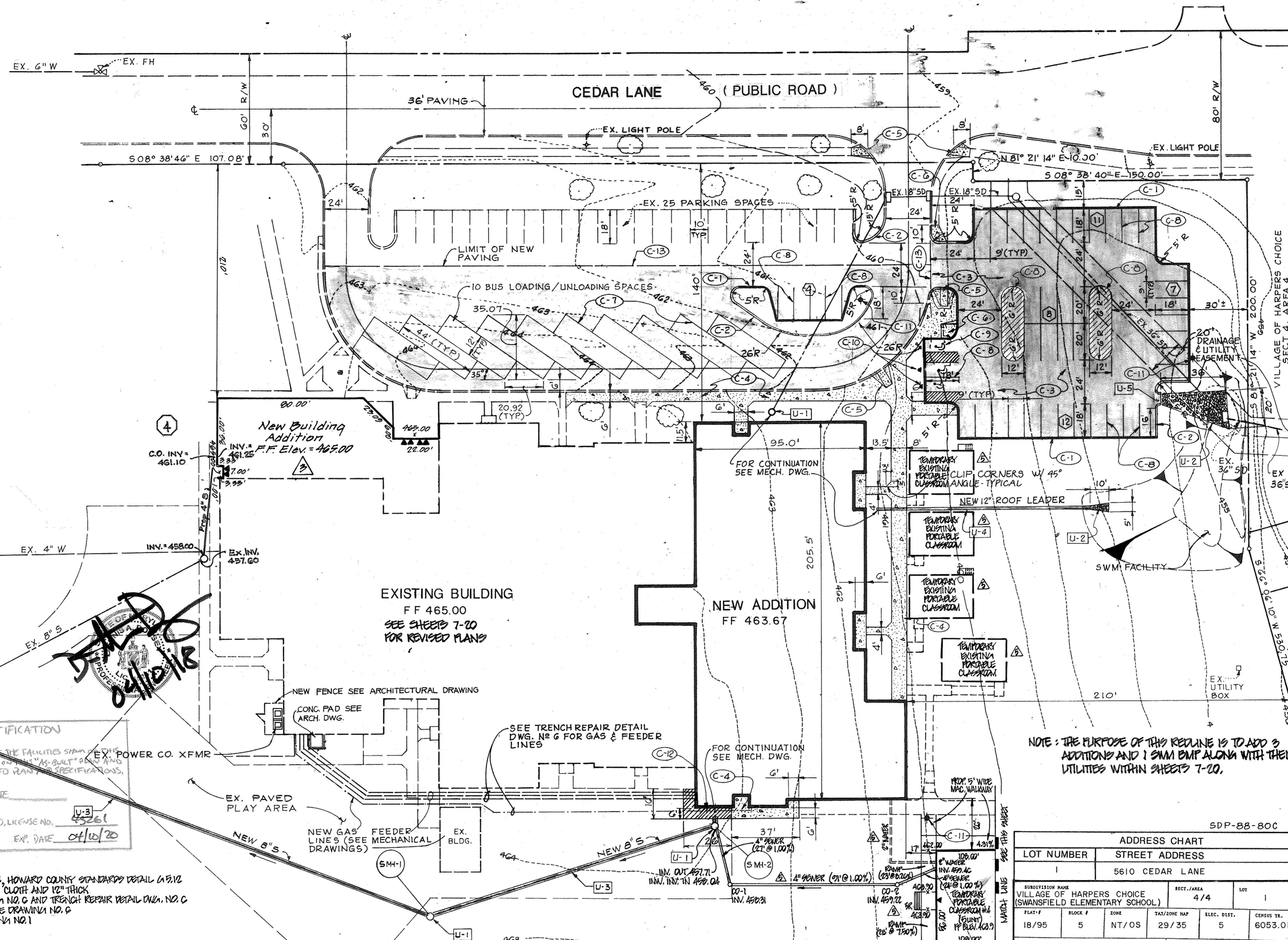


LEGEND

	EXISTING	PROPOSED
BUILDING	[Symbol]	[Symbol]
BITUMINOUS PAVING	[Symbol]	[Symbol]
CONCRETE WALK	[Symbol]	[Symbol]
CURB	[Symbol]	[Symbol]
RAMP	[Symbol]	[Symbol]
STORM DRAIN	EX. 36" SD	[Symbol]
INLET	[Symbol]	[Symbol]
MANHOLE	[Symbol]	[Symbol]
SANITARY SEWER	EX. 8" S.S.	NEW 8" S.S.
ROOF LEADER	EX. 4" W	NEW 12" R.L.
WATER	[Symbol]	[Symbol]
CONTOURS	---463---	[Symbol]
PARKING SPACE	[Symbol]	[Symbol]
CONSTRUCTION NOTE	[Symbol]	[Symbol]
UTILITY NOTE	[Symbol]	[Symbol]



VICINITY MAP

SCALE: 1"=2000'
 AEC MAP PAGE 20, GRID D-D

- GENERAL NOTES:
1. AREA OF PROPERTY - 10.12 AC.
 2. DISTURBED AREA - 1.55 A.C.
 3. PUBLIC WATER & PUBLIC SEWER WILL BE UTILIZED
 4. ZONING - NEW TOWN CNTD - OPEN SPACE
 5. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE HOWARD COUNTY DEPT. OF PUBLIC WORKS STANDARDS AND SPECIFICATIONS
 6. TOTAL AREA OF LANDSCAPED ISLAND - 1920 SF
 7. TAX MAP NO. 29 & 35
 8. PARKING REQUIREMENT =
 CAR PARKING SPACE PROVIDED - 116 SPACES
 BUS PARKING SPACE PROVIDED - 9 SPACES
 9. PAVED AREA - 4.92 AC. = 44%
 10. GREEN AREA - 5.03 AC. = 55%
 11. BUILDING COVERAGES - TOTAL FLOOR AREA INCLUDING NEW ADDITION = 82,007 SF OR 1,091 ADOS (10.0%)
 12. PREVIOUS DTD FILE NUMBER: P.P. 94-A, W.P. 15-171 & P.P. 18-006
 13. TOPO SURVEY BY MAND H. DEVELOPMENT ENGINEERS, INC. DATED 8/17/87
 14. SUBJECT PROPERTY IS ZONED NEW TOWN PER THE OCTOBER 6, 2013 COMPREHENSIVE ZONING PLAN.
 15. THE PROJECT IS SUBJECT TO THE UNREVISED FIFTH EDITION OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS OF THE OPEN SPACE CREATED AND NOT CREATED TO PER COMPREHENSIVE ZONING PLAN DATED JULY 8, 1994 AND P.P. 04-A.
 16. THE EXISTING TOPOGRAPHY IN AREA OF PROPOSED CONSTRUCTION IS TAKEN FROM A PHOTO SURVEY WITH TWO FOOT CONTOUR INTERVALS PREPARED BY PRINCE GEORGE COUNTY DEPT. OF PUBLIC WORKS, HORIZONTAL AND VERTICAL CONTROL POINTS WERE FROM THE PRINCE GEORGE COUNTY TOPOGRAPHIC SURVEY OF 1987.
 17. THE PROJECT TO BEAM FROM THE RESURVEYING OF SECTION 10, TOWNSHIP 10 NORTH OF THE HOWARD COUNTY CODE FOR FOREST CONSERVATION BECAUSE THE SITE IS PART OF A PLANNED UNIT DEVELOPMENT, NEW TOWN COLUMBIA.
 18. NO HAZARDOUS MATERIALS OR CONTAMINANTS WERE DETECTED AT THE SITE.
 19. THERE ARE NO CEMETERIES OR BURIAL GROUNDS LOCATED AT THE SITE.
 20. THERE ARE NO HISTORIC STRUCTURES LOCATED ON THE SUBJECT PROPERTY.
 21. THERE ARE NO WETLANDS AT THE SITE PER INSPECTION BY ECO-SCIENCE PROFESSIONAL, INC. DATED DECEMBER 9, 2014.
 - 22.

Note: A building permit for the proposed school expansion shall be applied for within within one (1) year measured from the DED approval letter for the red-line revision or before March 9, 2008.

NOTE: THE PURPOSE OF THIS REVISION IS TO ADD 3 ADDITIONS AND 1 SWM BMP ALONG WITH THEIR UTILITIES WITHIN SHEETS 7-20.

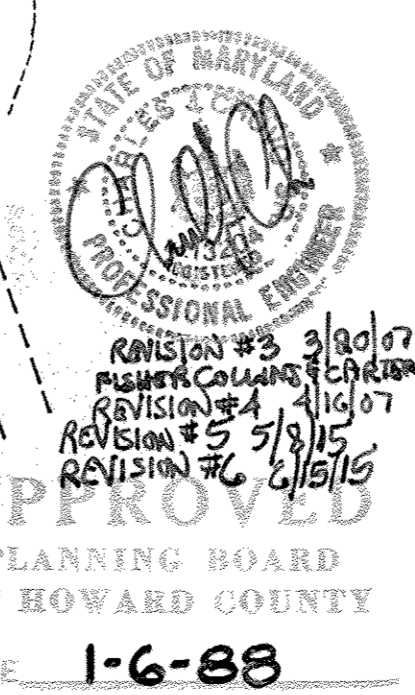
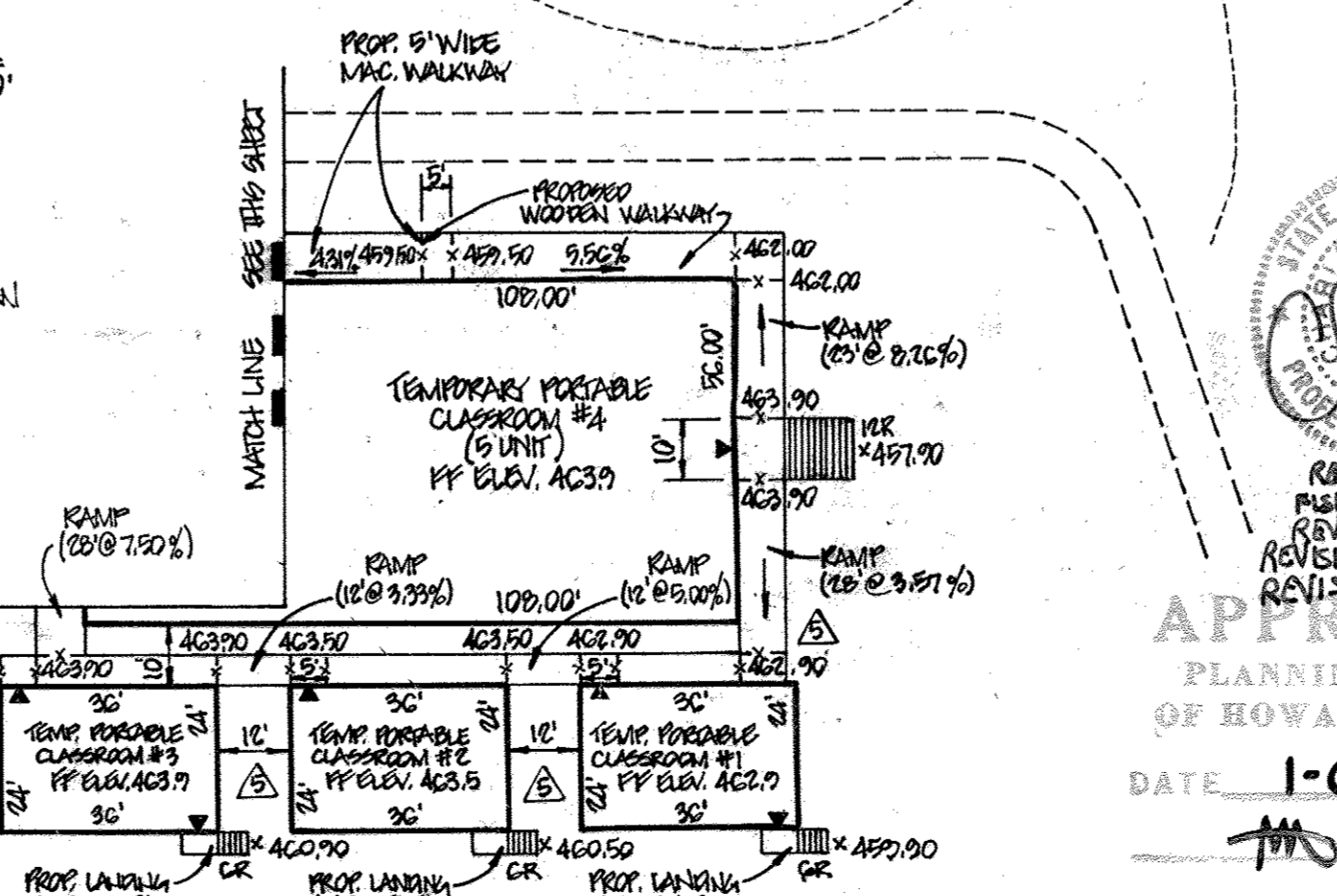
RESULT CERTIFICATION
 I HEREBY CERTIFY, BY MY SEAL, THAT THE FACILITIES SHOWN ON THIS PLAN HAVE BEEN CONSTRUCTED AS SHOWN ON THIS "AS-BUILT" PLAN AND THAT THIS PLAN MEETS THE APPROVED PLAN SPECIFICATIONS.
 SIGNATURE: [Signature] DATE: [Date]
 NAME: JENNIFER A. DORSEY, P.D., LICENSE NO. U-3 45261
 EXP. DATE: 01/10/20

- UTILITY NOTES**
- U-1 NEW STANDARD PRECAST MANHOLE, HOWARD COUNTY STANDARDS DETAIL C-13/12
 - U-2 NEW RIFLED 48" DIA. OVER FILTER CLOTH AND 12" THICK
 - U-3 NEW 8" S.W. SEE PROFILE DRAWING NO. C AND TRENCH REPAIR DETAIL DWA. NO. C
 - U-4 NEW 12" ROOF LEADER. SEE PROFILE DRAWING NO. G
 - U-5 NEW CURB CUT, SEE DETAIL DRAWING NO. 1

- CONSTRUCTION NOTES**
- C-1 INSTALL NEW CONCRETE CURB & GUTTER WITH REVERSE SLOPE, SEE DETAIL DRAWING NO. 5.
 - C-2 INSTALL NEW CONCRETE CURB & GUTTER, SEE DETAIL DRAWING NO. 5.
 - C-3 INSTALL BITUMINOUS PAVING, SEE DETAIL DRAWING NO. 5.
 - C-4 INSTALL CONCRETE SIDEWALK, SEE DETAIL DRAWING NO. 5.
 - C-5 INSTALL HANDICAPPED RAMP, SEE DETAIL DRAWING NO. 5 & G.
 - C-6 INSTALL RAMP.
 - C-7 BUS PAVEMENT MARKINGS TO BE DONE WITH 4" WIDE YELLOW TRAFFIC PAINT.
 - C-8 PAVEMENT MARKINGS TO BE DONE WITH 4" WIDE WHITE TRAFFIC PAINT.
 - C-9 HANDICAPPED PAVEMENT MARKINGS, SEE DETAIL DRAWING NO. 5.
 - C-10 HANDICAPPED SIGN, SEE DETAIL DRAWING NO. 5.
 - C-11 INSTALL LIGHT POLES AS SHOWN.
 - C-12 INSTALL BITUMINOUS PAVING, SEE DETAIL DRAWING NO. 5.
 - C-13 PROVIDE PAVING JOINT; SEE DETAIL DRAWING NO. 6

AS-BUILT SHEET INDEX

NO.	DESCRIPTION
1	SITE LAYOUT & UTILITY PLAN
2	STORM DRAIN AREA MAP, GRADING PLAN & SIDEWALK MANAGEMENT PLAN
3	EROSION/SEDIMENT CONTROL & LANDSCAPING PLAN
4	EXISTING CONDITIONS & DEMOLITION PLAN
5	PROFILES
6	PROFILES & DETAILS
7	DEMOLITION PLAN
8	SITE DEVELOPMENT PLAN
9	EROSION/SEDIMENT CONTROL & LANDSCAPING PLAN
10	PROFILES
11	PROFILES & BUILDING ELEVATIONS
12	PROFILES & DETAILS
13	SEDIMENT CONTROL NOTES
14	SEDIMENT CONTROL DETAILS & SOIL BORING LOGS
15	MICRO-BIORETENTION FACILITY PROFILE & TYPICAL SECTION
16	FLOW STRUCTURE (U-1) DETAIL
17	PORTABLE #1 & #2 DETAILS
18	PORTABLE #3 DETAILS
19	PLANNING PLAN FOR MICRO-BIORETENTION FACILITY
20	SIDEWALK MANAGEMENT NOTES & SPECIFICATIONS



ADDRESS CHART

LOT NUMBER	STREET ADDRESS
1	5610 CEDAR LANE

SDP-88-80C

SUBDIVISION NAME	BLK. #	ZONE	TAX/ZONE MAP	ELEC. DIST.	CENSUS TR.
VILLAGE OF HARPERS CHOICE (SWANSFIELD ELEMENTARY SCHOOL)	5	NT/OS	29/35	5	6053.01

IOG 5584900

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

APPROVED FOR PUBLIC WATER AND PUBLIC SEWER SYSTEMS
 HOWARD COUNTY HEALTH DEPARTMENT

APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING

DATE: 1-6-88

DATE	NO.	REVISION
9/10/19	G	ADDED SHEET INDEX, REVISION SHEETS, & ADDED GENERAL NOTES
9/16/19	A	ADDED TEMPORARY BUILDING & TEMPORARY PORTABLE CLASSROOMS AND 4" WALKWAY
4-16-07	4	ADD PROP. 4'S BY F.C.C.
9-20-07	9	ADDED NEW BUILDING ADDITION
5-14-88		REVISED HANDICAPPED PARKING
11-11-87		

PROJECT: BUILDING ADDITION TO SDP-71-88
 SWANSFIELD ELEMENTARY SCHOOL
 VILLAGE OF HARPERS CHOICE
 SECTION 10, AREA 4
 5TH ELECTION DISTRICT, HOWARD COUNTY, MD.

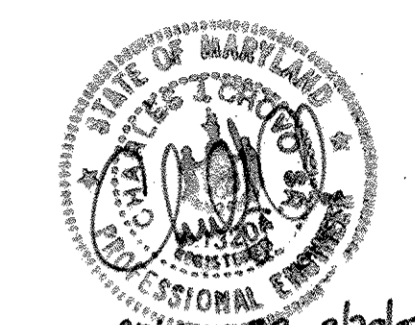
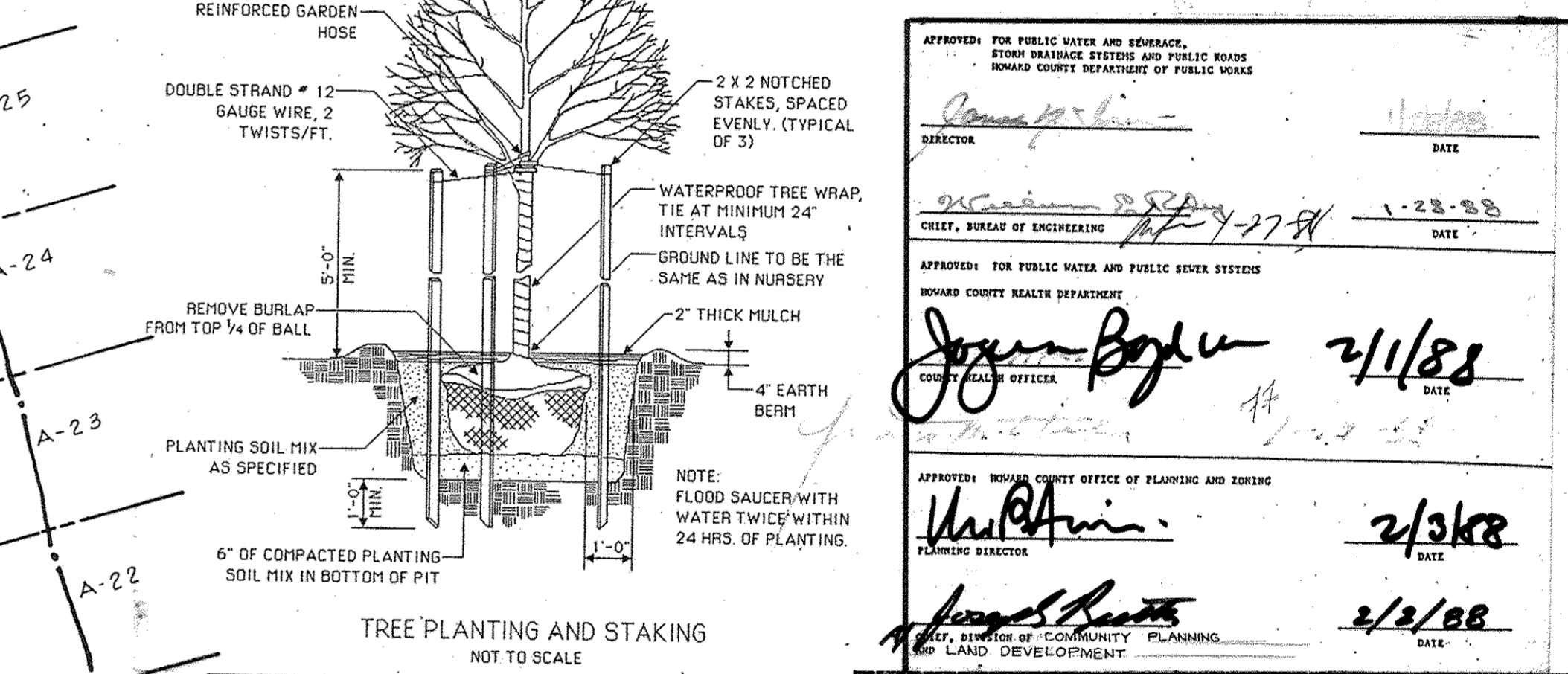
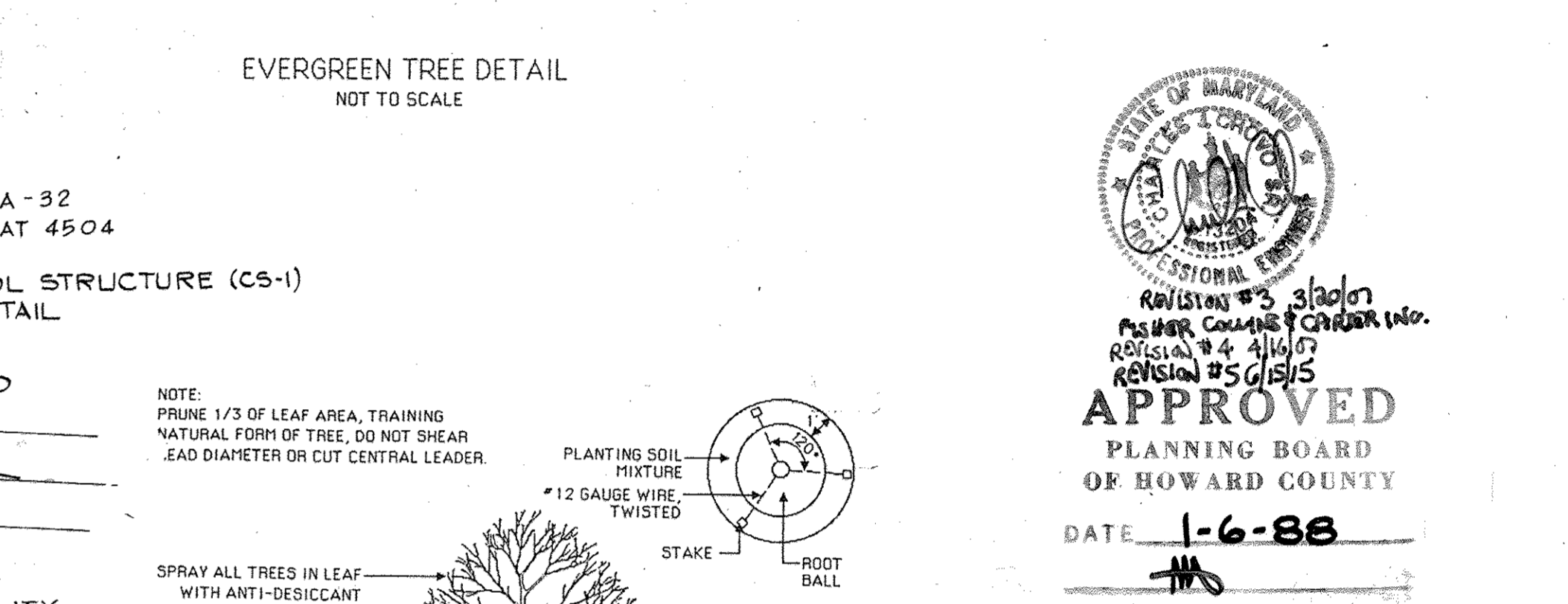
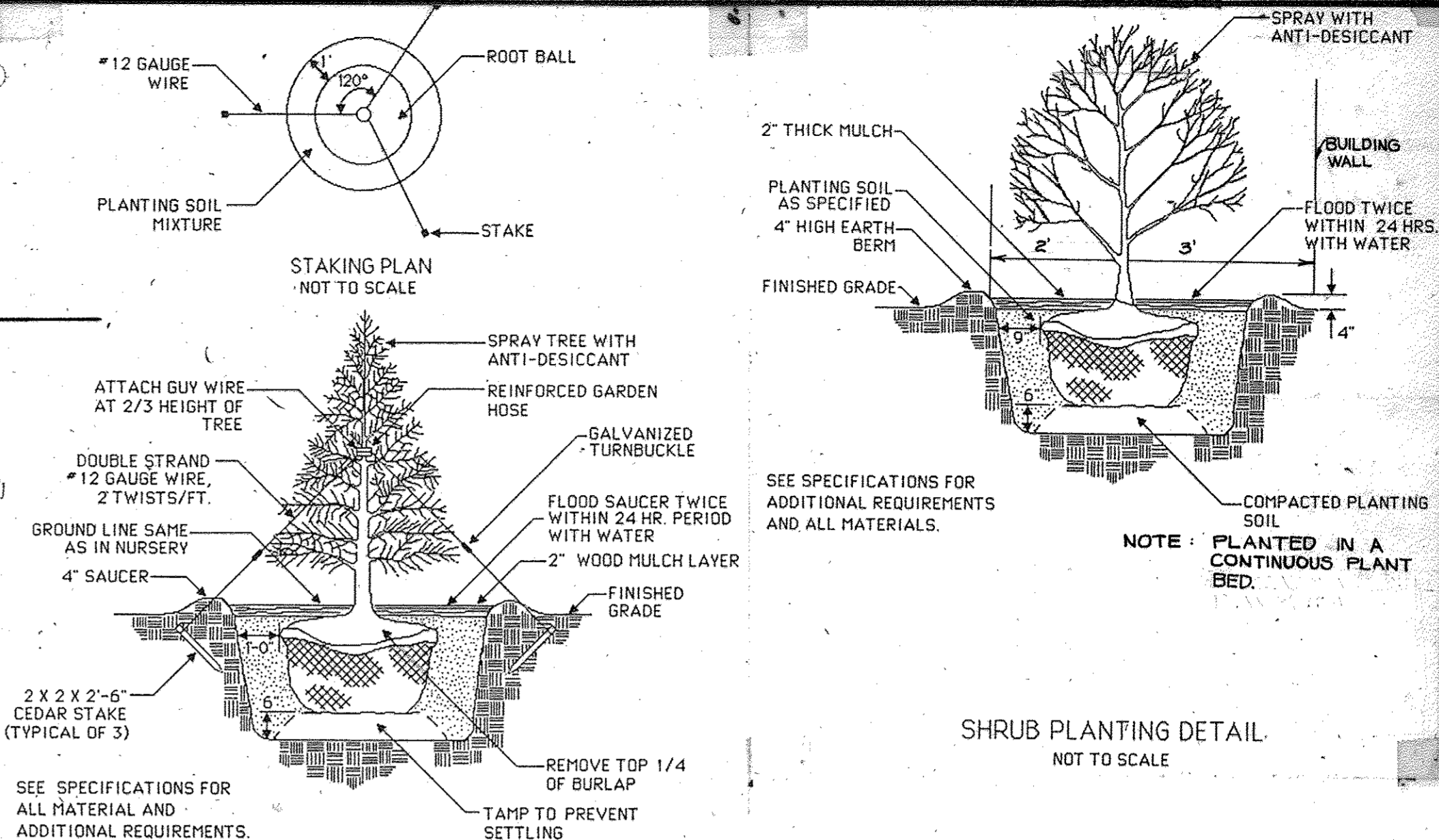
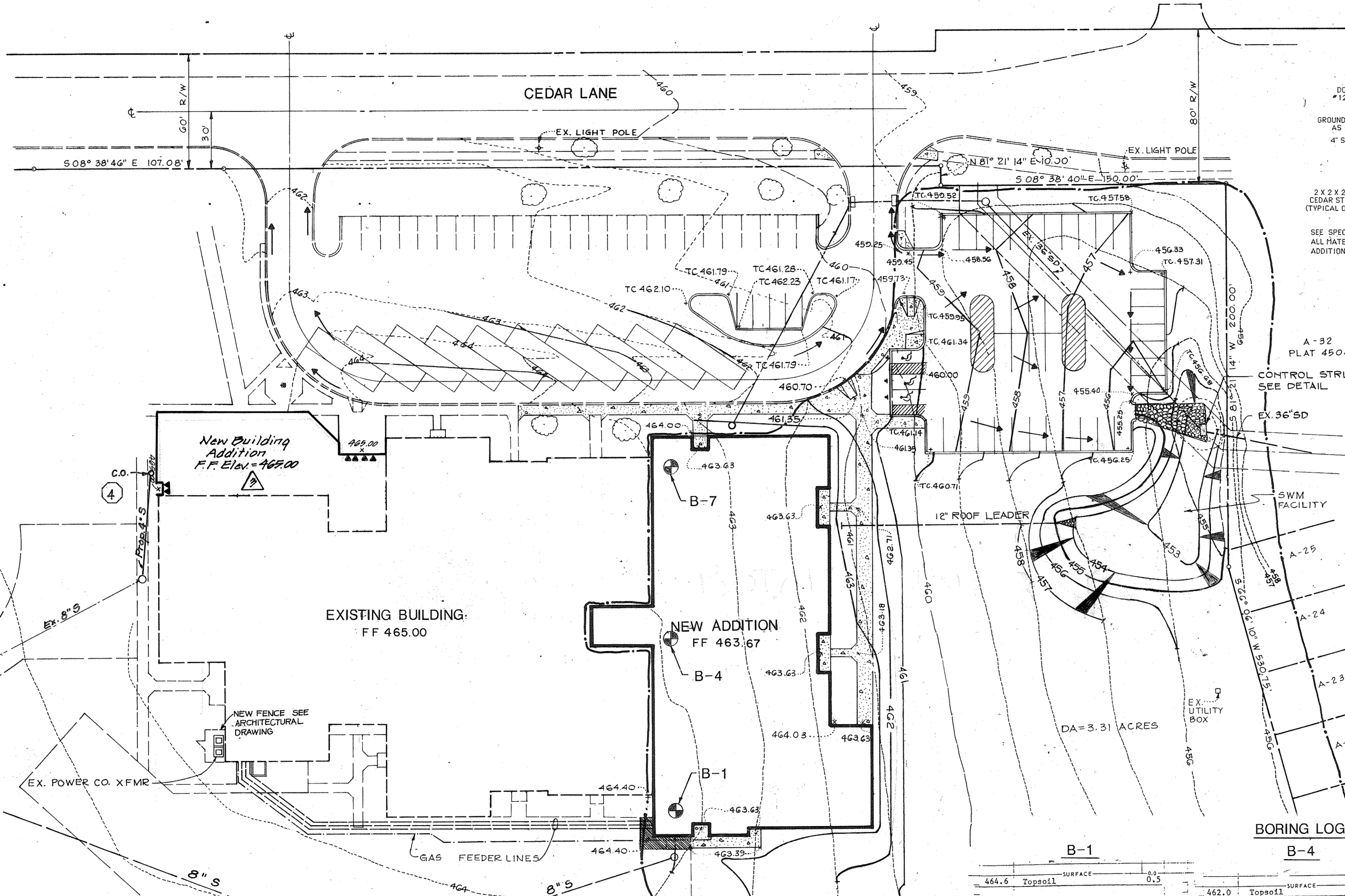
TITLE: SWM AS-BUILT
 SITE LAYOUT & UTILITY PLAN

OWNER:
 HOWARD COUNTY BOARD OF EDUCATION
 10910 ROUTE 108
 ELLICOTT CITY, MARYLAND 21043

DATE: 2/4/87
 DESIGNED: AR
 DRAWN: GSB
 CHECKED: PD
 PROJECT NO. 87095
 DATE: OCT. 6, 1987
 SCALE: AS SHOWN
 DRAWING NO. 1 OF 20



NOTE: TC-TOP OF CURB



APPROVED
PLANNING BOARD
OF HOWARD COUNTY
DATE 1-6-88

Approval table with columns for 'APPROVED FOR PUBLIC WATER AND SEWERAGE', 'APPROVED FOR PUBLIC WATER AND PUBLIC ROADS', 'APPROVED FOR PUBLIC WATER AND PUBLIC SEWER SYSTEMS', 'APPROVED HOWARD COUNTY OFFICE OF PLANNING AND ZONING', and 'APPROVED HOWARD COUNTY BOARD OF EDUCATION'. Includes signatures and dates for various officials.

BORING LOG table with columns for B-1, B-4, and B-7. Each column contains soil profile data including depth (0.5, 4.0, 5.0, 8.0, 10.0, 12.0, 13.0, 15.0, 15.0'), soil type (Topsoil, Silty CLAY, Sandy SILT, etc.), and moisture conditions.

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 THAT THIS PLAN MEETS THE APPROVED PLAN AND SPECIFICATIONS.
SIGNATURE: *[Signature]* DATE: 04/10/88
NAME: PENNIS A. DORSEY, MD. LICENSE NO. 45261
EXP. DATE: 04/10/90

LEGEND table with columns for 'EXISTING' and 'PROPOSED'. Lists symbols for BUILDING, BITUMINOUS PAVING, CONCRETE WALK, CURB, RAMP, STORM DRAIN, INLET, MANHOLE, SANITARY SEWER, ROOF LEADER, WATER, CONTOURS, SPOT ELEVATION, and SWALE.

Revision table with columns for 'DATE', 'BY', 'REVISION SHEET NO.', and 'REVISION'. Shows revision 5 dated 04/10/88.

Project information block including:
PROJECT: BUILDING ADDITION TO SDP-71-88
SWANSFIELD ELEMENTARY SCHOOL
VILLAGE OF HARPERS CHOICE
SECTION 4, AREA 4
5TH ELECTION DISTRICT, HOWARD COUNTY, MD.
TITLE: STORM DRAIN AREA MAP, GRADING PLAN AND STORM WATER MANAGEMENT PLAN AS-BUILT
OWNER: HOWARD COUNTY BOARD OF EDUCATION
10910 ROUTE 108
ELLCOTT CITY, MARYLAND 21043
DATE: 7/4/87
DESIGNED: A.R.
DRAWN: G.S.B.
CHECKED: P.D.
PROJECT NO. 87095
DATE: OCT. 6, 1987
SCALE: 1" = 30'
DRAWING NO. 2 OF 20

- 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. (992-2437)
- 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 redistribution, permanent or temporary stabilization shall be completed within:
 - 7 calendar days for all perimeter sediment control structures, dikes, perimeter slopes and all slopes greater than 3:1,
 - 14 days as to all other disturbed or graded areas on the project site.
- All sediment traps/basins shown must be fenced and warning signs posted around their perimeter in accordance with Vol. 1, Chapter 12, of the HOWARD COUNTY DESIGN MANUAL, Storm Drainage.
- All disturbed areas must be stabilized within the time period specified above in accordance with the 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for permanent seedings (Sec. 51) and (Sec. 54), temporary seeding (Sec. 50) and mulching (Sec. 52). Temporary stabilization with mulch alone can only be done when recommended seeding dates do not allow for proper germination and establishment of grasses.
- All sediment control structures are to remain in place and are to be maintained in operative condition until permission for their removal has been obtained from the Howard County Sediment Control Inspector.
- Site Analysis:

Total Area of Site	10.153 Acres
Area Disturbed	1.55 Acres
Area to be roofed or paved	0.90 Acres
Area to be vegetatively stabilized	0.90 Acres
Total Cut	300 Cu. Yds.
Total Fill	1500 Cu. Yds.
Office waste/borrow area location	NOT KNOWN
- Any sediment control practice which is disturbed by grading activity for placement of utilities must be repaired on the same day of disturbance.
- Additional sediment controls must be provided, if deemed necessary by the Howard County DPW sediment control inspector.
- On all sites with disturbed areas in excess of 2 acres, approval of the inspection agency shall be requested upon completion of installation of perimeter erosion and sediment controls, but before proceeding with any other earth disturbance or grading. Other building or grading inspection approvals may not be authorized until this initial approval by the inspection agency is made.
- 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.

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

Seedbed Preparation: Loosen upper three inches of soil by raking, discing 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/1000 square ft) and 600 lbs per acre 10-10-10 fertilizer (14 lbs/1000 sq ft) before seeding. Harrow or disc into upper three inches of soil. At time of seeding, apply 400 lbs per acre 30-0-0 ureaform fertilizer (9 lbs/1000 sq ft).
- Acceptable - Apply 2 tons per acre dolomitic limestone (92 lbs/1000 sq ft) and 1000 lbs per acre 10-10-10 fertilizer (23 lbs/1000 sq ft) before seeding. Harrow or disc into upper three inches of soil.

SEEDING - FOR THE PERIODS MARCH 1 THRU APRIL 30, AND AUGUST 1 THRU OCTOBER 15, SEED WITH 300 LBS PER ACRE (7 LBS/1000 sq ft) OF 85% CERTIFIED KENTUCKY 31 TALL FESCUE & 15% CERTIFIED BLUE GRASS (MARION KEY BLUE OR SOUTH DAKOTA), FOR THE PERIOD MAY 1 THRU JULY 31, SEED WITH 30 LBS KENTUCKY 31 TALL FESCUE PER ACRE AND 2 LBS PER ACRE (.05 LBS/1000.50 FT) OF WEEPING LOVEGRASS, DURING THE PERIOD OF OCTOBER 16 THRU FEBRUARY 28, PROTECT SITE BY OPTION (1) 2 TONS PER ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING. OPTION (2) USE SOG WITH SEED COMPOSITION SAME AS ABOVE. OPTION (3) SEED WITH 60 LBS/ACRE KENTUCKY 31 TALL FESCUE AND MULCH WITH 2 TONS/ACRE WELL ANCHORED STRAW.

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

TEMPORARY SEEDING NOTES

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

Seedbed Preparation: Loosen upper three inches of soil by raking, discing or other acceptable means before seeding, if not previously loosened.

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

Seeding: For periods March 1 thru April 30 and from August 15 thru November 15, seed with 25 bushel per acre of annual ryegrass (3.2 lbs/1000 sq ft). For the period May 1 thru August 14, seed with 3 lbs per acre of weeping lovegrass (.07 lbs/1000 sq ft). For the period November 16 thru 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/1000 sq ft) of unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool.

Refer to the 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for rate and methods not covered.

CONSTRUCTION SEQUENCE

- OBTAIN GRADING PERMITS 2 WEEKS
- CLEARING AND GRUBBING FOR THE INSTALLATION OF SILT FENCE AND STABILIZED CONSTRUCTION ENTRANCE 2 WEEKS
- INSTALL SEDIMENT CONTROL DEVICES, INCLUDING INLET PROTECTION, CONSTRUCT SIM CONTROL STRUCTURE AND PROVIDE TEMPORARY PLUS TO THE LOW FLOW ORIFICE CONSTRUCT SIM POND TO BE USED AS STORM INLET SEDIMENT TRAP 2 WEEKS
- CLEARING AND GRUBBING OF SITE 3 WEEKS
- START GRADING TO SUB GRADE AND EXCAVATION FOR BUILDING CONSTRUCTION 1 WEEK
- START BUILDING CONSTRUCTION 3 WEEKS
- START INSTALLATION OF STORM DRAIN AND SEWER MAIN 2 WEEKS
- START INSTALLATION OF CURB AND GUTTER 2 MONTHS
- STABILIZE DISTURBED AREAS NOT TO BE PAVED 2 WEEKS
- START PAVING PARKING AREAS 2 WEEKS
- DEWATER TRAP AND RESHAPE SIM POND 2 WEEKS
- COMPLETION OF REMAINING ACTIVITIES 2 MONTHS
- REMOVAL OF REMAINING SEDIMENT CONTROL DEVICES 1 WEEK

NOTE: ALL TIMES ARE APPROXIMATE AND SUBJECT TO CHANGE

BY THE DEVELOPER:

*I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF NATURAL RESOURCES APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT.

Henry Hanning 1/10/88
SIGNATURE OF DEVELOPER DATE

BY THE ENGINEER:

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

Philip Der 12/4/87
SIGNATURE OF ENGINEER DATE

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

James Mitchell 1-19-88
U.S. SOIL CONSERVATION SERVICE DATE

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

Stephen L. Galt 1/19/88
HOWARD S.C.D. DATE

AS-BUILT CERTIFICATION

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

SIGNATURE *[Signature]* DATE 04/10/88

NAME *DEWIS A. DOUSE* MD LICENSE NO. 45261 EX DATE 04/10/20

APPROVED PLANNING BOARD OF HOWARD COUNTY DATE 1-6-88

APPROVED FOR PUBLIC WATER AND SEWERAGE, STORM DRAINAGE, SEWERS AND PUBLIC WORKS HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

James G. Schum 1/22/88
DIRECTOR DATE

APPROVED FOR PUBLIC WATER AND PUBLIC SEWER SYSTEMS HOWARD COUNTY HEALTH DEPARTMENT.

James G. Schum 2/1/88
HEALTH OFFICER DATE

APPROVED HOWARD COUNTY OFFICE OF PLANNING AND ZONING PLANNING DIRECTOR

Urry P. Amis 2-3-88
DATE

James G. Schum 2/2/88
DATE

DATE NO. REVISION

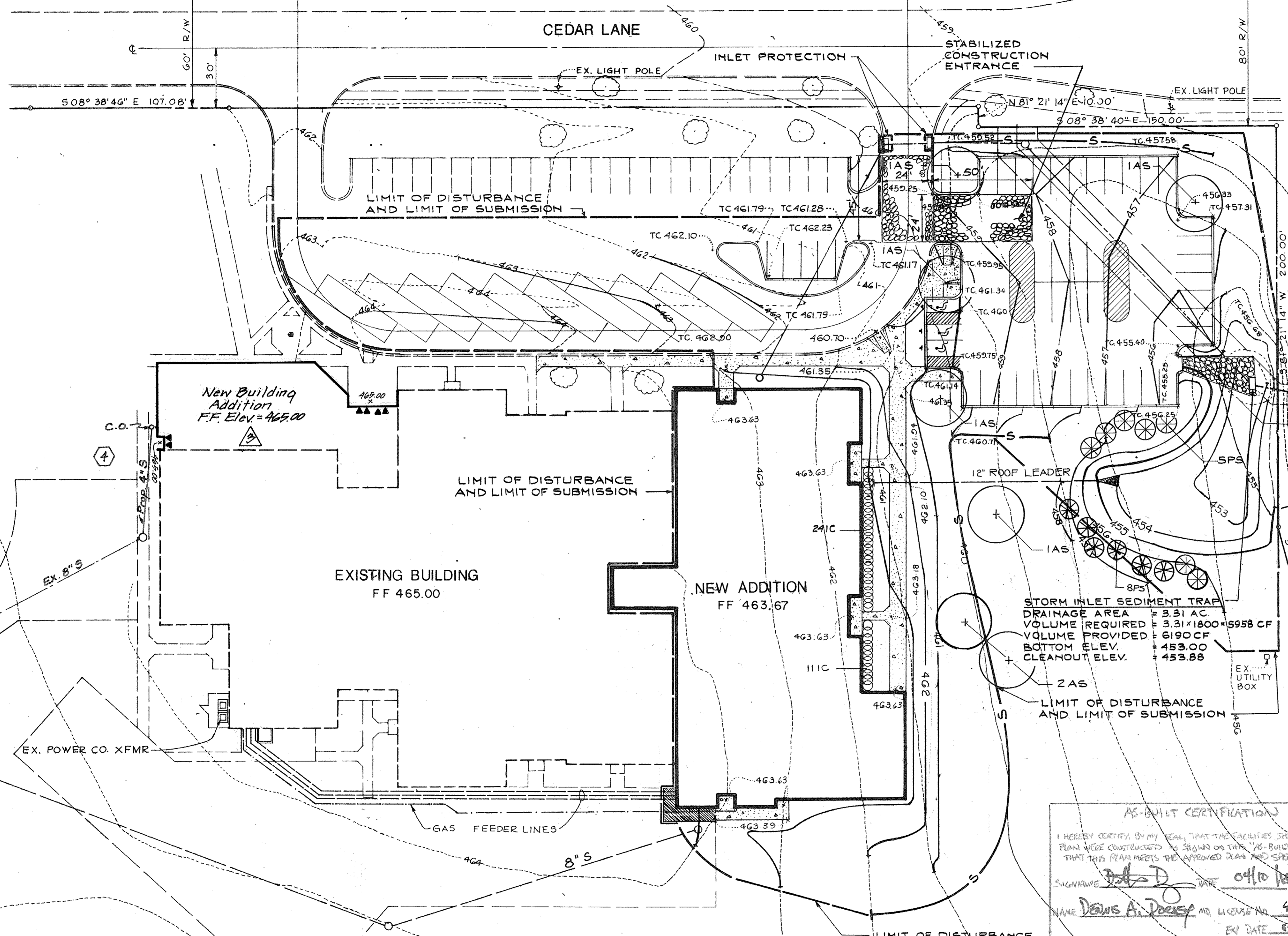
0/10/79	5	REVISED SHEET NO.
4-16-07	4	Add Prop. 4'S by FCC.
8-20-07	3	Added new Bidg addition & Const. Seq. Notes
3-14-88	2	REVISED HANDICAPPED PARKING
11-11-87	1	

PROJECT: BUILDING ADDITION TO SDP-71-88
SWANSFIELD ELEMENTARY SCHOOL
VILLAGE OF HARPERS CHOICE
LOT 1
SECTION 4, AREA 4
5TH ELECTION DISTRICT, HOWARD COUNTY, MD.

TITLE: EROSION & SEDIMENT CONTROL
AS-Built & LANDSCAPING PLAN

OWNER:
HOWARD COUNTY BOARD OF EDUCATION
10910 ROUTE 108
ELLCOTT CITY, MARYLAND 21043

DESIGNED: A.R.
DRAWN: G.S.B.
CHECKED: P.D.
PROJECT NO. 87095
DATE: OCT. 6, 1987
SCALE: 1" = 30'
DRAWING NO. 3 OF 20



PLANT LIST

KEY	QUAN.	BOTANICAL NAME COMMON NAME	SIZE	COND.	REMARKS
PS	13	PINUS STROBUS / WHITE PINE	6-8'	B / B	
AS	7	ACER SACCHARUM GREEN MTN / GREEN MTN SUGAR MAPLE	2 1/2-3' CAL.	B / B	
IC	35	ILEX CRENATA HETZI / HETZ HOLLY	18-24"	CONT.	PLANT 3' O/C

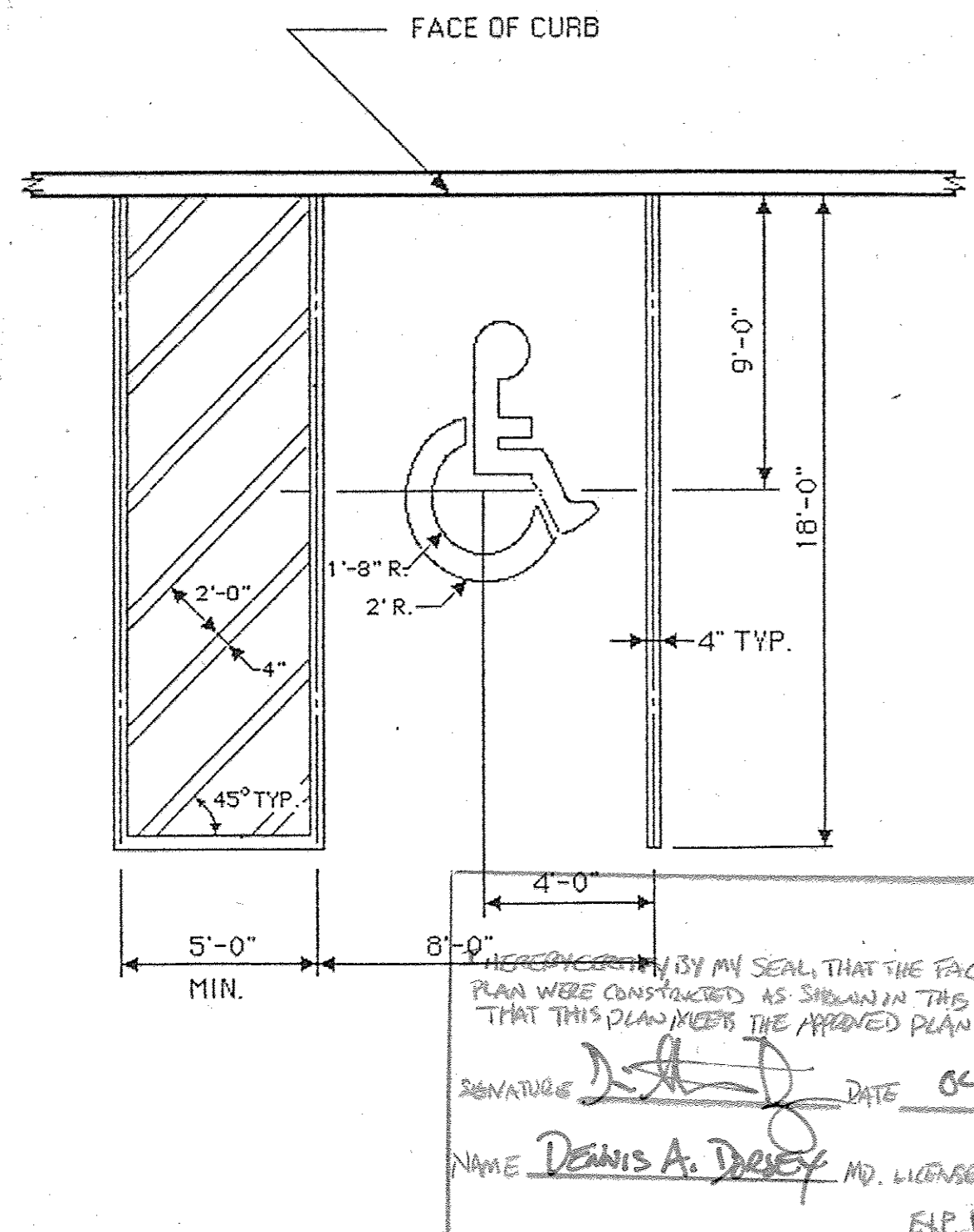
- Construction Sequence for Classroom Addition**
- Obtain grading permit.
 - Notify "Miss Utility" at least 48 hours before beginning any work at 1-800-257-7777. Notify the Howard County Office of Construction/Inspection at 410-319-1990 24 hours before starting work.
 - Install sediment control measures shown on the plans, 1 week.
 - Grade to subgrade classroom addition area.
 - Construct classroom addition, 9 months.
 - Final grade disturbed areas and stabilize with permanent seeding.
 - Notify the Howard County Office of Construction/Inspection for permission to remove sediment control measures and stabilize disturbed areas with permanent seeding.

LEGEND

- SILT FENCE
- INLET PROTECTION
- STABILIZED CONST. ENT.
- LIMIT OF DISTURBANCE
- STONE RIPRAP
- TREE
- SHRUB

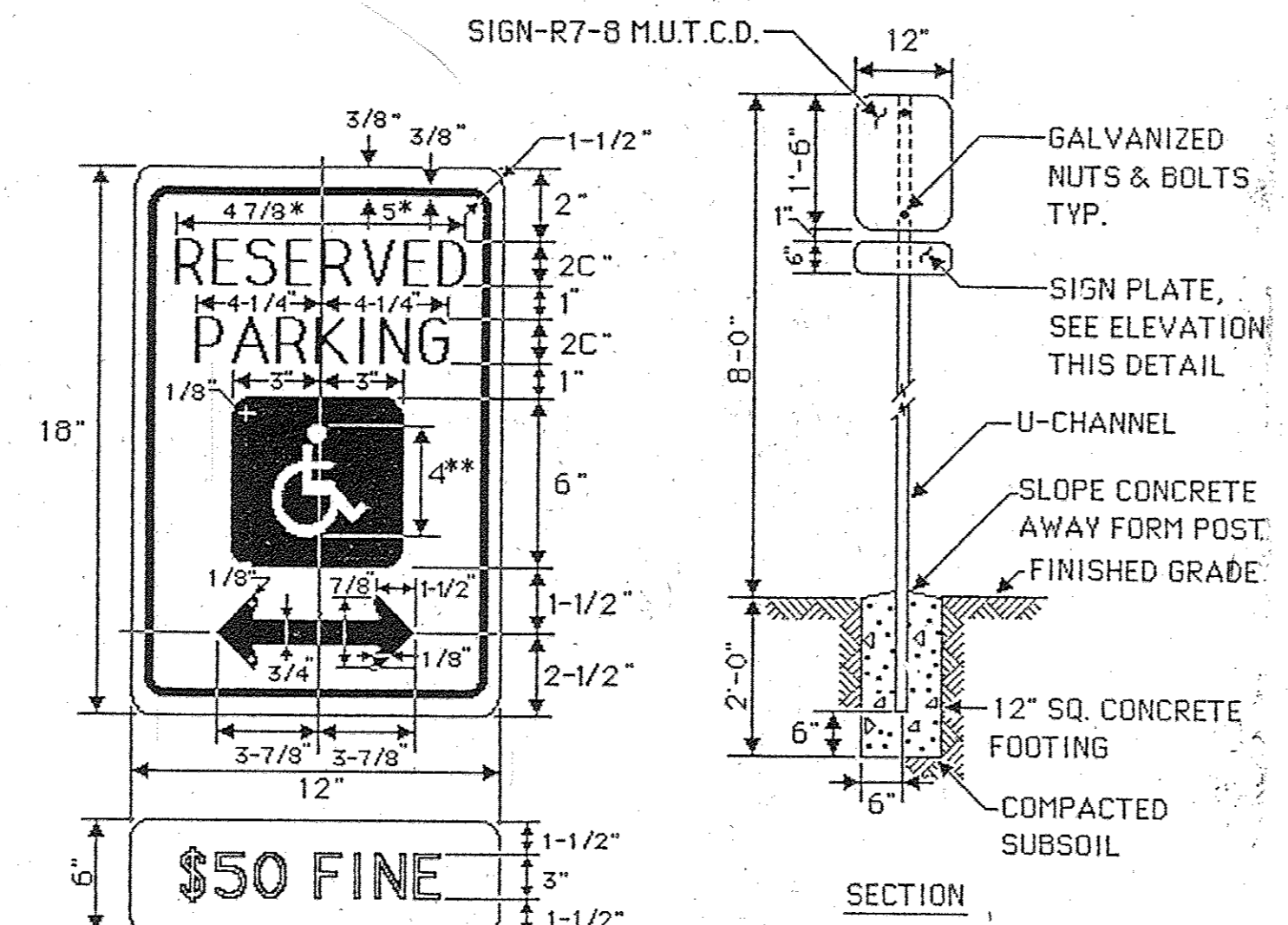
FOR PLANTING DETAILS SEE SHEET NO. 2

NOTE: PAINT IS TO BE WHITE TRAFFIC PAINT APPLIED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. TWO (2) COATS REQUIRED



BY MY SEAL, THAT THE FACILITIES SHOWN ON THIS PLAN WERE CONSTRUCTED AS SHOWN IN THIS "AS-BUILT" PLAN AND THAT THIS PLAN MEETS THE APPLICABLE PLAN AND SPECIFICATIONS.

SIGNATURE: *[Signature]* DATE: 04/10/88
 NAME: DENNIS A. DORSEY, MD. LICENSE #14, 45261
 EXP. DATE: 04/10/20

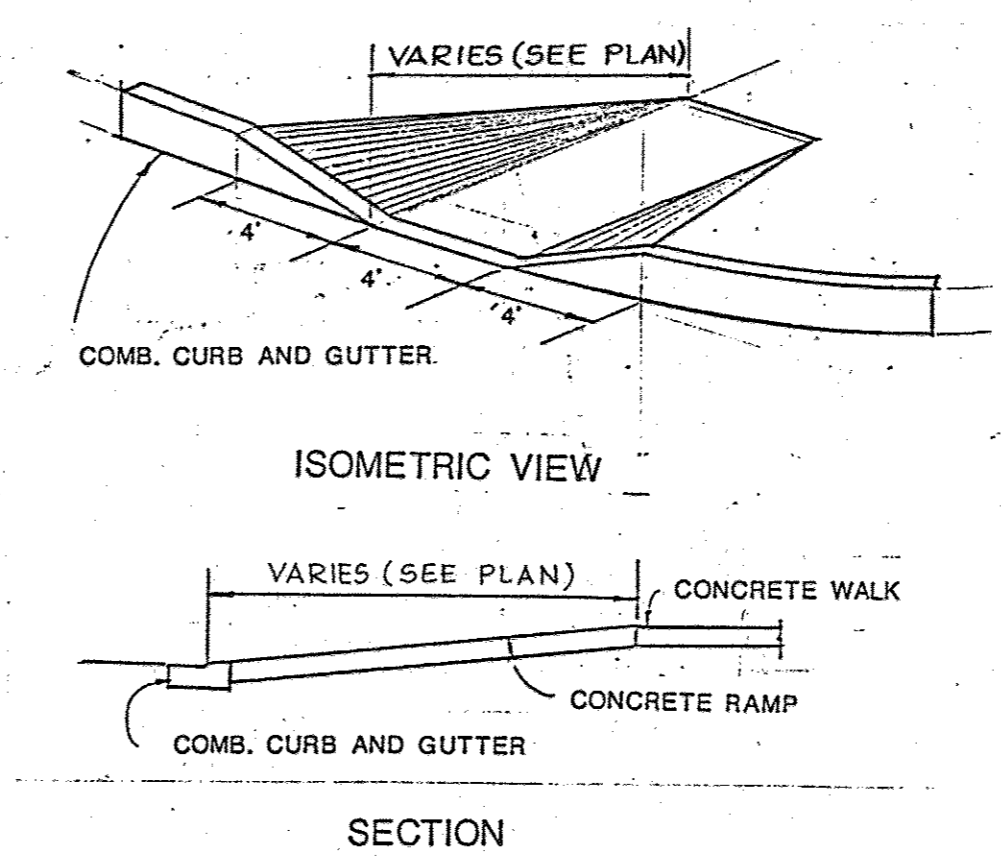


NOTE: PROVIDE ONE SIGN AND POST PER HANDICAP PARKING SPACE, SEE PLAN.

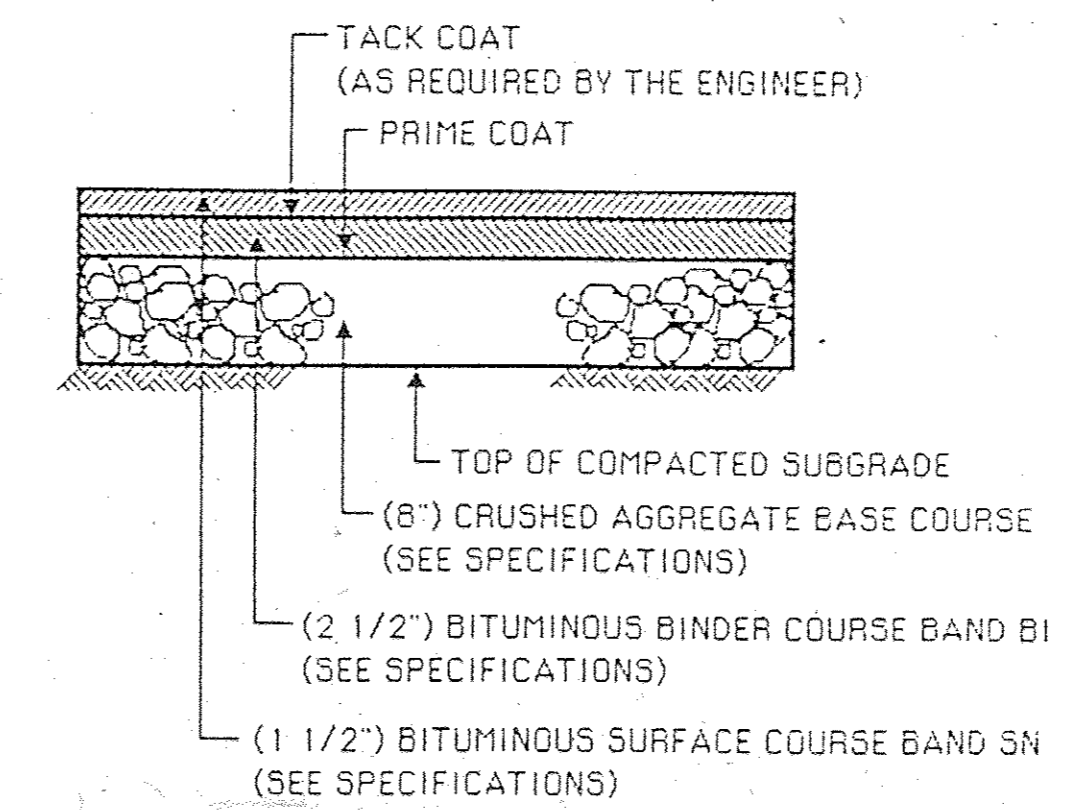
COLORS:
 LEGEND & BORDER- GREEN
 WHITE SYMBOL ON BLUE BACKGROUND
 BACKGROUND- WHITE

* REDUCE SPACING 50%
 ** SEE SYMBOL 186d FOR SYMBOL DESIGN

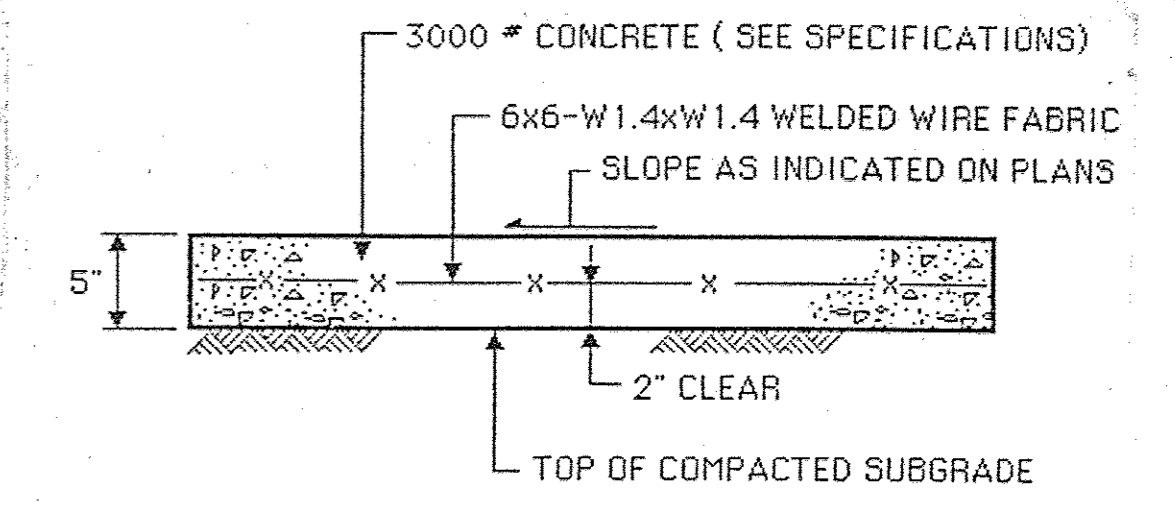
[Signature]
 DATE: 04/10/88



3 HANDICAPPED RAMP DETAIL

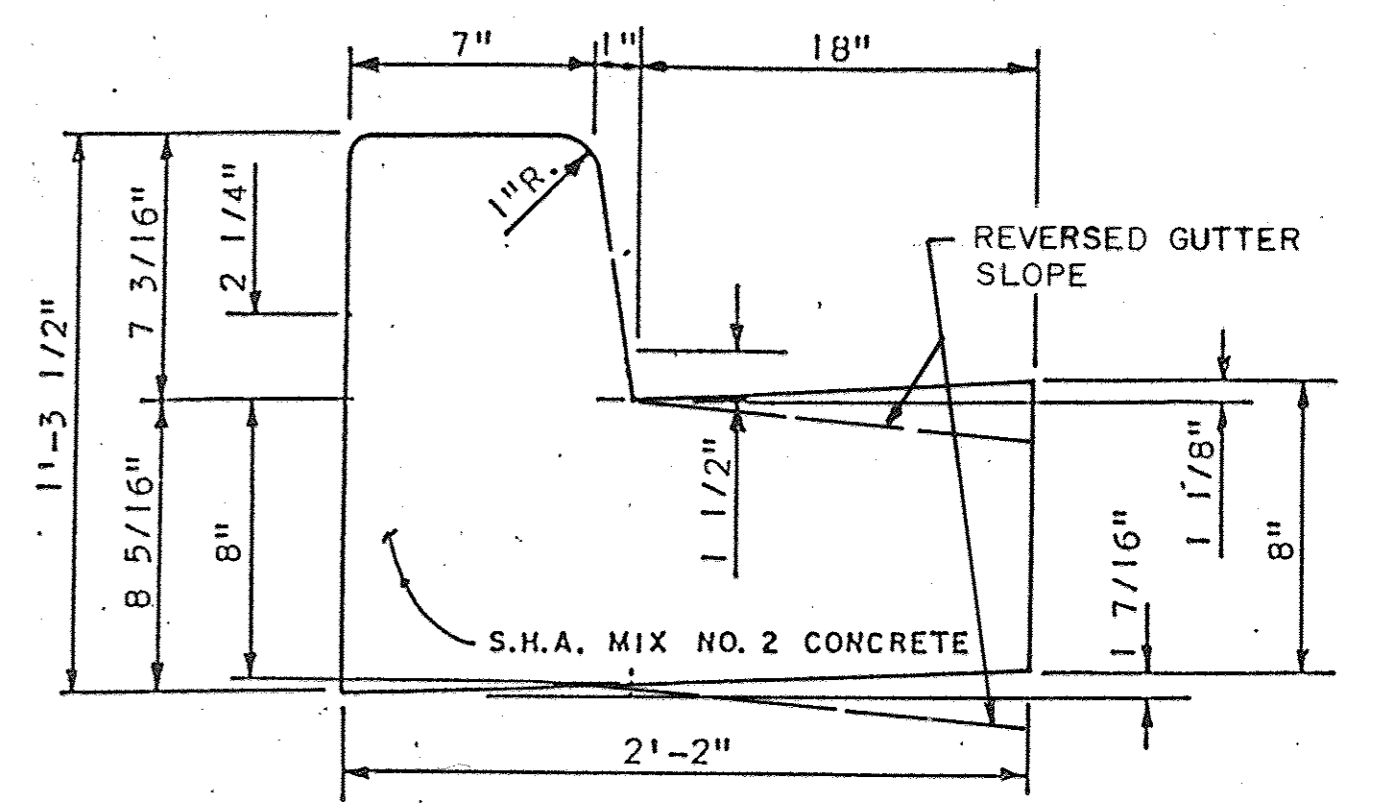


5 BITUMINOUS PAVING DETAIL



NOTE:
 1. 1/2" PREFORMED EXPANSION JOINT MATERIAL TO BE PLACED WHERE WALKS ABUT CURBS, STEPS, BUILDINGS, OTHER WALKS, ETC. AND AT A MAXIMUM OF 20' INTERVALS ALONG THE WALK.
 2. SCORING SHALL BE AT PROVIDED AT 4' ON CENTER FOR 4' & 8' WALKS, 5' ON CENTER FOR 5' & 10' WALKS, AND 6' ON CENTER FOR 6' WALKS & LARGER, UNLESS OTHERWISE NOTED ON PLANS.

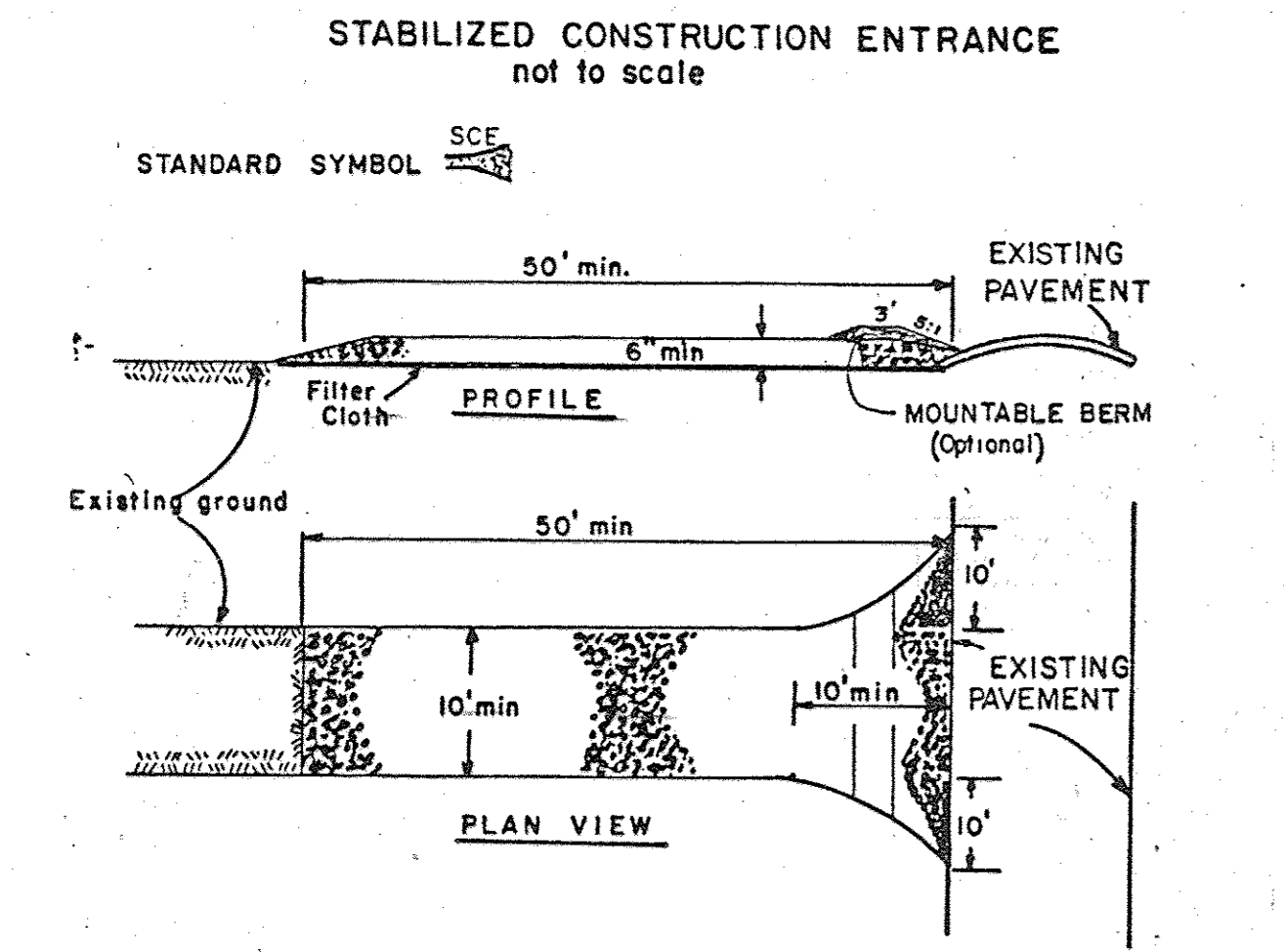
4 REINFORCED CONCRETE SIDEWALK DETAIL



6 STANDARD 7" COMBINATION CURB & GUTTER

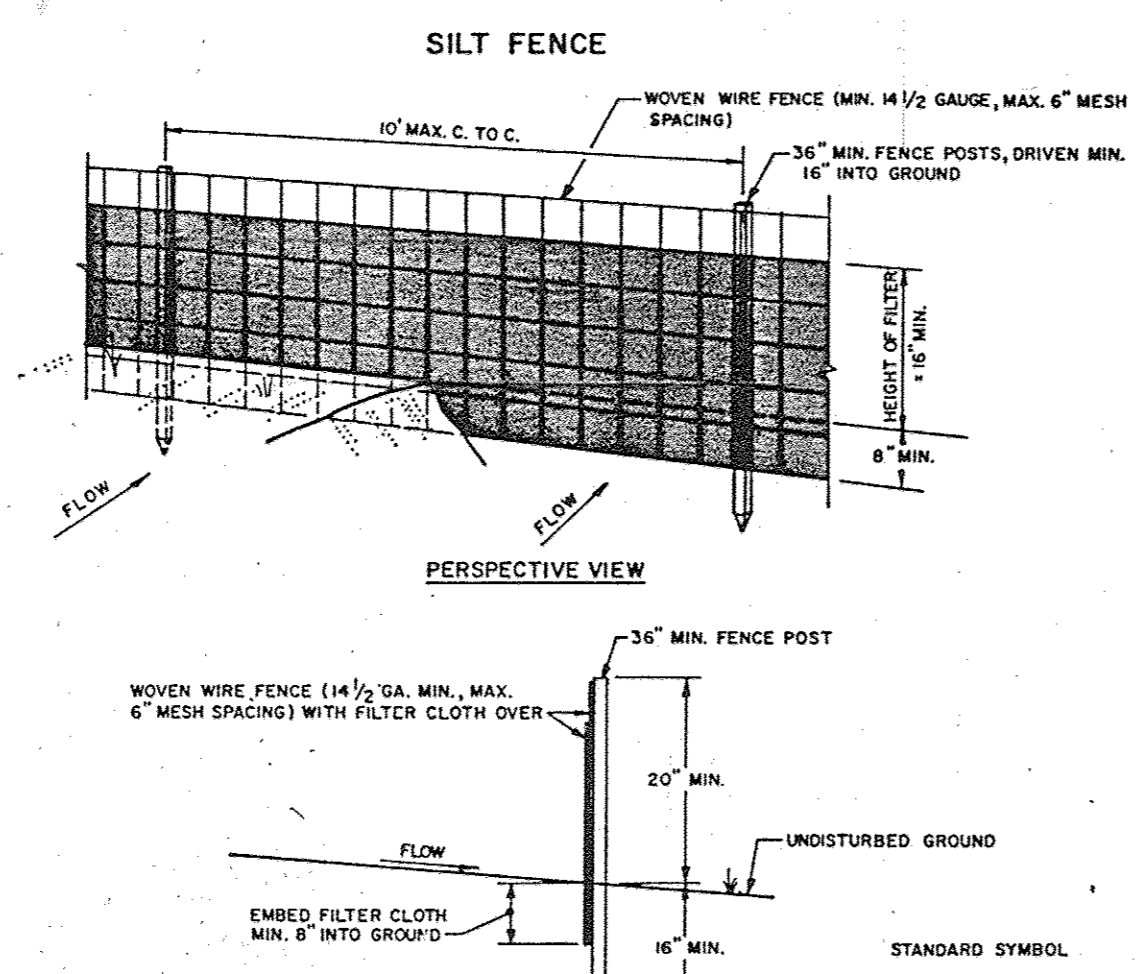
1 HANDICAP STRIPING DETAIL

2 HANDICAP SIGN DETAIL



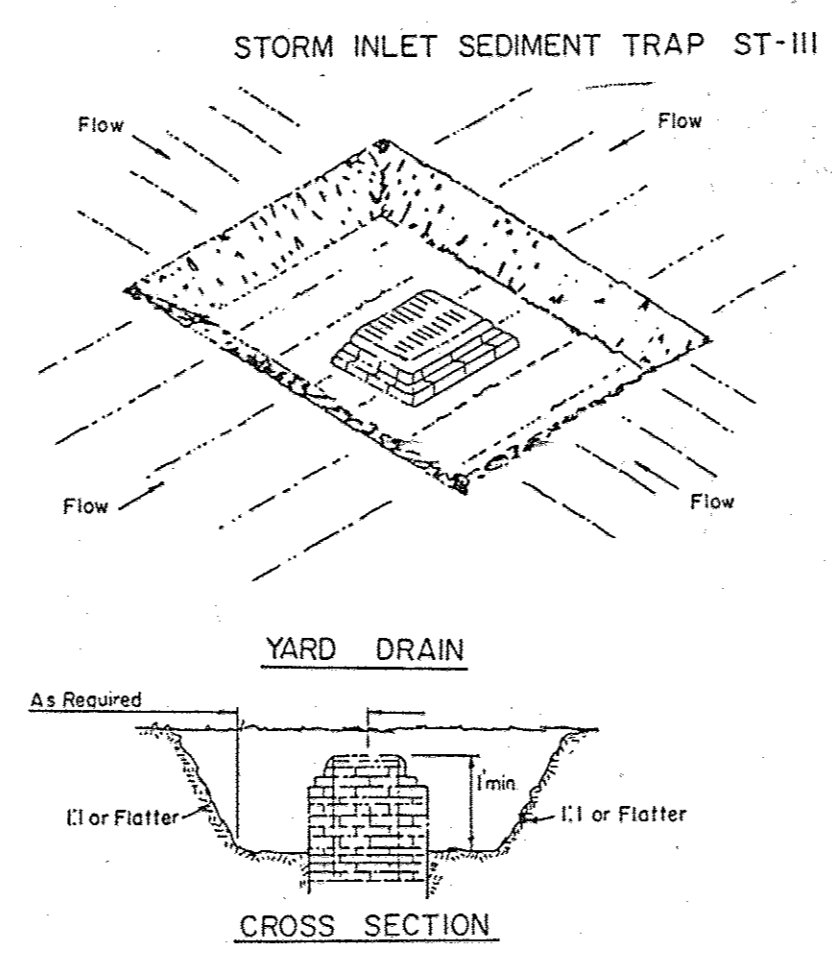
- CONSTRUCTION SPECIFICATIONS
- Stone Size - Use 2" stone, or reclaimed or recycled concrete equivalent.
 - Length - As required, but not less than 50 feet (except on a single residence lot where a 30 foot minimum length would apply).
 - Thickness - Not less than six (6) inches.
 - Width - Ten (10) foot 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, a mountable berm with 511 shall 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 applied, 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.

7 STABILIZED CONSTRUCTION ENTRANCE



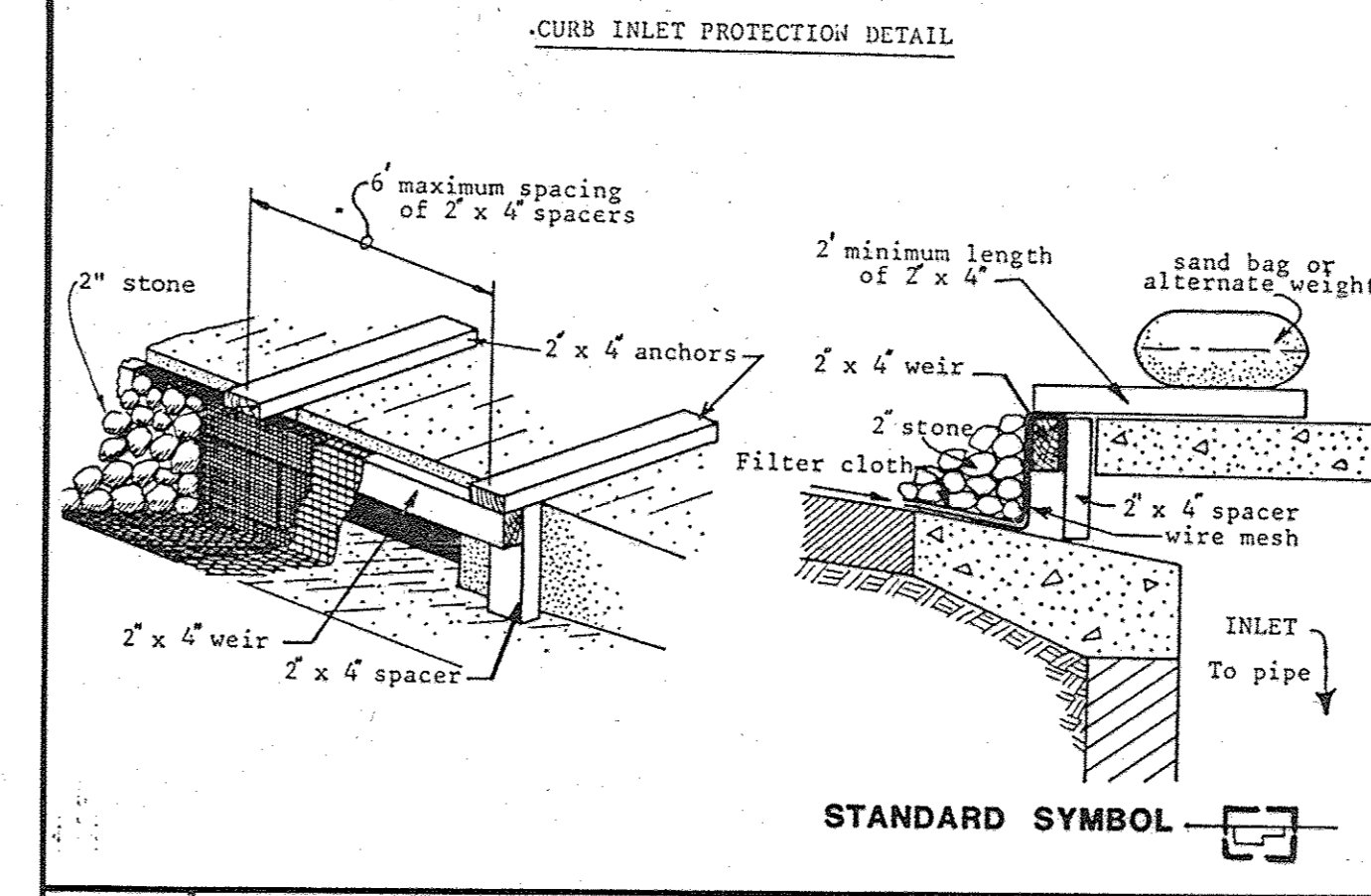
- CONSTRUCTION NOTES FOR FABRICATED SILT FENCE
- Woven wire fence to be fastened securely to fence posts with wire ties or staples.
 - Filter cloth to be fastened securely to woven wire fence with ties spaced every 24" at top and mid section.
 - When two sections of filter cloth adjoin each other they shall be overlapped by six inches and folded.
 - Maintenance shall be performed as needed and material removed when "bulges" develop in the silt fence.
- POSTS: STEEL EITHER T OR U TYPE OR 2" HARDWOOD
 FENCE: WOVEN WIRE, 1 1/2" GA. 6" MAX. MESH OPENING
 FILTER CLOTH: FILTER X, MIRAFIL 1000, STABILINK 1140N OR APPROVED EQUAL
 PREFABRICATED UNIT: GEOPAB, ENVIROFENCE, OR APPROVED EQUAL

8 SILT FENCE



- CONSTRUCTION SPECIFICATION FOR ST-III
- Sediment shall be removed and the trap restored to its original dimensions when the sediment has accumulated to the design depth of the trap. Removed sediment shall be deposited in a suitable area and in such a manner that it will not erode.
 - The volume of sediment storage shall be 1800 cubic feet per acre of contributory drainage.
 - The structure shall be inspected after each rain and repairs made as needed.
 - Construction operations shall be carried out in such a manner that erosion and water pollution shall be minimized.
 - The sediment trap shall be removed and the area stabilized when the constructed drainage area has been properly stabilized.
 - All cut slopes shall be 1:1 or flatter.
- Maximum Drainage Area: 3 Acres

9 STORM INLET SEDIMENT TRAP



10 INLET PROTECTION DETAIL

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

[Signature] 1-19-88
 S.O. SOIL CONSERVATION SERVICE DATE

[Signature] 1/19/88
 HOWARD S.C.D. DATE

BY THE DEVELOPER:
 I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF NATURAL RESOURCES APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT.

[Signature] 1/14/88
 SIGNATURE OF DEVELOPER DATE

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

[Signature] 12/4/87
 SIGNATURE OF ENGINEER DATE

APPROVED PLANNING BOARD OF HOWARD COUNTY
 DATE: 1-6-88

REVISION #1 6/15/86
 FISHER COLUMNS AND CASTING.

APPROVED FOR PUBLIC WATER AND SEWAGE, STORM DRAINAGE SYSTEMS AND PUBLIC WORKS
 HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

[Signature] 1/20/88
 DIRECTOR DATE

[Signature] 1-23-88
 CHIEF, BUREAU OF ENGINEERING DATE

APPROVED FOR PUBLIC WATER AND PUBLIC SEWER SYSTEMS
 HOWARD COUNTY HEALTH DEPARTMENT

[Signature] 2/1/88
 COUNTY HEALTH OFFICER DATE

APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING

[Signature] 2-3-88
 PLANNING DIRECTOR DATE

[Signature] 2/2/88
 CHIEF, DIVISION OF COMMUNITY PLANNING & LAND DEVELOPMENT DATE

PROJECT: BUILDING ADDITION TO SDP-71-88
 SWANSFIELD ELEMENTARY SCHOOL
 VILLAGE OF HARPERS CHOICE
 LOT 1
 SECTION 4, AREA 4
 5TH ELECTION DISTRICT, HOWARD COUNTY, MD.

TITLE: AS-BUILT DETAILS

OWNER: HOWARD COUNTY BOARD OF EDUCATION
 10910 ROUTE 108
 ELLICOTT CITY, MARYLAND 21043

Consulting Engineers
 1850 York Road
 Timonium, Maryland 21093
 301-252-6000

WHITNEY, BAILEY, COX & MAGNANI

DATE: 12/4/87
 DESIGNED: A.R.
 DRAWN: G.S.B.
 CHECKED: P.D.
 PROJECT NO. 87095
 DATE: OCT. 6, 1987
 SCALE: AS SHOWN
 DRAWING NO. 5 OF 20

PROFESSIONAL ENGR. NO. 89972

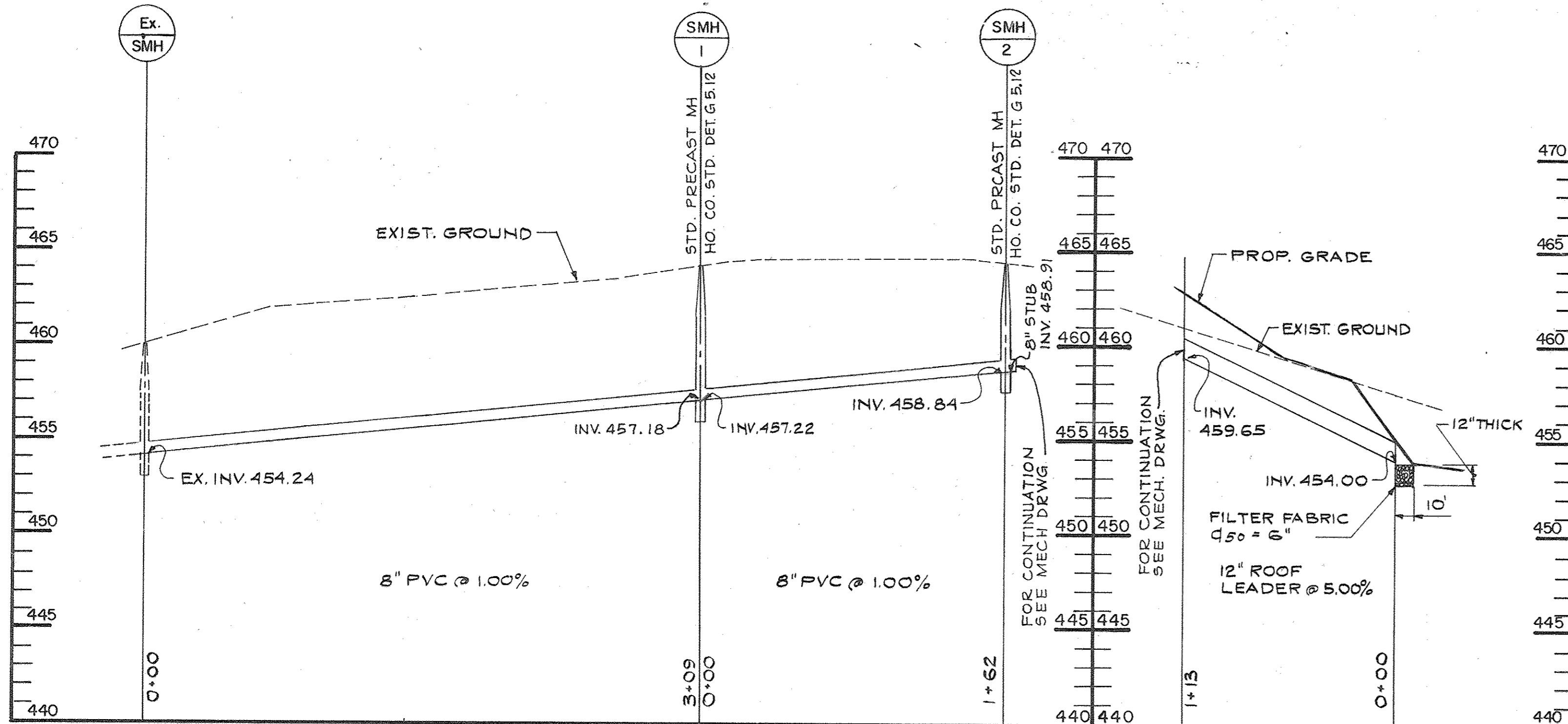
7 STABILIZED CONSTRUCTION ENTRANCE

8 SILT FENCE

9 STORM INLET SEDIMENT TRAP

10 INLET PROTECTION DETAIL

NO SWM AS-BUILT INFO REQ'D



PRIVATE SANITARY SEWER PROFILE

SCALE: HORIZ. 1" = 50'
VERT. 1" = 5'

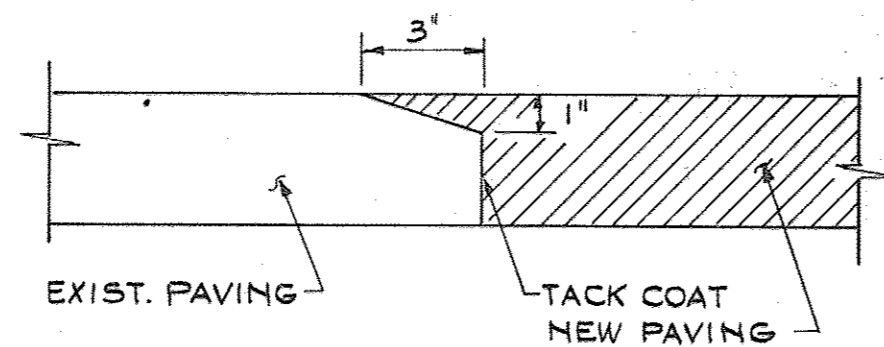
AS-BUILT CERTIFICATION
I HEREBY CERTIFY, BY MY SEAL, THAT THE FACILITIES SHOWN ON THIS PLAN WERE CONSTRUCTED AS SHOWN ON THIS "AS-BUILT" PLAN AND THAT THIS PLAN MEETS THE APPROVED PLAN AND SPECIFICATIONS.
SIGNATURE: *D.A.D.* DATE: 04/10/18
NAME: DENNIS A. DORSEY, M.D., LICENSE NO. 45261
EXP. DATE: 04/10/20



NEIGHBORHOOD CENTER
VILLAGE OF HARPERS CHOICE
SEC. A, AREA 2, PLAT BOOK 17, FOLIO 11

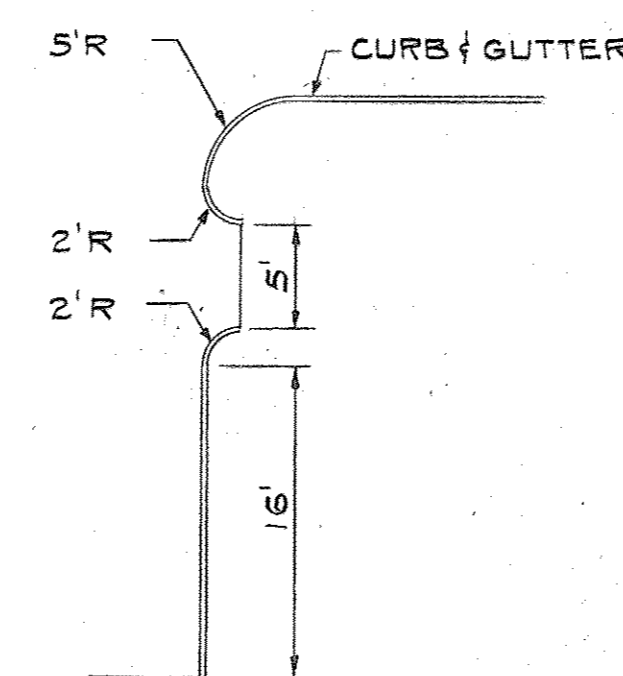
ROOF LEADER PROFILE

SCALE: HORIZ. 1" = 50'
VERT. 1" = 5'



PAVING JOINT DETAIL

NOT TO SCALE



CURB CUT DETAIL

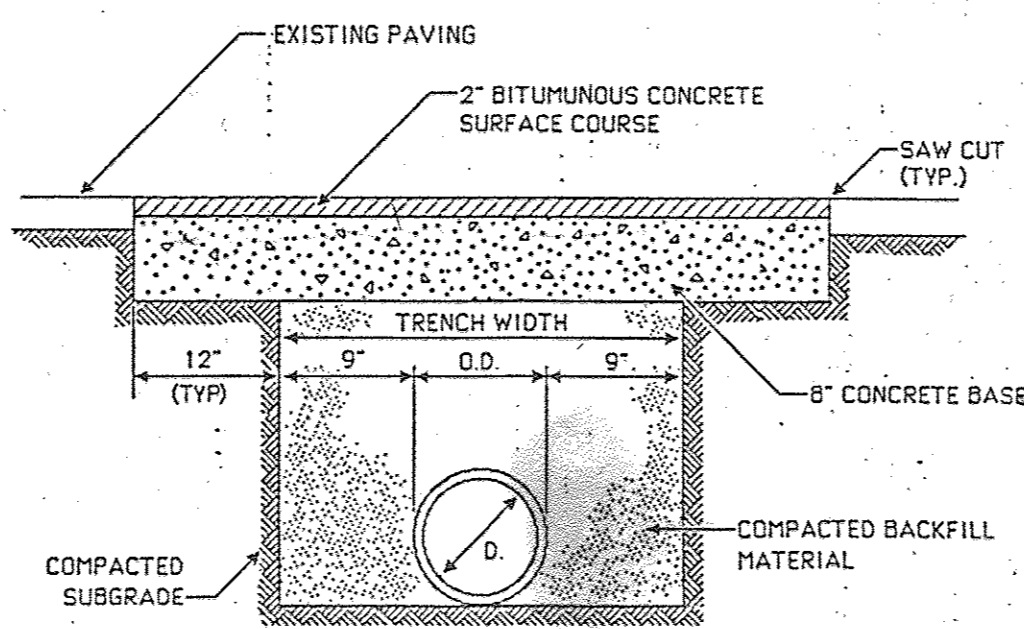
NOT TO SCALE

HANDICAPPED RAMP

NOT TO SCALE

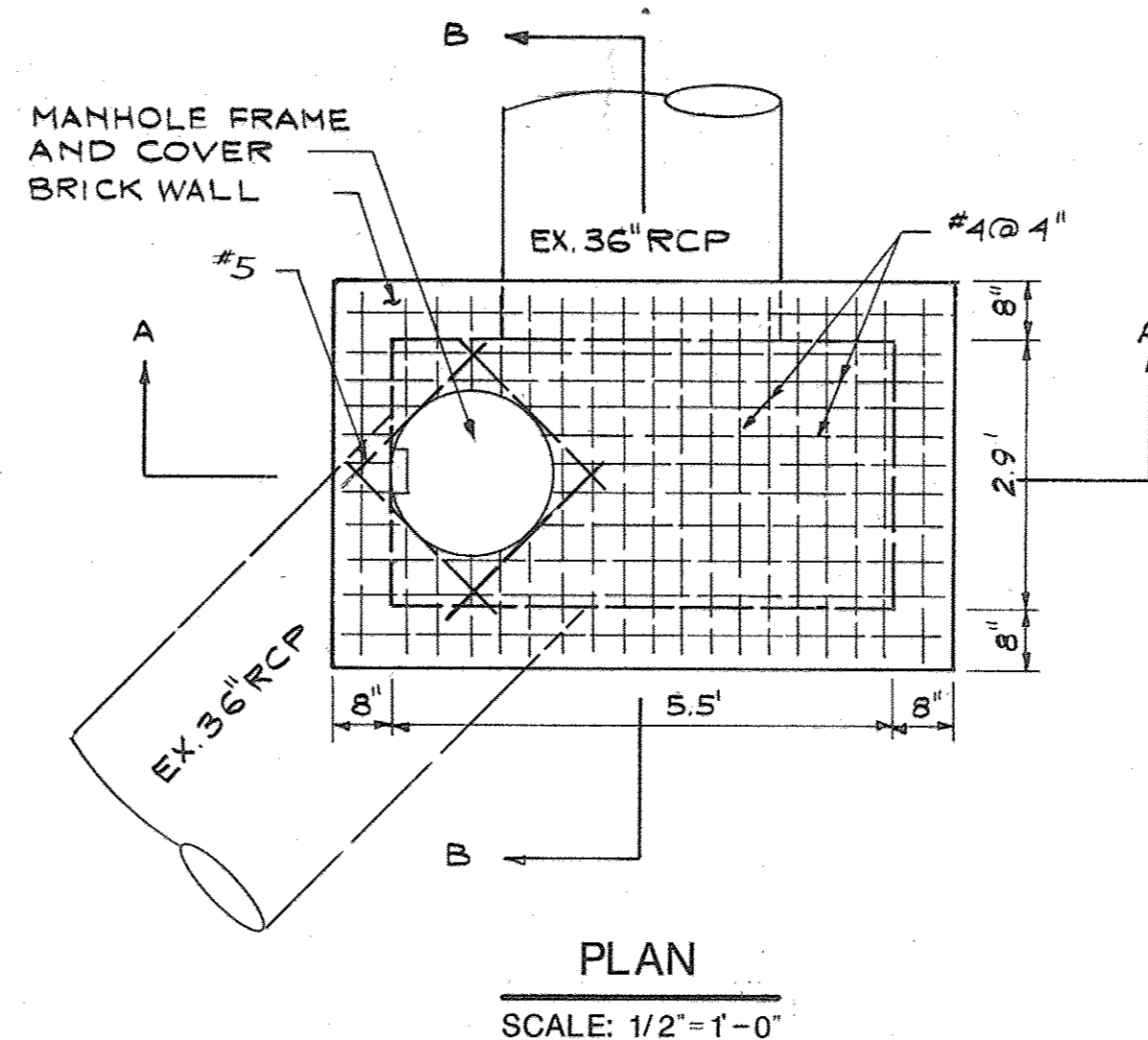
THE HOWARD RESEARCH & DEVELOPMENT CORP.
LIBER 463 FOLIO 196

VILLAGE OF HARPERS CHOICE
SECTION 4 AREA 4 ZONED NT-RESIDENTIAL



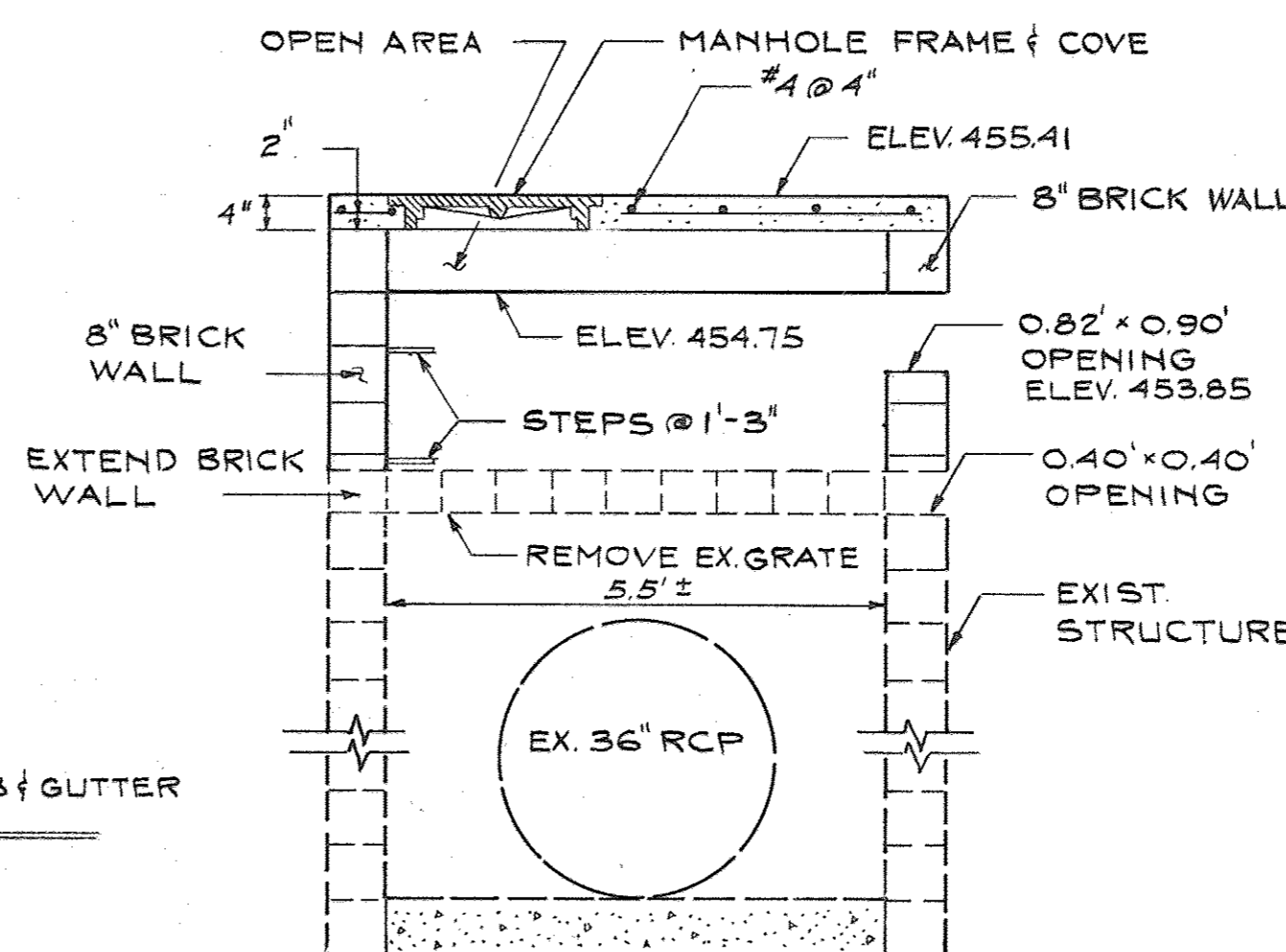
TRENCH REPAIR DETAIL

NOT TO SCALE



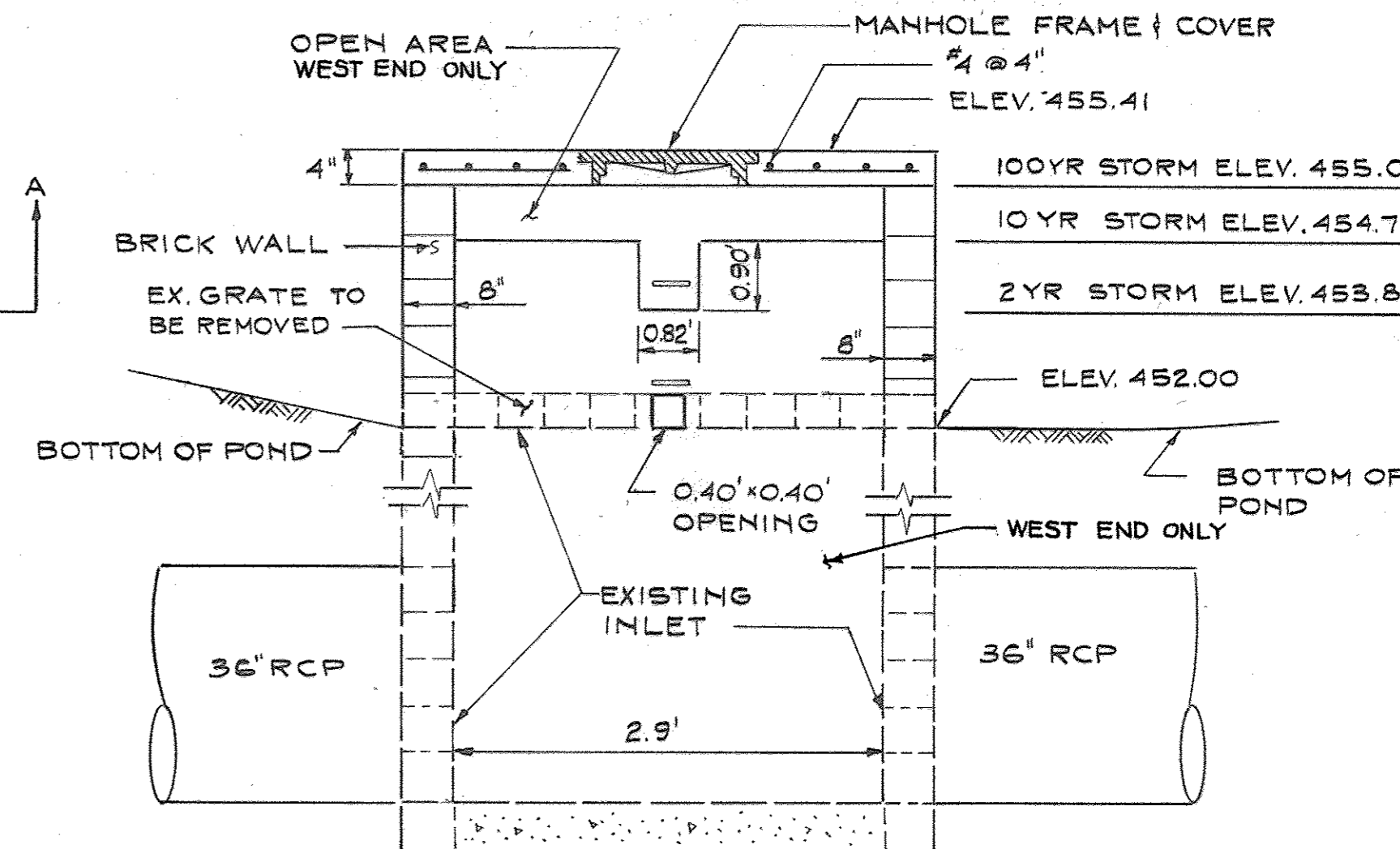
PLAN

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



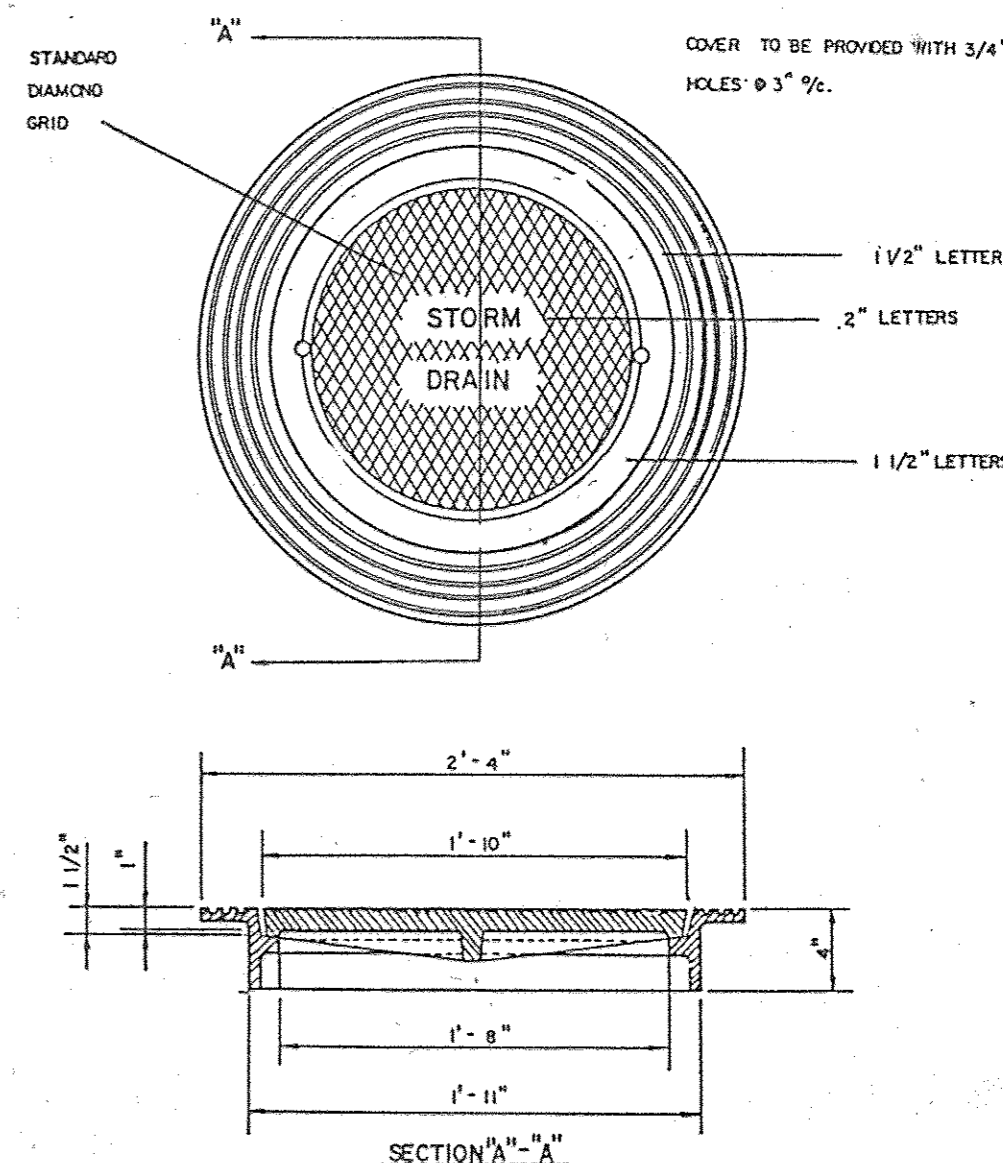
SECTION A-A

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



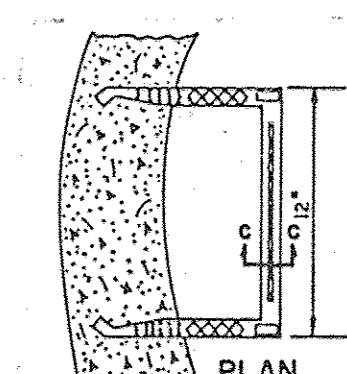
SECTION B-B

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



MANHOLE FRAME AND COVER

NOT TO SCALE



PLAN

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



SECTION

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

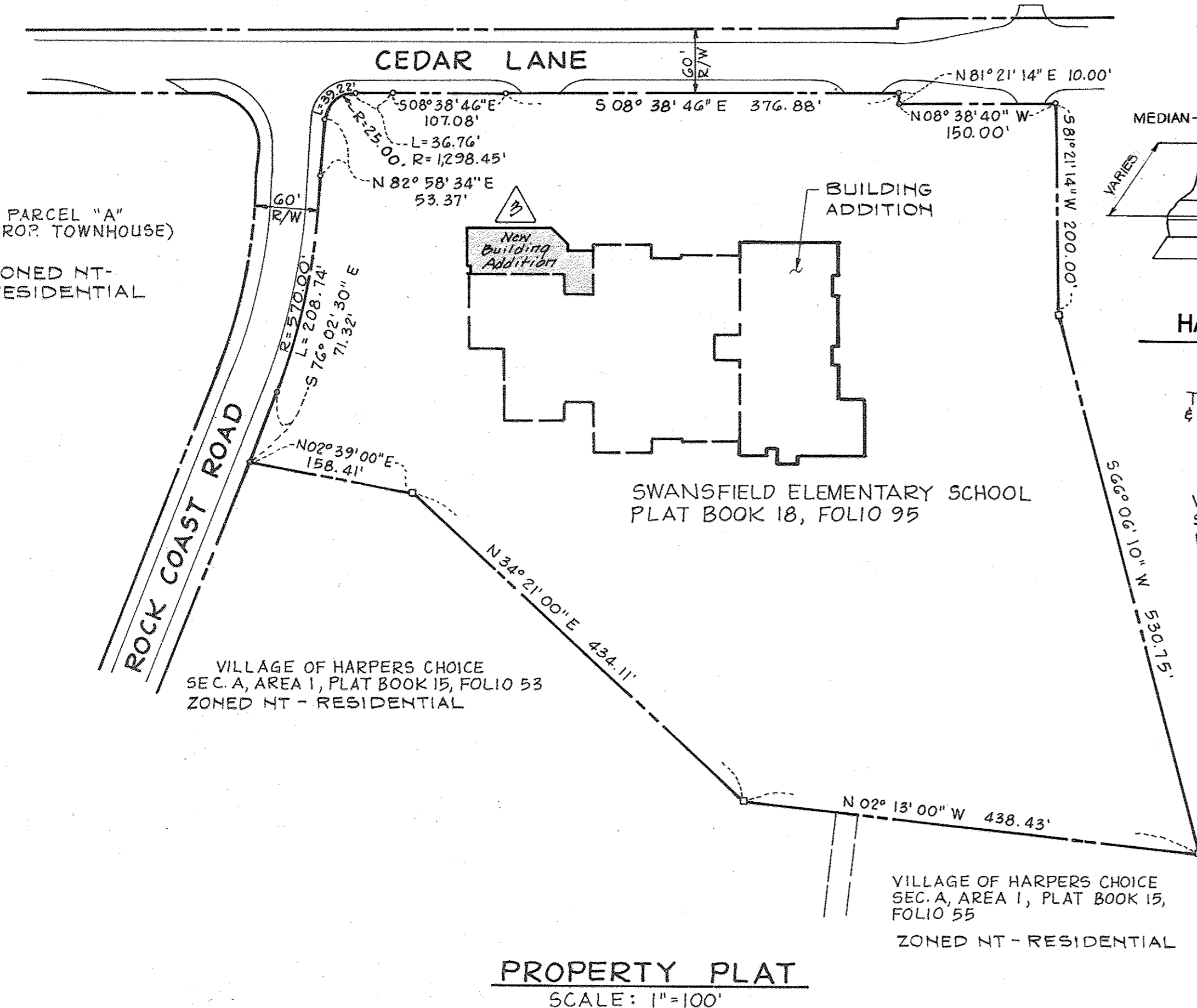
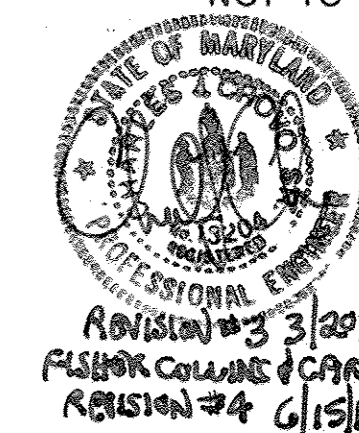


SECTION C-C

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

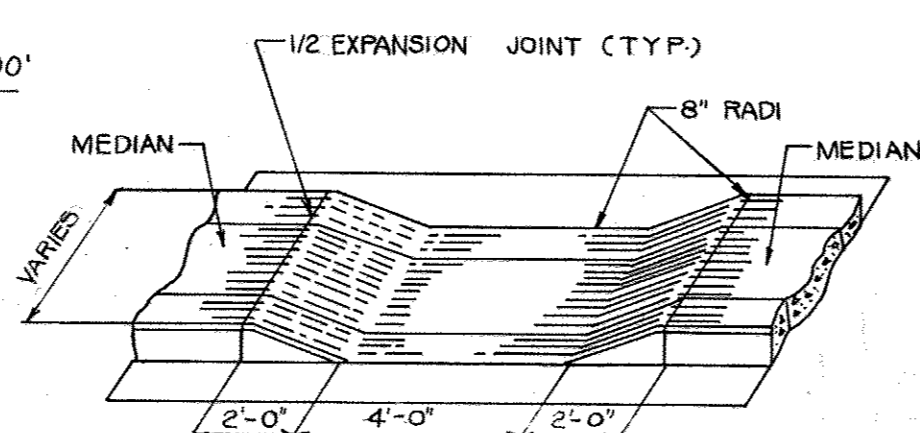
POLYPROPYLENE PLASTIC STEP

NOT TO SCALE



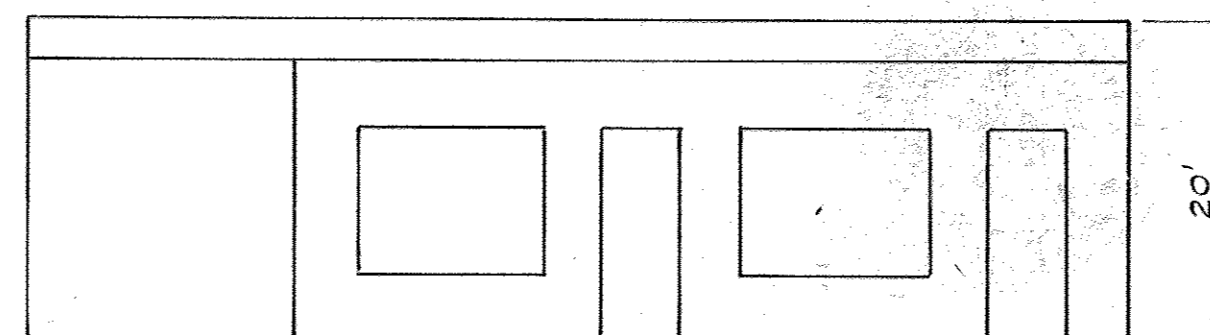
PROPERTY PLAT

SCALE: 1" = 100'



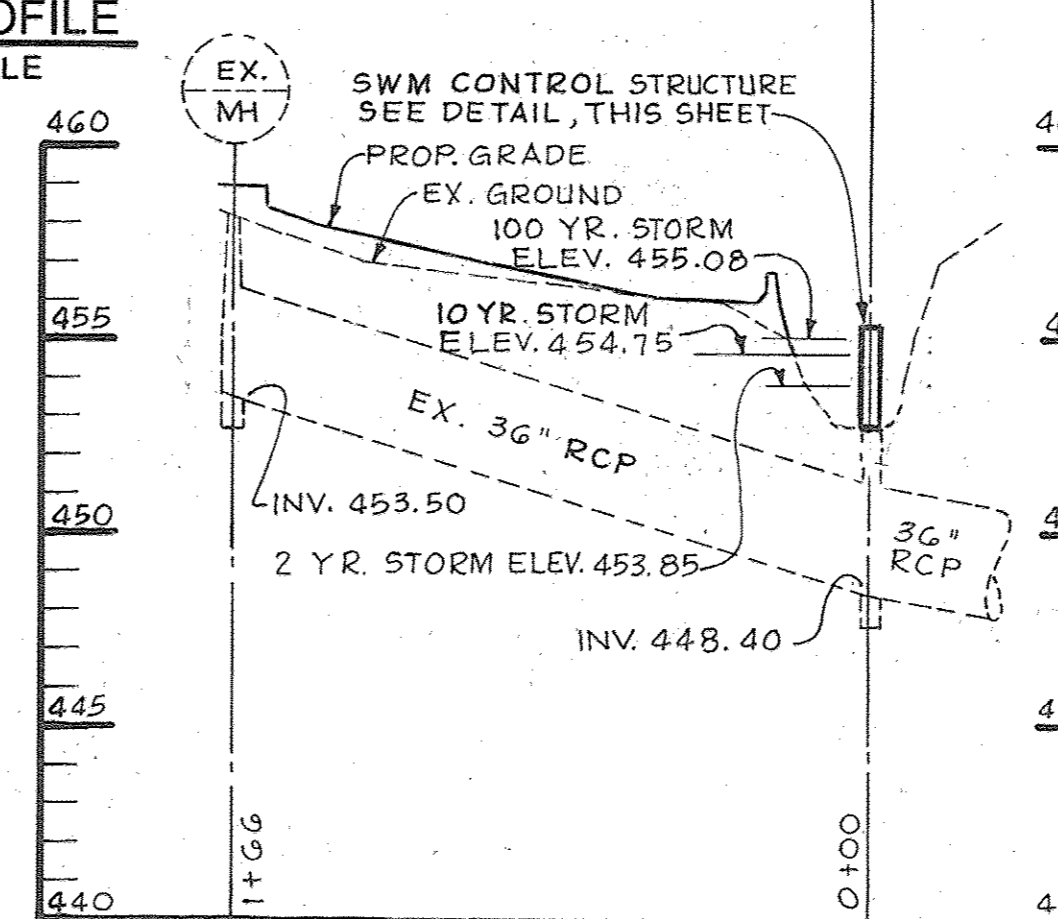
HANDICAPPED RAMP

NOT TO SCALE



BUILDING PROFILE

NOT TO SCALE



SWM POND PROFILE

SCALE: HORIZ. 1" = 50'
VERT. 1" = 5'

SWM CONTROL STRUCTURE (CS-1)

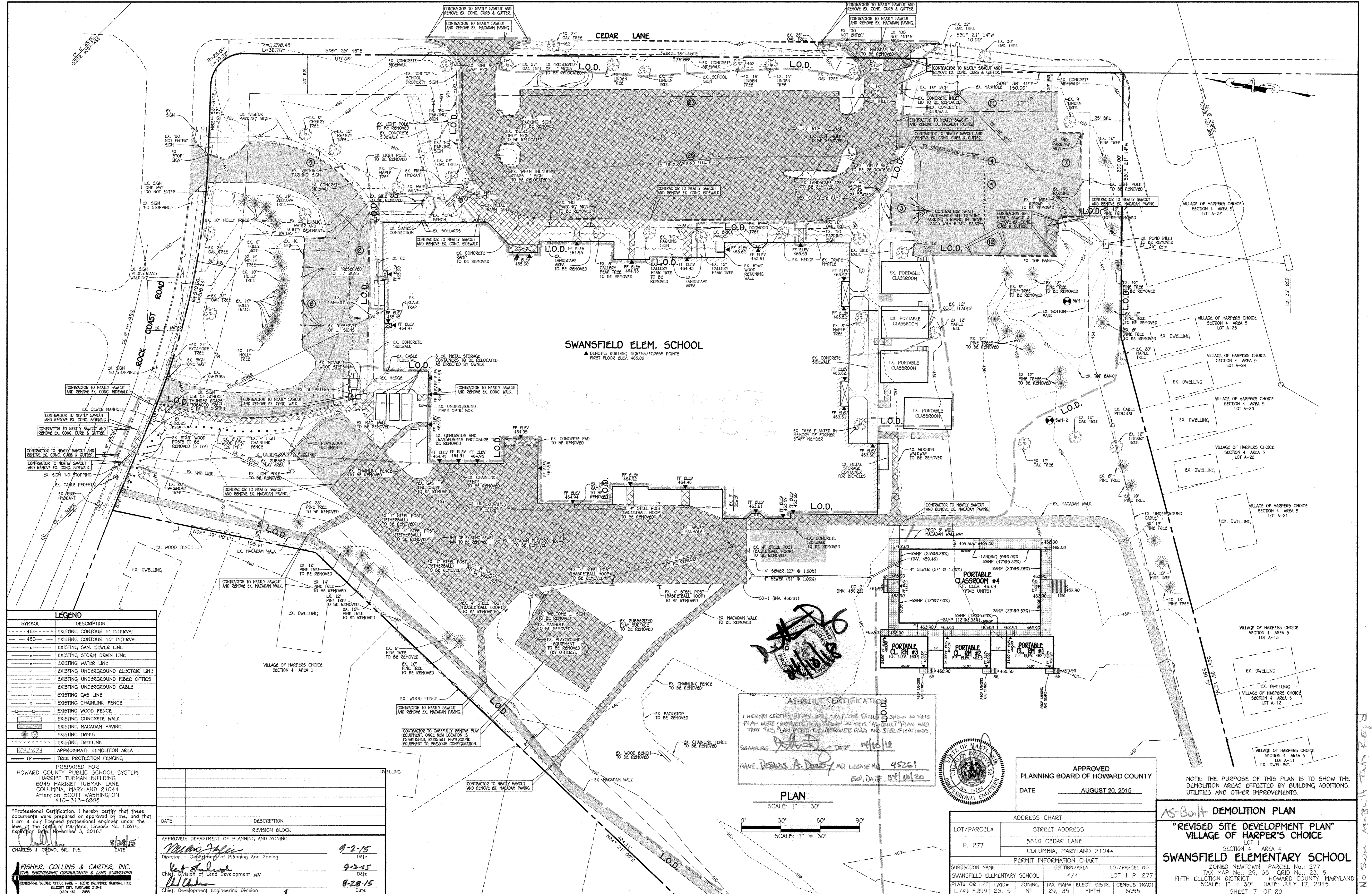
SCALE: AS SHOWN

APPROVED
PLANNING BOARD
OF HOWARD COUNTY

DATE: 1-6-88

APPROVED FOR PUBLIC WATER AND SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS DIRECTOR: <i>[Signature]</i> DATE: 1/28/88	APPROVED FOR PUBLIC WATER AND PUBLIC SEWER SYSTEMS HOWARD COUNTY HEALTH DEPARTMENT OFFICIAL: <i>[Signature]</i> DATE: 2/1/88	APPROVED FOR PLANNING AND ZONING HOWARD COUNTY PLANNING AND ZONING PLANNING BOARD: <i>[Signature]</i> DATE: 2-3-88	APPROVED FOR PLANNING AND ZONING HOWARD COUNTY PLANNING AND ZONING PLANNING BOARD: <i>[Signature]</i> DATE: 2/2/88
---	--	--	--

6/18/15	4	REVISED SHEET NO.
3-20-07	3	Added new building Addition
11-11-87	2	
DATE	NO.	REVISION
PROJECT: BUILDING ADDITION TO SDP-71-88 SWANSFIELD ELEMENTARY SCHOOL VILLAGE OF HARPERS CHOICE LOT 1 SECTION 4, AREA 4 5TH ELECTION DISTRICT, HOWARD COUNTY, MD.		
TITLE: PROFILES AND DETAILS AS-Built		
OWNER: HOWARD COUNTY BOARD OF EDUCATION 10910 ROUTE 108 ELLCOTT CITY, MARYLAND 21043		
Consulting Engineers 1850 York Road Timonium, Maryland 21093 301-252-6000 WHITNEY, BAILEY, COX & MAGNANI		
DATE: 12/4/87	DESIGNED: A.R.	
	DRAWN: G.G.	
	CHECKED: P.D.	
	PROJECT NO. 87095	
	DATE: OCT. 6, 1987	
	SCALE: AS SHOWN	
PROFESSIONAL ENGR. NO. #9912	DRAWING NO. 6 of 20	



SWANSFIELD ELEM. SCHOOL
 ▲ DENOTES BUILDING INGRESS/EGRESS POINTS
 FIRST FLOOR ELEV. 465.00

LEGEND

SYMBOL	DESCRIPTION
--- 462 ---	EXISTING CONTOUR 2' INTERVAL
--- 460 ---	EXISTING CONTOUR 10' INTERVAL
---	EXISTING SAN. SEWER LINE
---	EXISTING STORM DRAIN LINE
---	EXISTING WATER LINE
---	EXISTING UNDERGROUND ELECTRIC LINE
---	EXISTING UNDERGROUND FIBER OPTICS
---	EXISTING UNDERGROUND CABLE
---	EXISTING GAS LINE
---	EXISTING CHANLINK FENCE
---	EXISTING WOOD FENCE
---	EXISTING CONCRETE WALK
---	EXISTING MACADAM PAVING
---	EXISTING TREES
---	EXISTING TREELINE
---	APPROXIMATE DEMOLITION AREA
---	TREE PROTECTION FENCING

PREPARED FOR
 HOWARD COUNTY PUBLIC SCHOOL SYSTEM
 HARRIET TUBMAN BUILDING
 8045 HARRIET TUBMAN LANE
 COLUMBIA, MARYLAND 21044
 Attention SCOTT WASHINGTON
 410-313-6809

"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. 13204, Expiration Date: November 3, 2016."

CHARLES J. CROVO, SR., P.E.
 DATE: 8/28/15

FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
 CENTRAL SERVICE OFFICE: 10072 SALTPORE NATIONAL PIKE
 CLUFTON CITY, MARYLAND 21042
 (410) 461-2995

DATE	DESCRIPTION	REVISION BLOCK
9-2-15	APPROVED: DEPARTMENT OF PLANNING AND ZONING	
9-2-15	Director - Department of Planning and Zoning	
8-28-15	Chief, Division of Land Development	
8-28-15	Chief, Development Engineering Division	

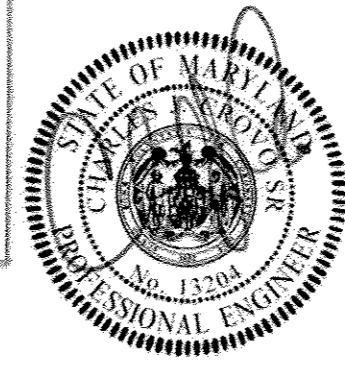
AS-BUILT CERTIFICATION

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

SIGNATURE: *[Signature]* DATE: 08/10/15
 NAME: DENNIS A. DUFFY MD. LICENSE NO. 45261
 EXP. DATE: 05/12/20

PLAN
 SCALE: 1" = 30'

0' 30' 60' 90'
 SCALE: 1" = 30'



APPROVED
 PLANNING BOARD OF HOWARD COUNTY
 DATE: AUGUST 20, 2015

ADDRESS CHART

LOT/PARCEL#	STREET ADDRESS
P. 277	5610 CEDAR LANE COLUMBIA, MARYLAND 21044

PERMIT INFORMATION CHART

SUBDIVISION NAME	SECTION/AREA	LOT/PARCEL NO.
SWANSFIELD ELEMENTARY SCHOOL	4/4	LOT 1 P. 277

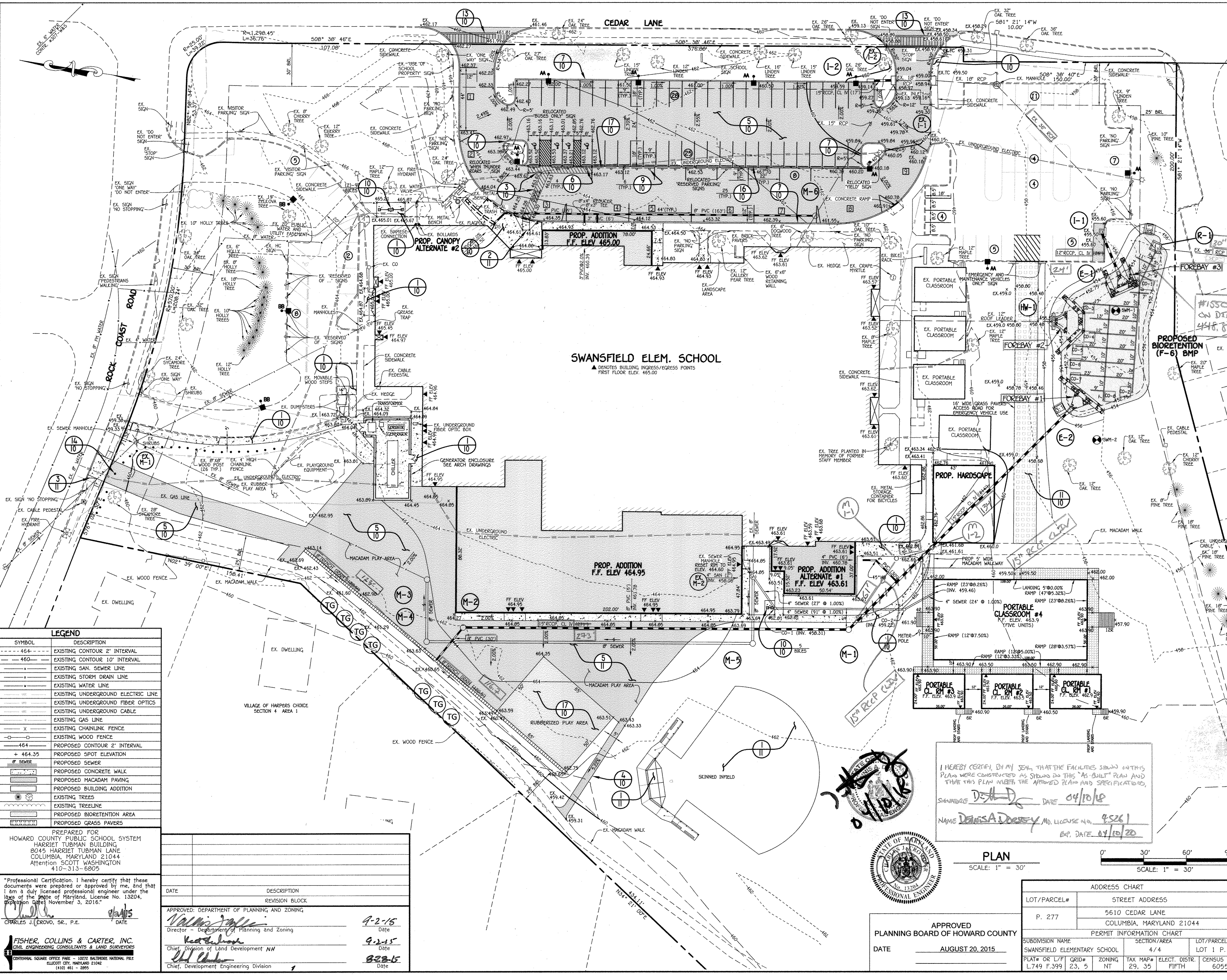
PLAT# OR L/F# GRID# ZONING TAX MAP# ELECT. DISTR. CENSUS TRACT
 L.749 F.399 23. 5 NT 29, 35 FIFTH 6095

AS-BUILT DEMOLITION PLAN

"REVISED SITE DEVELOPMENT PLAN"
 VILLAGE OF HARPER'S CHOICE
 SECTION 4 AREA 4
 SWANSFIELD ELEMENTARY SCHOOL
 ZONED NEWTOWN PARCEL No.: 277
 TAX MAP No.: 29, 35 GRID No.: 23, 5
 FIFTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
 SCALE: 1" = 30' DATE: JULY 17, 2015
 SHEET 7 OF 20

NOTE: THE PURPOSE OF THIS PLAN IS TO SHOW THE DEMOLITION AREAS EFFECTED BY BUILDING ADDITIONS, UTILITIES AND OTHER IMPROVEMENTS.

No. 5000 AS-Built 08/10/15



SWANSFIELD ELEMENTARY SCHOOL BIORETENTION (F-6) BMP SUMMARY TABLE					
BMP	ESD, Required ¹		Rev, Provided ²		Peak Qs/WSEs ³
	Required ¹	Provided ²	Required	Provided	Q ₁₀ / Q ₁₀₀
BMP	3,783 cf	4,770 cf	351 cf	507 cf	13.9 cfs @ WSE 454.32 / 20.8 cfs @ WSE 454.52

SWANSFIELD ELEMENTARY SCHOOL IMPERVIOUS AREA SUMMARY TABLE				
LOCATION	AREA (sf)	EXISTING IMPERVIOUS AREA (sf)	PROPOSED IMPERVIOUS AREA (sf)	NET INCREASE IMPERVIOUS AREA (sf)
LOD #1 (Fire Lane and Playground)	5,369	156	5,369	5,213
LOD #2 (Fire Lane and Playground)	6,367	3,520	6,367	2,847
LOD #3 (Sidewalk)	2,371	977	2,371	1,394
LOD #4 (Front Bldg. Addition)	1,067	179	1,067	888
LOD #5 (WE Enclosure)	1,984	200	1,984	1,784
DA #1 (to BMP)	104,511	54,140	56,061	4,941
TOTALS (for ESDV Computations)	121,669	59,172	76,239	17,067
DA #2 (to BMP) (for WTR-20 Routing Input)	10,915	n/a	10,915	n/a

SYMBOL	DESCRIPTION
--- 454 ---	EXISTING CONTOUR 2' INTERVAL
--- 460 ---	EXISTING CONTOUR 10' INTERVAL
---	EXISTING SAN. SEWER LINE
---	EXISTING STORM DRAIN LINE
---	EXISTING WATER LINE
---	EXISTING UNDERGROUND ELECTRIC LINE
---	EXISTING UNDERGROUND FIBER OPTICS
---	EXISTING UNDERGROUND CABLE
---	EXISTING GAS LINE
X	EXISTING CHAINLINK FENCE
○	EXISTING WOOD FENCE
464	PROPOSED CONTOUR 2' INTERVAL
+ 464.35	PROPOSED SPOT ELEVATION
8" SEWER	PROPOSED SEWER
CONCRETE	PROPOSED CONCRETE WALK
MACADAM	PROPOSED MACADAM PAVING
BUILDING	PROPOSED BUILDING ADDITION
TREE	EXISTING TREES
TREELINE	EXISTING TREELINE
BIORETENTION	PROPOSED BIORETENTION AREA
GRASS	PROPOSED GRASS PAVERS

PREPARED FOR
HOWARD COUNTY PUBLIC SCHOOL SYSTEM
HARRIET TUBMAN BUILDING
8045 HARRIET TUBMAN LANE
COLUMBIA, MARYLAND 21044
Attention: SCOTT WASHINGTON
410-313-6605

"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. 13204, expiration date November 3, 2016."

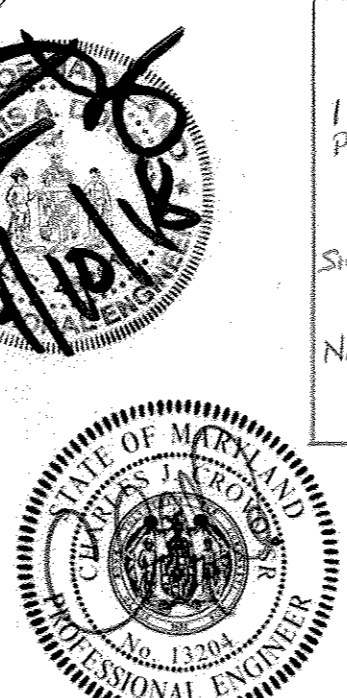
Charles J. Krovo, Sr., P.E.
DATE: 8/2/15

Charles J. Krovo, Sr., P.E.
DATE: 8/2/15

Charles J. Krovo, Sr., P.E.
DATE: 8/2/15

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTRAL SERVICE OFFICE: P.O. BOX 10272 BALTIMORE NATIONAL FIRE
ELLSWORTH CITY, MARYLAND 21042
(410) 461-2895

DATE	DESCRIPTION	REVISION BLOCK
APPROVED: DEPARTMENT OF PLANNING AND ZONING		
<i>Valerie J. Miller</i>	Director - Department of Planning and Zoning	9-2-15
<i>Keith Long</i>	Chief, Division of Land Development NH	9-2-15
<i>Charles J. Krovo, Sr., P.E.</i>	Chief, Development Engineering Division	8-23-15



I HEREBY CERTIFY, IN MY OWN HAND, THAT THE FACILITIES SHOWN ON THIS PLAN WERE CONSTRUCTED AS SHOWN ON THIS "AS-BUILT" PLAN AND THAT THIS PLAN MEETS THE APPROVED PLANS AND SPECIFICATIONS.

SIGNATURE: *Charles J. Krovo, Sr.* DATE: 08/10/15
NAME: *Charles J. Krovo, Sr.* NO. LICENSE NO.: 13204
EXP. DATE: 11/03/16

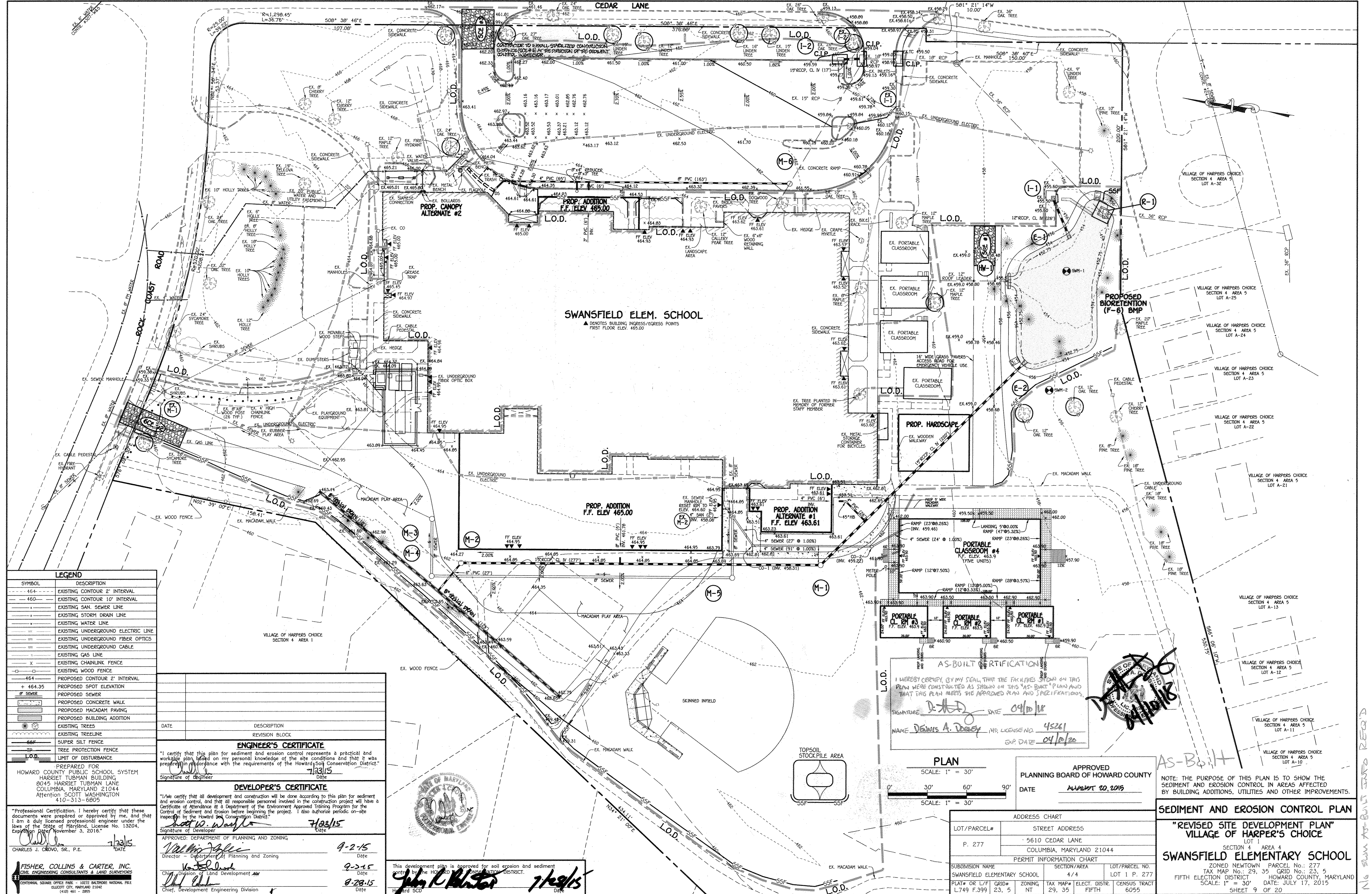
PLAN
SCALE: 1" = 30'

ADDRESS CHART	
LOT/PARCEL#	STREET ADDRESS
P. 277	5610 CEDAR LANE COLUMBIA, MARYLAND 21044

PERMIT INFORMATION CHART			
SUBDIVISION NAME	SECTION/AREA	LOT/PARCEL NO.	
SWANSFIELD ELEMENTARY SCHOOL	4/4	LOT 1 P. 277	
PLAT# OR L/F#	GRID#	ZONING	TAX MAP#
L.749 F.399	23, 5	NT	29, 35
ELECT. DISTR.	CENSUS TRACT		
FIFTH	6055		

NOTE: THE PURPOSE OF THIS PLAN IS TO SHOW THE BUILDING ADDITIONS, UTILITIES AND OTHER IMPROVEMENTS.

AS-BUILT SITE IMPROVEMENT PLAN
"REVISED SITE DEVELOPMENT PLAN"
VILLAGE OF HARPER'S CHOICE
SECTION 4 AREA 4
SWANSFIELD ELEMENTARY SCHOOL
ZONED NEWTOWN PARCEL No.: 277
TAX MAP No.: 29, 35 GRID No.: 23, 5
FIFTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: 1" = 30' DATE: JULY 17, 2015
SHEET 8 OF 20



LEGEND

SYMBOL	DESCRIPTION
--- 464 ---	EXISTING CONTOUR 2' INTERVAL
--- 460 ---	EXISTING CONTOUR 10' INTERVAL
---	EXISTING SAN SEWER LINE
---	EXISTING STORM DRAIN LINE
---	EXISTING WATER LINE
---	EXISTING UNDERGROUND ELECTRIC LINE
---	EXISTING UNDERGROUND FIBER OPTICS
---	EXISTING UNDERGROUND CABLE
---	EXISTING GAS LINE
X	EXISTING CHAINLINK FENCE
---	EXISTING WOOD FENCE
---	PROPOSED CONTOUR 2' INTERVAL
+ 464.35	PROPOSED SPOT ELEVATION
---	PROPOSED SEWER
---	PROPOSED CONCRETE WALK
---	PROPOSED MACADAM PAVING
---	PROPOSED BUILDING ADDITION
---	EXISTING TREES
---	EXISTING TREELINE
---	SUPER SILT FENCE
---	TREE PROTECTION FENCE
---	LIMIT OF DISTURBANCE

ENGINEER'S 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 Soil Conservation District.
 Signature of Engineer: *John K. Carter* Date: 7/23/15

DEVELOPER'S 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 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.
 Signature of Developer: *John K. Carter* Date: 7/23/15

APPROVED: DEPARTMENT OF PLANNING AND ZONING
 Signature of Director: *Valerie J. Kelly* Date: 9-2-15
 Director - Department of Planning and Zoning
 Signature of Chief: *John K. Carter* Date: 9-2-15
 Chief, Division of Land Development
 Signature of Chief: *John K. Carter* Date: 9-28-15
 Chief, Development Engineering Division

This development plan is approved for soil erosion and sediment control by the HOWARD SOIL CONSERVATION DISTRICT.
 Signature: *John K. Carter* Date: 7/29/15
 Howard SCD

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 THAT THIS PLAN MEETS THE APPROVED PLAN AND SPECIFICATIONS.
 SIGNATURE: *D. A. Dorey* DATE: 04/10/16
 NAME: *Dennis A. Dorey* MR. LICENSE NO: 45261
 EXP. DATE: 04/10/20

PLAN
 SCALE: 1" = 30'
 0' 30' 60' 90'
 SCALE: 1" = 30'

APPROVED
 PLANNING BOARD OF HOWARD COUNTY
 DATE: August 20, 2015

NOTE: THE PURPOSE OF THIS PLAN IS TO SHOW THE SEDIMENT AND EROSION CONTROL IN AREAS AFFECTED BY BUILDING ADDITIONS, UTILITIES AND OTHER IMPROVEMENTS.

ADDRESS CHART

LOT/PARCEL#	STREET ADDRESS
P. 277	5610 CEDAR LANE COLUMBIA, MARYLAND 21044

PERMIT INFORMATION CHART

SUBDIVISION NAME	SECTION/AREA	LOT/PARCEL NO.
SWANSFIELD ELEMENTARY SCHOOL	4/4	LOT 1 P. 277

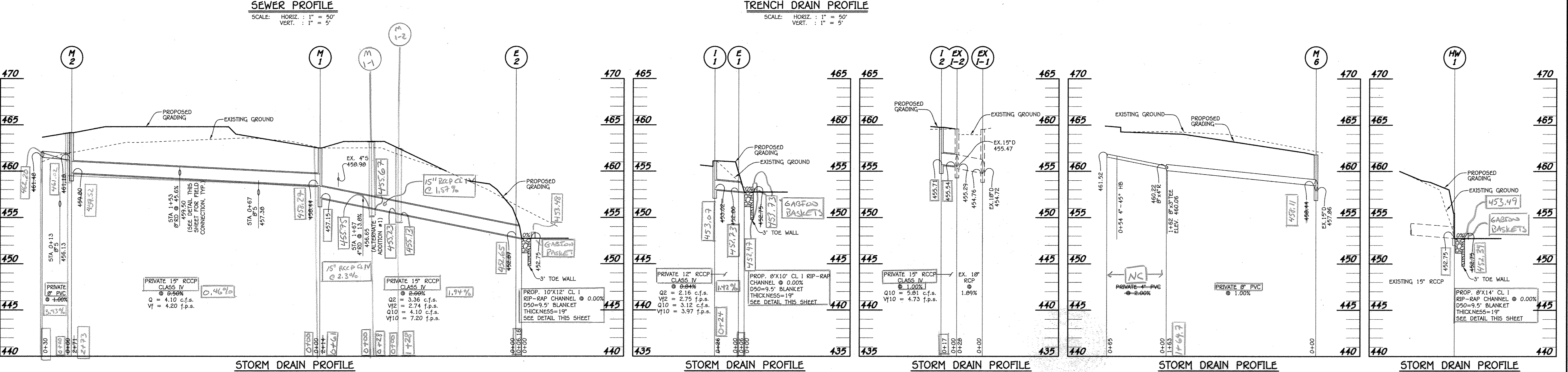
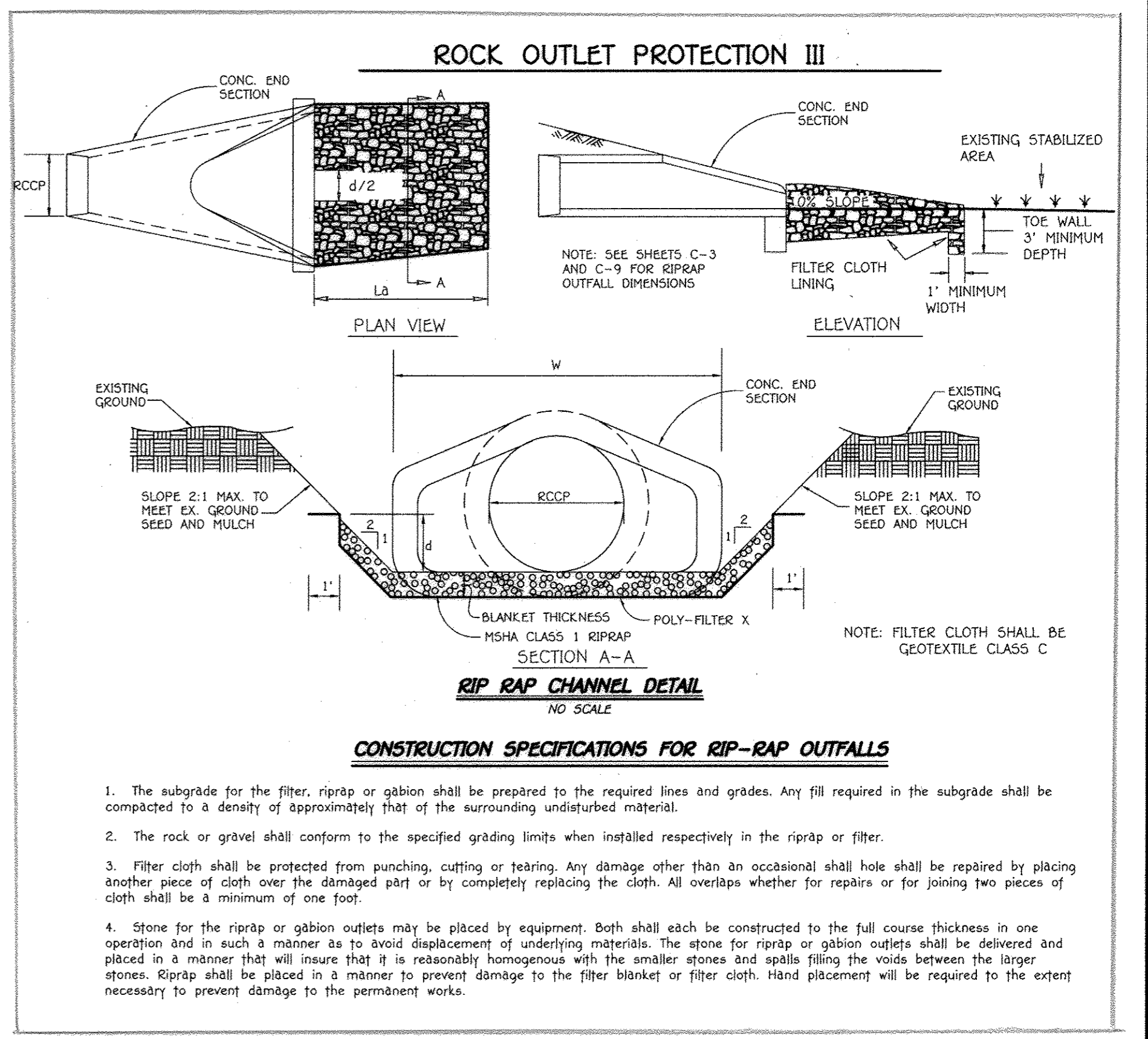
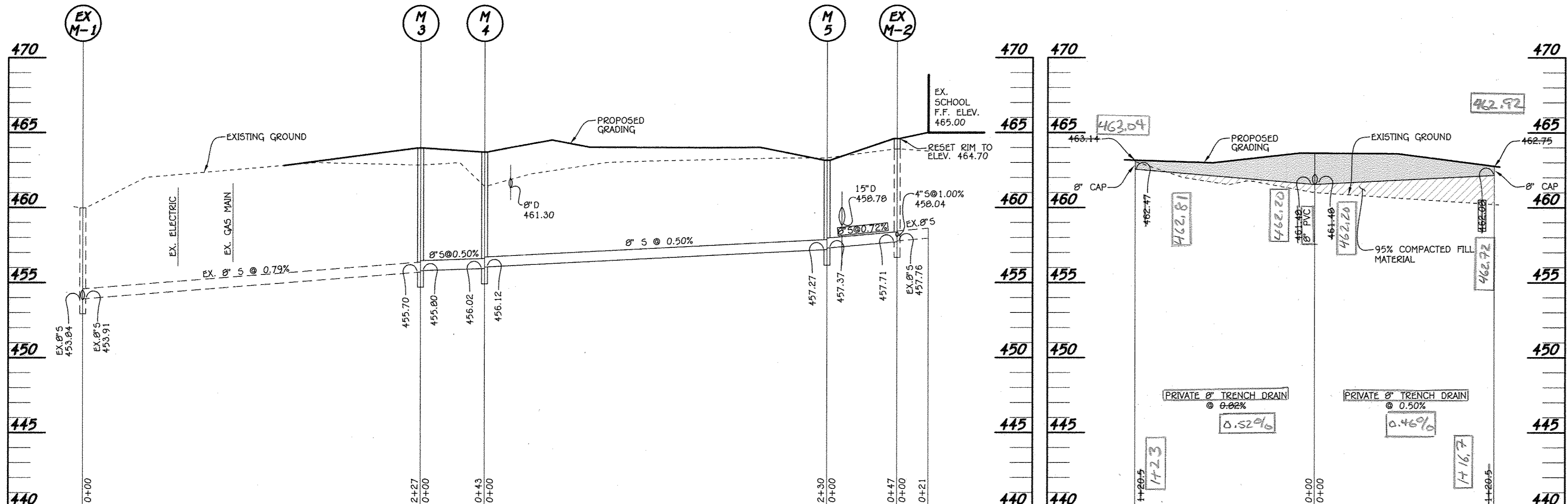
PLAT# OR L7/F GRID# ZONING TAX MAP# ELECT. DISTR. CENSUS TRACT
 L-749 F.399 23.5 NT 29.35 FIFTH 6055

SEDIMENT AND EROSION CONTROL PLAN
 "REVISED SITE DEVELOPMENT PLAN"
 VILLAGE OF HARPER'S CHOICE
 SECTION 4 AREA 4
SWANSFIELD ELEMENTARY SCHOOL
 ZONED NEWTOWN PARCEL No.: 277
 TAX MAP No.: 29.35 GRID No.: 23.5
 FIFTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
 SCALE: 1" = 30' DATE: JULY 17, 2015
 SHEET 9 OF 20

STRUCTURE SCHEDULE									
STRUCTURE NO.	OWNERSHIP AND MAINTENANCE	TOP ELEVATION	INV. IN	INV. OUT	COORDINATES	WIDTH	TYPE	REMARKS	
I-1	PRIVATE	466.10	455.62	453.04	N 564252.00 E 1344030.73	-	S COMB. INLET w/ RET GRATE	D - 4.32 & D - 4.92	
I-2	PRIVATE	499.74	457.64	455.71	N 564431.64 E 1344108.11	-	A-5 INLET	D - 4.01	
M-1	PRIVATE	462.60	462.60	457.15	N 564386.54 E 1343728.61	4'	STD. MANHOLE	G - 5.12	
M-2	PRIVATE	464.44	461.10	459.80	N 564654.75 E 1343687.75	4'	STD. MANHOLE	G - 5.12	
M-3	PRIVATE	463.97	455.80	455.70	N 564689.10 E 1343716.83	4'	STD. MANHOLE	G - 5.12	
M-4	PRIVATE	463.71	456.12	456.02	N 564678.57 E 1343674.01	4'	STD. MANHOLE	G - 5.12	
M-5	PRIVATE	463.15	457.37	457.27	N 564451.65 E 1343708.97	4'	STD. MANHOLE	G - 5.12	
M-6	PRIVATE	461.90	461.71	448.17	N 564454.39 E 1344010.32	4'	STD. MANHOLE	G - 5.12	
E-1	PRIVATE	455.48	448.23	449.25	N 564215.48 E 1344026.29	5'	MOD. K INLET	SEE SHEET 16	
E-2	PRIVATE	458.00	453.73	449.42	N 564240.84 E 1344007.97	12'	CONC. END SECTION	D - 5.51	
HW-1	PRIVATE	454.42	453.79	452.75	N 564259.50 E 1343900.77	15'	CONC. END SECTION	D - 5.51	
HW-1	PRIVATE	459.90	454.68	452.75	N 564278.67 E 1343963.46	15'	MODIFIED TYPE "C" HEADWALL USE HEADWALL DIMS FOR 24" PIPE HEADWALL TO BE PRECAST WITH 12" BENCHING	D - 5.21 (24")	

PIPE SCHEDULE (PRIVATE)		
SIZE	CLASS	LENGTH
3"	PVC SCH 40	6 L.F.
4"	PVC SCH 40	65 L.F.
6"	PERF PVC	692 L.F.
8"	PVC SCH 40	168 L.F.
12"	RCCP, CLASS IV	21 L.F.
15"	RCCP, CLASS IV	508 L.F.

*NC - Not Captured
 NC*
 NC
 96" Cap'd in Bio
 195'
 24"
 37'



PREPARED FOR
 HOWARD COUNTY PUBLIC SCHOOL SYSTEM
 HARRIET TUBMAN BUILDING
 8045 HARRIET TUBMAN LANE
 COLUMBIA, MARYLAND 21044
 Attention SCOTT WASHINGTON
 410-313-6805

*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. 13204, Expiration Date November 3, 2016.

CHARLES J. DORSEY, SR., P.E.
 DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Director - Department of Planning and Zoning
 DATE 9-2-15

Chief, Division of Land Development
 DATE 9-2-15

Chief, Development Engineering Division
 DATE 8-20-15

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 THAT THIS PLAN MEETS THE APPROVED PLANS AND SPECIFICATIONS.

SIGNATURE: [Signature] DATE: 04/10/18

NAME: DENNIS A. DORSEY MD. LICENSE NO. 45261
 EXP. DATE: 04/10/20

APPROVED
 PLANNING BOARD OF HOWARD COUNTY
 DATE: AUGUST 20, 2015

ADDRESS CHART	
LOT/PARCEL#	STREET ADDRESS
P. 277	5610 CEDAR LANE COLUMBIA, MARYLAND 21044

PERMIT INFORMATION CHART		
SUBDIVISION NAME	SECTION/AREA	LOT/PARCEL NO.
SWANSFIELD ELEMENTARY SCHOOL	4/4	LOT 1 P. 277
PLAT# OR L/F	GRID#	ZONING
L749 F.399	23, 5	NT
TAX MAP#	ELECT. DISTR.	CENSUS TRACT
29, 35	FIFTH	6055

NOTE: THE PURPOSE OF THIS PLAN IS TO SHOW PROFILES AND DETAILS FOR THE BUILDING ADDITIONS, UTILITIES AND OTHER IMPROVEMENTS.

AS-BUILT PROFILES AND DETAILS

"REVISED SITE DEVELOPMENT PLAN" VILLAGE OF HARPER'S CHOICE

SECTION 4 AREA 4
SWANSFIELD ELEMENTARY SCHOOL

ZONED NEWTOWN PARCEL No.: 277
 TAX MAP No.: 29, 35 GRID No.: 23, 5
 FIFTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
 SCALE: AS SHOWN DATE: JULY 17, 2015
 SHEET 12 OF 20

SOIL PREPARATION, TOPSOILING AND SOIL AMENDMENTS (B-4-2)

A. SOIL PREPARATION

- 1. TEMPORARY STABILIZATION
A. SEEDING PREPARATION CONSISTS OF LOOSENING SOIL TO A DEPTH OF 3 TO 5 INCHES BY MEANS OF SUITABLE AGRICULTURAL OR CONSTRUCTION EQUIPMENT...
B. APPLY FERTILIZER AND LIME AS PRESCRIBED ON THE PLANS.
C. INCORPORATE LIME AND FERTILIZER INTO THE TOP 3 TO 5 INCHES OF SOIL BY DISKING OR OTHER SUITABLE MEANS.

B. TOPSOILING

- 1. TOPSOIL IS PLACED OVER PREPARED SUBSOIL PRIOR TO ESTABLISHMENT OF PERMANENT VEGETATION...
2. TOPSOIL SALVAGED FROM AN EXISTING SITE MAY BE PROVIDED IF IT MEETS THE STANDARDS AS SET FORTH IN THESE SPECIFICATIONS...
3. TOPSOILING IS LIMITED TO AREAS HAVING 2:1 OR FLATTER SLOPES WHERE:
A. THE TEXTURE OF THE EXPOSED SUBSOIL/PARENT MATERIAL IS NOT ADEQUATE TO PRODUCE VEGETATIVE GROWTH.

C. SOIL AMENDMENTS (FERTILIZER AND LIME SPECIFICATIONS)

- 1. SOIL TESTS MUST BE PERFORMED TO DETERMINE THE EXACT RATIOS AND APPLICATION RATES FOR BOTH LIME AND FERTILIZER ON SITES HAVING DISTURBED AREAS OF 5 ACRES OR MORE...
2. FERTILIZERS MUST BE UNIFORM IN COMPOSITION, FREE FLOWING AND SUITABLE FOR ACCURATE APPLICATION BY APPROPRIATE EQUIPMENT...
3. LIME MATERIALS MUST BE GROUND LIMESTONE (HYDRATED OR BURNED LIME MAY BE SUBSTITUTED...
4. LIME AND FERTILIZER ARE TO BE EVENLY DISTRIBUTED AND INCORPORATED INTO THE TOP 3 TO 5 INCHES OF SOIL BY DISKING OR OTHER SUITABLE MEANS.

PERMANENT SEEDING NOTES (B-4-3)

A. SEED MIXTURES

- 1. GENERAL USE
A. SELECT ONE OR MORE OF THE SPECIES OR MIXTURES LISTED IN TABLE B.3 FOR THE APPROPRIATE PLANT HARDNESS ZONE...
B. ADDITIONAL PLANTING SPECIFICATIONS FOR EXCEPTIONAL SITES SUCH AS SHORELINES, STREAM BANKS, OR DUNES...
C. FOR SITES HAVING DISTURBED AREAS OVER 5 ACRES, USE AND SHOW THE RATES RECOMMENDED BY THE SOIL TESTING AGENCY...
2. TURFGRASS MIXTURES
A. AREAS WHERE TURFGRASS MAY BE DESIRED INCLUDE LAWNS, PARKS, PLAYGROUNDS, AND COMMERCIAL SITES WHICH WILL RECEIVE A MEDIUM TO HIGH LEVEL OF MAINTENANCE.

NOTES:

- 1. KENTUCKY BLUEGRASS: FULL SUN MIXTURE; FOR USE IN AREAS THAT RECEIVE INTENSIVE MAINTENANCE...
2. KY. BLUEGRASS/PERENNIAL RYE: FULL SUN MIXTURE; FOR USE IN FULL SUN AREAS WHERE RAPID ESTABLISHMENT IS NECESSARY...
3. TALL FESCUE/KENTUCKY BLUEGRASS: FULL SUN MIXTURE; FOR USE IN DROUGHT PRONE AREAS AND/OR FOR AREAS RECEIVING LOW TO MEDIUM MAINTENANCE...
4. IDEAL TIMES OF SEEDING FOR TURF GRASS MIXTURES WESTERN MD: MARCH 15 TO JUNE 1, AUGUST 1 TO OCTOBER 1...
5. ILL. AREAS TO RECEIVE SEED BY DISKING OR OTHER APPROVED METHODS TO A DEPTH OF 2 TO 4 INCHES, LEVEL AND RAKE THE AREA TO PREPARE...
6. IF SOIL MOISTURE IS DEFICIENT, SUPPLY NEW SEEDINGS WITH ADEQUATE WATER FOR PLANT GROWTH...
7. MULCHING
A. STRAW CONSISTING OF THOROUGHLY THRESHED WHEAT, RYE, OAT, OR BARLEY AND REASONABLY BRIGHT IN COLOR...
B. WOOD CELLULOSE FIBER MULCH (WCFM) CONSISTING OF SPECIALLY PREPARED WOOD CELLULOSE PROCESSED INTO UNIFORM FIBROUS PHYSICAL STATE.

PERMANENT SEEDING SUMMARY TABLE with columns for HARDNESS ZONE, SPECIES, APPLICATION RATE, SEEDING DATES, SEEDING DEPTHS, FERTILIZER RATE, and LIME RATE.

STANDARD STABILIZATION NOTE table with columns for SPECIES, APPLICATION RATE, SEEDING DATES, SEEDING DEPTHS, FERTILIZER RATE, and LIME RATE.

STANDARDS AND SPECIFICATIONS FOR STOCKPILE AREA (B-4-3)

- DEFINITION: THE 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.

- 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.
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.
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.

MAINTENANCE table with columns for DATE, DESCRIPTION, and REVISION BLOCK.

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD COUNTY SOIL CONSERVATION DISTRICT.
DATE: 7/28/15

STANDARDS AND SPECIFICATIONS FOR SEEDING AND MULCHING (B-4-3)

DEFINITION

THE APPLICATION OF SEED AND MULCH TO ESTABLISH VEGETATIVE COVER.
PURPOSE: TO PROTECT DISTURBED SOILS FROM EROSION DURING AND AT THE END OF CONSTRUCTION.
CONDITIONS WHERE PRACTICE APPLIES: TO THE SURFACE OF ALL PERIMETER CONTROLS, SLOPES, AND ANY DISTURBED AREA NOT UNDER ACTIVE GRADING.

CRITERIA

- A. SEEDING
1. SPECIFICATIONS
A. ALL SEED MUST MEET THE REQUIREMENT OF THE MARYLAND STATE SEED LAW.
B. SEED MUST BE TESTED BY A RECOGNIZED SEED LABORATORY.
C. INCULCANTS: THE INCULCANT FOR TREATING LEGUME SEED IN THE SEED MIXTURES MUST BE A PURE CULTURE OF NITROGEN FIXING BACTERIA...
2. APPLICATION
A. DRY SEEDINGS THIS INCLUDES USE OF CONVENTIONAL DROP OR BROADCAST SPREADERS.
B. INCULCATED SEED INTO THE SUBSOIL AT THE RATES PRESCRIBED ON TEMPORARY SEEDING TABLE B.1.

DEFINITION

DEFINITION: CONTROLLING DUST BLOWING AND MOVEMENT ON CONSTRUCTION SITES AND ROADS.
PURPOSE: TO PREVENT BLOWING AND MOVEMENT OF DUST FROM EXPOSED SOIL SURFACES, REDUCE ON AND OFF-SITE DAMAGE, HEALTH HAZARDS AND IMPROVE TRAFFIC SAFETY.

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.
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.

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.

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.
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.

DEFINITION

DEFINITION: CONTROLLING DUST BLOWING AND MOVEMENT ON CONSTRUCTION SITES AND ROADS.
PURPOSE: TO PREVENT BLOWING AND MOVEMENT OF DUST FROM EXPOSED SOIL SURFACES, REDUCE ON AND OFF-SITE DAMAGE, HEALTH HAZARDS AND IMPROVE TRAFFIC SAFETY.

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.
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.

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 (410-313-1855).
2. ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE SEDIMENT CONTROL STRUCTURES, DICES, PERIMETER SLOPES AND ALL SLOPES GREATER THAN 3:1.
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, DICES, PERIMETER SLOPES AND ALL SLOPES GREATER THAN 3:1.
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-4-3), TEMPORARY SEEDING (SEC. B-4-4) AND MULCHING (SEC. B-4-3).
5. ALL SEDIMENT CONTROL STRUCTURES ARE TO REMAIN IN PLACE AND ARE TO BE MAINTAINED IN OPERATIVE CONDITION UNTIL PERMISSIBILITY FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.

AREA ANALYSIS table with columns for AREA DISTURBED, AREA TO BE ROOFED OR PAVED, AREA TO BE VEGETATIVELY STABILIZED, TOTAL CUT, TOTAL FILL, OFFSITE WASTE/BORROW AREA LOCATION.

- 10. TRENCHES FOR THE CONSTRUCTION OF UTILITIES IS LIMITED TO THREE PIPE LENGTHS OR THAT WHICH SHALL BE BACK-FILLED AND STABILIZED BY THE END OF EACH 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 ACRE 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.

DUST CONTROL

DEFINITION

DEFINITION: CONTROLLING DUST BLOWING AND MOVEMENT ON CONSTRUCTION SITES AND ROADS.
PURPOSE: TO PREVENT BLOWING AND MOVEMENT OF DUST FROM EXPOSED SOIL SURFACES, REDUCE ON AND OFF-SITE DAMAGE, HEALTH HAZARDS AND IMPROVE TRAFFIC SAFETY.

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.
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.

DEFINITION

DEFINITION: CONTROLLING DUST BLOWING AND MOVEMENT ON CONSTRUCTION SITES AND ROADS.
PURPOSE: TO PREVENT BLOWING AND MOVEMENT OF DUST FROM EXPOSED SOIL SURFACES, REDUCE ON AND OFF-SITE DAMAGE, HEALTH HAZARDS AND IMPROVE TRAFFIC SAFETY.

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.
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.



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 THAT THIS PLAN MEETS THE APPROVED RULES AND SPECIFICATIONS.
SIGNATURE: Dennis A. Dosey, DATE: 04/10/18
NAME: DENNIS A. DOSEY, NO. LICENSE NO.: 45261, EXP. DATE: 04/10/20

PREPARED FOR HOWARD COUNTY PUBLIC SCHOOL SYSTEM HARRIET TUBMAN BUILDING 8045 HARRIET TUBMAN LANE COLUMBIA, MARYLAND 21044 ATTENTION: SCOTT WASHINGTON 410-313-6905
FISHER, COLLINS & CARTER, INC. CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS 1072 BALTIMORE NATIONAL PLACE ELKLOFT CITY, MARYLAND 21042 (410) 461-2899

ENGINEER'S 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 Soil Conservation District.
DEVELOPER'S 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 beginning the project.
APPROVED: DEPARTMENT OF PLANNING AND ZONING, Director - Department of Planning and Zoning, DATE: 9-2-15

DATE: 9-2-15, 7/28/15
DESCRIPTION: REVISION BLOCK
This development plan is approved for soil erosion and sediment control by the Howard County Soil Conservation District.
DATE: 7/28/15

ADDRESS CHART table with columns for LOT/PARCEL#, STREET ADDRESS, PERMIT INFORMATION CHART.

SEDIMENT CONTROL NOTES
"REVISED SITE DEVELOPMENT PLAN" VILLAGE OF HARPER'S CHOICE
SECTION 4 AREA 4
SWANSFIELD ELEMENTARY SCHOOL
ZONED NEWTOWN PARCEL No.: 277
TAX MAP No.: 29, 35 GRID No.: 23, 5
FIFTH ELECTION DISTRICT HOWARD COUNTY MARYLAND
SCALE: AS SHOWN DATE: JULY 17, 2015
SHEET 13 OF 20

AS-Built
No Show AS-Built info

PLANTING NOTES:

1. THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH SECTION 16.124 OF HOWARD COUNTY CODE AND LANDSCAPE MANUAL AND IS TO BE USED FOR PLANTING ONLY. LANDSCAPING SHALL BE PROVIDED AS SHOWN ON THIS PLAN SHEET. NO SURETY IS REQUIRED SINCE THIS IS A HOWARD COUNTY BOARD OF EDUCATION PROJECT.
2. CONTRACTOR SHALL NOTIFY ALL UTILITIES AT LEAST FIVE (5) DAYS BEFORE STARTING WORK. ALL GENERAL NOTES FROM SHEET 1, SHALL APPLY.
3. FIELD VERIFY UNDERGROUND UTILITY LOCATIONS AND EXISTING CONDITIONS BEFORE STARTING PLANTING WORK, EVEN WHERE PLANT LOCATIONS ARE DIMENSIONED. CONTACT CONSTRUCTION MANAGER IF ANY RELOCATION ARE REQUIRED.
4. PLANT QUANTITIES SHOWN ON PLANT LIST ARE PROVIDED FOR THE CONVENIENCE OF THE CONTRACTOR ONLY. IF DISCREPANCIES EXIST BETWEEN QUANTITIES SHOWN ON THE PLAN AND THOSE SHOWN ON THE PLANT LIST, THE QUANTITIES ON THE PLAN SHALL TAKE PRECEDENCE.
5. ALL PLANT MATERIALS SHALL BE FULL AND HEAVY, BE WELL FORMED AND SYMMETRICAL, CONFORM TO THE A.A.N. SPECIFICATIONS, AND BE INSTALLED IN ACCORDANCE WITH PROJECT SPECIFICATIONS.
6. ALL AREAS DISTURBED BY CONSTRUCTION ACTIVITIES BUT NOT OTHERWISE PLANTED, PAVED OR MULCHED SHALL BE SEEDING IN ACCORDANCE WITH PROJECT SPECIFICATIONS.
7. ALL EXPOSED EARTH WITHIN THE LIMITS OF THE PLANTING BEDS SHALL BE MULCHED WITH SHREDDED HARDWOOD MULCH PER PLANTING DETAILS.
8. THE CONTRACTOR SHALL NOTIFY THE OWNER IN WRITING IF SOIL OR DRAINAGE CONDITIONS ARE ENCOUNTERED WHICH MAY BE DETRIMENTAL TO THE GROWTH OF PLANTS.
9. NO SUBSTITUTION SHALL BE MADE WITHOUT WRITTEN CONSENT OF THE OWNER OR HIS REPRESENTATIVE.
10. REFER TO OTHER SITE DWGS. FOR ADDITIONAL SEEDING REQUIREMENTS.

Note: THERE IS NO LANDSCAPING SURETY FOR THE LANDSCAPE PLAN.

NOTE: TREE AND SHRUB TYPES ARE ONLY A RECOMMENDATION, THESE MAY BE REVISED TO A COUNTY APPROVED EQUIVALENT FROM THE HOWARD COUNTY LANDSCAPE MANUAL. THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL.

*AT THE TIME OF PLANT INSTALLATION, ALL TREES LISTED AND APPROVED ON THE LANDSCAPE PLAN, SHALL COMPLY WITH THE PROPER HEIGHT REQUIREMENT IN ACCORDANCE WITH THE HOWARD COUNTY LANDSCAPE MANUAL. IN ADDITION, NO SUBSTITUTIONS OR RELOCATIONS OF THE REQUIRED PLANTINGS MAY BE MADE WITHOUT PRIOR REVIEW AND APPROVAL FROM THE DEPARTMENT OF PLANNING AND ZONING. ANY DEVIATIONS FROM THE APPROVED LANDSCAPE PLAN MAY RESULT IN DENIAL OR DELAY IN THE RELEASE OF LANDSCAPE SURETY UNTIL SUCH TIME AS ALL REQUIRED MATERIALS ARE PLANTED AND/OR REVISIONS ARE MADE TO THE ROAD DRAWING PLANS. THE OWNER, TENANTS AND/OR THEIR AGENTS SHALL BE RESPONSIBLE FOR MAINTENANCE OF THE REQUIRED PERIMETER LANDSCAPING. ALL PLANT MATERIALS SHALL BE MAINTAINED IN GOOD GROWING CONDITION, AND WHEN NECESSARY, REPLACED WITH NEW MATERIALS TO ENSURE CONTINUED COMPLIANCE WITH APPLICABLE REGULATIONS. ALL THE OTHER REQUIRED LANDSCAPING SHALL BE PERMANENTLY MAINTAINED IN GOOD CONDITION, AND WHEN NECESSARY, REPAIRED OR REPLACED.

PLANTING SPECIFICATIONS

PLANTS, RELATED MATERIAL AND OPERATIONS SHALL MEET THE DETAILED DESCRIPTION AS GIVEN ON THE PLANS AND AS DESCRIBED HEREIN.

ALL PLANT MATERIAL, UNLESS OTHERWISE SPECIFIED, SHALL BE NURSERY GROWN, UNIFORMLY BRANCHED, HAVE A VIGOROUS ROOT SYSTEM, AND SHALL CONFORM TO THE SPECIES, SIZE, ROOT AND SHAPE SHOWN ON THE PLANT LIST AND THE AMERICAN ASSOCIATION OF NURSERYMEN (AAN) STANDARDS. PLANT MATERIAL SHALL BE HEALTHY, VIGOROUS, FREE FROM DEFECTS, DISEASE, DEFOLIATING ROOTS, SUN SCALD INJURIES, ABRASIONS OF THE BARK, PLANT DISEASE, INSECT PEST EGGS, BORERS AND ALL FORMS OF INSECT INFESTATIONS OR OBJECTIONABLE DISFIGUREMENTS. PLANT MATERIAL THAT IS WEAK OR WHICH HAS BEEN CUT BACK FROM LARGER GRADES TO MEET SPECIFIED REQUIREMENTS WILL BE REJECTED. TREES WITH FORKED LEADERS WILL NOT BE ACCEPTED. ALL PLANTS SHALL BE FRESHLY DUG; NO HEALED-IN PLANTS FROM COLD STORAGE WILL BE ACCEPTED.

UNLESS OTHERWISE SPECIFIED, ALL GENERAL CONDITIONS, PLANTING OPERATIONS, DETAILS AND PLANTING SPECIFICATION SHALL CONFORM TO "LANDSCAPE SPECIFICATION GUIDELINES FOR BALTIMORE-WASHINGTON METROPOLITAN AREAS", (HEREINAFTER "LANDSCAPE GUIDELINES") APPROVED BY THE LANDSCAPE CONTRACTORS ASSOCIATION OF METROPOLITAN WASHINGTON AND THE POTOMAC CHAPTER OF THE AMERICAN SOCIETY OF LANDSCAPE ARCHITECT, LATEST EDITION, INCLUDING ALL AGENDA.

CONTRACTOR SHALL BE REQUIRED TO GUARANTEE ALL PLANT MATERIAL FOR A PERIOD OF ONE YEAR AFTER DATE OF ACCEPTANCE IN ACCORDANCE WITH THE APPROPRIATE SECTION OF THE LANDSCAPE GUIDELINES. CONTRACTOR'S ATTENTION IS DIRECTED TO THE MAINTENANCE REQUIREMENTS FOUND WITHIN THE ONE YEAR SPECIFICATIONS INCLUDING WATERING AND REPLACEMENT OF SPECIFIED PLANT MATERIAL.

BID SHALL BE BASE ON ACTUAL SITE CONDITIONS. NO EXTRA PAYMENT SHALL BE MADE FOR WORK ARISING FROM SITE CONDITIONS DIFFERING FROM THOSE INDICATED ON DRAWINGS AND SPECIFICATIONS.

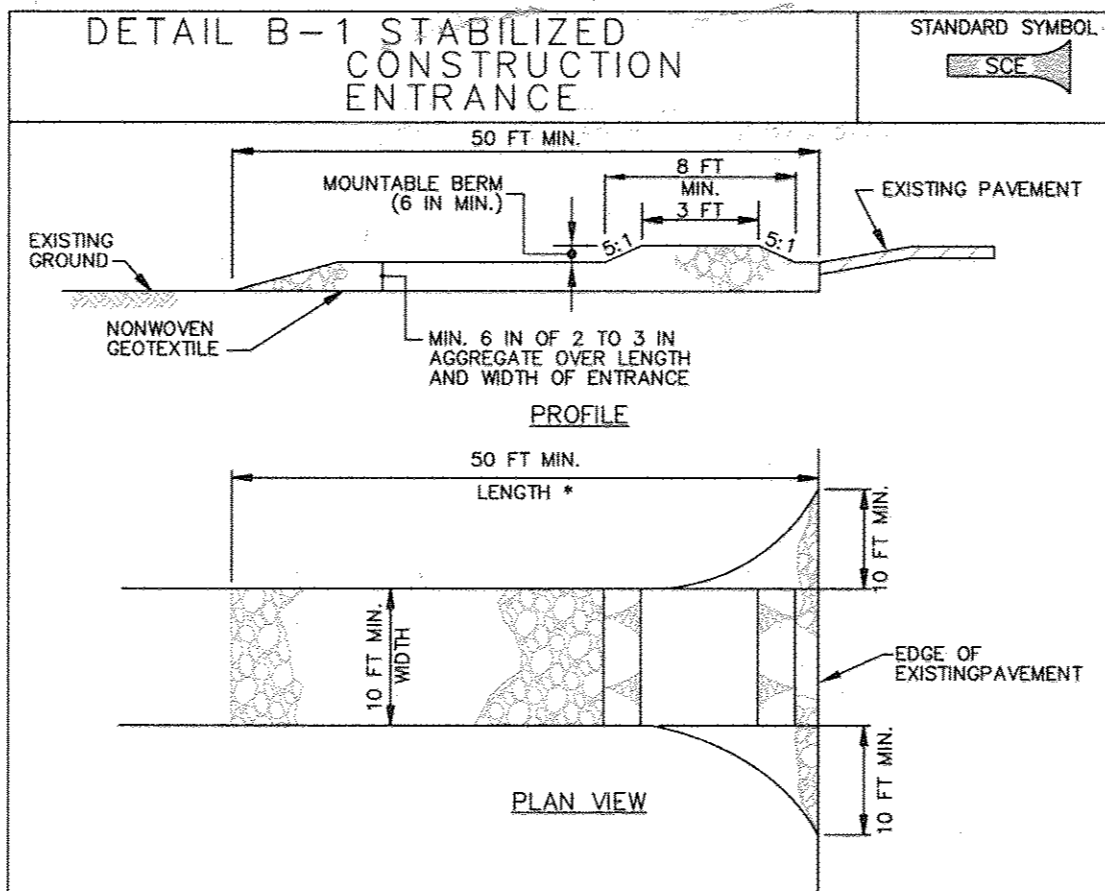
ALL SHRUBS SHALL BE PLANTED IN CONTINUOUS TRENCHES OR PREPARED PLANTING BEDS AND MULCHED WITH COMPOSTED HARDWOOD MULCH AS DETAILS AND SPECIFIED EXCEPT WHERE NOTED ON PLANS.

POSITIVE DRAINAGE SHALL BE MAINTAINED IN PLANTING BEDS 2 PERCENT (SLOPE).

PLANTING MIX SHALL BE AS FOLLOWS: DECIDUOUS PLANTS - TWO PARTS TOPSOIL, ONE PART WELL-GOTTED COW OR HORSE MANURE. ADD 3 LBS. OF STANDARD FERTILIZER PER CUBIC YARD OF PLANTING MIX. EVERGREEN PLANTS - TWO PARTS TOPSOIL, ONE PART HUMUS OR OTHER APPROVED ORGANIC MATERIAL. ADD 3 LBS. OF EVERGREEN (ACIDIC) FERTILIZER PER CUBIC YARD OF PLANTING MIX. TOPSOIL SHALL CONFORM TO THE LANDSCAPE GUIDELINES.

WEED CONTROL: INCORPORATE A PRE-EMERGENT HERBICIDE INTO THE PLANTING BED FOLLOWING RECOMMENDED RATES ON THE LABEL. CAUTION: BE SURE TO CAREFULLY CHECK THE CHEMICAL USED TO ASSURE ITS ADAPTABILITY TO THE SPECIFIC GROUND COVER TO BE TREATED.

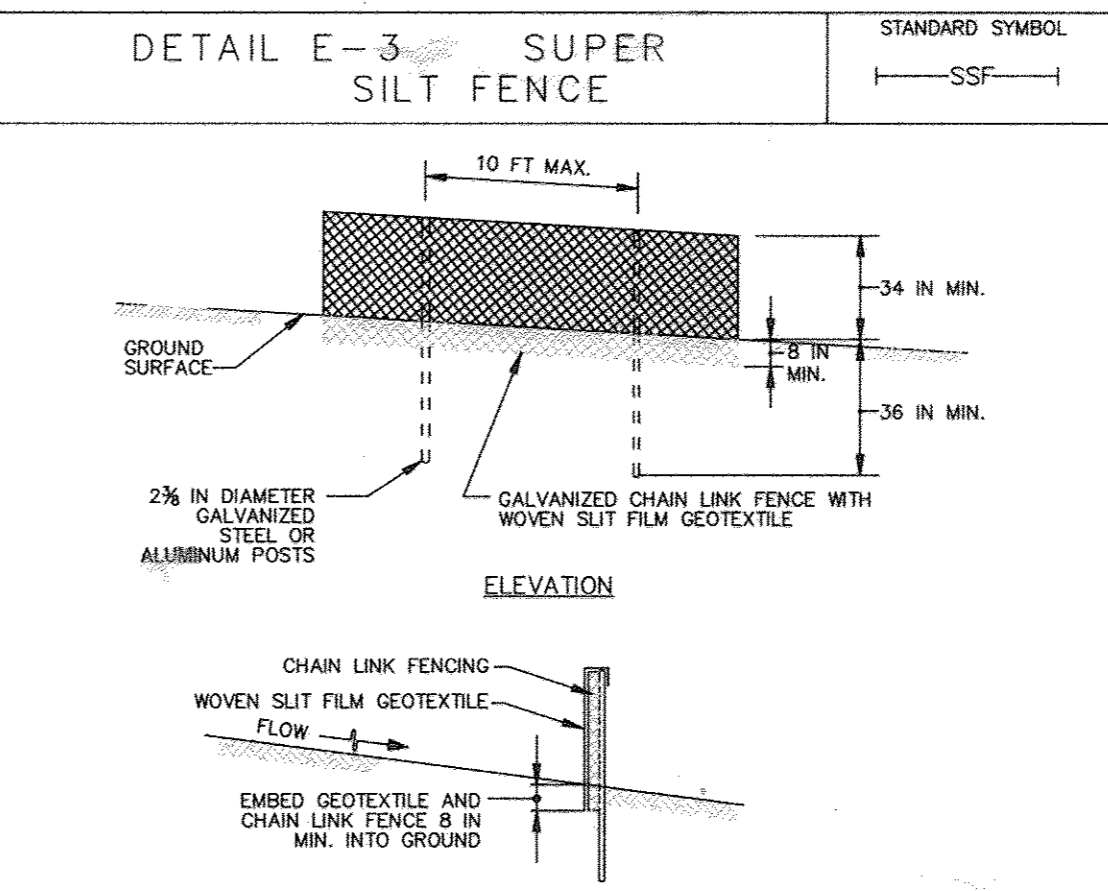
ALL AREAS WITHIN CONTRACT LIMITS DISTURBED DURING OR PRIOR TO CONSTRUCTION NOT DESIGNATED TO RECEIVE PLANTS AND MULCH SHALL BE FINE GRADED AND SEEDED.



CONSTRUCTION SPECIFICATIONS

1. PLACE STABILIZED CONSTRUCTION ENTRANCE IN ACCORDANCE WITH THE APPROVED PLAN. VEHICLES MUST TRAVEL OVER THE ENTIRE LENGTH OF THE SCE. USE MINIMUM LENGTH OF 50 FEET (40 FEET FOR SINGLE RESIDENCE LOT). USE MINIMUM WIDTH OF 10 FEET. FLARE SCE TO 10 FEET MINIMUM AT THE EXISTING ROAD TO PROVIDE A TURNING RADIUS.
2. PIPE ALL SURFACE WATER FLOWING TO OR DIVERTED TOWARD THE SCE UNDER THE ENTRANCE. MAINTAIN POSITIVE DRAINAGE. PROTECT PIPE INSTALLED THROUGH THE SCE WITH A MOUNTABLE BERM WITH 5:1 SLOPES AND A MINIMUM OF 12 INCHES OF STONE OVER THE PIPE. PROVIDE PIPE AS SPECIFIED ON APPROVED PLAN. WHEN THE SCE IS LOCATED AT A HIGH SPOT AND HAS NO DRAINAGE TO CONVEY, A PIPE IS NOT NECESSARY. A MOUNTABLE BERM IS REQUIRED WHEN SCE IS NOT LOCATED AT A HIGH SPOT.
3. PREPARE SUBGRADE AND PLACE NONWOVEN GEOTEXTILE, AS SPECIFIED IN SECTION H-1 MATERIALS.
4. PLACE CRUSHED AGGREGATE (2 TO 3 INCHES IN SIZE) OR EQUIVALENT RECYCLED CONCRETE (WITHOUT REBAR) AT LEAST 6 INCHES DEEP OVER THE SCE.
5. MAINTAIN ENTRANCE IN A CONDITION THAT MINIMIZES TRACKING OF SEDIMENT, ADD STONE OR MAKE OTHER REPAIRS AS CONDITIONS DEMAND TO MAINTAIN CLEAN SURFACE, MOUNTABLE BERM, AND SPECIFIED DIMENSIONS. IMMEDIATELY REMOVE STONE AND/OR SEDIMENT SPILLED, DROPPED, OR TRACKED ONTO ADJACENT ROADWAY BY VACUUMING, SCRAPING, AND/OR SWEEPING. WASHING ROADWAY TO REMOVE MUD TRACKED ONTO PAVEMENT IS NOT ACCEPTABLE UNLESS WASH WATER IS DIRECTED TO AN APPROVED SEDIMENT CONTROL PRACTICE.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL	U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION
---	---	------	--

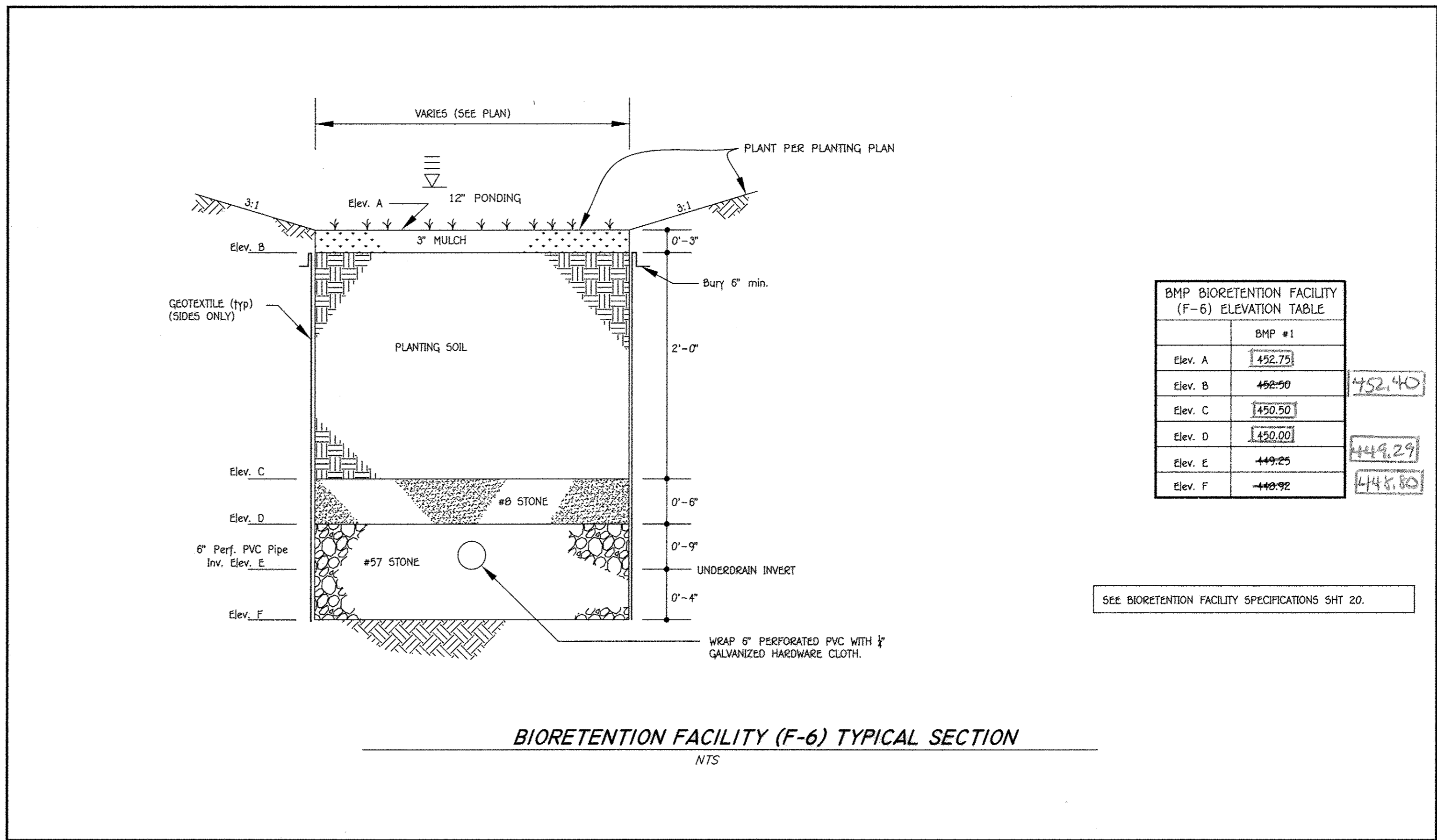
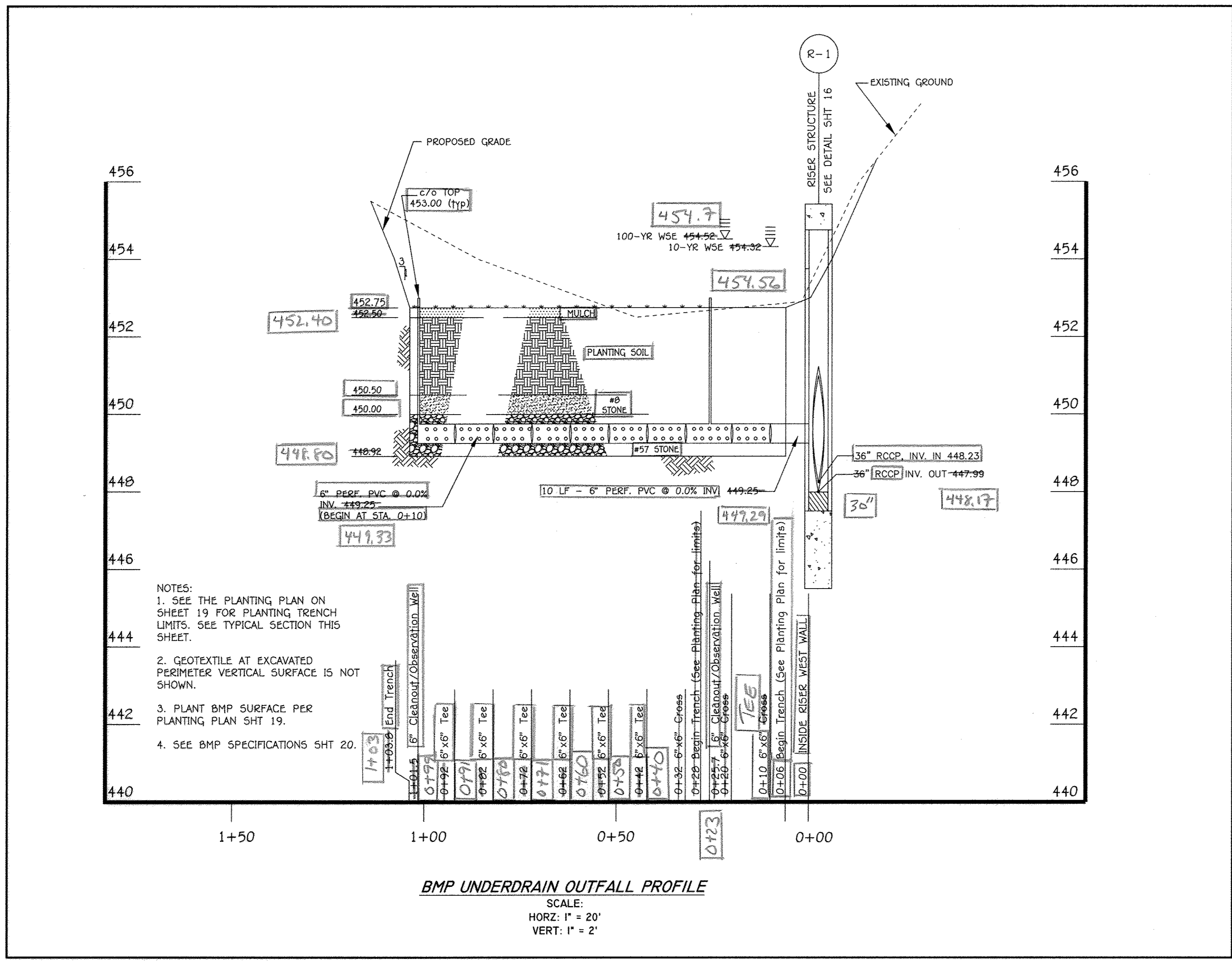


CONSTRUCTION SPECIFICATIONS

1. INSTALL 2 1/2 INCH DIAMETER GALVANIZED STEEL POSTS OF 0.095 INCH WALL THICKNESS AND SIX FOOT LENGTH SPACED NO FURTHER THAN 10 FEET APART. DRIVE THE POSTS A MINIMUM OF 36 INCHES INTO THE GROUND.
2. FASTEN 2 INCH GAUGE OR HEAVIER GALVANIZED CHAIN LINK FENCE (2 1/2 INCH MAXIMUM OPENING) 42 INCHES IN HEIGHT SECURELY TO THE FENCE POSTS WITH WIRE TIES OR HIC RINGS.
3. FASTEN WOVEN SILT FILM GEOTEXTILE AS SPECIFIED IN SECTION H-1 MATERIALS, SECURELY TO THE UPSLOPE SIDE OF CHAIN LINK FENCE WITH TIES SPACED EVERY 24 INCHES AT THE TOP AND MID SECTION. EMBED GEOTEXTILE AND CHAIN LINK FENCE A MINIMUM OF 8 INCHES INTO THE GROUND.
4. WHERE ENDS OF THE GEOTEXTILE COME TOGETHER, THE ENDS SHALL BE OVERLAPPED BY 6 INCHES, FOLDED, AND STAPLED TO PREVENT SEDIMENT FROM PASSING.
5. EXTEND BOTH ENDS OF THE SUPER SILT FENCE A MINIMUM OF FIVE HORIZONTAL FEET UPSLOPE AT 45 DEGREES TO THE MAX FENCE ALIGNMENT TO PREVENT RUNOFF FROM GOING AROUND THE ENDS OF THE SUPER SILT FENCE.
6. PROVIDE MANUFACTURER CERTIFICATION TO THE INSPECTION/ENFORCEMENT AUTHORITY SHOWING THAT GEOTEXTILE USED MEETS THE REQUIREMENTS IN SECTION H-1 MATERIALS.
7. REMOVE ACCUMULATED SEDIMENT AND DEBRIS WHEN BULGES DEVELOP IN FENCE OR WHEN SEDIMENT REACHES 25% OF FENCE HEIGHT. REPLACE GEOTEXTILE IF TORN. IF UNDERMINING OCCURS, REINSTALL CHAIN LINK FENCING AND GEOTEXTILE.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL	U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION
---	---	------	--

HILLIS-CARNES ENGINEERING ASSOCIATES, INC. RECORD OF SOIL EXPLORATION									
Project Name: Swansfield Elementary School		Boring No.: SWM-1		Location: Howard County, Maryland		Job #: 15136A			
Date: 4-08-15	Hammer Vt: 140	Soil: 140	Hole Diameter: 6"	Foreman: V. Velazquez					
Start Elev: 455.01	Hammer Drop: 30	in. Rock Core Diameter: 2.0	Inspector: HSA						
Date Started: 4-08-15	Pipe Size: 2.0	in. Boring Method: HSA	Date Completed: 4-08-15						
Elevation/Depth	Soil Sample/Description	Boring and Sampling Notes	Rec. (MM)	SPT Blows	SPT Blows/Feet				
0	Topsoil	Spring offset out of existing pond area	12"	4-3-2	5	10	30	50	
1	2" Topsoil		18"	2-4-7	11				
2	Groundwater encountered at 2.9' water table		18"	2-3-5	8				
3	SAND (SM)	Blacked after 24 hrs	24"	3-3-3	6				
4			30"	3-3-4	7				
5			36"						
6			42"						
7			48"						
8			54"						
9			60"						
10			66"						
11			72"						
12			78"						
13			84"						
14			90"						
15			96"						
16			102"						
17			108"						
18			114"						
19			120"						
20			126"						
21			132"						
22			138"						
23			144"						
24			150"						
25			156"						
26			162"						
27			168"						
28			174"						
29			180"						
30			186"						
31			192"						
32			198"						
33			204"						
34			210"						
35			216"						
36			222"						
37			228"						
38			234"						
39			240"						
40			246"						
41			252"						
42			258"						
43			264"						
44			270"						
45			276"						
46			282"						
47			288"						
48			294"						
49			300"						
50			306"						
51			312"						
52			318"						
53			324"						
54			330"						
55			336"						
56			342"						
57			348"						
58			354"						
59			360"						
60			366"						
61			372"						
62			378"						
63			384"						
64			390"						
65			396"						
66			402"						
67			408"						
68			414"						
69			420"						
70			426"						
71			432"						
72			438"						
73			444"						
74			450"						
75			456"						
76			462"						
77			468"						
78			474"						
79			480"						
80			486"						
81			492"						
82			498"						
83			504"						
84			510"						
85			516"						
86			522"						
87			528"						
88			534"						
89			540"						
90			546"						
91			552"						
92			558"						
93			564"						
94			570"						
95			576"						
96			582"						
97			588"						
98			594"						
99			600"						
100			606"						
101			612"						
102			618"						
103			624"						
104			630"						
105			636"						
106			642"						
107			648"						
108			654"						
109			660"						
110			666"						
111			672"						
112			678"						
113			684"						
114			690"						
115			696"						
116			702"						
117			708"						
118			714"						
119			720"						
120			726"						
121			732"						
122			738"						
12									



BMP BIORETENTION FACILITY (F-6) ELEVATION TABLE	
	BMP #1
Elev. A	452.75
Elev. B	452.50
Elev. C	450.50
Elev. D	449.00
Elev. E	448.25
Elev. F	448.92

SEE BIORETENTION FACILITY SPECIFICATIONS SHT 20.

PREPARED FOR
HOWARD COUNTY PUBLIC SCHOOL SYSTEM
HARRIET TUBMAN BUILDING
8045 HARRIET TUBMAN LANE
COLUMBIA, MARYLAND 21044
Attention SCOTT WASHINGTON
410-313-6805

"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. 13204, Expiration Date: November 3, 2016."

CHARLES J. BROVO, SR., P.E.

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENAL SQUARE OFFICE PARK - 10772 BALTIMORE NATIONAL PIKE
ELLSWORTH CITY, MARYLAND 21042
(410) 481-2895

DATE	DESCRIPTION
	REVISION BLOCK

APPROVED: DEPARTMENT OF PLANNING AND ZONING

William J. Miller 9-2-15
Director - Department of Planning and Zoning

Victor S. Johnson 9-2-15
Chief, Division of Land Development

Del Anderson 8-28-15
Chief, Development Engineering Division



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 THAT THIS PLAN MEETS THE APPROVED PLAN AND SPECIFICATIONS

SIGNATURE: *D. A. Dorsef* DATE: 09/10/18

NAME: *Doris A. Dorsef* MD. LICENSE NO.: 45261
EXP. DATE: 04/10/20



APPROVED
PLANNING BOARD OF HOWARD COUNTY

DATE: AUGUST 20, 2015

ADDRESS CHART	
LOT/PARCEL#	STREET ADDRESS
P. 277	5610 CEDAR LANE COLUMBIA, MARYLAND 21044

PERMIT INFORMATION CHART				
SUBDIVISION NAME	SECTION/AREA	LOT/PARCEL NO.		
SWANSFIELD ELEMENTARY SCHOOL	4/4	LOT 1 P. 277		
PLAT# OR L/F	GRID#	ZONING	TAX MAP#	ELECT. DISTR.
L749 F.399	23, 5	NT	29, 35	FIFTH
		CENSUS TRACT		
		6055		

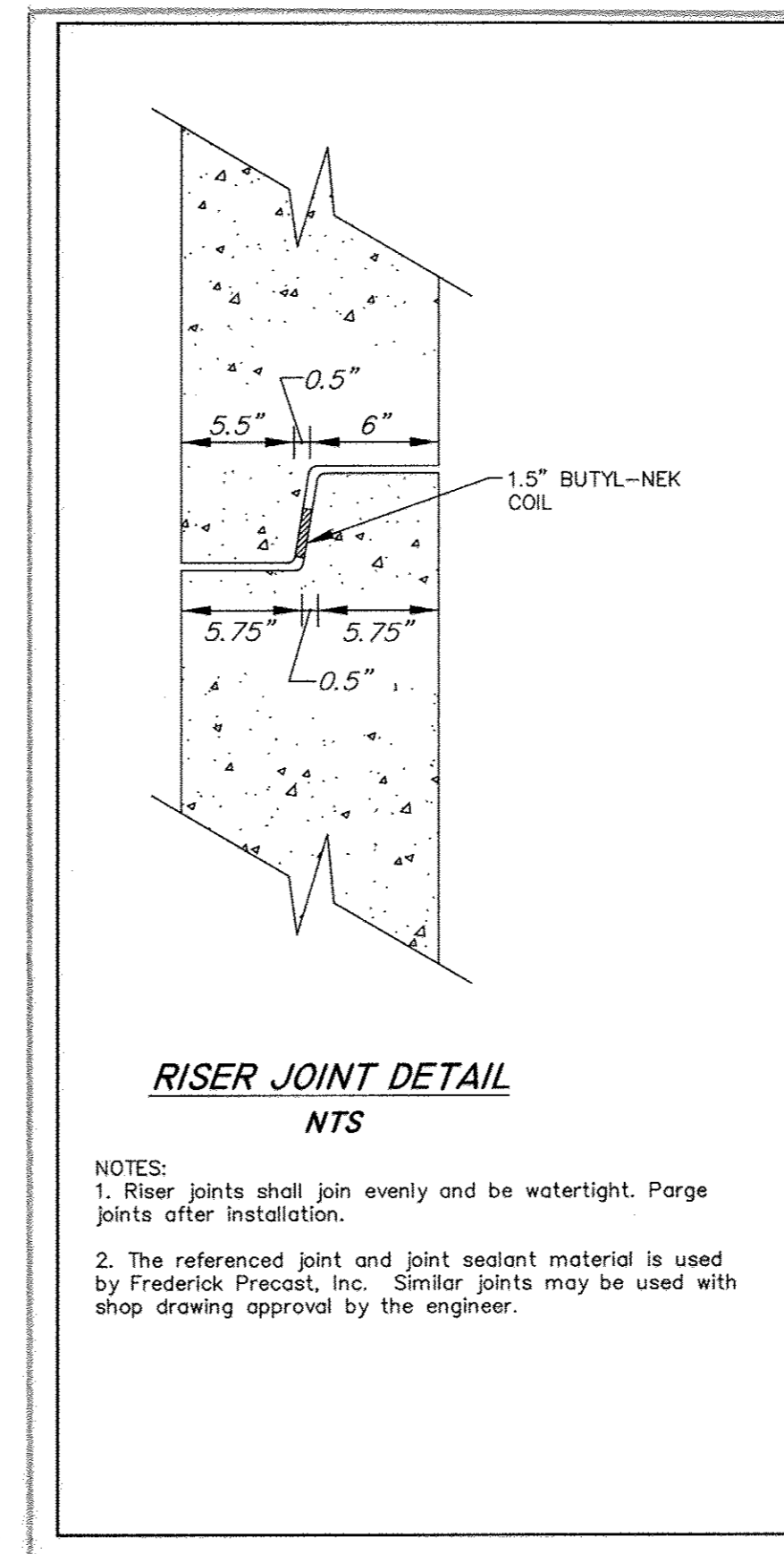
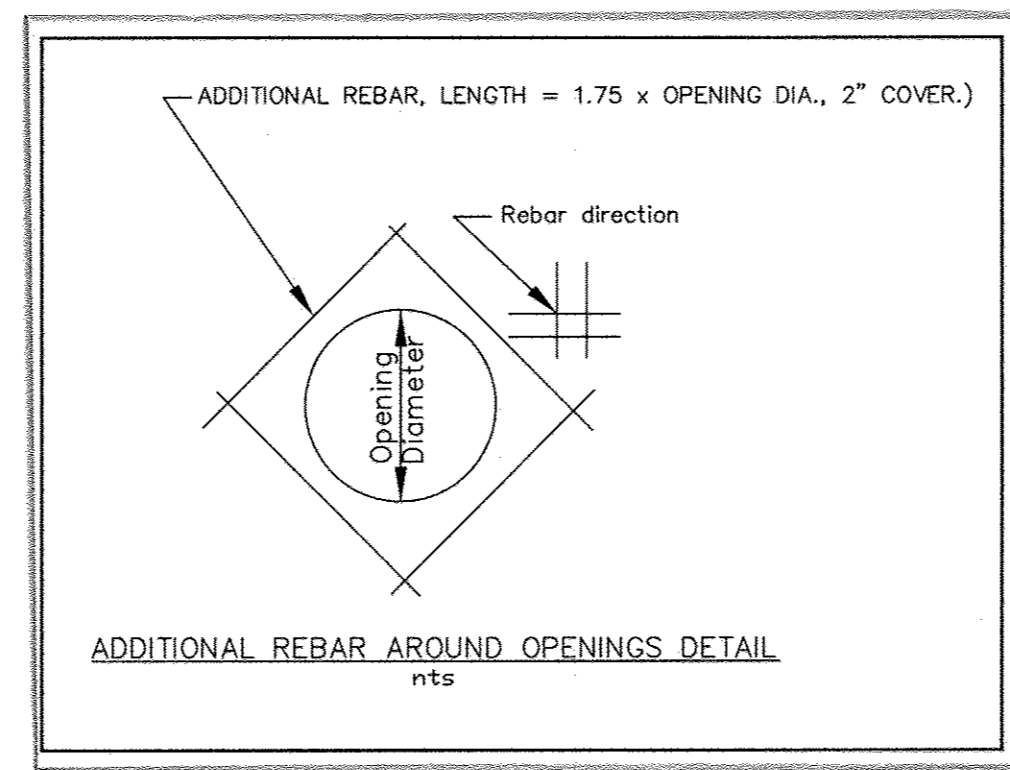
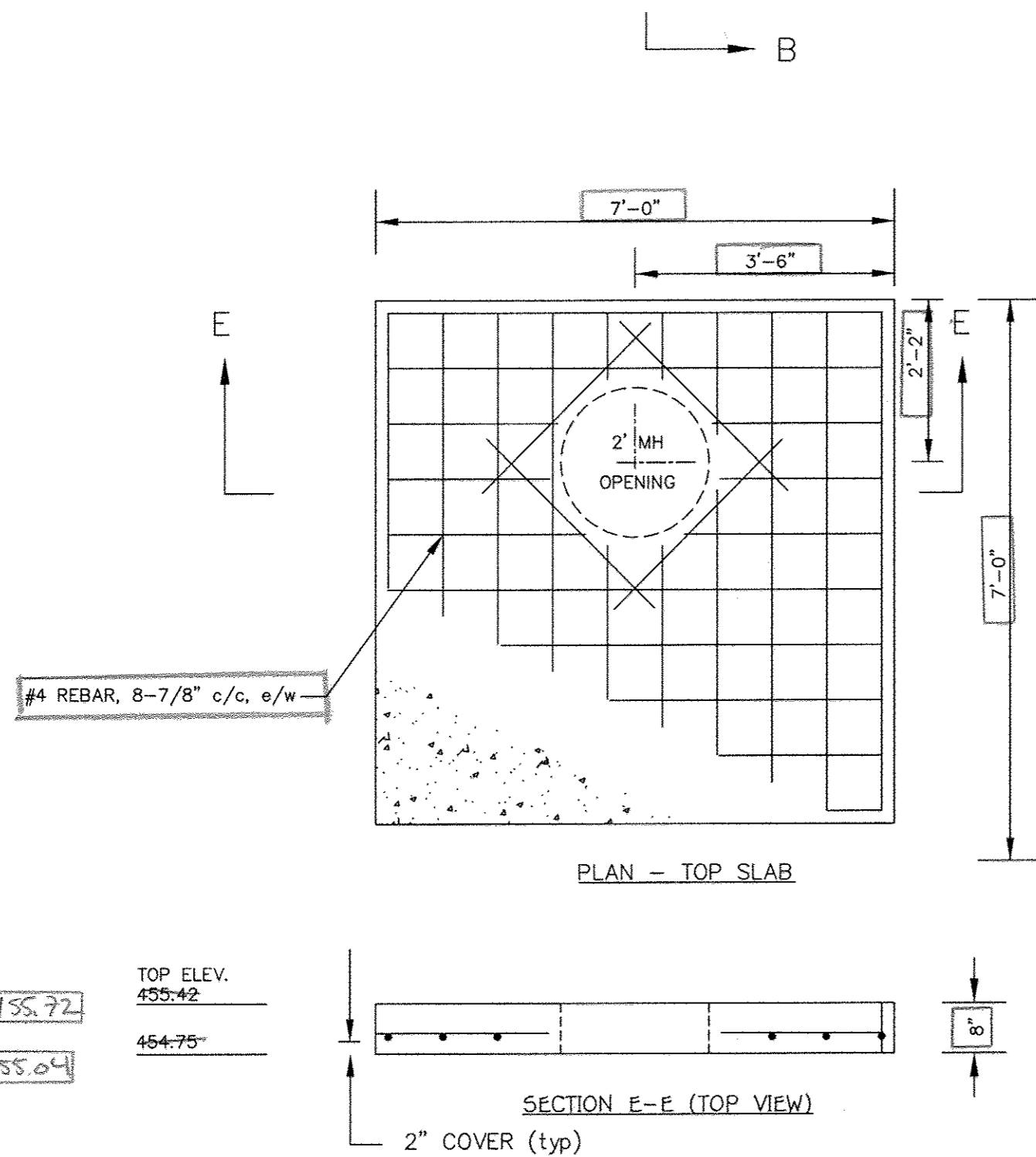
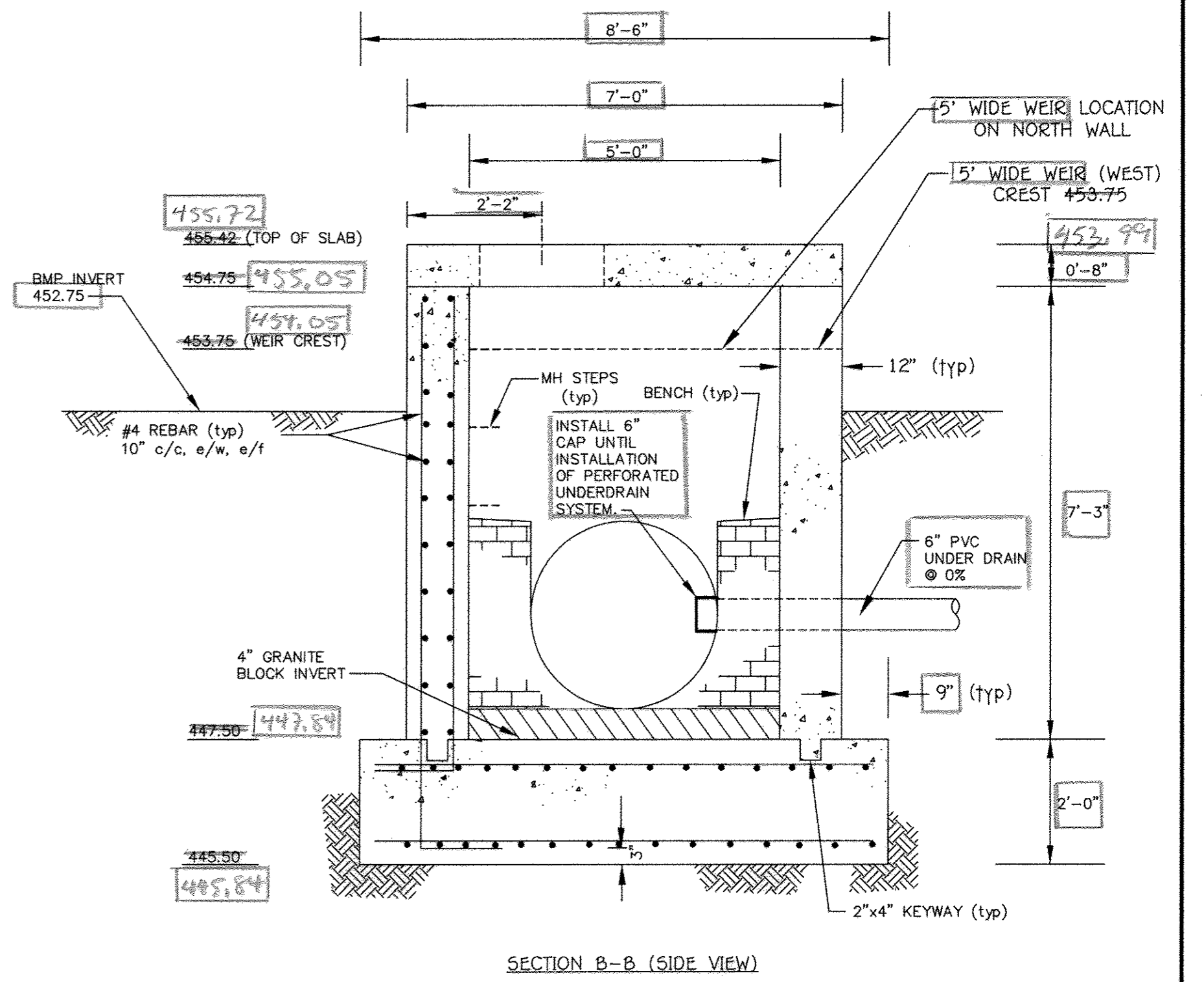
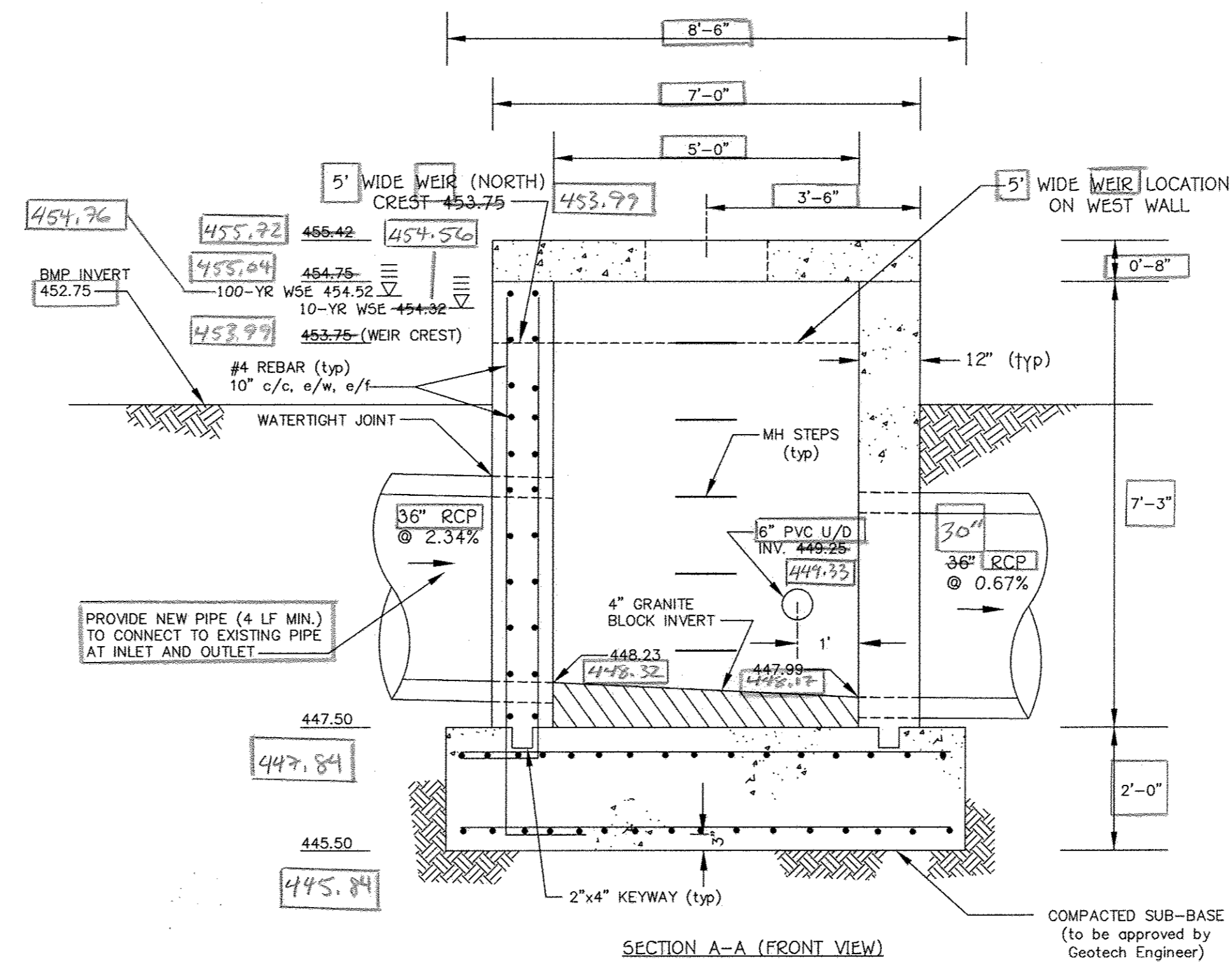
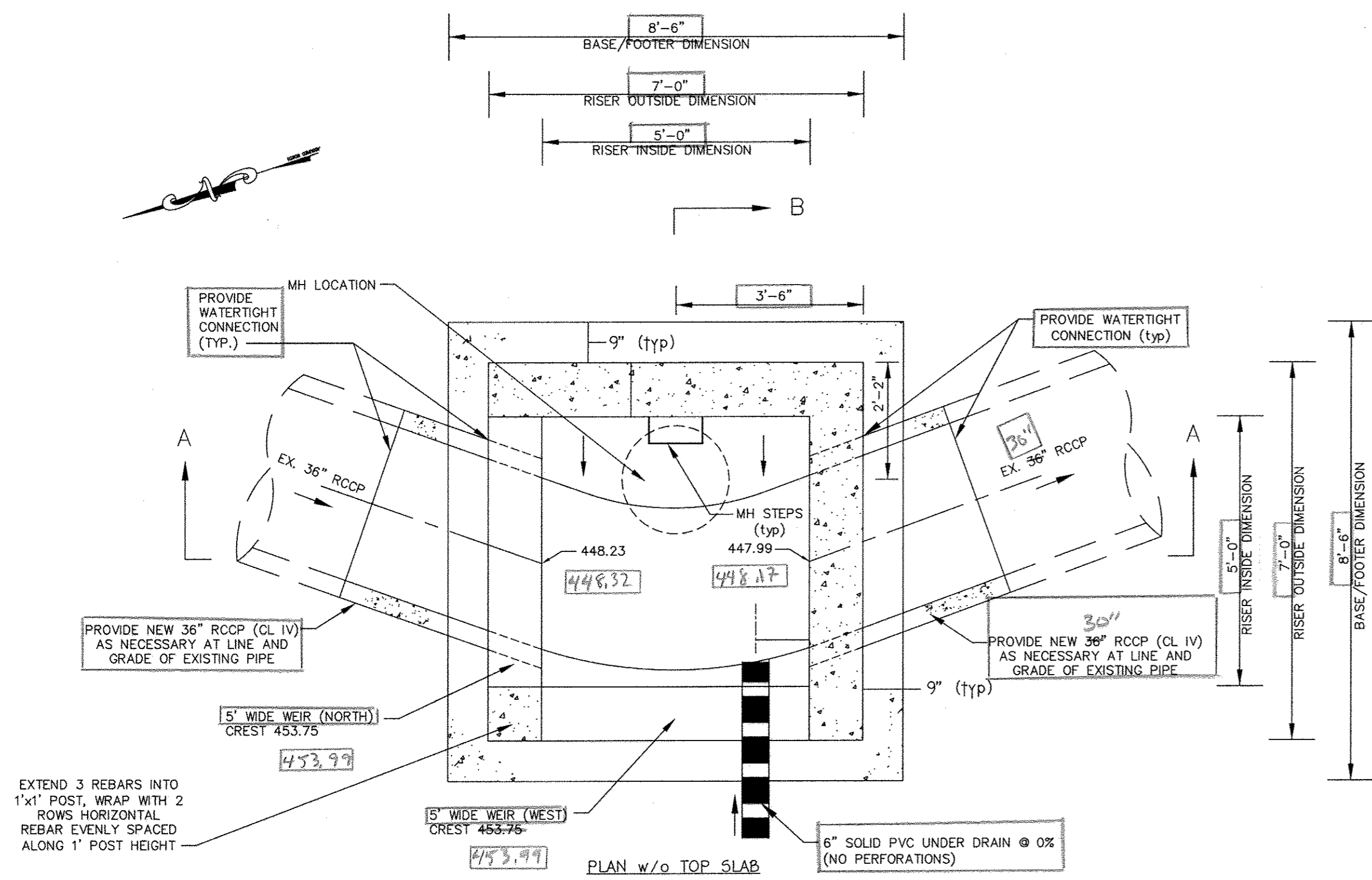
NOTE: THE PURPOSE OF THIS PLAN IS TO SHOW THE BMP DETAILS AND PROFILES.

MICRO-BIORETENTION FACILITY PROFILE, TYPICAL SECTION & STORM DRAIN PROFILE

"REVISED SITE DEVELOPMENT PLAN" VILLAGE OF HARPER'S CHOICE

LOT 1
SECTION 4 AREA 4
SWANSFIELD ELEMENTARY SCHOOL

ZONED NEWTOWN PARCEL No.: 277
TAX MAP No.: 29, 35 GRID No.: 23, 5
FIFTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: JULY 17, 2015
SHEET 15 OF 20



- STRUCTURE S-1 NOTES**
- Structure material for all walls and base shall be air-entrained, 4,000 psi concrete.
 - Reinforcement shall be deformed steel, free of rust, and meet ASTM A615, grade 60, with 2" cover except as shown.
 - Reinforcement is partially shown and is typical for each riser wall, base and top slab. The structure shall be steel bar reinforced throughout.
 - Horizontal rebar shall extend into the adjacent riser wall with a 1'-6" L-shaped overlap.
 - Vertical rebar shall extend into base with a 1'-6" L-shape overlap.
 - Place four (4) additional rebars at a 45 degree angle around all openings as shown on detail this sheet.
 - Chamfer exposed edges 1/2" x 1/2".
 - Provide channel connecting the u/s and d/s pipes.
 - All connections must be watertight. Use water stops or 4" thick concrete collars around pipes, extending 8" beyond O.D. and reinforce with 4"x4" WWF. Apply non-shrink grout to seal collar to riser.
 - Provide steps per MSHA Std. Detail MD-383.92 or approved equal.
 - Place a standard 2 ft ϕ Howard Co. sidewalk storm drain F&C in top slab.
 - The top slab shall NOT be structurally attached to the riser walls.
 - If riser is supplied in sections, the joints shall be watertight per riser joint detail shown on this sheet. Bolt sections together at each joint with three (3) rustproof, 2" x 6" (1/4" thick) flat bar connections with 1/2" bolts embedded in to riser.
 - Use provided dimensions; do not scale drawings.
 - The proposed upstream and downstream inverts are several feet from the original invert locations in the existing riser. The new inverts are calculated using the existing storm drain slopes. The contractor may need to slightly adjust the proposed inverts to provide a straight and smooth pipe transition from the existing to the proposed pipes.

SWM RISER OUTFALL STRUCTURE (R-1) DETAIL
Scale: 1" = 2'

PREPARED FOR
HOWARD COUNTY PUBLIC SCHOOL SYSTEM
HARRIET TUBMAN BUILDING
8045 HARRIET TUBMAN LANE
COLUMBIA, MARYLAND 21044
Attention SCOTT WASHINGTON
410-313-6805

"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. 13204. Expiration Date: November 3, 2016."

CHARLES J. BROWN, SR., P.E.
DATE: 8/20/15

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTRAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELICOTT CITY, MARYLAND 21042
(410) 481-2995

DATE	DESCRIPTION	REVISION BLOCK
9-2-15	APPROVED: DEPARTMENT OF PLANNING AND ZONING	
9-2-15	Director - Department of Planning and Zoning	
8-28-15	Chief, Division of Land Development MW	
	Chief, Development Engineering Division	



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 THAT THIS PLAN MEETS THE APPROVED PLANS AND SPECIFICATIONS.

SIGNATURE: *Debbie D.* DATE: 09/10/18

NAME: *Debbie A. Dusey* (NO LICENSE NO.) 45261
EXPI. DATE: 04/10/20



APPROVED
PLANNING BOARD OF HOWARD COUNTY
DATE: AUGUST 20, 2015

ADDRESS CHART					
LOT/PARCEL#	STREET ADDRESS				
P. 277	5610 CEDAR LANE COLUMBIA, MARYLAND 21044				
PERMIT INFORMATION CHART					
SUBDIVISION NAME	SECTION/AREA	LOT/PARCEL NO.			
SWANSFIELD ELEMENTARY SCHOOL	4/4	LOT 1 P. 277			
PLAT# OR L/F#	GRID#	ZONING	TAX MAP#	ELECT. DISTR.	CENSUS TRACT
L.749 F.399	23, 5	NT	29, 35	FIFTH	6055

NOTE: THE PURPOSE OF THIS PLAN IS TO SHOW THE BMP STRUCTURE DETAILS.

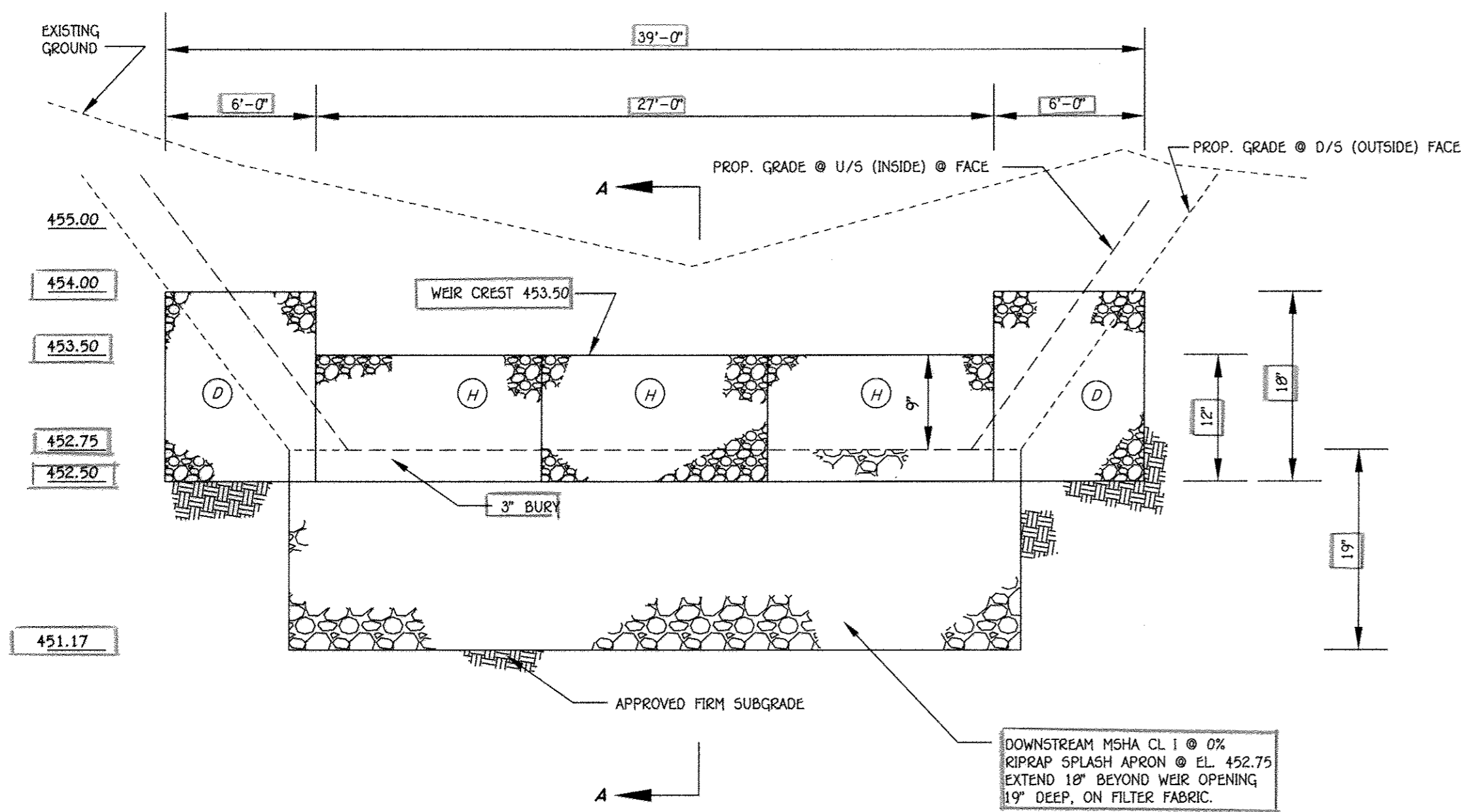
RISER STRUCTURE (R-1) DETAIL

"REVISED SITE DEVELOPMENT PLAN"
VILLAGE OF HARPER'S CHOICE

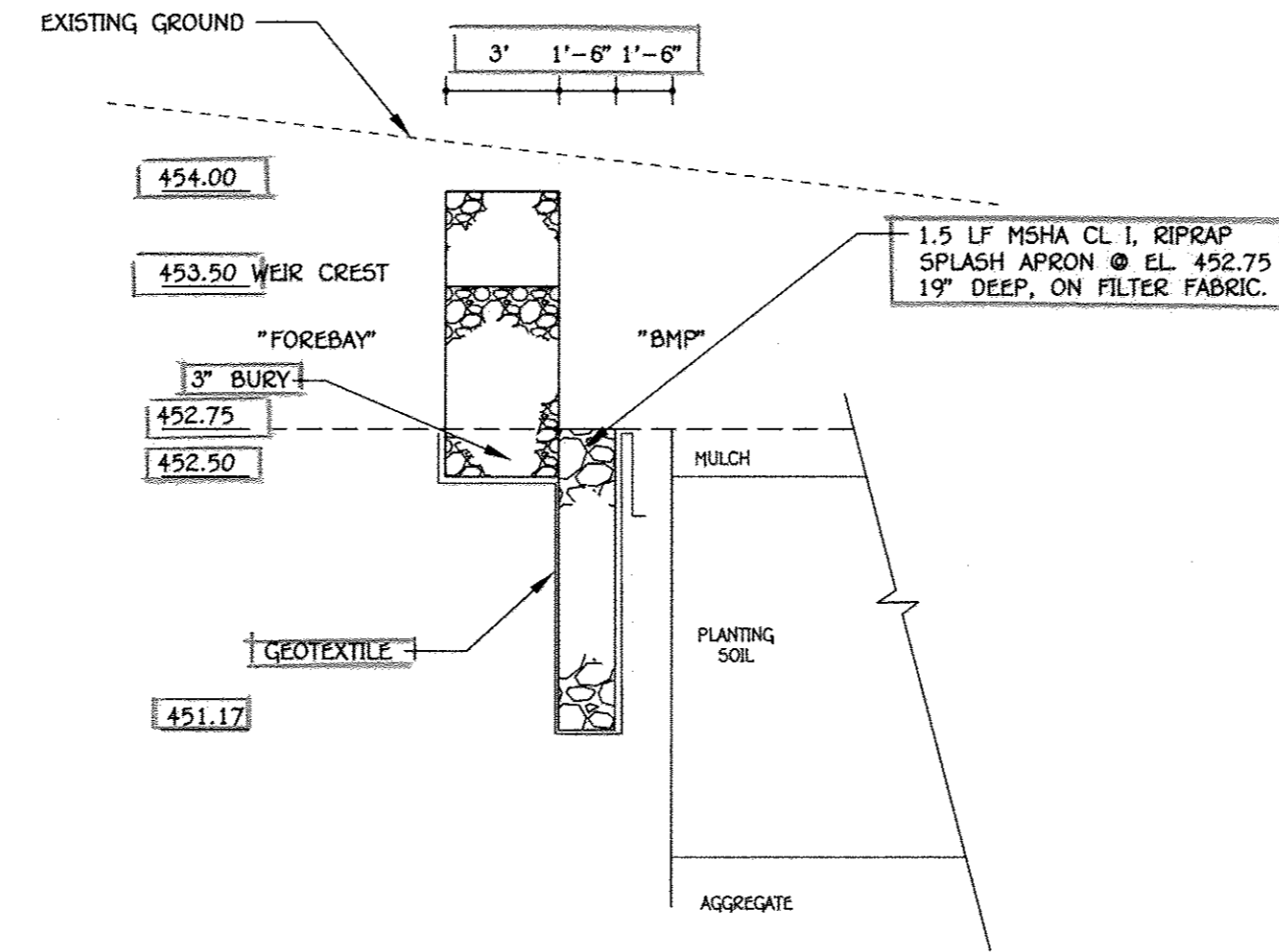
SECTION 4 AREA 4
SWANSFIELD ELEMENTARY SCHOOL

ZONED NEWTOWN PARCEL No.: 277
TAX MAP No.: 29, 35 GRID No.: 23, 5
FIFTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: JULY 17, 2015
SHEET 16 OF 20

NOTE: PROFILE IS LOOKING FROM THE INSIDE OF THE FOREBAY AND LOOKING SOUTH EAST; LEFT IS THE NORTH SIDE OF THE WEIR.



FOREBAY #1 GABION WEIR PROFILE @ CENTERLINE
SCALE:
HORZ. 1" = 5'
VERT. 1" = 1'

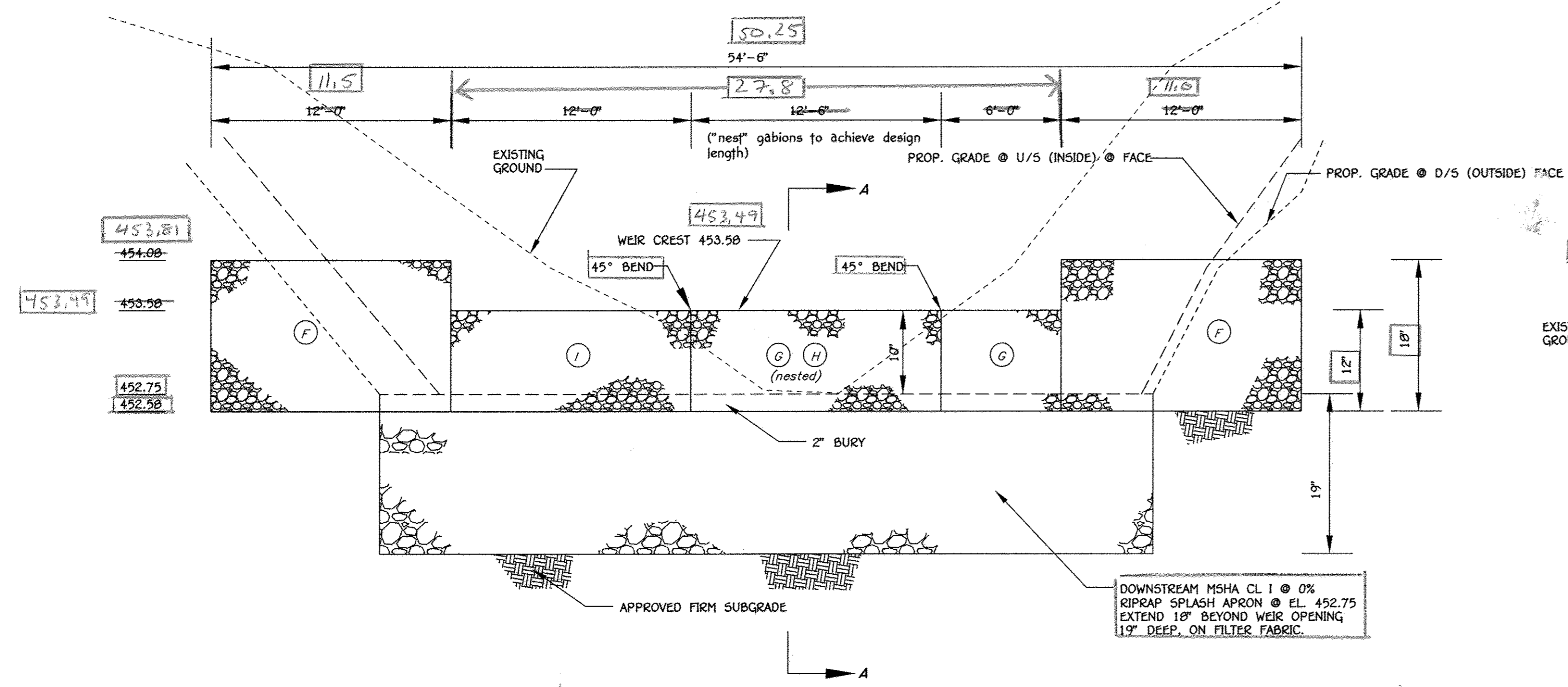


SECTION A-A
SCALE:
HORZ. 1" = 5'
VERT. 1" = 1'

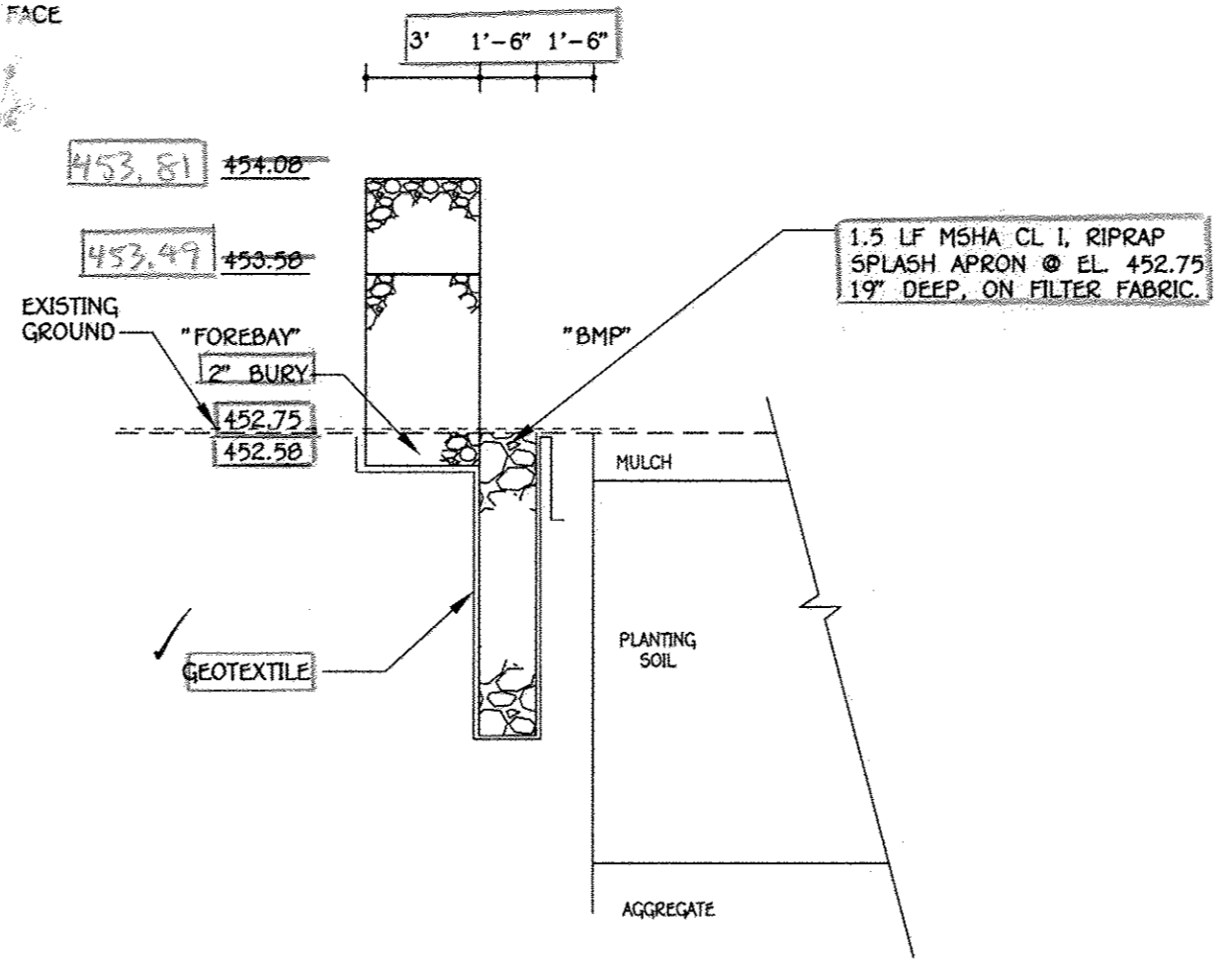
MANUFACTURER'S LETTER CODE/DIMENSIONS	QUANTITY
(D) 6' x 3' x 1.5'	2
(H) 9' x 3' x 1'	3

- GABION/FOREBAY WEIR OUTFALL NOTES**
- Gabions shall be manufactured by Maccacferri Gabions Inc. The installation shall follow the manufacturer's specifications and installation guidelines.
 - The gabion baskets shall be PVC coated and filled with clean 4" - 7" stone. Gabion stone shall be carefully placed as to create a tight interlocking stone wall with minimal voids.
 - Wrap aggregate in the gabion baskets that are on each side of the weir with two (2) layers of 4 mil or greater vinyl/plastic sheeting or equal. Use 2 ft overlap. This maintains discharge over the weir and onto the downstream splash apron.
 - Geotextile fabric (Mirafi 600x or approved equal) shall be placed against all buried gabion faces.
 - Gabions shall be carefully placed with no damaged wire. Earth foundation shall be firm. Fill soil around gabions shall be well-compacted (95%).
 - Gabions shall be fastened together with lacing or rings per manufacturer's recommendations/specifications. Rings shall be per ASTM A975-97 section 6.3. Spacing shall not exceed 6". See Maccacferri's Gabion installation guide.
 - Minimum gabion embedment into side slope is a 2'-0" bury.
 - Gabions can be "nested" to meet designed dimensions if longer-than-specified gabions are used.

NOTE: PROFILE IS LOOKING FROM THE OUTSIDE OF THE FOREBAY (i.e., POND SIDE) AND LOOKING NORTH; LEFT IS THE WEST SIDE OF THE FOREBAY.



FOREBAY #2 GABION WEIR PROFILE @ CENTERLINE
SCALE:
HORZ. 1" = 5'
VERT. 1" = 1'



SECTION A-A
SCALE:
HORZ. 1" = 5'
VERT. 1" = 1'

MANUFACTURER'S LETTER CODE/DIMENSIONS	QUANTITY
(F) 12' x 3' x 1.5'	2
(C) 6' x 3' x 1'	2
(H) 9' x 3' x 1'	1
(I) 12' x 3' x 1'	1

PREPARED FOR
HOWARD COUNTY PUBLIC SCHOOL SYSTEM
HARRIET TUBMAN BUILDING
8045 HARRIET TUBMAN LANE
COLUMBIA, MARYLAND 21044
Attention: SCOTT WASHINGTON
410-313-6805

"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. 13204, Expiration Date: November 3, 2016."

CHARLES J. CROVO, SR., P.E. DATE: 8/16/16

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE BLDG. - 1072 BALTIMORE NATIONAL FIRE
ELICOTT CITY, MARYLAND 21042
(410) 481-2895

DATE	DESCRIPTION	REVISION BLOCK
9-2-15	APPROVED: DEPARTMENT OF PLANNING AND ZONING	
9-2-15	Director - Department of Planning and Zoning	
8-20-15	Chief, Department of Planning and Zoning	
	Chief, Development Engineering Division	

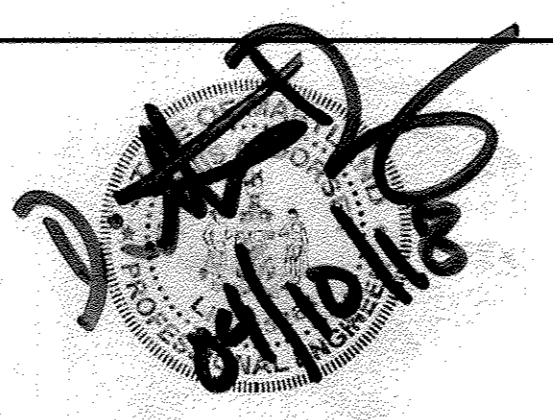


AS-BUILT CERTIFICATION

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

SIGNATURE: *D. A. D.* DATE: 8/16/16

NAME: DENNIS A. DORSEY MD. LICENSE NO. 45261
EXP. DATE: 4/10/20



APPROVED
PLANNING BOARD OF HOWARD COUNTY
DATE: AUGUST 20, 2015

ADDRESS CHART					
LOT/PARCEL#	STREET ADDRESS				
P. 277	5610 CEDAR LANE COLUMBIA, MARYLAND 21044				
PERMIT INFORMATION CHART					
SUBMISSION NAME	SECTION/AREA	LOT/PARCEL NO.			
SWANSFIELD ELEMENTARY SCHOOL	4/4	LOT 1 P. 277			
PLAT# OR L/F#	GRID#	ZONING	TAX MAP#	ELECT. DISTR.	CENSUS TRACT
L.749 F.399	23, 5	NT	29, 35	FIFTH	6055

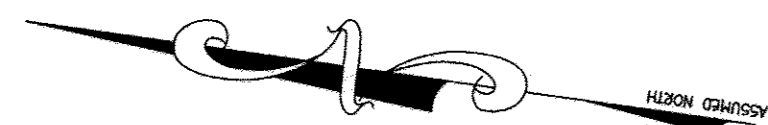
NOTE: THE PURPOSE OF THIS PLAN IS TO SHOW THE BMP PROFILES.

FOREBAY #1 & #2 DETAILS

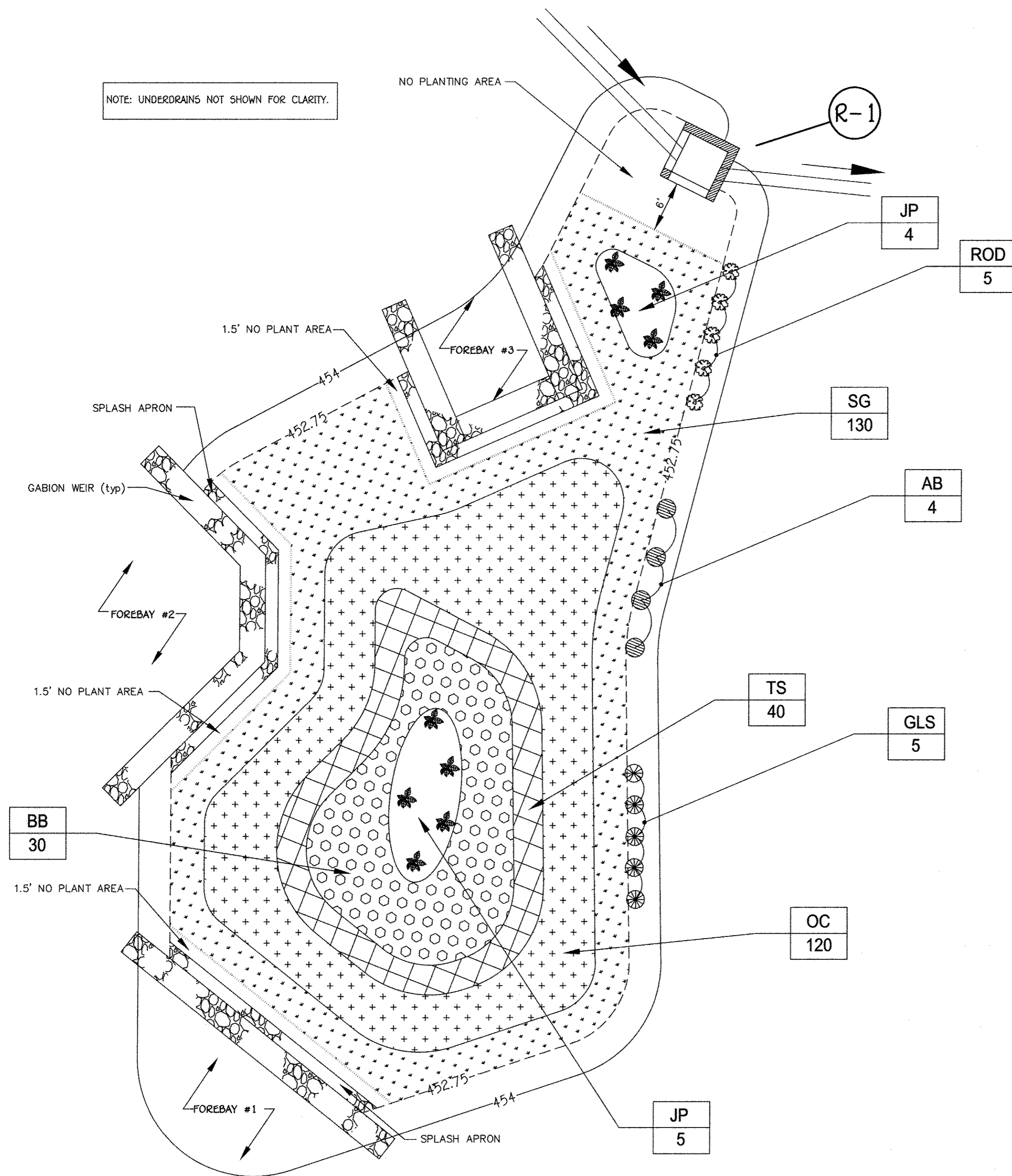
"REVISED SITE DEVELOPMENT PLAN"
VILLAGE OF HARPER'S CHOICE

LOT 1
SECTION 4 AREA 4
SWANSFIELD ELEMENTARY SCHOOL

ZONED NEWTOWN PARCEL No.: 277
TAX MAP No.: 29, 35 GRID No.: 23, 5
FIFTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: JULY 17, 2015
SHEET 17 OF 20



NOTE: UNDERDRAINS NOT SHOWN FOR CLARITY.



LEGEND

EDGE OF PLANTING SOIL/ BMP TRENCH	_____
CONTOUR	_____
CONTOUR	_____

BIORETENTION FACILITY (BMP) PLANTING SCHEDULE

KEY	PLANT NAME	MIN. SIZE	BMP #1 QUANTITY	NOTES	SYMBOL
SG	SWITCH GRASS (<i>Panicum virgatum</i>)	1 qt	130	Grass @ 3' c/c min.	[Symbol]
TS	TUSsock SEDGE (<i>Carex stricta</i>)	1 qt	40	Grass @ 3' c/c min.	[Symbol]
OC	ORANGE CONEFLOWER (<i>Rudbeckia fulgida</i> 'Goldsturm')	1 qt	120	Flower @ 3' c/c min.	[Symbol]
BB	BEEBALM (<i>Monarda didyma</i>)	1 qt	30	Flower @ 4' c/c min.	[Symbol]
JP	JOE PYE WEED (<i>Eupatorium maculatum</i> 'Gateway')	1 gal	9	Perennial @ 5' c/c min.	[Symbol]
ROD	RED OSIER DOGWOOD (<i>Cornus sericea</i>)	2 gal	5	Shrub @ 7' c/c.	[Symbol]
AB	AMERICAN BEAUTYBERRY (<i>Callicarpa americana</i>)	1 qt	4	Shrub @ 10' c/c min.	[Symbol]
GLS	GRO LOW SUMAC (<i>Rhus aromatica</i> 'Gro Low')	2 gal	5	Shrub @ 7' c/c min.	[Symbol]

- PLANTING SPECIFICATIONS:
1. PLANT INSTALLATION SHALL BE PER MDE SPECIFICATIONS IN THE 2000 STORMWATER DESIGN MANUAL.
- ADDITIONAL SPECIFICATIONS:
1. PLANT BMP LEVEL SURFACE AS SHOWN IN THE ABOVE TABLE WITH AN EVEN DISTRIBUTION DENSITY. STABILIZE BMP SIDE SLOPES WITH PERMANENT GRASS SEED PER NRCS SPECIFICATIONS. SIDE SLOPE PERMANENT GRASS AREAS SHALL HAVE 3" OF CLEAN TOPSOIL ON TILLED SUB-SOIL AND CURLEX MATTING, WATER AS NECESSARY UNTIL ESTABLISHED VEGETATION.
 2. THE CONTRACTOR SHALL PROVIDE AN UNCONDITIONAL ONE (1) YEAR GUARANTEE FROM THE DATE OF ACCEPTANCE FOR ALL PLANT MATERIALS.
 3. PLANT MATERIAL SHALL CONFORM TO THE U.S. STANDARD FOR NURSERY STOCK BY THE AMERICAN ASSOCIATION OF NURSERYMEN.
 4. PLANTING PERENNIALS & GRASSES: ROOT SYSTEMS SHALL BE SPLIT OR CRUMBLED. POTTED PLANTS SHALL BE SET SO THAT THE TOP OF THE POT IS EVEN WITH EXISTING GRADE. TREAT THE MULCHED AND PLANTED AREA WITH A PRE-EMERGENT HERBICIDE.
 5. ALL PLANTS MUST BE THOROUGHLY AND REGULARLY WATERED PRIOR TO ACCEPTANCE.
 6. DO NOT PLANT VEGETATION WITHIN 1.5 FT OF THE FOREBAY WEIR SPLASH APRONS AND IN THE NO PLANTING ZONE NEAR THE RISER.
 7. PLANT SHRUBS ON SLOPE 2-4" ABOVE BMP INVERT @ 452.75.

BMP PLANTING PLAN
SCALE: 1" = 10'

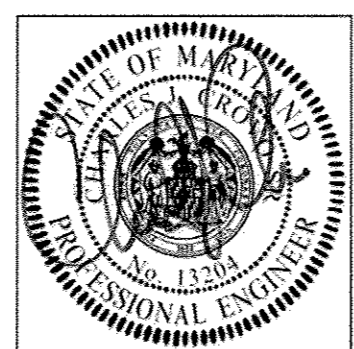
PREPARED FOR
HOWARD COUNTY PUBLIC SCHOOL SYSTEM
HARRIET TUBMAN BUILDING
8045 HARRIET TUBMAN LANE
COLUMBIA, MARYLAND 21044
Attention SCOTT WASHINGTON
410-313-6805

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. 13204, Expiration Date: November 3, 2016.

CHARLES J. GROVO, SR., P.E.
8/24/15
DATE

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTRAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLSWORTH CITY, MARYLAND 21142
(410) 461-2299

DATE	DESCRIPTION	REVISION BLOCK
APPROVED: DEPARTMENT OF PLANNING AND ZONING		
<i>Neil M. J...</i>	Director - Department of Planning and Zoning	9-2-15
<i>Neil M. J...</i>	Chief, Division of Land Development	9-2-15
<i>Neil M. J...</i>	Chief, Development Engineering Division	8-28-15

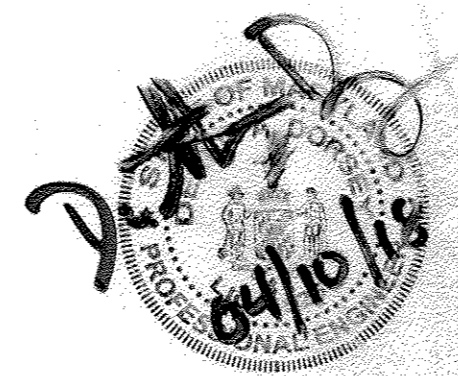


AS-BUILT CERTIFICATION

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

SIGNATURE: *Debra A. Dosey* DATE: 04/10/16

NAME: Debra A. Dosey MD. LICENSE NO. 45261
EXP. DATE: 04/10/20



APPROVED
PLANNING BOARD OF HOWARD COUNTY

DATE: AUGUST 20, 2015

ADDRESS CHART

LOT/PARCEL#	STREET ADDRESS
P. 277	5610 CEDAR LANE COLUMBIA, MARYLAND 21044

PERMIT INFORMATION CHART

SUBDIVISION NAME	SECTION/AREA	LOT/PARCEL NO.
SWANSFIELD ELEMENTARY SCHOOL	4/4	LOT 1 P. 277
PLAT# OR L/F	GRID#	ZONING
L.749 F.399	23, 5	NT
TAX MAP#	ELECT. DISTR.	CENSUS TRACT
29, 35	FIFTH	6055

NOTE: THE PURPOSE OF THIS PLAN IS TO SHOW THE BMP PLANTING PLAN.

PLANTING PLAN FOR MICRO-BIORETENTION FACILITY
"REVISED SITE DEVELOPMENT PLAN" VILLAGE OF HARPER'S CHOICE

SECTION 4 AREA 4
SWANSFIELD ELEMENTARY SCHOOL

ZONED NEWTOWN PARCEL No.: 277
TAX MAP No.: 29, 35 GRID No.: 23, 5
FIFTH ELECTION DISTRICT - HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: JULY 17, 2015
SHEET 19 OF 20

BMP BIORETENTION FACILITY NOTES AND SPECIFICATIONS

- REFER TO THE LATEST MARYLAND SWM DESIGN MANUAL FOR BIORETENTION SPECIFICATIONS FOR INFORMATION NOT LISTED HEREIN AND FOR ADDITIONAL INFORMATION.
- THE BIORETENTION BMP MATERIALS ARE AS FOLLOWS:
 - PLANTING SOIL: PER PLANTING SOIL SPECIFICATIONS OUTLINED IN MDE'S 2000 SWM MANUAL, APPENDIX B.4. DO NOT MECHANICALLY COMPACT PLANTING SOIL, BUT CAN BE "WATERED" TO FACILITATE SETTLING.
 - PVC UNDERDRAIN PIPE OUTSIDE BMP: SCHEDULE 40, SOLID PIPE WITH MINIMUM SLOPE OF 0.5% OR AS PER PLAN.
 - PVC UNDERDRAIN IN BMP: SCHEDULE 40 AND PERFORATED WITH 3/4" HOLES. WRAP UNDERDRAIN WITH GALVANIZED 1/4" HARDWARE CLOTH (WELDED WIRE MESH). PROVIDE 4 - 3/4" HOLES EVENLY SPACED AROUND THE 6" UNDERDRAIN PIPE CIRCUMFERENCE. SPACE PERFORATIONS ALONG PIPE AT 6" ON CENTER. ADJACENT SETS OF PERFORATIONS SHALL BE STAGGERED AT 45°. PERFORATIONS MUST TOTAL 3.5 sq. inch PER LF OF PIPE.
 - STONE AGGREGATE: MSHA SPECIFICATIONS AS SHOWN ON TYPICAL SECTION; AGGREGATE MUST WASHED, AND BE FREE OF FINES, SAND, DIRT & DEBRIS.
 - GEOTEXTILE: PER MDE SWM MANUAL, OR MIRAFI 140N.
 - MULCH: SHREDDED, WELL-AGED (6-12 MONTHS) HARDWOOD MULCH; NO WOOD CHIPS OR PINE MULCH.
- THE CONTRACTOR SHALL UNDER NO CIRCUMSTANCES ALLOW SURFACE DRAINAGE INTO THE MICRO-BIORETENTION BMPs UNTIL ALL UPSTREAM AREAS HAVE BEEN STABILIZED (i.e., PAVED, OR HAVE WELL-ESTABLISHED VEGETATION).
- BOARDS SHALL NOT BE LEFT IN PLACE DURING THE CONSTRUCTION OF THE BIORETENTION BMP.
- GEOTEXTILE (FILTER FABRIC) SHALL BE PLACED AGAINST EXCAVATED VERTICAL SURFACES. SCARIFY EARTH PRIOR TO GEOTEXTILE PLACEMENT. INSTALL GEOTEXTILE PER MANUFACTURER'S SPECIFICATIONS/RECOMMENDATIONS AND USE A 2 FT MINIMUM OVERLAP AND NOTCH ENDS WITH A 6" MINIMUM BURY OR EQUIVALENT ANCHORING METHOD.
- THE CONTRACTOR SHALL PROVIDE TO THE OWNER INDEPENDENT CERTIFICATION THAT THE PLANTING SOILS AND OTHER BIORETENTION MATERIALS MEET THE SPECIFICATIONS.
- THE BIORETENTION FACILITIES SHALL BE VEGETATED (TOP LEVEL SURFACE ONLY) IN ACCORDANCE WITH THE PLANTING PLAN AND THE BMP M-6 SPECIFICATIONS IN MDE'S CURRENT STORMWATER MANAGEMENT DESIGN MANUAL.
- INSTALL CLEANOUTS (SOLID PVC PIPE) AS SHOWN. THE CLEANOUT TOP SHALL EXTEND 3" ABOVE TOP OF MULCH.
- REFER TO THE PLANTING PLANS FOR THE LIMIT OF THE TYPICAL SECTION (i.e., PLANTING SOIL, AGGREGATE, ETC.). IN GENERAL IT IS THE LEVEL SURFACE OF THE BIORETENTION FACILITY EXCLUDING FOREBAY AREAS AND GABION WEIRS AND WITHIN 1.5' OF THE FOREBAY WEIR SPLASH APRONS. THE AREA 6' FROM THE RISER IS ALSO EXCLUDED FOR PLANTS AND PLANTING SOIL.

OPERATION AND MAINTENANCE SCHEDULE FOR THE BIORETENTION BMP

THE BIORETENTION FACILITY SHALL BE INSPECTED AT LEAST TWICE PER YEAR (ONCE EACH IN THE SPRING AND FALL) AND AFTER HEAVY STORMS. THE OWNER IS RESPONSIBLE FOR MAINTAINING A DETAILED LOG OF THE MAINTENANCE INSPECTION FINDINGS AND A HISTORY OF THE COMPLETED WORK. THE LOG SHALL BE MADE AVAILABLE TO HOWARD COUNTY DPZ AND/OR THE MARYLAND DEPARTMENT OF THE ENVIRONMENT UPON REQUEST.

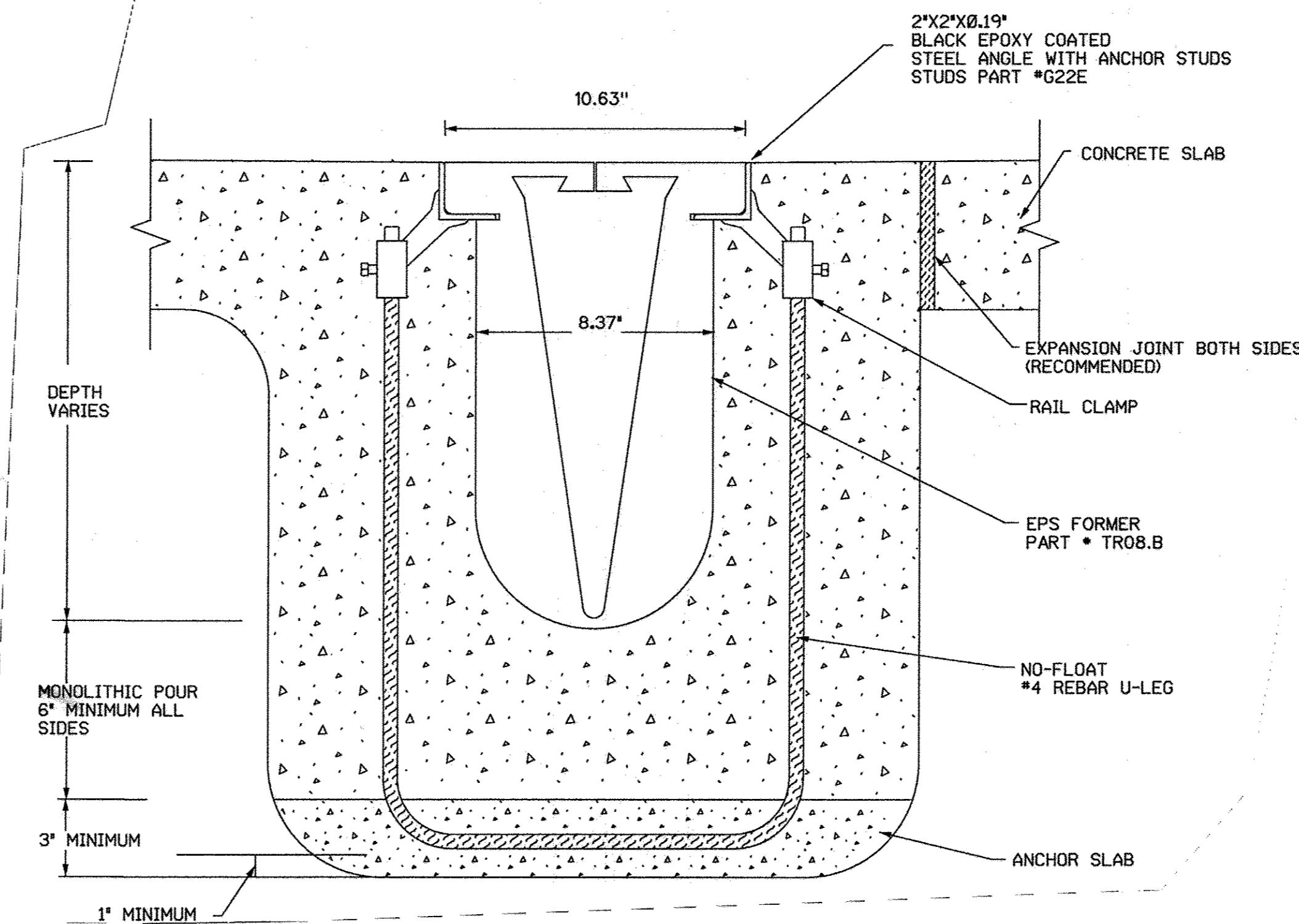
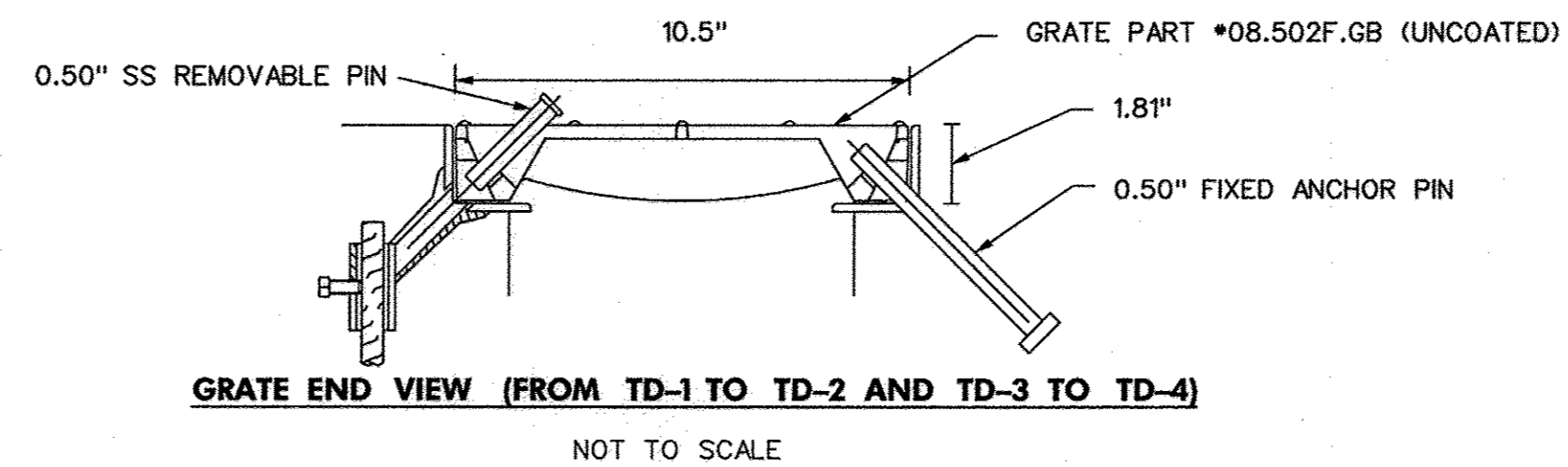
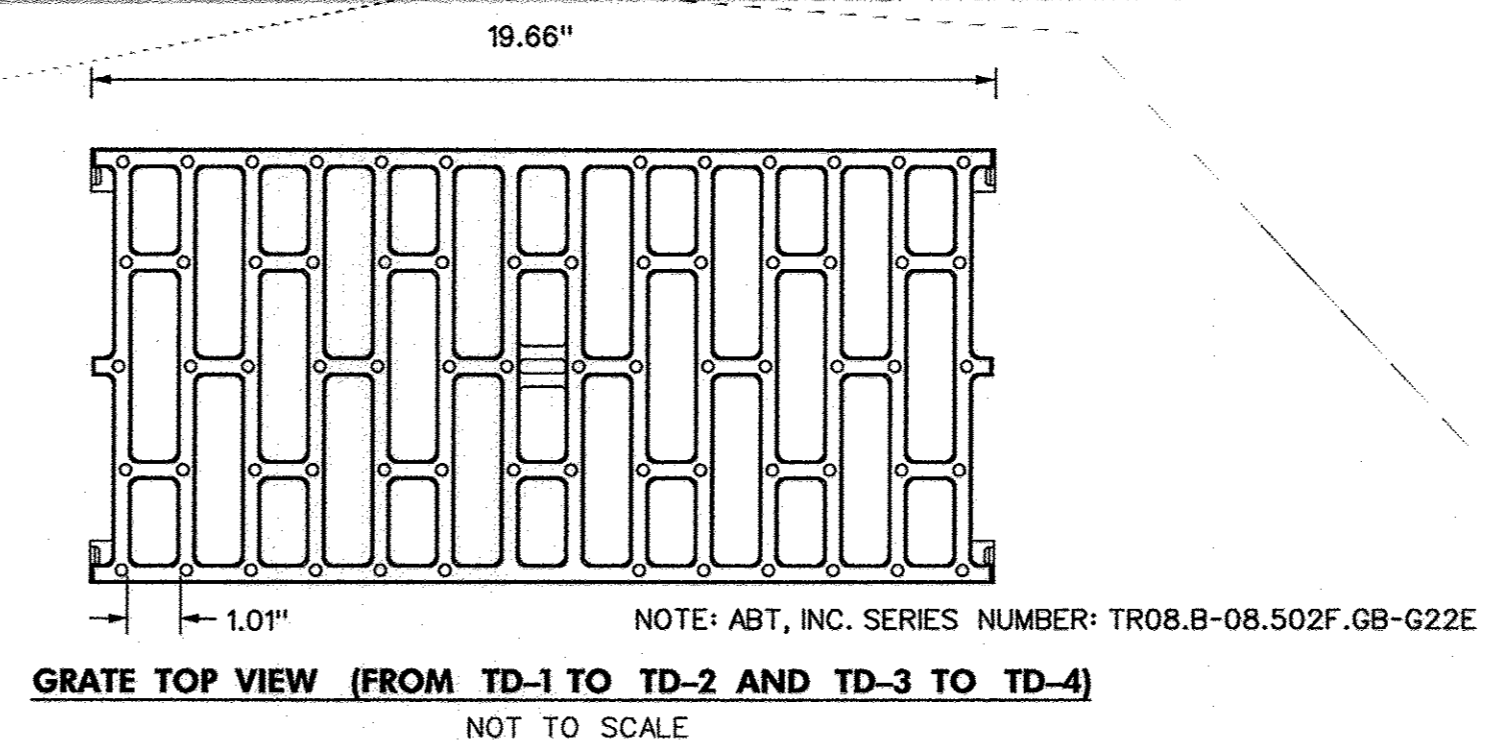
MICRO-BIORETENTION FACILITY COMPONENTS TO BE INSPECTED AND MAINTAINED INCLUDE THE ITEMS AS FOLLOWS:

- PLANT MATERIAL: PLANTS SHALL BE CHECKED FOR DISEASE AND INSECT INFESTATION. REMOVE AND REPLACE DEAD OR DYING VEGETATION CONSIDERED BEYOND TREATMENT (SEE NOTE BELOW). MAINTENANCE ALSO INCLUDES PRUNING, AND REPLACEMENT OF DEFICIENT STAKES AND WIRE.
- MULCH LAYER: SHALL BE REPLACED ONCE EVERY SPRING DUE TO THE HEAVY METALS GENERATED FROM THE PARKING LOT. THE OWNER SHALL PROPERLY DISPOSE OF THE OLD MULCH SO AS NOT TO CAUSE STORMWATER CONTAMINATION ELSEWHERE. WASHED OUT AREAS SHALL BE REPAIRED AS NECESSARY.
- SOIL LAYER: SHOULD STORMWATER POND FOR MORE THE 48 HOURS, THE TOP 6 INCHES (MINIMUM) OF THE SOIL LAYER SHALL BE REPLACED. THE OLD SOILS SHALL BE PROPERLY DISPOSED.
- SPILLWAY OUTFALL, INTERIOR SLOPES: ERODED AREAS SHALL BE REPAIRED (FILLED IN AND SEEDED) AS NEEDED. BARE AREAS SHALL BE TREATED AND RE-SEEDED.
- INLET: REPAIR CRACKS, DAMAGED CONCRETE, ETC. AS NECESSARY.
- REMOVE AND PROPERLY DISPOSE ACCUMULATED SEDIMENT GREATER THAN ONE (1) INCH.

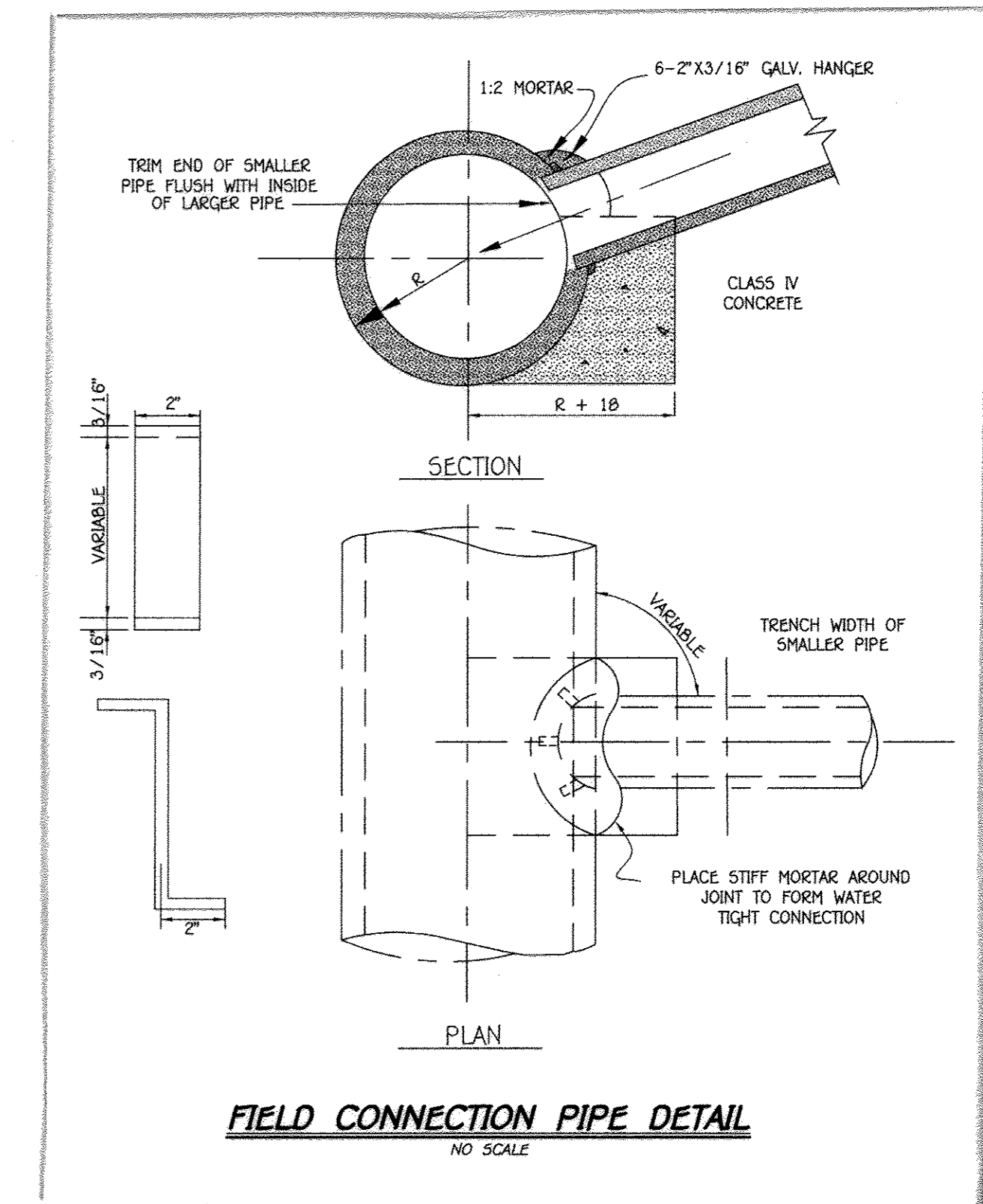
- NOTES:
- IF SPECIFIC PLANTS ARE NOT SURVIVING, THE PLANT TYPE SHOULD CHANGED TO BETTER SUITED SPECIES.
 - PLANT WATERING MAY BE NEEDED DURING PROLONGED DRY PERIODS.

GENERAL STORMWATER MANAGEMENT NOTES

- STORMWATER MANAGEMENT HAS BEEN PROVIDED WITH FOUR (4) BIORETENTION FACILITIES. PLEASE REFER TO THE SWM REPORT PREPARED BY FISHER, COLLINS, & CARTER, INC. DATED JUNE 12, 2015.
- ALL CONSTRUCTION SHALL MEET THE LATEST EDITION OF THE HOWARD COUNTY STANDARDS AND SPECIFICATIONS, AND THE MARYLAND DEPARTMENT OF THE ENVIRONMENT'S CURRENT STORMWATER DESIGN MANUAL, OR AS SHOWN ON THESE PLANS. THE CONTRACTOR SHALL CONSULT THE ENGINEER SHOULD THERE BE ANY DISCREPANCIES. SEE MICRO-BIORETENTION FACILITY SPECIFICATIONS ON THIS SHEET.
- THE UTILITY LOCATIONS ARE APPROXIMATE. CONTRACTOR SHALL TEST PIT ALL KNOWN EXISTING UTILITIES TO VERIFY, SIZE, SHAPE, LOCATION, AND TYPE PRIOR TO PERFORMING CONSTRUCTION. ANY UTILITY DAMAGED DUE TO CONSTRUCTION MUST BE REPAIRED IMMEDIATELY.
- SHOULD THE CONTRACTOR DISCOVER DISCREPANCIES BETWEEN THE PLANS AND FIELD CONDITIONS, THE ENGINEER IS TO BE NOTIFIED IMMEDIATELY TO RESOLVE THE SITUATION. IF THE CONTRACTOR MAKES FIELD CORRECTIONS OR ADJUSTMENTS WITHOUT NOTIFYING THE ENGINEER, THEN THE CONTRACTOR ASSUMES ALL RESPONSIBILITY FOR THOSE CHANGES.
- CONTRACTOR SHALL NOTIFY MISS UTILITY 1-800-257-7777 AND THE HOWARD COUNTY DEPARTMENT OF INSPECTION LICENSES & PERMITS THREE (3) WORKING DAYS BEFORE BEGINNING CONSTRUCTION.
- FISHER, COLLINS & CARTER, INC. IS NOT RESPONSIBLE FOR THE CONTRACTOR'S UTILIZATION OF MEN, MATERIALS, EQUIPMENT, OR SAFETY MEASURES IN THE PERFORMANCE OF ANY WORK FOR THIS PROJECT. THE CONTRACTOR ASSUMES ALL RESPONSIBILITY FOR PERFORMING THE WORK CORRECTLY AND IN CONFORMANCE WITH CODE/SPECIFICATION REQUIREMENTS.
- THE BMP MAY BE GRADED, HOWEVER, THE PLANTING SOIL IN THE BMP SHALL NOT BE INSTALLED UNTIL ALL UPSTREAM AREAS HAVE BEEN STABILIZED (i.e., THICK GRASS COVER, OR PAVED).
- THE STORMWATER MANAGEMENT BIORETENTION BMP FOR THIS PROJECT WILL BE PRIVATELY OWNED AND MAINTAINED.



- TRENCH DRAIN PARTS AND DETAILS SHALL CONFORM TO ABT, INC. PRODUCTS.
- GRATING - TROB.B-08.502F.GB-G22E GRATES SHALL COMPLY WITH ALL THE REQUIREMENTS OF AASHTO M306.
- FORMS - TROB.B FORMWORK ASSEMBLY MUST BE PREVENTED FROM FLOATING DURING CONCRETE PLACEMENT WITHOUT PENETRATING THE SUB GRADE. FORMWORK TO BE ANCHORED TO THE EARTH USING STEEL NO-FLOAT LEGS AND AN ANCHOR SLAB POUR. THE WIRES THAT ASSURE CONSTANT FRAME SPACING AND GRATE SEAT DIMENSION TO BE PROVIDED.
- BLACK EPOXY COATED 2.0" x 2.0" x 0.19" STEEL ANGLE CONFORMING TO ASTM A36. STANDARD HEADED CONCRETE ANCHOR STUDS BISSECT GRATE RETAINER ANCHOR LEGS PROVIDING A FRAME ANCHORING DEVICE EVERY 9.84". GRATE FRAMES TO PROVIDE A MINIMUM OF 1.25 SQUARE INCHES CONCRETE BEARING WITH 3.25 SQUARE INCHES OF CONCRETE CONTACT PER INCH OF TRENCH LENGTH. GRATES ARE RETAINED NON-RIGIDLY AT ALL CORNERS. NON-THREADED REMOVABLE 0.5" STAINLESS STEEL PINS LOCATED ON 3.28" CENTERS ALONG THE FRAMES BISSECTED BY 0.5" NON-REMOVABLE GRATE RETAINING DEVICE ON 3.28" CENTERS. GRATE RETAINER PERFORMANCE SHALL NOT DEGRADE WITH SERVICE LOADS OR THERMAL CYCLING.
- POST CONSTRUCTION INSPECTION: FORMWORK IS TO BE FULLY REMOVED, WITHOUT EXCEPTION, TO ALLOW FOR INSPECTION AND IF NEEDED REPAIR OF ANY VOIDS AND OR CONCRETE CONSOLIDATION ISSUES BELOW FRAME, TRENCH WALLS AND INVERT. GRATE AND GRATE RETAINER SHALL BE PERFORMED TO ENSURE THAT ALL GRATES AND RETAINERS ARE INSTALLED AND ARE PROPERLY SEATED IN PLACE.



PREPARED FOR
HOWARD COUNTY PUBLIC SCHOOL SYSTEM
HARRIET TUBMAN BUILDING
8045 HARRIET TUBMAN LANE
COLUMBIA, MARYLAND 21044
Attention: SCOTT WASHINGTON
410-313-6805

DATE: _____ DESCRIPTION: _____
REVISION BLOCK:

APPROVED: DEPARTMENT OF PLANNING AND ZONING
Director - Department of Planning and Zoning
Chief, Division of Land Development
Chief, Development Engineering Division

DATE: 9-2-15
DATE: 9-2-15
DATE: 8-28-15

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTRAL SQUARE OFFICE PARK - 10772 BALTIMORE NATIONAL PIKE
BLIHOFF CITY, MARYLAND 21042
(410) 461-2295



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 THAT THIS PLAN MEETS THE APPROVED PLAN AND SPECIFICATIONS.

SIGNATURE: *Dennis A. Day* DATE: 04/10/18
NAME: DENNIS A. DAY LICENSE NO. 45261 EXP. DATE: 04/10/20



APPROVED
PLANNING BOARD OF HOWARD COUNTY
DATE: AUGUST 20, 2015

ADDRESS CHART		
LOT/PARCEL#	STREET ADDRESS	
P. 277	5610 CEDAR LANE	
	COLUMBIA, MARYLAND 21044	
PERMIT INFORMATION CHART		
SUBMISSION NAME	SECTION/AREA	LOT/PARCEL NO.
SWANSFIELD ELEMENTARY SCHOOL	4/4	LOT 1 P. 277
PLAT# OR L/F	GRID#	ZONING
L.749 F.399	23, 5	NT
TAX MAP#	ELECT. DISTR.	CENSUS TRACT
29, 35	FIFTH	6055

NOTE: THE PURPOSE OF THIS PLAN IS TO SHOW THE BMP NOTES AND SPECIFICATIONS.

STORMWATER MANAGEMENT NOTES & SPECIFICATIONS

"REVISED SITE DEVELOPMENT PLAN" VILLAGE OF HARPER'S CHOICE

SECTION 4 AREA 4
SWANSFIELD ELEMENTARY SCHOOL

ZONED NEWTOWN PARCEL No.: 277
TAX MAP No.: 29, 35 GRID No.: 23, 5
FIFTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: JULY 17, 2015
SHEET 20 OF 20