SITE DEVELOPMENT PLAN
TEMPLE ISAIAH
PHASE I
HOWARD COUNTY, MARYLAND

GENERAL NOTES

1. Property is not within the Metropolitan District.
2. Private water and sewer will be used within this site.
3. The Contractor shall notify the following utility companies or agencies at least five(5) working days before starting work shown on these plans:

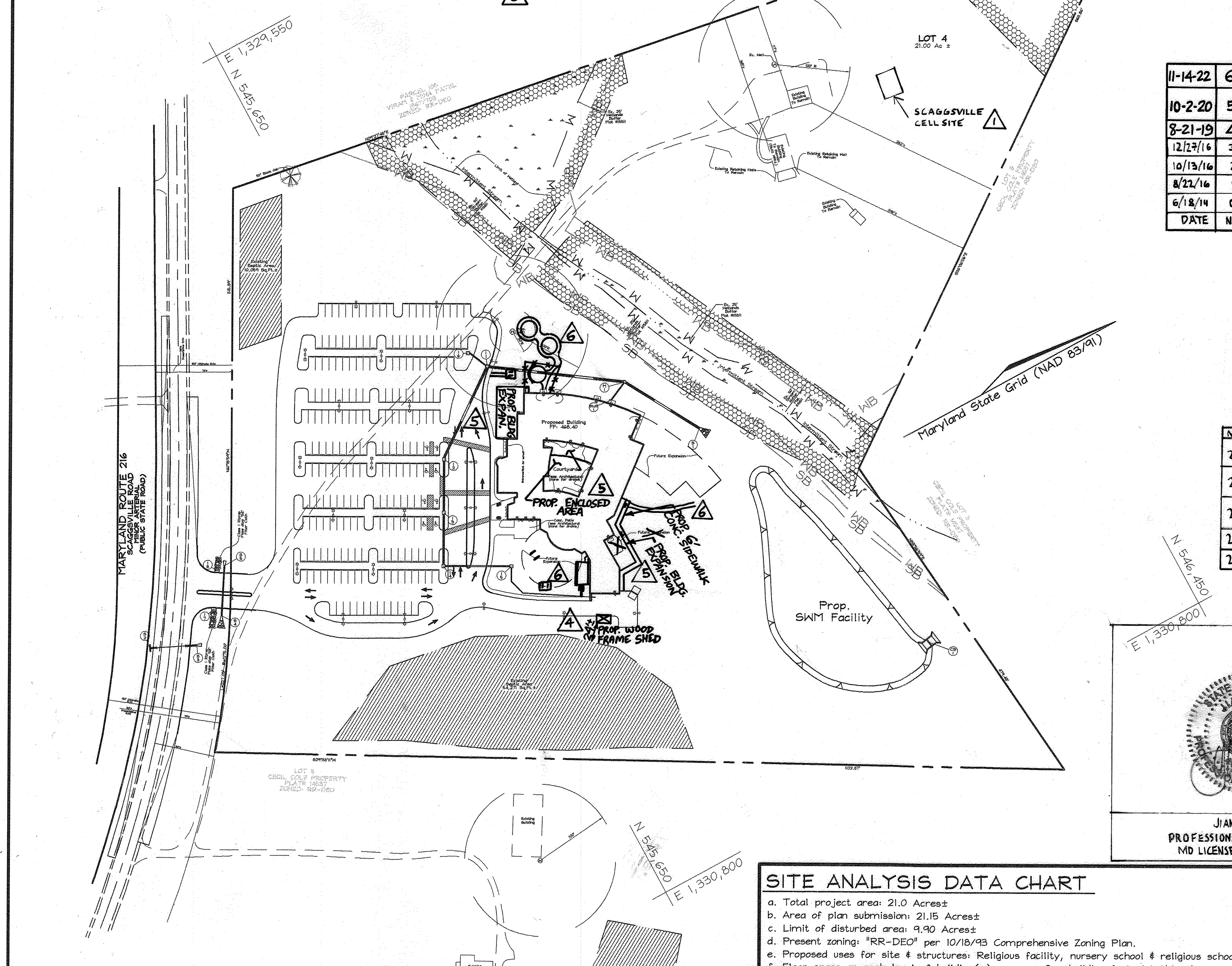
State Highway Administration	410.531.5533
BGE(Contractor Services)	410.850.4620
BGE(Underground Damage Control)	410.787.9068
Miss Utility	1.800.257.7777
Colonial Pipeline Company	410.795.1390
Howard County, Dept. of Public Works, Bureau of Utilities	410.313.4900
Howard County Health Department	410.313.2640
AT&T	1.800.252.1133
Verizon	1.800.743.0033/410.224.9210

4. The contractor shall notify Miss Utility at 1-800-257-7777 at least 48 hours prior to any excavation work being done.
5. 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 the start of work.
6. The lot shown hereon complies with the minimum ownership, width and lot area as required by the Maryland State Department of the Environment.
7. This project is in conformance with the latest Howard County Standards unless waivers have been approved.
8. No clearing, grading or construction is permitted within wetlands, streams or their required buffers.
9. This plan has been prepared in accordance with the provisions of section 16.124 of the Howard County code and Landscape Manual. Financial surety for the required landscaping shall be posted as part of the Developer's Agreement in the amount of $34,650.00 for 71 shade trees and 89 evergreen trees.
10. All curb and gutter to be Howard County Standard R-3.01 Curb and Gutter unless otherwise noted. See Detail Sheet 3 of 18.
11. All paving to be P-1 unless otherwise noted. See Detail, Sheet 3 of 19 and 9 of 19.
12. All proposed spot elevations along curb and gutter are to the flowline unless otherwise noted.
13. This project complies with the requirements of section 16.1200 of the Howard County Code for Forest Conservation by planting 0.72 acres of afforestation within Forest Conservation Easement 1, planting 0.56 acres of afforestation and 0.42 acres of enhancement within Forest Conservation Easement 2 and planting 0.61 acres of afforestation and 0.54 acres of enhancement within Forest Conservation Easement 3. Total afforestation required = 2.85 ac. and $57,891.00 surety posted with the Developer's Agreement.
14. All construction shall be in accordance with the latest standards and specifications of Howard County in addition to MSHA standards and specifications if applicable.
15. Contractor is responsible to construct all handicap ramps and handicap access in accordance with current ADA requirements. Handicap Ramps to conform to Howard County Standard Detail R.4.03
16. Any damage to public right-of ways, paving or existing utilities will be corrected at the contractor's expense.
17. Existing utilities are located by the use of any or all of the following: Road Construction Plans, Field Surveys, Public Water and Sewer Plans and other available record drawings. Approximate location of the existing utilities are shown for the contractors information. Contractor shall locate existing utilities well in advance of construction activities and take all necessary precautions to protect the existing utilities and to maintain uninterrupted service. Any damage incurred due to the contractor's operation shall be repaired immediately at the contractor's expense.
18. All reinforced concrete for storm drain structures shall have a minimum of twenty-eight (28) days strength at 3,500 psi. All Storm Drain pipe bedding shall be Class 'C'.
19. All HDPE pipe specification and installation shall meet AASHTO M-252 Type S, M-294 Type S and ASTM D2321, respectively.
20. Soil compaction specifications, requirements, methods and materials are to be in accordance with the recommendations of the project Geotechnical Engineer. Geotechnical Engineer to confirm acceptability of proposed paving section, based on soil test, prior to construction.
21. All traffic control devices, markings and signing shall be in accordance with the latest edition of the Manual on Uniform Traffic Control Devices (MUTCD).
22. Traffic control devices, markings and signage shall be in accordance with the latest edition of the Manual on Uniform Traffic Control Devices (MUTCD). All street and regulatory signs shall be in place prior to the placement of any paving.
23. Estimates of Earthwork quantities are provided solely for the purpose of calculating fees.
24. The topography shown hereon is based on an aerial photogrametric mapping performed by Harford Aerial Surveys, Inc. on August 08, 2000. The project boundary is based on a field run Boundary Survey performed by Hudkins Associates, Inc. in 1981. The coordinates shown hereon are based on the Howard County Geodetic Control, which is based upon the Maryland State Plane Coordinate System. Howard County monument numbers 40FA and 40FB were used for this project.
25. Geotechnical report provided by Herbst/Benson & Associates on September 11, 2000.
26. Traffic study provided by The Traffic Group, Inc. on September 24, 2002.
27. A noise study is not required for this project due to Non-Residential use.
28. There are no known cemeteries or burial grounds located on this site.
29. The proposed Stormwater Management facility will be privately owned and maintained.
30. [hatched symbol] This area designates a private sewage disposal easement as required by the Maryland State Department of the Environment for Individual Sewage Disposal (COMAR 26.04.03) Improvements of any nature in this area are restricted until public sewage is available. These easements shall become null and void upon connection to a public sewage system. The County Health Officer shall have the authority to grant adjustments to the private sewage easement. Recordation of a modified sewage easement shall not be necessary. The 10,000sf± sewage disposal area, at the southwest corner of Lot 4, is reserved for use of the single-family dwelling.
31. Stormwater Management is provided via a Micro-Pool Extended Detention facility for both water quality and quantity. The SWM Facility classification is Hazard Class 'A'.
32. All exterior light fixtures shall be oriented to direct light inwards and downwards on-site away from all adjoining residential properties and public roads in accordance with Section 134 of the Howard County Zoning Regulations. Parking lot lights shall be full cutoff, 175W metal halide mounted on 15 foot tall dark bronze poles. Wall mounted lights to be metal halide or fluorescent downlights. See Architectural plans for more details.
33. For bearings and distances of Forest Conservation Easements and Wetland Limits see Record Plat #15811 recorded in the Land Records of Howard County.
34. This project is subject to the Fifth Edition of the Subdivision and Land Development Regulations.
35. This Site Development Plan is for Phase I improvements only. Phase II and any other future improvements will require a revision to this plan or a new Site Development Plan.
36. Stormwater Management is provided for all development under this contract and for the future parking and building expansions shown on the SWM report maps. If future development occurs beyond the future expansions shown, SWM based on requirements at time of submittal, will be required.
37. Groundwater Appropriation Permit #HO2002G011(01)
38. Maximum Daily Design Flow for the final phase may lead to 5,000gpd. Initial Daily Design Flow of this septic system design for Phase I is 1,500gpd (within the approved septic disposal area located along the easternmost property boundary). Applicant is aware that if and when the flows approach, equal or exceed 5,000gpd (during the second or third phase), concurrent review of the septic design must be performed by the Maryland Department of the Environment.
39. This plan is subject to Waiver WP-01-07 from Section 16.119.(f).(3) to allow a single use driveway access onto Maryland Route 216 approved by the Planning Director on August 17, 2000.
40. This Site Development plan is subject to BA Case #99-72E (approved on August 24, 2000 and amended on October 3, 2000), pursuant to sections 131.N.17 specific to Child Daycare Center, 131.N.45 specific for religious activities and 131.N.54 specific for private academic schools, and the following conditions:
    - I. This special exception shall apply only to the approved religious facility, private school and nursery school as described in the petition and exhibit submitted on April 20, 2000.
    - II. Parking lot area shall be screened and buffered using landscaping alone or in combination with berms along the west, east and south sides of the parking area.
    - III. Outdoor lighting shall be in accordance with Section 134 of the Zoning Regulations.
    - IV. Plan Phasing: Phase I-construction to commence within 4 years of the date of decision. Phase II-construction to commence within 14 years of the date of this decision. Phase III-construction to commence within 24 years of the date of this decision.
    - V. Petitioner shall comply with all applicable Federal, State and Local laws and regulations.
41. The contractor to provide water line from well location(s) to within five (5) feet of building at the Water Room.
42. An inspection by the Health Department of the tank excavations is required prior to installation of the grease trap, septic tank and septic tank/pump chamber. This is required because of the concerns about seasonal high or perched water tables in the locations of the tanks. All tanks must be watertight. Tanks with more than 3' of cover shall also have traffic bearing lids.
43. The trench lengths shown are more or less of equal length so as to provide for better equalization/distribution of septic effluent.
44. FINANCIAL SURETY FOR THE REQUIRED TELECOMMUNICATIONS FACILITY LANDSCAPING SHALL BE POSTED AS PART OF THE GRADING PERMIT IN THE AMOUNT OF $1,500 FOR 10 SHADE TREES.
45. THE TELECOMMUNICATIONS FACILITY WAS APPROVED AS A CONDITIONAL USE.
46. THIS DEVELOPMENT PLAN IS SUBJECT TO BA CASE #14-005 APPROVED ON MARCH 3 2016 PURSUANT TO SECTION 131.0.N.14 OF THE HOWARD COUNTY ZONING REGULATIONS AND THE FOLLOWING CONDITIONS: (1) THE CONDITIONAL USE SHALL BE CONDUCTED IN CONFORMANCE WITH AND SHALL APPLY ONLY TO THE PROPOSED 160 FOOT TALL COMMUNICATION TOWER WITH EQUIPMENT COMPOUND AS DESCRIBED IN THE PETITION AND AS DEPICTED ON THE AMENDED CONDITIONAL USE PLAN SUBMITTED TO THE BOARD ON OCT. 1 2015 AS PETITIONERS EXHIBIT NO. 38 AND NOT TO ANY OTHER ACTIVITIES USES OR STRUCTURES ON THE PROPERTY. (2) THE PETITIONER SHALL COMPLY WITH ALL APPLICABLE FEDERAL STATE AND COUNTY LAWS AND REGULATIONS. (3)

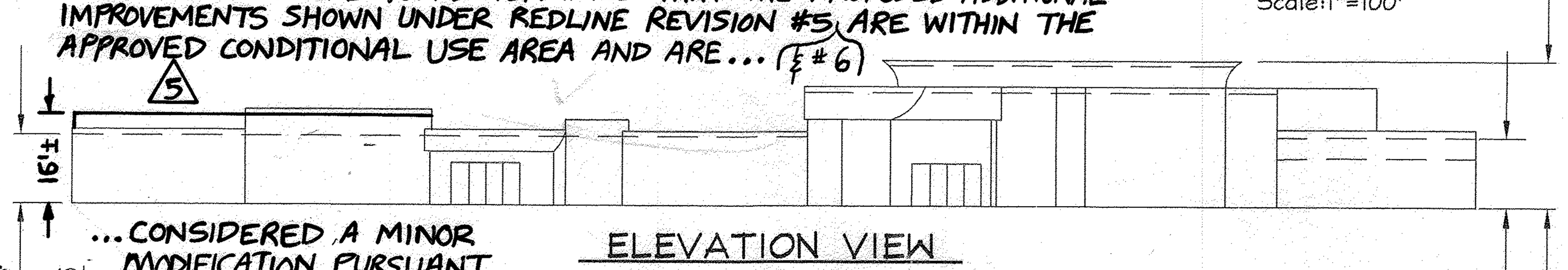
GENERAL NOTES (CONT.):

47. THE PLANNING DIRECTOR DETERMINED THAT THE PROPOSED ADDITIONAL IMPROVEMENTS SHOWN UNDER REDLINE REVISION #5 ARE WITHIN THE APPROVED CONDITIONAL USE AREA AND ARE... (#6) (5) ...CONSIDERED A MINOR MODIFICATION PURSUANT TO SECTION 131.0.I.2.c OF THE ZONING REGULATIONS. (3)

AREA (SF)	DESCRIPTION OF IMPERVIOUS AREA CREDITS/USED
25,800	← TOTAL IMPERVIOUS AREA CREDITS AVAILABLE IN THE EXISTING SWM FACILITY FOR FUTURE DEVELOPMENT.
− 4,438	← IMPERVIOUS AREA UTILIZED UNDER REVISION #5 (OCT.2020)
= 21,362	← REMAINING IMPERVIOUS AREA CREDITS FOR FUTURE USE.
− 1,950	ADDITIONAL IMPERVIOUS AREAS FROM OUTDOOR PATHS & SEATING AREAS. (REV.11-14-22)
= 19,412	REMAINING IMPERVIOUS AREA CREDITS FOR FUTURE USE. (6)



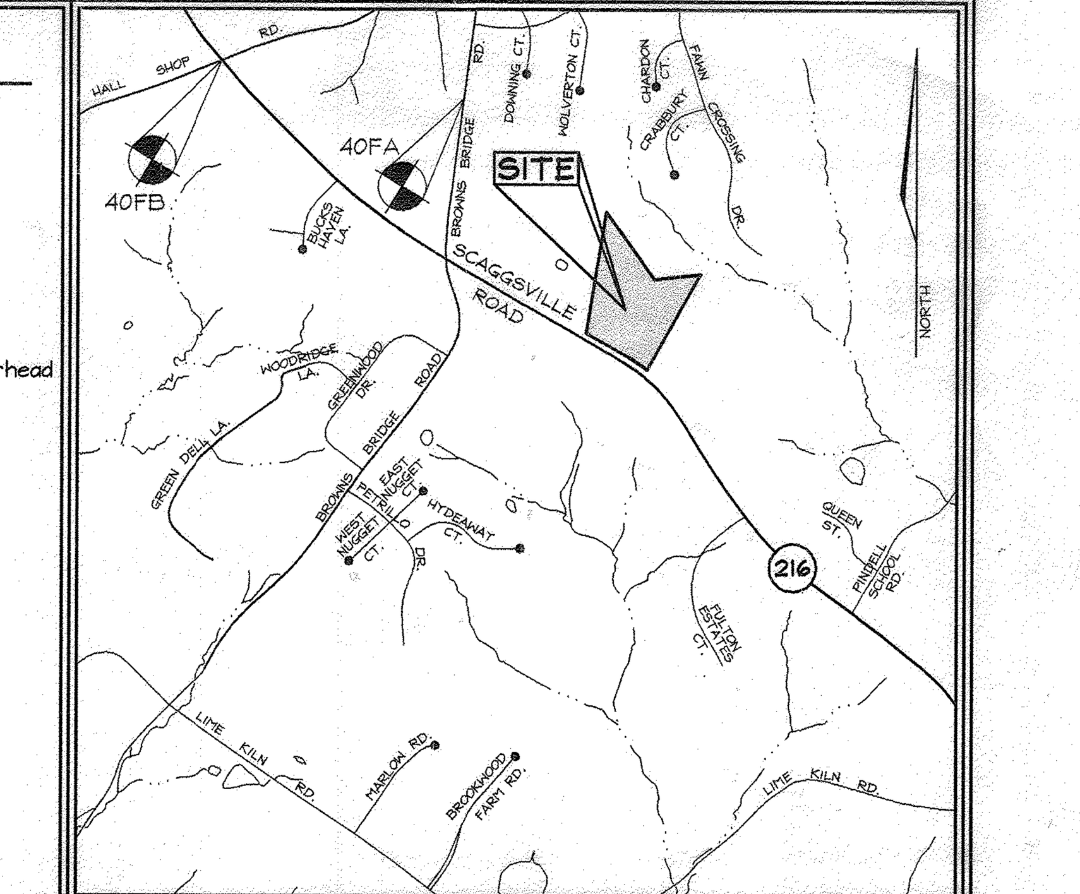
LOCATION MAP
Scale:1"=100'



ELEVATION VIEW
Scale:1"=30'

LEGEND

Existing Contour	---382
Proposed Contour	82
Spot Elevation	+82.53
Direction of Flow	
Existing Trees to Remain	
Light Poles	Wall Mounted / Overhead / Double Overhead
MSHA Paving Section	
Existing Traffic Flow	
Proposed Traffic Flow	
Forest Conservation Easement	



VICINITY MAP
Scale:1"=2000'

ADDRESS CHART

LOT	STREET
4	12230 Scaggsville Road (Existing Residence)
4	12200 Scaggsville Road (Religous Facility)
AT&T CELL SITE ADDRESS: 12234 SCAGGSVILLE RD. FULTON MD 20759	

(2)

BENCHMARKS

Howard County Monuments:

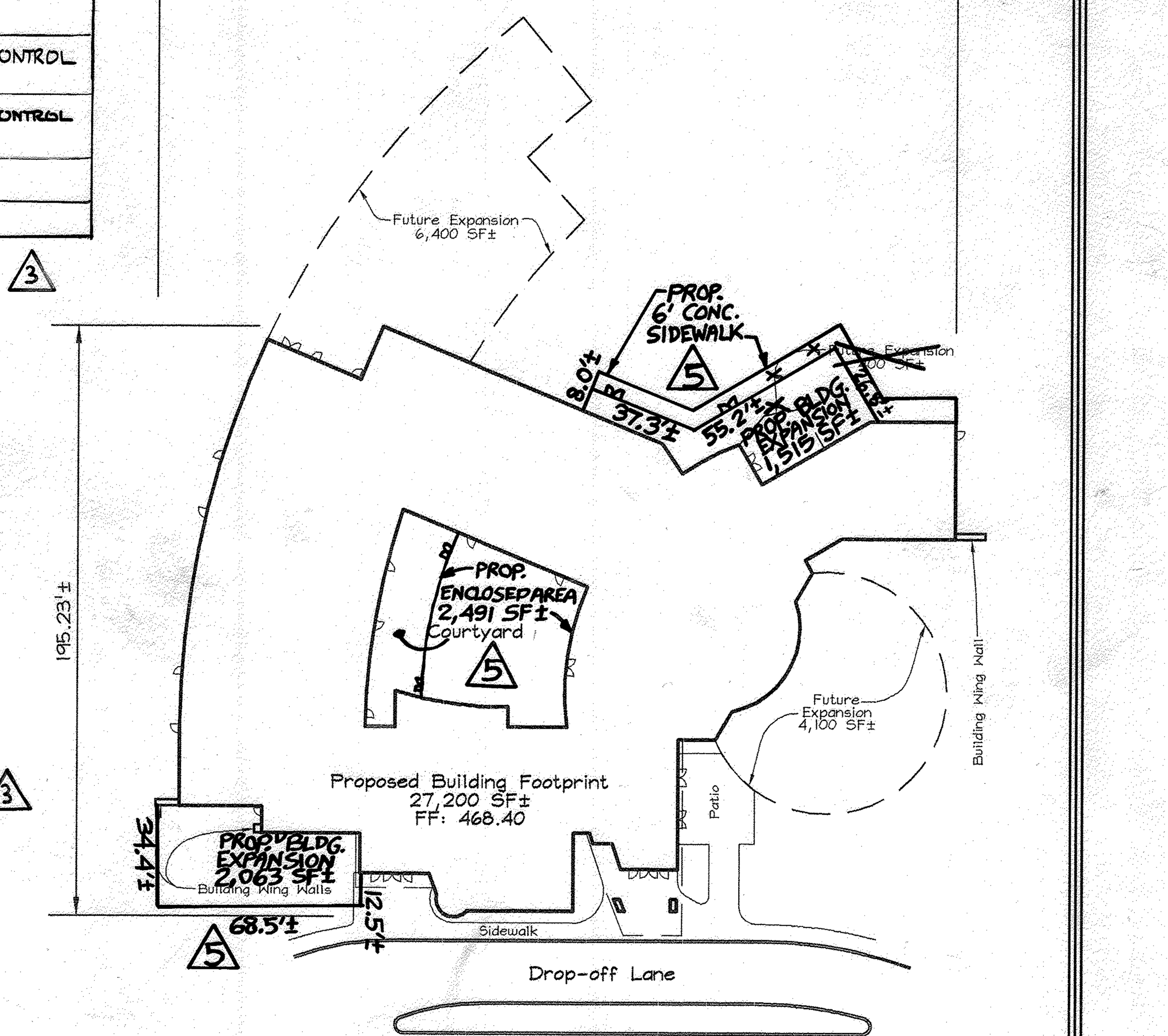
Sta.			
Sta.	40FA	N 167,063.3222 E 404,903.6393	El.: 151.7277 (meters)
		N 548,106.916 E 1,328,421.356	El.: 497.793 (feet)
Sta.	40FB	N 167,174.1067 E 404,165.8434	El.: 153.9607 (meters)
		N 548,470.381 E 1,326,000.771	El.: 505.119 (feet)

DATE	NO.	REVISION
11-14-22	6	ADDED OUTDOOR PATHS AND SEATING AREAS.
10-2-20	5	ADDED BLDG. EXPAN. & ENCLOSED AREA.
8-21-19	4	ADDED WOODEN SHED.
12/27/16	3	AT&T EQUIPMENT
10/13/16	2	AT&T EQUIPMENT
8/22/16	1	AT&T EQUIPMENT
6/18/14	0	AT&T EQUIPMENT

(3)

SHEET INDEX

(3)



PLAN VIEW
Scale:1"=50'

JIANG YU
PROFESSIONAL ENGINEER
MD LICENSE NO. 46030 (3)

SITE ANALYSIS DATA CHART

a. Total project area: 21.0 Acres±
b. Area of plan submission: 21.15 Acres±
c. Limit of disturbed area: 9.90 Acres±
d. Present zoning: "RR-DEO" per 10/18/93 Comprehensive Zoning Plan.
e. Proposed uses for site & structures: Religious facility, nursery school & religious school
f. Floor space on each level of building(s) per use: See building footprint this sheet.
g. Building coverage of site:
   Maximum allowed for Religious facility per the Zoning Regulations: 25% of site or 5.25 acres±
   Existing Buildings to remain: 0.04 acres±
   Proposed Buildings: 0.76 acres±
   Total: 0.80 acres± or 3.8%
h. DPZ file references: Plat #14537; Plat #15811; SHA Plat #3794; BA 99-72E; WP 01-07; F-81-128; F-01-54 F-03-86
i. Number of parking spaces required: 149 spaces (see Parking Tabulation below).
   Total number of parking spaces provided: 222
   Total required Handicap parking spaces: 7 spaces; including 1 van accessable spaces
   Total provided Handicap parking spaces: 8 spaces; including 2 van accessable spaces
J. TELECOMMUNICATIONS COMPOUND: 750 SQ FT, 1 PARKING SPACE (3)

PARKING TABULATION

	Religious Facility	Nursery School	Religious School
Area	17,443 SF	7,675sf	7,665 SF
Students	N/A	N/A	250
Required	1 space for every 3 seats 250 seats= 84 spaces	3 space for every 1,000sf 7,675sf= 23 spaces	1 space for every 6 students 250 students= 42 spaces
	Total Req'd = 84 + 23 + 42 = 149 spaces*		
Provided	Total parking spaces provided = 222 spaces*		

(5)

* Due to different hours of operation in each of the three (3) facilities parking spaces can be shared between the three (3) uses. The hours of operation of each facility are as follows: Religous Facility: F 8:00 p.m. to 10:00 p.m. and Sat 10:30 a.m. to 1:00 p.m.
Nursery School: M-F 9:00 a.m. to 12:00 p.m. and M-F 1:00 p.m. to 4:00 p.m.
Religous School: M 7:00 p.m. to 9:00 p.m.; T 4:00 p.m. to 6:00 p.m.; Sun. 9:00 a.m. to 1:00 p.m.

OWNER/DEVELOPER

TEMPLE ISAIAH
c/o Robert Dubin
5885 Robert Oliver Place
Columbia, Maryland 21045
202-466-3400

PERMIT INFORMATION CHART

Subdivision Name:			Section/Area		Lot/Parcel No.
Cecil Cole Property			N/A		4
Plat # 15811 24116-17	Grid 18 & 13	Zoning RR-DEO	Tax Map No. 40 & 41	Elect. District 5th	Census Tract 6051.02
Water Code: Private Water			Sewer Code: Private Sewer		

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

[signature] 3/18/03
CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE

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

[signature] (Acting) 3/17/03
DIRECTOR — DATE

APPROVED: FOR PRIVATE WATER AND PRIVATE SEWERAGE SYSTEMS IN ACCORDANCE WITH THE MASTER PLAN OF HOWARD COUNTY

[signature] 3-17-03
COUNTY HEALTH OFFICER [redacted] /SRK — DATE
HOWARD COUNTY HEALTH DEPARTMENT

DEWBERRY CONSULTANTS LLC
3106 LORD BALTIMORE DRIVE SUITE 110
BALTIMORE, MARYLAND 21244
PHONE: 410.265.9500
FAX: 410.265.8875

COVER SHEET
TEMPLE ISAIAH
PHASE I
RELIGIOUS FACILITY, NURSERY SCHOOL AND PRIVATE RELIGIOUS SCHOOL
CECIL COLE PROPERTY
TAX MAP 40 & 41 BLOCK 18 & 13 PARCEL 2 LOT 4
5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

STATE OF MARYLAND — ZACHARIA YOSEF FISCH — 22418 — PROFESSIONAL ENGINEER

FSH Associates
Engineers Planners Surveyors
8318 Forrest Street Ellicott City, MD 21043
Tel:410-750-2251 Fax: 410-750-7350
E-mail: FSHAssociates@cs.com

(3)

DESIGN BY:	PS
DRAWN BY:	PS
CHECKED BY:	ZYF
SCALE:	1"=30'
DATE:	March 04, 2003
W.O. No.:	3002
SHEET No.:	1 OF 24

Note: For 100 Year Floodplain Distance & Bearings, see Chart on sheet 4 of 19.

OWNER/DEVELOPER

TEMPLE ISAIAH
c/o Robert Dubin
5885 Robert Oliver Place
Columbia, Maryland 21045
202-466-3400

SITE DEVELOPMENT AND GRADING PLAN
TEMPLE ISAIAH
PHASE I
RELIGIOUS FACILITY, NURSERY SCHOOL AND PRIVATE RELIGIOUS SCHOOL
CECIL COLE PROPERTY
TAX MAP 40 & 41 BLOCK 18 & 13 PARCEL 2 LOT 4
5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

APPROVED : FOR PRIVATE WATER AND PRIVATE SEWERAGE SYSTEMS IN ACCORDANCE WITH THE MASTER PLAN OF HOWARD COUNTY

COUNTY HEALTH OFFICER / SRK — 3-17-03 DATE
HOWARD COUNTY HEALTH DEPARTMENT

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION — 3/12/03 DATE
CHIEF, DIVISION OF LAND DEVELOPMENT — 3/17/03 DATE
DIRECTOR — 3/17/03 DATE

STATE OF MARYLAND — ZACHARIA YOSEF FISCH — 22418 — PROFESSIONAL ENGINEER

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Tel:410-750-2251 Fax: 410-750-7350
E-mail: FSHAssociates@cs.com

DESIGN BY:	PS
DRAWN BY:	PS
CHECKED BY:	ZYF
SCALE:	1"=30'
DATE:	March 04, 2003
W.O. No.:	3002
SHEET No.:	2 OF 24

No.	DATE	REVISION	BY
3	11-14-22	ADDED OUTDOOR PATHS AND SEATING AREAS.	FSH
2	10-2-20	ADDED BUILDING EXPANSIONS & ENCLOSED AREA.	FSH
1	8-21-19	ADDED WOODEN SHED.	FSH

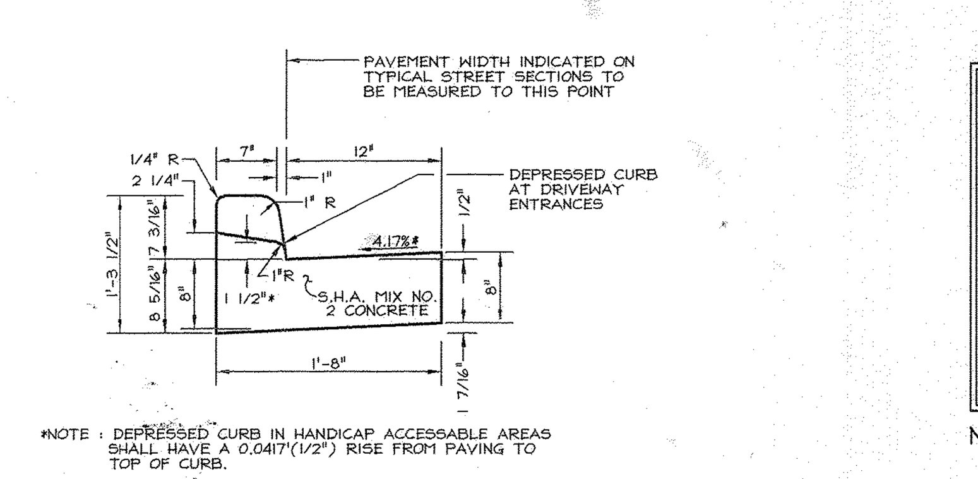
SDP-02-155

NOTES:

1) THE CONTRACTOR SHALL USE THE FLAGGING SUPPLIED BY THE SURVEYOR TO LOCATE THE AREAS WHERE THE EXISTING SEPTIC PUMP LINE AND WELL LINE INTERSECT THE PROPOSED UTILITY EASEMENTS. IN THESE LOCATIONS THE EXISTING SEPTIC AND WELL LINES SHALL BE REMOVED AND REPLACED IN THE AREAS WITH 5' OVERLAP OUTSIDE OF THE PROPOSED EASEMENT. THE REPLACEMENT LINES SHALL BE OF THE SAME MATERIAL AND SIZE AS THE ONES REMOVED. THE REPLACED LINES SHALL BE RUN WITHIN A PVC CONDUIT THAT IS 1" LARGER IN DIAMETER THAN THE EXISTING AND BE RUN THE ENTIRE LENGTH FROM 5' OUTSIDE THE PROPOSED EASEMENT ON BOTH SIDES. CONTRACTOR SHALL COMPACT THE SOIL BELOW, AROUND AND ABOVE THE REPLACED LINES PER UTILITY STANDARDS AND WARNING TAPE.

2) DEPTHS AND LOCATIONS OF SEPTIC LINE, WELL LINE AND SEWAGE DISPOSAL TRENCHES ARE BASED UPON A PRELIMINARY FIELD INVESTIGATION PERFORMED BY MASER CONSULTING ON 12/20/2016 USING A GROUND PENETRATING RADAR (GPR) DEVICE. CONTRACTOR SHALL VERIFY ALL LOCATIONS DIMENSIONS DEPTHS AND MATERIALS IN FIELD PRIOR TO ONSET OF CONSTRUCTION. (3)

MATCHLINE SEE SHEET 4 OF 19
MATCHLINE SEE SHEET 2 OF 19
REPLACE EXISTING SECTION OF WELL LINE @ 3' BELOW GRADE AND INSTALL 1" PVC SLEEVE AROUND PIPING
EXISTING WELL
PROPOSED 25'X30' GRAVEL CELL SITE EQUIPMENT AREA
PROPOSED ACCESS ROAD
PROPOSED 150'-0" MONOPOLE WITH 8' LIGHTNING ROD
PROPOSED UNDERGROUND TELCO CONDUIT (TYP.)
Ex. 25' Wetlands Buffer Plat #15811
PARCEL 108 VIRAM & MINA PATEL 1567/703 ZONED: RR-DEO
Ex. Forest Conservation Easement 2 Area = 0.98 ac.± Plat #15811
REPLACE EXISTING SECTION OF SEPTIC PUMP LINE @ 3' BELOW GRADE AND INSTALL 1" PVC SLEEVE AROUND PIPING
MAINTAIN SHEET FLOW FOR 30' @ MAX. 3% SLOPE (MIN. LENGTH OF DISCONNECTION = 30')
APPROX. LOCATION OF EXISTING WATER LINE
Existing Retaining Wall To Remain
Existing Building To Remain
Existing Fenceline To Remain
LOCATION OF EXISTING PUMP LINE @ 3' BELOW GRADE
PROPOSED UNDERGROUND ELECTRIC CONDUIT (TYP.)
LOCATION OF EXISTING SEWAGE DISPOSAL TRENCHES
10' PRIVATE UTILITY EASEMENT PLAT NO. 24116-17
BORE UTILITIES UNDER CREEK
166' SETBACK RADIUS FROM PROPOSED TOWER
Ex. 100 Year Floodplain Drainage and Utility Easement - 1.82 ac.± Plat #15811
Ex. Forest Conservation Easement 1 Area = 1.15 ac.± Plat #15811
Intermittent Stream
Existing Septic Area 10,059 Sq.Ft.±
MARYLAND ROUTE 216
SCAGGSVILLE ROAD
(MINOR ARTERIAL)
(PUBLIC STATE ROAD)
RUBBERIZED TRICYCLE PATH
Prop. Fence for Play area
FENCE
PATHWAY WITH STONE PAVERS CONC. SITTING WALL
4' CONC. PATH
12'x13' CONC. PAD W/ 3 BENCHES
Maryland State Grid (NAD 83/91)
150' Ultimate R/W

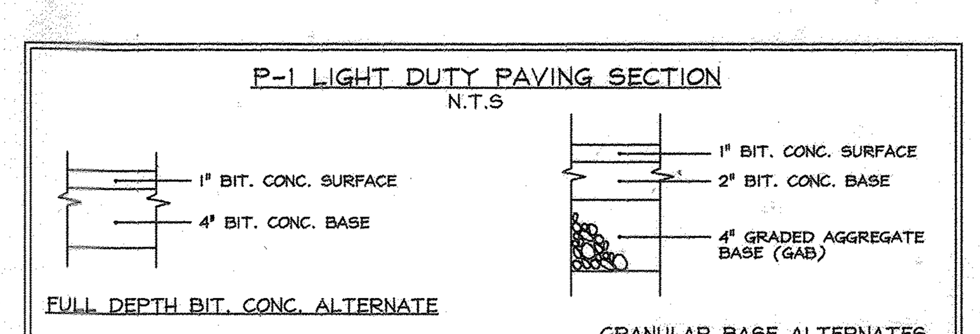


*NOTE : DEPRESSED CURB IN HANDICAP ACCESSABLE AREAS SHALL HAVE A 0.0417'(1/2") RISE FROM PAVING TO TOP OF CURB.

STANDARD COMBINATION CURB AND GUTTER

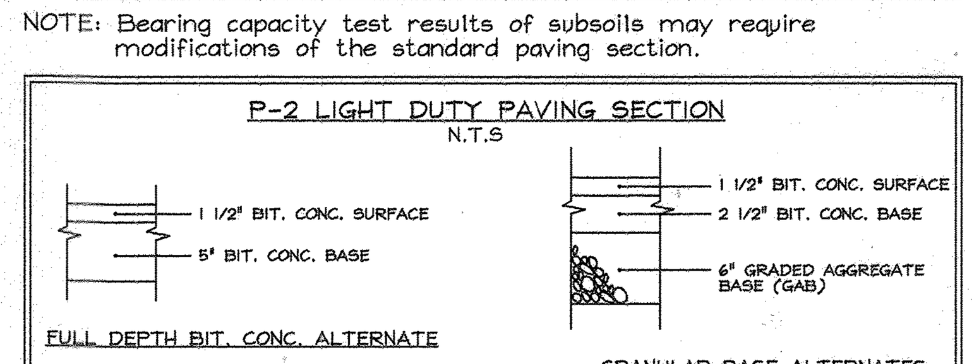
HOWARD COUNTY STANDARD R-3.01
NOT TO SCALE

P-1 LIGHT DUTY PAVING SECTION
N.T.S

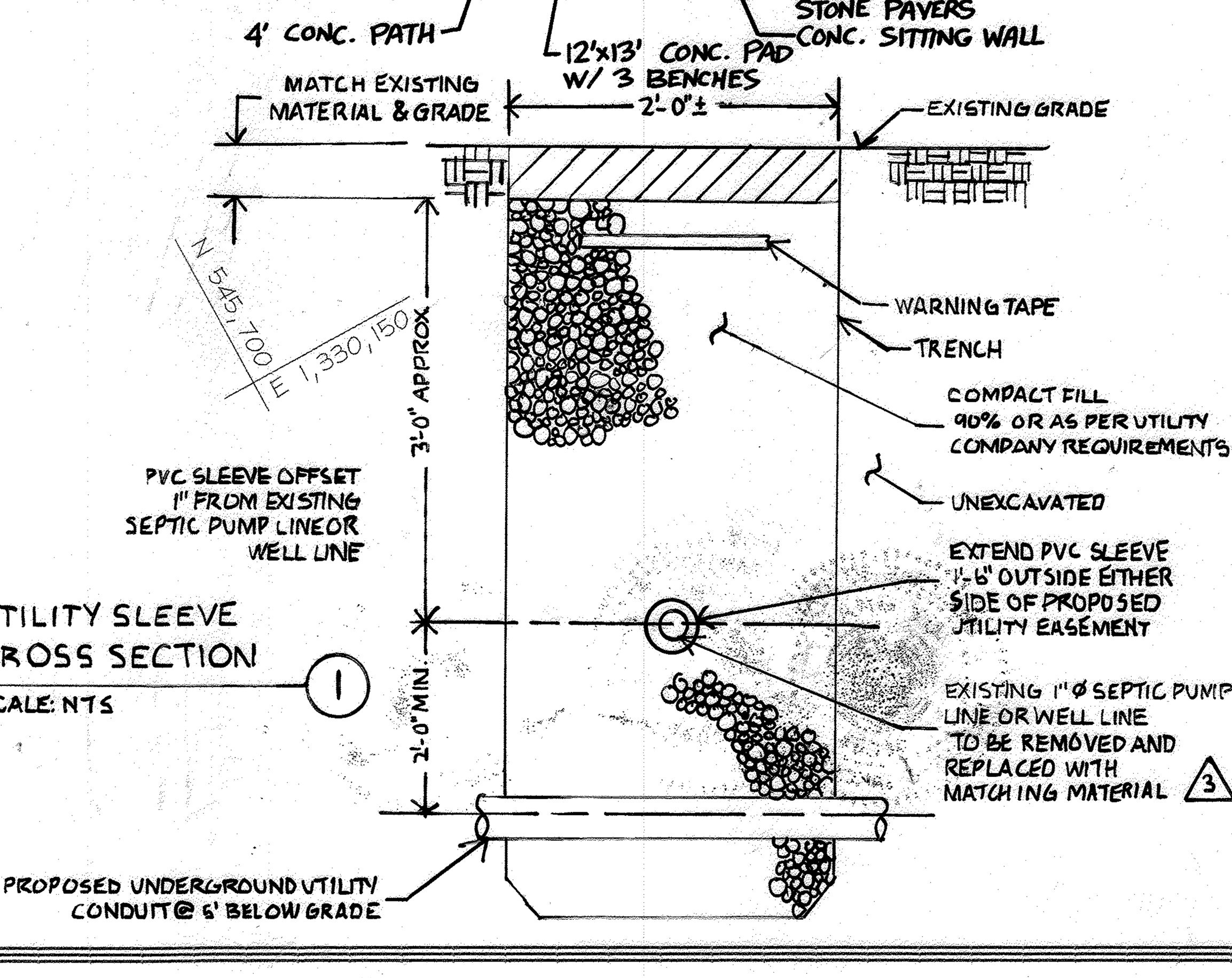


NOTE: Bearing capacity test results of subsoils may require modifications of the standard paving section.

P-2 LIGHT DUTY PAVING SECTION
N.T.S



NOTE: Bearing capacity test results of subsoils may require modifications of the standard paving section.



MATCH EXISTING MATERIAL & GRADE
2'-0"±
EXISTING GRADE
WARNING TAPE
TRENCH
COMPACT FILL 90% OR AS PER UTILITY COMPANY REQUIREMENTS
UNEXCAVATED
PVC SLEEVE OFFSET 1" FROM EXISTING SEPTIC PUMP LINE OR WELL LINE
EXTEND PVC SLEEVE 5' OUTSIDE EITHER SIDE OF PROPOSED UTILITY EASEMENT
EXISTING 1"Ø SEPTIC PUMP LINE OR WELL LINE TO BE REMOVED AND REPLACED WITH MATCHING MATERIAL
3'-0" APPROX.
2'-0" MIN.
PROPOSED UNDERGROUND UTILITY CONDUIT @ 5' BELOW GRADE

UTILITY SLEEVE CROSS SECTION (1)
SCALE: NTS

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION	DATE 3/12/03
CHIEF, DIVISION OF LAND DEVELOPMENT	DATE 3/17/03
DIRECTOR	DATE 3/17/03

APPROVED : FOR PRIVATE WATER AND PRIVATE SEWERAGE SYSTEMS IN ACCORDANCE WITH THE MASTER PLAN OF HOWARD COUNTY

COUNTY HEALTH OFFICER [redacted] / SRK — DATE 3-17-03
HOWARD COUNTY HEALTH DEPARTMENT

SEAL:
JIANG YU
PROFESSIONAL ENGINEER
MD LICENSE NO. 48030

DEWBERRY CONSULTANTS LLC
3106 LORD BALTIMORE DRIVE
SUITE 110
BALTIMORE MD 21244
PHONE: 410.265.9500 FAX: 410.265.8875

DATE	NO.	REVISION
11-14-22	4	ADDED PATHS & SEAT. AREAS
12/27/16	3	AT&T EQUIPMENT
10/13/16	2	AT&T EQUIPMENT
8/22/16	1	AT&T EQUIPMENT
6/18/14	0	AT&T EQUIPMENT

OWNER/DEVELOPER

TEMPLE ISAIAH
c/o Robert Dubin
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202-466-3400

Note: For 100 Year Floodplain Distance & Bearings, see Chart on sheet 4 of 19.

SITE DEVELOPMENT AND GRADING PLAN
TEMPLE ISAIAH
PHASE I
RELIGIOUS FACILITY, NURSERY SCHOOL AND PRIVATE RELIGIOUS SCHOOL
CECIL COLE PROPERTY
TAX MAP 40 & 41 BLOCK 18 & 13 PARCEL 2 LOT 4
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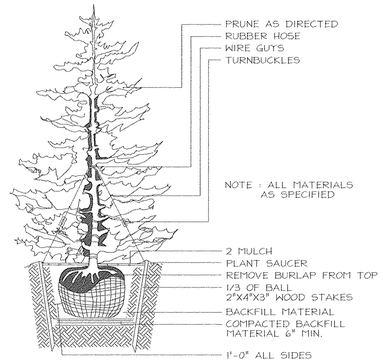
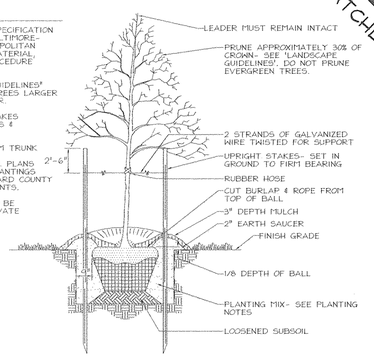
Tel:410-750-2251 Fax: 410-750-7350
E-mail: FSHAssociates@cs.com

DESIGN BY: PS
DRAWN BY: PS
CHECKED BY: ZYF
SCALE: 1"=30'
DATE: March 04, 2003
W.O. No.: 3002
SHEET No.: 3 OF 24



TYPICAL EVERGREEN TREE PLANTING DETAIL

NOT TO SCALE



NOTES

1. SEE "LANDSCAPE SPECIFICATION GUIDELINES FOR BALTIMORE-WASHINGTON METROPOLITAN AREAS" FOR ALL MATERIAL, PRODUCT, AND PROCEDURE SPECIFICATIONS.
2. SEE "LANDSCAPE GUIDELINES" FOR SUPPORTING TREES LARGER THAN 2-1/2" CALIPER.
3. PLACE UPRIGHT STAKES PARALLEL TO WALKS & BUILDINGS.
4. KEEP MULCH 1" FROM TRUNK.
5. SEE ARCHITECTURAL PLANS FOR ADDITIONAL PLANTINGS WHICH EXCEED HOWARD COUNTY MINIMUM REQUIREMENTS.
6. TREES ARE NOT TO BE PLANTED OVER PRIVATE SEWAGE EASEMENT.

TYPICAL TREE PLANTING AND STAKING

DECIDUOUS TREES UP TO 2-1/2" CALIPER NOT TO SCALE

MATCHLINE SEE THIS SHEET

MATCHLINE SEE SHEET 3 OF 19

MATCHLINE SEE SHEET 2 OF 19

MATCHLINE SEE SHEET 3 OF 19

MATCHLINE SEE THIS SHEET

MATCHLINE SEE SHEET 3 OF 19

E 1,329,700
N 546,400

PARCEL 108
VIRAM & MINA PATEL
1567/703
ZONED: RR-DEO

LOT 3
CECIL COLE PROPERTY
PLAT# 14537
ZONED: RR-DEO

LOT 4
21.00 Ac ±

F2 Ex. Forest Conservation Easement 3
Total: 1.15 ac
Planting 0.61 ac
Enhancement: 0.54 ac
Plat #15811

Ex. Forest Conservation Easement 1
Planting Only: 0.72 ac
Plat #15811

Ex. 100 Year Floodplain, Drainage and Utility Easement Plat #15811

Intermittent Stream

PROPOSED BYPASS DITCH

PROPOSED 2' BOTTOM GRASS SWALE

25' No Woody Vegetation Buffer (from prop. struct.)

15' No Woody Vegetation Buffer

Class I Riprap Place Atop Filter Fabric

Conc. Weir Struct. See Detail Sheet 11 of 19

SWM Pond #1
Hazard Class A
Micro-Pool

Pilot Channel

30' BRL & URE

60' BRL

30' URL

166' SETBACK RADIUS FROM PROPOSED TOWER

1267.60'

863.86'

479.43'

1122.37'

N83°56'59"E

S36°06'08"E

Maryland State Grid (NAD 83/91)

E 1,330,325
N 546,225
E 1,330,625
N 546,650
E 1,330,200
N 545,950
E 1,330,825

100 YEAR FLOODPLAIN TABLE

LINE	BEARING	DISTANCE
F1	N86°55'05"W	18.66
F2	S67°36'17"W	93.62
F3	S60°21'20"W	99.06
F4	S44°00'18"W	63.31
F5	S60°13'07"W	120.03
F6	S66°22'26"W	331.93
F7	S40°11'59"E	93.89
F8	S84°27'10"E	156.30
F9	N28°41'02"E	54.59
F10	N66°21'58"E	40.48
F11	N20°33'54"E	139.14
F12	N66°44'15"E	127.41
F13	N77°20'30"E	54.89
F14	N55°19'13"E	91.08
F15	N75°03'35"E	104.86
F16	N56°57'47"E	94.31
F17	N38°44'16"E	24.22

OWNER/DEVELOPER

TEMPLE ISAIAH
c/o Robert Dubin
5885 Robert Oliver Place
Columbia, Maryland 21045
202-466-3400

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 3/14/03

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

DIRECTOR — DATE 3/17/03

APPROVED : FOR PRIVATE WATER AND PRIVATE SEWERAGE SYSTEMS IN ACCORDANCE WITH THE MASTER PLAN OF HOWARD COUNTY

COUNTY HEALTH OFFICER — DATE 3-17-03
HOWARD COUNTY HEALTH DEPARTMENT

SEAL:

JIANG YU
PROFESSIONAL ENGINEER
MD LICENSE NO. 46030

DATE	NO.	REVISION
12/27/16	3	AT&T EQUIPMENT
10/13/16	2	AT&T EQUIPMENT
8/22/16	1	AT&T EQUIPMENT
6/18/14	0	AT&T EQUIPMENT

DEWBERRY CONSULTANTS LLC
3106 LORD BALTIMORE DRIVE
SUITE 110
BALTIMORE MD 21244
PHONE: 410.265.4500 FAX: 410.265.8875

SITE DEVELOPMENT AND GRADING PLAN
TEMPLE ISAIAH
PHASE 1

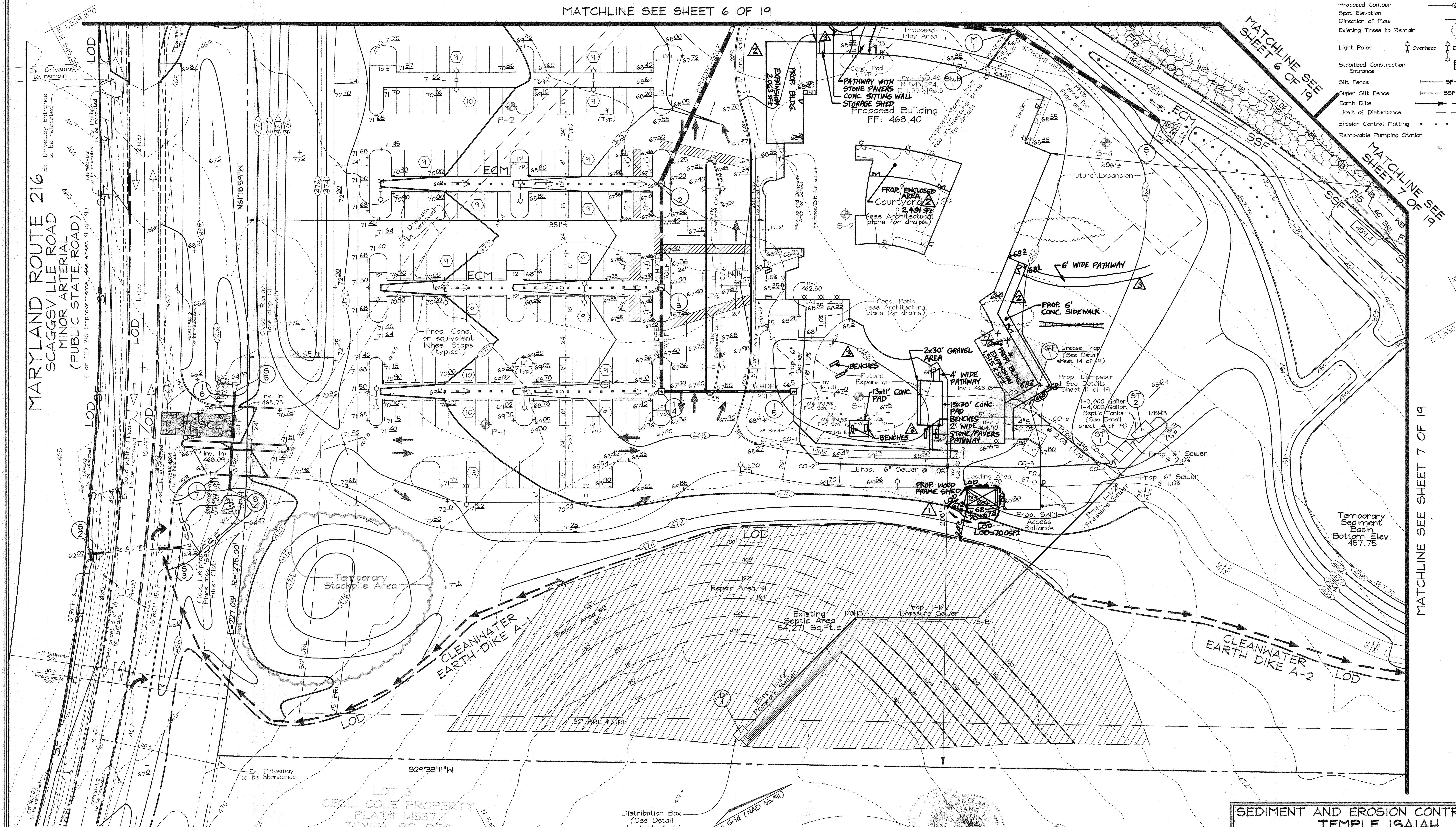
RELIGIOUS FACILITY, NURSERY SCHOOL AND PRIVATE RELIGIOUS SCHOOL
CECIL COLE PROPERTY
TAX MAP 40 & 41 BLOCK 18 & 13 PARCEL 2 LOT 4
5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

STATE OF MARYLAND — ZACHARIA YOSEF FISCH — 22418 — PROFESSIONAL ENGINEER

FSH Associates
Engineers Planners Surveyors
8318 Forrest Street Ellicott City, MD 21043
Tel:410-750-2251 Fax: 410-750-7350
E-mail: FSHAssociates@cs.com

DESIGN BY:	PS
DRAWN BY:	PS
CHECKED BY:	ZYF
SCALE:	1"=30'
DATE:	March 04, 2003
W.O. No.:	3002
SHEET No.	4 OF 243

SDP-02-155



LEGEND

Existing Contour	382
Proposed Contour	82
Spot Elevation	+82^{53}
Direction of Flow	
Existing Trees to Remain	
Light Poles	Overhead / Double Overhead
Stabilized Construction Entrance	SCE
Silt Fence	SF
Super Silt Fence	SSF
Earth Dike	ED A-1
Limit of Disturbance	LOD
Erosion Control Matting	ECM
Removable Pumping Station	RPS

Note: For 100 Year Floodplain Distance & Bearings, see Chart on sheet 4 of 19.

APPROVED : FOR PRIVATE WATER AND PRIVATE SEWERAGE SYSTEMS IN ACCORDANCE WITH THE MASTER PLAN OF HOWARD COUNTY

Penny Borenstein MD 3-17-03
COUNTY HEALTH OFFICER [redacted] / SRK DATE
HOWARD COUNTY HEALTH DEPARTMENT

NO.	DATE	REVISION	BY
3	11-14-22	ADDED OUTDOOR PATHS AND SEATING AREAS.	FSH
2	10-2-20	ADDED BUILDING EXPANSIONS & ENCLOSED AREA.	FSH
1	8-21-19	ADDED WOODEN SHED.	FSH

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

3/12/03
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

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

Marsha McLaughlin 3/13/03
DIRECTOR DATE

REVIEWED FOR HOWARD SCD AND MEETS TECHNICAL REQUIREMENTS

Jim Meyer 3/11/03
USDA-NATURAL RESOURCES CONSERVATION SERVICE DATE

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

John R Robertson 3/11/03
HOWARD SCD DATE

ENGINEERS CERTIFICATE

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

Zacharia Y. Fisch 3-5-03
SIGNATURE OF ENGINEER DATE
ZACHARIA Y. FISCH

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. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT.

Lynn Abramson Lynn Abramson (President) 3/5/03
SIGNATURE OF DEVELOPER DATE

OWNER/DEVELOPER

TEMPLE ISAIAH
c/o Robert Dubin
5885 Robert Oliver Place
Columbia, Maryland 21045
202-466-3400

SEDIMENT AND EROSION CONTROL PLAN
TEMPLE ISAIAH
PHASE I

RELIGIOUS FACILITY, NURSERY SCHOOL AND PRIVATE RELIGIOUS SCHOOL
CECIL COLE PROPERTY
TAX MAP 40 & 41 BLOCK 18 & 13 PARCEL 2 LOT 4
5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

STATE OF MARYLAND ZACHARIA YOSEF FISCH 22418 PROFESSIONAL ENGINEER

FSH Associates
Engineers Planners Surveyors
8318 Forrest Street Ellicott City, MD 21043
Tel:410-750-2251 Fax: 410-750-7350
E-mail: FSHAssociates@cs.com

DESIGN BY:	PS
DRAWN BY:	PS
CHECKED BY:	ZYF
SCALE:	1"=30'
DATE:	March 04, 2003
W.O. No.:	3002
SHEET No.:	5 OF 24


MATCHLINE SEE SHEET 7 OF 19
MATCHLINE SEE SHEET 7 OF 19
MATCHLINE SEE SHEET 7 OF 19
MATCHLINE SEE SHEET 5 OF 19
REPLACE EXISTING SECTION OF WELL LINE @ 3' BELOW GRADE AND INSTALL 1" PVC SLEEVE AROUND PIPING
EXISTING WELL
PROPOSED 25'x30' GRAVEL CELL SITE EQUIPMENT AREA
PROPOSED ACCESS ROAD
Ex. Well
PARCEL 108
VIRAM & MINA PATEL
1567/703
ZONED: RR-DEO
N09°27'48"E
Ex. Forest Conservation Easement 2
Total: 0.98 ac
Planting: 0.56 ac
Enhancement: 0.42 ac
Plat #15811
Ex. 25' Wetlands Buffer Plat #15811
Ex. GRAVEL ACCESS ROAD
Existing Building To Remain
Existing Fenceline To Remain
PROPOSED 160-0" MONOPOLE WITH 6' LIGHTNING ROD
LOCATION OF EXISTING WATER LINE @ 3' B.G.
MAINTAIN SHEET FLOW FOR 30' @ MAX. 3% SLOPE (MIN. LENGTH OF DISCONNECTION = 30')
Existing Retaining Wall To Remain
PROPOSED UNDERGROUND TELCO CONDUIT (TYP.)
Existing Retaining Walls To Remain
REPLACE EXISTING SECTION OF SEPTIC PUMP LINE @ 3' BELOW GRADE AND INSTALL 1" PVC SLEEVE AROUND PIPING
LOCATION OF EXISTING SEWAGE DISPOSAL TRENCHES
32" Black Oak
CLEANWATER EARTH DIKE A-1
30' BRL & URL
Intermittent Stream
Limit of Wetland
LOCATION OF EXISTING PUMP LINE @ 3' BELOW GRADE
BORE UTILITIES UNDER CREEK
160' SETBACK RADIUS FROM PROPOSED TOWER
PROPOSED UNDERGROUND ELECTRIC CONDUIT (TYP)
Temporary Stockpile Area
10' PRIVATE UTILITY EASEMENT PLAT NO. 24116-17
Existing Septic Area 10,059 Sq. Ft. ±
MARYLAND ROUTE 216
SCAGGSVILLE ROAD
MINOR ARTERIAL
(PUBLIC STATE ROAD)
Ex. 100 Year Floodplain Drainage and Utility Easement 1.82 ac ±
Ex. Forest Conservation Easement 3
Ex. 25' Wetlands Buffer Plat #15811
Existing Brushline
Prop. Conc. Wheel Stops (typ)
P-3
ECM
SSF
RUBBERIZED TRICYCLE PATH
FENCE
Prop. Fence for Play area
Play Area
4' CONC. PATH
12'x13' CONC. PAD W/ 3 BENCHES
PATHWAY WITH STONE PAVERS CONC. SITTING WALL
Maryland State Grid (NAD 83/91)
E 1,330,275
N 546,025
E 1,329,700
LOD

Note: For 100 Year Floodplain Distance & Bearings, see Chart on sheet 4 of 19.

NOTES:
1) THE CONTRACTOR SHALL USE THE FLAGGING SUPPLIED BY THE SURVEYOR TO LOCATE THE AREAS WHERE THE EXISTING SEPTIC PUMP LINE AND WELL LINE INTERSECT THE PROPOSED UTILITY EASEMENTS. IN THESE LOCATIONS THE EXISTING SEPTIC AND WELL LINES SHALL BE REMOVED AND REPLACED IN THE AREAS WITH 5' OVERLAP OUTSIDE OF THE PROPOSED EASEMENT. THE REPLACEMENT LINES SHALL BE OF THE SAME MATERIAL AND SIZE AS THE ONES REMOVED. THE REPLACED LINES SHALL BE RUN WITHIN A PVC CONDUIT THAT IS 1" LARGER IN DIAMETER THAN THE EXISTING AND BE RUN THE ENTIRE LENGTH FROM 5' OUTSIDE THE PROPOSED EASEMENT ON BOTH SIDES. CONTRACTOR SHALL COMPACT THE SOIL BELOW, AROUND AND ABOVE THE REPLACED LINES PER UTILITY STANDARDS AND WARNING TAPE.
2) DEPTHS AND LOCATIONS OF SEPTIC LINE, WELL LINE AND SEWAGE DISPOSAL TRENCHES ARE BASED UPON A PRELIMINARY FIELD INVESTIGATION PERFORMED BY MASER CONSULTING ON 12 20 2016 USING A GROUND PENETRATING RADAR (GPR) DEVICE. CONTRACTOR SHALL VERIFY ALL LOCATIONS DIMENSIONS DEPTHS AND MATERIALS IN FIELD PRIOR TO ONSET OF CONSTRUCTION. 3

APPROVED : FOR PRIVATE WATER AND PRIVATE SEWERAGE SYSTEMS IN ACCORDANCE WITH THE MASTER PLAN OF HOWARD COUNTY

3-17-03
COUNTY HEALTH OFFICER / SRK — DATE
HOWARD COUNTY HEALTH DEPARTMENT

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

3/12/03
CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE

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

3/13/03
DIRECTOR — DATE

REVIEWED FOR HOWARD SCD AND MEETS TECHNICAL REQUIREMENTS

3/11/03
USDA-NATURAL RESOURCES CONSERVATION SERVICE — DATE

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

3/4/03
HOWARD SCD — DATE

ENGINEERS CERTIFICATE

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

Zacharia Y. Fisch — 3-5-03
SIGNATURE OF ENGINEER — DATE
ZACHARIA Y. FISCH

SEAL:

STATE OF MARYLAND
JIANG YU
46030
PROFESSIONAL ENGINEER

JIANG YU
PROFESSIONAL ENGINEER
MD LICENSE NO. 46030

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. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT.

Lynn Abramson (President) — 3/5/03
SIGNATURE OF DEVELOPER — DATE

11-14-22	4	ADDED PATHS & SEAT. AREAS

DEWBERRY CONSULTANTS LLC
3106 LORD BALTIMORE DRIVE
SUITE 110
BALTIMORE MD 21244
PHONE: 410.265.9500 FAX: 410.265.8875

DATE	NO.	REVISION
12/27/16	3	AT&T EQUIPMENT
10/13/16	2	AT&T EQUIPMENT
8/22/16	1	AT&T EQUIPMENT
6/18/14	0	AT&T EQUIPMENT

OWNER/DEVELOPER

TEMPLE ISAIAH
c/o Robert Dubin
5885 Robert Oliver Place
Columbia, Maryland 21045
202-466-3400

SEDIMENT AND EROSION CONTROL PLAN
TEMPLE ISAIAH
PHASE I

RELIGIOUS FACILITY, NURSERY SCHOOL AND PRIVATE RELIGIOUS SCHOOL
CECIL COLE PROPERTY
TAX MAP 40 & 41 BLOCK 18 & 13 PARCEL 2 LOT 4
5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

STATE OF MARYLAND
ZACHARIA YOSEF FISCH
22418
PROFESSIONAL ENGINEER

FSH Associates
Engineers Planners Surveyors
8318 Forrest Street Ellicott City, MD 21043
Tel:410-750-2251 Fax: 410-750-7350
E-mail: FSHAssociates@cs.com

DESIGN BY: PS
DRAWN BY: PS
CHECKED BY: ZYF
SCALE: 1"=30'
DATE: March 04, 2003
W.O. No.: 3002
SHEET No.: 6 OF 24

SDP-02-155

Note: For 100 Year Floodplain Distance & Bearings, see Chart on sheet 4 of 19.

DATE	NO.	REVISION
12/27/16	3	AT&T EQUIPMENT
10/13/16	2	AT&T EQUIPMENT
8/22/16	1	AT&T EQUIPMENT
6/18/14	0	AT&T EQUIPMENT

DEWBERRY CONSULTANTS LLC
3106 LORD BALTIMORE DRIVE
SUITE 110
BALTIMORE MD 21244
PHONE: 410.265.9500 FAX: 410.265.8875

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. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT.

Lynn Abramson 3/5/03
SIGNATURE OF DEVELOPER (President) DATE

REVIEWED FOR HOWARD SCD AND MEETS TECHNICAL REQUIREMENTS

3/11/03
USDA-NATURAL RESOURCES CONSERVATION SERVICE DATE

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

3/11/03
HOWARD SCD DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

3/12/03
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

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

3/12/03
DIRECTOR DATE

APPROVED: FOR PRIVATE WATER AND PRIVATE SEWERAGE SYSTEMS IN ACCORDANCE WITH THE MASTER PLAN OF HOWARD COUNTY

3-17-03
COUNTY HEALTH OFFICER [redacted] / SRK DATE
HOWARD COUNTY HEALTH DEPARTMENT

ENGINEERS CERTIFICATE

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

Zacharia Y. Fisch 3-5-03
SIGNATURE OF ENGINEER DATE
ZACHARIA Y. FISCH

SEAL:
STATE OF MARYLAND JIANG YU 46030 PROFESSIONAL ENGINEER
JIANG YU
PROFESSIONAL ENGINEER
MD LICENSE NO. 46030

OWNER/DEVELOPER

TEMPLE ISAIAH
c/o Robert Dubin
5885 Robert Oliver Place
Columbia, Maryland 21045
202-466-3400

SEDIMENT AND EROSION CONTROL PLAN
TEMPLE ISAIAH
PHASE I
RELIGIOUS FACILITY, NURSERY SCHOOL AND PRIVATE RELIGIOUS SCHOOL
CECIL COLE PROPERTY
TAX MAP 40 & 41 BLOCK 18 & 13 PARCEL 2 LOT 4
5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

STATE OF MARYLAND ZACHARIA YOSEF FISCH 22418 PROFESSIONAL ENGINEER

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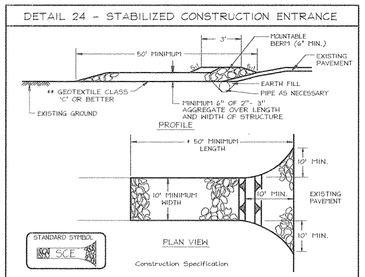
8318 Forrest Street Ellicott City, MD 21043
Tel:410-750-2251 Fax: 410-750-7350
E-mail: FSHAssociates@cs.com

DESIGN BY: PS
DRAWN BY: PS
CHECKED BY: ZYF
SCALE: 1"=30'
DATE: March 04, 2003
W.O. No.: 3002
SHEET No.: 7 OF 24

SDP-02-155

DETAIL 24 - STABILIZED CONSTRUCTION ENTRANCE

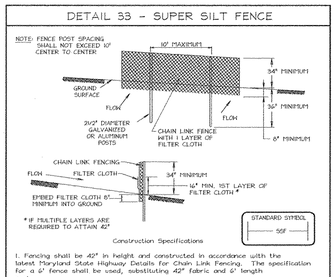


Construction Specification

1. Length - minimum of 50' (* 30' for a single residence lot).
2. Width - 10' minimum, should be flared at the existing road to provide a turning radius.
3. Geotextile fabric (filter cloth) shall be placed over the existing ground prior to placing stone. ** The plan approval authority may not require single family residences to use geotextile.
4. Stone - crushed aggregate (2" to 3") or reclaimed or recycled concrete equivalent shall be placed at least 6" deep over the length and width of the entrance.
5. Surface Water - all surface water flowing to or diverted toward construction entrances shall be piped through the entrance, maintaining positive drainage. Pipe installed through the stabilized construction entrance shall be protected with a mountable berm with 5:1 slopes and a minimum of 6" of stone over the pipe. Pipe has to be sized according to the drainage. When the SCE is located at a high spot and has no drainage to convey, a pipe will not be necessary. Pipe should be sized according to the amount of runoff to be conveyed. A 6" minimum will be required.
6. Location - A stabilized construction entrance shall be located at every point where construction traffic enters or leaves a construction site. Vehicles leaving the site must travel over the entire length of the stabilized construction entrance.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	PAGE F - 17 - 3	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

DETAIL 33 - SUPER SILT FENCE



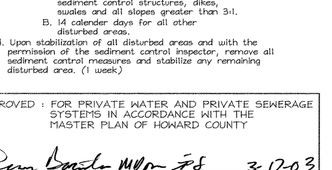
Construction Specifications

1. Fencing shall be 42" in height and constructed in accordance with the latest Maryland State Highway Details for Chain Link Fencing. The specification for a 6' fence shall be used, substituting 42" fabric and 6' length posts.
2. Chain link fence shall be fastened securely to the fence posts with wire ties. The lower tension wire, brace and truss rods, drive anchors and post caps are not required except on the ends of the fence.
3. Filter cloth shall be fastened securely to the chain link fence with ties spaced every 24" at the top and mid section.
4. Filter cloth shall be embedded a minimum of 8" into the ground.
5. When two sections of filter cloth adjoin each other, they shall be overlapped by 6" and folded.
6. Maintenance shall be performed as needed and silt buildups removed when "bulges" develop in the silt fence, or when silt reaches 50% of fence height.
7. Filter cloth shall be fastened securely to each fence post with wire ties or staples at top and mid section and shall meet the following requirements for Geotextile Class F:

Tensile Strength	50 lbs/in (min.)	Test: MSMT 509
Tensile Modulus	20 lbs/in (min.)	Test: MSMT 509
Flow Rate	0.3 gal/ft Aminute (max.)	Test: MSMT 322
Filtering Efficiency	75% (min.)	Test: MSMT 322

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	PAGE F - 26 - 3	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

DETAIL 1 - EARTH DIKE



	DIKE A	DIKE B
a-DIKE HEIGHT	18"	30"
b-DIKE WIDTH	24"	36"
c-FLOW WIDTH	4'	6'
d-FLOW DEPTH	12"	24"

FLOW CHANNEL STABILIZATION GRADE 0.5% MIN. 10% MAX.

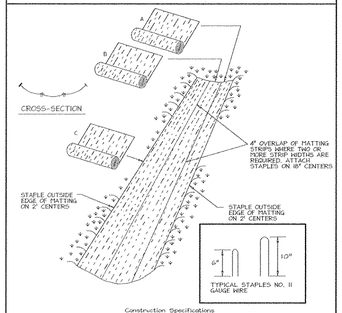
1. Seed and cover with straw mulch.
2. Seed and cover with Erosion Control Matting or line with sod.
3. 4" - 7" stone or recycled concrete equivalent pressed into the soil 7" minimum

Construction Specifications

1. All temporary earth dikes shall have uninterrupted positive grade to an outlet. Spot elevations may be necessary for grades less than 1%.
2. Runoff diverted from a disturbed area shall be conveyed to a sediment trapping device.
3. Runoff diverted from an undisturbed area shall outlet directly into an undisturbed, stabilized area at a non-erosive velocity.
4. All trees, brush, stumps, obstructions, and other objectional material shall be removed and disposed of so as not to interfere with the proper functioning of the dike.
5. The dike shall be excavated or shaped to line, grade and cross section as required to meet the criteria specified herein and be free of bank projections or other irregularities which will impede normal flow.
6. Fill shall be compacted by earth moving equipment.
7. All earth removed and not needed for construction shall be placed so that it will not interfere with the functioning of the dike.
8. Inspection and maintenance must be provided periodically and after each rain event.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	PAGE A - 1 - 4	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

DETAIL 30 - EROSION CONTROL MATTING



Construction Specifications

1. Key-in the matting by placing the top ends of the matting in a narrow trench, 6" in depth. Backfill the trench and tamp firmly to conform to the channel cross-section. Secure with a row of staples about 4" down slope from the trench. Spacing between staples is 6".
2. Staple the 4" overlap in the channel center using an 18" spacing between staples.
3. Before stapling the outer edges of the matting, make sure the matting is smooth and in firm contact with the soil.
4. Staples shall be placed 2' apart with 4 rows for each strip, 2 outer rows, and 2 alternating rows down the center.
5. Where one roll of matting ends and another begins, the end of the top strip shall overlap the upper end of the lower strip by 4", shiplap fashion. Reinforce the overlap with a double row of staples spaced 6" apart in a staggered pattern on either side.
6. The discharge end of the matting liner should be similarly secured with 2 double rows of staples.

Note: If flow will enter from the edge of the matting then the area effected by the flow must be keyed-in.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	PAGE G - 22 - 2	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

SEQUENCE OF CONSTRUCTION

1. Obtain Grading permit.
2. Notify Howard County Department of Inspections, License and Permits at (410) 313-1880 at least 24 hours before starting any work.
3. Install stabilized construction entrance, earth dikes and super silt fence. (1 week)
4. Construct Sediment Basin #1. Grade basin and Forebay to elevation 457.75. Install temporary blocking across CS-1 (see details this sheet). Clear, grub, and rough grade site. (4 weeks)
5. Construct storm drain, storm drain outfalls, and grass channel along existing stream that leads to the pond. (3 weeks)
6. Construct parking lot, water and sewer and building. (4 months)
7. Construct entrance and road widening. (2 weeks)
8. Construct remaining grass swales and fine grade site. Install all erosion control matting. (2 weeks)
9. Install landscaping and afforestation plantings. (1 week)
10. Flush storm drain system. (1 day)
11. With permission of the Sediment Control Inspector, convert Sediment Basin #1 to SWM Pond #1 (grade to pond bottom and install Rip-Rap Weir at Forebay), stabilize all disturbed areas. (1 week)
12. During grading and after each rainfall, contractor will inspect and provide necessary maintenance to the sediment control measures on this plan.
13. Following initial soil disturbance or any redisturbances, permanent or temporary stabilization shall be completed within:
    A. 7 calender days for all perimeter sediment control structures, dikes, swales and all slopes greater than 3:1.
    B. 14 calender days for all other disturbed areas.
14. Upon stabilization of all disturbed areas and with the permission of the sediment control inspector, remove all sediment control measures and stabilize any remaining disturbed area. (1 week)

APPROVED : FOR PRIVATE WATER AND PRIVATE SEWERAGE SYSTEMS IN ACCORDANCE WITH THE MASTER PLAN OF HOWARD COUNTY

COUNTY HEALTH OFFICER / SRK — DATE 3-17-03

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 3/12/03

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

DIRECTOR — DATE 3/13/03

REVIEWED FOR HOWARD SCD AND MEETS TECHNICAL REQUIREMENTS

USDA-NATURAL RESOURCES CONSERVATION SERVICE — DATE 3/4/03

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

HOWARD SCD — DATE 3/4/03

ENGINEERS CERTIFICATE

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

Zacharia Y. Fisch — 3-5-03

SIGNATURE OF ENGINEER — DATE

ZACHARIA Y. FISCH

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. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT.

Lynn Abramson — 3/5/03

SIGNATURE OF DEVELOPER (President) — DATE

OWNER/DEVELOPER

TEMPLE ISAIAH
c/o Robert Dubin
5885 Robert Oliver Place
Columbia, Maryland 21045
202-466-3400

21.0 STANDARDS AND SPECIFICATIONS FOR TOPSOIL

Definition

Placement of topsoil over a prepared subsoil prior to establishment of permanent vegetation.

Purpose

To provide a suitable soil medium for vegetable growth. Soils of concern have low moisture content, low nutrient levels, low pH, materials toxic to plants, and/or unacceptable soil gradation.

Conditions Where Practice Applies

I. This practice 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.

b. The soil material is so shallow that the rooting zone is not deep enough to support plants or furnish continuing supplies of moisture and plant nutrients.

c. The original soil to be vegetated contains material toxic to plant growth.

d. The soil is so acidic that treatment with limestone is not feasible.

II. For the purpose of these Standards and Specifications, areas having slopes steeper than 2:1 require special consideration and design for adequate stabilization. Areas having slopes steeper than 2:1 shall have the appropriate stabilization shown on the plans.

Construction and Material Specifications

I. Topsoil salvaged from the existing site may be used provided that it meets the standards as set forth in these specifications. Typically, the depth of topsoil to be salvaged for a given soil type can be found in the representative soil profile section in the Soil Survey published by USDA-SCS in cooperation with Maryland Agricultural Experimental Station.

II. Topsoil Specifications - Soil to be used as topsoil must meet the following:

i. Topsoil shall be a loam, sandy loam, clay loam, silt loam, sandy clay loam, loamy sand. Other soils may be used if recommended by an agronomist or a soil scientist and approved by the appropriate approval authority. Regardless, topsoil shall not be a mixture of contrasting textured subsoils and shall contain less than 5% by volume of cinders, stones, slag, coarse fragments, gravel, sticks, roots, trash, or other materials larger than 1 and 1/2" in diameter.

ii. Topsoil must be free of plants or plant parts such as Bermuda grass, quackgrass, Johnsongrass, nutsedge, poison ivy, thistle, or others as specified.

iii. Where the subsoil is either highly acidic or composed of heavy clays, ground limestone shall be spread at the rate of 4-8 tons/acre (200-400 pounds per 1,000 square feet) prior to the placement of topsoil. Lime shall be distributed uniformly over designated areas and worked into the soil in conjunction with tillage operations as described in the following procedures.

II. For sites having disturbed areas under 5 acres:

i. Place topsoil (if required) and apply soil amendments as specified in 20.0 Vegetative Stabilization - Section I - Vegetative Stabilization Methods and Materials.

iii. For sites having disturbed areas over 5 acres:

i. On soil meeting topsoil specifications, obtain test results dictating fertilizer and lime amendments required to bring the soil into compliance with the following:
   a. pH for topsoil shall be between 6.0 and 7.5. If the tested soil demonstrates a pH of less than 6.0, sufficient lime shall be prescribed to raise the pH to 6.5 or higher.
   b. Organic content of topsoil shall be not less than 1.5 percent by weight.
   c. Topsoil having soluble salt content greater than 500 parts per million shall not be used.
   d. No sod or seed shall be placed on soil soil which has been treated with soil sterilants or chemicals used for weed control until sufficient time has elapsed (14 days min.) to permit dissipation of phyto-toxic materials.

NOTE: Topsoil substitutes or amendments, as recommended by a qualified agronomist or soil scientist and approved by the appropriate approval authority, may be used in lieu of natural topsoil.

ii. Place topsoil (if required) and apply soil ammendments specified in 20.0 Vegetative Stabilization-Section I-Vegetative Stabilization Methods and Materials.

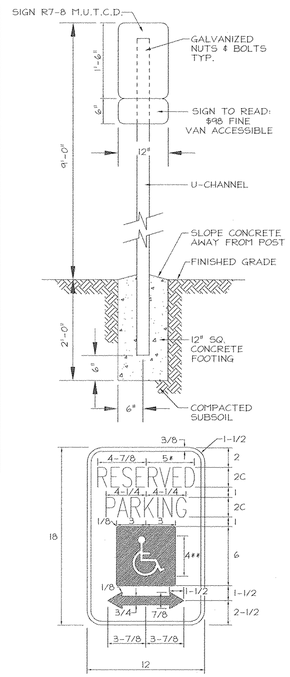
V. Topsoil Application

i. When topsoiling, maintain needed erosion and sediment control practices such as diversions, Grade Stabilization Structures, Earth Dikes, Slope Silt Fence and Sediment Traps and Basins.

ii. Grades on the areas to be topsoiled, which have been previously established, shall be maintained, albeit 4" - 8" higher in elevation.

iii. Topsoil shall be uniformly distributed in a 4" - 8" layer and lightly compacted to a minimum thickness of 4". Spreading shall be performed in such a manner that sodding or seeding can proceed with a minimum of additional soil preparation and tillage. Any irregularities in the surface resulting from topsoiling or other operations shall be corrected in order to prevent the formation of depressions or water pockets.

iv. Topsoil shall not be place while the topsoil or subsoil is in a frozen or muddy condition, when the subsoil is excessively wet or in a condition that may otherwise be detrimental to proper grading and seedbed preparation.



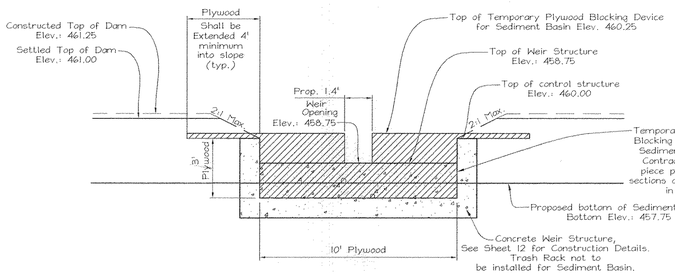
NOTES:
All van accessible parking space aisle shall have a "No Parking in Access Aisle" Sign.
Reduce spacing 50%
See symbol 1860 for symbol design (all dimensions for signs in inches)

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

REFERENCE: STATE OF MARYLAND STANDARD HIGHWAY SIGNS BOOKLET MARYLAND DEPARTMENT OF TRANSPORTATION.

HANDICAP PARKING SIGN

NOT TO SCALE



MODIFICATIONS TO CS-1 SEDIMENT BASIN SECTION 'A'-'A'

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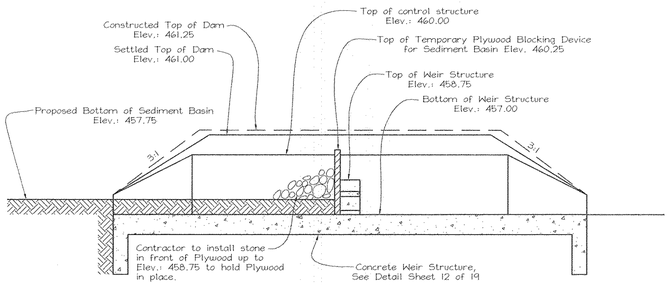

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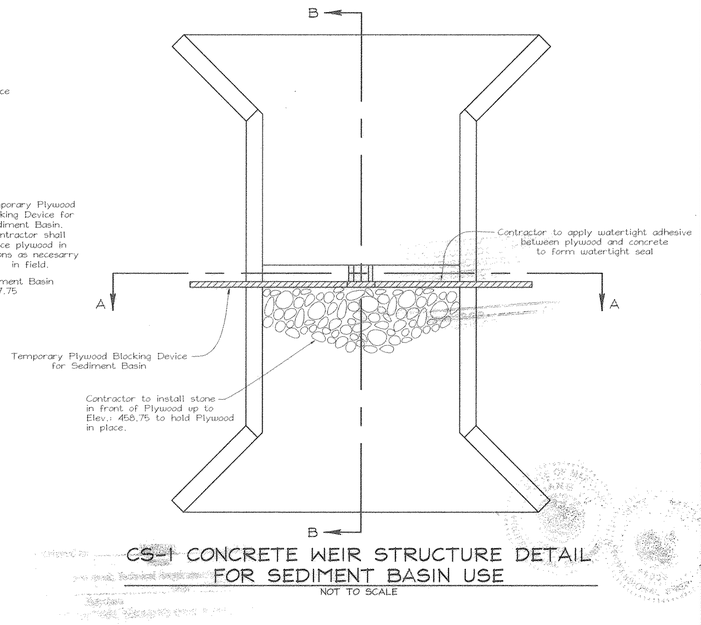


CS-1 CONCRETE WEIR STRUCTURE DETAIL FOR SEDIMENT BASIN USE

NOT TO SCALE

PERMANENT SEEDING NOTES

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:

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

SEEDING: For the periods March 1 thru April 30, and August 1 thru October 15, seed with 60 lbs. per acre (1.4 lbs/1000 sq.ft.) of Kentucky 31 Tall Fescue. For the period May 1 thru July 31, seed with 60 lbs. Kentucky 31 Tall Fescue per acre and 2 lbs. per acre (.05 lbs./1000 sq.ft.) of weeping lovegrass. During the period of October 16 thru February 28, protect site by: Option (1) 2 tons per acre well anchored straw mulch and seed as soon as possible in the spring. Option (2) Use sod. Option (3) Seed with 60 lbs/acre Kentucky 31 Tall Fescue and mulch with 2 tons/acre well anchored straw.

MULCHING: Apply 1 1/2 to 2 tons per acre (70 to 90 lbs/1000 sq. ft.) of unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gallons per acre (5 gal/1000 sq.ft.) of emulsified asphalt on flat areas. On slopes 8 feet or higher, use 348 gallons per acre (8 gal/1000 sq.ft.) for anchoring.

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

TEMPORARY SEEDING NOTES

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 2 1/2 bushel per acre of annual rye (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 1 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 or 218 gallons per acre (5 gal/1000 sq.ft.) of emulsified asphalt on flat areas. On slopes 8 feet or higher, use 348 gallons per acre (8 gal/1000 sq.ft.) for anchoring.

REFER TO THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR RATE AND METHODS NOT COVERED.

SEDIMENT CONTROL NOTES

1. A minimum of 48 hours notice must be given to the Howard County Department of Inspection, License and Permits Sediment Control Division prior to the start of any construction (313-1855).
2. All vegetation and structural practices are to be installed according to the provisions of this plan and are to be in conformance with the 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL and revisions thereto.
3. Following initial soil disturbance or redisturbance, permanent or temporary stabilization shall be completed within: (a) 7 calendar days for all perimeter sediment control structures, dikes, perimeter slopes, and all slopes greater than 3:1, (b) 14 days as to all other disturbed or graded areas on the project site.
4. All sediment traps/basins shown must be fenced and warning signs posted around their perimeter in accordance with Vol. 1, Chapter 7, HOWARD COUNTY DESIGN MANUAL, Storm Drainage.
5. All disturbed areas must be stabilized within the time period specified above in accordance with the 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for permanent seeding, sod, temporary seeding, and mulching (Sec. G). Temporary stabilization with mulch alone shall be done when recommended seeding dates do not allow for proper germination and establishment of grasses.
6. 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.
7. Site Analysis :

Total Area	21.00 Acres
Area Disturbed	9.99 Acres
Area to be roofed or paved	3.30 Acres
Area to be vegetatively stabilized	6.69 Acres
Total Cut	14,556 C.Y.
Total Fill	9,961 C.Y.
Offsite waste/borrow area location	*

8. Any sediment control practice which is disturbed by grading activity for placement of utilities must be repaired on the same day of disturbance.
9. Additional sediment controls must be provided, if deemed necessary by the Howard County Sediment Control Inspector.
10. On all sites with disturbed areas in excess of 2 acres, approval of the inspection agency shall be requested upon completion of installation of perimeter erosion and sediment controls, 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.
11. Trenches for the construction of utilities is limited to three pipe lengths or that which shall be back-filled and stabilized within one working day, whichever is shorter.

* To be determined by contractor, with pre-approval of the Sediment Control Inspector with an approved and active grading permit.

SEDIMENT AND EROSION CONTROL
TEMPLE ISAIAH
PHASE I
RELIGIOUS FACILITY, NURSERY SCHOOL AND PRIVATE RELIGIOUS SCHOOL
CECIL COLE PROPERTY

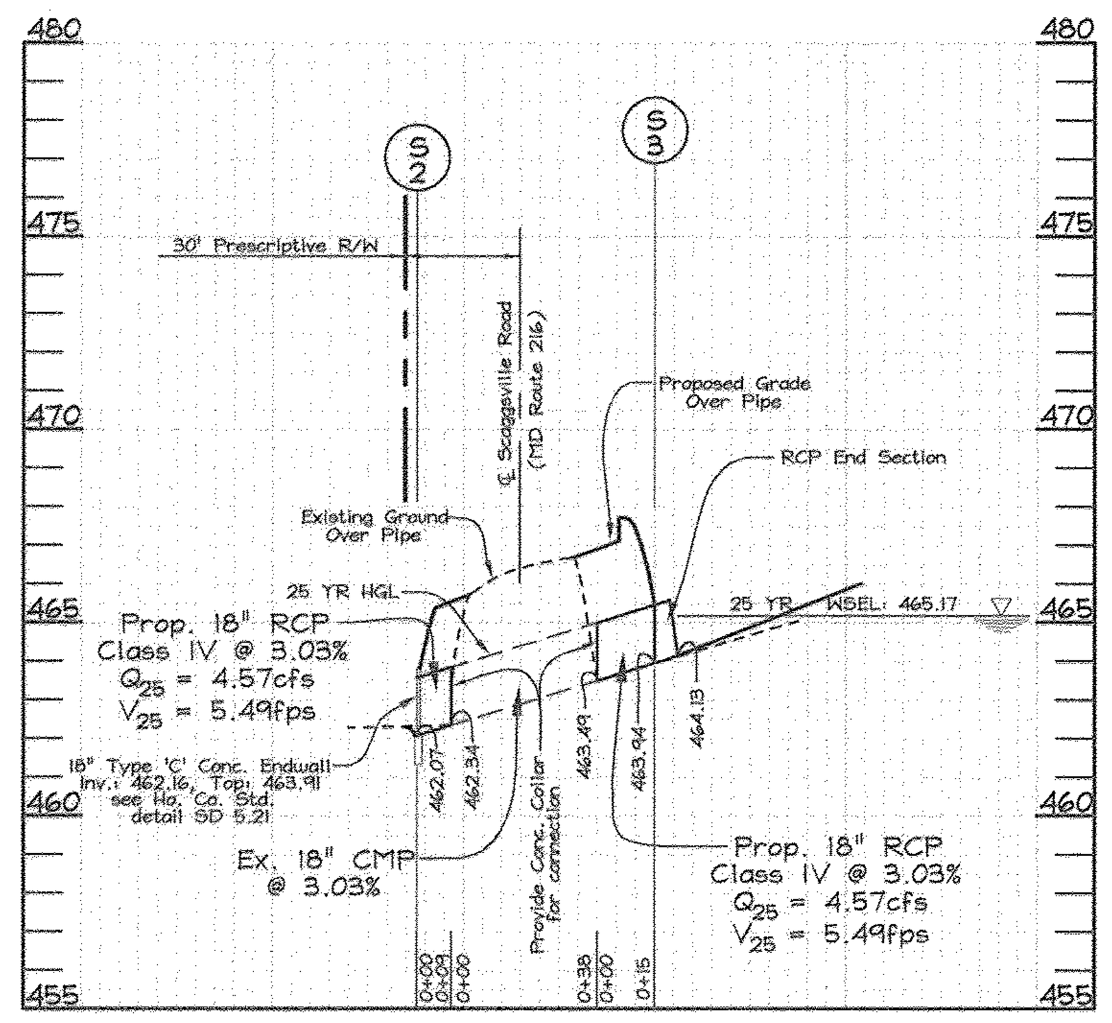
TAX MAP 40 & 41 BLOCK 18 & 13 PARCEL 2 LOT 4
5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

STATE OF MARYLAND ZACHARIA YOSEF FISCH 22418 PROFESSIONAL ENGINEER

FSH Associates
Engineers Planners Surveyors
8318 Forrest Street Ellicott City, MD 21043
Tel:410-750-2251 Fax: 410-750-7350
E-mail: FSHAssociates@cs.com

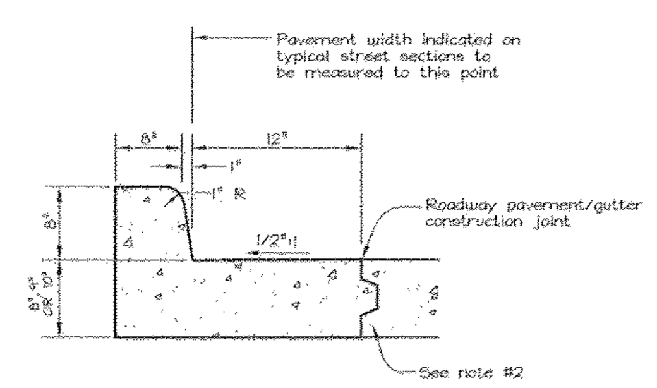
DESIGN BY: PS
DRAWN BY: PS
CHECKED BY: ZYF
SCALE: As Shown
DATE: March 04, 2003
W.O. No.: 3002
SHEET No.: 8 OF 24

SDP-02-155



CULVERT PROFILE

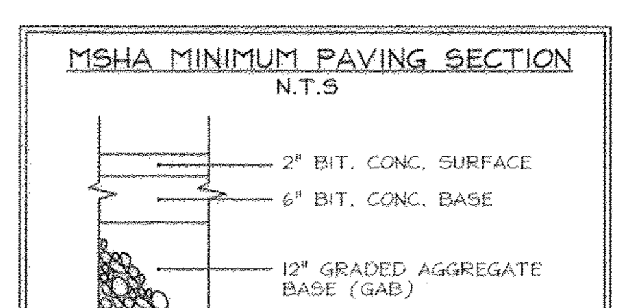
Scale: Horizontal- 1"=50'
Vertical-1"=5'

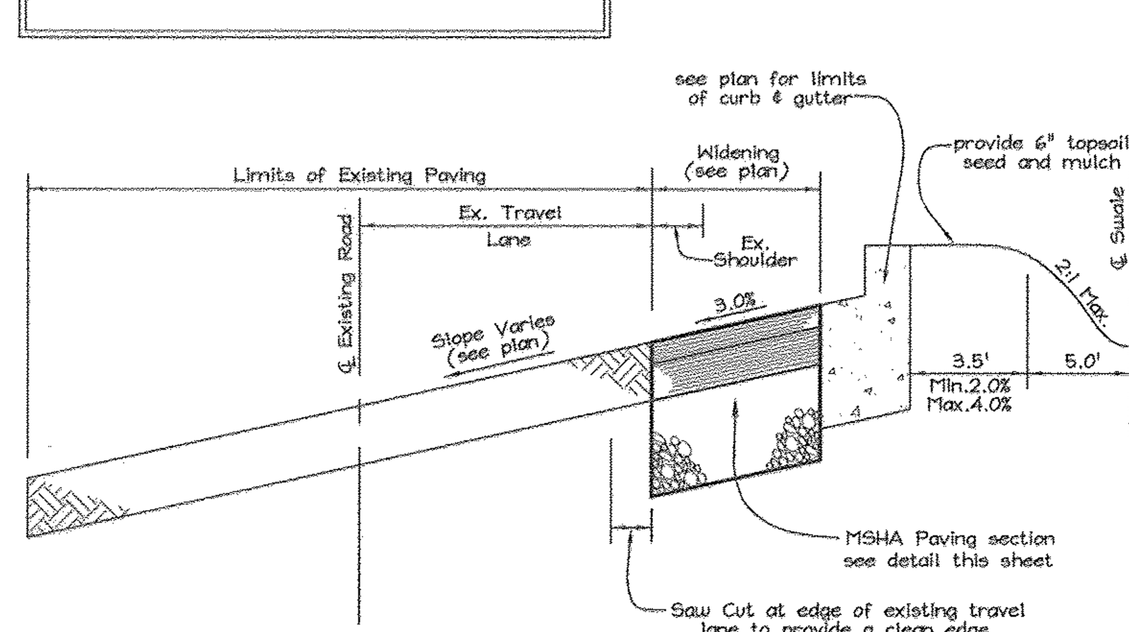


MSHA TYPE 'A' CONCRETE COMBINATION CURB AND GUTTER

MD. NO. 620.02
NOT TO SCALE

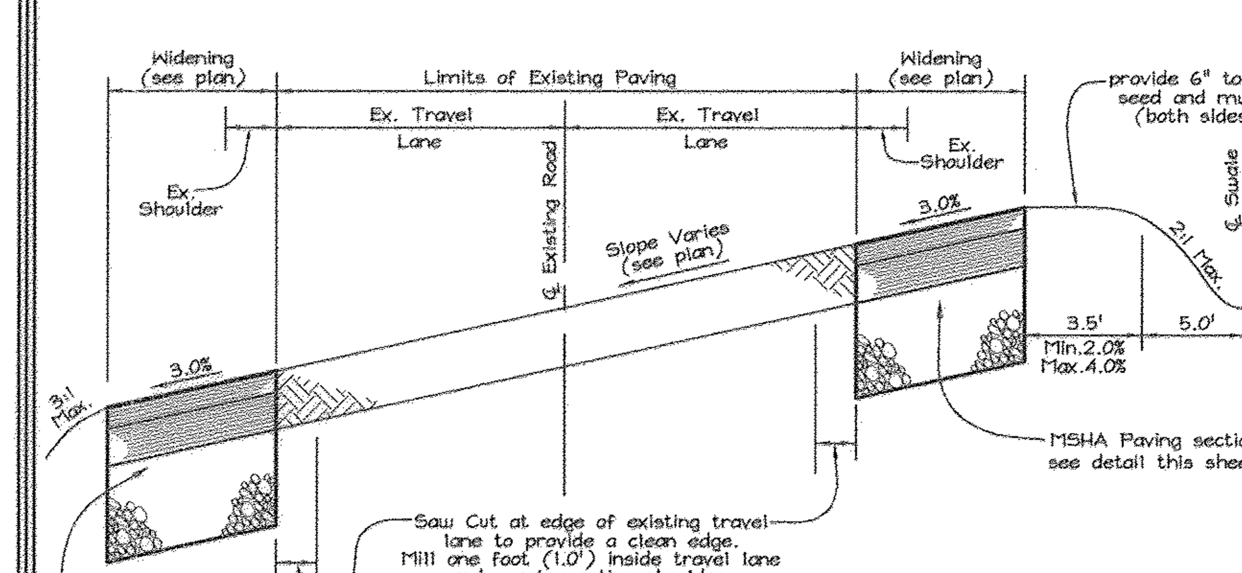
NOTES:
1. Slope gutter pan 1/2" per foot toward flow line on all roadways including superelevated sections. Except Interchange ramps.
2. Provide Key and Longintudinal tie bar as required.
3. Maximum joint spacing for concrete curb and gutter is 10'.





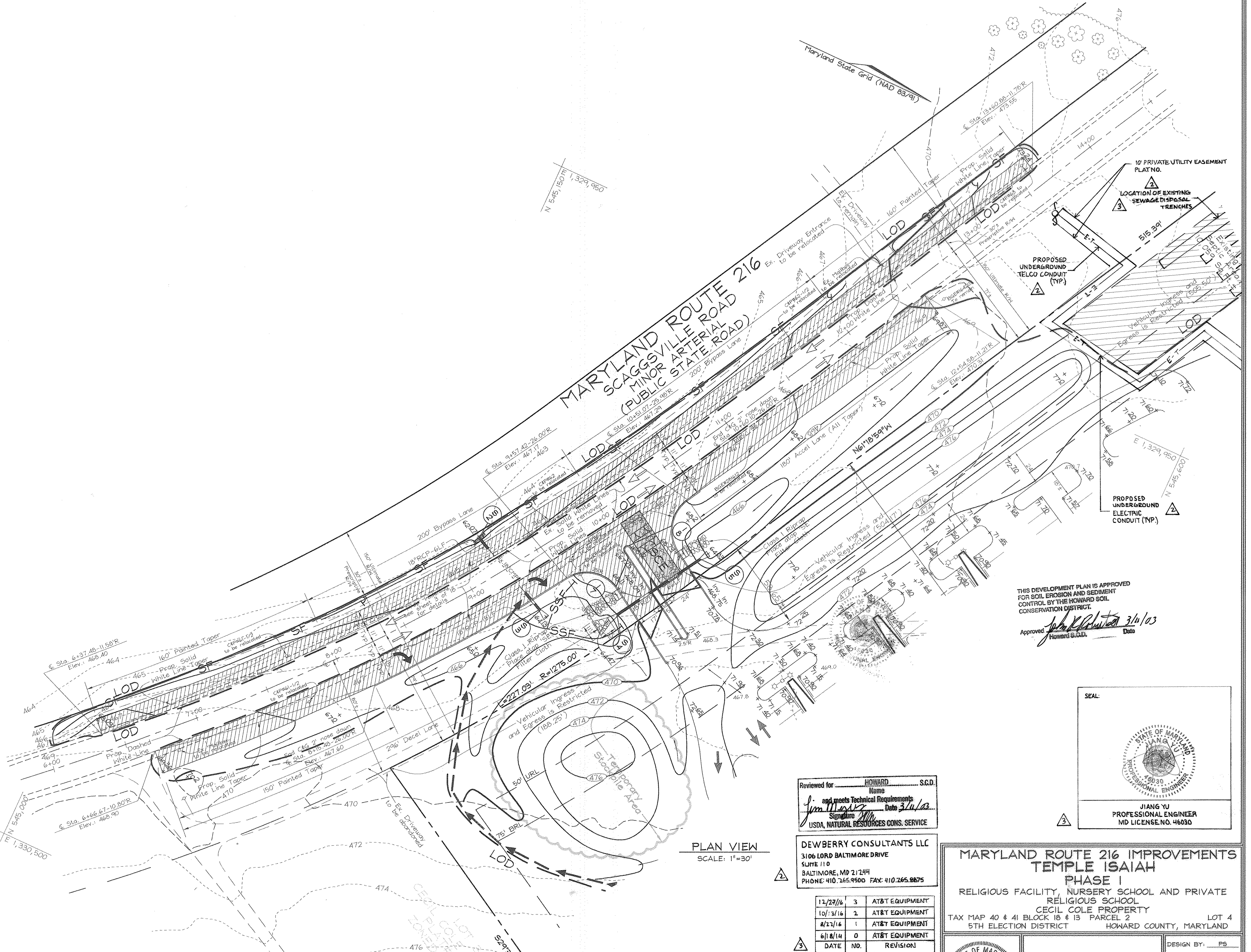
WIDENING DETAIL (CLOSED SECTION) MARYLAND ROUTE 216

NOT TO SCALE



WIDENING DETAIL (OPEN SECTION) MARYLAND ROUTE 216

NOT TO SCALE



PLAN VIEW

SCALE: 1"=30'

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

Approved [signature] 3/4/03
Howard S.C.D. Date

Reviewed for HOWARD S.C.D.
Name
and meets Technical Requirements
[signature] Date 3/4/03
Signature
USDA, NATURAL RESOURCES CONS. SERVICE

SEAL:

JIANG YU
PROFESSIONAL ENGINEER
MD LICENSE NO. 46030

DEWBERRY CONSULTANTS LLC
3106 LORD BALTIMORE DRIVE
SUITE 110
BALTIMORE, MD 21244
PHONE: 410.265.9500 FAX: 410.265.8875

DATE	NO.	REVISION
12/27/16	3	AT&T EQUIPMENT
10/13/16	2	AT&T EQUIPMENT
8/22/16	1	AT&T EQUIPMENT
6/18/14	0	AT&T EQUIPMENT

OWNER/DEVELOPER
TEMPLE ISAIAH
c/o Robert Dubin
5885 Robert Oliver Place
Columbia, Maryland 21045
202-466-3400

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

[signature] 3/12/03
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

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

[signature] 3/17/03
DIRECTOR DATE

APPROVED : FOR PRIVATE WATER AND PRIVATE SEWERAGE SYSTEMS IN ACCORDANCE WITH THE MASTER PLAN OF HOWARD COUNTY

[signature] 3-17-03
COUNTY HEALTH OFFICER DATE
HOWARD COUNTY HEALTH DEPARTMENT

MARYLAND ROUTE 216 IMPROVEMENTS TEMPLE ISAIAH PHASE I

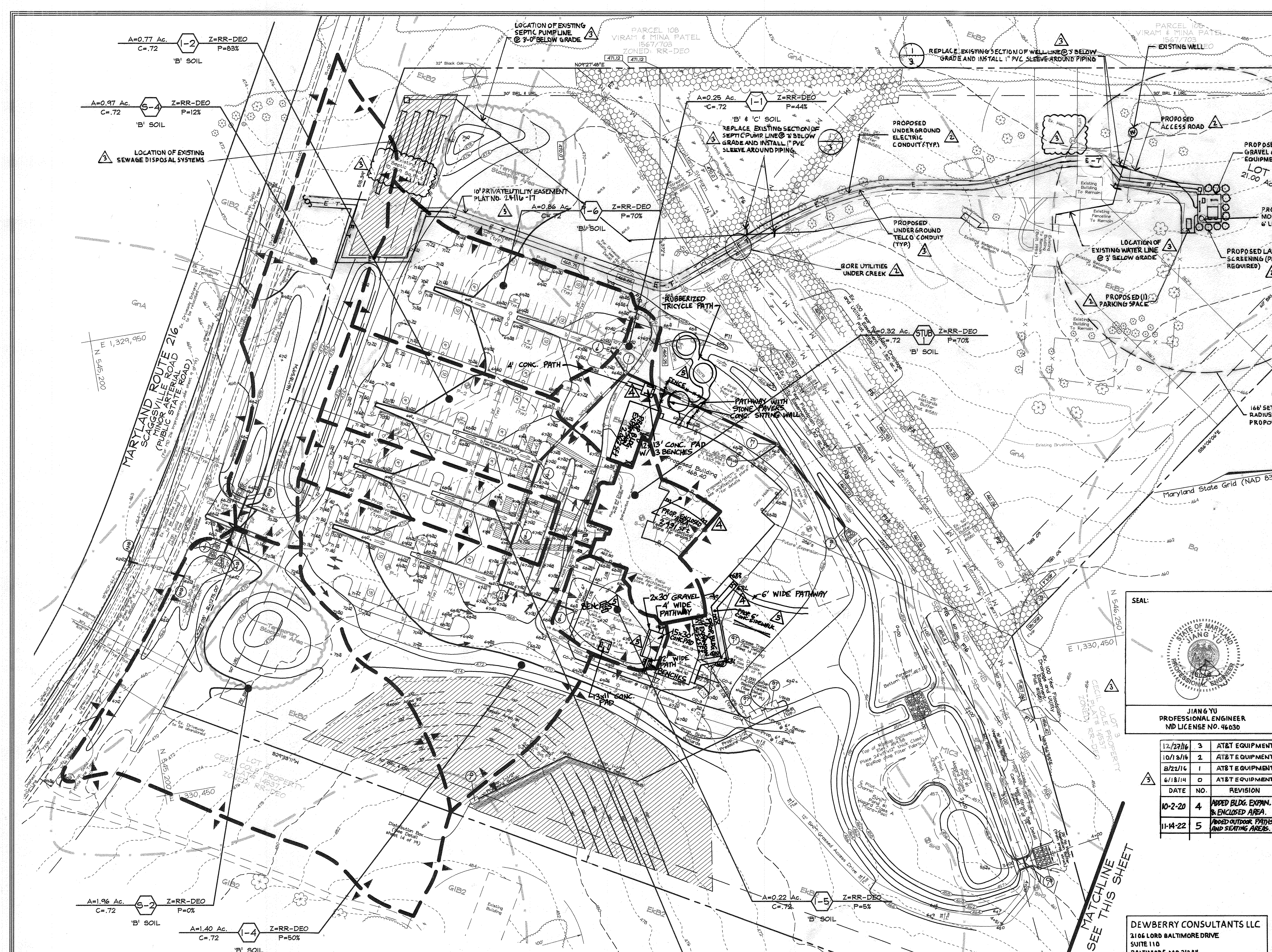
RELIGIOUS FACILITY, NURSERY SCHOOL AND PRIVATE RELIGIOUS SCHOOL
CECIL COLE PROPERTY
TAX MAP 40 & 41 BLOCK 18 & 13 PARCEL 2 LOT 4
5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

STATE OF MARYLAND ZACHARIA YOSEF FISCH 22418 PROFESSIONAL ENGINEER

FSH Associates
Engineers Planners Surveyors
8318 Forrest Street Ellicott City, MD 21043
Tel:410-750-2251 Fax: 410-750-7350
E-mail: FSHAssociates@cs.com

DESIGN BY: PS
DRAWN BY: PS
CHECKED BY: ZYF
SCALE: As Shown
DATE: March 04, 2003
W.O. No.: 3002
SHEET No.: 9 OF 24

SDP-02-155



NOTES:

1) THE CONTRACTOR SHALL USE THE FLAGGING SUPPLIED BY THE SURVEYOR TO LOCATE THE AREAS WHERE THE EXISTING SEPTIC PUMP LINE AND WELL LINE INTERSECT THE PROPOSED UTILITY EASEMENTS. IN THESE LOCATIONS THE EXISTING SEPTIC AND WELL LINES SHALL BE REMOVED AND REPLACED IN THE AREAS WITH 5' OVERLAP OUTSIDE OF THE PROPOSED EASEMENT. THE REPLACEMENT LINES SHALL BE OF THE SAME MATERIAL AND SIZE AS THE ONES REMOVED. THE REPLACED LINES SHALL BE RUN WITHIN A PVC CONDUIT THAT IS 1" LARGER IN DIAMETER THAN THE EXISTING AND BE RUN THE ENTIRE LENGTH FROM 5' OUTSIDE THE PROPOSED EASEMENT ON BOTH SIDES. CONTRACTOR SHALL COMPACT THE SOIL BELOW, AROUND AND ABOVE THE REPLACED LINES PER UTILITY STANDARDS AND WARNING TAPE.

2) DEPTHS AND LOCATIONS OF SEPTIC LINE, WELL LINE AND SEWAGE DISPOSAL TRENCHES ARE BASED UPON A PRELIMINARY FIELD INVESTIGATION PERFORMED BY MASER CONSULTING ON 12/20/2016 USING A GROUND PENETRATING RADAR (GPR) DEVICE. CONTRACTOR SHALL VERIFY ALL LOCATIONS, DIMENSIONS, DEPTHS AND MATERIALS IN FIELD PRIOR TO ONSET OF CONSTRUCTION.

SEAL:

JIANG YU
PROFESSIONAL ENGINEER
MD LICENSE NO. 46030

DATE	NO.	REVISION
12/27/16	3	AT&T EQUIPMENT
10/13/16	2	AT&T EQUIPMENT
8/22/16	1	AT&T EQUIPMENT
6/18/14	0	AT&T EQUIPMENT
10-2-20	4	ADDED BLDG. EXPAN. & ENCLOSED AREA.
11-14-22	5	ADDED OUTDOOR PATHS AND SEATING AREAS.

PLAN VIEW

SCALE 1"=50'

SOILS LEGEND

SYMBOL	NAME / DESCRIPTION	SOIL GROUP
Ba	Baile silt loam	D
EkB2	Elioak silt loam, 3 to 8 percent slopes, moderately eroded	B
GlB2	Glenelg loam, 3 to 8 percent slopes, moderately eroded	B
GnA	Glenville silt loam, 0 to 3 percent slopes	C
MlC3	Manor loam, 8 to 15 percent slopes, severely eroded	B

NOTE: This Plan is for Drainage Area and Soil Information purposes only.

Note: For 100 Year Floodplain Distance & Bearings, see Chart on sheet 4 of 18.

PLAN VIEW

SCALE 1"=50'

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 3/12/03

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

DIRECTOR — DATE

APPROVED: FOR PRIVATE WATER AND PRIVATE SEWERAGE SYSTEMS IN ACCORDANCE WITH THE MASTER PLAN OF HOWARD COUNTY

COUNTY HEALTH OFFICER /SRK — DATE 3-17-03
HOWARD COUNTY HEALTH DEPARTMENT

DEWBERRY CONSULTANTS LLC
3106 LORD BALTIMORE DRIVE
SUITE 110
BALTIMORE MD 21244
PHONE: 410.265.9500 FAX: 410.265.8875

OWNER/DEVELOPER
TEMPLE ISAIAH
c/o Robert Dubin
5885 Robert Oliver Place
Columbia, Maryland 21045
202-466-3400

STORM DRAIN DRAINAGE AREA MAP
TEMPLE ISAIAH
PHASE I

RELIGTOUS FACILITY, NURSERY SCHOOL AND PRIVATE RELIGIOUS SCHOOL
CECIL COLE PROPERTY
TAX MAP 40 & 41 BLOCK 18 & 13 PARCEL 2 LOT 4
5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

STATE OF MARYLAND — ZACHARIA YOSEF FISCH — 22418 — PROFESSIONAL ENGINEER

FSH Associates
Engineers Planners Surveyors
8318 Forrest Street Ellicott City, MD 21043
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E-mail: FSHAssociates@cs.com

DESIGN BY: PS
DRAWN BY: PS
CHECKED BY: ZYF
SCALE: 1"=50'
DATE: March 04, 2003
W.O. No.: 3002
SHEET No.: 10 OF 24

SDP-02-155

LANDSCAPING SCHEDULE		
LEYLAND CYPRESS (CUPRESSUS X LEVLANDII)	10	5'-0"- 6'-0"
PLANT SPECIES	NO.	HEIGHT

NOTES:
1) THE CONTRACTOR SHALL USE THE FLAGGING SUPPLIED BY THE SURVEYOR TO LOCATE THE AREAS WHERE THE EXISTING SEPTIC, PUMP LINE AND WELL LINE INTERSECT THE PROPOSED UTILITY EASEMENTS. IN THESE LOCATIONS THE EXISTING SEPTIC AND WELL LINES SHALL BE REMOVED AND REPLACED IN THE AREAS WITH 5' OVERLAP OUTSIDE OF THE PROPOSED EASEMENT. THE REPLACEMENT LINES SHALL BE OF THE SAME MATERIAL AND SIZE AS THE ONES REMOVED. THE REPLACED LINES SHALL BE RUN WITHIN A PVC CONDUIT THAT IS 1" LARGER IN DIAMETER THAN THE EXISTING AND BE RUN THE ENTIRE LENGTH FROM 5' OUTSIDE THE PROPOSED EASEMENT ON BOTH SIDES. CONTRACTOR SHALL COMPACT THE SOIL BELOW AROUND AND ABOVE THE REPLACED LINES PER UTILITY STANDARDS AND WARNING TAPE.
2) DEPTHS AND LOCATION OF SEPTIC LINE, WELL LINE AND SEWAGE DISPOSAL TRENCHES ARE BASED UPON A PRELIMINARY FIELD INVESTIGATION PERFORMED BY MASER CONSULTING ON 1/20/2016 USING A GROUND PENETRATING RADAR (GPR) DEVICE. CONTRACTOR SHALL VERIFY ALL LOCATIONS, DIMENSIONS, DEPTHS AND MATERIALS IN FIELD PRIOR TO ONSET OF CONSTRUCTION.

NOTE:
FINANCIAL SURETY FOR THE REQUIRED TELECOMMUNICATIONS FACILITY LANDSCAPING SHALL BE POSTED AS PART OF THE GRADING PERMIT IN THE AMOUNT OF $1,500 FOR 10 SHADE TREES

LEGEND

- Existing Contour ---382
- Proposed Contour 382
- Existing Spot Elevation 382.3
- Proposed Spot Elevation +82.53
- Direction of Flow
- Existing Trees to Remain
- Proposed Shade Trees
- Proposed Evergreen Trees
- Proposed Grass Swale
- Light Poles — Overhead — Double Overhead

PLAN VIEW
SCALE 1"=50'

SCHEDULE A PERIMETER LANDSCAPE EDGE						
CATEGORY	ADJACENT TO ROADWAYS			ADJACENT TO PERIMETER PROPERTIES		
	1	8		2	3	7
Perimeter/Frontage Designation	B	B		C	C	C
Landscape Type						
Linear Feet of Roadway Frontage/Perimeter	505	190		149	577	685
Credit for Existing Vegetation (Yes, No, Linear Feet)	No	No		Yes #89 LF (60)	Yes #577 LF (0)	No
Remaining Perimeter Length						
Credit for Wall, Fence or Berm (Yes, No, Linear Feet)	No	No		No	No	No
Remaining Perimeter Length						
Number of Plants Required						
Shade Trees	1:50 10	1:50 4		1:40 2	1:40 0	1:40 17
Evergreen Trees	1:40 13	1:40 5		1:20 3	1:20 0	1:20 34
Shrubs	-	-		-	-	-
Number of Plants Provided						
Shade Trees	10	4		2	0	17
Evergreen Trees	13	5		3	0	34
Other Trees (2:1 Substitution)	-	-		-	-	-
Shrubs (10:1 Substitution)	-	-		-	-	-
(Describe Plant Substitution Credits Below if needed)						

* Existing trees to remain along boundary with Viram & Mina Patel.
** Existing trees to remain within the stream buffer.

LANDSCAPE SCHEDULE				
KEY	QUAN.	BOTANICAL NAME	SIZE	NOTE
FA	26	Fraxinus Americana 'Autumn Purple' Autumn Purple White Ash (Shade Trees)	2 1/2"-3" Cal.	B & B
AR	23	Acer Rubrum 'October Glory' October Glory Red Maple (Parking Lot & Shade Trees)	2 1/2"-3" Cal.	B & B
QC	22	Quercus Coccinea Scarlet Oak (Shade Trees)	2 1/2"-3" Cal.	B & B
PS	19	Pinus Strobus Eastern White Pine (Evergreen Trees)	6'-8' Ht.	B & B
TO	24	Thuja Occidentalis 'Niagra' Dark American Arborvitae (Evergreen Trees)	5'-6' Ht.	B & B
AH	46	Ilex Opaca American Holly (Evergreen Trees, see Note 3)	5'-6' Ht.	B & B

NOTES:
1. At the time of plant installation, all shrubs and trees listed and approved on the Landscape Plan, shall comply with the proper height requirements in accordance with the Howard County Landscaping 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 deviation 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 applicable plans.
2. For planting details see sheet 4 of 19.
3. For American Holly, plant one male for every five female trees.
4. Financial surety for the required landscaping shall be posted as part of the Developer's Agreement in the amount of $34,650.00 for 71 shade trees and 89 evergreen trees.
5. 3 Red Maples have been moved from the stormwater management perimeter to the parking lot area to provide additional buffering from the road and adjacent residential properties per the alternative compliance provision of the Landscape Manual.

SCHEDULE D : STORMWATER MANAGEMENT AREA LANDSCAPING	
Linear Feet of Perimeter (P-4,5,&6)	1613 LF
Credit for Existing Vegetation (No, Yes and Linear Feet)	Yes #268 LF (Remaining Perimeter: 1,345lf.)
Credit for other Landscaping (No, Yes and %)	N/A
Number of Trees Required Shade Trees Evergreen Trees	 27 Shade Trees 34 Evergreen Trees
Number of Trees Provided Shade Trees Evergreen Trees Other Trees(2:1 Substitution)	 27 Shade Trees 34 Evergreen Trees 0 Trees(0 Substition Trees)

* Existing trees to remain within the stream buffer and along boundary lot 3 Cecil Cole property.

SCHEDULE B PARKING LOT INTERNAL LANDSCAPING	
Number of parking spaces	222
Number of trees required	11
Number of trees provided Shade Trees Other Trees (2:1 Substitution)	11 -

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 3/12/03
CHIEF, DIVISION OF LAND DEVELOPMENT — DATE 3/11/03
DIRECTOR — DATE 3/12/03

DEVELOPER'S BUILDER'S CERTIFICATE

I/WE CERTIFY THAT THE LANDSCAPING SHOWN ON THIS PLAN WILL BE DONE ACCORDING TO THE PLAN, SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE HOWARD COUNTY LANDSCAPE MANUAL. I/WE FURTHER CERTIFY THAT UPON COMPLETION, A LETTER OF LANDSCAPE INSTALLATION, ACCOMPANIED BY AN EXECUTED ONE(1) YEAR GUARANTEE OF PLANT MATERIALS, WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.

Lynn Abramson — SIGNATURE OF DEVELOPER (President) — 3/5/03 DATE

NO.	DATE	REVISION	BY
5	10-2-20	ADDED BLDG. EXPANSION & ENCLOSED AREA.	FSH
4	8-21-19	ADDED WOODEN SHED.	FSH

APPROVED : FOR PRIVATE WATER AND PRIVATE SEWERAGE SYSTEMS IN ACCORDANCE WITH THE MASTER PLAN OF HOWARD COUNTY

COUNTY HEALTH OFFICER — DATE 3-17-03
HOWARD COUNTY HEALTH DEPARTMENT

SEAL
STATE OF MARYLAND — JIANG YU — 16030 — PROFESSIONAL ENGINEER

JIANG YU
PROFESSIONAL ENGINEER
MD LICENSE NO. 46030

DEWBERRY CONSULTANTS LLC
3106 LORD BALTIMORE DRIVE
SUITE 110
BALTIMORE MD 21244
PHONE: 410.269.9500 FAX: 410.265.8875

(REVISION BAR CON'T. NEAR BOTTOM-MIDDLE)

NO.	DATE	REVISION
3	12/27/16	AT&T EQUIPMENT
2	10/13/16	AT&T EQUIPMENT
1	8/22/16	AT&T EQUIPMENT
0	6/18/14	AT&T EQUIPMENT

OWNER/DEVELOPER

TEMPLE ISAIAH
c/o Robert Dubin
5885 Robert Oliver Place
Columbia, Maryland 21045
202-466-3400

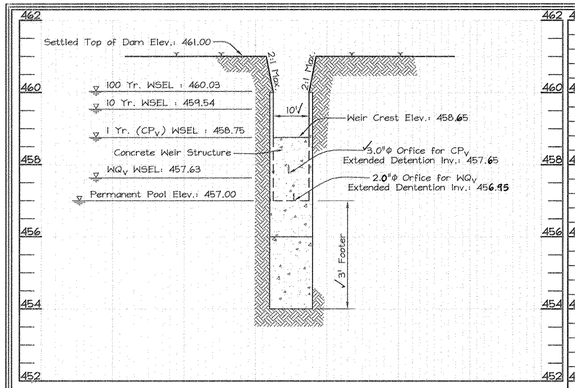
LANDSCAPE PLAN
TEMPLE ISAIAH
PHASE I
RELIGIOUS FACILITY, NURSERY SCHOOL AND PRIVATE RELIGIOUS SCHOOL
CECIL COLE PROPERTY
TAX MAP 40 & 41 BLOCK 18 & 13 PARCEL 2 LOT 4
5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

STATE OF MARYLAND — JOSHUA YOSEF HOCH — 22418 — PROFESSIONAL ENGINEER

FSH Associates
Engineers Planners Surveyors
8318 Forrest Street Ellicott City, MD 21043
Tel:410-750-2251 Fax: 410-750-7350
E-mail: FSHAssociates@cs.com

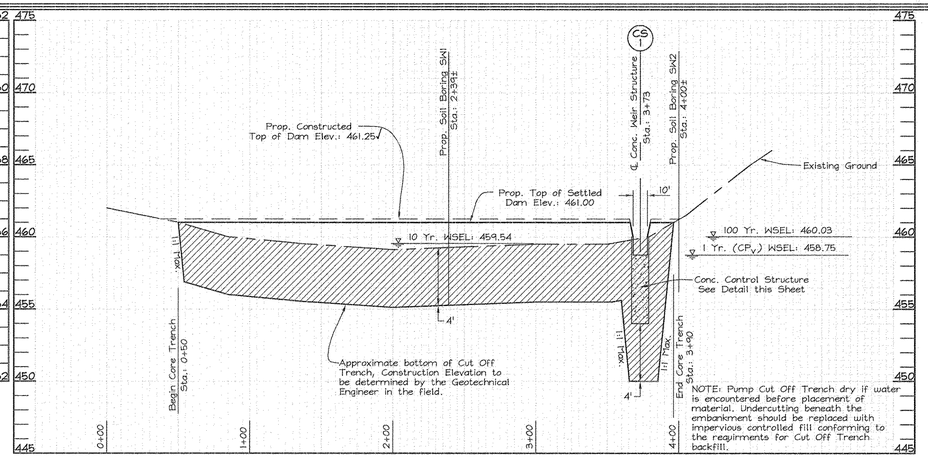
DESIGN BY: PS
DRAWN BY: MZ
CHECKED BY: ZYF
SCALE: 1"=50'
DATE: March 04, 2003
W.O. No.: 3002
SHEET No.: 13 OF 24

SDP-02-155



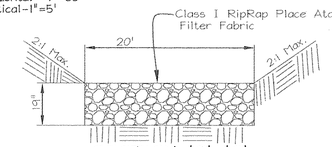
SECTION THROUGH WEIR STRUCTURE CS-1

Scale: Horizontal- 1"=20'
Vertical-1"=2'



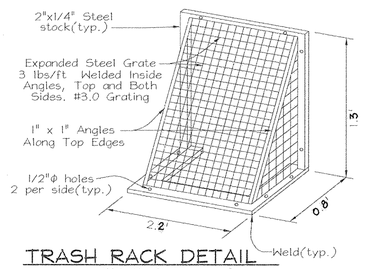
SECTION ALONG EMBANKMENT

Scale: Horizontal- 1"=50'
Vertical-1"=5'



SECTION 'C'-'C'

Not to Scale

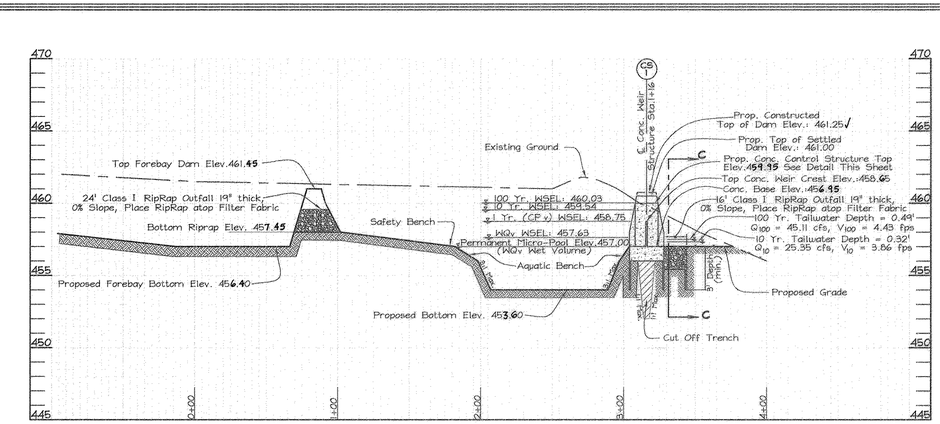


TRASH RACK DETAIL

NOT TO SCALE

NOTES:

1. Steel to conform to ASTM A-36.
2. All surfaces to be coated with ZRC cold galvanizing compound after welding.
3. Trash rack to be fastened to the concrete with 1/2" masonry anchors. Trash rack to be removeable.
4. Center trash rack over the two (2) orfice openings in weir structure.



SECTION THRU CONCRETE SPILLWAY

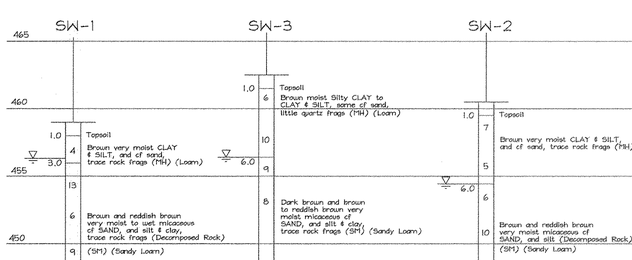
Scale: Horizontal- 1"=50'
Vertical-1"=5'

OPERATION, MAINTENANCE AND INSPECTION

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

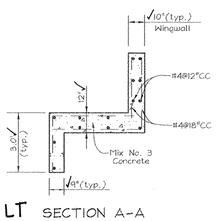
POND SUMMARY	1 YEAR	10 YEAR	100 YEAR	W.Q.	Recharge Obligation
FLOW INTO POND	7.03 c.f.s.	32.93 c.f.s.	57.12 c.f.s.	6.20 c.f.s.	Rev Required: 0.098 AcFt
FLOW OUT OF POND	0.22 c.f.s.	25.35 c.f.s.	44.67 c.f.s.	0.10 c.f.s.	Rev Provided: N/A
W.S. ELEVATION	458.75	459.54	460.03	457.63	Rea Required: 1.15 Ac
STORAGE VOLUME	0.52 AcFt	0.45 AcFt	0.73 AcFt	0.27 AcFt.*	Rea Prov'd.: 1.34 Ac ±

* Additional W.Q. volume is provided in the wet pool.



S.W.M. BORING PROFILES

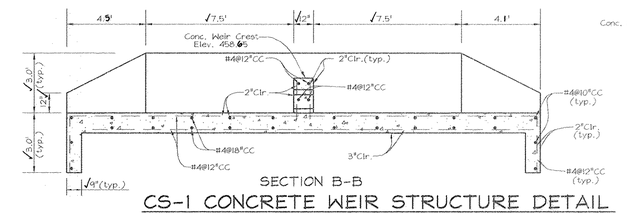
NOT TO SCALE



As-Built SECTION A-A

NOTES:

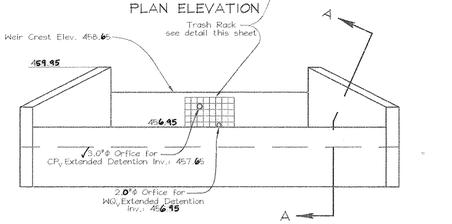
1. All exposed edges to have a 3/4"x3/4" chamfer or as directed.
2. Concrete shall be SHA mix #3(fc=3500 psi @ 28 days)
3. Reinforcing steel shall be ASTM A-615 grade 60.



SECTION B-B

CS-1 CONCRETE WEIR STRUCTURE DETAIL

NOT TO SCALE



OWNER/DEVELOPER

TEMPLE ISAIAH
c/o Robert Dubin
5885 Robert Oliver Place
Columbia, Maryland 21045
202-466-3400

Zacharia Y. Fisch 3/4/05
ZY FISCH DATE
PE. # 22418

OPERATION AND MAINTENANCE SCHEDULE FOR STORMWATER MANAGEMENT DETENTION FACILITY

STORMWATER MANAGEMENT FACILITY

ROUTINE MAINTENANCE

1. FACILITY WILL BE INSPECTED ANNUALLY AND AFTER MAJOR STORMS. INSPECTIONS SHOULD BE PERFORMED DURING WET WEATHER TO DETERMINE THAT THE FACILITY IS FUNCTIONING PROPERLY.
2. TOP AND SIDE SLOPES OF THE EMBANKMENT SHALL BE MOWED A MINIMUM OF TWO (2) TIMES A YEAR, ONCE IN JUNE AND ONCE IN SEPTEMBER. OTHER SIDE SLOPES AND MAINTENANCE ACCESS SHOULD BE MOWED AS NEEDED.
3. DEBRIS AND LITTER NEXT TO THE OUTLET STRUCTURE SHALL BE REMOVED DURING REGULAR MOWING OPERATIONS AND AS NEEDED.
4. VISIBLE SIGNS OF EROSION IN THE POND AS WELL AS RIPRAP OUTLET AREAS SHALL BE REPAIRED AS SOON AS IT IS NOTICED.

NON-ROUTINE MAINTENANCE

1. STRUCTURAL COMPONENTS OF THE POND SUCH AS THE DAM AND THE CONCRETE WEIR SHALL BE REPAIRED UPON DETECTION OF ANY DAMAGE. THE COMPONENTS SHOULD BE INSPECTED DURING ROUTINE MAINTENANCE OPERATIONS.
2. SEDIMENT SHOULD BE REMOVED WHEN ITS ACCUMULATION SIGNIFICANTLY REDUCES THE DESIGN STORAGE, INTERFERE WITH THE FUNCTION OF THE WEIR, WHEN DEEMED NECESSARY FOR AESTHETIC REASONS, OR WHEN DEEMED NECESSARY BY THE HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.
3. SEDIMENT REMOVAL IN THE FOREBAY SHALL OCCUR WHEN 50% OF THE TOTAL FOREBAY CAPACITY HAS BEEN LOST.

MARYLAND 378 STORMWATER MANAGEMENT POND CONSTRUCTION SPECIFICATIONS

CONSTRUCTION SPECIFICATIONS

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

Site Preparation

Areas designated for borrow areas, embankment, and structural works shall be cleared, grubbed and stripped of topsoil. All trees, vegetation, roots and other objectionable material shall be removed. Channel banks and sharp breaks shall be sloped to no steeper than 1:1. All trees shall be cleared and grubbed within 15 feet of the toe of the embankment.

Areas to be covered by the reservoir will be cleared of all trees, brush, logs, fences, rubbish and other objectionable material unless otherwise designated on the plans. Trees, brush, and stumps shall be cut approximately level with the ground surface. For dry stormwater management ponds, a minimum of a 25-foot radius around the inlet structure shall be cleared.

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

Earth Fill

Material - The fill material shall be taken from approved designated borrow areas. It shall be free of roots, stumps, wood, rubbish, stones greater than 6", frozen or other objectionable materials. Fill material for the center of the embankment, and cut off trench shall conform to Unified Soil Classification GC, SC, CH, or CL and must have at least 30% passing the #200 sieve. Consideration may be given to the use of other materials in the embankment if designed by a geotechnical engineer. Such special designs must have construction supervised by a geotechnical engineer. Materials used in the outer shell of the embankment must have the capability to support vegetation of the quality required to prevent erosion of the embankment.

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

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

When required by the reviewing agency the minimum required density shall not be less than 95% of maximum dry density with a moisture content within +\-2% of the optimum. Each layer of fill shall be compacted as necessary to obtain that density, and is to be certified by the Engineer at the time of construction. All compaction is to be determined by AASHTO Method T-99 (Standard Proctor).

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

Embankment Core - The core shall be parallel to the centerline of the embankment as shown on the plans. The top width of the core shall be a minimum of four feet. The height shall extend up to at least the 10 year water elevation or as shown on the plans. The side slopes shall be 1 to 1 or flatter. The core shall be compacted with construction

Structure Backfill

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

Structure backfill may be flowable fill meeting the requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, Section 313 as modified. The mixture shall have a 100-200 psi 28 day unconfined compressive strength. The flowable fill shall have a minimum pH of 4.0 and a minimum resistivity of 2,000 ohm-cm. Material shall be placed such that minimum of 4" (measured perpendicular to the outside of the pipe) of flowable fill shall be under (bedding), over and, on the sides of the pipe. It may needs to extend up to the spring line for rigid conduits. Average slump of the fill shall be 7" to assure flowability of the material. Adequate measures shall be taken (sand bags, etc.) to prevent floating the pipe. When using flowable fill, all metal pipe shall be bituminous coated. Any adjoining soil fill shall be placed in horizontal layers not to exceed four inches in thickness and compacted by hand tampers or other manually directed compaction equipment. The material shall completely fill all voids adjacent to the flowable fill zone. At no time during the backfilling operation shall driven equipment be allowed to operate closer than four feet, measured horizontally, to any part of the structure. Under no circumstances shall equipment be driven over any part of a structure or pipe, unless there is a compacted fill of 24" or greater over the structure or pipe. Backfill (flowable fill)zone shall be of the type and quality conforming to that specified for the core of the embankment or other embankment materials.

Pipe Conduits

All pipes shall be circular in cross section.

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

1. Materials - (Polymer Coated steel pipe)- Steel pipes with polymeric coating shall have a minimum coating thickness of 0.01 inch (10 mil) on both sides of the pipe. This pipe and its appurtenances shall conform to the requirements of AASHTO Specifications M-245 & M-246 with watertight coupling bands or flanges.

Materials - (Aluminum Coated Steel Pipe) - This pipe and its appurtenances shall conform to the requirements of AASHTO Specification M-274 with watertight coupling bands or flanges. Aluminum Coated Steel Pipe, when used with flowable fill or when soil and/or water conditions warrant the need for increased durability, shall be fully bituminous coated per requirements of AASHTO Specification M-190 Type A. Any aluminum coating damaged or otherwise removed shall be replaced with cold applied bituminous coating compound. Aluminum surfaces that are to be in contact with concrete shall be painted with one coat of zinc chromate primer or two coats of asphalt.

Materials - (Aluminum Pipe) - This pipe and its appurtenances shall conform to the requirements of AASHTO Specification M-196 or M-211 with watertight coupling bands or flanges. Aluminum Pipe, when used with flowable fill or when soil and/or water conditions warrant for increased durability, shall be fully bituminous coated per requirements of AASHTO Specification M-190 Type A. Aluminum surfaces that are to be in contact with concrete shall be painted with one coat of zinc chromate primer or two coats of asphalt. Hot dip galvanized bolts may be used for connections. The pH of the surrounding soils shall be between 4 and 9.

2. Coupling, bands, anti-seep collars, end sections, etc., must be composed of the same material and coatings as the pipe. Metals must be insulated from dissimilar materials with use of rubber or plastic insulating materials at lease 24 mils in thickness.

3. Connections - All connections with pipes must be completely watertight. The drain pipe or barrel connection to the riser shall be welded all around when the pipe and riser are metal. Anti-seep collars shall be connected to the pipe in such a manner as to be completely watertight. Dimple bands are not considered to be watertight.

Reinforced Concrete PipeAll of the following criteria shall apply for reinforced concrete pipe:

1. Materials - Reinforced concrete pipe shall have bell and spigot joints with rubber gaskets and shall equal or exceed ASTM C-361.

2. Bedding - Reinforced concrete pipe conduits shall be laid in a concrete bedding/cradle for their entire length. This bedding/cradle shall consist of high slump concrete placed under the pipe and up the sides of the pipe at least 50% of its outside diameter with a minimum thickness of 6 inches. Where a concrete cradle is not needed for structural reasons, flowable fill may be used as described in the "Structure Backfill" section of this standard. Gravel bedding is not permitted.

3. Laying pipe - Bell and spigot pipe shall be placed with the bell and upstream. Joints shall be made in accordance with recommendations of the manufacturer of the material. After the joints are sealed for the entire line, the bedding shall be placed so that all spaces under the pipe are filled. Care shall be exercised to prevent any deviation from the original line and grade of the pipe. The first joint must be located within 4 feet from the riser.

4. Backfilling shall conform to "Structure Backfill".

5. Other details (anti-seep collars, valves, etc.) shall be shown on the drawings.

Plastic PipeThe following criteria shall apply for plastic pipe:

1. Materials - PVC pipe shall be PVC-1120 or PVC-1220 conforming to ASTM D-1785 or ASTM D-2241. Corrugated High Density Polyethylene (HDPE) pipe, couplings and fittings shall conform to the following: 4" -10" inch pipe shall meet the requirements of AASHTO M252 Type S, and 12" through 24" inch shall meet the requirements of AASHTO M294 Type S.

2. Joints and connections to anti-seep collars shall be completely watertight.

3. Bedding - The pipe shall be firmly and uniformly bedded throughout its entire length. Where rock or soft, spongy or other unstable soil is encountered, all such material shall be removed and replaced with suitable earth compacted to provide adequate support.

4. Backfilling shall conform to "Structure Backfill".

5. Other details (anti-seep collars, valves, etc.) shall be as shown on the drawings.

Drainage Diaphragms - When a drainage diaphragm is used, a registered professional engineer will supervise the design and construction inspection.

Concrete

Concrete shall meet the requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, Section 414, Mix No. 3.

Rock Riprap

Rock riprap shall meet the requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction Materials, Section 311.

Geotextile shall be placed under all riprap and shall meet requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, Section 421.09, Class C.

Care of Water during Construction

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

Stabilization

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

Erosion and Sediment Control

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

APPROVED : FOR PRIVATE WATER AND PRIVATE SEWERAGE SYSTEMS IN ACCORDANCE WITH THE MASTER PLAN OF HOWARD COUNTY

COUNTY HEALTH OFFICER — DATE 3-17-03
HOWARD COUNTY HEALTH DEPARTMENT

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

DIRECTOR — DATE 3/17/03

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

CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 7/12/03

REVIEWED FOR HOWARD SCD AND MEETS TECHNICAL REQUIREMENTS

USDA-NATURAL RESOURCES CONSERVATION SERVICE — DATE 3/11/03

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

HOWARD SCD — DATE 3/11/03

ENGINEERS CERTIFICATE

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

Zacharia Y. Fisch 3-5-03
SIGNATURE OF ENGINEER — DATE
ZACHARIA Y. FISCH

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. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT.

Lynn Abramson Lynna Abramson 3/5/03
SIGNATURE OF DEVELOPER (President) — DATE

STORMWATER MANAGEMENT NOTES AND DETAILS
TEMPLE ISAIAH
PHASE I

RELIGIOUS FACILITY, NURSERY SCHOOL AND PRIVATE RELIGIOUS SCHOOL
CECIL COLE PROPERTY
TAX MAP 40 & 41 BLOCK 16 & 13 PARCEL 2 LOT 4
5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

STATE OF MARYLAND ZACHARIA YOSEF FISCH 22418 PROFESSIONAL ENGINEER

FSH Associates
Engineers Planners Surveyors
8318 Forrest Street Ellicott City, MD 21043
Tel:410-750-2251 Fax 410-750-7350
E-mail: FSHAssociates@cs.com

DESIGN BY: PS
DRAWN BY: MZ
CHECKED BY: ZYF
SCALE: As Shown
DATE: March 04, 2003
W.O. No.: 3002
SHEET No.: 12 OF 24

SDP-02-155

LANDSCAPING SCHEDULE		
LEYLAND CYPRESS (CUPRESSUC X LEVLANDII)	10	5'-0"- 6'-0"
PLANT SPECIES	NO.	HEIGHT

NOTES:
1) THE CONTRACTOR SHALL USE THE FLAGGING SUPPLIED BY THE SURVEYOR TO LOCATE THE AREAS WHERE THE EXISTING SEPTIC, PUMP LINE AND WELL LINE INTERSECT THE PROPOSED UTILITY EASEMENTS. IN THESE LOCATIONS THE EXISTING SEPTIC AND WELL LINES SHALL BE REMOVED AND REPLACED IN THE AREAS WITH SI OVERLAP OUTSIDE OF THE PROPOSED EASEMENT. THE REPLACEMENT LINES SHALL BE OF THE SAME MATERIAL AND SIZE AS THE ONES REMOVED. THE REPLACED LINES SHALL BE RUN WITHIN A PVC CONDUIT THAT IS 1" LARGER IN DIAMETER THAN THE EXISTING AND BE RUN THE ENTIRE LENGTH FROM 5' OUTSIDE THE PROPOSED EASEMENT ON BOTH SIDES. CONTRACTOR SHALL COMPACT THE SOIL BELOW, AROUND AND ABOVE THE REPLACED LINES PER UTILITY STANDARDS AND WARNING TAPE.
2) DEPTHS AND LOCATIONS OF SEPTIC LINES, WELL LINE AND SEWAGE DISPOSAL TRENCHES ARE BASED UPON A PRELIMINARY FIELD INVESTIGATION PERFORMED BY MASER CONSULTING ON 12/20/2018 USING A GROUND PENETRATING RADAR (GPR) DEVICE. CONTRACTOR SHALL VERIFY ALL LOCATIONS, DIMENSIONS, DEPTHS AND MATERIALS IN FIELD PRIOR TO ONSET OF CONSTRUCTION.

NOTE:
FINANCIAL SURETY FOR THE REQUIRED TELECOMMUNICATIONS FACILITY LANDSCAPING SHALL BE POSTED AS PART OF THE GRADING PERMIT IN THE AMOUNT OF $1,500 FOR 10 SHADE TREES

LEGEND

- Existing Contour
- Proposed Contour
- Existing Spot Elevation
- Proposed Spot Elevation
- Direction of Flow
- Existing Trees to Remain
- Proposed Shade Trees
- Proposed Evergreen Trees
- Proposed Grass Swale
- Light Poles: Overhead, Double Overhead

PLAN VIEW
SCALE 1"=50'

SCHEDULE A PERIMETER LANDSCAPE EDGE						
CATEGORY	ADJACENT TO ROADWAYS			ADJACENT TO PERIMETER PROPERTIES		
Perimeter/Frontage Designation	1	8		2	3	7
Landscape Type	B	B		C	C	C
Linear Feet of Roadway Frontage/Perimeter	505	190		149	577	685
Remaining Perimeter Length						
Credit for Existing Vegetation (Yes, No, Linear Feet)	No	No		Yes #89 LF (60)	Yes #577 LF (0)	No
Credit for Wall, Fence or Berm (Yes, No, Linear Feet)	No	No		No	No	No
Remaining Perimeter Length						
Number of Plants Required						
Shade Trees	1:50 10	1:50 4		1:40 2	1:40 0	1:40 17
Evergreen Trees	1:40 13	1:40 5		1:20 3	1:20 0	1:20 34
Shrubs	-	-		-	-	-
Number of Plants Provided						
Shade Trees	10	4		2	0	17
Evergreen Trees	13	5		3	0	34
Other Trees (2:1 Substitution)	-	-		-	-	-
Shrubs (10:1 Substitution)	-	-		-	-	-
(Describe Plant Substitution Credits Below if needed)						

* Existing trees to remain along boundary with Viram & Mina Patel.
** Existing trees to remain within the stream buffer.

LANDSCAPE SCHEDULE				
KEY	QUAN.	BOTANICAL NAME	SIZE	NOTE
FA	26	Fraxinus Americana 'Autumn Purple' / Autumn Purple White Ash (Shade Trees)	2 1/2"-3" Cal.	B & B
AR	23	Acer Rubrum 'October Glory' / October Glory Red Maple (Parking Lot & Shade Trees)	2 1/2"-3" Cal.	B & B
QC	22	Quercus Coccinea / Scarlet Oak (Shade Trees)	2 1/2"-3" Cal.	B & B
PS	19	Pinus Strobus / Eastern White Pine (Evergreen Trees)	6'-8' Ht.	B & B
TO	24	Thuja Occidentalis 'Niagra' / Dark American Arborvitae (Evergreen Trees)	5'-6' Ht.	B & B
AH	46	Ilex Opaca / American Holly (Evergreen Trees, see Note 3)	5'-6' Ht.	B & B

NOTES:
1. At the time of plant installation, all shrubs and trees listed and approved on the Landscape Plan, shall comply with the proper height requirements in accordance with the Howard County Landscaping 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 deviation 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 applicable plans.
2. For planting details see sheet 4 of 19.
3. For American Holly, plant one male for every five female trees.
4. Financial surety for the required landscaping shall be posted as part of the Developer's Agreement in the amount of $34,650.00 for 71 shade trees and 89 evergreen trees.
5. 3 Red Maples have been moved from the stormwater management perimeter to the parking lot area to provide additional buffering from the road and adjacent residential properties per the alternative compliance provision of the Landscape Manual.

SCHEDULE D : STORMWATER MANAGEMENT AREA LANDSCAPING	
Linear Feet of Perimeter (P-4,5,6)	1613 Lf
Credit for Existing Vegetation (No, Yes and Linear Feet)	Yes #268 Lf (Remaining Perimeter: 1,345lf)
Credit for other Landscaping (No, Yes and %)	N/A
Number of Trees Required	
Shade Trees	27 Shade Trees
Evergreen Trees	34 Evergreen Trees
Number of Trees Provided	
Shade Trees	27 Shade Trees
Evergreen Trees	34 Evergreen Trees
Other Trees(2:1 Substitution)	0 Trees(0 Substition Trees)

* Existing trees to remain within the stream buffer and along boundary lot 3 Cecil Cole property.

SCHEDULE B PARKING LOT INTERNAL LANDSCAPING	
Number of parking spaces	222
Number of trees required	11
Number of trees provided	
Shade Trees	11
Other Trees (2:1 Substitution)	-

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 3/12/03
CHIEF, DIVISION OF LAND DEVELOPMENT — DATE 3/11/03
DIRECTOR — DATE 3/12/03

DEVELOPER'S BUILDER'S CERTIFICATE

I/WE CERTIFY THAT THE LANDSCAPING SHOWN ON THIS PLAN WILL BE DONE ACCORDING TO THE PLAN, SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE HOWARD COUNTY LANDSCAPE MANUAL. I/WE FURTHER CERTIFY THAT UPON COMPLETION, A LETTER OF LANDSCAPE INSTALLATION, ACCOMPANIED BY AN EXECUTED ONE(1) YEAR GUARANTEE OF PLANT MATERIALS, WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.

Lynn Abramson — SIGNATURE OF DEVELOPER (President) — 3/5/03 DATE

NO.	DATE	REVISION	BY
6	11-14-22	ADDED OUTDOOR PATHS AND SEATING AREAS.	FSH
5	10-2-20	ADDED BLDG. EXPANSION & ENCLOSED AREA.	FSH
4	8-21-19	ADDED WOODEN SHED.	FSH

APPROVED : FOR PRIVATE WATER AND PRIVATE SEWERAGE SYSTEMS IN ACCORDANCE WITH THE MASTER PLAN OF HOWARD COUNTY

COUNTY HEALTH OFFICER, HOWARD COUNTY HEALTH DEPARTMENT — 3-17-03 DATE

SEAL: STATE OF MARYLAND · JIANG YU · 22000 · PROFESSIONAL ENGINEER

JIANG YU
PROFESSIONAL ENGINEER
MD LICENSE NO. 46030

DEWBERRY CONSULTANTS LLC
3106 LORD BALTIMORE DRIVE
SUITE 110
BALTIMORE MD 21244
PHONE: 410.265.9500 FAX: 410.265.8875

(REVISION BAR CON'T. NEAR BOTTOM-MIDDLE)		
12/27/16	3	AT&T EQUIPMENT
10/13/16	2	AT&T EQUIPMENT
8/22/16	1	AT&T EQUIPMENT
6/18/14	0	AT&T EQUIPMENT
DATE	NO.	REVISION

OWNER/DEVELOPER
TEMPLE ISAIAH
c/o Robert Dubin
5885 Robert Oliver Place
Columbia, Maryland 21045
202-466-3400

LANDSCAPE PLAN
TEMPLE ISAIAH
PHASE I
RELIGIOUS FACILITY, NURSERY SCHOOL AND PRIVATE RELIGIOUS SCHOOL
CECIL COLE PROPERTY
TAX MAP 40 & 41 BLOCK 18 & 13 PARCEL 2 LOT 4
5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

STATE OF MARYLAND · JOSHUA YOSEF KOSH · 22418 · PROFESSIONAL ENGINEER

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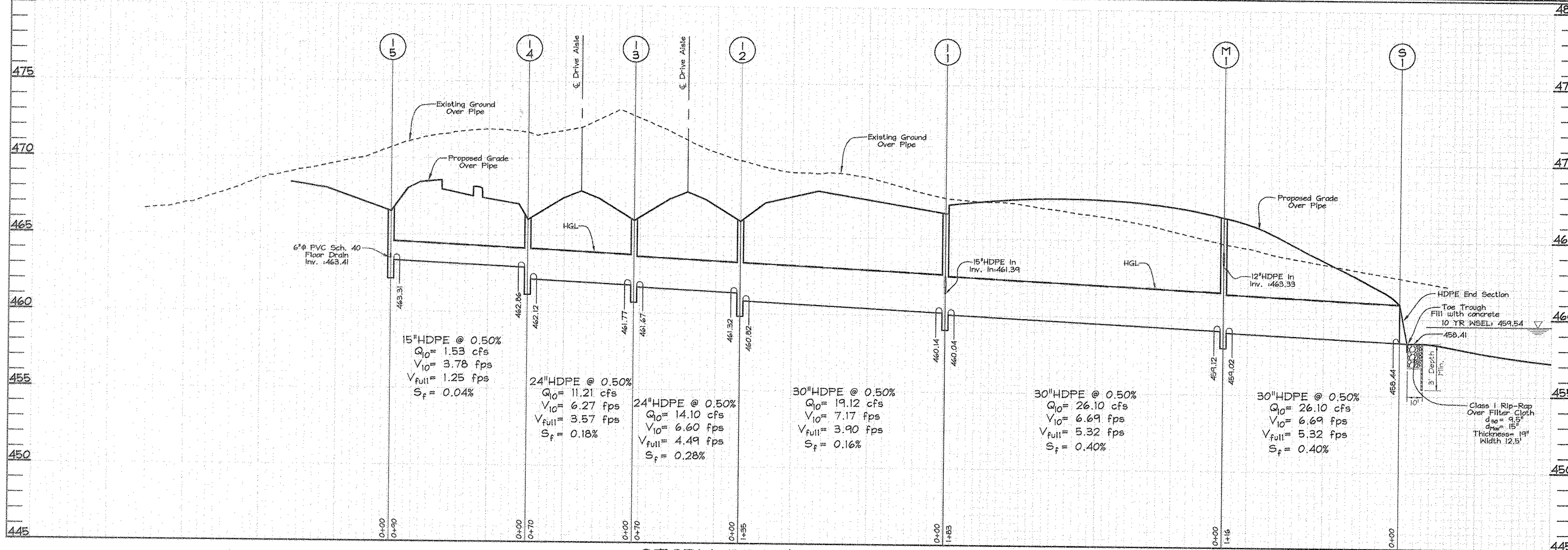
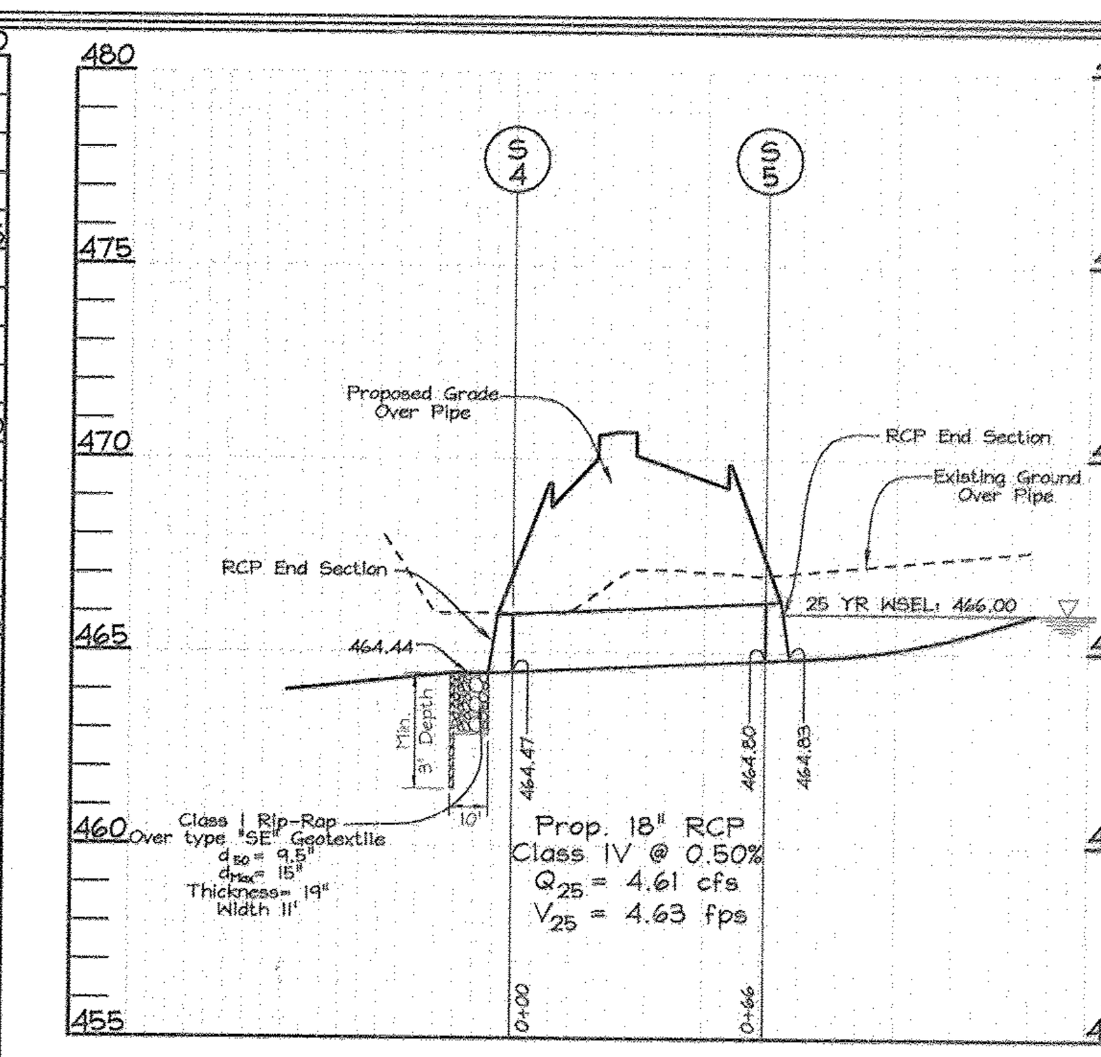
SDP-02-155



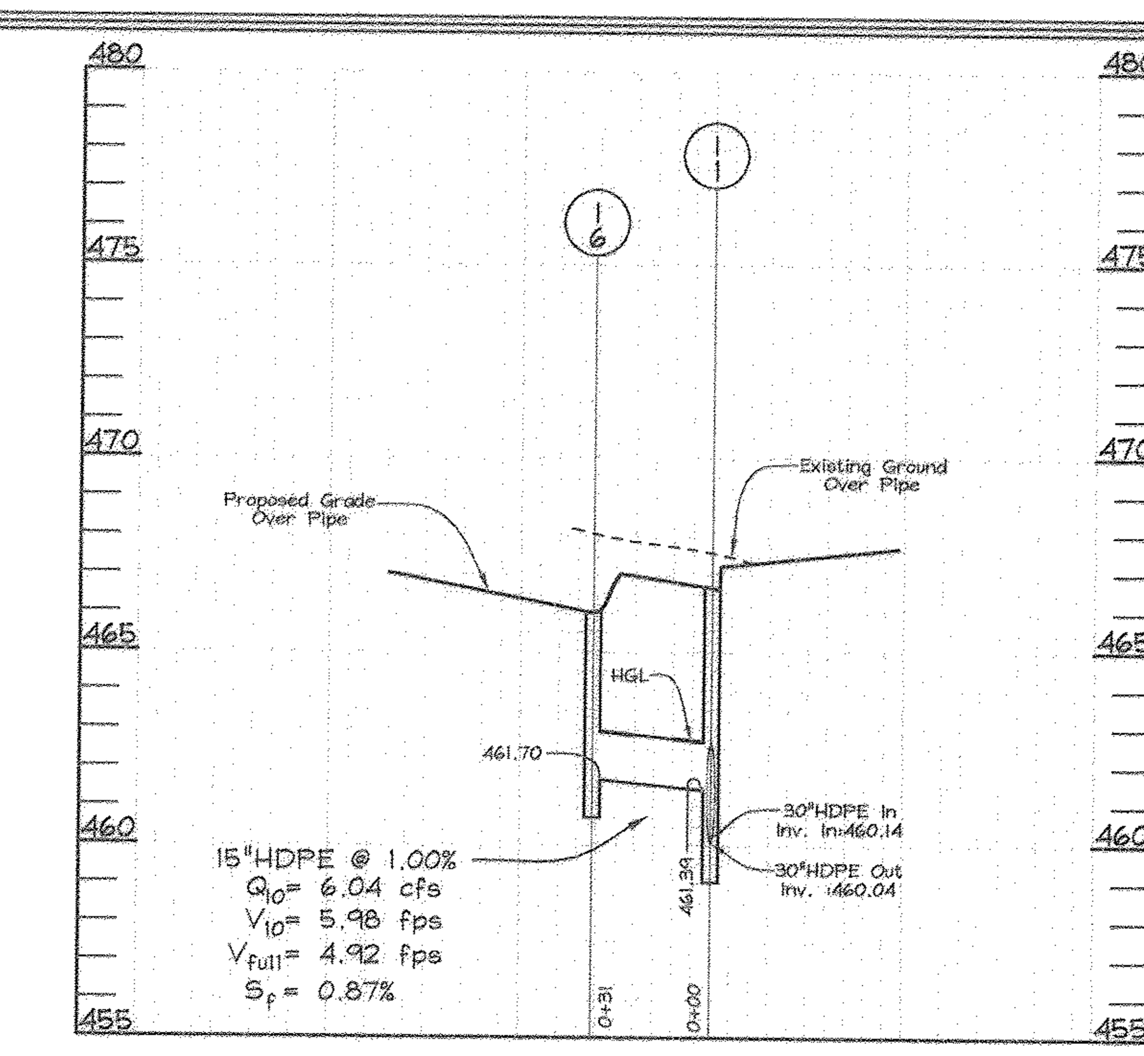
STORM DRAIN PROFILES

Scale: Horizontal- 1"=50'
Vertical-1"=5'



CULVERT PROFILE

Scale: Horizontal- 1"=50'
Vertical-1"=5'



STORM DRAIN PROFILES

Scale: Horizontal- 1"=50'
Vertical-1"=5'

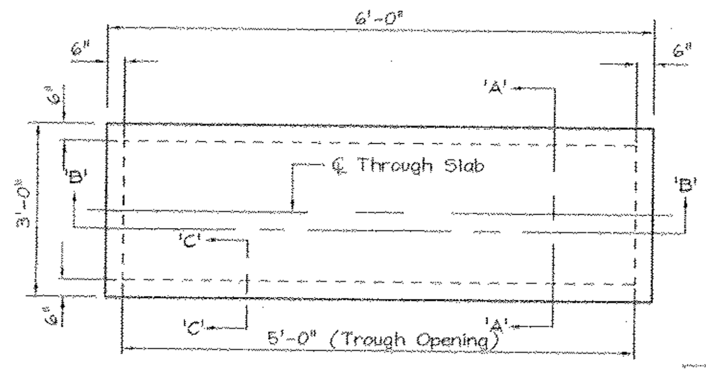
STORM DRAIN STRUCTURE SCHEDULE

NO.	TYPE	LOCATION	TOP ELEV.	INV. IN	INV. OUT	REMARKS
I-1	Single Type 'S' Inlet	N 545,770.6 E 1,330,079.3	466.60	15" 461.39 30" 460.14	460.04	SD 4.22
I-2	Single Type 'S' Inlet	N 545,662.3 E 1,330,159.8	466.00	461.32	460.82	SD 4.22
I-3	Single Type 'S' Inlet	N 545,628.7 E 1,330,221.2	466.00	461.77	461.67	SD 4.22
I-4	Single Type 'S' Inlet	N 545,595.1 E 1,330,282.6	466.00	462.86	462.12	SD 4.22
I-5	Single Type 'S' Inlet	N 545,673.8 E 1,330,325.7	466.50	463.41	463.31	SD 4.22
I-6	Single Type 'S' Inlet	N 545,756.5 E 1,330,051.8	466.00	-	461.70	SD 4.22
I-7	Precast Concrete Trough Inlet	N 545,301.4 E 1,330,188.5	468.93	468.09	467.83	see details this sheet
I-8	Precast Concrete Trough Inlet	N 545,329.3 E 1,330,145.8	469.59	468.75	468.49	see details this sheet
M-1	Standard Precast Manhole (4')	N 545,920.8 E 1,330,184.1	466.50	30" 459.12 12" 463.33	459.02	G 5.12
S-1	30" HDPE End Section	N 545,978.7 E 1,330,284.6	460.94	458.44	458.41	Hancor or Equivalent
S-2	18" Type 'C' Endwall	N 545,203.0 E 1,330,193.0	463.91	462.07	-	SD 5.21
S-3	18" RCP End Section	N 545,259.4 E 1,330,219.1	465.44	464.13	463.94	SD 5.51
S-4	18" RCP End Section	N 545,306.6 E 1,330,200.5	465.97	464.47	464.44	SD 5.51
S-5	18" RCP End Section	N 545,341.1 E 1,330,144.3	466.30	464.83	464.80	SD 5.51

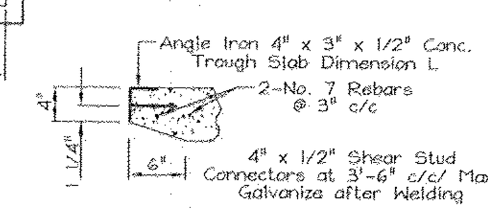
NOTES :
1. Top elevations for Type 'S' Inlets along curb and gutters are to the center, edge of grate at the flow line. Top elevations for Type 'S' Inlets in grass areas are to the center top of grate.
2. For Trough Inlet elevations, see detail this sheet.
3. Top elevations for Precast Manholes are to the center top of manhole cover.
4. Top slope of structures to conform to slope of paving.

STORM DRAIN PIPE SCHEDULE

SIZE	TYPE	LENGTH
12"	HDPE	29 LF
15"	HDPE	121 LF
18"	HDPE	20 LF
24"	HDPE	140 LF
30"	HDPE	434 LF
18"	RCP	90 LF
6"	PVC Schedule 40	138 LF



PRECAST CONCRETE TROUGH SLAB
NOT TO SCALE



SECTION 'C'-'C'
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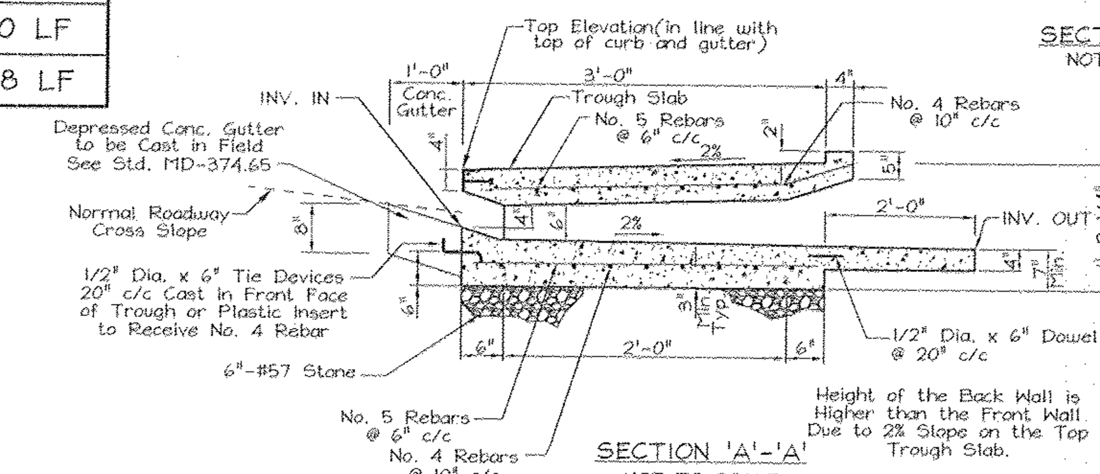
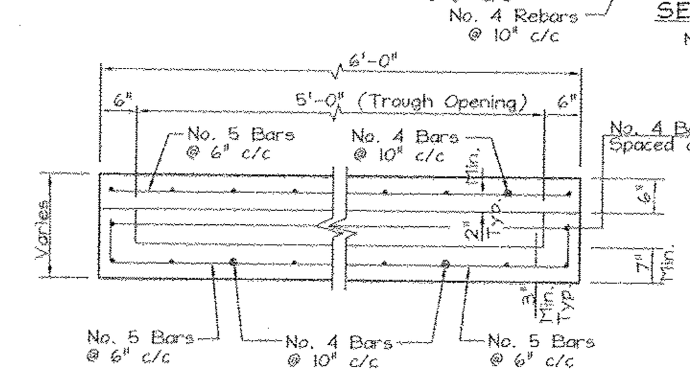


SECTION 'A'-'A'
NOT TO SCALE

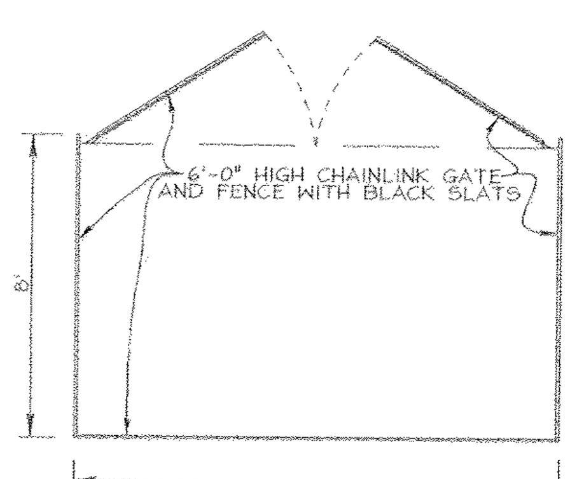
NOTES:
1. Concrete shall be mix no. 6 (4500 psi)
2. Reinforcing steel shall meet the requirements of ASTM A615, grade 50.
3. Angle iron and shear stud connectors shall be galvinized after welding in accordance with ASTM A 123.
4. See std. MD-374.64 for handling device detail.
5. See std. MD-374.65 for depressed gutter pan detail.



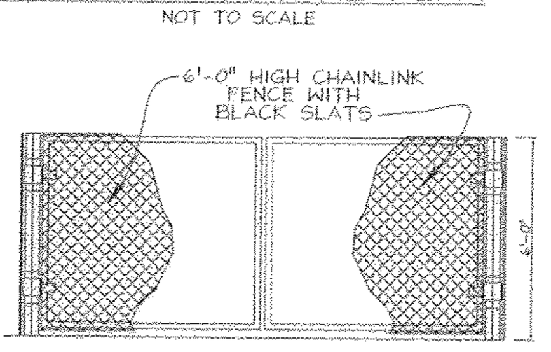
SECTION 'B'-'B'
NOT TO SCALE

TROUGH INLET

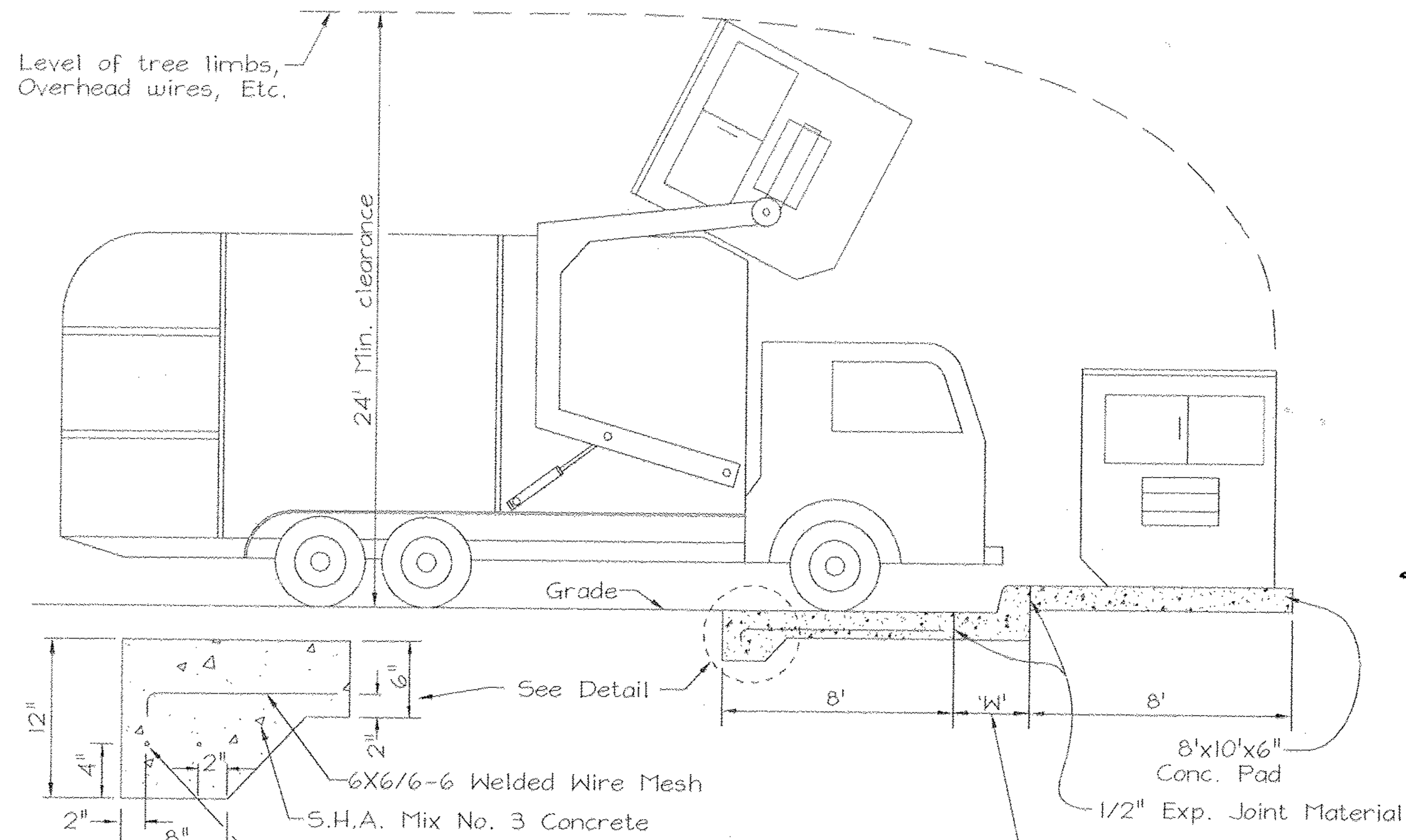
Not to Scale



TRASH ENCLOSURE PLAN
NOT TO SCALE

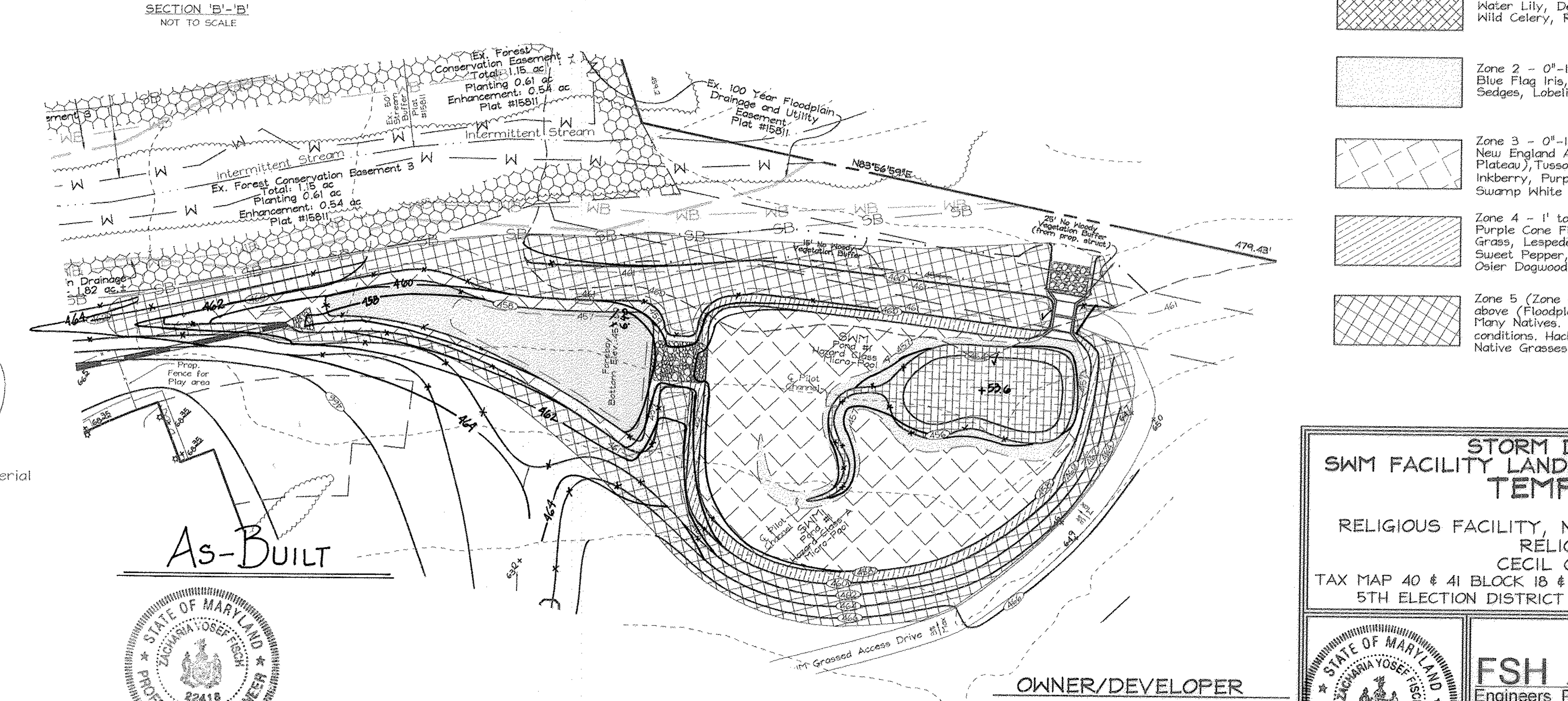


TRASH ENCLOSURE ELEVATION
NOT TO SCALE



SOLID WASTE SERVICE PAD

HOWARD COUNTY STD. R 11.01
NOT TO SCALE



AS-BUILT

Zacharia Y. Fisch 3/4/05
Z.Y. FISCH
P.E.# 22418
DATE

SWM FACILITY LANDSCAPING

Scale: 1" = 50'

LEGEND

(SWM Facility Hydrologic Zones Planting Requirements)

Zone 1 - 12"-36" depth below normal pool elevation
Water Lily, Deep Water Duck Potato, Sago Pond Plant, Wild Celery, Redhead Grass.

Zone 2 - 0"-12" depth below normal pool elevation
Blue Flag Iris, Duck Potato, Flowering Bulrush, Softrush, Sedges, Lobelia, Pond Cypress, various asters.

Zone 3 - 0"-12" elevation above normal pool elevation
New England Aster, Marsh Aster, Marsch Marigold (Appalachian Plateau), Tussock Sedge, Spotted Joe Pye Weed, Forget Me Nots, Inkberry, Purple, Osier Dogwood, Pin Oak, River Birch, Sycamore, Swamp White Oak, (Coastal Plain), Weeping Willow, Dawn Redwood.

Zone 4 - 1' to 4' elevation above normal pool elevation
Purple Cone Flower, Birds Foot Trefoil, Slender Rush, Deer Tongue Grass, Lespedeza, Switch Grass, Serviceberry, Gray Birch, Hackberry, Sweet Pepper, Bush (Coastal Plain), Gray Stem Dogwood, Red Osier Dogwood, Green Ash.

Zone 5 (Zone 6 in SWM Manual) - Qf water surface elevation and above (Floodplain). Mostly ornamentals as long as soil drains well. Many Natives. All species must be able to tolerate flood plain conditions. Hackberry, Pitch Pine, Sheep Fescue, Wildflowers, Many Native Grasses.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 3/12/03
CHIEF, DIVISION OF LAND DEVELOPMENT — DATE 3/17/03
DIRECTOR — DATE 3/17/03

APPROVED : FOR PRIVATE WATER AND PRIVATE SEWERAGE SYSTEMS IN ACCORDANCE WITH THE MASTER PLAN OF HOWARD COUNTY

COUNTY HEALTH OFFICER /SRK — DATE 3-17-03
HOWARD COUNTY HEALTH DEPARTMENT

OWNER/DEVELOPER
TEMPLE ISAIAH
c/o Robert Dubin
5885 Robert Oliver Place
Columbia, Maryland 21045
202-466-3400

STORM DRAIN PROFILES, SWM FACILITY LANDSCAPING AND SITE DETAILS
TEMPLE ISAIAH
PHASE I
RELIGIOUS FACILITY, NURSERY SCHOOL AND PRIVATE RELIGIOUS SCHOOL
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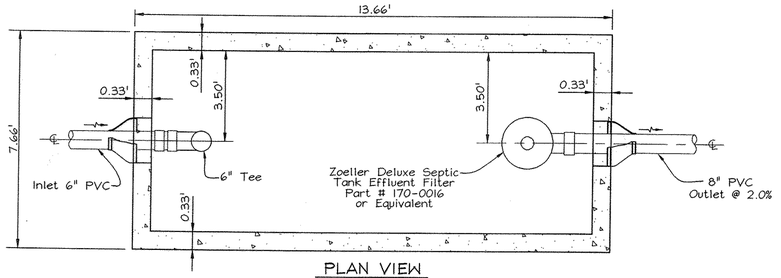
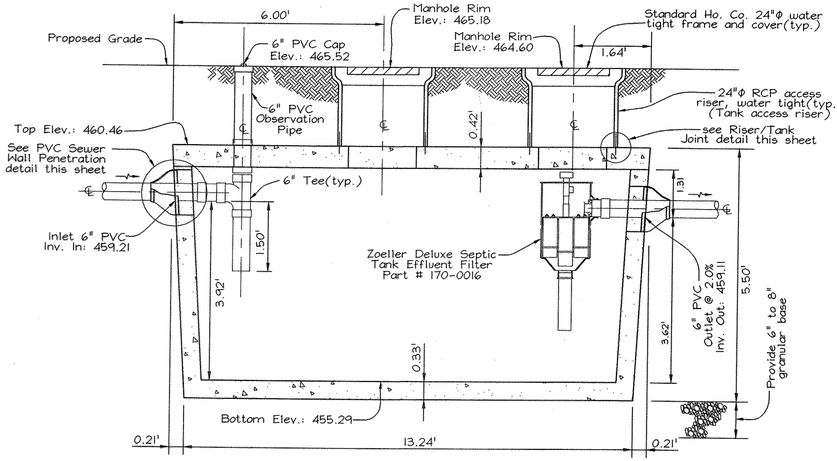


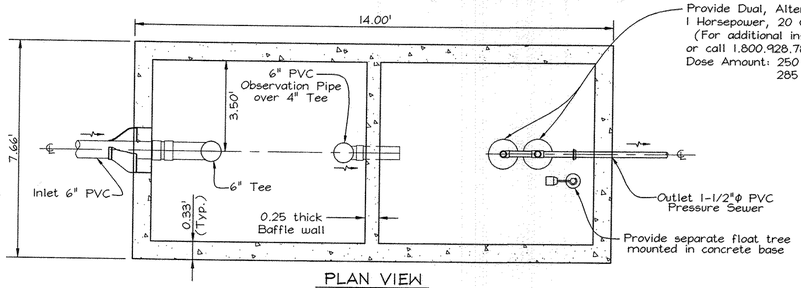
PLAN VIEW



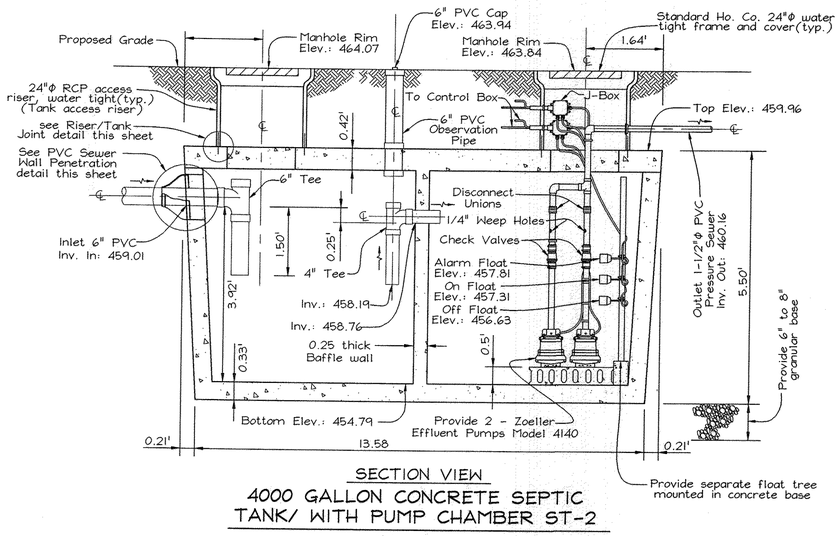
SECTION VIEW

3000 GALLON CONCRETE SEPTIC TANK ST-1

Not to Scale



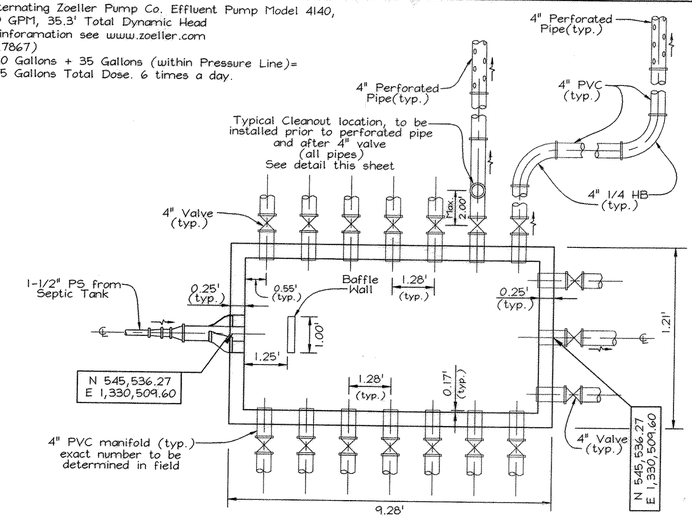
PLAN VIEW



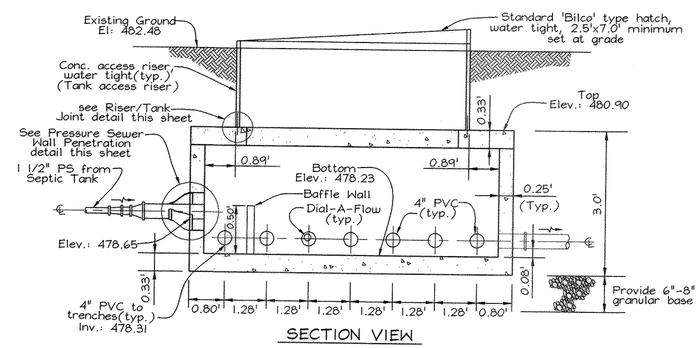
SECTION VIEW

4000 GALLON CONCRETE SEPTIC TANK/ WITH PUMP CHAMBER ST-2

Not to Scale



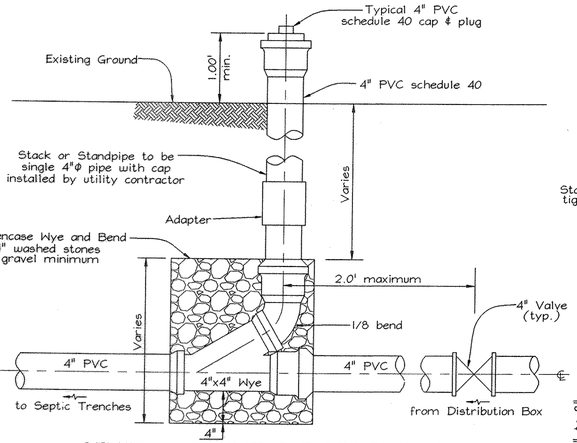
PLAN VIEW



SECTION VIEW

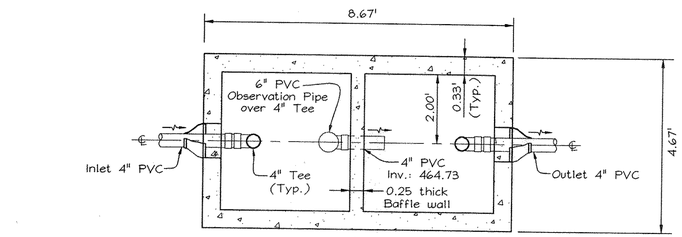
TYPICAL CONCRETE DISTRIBUTION BOX

Not to Scale

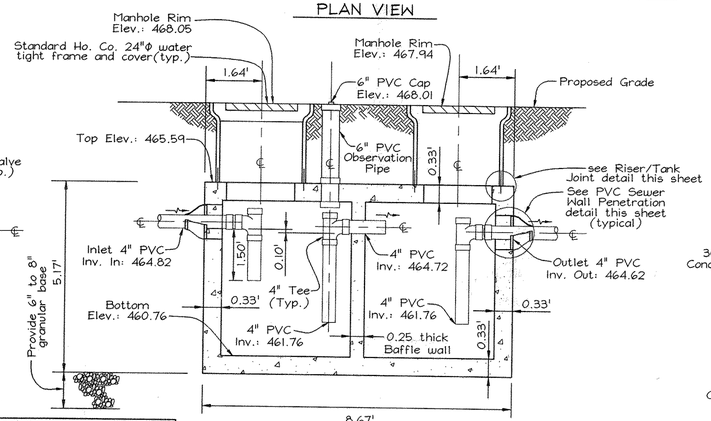


SEWER CLEANOUT @ DISTRIBUTION BOX

Modified Ho. Co. Std. Detail S-2.22
Not to Scale



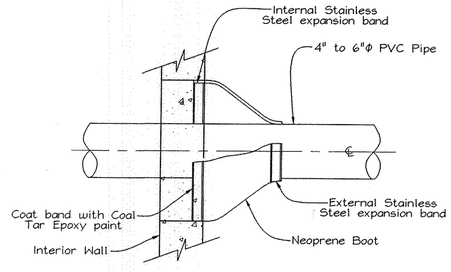
PLAN VIEW



SECTION VIEW

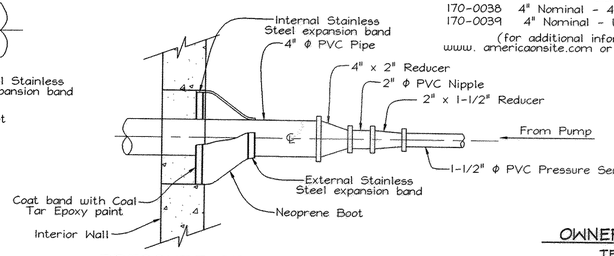
1000 GALLON GREASE TRAP GT-1

Not to Scale



PVC SEWER WALL PENETRATION DETAIL

Not to Scale



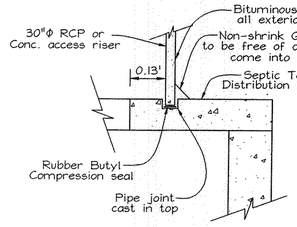
PRESSURE SEWER WALL PENETRATION DETAIL

Not to Scale

NOTE: To insure equal distribution to each manifold, provide 'Dial-a-Flow' levelers from American Manufacturing Company, Inc. (or equivalent)

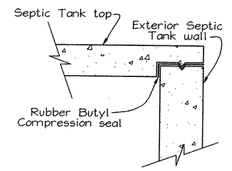
Part #	Size	Color
170-0038	4" Nominal - 4" ID & above	Green
170-0039	4" Nominal - Under 4" ID	Grey

(for additional information see www. americaonsite.com or call 1.800.345.3132)



RISER/TANK JOINT DETAIL

Not to Scale



SEPTIC TANK TOP/ WALL JOINT DETAIL

Not to Scale

OWNER/DEVELOPER

TEMPLE ISAIAH
c/o Robert Dubin
5885 Robert Oliver Place
Columbia, Maryland 21045
202-466-3400

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 3/17/03
CHIEF, DIVISION OF LAND DEVELOPMENT — DATE 3/17/03
DIRECTOR — DATE 3/12/03

APPROVED : FOR PRIVATE WATER AND PRIVATE SEWERAGE SYSTEMS IN ACCORDANCE WITH THE MASTER PLAN OF HOWARD COUNTY

COUNTY HEALTH OFFICER / SRK — DATE 3-17-03
HOWARD COUNTY HEALTH DEPARTMENT

SEWER DETAILS
TEMPLE ISAIAH
PHASE I

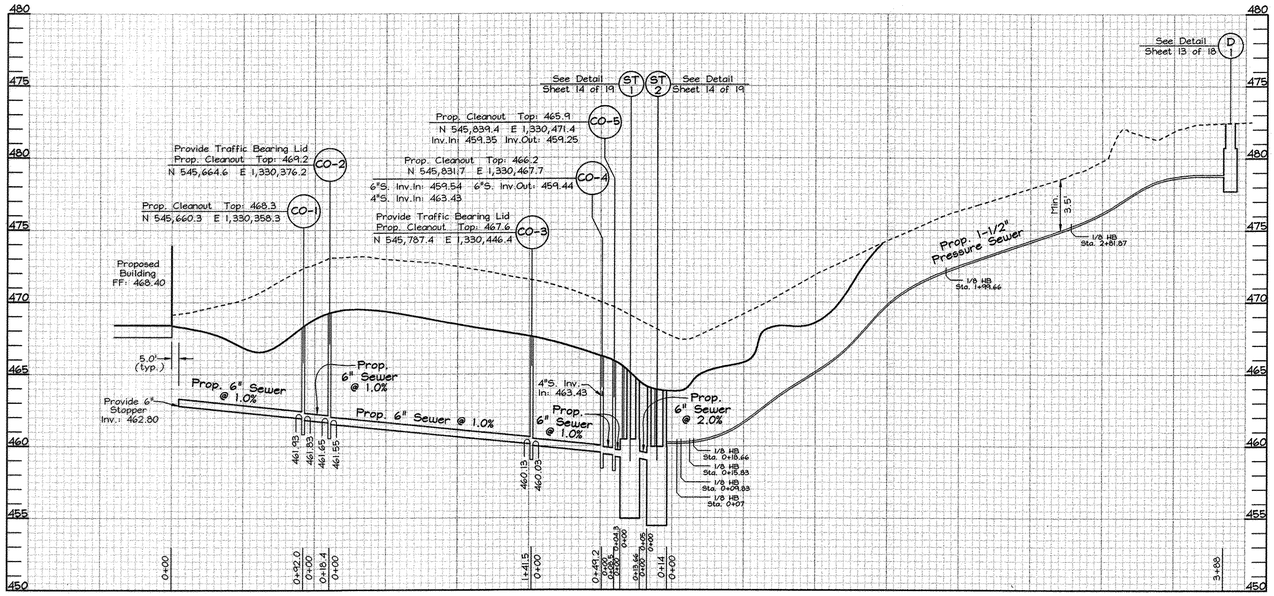
RELIGIOUS FACILITY, NURSERY SCHOOL AND PRIVATE RELIGIOUS SCHOOL
CECIL COLE PROPERTY
TAX MAP 40 & 41 BLOCK 18 & 13 PARCEL 2 — LOT 4
5TH ELECTION DISTRICT — HOWARD COUNTY, MARYLAND

STATE OF MARYLAND — VICTORIA YOSEPHSON — 22416 — PROFESSIONAL ENGINEER

FSH Associates
Engineers Planners Surveyors
8318 Forrest Street Ellicott City, MD 21043
Tel:410-750-2251 Fax: 410-750-7350
E-mail: FSHAssociates@cs.com

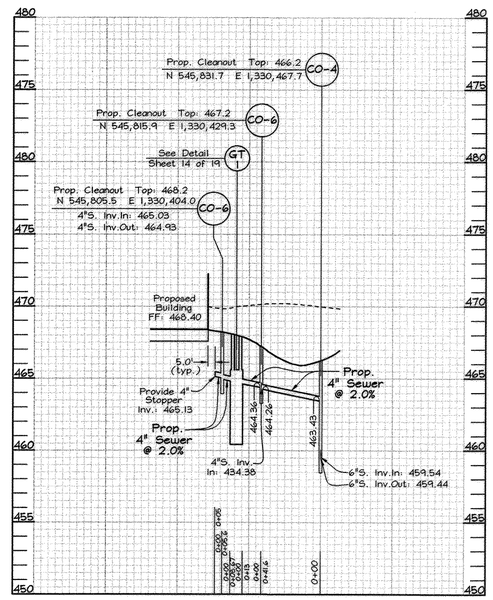
DESIGN BY: PS
DRAWN BY: Slim
CHECKED BY: ZYF
SCALE: As Shown
DATE: March 04, 2003
W.O. No.: 3002
SHEET No.: 14 OF 24

SDP-02-155



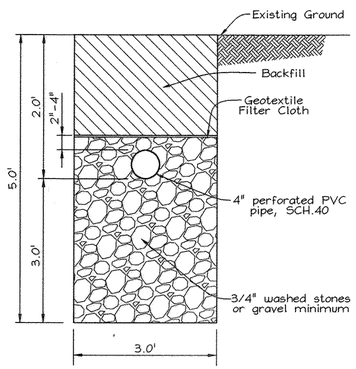
SEWER PROFILE

Scale: Horizontal- 1"=50'
Vertical-1"=5'



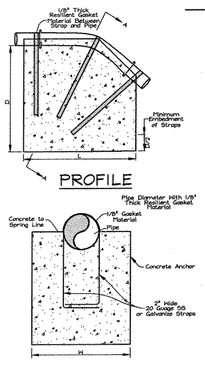
SEWER PROFILE

Scale: Horizontal- 1"=50'
Vertical-1"=5'



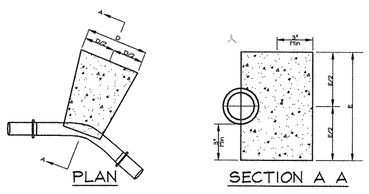
SEPTIC TRENCH DETAIL

Not to Scale

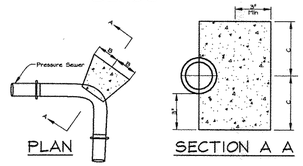


ANCHORING PRESSURE SEWERS

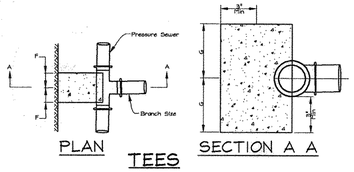
(Upper Vertical Bends)
Not to Scale



11 1/4", 22 1/2", 45° HORIZONTAL AND VERTICAL BENDS



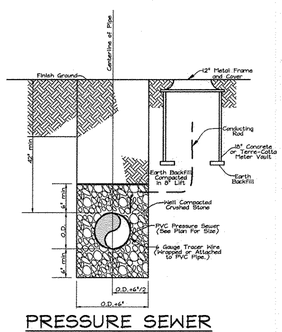
90° HORIZONTAL BENDS



TEES

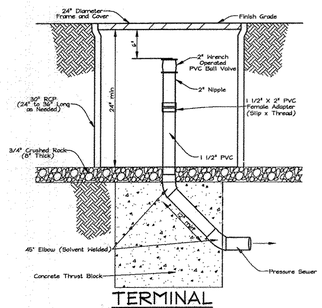
PRESSURE SEWER BLOCKING DETAILS

Not to Scale



PRESSURE SEWER TRENCH DETAIL

Not to Scale



TERMINAL FLUSHING CONNECTION

Not to Scale

TRENCH DESIGN CHART

CONSTRUCTION PHASE	MAX. SEWAGE FLOW	MAX. TRENCH LENGTH
PHASE 1	1500 GPD	1500 ÷ 0.8 ÷ 3' WIDTH=625 LF

SEWAGE DESIGN FLOW CLACULATIONS

CONSTRUCTION PHASE	TOTAL PREDICTED POPULATION	MAX. SEWAGE FLOW
PHASE 1	PHASE 1	PHASE 1
Sunday School Sunday 9am-1pm	250 students x 15 GPD x (.40 1-/2 Day)	1500 GPD
Religious Facility Friday evenings & Saturday Morning	250 Seats x 3 GPS	750 GPD Friday evening & Saturday Morning
Nursery School Mon-Fri 9am-4pm	50 students x 15 Staff x 15 GPD	975 GPD Mon-Fri

OWNER/DEVELOPER

TEMPLE ISAIAH
c/o Robert Dubin
5885 Robert Oliver Place
Columbia, Maryland 21045
202-466-3400

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 3/7/03
CHIEF, DIVISION OF LAND DEVELOPMENT — DATE 3/7/03
DIRECTOR — DATE 3/17/03

APPROVED : FOR PRIVATE WATER AND PRIVATE SEWERAGE SYSTEMS IN ACCORDANCE WITH THE MASTER PLAN OF HOWARD COUNTY

COUNTY HEALTH OFFICER — DATE 3-17-03
HOWARD COUNTY HEALTH DEPARTMENT

SEWER PROFILE AND DETAILS
TEMPLE ISAIAH
PHASE 1

RELIGIOUS FACILITY, NURSERY SCHOOL AND PRIVATE RELIGIOUS SCHOOL
CECIL COLE PROPERTY
TAX MAP 40 & 41 BLOCK 18 & 13 PARCEL 2 LOT 4
5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

STATE OF MARYLAND — YOSEF FISCH — 22418 — PROFESSIONAL ENGINEER

FSH Associates
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8318 Forrest Street Ellicott City, MD 21043
Tel:410-750-2251 Fax: 410-750-7350
E-mail: FSHAssociates@cs.com

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DATE: March 04, 2003
W.O. No.: 3002
SHEET No.: 15 OF 24

SDP-02-155

FOREST CONSERVATION WORKSHEET

	Acres
Net Tract Area	
A. Total Tract Area	21.00
B. Area Within 100 Year Floodplain	1.99
C. Other deductions	--
D. Net Tract Area	19.01
Zoning Use Category: Institutional	
Land Use Category	
E. Afforestation Minimum (15 % x D)	2.85
F. Conservation Threshold (20 % x D)	3.80
Existing Forest Cover	
G. Existing Forest on Net Tract Area	0
H. Forest Area Above Conservation Threshold	0
Breakeven Point	
I. Forest Retention Above Threshold with no Mitigation	0
J. Clearing Permitted without Mitigation	0
Proposed Forest Clearing	
K. Forest Areas to be Cleared	0
L. Forest Areas to be Retained	0
Planting Requirements	
M. Reforestation for Clearing Above Threshold	0
N. Reforestation for Clearing Below the Threshold	0
P. Credit for Retention Above Conservation Threshold	0
Q. Total Reforestation Required	0
R. Total Afforestation Required	2.85
S. Total Reforestation and Afforestation Requirement	2.85

FOREST CONSERVATION NARRATIVE

This Forest Conservation Plan has been developed in accordance with the Howard County Forest Conservation Act of 1991. The total tract area consists of 21.00 acres of land. There is 1.99 acres of floodplain to bring the net tract area of the site to 19.01 acres. The site contains no existing forest cover. There are several areas that may be enhanced for use as forest mitigation. A total of 0.96 acres of enhancement planting is proposed. The selected planting areas contain scattered natural regeneration seedlings, scattered mature trees, and a heavy shrub layer which do not meet the density requirement for forest cover. Selective clearing and supplemental planting of the area is proposed to increase the density of the stand. There will be 2.19 acres of afforestation planting within unforested land. Three forest conservation easements will be established. Easement 1 will contain 0.72 acres of new planting. Easement 2 will contain 0.42 acres of enhancement and will contain 0.56 acres of new planting on either side of the enhancement area. Easement 3 will contain 0.54 acres of enhancement and will contain 0.61 acres of new planting on either side of the enhancement area. Easements 2 and 3 are along wetlands, streams and their buffers, and within the 100 year Floodplain.

New plantings will be 2-3' containerized whip stock planted at 350 stems/acre. Enhancement plantings will be 2-3' containerized whip stock as necessary to bring the area up to minimum forest criteria.

FOREST CONSERVATION EASEMENT TABLE

EASMENT	TYPE	AREA (ACRES)	BOND RATE	BOND PRICE
1	AFFORESTATION	0.72	$0.50 /S.F.	$15,681.50
2	ENHANCEMENT	0.42	$0.40 /S.F.	$7,318.08
	AFFORESTATION	0.56	$0.50 /S.F.	$12,196.80
3	ENHANCEMENT	0.54	$0.40 /S.F.	$9,408.96
	AFFORESTATION	0.61	$0.50 /S.F.	$13,285.80
TOTAL		2.85		$57,891.14
	ENHANCEMENT	0.96		
	AFFORESTATION	1.89		

FOREST CONSERVATION EASEMENT #1
AFFORESTATION AREA : 0.72 Ac. (252 trees @ 350 TPA)

Qty	Botanical Name	Common Name	Min. Size	Spacing	Notes
42	Acer rubrum	Red Maple	WHIP 2-3'	11' o.c.	1-3 Gallon Container Grown
42	Fraxinus pennsylvanica	Green Ash	WHIP 2-3'	11' o.c.	
42	Liquidambar styraciflua	Sweet gum	WHIP 2-3'	11' o.c.	
42	Amelanchier canadensis	Service berry	WHIP 2-3'	11' o.c.	
42	Cercis canadensis	Red bud	WHIP 2-3'	11' o.c.	Grown
42	Cornus florida	Flowering dogwood	WHIP 2-3'	11' o.c.	

FOREST CONSERVATION EASEMENT #2
AFFORESTATION AREA : 0.56 Ac. (196 trees @ 350 TPA)

Qty	Botanical Name	Common Name	Min. Size	Spacing	Notes
34	Acer rubrum	Red Maple	WHIP 2-3'	11' o.c.	1-3 Gallon Container Grown
34	Fraxinus pennsylvanica	Green Ash	WHIP 2-3'	11' o.c.	
34	Liquidambar styraciflua	Sweet gum	WHIP 2-3'	11' o.c.	
32	Amelanchier canadensis	Service berry	WHIP 2-3'	11' o.c.	
31	Cercis canadensis	Red bud	WHIP 2-3'	11' o.c.	Grown
31	Cornus florida	Flowering dogwood	WHIP 2-3'	11' o.c.	

FOREST CONSERVATION EASEMENT #3
AFFORESTATION AREA : 0.61 Ac. (213 trees @ 350 TPA)

Qty	Botanical Name	Common Name	Min. Size	Spacing	Notes
36	Acer rubrum	Red Maple	WHIP 2-3'	11' o.c.	1-3 Gallon Container Grown
36	Fraxinus pennsylvanica	Green Ash	WHIP 2-3'	11' o.c.	
36	Liquidambar styraciflua	Sweet gum	WHIP 2-3'	11' o.c.	
35	Amelanchier canadensis	Service berry	WHIP 2-3'	11' o.c.	
35	Cercis canadensis	Red bud	WHIP 2-3'	11' o.c.	Grown
35	Cornus florida	Flowering dogwood	WHIP 2-3'	11' o.c.	

FOREST CONSERVATION EASEMENT #2
ENHANCEMENT AREA : 0.42 Ac. (147 trees @ 350 TPA)

Qty	Botanical Name	Common Name	Min. Size	Spacing	Notes
25	Acer rubrum	Red Maple	WHIP 2-3'	11' o.c.	1-3 Gallon Container Grown
25	Fraxinus pennsylvanica	Green Ash	WHIP 2-3'	11' o.c.	
25	Liquidambar styraciflua	Sweet gum	WHIP 2-3'	11' o.c.	
24	Amelanchier canadensis	Service berry	WHIP 2-3'	11' o.c.	
24	Cercis canadensis	Red bud	WHIP 2-3'	11' o.c.	Grown
24	Cornus florida	Flowering dogwood	WHIP 2-3'	11' o.c.	

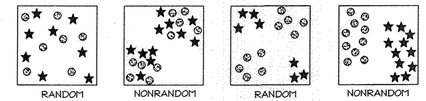
* This area will be selectively cleared of undesirable plants and spot treated with whip stock to enhance the forest characteristics of the area. Exact quantities will be determined in the field.

FOREST CONSERVATION EASEMENT #3
ENHANCEMENT AREA : 0.54 Ac. (189 trees @ 350 TPA)

Qty	Botanical Name	Common Name	Min. Size	Spacing	Notes
32	Acer rubrum	Red Maple	WHIP 2-3'	11' o.c.	1-3 Gallon Container Grown
32	Fraxinus pennsylvanica	Green Ash	WHIP 2-3'	11' o.c.	
32	Liquidambar styraciflua	Sweet gum	WHIP 2-3'	11' o.c.	
31	Amelanchier canadensis	Service berry	WHIP 2-3'	11' o.c.	
31	Cercis canadensis	Red bud	WHIP 2-3'	11' o.c.	Grown
31	Cornus florida	Flowering dogwood	WHIP 2-3'	11' o.c.	

* This area will be selectively cleared of undesirable plants and spot treated with whip stock to enhance the forest characteristics of the area. Exact quantities will be determined in the field.

TYPICAL FOREST TREE DISTRIBUTION PATTERNS



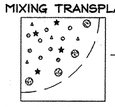
NOTE:
Naturally occurring populations of trees tend to be found in informal groupings. A cluster of trees is really a mosaic of different species groups. The objective of an afforestation/ reforestation plan is to select the appropriate species and distribution pattern for a chose site that mimic natural patterns.
source: prince Georges County woodland Conservation Manual.

AGGREGATE DISTRIBUTION DRIFT

NOTE:
When used, plant cluster type groupings that taper or feather out along the edges. Clusters often appear as elongated of tear drop shapes.

Source: EGR, Inc.

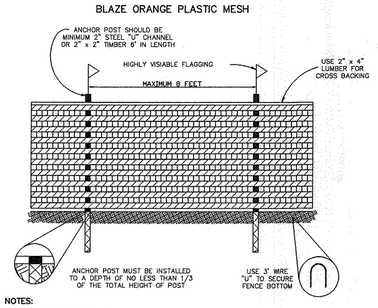
MIXING TRANSPLANT STOCK



Locate larger trees (B&B or container grown) or transplant stock at the perimeter of reforestation/ afforestation planting of whips, seedling grown stock.
Protective fencing
Smaller Stock

Source: Adapted from Forest Conservation Manual, 1991.

PLANTING DISTRIBUTION PATTERNS — FIGURE 3.8.2



NOTES:
1. FOREST PROTECTION DEVICE ONLY.
2. RETENTION AREA WILL BE SET AS PART OF THE REVIEW PROCESS.
3. BOUNDARIES OF RETENTION AREA SHOULD BE STAKED AND FLAGGED PRIOR TO INSTALLING DEVICE.
4. ROOT DAMAGE SHOULD BE AVOIDED.
5. PROTECTIVE SIGNAGE MAY ALSO BE USED.
6. DEVICE SHOULD BE MAINTAINED THROUGHOUT CONSTRUCTION.

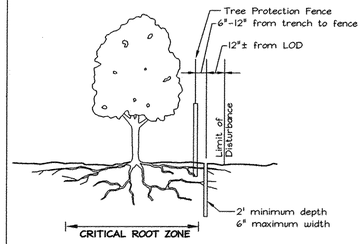
TREE PROTECTION DETAIL
NOT TO SCALE

Soil Protection Zone Notes

1. The Soil Protection Zone shall include all areas contained inside the Limit of Disturbance.
2. Where possible, the Soil Protection Zone shall extend to the drip line of specimen trees. For other groups of trees, the zone shall be the drip line or 40% of the height of the tree, whichever is greater.
3. No construction activity is permitted within the Soil Protection Zone.
4. If soil has been compacted or grading has taken place in the vicinity of the Soil Protection Zone, root pruning shall be implemented per Root Pruning detail, shown on this plan.
5. Root pruning shall occur prior to the beginning of construction.
6. Where the Soil Protection Zone must encroach inside the Critical Root Zone of a tree, soil disturbance shall be mitigated with vertical mulching, radial trenching, or another method approved by the ERI Forest Conservation Professional.
7. Prior to construction, the Limits of Disturbance shall be marked and the ERI Professional shall determine which trees will need preventative treatment or removal.
8. Tree maintenance and removal shall be undertaken by a qualified MD Tree Expert to ensure damage to surrounding trees is minimized.
9. Brush and limbs removed for construction shall be chipped and spread at the edge of the Soil Protection Zone to a depth of 6 inches. This shall occur outside the Soil Protection Zone where compaction could impact otherwise unprotected Critical Root Zone.

ROOT PRUNING

1. Retention areas shall be set prior to construction
2. Boundaries of retention areas shall be flagged, and location of trench shall be specified by ERI Qualified Professional.
3. Roots shall be cut cleanly with root pruning equipment. Where roots >1" are found, trenching shall be done by air spade or hand tools. Roots >1" shall be cut with a hand saw.
4. Trench shall be immediately backfilled with soil removed or high organic content soil.
5. Any other techniques shall be approved by the ERI Qualified Professional before implementation.



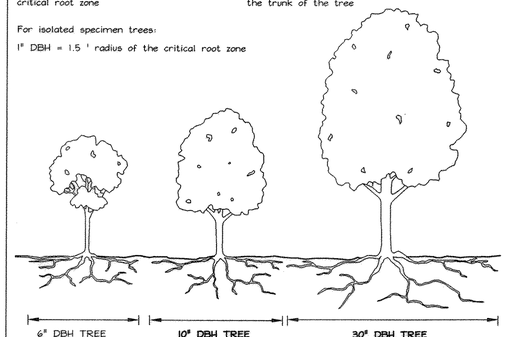
CRITICAL ROOT ZONE

For the edge of large areas, use the greater of the two choices below:

1" DBH of the tree = 1' radius of the critical root zone or 8 ft radius circle around the trunk of the tree

For isolated specimen trees:

1" DBH = 1.5 ' radius of the critical root zone

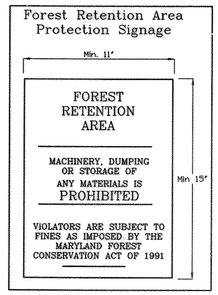


Afforestation Area Monitoring Notes

1. Monthly visits during the first growing season are to assess the success of the plantings and to determine if supplemental watering, pest control or other actions are necessary. Early spring visits will document winter kill and autumn visits will document summer kill.
2. The minimum survival rate shall be 75% of the total number of trees planted per acre at the end of the two year maintenance period. Wild tree seedlings from natural regeneration on the planting site may be counted up to 50% toward the total survival number if they are healthy native species at least 12 inches tall.
   Certification at the end of the two-year post construction period must indicate that the survival rates will result in a 100 tree per acre ratio for a forest and the 3 to 4 foot height standard for whips by the end of the two growing season post construction period, with at least 50% of those trees having the potential of attaining a 2" caliper DBH within 7 years.
3. Survival will be determined by a stratified random sample of the plantings. The species composition of the sample population should be proportionate to the amount of each species in the entire planting to be sampled.
4. Effective monitoring will assess plant survivability during the first growing season and make recommendations for reinforcement planting if required at that time.

Afforestation Area Planting Notes

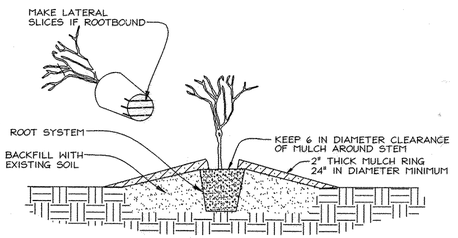
1. Initial planting inspection and certification required. Planting contractor to notify ERI qualified professional 24 hours in advance of planting.
2. Afforestation areas may be planted as soon as reasonable to do so. Late winter- early spring plantings are preferred. Earliest planting dates will vary from year to year but planting may generally begin as soon as the ground is no longer frozen. Alternate planting dates may be considered as conditions warrants.
3. Soil amendments and fertilization recommendations will be made based upon the results of soil analysis for nitrogen, phosphorus, potassium, organic matter content and pH. If required, fertilizer will be provided using a slow release, soluble 16-8-16 analysis designed to last 5-8 years contained in polyethylene perforated bags such as manufactured by ADCO Works, P.O. Box 310 Hollins, N.Y. 11423 or approved equal.
4. Plant materials shall be planted in accordance with the planting diagram, planting details and planting schedule.
5. Plant stock must be protected from desiccation at all times prior to planting. Materials held for planting shall be moistened and placed in cool shaded areas until ready for placement.
6. Planting materials shall be nursery grown and inspected prior to planting. Plants not conforming to the American Standards for Nursery Stock specifications for size, form, vigor, or roots, or due to trunk wounds, breakage, desiccation, insect or disease must be replaced.
7. Newly planted trees may require watering at least once per week during the first growing season depending on rainfall in order to get established. The initial planting operation should allow for watering during installation to completely soak backfill materials.
8. Mulch shall be applied in accordance with the diagram provided and shall consist of composted, shredded hardwood bark mulch, free of wood alcohol.
9. Planting holes should be excavated to a minimum diameter of 2.5 to 3 times the diameter of the root ball or container. Mechanical angering is preferred with scarification of the sides of each hole.



3

SEAL:

JIANG YU
PROFESSIONAL ENGINEER
MD LICENSE NO. 46030



CONTAINER PLANTING
NOT TO SCALE

PLANTING PROCEDURE FOR CONTAINER GROWN PLANTS

1. REMOVE THE PLANT EITHER BY CUTTING OR INVERTING THE CONTAINER
2. USE A KNIFE TO CUT THROUGH BOTTOM HALF OF THE ROOT BALL.
3. PLANT SHRUBS ON FORMED UP MOUNDS 4" ABOVE THE EXISTING GRADE WHEN HIGH WATER TABLE CONDITIONS EXIST,OTHERWISE PLANT FLUSH WITH EXISTING GRADE.
4. PLANTING HOLE TO BE 2-3 TIMES THE DIAMETER OF THE CONTAINER.
5. INSERT FERTILIZER TABLET, BACKFILL 2/3 OF THE ROOT BALL AND WATER.
6. AFTER WATER PERCOLATES, BACKFILL HOLE TO TOP OF ROOT BALL AND GENTLY TAMP SOIL TO FIRM CONTACT WITH PLANT.
7. APPLY MULCH RING AROUND PLANT KEEPING A 6 IN CLEARANCE FROM STEM.

DATE	NO.	REVISION
12/26/16	3	AT&T EQUIPMENT
10/13/15	2	AT&T EQUIPMENT
8/21/15	1	AT&T EQUIPMENT
6/18/14	0	AT&T EQUIPMENT

3

The forest conservation easements have been established to fulfill the requirements of Section 16.1200 of the Howard County Code and the Forest Conservation Manual. No clearing, grading or construction is permitted within the forest conservation easements, however, forest management practices as defined in the Deed of Forest Conservation Easement are allowed.

See the recorded plat for FCE bearing and distance description. Plat #15811

CONSERVATION NOTE: 3

THE 166 FOOT SETBACK FOR THE TELECOMMUNICATION TOWER ENCROACHES WITHIN FCE#1. THE OWNER/DEVELOPER IS RESPONSIBLE FOR ANY DAMAGE TO THE FCE CAUSED BY THE TELECOMMUNICATION FACILITY. ANY DAMAGE MUST BE CORRECTED AT THE OWNER/DEVELOPERS EXPENSE IN ORDER FOR THE FCE TO BE ACCEPTABLY MAINTAINED IN ACCORDANCE WITH THE DEED OF FOREST CONSERVATION EASEMENT AND MAINTANENCE AGREEMENT.

EXPLORATION RESEARCH, INC.
ENVIRONMENTAL CONSULTANTS
6310 FORREST STREET
ELLICOTT CITY, MARYLAND 21043
TEL: (410) 750-1150 FAX:(410) 750-7350

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 3/16/03

CHIEF, DIVISION OF LAND DEVELOPMENT — DATE 3/13/03

DIRECTOR — DATE 3/12/03

APPROVED : FOR PRIVATE WATER AND PRIVATE SEWERAGE SYSTEMS IN ACCORDANCE WITH THE MASTER PLAN OF HOWARD COUNTY

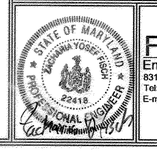
COUNTY HEALTH OFFICER SRK 1/ — DATE 3-17-03
HOWARD COUNTY HEALTH DEPARTMENT

3

DEWBERRY CONSULTANTS LLC
3106 LORD BALTIMORE DRIVE
SUITE 110
BALTIMORE, MD 21244
PHONE: 410.265.9500 FAX: 410.266.8876

OWNER/DEVELOPER
TEMPLE ISAIAH
c/o Robert Dubin
5885 Robert Oliver Place
Columbia, Maryland 21045
202-466-3400

FOREST CONSERVATION PLAN NOTES AND DETAILS
TEMPLE ISAIAH
PHASE I
RELIGIOUS FACILITY, NURSERY SCHOOL AND PRIVATE RELIGIOUS SCHOOL
CECIL COLE PROPERTY
TAX MAP 40 & 41 BLOCK 18 & 13 PARCEL 2 LOT 4
5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND



FSH Associates
Engineers Planners Surveyors
8318 Forrest Street Ellicott City, MD 21043
Tel:410-750-2251 Fax: 410-750-7350
E-mail: FSHAssociates@cs.com

3

DESIGN BY: RAB
DRAWN BY: RAB
CHECKED BY: SLH
SCALE: 1"=30'
DATE: March 04, 2003
W.O. No.: 3002
SHEET No.: 16 OF 24

SDP-02-155

NO.	DATE	REVISION	BY
3	11-14-22	ADDED OUTDOOR PATHWAYS AND SEATING AREAS.	FSH
2	10-2-20	ADDED BUILDING EXPANSIONS & ENCLOSED AREA.	FSH
1	8-21-19	ADDED WOODEN SHED.	FSH

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 3/12/03

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

DIRECTOR — DATE 3/17/03

APPROVED: FOR PRIVATE WATER AND PRIVATE SEWERAGE SYSTEMS IN ACCORDANCE WITH THE MASTER PLAN OF HOWARD COUNTY

COUNTY HEALTH OFFICER [redacted] SRK — DATE 3-17-03
HOWARD COUNTY HEALTH DEPARTMENT

The forest conservation easements have been established to fulfill the requirements of Section 16.1200 of the Howard County Code and the Forest Conservation Manual. No clearing, grading or construction is permitted within the forest conservation easements, however, forest management practices as defined in the Deed of Forest Conservation Easement are allowed.

See the recorded plat for FCE bearing and distance description. Plat #15811

STATE OF MARYLAND STEPHEN L. HUBER No. 363 REGISTERED PROFESSIONAL FORESTER

OWNER/DEVELOPER
TEMPLE ISAIAH
c/o Robert Dubin
5885 Robert Oliver Place
Columbia, Maryland 21045
202-466-3400

FOREST CONSERVATION PLAN
TEMPLE ISAIAH
PHASE I
RELIGIOUS FACILITY, NURSERY SCHOOL AND PRIVATE RELIGIOUS SCHOOL
CECIL COLE PROPERTY
TAX MAP 40 & 41 BLOCK 18 & 13 PARCEL 2 LOT 4
5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

STATE OF MARYLAND ZACHARIA YOSEF FISCH 22418 PROFESSIONAL ENGINEER

FSH Associates
Engineers Planners Surveyors
8318 Forrest Street Ellicott City, MD 21043
Tel:410-750-2251 Fax: 410-750-7350
E-mail: FSHAssociates@cs.com

DESIGN BY: RAB
DRAWN BY: RAB
CHECKED BY: ZYF
SCALE: 1"=30'
DATE: March 04, 2003
W.O. No.: 3002
SHEET No.: 17 OF 24

SDP-02-155

MATCHLINE SEE SHEET 19 OF 19
MATCHLINE SEE SHEET 17 OF 19
PARCEL 108
VIRAM & MINA PATEL
1567/703
ZONED: RR-DEO
MARYLAND ROUTE 216
SCAGGSVILLE ROAD
MINOR ARTERIAL
(PUBLIC STATE ROAD)
CLEANWATER EARTH DIKE A-1
Specimen Tree 32" Black Oak
Temporary Stockpile Area
Existing Septic Area 10,059 Sq.Ft.±
REPLACE EXISTING SECTION OF SEPTIC PUMP LINE @ 3' BELOW GRADE AND INSTALL 1" PVC SLEEVE AROUND PIPING
REPLACE EXISTING SECTION OF WELLLINE @ 3' BELOW GRADE AND INSTALL 1" PVC SLEEVE AROUND PIPING
LOCATION OF EXISTING SEWAGE DISPOSAL TRENCHES
LOCATION OF EXISTING PUMP LINE @ 3' BELOW GRADE
PROPOSED UNDERGROUND ELECTRIC CONDUIT (TYP)
10' PRIVATE UTILITY EASEMENT PLAT NO. 24116-17
PROPOSED UNDERGROUND TELCO CONDUIT (TYP)
BORE UTILITIES UNDER CREEK
APPROX. LOCATION OF EXISTING PUMPLINE @ 3' BELOW GRADE
166' SETBACK RADIUS FROM PROPOSED TOWER
EXISTING WELL
PROPOSED 25'X30' GRAVEL CELL SITE EQUIPMENT AREA
PROPOSED ACCESS ROAD
EX. GRAVEL ACCESS ROAD
APPROX. LOCATION OF EXISTING WATER LINE @ 3' BELOW GRADE
PROPOSED MONOPOLE WITH 4' LIGHTNING ROD
Existing Building To Remain
Existing Fenceline To Remain
Existing Retaining Wall To Remain
Existing Brushline
Ex. 25' Wetlands Buffer Plat #15811
Ex. Forest Conservation Easement 2
Total: 0.98 ac.
Planting: 0.56 ac.
Enhancement: 0.42 ac.
Plat #15811
Ex. 100 Year Floodplain Drainage and Utility Easement
RUBBERIZED TRICYCLE PATH
Prop. Fence for Play area
Play Area
FENCE
4' CONC. PATH
12'x13' CONC. PAD W/ 3 BENCHES
PATHWAY WITH STONE PAVERS
CONC. SITTING WALL
Maryland State Grid (NAD 83/91)
N 545,700
E 1,330,150

LEGEND

- Forest Conservation Easement Afforestation Area
- Forest Conservation Easement Enhancement Area
- △ FCE Signage
- —— TPF —— Tree Protection Fence

The forest conservation easements have been established to fulfill the requirements of Section 16.1200 of the Howard County Code and the Forest Conservation Manual. No clearing, grading or construction is permitted within the forest conservation easements, however, forest management practices as defined in the Deed of Forest Conservation Easement are allowed.

See the recorded plat for FCE bearing and distance description. Plat #15811

NOTES:

1) THE CONTRACTOR SHALL USE THE FLAGGING SUPPLIED BY THE SURVEYOR TO LOCATE THE AREAS WHERE THE EXISTING SEPTIC PUMP LINE AND WELL LINE INTERSECT THE PROPOSED UTILITY EASEMENTS. IN THESE LOCATIONS THE EXISTING SEPTIC AND WELL LINES SHALL BE REMOVED AND REPLACED IN THE AREAS WITH 5' OVERLAP OUTSIDE OF THE PROPOSED EASEMENT. THE REPLACEMENT LINES SHALL BE OF THE SAME MATERIAL AND SIZE AS THE ONES REMOVED. THE REPLACED LINES SHALL BE RUN WITHIN A PVC CONDUIT THAT IS 1" LARGER IN DIAMETER THAN THE EXISTING AND BE RUN THE ENTIRE LENGTH FROM 5' OUTSIDE THE PROPOSED EASEMENT ON BOTH SIDES. CONTRACTOR SHALL COMPACT THE SOIL BELOW AROUND AND ABOVE THE REPLACED LINES PER UTILITY STANDARDS AND WARNING TAPE. △3

2) DEPTHS AND LOCATIONS OF SEPTIC LINE, WELL LINE AND SEWAGE DISPOSAL TRENCHES ARE BASED UPON A PRELIMINARY FIELD INVESTIGATION PERFORMED ON 12/20/2016 USING A GROUND PENETRATING RADAR (GPR) DEVICE. CONTRACTOR SHALL VERIFY ALL LOCATIONS DIMENSIONS DEPTHS AND MATERIALS IN FIELD PRIOR TO ONSET OF CONSTRUCTION.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 3/12/03

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

DIRECTOR — DATE 3/13/03

APPROVED: FOR PRIVATE WATER AND PRIVATE SEWERAGE SYSTEMS IN ACCORDANCE WITH THE MASTER PLAN OF HOWARD COUNTY

COUNTY HEALTH OFFICER SRK — DATE 3-17-03
HOWARD COUNTY HEALTH DEPARTMENT

SEAL:

JIANG YU
PROFESSIONAL ENGINEER
MD LICENSE NO. 46030

STATE OF MARYLAND
STEPHEN L. HUBER
REGISTERED PROFESSIONAL FORESTER
No. 383

EXPLORATION RESEARCH, INC.
ENVIRONMENTAL CONSULTANTS
8318 FORREST STREET
ELLICOTT CITY, MARYLAND 21043
TEL: (410) 750-1150 FAX: (410) 750-7350

DEWBERRY CONSULTANTS LLC
3106 LORD BALTIMORE DRIVE
SUITE 110
BALTIMORE MD 21244
PHONE: 410.265.9500 FAX: 410.265.8875

DATE	NO.	REVISION
11-14-22	4	ADDED PATHS & SEAT. AREAS
12/27/16	3	AT&T EQUIPMENT
10/13/16	2	AT&T EQUIPMENT
8/22/16	1	AT&T EQUIPMENT
6/18/14	0	AT&T EQUIPMENT

OWNER/DEVELOPER
TEMPLE ISAIAH
c/o Robert Dubin
5885 Robert Oliver Place
Columbia, Maryland 21045
202-466-3400

FOREST CONSERVATION PLAN
TEMPLE ISAIAH
PHASE I
RELIGIOUS FACILITY, NURSERY SCHOOL AND PRIVATE RELIGIOUS SCHOOL
CECIL COLE PROPERTY
TAX MAP 40 & 41 BLOCK 18 & 13 PARCEL 2 LOT 4
5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

STATE OF MARYLAND
ZACHARIA YOSEF FISCH
22418
PROFESSIONAL ENGINEER

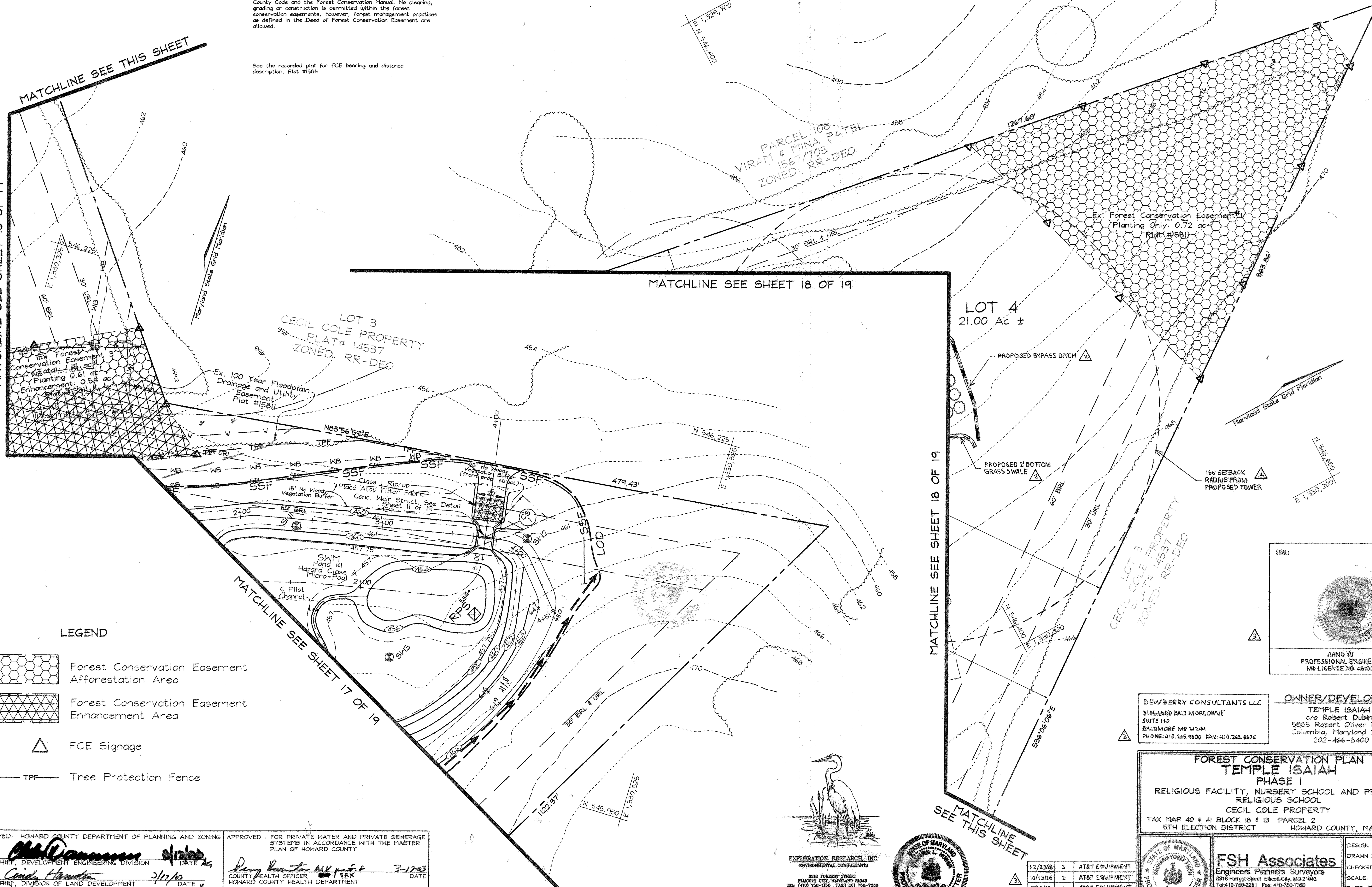
FSH Associates
Engineers Planners Surveyors
8318 Forrest Street Ellicott City, MD 21043
Tel:410-750-2251 Fax: 410-750-7350
E-mail: FSHAssociates@cs.com

DESIGN BY: RAB
DRAWN BY: RAB
CHECKED BY: ZYF
SCALE: 1"=30'
DATE: March 04, 2003
W.O. No.: 3002
SHEET No.: 18 OF 24

SDP-02-155

The forest conservation easements have been established to fulfill the requirements of Section 16.1200 of the Howard County Code and the Forest Conservation Manual. No clearing, grading or construction is permitted within the forest conservation easements, however, forest management practices as defined in the Deed of Forest Conservation Easement are allowed.

See the recorded plat for FCE bearing and distance description. Plat #15811



LEGEND

Forest Conservation Easement Afforestation Area

Forest Conservation Easement Enhancement Area

△ FCE Signage

—— TPF —— Tree Protection Fence

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 3/13/03

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

DIRECTOR — DATE 3/13/03

APPROVED: FOR PRIVATE WATER AND PRIVATE SEWERAGE SYSTEMS IN ACCORDANCE WITH THE MASTER PLAN OF HOWARD COUNTY

COUNTY HEALTH OFFICER [redacted] / SRK — DATE 3-12-03
HOWARD COUNTY HEALTH DEPARTMENT

EXPLORATION RESEARCH, INC.
ENVIRONMENTAL CONSULTANTS
8318 FORREST STREET
ELLICOTT CITY, MARYLAND 21043
TEL (410) 750-1150 FAX (410) 750-7350

DATE	NO.	REVISION
12/27/16	3	AT&T EQUIPMENT
10/13/16	2	AT&T EQUIPMENT
8/22/16	1	AT&T EQUIPMENT
6/18/14	0	AT&T EQUIPMENT

DEWBERRY CONSULTANTS LLC
3106 LORD BALTIMORE DRIVE
SUITE 110
BALTIMORE MD 21244
PHONE: 410.265.9500 FAX: 410.265.8876

OWNER/DEVELOPER
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c/o Robert Dubin
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Columbia, Maryland 21045
202-466-3400

FOREST CONSERVATION PLAN
TEMPLE ISAIAH
PHASE I
RELIGIOUS FACILITY, NURSERY SCHOOL AND PRIVATE RELIGIOUS SCHOOL
CECIL COLE PROPERTY
TAX MAP 40 & 41 BLOCK 18 & 13 PARCEL 2 LOT 4
5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

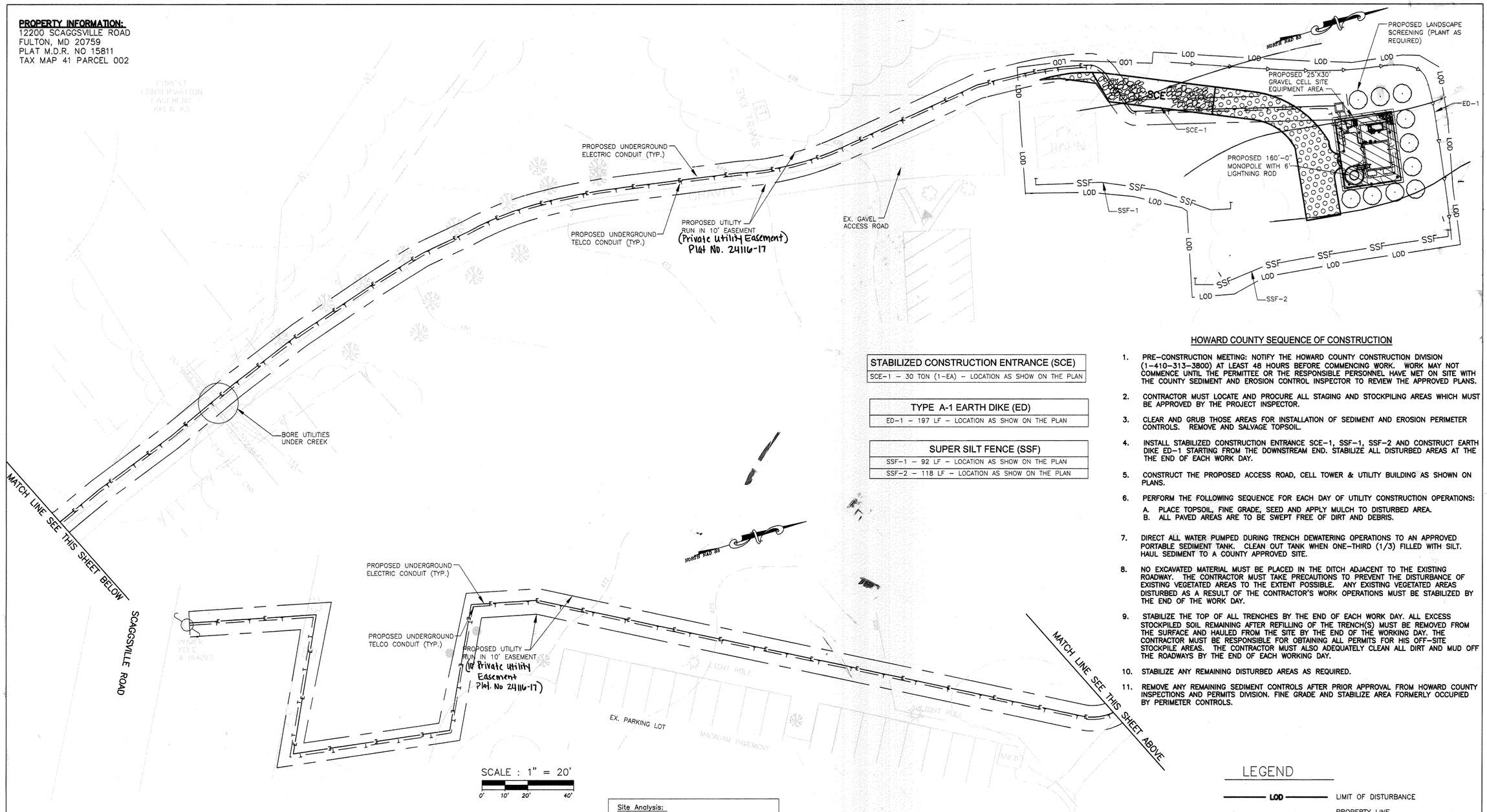
STATE OF MARYLAND — ZACHARIA YOSEF FISCH — 22418 — PROFESSIONAL ENGINEER

FSH Associates
Engineers Planners Surveyors
8318 Forrest Street Ellicott City, MD 21043
Tel:410-750-2251 Fax: 410-750-7350
E-mail: FSHAssociates@cs.com

DESIGN BY: RAB
DRAWN BY: RAB
CHECKED BY: ZYF
SCALE: 1"=30'
DATE: March 04, 2003
W.O. No.: 3002
SHEET No.: 19 OF 24

SDP-02-155

PROPERTY INFORMATION:
12200 SCAGGSVILLE ROAD
FULTON, MD 20759
PLAT M.D.R. NO 15811
TAX MAP 41 PARCEL 002



STABILIZED CONSTRUCTION ENTRANCE (SCE)
SCE-1 – 30 TON (1-EA) – LOCATION AS SHOW ON THE PLAN

TYPE A-1 EARTH DIKE (ED)
ED-1 – 197 LF – LOCATION AS SHOW ON THE PLAN

SUPER SILT FENCE (SSF)
SSF-1 – 92 LF – LOCATION AS SHOW ON THE PLAN
SSF-2 – 118 LF – LOCATION AS SHOW ON THE PLAN

HOWARD COUNTY SEQUENCE OF CONSTRUCTION

1. PRE-CONSTRUCTION MEETING: NOTIFY THE HOWARD COUNTY CONSTRUCTION DIVISION (1-410-313-3800) AT LEAST 48 HOURS BEFORE COMMENCING WORK. WORK MAY NOT COMMENCE UNTIL THE PERMITTEE OR THE RESPONSIBLE PERSONNEL HAVE MET ON SITE WITH THE COUNTY SEDIMENT AND EROSION CONTROL INSPECTOR TO REVIEW THE APPROVED PLANS.
2. CONTRACTOR MUST LOCATE AND PROCURE ALL STAGING AND STOCKPILING AREAS WHICH MUST BE APPROVED BY THE PROJECT INSPECTOR.
3. CLEAR AND GRUB THOSE AREAS FOR INSTALLATION OF SEDIMENT AND EROSION PERIMETER CONTROLS. REMOVE AND SALVAGE TOPSOIL.
4. INSTALL STABILIZED CONSTRUCTION ENTRANCE SCE-1, SSF-1, SSF-2 AND CONSTRUCT EARTH DIKE ED-1 STARTING FROM THE DOWNSTREAM END. STABILIZE ALL DISTURBED AREAS AT THE THE END OF EACH WORK DAY.
5. CONSTRUCT THE PROPOSED ACCESS ROAD, CELL TOWER & UTILITY BUILDING AS SHOWN ON PLANS.
6. PERFORM THE FOLLOWING SEQUENCE FOR EACH DAY OF UTILITY CONSTRUCTION OPERATIONS:
   A. PLACE TOPSOIL, FINE GRADE, SEED AND APPLY MULCH TO DISTURBED AREA.
   B. ALL PAVED AREAS ARE TO BE SWEPT FREE OF DIRT AND DEBRIS.
7. DIRECT ALL WATER PUMPED DURING TRENCH DEWATERING OPERATIONS TO AN APPROVED PORTABLE SEDIMENT TANK. CLEAN OUT TANK WHEN ONE-THIRD (1/3) FILLED WITH SILT. HAUL SEDIMENT TO A COUNTY APPROVED SITE.
8. NO EXCAVATED MATERIAL MUST BE PLACED IN THE DITCH ADJACENT TO THE EXISTING ROADWAY. THE CONTRACTOR MUST TAKE PRECAUTIONS TO PREVENT THE DISTURBANCE OF EXISTING VEGETATED AREAS TO THE EXTENT POSSIBLE. ANY EXISTING VEGETATED AREAS DISTURBED AS A RESULT OF THE CONTRACTOR'S WORK OPERATIONS MUST BE STABILIZED BY THE END OF THE WORK DAY.
9. STABILIZE THE TOP OF ALL TRENCHES BY THE END OF EACH WORK DAY. ALL EXCESS STOCKPILED SOIL REMAINING AFTER REFILLING OF THE TRENCH(S) MUST BE REMOVED FROM THE SURFACE AND HAULED FROM THE SITE BY THE END OF THE WORKING DAY. THE CONTRACTOR MUST BE RESPONSIBLE FOR OBTAINING ALL PERMITS FOR HIS OFF-SITE STOCKPILE AREAS. THE CONTRACTOR MUST ALSO ADEQUATELY CLEAN ALL DIRT AND MUD OFF THE ROADWAYS BY THE END OF EACH WORKING DAY.
10. STABILIZE ANY REMAINING DISTURBED AREAS AS REQUIRED.
11. REMOVE ANY REMAINING SEDIMENT CONTROLS AFTER PRIOR APPROVAL FROM HOWARD COUNTY INSPECTIONS AND PERMITS DIVISION. FINE GRADE AND STABILIZE AREA FORMERLY OCCUPIED BY PERIMETER CONTROLS.

LEGEND

LOD — LIMIT OF DISTURBANCE
PROPERTY LINE
PROPOSED GRAVEL ACCESS ROAD
PROPOSED GRAVEL TOWER SITE

Site Analysis:

Total Area of Site: 0.31 ac
Area Disturbed: 0.31 ac
Existing Gravel Access Road: 0.02 ac
Area to be paved: 0.06 ac
Area to be Vegetatively Stabilized: 0.23 ac

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 12/15/16
CHIEF, DIVISION OF LAND DEVELOPMENT — DATE 3-08-17
DIRECTOR — DATE 3-8-17

APPROVED: FOR PRIVATE WATER AND PRIVATE SEWERAGE SYSTEMS IN ACCORDANCE WITH THE MASTER PLAN OF HOWARD COUNTY

COUNTY HEALTH OFFICER — DATE 12/28/2016
HOWARD COUNTY HEALTH DEPT.

2

smartlink
1362 MELLON ROAD
SUITE 140
HANOVER, MD 21076
TEL: (410) 582-8043 FAX: (443) 221-2962

Dewberry®
Dewberry Engineers Inc.
3106 LORD BALTIMORE DRIVE
SUITE 110
BALTIMORE, MD 21244
PHONE: 410.265.9500
FAX: 410.265.8875

SITE NAME: SCAGGSVILLE
SITE ID NUMBER: 4378-11642525

12200 SCAGGSVILLE ROAD
FULTON, MD 20759

at&t MOBILITY
7150 STANDARD DRIVE
HANOVER, MD 21076

NO.	DATE	REVISIONS	BY	CHK	APP'D
3	11/22/16	ISSUED FOR REVIEW	NS	NSB	JY
2	10/13/16	ISSUED FOR REVIEW	NS	NSB	JY
1	08/22/16	ISSUED FOR REVIEW	NS	NSB	RC
0	06/18/14	ISSUED FOR REVIEW	MCA	NSB	NSB

SCALE: AS SHOWN | DESIGNED BY: MCA | DRAWN BY: MCA

"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. 46030, Expiration Date: NOV. 7, 2017 ."

SEAL: STATE OF MARYLAND · JIANG YU · 46030 · PROFESSIONAL ENGINEER
JIANG YU
PROFESSIONAL ENGINEER
MD LICENSE NO. 46030

CONCEPT SEDIMENT AND EROSION CONTROL PLAN
Temple Isaiah - AT&T Scaggsville Site
PROJECT NUMBER: 50045746

JOB NUMBER	DRAWING NUMBER	REV
25736-435	20 OF 24	3

SDP-02-155

ITEM 903 SEEDING MATERIALS

903-1.1 GENERAL.

This item provides specifications for seeding of areas as designated on plans or as directed by the MAA Engineer. The species, mixtures, and methods of application provided in this item have been designed to reduce the attractiveness of airport grounds to wildlife. Only MAA-approved species, mixtures, and rates of application provided in this item may be used to establish vegetation. All activities associated with seeding including soil preparation, seed application, fertilization, and maintenance shall also conform to these approved standards.

903-2.1 SEED.

All seed shall comply with the Maryland Seed Law (Agricultural Article of the Annotated Code of Maryland). Only MAA-approved species, mixtures, and rates of application provided in this item may be used to establish vegetation. Seed will be sampled and tested by an Inspector from the Turf and Seed Section, Maryland Department of Agriculture (MDA), Annapolis, Maryland. All lawn and turf seed and mixtures shall be free from the following state-listed restricted noxious weeds:

corn cockle (Agrostemma githago),
bentgrass (Agrostis spp),
redtop (Agrostis gigantea)
wild onion (Allium canadense),
wild garlic (Allium vineale),
bindweed (Calstegia spp.),
dodder (Cuscuta spp.),
Bermuda grass (Cynodon dactylon), orchardgrass (Dactylis glomerata),
tall fescue (Festuca arundinacea)
meadow fescue (Festuca pratensis) velvetgrass (Holcus lanatus),
annual bluegrass (Poa annua),
rough bluegrass (Poa trivialis),
timothy (Phleum pratense), and
Johnson grass (Sorgum halepense).

Restricted noxious-weed seed may not exceed 0.5 percent by weight of any seed mixture. In addition, all seeds sold in Maryland shall be free from the following listed prohibited noxious weeds: balloonvine (Cardiospermum halicacabum), quackgrass (Elyrigia repens), sicklepod (Senna obtusifolia), sorghum (Sorghum spp.), Canada thistle (Cirsium arvense), plumeless thistle (Carduus spp.-includes musk thistle and curled thistle), and serrated tussock (Nassella trichotoma).

APPROVED PLANT SPECIES
MAA SEED MIXTURES

	Purity* Not Less than %	Minimum % Germination*	Pure Live Seed Factor
Certified Turf-Type Tall Fescue (*Festuca arundinacea*)	98	90	1.13
Certified Kentucky Bluegrass (*Poa pratensis*)	90	80	1.39
Fowl Bluegrass (*Poa palustris*)	90	80	1.39
Hard Fescue (*Festuca longifolia*)	98	90	1.13
Chewings Red Fescue (*Festuca rubra commutata*)	98	90	1.13
Annual Ryegrass (*Lolium multiflorum*)	95	85	1.24
Perennial Ryegrass (*Lolium perenne*)	90	80	1.39
Creeping Bentgrass (*Agrostis stolonifera*)	90	80	1.39
Switchgrass (Panicum virgatum)	90	80	1.39
Little Bluestem (*Andropogon scoparius*)	62	94	1.71

*The percentage weight of pure seed present shall be free of any agriculture seeds, inert matter, and other seeds distinguishable by their appearance.
**The percentage of germination shall be actual spruce and shall not include hard seeds unless specifically permitted by the MAA Engineer.

903-2.1.2 PURITY. All seed shall be free of all state-designated noxious weeds listed in Paragraph 2.1.1 and conform to MAA specifications. To ensure compliance, MAA requires sampling and testing of seed by the Turf and Seed Section, Maryland Department of Agriculture (MDA). The Contractor shall furnish the MAA Engineer with duplicate signed copies of a statement by the Turf and Seed Section certifying that each lot of seed has been laboratory tested within six months of date of delivery. This statement shall include the following information: name and address of laboratory, date of test, lot number, the results of tests as to name, percentages of purity and of germination, percentage of weed content for the seed furnished, and, In the case of a mixture, the proportions of each kind of seed. Seed shall be furnished in standard containers with the seed name, lot number, net weight, percentages of purity, germination rate and hard seed, and percentage of maximum weed seed content clearly marked. All seed containers shall be tagged with a MDA supervised mix program seed tag.

903-2.1.3 MIXTURES AND APPLICATION RATES. Only seed mixtures and application rates described in this Item may be used unless otherwise approved by the MAA Engineer. Seed mixtures shall meet criteria detailed in Paragraph 903-2.1.2. Seed mixtures have been formulated to minimize the attractiveness of areas to wildlife of common landscape scenarios. The appropriate seed mixture for application will be designated based on environmental conditions and may vary from site to site. All planting rates listed are in pounds of Pure Live Seed (PLS) per acre.

Seed mixtures, application scenarios, and rates *for permanent cool-season grasses* are as follows:

a. Seed Mixture No. 1- relatively flat areas (grade less than 4:1) subject to normal conditions and regular mowing (Application rate= 234 lbs PLS/acre);
b. -Seed Mixture No. 2 - sloped areas (grade greater than 4:1) not subject to regular mowing (Application rate= 115lbs PLS/acre); and
c. Seed Mixture No. 3 - wetlands and their associated buffer zones (Application rate = 131lbs PLS/acre).

Seed Mixture No. 1: Relatively flat areas regularly mowed and exposed to normal conditions (Application rate= 234lbs PLS/acre)
Rate of Application (lbs of PLS/acre)
85% Certified Turf-Type Tall Fescue 192
10% Certified Kentucky Bluegrass 28
5% Perennial Ryegrass 14
Supplemental Seed
Annual Ryegrass 25
Seed Mixture No.2: Sloped areas not subject to regular mowing (Application rate= 115lbs PLS/acre)
Rate of Application (lbs of PLS/acre)
75% Hard Fescue 85
20% Chewings Fescue 23
5% Kentucky Bluegrass 7
Supplemental Seed
Redtop 3
Seed Mixture No. 3 - Wetland areas and their associated buffer zones (Application rate = 131 lbs PLS/acre)
Rate of Application (lbs of PLS/acre)
60% Creeping Bent Grass 83
30% Fowl Bluegrass 34
10% Switchgrass 14
Supplemental Seed
Redtop 3

903-2.1.4 SEEDING SEASONS. Application of seed and seed mixtures shall occur within a Specified seeding season unless otherwise approved by the MAA Engineer. No seed or seed mixtures are to be applied on frozen ground or when the temperature is at or below 35 degrees Fahrenheit (7.2 degrees Centigrade). Under these conditions, a layer of mulch should be applied in accordance with Item 905, Mulching, to stabilize the site, and permanent seeding should occur in the subsequent seeding season. Seed application may occur during the seeding season dates listed below. Seeding performed after October 20 should be a temporary cover of annual ryegrass and followed by overseeding of the appropriate seed mixture during the spring seeding season.

	SEEDING SEASONS
Permanent Cool-Season Grasses	March 1 to April 20 and August 1 to October 20, inclusive
Temporary Cover of Annual Rye/Redtop	March 1 to April 30 and August 1 to November 30, inclusive
Temporary Cover of Warm-Season Grasses (*Little Bluestem only*)	May 1 to July 31, Inclusive. Rate of application should be 15.6 lbs. PLS per acre.

Seeding seasons are based on typical years and can be subject to variation, which may be modified by the MAA Engineer based on seasonal trends. If the time required to complete any of the operations necessary under this Item, within the specified planting seasons or any authorized extensions thereof, extends or goes beyond the Contract end, then such time will be charged against the Contract time, and liquidated damages will be enforced with respect to this portion of work.

903-2.2 LIME. Lime shall consist of ground limestone and contain at least 85 percent total carbonates. Lime shall be ground to a fineness so that at least 90 percent will pass through a No. 20 mesh sieve and 50 percent will pass through a No. 100 mesh sieve. Dolomitic lime or a high magnesium lime shall contain at least 10 percent magnesium oxide. Lime shall be applied by approved methods detailed in Section 903-3.3 of this Item. The rate of application will be based on results of soil tests.

903-2.3 FERTILIZER. Fertilizer shall be standard commercial fertilizer (supplied separately or in mixtures) and meet the requirements of applicable state and federal laws (0-F-241) as well as standards of the Association of Official Agricultural Chemists.

Nitrogen-Phosphorus- Potassium (N-P-K) concentrations shall be determined from analysis of soil samples. Methods of fertilizer application shall conform to standards described in Section 903-3.3 of this Item. Fertilizer shall be furnished in standard containers that are clearly labeled with name, weight, and guaranteed analysis of the contents (percentage of total nitrogen, available phosphoric acid, and water-soluble potash). Mixed fertilizers shall not contain any hydrated lime or cyanamide compounds. Fertilizers failing to meet the specified analysis may be approved by the MAA Engineer, providing sufficient materials are applied to conform with the specified nutrients per unit of measure without additional cost to MAA.

The fertilizers may be supplied in the following forms:

a. A dry, free-flowing fertilizer suitable for application by a common fertilizer spreader;
b. A finely ground fertilizer soluble in water, suitable for application by power sprayers; or
c. A granular or pellet form suitable for application by blower equipment.

The rate of application will be based on results of soil tests performed by the University of Maryland Soil Testing Laboratory. By law, persons applying fertilizer to State-owned land shall follow the recommendations of the University of Maryland as set forth in the "Plant Nutrient Recommendations Based on Soil Tests for Turf Maintenance" and the "Plant Nutrient Recommendations Based on Soil Tests for Sod Production" (see Appendix B). Application of the fertilizer shall be in a manner that is consistent with the recommendations of the University of Maryland Cooperative Extension.

CONSTRUCTION METHODS AND EQUIPMENT

903-3.1 GENERAL. This section provides approved methods for the application of and includes standards for seedbed preparation, methods of application, and equipment to be used during the process. Lime and fertilizer shall be applied to seeded areas before the seed is spread. The mixture of seed will be determined for sites based on environmental conditions as described in Paragraph 903-2.1.3.

903-3.2 ADVANCE PREPARATION. Areas designated for seeding shall be properly prepared in advance of seed application. The area shall be tilled and graded prior to application of lime and fertilizer, and the surface area shall be cleared of any stones larger than 1 Inch in diameter, sticks, stumps, and other debris that might interfere with sowing of seed, growth of grasses, or subsequent maintenance of grass-covered areas. Damage caused by erosion or other forces that occur after the completion of grading shall be repaired prior to the application of fertilizer and lime. The Contractor will repair such damage, which may include filling gullies, smoothing Irregularities, and repairing other Incidental damage before beginning the application of fertilizer and ground limestone.

If an area to be seeded is sparsely sodded, weedy, barren and unworked, or packed and hard, all grass and weeds shall first be cut or otherwise satisfactorily disposed of, and the soil then scarified or otherwise loosened to a depth not less than 5 inches (125 mm). Clods shall be broken and the top 3 Inches (75 mm) of soil shall be worked into a satisfactory condition by discing or by use of cultipackers, rollers, drags, harrows, or other appropriate means.

An area to be seeded shall be considered a satisfactory seedbed (without requiring additional treatment) if it has recently been thoroughly loosened and worked to a depth of not less than 5 inches; the top 3 Inches of soil is loose, friable, and is reasonably free from large clods, rocks, large roots, or other undesirable matter; appropriate amounts of fertilizer and lime have been added; and, if it has been shaped to the required grade immediately prior to seeding. For slope areas steeper than 3:1 (three horizontal to one vertical), the subsoil shall be loose to a depth of 1 Inch.

After completion of tilling and grading, lime and fertilizer shall be applied within 48 hours according to the specified rate (Paragraphs 903-2.2 and 2.3) and methods (Paragraphs 903-3.3.1 and 903-3.3.2) approved by MAA. The seeding mixture shall be applied within 48 hours after application of lime and fertilizer. To firm the seeded areas, cultipacking shall occur immediately after seeding.

903-3.3 METHODS OF APPLICATION. Lime, fertilizer, and seed mixes shall be applied by either the dry or wet application methods that have been approved by MAA and are detailed below.

903-3.3.1 DRY APPLICATION METHOD

a. Liming. If soil test results indicate that lime is needed, the following procedures will be used: following advance preparation of the seedbed, lime shall be applied prior to the application of any fertilizer or seed and only on seedbeds that have been prepared as described in paragraph 903-3.2. The lime shall be uniformly spread and worked into the top 2 inches of soil, after which the seedbed shall be properly graded again.
b. Fertilizing. Following advance preparations (and liming if necessary), fertilizer shall be spread uniformly at the specified rate to provide no less than the minimum quantity stated in Paragraph 903-2.3.
c. Seeding. Seed mixtures shall be sown immediately after fertilization of the seedbed. The fertilizer and seed shall be lightly raked to a depth of 1 Inch for newly graded and disturbed areas.
d. Rolling. After the seed has been properly covered, the seedbed shall be immediately compacted using a cultipacker or an approved lawnroller.

903-3.3.2 WET APPLICATION METHOD HYDROSEEDING

a. General. The Contractor may elect to apply seed and fertilizer as per Paragraphs c and d of this section In the form of an aqueous mixture by spraying over the previously prepared seedbed using methods and equipment approved by MAA. The rates of application shall be as specified In Paragraphs 903-2.1 through 903-2.3.
b. Spraying Equipment. The spraying equipment shall have a container or water tank equipped with a liquid level gauge capable of reading increments of 50 gallons or less over the entire range of the tank capacity. The liquid level gauge shall be mounted so as to be visible to the nozzle operator at all times. The container or tank shall also be equipped with a mechanical power-driven agitator capable of keeping all the solids in the mixture in complete suspension at all times until used. The spraying equipment shall also include a pressure pump capable of delivering 100 gallons per minute at a pressure of 100 pounds per square Inch. The pressure pump assemblage shall be configured to allow the mixture to flow through the tank when not being sprayed from the nozzle. All pump passages and pipelines shall be capable of providing clearance for 5/8-inch solids. The power unit for the pump and agitator shall have controls mounted so as to be accessible to the nozzle operator. A pressure gauge shall be connected to and mounted immediately behind the nozzle. The nozzle pipe shall be mounted on an elevated supporting stand in such a manner that it can be rotated through 360 degrees horizontally and inclined vertically from at least 20 degrees below to at least 60 degrees above the hortzontal. There shall be a quick- acting, three-way control valve connecting the recirculating line to the nozzle pipe and mounted so that the nozzle operator can control and regulate the amount of flow of mixture to be supplied so that mixtures may be properly sprayed over a distance varying from 20 feet to 100 feet. One shall be a close-range ribbon nozzle, one a medium-range ribbon nozzle, and one a long-range jet nozzle. For ease of removal and cleaning, all nozzles shall be connected to the nozzle pipe by means of quick-release couplings. In order to reach areas inaccessible to the regular equipment, an extension hose at least 50 feet in length shall be provided to which the nozzles may be connected.
c. Mixtures. Lime shall be applied separately in the quantity specified, prior to the fertilizing and seeding operations. Lime should be added to and mixed with water at a concentration not to exceed 220 pounds of lime for every 100 gallons of water. After lime has been drilled, the land shall be irrigated with fresh water. Seed and fertilizer shall be mixed together in the relative proportions specified, but the resulting concentration should not exceed 220 pounds of mixture per 100 gallons of water and should be applied within 30 minutes to prevent fertilizer burn of the seeds. All water used shall be obtained from fresh water sources and shall be free from injurious chemicals and other toxic substances harmful to plant life. Brackish water shall not be used at any time. The Contractor shall Identify all sources of water to the MAA Engineer at least two weeks prior to use. The Engineer may take samples of the water at the source or from the tank at any time and have a laboratory test the samples for chemical and saline content. The Contractor shall not use any water from any source that is disapproved by the Engineer following such tests. All mixtures shall be constantly agitated from the time they are mixed until they are finally applied to the seedbed. All such mixtures shall be used within 30 minutes from the time they were mixed or they shall be wasted and disposed of at a location acceptable to the Engineer.
d. Spraying. Lime shall be sprayed upon previously prepared seedbeds on which the lime, if required, shall have been worked in already. The mixtures shall be applied using a high-pressure spray which shall always be directed upward into the air so that the mixtures will fall to the ground in a uniform spray. Nozzles or sprays shall never be directed toward the ground in such a manner that might produce erosion or runoff. Particular care shall be exercised to ensure that the application is made uniformly, at the prescribed rate, and to guard against misses and overlapped areas. Predetermined quantities of the mixture shall be used in accordance with specifications to cover specified sections of known areas. To check the rate and uniformity of application, the applicator will observe the degree of wetting of the ground or distribute test sheets of paper or pans over the area at intervals and observe the quantity of material deposited thereon. On surfaces that are to be mulched as indicated by the plans or designated by the MAA Engineer, seed and fertilizer applied by the spray method need not be raked into the soil or rolled. However, on surfaces on which mulch is not to be used, the raking and rolling operations will be required after the soil has dried.

903-3.4 MAINTENANCE OF SEEDED AREAS. The contractor shall protect seeded areas against traffic or other use by warning signs or barricades, as approved by the Engineer. Surfaces gullied or otherwise damaged following seeding shall be repaired by regrading and reseeding as directed. The Contractor shall mow, water as directed, and otherwise maintain seeded areas in a satisfactory condition until final Inspection and acceptance of the work. When either the dry or wet application method outlined above is used for work performed out of season, the Contractor will be required to establish a good stand of grass of uniform color and density to the satisfaction of the Engineer. If at the time when the contract has been otherwise completed It is not possible to make an adequate determination of the color, density, and uniformity of such stand of grass, payment for the unaccepted portions of the areas seeded out of season will be withheld until such time as these requirements have been met.

ITEM 904 SODDING MATERIALS

904-1 This Item provides standards for furnishing, hauling, and placing approved live sod on prepared areas as Indicated on site plans. Sod will only be applied to landscape areas and shall be mowed frequently. All sodding activities shall conform to these specification at the locations shown on site plans or as directed by the MAA Engineer.

904-2.1 SOD. Sod furnished by the Contractor shall have a good cover of living or growing grass. This includes grass that is seasonally dormant during the cold or dry seasons and capable of renewing growth after the dormant period. All sod shall be obtained from areas in which the soil is reasonably fertile and contains a high percentage of loamy topsoil. Sod shall be cut or stripped from living, thickly matted turf relatively free of weeds or other undesirable foreign plants, large stones, roots, or other materials that might be detrimental to the development of the sod or to future maintenance. Grass sod shall be Maryland-certified or approved and shall comply with the Maryland Sod Law of the Annotated Code of Maryland (Agricultural Article Sections 9-101 through 9-110). Each load of sod shall bear a Maryland State Approved or Certified label at the time of delivery on the job. Sod shall be either: (1) Bluegrass sod containing not less than 80 percent Kentucky bluegrass *(Poa pratensis)* and not more than 20 percent Red Fescue *(Festuca rubra);* or (2) certified turf type-tall fescue *(Festuca arundinacea)* sod containing not less than 80 percent certified turf type-tall fescue *(Festuca arundinacea)* grass and not more than 20 percent Kentucky Bluegrass *(Poa pratensis)* and Red Fescue *(Festuca rubra).* Any vegetation more than 6 Inches in height shall be mowed to a height of 3 Inches or less before sod is lifted. Sod, including the soil containing the roots and the emergent plant growth, shall be cut uniformly to a thickness not less than that specified in Section 904-3.4.

904-2.2 LIME. Lime shall conform to standards described In Section 903, "Seeding."

904-2.3 FERTILIZER. Fertilizers and application methods shall conform to the standards previously described In Section 903, "Seeding."

CONSTRUCTION REQUIREMENTS

904-3.1 GENERAL. Areas to be sodded shall be clearly Indicated by site plans. Areas requiring special ground surface preparation, such as tilling, and those areas in a satisfactory condition that are to remain undisturbed shall also be shown on the plans. Suitable equipment necessary for proper preparation of the ground surface and for the handling and placing of all required materials shall be on hand, in good condition, and shall be approved by the MAA Engineer before sodding operations begin. The Contractor shall demonstrate to the MAA Engineer, before starting the various operations, that the application of required materials, such as fertilizer and limestone, will be made at the specified rates.

904-3.2 ADVANCE PREPARATION. If the area to be sodded is sparsely vegetated, weedy, barren and unworked, or packed and hard, all existing herbaceous vegetation shall be removed. The soil shall then be scarified or otherwise loosened to a depth of at least 5 Inches (125 mm). Clods shall be pulverized, and the top 3 Inches (75 mm) of soil shall be worked Into a satisfactory bed by discing or use of cultipackers, rollers, drags, harrows, or other equipment approved by the MAA Engineer. The area shall then be properly graded as indicated by site plans.

After grading of areas is complete and prior to the application of fertilizer and limestone, areas to be sodded shall be raked or otherwise cleared of stones larger than 1 Inch in diameter, sticks, stumps, and other debris which might interfere with sodding, growth of grasses, or subsequent maintenance of grass-covered areas. If any damage by erosion or other causes has occurred after grading of areas and before beginning the application of fertilizer and ground limestone, the Contractor shall repair such damage. This may include filling gullies, smoothing Irregularities, and repairing other Incidental damage.

An area to be sodded will be considered a satisfactory seedbed without requiring additional treatment If it recently has been thoroughly loosened and worked to a depth of at least 5 inches as a result of grading operations and, if immediately prior to sodding, the top 3 Inches of soil is loose, friable, reasonably free from large clods, rocks, large roots, or other undesirable matter, and is shaped to the required grade. For slope areas steeper than 3:1 (three horizontal to one vertical) the subsoil shall be loosened to a depth of 1 Inch. Lime and fertilizer shall be applied within 48 hours after tilling as described In 903-3.3 and 3.4. The sod shall be applied immediately after the lime and fertilizer have been worked Into the soil.

904-3.3 APPLICATION OF FERTILIZER AND LIME. Following ground surface preparation, fertilizer shall be uniformly spread as described In Section 903-3.3 at a rate that will provide at least the minimum quantity of fertilizer required. If the use of ground limestone is specified, it shall be spread as described In Section 903-3.3. "Methods of Application," at a rate that will provide at least the minimum quantity of lime required. These materials shall be incorporated Into the soil to a depth of at least 2 Inches by discing, raking, or other methods approved by the MAA Engineer. Any stones larger than 1 Inch in diameter, large clods, roots, and other litter brought to the surface by this operation shall be removed.

904-3.4 OBTAINING AND DELIVERING SOD. The sod shall be well rooted, grown In the State of Maryland, and field grown for a minimum of 12 months. After inspection and approval of the sod by the MAA Engineer, the sod shall be cut with approved sod cutters to such a thickness that after placement on the prepared bed, but before compaction, it shall have a uniform attached soil thickness of at least 0.75 Inch. Sod sections or strips shall be cut in uniform widths of at least 14 Inches and in lengths of at least 18 Inches, but not to lengths that might Inhibit placement without breaking, tearing, or loss of soil. Where strips are required, the sod shall be rolled or folded undamaged, with the grass facing Inward. The Contractor may be required to mow high grass before cutting sod.

Sod shall be transplanted within 24 hours from the time of harvest unless circumstances beyond the Contractor's control make storage necessary. In such cases, sod shall be stacked, kept moist, protected from exposure to the air and sun, and shall be kept from freezing. Sod shall only be harvested and moved when soil moisture conditions are such that favorable results can be expected. Where soil is too dry, permission to cut sod may be granted only after It has been sufficiently watered to moisten the soil to the depth at which the sod will be cut.

904-3.5 PLACING SOD. Sodding shall only be performed during seasons when satisfactory results can be expected. Frozen sod shall not be used and sod shall not be placed upon frozen soil. Sod may be transplanted during periods of drought with the approval of the MAA Engineer, provided the sod bed is watered to moisten the soil to a depth of at least 4 inches immediately prior to laying the sod. The sod shall be moist and shall be placed on a bed, prepared according to Paragraphs 904-3.2 "Advance Preparation", and 904-3.3, "Application of Fertilizer and Lime" by hand. Pitchforks shall not be used to handle sod, and dumping from vehicles shall not be permitted. The sod shall be placed carefully by hand, edge to edge and with staggered joints, in rows at right angles to the slopes, starting at the base of the area to be sodded and working upward. The sod shall immediately be pressed firmly into contact with the sod bed by tamping or rolling with approved equipment to provide a true and even surface, and ensure knitting without displacement of the sod or deformation of the surfaces of sodded areas. Where the sod has been displaced during sodding operations, the workmen replacing It shall work from ladders or treaded planks to prevent further displacement. Where the grades are such that the flow of water will be from paved surfaces across sodded areas, the surface of the soil In the sod after compaction shall be set approximately 1.5 Inches below the pavement edge. Where the flow will be over the sodded areas and onto the paved surfaces around manholes and Inlets, the surface of the soil In the sod after compaction shall be placed flush with pavement edges.

On slopes steeper than 1:2.5 and In V-shaped or flat-bottom ditches or gutters, the sod shall be secured wooden pegs at least 18 inches long and a cross-sectional area of at least 0.75-square Inch, or by other methods of securing sod approved by the MAA Engineer. The pegs shall be driven flush with the surface of the sod. The pegs shall be of sufficient number and at adequate spacing to secure sod from displacement. The use of sod staples or other means of securing the sod from displacement may be approved by the MAA Engineer provided satisfactory results are expected.

904-3.6 WATERING. Adequate water and watering equipment shall be on hand before sodding begins, and sod shall be kept moist until It has become established and its continued growth assured. In all cases, watering shall be done In a manner that will avoid erosion from the application of excessive quantities and will avoid damage to the finished surface.

904-3.7 ESTABLISHING TURF.

904-3.7.1 GENERAL. The Contractor shall provide general care for the sodded areas as soon as the sod has been laid and shall continue to provide such care until final Inspection and acceptance of the work.

904-3.7.2 PROTECTION. All sodded areas shall be protected against traffic or other use by warning signs and barricades approved by the MAA Engineer.

904-3.7.3 MOWING. The Contractor shall mow the sodded areas with approved mowing equipment, depending upon climatic and growth conditions and the needs for mowing of specific areas. In the event that weeds or other undesirable vegetation establishes to such an extent that, either cut or uncut, they threaten to smother the sodded species, the weeds shall be mowed and the clippings raked and removed from the area. Spot applications of an appropriate herbicide by a licensed applicator shall be approved by the MAA Engineer to remove invasive species. The appropriate herbicide shall be determined on a case-by-case basis, depending on the location and type of weed.

904-3.7.4 REPAIR. When the surface has become gullied or otherwise damaged during the period covered by this contract, the affected areas shall be repaired to re-establish the grade and the condition of the soil and shall then be re-sodded as specified in Paragraph 904-3.5, "Placing Sod", at the Contractor's expense.

ITEM 905 MULCHING MATERIALS

905-1.1 GENERAL. This Item provides the Contractor with MAA-approved specifications for mulch and the application of mulch Including distribution of mulch and securing of mulched areas. Areas to be mulched will be clearly shown on site plans or otherwise designated by the MAA Engineer.

905-2.1 TYPES OF MULCH. Acceptable mulch shall be composed of the materials listed below or composed of any locally available materials that are similar to those specified and approved by the MAA Engineer. Low-grade, shalely, soiled, partially rotted hay, straw, or other materials unfit for animal consumption will not be acceptable for use as mulch. Straw or other material that is fresh, excessively brittle, or is in such an advanced stage of decomposition as to smother or retard the planted grass, is not acceptable. Clean, weed-free straw may be used. Mulch materials containing matured seed with the potential to establish and be detrimental to the project or the surrounding area are not acceptable.

a. Shredded Hardwood Bark. Shredded hardwood bark shall consist of hardwood tree bark that has been milled and screened to ensure a maximum 4-inch (100-mm) particle size, provide a uniform texture, and be free from sawdust, toxic substances, and other foreign materials.
b. Wood Chips. Wood chips shall be produced by a chipping machine to a size specified by the MAA Engineer. Chips may not have been subjected to any conditions that would shorten their useful life or cause them to lose any of their value as mulch. Wood chips shall be free from bark, leaves, twigs, wood shavings, sawdust, toxic substances, and other foreign material.
c. Wood Cellulose Fiber. Wood cellulose fiber shall consist of a processed wood product with uniform fiber characteristics. The fiber shall be capable of remaining in a uniform suspension under agitation in water and blending with seed, fertilizer, and other additives to form a homogeneous slurry. The fiber shall perform satisfactorily in hydraulic seeding equipment without clogging or damaging the system. The slurry shall contain a green dye to provide easy visual Inspection for uniformity of application.

Certification showing that the fiber material conforms to the following specifications shall be provided by the manufacturer:

Wood Cellulose Fiber Requirements	
Particle Length, in. (mm)	Approximately 1/2 (13)
Particle Thickness, in. (mm)	Approximately 1/16 (1.5)
Net dry Weight Content	Minimum as stated on bag
TAPPI* T 509, pH	4.0 to 8.5
Ash Content, TAPPI* Standard T 413, % max	7.0
Water Holding Capacity, % min	90

*Technical Association of Pulp and Paper Industry

The material shall be delivered In packages of uniform net weight of75 lbs (34 kg) or less and shall be clearly labeled with the name of the manufacturer, net weight, and a supplemental statement of the net weight content.

905-2.2 INSPECTION. Within five days after acceptance of the bid, the Contractor shall provide representative samples of mulch material to be used to the MAA Engineer and Identify the source of the material and quantities of mulch materials available. The samples provided may be used as standards with the approval of the MAA Engineer and any materials brought on the site that do not meet these standards may be rejected.

CONSTRUCTION REQUIREMENTS

905-3.1 ADVANCE PREPARATION. Before spreading mulch, all large clods, stumps, stones, brush, roots, and other foreign material shall be removed from the area to be mulched. Mulch shall be applied immediately after seeding unless otherwise specified. The application and spreading of mulch may be by hand methods, blower, or other mechanical methods, provided a uniform covering is obtained.

905-3.2 APPLICATION OF MULCH. The Contractor shall evenly apply mulch materials to areas indicated by site plans or otherwise designated by the MAA Engineer. Cellulose-fiber or wood-pulp mulch shall be applied at the rate of 1,500 pounds (dry weight) per acre. Mulch may be blown on the slopes and use of cutters In the equipment for this purpose will be permitted to the extent that at least 95 percent of the mulch in place on the slope is 6 inches or more In length. When mulch applied by the blowing methods is cut, the loose depth in place shall be 1 to 2 Inches. Cellulose fiber or wood-pulp mulch shall be applied as an aqueous mixture by spraying at the rate of 1,500 pounds (dry weight) per acre using spraying equipment approved by the MAA Engineer.

905-3.3 SECURING MULCH. Mulch shall be held in place by light discing, a thin coating of topsoil, pins, stakes, wire mesh, other methods approved by the MAA Engineer. If the "peg and string" method is used, the mulch shall be secured with stakes or wire pins driven into the ground on 5-foot centers or less. Binder twine shall be strung between adjacent stakes in straight lines and crossed diagonally over the mulch. The stakes shall be firmly driven nearly flush to the ground to draw the twine down tightly onto the mulch.

905-3.4 MAINTENANCE OF MULCHED AREAS. The Contractor shall care for mulched areas until final acceptance of the project. Care required may consist of providing protection against traffic or other disturbances by placement of warning signs and/or barricades before or immediately after mulching has been completed. The Contractor may be required to repair or replace any mulching that is defective or becomes damaged before the project is finished and deemed satisfactory by the MAA Engineer. When, In the judgment of the MAA Engineer, defects or damage result from poor workmanship or failure to meet the requirements of the specifications, the cost of the necessary repairs or replacement will be borne by the Contractor. However, once the Contractor has completed the mulching of an area in accordance with the provisions of the specifications and to the satisfaction of the Engineer, no additional work at his expense will be required. Any subsequent repairs and/or replacements deemed necessary by the Engineer may be made by the Contractor and will be paid for as additional or extra work.

HOWARD COUNTY SOIL CONSERVATION DISTRICT
APPROVED FOR SEDIMENT CONTROL
DATE
THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
Howard Soil Conservation District — Date

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 12/15/16
CHIEF, DIVISION OF LAND DEVELOPMENT — DATE 3-02-17
DIRECTOR — DATE 3-8-17

APPROVED: FOR PRIVATE WATER AND PRIVATE SEWERAGE SYSTEMS IN ACCORDANCE WITH THE MASTER PLAN OF HOWARD COUNTY

COUNTY HEALTH OFFICER — DATE 12/28/2016
HOWARD COUNTY HEALTH DEPT.

2

smartlink
1362 MELLON ROAD
SUITE 140
HANOVER, MD 21076
TEL: (410) 582-8043 FAX: (443) 221-2962

Dewberry®
Dewberry Engineers Inc.
3106 LORD BALTIMORE DRIVE
SUITE 110
BALTIMORE, MD 21244
PHONE: 410.265.9500
FAX: 410.265.8875

SITE NAME: SCAGGSVILLE
SITE ID NUMBER: 4378-11642525

12200 SCAGGSVILLE ROAD
FULTON, MD 20759

at&t MOBILITY
7150 STANDARD DRIVE
HANOVER, MD 21076

NO.	DATE	REVISIONS	BY	CHK	APP'D
3	11/22/16	ISSUED FOR REVIEW	NS	NSB	JY
2	10/13/16	ISSUED FOR REVIEW	NS	NSB	JY
1	08/22/16	ISSUED FOR REVIEW	NS	NSB	RC
0	08/18/14	ISSUED FOR REVIEW	MCA	NSB	NSB

SCALE: AS SHOWN | DESIGNED BY: MCA | DRAWN BY: MCA

"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. 46030, Expiration Date: NOV. 7, 2017 ."

SEAL: STATE OF MARYLAND JIANG YU 46030 PROFESSIONAL ENGINEER
JIANG YU
PROFESSIONAL ENGINEER
MD LICENSE NO. 46030

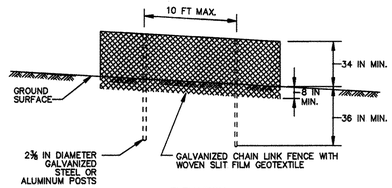
SEDIMENT AND EROSION CONTROL NOTES
Temple Isaiah - AT&T Scaggsville Site
PROJECT NUMBER: 50045746

JOB NUMBER	DRAWING NUMBER	REV
25736-435	21 OF 24	3

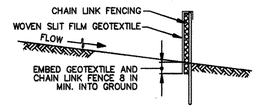
SDP-02-155

DETAIL E-3 SUPER SILT FENCE

STANDARD SYMBOL: SSF



ELEVATION



CROSS SECTION

CONSTRUCTION SPECIFICATIONS

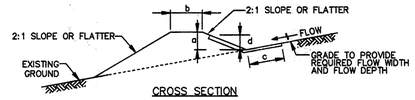
1. INSTALL 2⅜ INCH DIAMETER GALVANIZED STEEL POSTS OF 0.095 INCH WALL THICKNESS AND SIX FOOT LENGTH SPACED NO FURTHER THAN 10 FEET APART. DRIVE THE POSTS A MINIMUM OF 36 INCHES INTO THE GROUND.
2. FASTEN 9 GAUGE OR HEAVIER GALVANIZED CHAIN LINK FENCE (2⅜ INCH MAXIMUM OPENING) 42 INCHES IN HEIGHT SECURELY TO THE FENCE POSTS WITH WIRE TIES OR HUG RINGS.
3. FASTEN WOVEN SLIT 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 BY PASS.
5. EXTEND BOTH ENDS OF THE SUPER SILT FENCE A MINIMUM OF FIVE HORIZONTAL FEET UPSLOPE AT 45 DEGREES TO THE MAIN 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

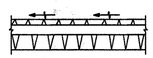
U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

DETAIL C-1 EARTH DIKE

STANDARD SYMBOL: A-1 (PLACE DESIGNATION (e.g. A-1) ON FLOW CHANNEL SIDE OF DIKE.)



CROSS SECTION



PLAN VIEW

DIKE TYPE	A	B
a – DIKE HEIGHT	18 IN MIN.	30 IN MIN.
b – DIKE WIDTH	24 IN MIN.	36 IN MIN.
c – FLOW WIDTH	4 FT MIN.	6 FT MIN.
d – FLOW DEPTH	12 IN MIN.	24 IN MIN.

FLOW CHANNEL STABILIZATION

A-1 SEED WITH STRAW MULCH AND TACK. (NOT ALLOWED FOR CLEAR WATER DIVERSION.)

A-2/B-2 SEED WITH SOIL STABILIZATION MATTING OR LINE WITH SOD.

A-3/B-3 4 TO 7 INCH STONE OR EQUIVALENT RECYCLED CONCRETE PRESSED INTO SOIL A MINIMUM OF 7 INCHES AND FLUSH WITH GROUND.

CONSTRUCTION SPECIFICATIONS

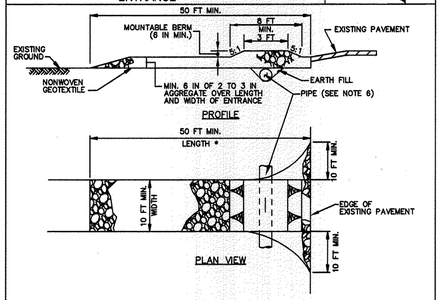
1. REMOVE AND DISPOSE OF ALL TREES, BRUSH, STUMPS, OBSTRUCTIONS, AND OTHER OBJECTIONABLE MATERIAL SO AS NOT TO INTERFERE WITH PROPER FUNCTION OF EARTHDIKE.
2. EXCAVATE OR SHAPE EARTH DIKE TO LINE, GRADE, AND CROSS SECTION AS SPECIFIED. BANK PROJECTIONS OR OTHER IRREGULARITIES ARE NOT ALLOWED.
3. COMPACT FILL.
4. CONSTRUCT FLOW CHANNEL ON AN UNINTERRUPTED, CONTINUOUS GRADE, ADJUSTING THE LOCATION DUE TO FIELD CONDITIONS AS NECESSARY TO MAINTAIN POSITIVE DRAINAGE.
5. PROVIDE OUTLET PROTECTION AS REQUIRED ON APPROVED PLAN.
6. STABILIZE EARTH DIKE WITHIN THREE DAYS OF INSTALLATION. STABILIZE FLOW CHANNEL FOR CLEAR WATER DIVERSION WITHIN 24 HOURS OF INSTALLATION.
7. MAINTAIN LINE, GRADE, AND CROSS SECTION. REMOVE ACCUMULATED SEDIMENT AND DEBRIS, AND MAINTAIN POSITIVE DRAINAGE. KEEP EARTH DIKE AND POINT OF DISCHARGE FREE OF EROSION, AND CONTINUOUSLY MEET REQUIREMENTS FOR ADEQUATE VEGETATIVE ESTABLISHMENT IN ACCORDANCE WITH SECTION B-4 VEGETATIVE STABILIZATION.
8. UPON REMOVAL OF EARTH DIKE, GRADE AREA FLUSH WITH EXISTING GROUND. WITHIN 24 HOURS OF REMOVAL STABILIZE DISTURBED AREA WITH TOPSOIL, SEED, AND MULCH, OR AS SPECIFIED ON APPROVED PLAN.

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

DETAIL B-1 STABILIZED CONSTRUCTION ENTRANCE

STANDARD SYMBOL: SCE



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 (*30 FEET FOR SINGLE RESIDENCE LOT). USE MINIMUM WIDTH OF 10 FEET. FLARE SCE 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, MAINTAINING 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 LENGTH AND WIDTH OF 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

HOWARD COUNTY SEDIMENT CONTROL GENERAL NOTES

1. A MINIMUM OF 48 HOURS NOTICE MUST BE GIVEN TO HOWARD COUNTY DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS, SEDIMENT CONTROL DIVISION PRIOR TO THE START OF ANY CONSTRUCTION. 410-313-1855.
2. ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THE PLAN AND ARE TO BE IN CONFORMANCE WITH THE MOST CURRENT MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL AND REVISIONS THERETO.
3. FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION MUST BE COMPLETED WITHIN: A) 3 CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DIKES, PERIMETER SLOPES AND ALL SLOPES GREATER THAN 3:1, B) 7 DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.
4. ALL DISTURBED AREAS MUST BE STABILIZED WITHIN THE TIME PERIOD SPECIFIED ABOVE IN ACCORDANCE WITH THE 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR PERMANENT SEEDING (SEC. B-4-5), TEMPORARY SEEDING (SEC. B-4-4) AND MULCHING (SEC. B-4-3). TEMPORARY STABILIZATION WITH MULCH ALONE CAN ONLY BE DONE WHEN RECOMMENDED SEEDING DATES DO NOT ALLOW FOR PROPER GERMINATION AND ESTABLISHMENT OF GRASSES.
5. ALL SEDIMENT CONTROL STRUCTURES ARE TO REMAIN IN PLACE AND ARE TO BE MAINTAINED IN OPERATIVE CONDITION UNTIL PERMISSION FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
6. ANY SEDIMENT CONTROL PRACTICES WHICH IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE.
7. ADDITIONAL SEDIMENT CONTROL MUST BE PROVIDED, IF DEEMED NECESSARY BY THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
8. ON ALL SITES WITH DISTURBED AREAS IN EXCESS OF 2 ACRES, APPROVAL OF THE INSPECTION AGENCY MUST 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.
9. TRENCHES FOR THE CONSTRUCTION OF UTILITIES IS LIMITED TO THREE PIPE LENGTHS OR THAT WHICH MUST BE BACK-FILLED AND STABILIZED BY THE END OF EACH WORK DAY, WHICHEVER IS SHORTER.
10. ANY CHANGES OR REVISIONS TO THE SEQUENCE OF CONSTRUCTION MUST BE REVIEWED AND APPROVED BY THE PLAN APPROVAL AUTHORITY PRIOR TO PROCEEDING WITH CONSTRUCTION.
11. A PROJECT IS TO BE SEQUENCED SO THAT GRADING ACTIVITIES BEGIN ON ONE GRADING UNIT (MAXIMUM ACREAGE OF 20 AC. PER GRADING UNIT) AT A TIME. WORK MAY PROCEED TO A SUBSEQUENT GRADING UNIT WHEN AT LEAST 50 PERCENT OF THE DISTURBED AREA IN THE PRECEDING GRADING UNIT HAS TO BE STABILIZED AND APPROVED BY THE ENFORCEMENT AUTHORITY. UNLESS OTHERWISE SPECIFIED AND APPROVED BY THE APPROVAL AUTHORITY, NO MORE THAN 30 ACRES CUMULATIVELY MAY BE DISTURBED AT A GIVEN TIME.

BEST MANAGEMENT PRACTICES FOR WORKING IN NONTIDAL WETLANDS, WETLAND BUFFERS, WATERWAYS, AND 100 YEAR FLOODPLAIN

1. NO EXCESS FILL, CONSTRUCTION MATERIAL, OR DEBRIS MUST BE STOCKPILED OR STORED IN NONTIDAL WETLANDS, NONTIDAL WETLAND BUFFERS, WATERWAYS, OR THE 100 YEAR FLOODPLAIN.
2. PLACE MATERIALS IN A LOCATION AND MANNER WHICH DOES NOT ADVERSELY IMPACT SURFACE OR SUBSURFACE WATER FLOW INTO OR OUT OF NONTIDAL WETLANDS, NONTIDAL WETLAND BUFFERS, WATERWAYS, OR THE 100 YEAR FLOODPLAIN.
3. DO NOT USE THE EXCAVATED MATERIAL AS BACKFILL IF IT CONTAINS WASTE METAL PRODUCTS, UNSIGHTLY DEBRIS, TOXIC MATERIAL, OR ANY OTHER DELETERIOUS SUBSTANCE. IF ADDITIONAL BACKFILL IS REQUIRED, USE CLEAN MATERIAL FREE OF ANY WASTE METAL PRODUCTS, UNSIGHTLY DEBRIS, TOXIC MATERIAL, OR ANY OTHER DELETERIOUS SUBSTANCE.
4. PLACE HEAVY EQUIPMENT ON MATS OR SUITABLY OPERATE THE EQUIPMENT TO PREVENT DAMAGE TO NONTIDAL WETLANDS, NONTIDAL WETLAND BUFFERS, WATERWAYS, OR THE 100 YEAR FLOODPLAIN.
5. REPAIR AND MAINTAIN ANY SERVICEABLE STRUCTURE OR FILL SO THERE IS NO PERMANENT LOSS OF NONTIDAL WETLANDS, NONTIDAL WETLAND BUFFERS, OR WATERWAYS, OR PERMANENT MODIFICATION OF THE 100 YEAR FLOODPLAIN IN EXCESS OF THAT LOST UNDER THE ORIGINALLY AUTHORIZED STRUCTURE OR FILL.
6. RECTIFY ANY NONTIDAL WETLANDS, WETLAND BUFFERS, WATERWAYS, OR 100 YEAR FLOODPLAIN TEMPORARILY IMPACTED BY ANY CONSTRUCTION.
7. ALL STABILIZATION IN THE NONTIDAL WETLAND AND NONTIDAL WETLAND BUFFER MUST CONSIST OF THE FOLLOWING SPECIES: ANNUAL RYEGRASS (LOLIUM MULTIFLORUM), MILLET (SETARIA ITALICA), BARLEY (HORDEUM SP.), OATS (UNIOLA SP.), AND/OR RYE (SECALE CEREALE). THESE SPECIES WILL ALLOW FOR THE STABILIZATION OF THE SITE WHILE ALSO ALLOWING FOR THE VOLUNTARY REVEGETATION OF NATURAL WETLAND SPECIES. OTHER NON-PERSISTENT VEGETATION MAY BE ACCEPTABLE, BUT MUST BE APPROVED BY THE NONTIDAL WETLANDS AND WATERWAYS DIVISION. KENTUCKY 31 FESCUE MUST NOT BE UTILIZED IN WETLAND OR BUFFER AREAS. THE AREA SHOULD BE SEEDED AND MULCHED TO REDUCE EROSION AFTER CONSTRUCTION ACTIVITIES HAVE BEEN COMPLETED.
8. AFTER INSTALLATION HAS BEEN COMPLETED, MAKE POST-CONSTRUCTION GRADES AND ELEVATIONS THE SAME AS THE ORIGINAL GRADES AND ELEVATIONS IN TEMPORARILY IMPACTED AREAS.
9. TO PROTECT AQUATIC SPECIES, IN-STREAM WORK IS PROHIBITED AS DETERMINED BY THE CLASSIFICATION OF THE STREAM: USE I WATERS: IN-STREAM WORK MUST NOT BE CONDUCTED DURING THE PERIOD MARCH 1 THROUGH JUNE 15, INCLUSIVE, DURING ANY YEAR.
10. STORMWATER RUNOFF FROM IMPERVIOUS SURFACES MUST BE CONTROLLED TO PREVENT THE WASHING OF DEBRIS INTO THE WATERWAY.
11. CULVERTS MUST BE CONSTRUCTED AND ANY RIPRAP PLACED SO AS NOT TO OBSTRUCT THE MOVEMENT OF AQUATIC SPECIES, UNLESS THE PURPOSE OF THE ACTIVITY IS TO IMPOUND WATER.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 12/15/16

CHIEF, DIVISION OF LAND DEVELOPMENT — DATE 3-03-17

DIRECTOR — DATE 3-8-17

APPROVED: FOR PRIVATE WATER AND PRIVATE SEWERAGE SYSTEMS IN ACCORDANCE WITH THE MASTER PLAN OF HOWARD COUNTY

COUNTY HEALTH OFFICER HOWARD COUNTY HEALTH DEPT. — DATE 12/28/2016

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BALTIMORE, MD 21244
PHONE: 410.265.9500
FAX: 410.265.8875

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SITE ID NUMBER: 4378-11642525

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NO.	DATE	REVISIONS	BY	CHK	APP'D
3	11/22/16	ISSUED FOR REVIEW	NS	NSB	JY
2	10/13/16	ISSUED FOR REVIEW	NS	NSB	JY
1	08/22/16	ISSUED FOR REVIEW	NS	NSB	RC
0	06/18/14	ISSUED FOR REVIEW	MCA	NSB	NSB

SCALE: AS SHOWN | DESIGNED BY: MCA | DRAWN BY: MCA

"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. 46030, Expiration Date: NOV. 7, 2017 ."

SEAL: STATE OF MARYLAND · JIANG YU · 46030 · PROFESSIONAL ENGINEER

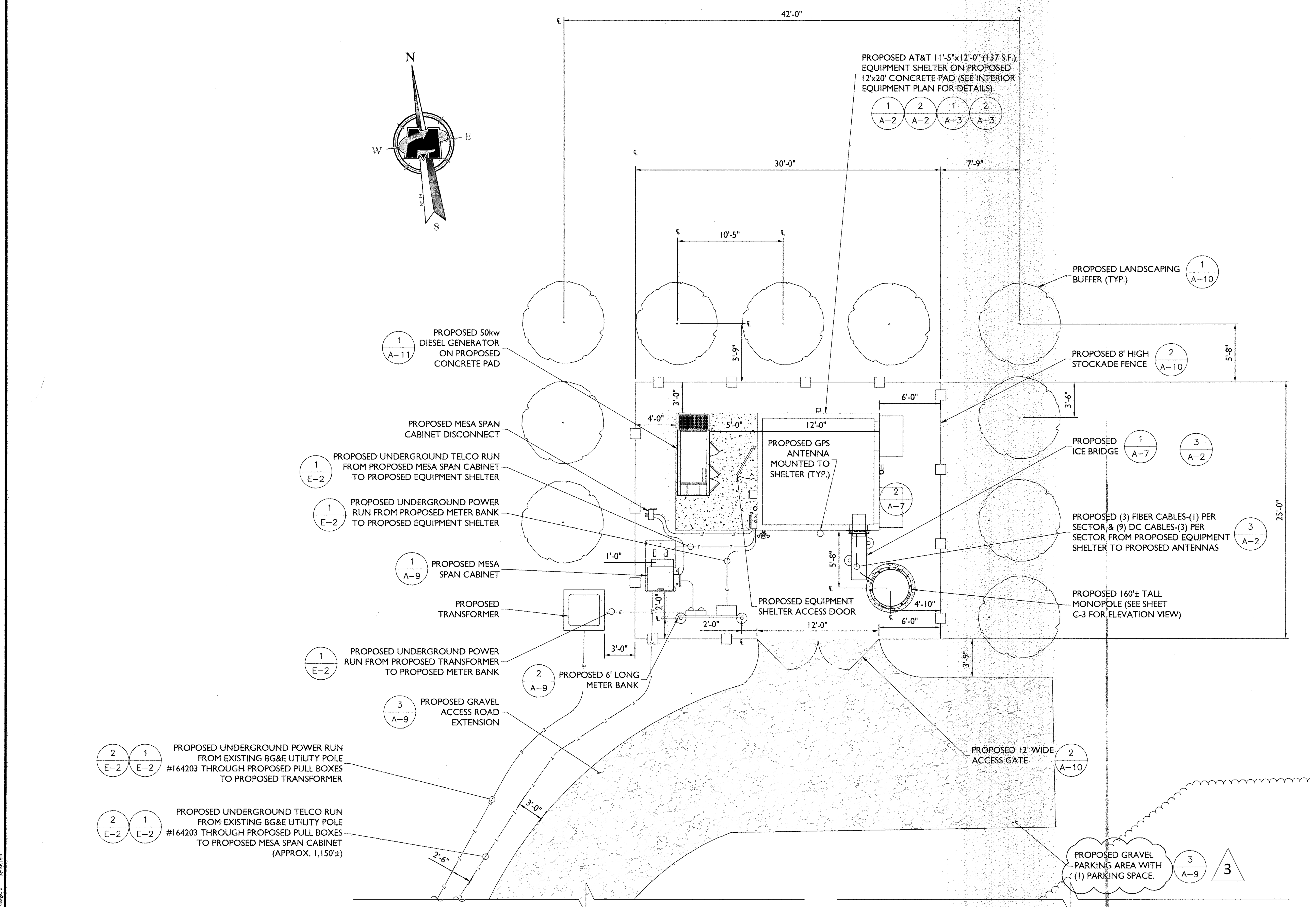
PROFESSIONAL ENGINEER
MD LICENSE NO. 46030

SEDIMENT AND EROSION CONTROL NOTES& DETAILS
Temple Isaiah - AT&T Scaggsville Site

PROJECT NUMBER: 50045746

JOB NUMBER	DRAWING NUMBER	REV
25736-435	22 OF 24	3

SDP-02-155



COMPOUND PLAN

GRAPHIC SCALE

5 0 2.5 5 10

(IN FEET)

SCALE: 1" = 5' FOR 24"X36" DRAWINGS

(DO NOT SCALE 11"X17" DRAWINGS)

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 12/18/16

CHIEF, DIVISION OF LAND DEVELOPMENT — DATE 3-02-17

DIRECTOR — DATE 3-8-17

APPROVED: FOR PRIVATE WATER PRIVATE SEWERAGE SYSTEMS IN ACCORDANCE WITH THE MASTER PLAN OF HOWARD COUNTY

COUNTY HEALTH OFFICER — DATE 12/28/2016

HOWARD COUNTY HEALTH DEPARTMENT

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2	10/24/16	FOR CONSTRUCTION	TS	NSB
1	07/21/16	FOR CONSTRUCTION	NB	NSB
0	05/06/16	FOR CONSTRUCTION	NB	NSB
A	03/25/16	ISSUED FOR REVIEW	NB	NSB

NICHOLAS S. BERTE, P.E.

MARYLAND PROFESSIONAL ENGINEER - LICENSE NUMBER: 37157

"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. 0037157, Expiration Date: July 17, 2017"

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SITE NAME:

SCAGGSVILLE
FA #: 11642525
SITE #: 4378

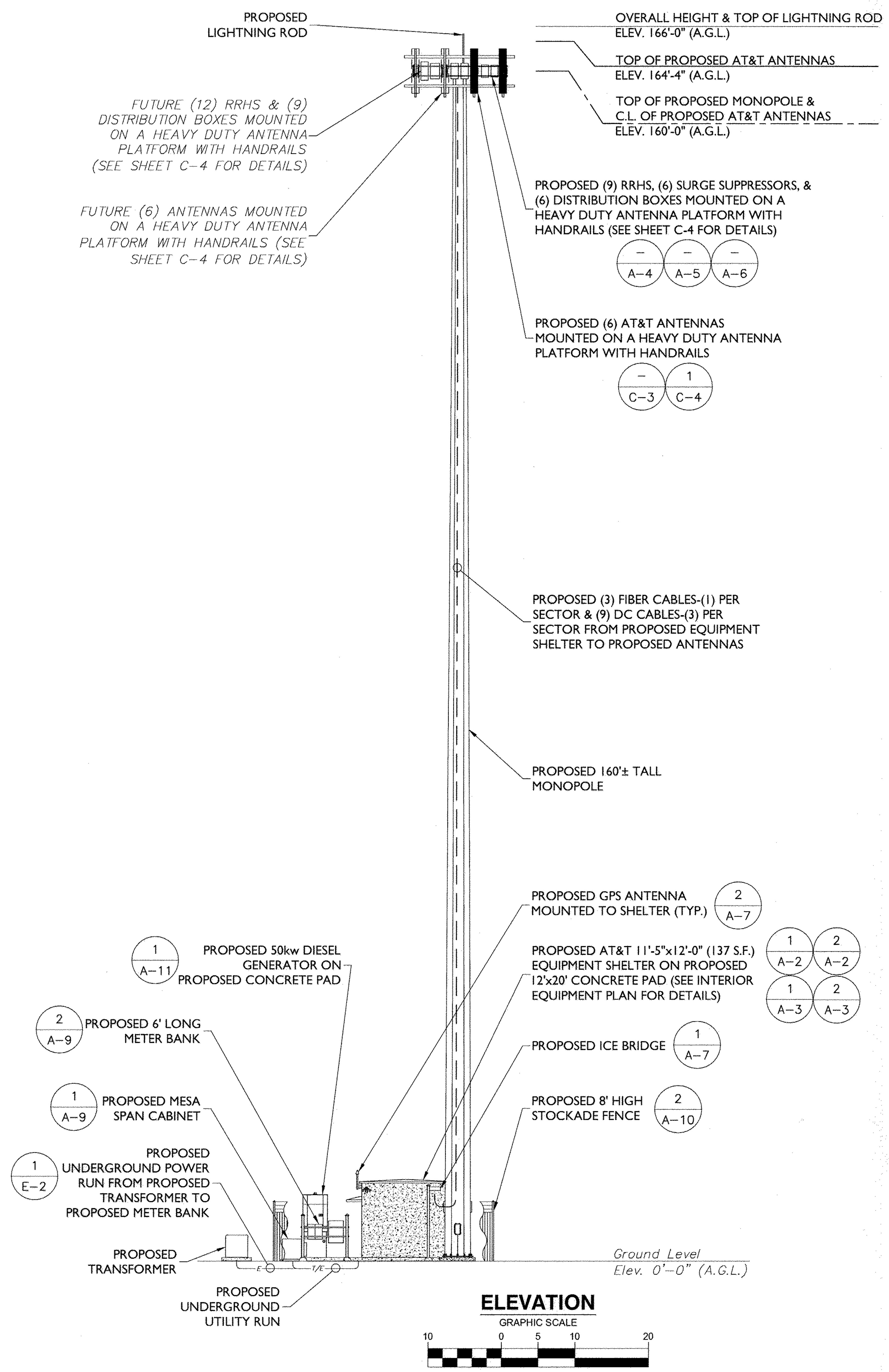
12234 SCAGGSVILLE ROAD
FULTON, MD 20759
HOWARD COUNTY

COLUMBIA OFFICE
6240 Old Dobbin Lane,
Suite 150
Columbia, MD 21045
Phone: 877.627.3772

SHEET TITLE: Temple Isaiah - AT&T Scaggsville
COMPOUND PLAN

SHEET NUMBER: SHEET 23 OF 24

SDP-02-155



ELEVATION

GRAPHIC SCALE

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(IN FEET)

SCALE: 1" = 10' FOR 24"X36" DRAWINGS

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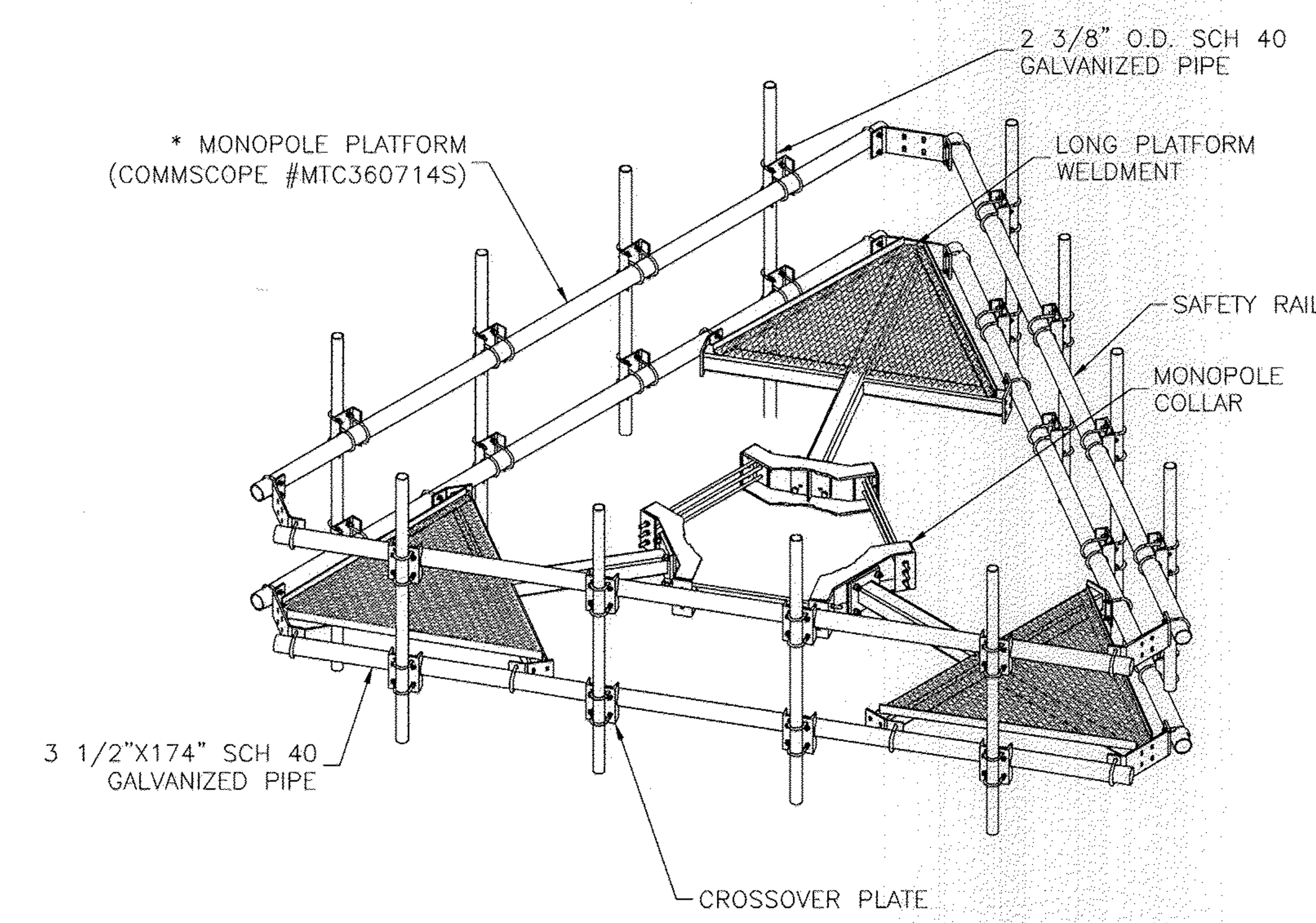
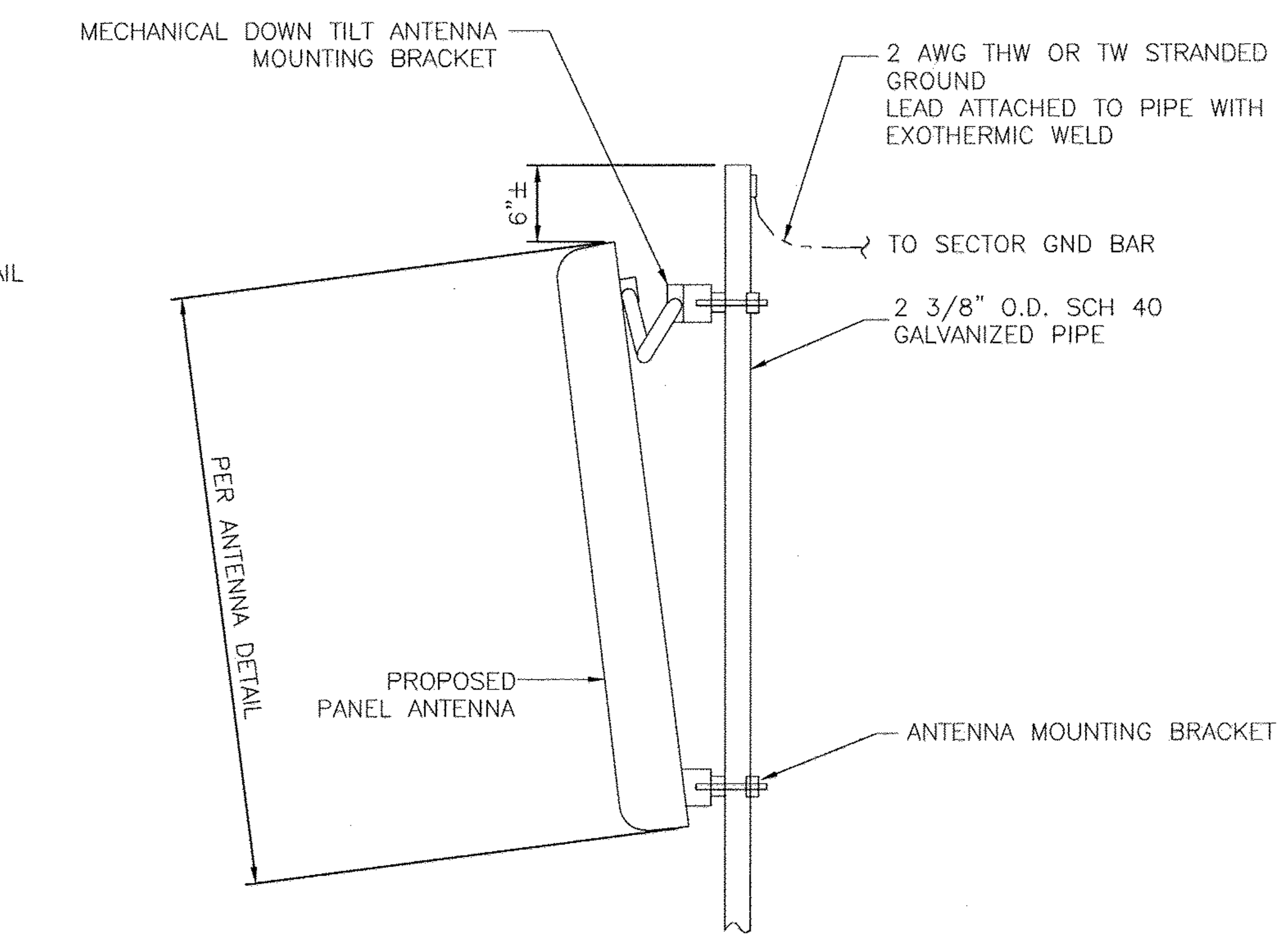


* PRIOR TO ORDERING PLATFORM CONTRACTOR SHALL VERIFY CIRCUMFERENCE OF MONOPOLE AT MOUNTING HEIGHT

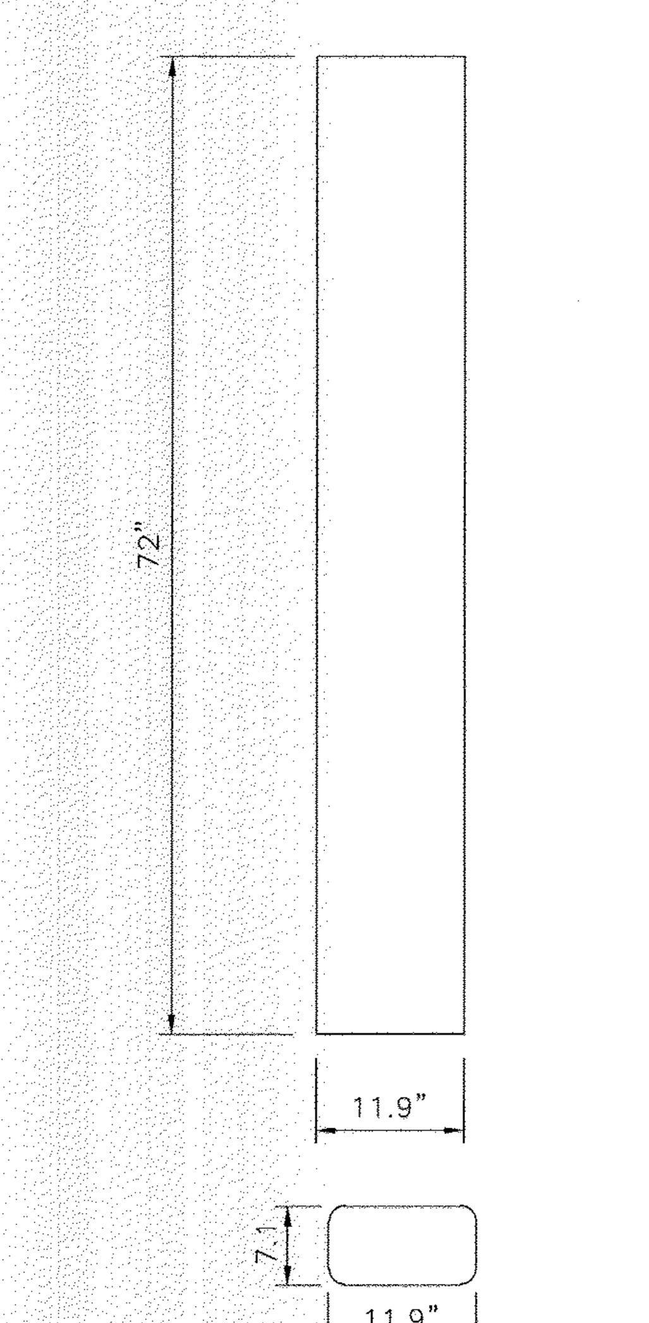
HEAVY DUTY MONOPOLE PLATFORM DETAIL 1 –

NOT TO SCALE



ANTENNA MOUNTING DETAIL 2 –

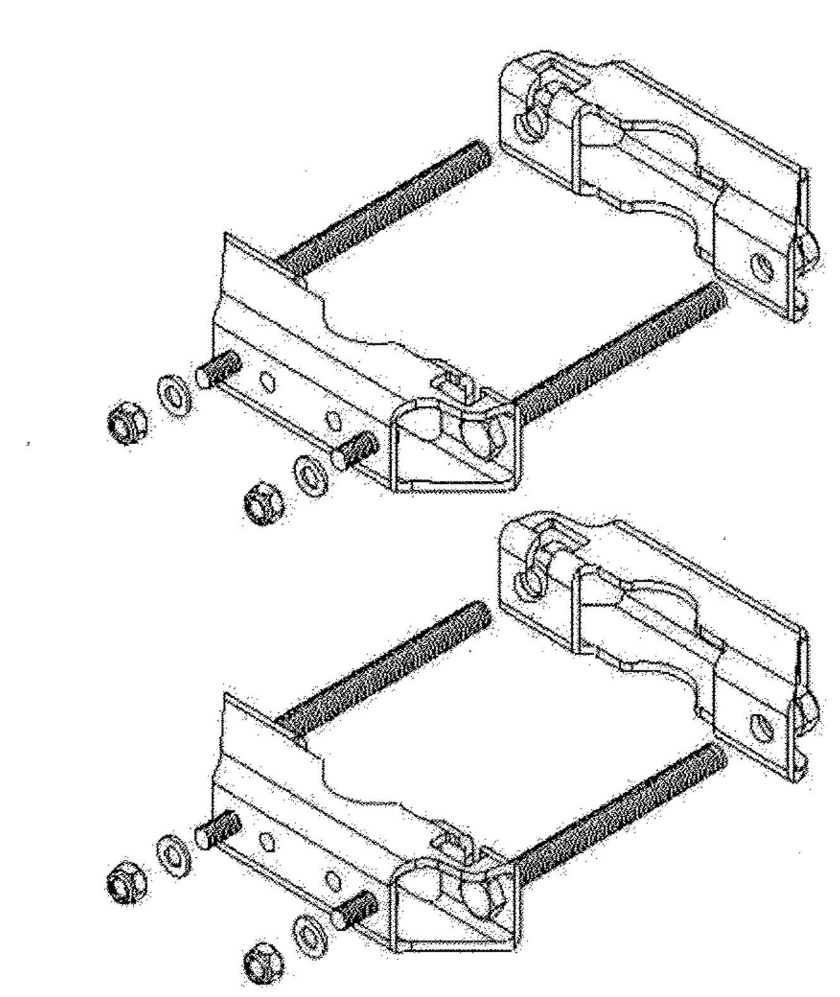
NOT TO SCALE



ANTENNA MODEL: COMMSCOPE SBNHH-1D65B

ANTENNA DETAIL 3 –

NOT TO SCALE



ANTENNA MOUNT CONNECTION KATHREIN P/N 738546 4 –

NOT TO SCALE

STRUCTURAL NOTES:

1. A STRUCTURAL ANALYSIS TO DETERMINE IF THE EXISTING TOWER AND FOUNDATION CAN ADEQUATELY SUPPORT THE PROPOSED LOADING HAS NOT BEEN PREPARED/ANALYZED BY MASER CONSULTING P.A. AND IS TO BE PERFORMED BY OTHERS.
2. NO CONSTRUCTION SHALL PROCEED UNTIL ADEQUACY OF EXISTING TOWER AND FOUNDATION WITH PROPOSED LOADING CONDITIONS IS CONFIRMED BY OWNER/SMARTLINK.
3. REFER TO STRUCTURAL ANALYSIS FOR THE EXACT ROUTING AND PLACEMENT OF COAX CABLES, INNERDUCTS AND DC CONDUCTORS ON EXISTING TOWER.
4. A STANDARD ANTENNA MOUNT HAS BEEN SPECIFIED FOR INFORMATIONAL PURPOSES ONLY. THE CONTRACTOR SHALL VERIFY THE STRUCTURAL CAPACITY OF THE PROPOSED ANTENNA MOUNT TO SUPPORT THE PROPOSED LOADING WITH THE MOUNT MANUFACTURER.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

[signature] 12/15/16
CHIEF, DEVELOPMENT ENGINEERING DIVISION HSP — DATE

[signature] 3-08-17
CHIEF, DIVISION OF LAND DEVELOPMENT — DATE

[signature] 3-8-17
DIRECTOR — DATE

APPROVED: FOR PRIVATE WATER PRIVATE SEWERAGE SYSTEMS IN ACCORDANCE WITH THE MASTER PLAN OF HOWARD COUNTY

BWilson for Maura Rossman 12/28/2016
COUNTY HEALTH OFFICER — DATE
HOWARD COUNTY HEALTH DEPARTMENT

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ANTENNA DETAILS

SHEET NUMBER:
SHEET 24 OF 24

SDP-02-155