

GENERAL NOTES

- APPROXIMATE LOCATIONS OF EXISTING UTILITIES ARE SHOWN. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT EXISTING MAINS AND SERVICES AND MAINTAIN UNINTERRUPTED SERVICE. ANY DAMAGE INCURRED SHALL BE REPAIRED IMMEDIATELY TO THE SATISFACTION OF THE ENGINEER BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE.
- TOPOGRAPHIC FIELD SURVEYS WERE PERFORMED IN 2013 BY DEWBERRY.
- HORIZONTAL AND VERTICAL SURVEY CONTROLS:
COORDINATES & BEARINGS SHOWN HEREON ARE BASED ON HOWARD COUNTY CONTROL STATIONS AND REPRESENT THE MARYLAND STATE PLANE COORDINATE SYSTEM AS DERIVED FROM NORTH AMERICAN DATUM (NAD83/07) FOR HORIZONTAL AND NORTH AMERICAN VERTICAL DATUM (NAV88) FOR VERTICAL DATUM. DEWBERRY UTILIZED THE REAL TIME NETWORK (RTN) "KEYNETGPS" OPERATED BY TRIMBLE TO ACQUIRE MEASUREMENTS FOR THE SURVEY CONTROL SET AT THE SUBJECT SITES FOR THE PROJECT AS WELL AS THE CONTROL NOTED BELOW. THE "KEYNETGPS" NETWORK PROVIDES FOR HIGH ACCURACY POSITIONING THROUGHOUT THE GEOGRAPHIC REGION. THE USE OF AN RTN FOR GEODETIC CONTROL INVOLVES THE COLLECTION AND USE OF ATMOSPHERIC, TROPOSPHERIC, AND OTHER CORRECTION FROM MULTIPLE CONTROL POINTS SURROUNDING THE PROJECT SITE, RESULTING IN HIGH PRECISION POSITIONAL DATA. THE CONTROL POINTS OF THIS NETWORK ARE NATIONAL GEODETIC SURVEY CONTINUOUSLY OPERATING REFERENCE STATIONS OR NGS CORS, AND THE RESULTING MEASUREMENT VECTORS BETWEEN THE GPS RECEIVER AND NETWORK ARE DIRECT MEASUREMENTS TO EXISTING, HIGH ORDER PHYSICAL MONUMENTATION WHICH HAVE BEEN VETTED, MAINTAINED, AND DISTRIBUTED BY THE NATIONAL GEODETIC SURVEY. THE FOLLOWING HOWARD COUNTY CONTROL STATIONS WERE USED FOR THIS PROJECT:

HOWARD COUNTY GEODETIC SURVEY CONTROL

| NO. | NORTHING (FT) | EASTING (FT) | ELEV (FT) |
|------|---------------|--------------|-----------|
| 45CA | 540070.9730 | 1327702.7218 | 426.15 |
| 42IB | 542366.9133 | 1363075.9515 | 282.35 |
| 08AB | 610602.2863 | 1297911.2033 | 579.72 |
| 16E1 | 593251.0015 | 1340192.6876 | 463.815 |

- THE CONTRACTOR SHALL NOTIFY MISS UTILITY AT 1-800-257-7777 AT LEAST 48 HOURS IN ADVANCE OF ANY WORK IN THIS AREA, SO APPROPRIATE MARKING OF EXISTING UTILITIES CAN BE MADE.
- FOR DETAILS NOT SHOWN ON THE DRAWINGS, AND FOR MATERIALS AND CONSTRUCTION METHODS, USE HOWARD COUNTY DESIGN MANUAL, VOLUME IV, STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION (LATEST EDITION). THE CONTRACTOR SHALL HAVE A COPY OF VOLUME IV ON THE JOB.
- WHERE TEST PITS HAVE BEEN MADE ON EXISTING UTILITIES, THEY ARE NOTED BY THE SYMBOL  AT THE LOCATION OF THE TEST PIT. A NOTE OR NOTES CONTAINING THE RESULTS OF THE TEST PIT OR PITS IS INCLUDED ON THE DRAWINGS OR SPECIFICATIONS. EXISTING UTILITIES IN THE VICINITY OF THE PROPOSED WORK FOR WHICH TEST PITS HAVE NOT BEEN DUG SHALL BE LOCATED BY THE CONTRACTOR TWO (2) WEEKS IN ADVANCE OF CONSTRUCTION OPERATIONS AT HIS OWN EXPENSE.
- CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITY COMPANIES OR AGENCIES AT LEAST FIVE (5) WORKING DAYS BEFORE STARTING WORK SHOWN ON THESE PLANS:
 AT&T 1-800-252-1133
 BGE - CONTRACTOR SERVICES 410-637-8713
 BGE - EMERGENCY 410-685-0123
 BUREAU OF HIGHWAYS 410-313-7450
 BUREAU OF UTILITIES (DPW) 410-313-4900
 COLONIAL PIPELINE CO. 410-795-1390
 MISS UTILITY 1-800-257-7777
 STATE HIGHWAY ADMINISTRATION 410-531-5533
 VERIZON 1-800-743-0033 / 410-224-9210
- TREES AND SHRUBS ARE TO BE PROTECTED FROM DAMAGE TO THE MAXIMUM EXTENT. TREES AND SHRUBS LOCATED WITHIN THE CONSTRUCTION STRIP NOTED BY THE SYMBOL  ARE TO BE PROTECTED IN ACCORDANCE WITH HOWARD COUNTY VOLUME IV DESIGN MANUAL STANDARD DETAIL L-8.02.
- CLEAR ALL UTILITIES BY A MINIMUM OF 12". CLEAR ALL POLES BY 5'-0" MINIMUM. THE CONTRACTOR SHALL CONTACT THE UTILITY COMPANIES AND MAKE ARRANGEMENTS FOR BRACING OF POLES AS REQUIRED.

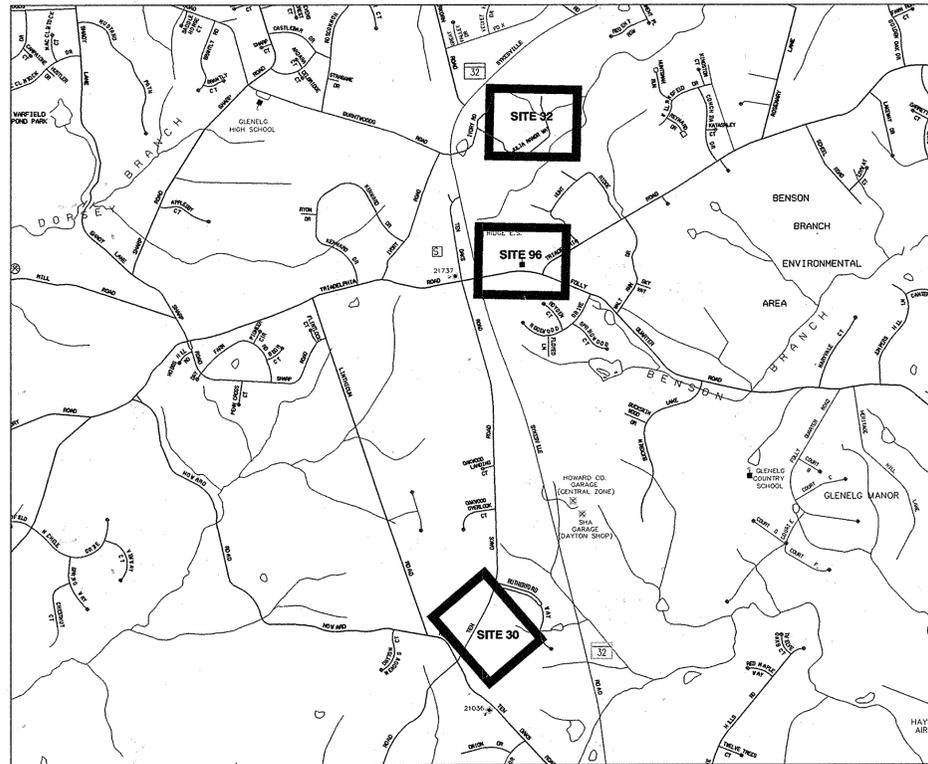
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HOWARD COUNTY

DEPARTMENT OF PUBLIC WORKS

ELLICOTT CITY, MARYLAND 21043



VICINITY MAP
SCALE: 1" = 2000'

UNDERGROUND WATER STORAGE TANKS FOR FIRE SUPPRESSION

CAPITAL PROJECT NO. F-5972
CONTRACT NO. 65-4795

TANK GENERAL NOTES

- CONSTRUCTION SHALL BE COMPLETED IN ACCORDANCE WITH THESE DRAWINGS, THE SPECIAL PROVISIONS, AND THE HOWARD COUNTY STANDARD DETAILS AND SPECIFICATIONS FOR CONSTRUCTION.
- THE CONTRACTOR SHALL CONDUCT A VERIFICATION OF SITE STAKING AND LAYOUT PRIOR TO EXCAVATION.
- ALL EXCAVATION, BACKFILL, AND COVER SHALL BE PERFORMED IN ACCORDANCE WITH THE SPECIFICATIONS ON THESE DRAWINGS AS A MINIMUM, AND TANK MANUFACTURER'S SPECIFICATIONS. DETAILS AND DIMENSIONS SHALL NOT SUPERCEDE MANUFACTURER'S REQUIREMENTS. EXCAVATION DEPTH SHALL BE DETERMINED BY SITE CONDITIONS AND MANUFACTURER'S SPECIFICATIONS. SHORE AS NECESSARY. VERTICAL DIMENSIONS SHOWN IN TABLE 2 ON SHEET 5 REPRESENT THE MAXIMUM ALLOWABLE CONDITION FOR PROPER TANK OPERATION AND SHALL NOT BE EXCEEDED.
- ALL TESTING IS THE RESPONSIBILITY OF THE CONTRACTOR.
- CONTRACTOR SHALL BE CERTIFIED BY THE TANK MANUFACTURER PRIOR TO TANK INSTALLATION.
- ALL WORK SHALL BE COMPLETED IN A TIMELY AND WORKMANLIKE MANNER. ALL WORK SHALL CONFORM TO APPLICABLE CODES AND STANDARDS.
- EXCAVATION AND SITE WORK SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE AND CURRENT MOSHA AND OSHA REGULATIONS.
- PRESSURE TEST PROCEDURES SHALL BE PERFORMED BY THE TANK INSTALLER PRIOR TO AND AFTER INSTALLATION, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AND THESE DRAWINGS.
- AN OPERATIONAL TEST SHALL BE CONDUCTED AFTER INSTALLATION PER THE TANK MANUFACTURER'S SPECIFICATIONS AND THESE DRAWINGS.
- ALL STEEL AND PVC FITTINGS ABOVE GRADE SHALL BE PAINTED WITH EXTERIOR ENAMEL PER SPECIFICATION, UNLESS OTHERWISE SPECIFIED. COLORS SHALL BE APWA STANDARD YELLOW OR RED AS NOTED ON THE DRAWINGS.
- THE CONTRACTOR SHALL RESTORE THE SITE TO ORIGINAL CONDITION AFTER FINAL TESTING INCLUDING, BUT NOT LIMITED TO FINE GRADING, SEEDING, MULCHING, AND GENERAL CLEANUP.
- THE DISTANCE FROM THE CENTERLINE OF THE DRAFT FITTING SHALL BE 8'-0" OR LESS TO THE EDGE OF THE ROADWAY OR PULLOFF. THIS DIMENSION SHALL APPLY TO ALL INSTALLATION CONFIGURATIONS.
- THE WATER LEVEL INDICATOR SHALL BE ORIENTED TOWARD THE ACCESS AREA OR PULLOFF FOR VISIBILITY.
- INSTALL POST AND DOT R7 STYLE NO PARKING SIGNAGE, SEE SHEET 5 FOR DETAILS. TOP OF POST SHALL BE 7'-0" ABOVE FINISHED GRADE.
- UNLESS OTHERWISE NOTED, THE CENTER DRAFT CONFIGURATION SHALL BE USED WHERE THE TANK IS PLACED PARALLEL TO THE PULLOFF OR ROADWAY. THE END DRAFT CONFIGURATION SHALL BE USED WHERE THE TANK IS PLACED PERPENDICULAR TO THE PULLOFF OR ROADWAY. ALTERNATE CONFIGURATIONS MAY BE REQUIRED DUE TO SPECIFIC SITE CONDITIONS.
- VARIATION IN FITTING PLACEMENT DUE TO DIFFERENT TANK MANUFACTURERS IS ACCEPTABLE, BUT CRITICAL DIMENSIONS SHALL BE MAINTAINED, SEE SPECIFICATIONS. VARIATIONS OR SPECIAL FEATURES REQUIRE APPROVAL BY THE OWNER AND THE HOWARD COUNTY FIRE MARSHALL.

LEGEND

-  TRAVERSE
-  PROPERTY LINE
-  DECIDUOUS TREE
-  EVERGREEN TREE
-  TREE TO BE REMOVED
-  EX. CONTOUR
-  TREELINE
-  LIMITS OF DISTURBANCE
-  DIVERSION FENCE
-  SILT FENCE
-  BLAZE ORANGE FENCE
-  EXISTING UNDERGROUND FIBER OPTIC
-  EXISTING GAS LINE
-  EXISTING ELECTRIC
-  SOIL BORING/PAVING CORE
-  ELECTRIC POLE
-  SIGN
-  TREE PROTECTION
-  TRAFFIC DRUM
-  REMOVE FENCE

BY THE OWNER :

I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT.

Paul Thomas
OWNER
7-10-14
DATE

PROFESSIONAL CERTIFICATION

I, HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 43258 EXPIRATION DATE: JANUARY 15, 2015

James B. Smith
Signature of Engineer
12-19-13
Date

I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

James B. Smith
Signature of Engineer
12-19-13
Date

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
James B. Smith
Approved

AS-BUILTS
09/15/2014

EP-13-023

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

James B. Smith
DIRECTOR OF PUBLIC WORKS
DATE: 12/20/13
James B. Smith
CHIEF, BUREAU OF ENGINEERING
DATE: 12/20/13
James B. Smith
CHIEF, BUREAU OF UTILITIES
DATE: 12/20/13
James B. Smith
CHIEF, UTILITY DESIGN DIVISION
DATE: 12/20/13

Dewberry
Dewberry Consultants, LLC
3108 LORD BALTIMORE DRIVE
SUITE 110
BALTIMORE, MD 21244-2662
410.285.9500
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| | | | | |
|---------------|----|-----|-----------|------|
| DES: LAL | | | | |
| DRN: RLI | | | | |
| CHK: LBP | | | | |
| DATE: 12/2013 | BY | NO. | REVISIONS | DATE |

TITLE SHEET

600' SCALE MAP NO. 22,27,28 BLOCK NO. 8,5,8

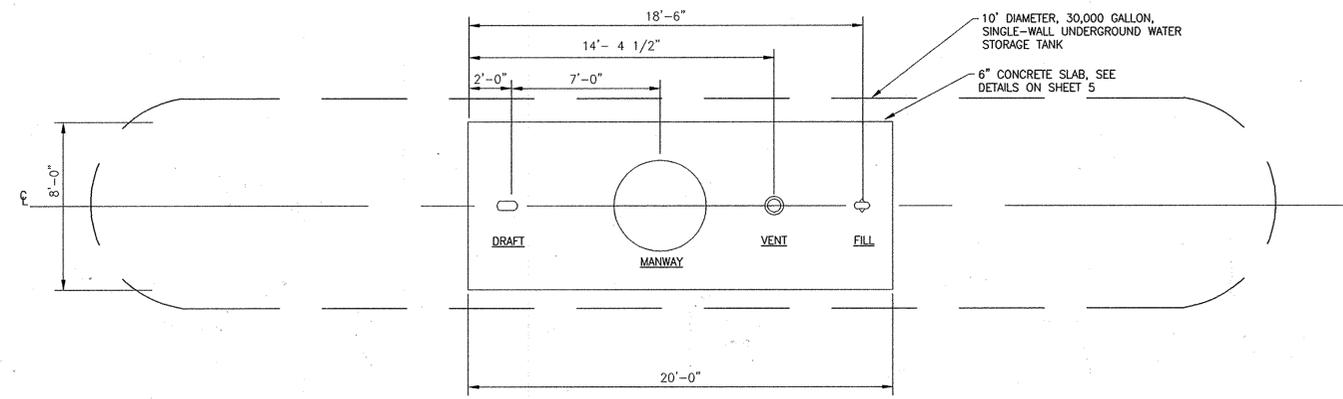
UNDERGROUND WATER STORAGE TANKS
FOR FIRE SUPPRESSION
CAPITAL PROJECT NO. F-5972, CONTRACT NO. 65-4795

ELECTION DISTRICT NO. 4

HOWARD COUNTY, MARYLAND

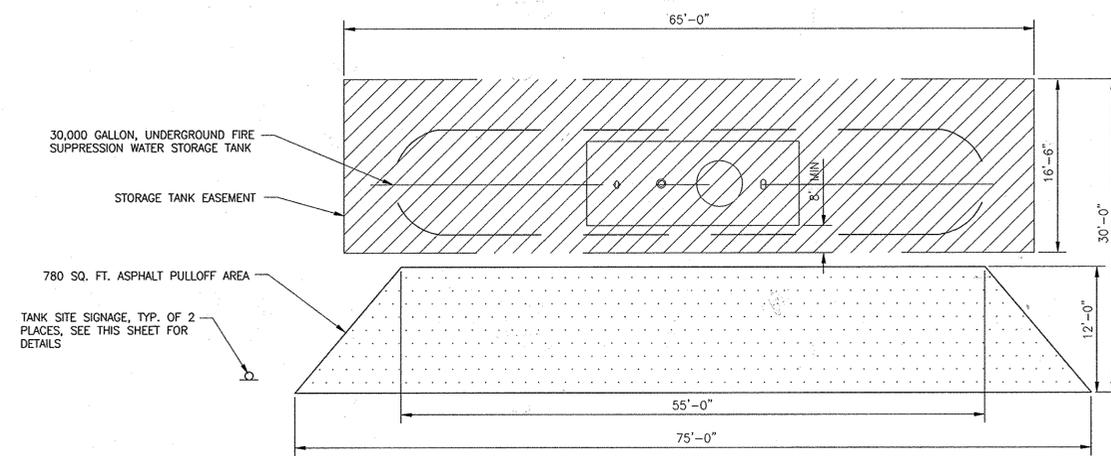
SCALE:
SHOWN
SHEET
1 OF 11

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Last Saved: Dec 18, 2013 - 8:33am
User: jbsmith



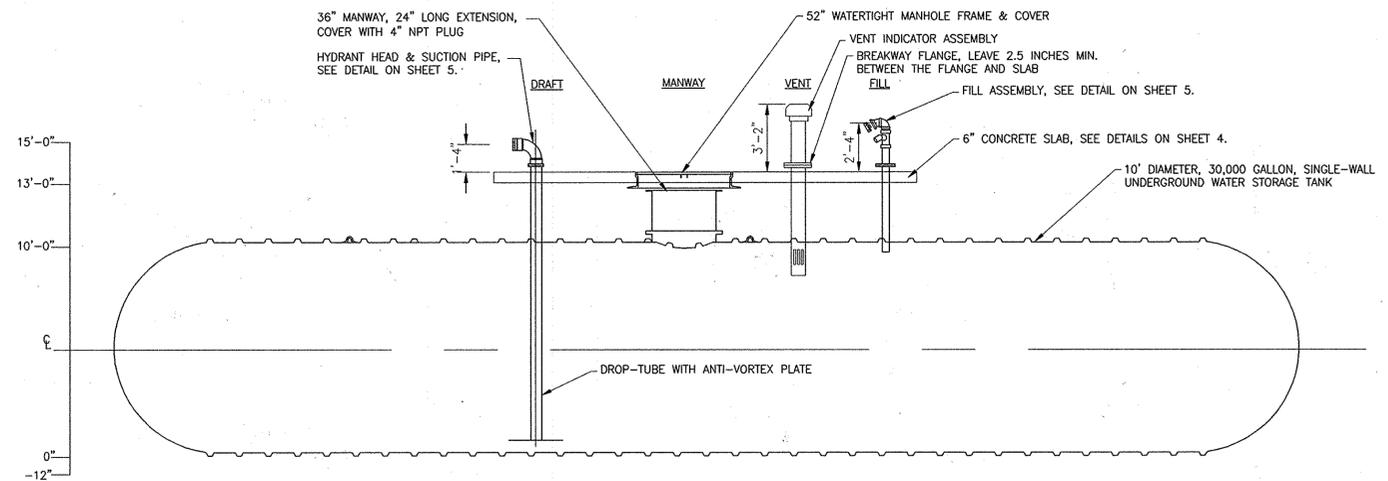
PLAN: 30,000 GALLON FIRE SUPPRESSION WATER STORAGE TANK DRAFT CONFIGURATION

SCALE 1/4" = 1'-0"



DETAIL: TYPICAL TANK SITE LAYOUT

SCALE 1/8" = 1'-0"



SECTION THROUGH 30,000 GALLON FIRE SUPPRESSION WATER STORAGE TANK DRAFT CONFIGURATION

SCALE 1/4" = 1'-0"

AS-BUILTS 09/15/2014

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

Director of Public Works: *Janet Lee* 1/10/14
 Chief, Bureau of Utilities: *Esther C. Green* 12/20/13
 Chief, Bureau of Engineering: *James & Butcher* 12/20/13
 Chief, Utility Design Division: *Chad F. ...* 12/20/13

Dewberry
Dewberry Consultants, LLC
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DES: LAL
 DRN: RLJ
 CHK: LBP
 DATE: 12/2013

| BY | NO. | REVISIONS | DATE |
|----|-----|-----------|------|
| | | | |

GENERAL DETAILS - 3

600' SCALE MAP NO. 22.27,28 BLOCK NO. 8,5,8

UNDERGROUND WATER STORAGE TANKS
FOR FIRE SUPPRESSION

CAPITAL PROJECT NO. F-5972, CONTRACT NO. 65-4795

ELECTION DISTRICT NO. 4

HOWARD COUNTY, MARYLAND

SCALE:
SHOWN

SHEET
6 OF 11

SEDIMENT CONTROL GENERAL NOTES

- A MINIMUM OF 48 HOURS NOTICE MUST BE GIVEN TO HOWARD COUNTY DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS, SEDIMENT CONTROL DIVISION PRIOR TO THE START OF ANY CONSTRUCTION. 410-313-1855.
- ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THE PLAN AND ARE TO BE IN CONFORMANCE WITH THE MOST CURRENT MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL AND REVISIONS THERETO.
- FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN: A) 3 CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DIKES, PERIMETER SLOPES AND ALL SLOPES GREATER THAN 3:1; B) 7 DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.
- ALL DISTURBED AREAS MUST BE STABILIZED WITHIN THE TIME PERIOD SPECIFIED ABOVE IN ACCORDANCE WITH THE 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR PERMANENT SEEDING (SEC. B-4-5), TEMPORARY SEEDING (SEC. B-4-4) AND MULCHING (SEC. B-4-3). TEMPORARY STABILIZATION WITH MULCH ALONE CAN ONLY BE DONE WHEN RECOMMENDED SEEDING DATES DO NOT ALLOW FOR PROPER GERMINATION AND ESTABLISHMENT OF GRASSES.
- ALL SEDIMENT CONTROL STRUCTURES ARE TO REMAIN IN PLACE AND ARE TO BE MAINTAINED IN OPERATIVE CONDITION UNTIL PERMISSION FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
- ANY SEDIMENT CONTROL PRACTICES WHICH IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE.
- ADDITIONAL SEDIMENT CONTROL MUST BE PROVIDED, IF DEEMED NECESSARY BY THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
- ON ALL SITES WITH DISTURBED AREAS IN EXCESS OF 2 ACRES, APPROVAL OF THE INSPECTION AGENCY SHALL BE REQUESTED UPON COMPLETION OF INSTALLATION OF PERIMETER EROSION AND SEDIMENT CONTROLS, BUT BEFORE PROCEEDING WITH ANY OTHER EARTH DISTURBANCE OR GRADING. OTHER BUILDING OR GRADING INSPECTION APPROVALS MAY NOT BE AUTHORIZED UNTIL THIS INITIAL APPROVAL BY THE INSPECTION AGENCY IS MADE.
- TRENCHES FOR THE CONSTRUCTION OF UTILITIES IS LIMITED TO THREE PIPE LENGTHS OR THAT WHICH SHALL BE BACK-FILLED AND STABILIZED BY THE END OF EACH WORK DAY, WHICHEVER IS SHORTER.
- ANY CHANGES OR REVISIONS TO THE SEQUENCE OF CONSTRUCTION MUST BE REVIEWED AND APPROVED BY THE PLAN APPROVAL AUTHORITY PRIOR TO PROCEEDING WITH CONSTRUCTION.
- A PROJECT IS TO BE SEQUENCED SO THAT GRADING ACTIVITIES BEGIN ON ONE GRADING UNIT (MAXIMUM ACREAGE OF 20 AC. PER GRADING UNIT) AT A TIME. WORK MAY PROCEED TO A SUBSEQUENT GRADING UNIT WHEN AT LEAST 50 PERCENT OF THE DISTURBED AREA IN THE PRECEDING GRADING UNIT HAS TO BE STABILIZED AND APPROVED BY THE ENFORCEMENT AUTHORITY. UNLESS OTHERWISE SPECIFIED AND APPROVED BY THE APPROVAL AUTHORITY, NO MORE THAN 30 ACRES CUMULATIVELY MAY BE DISTURBED AT A GIVEN TIME.

SEQUENCE OF CONSTRUCTION

- OBTAIN A GRADING PERMIT.
- REQUEST FOR A PRE-CONSTRUCTION MEETING WITH THE APPROPRIATE ENFORCEMENT AUTHORITY.
- CLEARING AND GRUBBING AS NECESSARY FOR THE INSTALLATION OF PERIMETER CONTROLS.
- CONSTRUCTION AND STABILIZATION OF PERIMETER SEDIMENT CONTROLS.
- SITE EXCAVATION AND GRADING, (3 DAYS), SITE STAGING AND STOCKPILE AREAS.
- EXCAVATION FOR TANK. (2 DAYS)
- INSTALL TANK ACCORDING TO PLAN AND DETAILS. (3 DAYS)
- BACKFILL AROUND TANK. (1 DAY)
- INSTALL CONCRETE SLAB ACCORDING TO PLAN AND DETAILS. (5 DAYS)
- INSTALL ASPHALT PULLOFF ACCORDING TO PLAN AND DETAILS. (2 DAYS)
- FINAL GRADING, LANDSCAPING, AND STABILIZATION.
- APPROVAL OF THE APPROPRIATE ENFORCEMENT AUTHORITY PRIOR TO REMOVAL OF SEDIMENT CONTROLS.
- REMOVAL OF CONTROLS AND STABILIZATION OF AREAS THAT ARE DISTURBED BY REMOVAL OF SEDIMENT CONTROLS.

BEST MANAGEMENT PRACTICES FOR WORKING IN NONTIDAL WETLANDS, WETLAND BUFFERS, WATERWAYS, AND 100 YEAR FLOODPLAIN

- NO EXCESS FILL, CONSTRUCTION MATERIAL, OR DEBRIS SHALL BE STOCKPILED OR STORED IN NONTIDAL WETLANDS, NONTIDAL WETLAND BUFFERS, WATERWAYS, OR THE 100 YEAR FLOODPLAIN.
- PLACE MATERIALS IN A LOCATION AND MANNER WHICH DOES NOT ADVERSELY IMPACT SURFACE OR SUBSURFACE WATER FLOW INTO OR OUT OF NONTIDAL WETLANDS, NONTIDAL WETLAND BUFFERS, WATERWAYS, OR THE 100 YEAR FLOODPLAIN.
- DO NOT USE THE EXCAVATED MATERIAL AS BACKFILL IF IT CONTAINS WASTE METAL PRODUCTS, UNSIGHTLY DEBRIS, TOXIC MATERIAL, OR ANY OTHER DELETERIOUS SUBSTANCE. IF ADDITIONAL BACKFILL IS REQUIRED, USE CLEAN MATERIAL FREE OF ANY WASTE METAL PRODUCTS, UNSIGHTLY DEBRIS, TOXIC MATERIAL, OR ANY OTHER DELETERIOUS SUBSTANCE.
- PLACE HEAVY EQUIPMENT ON MATS OR SUITABLY OPERATE THE EQUIPMENT TO PREVENT DAMAGE TO NONTIDAL WETLANDS, NONTIDAL WETLAND BUFFERS, WATERWAYS, OR THE 100 YEAR FLOODPLAIN.
- REPAIR AND MAINTAIN ANY SERVICEABLE STRUCTURE OR FILL SO THERE IS NO PERMANENT LOSS OF NONTIDAL WETLANDS, NONTIDAL WETLAND BUFFERS, OR WATERWAYS, OR PERMANENT MODIFICATION OF THE 100 YEAR FLOODPLAIN IN EXCESS OF THAT LOST UNDER THE ORIGINALLY AUTHORIZED STRUCTURE OR FILL.
- RECTIFY ANY NONTIDAL WETLANDS, WETLAND BUFFERS, WATERWAYS, OR 100 YEAR FLOODPLAIN TEMPORARILY IMPACTED BY ANY CONSTRUCTION.
- ALL STABILIZATION IN THE NONTIDAL WETLAND AND NONTIDAL WETLAND BUFFER SHALL CONSIST OF THE FOLLOWING SPECIES: ANNUAL RYEGRASS (LOLIUM MULTICOLORUM), MILLET (SETARIA ITALICA), BARLEY (HORDEUM SP.), OATS (Avena SP.), AND/OR RYE (SECALE CEREALE). THESE SPECIES WILL ALLOW FOR THE STABILIZATION OF THE SITE WHILE ALSO ALLOWING FOR THE VOLUNTARY REVEGETATION OF NATURAL WETLAND SPECIES. OTHER NON-PERSISTENT VEGETATION MAY BE ACCEPTABLE, BUT MUST BE APPROVED BY THE NONTIDAL WETLANDS AND WATERWAYS DIVISION. KENTUCKY 31 FESCUE SHALL NOT BE UTILIZED IN WETLAND OR BUFFER AREAS. THE AREA SHOULD BE SEEDED AND MULCHED TO REDUCE EROSION AFTER CONSTRUCTION ACTIVITIES HAVE BEEN COMPLETED.
- AFTER INSTALLATION HAS BEEN COMPLETED, MAKE POST-CONSTRUCTION GRADES AND ELEVATIONS THE SAME AS THE ORIGINAL GRADES AND ELEVATIONS IN TEMPORARILY IMPACTED AREAS.
- TO PROTECT AQUATIC SPECIES, IN-STREAM WORK IS PROHIBITED AS DETERMINED BY THE CLASSIFICATION OF THE STREAM: USE III WATERS: IN-STREAM WORK SHALL NOT BE CONDUCTED DURING THE PERIOD OCTOBER 1 THROUGH APRIL 30, INCLUSIVE, DURING ANY YEAR.
- STORMWATER RUNOFF FROM IMPERVIOUS SURFACES SHALL BE CONTROLLED TO PREVENT THE WASHING OF DEBRIS INTO THE WATERWAY.
- CULVERTS SHALL BE CONSTRUCTED AND ANY RIPRAP PLACED SO AS NOT TO OBSTRUCT THE MOVEMENT OF AQUATIC SPECIES, UNLESS THE PURPOSE OF THE ACTIVITY IS TO IMPOUND WATER.

PERMANENT SEEDING NOTES

APPLY TO GRADED OR CLEARED AREAS NOT SUBJECT TO IMMEDIATE FURTHER DISTURBANCE WHERE A PERMANENT LONG-LIVED VEGETATIVE COVER IS NEEDED.

SEEDBED PREPARATION: LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISKING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING, IF NOT PREVIOUSLY LOOSENEED.

SOIL AMENDMENTS: IN LIEU OF SOIL TEST RECOMMENDATIONS, USE ONE OF THE FOLLOWING SCHEDULES:

- PREFERRED - APPLY 2 TONS/ACRE DOLOMITIC LIMESTONE (92 LBS/1000 SQ. FT.) AND 600 LBS/ACRE 10-10-10 FERTILIZER (14 LBS/1000 SQ. FT.) BEFORE SEEDING. HARROW OR DISK INTO UPPER THREE INCHES OF SOIL. AT TIME OF SEEDING, APPLY 400 LBS/ACRE 30-0-0 UREAFORM FERTILIZER (9 LBS/1000 SQ. FT.)
- ACCEPTABLE - APPLY 2 TONS/ACRE DOLOMITIC LIMESTONE (92 LBS/1000 SQ. FT.) AND 1000 LBS/ACRE 10-10-10 FERTILIZER (23 LBS/1000 SQ. FT.) BEFORE SEEDING. HARROW OR DISK INTO UPPER THREE INCHES OF SOIL.

SEEDING - FOR THE PERIODS MARCH 1 - APRIL 30, AND AUGUST 1 - OCTOBER 15, SEED WITH 60 LBS/ACRE (1.4 LBS/1000 SQ. FT.) OF KENTUCKY 31 TALL FESCUE. FOR THE PERIOD MAY 1 - JULY 31, SEED WITH 60 LBS KENTUCKY 31 TALL FESCUE PER ACRE AND 2 LBS/ACRE (.05 LBS/1000 SQ. FT.) OF WEEPING LOVEGRASS. DURING THE PERIOD OF OCTOBER 16 - FEBRUARY 28, PROTECT SITE BY: OPTION 1 - TWO TONS PER ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING. OPTION 2 - USE SOD. OPTION 3 - SEED WITH 60 LBS/ACRE KENTUCKY 30 TALL FESCUE AND MULCH WITH 2 TONS/ACRE WELL ANCHORED STRAW.

MULCHING - APPLY 1-1/2 TO 2 TONS PER ACRE (70 TO 90 LBS/1000 SQ. FT.) OF UNROTTED SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 218 GALLONS PER ACRE (5 GAL/1000 SQ. FT.) OF EMULSIFIED ASPHALT ON FLAT AREAS. ON SLOPE 8 FEET OR HIGHER, USE 348 GALLONS PER ACRE (8 GAL/1000 SQ. FT.) FOR ANCHORING.

MAINTENANCE - INSPECT ALL SEEDING AREAS AND MAKE NEEDED REPAIRS, REPLACEMENTS AND RESEEDINGS.

TEMPORARY SEEDING NOTES

APPLY TO GRADED OR CLEARED AREAS LIKELY TO BE RE-DISTURBED WHERE A SHORT-TERM VEGETATIVE COVER IS NEEDED.

SEEDBED PREPARATION: --- LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISKING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING, IF NOT PREVIOUSLY LOOSENEED.

SOIL AMENDMENTS: --- APPLY 600 LBS/ACRE 10-10-10 FERTILIZER (14 LBS/1000 SQ. FT.).

SEEDING: --- FOR PERIODS MARCH 1 - APRIL 30 AND FROM AUGUST 15 - OCTOBER 15, SEED WITH 2-1/2 BUSHEL PER ACRE OF ANNUAL RYE (3.2 LBS/1000 SQ. FT.). FOR THE PERIOD MAY 1 - AUGUST 14, SEED WITH 3 LBS/ACRE OF WEEPING LOVEGRASS (.07 LBS/1000 SQ. FT.). FOR THE PERIOD NOVEMBER 16 - FEBRUARY 28, PROTECT SITE BY APPLY 2 TONS/ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING, OR USE SOD.

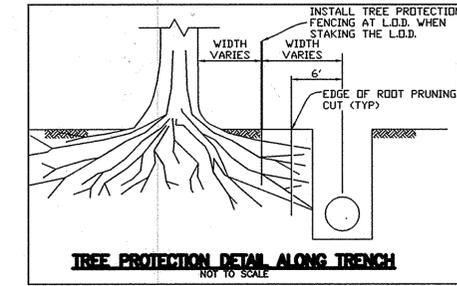
MULCHING: --- APPLY 1-1/2 TO 2 TONS/ACRE (70 TO 90 LBS/1000 SQ. FT.) OF UNROTTED WEED-FREE, SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 218 GAL. PER ACRE (5 GAL/1000 SQ. FT.) OF EMULSIFIED ASPHALT ON FLAT AREAS. ON SLOPE 8 FT. OR HIGHER, USE 348 GAL. PER ACRE (8 GAL/1000 SQ. FT.) FOR ANCHORING.

REFER TO THE 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR ADDITIONAL RATES AND METHODS NOT COVERED.

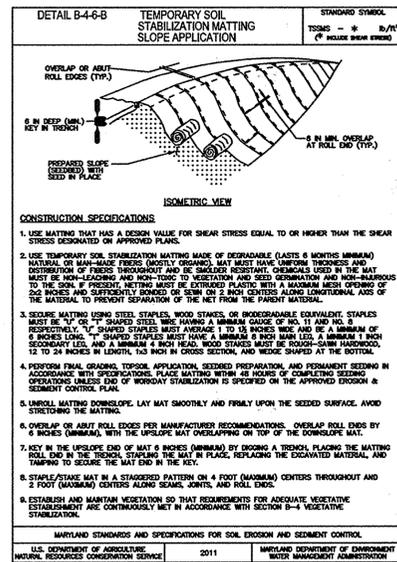
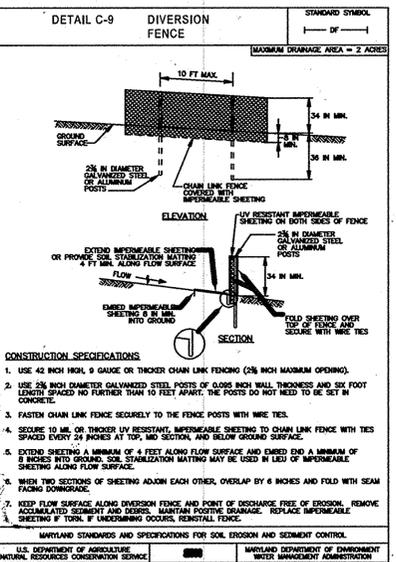
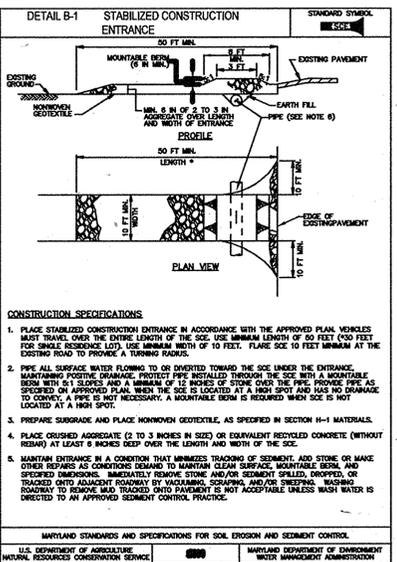
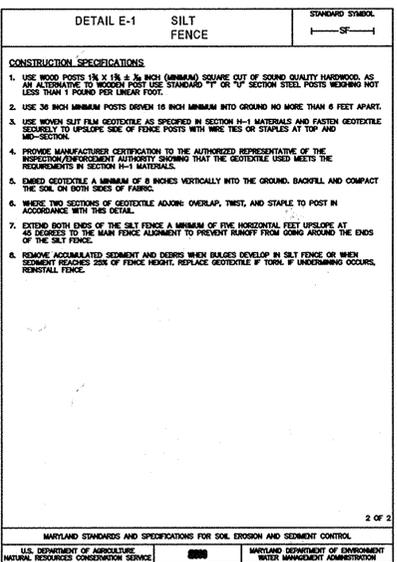
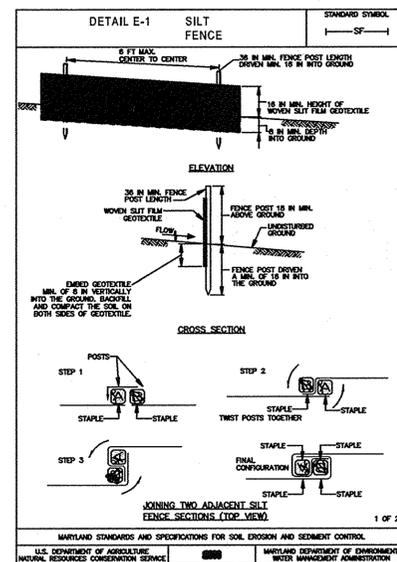
Table B.1: Temporary Seeding for Site Stabilization

| Plant Species | Seeding Rate ^{1/} | | Seeding Depth ^{2/} (inches) | Recommended Seeding Dates by Plant Hardiness Zone ^{3/} | | |
|---|----------------------------|-------------------------|--------------------------------------|---|----------------------------------|------------------------------------|
| | lb/ac | lb/1000 ft ² | | 5b and 6a | 6b | 7a and 7b |
| Cool-Season Grasses | | | | | | |
| Annual Ryegrass (<i>Lolium perenne</i> spp. multiflorum) | 40 | 1.0 | 0.5 | Mar 15 to May 31; Aug 1 to Sep 30 | Mar 1 to May 15; Aug 1 to Oct 15 | Feb 15 to Apr 30; Aug 15 to Nov 30 |
| Barley (<i>Hordeum vulgare</i>) | 96 | 2.2 | 1.0 | Mar 15 to May 31; Aug 1 to Sep 30 | Mar 1 to May 15; Aug 1 to Oct 15 | Feb 15 to Apr 30; Aug 15 to Nov 30 |
| Oats (<i>Avena sativa</i>) | 72 | 1.7 | 1.0 | Mar 15 to May 31; Aug 1 to Sep 30 | Mar 1 to May 15; Aug 1 to Oct 15 | Feb 15 to Apr 30; Aug 15 to Nov 30 |
| Wheat (<i>Triticum aestivum</i>) | 120 | 2.8 | 1.0 | Mar 15 to May 31; Aug 1 to Sep 30 | Mar 1 to May 15; Aug 1 to Oct 15 | Feb 15 to Apr 30; Aug 15 to Nov 30 |
| Cereal Rye (<i>Sesale cereale</i>) | 112 | 2.8 | 1.0 | Mar 15 to May 31; Aug 1 to Oct 31 | Mar 1 to May 15; Aug 1 to Nov 15 | Feb 15 to Apr 30; Aug 15 to Dec 15 |
| Warm-Season Grasses | | | | | | |
| Foxtail Millet (<i>Setaria italica</i>) | 30 | 0.7 | 0.5 | Jun 1 to Jul 31 | May 16 to Jul 31 | May 1 to Aug 14 |
| Pearl Millet (<i>Pennisetum glaucum</i>) | 20 | 0.5 | 0.5 | Jun 1 to Jul 31 | May 16 to Jul 31 | May 1 to Aug 14 |

NOTES:
^{1/} Seeding rates for the warm-season grasses are in pounds of Pure Live Seed (PLS). Actual planting rates shall be adjusted to reflect percent seed germination and purity, as tested. Adjustments are usually not needed for the cool-season grasses.
^{2/} Seeding rates listed above are for temporary seedings, when planted alone. When planted as a nurse crop with permanent seed mixes, use 1/3 of the seeding rate listed above for barley, oats, and wheat. For cool-season grasses (annual ryegrass, pearl millet, foxtail millet), do not exceed more than 75% (by weight) of the overall permanent seeding mix. Cereal rye generally should not be used as a nurse crop, unless planting will occur in very late fall beyond the seeding dates for other temporary seedings. Cereal rye has allelopathic properties that inhibit the germination and growth of other plants. If it must be used as a nurse crop, seed at 1/3 of the rate listed above.
^{3/} Oats are the recommended nurse crop for warm-season grasses.
^{4/} For sandy soils, plant seeds at twice the depth listed above.
^{5/} The planting dates listed are averages for each zone and may require adjustment to reflect local conditions, especially near the boundaries of the zones.



This plan is approved for soil erosion and sediment control by the Howard Soil Conservation District.
 John K. Rhoton
 HOWARD SOIL CONSERVATION DISTRICT
 7/10/14
 DATE



DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND

Director of Public Works: [Signature] 1/10/14
 Chief, Bureau of Engineering: [Signature] 12/20/13
 Chief, Bureau of Utilities: [Signature] 12/20/13
 Date: 12/20/13

Dewberry
 Dewberry Consultants, LLC
 3106 LORD BALTIMORE DRIVE
 SUITE 110
 BALTIMORE, MD 21244-2662
 410.265.8500
 FAX: 410.295.8875

| | | | | | |
|---------------|--|-----------|--|------|--|
| DES: LAL | | | | | |
| DRN: RLI | | | | | |
| CHK: LBP | | | | | |
| DATE: 12/2013 | | | | | |
| BY NO. | | REVISIONS | | DATE | |

SEDIMENT & EROSION CONTROL NOTES

600' SCALE MAP NO. 22,27,28 - BLOCK NO. 8,5,8

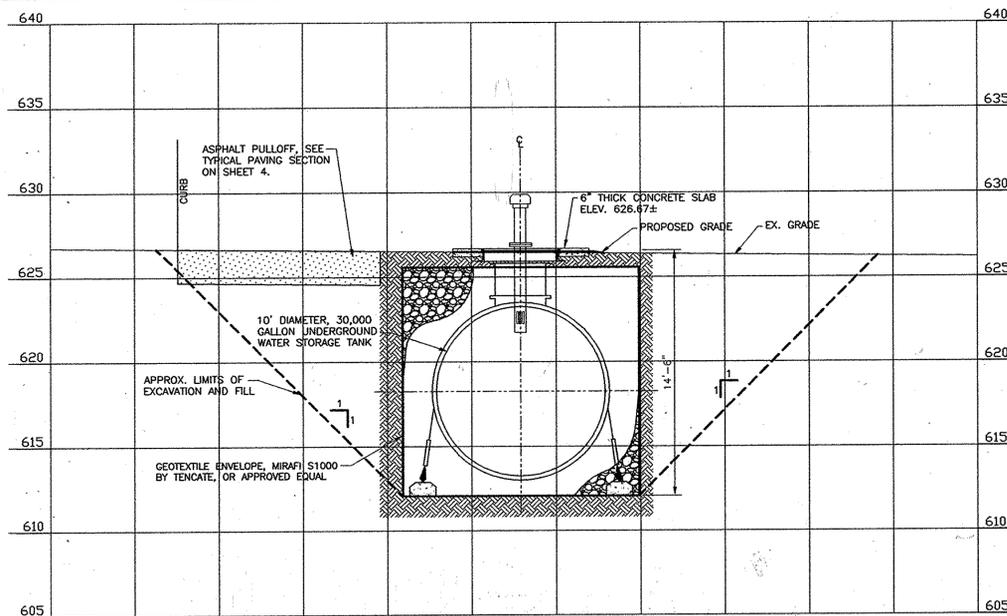
UNDERGROUND WATER STORAGE TANKS FOR FIRE SUPPRESSION

CAPITAL PROJECT NO. F-5972, CONTRACT NO. 65-4795

ELECTION DISTRICT NO. 4 HOWARD COUNTY, MARYLAND

SCALE: SHOWN
 SHEET 7 OF 11

09/15/2014
 AS-BUILTS



PROFILE
SCALE: HORIZ. 1" = 5'

QUANTITIES TABLE

| ITEM | UNIT | ESTIMATE | AS-BUILT | MANUFACTURER |
|--|------|----------|----------|-----------------------|
| MOBILIZATION/DEMobilIZATION | L.S. | 1 | 1 | NA |
| 30,000 GALLON DRAFT WATER STORAGE TANK, COMPLETE IN PLACE, WITH PIPING CONNECTIONS | L.S. | 1 | 1 | CONTAINMENT SOLUTIONS |
| ASPHALT PAVING (FULL DEPTH), P-6, & (MILL & OVERLAY) | S.F. | 778 | 778 | NA |
| CONCRETE SLAB | S.F. | 160 | 160 | NA |
| CLEARING AND GRUBBING | L.S. | 1 | 1 | NA |
| SIGN, SITE IDENTIFICATION | EA. | 2 | 2 | SHANNON-BAUM SIGNS |
| SIGN, ADVANCE | EA. | 2 | 2 | NA |
| SILT FENCE | L.F. | 171 | 171 | NA |
| DIVERSION FENCE | L.F. | 50 | 50 | NA |
| BLAZE ORANGE FENCE | L.F. | 227 | 227 | NA |
| SITE RESTORATION | S.F. | 6,683 | 6,683 | NA |

NAME OF UTILITY CONTRACTOR: UTILITIES UNLIMITED, INC., 1771 UNDERWOOD RD, SYKESVILLE, MD 21784

AS-BUILT LOCATIONS & ELEVATIONS

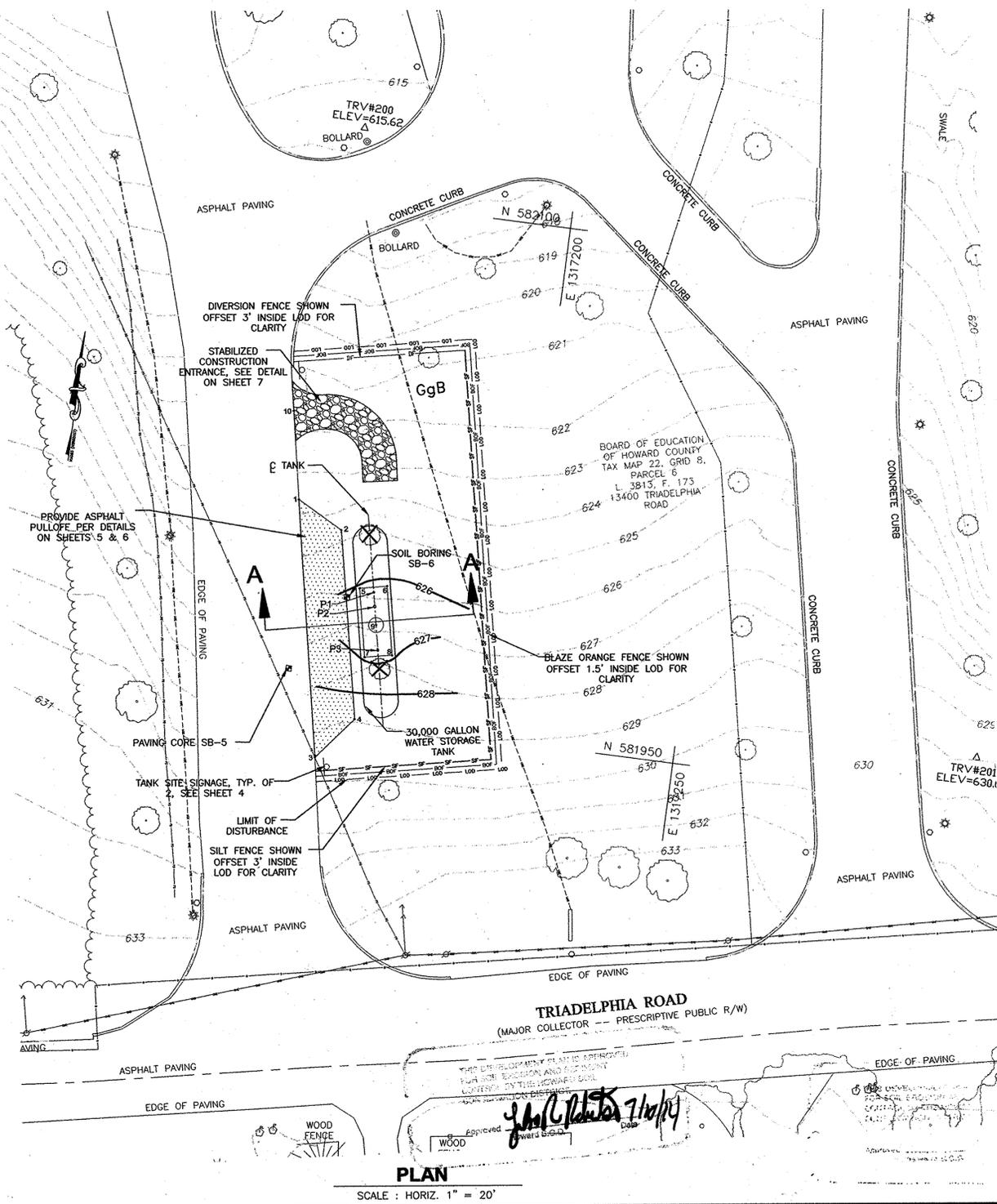
| DESCRIPTION | NORTHING | EASTING | ELEVATION |
|-------------------------------|-----------|------------|-----------|
| TRAV 200 | 582121.29 | 1317136.75 | 615.62 |
| TRAV 201 | 581963.13 | 1317337.11 | 630.07 |
| BORING SB-5 | 581962.91 | 1317135.89 | 627.76 |
| BORING SB-6 | 581985.52 | 1317149.71 | 626.32 |
| 1 NW CORNER CONCRETE SLAB | 582011.90 | 1317132.12 | 623.54 |
| 2 NE CORNER CONCRETE SLAB | 582005.06 | 1317145.90 | 624.25 |
| 3 SW CORNER CONCRETE SLAB | 581938.83 | 1317146.58 | 629.46 |
| 4 SE CORNER CONCRETE SLAB | 581951.41 | 1317157.75 | 628.48 |
| 5 NW CORNER ASPHALT PULLOFF | 581993.79 | 1317153.40 | 626.58 |
| 6 NE CORNER ASPHALT PULLOFF | 581994.92 | 1317161.22 | 626.74 |
| 7 SW CORNER ASPHALT PULLOFF | 581973.97 | 1317156.50 | 627.00 |
| 8 SE CORNER ASPHALT PULLOFF | 581975.18 | 1317164.30 | 627.11 |
| 9 CENTER OF TANK MANHOLE | 581980.86 | 1317159.32 | 626.92 |
| 10 SCE, MIDPOINT AT ROAD EDGE | 582037.20 | 1317127.22 | 621.50 |
| PIPE 1 (P1) | 581991.32 | 1317157.80 | 629.52 |
| PIPE 2 (P2) | 581987.28 | 1317158.44 | 630.42 |
| PIPE 3 (P3) | 581977.55 | 1317159.87 | 629.48 |

UTILITY NOTE:

- THE UNDERGROUND UTILITY LOCATIONS SHOWN HEREON HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION, MISS UTILITY, AND/OR EXISTING DRAWINGS. THE ENGINEER MAKES NO GUARANTEE THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE ENGINEER FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED, ALTHOUGH HE DOES CERTIFY THAT THEY ARE INDICATED ON THE AFOREMENTIONED INFORMATION OBTAINED BY THE ENGINEER.
- THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING "MISS UTILITY" 48 HOURS PRIOR TO CONSTRUCTION 1-800-257-7777.
- HOWARD COUNTY SHALL TAKE ACTION TO RELOCATE THE TANK OR UTILITY.
- ANY DELAY OR CLAIM RELATED TO UTILITY LOCATIONS WILL NOT BE ACCEPTED BY HOWARD COUNTY.
- THE CONTRACTOR SHALL PROTECT AND RELOCATE UTILITIES, VERTICALLY AND/OR HORIZONTALLY, IN COORDINATION WITH THE UTILITY OWNER IN THE VICINITY OF THE TANKS AS NEEDED.

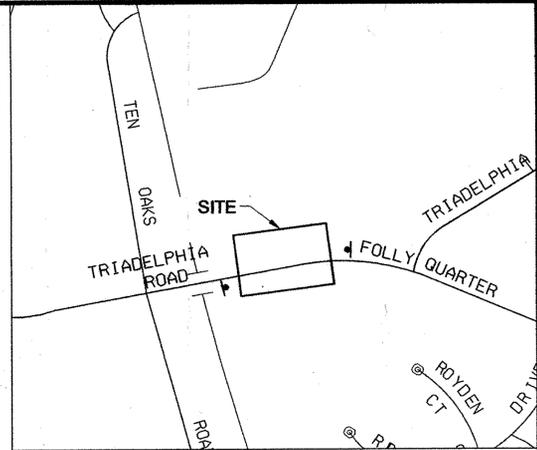
SITE ANALYSIS

| | |
|------------------------------------|---------------------------------|
| Total Area of Site | 0.15 Acres |
| Area Disturbed | 0.15 Acres |
| Area to be roofed or paved | 0.02 Acres |
| Area to be Vegetatively Stabilized | 0.13 Acres |
| Total Cut | 1336 Cu. Yds. |
| Total Fill | 1053 Cu. Yds. |
| Offsite waste/borrow area location | To be determined by contractor. |



PLAN

SCALE: HORIZ. 1" = 20'



SITE LOCATION MAP

SCALE: 1" = 600'
ADC MAP REFERENCE: HOWARD COUNTY MAP 4813, GRID C8

HORIZONTAL & VERTICAL CONTROL

COORDINATES & BEARINGS SHOWN HEREON ARE BASED ON HOWARD COUNTY CONTROL STATIONS AND REPRESENT THE MARYLAND STATE PLANE COORDINATE SYSTEM AS DERIVED FROM NORTH AMERICAN DATUM (NAD83/07) FOR HORIZONTAL AND NORTH AMERICAN VERTICAL DATUM (NAVD88) FOR VERTICAL DATUM. DEWBERRY UTILIZED THE REAL TIME NETWORK (RTN) "KEYNETGPS" OPERATED BY TRIMBLE TO ACQUIRE MEASUREMENTS FOR THE SURVEY CONTROL SET AT THE SUBJECT SITES FOR THE PROJECT AS WELL AS THE CONTROL NOTED BELOW. THE "KEYNETGPS" NETWORK PROVIDES FOR HIGH ACCURACY POSITIONING THROUGHOUT THE GEOGRAPHIC REGION. THE USE OF AN RTN FOR GEODETIC CONTROL INVOLVES THE COLLECTION AND USE OF ATMOSPHERIC, TROPOSPHERIC, AND OTHER CORRECTION FROM MULTIPLE CONTROL POINTS SURROUNDING THE PROJECT SITE, RESULTING IN HIGH PRECISION POSITIONAL DATA. THE CONTROL POINTS OF THIS NETWORK ARE NATIONAL GEODETIC SURVEY CONTINUOUSLY OPERATING REFERENCE STATIONS OR NGS CORRS, AND THE RESULTING MEASUREMENT VECTORS BETWEEN THE GPS RECEIVER AND NETWORK ARE DIRECT MEASUREMENTS TO EXISTING, HIGH ORDER PHYSICAL MONUMENTATION WHICH HAVE BEEN VETTED, MAINTAINED, AND DISTRIBUTED BY THE NATIONAL GEODETIC SURVEY. THE FOLLOWING HOWARD COUNTY CONTROL STATIONS WERE USED FOR THIS PROJECT:

HOWARD COUNTY GEODETIC SURVEY CONTROL

| NO. | NORTHING (FT) | EASTING (FT) | ELEV (FT) |
|------|---------------|--------------|-----------|
| 45CA | 540070.9730 | 132702.7218 | 426.15 |
| 42IB | 542366.9133 | 1363075.9515 | 282.35 |
| 08AB | 610602.2863 | 1297911.2033 | 579.72 |
| 16E1 | 593251.0015 | 1340192.6876 | 463.815 |

GENERAL NOTES:

- FOR GENERAL TANK INSTALLATION, PIPING, SPECIFICATIONS, AND DETAILS REFER TO SHEETS 1-6, INCLUSIVE.
- ALL TREES AND PLANTINGS INTERFERING WITH EXCAVATION SHALL BE REMOVED AND REPLACED WITH VIABLE TREES AND SIMILAR SPECIES AS INDICATED ON DRAWINGS. TREES AND PLANTINGS THAT ARE NOT CALLED OUT ON THE PLANS AND NEED TO BE REMOVED FOR CONSTRUCTION SHALL BE IDENTIFIED TO THE HOWARD COUNTY INSPECTOR PRIOR TO REMOVAL.
- THE CONTRACTOR SHALL TAKE ALL REASONABLE MEANS POSSIBLE TO PROTECT EXISTING TREES AND PLANTINGS WITHIN THE CONSTRUCTION AREA AND SHALL REPLACE IN KIND THOSE DAMAGED AS DIRECTED ON THE DRAWING.
- EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED IN ACCORDANCE WITH THE 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL MANUAL.
- CONTRACTOR IS RESPONSIBLE FOR ACQUIRING ALL STAGING AREAS TO BE USED DURING CONSTRUCTION.
- THERE SHALL BE NO STOCKPILING OF EXCAVATED MATERIAL ON THE WORK SITE.
- ALL SURVEY STAKEOUT IS THE RESPONSIBILITY OF THE CONTRACTOR.
- ALL TANK EXCAVATIONS MUST MEET OSHA REQUIREMENTS.
- CONTRACTOR TO CONFIRM FINAL SIGN LOCATIONS WITH MARTIN LAPORE@410-313-0513.

TRAFFIC CONTROL NOTES:

- PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL SCHEDULE A MEETING WITH HOWARD COUNTY TRAFFIC CONTROL MANAGER FOR THE APPROVAL OF TRAFFIC CONTROL PLANS.
- USE MD 104.02-10 FOR FLAGGING OPERATION.
- MAINTAIN 10' MINIMUM WIDTH ALONG ENTRANCE ADJACENT TO WORK ZONE WITH CHANNELIZING DEVICES.

AS-BUILT
09/15/2014

Printed by: (User) on Plot Date: Dec 17, 2013 11:23:00 AM
 Title: RT #96 Folly Quarter Middle School, 13500 Triadelphia Road, Elllicott City, MD 21042
 User: jlp
 Plot: RT #96 Folly Quarter Middle School, 13500 Triadelphia Road, Elllicott City, MD 21042

**DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND**

Director of Public Works: *[Signature]* DATE: 10/16/13
 Chief, Bureau of Engineering: *[Signature]* DATE: 10/16/13
 Chief, Bureau of Utilities: *[Signature]* DATE: 10/16/13
 Chief, Utility Design Division: *[Signature]* DATE: 10/16/13

Dewberry
Dewberry Consultants, LLC
3106 LORD BALTIMORE DRIVE
SUITE 110
BALTIMORE, MD 21244-2992
410.265.9500
FAC: 410.265.8875



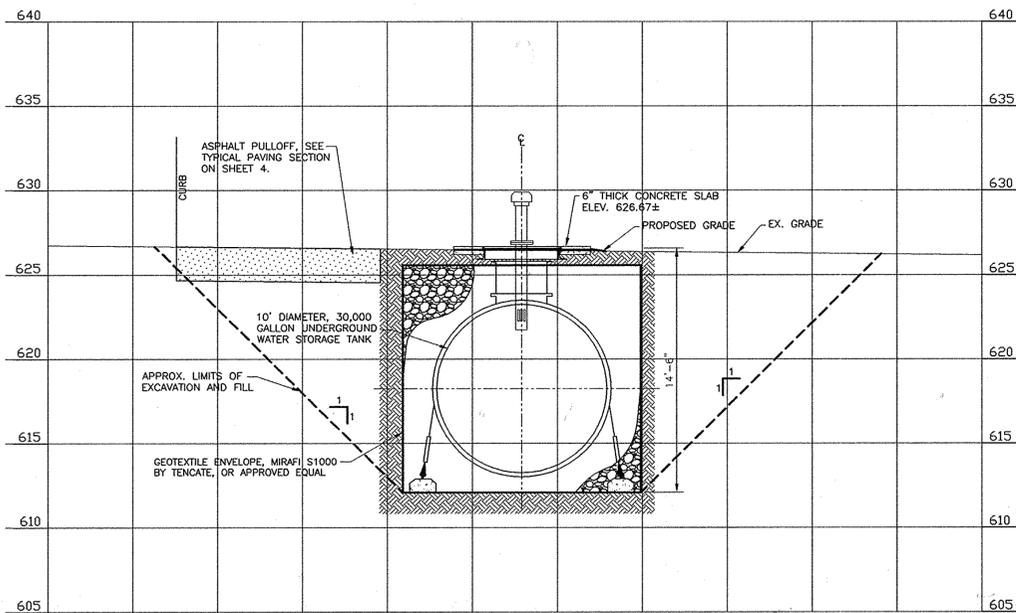
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|---------------|--------|-----------|------|
| DES: LAL | | | |
| DRN: RLJ | | | |
| CHK: LBP | | | |
| DATE: 12/2013 | BY NO. | REVISIONS | DATE |

RT #96 FOLLY QUARTER MIDDLE SCHOOL, 13500 TRIADELPHIA ROAD, ELLICOTT CITY, MD 21042

600' SCALE MAP NO. 27 BLOCK NO. 5

UNDERGROUND WATER STORAGE TANKS FOR FIRE SUPPRESSION
CAPITAL PROJECT NO. F-5972, CONTRACT NO. 65-4795
ELECTION DISTRICT NO. 4 HOWARD COUNTY, MARYLAND

SCALE: SHOWN
SHEET 9 OF 11



PROFILE
SCALE: HORIZ. 1" = 5'
VERT. 1" = 5'

| QUANTITIES TABLE | | | | |
|--|------|----------|----------|--------------|
| ITEM | UNIT | ESTIMATE | AS-BUILT | MANUFACTURER |
| MOBILIZATION/DEMOLITION | L.S. | 1 | | |
| 30,000 GALLON DRAFT WATER STORAGE TANK, COMPLETE IN PLACE, WITH PIPING CONNECTIONS | L.S. | 1 | | |
| ASPHALT PAVING (FULL DEPTH), P-6, & (MILL & OVERLAY) | S.F. | 778 | | |
| CONCRETE SLAB | S.F. | 160 | | |
| CLEARING AND GRUBBING | L.S. | 1 | | |
| SIGN, SITE IDENTIFICATION | EA. | 2 | | |
| SIGN, ADVANCE | EA. | 2 | | |
| SILT FENCE | L.F. | 171 | | |
| DIVERSION FENCE | L.F. | 50 | | |
| BLAZE ORANGE FENCE | L.F. | 227 | | |
| SITE RESTORATION | S.F. | 6,683 | | |
| NAME OF UTILITY CONTRACTOR: | | | | |

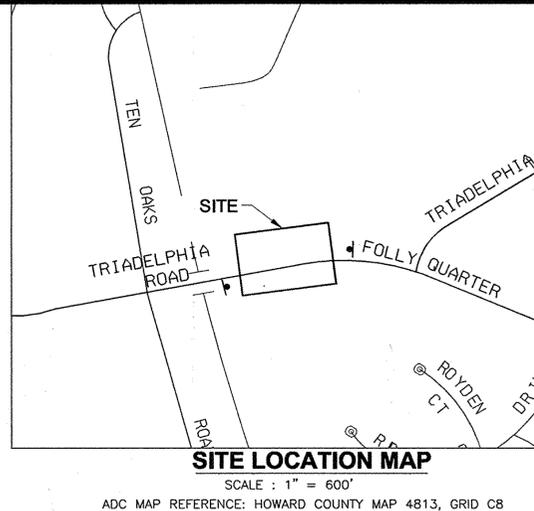
| STAKEOUT TABLE | | | |
|-------------------------------|-----------|------------|-----------|
| DESCRIPTION | NORTHING | EASTING | ELEVATION |
| TRAV 200 | 582121.29 | 1317136.75 | 615.62 |
| TRAV 201 | 581963.13 | 1317337.11 | 630.07 |
| BORING SB-5 | 581962.91 | 1317135.89 | 627.76 |
| BORING SB-6 | 581985.52 | 1317149.71 | 626.32 |
| 1 NW CORNER CONCRETE SLAB | 581988.54 | 1317153.05 | 626.67 |
| 2 NE CORNER CONCRETE SLAB | 581999.14 | 1317160.88 | 626.67 |
| 3 SW CORNER CONCRETE SLAB | 581968.95 | 1317157.06 | 626.67 |
| 4 SE CORNER CONCRETE SLAB | 581970.55 | 1317164.90 | 626.67 |
| 5 NW CORNER ASPHALT PULLOFF | 582011.76 | 1317132.10 | 623.60 |
| 6 NE CORNER ASPHALT PULLOFF | 582004.55 | 1317145.51 | 624.60 |
| 7 SW CORNER ASPHALT PULLOFF | 581938.21 | 1317146.60 | 629.50 |
| 8 SE CORNER ASPHALT PULLOFF | 581950.68 | 1317156.55 | 629.00 |
| 9 CENTER OF TANK MANHOLE | 581978.62 | 1317159.16 | 626.67 |
| 10 SCE, MIDPOINT AT ROAD EDGE | 582037.20 | 1317127.22 | 621.50 |

UTILITY NOTE:

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SITE ANALYSIS

| | |
|------------------------------------|---------------------------------|
| Total Area of Site | 0.15 Acres |
| Area Disturbed | 0.15 Acres |
| Area to be roofed or paved | 0.02 Acres |
| Area to be Vegetatively Stabilized | 0.13 Acres |
| Total Cut | 1338 Cu. Yds. |
| Total Fill | 1053 Cu. Yds. |
| Offsite waste/borrow area location | To be determined by contractor. |



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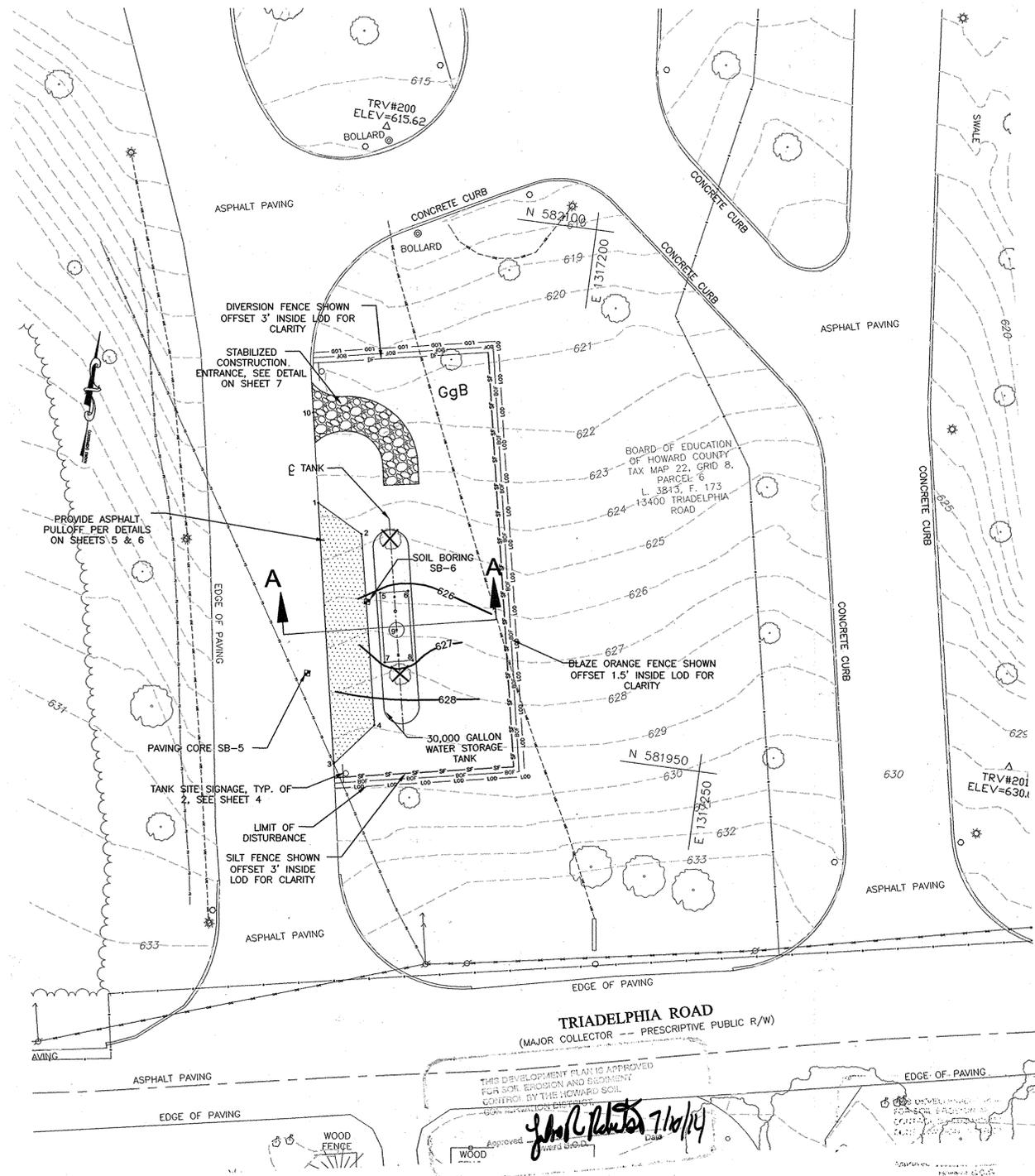
| HOWARD COUNTY GEODETIC SURVEY CONTROL | | | |
|---------------------------------------|---------------|--------------|-----------|
| NO. | NORTHING (FT) | EASTING (FT) | ELEV (FT) |
| 45CA | 544070.9730 | 1327702.7218 | 426.15 |
| 42IB | 542366.9133 | 1363076.9515 | 282.35 |
| 08AB | 610602.2863 | 1297911.2033 | 579.72 |
| 16E1 | 593251.0015 | 1340192.6876 | 463.815 |

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- CONTRACTOR TO CONFIRM FINAL SIGN LOCATIONS WITH MARTIN LAPORE@410-313-0513.

TRAFFIC CONTROL NOTES:

- PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL SCHEDULE A MEETING WITH HOWARD COUNTY TRAFFIC CONTROL MANAGER FOR THE APPROVAL OF TRAFFIC CONTROL PLANS.
- USE MD 104.02-10 FOR FLAGGING OPERATION.
- MAINTAIN 10' MINIMUM WIDTH ALONG ENTRANCE ADJACENT TO WORK ZONE WITH CHANNELIZING DEVICES.



PLAN
SCALE: HORIZ. 1" = 20'

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

Director of Public Works: [Signature] DATE: 12/20/13
 Chief, Bureau of Engineering: [Signature] DATE: 12/20/13
 Chief, Bureau of Utilities: [Signature] DATE: 12/20/13
 Chief, Utility Design Division: [Signature] DATE: 12/20/13

Dewberry
Dewberry Consultants, LLC
3106 LORD BALTIMORE DRIVE
SUITE 110
BALTIMORE, MD 21244-2662
410.265.9500
FAX: 410.265.8875



| | | | |
|---------------|--------|-----------|------|
| DES: LAL | | | |
| DRN: RLI | | | |
| CHK: LBP | | | |
| DATE: 12/2013 | BY NO. | REVISIONS | DATE |

RT #96 FOLLY QUARTER MIDDLE SCHOOL, 13500 TRIADELPHIA ROAD, ELLICOTT CITY, MD 21042

600' SCALE MAP NO. 27 BLOCK NO. 5

UNDERGROUND WATER STORAGE TANKS FOR FIRE SUPPRESSION
CAPITAL PROJECT NO. F-5972, CONTRACT NO. 65-4795

ELECTION DISTRICT NO. 4 HOWARD COUNTY, MARYLAND

SCALE: SHOWN
SHEET 9 OF 11

Printed by: [Name] on Plot Date: Dec 17, 2013 - 2:59pm
 Plot Location: [Address]
 User: [Name]
 User Saved: Date: 12/17/2013 2:59pm
 Job: [Project Name]

