

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

W. F. Nunn 12-18-81
DIRECTOR DATE

W. F. Nunn 12-17-81
CHIEF-BUREAU OF ENGINEERING DATE

APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING
W. F. Nunn 12-31-81
PLANNING DIRECTOR DATE

Steve F. Adams 12-31-81
CHIEF - DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION DATE

APPROVED: **No Water or Sewer Systems in Proposed bldg**
HOWARD COUNTY HEALTH DEPARTMENT
John Jones 12-27-81
COUNTY HEALTH OFFICER DATE

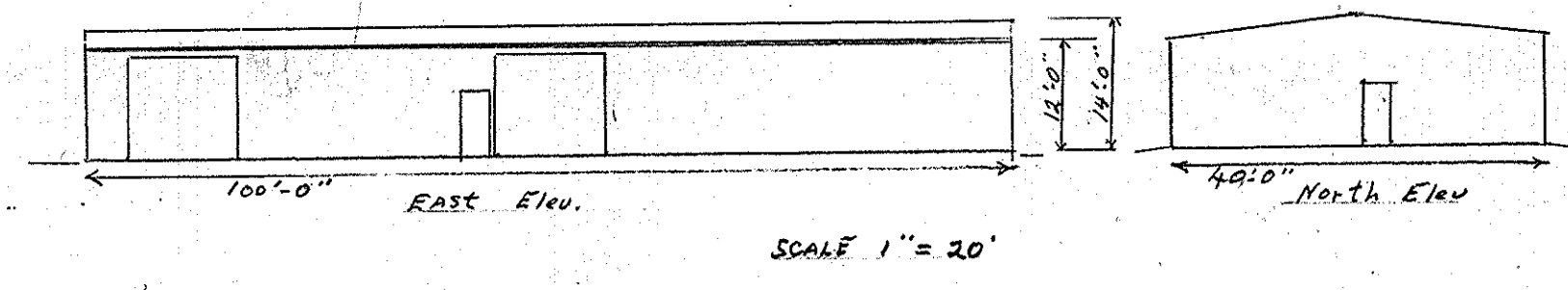
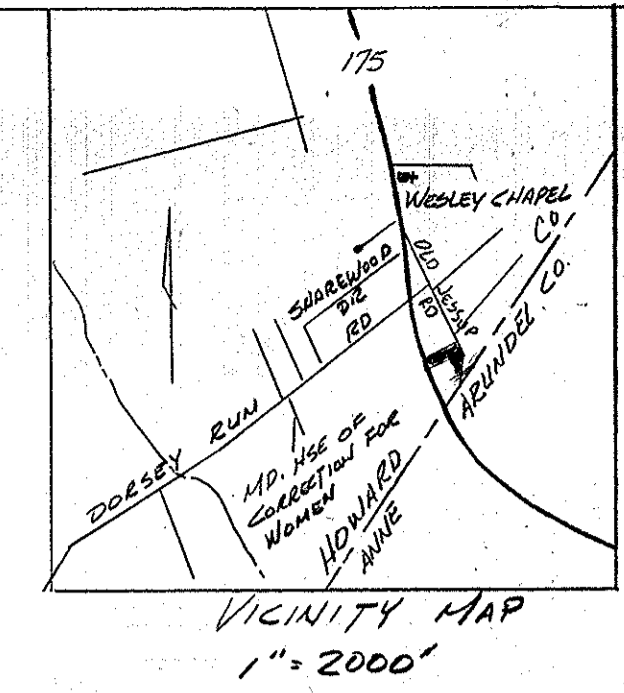
REVIEWED FOR HOWARD S.C.D. AND MEETS TECHNICAL REQUIREMENTS
W. F. Nunn 12-2-81
U.S. SOIL CONSERVATION SERVICE DATE

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
W. F. Nunn 12-2-81
HOWARD S.C.D. DATE

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

DATE: 11-24-81

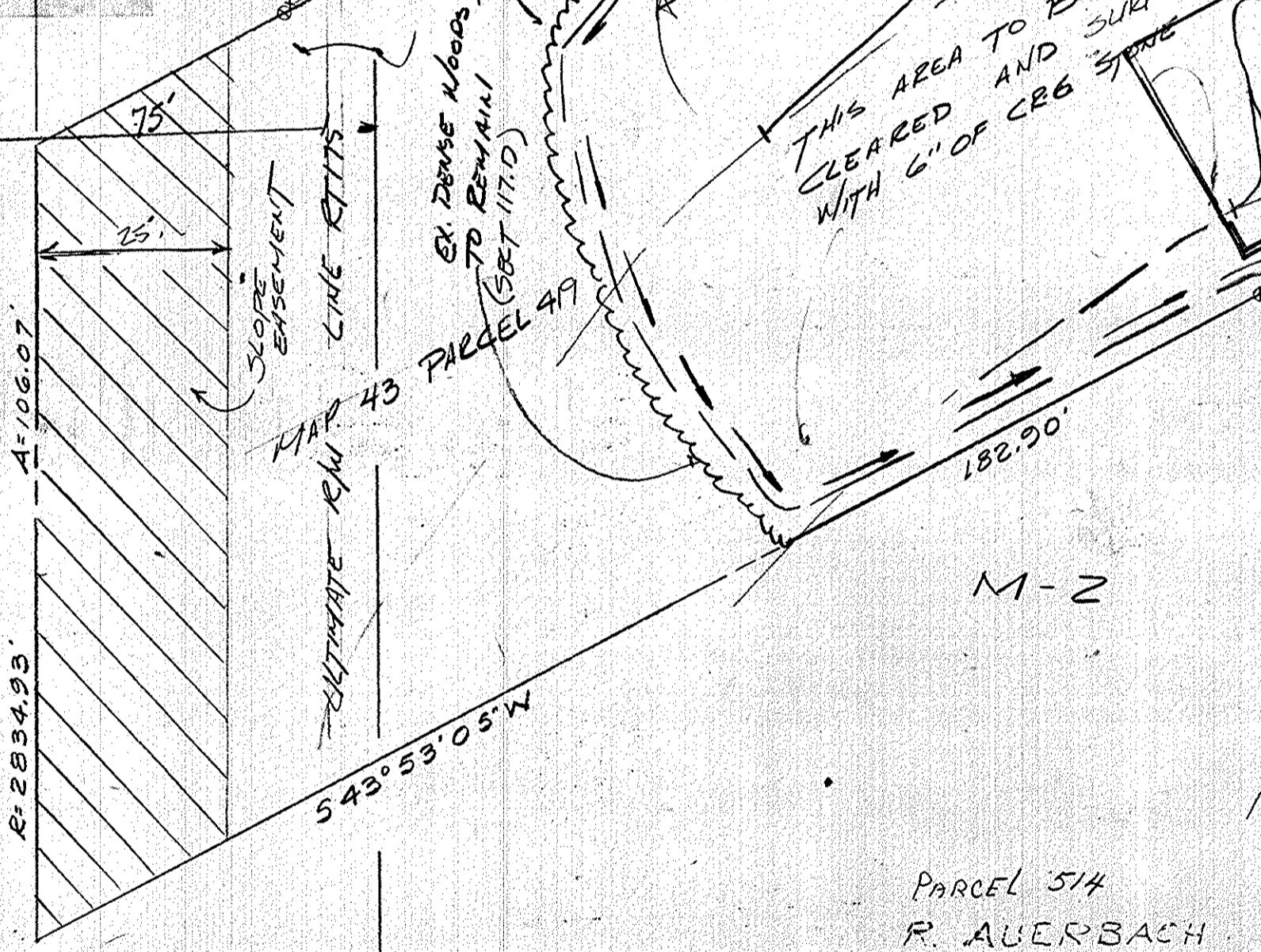
DEVELOPER: **Luther Elkins**



Parcel 510
H. & E. O'LEXY
L-189 F-147

M-2

MD RTE 175 & 80' R/W



Parcel 514
R. AUERBACH
L-702 F-161

APPLIED CIVIL ENGINEERING INC.

9470 ANNAPOLIS ROAD
SUITE # 414
LANHAM, MARYLAND 20706
(301) 459-5982
(301) 459-2987 FAX
AppliedCivil_aec@yahoo.com

Revision # 1

PROFESSIONAL CERTIFICATION:
I, ZIYAD M. SHALABI, CERTIFY THAT THESE DOCUMENTS WERE PREPARED BY OR APPROVED BY ME AND THAT I AM DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 20044, EXPIRATION DATE JUNE 9, 2016.

9/24/2014 DATE

20444

SEDIMENT TRAP # 1
DRAINAGE AREA = 1.06 AC
STORAGE REQUIRED 71 CU. YD.
STORAGE PROVIDED 89 CU. YD.
STORAGE EXCAVATION 40' X 20' X 3'
CLEAN OUT ELEV. = 182.9

PROJECT ENGINEER
J.E. CLARK CO
P.O. Box 147
LAUREL, MD 20701
725-3442

DEVELOPER - Luther Elkins for
LITE EQUIPMENT LEASING CORP
13031 FOREST DRIVE (HOME ADDR.)
BOWIE, MD 20716
OFFICE 792-4242

NO.	APPROVED	DATE	REVISION	BY
1		Aug. 2, 2014	Replace ex. office building with a new building	ZMS

NOTE: ALL CHANGES ADDITION AND/OR MODIFICATIONS MADE AS OF AUGUST 2014 ARE DONE BY APPLIED CIVIL ENGINEERING, INC.

GENERAL NOTES:

- ALL MATERIALS AND CONSTRUCTION SHALL MEET OR EXCEED THE FOLLOWING STANDARD DETAILS AND SPECIFICATIONS AS APPLICABLE:
 - HOWARD COUNTY ROAD CONSTRUCTION CODE AND SPECIFICATIONS; HOWARD COUNTY PLUMBING CODE.
 - STATE HIGHWAY ADMINISTRATION SPECIFICATIONS FOR MATERIALS, HIGHWAYS, BRIDGES AND INCIDENTAL STRUCTURES.
 - U.S.D.A., SOIL CONSERVATION SERVICE STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL IN DEVELOPING AREAS
- SOD ALL AREAS AS INDICATED AND ALL SLOPES 3:1 OR GREATER. SEED AND MULCH ALL OTHER AREAS DISTURBED BY THIS CONSTRUCTION.
- PROVIDE 10' TRANSITION AS REQUIRED BETWEEN MD. STATE HIGHWAY ADMIN. STD. & HOWARD CO. STD. CURB & GUTTER.
- THIS SUBDIVISION IS SUBJECT TO SECTION 18.122 OF THE HOWARD COUNTY CODE PUBLIC WATER SERVICE HAS BEEN GRANTED UNDER THE TERMS AND PROVISIONS THEREOF EFFECTIVE THE DATE OF RECORDATION OF THIS PLAT.
- EXISTING FRAME BUILDING TO BE USED AS OFFICE & QUARTERS
- EMPLOYEES: OFFICE 400 S.F. 4 EMPLOYEES, WAREHOUSE 4000 S.F. 1 FULL TIME & 1 PART TIME EMPLOYEE & 4 DRIVERS REPORT LEAVE (4 TRUCKS)
- ZONING OF SITE AND ALL ADJUTING PROP IS M-2
- TOTAL AREA OF EXISTING BUILDING IS 1730 SF + 2 STORY BLDG. BASEMENT 1805 SF. FIRST FL. 716 SF. 2ND FL. 716 SF. PORCH 118 SF.
- No water and sewer allocation will be granted for the proposed bldg.

NOTE:
30' LANDSCAPED EDGE FROM ULTIMATE R/W PLANT ADDITIONING 2 1/2' EVERGREEN TREES 30' O.C. EXISTING 3' TO 4' EMBANKMENT ALONG R/W

CISTERN NOTE: WATER TO BE PUMPED FROM CISTERNS INTO TRUCKS FOR SERVICE USE IN PORTABLE TOILETS

LEGEND

- 196 — = EXIST CONTOUR
- 94 — = PROPOSED CONTOUR
- DD = DIVERSION DIKE
- SCSCE = STABILIZED CONSTRUCTION ENTRANCE
- [Symbol] = MACADAM PAVEMENT
- [Symbol] = GRAVEL

APPROVED
DIVISION OF LAND DEVELOPMENT & ZONING ADMINISTRATION
HOWARD COUNTY, MARYLAND
DATE 11-5-81
LFD

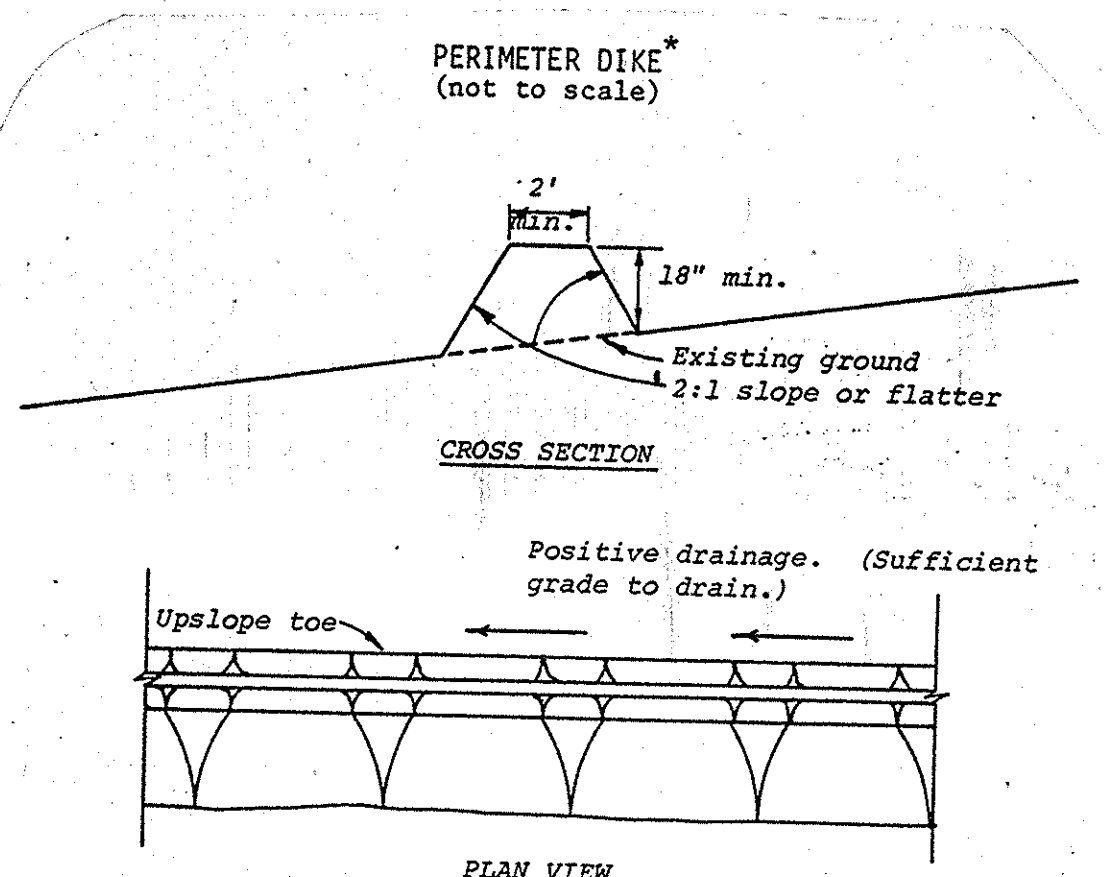
PARCELS 419 & 255
TAX MAP 43
JESSUP
HOWARD COUNTY, MARYLAND
SCALE: 1"=20'
JUNE 1981
FIRST ELECTION DISTRICT

Signature of J.E. Clark
Professional Engineer Seal

SITE ANALYSIS
TOTAL AREA = 1.817 AC
AREA TO BE DISTURBED = 0.76 AC
IMPERVIOUS AREA = 0.73 AC OR 34,000 SF
GREEN AREA = 1.04 AC OR 45,150 SF
BUILDING AREA = 4834 SF
PARKING REQUIRED 15 SPACES - 4000-5000 - 9000 FT²
PARKING PROVIDED 18 SPACES (INCLUDING 1 HANDICAP TRUCK)
NOTE: TRUCK SPACES ARE AVAILABLE DURING BUSINESS HOURS FOR AUTO PARKING

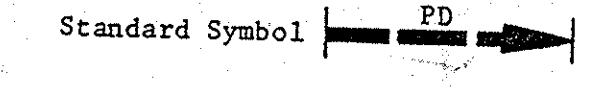
OWNER / DEVELOPER
CF MASONRY SPECIALIST, LLC
7545 MONTVIDEO ROAD
JESSUP, MD 20794
(410) 799-4405

PREPARED BY
THE J.E. CLARK CO., P.O. BOX 147
LAUREL, MD, 20810



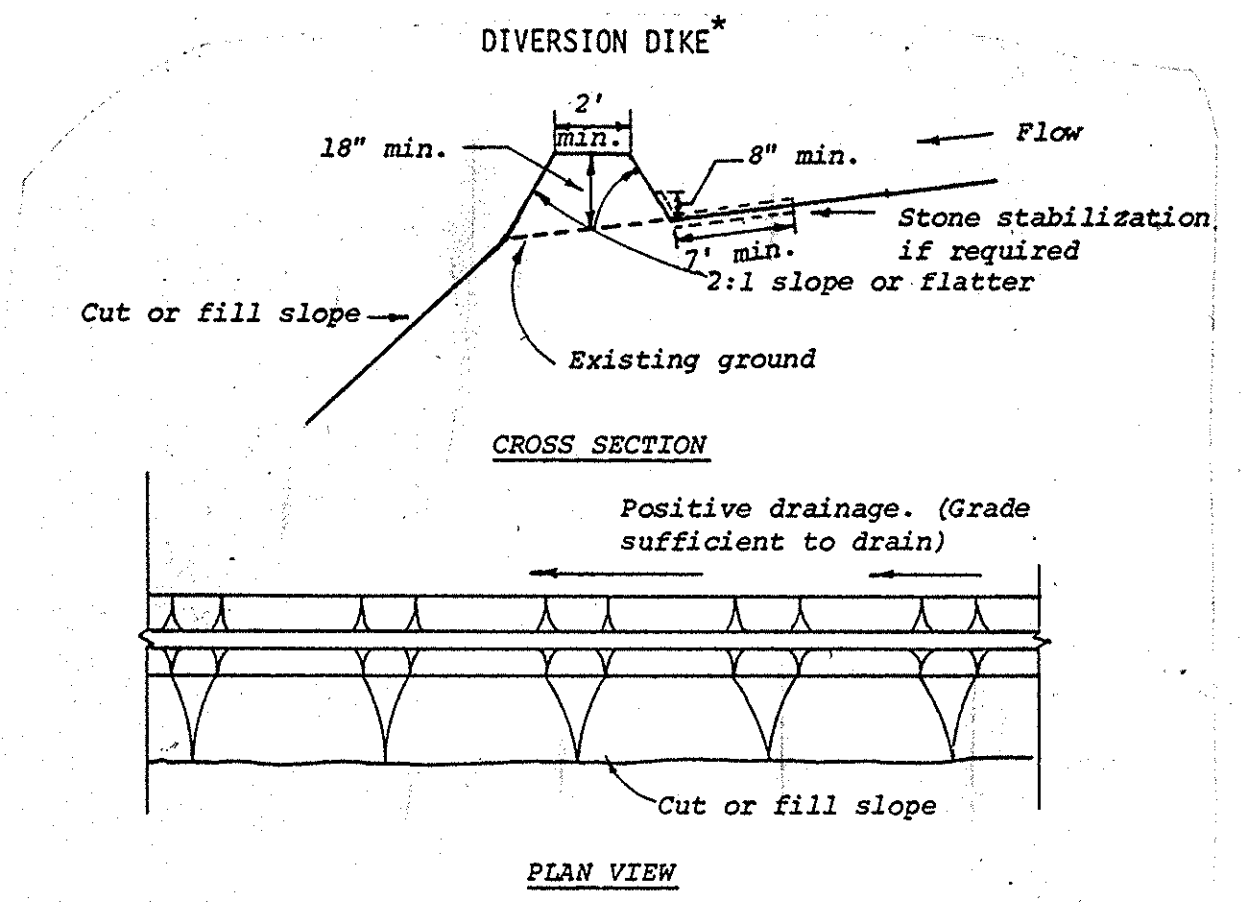
Construction Specifications

- All dikes shall be machine compacted.
- All perimeter dikes shall have positive drainage to an outlet.
- A. Diverted runoff from a protected or stabilized area shall outlet directly onto an undisturbed stabilized area or into a level spreader or grade stabilization structure.
B. Diverted runoff from a disturbed or exposed upland area shall be conveyed to a sediment trapping device such as sediment trap or a sediment basin or to an area protected by any of these practices.
- Stabilization, when required, shall be done in accordance with Standard and Specifications for Grassed Waterway. The minimum area to be stabilized shall be the channel flow area.
- Periodic inspection and required maintenance shall be provided.



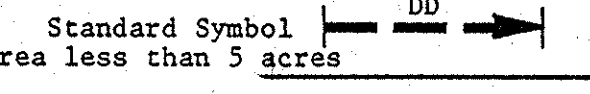
* Drainage area less than 5 acres

PERIMETER DIKE



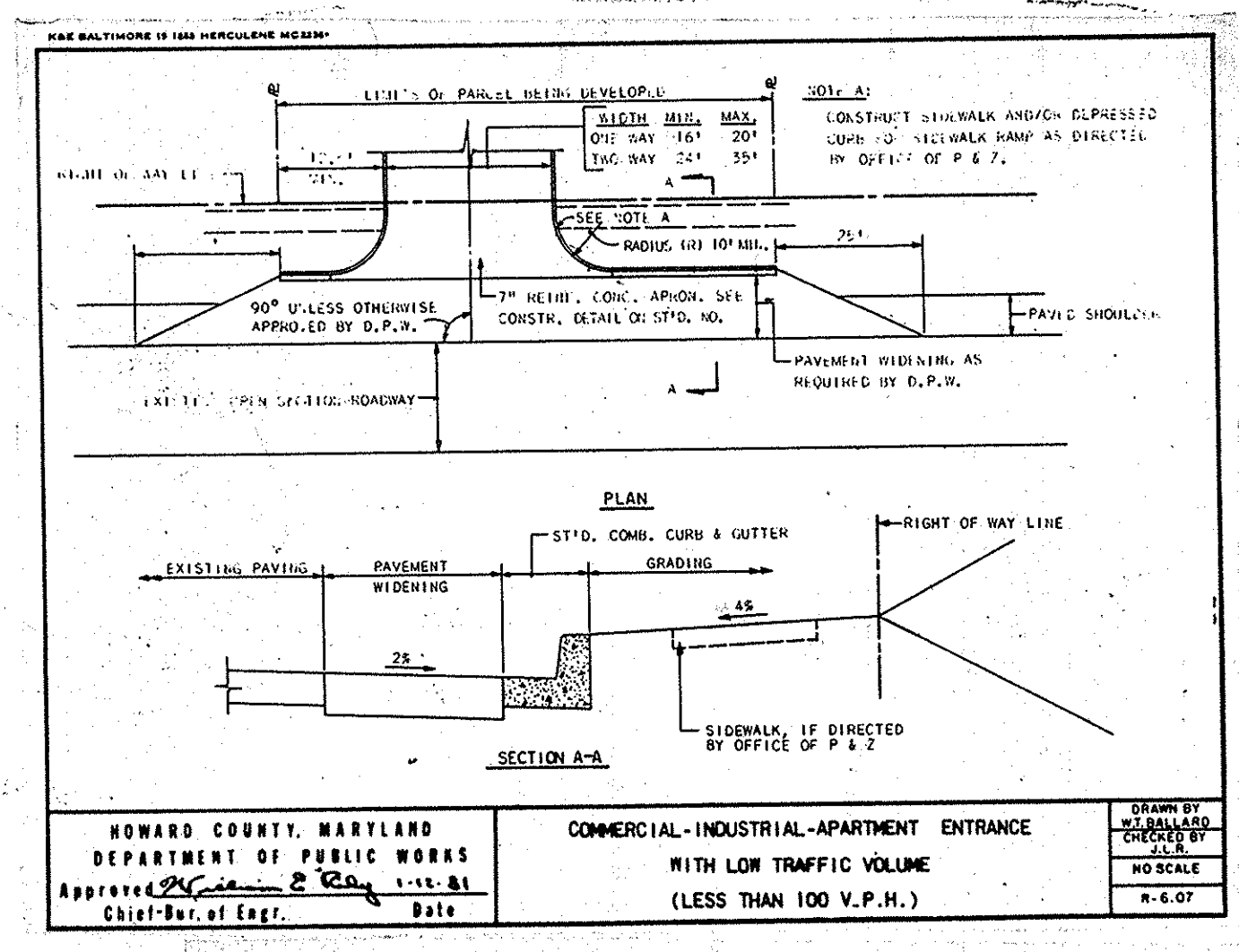
Construction Specifications

- All dikes shall be machine compacted.
- All diversion dikes shall have positive drainage to an outlet.
- A. Diverted runoff from a protected or stabilized area shall outlet directly to an undisturbed stabilized area or into a level spreader or grade stabilization structure.
B. Diverted runoff from a disturbed or exposed upland area shall be conveyed to a sediment trapping device such as a sediment trap or a sediment basin or to an area protected by any of these practices.
- Stabilization, as specified by the plans, shall be: (1) in accordance with Standard and Specifications for Grassed Waterway, and the area to be stabilized shall be the channel (flow area); or (2) the flow area shall be lined with stone that meets MSHA size No. 2 or AASHTO M43 size No. 2 or 24 which is placed in a 3 inch thick layer and pressed into the soil. The area covered by the stone shall be as shown on the drawing above.
- Periodic inspection and required maintenance shall be provided.



* Drainage area less than 5 acres

DIVERSION DIKE



APPROVED FOR: STORM DRAINAGE SYSTEMS, AND PUBLIC ROADS.
HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

John F. Nalley 12-18-81
DIRECTOR DATE

John W. Mackman 12-17-81
CHIEF-BUREAU OF ENGINEERING DATE

APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING

John W. Mackman 12-31-81
PLANNING DIRECTOR, ACTING DATE

John W. Mackman 12-31-81
ACTING CHIEF - DIVISION OF LAND DEVELOPMENT AND ZONING DATE

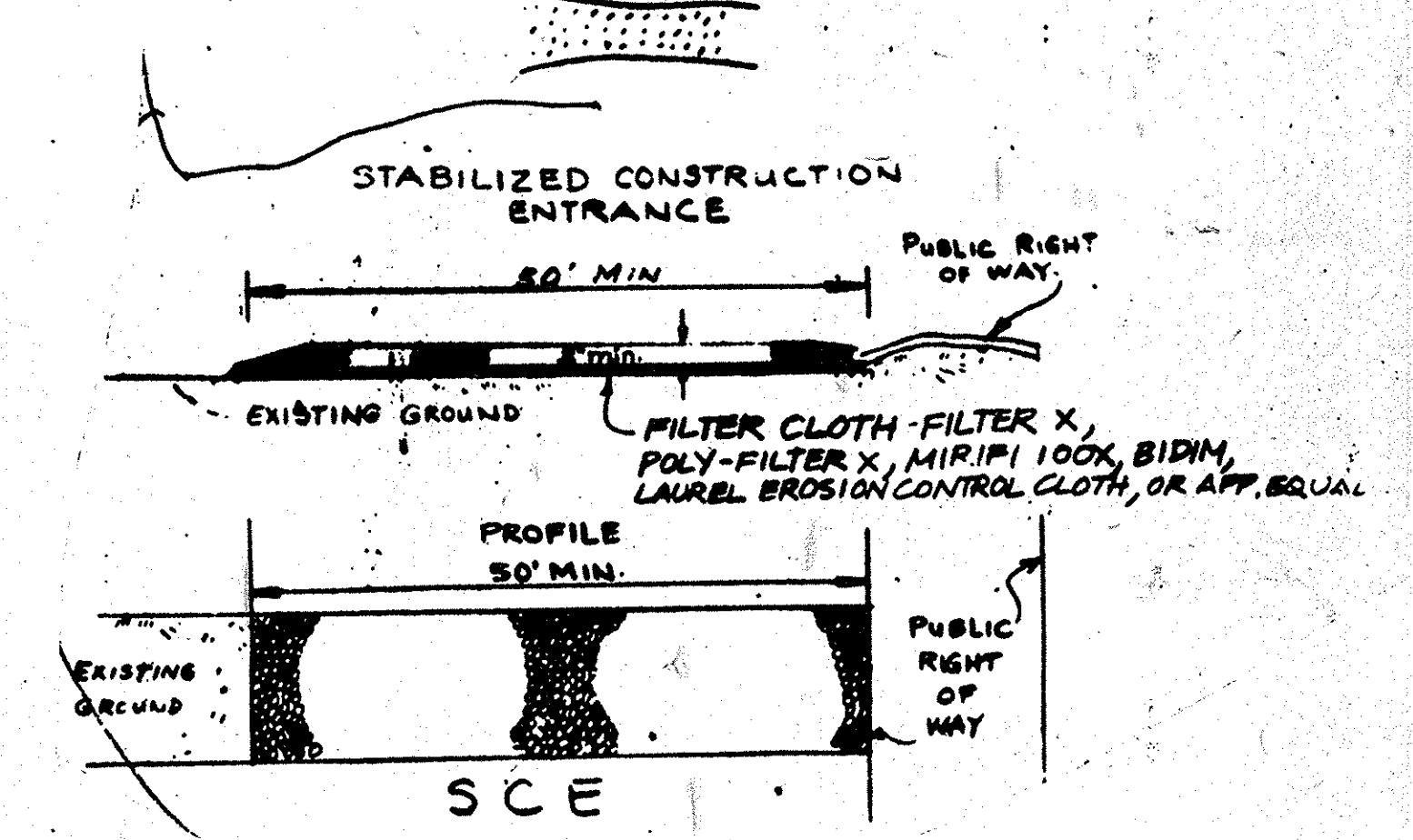
APPROVED: N.W. WATER & SEWER SYSTEMS IN PROGRESS S.D.G.

John W. Mackman 12-29-81
HOWARD COUNTY HEALTH DEPARTMENT DATE

CONSTRUCTION SPECIFICATIONS

- Stone size use M.S.H.A. size No 2 (2 1/2" to 1") or AASHTO designation M-43, size No 2 (2 1/2" to 1") use crushed stone.
- Length - as effective, but not less than 10 feet.
- Thickness - not less than eight inches.
- Width - not less than full width of all points of ingress and egress.
- Washing - when necessary, wheels shall be cleaned to remove sediment prior to entrance onto public right of way.
- Maintenance - the entrance shall be maintained in a condition which will prevent tracking or flowing of sediment on public rights of way.

SCE



DEVELOPER'S CERTIFICATION

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.

Luther Elkins 8-21-81
Luther Elkins Timothy Hazzard Date
Lite Equipment Leasing Corporation
P. O. Box 172
Annapolis Junction, Md. 20701
792-3242

ENGINEER'S CERTIFICATION

I certify that this plan for erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard County Soil Conservation District.

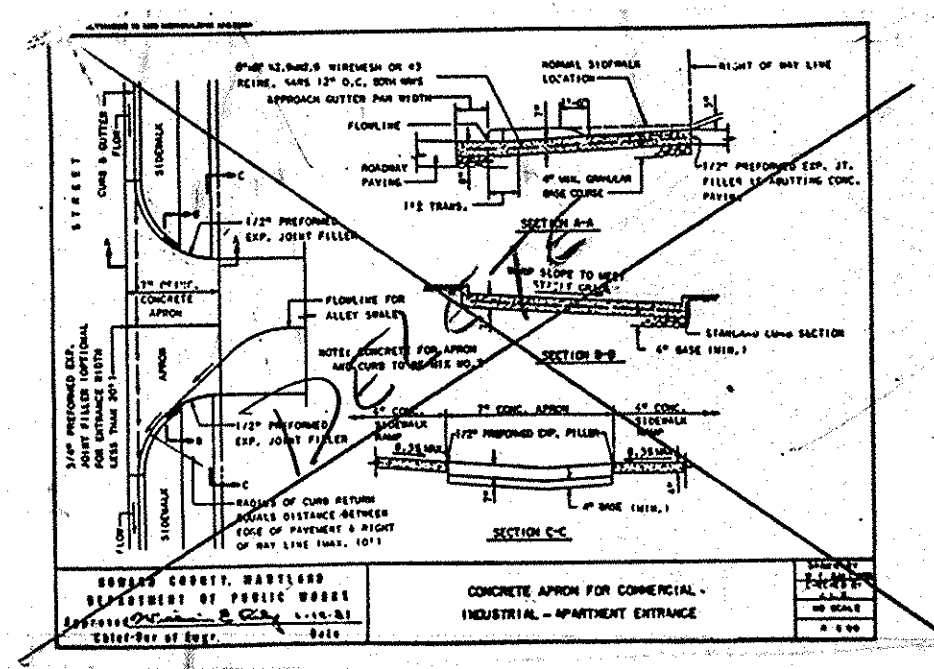
Jack Clark 8-21-81
J. F. Clark Date
Laurel, Md.
Reviewed for Lite Equipment Leasing Corporation
S. C. D. and meets Technical Requirements.
John W. Mackman 12-2-81
U. S. Soil Conservation Service, Date
THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD COUNTY SOIL CONSERVATION DISTRICT.
William V. Roman 12-2-81
HOWARD S. C. D. Date

APPROVED
DIVISION OF LAND DEVELOPMENT &
ZONING ADMINISTRATION
HOWARD COUNTY, MARYLAND
DATE 11-5-81
JFD

- STABILIZATION**
- Apply Lime @ rate of two (2) tons per acre.
 - Apply 10-10-10 fertilizer @ 25 lbs per 1000 Sq. Ft.
 - Plant with Kentucky 31 @ 5 lbs per 1000 Sq. Ft.
 - Mulch with Straw @ 1 1/2 to 2 tons per acre.
 - Anchor Mulch w/ sprayed Asphalt @ 0.1 gal. per Sq. Yd.
 - TEMPORARY SEEDING OF DIVERSION DIKES, ETC. IN ACCORDANCE WITH 3:4 ABOVE.

CONSTRUCTION SEQUENCE

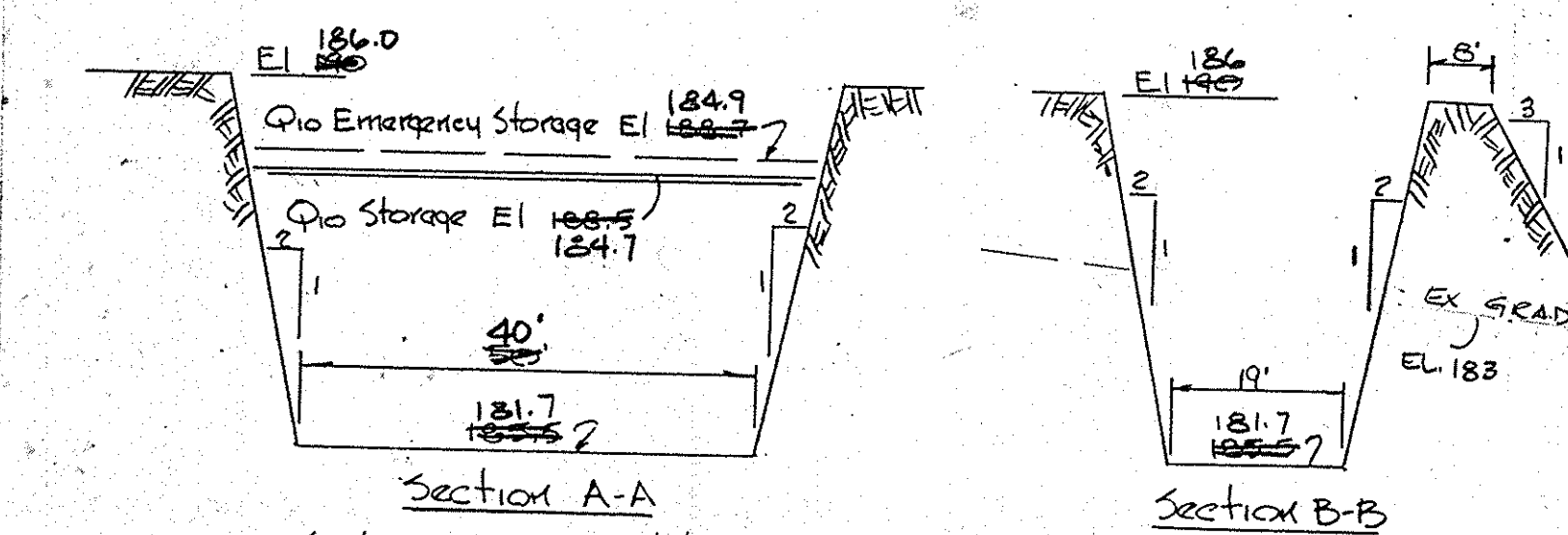
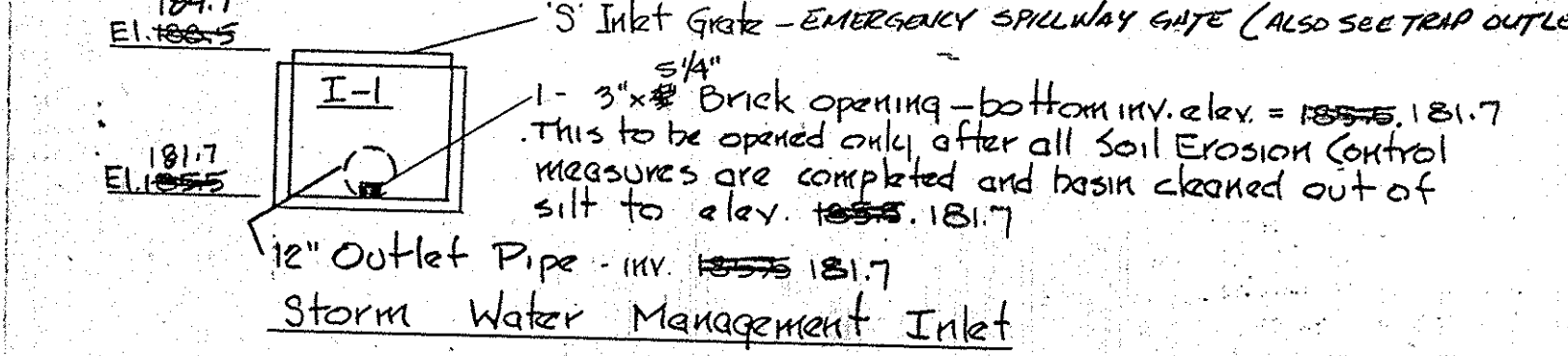
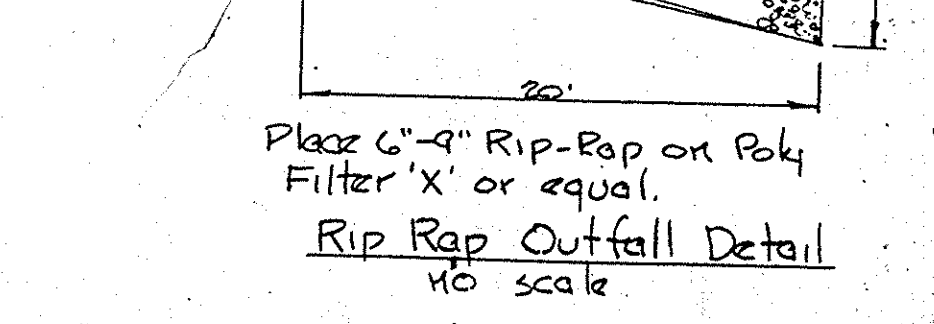
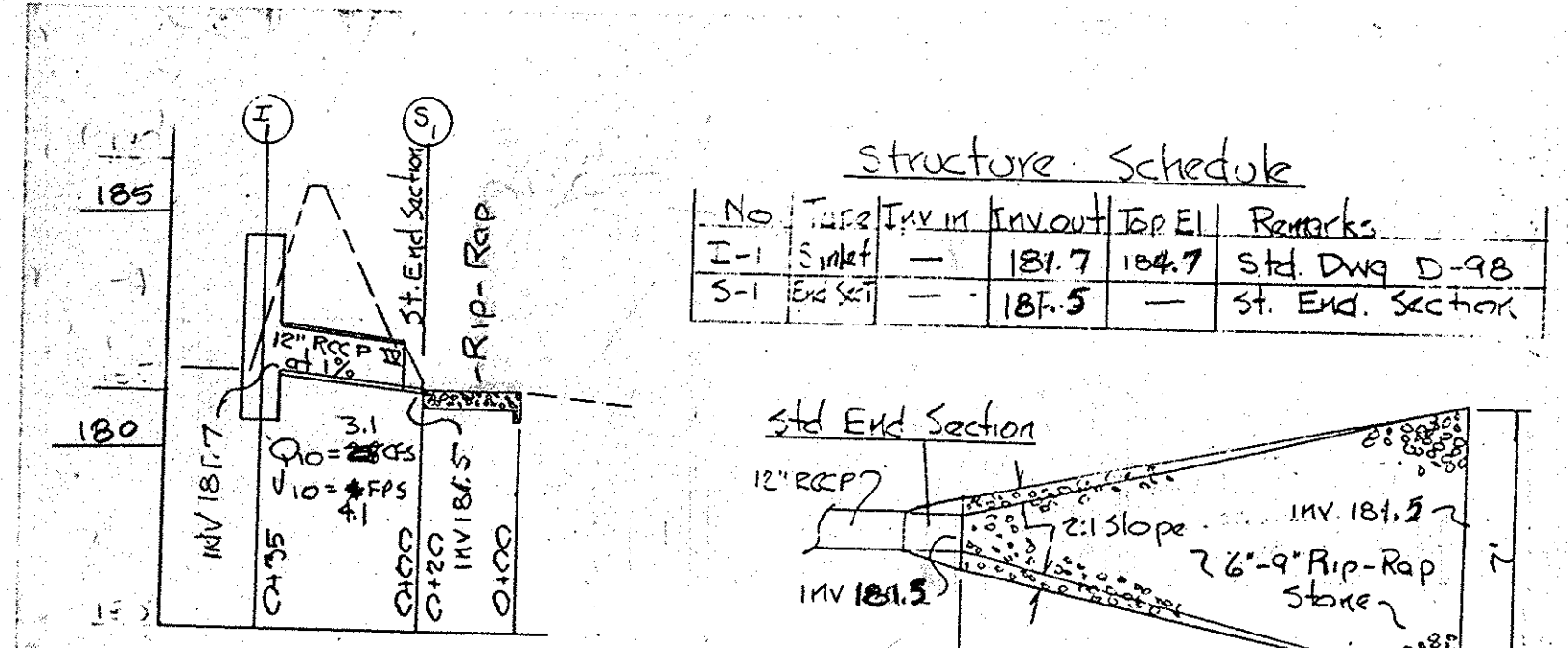
- Obtain grading & construction permit
 - Construct MANAGEMENT POND, DIVERSION BEAMS
 - Construct STABILIZED CONSTRUCTION ENTRANCES
 - Complete on site grading
 - Construct curb, gutter and paved areas.
 - Remove silt control berms.
 - CLEANOUT & CONVERT SEDIMENT TRAP TO MANAGEMENT POND UNDER DIRECTION AND APPROVAL OF HOWARD COUNTY GRADING INSPECTORS.
- THIS PAVING SECTION OR AN ALTERNATE (D7 or D-6 PAGES 62 and 61) TO BE USED IN ALL COMMERCIAL OR INDUSTRIAL AREAS OTHER THAN THOSE ZONED "NEW TOWN" AS DEFINED IN THE 1961 EDITION OF THE HOWARD COUNTY ZONING REGULATIONS IN AMENDMENT 16 SECTION 17



BITUMINOUS CONCRETE SURFACE	1 1/2" BAND C-3
BITUMINOUS CONCRETE BINDER	5" (GRAVEL MIX)
CRUSHER RUN BASE	6"

CLEARING and GRADING: ARTICLE C-1
SUBGRADE: ARTICLE C-2
BASE COURSE: ARTICLE C-25
BINDER COURSE: ARTICLE C-31 or C-33
SURFACE COURSE: ARTICLE C-31

TO BE CONSTRUCTED IN ACCORDANCE WITH THE HOWARD COUNTY ROAD CONSTRUCTION CODE AND SPECIFICATIONS



Jack Clark
JACK E. CLARK
SEAL OF PROFESSIONAL LAND SURVEYOR
STATE OF MARYLAND
1985

PARCELS 419 & 255
TAX MAP 43
JESSUP
HOWARD COUNTY, MARYLAND
SCALE: 1" = 40'
FIRST ELECTION DISTRICT
JUNE 1981

Prepared by
THE J. E. CLARK CO., P.O. BOX 147
Laurel, Md., 20810

GENERAL NOTES

1. THE SUBJECT PROPERTY IS ZONED "M-2" IN ACCORDANCE WITH OCTOBER 6, 2013 COMPREHENSIVE ZONING REGULATIONS.
2. SETBACKS: FRONT: 50'-FEET
3. PREDOMINANT SOIL TYPE: SEE TABLE ON PLAN
4. TOTAL AREA OF SITE: 79,149 S.F. 1.817 ACRES.
5. PROPOSED DISTURBED AREA: 4,900 S.F. 0.11 ACRES.
6. HOWARD COUNTY TOPO SHEET: N/A
7. F.E.M.A. RATE MAP: 24027C0170D ZONE: C
8. THIS LOT IS NOT IN THE 100 YEAR FLOOD AREA.
9. THE EXISTING TOPOGRAPHY IS TAKEN FROM (FIELD RUN AND AERIAL) SURVEY WITH (MAXIMUM TWO FEET) CONTOUR INTERVALS PREPARED BY APPLIED CIVIL ENGINEERING DATED AUGUST 2014.
10. PUBLIC WATER.
11. PUBLIC SEWER.
12. EARTH MOVING: ANY STOCKPILE NECESSARY SHALL REMAIN WITHIN THE LIMITS PROTECTED BY SEDIMENT CONTROL MEASURES. ANY EXCESS SPOIL OR BORROW MATERIAL SHALL BE TAKEN TO OR OBTAINED FROM HOWARD COUNTY APPROVED SITE.
13. DOWNSPOUT PROTECTION: ALL DOWNSPOUTS ARE TO BE CARRIED TO THE TOE OF THE FILL SLOPES, SPLASH BLOCKS ARE TO BE PROVIDED AT ALL DOWNSPOUTS NOT DISCHARGING ONTO A PAVED SURFACE.
14. DISTURBANCE WITHIN OLD JESSUP ROAD MUST BE STABILIZED IMMEDIATELY USING COLD PATCH BITUMINOUS MATERIAL. PERMANENT PAVE PATCHING IN THESE AREAS WITH HOT MIX BITUMINOUS MATERIAL MUST BE COMPLETED WITHIN 14-30 DAYS TO MATCH THE EXISTING PAVEMENT SECTION OF ROAD.
15. THE EXISTING UTILITIES AND OBSTRUCTIONS SHOWN ARE FROM THE BEST AVAILABLE RECORDS AND SHALL BE VERIFIED BY THE CONTRACTOR TO HIS SATISFACTION PRIOR TO CONSTRUCTION. NECESSARY PRECAUTIONS SHALL BE TAKEN BY THE CONTRACTOR TO PROTECT EXISTING SERVICES AND MAINS AND ANY DAMAGE TO THEM SHALL BE REPAIRED AT HIS OWN EXPENSE.
16. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE OBSERVANCE OF ALL APPLICABLE OSHA REGULATIONS CONCERNING EXCAVATION AND BACKFILL.
17. THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/BUREAU OF ENGINEERING/ CONSTRUCTION INSPECTION DIVISION AT (410) 313-1880 AT LEAST FIVE (5) WORKING DAYS PRIOR TO START OF WORK.
18. THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK BEING DONE.
19. SITE IN WATERSHED AREA "LOWER PATAPSCO".
20. THE TYPE OF STORMWATER MANAGEMENT CONTROL PROPOSED FOR THIS SITE IS, M-5 OWNED AND MAINTAINED BY THE OWNER OF THE PROPERTY, CURRENTLY OF MASONRY SPECIALIST LLC
21. ANY DAMAGE TO THE COUNTY'S RIGHT OF WAY SHALL BE CORRECTED AT THE DEVELOPER'S EXPENSE.
22. THIS LOT HAS NO WETLAND.
23. NO TRAFFIC STUDY NEEDED, MINIMAL TRAFFIC ON A DEAD END STREET.
24. APPROVED VARIANCE TO REDUCE "THE 50' PARKING AND USE SETBACK FROM A PUBLIC R/W TO 30' TO CONSTRUCT AN OFFICE BUILDING", CASE # BA-11-027 V DATED JULY 30TH, 2012. THE VARIANCE SHALL APPLY ONLY TO THE REDUCTION AS DESCRIBED IN THE VARIANCE PLAN, AND APPLICANT SHALL OBTAIN ALL PERMITS
25. THIS PROJECT COMPLIES WITH THE REQUIREMENTS OF SECTION 16.1200 OF THE HOWARD COUNTY CODE FOR FOREST CONSERVATION BY THE PAYMENT OF A FEE-IN-LIEU OF \$653.40 TO THE FOREST CONSERVATION FUND BASED ON THE PROPOSED 0.11 ACRE LIMIT OF DISTURBANCE.

SITE ANALYSIS

1. Gross Site Area = 1.817 Ac. OR 79,149 SF
2. Net Site Area = 1.817 Ac. OR 79,149 SF
3. Disturbed Area = 0.11 Ac. OR 4,900 SF
4. Current Zoning of Property M-2.
5. Proposed Used of Property/Structure: Office/Warehouse
6. Gross Floor Area = 7,125 SF
Existing = 4,000 SF; Proposed = 3,125 SF
7. Impervious Area
Per Originally Approved Plan = 0.78 Ac or 34,000 SF
Area per current plan = 0.92 Ac or 40,000 SF
7. Green Space Area = 0.90 Ac or 39,073 SF
8. Total Lot Coverage = ±51 %

ADDITIONAL GENERAL NOTES

26. This plan has been prepared in accordance with the provisions of Section 16.124 of the Howard County Code and the Landscape Manual. Perimeter landscaping has been provided by using existing trees for credit.

PROP OFFICE BUILDING
(1 Story w/ Basement)
Area = 3,125 SF
Height = 21' +/-

PARKING SCHEDULE

1. Warehouse: @ 1.5 spaces per 2000 SF
Existing Space = 4000 SF ==> Requires 3 spaces
 2. Offices: @ 3.3 spaces per 1000 SF
Proposed Building Area = 3,125 SF ==>
Required spaces = (3,125/1000) x 3.3 = 10.3 spaces
- Total Spaces Required = 3 + 10.3 = 14 spaces
Total Spaces Provided = 17 spaces

FOREST CONSERVATION WORKSHEET
VERSION 1.0
(Enter in Yellow Cells)

NET TRACT AREA:

A. Total tract area	0.11
B. Area within 100 year floodplain	0.00
C. Area to remain in agricultural production	0.00
D. Net tract area	0.11

LAND USE CATEGORY: (from table 3.2.1, page 40, Manual)

Input the number "1" under the appropriate land use zoning, and limit to only one entry.

ARA	MDR	IDA	HDR	MPD	CA
0	0	0	0	0	1

E. Afforestation Threshold	15% x D =	0.02
F. Conservation Threshold	15% x D =	0.02

EXISTING FOREST COVER:

G. Existing forest cover (excluding floodplain)	0.00
H. Area of forest above afforestation threshold	0.00
I. Area of forest above conservation threshold	0.00

BREAK EVEN POINT:

J. Forest retention above threshold with no mitigation	0.00
K. Clearing permitted without mitigation	0.00

PROPOSED FOREST CLEARING:

L. Total area of forest to be cleared	0.00
M. Total area of forest to be retained	0.00

PLANTING REQUIREMENTS:

N. Reforestation for clearing above conservation threshold	0.00
P. Reforestation for clearing below conservation threshold	0.00
Q. Credit for retention above conservation threshold	0.00
R. Total reforestation required	0.00
S. Total afforestation required	0.02
T. Total reforestation and afforestation required	0.02

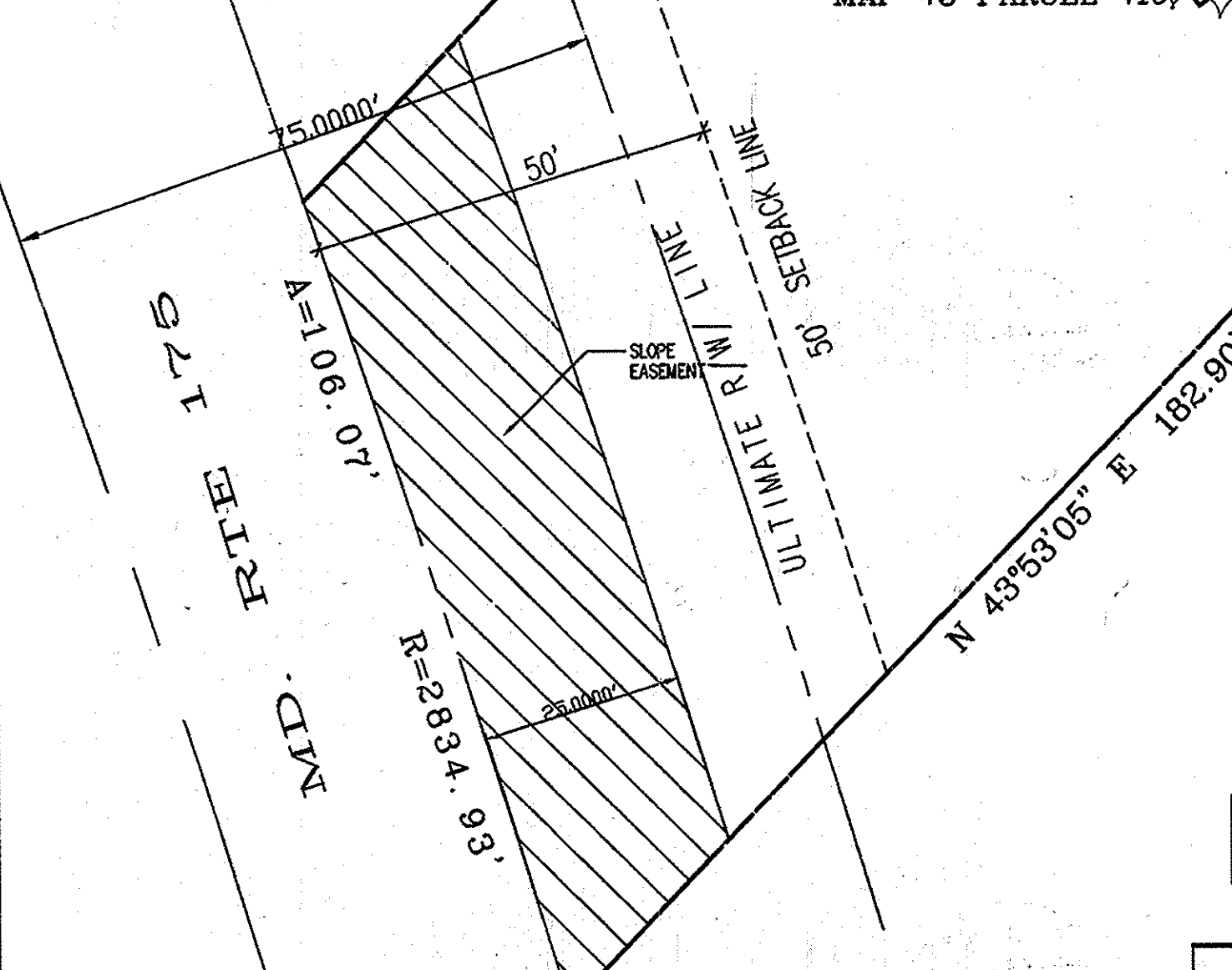
Note: Pay Fee-in-Lieu for the 0.02 Ac @ \$0.75 per SF
Fee-in-Lieu amount = \$ 653.40

Schedule A: Perimeter Landscape Edge

	Perimeter 1	Perimeter 2
Landscape Type	A (1:60')	B (1:50')
Lineal Feet to Roadway Frontage/Perimeter	165'	87'
Credit for Existing Vegetation	Yes, 6 Shade Trees	Yes, 1 Shade Tree & 2 evergreen Trees
Number of Plants Required	3 Shade Trees	2 Shade Trees
Shade Trees		
Evergreen Trees		
Shrubs		
Number of Plants Provided	0	0
Shade Trees		
Evergreen Trees		
Shrubs		

LEGEND

- EXISTING CONTOUR 100
- PROPOSED CONTOUR 100
- PROPERTY LINE
- R/W BASE LINE
- EXISTING WOOD LINE
- Limit of Disturbance LOD
- Silt Fence SF
- Asphalt per Old Approved Plan
- Ex. Asphalt "Current Condition"
- Ex. Gravel/Mac. "Current Condition"
- Ex. Building to Remain
- Ex. Building to be Removed



APPROVED: DEPARTMENT OF PLANNING AND ZONING

[Signature] 12/20/15
CHIEF, DEVELOPMENT OF ENGINEERING DIVISION

[Signature] 12/20/15
CHIEF, DIVISION OF LAND DEVELOPMENT

[Signature] 1-3-16
DIRECTOR

NO ENVIRONMENTAL FEATURES EXIST WITHIN THE LIMIT OF DISTURBANCE

SOIL CHARACTERISTICS

Map Symbol	Map Unit Name	K-Factor	Hydric Rating	Hydrological Soil Group	Drainage Class
UID	Urban land-Udorthents complex 0-15% slopes		Non-Hydric	D	

NO.	APPROVED	DATE	REVISION	BY
		11/17/2015	Replace Ramp with Lift (40) and also added Ret. Wall in Rear	
			Changed water line connection	

OWNER / DEVELOPER
OF MASONRY SPECIALIST, LLC
7545 MONTEVIDEO ROAD
JESSUP, MD 20794
(410) 799-4495

APPLIED CIVIL ENGINEERING INC.
9470 ANNAPOLIS ROAD
SUITE # 404
LANHAM, MARYLAND 20706
(301) 459-5982
(301) 459-2987 FAX
Appliedcivil_ace@yahoo.com

PROFESSIONAL CERTIFICATION:
I, ZYAD M. SHALAB, CERTIFY THAT THESE DOCUMENTS WERE PREPARED BY ME OR UNDER MY CLOSE PERSONAL SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE # 122444 EXPIRATION DATE: JUNE 9, 2016.

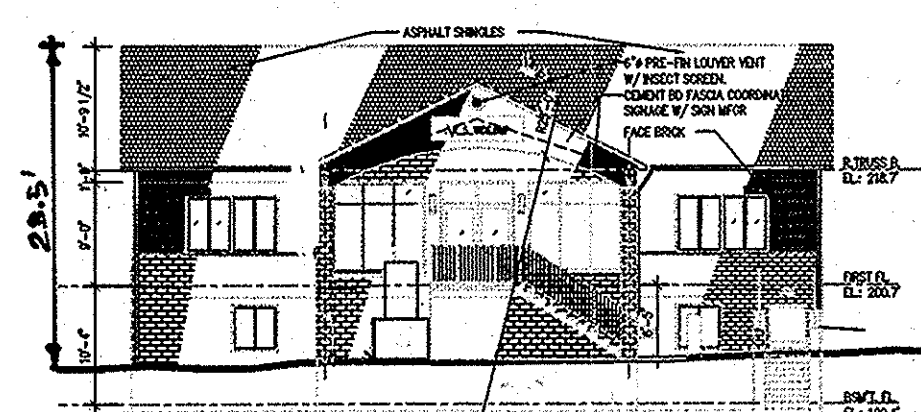
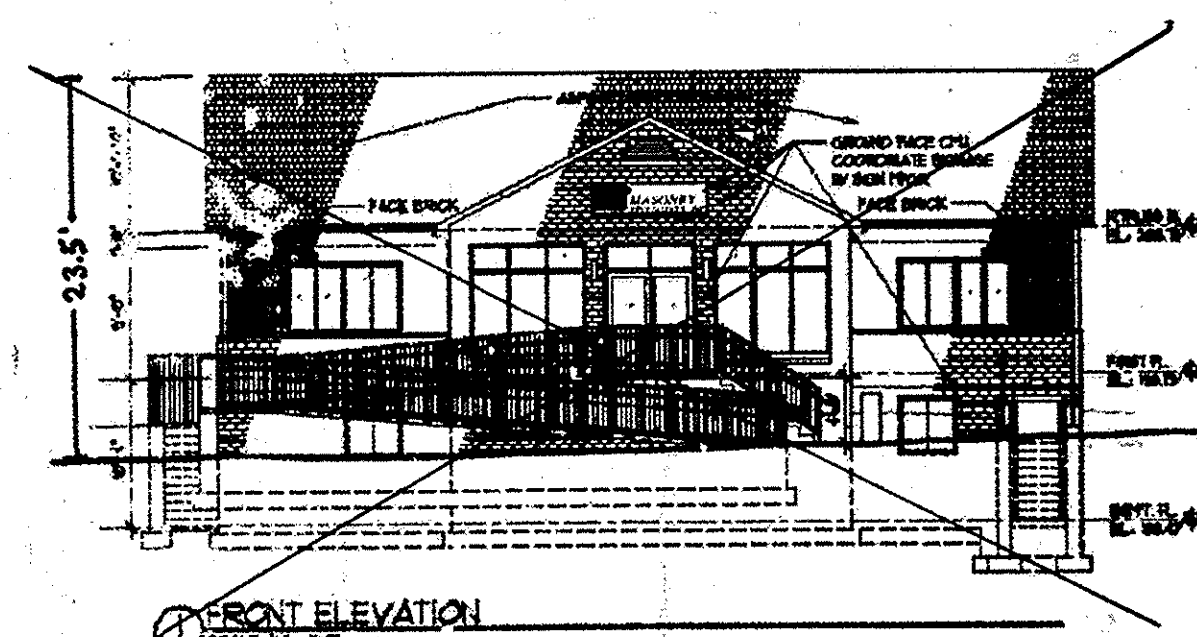


DRAWN BY: ZS
CHECKED BY: ZS
DATE: AUGUST 14, 2014

SCALE: 1" = 20'
SHEET NO. 3 OF 4

TOTAL AREA BEING DISTURBED= 0.11 AC

PURPOSE STATEMENT:
THE PURPOSE OF THIS REDLINE REVISION IS TO DEMONSTRATE THE EXISTING OFFICE BUILDING AND TO CONSTRUCT A NEW 60'x48' OFFICE BUILDING.



ADDRESS CHART

LOT/PARCEL NO.	STREET ADDRESS
PARCELS 255&419	7948 OLD JESSUP ROAD, JESSUP, MD 20794

PERMIT INFORMATION CHART

SUBMISSION NAME	SECTION/AREA	LOT/PARCEL NO.
7948 OLD JESSUP ROAD	N/A	PARCELS 255&419
PLAT # OR L/P	BLOCK	TAX MAP
L 14377	F 165	M-2
WATER CODE	ZONE	ELECDIST
	M-2	43 01
PROPOSED DEVELOPMENT	CENSUS TRACT	BEMER CODE
CONSTRUCTION OF AN OFFICE BUILDING		



"OFFICE BUILDING EXPANSION" SDP-81-186

REVISED SITE DEVELOPMENT PLAN
ACC.# 01-257544 & 01-257552, TAX MAP # 43
PARCELS 255 & 419
7948 OLD JESSUP ROAD
ZONING "M-2", ZIP CODE 20794, NAD-83
FIRST DISTRICT HOWARD COUNTY, MARYLAND

CALL "MISS UTILITY" AT 1-800-257-7777 FOR UTILITY LOCATION AT LEAST 48 HOURS PRIOR TO BEGINNING CONSTRUCTION.

B.4.C Specifications for Micro-Bioretentation, Rain Gardens, Landscape Infiltration & Infiltration Berms

1. Material Specifications

The allowable materials to be used in these practices are detailed in Table B.4.1.

2. Filtering Media or Planting Soil

The soil shall be a uniform mix, free of stones, stumps, roots or other similar objects larger than two inches. No other materials or substances shall be mixed or dumped within the micro-bioretentation practice that may be harmful to plant growth, or prove a hindrance to the planting or maintenance operations. The planting soil shall be free of Bermuda grass, Quackgrass, Johnson grass, or other noxious weeds as specified under COMAR 15.06.01.05.

The planting soil shall be tested and shall meet the following criteria:

- Soil Component - Loamy Sand or Sandy Loam (USDA Soil Textural Classification)
- Organic Content - Minimum 10% by dry weight (ASTM D 2974). In general, this can be met with a mixture of loamy sand (60%-65%) and compost (35% to 40%) or sandy loam (30%), coarse sand (30%), and compost (40%).
- Clay Content - Media shall have a clay content of less than 5%.
- pH Range - Should be between 5.5 - 7.0. Amendments (e.g., lime, iron sulfate plus sulfur) may be mixed into the soil to increase or decrease pH.

There shall be at least one soil test per project. Each test shall consist of both the standard soil test for pH, and additional tests of organic matter, and soluble salts. A textural analysis is required from the site stockpiled topsoil. If topsoil is imported, then a texture analysis shall be performed for each location where the topsoil was excavated.

3. Compaction

It is very important to minimize compaction of both the base of bioretention practices and the required backfill. When possible, use excavation holes to remove original soil. If practices are excavated using a loader, the contractor should use wide track or marsh track equipment, or light equipment with turf type tires. Use of equipment with narrow tracks or narrow tires, rubber tires with large lugs, or high-pressure tires will cause excessive compaction resulting in reduced infiltration rates and is not acceptable. Compaction will significantly contribute to design failure.

Compaction can be alleviated at the base of the bioretention facility by using a primary tilling operation such as a chisel plow, ripper, or subsolter. These tilling operations are to refracture the soil profile through the 12 inch compaction zone. Substitute methods must be approved by the engineer. Rototillers typically do not till deep enough to reduce the effects of compaction from heavy equipment.

Rototill 2 to 3 inches of sand into the base of the bioretention facility before backfilling the optional sand layer. Pump any ponded water before preparing (rototilling) base.

When backfilling the topsoil over the sand layer, first place 3 to 4 inches of topsoil over the sand, then rototill the sand/topsoil to create a gradation zone. Backfill the remainder of the topsoil to final grade.

When backfilling the bioretention facility, place soil in lifts 12h to 18h. Do not use heavy equipment within the bioretention basin. Heavy equipment can be used around the perimeter of the basin to supply soils and sand. Grade bioretention materials with light equipment such as a compact loader or a dozer/loader with marsh tracks.

4. Plant Material

Recommended plant material for micro-bioretentation practices can be found in Appendix A, Section A.2.3.

5. Plant Installation

Compost is a better organic material source, is less likely to float, and should be placed in the invert and other low areas. Mulch should be placed in surrounding to a uniform thickness of 2h to 3h. Shredded or chipped hardwood mulch is the only accepted mulch. Pine mulch and wood chips will float and move to the perimeter of the bioretention area during a storm event and are not acceptable. Shredded mulch must be well aged (6 to 12 months) for acceptance.

Rootstock of the plant material shall be kept moist during transport and on-site storage. The plant root ball should be planted so 1/8th of the ball is above final grade surface. The diameter of the planting pit shall be at least six inches larger than the diameter of the planting ball. Set and maintain the plant straight during the entire planting process. Thoroughly water ground bed cover after installation.

Trees shall be braced using 2" by 2" stakes only as necessary and for the first growing season only. Stakes are to be equally spaced on the outside of the tree ball.

Grasses and legume seed should be drilled into the soil to a depth of at least one inch. Grass and legume plugs shall be planted following the non-grass ground cover planting specifications.

The topsoil specifications provide enough organic material to adequately supply nutrients from natural cycling. The primary function of the bioretention structure is to improve water quality. Adding fertilizers defeats, or at a minimum, impedes this goal. Only add fertilizer if wood chips or mulch are used to amend the soil. Rototill urea fertilizer at a rate of 2 pounds per 1000 square feet.

6. Underdrains

Underdrains should meet the following criteria:

- Pipe - Should be 4" to 6" diameter, slotted or perforated rigid plastic pipe (ASTM F 758, Type PS 28, or AASHTO-M-278) in a gravel layer. The preferred material is slotted, 4h rigid pipe (e.g., PVC or HDPE).
- Perforations - If perforated pipe is used, perforations should be 1/4" diameter located 6h on center with a minimum of four holes per row. Pipe shall be wrapped with a .5h (No. 4 or 4x4) galvanized hardware cloth.
- Gravel - The gravel layer (No. 57 stone preferred) shall be at least 3h thick above and below the underdrain.
- The main collector pipe shall be at a minimum 0.5% slope.
- A rigid, non-perforated observation well must be provided (one per every 1,000 square feet) to provide a clean-out port and monitor performance of the filter.
- A 4" layer of pea gravel (1/8" to 3/8" stone) shall be located between the filter media and underdrain to prevent migration of fines into the underdrain. This layer may be considered part of the filter bed when bed thickness exceeds 24".

The main collector pipe for underdrain systems shall be constructed at a minimum slope of 0.5%. Observation wells and/or clean-out pipes must be provided (one minimum per every 1000 square feet of surface area).

7. Miscellaneous

These practices may not be constructed until all contributing drainage area has been stabilized

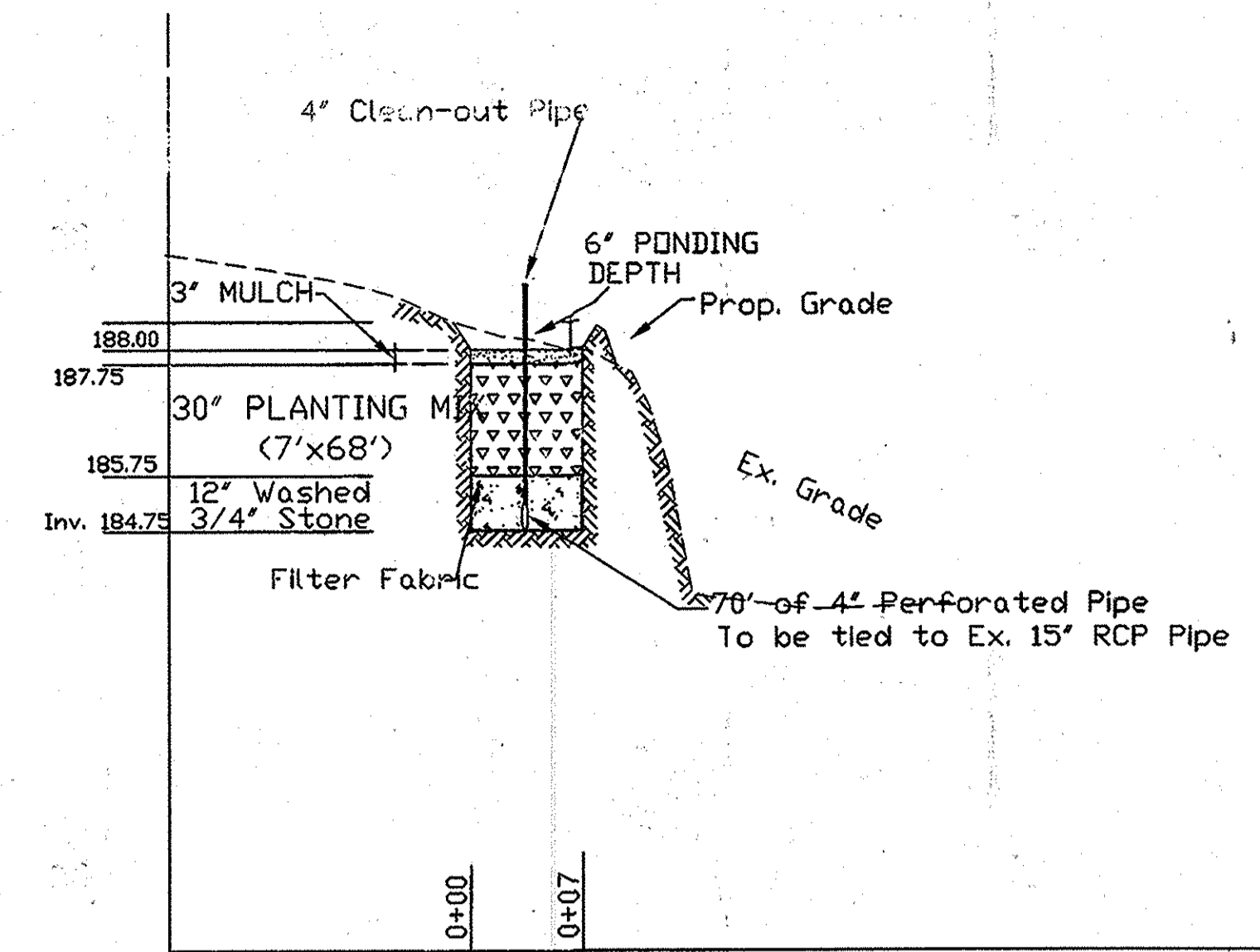
OPERATION AND MAINTENANCE SCHEDULE FOR MICRO-BIORETENTION (M-6)

1. Annual maintenance of plant material, mulch layer and soil layer is required. Maintenance of mulch and soil is limited to correcting areas of erosion or wash out. Any mulch replacement shall be done in the spring. Plant material shall be checked for disease and insect infestation and maintenance will address dead material and pruning. Acceptable replacement plant material is limited to the following: 2000 Maryland Stormwater Design Manual Volume II, Table A.4.1 and 2.

2. Schedule of plant inspection will be twice a year in spring and fall. This inspection will include removal of dead and diseased vegetation considered beyond treatment, treatment of all diseased trees and shrubs and replacement of all deficient stakes and wires.

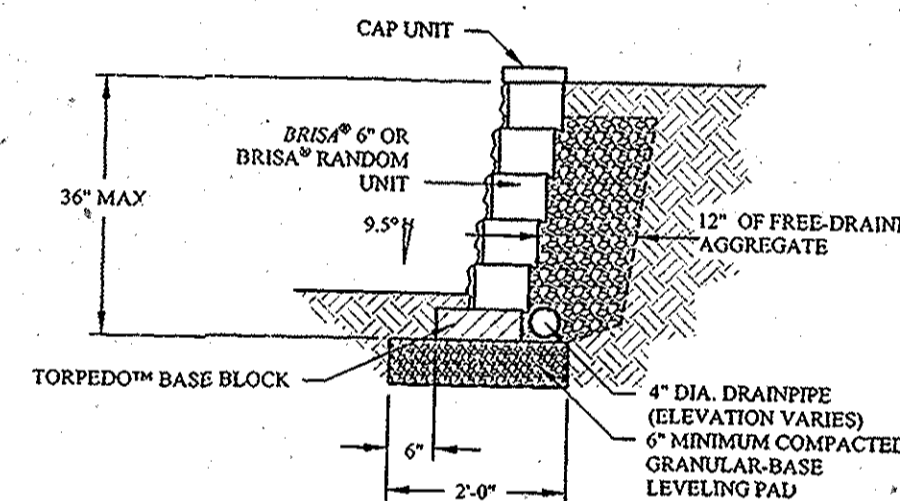
3. Mulch shall be inspected each spring. Remove previous mulch layer before applying new layer once every 2 to 3 years.

4. Soil erosion to be addressed on an as needed basis, with a minimum of once per month and after heavy storm events.



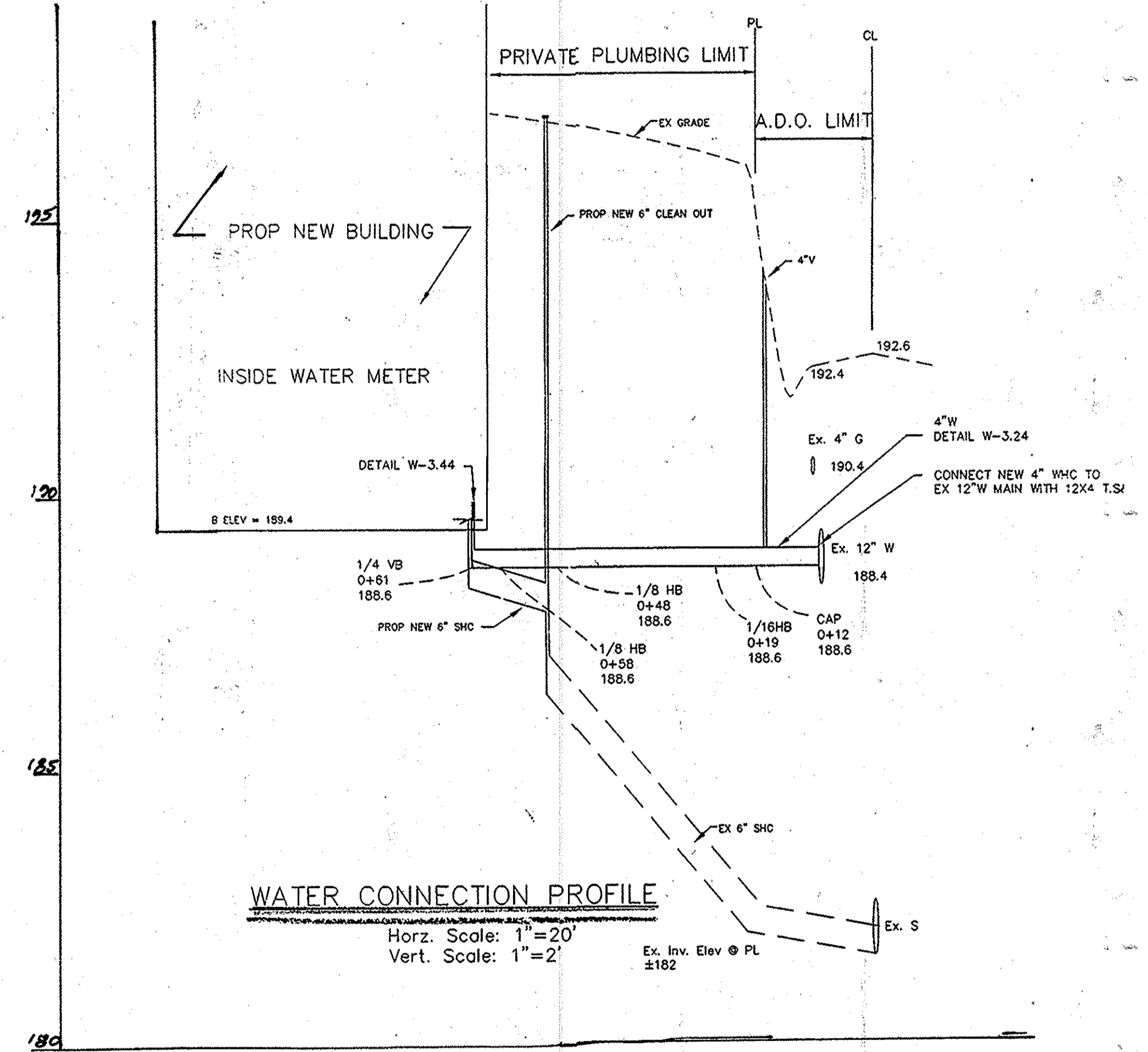
MICRO-BIORETENTION CROSS SECTION

Horz Scale 1" = 10'
Vert Scale 1" = 1'



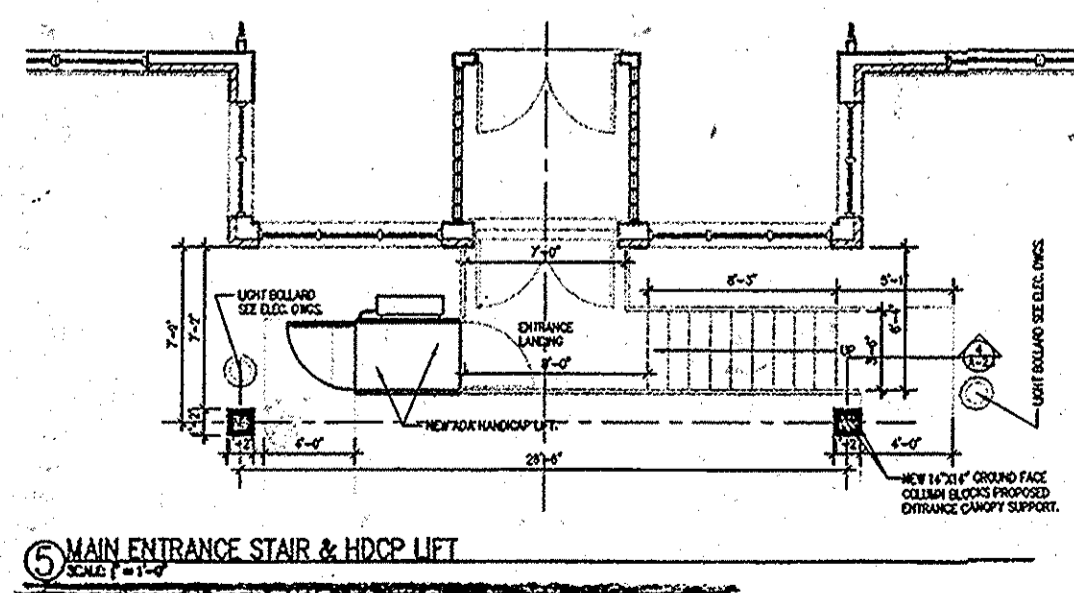
RETAINING WALL DETAIL N.T.S.

MICRO-BIORETENTION LANDSCAPING SCHEDULE					
SYMBOL	NO.	COMMON NAME	BOTONICAL NAME	SIZE/METHOD	SPACING
	2	Red Sunset Maple	Acer Rubrum Red Sunset	2"-2.5" / BB	AS SHOWN
	2	Weeping Willow	Salix babylonica	1 1/2" - 1 3/4"	AS SHOWN
	10	Inkberry	Ilex glabra	18-24" HT	AS SHOWN



WATER CONNECTION PROFILE

Horz. Scale: 1"=20'
Vert. Scale: 1"=2'



MAIN ENTRANCE STAIR & HDCC LIFT

NOTES:

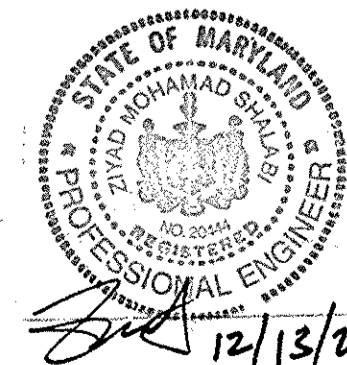
- CONTRACTOR TO VERIFY THE DEPTH OF WATER MAIN PRIOR TO CONSTRUCTION. IF DIFFERENT THAN ABOVE, CONTRACTOR SHALL NOTIFY ENGINEER RIGHT AWAY TO REVISE DESIGN ACCORDINGLY.
- ALL CONSTRUCTION SHALL IN CONFORMANCE WITH ALL HOWARD COUNTY DESIGN MANUAL VOLUME II IV STANDARDS & DETAILS

APPROVED: DEPARTMENT OF PLANNING AND ZONING

[Signature] 7-22-15
CHIEF, DEVELOPMENT OF ENGINEERING DIVISION

[Signature] 12/30/15
CHIEF, DIVISION OF LAND DEVELOPMENT

[Signature] 1-3-16
DIRECTOR



CALL "MISS UTILITY" AT 1-800-257-7777 FOR UTILITY LOCATION AT LEAST 48 HOURS PRIOR TO BEGINNING CONSTRUCTION.

NO.	APPROVED	DATE	REVISION	BY
		11/17/2015	Replace Ramp with Lift (HO) and also added Ret. Wall in Rear	ZS
			Changed Waterline Connection	ZS

OWNER / DEVELOPER
CF MASONARY SPECIALIST, LLC
7545 MONTEVIDEO ROAD
JESSUP, MD 20794
(410) 799-4495

APPLIED CIVIL ENGINEERING INC.
9470 ANNAPOLIS ROAD SUITE # 414
LANHAM, MARYLAND 20706
(301) 459 5932
(301) 459 2987 FAX
Appliedcivil_ace@yahoo.com

PROFESSIONAL CERTIFICATION:
ZIYAD M. SHALABI CERTIFY THAT THESE DOCUMENTS WERE PREPARED BY ME OR UNDER MY SUPERVISION AND I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND LICENSE #20444, EXPIRATION DATE JUNE 09, 2016.

[Signature] 12/13/2015
ZIYAD M. SHALABI, P.E.

DRAWN BY:	ZS	SCALE:	AS SHOWN
CHECKED BY:	ZS	SHEET NO.	4 OF 4
DATE:	AUGUST 14, 2014		

SITE DETAILS
ACC.# 01-257544 & 01-257552, TAX MAP # 43
PARCELS 255 & 419
7948 OLD JESSUP ROAD
ZONING "M-2", ZIP CODE 20794, NAD-83
FIRST DISTRICT HOWARD COUNTY, MARYLAND