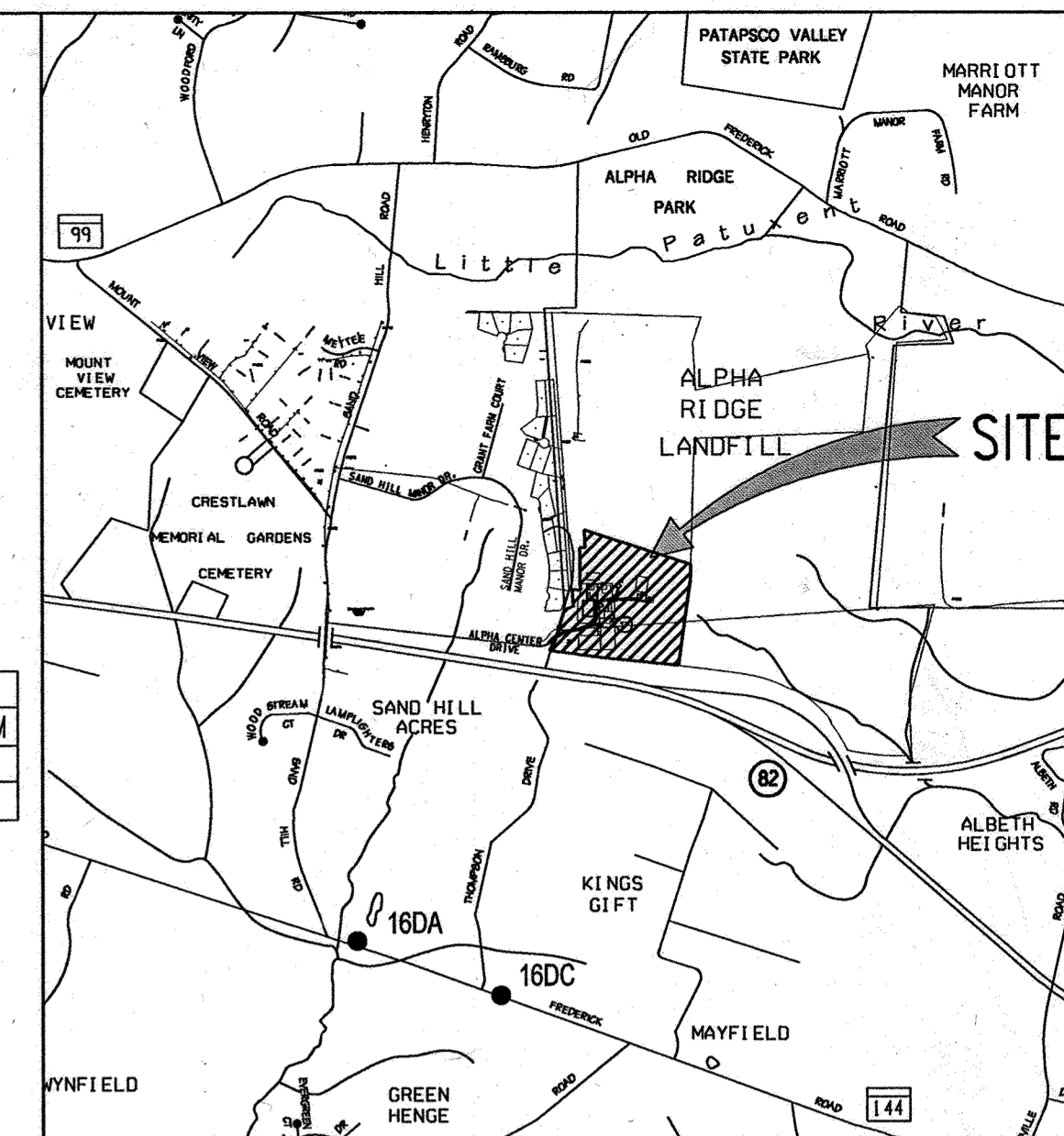


PUBLIC SAFETY TRAINING CENTER

THIRD ELECTION DISTRICT

HOWARD COUNTY, MARYLAND



| BENCHMARKS | | | | | |
|------------|-----------|------------|-----------|--------------|-------------|
| MONUMENT | NORTHING | EASTING | ELEVATION | HORIZ. DATUM | VERT. DATUM |
| 16DA | 593712.91 | 1332332.00 | 469.674 | NAD83(91) | NAGVD29 |
| 16DC | 593095.51 | 1333961.17 | 529.506 | NAD83(91) | NAGVD29 |

SITE DATA:

TOTAL PROJECT AREA: 38.23ac
 LIMITS OF DISTURBED AREA: 17.90ac
 PRESENT ZONING DESIGNATION: RC-DEO
 HEIGHT OF BUILDINGS: SEE TABLE G-2
 PROPOSED USES FOR STRUCTURES: TEMPORARY ADMINISTRATION/TRAINING
 PROPOSED USE OF SITE: (PER POLICE AND FIRE TRAINING REQUIREMENTS)
 NUMBER OF PARKING SPACES REQUIRED: 81
 NUMBER OF PARKING SPACES PROVIDED: 81 SPACES
 BUILDING COVERAGE: 0.4ac
 DPZ FILE REFERENCES: WP-03-36, WP-02-102

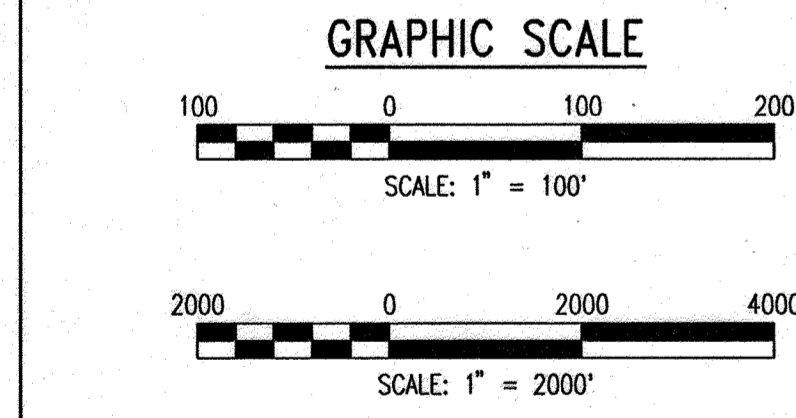
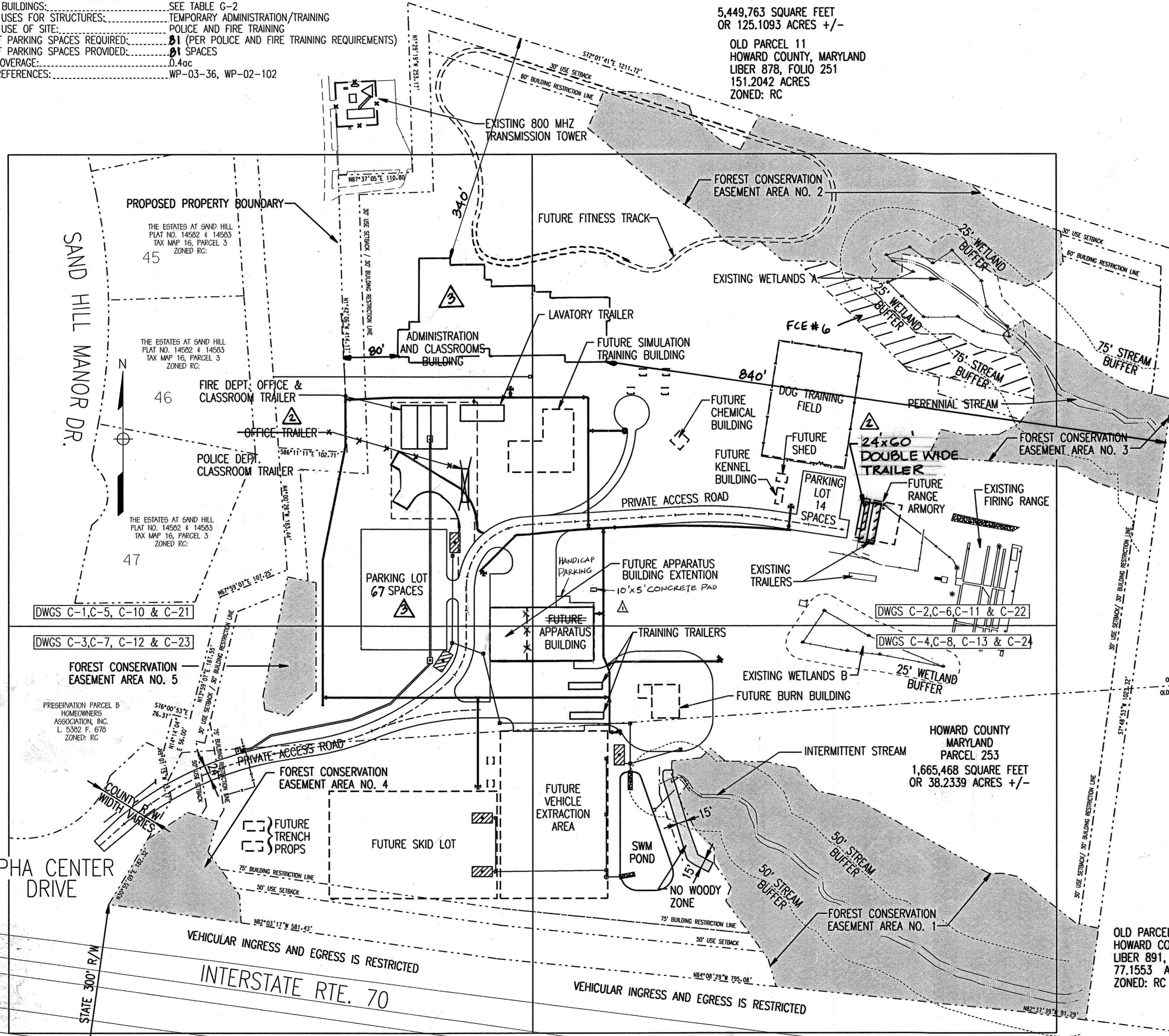
| EXISTING | PROPOSED | DESCRIPTION |
|-----------|----------|--|
| ---260--- | —260— | MAJOR CONTOUR |
| ---258--- | —258— | MINOR CONTOUR |
| 12"SD | 12"SD | STORM DRAIN |
| 8"W | 8"W | WATER |
| 6"SAN | 6"SAN | SANITARY SEWER |
| UE | UE | UNDERGROUND ELECTRIC |
| | | VALVE |
| | | FIRE HYDRANT |
| | | MANHOLE/INLET |
| | | STREET LIGHT |
| | | FENCE |
| | | TREES/WOODSLINE |
| | | STREAM |
| | | WETLAND |
| | | STORMWATER MANAGEMENT BORING LOCATION |
| | | PATCH TO MATCH EXISTING |
| | | NO WOODY ZONE |
| | | ABANDON EXISTING UTILITY/STRUCTURE |
| | | EXISTING UTILITY/STRUCTURE TO BE REMOVED |
| | | STAKEOUT POINTS |
| | | ELECTRICAL HANDBOX |
| | | CONTROL PANEL |
| | | ELECTRICAL NOTES |
| | | CONNECT TO EXISTING |
| | | WELL CAP |

HOWARD COUNTY MARYLAND PARCEL 220
 7,827,264 SQUARE FEET
 OR 179.6893 ACRES +/-

OLD PARCEL 220 HOWARD COUNTY, MARYLAND LIBER 891, FOLIO 314
 114,676 ACRES +/-
 ZONED: RC

VICINITY MAP
 SCALE: 1"=2000'

- GENERAL NOTES**
- NON-RESIDENTIAL SITE DEVELOPMENT PLAN
- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY PLUS MSMA STANDARDS AND SPECIFICATIONS IF APPLICABLE.
 - THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/BUREAU OF ENGINEERING/CONSTRUCTION INSPECTION DIVISION AT (410) 313-1880 AT LEAST FIVE (5) WORKING DAYS PRIOR TO THE START OF WORK.
 - THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK BEING DONE.
 - TRAFFIC CONTROL DEVICES, MARKINGS AND SIGNING SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). ALL STREET AND REGULATORY SIGNS SHALL BE IN PLACE PRIOR TO THE PLACEMENT OF ANY ASPHALT.
 - ALL PLAN DIMENSIONS ARE TO FACE OF CURB UNLESS OTHERWISE NOTED.
 - THE EXISTING TOPOGRAPHY IS TAKEN FROM FIELD RUN SURVEY WITH ONE FOOT CONTOUR INTERVALS PREPARED BY WHITMAN REQUARDT & ASSOCIATES L.L.P., DATED 07/11/02.
 - THE COORDINATES SHOWN HEREON ARE BASED UPON THE HOWARD COUNTY GEODETIC CONTROL WHICH IS BASED UPON THE MARYLAND STATE PLANE COORDINATE SYSTEM. HOWARD COUNTY MONUMENT NUMBERS 16DA AND 16DC WERE USED FOR THIS PROJECT.
 - WATER IS PUBLIC. CONTRACT NUMBER IS 44-4072 AND DRAINAGE AREA IS LITTLE PATRICK (108P.5).
 - SEWER IS PROVIDED BY A PRIVATE ON-SITE HOLDING TANK.
 - STORM WATER MANAGEMENT WILL BE PROVIDED BY A COMBINATION OF AN ON-SITE P-5 POCKET POND (QUALITY/CPV MANAGEMENT), A STORMCEPTOR (QUALITY PRE-TREATMENT), INFILTRATION STRUCTURES, (RECHARGE), GRASS CHANNEL (QUALITY + RECHARGE), NON-ROOFTOP + ROOFTOP DISCONNECTOR (QUALITY + RECHARGE). THESE FACILITIES ARE TO BE PUBLICLY MAINTAINED.
 - EXISTING UTILITIES ARE BASED ON PROPOSED LOCATIONS PROVIDED BY THE HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS UTILITY DESIGN DIVISION.
 - THERE IS NO FLOODPLAIN ON THIS SITE.
 - THE WETLANDS DELINEATION STUDY FOR THIS PROJECT WAS PREPARED BY WHITMAN REQUARDT & ASSOCIATES L.L.P., JULY 22, 2002.
 - NO TRAFFIC STUDY IS REQUIRED FOR THIS PROJECT.
 - A WAIVER DEFERRING THE PLACEMENT OF BITUMINOUS PAVING TO A LATER DATE WAS APPROVED ON JULY 16, 2002 BY HOWARD COUNTY (DPW) PROVIDED THAT APPROPRIATE DUST CONTROL MEASURES ARE INSTITUTED. APPROPRIATE DUST CONTROL MEASURES ARE TO BE APPLIED TO ALL GRAVEL SURFACES.
 - THIS SITE IS EXEMPT FROM THE APFO TEST REQUIREMENTS AS STATED IN SECTIONS 16.1107-(2)-(f) AND 16.1110-(h)-(2) OF THE HOWARD COUNTY CODE.
 - A WAIVER FOR SECTION 16.147 OF THE HOWARD COUNTY SUBDIVISION AND LAND DEVELOPMENT REGULATIONS WAS APPROVED ON APRIL 23, 2002, WP-02-102 TO ALLOW RECORDING OF ADJONER DEEDS TO RECONSTRUCT 3 COUNTY OWNED PARCELS OF LAND TO ESTABLISH REVISED PARCEL 253.
 - USE OF A SEWAGE HOLDING TANK WAS APPROVED BY THE HOWARD COUNTY HEALTH DEPARTMENT ON MARCH 25, 2002.
 - THE FIRE DEPT., OFFICE & CLASSROOM TRAILER, POLICE DEPT., CLASSROOM, OFFICE TRAILER, TRAINING TRAILERS AND LAVATORY TRAILERS WILL BE PLACED ON THE SITE UNDER A SEPARATE CONTRACT.
 - THE PROPERTY BOUNDARIES SHOWN ON THESE PLANS HAVE BEEN RECORDED AS NEW DEED LIBER 6689 FOLIO 619 AND PLAT OF FOREST CONSERVATION REFERENCE NUMBER 15834.
 - NO GRADING, REMOVAL OF VEGETATIVE COVER OR TREES, OR PLACEMENT OF NEW STRUCTURES IS PERMITTED WITHIN THE LIMITS OF WETLANDS, STREAMS OR THEIR REQUIRED BUFFERS AND FOREST CONSERVATION EASEMENT AREAS EXCEPT AS APPROVED BY WAIVER APPLICATION WP-03-36.
 - THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL.
 - THIS PROJECT COMPLIES WITH THE REQUIREMENTS OF SECTION 16.1200 OF THE HOWARD COUNTY CODE AND THE FOREST CONSERVATION MANUAL WITH A TOTAL FOREST CONSERVATION OBLIGATION OF 7.63 ac HAS BEEN INCLUDED AS 7.19 ac IN RETENTION AND 0.44 ac IN REFORESTATION.
 - ALL EXTERIOR LIGHT FIXTURES SHALL BE ORIENTED TO DIRECT LIGHT DOWNWARDS ON-SITE AWAY FROM ALL ADJOINING RESIDENTIAL PROPERTIES AND PUBLIC ROADS IN ACCORDANCE WITH SECTION 134 OF THE HOWARD COUNTY ZONING REGULATIONS.
 - THERE ARE NO CEMETERIES OR GRAVE SITES ON THE SUBJECT PROPERTY.
 - THIS PROJECT IS SUBJECT TO THE FIFTH EDITION OF SUBDIVISION AND LAND DEVELOPMENT REGULATIONS.
 - THE FOREST CONSERVATION EASEMENTS ON THIS PLAN HAVE BEEN ESTABLISHED TO FULFILL THE REQUIREMENTS OF SECTION 16.1200 OF THE HOWARD COUNTY CODE AND FOREST CONSERVATION MANUAL. NO CLEARING, GRADING OR CONSTRUCTION IS PERMITTED WITHIN THE FOREST CONSERVATION EASEMENTS. HOWEVER, FOREST MANAGEMENT PRACTICES AS DEFINED IN THE DEED OF FOREST CONSERVATION EASEMENT ARE ALLOWED.
 - STORMWATER MANAGEMENT HAS BEEN PROVIDED FOR ALL FACILITIES AND FUTURE STRUCTURES AS SHOWN ON THESE PLANS. ANY ADDITIONAL DEVELOPMENT ON THIS SITE WILL REQUIRE RE-EVALUATION OF THE STORM WATER MANAGEMENT REQUIREMENTS.
 - ALL UTILITIES CONSTRUCTED WITHIN FILL MATERIAL MUST BE PLACED IN ACCORDANCE WITH MSHTO-1180.
 - THE CONTRACTOR OR DEVELOPER SHALL CONTACT THE HOWARD COUNTY CONSTRUCTION INSPECTION DIVISION 24 HOURS IN ADVANCE OF THE COMMENCEMENT OF WORK AT (410) 313-1880.
 - A WAIVER PERTAINING TO THE REQUIREMENT OF A 12" MAINTENANCE BENCH AS DESCRIBED UNDER SECTION 5.2.7.A.2 OF THE HOWARD COUNTY DESIGN MANUAL VOLUME 1 - STORM DRAINAGE HAS BEEN APPROVED BY THE HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS ON OCTOBER 15, 2002.
 - REFER TO SHEET 2 FOR A LIST OF APPROVED WAIVERS TABLE.



For Review by
 Site Resources Inc.
 only.

APPROVED: FOR PUBLIC WATER AND PRIVATE SEWERAGE SYSTEMS,
 HOWARD COUNTY HEALTH DEPARTMENT
Randy Brantley 5-5-03
 COUNTY HEALTH OFFICER DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
Mark J. Leavelle 3/16/02
 DIRECTOR DATE

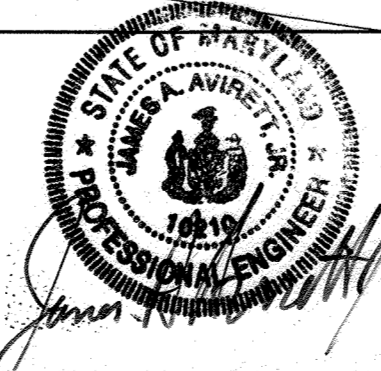
John C. Williams 3/11/02
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

Cathy Hamilton 3/17/03
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND

CHIEF, BUREAU OF UTILITIES DATE

PREPARED BY:
WR&A
 Whitman, Requardt and Associates, LLP.
 801 South Caroline Street,
 Baltimore, Maryland, 21231
 410-235-3450



| | | | |
|------------------|--------|--|----------|
| DES: C.D. | GRI | REVISED THE ADMIN/CLASS ROOM BLDG. W/ WALKWAY AND PARKING AREA. W/ 5 HANDICAPPED SPACES. REVISED NUMBER OF PARKING SPACES. | 7/13/05 |
| DRN: C.K. | | | |
| CHK: A.O. | CMD | REMOVED OFFICE TRAILER, ADDED 24'x60' DOUBLE WIDE TRAILER | 10/14/04 |
| DATE: 12/16/2002 | CMD | REMOVE 'FUTURE', ADDED PARKING + 10'x5' CONCRETE PAD | 7/23/04 |
| | BY NO. | REVISION | DATE |

COVER SHEET

| | | | | | | | | |
|---|-------------------------------|-------------------------------------|----------------|---------------|--------------|--------------------|----------------------|-----|
| OWNER: HOWARD COUNTY MARYLAND DEPARTMENT OF PUBLIC WORKS 3430 COURTHOUSE DRIVE ELLCOTT CITY, MD 21043 PH: 410 313-2700 | WATER CODE: 730 | SEWER CODE: PRIVATE-HOLDING TANK | ADDRESS CHART | | | | | |
| PROJECT NAME: PUBLIC SAFETY EDUCATION CENTER | PLAT 15716 L.6689 F.619 | FOREST CONS. PLAT 15834 | ZONE RC-DEO | TAX MAP 16 | BLOCK 2/8 | ELEC. DIST. 3rd | CENSUS TRACT 6030 | G-1 |
| PUBLIC SAFETY TRAINING CENTER AT ALPHA RIDGE LANDFILL CAPITAL PROJECT NO. C-0182 HOWARD COUNTY, MARYLAND | | | | | | | | |
| SCALE AS SHOWN | | | | | | | | |
| SHEET 1 OF 39 | | | | | | | | |

ABBREVIATIONS

| | |
|---------------|--|
| AASHTO | AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS |
| ASTM. | ASSOCIATION FOR STANDARD TESTING METHODS |
| APPROX. | APPROXIMATELY |
| BLDG. | BUILDING |
| BIT. | BITUMINOUS |
| B.M. | BENCH MARK |
| CFS. | CUBIC FEET PER SECOND |
| CO. | CLEANOUT |
| COMP. | COMPACTED |
| CONN. | CONNECTION |
| CMP. | CORRUGATED METAL PIPE |
| DIA., DIAM. | DIAMETER |
| DWG., DRWG | DRAWING |
| EL., ELEV. | ELEVATION |
| ELECT., ELEC. | ELECTRICAL |
| ESAN. | EXISTING SANITARY |
| UE. | UNDERGROUND ELECTRIC |
| EUGT&E. | EXISTING UNDERGROUND TELEPHONE & ELECTRIC |
| EXST., EX. | EXISTING |
| FM | FORCE MAIN |
| FPS. | FEET PER SECOND |
| INV. | INVERT |
| IP. | INLET PROTECTION |
| MECH. | MECHANICAL |
| MFR. | MANUFACTURER |
| M.H. | MANHOLE |
| MIN. | MINIMUM |
| MW | MONITORING WELL |
| OHE. | OVERHEAD ELECTRIC |
| OHT. | OVERHEAD TELEPHONE |
| P.I. | POINT OF INTERSECTION, POST INDICATOR |
| P.C. | POINT OF CURVATURE |
| P.T. | POINT OF TANGENCY |
| PVC | POINT OF VERTICAL CURVE |
| PROP. | PROPOSED |
| SDR. | STANDARD DIMENSION RATIO |
| S | SOUTH, SLOPE, SANITARY |
| SAN | SANITARY |
| TEL | TELEPHONE |
| W-4 | WATER PROFILE IDENTIFICATION |
| T/G | TOP OF GRATE |
| T/MH | TOP OF MANHOLE |
| T/W | TOP OF WELL |

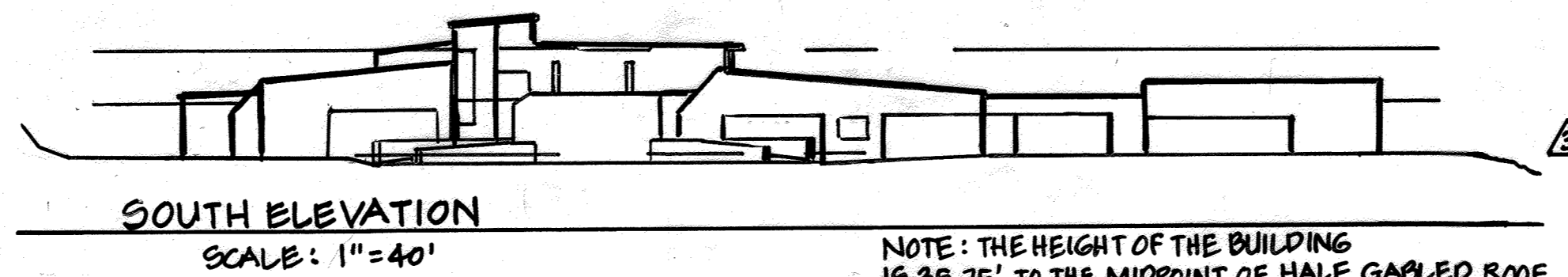
LIST OF DRAWINGS

| SHEET NO. | DRAWING NO. | SHEET TITLE |
|-----------|-------------|--|
| 1 | G-1 | COVER SHEET |
| 2 | G-2 | GENERAL NOTES AND LIST OF DRAWINGS |
| 3 | C-1 | SURVEY / DEMOLITION PLAN |
| 4 | C-2 | SURVEY / DEMOLITION PLAN |
| 5 | C-3 | SURVEY / DEMOLITION PLAN |
| 6 | C-4 | SURVEY / DEMOLITION PLAN |
| 7 | C-5 | GRADING / PAVING PLAN |
| 8 | C-6 | GRADING / PAVING PLAN |
| 9 | C-7 | GRADING / PAVING PLAN |
| 10 | C-8 | GRADING / PAVING PLAN |
| 11 | C-9 | PROFILE - PRIVATE ACCESS ROAD |
| 12 | C-10 | UTILITY PLAN |
| 13 | C-11 | UTILITY PLAN |
| 14 | C-12 | UTILITY PLAN |
| 15 | C-13 | UTILITY PLAN |
| 16 | C-14 | PROFILES - STORM DRAINS |
| 17 | C-15 | PROFILES |
| 18 | C-16 | PROFILES - WATER MAINS |
| 19 | C-17 | PROFILES - WATER MAINS |
| 20 | C-18 | PROFILES - SANITARY SEWER AND DETAILS |
| 21 | C-19 | DETAILS |
| 22 | C-20 | FENCE AND GATE DETAILS |
| 23 | C-21 | EROSION AND SEDIMENT CONTROL PLAN |
| 24 | C-22 | EROSION AND SEDIMENT CONTROL PLAN |
| 25 | C-23 | EROSION AND SEDIMENT CONTROL PLAN |
| 26 | C-24 | EROSION AND SEDIMENT CONTROL PLAN |
| 27 | C-25 | EROSION AND SEDIMENT CONTROL NOTES |
| 28 | C-26 | EROSION AND SEDIMENT CONTROL NOTES |
| 29 | C-27 | EROSION AND SEDIMENT CONTROL DETAILS |
| 30 | C-28 | DRAINAGE AREA MAP |
| 31 | C-29 | FOREST STAND DELINEATION |
| 32 | C-30 | FOREST STAND DELINEATION ANALYSIS TABLE |
| 33 | C-31 | FOREST CONSERVATION PLAN |
| 34 | C-32 | FOREST CONSERVATION NOTES AND DETAILS |
| 35 | LS-1 | LANDSCAPE PLAN - NORTH |
| 36 | LS-2 | LANDSCAPE PLAN - SOUTH |
| 37 | LS-3 | STORMWATER FACILITY LANDSCAPE PLAN, NOTES AND DETAILS |
| 38 | LS-4 | LANDSCAPE NOTES AND DETAILS |
| 39 | E-01 | LEVEL ALARM CONTROL ECD FLOAT INSTALLATION DETAIL CONDUIT DETAIL |

- CONTRACTOR MUST OBTAIN A GRADING PERMIT PRIOR TO COMMENCEMENT OF CONSTRUCTION.1
- ONCE GRADING PERMIT IS OBTAINED NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO THE START OF ANY CONSTRUCTION.1
- A MINIMUM OF 24 HOURS MUST BE GIVEN TO THE HOWARD COUNTY OFFICE OF INSPECTION AND PERMITS PRIOR TO THE START OF ANY CONSTRUCTION. (410) 313-1855.1
- CONTACT BGE TO HAVE THE POWER FOR THE EXISTING POLICE TRAILERS DISCONNECTED.1-2
- INSTALL SEDIMENT CONTROL MEASURES (SCE, EARTH DIKES, AND SILT FENCE).1-2
- BEGIN DEMOLITION. RELOCATE EXISTING POLICE TRAILERS AND ALL SALVAGED MATERIALS TO THE AREA INDICATED ON SHEET C-1.2-4
- INSTALL SUPER SILT FENCE LOCATED AT THE NORTH END OF THE GRASS SWALE THEN GRADE AND STABILIZE THE GRASS SWALE WEST OF THE FUTURE RANGE ARMORY (SHEET C-22). ONCE SWALE IS GRADED INSTALL EROSION CONTROL MATTING AND SILT FENCE ON THE UPHILL (WEST SIDE) OF THE SWALE. THE SUPER SILT FENCE NORTH OF THE SWALE MAY BE REMOVED UPON FULL STABILIZATION OF THE SWALE AND WITH PERMISSION OF THE INSPECTOR.4-6
- WITH THE PERMISSION OF THE INSPECTOR, INSTALL SUPER SILT FENCE LOCATED AT THE SOUTH-WEST ENDS OF THE SWALES LOCATED ON BOTH SIDES OF THE SITE ENTRANCE. GRADE THE AREA NORTH OF THE SITE ENTRANCE (SHEET C-23). STABILIZE ALL GRADED AREAS UPON COMPLETION WITH EROSION CONTROL MATTING. ONCE AREA HAS BEEN STABILIZED INSTALL SILT FENCE AND BEGIN INSTALLATION OF THE CULVERT. ONCE THE CULVERT IS INSTALLED AND THE SWALES ARE FULLY STABILIZED THE SUPER SILT FENCE MAY BE REMOVED WITH PERMISSION OF THE INSPECTOR.4-6
- CONSTRUCT SEDIMENT TRAPS ST-1 AND ST-2 AND ASSOCIATED EARTH DIKES. CONSTRUCT THE STORMWATER MANAGEMENT POND/SEDIMENT TRAP ST-3. DO NOT GRADE THE FOREBAY. BRICK THE OPENINGS IN THE OUTLET STRUCTURE SHUT. DO NOT INSTALL THE ORIFICE PLATE INSIDE THE OUTLET STRUCTURE AND INSTALL THE TEMPORARY RISER. UTILIZE REMOVABLE PUMP STATION TO ALLOW FOR DEWATERING OF SEDIMENT TRAPS AS NECESSARY. PROVIDE GROUTED CUT-OFFS AT THE END OF ALL APRONS AND AT THE END OF ALL INFLOW PROTECTION.6-8
- WITH PERMISSION FROM THE INSPECTOR, BEGIN GRADING THE ACCESS ROAD AND FUTURE KENNEL/RANGE ARMORY AREA. STABILIZE DITCHES WITH EROSION CONTROL MATTING AS INDICATED. STOCKPILE ANY MATERIAL SUITABLE FOR THE POND LINER AND POND EMBANKMENT. PROVIDE DUST CONTROL MEASURES AT THE END OF EACH DAY PER THE SPECIFICATIONS ON SHEET C-27.8-10
- WITH PERMISSION FROM THE INSPECTOR, GRADE AND PERMANENTLY STABILIZE FUTURE KENNEL/RANGE ARMORY AREA. ONCE THE AREA IS STABLE PLACE THE EXISTING TRAILERS AS INDICATED ON THE PLANS AND REINSTALL THE OVERHEAD ELECTRIC POLES AND ORIGINAL METER EQUIPMENT.10-11
- INSTALL STORM DRAINS, INLETS AND ASSOCIATED RECHARGE DEVICES. TEMPORARILY BRICK SHUT PIPE OPENINGS FROM THE INLETS TO THE RECHARGE DEVICES.11-13
- WITH PERMISSION FROM THE INSPECTOR, GRADE THE SITE. STABILIZE DITCHES WITH EROSION CONTROL MATTING AS INDICATED. PROVIDE DUST CONTROL MEASURES AT THE END OF EACH DAY PER THE SPECIFICATIONS ON SHEET C-27.13-15
- ONCE SITE HAS BEEN PERMANENTLY STABILIZED AND PERMISSION HAS BEEN GRANTED BY THE SEDIMENT CONTROL INSPECTOR:
 - REMOVE SEDIMENT TRAPS ST-1 AND ST-2
 - FLUSH THE STORM DRAIN SYSTEM WITH CLEAN WATER TO REMOVE ANY RESIDUAL SEDIMENT.
 - GRADE THE FOREBAY AREA AND THE STORAGE BASIN IN THE STORMWATER MANAGEMENT POND/SEDIMENT TRAP ST-3 AND PERMANENTLY STABILIZE. RESET/REPLACE ALL INFLOW PROTECTION AT THE STORM DRAIN OUTFALLS.
 - UNBLOCK THE PIPE OPENINGS FROM THE INLETS TO THE RECHARGE DEVICES.
 - ONCE THE MICRO POOL AREA AND THE STORAGE BASIN ARE PERMANENTLY STABILIZED, UNBLOCK THE OUTLET STRUCTURE IN THE STORMWATER MANAGEMENT POND/SEDIMENT TRAP ST-3. REMOVE THE TEMPORARY DRAINAGE DEVICE AND INSTALL THE PERMANENT DRAINAGE DEVICE.
 - GRADE THE SWALE SOUTH OF THE STORMWATER MANAGEMENT POND / SEDIMENT TRAP ST-3 AS INDICATED BY THE DASHED CONTOURS. STABILIZE WITH EROSION CONTROL MATTING WHEN GRADING IS COMPLETE.15-16
- WITH PERMISSION FROM THE SEDIMENT CONTROL INSPECTOR REMOVE ALL REMAINING EARTH DIKES, SILT FENCE AND SUPER SILT FENCE.16-17

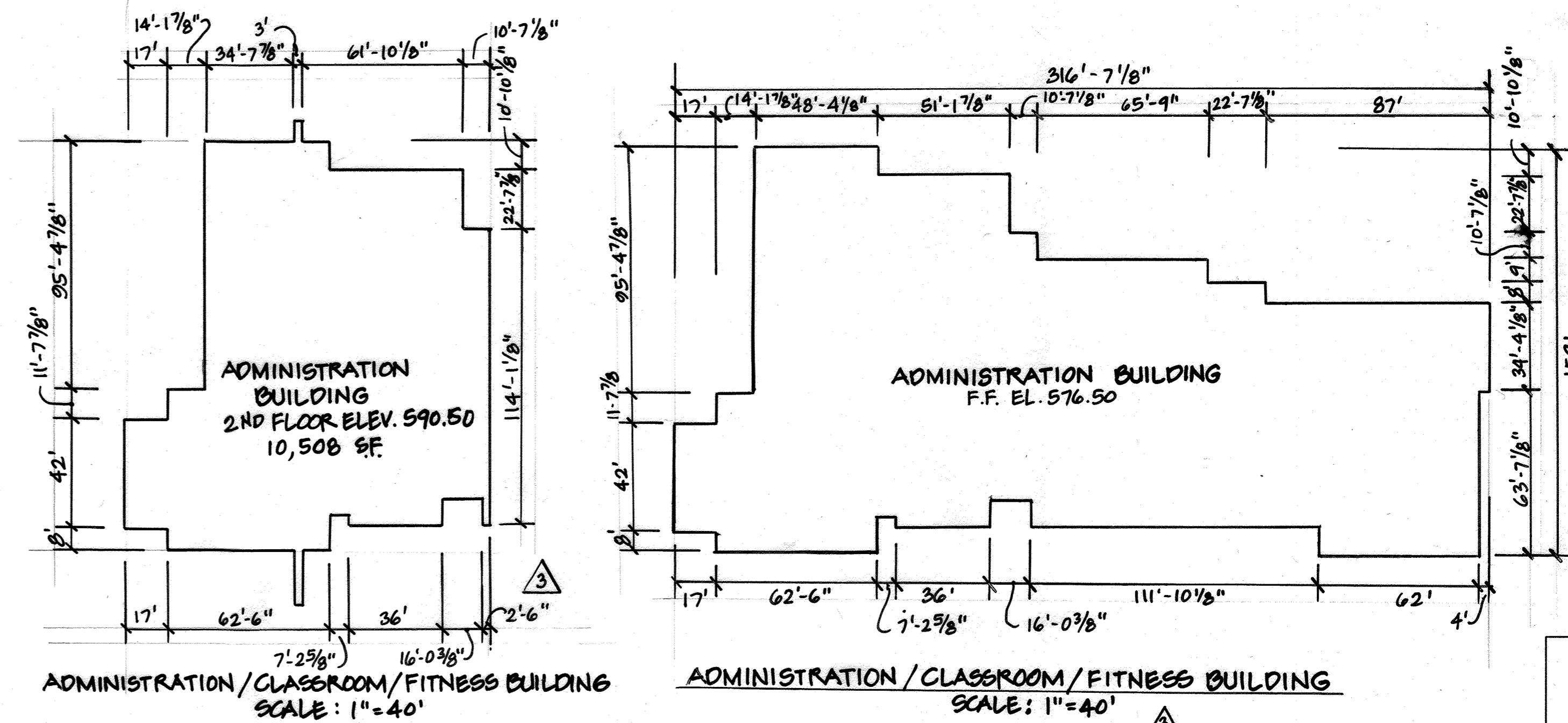
BUILDING TABLE:

| STRUCTURE | TEMPORARY MODULAR BUILDING | HEIGHT | STREET ADDRESS |
|---------------------------------------|----------------------------|----------|-----------------------|
| POLICE DEPT. CLASSROOM TRAILER | TEMPORARY MODULAR BUILDING | 12'± | 2220 |
| OFFICE TRAILER | TEMPORARY MODULAR BUILDING | 12'± | 2220 |
| FIRE DEPT. OFFICE & CLASSROOM TRAILER | TEMPORARY MODULAR BUILDING | 12'± | 2210 |
| LAVATORY TRAILER | TEMPORARY MODULAR BUILDING | 12'± | 2240 |
| TRAINING TRAILER | TEMPORARY MODULAR BUILDING | 12'± | |
| APPARATUS BUILDING | PERMANENT BUILDING | 24'± | 2280 |
| POLICE RANGE TRAILER | TEMPORARY MODULAR BUILDING | 12'± | 2260 |
| ADMINISTRATION BUILDING CLASSROOM | PERMANENT BUILDING | SEE NOTE | 2200 ALPHA CENTER DR. |
| ALPHA RIDGE WATER TANK | PERMANENT STRUCTURE | | 2101 |
| OLD 150 MHZ RADIO TOWER | PERMANENT STRUCTURE | | 2170 |
| NEW 800 MHZ RADIO TOWER | PERMANENT STRUCTURE | | 2180 |
| POLICE PISTOL RANGE | PERMANENT STRUCTURE | | 2264 |
| | PERMANENT BUILDING | | 2260 |
| RANGE ARMORY | PERMANENT BUILDING | | 2270 |
| BURN BUILDING | PERMANENT BUILDING | | 2258 |
| SIMULATION TRNG. BUILDING | PERMANENT BUILDING | | 2250 |
| CHEMICAL BUILDING | PERMANENT BUILDING | | 2254 ALPHA CENTER DR. |



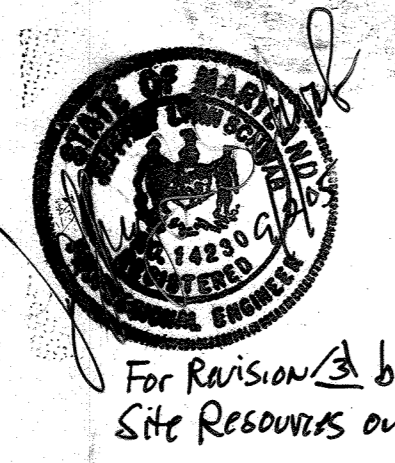
LIST OF APPROVED WAIVERS

| WIAVER # | ACTION | DATE APPROVED | APPROVED BY |
|------------------|--|------------------|---|
| WRITTEN APPROVAL | DEFER PLACEMENT OF BITUMINOUS PAVING UNTIL A LATER PHASE OF WORK ON THIS SITE. | JULY 16, 2002 | HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS |
| WP-02-102 | ALLOWS RECORDING OF ADJOINER DEEDS TO RECONFIGURE PARCELS 253, 220 AND 11. | APRIL 23, 2002 | HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING |
| WRITTEN APPROVAL | APPROVED THE USE OF A SEWAGE HOLDING TANK | MARCH 25, 2002 | HOWARD COUNTY HEALTH DEPARTMENT |
| WRITTEN APPROVAL | WAIVES THE REQUIREMENT FOR A 12' BENCH, 1' ABOVE THE NORMAL POOL ELEVATION, WITHIN THE SWM POND AS DESCRIBED UNDER SECTION 5.2.7.A.2 OF THE HOWARD COUNTY DESIGN MANUAL, VOLUME 1. | OCTOBER 15, 2002 | HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS |
| WP-03-36 | ALLOWS DISTURBANCE WITHIN THE STREAM BUFFER ON THE SOUTH EAST PORTION OF THE SITE IN THE VICINITY OF THE SWM POND AND FUTURE BURN BUILDING. | DECEMBER 9, 2002 | HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING |
| WRITTEN APPROVAL | ALLOWS THE USE OF A STORMCEPTOR | OCTOBER 7, 2002 | HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS |



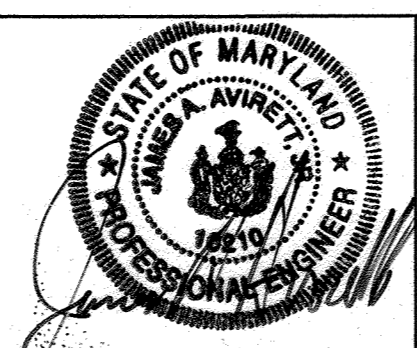
APPROVED: FOR PUBLIC WATER AND PRIVATE SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT
 County Health Officer: *Pamela M. F.* DATE: 3-5-03

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
 Director: *Mark Z. Leff* DATE: 5/18/03
 Chief, Development Engineering Division: *Chris Dammann* DATE: 5/10/03
 Chief, Division of Land Development: *Conrad Kamstra* DATE: 3/17/03



DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND
 Chief, Bureau of Utilities

PREPARED BY:
WR&A
 Whitman, Reardon and Associates, LLP.
 801 South Caroline Street,
 Baltimore, Maryland, 21231
 410-235-3450



DES: C.D.
 DRN: C.K.
 CHK: A.O.
 DATE: 12/16/2002

REVISION: REVISED THE ADMIN./CLASS ROOM BLDG. W/ WALKWAY AND PARKING AREA W/ 3 HANDICAPPED SPACES. 7/13/05
 REMOVED OFFICE TRAILER, ADDED APPARATUS BLDG. & POLICE RANGE TRAILER TO BLDG. TABLE 10/24/04

GENERAL NOTES AND LIST OF DRAWINGS

600' SCALE MAP NO. 16 BLOCK NO. 2 / 8

PUBLIC SAFETY TRAINING CENTER AT ALPHA RIDGE LANDFILL CAPITAL PROJECT NO. C-0182 HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
 SHEET 2 OF 39



E 133400
N 597800

E 133400
N 597600

45

THE ESTATES AT SAND HILL
PLAT NO. 14582 & 14583
TAX MAP 16, PARCEL 3
ZONED RC:

46

THE ESTATES AT SAND HILL
PLAT NO. 14582 & 14583
TAX MAP 16, PARCEL 3
ZONED RC:

48

THE ESTATES AT SAND HILL
PLAT NO. 14582 & 14583
TAX MAP 16, PARCEL 3
ZONED RC:

47

THE ESTATES AT SAND HILL
PLAT NO. 14582 & 14583
TAX MAP 16, PARCEL 3
ZONED RC:

TEMPORARY STORAGE AREA
FOR EXISTING POLICE TRAILERS
AND SALVAGED MATERIAL

LIMIT OF DISTURBANCE

DISCONNECT ELECTRIC
SERVICE FROM STREET LIGHT

REMOVE ELECTRIC CONDUIT

REMOVE FIRING
PLATFORM

MATCH LINE SEE DWG. C-3

MATCH LINE SEE DWG. C-2

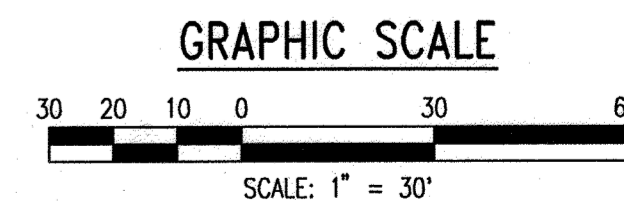
APPROVED: FOR PUBLIC WATER AND PRIVATE SEWERAGE SYSTEMS,
HOWARD COUNTY HEALTH DEPARTMENT
Darryl Brantley M.P., S.I. 3-5-03
COUNTY HEALTH OFFICER DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
Mark J. Layton 2/12/03
DIRECTOR DATE

Chris Deacon 3/11/03
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

Cecilia Hamstra 3/17/03
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

MATCH LINE SEE DWG. C-3



C-1

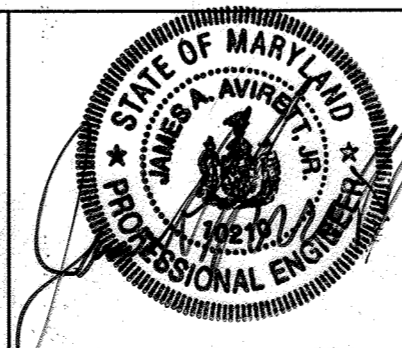
DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

CHIEF, BUREAU OF UTILITIES DATE

PREPARED BY:

WR&A

Whitman, Requardt and Associates, LLP.
801 South Caroline Street
Baltimore, Maryland, 21231
410-235-3450



| | | | | | |
|-------|------------|----------|------|--------------------|--------------|
| DES: | C.D. | | | | |
| DRN: | C.K. | | | | |
| CHK: | A.O. | | | | |
| DATE: | 12/16/2002 | | | | |
| BY: | NO. | REVISION | DATE | 600' SCALE MAP NO. | 16 BLOCK NO. |
| | | | | | 2 / 8 |

SURVEY/DEMOLITION PLAN

PUBLIC SAFETY TRAINING CENTER
AT ALPHA RIDGE LANDFILL
CAPITAL PROJECT NO. C-0182
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
SHEET 3 OF 39

SDP-03-36

M:\3490\sdp0303.dgn
Thu Feb 20 15:34:2 2003

MATCH LINE SEE DWG. C-1



MATCH LINE SEE DWG. C-4

APPROVED: FOR PUBLIC WATER AND PRIVATE SEWERAGE SYSTEMS,
HOWARD COUNTY HEALTH DEPARTMENT
Randy Banks Mgr. *St* 3-5-03
COUNTY HEALTH OFFICER DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
Randy D. Leyle 2/10/02
DIRECTOR DATE

Chris Dammon 3/11/02
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

Chris Hamrick 3/12/02
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

CHIEF, BUREAU OF UTILITIES DATE

PREPARED BY:
WR&A
Whitman, Reardon and Associates, LLP.
801 South Caroline Street,
Baltimore, Maryland, 21231
410-235-3450

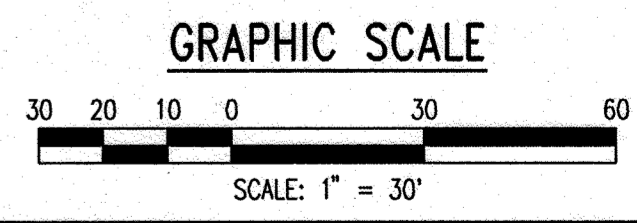


| | | | | | |
|------------------|--|----------|--|------|--|
| DES: C.D. | | | | | |
| DRN: C.K. | | | | | |
| CHK: A.O. | | | | | |
| DATE: 12/16/2002 | | | | | |
| BY NO. | | REVISION | | DATE | |

SURVEY/DEMOLITION PLAN

600' SCALE MAP NO. 16 BLOCK NO. 2 / 8

PUBLIC SAFETY TRAINING CENTER
AT ALPHA RIDGE LANDFILL
CAPITAL PROJECT NO. C-0182
HOWARD COUNTY, MARYLAND



C-3

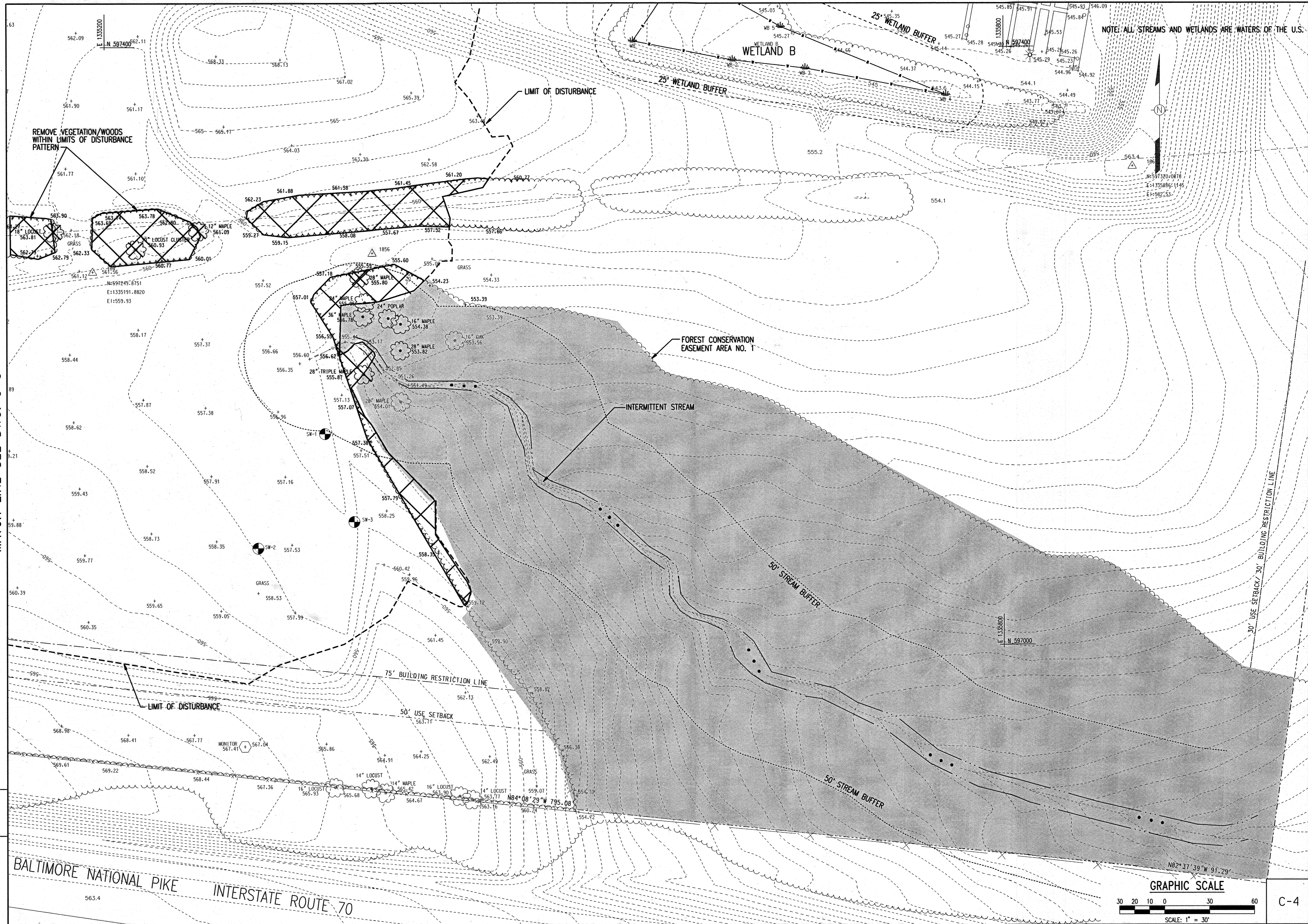
SCALE AS SHOWN

SHEET 5 OF 39

MATCH LINE SEE DWG. C-2

NOTE: ALL STREAMS AND WETLANDS ARE WATERS OF THE U.S.

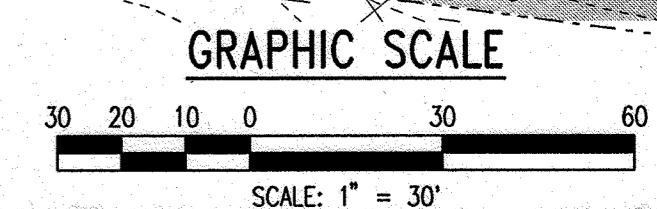
MATCH LINE SEE DWG. C-3



APPROVED: FOR PUBLIC WATER AND PRIVATE SEWERAGE SYSTEMS,
HOWARD COUNTY HEALTH DEPARTMENT
Randy Hunt, M.D. 7-5-03
COUNTY HEALTH OFFICER DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
Frank D. Light 2/18/03
DIRECTOR DATE
Chris Demmon 2/16/03
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE
Andy Hancock 2/12/03
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

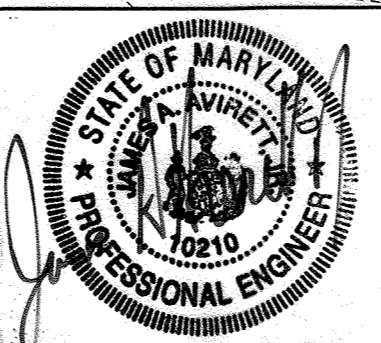
BALTIMORE NATIONAL PIKE INTERSTATE ROUTE 70



C-4

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
CHIEF, BUREAU OF UTILITIES DATE

PREPARED BY:
WR&A
Whitman, Reardon and Associates, LLP.
801 South Caroline Street,
Baltimore, Maryland, 21231
410-235-3450



DES: C.D.
DRN: C.K.
CHK: A.O.
DATE: 12/16/2002

| BY | NO. | REVISION | DATE |
|----|-----|----------|------|
| | | | |

SURVEY/DEMOLITION PLAN
600' SCALE MAP NO. 16 BLOCK NO. 2 / 8

PUBLIC SAFETY TRAINING CENTER
AT ALPHA RIDGE LANDFILL
CAPITAL PROJECT NO. C-0182
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
SHEET 6 OF 39

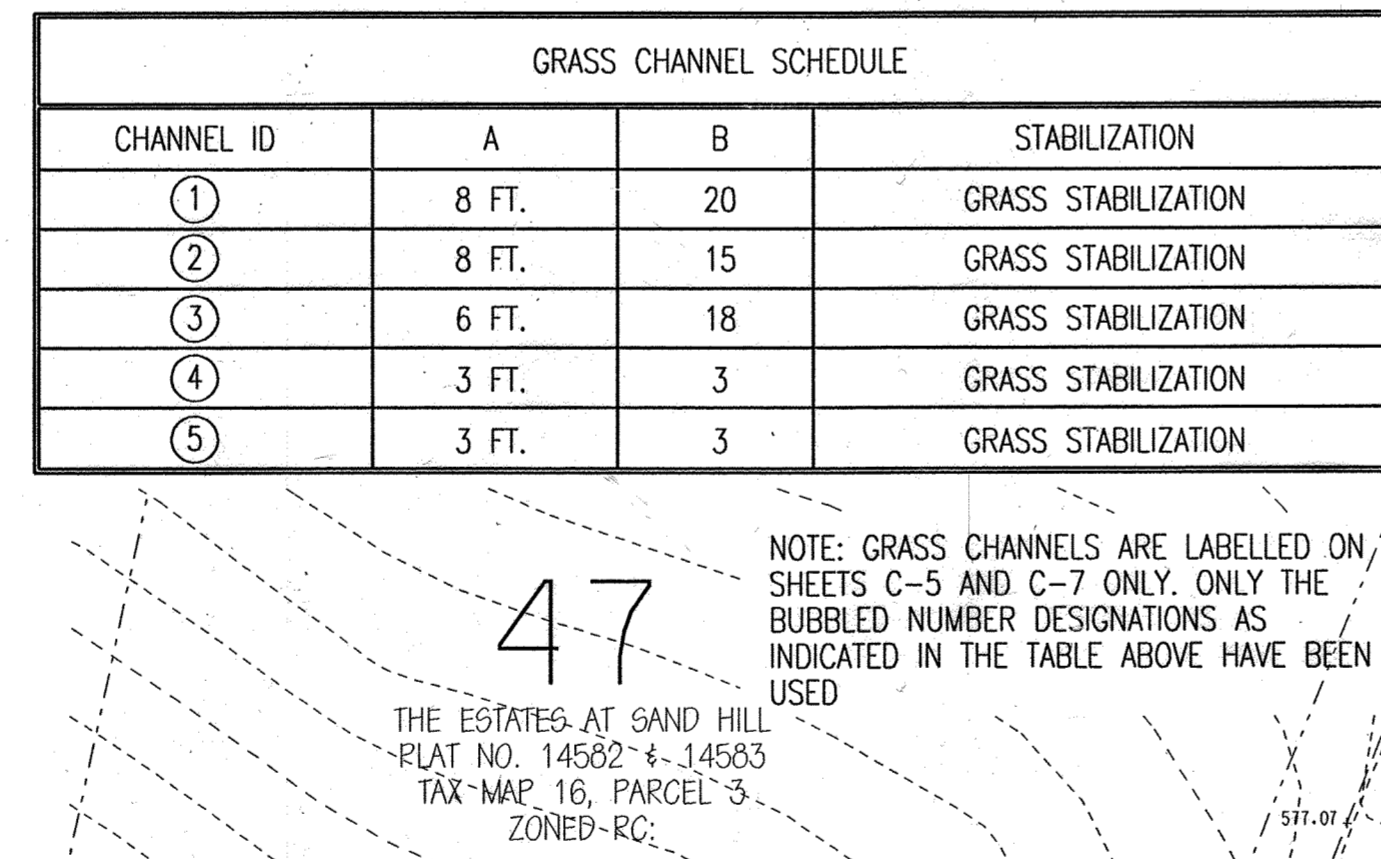
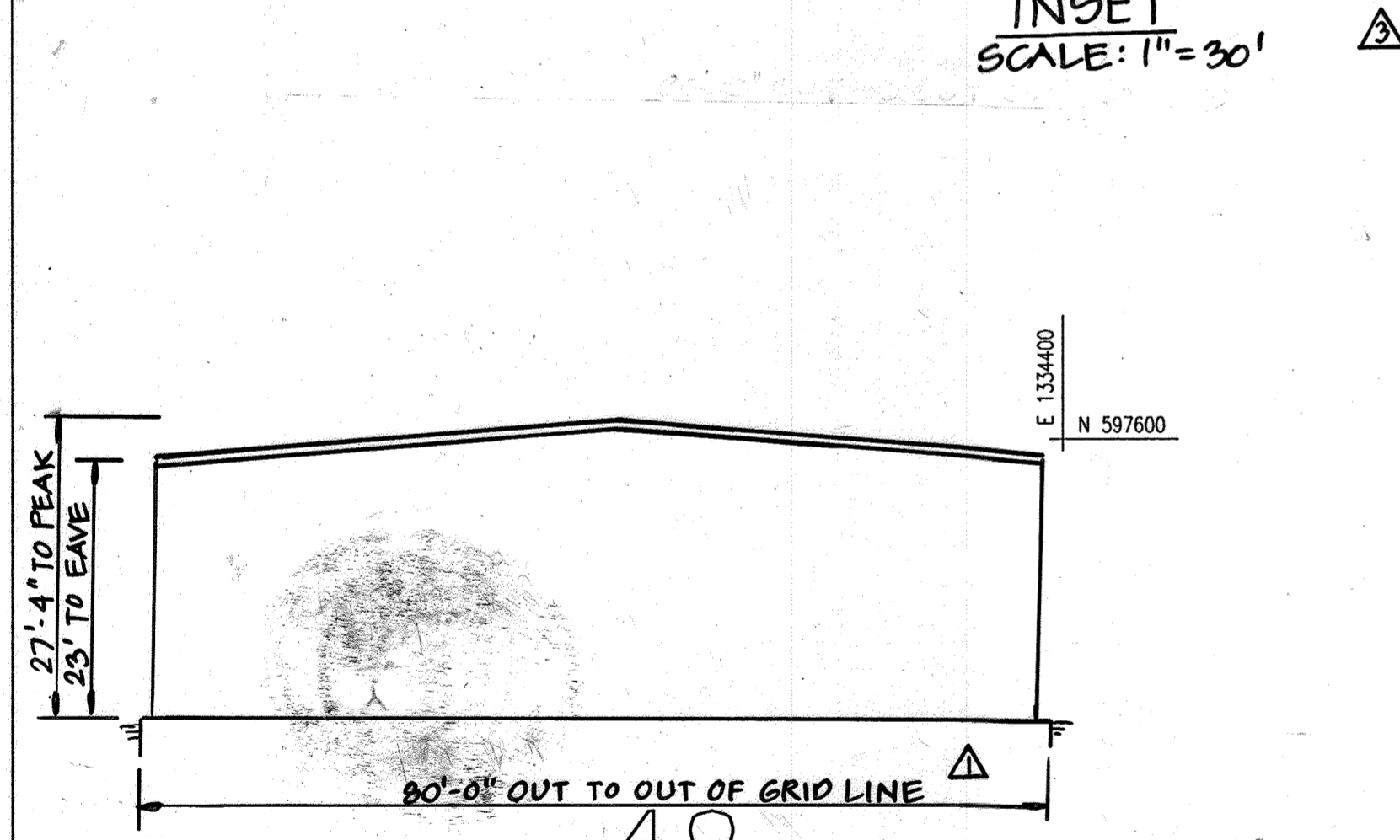
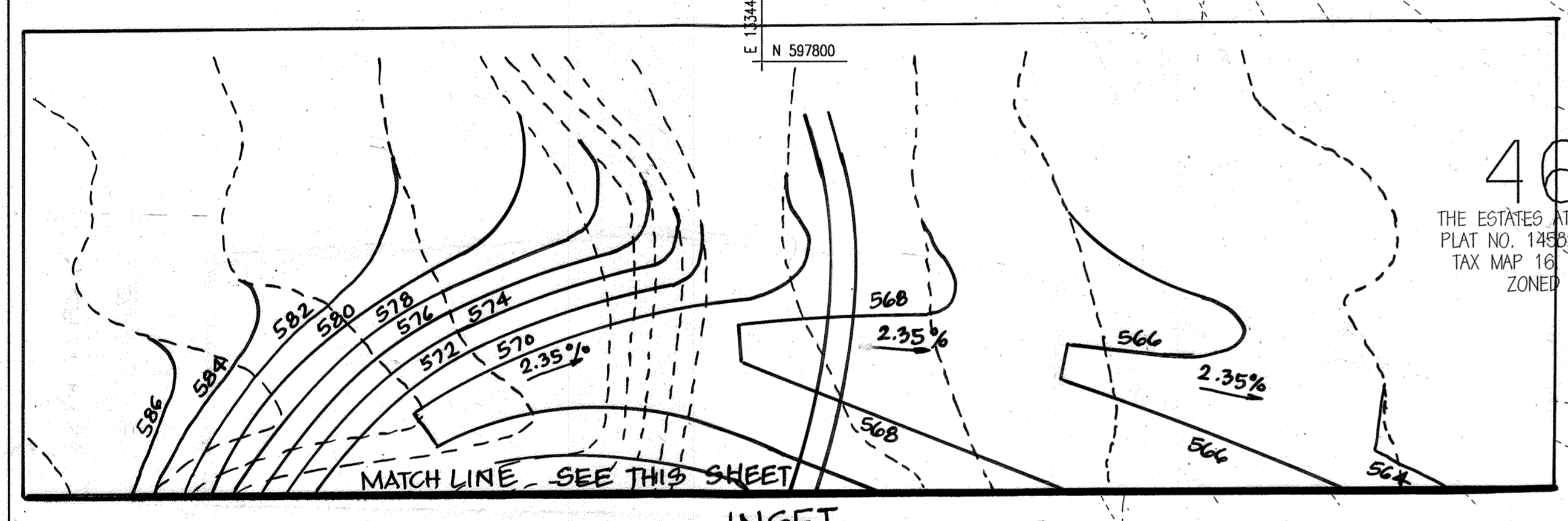
| NO. | TYPE | WIDTH (DIA.) | TOP ELEVATION | | INVERT ELEVATION | | STANDARD DETAIL | LOCATIONS | REMARK |
|------|-----------------------|--------------|---------------|-------|------------------|--------|-----------------|---|--------|
| | | | UPPER | LOWER | UPPER | LOWER | | | |
| I-1 | OPEN END GRATE | 4'-10" | 566.50 | --- | 563.75 | --- | HO Co. SD4.36 | NORTH EAST CORNER OF PARKING LOT | |
| I-2 | OPEN END GRATE | 4'-10" | 566.00 | --- | 562.46 | 562.06 | HO Co. SD4.36 | SOUTH EAST CORNER OF PARKING LOT | |
| I-3 | OPEN END GRATE | 4'-10" | 564.10 | --- | 561.57 | 561.47 | HO Co. SD4.36 | SOUTH EAST CORNER OF APPARATUS BAY | |
| I-4 | OPEN END GRATE | 4'-10" | 563.60 | --- | 560.40 | 560.30 | HO Co. SD4.36 | NORTH WEST CORNER OF VEHICLE EXTRACTION | |
| I-5 | DOUBLE TYPE 'S' INLET | 5'-0.54" | 561.30 | --- | 558.35 | 557.30 | HO Co. SD4.23 | SOUTH EAST OF TRAINING TRAILERS | |
| I-6 | DBL. TYPE 'S' COMB. | 5'-0.54" | 559.75 | --- | 557.10 | --- | HO Co. SD4.34 | SOUTH OF FUTURE BURN BUILDING | |
| I-7 | DOUBLE TYPE 'S' INLET | 5'-0.54" | 564.08 | --- | 561.30 | --- | HO Co. SD4.23 | EAST SIDE OF FUTURE SKID LOT | |
| I-8 | DOUBLE TYPE 'S' INLET | 5'-0.54" | 564.08 | --- | 561.60 | 560.40 | HO Co. SD4.23 | EAST SIDE OF FUTURE SKID LOT | |
| I-9 | DOUBLE TYPE 'S' INLET | 5'-0.54" | 560.53 | --- | 557.80 | --- | HO Co. SD4.23 | EAST SIDE OF VEHICLE EXTRACTION AREA | |
| I-10 | DOUBLE TYPE 'S' INLET | 5'-0.54" | 560.27 | --- | 557.00 | 556.90 | HO Co. SD4.23 | EAST SIDE OF VEHICLE EXTRACTION AREA | |
| I-11 | DOUBLE TYPE 'S' INLET | 5'-0.54" | 560.30 | --- | 556.20 | 555.75 | HO Co. SD4.23 | EAST SIDE OF VEHICLE EXTRACTION AREA | |
| SD-1 | MANHOLE | 4'-0" | 560.08 | --- | 556.70 | 556.60 | HO Co. GS.12 | NORTH END OF POND FOREBAY | |
| E-1 | ENDWALL | 11'-6" | --- | --- | 556.50 | --- | HO Co. SD5.21 | SWM POND FOREBAY | |
| E-2 | ENDWALL | 11'-6" | --- | --- | 555.30 | --- | HO Co. SD5.21 | SOUTH WEST CORNER OF SWM POND | |
| E-3 | ENDWALL | 6'-6" | --- | --- | 555.00 | --- | HO Co. SD5.21 | NORTH EAST CORNER OF SWM POND | |
| E-4 | ENDWALL | 6'-6" | --- | --- | 572.00 | --- | HO Co. SD5.21 | NORTH SIDE OF ACCESS ROAD AT THE ENTRANCE | |
| ES-1 | END SECTION | 12' | --- | --- | 553.56 | --- | HO Co. SD5.52 | END OF SWM POND OUTLET BARREL | |
| ES-2 | END SECTION | 12' | --- | --- | 571.00 | --- | HO Co. SD5.52 | NORTH SIDE OF ACCESS ROAD AT THE ENTRANCE | |

| SIZE | TYPE | QUANTITY (L.F.) | REMARKS |
|------|-------------|-----------------|---------|
| 15" | CP, CLASS 1 | 563 | |
| 18" | CP, CLASS 1 | 339 | |
| 21" | CP, CLASS 1 | 84 | |

| CHANNEL ID | A | B | STABILIZATION |
|------------|-------|----|---------------------|
| ① | 8 FT. | 20 | GRASS STABILIZATION |
| ② | 8 FT. | 15 | GRASS STABILIZATION |
| ③ | 6 FT. | 18 | GRASS STABILIZATION |
| ④ | 3 FT. | 3 | GRASS STABILIZATION |
| ⑤ | 3 FT. | 3 | GRASS STABILIZATION |

NOTE: GRASS CHANNELS ARE LABELLED ON SHEETS C-5 AND C-7 ONLY. ONLY THE BUBBLED NUMBER DESIGNATIONS AS INDICATED IN THE TABLE ABOVE HAVE BEEN USED

KEY
 EXISTING SLOPES 25% OR GREATER
 EXISTING SLOPES 15% TO 24.9%



APPROVED: FOR PUBLIC WATER AND PRIVATE SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT
Randy... 3-5-03
 COUNTY HEALTH OFFICER DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
... 2/10/02
 DIRECTOR DATE

... 3/11/03
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

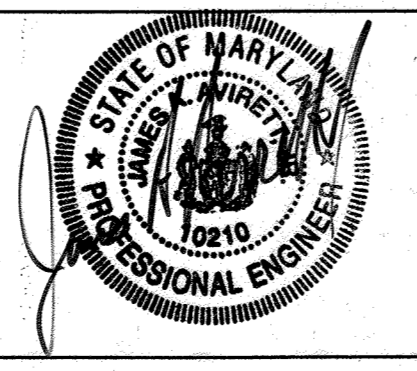
... 3/17/03
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE



DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND

PREPARED BY:
WR&A
 Whitman, Requardt and Associates, LLP.
 801 South Caroline Street,
 Baltimore, Maryland, 21231
 410-235-3450

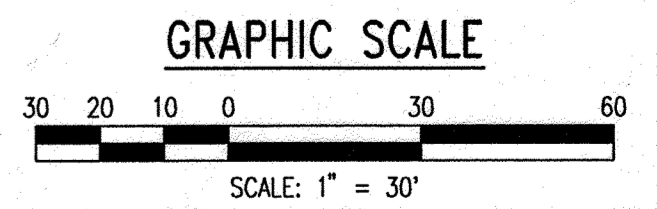
DES: C.D.
 DRN: C.K.
 CHK: A.O.
 DATE: 12/16/2002



SRI REVISED THE ADMIN./CLASS ROOM BLDG. W/ WALKWAY AND PARKING AREA W/ 3 HANDICAPPED SPACES 7/13/05
 SRI REVISED NUMBER OF PARKING SPACES 7/13/05
 CMD ADDED 2 HANDICAP PARKING SPACES, REMOVED OFFICE TRAILER 10/24/04
 CMD REMOVE 'FUTURE' LINE SYMBOLS + ADD BLDG. PERMITS 7/23/04

600' SCALE MAP NO. 16 BLOCK NO. 2 / 8
 GRADING / PAVING PLAN

PUBLIC SAFETY TRAINING CENTER
 AT ALPHA RIDGE LANDFILL
 CAPITAL PROJECT NO. C-0182
 HOWARD COUNTY, MARYLAND



C-5
 SCALE AS SHOWN
 SHEET 7 OF 39

MATCH LINE SEE DWG. C-7

MATCH LINE SEE DWG. C-6

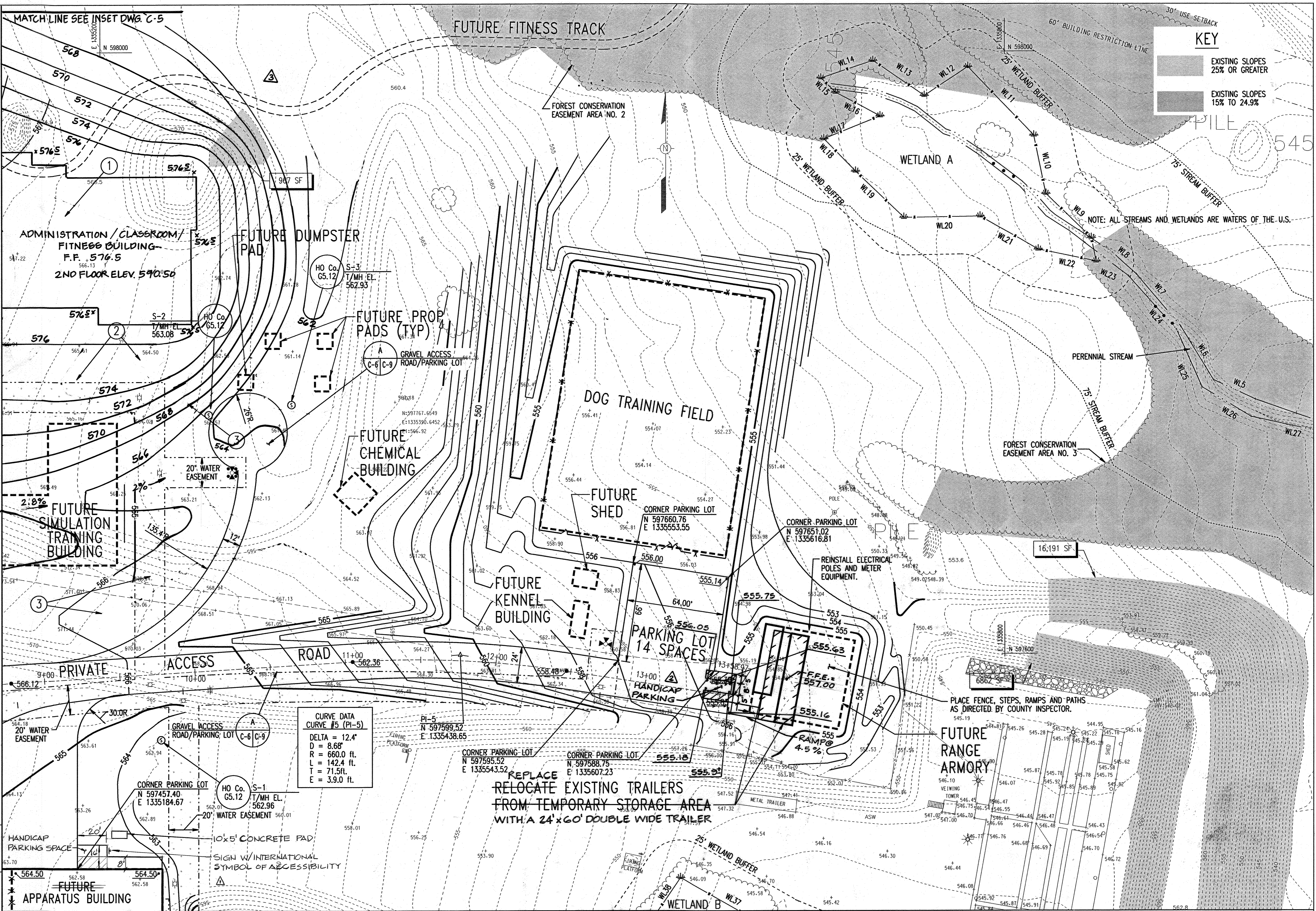
FUTURE SIMULATION TRAINING BUILDING

| CURVE DATA | |
|-----------------|------------|
| CURVE #4 (PI-4) | |
| DELTA = | 87.7 |
| D = | 60.95 |
| R = | 94.0 ft. |
| L = | 136.3 ft. |
| T = | 90.4ft. |
| E = | 36.4.0 ft. |

WETLANDS TABLE

| LINE | COURSE | DIST. |
|------|-------------|--------|
| WL6 | N31°15'28"W | 41.64' |
| WL7 | N40°16'02"W | 45.55' |
| WL8 | N48°01'45"W | 26.93' |
| WL9 | N48°27'54"W | 53.44' |
| WL10 | N11°43'02"W | 39.39' |
| WL11 | N43°41'11"W | 63.11' |
| WL12 | S56°27'17"W | 34.58' |
| WL13 | N55°39'09"W | 41.28' |
| WL14 | S71°33'08"W | 36.37' |
| WL15 | S45°23'32"E | 13.63' |
| WL16 | S62°01'33"E | 33.46' |
| WL17 | S67°57'13"W | 40.26' |
| WL18 | S44°19'14"E | 30.08' |
| WL19 | S46°16'56"E | 44.31' |
| WL20 | N89°06'56"E | 50.56' |
| WL21 | S60°06'27"E | 44.28' |
| WL22 | S78°22'40"E | 39.20' |
| WL23 | S65°16'16"E | 23.79' |
| WL24 | S41°43'34"E | 47.63' |
| WL25 | S23°53'42"E | 41.92' |
| WL26 | S58°50'57"E | 37.93' |
| WL27 | S77°42'10"E | 27.87' |
| WL38 | S34°17'33"W | 57.21' |

MATCH LINE SEE DWG. C-5



KEY

- EXISTING SLOPES 25% OR GREATER
- EXISTING SLOPES 15% TO 24.9%

NOTE: ALL STREAMS AND WETLANDS ARE WATERS OF THE U.S.

CURVE DATA
 CURVE #5 (PI-5)
 DELTA = 12.4°
 D = 8.68'
 R = 660.0 ft.
 L = 142.4 ft.
 T = 71.5 ft.
 E = 3.9 ft.

**REPLACE
 RELOCATE EXISTING TRAILERS
 FROM TEMPORARY STORAGE AREA
 WITH A 24' X 60' DOUBLE WIDE TRAILER**

For Revision by Site Resources only.

APPROVED: FOR PUBLIC WATER AND PRIVATE SEWERAGE SYSTEMS,
 HOWARD COUNTY HEALTH DEPARTMENT
 COUNTY HEALTH OFFICER *Douglas M. ...* 3-5-03 DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
 DIRECTOR *Mark ...* 3/11/03 DATE
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
Candy ... 3/12/03 DATE
 CHIEF, DIVISION OF LAND DEVELOPMENT

GRAPHIC SCALE
 30 20 10 0 30 60
 SCALE: 1" = 30'

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND
 CHIEF, BUREAU OF UTILITIES DATE

PREPARED BY:
WR&A
 Whitman, Reardon and Associates, LLP.
 801 South Caroline Street,
 Baltimore, Maryland, 21231
 410-235-3450

| DES: | SRI | REVISION | DATE |
|------|-------|---|----------|
| C.D. | REVIS | REVISED THE ADMIN / CLASS ROOM BLDG W/ WALKWAY AND PARKING AREA W/ 3 HANDICAPPED SPACES | 7/19/05 |
| C.K. | | | |
| A.O. | CMD | ADDED 1 HANDICAP PARKING SPACE + 24' X 60' DOUBLE WIDE TRAILER | 10/26/04 |
| | CMD | REMOVE FUTURE, ADDED PARKING + 10' X 5' CONC PAD | 7/23/04 |

GRADING / PAVING PLAN

PUBLIC SAFETY TRAINING CENTER
 AT ALPHA RIDGE LANDFILL
 CAPITAL PROJECT NO. C-0182
 HOWARD COUNTY, MARYLAND

600' SCALE MAP NO. 16 BLOCK NO. 2 / 8

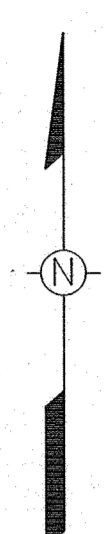
C-6
 SCALE AS SHOWN
 SHEET 8 OF 39

MATCH LINE SEE DWG. C-5

KEY

- EXISTING SLOPES 25% OR GREATER
- EXISTING SLOPES 15% TO 24.9%

N 597400
E 1334400



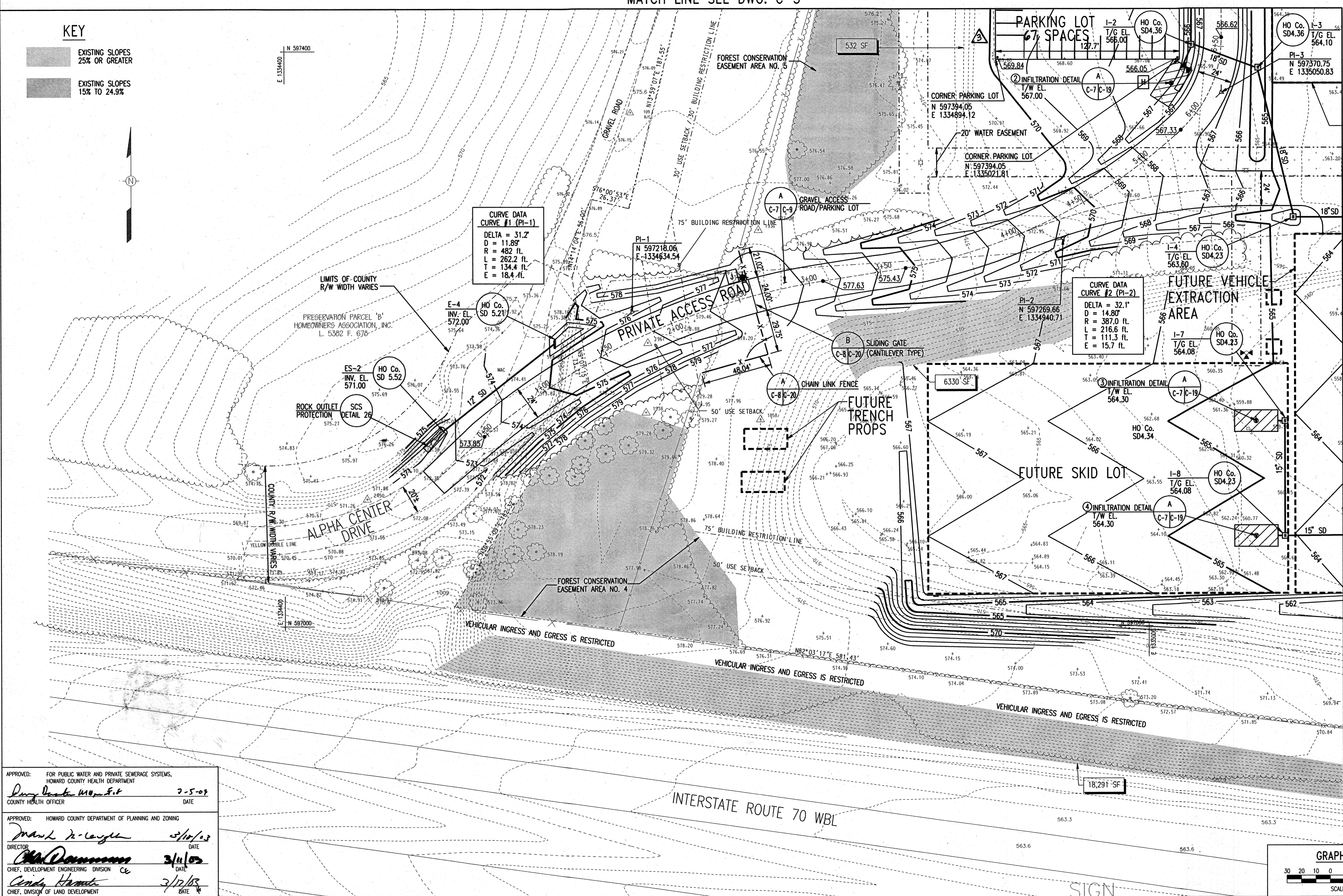
CURVE DATA
CURVE #3 (PI-3)
DELTA = 47.4°
D = 65.85'
R = 87.0 ft.
L = 72.0 ft.
T = 38.2 ft.
E = 8.0 ft.

FUTURE APPARATUS BUILDING EXTENSION

MATCH LINE SEE DWG. C-8

CURVE DATA
CURVE #1 (PI-1)
DELTA = 31.2°
D = 11.89'
R = 482 ft.
L = 262.2 ft.
T = 134.4 ft.
E = 18.4 ft.

CURVE DATA
CURVE #2 (PI-2)
DELTA = 32.1°
D = 14.80'
R = 387.0 ft.
L = 216.6 ft.
T = 111.3 ft.
E = 15.7 ft.

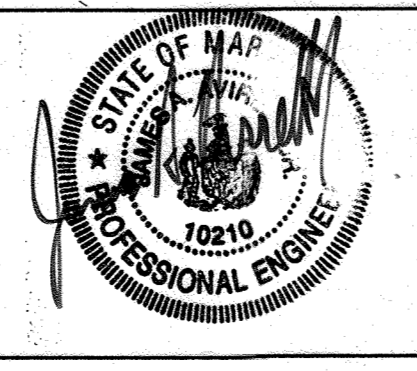


APPROVED: FOR PUBLIC WATER AND PRIVATE SEWERAGE SYSTEMS,
HOWARD COUNTY HEALTH DEPARTMENT
Doug Decker M.D. 7-5-09
COUNTY HEALTH OFFICER DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
Mark K. Leyle 3/10/09
DIRECTOR DATE
Chad Dammann 3/11/09
CHIEF, DEVELOPMENT ENGINEERING DIVISION CE DATE
Candy Hamels 3/12/09
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
CHIEF, BUREAU OF UTILITIES DATE

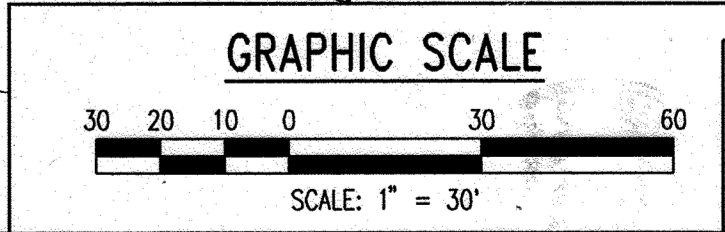
PREPARED BY:
WR&A
Whitman, Reardon and Associates, LLP.
801 South Caroline Street,
Baltimore, Maryland, 21231
410-235-3450



| | | | |
|------------------|-----|----------------------------------|---------|
| DES: C.D. | SRS | REVISED NUMBER OF PARKING SPACES | 7/13/08 |
| DRN: C.K. | | | |
| CHK: A.O. | | | |
| DATE: 12/16/2002 | GMD | REMOVE "FUTURE" | 7/23/04 |
| BY NO. | | REVISION | DATE |

GRADING / PAVING PLAN
600' SCALE MAP NO. 16 BLOCK NO. 2 / 8

PUBLIC SAFETY TRAINING CENTER
AT ALPHA RIDGE LANDFILL
CAPITAL PROJECT NO. C-0182
HOWARD COUNTY, MARYLAND



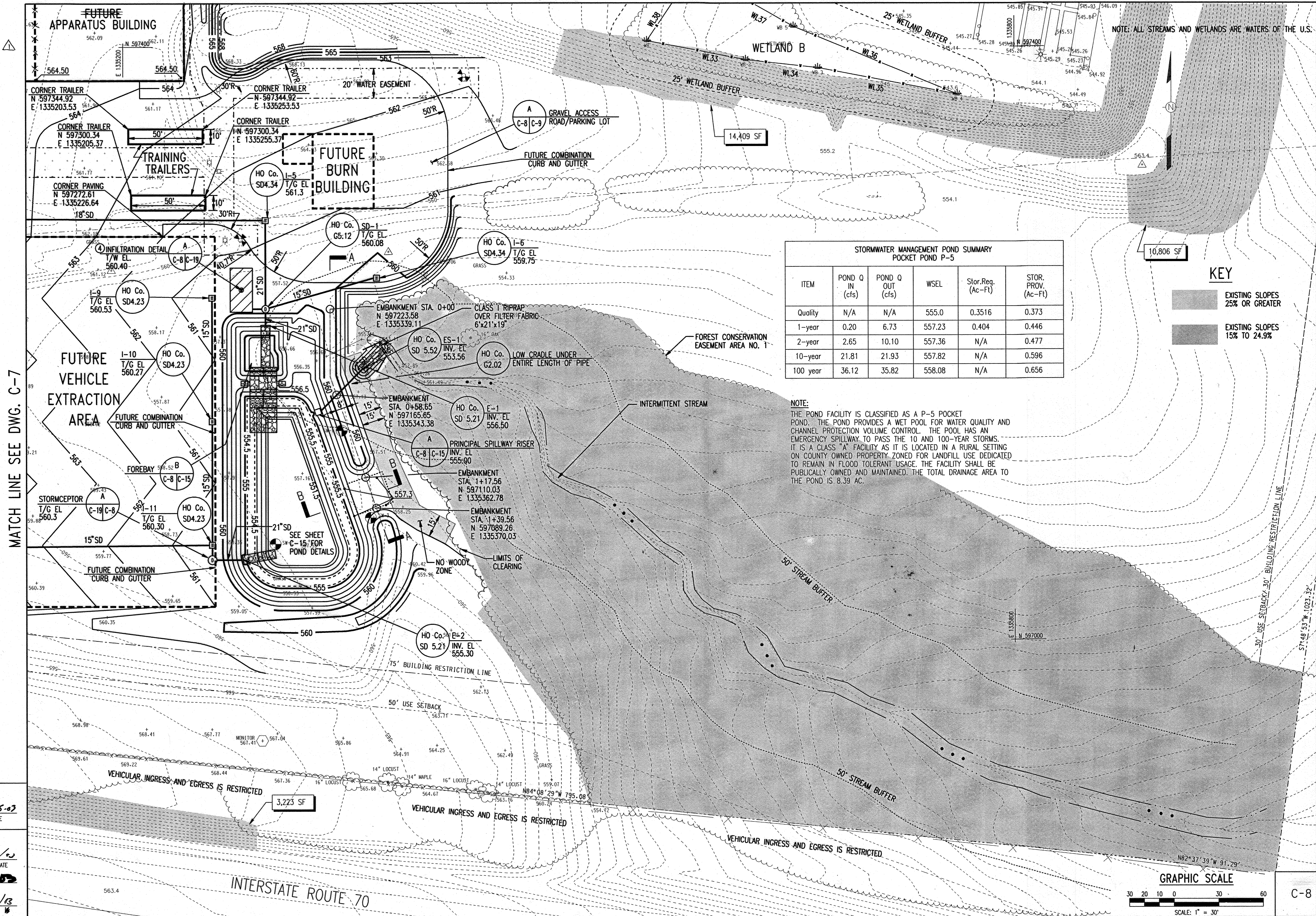
For Review by Site Resources only

C-7
SCALE AS SHOWN
SHEET 9 OF 39

MATCH LINE SEE DWG. C-6

WETLANDS TABLE

| LINE | COURSE | DIST. |
|------|-------------|---------|
| WL33 | S79°15'56"E | 67.74' |
| WL34 | S83°34'43"E | 48.80' |
| WL35 | S79°16'55"E | 95.68' |
| WL36 | N67°35'49"W | 119.49' |
| WL37 | N60°28'02"W | 76.27' |
| WL38 | S34°17'33"W | 57.21' |



**STORMWATER MANAGEMENT POND SUMMARY
POCKET POND P-5**

| ITEM | POND Q IN (cfs) | POND Q OUT (cfs) | WSEL | Stor. Req. (Ac-Ft) | STOR. PROV. (Ac-Ft) |
|----------|-----------------|------------------|--------|--------------------|---------------------|
| Quality | N/A | N/A | 555.0 | 0.3516 | 0.373 |
| 1-year | 0.20 | 6.73 | 557.23 | 0.404 | 0.446 |
| 2-year | 2.65 | 10.10 | 557.36 | N/A | 0.477 |
| 10-year | 21.81 | 21.93 | 557.82 | N/A | 0.596 |
| 100 year | 36.12 | 35.82 | 558.08 | N/A | 0.656 |

KEY

- EXISTING SLOPES 25% OR GREATER
- EXISTING SLOPES 15% TO 24.9%

NOTE:
THE POND FACILITY IS CLASSIFIED AS A P-5 POCKET POND. THE POND PROVIDES A WET POOL FOR WATER QUALITY AND CHANNEL PROTECTION VOLUME CONTROL. THE POOL HAS AN EMERGENCY SPILLWAY TO PASS THE 10 AND 100-YEAR STORMS. IT IS A CLASS "A" FACILITY AS IT IS LOCATED IN A RURAL SETTING ON COUNTY OWNED PROPERTY ZONED FOR LANDFILL USE DEDICATED TO REMAIN IN FLOOD TOLERANT USAGE. THE FACILITY SHALL BE PUBLICALLY OWNED AND MAINTAINED. THE TOTAL DRAINAGE AREA TO THE POND IS 8.39 AC.

MATCH LINE SEE DWG. C-7

APPROVED: FOR PUBLIC WATER AND PRIVATE SEWERAGE SYSTEMS,
HOWARD COUNTY HEALTH DEPARTMENT
Darryl... 3-5-03
COUNTY HEALTH OFFICER DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
... 3/11/03
DIRECTOR DATE

... 3/11/03
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

... 3/12/03
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

CHIEF, BUREAU OF UTILITIES DATE

PREPARED BY:
WR&A
Whitman, Reardon and Associates, LLP.
801 South Caroline Street,
Baltimore, Maryland, 21231
410-235-3450



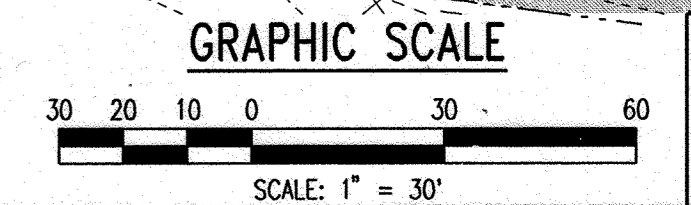
DES: C.D.
DRN: C.K.
CHK: A.O.
DATE: 12/16/2002

BY NO. REVISION DATE

600' SCALE MAP NO. 16 BLOCK NO. 2 / 8

GRADING / PAVING PLAN

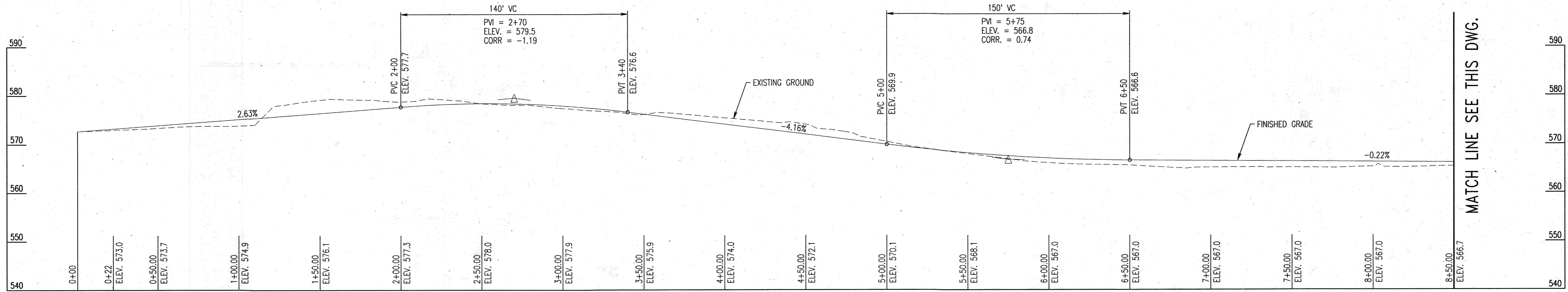
PUBLIC SAFETY TRAINING CENTER
AT ALPHA RIDGE LANDFILL
CAPITAL PROJECT NO. C-0182
HOWARD COUNTY, MARYLAND



C-8

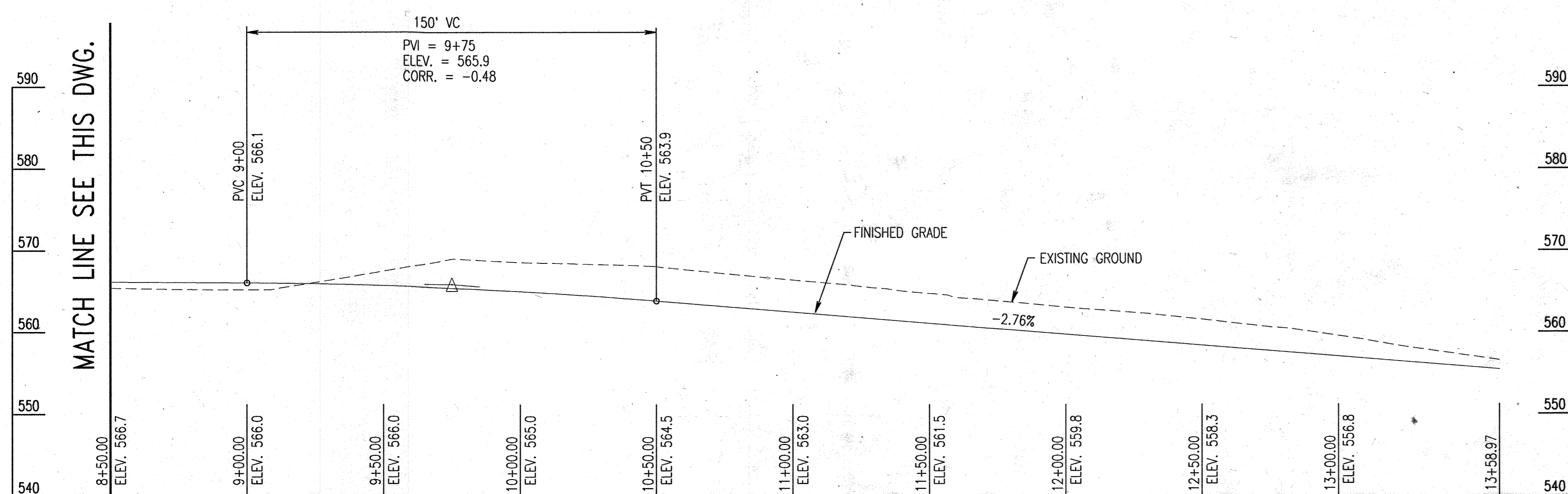
SCALE AS SHOWN

SHEET 10 OF 39



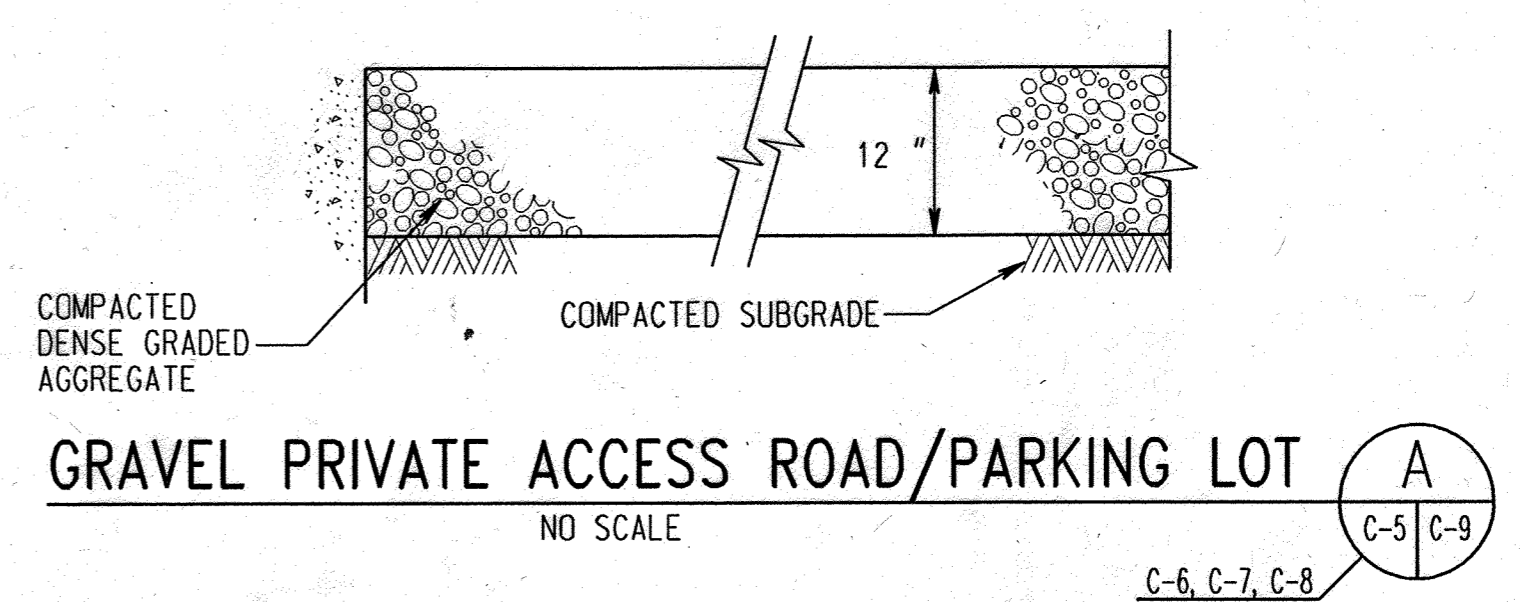
PROFILE - PRIVATE ACCESS ROAD

SCALE: 1" = 30' HORIZ
1" = 10' VERT



PROFILE - PRIVATE ACCESS ROAD

SCALE: 1" = 30' HORIZ
1" = 10' VERT



GRAVEL PRIVATE ACCESS ROAD/PARKING LOT

NO SCALE

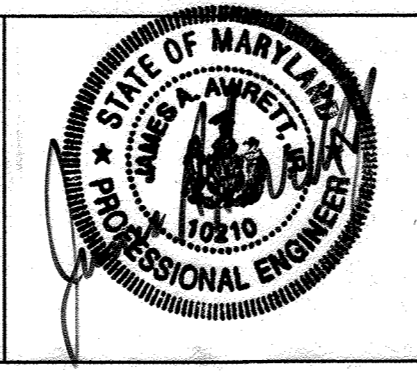
C-6, C-7, C-8

APPROVED: FOR PUBLIC WATER AND PRIVATE SEWERAGE SYSTEMS,
HOWARD COUNTY HEALTH DEPARTMENT
Randy Donato 3-5-03
COUNTY HEALTH OFFICER DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
Mark Wright 3/10/03
DIRECTOR DATE
Chad Dammann 3/10/03
CHIEF, DEVELOPMENT ENGINEERING DIVISION C6 DATE
Cindy Hamet 3/17/03
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
CHIEF, BUREAU OF UTILITIES DATE

PREPARED BY:
WR&A
Whitman, Reardon and Associates, LLP.
801 South Caroline Street,
Baltimore, Maryland, 21231
410-235-3450

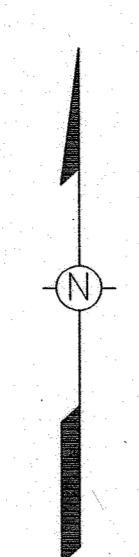


| | | | | |
|------------------|--|----------|--|------|
| DES: C.D. | | | | |
| DRN: C.K. | | | | |
| CHK: A.O. | | | | |
| DATE: 12/16/2002 | | | | |
| BY NO. | | REVISION | | DATE |

PROFILE - PRIVATE ACCESS ROAD
600' SCALE MAP NO. 16 BLOCK NO. 2 / 8

PUBLIC SAFETY TRAINING CENTER
AT ALPHA RIDGE LANDFILL
CAPITAL PROJECT NO. C-0182
HOWARD COUNTY, MARYLAND

C-9
SCALE AS SHOWN
SHEET 11 OF 39



E 1334400
N 597800

E 1334400
N 597600

45

THE ESTATES AT SAND HILL
PLAT NO. 14582 & 14583
TAX MAP 16, PARCEL 3
ZONED RC:

46

THE ESTATES AT SAND HILL
PLAT NO. 14582 & 14583
TAX MAP 16, PARCEL 3
ZONED RC:

47

THE ESTATES AT SAND HILL
PLAT NO. 14582 & 14583
TAX MAP 16, PARCEL 3
ZONED RC:

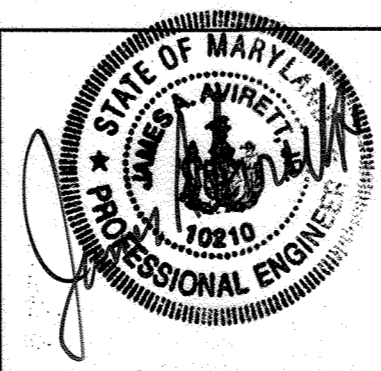


APPROVED: FOR PUBLIC WATER AND PRIVATE SEWERAGE SYSTEMS,
HOWARD COUNTY HEALTH DEPARTMENT
Danny Bonetto *12/15/03*
COUNTY HEALTH OFFICER DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
David McLaughlin *2/10/03*
DIRECTOR DATE
Chris D... *2/10/03*
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE
Andy... *2/17/03*
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
CHIEF, BUREAU OF UTILITIES DATE

PREPARED BY:
WR&A
Whitman, Requardt and Associates, LLP.
801 South Caroline Street,
Baltimore, Maryland. 21231
410-235-3450

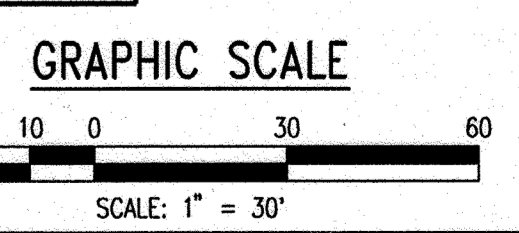


| | | | |
|------------------|-----|--|----------|
| DES: C.D. | SRI | REVISOR THE ADMIN./CLASS ROOM BLDG. W/WALKWAY AND PARKING AREA W/3 HANDICAPPED SPACES. | 7/13/03 |
| DRN: C.K. | SRI | REVISOR NUMBER OF PARKING SPACES | 7/13/03 |
| CHK: A.O. | | | |
| DATE: 12/16/2002 | CMD | REMOVE OFFICE TRAILER | 10/26/02 |
| BY NO. | | REVISION | DATE |

600' SCALE MAP NO. 16 BLOCK NO. 2 / 8

MATCH LINE SEE DWG. C-12

MATCH LINE SEE DWG. C-11



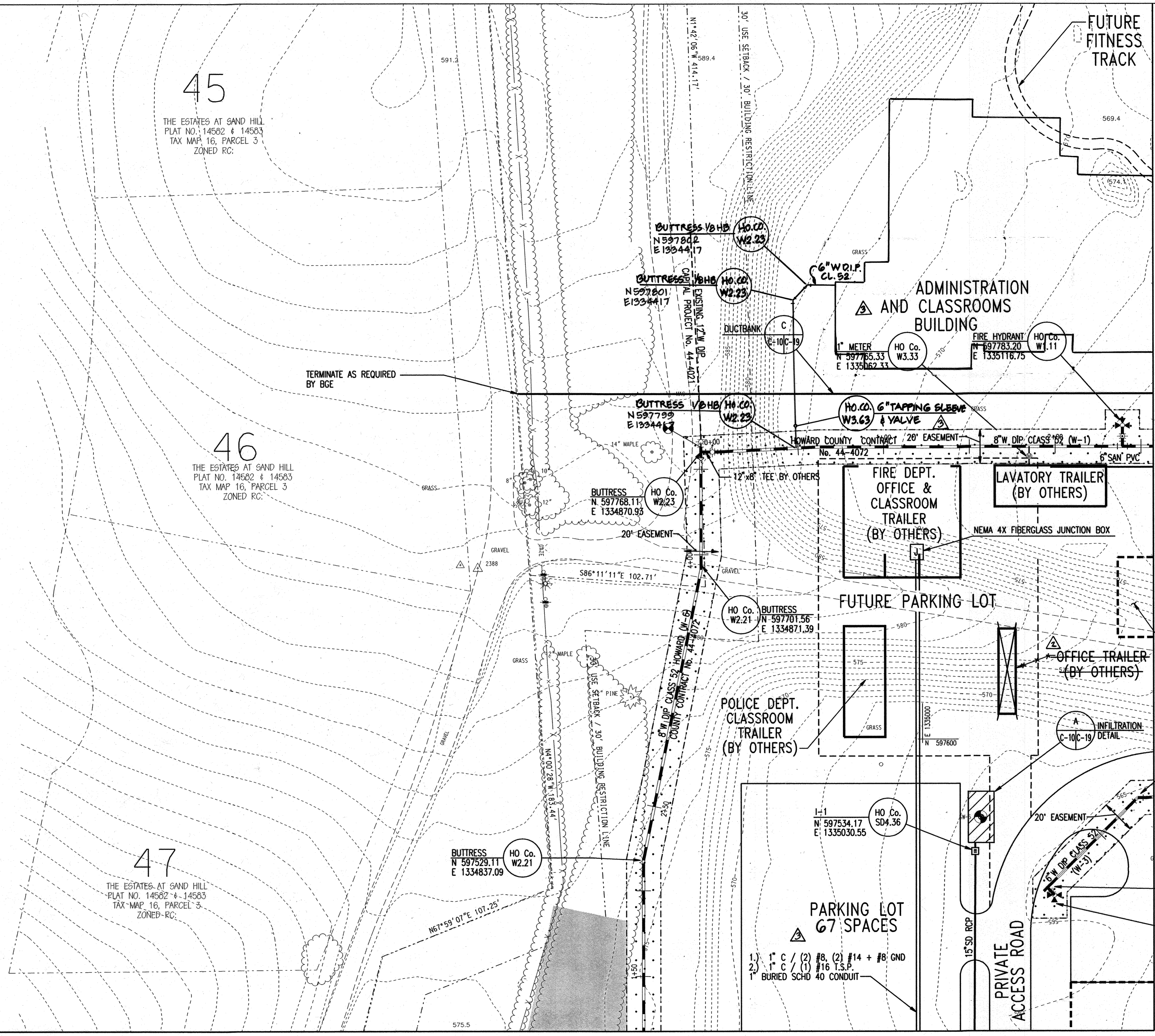
C-10
SCALE AS SHOWN
SHEET 12 OF 39

UTILITY PLAN

PUBLIC SAFETY TRAINING CENTER
AT ALPHA RIDGE LANDFILL
CAPITAL PROJECT NO. C-0182
HOWARD COUNTY, MARYLAND

SDP-03-36

M:\3490\util\util.dwg
Thu Feb 20 15:38:44 2003



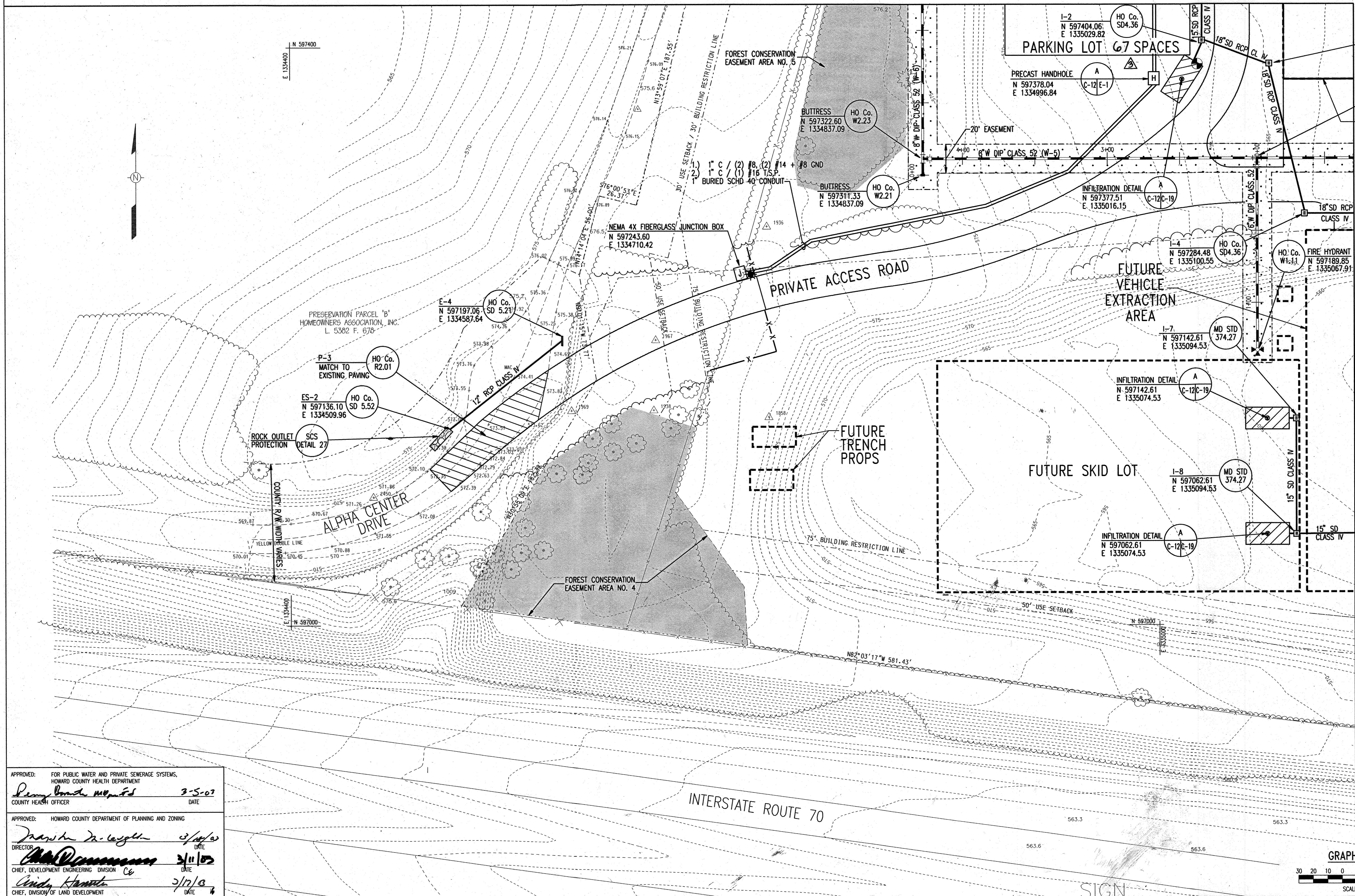
FUTURE SIMULATION TRAINING BUILDING

HO Co. BUTRESS W2.24 N 597565.44 E 1335125.29

HO Co. BUTRESS W2.21 N 597514.18 E 1335074.02

HO Co. FIRE HYDRANT W1.11 N 597503.90 E 1335074.03

C-10



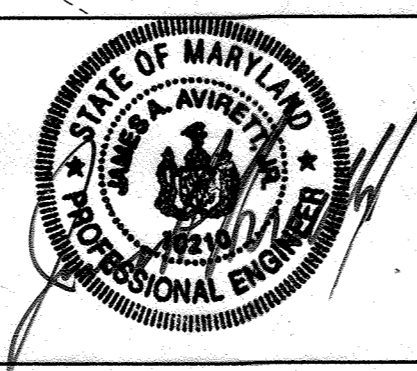
MATCH LINE SEE DWG. C-13

APPROVED: FOR PUBLIC WATER AND PRIVATE SEWERAGE SYSTEMS,
HOWARD COUNTY HEALTH DEPARTMENT
Perry Bonds 3-5-07
COUNTY HEALTH OFFICER DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
Travis D. Leight 3/11/07
DIRECTOR DATE
Mark Dammann 3/11/07
CHIEF, DEVELOPMENT ENGINEERING DIVISION C6 DATE
Cindy Hamrick 3/17/07
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
CHIEF, BUREAU OF UTILITIES DATE

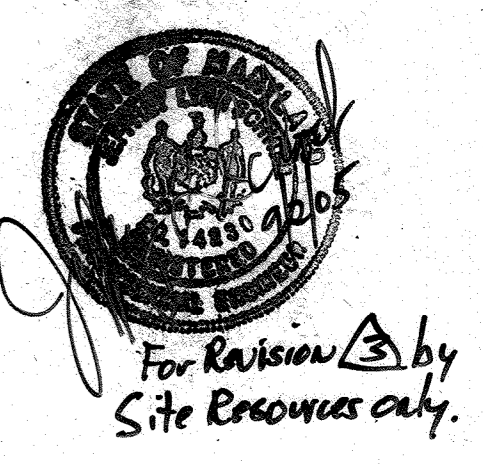
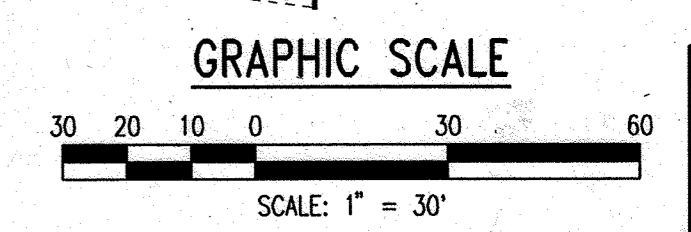
PREPARED BY:
WR&A
Whitman, Reardon and Associates, LLP.
801 South Carol line Street
Baltimore, Maryland, 21231
410-235-3450



| | | | |
|------------------|--|----------------------------------|---------|
| DES: C.D. | GRI: <input checked="" type="checkbox"/> | REVISED NUMBER OF PARKING SPACES | 7/13/05 |
| DRN: C.K. | | | |
| CHK: A.O. | | | |
| DATE: 12/16/2002 | | | |
| CMD BY NO. | REVISION | DATE | |
| | REMOVED FUTURE | 7/25/04 | |

UTILITY PLAN
600' SCALE MAP NO. 16 BLOCK NO. 2 / 8

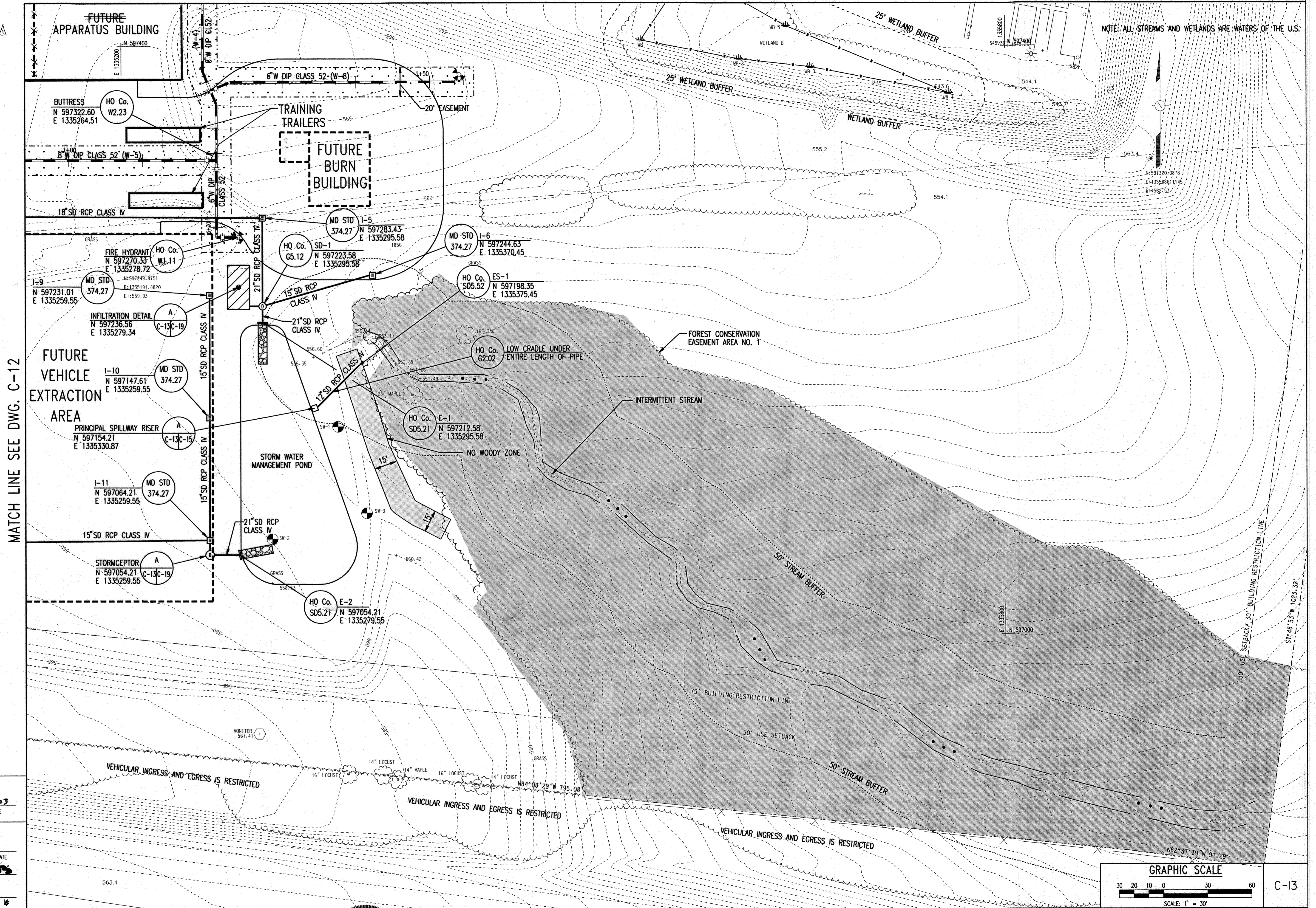
PUBLIC SAFETY TRAINING CENTER
AT ALPHA RIDGE LANDFILL
CAPITAL PROJECT NO. C-0182
HOWARD COUNTY, MARYLAND



C-12
SCALE AS SHOWN
SHEET 14 OF 39

MATCH LINE SEE DWG. C-11

NOTE: ALL STREAMS AND WETLANDS ARE WATERS OF THE U.S.



MATCH LINE SEE DWG. C-12

APPROVED: FOR PUBLIC WATER AND PRIVATE SEWERAGE SYSTEMS,
 HOWARD COUNTY HEALTH DEPARTMENT
Denny W. Murrill 3-5-03
 COUNTY HEALTH OFFICER DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
Mark D. Leagle 3/10/03
 DIRECTOR DATE

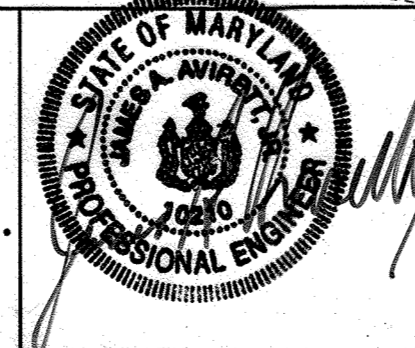
Chad D. ... 3/11/03
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

Andy ... 3/12/03
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND

CHIEF, BUREAU OF UTILITIES DATE

PREPARED BY:
WR&A
 Whitman, Reardon & Associates, LLP.
 801 South Caroline Street,
 Baltimore, Maryland, 21231
 410-235-3450



| | | | |
|------------------|----------------|---------|--|
| DES: C.D. | | | |
| DRN: C.K. | | | |
| CHK: A.O. | | | |
| DATE: 12/16/2002 | | | |
| CMD | Removed Future | 7/23/04 | |
| BY NO. | REVISION | DATE | |

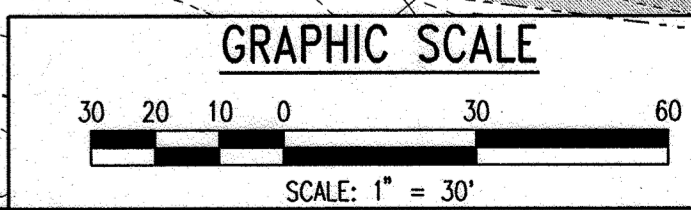
UTILITY PLAN

600' SCALE MAP NO. 16 BLOCK NO. 2 / 8

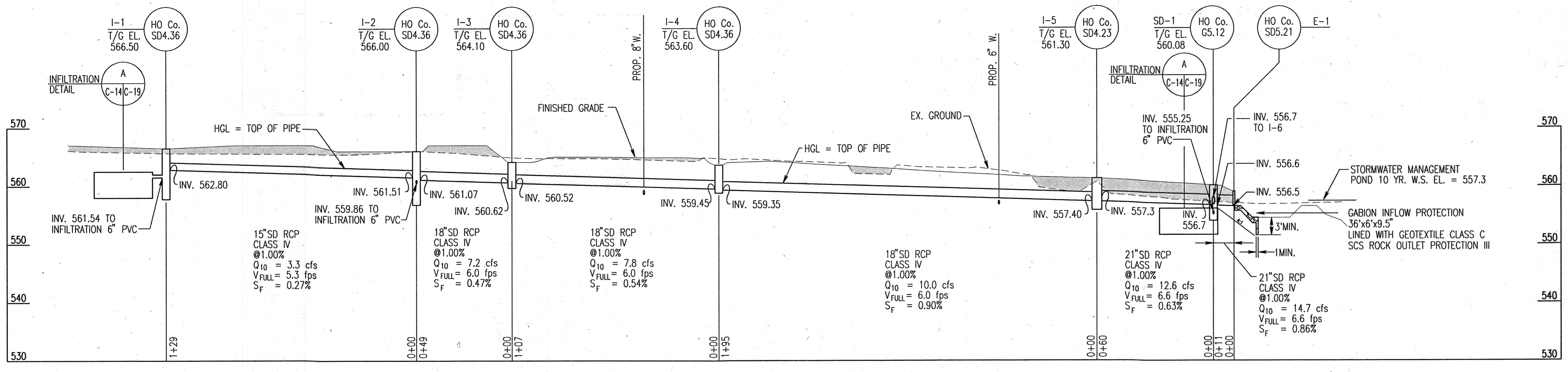
PUBLIC SAFETY TRAINING CENTER
 AT ALPHA RIDGE LANDFILL
 CAPITAL PROJECT NO. C-0182
 HOWARD COUNTY, MARYLAND

SCALE AS SHOWN

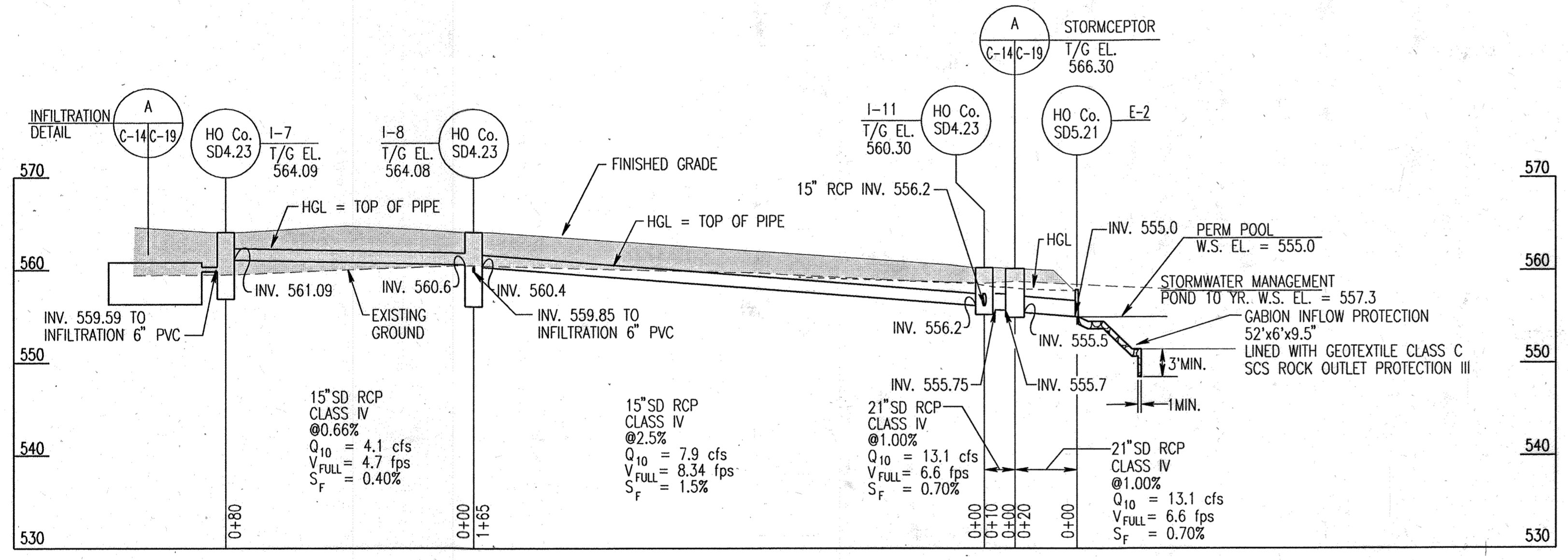
SHEET 15 OF 39



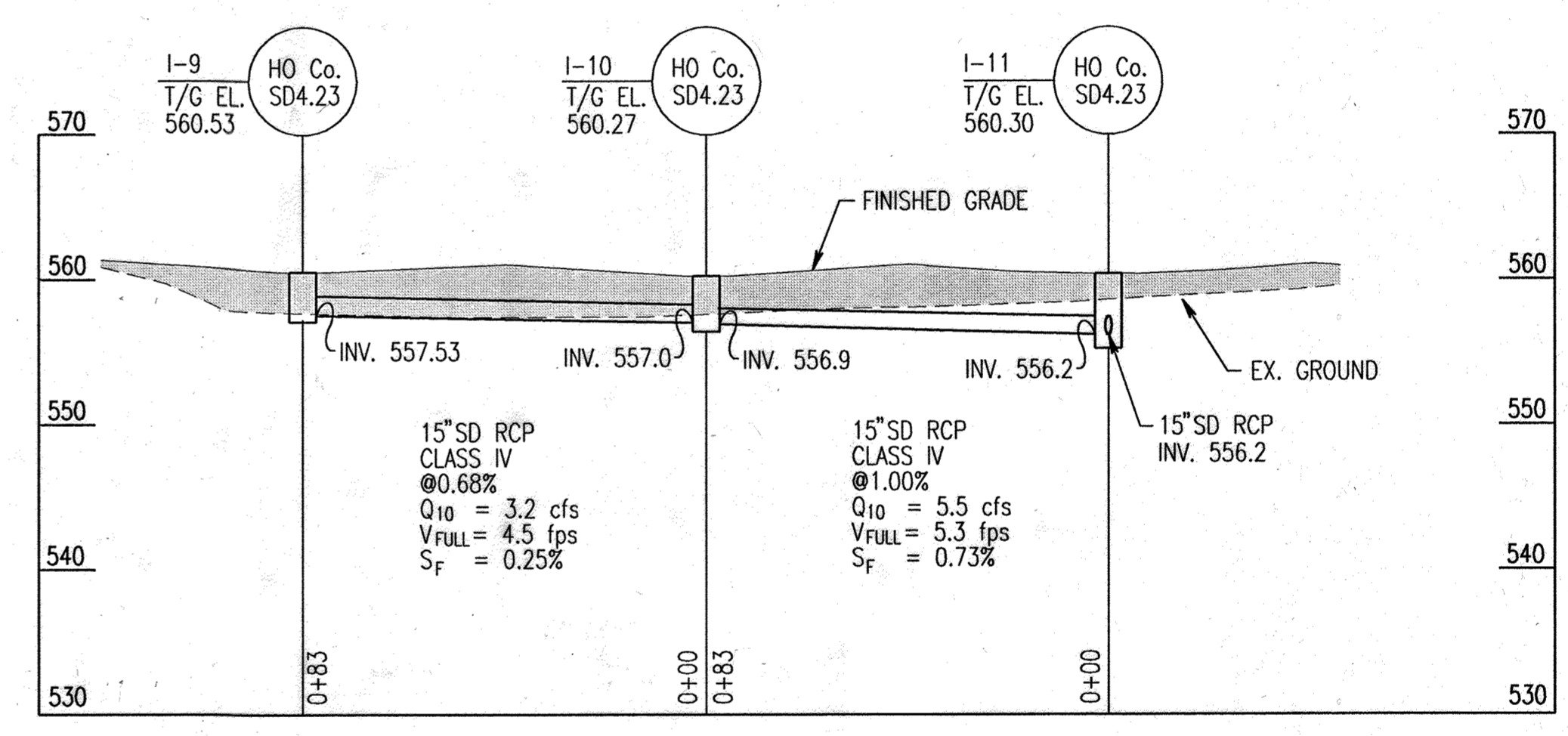
NOTE:
1. SHADING INDICATES FILL AREAS



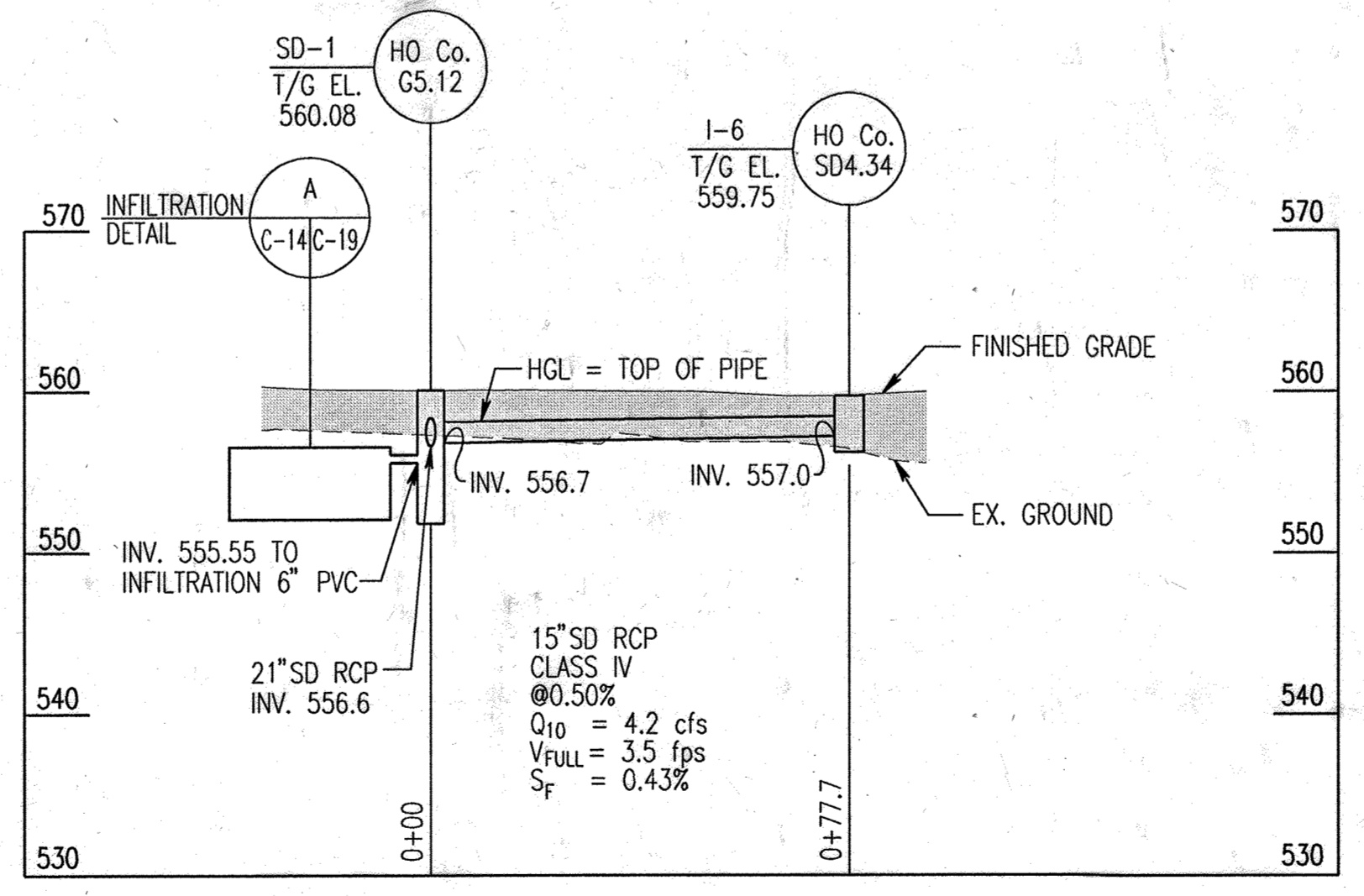
I-1 TO POND
SCALE: 1" = 30' HORIZ
1" = 10' VERT



I-7 TO POND
SCALE: 1" = 30' HORIZ
1" = 10' VERT



I-9 TO I-11
SCALE: 1" = 30' HORIZ
1" = 10' VERT



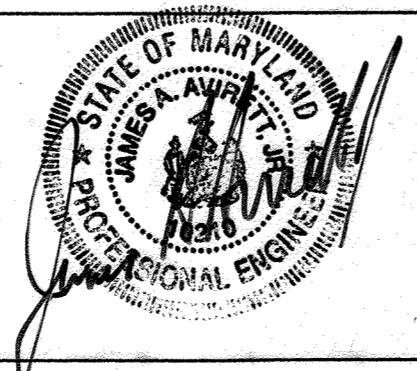
S-1 TO I-6
SCALE: 1" = 30' HORIZ
1" = 10' VERT

APPROVED: FOR PUBLIC WATER AND PRIVATE SEWERAGE SYSTEMS,
HOWARD COUNTY HEALTH DEPARTMENT
Denny Beardsley 3-5-03
COUNTY HEALTH OFFICER DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
Frankie K. Light 2/20/03
DIRECTOR DATE
Chad Cummings 3/10/03
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE
Cindy Hammett 3/12/03
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
CHIEF, BUREAU OF UTILITIES DATE

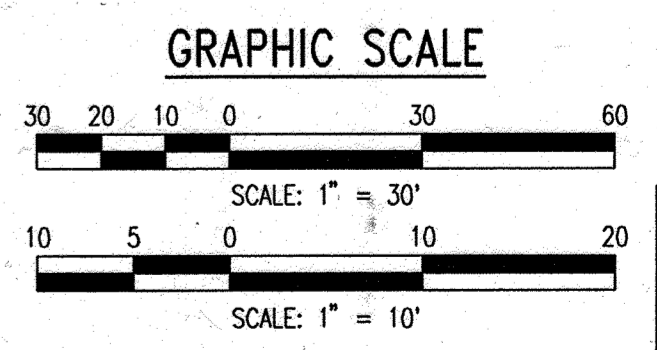
PREPARED BY:
WR&A
Whitman, Reardon and Associates, LLP.
801 South Caroline Street,
Baltimore, Maryland, 21231
410-235-3450



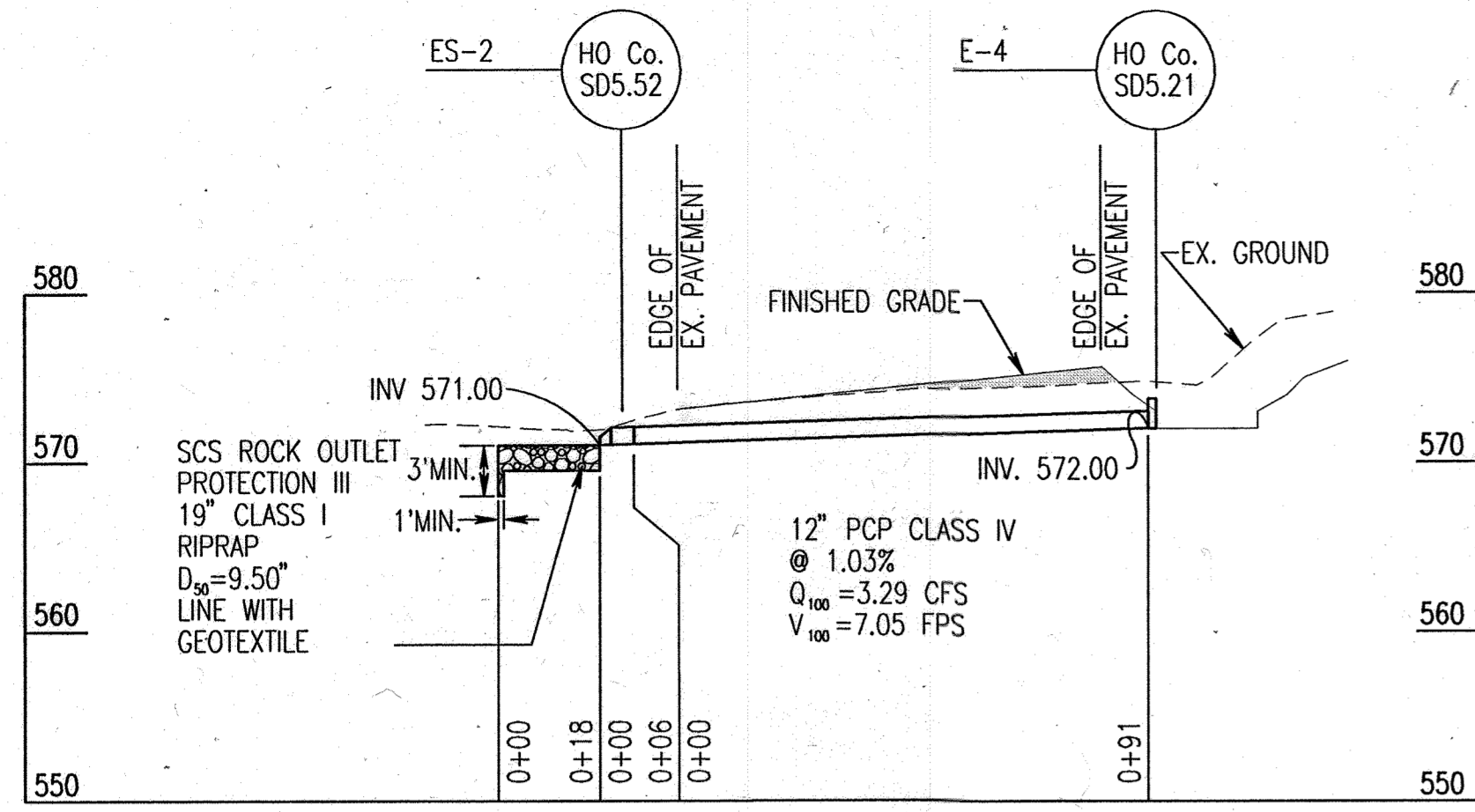
| | | | |
|------------------|----------|------|---------------------------------------|
| DES: C.D. | | | |
| DRN: C.K. | | | |
| CHK: A.O. | | | |
| DATE: 12/16/2002 | | | |
| BY: NO. | REVISION | DATE | 600' SCALE MAP NO. 16 BLOCK NO. 2 / 8 |

PROFILES - STORM DRAINS

PUBLIC SAFETY TRAINING CENTER
AT ALPHA RIDGE LANDFILL
CAPITAL PROJECT NO. C-0182
HOWARD COUNTY, MARYLAND



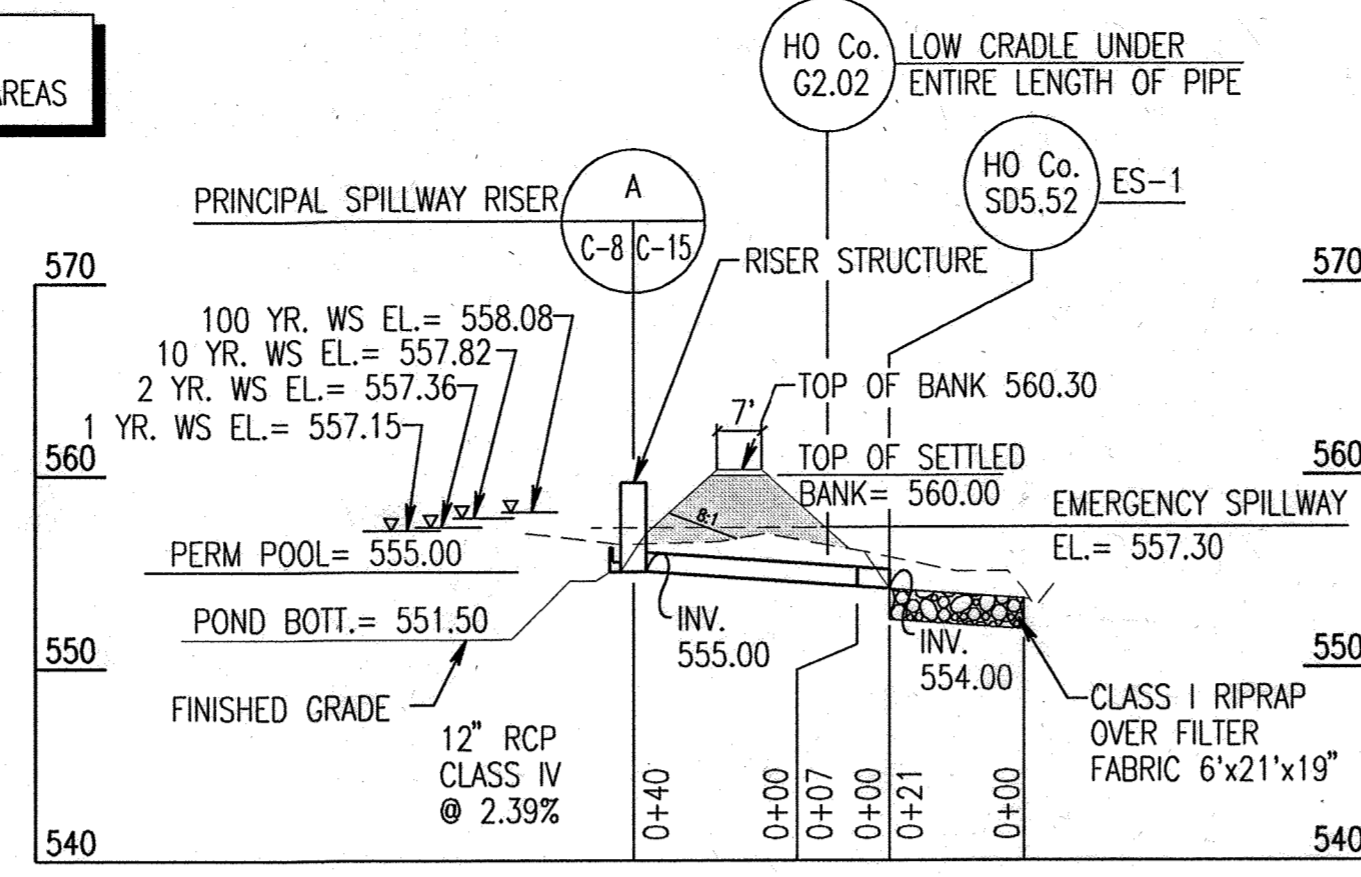
C-14
SCALE AS SHOWN
SHEET 16 OF 39



ROAD CULVERT PROFILE - E-4 TO ES-2

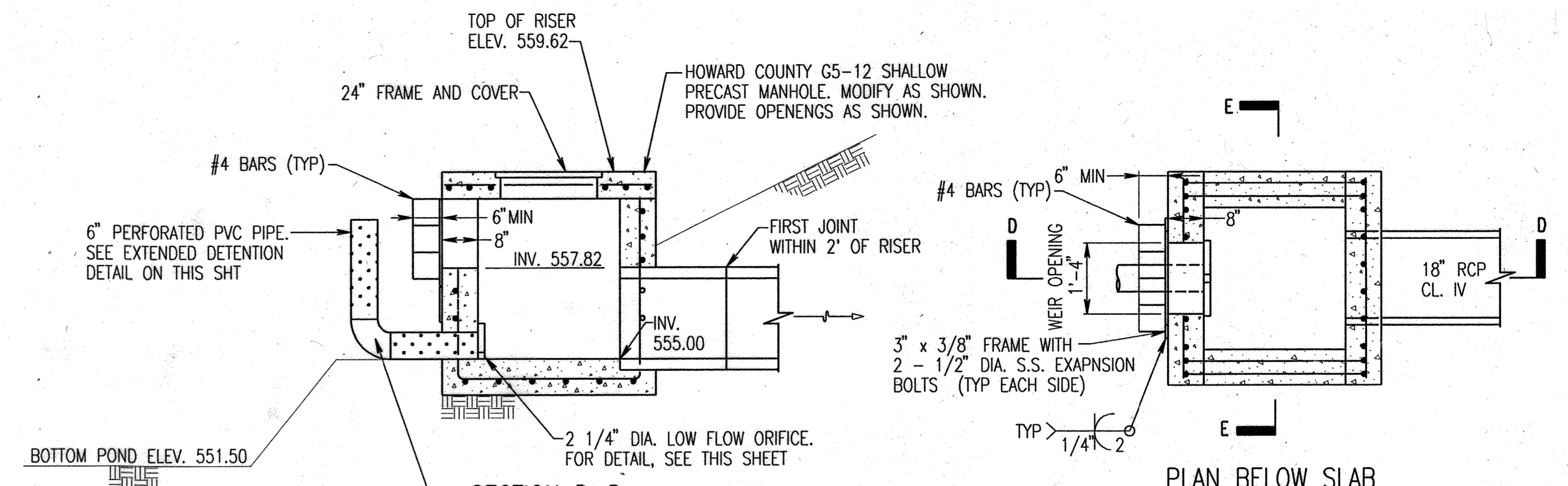
SCALE: 1" = 30' HORIZ
1" = 10' VERT

NOTE:
1. SHADING INDICATES FILL AREAS



SPILLWAY PROFILE

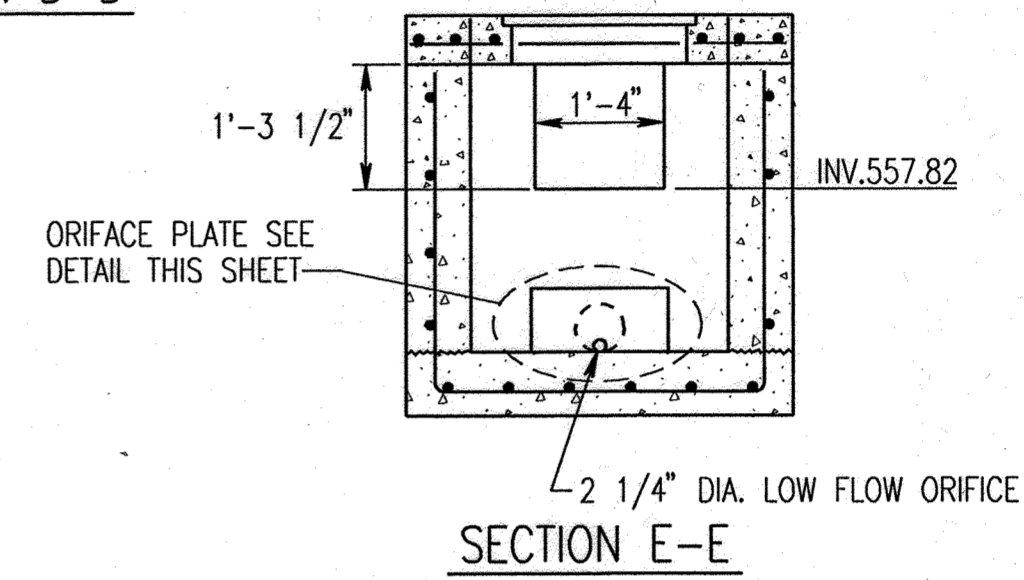
SCALE: 1" = 30' HORIZ
1" = 10' VERT



SECTION D-D

PLAN BELOW SLAB

PERFORATED PORTION OF PIPE SHALL BE WRAPPED WITH 1/2" HARDWARE CLOTH. THEN WRAP AND ATTACH CLASS E GEOTEXTILE. THE ENTIRE PIPE IS THEN TO BE BURIED IN CLEAN GRAVEL.

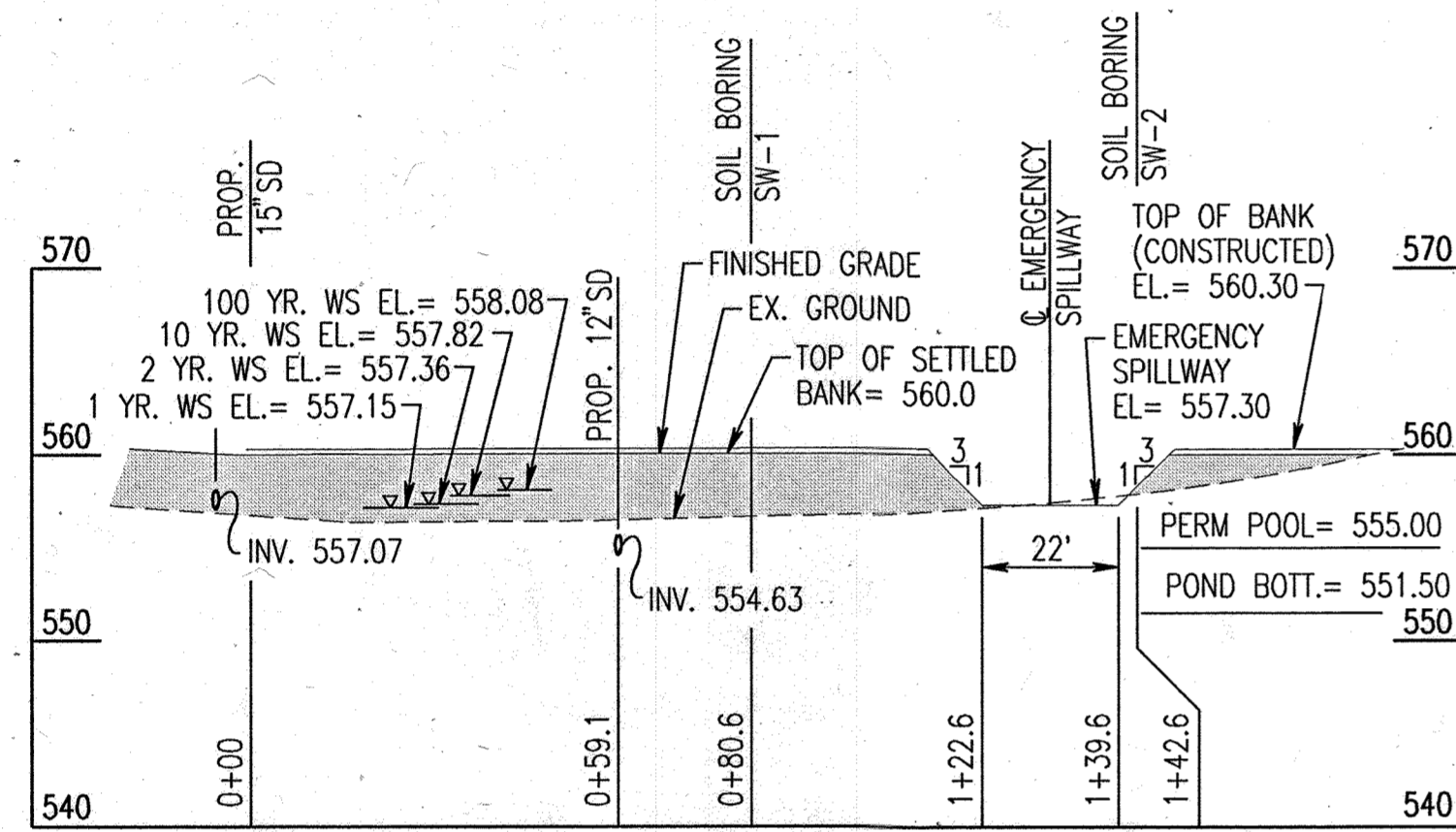


SECTION E-E

POND NO. 1 - PRINCIPAL SPILLWAY RISER DETAIL

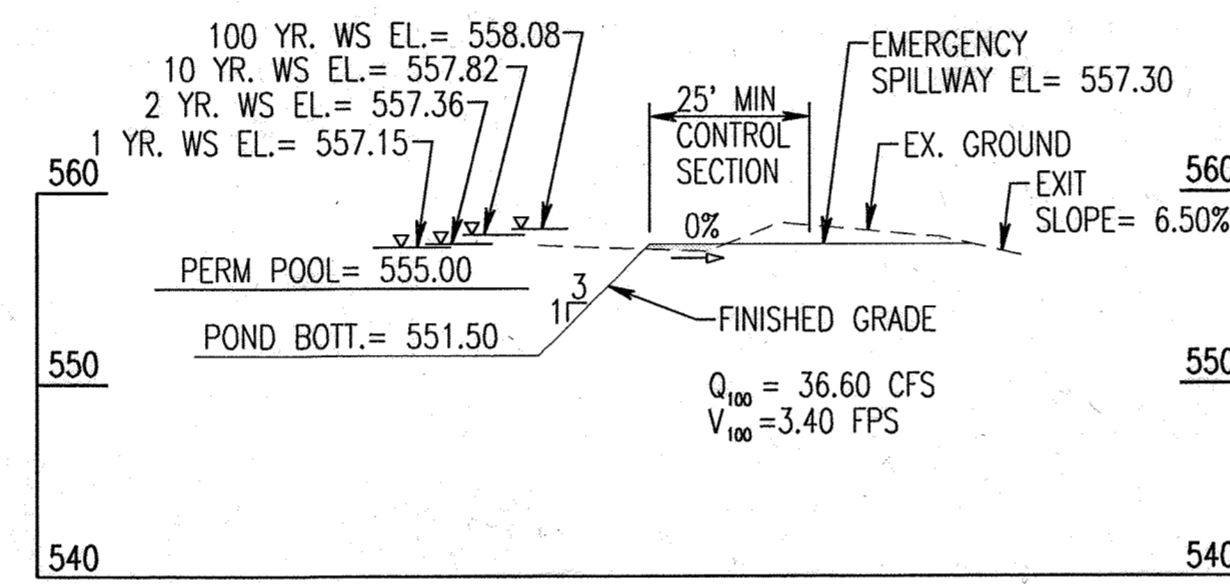
SCALE: 1/2" = 1'-0"

*WRAP JOINTS BELOW SOIL SURFACE W/ FILTER CLOTH AND SECURE WITH STAINLESS METAL STRAPS BOLTED TO EITHER SIDE OF THE JOINT OPENING.



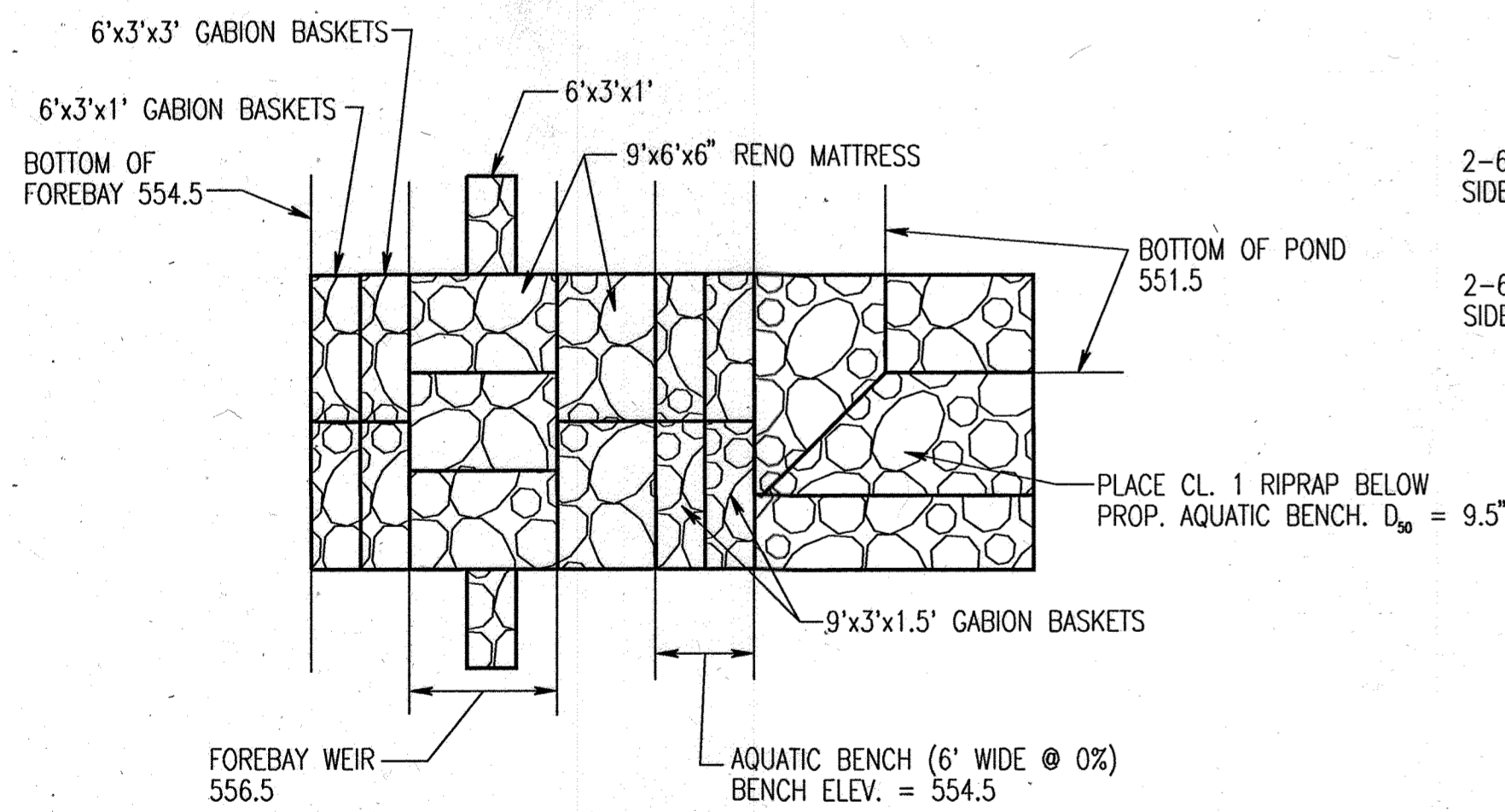
SECTION A-A: CENTERLINE OF EMBANKMENT

SCALE: 1" = 30' HORIZ
1" = 10' VERT



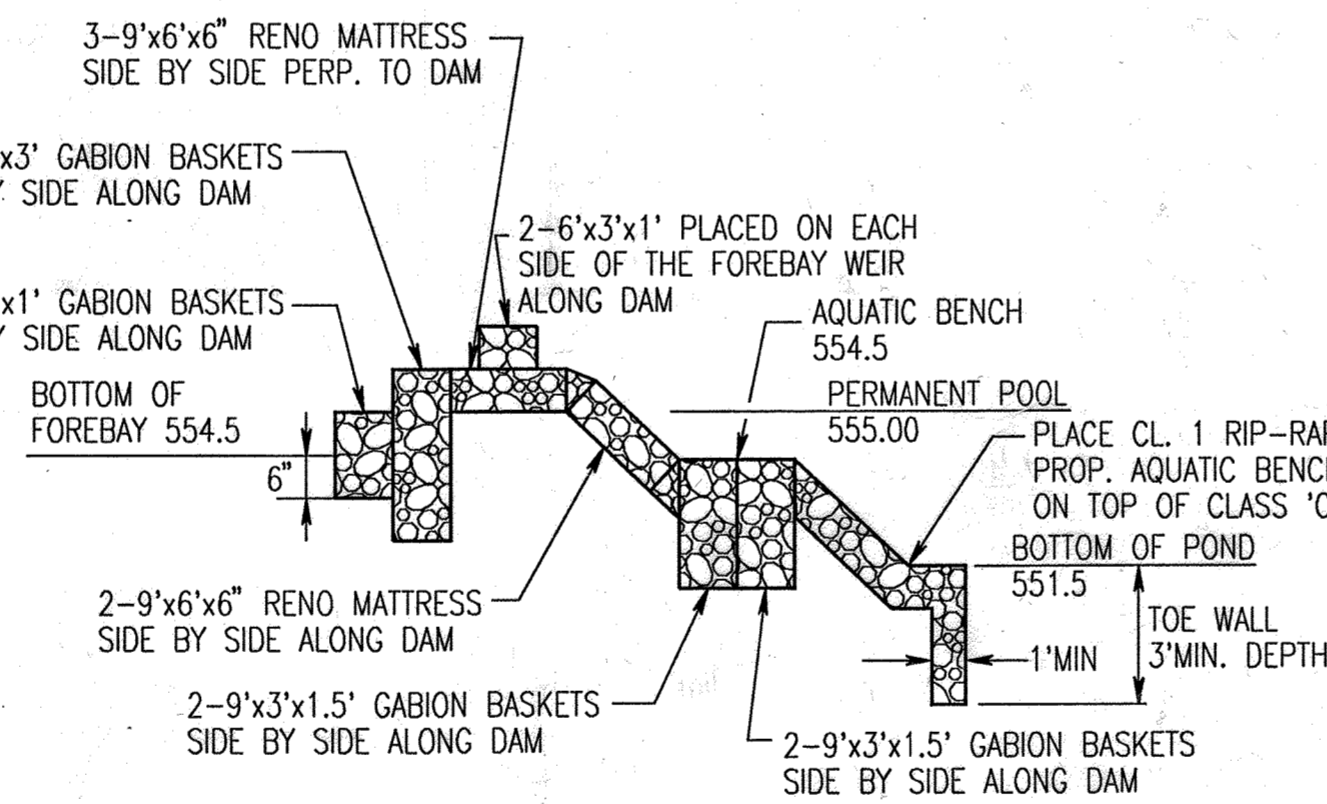
SECTION B-B: EMERGENCY SPILLWAY

SCALE: 1" = 30' HORIZ
1" = 10' VERT



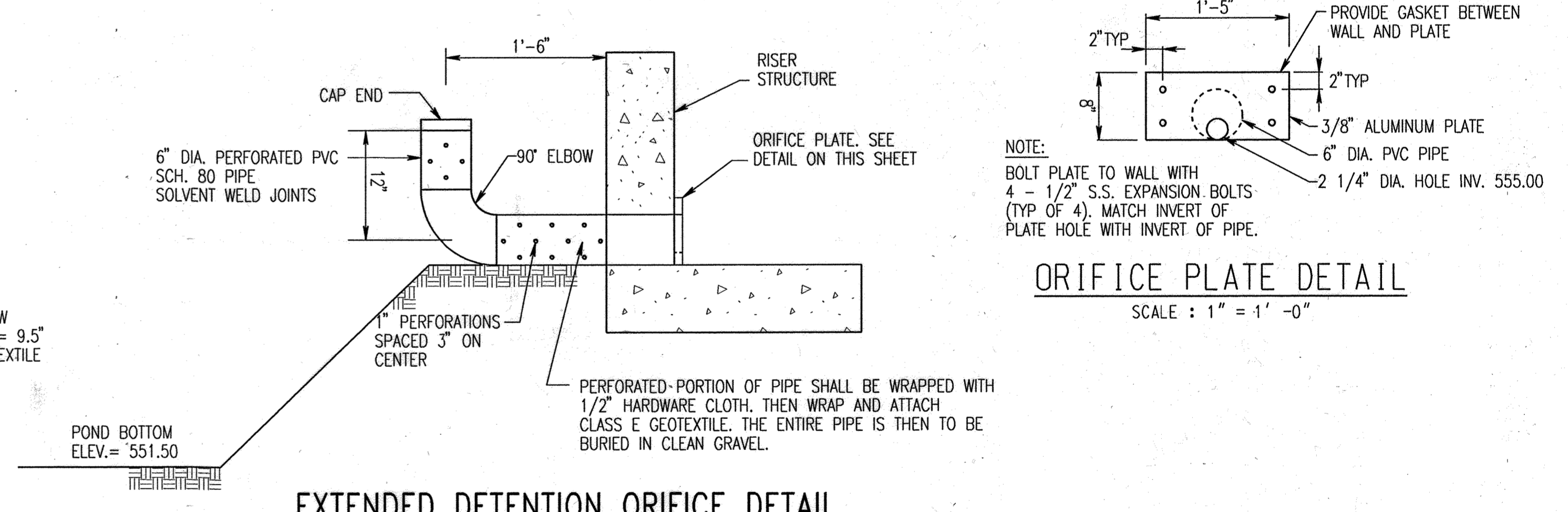
FOREBAY OUTLET DETAIL-PLAN VIEW

FOREBAY
SCALE: NOT TO SCALE
C-8 C-15



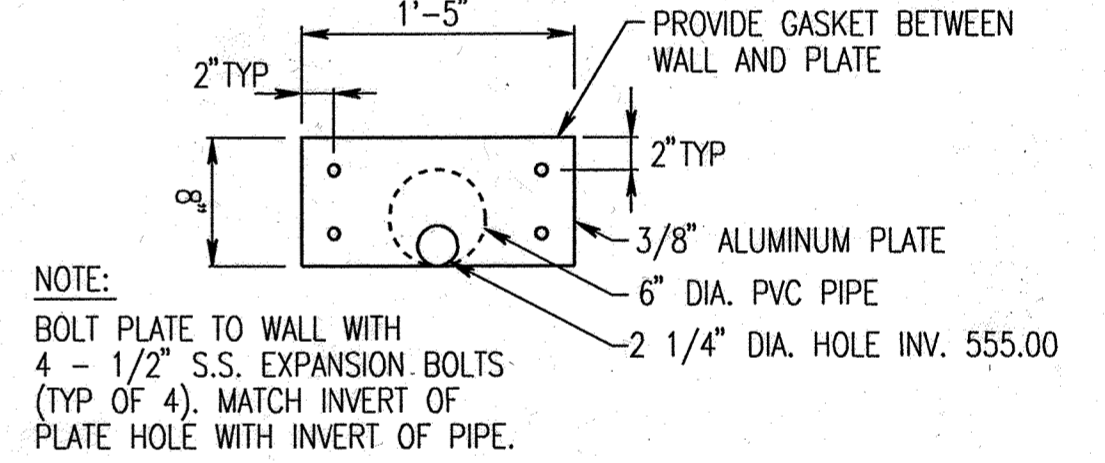
SECTION THROUGH FOREBAY OUTLET

*ALL GABION BLOCKS AND RENO MATTRESSES ARE TO BE PLACED ON GEOTEXTILE CLASS 'C'



EXTENDED DETENTION ORIFICE DETAIL

SCALE: 1" = 1'-0"

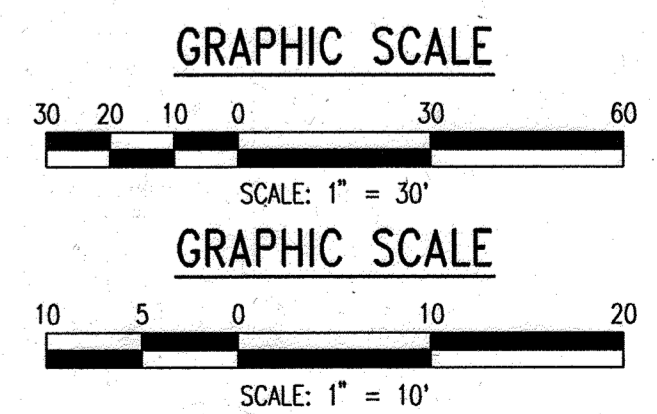


ORIFICE PLATE DETAIL

SCALE: 1" = 1'-0"

STORMWATER MANAGEMENT POND LINER NOTES

1. A LINER IS TO BE PLACED ON THE SIDES AND BOTTOM OF THE STORMWATER MANAGEMENT POND. THE LINER IS TO BE PLACED UP TO AN ELEVATION OF 560' (TOP OF EMBANKMENT).
2. THE POND LINER IS TO BE A MINIMUM OF 1' THICK. THE LINER IS TO BE STEPPED OR BENCHED INTO EXISTING GROUND AS IT IS PLACED ON THE SIDES OF THE POND.
3. THE POND LINER SHALL BE COMPRISED OF A SILT, SAND AND CLAY MIXTURE HAVING BETWEEN 30% AND 75% PASSING THE NO. 200 SIEVE, AND A PLASTICITY INDEX (PI) BETWEEN 9 AND 25.
4. POND LINER IS TO BE PLACED 12" BELOW GROUND SURFACE ELEVATIONS SHOWN IN THESE PLANS. POND GRADES ARE TO BE BROUGHT UP TO ELEVATION USING THE APPROPRIATE PLANTING SOIL AS INDICATED ON SHEET LS-3.



APPROVED: FOR PUBLIC WATER AND PRIVATE SEWERAGE SYSTEMS,
HOWARD COUNTY HEALTH DEPARTMENT
Perry Donahue 3-5-03
COUNTY HEALTH OFFICER DATE

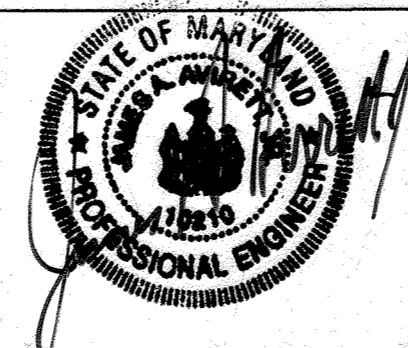
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
Trisha R. Coughlin 3/10/03
DIRECTOR DATE

Chad DeWitt 3/10/03
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

Cindy Hamrick 3/17/03
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

PREPARED BY:
WR&A
Whitman, Reardon and Associates, LLP.
801 South Caroline Street,
Baltimore, Maryland, 21231
410-235-3450



| | | | |
|-----------|--|----------|--|
| DES: C.D. | | | |
| DRN: C.K. | | | |
| CHK: A.O. | | | |
| DATE: | | | |
| BY NO. | | REVISION | |
| | | | |
| | | | |
| | | | |

PROFILES

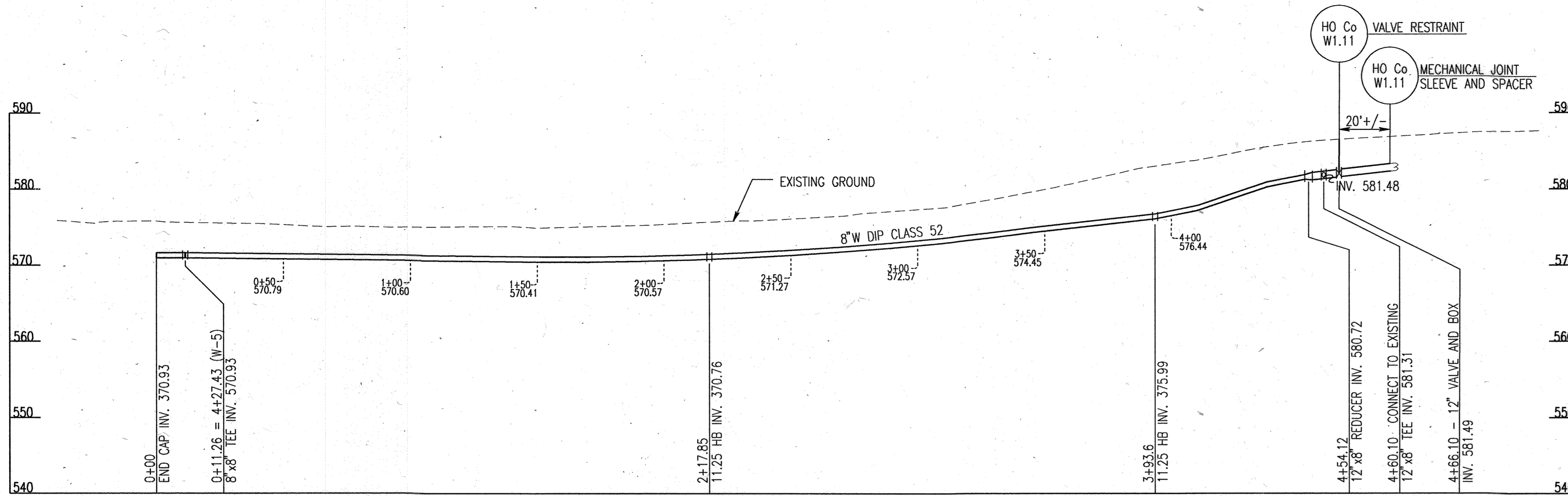
600' SCALE MAP NO. 16 BLOCK NO. 2 / 8

PUBLIC SAFETY TRAINING CENTER
AT ALPHA RIDGE LANDFILL
CAPITAL PROJECT NO. C-0182
HOWARD COUNTY, MARYLAND

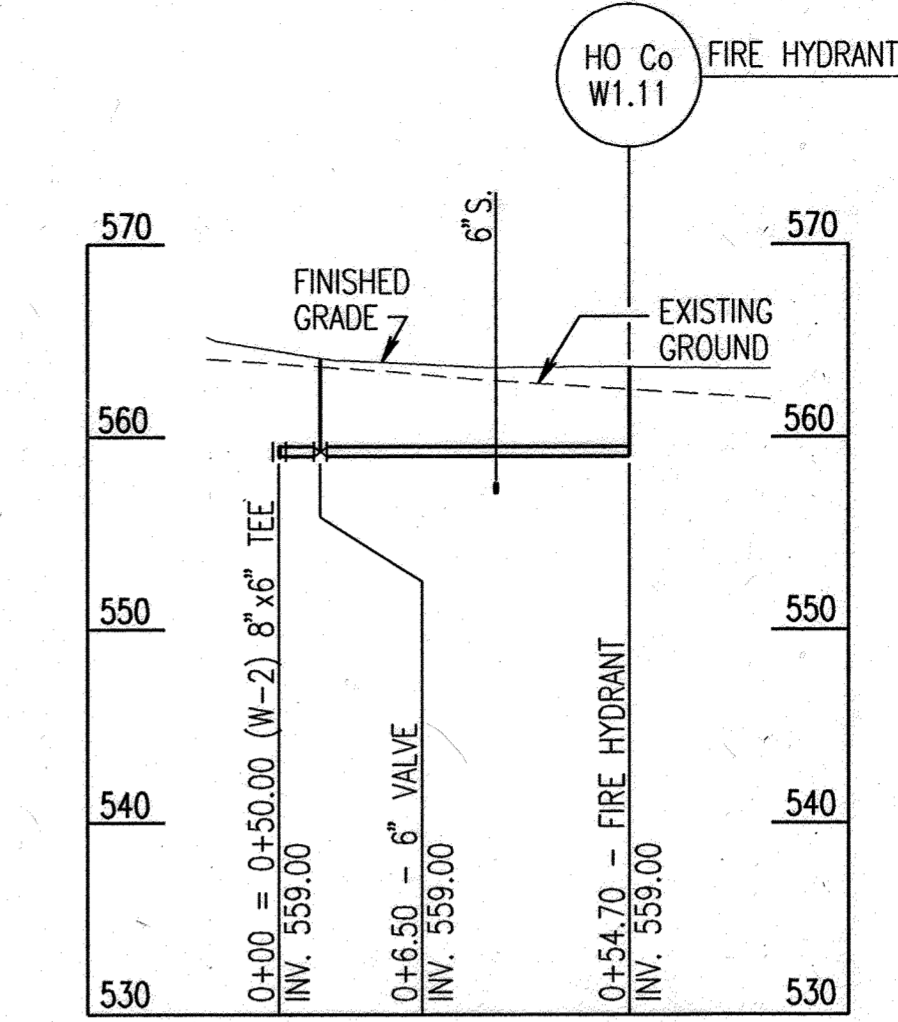
C-15

SCALE AS SHOWN

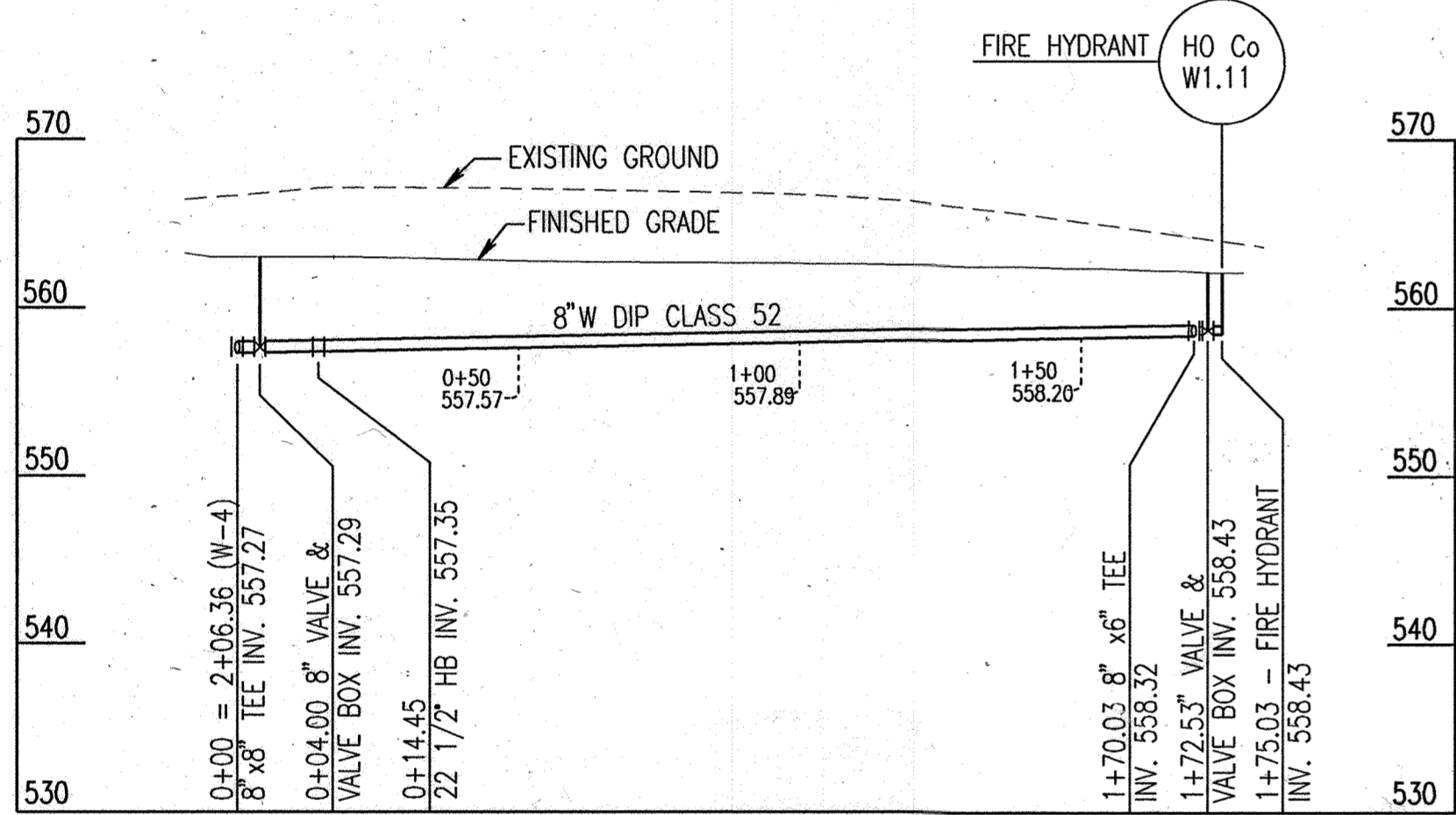
SHEET 17 OF 39



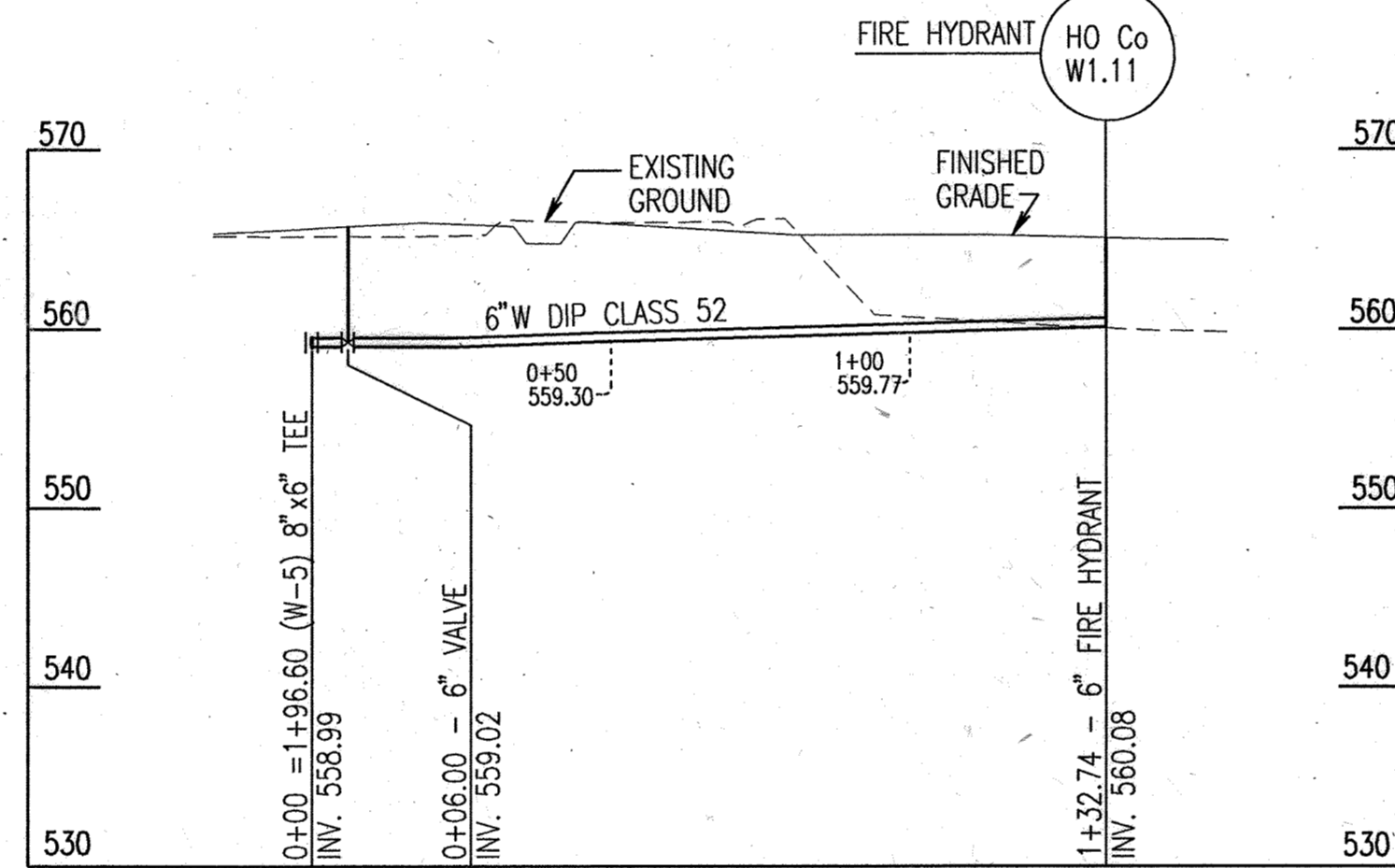
PROFILE 8" WATER MAIN (W-6)



PROFILE 6" WATER MAIN (W-7)



PROFILE 8" WATER MAIN (W-8)



PROFILE 6" WATER MAIN (W-9)

APPROVED: FOR PUBLIC WATER AND PRIVATE SEWERAGE SYSTEMS,
HOWARD COUNTY HEALTH DEPARTMENT
Doug Lander 3/5/03
COUNTY HEALTH OFFICER DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
Mark McLaughlin 3/10/03
DIRECTOR DATE

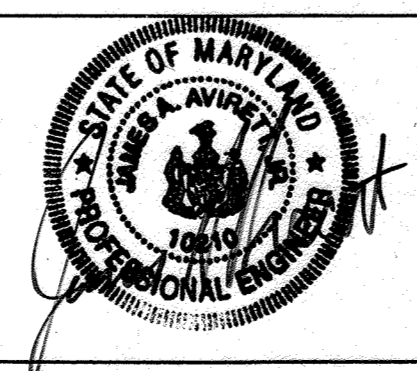
Chris Damman 3/11/03
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

Cathy Harsh 3/11/03
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

CHIEF, BUREAU OF UTILITIES DATE

PREPARED BY:
WR&A
Whitman, Reardon and Associates, LLP.
801 South Caroline Street
Baltimore, Maryland, 21231
410-235-3450



DES: C.D.
DRN: C.K.
CHK: A.O.
DATE: 12/16/2002

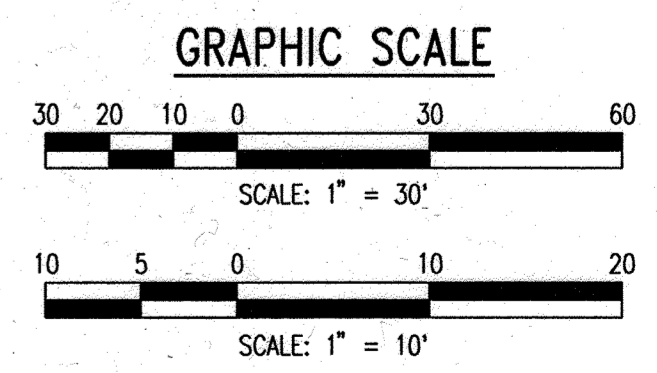
| BY | NO. | REVISION | DATE |
|----|-----|----------|------|
| | | | |

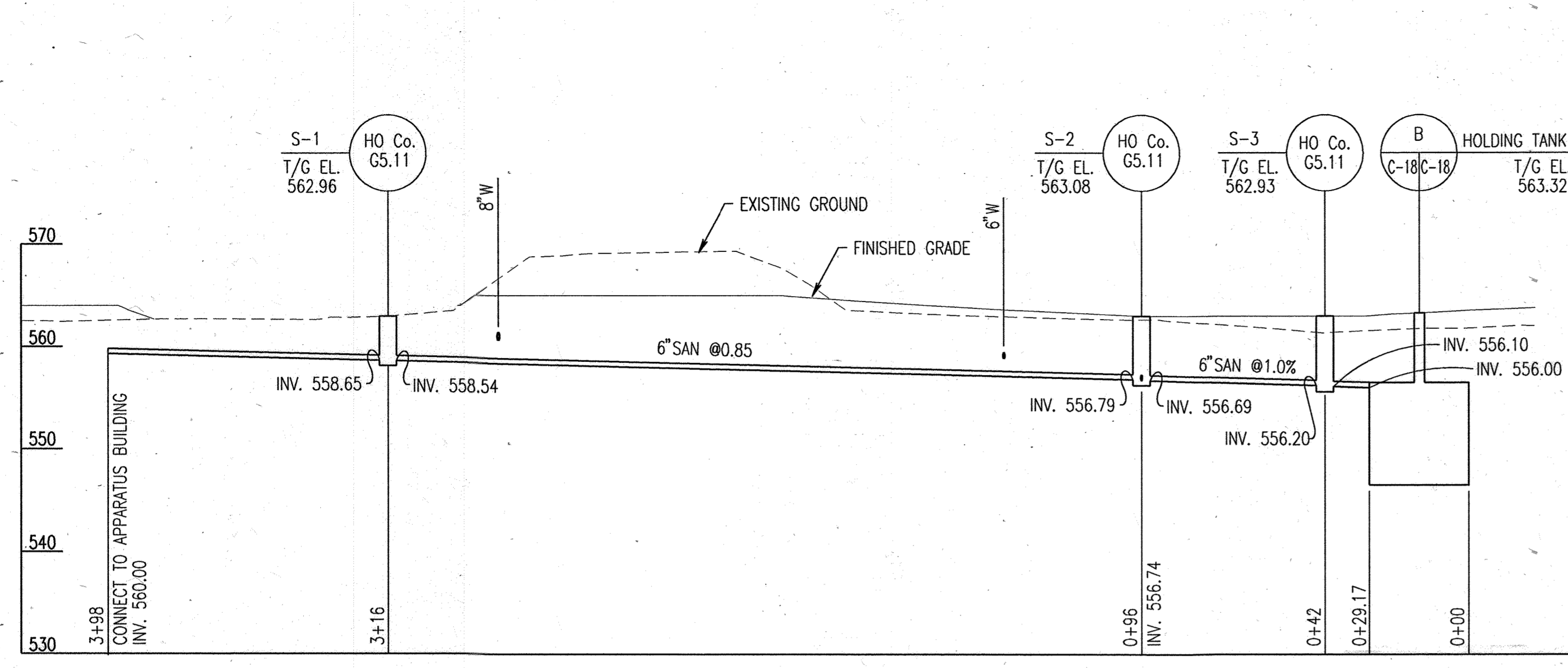
PROFILES - WATER MAINS

600' SCALE MAP NO. 16 BLOCK NO. 2 / 8

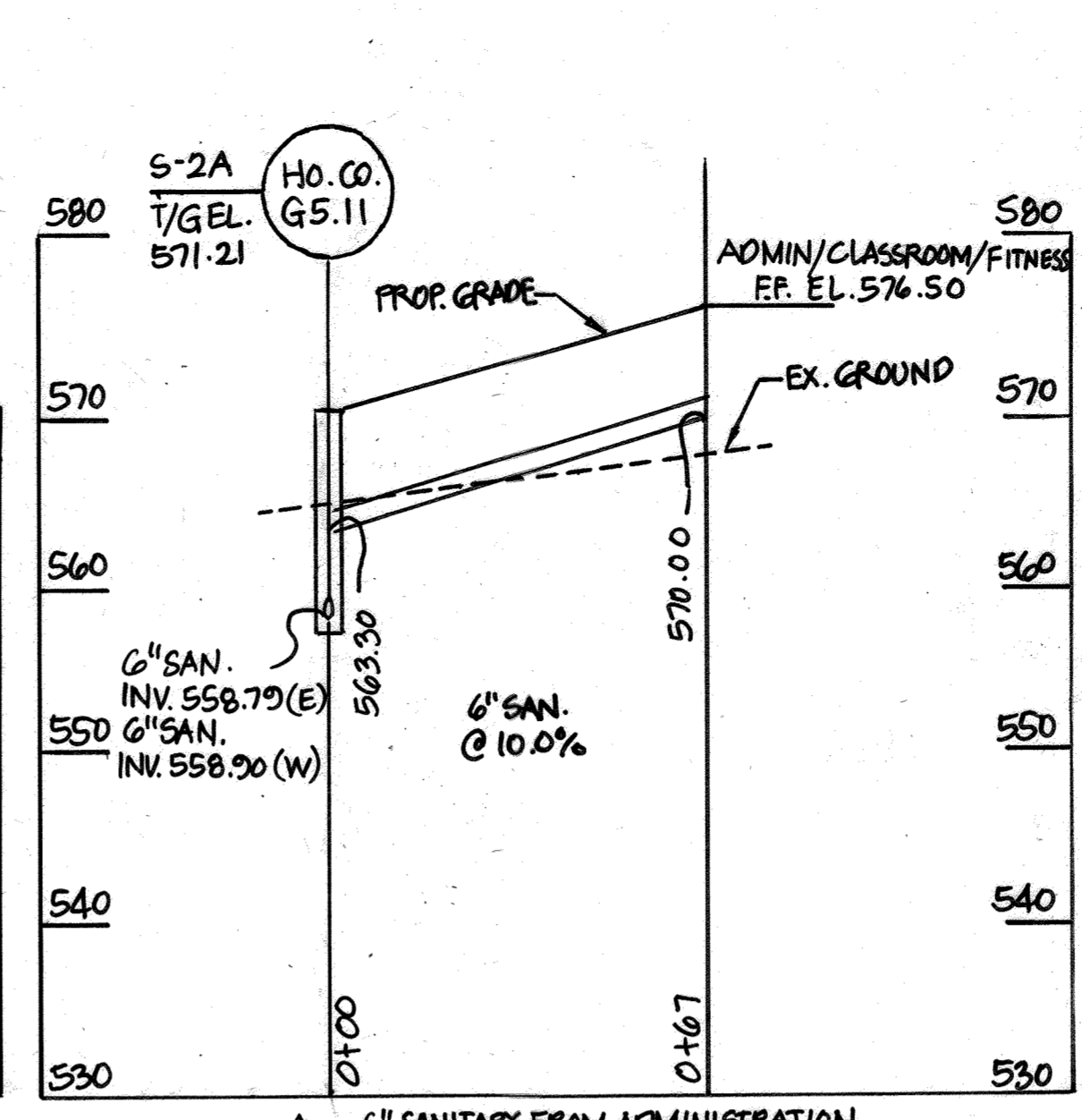
PUBLIC SAFETY TRAINING CENTER
AT ALPHA RIDGE LANDFILL
CAPITAL PROJECT NO. C-0182
HOWARD COUNTY, MARYLAND

SHEET 19 OF 39

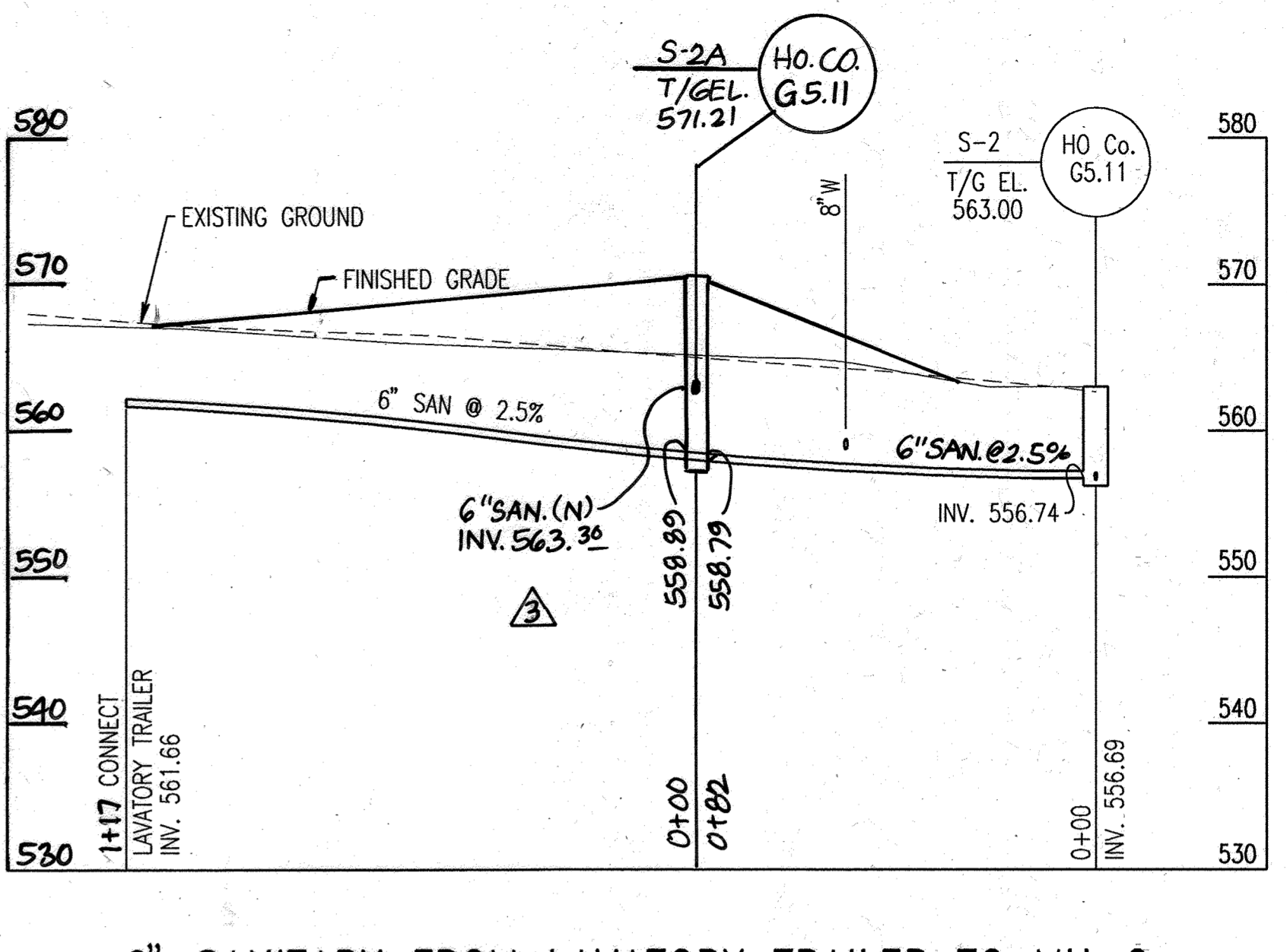




6" SANITARY FROM APPARATUS BUILDING TO THE HOLDING TANK

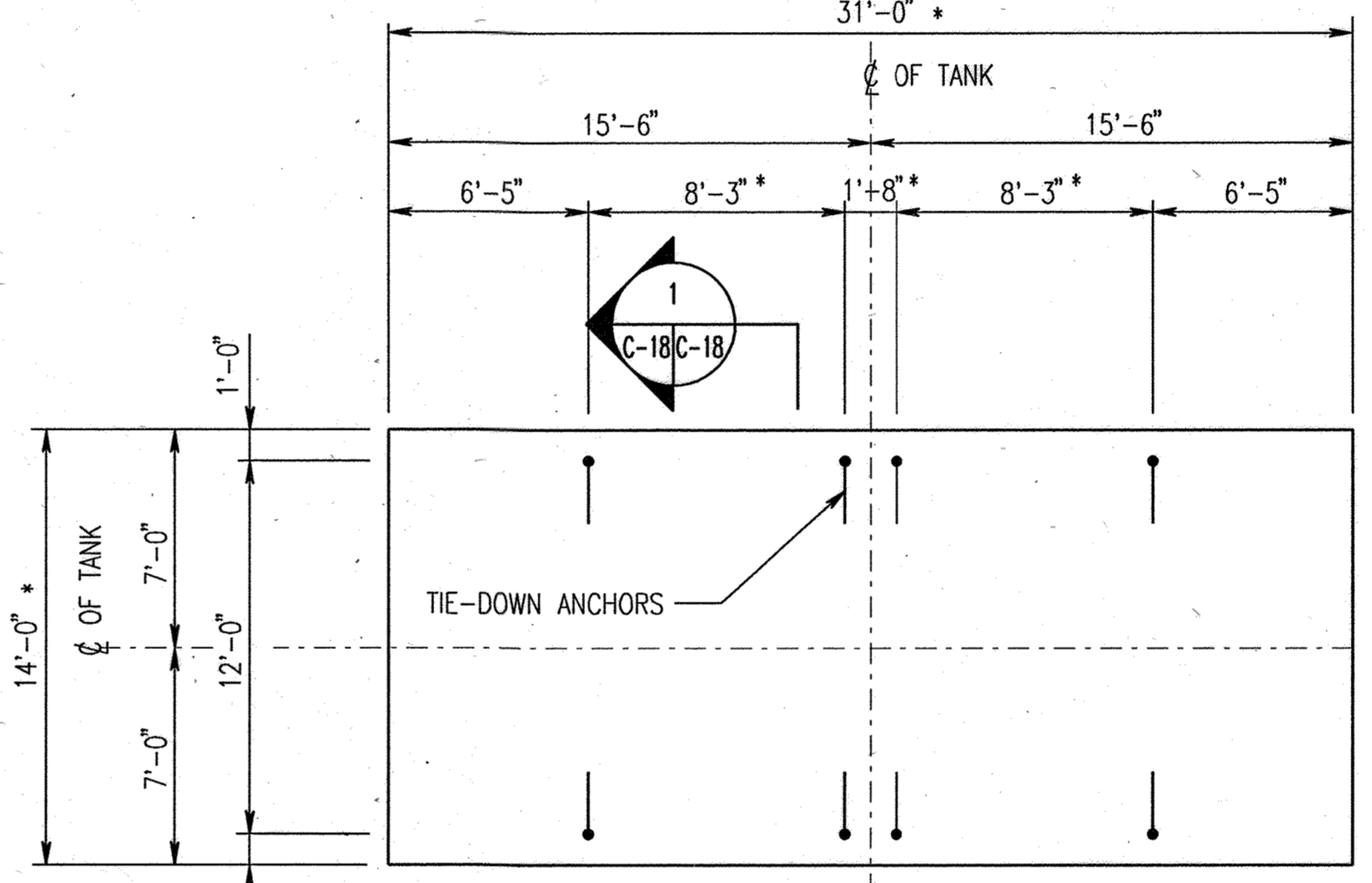
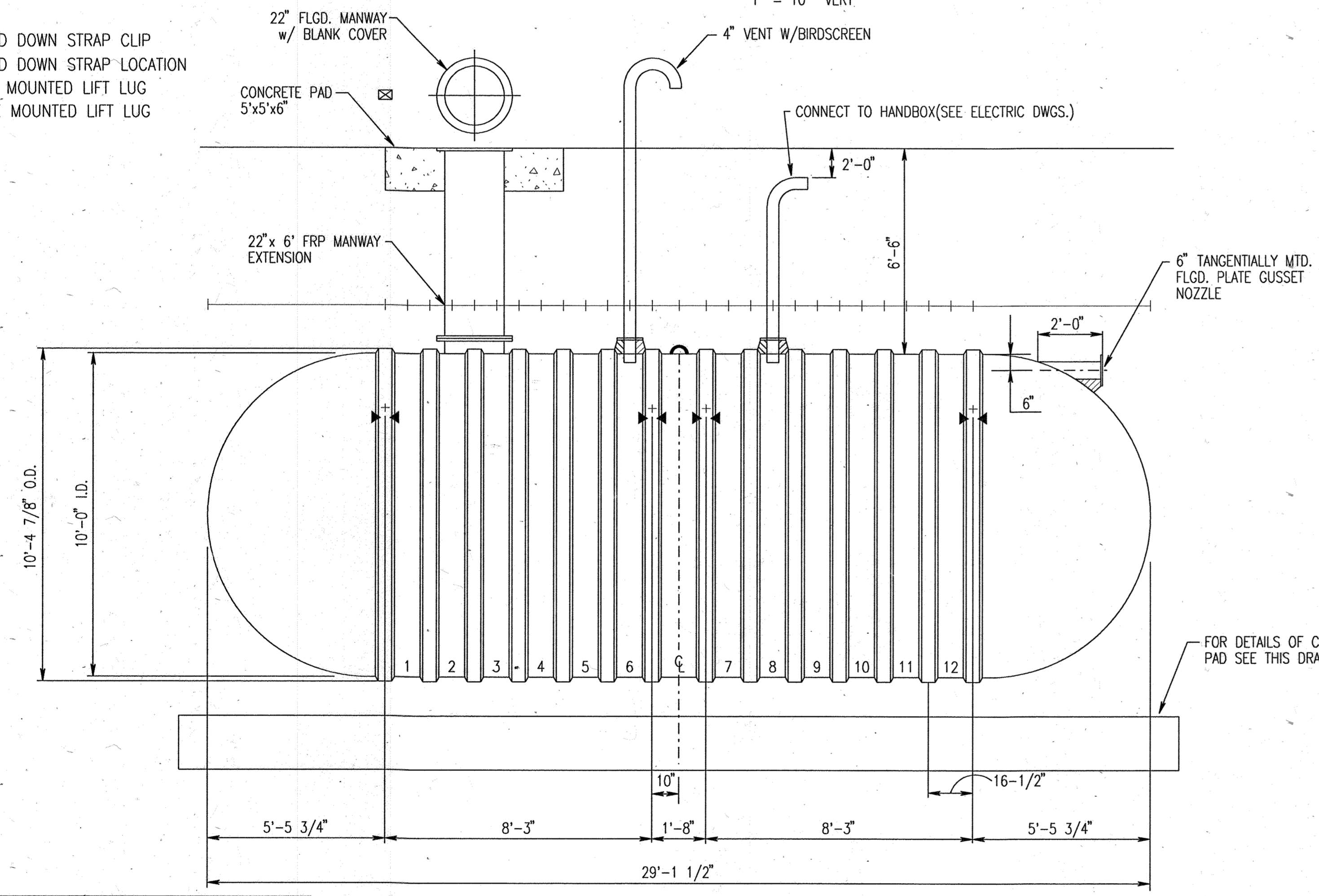


6" SANITARY FROM ADMINISTRATION BUILDING TO MH-2

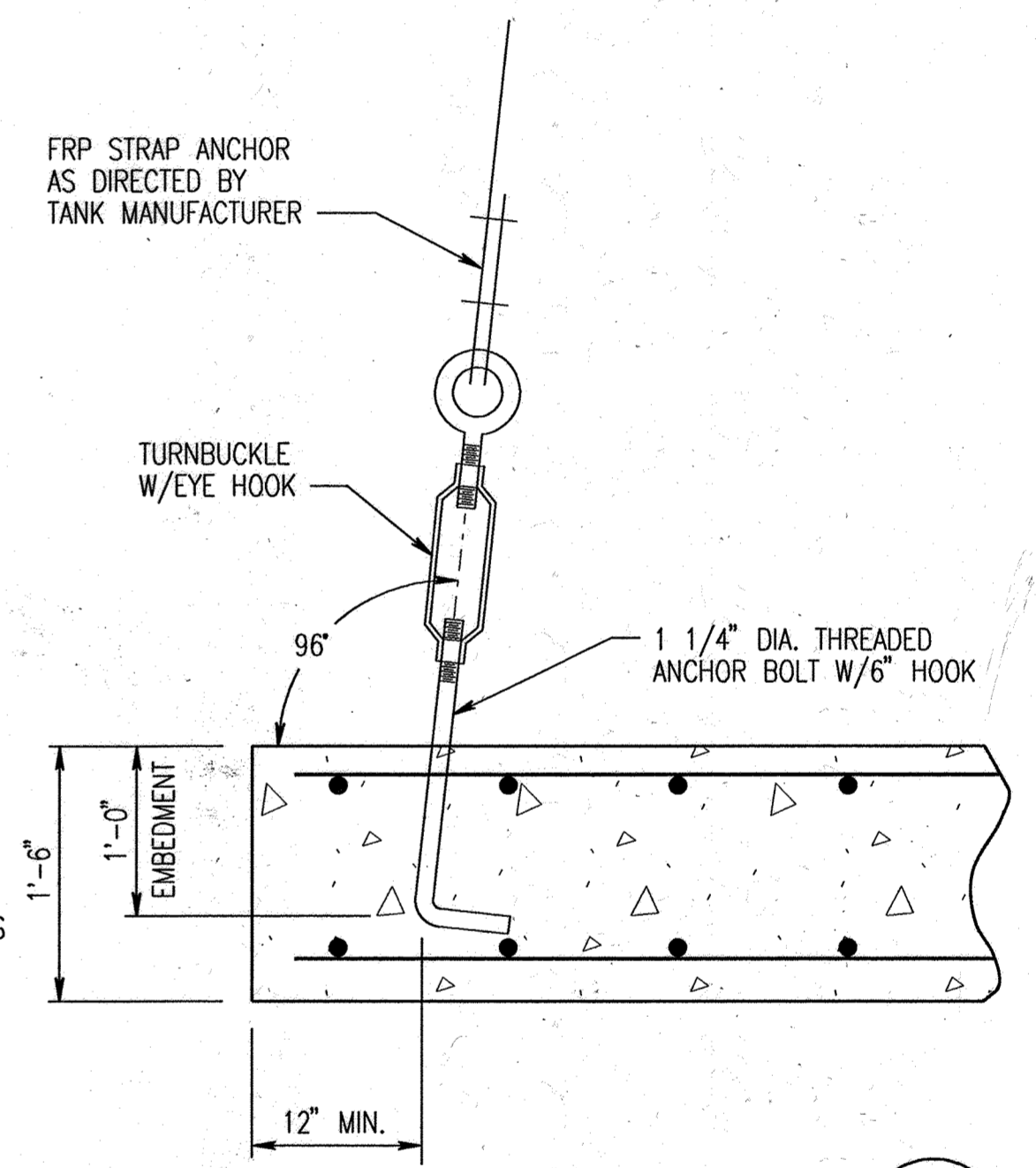


6" SANITARY FROM LAVATORY TRAILER TO MH-2

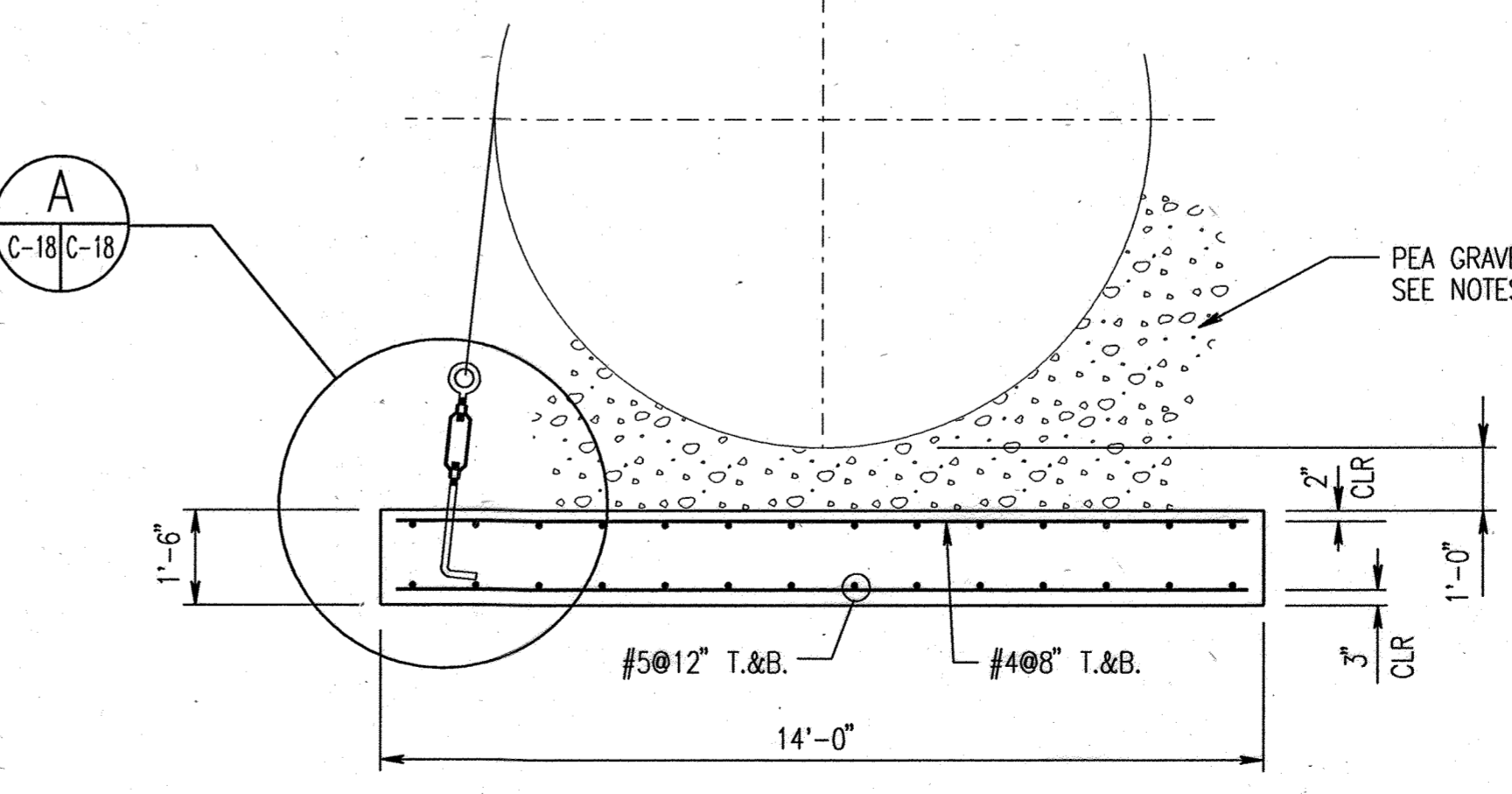
- NOTES:
- ☒ HOLD DOWN STRAP CLIP
 - ⊗ HOLD DOWN STRAP LOCATION
 - ▬ TOP MOUNTED LIFT LUG
 - ◡ SIDE MOUNTED LIFT LUG



PLAN OF FRP TANK HOLD-DOWN PAD

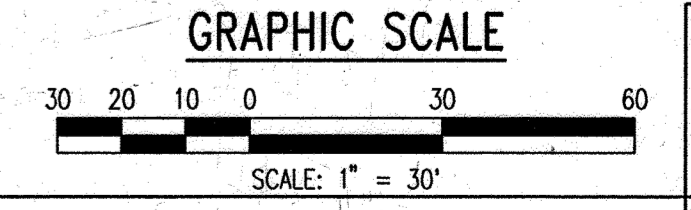


DETAIL A



SECTION 1

- NOTES:
1. PEA GRAVEL SHALL BE CLEAN AND SIZED TO CONFORM TO THE TANK MANUFACTURERS RECOMMENDATIONS.
 2. AS SOON AS FRP STRAP ANCHORS ARE INSTALLED, THE GRAVEL SHALL BE FILLED UP TO 3 FT. FROM THE TOP OF TANK OR HIGHER.



APPROVED: FOR PUBLIC WATER AND PRIVATE SEWERAGE SYSTEMS,
HOWARD COUNTY HEALTH DEPARTMENT
Randy D. ... 3-5-02
COUNTY HEALTH OFFICER DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
... 3/16/02
DIRECTOR DATE

... 3/16/02
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

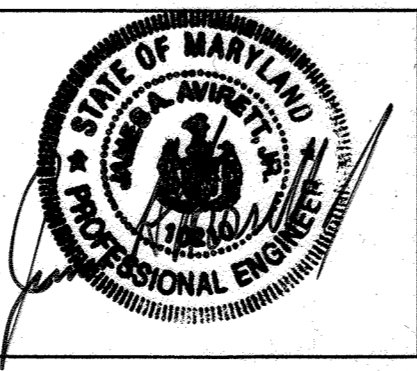
... 3/17/03
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

HOLDING TANK B
NO SCALE
C-18/C-18

STATE OF MARYLAND
Professional Engineer
For Revision A by Site Resources only

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
CHIEF, BUREAU OF UTILITIES DATE

PREPARED BY:
WR&A
Whitman, Reardon and Associates, LLP.
801 South Caroline Street,
Baltimore, Maryland, 21231
410-235-3450

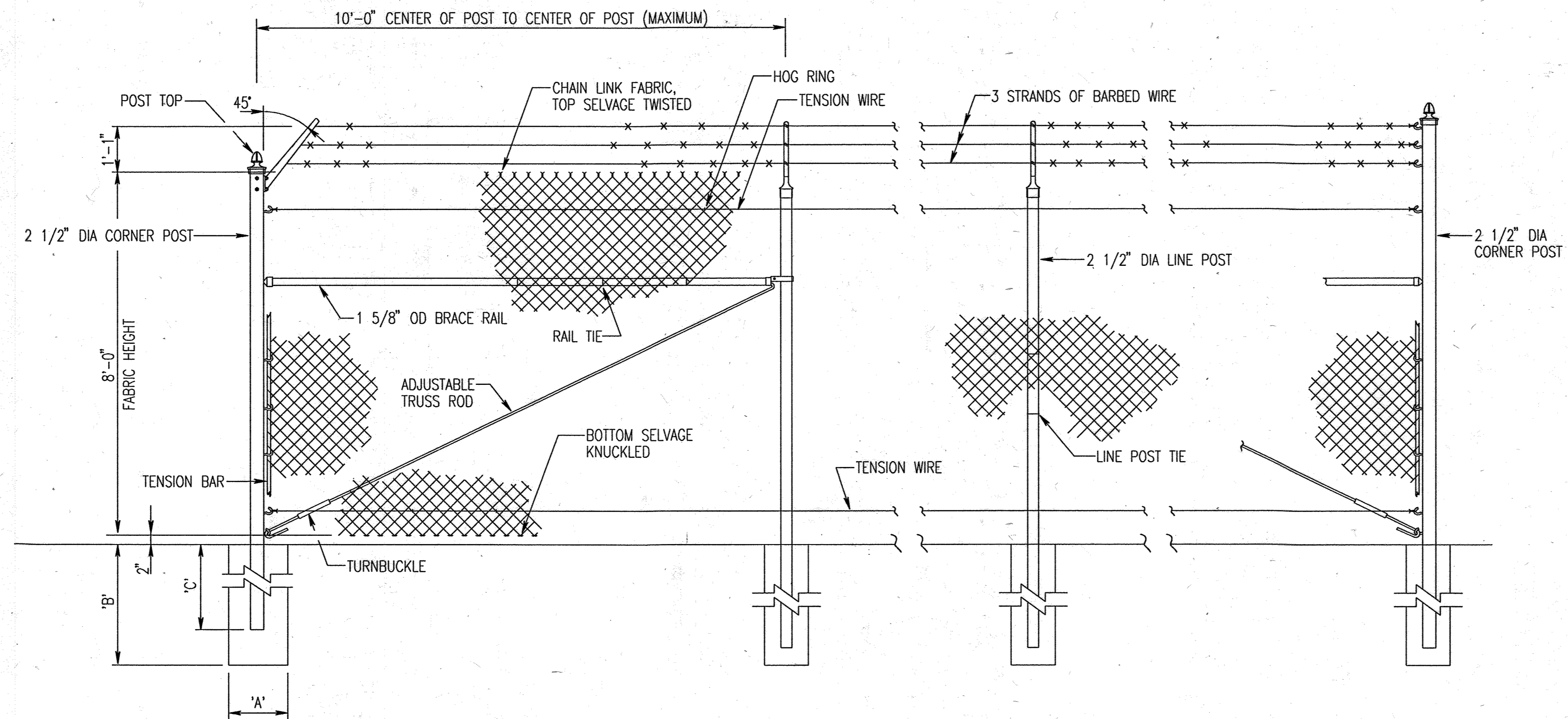


| | | | |
|------------------|--------|--|---------|
| DES: C.D. | SRI | REVISED THE ADMIN./CLASS ROOM BLDG W/ WALKWAY AND PARKING AREA W/ 3 HANDICAPPED SPACES | 7/13/05 |
| DRN: C.K. | | | |
| CHK: A.O. | | | |
| DATE: 12/16/2002 | BY NO. | REVISION | DATE |

PROFILES - SANITARY SEWER AND DETAILS

PUBLIC SAFETY TRAINING CENTER
AT ALPHA RIDGE LANDFILL
CAPITAL PROJECT NO. C-0182
HOWARD COUNTY, MARYLAND

C-18
SCALE AS SHOWN
SHEET 20 OF 39

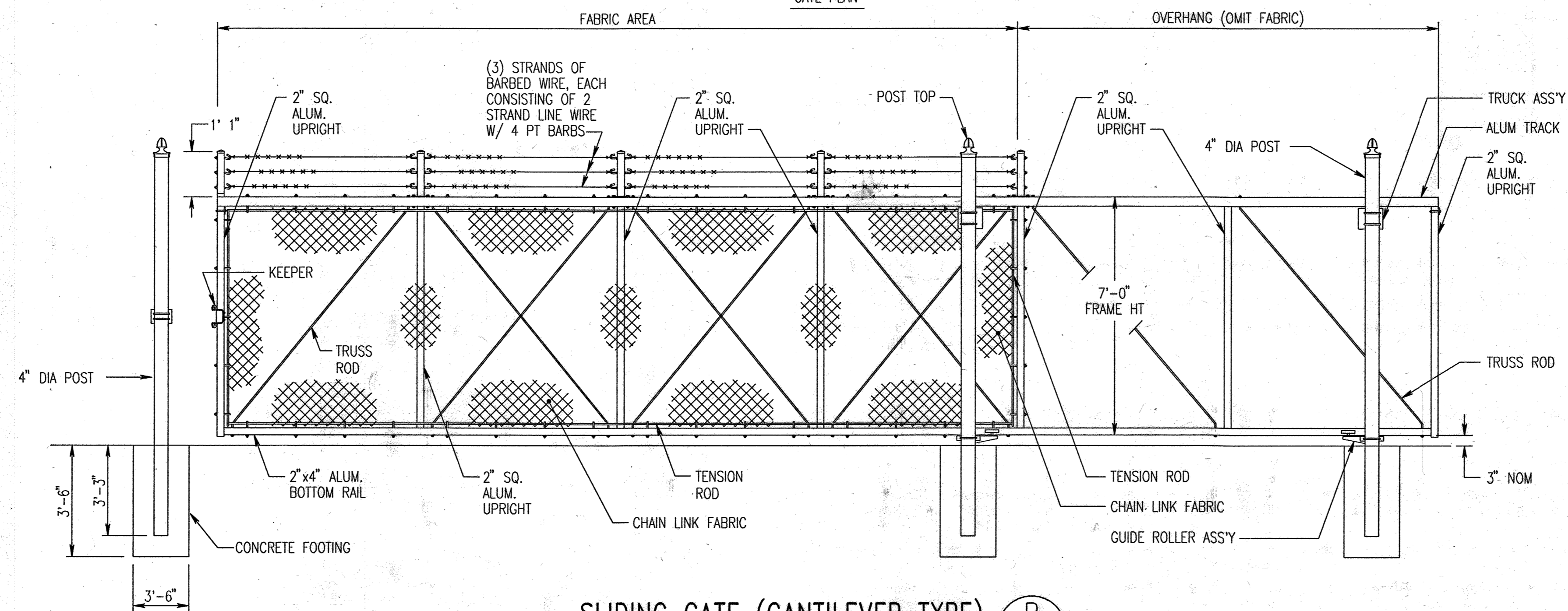
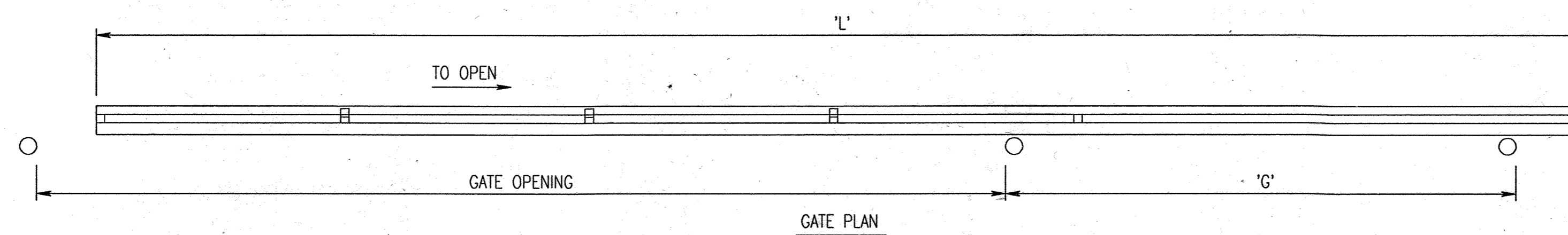


CHAIN LINK FENCE
NOT TO SCALE

LINE AND TERMINAL POSTS

| FABRIC HEIGHT | TYPE POST | "A" DIA | "B" DEPTH | "C" POST EMBEDMENT |
|---------------|-----------|---------|-----------|--------------------|
| 2108 | LINE | 1'-0" | 3'-6" | 3'-3" |
| | TERMINAL | 1'-0" | 3'-6" | 3'-3" |

NOTE: TERMINAL POSTS INCLUDE END, CORNER, AND PULL POSTS



SLIDING GATE (CANTILEVER TYPE)
NOT TO SCALE

SLIDING GATE

| GATE OPENING (1/2 POST FACE TO 1/2 POST FACE) | LENGTH ('L') | GATE POSTS ('C') | BAYS (WITH CHAINLINK) | OVERHANG (BAYS WITHOUT CHAINLINK) |
|---|--------------|------------------|-----------------------|-----------------------------------|
| 24'-0" | 36'-3" | 12'-0" | 3 | 2 |

APPROVED: FOR PUBLIC WATER AND PRIVATE SEWERAGE SYSTEMS,
HOWARD COUNTY HEALTH DEPARTMENT
Denny D. ... 3-5-03
COUNTY HEALTH OFFICER DATE

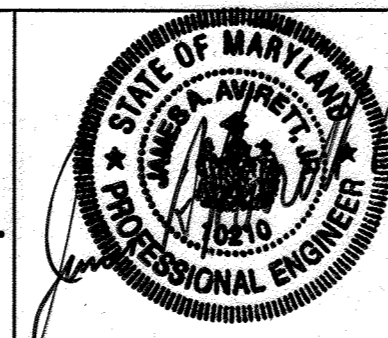
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
Mark J. ... 3/10/03
DIRECTOR DATE

Chris ... 3/11/03
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

Cathy ... 3/12/03
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

PREPARED BY:
WR&A
Whitman, Reardon and Associates, LLP.
801 South Caroline Street,
Baltimore, Maryland, 21231
410-235-3450



DES: C.D.
DRN: C.K.
CHK: A.O.
DATE: 12/16/2002

| BY | NO. | REVISION | DATE |
|----|-----|----------|------|
| | | | |

FENCE AND GATE DETAILS

PUBLIC SAFETY TRAINING CENTER
AT ALPHA RIDGE LANDFILL
CAPITAL PROJECT NO. C-0182
HOWARD COUNTY, MARYLAND

C-20

SCALE AS SHOWN
SHEET 22 OF 39

SDP-03-36

MAN3490\psfc\c20.dgn
Thu Feb 20 15:45:27 2003

| TRAP NUMBER | 1 | |
|----------------------|--------|------------------|
| Trap Type | ST-II | |
| Drainage Area | 4.9 | Ac. |
| Storage Req'd | 17,640 | Ft. ³ |
| Storage Provide | 20,732 | Ft. ³ |
| Weir Length | 22' | Ft. |
| Wet Storage | 8,820 | Ft. ³ |
| Dry Storage | 8,820 | Ft. ³ |
| Cleanout Elev. | 560.0 | Ft. |
| Bottom Elev. | 559.0 | Ft. |
| Wet Storage Elev. | 561.25 | Ft. |
| Crest Elev. | 563.00 | Ft. |
| Top of Embank. | 564.00 | Ft. |
| Riser Dia. | - | |
| Outfall Dia. | - | |
| Outfall Inv. | - | |
| Drawdown Inv. | - | |
| Q ₂ Ex. | 1.6 | cfs |
| Q ₂ Prop. | 1 | cfs |



For Revision by Site Resources only

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

HOWARD S.C.D. *[Signature]* 3/4/03 DATE

REVIEWED FOR HOWARD S.C.D. AND MEETS THE TECHNICAL REQUIREMENTS.

[Signature] 3/4/03 DATE
USDA-Natural Resources Conservation Service

BY THE ENGINEER:
"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."

[Signature] 2/21/03 DATE
JAMES A. AVRETT, JR.

BY THE DEVELOPER:
"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 ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT."

[Signature] 2/23/03 DATE
MICHAEL A. GIUVANNIELLO

APPROVED: FOR PUBLIC WATER AND PRIVATE SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT
[Signature] 3-5-03 DATE
COUNTY HEALTH OFFICER

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
[Signature] 2/16/03 DATE
DIRECTOR

[Signature] 3/11/03 DATE
CHIEF, DEVELOPMENT ENGINEERING DIVISION

[Signature] 3/17/03 DATE
CHIEF, DIVISION OF LAND DEVELOPMENT

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
CHIEF, BUREAU OF UTILITIES DATE

PREPARED BY:
WR&A
Whitman, Reardon and Associates, LLP.
801 South Caroline Street,
Baltimore, Maryland, 21231
410-235-3450

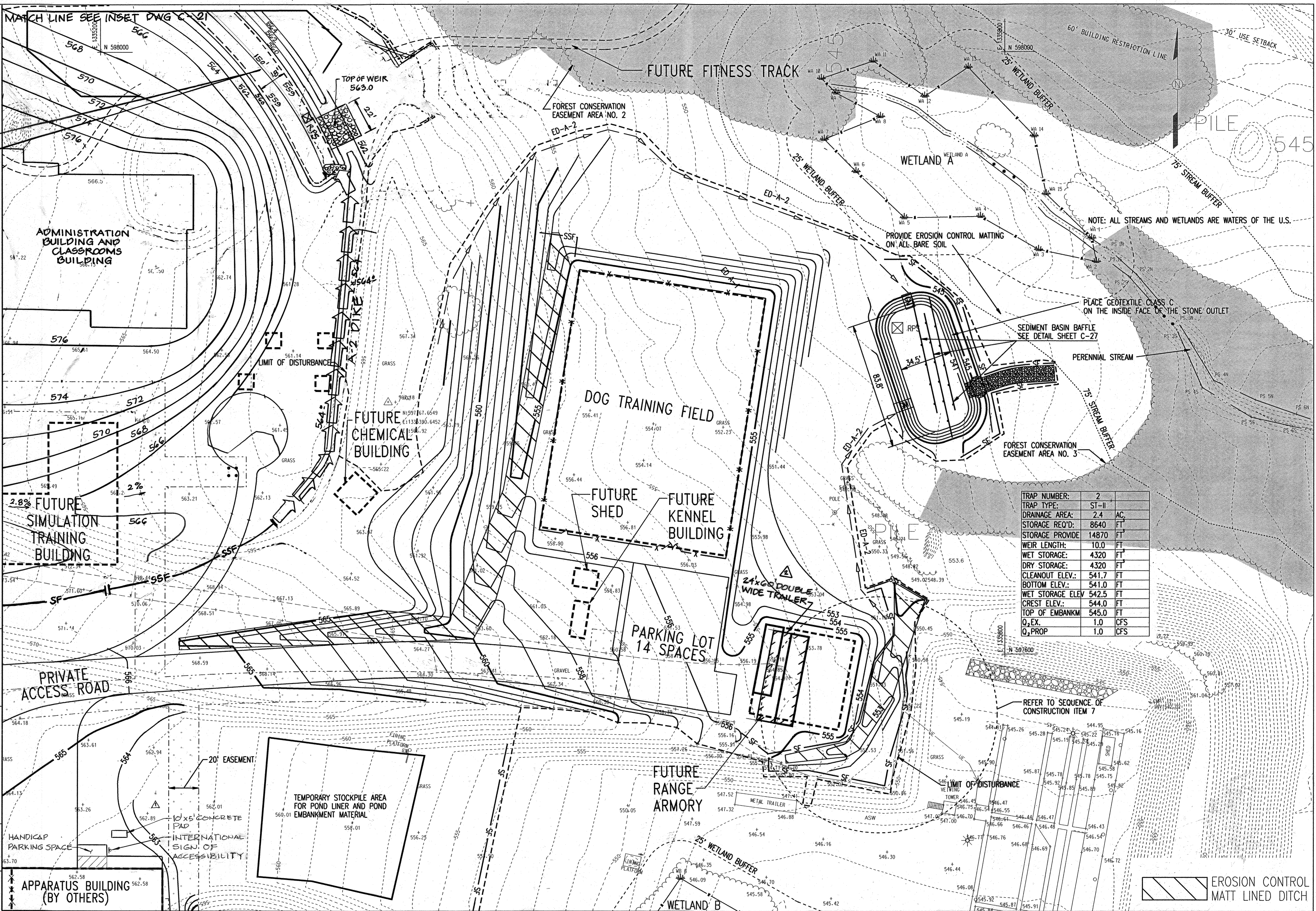


| DES: | C.D. | SRI | REVISED THE ADMIN. / CLASS ROOM BLDG. w/ WALKWAY AND PARKING AREA w/ 3 HANDICAPPED SPACES. | 7/13/05 |
|-------|------------|-----|--|----------|
| DRN: | C.K. | | | |
| CHK: | A.O. | CMD | ADDED 24'X60' DOUBLE WIDE TRAILER | 10/26/04 |
| DATE: | 12/16/2002 | CMD | REMOVE FUTURE, ADD PARKING + 10'X5' CONC PAD | 7/23/04 |
| BY: | NO. | | REVISION | DATE |

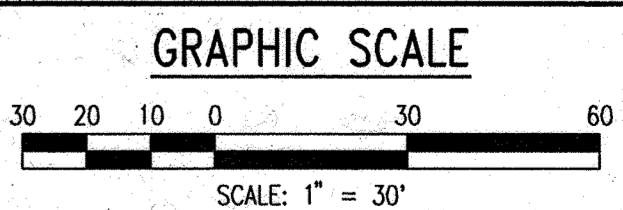
EROSION AND SEDIMENT CONTROL PLAN

600' SCALE MAP NO. 16 BLOCK NO. 2 / 8

PUBLIC SAFETY TRAINING CENTER
AT ALPHA RIDGE LANDFILL
CAPITAL PROJECT NO. C-0182
HOWARD COUNTY, MARYLAND

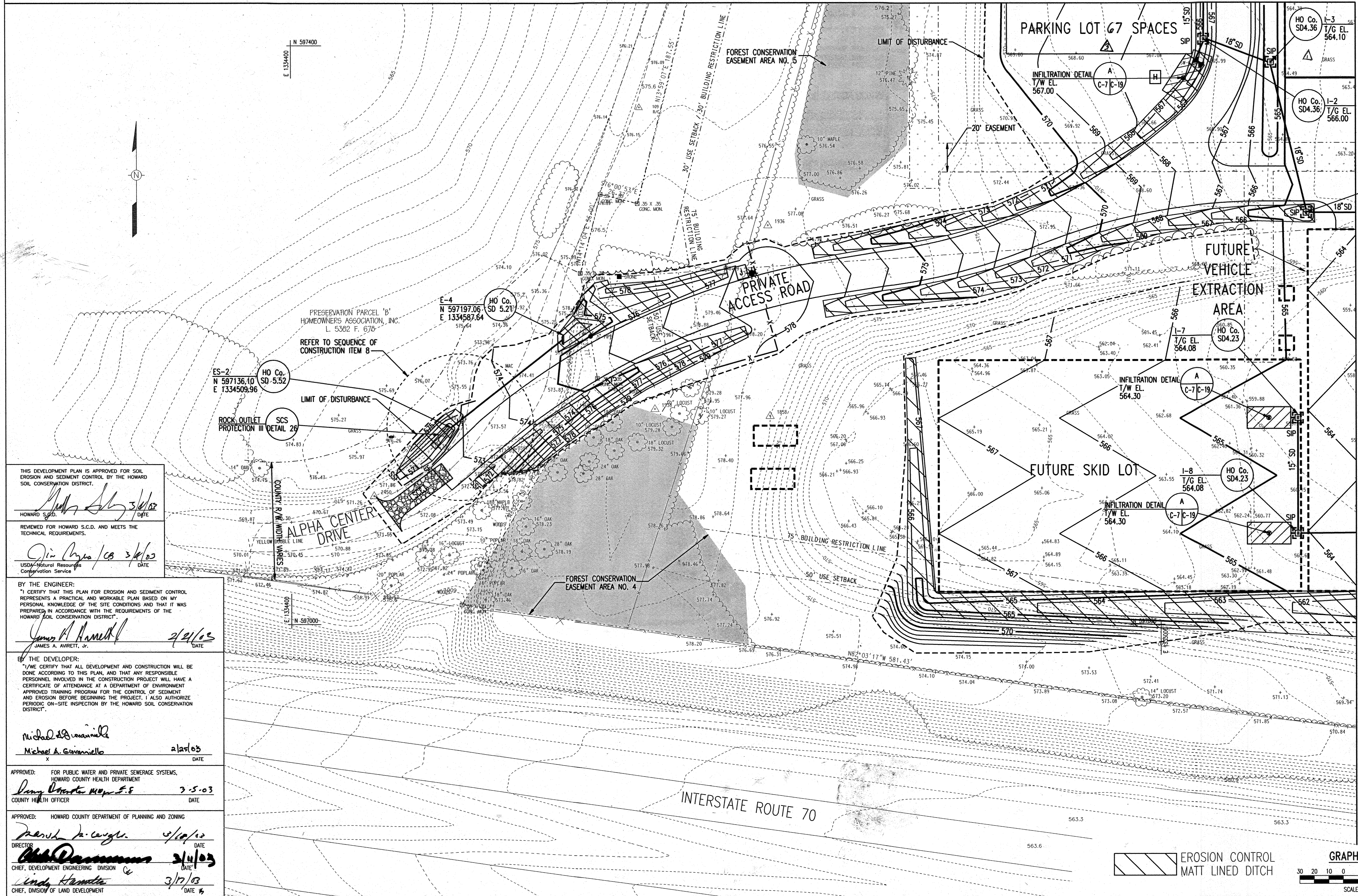


| TRAP NUMBER: | 2 | |
|----------------------|-------|------------------|
| TRAP TYPE: | ST-II | |
| DRAINAGE AREA: | 2.4 | AC. |
| STORAGE REQ'D: | 8640 | Ft. ³ |
| STORAGE PROVIDE: | 14870 | Ft. ³ |
| WEIR LENGTH: | 10.0 | Ft. |
| WET STORAGE: | 4320 | Ft. ³ |
| DRY STORAGE: | 4320 | Ft. ³ |
| CLEANOUT ELEV.: | 541.7 | Ft. |
| BOTTOM ELEV.: | 541.0 | Ft. |
| WET STORAGE ELEV: | 542.5 | Ft. |
| CREST ELEV.: | 544.0 | Ft. |
| TOP OF EMBANKM | 545.0 | Ft. |
| Q ₂ EX. | 1.0 | CFS |
| Q ₂ PROP. | 1.0 | CFS |



C-22
SCALE AS SHOWN
SHEET 24 OF 39

MATCH LINE SEE DWG. C-21



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

Howard S.C.D. 3/1/03 DATE

REVIEWED FOR HOWARD S.C.D. AND MEETS THE TECHNICAL REQUIREMENTS.

Jim Lyons / CS 3/1/03 DATE

USDA - Natural Resources Conservation Service

BY THE ENGINEER:

"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 A. Amrett, Jr. 2/21/03 DATE

JAMES A. AMRETT, JR.

BY THE DEVELOPER:

"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 ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT."

Michael A. Giovanniello 2/25/03 DATE

MICHAEL A. GIOVANNIELLO

APPROVED: FOR PUBLIC WATER AND PRIVATE SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT

Darryl Roberts 2-5-03 DATE

COUNTY HEALTH OFFICER

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

March LaCange 3/10/03 DATE

DIRECTOR

Chris Damann 2/11/03 DATE

CHIEF, DEVELOPMENT ENGINEERING DIVISION

Linda Hanula 3/17/03 DATE

CHIEF, DIVISION OF LAND DEVELOPMENT

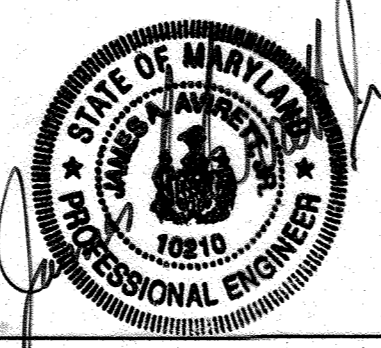
DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

CHIEF, BUREAU OF UTILITIES

PREPARED BY:

WR&A

Whitman, Reardon and Associates, LLP.
801 South Caroline Street,
Baltimore, Maryland, 21231
410-235-3450

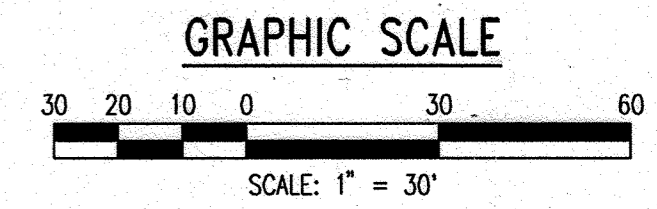


| | | | |
|------------------|-----|----------------------------------|---------|
| DES: C.D. | SRI | REVISED NUMBER OF PARKING SPACES | 7/13/05 |
| DRN: C.K. | | | |
| CHK: A.O. | | | |
| DATE: 12/16/2002 | CMD | REMOVED "FUTURE" LINE SYMBOLS | 7/23/04 |
| BY NO. | | REVISION | DATE |

EROSION AND SEDIMENT CONTROL PLAN

600' SCALE MAP NO. 16 BLOCK NO. 2 / 8

EROSION CONTROL MATT LINED DITCH



PUBLIC SAFETY TRAINING CENTER
AT ALPHA RIDGE LANDFILL
CAPITAL PROJECT NO. C-0182
HOWARD COUNTY, MARYLAND

MATCH LINE SEE DWG. C-24

For Review By Site Resources only

C-23
SCALE AS SHOWN
SHEET 25 OF 39

SEDIMENT CONTROL NOTES

- A MINIMUM OF 24 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY OFFICE OF INSPECTION AND PERMITS PRIOR TO THE START OF ANY CONSTRUCTION (410) 313-1855.
- ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE 1994 MARYLAND STANDARDS AND SPECIFICATION FOR SOIL EROSION AND SEDIMENT CONTROL AND REVISIONS THERETO.
- FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN: A) 7 CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DIKES AND PERIMETER SLOPES AND ALL SLOPES GREATER THAN 3:1, B) 14 DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.
- ALL SEDIMENT TRAPS/BASINS SHOWN MUST BE FENCED AND WARNING SIGNS POSTED AROUND THEIR PERIMETER IN ACCORDANCE WITH VOL. 1, CHAPTER 12, OF THE HOWARD COUNTY DESIGN MANUAL, STORM DRAINAGE.
- ALL DISTURBED AREAS MUST BE STABILIZED WITHIN THE TIME PERIOD SPECIFIED ABOVE IN ACCORDANCE WITH THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR PERMANENT SEEDINGS, SOD, TEMPORARY SEEDINGS AND MULCHING (SEC. G), 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 CONDITIONS UNTIL PERMISSION FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
- SITE ANALYSIS:
 - TOTAL AREA OF SITE = 38.23 ACRES
 - AREA DISTURBED = 15.93 ACRES
 - AREA TO BE ROOFED OR PAVED = 3.74 ACRES
 - AREA TO BE VEGETATIVELY STABILIZED = 11.12 ACRES
 - TOTAL CUT = 21,191 CU. YDS.
 - TOTAL FILL = 17,205 CU. YDS.
 - WASTE/BORROW AREA LOCATION = (3,986 CU.YDS.) AS SHOWN ON SEDIMENT & EROSION CONTROL SHEETS
- ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY.
- ADDITIONAL SEDIMENT CONTROL MUST BE PROVIDED, IF DEEMED NECESSARY BY THE HOWARD COUNTY DPW 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 3 PIPE LENGTHS OR THAT WHICH SHALL BE BACKFILLED AND STABILIZED WITHIN 1 WORKING DAY, WHICHEVER IS SHORTER.

20.0 STANDARDS AND SPECIFICATIONS FOR VEGETATIVE STABILIZATION

Definition
Using vegetation as cover for barren soil to protect it from forces that cause erosion.

Purpose
Vegetative Stabilization specifications are used to promote the establishment of vegetation on exposed soil. When soil is stabilized with vegetation, the soil is less likely to erode and more likely to allow infiltration of rainfall, thereby reducing sediment loads and runoff to downstream areas, and improving wildlife habitat and visual resources.

Conditions Where Practice Applies
This practice shall be used on denuded areas as specified on the plans and may be used on highly erodible or critically eroding areas. This specification is divided into temporary seeding, to quickly establish vegetative cover for short duration (up to one year), and Permanent Seeding, for long term vegetative cover. Examples of applicable areas for Temporary Seeding are temporary soil stockpiles, cleared areas being left idle between construction phases, earth dikes, etc. and for Permanent Seeding are lawns, dams, cut and fill slopes and other areas at final grade, former stockpile and staging areas, etc.

Effects on Water Quality and Quantity
Planting vegetation in disturbed areas will have an effect on the water budget, especially on volumes and rates of runoff, infiltration, evaporation, transpiration, percolation, and groundwater recharge. Vegetation, over time, will increase organic matter content and improve the water holding capacity of the soil and subsequent plant growth.

Vegetation will help reduce the movement of sediment, nutrients, and other chemicals carried by runoff to receiving waters. Plants will also help protect groundwater supplies by assimilating those substances present within the root zone.

Sediment control devices must remain in place during grading, seedbed preparation, seeding, mulching and vegetative establishment to prevent large quantities of sediment and associated chemicals and nutrients from washing into surface waters.

Section I - Vegetative Stabilization Methods and Materials

- A. Site Preparation**
- install erosion and sediment control structures (either temporary or permanent) such as diversions, grade stabilization structures, berms, waterways, or sediment control basins.
 - Perform all grading operations at right angles to the slope. Final grading and shaping is not usually necessary for temporary seeding.
 - Schedule required soil tests to determine soil amendment composition and application rates for sites having disturbed area over 5 acres.

- B. Soil Amendments (Fertilizer and Lime Specifications)**
- Soil tests must be performed to determine the exact ratios and application rates for both lime and fertilizer on sites having disturbed areas over 5 acres. Soil analysis may be performed by the University of Maryland or a recognized commercial laboratory. Soil samples taken for engineering purposes may also be used for chemical analyses.
 - Fertilizers shall be uniform in composition, free flowing and suitable for accurate application by approved equipment. Manure may be substituted for fertilizer with prior approval from the appropriate approval authority. Fertilizers shall all be delivered to the site fully labeled according to the applicable state fertilizer laws and shall bear the name, trade name or trademark and warranty of the producer.
 - Lime materials shall be ground limestone (hydrated or burnt lime may be substituted) which contains at least 50% total oxides (calcium oxide plus magnesium oxide). Limestone shall be ground to such fineness that at least 50% will pass through a #100 mesh sieve and 98 - 100% will pass through a #20 mesh sieve.
 - Incorporate lime and fertilizer into the top 3 - 5" of soil by disking or other suitable means.

- C. Seedbed Preparation**
- Temporary Seeding**
 - Seedbed preparation shall consist of loosening soil to a depth of 3" to 5" by means of suitable agricultural or construction equipment, such as disc harrows or chisel plows or rippers mounted on construction equipment. After the soil is loosened it should not be rolled or dragged smooth but left in the roughened condition. Sloped areas (greater than 3:1) should be tracked leaving the surface in an irregular condition with ridges running parallel to the contour of the slope.
 - Apply fertilizer and lime as prescribed on the plans.
 - Incorporate lime and fertilizer into the top 3 - 5" of soil by disking or other suitable means.

- Permanent Seeding**
 - Minimum soil conditions required for permanent vegetative establishment:
 - Soil pH shall be between 6.0 and 7.0
 - Soluble salts shall be less than 500 parts per million (ppm)
 - The soil shall contain less than 40% clay but enough fine grained material (> 30% silt plus clay) to provide the capacity to hold a moderate amount of moisture. An exception is if lovegrass or serotia lespedeza is to be planted, then a sandy soil (< 30% silt plus clay) would be acceptable.
 - Soil shall contain 1.5% minimum organic matter by weight.
 - Soil must contain sufficient pore space to permit adequate root penetration.
 - If these conditions cannot be met by soils on site, adding topsoil is required in accordance with Section 21 Standard and Specification for Topsoil.

- Areas previously graded in conformance with the drawings shall be maintained in a true and even grade, then scarified or otherwise loosened to a depth of 3 - 5" to permit bonding of the topsoil to the surface area and to create horizontal erosion check slots to prevent topsoil from sliding down a slope.
- Apply soil amendments as per soil test or as included on the plans.
- Mix soil amendments into the top 3 - 5" of topsoil by disking or other suitable means. Lawn areas should be raked to smooth the surface, remove large objects like stones and branches, and ready the area for seed application. Where site conditions will not permit normal seedbed preparation, loosen surface soil by dragging with a heavy chain or other equipment to roughen the surface. Steep slopes (steeper than 3:1) should be tracked by a dozer leaving the soil in an irregular condition with ridges running parallel to the contour of the slope. The top 1 - 3" of soil should be loose and friable. seedbed loosening may not be necessary on newly disturbed areas.

- D. Seed Specifications**
- All seed must meet the requirements of the Maryland Seed Law. All seed shall be subject to re-testing by a recognized seed laboratory. All seed used shall have been tested within the 6 months immediately preceding the date of sowing such material on this job.

Note: Seed tags shall be made available to the inspector to verify type and rate of seed used.

- Inoculant - The inoculant for treating legume seed in the seed mixtures shall be a pure culture of nitrogen-fixing bacteria prepared specifically for the species. Inoculants shall not be used later than the date indicated on the container. Add fresh inoculant as directed on package. Use four times the recommended rate when hydroseeding. Note: It is very important to keep inoculant as cool as possible until used. Temperatures above 75 - 80°F. can weaken bacteria and make the inoculant less effective.

- E. Methods of Seeding**
- Hydroseeding:** Apply seed uniformly with hydroseeder (slurry includes seed and fertilizer), broadcast or drop seeder, or a cultipacker seeder.
 - If fertilizer is being applied at the time of seeding, the application rates amounts will not exceed the following: nitrogen; maximum of 100 lbs. per acre (total of soluble nitrogen; P2O5 (phosphorus): 200 lbs/ac; K2O (potassium): 200 lbs/ac.
 - Lime - use only ground agricultural limestone. (Up to 3 tons per acre may be applied by hydroseeding). Normally, not more than 2 tons are applied by hydroseeding at any one time. Do not use burnt or hydrated lime when hydroseeding.
 - Seed and fertilizer shall be mixed on site and seeding shall be done immediately and without interruption.

- Dry Seeding:** This includes use of conventional drop or broadcast spreaders.
 - Seed spread dry shall be incorporated into the subsoil at the rates prescribed on the temporary or Permanent Seeding Summaries or Tables 25 or 26. The seeded area shall then be rolled with a weighted roller to provide good seed to soil contact.
 - Where practical, seed should be applied in two directions perpendicular to each other. Apply half the seeding rate in each direction.
- Drill or Cultipacker Seeding:** Mechanized seeders that apply and cover seed with soil.
 - Cultipacker seeders are required to bury the seed in such a fashion as to provide at least 1/2 inch of soil covering. Seedbed must be firm after planting.
 - Where practical, seed should be applied in two directions perpendicular to each other. Apply half the seeding rate in each direction.

- F. Mulch Specifications (In order of preference)**
- Straw shall consist of thoroughly threshed wheat, rye or oat straw, reasonably bright in color, and shall not be musty, moldy, caked, decayed, or excessively dusty and shall be free of noxious weed seeds as specified in the Maryland Seed Law.
 - Wood Cellulose Fiber Mulch (WCFM)**
 - WCFM shall consist of specially prepared wood cellulose processed into a uniform fibrous physical state.
 - WCFM shall be dyed green or contain a green dye in the package that will provide an appropriate color to facilitate visual inspection of the uniformly spread slurry.
 - WCFM, including dye, shall contain no germination or growth inhibiting factors.
 - WCFM materials shall be manufactured and processed in such a manner that the wood cellulose fiber mulch will remain in uniform suspension in water under agitation and will blend with seed, fertilizer and other additives to form a homogeneous slurry. The mulch material shall form a blotter-like ground cover, on application, having moisture absorption and percolation properties and shall cover and hold grass seed in contact with the soil without inhibiting the growth of the grass seedlings.
 - WCFM material shall contain no elements or compounds at concentration levels that will be phytotoxic.
 - WCFM must conform to the following physical requirements: fiber length to approximately 10 mm., diameter approximately 1 mm., pH range of 4.0 to 8.5, ash content of 1.6% maximum and water holding capacity of 90% minimum.

Note: Only sterile straw mulch should be used in areas where one species of grass is desired.

- G. Mulching Seeded Areas - Mulch shall be applied to all seeded areas immediately after seeding.**
- If grading is completed outside of the seeding season, mulch alone shall be applied as prescribed in this section and maintained until the seeding season returns and seeding can be performed in accordance with these specifications.
 - When straw mulch is used, it shall be spread over all seedbed areas at the rate of 2 tons/acre. Mulch shall be applied to a uniform loose depth of between 1" and 2". Mulch applied shall achieve a uniform distribution and depth so that the soil surface is not exposed. If a mulch anchoring tool is to be used, the rate should be increased to 2.5 tons/acre.

- Wood cellulose fiber used as a mulch shall be applied at a net dry weight of 1,500 lbs. per acre. The wood cellulose fiber shall be mixed with water, and the mixture shall contain a maximum of 50 lbs. of wood cellulose fiber per 100 gallons of water.
- H. Securing Straw Mulch (Mulch Anchoring):** Mulch anchoring shall be performed immediately following mulch application to minimize loss by wind or water. This may be done by one of the following methods (listed by preference), depending upon size of area and erosion hazard:

- A mulch anchoring tool is a tractor drawn implement designed to punch and anchor mulch into the soil surface a minimum of two (2) inches. This practice is most effective on large areas, but is limited to flatter slopes where equipment can operate safely. If used on sloping land, this practice should be used on the contour if possible.
- Wood cellulose fiber may be used for anchoring straw. The fiber binder shall be applied at a net dry weight of 750 pounds/acre. The wood cellulose fiber shall be mixed with water and the mixture shall contain a maximum of 50 pounds of wood cellulose fiber per 100 gallons of water.
- Application of liquid binders should be heavier at the edges where wind catches mulch, such as in valleys and on crests of banks. The remainder of area should be appear uniform after binder application. Synthetic binders - such as Acrylic DLR (Agro-Lock), DCA-70, Petrosel, Terra Tax II, Terra Lock AS or other approved equal may be used at rates recommended by the manufacturer to anchor mulch.
- Lightweight plastic netting may be stapled over the mulch according to manufacturer's recommendations. Netting is usually available in rolls 4' to 15' feet wide and 300 to 3,000 feet long.

- I. Incremental Stabilization - Cut Slopes**
- All cut slopes shall be dressed, prepared, seeded and mulched as the work progresses. Slopes shall be excavated and stabilized in equal increments not to exceed 15'.
 - Construction sequence (Refer to Figure 4 below):
 - Excavate and stabilize all temporary swales, side ditches, or berms that will be used to convey runoff from the excavation.
 - Perform phase 1 excavation, dress, and stabilize.
 - Perform phase 2 excavation, dress, and stabilize. Overseed phase 1 areas as necessary.
 - Perform final phase excavation, dress, and stabilize. Overseed previously seeded areas as necessary.

Note: Once excavation has begun the operation should be continuous from grubbing through the completion of grading and placement of topsoil (if required) and permanent seed and mulch. Any interruptions in the operation or completing the operation out of the seeding season will necessitate the application of temporary stabilization.

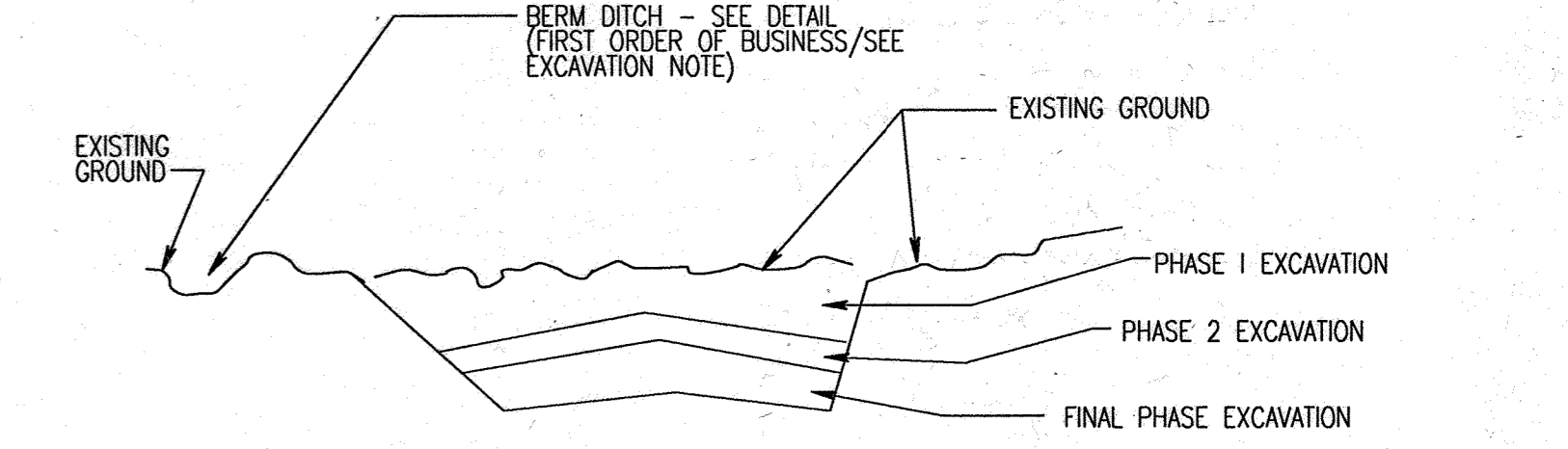


Figure 4 Incremental Stabilization - Cut

- J. Incremental Stabilization of Embankments - File Slopes**
- Embankments shall be constructed in lifts as prescribed on the plans.
 - Slopes shall be stabilized immediately when the vertical height of the multiple lifts reaches 15', or when the grading operation ceases as prescribed in the plans.
 - At the end of each day, temporary berms and pipe slope drains should be constructed along the top edge of the embankment to intercept surface runoff and convey it down the slope in a non-erosive manner to a sediment trapping device.
 - Construction sequence: Refer to Figure 5 (below).

- Excavate and stabilize all temporary swales, side ditches, or berms that will be used to divert runoff around the fill. Construct Slope Silt Fence on low side of fill as shown in Figure 5, unless other methods shown on the plans address this area.
 - Place phase 1 embankment, dress and stabilize.
 - Place phase 2 embankment, dress and stabilize.
 - Place final phase embankment, dress and stabilize. Overseed previously seeded areas as necessary.
- Note:** Once the placement of fill has begun the operation should be continuous from grubbing through the completion of grading and placement of topsoil (if required) and permanent seed and mulch. Any interruptions in the operation or completing the operation out of the seeding season will necessitate the application of temporary stabilization.

APPROVED: FOR PUBLIC WATER AND PRIVATE SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT
 COUNTY HEALTH OFFICER
 DATE: 7/5/03

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
 DATE: 3/10/03

DIRECTOR: DATE: 2/11/03

CHIEF, DEVELOPMENT ENGINEERING DIVISION

CHIEF, DIVISION OF LAND DEVELOPMENT

BY THE DEVELOPER:
 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 ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT.

DATE: 2/10/03

BY THE ENGINEER:
 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.

DATE: 2/21/03

REVIEWED FOR HOWARD S.C.D. AND MEETS THE TECHNICAL REQUIREMENTS.

DATE: 3/4/03

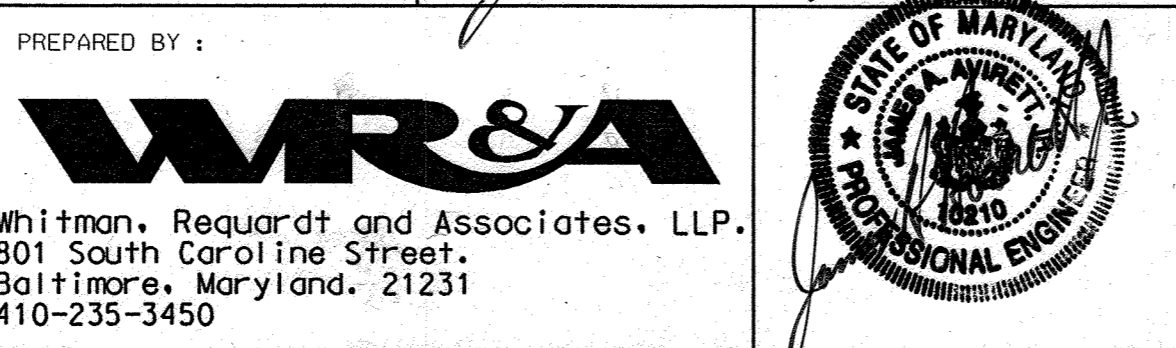
THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.

DATE: 3/4/03

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND

CHIEF, BUREAU OF UTILITIES

PREPARED BY:
WR&A
 Whitman, Requardt and Associates, LLP.
 801 South Caroline Street.
 Baltimore, Maryland, 21231
 410-235-3450



| | | | |
|------------------|--------|----------|------|
| DES: C.D. | BY NO. | REVISION | DATE |
| DRN: C.K. | | | |
| CHK: A.O. | | | |
| DATE: 12/16/2002 | | | |

EROSION AND SEDIMENT CONTROL NOTES

600' SCALE MAP NO. 16 BLOCK NO. 2 / 8

PUBLIC SAFETY TRAINING CENTER
 AT ALPHA RIDGE LANDFILL
 CAPITAL PROJECT NO. C-0182
 HOWARD COUNTY, MARYLAND

C-25

SCALE AS SHOWN

SHEET 27 OF 39

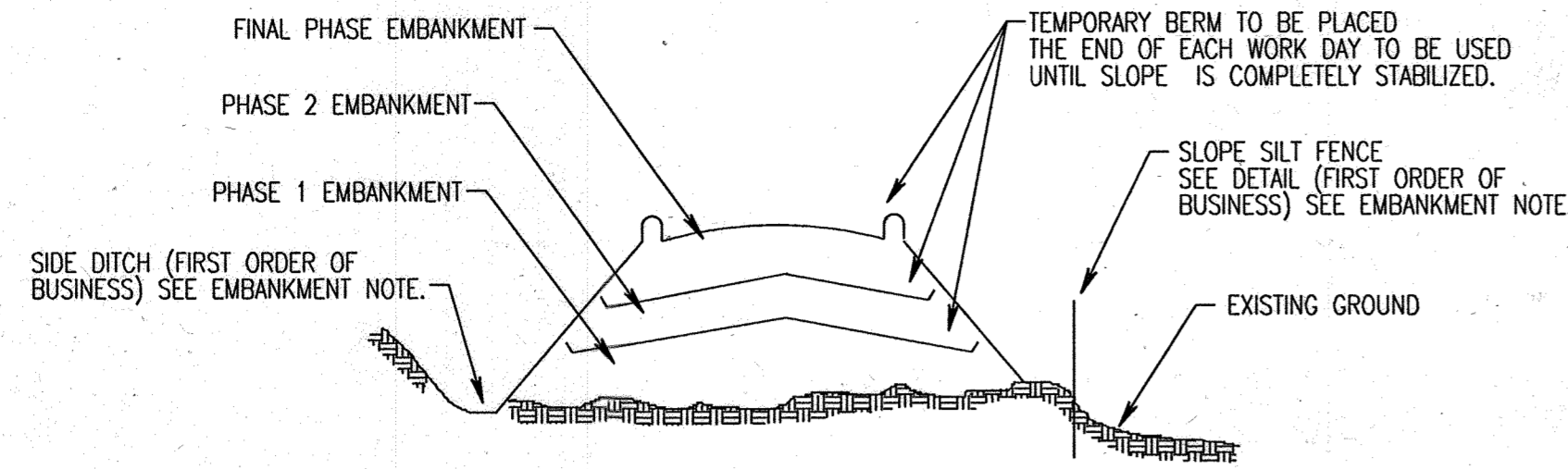


Figure 5. Incremental Stabilization - Fill

Section II - Temporary Seeding

Vegetation - annual grass or grain used to provide cover on disturbed areas for up to 12 months. For longer duration of vegetative cover, Permanent Seeding is required.

A. Seed Mixtures - Temporary Seeding

- i. Select one or more of the species or mixtures listed in Table 26 for the appropriate Plant Hardiness Zone (from Figure 5) and enter them in the Temporary Seeding Summary below, along with application rates, seeding dates and seeding depths. If this Summary is not put on the plans and completed, then Table 26 must be put on the plans.
- ii. For sites having soil tests performed, the rates shown on this table shall be deleted and the rates recommended by the testing agency shall be written in. Soil tests are not required for Temporary Seeding.

TEMPORARY SEEDING SUMMARY

| SEED MIXTURE (HARDINESS ZONE FROM TABLE 26) | | | | | FERTILIZER RATE (10-10-10) | LIME RATE |
|---|-------------------|--------------------------|--------------------------|----------------|------------------------------|------------------------------|
| NO. | SPECIES | APPLICATION RATE (lb/oc) | SEEDING DATES | SEEDING DEPTHS | | |
| 3 | ANNUAL RYEGRASS | 140 | 3/1 - 4/30 5/1 - 8/14 | 1/4" - 1/2" | 600 lb/oc (15 lb/1000 sf) | 1 tons/oc (46 lb/1000 sf) |
| | WEEPING LOVEGRASS | 150 | 5/1 - 8/14 | 1" | | |

Section III: Permanent Seeding

Seeding grass and legumes to establish ground cover for a minimum period of one year on disturbed areas generally receiving low maintenance.

A. Seed Mixtures - Permanent Seeding

- i. Select one or more of the species or mixtures listed in Table 25 for the appropriate Plant Hardiness Zone (from Figure 5) and enter them in the Permanent Seeding Summary below, along with application rates and seeding dates. Seeding depths can be estimated using Table 26. If this summary is not put on the construction plans and completed, then Table 25 must be put on the plans. Additional planting specifications for exceptional sites such as shorelines, streambanks, or dunes or for special purposes such as wildlife or aesthetic treatment may be found in USDA-SCS Technical Field Office Guide, Section 342 - Critical Area Planting. For special low maintenance areas, see Section IV Sod and V Turfgrass.
- ii. For sites having disturbed area over 5 acres, the rates shown on this table shall be deleted and the rates recommended by the soil testing agency shall be written in.
- iii. For areas receiving low maintenance, apply ureaform fertilizer (46-0-0) at 3 1/2 lbs/1000 sq.ft. (150 lbs/oc), in addition to the above soil amendments shown in the table below, to be performed at the time of seeding.

PERMANENT SEEDING SUMMARY

| Seed Mixture (For Hardiness Zone 7A) (From Table 25) | | | | | Fertilizer Rate (10-10-10) | Lime Rate |
|---|--|--------------------------|---------------------------|----------------|----------------------------|-------------------------------|
| NO. | Species | Application Rate (lb/oc) | Seeding Dates | Seeding Depths | | |
| 1 | TALL FESCUE | 60 | 3/1 - 4/30 8/1 - 10/15 | 1/2" | 1,000 lbs/oc | 2 tons/oc (100 lb/1000 sf) |
| 2 | TALL FESCUE 85% WEEPING LOVEGRASS 15% | 60 2 | 5/1 - 7/31 | 1/2" | | |
| 6 | TALL FESCUE | 60 | 10/16 - 2/28 | 1/2" | | |

Table 24 Maintenance fertilization for Permanent Seedings
Use Soil Test Results or Rates Shown Below

| Seeding Mixture | Type | lb/oc | lb/1000 sf | Time | Mowing |
|---|----------------------|------------|-------------|---|--|
| Tall fescue makes up 70% or more of cover | 10-10-10 or 30-10-10 | 500 400 | 11.5 9.2 | Yearly or as needed. Fall | Not closer than 3" if occasional mowing is desired. |
| Crownvetch Sericea Lespedeza Birdsfoot Trefoil | 0-20-0 | 400 | 9.2 | Spring, the year following establishment and every 4-5 years thereafter | Do not mow crownvetch |
| Fairly uniform stand of tall fescue and sericea lespedeza, or birdsfoot trefoil | 50-10-10 | 500 | 11.5 | Fall the year following establishment and every 4-5 years thereafter | Not required, no closer than 4" in the fall after seed has matured. |
| Weeping lovegrass & sericea lespedeza fairly uniform plant distribution. | 5-10-10 | 500 | 11.5 | Spring, the year following establishment and every 3-4 years thereafter | Not required, not closer than 4" in fall after seed has matured. |
| Red & chewing fescue, Kentucky bluegrass, hard fescue mixtures | 20-10-10 | 250 100 | 5.8 2.3 | September, 30 days later December, May 20, June 30, if needed | Mow no closer than 2" for red fescue and K. bluegrass 3" for fescue. |

Section IV - Sod: To provide quick cover on disturbed areas (2:1 grade or flatter).

A. General Specifications

- i. Class of turfgrass sod shall be Maryland or Virginia State Certified or Approved. Sod labels shall be made available to the job foreman and inspector.
- ii. Sod shall be machine cut at a uniform soil thickness of 3/4", plus or minus 1/4", at the time of cutting. Measurement for thickness shall exclude top growth and thatch. Individual pieces of sod shall be cut to the suppliers width and length. Maximum allowable deviation from standard widths and lengths shall be 5 percent. Broken pads and torn or uneven ends will not be acceptable.
- iii. Standard size sections of sod shall be strong enough to support their own weight and retain their size and shape when suspended vertically with a firm grasp on the upper 10 percent of the section.
- iv. Sod shall not be harvested or transplanted when moisture content (excessively dry or wet) may adversely affect its survival.
- v. Sod shall be harvested, delivered, and installed within a period of 36 hours. Sod not transplanted within this period shall be approved by an agronomist or soil scientist prior to its installation.

B. Sod Installation

- i. During periods of excessively high temperature or in areas having dry subsoil, the subsoil shall be lightly irrigated immediately prior to laying the sod.
- ii. The first row of sod shall be laid in a straight line with subsequent rows placed parallel to and tightly wedged against each other. Lateral joints shall be staggered to promote more uniform growth and strength. Ensure that sod is not stretched or overlapped and that all joints are butted tight in order to prevent voids which would cause air drying of the roots.

iii. Wherever possible, sod shall be laid with the long edges parallel to the contour and with staggering joints. Sod shall be rolled and lamped, pegged or otherwise secured to prevent slippage on slopes and to ensure solid contact between sod roots and the underlying soil surface.

iv. Sod shall be watered immediately following rolling or tamping until the underside of the new sod pad and soil surface below the sod are thoroughly wet. The operations of laying, tamping and irrigating for any piece of sod shall be completed within eight hours.

C. Sod Maintenance

- i. In the absence of adequate rainfall, watering shall be performed daily or as often as necessary during the first week and in sufficient quantities to maintain moist soil to a depth of 4". Watering should be done during the heat of the day to prevent wilting.
- ii. After the first week, sod watering is required as necessary to maintain adequate moisture content.
- iii. The first mowing of sod should not be attempted until the sod is firmly rooted. No more than 1/3 of the grass leaf shall be removed by the initial cutting or subsequent cuttings. Grass height shall be maintained between 2" and 3" unless otherwise specified.

SECTION IV - TURFGRASS ESTABLISHMENT

Areas where turfgrass may be desired include lawns, parks, playgrounds, and commercial sites which will receive a medium to high level of maintenance. Areas to receive seed shall be tilled by disking or other approved methods to a depth of 2 to 4 inches, leveled and raked to prepare a proper seedbed. Stones and debris over 1 1/2 inches in diameter shall be removed. The resulting seedbed shall be in such condition that future mowing of grasses will pose no difficulty.

NOTE: Choose certified material. Certified material is the best guarantee of cultivar purity. The certification program of the Maryland Department of Agriculture, Turf and Seed Section, provides a reliable means of consumer protection and assures a pure genetic line.

A. Turfgrass Mixtures

- i. Kentucky Bluegrass - Full sun mixture - For use in areas that receive intensive management. Irrigation required in the areas of central Maryland and eastern shore. Recommended Certified Kentucky Bluegrass Cultivars Seeding Rate: 1.5 to 2.0 pounds/1000 square feet. A minimum of three bluegrass cultivars should be chosen ranging from a minimum of 10% to a maximum of 35% of the mixture by weight.
- ii. Kentucky Bluegrass/Perennial Rye - Full sun mixture - For use in full sun areas where rapid establishment is necessary and when turf will receive medium to intensive management. Certified Perennial Ryegrass Cultivars/Certified Kentucky Bluegrass Seeding rate: 2 pounds mixture/1000 square feet. A minimum of 3 Kentucky Bluegrass Cultivars must be chosen, with each cultivar ranging from 10% to 35% of the mixture by weight.
- iii. Tall Fescue/Kentucky Bluegrass - Full sun mixture - For use in drought prone areas and/or for areas receiving low to medium management in full sun to medium shade. Recommended mixture includes: certified Tall Fescue Cultivars 95 - 100%, certified Kentucky Bluegrass Cultivars 0 - 5%. Seeding rate: 5 to 8 lb/1000 sf. One or more cultivars may be blended.
- iv. Kentucky Bluegrass/Fine Fescue - Shade Mixture - For use in areas with shade in Bluegrass lawns. For establishment in high quality, intensively managed turf area. Mixture includes: certified Kentucky Bluegrass Cultivars 30-40% and certified Fine Fescue and 60-70%. Seeding rate: 1 1/2 - 3 lbs/1000 square feet. A minimum of 3 Kentucky bluegrass cultivars must be chosen, with each cultivar ranging from a minimum of 10% to a maximum of 35% of the mixture by weight.

NOTE: Turfgrass varieties should be selected from those listed in the most current University of Maryland Publication, Agronomy Mimeo #77, "Turfgrass Cultivar Recommendations for Maryland".

B. Ideal times of seeding

Western MD: March 15 - June 1, August 1 - October 1
(Hardiness Zones - 5b, 6a)

Central MD: March 1 - May 15 - October 15
(Hardiness Zone - 6b)

Southern MD, Eastern Shore: March 1 - May 15, August 15 - October 15
(Hardiness Zones - 7a, 7b)

C. Irrigation

If soil moisture is deficient, supply new seedings with adequate water for plant growth (1/2" - 1" every 3 to 4 days depending on soil texture) until they are firmly established. This is especially true when seedings are made late in the planting season, in abnormally dry or hot seasons, or on adverse sites.

D. Repair and Maintenance

Inspect all seeded areas for failures and make necessary repairs, replacements, and reseeding within the planting season.

- i. Once the vegetation is established, the site shall have 95% groundcover to be considered adequately stabilized.
- ii. If the stand provides less than 40% ground coverage, reestablish following original lime, fertilizer, seedbed preparation and seeding recommendations.
- iii. If the stand provides between 40% and 94% ground coverage, overseeding and fertilizing using half of the rates originally applied may be necessary.
- iv. Maintenance fertilizer rates for permanent seedings are shown in Table 24. For lawns and other medium to high maintenance turfgrass areas, refer to the University of Maryland publication "Lawn Care in Maryland" Bulletin No.171.

APPROVED: FOR PUBLIC WATER AND PRIVATE SEWERAGE SYSTEMS,
HOWARD COUNTY HEALTH DEPARTMENT
Deeny Donohue 3/3/03
COUNTY HEALTH OFFICER DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
Marsha DeLoach 3/11/03
DIRECTOR DATE

Andy Damman 3/11/03
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

Andy Khamis 3/12/03
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
CHIEF, BUREAU OF UTILITIES DATE

BY THE DEVELOPER:
"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 ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT."

Michael A. Giovanniello 2/22/03
DATE

BY THE ENGINEER:
"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 A. Avrett, Jr. 2/21/03
DATE

REVIEWED FOR HOWARD S.C.D. AND MEETS THE TECHNICAL REQUIREMENTS.

Jim Meyer 3/11/03
USDA-Natural Resources Conservation Service DATE

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

John S. ... 3/11/03
HOWARD S.C.D. DATE

PREPARED BY:
WR&A
Whitman, Reardon and Associates, LLP.
801 South Caroline Street,
Baltimore, Maryland, 21231
410-235-3450



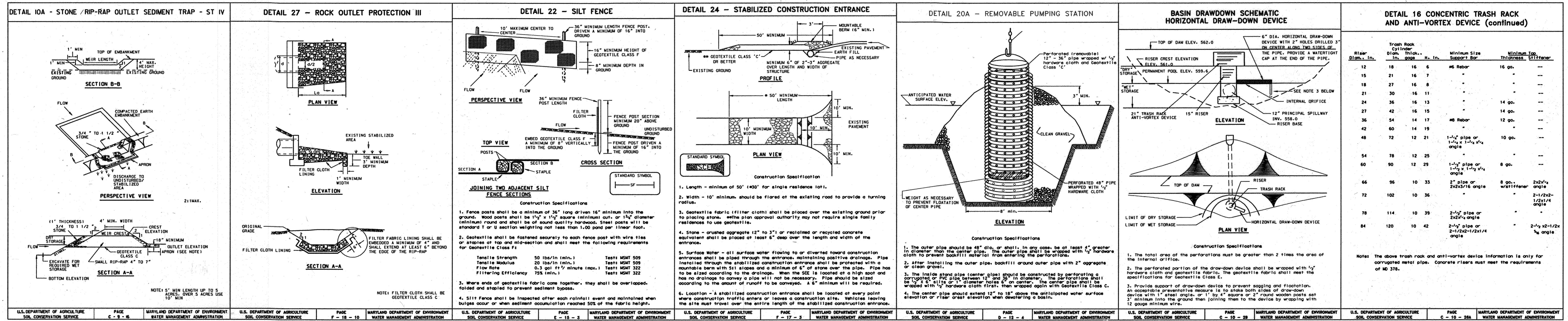
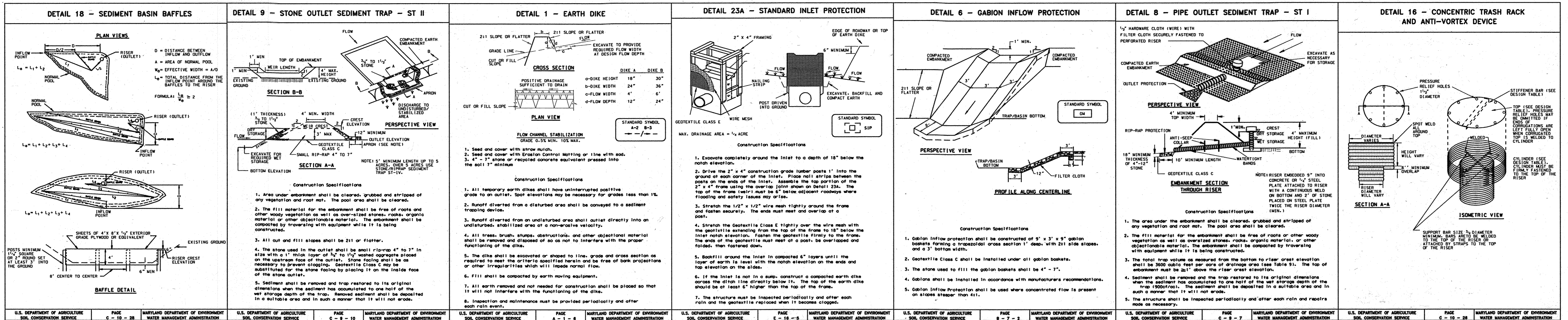
| | | | |
|------------------|--------|----------|------|
| DES: C.D. | BY NO. | REVISION | DATE |
| DRN: C.K. | | | |
| CHK: A.O. | | | |
| DATE: 12/16/2002 | | | |

EROSION AND SEDIMENT CONTROL NOTES

600' SCALE MAP NO. 16 BLOCK NO. 2 / 8

PUBLIC SAFETY TRAINING CENTER
AT ALPHA RIDGE LANDFILL
CAPITAL PROJECT NO. C-0182
HOWARD COUNTY, MARYLAND

C-26
SCALE AS SHOWN
SHEET 28 OF 39



DETAIL 16 - CONCENTRIC TRASH RACK AND ANTI-VORTEX DEVICE (continued)

| Riser Dia., In. | Trash Rack Dia., In. | Trash Rack Dia., In. | Minimum Size | Minimum Spacing | Minimum Spacing |
|-----------------|----------------------|----------------------|--------------|-----------------|-----------------|
| 12 | 18 | 16 | 6 | 16 | 16 |
| 15 | 21 | 16 | 7 | 16 | 16 |
| 18 | 27 | 16 | 8 | 16 | 16 |
| 21 | 30 | 16 | 11 | 16 | 16 |
| 24 | 36 | 16 | 13 | 16 | 16 |
| 27 | 42 | 16 | 15 | 16 | 16 |
| 36 | 54 | 14 | 17 | 16 | 16 |
| 42 | 60 | 14 | 19 | 16 | 16 |
| 48 | 72 | 12 | 21 | 16 | 16 |
| 54 | 78 | 12 | 25 | 16 | 16 |
| 60 | 90 | 12 | 29 | 16 | 16 |
| 66 | 96 | 10 | 33 | 16 | 16 |
| 72 | 102 | 10 | 36 | 16 | 16 |
| 78 | 114 | 10 | 39 | 16 | 16 |
| 84 | 120 | 10 | 42 | 16 | 16 |

Notes: The above trash rack and anti-vortex device information is only for corrugated metal pipe. Concrete risers must meet the requirements of MD 37B.

DUST CONTROL SPECIFICATIONS

- Temporary Methods**
- Mulches - See standards for vegetative stabilization with mulches only. Mulch should be crimped or tacked to prevent blowing.
 - Vegetative Cover - See standards for temporary vegetative cover.
 - Tillage - To roughen surface and bring clods to the surface. This is an emergency measure which should be used before soil blowing starts. Begin plowing on windward side of site. Chisel-type plows spaced about 12" apart, spring-toothed harrows, and similar plows are examples of equipment which may produce the desired effect.
 - Irrigation - This is generally done as an emergency treatment. Site is sprinkled with water until the surface is moist. Repeat as needed. At no time should the site be irrigated to the point that runoff begins to flow.
 - Barriers - Solid board fences, silt fences, snow fences, burlap fences, straw bales, and similar material can be used to control air currents and soil blowing. Barriers placed at right angles to prevailing currents at intervals of about 10 times their height are effective in controlling soil blowing.
 - Calcium Chloride - Apply at rates that keep surface moist. May need treatment.

TEMPORARY DRAW-DOWN DEVICE SPECIFICATIONS

| ITEM | TRAP 3 |
|-------------------------|--------------------|
| TOP OF DAM ELEV. | 560.0 |
| RISER CREST ELEV. | 557.0 |
| PERMANENT POOL ELEV. | 557.0 |
| DRAWDOWN INV. | NO DRAWDOWN DEVICE |
| PRINCIPAL SPILLWAY INV. | 555.0 |
| PRINCIPAL SPILLWAY DIA. | 12" |
| DRAWDOWN DIA. | NO DRAWDOWN DEVICE |
| RISER DIA. | 15" |
| TRASH RACK DIA. | 21" |
| LENGTH OF DRAWDOWN | NO DRAWDOWN DEVICE |

APPROVED: FOR PUBLIC WATER AND PRIVATE SEWERAGE SYSTEMS,
HOWARD COUNTY HEALTH DEPARTMENT
Darryl Monte 3-5-03
COUNTY HEALTH OFFICER DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
Masha McLaughlin 3/10/03
DIRECTOR DATE

W. D. ... 3/10/03
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

Sandy ... 3/17/03
CHIEF, DIVISION OF LAND DEVELOPMENT DATE



DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

CHIEF, BUREAU OF UTILITIES DATE

PREPARED BY:
WR&A
Whitman, Reardon and Associates, LLP.
801 South Caroline Street,
Baltimore, Maryland, 21231
410-235-3450



DES: C.D. SRI
DRN: C.K.
CHK: A.O.
DATE: 12/16/2002

REVISED THE ADMIN./CLERK ROOM BLDG. W/ WALKWAY AND PARKING AREA W/3 HANDICAPPED SPACES. 7/13/03

BY NO. REVISION DATE 600' SCALE MAP NO. 16 BLOCK NO. 2 / 8

EROSION AND SEDIMENT CONTROL DETAILS

PUBLIC SAFETY TRAINING CENTER
AT ALPHA RIDGE LANDFILL
CAPITAL PROJECT NO. C-0182
HOWARD COUNTY, MARYLAND

| STUDY AREA 1A | |
|----------------------------------|----------------|
| TOTAL DRAINAGE AREA | 2.16 ac |
| PROPOSED IMPERVIOUS AREA | 0.53 ac |
| WV | 212.2 cf |
| Rev (PERCENT AREA METHOD) | 552 cfs |
| CPV (NOT REQUIRED IF Q1<2.0 CFS) | 0.34 cfs (SP1) |
| Op | n/a |
| Of | n/a |
| GRASS CHANNEL CREDIT | |
| ROOFTOP AREA | 0.53 ac |
| CHANNEL BOTTOM WIDTH | 8 ft |
| CHANNEL SLOPE | 2.20% |
| SIDE SLOPE | 12:1 |
| 1" RAINFALL STORM MAX VELOCITY | 0.73 fps |
| 10-YEAR STORM VELOCITY | 1.78 fps |
| MEETS WV AND Rev REQUIREMENT | |

| STUDY AREA 1B | |
|--|----------------|
| TOTAL DRAINAGE AREA | 2.28 ac |
| PROPOSED IMPERVIOUS AREA | 0.41 ac |
| WV | 173.8 cf |
| Rev (PERCENT AREA METHOD) | 451 cfs |
| CPV (NOT REQUIRED IF Q1<2.0 CFS) | 0.36 cfs (SP1) |
| Op | n/a |
| Of | n/a |
| GRASS CHANNEL CREDIT | |
| ROOFTOP AREA | 0.39 ac |
| CHANNEL BOTTOM WIDTH | 8 ft |
| CHANNEL SLOPE | 2.00% |
| SIDE SLOPE | 12:1 |
| 1" RAINFALL STORM MAX VELOCITY | 1.2 fps |
| 10-YEAR STORM VELOCITY | 1.99 fps |
| NONROOFTOP DISCONNECTION CREDIT | |
| PARKING AREA | 0.18 ac |
| SHEET FLOW TO CHANNEL | 75 ft |
| LENGTH OF PAVEMENT TO CHANNEL | 75 ft |
| MAXIMUM SLOPE | 3.1% |
| LENGTH OF DISCONNECTION | 325 ft |
| DISCONNECTION DRAINS CONTINUOUSLY THROUGH VEGETATED SWALE TO PROPERTY LINE | |
| MEETS WV AND Rev REQUIREMENT | |

| STUDY AREA 1C | |
|----------------------------------|----------------|
| TOTAL DRAINAGE AREA | 0.73 ac |
| PROPOSED IMPERVIOUS AREA | 0.0 ac |
| PROPOSED IMPERVIOUS ROOF AREA | 0.0 ac |
| WV | cf |
| Rev (PERCENT AREA METHOD) | 1.98 cfs (SP1) |
| CPV (NOT REQUIRED IF Q1<2.0 CFS) | n/a |
| Op | n/a |
| Of | n/a |

| STUDY AREA 2 | |
|----------------------------------|-----------|
| TOTAL DRAINAGE AREA | 2.15 ac |
| PROPOSED IMPERVIOUS AREA | 0.195 ac |
| PROPOSED IMPERVIOUS ROOF AREA | 0.0 ac |
| WV | 1.370 cf |
| Rev (PERCENT AREA METHOD) | 0.095 cfs |
| CPV (NOT REQUIRED IF Q1<2.0 CFS) | 1.370 cfs |
| Op | 0.078 cfs |
| Of | 1.03 cfs |
| MEETS WV AND Rev REQUIREMENT | |

| NONROOFTOP DISCONNECTION CREDIT | |
|--|--------|
| ROAD | |
| SHEET FLOW TO CHANNEL | 95 ft |
| LENGTH OF PAVEMENT TO CHANNEL | 3.1% |
| MAXIMUM SLOPE | 800 ft |
| LENGTH OF DISCONNECTION TO SP2 | |
| DISCONNECTION DRAINS CONTINUOUSLY THROUGH VEGETATED SWALE TO PROPERTY LINE | |
| MEETS WV AND Rev REQUIREMENT | |

| NONROOFTOP DISCONNECTION CREDIT | |
|--|--------|
| ROAD | |
| SHEET FLOW TO CHANNEL | 55 ft |
| LENGTH OF PAVEMENT TO CHANNEL | 3.1% |
| MAXIMUM SLOPE | 800 ft |
| LENGTH OF DISCONNECTION TO SP2 | |
| DISCONNECTION DRAINS CONTINUOUSLY THROUGH VEGETATED SWALE TO PROPERTY LINE | |
| MEETS WV AND Rev REQUIREMENT | |

LEGEND

- PROPOSED DRAINAGE DIVIDE
- TIME OF CONCENTRATION
- SOILS DIVIDE

| STUDY AREA 7 | |
|----------------------------------|------------|
| TOTAL DRAINAGE AREA | 0.10 ac |
| PROPOSED IMPERVIOUS AREA | 0.044 ac |
| WV | 162 cf |
| Rev (PERCENT AREA METHOD) | 0.0114 cfs |
| CPV (NOT REQUIRED IF Q1<2.0 CFS) | 0.16 cfs |
| Op | n/a |
| Of | n/a |
| GRASS CHANNEL CREDIT | |
| ROAD (SOUTH SIDE) | |
| SHEET FLOW TO CHANNEL | 3 ft |
| CHANNEL WIDTH | 3 ft |
| SIDE SLOPE | 3:1 |
| CHANNEL SLOPE | 2.3% |
| WATER QUALITY STORM DISCHARGE | 0.62 cfs |
| VELOCITY (WATER QUALITY) | 0.89 fps |
| Q10 | 0.52 cfs |
| V10 (non erosive) | 1.4 fps |

INSET SCALE: 1"=30'

SOILS LEGEND

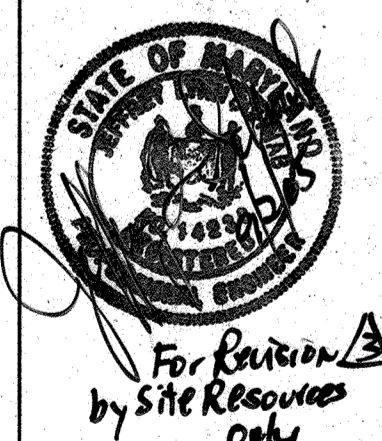
- CgC2 - CHESTER GRAVELLY SILT LOAM - 8-15% SLOPES (HSG B)
- CgB2 - CHESTER GRAVELLY SILT LOAM, 3-8% SLOPES (HSG B)
- ChB2 - CHESTER SILT LOAM, 3-8% SLOPES (HSG B)
- GnB2 - BLENNVILLE SILT LOAM, 3-8% SLOPES (HSG C)

| STUDY AREA 8 | |
|----------------------------------|------------|
| TOTAL DRAINAGE AREA | 3.98 ac |
| PROPOSED ROOF AREA | 0.145 ac |
| PROPOSED PAVEMENT AREA | 0.106 ac |
| WV | 1542 cf |
| Rev (PERCENT AREA METHOD) | 0.0653 cfs |
| CPV (NOT REQUIRED IF Q1<2.0 CFS) | 1.65 cfs |
| Op | n/a |
| Of | n/a |

| STUDY AREA 5 | |
|--------------------------|-------------|
| TOTAL DRAINAGE AREA | 8.39 ac |
| PROPOSED IMPERVIOUS AREA | 4.22 ac |
| WV | 0.35 ac-ft |
| CPV | 0.404 ac-ft |
| Op | n/a |
| Of | n/a |
| P-5 POCKET POND | |
| CPV ELEVATION | 557.23 |
| WET POOL ELEVATION | 555.0 |
| WV PROVIDED | 0.373 ac-ft |
| POND BOTTOM | 551.5 |
| 2-YEAR WSEL | 557.36 |
| 10-YEAR WSEL | 557.82 |
| 100-YEAR WSEL | 558.08 |
| SPILLWAY ELEV | 557.30 |

| STUDY AREA 6 | |
|----------------------------------|------------|
| TOTAL DRAINAGE AREA | 0.34 ac |
| PROPOSED IMPERVIOUS AREA | 0.07 ac |
| WV | 290 cf |
| Rev (PERCENT AREA METHOD) | 0.0182 cfs |
| CPV (NOT REQUIRED IF Q1<2.0 CFS) | 0.22 cfs |
| Op | n/a |
| Of | n/a |
| GRASS CHANNEL CREDIT | |
| ROAD (SOUTH SIDE) | |
| SHEET FLOW TO CHANNEL | 3 ft |
| CHANNEL WIDTH | 3 ft |
| SIDE SLOPE | 3:1 |
| CHANNEL SLOPE | 2.3% |
| WATER QUALITY STORM DISCHARGE | 0.12 cfs |
| VELOCITY (WATER QUALITY) | 0.89 fps |
| Q10 | 1.36 cfs |
| V10 (non erosive) | 2.0 fps |

| STUDY AREA 5 | |
|--------------------------|-------------|
| TOTAL DRAINAGE AREA | 8.39 ac |
| PROPOSED IMPERVIOUS AREA | 4.22 ac |
| WV | 0.35 ac-ft |
| CPV | 0.404 ac-ft |
| Op | n/a |
| Of | n/a |
| P-5 POCKET POND | |
| CPV ELEVATION | 557.23 |
| WET POOL ELEVATION | 555.0 |
| WV PROVIDED | 0.373 ac-ft |
| POND BOTTOM | 551.5 |
| 2-YEAR WSEL | 557.36 |
| 10-YEAR WSEL | 557.82 |
| 100-YEAR WSEL | 558.08 |
| SPILLWAY ELEV | 557.30 |



APPROVED: FOR PUBLIC WATER AND PRIVATE SEWERAGE SYSTEMS,
HOWARD COUNTY HEALTH DEPARTMENT
Perry Monte 3/5/03
COUNTY HEALTH OFFICER DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
March J. Lough 3/18/03
DIRECTOR DATE

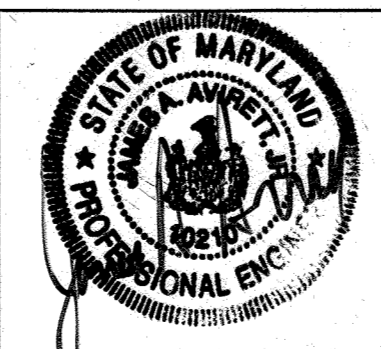
Chris Dammann 3/11/03
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

Cindy Kanich 3/17/03
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

CHIEF, BUREAU OF UTILITIES DATE

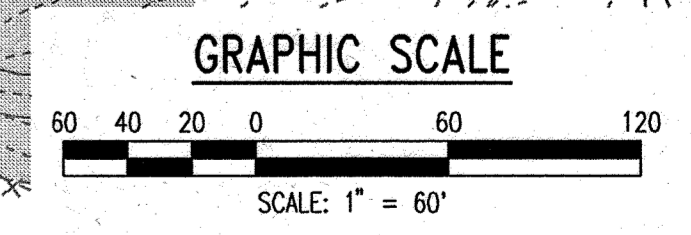
PREPARED BY:
WR&A
Whitman, Reardon and Associates, LLP.
801 South Caroline Street,
Baltimore, Maryland, 21231
410-235-3450



| | | | | | |
|-------|------------|--------------------|--|-----------|-------|
| DES: | C.D. | SR1 | REVISED THE ADMIN/CLASS ROOM BLDG. W/ WALKWAY AND PARKING AREA W/ 3 HANDICAPPED SPACES | 7/13/05 | |
| DRN: | C.K. | SR1 | REVISED NUMBER OF PARKING SPACES | 7/13/05 | |
| CHK: | A.O. | | | | |
| DATE: | 12/16/2002 | CMD | ADDED 24'X60' DOUBLE WIDE TRAILER REMOVED OFFICE TRAILER | 10/26/04 | |
| BY: | | NO. | | REVISION | |
| DATE: | | 600' SCALE MAP NO. | 16 | BLOCK NO. | 2 / 8 |

DRAINAGE AREA MAP

PUBLIC SAFETY TRAINING CENTER
AT ALPHA RIDGE LANDFILL
CAPITAL PROJECT NO. C-0182
HOWARD COUNTY, MARYLAND



C-28
SCALE AS SHOWN
SHEET 30 OF 39

Forest Stand Narrative

FS1-FS1 is a Maple and Oak stand. The stand is the largest associated stand and the onsite portions are approximately 4.6 acres of a much larger stand. The onsite canopy species include Red Oak, Red Maple, Black Oak and Tulip Poplar. This stand contains some large maple trees including a 36 inch dbh Red Maple. The understory is shrubby and viney and dense. Species include Greenbrier, Multiflora Rose, Poison Ivy, Japanese Honeysuckle and grape. One of two separate stream branches run through each of the two onsite portions of FS1. The stream branch running through the southern, onsite portion of FS1 is dry. The stream branch running through the northern, onsite portion of FS1 is a perennial tributary of the Little Patuxent River. The canopy is approximately 70 to 90 percent closed. The portion of the stand, which is located directly behind the onsite gun/shooting range, was not accessible at the time of inspection. No disturbance to this area is proposed. This onsite portions of this stand are of moderately good structure and habitat value.

The adjacent treeline running along Interstate Route 70 is a stand of Tree of Heaven.

Trees Indicated on FSD Map
 Specimen Tree: 36" Red Maple
 Large Trees: 28" Red Maple
 28" Red Maple
 28" Red Maple

FS2-FS2 is a Red Maple stand. The canopy species include Red Maple, Red Oak, Tulip Poplar and a few American Elm trees. In some areas of the stand Red Maple is the only canopy species. The canopy is approximately 90 percent closed in the western portion of the stand and is as low as 65 percent closed in the eastern portion of the stand. The eastern portion of the stand is in closer proximity to Wetland A. The shrub layer consists of Multiflora Rose which is concentrated in the eastern portion of the stand. The dominant herbaceous species consist of Poison Ivy, Virginia Creeper and Japanese Honeysuckle. Groundcover is at approximately 70 percent. This stand has moderately good forest structure, but has limited habitat value due to it's small size and disconnection from FS1. A corridor linking FS1 and FS2 would improve the value.

Trees Indicated on FSD Map
 Specimen Trees: 33" Tulip Poplar
 35" White Oak

FS3-FS3 is a disturbed, low quality stand of Tree of Heaven. Some Tulip Poplar, Red Maple, Black Cherry and Red Oak are also growing in this stand. This stand has been subject to much disturbance from Interstate Route 70, the unnamed access road, and the clearing and grading of the site.

Tree Stands

The tree rows adjacent to and buffering the unnamed access road consist of Red Maple, White Pine, Tree of Heaven, and some Red Oak and Huckleberry. Multiflora Rose and Honeysuckle are growing here as well.

The tree stands on the inside of the site consist primarily of Tree of Heaven.

LEGEND

- LARGE TREE
- SPECIMEN TREE
- EXISTING TREELINE
- FS1** FOREST STAND LABEL
- OPEN FIELD
- HEDGE
- WETLAND
- 25' WETLAND BUFFER
- STREAM
- STREAM BUFFER
- CgC2** SOIL TYPE
- SOIL BOUNDARY
- SITE LIMITS / PROPERTY LINE
- EX. FOREST

APPROVED: FOR PUBLIC WATER AND PRIVATE SEWERAGE SYSTEMS,
 HOWARD COUNTY HEALTH DEPARTMENT
Dany Bonde 3-5-03
 COUNTY HEALTH OFFICER DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
Mark DeLuca 3/10/03
 DIRECTOR DATE

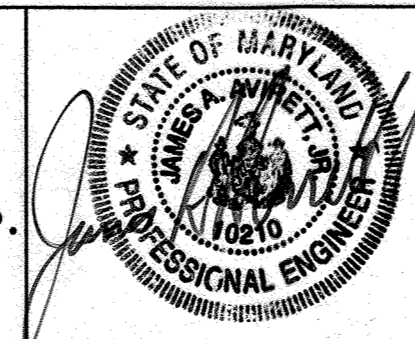
John DeLuca 3/10/03
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

Andy Krasner 3/12/03
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND

CHIEF, BUREAU OF UTILITIES DATE

PREPARED BY:
WR&A
 Whitman, Reardon and Associates, LLP.
 801 South Caroline Street,
 Baltimore, Maryland, 21231
 410-235-3450



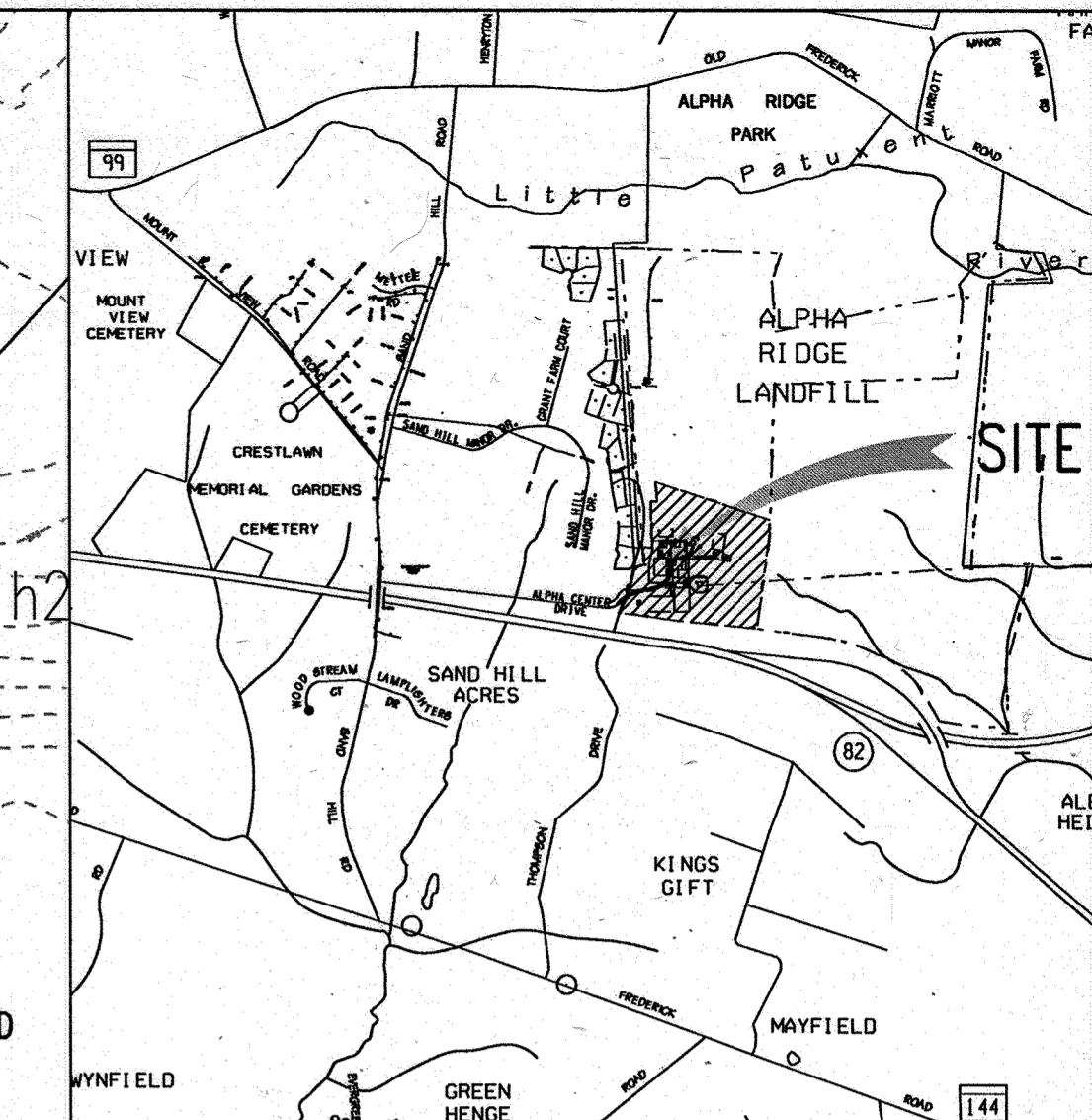
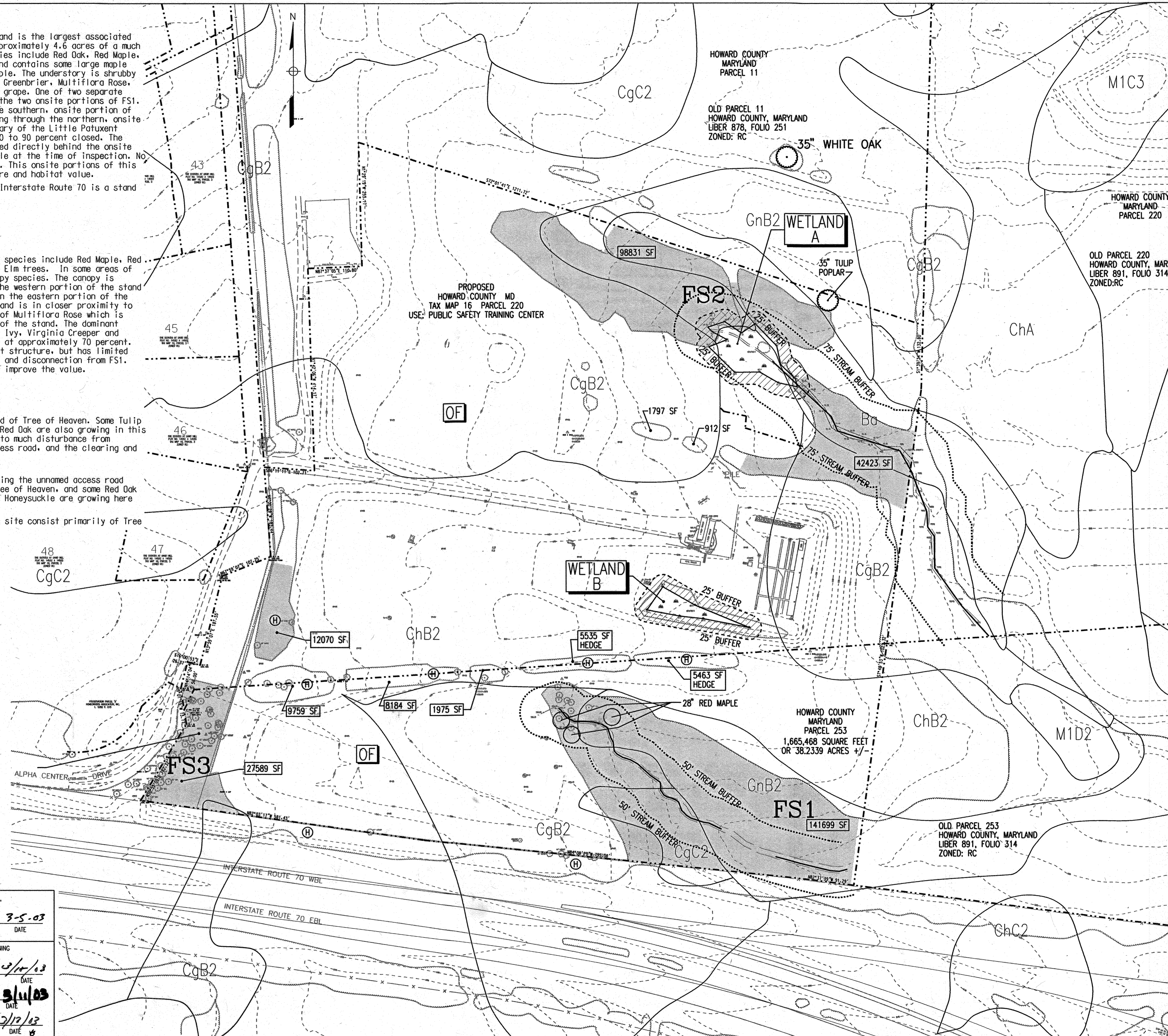
| | | | | | |
|-------|--------|----------|------|--------------------|-------|
| DES: | S.H.B. | | | | |
| DRN: | P.L.B. | | | | |
| CHK: | S.H.B. | | | | |
| DATE: | | | | | |
| BY | NO. | REVISION | DATE | 600' SCALE MAP NO. | 16 |
| | | | | BLOCK NO. | 2 / 8 |

FOREST STAND DELINEATION

PUBLIC SAFETY TRAINING CENTER
 AT ALPHA RIDGE LANDFILL
 CAPITAL PROJECT NO. C-0182
 HOWARD COUNTY, MARYLAND

SDP-03-36

M:\3490\cstoc23.dgn
 Thu Feb 20 15:44:32 2003



VICINITY MAP
 SCALE: 1"=2000'

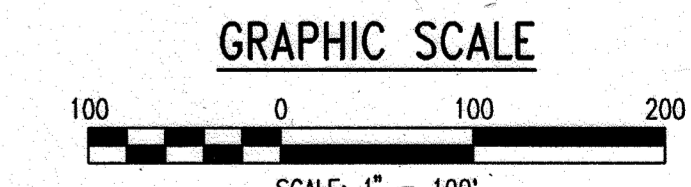
BASE DATA

| | |
|--|----------|
| A. GROSS TRACT AREA | 38.23 ac |
| B. FLOOD PLAIN | 0 ac |
| C. NET TRACT AREA | 38.23 ac |
| D. EXISTING FOREST COVER | 7.41 ac |
| E. AFFORESTATION THRESHOLD 15% | 5.73 ac |
| F. REFORESTATION THRESHOLD 20% | 7.65 ac |
| G. AREA OF FOREST ABOVE AFFORESTATION THRESHOLD | 1.68 ac |
| H. AREA OF FOREST ABOVE CONSERVATION THRESHOLD | 0.00 ac |
| I. FOREST RETENTION ABOVE THRESHOLD WITH NO MITIGATION | 0.00 ac |
| J. CLEARING PERMITTED WITHOUT MITIGATION | 0.00 ac |

SOILS

| | |
|------|---|
| BA | BAILE SILT LOAM. NEARLY LEVEL IN UPLAND DEPRESSIONS. POORLY DRAINED |
| CHA | CHESTER SILT LOAM. 0 TO 3 PERCENT SLOPES. WELL DRAINED. |
| CGB2 | CHESTER GRAVELLY SILT LOAM. 3 TO 8 PERCENT SLOPES, MODERATELY ERODED. WELL DRAINED. |
| CGC2 | CHESTER GRAVELLY SILT LOAM. 8 TO 15 PERCENT SLOPES, MODERATELY ERODED. WELL DRAINED. |
| CHB2 | CHESTER SILT LOAM. 3 TO 8 PERCENT SLOPES, MODERATELY ERODED. WELL DRAINED. |
| GNB2 | GLENVILLE SILT LOAM. 3 TO 8 PERCENT SLOPES, MODERATELY ERODED. MODERATELY WELL DRAINED. |
| MLD2 | MANOR LOAM. 15 TO 25 PERCENT SLOPES, MODERATELY ERODED. WELL DRAINED TO SOMEWHAT EXCESSIVELY DRAINED. |

PREPARED BY: SHERYL H. BERNARDO
 STATE OF MARYLAND
 LICENSED LANDSCAPE ARCHITECT
 LICENSE REGISTRATION NO. 3127
Sheryl Bernardo 2/21/03
 NAME DATE



C-29

SCALE AS SHOWN

SHEET 31 OF 39

APPENDIX C
FOREST STAND ANALYSIS TABLE

| Applicant: | | Project Name: | | | | Submission No.: | | | | |
|---------------------------|----------|-----------------------|---|-------------------------------|--------------------------------|---|--------------------------|-----------|----------------------------------|---|
| A. TYPE OF COMMUNITY | B. AREA* | C. SOIL INFORMATION** | | | | D. EXISTING VEGETATION (DOMINANT SPECIES AND APPROX. %) | E. STAND CHARACTERISTICS | | | F. FOREST AREA IN SENSITIVE ENVIRONMENTS* (ACRES) |
| | | 1. SOIL TYPES | 2. TYPICAL FOREST COVER FOR SOIL TYPE* | 3. WOODLAND SUITABILITY INDEX | 4. HABITAT VALUE FOR SOIL TYPE | | 1. SIZE (DIA.) | 2. AGE | 3. GENERAL CONDITIONS | |
| FS-1, WETLAND B AND H 1-4 | 3.26 ac | gnB2 | water tolerant hardwoods | Good | 1 (WELL SUITED) | Maple / Oak Stand | 26"-38" dbh large trees | 25-50 yrs | Moderate - good forest structure | Greater than 5,000 s.f. |
| | | CgC2 | oaks and other upland hardwoods | Good | 1 | | | | | |
| | | MID2 | Mixed upland hardwoods, mainly oaks, Virginia Pine has invaded some areas | Good | 1 | | | | | |
| | | CgB2 | oaks to other upland hardwoods | Good | 1 | | | | | |
| FS-2, WETLAND A | 3.24 ac | GnB2 | water tolerant hardwoods | Good | 1 | Red Maple Stand | 33"-35" dbh large trees | 25-50 yrs | Moderate - good forest structure | Greater than 5,000 s.f. |
| | | ChA | oaks to other upland hardwoods | Good | 1 | | | | | |
| | | CgB2 | oaks to other upland hardwoods | Good | 1 | | | | | |
| | | CgC2 | oaks to other upland hardwoods | Good | 1 | | | | | |
| FS-3, H 5-7 | 0.91 ac | ChB2 | oaks to other upland hardwoods | Good | 1 | Tulip - Tree of Heaven | 12"-30" dbh large trees | 25-50 yrs | Disturbed low quality forest | 0 |
| | | ChB2 | oaks to other upland hardwoods | Good | 1 | | | | | |

* Area measured to the nearest 1/10 acre
** Source: Howard County Soil Survey. USDA

APPROVED: FOR PUBLIC WATER AND PRIVATE SEWERAGE SYSTEMS,
HOWARD COUNTY HEALTH DEPARTMENT

Rory Donohue M.D., F.A.C.P. 3-5-03
COUNTY HEALTH OFFICER DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Frank Z. Leight 2/18/03
DIRECTOR DATE

Chris Dammon 2/11/03
CHIEF, DEVELOPMENT ENGINEERING DIVISION CE DATE

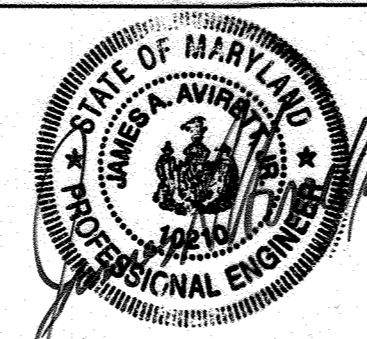
Chris Hamrick 2/12/03
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

CHIEF, BUREAU OF UTILITIES DATE

PREPARED BY:

WR&A
Whitman, Reardon and Associates, LLP.
801 South Caroline Street,
Baltimore, Maryland, 21231
410-235-3450



DES: S.H.B.

DRN: P.L.B.

CHK: S.H.B.

DATE:

BY NO. REVISION DATE

FOREST STAND DELINEATION
ANALYSIS TABLE

600' SCALE MAP NO. 16 BLOCK NO. 2 / 8

PUBLIC SAFETY TRAINING CENTER
AT ALPHA RIDGE LANDFILL
CAPITAL PROJECT NO. C-0182
HOWARD COUNTY, MARYLAND

C-30

SCALE AS SHOWN

SHEET 32 OF 39

Forest Stand Narrative

FS1-3.26 ac. FS1 is a Maple and Oak stand. The stand is the largest associated stand and the onsite portions are approximately 4.6 acres of a much larger stand. The onsite canopy species include Red Oak, Red Maple, Black Oak and Tulip Poplar. This stand contains some large maple trees including a 36 inch dbh Red Maple. The understory is shrubby and viney and dense. Species include Greenbrier, Multiflora Rose, Poison Ivy, Japanese Honeysuckle and grape. One of two separate stream branches run through each of the two onsite portions of FS1. The stream branch running through the southern onsite portion of FS1 is dry. The stream branch running through the northern onsite portion of FS1 is a perennial tributary of the Little Patuxent River. The canopy is approximately 70 to 90 percent closed. The portion of the stand, which is located directly behind the onsite gun/shooting range, was not accessible at the time of inspection. No disturbance to this area is proposed. This onsite portions of this stand are of moderately good structure and habitat value.

The adjacent tree line running along Interstate Route 70 is a stand of Tree of Heaven.

Trees Indicated on FSD Map
 Specimen Tree: 36" Red Maple
 Large Trees: 28" Red Maple
 28" Red Maple
 28" Red Maple

FS2-3.24 ac. FS2 is a Red Maple stand. The canopy species include Red Maple, Red Oak, Tulip Poplar and a few American Elm trees. In some areas of the stand Red Maple is the only canopy species. The canopy is approximately 90 percent closed in the western portion of the stand and is as low as 65 percent closed in the eastern portion of the stand. The eastern portion of the stand is in closer proximity to Wetland A. The shrub layer consists of Multiflora Rose which is concentrated in the eastern portion of the stand. The dominant herbaceous species consist of Poison Ivy, Virginia Creeper and Japanese Honeysuckle. Groundcover is at approximately 70 percent. This stand has moderately good forest structure, but has limited habitat value due to it's small size and disconnection from FS1. A corridor linking FS1 and FS2 would improve the value.

Trees Indicated on FSD Map
 Specimen Trees: 33" Tulip Poplar
 35" White Oak

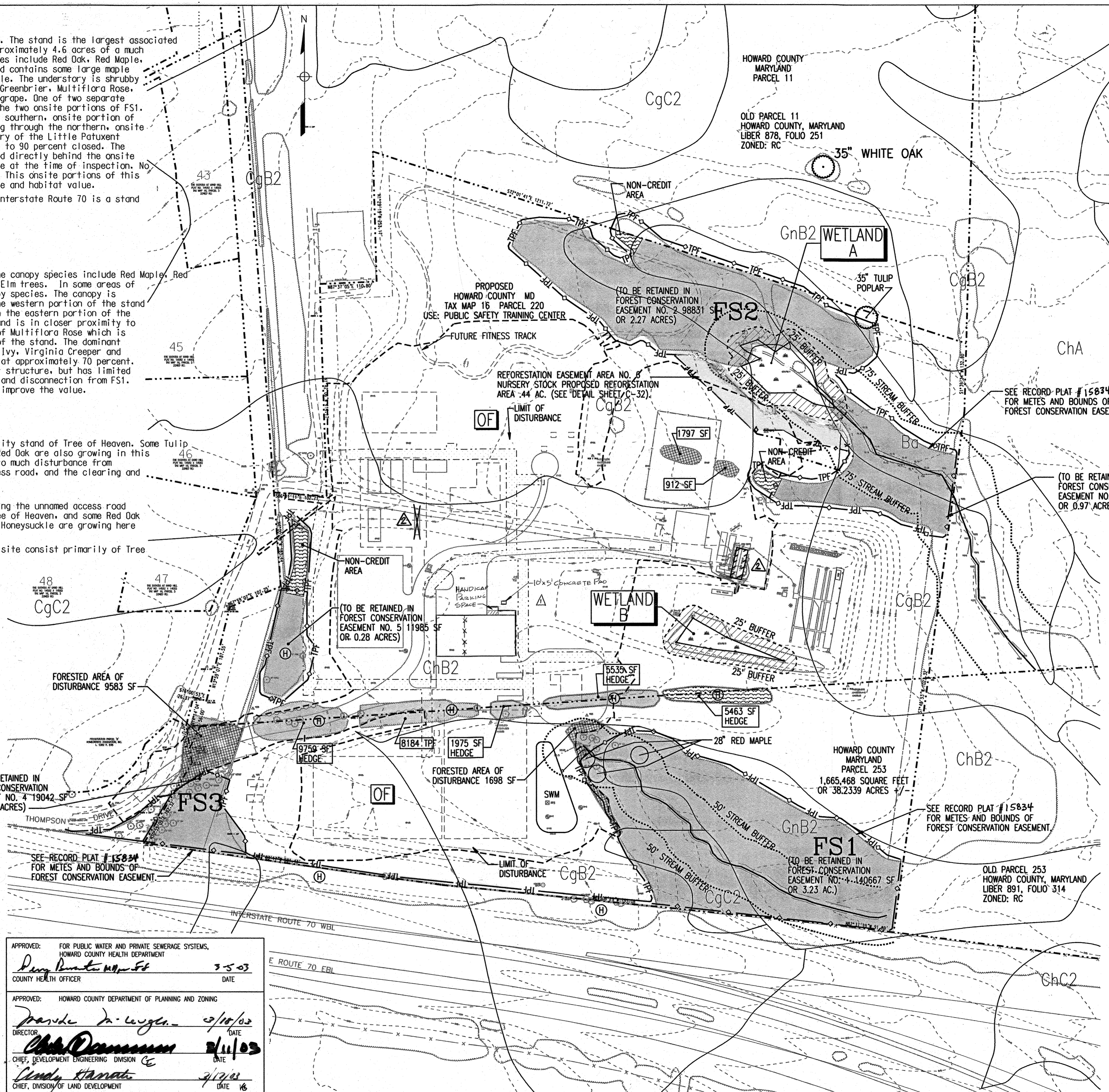
FS3-0.91 ac. FS3 is a disturbed, low quality stand of Tree of Heaven. Some Tulip Poplar, Red Maple, Black Cherry and Red Oak are also growing in this stand. This stand has been subject to much disturbance from Interstate Route 70, the unnamed access road, and the clearing and grading of the site.

Tree Stands
 The tree rows adjacent to and buffering the unnamed access road consist of Red Maple, White Pine, Tree of Heaven, and some Red Oak and Huckleberry. Multiflora Rose and Honeysuckle are growing here as well.

The tree stands on the inside of the site consist primarily of Tree of Heaven.

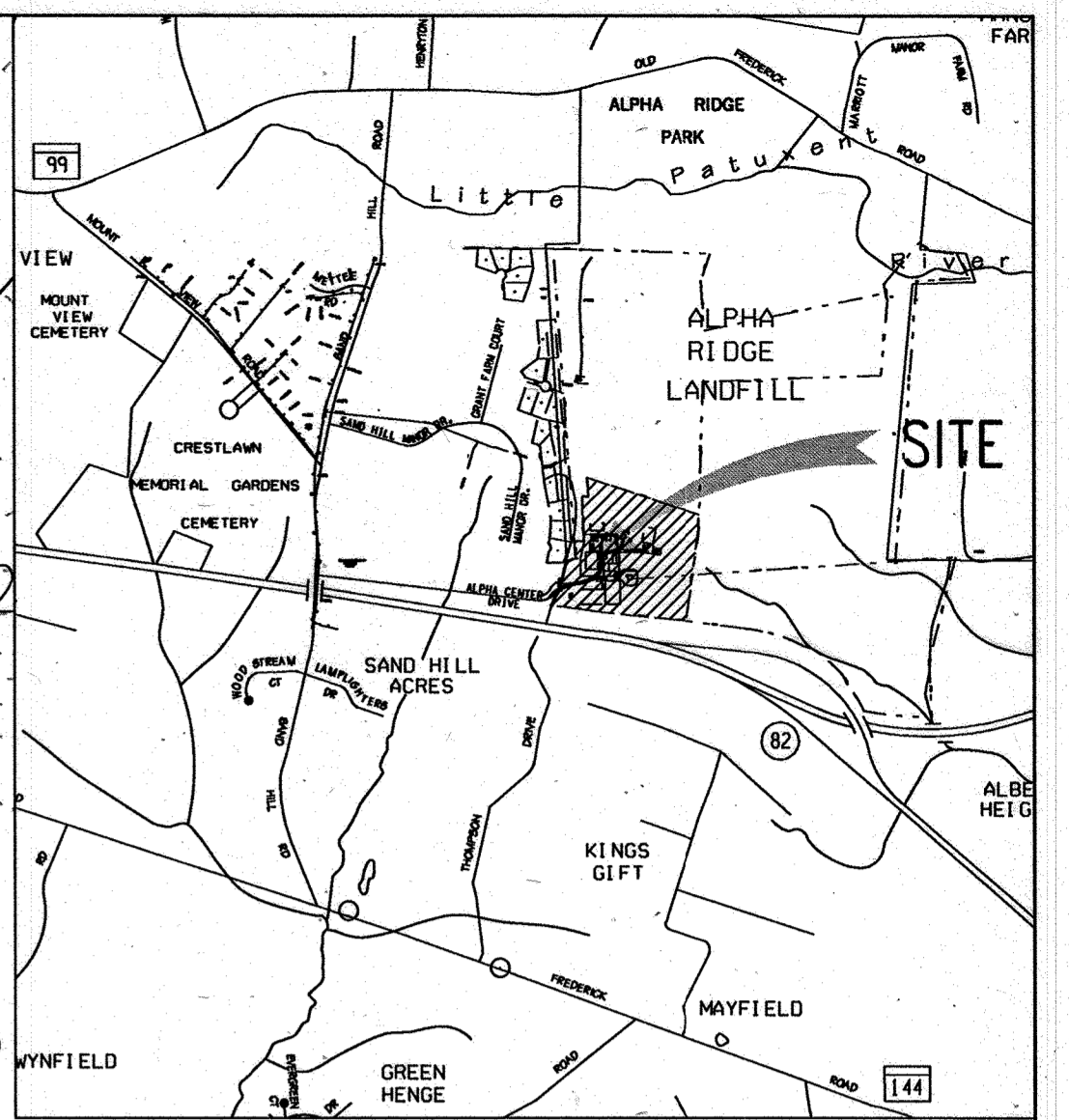
LEGEND

- LARGE TREE
- SPECIMEN TREE
- EXISTING TREELINE
- PROPOSED TREELINE
- TPF TREE PROTECTION FENCE
- FS1** FOREST STAND LABEL
- FOREST CONSERVATION EASEMENT SIGNPOST
- OPEN FIELD
- HEDGE
- WETLAND
- 25' WETLAND BUFFER
- STREAM
- STREAM BUFFER
- CgB2** SOIL TYPE
- SOIL BOUNDARY
- SITE LIMITS
- PROPERTY LINE
- LIMITS OF DISTURBANCE
- EX. FOREST TO BE SAVED
- EX. FOREST TO BE REMOVED
- EX. VEGETATION TO BE SAVED NOT INCLUDED IN FOREST CONSERVATION EASEMENT VEGETATION LESS THAN 10000 SF AND LESS THAN 35 FT WIDE.
- REFORESTATION AREA



APPROVED: FOR PUBLIC WATER AND PRIVATE SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT
 COUNTY HEALTH OFFICER: *Darryl B. Smith* DATE: 3/5/03

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
 DIRECTOR: *Frankie DeWeger* DATE: 3/10/03
 CHIEF, DEVELOPMENT ENGINEERING DIVISION: *Chris Dammann* DATE: 3/11/03
 CHIEF, DIVISION OF LAND DEVELOPMENT: *Linda Starnatz* DATE: 3/12/03



VICINITY MAP
 SCALE: 1"=2000'

HOWARD COUNTY FOREST CONSERVATION WORKSHEET
 HOWARD COUNTY PUBLIC SAFETY SITE

| | |
|--|-------------|
| NET TRACT AREA: | |
| A. TOTAL TRACT AREA | 38.23 ACRES |
| B. AREA WITHIN 100 YEAR FLOOD PLAIN | 0 |
| C. AREA WITHIN AGRICULTURAL USE OR PRESERVATION PARCEL | 0 |
| D. NET TRACT AREA | 38.23 ACRES |
| LAND USE CATEGORY: (1) | |
| INPUT THE NUMBER 1 UNDER THE APPROPRIATE LAND USE ZONING, AND LIMIT TO ONLY ONE ENTRY. | |
| 0 0 0 1 0 0 0 0 | |
| E. AFFORESTATION MINIMUM (15% X A) | 5.73 ACRES |
| F. REFORESTATION THRESHOLD (20% X A) | 7.65 ACRES |
| EXISTING FOREST COVER: | |
| G. EXISTING FOREST ON NET TRACT AREA (EXCLUDING FLOODPLAIN) | 7.41 ACRES |
| H. AREAS OF FOREST ABOVE AFFORESTATION THRESHOLD | 1.68 ACRES |
| I. AREAS OF FOREST ABOVE CONSERVATION THRESHOLD | 0.00 ACRES |
| BREAK-EVEN POINT: | |
| J. FOREST RETENTION ABOVE THRESHOLD WITH NO MITIGATION | 0.00 ACRES |
| K. CLEARING PERMITTED WITHOUT MITIGATION | 0.00 ACRES |
| PROPOSED FOREST: | |
| L. TOTAL AREA OF FOREST TO BE CLEARED | 0.22 ACRES |
| M. TOTAL AREA OF FOREST TO BE RETAINED | 7.19 ACRES |
| PLANTING REQUIREMENTS: | |
| N. REFORESTATION FOR CLEARING ABOVE CONSERVATION THRESHOLD | 0.00 ACRES |
| O. REFORESTATION FOR CLEARING BELOW CONSERVATION THRESHOLD | 0.44 ACRES |
| P. CREDIT FOR RETENTION ABOVE CONSERVATION THRESHOLD | 0.00 ACRES |
| Q. TOTAL REFORESTATION REQUIRED | 0.44 ACRES |
| R. TOTAL AFFORESTATION REQUIRED | 0.00 ACRES |
| S. TOTAL AFFORESTATION AND REFORESTATION REQUIRED | 0.44 ACRES |

SOILS

Bo BAILE SILT LOAM.
 NEARLY LEVEL IN UPLAND DEPRESSIONS. POORLY DRAINED

ChA CHESTER SILT LOAM.
 0 TO 3 PERCENT SLOPES. WELL DRAINED.

CgB2 CHESTER GRAVELLY SILT LOAM.
 3 TO 8 PERCENT SLOPES, MODERATELY ERODED. WELL DRAINED.

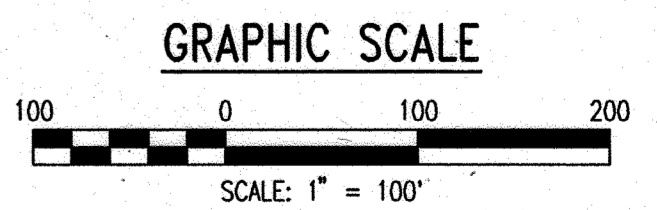
CgC2 CHESTER GRAVELLY SILT LOAM.
 8 TO 15 PERCENT SLOPES, MODERATELY ERODED. WELL DRAINED.

ChB2 CHESTER SILT LOAM.
 3 TO 8 PERCENT SLOPES, MODERATELY ERODED. WELL DRAINED.

GnB2 GLENVILLE SILT LOAM.
 3 TO 8 PERCENT SLOPES, MODERATELY ERODED. MODERATELY WELL DRAINED.

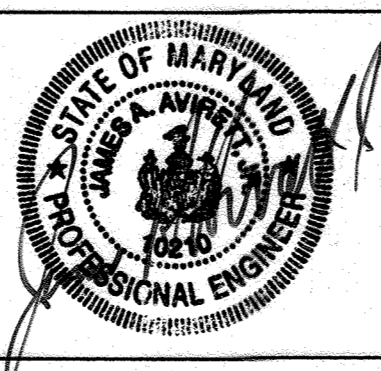
MI22 MANOR LOAM.
 15 TO 25 PERCENT SLOPES. MODERATELY ERODED. WELL DRAINED TO SOMEWHAT EXCESSIVELY DRAINED.

PREPARED BY: SHERYL H. BERNARDO
 STATE OF MARYLAND
 LICENSED LANDSCAPE ARCHITECT
 LICENSE REGISTRATION NO. 3127
 Name: *Sheryl Bernardo* Date: 2/21/03



DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND

PREPARED BY:
WR&A
 Whitman, Reardon and Associates, LLP.
 801 South Caroline Street,
 Baltimore, Maryland, 21231
 410-235-3450



| | | | |
|-----------|--------|---|----------|
| DES: | S.H.B. | | |
| DRN: | P.L.B. | | |
| CHK: | S.H.B. | | |
| DATE: | | | |
| BY: | CMD | ADDED 24' X 60' DOUBLE WIDE TRAILER REMOVED OFFICE TRAILER | 10/26/04 |
| NO.: | CMD | REMOVED "FUTURE", ADDED PARKING & 10' X 5' CONC. PAD | 7/13/04 |
| REVISION: | | | |
| DATE: | | | |

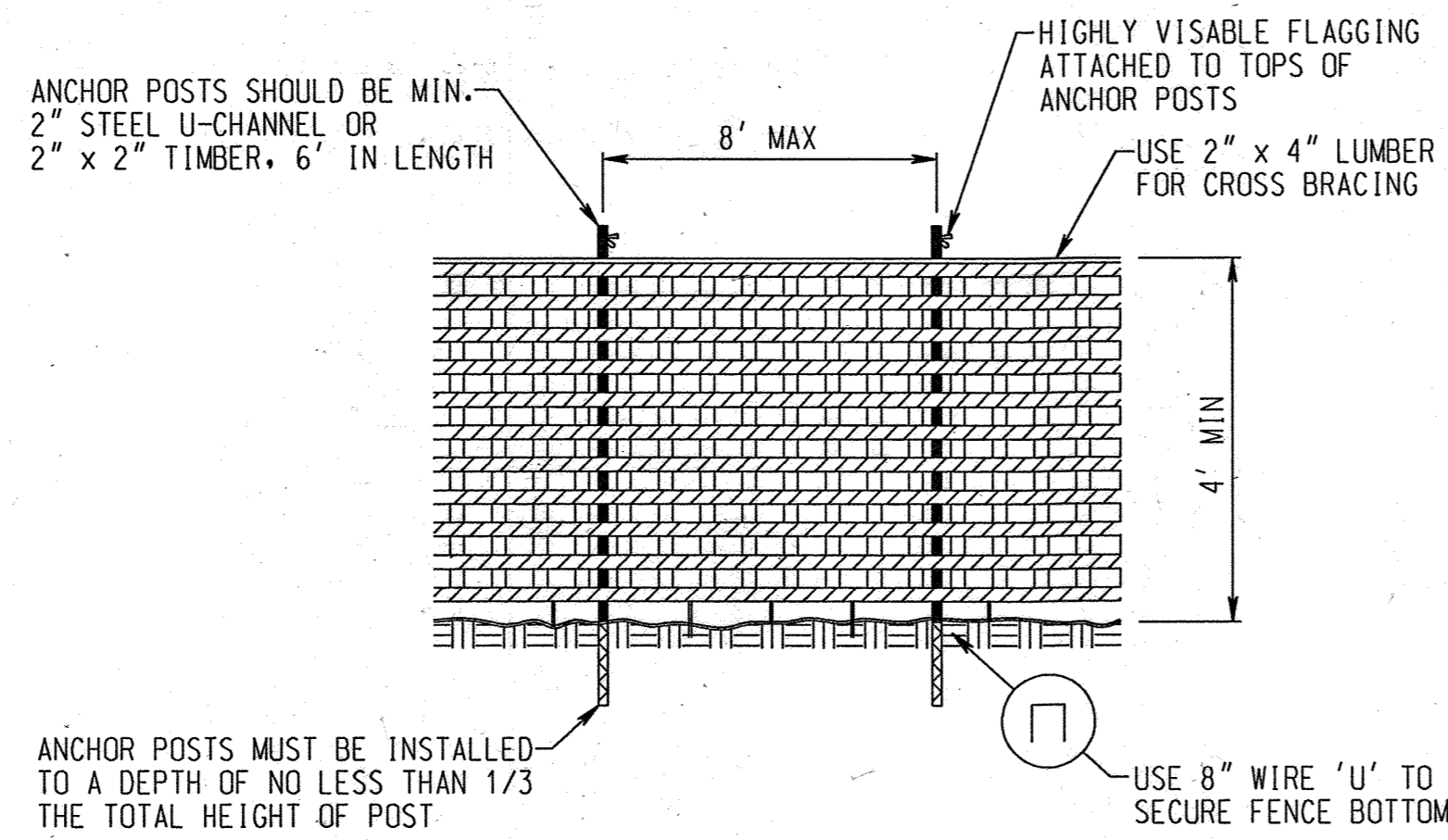
600' SCALE MAP NO. 16 BLOCK NO. 278

PUBLIC SAFETY TRAINING CENTER
 AT ALPHA RIDGE LANDFILL
 CAPITAL PROJECT NO. C-0182
 HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
 SHEET 33 OF 39

GENERAL NOTES

- ALL FOREST RETENTION AREAS SHALL BE TEMPORARILY PROTECTED BY WELL ANCHORED TEMPORARY ORANGE CONSTRUCTION FENCING AND SIGNAGE AS INDICATED ON THE PLANS. DEVICES SHALL BE INSTALLED PRIOR TO ANY LAND CLEARING, GRUBBING OR GRADING ACTIVITIES. ALL DEVICES SHALL REMAIN UNTIL ALL CONSTRUCTION HAS CEASED IN THE IMMEDIATE VICINITY. DEVICES SHALL BE FIELD LOCATED AND APPROVED PRIOR TO THE START OF CONSTRUCTION.
- FOREST RETENTION AREA TO BE STAKED AND FLAGGED PRIOR TO PROTECTION DEVICE INSTALLATION. PROTECTIVE FENCING AND SIGNAGE SHALL BE INSTALLED AS A FIRST ORDER OF BUSINESS.
- FOREST PROTECTION DEVICES SHALL BE INSTALLED SUCH THAT THE CRITICAL ROOT ZONES OF ALL TREES WITHIN THE RETENTION AREA WILL BE WITHIN PROTECTION DEVICES.
- THERE SHALL BE NO CLEARING, GRADING, CONSTRUCTION OR EXCESSIVE PEDESTRIAN DISTURBANCE WITHIN THE FOREST CONSERVATION EASEMENT EXCEPT AS PERMITTED BY THE HOWARD COUNTY.
- AFTER INSTALLATION OF TEMPORARY FOREST PROTECTION DEVICES, REVIEWING AUTHORITY IS TO BE NOTIFIED AND SHALL INSPECT THE DEVICES. REVIEWING AUTHORITY TO INSPECT COMPLETED CONSTRUCTION SITE.
- STOCKPILE AREAS TO BE RELOCATED PER CONSTRUCTION STAGE. STOCKPILE AREAS TO BE LOCATED WITHIN LOD DURING ALL STAGES OF CONSTRUCTION AND THROUGHOUT ALL CONSTRUCTION ACTIVITIES.
- A POST CONSTRUCTION PROTECTION AND MANAGEMENT PROGRAM WILL BE IMPLEMENTED TO ENSURE THE SURVIVAL RATES OF FOREST RESOURCES SAVED OF PLANTED AS PART OF THE DEVELOPMENT PROPOSAL. ON SITE MEASURES SUCH AS FENCING WILL BE MAINTAINED DURING CONSTRUCTION, AND WILL BE REMOVED AFTER CONSTRUCTION. INSPECTION FOR COMPLIANCE WITH FOREST CONSERVATION REQUIREMENTS WILL BE CARRIED OUT AND CERTIFICATION WILL BE PROVIDED TO IDENTIFY THAT SPECIFIC SURVIVAL RATES HAVE BEEN MET.
- THE COUNTY WILL ASSUME LONG TERM RESPONSIBILITY FOR PROTECTING THE INTEGRITY OF FOREST CONSERVATION AREAS AND PERFORMING AND DESIRED MAINTENANCE AFTER DEVELOPER GUARANTEES AND OBLIGATIONS HAVE BEEN MET.
- THIS PROJECT COMPLIES WITH THE REQUIREMENTS OF SECTION 16.1200 OF THE HOWARD COUNTY CODE AND THE FOREST CONSERVATION MANUAL WITH A FOREST CONSERVATION OBLIGATION OF 7.63 AC HAS BEEN INCLUDED AS 7.19 AC. IN RETENTION AND 0.44 AC IN REFORESTATION.
- THE FOREST CONSERVATION EASEMENTS ON THIS PLAN HAVE BEEN ESTABLISHED TO FULFILL THE REQUIREMENTS OF SECTION 16.1200 OF THE HOWARD COUNTY CODE AND FOREST CONSERVATION MANUAL. NO CLEARING, GRADING, OR CONSTRUCTION IS PERMITTED WITHIN THE FOREST CONSERVATION EASEMENTS, HOWEVER, FOREST MANAGEMENT PRACTICES AS DEFINED IN THE DEED OF FOREST CONSERVATION EASEMENT ARE ALLOWED.

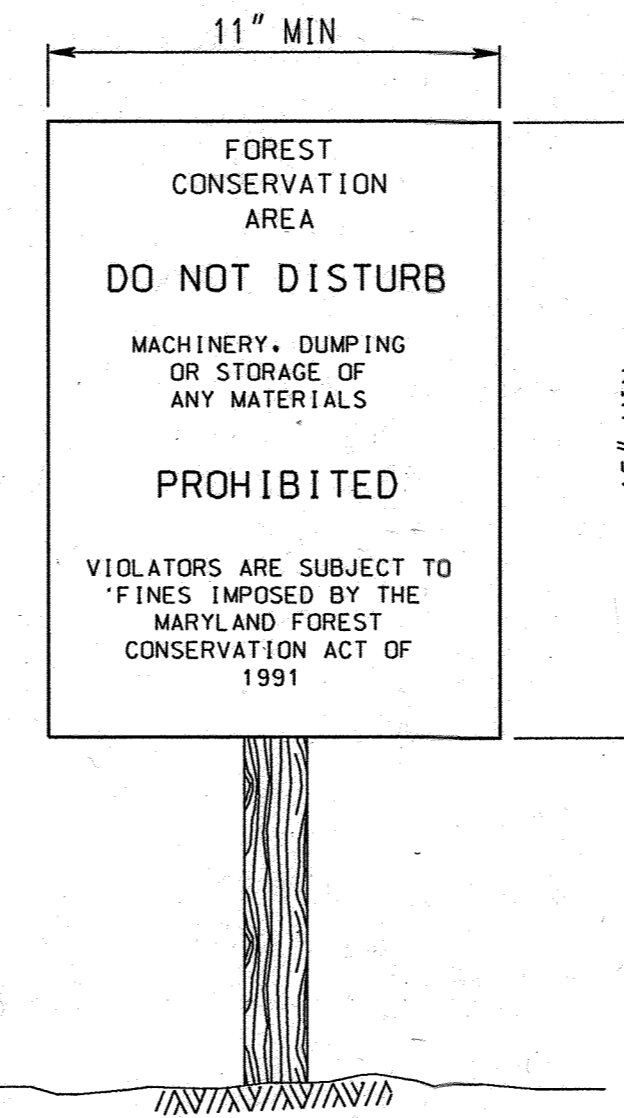


NOTES:

- BLAZE ORANGE OR BLUE PLASTIC MESH FENCE FOR FOREST PROTECTION DEVICE, ONLY.
- BOUNDARIES OF RETENTION AREA WILL BE ESTABLISHED AS PART OF THE FOREST CONSERVATION PLAN REVIEW PROCESS.
- BOUNDARIES OF RETENTION AREA SHOULD BE STAKED AND FLAGGED PRIOR TO INSTALLING DEVICE.
- AVOID DAMAGE TO CRITICAL ROOT ZONE. DO NOT DAMAGE OR SEVER LARGE ROOTS WHEN INSTALLING POSTS.
- PROTECTION SIGNAGE IS REQUIRED.
- DEVICE SHOULD BE MAINTAINED THROUGHOUT CONSTRUCTION.

PLASTIC MESH TREE PROTECTION FENCE

NO SCALE

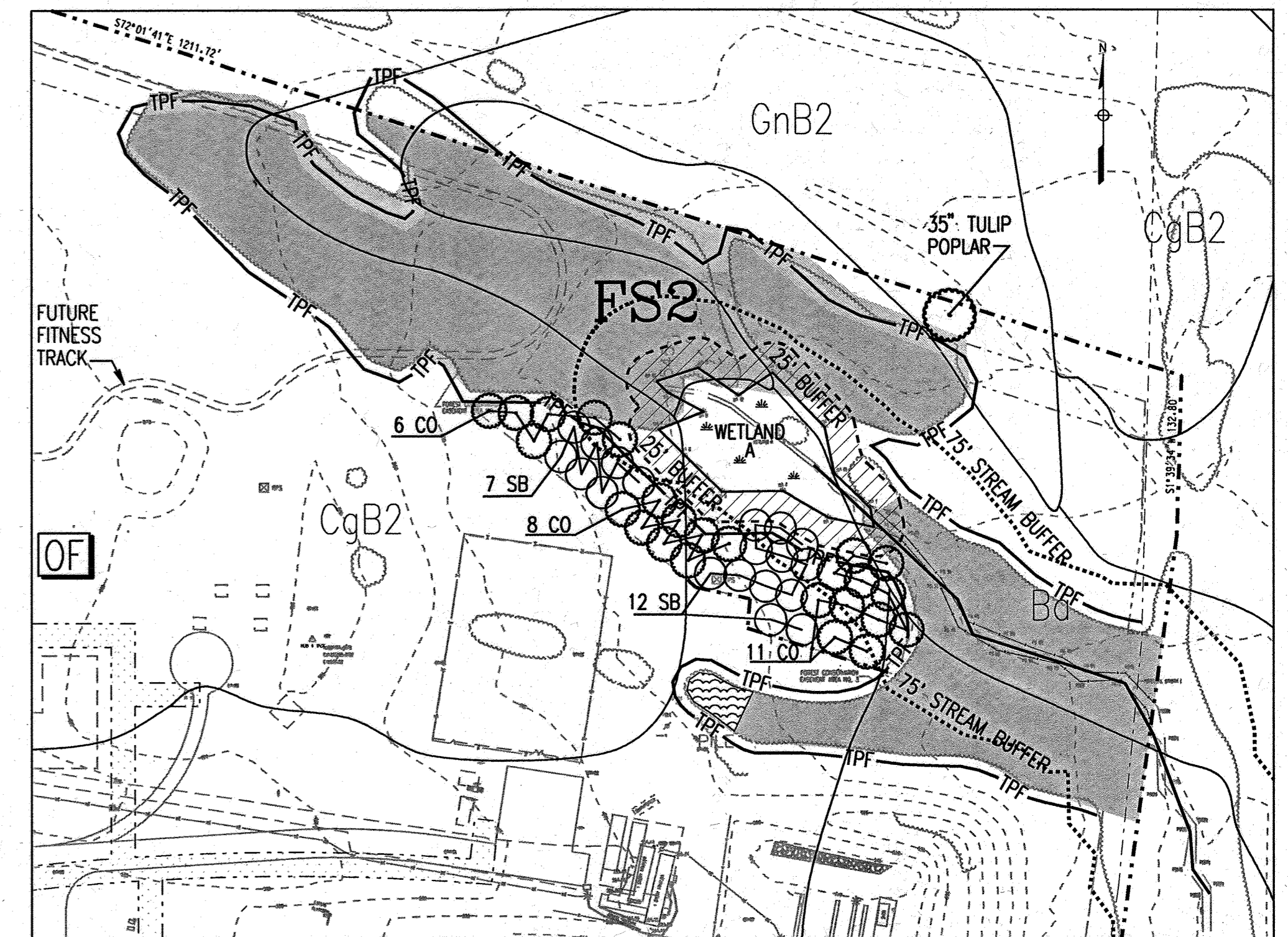


NOTES:

- BOTTOM OF SIGN TO BE HIGHER THAN TOP OF TREE PROTECTION FENCE.
- SIGNS TO BE PLACED 50' TO 100' APART, ON AVERAGE AT EACH PROPERTY CORNER.
- ATTACHMENT OF SIGNS TO TREES IS PROHIBITED.

FOREST CONSERVATION SIGN

NO SCALE



REFORESTATION DETAIL

SCALE: 1" = 100'

REFORESTATION PLANT LIST

| SYMBOL | QUANTITY | KEY | BOTANICAL NAME | COMMON NAME | SIZE | SPACING | ROOTS |
|--------|----------|-----|---------------------|------------------------|---------|---------|-------|
| | 25 | CO | CELTIS OCCIDENTALIS | COMMON HACKBERRY | 2" CAL. | 20'x20' | B&B |
| | 19 | SB | SALIX BABYLONICA | BABYLON WEeping WILLOW | 2" CAL. | 20'x20' | B&B |

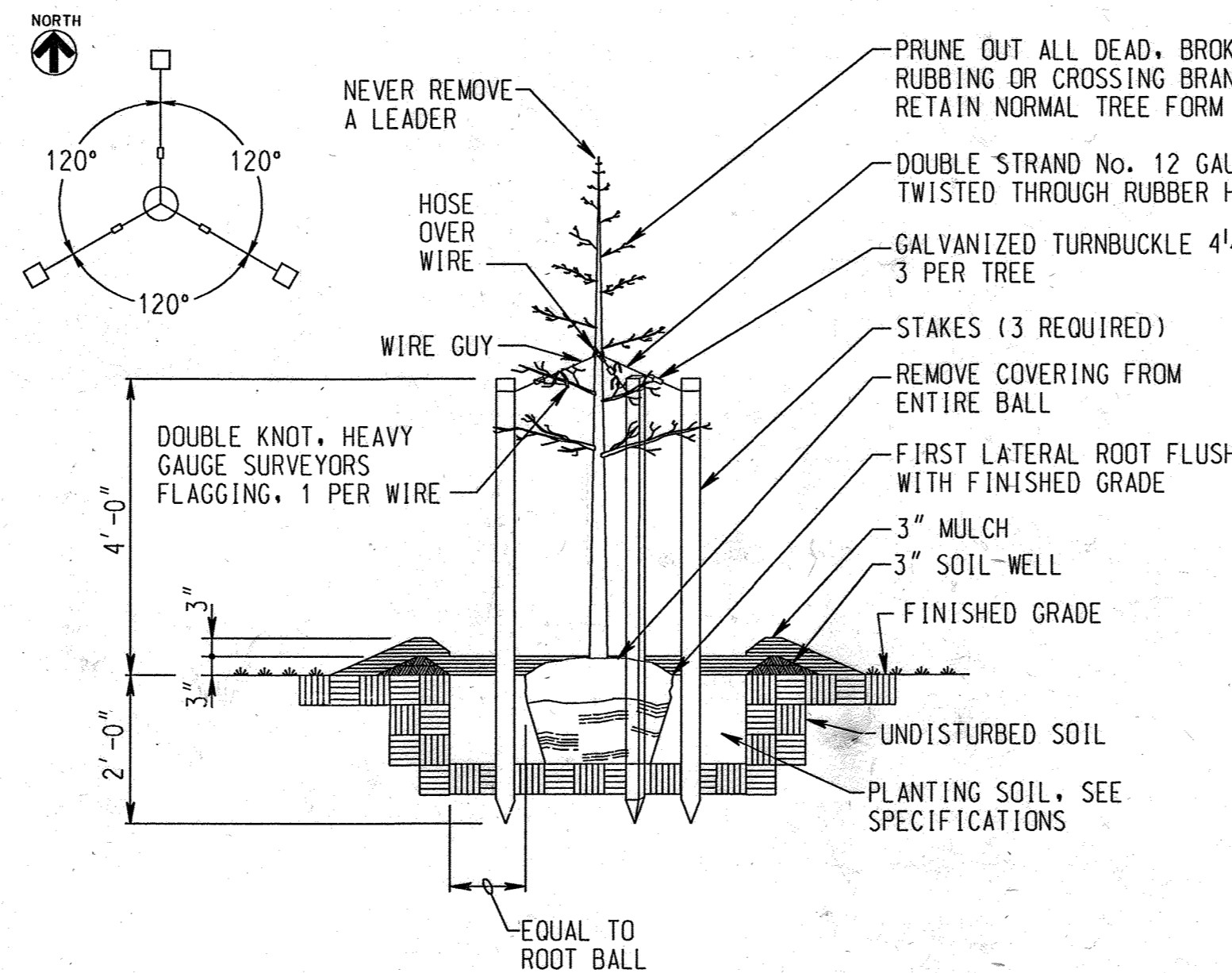
*PLANT DENSITY:
100 2" CALIPER TREES/ACRE (20'x20' SPACING) x .44 ACRES= 44 TREES.

*REFORESTATION METHOD: NURSERY STOCK
PLANT SIZE: GREATER THAN 1" SHOULD MEET OR EXCEED AMERICAN ASSOCIATION OF NURSERYMEN SPECIFICATIONS. PLANTING STOCK LESS THAN 1" CALIPER SHOULD MEET THE FOLLOWING STANDARDS:
SEEDLINGS/WHIPS (HARDWOODS 1/4" - 1/2" CALIPER WITH 8" ROOTS; CONIFERS 1/8" - 1/4" CALIPER WITH ROOTS 8" AND TOP HEIGHT OF 6" OR MORE. SHRUBS SHOULD BE PLANTED 1/8" OR LARGER CALIPER WITH 8" ROOT SYSTEMS.

WRITTEN STATEMENT FOR EXPLANATION OF FOREST CLEARING

- THE PURPOSE OF THE PROJECT IS FOR THE CONSTRUCTION OF THE HOWARD COUNTY PUBLIC SAFETY TRAINING CENTER AT THE EDGE OF THE ALPHA RIDGE LANDFILL. BECAUSE OF THE CONFIGURATION OF THE TRAINING FACILITIES AND THE LOCATION OF THE STORMWATER MANAGEMENT AREA, FOREST IMPACTS ARE REQUIRED. THE NECESSITY TO CLEAR .22 ACRES OF FOREST IS DUE TO THE LOCATION PLUS CONSTRUCTION OF THE STORMWATER MANAGEMENT FACILITY AND THE ADJACENT BURN BUILDING. A FOREST CONSERVATION EASEMENT WILL BE PLATTED FOR 7.63 ACRES OF REMAINING FOREST AND REFORESTATION AREAS.
- THE AREA OF CLEARING WILL BE LOCATED WITHIN PRIORITY RETENTION AREAS THAT INCLUDE: STREAMS AND THEIR REQUIRED BUFFERS, FORESTS CONTIGUOUS TO SENSITIVE AREAS, AND TREES 30 INCHES IN DIAMETER.
- REFORESTATION/AFFORESTATION CALCULATIONS HAVE IDENTIFIED .44 ACRES OF FORESTED AREA REQUIRED TO BE REPLANTED.
- THE LANDSCAPE PLANTING PLAN WILL INCLUDE REQUIREMENTS OUTLINED IN THE LANDSCAPE MANUAL. LANDSCAPE PLANTINGS WILL INCLUDE REQUIRED PERIMETERS PLANTING BUFFERS PARKING LOTS, AND STORMWATER MANAGEMENT FACILITY PLANTINGS.

*NOTE: FUTURE PARKING LOT PARKING PLAN AND PAVING PLAN WILL BE SUBMITTED AT A LATER DATE.



PLANTING DETAIL - DECIDUOUS TREE

NO SCALE

APPROVED: FOR PUBLIC WATER AND PRIVATE SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT

Debra D. ... 3-5-03 DATE

COUNTY HEALTH OFFICER

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Mark ... 3/10/03 DATE

DIRECTOR

Chris ... 3/11/03 DATE

CHIEF, DEVELOPMENT ENGINEERING DIVISION

Chris ... 3/11/03 DATE

CHIEF, DIVISION OF LAND DEVELOPMENT

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

CHIEF, BUREAU OF UTILITIES

DATE

PREPARED BY:

WR&A

Whitman, Reardon and Associates, LLP.
801 South Caroline Street,
Baltimore, Maryland, 21231
410-235-3450



DES: S.H.B.

DRN: P.L.B.

CHK: S.H.B.

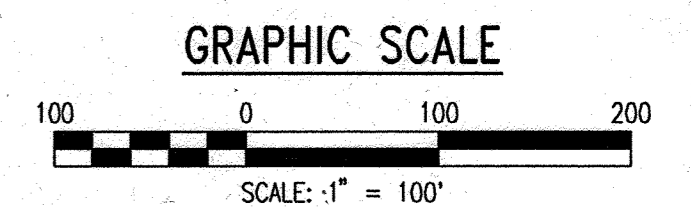
DATE:

| BY | NO. | REVISION | DATE |
|----|-----|----------|------|
| | | | |

FOREST CONSERVATION NOTES AND DETAILS

600' SCALE MAP NO. 16 BLOCK NO. 2 / 8

PUBLIC SAFETY TRAINING CENTER
AT ALPHA RIDGE LANDFILL
CAPITAL PROJECT NO. C-0182
HOWARD COUNTY, MARYLAND



C-32

SCALE AS SHOWN

SHEET 34 OF 39

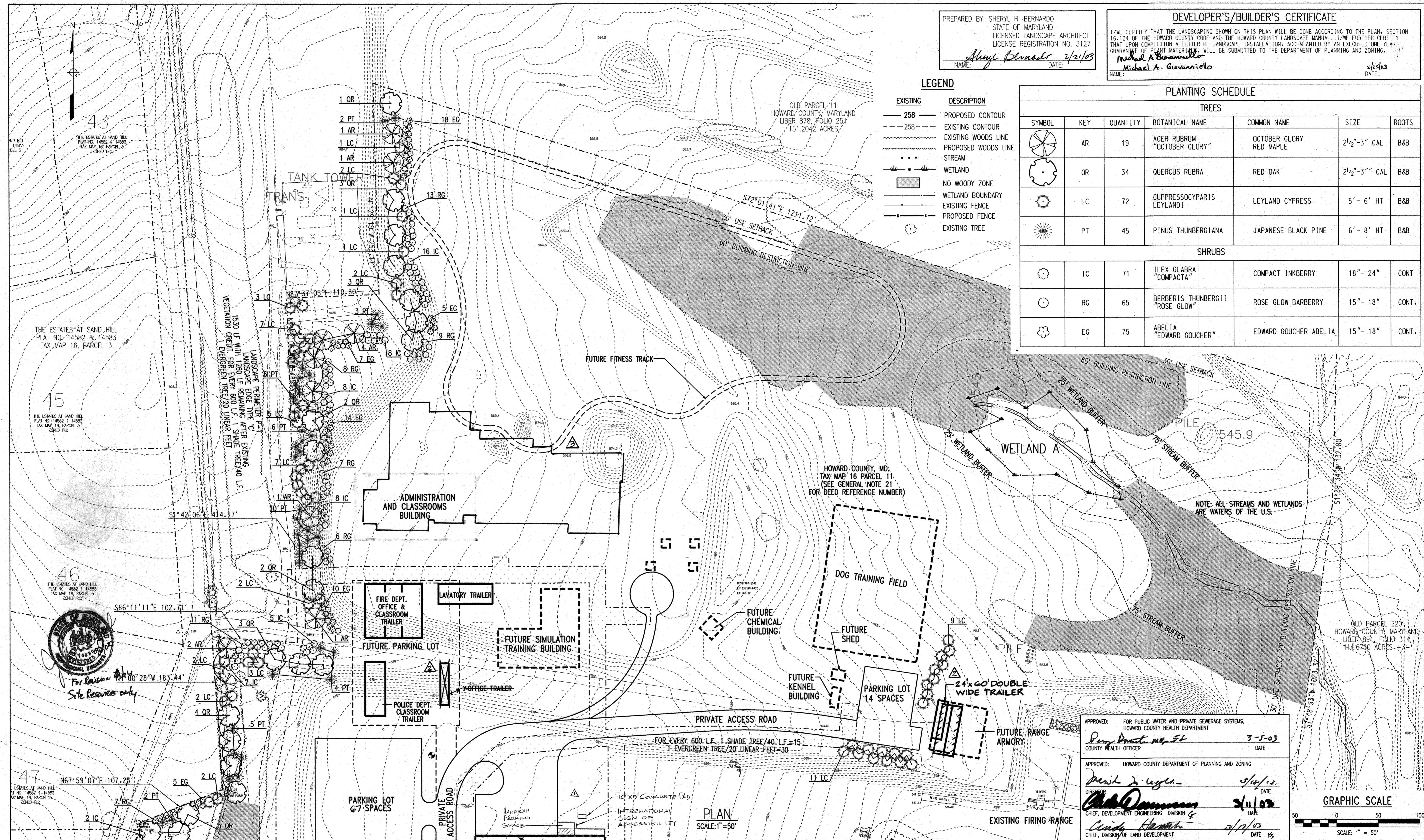
PREPARED BY: SHERYL H. BERNARDO
 STATE OF MARYLAND
 LICENSED LANDSCAPE ARCHITECT
 LICENSE REGISTRATION NO. 3127
Sheryl Bernardo 2/2/03
 NAME: DATE:

DEVELOPER'S/BUILDER'S CERTIFICATE
 I/WE CERTIFY THAT THE LANDSCAPING SHOWN ON THIS PLAN WILL BE DONE ACCORDING TO THE PLAN, SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE HOWARD COUNTY LANDSCAPE MANUAL. I/WE FURTHER CERTIFY THAT UPON COMPLETION OF LANDSCAPE INSTALLATION, ACCOMPANIED BY AN EXECUTED ONE YEAR GUARANTEE OF PLANT MATERIAL, WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.
Michael A. Giovannello
 NAME: DATE: 2/2/03

LEGEND

- | EXISTING | DESCRIPTION |
|-----------------|---------------------|
| — 258 — | PROPOSED CONTOUR |
| - - - 258 - - - | EXISTING CONTOUR |
| --- | EXISTING WOODS LINE |
| --- | PROPOSED WOODS LINE |
| --- | STREAM |
| --- | WETLAND |
| --- | NO WOODY ZONE |
| --- | WETLAND BOUNDARY |
| --- | EXISTING FENCE |
| --- | PROPOSED FENCE |
| ○ | EXISTING TREE |

| PLANTING SCHEDULE | | | | | | |
|-------------------|-----|----------|---------------------------------|-------------------------|-----------------|-------|
| TREES | | | | | | |
| SYMBOL | KEY | QUANTITY | BOTANICAL NAME | COMMON NAME | SIZE | ROOTS |
| | AR | 19 | ACER RUBRUM "OCTOBER GLORY" | OCTOBER GLORY RED MAPLE | 2 1/2" - 3" CAL | B&B |
| | QR | 34 | QUERCUS RUBRA | RED OAK | 2 1/2" - 3" CAL | B&B |
| | LC | 72 | CUPRESSOCYPARIS LEYLANDI | LEYLAND CYPRESS | 5' - 6' HT | B&B |
| | PT | 45 | PINUS THUNBERGIANA | JAPANESE BLACK PINE | 6' - 8' HT | B&B |
| SHRUBS | | | | | | |
| | IC | 71 | ILEX GLABRA "COMPACTA" | COMPACT INKBERRY | 18" - 24" | CONT |
| | RG | 65 | BERBERIS THUNBERGII "ROSE GLOW" | ROSE GLOW BARBERRY | 15" - 18" | CONT. |
| | EG | 75 | ABELIA "EDWARD GOUCHER" | EDWARD GOUCHER ABELIA | 15" - 18" | CONT. |

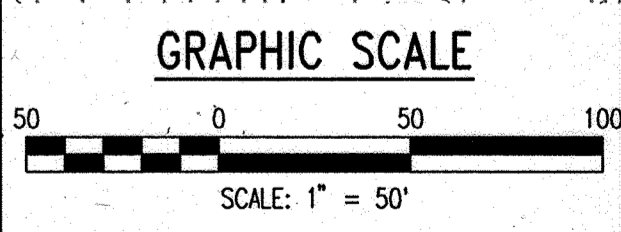


APPROVED: FOR PUBLIC WATER AND PRIVATE SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT
Raymond M. St. 3-5-03
 COUNTY HEALTH OFFICER DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
Mark J. Legler 2/12/03
 DIRECTOR DATE

Chris Damman 2/11/03
 CHIEF, DEVELOPMENT ENGINEERING DIVISION & DATE

Cindy Hamilton 2/19/03
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE



MATCH LINE SEE DWG LS-2

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND
 CHIEF, BUREAU OF UTILITIES
 DATE

PREPARED BY:
WR&A
 Whitman, Requardt and Associates, LLP.
 801 South Caroline Street,
 Baltimore, Maryland, 21231
 410-235-3450



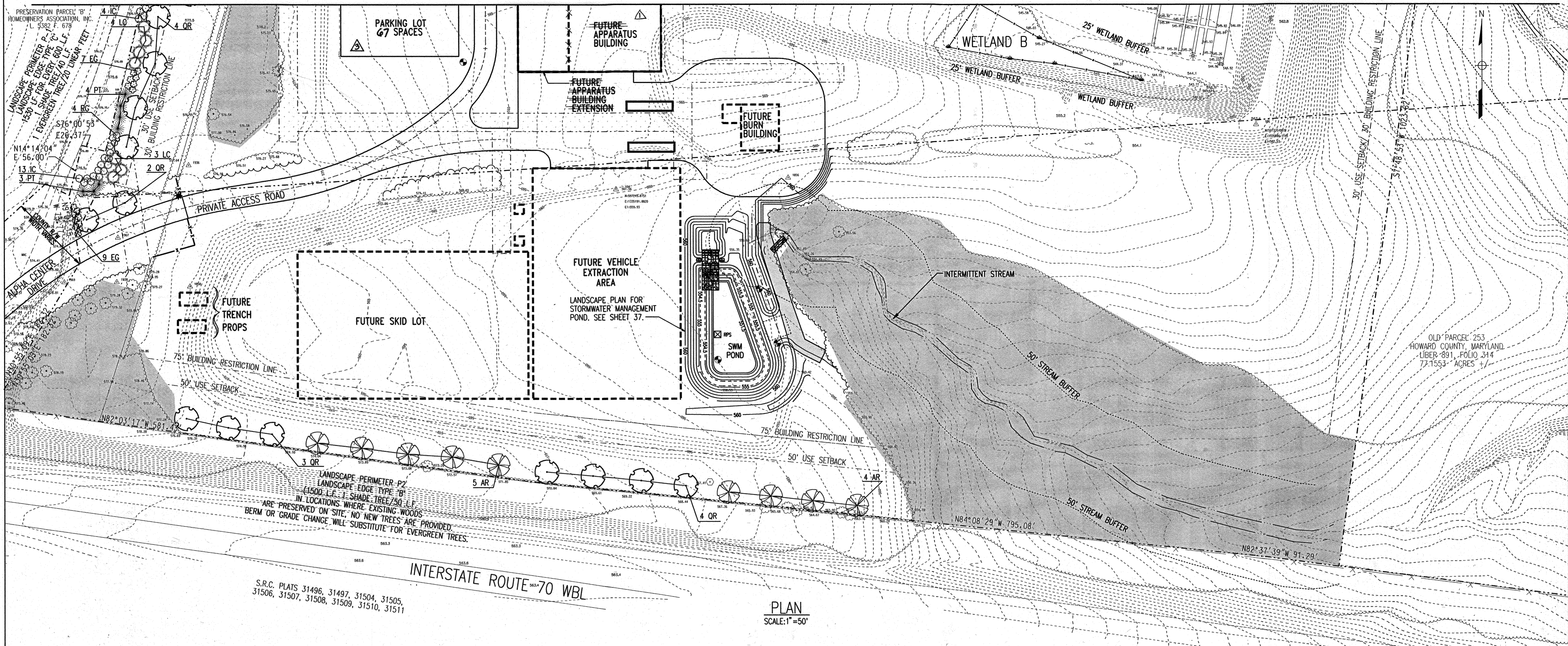
| DES: | DRN: | CHK: | DATE: | BY: | NO. | REVISION | DATE: |
|------------|--------|------|----------|-----|-----|---|-------|
| H.W.P. | S.H.B. | SRI | 7/13/05 | | | REVISED THE ADMIN/CLASS ROOM OLD W/ WALKWAY AND PARKING AREA W/ 2 HANDICAPPED SPACES REVISED NUMBER OF PARKING SPACES | |
| E.M. | | | | | | | |
| H.W.P. | | CMD | 10/26/04 | | | ADDED 24'x60' DOUBLE WIDE TRAILER REMOVED OFFICE TRAILER | |
| 12/16/2002 | | CMD | 7/23/04 | | | ADDED PARKING + 10'x5' CONCRETE PAD | |

LANDSCAPE PLAN - NORTH

PUBLIC SAFETY TRAINING CENTER
 AT ALPHA RIDGE LANDFILL
 CAPITAL PROJECT NO. C-0182
 HOWARD COUNTY, MARYLAND

LS-1
 SCALE AS SHOWN
 SHEET 35 OF 39

MATCH LINE SEE DWG. LS-1



S.R.C. PLATS 31496, 31497, 31504, 31505, 31506, 31507, 31508, 31509, 31510, 31511

INTERSTATE ROUTE 70 WBL

PLAN
SCALE: 1" = 50'

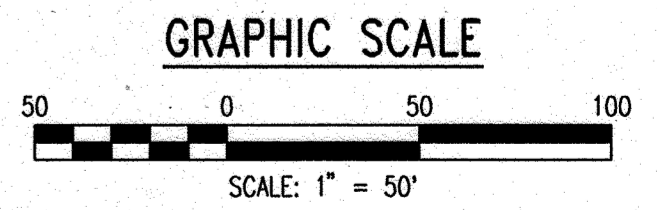
APPROVED: FOR PUBLIC WATER AND PRIVATE SEWERAGE SYSTEMS,
HOWARD COUNTY HEALTH DEPARTMENT
Roy D. ... 3-5-03
COUNTY HEALTH OFFICER DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
Paul ... 2/14/03
DIRECTOR DATE

John ... 2/11/03
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

Cindy ... 3/12/03
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

STATE OF MARYLAND
Professional Engineer
For Review Only
Site Resources Only



DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

PREPARED BY:
WR&A
Whitman, Requardt and Associates, LLP.
801 South Caroline Street,
Baltimore, Maryland, 21231
410-235-3450



| | | | |
|-----------------------|------------------|----------------------------------|---------|
| DES: H.W.P. S.H.B. | CR1 | REVISED NUMBER OF PARKING SPACES | 7/13/02 |
| DRN: E.M. | | | |
| CHK: H.W.P. | | | |
| DATE: 12/16/2002 | | | |
| CMD | REMOVED 'FUTURE' | | 7/23/02 |
| BY | NO. | REVISION | DATE |

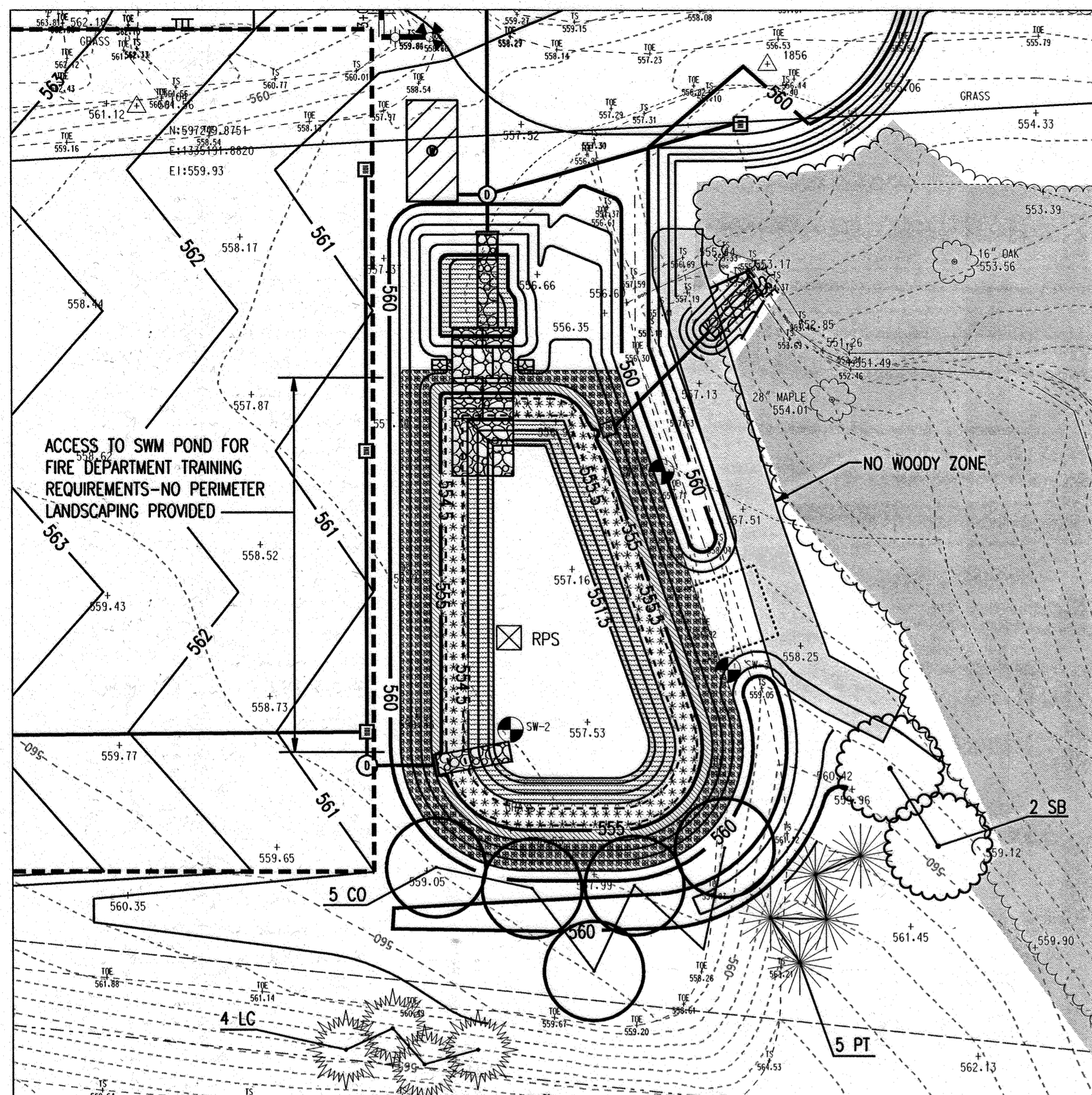
LANDSCAPE PLAN - SOUTH

600' SCALE MAP NO. 16 BLOCK NO. 2 / 8

PUBLIC SAFETY TRAINING CENTER
AT ALPHA RIDGE LANDFILL
CAPITAL PROJECT NO. C-0182
HOWARD COUNTY, MARYLAND

LS-2
SCALE AS SHOWN
SHEET
36 OF 39

STORMWATER MANAGEMENT PLANTING SCHEME



PARTIAL PLAN
SCALE 1"=30'

LEGEND

| EXISTING | DESCRIPTION |
|-----------------|---------------------|
| — 258 — | PROPOSED CONTOUR |
| - - - 258 - - - | EXISTING CONTOUR |
| ~~~~~ | EXISTING WOODS LINE |
| ~~~~~ | PROPOSED WOODS LINE |
| — • • • — | STREAM |
| — w — | WETLAND |
| ■ | NO WOODY ZONE |
| — v — | WETLAND BOUNDARY |
| — x — | EXISTING FENCE |
| — x — | PROPOSED FENCE |
| — x — | EXISTING TREE |

PREPARATION OF THE WETLAND SUBSTRATE

THE WETLAND SUBSTRATE SHALL BE DEVELOPED BY FIRST PLACING ONE (1) TWELVE-INCH LIFT OF TOPSOIL ON THE SUB-GRADE OF THE CONSTRUCTION AREA. THE PLANTING BED SHALL NOT BE COMPACTED EXCEPT IN MINIMAL AMOUNTS NECESSARY FOR PLACEMENT OF THE MATERIAL. ONLY LIGHT BEARING EQUIPMENT SHALL BE USED FOR PLACEMENT.

TO FACILITATE PLANTING, THE TOP FOUR (4) INCHES OF TOPSOIL SHALL BE ROTOTILLED TO LOOSEN AND MIX SOIL MATERIALS, WHICH MAY HAVE BEEN COMPACTED DURING PLACEMENT.

THE CONTRACTOR SHALL REMOVE ROCKS AND OTHER DEBRIS TWO (2) INCHES OR LARGER IN DIAMETER THAT MAY BE HARMFUL TO PLANT GROWTH OR AS DIRECTED BY THE LANDSCAPE ARCHITECT.

PLANT BED LOCATIONS SHALL BE IDENTIFIED ON THE GROUND.

PLANTING

THE LANDSCAPE ARCHITECT WILL INSPECT PLANTS FOR INJURY, INFESTATION AND IMPROPER PRUNING. THE CONTRACTOR SHALL NOT BEGIN PLANTING UNTIL THE INSPECTION IS COMPLETED AND DEFICIENCIES ARE CORRECTED. ALL REJECTED PLANTS SHALL BE REPLACED AND INSPECTED BY THE LANDSCAPE ARCHITECT.

POTTED PLANTS AND RHIZOMES SHALL BE PLANTED APPROXIMATELY THREE (3) INCHES DEEP (OR AS APPROPRIATE FOR EACH POT) BY HAND, IN MOIST TO WET SOILS, LEAVING GROWING STEMS ABOVE GROUND.

TUBERS AND ROOTSTOCK ROOTS SHALL BE PUSHED ONE (1) TO THREE (3) INCHES INTO MOIST TO SATURATED SOILS BY HAND, ENOUGH TO COVER THE ROOTS. FIRM SOIL AROUND ROOT BY HAND. WHEN PLANTING IN WATER, SUFFICIENT WEIGHT TO HOLD THE PLANT IN PLACE SHALL BE USED. UTILIZING WEIGHTS SUCH AS #8 PENNY NAILS HELD WITH RUBBER BANDS OR PLACING ROOTS IN A MESH BAG WITH ROCKS SHALL BE ACCEPTABLE. SPACING FOR PLANTS IS SPECIFIED ON THE TYPICAL SECTION FOR HERBACEOUS PLANTS.

BARE ROOT PLANTS (BR) SHALL BE CUT OFF CLEAN, ALL BROKEN OR FRAYED ROOTS SHALL BE TREATED WITH A PLANT HORMONE SUCH AS "TRANSPANTONE", "ROOTONE" OR AN APPROVED EQUAL IN STRICT ACCORDANCE WITH THE MANUFACTURER'S PRINTED INSTRUCTIONS.

EXCAVATE THE PLANTING PITS TO SUFFICIENT SIZE TO EXCEED THE ROOT BALL DIAMETER OR BARE ROOT SPREAD AS APPROVED BY THE PROFESSIONAL LANDSCAPER. SPREAD ROOTS OUT IN THE PIT AND CAREFULLY WORK SOIL IN AND AMONG THE ROOTS OF THE SEEDLINGS, TUBERS, AND ROOTSTOCK AS DIRECTED BY THE PROFESSIONAL LANDSCAPER.

PLANT VARIETIES SHALL BE PLANTED ON TWO (2) FOOT CENTERS, UNIFORMLY MIXED THROUGHOUT THE CONSTRUCTION AREA.

CARE OF PLANTINGS AFTER CONSTRUCTION

IF SOILS ARE NOT WET, THE AREA SHALL BE WATERED IMMEDIATELY AFTER PLANTING. THE SOIL SUBSTRATE MUST BE KEPT SATURATED DURING PLANTING AND CONTINUED ACCORDING TO CLIMATIC CONDITIONS AND UNTIL PLANTINGS BECOME FULLY ESTABLISHED AS DETERMINED BY THE LANDSCAPE ARCHITECT.

GENERAL NOTES

- ALL WETLAND CONSTRUCTION ACTIVITIES SHALL BE UNDER THE DIRECTION OF A PROFESSIONAL LANDSCAPER FAMILIAR WITH WETLAND CONSTRUCTION TECHNIQUES.
- IDENTIFY WETLAND CONSTRUCTION AREA BY SURVEY AND FIELD MARK WITH FLAGGING.
- TEMPORARILY DIVERT DRAINAGE AWAY FROM PROPOSED CONSTRUCTION AREAS WHERE POSSIBLE TO PREVENT WORKING IN SATURATED OR INUNDATED CONDITIONS.
- INSTALL SILT FENCING WHERE NECESSARY BETWEEN EXCAVATION AREAS AND WETLANDS AND/OR DRAINAGE. USE BEST MANAGEMENT PRACTICES (BMP) IN ACCORDANCE WITH THE E&S CONTROL PLAN FOR SEDIMENTATION AND EROSION CONTROL. SILT FENCES MUST BE NATURAL MATERIALS (I.E. WOODEN STAKES, BURLAP, HAY BALES).
- REMOVE WOODY VEGETATION AND TRANSPORT AWAY FROM WORK AREA. DISPOSE OF WOODY MATERIAL AND DEBRIS AS PER APPROPRIATE FEDERAL, STATE AND LOCAL CODES.
- GRADE SITE TO DESIRED SUBGRADE ELEVATION(S) (1 FOOT BELOW FINAL GRADE), SHAPE AND SIZE. REMOVE SURPLUS MATERIAL FROM WORK AREAS USING (BMP)'S FOR E&S CONTROL.
- PLACE A TWELVE-INCH LIFT OF TOPSOIL ON THE SURFACE IN THE CONSTRUCTION AREA TO BRING THE AREA UP TO FINAL GRADE. UNEVEN, IRREGULAR SURFACES WILL ADD DIVERSITY TO THE SITE.
- DELINEATE AND IDENTIFY PLANTING LOCATIONS IN THE FIELD.
- PLANT PROPOSED TREES, SHRUBS, NURSERY PLANTS, STOCK AND/OR SEED ACCORDING TO SPECIFICATIONS AND CONSTRUCTION DRAWINGS.
- REMOVE WATER FLOW AND DRAINAGE DIVERSIONS AND ALLOW FLOODING SATURATION TO OCCUR.
- REMOVE EROSION AND SEDIMENTATION CONTROL DEVICES IN ACCORDANCE WITH MDE REGULATIONS.
- WATER PLANTINGS AS NEEDED ACCORDING TO PLANT SPECIFICATIONS DURING DRY PERIODS.
- OPTIMUM SEASON TO UNDERTAKE THIS WORK IS SPRING FOR ESTABLISHMENT OF PLANTS.
- ALL PLANTING AND MULCHING SHALL BE DONE IN ACCORDANCE WITH THE MD SHA BOOK OF STANDARDS, HIGHWAYS AND INCIDENTAL STRUCTURES, CATEGORY 7, LANDSCAPING OR THE HOWARD COUNTY LANDSCAPE MANUAL.
- ALL 2" OR GREATER CALIPER TREES SHALL HAVE A MULCH BED TEN FOOT (10') IN DIAMETER.

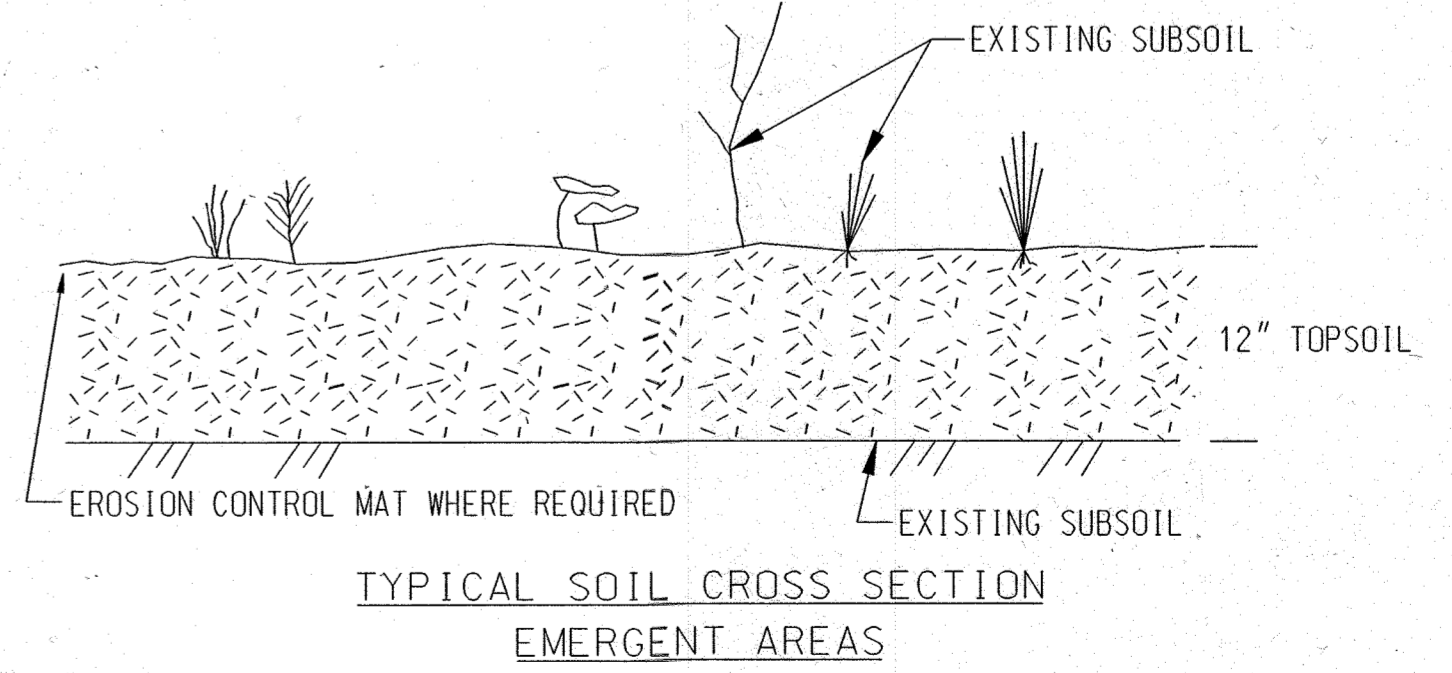
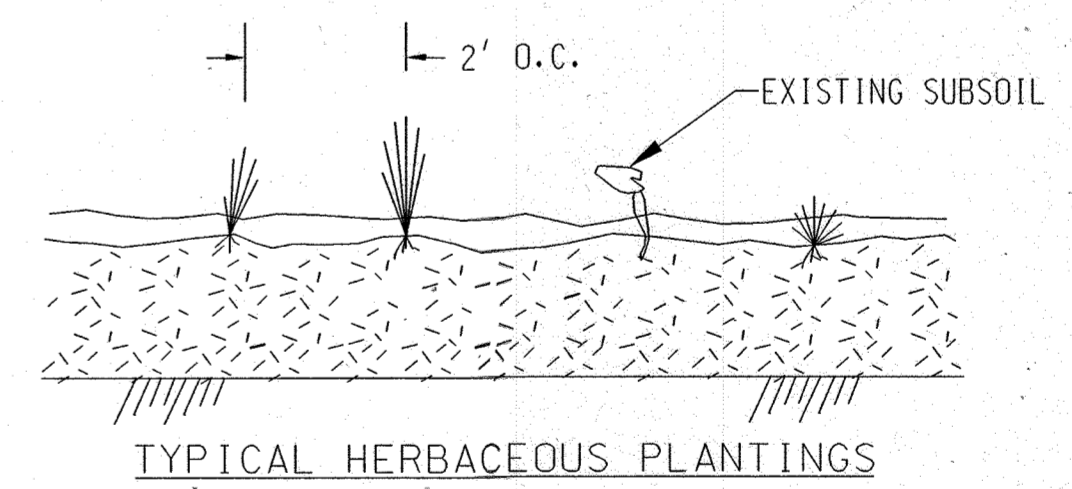
| WETLAND PLANTING MIX | COVERAGE | SPECIES |
|----------------------|-----------|---|
| 1. [Pattern] | 2339 S.F. | VIRGINIA BLUEFLAG SWAMP ASTER CARDINAL FLOWER IRIS VIRGINICA ASTER PUNICEUS LOBELIA CARDINALIS |
| 2. [Pattern] | 2380 S.F. | LIZARDS TAIL BENT SEDGE VIRGINIA WILD RYE SAURURUS CEMUUS CAREX STYLOFLXA ELYMUS VIRGINICUS |
| 3. [Pattern] | 1037 S.F. | NEW ENGLAND ASTER BLUE VERVAIN BLUNT SPIKERUSH ASTER NOVAE-ANGLIAE VERBENA HASTATA ELEOCHARIS OBTUSA |
| 4. [Pattern] | 3389 S.F. | ORANGE CONEFLOWER BIRDS-FOOT TREFLOIL SOFT RUSH RUDBECKIA FULGIDA LOTUS CORNICULATUS JUNCUS EFFUSUS |

WHEN SPECIFIED PLANT SIZES OR TYPES ARE NOT AVAILABLE, SUBSTITUTIONS MAY BE MADE BY THE CONTRACTOR AFTER REVIEW BY THE LANDSCAPE ARCHITECT PROVIDED SUBSTITUTIONS PROVIDE EQUAL OR GREATER WETLAND FUNCTION AND VALUE SUCH AS HABITAT VALUE AND EROSION AND SEDIMENTATION CONTROL AND PROVIDED THE SPECIES HAVE SIMILAR WETLAND INDICATOR STATUS AND CAN THRIVE UNDER ANTICIPATED SITE CONDITIONS. STANDARD REFERENCES AS TO SPECIFIC SPECIES VALUE MUST BE UTILIZED FOR COMPARISON AND DETERMINATION OF SUBSTITUTED SPECIES SUITABILITY. INCREASED COSTS WHICH MAY BE ASSOCIATED WITH SUBSTITUTIONS SHALL BE BORNE BY THE CONTRACTOR.

PLANT AND ROOTSTOCK SHALL BE TRUE TO TYPE AND NAME IN ACCORDANCE WITH THE CURRENT EDITION OF STANDARDIZED PLANT NAMES, AMERICAN JOINT COMMITTEE OF HORTICULTURE NOMENCLATURE. BAGGED OR BUNDLED STOCK SHALL BE LABELED WITH COMMON PLANT NAME AND TYPICAL OF THE SPECIES OF VARIETY INDICATED. ALL PLANTS AND ROOTSTOCK SHALL BE FREE FROM DISEASE AND INJURIOUS INSECTS IN ACCORDANCE WITH STATE AND FEDERAL LAWS. PLANTS AND ROOTSTOCK SHALL BE FREE OF MECHANICAL INJURIES, CUT BACK LEADER, DECAY, ROT, MOLD, OR OTHER DEFECTS. NURSERY GROWN PLANTS OR ROOTSTOCK SHALL BE ACCLIMATED TO SITE SOIL AND CLIMATIC CONDITIONS. ROOTSTOCK MUST BE FIBROUS AND HAVE WELL-BRANCHED ROOT SYSTEMS CHARACTERISTIC OF THE SPECIES.

STORMWATER MANAGEMENT PLANT LIST

| | QUANTITY | KEY | BOTANICAL NAME | COMMON NAME | SIZE | ROOTS |
|----------|----------|-----|--------------------------|------------------------|----------|-------|
| [Symbol] | 5 | CO | CELTIS OCCIDENTALIS | COMMON HACKBERRY | 2" CAL. | B&B |
| [Symbol] | 2 | SB | SALIX BABYLONICA | BABYLON WEeping WILLOW | 2" CAL. | B&B |
| [Symbol] | 5 | PT | PINUS THUNBERGIANA | JAPANESE BLACK PINE | 6'-8" HT | B&B |
| [Symbol] | 4 | LC | CUPRESSOCYPARIS LEYLANDI | LEYLAND CYPRESS | 5'-6" HT | B&B |



APPROVED: FOR PUBLIC WATER AND PRIVATE SEWERAGE SYSTEMS,
HOWARD COUNTY HEALTH DEPARTMENT
Denny Woods 3-5-03
COUNTY HEALTH OFFICER DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
Mark J. Layton 3/10/03
DIRECTOR DATE

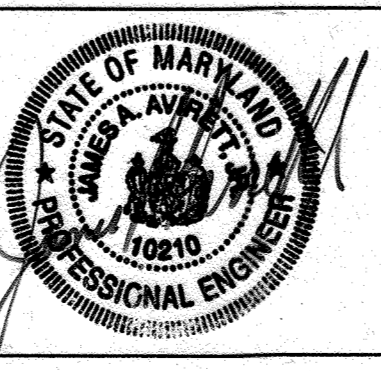
Chris Quinones 3/11/03
CHIEF, DEVELOPMENT ENGINEERING DIVISION CE DATE

Cindy H. Smith 3/17/03
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

CHIEF, BUREAU OF UTILITIES DATE

PREPARED BY:
WR&A
Whitman, Reardon and Associates, LLP.
801 South Caroline Street,
Baltimore, Maryland, 21231
410-235-3450



| | | | |
|------------------|--------|----------|------|
| DES: HWP | | | |
| DRN: KRS | | | |
| CHK: HWP | | | |
| DATE: 12/16/2002 | BY NO. | REVISION | DATE |

STORMWATER FACILITY
LANDSCAPE PLAN,
NOTES AND DETAILS

600' SCALE MAP NO. 16 BLOCK NO. 2 / 8

PUBLIC SAFETY TRAINING CENTER
AT ALPHA RIDGE LANDFILL
CAPITAL PROJECT NO. C-0182
HOWARD COUNTY, MARYLAND

LS-3

SCALE AS SHOWN

SHEET 37 OF 39

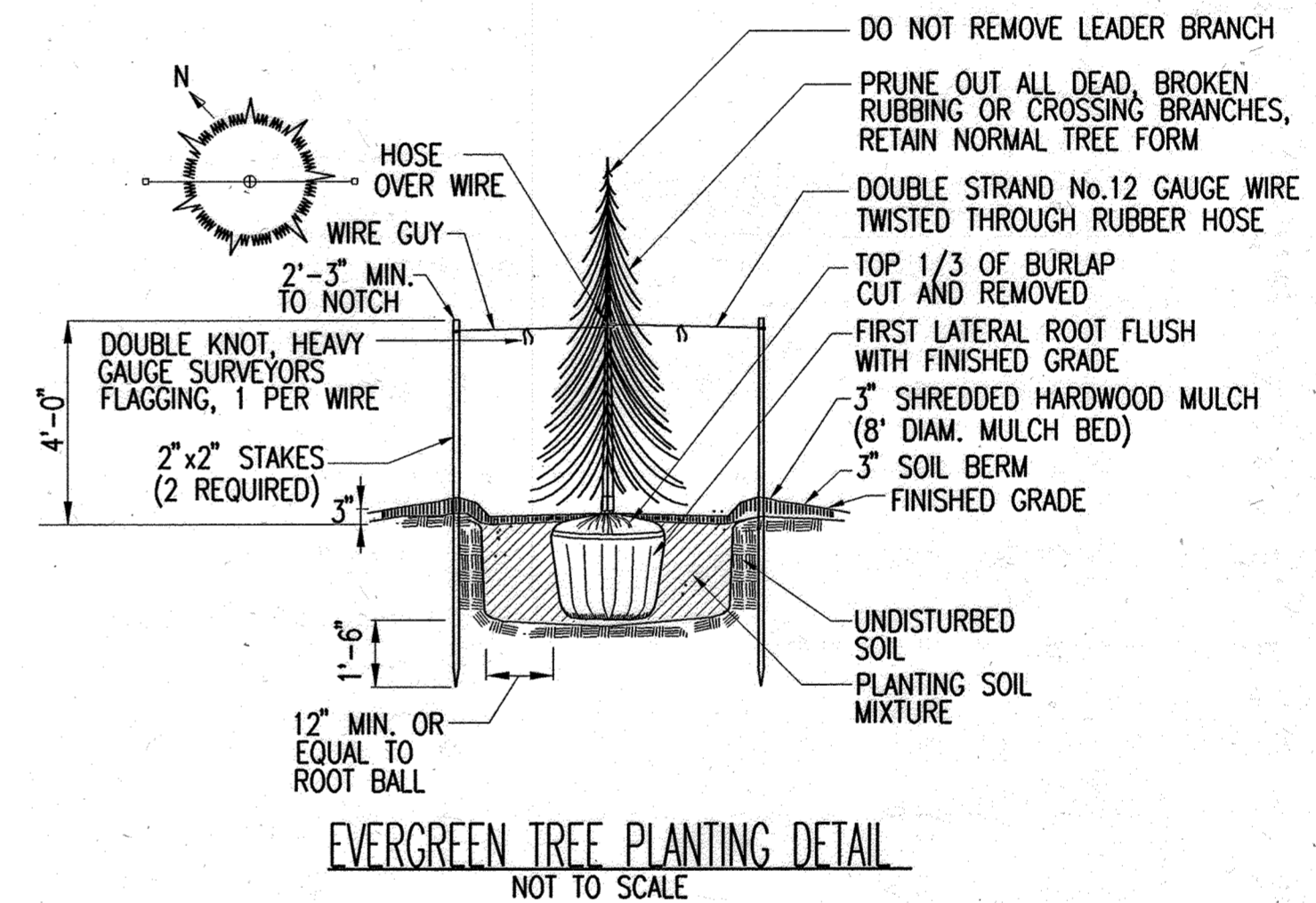
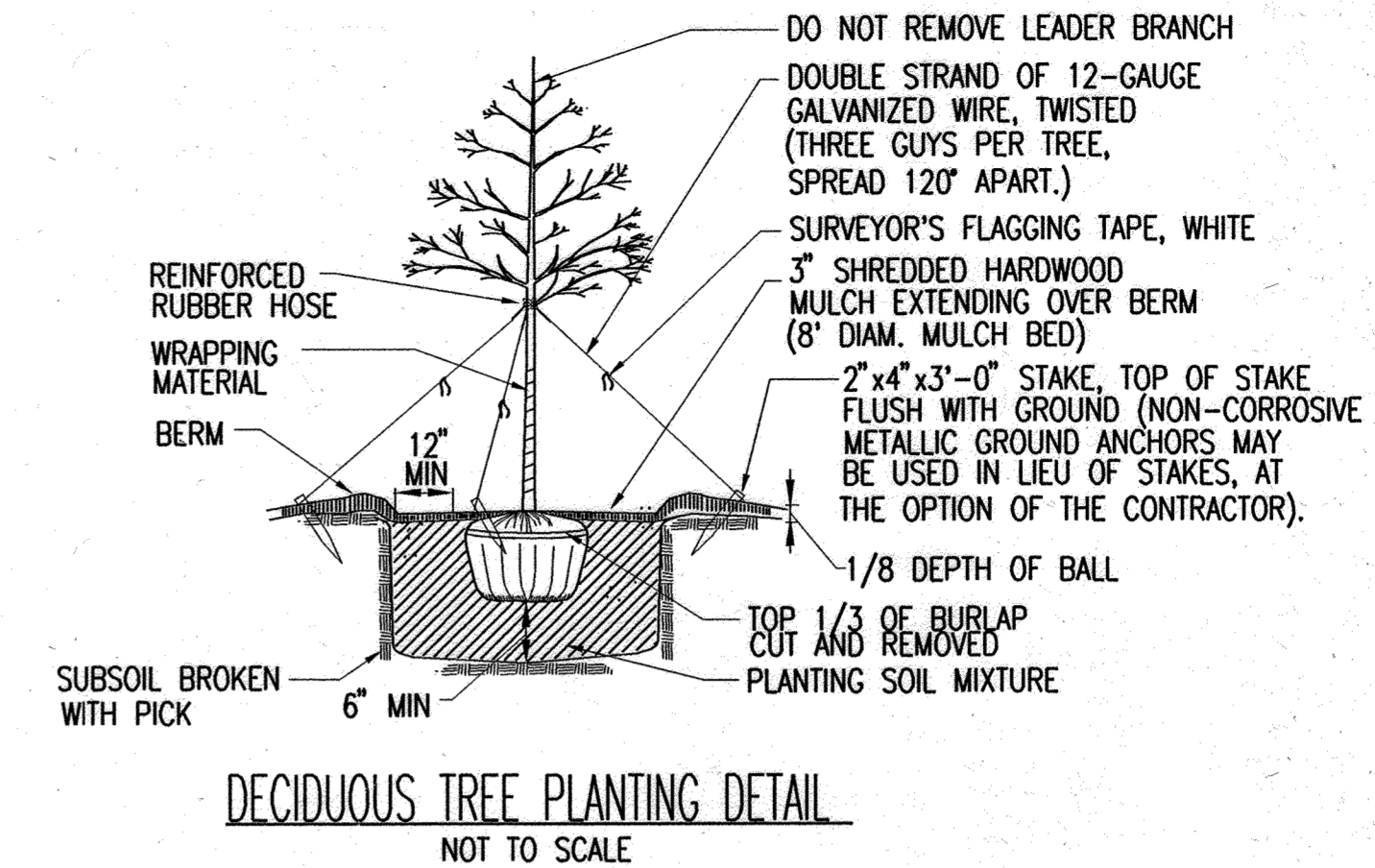
NOTES:

- CONTRACTOR SHALL VERIFY PLANT MATERIAL QUANTITIES SHOWN ON PLAN WITH TOTALS IN PLANT SCHEDULE. NOTIFY LANDSCAPE ARCHITECT OF ANY DISCREPANCIES PRIOR TO FINAL BIDDING. UNIT PRICES SHALL BE SUBMITTED TO LANDSCAPE ARCHITECT WITH BID.
- CONTRACTOR IS RESPONSIBLE FOR CONTACTING MISS UTILITY PRIOR TO BEGINNING CONSTRUCTION FOR LOCATION OF ALL UTILITY LINES.
- ALL PLANT MATERIALS, TOPSOIL, MULCH FERTILIZERS, SOIL AMENITIES, PLANTING SUPPLIES AND METHODS SHALL BE IN CONFORMANCE WITH THE LANDSCAPE SPECIFICATIONS AND SUBJECT TO LANDSCAPE ARCHITECT'S APPROVAL. REJECTED MATERIAL SHALL BE REMOVED FROM THE SITE WITHOUT DELAY.
- ALL LANDSCAPING SHALL BE IN ACCORDANCE WITH THE HOWARD COUNTY LANDSCAPE MANUAL, ADOPTED JANUARY 4, 1993, AMENDED MARCH 2 1998.
- ALL PLANTS SHALL HAVE BEEN NURSERY GROWN AND SHALL HAVE BEEN GROWN UNDER THE SAME CLIMATIC CONDITIONS AS THE LOCATION OF THIS PROJECT FOR AT LEAST TWO YEARS BEFORE PLANTING. NEITHER HEELED IN PLANTS NOR PLANTS FROM COLD STORAGE WILL BE ACCEPTED.
- ALL PLANTING BED AREAS SHALL BE COVERED WITH A 3" MINIMUM LAYER OF MEDIUM TEXTURE SHREDDED HARDWOOD MULCH.
- ALL SUBSTITUTIONS OF PLANT MATERIAL SHALL BE REQUESTED IN WRITING TO THE LANDSCAPE ARCHITECT AND APPROVED IN WRITING BY THE HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING. FAILURE TO OBTAIN SUBSTITUTIONS IN WRITING MAY RESULT IN LIABILITY TO THE CONTRACTOR.
- ALL PLANTING OPERATIONS SHALL BE UNDER THE SUPERVISION OF AN EXPERIENCED PLANTSMEN.
- ALL TREES SHALL HAVE A MULCH BED EIGHT FOOT (8') IN DIAMETER. ALL SHRUBS SHALL BE PLACED IN A CONTINUOUS FOUR FOOT (4') WIDE MULCH BED.
- THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL.
- INTERNAL PARKING LOT LANDSCAPING WILL BE PROVIDED ON SITE DEVELOPMENT PLANS FOR FUTURE PHASES OF THE PROJECT WHEN THE PARKING LOTS ARE PAVED.

**SCHEDULE A
PERIMETER LANDSCAPE EDGE**

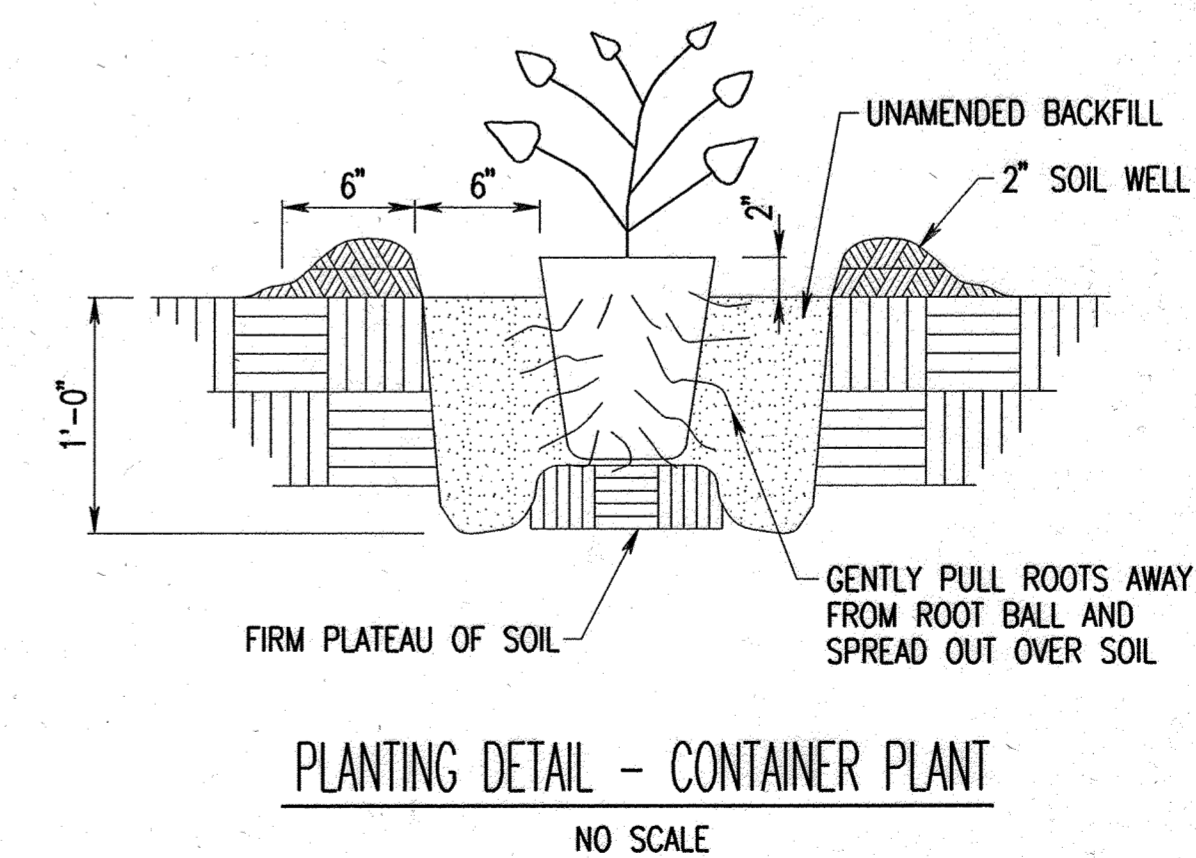
| CATEGORY | ADJACENT TO ROADWAYS | ADJACENT TO PERIMETER PROPERTIES | |
|---|---|----------------------------------|--|
| | (LANDSCAPE PERIMETER P-2) B | A | (LANDSCAPE PERIMETER P-1) C |
| LANDSCAPE TYPE | | | |
| LINEAR FEET OF ROADWAY FRONTAGE/PERIMETER | 1500 L.F. | NOT REQUIRED | 1530 L.F. |
| CREDIT FOR EXISTING VEGETATION (YES, NO, LINEAR FEET) (DESCRIBE BELOW IF NEEDED) | YES EX. VEGETATION 700 L.F. (800 L.F. REMAINING) | NOT REQUIRED | YES 270 L.F. (1260 L.F. REMAINING) |
| CREDIT FOR WALL, FENCE OR BERM (YES, NO, LINEAR FEET) (DESCRIBE BELOW IF NEEDED) | SLOPE CREDIT YES | NOT REQUIRED | SLOPE CREDIT NO |
| NUMBER OF PLANTS REQUIRED SHADE TREES EVERGREEN TREES SHRUBS | (PROVIDED) 1 SHADE TREE/50 L.F. (16) 1 EVERGREEN/40 L.F. (0*) | NOT REQUIRED | 1 SHADE TREE/40 L.F. (32) 1 EVERGREEN/20 L.F. (63) |
| NUMBER OF PLANTS PROVIDED SHADE TREES EVERGREEN TREES OTHER TREES (2:1 SUBSTITUTION) SHRUBS (10:1 SUBSTITUTION) DESCRIBE PLANT SUBSTITUTION CREDITS BELOW IF NEEDED) | 1:50 SHADE TREE 1:40 EVERGREEN SHADE: (16) EVERGREEN: *(0) SHRUBS: (0) SEE NOTE* | NOT REQUIRED | 1:40 SHADE TREE 1:20 EVERGREEN SHADE: (37) EVERGREEN: (97) SHRUBS: (211) SEE NOTE** |

NOTE:
 * LANDSCAPE EDGE TYPE B: ADJACENT TO HIGHWAY.
 NO NEW TREES PROVIDED IN LOCATIONS WHERE EXISTING WOODS ARE PRESERVED ALONG LANDSCAPE EDGE B. GRADE CHANGE 6'-10' ALONG LANDSCAPE EDGE WILL SUBSTITUTE FOR EVERGREEN TREES.
 **LANDSCAPE EDGE TYPE C: ADJACENT TO RESIDENTIAL. ADDITIONAL LANDSCAPING PROVIDED TO BUFFER RESIDENTIAL USE.



**SCHEDULE D
STORMWATER MANAGEMENT AREA LANDSCAPING**

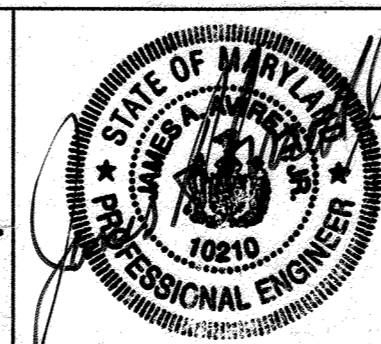
| | |
|---|---|
| LINEAR FEET OF PERIMETER | 540 L.F. |
| TYPE "B" BUFFER NUMBER OF TREES REQUIRED: SHADE TREES EVERGREEN TREES | 1 SHADE TREE/50 L.F.= 7 1 EVERGREEN TREE/40 L.F.= 9 |
| CREDIT FOR EXISTING VEGETATION (NO, YES AND %) | YES 180 L.F. (360 L.F. REMAINING) |
| CREDIT FOR OTHER LANDSCAPING (NO, YES AND %) | NO |
| NUMBER OF TREES PROVIDED: SHADE TREES EVERGREEN TREES OTHER TREES (2:1 SUBSTITUTION) | SHADE: 7 EVERGREEN: 9 OTHER: 9000 S.F. OF WETLAND PLANT SPECIES PROVIDED. |



APPROVED: FOR PUBLIC WATER AND PRIVATE SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT
 COUNTY HEALTH OFFICER: [Signature] DATE: 3/5/03
 APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
 DIRECTOR: [Signature] DATE: 3/16/03
 CHIEF, DEVELOPMENT ENGINEERING DIVISION: [Signature] DATE: 3/11/03
 CHIEF, DIVISION OF LAND DEVELOPMENT: [Signature] DATE: 3/12/03

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND
 CHIEF, BUREAU OF UTILITIES
 DATE:

PREPARED BY:
WR&A
 Whitman, Requardt and Associates, LLP.
 801 South Caroline Street,
 Baltimore, Maryland. 21231
 410-235-3450



DES: H.W.P., S.H.B.
 DRN: E.M.
 CHK: H.W.P.
 DATE: 12/16/2002
 BY NO. REVISION DATE

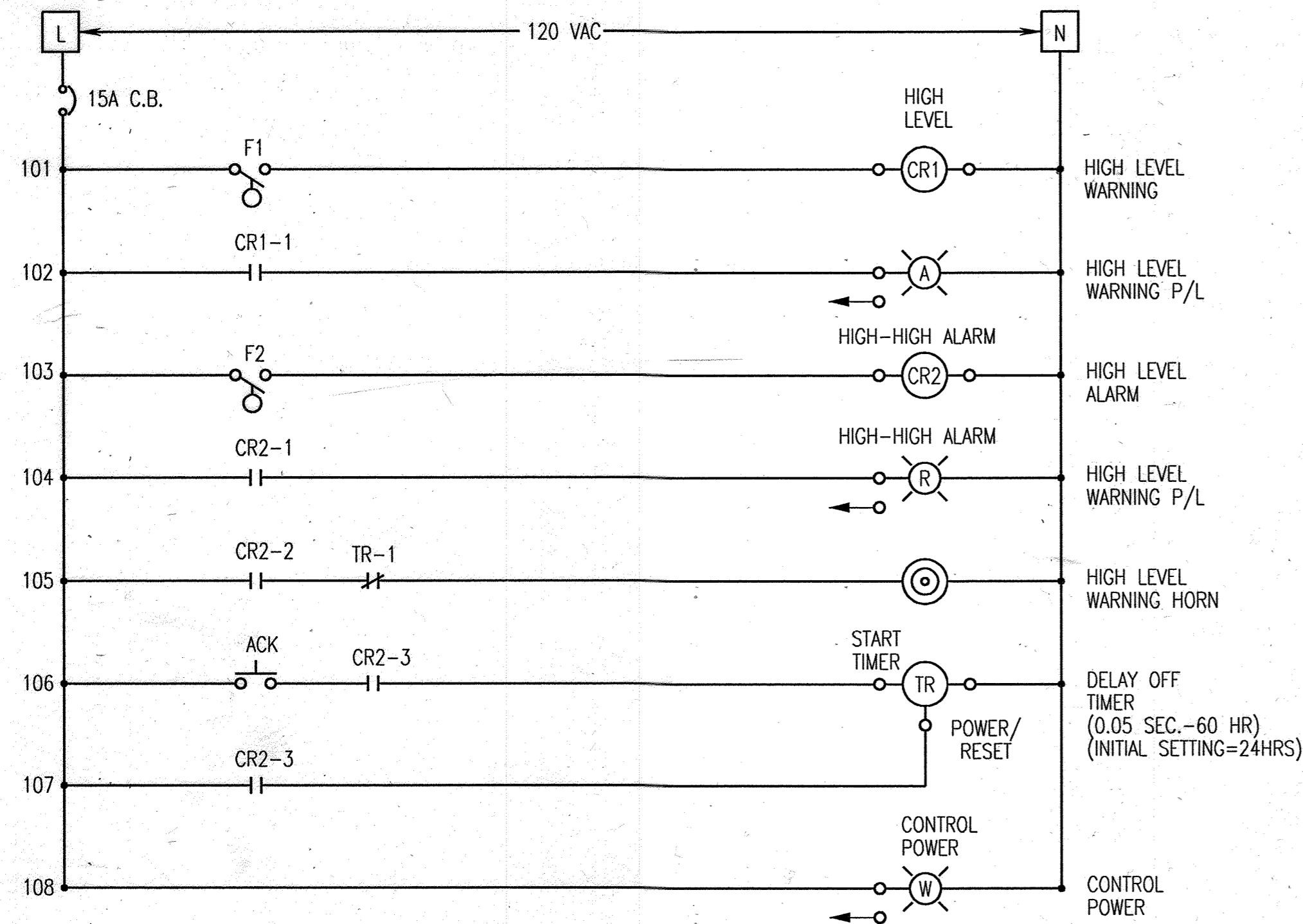
LANDSCAPE NOTES AND DETAILS

600' SCALE MAP NO. 16 BLOCK NO. 2 / 8

PUBLIC SAFETY TRAINING CENTER
 AT ALPHA RIDGE LANDFILL
 CAPITAL PROJECT NO. C-0182
 HOWARD COUNTY, MARYLAND

LS-4

SCALE AS SHOWN
 SHEET 38 OF 39



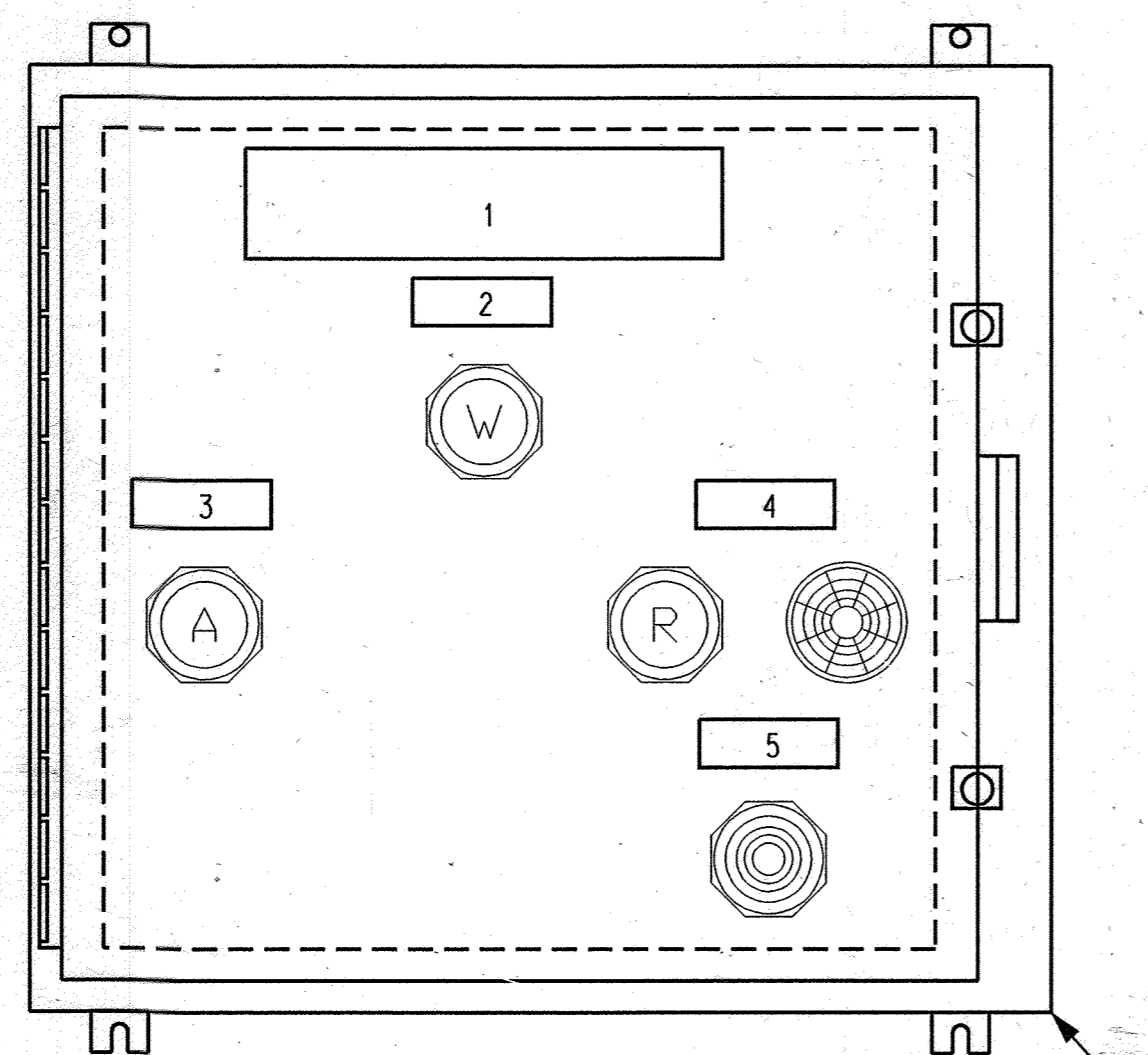
EQUIPMENT LEGEND:

- AUDIBLE ALARM (PANEL MOUNTED)
- CIRCUIT BREAKER (C.B.) (SQUARE-D TYPE Q04 OR EQUAL)
- FLOAT SWITCH
- NORMALLY OPEN (N.O.) CONTACT
- NORMALLY CLOSED (N.C.) CONTACT
- PUSH BUTTON (N.O.)
- PILOT LIGHT/PUSH TO TEST (COLOR AS INDICATED) R=RED W=WHITE A=AMBER
- CONTROL RELAY (DEC RH SERIES W/ LED)
- TIME RELAY (TIME OFF DELAY) (ALLEN BRADLEY 700-FS-B-4-U-U23, OR EQUAL)

PANEL DEVICES:

- AUDIBLE ALARM DEVICE (MALLORY SONALERT (LOUD), OR EQUAL)
- 30.5MM PILOT LIGHT-COLOR AS INDICATED (ALLEN BRADLEY 800T, OR EQUAL) R=RED W=WHITE A=AMBER
- 30.5MM PUSH BUTTON (ALLEN BRADLEY 800T, OR EQUAL)

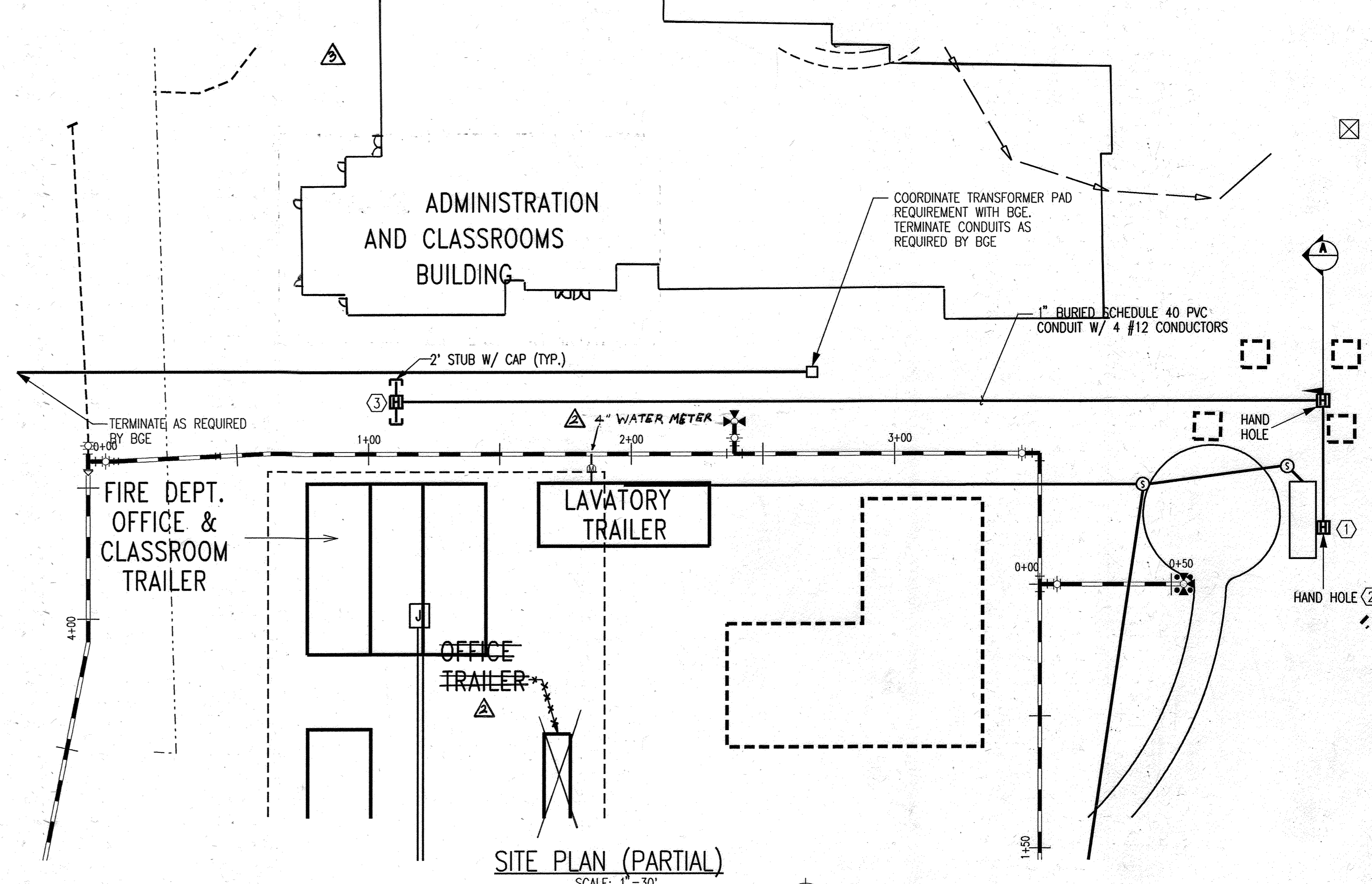
| NAME PLATE SCHEDULE (BLACK W/ WHITE LETTERS) | |
|--|---------------------------------|
| 1 | SEPTIC HOLDING TANK ALARM PANEL |
| 2 | CONTROL POWER |
| 3 | HIGH LEVEL WARNING |
| 4 | HIGH LEVEL ALARM |
| 5 | ALARM SILENCE |



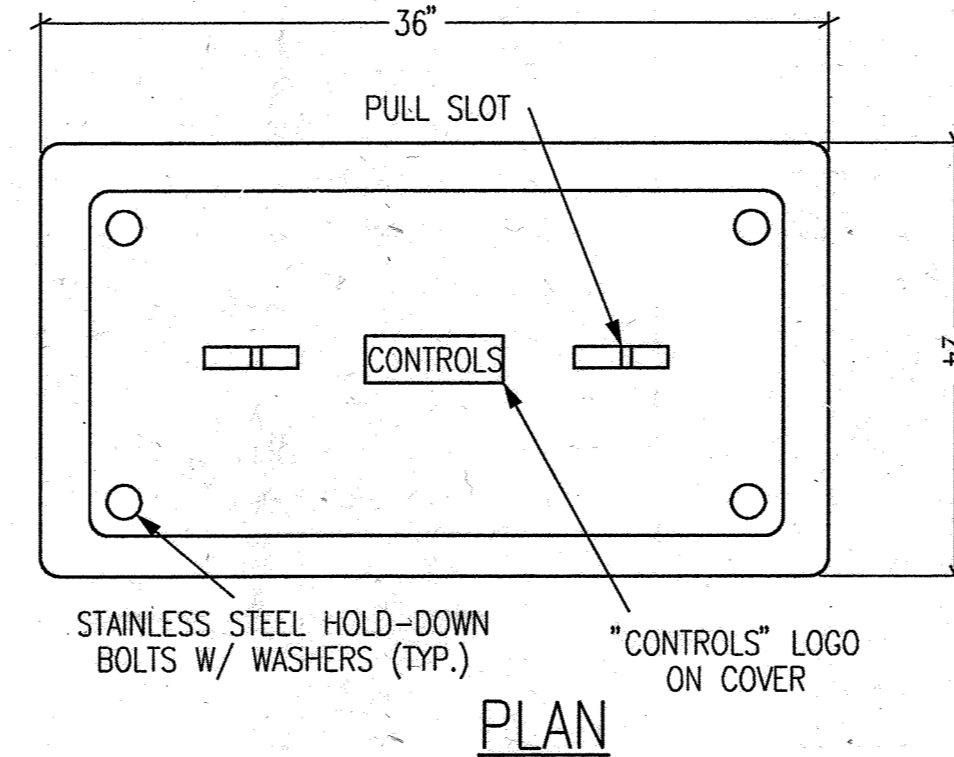
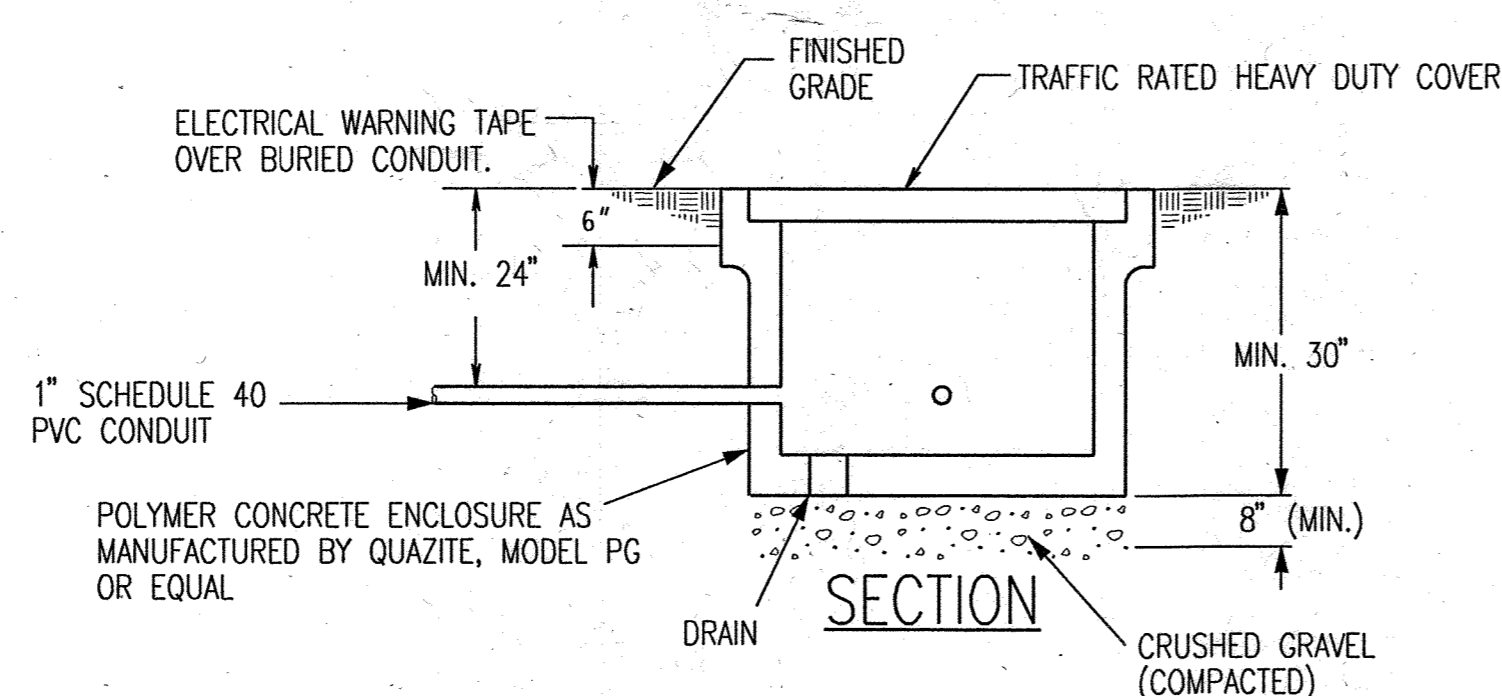
ALARM PANEL
SCALE: NTS

DRAWING NOTES:

- 1 CONTRACTOR SHALL PROVIDE FLANGE CONNECTION TO FIBREGLASS HOLDING TANK AND SEAL AROUND CONDUIT. CONTRACTORS SHALL PROVIDE AND INSTALL TWO FLOAT SWITCHES INSIDE SEPTAGE HOLDING TANK AT ELEVATIONS INDICATED. FLOAT SWITCHES SHALL BE HERMETICALLY SEALED STAINLESS STEEL MERCURY SWITCH WITH A NORMALLY OPEN/NORMALLY CLOSED DOUBLE THROW CONTACTS. FLOAT SWITCHES SHALL HAVE ZINC PLATED SPLIT TETHER WEIGHTS. SWITCHES SHALL BE AS MANUFACTURED BY CONERY, MODEL #2900, OR EQUAL.
- 2 CONTRACTOR SHALL MAKE WATER TIGHT, SUBMERSIBLE SPLICES FROM FLOAT CABLES TO CONDUCTORS IN HAND HOLE.
- 3 CONTRACTOR SHALL LEAVE AT LEAST 50' EXTRA LENGTH ON EACH CONDUCTOR FOR FUTURE CONNECTORS AND COIL UP INSIDE HAND HOLE. PROVIDE 2' CONDUIT STUB ON EACH SIDE OF HAND HOLE AND CAP AS SHOWN.
- 4 ALARM PANEL ENCLOSURE SHALL BE NEMA 12 RATED 14 GAUGE STEEL ENCLOSURE WITH CONTINUOUS HINGE. PANEL SHALL BE SIZED BY CONTRACTOR, BUT SHALL NOT EXCEED 12" X 12". ALARM PANEL INSTALLATION AND FINAL TERMINATIONS SHALL BE COMPLETED BY OTHERS. ALARM PANEL SHALL BE FABRICATED AND CERTIFIED IN ACCORDANCE TO U.L. 508 GUIDELINES BY A U.L. CERTIFIED INDUSTRIAL CONTROL PANEL FABRICATOR.

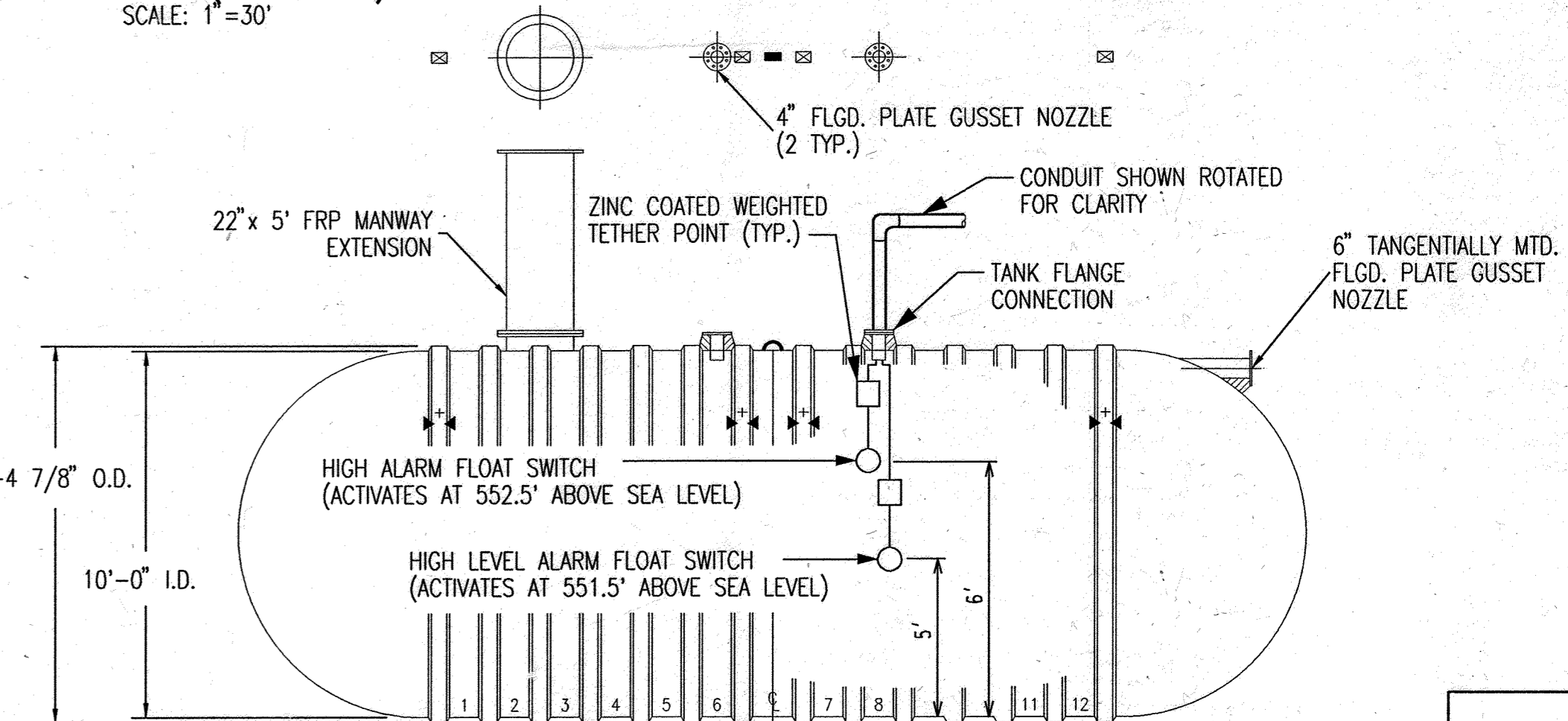


SITE PLAN (PARTIAL)
SCALE: 1"=30'



PRE CAST HANDHOLE

SCALE: NTS



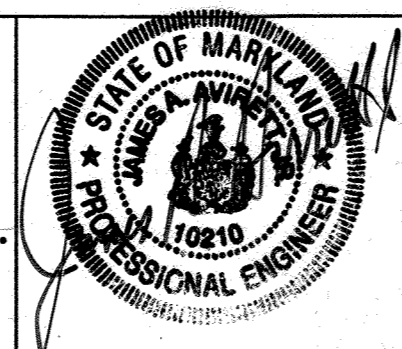
FLOAT INSTALLATION

SCALE: NTS

APPROVED: FOR PUBLIC WATER AND PRIVATE SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT
 COUNTY HEALTH OFFICER *Denny Brackley* 3-5-03 DATE
 APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
 DIRECTOR *Mark DeLoach* 2/10/03 DATE
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
 CHIEF, DIVISION OF LAND DEVELOPMENT *Andy Hamstra* 3/12/03 DATE

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND
 CHIEF, BUREAU OF UTILITIES DATE

PREPARED BY:
WR&A
 Whitman, Reardon and Associates, LLP.
 801 South Caroline Street,
 Baltimore, Maryland, 21231
 410-235-3450



| | | | |
|------------------|----------|---|---------------------------------------|
| DES: PWG | ERI | REVISED THE ADMIN./CLASSROOM BLDG. W/ WALKWAY AND PARKING AREA W/ 3 HANDICAPPED SPACES. | 7/13/02 |
| DRN: JMV | | | |
| CHK: PWG | | | |
| DATE: 12/16/2002 | | ADD SIZE OF WATER METER/ REMOVE OFFICE BLDG. | 10/17/02 |
| BY: NO. | REVISION | DATE: | 600' SCALE MAP NO. 16 BLOCK NO. 2 / 8 |

LEVEL ALARM CONTROL ECD
 FLOAT INSTALLATION DETAIL
 CONDUIT DETAIL

PUBLIC SAFETY TRAINING CENTER
 AT ALPHA RIDGE LANDFILL
 CAPITAL PROJECT NO. C-0182
 HOWARD COUNTY, MARYLAND

E-I
 SCALE AS SHOWN
 SHEET 39 OF 39