apron below Outfall to allow for dredging.
- Dredge the indicated off-shore areas.
- Perform bathymetric surveying as needed to confirm sufficient dredging.
- Dispose of dredge spoils.
- Construct and install rock gabions.
- Install replacement cap materials.
- Perform quality assurance/quality control testing to assure proper materials placement.
- Demobilize from construction site: remove equipment and excess materials; clean area and restore/repair as needed; remove fencing, barricades signs and other site controls.

60% COMPLETE

NOT TO BE USED
FOR CONSTRUCTION



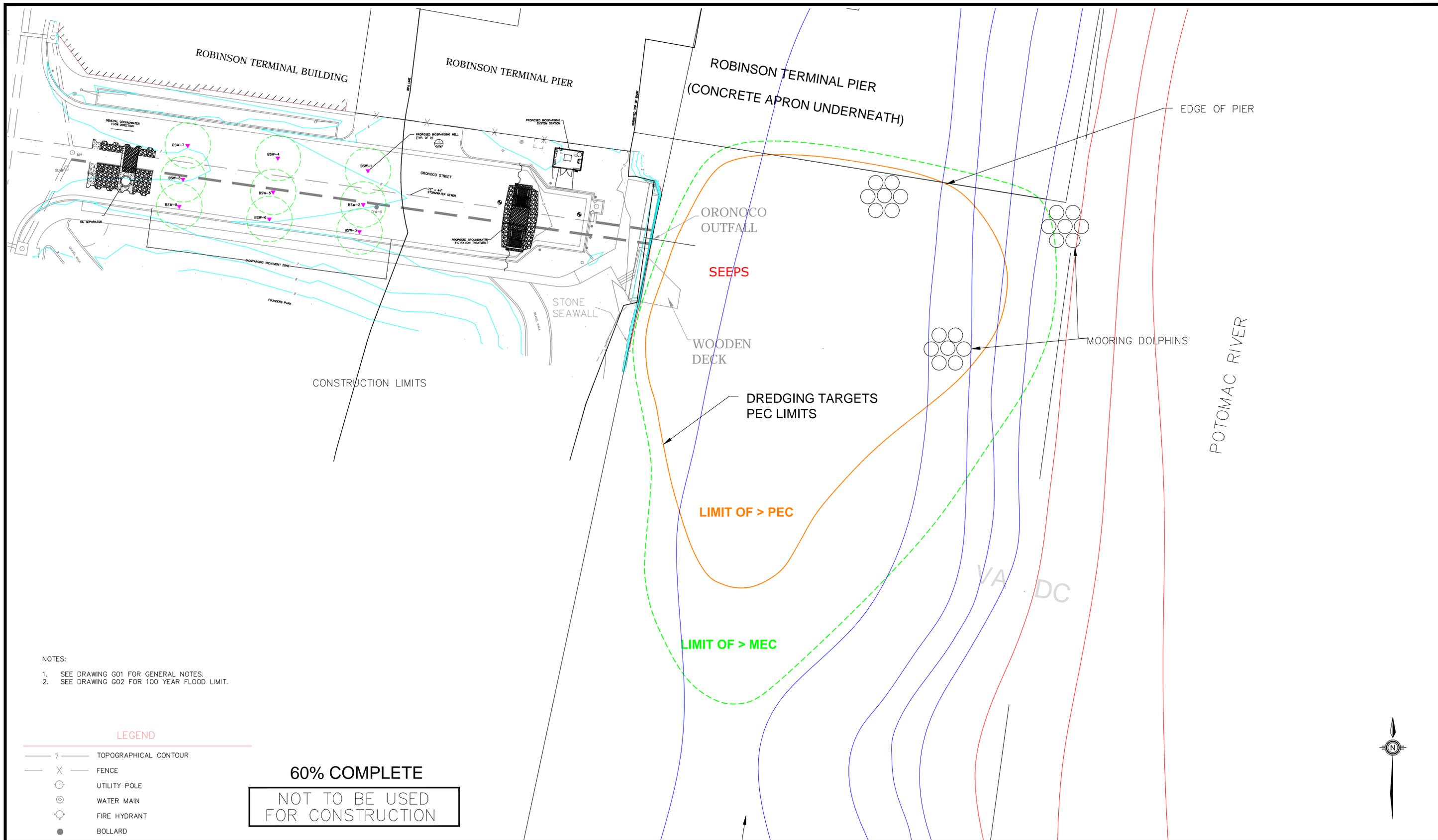
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DRAWN:	RF, JLD			
CHECKED:	JLD			
DATE:	09/20/2013			
SCALE:	1"=20'			
FILE NO.:	K:DBA:COA204			
PROJECT NO.:	COA204			
OFFICE LOC.:	BLUEFIELD			

ALEXANDRIA TOWN GAS
ORONOCO SITE
ALEXANDRIA, VIRGINIA

PROJECT NOTES

Figure

G01B



- NOTES:
1. SEE DRAWING G01 FOR GENERAL NOTES.
 2. SEE DRAWING G02 FOR 100 YEAR FLOOD LIMIT.

LEGEND

- 7 TOPOGRAPHICAL CONTOUR
- X FENCE
- UTILITY POLE
- ⊙ WATER MAIN
- ⊕ FIRE HYDRANT
- BOLLARD

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 NOT TO BE USED
 FOR CONSTRUCTION

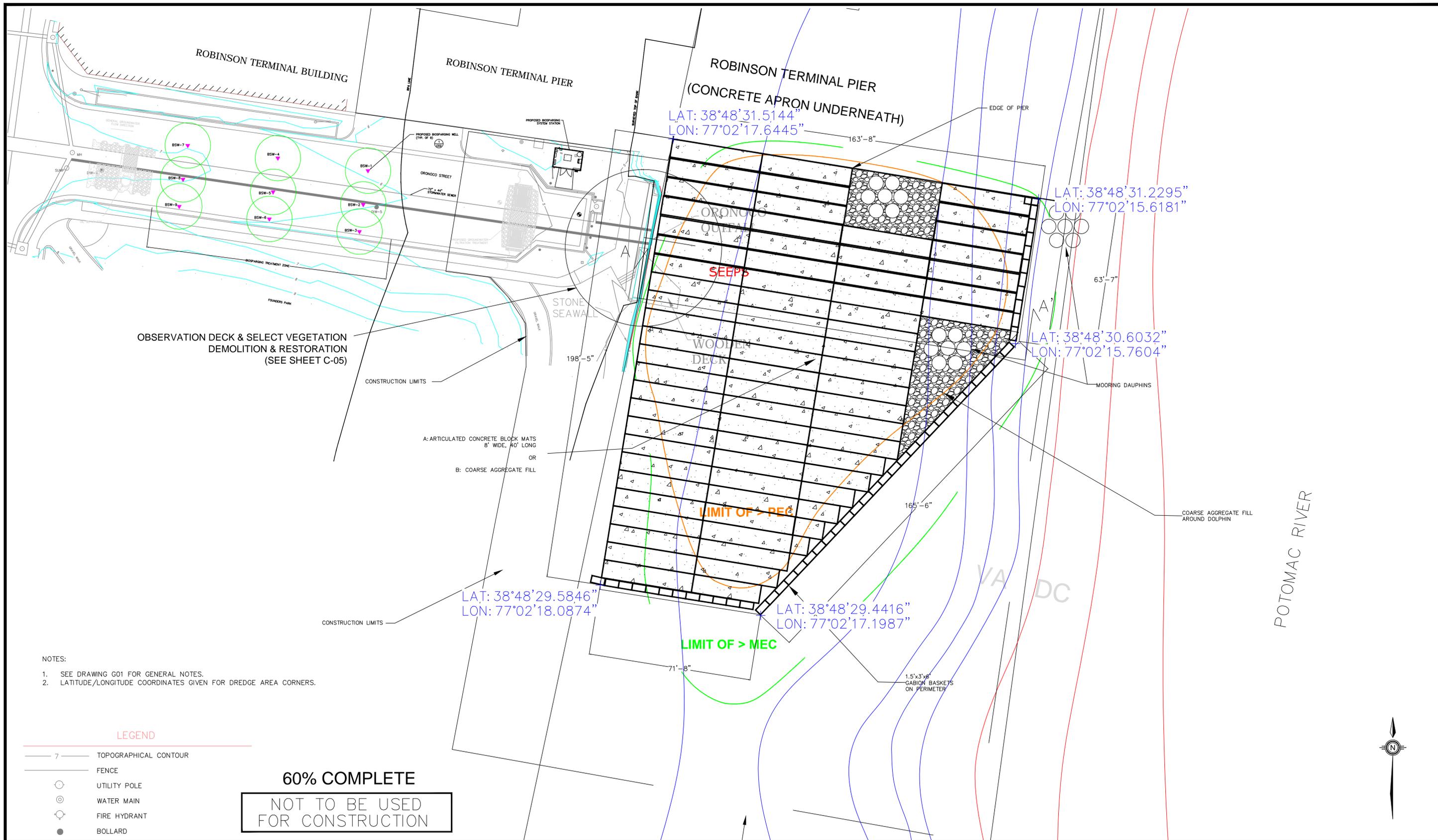


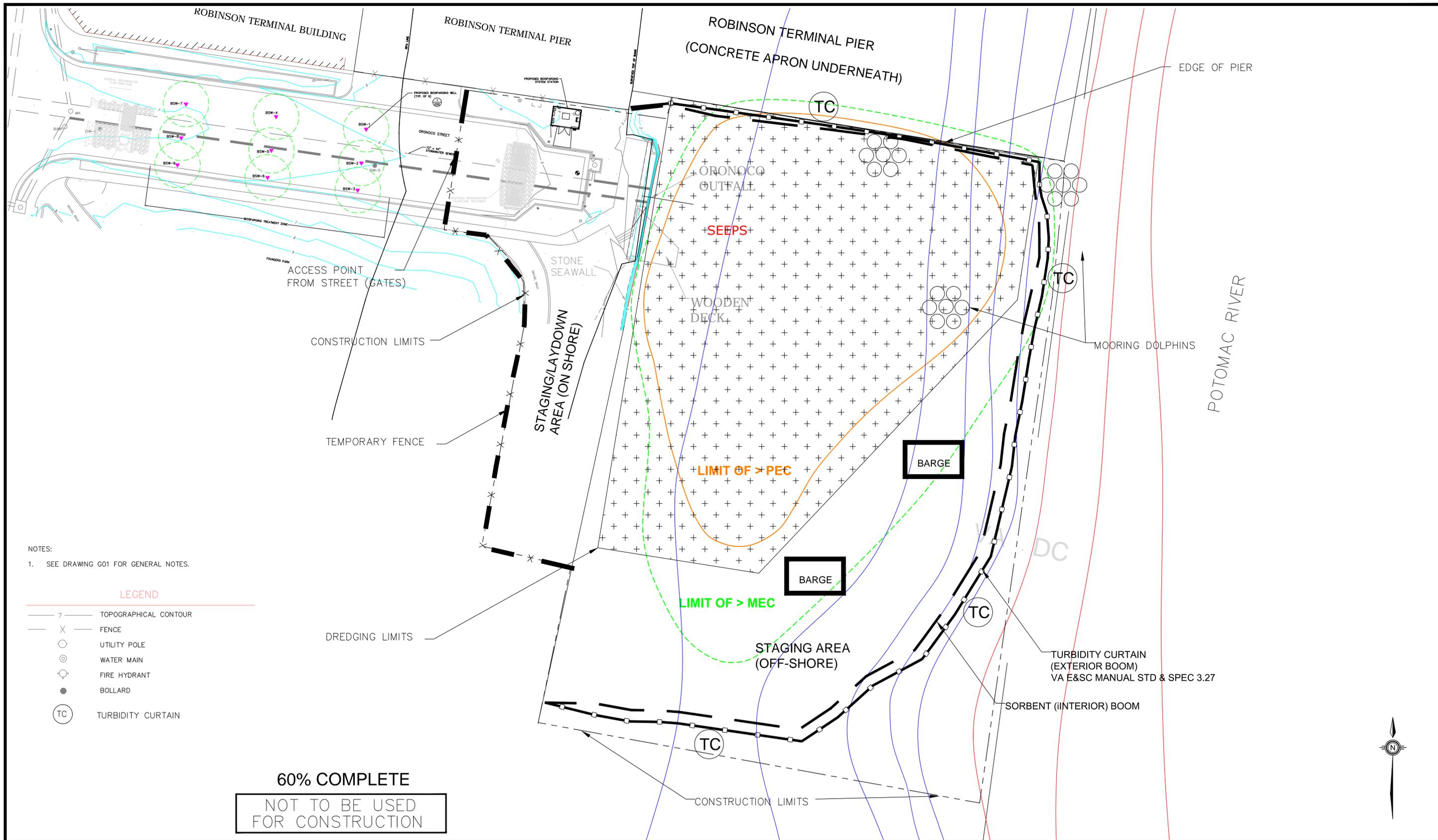
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OFFICE LOC.:	BLUEFIELD			



ALEXANDRIA TOWN GAS
 ORONOCO SITE
 ALEXANDRIA, VIRGINIA
 SITE PLAN
 EXISTING CONDITIONS

Figure
G02





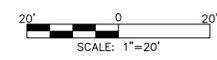
NOTES:
1. SEE DRAWING G01 FOR GENERAL NOTES.

LEGEND

7	TOPOGRAPHICAL CONTOUR
X	FENCE
○	UTILITY POLE
⊙	WATER MAIN
⊕	FIRE HYDRANT
●	BOLLARD
TC	TURBIDITY CURTAIN

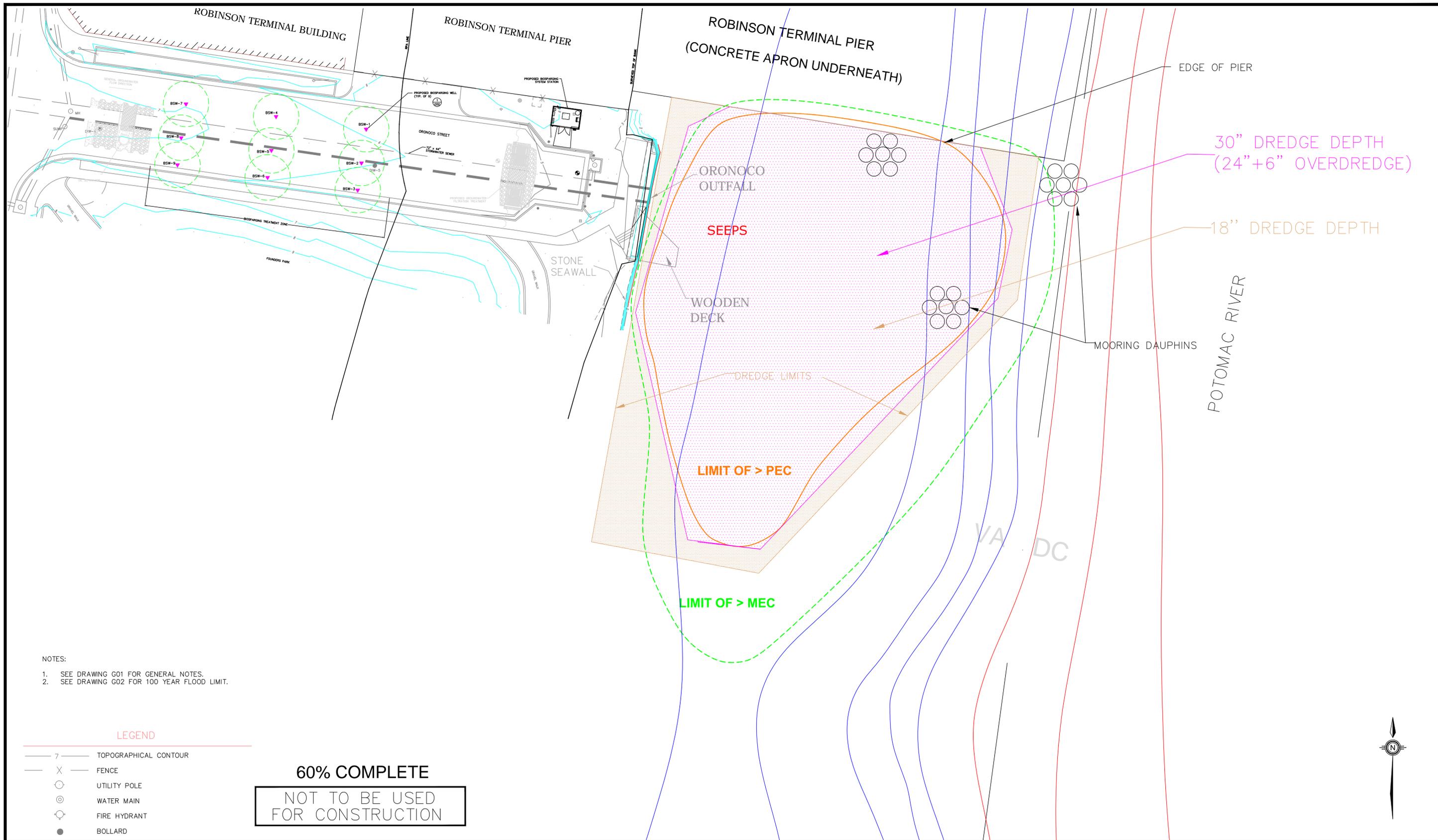
60% COMPLETE
NOT TO BE USED FOR CONSTRUCTION

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PROJECT NO.:	COA204			
OFFICE LOC.:	BLUEFIELD			

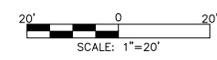


ALEXANDRIA TOWN GAS
ORONOCO SITE
ALEXANDRIA, VIRGINIA
CONSTRUCTION AREA
WORK LIMITS

Figure
G04



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PROJECT NO.:	COA204			
OFFICE LOC.:	BLUEFIELD			



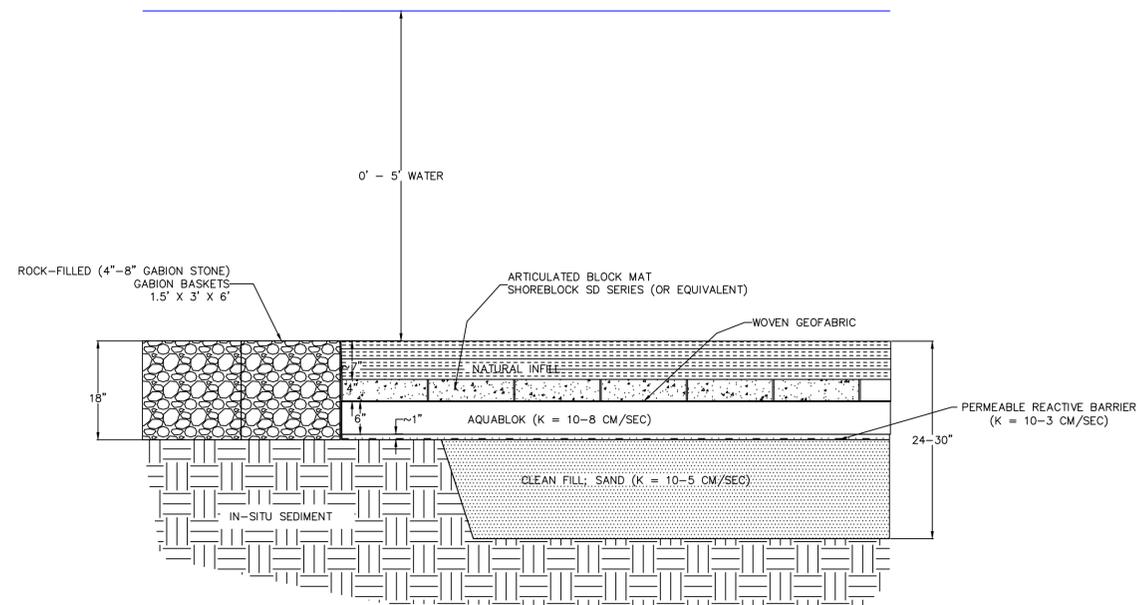
ALEXANDRIA TOWN GAS
 ORONOCO SITE
 ALEXANDRIA, VIRGINIA

DREDGING DEPTHS

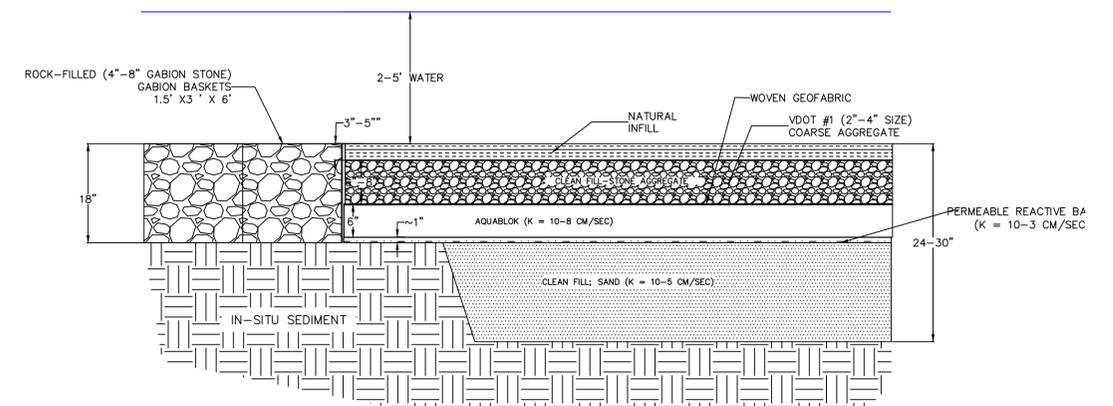
Figure
 C01

TYPICAL SECTIONS

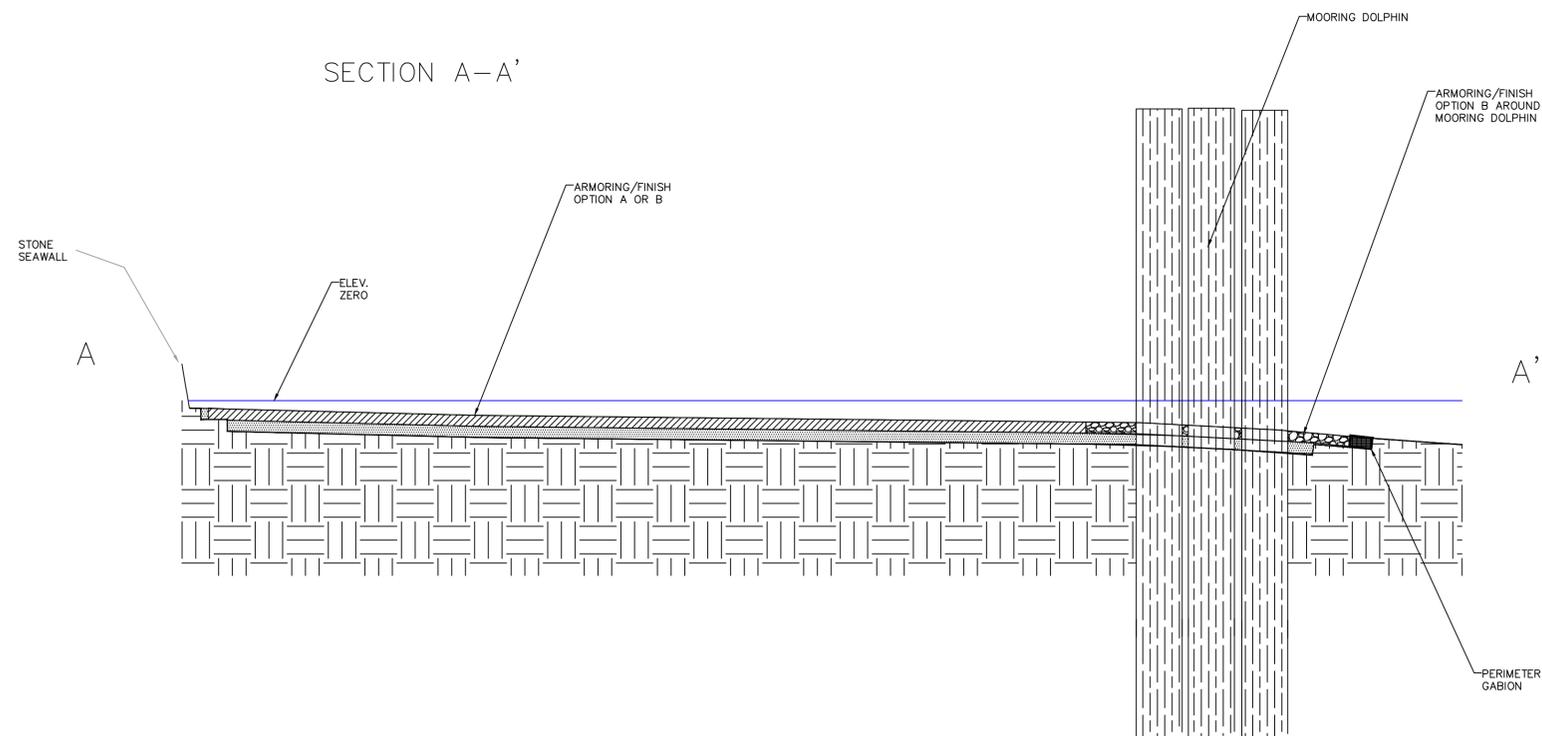
A) OPTION A – ARTICULATED BLOCK MATS (ABM)



B) OPTION B – STONE AGGREGATE & AREA AROUND DOLPHINS



SECTION A-A'



60% COMPLETE

NOT TO BE USED FOR CONSTRUCTION



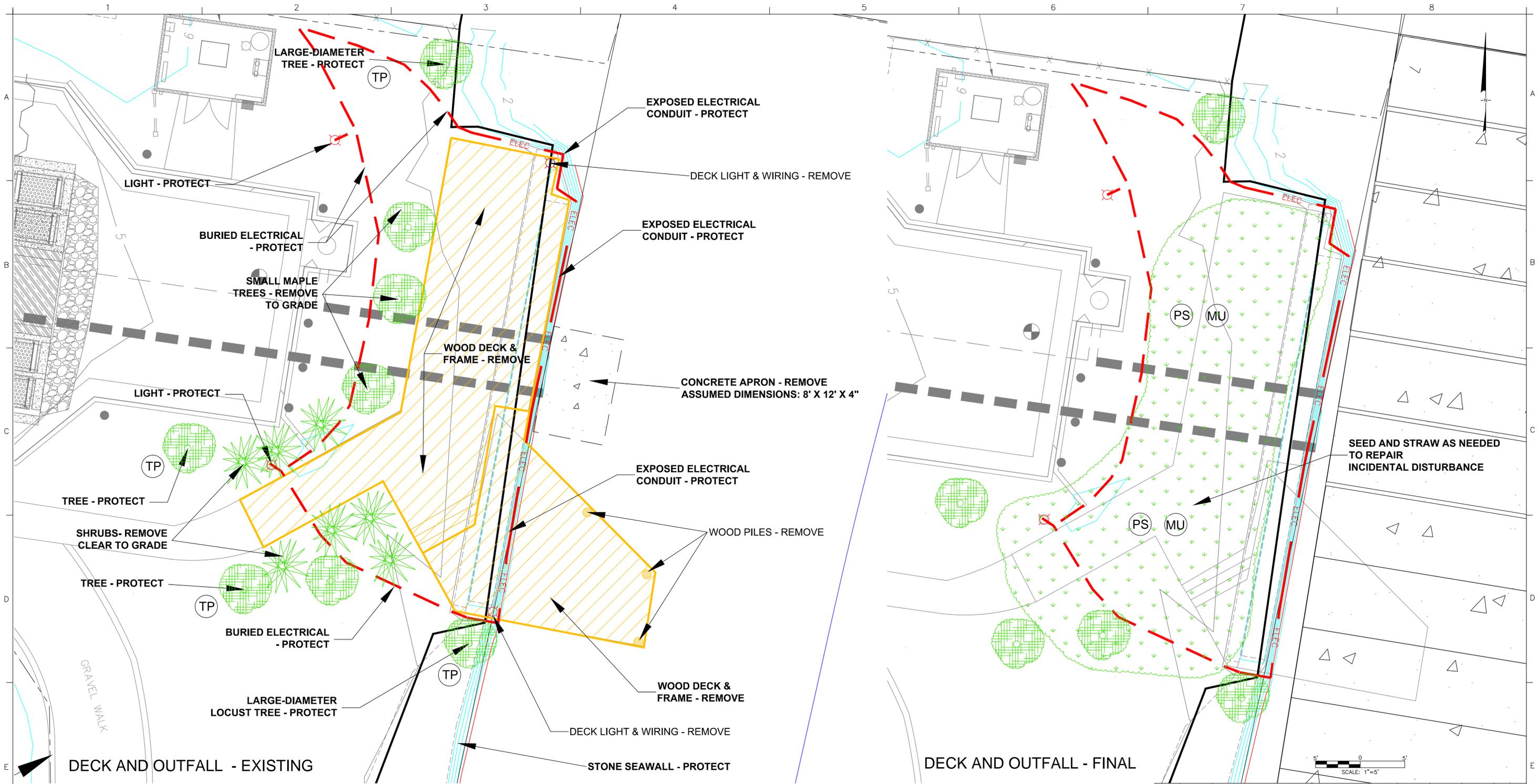
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PROJECT NO.:	COA204			
OFFICE LOC.:	BLUEFIELD			

ALEXANDRIA TOWN GAS
ORONO CO SITE
ALEXANDRIA, VIRGINIA

TYPICAL CROSS SECTIONS

Figure

C03



LEGEND

7	TOPOGRAPHICAL CONTOUR
X	FENCE
○	UTILITY POLE
⊙	WATER MAIN
⊕	FIRE HYDRANT
●	BOLLARD
PS	PERMANENT SEEDING
MU	MULCHING
TP	TREE PROTECTION & PRESERVATION

- NOTES:**
- SEE DRAWING G01 FOR GENERAL NOTES.
 - SEE DRAWING G02 FOR 100 YEAR FLOOD LIMIT.
 - NO DIGGING/GRUBBING - REMOVE TREES/SHRUBS/FRAMING TO GRADE.
 - WOOD PILES TO BE PULLED AND/OR CUT BELOW DREDGE LIMITS.
 - DECK LIGHT WIRING: REMOVE TO JUNCTION; RESTORE JUNCTION PER CITY CODE.
 - PRESERVE/PROTECT EXPOSED CONDUIT AND BURIED ELECTRICAL.
 - PRESERVE/PROTECT TREES OTHER THAN THOSE NOTED FOR DEMOLITION.
 - 7.1. STD & SPEC. 3.38
 8. RESEED & MULCH TO REPAIR INCIDENTAL EARTH DISTURBANCE PER VA E&S MANUAL:
 - 8.1. STD & SPEC. 3.32 PERMANENT SEEDING
 - 8.2. STD & SPEC. 3.35 MULCHING

60% PROGRESS DRAFT
NOT FOR CONSTRUCTION

REV	DATE	DESCRIPTION	DRN	APP	MM&A	GEO.
						
TITLE: DEMOLITION & RESTORATION PLAN						
PROJECT: SEDIMENT REMEDIATION DESIGN						
SITE: ALEXANDRIA TOWN GAS - ORONOCO SITE ALEXANDRIA, VIRGINIA						
THIS DRAWING MAY NOT BE ISSUED FOR PROJECT TENDER OR CONSTRUCTION, UNLESS SCALED.			DESIGN BY: JLD	DATE: 01-29-2013		
SIGNATURE			DRAWN BY: JLD, DD	PROJECT NO.: COA-204		
DATE			CHECKED BY:	FILE: COA204_DEMO		
			REVIEWED BY:	FIGURE NO.: C05		
			APPROVED BY:			

A) DREDGING/DEMOLITION QUANTITIES									
ITEM	AREAS		DEPTH OR THICKNESS		VOLUMES				
	SQ FT	ACRES	INCHES	FEET	IN-SITU		EX-SITU (+25%)		
					CFT	CYD	CFT	CYD	
1) DREDGE AREAS:									
0-18"	26,793	0.62	-	-	-	-	-	-	-
18 - 30"	21,615	0.50	-	-	-	-	-	-	-
2) DREDGE VOLUMES:									
0-18"	26,793	0.62	18	1.5	40,190	1,489	50,237	1,861	
18-24"	21,615	0.50	6	0.5	10,808	400	13,509	500	
SUBTOTAL:	-	-	-	-	50,997	1,889	63,746	2,361	
OVERDREDGE +6"	26,793	0.62	6	0.5	13,397	496	16,746	620	
TOTAL:	-	-	-	-	64,394	2,385	80,492	2,981	
3) WOODY DEBRIS:									
	UNIT		UNIT		TOTAL WT				
	AREA	THICKNESS	VOL	WT	LBS	TONS			
	SQFT	FT	CFT	LB					
UNDER PIER	4875	1	4875	50	243,750	122			
DECK	1025	0.5	512.5	50	25,625	13			
B) REPLACEMENT MATERIALS									
1) SAND:									
	AREA		DEPTH OR THICKNESS		VOLUMES				
	SQ FT	ACRES	INCHES	FEET	IN-SITU		EX-SITU (+25%)		
18-24"	21,615	0.50	6	0.5	10,808	400	13,509	500	
OVERDREDGE +6"	21,615	0.50	6	0.5	10,808	400	13,509	500	
TOTAL:	-	-	-	-	21,615	801	27,019	1,001	
2) ORGANOCLAY:	25,571	0.59	1	0.08	2,131	79	2,664	99	
3) AQUABLOK:	25,571	0.59	4.5	0.38	9,589	355	11,986	444	
4) GEOFABRIC:	26,793	0.62	-	-	-	-	-	-	
5) ARMORING :									
OPTION 1 - ABM PLUS STONE									
	AREA		DEPTH OR THICKNESS		VOLUMES				
	SQ FT	ACRES	INCHES	FEET	IN-SITU		EX-SITU (+25%)		
VDOT #1 STONE:	2,390	0.05	8	0.67	1593	59.0	1992	74	
COVERAGE NEEDED ABM									
	SQ FT	ACRES	SQ FT	# NEEDED					
ABM; 8' x 40' MATS	24,176	0.56	320	76					
OPTION 2 - STONE ONLY									
	AREA		DEPTH OR THICKNESS		VOLUMES				
	SQ FT	ACRES	INCHES	FEET	IN-SITU		EX-SITU (+25%)		
VDOT #1 STONE:	25,571	0.59	8	0.67	17,047	631	18,752	789	
TOTAL LTH UNIT LTH NO. BASKET VOLUMES									
	FT	FT	BASKETS	CFT	CFT	CYD			
A) 1.5' x 3' x6' DIMENSIONS	303	6	51	-	-	-			
B) BASKET VOL. = ROCK VOL.	-	-	-	27	1364	51			

60% COMPLETE

NOT TO BE USED FOR CONSTRUCTION



DESIGNED:	JLD	NO.	DATE	REVISION
DRAWN:	RF, JLD			
CHECKED:	JLD			
DATE:	09/20/2013			
SCALE:	1"=20'			
FILE NO.:	K:DBA:COA204			
PROJECT NO.:	COA204			
OFFICE LOC.:	BLUEFIELD			

ALEXANDRIA TOWN GAS
ORONOCO SITE
ALEXANDRIA, VIRGINIA

QUANTITY ESTIMATES

Figure

D00