

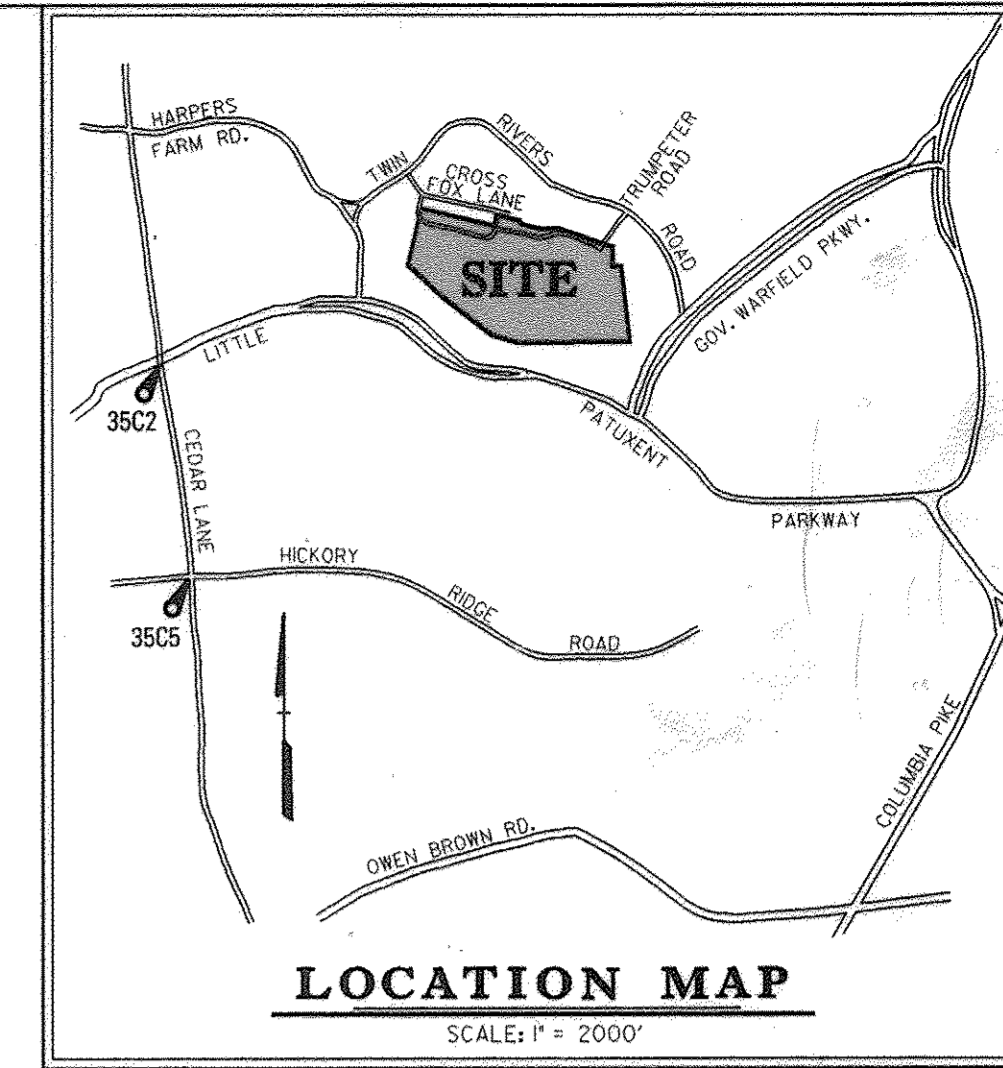
SITE DEVELOPMENT PLAN RENOVATIONS TO WILDE LAKE HIGH SCHOOL

VILLAGE OF WILDE LAKE
SECTION 11, AREA 1
HOWARD COUNTY, MARYLAND

INDEX OF DRAWINGS

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20 OF 37	PLANTING NOTES & DETAILS

REVISED
21 OF 37 SITE DEVELOPMENT PLAN
22 OF 37 DETAIL SHEET
▲ ADDITIONAL SHEETS 23-37; SEE SHEET 23 FOR INDEX



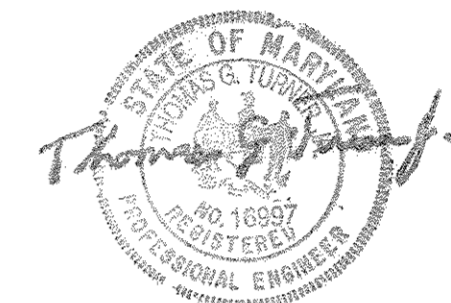
LOCATION MAP
SCALE: 1" = 2000'

BENCHMARK

STATION 35C5 (CONCRETE MONUMENT)
N 171,343.887 E 409,821.036 (FOR HORIZONTAL CONTROL ONLY)
STATION IS LOCATED AT THE SOUTHEAST CORNER OF THE INTERSECTION OF CEDAR LANE AND HICKORY RIDGE ROAD, 5.4 FT. EAST OF THE BACK OF SIDEWALK ALONG CEDAR LANE AND 17 FT. SOUTHEAST OF A STORM SEWER INLET MANHOLE TOP IN THE SIDEWALK ALONG CEDAR LANE.

BENCHMARK

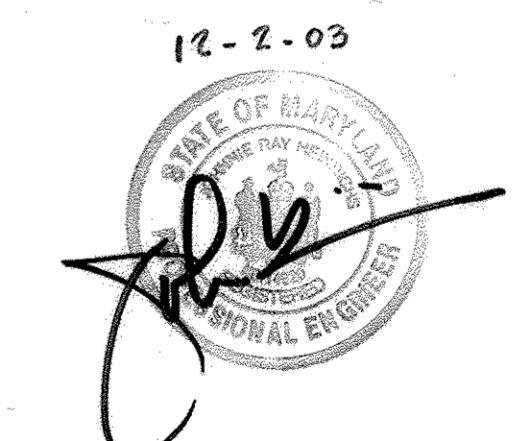
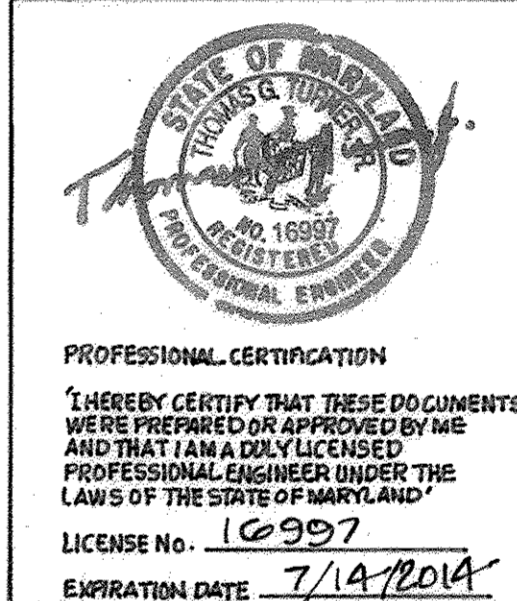
STATION 35C2 (CONCRETE MONUMENT)
N 171,883.403 E 409,742.2462 (FOR HORIZONTAL CONTROL ONLY)
STATION IS LOCATED IN THE MEDIAN OF LITTLE PATUXENT PARKWAY ON THE WEST SIDE OF THE INTERSECTION OF LITTLE PATUXENT PARKWAY WITH CEDAR LANE, 4.56 FT. WEST OF EASTERN END OF MEDIAN AND 4.68 FT. SOUTH OF THE NORTHERN CURB OF THE MEDIAN. THIS STATION USED AS VERTICAL CONTROL BY SCHMID, PFELTZ, AND McDONALD FOR THIS SURVEY. ELEVATION ASSUMED = 46.4203 FT.



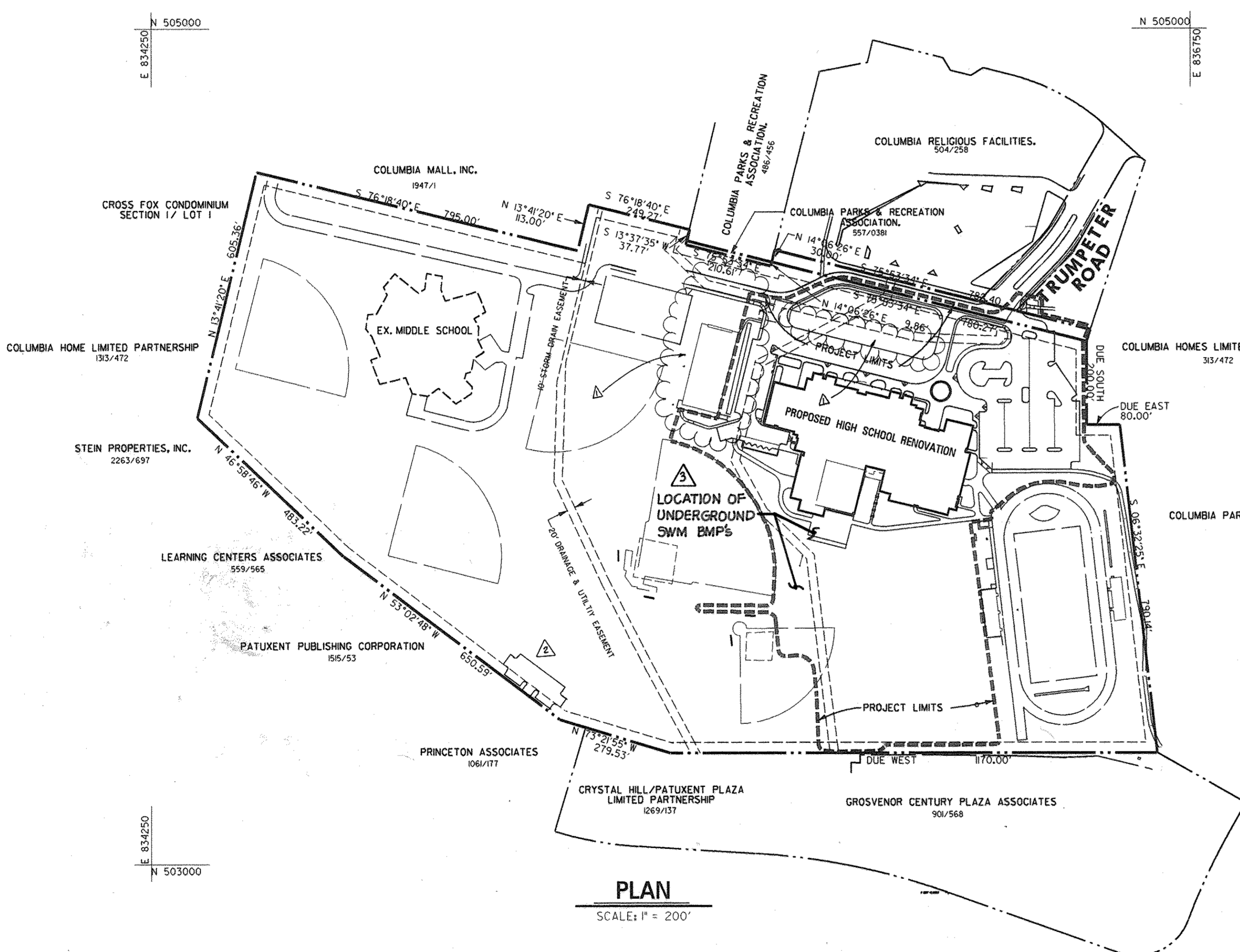
THERE IS NO AS-BUILT INFORMATION ON THIS SHEET
TOM TURNER PE # 16997, 08/12/2016

APPROVED PLANNING BOARD OF HOWARD COUNTY
DATE 12 May 94

▲ ADDITIONAL SHEETS 23-37 SEE SHEET 23 FOR INDEX



APPROVED: FOR PUBLIC WATER & PUBLIC SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT	DATE 6/24/94	
APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING	DATE 6/24/94	
APPROVED: FOR PUBLIC WATER & PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS, HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS	DATE 6/20/94	
12/2/03	ADDED 21 PARKING SPACES	
8/21/96	REVISE PROJECT LIMIT & NOTES	
Date	No.	Revision Description



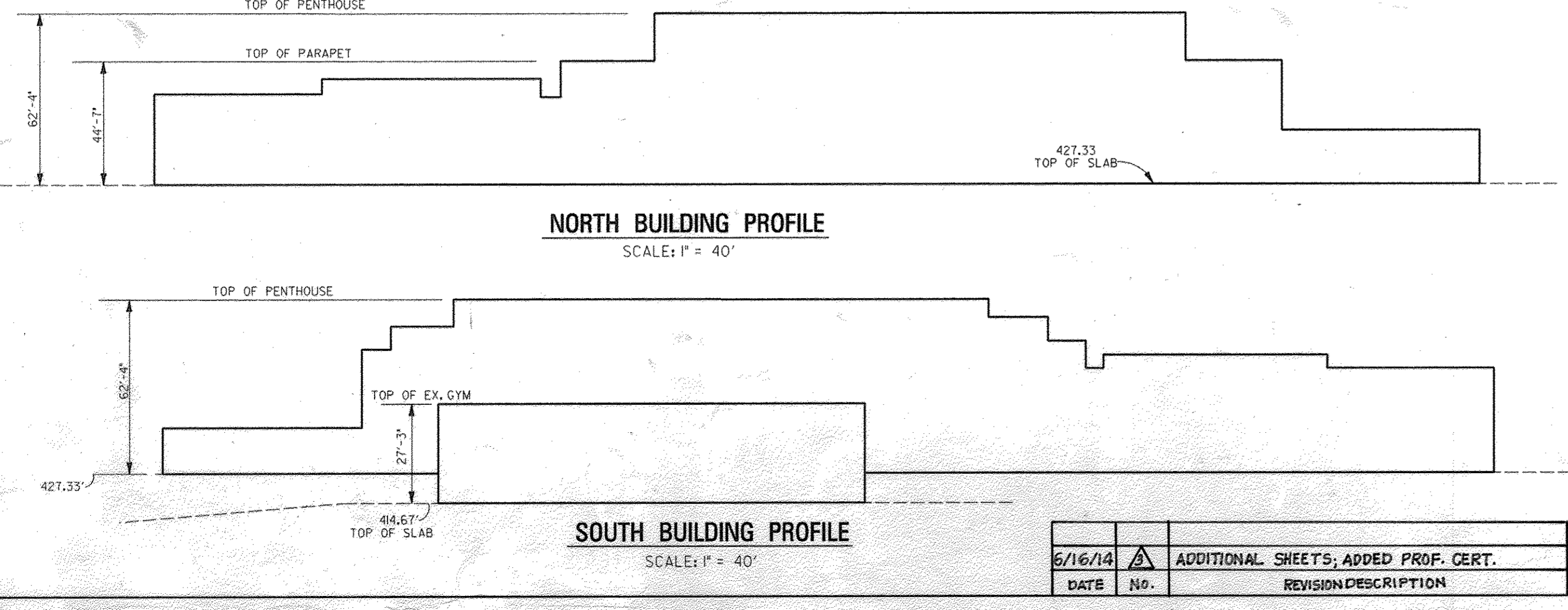
PLAN
SCALE: 1" = 200'

- Site Analysis
- Total Area of Parcel: 52,300 Acres (2,278,188 s.f.)
 - Present Zoning: New Town: Open space (Credited & Non-Credited)
 - Existing & Proposed Use: High School, Middle School, and related recreational facilities
 - Floor Area: Ground Level 20,316 s.f., 1st Level 499,401 s.f., 2nd Level 59,637 s.f., 3rd Level 41,206 s.f., Penthouse 6,307 s.f., Total 246,867 s.f.
 - Building Coverage Permitted: 227,819 s.f. (5.23 Ac.) = 10% of Gross Tract Area
Building Coverage Proposed: 173,479 s.f. (3.98 Ac.) = 7.6% of Gross Tract Area
 - Parking Proposed: 356 Spaces (includes 5 handicapped spaces & 2 van accessible handicapped spaces).
 - Area of Paved Parking Lots and Drive Ales: 272,561 s.f. (6.579 Ac.) = 12.5% of Gross * Acreages shown are permitted acreages based upon FDP-45A criteria. Actual non-credited open space acreage is 6,529 acres (12.5%) and does not exceed 10% of Lot 1.
 - Open Space Tabulation
Open Space Land Use (Entire Parcel) 52,300 Ac. *
Open Space Credited 15,771 Ac. *
Open Space Non-Credited 6,529 Ac. *
* Acreages shown are permitted acreages based upon FDP-45A criteria. Actual non-credited open space acreage is 6,529 acres (12.5%) and does not exceed 10% of Lot 1.
 - For other public plans reference the following:
FDP - 45 - A-1 F - 68 - 99
SDP - 70 - 08 VP - 81 - 69
44-3353-D (Public water main extension)
 - The Howard County School Administration will take the responsibility for controlling traffic on the site once renovations are complete.

- General Notes
- Horizontal Datum: NAD 27
 - Vertical Datum: NGVD 29
 - Topography shown hereon is taken from field survey dated Nov. 1993 prepared for the Howard County Public School System by Schmid, Pfeitz & McDonald and field observations by DMW performed in February 1994. Ex. underground electric lines were taken from BG&E drawings for primary and subtransmission record and multiple street light record.
 - All construction shall be in accordance with the latest standards and specifications of Howard County plus MSHA standards and specifications, if applicable. All onsite private water & sewer construction shall be in accordance with the Howard County Design Manual, Volume II & the Uniform Plumbing Code.
 - Approximate location of existing utilities are shown from best available information. 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 test pit existing utilities at least five days before starting work shown on these drawings to verify their location and elevation. The contractor shall notify the engineer immediately if location of utilities is other than shown.
 - Contractor to notify the following utilities or agencies at least five days before starting work shown on these drawings:
Miss Utility 1-800-257-7777
C&P Telephone Company 725-9916
Howard County Bureau of Utilities 315-4900
AT&T Cable Location Diversification 393-3503
Baltimore Gas & Electric Company 685-0123
State Highway Administration 531-5533
Howard County Dept. of Public Works Construction Inspection Division (410) 313-1880
 - This property is located within the Howard County Metropolitan District.
 - Traffic study prepared by The Traffic Group April 1, 1994.
 - All water lines shall be constructed with a minimum 42-inch cover below finished grade.
 - All pipe elevations shown are Invert elevations unless noted otherwise.
 - The contractor shall provide a joint in all sewer mains within 2'-0" of exterior manhole walls.
 - Profile stations shall be adjusted as necessary to conform to plan dimensions.
 - All plan dimensions are to face of curb unless otherwise noted.
 - The developer is responsible for the acquisition of all easements, rights, and/or rights-of-way that may be required for the sediment and erosion control practices, stormwater management practices, and the discharge of stormwater onto or across adjacent or downstream properties included in this plan. He is also responsible for the acquisition of all easements, rights, and/or work on adjacent properties included in this plan.
 - Elevators are provided within the building.
 - The building will be provided with a sprinkler system.
 - All elevations in road areas are to bottom of curb unless noted otherwise.
 - Earthwork volumes shown on sheet 13 of 20 are for sediment and erosion control processing only and shall not be used for bidding purposes. Before submitting bid contractor shall verify earthwork volumes required to provide completed site at the finished elevations indicated on the contract documents.
 - Parking stalls are 21'-0" x 10'-0" unless noted otherwise on the drawing.
 - An agreement exists between The Howard County Board of Education & The Wilde Lake Interfaith Religious Center, Inc. for the use of parking spaces at the interfaith lot.
 - A private easement shall be obtained from the Columbia Association.
 - A Waiver for Peak Management Control of Stormwater Management was granted on April 11, 1994.
 - Water quality treatment shall consist of vegetated swales & sheet flow over the adjacent athletic fields. WATER QUALITY TREATMENT CONSISTS OF TWO UNDERGROUND STORMFILTERS IN THE ATHLETIC FIELDS.

SEE SHEETS 23-37 FOR SWM BMP'S

LOT NUMBER	STREET ADDRESS
1	5460 TRUMPETER ROAD, COLUMBIA, MD 21044



NORTH BUILDING PROFILE
SCALE: 1" = 40'

SOUTH BUILDING PROFILE
SCALE: 1" = 40'

WEST BUILDING PROFILE
SCALE: 1" = 40'

DATE	NO.	REVISION DESCRIPTION
6/16/14	▲	ADDITIONAL SHEETS; ADDED PROF. CERT.

THE PURPOSE OF THIS REVISION IS TO EXPAND A PARKING LOT FOR THE ADJACENT PARCEL #27 AND CREATE A PARKING AGREEMENT WITH THE HOWARD COUNTY BOARD OF EDUCATION.

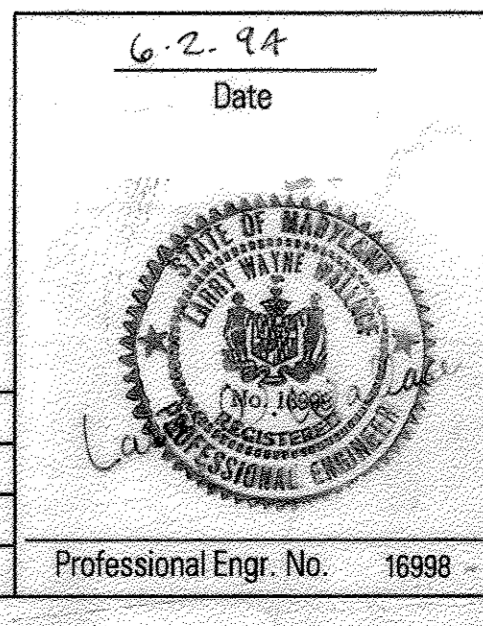
RENOVATIONS TO WILDE LAKE HIGH SCHOOL

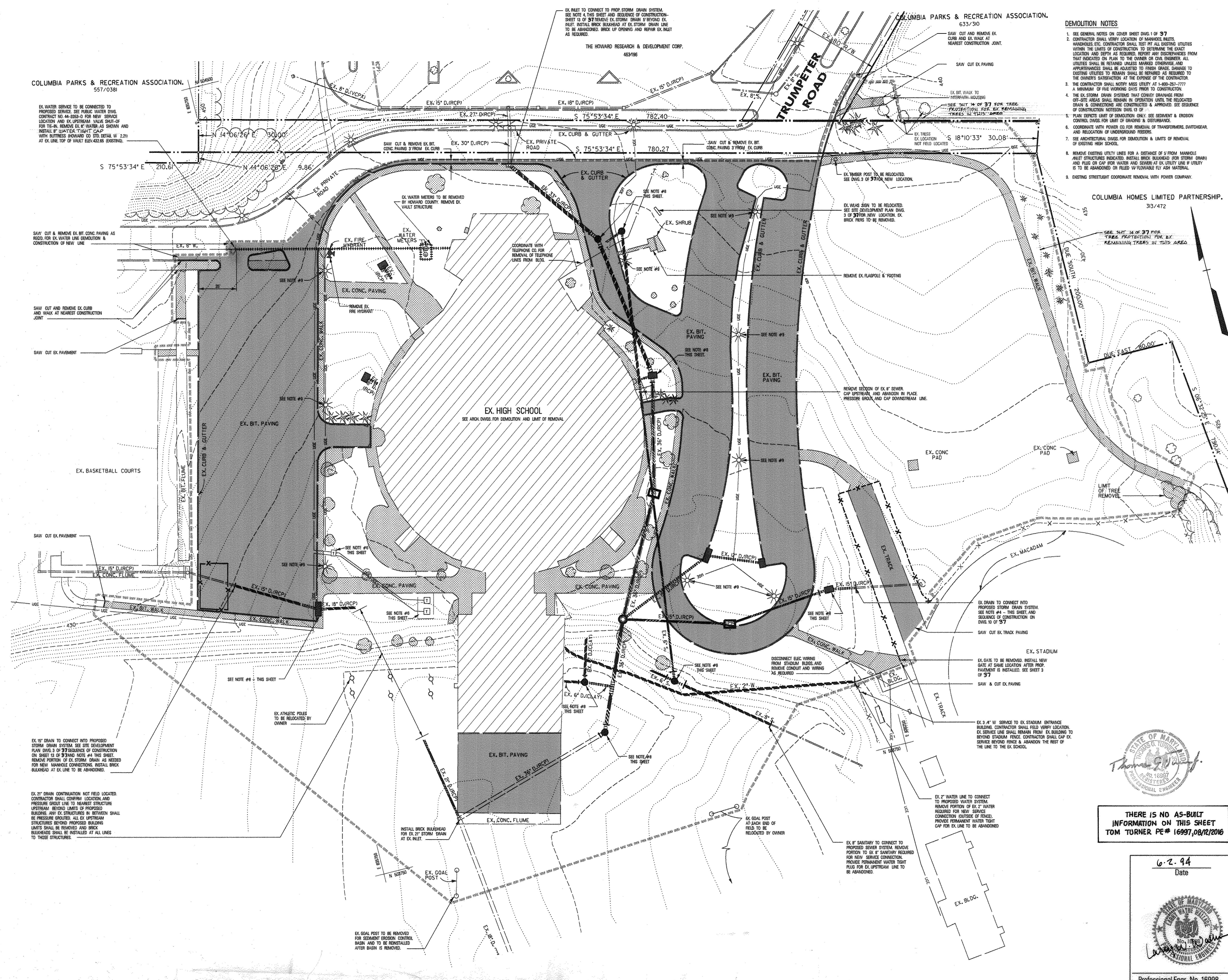
OWNER / DEVELOPER:
HOWARD COUNTY PUBLIC SCHOOL SYSTEM
10910 RT.108
ELLCOTT CITY, MARYLAND 21042-6198

DMW
Darr McCasus Walker, Inc.
200 East Pennsylvania Avenue
Towson, Maryland 21286
(410) 296-5839
Fax 296-4705

A Team of Land Planners,
Landscape Architects,
Engineers, Surveyors &
Environmental Professionals

SUBDIVISION	VILLAGE OF WILDE LAKE	SECTION/PARCEL	SEC. 11 / AREA 1	LOT/PARCEL #	1 / 280
PLAT / OR OF	1990/91	BLOCK #	23 / 24	TAXIDONE MAP	23 / 24
WATER CODE	E 30	SEWER CODE	SS23900	CENSUS TRACT	6054
TITLE COVER SHEET					
Des By	MAT	Scale	1" = 200'	Proj. No.	93051-B
Drn By	DMA	Date	5/16/94		
Chk By	LWW	Approved			1 OF 37





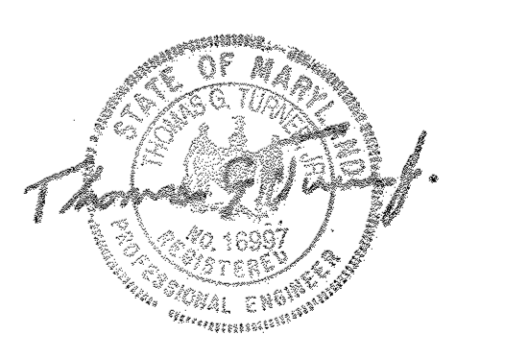
DEMOLITION LEGEND

- EX. BITUMINOUS CONC. PAVING TO BE REMOVED
- EX. CONC. & BITUMINOUS CONC. WALKS TO BE REMOVED
- EX. BUILDING STRUCTURE - SEE ARCH. DRAWING FOR DEMOLITION & LIMITS OF REMOVAL
- EX. CURB & GUTTER TO BE REMOVED
- EX. CHAIN LINK FENCE TO BE REMOVED & RELOCATED AS NEEDED - SEE SITE PLAN FOR NEW FENCE LOCATIONS
- EX. LIGHT POLES & APPROPRIATE LOCATION OF UNDERGROUND ELECTRICAL SERVICE
- EX. TRANSFORMER SWITCHGEAR & UNDERGROUND ELECTRICAL SERVICE
- EX. TREES & SHRUBS TO BE REMOVED
- LIMITS OF SITE DEMOLITION - FOR LIMITS OF GRADING & DISTURBANCE SEE SOCMANT & EROSION CONTROL PLANS
- EX. MANHOLE AND/OR INLET TO BE REMOVED
- EX. MANHOLE AND/OR INLET TO BE PRESSURE GROUTED
- EX. FIRE HYDRANT TO BE RELOCATED
- EX. UNDERGROUND UTILITY TO BE REMOVED
- EX. UNDERGROUND UTILITY TO BE ABANDONED
- EX. UNDERGROUND UTILITY TO BE FILLED W/ FLOWABLE FLY ASH MATERIAL

- DEMOLITION NOTES**
- SEE GENERAL NOTES ON COVER SHEET DIVS. 1 OF 37
 - CONTRACTOR SHALL VERIFY LOCATION OF MANHOLE, INLETS, HANDHOLES ETC. CONTRACTOR SHALL TEST AT ALL EXISTING UTILITIES WITHIN THE LIMITS OF CONSTRUCTION TO DETERMINE THE EXACT LOCATION AND DEPTH AS REQUIRED. REPORT ANY DISCREPANCIES FROM THAT INDICATED ON PLAN TO THE OWNER OR CIVIL ENGINEER. ALL UTILITIES SHALL BE REPAIRED UNLESS MARKED OTHERWISE. AND APPURTENANCES SHALL BE ADJUSTED TO FINISH GRADE. DAMAGE TO EXISTING UTILITIES TO REMAIN SHALL BE REPAIRED AS REQUIRED TO THE OWNER'S SATISFACTION AT THE EXPENSE OF THE CONTRACTOR.
 - CONTRACTOR SHALL NOTIFY MISS UTILITY AT 1-800-261-7777 A MINIMUM OF FIVE WORKING DAYS PRIOR TO CONSTRUCTION.
 - THE EX. STORM DRAIN SYSTEMS THAT CONVEY DRAINAGE FROM OFF-SITE AREAS SHALL REMAIN IN OPERATION UNTIL THE RELOCATED DRAIN & CONNECTIONS ARE CONSTRUCTED & APPROVED. SEE SEQUENCE OF CONSTRUCTION NOTATION DIVS. 12 OF 37.
 - PLAN DEPICTS LIMIT OF DEMOLITION ONLY. SEE SOCMANT & EROSION CONTROL DIVS. FOR LIMIT OF GRADING & DISTURBANCE.
 - COORDINATE WITH POWER CO. FOR REMOVAL OF TRANSFORMER SWITCHGEAR AND RELOCATION OF UNDERGROUND FEEDERS.
 - SEE ARCHITECTURAL DIVS. FOR DEMOLITION & LIMITS OF REMOVAL OF EXISTING HIGH SCHOOL.
 - REMOVE EXISTING UTILITY LINES FOR A DISTANCE OF 5' FROM MANHOLE/INLET STRUCTURES INDICATED. INSTALL BRICK BULKHEAD FOR STORM DRAIN AND PLUG OR CAP FOR WATER AND SEWER AT EX. UTILITY LINE IF UTILITY IS TO BE ABANDONED OR FILLED W/ FLOWABLE FLY ASH MATERIAL.
 - EXISTING STREETLIGHT COORDINATE REMOVAL WITH POWER COMPANY.

APPROVED
PLANNING BOARD
OF HOWARD COUNTY
 DATE 12 May 94

APPROVED: FOR PUBLIC WATER & PUBLIC SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT	<i>Joseph M. ...</i> COUNTY HEALTH OFFICER	C-24-94 DATE
APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING	<i>James ...</i> DIRECTOR	6/27/94 DATE
	<i>John ...</i> CHIEF, LAND DEVELOPMENT & RESEARCH	6/24/94 DATE
APPROVED: FOR PUBLIC WATER & PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS, HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS	<i>James ...</i> DIRECTOR	6/26/94 DATE
	<i>Robert ...</i> CHIEF, BUREAU OF ENGINEERING	6/20/94 DATE



THERE IS NO A5-BUILT INFORMATION ON THIS SHEET
 TOM TURNER PE # 16997, 08/12/2016

6-2-94
 Date



REVISIONS TO WILDE LAKE HIGH SCHOOL

OWNER / DEVELOPER:
 HOWARD COUNTY PUBLIC SCHOOL SYSTEM
 10910 RT.108
 ELLICOTT CITY, MARYLAND 21042-6198

DMW
 Data-McCune-Walker, Inc.
 2001 East Pennsylvania Avenue
 Towson, Maryland 21286
 (410) 286-3333
 Fax: 286-4706

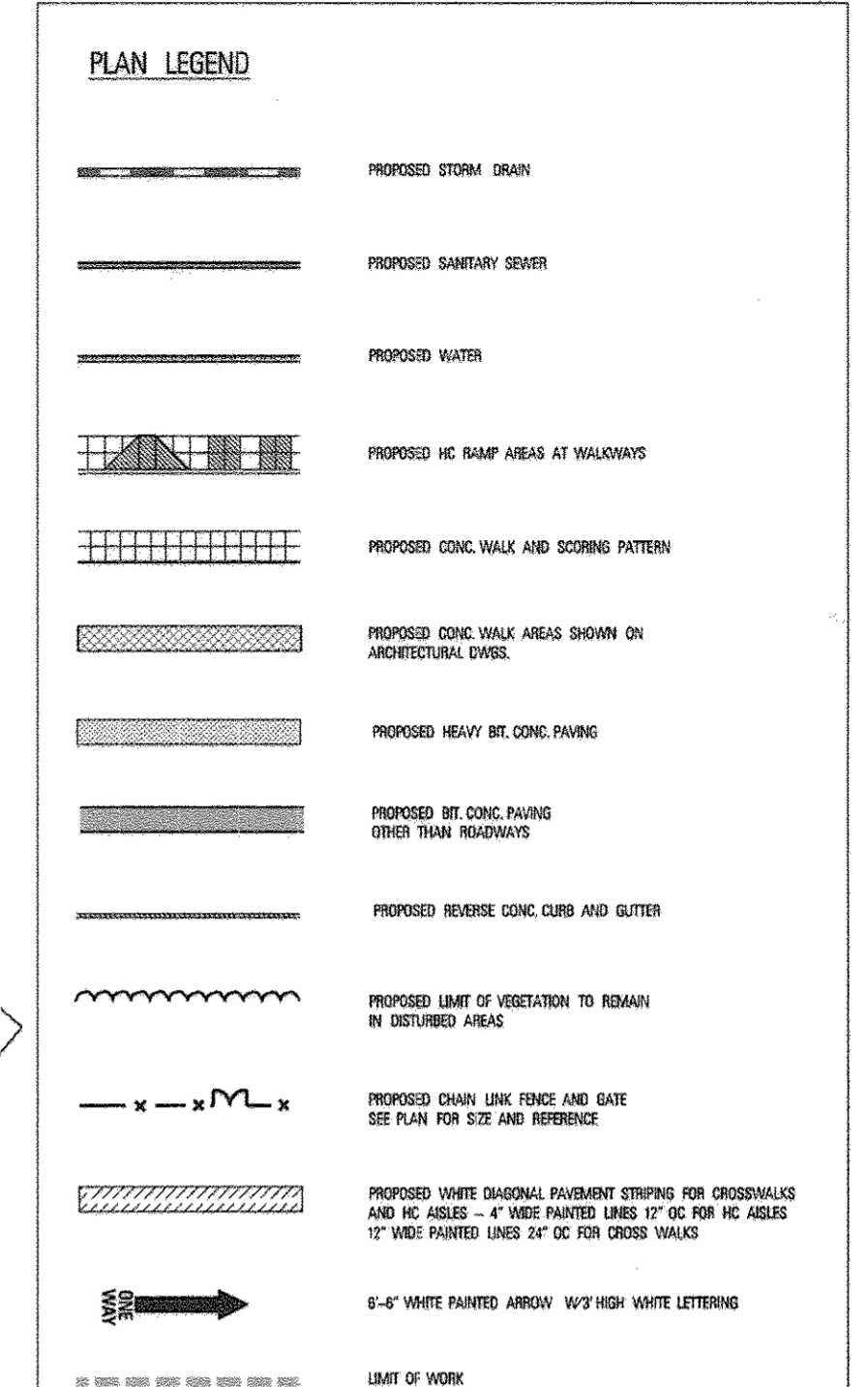
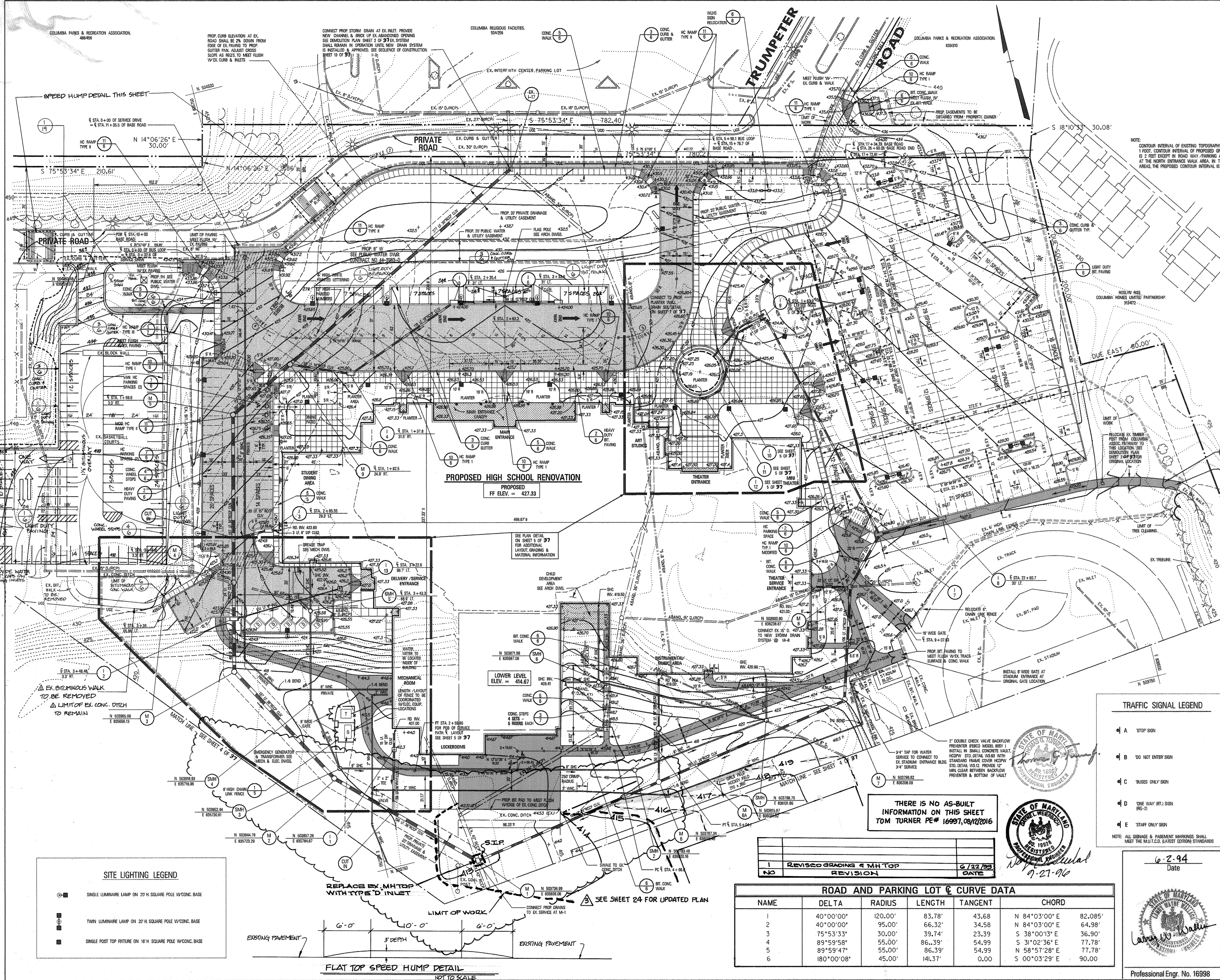
A Team of Land Planners, Landscape Architects, Engineers, Surveyors & Environmental Professionals

REVISION NO.	DATE	DESCRIPTION
1	6-2-94	ISSUED FOR PERMITS

TITLE: **SITE DEMOLITION PLAN**

Des By	MAT	Scale	1" = 40'	Proj. No.	93051B
Drn By	DMA	Date	5/16/94		
Chk By	LWW	Approved			2 OF 37

Professional Engr. No. 16998

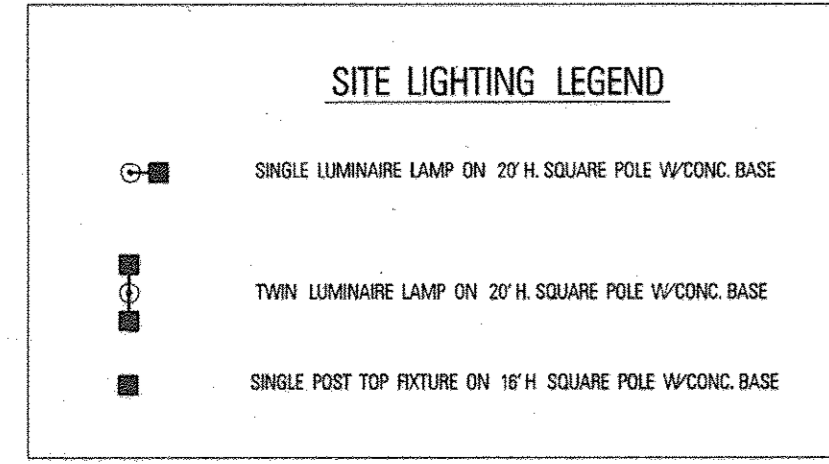
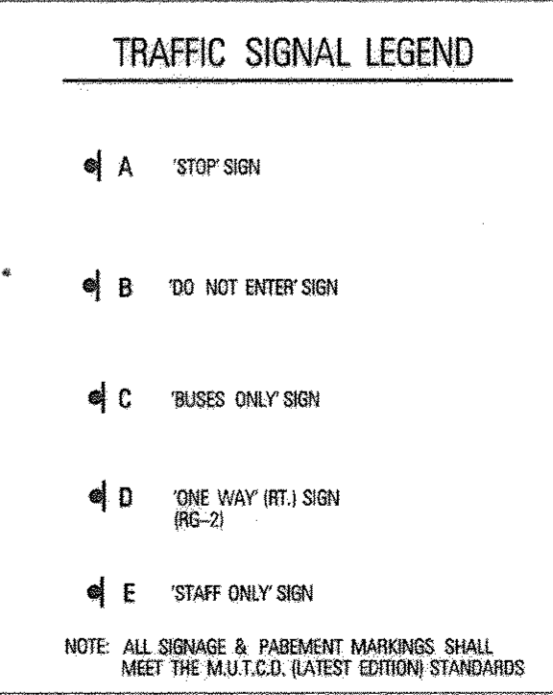


APPROVED
PLANNING BOARD
of HOWARD COUNTY
DATE 12 May 94

APPROVED: FOR PUBLIC WATER & PUBLIC SEWERAGE SYSTEMS,
HOWARD COUNTY HEALTH DEPARTMENT
James M. Boyd 6/24/94
COUNTY HEALTH OFFICER DATE

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING
James M. Boyd 6/27/94
DIRECTOR DATE
Anna W. Wynn 6/24/94
CHIEF, LAND DEVELOPMENT & RESEARCH DATE

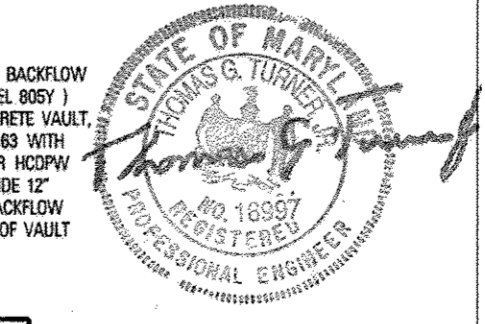
APPROVED: FOR PUBLIC WATER & PUBLIC SEWERAGE,
STORM DRAINAGE SYSTEMS AND PUBLIC ROADS,
HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
James P. Lewis 6/21/94
DIRECTOR DATE
Robert E. ... 6/20/94
SHEF, BUREAU OF ENGINEERING DATE



ROAD AND PARKING LOT CURVE DATA

NAME	DELTA	RADIUS	LENGTH	TANGENT	CHORD
1	40°00'00"	120.00'	83.78'	43.68'	N 84°03'00"E 82.085'
2	40°00'00"	95.00'	66.32'	34.58'	N 84°03'00"E 64.98'
3	75°53'33"	30.00'	39.74'	23.39'	S 38°00'13"E 36.90'
4	89°59'58"	55.00'	86.39'	54.99'	S 31°02'36"E 77.78'
5	89°59'47"	55.00'	86.39'	54.99'	N 58°57'28"E 77.78'
6	180°00'08"	45.00'	141.37'	0.00'	S 00°03'29"E 90.00'

THERE IS NO AS-BUILT INFORMATION ON THIS SHEET
TOM TURNER PE# 16997, 08/12/2016



6-2-94
Date
Professional Engr. No. 16998

6/16/14 UNDERGROUND SWM BMP IN ATHLETIC FIELDS
6/21/94 PARKING ADDITION IN EX. EXERCISEBALL COURTS & FRONT ENTRANCE

Date No. Revision Description

RENOVATIONS TO WILDE LAKE HIGH SCHOOL

OWNER / DEVELOPER:
HOWARD COUNTY PUBLIC SCHOOL SYSTEM
10910 RT.108
ELLCOTT CITY, MARYLAND 21042-6198

DMW
Darr McCreary-Walkers, Inc.
2300 East Pennsylvania Avenue
Towson, Maryland 21286
(410) 296-3333
Fax 296-4706

A Team of Land Planners, Landscape Architects, Engineers, Surveyors & Environmental Professionals

PROJECT NAME: VILLAGE OF WILDE LAKE
SECTION: SEC. 11 / AREA 1
SHEET NO.: 23 / 24
BLOCK # 127
LOT # 5TH
REVISION: 0523900

SITE DEVELOPMENT PLAN

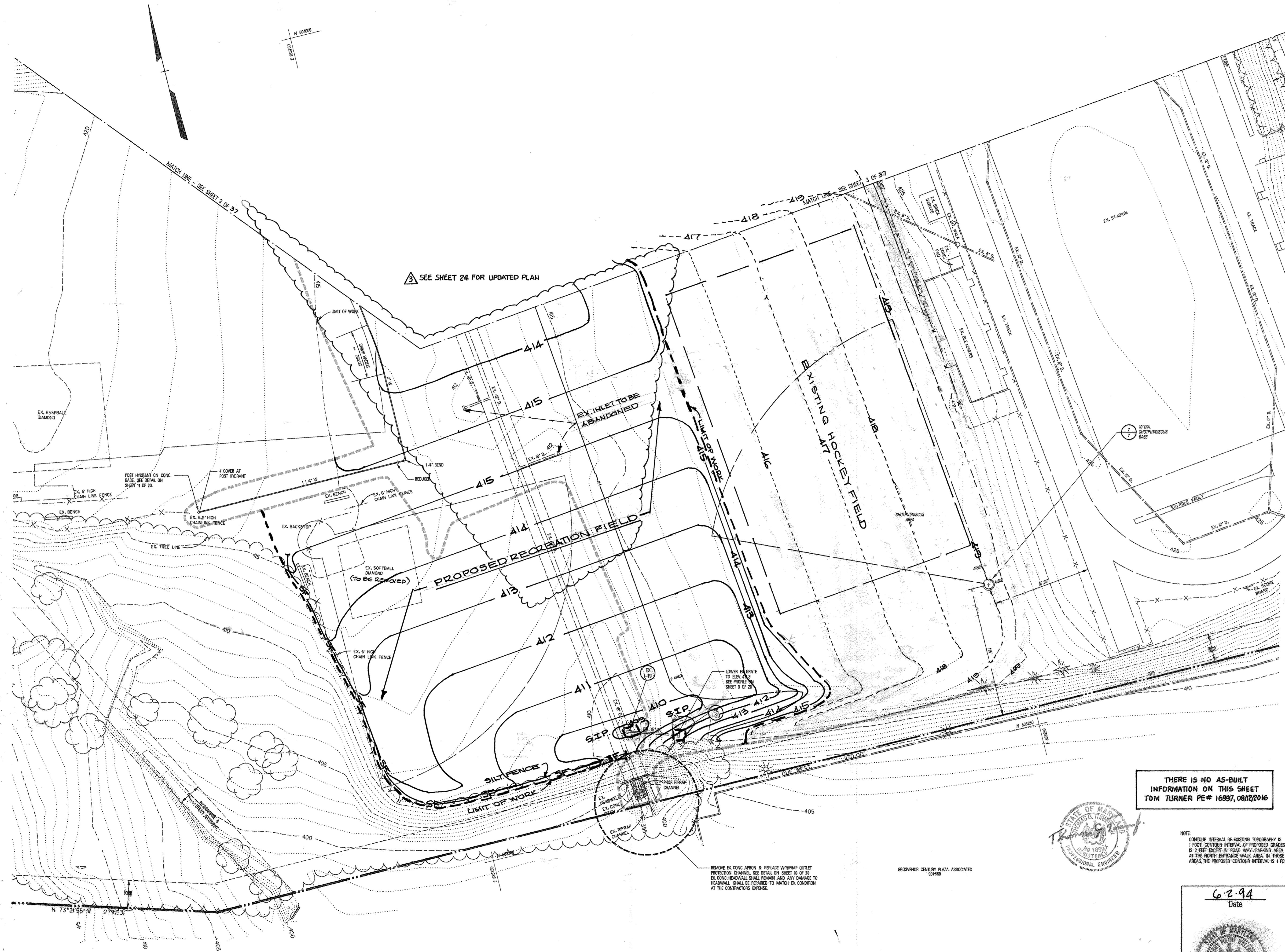
Des By: MAT Scale: 1" = 40'
Dwn By: DMA Date: 5/16/94
Chk By: LWW Approved

Proj. No. 93051B
3 OF 37

PLAN LEGEND	
	LIMIT OF WORK

NOTE: EX. TOPOGRAPHY SHOWN REPRESENTS APPROXIMATE ASSAIED CONDITIONS AFTER REDUCTION OF VEGETATION & CONDITIONS FROM FIELD SURVEY PRIOR TO DEMOLITION. SEE THE DEMOLITION PLAN SHEET 2 OF 30.

COLUMBIA PARKS & RECREATION ASSOCIATION
6/9/97



SEE SHEET 24 FOR UPDATED PLAN

APPROVED
PLANNING BOARD
OF HOWARD COUNTY
DATE 12 May 94

APPROVED: FOR PUBLIC WATER & PUBLIC SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT	<i>Jorge M. Lopez</i> COUNTY HEALTH OFFICER	6/24/94 DATE
APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING	<i>James R. Smith</i> DIRECTOR	6/27/94 DATE
	<i>Jim Sammons</i> CHIEF, LAND DEVELOPMENT & RESEARCH	6/24/94 DATE
APPROVED: FOR PUBLIC WATER & PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS, HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS	<i>James J. Lee</i> DIRECTOR	6/20/94 DATE
	<i>Charles E. Brown</i> CHIEF, BUREAU OF ENGINEERING	6/20/94 DATE

6/16/94	1	UNDERGROUND SWM BMP IN ATHLETIC FIELDS
Date	No.	Revision Description

RENOVATIONS TO WILDE LAKE HIGH SCHOOL

OWNER /DEVELOPER:
HOWARD COUNTY PUBLIC SCHOOL SYSTEM
10910 RT.108
ELLCOTT CITY, MARYLAND 21042-6198

DMW
Darr McCreane Walker, Inc.
200 East Pennsylvania Avenue
Towson, Maryland 21286
(410) 286-2850
Fax: 286-4708

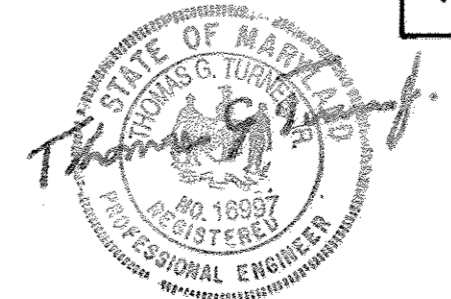
A Team of Land Planners, Landscape Architects, Engineers, Surveyors & Environmental Professionals

SUBDIVISION NAME	VILLAGE OF WILDE LAKE	SECTION	SEC. 11 / AREA 1	OFFICIAL #	1/280
PLAT OR OF	1580.01	BLOCK #	RT	TRACED MAP	28/24
WATER CODE	E 30	SEWER CODE	SE23900	ENGRS TRACT	6054

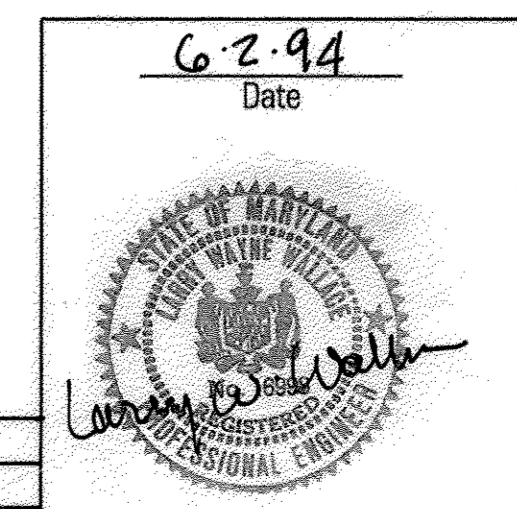
TITLE
SITE DEVELOPMENT PLAN

Des By	MAT	Scale	1" = 40'	Proj. No.	93051B
Drn By	DMA	Date	5/16/94		
Chk By	LWW	Approved			4 OF 37

THERE IS NO AS-BUILT INFORMATION ON THIS SHEET
TOM TURNER PE# 16997, 08/12/2016

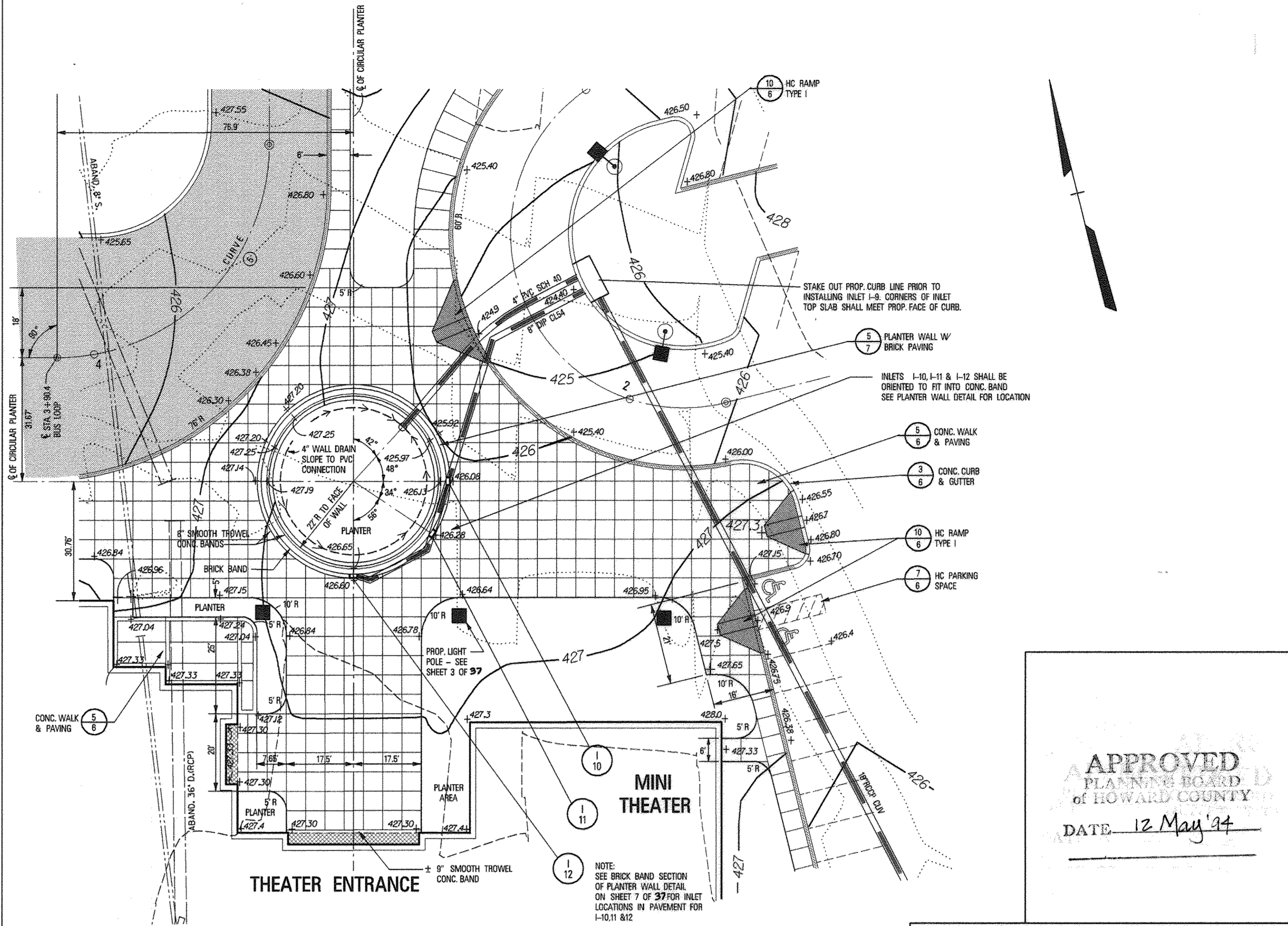
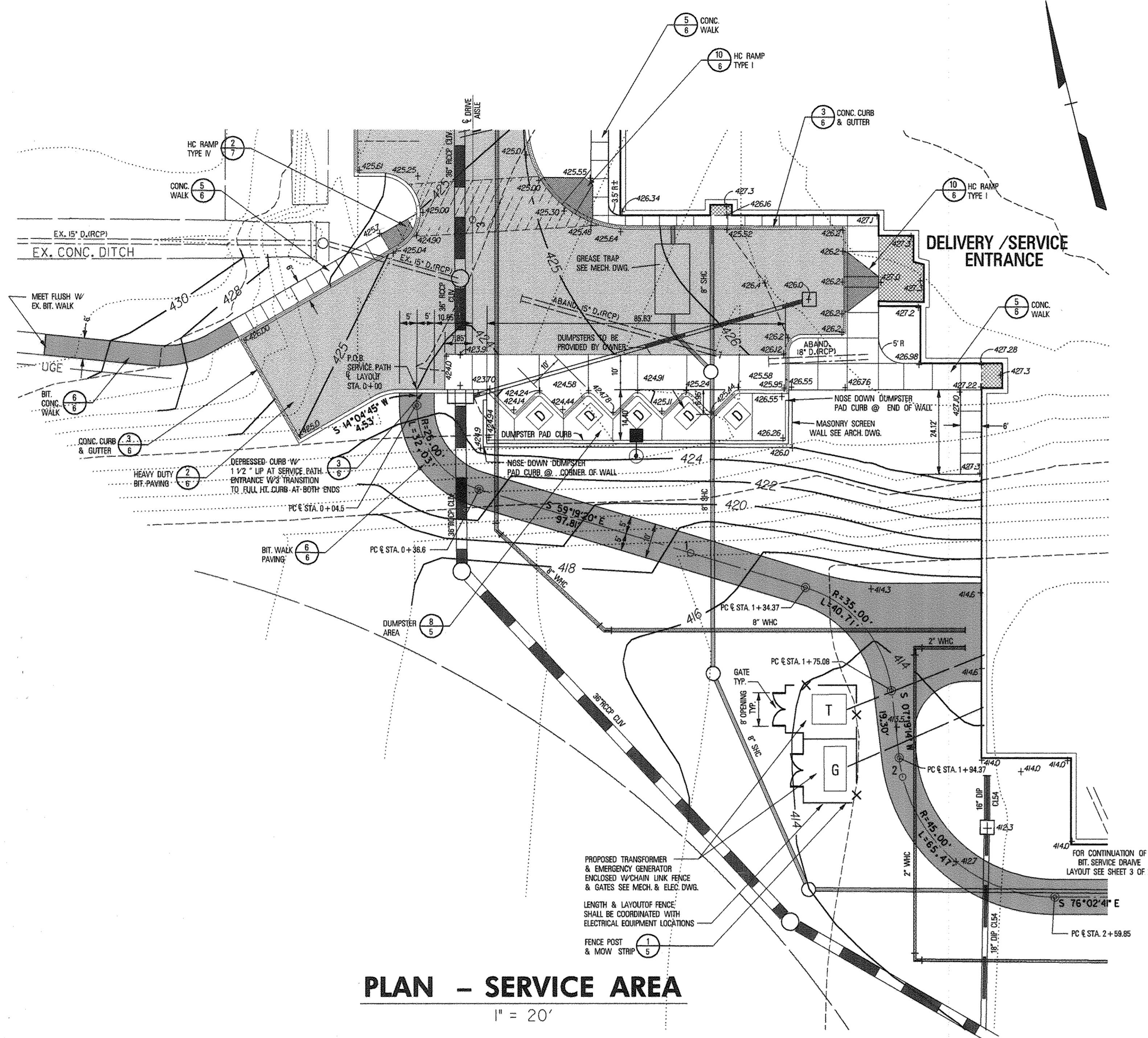


NOTE: CONTOUR INTERVAL OF EXISTING TOPOGRAPHY IS 1 FOOT. CONTOUR INTERVAL OF PROPOSED GRADES IS 2 FEET EXCEPT IN ROAD WALK-PARKING AREA & AT THE NORTH ENTRANCE WALK AREA. IN THESE AREAS, THE PROPOSED CONTOUR INTERVAL IS 1 FOOT.

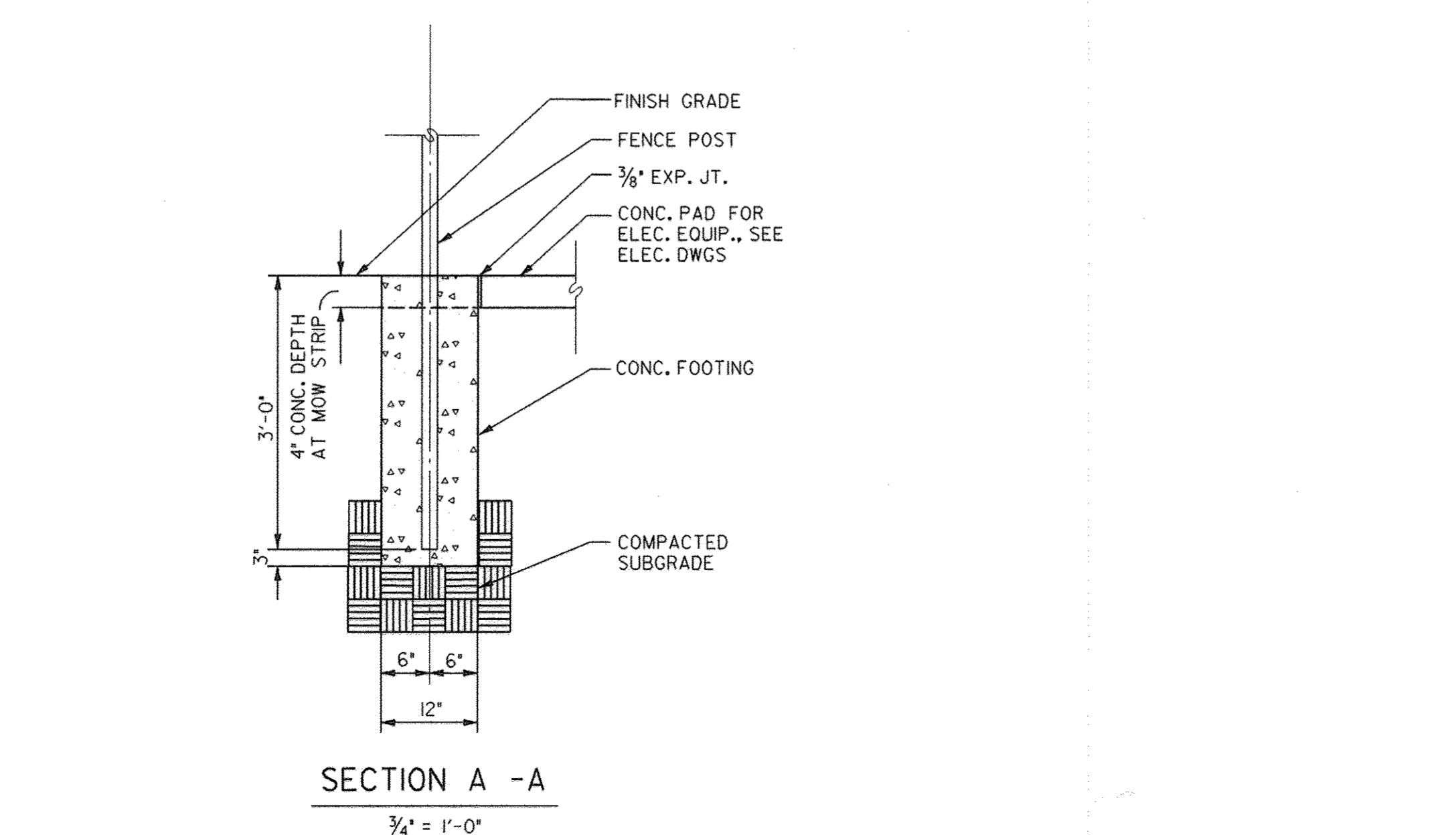
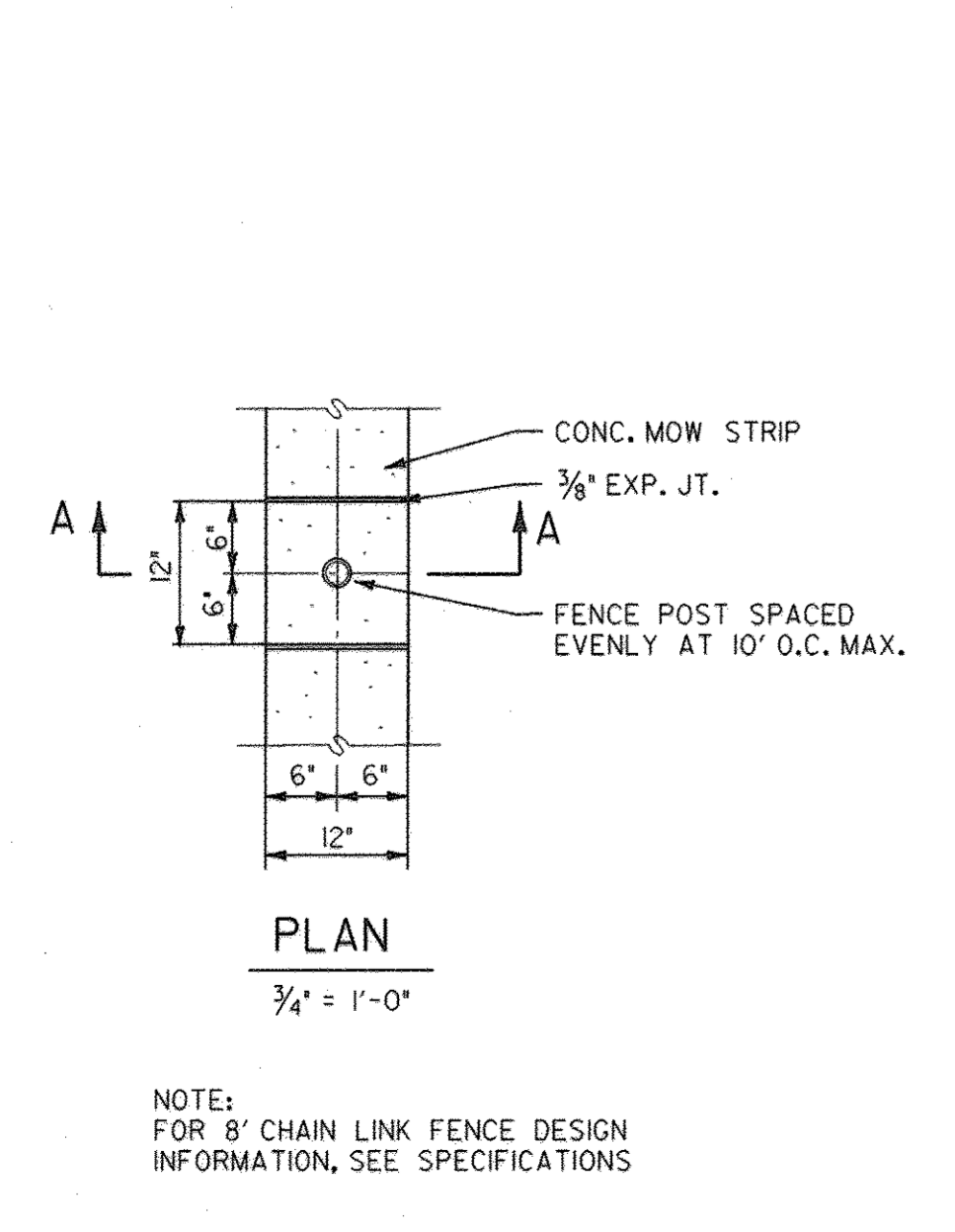


NO	REVISION	DATE
1	REVISED GRADING & LOCATION OF FIELD	6/22/94

Professional Engr. No. 16998



APPROVED
PLANNING BOARD
OF HOWARD COUNTY
DATE 12 May '94



NOTE:
FOR 8' CHAIN LINK FENCE DESIGN INFORMATION, SEE SPECIFICATIONS

SCALE: 3/4" = 1'-0"

PLAN - THEATER ENTRANCE
1" = 20'

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

Jane M. Gough 6-24-94
COUNTY HEALTH OFFICER DATE

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

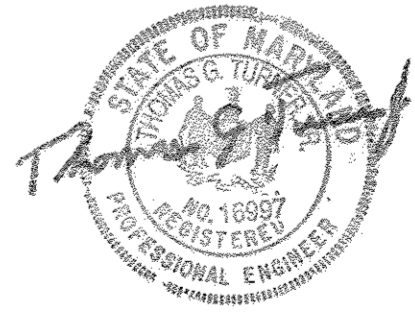
James R. Raths 6/27/94
DIRECTOR DATE

Anna Stearnman 6/24/94
CHIEF, LAND DEVELOPMENT & RESEARCH, JPR DATE

APPROVED: FOR PUBLIC WATER & PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS, HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

James P. G... 6/21/94
DIRECTOR DATE

William J. ... 6/20/94
CHIEF, BUREAU OF ENGINEERING DATE



THERE IS NO AS-BUILT INFORMATION ON THIS SHEET
TOM TURNER PE# 16997, 08/12/2016



Date	No.	Revision Description

RENOVATIONS TO WILDE LAKE HIGH SCHOOL

OWNER / DEVELOPER:
HOWARD COUNTY PUBLIC SCHOOL SYSTEM
10910 RT.108
ELLCOTT CITY, MARYLAND 21042-6198

DMW
Dart, McCune & Walker, Inc.
200 East Pennsylvania Avenue
Towson, Maryland 21286
(410) 296-3353
Fax: 296-4705

A Team of Land Planners, Landscape Architects, Engineers, Surveyors & Environmental Professionals

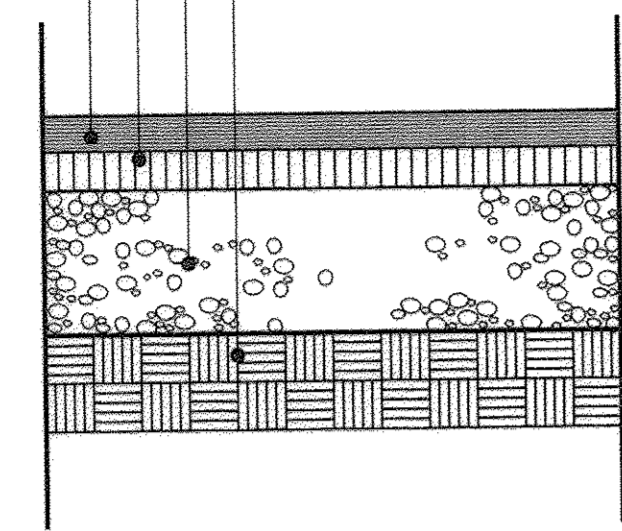
SUBDIVISION	VILLAGE OF WILDE LAKE	SECTION	SEC. 11 / AREA 1	CORNER #	1 / 280
PLAT OR REF.	1590.91	BLOCK #	29 / 24	LOT #	6054
WORK SIZE	E 30	SEAL CODE	SS23900		

TITLE
DETAIL PLAN VIEWS & CONSTRUCTION DETAILS

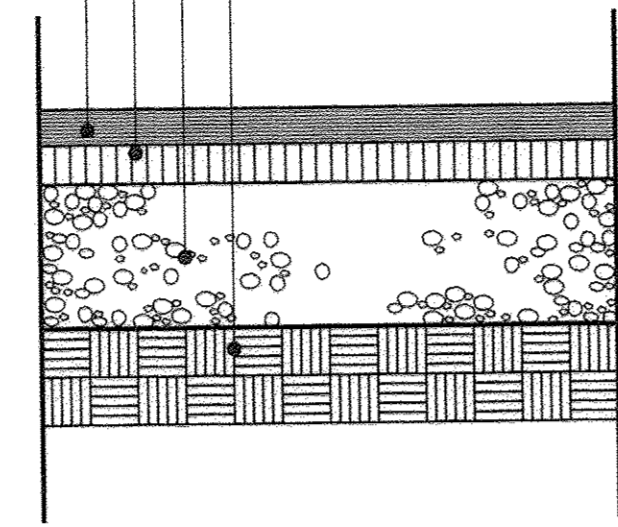
Des By	MAT	Scale	1" = 20'	Proj. No.	93051B
Drn By	DMA	Date	5/16/94		
Chk By	LWW	Approved			5 OF 37

Professional Engr. No. 16998

1.5" BIT. CONC. SURFACE COURSE (SF)
 4" BIT. CONC. LEVELING COURSE (BF)
 6" CRUSHER RUN BASE COURSE (GA S/B)
 COMPACTED SUBGRADE



1.5" BIT. CONC. SURFACE COURSE (SF)
 4" BIT. CONC. LEVELING COURSE (BF)
 6" CRUSHER RUN BASE COURSE (GA S/B)
 COMPACTED SUBGRADE

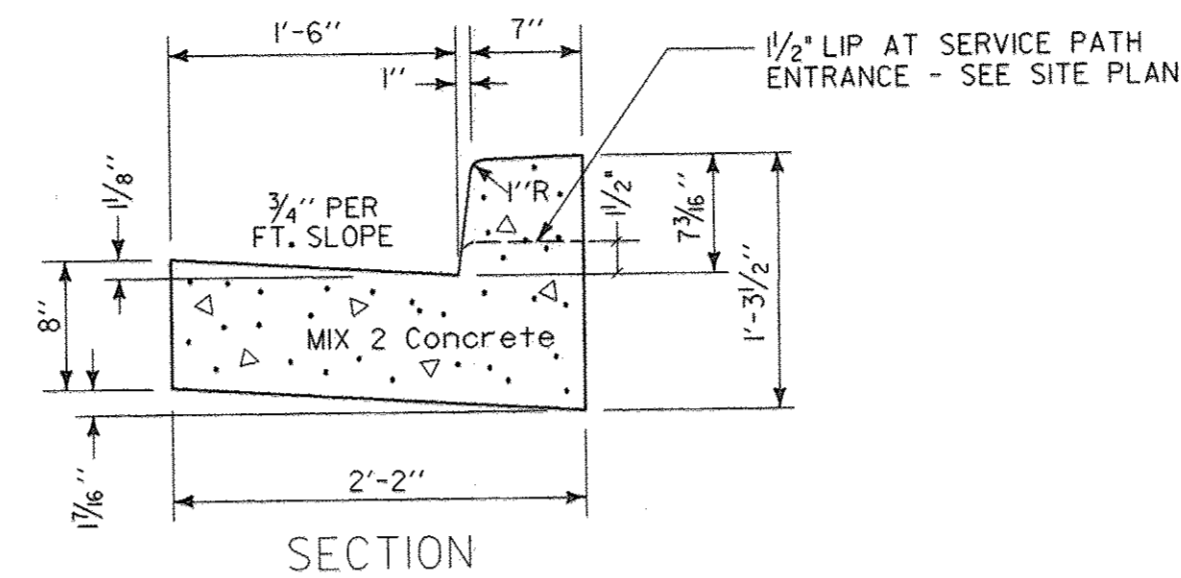
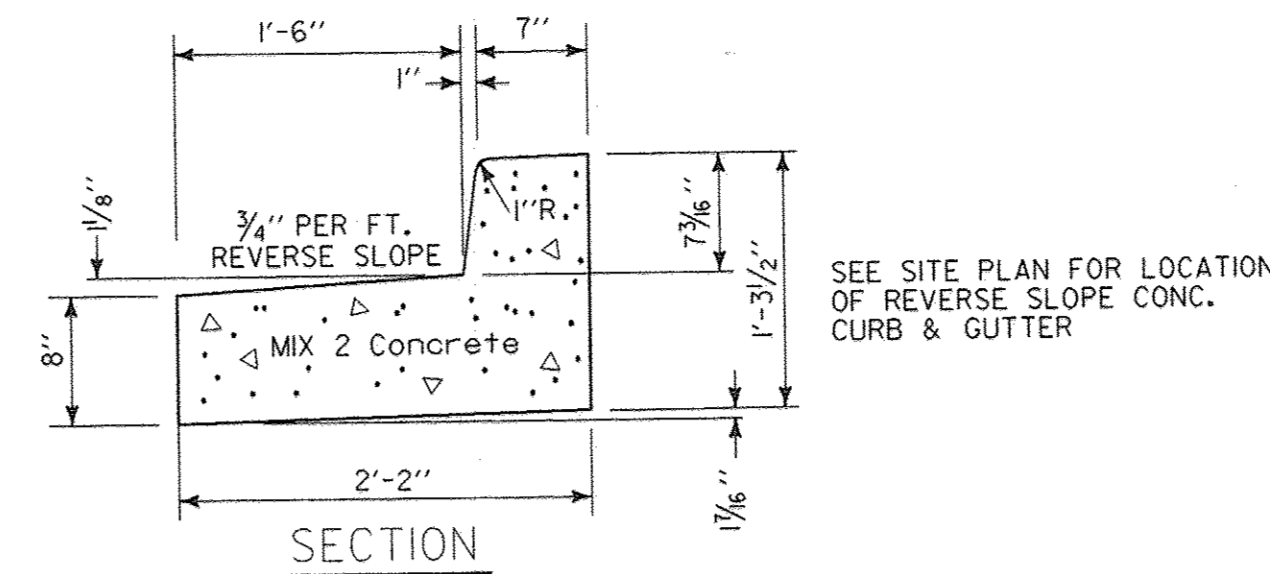


1 LIGHT DUTY PAVING

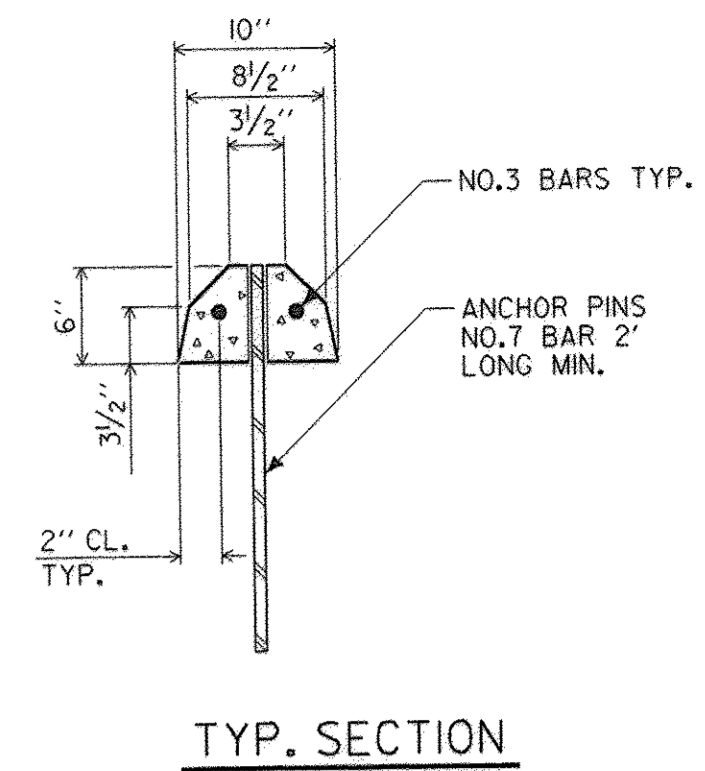
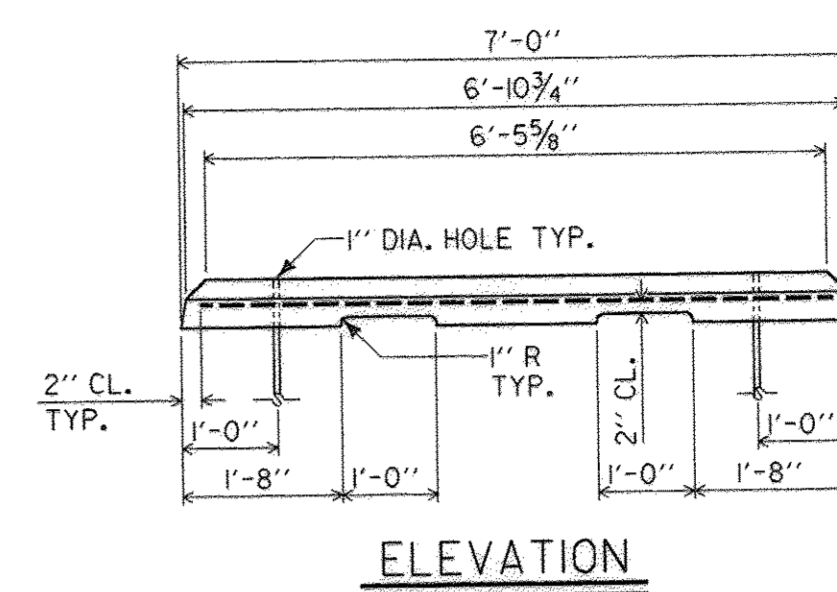
SCALE : 1"=1'-0"

2 HEAVY DUTY PAVING

SCALE : 1"=1'-0"



SEE SITE PLAN FOR LOCATION OF REVERSE SLOPE CONC. CURB & GUTTER



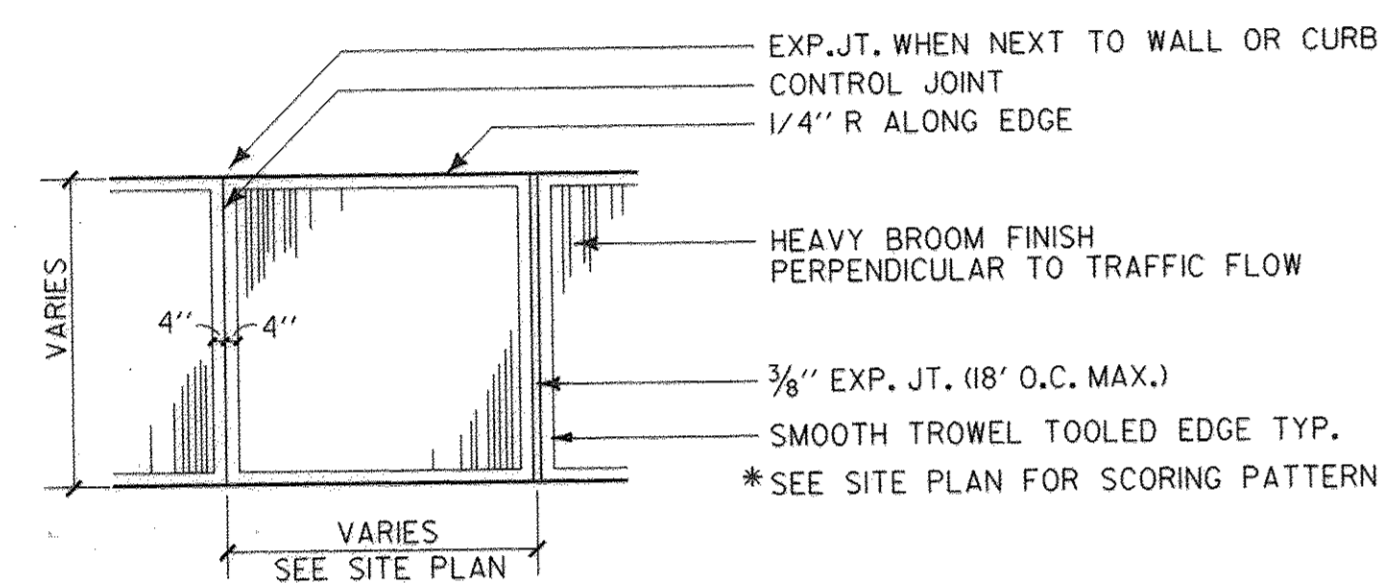
ELEVATION

TYP. SECTION

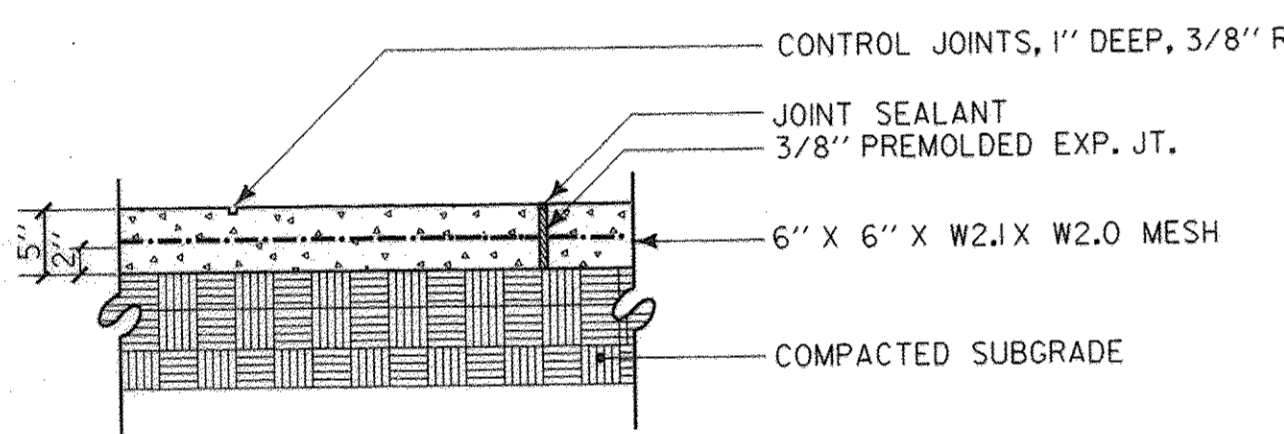
3 7" COMBINATION CURB AND GUTTER SCALE : 1"=1'-0"

4 PRECAST CONCRETE WHEELSTOP

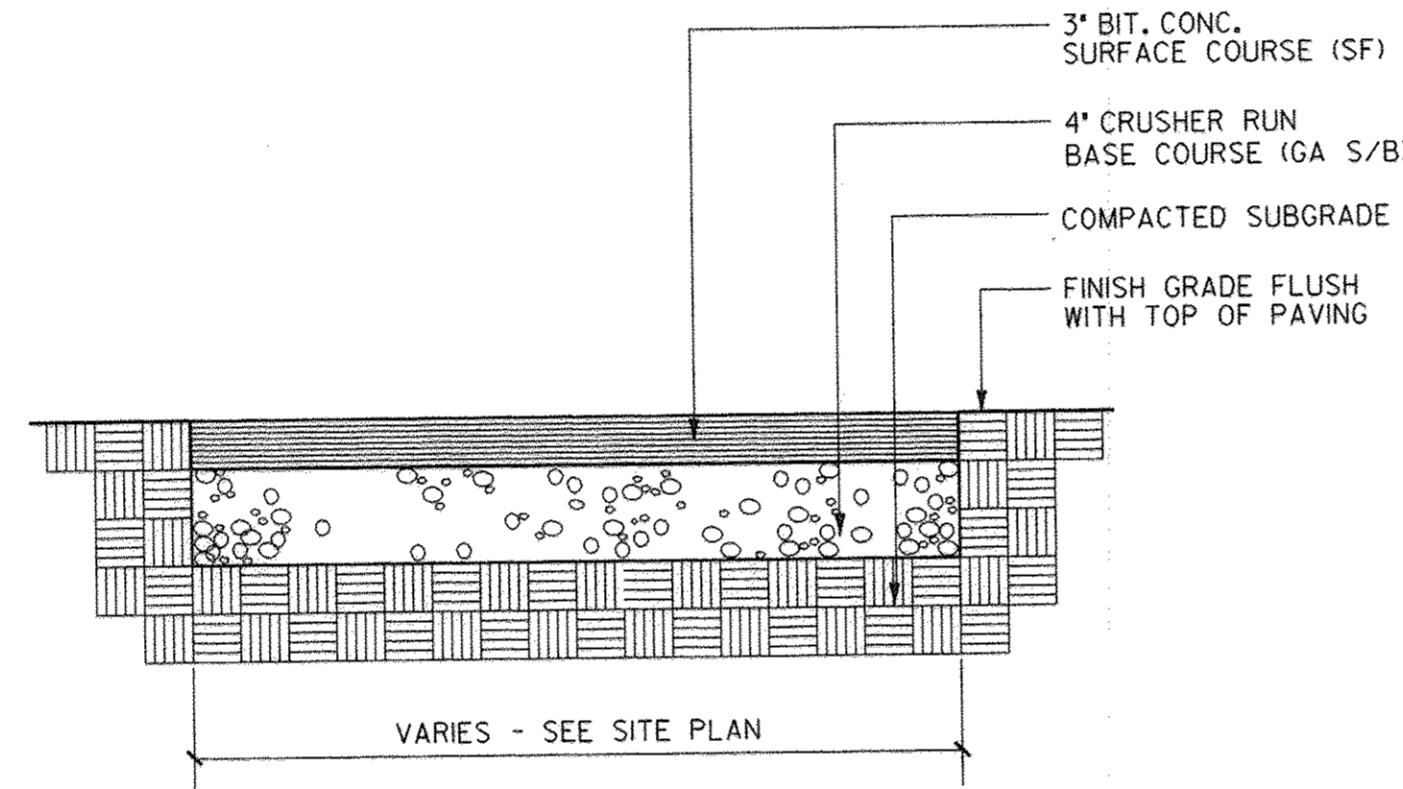
SCALE : 1/2"=1'-0"



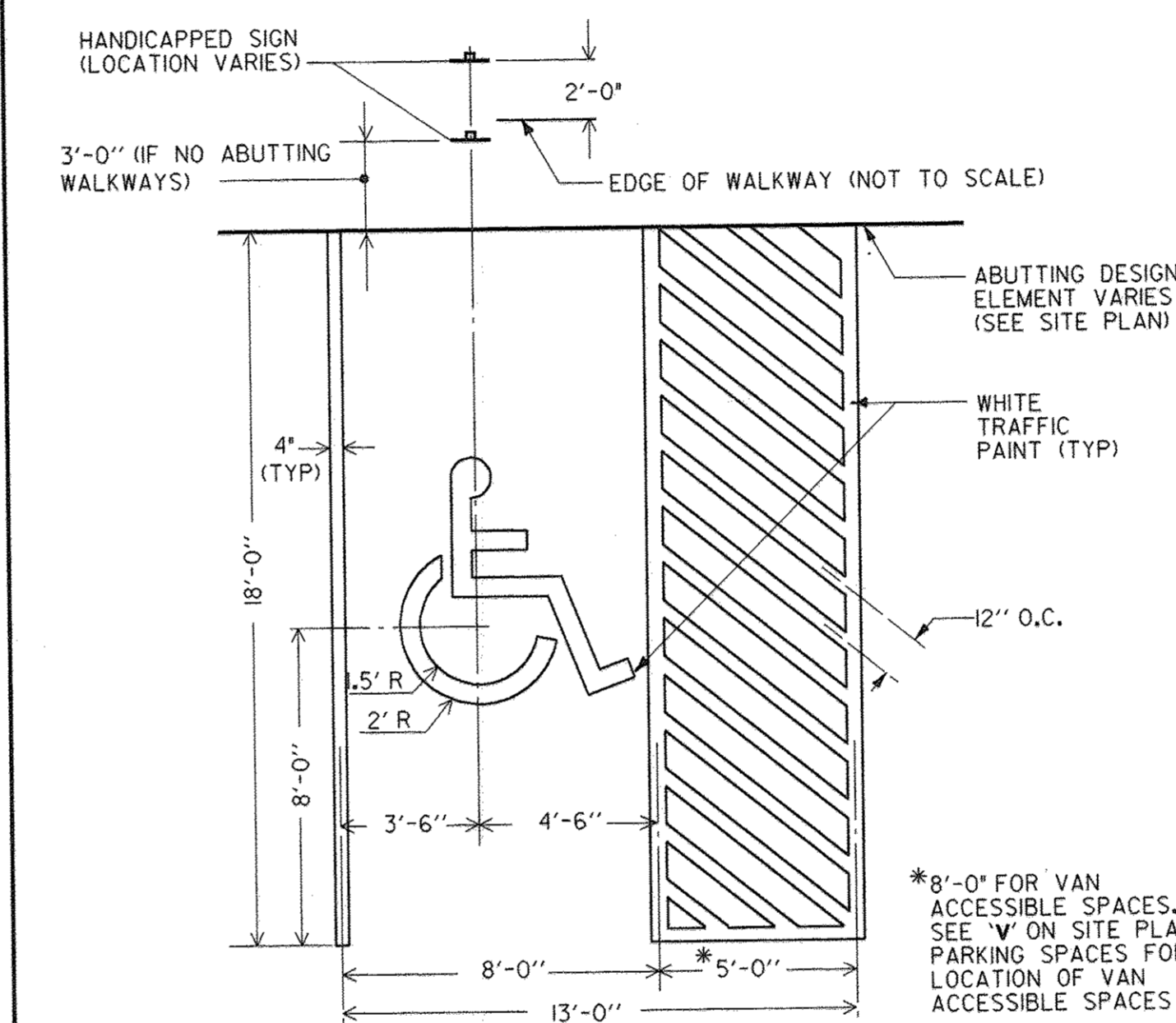
PLAN



SECTION

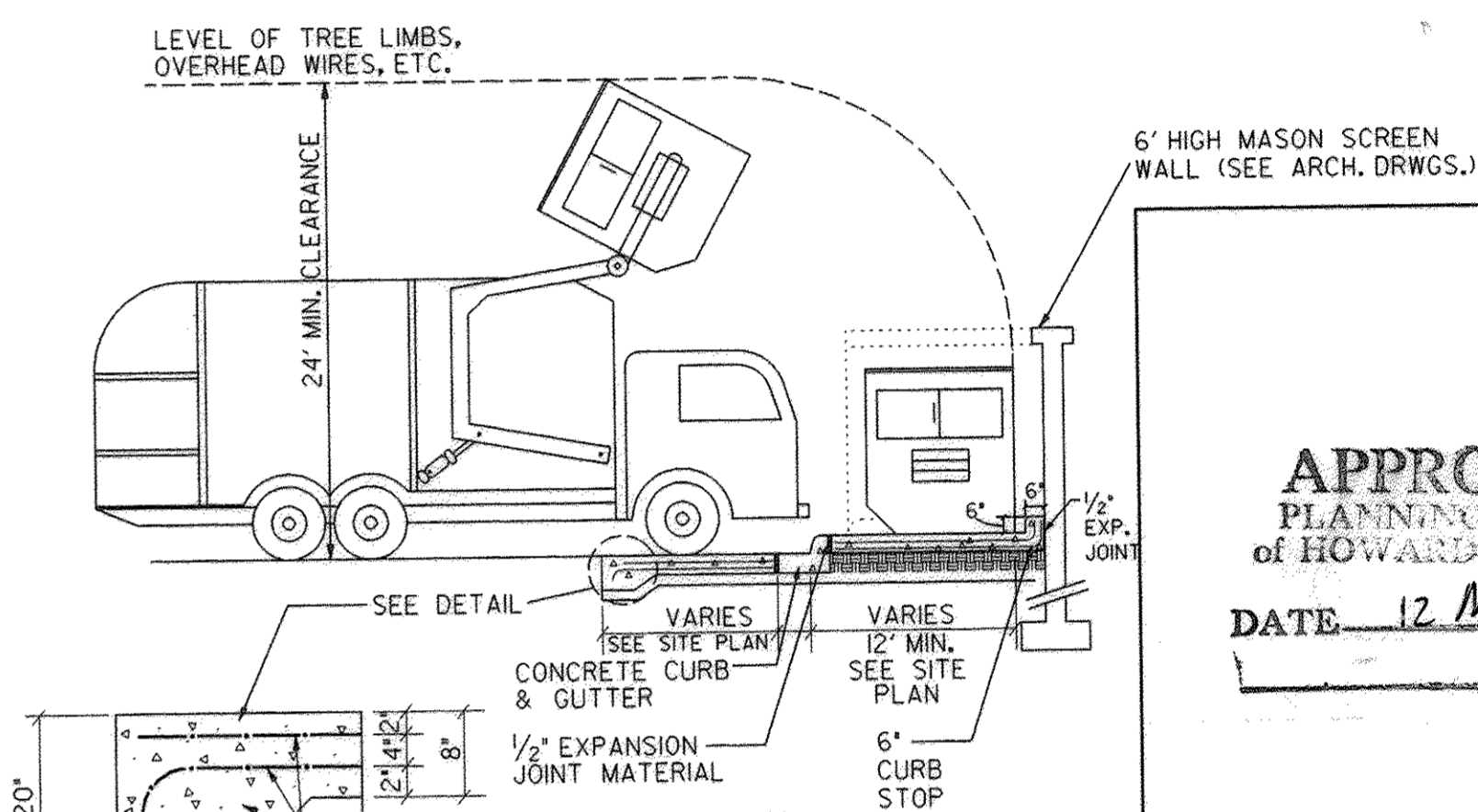


SECTION



7 HANDICAPPED PARKING SPACE

SCALE : 1/4"=1'-0"



8 DUMPSTER AREA NOT TO SCALE

5 CONCRETE WALK

SCALE : 3/8"=1'-0"

6 BIT. CONC. WALK

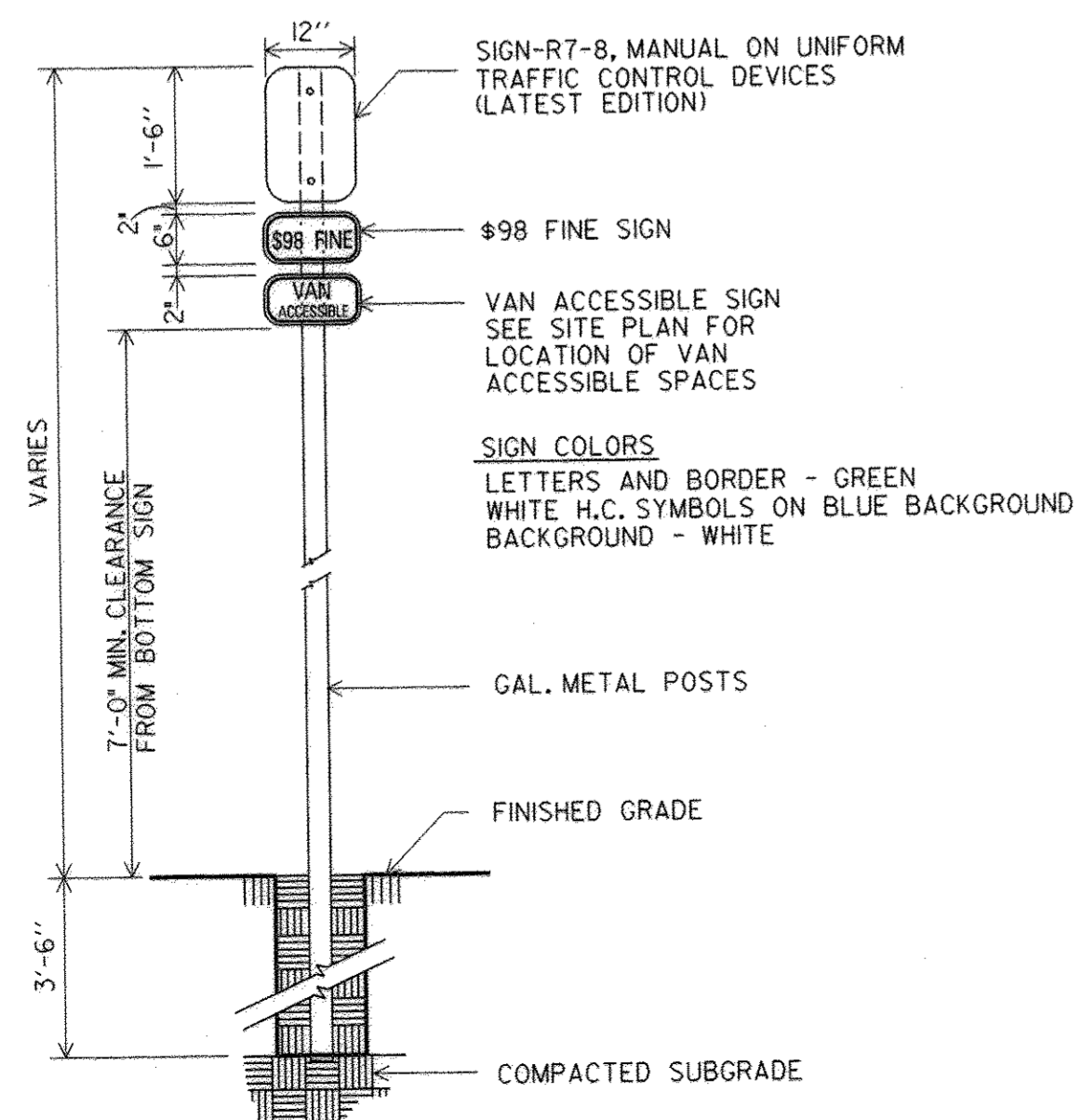
SCALE : 1"=1'-0"

7 HANDICAPPED PARKING SPACE

SCALE : 1/4"=1'-0"

8 DUMPSTER AREA NOT TO SCALE

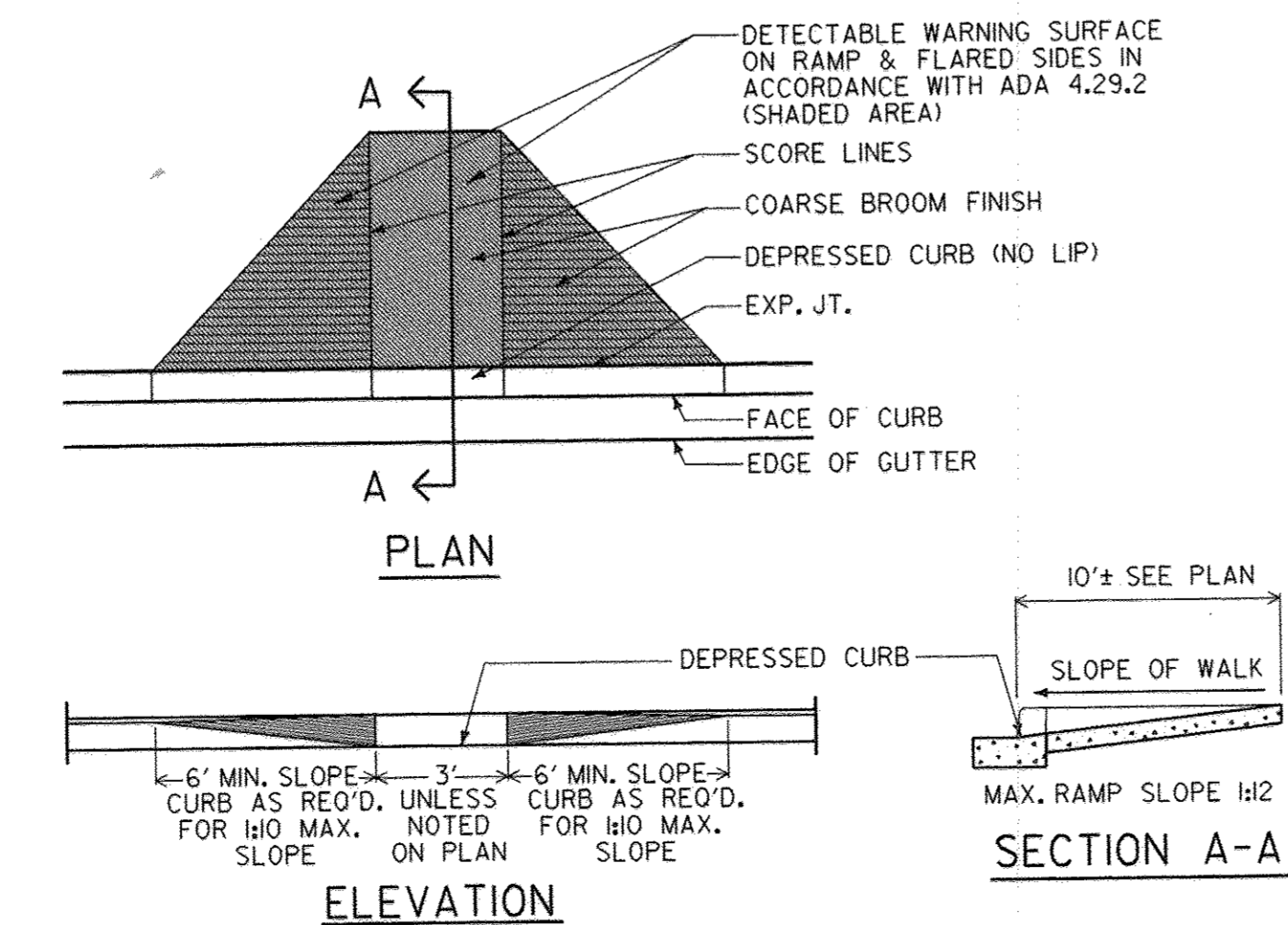
NOTES
 1. DISTANCE FROM GROUND TO BOTTOM OF SIGN SHALL BE 7'
 2. SEE HANDICAPPED PARKING SPACE DETAIL THIS SHEET FOR LOCATION OF HANDICAPPED SIGN.



9 HANDICAPPED SIGN

NOT TO SCALE

NOTE:
 HC RAMP SHALL CONFORM TO CURRENT ADA CRITERIA



ELEVATION

10 HANDICAPPED RAMP TYPE I

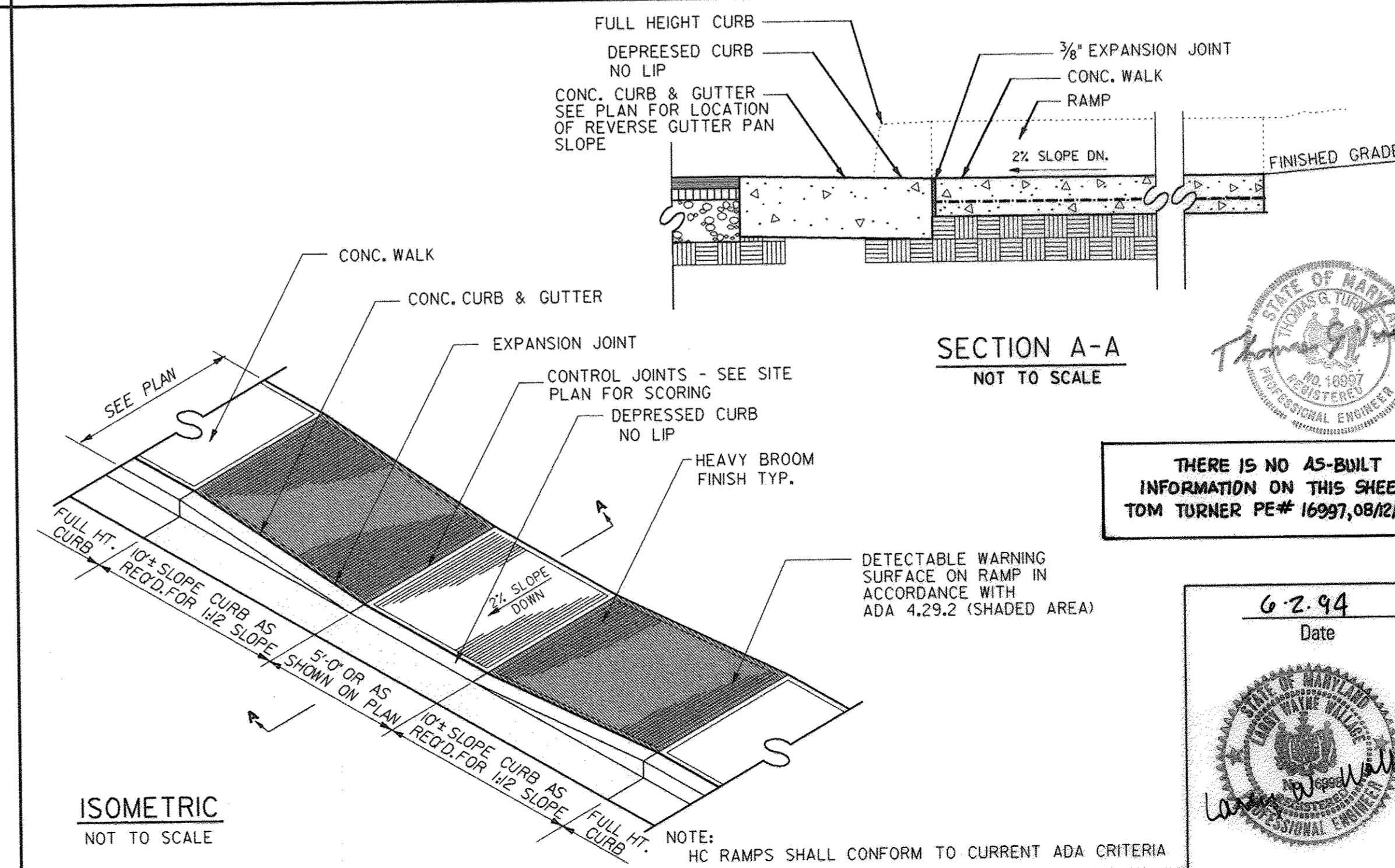
NOT TO SCALE

7 HANDICAPPED PARKING SPACE

SCALE : 1/4"=1'-0"

11 HANDICAPPED RAMP TYPE II

8 DUMPSTER AREA NOT TO SCALE



ISOMETRIC
 NOT TO SCALE

11 HANDICAPPED RAMP TYPE II

NOT TO SCALE

APPROVED FOR PUBLIC WATER & PUBLIC SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

APPROVED: FOR PUBLIC WATER & PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS, HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

APPROVED: FOR PUBLIC WATER & PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS, HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

Date No. Revision Description

RENOVATIONS TO WILDE LAKE HIGH SCHOOL

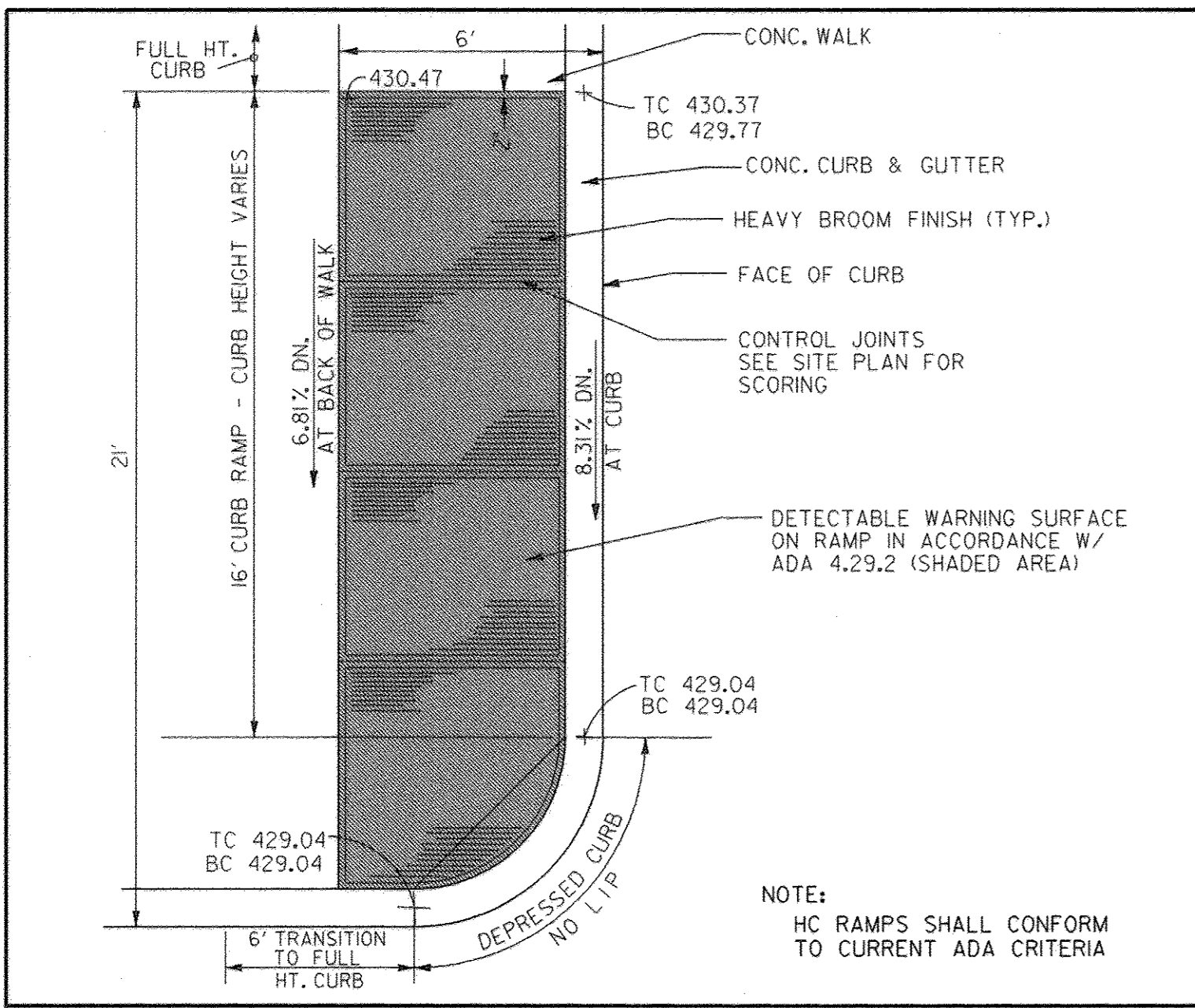
OWNER /DEVELOPER:
 HOWARD COUNTY PUBLIC SCHOOL SYSTEM
 10910 RT.108
 ELLICOTT CITY, MARYLAND 21042-6198

DMW
 Date: 6.2.94

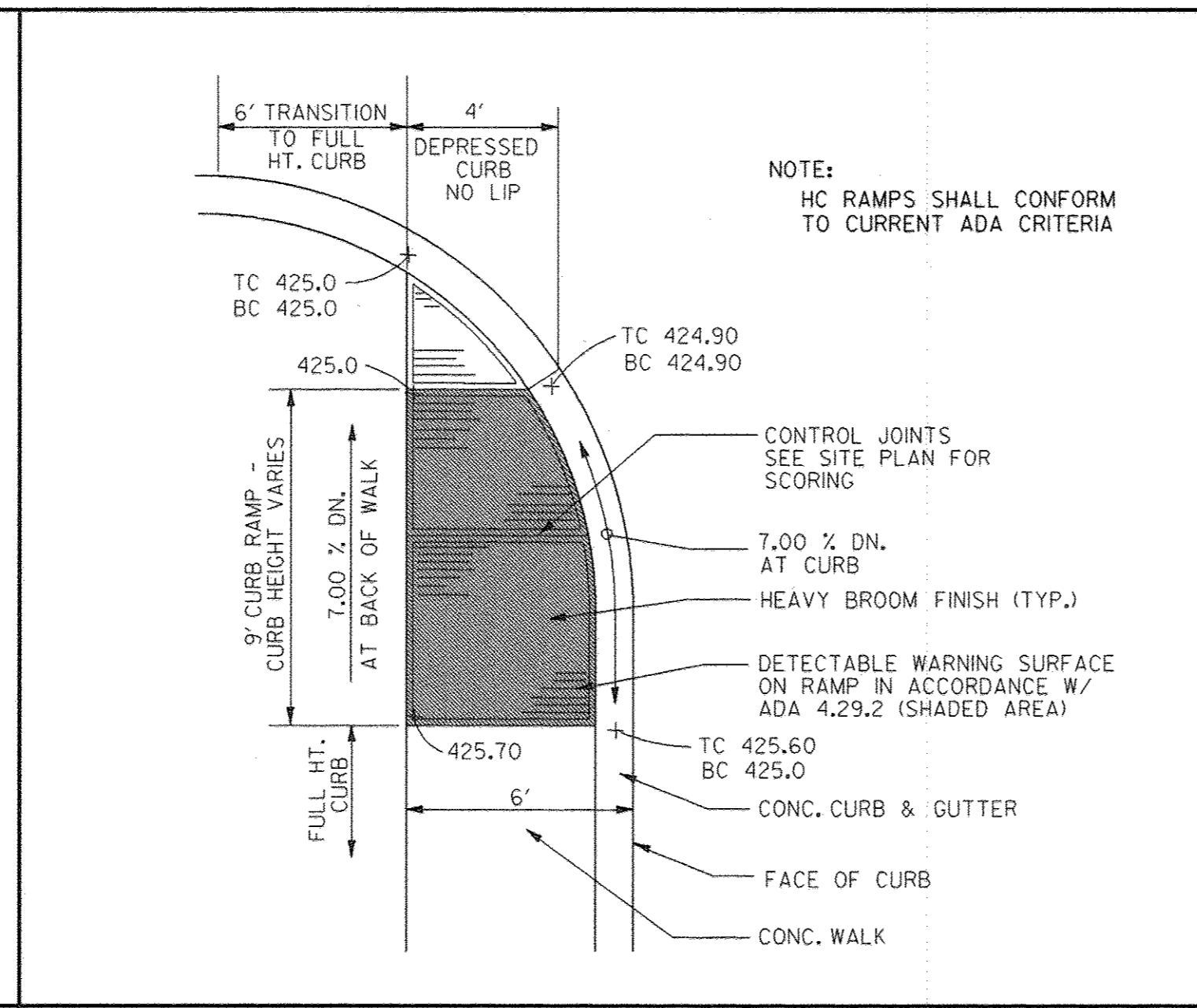
Professional Engr. No. 16997

TITLE: SITE CONSTRUCTION DETAILS

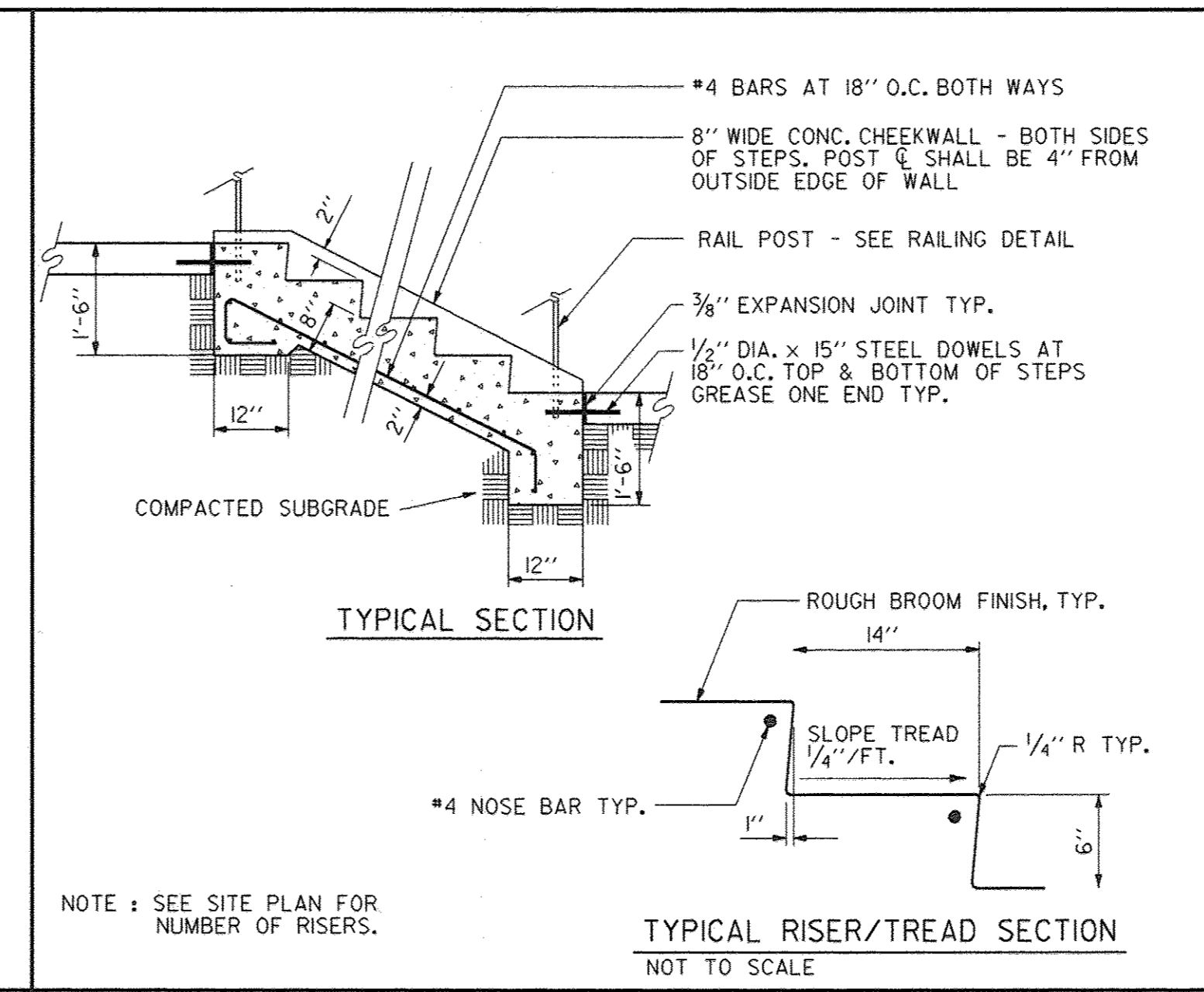
Des By: MAT Scale: AS SHOWN Proj. No. 93051B
 Dwn By: DMA Date: 5/16/94
 Chk By: LWW Approved: 6 OF 37



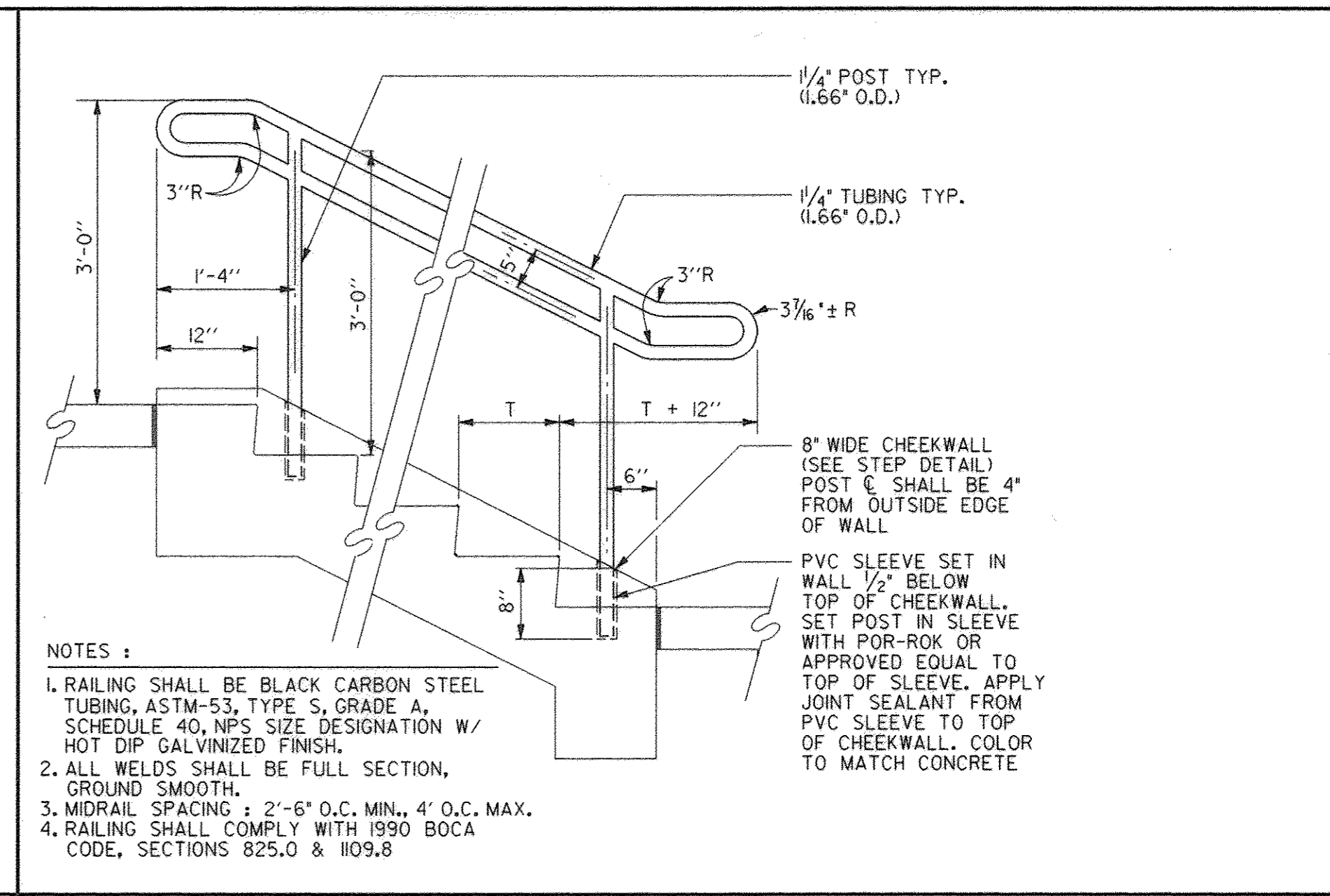
① HANDICAPPED RAMP TYPE III SCALE : 1/4" = 1'-0"



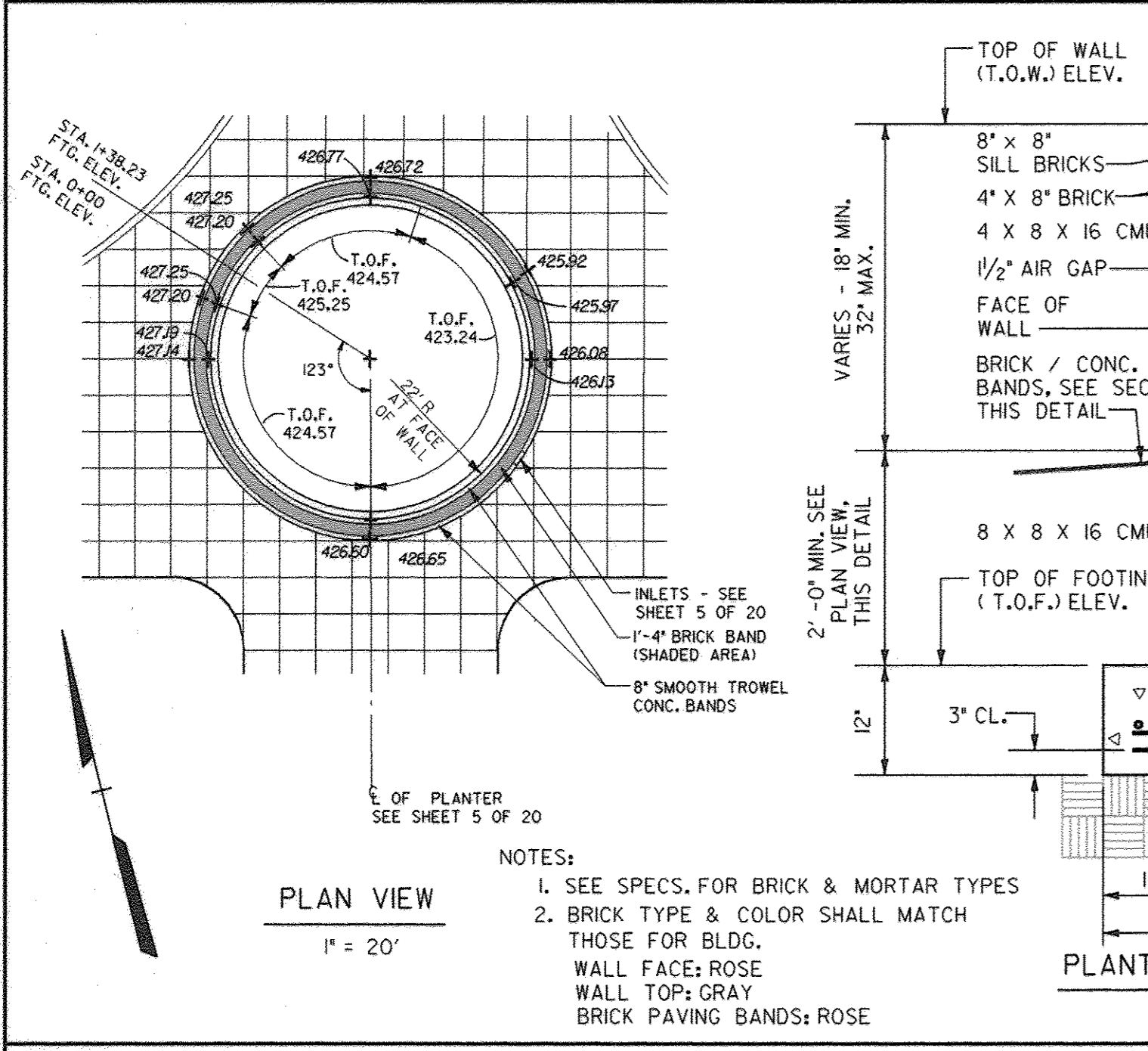
② HANDICAPPED RAMP TYPE IV SCALE : 1/4" = 1'-0"



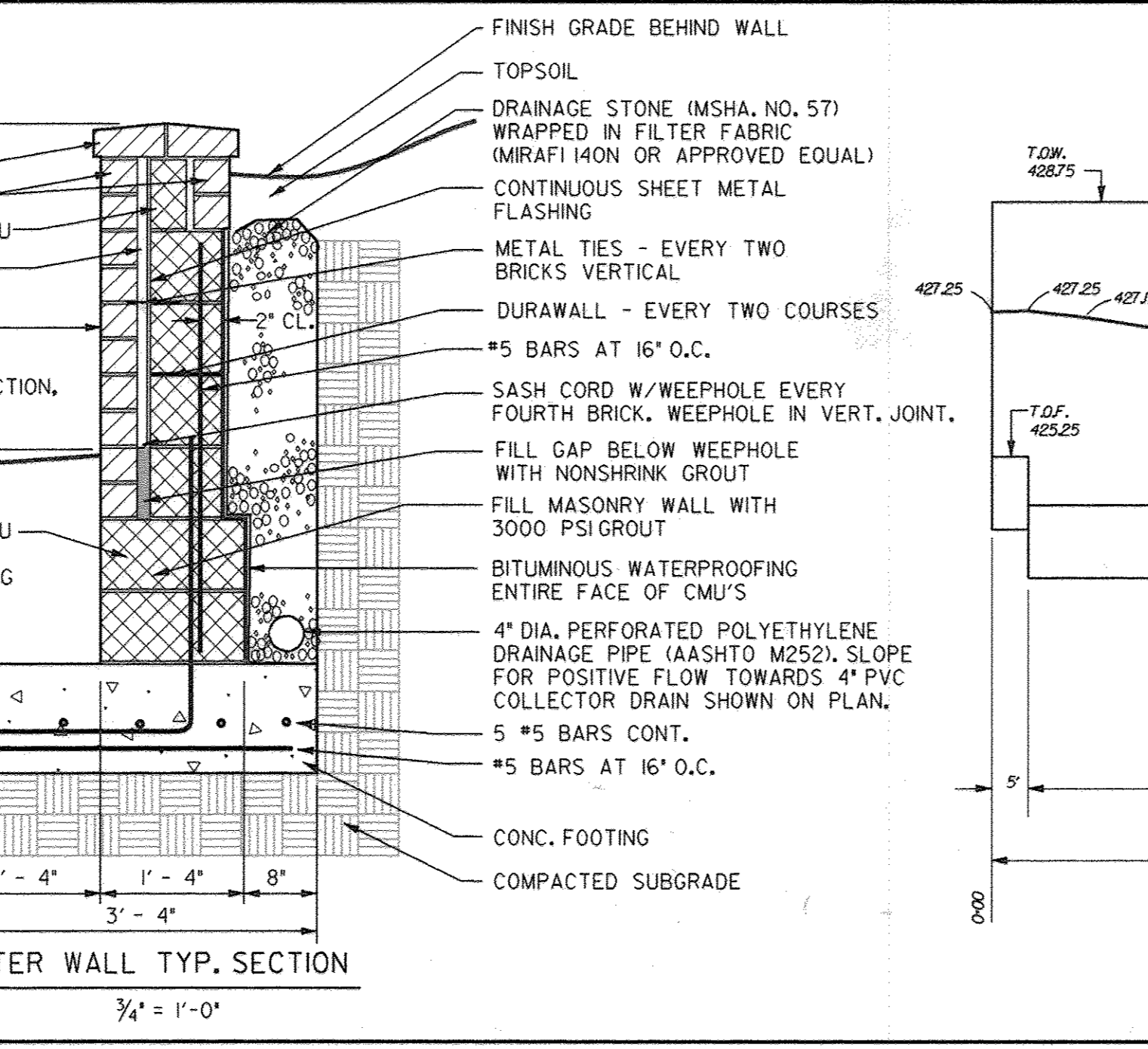
③ CONCRETE STEPS 1/2" = 1'-0"



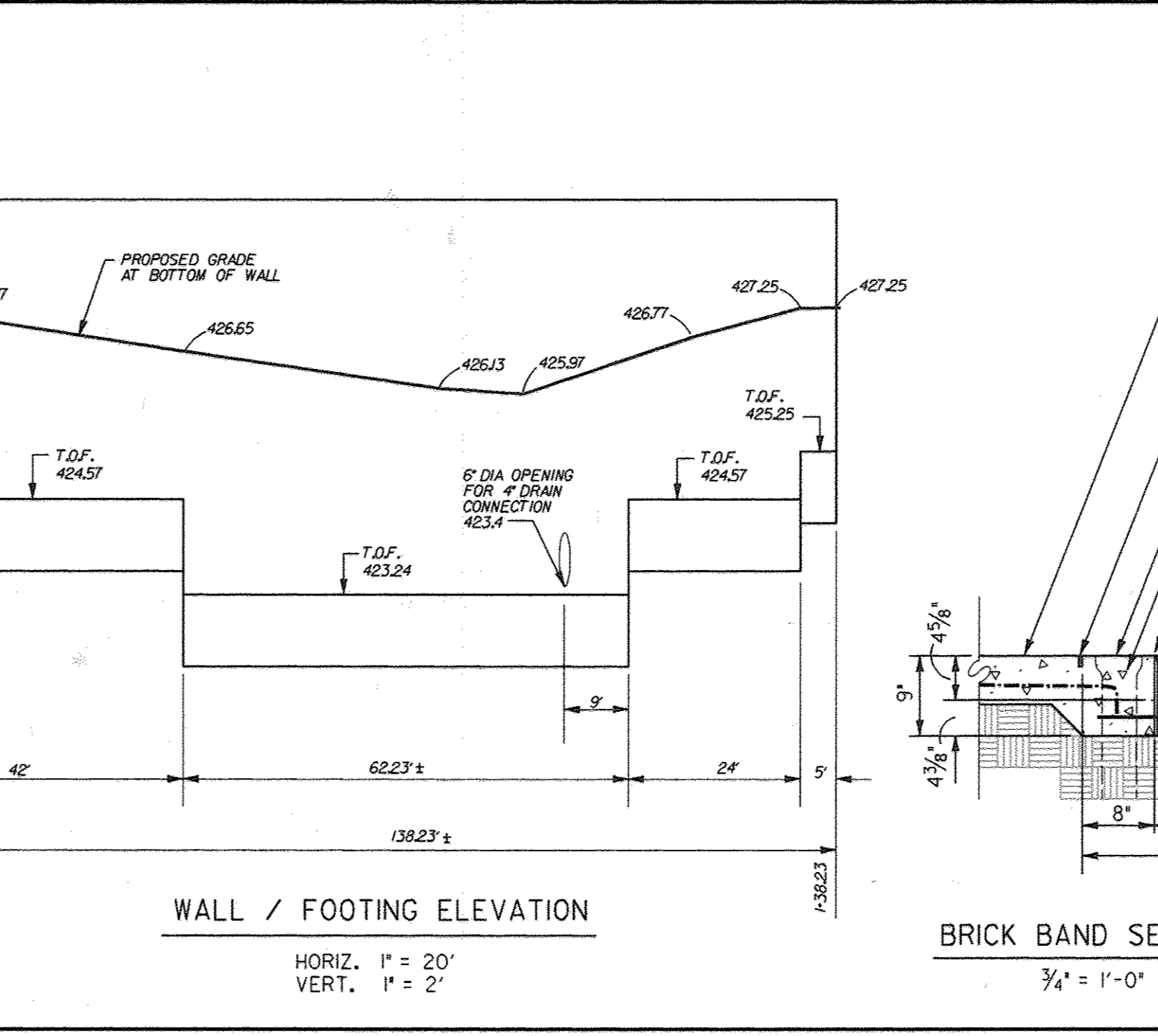
④ STAIR RAILING SCALE : 3/4" = 1'-0"



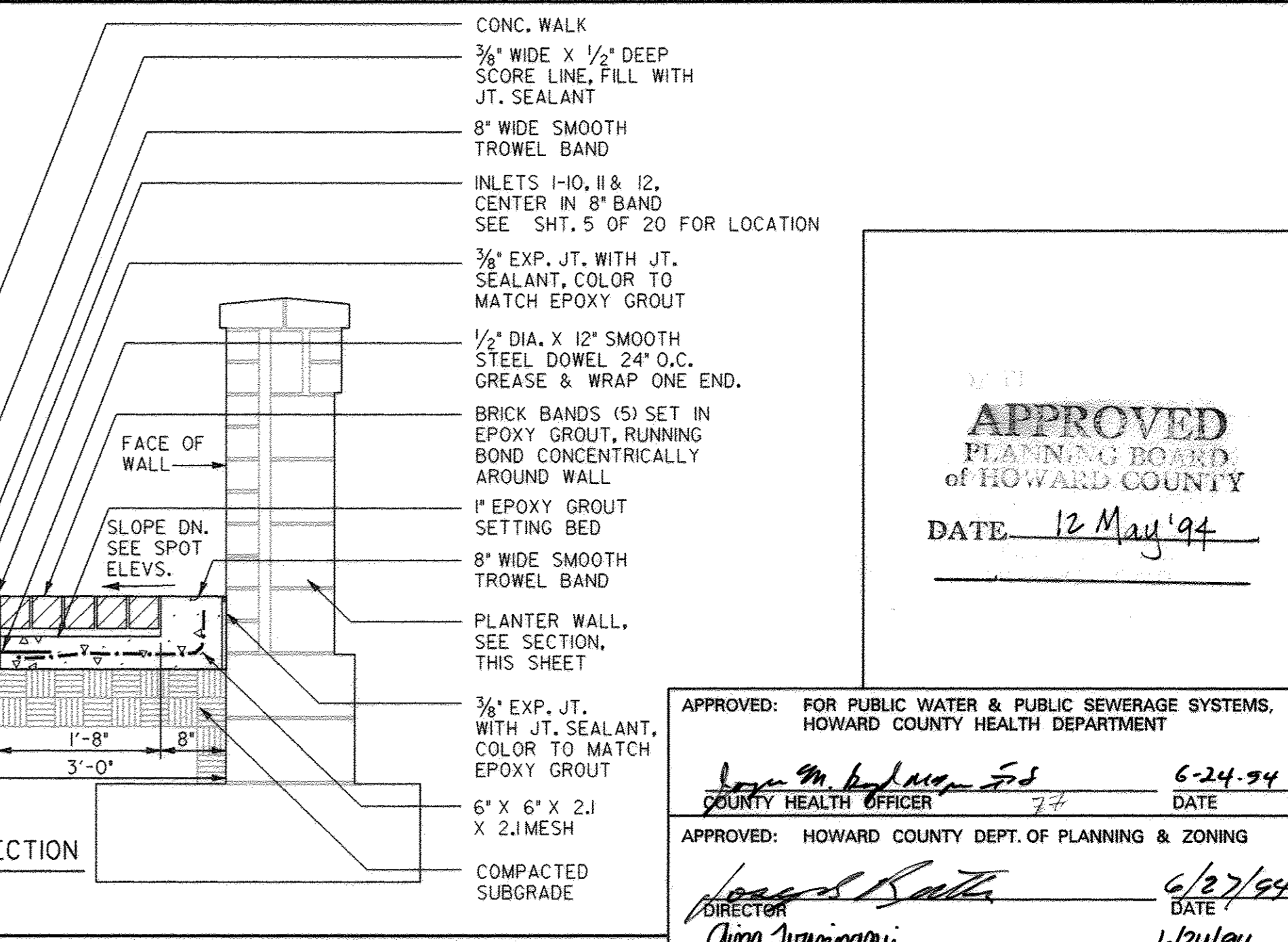
⑤ PLANTER WALL / BRICK BANDING DETAIL SCALE : AS SHOWN



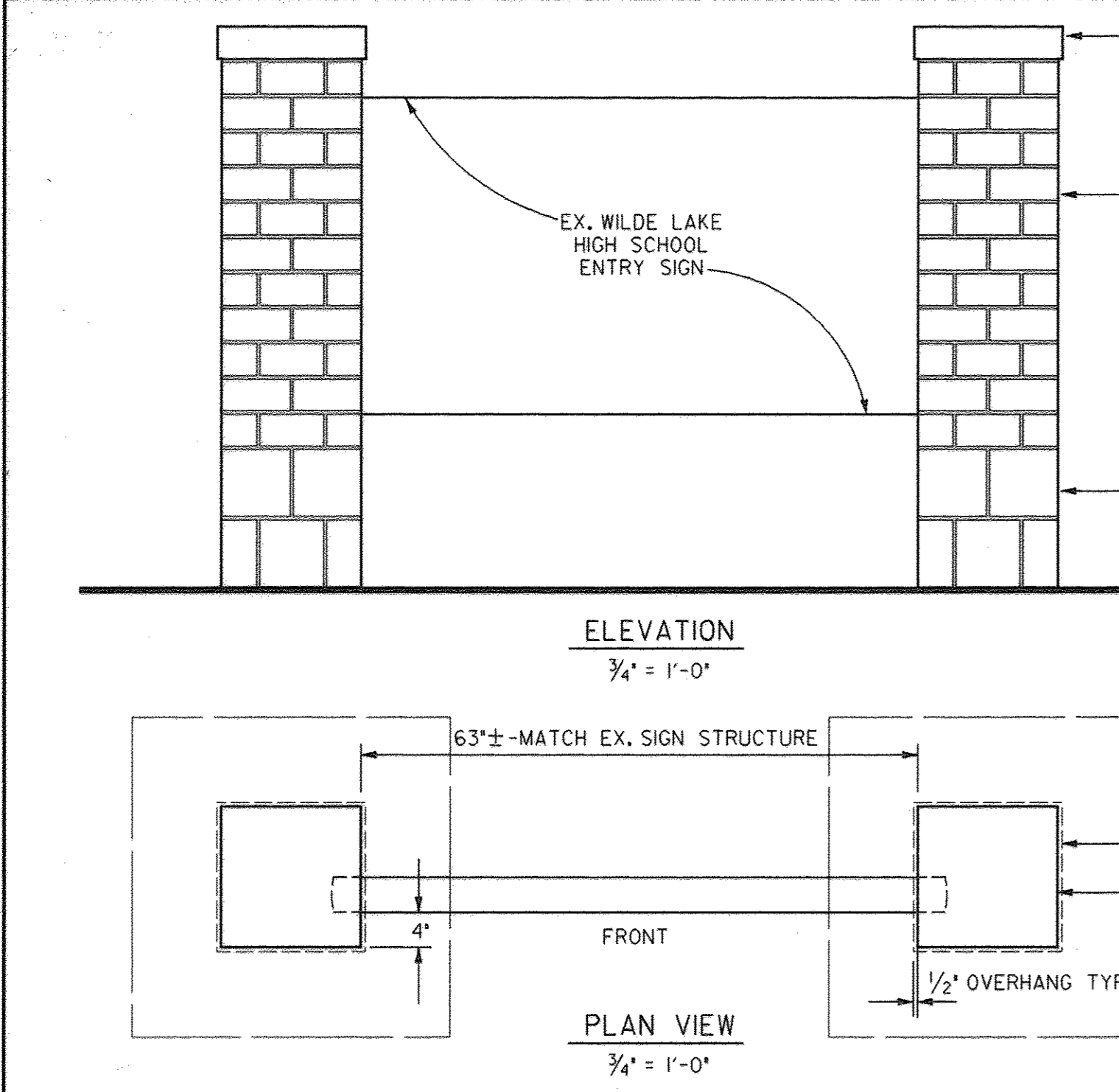
⑥ WALL / FOOTING ELEVATION SCALE : AS SHOWN



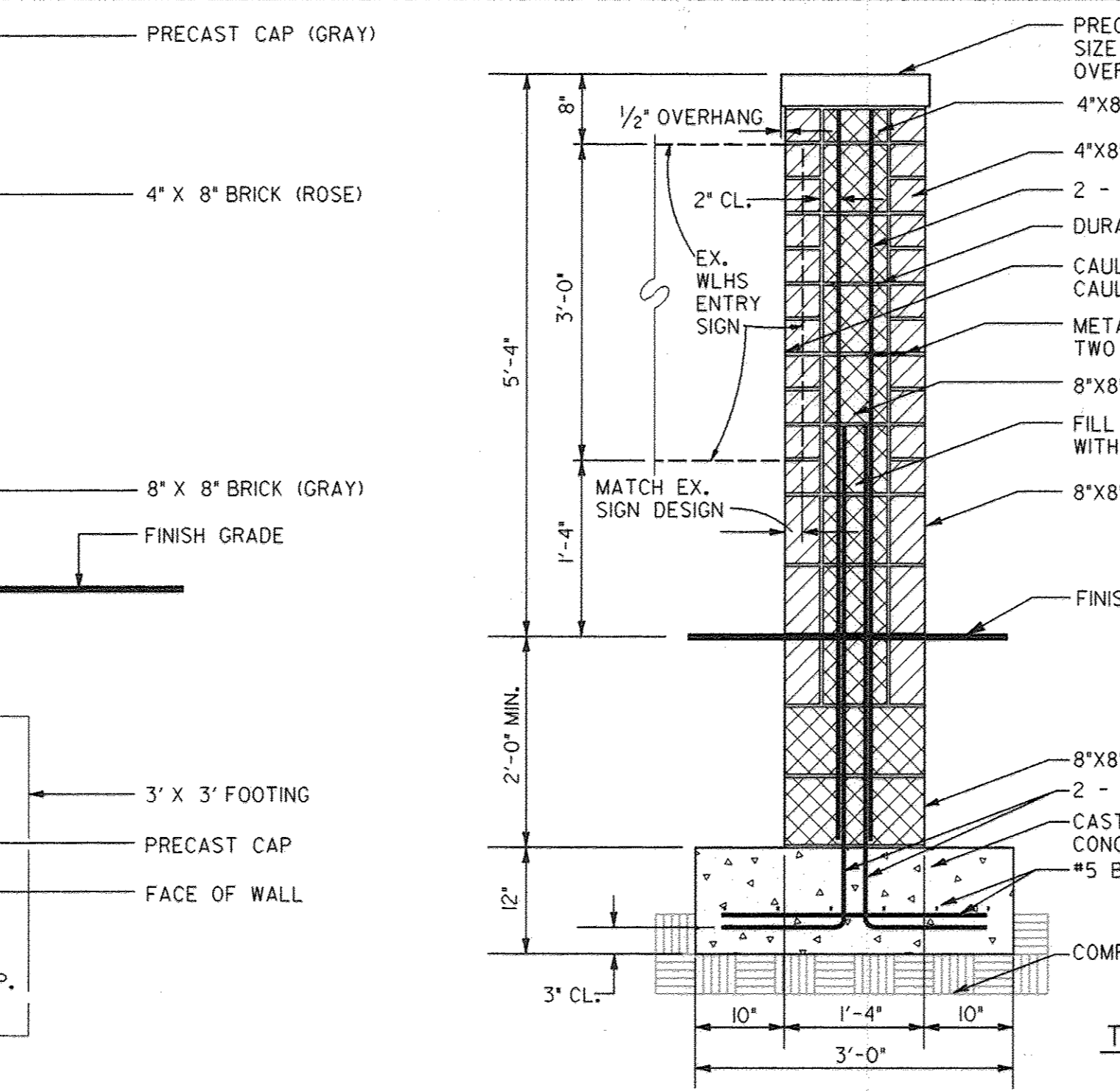
⑦ BRICK BAND SECTION SCALE : 3/4" = 1'-0"



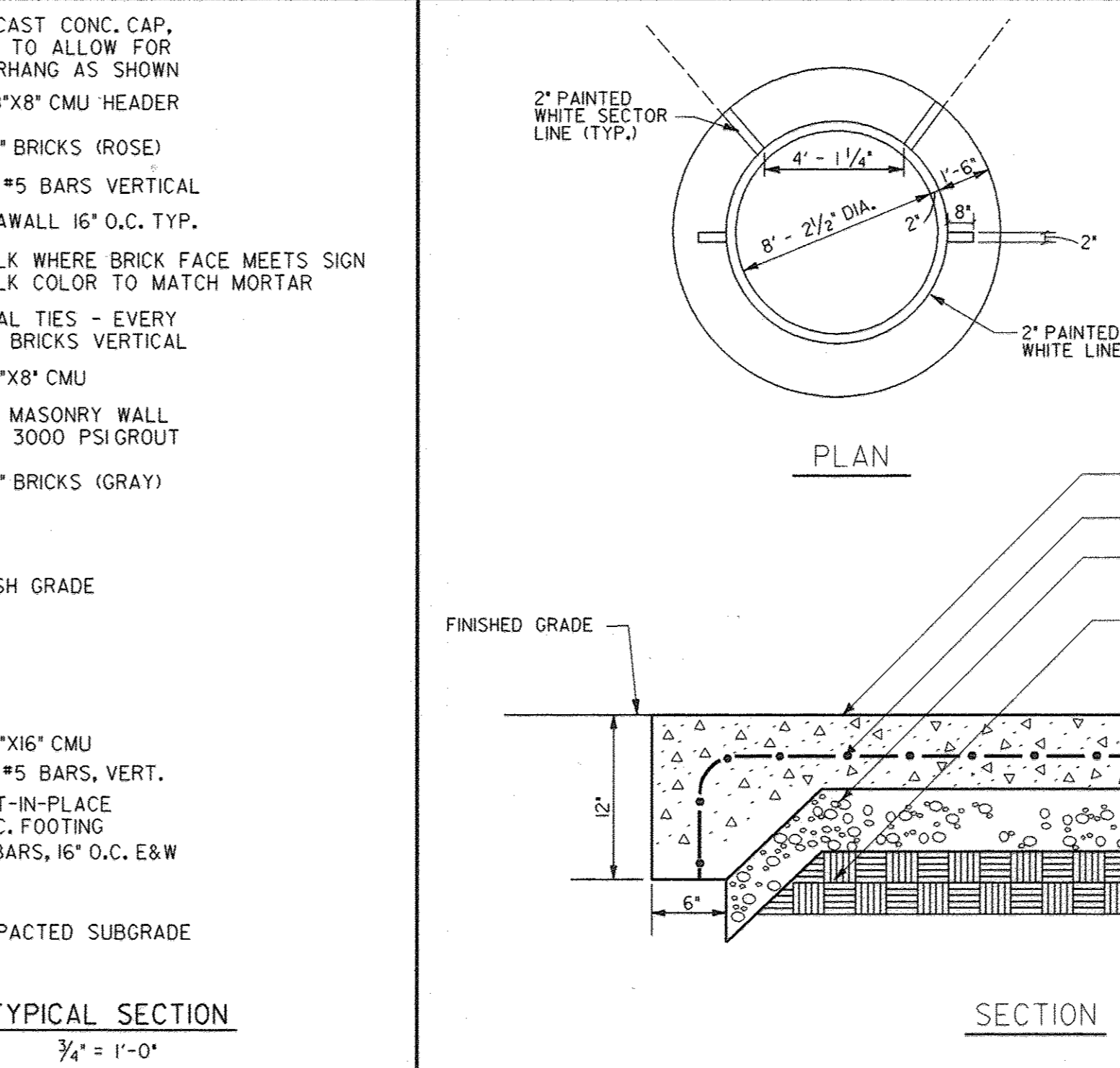
⑧ SHOT PUT / DISCUS BASE PAD NOT TO SCALE



⑨ WILDE LAKE HIGH SCHOOL SIGN RELOCATION SCALE : AS SHOWN



⑩ TYPICAL SECTION SCALE : AS SHOWN



⑪ SHOT PUT / DISCUS BASE PAD NOT TO SCALE

APPROVED
PLANNING BOARD
OF HOWARD COUNTY
DATE: 12 May '94

APPROVED: FOR PUBLIC WATER & PUBLIC SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT
John M. Johnson 6/24/94
COUNTY HEALTH OFFICER 77 DATE

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING
Joseph B. Bates 6/27/94
DIRECTOR 77 DATE

John Surman 6/24/94
CHIEF, LAND DEVELOPMENT & RESEARCH 77 DATE

APPROVED: FOR PUBLIC WATER & PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS, HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
John M. Johnson 6/19/94
DIRECTOR 77 DATE

Charles E. Brown 6/20/94
CHIEF, BUREAU OF ENGINEERING 77 DATE

Date	No.	Revision Description

**RENOVATIONS TO
WILDE LAKE HIGH SCHOOL**

OWNER / DEVELOPER:
HOWARD COUNTY PUBLIC SCHOOL SYSTEM
10910 RT.108
ELLCOTT CITY, MARYLAND 21042-6198

DMW
Darr McConne-Walkers, Inc.
200 East Pennsylvania Avenue
Towson, Maryland 21286
(410) 296-3533
Fax: 296-4706

A Team of Land Planners,
Landscape Architects,
Engineers, Surveyors &
Environmental Professionals

SECTION	SECTION AREA	DATE	BY
VILLAGE OF WILDE LAKE	SEC. 11 / AREA 1	1/280	
PLAT OR LE	BLOCK #	ZONE	
1990.91			
WATER CODE	SEWER CODE	ELECT. DISTRICT	
E 30	5523900	5TH	6054

TITLE: **SITE CONSTRUCTION DETAILS**

Des By	MAT	Scale	AS SHOWN	Proj. No.	93051B
Drn By	DMA	Date	5/16/94		
Chk By	LWW	Approved			7 OF 37

Professional Engr. No. 16998

LEGEND

- DRAINAGE AREA BOUNDARY
- AREA IN ACRES
C' FACTOR % IMPERVIOUS DRAINAGE AREA IDENTIFICATION
- STRUCTURE NUMBER & LOCATION
- SOIL LIMIT LINE



APPROVED
PLANNING BOARD
of HOWARD COUNTY
DATE 12 May '94

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

Joyce M. Boyd, M.P., F.C. 6-24-94
COUNTY HEALTH OFFICER 74 DATE

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

Joseph R. Smith 6/27/94
DIRECTOR DATE
Ann S. Williams 6/24/94
CHIEF, LAND DEVELOPMENT & RESEARCH 3A DATE

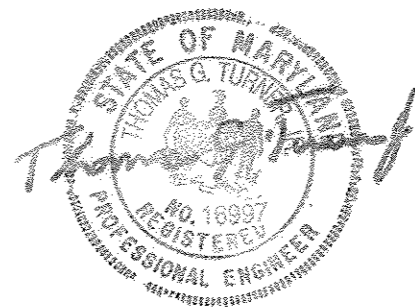
APPROVED: FOR PUBLIC WATER & PUBLIC SEWERAGE,
STORM DRAINAGE SYSTEMS AND PUBLIC ROADS,
HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

James P. Lee 6/1/94
DIRECTOR DATE
Paul D. Sporn 6/30/94
CHIEF, BUREAU OF ENGINEERING DATE

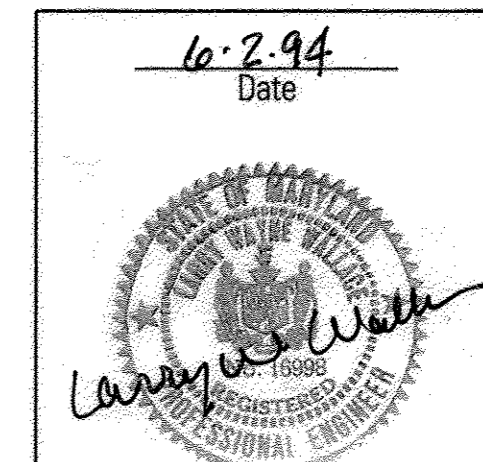
Date	No.	Revision Description

**RENOVATIONS TO
WILDE LAKE HIGH SCHOOL**

OWNER / DEVELOPER:
HOWARD COUNTY PUBLIC SCHOOL SYSTEM
10910 RT.108
ELLICOTT CITY, MARYLAND 21042-6198



THERE IS NO AS-BUILT
INFORMATION ON THIS SHEET
TOM TURNER PE# 16997, 08/12/2016



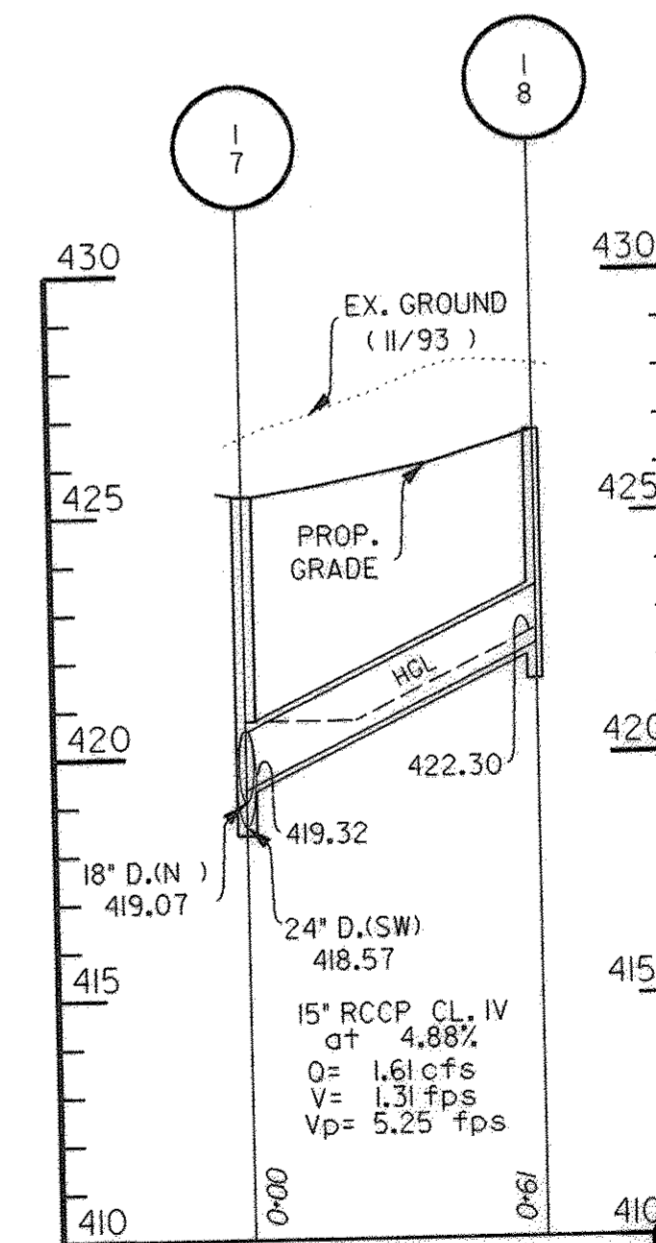
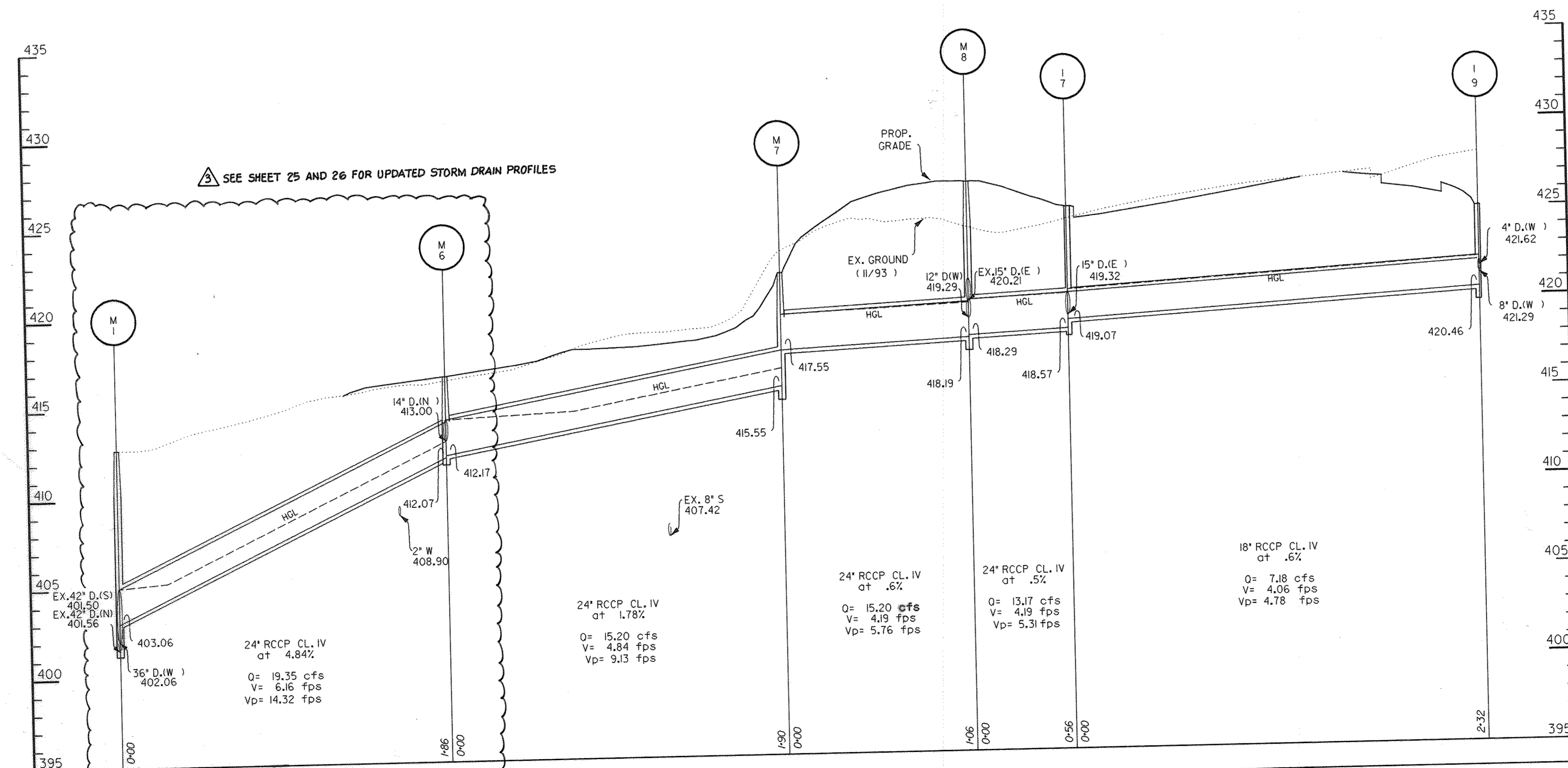
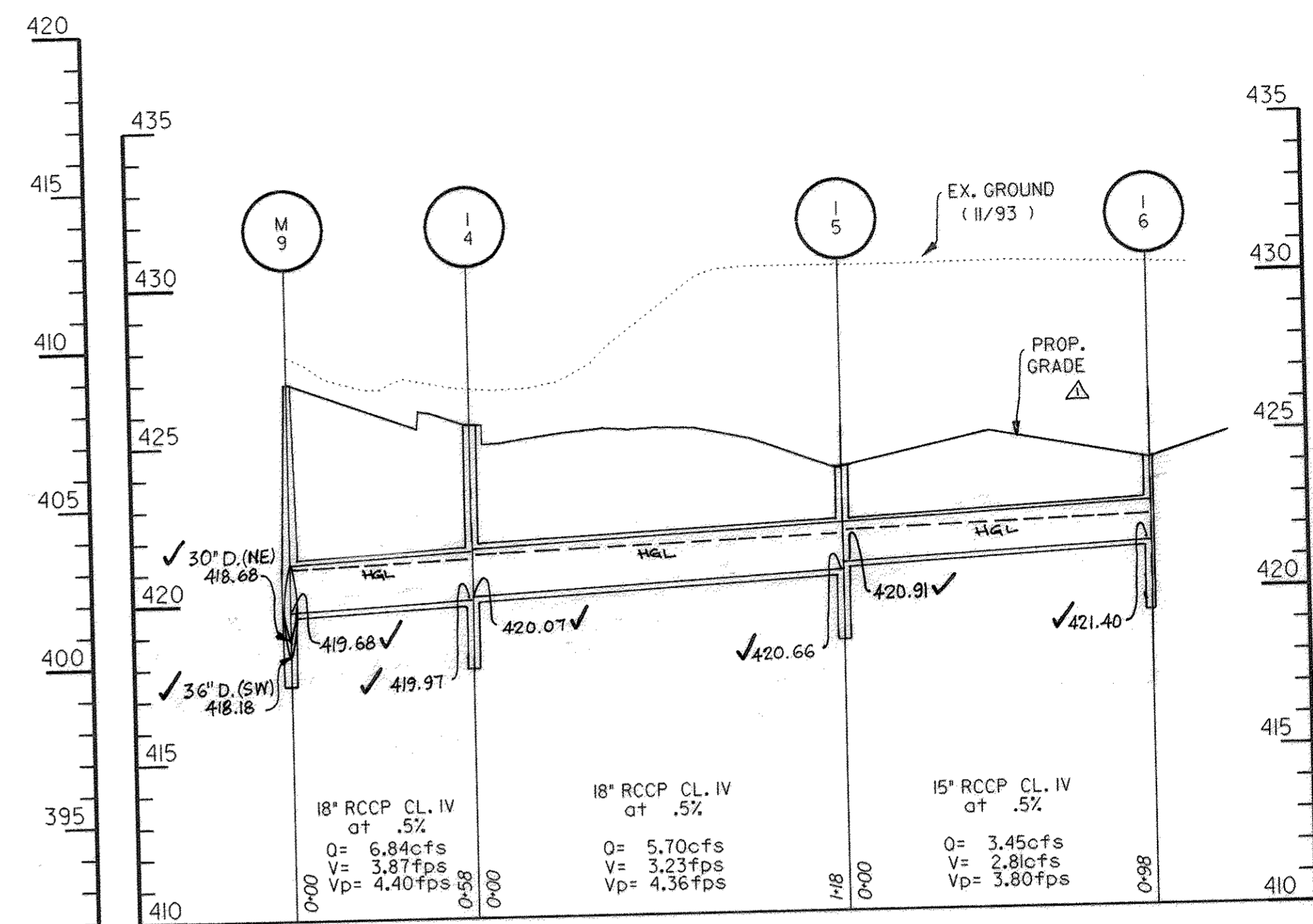
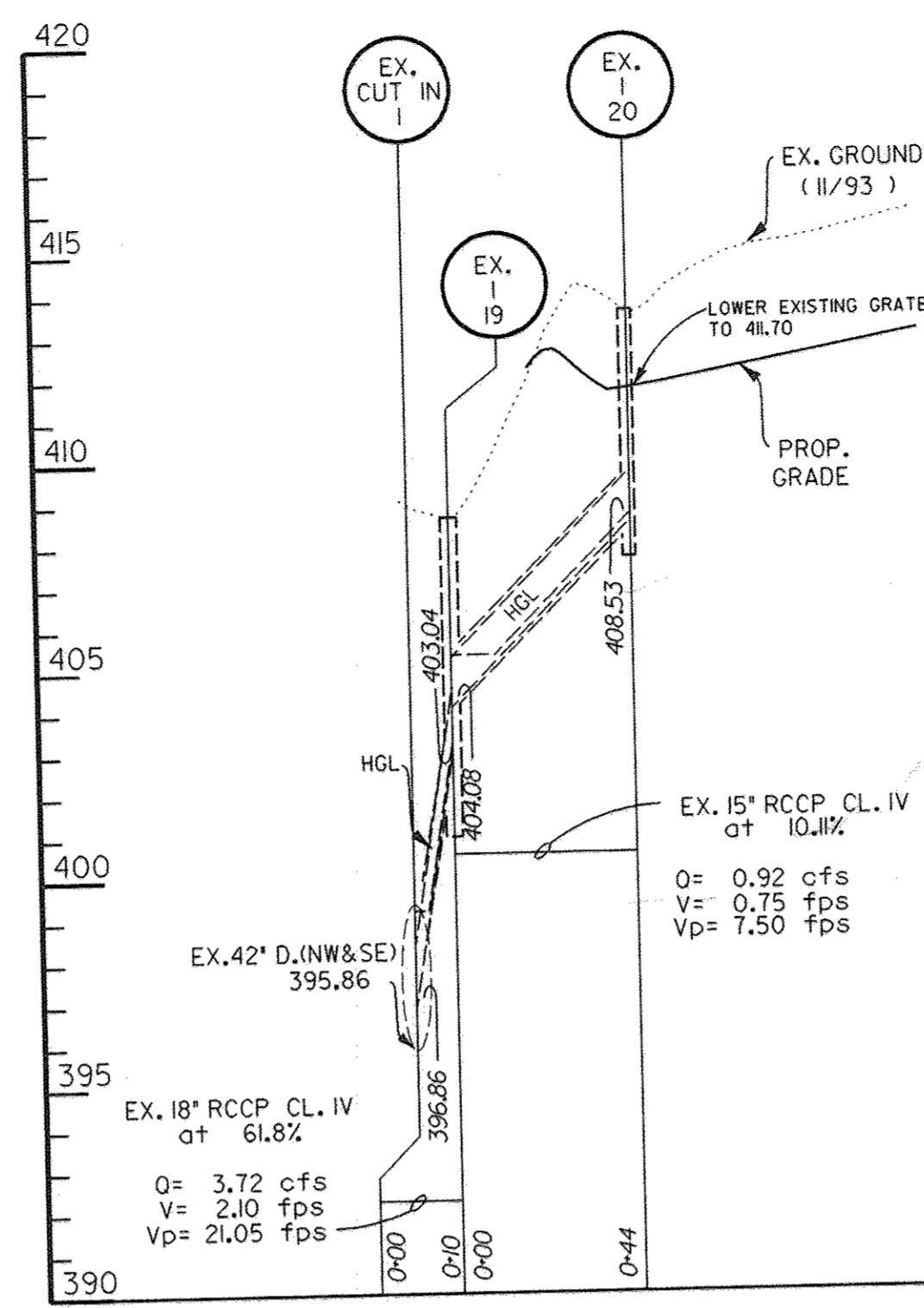
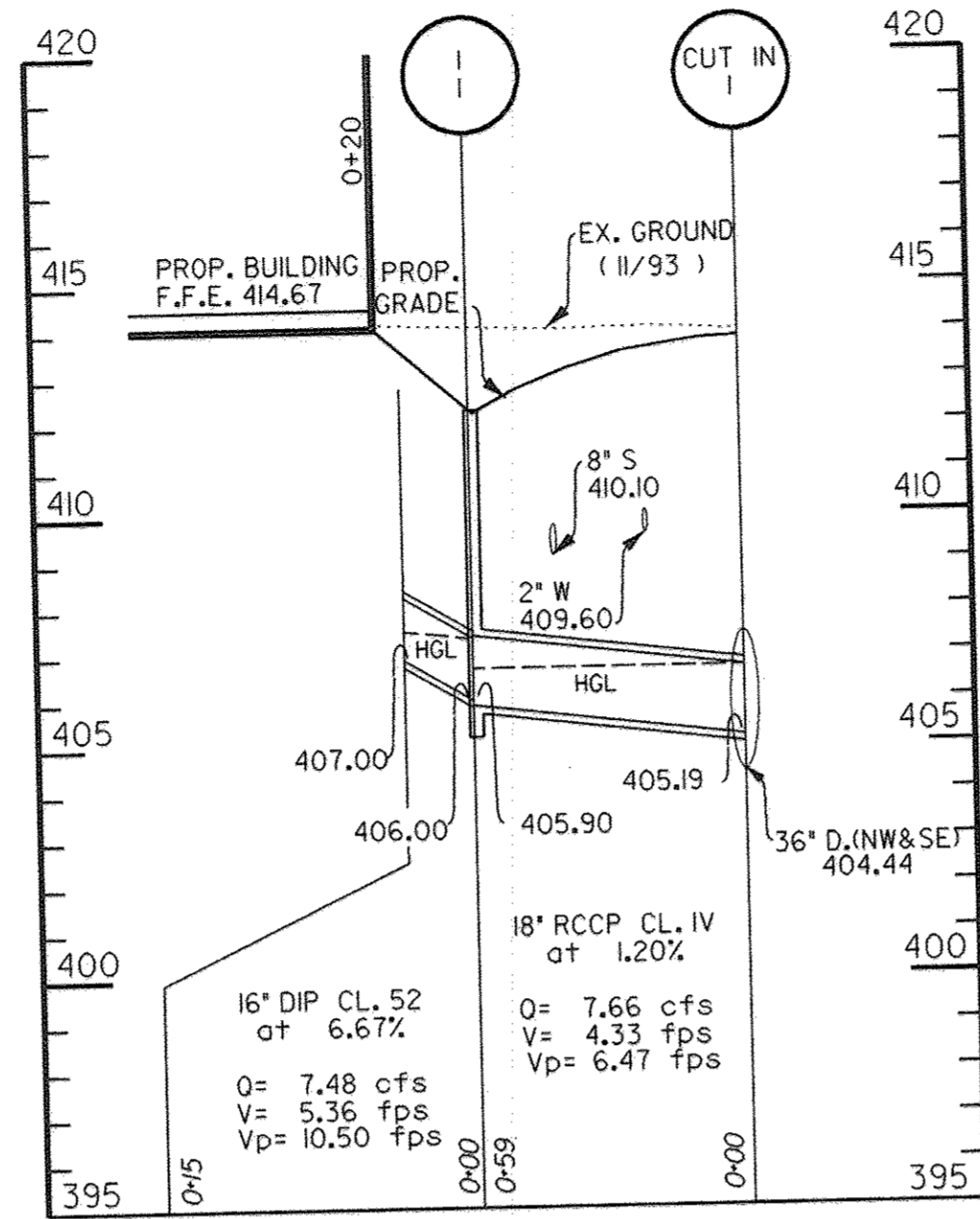
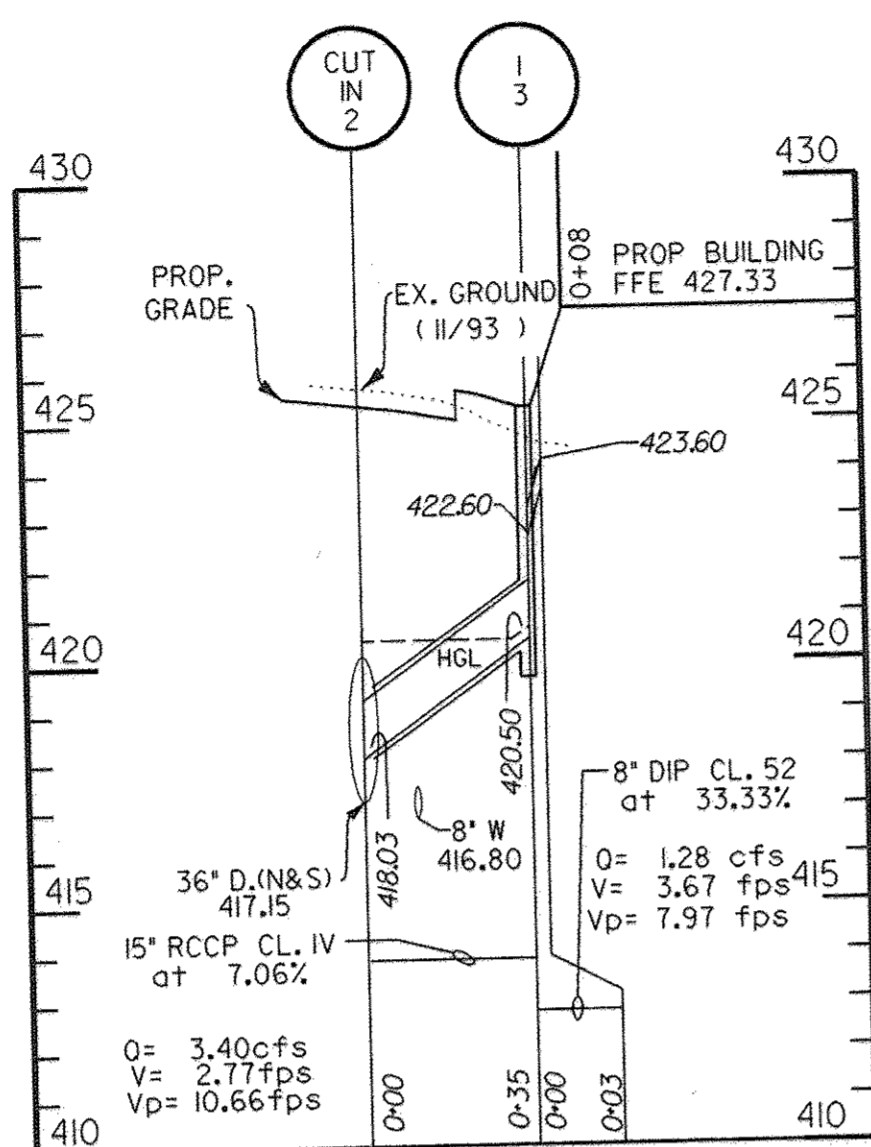
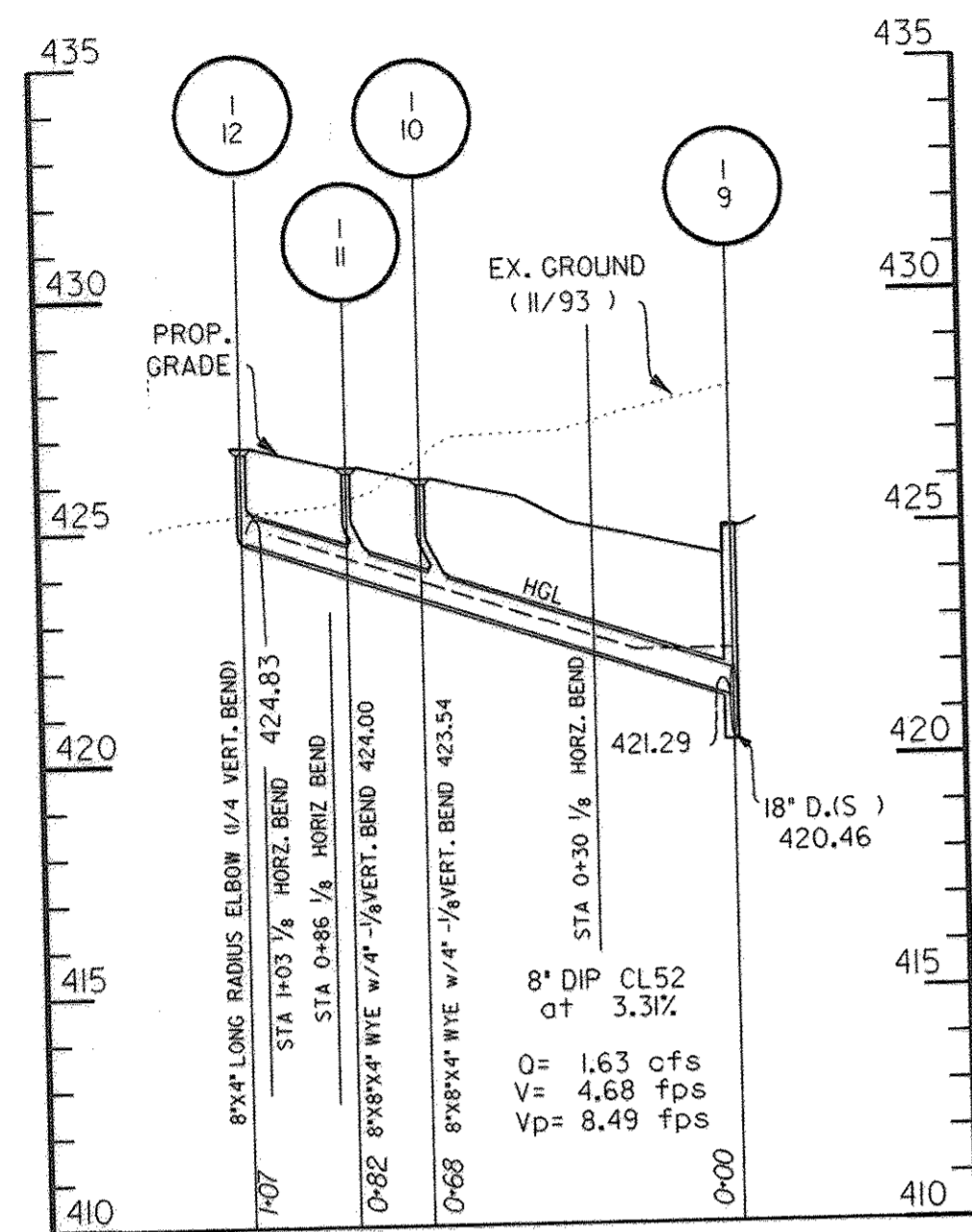
DMW
Dart-McCune-Walker, Inc.
300 East Pennsylvania Avenue
Towson, Maryland 21286
(410) 286-3333
Fax: 286-4702

SECTION NAME	SECTION AREA	SECTION NO.	SECTION DATE
VILLAGE OF WILDE LAKE	SEC. II / AREA 1	1/280	6/22/93
PLAT # OR LT.	BLOCK #	LOT #	OWNER
49309	A-1	29 / 74	5TH
OWNER CODE	E 30	SEWER CODE	5523900

STORM DRAIN DRAINAGE AREA MAP

Des By	JMG	Scale	1" = 100'	Proj. No.	93051B
Drn By	CEV	Date	5/16/94		
Chk By	LWW	Approved			8 OF 37

NO	REVISION	DATE
1	REVISED DRAINAGE AREAS	6/22/93
NO	REVISION	DATE



APPROVED
PLANNING BOARD
of HOWARD COUNTY
DATE 12 May 94

APPROVED: FOR PUBLIC WATER & PUBLIC SEWERAGE SYSTEMS,
HOWARD COUNTY HEALTH DEPARTMENT
COUNTY HEALTH OFFICER DATE 6-24-94
APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING
DIRECTOR DATE 6/27/94
CHIEF, LAND DEVELOPMENT & RESEARCH DATE 6/24/94

APPROVED: FOR PUBLIC WATER & PUBLIC SEWERAGE
STORM DRAINAGE SYSTEMS AND PUBLIC ROADS,
HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
DIRECTOR DATE 6/21/94
CHIEF, BUREAU OF ENGINEERING DATE 6/20/94

6/16/14 CONSTRUCT FLOW SPLITTER IN EX. STORM DRAIN
@/21/94 REVERSE PROP. GRADE BETWEEN I-5 & I-6
Date No. Revision Description

RENOVATIONS TO
WILDE LAKE HIGH SCHOOL

OWNER /DEVELOPER:
HOWARD COUNTY PUBLIC SCHOOL SYSTEM
10910 RT.108
ELLCOTT CITY, MARYLAND 21042-6198

DMW
Dan McCann-Walker, Inc.
200 East Pennsylvania Avenue
Towson, Maryland 21286
(410) 296-3535
Fax 296-4705
A Team of Land Planners,
Landscape Architects,
Engineers, Surveyors &
Environmental Professionals

PROJECT NAME	VILLAGE OF WILDE LAKE	SHEET NO.	SEC. 11 / AREA 1	DRAWING #	1/280
DATE	15/01/91	DATE	28 / 24	DATE	5TH
DATE	6-2-94	DATE	5/16/94	DATE	9 OF 37

Professional Engr. No. 16998
Professional Engr. No. 16998
Professional Engr. No. 16998

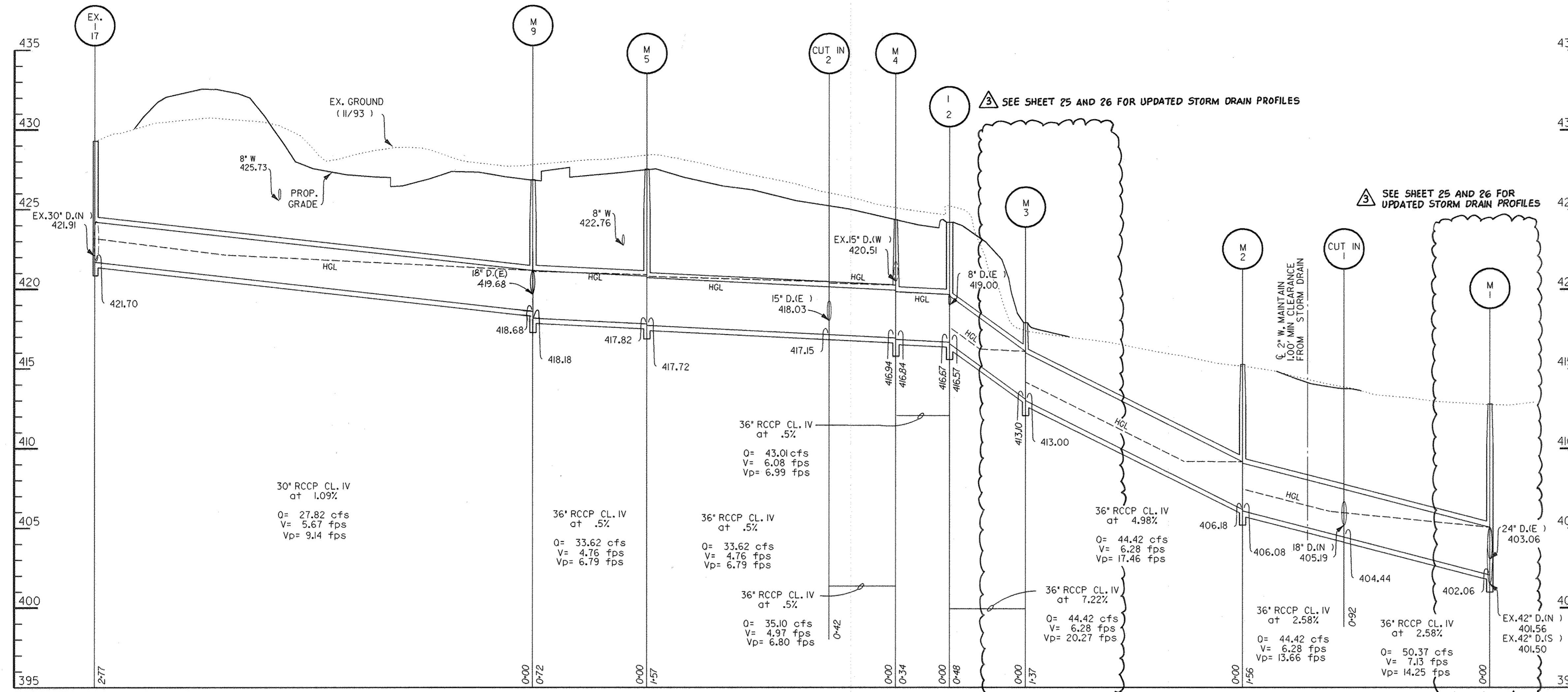
SCALE: HOR. = 1"=40'
VERT. = 1"=4'

THERE IS NO AS-BUILT
INFORMATION ON THIS SHEET
TOM TURNER PE# 16997, 08/12/2016

STATE OF MARYLAND
PROFESSIONAL ENGINEER
JAY 7-27-96

STATE OF MARYLAND
PROFESSIONAL ENGINEER
TOM TURNER PE# 16997

STATE OF MARYLAND
PROFESSIONAL ENGINEER
LAWRENCE WALKER PE# 16998



MANHOLE SCHEDULE

NO.	TYPE	SIZE	INV. OUT	TOP ELEV.	DETAIL NO.
1	60X72		401.50	412.80	HO CO G5.03
2	5'-0" STD		406.08	415.28	HO CO G5.J3
3	5'-0" SHAL		413.00	417.90	HO CO G5.J3
4	5'-0" SHAL		416.84	424.34	HO CO G5.J3
5	5'-0" STD		417.72	427.54	HO CO G5.J3
6A	4'-0" SHAL		414.00	418.65	HO CO G5.I2
6	4'-0" SHAL		412.07	416.60	HO CO G5.I2
7	4'-0" SHAL		415.55	422.00	HO CO G5.I2
8	4'-0" STD		418.19	426.50	HO CO G5.I2
9	5'-0" STD		418.18	426.90	HO CO G5.J3

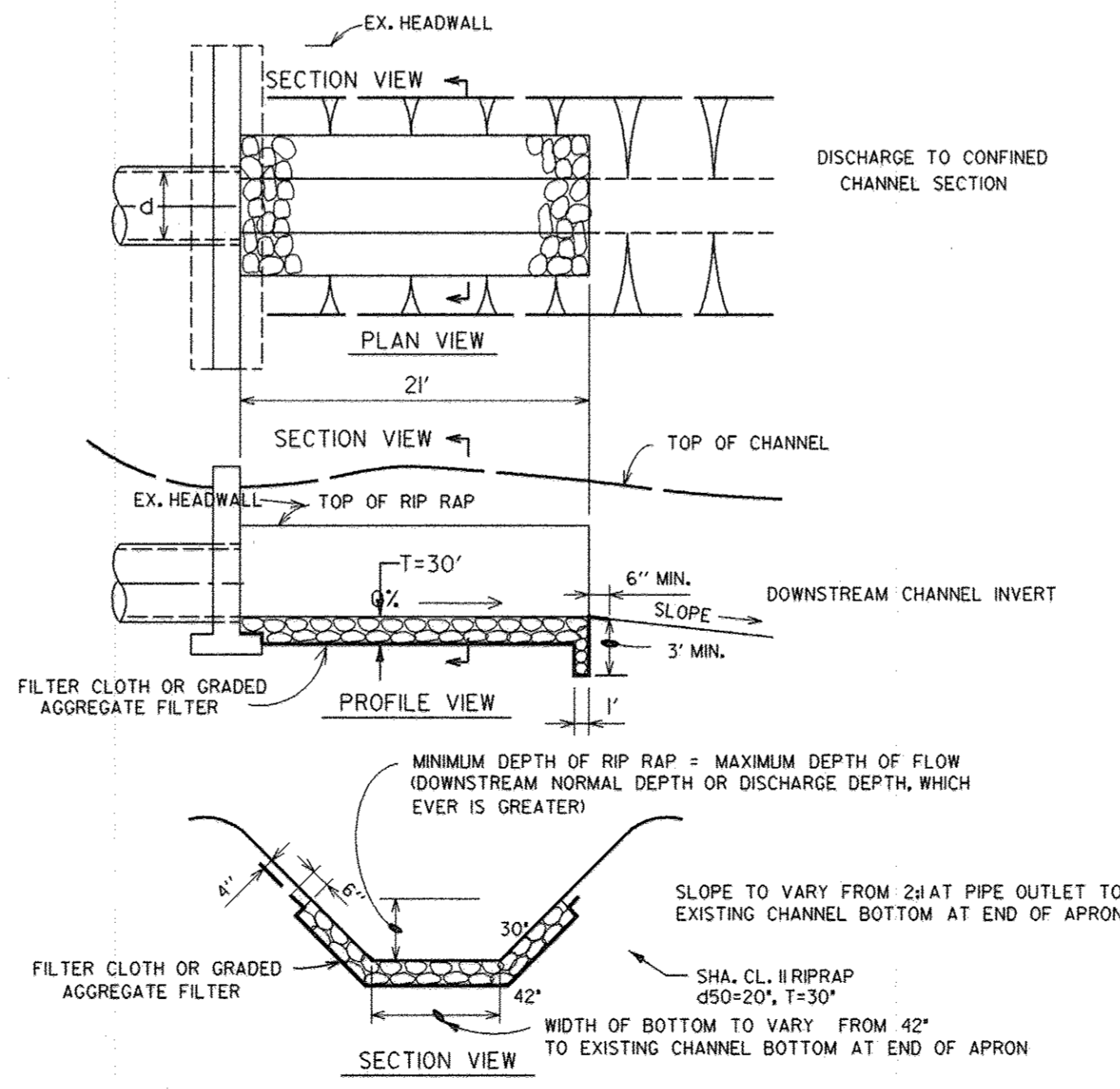
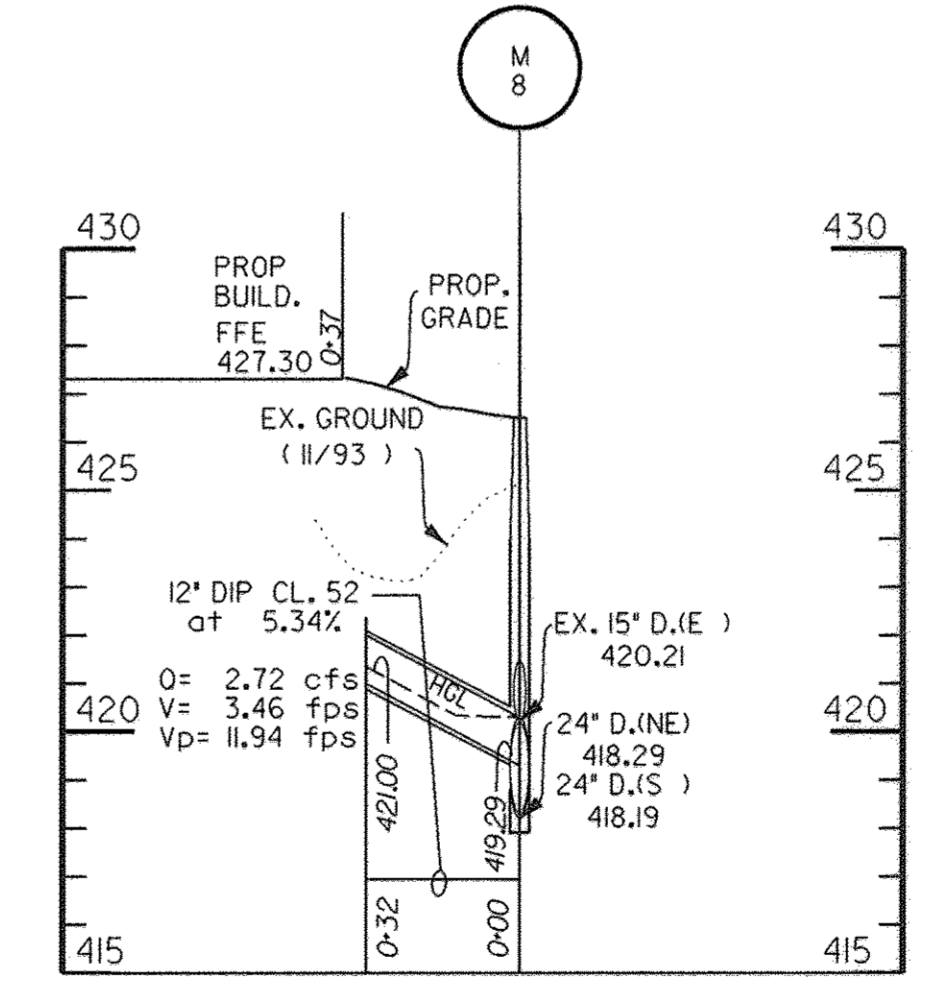
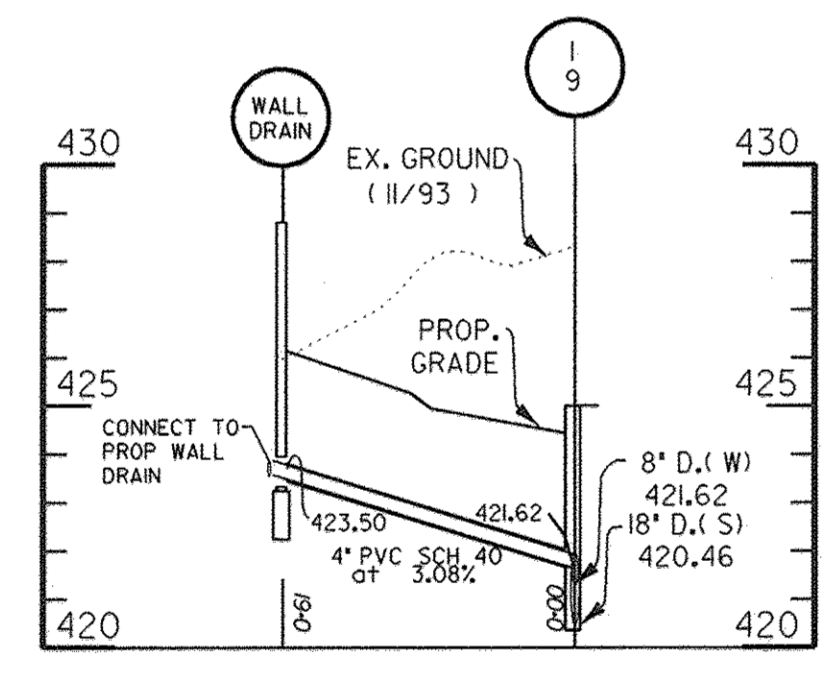
* NOTE: ALL STORM DRAIN MANHOLE TOPS SHALL CONFORM TO HO. CO. 05.52 WATERTIGHT MANHOLE FRAME AND COVERS.

INLET SCHEDULE

NO.	TYPE	Q	INV. OUT	TOP ELEV.	DETAIL NO.
1	S***	1.31	405.90	412.30	HO CO SD4.22
2	A-5	1.35	416.57	424.30*	HO CO SD4.01
3	A-5	1.24	420.50	425.30*	HO CO SD4.01
4	A-5	.95	419.97	425.60*	HO CO SD4.01
5	DBL S***	1.61	420.66	424.00	HO CO SD4.23
6	DBL S***	2.39	421.40	424.00	HO CO SD4.23
7	A-10	3.92	418.57	425.40*	HO CO SD4.02
8	A-5	1.12	422.30	426.72*	HO CO SD4.01
9	A-10	4.57	420.46	425.00*	HO CO SD4.02
10	JOSAM**	.23	423.54	426.08	**
11	JOSAM**	.23	424.00	426.28	**
12	JOSAM**	.23	424.83	426.60	**
13	S***	.20	422.49	426.00	HO CO SD4.22

* TOP OF CURB ELEVATION
 ** JOSAM R-SERIES SR w/SATIN FINISH BRONZE TOP & SECURED GATE w/VANDAL PROOF SCREWS.
 *** NOTE: ALL S INLETS SHALL HAVE TOP GRATES THAT CONFORM TO HO. CO. SD4.93 RECTANGULAR GRATE.

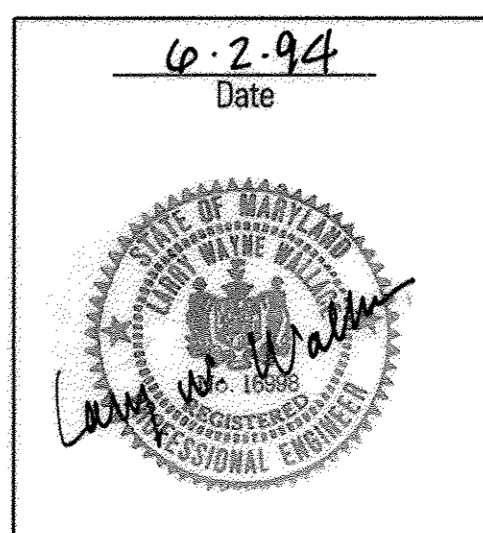
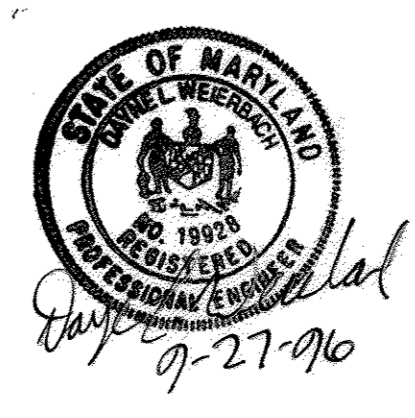
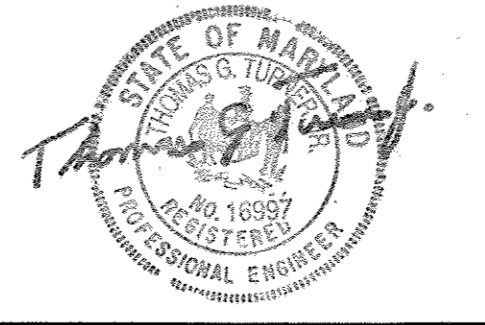
APPROVED
 PLANNING BOARD
 OF HOWARD COUNTY
 DATE 12 May 94



RIPRAP OUTLET PROTECTION @ EXISTING S-1

THERE IS NO AS-BUILT INFORMATION ON THIS SHEET
 TOM TURNER PE # 16997, 06/12/2016

SCALE: HOR. = 1"=40'
 VERT. = 1"=4'



APPROVED: FOR PUBLIC WATER & PUBLIC SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT
 COUNTY HEALTH OFFICER DATE 6-24-94

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING
 DIRECTOR DATE 6/27/94
 CHIEF, LAND DEVELOPMENT & RESEARCH DATE 6/24/94

APPROVED: FOR PUBLIC WATER & PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS, HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
 DIRECTOR DATE 6/16/94
 CHIEF, BUREAU OF ENGINEERING DATE 6/20/94

6/16/14 CONST. FLOW SPLITTER AT M-3; RECONSTRUCT M-1
 8/27/96 REVISE I-5+I-6 IN INLET SCHEDULE

REVISIONS

Date	No.	Revision Description
6/16/14	1	CONST. FLOW SPLITTER AT M-3; RECONSTRUCT M-1
8/27/96	2	REVISE I-5+I-6 IN INLET SCHEDULE

OWNER / DEVELOPER:
 HOWARD COUNTY PUBLIC SCHOOL SYSTEM
 10910 RT.108
 ELLICOTT CITY, MARYLAND 21042-6198

DMW
 Date 6-2-94

DATE: McCona-Walkers, Inc.
 300 East Pennsylvania Avenue
 Towson, Maryland 21286
 (410) 286-3333
 Fax 286-4705

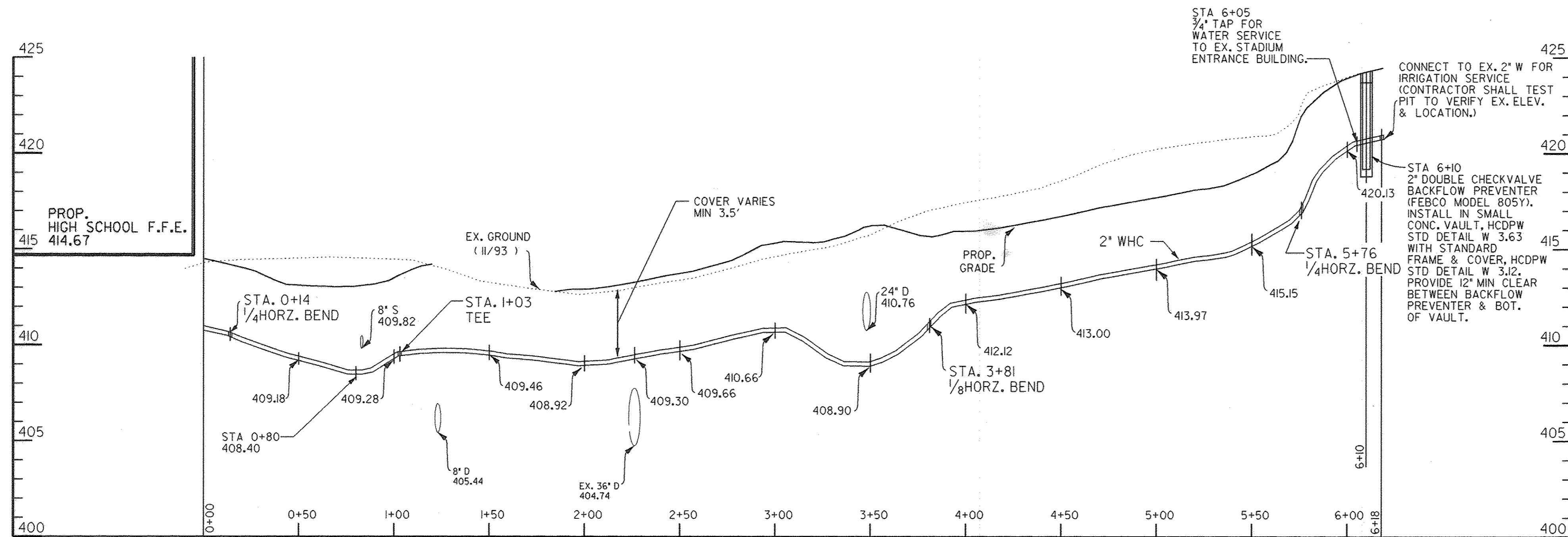
A Team of Land Planners, Landscape Architects, Engineers, Surveyors & Environmental Professionals

PROJECT: VILLAGE OF WILDE LAKE
 SHEET: SEC. 11 / AREA 1
 DATE: 1990/01
 BLOCK: 23 / 2A
 LOT: 5TH
 WATER CODE: E 30
 SEWER CODE: S52900

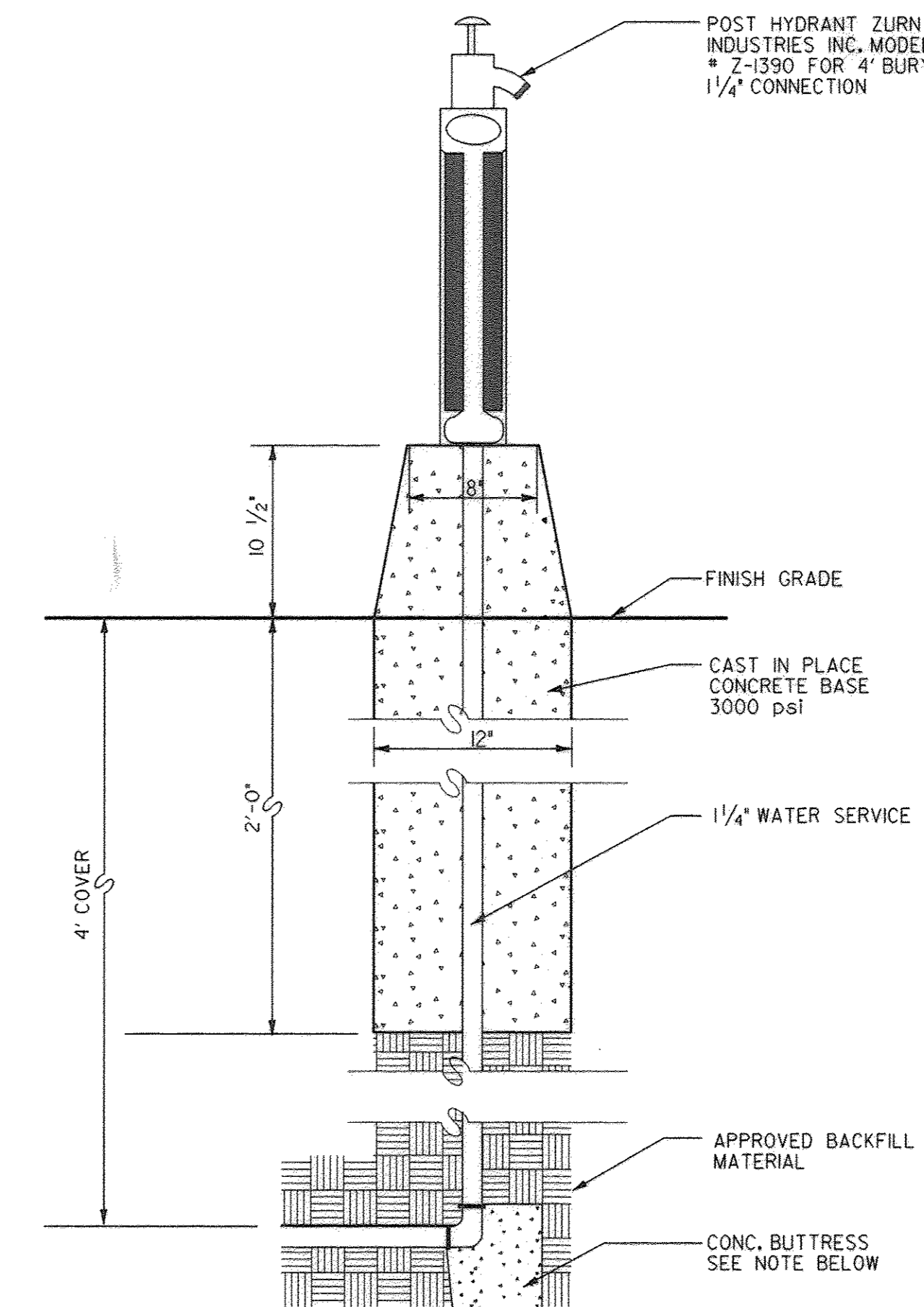
TITLE: STORM DRAIN PROFILES

Des By: JMG/CEV Scale: AS SHOWN Proj. No.: 93051B
 Dm By: CEV Date: 5/16/94
 Chk By: LWW Approved 10 OF 37

Professional Engr. No. 16998



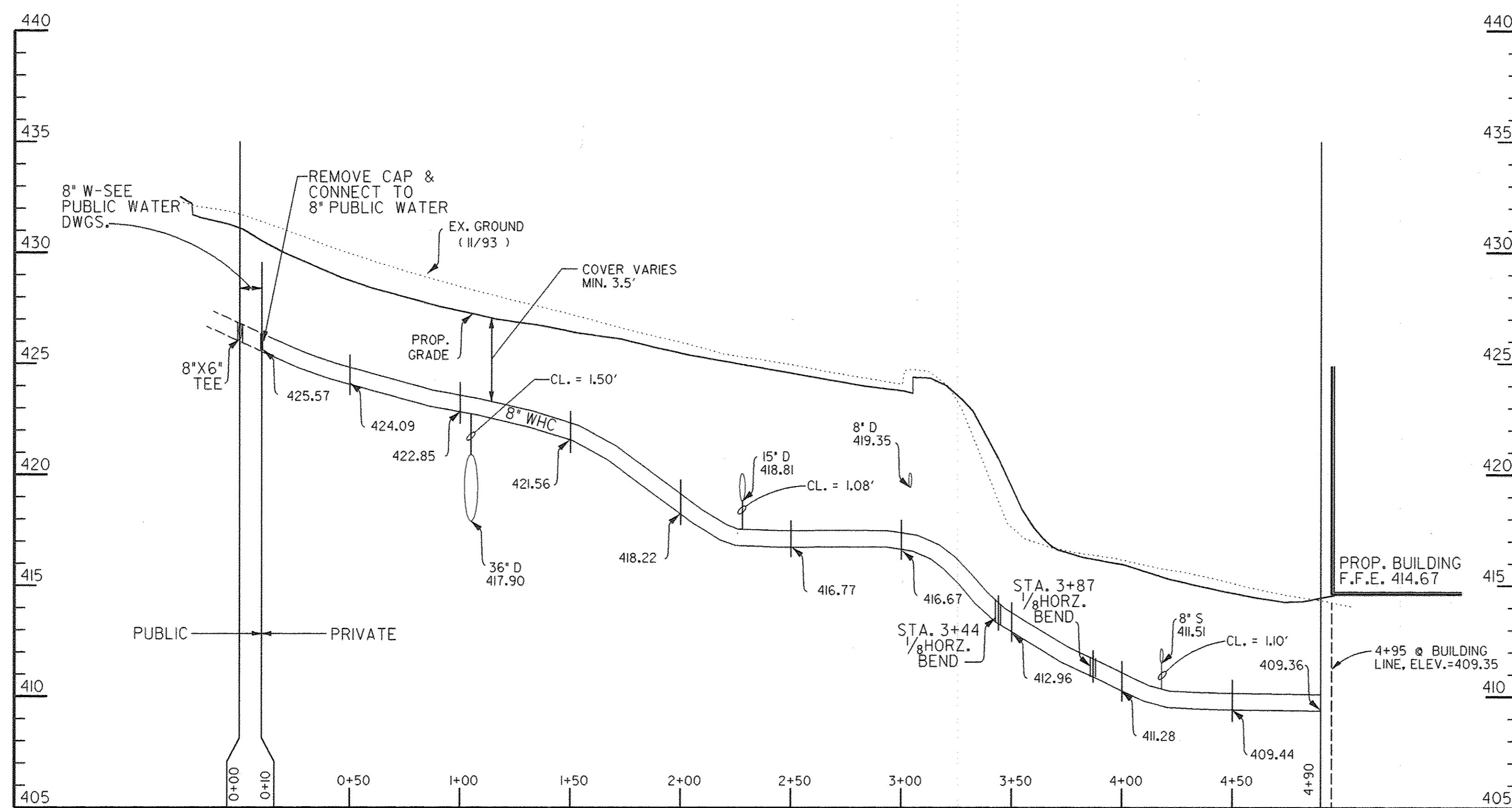
SCALE: HOR. = 1"=40'
VERT. = 1"=4'



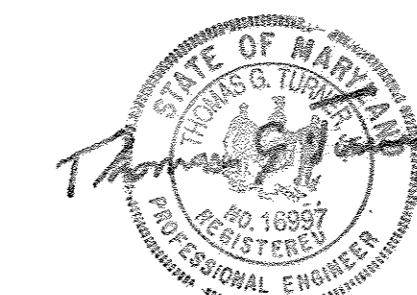
POST HYDRANT DETAIL
NOT TO SCALE

NOTE: CONTRACTOR SHALL INSTALL CONCRETE BUTTRESSES AT ALL HORIZONTAL & VERTICAL BENDS AND CAPS ACCORDING TO HOWARD COUNTY DESIGN MANUAL VOLUME IV STANDARD SPECIFICATION DETAILS, STD DPW DETAILS W2.21-W2.24.

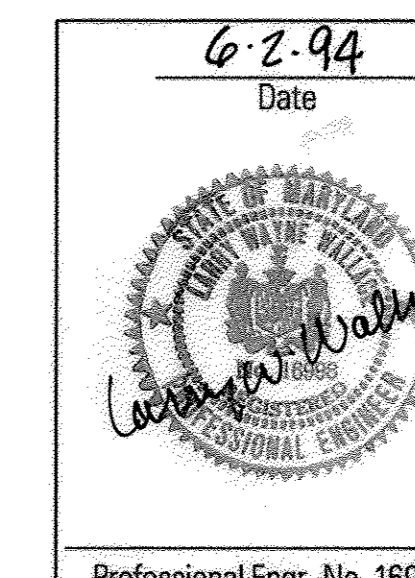
APPROVED
PLANNING BOARD
of HOWARD COUNTY
DATE 12 May '94



SCALE: HOR. = 1"=40'
VERT. = 1"=4'



THERE IS NO AS-BUILT INFORMATION ON THIS SHEET
TOM TURNER PE# 16997, 08/12/2016



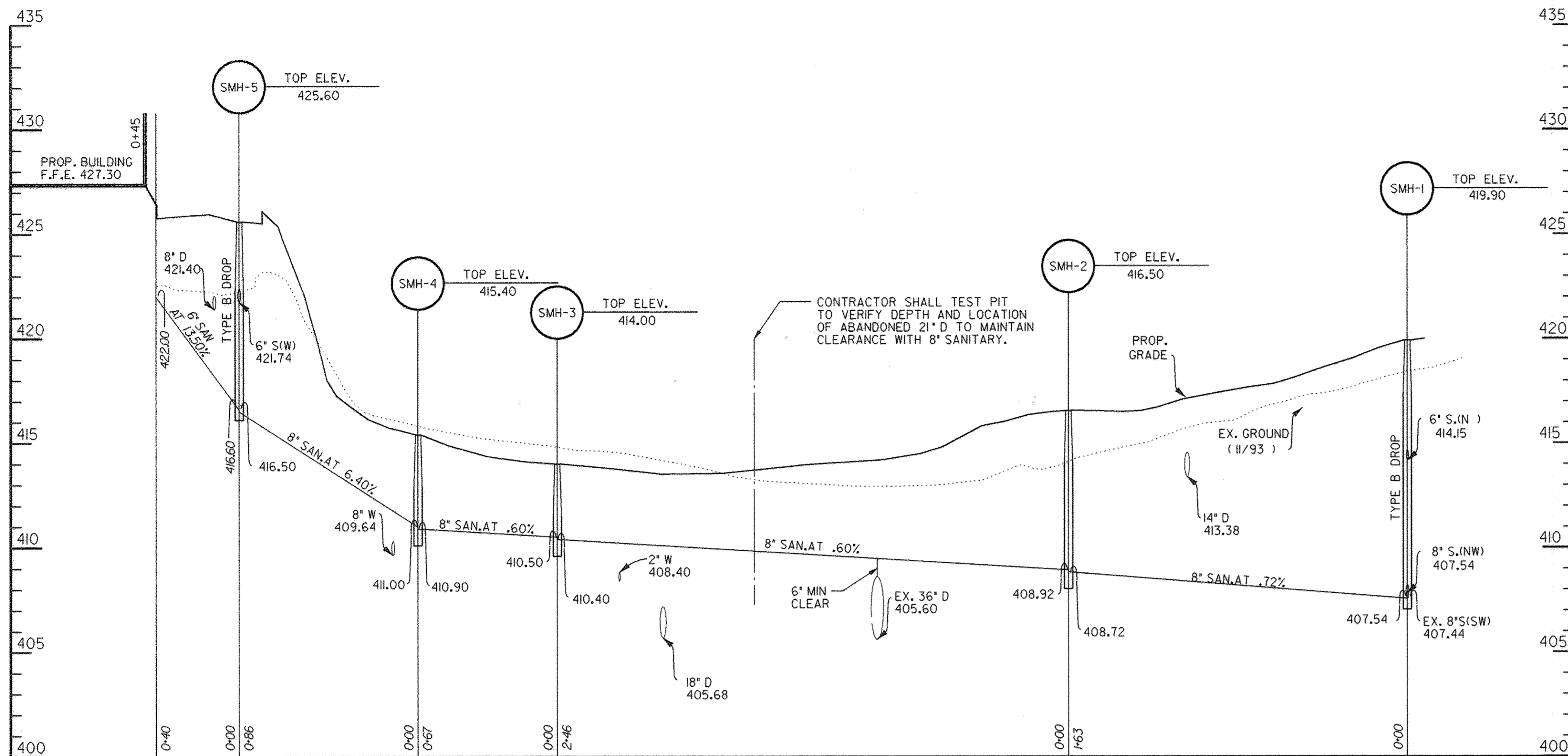
Professional Engr. No. 16998

APPROVED: FOR PUBLIC WATER & PUBLIC SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT	<i>James G. ...</i>	6-24-94
APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING	<i>...</i>	6/27/94
APPROVED: FOR PUBLIC WATER & PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS, HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS	<i>...</i>	6/1/94
	<i>...</i>	6/30/94

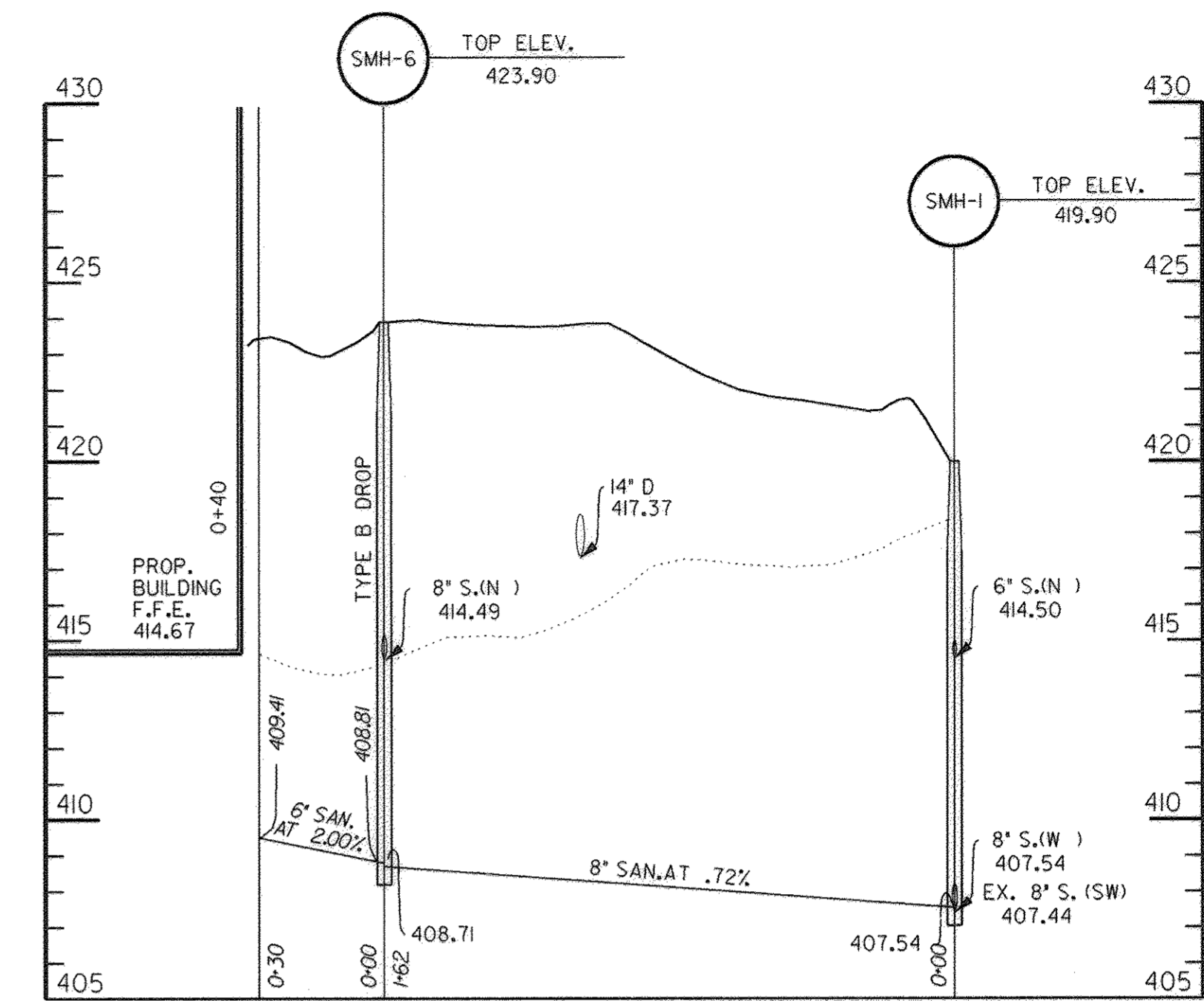
Date	No.	Revision Description
		RENOVATIONS TO WILDE LAKE HIGH SCHOOL
OWNER /DEVELOPER: HOWARD COUNTY PUBLIC SCHOOL SYSTEM 10910 RT.108 ELLCOTT CITY, MARYLAND 21042-6198		

DMW Duff-McCune-Walker, Inc. 200 East Pennsylvania Avenue Towson, Maryland 21286 (410) 296-3283 Fax: 296-4702		A Team of Land Planners, Landscape Architects, Engineers, Surveyors & Environmental Professionals
SECTION NAME: VILLAGE OF WILDE LAKE	SECTION: SEC. 11 / AREA 1	DATE: 1/280
PLAT OR LP: 15-00191	BLOCK # 28 / 24	LOT: 6054
WATER CODE: E 30	ORDER CODE: 5823900	

TITLE WATER SERVICE PROFILES & DETAILS			
Des By: CEV	Scale: AS SHOWN	Proj. No.: 93051B	
Dim By: CEV	Date: 5/16/94		
Chk By: LWW	Approved:		11 OF 37



SCALE: HOR. = 1"=40'
VERT. = 1"=4'



SCALE: HOR. = 1"=40'
VERT. = 1"=4'

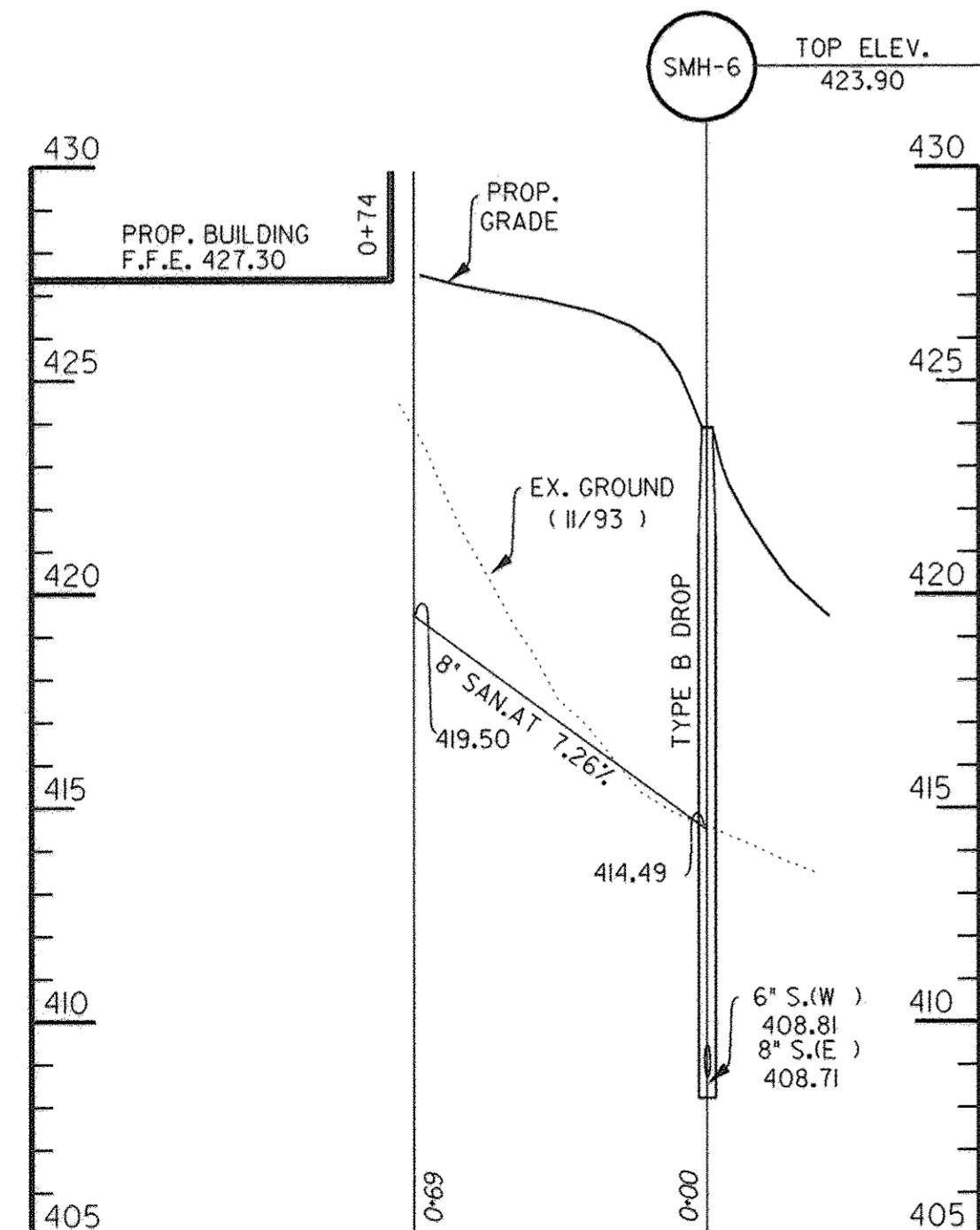
APPROVED
PLANNING BOARD
of HOWARD COUNTY
DATE 16 May '94

MANHOLE SCHEDULE

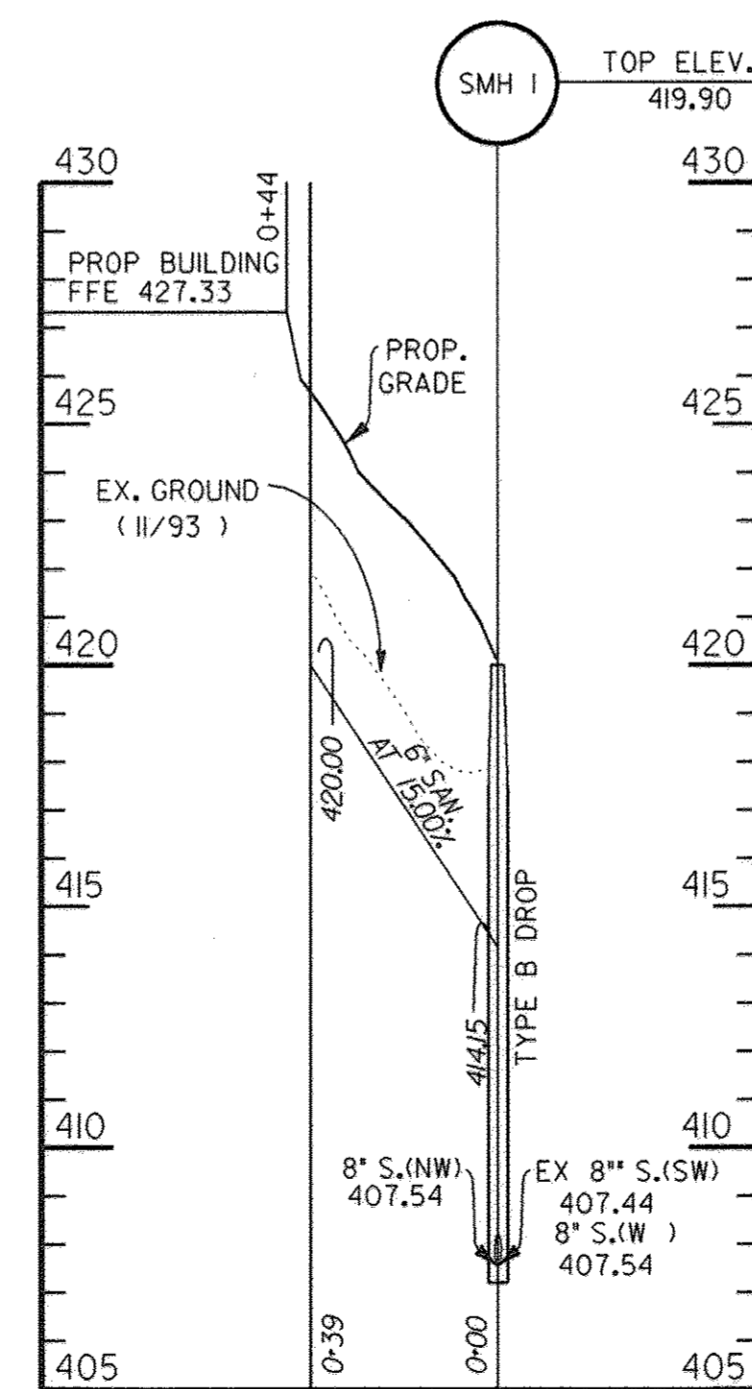
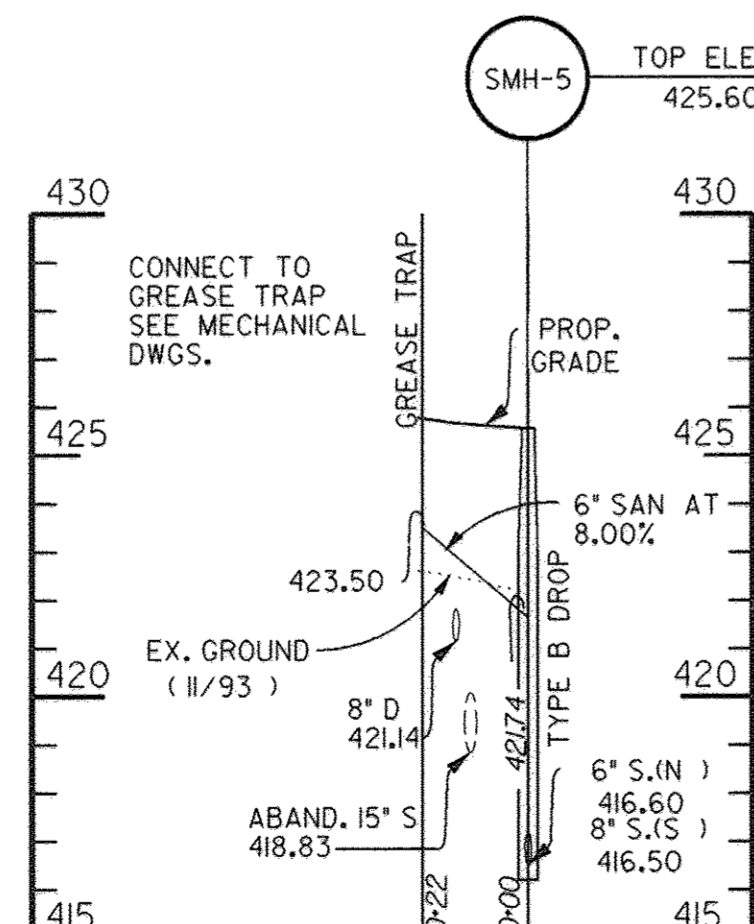
NO.	TYPE	SIZE	INV. OUT	TOP ELEV.	DETAIL NO.
1	5'-0" STD		407.44	419.90	HO CO G5.13 **
2	4'-0" STD		408.72	416.50	HO CO G5.12
3	4'-0" SHAL		410.40	414.00	HO CO G5.12
4	4'-0" SHAL		410.90	415.40	HO CO G5.12
5	4'-0" STD		416.50	425.60	HO CO G5.12 **
6	4'-0" STD		408.71	423.90	HO CO G5.12 **

* NOTE: ALL SEWER MANHOLES FRAMES AND COVERS SHALL BE AS PER HO. CO. G5.52 - WATERTIGHT MANHOLE FRAME AND COVER.

** NOTE: FOR MANHOLES W/DROP CONNECTION, SEE HOWARD COUNTY STD DETAILS SI.32 & SI.41.



SCALE: HOR. = 1"=40'
VERT. = 1"=4'



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

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

APPROVED: FOR PUBLIC WATER & PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS, HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

APPROVED: FOR PUBLIC WATER & PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS, HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

Date No. Revision Description

RENOVATIONS TO
WILDE LAKE HIGH SCHOOL

OWNER / DEVELOPER:
HOWARD COUNTY PUBLIC SCHOOL SYSTEM
10910 RT.108
ELLICOTT CITY, MARYLAND 21042-6198

DMW

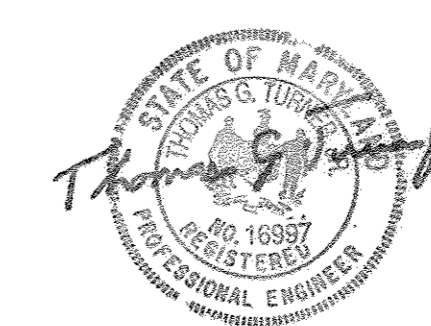
Duke McCune-Walkers, Inc.
200 East Pennsylvania Avenue
Towson, Maryland 21286
(410) 286-3333
Fax 286-4705

A Team of Land Planners,
Landscape Architects,
Engineers, Surveyors &
Environmental Professionals

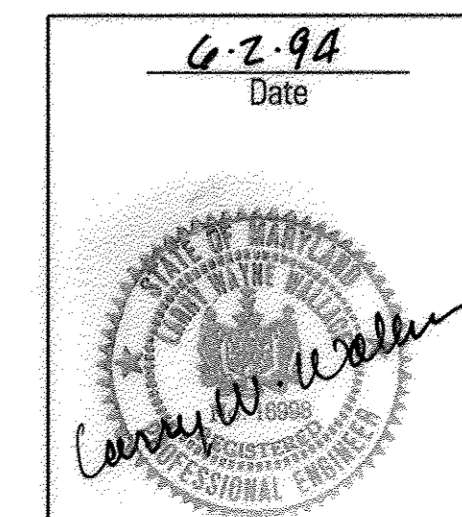
SECTION NAME: VILLAGE OF WILDE LAKE
SICHOVANA SEC. 11 / AREA 1
SHEET NO. 29 / 24
SHEET DESCRIPTION: 5TH
SHEET NUMBER: 6054
WATER CODE: E 30
SEWER CODE: S523800

TITLE: SANITARY SEWER PROFILES

Des By: CEV Scale: AS SHOWN Proj. No. 93051B
Dwn By: CEV Date: 5/16/94
Chk By: LWW Approved: 12 OF 37



THERE IS NO AS-BUILT
INFORMATION ON THIS SHEET
TOM TURNER PE # 16997, 08/12/2016



Professional Engr. No. 16998

HOWARD COUNTY SEDIMENT CONTROL GENERAL NOTES

- A MINIMUM OF 24 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY OFFICE OF INSPECTION AND PERMITS PRIOR TO THE START OF ANY CONSTRUCTION (1982-2017).
- ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL.
- FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN:
 - SEVEN CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DICES, PERIMETER SLOPES AND ALL SLOPES GREATER THAN 3:1
 - FOURTEEN DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE
- ALL SEDIMENT TRAPS/BASINS SHOWN MUST BE FENCED AND WARNING SIGNS POSTED AROUND THEIR PERIMETER IN ACCORDANCE WITH VOLUME CHAPTER 12 OF THE HOWARD COUNTY DESIGN MANUAL - STORM DRAINAGE.
- ALL DISTURBED AREAS MUST BE STABILIZED WITHIN THE TIME PERIOD SPECIFIED ABOVE IN ACCORDANCE WITH THE 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR PERMANENT SEEDINGS SECTION 501.500 (SECTION 501.500 TEMPORARY SEEDING SECTION 501.500) AND MULCHING SECTION 501.500. TEMPORARY STABILIZATION WITH MULCH ALONE CAN ONLY BE DONE WHEN RECOMMENDED SEEDING DATES DO NOT ALLOW FOR PROPER GERMINATION AND ESTABLISHMENT OF GRASSES.
- ALL SEDIMENT CONTROL STRUCTURES ARE TO REMAIN IN PLACE AND ARE TO BE MAINTAINED IN OPERATIVE CONDITION UNTIL PERMITS FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.

7. SITE ANALYSIS:

TOTAL AREA OF SITE	52.30 ACRES
AREA DISTURBED	12.87 ACRES
AREA TO BE ROOFED OR PAVED	8.74 ACRES
AREA TO BE VEGETATIVELY STABILIZED	9.79 ACRES
TOTAL CUT	24,940 CUBIC YARDS
TOTAL FILL	22,000 CUBIC YARDS
OFF-SITE WASTE/BORROW AREA LOCATION WASTE = 1/4	

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 DPW 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 CONTROL, BUT BEFORE PROCEEDING WITH ANY OTHER EARTH DISTURBANCE OR GRADING, OTHER BUILDING OR GRADING INSPECTION APPROVALS MAY NOT BE FORWARDED UNTIL THIS INITIAL APPROVAL BY THE INSPECTION AGENCY IS MADE.

SEQUENCE OF CONSTRUCTION

- Obtain a grading permit.
- Notify the Howard County Office of Inspection and Permits (303-1855) a minimum of 48 hours prior to the start of any construction.
- Clear, grub, and install stabilized construction entrances and temporary bituminous curbs. (1 WEEK)
- Clear, grub, and install all remaining sediment and erosion control measures including inlet protection on all existing inlets within the limit of disturbance. (2 WEEKS)
- Remove existing building. (See Architectural Drawings for limits). (2 MONTHS)
- Clear, grub, and install proposed storm drain trunk line from proposed Manhole #1 (M-1) to existing Inlet #1. Newly constructed structures to be adequately marked and protected from disturbance during the remaining demolition and construction activities. (To include Manhole 9, Manhole 5, Manhole 4, Manhole 3, and Manhole 2). Bulkhead existing 33-inch pipe at existing Inlet #7. Repair storm drain outfall per plan, Sheet 10 of 37. (1 MONTH)
- Once building demolition and storm drain trunkline is complete, remove existing pavement, utilities and all other items to be demolished per Demolition Plan, Sheet 2 of 37. (1 MONTH)
- Clear, grub, strip, and mass grade site. (1 MONTH)
- Stabilize all non-active graded surfaces with temporary seeding. (1 WEEK)
- Begin building construction. Install utilities. All inlets are to have inlet protection installed immediately. Fine grade and permanently stabilize area draining to Stone Outlet Sediment Trap No. 2. (22 MONTHS)
- Once area draining to Stone Outlet Sediment Trap No. 2 is stabilized remove earth dikes directing water to Stone Outlet Sediment Trap No. 2. Remove Stone Outlet Sediment Trap No. 2. Fine grade and permanently stabilize areas disturbed by this process. Lower existing inlet as necessary. (2 WEEKS)
- Fine grade all surfaces to be paved. Install curb and gutters. Apply road subbase. (2 MONTHS)
- Fine grade and permanently stabilize site. Pave all areas receiving paving. Strip paved surfaces as required. (1 MONTH)
- With the prior permission of the Sediment Control Inspector and the Howard County Sediment Control Division, remove sediment controls. Fine grade and permanently stabilize these areas. (2 WEEKS)

DEVELOPERS 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/We authorize periodic on-site inspection by the Howard Soil Conservation District."

Cathleen Conley Young 3/20/94
 CATHLEEN CONLEY YOUNG 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."

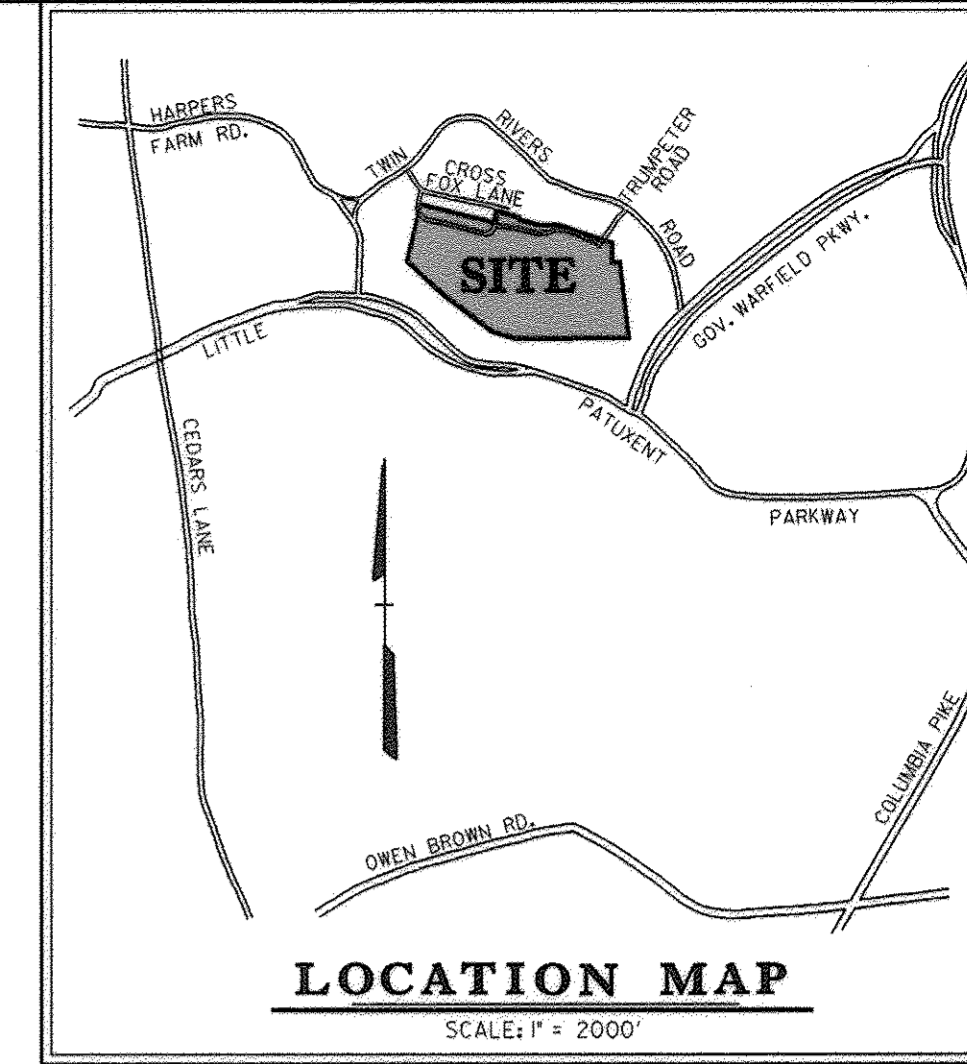
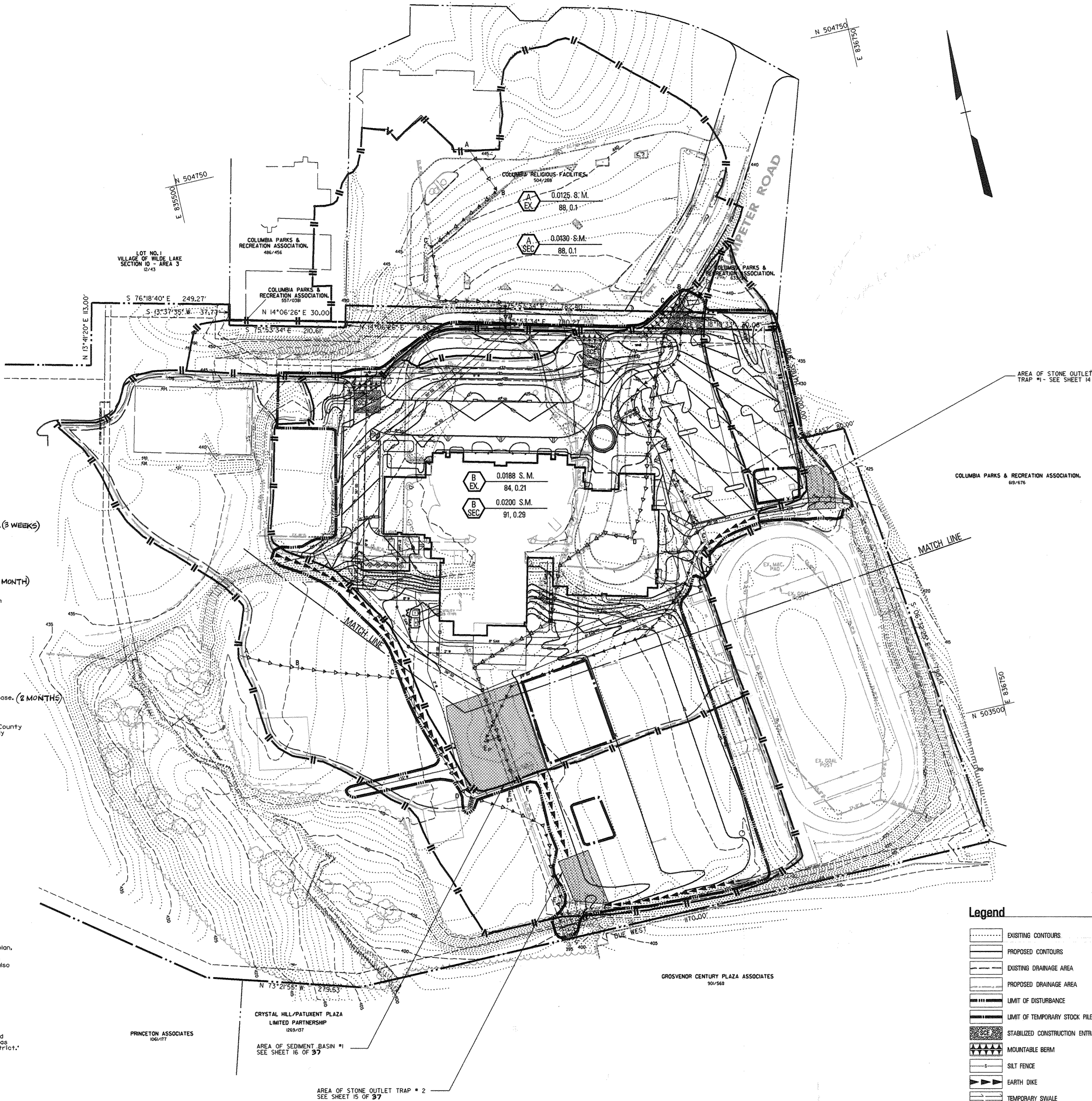
Larry W. Wallace 3.29.94
 LARRY W. WALLACE Date

Reviewed for Howard Soil Conservation District and meets Technical Requirements.

Petricia Engle 6/14/94
 U. S. Soil Conservation Service Date

This Development Plan is Approved for Soil Erosion and Sediment Control by the Howard Soil Conservation District

John R. Turner 6/14/94
 Howard Soil Conservation District Date



LOCATION MAP
 SCALE: 1" = 2000'

BENCHMARK

DESCRIPTION
 STATION 35C5 (CONCRETE MONUMENT)
 N 171,343.887 E 409,821.0362 (FOR HORIZONTAL CONTROL ONLY)
 STATION IS LOCATED AT THE SOUTHEAST CORNER OF THE INTERSECTION OF CEDAR LANE AND HICKORY RIDGE ROAD, 5.4 FT. EAST OF THE BACK OF SIDEWALK ALONG CEDAR LANE, AND 17 FT. SOUTHEAST OF A STORM SEWER INLET MANHOLE TOP IN THE SIDEWALK ALONG CEDAR LANE.

BENCHMARK

DESCRIPTION
 STATION 35C2 (CONCRETE MONUMENT)
 N 171,883.403 E 409,714.2462 (FOR HORIZONTAL CONTROL ONLY)
 STATION IS LOCATED IN THE MEDIAN OF LITTLE PATUXENT PARKWAY ON THE WEST SIDE OF THE INTERSECTION OF LITTLE PATUXENT PARKWAY WITH CEDAR LANE, 4.56 FT. WEST OF EASTERN END OF MEDIAN AND 14.68 FT. SOUTH OF THE NORTHERN CURB OF THE MEDIAN. THIS STATION USED AS VERTICAL CONTROL BY SCHMID, PFELTZ AND McDONALD FOR THIS SURVEY. ELEVATION ASSUMED = 464.203 FT.

APPROVED
 PLANNING BOARD
 OF HOWARD COUNTY
 DATE 12 May 94

APPROVED: FOR PUBLIC WATER & PUBLIC SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT	<i>John W. Wallace</i> 6-24-94 COUNTY HEALTH OFFICER DATE
APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING	<i>John R. Turner</i> 6/27/94 DIRECTOR DATE <i>Cynthia Strickland</i> 6/24/94 CHIEF, LAND DEVELOPMENT & RESEARCH DATE
APPROVED: FOR PUBLIC WATER & PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS, HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS	<i>Larry W. Wallace</i> 6/11/94 DIRECTOR DATE <i>Paul D. Sporn</i> 6/20/94 CHIEF, BUREAU OF ENGINEERING DATE

THERE IS NO AS-BUILT INFORMATION ON THIS SHEET
 TOM TURNER PE# 16997, 04/12/2016

Legend

- EXISTING CONTOURS
- PROPOSED CONTOURS
- EXISTING DRAINAGE AREA
- PROPOSED DRAINAGE AREA
- LIMIT OF DISTURBANCE
- LIMIT OF TEMPORARY STOCK PILE
- STABILIZED CONSTRUCTION ENTRANCE
- MOUNTABLE BERM
- SILT FENCE
- EARTH DIKE
- TEMPORARY SWALE
- STONE OUTLET STRUCTURE
- TR 20 DRAINAGE AREA LIMIT
- TR20 DRAINAGE AREA INFORMATION
- EXISTING TC PATH
- PROPOSED TC PATH
- COMBINED EXISTING AND PROPOSED TC PATH
- SUPER FENCE DIVERSION



8/21/96	REVISED SEDIMENT CONTROL NOTES
Date	No. Revision Description
RENOVATIONS TO WILDE LAKE HIGH SCHOOL	
OWNER / DEVELOPER: HOWARD COUNTY PUBLIC SCHOOL SYSTEM 10910 RT.108 ELLICOTT CITY, MARYLAND 21042-6198	
DMW Dan McCane-Walkers, Inc. 200 East Pennsylvania Avenue Towson, Maryland 21286 (410) 286-3533 Fax 286-4702	
A Team of Land Planners, Landscape Architects, Engineers, Surveyors & Environmental Professionals	
SECTION NAME VILLAGE OF WILDE LAKE	SECTION # SEC. 11 / AREA 1
DATE 1990/91	DATE 28 / 24
PLAT # E 30	PLAT # S523900
SEDIMENT AND EROSION CONTROL COMPOSITE GRADING PLAN	
Des By CRW	Scale 1" = 100'
Drn By DMA	Date 3/30/94
Chk By LWW	Approved
Professional Engr. No. 16948	13 OF 37

NOTE: INSTALL 6' HIGH TEMPORARY CONSTRUCTION FENCE WITH 2 STRANDS OF BARBED WIRE ON TOP AT LIMIT OF DISTURBANCE. PROVIDE CONSTRUCTION GATES AT 3 STABILIZED CONSTRUCTION ENTRANCES.

PLACE TEMPORARY BIT. CURB AT EXISTING ENTRANCE POINTS TO SITE TO DEFLECT RUNOFF TO EXISTING INLET 17 (177)

COLUMBIA RELIGIOUS FACILITIES
504/258

COLUMBIA PARKS & REC. ASSOC.
623/510

COLUMBIA PARKS & REC. ASSOC.
406/496

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 of 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.

Cathleen Conley Young 3/20/94
CATHLEEN CONLEY YOUNG 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.

Larry W. Wallace 3-29-94
LARRY W. WALLACE Date

Reviewed for Howard Soil Conservation District and meets Technical Requirements.
Patricia Engle 6/10/94
U. S. Soil Conservation Service Date

This Development Plan is Approved for Soil Erosion and Sediment Control by the Howard Soil Conservation District
John C. Roberts 6/10/94
Date

COLUMBIA HOMES LIMITED PARTNERSHIP
515/472

COLUMBIA PARKS & REC. ASSOC.
619/676

APPROVED
PLANNING BOARD
of HOWARD COUNTY
DATE 12 May 94

PROPOSED HIGH SCHOOL RENOVATION

PROPOSED
FF ELEV. = 427.33

PROPOSED
LOWER LEVEL
ELEV. = 414.67

THERE IS NO AS-BUILT
INFORMATION ON THIS SHEET
TOM TURNER PE# 16997, 08/12/2016

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

Joseph M. ... 6-24-94
COUNTY HEALTH OFFICER DATE

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

John C. Roberts 6/27/94
DIRECTOR DATE
Chris ... 6/24/94
CHIEF, LAND DEVELOPMENT & RESEARCH S&I DATE

APPROVED: FOR PUBLIC WATER & PUBLIC SEWERAGE,
STORM DRAINAGE SYSTEMS AND PUBLIC ROADS,
HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

James ... 6/20/94
DIRECTOR DATE

Robert ... 6/20/94
CHIEF, BUREAU OF ENGINEERING DATE

8/2/94
Date No. Revision Description

RENOVATIONS TO
WILDE LAKE HIGH SCHOOL

OWNER / DEVELOPER:
HOWARD COUNTY PUBLIC SCHOOL SYSTEM
10910 RT.108
ELLCOTT CITY, MARYLAND 21042-6198

DMW
Date-McCune-Walkers, Inc.
3000 East Pennsylvania Avenue
Towson, Maryland 21286
410) 286-3333
Fax 286-4705
A Team of Land Planners,
Landscape Architects,
Engineers, Surveyors &
Environmental Professionals

SECTION NAME: VILLAGE OF WILDE LAKE
SECTION: SEC. 11 / AREA 1
SUBSECTION: 23 / 24
PLAT NO. 15/102-1411
BLOCK # 23
LOT # 24
WATER CODE E 30
SEWER CODE S523900

TITLE
SEDIMENT & EROSION CONTROL PLAN

Des By CRW Scale 1" = 40' Proj. No. 93051B
Dm By CRW Date 5/10/94
Chk By LWN Approved 14 OF 37



AREA OF DISTURBANCE
THIS SHEET
467,320 S.F. ± OR 10.73 AC ±

6-2-94
Date



Professional Engr. No. 16998



LEGEND
--- EXISTING CONTOURS
--- PROPOSED CONTOURS
--- EXISTING DRAINAGE AREA
--- PROPOSED DRAINAGE AREA
--- LIMIT OF DISTURBANCE
--- LIMIT OF TEMPORARY STOCK PILE
--- STABILIZED CONSTRUCTION ENTRANCE
--- MOUNTABLE BERM
--- SILT FENCE
--- EARTH DIKE
--- TEMPORARY SWALE
--- TREE PROTECTION FENCE
--- SUPER FENCE DIMENSION

Trap Specification Table

Trap Number	1
Trap Type	5T
Existing Drainage Area Ac.	1.37
Interim Drainage Area Ac.	0.34
Proposed Drainage Area Ac.	0.34
Storage Required C.F.	2.046
Storage Provided C.F.	2.049
Top Embankment Elevation	424.0
Crest Elevation	422.5
Existing Ground Elevation	422.5
Cleanout Elevation	420.25
Bottom Elevation	419.0
Outlet Width (ft)	6"
Bottom Dimension	16" x 45"
Trap Depth	2.5
Trap Slopes	2:1
Barrel Diameter	NA
Riser Diameter	NA

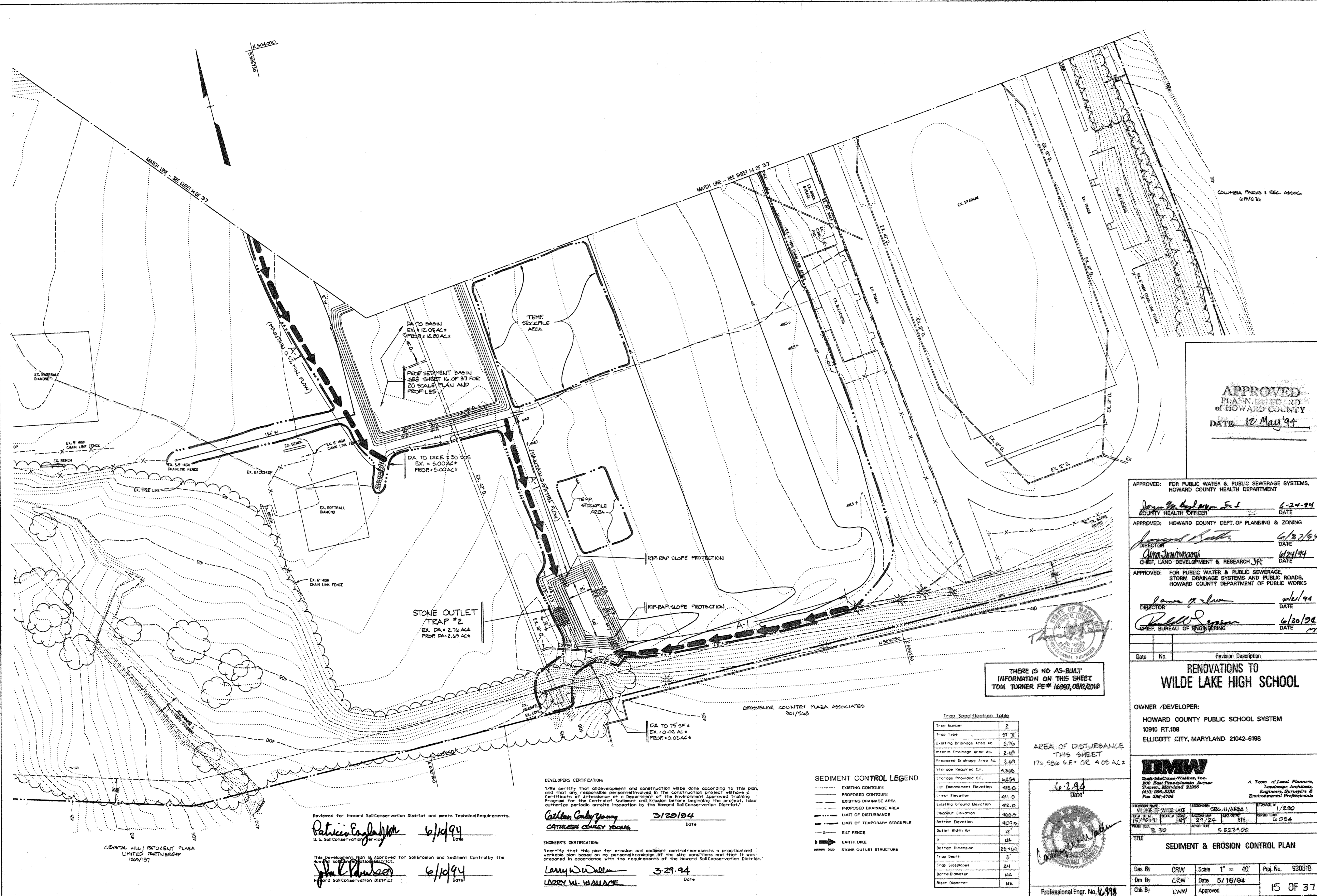
△ EXIST. BITUMINOUS WALK TO BE REMOVED
△ LIMIT OF EX. CONC. DITCH TO REMAIN

△ PROVIDE MIRIMAT TYPE 1800 EROSION CONTROL MATTING ON SLOPE. COVER WITH 1" TOPSOIL AND SEED.

NOTE: INSTALL MIRIMAT TYPE 1800 EROSION CONTROL MATTING AFTER THE DIKE HAS BEEN REMOVED WITH THE APPROVAL OF THE SEDIMENT CONTROL INSPECTOR.

PROP. SEDIMENT BASIN. SEE SHEET 16 OF 37 FOR 20 SCALE PLAN AND PROFILES

PLACE INLET PROTECTION ON ALL EXISTING INLETS WITHIN LIMIT OF DISTURBANCE UNTIL REMOVED OR CAPPED. PLACE INLET PROTECTION ON ALL PROPOSED INLETS UPON INSTALLATION. INLETS WITHIN SEDIMENT BASIN EXCEPTED.



APPROVED
PLANNING BOARD
OF HOWARD COUNTY
DATE 10 May '94

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

Joseph M. Decker, Sr. 6-24-94
COUNTY HEALTH OFFICER DATE

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

James H. Smith 6/27/94
DIRECTOR DATE

Chris Jaramoni 6/24/94
CHIEF, LAND DEVELOPMENT & RESEARCH DATE

APPROVED: FOR PUBLIC WATER & PUBLIC SEWERAGE,
STORM DRAINAGE SYSTEMS AND PUBLIC ROADS,
HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

James G. Lewis 6/11/94
DIRECTOR DATE

Paul W. Sisson 6/20/94
CHIEF, BUREAU OF ENGINEERING DATE

THERE IS NO AS-BUILT
INFORMATION ON THIS SHEET
TOM TURNER PE# 16997, 08/12/2010

Trap Specification Table

Trap Number	2
Trap Type	ST Y
Existing Drainage Area AC	2.76
Interim Drainage Area AC	2.69
Proposed Drainage Area AC	2.69
Storage Required C.F.	4.265
Storage Provided C.F.	6.254
Top Embankment Elevation	413.0
Crest Elevation	411.0
Existing Ground Elevation	412.0
Cleanout Elevation	408.5
Bottom Elevation	407.0
Outlet Width (ft)	12'
Bottom Dimension	25 x 60
Trap Depth	5'
Trap Slopesides	2:1
Bore Diameter	NA
Riser Diameter	NA

AREA OF DISTURBANCE
THIS SHEET
176,536 S.F. OR 4.05 AC±

- SEDIMENT CONTROL LEGEND
- EXISTING CONTOUR
 - PROPOSED CONTOUR
 - EXISTING DRAINAGE AREA
 - PROPOSED DRAINAGE AREA
 - LIMIT OF DISTURBANCE
 - LIMIT OF TEMPORARY STOCKPILE
 - SILT FENCE
 - EARTH DIKE
 - STONE OUTLET STRUCTURE

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.

William C. Young 3/28/94
CATHLEEN CONLEY YOUNG 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.

Larry W. Wallace 3-29-94
LARRY W. WALLACE Date

Reviewed for Howard Soil Conservation District and meets Technical Requirements.

Patricia Englehart 6/14/94
U. S. Soil Conservation Service Date

This Development Plan is Approved for Soil Erosion and Sediment Control by the Howard Soil Conservation District.

Jim L. Pambor 6/14/94
Howard Soil Conservation District Date

Revision Description

Date	No.	Revision Description
------	-----	----------------------

RENOVATIONS TO
WILDE LAKE HIGH SCHOOL

OWNER /DEVELOPER:
HOWARD COUNTY PUBLIC SCHOOL SYSTEM
10910 RT.108
ELLCOTT CITY, MARYLAND 21042-6198

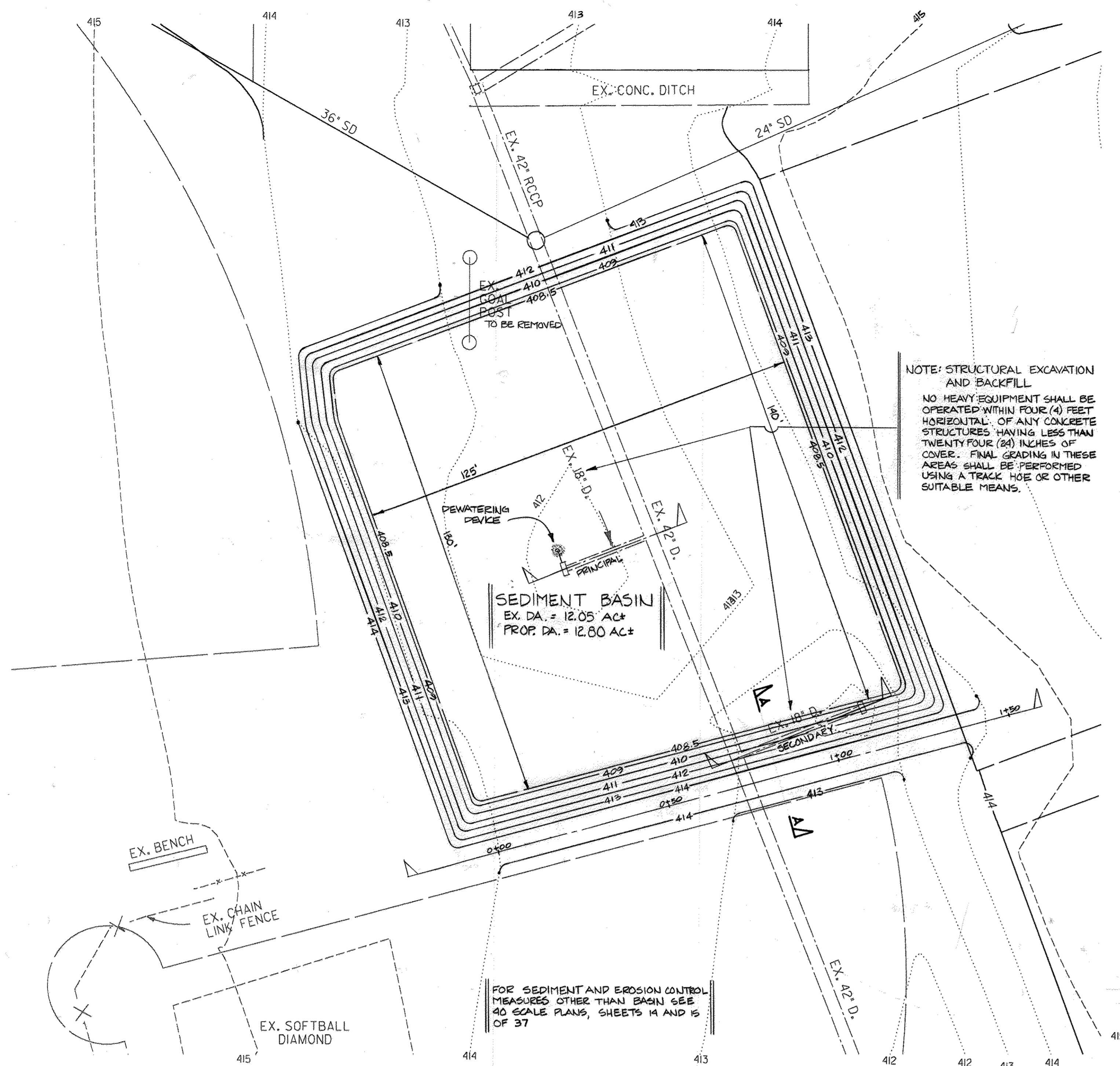
DMW
Duff-McCune-Walker, Inc.
200 East Pennsylvania Avenue
Towson, Maryland 21286
(410) 296-3383
Fax 296-4705
A Team of Land Planners,
Landscape Architects,
Engineers, Surveyors &
Environmental Professionals

LABORATORY NAME: VILLAGE OF WILDE LAKE SECTION: SEC. 11/AREA 1 DRAWING # 1/280
DATE OF PLAN: 15/90#11 BLOCK: NY TOWNSHIP: 29/24 DISTRICT: 5TH OTHER: 6054
WORK CODE: E 30 SEWER CODE: 5 5239.00

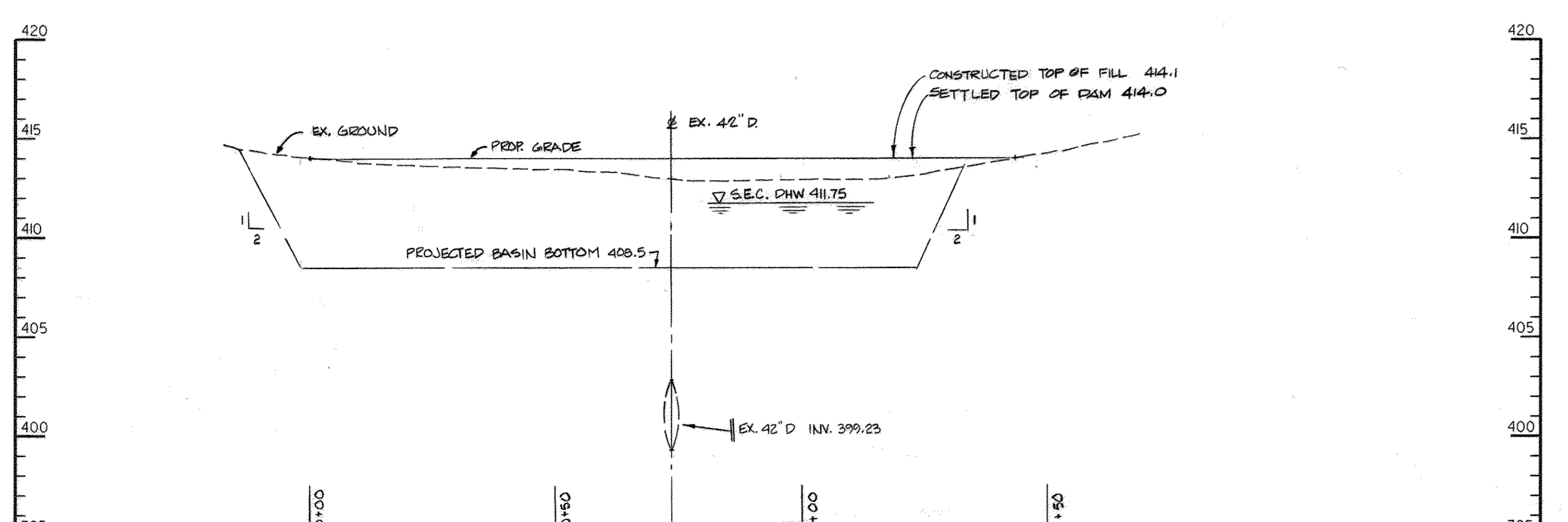
TITLE: SEDIMENT & EROSION CONTROL PLAN

Des By	CRW	Scale	1" = 40'	Proj. No.	93051B
Dm By	CRW	Date	5/16/94		
Chk By	LWW	Approved			15 OF 37

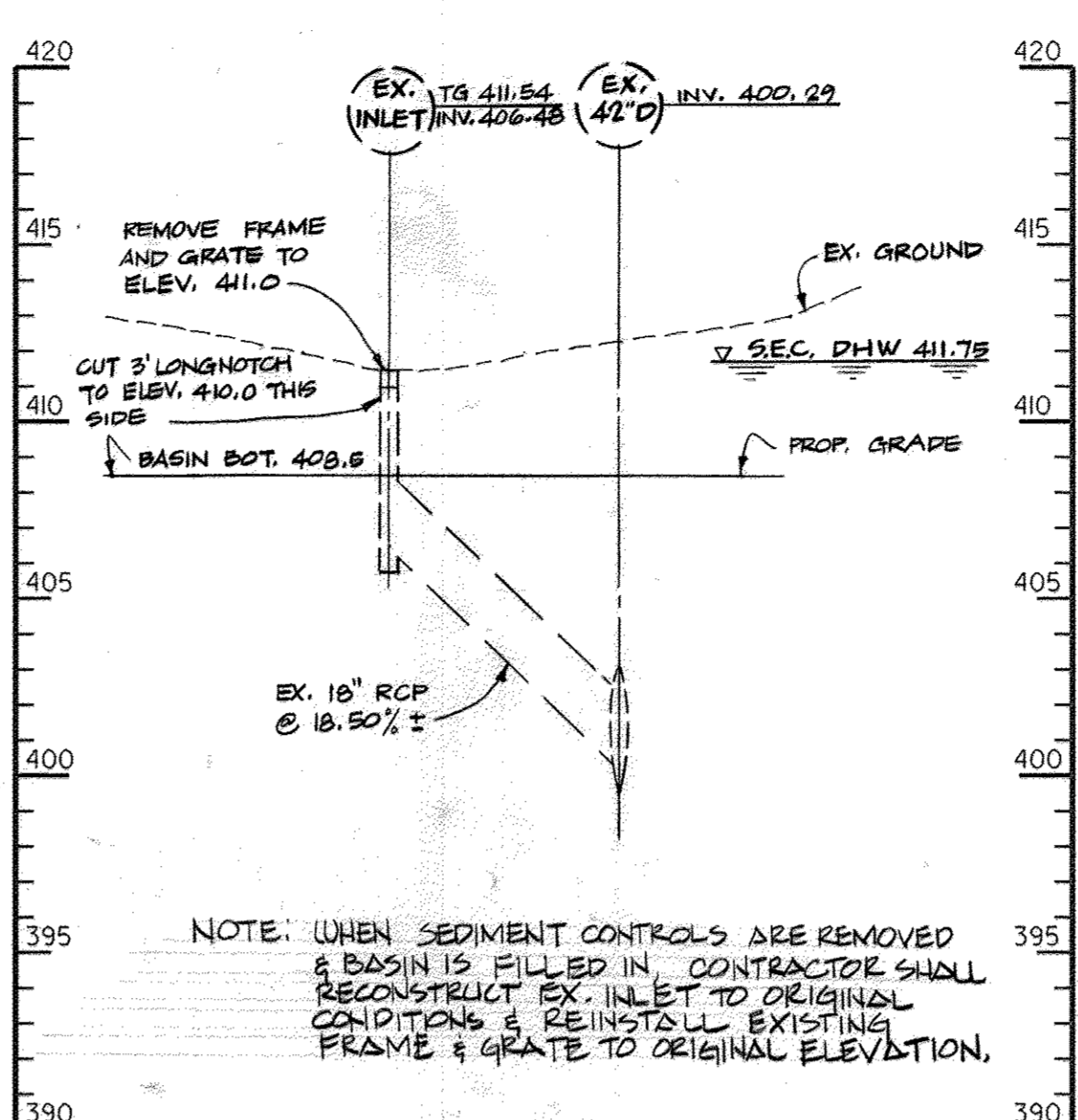
Professional Engr. No. 6998



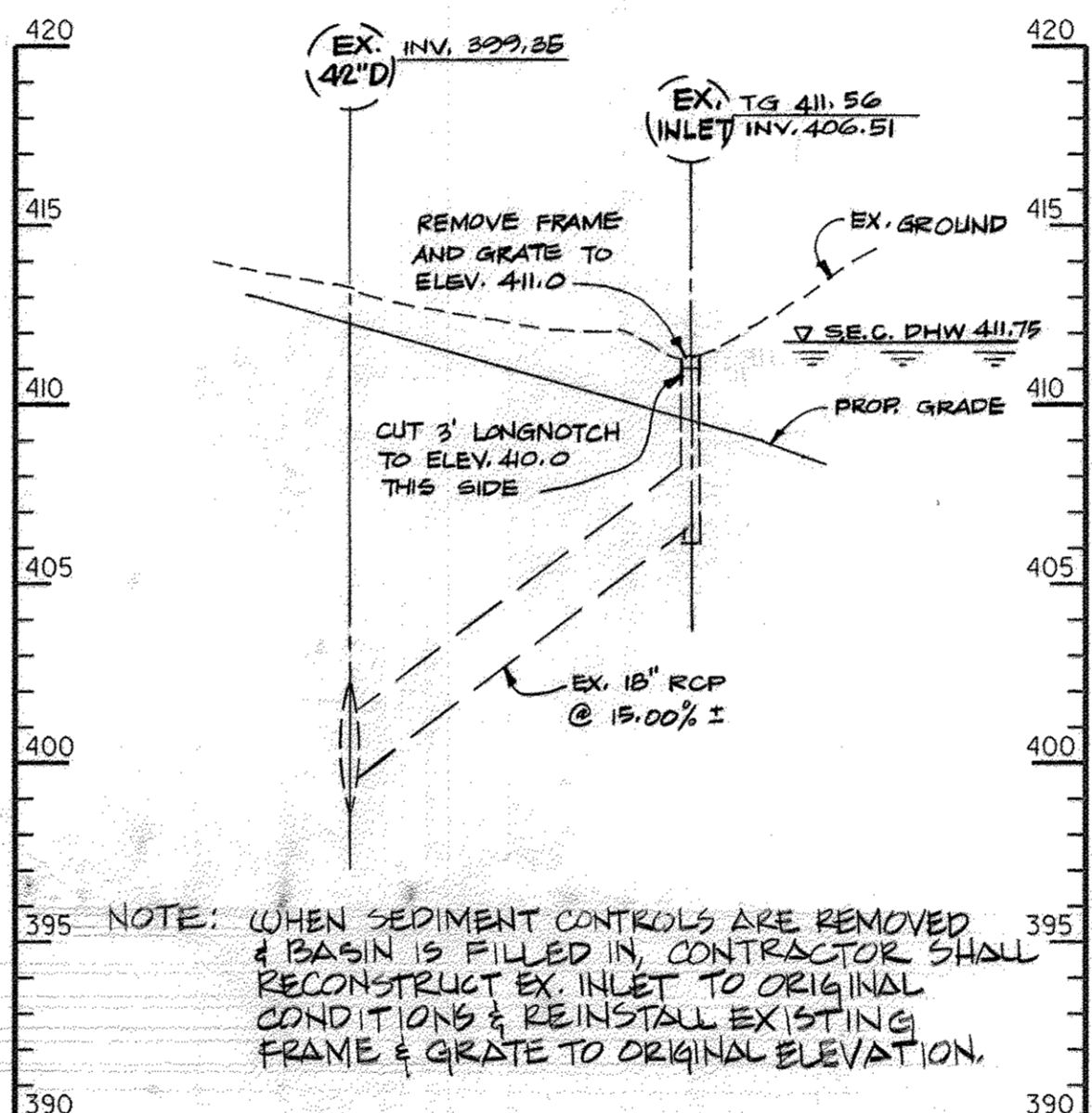
PLAN
1" = 20'



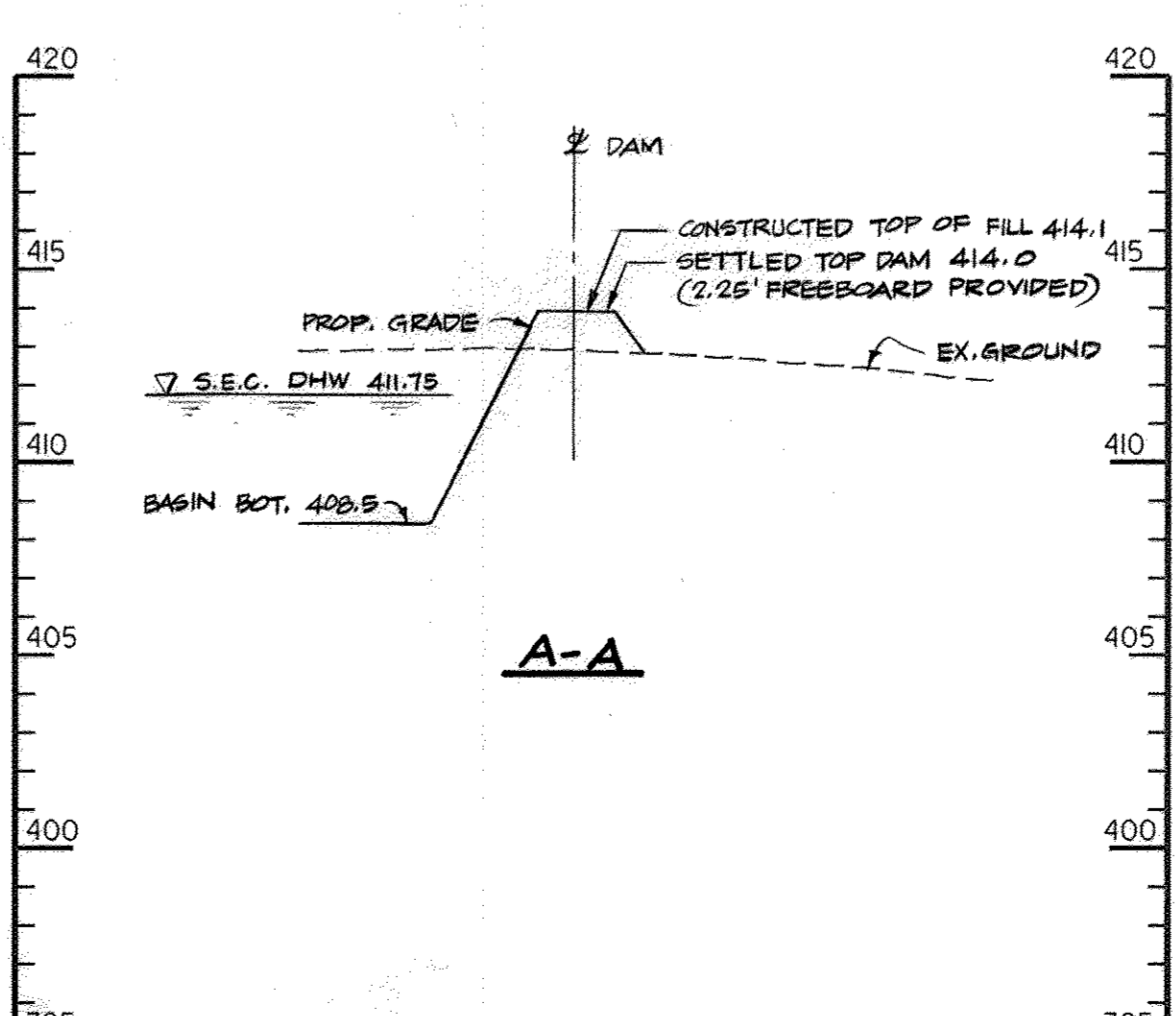
PROFILE ALONG CENTER LINE OF DAM
HORIZ. 1" = 20' VERT. 1" = 5'



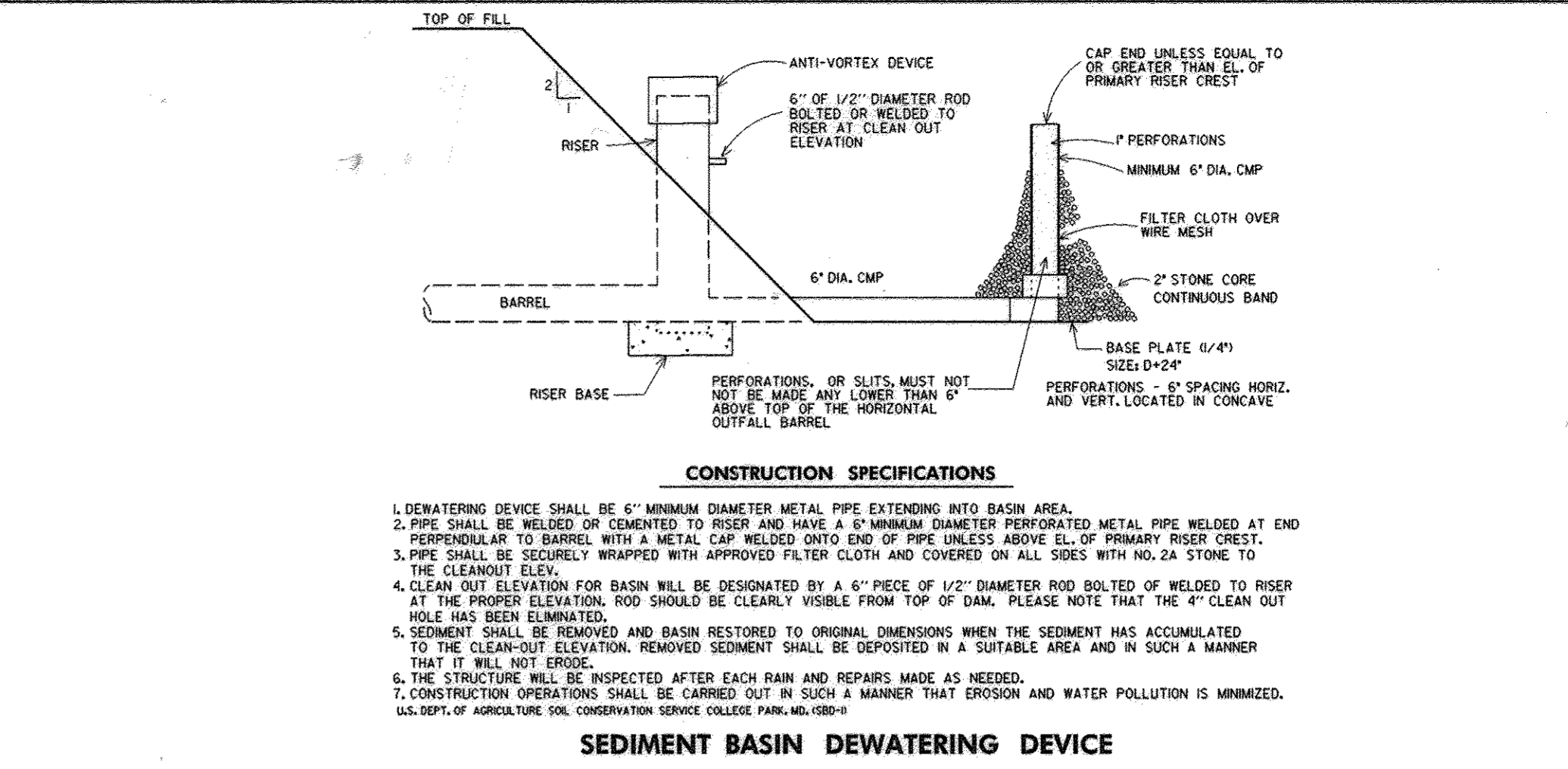
PROFILE ALONG CENTER LINE
PRINCIPAL SPILLWAY
HORIZ. 1" = 20' VERT. 1" = 5'



PROFILE ALONG CENTER LINE
SECONDARY SPILLWAY
HORIZ. 1" = 20' VERT. 1" = 5'



TYPICAL CROSS-SECTION DAM
HORIZ. 1" = 20' VERT. 1" = 5'



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.

Reviewed for Howard Soil Conservation District and meets Technical Requirements.
Patricia Engler 6/10/94
U.S. Soil Conservation Service

This Development Plan is approved for Soil Erosion and Sediment Control by the Howard Soil Conservation District.
John C. Robertson 8/10/94
Howard Soil Conservation District

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.

Cathleen Conley Young 3/20/94
CATHLEEN CONLEY YOUNG Date

Larry W. Wallace 3-29-94
LARRY W. WALLACE Date

SEDIMENT BASIN CONSTRUCTION SPECIFICATIONS

Site Preparation
Areas under the embankment shall be cleared, grubbed, and stripped of topsoil to remove trees, vegetation, roots or other objectionable material in order to facilitate clean-out and restoration. The pool area and the top of the pipe spillway will be cleared of brush, trees, and other objectionable materials.

Cut-off Trench
A cut-off trench shall be excavated along the centerline of earth fill embankments. The minimum depth shall be 2 feet. The cut-off trench shall extend up both shoulders to the riser crest elevation. The minimum bottom width shall be 4 feet, but wide enough to permit operation of excavation and compaction equipment. The side slopes shall be no steeper than 1:1. Compaction requirements shall be the same as those for embankment. The trench shall be dewatered during the backfilling/compaction operations.

Embankment
The fill material shall be taken from approved areas shown on the plans. It shall be clean mineral soil free of roots, woody vegetation, over-size stones, rocks, or other objectionable material. Relatively pervious materials such as sand or gravel (classified Soil Classes GW, SW and SP) shall not be placed in the embankment. Areas on which fills to be placed shall be scarified prior to placement of fill. The fill material shall contain sufficient moisture so that it can be formed by hand into a ball without crumbling. If water can be squeezed out of the ball, it is too wet for proper compaction. Fill material shall be placed in 8 inch thick continuous layers over the entire length of the fill. Compaction shall be obtained by ruffing and hauling the construction equipment over the fills so that the entire surface of each layer of the fills traversed by at least one wheel track of the equipment or by the use of a compactor. The embankment shall be constructed to an elevation 0 percent higher than the design height to allow for settlement.

Pipe Spillways
The riser shall be securely attached to the barrel barrelstap by welding the full circumference making a watertight structural connection. The barrelstap must be attached to the riser at the same percent (angle) of grade as the outlet conduit. The connection between the riser and the riser base shall be watertight. All connections between barrelstaps must be achieved by approved watertight band assemblies. (See page B-22 for details.) The barrel and riser shall be placed on a firm, smooth foundation of impervious soil. Pervious materials such as sand, gravel, or crushed stone shall not be used as backfill ground or pipe or grate foundation. The fill material around the pipe spillway shall be placed in 4 inch layers and compacted under and around the pipe to at least the same density as the adjacent embankment.

Emergency Spillway
The emergency spillway shall be installed in undisturbed ground. The achievement of planned elevations, grades, design width, entrance and exit channel slopes are critical to the successful operation of the emergency spillway and must be constructed within a tolerance of +0.2 feet.

Vegetative Treatment
Stabilize the embankment and emergency spillway in accordance with the appropriate vegetative Standard and Specifications immediately following construction. In no case shall the embankment remain unstabilized for more than seven days.

Erosion and Pollution Control
Construction operations shall be carried out in such a manner that erosion and water pollution will be minimized. Signs and locations shall be compiled with concerning pollution abatement.

Safety
State and local requirements shall be met concerning fencing and signs, warning the public of hazards of soft sediment and floodwater.

Maintenance
1. Repair damages caused by soil erosion and construction equipment at or before the end of each working day.
2. Sediment shall be removed from the basin when it reaches the specified distance below the top of the riser. This sediment shall be placed in such a manner that it will not erode from the site. The sediment shall not be deposited downstream from the embankment, adjacent to a stream or floodplain.

Final Disposal
When temporary structures have served their intended purpose and the contributing drainage areas has been properly stabilized, the embankment and resulting sediment deposits are to be leveled or otherwise disposed of in accordance with the approved sediment control plan. The proposed use of a sediment basin site will often dictate final disposition of the basin and any sediment contained therein. If the site is scheduled for future construction then the basin material and trapped sediments must be removed, safely disposed of, and backfilled with a structural fill. When the basin grade is to remain open space, the pond may be pumped dry, graded and back filled.

APPROVED
PLANNING BOARD
of HOWARD COUNTY
DATE 12 May 94

APPROVED: FOR PUBLIC WATER & PUBLIC SEWERAGE SYSTEMS,
HOWARD COUNTY HEALTH DEPARTMENT
John W. Baker 6-24-94
COUNTY HEALTH OFFICER DATE

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING
James S. Senter 6/27/94
DIRECTOR DATE

Anna Summers 6/24/94
CHIEF, LAND DEVELOPMENT & RESEARCH DATE

APPROVED: FOR PUBLIC WATER & PUBLIC SEWERAGE,
STORM DRAINAGE SYSTEMS AND PUBLIC ROADS,
HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
James P. Shaw 6/21/94
DIRECTOR DATE

Paul R. Soper 6/20/94
CHIEF, BUREAU OF ENGINEERING DATE

Date	No.	Revision Description

RENOVATIONS TO
WILDE LAKE HIGH SCHOOL

OWNER /DEVELOPER:
HOWARD COUNTY PUBLIC SCHOOL SYSTEM
10910 RT.108
ELLCOTT CITY, MARYLAND 21042-6198

DMW
Duff-McCune-Walker, Inc.
200 East Pennsylvania Avenue
Tousson, Maryland 21286
(410) 396-3333
Fax: 396-4706

A Team of Land Planners,
Landscape Architects,
Engineers, Surveyors &
Environmental Professionals

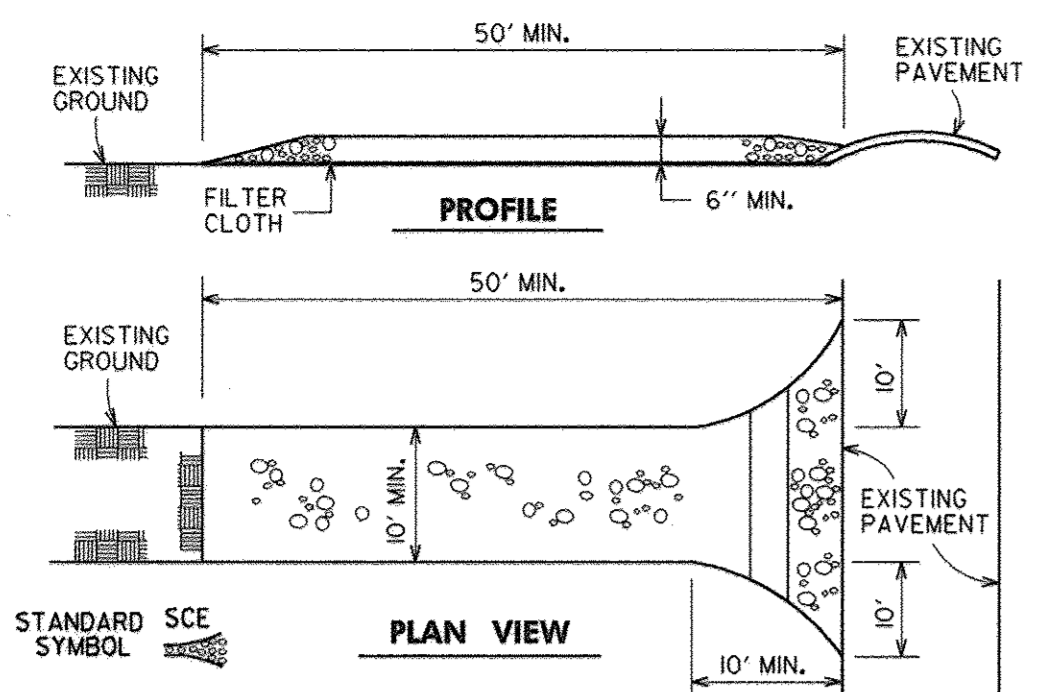
PROJECT NAME: VILLAGE OF WILDE LAKE
BLOCK # 1038
PLAT OR L.P. 15/42 & 41
TOWNSHIP NY
COUNTY DATE 7/24
SHEET 5TH
SHEET CODE 5523900

TITLE
SEDIMENT BASIN
PLAN & PROFILES

Des By CRW Scale 1" = 20' Proj. No. 93051B
Dwn By CRW Date 5/10/94
Chk By LWW Approved 16 OF 37

THERE IS NO AS-BUILT INFORMATION ON THIS SHEET
TOM TURNER PE# 16997, 08/12/2016

Professional Engr. No. 16998

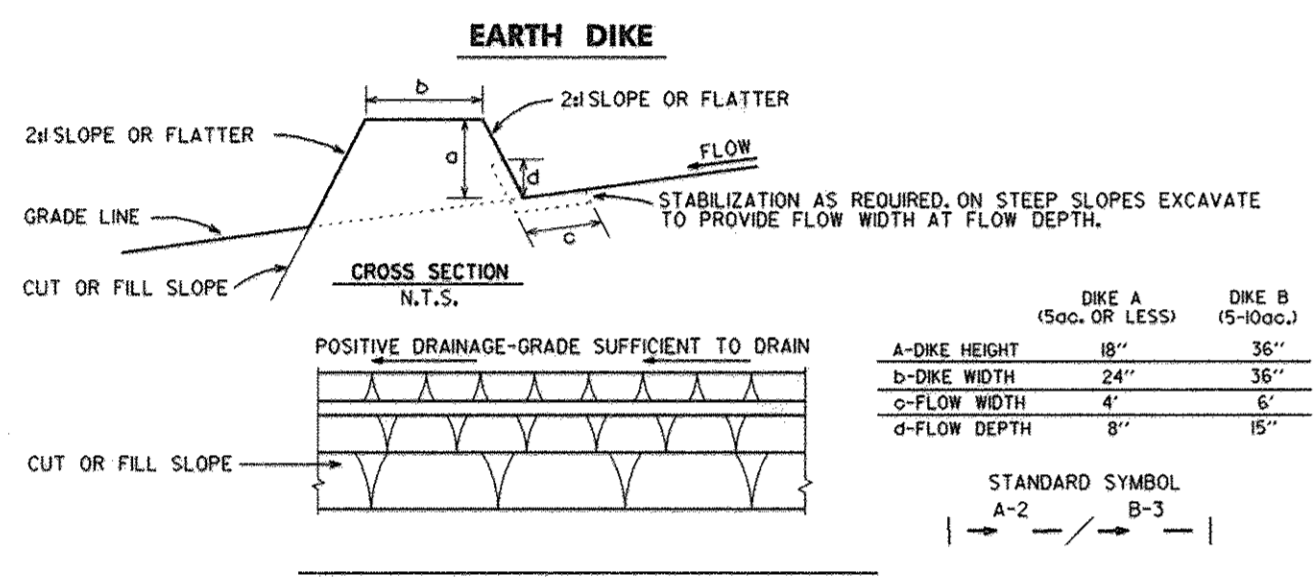


CONSTRUCTION SPECIFICATIONS:

- STONE SIZE - USE 2" STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
- LENGTH - AS REQUIRED, BUT NOT LESS THAN 50 FEET EXCEPT ON A SINGLE RESIDENCE LOT WHERE A 30 FOOT MINIMUM LENGTH WOULD APPLY.
- THICKNESS - NOT LESS THAN SIX (6) INCHES.
- WIDTH - TEN (10) FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS.
- FILTER CLOTH - WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE. FILTER WILL NOT BE REQUIRED ON A SINGLE FAMILY RESIDENCE LOT.
- SURFACE WATER - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE, IF PIPING IS IMPRACTICAL.
- MOUNTABLE BERM WITH 2:1 SLOPES WILL BE PERMITTED.
- MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
- WASHING - WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHTS-OF-WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
- PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.

U.S. DEPT. OF AGRICULTURE SOIL CONSERVATION SERVICE COLLEGE PARK, MD.

STABILIZED CONSTRUCTION ENTRANCE



- ALL DIKES SHALL BE COMPACTED BY EARTH-MOVING EQUIPMENT.
- ALL DIKES SHALL HAVE POSITIVE DRAINAGE TO AN OUTLET.
- TOP WIDTH MAY BE WIDER AND SIDE SLOPES MAY BE FLATTER IF DESIRED TO FACILITATE CROSSING BY CONSTRUCTION TRAFFIC.
- FIELD LOCATION SHOULD BE ADJUSTED AS NEEDED TO UTILIZE A STABILIZED SAFE OUTLET.
- EARTH DIKES SHALL HAVE AN OUTLET THAT FUNCTIONS WITH A MINIMUM OF EROSION, RUNOFF SHALL BE CONVEYED TO A SEDIMENT TRAPPING DEVICE SUCH AS A SEDIMENT TRAP OR SEDIMENT BASIN WHERE EITHER DIKE CHANNEL OR THE DRAINAGE AREA ABOVE THE DIKE ARE NOT ADEQUATELY STABILIZED.
- STABILIZATION SHALL BE (A) IN ACCORDANCE WITH STANDARD SPECIFICATIONS FOR SEED AND STRAW MULCH OR STRAW MULCH IF NOT IN SEEDING SEASON, (B) FLOW CHANNEL AS PER THE CHART BELOW.

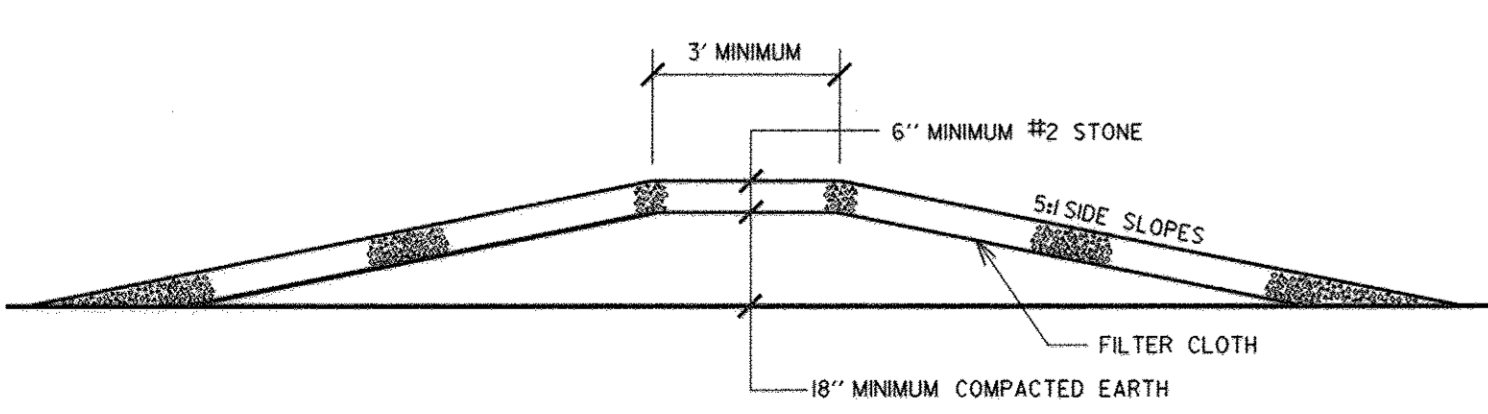
FLOW CHANNEL STABILIZATION

TYPE OF TREATMENT	CHANNEL GRADE	DIKE A	DIKE B
1	0.5-3.0%	SEED AND STRAW MULCH	SEED AND STRAW MULCH
2	3.1-5.0%	SEED AND STRAW MULCH	SEED USING JUTE, OR EXCELSION SOD ² STONE
3	5.1-8.0%	SEED WITH JUTE, OR SOD ² STONE	LINED RIP-RAP 4"-8"
4	8.1-20%	LINED RIP-RAP 4"-8"	ENGINEERING DESIGN

A. STONE TO BE 2" STONE, OR RECYCLED CONCRETE EQUIVALENT, IN A LAYER AT LEAST 3" IN THICKNESS AND BE PRESSED INTO THE SOIL WITH CONSTRUCTION EQUIPMENT.
 B. RIP-RAP TO BE 4"-8" IN A LAYER AT LEAST 8" THICKNESS AND PRESSED INTO THE SOIL.
 C. APPROVED EQUIVALENTS CAN BE SUBSTITUTED FOR ANY OF THE ABOVE MATERIALS.
 7. PERIODIC INSPECTION AND REQUIRED MAINTENANCE MUST BE PROVIDED AFTER EACH RAIN EVENT.

U.S. DEPT. OF AGRICULTURE SOIL CONSERVATION SERVICE COLLEGE PARK, MD.

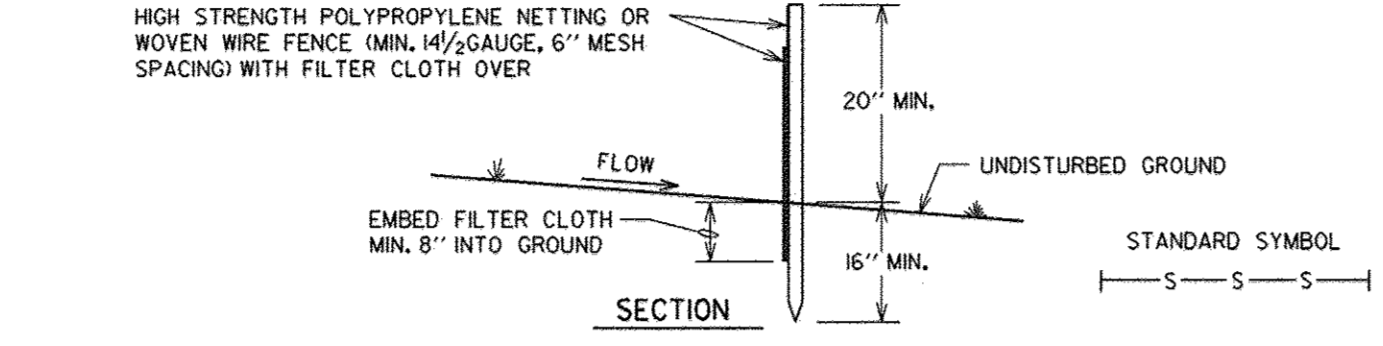
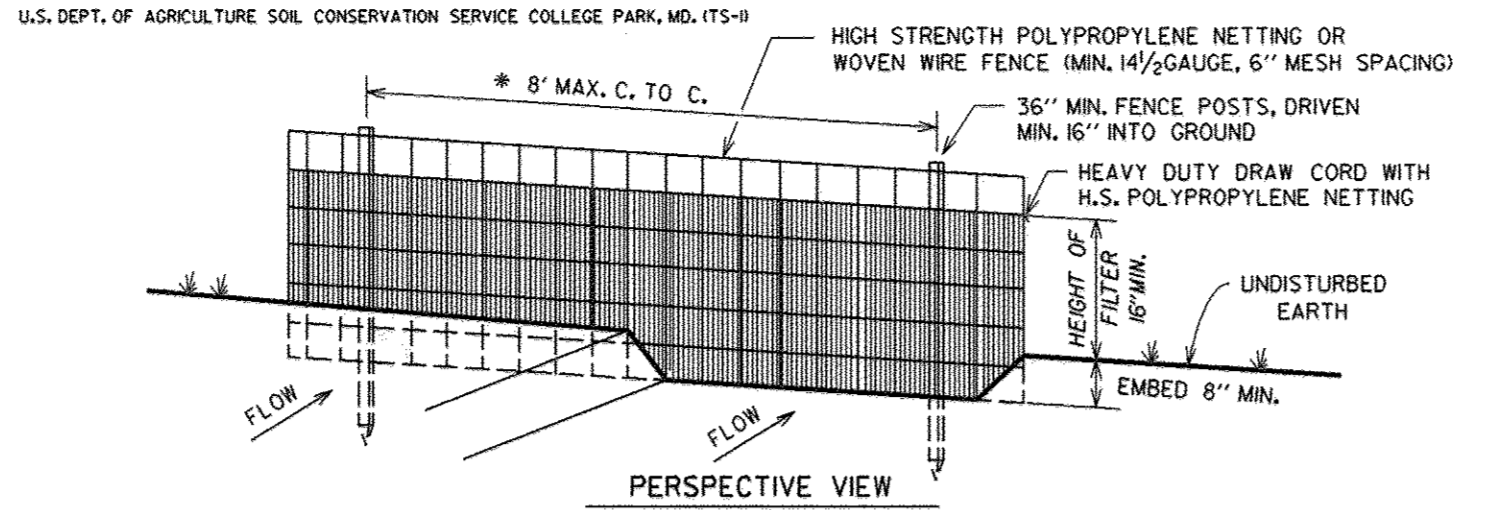
EARTH DIKE



IF MOUNTABLE BERM IS PART OF A 'B' CLASS DIKE, COMPACTED EARTH MUST BE 36" MINIMUM.

U.S. DEPT. OF AGRICULTURE SOIL CONSERVATION SERVICE COLLEGE PARK, MD.

MOUNTABLE BERM DETAIL

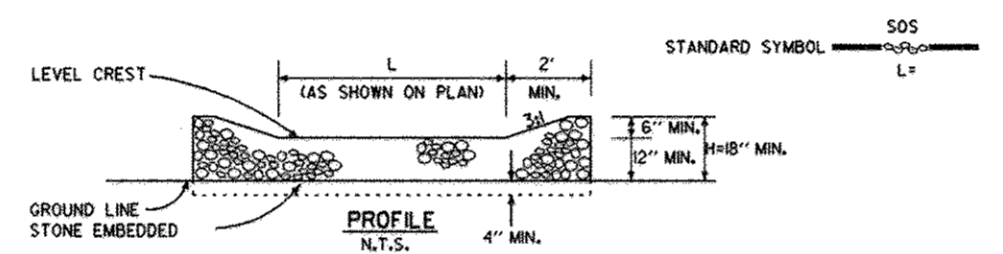
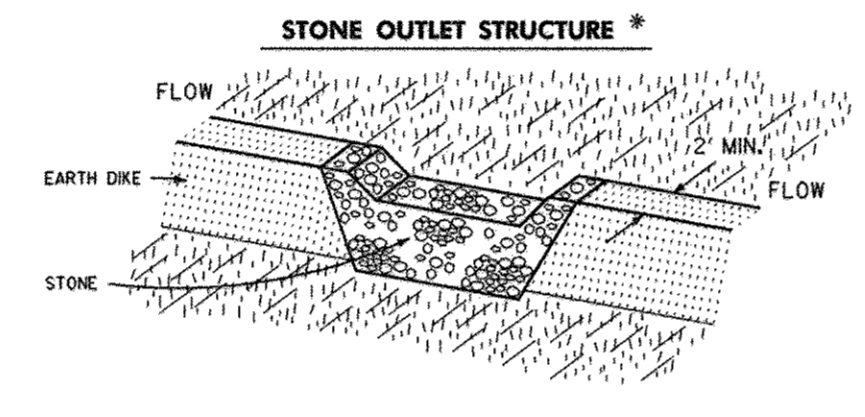


CONSTRUCTION NOTES FOR FABRICATED SILT FENCE

- HIGH STRENGTH POLYPROPYLENE NETTING OR WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES
- FILTER CLOTH TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION
- WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER, THEY SHALL BE OVERLAPPED BY SIX INCHES AND FOLDED.
- MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE

* WHEN DOUBLE-STAKED SILT FENCE IS SHOWN ON PLAN, THE MAXIMUM FENCE POST SPACING SHALL BE 4' (C. TO C.).

SILT FENCE

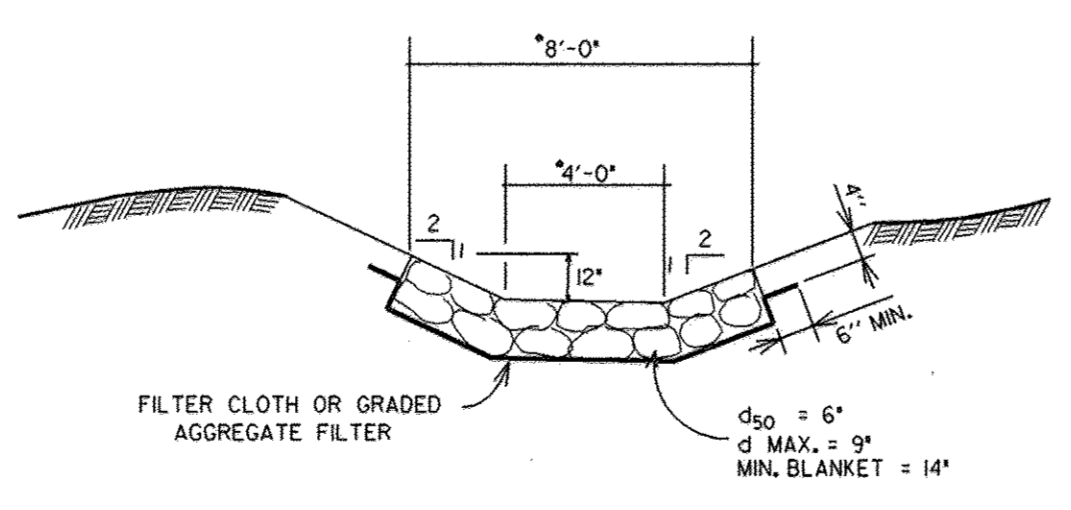


CONSTRUCTION SPECIFICATIONS

- THE STONE SHALL BE CRUSHED STONE, GRAVEL MAY BE USED IF CRUSHED STONE IS NOT AVAILABLE. THE STONE SHALL MEET MSHA SIZE NO.2 OR AASHTO DESIGNATION M43 SIZE NO.2 OR 24.
- THE CREST OF THE STONE DIKE SHALL BE AT LEAST SIX INCHES LOWER THAN THE LOWEST ELEVATION OF THE TOP OF THE EARTH DIKE AND SHALL BE LEVEL.
- THE STONE OUTLET STRUCTURE SHALL BE EMBEDDED INTO THE SOIL A MINIMUM OF FOUR INCHES.
- THE MINIMUM LENGTH, IN FEET, OF THE CREST OF THE STONE OUTLET STRUCTURE SHALL BE EQUAL TO SIX TIMES THE NUMBER OF ACRES OF CONTRIBUTING DRAINAGE AREA.
- THE STONE OUTLET STRUCTURE SHALL BE INSPECTED AFTER EACH RAIN, AND THE STONE BE REPLACED WHEN THE STRUCTURE CEASES TO FUNCTION AS INTENDED DUE TO SILT ACCUMULATION AMONG THE STONE, WASHOUT, CONSTRUCTION TRAFFIC DAMAGE, ETC.

U.S. DEPT. OF AGRICULTURE SOIL CONSERVATION SERVICE COLLEGE PARK, MD. * DRAINAGE AREA LESS THAN 5 ACRES.

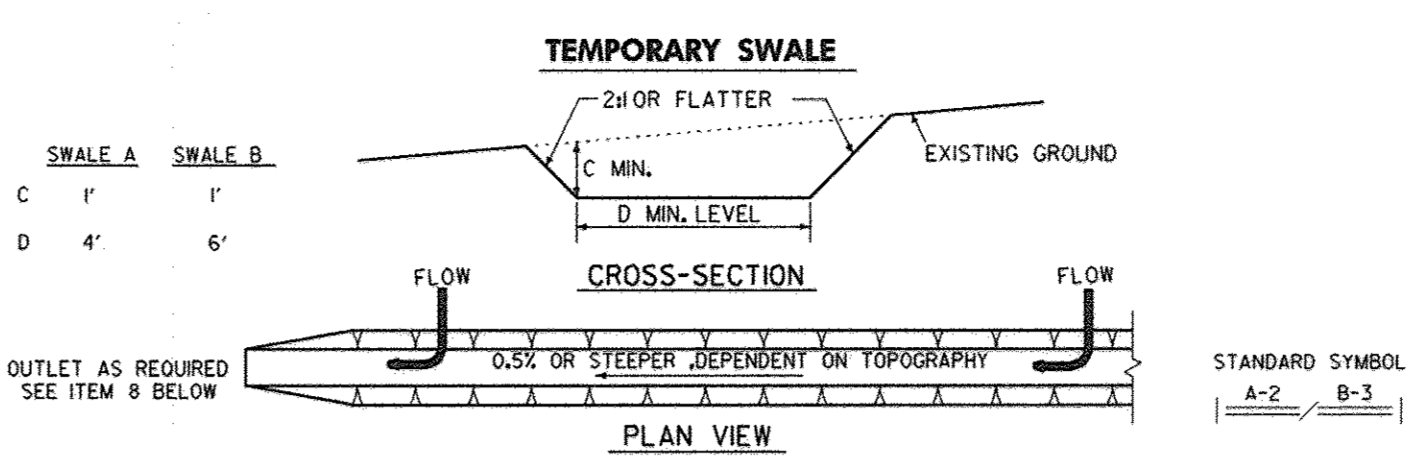
STONE OUTLET STRUCTURE



* 6'-0" MIN. BOTTOM, 10'-0" MIN. TOP WHEN ASSOCIATED WITH 'B' CLASS DIKE OR SWALE

RIP RAP SLOPE PROTECTION WILL BE REQUIRED AT INFLOW POINTS TO SEDIMENT TRAP(S) OR BASIN(S)

RIPRAP SLOPE PROTECTION



CONSTRUCTION SPECIFICATIONS

- ALL TEMPORARY SWALES SHALL HAVE UNINTERRUPTED POSITIVE GRADE TO AN OUTLET.
- DIVERTED RUNOFF FROM A DISTURBED AREA SHALL BE CONVEYED TO A SEDIMENT TRAPPING DEVICE.
- DIVERTED RUNOFF FROM AN UNDISTURBED AREA SHALL OUTLET DIRECTLY INTO AN UNDISTURBED STABILIZED AREA AT NONEROSIVE VELOCITY.
- ALL TREES, BRUSH, STUMPS, OBSTRUCTIONS, AND OTHER OBJECTIONABLE MATERIAL SHALL BE REMOVED AND DISPOSED OF SO AS NOT TO INTERFERE WITH THE PROPER FUNCTIONING OF THE SWALE.
- THE SWALE SHALL BE EXCAVATED OR SHAPED TO LINE, GRADE, AND CROSS-SECTION AS REQUIRED TO MEET THE CRITERIA SPECIFIED HEREIN AND BE FREE OF BANK PROJECTIONS OR OTHER IRREGULARITIES WHICH WILL IMPEDE NORMAL FLOW.
- FILLS SHALL BE COMPACTED BY EARTH MOVING EQUIPMENT.
- ALL EARTH REMOVED AND NOT NEEDED ON CONSTRUCTION SHALL BE PLACED SO THAT IT WILL NOT INTERFERE WITH THE FUNCTIONING OF THE SWALE.
- STABILIZATION SHALL BE AS PER THE CHART BELOW:

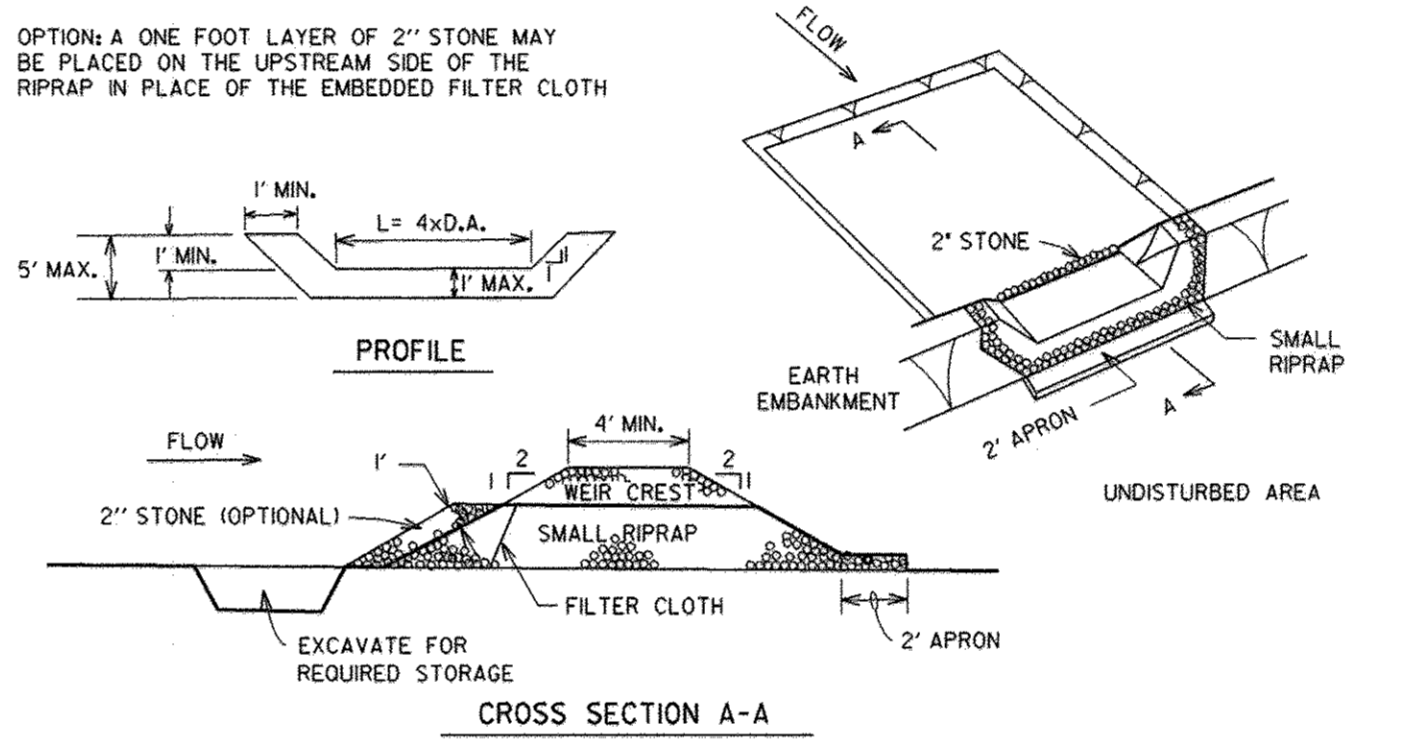
FLOW CHANNEL STABILIZATION

TYPE OF TREATMENT	CHANNEL GRADE	A (5AC. OR LESS)	B (5AC.-10AC.)
1	0.5-3.0%	SEED AND STRAW MULCH	SEED AND STRAW MULCH
2	3.1-5.0%	SEED AND STRAW MULCH	SEED USING JUTE, OR EXCELSION SOD
3	5.1-8.0%	SEED USING JUTE, OR EXCELSION SOD	LINED RIP-RAP 4"-8"
4	8.1-20%	LINED RIP-RAP 4"-8"	RECYCLED CONCRETE EQUIVALENT ENGINEERING DESIGN

9. PERIODIC INSPECTION AND REQUIRED MAINTENANCE MUST BE PROVIDED AFTER EACH RAIN EVENT.

U.S. DEPT. OF AGRICULTURE SOIL CONSERVATION SERVICE COLLEGE PARK, MD.

TEMPORARY SWALE

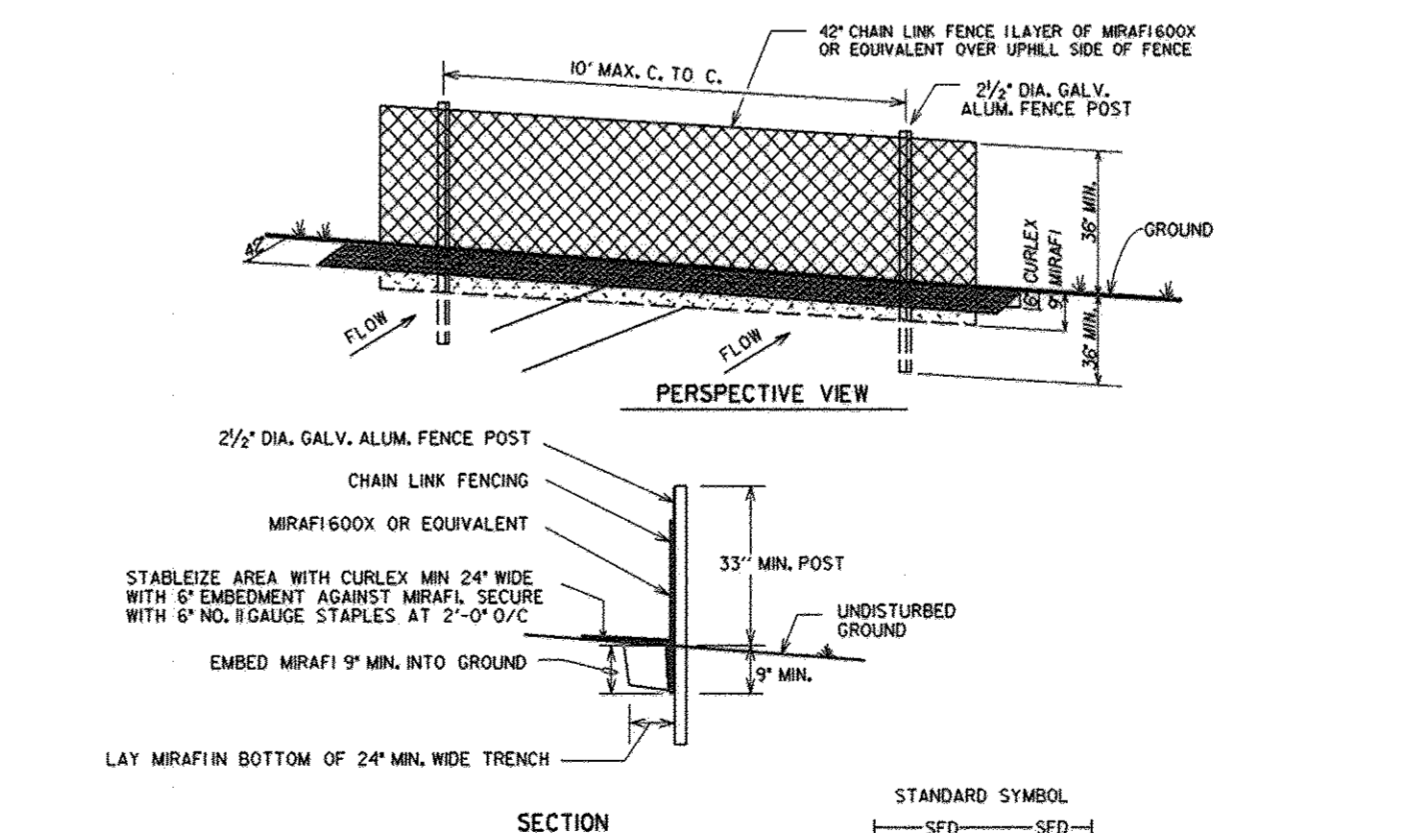


CONSTRUCTION SPECIFICATIONS FOR ST-V

- AREA UNDER EMBANKMENT SHALL BE CLEARED, GRUBBED AND STRIPPED OF ANY VEGETATION AND ROOT MAT. THE POOL AREA SHALL BE CLEARED.
- THE FILL MATERIAL FOR THE EMBANKMENT SHALL BE FREE OF ROOTS AND OTHER WOODY VEGETATION AS WELL AS OVER-SIZED STONES, ROCKS, ORGANIC MATERIAL OR OTHER OBJECTIONABLE MATERIAL. THE EMBANKMENT SHALL BE COMPACTED BY TRAVERSING WITH EQUIPMENT WHILE IT IS BEING CONSTRUCTED.
- ALL CUT AND FILL SLOPES SHALL BE 2:1 OR FLATTER.
- THE STONE USED IN THE OUTLET SHALL BE SMALL RIPRAP 4"-8" ALONG WITH A 1" THICKNESS OF 2" AGGREGATE PLACED ON THE UPRAISE SIDE ON THE SMALL RIPRAP OR EMBEDDED FILTER CLOTH IN THE RIPRAP.
- SEDIMENT SHALL BE REMOVED AND TRAP RESTORED TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO ONE HALF THE DESIGN DEPTH OF THE TRAP.
- THE STRUCTURE SHALL BE INSPECTED AFTER EACH RAIN AND REPAIRS MADE AS NEEDED.
- CONSTRUCTION OPERATIONS SHALL BE CARRIED OUT IN SUCH MANNER THAT EROSION AND WATER POLLUTION IS MINIMIZED.
- THE STRUCTURE SHALL BE REMOVED AND THE AREA STABILIZED WHEN THE DRAINAGE AREA HAS BEEN PROPERLY STABILIZED.

U.S. DEPT. OF AGRICULTURE SOIL CONSERVATION SERVICE COLLEGE PARK, MD.

STONE OUTLET SEDIMENT TRAP



Fencing shall be 42 inch high chain constructed in accordance with the latest Maryland State Highway Administration Standard Details 500 and 500A. The specifications for a 6" fence shall be used, substituting 42 inch fabric and 70 inch posts shall be placed without concrete embedment.

- Chain link fence to be fastened securely to fence posts with wire ties on staples.
- Diverion cloth to be fastened securely to chain link fence with ties spaced every 24 inches at top and mid-section.
- When two sections of diverion cloth adjoin each other they shall be overlapped by 6 inches and folded.
- Maintenance shall be performed as needed.
- If slope gradient along flow path is 8 percent or greater (maximum of 20 percent) culvert is to be replaced with rip-rap 4 inches to 8 inches.
- Maximum drainage area 5 acres.

SUPER FENCE DIVERSION

DEVELOPERS 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.

Cathleen Conley Young 3/29/94
 CATHLEEN CONLEY YOUNG 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.

Larry W. Wallace 3-29-94
 LARRY W. WALLACE Date

Reviewed for Howard Soil Conservation District and meets Technical Requirements.

Patricia Englehorn 4/10/94
 U.S. Soil Conservation Service Date

This Development Plan is Approved for Soil Erosion and Sediment Control by the Howard Soil Conservation District.

John R. Klotz 4/10/94
 Howard Soil Conservation District Date

APPROVED
 PLANNING BOARD
 OF HOWARD COUNTY
 DATE 12 May 94

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

John M. Gilmour Sr. 6-24-94
 COUNTY HEALTH OFFICER DATE

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

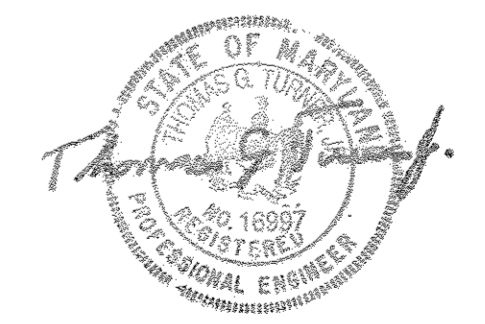
James M. Smith 6/27/94
 DIRECTOR DATE

China Summerville 6/24/94
 CHIEF, LAND DEVELOPMENT & RESEARCH DATE

APPROVED: FOR PUBLIC WATER & PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS, HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

James G. Lewis 6/21/94
 DIRECTOR DATE

Paul W. Spear 6/20/94
 CHIEF, BUREAU OF ENGINEERING DATE



THERE IS NO AS-BUILT INFORMATION ON THIS SHEET
 TOM TURNER PE# 16997, 08/12/2016

6-2-94
 Date



Professional Engr. No. 16998

RENOVATIONS TO WILDE LAKE HIGH SCHOOL

OWNER / DEVELOPER:
 HOWARD COUNTY PUBLIC SCHOOL SYSTEM
 10910 RT.108
 ELLICOTT CITY, MARYLAND 21042-6198

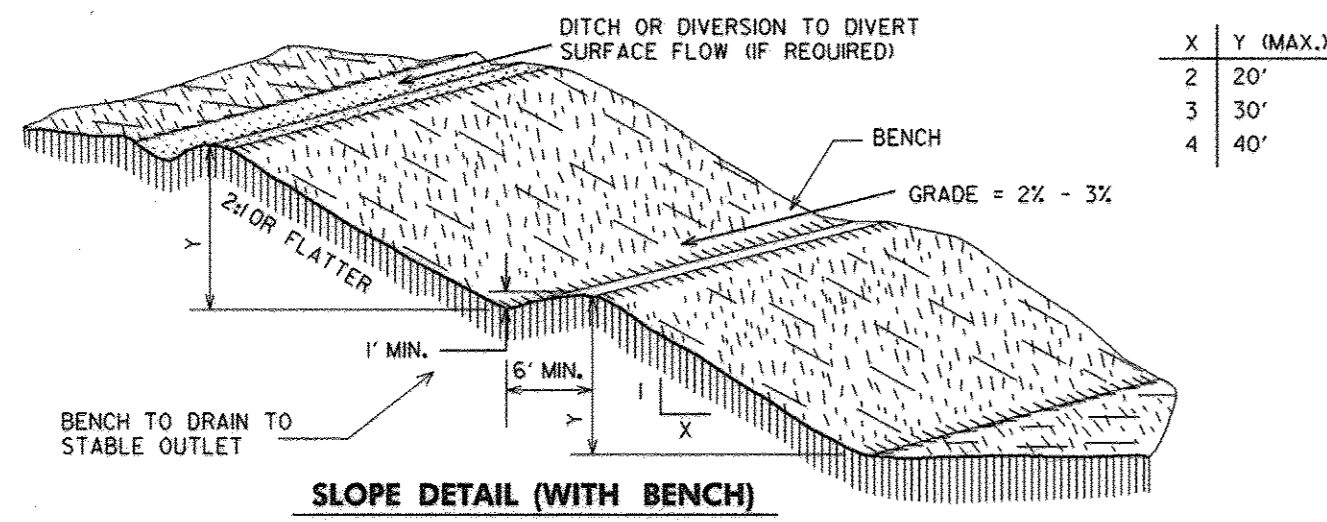
DMW
 Dawn McChane-Walkers, Inc.
 200 East Pennsylvania Avenue
 Towson, Maryland 21286
 (410) 286-3333
 Fax 286-4702

A Team of Land Planners, Landscape Architects, Engineers, Surveyors & Environmental Professionals

REVISION NO.	DATE	DESCRIPTION
1590-01	08/24	REVISED

DATE: 6-2-94

DESIGNER	CRW	SCALE	AS NOTED	PROJECT NO.	93051B
DRAWN BY	SPF	DATE	5/16/94		
CHECKED BY	LWW	APPROVED			17 OF 37



SLOPE DETAIL (WITH BENCH)

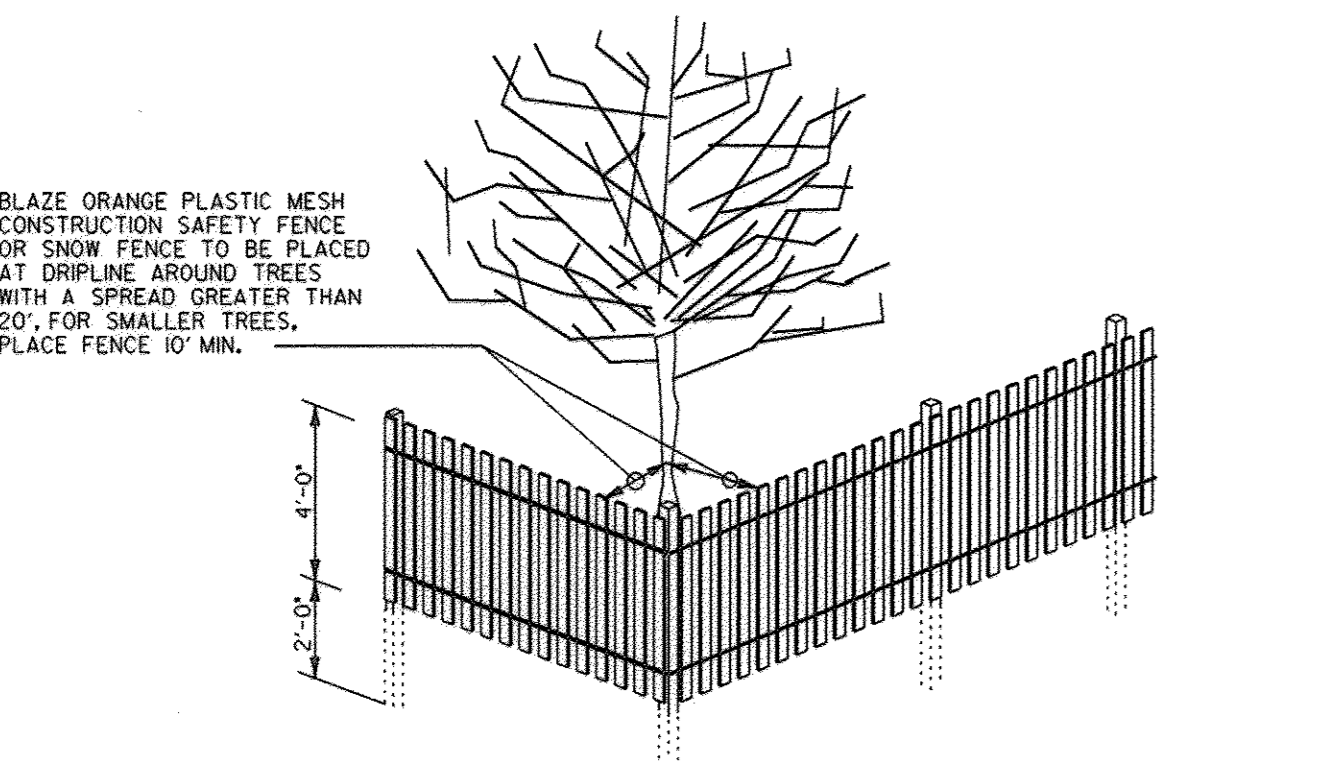
- CONSTRUCTION SPECIFICATIONS**
- ALL GRADED OR DISTURBED AREAS INCLUDING SLOPES SHALL BE PROTECTED DURING CLEARING AND CONSTRUCTION IN ACCORDANCE WITH THE APPROVED SEDIMENT CONTROL PLAN UNTIL THEY ARE PERMANENTLY STABILIZED.
 - ALL SEDIMENT CONTROL PRACTICES AND MEASURES SHALL BE CONSTRUCTED, APPLIED AND MAINTAINED IN ACCORDANCE WITH THE APPROVED SEDIMENT CONTROL PLAN AND THE STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL IN DEVELOPING AREAS.
 - TOPSOIL REQUIRED FOR THE ESTABLISHMENT OF VEGETATION SHALL BE STOCKPILED IN AN AMOUNT NECESSARY TO COMPLETE FINISHED GRADING OF ALL EXPOSED AREAS.
 - AREAS TO BE FILLED SHALL BE CLEARED, GRUBBED AND STRIPPED OF TOPSOIL TO REMOVE TREES, VEGETATION, ROOTS OR OTHER OBJECTIONABLE MATERIAL.
 - AREAS WHICH ARE TO BE TOPSOILED SHALL BE SCARIFIED TO A MINIMUM DEPTH OF THREE INCHES PRIOR TO PLACEMENT OF TOPSOIL.
 - ALL FILLS SHALL BE COMPACTED AS REQUIRED TO REDUCE EROSION, SLIPPAGE, SETTLEMENT, SUBSIDENCE OR OTHER RELATED PROBLEMS. FILL INTENDED TO SUPPORT BUILDINGS, STRUCTURES AND CONDUITS, ETC. SHALL BE COMPACTED IN ACCORDANCE WITH LOCAL REQUIREMENTS OR CODES.
 - ALL FILL TO BE PLACED AND COMPACTED IN LAYERS NOT TO EXCEED 8 INCHES IN THICKNESS.
 - EXCEPT FOR APPROVED LANDFILLS, FILL MATERIAL SHALL BE FREE OF BRUSH, RUBBISH, ROCKS, LOGS, STUMPS, BUILDING DEBRIS AND OTHER OBJECTIONABLE MATERIALS THAT WOULD INTERFERE WITH OR PREVENT CONSTRUCTION OF SATISFACTORY FILLS.
 - FROZEN MATERIALS OR SOFT, MUCKY OR HIGHLY COMPRESSIBLE MATERIALS SHALL NOT BE INCORPORATED INTO FILLS.
 - FILL SHALL NOT BE PLACED ON A FROZEN FOUNDATION.
 - ALL BENCHES SHALL BE KEPT FREE OF SEDIMENT DURING ALL PHASES OF DEVELOPMENT.
 - SEEPS OR SPRINGS ENCOUNTERED DURING CONSTRUCTION SHALL BE HANDLED IN ACCORDANCE WITH THE STANDARD AND SPECIFICATIONS FOR SUBSURFACE DRAIN OR OTHER APPROVED METHOD.
 - ALL GRADED AREAS SHALL BE PERMANENTLY STABILIZED IMMEDIATELY FOLLOWING FINISHED GRADING.
 - STOCKPILES, BORROW AREAS AND SPOIL AREAS SHALL BE SHOWN ON THE PLANS AND SHALL BE SUBJECT TO THE PROVISIONS OF THIS STANDARD AND SPECIFICATIONS.

LANDGRADING

DUST CONTROL SPECIFICATIONS

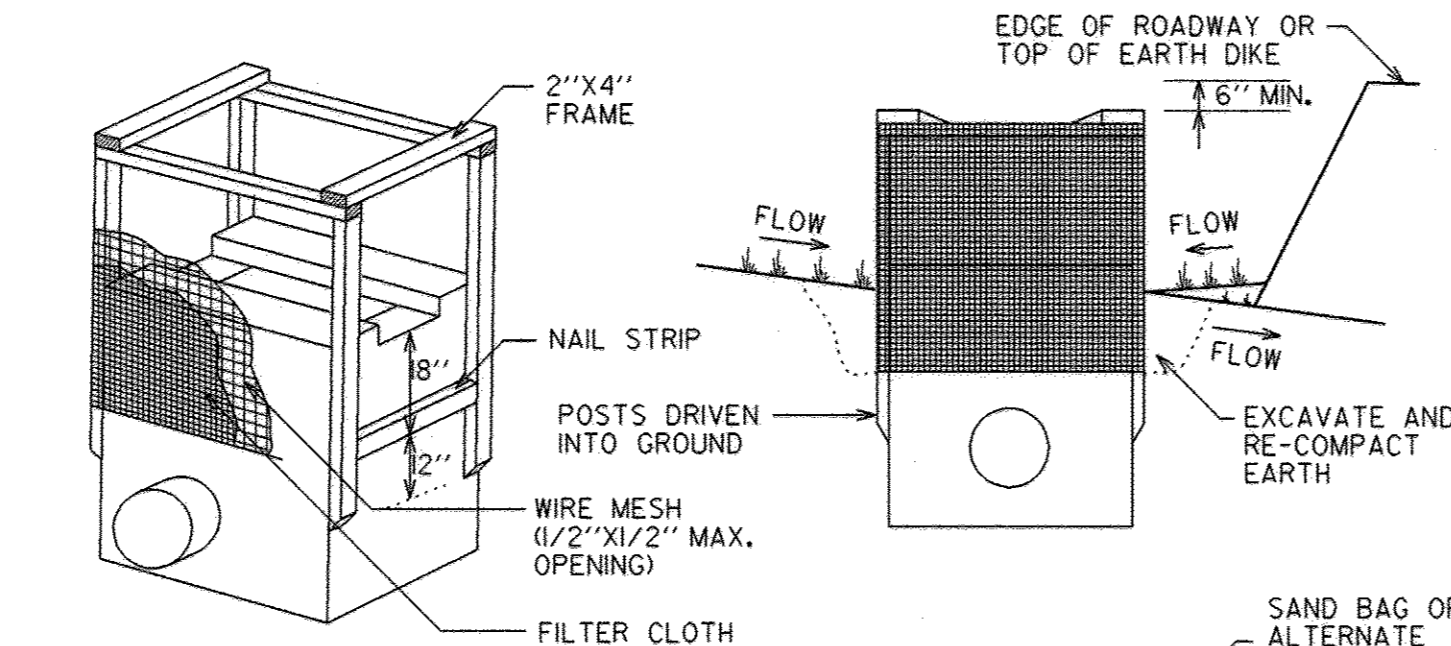
- Temporary Methods:**
- Mulches - See standards for critical area stabilization with mulches only. Chemical or wood cellulose fiber binders may be used instead of asphalt to bind mulch material.
 - Vegetative Cover - See standards for temporary vegetative cover.
 - Spray-on Adhesives - On mineral soils (not effective on muck soils). Keep traffic off these areas.
- | | Water Dilution | Type of Nozzle | Apply Gallons/Ac. |
|--------------------------|----------------|----------------|-------------------|
| Anionic asphalt emulsion | Td | Coarse Spray | 1,200 |
| Latex emulsion | I2 1/2d | Fine Spray | 235 |
| Resin-in-water emulsion | 4d | Fine Spray | 300 |
- Permanent Methods:**
- Permanent Vegetation - See standards for permanent vegetative cover, and permanent stabilization with sod. Existing trees or large shrubs may afford valuable protection if left in place.
 - Topsoiling - Covering with less erosive soil materials. See standards for topsoiling.
 - Stone - Cover surface with crushed stone or coarse gravel.

DUST CONTROL SPECIFICATIONS

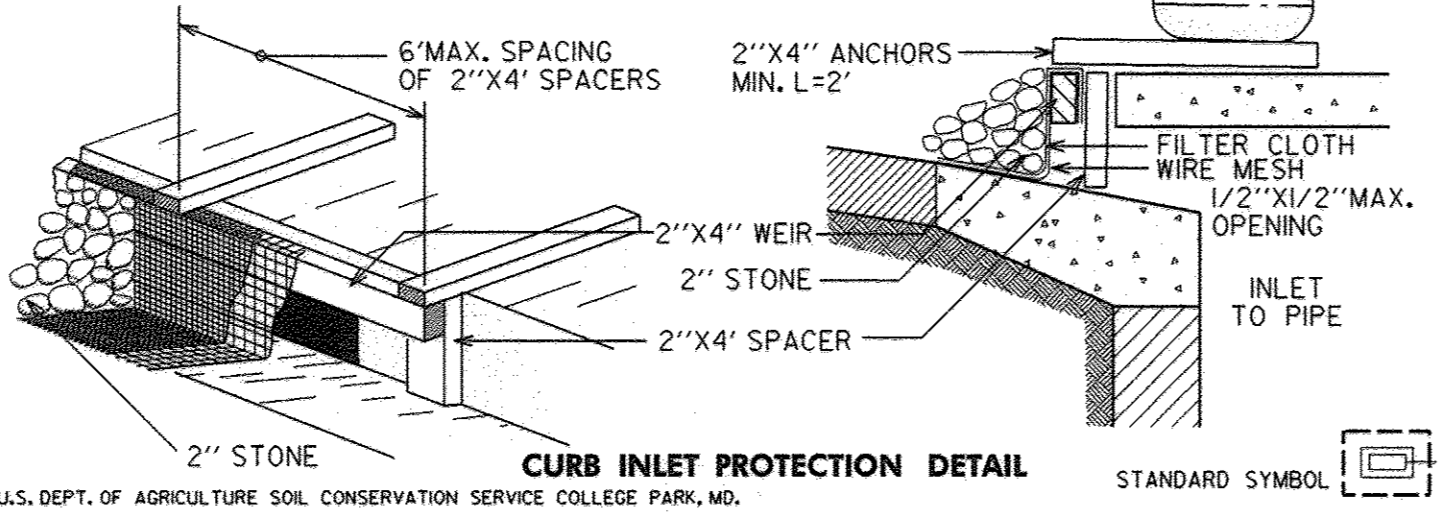


- SPECIES, GRADE, ETC. OF LUMBER SHALL BE AT THE OPTION OF THE CONTRACTOR.
- NO CONSTRUCTION MATERIALS, EQUIPMENT OR EXCAVATED EARTH SHALL BE ALLOWED WITHIN THE PROTECTED AREAS.

TREE PROTECTION FENCE



SWALE INLET PROTECTION DETAIL



CURB INLET PROTECTION DETAIL

INLET PROTECTION DETAIL

U.S. DEPT. OF AGRICULTURE SOIL CONSERVATION SERVICE COLLEGE PARK, MD.

CONSTRUCTION SPECIFICATIONS

- I. MATERIALS**
- WOODEN FRAME IS TO BE CONSTRUCTED OF 2" X 4" CONSTRUCTION GRADE LUMBER.
 - WIRE MESH MUST BE OF SUFFICIENT STRENGTH TO SUPPORT FILTER FABRIC, AND STONE FOR CURB INLETS, WITH WATER FULLY IMPOUNDED AGAINST IT.
 - FILTER CLOTH MUST BE OF A TYPE APPROVED FOR THIS PURPOSE, RESISTANT TO SUNLIGHT WITH SIEVE D. STONE IS TO BE 2" IN SIZE AND CLEAN, SINCE FINES WOULD CLOG THE CLOTH.
- II. PROCEDURE**
- SWALE DITCHLINE OR YARD INLET PROTECTION.
 - EXCAVATE COMPLETELY AROUND INLET TO A DEPTH OF 18" BELOW NOTCH ELEVATION.
 - DRIVE 2" X 4" POST INTO GROUND AT FOUR CORNERS OF INLET. PLACE NAIL STRIPS BETWEEN POSTS ON ENDS OF FRAME TO FORM PORTION OF 2" X 4" FRAME USING OVERLAP JOINT SHOWN. TOP OF FRAME (WEIR) MUST BE 6" BELOW EDGE OF ROADWAY ADJACENT TO INLET.
 - STRETCH WIRE MESH TIGHTLY AROUND FRAME AND FASTEN SECURELY. ENDS MUST MEET AT POST.
 - STRETCH FILTER CLOTH TIGHTLY OVER WIRE MESH. THE CLOTH MUST EXTEND FROM TOP OF FRAME TO 18" BELOW INLET NOTCH ELEVATION. FASTEN SECURELY TO FRAME. ENDS MUST MEET AT POST, BE OVERLAPPED, AND FOLDED, THEN FASTENED DOWN.
 - BACKFILL AROUND INLET IN COMPACTED 6" LAYERS UNTIL LAYER OF EARTH IS EVEN WITH NOTCH ELEVATION ON ENDS AND TOP ELEVATION ON SIDES.
 - IF INLET IS NOT IN A LOW POINT, CONSTRUCT A COMPACTED EARTH DIKE IN THE DITCHLINE BELOW IT. THE TOP OF THIS DIKE IS TO BE AT LEAST 6" HIGHER THAN THE TOP OF THE FRAME (WEIR).
 - THIS STRUCTURE MUST BE INSPECTED FREQUENTLY AND THE FILTER FABRIC REPLACED WHEN CLOGGED.
 - CURB INLET PROTECTION.
 - ATTACH A CONTINUOUS PIECE OF WIRE MESH 10" MINIMUM WIDTH BY THROAT LENGTH PLUS 4" TO THE 2" X 4" WEIR (MEASURING THROAT LENGTH PLUS 2" AS SHOWN ON THE STANDARD DRAWING).
 - PLACE A PIECE OF APPROVED FILTER CLOTH (40-85 SIEVE) OF THE SAME DIMENSIONS AS THE WIRE MESH OVER THE WIRE MESH AND SECURELY ATTACH TO THE 2" X 4" WEIR.
 - SECURELY NAIL THE 2" X 4" WEIR TO 9" LONG VERTICAL SPACERS TO BE LOCATED BETWEEN THE WEIR AND INLET FACE (MAXIMUM 6" APART).
 - PLACE THE ASSEMBLY AGAINST THE INLET THROAT AND NAIL ANCHORS (MINIMUM 2" LENGTHS OF 2" X 4") TO THE TOP OF THE WEIR AT SPACER LOCATIONS. THESE 2" X 4" ANCHORS SHALL EXTEND ACROSS THE INLET TOP AND BE HELD IN PLACE BY SANDBAGS OR ALTERNATE WEIGHT.
 - THE ASSEMBLY SHALL BE PLACED SO THAT THE END SPACERS ARE A MINIMUM 1' BEYOND BOTH ENDS OF THE THROAT OPENING.
 - FORM THE WIRE MESH AND FILTER CLOTH TO THE CONCRETE GUTTER AGAINST THE FACE OF CURB ON BOTH SIDES OF THE INLET. PLACE CLEAN 2" STONE OVER THE WIRE MESH AND FILTER FABRIC IN SUCH MANNER TO PREVENT WATER FROM ENTERING THE INLET UNDER OR AROUND THE FILTER CLOTH.
 - THIS TYPE OF PROTECTION MUST BE INSPECTED FREQUENTLY AND THE FILTER CLOTH AND STONE REPLACED WHEN CLOGGED WITH SEDIMENT.
 - ENSURE THAT STORM FLOW DOES NOT BYPASS INLET BY INSTALLING TEMPORARY EARTH OR ASPHALT DIKES DIRECTING FLOW INTO INLET.

INLET PROTECTION DETAIL

UTILITY CONSTRUCTION OUTSIDE SEDIMENT CONTROL PRACTICES

- EXCAVATED TRENCH MATERIAL SHALL BE PLACED ON UPSTREAM SIDE OF TRENCH.
- IMMEDIATELY FOLLOWING PIPE INSTALLATION, THE TRENCH SHALL BE BACKFILLED, COMPACTED AND IMMEDIATELY STABILIZED (MULCHED, SEEDED, AND/OR SODDED MECHANICAL STABILIZATION AT THE END OF EACH WORK DAY).
- SILT FENCE SHALL BE PLACED IMMEDIATELY DOWN STREAM OF ANY DISTURBED AREA INTENDED TO REMAIN DISTURBED LONGER THAN ONE (1) WORKING DAY. (SILT FENCE AS PER SCS STANDARD DRAWING - SF-1)
- THE CONTRACTOR SHALL DISTURB AND OPEN TRENCH THE MINIMUM PRACTICAL AREA REQUIRED TO ACCOMPLISH THE WORK DESIGNATED FOR EACH DAY.
- ALL SEDIMENT AND EROSION CONTROL PRACTICES AND VEGETATIVE STABILIZATION SHALL BE IN ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL IN DEVELOPING AREAS.

UTILITY CONSTRUCTION OUTSIDE SEDIMENT CONTROL

- Permanent Seeding Notes**
- Apply to graded or cleared areas not subject to immediate further disturbance where a permanent long-lived vegetative cover is needed.
- Seeded Preparation** - Loosen upper 3 inches of soil by raking, disking, or other acceptable means before seeding, if not 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./1,000 sq. ft.) and 1,000 lbs. per acre 10-10-10 fertilizer (4 lbs./1,000 sq. ft.) before seeding. Harrow or disk into upper 3 inches of soil. At time of seeding, apply 400 lbs. per acre 30-0-0 ureaform fertilizer (9 lbs./1,000 sq. ft.).
 - Acceptable** - Apply 2 tons per acre dolomitic limestone (92 lbs./1,000 sq. ft.) and 1,000 lbs. per acre 10-10-10 fertilizer (23 lbs./1,000 sq. ft.) before seeding. Harrow or disk into upper 3 inches of soil.
- Seeding** - For the periods March 1 through April 30, and August 1 through October 15, seed with 60 through July 31 seed with 60 lbs. Kentucky 31 Tall Fescue per acre and 2 lbs. per acre (0.5 lbs./1,000 sq. ft.) of weeping lovegrass. During the period of October 16 through 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) - Use sod. Option (3) - 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./1,000 sq. ft.) of unrattled small grain straw immediately after seeding. Anchor mulch immediately after applications using mulch anchoring tool or 28 gallons per acre (5 gal./1,000 sq. ft.) of emulsified asphalt on flat areas, on slopes 8 feet or higher, use 348 gallons per acre (18 gal./100 sq. ft.) for anchoring.
- Maintenance** - Inspect all seeding area and make needed repairs, replacements and reseeding.

Temporary Seeding Notes

- Apply to graded or cleared areas likely to be redistributed where a short-term vegetative cover is needed.
- Seeded Preparation** - Loosen upper 3 inches of soil by raking, disking, or other acceptable means before seeding, if not previously loosened.
- Soil Amendments** - Apply 600 lbs. per acre 10-10-10 fertilizer (4 lbs./1,000 sq. ft.)
- Seeding** - For the periods March 1 through April 30, and August 1 through October 15, seed with 2 1/2 bushels per acre of annual ryegrass (3.2 lbs./1,000 sq. ft.). For the period May 1 through August 14, seed with 3 lbs. per acre of weeping lovegrass (0.7 lbs./1,000 sq. ft.). For the period November 16 through February 28, protect site by applying 2 tons per acre of well anchored straw mulch and seed as soon as possible in the spring, or use sod.
- Mulching** - Apply 1 1/2 to 2 tons per acre (70 to 90 lbs./1,000 sq. ft.) of unrattled small grain straw immediately after seeding. Anchor mulch immediately after applications using mulch anchoring tool or 28 gallons per acre (5 gal./1,000 sq. ft.) of emulsified asphalt on flat areas, on slopes 8 feet or higher, use 348 gallons per acre (18 gal./100 sq. ft.) for anchoring.

SEEDING NOTES

Refer to the 1983 Maryland Standards and Specifications for Soil Erosion and Sediment Control for additional rates and methods not covered.

Vegetative Stabilization with Sod

- A. Specifications**
- Class of turfgrass sod shall be Maryland or Virginia State Certified, or Maryland or Virginia State approved sod.
 - Sod shall be machine cut of a uniform sod thickness of 3/4 inch, plus or minus 1/4 inch, at the time of cutting. Measurement for thickness shall exclude top growth and thatch.
 - Standard size sections of sod shall be strong enough to support their own weight and retain their size and shape when suspended vertically with a firm grasp on the upper 10 percent of the section.
 - Individual pieces of sod shall be cut to the suppliers width and length. Maximum allowable deviation from standard width and lengths shall be 5 percent. Broken pads and torn or uneven ends will not be acceptable.
 - Sod shall be harvested or transplanted when moisture content (excessively dry or wet) may adversely affect its survival.
 - Sod shall be banded, delivered and installed within a period of 36 hours. Sod not transplanted within this period shall be inspected and approved prior to its installation.
- B. Site Preparations**
- Fertilizer and lime application rates shall be determined by soil tests, under unusual circumstances where there is insufficient time for a complete soil test, fertilizer and lime materials may be applied in amounts shown under 2. below.
- Prior to sodding, the surface shall be cleared of all trash, debris, and of all roots, brush, wire grade stakes and other objects that would interfere with planting, fertilizing, maintenance operations.
 - Where the soils acid or composed of heavy clays and lime stone sods shall be applied at the rate of 2 tons/acre of 100 pounds per 1,000 square feet. In all soils, 1,000 pounds per acre of 25 pounds per 1,000 square feet of 10-10-10 fertilizer or equivalent shall be uniformly applied and mixed into the top 3 inches of soil with the required lime.
 - All areas receiving sod shall be uniformly fine graded. Hard-packed earth shall be scarified prior to placement of sod.
- C. Sod Installation**
- During periods of excessively high temperature the soil shall be lightly irrigated immediately prior to laying the sod.
 - The first row of sod shall be laid in a straight line with subsequent rows placed parallel to and tightly wedged against each other. Lateral joints shall be staggered to promote more uniform growth and strength. Insure that sod is not stretched or overlapped and that all joints are butted tight in order to prevent voids which would cause air drying of the roots.
 - On sloping areas where erosion may be a problem, sod shall be laid with the long edges parallel to the contour and with staggered joints. Secure the sod by tamping and pegging or other approved methods.
 - As sodding is completed in any one section, the entire area shall be rolled or tamped to insure solid contact of roots with the soil surface. Sod shall be watered immediately after rolling or tamping until the underside of the new sod pad and soil surface below the sod are thoroughly wet. The operations of laying, tamping and irrigating for any piece of sod shall be completed within eight hours.
- C. Sod Maintenance**
- In the absence of adequate rainfall, watering shall be performed daily or as often as necessary during the first week and in sufficient quantities to maintain moist soil to a depth of 4 inches. Watering should be done during the heat of the day to prevent wilting.
 - After the first week, sod shall be watered as necessary to maintain adequate moisture and insure establishment.
 - First mowing should not be attempted until sod is firmly rooted. No more than 1/3 of the grass leaf shall be removed by the initial cutting of subsequent cuttings. Grass height shall be maintained between 2 and 3 inches unless otherwise specified.
 - Maintenance of established sod shall follow specifications outlined in Table S4-4.

SODDING NOTES

DEVELOPERS 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.

Cathleen Conley Young 3/20/94
CATHLEEN CONLEY YOUNG 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.

Larry W. Waller 5-29-94
LARRY W. WALLER Date

Reviewed for Howard Soil Conservation District and meets Technical Requirements.

Patricia English 6/1/94
U.S. Soil Conservation Service Date

This Development Plan is Approved for Soil Erosion and Sediment Control by the Howard Soil Conservation District.

John P. Blanton 6/1/94
Howard Soil Conservation District Date

APPROVED
PLANNING BOARD
OF HOWARD COUNTY
DATE 10 May 94

APPROVED: FOR PUBLIC WATER & PUBLIC SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT	DATE 6-24-94
APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING	DATE 6/27/94
APPROVED: FOR PUBLIC WATER & PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS, HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS	DATE 6/24/94
DATE 6/20/94	DATE 6/20/94

Date	No.	Revision Description
RENOVATIONS TO WILDE LAKE HIGH SCHOOL		
OWNER / DEVELOPER:		
HOWARD COUNTY PUBLIC SCHOOL SYSTEM		
10910 RT.108		
ELLCOTT CITY, MARYLAND 21042-6198		
DMW		
Darr McCrease Walker, Inc. 590 East Pennsylvania Avenue Towson, Maryland 21286 (410) 286-4333 Fax 286-4706		
A Team of Land Planners, Landscape Architects, Engineers, Surveyors & Environmental Professionals		
SECTIONAL MARK	SECTION/AREA	CITY/BLK #
VILLAGE OF WILDE LAKE	SEC. 11 / AREA 1	1 / 280
PLAT OR REF.	BLOCK #	LOT #
15-90-31	28 / 24	6054
WATER CODE	SEWER CODE	
E 30	SE23900	
TITLE		
SEDIMENT AND EROSION CONTROL DETAILS		
Des By	CRW	Scale AS NOTED
Drn By	SPF	Date 5/16/94
Chk By	LWW	Approved
		18 OF 37



THERE IS NO AS-BUILT INFORMATION ON THIS SHEET
TOM TURNER PE # 16997, 08/12/2016

6-2-94
Date



Professional Engr. No. 16998

PLANT LIST

Wide Lake High School
Project No. 93051.80

KEY	QTY.	BOTANICAL NAME/ COMMON NAME	SIZE	COND.	REMARKS
Shade Trees					
AR	11	Acer rubrum 'Red Sunset' Red Sunset Red Maple	2 1/2-3" Cal.	B&B	Minimum 25' OC
AG	7	Acer ginnala Amur Maple	8-10'	B&B	Multi stem
FA	16	Fraxinus americana 'Autumn Purple' Autumn Purple Ash	2 1/2-3" Cal.	B&B	
FP	6	Fraxinus pennsylvanica 'Newport' Newport Ash	2 1/2-3" Cal.	B&B	Minimum 25' OC
QA	3	Quercus acutissima Sawtooth Oak	2 1/2-3" Cal. 12-14"	B&B	
TT	13	Tilia tomentosa 'Green Mountain' Green Mountain Silver Linden	2 1/2-3" Cal. 12-14"	B&B	Minimum 25' OC
Ornamental Trees					
AC	7	Acer campestre Hedge Maple	8-10'	B&B	Multi stem
CC	9	Cercis canadensis 'Forest Pansy' Forest Pansy Redbud	8-10'	B&B	Minimum 12' OC
CK	5	Cornus kousa Kousa Dogwood	8-10'	B&B	Minimum 12' OC
CL	8	Crataegus laevigata 'Superba' Crimson Cloud Hawthorn	8-10'	B&B	Minimum 12' OC
CV	8	Crataegus viridis 'Winter King' Winter King Hawthorn	8-10'	B&B	Minimum 12' OC
MZ	4	Malus 'Zumi Wooster' Zumi Crabapple	8-10'	B&B	Minimum 12' OC
PP	3	Prunus serotina pendula 'Pink Cloud' Pink Cloud Weeping Cherry	3 1/2-4" Cal. Ground level grafts	B&B	Minimum 12' OC
Evergreen Trees					
PA	9	Picea abies Norway Spruce	6-8'	B&B	Minimum 9' OC
PS	1	Pinus strobus White Pine	6-8'	B&B	Minimum 9' OC
PB	8	Pinus thunbergii Japanese Black Pine	6-8'	B&B	Minimum 9' OC
Shrubs					
IG	52	Ilex glabra 'Shamrock' Shamrock Inkberry	2 1/2-3"	Cont.	4' OC
KL	42	Kalmia latifolia 'Ballif' Ballif Mountain Laurel	18-24"	Cont.	4' OC
PC	12	Pyracantha coccinea 'Lowboy' Lowboy pyracantha	18-24"	2' OC	
PF	10	Photinia fraseri Red Tipped Photinia	18-24"	4' OC	
RP	20	Rhododendron PJM PJM Rhododendron	18-24"	5' OC	
VB	4	Viburnum x burkwoodii 'Mohawk' Mohawk Fragrant Viburnum	18-24"	Cont.	Minimum 6' OC
VC	7	Viburnum x chesapeake Chesapeake Viburnum	18-24"	Cont.	Minimum 6' OC
VR	16	Viburnum rhytidophyllum Leatherleaf Viburnum	18-24"	Cont.	6' OC
Groundcovers					
HH	840	Hedera helix 'Baltica' Baltic Ivy	4" Pots	8' OC	
LP	644	Liriodendron platyphyllum 'Big Blue' Big Blue Liriodendron	4" Pots	12' OC	
MD	144	Microbiota decussata Siberian Carpet	12-15"	2 Gal. Cont.	3' OC
PT	370	Pachysandra terminalis Pachysandra	4" Pots	12' OC	
Ornamental Trees					
MS	7	Malus 'Snowdrift' Snowdrift Crabapple	8-10'	B&B	Minimum 12' OC
Shrubs					
SC	52	Spiraea alba Compact White Spirea	18-24"	4' OC	



1. Remove the plant either by cutting or inverting the container.
2. Use a knife or sharp blade to make 4 to 5 one inch cuts the length of the root ball.
3. Plant shrub or tree 1 to 2 inches above the existing grade.
4. Apply 2 to 3 inch thick layer of shredded hardwood mulch.

PLANTING CONTAINER STOCK

SCHEDULE A PERIMETER LANDSCAPE EDGE

Category	Adjacent to Roadways	Adjacent to Perimeter Properties
Landscape Type		E
Linear Feet of Roadway Frontage/Perimeter		70 LF Parking Lot
Credit for Existing Vegetation (Yes, No, Linear Feet) (Describe below if needed)		NA
Credit for Wall, Fence, or Berm (Yes, No, Linear Feet) (Describe below if needed)		NA
Number of Plants Required		1
Shade Trees		-
Evergreen Trees		17
Shrubs		-
Number of Plants Provided		2
Shade Trees		-
Evergreen Trees		-
Other Trees (2:1 substitution)		-
Shrubs (10:1 substitution)		18
(Describe plant substitution credits below if needed)		

SCHEDULE A PERIMETER LANDSCAPE EDGE

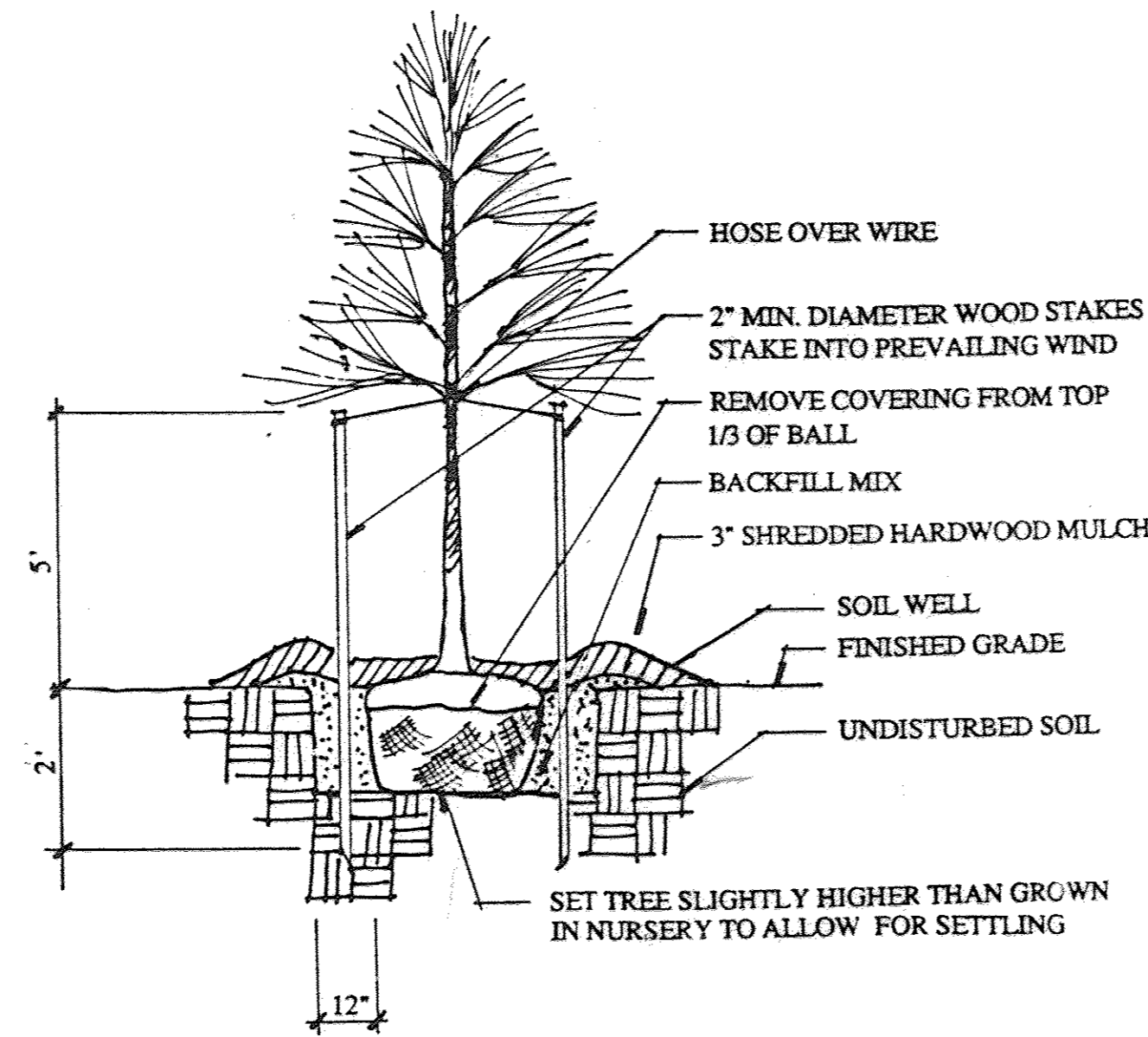
Category	Adjacent to Roadways	Adjacent to Perimeter Properties
Landscape Type		B
Linear Feet of Roadway Frontage/Perimeter		520 LF
Credit for Existing Vegetation (Yes, No, Linear Feet) (Describe below if needed)		NA
Credit for Wall, Fence, or Berm (Yes, No, Linear Feet) (Describe below if needed)		NA
Number of Plants Required		10
Shade Trees		10
Evergreen Trees		-
Shrubs		-
Number of Plants Provided		19 (2 Evergreen Trees)
Shade Trees		-
Evergreen Trees		-
Other Trees (2:1 substitution)		16 (8 Evergreen Trees)
Shrubs (10:1 substitution)		-
(Describe plant substitution credits below if needed)		

SCHEDULE A PERIMETER LANDSCAPE EDGE

Category	Adjacent to Roadways	Adjacent to Perimeter Properties
Landscape Type		C
Linear Feet of Roadway Frontage/Perimeter		305 LF
Credit for Existing Vegetation (Yes, No, Linear Feet) (Describe below if needed)		NA
Credit for Wall, Fence, or Berm (Yes, No, Linear Feet) (Describe below if needed)		NA
Number of Plants Required		7
Shade Trees		-
Evergreen Trees		15
Shrubs		-
Number of Plants Provided		3
Shade Trees		-
Evergreen Trees		22 (4 Shade Trees)
Other Trees (2:1 substitution)		11
Shrubs (10:1 substitution)		33
(Describe plant substitution credits below if needed)		

SCHEDULE B PARKING LOT INTERNAL LANDSCAPING

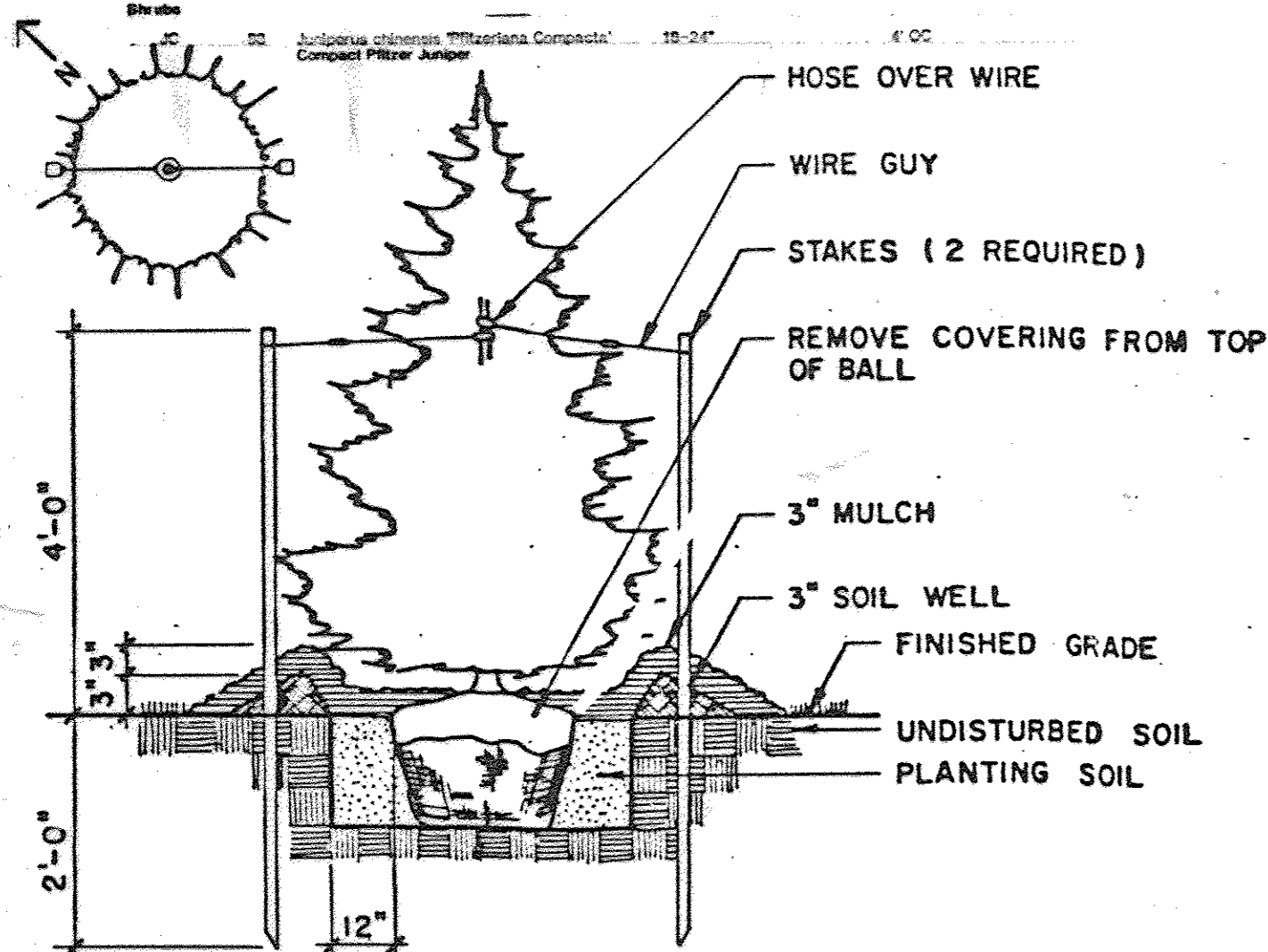
Category	Adjacent to Roadways	Adjacent to Perimeter Properties
Number of Parking Spaces		177
Number of Trees Required		9
Number of Trees Provided		17
Shade Trees		5
Other Trees (2:1 substitution)		-



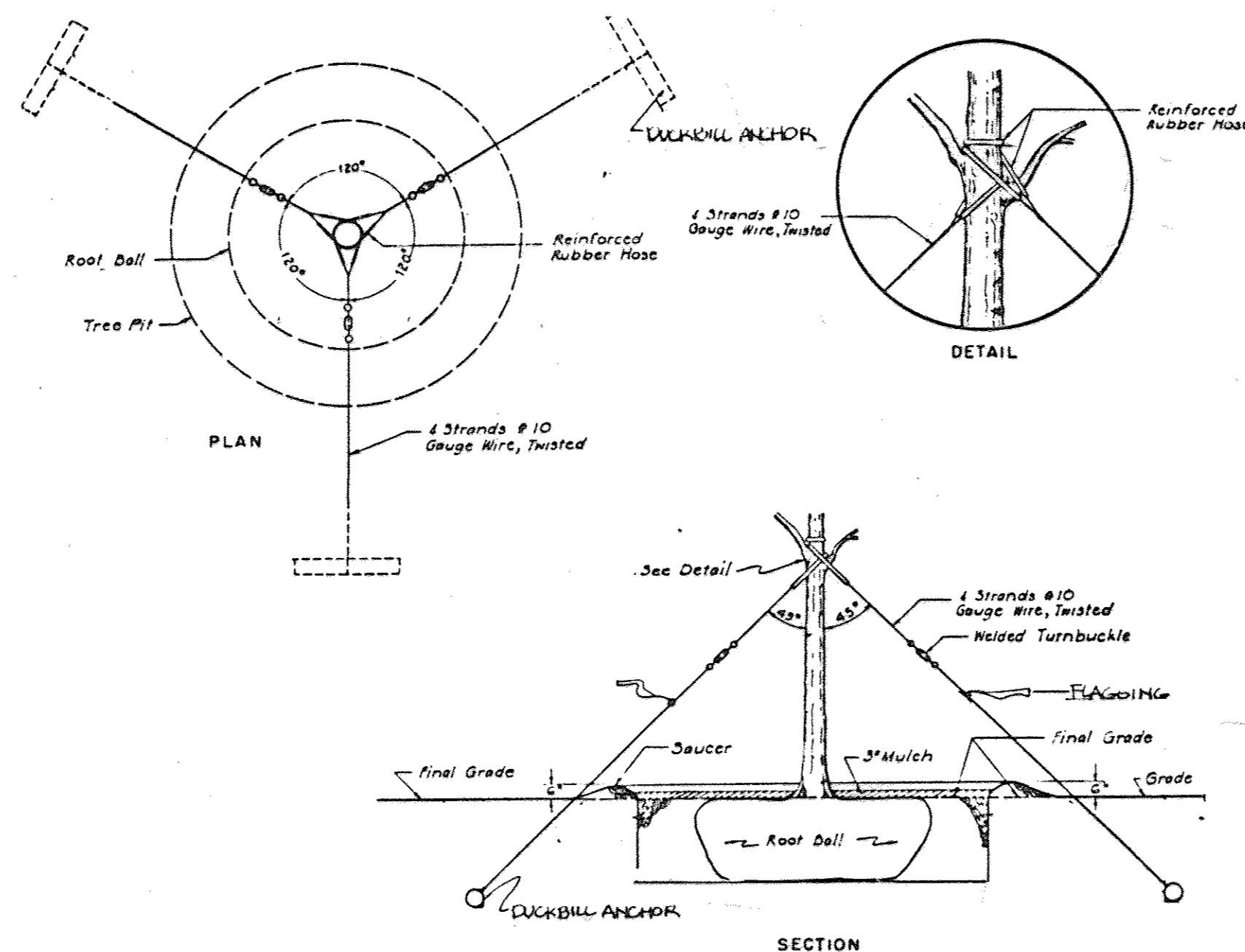
DECIDUOUS TREE STAKING (2 1/2"-3" CAL. MAX.)

Planting Notes:

1. Plant material substitutions subject to approval of the landscape architect.
2. Plant material shall be tagged at the source by the landscape architect unless this requirement is specifically waived.
3. Locations of all plant material shall be staked for approval by landscape architect.
4. All shrubs and groundcover areas shall be planted in continuous prepared planting beds mulched with composted hardwood mulch as detailed and specified except where noted on plans.
5. Maintain positive drainage at planting beds (minimum 2% slope).
6. Contractor shall verify accuracy of base information and existing conditions in field. Bid shall be based on actual site conditions. No extra payment shall be made for work arising from site conditions differing from those indicated on drawings and specifications.
7. All areas within contract limits disturbed during or prior to construction not designated to receive plantings and mulch shall be fine graded and seeded in accordance with planting plan and specifications.
8. The contractor shall notify Miss Utility a minimum of three working days prior to planting and construction.
9. Damage to existing conditions and utilities shall be repaired at the expense of the contractor.
10. All plant material shall be nursery grown and shall conform to American Nurserymen Association standards.
11. All planting procedures shall conform to Landscape Contractor Association Specifications Guidelines for Baltimore/Washington metropolitan area (latest edition) and Daft-McCune-Walker, Inc., specifications.
12. Plant quantities are provided for the convenience of the contractor only. If discrepancies exist between quantities shown on plan and those shown on the plant list, the quantities on the plan take precedence.
13. This plan has been prepared in accordance with the provisions of Section 16.124 of the Howard County Code and the Landscape Manual.



EVERGREEN TREE STAKING



TREE GUYING / WEEPING CHERRY

SCHEDULE B PARKING LOT INTERNAL LANDSCAPING

Category	Adjacent to Roadways	Adjacent to Perimeter Properties
Number of Parking Spaces		34
Number of Trees Required		2
Number of Trees Provided		2
Shade Trees		-
Other Trees (2:1 substitution)		-

APPROVED
PLANNING BOARD
of HOWARD COUNTY
DATE 12 May 94

APPROVED: FOR PUBLIC WATER & PUBLIC SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT	<u>John W. Balaban, Jr.</u>	6-24-94
COUNTY HEALTH OFFICER		DATE
APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING	<u>James R. Smith</u>	6/27/94
DIRECTOR		DATE
APPROVED: CHIEF, LAND DEVELOPMENT & RESEARCH	<u>Anna J. Johnson</u>	6/24/94
CHIEF, LAND DEVELOPMENT & RESEARCH		DATE
APPROVED: FOR PUBLIC WATER & PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS, HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS	<u>James P. Lee</u>	6/20/94
DIRECTOR		DATE
APPROVED: CHIEF, BUREAU OF ENGINEERING	<u>Paul W. Szymon</u>	6/20/94
CHIEF, BUREAU OF ENGINEERING		DATE

8/21/96	ADDITIONAL PLANTS (FOR NEW PARKING)	
Date	No.	Revision Description

RENOVATIONS TO WILDE LAKE HIGH SCHOOL

OWNER / DEVELOPER:
HOWARD COUNTY PUBLIC SCHOOL SYSTEM
10910 RT.108
ELLICOTT CITY, MARYLAND 21042-6198

DMW

Daft-McCune-Walker, Inc.
300 East Pennsylvania Avenue
Towson, Maryland 21286
(410) 296-3333
Fax 296-4705

A Team of Land Planners, Landscape Architects, Engineers, Surveyors & Environmental Professionals

SUBDIVISION NAME	SECTION	SEC. 11 AREA 1	1/280
VILLAGE OF WILDE LAKE			
1590.97	BLK # 100	TRACT # 100	6054
WATER CODE	SEWER CODE		
E 30	S523900		

PLANTING DETAILS & NOTES

Des By	Scale 1" = 40'	Proj. No. 93051B
Dm By	Date 5/16/94	
Chk By	Approved	20 OF 37

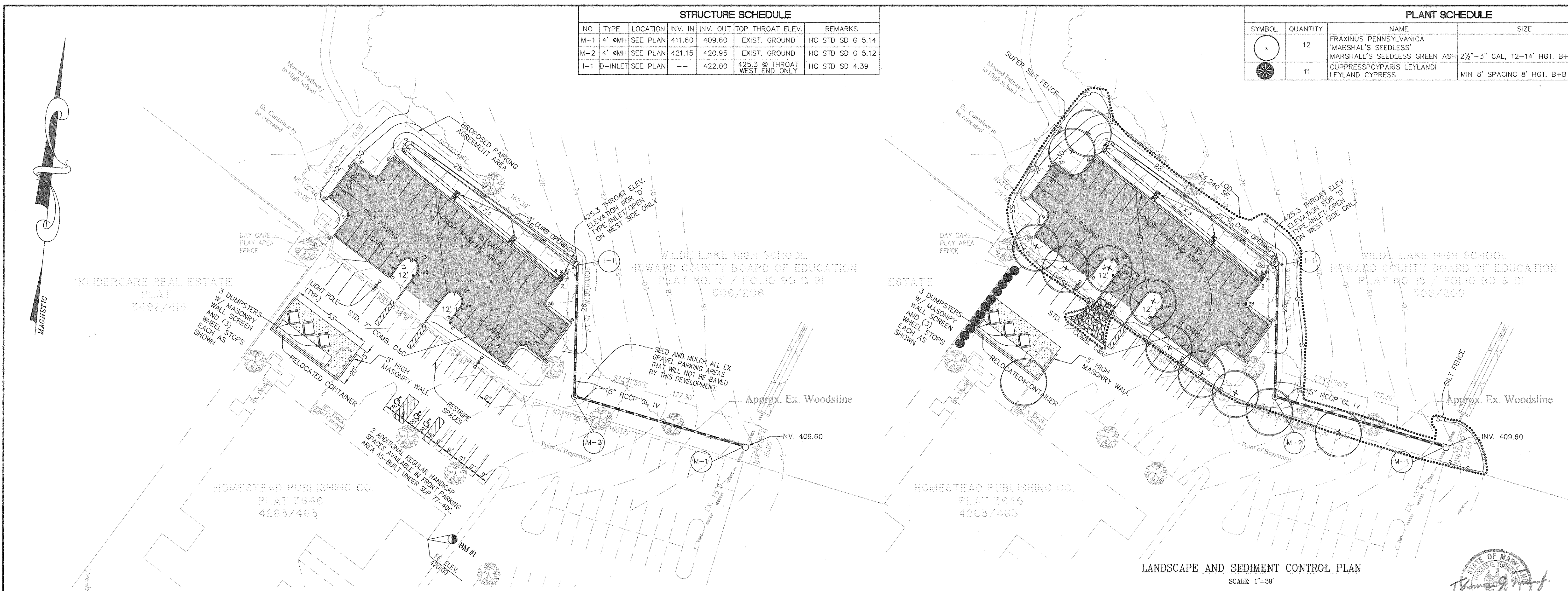
STATE OF MARYLAND
PROFESSIONAL ENGINEER
TOM TURNER
NO. 16997
EXPIRES 12/31/94

THERE IS NO AS-BUILT INFORMATION ON THIS SHEET
TOM TURNER PE # 16997, 08/12/2016

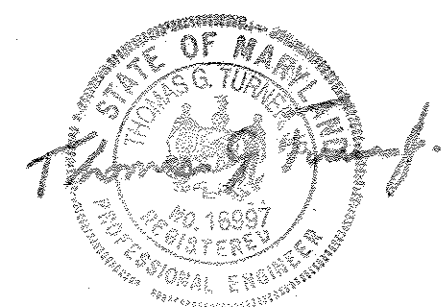
6.2.94
Date
STATE OF MARYLAND
PROFESSIONAL ENGINEER
TOM TURNER
NO. 16997
EXPIRES 12/31/94

STRUCTURE SCHEDULE						
NO	TYPE	LOCATION	INV. IN	INV. OUT	TOP THROAT ELEV.	REMARKS
M-1	4" ØMH	SEE PLAN	411.60	409.60	EXIST. GROUND	HC STD SD G 5.14
M-2	4" ØMH	SEE PLAN	421.15	420.95	EXIST. GROUND	HC STD SD G 5.12
I-1	D-INLET	SEE PLAN	--	422.00	425.3' Ø THROAT WEST END ONLY	HC STD SD 4.39

PLANT SCHEDULE				
SYMBOL	QUANTITY	NAME	SIZE	
⊙	12	FRAXINUS PENNSYLVANICA MARSHALL'S SEEDLESS MARSHALL'S SEEDLESS GREEN ASH	2 1/2" - 3" CAL. 12-14' HGT. B+B	
⊗	11	CUPRESSUS CYPRIS LEYLANDI LEYLAND CYPRESS	MIN 8' SPACING 8' HGT. B+B	



LANDSCAPE AND SEDIMENT CONTROL PLAN
SCALE: 1"=30'

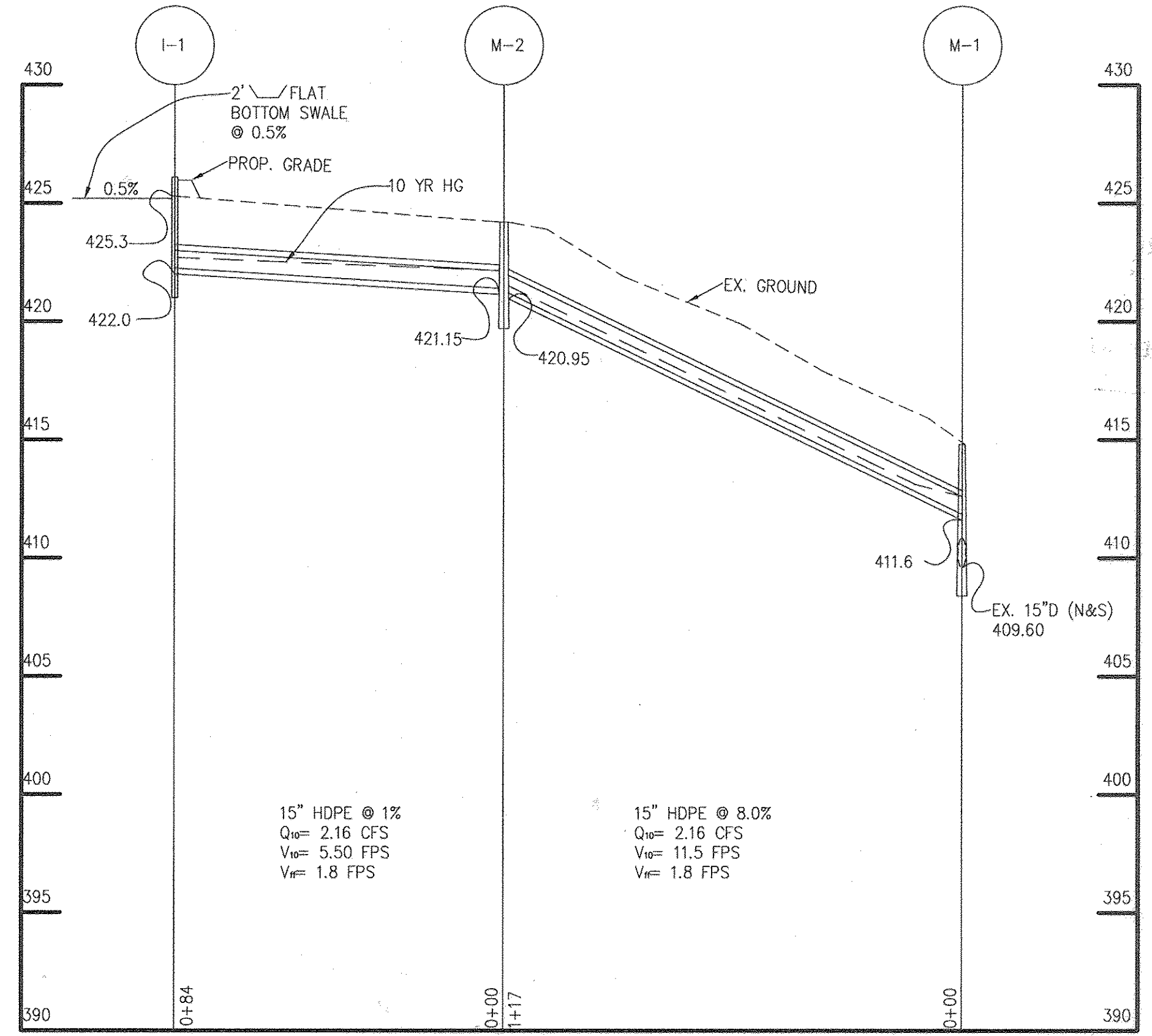
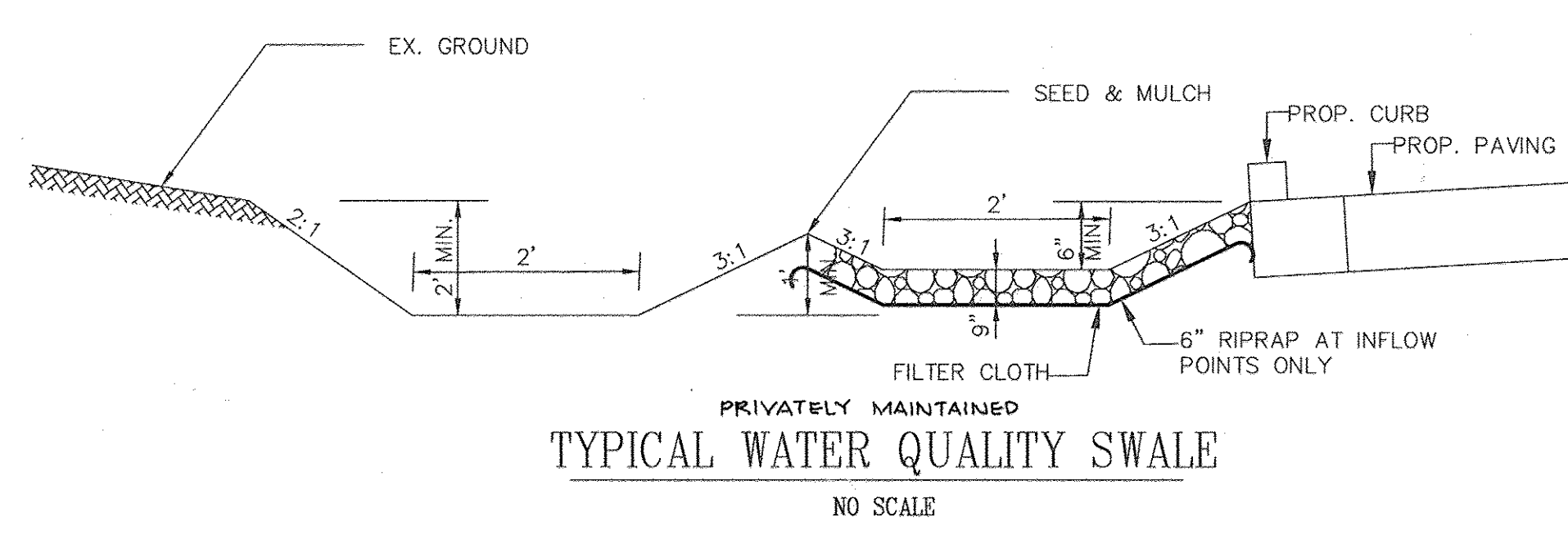


THERE IS NO AS-BUILT INFORMATION ON THIS SHEET
TOM TURNER PE# 16697, 08/12/2016

THE PURPOSE OF THIS REVISION IS TO EXPAND A PARKING LOT FOR THE ADJACENT PARCEL #27 AND CREATE A PARKING AGREEMENT WITH THE HOWARD COUNTY BOARD OF EDUCATION

PARKING TABULATION FROM SDP 77-40C	
TOTAL PARKING REQUIRED	= 60 SPACES
TOTAL PARKING PROVIDED	= 92 SPACES
(INCLUDES 4 REGULAR HANDICAP SPACES)	
PARKING LOST BY THIS CONSTRUCTION	= -7 SPACES
NET EXISTING PARKING	= 85 SPACES
PARKING PROVIDED BY THIS PLAN	= 31 SPACES

TOTAL PARKING 116 SPACES
INCLUDES 3 REGULAR HANDICAP SPACES AND 2 VAN ACCESSIBLE HANDICAP SPACES



PIPE PROFILE
SCALE: H= 1"=30'
V= 1"=5'

ENGINEER'S CERTIFICATE
I/WE 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 COUNTY SOIL CONSERVATION DISTRICT.
DATE: 12-2-03
ENGINEER: JOHN R. HEINRICHS, VICE PRESIDENT, PE#14920, PHOENIX ENGINEERING, INC.

DEVELOPER'S CERTIFICATE
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 MARYLAND DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT.
DATE: 12-2-03
DEVELOPER: PAT PATUXENT, PATUXENT PUBLISHING

REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS
DATE: 12/30/03
NATURAL RESOURCES CONSERVATION SERVICES

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT
DATE: 12/30/03
HOWARD S.C.D.

APPROVED: DEPARTMENT OF PLANNING AND ZONING
DATE: 1/7/04
CHIEF, DEVELOPMENT ENGINEERING DIVISION

DATE: 1/7/04
CHIEF, DIVISION OF LAND DEVELOPMENT

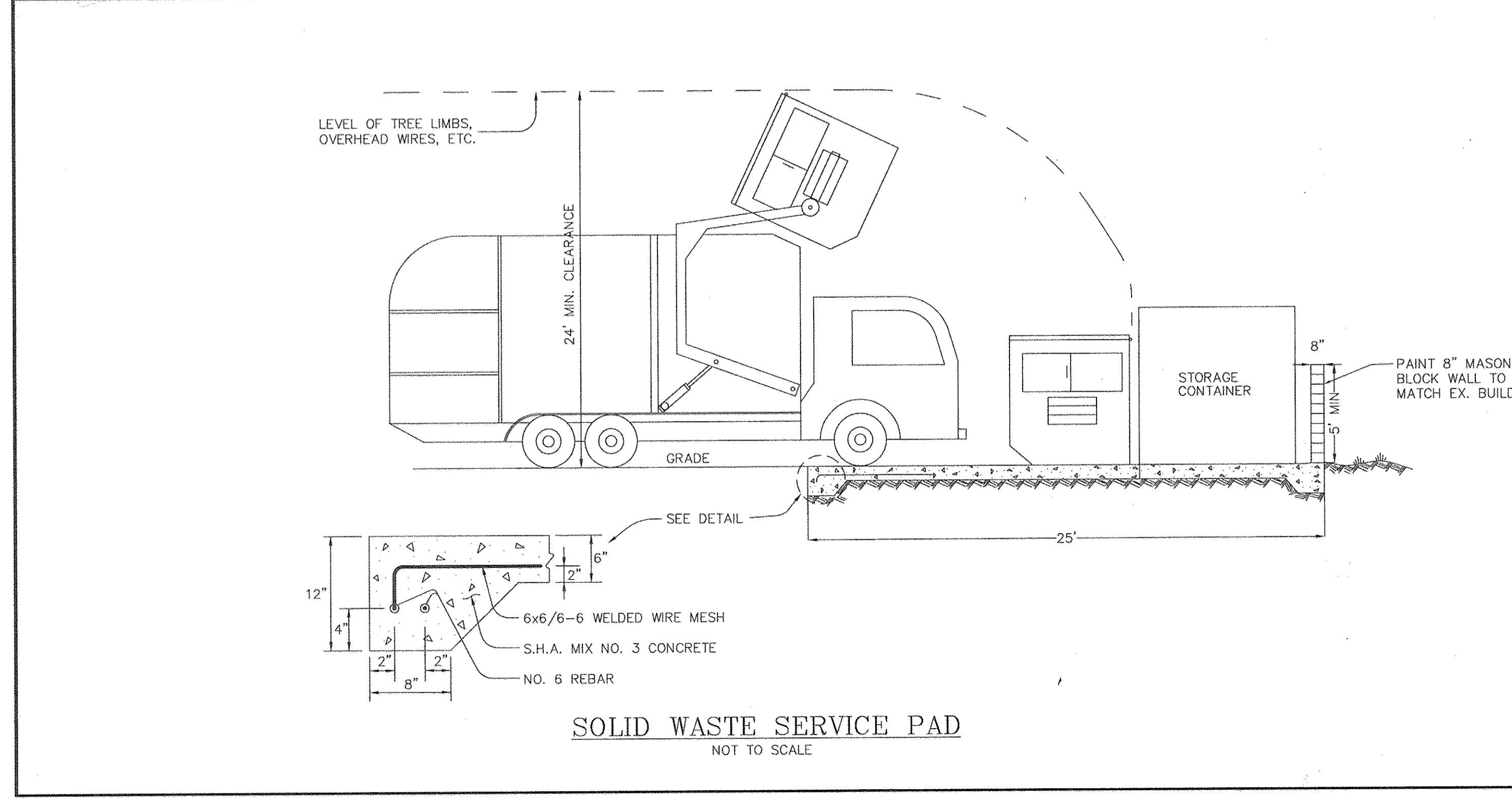
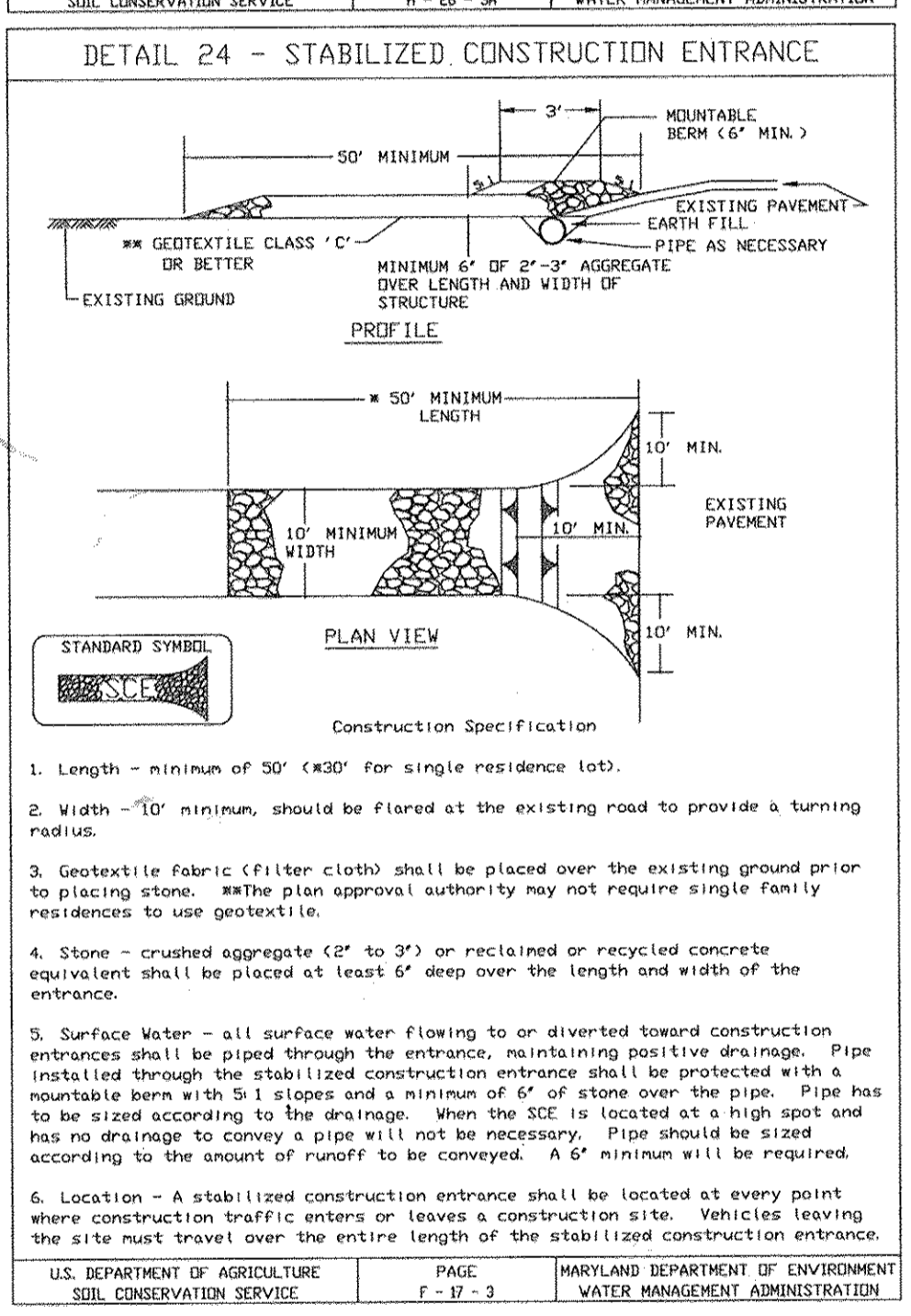
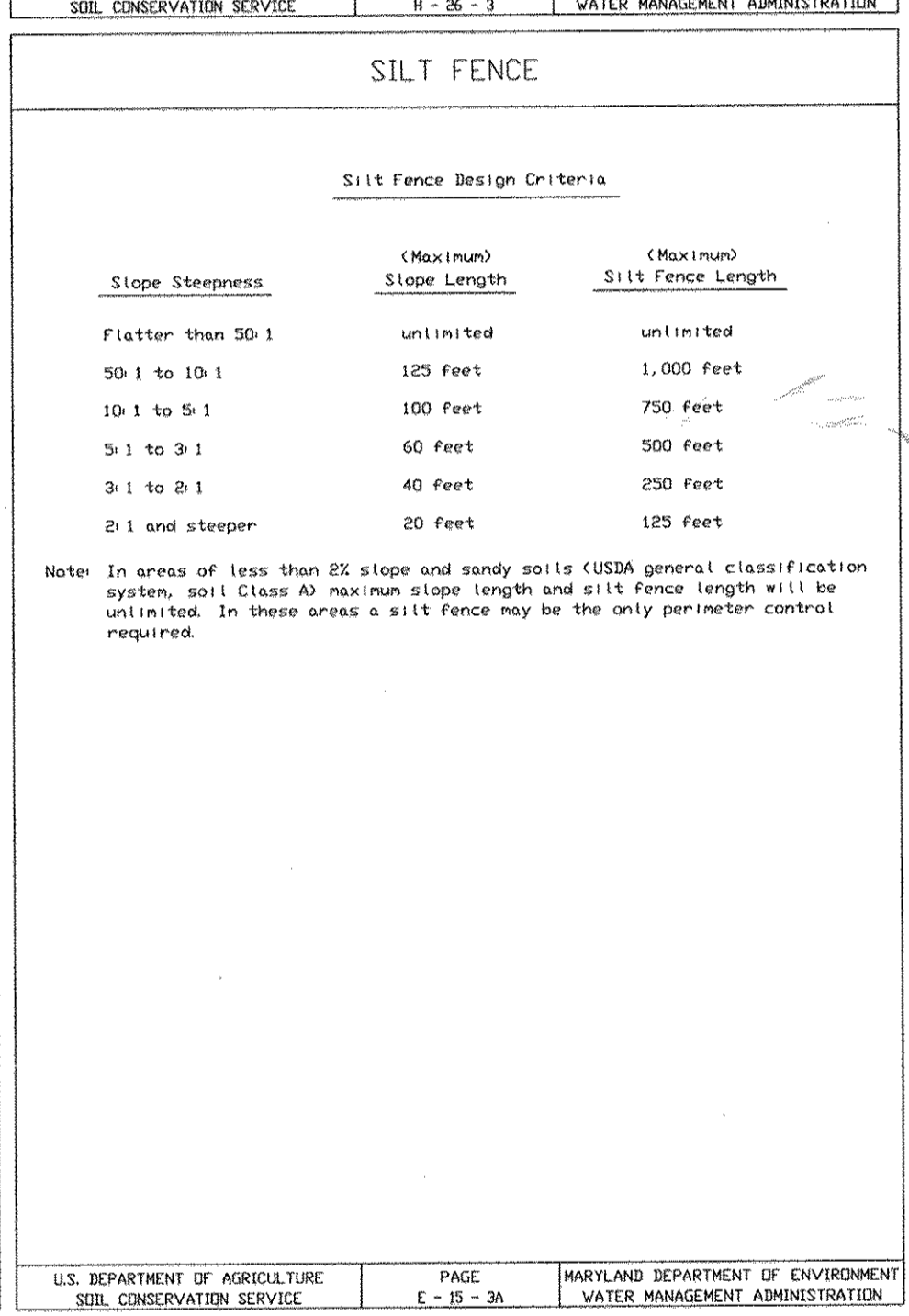
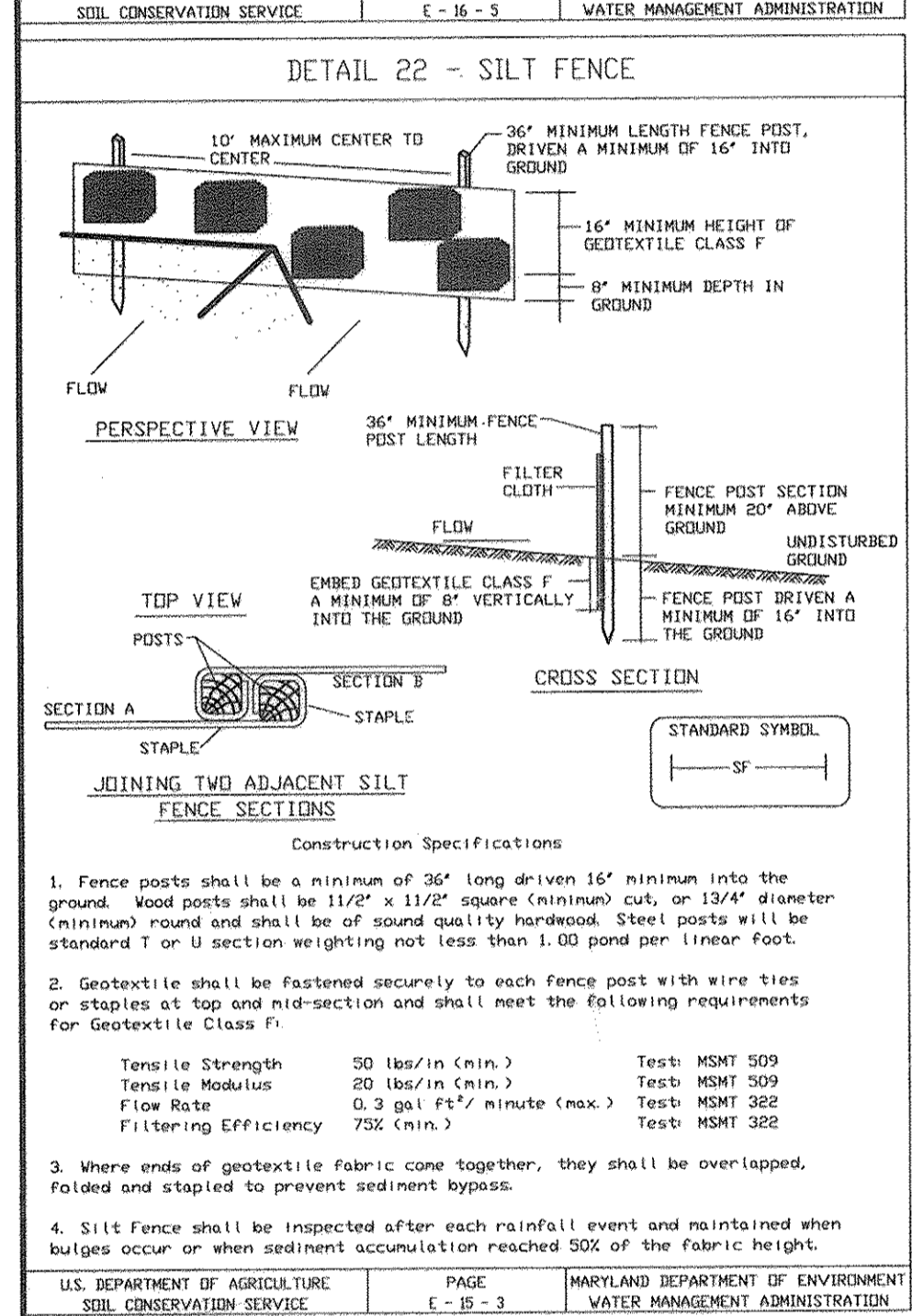
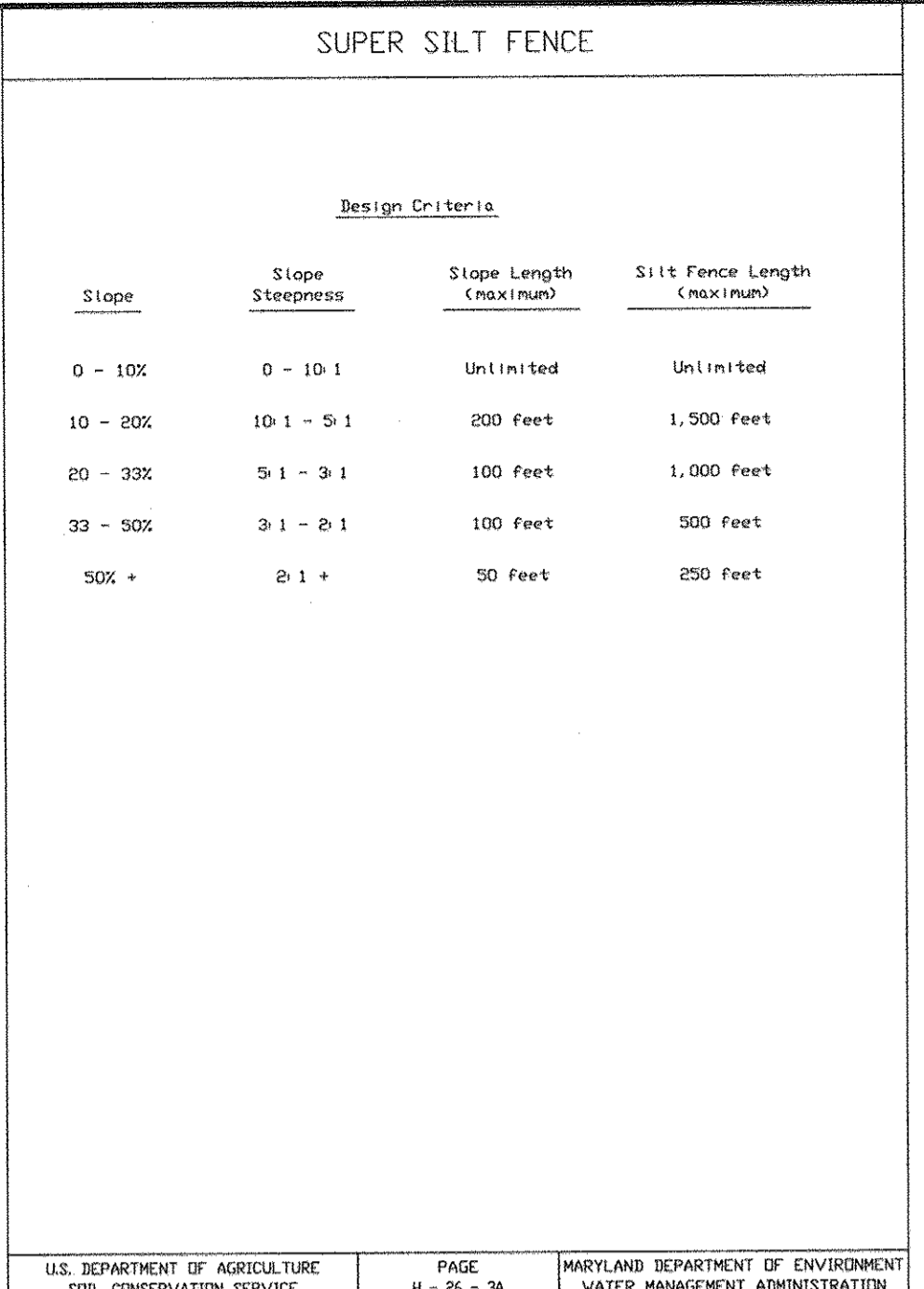
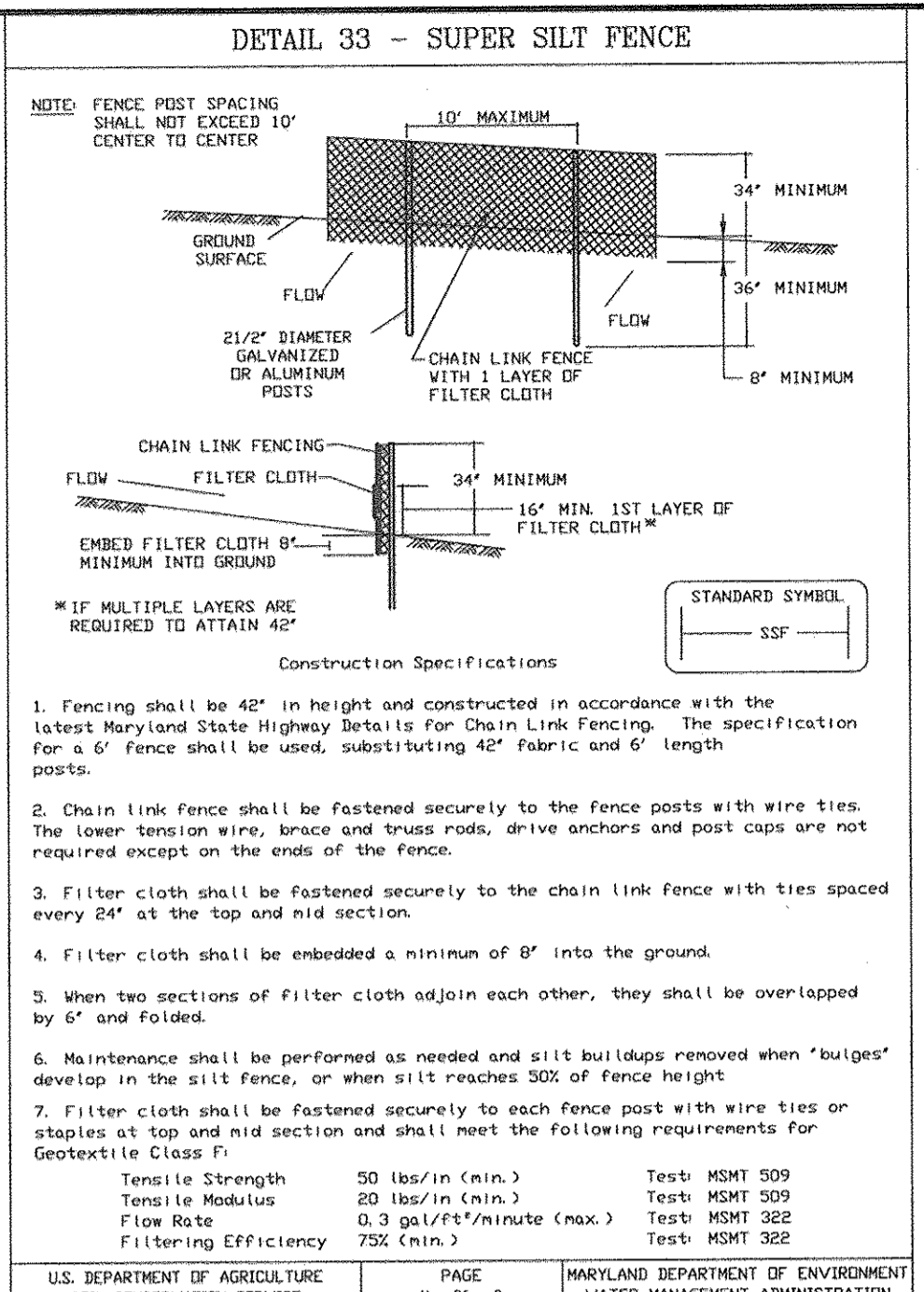
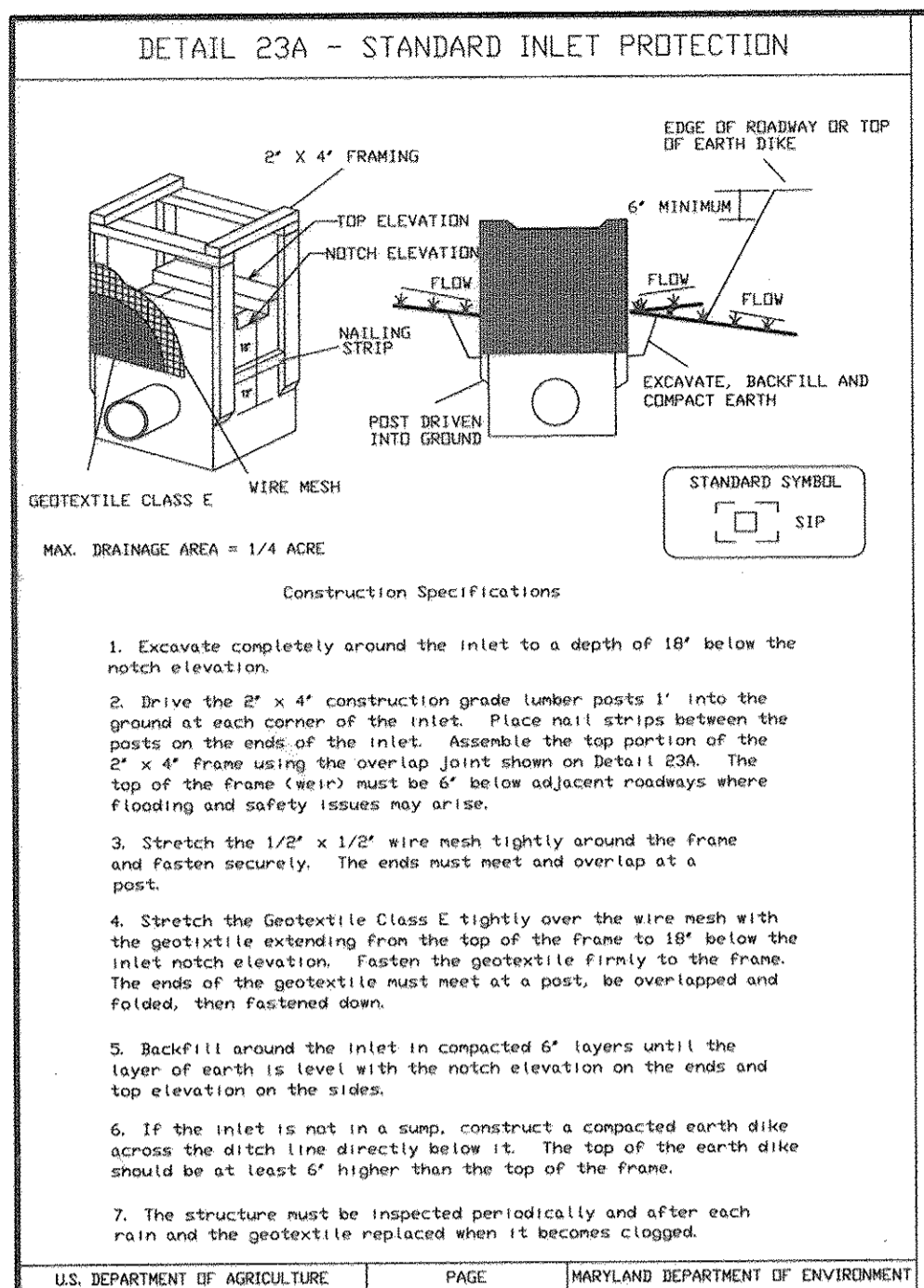
DATE: 1/8/04
DIRECTOR

APPROVED
PLANNING BOARD
of HOWARD COUNTY
DATE: October 8, 2003
Mark J. ...

12-2-03
JOHN R. HEINRICHS
Professional Engr. No. 14920

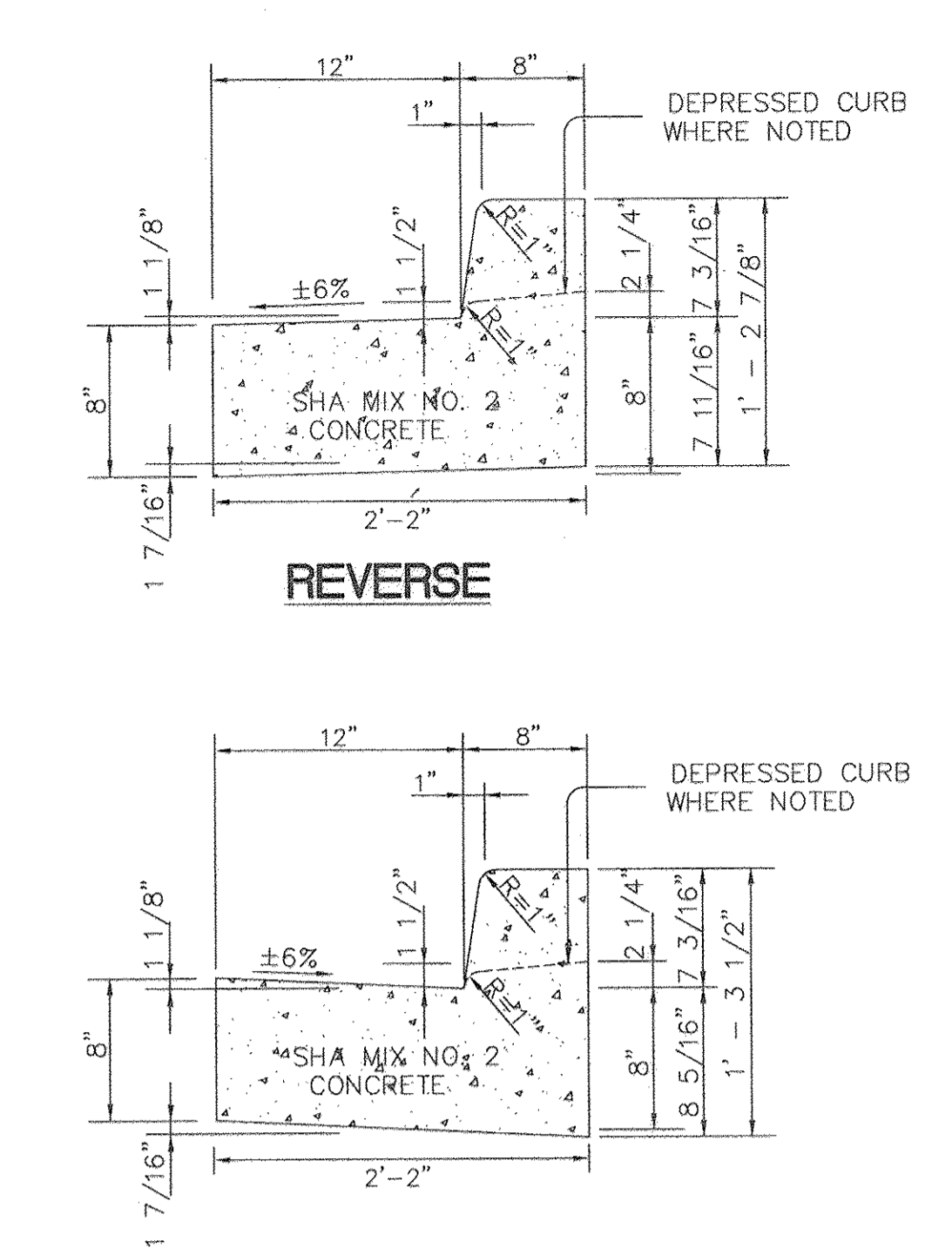
12-2-03	△	Add Parking Lot
Date	No	Revision Description
OWNER/DEVELOPER PATUXENT PUBLISHING 10750 LITTLE PATUXENT PARKWAY COLUMBIA, MARYLAND 21044-3106		
PREPARED FOR: NOTARI ASSOCIATES, P.A. 175 OSTEND STREET, SUITE 100 BALTIMORE, MARYLAND 21230 410 762-9330		
PHOENIX ENGINEERING, INC. CONSULTING ENGINEERS 1420 JOH AVE, SUITE A BALTIMORE, MARYLAND 21227 (410) 247-8653 FAX 247-9397		
AREA VILLAGE OF WILDE LAKE SECTION 10/AREA 5 - SECTION 11/AREA 1 COLUMBIA, MARYLAND		
TITLE REVISED SITE DEVELOPMENT PLAN		
Des By	RJW	Scale AS SHOWN
Drn By	SEW	Date JANUARY 2003
Chk By	JRH	Approved
Proj No	02-022	
		21 OF 37

G:\02102-022 Patuxent Publishing\9501.dwg Tue Dec 02 13:56:23 2003



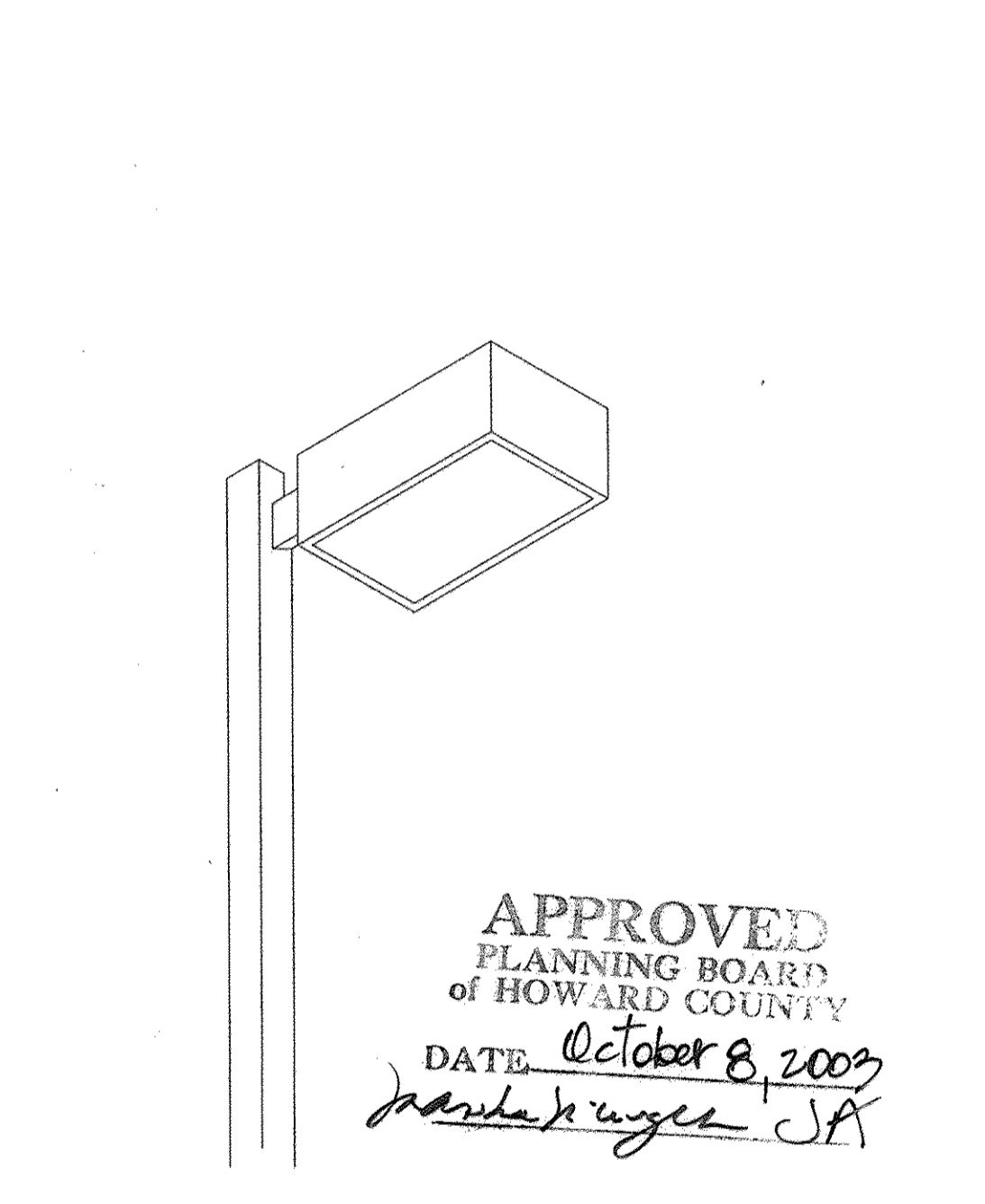
SEQUENCE OF CONSTRUCTION

DAY 1 OBTAIN A GRADING PERMIT
 DAY 2-3 INSTALL STABILIZED CONSTRUCTION ENTRANCE (SCE)
 DAY 4-6 CLEAR AND GRUB FOR AND INSTALL REMAINING SEDIMENT CONTROL DEVICES
 DAY 7-10 INSTALL STORM DRAIN AND INSTALL SIP IMMEDIATELY UPON COMPLETION
 DAY 11-15 ROUGH GRADE SITE AND STABILIZE AS PER TEMPORARY SEEDING NOTES
 DAY 16-30 CONSTRUCT CURBS AND PAVING
 DAY 31-33 FINE GRADE SITE AND STABILIZE AS PER PERMANENT SEEDING NOTES
 DAY 34-38 WHEN ENTIRE SITE HAS BEEN STABILIZED AND WITH PERMISSION FROM SEDIMENT CONTROL INSPECTOR, REMOVE ALL SEDIMENT CONTROL DEVICES AND STABILIZE AS PER PERMANENT SEEDING NOTES



HOWARD COUNTY DESIGN MANUAL VOLUME IV STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION (DRAWING R-3.01)

STANDARD COMBINATION CURB AND GUTTER
 NOT TO SCALE



NOTE: ALL SITE LIGHTING FIXTURES ARE LITHONIA 400 WATT METAL HALIDE TYPE, MODEL KAS2 400 M R3 (TYPE III) RECTILINEAR CUTOFF WITH 3400 LUMENS MOUNTED ON 20' HIGH SQUARE BLACK PAINTED STEEL POLES WITH HOUSE SHIELDS.

APPROVED PLANNING BOARD OF HOWARD COUNTY
 DATE October 8, 2003

STATE OF MARYLAND PROFESSIONAL ENGINEER
 JOHN R. HEINRICHS
 Professional Eng. No. 14920

12-2-03

PHOENIX ENGINEERING, INC.
 CONSULTING ENGINEERS
 1420 JOH AVE, SUITE A
 BALTIMORE, MARYLAND 21227
 (410) 247-8833 FAX 247-9397

AREA VILLAGE OF WILDE LAKE SECTION 10/AREA 5 - SECTION 11/AREA 1 COLUMBIA, MARYLAND

TITLE DETAIL SHEET

Des By: RJW Scale: AS SHOWN Proj No: 02-022
 Dwn By: SEW Date: JANUARY 2003 DRAWING NO:
 Ck'd By: JRH Approved: 22 OF 37

SDP 94-100

BITUMINOUS CONCRETE SURFACE
 BITUMINOUS CONCRETE BASE
 * 8" CRUSHER RUN BASE COURSE (2 COURSES)
 OR
 6" DENSE GRADED STABILIZED AGGREGATE BASE COURSE
 (ALTERNATE-PREFERRED)

BITUMINOUS CONCRETE SURFACE
 BITUMINOUS CONCRETE BASE

HOWARD COUNTY DESIGN MANUAL VOLUME IV STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION (DRAWING R-2.01)

P-2 PAVING
 NOT TO SCALE

THE PURPOSE OF THIS REVISION IS TO EXPAND A PARKING LOT FOR THE ADJACENT PARCEL #27 AND CREATE A PARKING AGREEMENT WITH THE HOWARD COUNTY BOARD OF EDUCATION.

ENGINEER'S CERTIFICATE
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 ENGINEER: JOHN R. HEINRICHS, VICE PRESIDENT PE#14920 DATE 12-2-03

DEVELOPER'S CERTIFICATE
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 DEVELOPER: PAT CONYERS PAT CONYERS DATE 12-2-03

APPROVED DEPARTMENT OF PLANNING AND ZONING
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE 1/7/04
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE 1/7/04
 DIRECTOR DATE 1/01/04

12-2-03 Add Parking Lot

OWNER/DEVELOPER PATUXENT PUBLISHING 10750 LITTLE PATUXENT PARKWAY COLUMBIA, MARYLAND 21044-3106

PREPARED FOR: NOTARI ASSOCIATES, P.A. 175 OSTEND STREET, SUITE 100 BALTIMORE, MARYLAND 21230 410 752-9330

AREA VILLAGE OF WILDE LAKE SECTION 10/AREA 5 - SECTION 11/AREA 1 COLUMBIA, MARYLAND

TITLE DETAIL SHEET

Des By: RJW Scale: AS SHOWN Proj No: 02-022
 Dwn By: SEW Date: JANUARY 2003 DRAWING NO:
 Ck'd By: JRH Approved: 22 OF 37

SDP 94-100

INDEX OF SHEETS

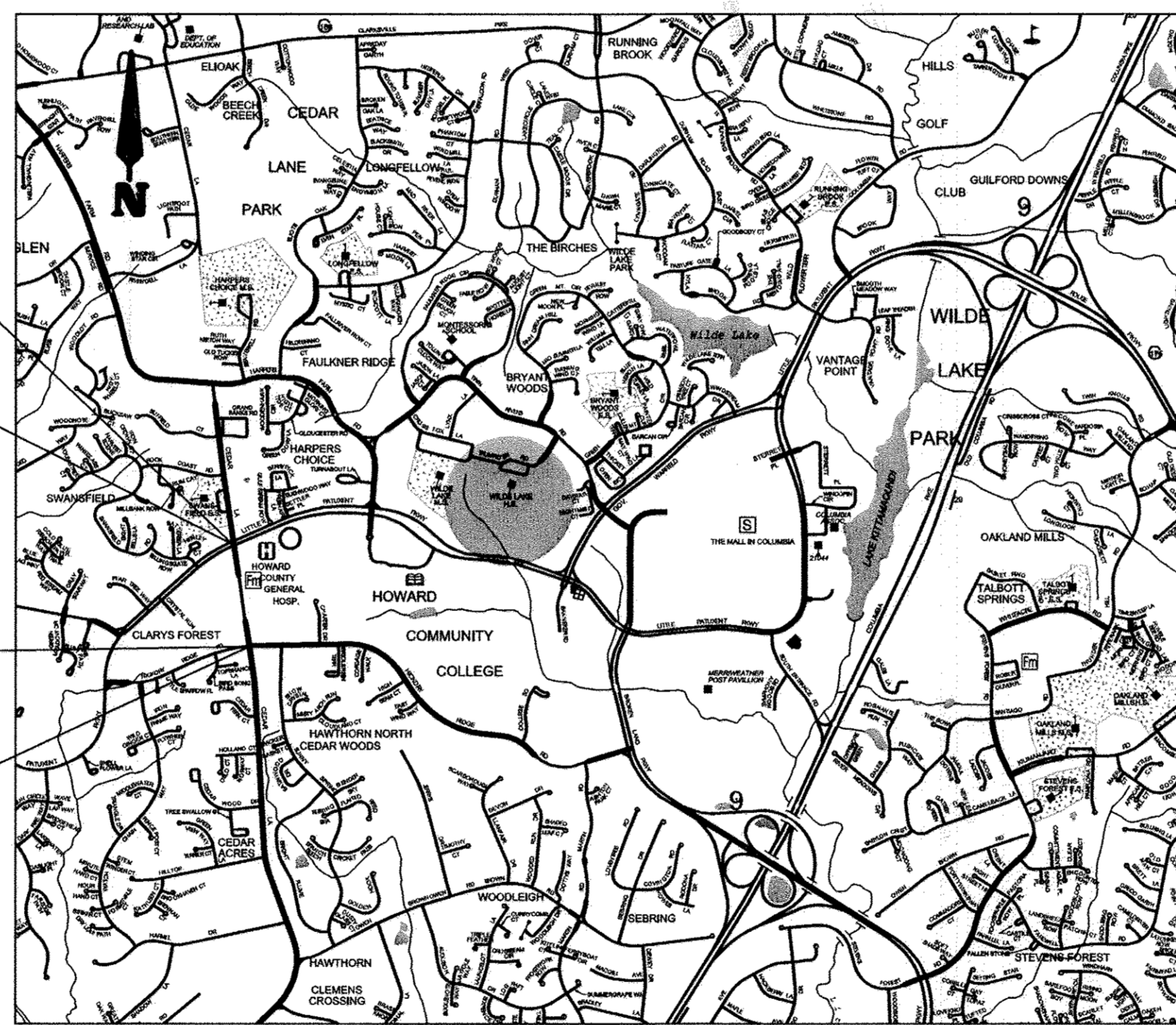
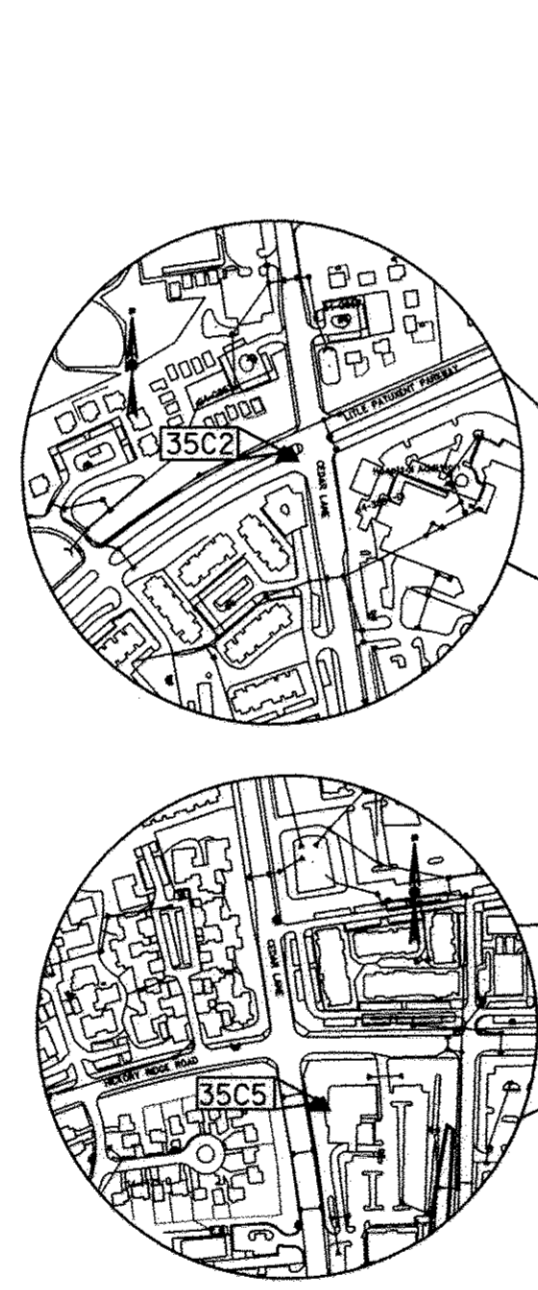
SHEET NO.	DESCRIPTION
1	COVER SHEET
2	DEMOLITION PLAN
3	SITE DEVELOPMENT PLAN
4	SITE DEVELOPMENT PLAN
5	DETAIL, PLAN VIEWS & CONSTRUCTION DETAILS
6	SITE CONSTRUCTION DETAILS
7	SITE CONSTRUCTION DETAILS
8	STORM DRAIN DRAINAGE AREA MAP
9	STORM DRAIN PROFILES
10	STORM DRAIN PROFILES & DETAILS
11	WATER SERVICE PROFILES & DETAILS
12	SANITARY SEWER HOUSE CONNECTION PROFILES
13	SEDIMENT & EROSION CONTROL COMPOSITE GRADING PLAN
14	SEDIMENT & EROSION CONTROL PLAN
15	SEDIMENT & EROSION CONTROL PLAN
16	SEDIMENT BASIN PLAN & PROFILES
17	SEDIMENT & EROSION CONTROL DETAILS
18	SEDIMENT & EROSION CONTROL DETAILS
19	PLANTING PLAN
20	PLANTING NOTES & DETAILS [21 - REVISED SITE DEVELOPMENT PLAN]
21	COVER SHEET [22 - DETAIL SHEET]
22	SWM PLAN
23	SWM STORM DRAIN PROFILE
24	SWM STORM DRAIN PROFILE
25	SWM DETAILS
26	SWM DETAILS
27	SWM DETAILS
28	SWM DETAILS
29	SWM DETAILS
30	SWM DETAILS
31	SWM DETAILS
32	DRAINAGE AREA MAP
33	EROSION AND SEDIMENT CONTROL NOTES
34	EROSION AND SEDIMENT CONTROL NOTES
35	EROSION AND SEDIMENT CONTROL NOTES
36	EROSION AND SEDIMENT CONTROL PLAN
37	EROSION AND SEDIMENT CONTROL DETAILS

RENOVATIONS TO WILDE LAKE HIGH SCHOOL (BMP RETROFIT)

LOT 1 VILLAGE OF WILDE LAKE SECTION 11 AREA 1 HOWARD COUNTY, MARYLAND

LEGEND

STABILIZED CONSTRUCTION ENTRANCE	
STANDARD INLET PROTECTION	
FILTER BAG	
RIPRAP PROTECTION	
LIMIT OF DISTURBANCE	
SUPER SILT FENCE	
DIVERSION FENCE	
CUT LINE	
EXISTING CONTOURS	
PROPOSED CONTOURS	
PROPOSED STORM DRAIN/BMP	
EXISTING UTILITIES	
EXISTING FENCE	
EDGE OF PAVEMENT	
EXISTING BUILDINGS	
EXISTING STORM DRAIN	
EDGE OF WATER	
EXISTING TREE LINE	



VICINITY MAP
SCALE: 1" = 2000
ADC MAP / GRID NO: 4935-A6

GENERAL NOTES

- THE CONTRACTOR SHALL NOTIFY THE HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS/BUREAU OF ENGINEERING CONSTRUCTION INSPECTION DIVISION AT (410)-313-1880 AND HOWARD COUNTY PUBLIC SCHOOLS AT (410)-313-6600 AT LEAST FIVE (5) WORKING DAYS BEFORE STARTING WORK. THE CONTRACTOR SHALL NOTIFY MISS UTILITY AT 1-(800)-257-7777 AT LEAST TWO (2) WORKING DAYS BEFORE STARTING WORK.
- 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:

	NORTH	EAST	ELEV.	PK NAIL
35C2	563920.8157	1344204.1592	463.465	BRASS DISK
35C5	562148.4453	1344954.4774	451.595	BRASS DISK

 THE SYSTEM OF COORDINATES USED IS BASED ON THE FOLLOWING DATUMS AND PROJECTIONS:
 HORIZONTAL: NAD83/07
 VERTICAL: NAVD88
- WATER IS PUBLIC. CONTRACT NUMBER E-30.
- SEWER IS PUBLIC. SEWER DRAINAGE AREA: PATUXENT CONTRACT NO. S523900
- THE STORMWATER MANAGEMENT FACILITY PROPOSED FOR THIS SITE IS PRIVATE AND CONSISTS OF TWO UNDERGROUND STORMFILTER SYSTEMS. HOWARD COUNTY PUBLIC SCHOOL SYSTEM SHALL ASSUME MAINTENANCE RESPONSIBILITY OF THESE FACILITIES AND THEIR COMPONENTS.
- THERE IS NO FLOODPLAIN ON THIS SITE WITHIN THE AREA OF CONSTRUCTION.
- THERE ARE NO WETLANDS ON THIS SITE IN THE AREA OF CONSTRUCTION. THE WETLAND DELINEATION FOR THIS PROJECT WAS PERFORMED BY CENTURY ENGINEERING IN DECEMBER, 2013.
- NO TRAFFIC STUDY IS REQUIRED FOR THE PROJECT.
- A GEOTECHNICAL STUDY FOR STORMWATER MANAGEMENT WAS PREPARED BY AB CONSULTANTS, INC. DATED NOVEMBER 21, 2013.
- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY.
- ALL WORK SHALL COMPLY WITH THE 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.
- TOPOGRAPHIC SURVEYS WERE PERFORMED BY AB CONSULTANTS, INC., IN JANUARY, 2014.
- THE PROPERTY LINES AND EASEMENT LINES ARE APPROXIMATE.
- SHOULD THE CONTRACTOR DISCOVER ANY DISCREPANCIES BETWEEN THE PLANS AND THE FIELD CONDITIONS, THE COUNTY IS TO BE NOTIFIED IMMEDIATELY TO RESOLVE THE SITUATION. SHOULD THE CONTRACTOR MAKE FIELD CORRECTIONS OR ADJUSTMENTS WITHOUT NOTIFYING THE COUNTY, THEN THE CONTRACTOR ASSUMES ALL RESPONSIBILITY FOR THOSE CHANGES.
- CONTRACTOR IS SOLELY RESPONSIBLE FOR CONSTRUCTION MEANS, METHOD, TECHNIQUES, SEQUENCES, PROCEDURES, AND SAFETY PRECAUTIONS AND PROGRAMS.
- APPROXIMATE UTILITIES ARE SHOWN FROM AVAILABLE RECORDS AND/ OR FIELD RECONNAISSANCE. THE CONTRACTOR SHALL TAKE ALL NECESSARY MEASURES TO LOCATE AND PROTECT THE EXISTING UTILITIES AND MAINTAIN UNINTERRUPTED SERVICE. ANY DAMAGE INCURRED DUE TO THE CONTRACTOR'S OPERATION SHALL BE REPAIRED IMMEDIATELY AT THE CONTRACTOR'S EXPENSE.

UTILITY CONTACTS:

BGE (ELECTRIC): (410)-597-7920
 BGE (GAS): (410)-291-4844
 VERIZON: (410)-224-9285
 COMCAST: (301)-630-7094

- THE HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS (DPW) HAS NO OBLIGATION OF REFORESTATION FOR THIS PROJECT.
- ALL SPECIFIED OR PROPRIETARY PRODUCTS SHOWN HEREON MAY BE SUBJECT TO SUBSTITUTION WITH OTHER PRODUCTS RECOMMENDED BY THE CONTRACTOR, SUBJECT TO WRITTEN REVIEW AND APPROVAL BY THE COUNTY.

SPECIAL CONTRACTOR NOTES

- CONTRACTOR SHALL CONTINUALLY MONITOR WEATHER FORECASTS DURING WORK ACTIVITIES AND SCHEDULE WORK DURING FAVORABLE CONDITIONS.
- THE CONTRACTOR SHALL EXERCISE CARE IN ACTIVITIES INVOLVING EITHER CUT AND FILL OR GRADING IN THE VICINITY OF TREES THAT ARE TO REMAIN SHALL BE MADE IN A MANNER THAT DOES NOT DISTURB THE CRITICAL ROOT ZONE WITHIN THE DRILPINE OF THE TREE. PROTECTIVE ORANGE FENCING SHALL BE INSTALLED AROUND THE PERIMETER OF THE CRITICAL ROOT ZONE PRIOR TO CONSTRUCTION. THE LOCATION OF THE PROTECTIVE ORANGE FENCING SHALL BE APPROVED BY HOWARD COUNTY DEPARTMENT OF RECREATION AND PARKS PRIOR TO CONSTRUCTION.
- CONTRACTOR SHALL NOT STORE EQUIPMENT, MATERIALS AND/OR SUPPLIES BEYOND THE ORANGE FENCING.
- UPON COMPLETION OF THE WORK, BUT PRIOR TO DE-MOBILIZATION, THE CONTRACTOR SHALL REMOVE ALL REMNANTS OF CONSTRUCTION MATERIALS FROM THE SITE. THE CONTRACTOR SHALL RESTORE ALL DISTURBED AREAS TO A CONDITION EQUAL TO OR BETTER THAN THE PRE-CONSTRUCTION CONDITIONS.
- PRIOR TO BEGINNING ANY CONSTRUCTION ACTIVITIES, PHOTOGRAPHS OF THE PROPOSED WORK AREA AND ACCESS SHALL BE TAKEN.
- ALL TREES TO BE REMOVED SHALL BE CUT AT THE BASE WITH A SAW AND NOT PUSHED OVER. TREE STUMPS MAY BE LEFT IN PLACE, UNLESS OTHERWISE DIRECTED ON THE PLANS.
- ALL MATERIAL SHALL BE REMOVED AND DISPOSED OF OFFSITE. REMOVED TREES AND BRUSH MAY BE REDISTRIBUTED ON SITE AT THE DISCRETION OF THE COUNTY OR HIS/HER REPRESENTATIVE.
- THE CONTRACTOR SHALL USE EXTREME CAUTION WHEN WORKING NEAR THE SCHOOL AND PAY CLOSE ATTENTION TO PEDESTRIANS WALKING NEAR THE WORK SITE.
- WORKING HOURS ARE 7 AM TO 7 PM MONDAY THROUGH FRIDAY.
- THE CONTRACTOR SHALL AVOID TRACKING HEAVY EQUIPMENT OVER THE CRITICAL ROOT ZONE OF SPECIFIC TREES. IF UNAVOIDABLE, SPECIAL PRECAUTIONS SHOULD BE USED WHEN TRACKING OVER THE CRITICAL ROOT ZONES.

MISS UTILITY

CALL "MISS UTILITY" AT 1-(800)-257-7777, 48 HOURS PRIOR TO THE START OF WORK. THE EXCAVATOR MUST NOTIFY ALL PUBLIC UTILITY COMPANIES WITH UNDERGROUND FACILITIES IN THE AREA OF THE PROPOSED EXCAVATION AND HAVE THOSE FACILITIES LOCATED BY THE UTILITY COMPANIES PRIOR TO COMMENCING EXCAVATION.

SUMMARY OF ENVIRONMENTAL IMPACTS

	TREE REMOVAL (EACH)	STREAM DISTURBANCE (LF)	WETLAND DISTURBANCE (SQ. FT.)	LIMIT OF DISTURBANCE (SQ. FT.)	LIMITS OF DISTURBANCE (AC.)	CUT (CY)	FILL (CY)	NET (CY)
TOTAL	1	0.0	0.00	103,007	2.36	6500	6500	0

CLIENT:
 HOWARD COUNTY DPW
 ENVIRONMENTAL SERVICES
 6751 GATEWAY DRIVE, SUITE 514
 COLUMBIA, MD 21046
 PHONE: (410) 313-6413

OWNER:
 HOWARD COUNTY
 PUBLIC SCHOOL SYSTEM
 10910 RT. 108
 ELLICOTT CITY, MARYLAND 21042
 PHONE: (410) 313-6600

DATE: 05.23.14
 ISSUES / REVISIONS
 REVISED SITE DEVELOPMENT PLAN

APPROVED: DEPARTMENT OF PLANNING AND ZONING

John G. ... 6-20-14
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

Mark S. Richmond 6-19-14
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

Mark S. Richmond 6/20/14
 DIRECTOR DATE

CENTURY ENGINEERING
 CONSULTING ENGINEERS - PLANNERS
 10710 GILROY ROAD
 HUNT VALLEY, MD 21031
 Phone: (443) 589-2400 Fax: (443) 589-2401

RENOVATIONS TO WILDE LAKE HIGH SCHOOL (BMP RETROFIT)

TITLE:
REVISED SITE DEVELOPMENT PLAN COVER SHEET

PROJECT NO.: 28-2012
 CAPITAL PROJECT NO.: D-1160

SCALE:
 BY: CHECK:

DWG. NO.:

23 OF 37

ENGINEERS CERTIFICATE
 I CERTIFY THAT THIS PLAN FOR SEDIMENT AND EROSION 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 COUNTY SOIL CONSERVATION DISTRICT"

Thomas G. ... 6/19/14
 SIGNATURE OF ENGINEER (PRINT NAME BELOW SIGNATURE) DATE
 Thomas G. ...

DEVELOPERS CERTIFICATE
 I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN FOR SEDIMENT AND EROSION CONTROL AND THAT ALL 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 THE BEGINNING OF THE PROJECT. I/ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD COUNTY SOIL CONSERVATION DISTRICT"

Mark S. Richmond 6/19/14
 SIGNATURE OF DEVELOPER (PRINT NAME BELOW SIGNATURE) DATE
 Mark S. Richmond

DEPARTMENT OF PUBLIC WORKS, HOWARD COUNTY, MD

John G. ...
 DIRECTOR OF PUBLIC WORKS

Mark S. Richmond 6/19/14
 CHIEF, BUREAU OF ENVIRONMENTAL SERVICES

Mark S. Richmond 6/19/14
 CHIEF, STORMWATER MANAGEMENT DIVISION

THE PURPOSE OF THE "RENOVATIONS TO WILDE LAKE HIGH SCHOOL BMP RETROFIT" DESIGN REDLINE REVISION IS TO PROVIDE WATER QUALITY MANAGEMENT FOR EXISTING IMPERVIOUS AREAS AT WILDE LAKE HIGH SCHOOL, AND TO MAINTAIN OPEN SPACE.

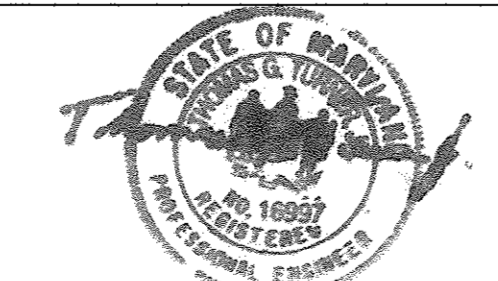
HOWARD COUNTY PUBLIC SCHOOL SYSTEM
 HOWARD COUNTY, MARYLAND
Walter ... 6/26/14
 CHIEF FACILITIES OFFICER DATE

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

John K. ... 6/19/14
 HOWARD SCD DATE

PERMIT INFORMATION CHART

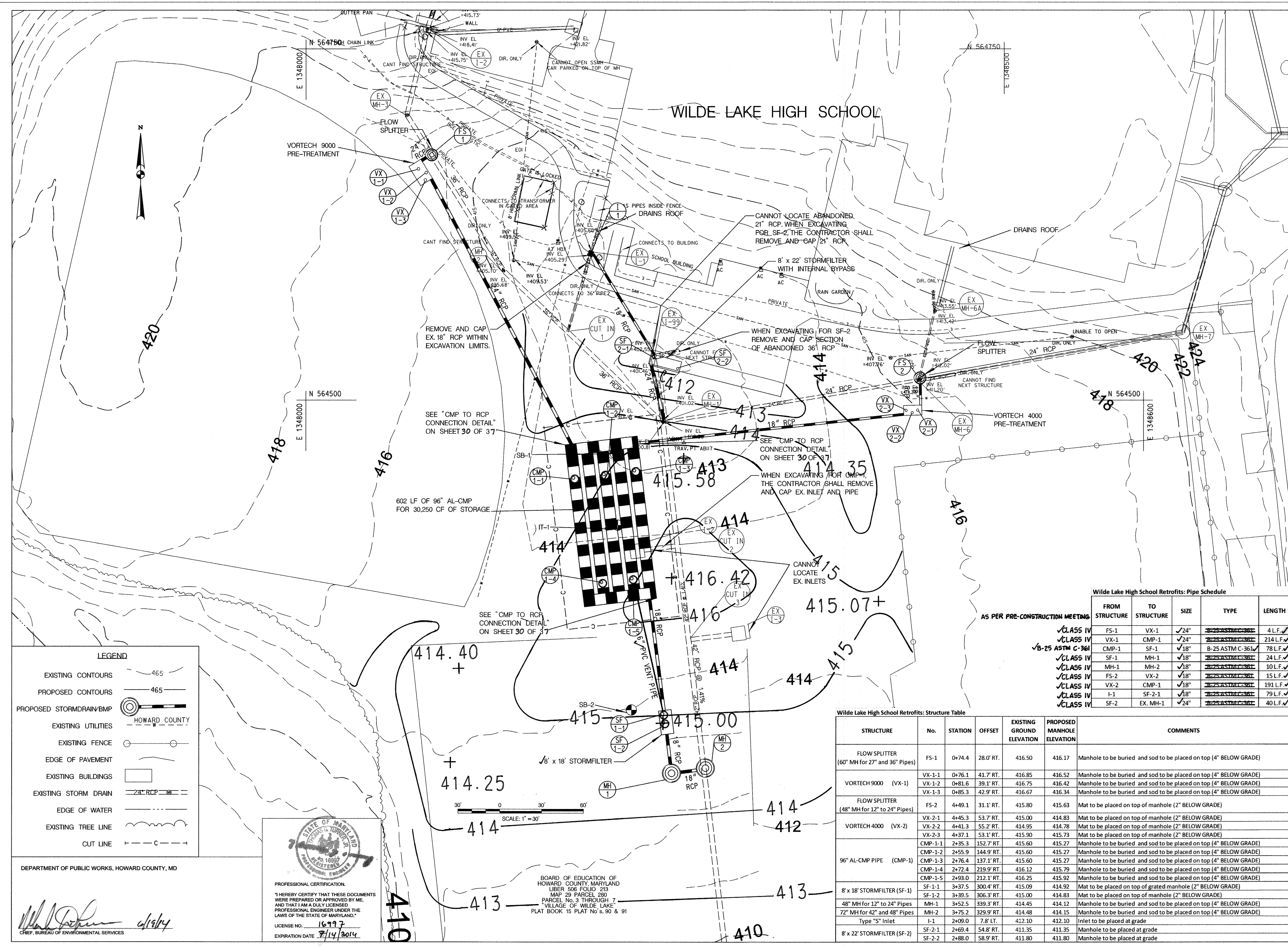
SUBDIVISION NAME	SECTION/AREA	LOT/PARCEL#
VILLAGE OF WILDE LAKE	SECTION 11, AREA 1	
PLAT OR L.P.F. 15/90.91	GRID# 24 NT	ZONING 29
TAX MAP NO. 4TH	ELECT. DIST. 4TH	CENSUS TRACT 605402
WATER CODE E 30	SEWER CODE S523900	



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. 16997
 EXPIRATION DATE 7/14/2014



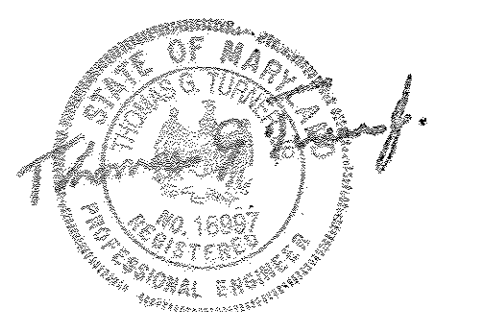
AS-BUILT CERTIFICATION
 I HEREBY CERTIFY BY MY SEAL, THAT THE FACILITIES SHOWN ON THIS PLAN WERE CONSTRUCTED AS SHOWN ON THIS "AS-BUILT" PLAN MEET THE APPROVED PLAN AND SPECIFICATIONS.
 TOM TURNER PE#16997, 08/12/2016



CLIENT:
 HOWARD COUNTY DPW
 ENVIRONMENTAL SERVICES
 6751 GATEWAY DRIVE, SUITE 514
 COLUMBIA, MD 21046
 PHONE: (410) 313-6413

OWNER:
 HOWARD COUNTY
 PUBLIC SCHOOL SYSTEM
 10910 RT. 108
 ELLICOTT CITY, MARYLAND 21042
 PHONE: (410) 313-6600

DATE: 06.23.14
 ISSUES / REVISIONS
 REVISED SITE DEVELOPMENT PLAN



AS-BUILT CERTIFICATION
 I HEREBY CERTIFY BY MY SEAL, THAT THE FACILITIES SHOWN ON THIS PLAN WERE CONSTRUCTED AS SHOWN ON THIS AS-BUILT PLAN AND MEET THE APPROVED PLAN AND SPECIFICATIONS.
 TOM TURNER PE#16997, 08/12/2016

APPROVED: DEPARTMENT OF PLANNING AND ZONING

[Signature] 6-20-14
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

[Signature] 6-19-14
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

[Signature] 6/20/14
 DIRECTOR DATE

MM CENTURY
 ENGINEERING
 CONSULTING ENGINEERS - PLANNERS
 10710 GILROY ROAD
 HUNT VALLEY, MD 21031
 Phone: (443) 589-2400 Fax: (443) 589-2401

RENOVATIONS TO WILDE LAKE HIGH SCHOOL (BMP RETROFIT)

REVISED SITE DEVELOPMENT PLAN SWM PLAN

PROJECT NO.: 28-2012
 CAPITAL PROJECT NO.: D-1190
 SCALE: 1" = 30'
 BY: JMS
 CHECK: JMS
 DATE: 7/14/2014
 DWG. NO.: 240F 37

LEGEND

- EXISTING CONTOURS — 465 —
- PROPOSED CONTOURS — 465 —
- PROPOSED STORMDRAIN/BMP
- EXISTING UTILITIES — HOWARD COUNTY
- EXISTING FENCE —
- EDGE OF PAVEMENT —
- EXISTING BUILDINGS —
- EXISTING STORM DRAIN — 24" RCP —
- EDGE OF WATER —
- EXISTING TREE LINE —
- CUT LINE — C —

DEPARTMENT OF PUBLIC WORKS, HOWARD COUNTY, MD

[Signature] 6/19/14
 CHIEF, BUREAU OF ENVIRONMENTAL SERVICES

STATE OF MARYLAND
 PROFESSIONAL ENGINEER
 No. 16997
 PROFESSIONAL CERTIFICATION
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 LICENSE NO. 16997
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BOARD OF EDUCATION OF HOWARD COUNTY, MARYLAND
 LIBER 506 FOLIO 213
 MAP 29 PARCEL 280
 PARCEL No. 3 THROUGH 7
 VILLAGE OF WILDE LAKE
 PLAT BOOK 15 PLAT No. s. 90 & 91

Wilde Lake High School Retrofits: Pipe Schedule

AS PER PRE-CONSTRUCTION MEETING

FROM STRUCTURE	TO STRUCTURE	SIZE	TYPE	LENGTH
CLASS IV FS-1	VX-1	24"	ASTM C-361	4 L.F.
CLASS IV VX-1	CMP-1	24"	ASTM C-361	214 L.F.
CLASS IV CMP-1	SF-1	18"	B-25 ASTM C-361	78 L.F.
CLASS IV SF-1	MH-1	18"	ASTM C-361	24 L.F.
CLASS IV MH-1	MH-2	18"	ASTM C-361	10 L.F.
CLASS IV FS-2	VX-2	18"	ASTM C-361	15 L.F.
CLASS IV VX-2	CMP-1	18"	ASTM C-361	191 L.F.
CLASS IV I-1	SF-2-1	18"	ASTM C-361	79 L.F.
CLASS IV SF-2	EX. MH-1	24"	ASTM C-361	40 L.F.

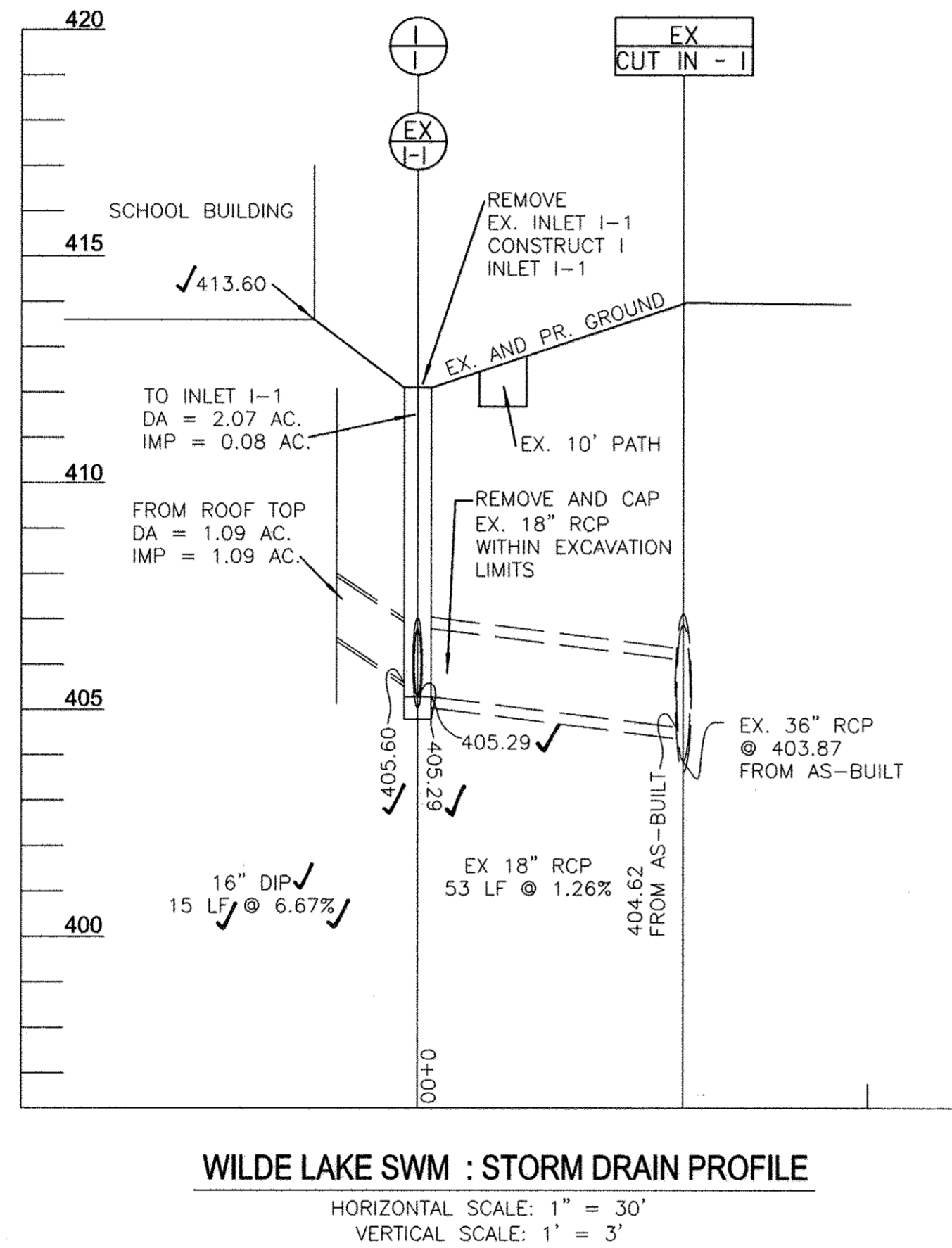
Wilde Lake High School Retrofits: Structure Table

STRUCTURE	No.	STATION	OFFSET	EXISTING GROUND ELEVATION	PROPOSED MANHOLE ELEVATION	COMMENTS
FLOW SPLITTER (60" MH for 27" and 36" Pipes)	FS-1	0+74.4	28.0' RT.	416.50	416.17	Manhole to be buried and sod to be placed on top (4" BELOW GRADE)
VORTECH 9000 (VX-1)	VX-1-1	0+76.1	41.7' RT.	416.85	416.52	Manhole to be buried and sod to be placed on top (4" BELOW GRADE)
	VX-1-2	0+81.6	39.1' RT.	416.75	416.42	Manhole to be buried and sod to be placed on top (4" BELOW GRADE)
	VX-1-3	0+85.3	42.9' RT.	416.67	416.34	Manhole to be buried and sod to be placed on top (4" BELOW GRADE)
FLOW SPLITTER (48" MH for 12" and 24" Pipes)	FS-2	4+49.1	31.1' RT.	415.80	415.63	Mat to be placed on top of manhole (2" BELOW GRADE)
	VX-2-1	4+45.3	53.7' RT.	415.00	414.83	Mat to be placed on top of manhole (2" BELOW GRADE)
VORTECH 4000 (VX-2)	VX-2-2	4+41.3	55.2' RT.	414.95	414.78	Mat to be placed on top of manhole (2" BELOW GRADE)
	VX-2-3	4+37.1	53.1' RT.	415.90	415.73	Mat to be placed on top of manhole (2" BELOW GRADE)
	CMP-1-1	2+35.3	152.7' RT.	415.60	415.27	Manhole to be buried and sod to be placed on top (4" BELOW GRADE)
96" AL-CMP PIPE (CMP-1)	CMP-1-2	2+55.9	144.9' RT.	415.60	415.27	Manhole to be buried and sod to be placed on top (4" BELOW GRADE)
	CMP-1-3	2+76.4	137.1' RT.	415.60	415.27	Manhole to be buried and sod to be placed on top (4" BELOW GRADE)
	CMP-1-4	2+72.4	219.9' RT.	416.12	415.79	Manhole to be buried and sod to be placed on top (4" BELOW GRADE)
	CMP-1-5	2+93.0	212.1' RT.	416.25	415.92	Manhole to be buried and sod to be placed on top (4" BELOW GRADE)
8' x 18" STORMFILTER (SF-1)	SF-1-1	3+37.5	300.4' RT.	415.09	414.92	Mat to be placed on top of grated manhole (2" BELOW GRADE)
	SF-1-2	3+39.5	306.3' RT.	415.00	414.83	Mat to be placed on top of manhole (2" BELOW GRADE)
48" MH for 12" to 24" Pipes	MH-1	3+52.5	339.3' RT.	414.45	414.12	Manhole to be buried and sod to be placed on top (4" BELOW GRADE)
	MH-2	3+75.2	329.9' RT.	414.48	414.15	Manhole to be buried and sod to be placed on top (4" BELOW GRADE)
72" MH for 42" and 48" Pipes	I-1	2+09.0	7.8' LT.	412.10	412.10	Inlet to be placed at grade
	Type "S" Inlet					
8' x 22" STORMFILTER (SF-2)	SF-2-1	2+69.4	54.8' RT.	411.35	411.35	Manhole to be placed at grade
	SF-2-2	2+88.0	58.9' RT.	411.80	411.80	Manhole to be placed at grade

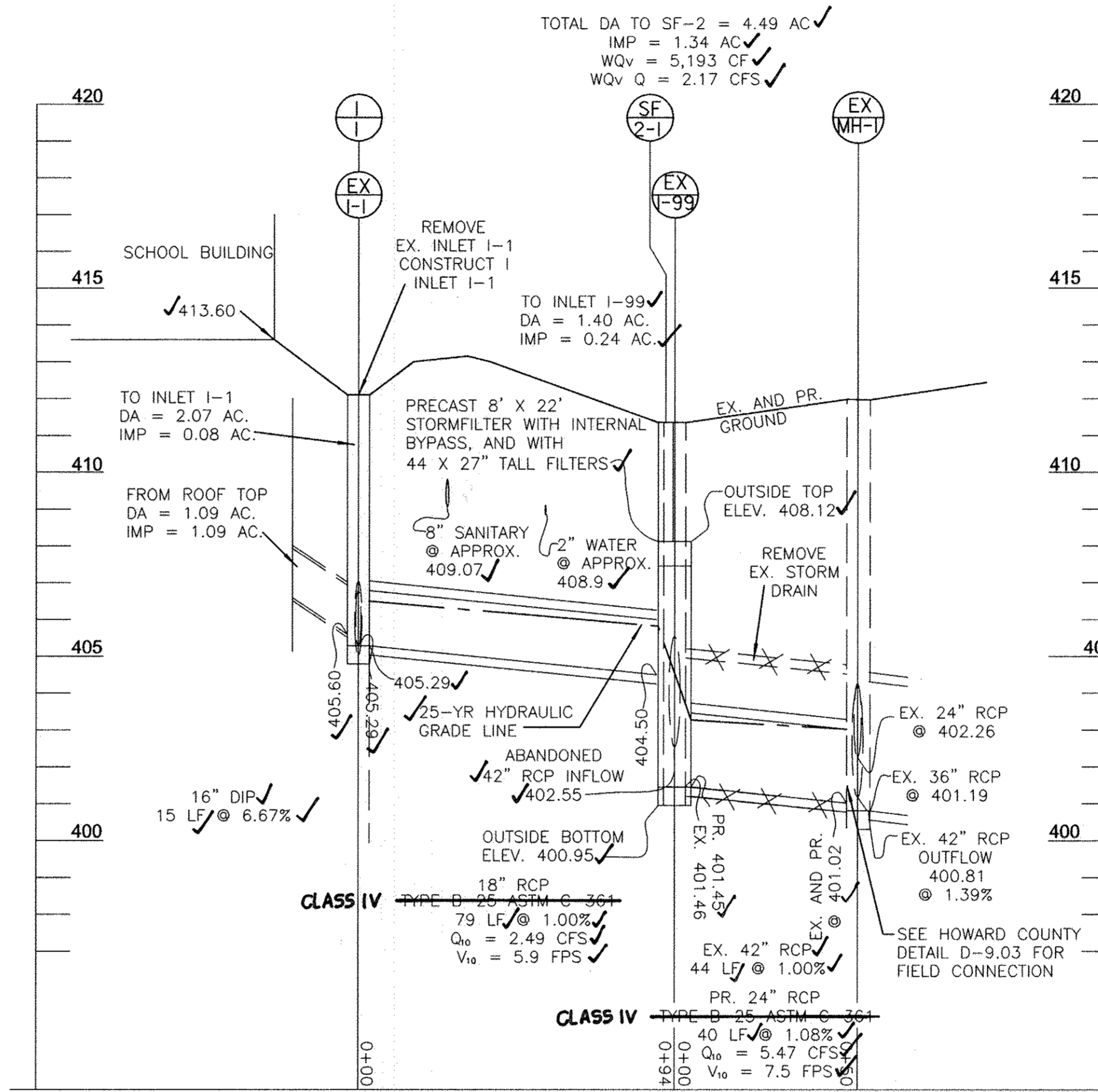
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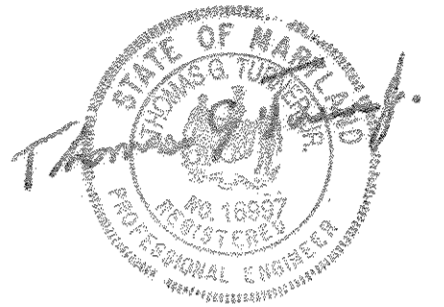
DATE: 05.23.14
 ISSUES / REVISIONS
 REVISED SITE DEVELOPMENT PLAN



WILDE LAKE SWM : STORM DRAIN PROFILE
 HORIZONTAL SCALE: 1" = 30'
 VERTICAL SCALE: 1' = 3'



WILDE LAKE SWM : STORM DRAIN PROFILE
 HORIZONTAL SCALE: 1" = 30'
 VERTICAL SCALE: 1' = 3'



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 TOM TURNER PE#16997, 08/12/2016

APPROVED: DEPARTMENT OF PLANNING AND ZONING

[Signature] 6-20-14
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

[Signature] 6-19-14
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

[Signature] 6/20/14
 DIRECTOR DATE

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RENOVATIONS TO WILDE LAKE HIGH SCHOOL (BMP RETROFIT)

TITLE: **REVISED SITE DEVELOPMENT PLAN SWM/ STORM DRAIN PROFILES**

PROJECT NO.: 28-2012 SCALE: 1" = 30'
 CAPITAL PROJECT NO.: D-1160
 BY: JMS CHECK:
 DWG. NO.:

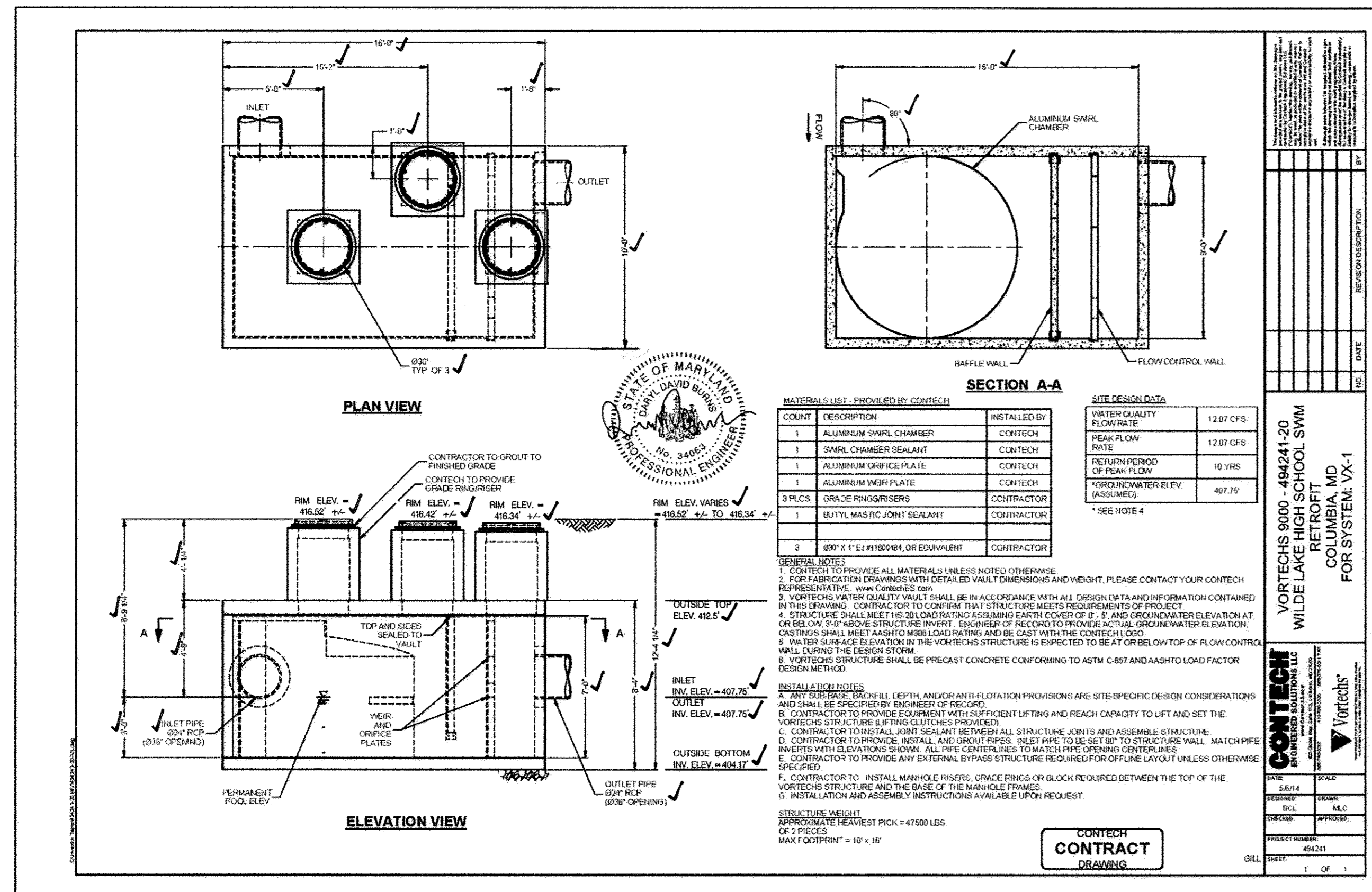
26 OF 37

DEPARTMENT OF PUBLIC WORKS, HOWARD COUNTY, MD

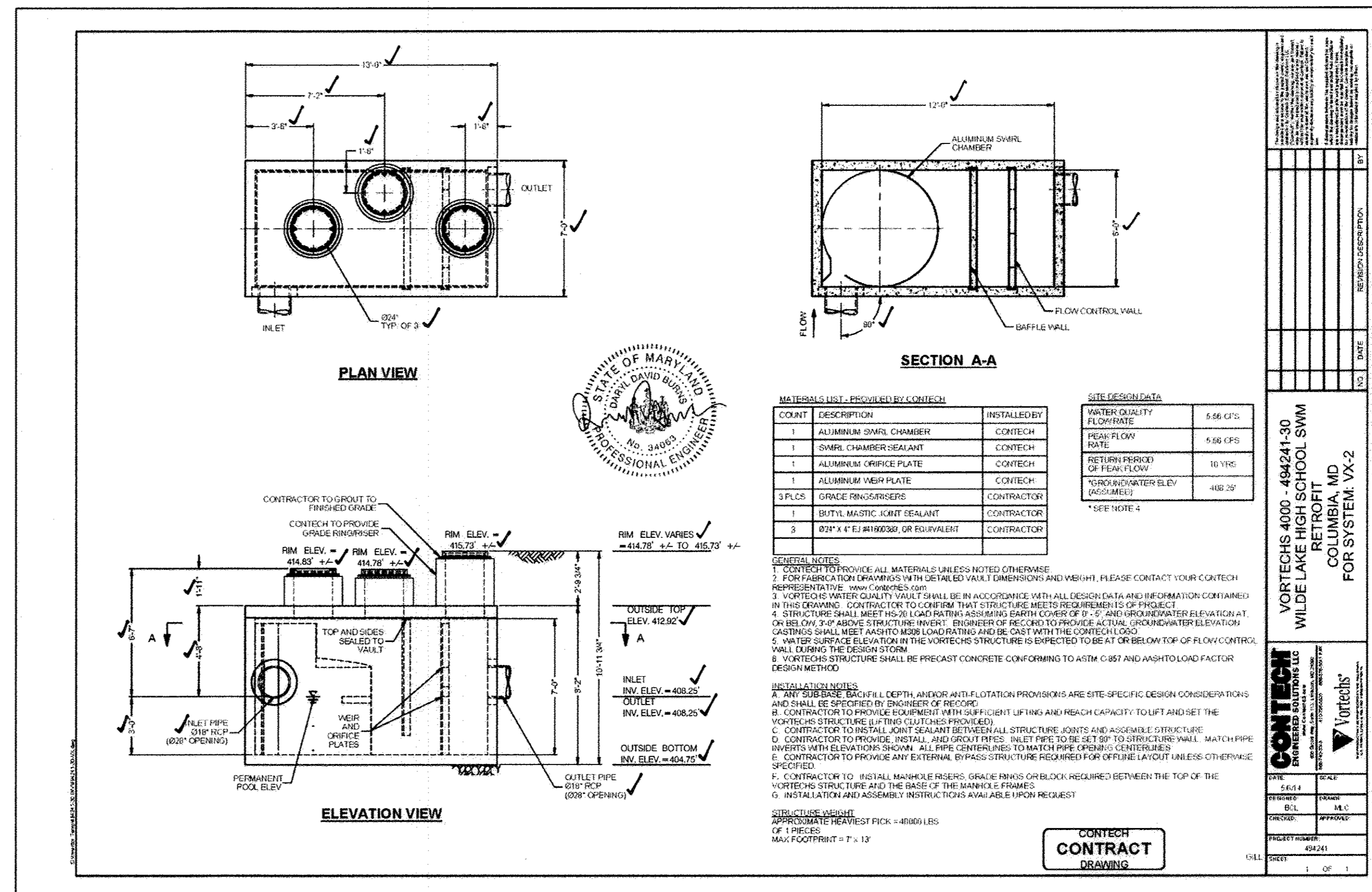


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 LICENSE NO. 16997
 EXPIRATION DATE 8/12/2016

[Signature] 6/19/14
 CHIEF, BUREAU OF ENVIRONMENTAL SERVICES



DETAIL FOR VX-1 NTS



DETAIL FOR VX-2 NTS

OIL/GRIT SEPARATOR: Operation and Maintenance

- Water quality structures will require periodic cleaning. Owners of these facilities will have to clean the oil/grit separator immediately after any petroleum spill. When chamber A collects a minimum of 6" of sediment, the owner will also need to clean the oil/grit separator.
- Every 3 years there will be an aboveground pre-cleaning inspection. After this inspection, if the measurement shows more than 12" of sediment, then the oil/grit separator is to be cleaned out with a vacuum truck.
- The inlet/outlet pipes, trash racks, grates and structural components shall be repaired as needed.
- All spoils/debris from the oil/grit separator shall be hauled to an approved Maryland Department of the Environment disposal site. Original trip tickets, with the site description, will be required and shall be mailed to the Bureau of Environmental Services attention John Slater.

Vortechs Maintenance

The Vortechs system should be inspected at regular intervals and maintained when necessary to ensure optimum performance. The rate at which the system collects pollutants will depend more heavily on site activities than the size of the unit, e.g., unstable soils or heavy winter sanding will cause the swirl chamber to fill more quickly but regular sweeping will slow accumulation.

Inspection

Inspection is the key to effective maintenance and is easily performed. Pollutant disposition and transport may vary from year to year and regular inspections will help ensure that the system is cleaned out at the appropriate time. Inspections should be performed twice per year (i.e. spring and fall) however more frequent inspections may be necessary in equipment washdown areas and in climates where winter sanding operations may lead to rapid accumulations. It is useful and often required as part of a permit to keep a record of each inspection. A simple inspection and maintenance log form for doing so is provided on the following page, and is also available on contechstormwater.com.

The Vortechs system should be cleaned when inspection reveals that the sediment depth has accumulated to within 12 to 18 inches (300 to 450 mm) of the dry-weather water surface elevation. This determination can be made by taking two measurements with a stadia rod or similar measuring device; one measurement from the manhole opening to the top of the sediment pile and the other from the manhole opening to the water surface. **NOTE:** To avoid underestimating the volume of sediment in the chamber, the measuring device must be carefully lowered to the top of the sediment pile. Fine, silty particles at the top of the pile typically offer less resistance to the end of the rod than larger particles toward the bottom of the pile.

Cleaning

Cleaning of the Vortechs system should be done during dry weather conditions when no flow is entering the system. Clean-out of the Vortechs system with a vacuum truck is generally the most effective and convenient method of excavating pollutants from the system. If such a truck is not available, a "clamshell" grab may be used, but it is difficult to remove all accumulated pollutants using a "clamshell".

In installations where the risk of petroleum spills is small, liquid contaminants may not accumulate as quickly as sediment. However, an oil or gasoline spill should be cleaned out immediately. Inlet oil and other hydrocarbons that accumulate on a more routine basis should be removed when an appreciable layer has been captured. To remove these pollutants, it may be preferable to use adsorbent pads to solidify the oil since these pads are usually much easier to remove from the unit individually and less expensive to dispose of than the oil/water emulsion that may be created by vacuuming the oily layer. Floating trash can be netted out if you wish to separate it from the other pollutants.

Cleaning of a Vortechs system is typically done by inserting a vacuum hose into the swirl chamber and evacuating this chamber of water and pollutants. As water is evacuated, the water level outside the swirl chamber will drop to a level roughly equal to the crest of the lower aperture of the swirl chamber. The water outside the swirl chamber should remain

near this level throughout pumping as the bottom and sides of the swirl chamber are seized to the tank floor and walls. This "water lock" feature prevents water from migrating into the swirl chamber, exposing the bottom of the baffle wall and creating excess pump-out volume. Floating pollutants will decant into the swirl chamber as the water level is drawn down. This allows most floating material to be withdrawn from the same access point above the swirl chamber. Floating material that does not decant into the swirl chamber during draw down should be skimmed from the baffle chamber. If maintenance is not performed as recommended, sediment may accumulate outside the swirl chamber. If this is the case, it may be necessary to pump out other chambers. It is advisable to check for sediment accumulation in all chambers during inspection and maintenance.

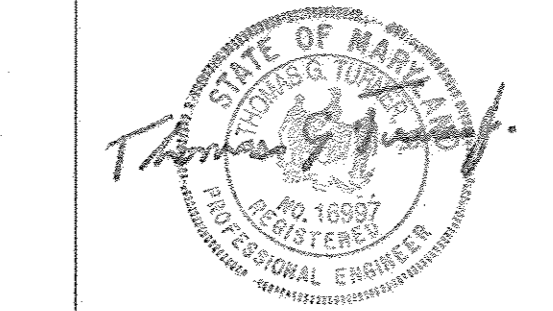
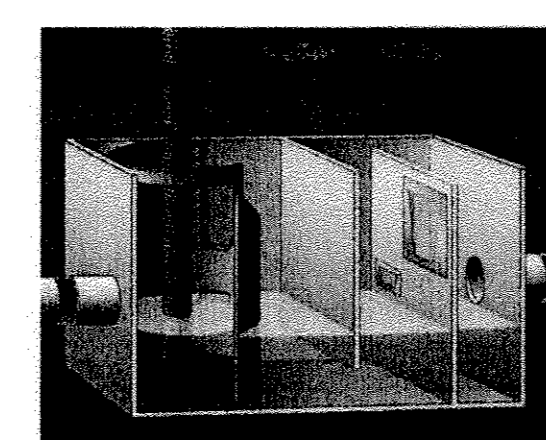
These maintenance recommendations apply to all Vortechs systems with the following exceptions:

- It is strongly recommended that when cleaning systems larger than the Model 16500 the baffle chamber be drawn down to depth of three feet prior to beginning clean-out of the swirl chamber. Drawing down this chamber prior to the swirl chamber reduces adverse structural forces pushing upstream on the swirl chamber once that chamber is empty.
- Entry into a Vortechs system is generally not required as cleaning can be done from the ground surface. However, if manned entry into a system is required the entire system should be evacuated of water prior to entry regardless of the system size.

Manhole covers should be securely sealed following cleaning activities to prevent leakage of runoff into the system from above and also to ensure proper safety precautions. If anyone physically enters the unit, Confined Space Entry procedures need to be followed.

Disposal of all material removed from the Vortechs system should be done in accordance with local regulations. In many locations, disposal of evacuated sediments may be handled in the same manner as disposal of sediments removed from catch basins or deep sump manholes. Check your local regulations for specific requirements on disposal.

For assistance with maintaining your Vortechs system, contact us regarding the CONTECH Maintenance Compliance Certification Program.



AS-BUILT CERTIFICATION
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 TOM TURNER PE#16997, 08/12/2016

CLIENT:
 HOWARD COUNTY DPW
 ENVIRONMENTAL SERVICES
 6751 GATEWAY DRIVE, SUITE 514
 COLUMBIA, MD 21046
 PHONE: (410) 313-6413

OWNER:
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 10910 RT. 108
 ELLICOTT CITY, MARYLAND 21042
 PHONE: (410) 313-6600

DATE: 05.23.14
 ISSUES / REVISIONS
 REVISED SITE DEVELOPMENT PLAN

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Chad Clark 6-20-14
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

V. J. O'Neil 6-19-14
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

DIRECTOR DATE

RENOVATIONS TO WILDE LAKE HIGH SCHOOL (BMP RETROFIT)

TITLE: REVISED SITE DEVELOPMENT PLAN SWM DETAILS

PROJECT NO.: 12B-2012
 CAPITAL PROJECT NO.: D-1180

SCALE: NTS

BY: JMS
 CHECK: JMS
 DWS. NO.:

28 OF 37

DEPARTMENT OF PUBLIC WORKS, HOWARD COUNTY, MD

Michael J. ... 6/19/14
 CHIEF, BUREAU OF ENVIRONMENTAL SERVICES

STATE OF MARYLAND
 PROFESSIONAL ENGINEER
 16997
 EXPIRATION DATE 7/14/2014

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DATE: ISSUES / REVISIONS
DATE: 05.23.14 REVISED SITE DEVELOPMENT PLAN

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Mitchell Halst 6-20-14
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

Keith Shubert 6/19/14
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

Jonathan D. Cagle 6/20/14
DIRECTOR DATE

RENOVATIONS TO WILDE LAKE HIGH SCHOOL (BMP RETROFIT)

REVISED SITE DEVELOPMENT PLAN SWM DETAILS

PROJECT NO.: 28-2012
CAPITAL PROJECT NO.: D-1669

SCALE: NTS

BY: JMS
CHECK: JMS
DWG. NO.: 29 OF 37

ASSEMBLY
SCALE: 1" = 10'
VOLUME: 30,360 C.F.
LOADING: 1200/25
SYSTEM INV: 403.00

PROFESSIONAL CERTIFICATION:
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED BY ME, AND I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 40240, EXPIRATION DATE: 5/13/15.

Mitchell Halst

CBC Engineers

CONTECH ENGINEERED SOLUTIONS LLC
CONTRACT DETAIL DRAWING

CONTECH CMP DETENTION SYSTEMS

096" UNDERGROUND DETENTION SYSTEM - 494241-040
WILDE LAKE HIGH SCHOOL SWM RETROFIT
COLUMBIA, MD
SITE DESIGNATION: CMP

DATE: 6/19/14

DETAIL FOR CMP-1
NTS

TYPICAL SECTION VIEW
SCALE: N.T.S.

FRONT TYPICAL MANHOLE DETAIL
SCALE: N.T.S.

FITTING	TYPE	QTY	Ø	CORRUIGATION	GAGE	FINISH	WALL TYPE	LENGTH	TOTAL
A	MANHOLE	1	96	5 x 1	14	ALZ2	S&B	115.0	115.0
A1	STUB	1	96	2.25x12	18	ALZ2	S&B	4.17	4.17
B	MANHOLE	1	96	5 x 1	14	ALZ2	S&B	23.0	23.0
B-T	TEE	2	96	5 x 1	14	ALZ2	S&B	6.0	12.0
C	MANHOLE	1	96	5 x 1	14	ALZ2	S&B	22.0	22.0
C-T	TEE	1	96	5 x 1	14	ALZ2	S&B	6.0	6.0
D	MANHOLE	1	96	5 x 1	14	ALZ2	S&B	22.5	22.5
D-T	TEE	1	96	5 x 1	14	ALZ2	S&B	6.0	6.0
E	STUB	1	24	2.25x12	18	ALZ2	S&B	1.67	1.67
E	MANHOLE	1	96	5 x 1	14	ALZ2	S&B	22.0	22.0
E-T	TEE	2	96	5 x 1	14	ALZ2	S&B	6.0	12.0
F	MANHOLE	1	96	5 x 1	14	ALZ2	S&B	115.0	115.0
F1	STUB	1	96	2.25x12	18	ALZ2	S&B	1.67	1.67
G	PIPE	1	96	5 x 1	14	ALZ2	S&B	21.0	21.0
G1	RISER	1	36	2.25x12	18	ALZ2	S&B	8.27	8.27
H	PIPE	1	96	5 x 1	14	ALZ2	S&B	21.0	21.0
H1	RISER	1	36	2.25x12	18	ALZ2	S&B	8.27	8.27
J	PIPE	1	96	5 x 1	14	ALZ2	S&B	21.0	21.0
J1	RISER	1	36	2.25x12	18	ALZ2	S&B	8.27	8.27
K	PIPE	1	96	5 x 1	14	ALZ2	S&B	25.0	25.0
K1	RISER	1	36	2.25x12	18	ALZ2	S&B	8.82	8.82
K2	STUB	1	9	1.12x14	16	ALZ2	S&B	1.0	1.0
L	PIPE	2	96	5 x 1	14	ALZ2	S&B	21.0	42.0
M	PIPE	13	96	5 x 1	14	ALZ2	S&B	25.0	325.0
N	PIPE	1	96	5 x 1	14	ALZ2	S&B	25.0	25.0
N1	RISER	1	36	2.25x12	18	ALZ2	S&B	8.79	8.79
N2	HUGGER	29	96	W&M BOLT A STRAP	10	ALZ2	S&B	1.00	28.70
N3	FLAT	29	96	7" WIDE				1.00	28.70
N4	LADDER	5						1.00	5.00

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Mitchell Halst

CBC Engineers

CONTECH ENGINEERED SOLUTIONS LLC
CONTRACT DETAIL DRAWING

CONTECH CMP DETENTION SYSTEMS

096" UNDERGROUND DETENTION SYSTEM - 494241-040
WILDE LAKE HIGH SCHOOL SWM RETROFIT
COLUMBIA, MD
SITE DESIGNATION: CMP

DATE: 6/19/14

DETAIL FOR CMP-1
NTS

CONNECTION DETAIL
SINGLE BOLT, BAR AND STRAP

PIPE SPAN INCHES	AXLE LOADS (kips)			
	18-50	26-75	35-110	110-150
12-42	3.0	3.5	3.5	3.5
48-72	3.0	3.0	3.5	4.0
78-102	3.0	3.5	4.0	4.0
128-144	3.5	4.0	4.5	4.5

Ø CMP RISER	A	Ø B	REINFORCING	*BEARING PRESSURE (PSF)
24"	Ø 4"	20"	#8 @ 12" O.C. W/ #4 @ 12" O.C.	2,400
30"	Ø 4"	32"	#8 @ 12" O.C. W/ #4 @ 12" O.C.	2,100
36"	Ø 5"	30"	#8 @ 12" O.C. W/ #4 @ 12" O.C.	1,900
42"	Ø 5"	44"	#8 @ 12" O.C. W/ #4 @ 12" O.C.	1,300
48"	Ø 5"	50"	#8 @ 12" O.C. W/ #4 @ 12" O.C.	1,210
60"	Ø 5"	50"	#8 @ 12" O.C. W/ #4 @ 12" O.C.	1,800
72"	Ø 5"	50"	#8 @ 12" O.C. W/ #4 @ 12" O.C.	1,500

BACKFILL DETAIL
SCALE: N.T.S.

PROFESSIONAL CERTIFICATION:
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED BY ME, AND I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 40240, EXPIRATION DATE: 5/13/15.

Mitchell Halst

CBC Engineers

CONTECH ENGINEERED SOLUTIONS LLC
CONTRACT DETAIL DRAWING

CONTECH CMP DETENTION SYSTEMS

096" UNDERGROUND DETENTION SYSTEM - 494241-040
WILDE LAKE HIGH SCHOOL SWM RETROFIT
COLUMBIA, MD
SITE DESIGNATION: CMP

DATE: 6/19/14

DETAIL FOR CMP-1
NTS

MANHOLE CAP DETAIL
SCALE: N.T.S.

PIPE SPAN INCHES	AXLE LOADS (kips)			
	18-50	26-75	35-110	110-150
12-42	3.0	3.5	3.5	3.5
48-72	3.0	3.0	3.5	4.0
78-102	3.0	3.5	4.0	4.0
128-144	3.5	4.0	4.5	4.5

Ø CMP RISER	A	Ø B	REINFORCING	*BEARING PRESSURE (PSF)
24"	Ø 4"	20"	#8 @ 12" O.C. W/ #4 @ 12" O.C.	2,400
30"	Ø 4"	32"	#8 @ 12" O.C. W/ #4 @ 12" O.C.	2,100
36"	Ø 5"	30"	#8 @ 12" O.C. W/ #4 @ 12" O.C.	1,900
42"	Ø 5"	44"	#8 @ 12" O.C. W/ #4 @ 12" O.C.	1,300
48"	Ø 5"	50"	#8 @ 12" O.C. W/ #4 @ 12" O.C.	1,210
60"	Ø 5"	50"	#8 @ 12" O.C. W/ #4 @ 12" O.C.	1,800
72"	Ø 5"	50"	#8 @ 12" O.C. W/ #4 @ 12" O.C.	1,500

CONSTRUCTION LOADING DIAGRAM
SCALE: N.T.S.

PROFESSIONAL CERTIFICATION:
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Mitchell Halst

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CONTECH CMP DETENTION SYSTEMS

096" UNDERGROUND DETENTION SYSTEM - 494241-040
WILDE LAKE HIGH SCHOOL SWM RETROFIT
COLUMBIA, MD
SITE DESIGNATION: CMP

DATE: 6/19/14

DETAIL FOR CMP-1
NTS

DEPARTMENT OF PUBLIC WORKS, HOWARD COUNTY, MD

Mitchell Halst 6/19/14
CHIEF, BUREAU OF ENVIRONMENTAL SERVICES

PROFESSIONAL CERTIFICATION:
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED BY ME, AND I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 16997, EXPIRATION DATE: 7/19/2014.

Tom Turner

AS-BUILT CERTIFICATION
I HEREBY CERTIFY BY MY SEAL, THAT THE FACILITIES SHOWN ON THIS PLAN WERE CONSTRUCTED AS SHOWN ON THIS AS-BUILT PLAN AND SPECIFICATIONS.
TOM TURNER PE # 16997, 08/12/2016

CLIENT:
HOWARD COUNTY DPW
ENVIRONMENTAL SERVICES
6751 GATEWAY DRIVE, SUITE 514
COLUMBIA, MD 21046
PHONE: (410) 313-6413

OWNER:
HOWARD COUNTY
PUBLIC SCHOOL SYSTEM
10910 RT. 108
ELLCOTT CITY, MARYLAND 21042
PHONE: (410) 313-6600

DATE: ISSUES / REVISIONS
DATE: 05.23.14 REVISED SITE DEVELOPMENT PLAN

Inspection is the key to effective maintenance and is easily performed. CONTECH recommends ongoing quarterly inspections of the accumulated sediment. Sediment deposition and transport may vary from year to year and quarterly inspections will help insure that systems are cleaned out at the appropriate time. Inspections should be performed more often in the winter months in climates where sanding operations may lead to rapid accumulations, or in equipment washdown areas. It is very useful to keep a record of each inspection. A sample inspection log is included for your use.



Maintenance

Underground storm water detention and retention systems should be inspected at regular intervals and maintained when necessary to ensure optimum performance. The rate at which the system collects pollutants will depend more heavily on site activities than the size or configuration of the system.

Inspection

Inspection is the key to effective maintenance and is easily performed. CONTECH recommends ongoing quarterly inspections of the accumulated sediment. Sediment deposition and transport may vary from year to year and quarterly inspections will help insure that systems are cleaned out at the appropriate time. Inspections should be performed more often in the winter months in climates where sanding operations may lead to rapid accumulations, or in equipment washdown areas. It is very useful to keep a record of each inspection. A sample inspection log is included for your use.

Systems should be cleaned when inspection reveals that accumulated sediment or trash is clogging the discharge orifice. CONTECH suggests that all systems be designed with an access/inspection manhole situated at or near the inlet and the outlet orifice. Should it be necessary to get inside the system to perform maintenance activities, all appropriate precautions regarding confined space entry and OSHA regulations should be followed.

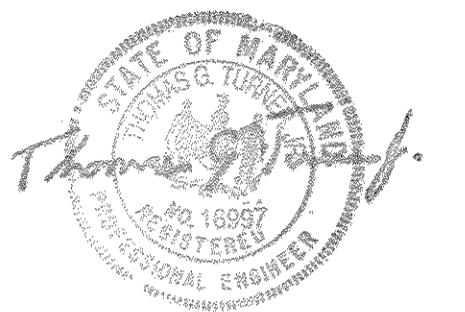
Cleaning

Maintaining an underground detention or retention system is easiest when there is no flow entering the system. For this reason, it is a good idea to schedule the cleanout during dry weather.

Accumulated sediment and trash can typically be evacuated through the manhole over the outlet orifice. If maintenance is not performed as recommended, sediment and trash may accumulate in front of the outlet orifice. Manhole covers should be securely seated following cleaning activities.

UNDERGROUND STORAGE: Operation and Maintenance

- The underground stormwater management facility shall be inspected yearly at a minimum and after severe storm events.
- The facility shall be cleaned when sediment has accumulated to the point the pipe inlets and joints cannot be properly inspected.
- When any debris that might obstruct the outfall is observed, the facility shall be cleaned.
- The facility shall be cleaned immediately after petroleum spills.
- The inlet and outlet pipes shall be checked for any obstructions at least once every (6) months. If obstructions are found, the cover shall have them removed and properly disposed of.
- All sponges/debris from the underground storage shall be hauled to an approved Maryland Department of the Environment disposal site. Original trip tickets, with the site description, will be required and shall be mailed to the Bureau of Environmental Services attention John Stiles.



THERE IS NO AS-BUILT INFORMATION ON THIS SHEET.
TOM TURNER PE#16997
08/12/2010

APPROVED: DEPARTMENT OF PLANNING AND ZONING

[Signature] 6/20/14
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

[Signature] 6/19/14
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

[Signature] 6/20/14
DIRECTOR DATE

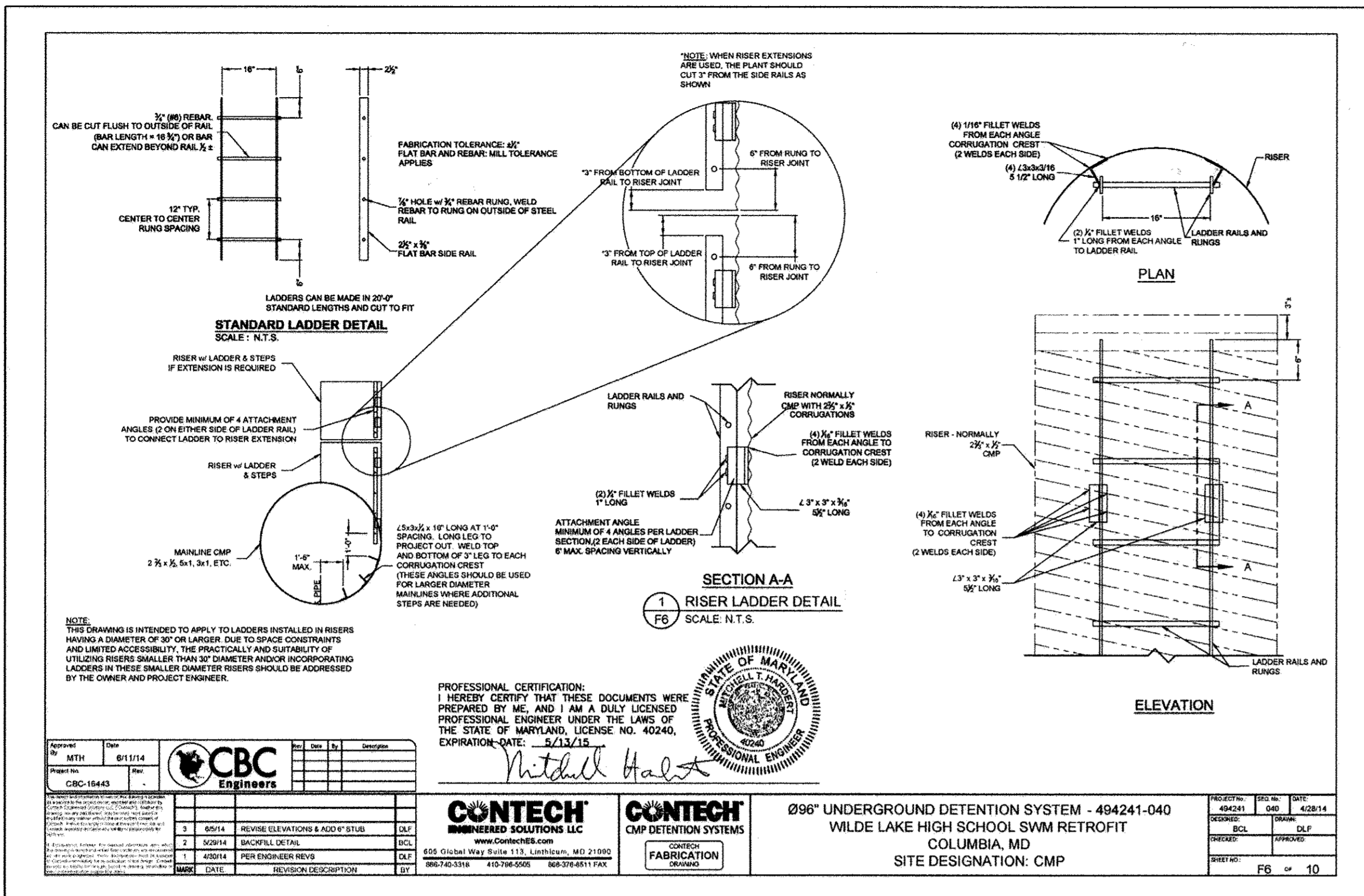
CENTURY ENGINEERING
CONSULTING ENGINEERS - PLANNERS
10710 GILROY ROAD
HUNT VALLEY, MD 21031
Phone: (443) 589-2400 Fax: (443) 589-2401

RENOVATIONS TO WILDE LAKE HIGH SCHOOL (BMP RETROFIT)

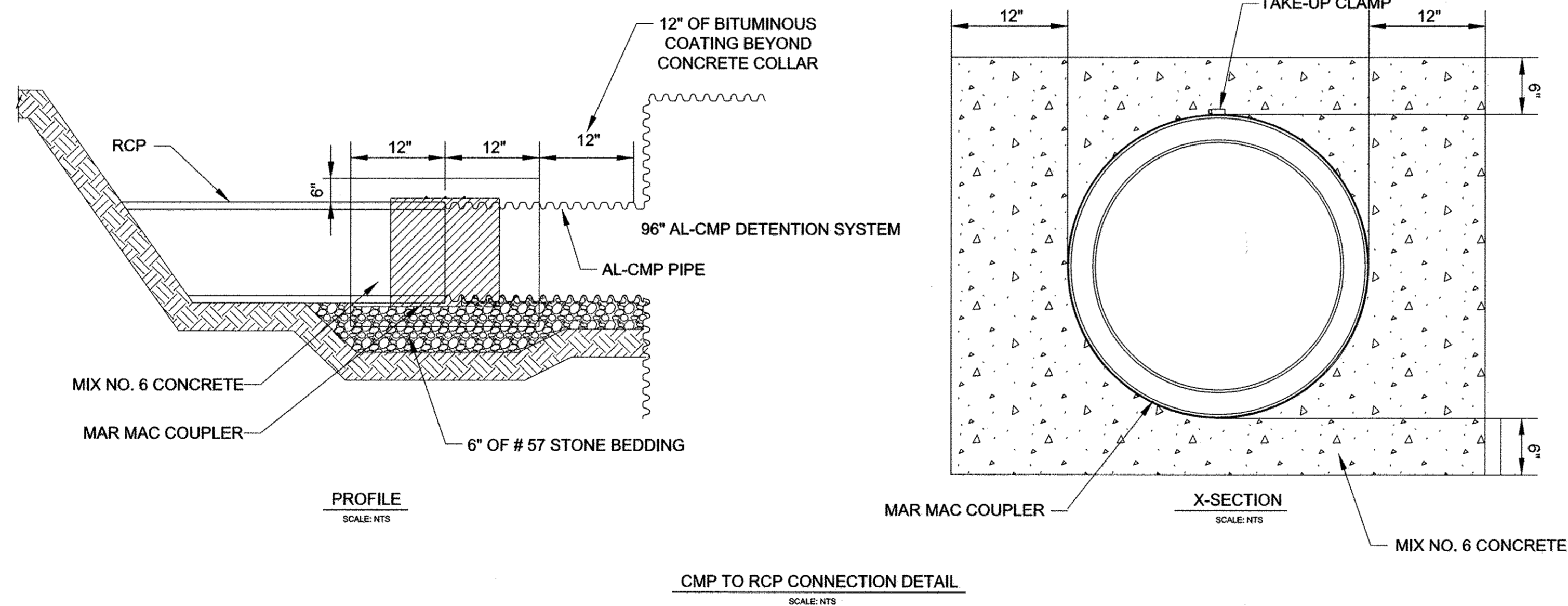
TITLE: **REVISED SITE DEVELOPMENT PLAN SWM DETAILS**

PROJECT NO.: 28-2012 SCALE: NTS
CAPITAL PROJECT NO.: D-1160

BY: JMS CHECK:
DWG. NO.: 300F 37

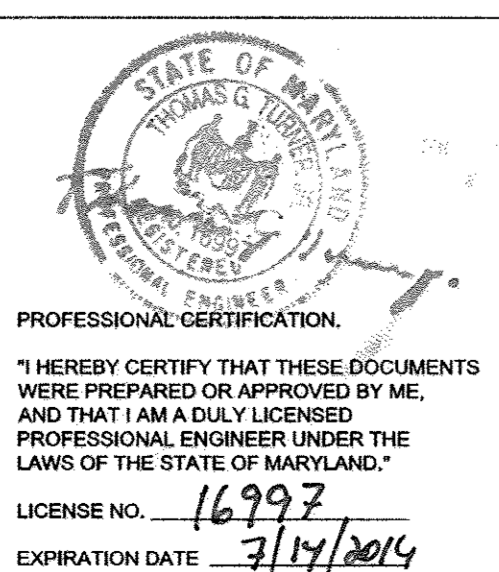


DETAIL FOR CMP-1 NTS



NOTES:

- CMP TO RCP PIPE CONNECTIONS SHALL BE CONNECTED WITH A MAR MAC DP COUPLER AS MANUFACTURED BY MAR MAC CONSTRUCTION PRODUCTS CO. OR AN APPROVED EQUAL AND SHALL BE INSTALLED ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS.
- COMPRESSION BANDS SHALL BE LOCATED WITHIN THE COUPLER AND WILL PERFORM AS COMPRESSION SEALS AT SPECIFIC AREAS ALONG EACH SIDE OF THE JOINT. THE COUPLER SHALL BE DESIGNED SO THAT WHEN IT IS APPLIED AROUND THE JOINT THE ENDS OVERLAP A MINIMUM OF 8" ON THE LARGEST PIPE BEING CONNECTED.
- A BELL HOLE SHALL BE DUG UNDER THE JOINT WITH THE PIPE ENDS BUTTED OR THE SMALLER PIPE PLACED INSIDE THE LARGER PIPE.
- ALIGN THE PIPE FOR EFFICIENT DRAINAGE FLOW.
- BITUMINOUS COATING REQUIRED FOR CMP (ANY SUITABLE BITUMINOUS MATERIAL MAY BE FIELD APPLIED), BITUMINOUS COATING TO EXTEND 12" BEYOND CONCRETE COLLAR.



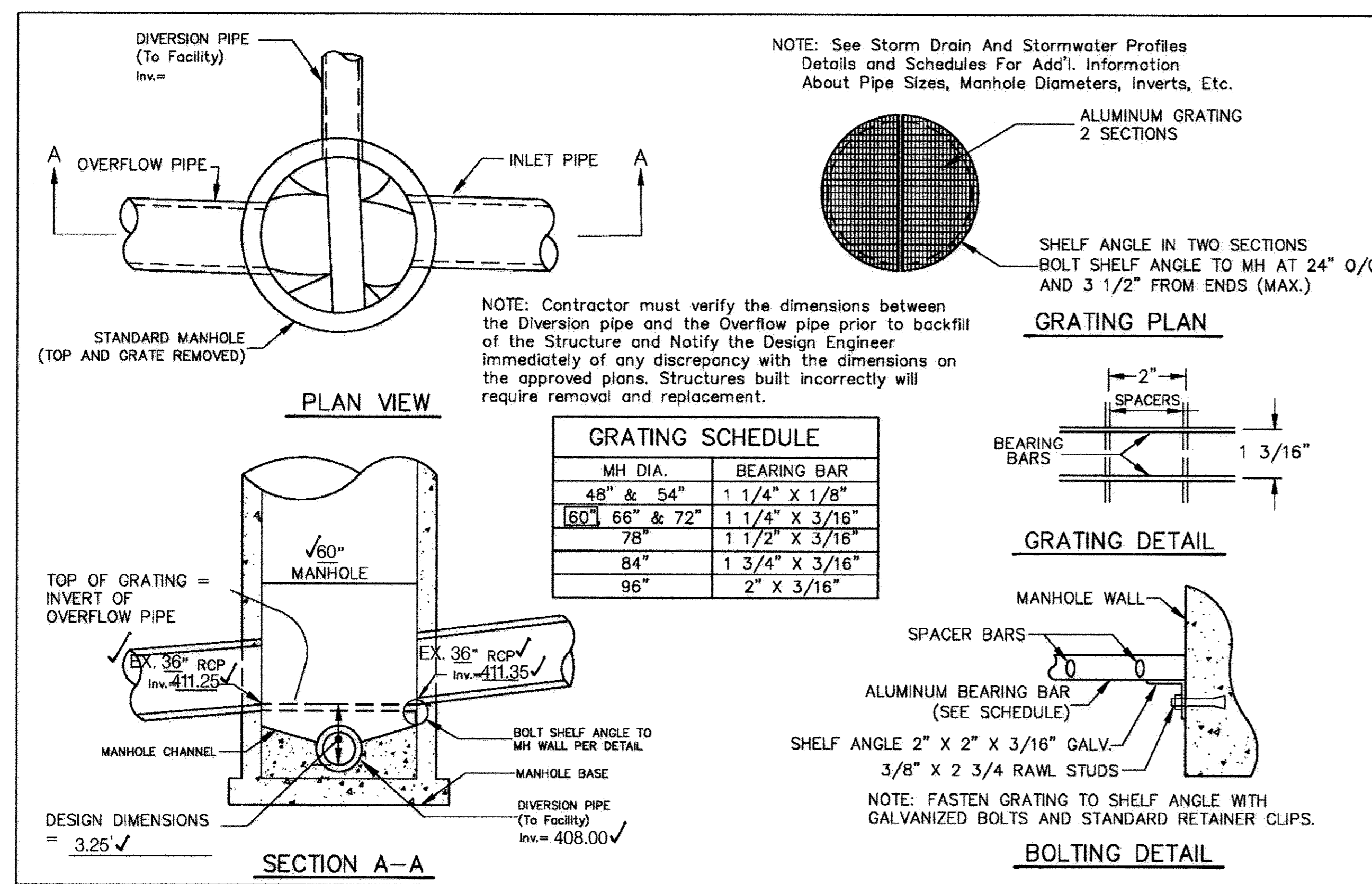
DEPARTMENT OF PUBLIC WORKS, HOWARD COUNTY, MD

[Signature] 6/19/14
CHIEF, BUREAU OF ENVIRONMENTAL SERVICES

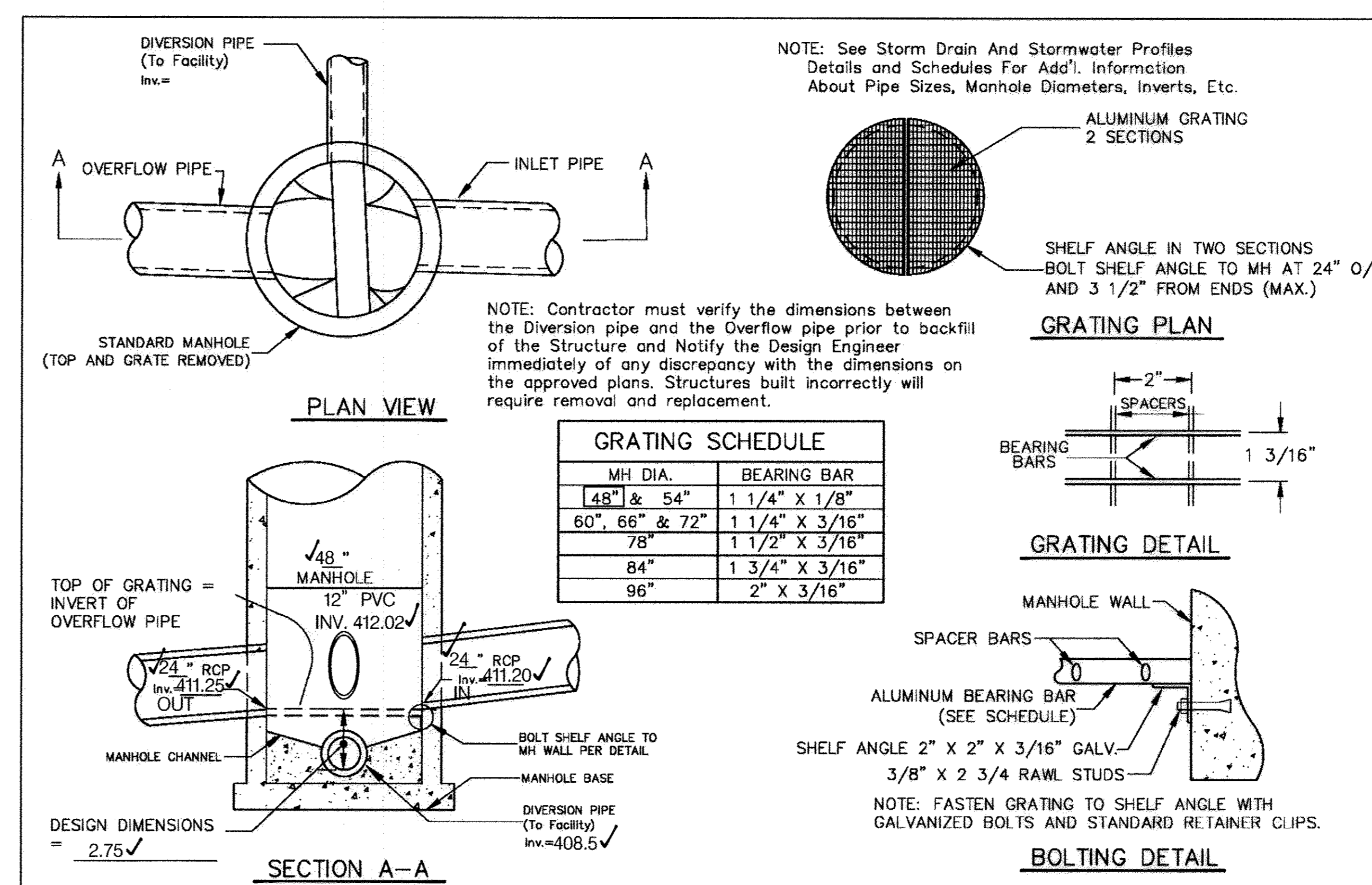
CLIENT:
 HOWARD COUNTY DPW
 ENVIRONMENTAL SERVICES
 6751 GATEWAY DRIVE, SUITE 514
 COLUMBIA, MD 21046
 PHONE: (410) 313-6413

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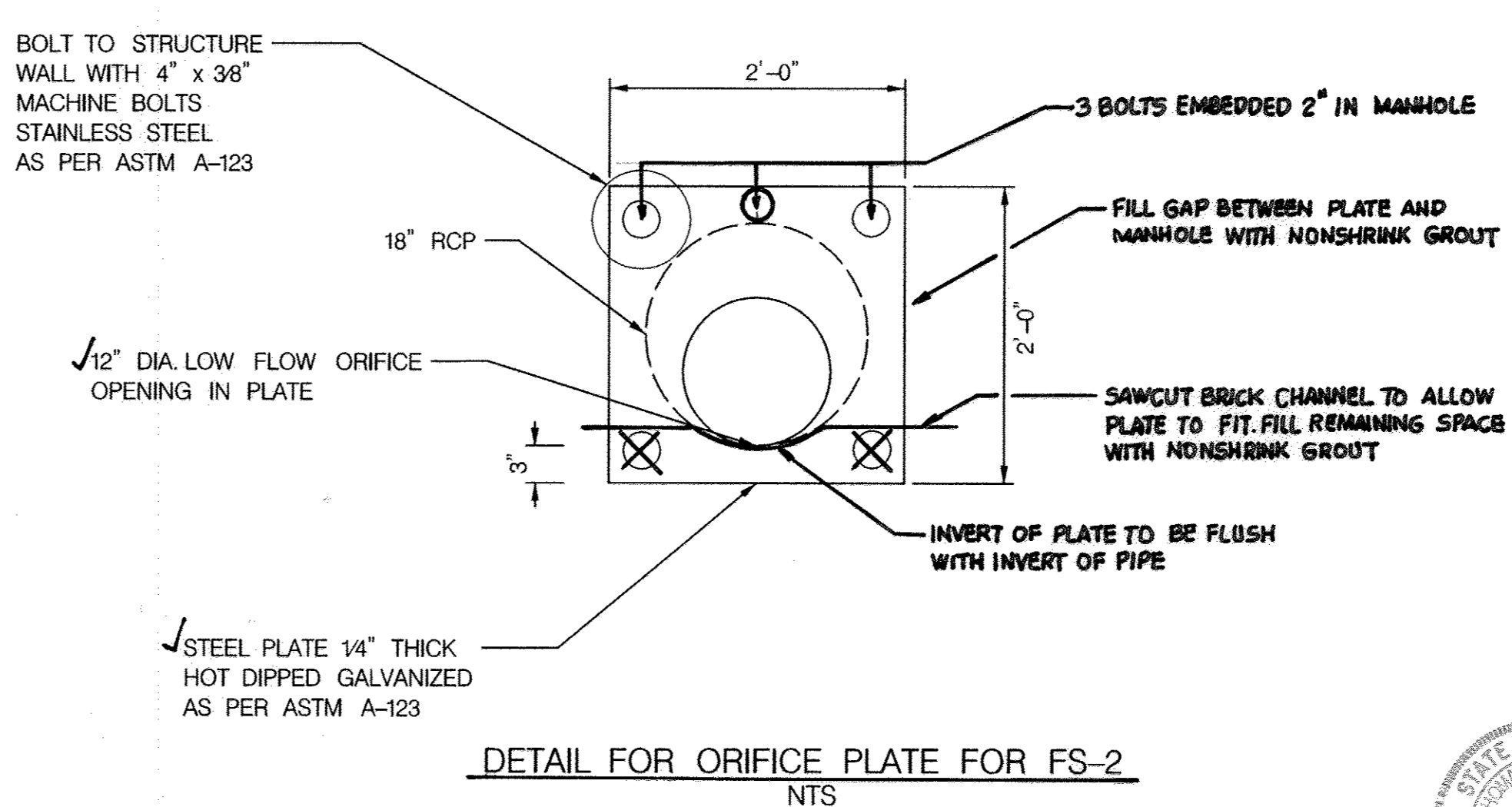
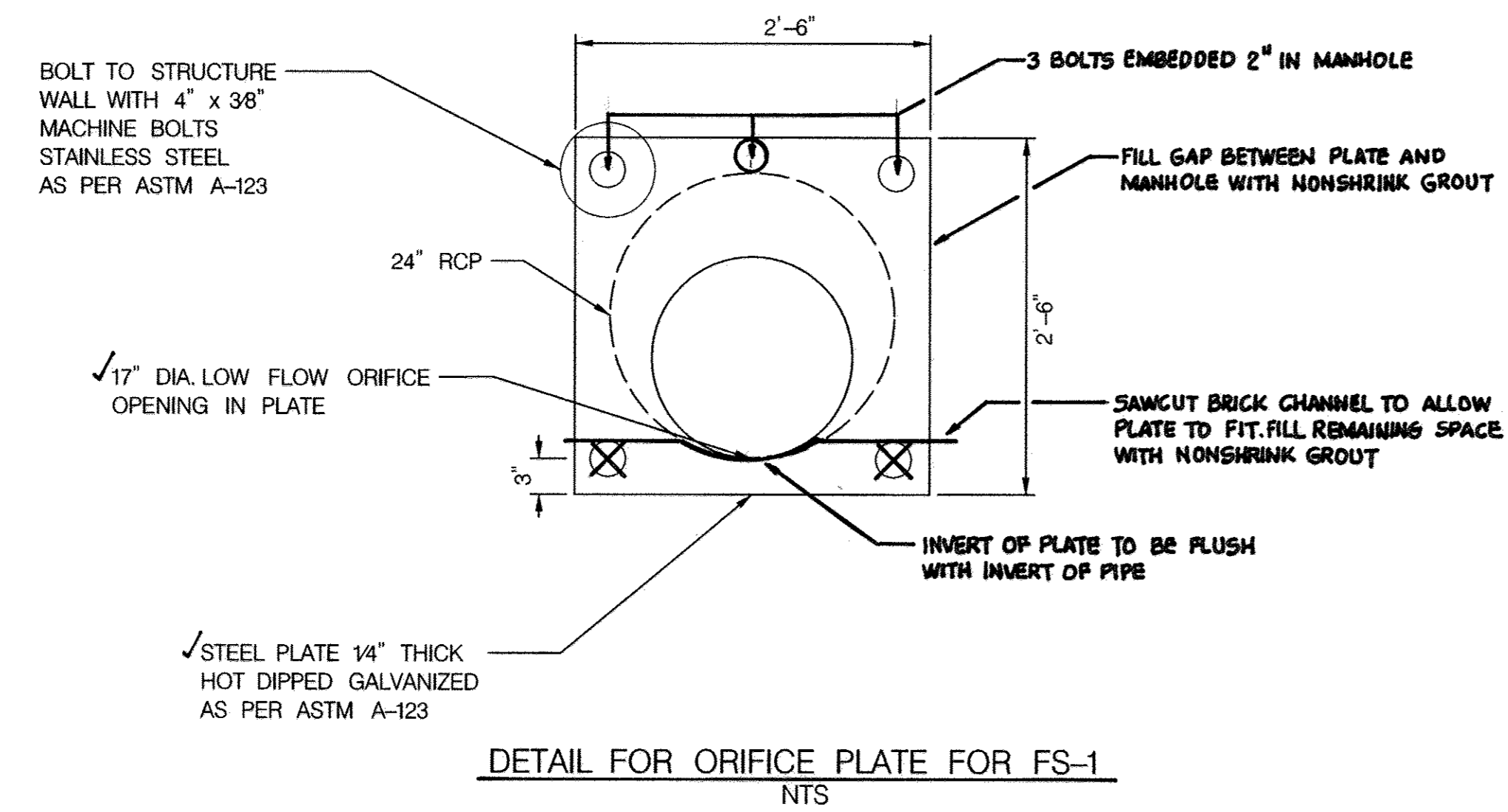
DATE: 05.23.14
 ISSUES / REVISIONS
 REVISED SITE DEVELOPMENT PLAN



DETAIL FOR FS-1
 NTS



DETAIL FOR FS-2
 NTS



DEPARTMENT OF PUBLIC WORKS, HOWARD COUNTY, MD

Thomas Turner
 CHIEF, BUREAU OF ENVIRONMENTAL SERVICES

PROFESSIONAL CERTIFICATION

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DAILY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.

LICENSE NO. 16997
 EXPIRATION DATE 7/14/2019

AS-BUILT CERTIFICATION

I HEREBY CERTIFY BY MY SEAL, THAT THE FACILITIES SHOWN ON THIS PLAN WERE CONSTRUCTED AS SHOWN ON THIS AS-BUILT PLAN MEET THE APPROVED PLAN AND SPECIFICATIONS.

TOM TURNER PE # 16997, 06/18/2018

APPROVED: DEPARTMENT OF PLANNING AND ZONING

John Chubb 6-20-14
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

Kevin Schuler 6-19-14
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

Frank DeWright 6/20/14
 DIRECTOR DATE

THIRD CENTURY
 ENGINEERING
 CONSULTING ENGINEERS - PLANNERS
 10710 GILROY ROAD
 HUNT VALLEY, MD 21031
 Phone: (443) 589-2400 Fax: (443) 589-2401

RENOVATIONS TO
 WILDE LAKE HIGH
 SCHOOL
 (BMP RETROFIT)

TITLE: REVISED SITE DEVELOPMENT PLAN SWM DETAILS

PROJECT NO.: 28-2012
 CAPITAL PROJECT NO.: D-1160

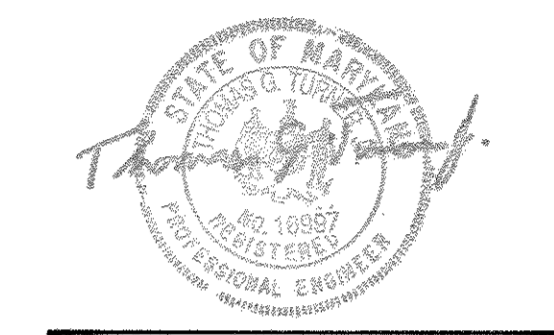
SCALE: NTS

BY: JMS
 CHECK: []
 DWG. NO.: 31 OF 37

CLIENT:
HOWARD COUNTY DPW
ENVIRONMENTAL SERVICES
6751 GATEWAY DRIVE, SUITE 514
COLUMBIA, MD 21046
PHONE: (410) 313-6413

OWNER:
HOWARD COUNTY
PUBLIC SCHOOL SYSTEM
10910 RT. 108
ELLCOTT CITY, MARYLAND 21042
PHONE: (410) 313-6600

DATE: ISSUES / REVISIONS
DATE: 05.23.14 REVISED SITE DEVELOPMENT PLAN



THERE IS NO AS-BUILT INFORMATION ON THIS SHEET.
TOM TURNER PE#16997
05/12/2016

APPROVED: DEPARTMENT OF PLANNING AND ZONING

[Signature] 6-20-14
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

[Signature] 6-19-14
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

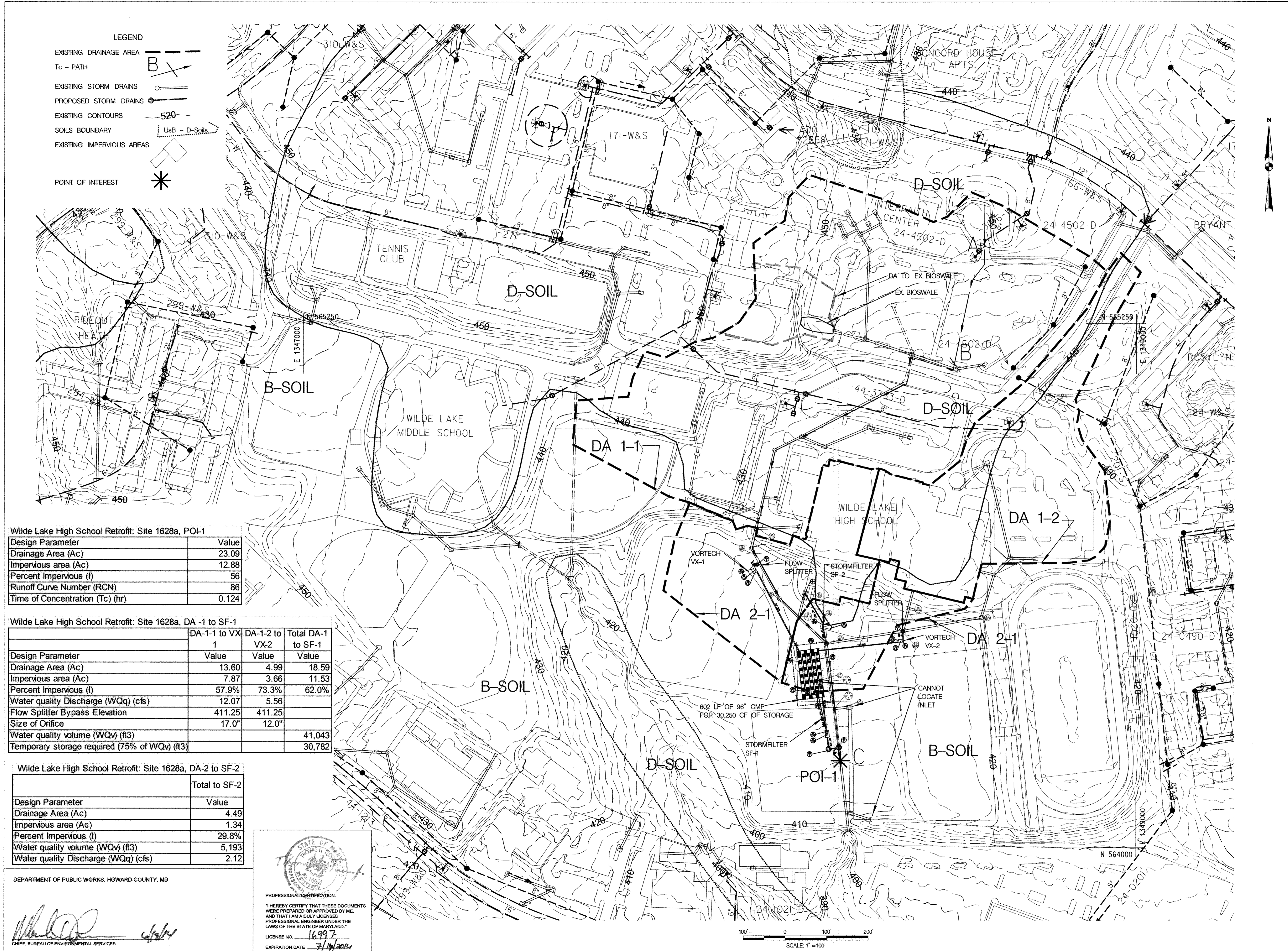
[Signature] 6/20/14
DIRECTOR DATE

CENTURY
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10710 GILROY ROAD
HUNT VALLEY, MD 21031
Phone: (443) 589-2400 Fax: (443) 589-2401

RENOVATIONS TO WILDE LAKE HIGH SCHOOL (BMP RETROFIT)

TITLE: REVISED SITE DEVELOPMENT PLAN DRAINAGE AREA MAP

PROJECT NO.: 28-2012 SCALE: 1" = 100'
CAPITAL PROJECT NO.: D-1160
BY: JMS CHECK:
DWG. NO.:



Wilde Lake High School Retrofit: Site 1628a, POI-1

Design Parameter	Value
Drainage Area (Ac)	23.09
Impervious area (Ac)	12.88
Percent Impervious (I)	56
Runoff Curve Number (RCN)	86
Time of Concentration (Tc) (hr)	0.124

Wilde Lake High School Retrofit: Site 1628a, DA -1 to SF-1

	DA-1-1 to VX-1	DA-1-2 to VX-2	Total DA-1 to SF-1
Design Parameter	Value	Value	Value
Drainage Area (Ac)	13.60	4.99	18.59
Impervious area (Ac)	7.87	3.66	11.53
Percent Impervious (I)	57.9%	73.3%	62.0%
Water quality Discharge (WQq) (cfs)	12.07	5.56	
Flow Splitter Bypass Elevation	411.25	411.25	
Size of Orifice	17.0"	12.0"	
Water quality volume (WQv) (ft3)			41,043
Temporary storage required (75% of WQv) (ft3)			30,782

Wilde Lake High School Retrofit: Site 1628a, DA-2 to SF-2

	Total to SF-2
Design Parameter	Value
Drainage Area (Ac)	4.49
Impervious area (Ac)	1.34
Percent Impervious (I)	29.8%
Water quality volume (WQv) (ft3)	5,193
Water quality Discharge (WQq) (cfs)	2.12

DEPARTMENT OF PUBLIC WORKS, HOWARD COUNTY, MD

[Signature] 6/20/14
CHIEF, BUREAU OF ENVIRONMENTAL SERVICES

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. 16997
EXPIRATION DATE 7/1/2016

HOWARD SOIL CONSERVATION DISTRICT
STANDARD SEDIMENT CONTROL 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 (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 MOST CURRENT MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL AND REVISIONS THERETO.
3. FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN: A) 3 CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DIKES, PERIMETER SLOPES AND ALL SLOPES GREATER THAN 3:1, B) 7 DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.
4. ALL DISTURBED AREAS MUST BE STABILIZED WITHIN THE TIME PERIOD SPECIFIED ABOVE IN ACCORDANCE WITH THE 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR PERMANENT SEEDING (SEC. B-4-5), TEMPORARY SEEDING (SEC. B-4-4) AND MULCHING (SEC. B-4-3). TEMPORARY STABILIZATION WITH MULCH ALONE CAN ONLY BE DONE WHEN RECOMMENDED SEEDING DATES DO NOT ALLOW FOR PROPER GERMINATION AND ESTABLISHMENT OF GRASSES.
5. ALL SEDIMENT CONTROL STRUCTURES ARE TO REMAIN IN PLACE AND ARE TO BE MAINTAINED IN OPERATIVE CONDITION UNTIL PERMISSION FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
6. SITE ANALYSIS:
TOTAL AREA OF SITE: 52.25 ACRES
AREA DISTURBED 2.36 ACRES
AREA TO BE ROOFED OR PAVED 0.0 ACRES
AREA TO BE VEGETATIVELY STABILIZED 2.36 ACRES
TOTAL CUT 6500 CU. YDS.
TOTAL FILL 6500 CU. YDS.
OFFSITE WASTE/BORROW AREA LOCATION NA
7. ANY SEDIMENT CONTROL PRACTICE THAT IS DISTURBED BY GRADING ACTIVITY FROM PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE.
8. ANY SEDIMENT CONTROL MUST BE PROVIDED, IF DEEMED NECESSARY BY THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
9. ON ALL SITES WITH DISTURBED AREAS IN EXCESS OF 2 ACRES, APPROVAL OF THE INSPECTION AGENCY SHALL BE REQUESTED UPON COMPLETION OF INSTALLATION OF PERIMETER EROSION AND SEDIMENT CONTROLS, BUT BEFORE PROCEEDING WITH ANY OTHER EARTH DISTURBANCE OR GRADING. OTHER BUILDING OR GRADING INSPECTION APPROVALS MAY NOT BE AUTHORIZED UNTIL THIS INITIAL APPROVAL BY THE INSPECTION AGENCY IS MADE.
10. TRENCHES FOR THE CONSTRUCTION OF UTILITIES IS LIMITED TO THREE PIPE LENGTHS OR THAT WHICH CAN BE BACK-FILLED AND STABILIZED BY THE END OF EACH WORKDAY, WHICHEVER IS SHORTER.
11. ANY CHANGES OR REVISIONS TO THE SEQUENCE OF CONSTRUCTION MUST BE REVIEWED AND APPROVED BY THE PLAN APPROVAL AUTHORITY PRIOR TO PROCEEDING WITH CONSTRUCTION.
12. A PROJECT IS TO BE SEQUENCED SO THAT GRADING ACTIVITIES BEGIN ON ONE GRADING UNIT (MAXIMUM ACREAGE OF 20 AC. PER GRADING UNIT) AT A TIME. WORK MAY PROCEED TO A SUBSEQUENT GRADING UNIT WHEN AT LEAST 50 PERCENT OF THE DISTURBED AREA IN THE PRECEDING GRADING UNIT HAS BEEN STABILIZED AND APPROVED BY THE ENFORCEMENT AUTHORITY. UNLESS OTHERWISE SPECIFIED AND APPROVED BY THE APPROVAL AUTHORITY, NO MORE THAN 30 ACRES CUMULATIVELY MAY BE DISTURBED AT A GIVEN TIME.

SEQUENCE OF CONSTRUCTION

EROSION AND SEDIMENT CONTROL SETUP - 7 DAYS

1. (DAY 1) THE CONTRACTOR SHALL STAKE OUT THE LIMITS OF DISTURBANCE AS SHOWN ON THE GRADING PLAN.
2. (DAY 2) THE CONTRACTOR SHALL CONDUCT A PRE-CONSTRUCTION MEETING ONSITE WITH THE SEDIMENT CONTROL INSPECTOR AND ENGINEER TO REVIEW THE LIMITS OF DISTURBANCE, STRUCTURE STAKEOUT, EROSION AND SEDIMENT CONTROL REQUIREMENTS, AND THE SEQUENCE OF CONSTRUCTION. THE PARTICIPANTS WILL ALSO VERIFY THE LOCATION OF THE TEMPORARY STOCKPILE AREA AND ANY NECESSARY STAGING AREA, AND FLAG ANY TREES WITHIN THE LIMITS OF DISTURBANCE WHICH WILL BE REMOVED FOR CONSTRUCTION ACCESS AND GRADING.
3. (DAY 3-4) THE CONTRACTOR SHALL INSTALL THE STABILIZED CONSTRUCTION ENTRANCE AND BLAZE ORANGE CONSTRUCTION FENCE AND THE PERIMETER CHAIN LINK FENCE AS SHOWN ON THE GRADING PLANS OR AS DIRECTED BY THE ENGINEER.
4. (DAY 5) THE CONTRACTOR SHALL ESTABLISH THE TEMPORARY STOCKPILE AREA IN THE LOCATION INDICATED ON THE GRADING PLAN.
5. (DAY 5-6) INSTALL REMAINING PERIMETER EROSION AND SEDIMENT CONTROL DEVICES AS SHOWN ON THE PLAN INCLUDING THE SUPER SILT FENCE, DIVERSION FENCE, AND INLET PROTECTION.
6. (DAY 7) THE HOWARD COUNTY CONSTRUCTION INSPECTION DIVISION SHALL BE NOTIFIED UPON COMPLETION OF CONTROLS. UPON COMPLETION OF CONTROL INSTALLATION, AND WITH APPROVAL OF THE SEDIMENT CONTROL INSPECTOR, THE CONTRACTOR MAY BEGIN OPERATIONS. CONSTRUCTION SHALL BE DONE IN ACCORDANCE WITH THE SEQUENCE OF CONSTRUCTION AND GRADING PLANS, AND EROSION AND SEDIMENT CONTROL STANDARD DETAILS AND NOTES.

CONSTRUCTION - (43 DAYS)

NOTE: THE CONTRACTOR MAY INSTALL THE STRUCTURES IN ANY ORDER AS THEY CHOOSE AS LONG AS RUNOFF IS ALLOWED TO FLOW FREELY AND CLEAN THROUGH THE EXISTING STORM DRAIN SYSTEM.

1. (DAY 1) CLEAR AND GRUB AREA WITHIN THE LIMIT OF DISTURBANCE.
8' x 18' STORMFILTER SYSTEM (FS-1, VX-1, FS-2, VX-2, CMP-1, SF-1, MH-1, MH-2)
2. (DAY 2-3) CONSTRUCT FLOW SPLITTER FS-1 AND FS-2 DURING A DRY WEATHER EVENT. WHEN FS-1 AND FS-2 ARE COMPLETED, THE CONTRACTOR SHALL BLOCK FLOW TO THE PROPOSED PIPES. THE PIPES SHALL REMAIN BLOCKED FOR THE DURATION OF THE PROJECT, AND SHALL NOT BE REMOVED UNTIL THE DRAINAGE AREA TO THE SYSTEM IS STABILIZED WITH ESTABLISHED VEGETATION, AND WITH PERMISSION OF THE SEDIMENT CONTROL INSPECTOR.
3. (DAY 4-25) CONSTRUCT REMAINING STRUCTURES OF THE BMP SYSTEM. ANY PONDED WATER WITHIN THE EXCAVATED AREAS SHALL BE PUMPED THROUGH A FILTER BAG BEFORE BEING DISCHARGED TO A STABLE OUTFALL.
8' x 22' STORMFILTER SYSTEM WITH INTERNAL BYPASS (I-1, SF-2)
4. (DAY 25-35) CONSTRUCT INLET I-1 AND SF-2 DURING A DRY WEATHER EVENT. WHEN SF-2 IS COMPLETED, THE CONTRACTOR SHALL BLOCK FLOW WITHIN SF-2 TO THE STORMFILTER CARTRIDGE AREA, AND ALLOW FLOW TO ONLY GO THROUGH THE INTERNAL BYPASS AREA. THE TREATMENT AREA WITHIN SF-2 SHALL REMAIN BLOCKED FOR THE DURATION OF THE PROJECT, AND SHALL NOT BE REMOVED UNTIL THE DRAINAGE AREA TO THE SYSTEM IS STABILIZED WITH ESTABLISHED VEGETATION, AND WITH PERMISSION OF THE SEDIMENT CONTROL INSPECTOR.
5. (DAY 35) INSTALL INLET PROTECTION OVER I-1 AND SF-2-1.

FINAL GRADING AND GROUND PREPARATION

6. (DAY 35-41) THE CONTRACTOR SHALL TAKE SPECIAL CARE TO GRADE AND STABILIZE THE SITE ACCORDING TO THE CONTRACT DOCUMENTS.
7. (DAY 42-43) UPON STABILIZATION OF THE SITE WITH ESTABLISHED VEGETATION AND WITH THE APPROVAL OF THE SEDIMENT CONTROL INSPECTOR, REMOVE REMAINING SEDIMENT CONTROL DEVICES. STABILIZE ANY AREAS DISTURBED BY SEDIMENT CONTROL REMOVAL. UNBLOCK FS-1, FS-2 AND SF-2.

CONTRACTOR NOTES

1. THE PERIMETER OF THE SITE SHALL BE PROTECTED WITH A 6' HIGH TEMPORARY CHAIN LINK FENCE TO PREVENT ACCESS. THE CONTRACTOR SHALL PROVIDE LOCKS FOR THE ENTRANCE AND ADEQUATE SIGNAGE ON THE FENCE.
2. MANY OF THE PROPOSED MANHOLES WILL BE SET BELOW THE PROPOSED GRADE. THE CONTRACTOR SHALL REFER TO THE STRUCTURE TABLE TO DETERMINE THE FINAL ELEVATION OF THE PROPOSED MANHOLES.
3. THE GRADE OF THE FIELD SHALL BE RETURNED TO EXISTING CONDITIONS.
4. EXCESS SOIL CANNOT BE SPREAD ON-SITE. THE CONTRACTOR MUST REMOVE ANY EXCESS EXCAVATED SOIL FROM THE PROJECT SITE AT THE END OF THE PROJECT.
5. UPON COMPLETION OF GRADING, THE CONTRACTOR SHALL PLACE 4" OF FRESH TOPSOIL ON THE SITE. SALVAGED TOPSOIL SHALL NOT BE USED.
6. THE CONTRACTOR SHALL REFER TO HOWARD COUNTY PUBLIC SCHOOL'S "SEEDING AND SODDING SPECIFICATIONS FOR GROUND RESTORATION".
7. TEMPORARY OR PERMANENT SEEDING AND STABILIZATION IS TO BE PERFORMED AT THE DIRECTION OF THE CID INSPECTOR.

OPERATION, MAINTENANCE AND INSPECTION

INSPECTION OF THE POND(S) SHOWN HEREON SHALL BE PERFORMED AT LEAST ANNUALLY, IN ACCORDANCE WITH THE CHECKLIST AND REQUIREMENTS CONTAINED WITHIN USDA, NRCS "STANDARDS AND SPECIFICATIONS FOR PONDS" (MD-378). THE POND OWNERS(S) AND ANY HEIRS, SUCCESSORS, OR ASSIGNS SHALL BE RESPONSIBLE FOR THE SAFETY OF THE POND AND THE CONTINUED OPERATION, SURVEILLANCE, INSPECTION, AND MAINTENANCE THEREOF. THE POND OWNERS(S) SHALL PROMPTLY NOTIFY THE SOIL CONSERVATION DISTRICT OF ANY UNUSUAL OBSERVATIONS THAT MAY BE INDICATIONS OF DISTRESS SUCH AS EXCESSIVE SEEPAGE, TURBID SEEPAGE, SLIDING OF SLUMPING.

B-4-8 STANDARDS AND SPECIFICATIONS

FOR

STOCKPILE AREA

Definition

A mound or pile of soil protected by appropriately designed erosion and sediment control measures.

Purpose

To provide a designated location for the temporary storage of soil that controls the potential for erosion, sedimentation, and changes to drainage patterns.

Conditions Where Practice Applies

Stockpile areas are utilized when it is necessary to salvage and store soil for later use.

Criteria

1. The stockpile location and all related sediment control practices must be clearly indicated on the erosion and sediment control plan.
2. The footprint of the stockpile must be sized to accommodate the anticipated volume of material and based on a side slope ratio no steeper than 2:1. Benching must be provided in accordance with Section B-3 Land Grading.
3. Runoff from the stockpile area must drain to a suitable sediment control practice.
4. Access the stockpile area from the upgrade side.
5. Clear water runoff into the stockpile area must be minimized by use of a diversion device such as an earth dike, temporary swale or diversion fence. Provisions must be made for discharging concentrated flow in a non-erosive manner.
6. Where runoff concentrates along the toe of the stockpile fill, an appropriate erosion/sediment control practice must be used to intercept the discharge.
7. Stockpiles must be stabilized in accordance with the 3/7 day stabilization requirement as well as Standard B-4-1 Incremental Stabilization and Standard B-4-4 Temporary Stabilization.
8. If the stockpile is located on an impervious surface, a liner should be provided below the stockpile to facilitate cleanup. Stockpiles containing contaminated material must be covered with impermeable sheeting.

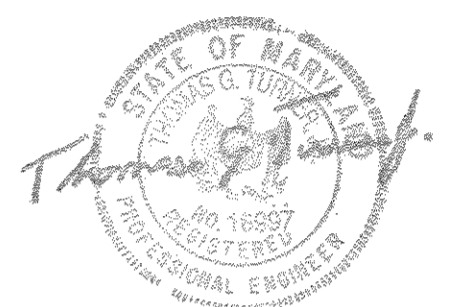
Maintenance

The stockpile area must continuously meet the requirements for Adequate Vegetative Establishment in accordance with Section B-4 Vegetative Stabilization. Side slopes must be maintained at no steeper than a 2:1 ratio. The stockpile area must be kept free of erosion. If the vertical height of a stockpile exceeds 20 feet for 2:1 slopes, 30 feet for 3:1 slopes, or 40 feet for 4:1 slopes, benching must be provided in accordance with Section B-3 Land Grading.

CLIENT:
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COLUMBIA, MD 21046
PHONE: (410) 313-6413

OWNER:
HOWARD COUNTY
PUBLIC SCHOOL SYSTEM
10910 RT. 108
ELLCOTT CITY, MARYLAND 21042
PHONE: (410) 313-6600

DATE: 05.23.14
ISSUES / REVISIONS
REVISED SITE DEVELOPMENT PLAN



THERE IS NO AS-BUILT INFORMATION ON THIS SHEET.
TOM TURNER PE#16997
08/12/2010

APPROVED: DEPARTMENT OF PLANNING AND ZONING

[Signature] 6/20/14
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

[Signature] 6/19/14
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

[Signature] 6/20/14
DIRECTOR DATE

MM CENTURY
ENGINEERING
CONSULTING ENGINEERS - PLANNERS
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RENOVATIONS TO
WILDE LAKE HIGH
SCHOOL
(BMP RETROFIT)

TITLE: REVISED SITE DEVELOPMENT PLAN
EROSION AND SEDIMENT CONTROL NOTES

PROJECT NO.: 28-2012
CAPITAL PROJECT NO.: D-1160
SCALE: N/A
BY: JMS
CHECK:

DWG. NO.: 33 OF 37

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

[Signature] 6/19/14
HOWARD SCD DATE

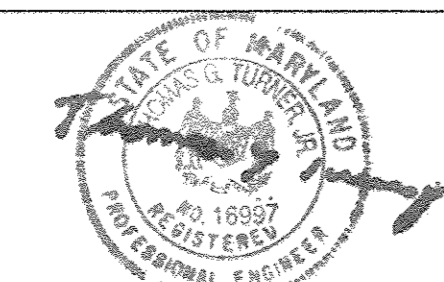
DEPARTMENT OF PUBLIC WORKS, HOWARD COUNTY, MD

[Signature]
CHIEF, BUREAU OF ENVIRONMENTAL SERVICES

AS-BUILT CERTIFICATION

I CERTIFY THAT THE FACILITY SHOWN ON THIS PLAN WAS CONSTRUCTED AS SHOWN ON THE "AS-BUILT" PLANS AND MEETS THE APPROVED PLANS AND SPECIFICATIONS.

[Signature]
SIGNATURE
PE. NO. 16997
DATE 7-19-2014



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. 16997
EXPIRATION DATE 7/14/2014

THE AS-BUILT CERTIFICATION EXCLUDES AS-BUILT TOPOGRAPHIC SURVEY WHICH WAS PERFORMED BY KINSLEY CONSTRUCTION INC.

SEEDING AND SODDING SPECIFICATIONS

- 1.0 GENERAL
- 1.1 DESCRIPTION
- A. Furnish all labor, materials, tools, equipment, and services necessary for and reasonably incidental to complete the seeding and sodding work as indicated on the drawings or specified. Contractor shall produce a dense, well established turf.
 - B. Contractor to restore both grade and seed at site compound, site parking, access road, and around building additions at the completion of the project.
 - C. Seed all disturbed site areas where sod is not specifically called for on landscape, forest conservation plans, or specified.
 - D. Seeding notes appearing on Sediment Control drawings shall pertain only to temporary stabilization seed and shall apply only to work covered on those drawings. Permanent seeding of all areas of the project to be seeded shall be performed in accordance with the requirements of this Section.

- 1.2 RELATED SECTION
- A. Excavating, filling, grading, stockpiling importation when required, spreading of topsoil, and installation of stabilization matting shall be performed in strict accordance with the requirements.

- 1.3. SUBMITTALS
- A. Submit certificates of inspection as required by governmental authorities and samples of other materials as requested by the Owner or Owner's representative. Samples shall be submitted to the Owner's designated representative for approval.
 - B. Submit seed vendor's certified statement for grass seed mixture, stating botanical and common name, percentage by weight, percentages of purity, germination, and weed seed.
 - C. Submit test reports of topsoil analysis.
 - D. Before any seeding and sodding work is scheduled to begin, and after all other submittal requirements have been approved, a meeting will be held at the job site to review the drawing and specification requirements. The intent of this meeting is to resolve questions before work is started. The meeting shall coincide with the date of a Progress Meeting and shall be attended by the site work contractor, seeding, subcontractor, Owner's representative, and Architect.
 - E. Submit result of Maryland Seed Laboratory control testing of seed quality to ensure seed mixture meets requirements of specification.

- 1.4. APPROVALS
- A. All approvals will be in writing.
 - B. Contractor to request inspection of all areas before topsoil is spread. After topsoil is spread, Contractor to request an inspection to determine that all areas are prepared for seeding.

- 1.5. JOB CONDITIONS
- A. Seed shall be sown from March 1 to May 1 and from August 15 to October 15 inclusive as soon as the soil is dry enough to allow proper penetration of a seed bed. Sod shall not be installed between June 1 and August 15. Any planting outside of these seasons shall be solely at the Contractor's risk and shall not be subject to compensation until stabilization has been accomplished in accordance with these specifications.
 - 1. No seeding shall be done on frozen ground or when the temperature is 32 deg. F or lower.
 - 2. No frozen sod shall be used, and sod shall not be placed upon frozen soil.
 - 3. No seeding shall be done during windy weather or when ground is wet or otherwise untable.
 - 4. Seed all areas within the project limits that are not paved or designated on the drawings to receive special treatment. Seed disturbed areas in the public rights-of-way.
 - B. If planting of trees and shrubs occurs after lawn work, protect lawn areas and promptly repair damage to lawns resulting from planting operations.

- 1.6. WORKMANSHIP
- A. During seeding/sodding, all areas shall be kept neat and clean, and precautions shall be taken to avoid damage to existing plants, turf and structures.
 - B. Upon completion, all debris and waste materials resulting from seeding/sodding operations shall be removed from the project and the area cleaned up.
 - C. Any areas damaged by the seeding/sodding contractor shall be restored to the original condition.

- 2.0 PRODUCTS
- 2.1 MATERIALS
- A. Grass Seed
 - 1. Seed lots must be Maryland State Certified and blended under the supervision of the Maryland Department of Agriculture (MDA), Turf and Seed Section.
 - 2. All seed and labeling must fully comply with the Maryland Seed Law and these specifications:
 - a. Seed shall be packed 50 lbs. net weight and packed in new, clean, poly woven bags, tightly woven to prevent leaking and contamination.
 - b. Each container shall have permanently affixed to it an accurate analysis tag and a certification tag.
 - 3. All seed lots to be used in this mixture shall have been previously tested by the Maryland Seed Laboratory to ensure compliance with specifications.

- 6. A quality control sample of the delivered mixture shall be submitted to the Maryland Seed Laboratory for testing prior to payment and any lots found not to comply with the specifications shall be returned at the Contractor's expense.
- 7. The Contractor shall submit seed certification tags to Owner's representative prior to the beginning of any seed work.
- 8. Application Rate: Grass seed mixture shall be applied at the rate of eight (8) pounds per 1,000 square feet.

- B. Permanent Seed Mixture Certification
- 1. Permanent grass seed mixture shall consist of a Maryland Certified Mixture of 2-3 cultivars of Improved Turf Type Tall Fescue and Kentucky Bluegrass. All varieties are to be from the latest edition of the University of Maryland Agronomy Mimeo (Maryland Recommended List). Mixture shall conform to the following requirements:

SPECIES	% BY WEIGHT	% PURITY	% GERMINATION	% WEED SEED
Turf Type Tall Fescue	96%-100%	98	90	0.1
Kentucky Bluegrass	5%-10%	98	85	0.1

Must be free of rye grass, timothy, orchard grass, bent grass, Canada Bluegrass, clover and any other contaminant which shall be unsightly and uncontrollable weeds. Must also be free of Dock, cheat, chess, chickweed, crabgrass, plantain, and black magic.

- 2. Seed mixture must be free of any prohibited and restricted noxious weeds in accordance with the Maryland Seed Law.
- 3. Seed lots must be blended and certified as per the general certification specifications of the Maryland Department of Agriculture.
- 4. Seed filling must comply with the MARYLAND SEED AND REGULATIONS LAW.
- 5. All seed shall be certified with complete and accurate analysis tags attached to each bag. The Contractor shall save all seed tags and submit them to the Contractor Manager.
- 6. Temporary Mixture: See B-4-4 Standards and Specifications for Temporary Stabilization

- C. Hydros seeding
Hydros seeding is not permitted on this project.
- D. Big Roll/Pad Turf Sod Specification
Sod is not to be used for this project.
- E. Topsoil

All topsoil shall be screened utilizing a 1/2" screen prior to placement. (On-site topsoil shall be indigenous natural friable loam of uniform composition capable of sustaining vigorous plant growth, as approved by the Construction Manager for stockpiling.) Imported topsoil is required; it shall consist of a natural friable loam of uniform composition, obtained from an area which has never been stripped, possessing characteristics of the best soils of the vicinity which produce heavy growths of crops, grass and other vegetation. All on-site and imported topsoil shall be of uniform composition with no subsoil, clay lumps, stones, stumps, roots or similar objects. Topsoil shall be free of any parts (seed, rhizomes, roots etc.) of Johnson grass, Canada Thistle, Bermuda grass, poison ivy, or other noxious weeds, and litter or any other material or substances which may be harmful to plant growth, or a hindrance to planting, or maintenance operations. Imported topsoil shall contain 50-75% sand, 15-25% silt and 10-20% clay. All onsite and imported topsoil shall have a pH value not less than 5.8 and shall contain not less than 1.5% organic matter by weight, in accordance with MSMT 603. Soluble salts shall not exceed 500 ppm. Contractor shall have all on-site and imported topsoil tested by a recognized approved soil lab from the Maryland Department of Agriculture. Testing certification shall verify that tested samples of topsoil meet all specification requirements. Test samples shall be taken for each 100 cubic yards of topsoil. Cost of testing topsoil shall be paid by the Contractor. Add organic matter if required by test results. Contractor shall deliver one cubic yard of proposed imported topsoil to the site for Owners approval and location where the topsoil is coming from before starting of spreading. Owner's evaluation of suitability of imported topsoil shall be final.

- 1. The contractor shall have all imported topsoil tested by a certified testing agency in accordance with the USDA Cooperative Extension Service Guidelines. Testing certification shall verify that tested samples of topsoil meet all specification requirements. Test samples shall be taken for each 100 cubic yards of stockpiled topsoil prior to delivery.
- 2. The contractor shall submit with his bid the proposed source of topsoil supply for this project and test certification for one sampling that the topsoil meets all specifications.
- 3. Topsoil forming existing athletic fields shall not be stockpiled for re-used on the seedbed preparation and shall be removed and disposed of.

- 2.2 SOIL AMENDMENTS
- A. Lime shall be agricultural grade lime material (ground limestone, hydrated or burnt lime) which contains total carbonates of 85% with a minimum of 30% magnesium carbonate and which contains at least 50% total oxides (calcium oxide plus magnesium oxide). Limestone shall be ground so that not less than 50% passes a 100 mesh sieve and 90-100% passes a 20 mesh sieve.
 - B. Lawn Fertilizer: Complete fertilizer or neutral character and uniform composition which is suitable for application with approved equipment. Lawn fertilizer shall be the only fertilizer used after seeding or sodding and must meet with the Maryland Department of Agriculture Professional Fertilizer Law, in accordance with the provisions of the Agriculture Article, Section 8-806.
 - 1. Fertilizer shall contain some elements derived from organic sources and provide nitrogen in a form that will be available to the lawn during its initial period of growth.
 - 2. Fertilizer shall be delivered to the site fully labeled according to applicable state fertilizer.

- 2.3 MISCELLANEOUS MATERIALS
- A. Mulch shall be thrashed barley, wheat, or oat straw. It shall be cleaned and free of noxious weeds, weed seeds, and other foreign materials. Mulch all seeded areas.
 - 1. Mulch shall be applied at a rate of 2,000 pounds per acre in a uniform manner.
 - 2. Terra Tack Binders as manufactured by Grass Growers of Plainfield, New Jersey or an approved equal shall be added to mulch mixture at the rate of 140 lbs. per acre.
 - 3. If mulch is displaced before seed growth of 1 to 1 1/2 inches is obtained, it shall be replaced by the contractor at no expense to the Owner.

- 2.4 DELIVERY, STORAGE AND HANDLING
- Deliver packaged materials in containers showing weight, analysis, and name of manufacturer. Protect materials from deterioration during delivery and while stored at site.

- 2.5 TOPSOIL
- Topsoil shall conform to the requirements of "HOWARD COUNTY PUBLIC SCHOOL GROUNDS SERVICES - EXCAVATING, FILLING AND GRADING SPECIFICATIONS".

- 3.0 EXECUTION
- 3.01 SURFACE CONDITIONS
- Prior to all work of this Section, carefully inspect the area of work and verify that the seeding may be completed in strict accordance with the drawings and these specifications. In the event of discrepancy, immediately notify the Contract Manager and proceed as directed.

- 3.02 SPREADING OF TOPSOIL
- Spreading of topsoil and finished grading will be accomplished under "HOWARD COUNTY PUBLIC SCHOOL GROUNDS SERVICES - EXCAVATING, FILLING AND GRADING SPECIFICATIONS".

- 3.03 SOIL PREPARATION OF SEEDBED/FINISHED GRADE
- A. All areas that are to be seeded or sodded shall be cleaned of any rough grass, weeds, and debris and the ground shall be brought to an even grade.
 - B. Apply lime and fertilizer as directed in accordance with the soil test analysis.
 - C. Following the application of fertilizer and lime, mix amendments into the top 4" of soil by discing, harrowing, or other approved methods.
 - D. After amendments have been applied, grade lawn areas to a smooth, even surface with loose, uniformly fine texture. Light roll and rake and remove ridges and fill depressions, as required to meet finish grades. Limit fine grading to areas which can be planted immediately after grading.
 - E. Moisten prepared lawn areas before planting if soil is dry. Water thoroughly and allow surface moisture to dry before seeding. Do not create a muddy soil condition.
 - F. Restore lawn areas to specified condition if eroded or otherwise disturbed after fine grading and prior to planting. The Contractor is to request an inspection to determine that all areas are prepared for seeding.

- 3.04 SEEDING
- A. Apply seed to all topsoil areas at a rate of eight (8) lbs. per 1,000 sq. feet of turf area using an approved mechanical seeder by either drilling or applying with a Brillion seeder on all areas to achieve optimum seed to soil contact. No more than 50% of the seed should be applied in any one direction. Seed should be applied in a minimum of three directions with the second application being at right angles to the first and the third application being at 45 degrees to the first two. A drag mat to work seed into the soil to a depth not more than 1/4 inch, and to insure good soil/seed contact and uniform distribution, shall follow seeding.
 - B. Compact the seedbed by means of a cultipacker or similar equipment.
 - C. The finished seeded surface shall be smooth and true to a tolerance of 0.1 foot; if any irregularities or water retaining depressions occur they shall be corrected by re-grading, placing additional topsoil, and reseeded. The surface shall be free of stone, sticks, or other material one (1) inch or more in any dimension.
 - D. Mulch the newly planted area with straw "A" - 1" thick or 60 - 80 bales/acre (min 2000 pounds per acre, 3 - 5 straws thick) or with cellulose fiber - 650 lbs./half acre.
 - E. Stabilize the mulch with chemical tacking, cellulose fiber, twine, or netting and stapling. Crimping of mulch is not allowed. Precautionary measures shall be taken to prevent marking or defacing structures, pavements, utilities, or plantings.
 - F. Excess and waste material shall be removed daily. All pavements shall be left broom cleaned, and all damaged areas of existing turf shall be restored to their original condition.

- 3.05 SEEDING TRANSITIONAL AREAS
- A. Overseed all transitional areas between new and existing turf.
 - B. Mow area to one (1) inch cutting height, de-thatch and aerify.
 - C. Scarify area four (4) feet wide from edge of newly placed to existing turf.
 - D. Fill area with approved furnished topsoil to taper from finished grade to existing grade to turf to be overseeded.
 - E. Apply recommended soil amendments.
 - F. Apply certified seed mixture specified for overseeding at the rate of five (5) lbs. per 1,000 square feet.
 - G. Rake to form a smooth, even slope from seeded area to existing grade.
 - H. Roll lightly to press seed in contact with soil. Water lightly and keep moist.

- 3.06 SODDING
- Sod is not to be used for this project.

- 3.07 MAINTENANCE AND PROTECTION
- A. Begin maintenance immediately after planting and continue for a minimum of four mowings until acceptance by the Contract Manager.
 - B. Newly seeded areas shall be maintained at a height between 2 1/4 and 4 inches and all grass clippings shall be removed during or immediately after mowing.
 - C. In addition to being mowed, lawns shall be watered (1 to 1 1/2" minimum per week, including rain and irrigation), fertilized, weeded, trimmed, rolled, re-graded, and/or replanted as required to establish a smooth acceptable lawn, free of eroded or bare areas and free of weeds.
 - D. Protect seeding work and materials from damage due to landscape operations, operations by other workmen, trades, and trespassers. Maintain protection, including temporary fence, baffle, and/or signs during installation and maintenance periods. Treat, repair, or replace damaged landscape work as directed.
 - E. Overseeding at flat and slope areas shall consist of applying seed and fertilizer to previously seeded and mulched areas where turf establishment has not been successful and where re-mulching is not required. Work shall be performed in the areas as directed by the Contract Manager in accordance with paragraph 3.04 except for the requirements of soil preparation.

- 3.08 INSPECTION AND ACCEPTANCE
- A. Upon substantial completion of the grading, landscaping, and seeding operations, the Contract Manager's representative shall make an on-site inspection of the turf areas to determine their acceptability. The inspection shall be made in the presence of the seeding contractor.
 - B. Lawn areas will be inspected for their acceptability when, after a minimum of mowing, there is a uniform stand (95% germination minimum), of weed-free turf composed of the specified grasses with an average height of 3" and no bare spots.
 - C. Contractor shall have the existing soil tested by the Maryland Cooperative Extension Service prior to added soil amendments to determine the types and rates of soil amendments required. Contractor shall submit copies of soil report and recommendations to Contract Manager. ID. Contractor shall provide 72 hours prior notice to Contract Manager when calling for an inspection.
 - D. Where inspected landscape/seeding work does not comply with requirements, replace rejected work and continue specified maintenance until re-inspected by architect and found to be acceptable. Remove rejected work and materials promptly from project site.
 - E. Contractor shall request inspection by the Contract Manager at the following stages of landscape/seeding work.
 - 1. After topsoil is placed, area is prepared for lawn, and planting beds are ready to receive seeding.
 - 2. Prior to placement and spreading of seed - Contract Manager will be provided with seed bag labels at this time.
 - 3. When landscape work is completed, the Contract Manager will, upon request, make inspection to determine acceptability.

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. For longer duration of time, permanent stabilization practices are required.

Criteria

- 1. Select one or more of the species or seed mixtures listed in Table B.1 for the appropriate Plant Hardiness Zone (from Figure B.3), and enter them in the Temporary Seeding Summary below along with application rates, seeding dates and seeding depths. If this Summary is not put on the plan and completed, then Table B.1 plus fertilizer and lime rates must be put on the plan.
- 2. For sites having soil tests performed, use and show the recommended rates by the testing agency. Soil tests are not required for Temporary Seeding.
- 3. When stabilization is required outside of a seeding season, apply seed and mulch or straw mulch alone as prescribed in Section B-4-3.A.1.b and maintain until the next seeding season.

TEMPORARY SEEDING SUMMARY						
Seed Mixture (Hardiness Zone 6B) From Table 26						
No.	Species	Application Rate (lb/ac)	Seeding Dates	Seeding Depths	Fertilizer Rate (10-10-10)	Lime Rate
	ANNUAL RYEGRASS	40	3/1 to 5/31; 8/1 to 10/15	1"	436 lb/ac (10 lb/1000 sf)	2 tons/ac (90 lb/1000 sf)
	BARLEY	96	3/1 to 5/31; 8/1 to 10/15	1/2"	436 lb/ac (10 lb/1000 sf)	2 tons/ac (90 lb/1000 sf)
	FOXTAIL MILLET	30	5/16 to 7/31	1/2"	436 lb/ac (10 lb/1000 sf)	2 tons/ac (90 lb/1000 sf)

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PHONE: (410) 313-6413

OWNER:
HOWARD COUNTY
PUBLIC SCHOOL SYSTEM
10910 RT. 108
ELLCOTT CITY, MARYLAND 21042
PHONE: (410) 313-6600

DATE: 05.23.14 ISSUES / REVISIONS
REVISED SITE DEVELOPMENT PLAN



THERE IS NO AS-BUILT INFORMATION ON THIS SHEET.
TOM TURNER PE#16997
08/12/2016

APPROVED: DEPARTMENT OF PLANNING AND ZONING

John E. Clark 6-20-14
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

Keith S. Dwyer 6-19-14
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

Mark A. Long 6/20/14
DIRECTOR DATE

THIRD CENTURY ENGINEERING
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10710 GILROY ROAD
HUNT VALLEY, MD 21031
Phone: (443) 589-2400 Fax: (443) 589-2401

RENOVATIONS TO WILDE LAKE HIGH SCHOOL (BMP RETROFIT)

TITLE: **REVISED SITE DEVELOPMENT PLAN EROSION AND SEDIMENT CONTROL NOTES**

PROJECT NO.: 28-2012 SCALE: N/A
CAPITAL PROJECT NO.: D-1180

BY: JMS CHECK:
DWS NO.:

34 OF 37

DEPARTMENT OF PUBLIC WORKS, HOWARD COUNTY, MD

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

John R. Roberts 6/19/14
HOWARD SCD 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. 16997
EXPIRATION DATE 8/12/2016

EXCAVATING, FILLING, AND GRADING SPECIFICATIONS

1.0 GENERAL

1.01 DESCRIPTION

Excavating, filling and grading for this work includes, but is not necessarily limited to:

- A. All rough and finish grading of the site and off-site areas.
- B. Acquisition, placement, and spreading of imported structural fill material, as necessary to attain indicated grades. Imported fill material shall be furnished at no additional cost to the owner.
- C. Removal of excess soil and fill material as necessary to attain indicated grades. Removal and disposition of cut soils shall be completed at no additional cost to owner.
- D. Removal of existing unsuitable materials, as determined by the Engineer, from site areas where excavations are required to achieve the work indicated; and replacement with approved structural fill material.
- E. Screening and spreading of on-site topsoil (if permitted by owner) as required achieving 6" thickness. Excess topsoil shall be removed.
- F. Installation and maintenance of temporary dewatering system.
- G. Installation, maintenance, and eventual removal of sediment control measures including temporary stabilized construction entrances and temporary stabilization.
- H. Manipulation and drying of soils or the application of soil drying agents to approved fill materials if required to reduce moisture content to acceptable levels.

All materials to be excavated or graded shall be considered non-classified and includes all material encountered including hard, dense, difficult to excavate material, and "rock" by any definition. Contractor shall verify earthwork quantities prior to bidding. All cost associated with importation of off-site topsoil required to provide topsoil depths indicated shall be included in base bid. Any quantity information shown on the drawings shall not be used for bid purposes.

1.02 RELATED WORK SPECIFIED IN OTHER SECTIONS

Cooperate as necessary with all other trades to ensure proper installation of work described in this Section. The following operations are described in the Section indicated. However, all such work shall be performed in strict accordance with the provisions of this Section.

- A. Clearing of site is described in Section 3.04 "Site Stripping and Preparation".
- B. Installation of all site utilities in accordance with Section 3.12 "Utilities".

1.03 DEFINITIONS

For the purpose of this work, the following definitions are established for the terms used:

- A. "Structural fill" is all material placed to raise the grade of the site or to backfill excavations; upon which the Engineer has made sufficient tests and observations to enable him to issue a written statement that, in his opinion, the fill had been placed and compacted in accordance with the requirements of these Specifications.
- B. "On-site material" is material obtained from the required excavation on the site.
- C. "Import Material" is material hauled in from off-site borrow areas when sufficient acceptable on-site material is not available.
- D. "ASTM Specifications" are those contained in the latest edition of the standards of the American Society for Testing and Materials.

1.04 REQUIREMENTS OF REGULATORY AGENCIES

Perform all work in accordance with all applicable codes, laws, and ordinances, and applicable sediment control guidelines and regulations. Contractor shall give all required notices.

1.05 SUBSURFACE CONDITIONS

- A. A Subsurface Exploration and Geotechnical Evaluation dated November 21, 2013 has been prepared by AB Consultants, Inc. and is bound into these Specifications.
- B. The Contractor is responsible for visiting the site and becoming familiar with site conditions. Prior to bidding, the Contractor may make his own subsurface investigation at his own expense to satisfy himself with site and subsurface conditions. If such an investigation is made, prior notice should be given to the Owner and Construction Manager and all borings and pits shall be filled upon completion.
- C. An Engineer will be retained by the Owner to observe the performance of all work under this Section. If, in the opinion of the Engineer, any work performed under this Section does not meet the technical or design requirements stipulated for the work, make all necessary readjustments to his approval. The presence of the Engineer on site does not relieve the Contractor of the responsibility to provide work in accordance with the Contract Documents. Make no deviations from the Contract Documents without specific and written approval of the Architect or Construction Manager.
- D. The Engineer's review of the Contractor's performance does not include review of the Contractor's safety measures in, on, or near the job site or connected in any way with the performance of this section.

1.06 PROJECT CONDITIONS

- A. Take all measures necessary to control dust on and near the work area. These measures shall include wetting of ground surfaces as often as required to prevent the spreads of dust during excavating and grading operations. The Contractor shall wet down ground surfaces as often as required to prevent dust from being a nuisance to the public, neighbors, and the concurrent performance of other work on the site.
- B. Locate all active utilities traversing the site or areas of off-site work and determine the requirements for protection. Obtain utilities location verification from local "Miss Utility" service and provide whatever additional investigation is necessary to verify utility locations before starting any excavation.
- C. The use of explosives is not permitted.
- D. Take all measures necessary to protect structures, utilities, power and utility poles, signs, fencing, curbs, paving, trees, and vegetation which are indicated to remain, or are beyond the "Limit of Grading Disturbance" (L.O.D.) indicated on the site development plans, and other facilities in areas of work from damage before, during, and after installation and to protect the installed work of other trades. Any damage to the above shall be repaired to a "like new" condition or replaced at the Owner's discretion at no additional cost. Barricade open excavations and provide warning lights from dusk to dawn each day or per direction of the Engineer.

1.07 SEDIMENT AND EROSION CONTROL

Contractor shall take necessary precautions indicated or required to keep sedimentation or mud from entering public ways, roads, driveways, waterways, or adjacent properties in accordance with applicable codes. Conform to Contract Documents and with applicable sediment and erosion control regulations. Contractor shall remove all sediment from sediment control traps prior to placement of fill material in these areas.

1.08 SUBMITTALS

- A. Test results: Submit test results to a recognized soils Laboratory recommended by the Maryland Department of Agriculture to certify that topsoil meets all specification requirements. Testing shall be completed for all on-site and imported topsoil. Samples and testing shall be taken for each 100 cubic yards of topsoil.
- B. Samples: One cubic yard of proposed topsoil for imported use on the project

2.0 PRODUCTS

2.01 ON-SITE FILL MATERIAL

On-site excavated soils of acceptable moisture content, which are free from organic and other deleterious components and contain no rocks greater than 4" in diameter, can be reused as general fill when approved by the Engineer. Backfill material at below grade wall shall be classified as SM to SM-SP or more granular. Clay soils (CL) or miscellaneous silts (ML) shall not be used as wall backfill material. On-site soils may require manipulation, aeration, and/or blending with drier soils to achieve sufficient backfill compaction. Ground water levels may fluctuate due to seasonal variations in precipitation. The action of heavy construction activity may create a general deterioration of on-site materials if conducted in the presence of water. The Engineer will evaluate these conditions as work progresses and may require that wet or soft soils be removed and replaced. No extra costs will be allowed for such removal and replacement Contractor shall fully note these conditions in the preparation of this bid.

DEPARTMENT OF PUBLIC WORKS, HOWARD COUNTY, MD

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

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. 16997
EXPIRATION DATE 7/14/2014

Blair J. Turner
CHIEF, BUREAU OF ENVIRONMENTAL SERVICES
6/19/14

John L. Roberts
HOWARD SCD
6/19/14

2.02 IMPORTED FILL MATERIAL

All imported fill material shall meet Unified Soil Classification System designation SM or more granular and shall meet the requirements specified for on-site material. The liquid limit and plasticity index of the import material shall not exceed 40 and 20 respectively. The moisture content of the import material shall be within 2% of optimum at time of placement and compaction. If required, imported fill material shall be obtained from an off-site borrow area approved by the Engineer.

2.03 GRANULAR BASE BENEATH SLABS AND WALKS

A minimum 6" (six inch) lift of clean angular granular material such as graded course aggregate (MSHA no. 57) or dense graded aggregate (MSHA CR A or GA 57) with aggregate size no greater than 1 1/2" fines less than 22% by total weight, and passing a no. 200 sieve, shall be placed below all interior floor slabs as a moisture barrier. Granular base material will require acquisition from an off-site source. Granular base in depth indicated shall be placed beneath exterior slabs and walks where indicated. Prior to placing granular base, slab subgrade shall be proof rolled to approval of the Engineer and shall be free of standing water or mud.

2.04 FILTER FABRIC (ALSO NOTED AS FILTER CLOTH)

At site details, and where otherwise indicated, shall be TYPar 3301 Fiberweb, Mirafix 140 N by Tenacet Geosynthetics, or Amoco ProPex 4551 by Amoco Fabrics and Filters Company non-woven geotextile filter fabric. For sediment control devices, comply with specific requirements of details.

2.05 TOPSOIL

- A. All topsoil shall be screened utilizing a 1/2" screen prior to placement. (On-site topsoil shall be indigenous natural friable soil of uniform composition capable of sustaining vigorous plant growth, as approved by the Construction Manager for stockpiling.) Imported topsoil is required. It shall consist of a natural friable loam of uniform composition, obtained from an area which has never been subjected, possessing characteristics of the best soils of the vicinity which produce heavy growths of crops, grass and other vegetation. All on-site and imported topsoil shall be of uniform composition with no subsoil, clay lumps, stones, stumps, roots, or similar objects. Topsoil shall be free of any parts (seed, rhizomes, roots etc.) of Johnson grass, Canada Thistle, Bermuda grass, poison ivy, or other noxious weeds, and litter or any other material or substances which may be harmful to plant growth, or a hindrance to planting or maintenance operations. Imported topsoil shall contain 50-75% sand, 15-25% silt and 10-20% clay. All on-site and imported topsoil shall have a pH value not less than 5.8 and shall contain not less than 1.5% organic matter by weight, in accordance with MSMT 603. Soluble salts shall not exceed 500 ppm. Contractor shall have all on-site and imported topsoil tested by a recognized approved soil lab from the Maryland Department of Agriculture. Testing certification shall attest that tested samples of topsoil meet all specification requirements. Test samples shall be taken for each 100 cubic yards of topsoil. Cost of testing topsoil shall be paid by the Contractor. Add organic matter if required by test results. Contractor shall deliver one cubic yard of proposed imported topsoil to the site for Owners approval and location where the topsoil is coming from before starting of spreading. Owner's evaluation of suitability of imported topsoil shall be final.
- B. The topsoil from existing athletic field may be stockpiled for re-use on this project. Any topsoil that is to be reused shall be tested by a recognized approved soil lab from the Maryland Department of Agriculture, and shall meet the standards mentioned in Section 2.05 (A). Existing topsoil that is found to be suitable shall be placed as a base with at least 3" of imported topsoil placed on top. If the existing topsoil is found to be unsuitable and is not approved for use as structural fill, then it shall be removed from the site and disposed of in an approved and lawful manner.

2.06 BEDDING FOR PIPES

Unless otherwise noted on site drawings, bedding for pipes shall consist of granular fill material, sufficiently loosened and approved by the Engineer. Use approved imported granular material such as course aggregate, size 57 or 67, meeting ASTM C-33 where required by code authorities.

2.07 STABILIZATION MATTING

Stabilization matting for use on all slopes of 3:1 or steeper and where indicated on sediment control details shall be Curlex blankets as manufactured by American Excelsior Co. (800-777-7645). Stabilization matting shall be 4' wide bio-degradable extruded plastic mesh over a mat of curled wood excelsior. Attach matting to slope with manufacturer's 6" long staples at approximately 6'-0" on center of each side and at center of matting. Matting shall be biodegradable within a period of ninety days after installation. No stabilizations should be used in slopes less than 3:1.

3.0 EXECUTION

3.01 GENERAL

- A. Prior to all work of this Section, become thoroughly familiar with all site conditions. In the event any discrepancies are found, notify Construction Manager in writing as to the nature and extent of the differing conditions prior to receipt of bids.
- B. Do not allow or cause any of the work performed or installed to be covered up or enclosed prior to all required inspections, tests, and approvals. Should any of the work be enclosed or covered up before it has been approved, uncover all such work at no additional cost to the Owner. After the work has been completely inspected, tested, and approved, make all repairs necessary to restore the work of other trades to the condition in which it was found at the time of uncovering, and at no additional cost to Owner.
- C. If uncovered by excavation, Contractor shall be permitted to place extremely hard inorganic material or "rock" by any definitions in non-structural locations and in arrangement as directed by the Construction Manager and the Engineer where finish grades indicated on site development plans allow for at least four feet of fill material to cover.
- D. Seasonal variations in precipitation may influence site groundwater levels. Actual water level may be different from those noted in the "Subsurface Exploration and Geotechnical Evaluation". On-site "ML" soils and the micaceous silt component of "SM" soils are very moisture sensitive and will require the use of good construction practices to prevent degradation of those materials. Every effort should be made to keep these soils drained and free of ponded water.
- E. Contractor shall immediately notify the Engineer if ground water seepage becomes apparent during rough grading operations. The Engineer will determine if any permanent under drains are required or if condition only requires temporary dewatering system.

3.02 INSPECTION AND TESTING

All earthwork procedures shall be performed in the presence of the Engineer to the extent to which the Owner's contract with the Engineer permits. Give the Engineer at least 24 hours' notice when services are required. The Engineer's duties may include, but not be limited to, the following:

- A. Observation of proof rolling and testing of sub-grade after stripping operations and prior to fill placement to verify removal of topsoil and unsuitable materials. Scope includes making related test to verify that stripped topsoil does not contain subsoil contaminants and meets the requirements of this specification Section.
- B. Observation of procedures and making of all tests related to excavating, filling and grading. Extent and type of test shall be as determined by the Engineer. All fill lifts shall be tested and at least one density test shall be made per 2500 square feet, but not fewer than two tests per lift.
- C. Observation, testing, and approval of sub-grade and reinforcement for footings before placement of concrete.
- D. Observation and approval of floor sub-grade and fill placement before placement of under floor granular base.
- E. Testing of proposed imported fill material and verification of correlation of the imported material to laboratory test samples.
- F. Performing required number of in-place density tests in pavement areas after these areas are at grade to verify pavement design.
- G. Verification of removal of sediment from sediment control traps and testing of subgrade in traps prior to fill placement.
- H. Verify topsoil placement to determine if spreading thickness of topsoil installed is acceptable. Contractor shall request inspection by Owner's representative before and after topsoil placement is complete to determine if quality, spreading and thickness of topsoil installed is acceptable.

3.03 TEMPORARY DEWATERING SYSTEM

- A. Any shallow groundwater encountered may result from perched water conditions and/or surface water infiltration and shall be managed by minor dewatering techniques.
- B. Contractor shall be responsible for providing and maintaining a construction phase dewatering system, including a temporary system of pumps, pumps, and drainage ditches as required to remove water from any source, including groundwater, and maintaining dry workable conditions in areas of work.
- C. No claims will be considered for delays related to wet conditions or deteriorated sub-grade resulting from the lack of proper maintenance of an effective temporary dewatering system. Disturbance of the sub-grade due to poor construction procedures, or from construction work during unfavorable weather conditions.

3.04 SITE STRIPPING AND PREPARATION

- A. After clearing operations are complete, prepare the site for construction by tilling and removing any remaining vegetation and all organic, soft, loose, frozen, or unsuitable materials within the limits of filling, grading, and construction operations. Tree stumps shall be removed in their entirety. Stockpile all topsoil on site for later use at location approved by Construction Manager, except topsoil removed from the athletic field; this shall be removed from site and not re-used on this project. The entire area which has been stripped and excavated shall be proof rolled utilizing a tandem axle dump truck having an axle weight of at least 20 tons or another pneumatic-tired vehicle of similar size and weight in the presence of the Engineer to locate any isolated areas of soft or loose soils requiring improvements or replacements. Proof rolling shall not be performed during or following wet weather conditions. Relatively soft materials may be improved for supporting new on-site fill materials by deep disk dishing, aerating, and re-compacting if approved by the Engineer. Any unsuitable materials shall be removed and replaced as directed by the Engineer. Contractor should be prepared to over-excavate soft or yielding materials which may exist at direction of the Engineer at no additional cost to the Owner.
- B. Surface runoff shall be drained away from excavations and not allowed to pond. If on-site materials exhibit excessive moisture content during construction activities, the Engineer may require their removal and replacement with suitable fill materials. Such removal shall be included within the scope of the contract. No extra costs will be considered for any such removal and replacement.
- C. Do not stockpile near excavations or within the drip line of trees indicated to remain.
- D. Any unsuitable materials resulting from site stripping, topsoil removed from the athletic field, and on-site materials not approved for use as structural fill or approved for stockpiling as topsoil shall be removed from the site and disposed of in an approved and lawful manner.

3.05 EXCAVATING

- A. General: All materials to be excavated or graded shall be considered non-classified. The contract price is understood to cover the removal of all such materials including all debris and foreign objects of any type to the depth and extent required by the drawings and specifications, and "rocks" encountered during boring operations that appear to be below finished grading elevations. However, it is possible that surface "rock" may be the tip of an isolated "rock" pinnacle that will require removal. Areas containing moisture sensitive fine-grained materials (silt and clays) may require dishing, aeration and/or manipulation to attain the specified level of compaction. Existing site areas exhibiting poor drainage characteristics should be expected to display high moisture contents prior to drying. Apply soil drying agents were approved by the Engineer to reduce moisture content of approved fill materials. Do not apply drying agents during windy conditions, when sub-grade is frozen or when temperature is below 32 degrees F.
 - Where fill materials are placed on slopes greater than 5:1, bank shall be stepped or benched at direction of the Engineer to prevent the formation of any slop surfaces and to facilitate the placement of fill in horizontal layers. Stepped vertical benches should not exceed two feet in height.
 - Contractor shall immediately notify the Engineer if groundwater is found during grading operations. Such groundwater may require the installation of under drains to protect the integrity of the fill slopes.
- B. Footings: The drawings show predetermined elevations for tops of footings. Side forms for footings may be omitted when excavations for footings are cut accurately and sided are firm; however, all trenches and excavations must be properly braced and supported in strict accordance with all pertinent codes and regulations. Excavate to elevations and dimensions indicated, allowing ample space for construction operations. Take care to minimize disturbance of bearing soils. Footings shall be excavated and poured the same day wherever possible in order to avoid ponding of surface water. If footings are not poured on the day of excavation and original inspection, then a re-inspection will be required. Unsuitable, disturbed, frozen or softened soils shall be removed prior to placement of concrete. Footing sub-grade shall be free of water for the final inspection and during placement of concrete. Surface runoff shall be drained away from footing excavations and not allowed to pond, if soft or loose pockets of fill are encountered, the unsuitable materials shall be removed and the footings shall be located at a lower elevation at no additional cost to the Owner. If acceptable to the Engineer, unsuitable materials may be removed and replaced with approved structural fill or lean concrete (2000 psi).
- C. Depressions resulting from removal of obstructions: Where depressions result from, or have resulted from, the removal of surface obstructions and demolition operations, open the depression to equipment working width and remove all debris and soft material as directed by the Engineer, with additional material and debris removed as directed prior to the placement of structural fill.
- D. Overexcavation: Backfill and compact all overexcavated areas as specified for structural fill and at no additional cost to the Owner. If acceptable to the Engineer, overexcavated areas of footings or column bases may be backfilled with approved lean concrete (2000 psi) or MSHA no. 57 granular base, properly compacted.

3.06 UNFAVORABLE WEATHER AND WATER CONTROL

- A. Unfavorable weather: Do not place, spread, or roll any fill material during unfavorable weather conditions. Do not resume operations until moisture content and in-place density are satisfactory to the Engineer. Do not place fill on frozen sub-grade. Maintain permanent or provide temporary roof or structure drainage measures to minimize or eliminate storm water ponding and storm water run-off from entering excavation areas, stockpile areas, or other active or inactive construction areas. All costs associated with providing temporary measures to prevent wet soils, erosion, or flooding shall be completed at no cost to the Owner.
- B. Flooding: The site shall be properly graded and berms or channels constructed during construction to direct surface runoff and seepage away from the construction area and prevent flooding of sub-grade. At the end of each work day, exposed sub-grade shall be rolled and sealed. Promptly remove all water collection in depressions or excavations.
- C. Softened sub-grade: Where soil has been softened or eroded by flooding or by placement during unfavorable weather conditions, remove all damaged areas and re-compact as described for fill and compaction. As stated in the Subsurface Exploration and GEO Technical Evaluation" certain on-site soils are very moisture sensitive and will require good construction practices to prevent moisture degradation. Every effort shall be made to keep soils drained and free of ponded water. Relatively soft materials may be improved by deep disk dishing or scarifying, aerating, and re-compacting or by application of drying agents if approved by the Engineer.
- D. Frost Protection: When freezing temperatures may be expected, do not excavate to the full depth indicated unless the footings or slabs are to be poured immediately after the excavation has been completed. If placing of concrete is delayed, protect the bottoms of excavations from frost until concrete is placed.

3.07 TRENCHING

- A. Dimensions: Make all trenches of open vertical construction with sufficient width to provide free working space at both sides of the trench and around pipes or conduit as required for caulking, joining, backfilling, and compacting. Where invert elevations are not shown, trench to a sufficient depth to give a minimum of 18 inches or fill above the top of the exterior pipe measured from the adjoining finish grade.
- B. Correction of faulty grades: Where trench excavation is inadvertently carried below proper elevations, backfill with graded course aggregate, MSHA no. 57, meeting ASTM C-33 or controlled compacted fill material to provide a firm and yielding sub-grade and/or foundation to the approval of the Engineer and at no additional cost to Owner.
- C. Trench and excavation bracing: Properly support all trenches and excavations in strict accordance with all pertinent codes and regulations. Brace, sheet and support all excavation faces in such a manner that they will be safe and that the ground alongside the excavation will not slide or settle and that all existing improvements of every kind, either on public or private property, will be fully protected from damage. In the event of damage, immediately make all repairs necessary to the approval of the Architect and at no additional cost to the Owner. Arrange all bracing, sheeting and shoring so as to not place stress on any portion of the completed work until the general construction of these parts has

proceeded far enough to provide ample strength. Exercise care in the drawing or removal of sheeting, shoring, bracing, and timbering to prevent collapse of raving of the excavated faces being supported.

3.08 COMPACTION OF FILL MATERIAL

- A. Scarify the existing sub-grades to a depth of 6" prior to placement of new fill materials so the weak plane will not be formed between new fill materials and the existing sub-grade.
- B. After sub-grade has been approved by the Engineer, spread the specified fill material in loose lifts not to exceed 8 inches in loose thickness.
- C. Water or aerate the fill material, as necessary, and thoroughly mix to obtain a moisture content which will permit proper compaction but remain within 42% of the optimum moisture content as determined by ASTM Specification D-698.
- D. Fill within the area of the build and extending a distance of 10 feet beyond the building perimeter shall consist of approved on-site soil compacted to at least 95% of the standard Proctor maximum dry density per ASTM D-698.
- E. Fill within the area to be paved (concrete and asphalt) and extending a distance of 10 feet beyond pavement areas shall consist of approved on-site material compacted to at least 95% of the Standard Proctor maximum dry density per ASTM D-698. Soils with liquid limits in excess of 40 and/or plasticity index above 20 and with soaked CBR of less than 2.5% shall not be used in the top 18" of sub-grade under paved areas. These soils shall be replaced with more granular, less plastic on-site materials at direction of the Engineer.
- F. Approved on-site soils in playfields and landscape areas and where otherwise indicated shall be compacted at least 90% of the Standard Proctor maximum dry density per ASTM D-698.

3.09 ENGINEER'S APPROVAL OF FILL MATERIAL

- A. All fill material shall be subject to the approval of the Engineer.
- B. Samples representative of the entire volume of materials proposed for use as structural fill shall be submitted to the Engineer for laboratory classification and compaction testing. If the use of more than one source of imported material is anticipated, representative samples of each soil must be submitted for testing. All samples shall be submitted to the Engineer at least ten days before the use of those materials on the project, to allow time for proper testing and evaluation of these materials for use in construction of the fill. The Engineer's decision on the acceptability of the material shall be final and binding.
- C. Size of sample shall be a minimum of 75 lbs. in a sealed bag or container.
- D. Should the proposed imported fill materials delivered to the site, in the opinion of the Engineer, vary from those submitted and tested by the Engineer, The Contractor shall stop hauling and remove such material from the site at no additional cost to Owner.

3.10 BACKFILL AGAINST FOUNDATION AND BELOW GRADE WALLS

- A. Backfill against foundation walls only after placement, where applicable, of damp proofing, and perimeter insulation and after approval of Architect and Structural Engineer has been obtained. Place and compact backfill so as to avoid damage to walls, waterproofing and other work in place. Place backfill in equal depths on both sides for foundation walls so as to raise grades simultaneously where wall is not designed as a retaining wall. Compact backfill material as specified.
- B. Compactors exceeding three thousand (3000) pound static weight shall not be used adjacent to walls to avoid overloading and damaging wall.
- C. Heavy earthwork equipment shall maintain horizontal distance away from the below-grade walls of one foot per vertical foot of wall height. Lighter earthwork equipment shall, as much as practical, work perpendicular to the below-grade walls.

3.11 GRADING

Rough grade and finish grade the entire site to the elevations indicated on the drawings. In all cases, grading shall provide water runoff. Grade to at least the following tolerances:

- A. Rough grade:
 - Building, paving, and sidewalk areas.....Plus or minus 0.2 feet
 - Landscape area.....Plus or minus 0.2 feet
- B. Finish grade:
 - Building, paved, and sidewalk areas.....Plus or minus 0.1 feet
 - Landscape areas.....Plus or minus 0.1 feet

3.12 UTILITIES

- A. Excavate utility trenches sufficiently wide enough to provide a minimum of 9" clearance on both sides of utility. Where "rock" by any definition is encountered excavate 6" below required elevation and backfill with 6" layer of crushed stone or gravel prior to utility installation. Remove any ground water that may accumulate. Grade the trench bottom to provide a smooth, firm, and stable foundation at every point throughout the length of the pipe.
- B. Unless otherwise indicated on site drawing, place pipe barrel on a minimum of 6 inches of bedding material meeting the requirements of this Section of these Specifications.
- C. In areas where soft, unsuitable materials are encountered at the surface upon which the bedding material is to be placed, remove the unsuitable material and replace with material approved by the Engineer. Provide sufficient depth to develop a firm foundation for the pipe as approved by the Engineer.
- D. At each joint in the pipe, recess the bottom of the bedding as required in such a manner as to relieve the bell of the pipe of all load and to ensure continuous bearing of the pipe barrel on the firm foundation.
- E. Accurately shape the pipe sub-grade and fit the bottom of the pipe to the excavation. Use a drag template shaped to conform to the outer surface of the pipe if other methods do not produce satisfactory results.
- F. Do not backfill utility trenches until all required tests and inspections of utilities have been completed.
- G. Place material meeting the requirements of this section of these Specifications in the trench simultaneously on each side of the pipe for the full width of the trench to depths indicated on site drawings for storm, sewer, and water piping. After obtaining approval of the Engineer, density the bedding material after placing by carefully hand tamping. Take special care to provide a firm bedding support on the underside of the pipe and fittings for the full length of the pipe. Place additional lifts as required to extend the bedding material 32 inches above the outside diameter of the pipe barrel.
- H. Other bedding procedures and materials may be used if prior written approval has been obtained from the Engineer.
- I. After the pipe has been properly bedded and covered, spread approved on-site or imported fill material in 8" lifts and compact as specified in this Section of these Specifications. Repeat the spreading and compacting procedure until adjacent grade level is attained.

3.13 REMEDIAL MEASURES

Damage to sub-grade, compacted areas, or at grade natural materials by heavy equipment or construction procedures shall be corrected by remedial measures recommended by the Engineer at no additional cost to Owner.

3.14 PLACING TOPSOIL

- A. Topsoil shall not be placed when either the sub-grade or the topsoil is wet or frozen enough to cause clotting. Scarify sub-grade beneath areas designated to receive topsoil to a depth of two (2) inches prior to placement of topsoil. Imported topsoil from approved off-site sources if required to attain thickness.
- B. Topsoil shall be spread over all areas to be planted or seeded such that compaction shall bring settled depth to six (6) inches. Make small test sections to determine depth of loose spread to obtain compacted thicknesses.
- C. Work all areas of the compacted topsoil, including existing on-site topsoil, until topsoil is free of any objects larger than 1/2" in any direction and is smooth and true to the grades within the maximum tolerances specified.
- D. Install stabilization matting to hold topsoil in place on slopes of 3:1 or steeper until seeding has been established.

3.15 DEBRIS AND EXCESS MATERIAL

Completely remove from the site and dispose of in a legal manner all debris and excess material resulting from the work of this section.

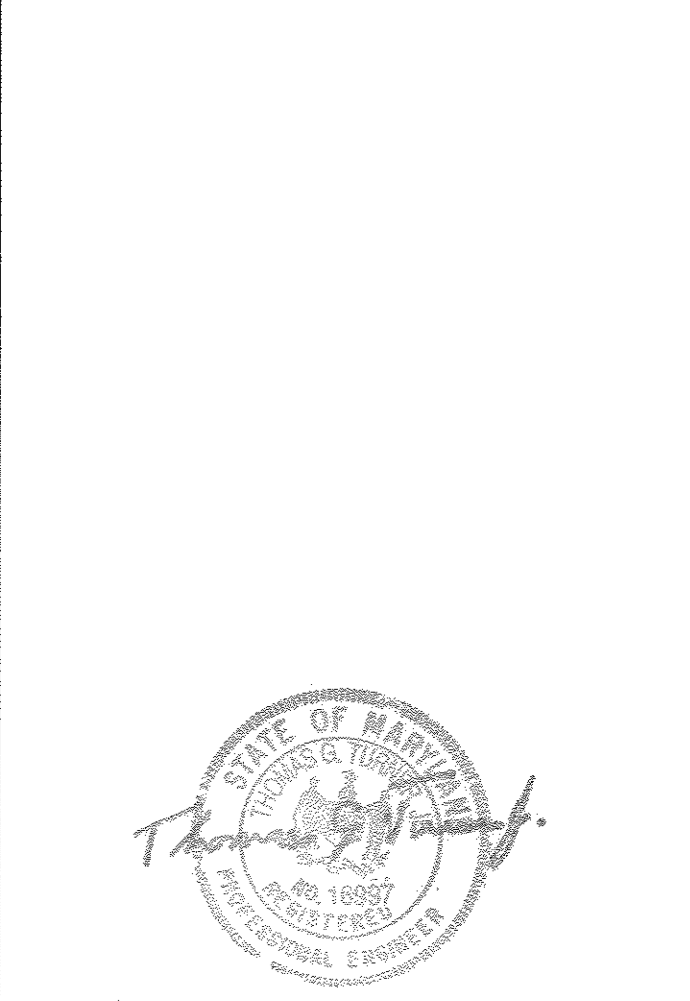
3.16 MAINTENANCE

- A. Repair and reestablish grades in settled, eroded, and damaged areas to specified density and tolerances.
- B. Where settling is measurable or observable at excavated or graded areas during project warranty period, remove surface treatment (paving, sidewalk, lawn or other finish) add specified fill material, compact to specified density, and replace surface treatment. Restore appearance, quality and condition of surface or finish to match adjacent work. Eliminate evidence of restorations to maximum extent possible.

CLIENT:
HOWARD COUNTY DPW
ENVIRONMENTAL SERVICES
6751 GATEWAY DRIVE, SUITE 514
COLUMBIA, MD 21046
PHONE: (410) 313-6413

OWNER:
HOWARD COUNTY
PUBLIC SCHOOL SYSTEM
10910 RT. 108
ELLCOTT CITY, MARYLAND 21042
PHONE: (410) 313-6600

DATE: ISSUES / REVISIONS
DATE: 05.23.14 REVISED SITE DEVELOPMENT PLAN



THERE IS NO AS-BUILT INFORMATION ON THIS SHEET.
TOM TURNER PE#16997
08/12/2016

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Blair J. Turner
CHIEF, DEVELOPMENT ENGINEERING DIVISION
6-20-14
DATE

Keith Shook
CHIEF, DIVISION OF LAND DEVELOPMENT
6-19-14
DATE

Mark D. Layton
DIRECTOR
6/19/14
DATE

THIRTY CENTURY ENGINEERING
CONSULTING ENGINEERS - PLANNERS
10710 GILROY ROAD
HUNT VALLEY, MD 21031
Phone: (443) 589-2400 Fax: (443) 589-2401

RENOVATIONS TO WILDE LAKE HIGH SCHOOL (BMP RETROFIT)

REVISED SITE DEVELOPMENT PLAN EROSION AND SEDIMENT CONTROL NOTES

PROJECT NO.: 28-2012 SCALE: N/A
CAPITAL PROJECT NO.: D-1160

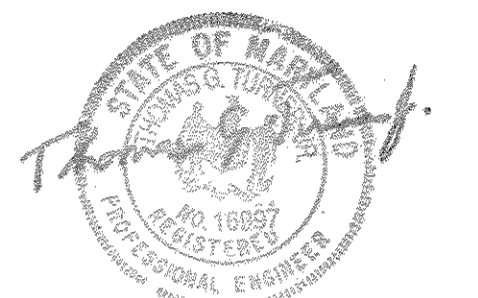
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DWG. NO.: []

35 OF 37

CLIENT:
HOWARD COUNTY DPW
ENVIRONMENTAL SERVICES
6751 GATEWAY DRIVE, SUITE 514
COLUMBIA, MD 21046
PHONE: (410) 313-6413

OWNER:
HOWARD COUNTY
PUBLIC SCHOOL SYSTEM
10910 RT. 108
ELLCOTT CITY, MARYLAND 21042
PHONE: (410) 313-6600

DATE: ISSUES / REVISIONS
DATE: 05.23.14 REVISED SITE DEVELOPMENT PLAN



THERE IS NO AS-BUILT INFORMATION ON THIS SHEET.
TOM TURNER PE#16997
08/12/2016

APPROVED: DEPARTMENT OF PLANNING AND ZONING

John A. Clark 6-20-14
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

Vet. Delaney 6-19-14
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

Donna D. Lavigne 6/26/14
DIRECTOR DATE

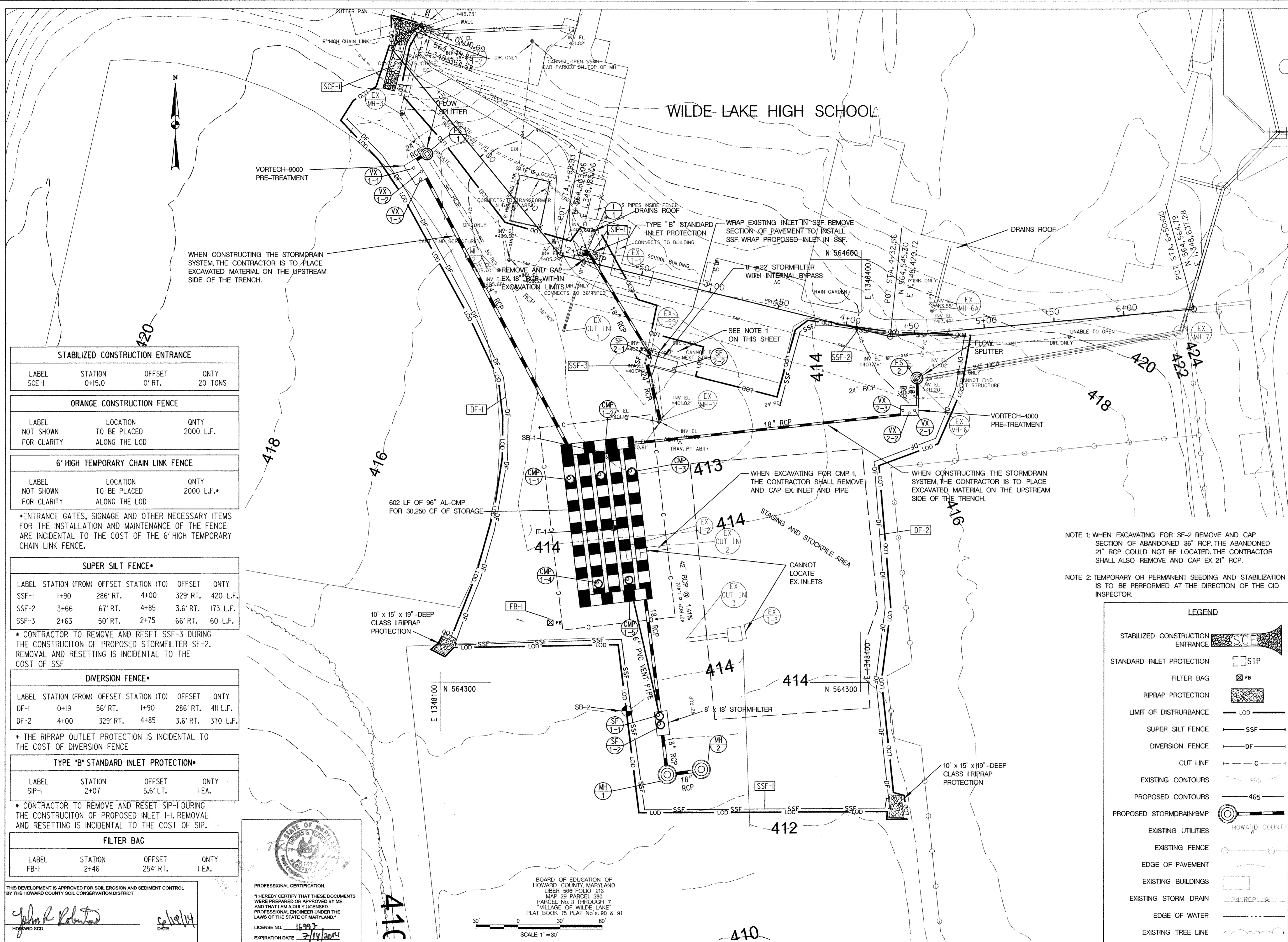
MM CENTURY ENGINEERING
CONSULTING ENGINEERS - PLANNERS
10710 GILROY ROAD
HUNT VALLEY, MD 21031
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RENOVATIONS TO WILDE LAKE HIGH SCHOOL (BMP RETROFIT)

TITLE: **REVISED SITE DEVELOPMENT PLAN EROSION AND SEDIMENT CONTROL PLAN**

PROJECT NO. 128-2012 CAPITAL PROJECT NO. D-1160 SCALE: 1" = 30'

36 OF 37



STABILIZED CONSTRUCTION ENTRANCE

LABEL	STATION	OFFSET	QNTY
SCE-1	0+15.0	0' RT.	20 TONS

ORANGE CONSTRUCTION FENCE

LABEL	LOCATION	QNTY
NOT SHOWN FOR CLARITY	TO BE PLACED ALONG THE LOD	2000 L.F.

6' HIGH TEMPORARY CHAIN LINK FENCE

LABEL	LOCATION	QNTY
NOT SHOWN FOR CLARITY	TO BE PLACED ALONG THE LOD	2000 L.F.*

*ENTRANCE GATES, SIGNAGE AND OTHER NECESSARY ITEMS FOR THE INSTALLATION AND MAINTENANCE OF THE FENCE ARE INCIDENTAL TO THE COST OF THE 6' HIGH TEMPORARY CHAIN LINK FENCE.

SUPER SILT FENCE*

LABEL	STATION (FROM)	OFFSET	STATION (TO)	OFFSET	QNTY
SSF-1	1+90	286' RT.	4+00	329' RT.	420 L.F.
SSF-2	3+66	67' RT.	4+85	3.6' RT.	173 L.F.
SSF-3	2+63	50' RT.	2+75	66' RT.	60 L.F.

* CONTRACTOR TO REMOVE AND RESET SSF-3 DURING THE CONSTRUCTION OF PROPOSED STORMFILTER SF-2. REMOVAL AND RESETTING IS INCIDENTAL TO THE COST OF SSF

DIVERSION FENCE*

LABEL	STATION (FROM)	OFFSET	STATION (TO)	OFFSET	QNTY
DF-1	0+19	56' RT.	1+90	286' RT.	411 L.F.
DF-2	4+00	329' RT.	4+85	3.6' RT.	370 L.F.

* THE RIPRAP OUTLET PROTECTION IS INCIDENTAL TO THE COST OF DIVERSION FENCE

TYPE 'B' STANDARD INLET PROTECTION*

LABEL	STATION	OFFSET	QNTY
SIP-1	2+07	5.6' LT.	1 EA.

* CONTRACTOR TO REMOVE AND RESET SIP-1 DURING THE CONSTRUCTION OF PROPOSED INLET I-1. REMOVAL AND RESETTING IS INCIDENTAL TO THE COST OF SIP.

FILTER BAG

LABEL	STATION	OFFSET	QNTY
FB-1	2+46	254' RT.	1 EA.

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

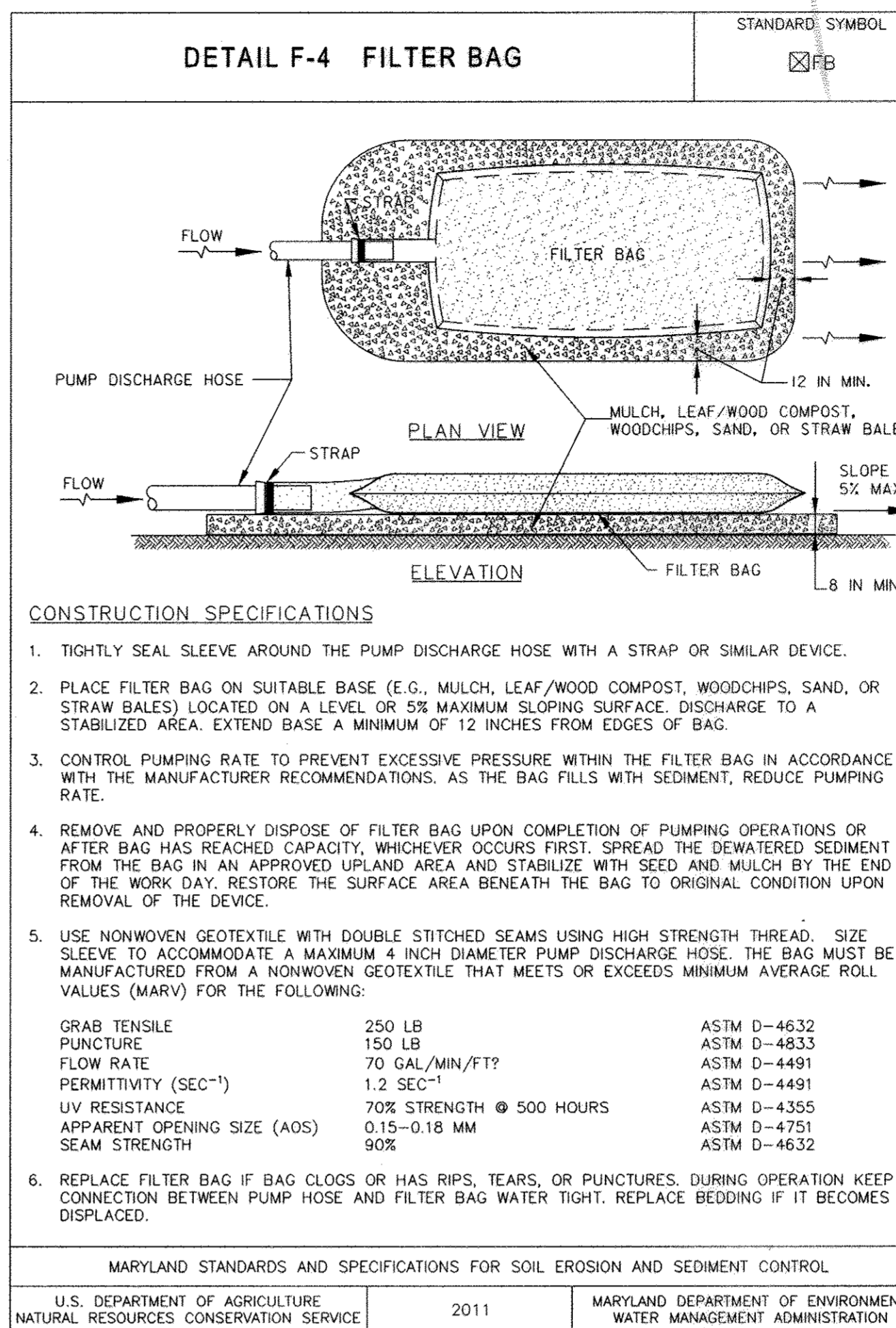
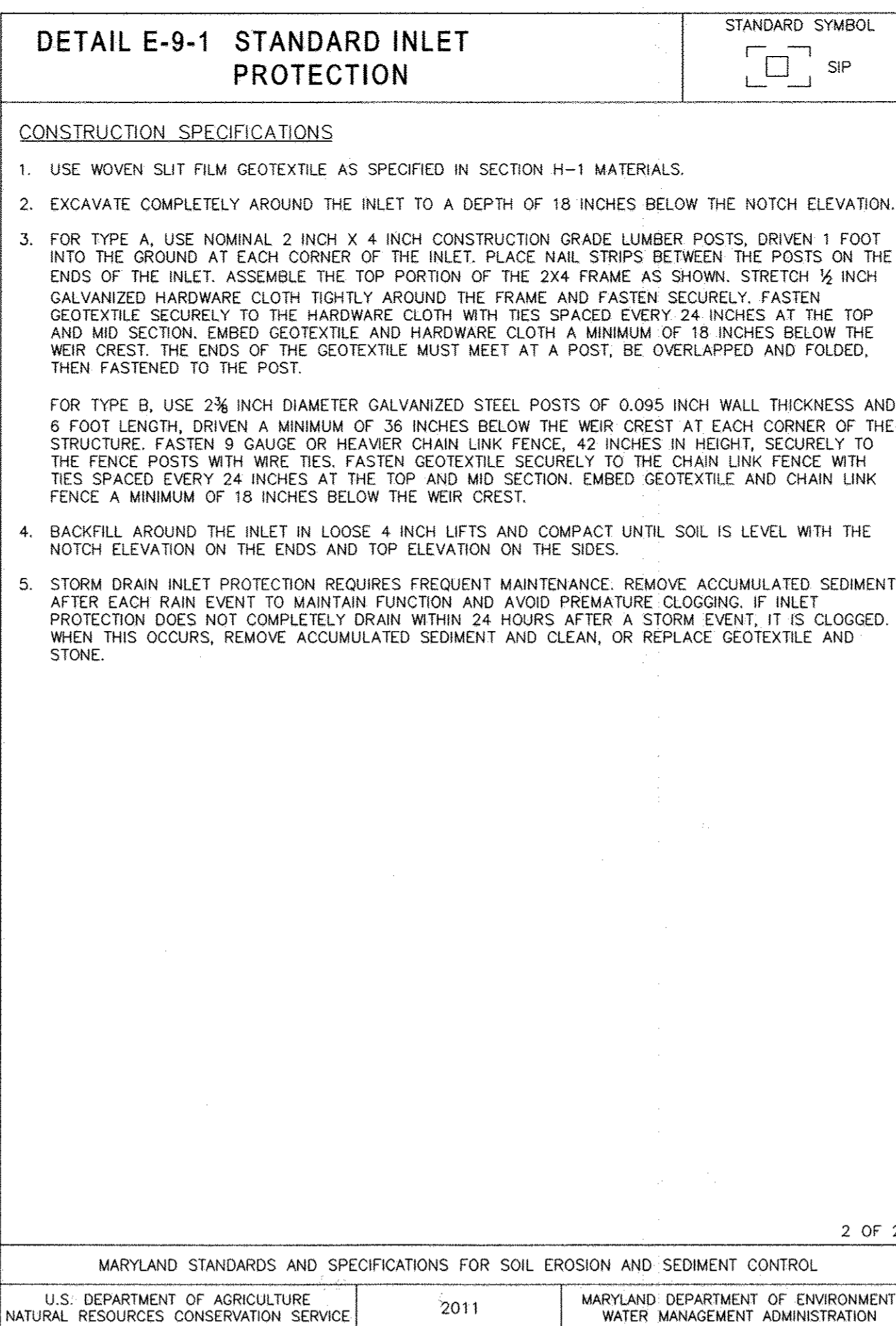
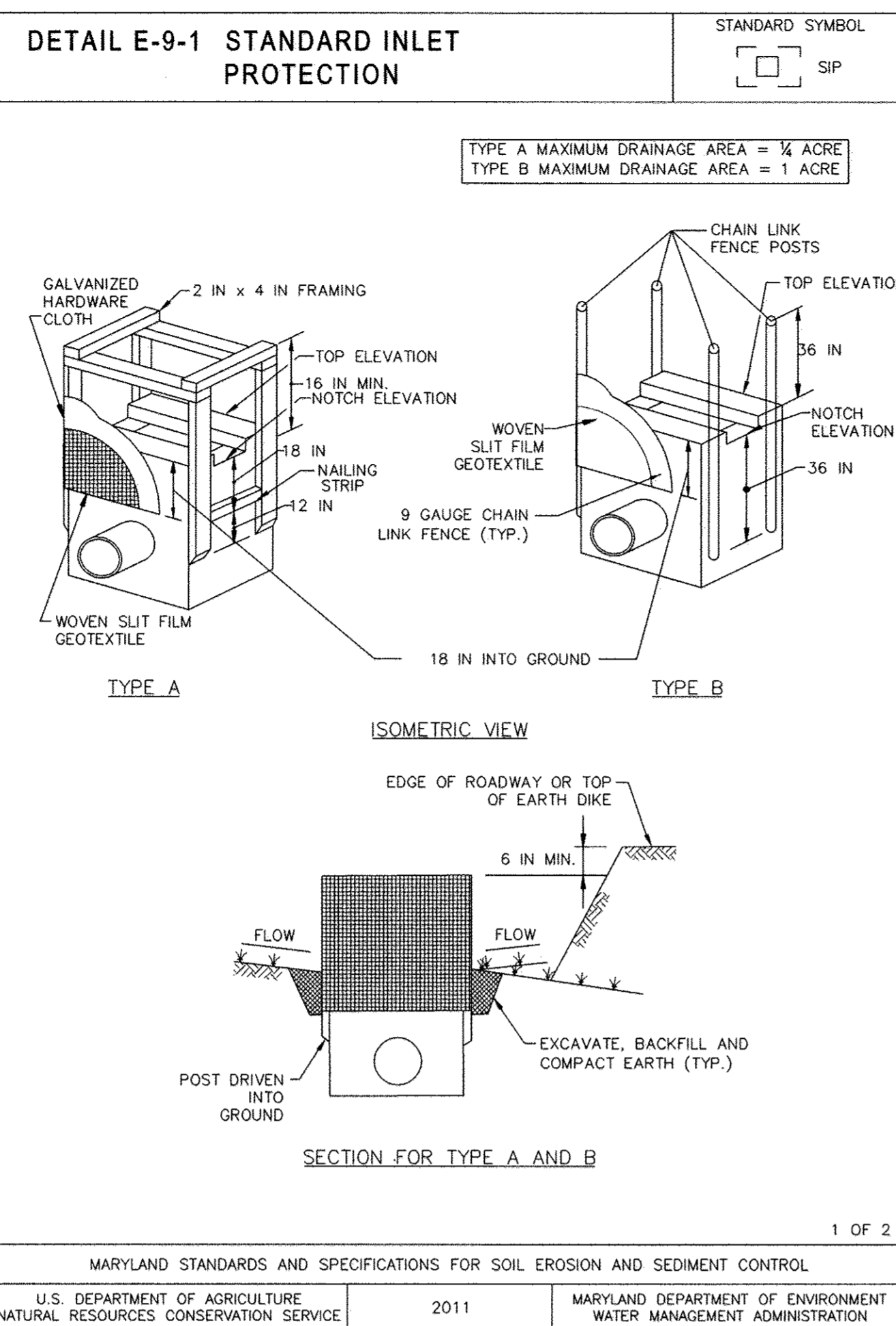
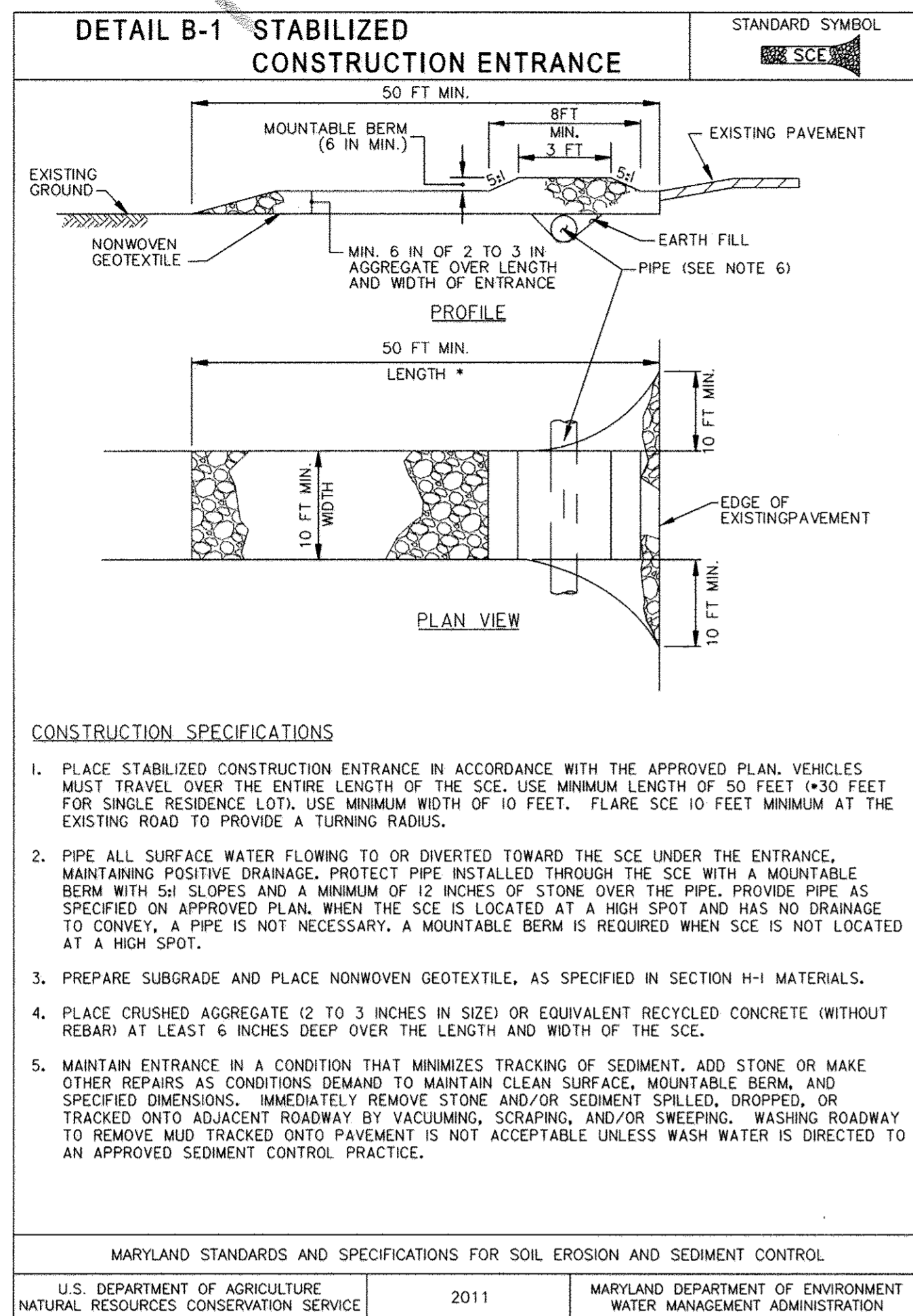
John R. Roberts
HOWARD SCD
DATE: 7/14/2014

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. 16997
EXPIRATION DATE 7/14/2014

BOARD OF EDUCATION OF HOWARD COUNTY, MARYLAND
LIBER 506 FOLIO 213
MAP 29 PARCEL 280
PARCEL No. 3 THROUGH 7
VILLAGE OF WILDE LAKE
PLAT BOOK 15 PLAT No. s. 90 & 91

SCALE: 1" = 30'



CLIENT:
HOWARD COUNTY DPW
ENVIRONMENTAL SERVICES
6751 GATEWAY DRIVE, SUITE 514
COLUMBIA, MD 21046
PHONE: (410) 313-6413

OWNER:
HOWARD COUNTY
PUBLIC SCHOOL SYSTEM
10910 RT. 108
ELLCOTT CITY, MARYLAND 21042
PHONE: (410) 313-6600

DATE: 05.23.14
ISSUES / REVISIONS
REVISED SITE DEVELOPMENT PLAN



THERE IS NO AS-BUILT INFORMATION ON THIS SHEET.
TOM TURNER PE#16997
08/12/2010

APPROVED: DEPARTMENT OF PLANNING AND ZONING

[Signature] 6-20-14
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

[Signature] 6-19-14
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

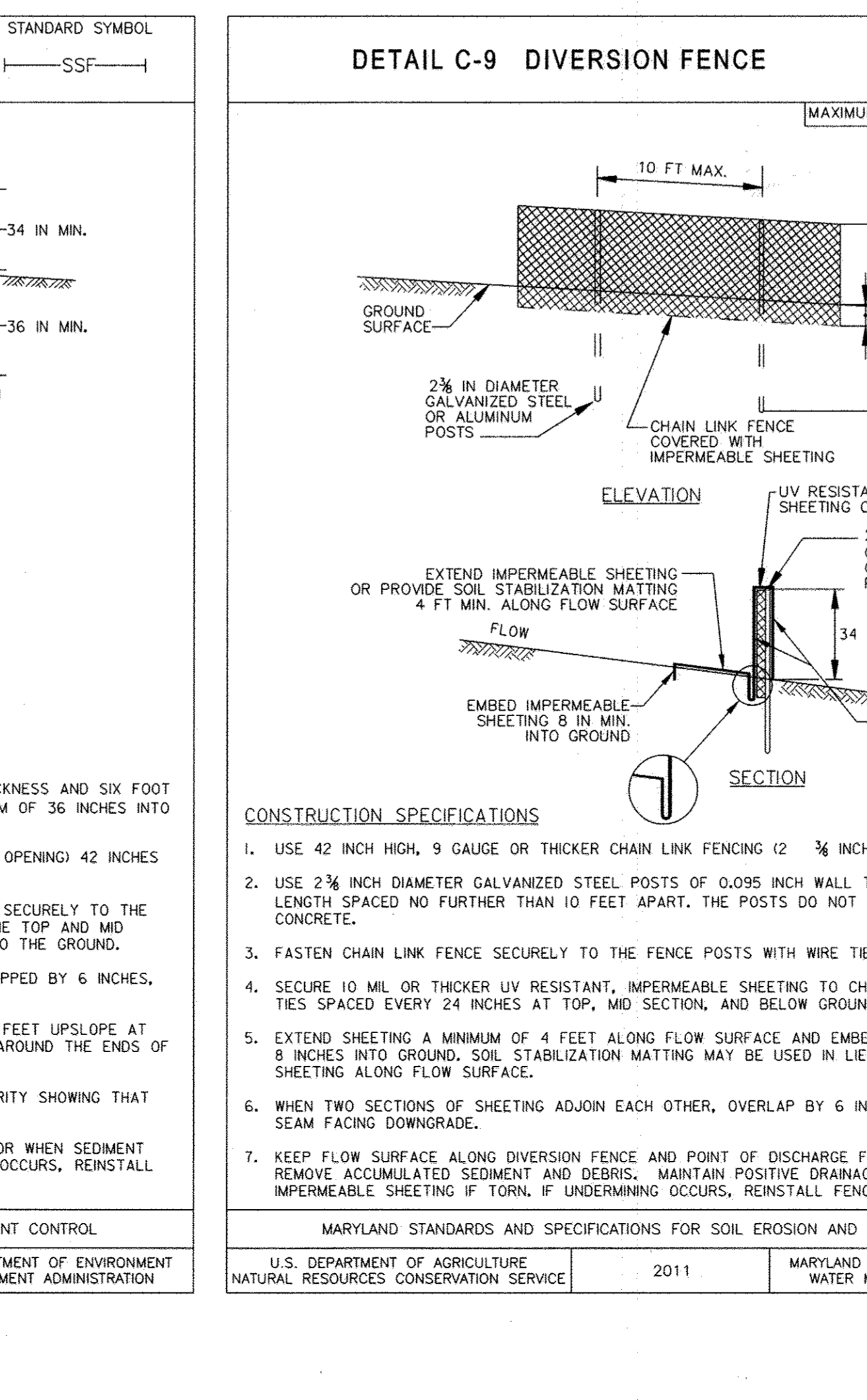
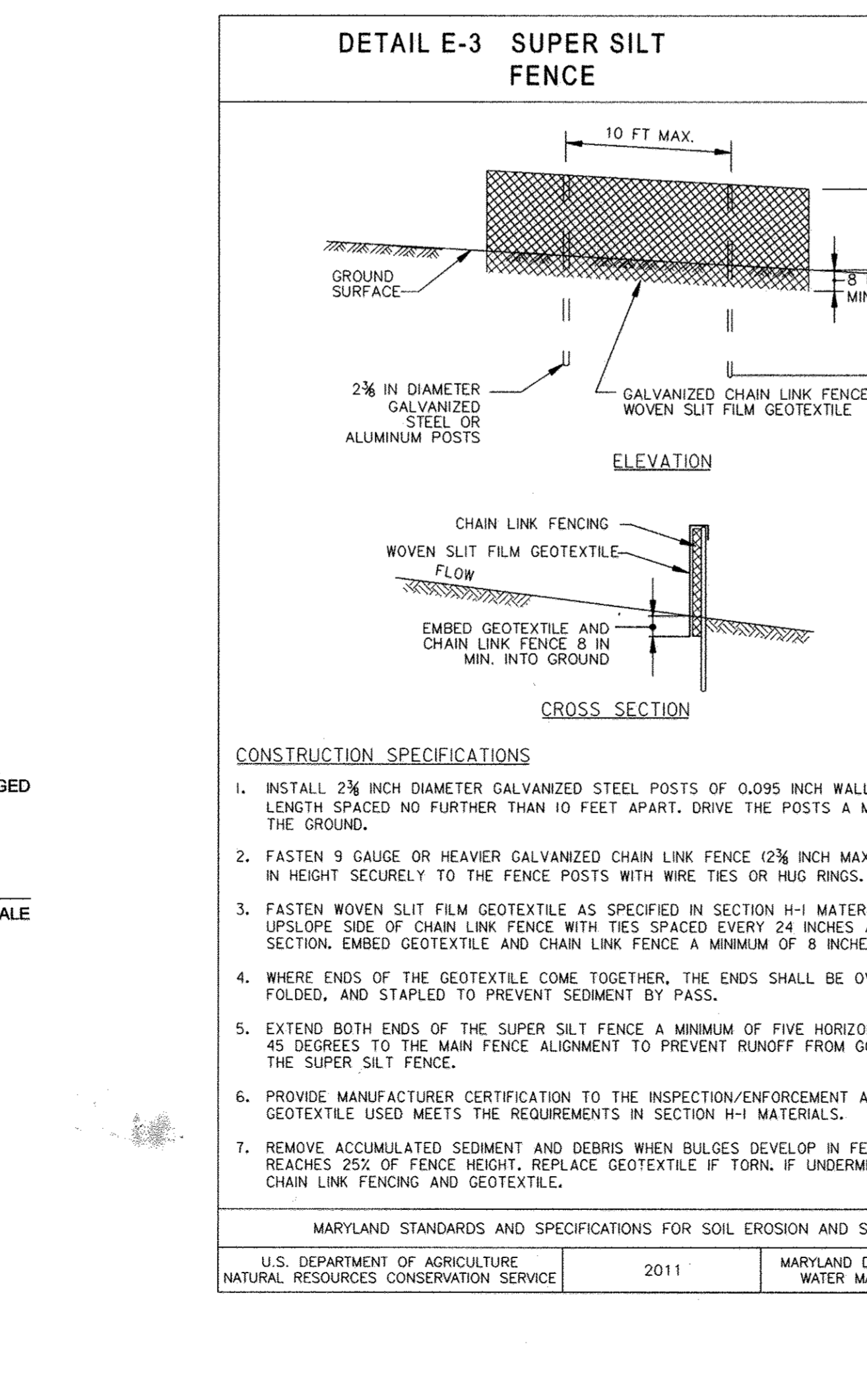
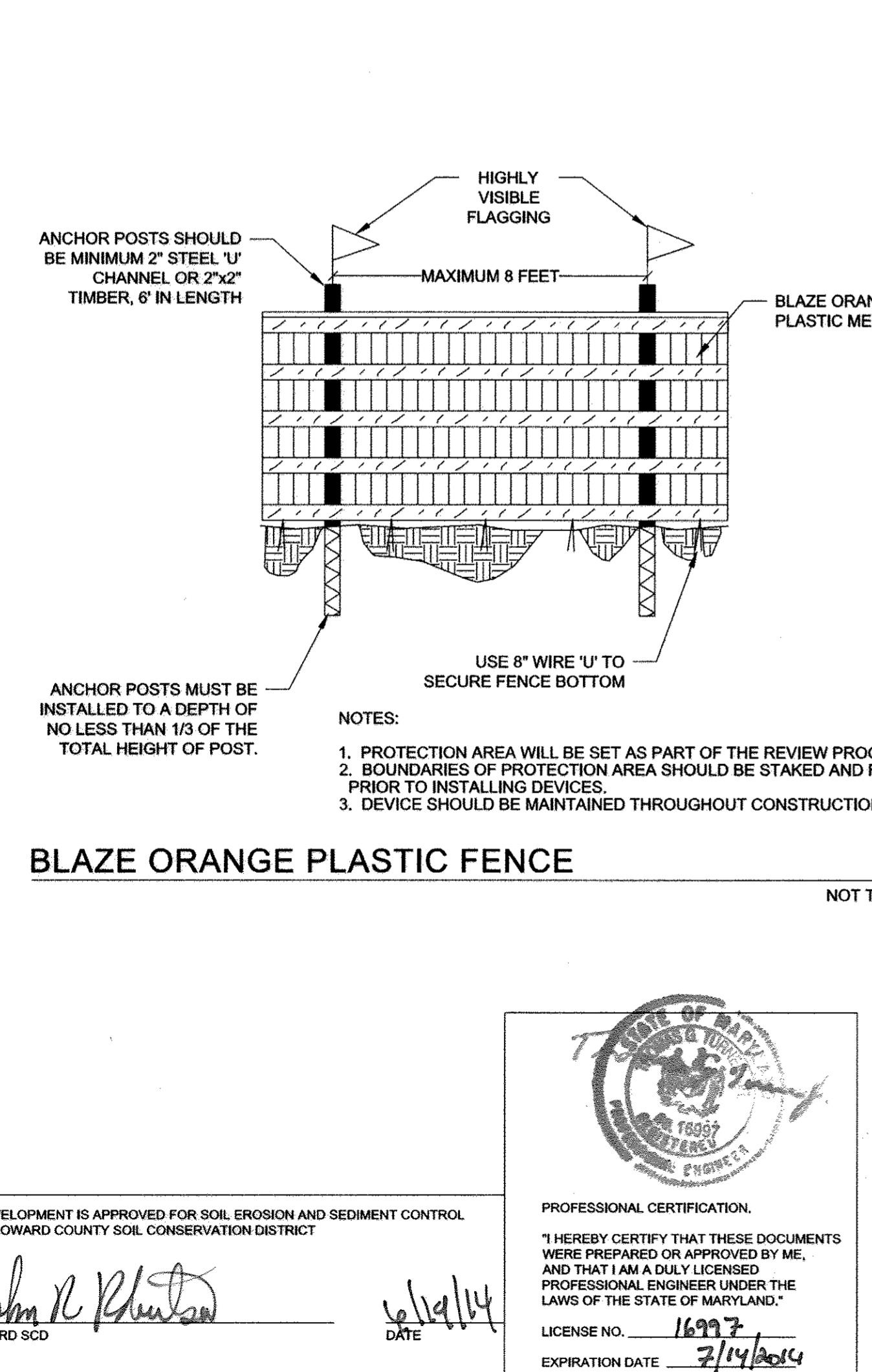
[Signature] 6/20/14
DIRECTOR DATE

CENTURY ENGINEERING
CONSULTING ENGINEERS - PLANNERS
10710 GILROY ROAD
HUNT VALLEY, MD 21031
Phone: (443) 589-2400 Fax: (443) 589-2401

RENOVATIONS TO WILDE LAKE HIGH SCHOOL (BMP RETROFIT)

TITLE: **REVISED SITE DEVELOPMENT PLAN EROSION AND SEDIMENT CONTROL DETAILS**

PROJECT NO.: 28-2012 SCALE: NTS
CAPITAL PROJECT NO.: D-1190
BY: JMS CHECK:
DWG. NO.:



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

[Signature]
HOWARD SCD

PROFESSIONAL CERTIFICATION.
"I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DAILY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND."
LICENSE NO. 16997
EXPIRATION DATE 7/14/2014