

**GENERAL NOTES**

- All construction shall be in accordance with the latest standards and specifications of Howard County plus MSHA standards and specifications if applicable.
- The contractor shall notify the Bureau of Engineering/Construction Inspection Division at (410) 315-1880 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.
- Project Background:**  
 Location: Tax Map 41/46, Parcel 115  
 Zoning: RR-MXD3  
 Election District: 5th Election District  
 Section/Area: N/A  
 Site Area: 99.83± AC (Gross)  
 Approved Name and DPZ Ref. File Nos.: SDP-95-118, SDP-98-01, Council Resolution 96-1926, WP-95-122, WP-98-01, WP-00-78 02-00-13, Council Resolution 47-2000, and WP-00-85.
- Traffic control devices, markings, and signing shall be in accordance with the latest edition of the Manual on 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 the face of curb or face of building unless otherwise noted. Dimensions are measured perpendicular or radially between items unless otherwise noted.
- Existing topography and features were derived from survey by Gutschick, Little & Weber, P.A. done in October, 1995; from survey by A/S Survey Corporation of Sterling, VA, dated 12-15-94; from SDP-95-118, SDP-98-01 and 02-00-131.
- Coordinates are based on NAD 83 Maryland Coordinate System as projected by Howard County Geodetic Control Sta. Nos. 410A and 46B2. Vertical Datum is in NAD 2.9'.
- Public water and sewer is to be utilized. Contract Nos. 24-3452-0, 24-3633-D and 44-3830-0, Little Patuxent Drainage Area.
- Stormwater Management is provided by an on-site private retention facility that is to be privately maintained.
- All on-site storm drains proposed under this SDP are private.
- The existing utilities shown herein were derived from available public records. The contractor must dig test pits, by hand, at all utility crossings and connection points to verify exact location.
- All proposed ramps shall be in accordance with current A.A. Standards. Maximum sidewalk cross slope shall be (2%) two percent. Provide a (5/32") fine foot by five foot level (2# 40s) landing at the top and bottom of all ramps and building entrances and exits.
- All driveways and parking to be owned and maintained by Howard County Public School System.
- Any damage to County & State owned right-of-way to be corrected at the contractor's expense.
- Trench bedding for storm drainage structures shall be in accordance with Howard County Standard 02.01. Class "C" bedding, unless otherwise noted.
- Cutler pan of curbs shall be pitched to conform to the adjacent drainage patterns of the adjoining paving for vehicular use. See detail 11/6.
- All curb fillets are 5' radius unless noted otherwise. Curb spot elevations along curb line are at the flow line, unless noted otherwise.
- For details of building profile, parking, road section, handicap, curb and gutter see Sheet No. 6.
- There are no known grave sites or cemeteries on this site.

- Other topics related to this site:
  - Traffic Study prepared by The Traffic Group dated 6-4-95 and approved 7-5-95. The Traffic Signal Warrant Analysis was done by Lee Cunningham & Associates, Inc. on 12/1/99.
  - Slope and Forest Stand Delineation (see sheet 18 of 22, SDP-95-118)
  - Wetland Delineation by M.A. Dirks & Co., Inc. dated 1.27.94 & approved 7-5-95.
  - 100 yr. Floodplain (delineated based on 200 scale Ho. Co. Floodplain Map and from Floodplain study done under SDP-95-118 & SDP-98-01).
  - Soils analysis by Penman & Brown, Inc. dated January 04, 2000.
- All outside lighting shall comply with Zoning Regulation Section 134 which requires lights to be installed to direct/reflect light downwards and awards on site away from all adjoining public streets and residential areas. See drawing sheet E-1 to be submitted with Building Permit Submission packages.
- The water meter is located inside the building. The building shall be equipped with an automatic fire prevention sprinkler system.
- The Forest Conservation Easements on this plan have been established to fulfill the requirements of Section 16.1200 of the Howard County Code, Forest Conservation Act. No clearing, grading or construction is permitted within the Forest Conservation Easements; however, the initial grading to develop the Reservoir High School per SDP-00-86 and forest management practices as defined in the Deed of Forest Conservation Easement are allowed. See Plot of Forest Conservation Easement for this site filed under SDP-00-86 and recorded as Plot No. 13262 on 02/20/00.
- This project complies with the requirements of Section 16.1200 of the Howard County Code for forest conservation with an obligation of 21.50 acres which has been met by recordation of 26.14 acres of Forest Conservation Easements which includes:
  - 1.80 acres of on-site retention
  - 17.00 acres of on-site afforestation and reforestation
  - 2.70 acres of off-site afforestation at Elliott Mills M.S.
 The above total of 19.70 acres of afforestation and reforestation includes 5.20 acres of forest planting to satisfy the forest conservation obligations for the off-site Lechester Elementary School and Bonnie Branch Middle School (SDP-95-55 and SDP-98-95 respectively) at the public school site in Lechester. The 26.14 acres of Forest Conservation Recorded Easements also includes 4.64 acres of wooded floodplain (the difference between 26.14 and 21.50 acres).

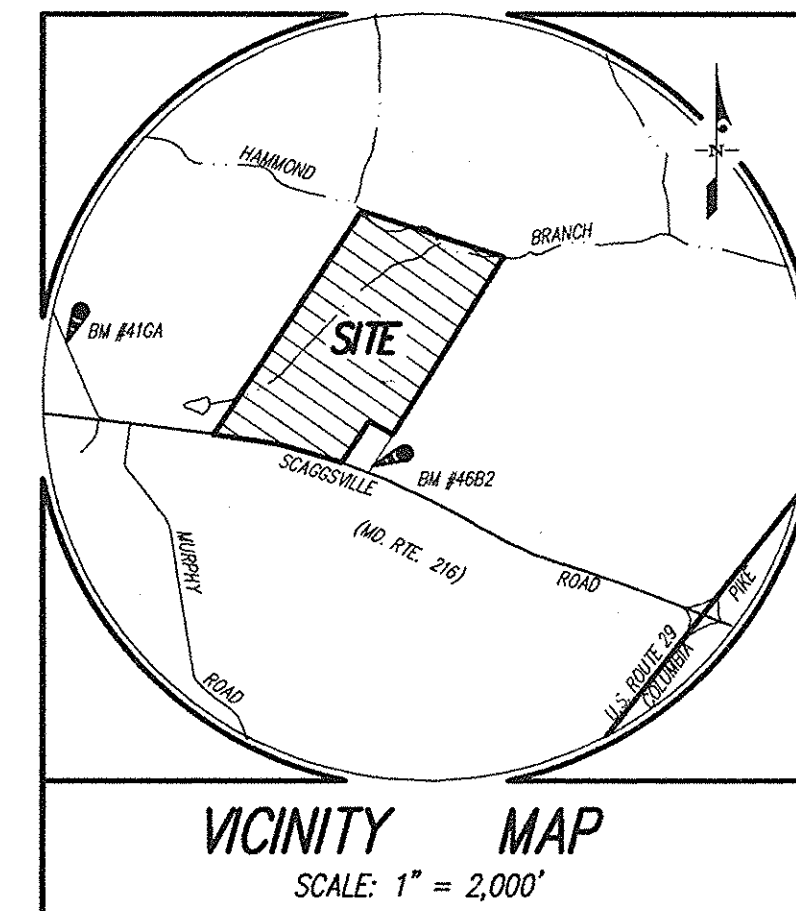
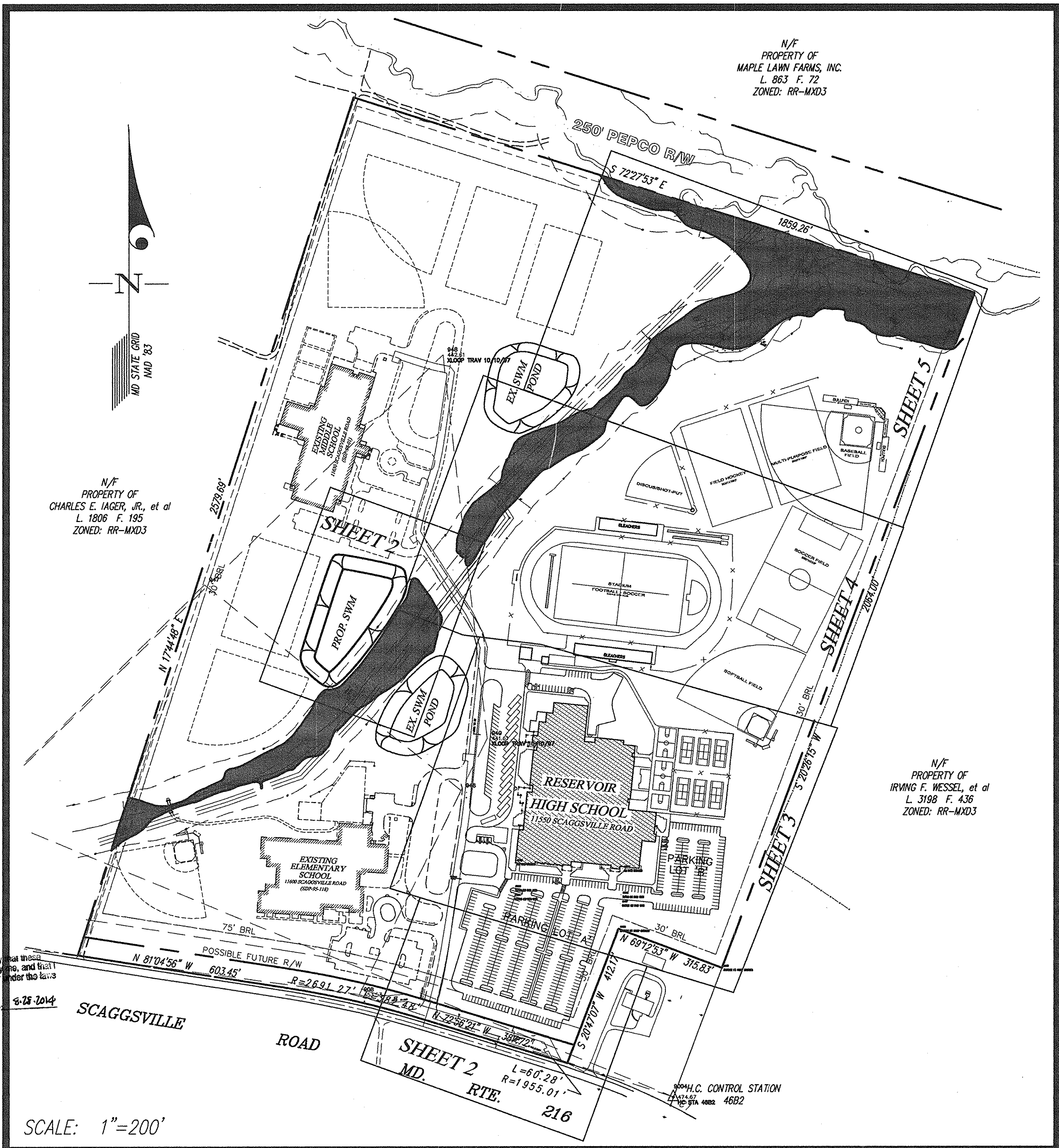
- The existing well serving the temp. construction trailer/field-office shall be capped and abandoned by a well driller in accordance with the Health Department Specifications.
- See sheet 28 for additional general notes.

# RESERVOIR HIGH SCHOOL

(EASTERN HIGH SCHOOL No.2)  
 FIFTH ELECTION DISTRICT  
 HOWARD COUNTY, MARYLAND

**BEST MANAGEMENT PRACTICES FOR WORKING IN NONTIDAL WETLANDS, WETLAND BUFFERS, WATERWAYS AND 100-YEAR FLOODPLAINS**

- No excess fill, construction material, or debris shall be stockpiled or stored in nontidal wetlands, nontidal wetland buffers, waterways, or the 100-year floodplain.
- Place materials in a location and manner which does not adversely impact surface or subsurface water flow into or out of nontidal wetlands, nontidal wetland buffers, waterways, or the 100-year floodplain.
- Do not use the excavated material as backfill if it contains waste metal products, unsightly debris, toxic material, or any other deleterious substance. If additional backfill is required, use clean material free of waste products, unsightly debris, toxic material, or any other deleterious substance.
- Place heavy equipment on mats or suitably operate the equipment to prevent damage to nontidal wetland buffers, waterways, or the 100-year floodplain.
- Repair and maintain any serviceable structure or fill so there is no permanent loss of nontidal wetlands, nontidal wetland buffers, or waterways, or permanent modification of the 100-year floodplain in excess of that lost under the originally authorized structure or fill.
- Rectify any nontidal wetlands, wetland buffers, waterways, or 100-year floodplain temporarily impacted by any construction.
- All stabilization in the nontidal wetland and nontidal wetland buffer shall consist of the following species: Annual Ryegrass (*Lolium multiflorum*), Millet (*Syntherisma italica*), Barley (*Hordeum sp.*), Oats (*Avena sp.*), and/or Rye (*Sitona cereale*). These species will allow for the voluntary revegetation of natural wetland species. Other non-persistent vegetation may be acceptable, but must be approved by the Nontidal Wetlands and Waterways Division. Kentucky 31 fescue shall not be utilized in wetland or buffer areas. The area should be seeded and mulched to reduce erosion after construction activities have been completed.
- After installation has been completed, make post-construction grades and elevations the same as the original grades and elevations in temporarily impacted areas.
- To protect aquatic species, in-stream work is prohibited as determined by the classification of the stream:
  - Use I waters. In-stream work shall not be conducted during the period of March 1 through June 15, inclusive during any year.
- Stormwater runoff from impervious surfaces shall be controlled to prevent the washing of debris into the waterway.
- Culverts shall be constructed and any rip-rap placed as so not to obstruct the movement of aquatic species, unless the purpose of the activity is to impound water.



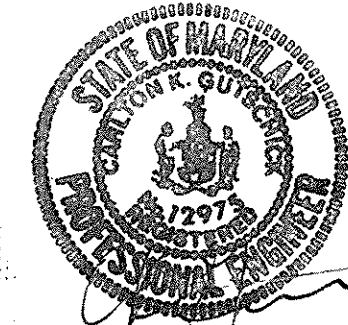
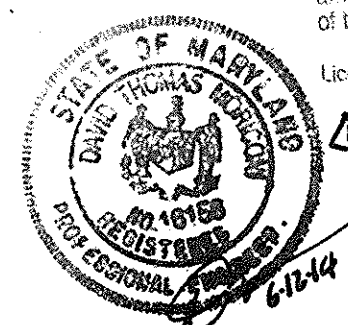
**SHEET INDEX**

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3	SITE DEVELOPMENT PLAN
4	SITE DEVELOPMENT PLAN
5	SITE DEVELOPMENT PLAN
6	SITE DETAILS
7	SEDIMENT CONTROL OVERVIEW
8	SEDIMENT CONTROL PLAN
9	SEDIMENT CONTROL PLAN
10	SEDIMENT CONTROL NOTES & DETAILS
11	STORM DRAIN PROFILES
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27	STADIUM BUILDING WATER PROFILE
28	TITLE SHEET
29	EXISTING PLAN/DEMOLITION PLAN
30	STAKE-OUT PLAN
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32-35	SITE DETAILS I, II, III & IV
36	PIPE PROFILES
37	EROSION & SEDIMENT CONTROL NOTES & DETAILS

**SITE ANALYSIS DATA CHART**

- General Site Data
  - Present Zoning: RR-DEO/MXD3
  - Proposed Use of Site or Structures: Institutional (Public School)
  - Public Water and Sewer System to be utilized.
- Area Tabulation
  - Total Project Area: 99.83± acres (gross)
  - Area of This Plan Submission: 41.0± AC is the limit of submission and grading disturbance for the construction of the high school. However, the entire site is examined for forest conservation purposes.
  - Limit of Disturbed Area by this SDP: 41.0± acres (Grading area)
  - Building Coverage of Site: H.S. = 3.0± acres  
M.S. = 2.1± acres  
E.S. = 1.6± acres  
Total = 6.7 acres or 6.7 % of Gross Site Area
  - High School Building Area: 128,752 s.f. (excludes 2423 s.f. of canopy)
  - Total paved surfaces (parking, driveways, play courts, etc.) on site: 18.2± Ac. or 18.2%
- Open Space Data
  - Open Space Required on Site: N/A
  - Open Space Proposed: N/A
- Parking Space Data
  - Number of Parking Spaces Required by Zoning Regulations: N/A
  - Total Number of Parking Spaces Provided on Site: 591 Car Spaces & 17 Bus Spaces
  - Number of Handicapped Parking Spaces Provided: 12 (Including 3 Handicap Van Space)

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING  
 [Signature] Date: 7/16/00  
 [Signature] Date: 7/17/00  
 [Signature] Date: 7/16/00



**GLW GUTSCHICK LITTLE & WEBER, P.A.**  
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS  
 3909 NATIONAL DRIVE, SUITE 250 - BURTNSVILLE OFFICE PARK  
 BURTNSVILLE, MARYLAND 20868  
 TEL: 301-421-4024 BALT: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186  
 CADD DRAWINGS \99091\DESIGN\99091CS DES. DRN. CHK.

DATE	INSPECTED NEW SHEETS AND NOTES	REVISION	DTM	BY	APPR.
6-12-14					

PREPARED FOR:  
 HOWARD COUNTY PUBLIC SCHOOL SYSTEM  
 10910 MARYLAND ROUTE 108  
 ELLICOTT CITY, MARYLAND 21042  
 ATTN: CATHLEEN YOUNG

THOMAS CLARK ASSOC.  
 2661 RIVA ROAD, SUITE 120  
 ANNAPOLIS, MD 21401  
 301-261-8700

ADDRESS CHART	SCALE	ZONING	G. L. W. FILE No.
WATER CODE: E20 SEWER CODE: 7895000 PARCEL NUMBER: 115 STREET ADDRESS: 11500 SCAGGSVILLE ROAD PROJECT NAME: RESERVOIR HIGH SCHOOL SECTION/AREA: N/A PARCEL: 115 DEED: L. 3218 F. 618 ZONE: RR-MXD3 TAX MAP: 41/46 BLOCK: 20/21 and 2/3 ELEC. DIST.: 5 CENSUS TRACT: 6051.02	AS SHOWN	RR-MXD3	99091
	DATE: 5/05/2000	TAX MAP - GRID: 41/46	SHEET: 31 1 OF 27

CLARKSVILLE ELECTION DISTRICT No. 5

SITE WORK BID  
 22 March 00

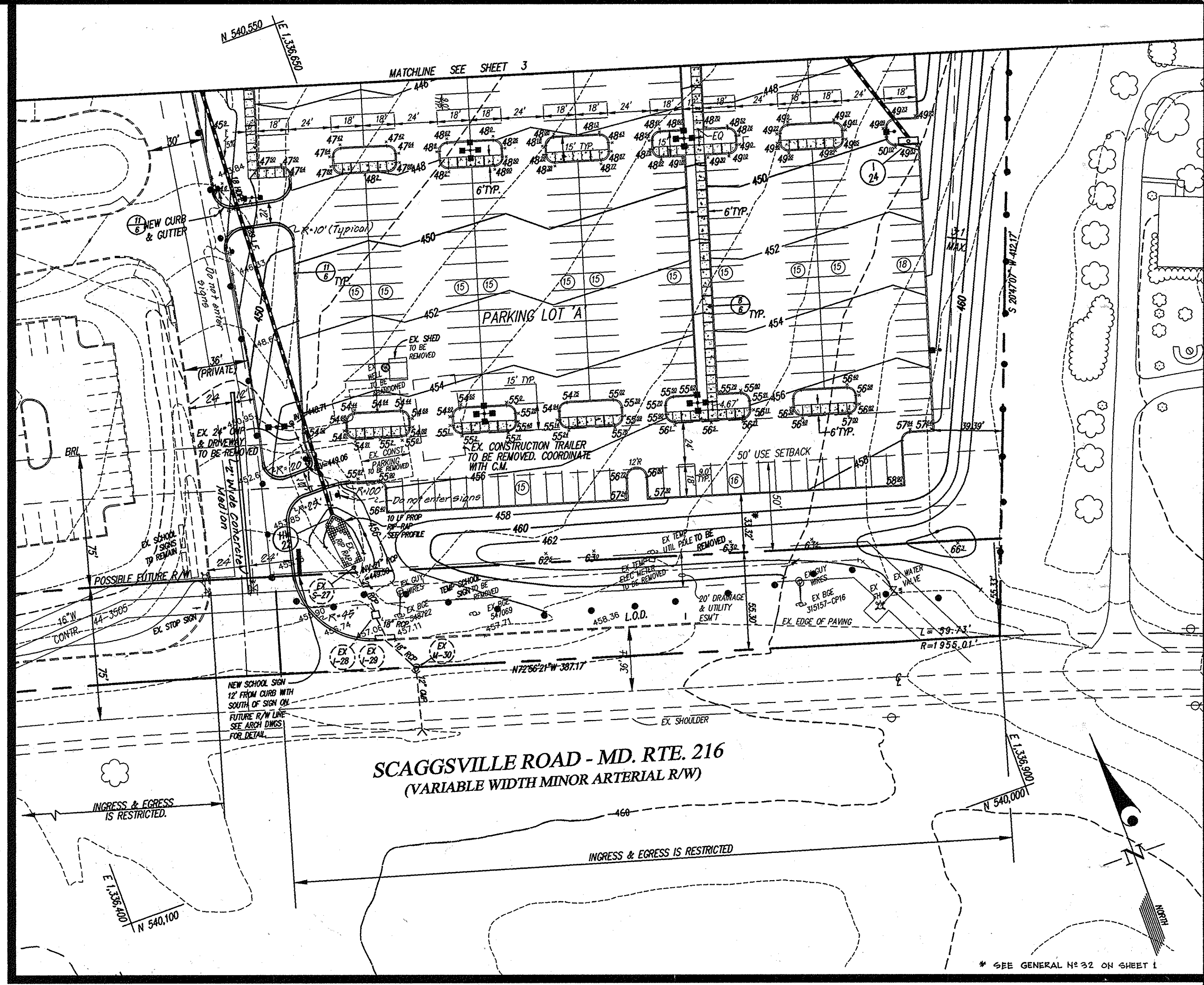
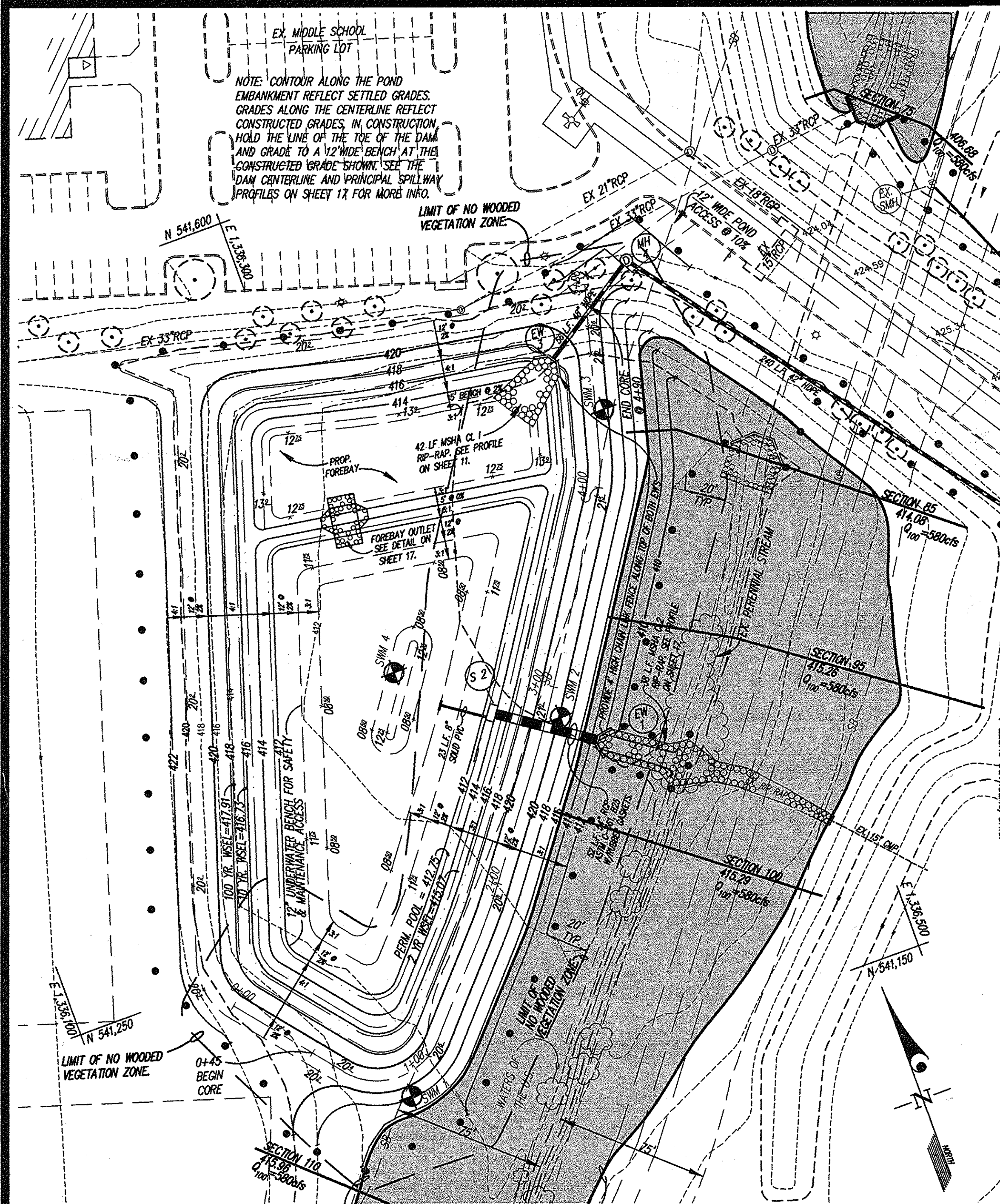
**SITE DEVELOPMENT PLAN  
LEGEND**

- \* EXISTING CONTOUR..... - - - - 322
- PROPOSED CONTOUR..... - - - - 320
- EXISTING CURB LINE..... ————
- PROPOSED CURB LINE & FLOW LINE ELEV. (6")..... ————
- EXISTING WATER LINE..... ————
- PROPOSED WATER LINE (PUBLIC)..... ————
- PROPOSED WATER LINE (PRIVATE)..... ————
- PROPOSED FIRE HYDRANT..... FH
- EXISTING SEWER LINE..... ————
- PROPOSED SEWER LINE..... ————
- EXISTING STORM DRAIN LINE..... ————
- PROPOSED STORM DRAIN LINE..... ————
- PROPOSED WALKWAY..... ————
- PROPOSED TREELINE..... ————
- EXISTING TREE & TREE LINE..... ————
- EXISTING STREET LIGHT..... ————
- TYPICAL PROPOSED STREET LIGHT..... ————
- EX-UTILITY POLE..... ————
- NUMBER OF PARKING SPACES..... ( )
- FENCE LINE..... ————
- 100 YR. FLOODPLAIN AREA..... ————
- STREAM BUFFER..... SB
- WETLAND AREA..... WLB
- WETLAND BUFFER..... WLB
- LIMIT OF GRADING DISTURBANCE (L.O.D.)..... ————
- PROPOSED FOREST CONSERVATION ESMT..... FCE

\* NOTE: EXISTING CONTOURS IN THE VICINITY OF THE HIGH SCHOOL BUILDING REFLECT THE MASS GRADING CONDITION SHOWN ON GP-00-131. SEE ALSO GENERAL NOTE No. 28 ON THE COVER SHEET.

ITEM	EX Q <sub>10</sub> (cfs)	Q <sub>10</sub> (cfs)	Q <sub>out</sub> (cfs)	WSEL	STOR. REQ. (AC.-FT.)	STOR. PROV. (AC.-FT.)
QUALITY				412.75	1.33	1.34
2-YEAR	24.0	73.3	23.8	415.07	1.70	1.72
10-YEAR	67.6	145.3	66.4	416.73	2.68	3.20
100 YR	122.8	226.5	151.3	417.95	N/A	4.39

NOTE: THE PROPOSED POND IS A 2/10 YEAR MANAGEMENT RETENTION POND WITH A PERMANENT POOL FOR QUALITY CONTROL. IT IS A CLASS "B" FACILITY THAT SHALL BE PRIVATELY OWNED AND MAINTAINED BY THE HOWARD COUNTY PUBLIC SCHOOL SYSTEM.



**Professional Certification.** I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.

License No. 16156 Expiration Date: 5/28/2014

**Professional Engineer**  
Karl Benson, P.E.

**STORMWATER MANAGEMENT FACILITY OPERATIONS AND MAINTENANCE GUIDELINES**

**Operations:**

- Owner shall keep accurate records of inspections and maintenance type repairs. These records should also include a copy of the "as-built" plans and small pond summary sheet.
- Owner shall make a visual inspection of the facility at least twice a year. Once in the summer after the facility has been mowed and during the winter when the vegetation is inactive. Additional inspections shall be made during and after extreme rainfalls.
- During the extreme weather or rainfall events, the owner shall check for overlapping, seepage, or dam failure. In order to avoid overlapping, either place sandbags on top of the embankment or lower the water elevation by using a dewatering device.
- If a severe problem develops, the owner shall contact a Professional Engineer to assess the problem and make a suggestion to remedy the situation. The Howard Soil Conservation District or Maryland Dam Safety Division shall be contacted before major repairs are made.

**Maintenance:**

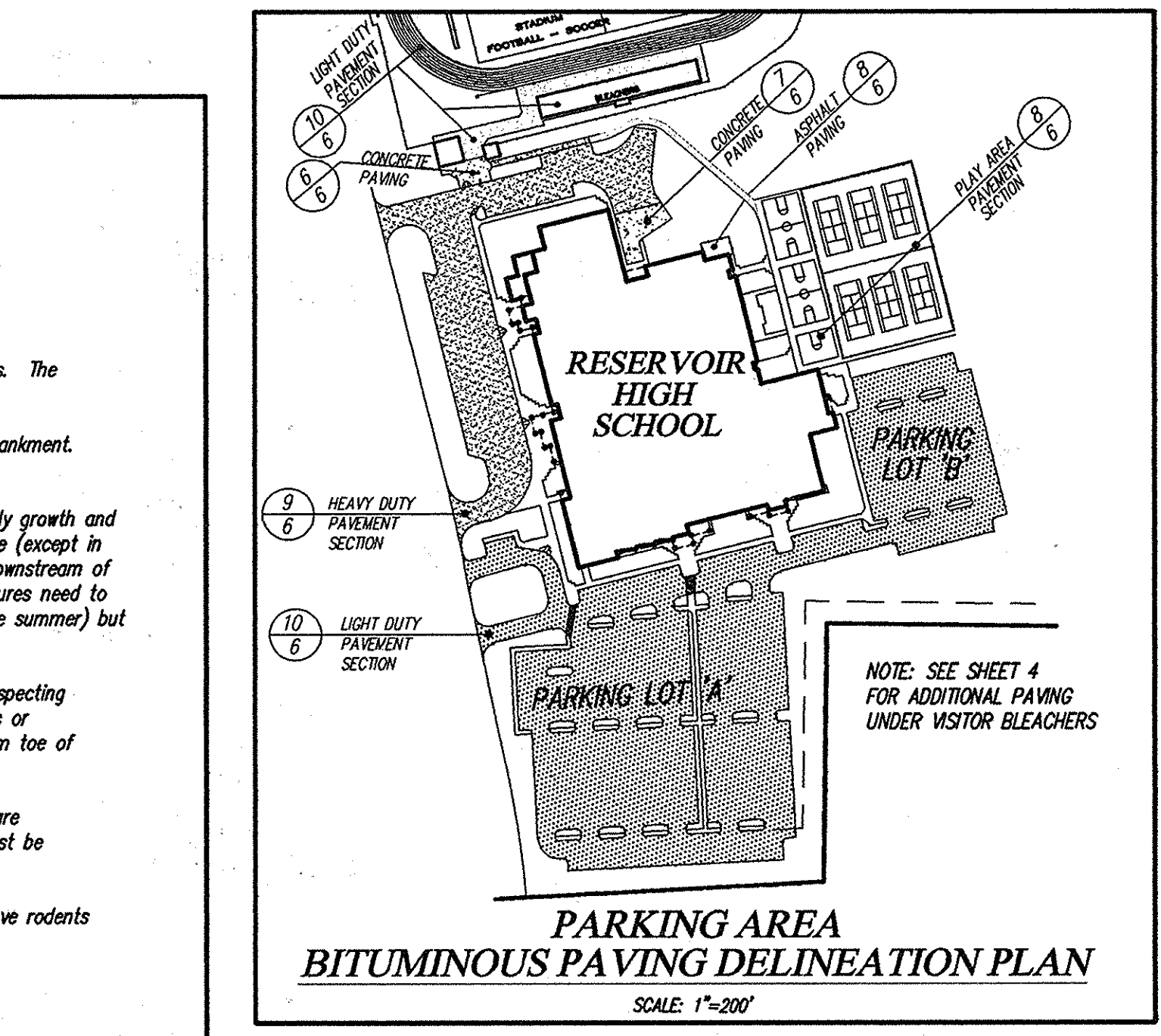
During the semi-annual visual inspections, the following items must be checked and documented by the owner:

- Spillways and Outlet Device
  - Pipes - check for sagging, misalignment, gaps at joints, cracks, leaks, and wear along inside surface of pipes. Also remove any blockages.
  - Trash Racks - inspect and replace if necessary. Actual time for removal of trash racks should be limited. Trash racks shall be painted once a year.
  - Concrete Surfaces - check for cracks or any other signs of failure.
  - Forebay and Spillway - check for stone & wire mesh deterioration or loss and spillway failure.
  - Rip Rap Outlet - check for stone deterioration or stone loss.
  - Dewatering Device - remove blockages.
- Embankments
  - Vegetation - proper vegetative cover is required on all embankments. The owner shall follow proper seeding specifications for reseeding.
  - Trees and Brush - trees and brush shall be removed from the embankment. Stumps can be removed using silvicide.
  - Mowing - mowing is necessary to control the establishment of woody growth and to maintain the vegetative cover. The embankment, a 25-foot wide (except in wetland/stream buffers) strip adjacent to the toe, upstream and downstream of the embankment, and the area within 50 feet of the control structures need to be mowed. Mowing shall be done at least once a year (mid to late summer) but may be done more often.
  - Seepage - the following warning signs should be looked for when inspecting for seepage problems: cracks (longitudinal and vertical), soft spots or boggy areas on downstream embankment, seepage along downstream toe of embankment.
  - Stability - large cracks, slides, sloughing and excessive settlement are signs of embankment instability and a need for repair. Repairs must be approved by Howard Soil Conservation District.
  - Rodents - check for burrows, which can lead to seepage, and remove rodents when encountered.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

Chief, Division of Land Development: *Cindy Hamilton* 7/7/00

Chief, Development Engineering Division: *Mark Robinson* 7/2/00



**DEVELOPER/BUILDER'S CERTIFICATE**

I/We certify that all development and/or construction will be done according to these plans, and that any responsible personnel involved in the construction project will have a Certificate of Attendance at a Maryland Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I shall engage a registered Professional Engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion. I also authorize periodic on-site inspections by the Howard Soil Conservation District.

*Cathleen Conly Young* 6/21/00  
Signature of Developer/Builder Date

**ENGINEER'S CERTIFICATE**

I certify that this plan for pond construction, erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions. This plan was prepared in accordance with the requirements of the Howard Soil Conservation District. I have notified the developer that he/she must engage a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion.

*Cheryl Simons* 6/29/00  
Natural Resources Conservation Service Date

*Cheryl Simons* 5/31/00  
Howard Soil Conservation District Date

**GLW GUTSCHICK LITTLE & WEBER, P.A.**  
CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS  
3909 NATIONAL DRIVE - SUITE 250 - BURTNSVILLE OFFICE PARK  
BURTNSVILLE, MARYLAND 20886  
TEL: 301-421-4024 BAL: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4188

PREPARED FOR: HOWARD COUNTY PUBLIC SCHOOL SYSTEM  
10910 MARYLAND ROUTE 108  
ELICOTT CITY, MARYLAND 21042  
ATTN: CATHEEN YOUNG

THOMAS CLARK ASSOC.  
2661 RIVA ROAD, SUITE 120  
ANNAPOLIS, MD 21401  
301-261-8700

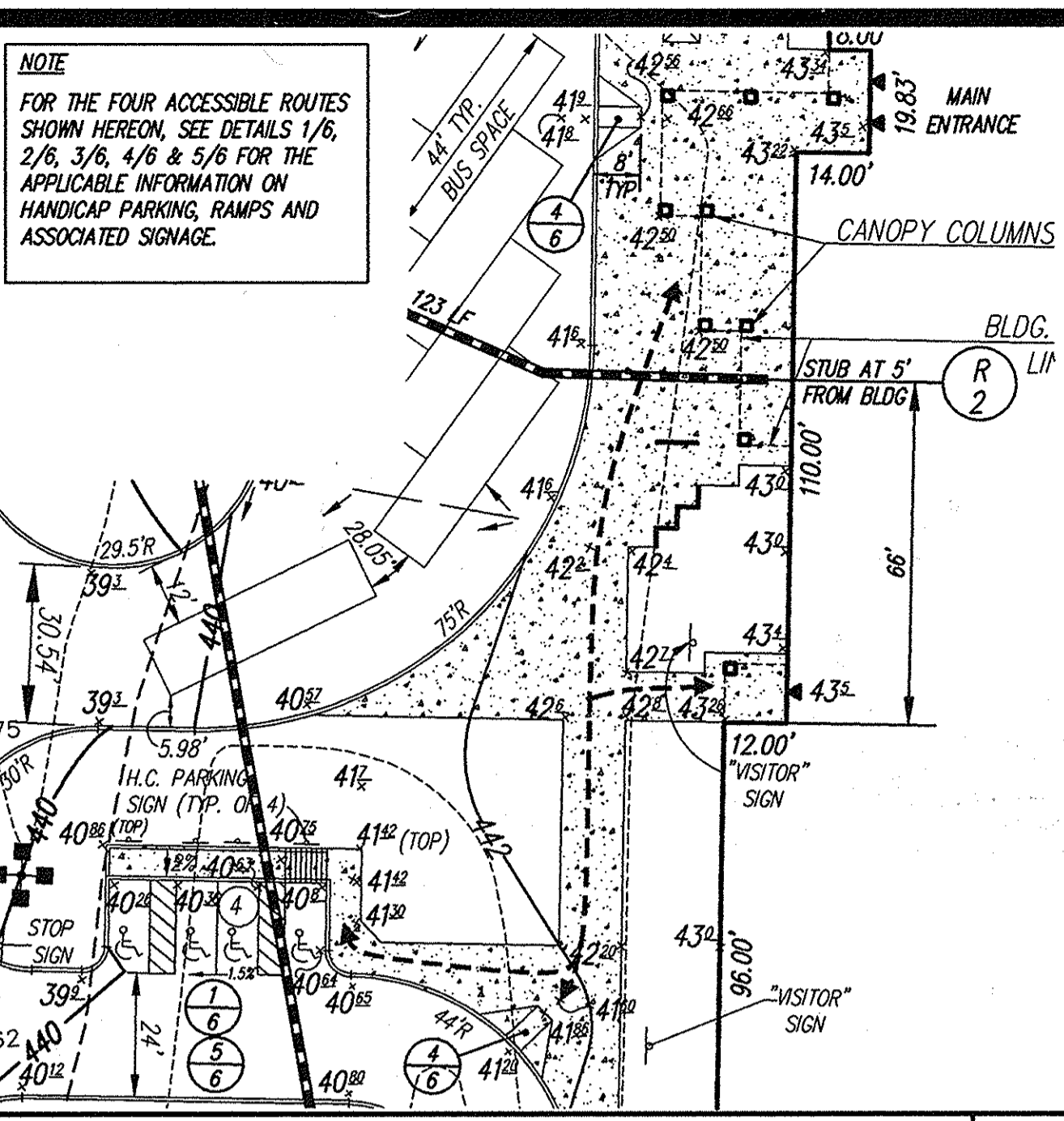
**SITE DEVELOPMENT PLAN**  
**RESERVOIR HIGH SCHOOL**  
(EASTERN HIGH SCHOOL No. 2)  
PARCEL 115  
L. 3218 F. 618  
HOWARD COUNTY, MARYLAND

SCALE: 1"=40'  
ZONING: RR-MXD3  
DATE: 5/05/2000  
TAX MAP - GRID: 41/46  
G. L. W. FILE No.: 99091  
SHEET: 2 OF 27  
SDP-00-86

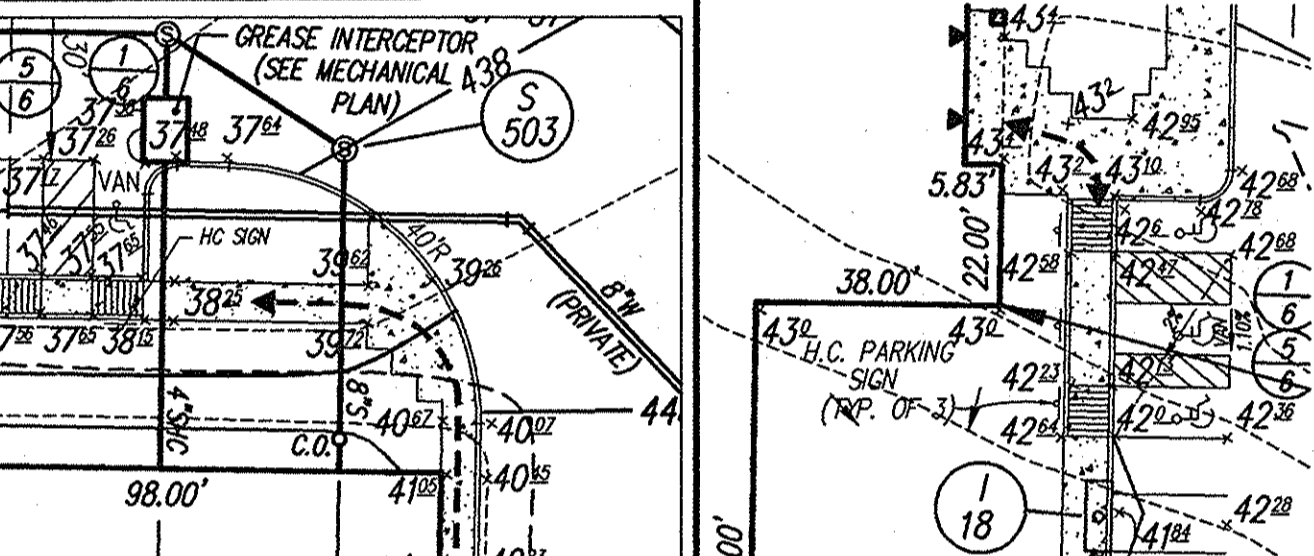
APPROVED: *Cheryl Simons* 7/6/00  
*Cindy Hamilton* 7/7/00  
*Mark Robinson* 7/2/00

DATE: 6-12-14  
REVISION: NEW SHEET COUNT  
6-21-05 Added ingress & egress to the parking lot

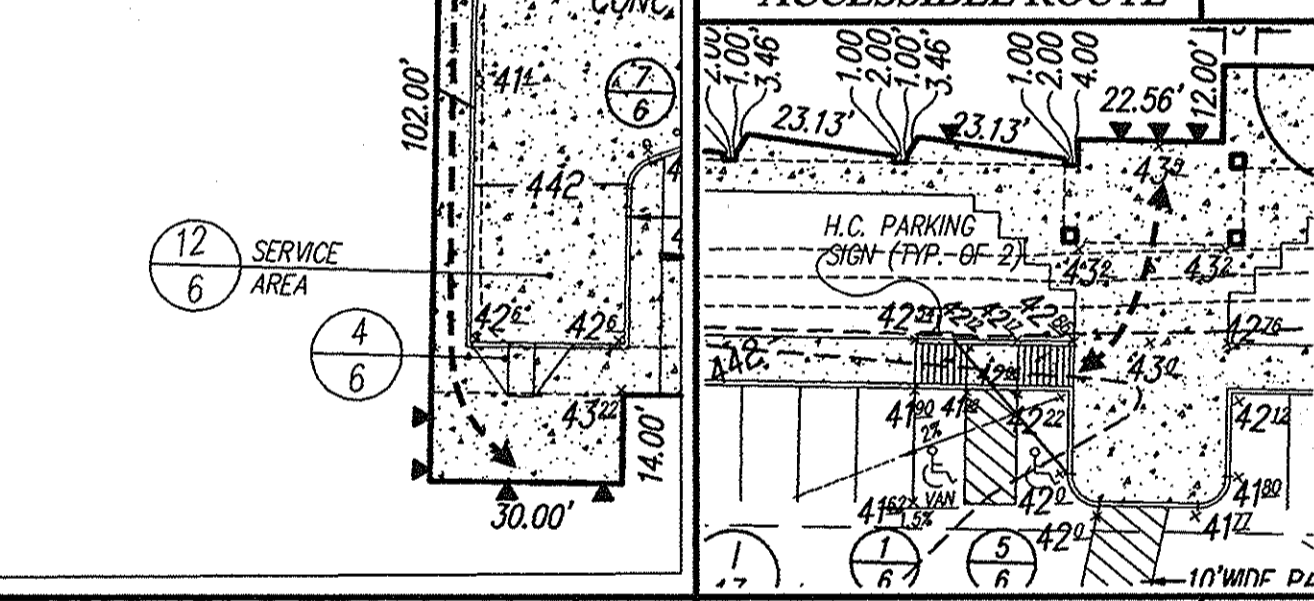
NOTE  
FOR THE FOUR ACCESSIBLE ROUTES  
SHOWN HEREON, SEE DETAILS 1/6,  
2/6, 3/6, 4/6 & 5/6 FOR THE  
APPLICABLE INFORMATION ON  
HANDICAP PARKING, RAMPS AND  
ASSOCIATED SIGNAGE.



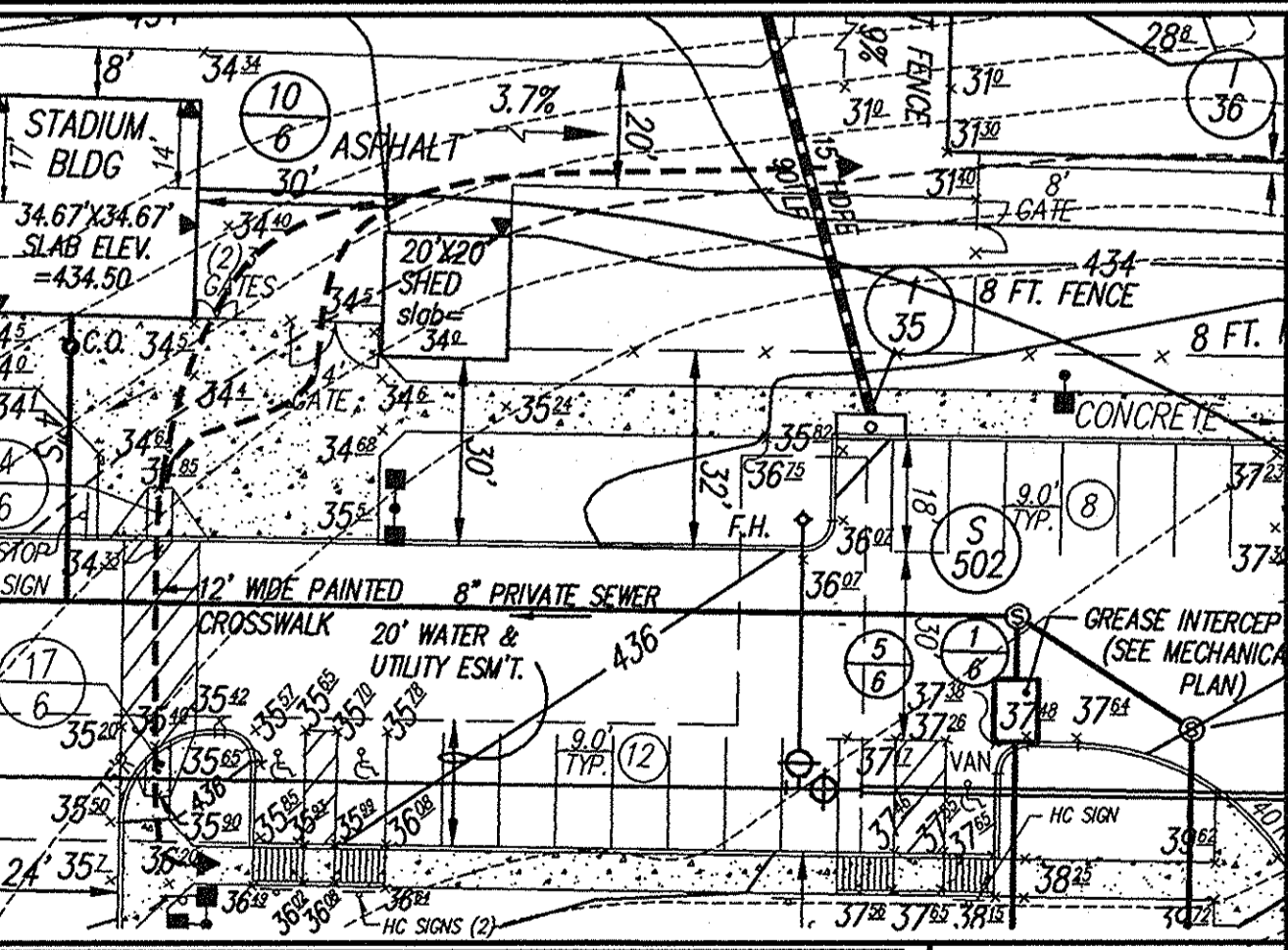
WEST SIDE ACCESSIBLE ROUTE (TO MAIN ENTRANCE) 1"=30'



EAST SIDE ACCESSIBLE ROUTE 1"=30'



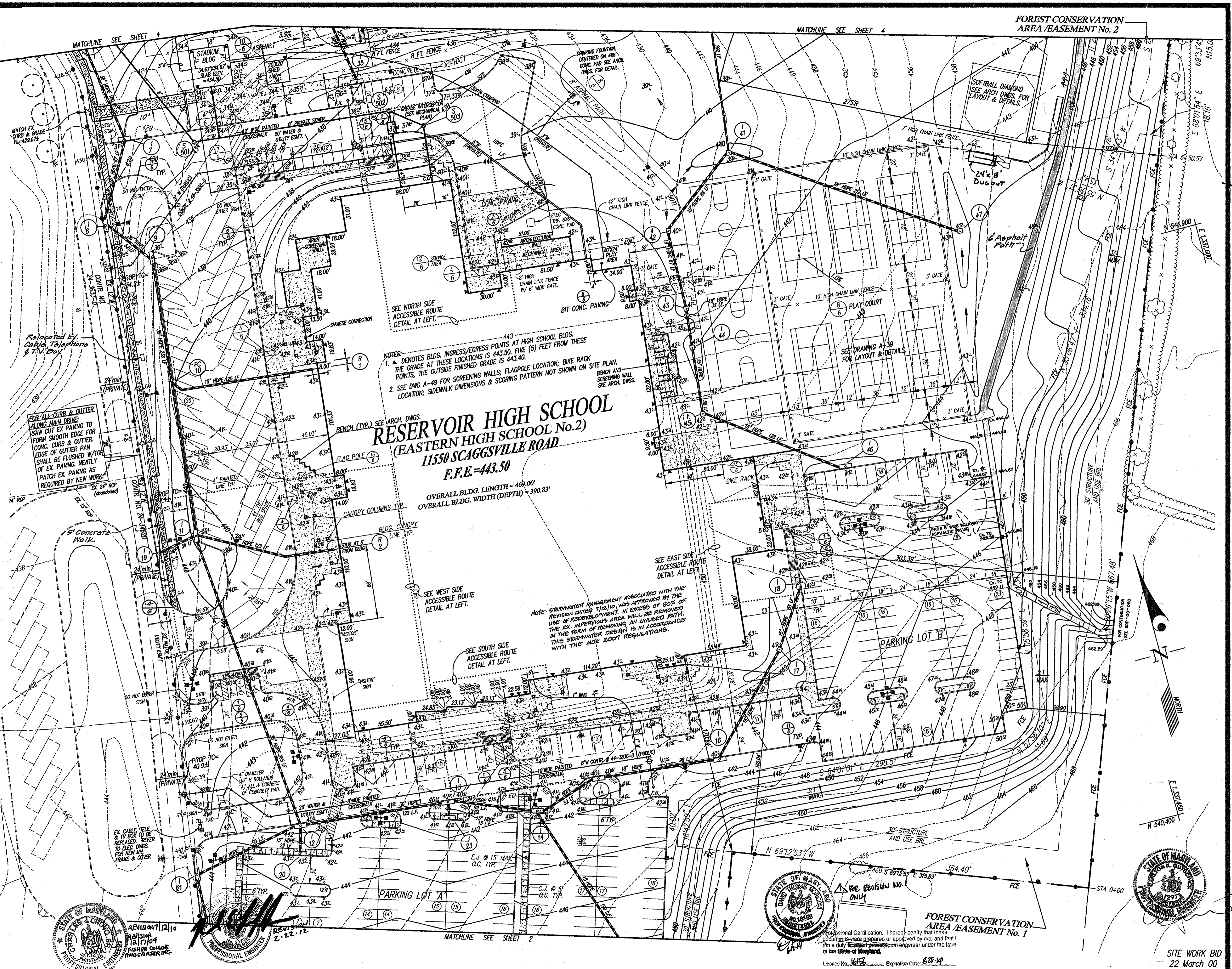
NORTH SIDE ACCESSIBLE ROUTE TO BLDG. 1"=30'



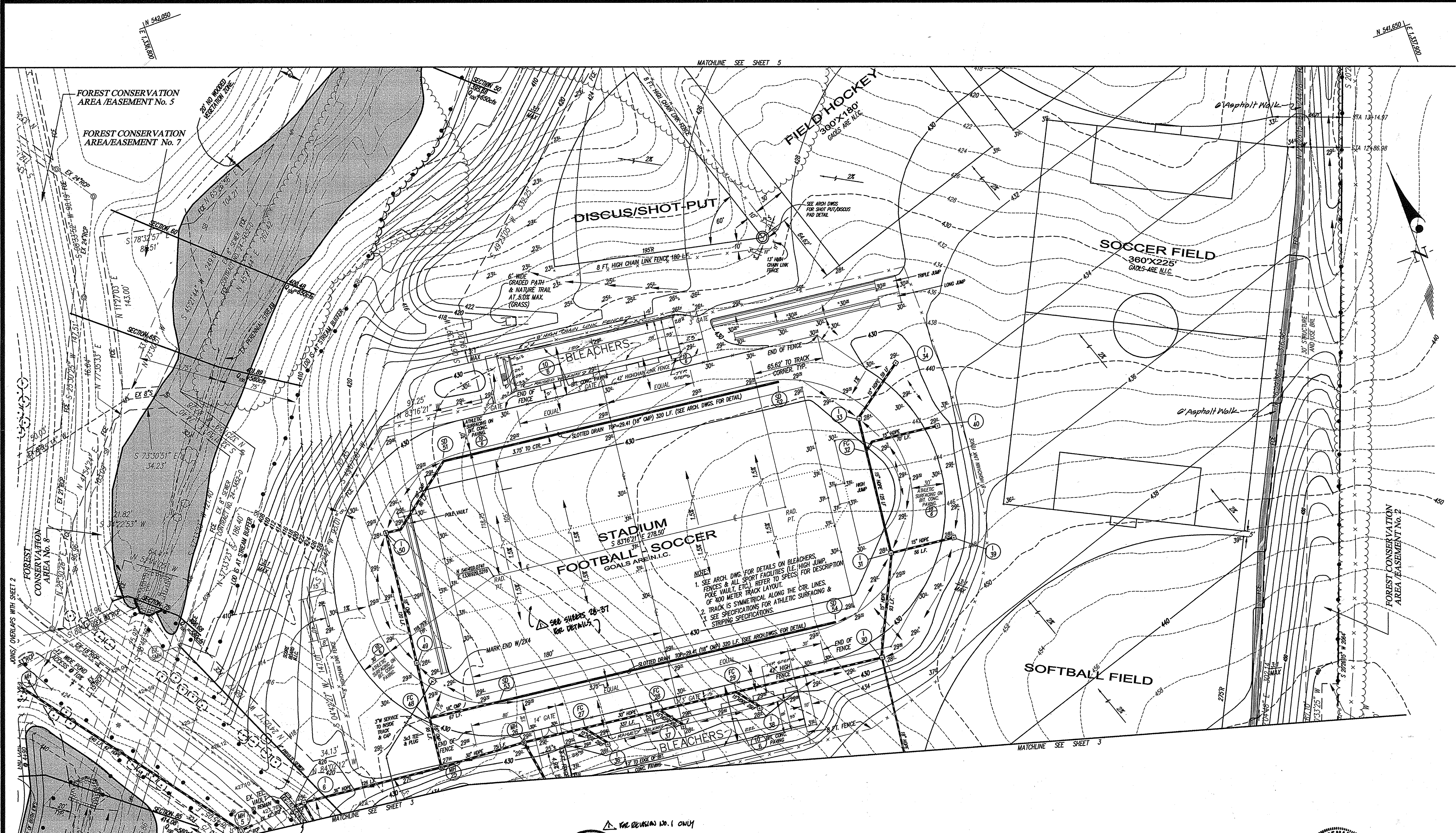
SOUTH SIDE ACCESSIBLE ROUTE 1"=30'

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING  
 Director: *[Signature]* Date: 7/10/00  
 Chief, Division of Land Development: *[Signature]* Date: 7/10/00  
 Chief, Development Engineering Division: *[Signature]* Date: 7/21/00

ACCESSIBLE ROUTE TO STADIUM AREA  
1"=30'



SITE WORK BID  
22 March 00



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

*Howard County* 7/10/00  
Date

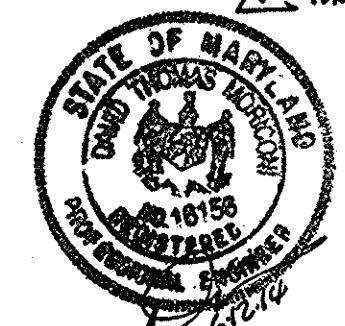
*Cindy Hamilton* 7/1/00  
Date  
Chief, Division of Land Development

*John Dammann* 7/3/00  
Date  
Chief, Development Engineering Division

FOREST CONSERVATION AREA No. 9

STATE OF MARYLAND  
LARRY S. CHOPIN  
PROFESSIONAL ENGINEER

PROFESSIONAL ENGINEER  
FISHER COLLINS  
AND CARTER, INC.



Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.

License No. 16152, Expiration Date: 8-28-2014



SITE WORK BID  
22 March 00

**GLW GUTSCHICK LITTLE & WEBER, P.A.**  
CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS  
3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK  
BURTONSVILLE, MARYLAND 20866  
TEL: 301-421-4024 BAL: 410-880-1820 DC/WA: 301-889-2524 FAX: 301-421-4186

DATE	REVISION	BY	APPR.
6-12-14	ADDED SHOOT COUNT	DTM	
12-17-14	UTILITIES RELOCATION & NEW ASPHALT & CONCRETE WALKS	FGS	
2-23-17	REVISED BLEACHER VISORS, BLEACHERS	JKJ	

PREPARED FOR:

HOWARD COUNTY PUBLIC SCHOOL SYSTEM  
10910 MARYLAND ROUTE 108  
ELLCOTT CITY, MARYLAND 21042  
ATTN: CATHLEEN YOUNG

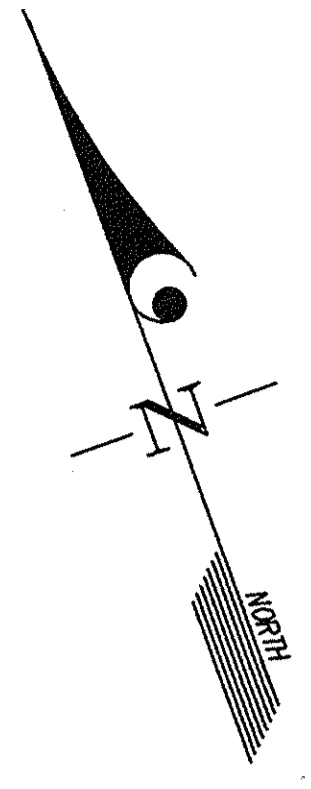
THOMAS CLARK ASSOC.  
2861 RIVA ROAD, SUITE 120  
ANNAPOLIS, MD 21401  
301-261-8700

**SITE DEVELOPMENT PLAN**

**RESERVOIR HIGH SCHOOL**  
(EASTERN HIGH SCHOOL No. 2)  
PARCEL 115  
L. 3218 F. 618

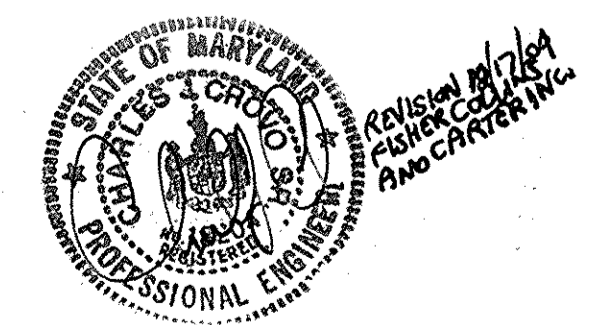
CLARKSVILLE ELECTION DISTRICT No. 5

SCALE	ZONING	G. L. W. FILE No.
1"=40'	RR-MXD3	99091
DATE	TAX MAP - GRID	SHEET
5/05/2000	41/46	37
		4 OF 27



MATCHLINE SEE SHEET 4

HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING  
 PROJECT: *Reservoir High School* 7/10/00  
 Chief, Division of Land Development  
 Chief, Development Engineering Division



*McCall*  
 REVISION 2-22-12



Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.  
 License No. 15006  
 Expiration Date: 8-28-2014  
 FOR REVISION NO. 1 ONLY



SITE WORK BID  
 22 March 00

**GLW GUTSCHICK LITTLE & WEBER, P.A.**  
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS  
 3909 NATIONAL DRIVE - SUITE 250 - BURTNSVILLE OFFICE PARK  
 BURTNSVILLE, MARYLAND 20866  
 TEL: 301-421-4024 BALT: 410-880-1820 DC/VA: 301-588-2524 FAX: 301-421-4188

DATE	REVISION	BY	APPR.
6-12-14	NEW SHEET COUNT Δ	DTM	
2-22-12	ADD 36' x 8' DUGOUTS ON HOME & VISITOR SIDES OF BASEBALL FIELDS	WJZ	
12-17-09	Utility relocation & new asphalt & concrete walks	F.C.C.	

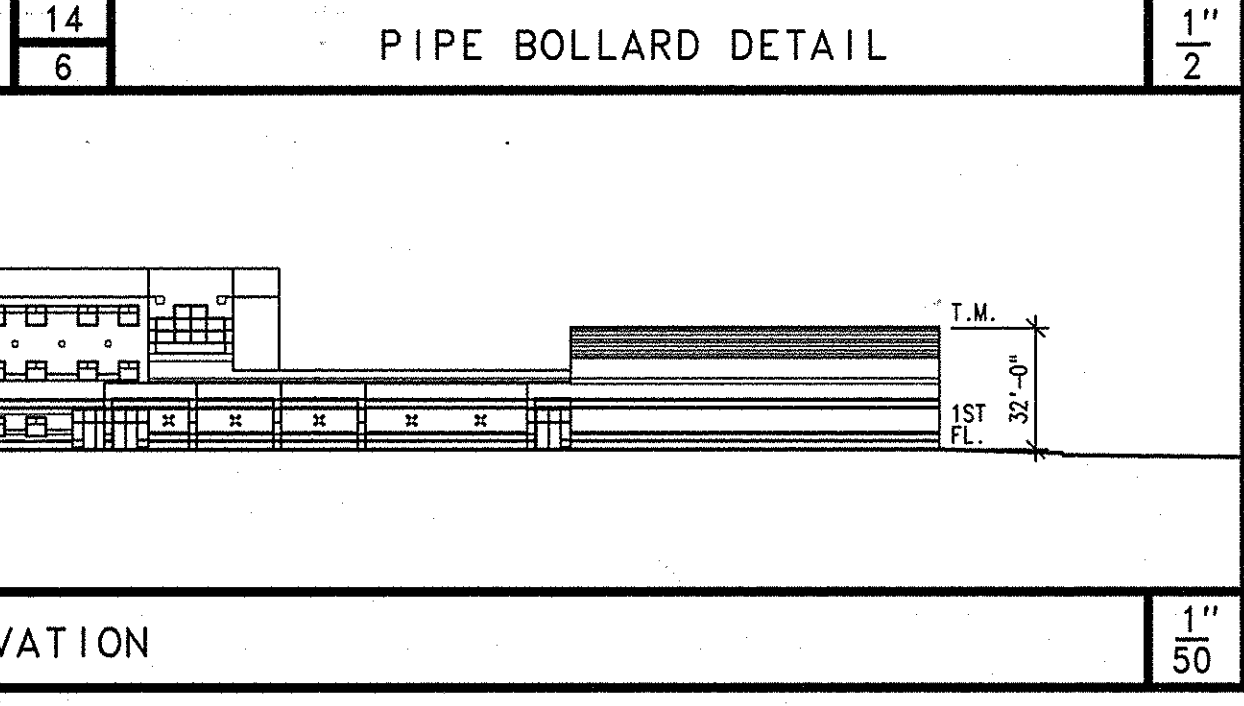
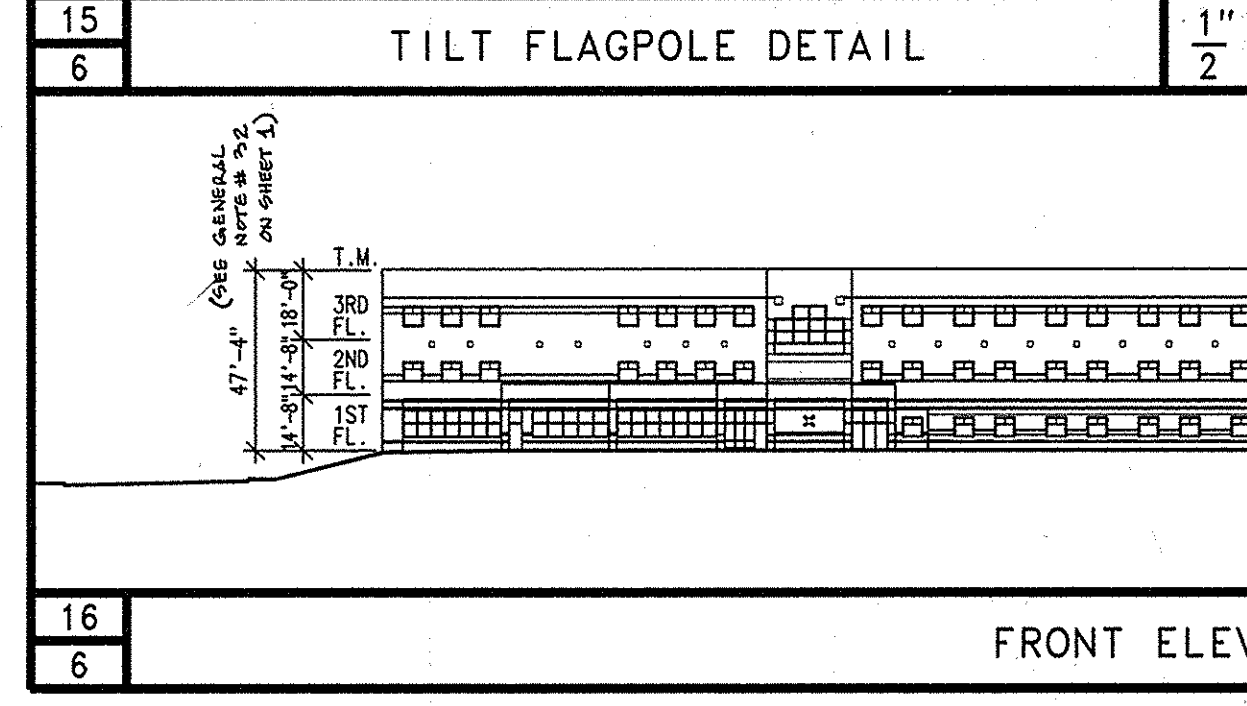
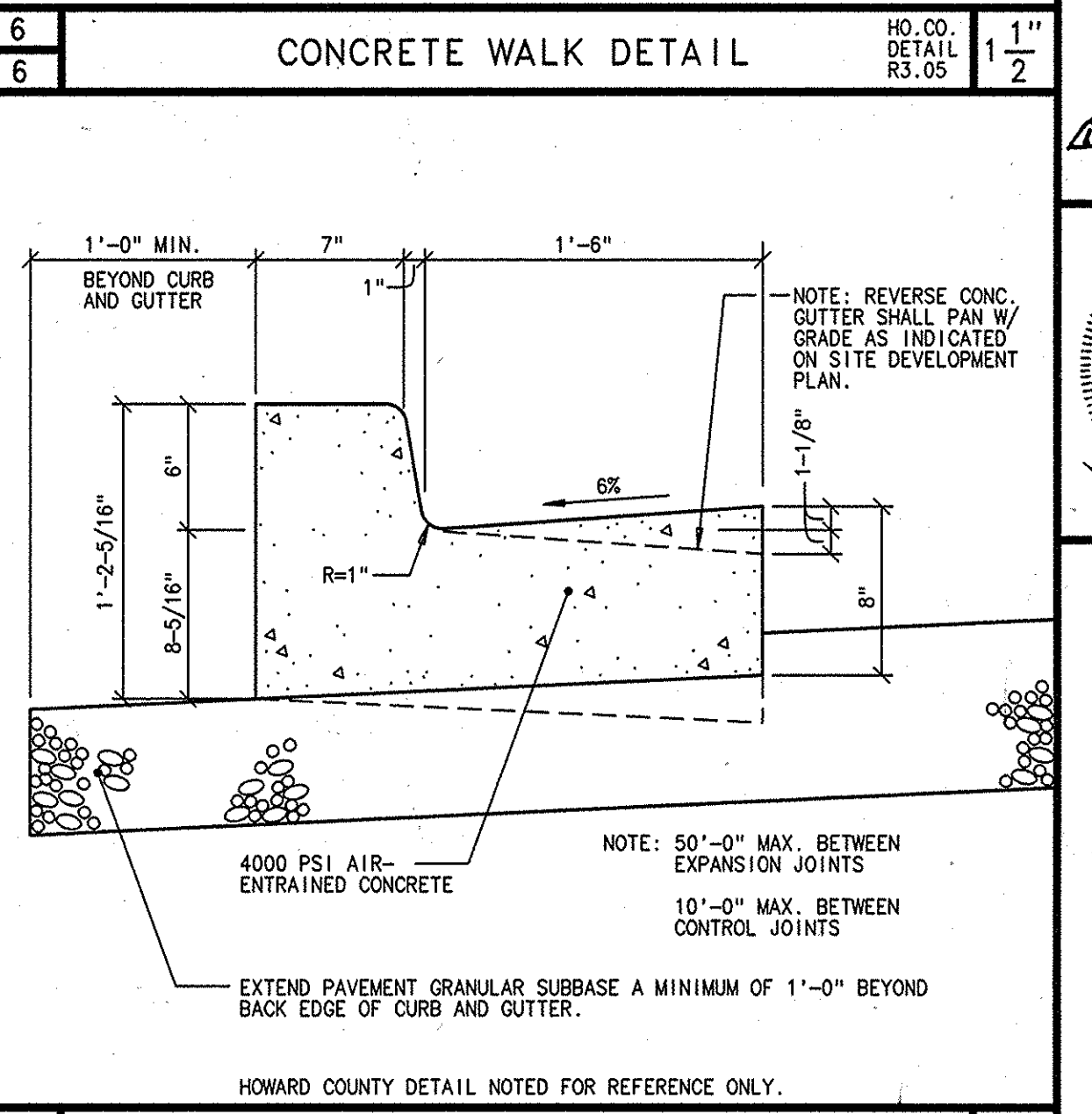
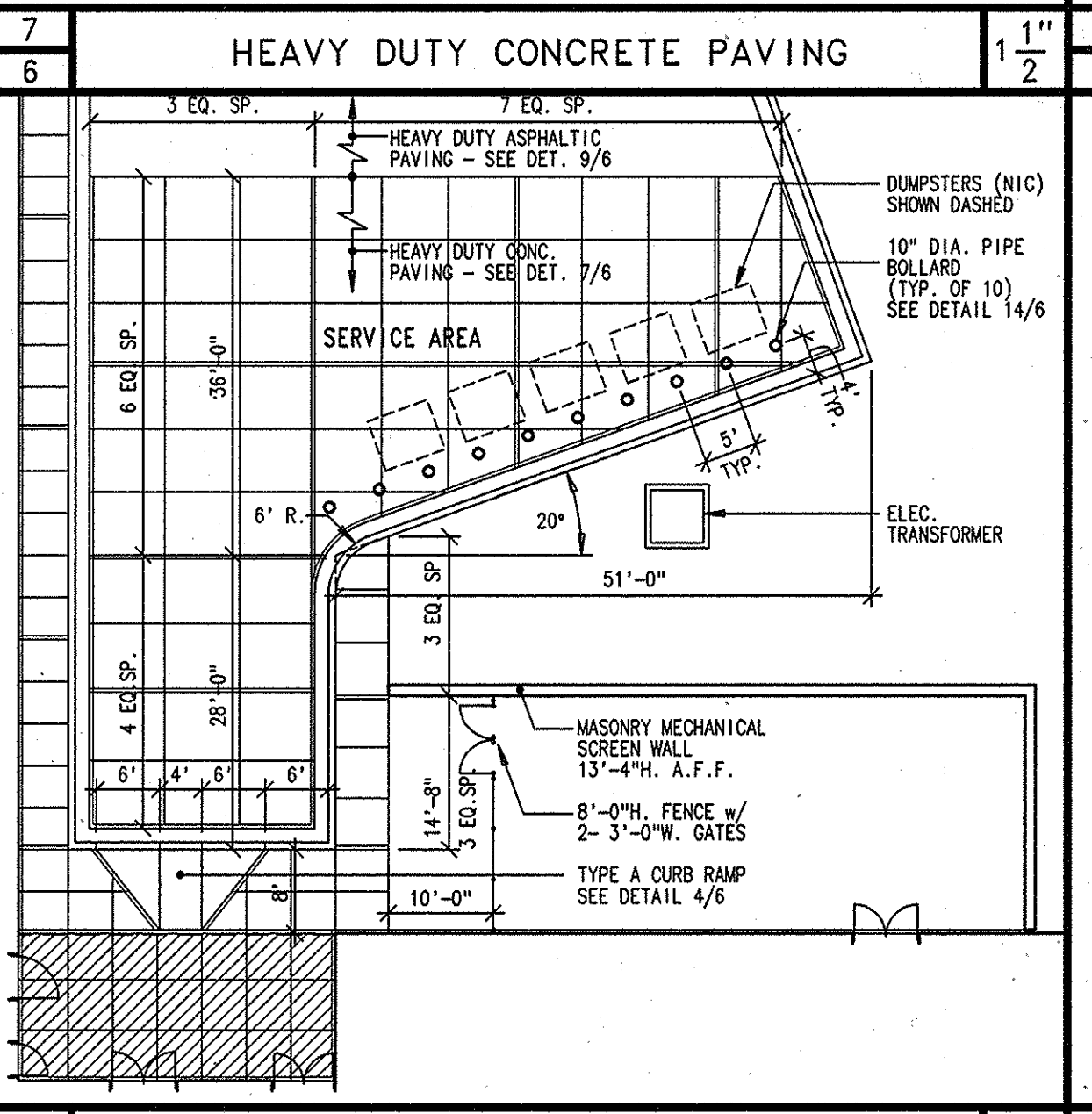
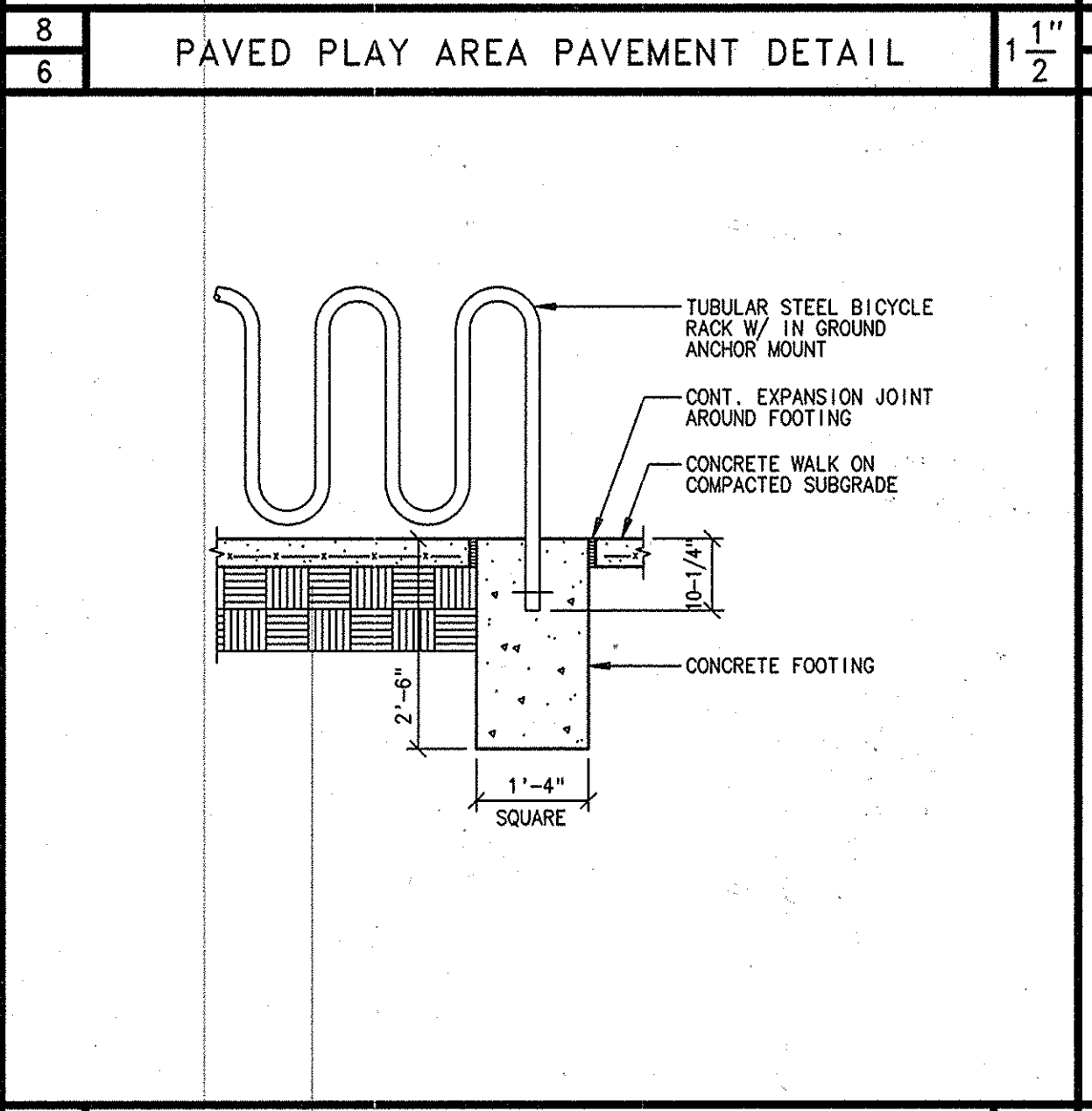
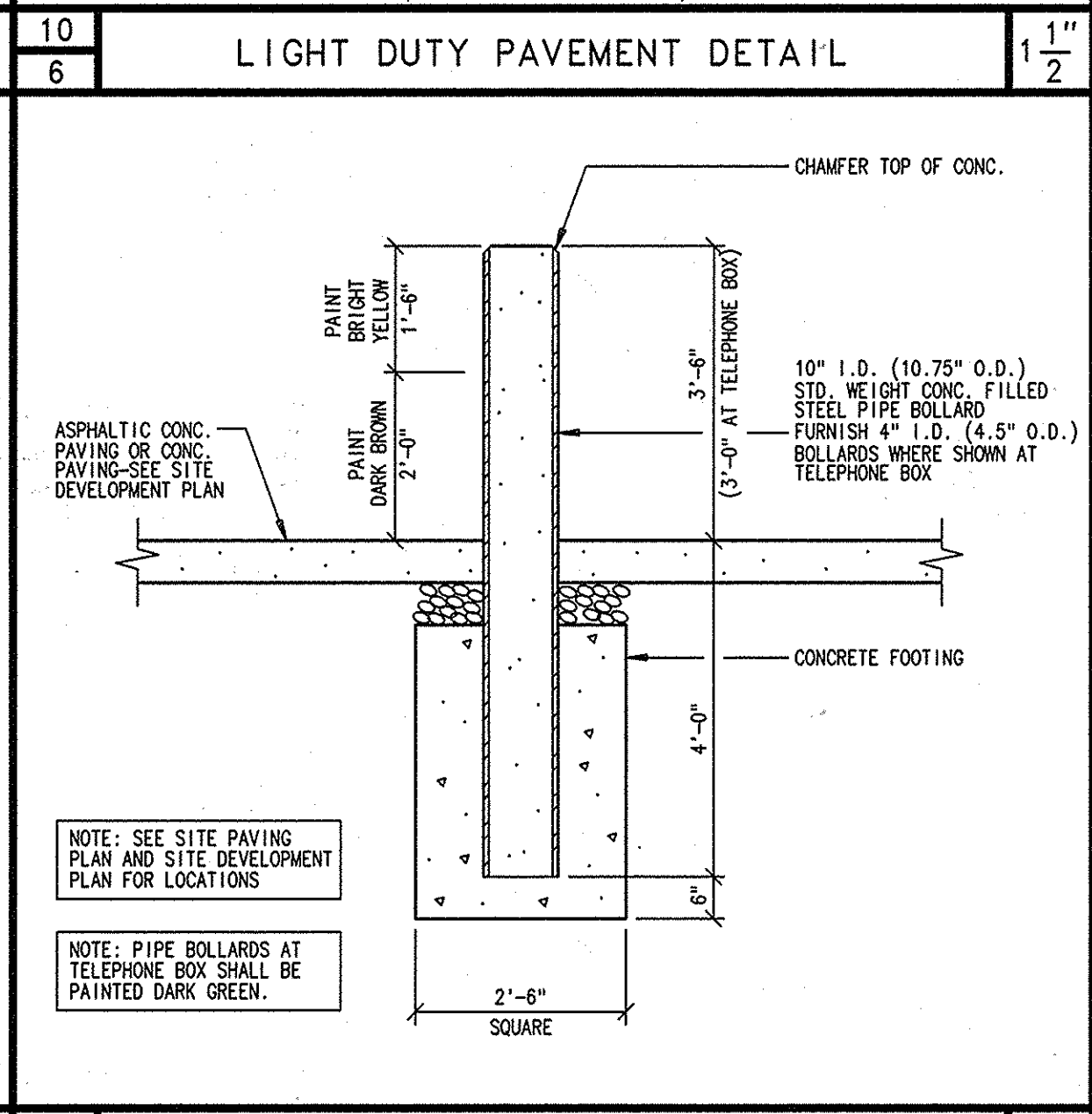
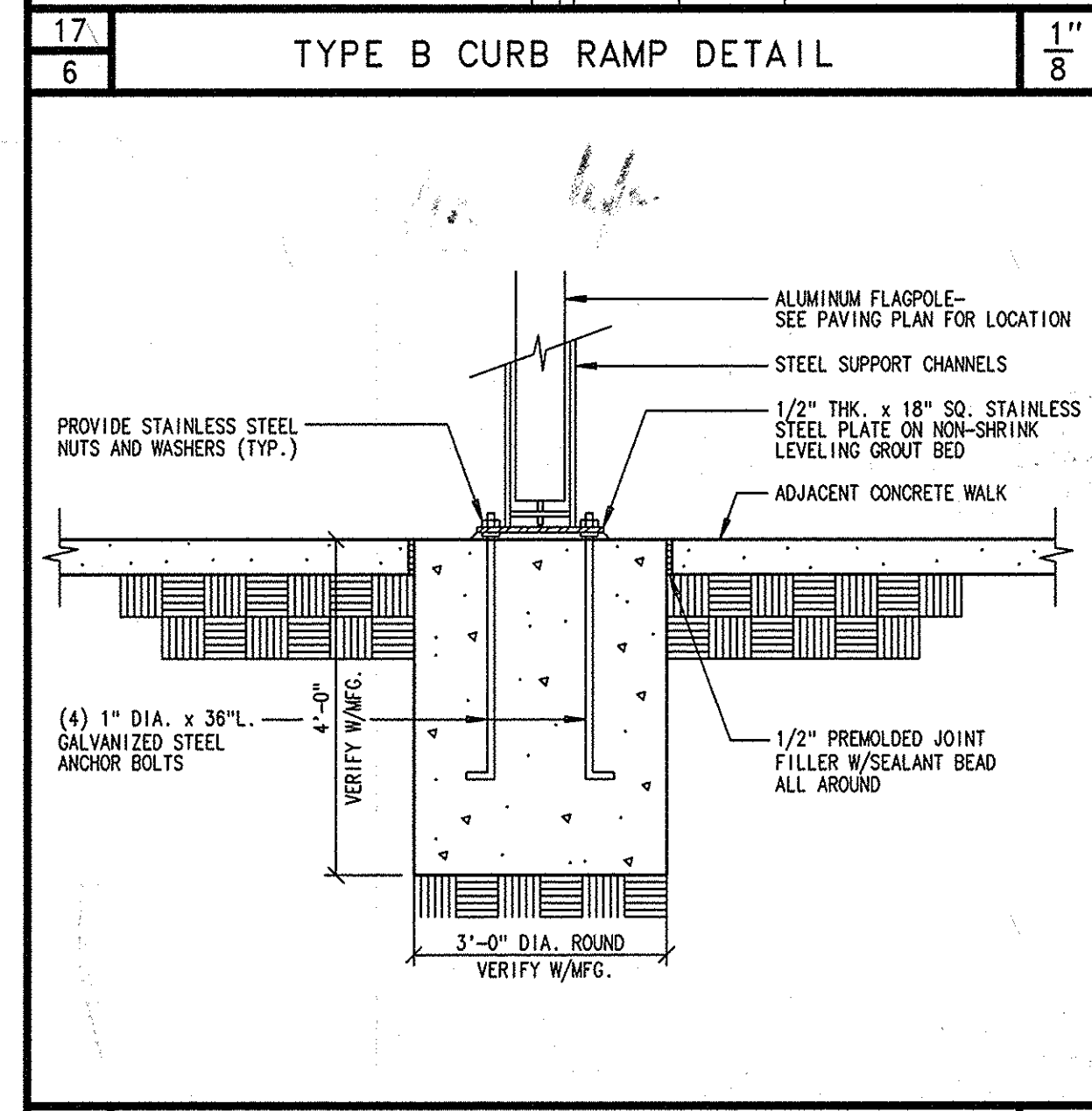
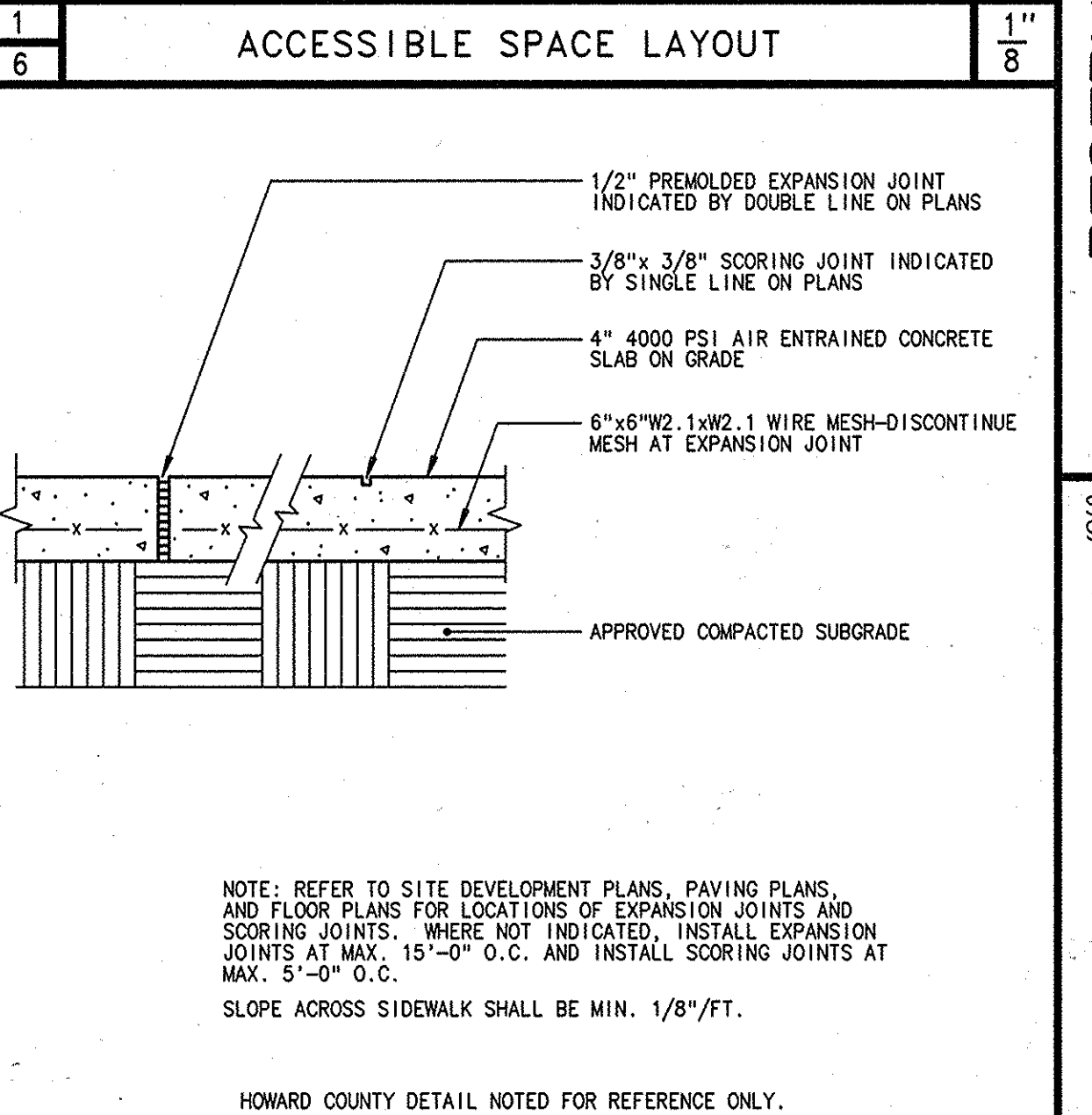
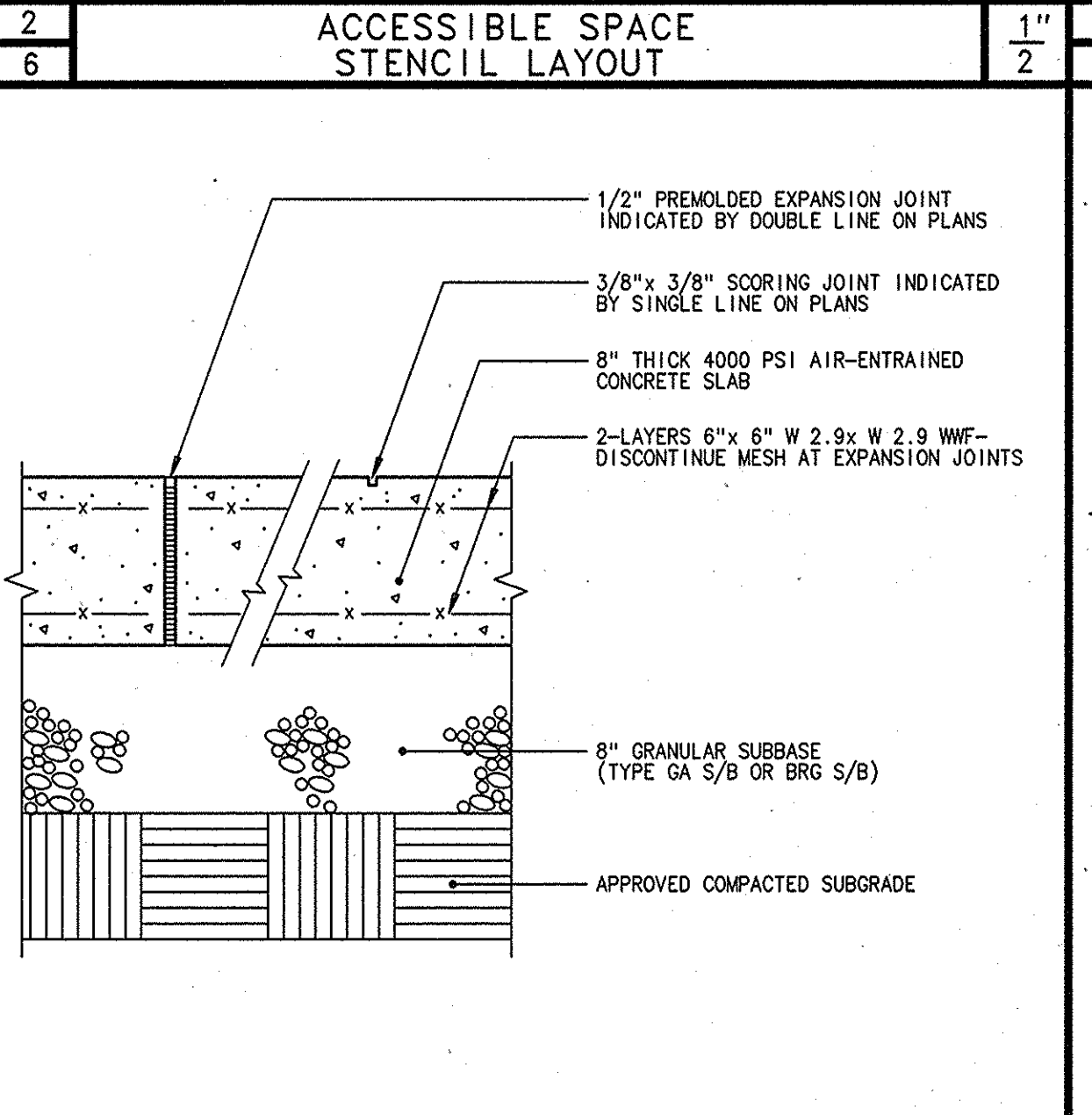
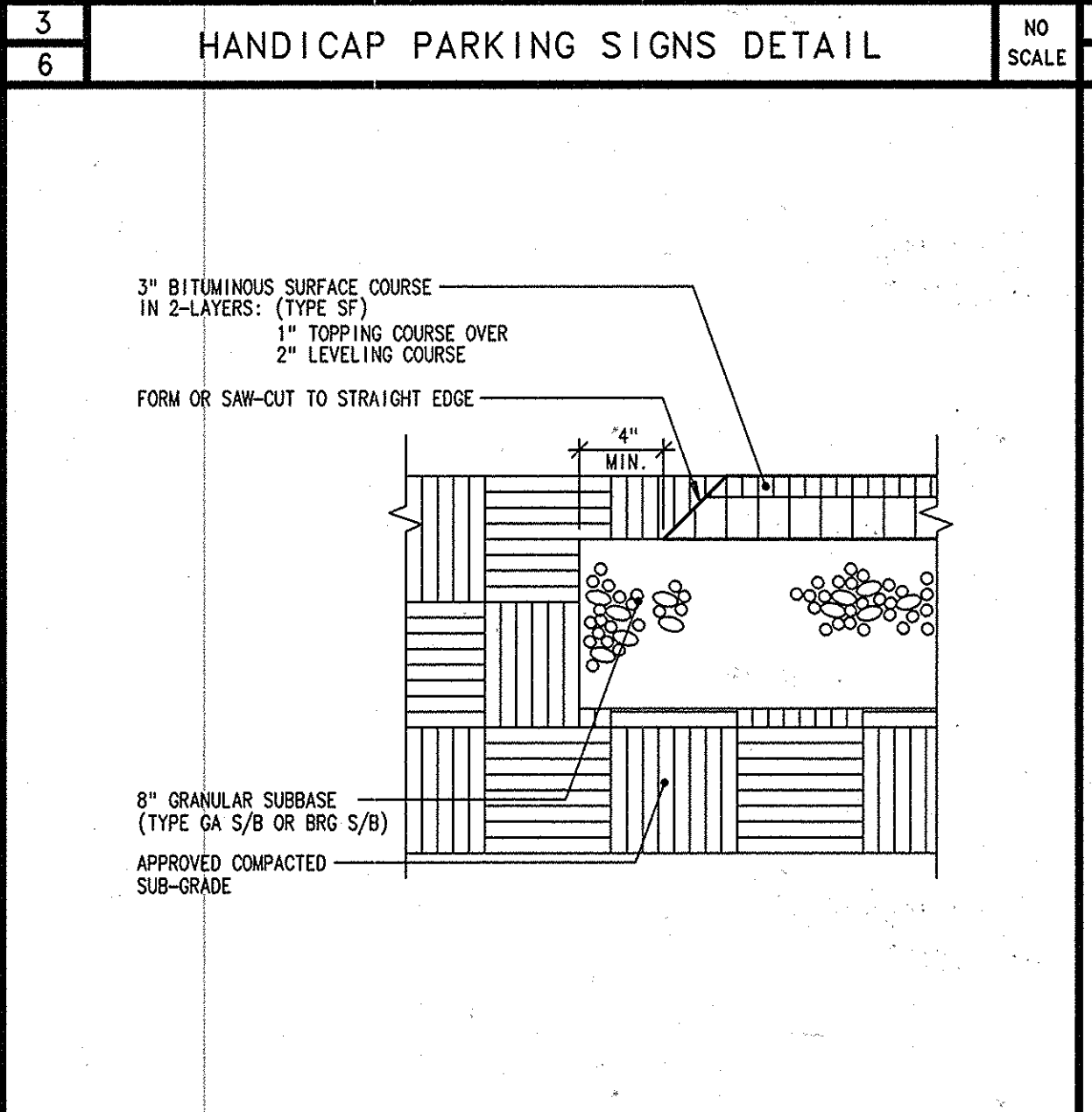
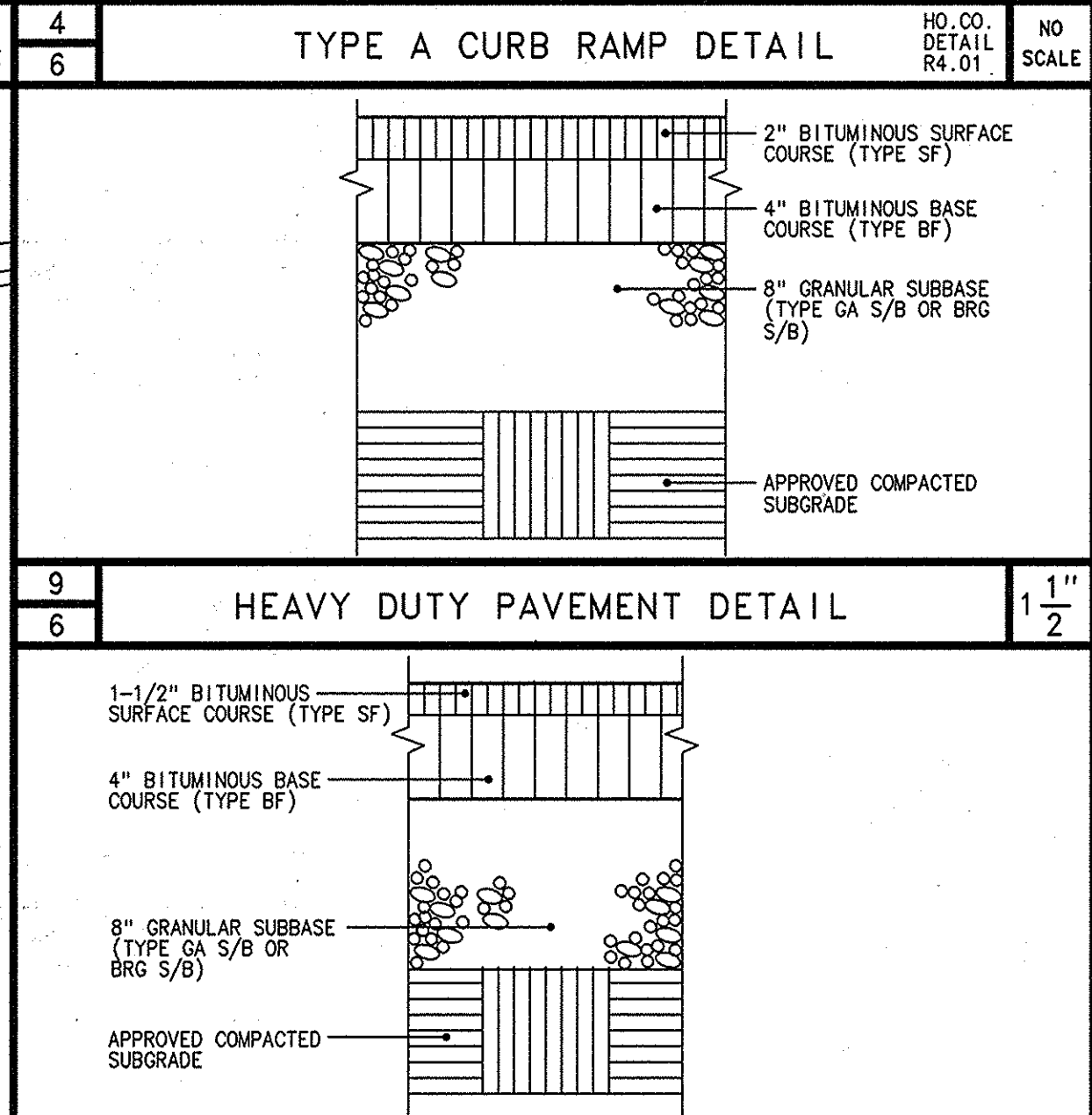
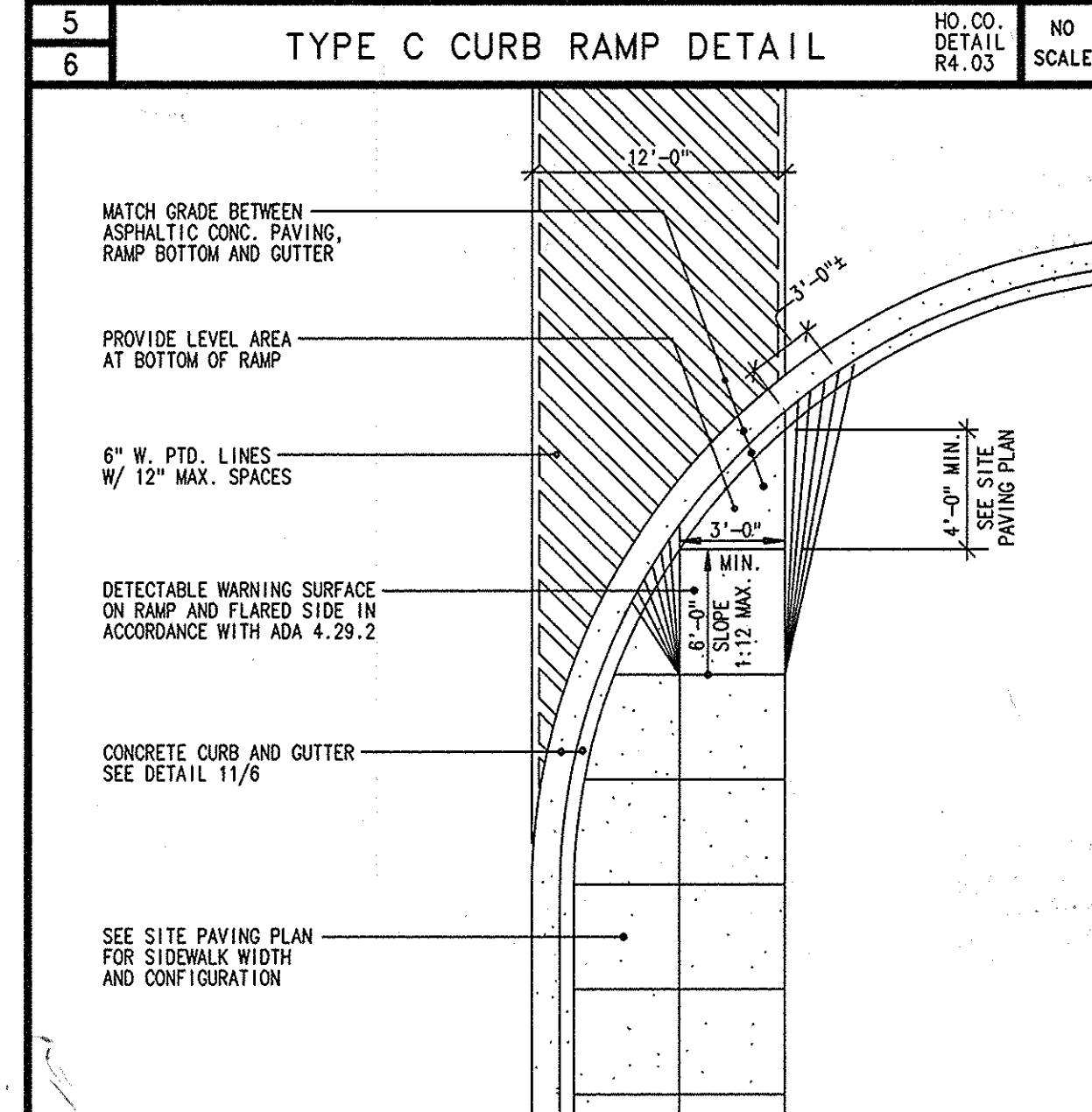
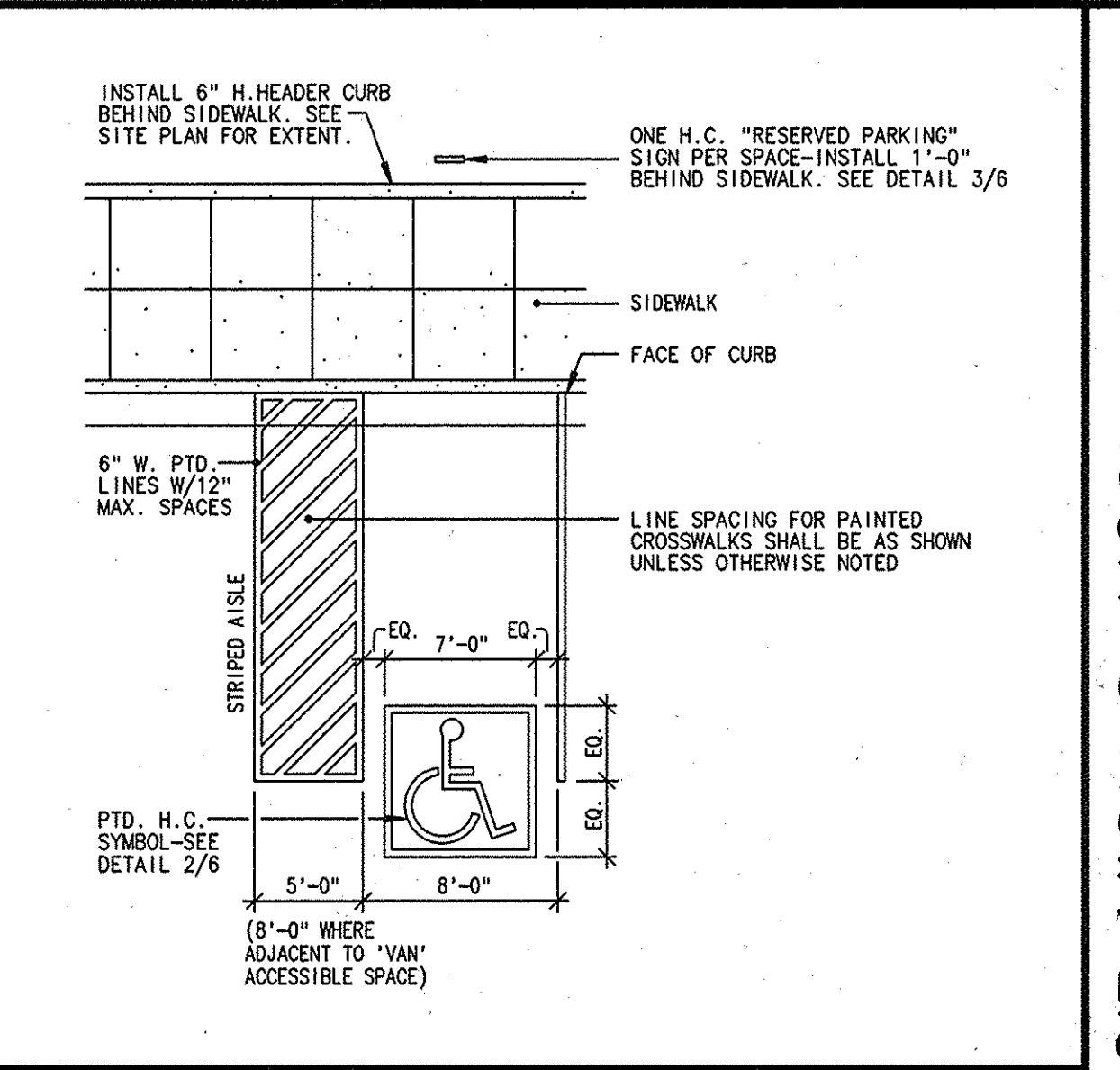
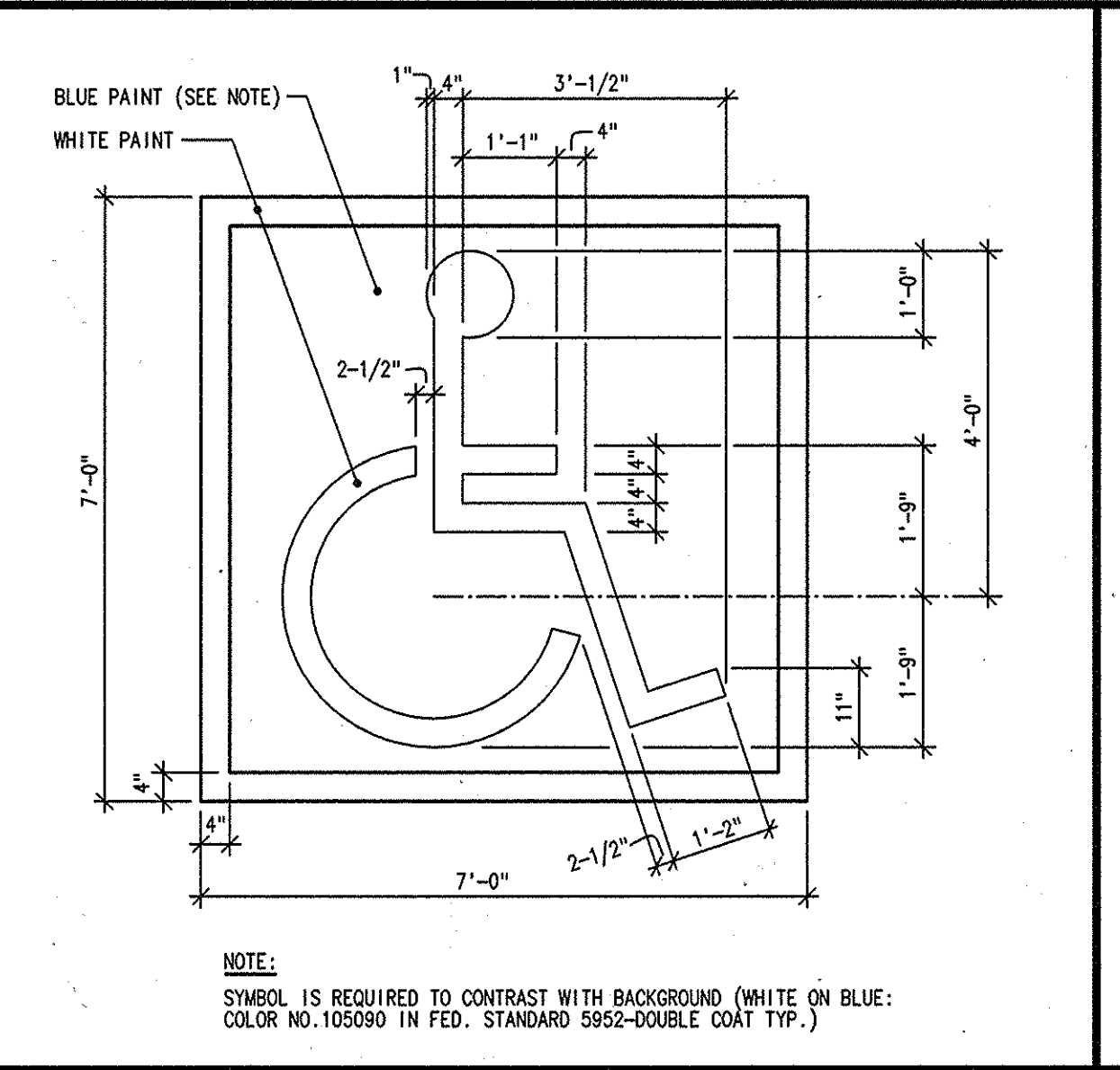
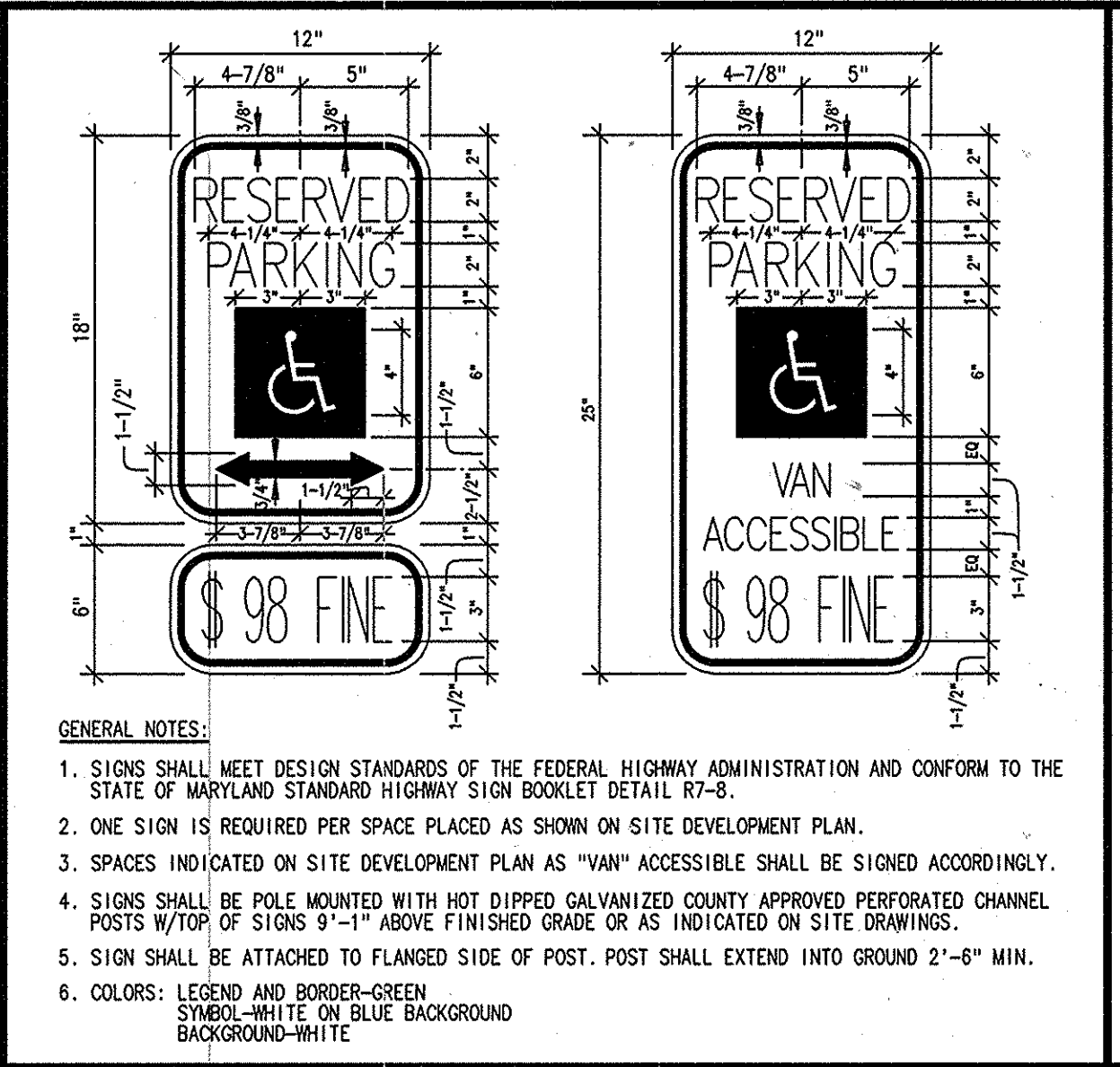
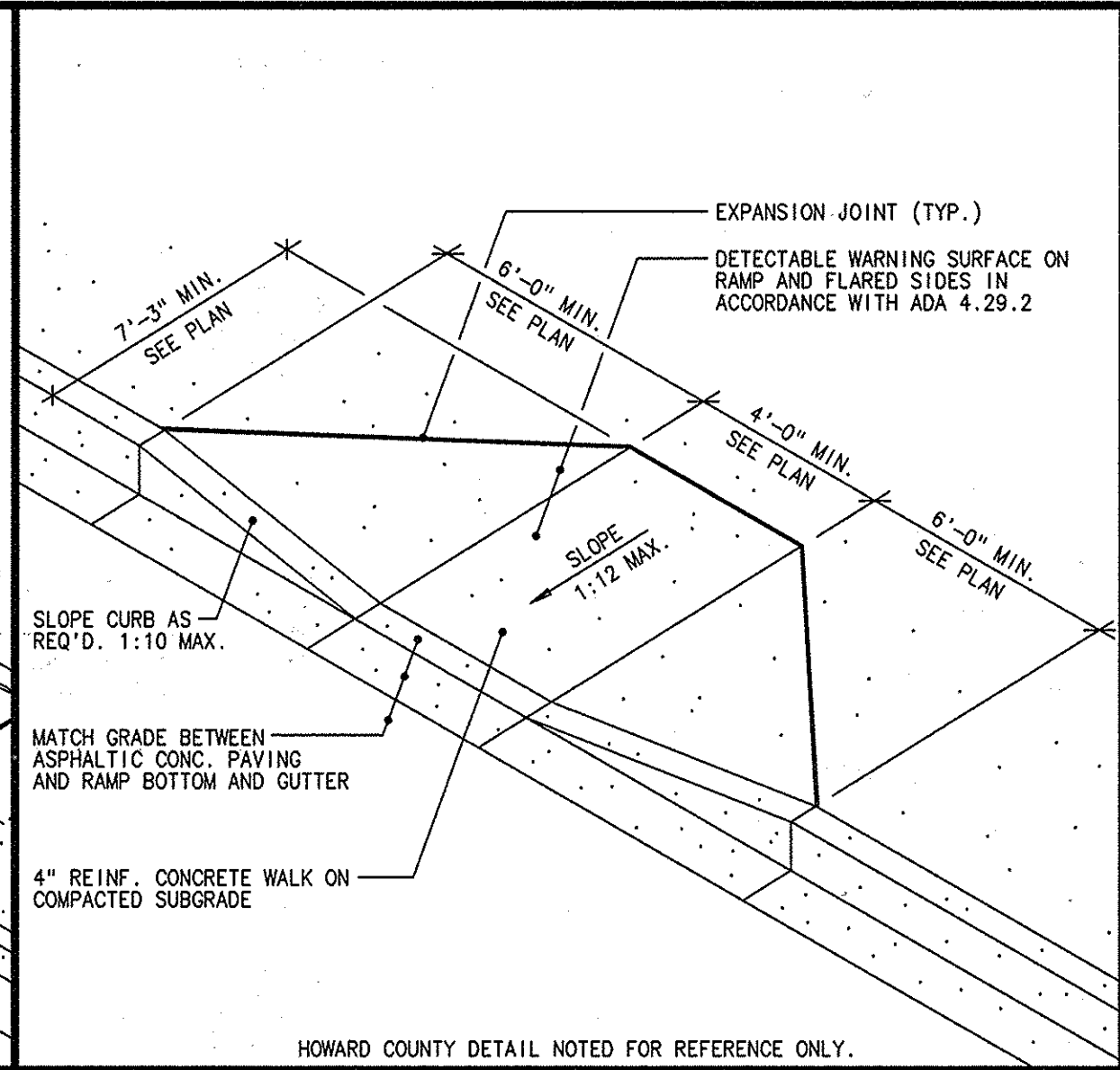
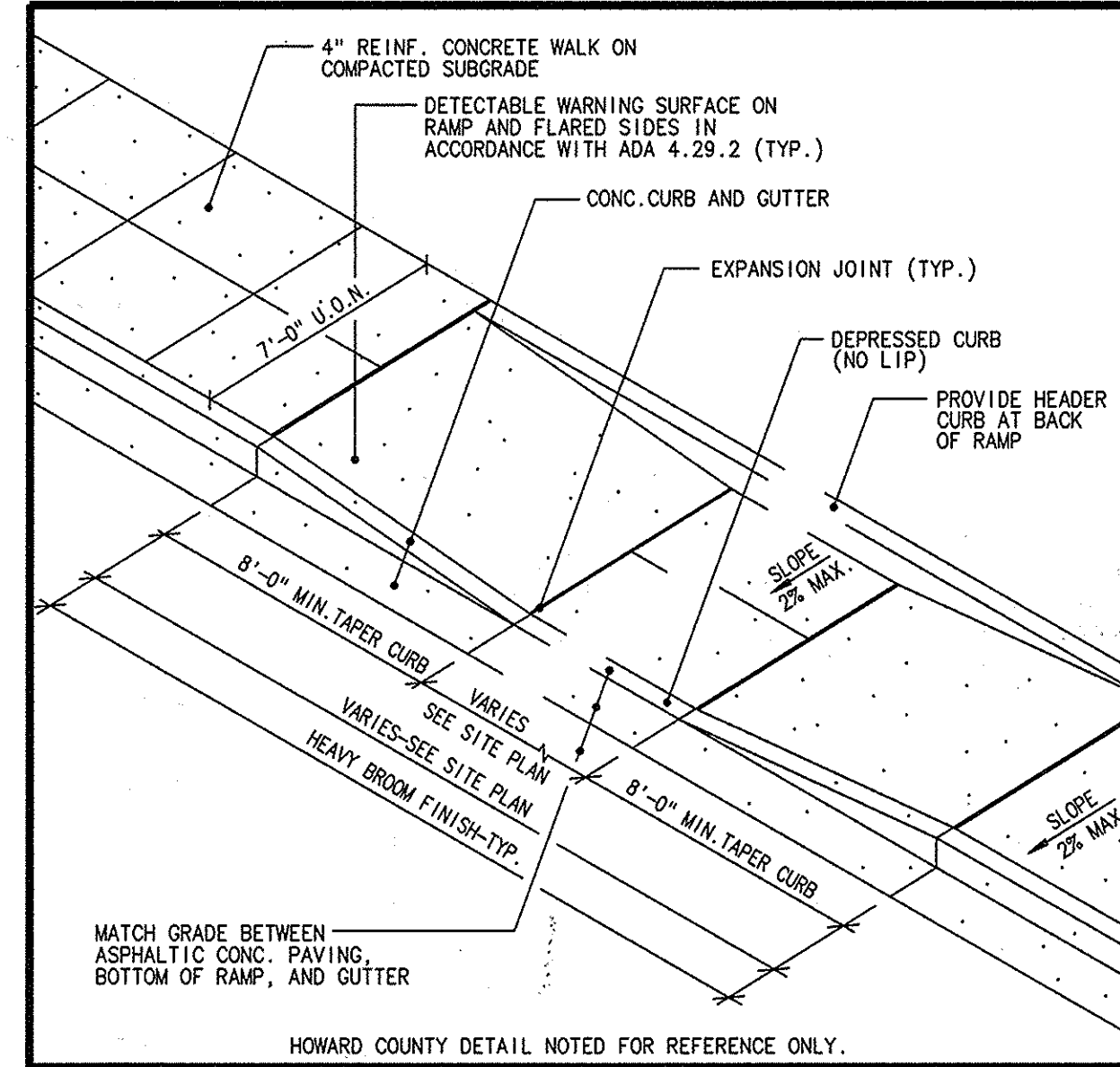
PREPARED FOR:  
**HOWARD COUNTY PUBLIC SCHOOL SYSTEM**  
 10910 MARYLAND ROUTE 108  
 ELLICOTT CITY, MARYLAND 21042  
 ATTN: CATHLEEN YOUNG

**THOMAS CLARK ASSOC.**  
 2661 RIVA ROAD, SUITE 120  
 ANNAPOLIS, MD 21401  
 301-261-8700

**SITE DEVELOPMENT PLAN**  
**RESERVOIR HIGH SCHOOL**  
 (EASTERN HIGH SCHOOL No. 2)  
 PARCEL 115  
 L. 3218 F. 618

SCALE	ZONING	G. L. W. FILE No.
1"=40'	RR-MXD3	99091
DATE	TAX MAP - GRID	SHEET
5/05/2000	41/46	31 Δ
HOWARD COUNTY, MARYLAND		5 OF 27

SDP-00-86



**TCA ARCHITECTS**  
2661 RIVA ROAD, SUITE 120  
ANNAPOLIS, MARYLAND 21401  
410-841-6205

**OWNER**  
HOWARD COUNTY PUBLIC SCHOOL SYSTEM  
10910 ROUTE 108  
ELLICOTT CITY, MARYLAND 21043

APPROVED: DEPARTMENT OF PLANNING AND ZONING

*[Signature]*  
DIRECTOR

*[Signature]*  
CHIEF, DIVISION OF LAND DEVELOPMENT

*[Signature]*  
CHIEF, DEVELOPMENT ENGINEERING DIVISION

DATE: 7/2/10  
DATE: 7/3/10

**SITE DETAILS**  
RESERVOIR HIGH SCHOOL  
HIGH SCHOOL AT FULTON SITE  
(EASTERN HIGH SCHOOL NO. 2)

TAX MAPS NO. 41 & 46  
LIBER 3218 FOLIO 618  
5TH ELECTION DISTRICT: HOWARD COUNTY, MARYLAND  
SCALE: AS SHOWN

SDP-00-86

RESERVOIR HIGH SCHOOL  
(EASTERN HIGH SCHOOL NO. 2)  
Howard County, Maryland  
Howard County Public School System

SDP PERMIT  
9 FEBRUARY 00

6214 NEW  
SHEET COUNT

THOMAS CLARK ASSOCIATES ARCHITECTS  
2288  
1000 JOSEPH P. WASHINGTON BLVD.  
ANNAPOLIS, MARYLAND 21403

**tca**  
Thomas Clark Associates Architects  
Annapolis, Maryland

SITWORK BID  
22 MARCH 00

37  
6 of 27

project no. 9902

- LEGEND**
- EXISTING CONTOUR
  - PROPOSED CONTOUR
  - LIMIT OF DISTURBANCE
  - Earth Dike
  - PRE-DEVELOPMENT DRAINAGE DIVIDE
  - POST-DEVELOPMENT DRAINAGE DIVIDE
  - Drainage Divides
  - Stabilized Construction Entrance
  - Silt Fence
  - Super Silt Fence
  - Pipe Slope Drain
  - Check Dam

SCAGGSVILLE

ROAD

MD. RTE 216

216

POSSIBLE FUTURE R/W

250 PEPCO R/W

For 50 scale Sediment Control Design & Trap Data, see sheets 8 & 9

This sheet for Sediment Control overview only. For construction of sediment control devices, see sheets 8 & 9.

**DEVELOPER'S/BUILDER'S CERTIFICATE**

I/We certify that all development and/or construction will be done according to these plans, and that any responsible personnel involved in the construction project will have a Certificate of Attendance at a Maryland Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I shall engage a registered Professional Engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion. I also authorize periodic on-site inspections by the Howard Soil Conservation District.

Cathleen Conley Young 6/21/00  
Signature of Developer/Builder Date

These Plans for small pond construction, soil erosion and sediment control meet the requirements of the Howard Soil Conservation District.

[Signature] 7/6/00  
Date

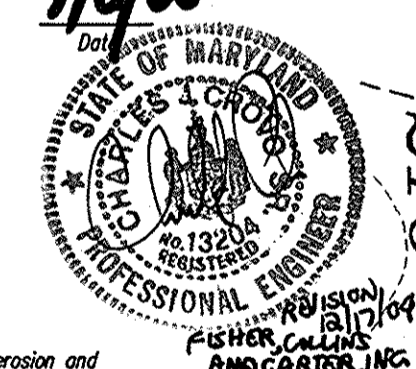
These plans have been reviewed for the Howard Soil Conservation District and meet the technical requirements for small pond construction, soil erosion and sediment control.

[Signature] 7/6/00  
Date

**ENGINEER'S CERTIFICATE**

I certify that this plan for pond construction, erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions. This plan was prepared in accordance with the requirements of the Howard Soil Conservation District. I have notified the developer that he/she must engage a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion.

[Signature] 6/21/00  
Date



**THIS PLAN IS FOR SEDIMENT CONTROL ONLY!**

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

[Signature] 7/3/00  
Date

[Signature] 7/7/00  
Date

[Signature] 7/3/00  
Date



Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.

License No. 1652 Expiration Date: 8/28/04

**GLW GUTSCHICK LITTLE & WEBER, P.A.**

CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS

3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK  
BURTONSVILLE, MARYLAND 20866

TEL: 301-421-4024 FAX: 301-421-4186

CADD\DRAWINGS\99091\DESIGN\9909105C DES. DRN. CHK.

6-12-10	NEW SHEET COUNT	DTM	BY	APP'R.
12-17-00	Utility relocation & new asphalt & concrete walkes	P.C.C.		
DATE	REVISION			

PREPARED FOR:

HOWARD COUNTY PUBLIC SCHOOL SYSTEM  
10910 MARYLAND ROUTE 108  
ELLCOTT CITY, MARYLAND 21042  
ATTN: CATHEEN YOUNG

THOMAS CLARK ASSOC.  
2801 RIVA ROAD, SUITE 120  
ANNAPOLIS, MD 21401  
301-261-8700

SEDIMENT CONTROL OVERVIEW

**RESERVOIR HIGH SCHOOL**  
(EASTERN HIGH SCHOOL No. 2)  
PARCEL 115  
L. 3218 F. 618

CLARKSVILLE ELECTION DISTRICT No. 5

HOWARD COUNTY, MARYLAND

SCALE	ZONING	G. L. W. FILE No.
1" = 100'	RR-MXD3	99091
DATE	TAX MAP - GRID	SHEET
5/5/2000	41/46	37
		7 OF 27

SDP-00-06

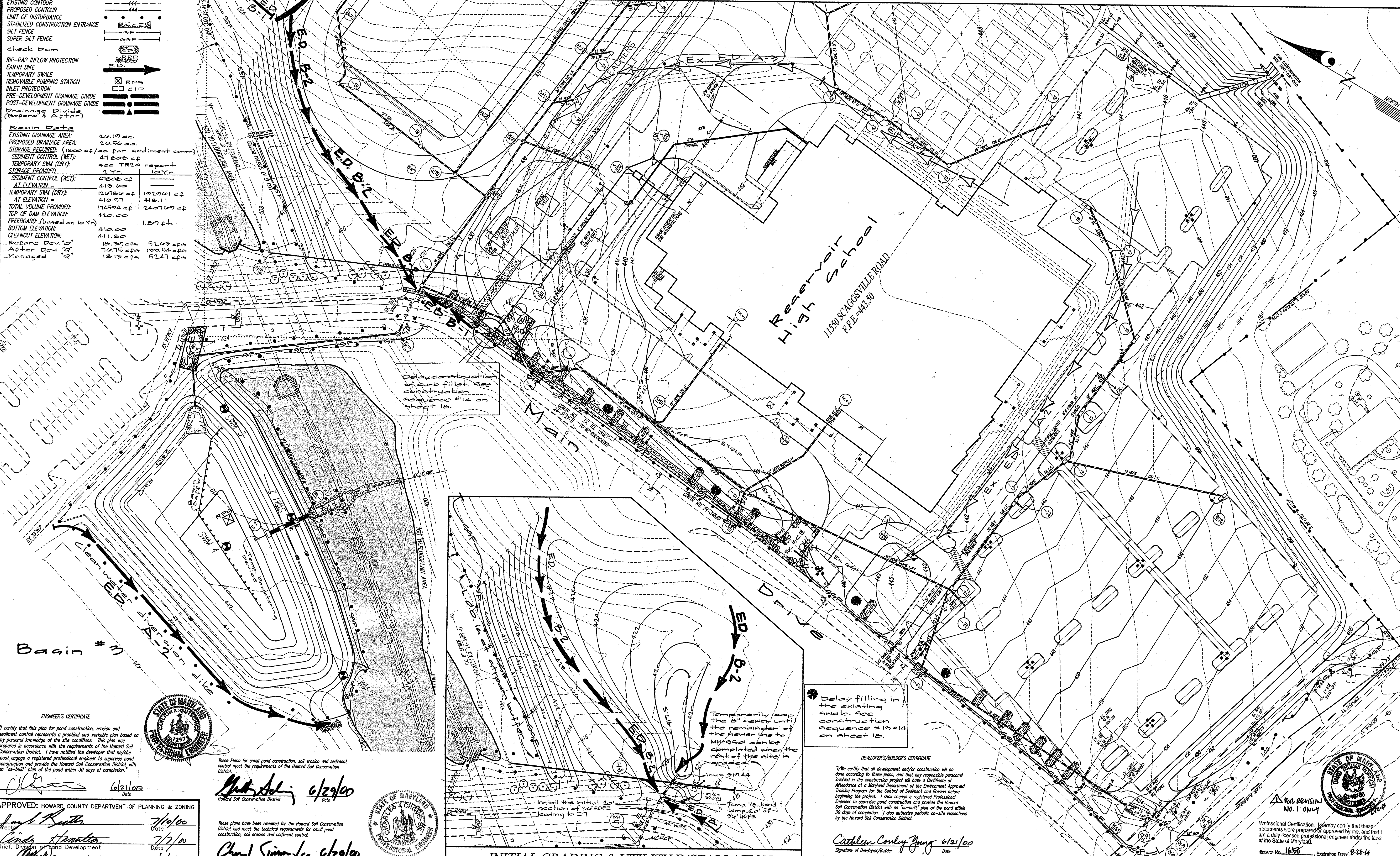
**LEGEND**

- EXISTING CONTOUR
- PROPOSED CONTOUR
- LIMIT OF DISTURBANCE
- STABILIZED CONSTRUCTION ENTRANCE
- SILT FENCE
- SUPER SILT FENCE
- CHECK DAM
- RIP-RAP INFLOW PROTECTION
- EARTH DIKE
- TEMPORARY SWALE
- REMOVABLE PUMPING STATION
- INLET PROTECTION
- PRE-DEVELOPMENT DRAINAGE DIVIDE
- POST-DEVELOPMENT DRAINAGE DIVIDE
- Drainage Divide (Before & After)

**Basin Data**

EXISTING DRAINAGE AREA:	26.19 ac.
PROPOSED DRAINAGE AREA:	26.56 ac.
STORAGE REQUIRED: (1800 cf/ac for sediment control)	47,808 cf
SEDIMENT CONTROL (WET):	47,808 cf
TEMPORARY SWM (DRY):	see TR10 report
STORAGE PROVIDED:	2 Yr 12 Yr
SEDIMENT CONTROL (WET):	47,808 cf
AT ELEVATION =	419.00
TEMPORARY SWM (DRY):	12,076 cf 192,901 cf
AT ELEVATION =	416.97 416.11
TOTAL VOLUME PROVIDED:	174,974 cf 242,769 cf
FREEBOARD: (based on 10 Yr)	420.00 1.87 ft
BOTTOM ELEVATION:	410.00
CLEANOUT ELEVATION:	411.80
Before Dev. '02	18.30 cfs 57.69 cfs
After Dev. '02	76.75 cfs 132.94 cfs
Managed '02	18.13 cfs 57.47 cfs

SEE INSET BELOW ON THIS SHEET  
MATCHLINE SEE SHEET 9

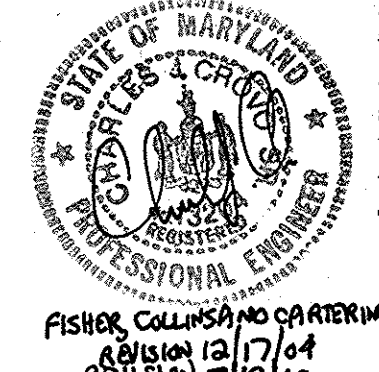


**ENGINEER'S CERTIFICATE**  
I certify that this plan for pond construction, erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions. This plan was prepared in accordance with the requirements of the Howard Soil Conservation District. I have notified the developer that he/she must engage a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion.



These Plans for small pond construction, soil erosion and sediment control meet the requirements of the Howard Soil Conservation District.  
*Signature* 6/29/02  
Date

These plans have been reviewed for the Howard Soil Conservation District and meet the technical requirements for small pond construction, soil erosion and sediment control.  
*Signature* 6/29/02  
Date

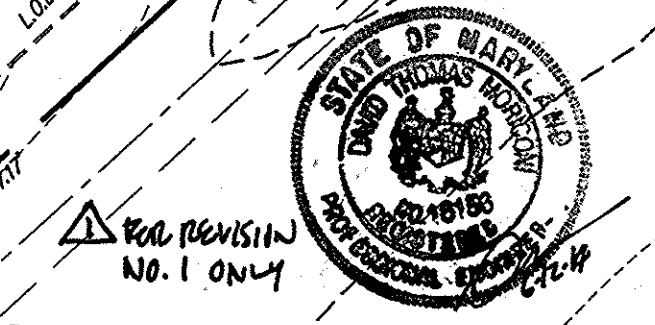


INSTALL THE INITIAL 20' SECTION OF SW HOPE LEADING TO I7  
Temp 1/8" bend in temp 2" of 20' HOPE  
*Signature* 7/18/02  
Date

Delay filling in the existing swale. See construction sequence #13 & #14 on sheet 18.

**DEVELOPER'S/BUILDER'S CERTIFICATE**  
I/We certify that all development and/or construction will be done according to these plans, and that any responsible personnel involved in the construction project will have a Certificate of Attendance at a Maryland Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I shall engage a registered Professional Engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion. I also authorize periodic on-site inspections by the Howard Soil Conservation District.

*Signature* 6/21/02  
Date



Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.  
1800-25 No. 10114  
Expiration Date: 8-28-14

**INITIAL GRADING & UTILITY INSTALLATION**

**THIS PLAN IS FOR SEDIMENT CONTROL ONLY!**

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING  
*Signature* 7/6/02  
Date

*Signature* 7/7/02  
Date

*Signature* 7/6/02  
Date

GLW GUTSCHICK LITTLE & WEBER, P.A.  
ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS  
3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK  
BURTONSVILLE, MARYLAND 20886  
TEL: 301-421-4024 FAX: 301-421-4186

DATE	DESCRIPTION	BY	APP'R.
6-12-14	NEW SHEET COUNT	DTM	
7-12-10	Add 6" wide walkway Asphaltic paving	R.C.C.	
12-17-07	Utility relocation & new asphalt & concrete walks	R.C.C.	

PREPARED FOR:  
HOWARD COUNTY PUBLIC SCHOOL SYSTEM  
10910 MARYLAND ROUTE 108  
ELLICOTT CITY, MARYLAND 21042  
ATTN: CATHEEN YOUNG

THOMAS CLARK ASSOC.  
2661 RIVA ROAD, SUITE 120  
ANNAPOLIS, MD 21401  
301-261-8700

REVISED SITE DEVELOPMENT PLAN  
CLARKSVILLE ELECTION DISTRICT No. 5

SEDIMENT CONTROL PLAN  
**RESERVOIR HIGH SCHOOL**  
(EASTERN HIGH SCHOOL No. 2)  
PARCEL 115  
L. 3218 F. 618

SCALE	ZONING	G. L. W. FILE No.
1"=50'	RR-MXD3	99091
DATE	TAX MAP - GRID	SHEET
5/5/2000	41/46	37 of 47



ENGINEER'S CERTIFICATE  
 I certify that this plan for pond construction, erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions. This plan was prepared in accordance with the requirements of the Howard Soil Conservation District. I have notified the developer that he/she must engage a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion.

6/21/00  
 Date



- LEGEND**
- EXISTING CONTOUR
  - PROPOSED CONTOUR
  - LIMIT OF DISTURBANCE
  - SILT FENCE
  - SUPER SILT FENCE
  - TREE PROTECTION FENCE
  - Sablon Mattress
  - EARTH DIKE
  - PRE-DEVELOPMENT DRAINAGE DIVIDE
  - POST-DEVELOPMENT DRAINAGE DIVIDE
  - Drainage Divide (Before & After)
  - Removable Pumping Station
  - Pipe Slope Drain
  - Wetlands

**Sequence of Construction Sidewalk & Pathway**

- OBTAIN GRADING PERMIT (1 DAY)
- NOTIFY "MISS UTILITY" AT LEAST 48 HOURS BEFORE BEGINNING ANY WORK AT 1-800-257-7777.
- NOTIFY THE HOWARD COUNTY OFFICE OF CONSTRUCTION/INSPECTION AT 410-313-1330 24 HOURS BEFORE STARTING WORK.
- GRADE SITE FOR SIDEWALK AND PATHWAY CONSTRUCTION (3 WEEKS)
- INSTALL SIDEWALK AND PATHWAY (3 WEEKS)
- DURING CONSTRUCTION OF THE PATHWAY AND SIDEWALK, THE CONTRACTOR SHALL INSTALL SILT FENCE DOWNGRADE OF THE DISTURBED AREA AT THE END OF EACH WORKING DAY.
- FINEGRADE ALL DISTURBED AREAS AND STABILIZE WITH PERMANENT SEEDING (12 WEEKS)
- NOTIFY THE HOWARD COUNTY OFFICE OF INSPECTIONS AND PERMITS FOR FINAL INSPECTION OF THE COMPLETED PROJECT.

Before Dev. @	After Dev. @	Managed	EXISTING DRAINAGE AREA:	PROPOSED DRAINAGE AREA:
2.50 ac	14.21 ac	1.94 ac	7.00 ac	7.47 ac
30024 sf	24212 sf	21202 sf	17202 sf	30024 sf
<b>SEDIMENT CONTROL (NET):</b>				
<b>TEMPORARY SIM</b>				
<b>STORAGE PROVIDED</b>				
<b>SEDIMENT CONTROL (NET):</b>				
<b>AT ELEVATION =</b>				
<b>TEMPORARY SIM</b>				
<b>AT ELEVATION = 2 Tr WSEL</b>				
<b>TOTAL VOLUME PROVIDED:</b>				
<b>TOP OF DAM ELEVATION:</b>				
<b>BOTTOM ELEVATION:</b>				
<b>CLEANOUT ELEVATION:</b>				
<b>WEIR CREST ELEV.</b>				
<b>CHANNEL DEPTH</b>				
<b>WEIR LENGTH</b>				
<b>WEIR CREST ELEV.</b>				
<b>10 YR WSEL</b>				

**DEVELOPER'S/BUILDER'S CERTIFICATE**

I/We certify that all development and/or construction will be done according to these plans, and that any responsible personnel involved in the construction project will have a Certificate of Attendance at a Maryland Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I shall engage a registered Professional Engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion. I also authorize periodic on-site inspections by the Howard Soil Conservation District.

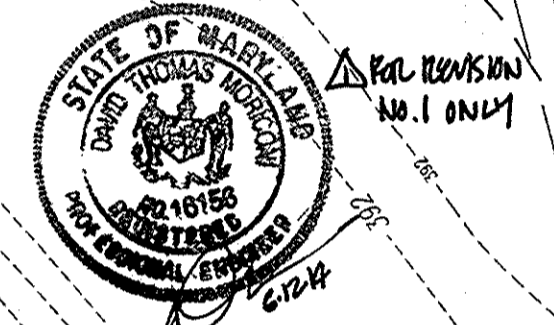
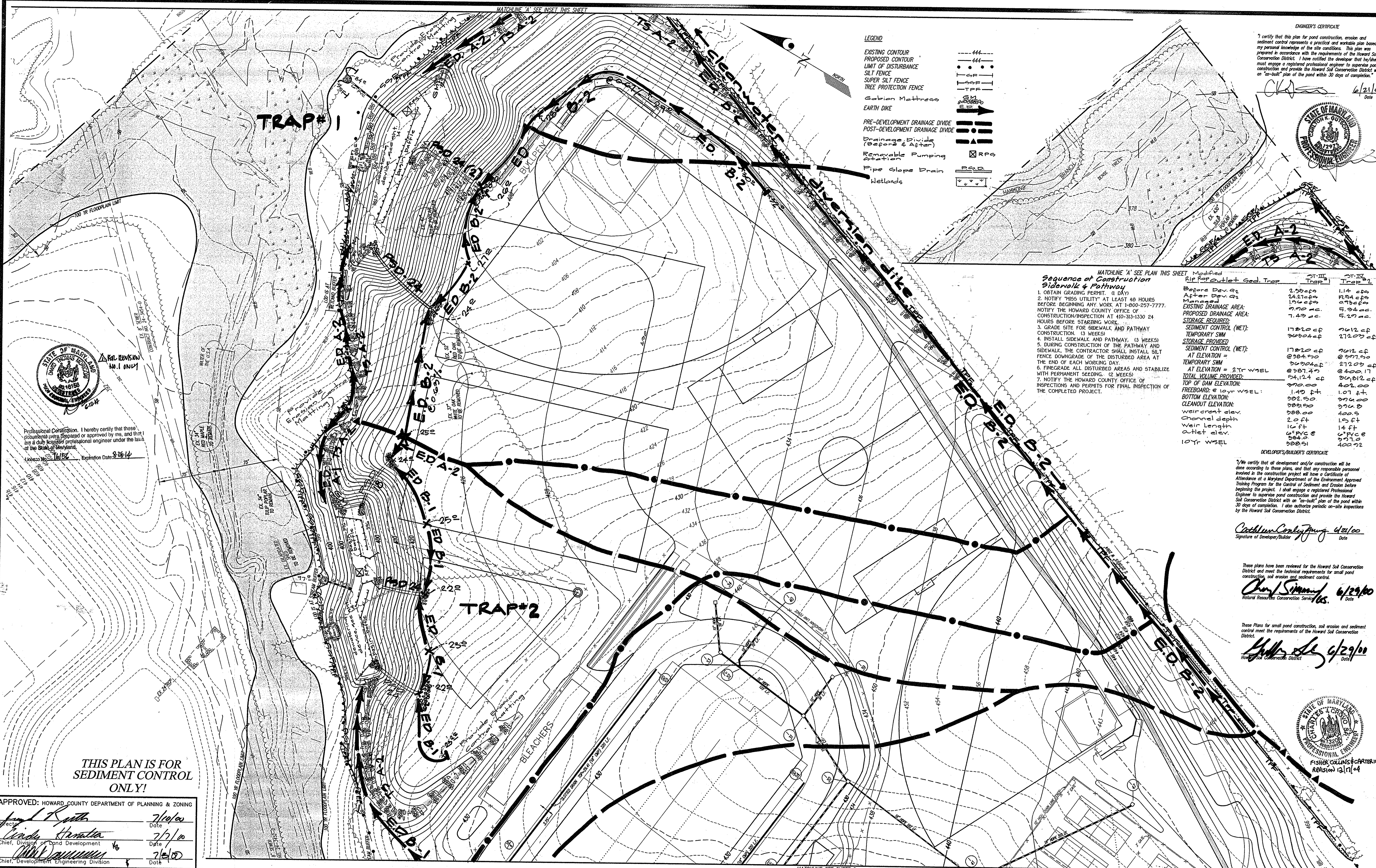
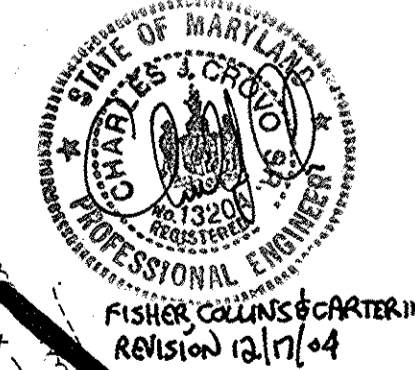
*Cathleen Young*  
 Signature of Developer/Builder  
 Date

These plans have been reviewed for the Howard Soil Conservation District and meet the technical requirements for small pond construction, soil erosion and sediment control.

*Cheryl Simms*  
 Natural Resources Conservation Service  
 Date 6/29/00

These Plans for small pond construction, soil erosion and sediment control meet the requirements of the Howard Soil Conservation District.

*John S. Young*  
 Howard Soil Conservation District  
 Date 6/29/00



Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.

License No. 12973 Expiration Date 8/26/14

**THIS PLAN IS FOR SEDIMENT CONTROL ONLY!**

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

*David H. Young* 7/10/00  
 Date

*Cheryl Simms* 7/2/00  
 Date

*John S. Young* 7/2/00  
 Date

**GLW GUTSCHICK LITTLE & WEBER, P.A.**  
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS  
 3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK  
 BURTONSVILLE, MARYLAND 20866  
 TEL: 301-421-4024 FAX: 301-421-4186

DATE	6-13-04	REVISION	Utility relocation & new asphalt & concrete walks
DATE	12-17-04	REVISION	
BY	DTM	APPR.	FOC

PREPARED FOR:  
 HOWARD COUNTY PUBLIC SCHOOL SYSTEM  
 10810 MARYLAND ROUTE 108  
 ELLICOTT CITY, MARYLAND 21042  
 ATTN: CATHEEN YOUNG

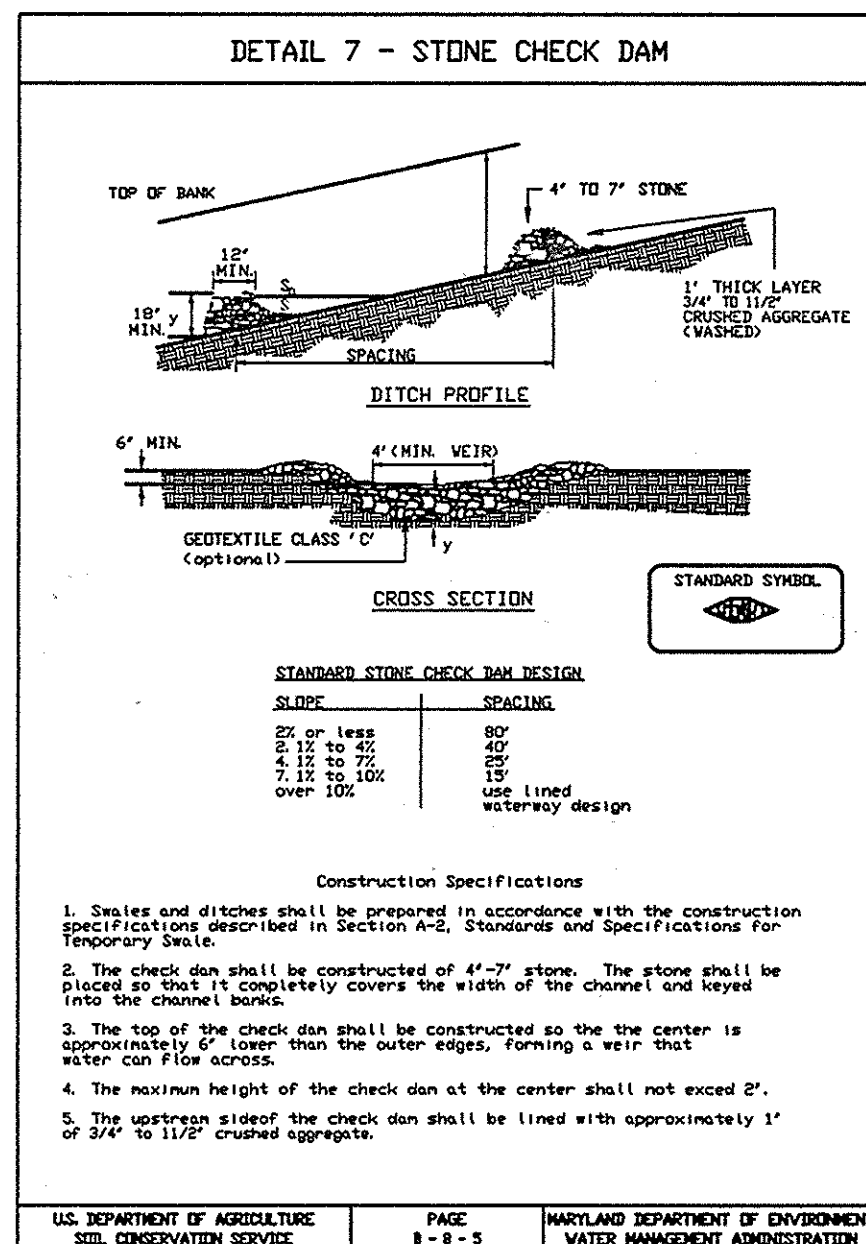
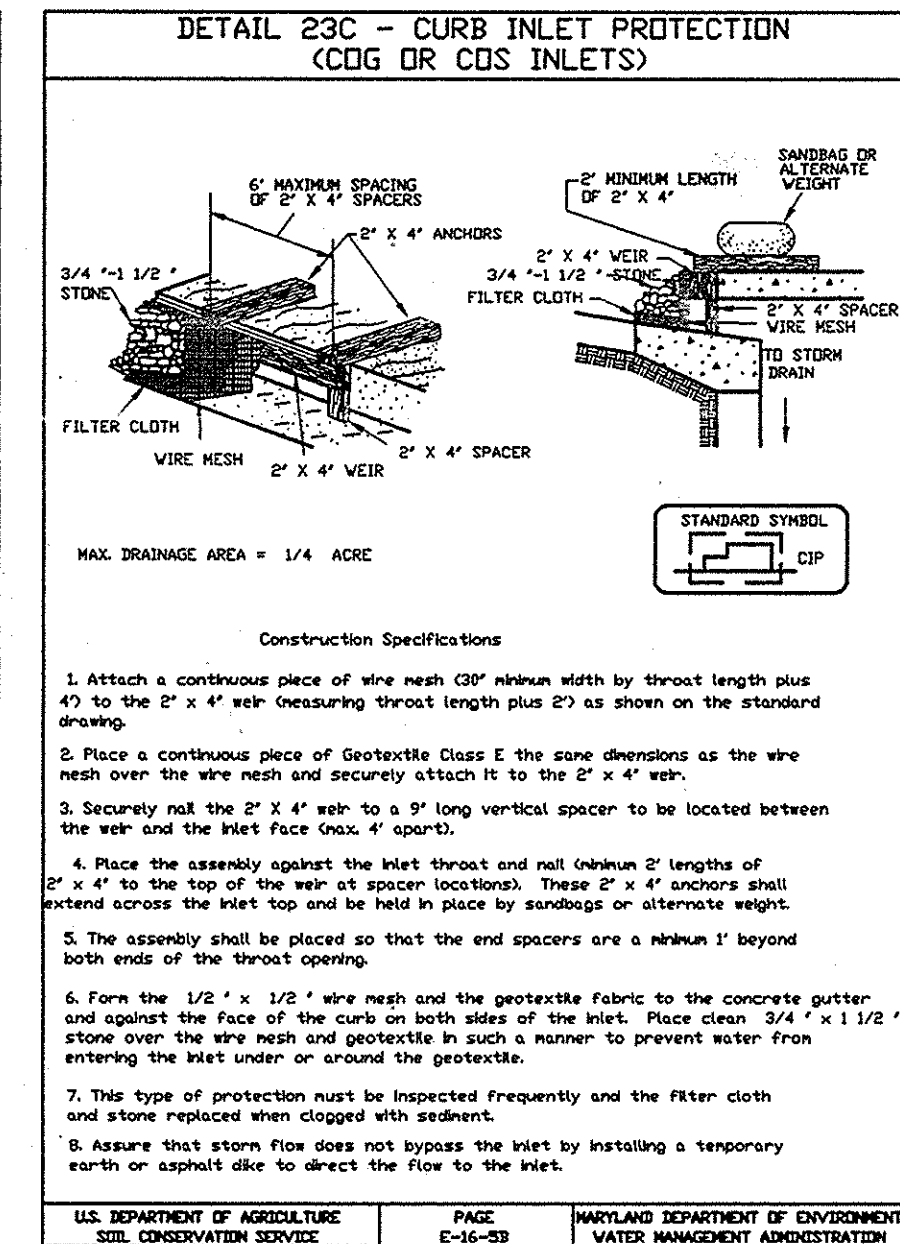
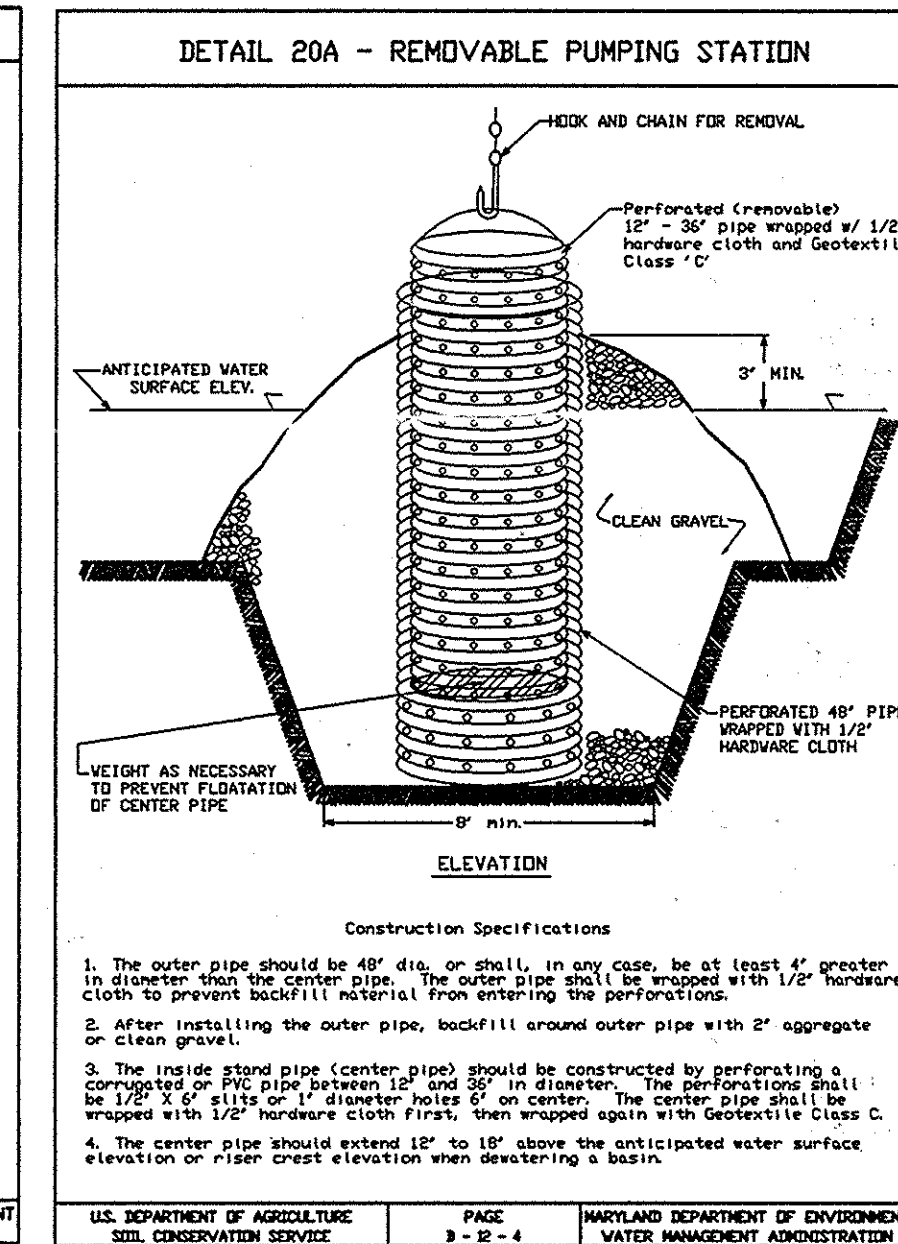
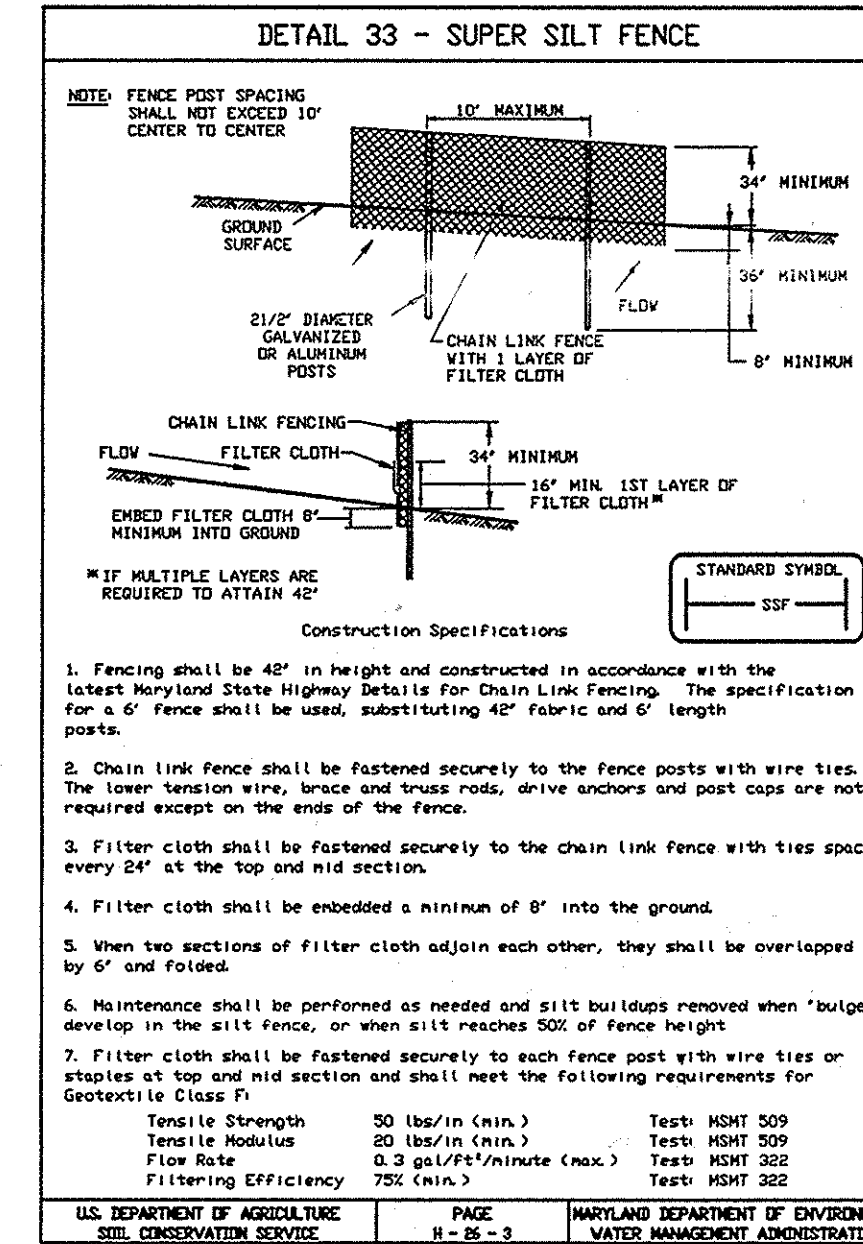
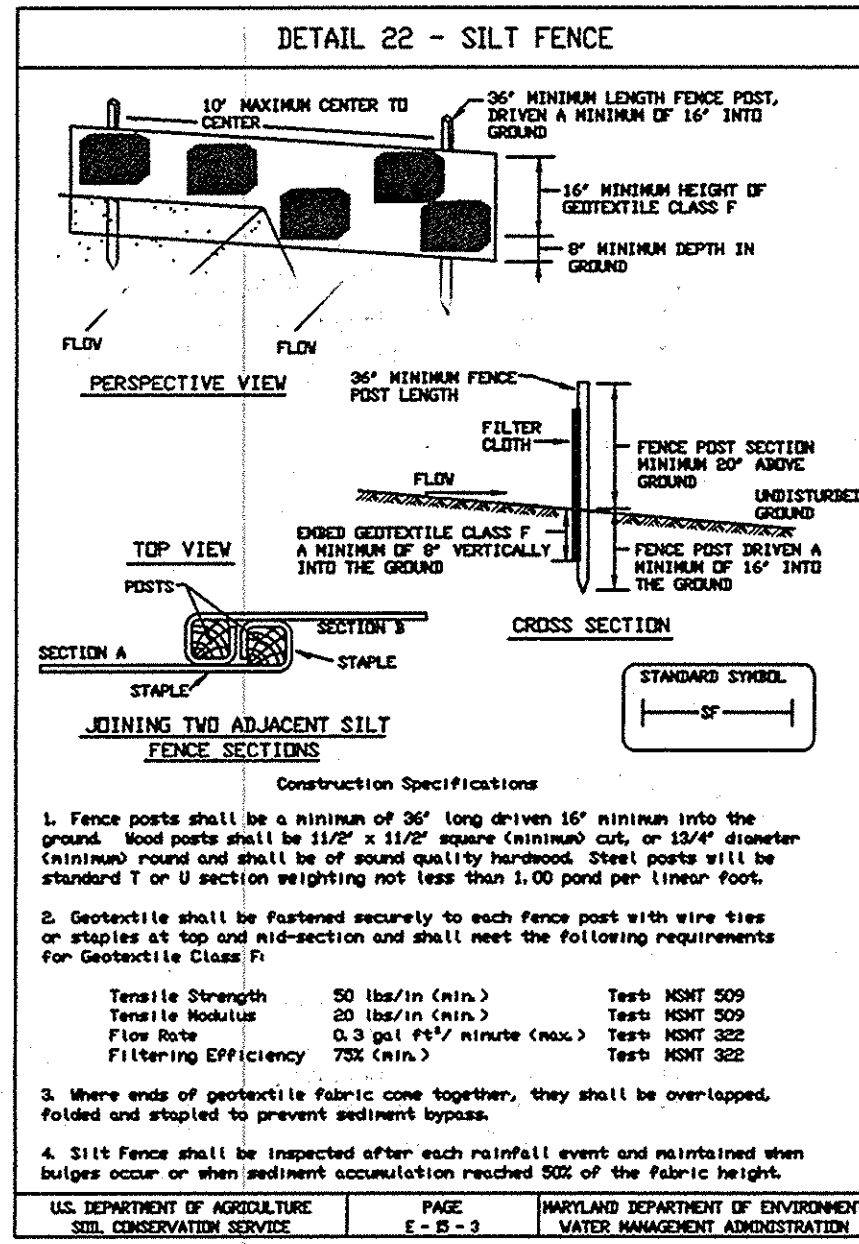
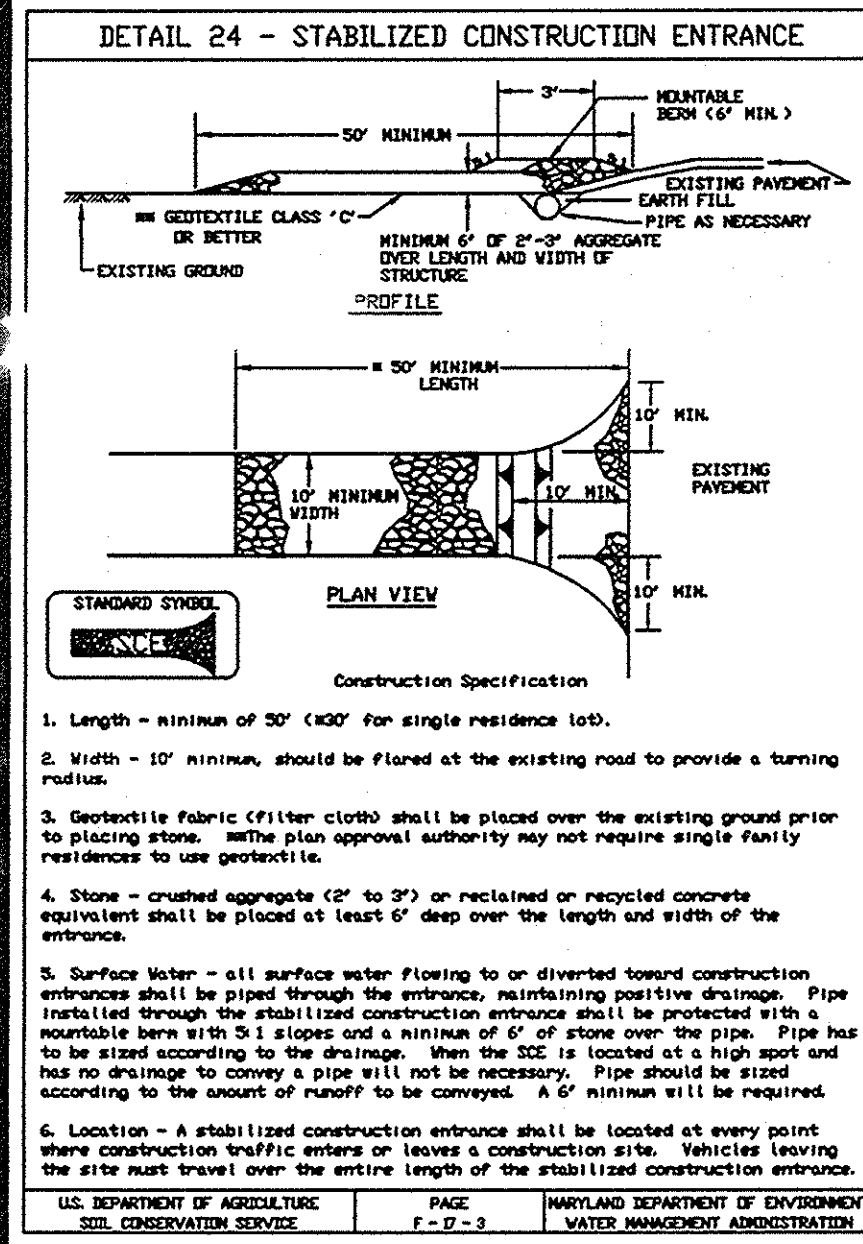
THOMAS CLARK ASSOC.  
 ANNAPOLIS, MD 21401  
 301-261-8700

SEDIMENT CONTROL PLAN  
**RESERVOIR HIGH SCHOOL**  
 (EASTERN HIGH SCHOOL No. 2)  
 PARCEL 115  
 L. 3218 F. 618

CLARKSVILLE ELECTION DISTRICT No. 5

SCALE	ZONING	G. L. W. FILE NO.
1"=50'	RR-MXD3	99091
DATE	TAX MAP - GRID	SHEET
5/5/2000	41/46	9 OF 27

SDP-00-06



#### PERMANENT SEEDING NOTES

Apply to graded or cleared area not subject to immediate further disturbance where a permanent long-lived vegetative cover is needed.

Seedbed Preparation: Loosen upper three inches of soil by raking, discing or other acceptable means before seeding (unless previously loosened).

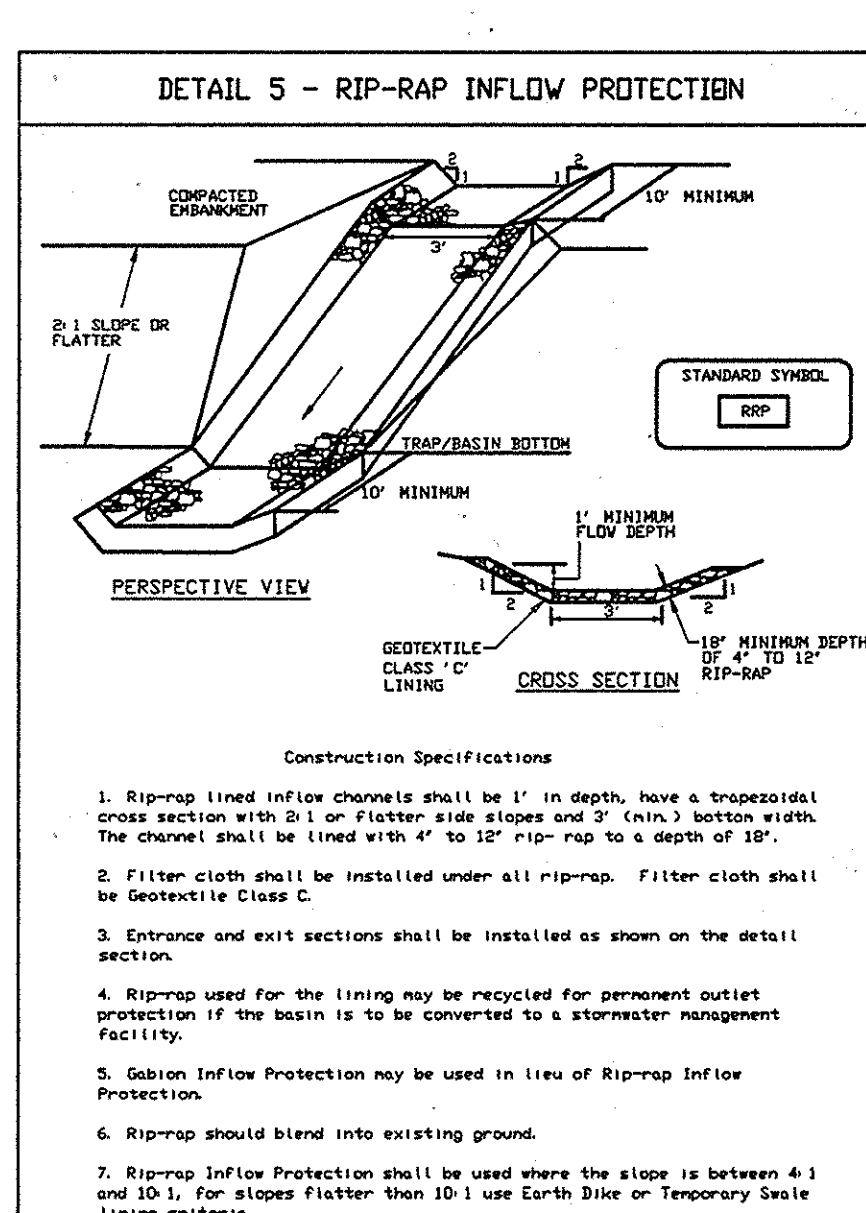
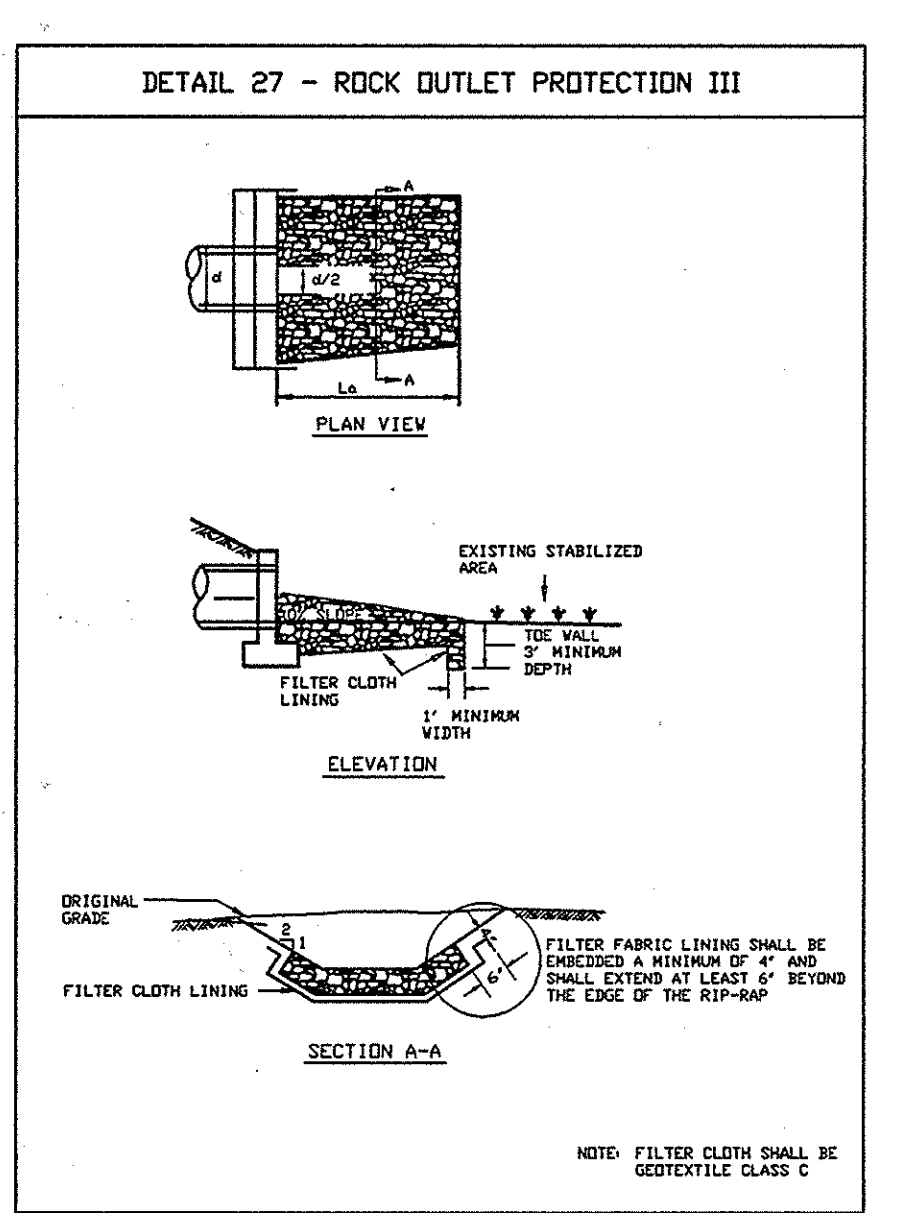
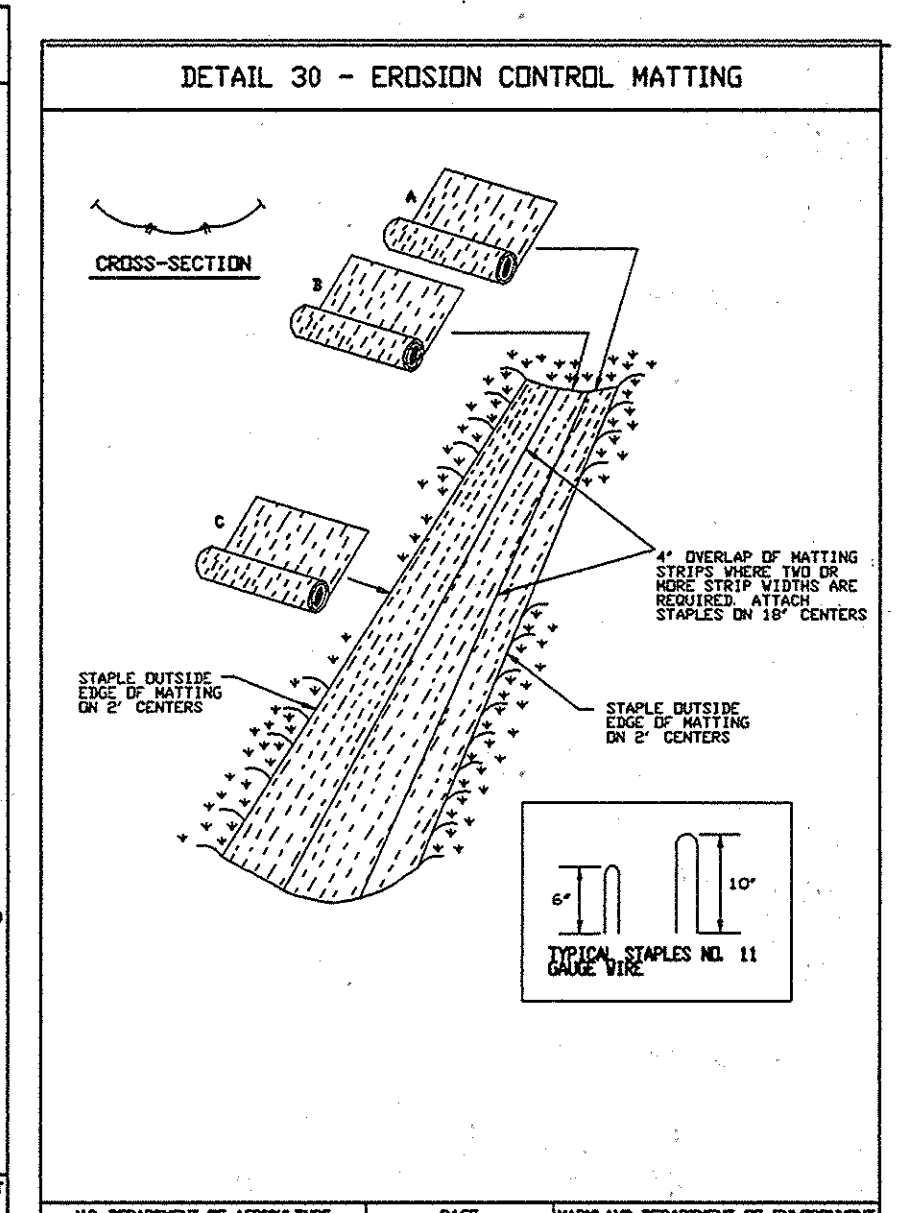
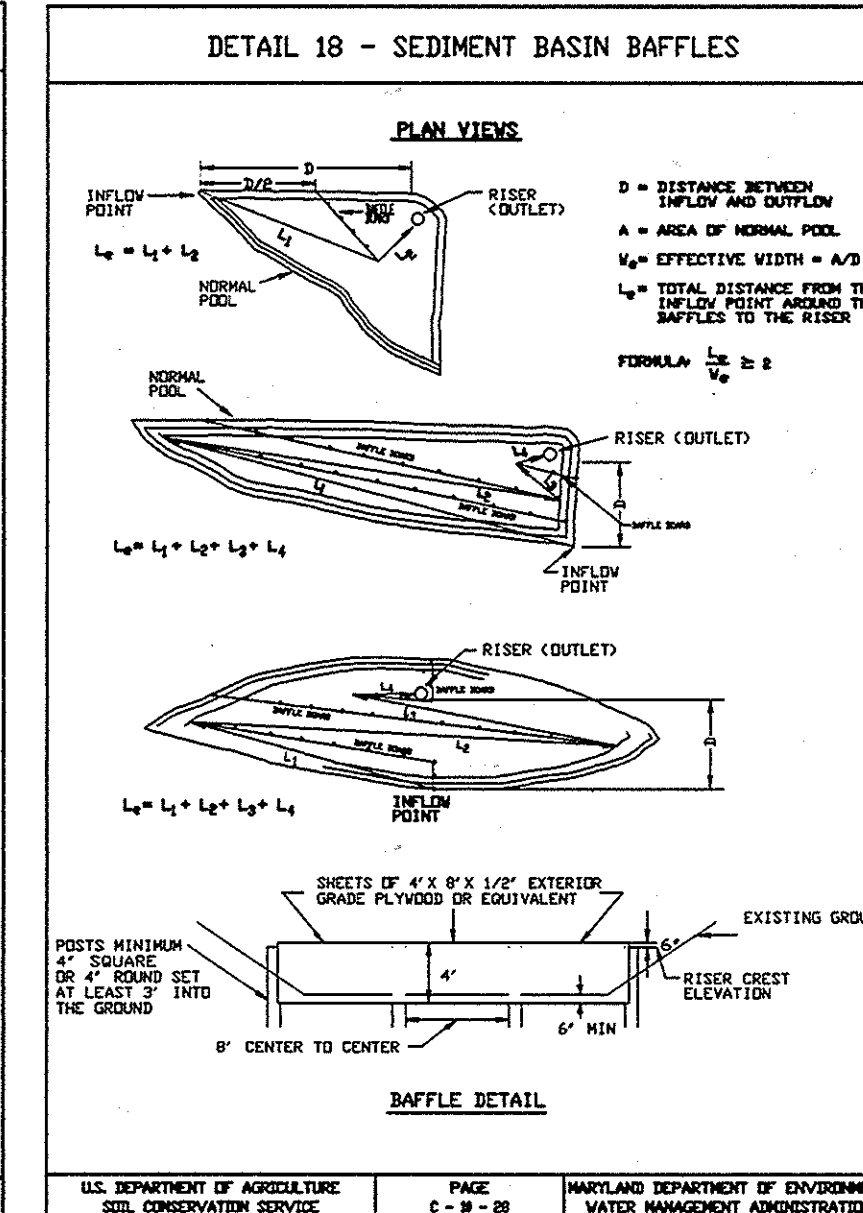
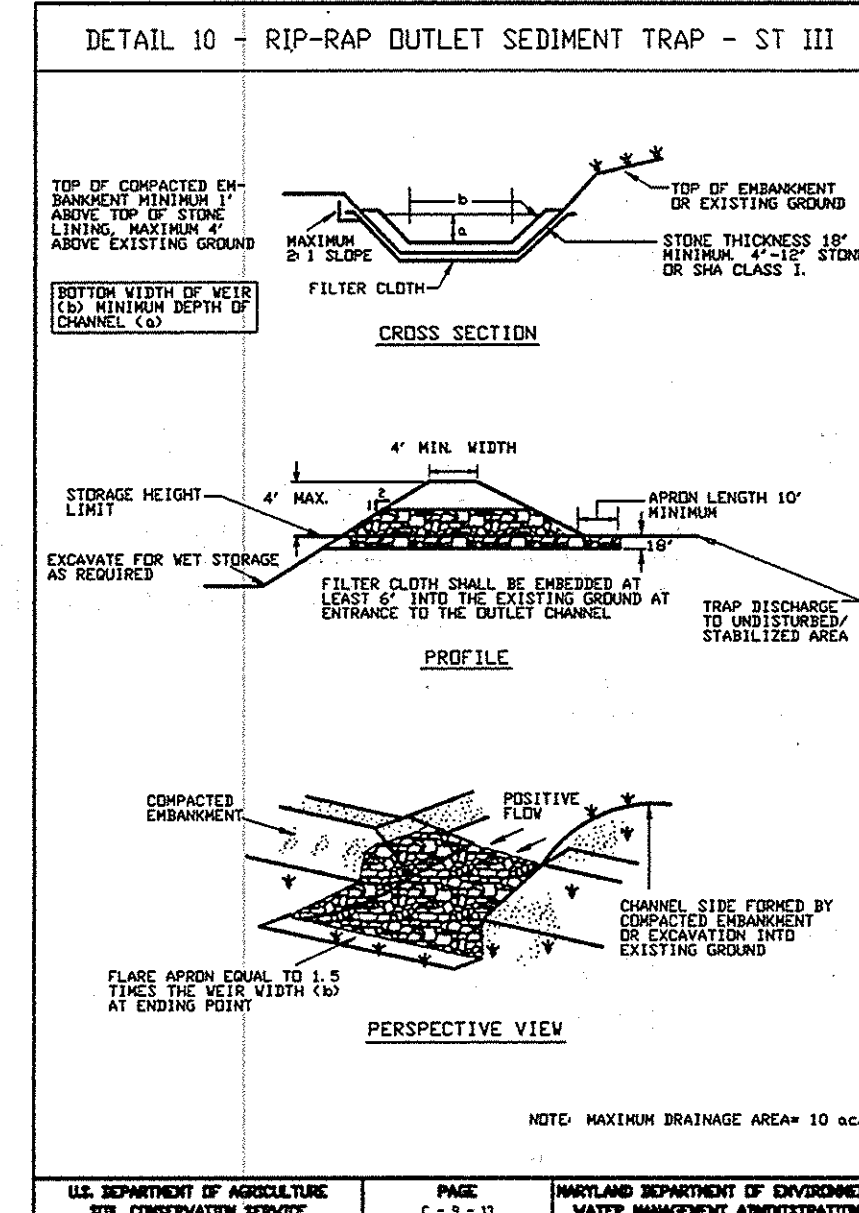
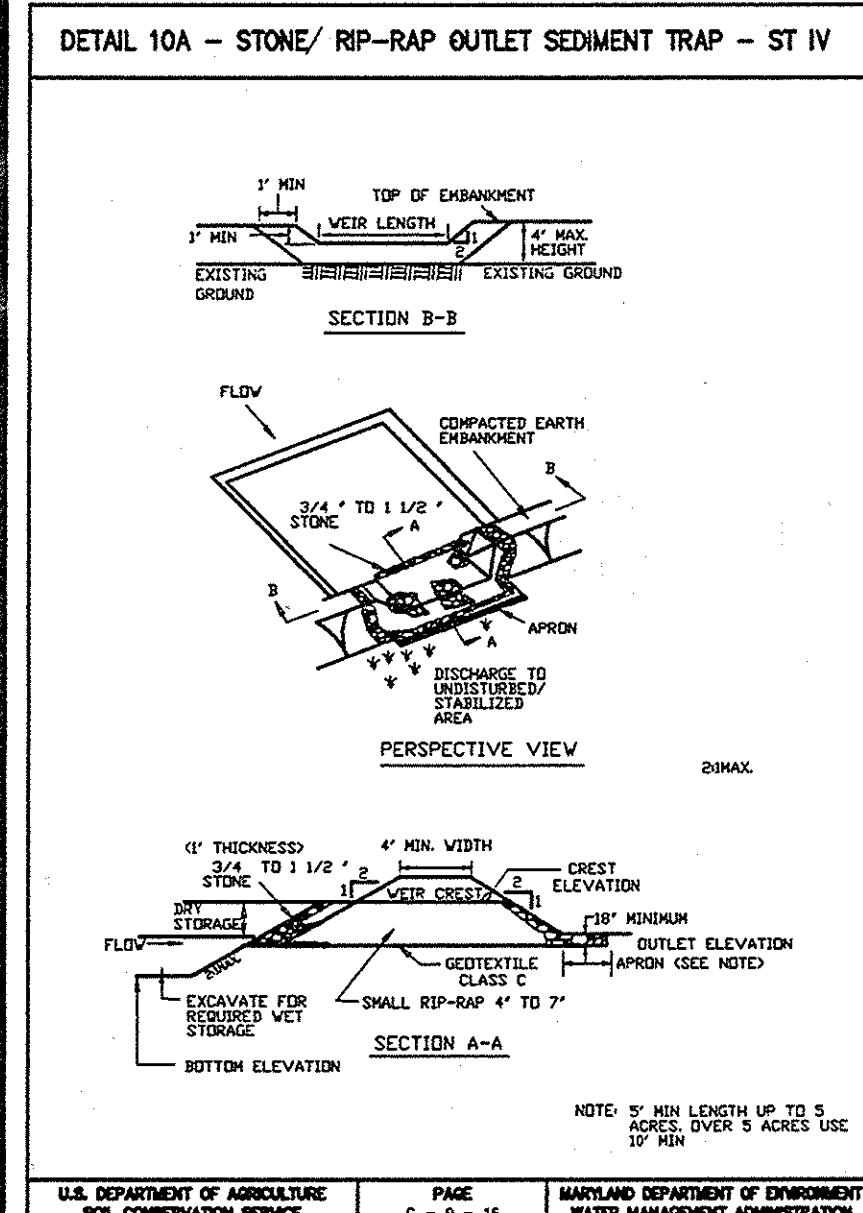
Soil Amendments: In lieu of soil test recommendations, use one of the following schedules:

- Preferred - Apply 2 tons per acre dolomitic limestone (92 lbs/1000 square feet) and 600 lbs per acre (10-10-10 fertilizer (23 lbs/1000 sq ft) before seeding. Harrow or disc into upper three inches of soil. At time of seeding, apply 400 lbs per acre 30-0-0 ureamitic fertilizer (9 lbs/1000 sq ft).
- Acceptable - Apply 2 tons per acre dolomitic limestone (92 lbs/1000 square feet) and 1000 lbs per acre (10-10-10 fertilizer (23 lbs/1000 sq ft) before seeding. Harrow or disc into upper three inches of soil.

Seeding: For the periods March 1 thru April 30, and August 1 thru October 15, seed with 60 lbs per acre (1.4 lbs/1000 sq ft) of Kentucky 31 Tall Fescue. For the period May 1 thru July 31, seed with 60 lbs Kentucky 31 Tall Fescue per acre and 2 lbs per acre (.05 lbs/1000 sq ft) of weeping lovegrass. During the period of October 16 thru February 28, protect site by Option (1) 2 tons per acre of well anchored straw mulch and seed as soon as possible in the spring - Option (2) Seed with 60 lbs/acre Kentucky 31 Tall Fescue and mulch with 2 tons/acre well anchored straw.

Mulching: Apply 1-1/2 to 2 tons per acre (70 to 90 lbs/1000 sq ft) of unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using small anchoring tool or 216 gal per acre (5 gal/1000 sq ft) of emulsified asphalt on flat areas. On slopes 5 feet or higher, use 348 gal per acre (8 gal/1000 sq ft) for anchoring.

Maintenance: Inspect all seeded areas and make needed repairs, replacements and reseedings.



#### TEMPORARY SEEDING NOTES

Apply to graded or cleared areas likely to be redistributed where a short-term vegetative cover is needed.

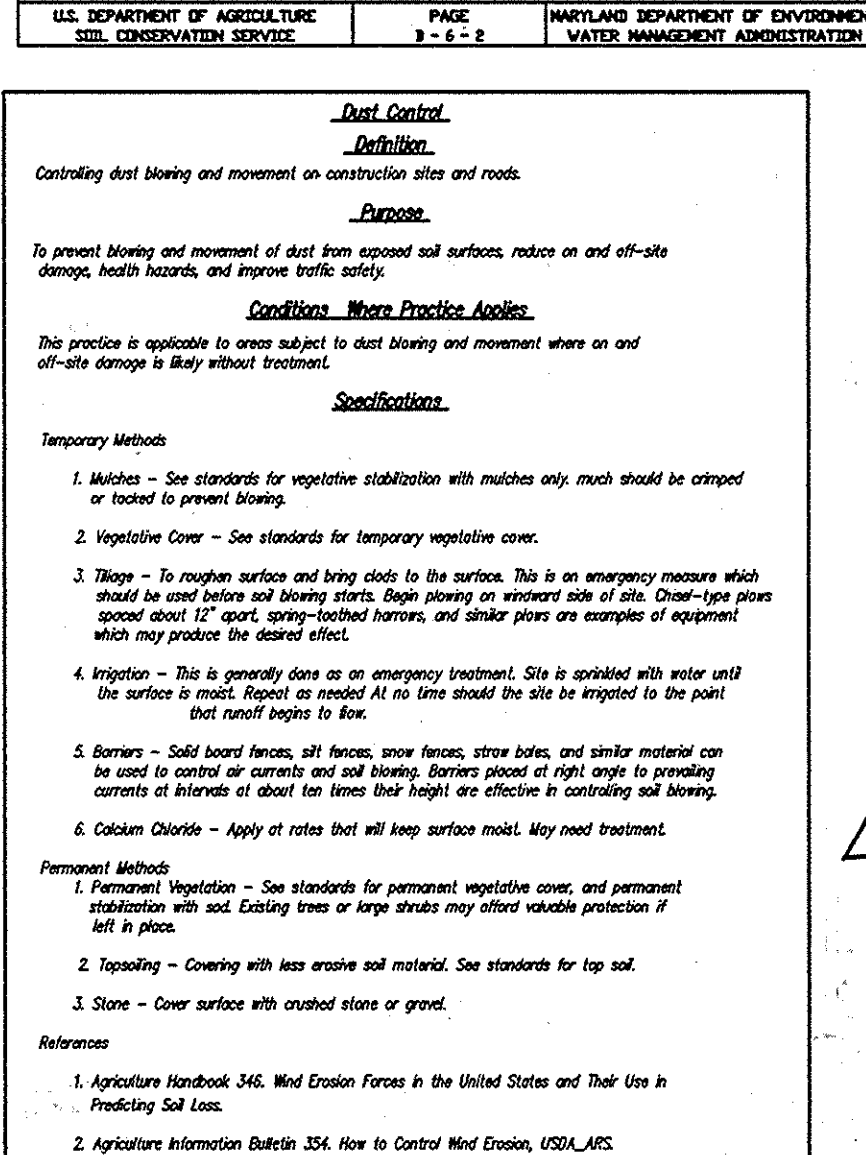
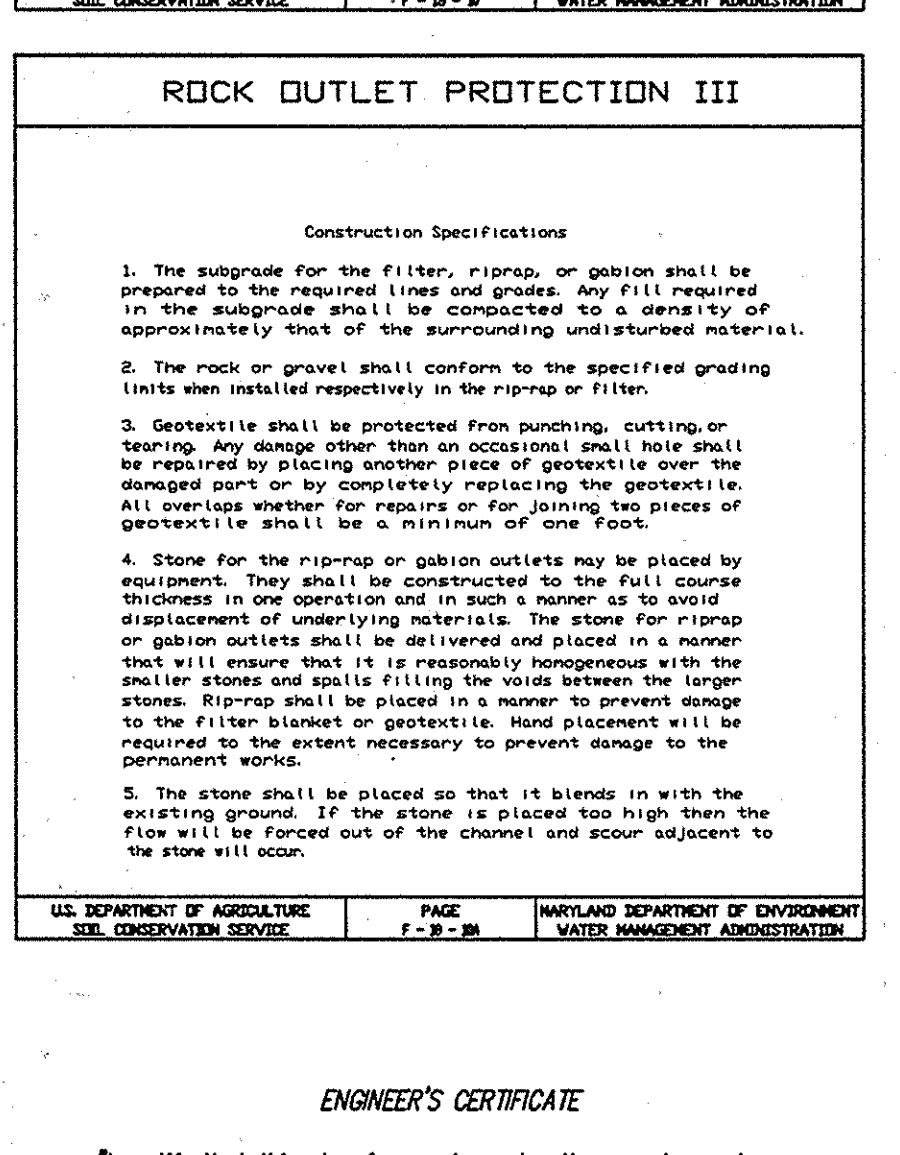
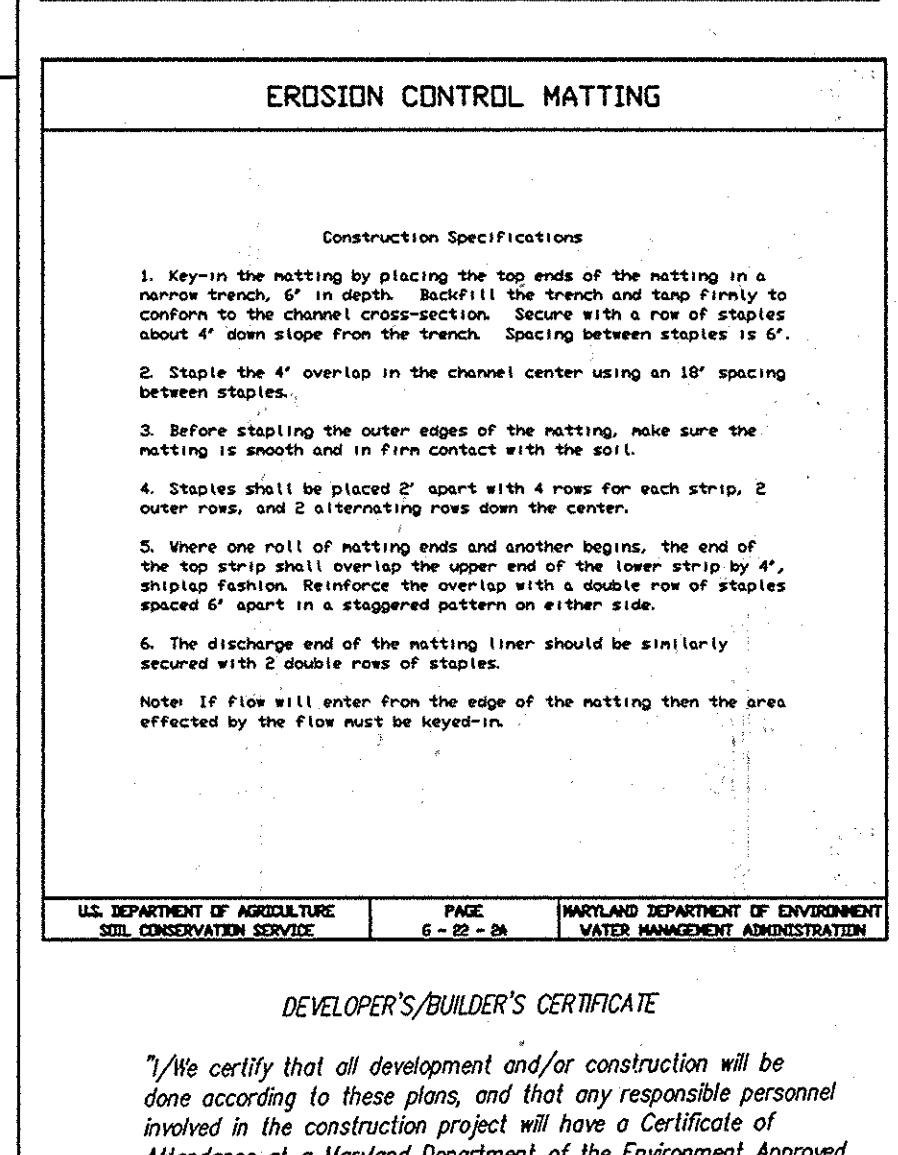
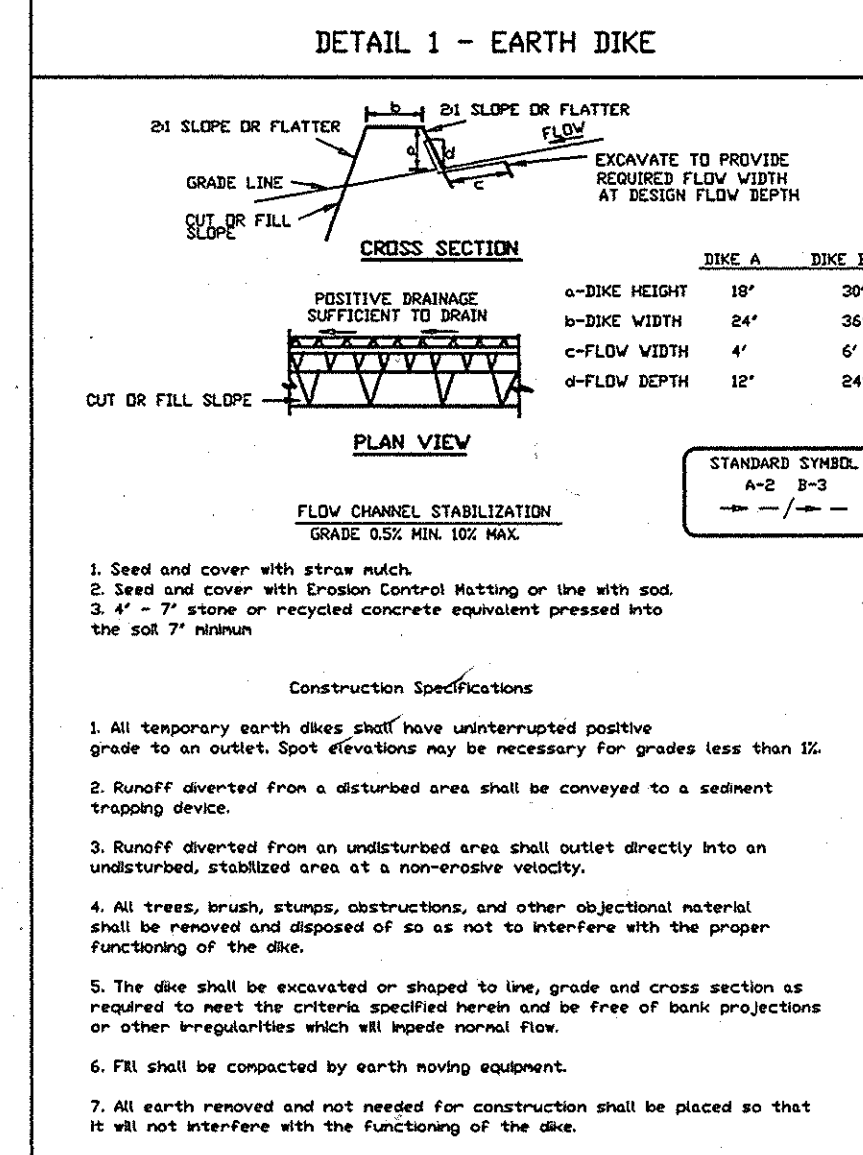
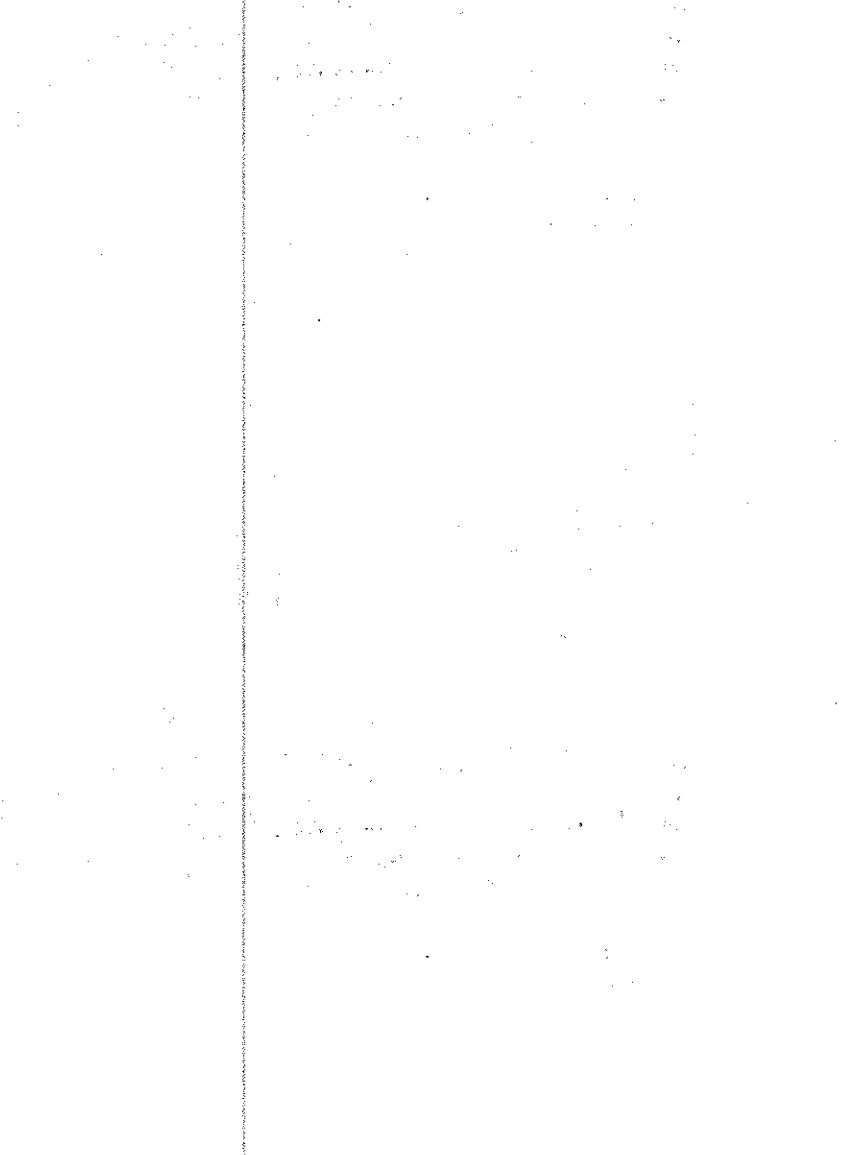
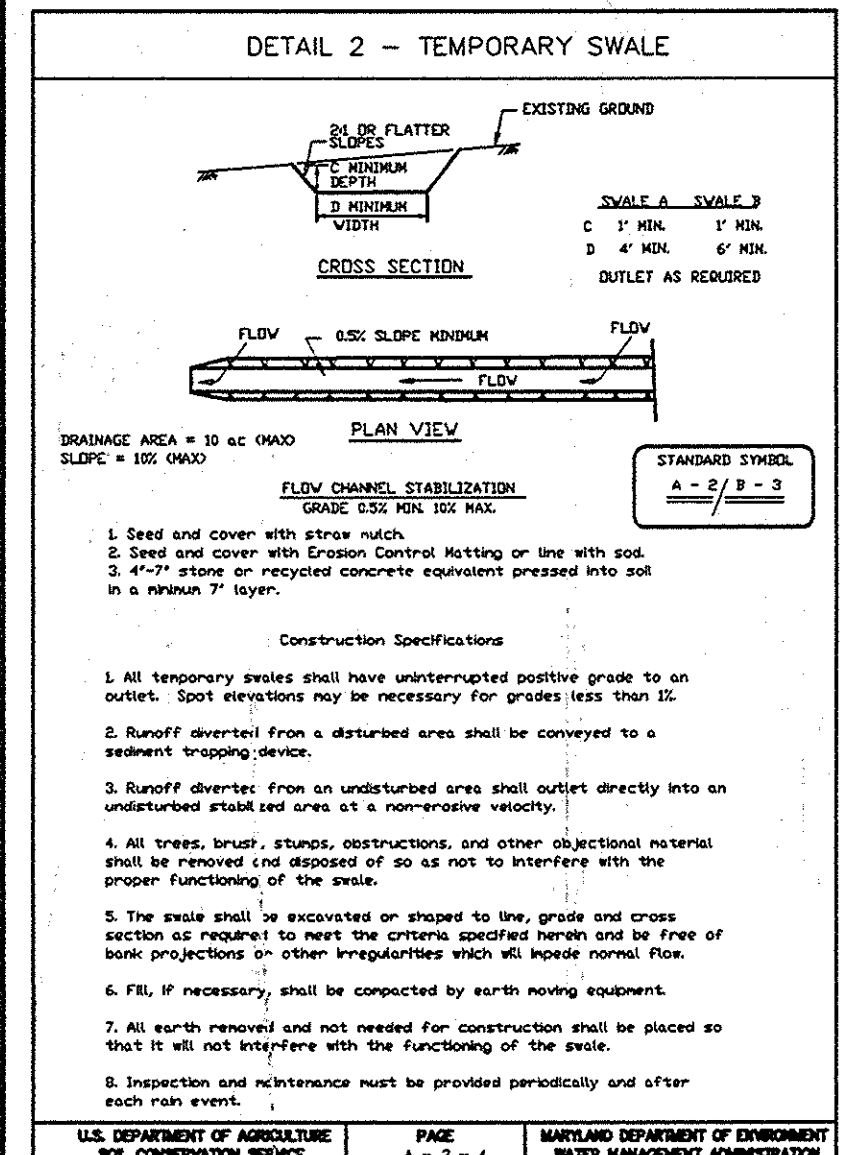
Seedbed Preparation: Loosen upper three inches of soil by raking, discing or other acceptable means before seeding (unless previously loosened).

Soil Amendments: Apply 600 lbs per acre 10-10-10 fertilizer (14 lbs/1000 sq ft).

Seeding: For periods March 1 thru April 30, and August 1 thru October 15, seed with 60 lbs per acre (1.4 lbs/1000 sq ft) of Kentucky 31 Tall Fescue. For the period May 1 thru July 31, seed with 60 lbs Kentucky 31 Tall Fescue per acre and 2 lbs per acre (.05 lbs/1000 sq ft) of weeping lovegrass. During the period of October 16 thru February 28, protect site by Option (1) 2 tons per acre of well anchored straw mulch and seed as soon as possible in the spring - Option (2) Seed with 60 lbs/acre Kentucky 31 Tall Fescue and mulch with 2 tons/acre well anchored straw.

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Maintenance: Inspect all seeded areas and make needed repairs, replacements and reseedings.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

Director: *[Signature]* Date: 7/1/00

Chief, Division of Land Development: *[Signature]* Date: 7/1/00

Chief, Development Engineering Division: *[Signature]* Date: 7/1/00

These Plans have been reviewed for the Howard Soil Conservation District and meet the technical requirements for small pond construction, soil erosion and sediment control.

*[Signature]* 6/29/00 Date

These Plans for small pond construction, soil erosion and sediment control meet the requirements of the Howard Soil Conservation District.

*[Signature]* 6/29/00 Date

DEVELOPER'S/BUILDER'S CERTIFICATE

"I certify that all development and/or construction will be done according to these plans, and that any responsible personnel involved in the construction project will have a Certificate of Attendance at a Maryland Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I shall engage a registered Professional Engineer to supervise pond construction and provide the Howard Soil Conservation District with an 'as-built' plan of the pond within 30 days of completion. I also authorize periodic on-site inspections by the Howard Soil Conservation District."

*[Signature]* 6/21/00 Date

ENGINEER'S CERTIFICATE

"I certify that this plan for pond construction, erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions. This plan was prepared in accordance with the requirements of the Howard Soil Conservation District. I have notified the developer that he/she must engage a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with an 'as-built' plan of the pond within 30 days of completion."

*[Signature]* 6/21/00 Date

Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.

License No. 16166 Registration Date: 8-24-86

*[Signature]* 6/21/00

Refer to the 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for rate and methods not covered.

Note: These seeding notes are the minimum required for Sediment Control. Refer to project Specifications for seeding requirements of other areas of the site.

SDP-00-86

GLW GUTSCHICK LITTLE & WEBER, P.A.

CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS

3909 NATIONAL DRIVE - SUITE 250 - BURTONTOWN, MARYLAND 20868

TEL: 301-421-4002 BALT. 410-880-1920 DC/MG. 301-963-2524 FAX: 301-421-4188

CADD DRAWINGS: 99091.DESIGN\SC\99091.scd DES. DRN. CHK.

DATE: 6/21/00

REVISION: BY: APPR.

PREPARED FOR:

HOWARD COUNTY PUBLIC SCHOOL SYSTEM

10910 MARYLAND ROUTE 108

ELLCOTT CITY, MARYLAND 21042

ATTN: CATHEEN YOUNG

THOMAS CLARK ASSOC.

2661 BVA ROAD, SUITE 120

ANNEARLES, MD 21401

301-261-8700

RESERVOIR HIGH SCHOOL (EASTERN HIGH SCHOOL No. 2)

PARCEL 115

L. 3218 F. 618

CLARKSVILLE ELECTION DISTRICT No. 5

SEDIMENT CONTROL NOTES & DETAILS

SCALE: AS SHOWN

ZONING: RR-MXD3

G. L. W. FILE No. 99091

DATE: 5/05/2000

TAX MAP - GRID: 41/46

SHEET: 37A

10 OF 25

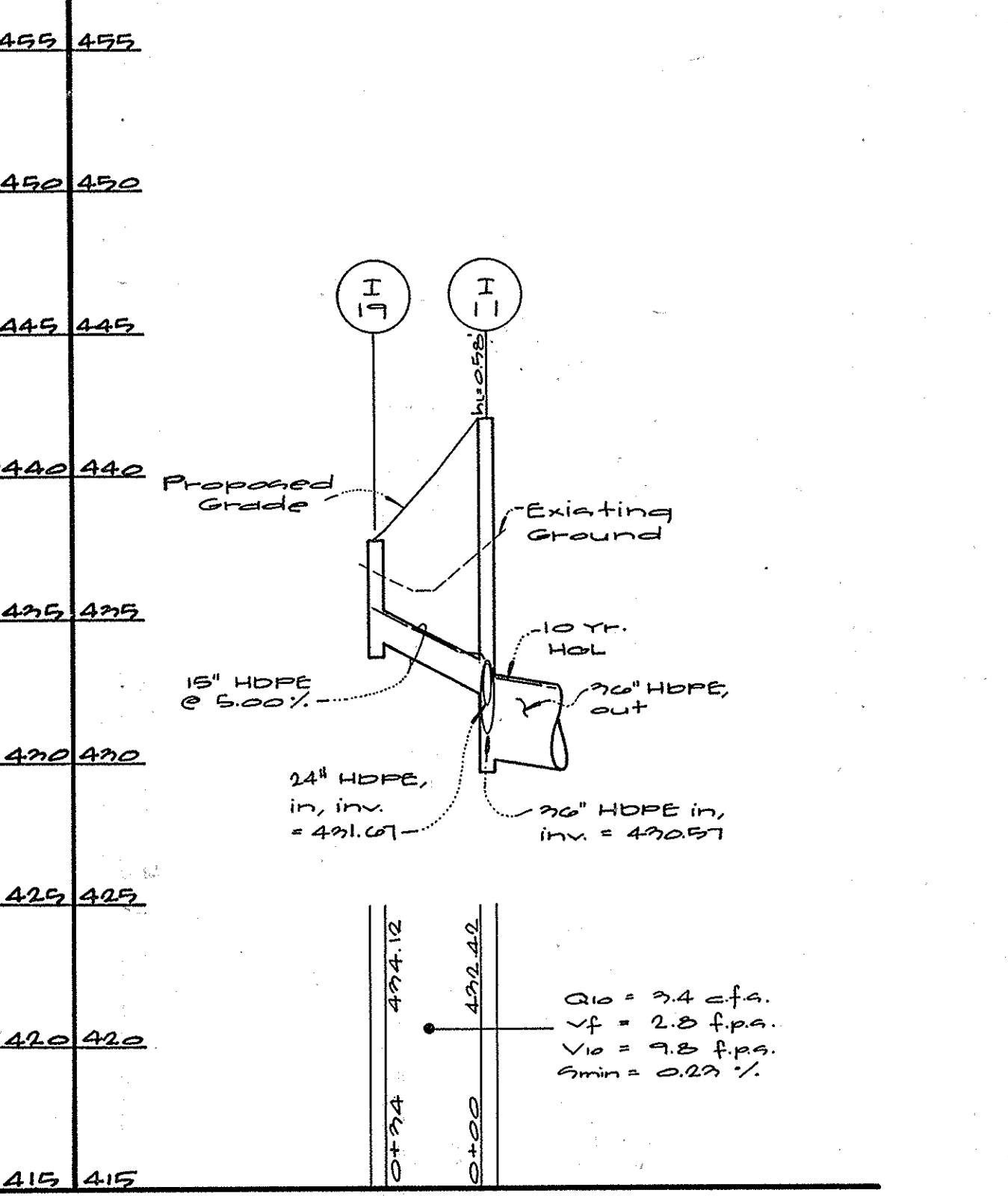
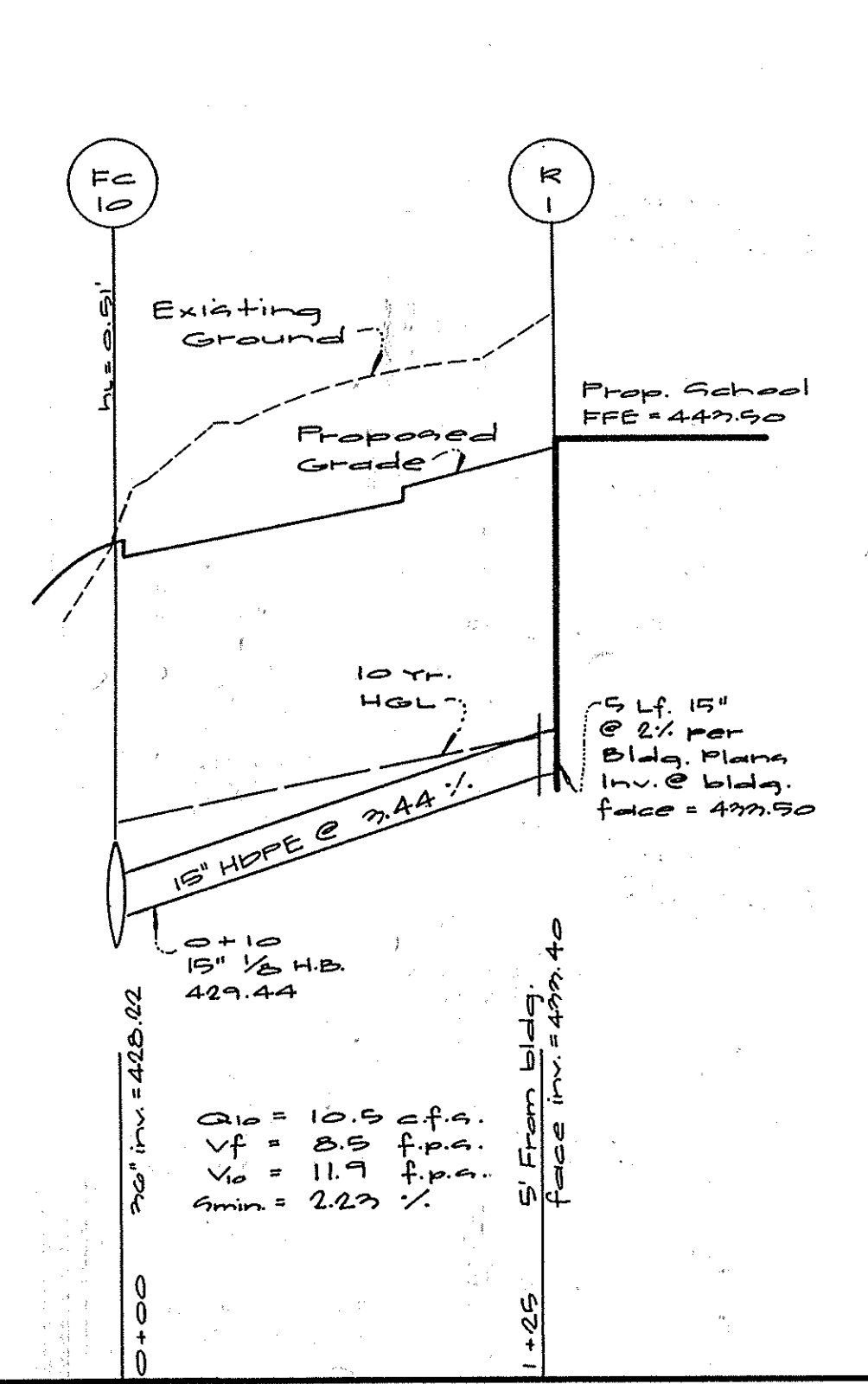
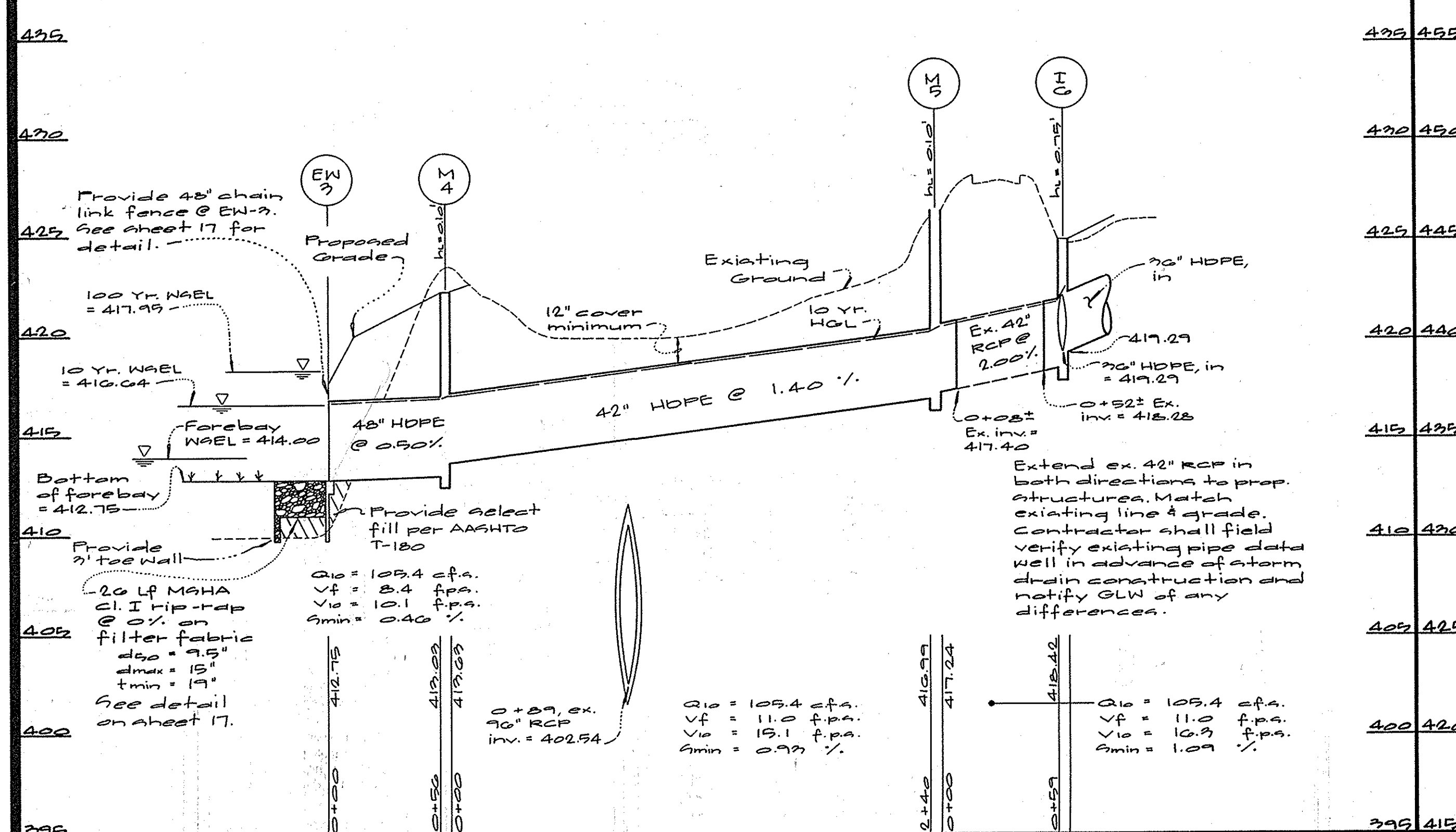
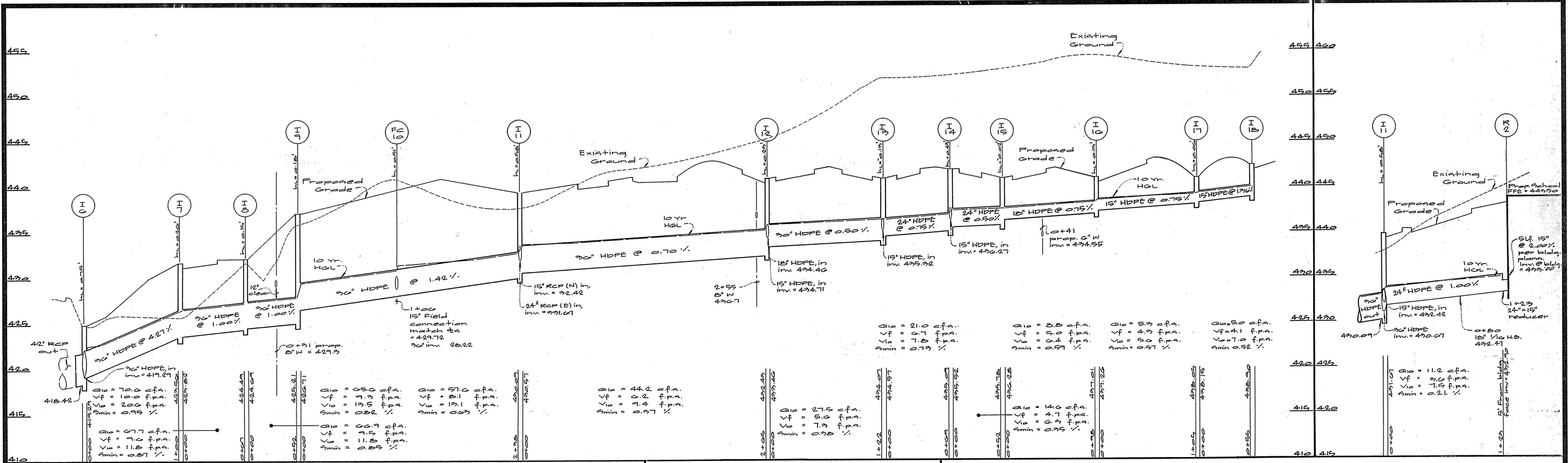
DATE: 5/05/2000

TAX MAP - GRID: 41/46

SHEET: 37A

10 OF 25

SDP-00-86



### Structure Schedule

No.	Type	Width	Top Elevation	Inv. Elev.	Std. Detail	Location
EW-3	Endwall	48"	418.25	418.25	HA-C-512-B-11	SWM Pond
M-4	Manhole	72"	422.25	422.25	MR-384-A-5	SWM Pond
M-5	Manhole	72"	422.50	422.50	MR-384-A-5	SWM Pond
I-6	S-Inlet	4'-0"	423.00	423.00	HA-C-512-B-11	SWM Pond
I-7	30" inlet	5'-0"	422.14	422.14	MR-374-A-2	SWM Pond
I-8	30" inlet	5'-0"	422.70	422.70	MR-374-A-2	SWM Pond
I-9	30" inlet	5'-0"	422.10	422.10	MR-374-A-2	SWM Pond
EC-10	30" x 15" wye	3'-0"			ABS-151-225	SWM Pond
I-11	30" inlet	4'-0"	423.00	423.00	MR-374-A-2	SWM Pond
I-12	30" inlet	5'-0"	421.00	421.00	MR-374-A-2	SWM Pond
I-13	30" inlet	5'-0"	421.00	421.00	MR-374-A-2	SWM Pond
I-14	30" inlet	4'-0"	421.00	421.00	MR-374-A-2	SWM Pond
I-15	30" inlet	2'-0"	421.00	421.00	MR-374-A-2	SWM Pond
I-16	30" inlet	2'-0"	421.00	421.00	MR-374-A-2	SWM Pond
I-17	30" inlet	2'-0"	421.00	421.00	MR-374-A-2	SWM Pond
I-18	30" inlet	2'-0"	421.00	421.00	MR-374-A-2	SWM Pond
I-19	30" inlet	2'-0"	421.00	421.00	MR-374-A-2	SWM Pond

\* Type A with 45' wings.

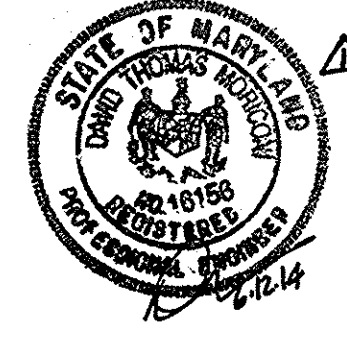
### Pipe Schedule

From	To	Size	Type	Length	Remarks
EW-3	M-4	48"	HDPE	50	
M-4	M-5	48"	"	25	
M-5	I-6	48"	RCP CL 152	15	+44 LF existing
I-6	I-7	30"	HDPE	122	
I-7	I-8	30"	"	67	
I-8	I-9	30"	"	52	
I-9	I-11	30"	"	235	
EC-10	I-11	15"	HDPE	125	
I-11	I-12	24"	"	122	
I-11	I-17	15"	"	34	
I-11	I-12	30"	"	265	
I-12	I-13	30"	HDPE	122	
I-13	I-14	24"	"	68	
I-14	I-15	24"	"	52	
I-15	I-16	18"	"	78	
I-16	I-17	15"	HDPE	125	
I-17	I-18	15"	"	55	

### Pipe Summary

Size	Type	Length
15"	HDPE ADA N-12 or equiv	319
18"	HDPE ADA N-12 or equiv	95
24"	HDPE ADA N-12 or equiv	244
30"	HDPE ADA N-12 or equiv	122
36"	HDPE ADA N-12 or equiv	722
42"	HDPE ADA N-12 or equiv	240
48"	RCP CL 152	15
48"	HDPE ADA N-12 or equiv	50
	Total	1816 LF

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING  
 Director: *Joseph R. Keith* Date: *7/10/00*  
 Chief, Division of Land Development  
 Chief, Development Engineering Division



Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.  
 License No. 16156 Expiration Date: 8-28-14



PREPARED FOR:  
 HOWARD COUNTY PUBLIC SCHOOL SYSTEM  
 10810 MARYLAND ROUTE 108  
 ELLICOTT CITY, MARYLAND 21042  
 ATTN: CATHEEN YOUNG

THOMAS CLARK ASSOC.  
 2661 RIVA ROAD, SUITE 120  
 ANNAPOLIS, MD 21401  
 301-261-8700

DESIGNED SITE DEVELOPMENT PLAN  
 CLARKSVILLE ELECTION DISTRICT No. 5

STORM DRAIN PROFILES  
 RESERVOIR HIGH SCHOOL  
 (EASTERN HIGH SCHOOL No. 2)  
 PARCEL 115  
 L. 3218 F. 618

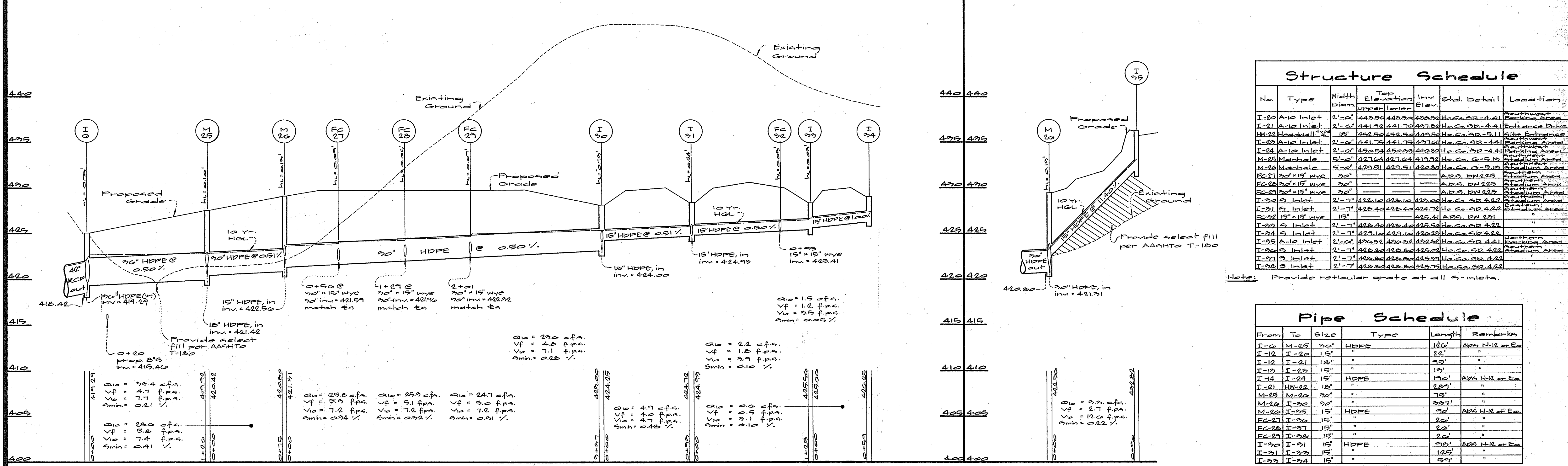
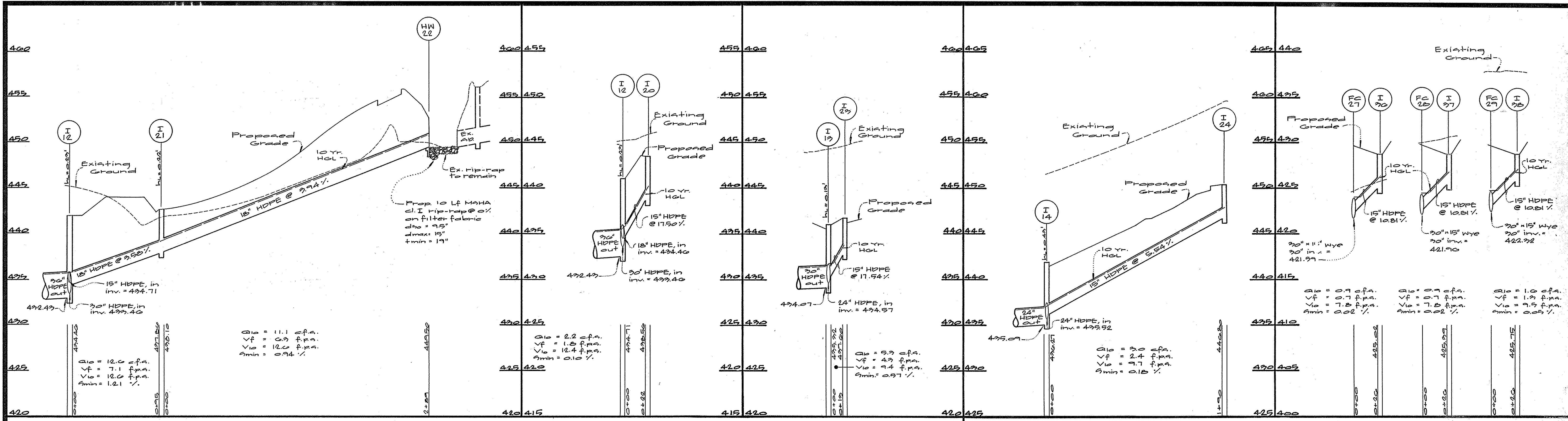
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 ZONING: RR-MXD3  
 G. L. W. FILE NO.: 99091  
 DATE: 5/15/2000  
 TAX MAP - GRID: 41/46  
 SHEET: 37 of 47  
 11 of 47

GLW GUTSCHICK LITTLE & WEBER, P.A.  
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS  
 3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK  
 BURTONSVILLE, MARYLAND 20886  
 TEL: 301-421-4024 FAX: 301-421-4188

CADD\DRAWINGS\99091\BASES\991sdp1.dwg DES. DRN. CHK.

DATE: 6-12-16 BY: DTM APP'R:

SDP-00-30



### Structure Schedule

No.	Type	Width	Top Elevation	Inv. Elev.	Std. Detail	Location
I-20	A-10 Inlet	2'-0"	442.50	442.50	He.Co. SD-4.41	Southwest Entrance Drive
I-21	A-10 Inlet	2'-0"	441.70	441.70	He.Co. SD-4.41	Entrance Drive
HW-22	Headwall	18"	442.50	442.50	He.Co. SD-5.11	Site Entrance
I-22	A-10 Inlet	2'-0"	441.75	441.75	He.Co. SD-4.41	Entrance Drive
I-24	A-10 Inlet	2'-0"	442.50	442.50	He.Co. SD-4.41	Entrance Drive
M-25	Manhole	5'-0"	442.50	442.50	He.Co. G-5.19	Entrance Area
M-26	Manhole	5'-0"	442.51	442.50	He.Co. G-5.19	Entrance Area
FC-27	20" x 15" wye	30"			A.P.S. DW 225	Entrance Area
FC-28	20" x 15" wye	30"			A.P.S. DW 225	Entrance Area
FC-29	20" x 15" wye	30"			A.P.S. DW 225	Entrance Area
I-30	S Inlet	2'-7"	422.40	422.40	He.Co. SD-4.22	Entrance Area
I-31	S Inlet	2'-7"	422.40	422.40	He.Co. SD-4.22	Entrance Area
FC-22	15" x 15" wye	15"			A.P.S. DW 221	"
I-23	S Inlet	2'-7"	422.40	422.40	He.Co. SD-4.22	"
I-24	S Inlet	2'-7"	422.40	422.40	He.Co. SD-4.22	"
I-25	A-10 Inlet	2'-0"	442.50	442.50	He.Co. SD-4.41	Entrance Area
I-26	S Inlet	2'-7"	422.40	422.40	He.Co. SD-4.22	Entrance Area
I-27	S Inlet	2'-7"	422.40	422.40	He.Co. SD-4.22	Entrance Area
I-28	S Inlet	2'-7"	422.40	422.40	He.Co. SD-4.22	"

Note: Provide reticular grate at all S-inlets.

### Pipe Schedule

From	To	Size	Type	Length	Remarks
I-20	M-25	30"	HDPE	120'	A25 N-12 or Ea
I-21	I-22	15"	"	22'	"
I-22	I-21	15"	"	22'	"
I-23	I-24	15"	"	12'	"
I-24	HW-22	18"	HDPE	170'	A25 N-12 or Ea
I-25	HW-22	18"	"	229'	"
M-25	M-26	30"	"	75'	"
M-26	I-29	30"	"	237'	"
M-26	I-25	15"	HDPE	32'	A25 N-12 or Ea
FC-27	I-26	15"	"	20'	"
FC-28	I-27	15"	"	20'	"
FC-29	I-28	15"	"	20'	"
I-30	I-31	15"	HDPE	495'	A25 N-12 or Ea
I-31	I-32	15"	"	125'	"
I-33	I-34	15"	"	59'	"
Total				1,572'	

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

*John R. Miller* Director 7/10/00  
*Linda Hamilton* Chief, Division of Land Development 7/1/00  
*John W. Williams* Chief, Development Engineering Division 7/3/00

STATE OF MARYLAND PROFESSIONAL ENGINEER REGISTRATION NO. 1 ONLY

Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.

License No. 1612 Expiration Date: 8-28-14



### Pipe Summary

Size	Type	Length
15"	HDPE, A25 N-12 or equiv.	670'
18"	HDPE, A25 N-12 or equiv.	284'
30"	HDPE, A25 N-12 or equiv.	412'
36"	HDPE, A25 N-12 or equiv.	120'
Total		1,572'

Site Work Bid  
Match 22, 2000

**GLW GUTSCHICK LITTLE & WEBER, P.A.**  
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS  
 3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK  
 BURTONSVILLE, MARYLAND 20866  
 TEL: 301-421-4024 BALT: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186

PREPARED FOR: HOWARD COUNTY PUBLIC SCHOOL SYSTEM, 10910 MARYLAND ROUTE 108, ELLICOTT CITY, MARYLAND 21042, ATTN: CATHLEEN YOUNG

THOMAS CLARK ASSOC., 2661 RIVA ROAD, SUITE 120, ANNAPOLIS, MD 21401, 301-261-8700

REVISED SITE DEVELOPMENT PLAN

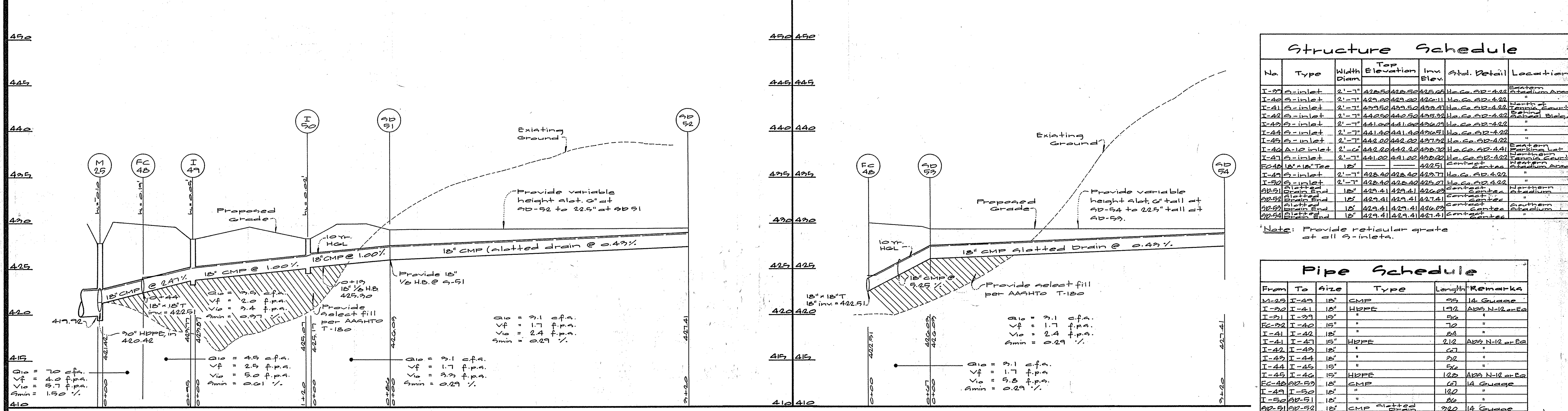
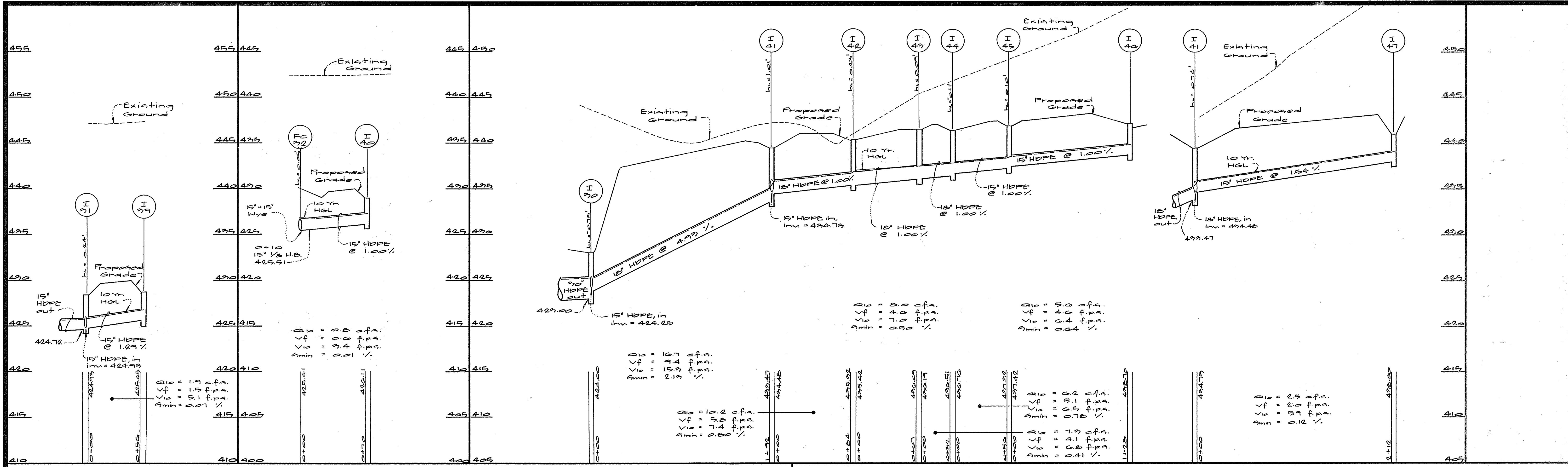
STORM DRAIN PROFILES

RESERVOIR HIGH SCHOOL (EASTERN HIGH SCHOOL No. 2) PARCEL 115 L. 3218 F. 618

SCALE: AS SHOWN ZONING: RR-MXD3 G. L. W. FILE No. 99091

DATE: 5/5/2000 TAX MAP - GRID: 41/46 SHEET: 12 of 27

CLARKSVILLE ELECTION DISTRICT No. 5 HOWARD COUNTY, MARYLAND SDP-00-80



### Structure Schedule

No.	Type	Width	Top Elevation	Inv. Elev.	Std. Detail	Location
I-37	S-inlet	2'-7"	425.00	425.00	Ho. Co. SD-422	Eastern Stadium Area
I-40	S-inlet	2'-7"	425.00	425.00	Ho. Co. SD-422	"
I-41	S-inlet	2'-7"	425.00	425.00	Ho. Co. SD-422	North of Tennis Court
I-42	S-inlet	2'-7"	425.00	425.00	Ho. Co. SD-422	School Bldg.
I-43	S-inlet	2'-7"	425.00	425.00	Ho. Co. SD-422	"
I-44	S-inlet	2'-7"	425.00	425.00	Ho. Co. SD-422	"
I-45	S-inlet	2'-7"	425.00	425.00	Ho. Co. SD-422	"
I-46	A-12 inlet	2'-0"	425.00	425.00	Ho. Co. SD-422	Eastern Stadium Lot
I-47	S-inlet	2'-7"	425.00	425.00	Ho. Co. SD-422	Tennis Court
EC-48	18" x 18" Tee	18"	425.00	425.00	Centest	Western Stadium Area
I-49	S-inlet	2'-7"	425.00	425.00	Ho. Co. SD-422	"
I-50	S-inlet	2'-7"	425.00	425.00	Ho. Co. SD-422	"
EC-51	18" Tee	18"	425.00	425.00	Centest	Northern Stadium
EC-52	18" Tee	18"	425.00	425.00	Centest	"
EC-53	18" Tee	18"	425.00	425.00	Centest	"
EC-54	18" Tee	18"	425.00	425.00	Centest	Southern Stadium
EC-55	18" Tee	18"	425.00	425.00	Centest	"

Note: Provide reticular grate at all S-inlets.

### Pipe Schedule

From	To	Size	Type	Length	Remarks
M-25	I-47	18"	CMP	55	1A Guage
I-37	I-41	18"	HDPE	172	ABS N-12 or EA
I-37	I-37	15"	"	52	"
EC-22	I-40	15"	"	72	"
I-41	I-42	15"	"	28	"
I-42	I-43	15"	HDPE	212	ABS N-12 or EA
I-43	I-44	15"	"	57	"
I-44	I-45	15"	"	52	"
I-45	I-46	15"	HDPE	122	ABS N-12 or EA
EC-48	EC-53	18"	CMP	67	1A Guage
I-49	I-50	18"	"	120	"
I-50	EC-51	18"	"	82	"
EC-51	EC-52	18"	CMP	220	1A Guage
EC-52	EC-54	18"	"	220	"
Total				1925	

### Pipe Summary

Size	Type	Length
15"	HDPE ABS N-12 or equiv	522
18"	HDPE ABS N-12 or equiv	375
18"	CMP 1A Guage	368
18"	CMP slotted drain, 1/4" gap	240
Total		1925

Site Work Bid  
March 22, 2000

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

*John B. Smith* 7/10/00  
Date

*Cinda Hanatia* 7/10  
Date  
Chief, Division of Land Development

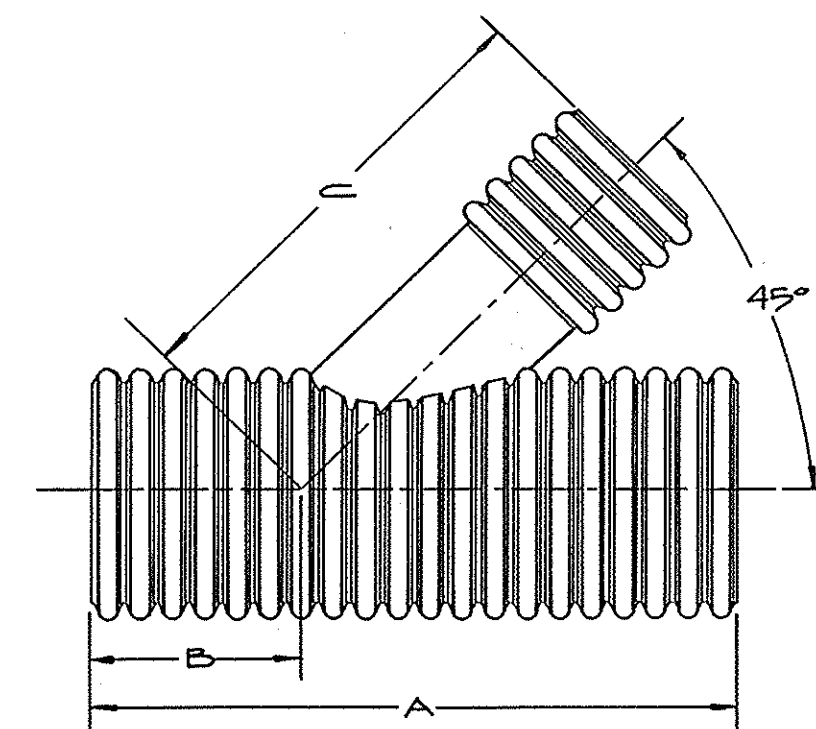
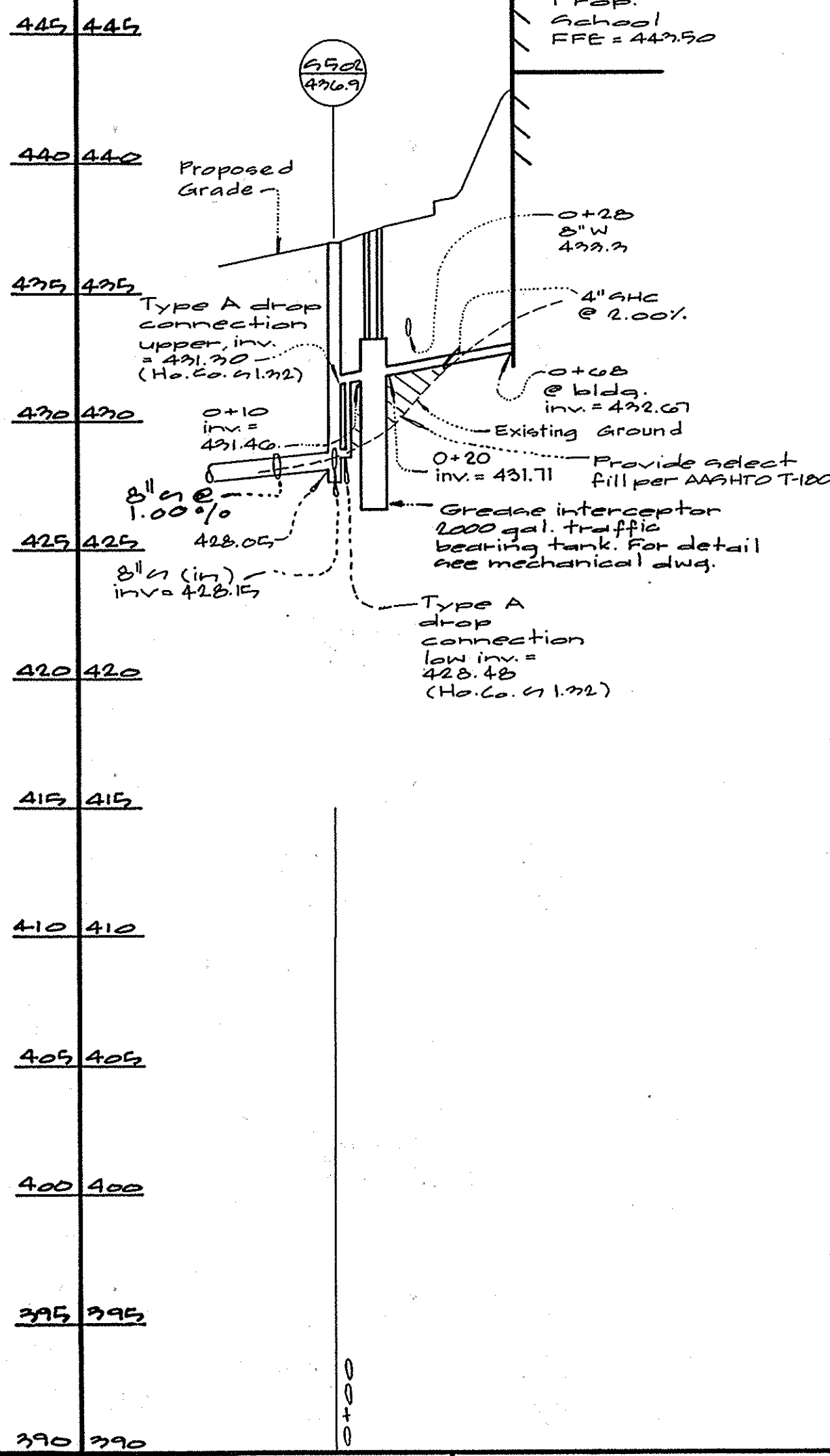
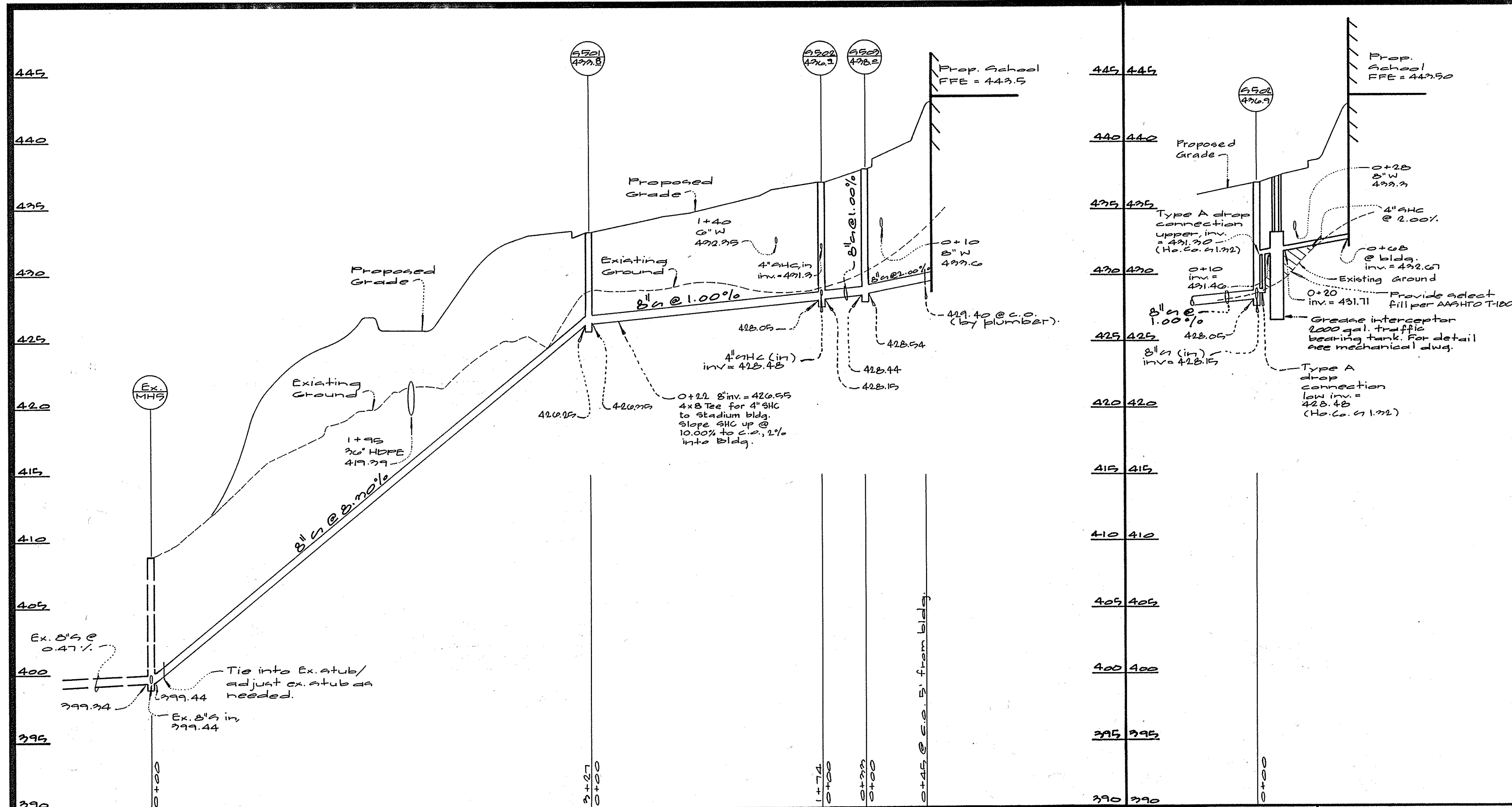
*Mike Cummings* 7/10  
Date  
Chief, Development Engineering Division

PROFESSIONAL CERTIFICATION: I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.

License No. 16156, Expiration Date: 8-28-14

STATE OF MARYLAND  
REGISTERED PROFESSIONAL ENGINEER

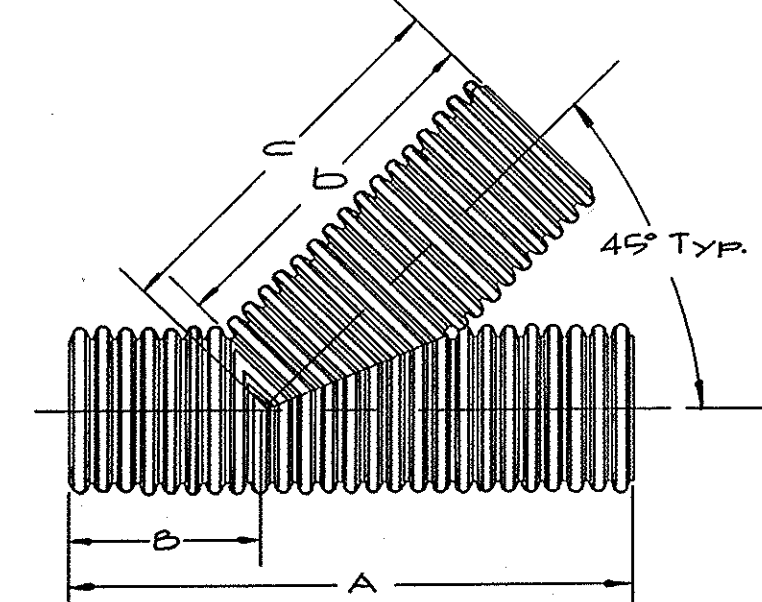
<b>GLW GUTSCHICK LITTLE &amp; WEBER, P.A.</b> CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS 3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK BURTONSVILLE, MARYLAND 20866 TEL: 301-421-4024 FAX: 301-421-4188	DATE: 6-12-14	REVISION: NEW SHEET COUNT 75	BY: DTM	APP'R:	PREPARED FOR: HOWARD COUNTY PUBLIC SCHOOL SYSTEM 10910 MARYLAND ROUTE 108 ELLCOTT CITY, MARYLAND 21042 ATTN: CATHEEN YOUNG	PREPARED BY: THOMAS CLARK ASSOC. 2661 RIVA ROAD, SUITE 120 ANNAPOLIS, MD 21401 301-261-8700	REVISED SITE DEVELOPMENT PLAN	<b>STORM DRAIN PROFILES</b> <b>RESERVOIR HIGH SCHOOL</b> (EASTERN HIGH SCHOOL No. 2) PARCEL 115 L. 3218 F. 618	SCALE: AS SHOWN	ZONING: RR-MXD3	G. L. W. FILE No. 99091
	DATE: 5/5/2000	TAX MAP - GRID: 41/46	SHEET: 37 of 27	HOWARD COUNTY, MARYLAND			CLARKSVILLE ELECTION DISTRICT No. 5		SDP-00-80		



Part No.	Pipe Size	A	B	C
2085-AS	24" x 15"	66"	21"	49"
2085-AS	30" x 15"	92mm x 275mm	1076mm	533mm
2085-AS	36" x 15"	124mm	10"	44.75"
2085-AS	42" x 15"	1524mm	406mm	1197mm

Note: All dimensions are nominal

**ADS N12 Fabricated Reducing Wyes**  
Advanced Drainage Systems  
DW 225 & 226 (N.T.S.)



Part No.	Pipe Size	A	B	C	D
1985-AN	15"	45.75"	14.625"	32.625"	29"
1985-AN	24"	1162mm	371mm	829mm	797mm

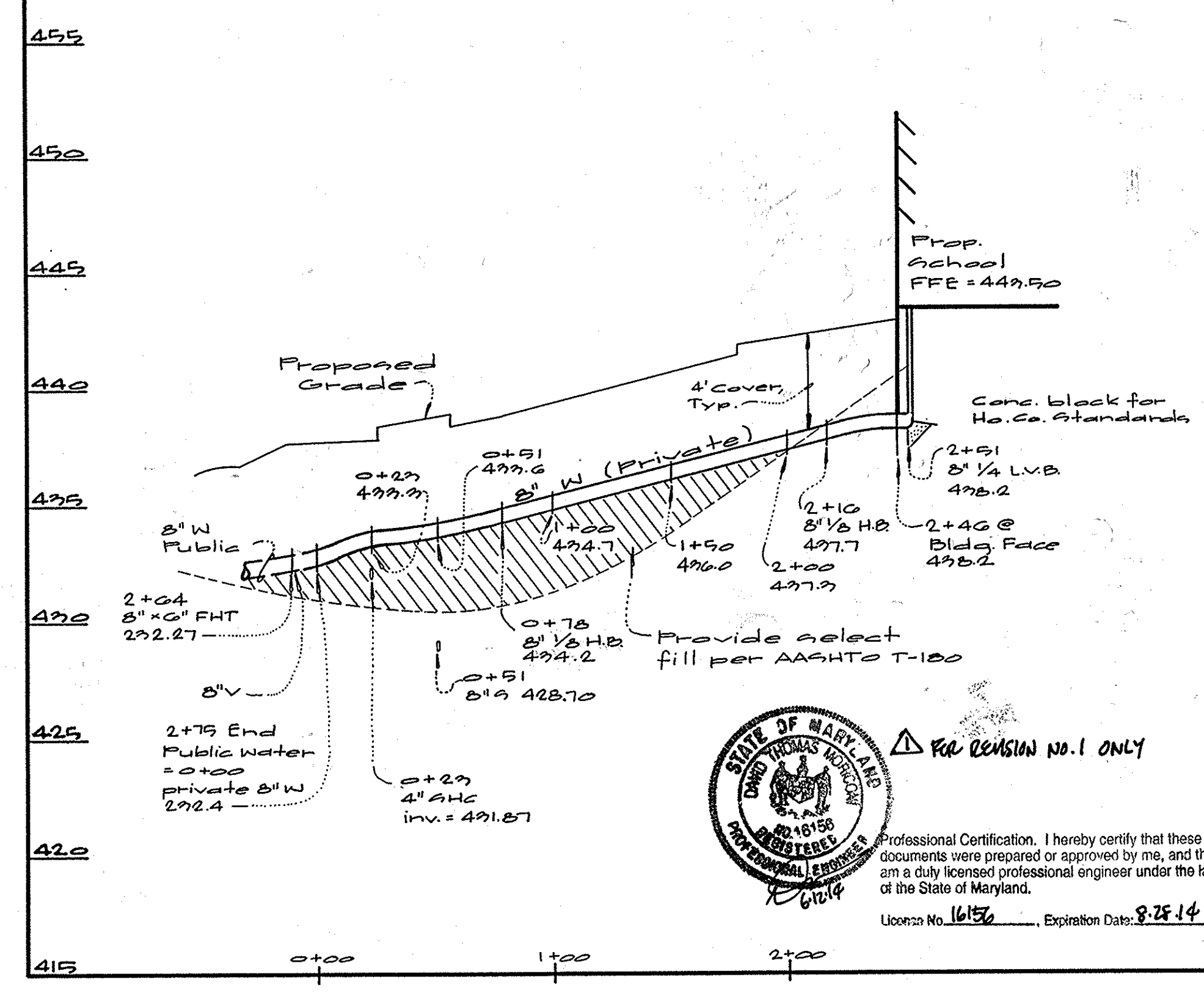
Note: All dimensions are nominal

**ADS N12 Fabricated Wye**  
Advanced Drainage Systems  
DW 221 (N.T.S.)

**Quantities**

Item	Quantity	Estimated	Quantities	Type	Manufacturer/Supplier
8" 1/2 HD	2 ea.				
8" 1/2 LWB	1 ea.				
8" W	251 lf.				
San. Sewer MH	2 ea.				
8" PVE	505 lf.				
6" PVE	51 lf.				
6" PVE-Drop Conn.	1 ea.				

**Profile Scales**  
Horizontal = 1" = 50'  
Vertical = 1" = 5'



**Draw Down Device Detail**

PVC RISER DRAW DOWN DEVICE w/ WATER-TIGHT CAP. 1" PERFORATIONS @ 2" O.C. EACH W/ PERFORATED SECTION TO BE WRAPPED IN 1/2" HARDWARE CLOTH & GEOTEXTILE FABRIC CLASS E.

4" Min. width

Top of Embankment elev.

Weir throat elev.

Limit of Wet Storage

Limit of Dry Storage

Rip-rap outlet beyond depth of channel

Stone thickness: 18" min.

4-12" Stone or SHA Class I Rip-rap

PVC Dewatering device barrel (See chart for size)

SHA CLASS I Rip-rap outfall protection over geotextile fabric Class C

PVC Riser (See chart for size)

Bottom of trap (See trap data)

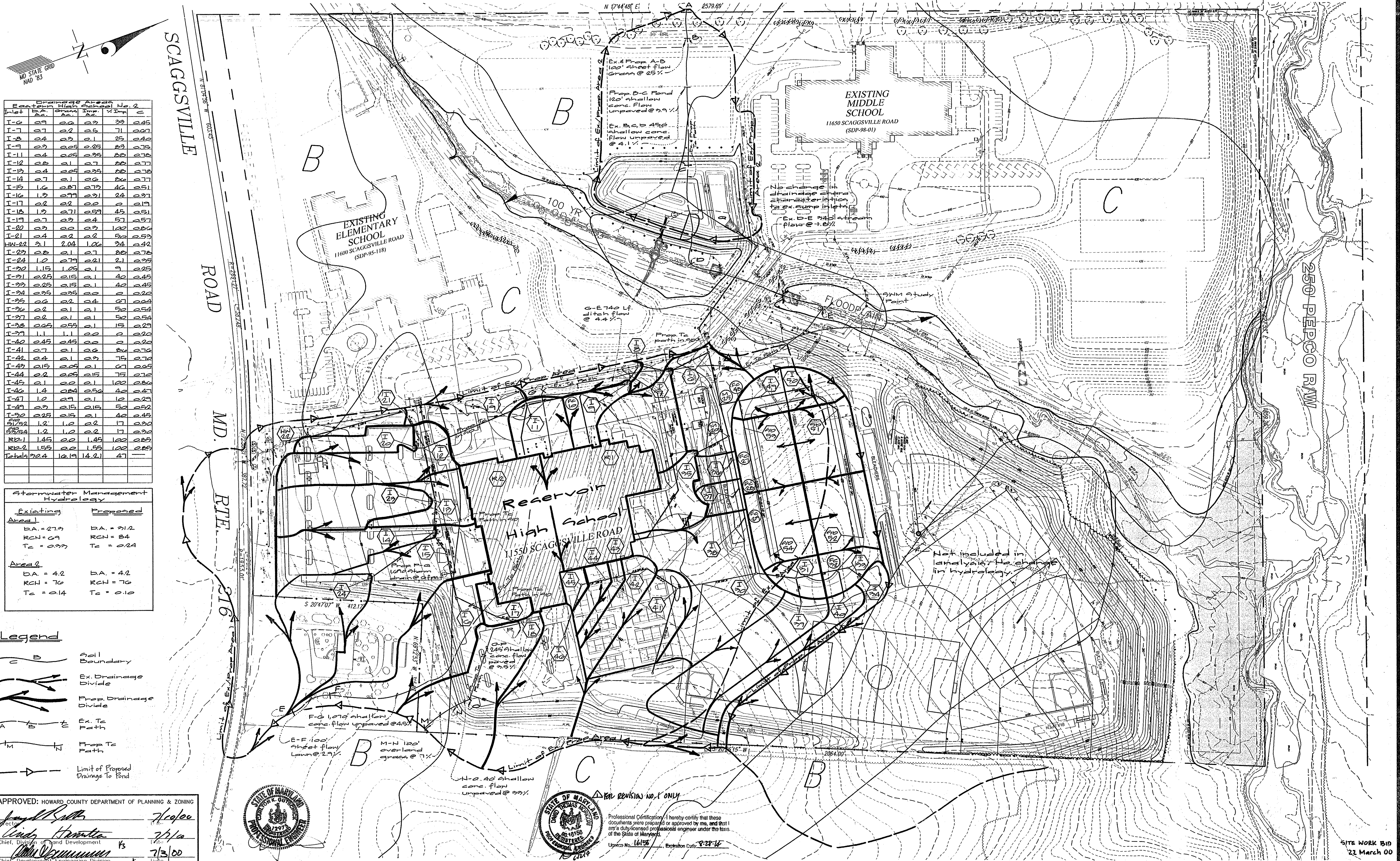
Thickness: 19"

TRAP #	RISER SIZE	LENGTH	TOTAL # OF PERFORATIONS	BARREL SIZE	INVERT	OUTFALL PROTECTION LENGTH
1	6" PVC	2.67'	144	6" PVC	384.0	10 ft
2	4" PVC	2.51'	91	4" PVC	307.0	10 ft

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING  
 Director: [Signature] 7/15/00  
 Chief, Division of Land Development: [Signature] 7/15/00  
 Chief, Development Engineering Division: [Signature] 7/15/00



STATE OF MARYLAND  
 PROFESSIONAL CERTIFICATION. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.  
 License No. 16136, Expiration Date: 8-25-14



Inlet	DA	Area	Imp.	Imp. %	C
I-0	0.9	0.2	0.2	22	0.45
I-1	0.7	0.2	0.5	71	0.07
I-2	0.4	0.2	0.1	25	0.42
I-3	0.7	0.25	0.25	22	0.75
I-11	0.4	0.25	0.25	22	0.75
I-12	0.8	0.1	0.7	88	0.77
I-13	0.4	0.25	0.25	22	0.75
I-14	0.7	0.1	0.6	86	0.77
I-15	1.6	0.21	0.19	46	0.51
I-16	1.2	0.29	0.21	24	0.37
I-17	0.2	0.2	0.2	2	0.17
I-18	1.2	0.21	0.29	45	0.51
I-19	0.7	0.2	0.4	57	0.57
I-20	0.2	0.2	0.2	122	0.86
I-21	0.4	0.2	0.2	52	0.53
HW-22	2.1	2.04	1.06	24	0.42
I-23	0.2	0.1	0.7	88	0.78
I-24	1.0	0.29	0.21	21	0.35
I-30	1.15	1.05	0.1	9	0.25
I-31	0.25	0.15	0.1	42	0.45
I-32	0.25	0.15	0.1	42	0.45
I-33	0.25	0.15	0.2	2	0.22
I-35	0.2	0.2	0.4	67	0.64
I-36	0.2	0.1	0.1	52	0.54
I-37	0.2	0.1	0.1	52	0.54
I-38	0.65	0.55	0.1	15	0.23
I-39	1.1	1.1	0.2	2	0.22
I-40	0.45	0.45	0.2	2	0.22
I-41	0.7	0.1	0.2	86	0.76
I-42	0.4	0.1	0.2	75	0.76
I-43	0.15	0.25	0.1	67	0.65
I-44	0.2	0.25	0.15	75	0.78
I-45	0.1	0.2	0.1	122	0.86
I-46	1.4	0.24	0.52	42	0.47
I-47	1.0	0.2	0.1	12	0.23
I-48	0.2	0.15	0.15	52	0.52
I-50	0.25	0.15	0.1	42	0.45
S1232	1.2	1.2	0.2	17	0.32
S1234	1.2	1.2	0.2	17	0.32
R2-1	1.45	0.2	1.45	122	0.86
R2-2	1.55	0.2	1.55	122	0.86
Totals	72.4	12.19	14.21	47	—

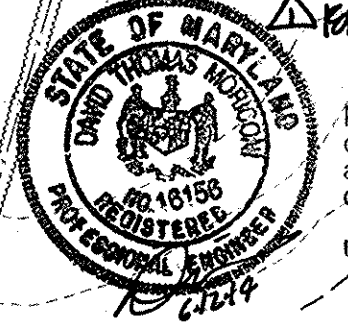
Stormwater Management Hydrology	
Existing	Proposed
Area 1	Area 1
DA = 27.2	DA = 21.2
RCN = 0.9	RCN = 0.84
Tc = 0.22	Tc = 0.24
Area 2	Area 2
DA = 4.2	DA = 4.2
RCN = 76	RCN = 76
Tc = 0.14	Tc = 0.10

- Legend**
- Soil Boundary
  - Ex. Drainage Divide
  - Prop. Drainage Divide
  - Ex. To Path
  - Prop To Path
  - Limit of Proposed Drainage To Pond

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

*[Signature]* / *[Signature]*  
 Chief, Division of Land Development / Chief, Development Engineering Division

7/3/00 / 7/3/00



**GLW GUTSCHICK LITTLE & WEBER, P.A.**  
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS  
 3909 NATIONAL DRIVE - SUITE 250 - BURTNSVILLE OFFICE PARK  
 BURTNSVILLE, MARYLAND 20866  
 TEL: 301-421-4024 BALT: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186

DATE	REVISION	BY	APP'R.
6/12/14	NEW SHEET COUNT	DTM	

PREPARED FOR:  
**HOWARD COUNTY PUBLIC SCHOOL SYSTEM**  
 10910 MARYLAND ROUTE 108  
 ELLICOTT CITY, MARYLAND 21042  
 ATTN: CATHEEN YOUNG

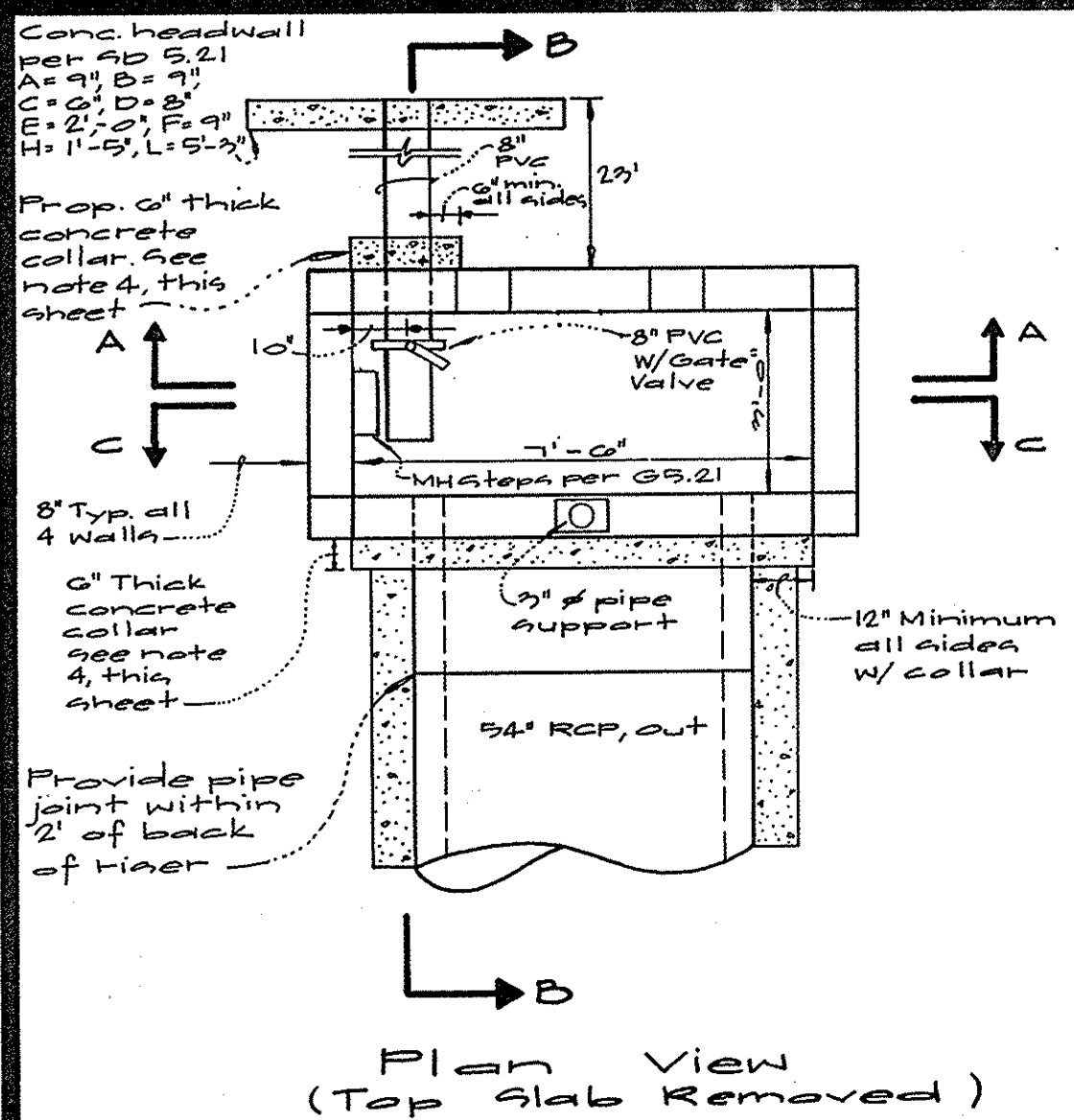
THOMAS CLARK ASSOC.  
 2661 RIVA ROAD, SUITE 120  
 ANNAPOLIS, MD 21401  
 301-261-8700

**DRAINAGE AREA AND SOILS DELINEATION**

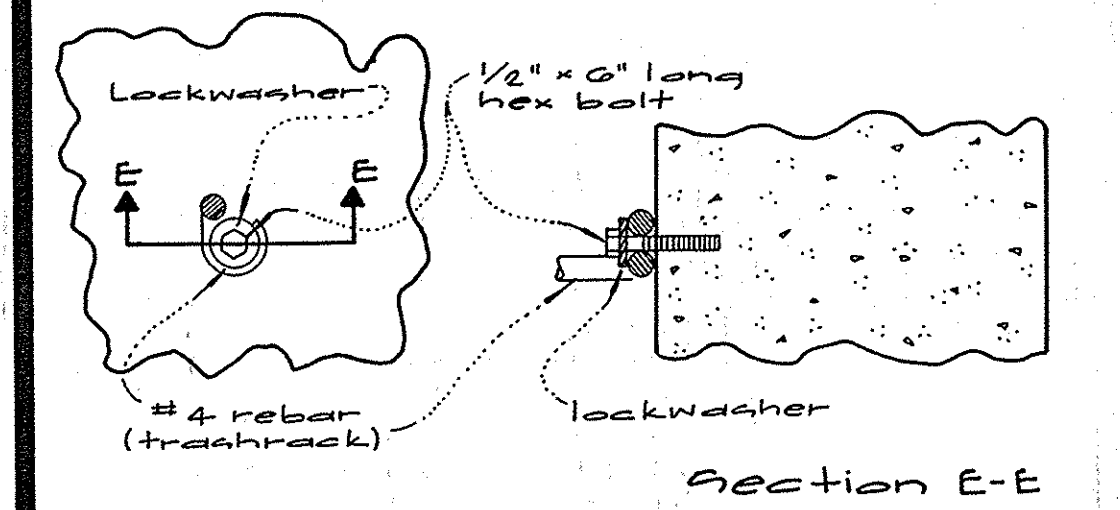
**RESERVOIR HIGH SCHOOL**  
 (EASTERN HIGH SCHOOL No. 2)  
 PARCELS 115  
 L. 3218 F. 618

CLARKSVILLE ELECTION DISTRICT No. 5

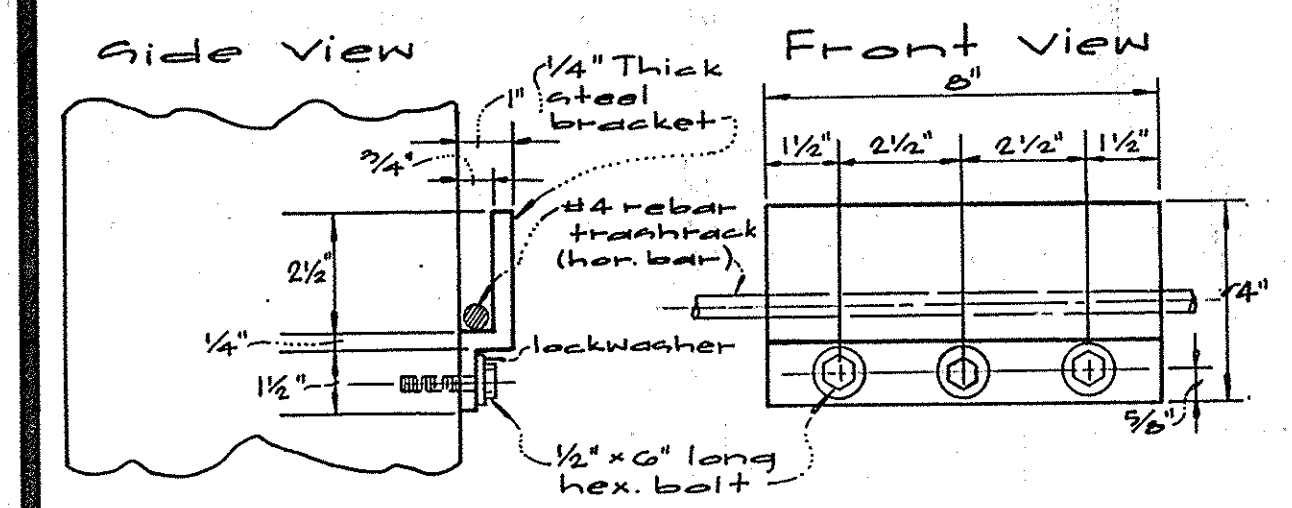
SCALE	ZONING	G. L. W. FILE No.
1" = 100'	RR-MXD3	99091
DATE	TAX MAP - GRID	SHEET
5/5/2000	41/46	37
		15 OF 27



- Riser Notes:**
- Riser to be pre-cast reinforced concrete. Contractor/Pre-caster to provide reinforcing design and shop drawings to the engineer of record (GLW) for approval prior to manufacture. The engineer of record is responsible for ensuring that the structure meets the design requirements.
  - Bottom & sides of A-2 shall be monolithic. If separate sections must be poured then all joints must be keyed and adequately secured with steel straps per the detail on the far right side of this sheet. Provide a neoprene gasket at all joints, & wrap the structure with filter cloth from 18\"/>
  - Contractor to fill all gaps between structure walls and pipes with concrete and purge with non-shrink grout.
  - Contractor to provide concrete collars outside structure at all pipes as shown hereon to further ensure a water tight box. Provide a layer of non-shrink grout at all interfaces of pre-cast concrete with poured in place.
  - Provide 4000 PSI air entrained conc. for all field poured concrete inside and adjacent to A-2. See next sheet for Anti-seep collars and cradle.
  - A-2 to be used as a sediment control outlet device. Contractor to provide temporary blocking and dewatering as shown hereon.
  - Trash racks to be installed when structure is converted from use as an access into final SWM device (see sequence of construction on sheet 10). All racks to be hot dipped galvanized after fabrication and painted with 1 shop and 1 field coat of battleship grey paint.



Trash Rack Bolt Detail Not to Scale



Trash Rack Support Detail Not to Scale

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

*[Signature]* 7/10/00 Date  
*[Signature]* 7/11/00 Date  
 Chief, Development Engineering Division

These Plans for small pond construction, soil erosion and sediment control meet the requirements of the Howard Soil Conservation District.

*[Signature]* 6/29/00 Date  
 Howard Soil Conservation District

These plans have been reviewed for the Howard Soil Conservation District and meet the technical requirements for small pond construction, soil erosion and sediment control.

*[Signature]* 6/29/00 Date  
 Natural Resources Conservation Service

DEVELOPER'S/BUILDER'S CERTIFICATE

I/We certify that all development and/or construction will be done according to these plans, and that any responsible personnel involved in the construction project will have a Certificate of Attendance at a Maryland Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I shall engage a registered Professional Engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion. I also authorize periodic on-site inspections by the Howard Soil Conservation District.

*[Signature]* 6/21/00 Date  
 Signature of Developer/Builder

ENGINEER'S CERTIFICATE

I certify that this plan for pond construction, erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions. This plan was prepared in accordance with the requirements of the Howard Soil Conservation District. I have notified the developer that he/she must engage a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion.

*[Signature]* 6/21/00 Date  
 Professional Engineer

GLW GUTSCHICK LITTLE & WEBER, P.A.  
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS  
 3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK  
 BURTONSVILLE, MARYLAND 20866  
 TEL: 301-421-4024 BALT: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4188

DATE	BY	REVISION
6/12/14	DM	DM

PREPARED FOR:  
 HOWARD COUNTY PUBLIC SCHOOL SYSTEM  
 10910 MARYLAND ROUTE 108  
 ELLICOTT CITY, MARYLAND 21042  
 ATTN: CATHLEEN YOUNG

THOMAS CLARK ASSOC.  
 2651 RIVA ROAD, SUITE 120  
 ANNAPOLIS, MD 21401  
 301-261-8700

REVISOR'S DEVELOPMENT PLAN  
 CLARKSVILLE ELECTION DISTRICT No. 5

SCALE	ZONING	G. L. W. FILE No.
AS SHOWN	RR-MXD3	99091
DATE	TAX MAP - GRID	SHEET
5/5/2000	41/46	37 OF 47

CADD/DRAWINGS/99091/DESIGN/99091CS DES. DRN. CHK.

DATE: 6/12/14

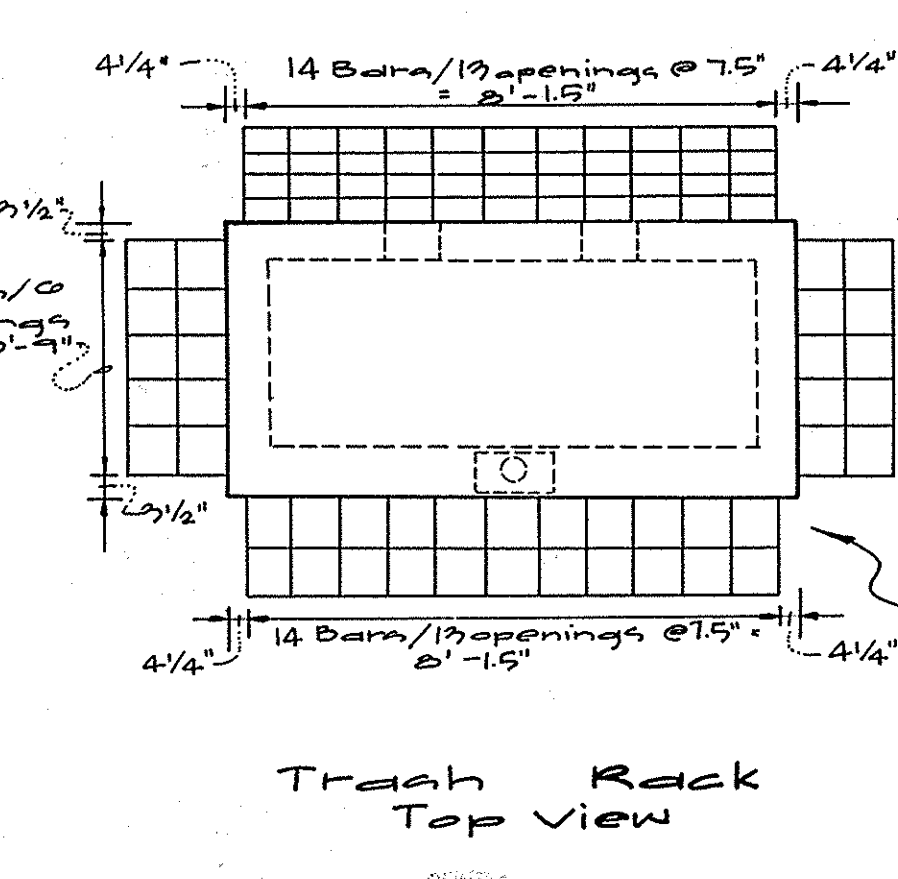
BY: DM

APPR.:

HOWARD COUNTY, MARYLAND

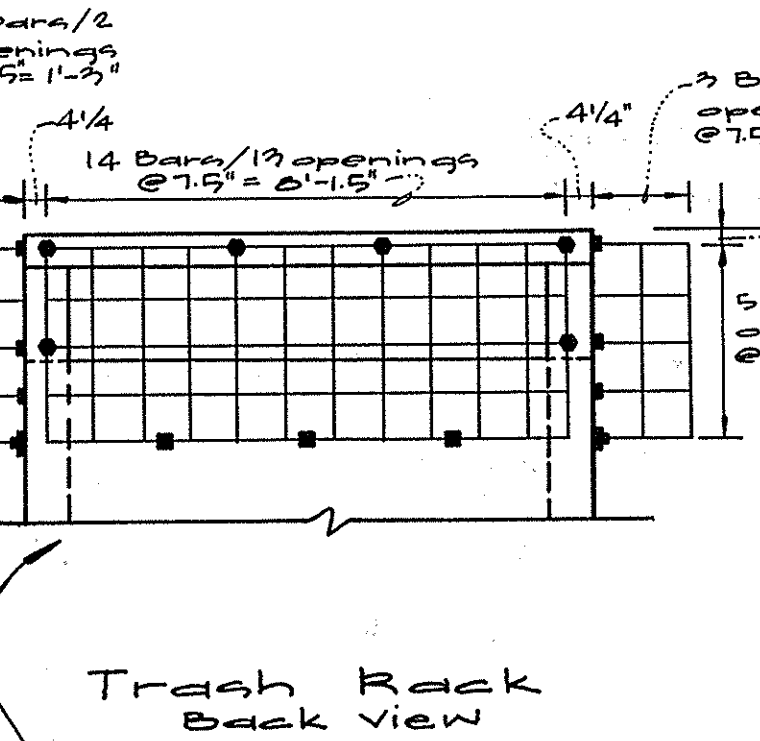
SDP-00-30

Structure A-2 Details Approx. Scale: 1" = 3'

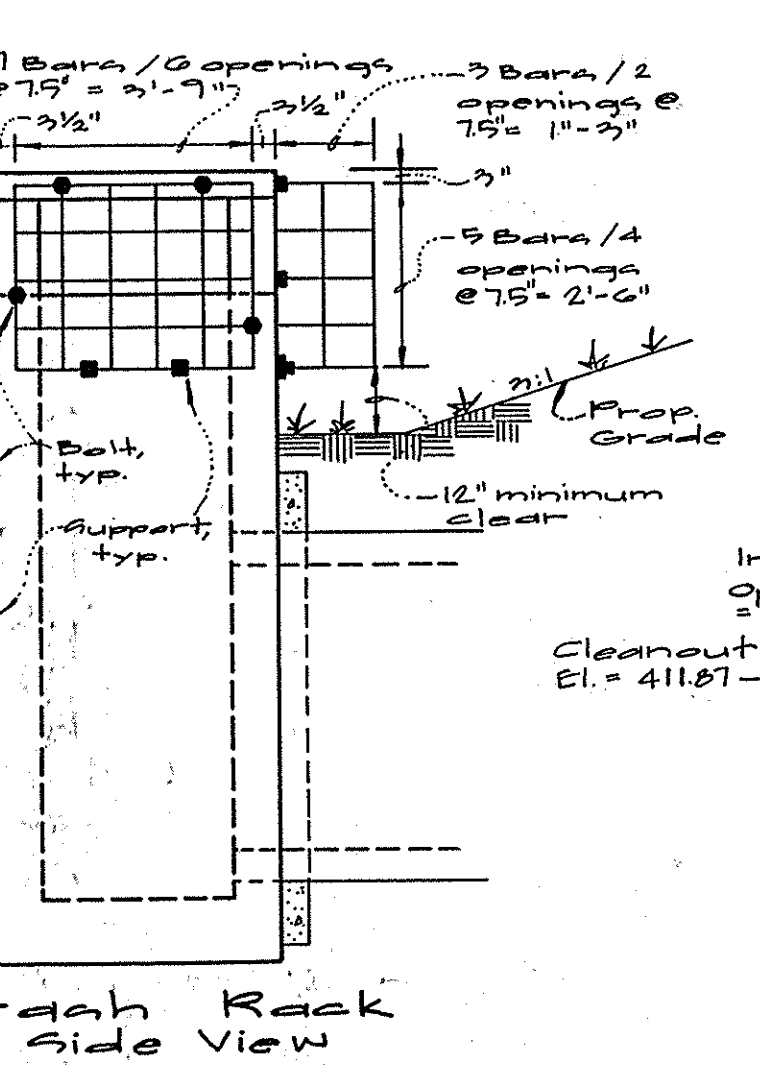


Trash Rack Top View

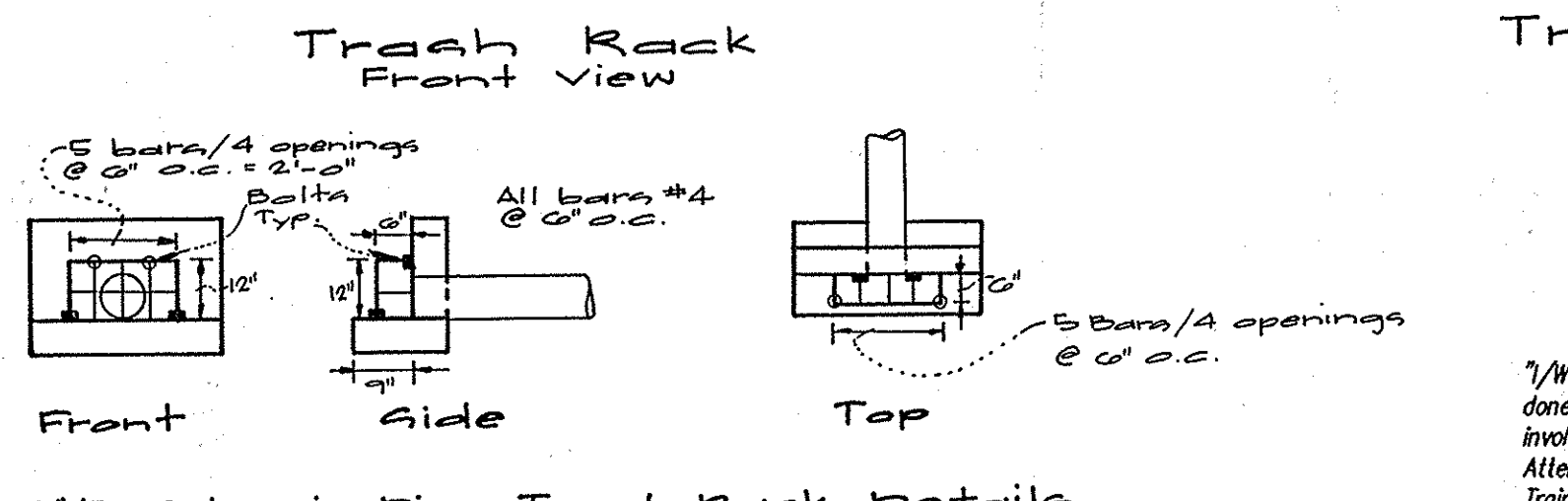
Note: All bar dimension are C-C. All bars no. 4, grade 60. Number of bars / openings drawn may not reflect number of openings proposed / required



Trash Rack Back View



Trash Rack Side View



8\"/>

DEVELOPER'S/BUILDER'S CERTIFICATE

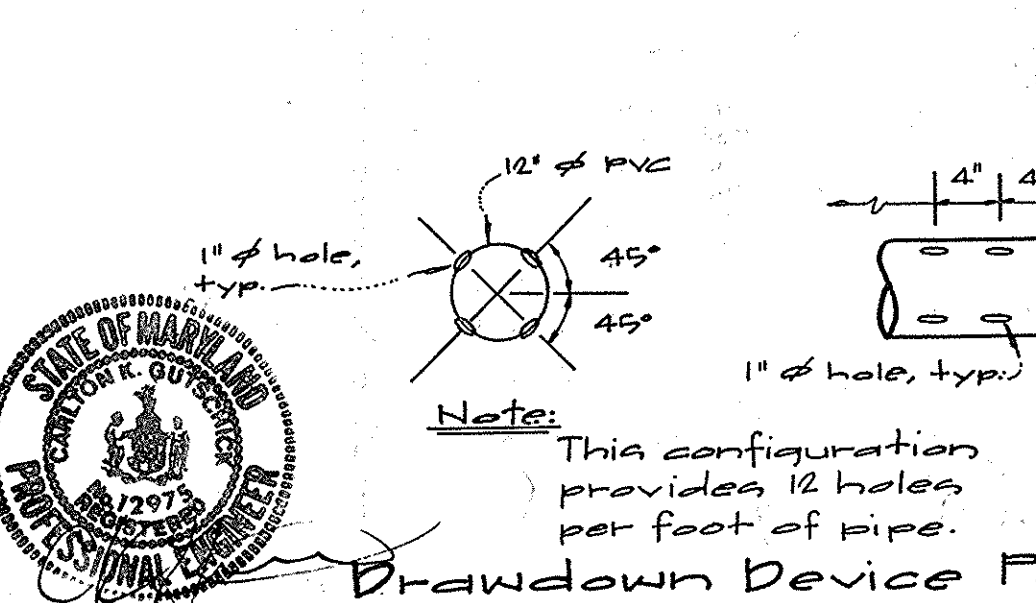
I/We certify that all development and/or construction will be done according to these plans, and that any responsible personnel involved in the construction project will have a Certificate of Attendance at a Maryland Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I shall engage a registered Professional Engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion. I also authorize periodic on-site inspections by the Howard Soil Conservation District.

*[Signature]* 6/21/00 Date  
 Signature of Developer/Builder

ENGINEER'S CERTIFICATE

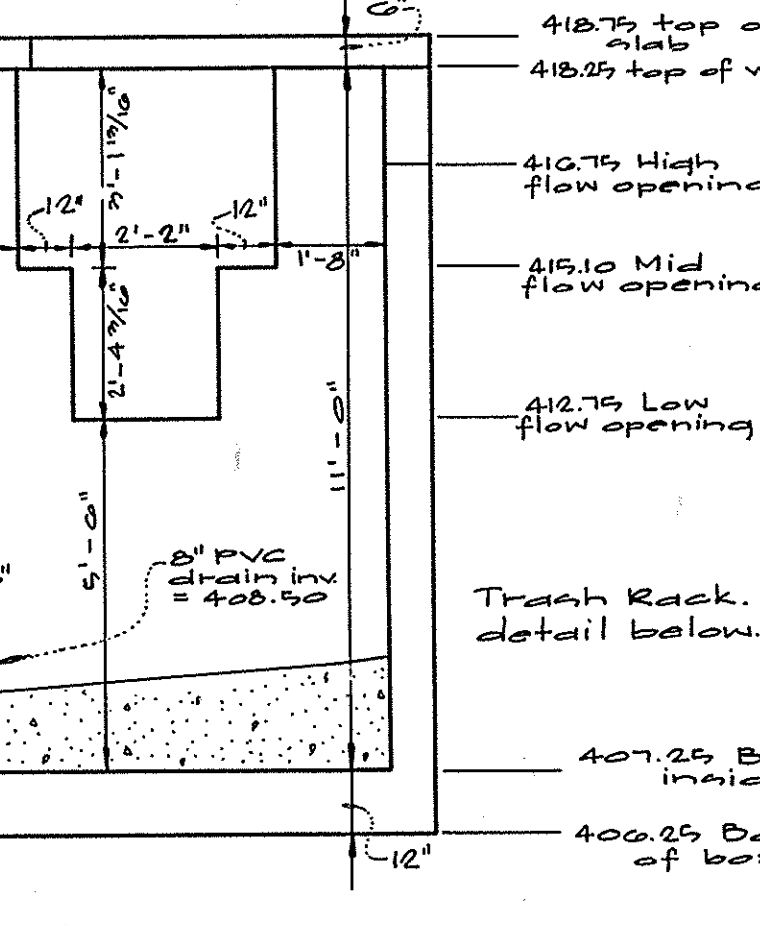
I certify that this plan for pond construction, erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions. This plan was prepared in accordance with the requirements of the Howard Soil Conservation District. I have notified the developer that he/she must engage a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion.

*[Signature]* 6/21/00 Date  
 Professional Engineer

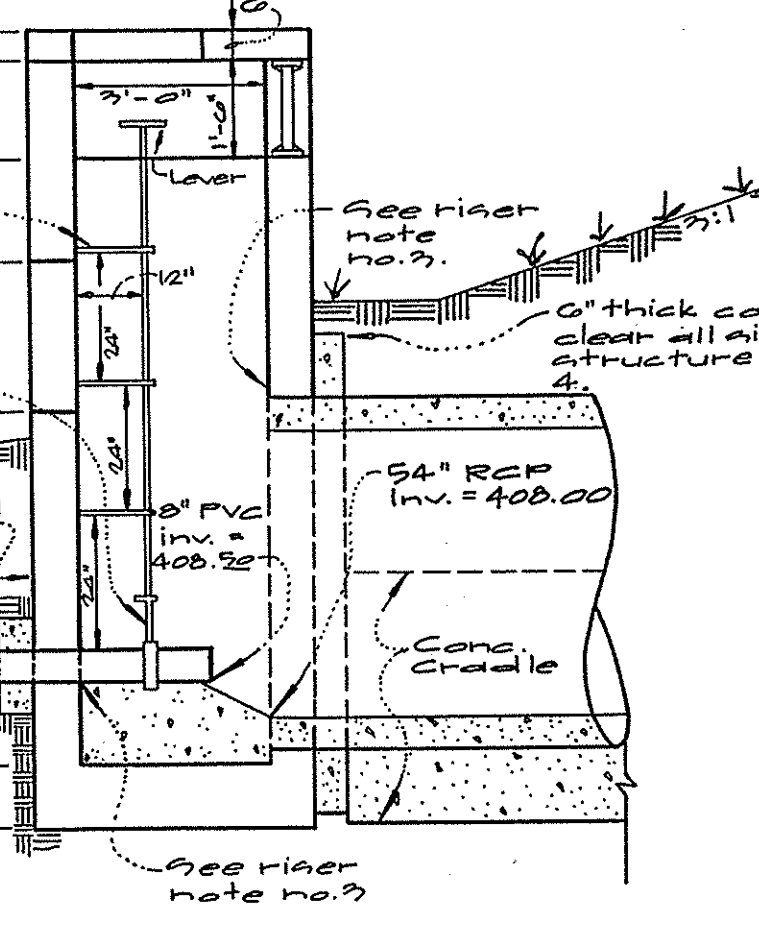


Drawdown Device Perforation Detail

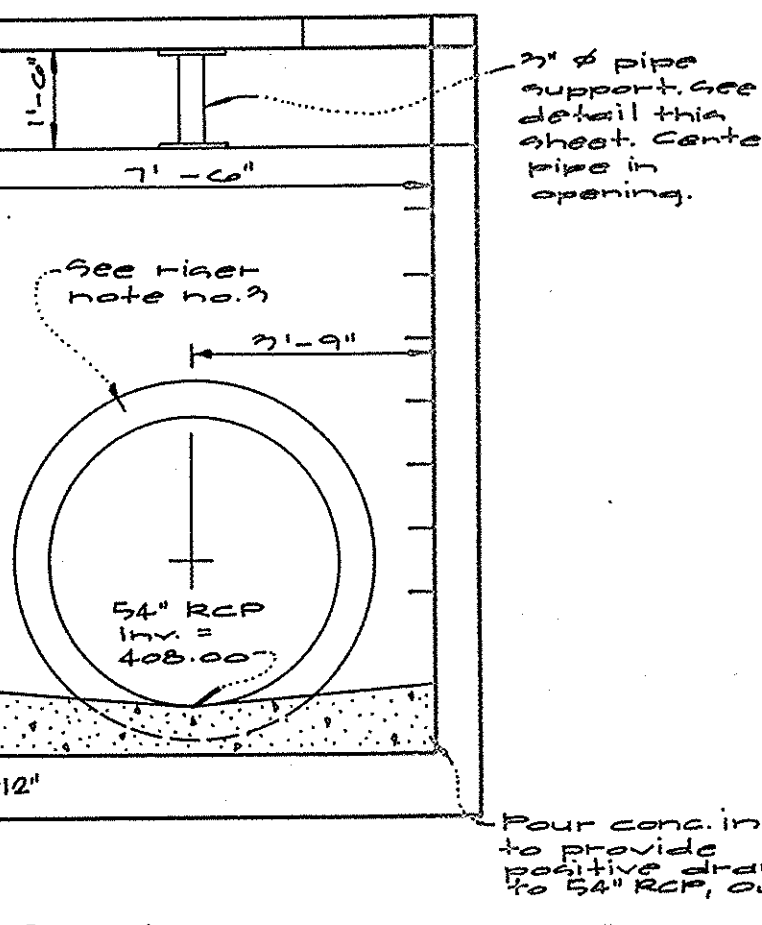
Section A-A



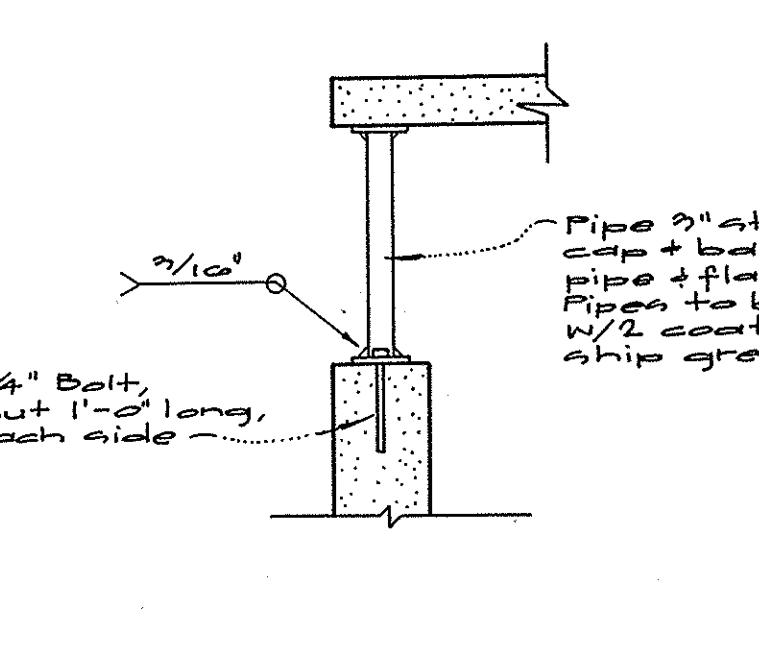
Section B-B



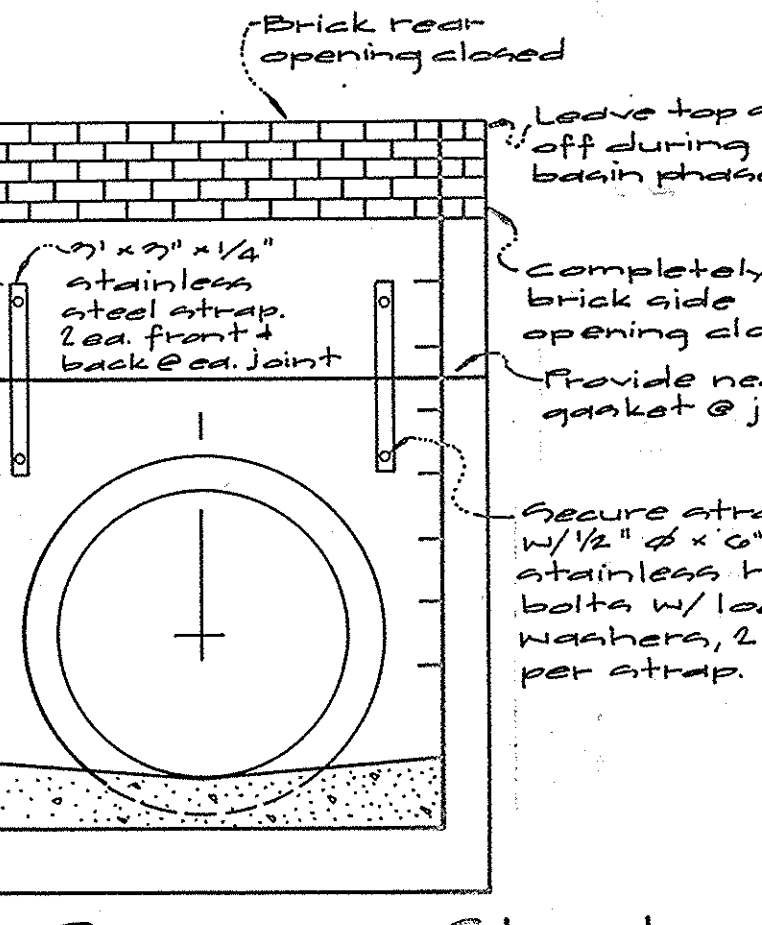
Section C-C



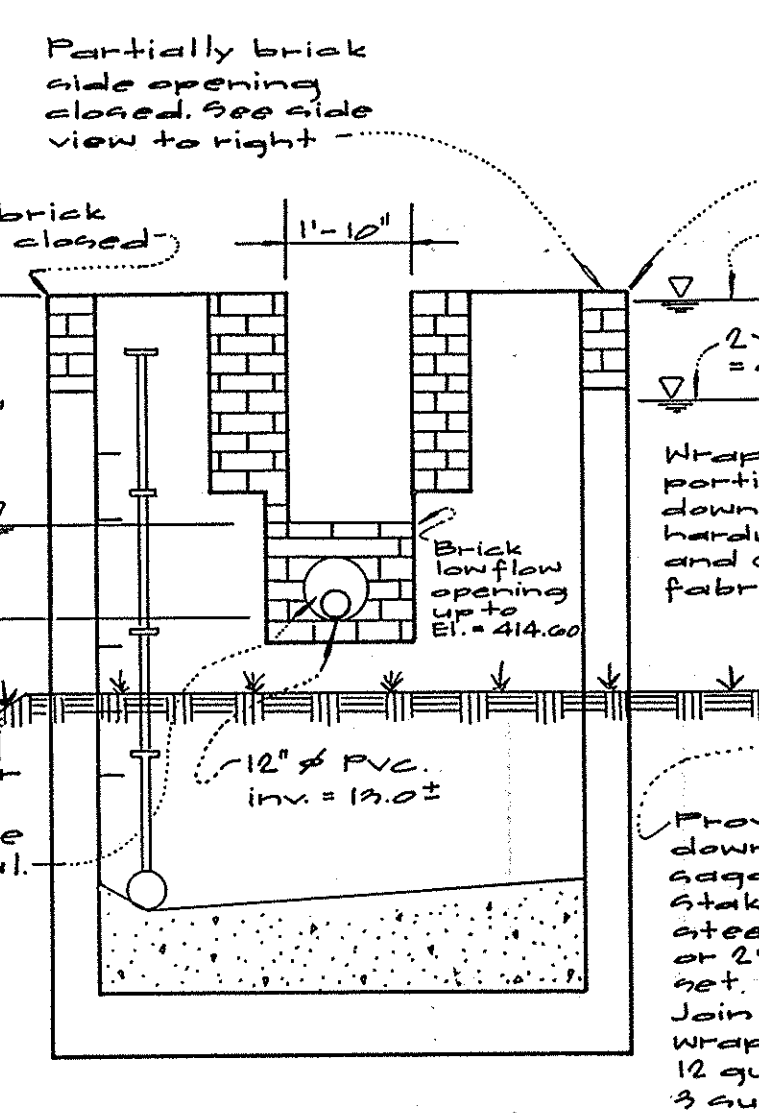
Pipe Support Detail N.T.S.



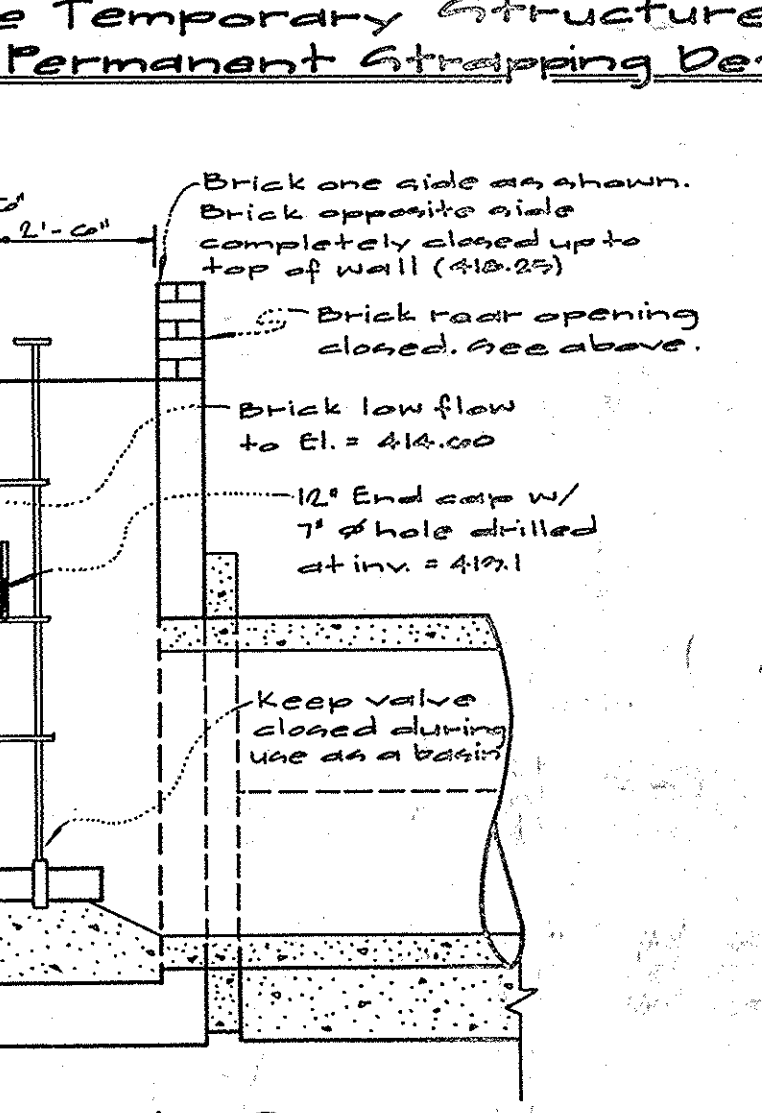
Rear Face Temporary Structure Blecking & Permanent Strapping Detail



Front Face Temporary Structure Blocking



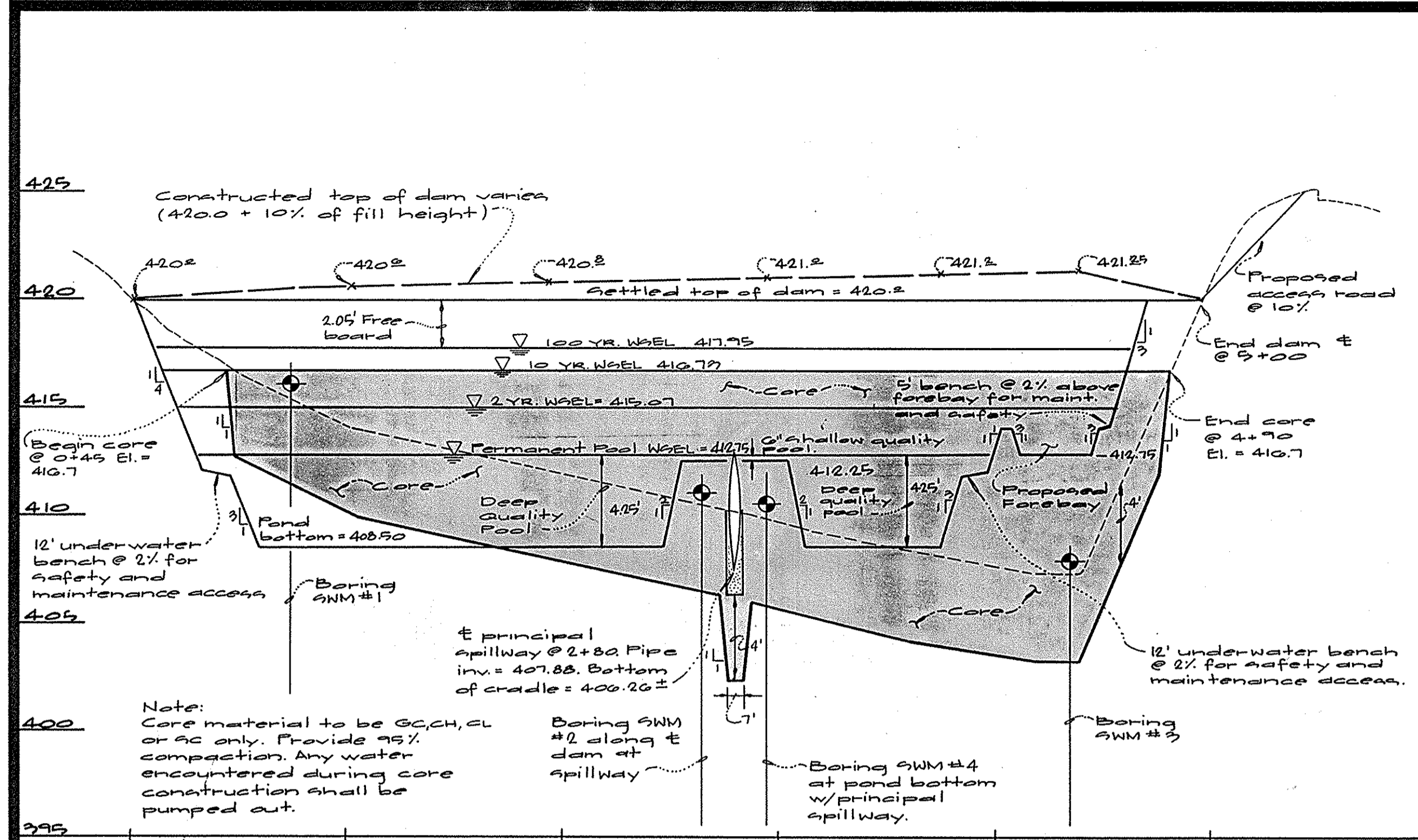
Side Face Temporary Structure Blocking



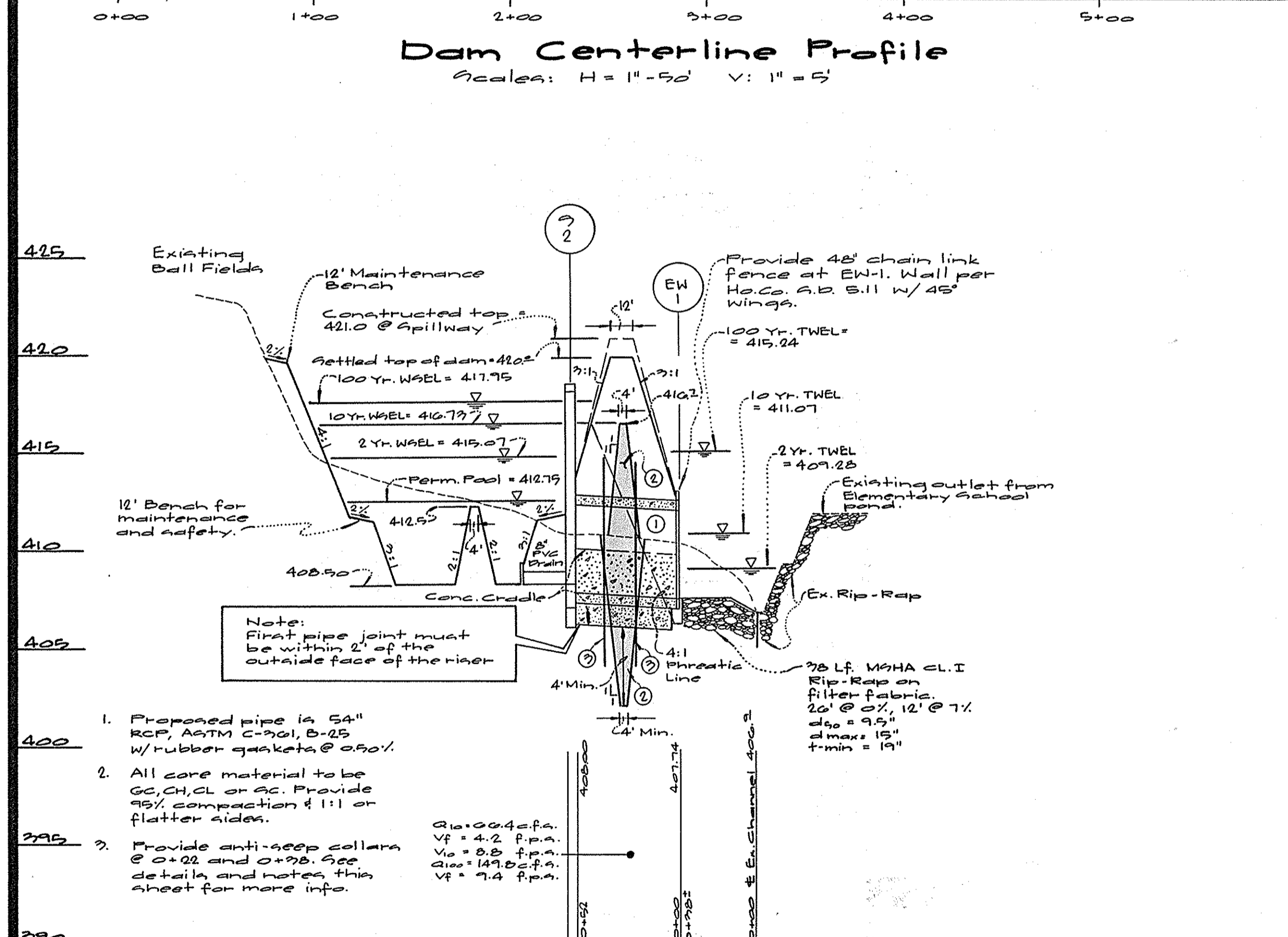
Note: This configuration provides 12 holes per foot of pipe.



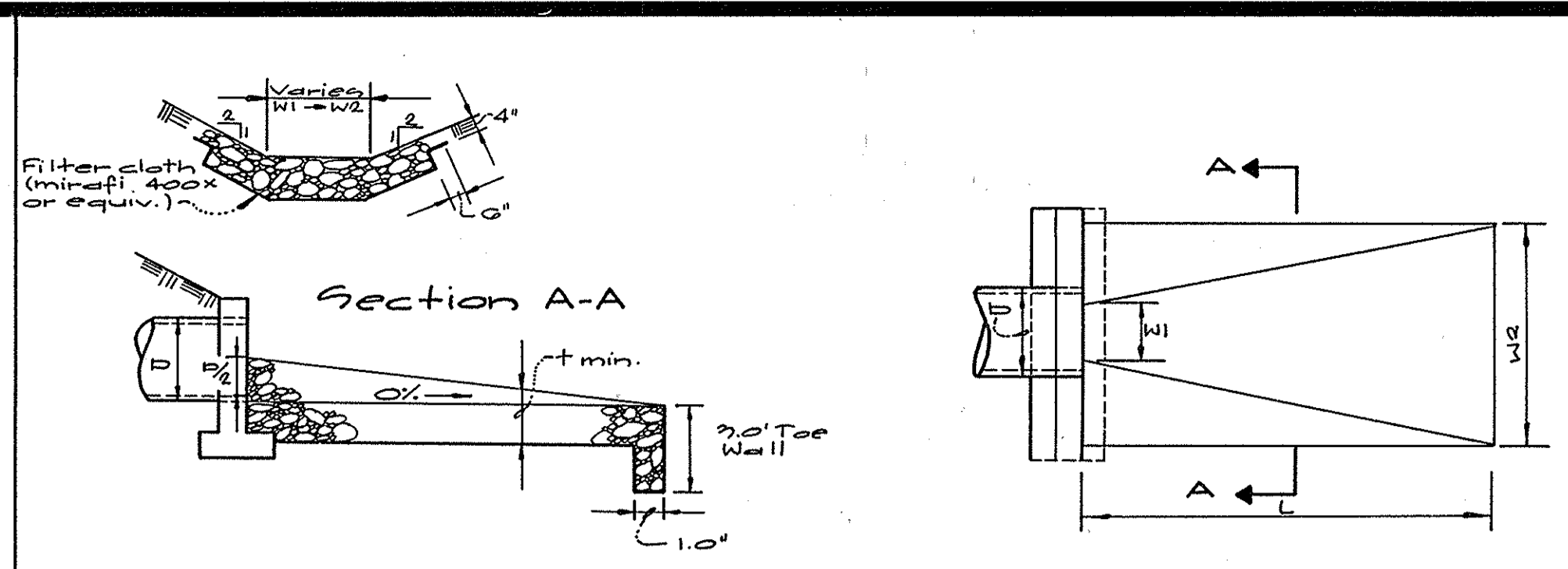




**Dam Centerline Profile**  
Scale: H: 1"=5' V: 1"=5'

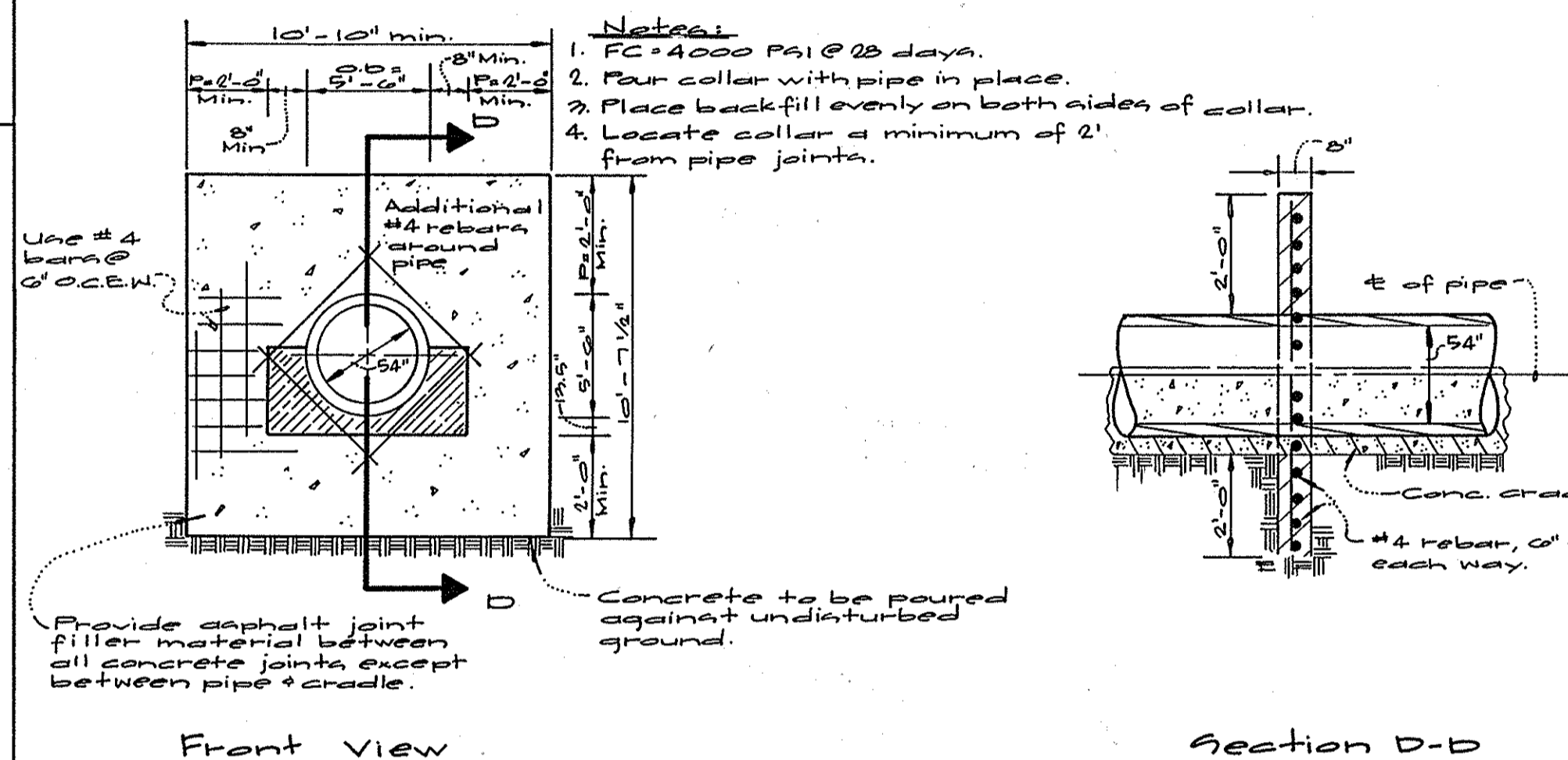


**Principal Spillway Profile & Typical Pond Section**  
Scale: H: 1"=5' V: 1"=5'

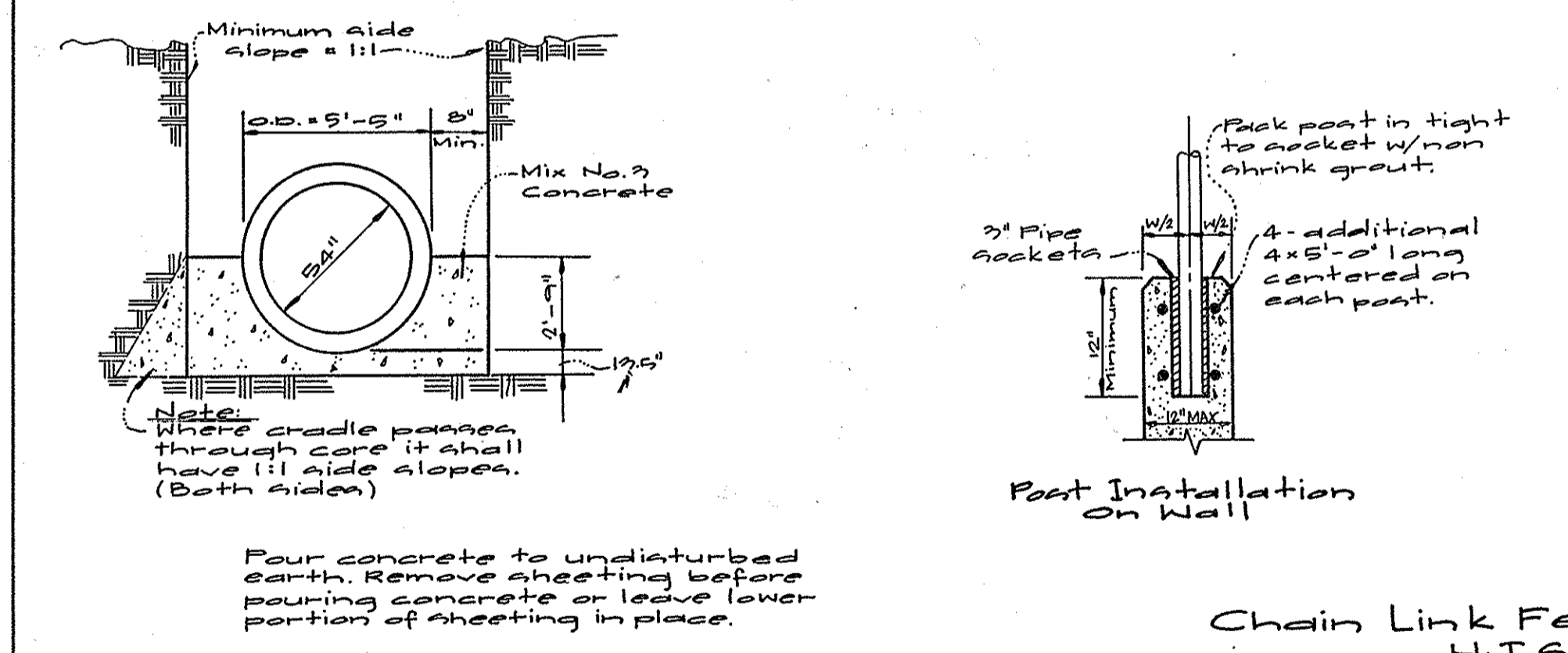


**Outfall details for EW-1 & EW-3**  
N.T.S.

Rip Rap Schedule							
Str.	D	L	W1	W2	Tmin	D50	MSHA CLASS
EW-1	54"	38'	2'	24'	19"	7.5'	I
EW-3	48"	42'	2'	24'	19"	9.5'	I

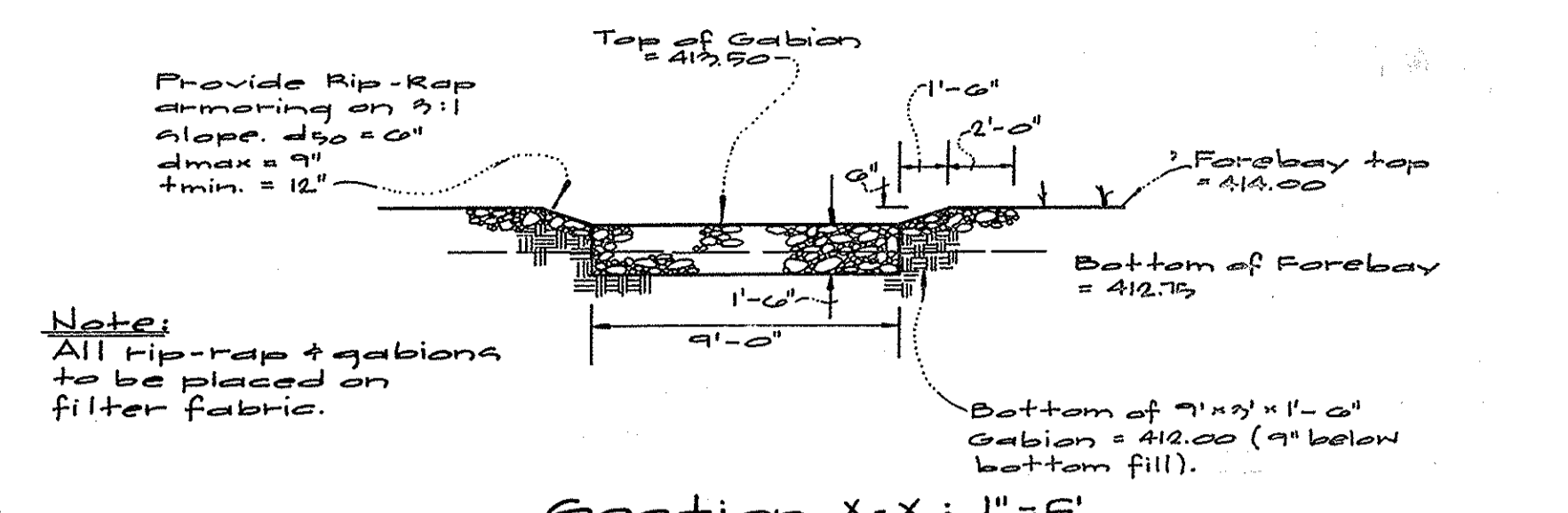


**Anti-geep Collar Detail**  
N.T.S.

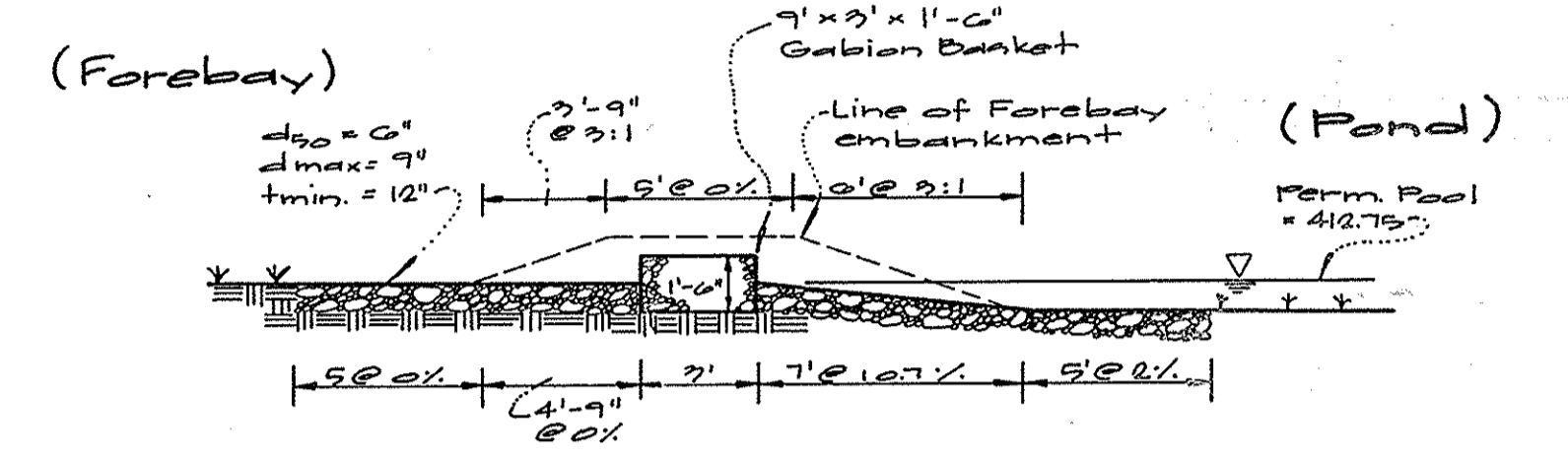


**Concrete Cradle Detail**  
ACS TR 40A-2 Cradle - N.T.S.

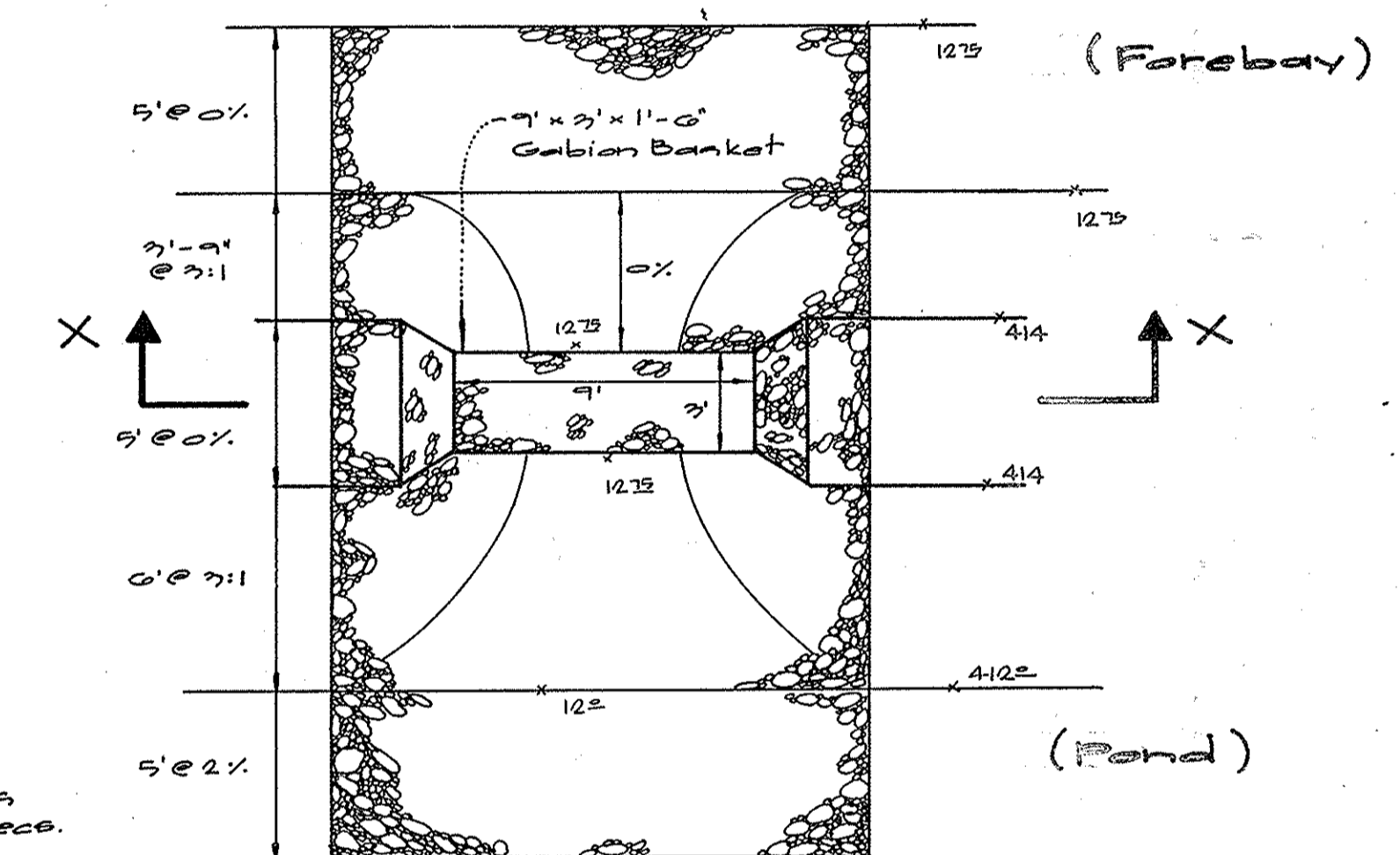
**Forebay Outlet Details**



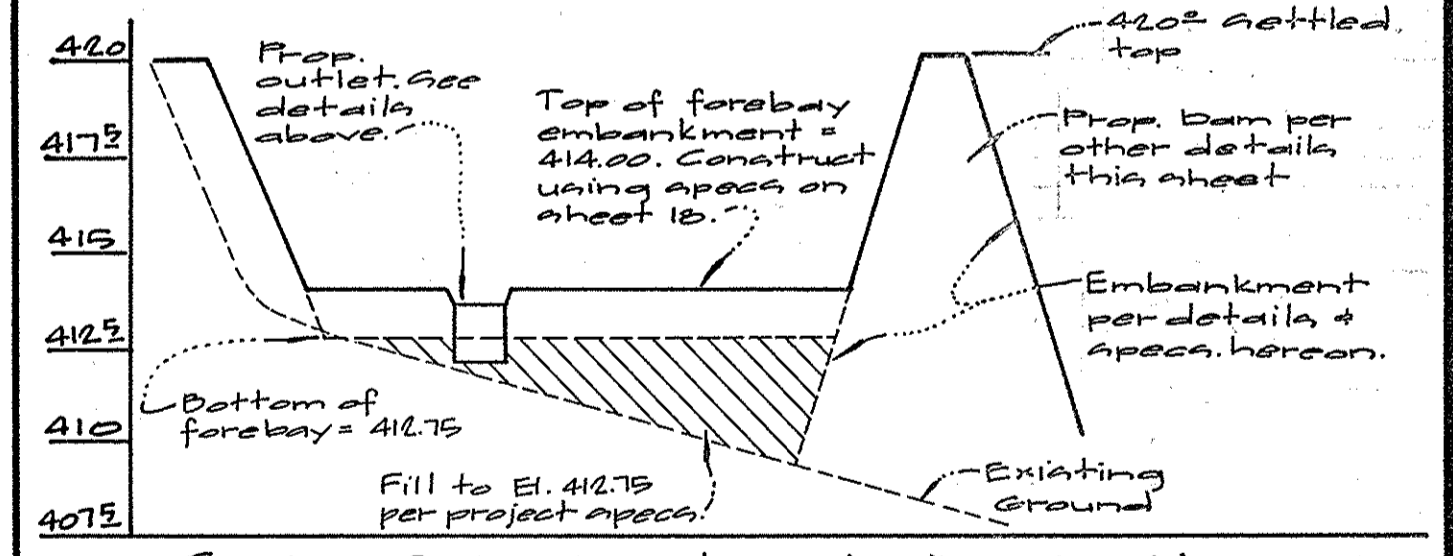
**Section X-X: 1"=9'**



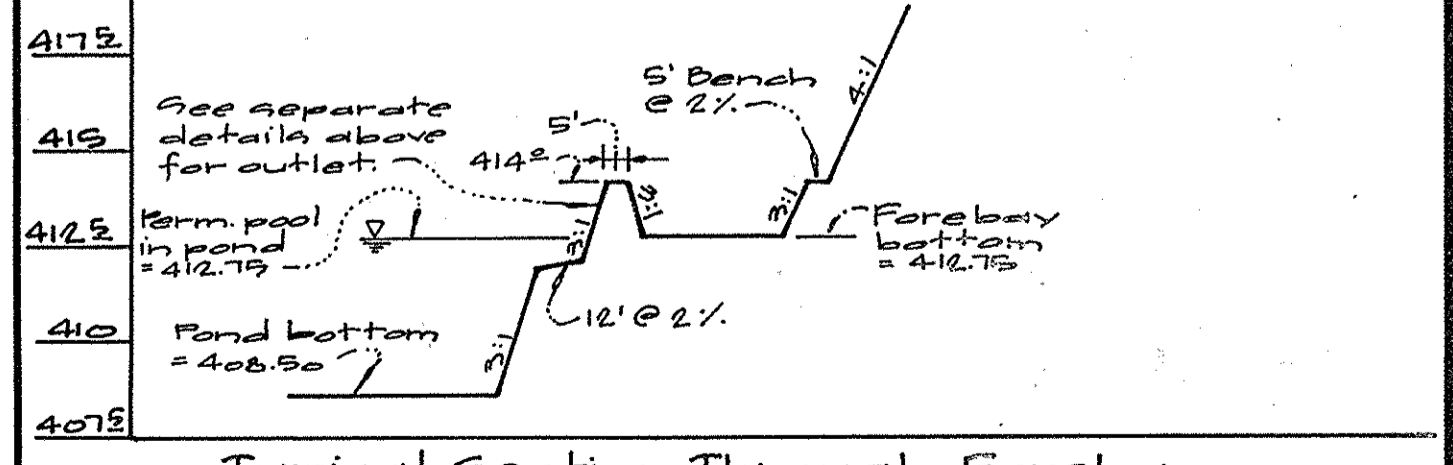
**Profile: 1"=5'**



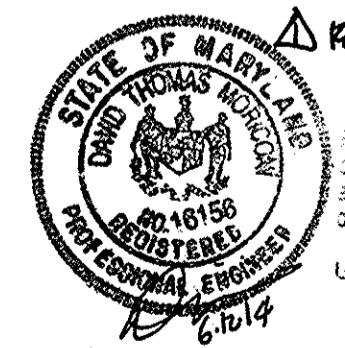
**Plan View: 1"=5'**



**Forebay Embankment Centerline Section**  
(H: 1"=5' ; V: 1"=5')



**Typical Section Through Forebay**  
(H: 1"=5' ; V: 1"=5')



Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.  
License No. 16752 Expiration Date: 6/21/00

**DEVELOPER'S/BUILDER'S CERTIFICATE**  
I/We certify that all development and/or construction will be done according to these plans, and that any responsible personnel involved in the construction project will have a Certificate of Attendance at a Maryland Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I shall engage a registered Professional Engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion. I also authorize periodic on-site inspections by the Howard Soil Conservation District.

**ENGINEER'S CERTIFICATE**  
I certify that this plan for pond construction, erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions. This plan was prepared in accordance with the requirements of the Howard Soil Conservation District. I have notified the developer that he/she must engage a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion.



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING  
Date: 7/2/00  
Date: 7/2/00

These Plans for small pond construction, soil erosion and sediment control meet the requirements of the Howard Soil Conservation District.  
Date: 6/29/00

These plans have been reviewed for the Howard Soil Conservation District and meet the technical requirements for small pond construction, soil erosion and sediment control.  
Date: 6/29/00

Signature of Developer/Builder: Cathleen Conley Young  
Date: 6/21/00

Signature of Engineer: [Signature]  
Date: 6/21/00

**GLW GUTSCHICK LITTLE & WEBER, P.A.**  
CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS  
3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK  
BURTONSVILLE, MARYLAND 20886  
TEL: 301-421-4024 FAX: 301-421-4186

DATE	REVISION	BY	APP'R.
6-12-14	NEW SHEET COUNT	DTM	

PREPARED FOR:  
**HOWARD COUNTY PUBLIC SCHOOL SYSTEM**  
10910 MARYLAND ROUTE 108  
ELLCOTT CITY, MARYLAND 21042  
ATTN: CATHEEN YOUNG

THOMAS CLARK ASSOC.  
2661 RIVA ROAD, SUITE 120  
ANNAPOLIS, MD 21401  
301-261-8700

**STORMWATER MANAGEMENT DETAILS**  
**RESERVOIR HIGH SCHOOL**  
(EASTERN HIGH SCHOOL No. 2)  
PARCEL 115  
L. 3218 F. 618  
HOWARD COUNTY, MARYLAND

SCALE	ZONING	G. L. W. FILE NO.
AS SHOWN	RR-MXD3	99091
DATE	TAX MAP - GRID	SHEET
5/5/2000	41/46	37

**POND CONSTRUCTION SPECIFICATIONS**

These specifications are appropriate to all ponds within the scope of the Standard for practice MD-378. All references to ASTM and AASHTO specifications apply to the most recent version.

**Site Preparation**

Areas designated for borrow areas, embankment, and structural works shall be cleared, grubbed and stripped of topsoil. All trees, vegetation, roots and other objectionable material shall be removed. Channel banks and sharp breaks shall be sloped to no steeper than 1:1.

Areas to be covered by the reservoir will be cleared of all trees, brush, logs, fences, rubbish and other objectionable material unless otherwise designated on the plans. Trees, brush and stumps shall be cut approximately level with the ground surface. For dry stormwater management ponds, a minimum of a 50 foot radius around the inlet structure shall be cleared.

All cleared and grubbed material shall be disposed of outside and below the limits of the dam and reservoir as directed by the owner or his representative. When specified, a sufficient quantity of topsoil will be stockpiled in a suitable location for use on the embankment and other designated areas.

**Earth Fill**

**Material** - The fill material shall be taken from approved designated borrow areas. It shall be free of roots, stumps, wood, rubbish, stones greater than 6", frozen or other objectionable materials. Fill material for the center of the embankment and cut off trench shall conform to Unified Soil Classification CC, SC, CH or CL. Consideration may be given to the use of other materials in the embankment if design and construction are supervised by a geotechnical engineer.

**Placement** - Area on which fill is to be placed shall be scarified prior to placement of fill. Fill materials shall be placed in maximum 8 inch thick (before compaction) layers which are to be continuous over the entire length of the fill. The most permeable borrow material shall be placed in the downstream portions of the embankment. The principal spillway must be installed concurrently with fill placement and not excavated in to the embankment.

**Compaction** - The movement of the hauling and spreading equipment over the fill shall be controlled so that the entire surface of each lift shall be traversed by not less than one tread track of the equipment or compaction shall be achieved by a minimum of four complete passes of a sheepsfoot, rubber tired or vibratory roller. Fill material shall contain sufficient moisture such that the required degree of compaction will be obtained with the equipment used. The fill material shall contain sufficient moisture so that if formed into a ball it will not crumble yet not so wet that water can be squeezed out.

Where a minimum required density is specified, it shall not be less than 95% of maximum dry density with a moisture content within  $\pm 2\%$  of the optimum. Each layer of fill shall be compacted as necessary to obtain that density, and is to be certified by the Engineer at the time of construction. All compaction is to be determined by AASHTO Method T-99.

**Cut Off Trench** - The cutoff trench shall be excavated into the embankment along or parallel to the centerline of the embankment as shown on the plans. The bottom width of the trench shall be governed by the equipment used for excavation, with the minimum width being four feet. The depth shall be at least four feet below existing grade or as shown on the plans. The side slopes of the trench shall be 1 to 1 or flatter. The backfill shall be compacted with construction equipment, rollers, or hand tampers to assure maximum density and minimum permeability.

**Structure Backfill**

Backfill adjacent to pipes or structures shall be of the type and quality conforming to that specified for the adjoining fill material. The fill shall be placed in horizontal layers not to exceed four inches in thickness and compacted by hand tampers or other manually directed compaction equipment. The material needs to fill completely all spaces under and adjacent to the pipe. At no time during the backfilling operation shall driven equipment be allowed to operate closer than four feet, measured horizontally, to any part of a structure. Under no circumstances shall equipment be driven over any part of a concrete structure or pipe, unless there is a compacted fill of 24" or greater over the structure or pipe.

**Pipe Conduits**

All pipes shall be circular in cross section.

**Corrugated Metal Pipe** - All of the following criteria shall apply for corrugated metal pipe:

1. **Materials** - (Steel Pipe) - This pipe and its appurtenances shall be galvanized and fully bituminous coated and shall conform to the requirements of AASHTO Specification M-190 Type A with watertight coupling bands. Any bituminous coating damaged or otherwise removed shall be replaced with cold applied bituminous coating compound. Steel pipes with polymeric coatings shall have a minimum coating thickness of 0.01 inch (10 mil) on both sides of the pipe. The following coatings or an approved equal may be used: Nexon, Plast-Cote, Bloc-Klad, and Beth-Cu-Loy. Coated corrugated steel pipe shall meet the requirements of AASHTO M-245 and M-246.

**Materials** - (Aluminum Coated Steel Pipe) - This pipe and its appurtenances shall conform to the requirements of AASHTO Specification M-274 with watertight coupling bands or flanges. Any aluminum coating damaged or otherwise removed shall be replaced with cold applied bituminous coating compound.

2. **Coupling bands, anti-seep collars, and sections, etc.**, must be composed of the same material as the pipe. Metals must be insulated from dissimilar materials with use of rubber or plastic insulating materials at least 24 mils in thickness.
3. **Connections** - All connections with pipes must be completely watertight. The drain pipe or barrel connection to the riser shall be welded all around when the pipe & riser are metal. Anti-seep collars shall be connected to the pipe in such a manner as to be completely watertight. Dimple bands are not considered to be watertight.

All connections shall use a rubber or neoprene gasket when joining pipe sections. The end of each pipe shall be re-rolled an adequate number of corrugations to accommodate the band width. The following pipe connections are acceptable for pipes less than 24" in diameter: flanges on both ends of the pipe, a 12" wide standard lap type band with 3/8" thick closed cell circular neoprene gasket; and a 12" wide huggy type band with O-ring gaskets having a minimum diameter of 1/2" greater than the corrugation depth. Pipes 24" in diameter and larger shall be connected by a 24" long annular corrugated band using rods and nuts. A 12" wide by 3/8" thick closed cell circular neoprene gasket will be installed on the end of each pipe for a total of 24".

Helically corrugated pipe shall have either continuously welded seams or have lock seams.

4. **Bedding** - The pipe shall be firmly and uniformly bedded throughout its entire length. Where rock or soft, spongy or other unstable soil is encountered, all such material shall be removed and replaced with suitable earth compacted to provide adequate support.
5. **Backfilling** shall conform to "Structure Backfill".
6. Other details (anti-seep collars, valves, etc.) shall be as shown on the drawings.

**Reinforced Concrete Pipe** - All of the following criteria shall apply for reinforced concrete pipe:

1. **Materials** - Reinforced concrete pipe shall have bell and spigot joints with rubber gaskets and shall equal or exceed ASTM Designation C-361.
2. **Bedding** - All reinforced concrete pipe conduits shall be laid in a concrete bedding for their entire length. This bedding shall consist of high slump concrete placed under the pipe and up the sides of the pipe at least 10% of its outside diameter with a minimum thickness of 3 inches, or as shown on the drawings.
3. **Laying pipe** - Bell and spigot pipe shall be placed with the bell end upstream. Joints shall be made in accordance with recommendations of the manufacturer of the material. After the joints are sealed for the entire line, the bedding shall be placed so that all spaces under the pipe are filled. Care shall be exercised to prevent any deviation from the original line and grade of the pipe. The first joint must be located within 2 feet from the riser.

4. **Backfilling** shall conform to "Structure Backfill".
5. Other details (anti-seep collars, valves, etc.) shall be shown on the drawings.

**Polyvinyl Chloride (PVC) Pipe** - All of the following criteria shall apply for polyvinyl chloride (PVC) pipe:

1. **Materials** - PVC pipe shall be PVC - 1120 or PVC - 1220 conforming to ASTM D-1785 or ASTM D-2241.
2. **Joints and connections** to anti-seep collars shall be completely watertight.
3. **Bedding** - The pipe shall be firmly and uniformly bedded throughout its entire length. Where rock or soft, spongy or other unstable soil is encountered, all such material shall be removed and replaced with suitable earth compacted to provide adequate support.
4. **Backfilling** shall conform to "Structure Backfill".
5. Other details (anti-seep collars, valves, etc.) shall be as shown on the drawings.

**Concrete**

Concrete shall meet the requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, Section 608, Mix No. 3.

**Rock Riprap**

Rock riprap shall meet the requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, Section 905.

The rip rap shall be placed to the required thickness in one operation. The rock shall be delivered and placed in a manner that will insure the riprap in place shall be reasonably homogeneous with the larger rocks uniformly distributed and firmly in contact one to another with the smaller rocks filling the voids between the larger rocks. Filter cloth shall be placed under all riprap and shall meet the requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, Section 912.

**Care of Water during Construction**

All work on permanent structures shall be carried out in areas free from water. The Contractor shall construct and maintain all temporary dikes, levees, cofferdams, drainage channels, and stream diversions necessary to protect the areas to be occupied by the permanent works. The contractor shall also furnish, install, operate, and maintain all necessary pumping and other equipment required for removal of water from the various parts of the work and for maintaining the excavations, foundation, and other parts of the work free from water as required or directed by the engineer for constructing each part of the work. After having served their purpose, all temporary protective works shall be removed or leveled and graded to the extent required to prevent obstruction in any degree whatsoever of the flow of water to the spillway or outlet works and so as not to interfere in any way with the operation or maintenance of the structure. Stream diversions shall be maintained until the full flow can be passed through the permanent works. The removal of water from the required excavation and the foundation shall be accomplished in manner and to the extent that will maintain stability of the excavated slopes and bottom of required excavations and will allow satisfactory performance of all construction operations. During the placing and compacting of material in required excavations, the water level at the locations being refilled shall be maintained below the bottom of the excavation at such locations which may require draining the water to sumps from which the water shall be pumped.

**Stabilization**

All borrow areas shall be graded to provide proper drainage and left in a slightly condition. All exposed surfaces of the embankment, spillway, spoil and borrow areas, and berms shall be stabilized by seeding, liming, fertilizing and mulching in accordance with the Maryland Soil Conservation Service Standards and Specifications for Critical Area Planting (MD-342) or as shown on the accompanying drawings.

**Erosion and Sediment Control**

Construction operations will be carried out in such a manner that erosion will be controlled and water and air pollution minimized. State and local laws concerning pollution abatement will be followed. Construction plans shall detail erosion and sediment control measures to be employed during the construction process.

**SHM FACILITY BORING LOGS**

BORING LOG						
CLIENT: Howard County Board of Education		DATE: 12-15-99				
PROJECT: Eastern High School #2						
BORING NO. 899A3	TOTAL DEPTH: 15 feet	ELEVATION: 424.4	LOCATION: See Sheet			
TYPE OF BORING: HSA						
STARTED: 12-15-99 COMPLETED: 12-16-99 DRILLER: EBA						
DEPTH	DESCRIPTION OF MATERIAL	SAMPLE BELOW	SAMPLE DEPTH	MOISTURE CONTENT	REMARKS	
0.0	Surface				Water encountered at 12 feet 1.5 feet	
416.4	Very fine sand, silty, medium to very dense	7-8.13	2.5	30.2		
		6-5.8	5.0	26.7		
		11-7.8	7.5	18.3		
		37-45-43	10.0	21.3		
429.4	-11.0					
430.4	-10.0					
		100%	15.0	22.2		
430						

BORING LOG						
CLIENT: Howard County Board of Education		DATE: 12-15-99				
PROJECT: Eastern High School #2						
BORING NO. 899A4	TOTAL DEPTH: 15 feet	ELEVATION: 420.5	LOCATION: See Sheet			
TYPE OF BORING: HSA						
STARTED: 12-15-99 COMPLETED: 12-16-99 DRILLER: EBA						
DEPTH	DESCRIPTION OF MATERIAL	SAMPLE BELOW	SAMPLE DEPTH	MOISTURE CONTENT	REMARKS	
0.0	Surface				Water encountered at 12 feet 1.5 feet	
417.0	-10.0					
		4-3.3	2.5	31.2		
		12-15-17	5.0	15.3		
418.0	-6.0					
		9-6-19	7.5	28.3		
		12-14-13	10.0	28.8		
		12-15-19	15.0	27.0		
420.5	-15.0					

BORING LOG						
CLIENT: Howard County Board of Education		DATE: 12-15-99				
PROJECT: Eastern High School #2						
BORING NO. 899A5	TOTAL DEPTH: 15 feet	ELEVATION: 419.3	LOCATION: See Sheet			
TYPE OF BORING: HSA						
STARTED: 12-15-99 COMPLETED: 12-16-99 DRILLER: EBA						
DEPTH	DESCRIPTION OF MATERIAL	SAMPLE BELOW	SAMPLE DEPTH	MOISTURE CONTENT	REMARKS	
0.0	Surface				Water encountered at 12 feet 1.5 feet	
415.3	-6.0					
		6-7-11	2.5	27.1		
		5-5.0	5.0	24.3		
		3-5.4	7.5	25.5		
		6-10-12	10.0	28.1		
428.4	-11.0					
		12-14-44	15.0	23.4		
428.3	-11.0					
		12-14-44	15.0	23.4		
428.3	-11.0					

BORING LOG						
CLIENT: Howard County Board of Education		DATE: 12-15-99				
PROJECT: Eastern High School #2						
BORING NO. 899A6	TOTAL DEPTH: 15 feet	ELEVATION: 414	LOCATION: See Sheet			
TYPE OF BORING: HSA						
STARTED: 12-15-99 COMPLETED: 12-16-99 DRILLER: EBA						
DEPTH	DESCRIPTION OF MATERIAL	SAMPLE BELOW	SAMPLE DEPTH	MOISTURE CONTENT	REMARKS	
0.0	Surface				Water encountered at 12 feet 1.5 feet	
416.6	-5.0					
		3-2.2	2.5	30.5		
		6-4.6	5.0	15.8		
		12-27-20	7.5	16.1		
		12-17-27	10.0	14.1		
426.5	-15.0					
		16-21-45	15.0	18.1		

**NOTE:**

In addition to the Howard County Standard Specifications, and those on this sheet, the construction of the Stormwater Management facility shall be in accordance with the recommendations contained in the geotechnical report by Penniman & Browne, Inc. If the provisions of the report conflict with Howard County's specifications or those on this sheet in any way, the more stringent requirements shall apply. The private geotechnical engineer hired by Howard County Board of Education shall be on the site to observe all Stormwater management construction and to provide testing and approvals where needed for proper implementation of the plans and specifications and to provide information for future as-built.

**EASTERN HIGH SCHOOL No. 2 CONSTRUCTION SEQUENCE**

1. UPDATE GRADING PERMIT FROM GP-00-131 AND SCHEDULE AN ON-SITE PRE-CONSTRUCTION MEETING.
2. RECEIVE GRADING PERMIT FROM SEDIMENT CONTROL INSPECTOR (SCI) AT THE PRE-CONSTRUCTION MEETING. CHECK EXISTING SEDIMENT CONTROL ITEMS INSTALLED UNDER GP-00-131 AND MAKE ANY NECESSARY REPAIRS/REPLACEMENT. THE GP-00-131 SEDIMENT CONTROL ITEMS SHALL REMAIN IN PLACE IN ORDER TO START CONSTRUCTION OF THE HIGH SCHOOL BUILDING IF PERMITTED BY THE INSPECTOR.  
NOTE: THE EXISTING WELL SHALL BE ABANDONED BY A WELL DRILLER AND DOCUMENTATION OF THE WELL ABANDONMENT SHALL BE SUBMITTED TO THE HOWARD COUNTY HEALTH DEPARTMENT PRIOR TO ANY CONSTRUCTION WORK IN THE VICINITY OF THE EXISTING WELL.
3. ESTABLISH EDGE OF WOODED AREA TO BE RETAINED. INITIATE FOREST CONSERVATION PLANNING ON THE ELEMENTARY AND MIDDLE SCHOOL PORTION OF THIS SITE (NO GRADING). START FOREST PLANTING AT ELLICOTT MILLS U.S.
4. INSTALL TREE PROTECTION FENCING (TPF) ALONG THE EDGE OF WOODED AREA TO BE RETAINED/CLEARED FOR THE HIGH SCHOOL CONSTRUCTION. SEE SHEET NO.25 FOR TREE PROTECTION DETAIL. (1-DAY)
5. INSTALL THE OTHER TWO STABILIZED CONSTRUCTION ENTRANCES (S.C.E.)(1-DAY)
6. INSTALL THE OTHER SILT FENCE (SF) AND SUPER SILT FENCE (SSF). (2-DAYS)
7. CLEAR EXISTING TREES (NO GRADING) WITHIN THE L.O.D.(2-DAYS)
8. INSTALL AN EARTH DIKE AS A CLEAN WATER DIVERSION ALONG THE EASTERN BOUNDARY BETWEEN CONTOUR 464 AND 388. (1-DAY)
9. CONSTRUCT THE TWO SEDIMENT TRAPS AND THEIR ASSOCIATED EARTH DIKES. (4-DAYS)
10. CONSTRUCTION THE SEDIMENT CONTROL BASIN. (1-2 WEEKS)
11. WITH PERMISSION FROM THE SCI TO PROCEED, INSTALL THE STORM DRAIN FROM THE BASIN TO INLET NO. 1-6 AND A PORTION OF THE 8" SEWER FROM THE EXISTING MP#5 TO NEW MP#5-501. (2-3 DAYS)
12. AT INLET NO. 1-6, INSTALL A SECTION OF PIPE AT EACH OPENING AND BACKFILL TO THE PIPE'S INSET ELEVATION AND CONSTRUCT THE EMBANKMENT SHOWN IN THE INSET ON SHEET #8. (2-DAYS)
13. WITH PERMISSION FROM THE SCI TO PROCEED, GRADE THE REMAINDER OF SITE TO THE APPROPRIATE SUBGRADE. (2-3 WEEKS)  
NOTE:  
A. DELAY FILLING IN THE SWALE ALONG THE EAST SIDE OF THE MAIN DRIVE FROM MD ROUTE 216. DURING THE GRADING OPERATION, THIS SWALE SHALL BE USED TO CONVEY STORM RUNOFF TO INLET NO. 1-6 AND THE SEDIMENT BASIN.  
B. COORDINATE WITH THE CONSTRUCTION MANAGER (CM) FOR THE REMOVAL OF THE EXISTING SHED, THE EXISTING CONSTRUCTION TRAILER/FIELD OFFICE AND THE ASSOCIATED PARKING AREA.  
C. PROVIDE DUST CONTROL, AS NECESSARY.  
NOTE: AREAS OF 15' OR MORE OF FILL, SHALL BE CONSTRUCTED IN LIFTS AND STABILIZED IN ACCORDANCE TO IMPROVEMENTAL STABILIZATION OF EMBANKMENTS IN THE 1994 MD STANDARDS AND SPECIFICATIONS.
14. CONSTRUCT BUILDINGS AND INSTALL SITE UTILITIES, CONCRETE CURB, BASE PAVING, SIDEWALKS AND SPORT FACILITIES. (22-24 MOS.)  
NOTE:  
ONCE THE ENTIRE STORM DRAIN SYSTEM IS INSTALLED AND OPERATIONAL, THE SWALE (IN #13 ABOVE) CAN BE FILLED IN IF PERMITTED BY THE SCI. DELAYED, HOWEVER, THE INSTALLATION OF THE CONCRETE CURB FILLET BY INLET NO. 1-7 UNTIL PERMISSION HAS BEEN GRANTED BY THE SCI TO REMOVE THE CURB INLET PROTECTION (CIP) AT INLET Nos. 1-8, 1-19 & 1-21. THE STORM DRAIN SYSTEM SHALL REMAIN OPENED AND MAINTAINED TO CONVEY ALL SEDIMENT LOADED RUNOFF TO THE BASIN.
15. ONCE THE BALLFIELDS ARE PERMANENTLY STABILIZED AND PERMISSION HAS BEEN GRANTED BY THE SCI, FILL IN THE SEDIMENT TRAPS AND REMOVE THE ASSOCIATED EARTH DIKES. STABILIZE THE AREA OCCUPIED BY THE TRAPS AND EARTH DIKES. (3-4 DAYS)
16. STABILIZE ALL DISTURBED AREAS THAT IS NOT PAVED WITH VEGETATION IN ACCORDANCE WITH PLANTING PLANS AND SEEDING/SODDING SPECIFICATIONS. OBTAIN PERMISSION FROM THE SCI TO REMOVE ANY REMAINING PERIMETER SEDIMENT CONTROL DEVICES. (3 DAYS - 1 WEEK)
17. REMOVE THE APPLICABLE CIP IF PERMITTED BY THE SCI AND INSTALL THE FINISHED PAVING COURSE AND ANY MISSING CONC. CURB. (4-5 DAYS)
18. ONCE THE SITE IS SUBSTANTIALLY STABILIZED, FLUSH THE STORM DRAIN SYSTEM OF ANY ACCUMULATED SEDIMENTS. (1-2 DAYS)
19. CONVERT THE SEDIMENT CONTROL BASIN TO A STORMWATER MANAGEMENT POND AND INSTALL SHM VEGETATION. (3-4 DAYS)
20. CHECK AND INSTALL ANY MISSING (OR DEAD) FOREST CONSERVATION TREES AND SIGNS THEN OBTAIN A FOREST CONSERVATION RELEASE FOR THE CONSTRUCTION PHASE.
21. GO THROUGH PUNCH LIST.
22. OBTAIN A FOREST CONSERVATION RELEASE AT THE END OF THE (2-YR. MIN.) POST-CONSTRUCTION MANAGEMENT PERIOD.

NOTE: POND CONSTRUCTION SPECS REFER TO SHM POND FOR THE HIGH SCHOOL POND /BASIN ONLY. REFER TO PROJECT SPECIFICATIONS FOR GRADING AND CONCRETE SPECIFICATIONS FOR THE REST OF THE SITE. ANY TREES, BRUSH, STUMPS AND GRUBBED MATERIAL CLEARED FOR THE SHM POND SHALL BE REMOVED FROM THE SCHOOL SITE.

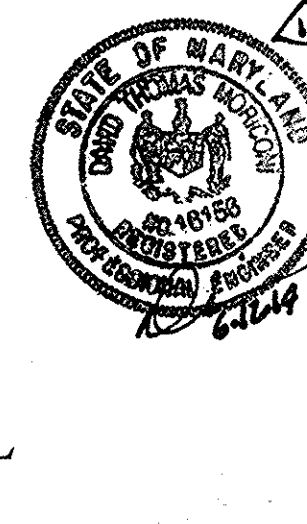
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING	
Director	Date: 7/16/00
Chief, Division of Land Development	Date: 7/17/00
Chief, Development Engineering Division	Date: 9/3/00

These Plans for small pond construction, soil erosion and sediment control meet the requirements of the Howard Soil Conservation District.  
 Signature: [Handwritten] Date: 6/29/00  
 Howard Soil Conservation District

These plans have been reviewed for the Howard Soil Conservation District and meet the technical requirements for small pond construction, soil erosion and sediment control.  
 Signature: Cheryl Simmonds Date: 6/29/00  
 Natural Resources Conservation Service

**DEVELOPER'S/BUILDER'S CERTIFICATE**  
 I/We certify that all development and/or construction will be done according to these plans, and that any responsible personnel involved in the construction project will have a Certificate of Attendance at a Maryland Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I shall engage a registered Professional Engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion. I also authorize periodic on-site inspections by the Howard Soil Conservation District.  
 Signature: Catherine Conley Young Date: 6/21/00  
 Signature of Developer/Builder

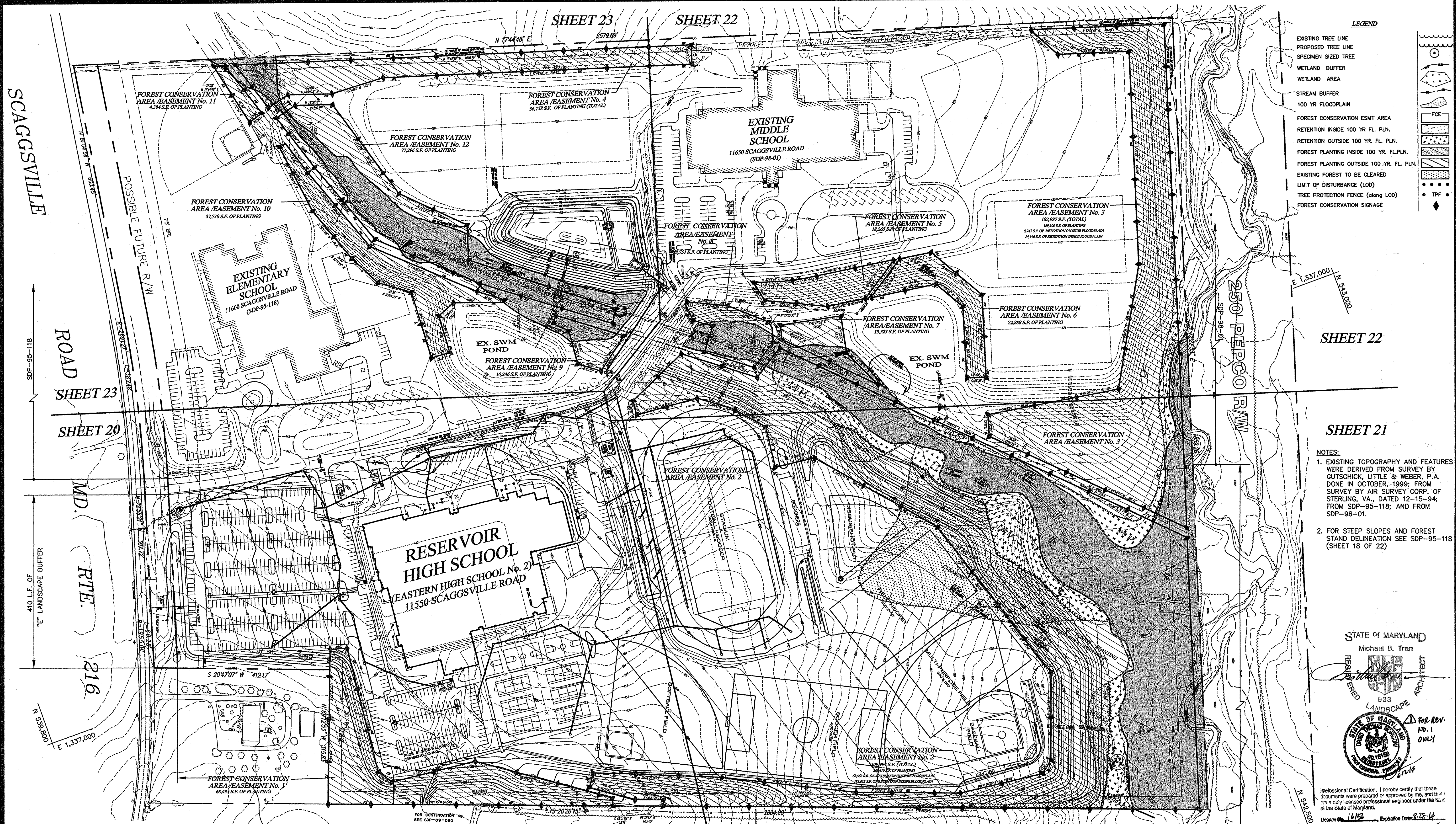
**ENGINEER'S CERTIFICATE**  
 I certify that this plan for pond construction, erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions. This plan was prepared in accordance with the requirements of the Howard Soil Conservation District. I have notified the developer that he/she must engage a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion.  
 Signature: [Handwritten] Date: 5/31/00  
 Professional Engineer



**GLW GUTSCHICK LITTLE & WEBER, P.A.**  
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS  
 3909 NATIONAL DRIVE - SUITE 250 - BURTNSVILLE OFFICE PARK  
 BURTNSVILLE, MARYLAND 20866  
 TEL: 301-421-4024 BALT: 410-880-1820 DC/VIA: 301-989-2524 FAX: 301-421-4186

DATE	REVISION	BY	APPR.
6-12-00	NEW SHEET COUNT		
		DJM	

PREPARED FOR:	STORMWATER MANAGEMENT SPECIFICATIONS & BORING LOGS	SCALE	ZONING	G. L. W. FILE No.
HOWARD COUNTY PUBLIC SCHOOL SYSTEM 10910 MARYLAND ROUTE 108 ELLICOTT CITY, MARYLAND 21042 ATTN: CATHELEEN YOUNG	THOMAS CLARK ASSOC. 2661 RIVA ROAD, SUITE 120 ANNAPOLIS, MD 21401 301-261-8700	AS SHOWN	RR-MXD3	99091
		DATE	TAX MAP - GRID	SHEET
		5/05/2000	41/46	37A
				18 OF 27
				SDP-00-86



- LEGEND**
- EXISTING TREE LINE
  - PROPOSED TREE LINE
  - SPECIMEN SIZED TREE
  - WETLAND BUFFER
  - WETLAND AREA
  - STREAM BUFFER
  - 100 YR FLOODPLAIN
  - FOREST CONSERVATION ESMT AREA
  - RETENTION INSIDE 100 YR FL. PLN.
  - RETENTION OUTSIDE 100 YR. FL. PLN.
  - FOREST PLANTING INSIDE 100 YR. FL. PLN.
  - FOREST PLANTING OUTSIDE 100 YR. FL. PLN.
  - EXISTING FOREST TO BE CLEARED
  - LIMIT OF DISTURBANCE (LOD)
  - TREE PROTECTION FENCE (along LOD)
  - FOREST CONSERVATION SIGNAGE

SHEET 22

SHEET 21

- NOTES:**
1. EXISTING TOPOGRAPHY AND FEATURES WERE DERIVED FROM SURVEY BY GUTSCHICK, LITTLE & WEBER, P.A. DONE IN OCTOBER, 1999; FROM SURVEY BY AIR SURVEY CORP. OF STERLING, VA., DATED 12-15-94; FROM SDP-95-118; AND FROM SDP-98-01.
  2. FOR STEEP SLOPES AND FOREST STAND DELINEATION SEE SDP-95-118 (SHEET 18 OF 22)

STATE OF MARYLAND  
Michael B. Tran  
REGISTERED ARCHITECT  
933 LANDSCAPE ARCHITECT  
FOR REV. NO. 1 ONLY  
PROFESSIONAL STAMP  
Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.  
Licenses: 16152, Expiration Date: 8-28-14

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING  
Director: [Signature] 7/19/00  
Chief, Division of Land Development: [Signature] 7/7/00  
Chief, Development Engineering Division: [Signature] 7/2/00

STATE OF MARYLAND  
PROFESSIONAL ENGINEER  
FISHER COLLINS AMO CARVER, INC.  
REVISION 7/11/00  
REVISION 12/17/04

1740 L.F. OF "C" LANDSCAPE BUFFER  
(SITE IS AT LEAST 6' LOWER THAN ADJACENT PROPERTY)

820 L.F. OF "C" LANDSCAPE BUFFER

100% CREDIT FOR EXISTING WOODLAND

**GLW GUTSCHICK LITTLE & WEBER, P.A.**  
CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS  
3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK  
BURTONSVILLE, MARYLAND 20868  
TEL: 301-421-4024 BALT: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186

DATE	REVISION	BY	APPR.
6-19-14	NEW SHEET COUNT	DTM	
7-12-10	ADJ. ST. WALKWAY ASPHALTE PAVING	FCC	
12-17-04	UTILITY RELOCATION & NEW ASPHALT & CONCRETE WALKS	FCC	

PREPARED FOR:  
**HOWARD COUNTY PUBLIC SCHOOL SYSTEM**  
10910 MARYLAND ROUTE 108  
ELICOTT CITY, MARYLAND 21042  
ATTN: CATHLEEN YOUNG

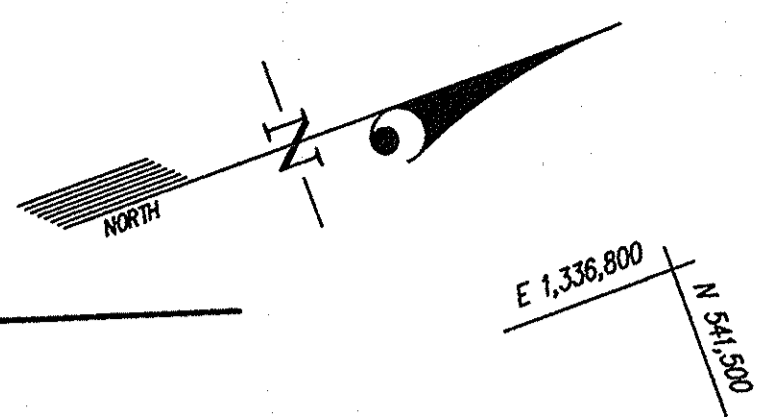
THOMAS CLARK ASSOC.  
2067 RIVA ROAD, SUITE 120  
ANNAPOLIS, MD 21401  
301-261-8700

LANDSCAPE EDGE ANALYSIS & FOREST CONSERVATION OVERVIEW  
**RESERVOIR HIGH SCHOOL (EASTERN HIGH SCHOOL No. 2)**  
PARCEL 115  
L. 3218 F. 618

CLARKSVILLE ELECTRON DISTRICT No. 5  
HOWARD COUNTY, MARYLAND

SCALE	ZONING	G. L. W. FILE No.
1"=100'	RR-MXD3	99091
DATE	TAX MAP - GRID	SHEET
5/05/2000	41/46	37 OF 27

SDP-00-86



MATCHLINE SEE SHEET 23

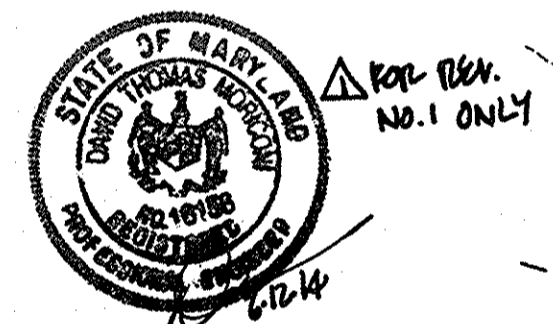
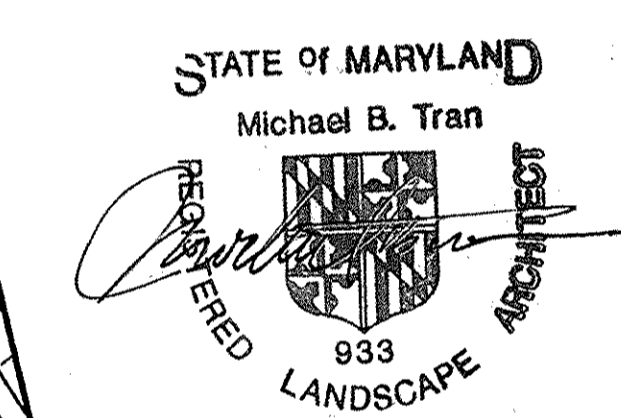
MATCHLINE SEE SHEET 22

MATCHLINE SEE SHEET 21

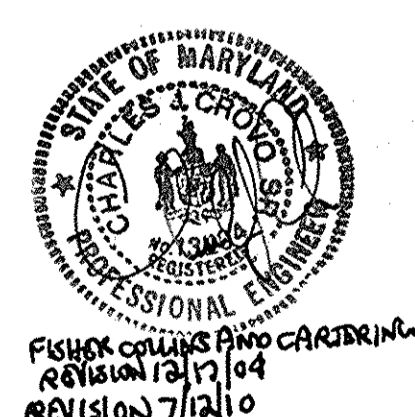
SCAGGSVILLE ROAD (Md. Route 216)

RESERVOIR HIGH SCHOOL  
(EASTERN HIGH SCHOOL No. 2)  
11550 SCAGGSVILLE ROAD  
F.F.E.-443.50

FOREST CONSERVATION  
AREA/EASEMENT No. 1  
68,433 S.F. OF PLANTING



Professional Certification: I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.  
License No. 16152 Registration Date: 8-22-14



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING  
Date: 7/14/10  
Date: 7/17/10  
Date: 7/23/10

**THIS PLAN IS FOR PLANTING PURPOSES ONLY**

**GLW GUTSCHICK LITTLE & WEBER, P.A.**  
CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS  
3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK  
BURTONSVILLE, MARYLAND 20886  
TEL: 301-421-4024 BALT: 410-580-1820 DC/VA: 301-989-2524 FAX: 301-421-4188  
CADD/DRAWINGS/99091/DESIGN/FCP/99091FC1

DATE	REVISION	BY	APPR.
6-12-10	AREA SHEET COUNT		
7-12-10	Add 5' wide walkway Asphaltic Paving		
8-27-09	Added ingress & egress to the parking lot		
12-17-09	Utility relocation & new asphalt & concrete walks		

PREPARED FOR:  
HOWARD COUNTY PUBLIC SCHOOL SYSTEM  
10810 MARYLAND ROUTE 108  
ELLCOTT CITY, MARYLAND 21042  
ATTN: CATHEEN YOUNG

LANDSCAPE & FOREST CONSERVATION PLANTING PLAN  
RESERVOIR HIGH SCHOOL  
(EASTERN HIGH SCHOOL No. 2)  
PARCEL 115  
L. 3218 F. 618  
HOWARD COUNTY, MARYLAND

SCALE	ZONING	G. L. W. FILE NO.
1"=50'	RR-MXD3	99091
DATE	TAX MAP - GRID	SHEET
5/05/2000	41/46	37
		20 OF 27

SDP-00-86

MATCHLINE SEE SHEET 22

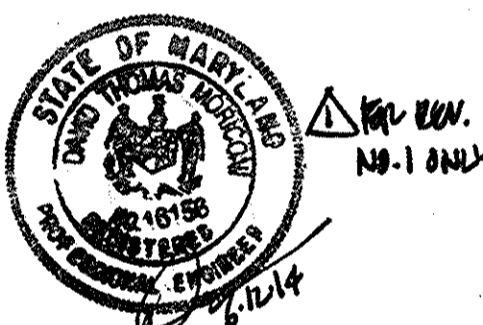
FOREST CONSERVATION AREA / EASEMENT No. 2

FOREST CONSERVATION AREA / EASEMENT No. 2

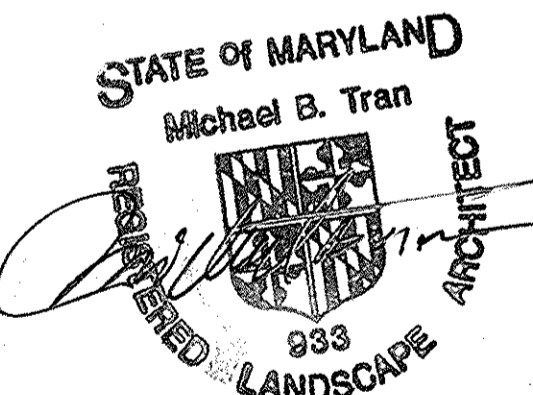
FOREST CONSERVATION AREA / EASEMENT No. 2

509,994 S.F. (TOTAL)  
243,419 S.F. OF PLANTING  
68,563 S.F. OF RETENTION OUTSIDE FLOODPLAIN  
188,012 S.F. OF RETENTION INSIDE FLOODPLAIN

**THIS PLAN IS FOR PLANTING PURPOSES ONLY**



Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.  
License No. 16152 Expiration Date: 8-28-14



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING  
Director: [Signature] Date: 7/10/00  
Chief, Division of Land Development: [Signature] Date: 7/7/00  
Chief, Development Engineering Division: [Signature] Date: 7/10/00

**GLW GUTSCHICK LITTLE & WEBER, P.A.**  
CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS  
3909 NATIONAL DRIVE - SUITE 250 - BURTNSVILLE OFFICE PARK  
BURTNSVILLE, MARYLAND 20868  
TEL: 301-421-4024 BAL: 410-880-1820 DC/VA: 301-899-2524 FAX: 301-421-4186

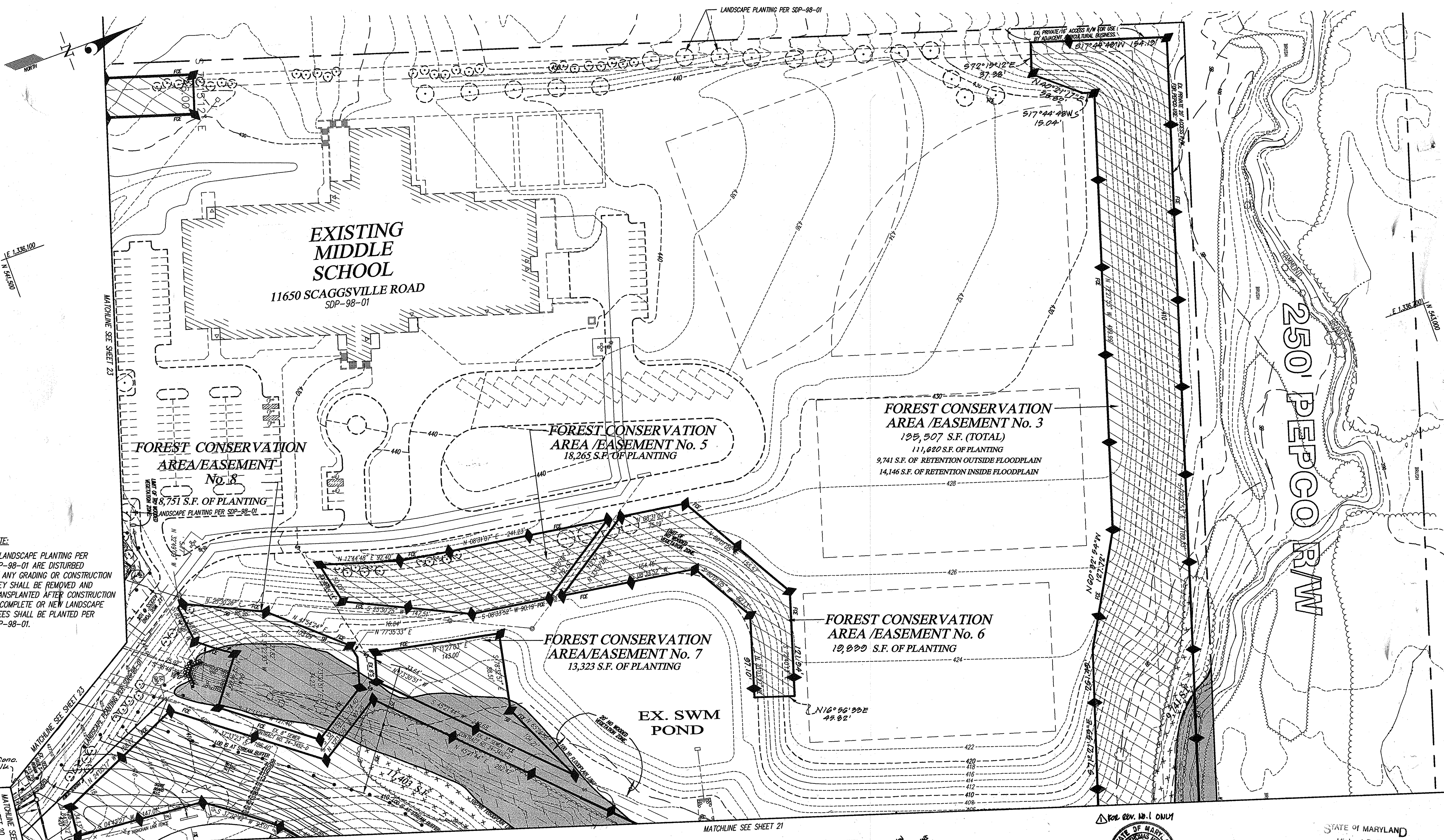
DATE	REVISION
6-12-14	NEW STREET COUNT
12-17-04	Utility relocation & new asphalt & concrete walks
5-12-04	Revised Forest Conservation Easement No. 2

PREPARED FOR:  
**HOWARD COUNTY PUBLIC SCHOOL SYSTEM**  
10910 MARYLAND ROUTE 108  
ELICOTT CITY, MARYLAND 21042  
ATTN: CATHLEEN YOUNG

LANDSCAPE & FOREST CONSERVATION PLANTING PLAN  
**RESERVOIR HIGH SCHOOL**  
(EASTERN HIGH SCHOOL No. 2)  
PARCEL 115  
L. 3218 F. 618  
CLARKSVILLE ELECTION DISTRICT No. 5

SCALE	ZONING	G. L. W. FILE No.
1"=50'	RR-MXD3	99091
DATE	TAX MAP - GRID	SHEET
5/05/2000	41/46	37 OF 47

SITE WORK BID  
22 March 00



**NOTE:**  
 IF LANDSCAPE PLANTING PER SDP-98-01 ARE DISTURBED BY ANY GRADING OR CONSTRUCTION THEY SHALL BE REMOVED AND TRANSPLANTED AFTER CONSTRUCTION IS COMPLETE OR NEW LANDSCAPE TREES SHALL BE PLANTED PER SDP-98-01.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING  
 [Signature] 7/6/00  
 [Signature] 7/7/00  
 [Signature] 7/8/00

**THIS PLAN IS FOR PLANTING PURPOSES ONLY**

STATE OF MARYLAND PROFESSIONAL ENGINEER  
 STATE OF MARYLAND PROFESSIONAL ENGINEER  
 STATE OF MARYLAND PROFESSIONAL ENGINEER

STATE OF MARYLAND  
 Michael B. Tran  
 933 LANDSCAPE ARCHITECT

**GLW GUTSCHICK LITTLE & WEBER, P.A.**  
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS  
 3909 NATIONAL DRIVE - SUITE 250 - BERTHLEMSVILLE OFFICE PARK  
 BERTHLEMSVILLE, MARYLAND 20886  
 TEL: 301-421-4024 BALT: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186

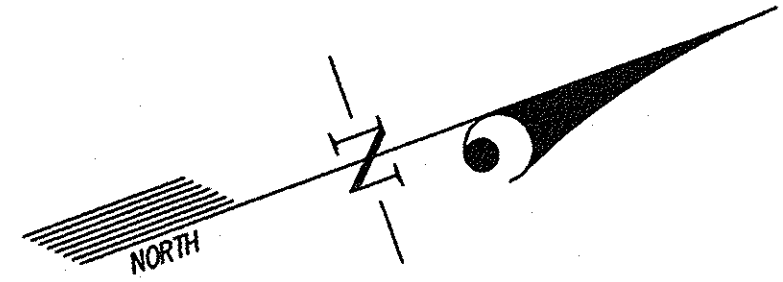
DATE	REVISION	BY	APP'R.
6-12-14	ADD SHEET COUNT	BTM	
12-17-04	Utility relocation & new asphalt & concrete walks	F.C.C.	
5-19-04	Revised Forest Conservation Easements No. 2 & 6	F.C.C.	

PREPARED FOR:  
**HOWARD COUNTY PUBLIC SCHOOL SYSTEM**  
 10910 MARYLAND ROUTE 108  
 ELLICOTT CITY, MARYLAND 21042  
 ATTN: CATHLEEN YOUNG

LANDSCAPE & FOREST CONSERVATION PLANTING PLAN  
**RESERVOIR HIGH SCHOOL**  
 (EASTERN HIGH SCHOOL No. 2)  
 PARCEL 115  
 L. 3218 F. 618  
 CLARKSVILLE ELECTION DISTRICT No. 5

SCALE	ZONING	G. L. W. FILE No.
1"=50'	RR-MXD3	99091
DATE	TAX MAP - GRID	SHEET
5/05/2000	41/46	27

SITE WORK BID  
 22 March 00



**FOREST CONSERVATION  
AREA /EASEMENT No. 11**  
4,384 S.F. OF PLANTING

**FOREST CONSERVATION  
AREA /EASEMENT No. 4**  
56,758 S.F. OF PLANTING (TOTAL)

**FOREST CONSERVATION  
AREA /EASEMENT No. 12**  
77,296 S.F. OF PLANTING

**FOREST CONSERVATION  
AREA /EASEMENT No. 10**  
37,730 S.F. OF PLANTING

**EXISTING  
ELEMENTARY  
SCHOOL**  
11600 SCAGGSVILLE ROAD  
(SDP-95-118)

**SWM POND**  
(SEE SHEET 24 FOR POND PLANTING)

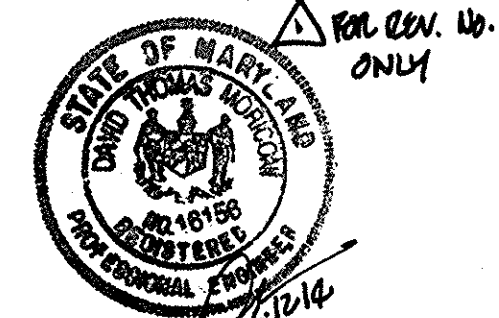
**EX. SWM  
POND**

**FOREST CONSERVATION  
AREA /EASEMENT No. 9**  
10,246 S.F. OF PLANTING

**NOTE:**  
IF LANDSCAPE PLANTING PER  
SDP-98-01 ARE DISTURBED  
BY ANY GRADING OR CONSTRUCTION  
THEY SHALL BE REMOVED AND  
TRANSPLANTED AFTER CONSTRUCTION  
IS COMPLETE OR NEW LANDSCAPE  
TREES SHALL BE PLANTED PER  
SDP-98-01.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING  
 Director: *[Signature]* Date: 7/10/00  
 Chief, Division of Land Development: *[Signature]* Date: 7/10/00  
 Chief, Development Engineering Division: *[Signature]* Date: 7/10/00

**THIS PLAN IS FOR PLANTING PURPOSES ONLY**



Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.  
 License No. 16126, Expiration Date: 8/28/14



STATE OF MARYLAND  
 Michael B. Tran  
 REGISTERED ARCHITECT  
 933  
 LANDSCAPE ARCHITECT

SITE WORK BID  
 22 March 00

**GLW GUTSCHICK LITTLE & WEBER, P.A.**  
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS  
 3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK  
 BURTONSVILLE, MARYLAND 20866  
 TEL: 301-421-4024 BAL: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4188

DATE	REVISION	BY	APP'R.
6-12-14	NEW SUBMIT COUNT	DTM	APP'R.

PREPARED FOR:  
**HOWARD COUNTY PUBLIC SCHOOL SYSTEM**  
 10910 MARYLAND ROUTE 108  
 ELLICOTT CITY, MARYLAND 21042  
 ATTN: CATHLEEN YOUNG

**THOMAS CLARK ASSOC.**  
 2661 RIVA ROAD, SUITE 120  
 ANNAPOLIS, MD 21401  
 301-261-8700

**LANDSCAPE & FOREST CONSERVATION PLANTING PLAN**

**REVISIONED SITE DEVELOPMENT PLAN**

**RESERVOIR HIGH SCHOOL**  
 (EASTERN HIGH SCHOOL No.2)  
 PARCEL 115  
 L. 3218 F. 618

CLARKSVILLE ELECTION DISTRICT No. 5

SCALE	ZONING	G. L. W. FILE No.
1"=50'	RR-MXD3	99091
DATE	TAX MAP - GRID	SHEET
5/05/2000	41/46	37 OF 27

SDP-00-86

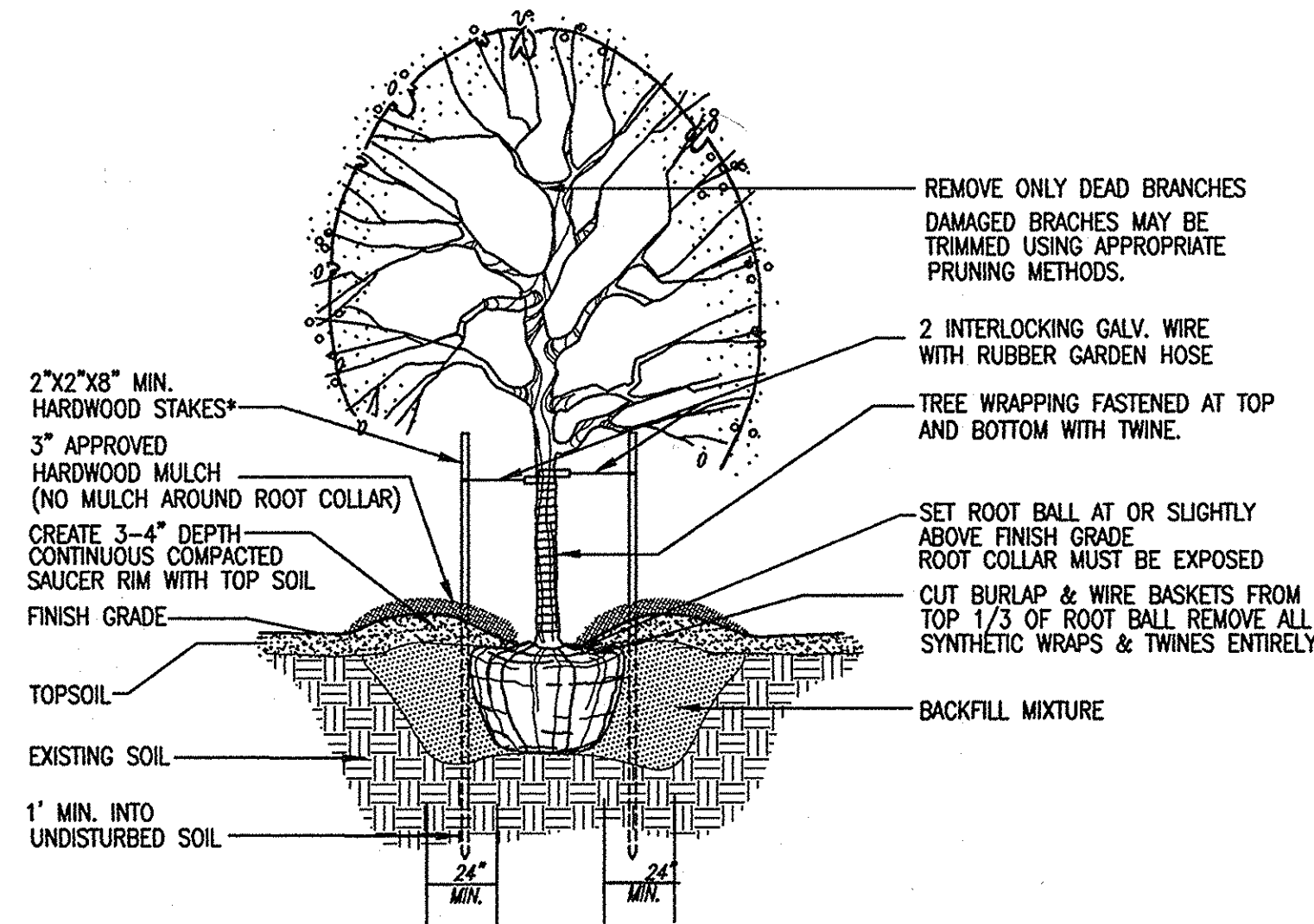
SCHEDULE A PERIMETER LANDSCAPE EDGE		
CATEGORY	ADJACENT TO ROUTE 216	ADJACENT TO PERIMETER PROPERTIES
LANDSCAPE TYPE	E'	C'
LINEAR FEET OF ROADWAY FRONTAGE/PERIMETER	410	2,560
CREDIT FOR EXISTING VEGETATION (YES, NO, LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	NO	NO
CREDIT FOR WALL, FENCE OR BERM (YES, NO, LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	YES 3' HIGH BERM (MIN), 330 L.F.	YES 1740 L.F. WHERE SITE IS AT LEAST 6' LOWER THAN ADJACENT PROPERTY.
NUMBER OF PLANTS REQUIRED	410 @ 1:40 = 10 0 80 @ 1:4 = 20	2,560 @ 1:40 = 64 820 @ 1:20 = 41 0
NUMBER OF PLANTS PROVIDED	OVER 10 SHADE TREES N/A N/A 20 SHRUBS	OVER 64 SHADE TREES OVER 41 EVERGREEN TREES N/A N/A

SCHEDULE B PARKING LOT INTERNAL LANDSCAPING	
NUMBER OF PARKING SPACES	591 CAR SPACES
NUMBER OF TREES REQUIRED @ 1:20	30
NUMBER OF TREES PROVIDED	OVER 30 SHADE TREES

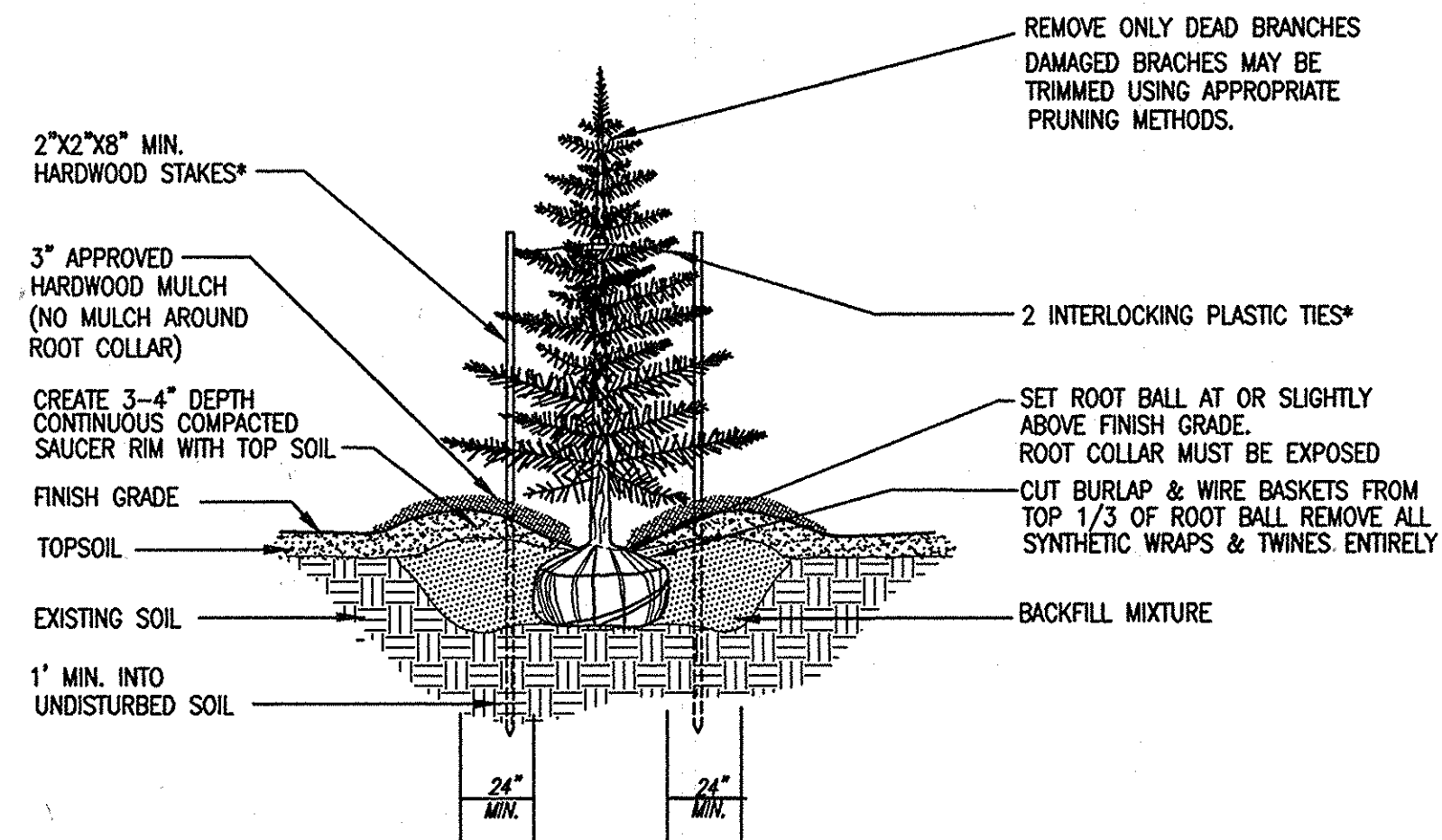
PLANT LIST						
KEY	SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE & CONDITION	REMARKS	QUANTITY
AR	⊙	ACER RUBRUM 'OCTOBER GLORY'	OCTOBER GLORY MAPLE	3"-3 1/2" CAL. B&B	30' O.C. U.O.N.	17
ARa	⊙	ACER RUBRUM 'OCTOBER GLORY'	OCTOBER GLORY MAPLE	2 1/2"-3" CAL. B&B	30' O.C. U.O.N.	35
QP	⊕	QUERCUS PALUSTRIS	PIN OAK	3"-3 1/2" CAL. B&B	MIN. 25' O.C.	58
QPa	⊕	QUERCUS PALUSTRIS	PIN OAK	2 1/2"-3" CAL. B&B	MIN. 25' O.C.	48
QPH	⊕	QUERCUS PHELLOS	WILLOW OAK	3 1/2"-4" CAL. B&B	MIN. 25' O.C.	8
ZS	⊗	ZELKOVA SERRATA 'VILLAGE GREEN'	VILLAGE GREEN ZELKOVA	2 1/2"-3" CAL. B&B	MIN. 25' O.C.	8
CV	⊕	CRATAEGUS VIRIDUS 'WINTER KING'	WINTER KING HAWTHORN	1"-1 1/2" CAL. B&B	MATCHED IN GROUPS	11
MZ	⊕	MALUS ZUMI 'CALOCARPA'	ZUMI CRABAPPLE	1"-1 1/2" CAL. B&B	MATCHED IN GROUPS	24
PC	⊕	PRUNUS CERASIFERA 'THUNDERCLOUD'	PURPLELEAF FLOWERING PLUM	1"-1 1/2" CAL. B&B	MATCHED IN GROUPS	22
PS	⊕	PINUS STROBUS	WHITE PINE	6"-8" B&B	SPACED AS INDICATED	56
CE	○	ALATUS COMPACTUS	DWARF-WINGED EUONYMUS	30"-36" B&B	AT 3'-0" O.C.	28
EP	○	EUONYMUS PATENS PAULI	PAULI EUONYMUS	30"-36" CONT.	AT 3'-0" O.C.	98
JA	○	JUNIPERUS ANDORRA	ANDORRA JUNIPER	18"-24" CONT.	AT 4'-6" O.C.	22
JS	○	JUNIPERUS CHINENSIS 'SARGENTI'	SARGENT'S JUNIPER	18"-24" CONT.	AT 4'-6" O.C.	40
TM	○	TAXUS MEDIA 'DENSIFORMIS'	DENSIFORMIS YEW	30"-36" B&B	AT 4'-0" O.C.	56

⊙ ⊕ INDICATES EXISTING TREE(S) TO REMAIN  
U.O.N. = UNLESS OTHERWISE NOTED.  
\* INDICATES LOCATIONS WHERE CONTRACTOR MUST HAND DIG FOR NEW TREES AND SHRUBS AFTER VERIFYING LOCATIONS OF UTILITIES.

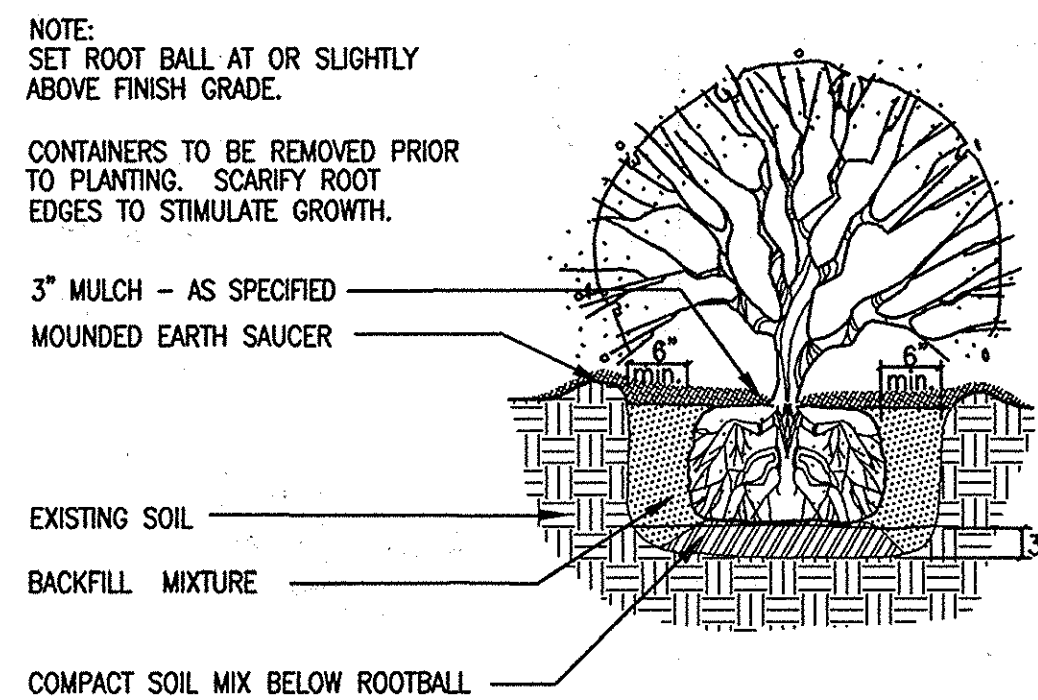
NOTE: This plant list covers only the individual "landscape" plants shown on sheets 20-23. Also see sheet #25 for the "Forest Conservation Plant List".



DECIDUOUS TREE PLANTING DETAIL  
FOR PLANTING MATERIAL UP TO 3 1/2" CALIPER NTS



EVERGREEN TREE PLANTING DETAIL NTS



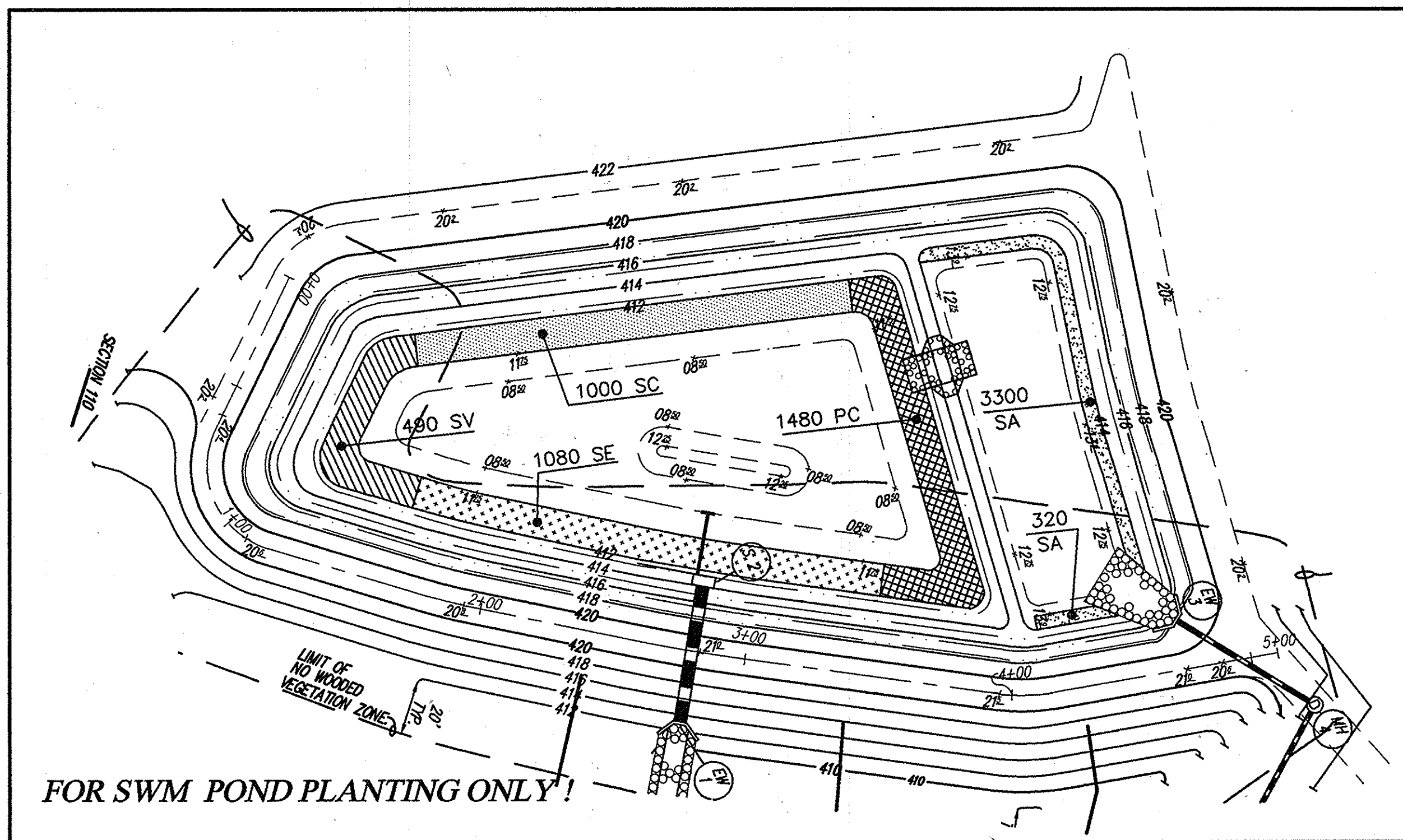
SHRUB PLANTING DETAIL NTS

- LANDSCAPING NOTES
- This plan has been prepared in accordance with Section 16.124 of the Howard County Code and Chapter VI of the Howard County Landscape Manual.
  - Contractor shall notify all utilities at least (5) five days before starting work. All General Notes, especially those regarding utilities, on Sheet 1 shall apply.
  - Field verify underground utility locations and existing conditions before starting planting work. Contact construction manager if any relocations are required.
  - Plant quantities shown on Plant List are provided for the convenience of the contractor only. If discrepancies exist between quantities shown on the plan and those shown on the plant list, the quantities on the plan shall take precedence.
  - All plant material shall be full, heavy, well formed, and symmetrical, and conform to the A.A.N. Specifications, and be installed in accordance with project specifications.
  - No substitution shall be made without written consent of the owner or his representative.
  - All areas disturbed by construction activities but not otherwise planted, sodded, paved, or mulched shall be seeded in accordance with project specifications.
  - The contractor shall notify the owner in writing if he/she encounters soil drainage conditions which may be detrimental to the growth of the plants.
  - All exposed earth within limits of planting beds shall be mulched with shredded hardwood mulch per Planting Details.

- SWM POND PLANTING NOTES
- Upon conversion of sediment control pond to stormwater management pond, the contractor shall remove any stones, debris, or construction material larger than two inches (2") in any dimension. The ponds shall be flooded and left undisturbed for a period of 10 days prior to planting.
  - One ounce of 18-6-25 slow release fertilizer shall be incorporated into the soil for each plant at the time of planting.
  - Soil shall be saturated with water during and after planting, or the planting area may be completely flooded at this time (wet planting). Planting soil shall be firmly pressed around each to prevent flotation.
  - The source of all aquatic and emergent plants shall be approved by the owner or landscape architect prior to ordering. These plants shall be grown in pots (container specified) or nursery growing beds (bare root specified) for a minimum of 12 months prior to installation and shall have been wet cultivated during the entire period.
  - All plant material shall be guaranteed for a period of one year after substantial completion. Plants which have greater than 33% dieback or have not grown so as to emerge from the water surface shall be replaced at the next planting season.
  - Remove litter and debris as required during the first growing season and at the beginning of the second growing season.

KEY	QTY	NAME (COMMON/BOTANICAL)	REMARKS
PC	1,480	Pickeral Weed/ Ponderia cordata	Bare Root @ 18" O.C.±
SC	1000	Lizards Tail/ Saururus cernuus	Bare Root @ 18" O.C.±
SE	1,080	Giant Bur-reed/ Sparganium eurycarpum	Bare Root @ 18" O.C.±
SV	490	Soft Stem Bullrush/ Scirpus validus	Bare Root @ 18" O.C.±
SA	3,620	Smooth Cordgrass/ Spartina alterniflora	Peat pot @ 6" O.C.±

SWM POND PLANT LIST			
KEY	QTY	NAME (COMMON/BOTANICAL)	REMARKS
PC	1,480	Pickeral Weed/ Ponderia cordata	Bare Root @ 18" O.C.±
SC	1000	Lizards Tail/ Saururus cernuus	Bare Root @ 18" O.C.±
SE	1,080	Giant Bur-reed/ Sparganium eurycarpum	Bare Root @ 18" O.C.±
SV	490	Soft Stem Bullrush/ Scirpus validus	Bare Root @ 18" O.C.±
SA	3,620	Smooth Cordgrass/ Spartina alterniflora	Peat pot @ 6" O.C.±



STATE OF MARYLAND  
Michael B. Tran  
REGISTERED ARCHITECT  
933 LANDSCAPE ARCHITECT

STATE OF MARYLAND  
PROFESSIONAL ENGINEER  
LICENSE NO. 16156  
EXPIRES 8-28-14

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING  
Director: [Signature] 7/10/00  
Chief, Division of Land Development: [Signature] 7/7/00  
Chief, Development Engineering Division: [Signature] 7/2/00

Professional Certification: I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.  
License No. 16156, Expiration Date: 8-28-14

GLW GUTSCHICK LITTLE & WEBER, P.A.  
CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS  
3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK  
BURTONSVILLE, MARYLAND 20866  
TEL: 301-421-4024 BAL: 410-880-1820 DC/WA: 301-989-2524 FAX: 301-421-4186

DATE	REVISION	BY	APPR.
6-12-14	NEW SHEET COUNT	DTM	

PREPARED FOR:  
HOWARD COUNTY PUBLIC SCHOOL SYSTEM  
10910 MARYLAND ROUTE 108  
ELLCOTT CITY, MARYLAND 21042  
ATTN: CATHLEEN YOUNG

THOMAS CLARK ASSOC.  
2661 RIVA ROAD, SUITE 120  
ANNAPOLIS, MD 21401  
301-261-8700

PLANTING NOTES, SCHEDULES & DETAILS  
REVISED SITE DEVELOPMENT PLAN  
RESERVOIR HIGH SCHOOL  
(EASTERN HIGH SCHOOL No. 2)  
PARCEL 115  
L. 3218 F. 618  
CLARKSVILLE ELECTION DISTRICT No. 5

SCALE	ZONING	G. L. W. FILE No.
AS SHOWN	RR-MXD3	99091
DATE	TAX MAP - GRID	SHEET
5/05/2000	41/46	37 24 OF 27



**GENERAL NOTES**

- This reforestation plan is provided in accordance with the requirements of Subtitle 12 "Forest Conservation" of the Howard County Code
- Implementation of this plan must be performed by a contractor that is knowledgeable and experienced in afforestation/reforestation techniques and practices.
- The owner is responsible for a 2-year (min.) post-construction maintenance period which involves activities necessary to ensure survival and growth of the conservation area.  
Two inspection per year by a qualified professional at beginning and end of the growing season, are recommended in order to take remedial steps as necessary. If, after one year, the possibility exists that the original planting will not meet survival rate standards, the applicant may choose to establish reinforcement plantings.
- The survival rate for any forest planting areas shall be a minimum of 100 trees per acre or at least 75% of the total number of trees planted per acre (whichever is greater).
- At the end of the post-construction management and protection period, certification by a qualified consultant will be required before to the owner can be released from his/her forest conservation obligation to the administrator of the Howard County Forest Conservation program.
- To minimize soil erosion, all reforestation planting areas shall be in a stabilized condition (see Sediment Control Plan).
- The contractor is responsible for the location of any existing utilities. The repair of any utilities damaged by the contractor shall be at the contractor's expense.

**CONSTRUCTION PERIOD PROTECTION PROGRAM**

- The limit of forest retention and forest planting shall be staked and flagged.
- A pre-construction meeting at the site should be held to confirm the limits of clearing specified. The meeting should include the owner or the owner's representative, the on-site foreman in charge of land disturbance, the environmental consultant and the appropriate Howard County inspectors.
- Forest protection devices and signs (see details) shall be installed prior to any clearing or grading. The protection devices and signs shall be maintained during the entire construction period. None of the devices shall be anchored or attached in any way to the trees to be saved.
- Equipment, vehicles and building materials shall not be within the protected area. Activities strictly to implement any reforestation planting and maintenance (i.e. watering, fertilizing, thinning, pruning, removal of dead and diseased trees where necessary, etc.) of the conservation area are permitted. Clearing for the purpose of sodding or planting grass is not permitted within the forest conservation area once it's established.
- At the end of the construction period, the designated qualified professional shall convey to the administrator of the Howard County Forest Conservation Program certification that all forest retention areas have been preserved, all reforestation and/or afforestation plantings have been installed as required by the forest conservation plan, and that all protection measures required for the post-construction period have been installed.

Upon review of the final certification document for completeness and accuracy, the program coordinator will notify the owner of release from the construction period obligations. The 2-year (min.) post-construction management and protection period then commences.

**FOREST CONSERVATION PROGRAM SEQUENCE**

- OBTAIN ALL NECESSARY PERMITS.
- STAKEOUT LIMITS OF DISTURBANCE AND THE FOREST PLANTING AREAS FOR CONSERVATION AREA Nos. 3-13. INITIATE FOREST PLANTING AND INSTALL FOREST CONSERVATION SIGNAGE ALONG THE PERIMETER OF CONSERVATION AREA (EASEMENT) Nos. 1-13.
- FIELD MEETING TO REVIEW AND VERIFY LIMIT OF DISTURBANCE FOR THE HIGH SCHOOL SITE GRADING AND CONSTRUCTION.
- INSTALL FOREST CONSERVATION SIGNS AND FOREST PROTECTION DEVICES (FENCES) ALONG THE LIMIT OF CLEARING/RETENTION PER THE "SEDIMENT CONTROL PLAN."
- GRADE AREA FOR HIGH SCHOOL CONSTRUCTION AND COMMENCE CONSTRUCTION.
- INSTALL FOREST PLANTING AND SIGNAGE FOR CONSERVATION AREA Nos. 1&2.
- INSPECTION AND CERTIFICATION FOR THE RELEASE OF THE CONSTRUCTION PERIOD OBLIGATIONS; START OF POST-CONSTRUCTION MANAGEMENT PERIOD.
- POST-CONSTRUCTION MANAGEMENT FOR A PERIOD OF 2 YEARS (MIN.).
- FINAL INSPECTION AND CERTIFICATION FOR THE RELEASE OF THE OWNER'S FOREST CONSERVATION OBLIGATION.

**FOREST CONSERVATION WORKSHEET**

	ACRES (1/10 acres)
<b>I. BASIC SITE DATA</b>	
GROSS SITE AREA	99.83
AREA WITHIN 100 YEAR FLOODPLAIN	7.99
AREA OF THE EXISTING PRIVATE 20' ACCESS RIGHT OF WAY FOR PEPSCO'S USE OUTSIDE OF THE 100-YEAR FLOODPLAIN	0.34
NET TRACT AREA	91.49
LAND USE CATEGORY:	INSTITUTIONAL
<b>II. INFORMATION FOR CALCULATIONS</b>	
A. NET TRACT AREA	91.49
B. REFORESTATION THRESHOLD (20% X A)	18.30
C. AFFORESTATION MINIMUM (15% X A)	13.72
<b>III. AFFORESTATION CALCULATIONS</b>	
A. NET TRACT AREA	91.49
B. AFFORESTATION MINIMUM (15% X A)	13.72
C. EXISTING FOREST ON NET TRACT AREA	4.38
D. FOREST AREA ON NET TRACT TO BE CLEARED	2.58
E. FOREST AREA TO BE RETAINED	1.80
<b>IV. REQUIRED FOREST PLANTING</b>	
A. AFFORESTATION TO MEET 15% MINIMUM THRESHOLD (III B - III C)	9.34
B. REFORESTATION FOR CLEARING BELOW THRESHOLD (III D X 2)	5.16
C. REQUIRED FOREST PLANTING FROM SDP-98-85 & SDP-95-55	5.20**
D. TOTAL FOREST PLANTING REQUIRED	19.70
E. TOTAL CONSERVATION AREA REQUIRED (III E + IV D)	21.50
<b>V. PROPOSED METHOD OF SATISFYING FOREST CONSERVATION OBLIGATIONS</b>	
RETENTION OF EXISTING FOREST ON NET TRACT	1.80
ON-SITE FOREST PLANTING	19.84
OFF-SITE FOREST PLANTING AT ELLICOTT MILLS MIDDLE SCHOOL	2.70
OFF-Site Forest Planting at Northeastern Elementary School No. 4	1.16

\*\* The development of the public school site in Ilchester (to build the Ilchester E.S. facility under SDP-95-55, the Bonnie Branch M.S. facility under SDP-98-85, and the subsequent expansion of the same elementary) generated 5.2 acres of forest conservation obligation that could not be met by on-site forest planting at the Ilchester site; therefore, off-site forest planting is required. The Ellicott Mills Middle School (EMMS) site and the Fulton campus have been selected for the 2.7 acres of off-site forest planting. A copy of the "Forest Conservation Worksheet" for the Ilchester public schools is shown on sheet 26, which also shows the area of the forest conservation planting (FC Area/Easement No. 13) at EMMS. The Northeastern Elementary School No. 4 (SDP 02-94) has been selected for the 1.16 acres of off-site planting due to the Cedar Lane program of the Fulton Campus (SDP 04-118) reducing the area of Forest Conservation Easement 13 to 1.6.

**TREE PLANTING AND MAINTENANCE CALENDAR**

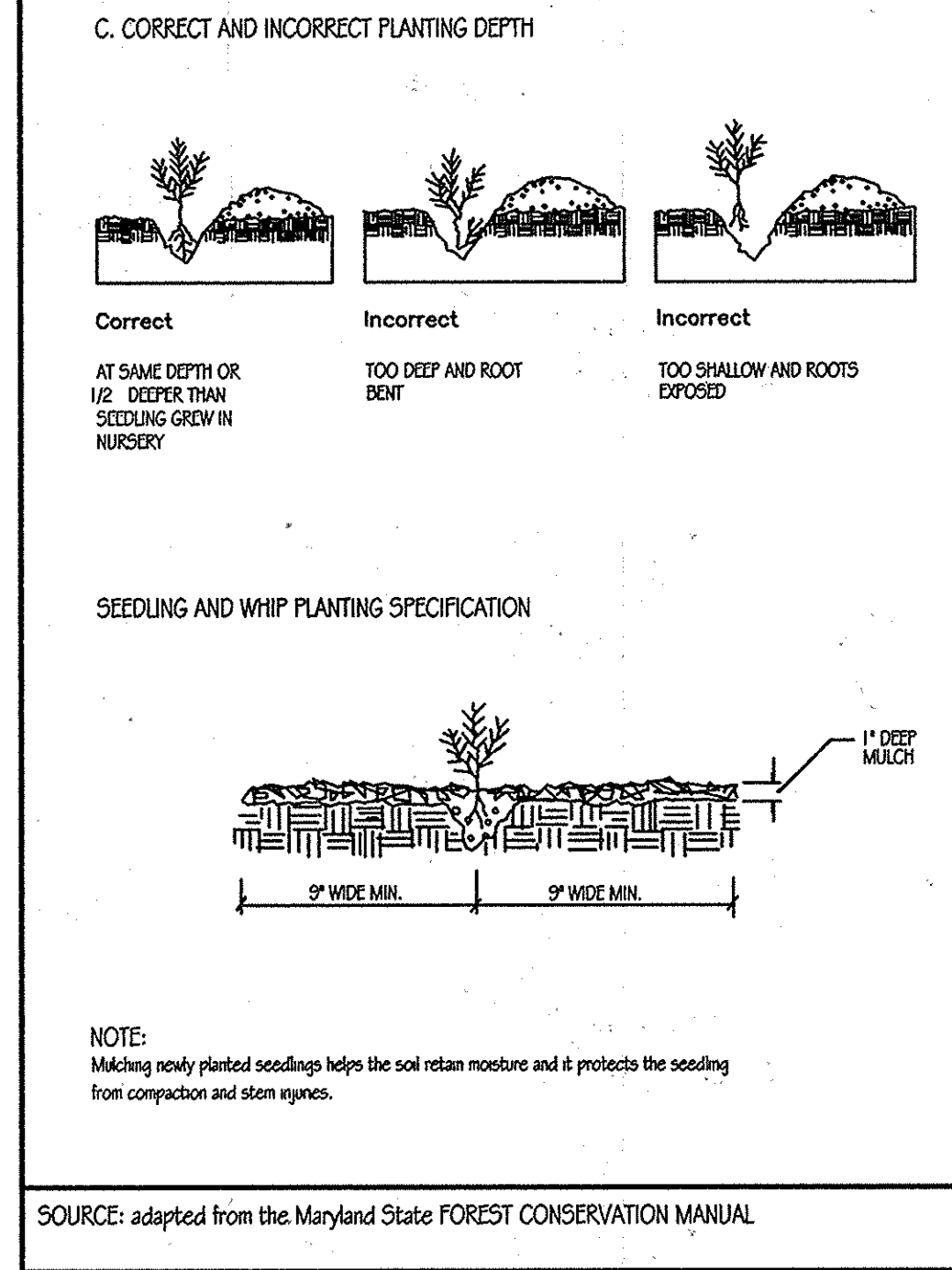
TASKS	MONTHS											
	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
TRANSPLANT OF 2" DBH OR GREATER												
PLANTING SEEDLINGS, WHIPS												
MINIMUM MONITORING		*				*					*	
FERTILIZER + (IF NEEDED)												
WATER ++												
PRUNING												

**KEY**  
 \* ACTIVITIES DURING THESE MONTHS ARE DEPENDANT UPON GROUND CONDITIONS  
 ■ GREATLY RECOMMENDED  
 ▨ RECOMMENDED WITH ADDITIONAL CARE  
 □ RECOMMENDED  
 + DEPENDANT UPON SITE CONDITIONS  
 ++ DEPENDANT UPON SITE CONDITIONS; WEEKLY WATERING IS GREATLY RECOMMENDED FROM MAY THROUGH OCTOBER UNLESS WEEKLY RAINFALL EQUALS 1"

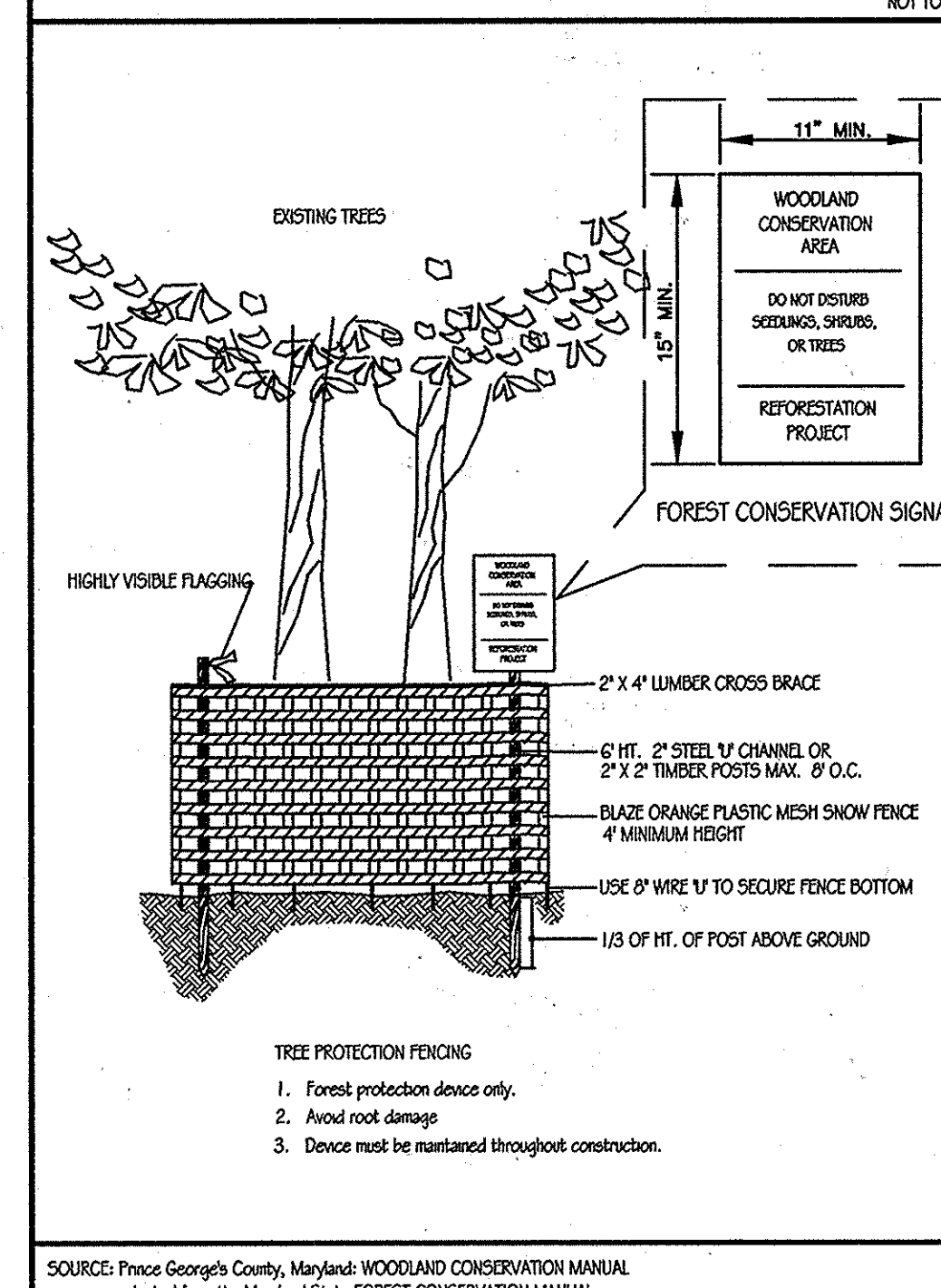
**NOTE:**  
 The planting and care of trees is most successful when coordinated with the local climatic conditions. This calendar summarizes some of the recommended time frames for basic reforestation and stress reduction activities.

SOURCE: adapted from the Maryland State FOREST CONSERVATION MANUAL

**HANDLING AND PLANTING OF SEEDLING(4)**



**TREE PROTECTION FENCE**



- NOTES:**
- THE TREE PROTECTION FENCING SHOWN ON THESE PLANS IS TEMPORARY AND SHALL REMAIN IN PLACE DURING CONSTRUCTION ACTIVITY, BUT THE FOREST CONSERVATION SIGNAGE IS PERMANENT AND SHALL REMAIN IN PLACE AROUND THE FOREST CONSERVATION EASEMENTS AFTER THE REMOVAL OF THE TREE PROTECTION FENCING.
  - FOREST CONSERVATION SIGNAGE SHALL BE INSTALL ALONG THE PERIMETER OF THE CONSERVATION EASEMENT AT 50' TO 100' APART AND AT ALL CORNERS WHERE THE EASEMENT CHANGES DIRECTION.
  - ATTACHMENT OF SIGNS TO TREES IS PROHIBITED.

FOREST CONSERVATION AREA TABULATION														
CONSERVATION AREA NUMBER	1	2	3	4	5	6	7	8	9	10	11	12	13	
FOREST RETENTION AREA INSIDE THE 100-YR FLOODPLAIN	NA	188,012	14,146	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
FOREST RETENTION AREA OUTSIDE THE 100-YR FLOODPLAIN	NA	68,563	9,741	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
FOREST PLANTING AREA OUTSIDE THE 100-YR FLOODPLAIN	68,435	250,167	158,100	51,169	18,285	22,888	8,575	7,310	5,976	37,730	4,222	29,690	117,424	
FOREST PLANTING AREA INSIDE THE 100-YR FLOODPLAIN	NA	3,252	NA	5,589	NA	NA	4,748	11,441	4,270	NA	162	47,606	NA	
TOTAL AREA IN CONSERVATION EASEMENT	68,435 (1.57 AC.)	509,994 (11.71 AC.)	182,887 (4.20 AC.)	56,759 (1.29 AC.)	18,285 (0.42 AC.)	22,888 (0.53 AC.)	13,323 (0.31 AC.)	18,751 (0.43 AC.)	10,246 (0.24 AC.)	37,730 (0.87 AC.)	4,384 (0.10 AC.)	77,296 (1.77 AC.)	117,424 (2.7 AC.)	
<b>NOTE: VALUES SHOWN ARE IN SQUARE FT WITH THE EQUIVALENT ACREAGE IN PARENTHESIS. FOREST CONSERVATION AREA (EASEMENT) Nos. 13 IS OFF-SITE AT ELLICOTT MILLS M.S. (SEE SHEET 26).</b>													858,019 S.F. (19.70 AC.)	TOTAL FOREST PLANTING

FOREST CONSERVATION PLANTING QUANTITY SCHEDULE													
FOREST CONSERVATION LOCATION NO.	1	2	3	4	5	6	7	8	9	10	11	12	13
AREA TO BE PLANTED (IN AC.)	1.57	5.82	2.56	1.30	0.42	0.46	0.31	0.43	0.24	0.87	0.10	1.77	2.70
BASE QUANTITY OF 2" CAL. TREES REQUIRED (AT 100 TREES/AC.)	157	582	256	130	42	46	31	43	24	87	10	177	270
CREDIT FOR LANDSCAPE TREES	28	65	5	13	13	2	0	1	0	14	0	0	35
REQUIRED QUANTITY OF 2" CAL. TREES TO BE PLANTED*	129	517	251	117	29	44	31	42	24	73	10	177	235

\*ALTERNATE PLANTING DENSITY. THE REQUIRED QUANTITY TO BE PLANTED SHALL BE INCREASED BY A FACTOR OF:  
 A. 2x FOR PLANTING WITH 1" CAL. TREES  
 B. 7x FOR PLANTING WITH SEEDLINGS

PLANT NAME (BOTANICAL/COMMON)	FOREST CONSERVATION AREA													COMMENTS	
	1	2	3	4	5	6	7	8	9	10	11	12	13		
ACER NEGUNDO/BOX ELDER			25	2									18		C,F
ACER RUBRUM/RED MAPLE		67		2			8	9	12	15	10	18			B,E,F
CERCIS CANADENSIS/EASTERN REDBUD	12			27										58	A,E
FRAXINUS PENNSYLVANICA/GREEN ASH			65	2			8	9	12	15		18			B,E,F
LIRIODENDRON TULIPIFERA/TULIP TREE	39	128	31	26	10	15					15		22	58	A,D,E
PLATANUS OCCIDENTALIS/AMERICAN SYCAMORE (PLANETREE)				2			7	7					18		B,E,F
QUERCUS ALBA/WHITE OAK	SEE COMMENT 'G'													A,D	
QUERCUS PALUSTRIS/PIN OAK	39	128	65	26	9	15					14		23	59	A,D,E
QUERCUS RUBRUM/RED OAK	39	127	65	26	10	10					14		24	60	A,D,E,G
QUERCUS BICOLOR/SWAMP WHITE OAK		67		2			8	8					18		B,E
SALIX NIGRA/BLACK WILLOW			25	2					9				18		C,F

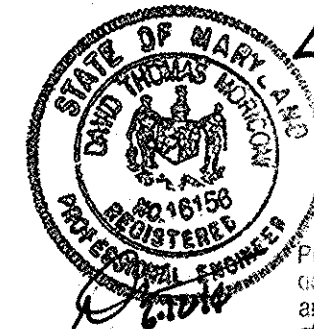
- COMMENTS:**
- DO NOT PLANT THESE SPECIES WITHIN THE 100-YEAR FLOODPLAIN OR THE DEPRESSION INDICATED BY THE "392" CONTOUR WITHIN FOREST CONSERVATION AREA No. 3.
  - DO NOT PLANT THESE SPECIES WITHIN THE DEPRESSION INDICATED BY THE "392" CONTOUR WITHIN FOREST CONSERVATION AREA No. 3.
  - THE DEPRESSION INDICATED BY THE "392" CONTOUR WITHIN FOREST CONSERVATION AREA No. 3 SHALL BE PLANTED WITH AN EQUAL MIX OF THESE SPECIES.
  - PLANT FROM THE MID TO UPPER PORTION OF THE SLOPE WITHIN EACH CONSERVATION AREA.
  - PLANT FROM THE MID TO BOTTOM PORTION OF THE SLOPE WITHIN EACH CONSERVATION AREA. AT FOREST CONSERVATION AREA No. 13, PLANT MOSTLY ALONG THE PERIMETER.
  - MAJORITY TO BE PLANTED WITHIN THE 100-YEAR FLOODPLAIN.
  - FIFTY PERCENT (50%) OF THE RED OAKS SHALL BE SUBSTITUTED WITH WHITE OAKS IF SEEDLINGS ARE USED.

- NOTES:**
- THE QUANTITY SHOWN ABOVE IS FOR PLANTING WITH 2" CAL. TREES AT 20' X 20' SPACING. FOR PLANTING WITH 1" CAL. TREES OR WITH SEEDLINGS, THE ABOVE SHALL BE INCREASED BY THE FOLLOWING FACTOR.
    - 2x FOR 1" CAL. TREES AT 15' X 15' SPACING.
    - 7x FOR SEEDLINGS AT 8' X 8' SPACING.
  - ALL 1" AND 2" CAL. TREES SHALL BE B&B OR CONTAINER GROWN.
  - ALL SEEDLINGS SHALL BE 1-YEAR OR OLDER, 1/4" TO 1/2" CAL. AND WITH ROOTS NO LESS THAN 8" LONG OR IN CONTAINERS.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING  
 Director: [Signature] Date: 7/10/00  
 Chief, Division of Land Development: [Signature] Date: 7/10/00  
 Chief, Development Engineering Division: [Signature] Date: 7/10/00



REVISION 5/13/04  
 REVISION 5/13/04  
 REVISION 5/13/04



Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.  
 License No. 16151 Expiration Date: 8-14-00

**GLW GUTSCHICK LITTLE & WEBER, P.A.**

CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS  
 3909 NATIONAL DRIVE - SUITE 250 - BURTONTVILLE OFFICE PARK  
 BURTONTVILLE, MARYLAND 20886  
 TEL: 301-421-4024 BALT: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186

DATE: 6-12-04  
 REVISION: Revised Forest Conservation Easements No. 2 & 6

DESIGNER: [Signature] BY: [Signature]  
 CHECKER: [Signature] APPR: [Signature]

PREPARED FOR:  
 HOWARD COUNTY PUBLIC SCHOOL SYSTEM  
 10910 MARYLAND ROUTE 108  
 ELLICOTT CITY, MARYLAND 21042  
 ATTN: CATHLEEN YOUNG

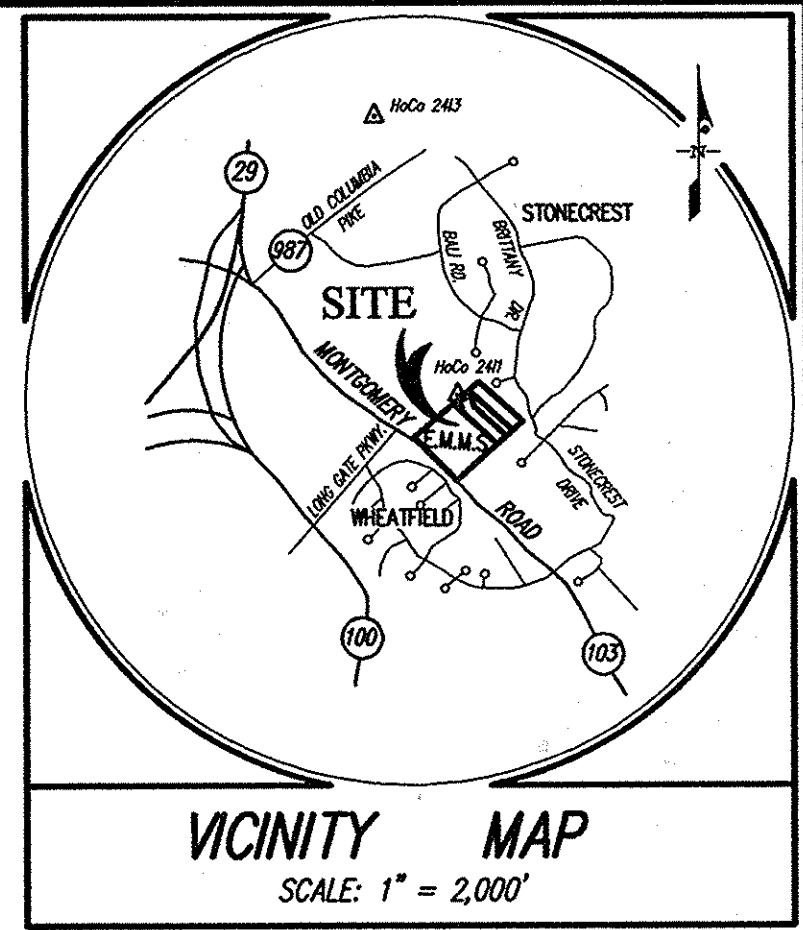
THOMAS CLARK ASSOC.  
 2661 RIVA ROAD, SUITE 120  
 ANNAPOLIS, MD 21401  
 301-261-8700

REVISOR SITE DEVELOPMENT PLAN  
 CLARKSVILLE ELECTION DISTRICT No. 5

**FOREST CONSERVATION NOTES, SCHEDULES & DETAILS**

**RESERVOIR HIGH SCHOOL**  
 (EASTERN HIGH SCHOOL No. 2)  
 PARCEL 115  
 L. 3218 F. 618

SCALE	ZONING	G. L. W. FILE No.
AS SHOWN	RR-MXD3	99091
DATE	TAX MAP - GRID	SHEET
5/05/2000	41/46	31 of 27



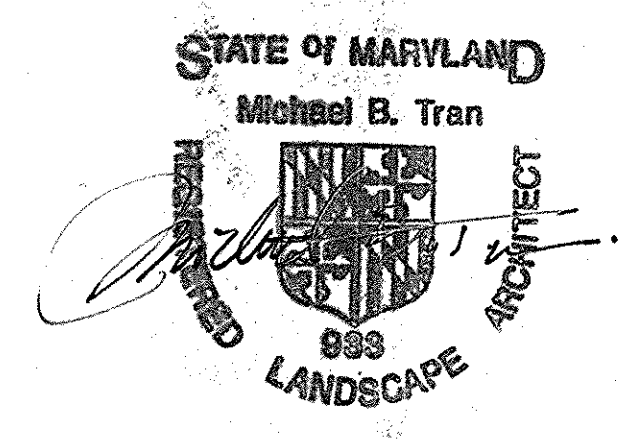
**NOTE:**  
WORK INDICATED ON THIS  
DRAWING IS N.I.C. FOR  
RESERVOIR HIGH SCHOOL

**ILCHESTER SCHOOL SITE FOREST CONSERVATION WORKSHEET**  
(DATA FROM SDP-95-85 and SDP-98-85)

I. BASIC SITE DATA	ACRES (1/10 acre)		
	①	②	③
GROSS SITE AREA	35.3	35.3	35.3
AREA WITHIN 100 YEAR FLOODPLAIN	0	0	0
AREA WITHIN AGRICULTURE USE OR PRESERVATION PARCEL	0	0	0
NET TRACT AREA	35.3	35.3	35.3
LAND USE CATEGORY:	INSTITUTIONAL		
II. INFORMATION FOR CALCULATIONS			
A. NET TRACT AREA	35.3	35.3	35.3
B. REFORESTATION THRESHOLD (20% X A)	7.1	7.1	7.1
C. AFFORESTATION MINIMUM (15% X A)	5.3	5.3	5.3
D. EXISTING FOREST ON NET TRACT AREA	23.4	23.4	23.4
E. FOREST AREAS TO BE CLEARED	23.4	25.3	26.2
F. FOREST AREAS TO BE RETAINED	7.8	7.5	7.2
IV. REFORESTATION CALCULATIONS			
A. NET TRACT AREA	35.3	35.3	35.3
B. REFORESTATION THRESHOLD (20% X A)	7.1	7.1	7.1
C. EXISTING FOREST ON NET TRACT AREA	33.4	33.4	33.4
D. FOREST AREA ON NET TRACT TO BE CLEARED	23.4	25.9	26.2
F. FOREST AREAS TO BE RETAINED	7.8	7.5	7.2
G. FOREST AREAS CLEARED ABOVE REFORESTATION THRESHOLD	0	0	0
H. FOREST AREAS CLEARED BELOW REFORESTATION THRESHOLD	25.6	25.5	26.2
I. FOREST AREAS RETAINED ABOVE REFORESTATION THRESHOLD	0	0	0
L. FOREST AREAS RETAINED BELOW REFORESTATION THRESHOLD	0.7	0.4	0.1
REQUIRED FOREST PLANTING			
J. REFORESTATION FOR CLEARING ABOVE THRESHOLD (G+D)	6.4	6.5	6.6
K. CREDIT FOR FOREST AREAS RETAINED ABOVE THRESHOLD (I)	0.7	0.4	0.1
L. TOTAL REFORESTATION REQUIRED (J-K)	5.7	6.1	6.5
PROPOSED METHOD OF SATISFYING REFORESTATION OBLIGATION:			
AREA	METHOD		
A	SUPPLEMENTAL RETENTION AREA (63 2" cal. trees @ 1/100)	0.6	0.3
E	SUPPLEMENTAL RETENTION AREA (200 1" cal. trees @ 1/100)	1.0	1.0
	TOTAL MITIGATION VALUE	1.6	1.3
	REFORESTATION OBLIGATION	5.7	6.1
	REQUIRED ADDITIONAL OFF-SITE MITIGATION	4.1	4.8

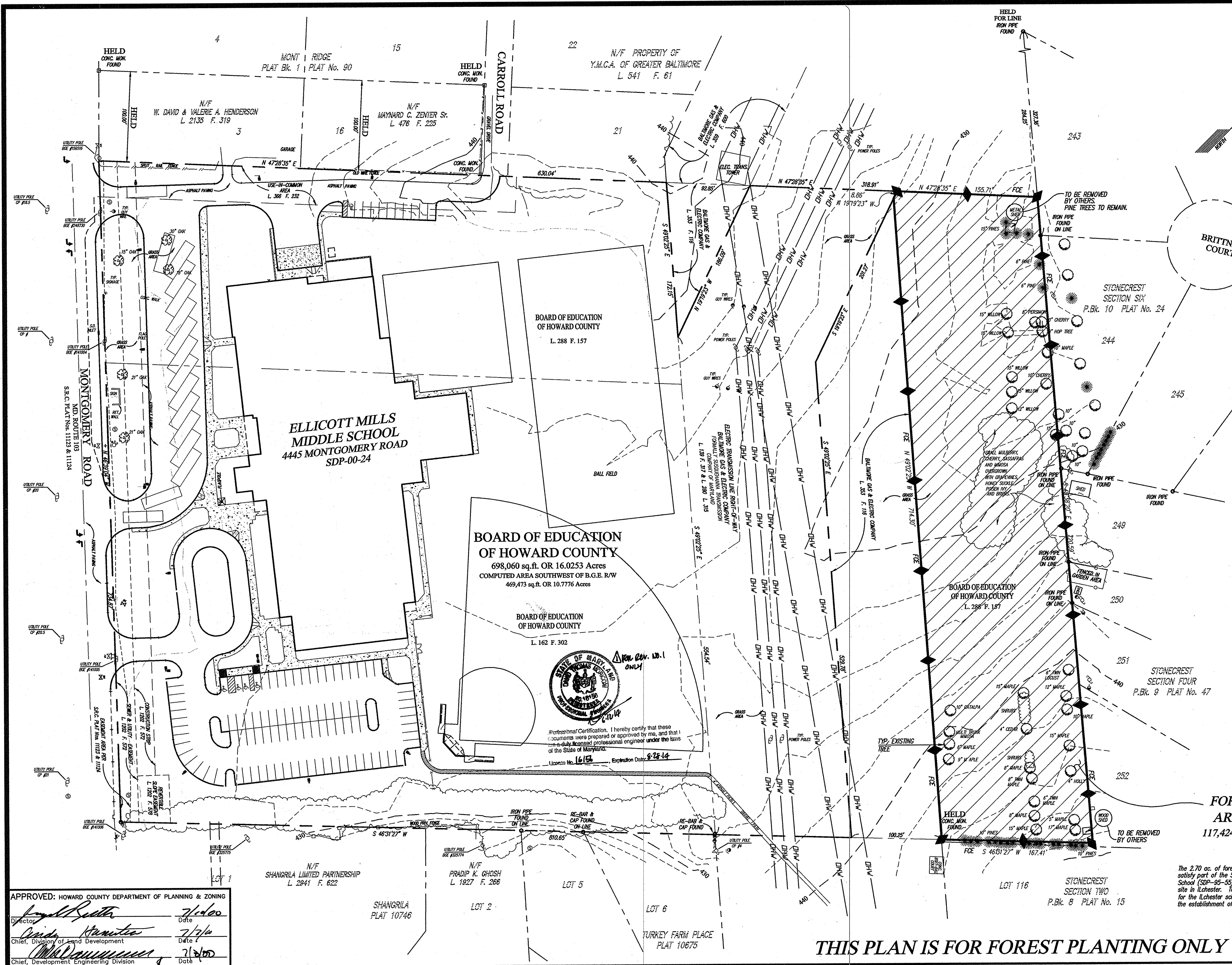
- ① Initial Ilchester E.S. Development under SDP-95-85.
- ② Revision for the development of Bonnie Branch Middle School under SDP-98-85.
- ③ Revision for clearing an additional 0.3 acre of existing forest for the elementary school expansion.

**FOREST CONSERVATION AREA/EASEMENT No. 13**  
117,424 S.F. (2.70 AC.) OF PLANTING



The 2.70 ac. of forest planting at Ellicott Mills Middle School (FC Area/Easement #13) is to satisfy part of the 3.20 ac. of forest conservation obligation for the Ilchester Elementary School (SDP-95-85) and Bonnie Branch Middle School (SDP-98-85) at the public school site in Ilchester. The remaining 2.50 ac. (5.20 - 2.70) of forest conservation obligation for the Ilchester school is fulfilled as part of the afforestation/reforestation planting and the establishment of the forest conservation easements at the Fulton campus.

**THIS PLAN IS FOR FOREST PLANTING ONLY**



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING  
Director: [Signature] 7/16/00  
Chief, Division of Land Development: [Signature] 7/16/00  
Chief, Development Engineering Division: [Signature] 7/16/00

**GLW GUTSCHICK LITTLE & WEBER, P.A.**  
CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS  
3809 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK  
BURTONSVILLE, MARYLAND 20866  
TEL: 301-421-4024 BAL: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186

DATE	REVISION	BY	APPR.
6-12-14	NEW SHEET COUNT	DTM	

PREPARED FOR:  
**HOWARD COUNTY PUBLIC SCHOOL SYSTEM**  
10910 MARLAND ROUTE 108  
ELLCOTT CITY, MARYLAND 21042  
ATTN: CATHEEN YOUNG

THOMAS CLARK ASSOC.  
2661 RIVA ROAD, SUITE 120  
ANNAPOLIS, MD 21401  
301-261-8700

OFF-SITE FOREST PLANTING PLAN  
**RESERVOIR HIGH SCHOOL**  
(EASTERN HIGH SCHOOL No. 2)  
PARCEL 115  
L. 3218 F. 618  
HOWARD COUNTY, MARYLAND

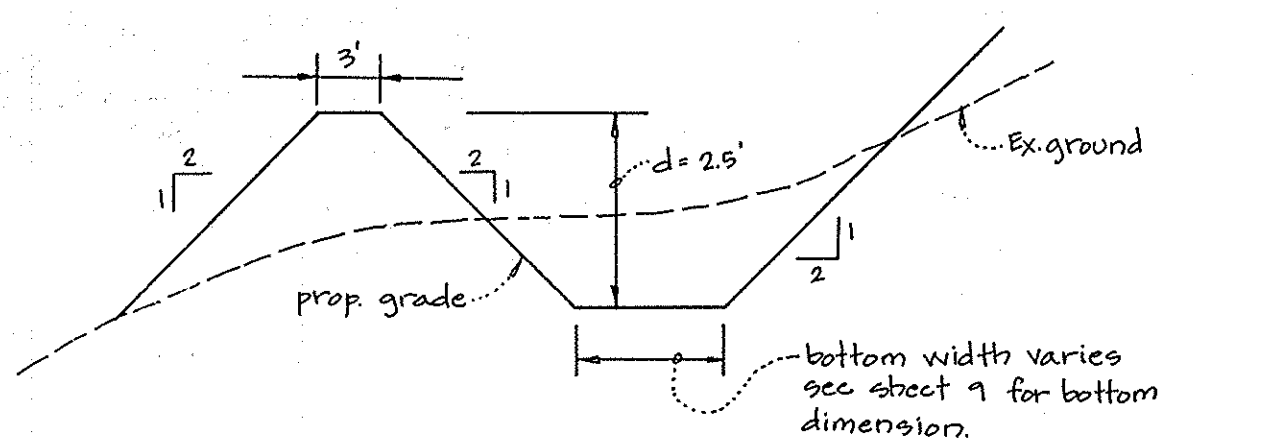
SCALE	ZONING	G. L. W. FILE No.
1"=50'	RR-MXD3	99091
DATE	TAX MAP - GRID	SHEET
5/05/2000	41/46	26 OF 27

SITE WORK BID  
22 March 00

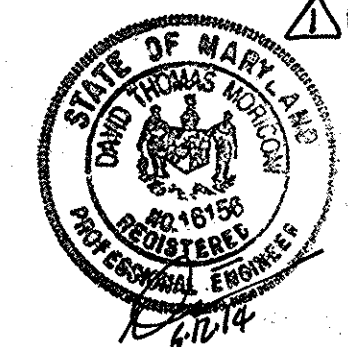
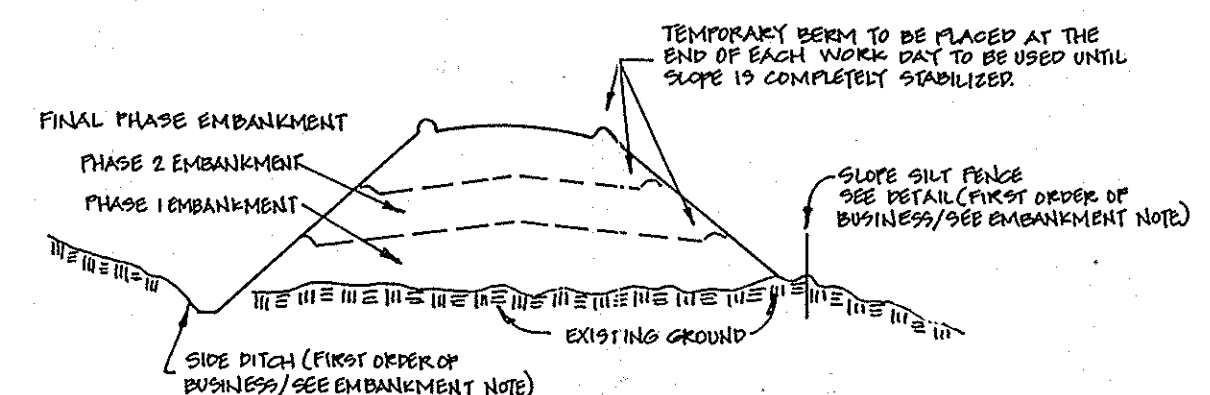
**Incremental Stabilization Of Embankments - Fill Slopes**

- I. Embankments shall be constructed in lifts as prescribed by the plans.
- II. 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.
- III. 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 of sediment trapping device.
- IV. Construction sequence: Refer to Figure 4 (below).
  - a. Excavate and stabilize all temporary slopes, 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.
  - b. Place phase 1 embankment, dress and stabilize.
  - c. Place phase 2 embankment, dress and stabilize.
  - d. Place final phase embankment, dress and stabilize. Overseed previously seeded areas as necessary.

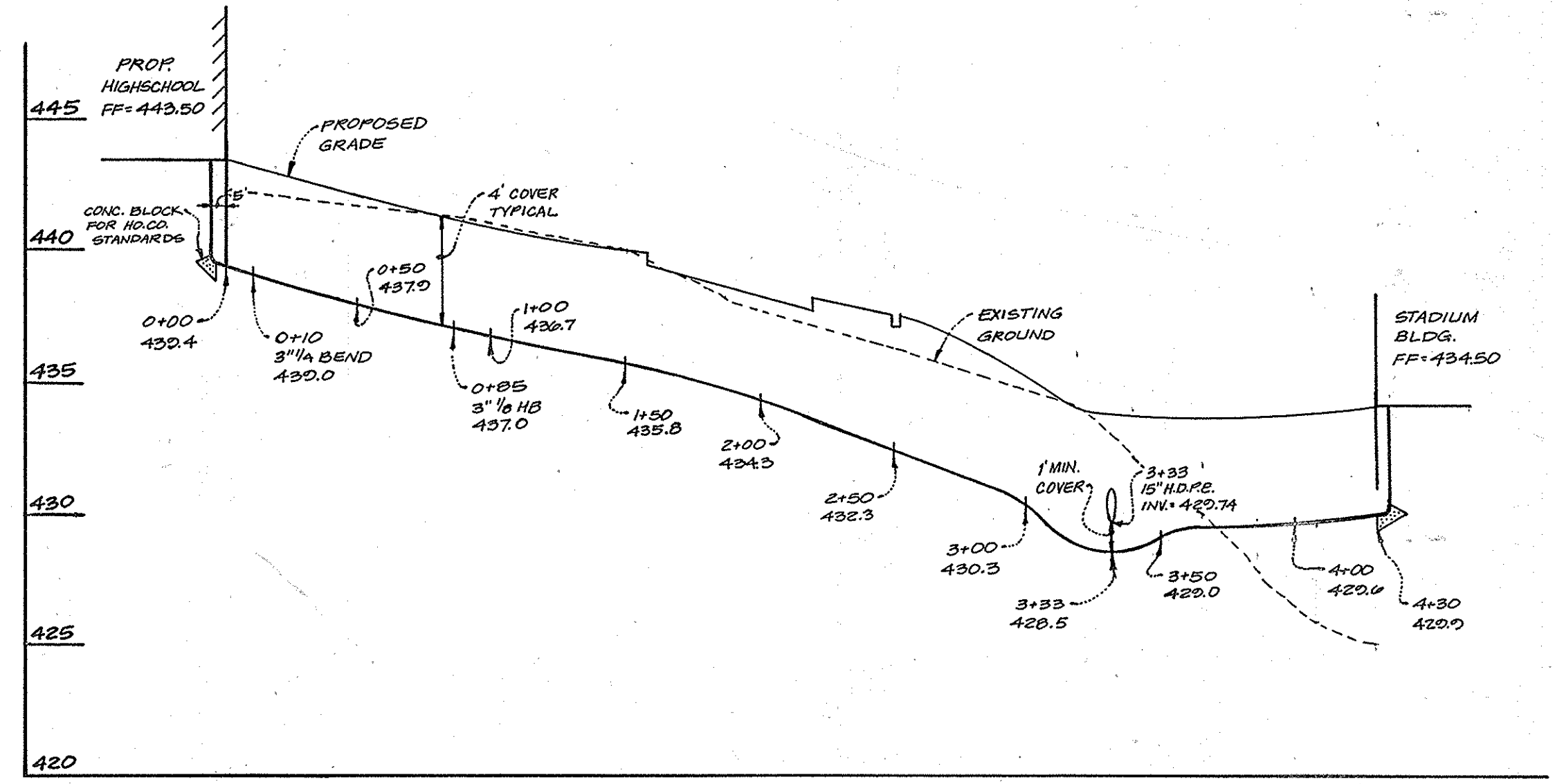
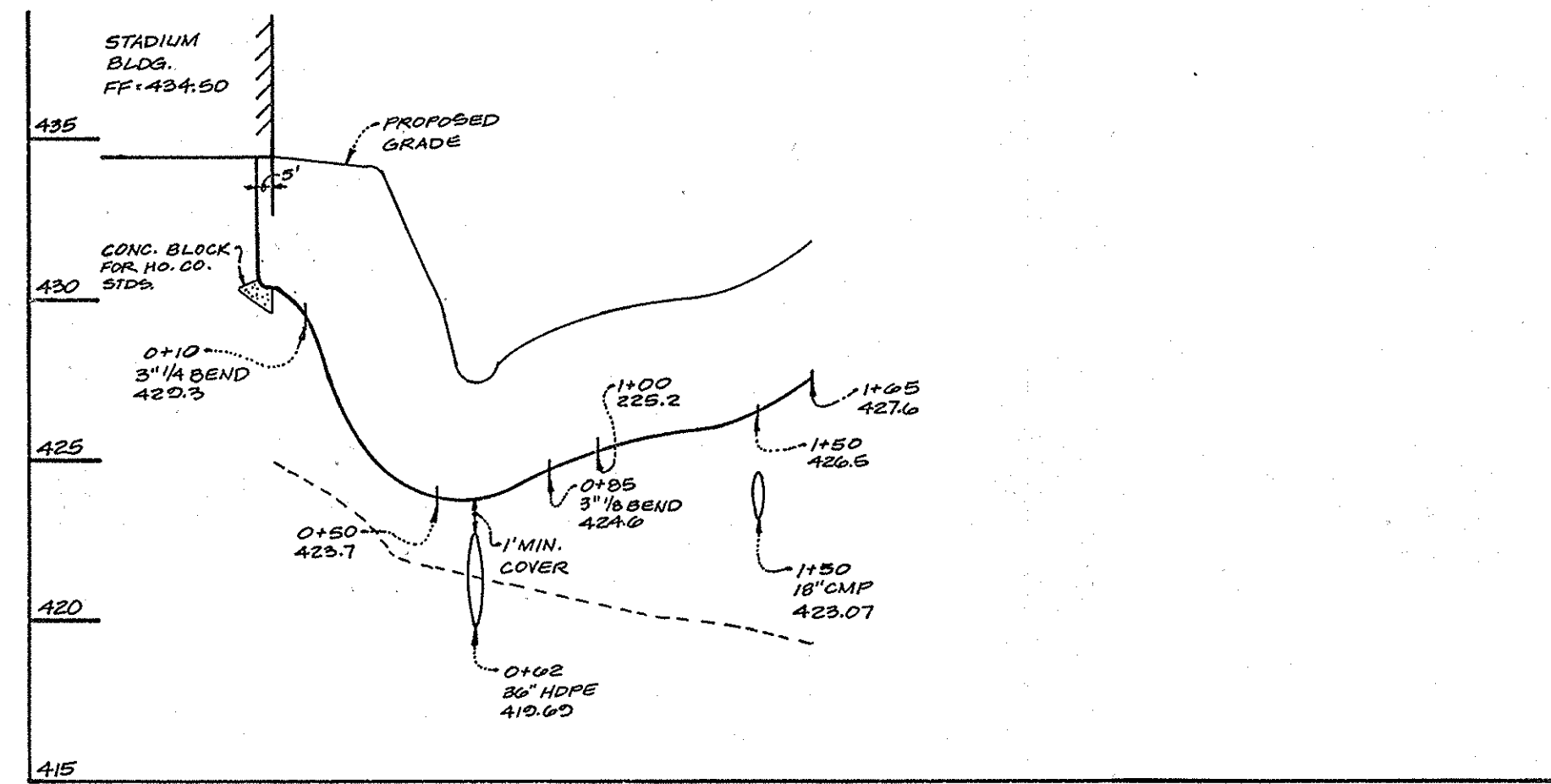
Note: Once the placement of fill has begun, the operation should be continuous from grubbing through the completion of grading and placement of topsoil (if required) and permanent seed and mulch. Any interruptions in the operation or completing the operation out of the seeding season will necessitate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



Trapezoidal Channel Detail For Traps #1 and #2  
N.T.S.



Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.  
License No. 16152, Expiration Date: 8-28-14



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING  
 Director: *John S. Smith* Date: 7/10/10  
 Chief, Division of Land Development: *Chris Hawks* Date: 7/10/10  
 Chief, Development Engineering Division: *John Dammann* Date: 7/10/10

**GLW GUTSCHICK LITTLE & WEBER, P.A.**  
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS  
 3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK  
 BURTONSVILLE, MARYLAND 20866  
 TEL: 301-421-4024 BAL: 410-880-1820 DC/WA: 301-989-2524 FAX: 301-421-4186

DATE	REVISION	BY	APP'R.
6/12/14	NEW SHEET COUNT	DTM	

PREPARED FOR:  
 HOWARD COUNTY PUBLIC SCHOOL SYSTEM  
 10910 MARYLAND ROUTE 108  
 ELLICOTT CITY, MARYLAND 21042  
 ATTN: CATHEEN YOUNG

STADIUM BUILDING WATER PROFILE  
**RESERVOIR HIGH SCHOOL**  
 (EASTERN HIGH SCHOOL No. 2)  
 PARCEL 115  
 L. 3218 P. 618  
 CLARKSVILLE ELECTION DISTRICT No. 5

SCALE	ZONING	G. L. W. FILE No.
AS SHOWN	RR-MXD3	99091
DATE	TAX MAP - GRID	SHEET
5-5-2000	41/46	37 OF 27

SITE WORK BID  
22 MARCH 00

# RESERVOIR HIGH SCHOOL FIELD IMPROVEMENTS

## 5th ELECTION DISTRICT HOWARD COUNTY, MARYLAND

### INDEX OF DRAWINGS

- 28 7 TITLE SHEET
- 29 2 EXISTING PLAN/DEMOLITION PLAN
- 30 3 STAKE-OUT PLAN
- 31 4 SITE PLAN AND EROSION & SEDIMENT CONTROL PLAN
- 32-35 5-8 SITE DETAILS I, II, III & IV
- 36 9 PIPE PROFILES
- 37 10 EROSION AND SEDIMENT CONTROL NOTES AND DETAILS

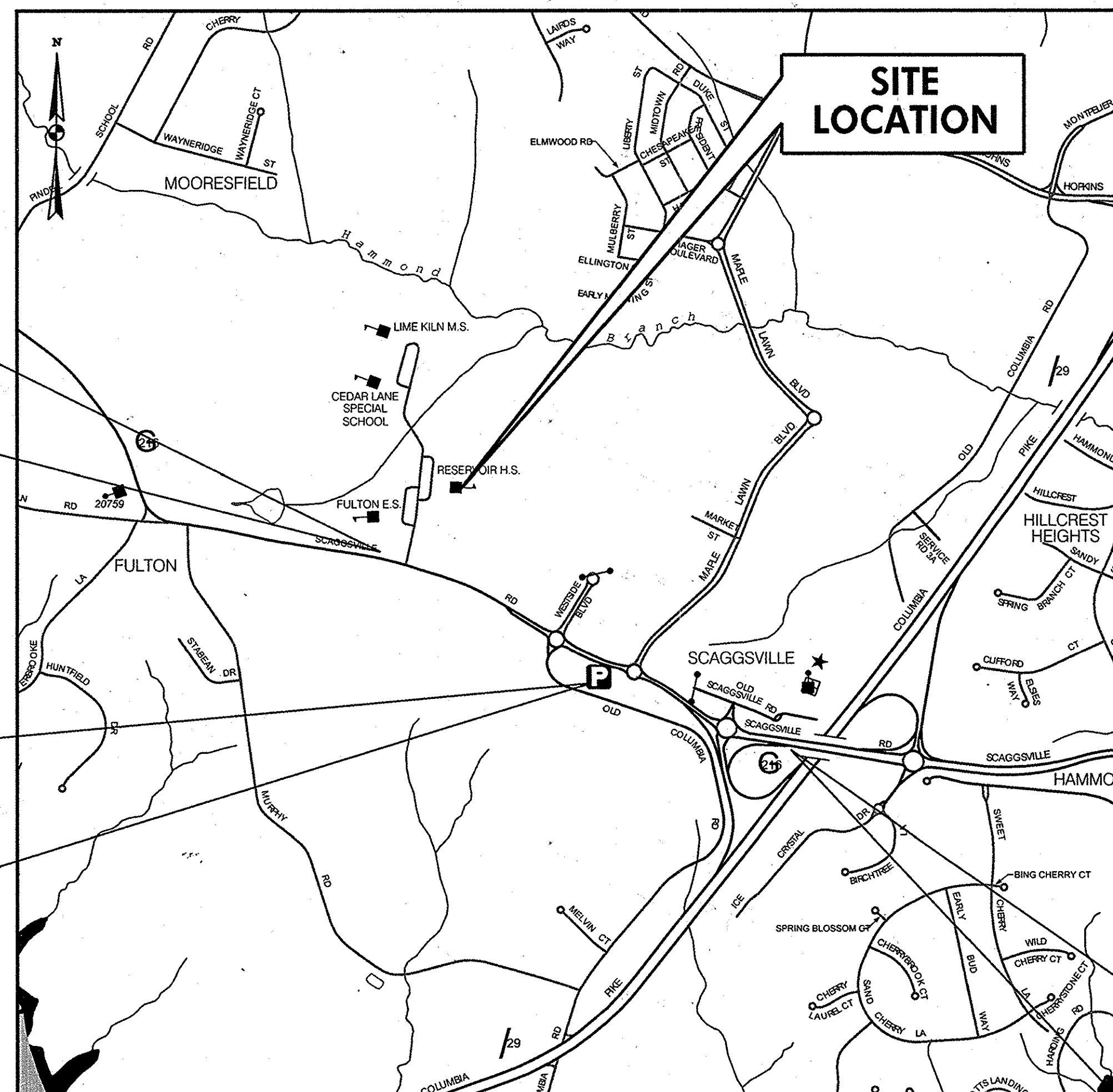
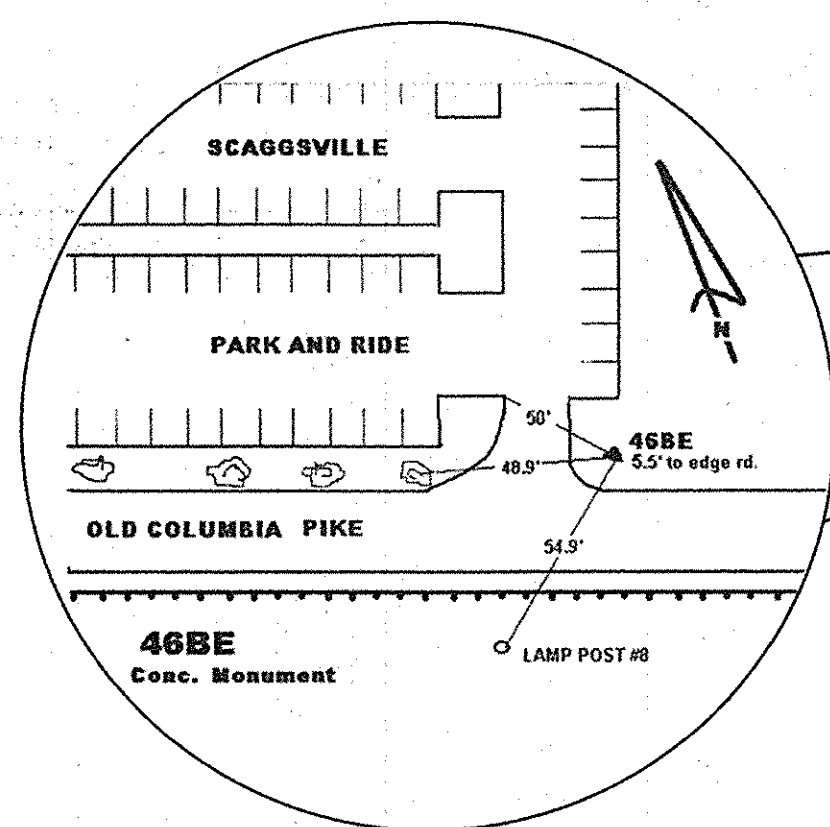
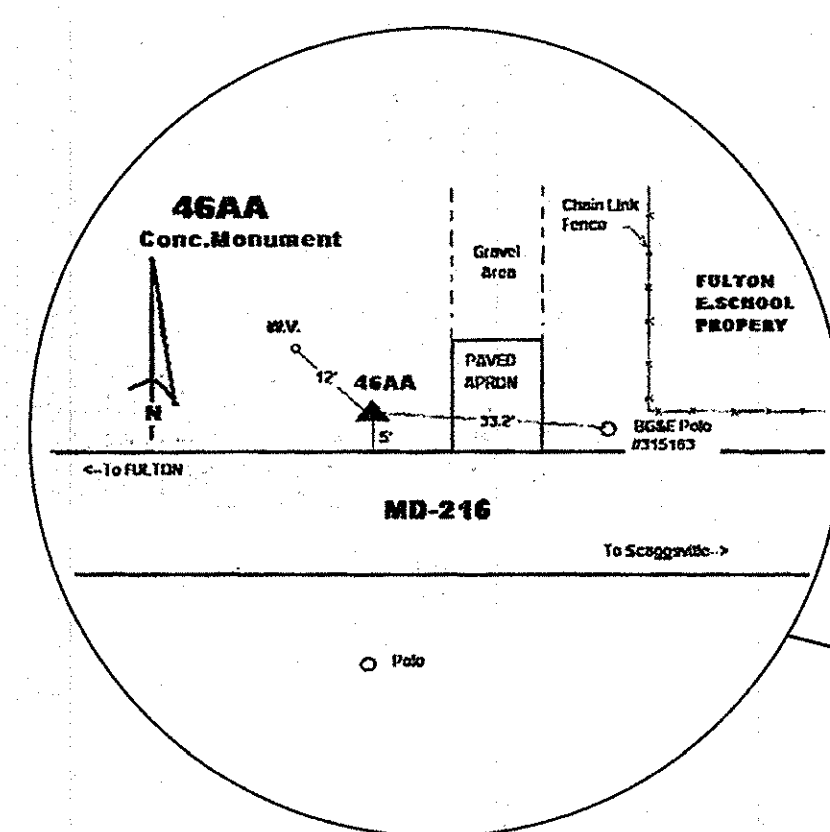
### GENERAL NOTES

1. THE CONTRACTOR SHALL NOTIFY THE HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS/BUREAU OF ENGINEERING CONSTRUCTION INSPECTION DIVISION AT 410-313-1880 HOWARD COUNTY PUBLIC SCHOOLS AT 410-313-6600 AND MISS UTILITY AT 1-800-257-7777 AT LEAST FIVE (5) WORKING DAYS BEFORE STARTING WORK.
2. THE HORIZONTAL AND VERTICAL CONTROL FOR THESE PLANS ARE BASED ON THE MARYLAND STATE SYSTEM OF PLANE COORDINATES AS ESTABLISHED FROM THE FOLLOWING HOWARD COUNTY CONTROL POINTS:  
46AA, 46BE, 46BF, 41FA, & 41DA  
THE SYSTEM OF COORDINATES USED IS BASED ON THE FOLLOWING DATUMS AND PROJECTIONS:  
HORIZONTAL: NAD83/2011  
VERTICAL: NAVD88
3. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY.
4. ALL WORK SHALL COMPLY WITH ALL APPLICABLE PROVISIONS OF THE "2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL," ISSUED BY THE MARYLAND DEPARTMENT OF THE ENVIRONMENT AND THE NATURAL RESOURCES CONSERVATION SERVICE.
5. TOPOGRAPHIC SURVEYS WERE PERFORMED BY URS CORPORATION IN JANUARY 2014.
6. THE PROPERTY LINES AND EASEMENT LINES ARE APPROXIMATE.
7. SHOULD THE CONTRACTOR DISCOVER DISCREPANCIES BETWEEN THE PLANS AND THE FIELD CONDITIONS, THE ENGINEER IS TO BE NOTIFIED IMMEDIATELY TO RESOLVE THE SITUATION. SHOULD THE CONTRACTOR MAKE FIELD CORRECTIONS OR ADJUSTMENTS WITHOUT NOTIFYING THE ENGINEER, THEN THE CONTRACTOR ASSUMES ALL RESPONSIBILITY FOR THOSE CHANGES.
8. CONTRACTOR IS SOLELY RESPONSIBLE FOR CONSTRUCTION MEANS, METHOD, TECHNIQUES, SEQUENCES, PROCEDURES, AND SAFETY PRECAUTIONS AND PROGRAMS.
9. APPROXIMATE UTILITIES ARE SHOWN FROM AVAILABLE RECORDS AND/OR FIELD RECONNAISSANCE. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THE EXISTING UTILITIES AND MAINTAIN UNINTERRUPTED SERVICE. ANY DAMAGE INCURRED DUE TO CONTRACTOR'S OPERATION SHALL BE REPAIRED IMMEDIATELY AT THE CONTRACTOR'S EXPENSE.

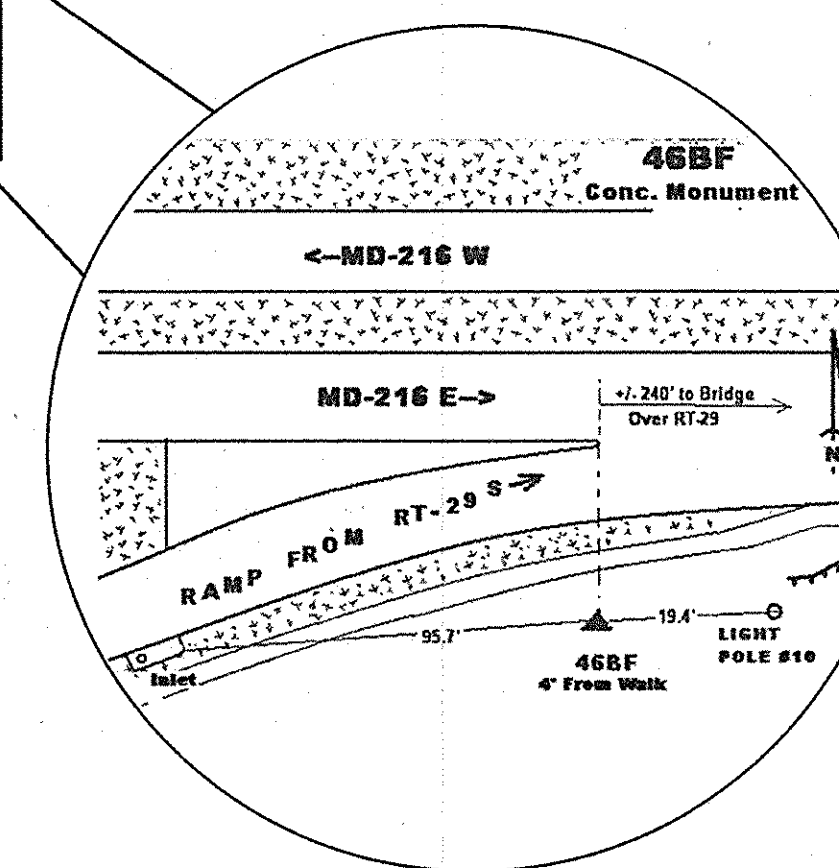
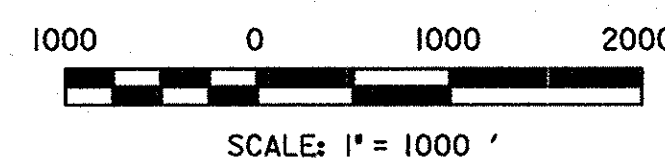
THE CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITY COMPANIES OR AGENCIES AT LEAST FIVE (5) WORKING DAYS BEFORE STARTING WORK SHOWN ON THESE PLANS.

#### UTILITY CONTACTS:

AT&T	1-800-252-1133
BGE (CONSTRUCTION SERVICES)	(410) 637-8713
BGE (EMERGENCY)	(410) 685-0123
HOCO BUREAU OF UTILITIES	(410) 313-4900
COLONIAL PIPELINE CO.	(410) 795-1390
MISS UTILITY	1-800-257-7777
STATE HIGHWAY ADMINISTRATION	(410) 531-5533
VERIZON	1-800-743-0033



LOCATION MAP  
HOWARD COUNTY



POINT NO.	NORTHING	EASTING	ELEVATION
GPS1	541,179.783	1,337,158.918	438.26
GPS2	541,243.680	1,336,747.301	432.04
GPS3	541,613.940	1,336,876.600	428.77
GPS4	541,564.094	1,337,303.000	429.51

PROFESSIONAL CERTIFICATION  
"I HEREBY CERTIFY THAT DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 16156. EXPIRATION DATE: 8/28/2014."

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING  
DIRECTOR \_\_\_\_\_ DATE \_\_\_\_\_  
CHIEF, DIVISION OF LAND DEVELOPMENT \_\_\_\_\_ DATE \_\_\_\_\_  
CHIEF, DEVELOPMENT ENGINEERING DIVISION \_\_\_\_\_ DATE \_\_\_\_\_

**DEVELOPER'S CERTIFICATION**  
"I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT."  
A. P. O. [Signature] 5-30-14  
SIGNATURE OF DEVELOPER DATE

**ENGINEER'S CERTIFICATION**  
"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] 5-30-14  
URS CORPORATION DAVID T. MORICONI DATE  
4 NORTH PARK DRIVE  
HUNT VALLEY, MD 21030

THIS DEVELOPMENT IS APPROVED FOR EROSION AND SEDIMENT CONTROL BY HOWARD SOIL CONSERVATION DISTRICT.  
John R. Robinson/ces 5/30/14  
HOWARD SOIL CONSERVATION DISTRICT DATE

HOWARD COUNTY PUBLIC SCHOOL SYSTEM  
HOWARD COUNTY, MARYLAND  
[Signature] 5/30/14 DATE  
DIRECTOR, HOWARD COUNTY RECREATION AND PARKS

PREPARED BY  
**URS**  
4 NORTH PARK DRIVE  
HUNT VALLEY, MARYLAND  
TEL: (410) 785-7220

ASSISTANT MANAGER, GROUNDS SERVICES  
HOWARD COUNTY PUBLIC SCHOOL SYSTEM  
[Signature] 6-3-14 DATE

DES: RLL  
DRN: CDF  
CHK: DTM  
DATE: 04/14

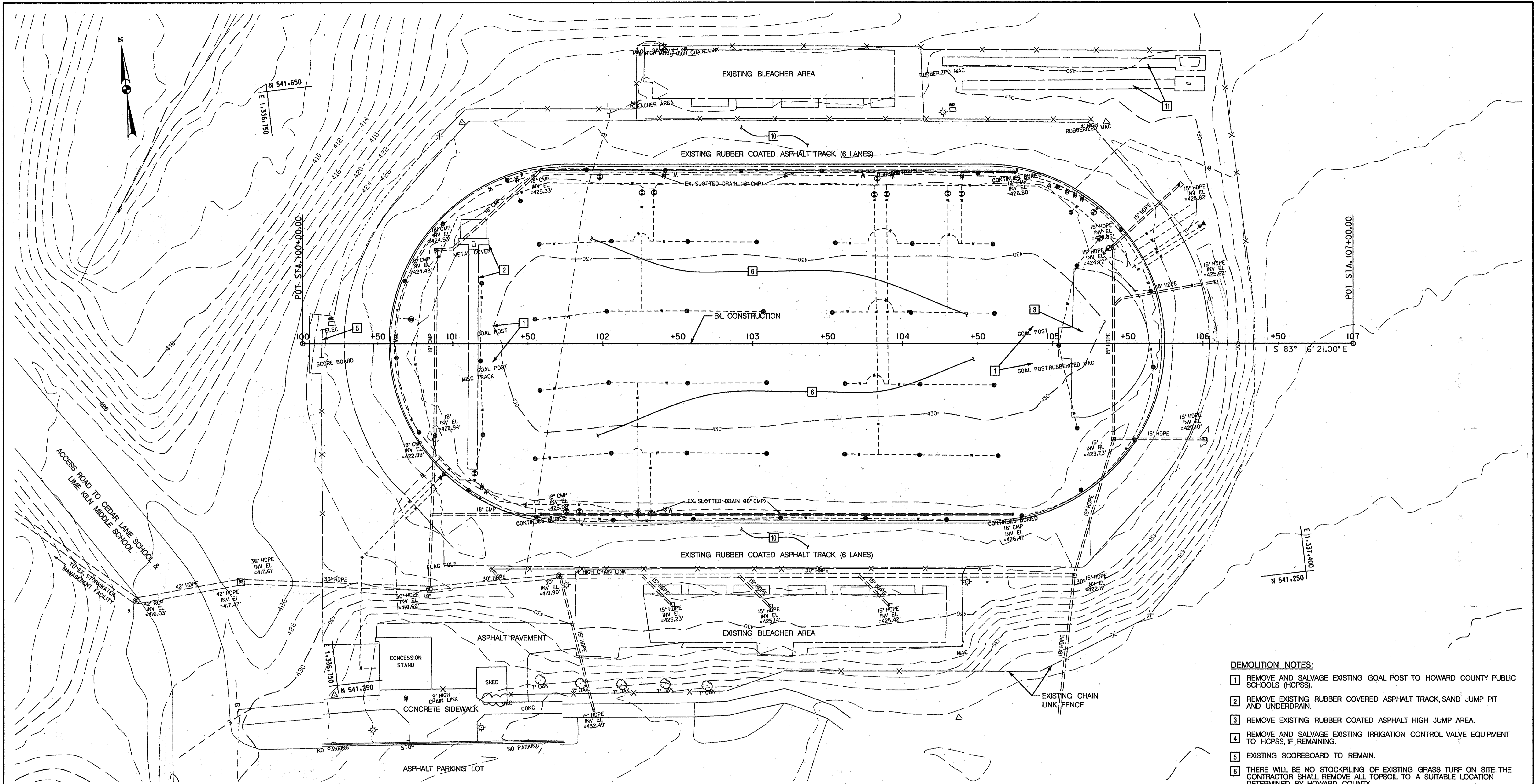
DM [Signature] NEW SHEET 6-2-14  
BY NO. REVISION DATE

TITLE SHEET

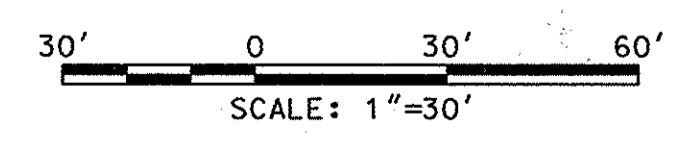
SCALE MAP NO. N/A BLOCK NO.

REVISED SITE DEVELOPMENT PLAN  
RESERVOIR HIGH SCHOOL  
FIELD IMPROVEMENTS  
5TH ELECTION DISTRICT - HOWARD COUNTY, MARYLAND

SCALE AS SHOWN  
SHEET 1 OF 10  
28 37A



- DEMOLITION NOTES:**
- 1 REMOVE AND SALVAGE EXISTING GOAL POST TO HOWARD COUNTY PUBLIC SCHOOLS (HCPSS).
  - 2 REMOVE EXISTING RUBBER COVERED ASPHALT TRACK, SAND JUMP PIT AND UNDERDRAIN.
  - 3 REMOVE EXISTING RUBBER COATED ASPHALT HIGH JUMP AREA.
  - 4 REMOVE AND SALVAGE EXISTING IRRIGATION CONTROL VALVE EQUIPMENT TO HCPSS, IF REMAINING.
  - 5 EXISTING SCOREBOARD TO REMAIN.
  - 6 THERE WILL BE NO STOCKPILING OF EXISTING GRASS TURF ON SITE. THE CONTRACTOR SHALL REMOVE ALL TOPSOIL TO A SUITABLE LOCATION DETERMINED BY HOWARD COUNTY.
  - 7 REMOVE EXISTING IRRIGATION LINES AND SPRINKLER HEADS, COORDINATE WITH 4.
  - 8 EXISTING PVC MAIN WATER LINE TO REMAIN. THE LIMITS OF WHERE THE WATER LINE WILL REMAIN SHALL BE COORDINATED WITH HCPSS.
  - 9 REMOVE EXISTING DRAINAGE STRUCTURE, BULKHEAD AND ABANDON PIPE USING FLOWABLE FILL.
  - 10 EXISTING RUBBER COATED ASPHALT TRACK TO REMAIN.
  - 11 EXISTING RUBBER COATED ASPHALT TRACK, SAND JUMP PIT, AND UNDERDRAIN TO REMAIN.
- GENERAL NOTE:**  
REFER TO SHEET 4 FOR ANY DRAINAGE DEMOLITION REQUIREMENTS.



- LEGEND**
- -400 --- EXISTING CONTOUR
  - X-X-X EXISTING CHAIN LINK FENCE
  - - - - - EXISTING UNDERGROUND ELECTRIC
  - ==== EXISTING RCP

**PROFESSIONAL CERTIFICATION**  
 "I HEREBY CERTIFY THAT DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 16156. EXPIRATION DATE: 8/28/2014."

**APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING**

DIRECTOR	DATE
CHIEF, DIVISION OF LAND DEVELOPMENT	DATE
CHIEF, DEVELOPMENT ENGINEERING DIVISION	DATE

**HOWARD COUNTY PUBLIC SCHOOL SYSTEM**  
 HOWARD COUNTY, MARYLAND

PREPARED BY  
**URS**  
 4 NORTH PARK DRIVE  
 HUNT VALLEY, MARYLAND  
 TEL: (410) 785-7220

DATE: 04/14



DES: RLL			
DRN: CDF			
CHK: DTM			
DATE: 04/14	DTM	NEW SHEET	6/12/14
BY NO.		REVISION	DATE

**EXISTING PLAN / DEMOLITION PLAN**

SCALE MAP NO. N/A BLOCK NO.

**REVISED SITE DEVELOPMENT PLAN**  
**RESERVOIR HIGH SCHOOL**  
**FIELD IMPROVEMENTS**

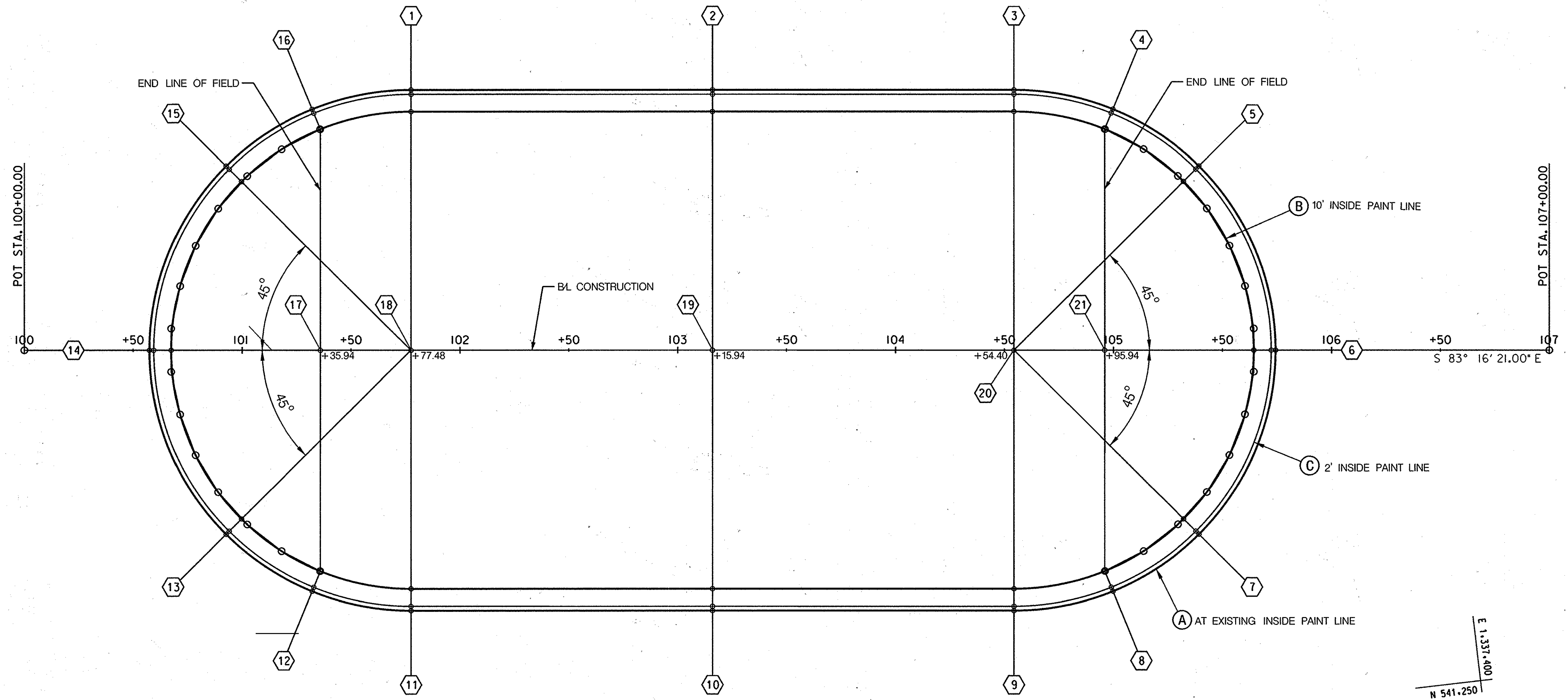
5TH ELECTION DISTRICT - HOWARD COUNTY, MARYLAND

SCALE 1" = 30'

SHEET 29 OF 30



N 541.650  
E 1.336.150



E 1.331.400  
N 541.250

POINT	NORTHING	EASTING	ELEVATION
(1A)	541,577.9484	1,336,944.2746	428.89
(1B)	541,568.0172	1,336,943.1031	429.46
(1C)	541,575.9622	1,336,944.0403	428.85
(2A)	541,561.7278	1,337,081.7839	428.91
(2B)	541,551.7967	1,337,080.6125	429.46
(2C)	541,559.7416	1,337,081.5496	428.87
(3A)	541,545.5073	1,337,219.2932	428.91
(3B)	541,535.5762	1,337,218.1218	429.46
(3C)	541,543.5211	1,337,219.0589	428.87
(4A)	541,531.3758	1,337,263.2539	428.84
(4B)	541,522.6223	1,337,258.4190	429.50
(4C)	541,529.6251	1,337,262.2869	428.80
(5A)	541,500.6618	1,337,299.4444	428.85
(5B)	541,494.4678	1,337,291.5937	429.46
(5C)	541,499.4230	1,337,297.8742	428.81
(6A)	541,412.2759	1,337,324.4093	428.95
(6B)	541,413.4473	1,337,314.4781	429.71
(6C)	541,412.5102	1,337,322.4231	428.91
(7A)	541,332.1247	1,337,279.5638	428.94
(7B)	541,339.9754	1,337,273.3698	429.46
(7C)	541,333.6949	1,337,278.3250	428.90
(8A)	541,310.6746	1,337,237.2201	428.92
(8B)	541,320.3129	1,337,234.5547	429.50
(8C)	541,312.6023	1,337,236.6870	428.88
(9A)	541,307.1598	1,337,191.1779	428.87
(9B)	541,317.0910	1,337,192.3493	429.46
(9C)	541,309.1460	1,337,191.4122	428.83
(10A)	541,323.3804	1,337,053.6685	428.91
(10B)	541,333.3115	1,337,054.8400	429.46
(10C)	541,325.3666	1,337,053.9028	428.87
(11A)	541,339.6009	1,336,916.1592	428.76
(11B)	541,349.5321	1,336,917.3307	429.46
(11C)	541,341.5871	1,336,916.3935	428.72
(12A)	541,353.7324	1,336,872.1986	428.74
(12B)	541,362.4859	1,336,877.0335	429.50
(12C)	541,355.4831	1,336,873.1656	428.70
(13A)	541,384.4464	1,336,836.0081	428.90
(13B)	541,390.6404	1,336,843.8588	429.40
(13C)	541,385.6852	1,336,837.5782	428.86
(14A)	541,472.8323	1,336,811.0432	428.84
(14B)	541,471.6609	1,336,820.9743	429.60
(14C)	541,472.5980	1,336,813.0294	428.80
(15A)	541,552.9835	1,336,855.8887	428.86
(15B)	541,545.1328	1,336,862.0827	429.40
(15C)	541,551.4134	1,336,857.1275	428.82
(16A)	541,574.4336	1,336,898.2324	428.82
(16B)	541,564.7953	1,336,900.8978	429.50
(16C)	541,572.5059	1,336,898.7655	428.78
(17)	541,463.5974	1,336,888.9604	430.01
(18)	541,458.7314	1,336,930.2117	430.01
(19)	541,442.5108	1,337,067.7210	430.01
(20)	541,426.2903	1,337,205.2303	430.01
(21)	541,421.4243	1,337,246.4816	430.01

E 1.336.150  
N 541.250

PROFESSIONAL CERTIFICATION  
 "I HEREBY CERTIFY THAT DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 16156 EXPIRATION DATE: 8/28/2014"

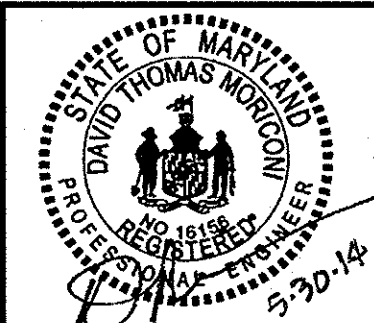
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING  
 DIRECTOR \_\_\_\_\_ DATE \_\_\_\_\_  
 CHIEF, DIVISION OF LAND DEVELOPMENT \_\_\_\_\_ DATE \_\_\_\_\_  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION \_\_\_\_\_ DATE \_\_\_\_\_

NOTES:  
 -FOR POLE VAULT STAKE OUT SEE SHEET 6  
 -FOR HIGH JUMP STAKE OUT SEE SHEET 6

30' 0 30' 60'  
 SCALE: 1"=30'

HOWARD COUNTY PUBLIC SCHOOL SYSTEM  
 HOWARD COUNTY, MARYLAND

PREPARED BY  
**URS**  
 4 NORTH PARK DRIVE  
 HUNT VALLEY, MARYLAND  
 TEL: (410) 785-7220



DES: RLL			
DRN: CDF			
CHK: DTM			
DATE: 04/14	DTM	NEW SHEET	6/12/14
	BY NO.	REVISION	DATE

STAKE-OUT PLAN

SCALE MAP NO. N/A BLOCK NO.

REVISED SITE DEVELOPMENT PLAN  
 RESERVOIR HIGH SCHOOL  
 FIELD IMPROVEMENTS

5TH ELECTION DISTRICT - HOWARD COUNTY, MARYLAND

SCALE  
 1" = 30'

SHEET  
 3 OF 10  
 30 37A

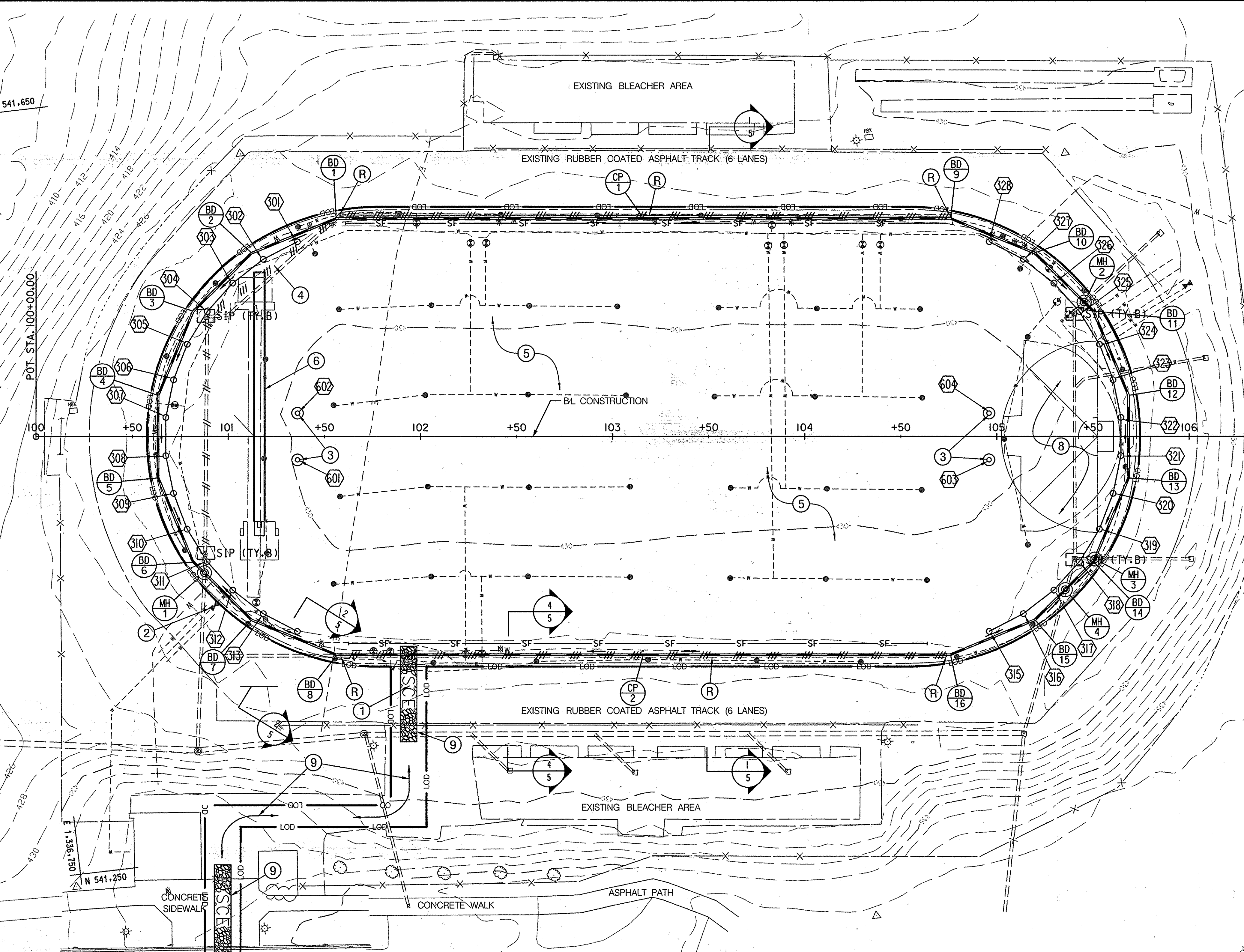
John R. Beall 5/30/14  
 DIRECTOR, HOWARD COUNTY RECREATION AND PARKS  
 Assistant Manager, Grounds Services  
 HOWARD COUNTY PUBLIC SCHOOL SYSTEM

SDP-00-86

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GOAL POSTS			
POINT	NORTHING	EASTING	ELEVATION
601	541,451.5577	1,336,887.5403	429.95
602	541,475.7235	1,336,890.3909	429.95
603	541,409.3847	1,337,245.0616	429.95
604	541,433.5505	1,337,247.9121	429.95

SAFETY NETTING SLEEVES			
POINT	NORTHING	EASTING	ELEVATION
301	541,564.7682	1,336,900.7997	429.50
302	541,557.6898	1,336,882.0942	429.44
303	541,547.3415	1,336,864.9795	429.41
304	541,534.0653	1,336,850.0214	429.40
305	541,518.3002	1,336,837.7145	429.43
306	541,500.5673	1,336,828.4654	429.48
307	541,481.5920	1,336,822.1458	429.51
308	541,461.7297	1,336,819.8029	429.51
309	541,441.8048	1,336,821.5338	429.48
310	541,422.4065	1,336,826.4029	429.43
311	541,404.2105	1,336,834.7038	429.40
312	541,387.8183	1,336,846.1622	429.41
313	541,373.7717	1,336,860.3993	429.44
314	541,362.5352	1,336,876.9444	429.50
315	541,320.3400	1,337,234.6528	429.50
316	541,327.4184	1,337,253.3583	429.47
317	541,337.7668	1,337,270.4730	429.46
318	541,351.0429	1,337,285.4310	429.48
319	541,366.8080	1,337,297.7380	429.52
320	541,384.5409	1,337,306.9871	429.58
321	541,403.5162	1,337,313.3067	429.62
322	541,423.3785	1,337,315.6496	429.62
323	541,443.3034	1,337,313.9187	429.58
324	541,462.7017	1,337,309.0496	429.52
325	541,480.8977	1,337,300.7487	429.48
326	541,497.2899	1,337,289.2903	429.46
327	541,511.3365	1,337,275.0532	429.47
328	541,522.5730	1,337,258.5081	429.50



- LEGEND**
- 5.20 --- EXISTING CONTOUR
  - X---X--- EXISTING CHAIN LINK FENCE
  - --- EXISTING UNDERGROUND ELECTRIC
  - == # == ABANDON EXISTING PIPE & FILL WITH FLOWABLE FILL
  - # --- REMOVE EXISTING PIPE
  - SAFETY NETTING SLEEVES
  - SIP STANDARD INLET PROTECTION
  - SF SILT FENCE
  - Ⓡ REMOVE EXISTING STRUCTURE/PLUG PIPES
  - Ⓞ COMBATION GOAL GROUND SLEEVE
  - MH MANHOLE
  - BD BEND
  - CP COUPLING
  - BERM OUTLET

CONTRACTOR SHALL LOCATE THE STAGING AND STOCKPILE AREA AND IS RESPONSIBLE FOR PROVIDING ANY ADDITIONAL ES CONTROLS AS REQUIRED BY THE INSPECTOR WITHIN THE APPROVED LIMIT OF DISTURBANCE. OFFSITE STAGING, STOCKPILE OR WASTE SITE THE CONTRACTOR UTILIZES MUST HAVE AN ACTIVE APPROVED GRADING PERMIT.

TYPE B HYDROLOGIC SOIL GROUP WITHIN LOD

**PROFESSIONAL CERTIFICATION**  
 I HEREBY CERTIFY THAT DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 16156, EXPIRATION DATE: 8/28/2014

- NOTES:**
- PLACE STEEL PLATES OR OTHER ACCEPTABLE MEASURES OVER EXISTING TRACK PRIOR TO CONSTRUCTION TO PREVENT DAMAGE TO THE EXISTING TRACK. ANY DAMAGES TO EXISTING TRACK SHALL BE REPAIRED AT NO COST TO HOWARD COUNTY.
  - INSTALL WATER REEL CONNECTION BOX (SEE DETAIL SHEET). CONNECT TO EXISTING 3" WATER LINE. FINAL PLACEMENT AS DIRECTED BY THE COUNTY.
  - HOWARD COUNTY TO FURNISH SOCCER/FOOTBALL GOAL POSTS. CONTRACTOR SHALL INSTALL THE GOAL POST FOUNDATIONS WITH SLEEVES.
  - SAFETY NETTING SLEEVES. CONTRACTOR MUST COORDINATE WITH PLACEMENT OF UNDERDRAIN.
  - FIELD TURF. SEE DETAIL 1/5
  - POLE VAULT (SEE SHEET 6 FOR STAKEOUT).
  - EXISTING LONG JUMP/TRIPLE EVENT TO REMAIN.
  - HIGH JUMP (SEE SHEET 8 FOR STAKEOUT).
  - THE CONTRACTOR SHALL REPAIR ANY DAMAGED ASPHALT OR CONCRETE AREAS AS A RESULT OF THE PROPOSED USE DURING CONSTRUCTION.
  - REMOVE EXISTING TRENCH DRAIN AND GRATE.

**Standard Stabilization Note**

Following initial soil disturbance or re-disturbance, permanent or temporary stabilization must be completed within:

- Three (3) calendar days as to the surface of all perimeter dikes, swales, ditches, perimeter slopes, and all slopes steeper than 3 horizontal to 1 vertical (3:1); and
- Seven (7) calendar days as to all other disturbed or graded areas on the project site not under active grading.

**APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING**

DIRECTOR \_\_\_\_\_ DATE \_\_\_\_\_  
 CHIEF, DIVISION OF LAND DEVELOPMENT \_\_\_\_\_ DATE \_\_\_\_\_  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION \_\_\_\_\_ DATE \_\_\_\_\_

**DEVELOPER'S CERTIFICATION**

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

SIGNATURE OF DEVELOPER \_\_\_\_\_ DATE \_\_\_\_\_

**ENGINEER'S CERTIFICATION**

"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."

URS CORPORATION 5/30/14  
 4 NORTH PARK DRIVE DAVID MORICOMI DATE  
 HUNT VALLEY, MD 21030

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

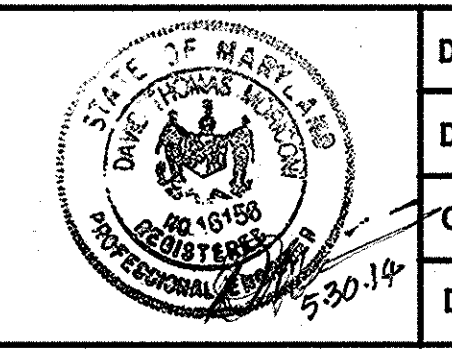
John R. Robertson, Inc. 5/30/14  
 HOWARD SOIL CONSERVATION DISTRICT DATE

**HOWARD COUNTY PUBLIC SCHOOL SYSTEM**  
 HOWARD COUNTY, MARYLAND

John R. Boyd 5/30/14  
 DIRECTOR, HOWARD COUNTY RECREATION AND PARKS DATE

Gregory Curran 6-3-14  
 ASSISTANT MANAGER OF GROUNDS SERVICES DATE  
 HOWARD COUNTY PUBLIC SCHOOL SYSTEM

PREPARED BY  
**URS**  
 4 NORTH PARK DRIVE  
 HUNT VALLEY, MARYLAND  
 TEL: (410) 785-7220



DES: RLL			
DRN: CDF			
CHK: DTM			
DATE: 04/14	DTM	NEW SHEET	6/18/14
	BY NO.	REVISION	DATE

**SITE PLAN AND EROSION & SEDIMENT CONTROL PLAN**

SCALE MAP NO. N/A BLOCK NO.

**REVISED SITE DEVELOPMENT PLAN**  
**RESERVOIR HIGH SCHOOL**  
**FIELD IMPROVEMENTS**

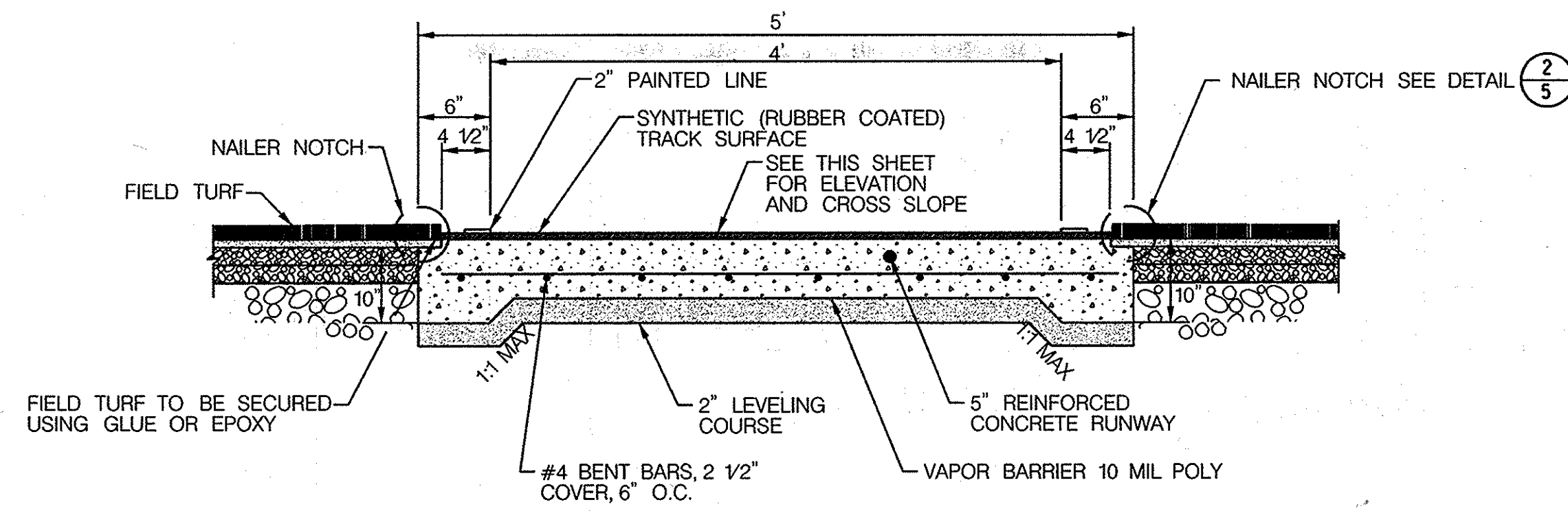
5TH ELECTION DISTRICT - HOWARD COUNTY, MARYLAND

SCALE  
 1" = 30'

SHEET  
 4 OF 4  
 21 37A

SDP-00-86

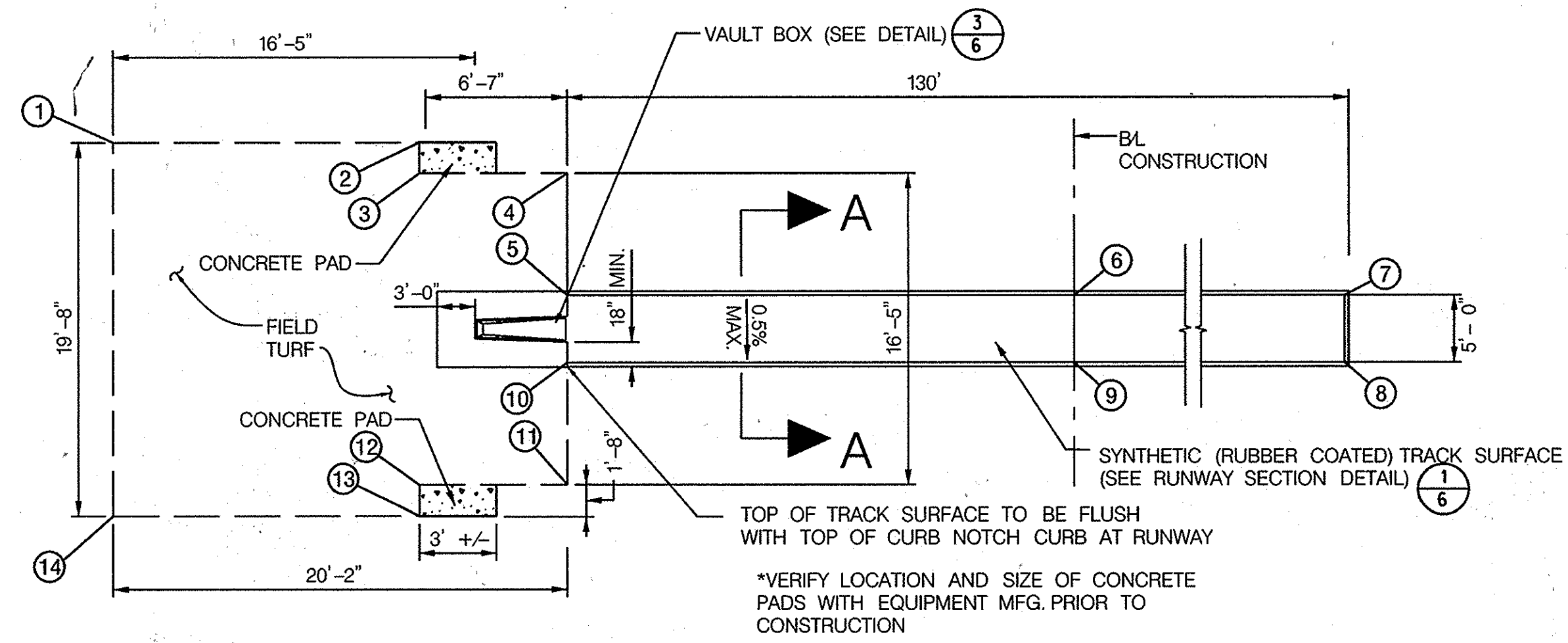
Thursday, May 29, 2014 AT 07:43 PM Joe.Yoon  
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SECTION A-A THRU POLE VAULT RUNWAY

1  
6

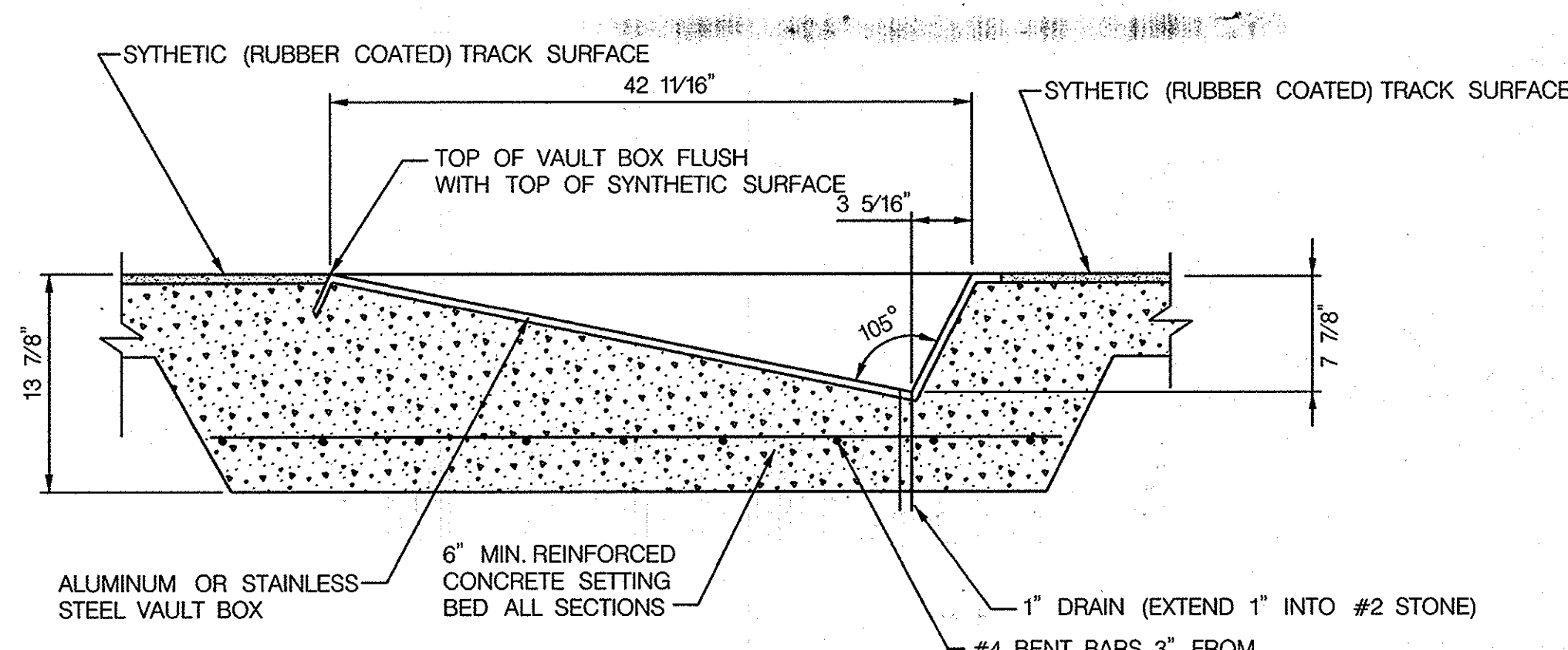
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POLE VAULT DETAIL

2  
6

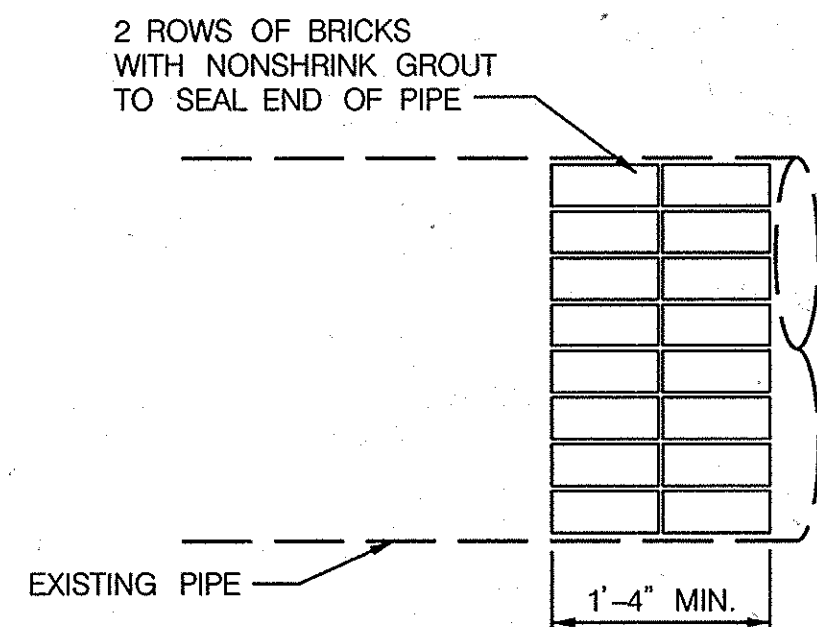
N.T.S.



SECTION THROUGH VAULT BOX

3  
6

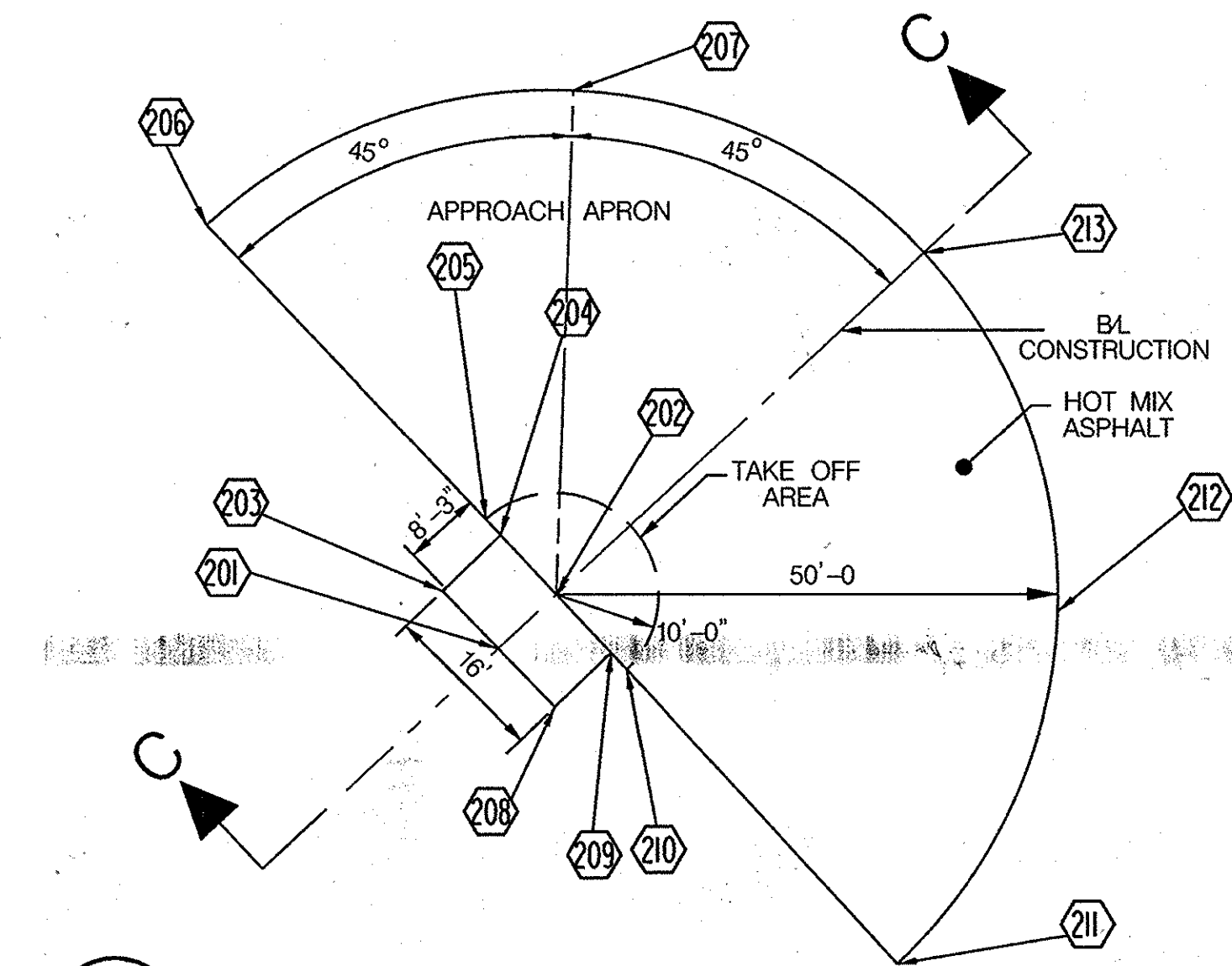
N.T.S.



PERMANENT BULKHEAD EXISTING PIPE

4  
6

N.T.S.



HIGH JUMP LAYOUT

5  
6

N.T.S.

POLE VAULT			
POINT	NORTHING	EASTING	ELEVATION
①	541,536.1940	1,336,887.4547	429.58
②	541,523.5318	1,336,885.9609	429.65
③	541,523.7271	1,336,884.3057	429.66
④	541,516.3566	1,336,883.4782	429.68
⑤	541,517.0253	1,336,877.8092	429.65
⑥	541,465.6713	1,336,871.7511	429.91
⑦	541,387.9206	1,336,862.5790	429.51
⑧	541,388.5063	1,336,857.6135	429.49
⑨	541,466.2570	1,336,866.7855	429.88
⑩	541,517.6111	1,336,872.8437	429.62
⑪	541,518.2799	1,336,867.1746	429.58
⑫	541,525.6455	1,336,868.0435	429.55
⑬	541,525.8359	1,336,866.4298	429.54
⑭	541,538.4981	1,336,867.9235	429.47

HIGH JUMP			
POINT	NORTHING	EASTING	ELEVATION
②0	541,413.8890	1,337,310.7337	429.73
②02	541,414.8555	1,337,302.5405	429.76
②03	541,405.9441	1,337,309.7965	429.69
②04	541,406.9106	1,337,301.6033	429.72
②05	541,404.9244	1,337,301.3690	429.71
②06	541,365.1998	1,337,296.6831	429.50
②07	541,383.8854	1,337,263.2868	429.74
②08	541,421.8340	1,337,311.6709	429.69
②09	541,422.8004	1,337,303.4777	429.72
②10	541,424.7866	1,337,303.7120	429.71
②11	541,464.5112	1,337,308.3979	429.50
②12	541,454.1092	1,337,271.5704	429.74
②13	541,420.7129	1,337,252.8848	429.98

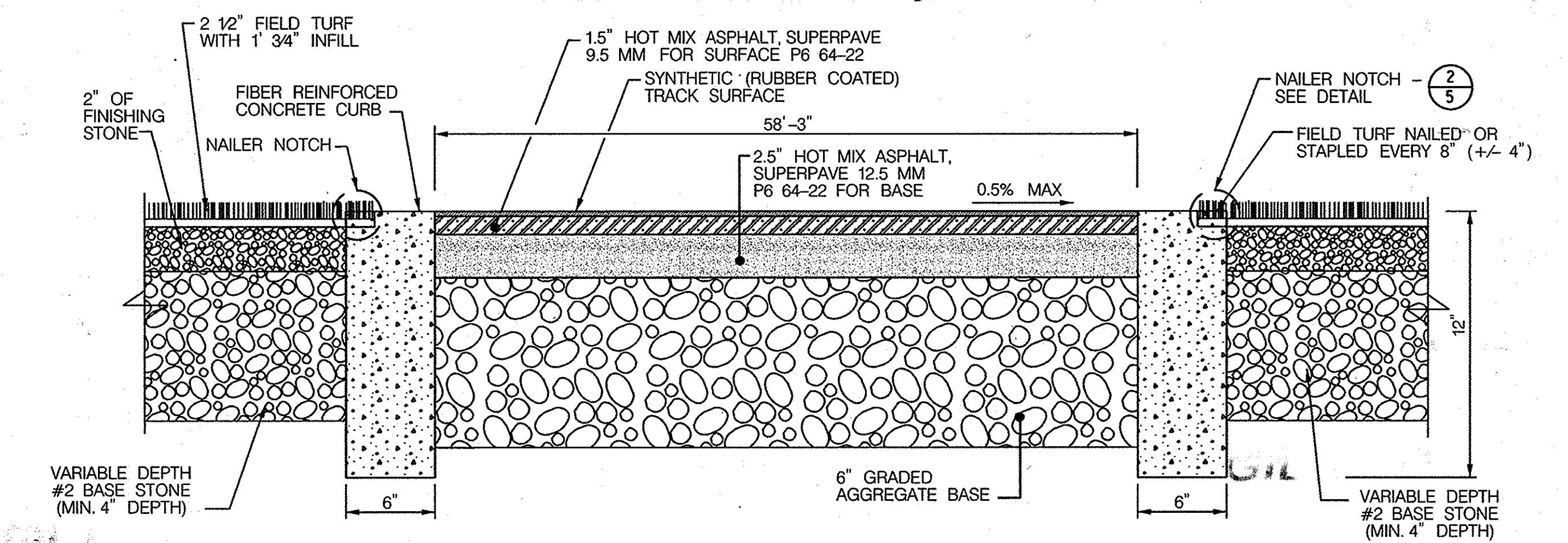
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

PROJECTOR \_\_\_\_\_ DATE \_\_\_\_\_

CHIEF, DIVISION OF LAND DEVELOPMENT \_\_\_\_\_ DATE \_\_\_\_\_

CHIEF, DEVELOPMENT ENGINEERING DIVISION \_\_\_\_\_ DATE \_\_\_\_\_

- NOTES:
- VARY LOCATION AND SIZE OF CONCRETE PADS WITH EQUIPMENT MFG. PRIOR TO CONSTRUCTION.
  - SEE ①/⑥ FOR BASE MATERIAL.
  - WORK POINTS ALONG POLE VAULT RUN WAY ARE APPLIED TO INSIDE LINE.



SECTION C-C THROUGH HIGH JUMP

6  
6

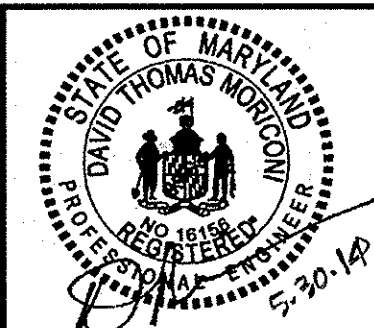
N.T.S.

PROFESSIONAL CERTIFICATION

"I HEREBY CERTIFY THAT DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 16156 EXPIRATION DATE: 8/28/2014"

HOWARD COUNTY PUBLIC SCHOOL SYSTEM  
HOWARD COUNTY, MARYLAND

PREPARED BY  
**URS**  
4 NORTH PARK DRIVE  
HUNT VALLEY, MARYLAND  
TEL: (410) 785-7220



DES:	RLI				
DRN:	CDF				
CHK:	DTM				
DATE:	04/14	DTM	NEW SHEET	6-18-14	
BY:	NO.	REVISION		DATE	

SITE DETAILS II

REVISED SITE DEVELOPMENT PLAN  
RESERVOIR HIGH SCHOOL  
FIELD IMPROVEMENTS

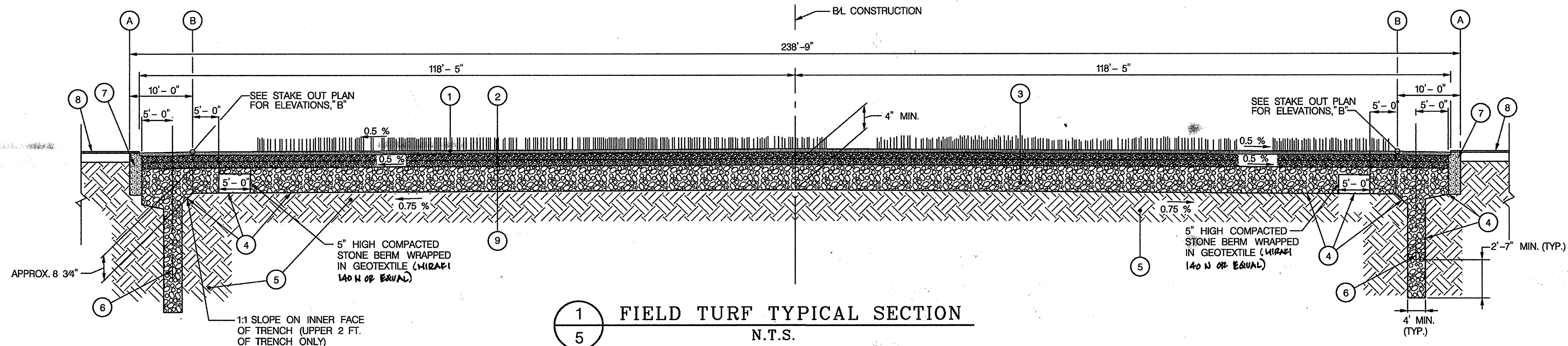
5TH ELECTION DISTRICT - HOWARD COUNTY, MARYLAND

SCALE  
AS SHOWN

SHEET  
5 OF 10  
35 37A

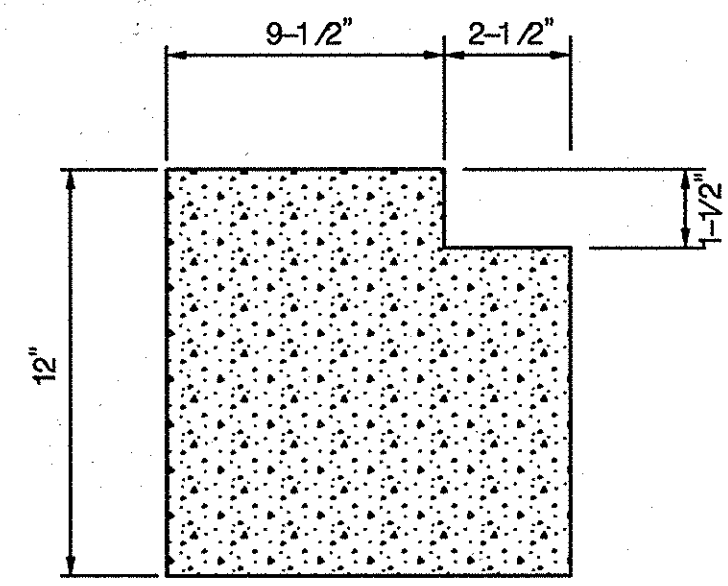
SDP-00-86



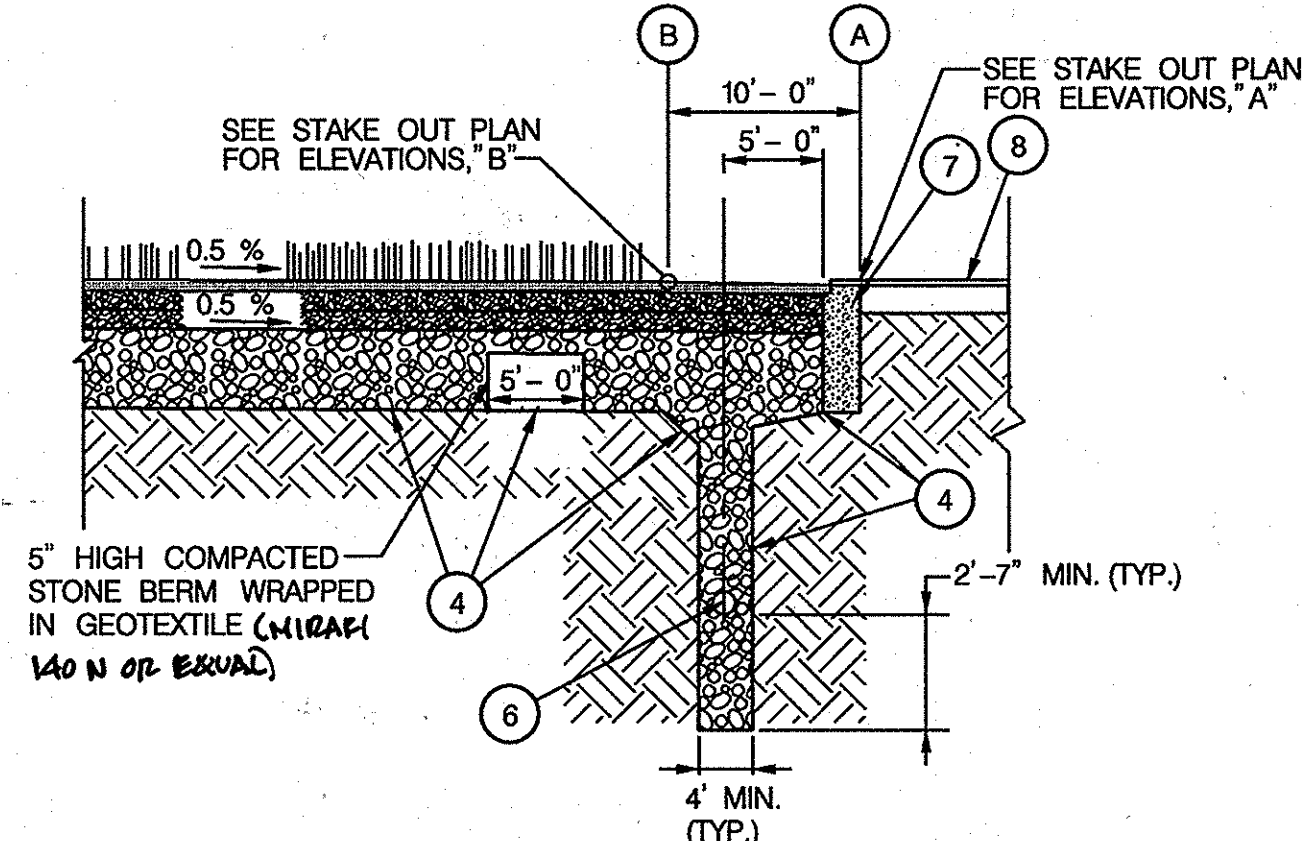


1 FIELD TURF TYPICAL SECTION  
5 N.T.S.

- LEGEND**
- 1 2 - 12" PILE FIELD TURF WITH 1 - 3/4" OF INFILL.
  - 2 1" OF FINISHING STONE AS PER SPECIFICATIONS, COMPACTED AND GRADED TO WITHIN 0 - 1/2" OF DESIGN GRADE AND WITHIN 0 - 1/4" IN 10 FEET (USE LASER GUIDED GRADER).
  - 3 VARIABLE DEPTH (MIN. 4" @ CENTER) #2 BASE STONE.
  - 4 GEOTEXTILE (MIRAFI 140N OR EQUAL) LINING THE TRENCH AND UNDER THE BASE.
  - 5 NATURAL SOIL COMPACTED TO 95% PROCTOR.
  - 6 10" DIAMETER PERFORATED COLLECTOR PIPE, SLOPE AT 0.5 %.
  - 7 CONCRETE CURB (SEE DETAILS THIS SHEET)
  - 8 EXISTING RUBBER COATED TRACK.
  - 9 1" OF #8 STONE.
  - 10 RUBBER COATING ON TRACK.
  - 11 FULL DEPTH SAWCUT AT CENTER OF PAINT LINE.
  - 12 CENTER OF WHITE PAINT LINE - MATCH EXISTING.

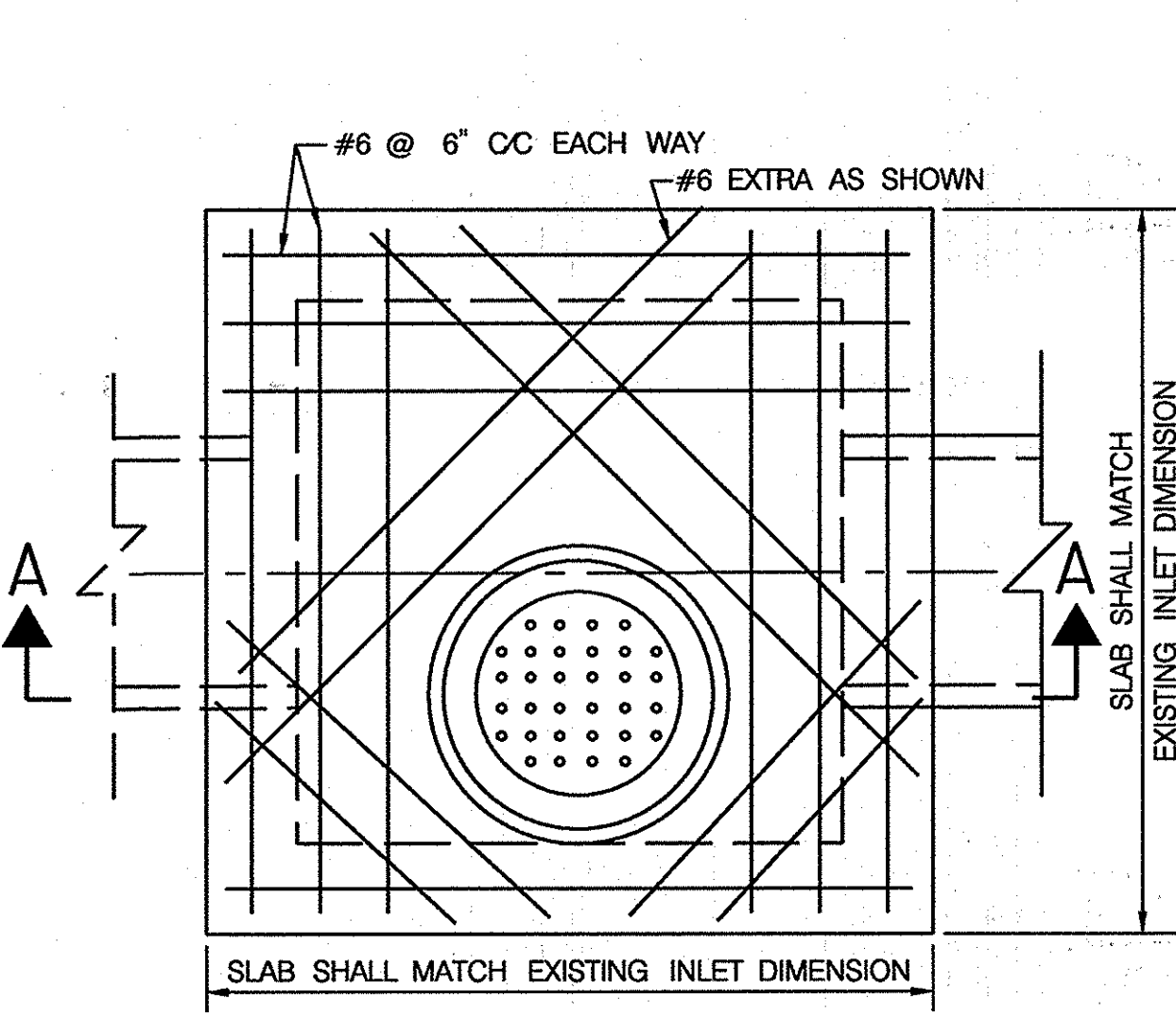


2 NAILER NOTCH  
5 N.T.S.

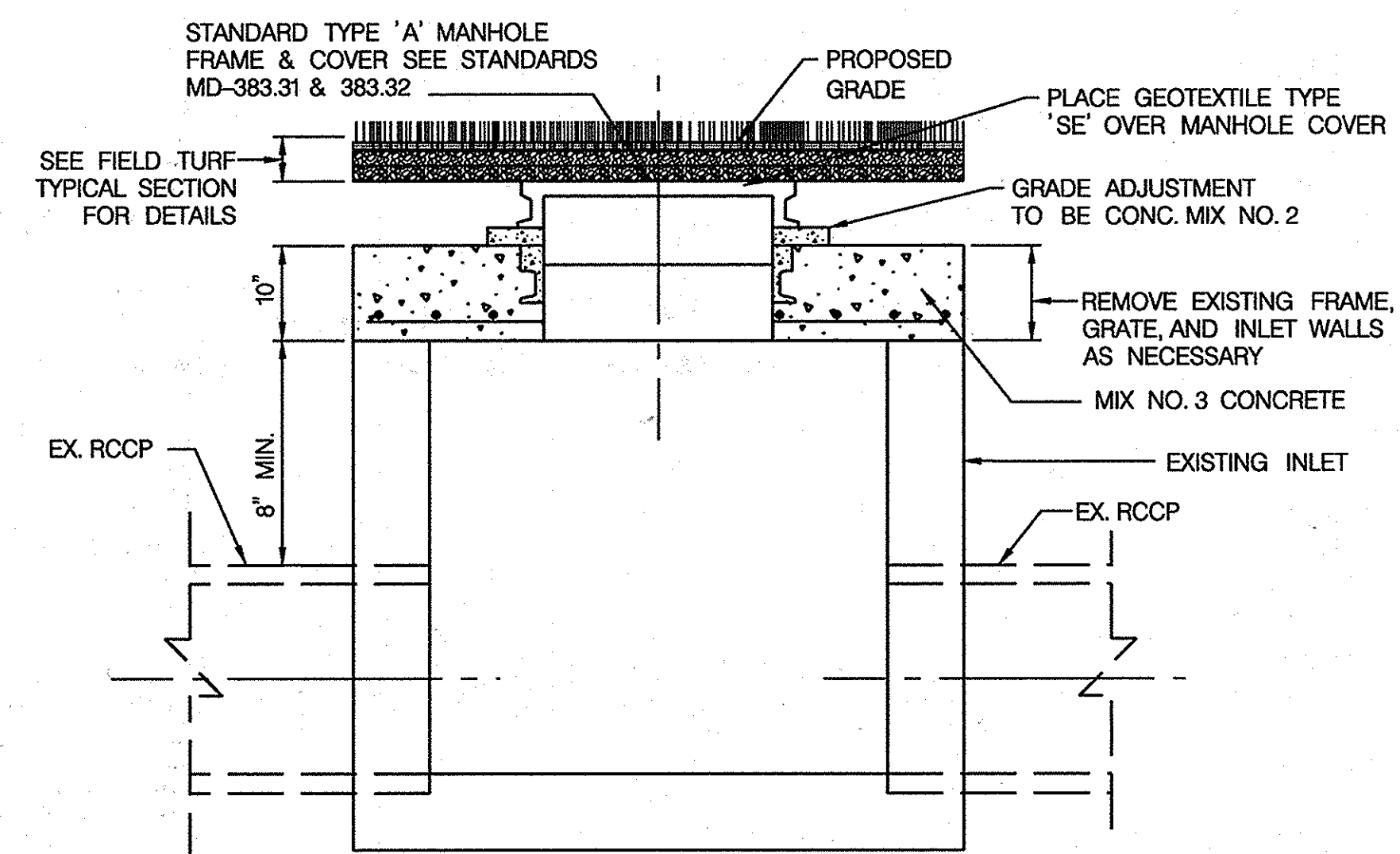


3 "D" SEMI-CIRCLE FIELD TURF TYPICAL SECTION  
5 N.T.S.

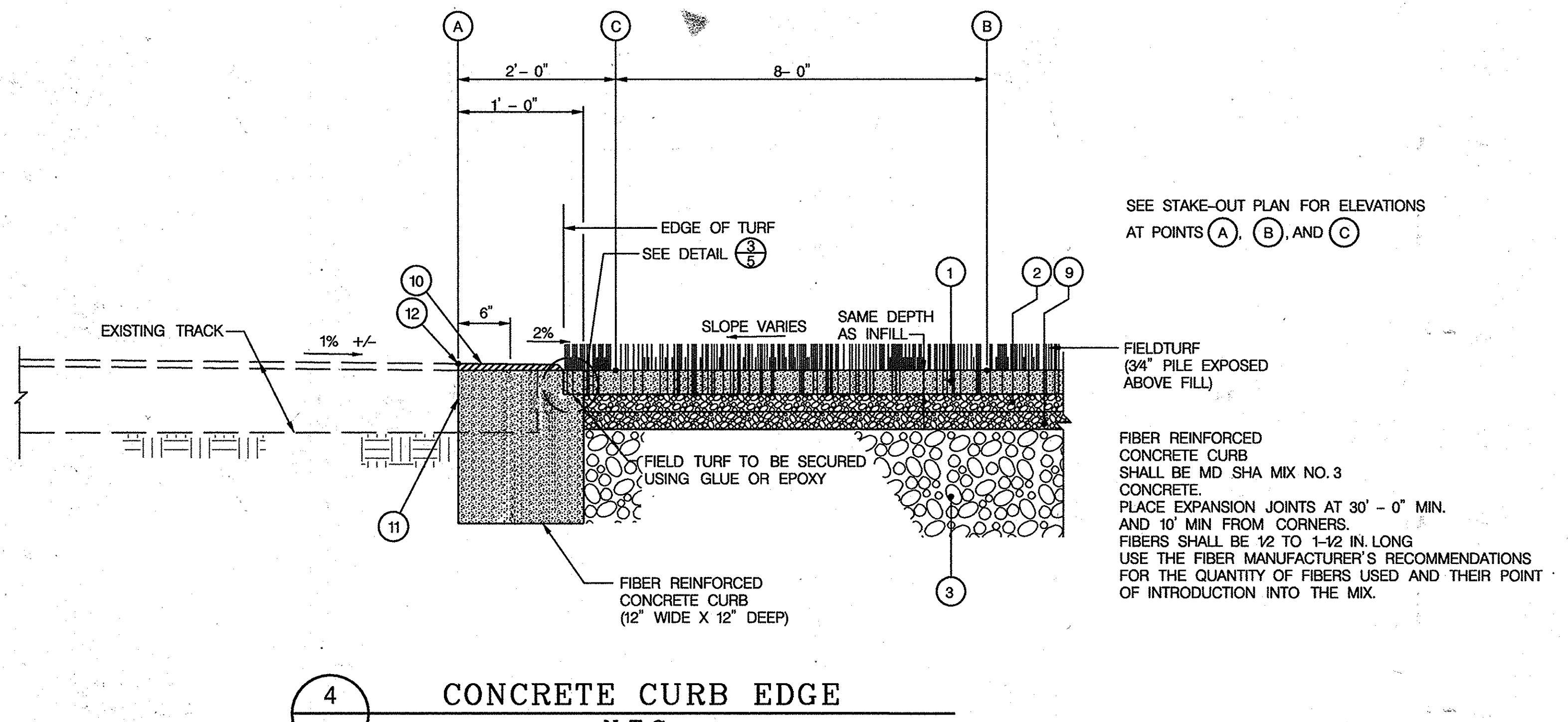
- NOTES**
1. CUT AN OPENING IN THE EXISTING CONVERTED MANHOLE TO ACCOMMODATE THE NEW PIPE. BRICK AND GROUT (NON-SHRINK) EXISTING OPENINGS AND GROUT NEW PIPE.
  2. SET FRAME AND COVER TO MEET PROPOSED FINISHED GRADE.
  3. SEE MARYLAND STANDARD MD-383.31 & 383.32 FOR THE STANDARD TYPE 'A' MANHOLE FRAME AND COVER.
  4. MANHOLE FRAME AND COVER TO BE PLACED AS SHOWN.



PLAN  
NOTE: MANHOLE FRAME AND COVER TO BE PLACED AS SHOWN.



SECTION A-A



4 CONCRETE CURB EDGE  
5 N.T.S.

GRATE INLET TO MANHOLE CONVERSION  
NOT TO SCALE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

DIRECTOR	DATE
CHIEF, DIVISION OF LAND DEVELOPMENT	DATE
CHIEF, DEVELOPMENT ENGINEERING DIVISION	DATE

**PROFESSIONAL CERTIFICATION**  
 "I HEREBY CERTIFY THAT DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 181558 EXPIRATION DATE: 8/28/2014"

**HOWARD COUNTY PUBLIC SCHOOL SYSTEM**  
 HOWARD COUNTY, MARYLAND

PREPARED BY  
**URS**  
 4 NORTH PARK DRIVE  
 HUNT VALLEY, MARYLAND  
 TEL: (410) 785-7220

DATE: 04/14

DES: RLL  
 DRN: CDF  
 CHK: DTM

DATE: 04/14

**SITE DETAILS I**

SCALE MAP NO. N/A BLOCK NO.

REVISED SITE DEVELOPMENT PLAN  
**RESERVOIR HIGH SCHOOL**  
 FIELD IMPROVEMENTS

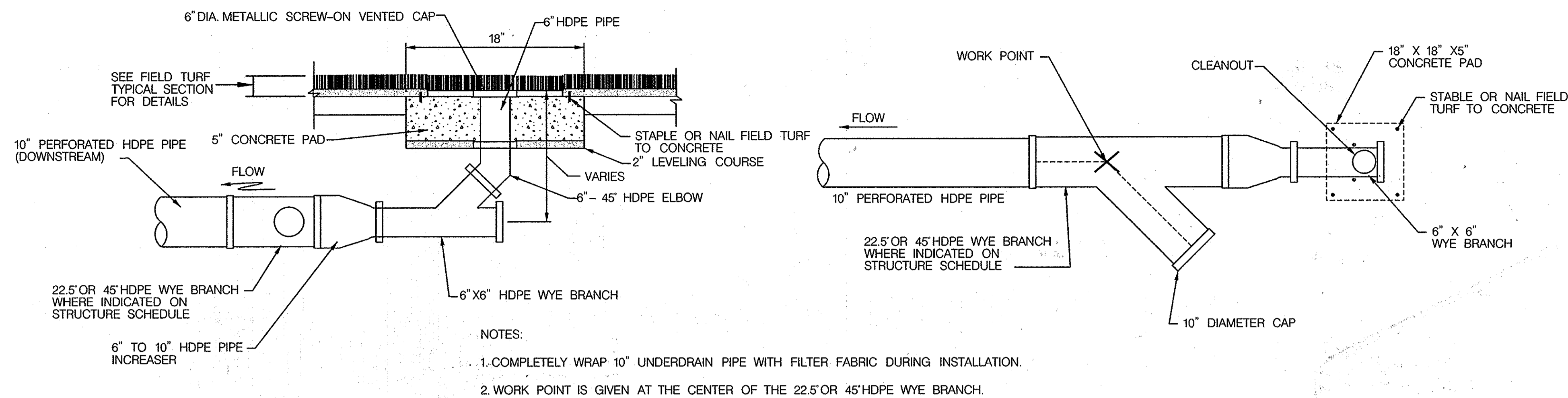
5TH ELECTION DISTRICT - HOWARD COUNTY, MARYLAND

SCALE AS SHOWN

SHEET 5 OF 40  
 32 37A

SDP-00-86

Friday, May 30, 2014 AT 10:23 AM ronald.lundum

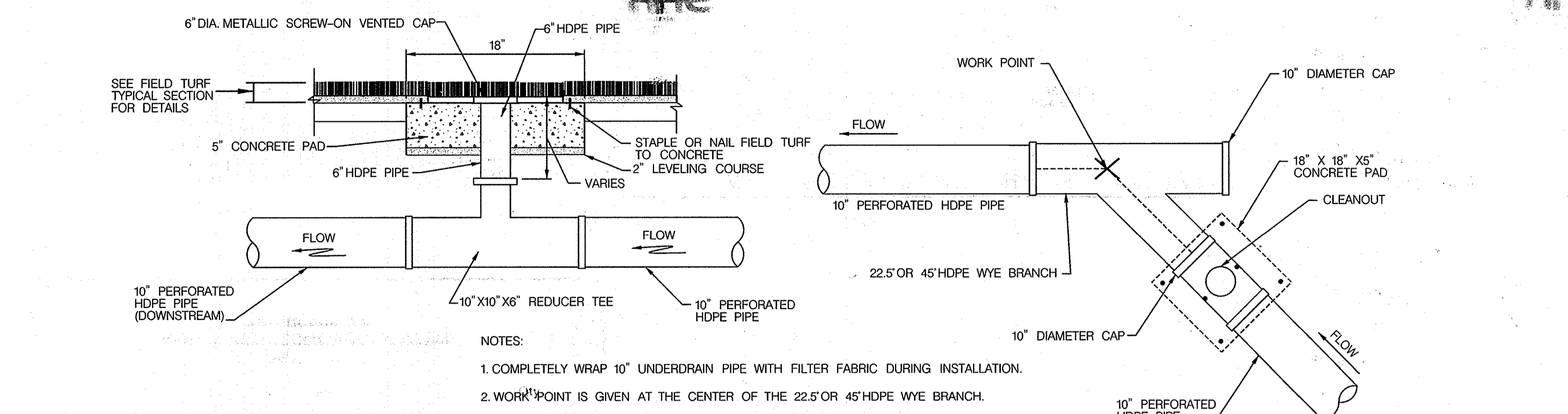


- NOTES:
1. COMPLETELY WRAP 10" UNDERDRAIN PIPE WITH FILTER FABRIC DURING INSTALLATION.
  2. WORK POINT IS GIVEN AT THE CENTER OF THE 22.5' OR 45' HDPE WYE BRANCH.

**CLEANOUT / WYE BRANCH DETAIL (C.O.) (ONE DIRECTION)**

1A  
7

N.T.S.



- NOTES:
1. COMPLETELY WRAP 10" UNDERDRAIN PIPE WITH FILTER FABRIC DURING INSTALLATION.
  2. WORK POINT IS GIVEN AT THE CENTER OF THE 22.5' OR 45' HDPE WYE BRANCH.

**CLEANOUT / WYE BRANCH DETAIL (C.O.) (BI DIRECTIONAL)**

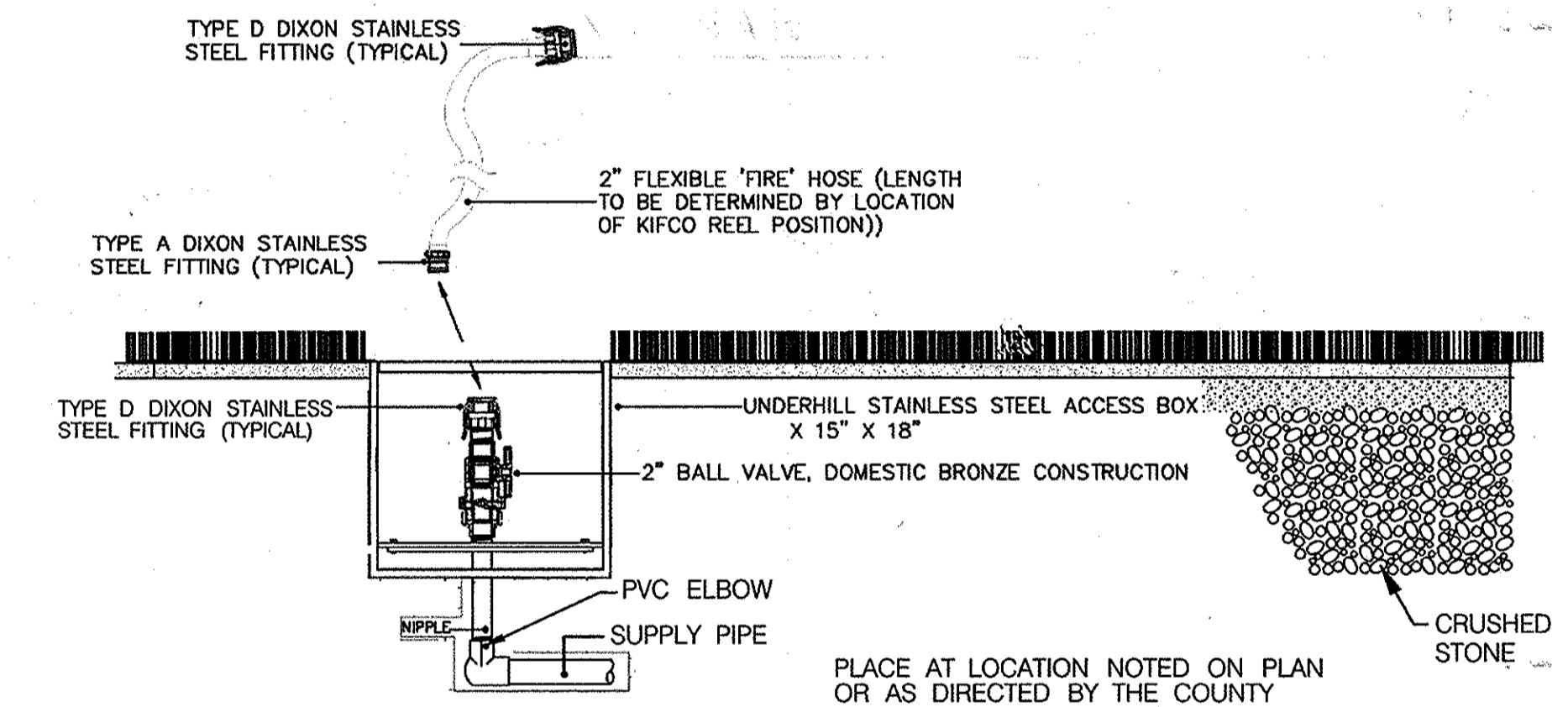
1B  
7

N.T.S.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

DIRECTOR	DATE
CHIEF, DIVISION OF LAND DEVELOPMENT	DATE
CHIEF, DEVELOPMENT ENGINEERING DIVISION	DATE

LOCATION POINT			STRUCTURE SCHEDULE			
NO.	NORTHING	EASTING	TYPE	Inv. In	Inv. Out	Top Elev.
CP-1	541,555.7700	1,337,081.0800	10" X 10" FLEX-SEAL RUBBER COUPLING	--	--	429.16
CP-2	541,329.3400	1,337,054.3700	10" X 10" FLEX-SEAL RUBBER COUPLING	--	--	429.16
BD-1	541,574.5000	1,336,922.2700	22.5 DEG. BEND	--	--	429.01
BD-2	541,561.5600	1,336,876.4400	22.5 DEG. BEND	--	--	428.90
BD-3	541,534.9900	1,336,842.7700	22.5 DEG. BEND	--	--	428.95
BD-4	541,493.4300	1,336,819.5100	22.5 DEG. BEND	--	--	428.94
BD-5	541,450.8300	1,336,814.4900	22.5 DEG. BEND	--	--	428.94
BD-6	541,405.0000	1,336,827.4300	22.5 DEG. BEND	--	--	428.95
BD-7	541,371.3200	1,336,854.0000	22.5 DEG. BEND	--	--	428.97
BD-8	541,348.0700	1,336,895.5600	22.5 DEG. BEND	--	--	428.82
BD-9	541,537.0400	1,337,239.8900	22.5 DEG. BEND	--	--	429.00
BD-10	541,513.7800	1,337,281.4500	22.5 DEG. BEND	--	--	428.94
BD-11	541,480.1100	1,337,308.0200	22.5 DEG. BEND	--	--	428.98
BD-12	541,434.2800	1,337,320.9600	22.5 DEG. BEND	--	--	429.03
BD-13	541,391.6800	1,337,315.9400	22.5 DEG. BEND	--	--	429.02
BD-14	541,350.1200	1,337,292.6900	22.5 DEG. BEND	--	--	429.02
BD-15	541,323.5500	1,337,259.0100	22.5 DEG. BEND	--	--	429.02
BD-16	541,310.6100	1,337,213.1800	22.5 DEG. BEND	--	--	428.99
MH-1	541,398.5800	1,336,832.6400	STANDARD 4 FT. CIRCULAR MANHOLE (STD. MD-383.21)	424.32 / 424.22 /	422.52	429.05
MH-2	541,485.5300	1,337,303.7400	STANDARD 4 FT. CIRCULAR MANHOLE (STD. MD-383.21)	425.07 / 424.97	424.87	429.07
MH-3	541,351.5000	1,337,293.4600	STANDARD 4 FT. CIRCULAR MANHOLE (STD. MD-383.21)	424.17 / 423.97	423.73	429.04
MH-4	541,337.2700	1,337,276.4000	STANDARD 4 FT. CIRCULAR MANHOLE (STD. MD-383.21)	423.30 / 423.20	423.10	429.16



**2 WATER REEL CONNECTION DETAIL**

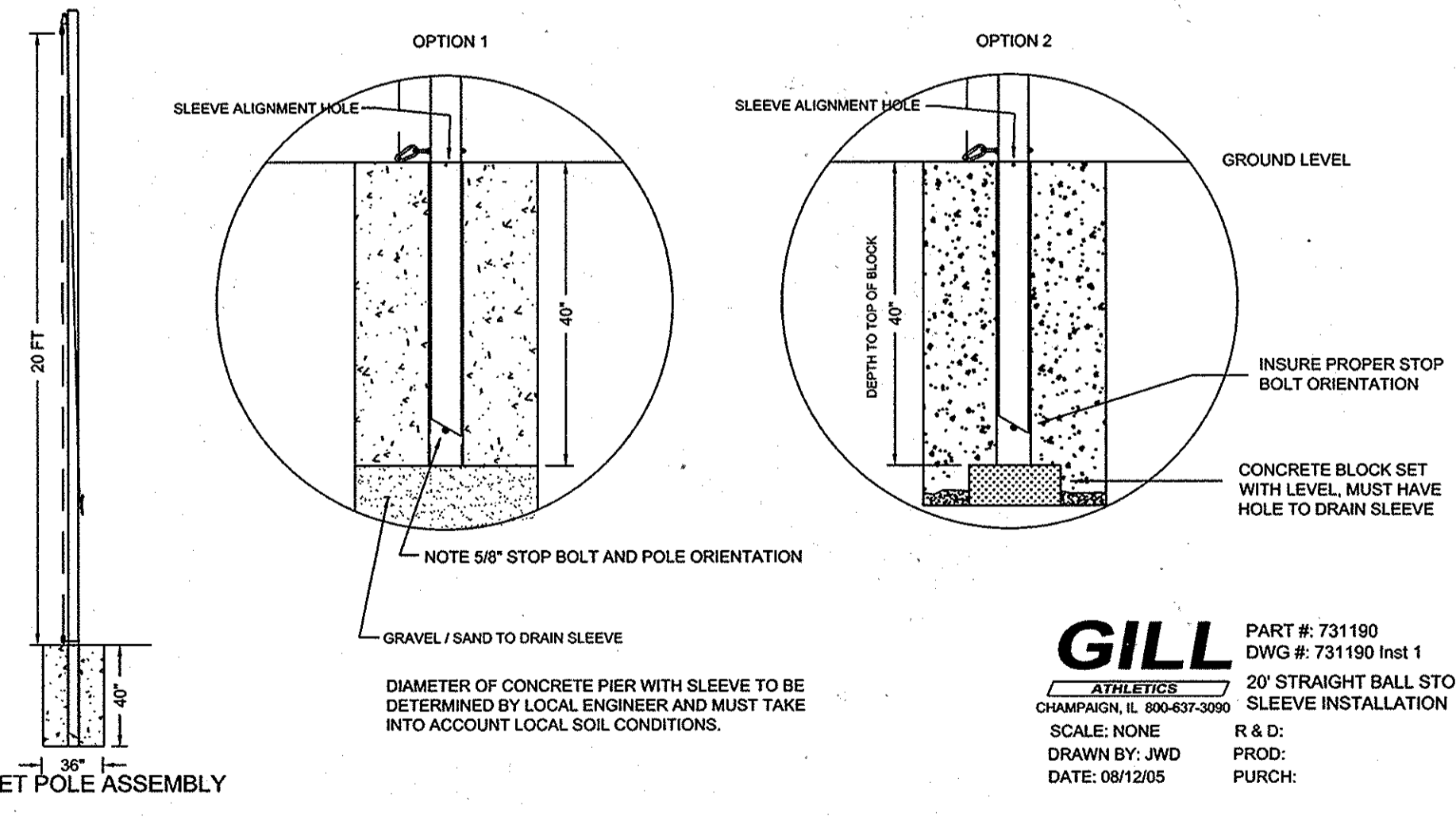
2  
7

N.T.S.

**GROUND SLEEVE INSTALLATION**

NOTE: The proper orientation of the 5/8" sleeve stop bolt determines the proper orientation of the net pole. Each sleeve has a 1/4" through hole at the top edge through which string could be fed as a visible reference to help insure proper alignment.

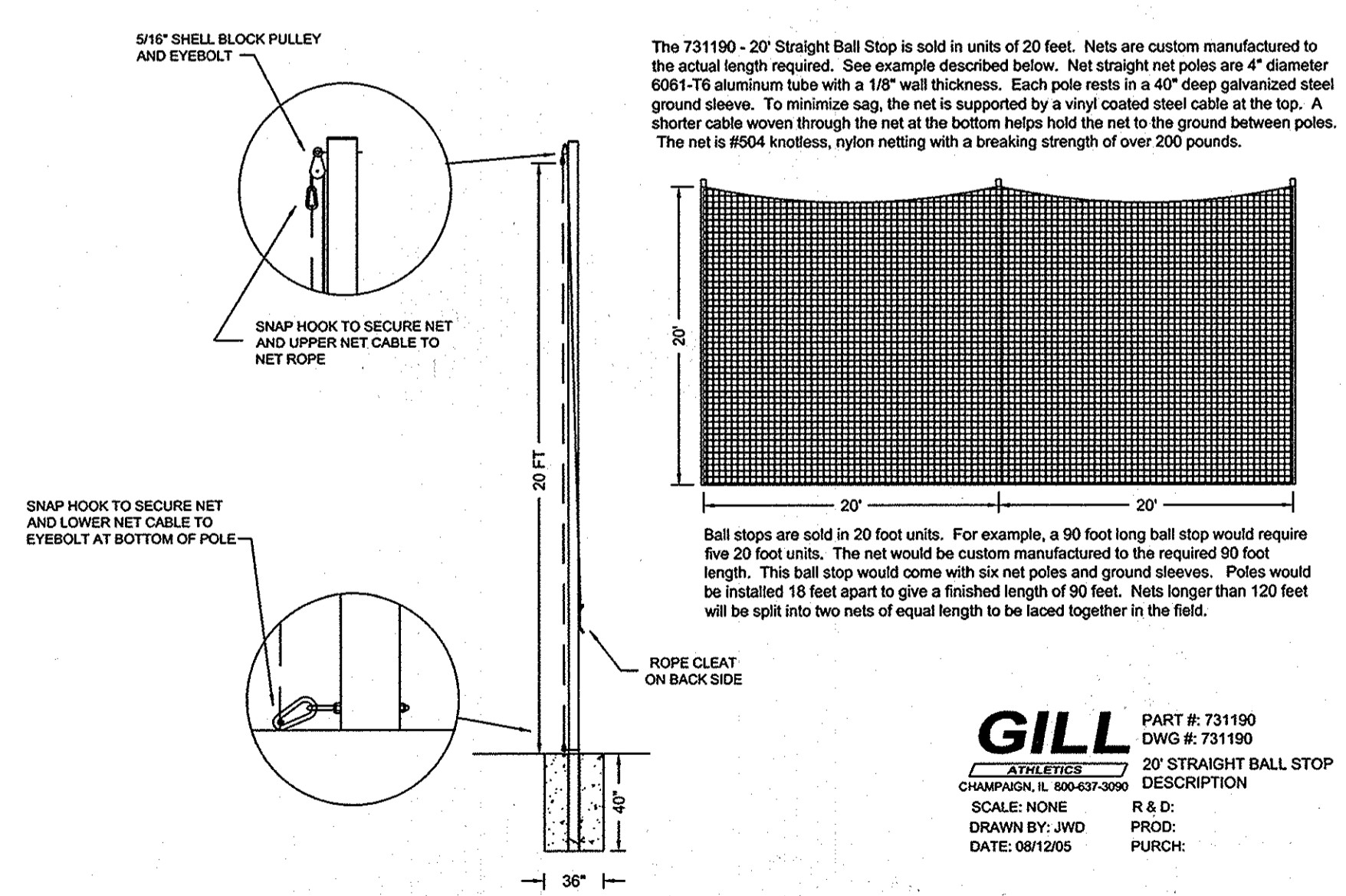
1. Dig holes for sleeves at staked locations. Size of holes are dependent on equipment used and must take into account soil conditions to support the poles.
2. Position and level gravel or a concrete block at the bottom of the hole so that the sleeve opening rests at the proper height at the surface.
3. Fix and support the sleeve in position with wire and/or sections of rebar to prevent sleeve movement during the concrete pour.
4. During the concrete pour, insure the alignment holes at the top opening of the sleeve remain properly aligned. These holes help orient the pole alignment pins at the bottom of the sleeves.



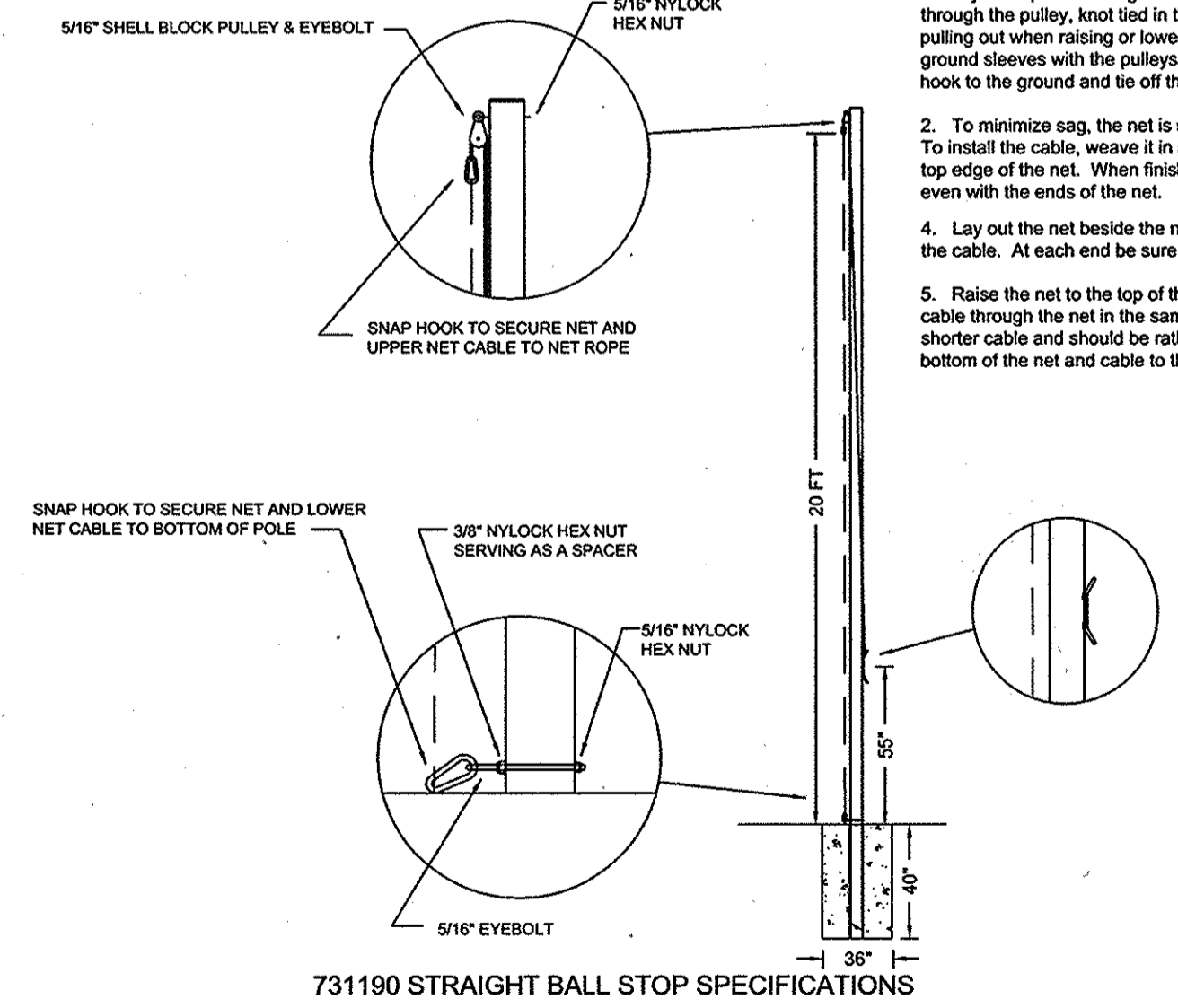
**3 SAFETY NETTING DETAILS**

3  
7

N.T.S.



**GILL** PART #: 731190  
DWG #: 731190  
20' STRAIGHT BALL STOP SLEEVE INSTALLATION  
SCALE: NONE  
DRAWN BY: JWD  
DATE: 08/12/05  
R & D:  
PRD:  
PURCH:



1. Lay each pole on the ground and assemble as shown. After the rope is fed through the pulley, knot tied in the rope at the 20' mark will keep the rope from pulling out when raising or lowering the net. Set the assembled poles into the ground sleeves with the pulleys facing the side you want the net. Lower the net hook to the ground and tie off the rope.
2. To minimize sag, the net is supported by a vinyl coated steel cable at the top. To install the cable, weave it in and out through every 5th net opening just below the top edge of the net. When finished, the loops at each end of the cable should be even with the ends of the net.
3. Lay out the net beside the net poles. At each pole, hook both the net binding and the cable. At each end be sure the hook is through the cable loop.
4. Lay out the net beside the net poles. At each pole, hook both the net binding and the cable. At each end be sure the hook is through the cable loop.
5. Raise the net to the top of the poles and tie off the ropes. Weave the ground net cable through the net in the same way as the top net support cable. This is the shorter cable and should be rather taut as it runs from pole to pole. Secure the bottom of the net and cable to the lower eyebolts with the 5/16" snap hooks.

**GILL** PART #: 731190  
DWG #: 731190 Inst 2  
20' STRAIGHT BALL STOP NET POLE ASSEMBLY  
SCALE: NONE  
DRAWN BY: JWD  
DATE: 08/12/05  
R & D:  
PRD:  
PURCH:

**PROFESSIONAL CERTIFICATION**  
"I HEREBY CERTIFY THAT DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 16156, EXPIRATION DATE: 8/28/2014."

HOWARD COUNTY PUBLIC SCHOOL SYSTEM  
HOWARD COUNTY, MARYLAND

PREPARED BY  
**URS**  
4 NORTH PARK DRIVE  
HUNT VALLEY, MARYLAND  
TELL (410) 785-2220

ASSISTANT MANAGER, GROUNDS SERVICES  
HOWARD COUNTY PUBLIC SCHOOL SYSTEM

DATE: 5/30/14

DES: RLL  
DRN: CDF  
CHK: DTM  
DATE: 04/14

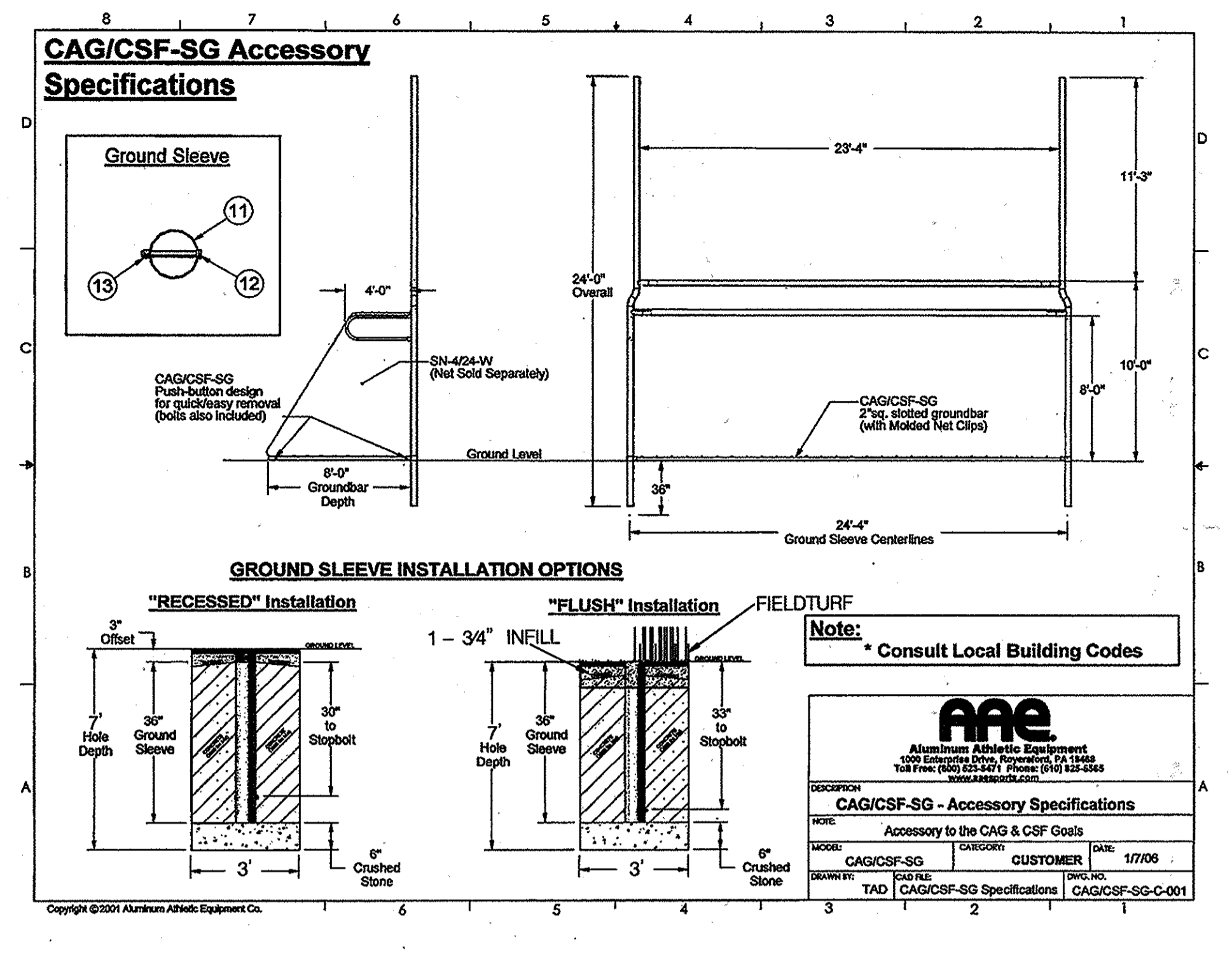
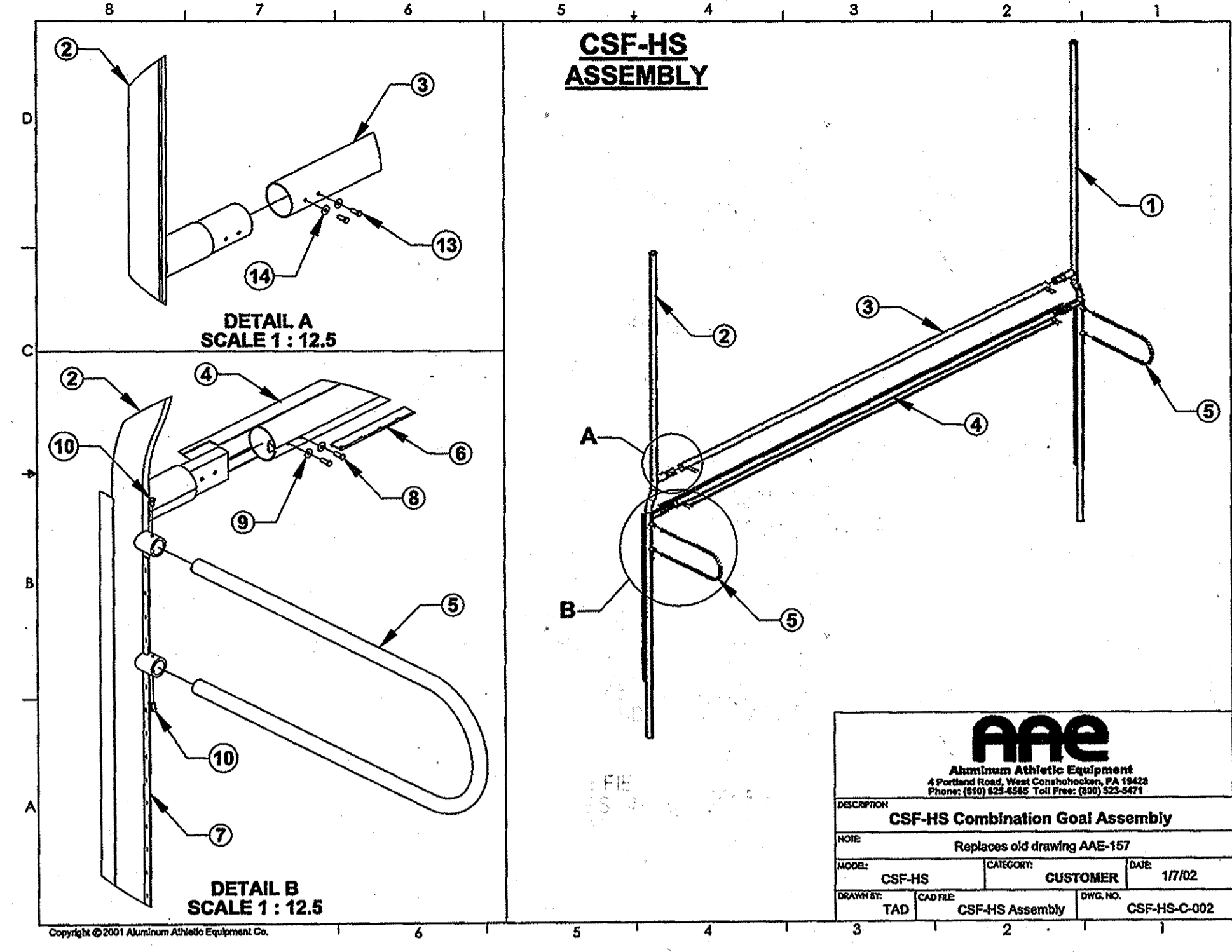
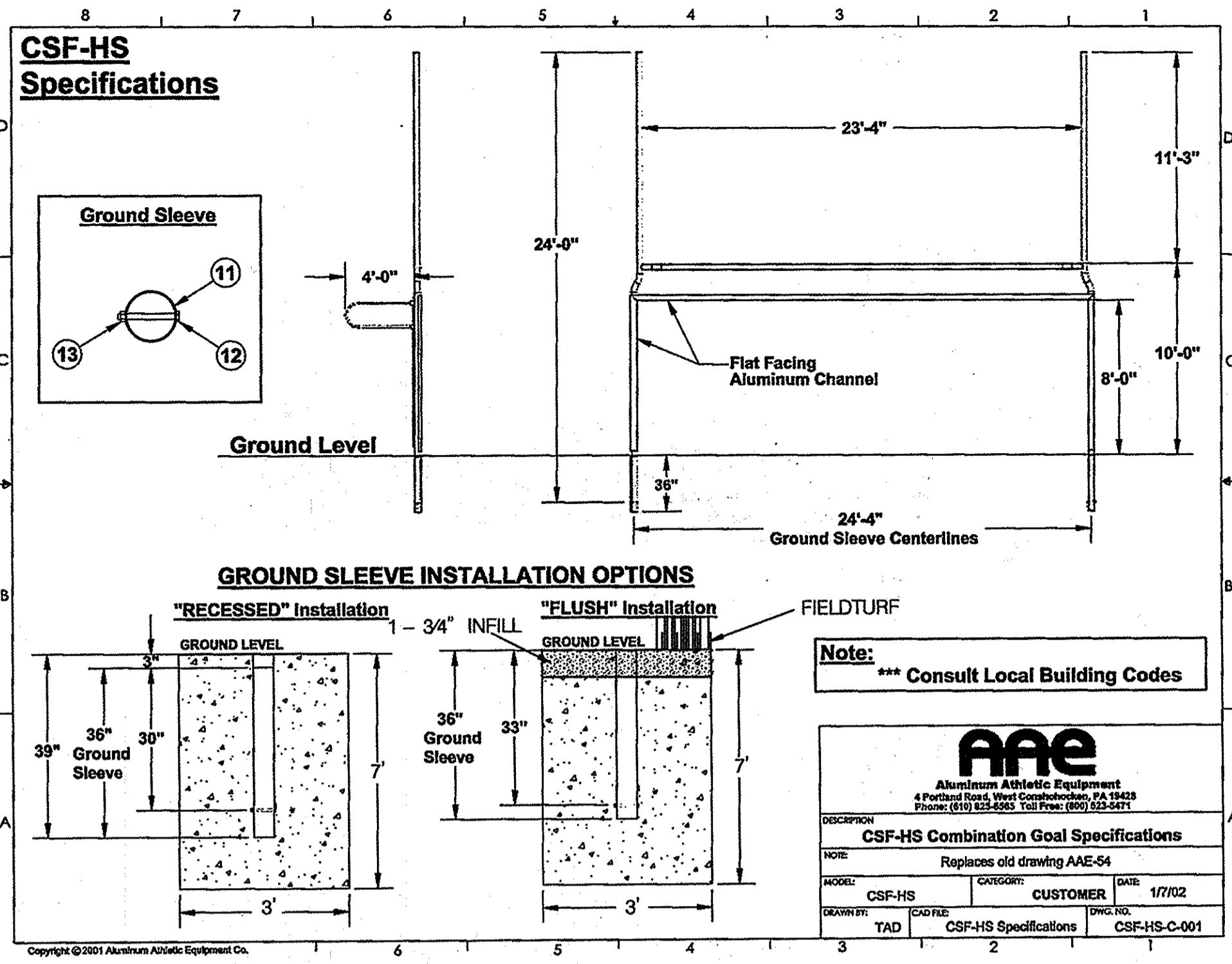
DTM  
BY NO. REVISION DATE

SCALE MAP NO. N/A BLOCK NO.

SITE DETAIL III

REVISED SITE DEVELOPMENT PLAN  
**RESERVOIR HIGH SCHOOL FIELD IMPROVEMENTS**  
5TH ELECTION DISTRICT - HOWARD COUNTY, MARYLAND

SCALE AS SHOWN  
SHEET 34 OF 37



1 COMBINATION GOAL SPECIFICATIONS  
N.T.S.

2 GROUND BAR ATTACHMENT DETAILS  
N.T.S.

**CAG-HS/CSF-HS  
HIGH SCHOOL COMBINATION GOALS  
PARTS LIST**

Part#	Item	Description	Qty.
1	Upright,LH	4.00 o.d. x .226 x 24' - aluminum extrusion.	2
*1A			
2	Upright,RH	4.00 o.d. x .226 x 24' - aluminum extrusion.	2
3	Crossbar (Football)	4.00" o.d. x .125 x 22'- 4" 6061T6 - aluminum tube.	2
4	Crossbar (Soccer)	4.00" o.d. x .125 x 23'-0" - aluminum extrusion.	2
5	ISA Stay	International Net Stay, 1.688" o.d. x .125 x 43", 17" arc, 6061T6 aluminum.	4
6	PVC	PVC Net attachment extrusion, 22'-2" lg.	2
7	PVC	PVC Net attachment extrusion, 7'-6" lg.	4
8	Bolt	3/8"-16 x 1" stainless steel hex bolt	16
9	Washer	3/8 washer, SS	16
10	Bolt	3/8"-16 x 5/8" stainless steel hex bolt	8
11	Ground Sleeve	4.35" o.d. x .100 x 30" 6061T6 aluminum tube.	4
12	Stopbolt	1/2"-13 x 5" steel hex bolt, plated	4
13	Stopbolt Nut	1/2"-13 steel hex nut, plated	4

NOTE: GOAL POSTS SHALL BE WHITE IN COLOR.

K:\AAE Data\Product Instructions & Parts Lists\CAG-HS\CAG-HS & CSF-HS Parts List.doc  
Copyright © 2001 Aluminum Athletic Equipment Co.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

DIRECTOR: \_\_\_\_\_ DATE: \_\_\_\_\_

CHIEF, DIVISION OF LAND DEVELOPMENT: \_\_\_\_\_ DATE: \_\_\_\_\_

CHIEF, DEVELOPMENT ENGINEERING DIVISION: \_\_\_\_\_ DATE: \_\_\_\_\_

PROFESSIONAL CERTIFICATION

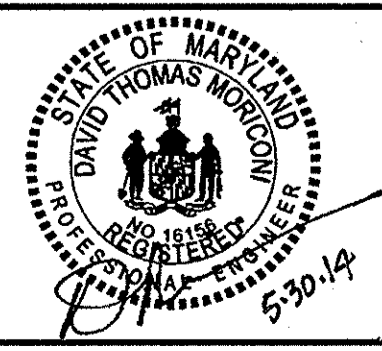
\* I HEREBY CERTIFY THAT DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 16158 EXPIRATION DATE: 8/28/2014

HOWARD COUNTY PUBLIC SCHOOL SYSTEM  
HOWARD COUNTY, MARYLAND

John R. Boyd 5/30/14  
DIRECTOR, HOWARD COUNTY RECREATION AND PARKS

Gregory Conn 6.3.14  
ASSTANT MANAGER, GROUNDS SERVICES,  
HOWARD COUNTY PUBLIC SCHOOL SYSTEM

PREPARED BY  
**URS**  
4 NORTH PARK DRIVE  
HUNT VALLEY, MARYLAND  
TEL: (410) 785-7220



DES: RLL				
DRN: CDF				
CHK: DTM				
DATE: 04/14	DTM	NEW SHEET	6/12/14	
BY	NO.	REVISION	DATE	

SITE DETAILS IV

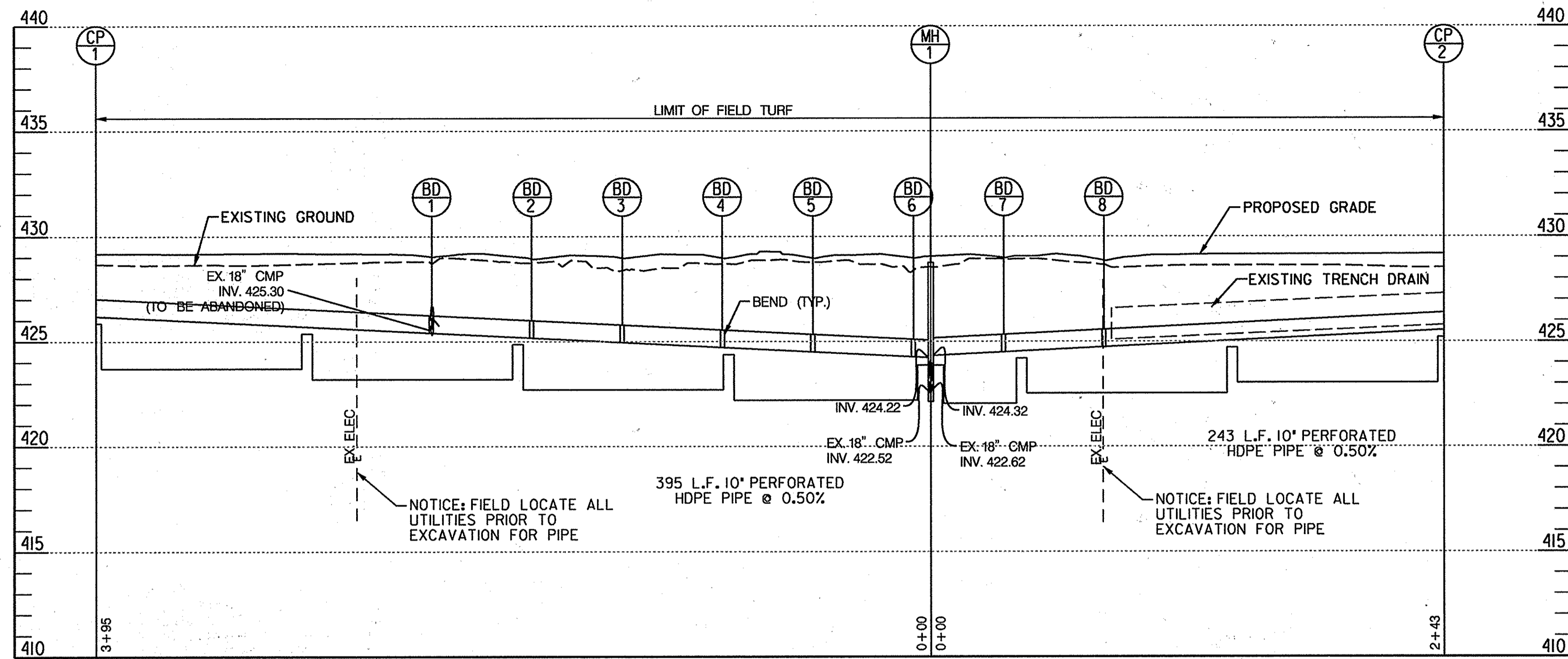
SCALE MAP NO. N/A BLOCK NO.

REVISED SITE DEVELOPMENT PLAN  
RESERVOIR HIGH SCHOOL  
FIELD IMPROVEMENTS

5TH ELECTION DISTRICT - HOWARD COUNTY, MARYLAND

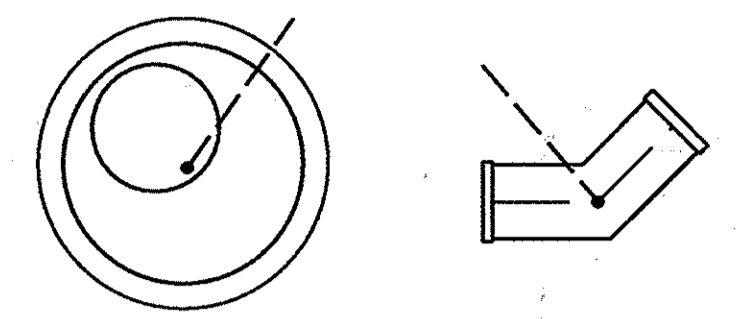
SCALE AS SHOWN

SHEET 8 OF 10  
35 37A



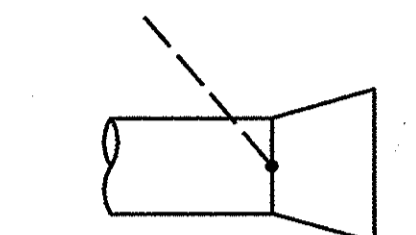
PIPE PROFILE (STA. 103+16, LT. TO STA. 103+16, RT.)  
 SCALE: HORZ. 1"=40'  
 VERT. 1"=4'

LOCATION POINT



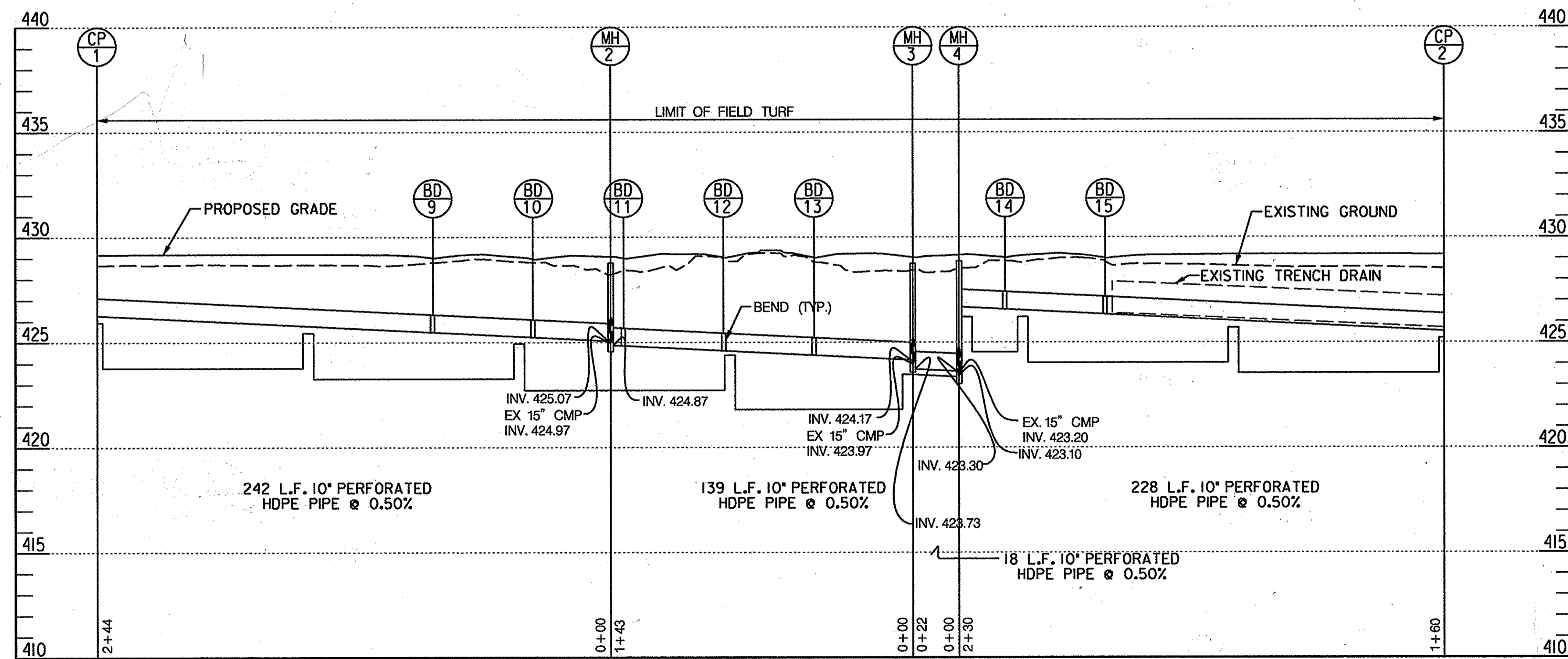
MANHOLE

BEND



END SECTION

NOTE:  
 SEE SHEET NO. 7 FOR STRUCTURE SCHEDULE.



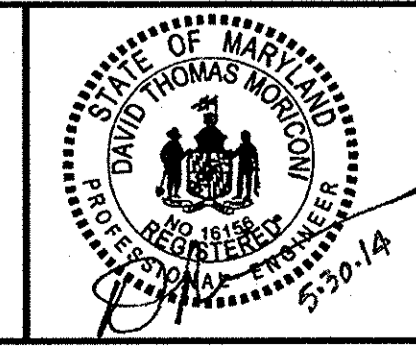
PIPE PROFILE (STA. 103+16, RT. TO STA. 103+16, LT.)  
 SCALE: HORZ. 1"=40'  
 VERT. 1"=4'

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING  
 DIRECTOR \_\_\_\_\_ DATE \_\_\_\_\_  
 CHIEF, DIVISION OF LAND DEVELOPMENT \_\_\_\_\_ DATE \_\_\_\_\_  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION \_\_\_\_\_ DATE \_\_\_\_\_

PROFESSIONAL CERTIFICATION  
 "I HEREBY CERTIFY THAT DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 16156 EXPIRATION DATE: 8/28/2014."

HOWARD COUNTY PUBLIC SCHOOL SYSTEM  
 HOWARD COUNTY, MARYLAND  
 5/30/14  
 DIRECTOR, HOWARD COUNTY RECREATION AND PARKS  
 ASS. STAFF MANAGER, GROUNDS SERVICES, HOWARD COUNTY PUBLIC SCHOOL SYSTEM

PREPARED BY  
**URS**  
 4 NORTH PARK DRIVE  
 HUNT VALLEY, MARYLAND  
 TEL: (410) 785-7220



DES: RLL			
DRN: CDF			
CHK: DTM			
DATE: 04/14	DTM	NEW SHEET	6/10/14
BY NO.		REVISION	DATE

PIPE PROFILES  
 SCALE MAP NO. N/A BLOCK NO.

DESIGNED SITE DEVELOPMENT PLAN  
**RESERVOIR HIGH SCHOOL**  
 FIELD IMPROVEMENTS  
 5TH ELECTION DISTRICT - HOWARD COUNTY, MARYLAND

SCALE AS SHOWN  
 SHEET 9 OF 10  
 3/6 37A

B-4.2 STANDARDS AND SPECIFICATIONS

FOR SOIL PREPARATION, TOPSOILING, AND SOIL AMENDMENTS

Definition: The process of preparing the soils to sustain adequate vegetative stabilization.

Purpose: To provide a suitable soil medium for vegetative growth.

Conditions Where Practice Applies: Where vegetative stabilization is to be established.

Criteria: 1. Temporary Stabilization

- 1. Temporary Stabilization
a. Seeded preparation consists of loosening soil to a depth of 3 to 5 inches by means of suitable agricultural or construction equipment...

2. Permanent Stabilization

- a. A soil test is required for any earth disturbance of 5 acres or more. The minimum soil conditions required for permanent vegetative establishment are:
i. Soil pH between 6.0 and 7.0.

3. Topsoiling

- 1. Topsoil is placed over prepared subsoil prior to establishment of permanent vegetation. The purpose is to provide an existing soil medium for vegetative growth...

2. Topsoil Specifications: Soil to be used as topsoil must meet the following criteria:

- a. Topsoil must be a loam, sandy loam, clay loam, sandy clay loam, or loamy sand. Other soils may be used if recommended by an agronomist or soil scientist and approved by the appropriate approval authority...

3. Soil Amendments (Fertilizer and Soil Specifications)

- 1. Soil tests must be performed to determine the exact ratios and application rates for both lime and fertilizer on sites having disturbed areas of 5 acres or more...

B-4.3 STANDARDS AND SPECIFICATIONS

FOR SEEDING AND MULCHING

Definition: The application of seed and mulch to establish vegetative cover.

Purpose: To prevent disturbed soils from erosion during and at the end of construction.

Conditions Where Practice Applies: To the surface of all perimeter contours, slopes, and any disturbed area not under active grading.

Criteria: A. Seeding

- 1. Specifications
a. All seed must meet the requirements of the Maryland State Seed Law. All seed must be subject to testing by a recognized seed laboratory...

2. Application

- a. Dry Seeding: This includes use of conventional drop or broadcast spreaders.
i. Incorporate seed into the subsoil at the rate prescribed on Temporary Seeding Table B.1, Permanent Seeding Table B.3, or also specify seeding amounts.

B. Mulching

- 1. Match Material (in order of preference)
a. Straw consisting of thoroughly shucked wheat, oat, or barley and reasonably bright in color...

2. Application

- a. Apply mulch to all seeded areas immediately after seeding.
b. When straw mulch is used, spread it over all seeded areas at the rate of 2 tons per acre to a uniform loose depth of 1 to 2 inches...

3. Anchoring

- 1. A mulch anchoring tool is a tractor drawn implement designed to punch and anchor mulch into the soil surface to a minimum of 2 inches. This practice is most effective on large areas...

B-4.4 STANDARDS AND SPECIFICATIONS

FOR PERMANENT STABILIZATION

Definition: To stabilize disturbed soils with permanent vegetation.

Purpose: To use long-lived perennial grasses and legumes to establish permanent ground cover on disturbed soils.

Conditions Where Practice Applies: Exposed soils where ground cover is needed for a period of 6 months or more.

Criteria: A. Seed Mixtures

- 1. General Use
a. Select one or more of the species or mixtures listed in Table B.3 for the appropriate Plant Hardiness Zone (from Figure B.3) and based on the site condition or prepare based on Table B.3...

2. Turfgrass Mixtures

- a. Areas where turfgrass may be desired include lawns, playgrounds, and commercial sites which will receive a medium to high level of maintenance.
b. Select one or more of the species or mixtures listed below based on the site conditions or purpose...

3. Application

- a. Dry Seeding: This includes use of conventional drop or broadcast spreaders.
i. Incorporate seed into the subsoil at the rate prescribed on Temporary Seeding Table B.1, Permanent Seeding Table B.3, or also specify seeding amounts.

4. Ideal Times of Seeding for Turf Grass Mixtures

- 1. General Specifications
a. Class of turfgrass seed must be Maryland State Certified. Seed labels must be made available to the field foreman and inspector.

2. Seed Installation

- a. During periods of excessively high temperature or in areas having dry soils, lightly irrigate the subsoil immediately prior to laying the seed.
b. Lay the first row of seed in a straight line with subsequent rows placed parallel to it and slightly staggered against each other...

3. Sod Maintenance

- a. In the absence of adequate rainfall, water daily during the first week and on other days sufficiently to maintain minimum soil moisture to a depth of 4 inches. Water and maintain the depth of water until the sod is firmly rooted.

B-4.4 STANDARDS AND SPECIFICATIONS

FOR TEMPORARY STABILIZATION

Definition: To stabilize disturbed soils with vegetation for up to 6 months.

Purpose: To use fast growing vegetation that provides cover on disturbed soils.

Conditions Where Practice Applies: Exposed soils where ground cover is needed for a period of 6 months or less.

Criteria: 1. Select one or more of the species or mixtures listed in Table B.1 for the appropriate Plant Hardiness Zone (from Figure B.3) and based on the site condition or prepare based on Table B.3...

2. Turfgrass Mixtures

- a. Areas where turfgrass may be desired include lawns, playgrounds, and commercial sites which will receive a medium to high level of maintenance.
b. Select one or more of the species or mixtures listed below based on the site conditions or purpose...

3. Application

4. Ideal Times of Seeding for Turf Grass Mixtures

5. General Specifications

- a. Class of turfgrass seed must be Maryland State Certified. Seed labels must be made available to the field foreman and inspector.
b. Sod must be machine cut at a uniform thickness of 1 1/2 inch, plus or minus 1/8 inch, at the time of cutting...

6. Sod Installation

- a. During periods of excessively high temperature or in areas having dry soils, lightly irrigate the subsoil immediately prior to laying the sod.
b. Lay the first row of sod in a straight line with subsequent rows placed parallel to it and slightly staggered against each other...

7. Sod Maintenance

- a. In the absence of adequate rainfall, water daily during the first week and on other days sufficiently to maintain minimum soil moisture to a depth of 4 inches. Water and maintain the depth of water until the sod is firmly rooted.

8. Sod Installation

- a. During periods of excessively high temperature or in areas having dry soils, lightly irrigate the subsoil immediately prior to laying the sod.
b. Lay the first row of sod in a straight line with subsequent rows placed parallel to it and slightly staggered against each other...

SEQUENCE OF CONSTRUCTION - GENERAL NOTES

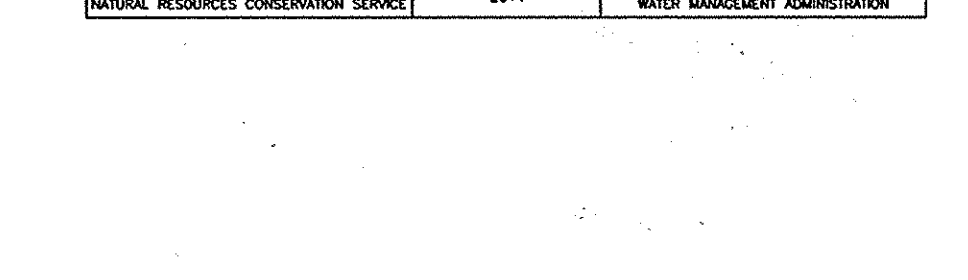
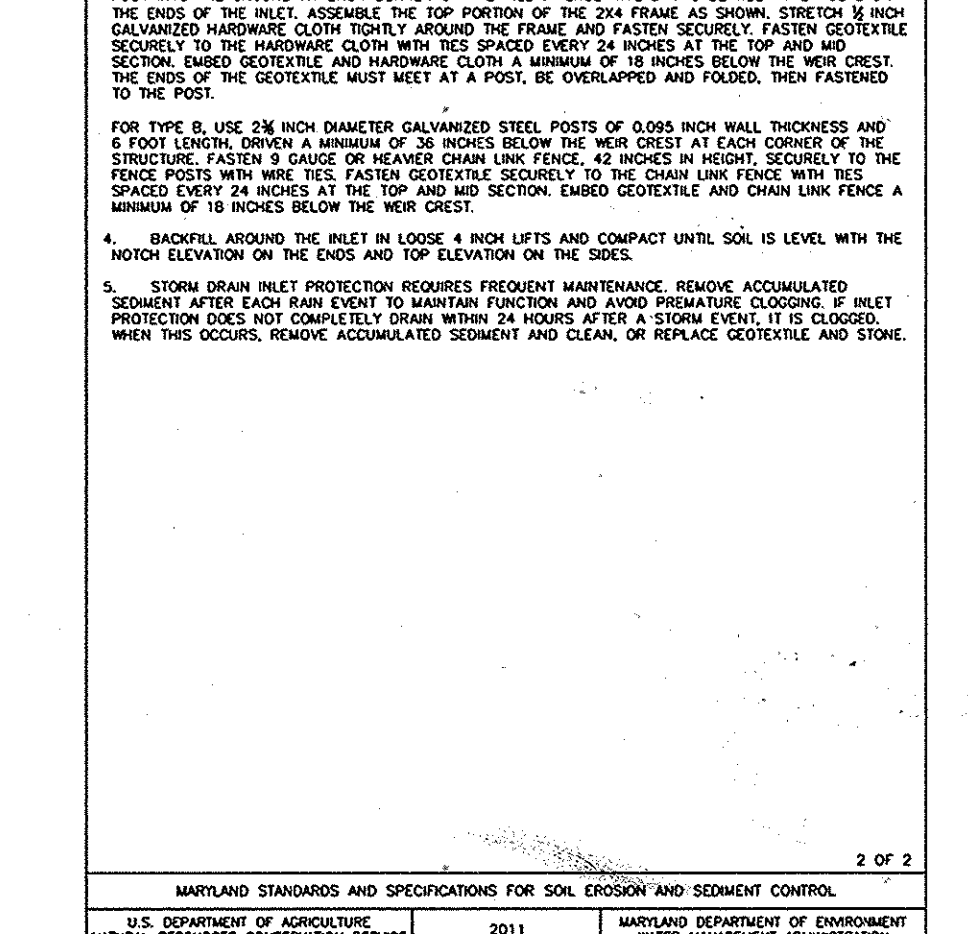
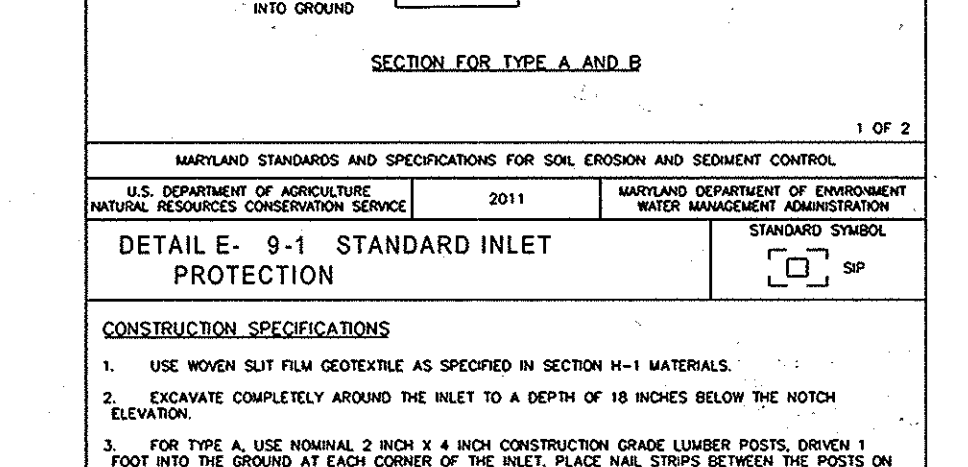
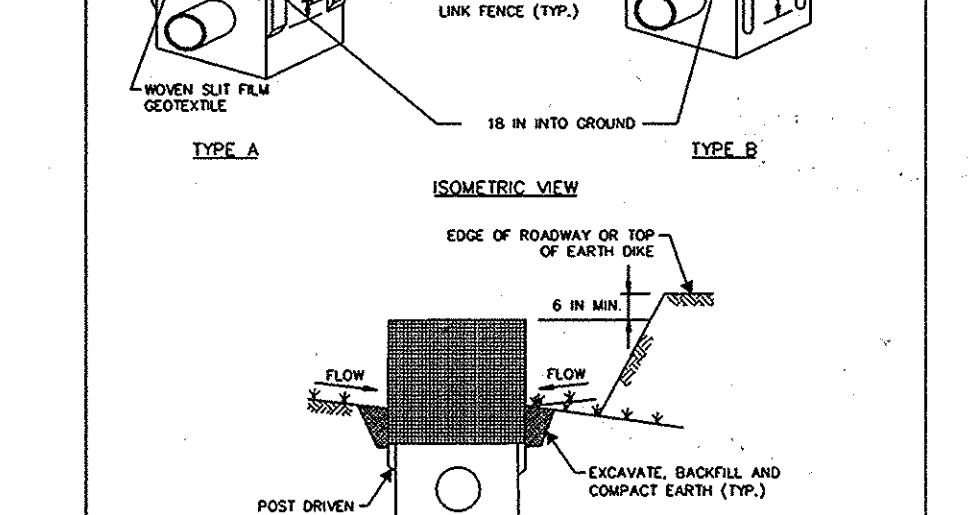
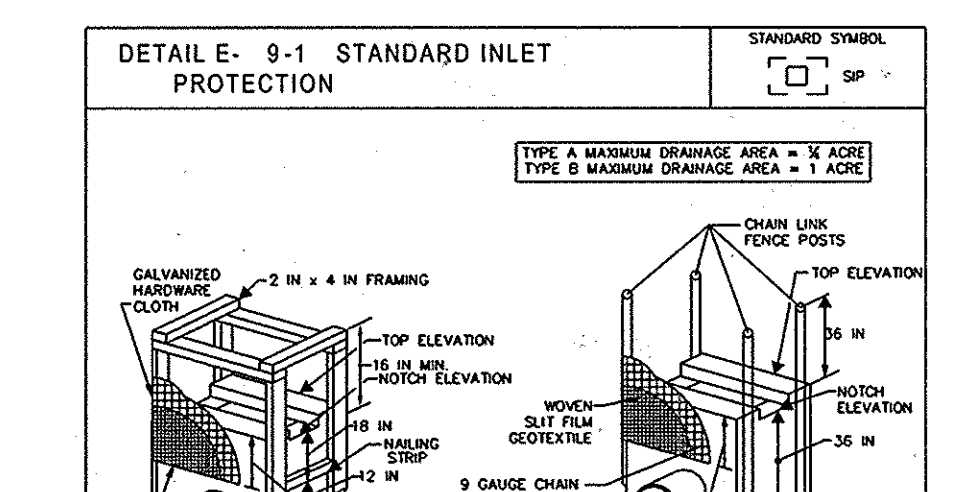
- 1. THE CONTRACTOR SHALL NOTIFY THE HOWARD SOIL CONSERVATION DISTRICT AT (410) 489-7987 AT LEAST SEVEN (7) DAYS PRIOR TO ANY EARTH DISTURBANCE TO SCHEDULE A PRE-CONSTRUCTION MEETING WITH THE INSPECTOR.
2. UTILITIES AND STORM DRAINS SHOWN ON THE EROSION AND SEDIMENT CONTROL PLANS ARE FOR THE GUIDANCE OF THE CONTRACTOR ONLY. CONTRACTOR SHALL CALL "MISS UTILITY" AT 1-800-257-7777 48 HOURS PRIOR TO THE START OF WORK...

SEDIMENT CONTROL-GENERAL NOTES

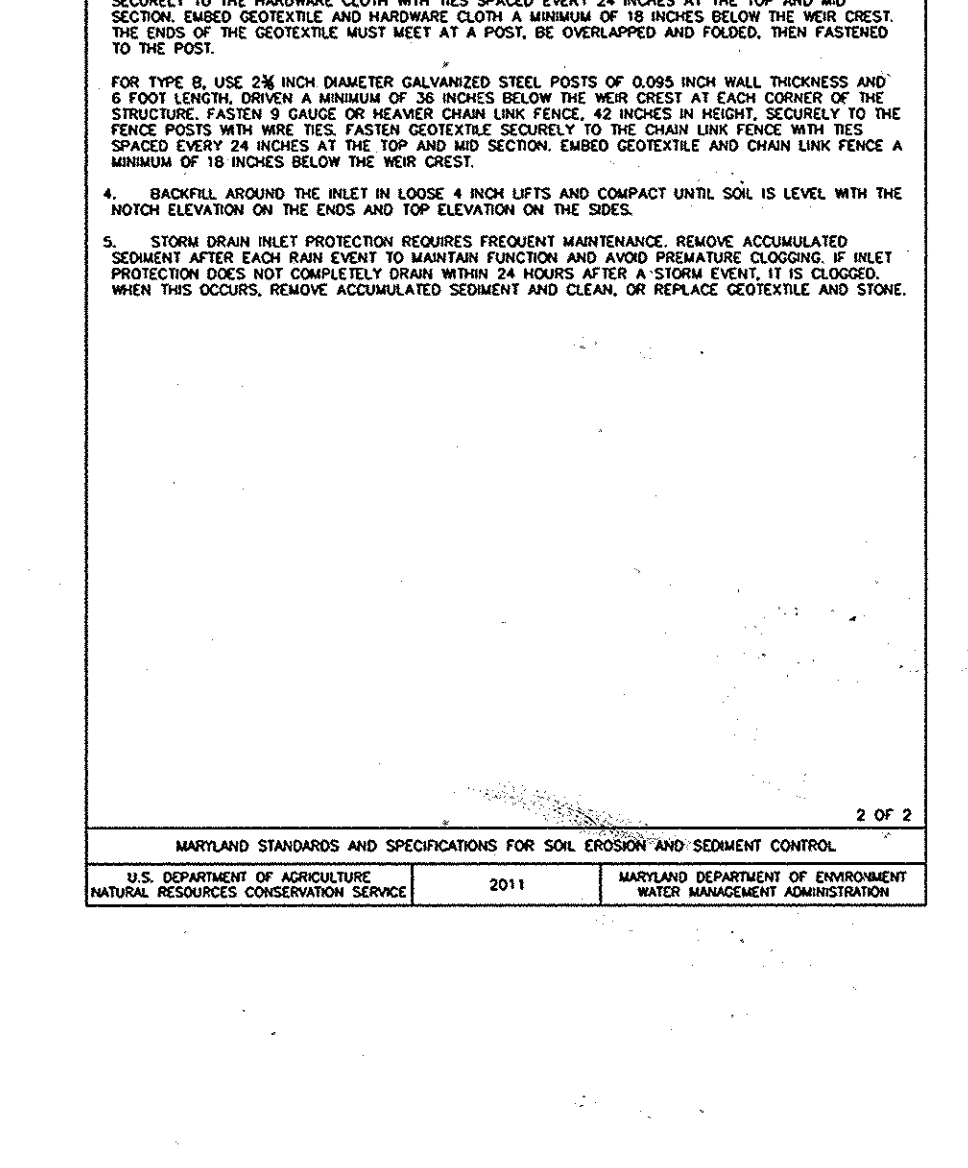
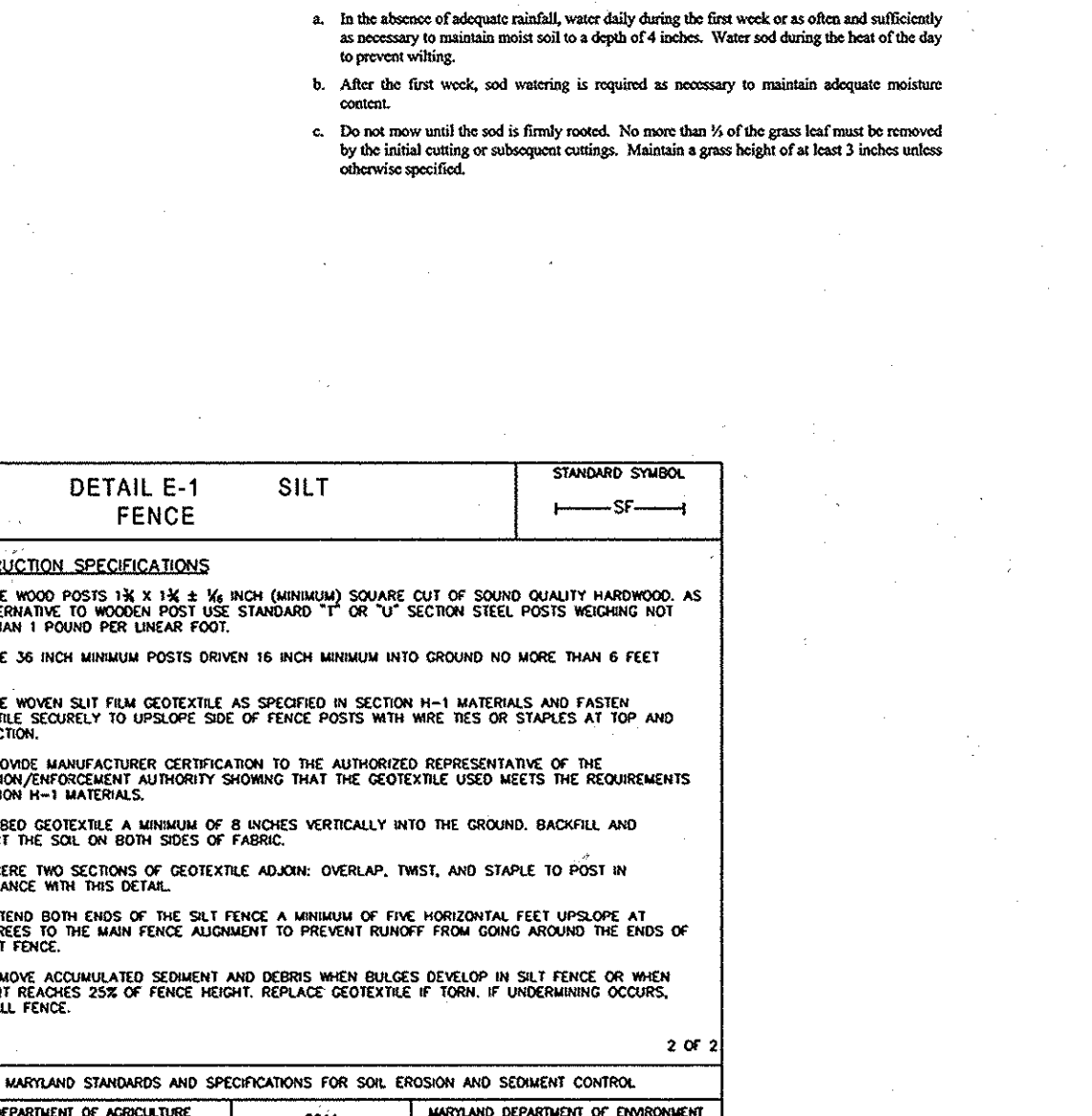
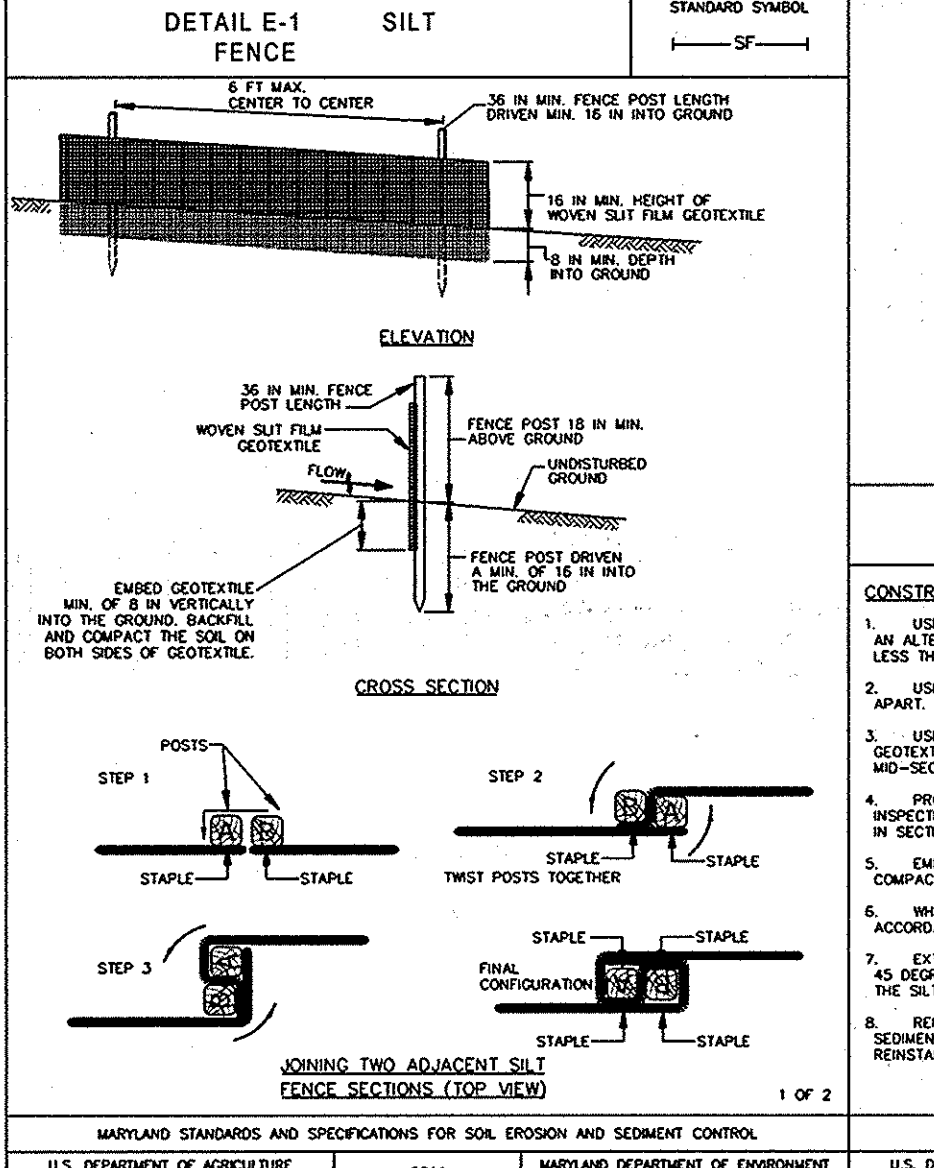
- 1. A MINIMUM OF 48 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS, SEDIMENT CONTROL DIVISION PRIOR TO THE START OF ANY CONSTRUCTION (410-313-1855).
2. ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL AND REVISIONS THERETO.

Table with columns: No., Species, Application Rate (lb/acre), Seeding Dates, Seeding Depth, Fertilizer Rate (lb/1000 sq ft), Lime Rate. Rows include FOXTAIL MILLET and PEARL MILLET.

Table with columns: No., Species, Application Rate (lb/acre), Seeding Dates, Seeding Depth, Fertilizer Rate (lb/1000 sq ft), Lime Rate. Rows include TALL FESCUE and PERennial Seeding Summary.



PROFESSIONAL CERTIFICATION
I HEREBY CERTIFY THAT DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 16156, EXPIRATION DATE: 8/28/2014.



SEQUENCE OF CONSTRUCTION

- 1. OBTAIN THE GRADING PERMIT PRIOR TO CONSTRUCTION (1 DAY).
2. INSTALL THE SEDIMENT CONTROL MEASURES AS INDICATED. PROTECT THE EXISTING TRACK AS INDICATED ON PLAN (1 DAY).
3. REMOVE TOPSOIL AND SUBSOIL WITHIN TRACK AREA EXCAVATED MATERIAL TO BE HAULED OFFSITE TO AN APPROVED LOCATION (10 DAYS).

NOTE: THE TIME LINE EXCLUDES WEATHER RELATED DELAYS.

- 8. ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE.
9. ADDITIONAL SEDIMENT CONTROLS MUST BE PROVIDED IF DEEMED NECESSARY BY THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
10. 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...

HOWARD COUNTY PUBLIC SCHOOL SYSTEM
HOWARD COUNTY, MARYLAND
PREPARED BY URS
4 NORTH PARK DRIVE
HUNT VALLEY, MARYLAND
TEL: (410) 785-7220

STATE OF MARYLAND
DAVID THOMAS WOODWARD
COMMISSIONER
DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE

DES: RLL
DRN: CDF
CHK: DTM
DATE: 04/14
BY: NEW SHEET

EROSION AND SEDIMENT CONTROL
DETAILS AND NOTES
SCALE: AS SHOWN
SHEET 37 OF 40

DEVELOPER'S CERTIFICATION
I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF EROSION AND SEDIMENTATION...
ENGINEER'S CERTIFICATION
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.

Thurs, May 29, 2014 AT 08:07 PM Joe.Yoon

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