

SHEET INDEX	
NO	DESCRIPTION
1	TITLE SHEET
2	SITE DEVELOPMENT PLAN
3	GRADING, SEDIMENT CONTROL AND DRAINAGE AREA MAP
4	SEDIMENT CONTROL DETAILS
5	DETAIL SHEET
6	STORM DRAIN PROFILES
7	STORMWATER MANAGEMENT EXISTING DRAINAGE AREA MAP
8	STORMWATER MANAGEMENT PROPOSED DRAINAGE AREA MAP
9	STORMWATER MANAGEMENT PROFILES AND DETAILS
10	LANDSCAPE PLAN
11	LANDSCAPE SCHEDULES AND DETAILS
12	FOREST STAND DELINEATION
13	FOREST CONSERVATION PLAN
14	GRADING, SEDIMENT CONTROL/SWM - PHOTOVOLTAIC PLAN
15	PHOTOVOLTAIC INSTALLATION PLAN
16	PHOTOVOLTAIC INSTALLATION PLAN
17	GRADING, SEDIMENT CONTROL/SWM - PHOTOVOLTAIC PLAN - PHASE II
18	PHOTOVOLTAIC INSTALLATION PLAN - PHASE II
19	PHOTOVOLTAIC INSTALLATION PLAN - PHASE II
20	PHOTOVOLTAIC INSTALLATION PLAN - PHASE II
21	C-101 Existing Conditions & Demolition Plan
22	C-201 Site Utility & Grading Plan
23	C-250 Site, Utility & Grading Details
24	C-301 Stormwater Management Plan
25	C-350 Stormwater Management Detail Details
26	C-400 Erosion & Sediment Control Notes
27	C-401 Erosion & Sediment Control Plan - PHASE 1
28	C-402 Erosion & Sediment Control Plan - PHASE 2
29	C-403 Erosion & Sediment Control Drainage Area
30	C-450 Erosion & Sediment Control Details I
31	C-451 Erosion & Sediment Control Details II
32	C-452 Erosion & Sediment Control Details III
33	L-101 Planting Plan
34	L-201 Site Details
35	L-301 Landscape Details

- GENERAL NOTES**
- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY PLUS MSHA STANDARDS AND SPECIFICATIONS, IF APPLICABLE.
 - THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/BUREAU OF ENGINEERING/CONSTRUCTION INSPECTION DIVISION AT (410) 313-1880 AT LEAST FIVE (5) WORKING DAYS PRIOR TO THE START OF WORK.
 - THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR
 - TRAFFIC CONTROL DEVICES, MARKINGS, AND SIGNING SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). ALL STREET AND REGULATORY SIGNS SHALL BE IN PLACE PRIOR TO THE PLACEMENT OF ANY ASPHALT.
 - ALL PLAN DIMENSIONS ARE TO FACE OF CURB UNLESS OTHERWISE NOTED.
 - THE EXISTING TOPOGRAPHY IS TAKEN FROM FIELD RUN SURVEY WITH MAXIMUM TWO FOOT CONTOUR INTERVALS PREPARED BY PHR&A JULY, 2002.
 - THE COORDINATES SHOWN HEREON ARE BASED UPON THE HOWARD COUNTY GEODETIC CONTROL WHICH IS BASED UPON THE MARYLAND STATE PLANE COORDINATE SYSTEM. HOWARD COUNTY MONUMENT NOS. 0040 AND 0019 WERE USED FOR THIS PROJECT.
 - WATER IS PRIVATE
 - SEWER IS PRIVATE
 - STORMWATER MANAGEMENT FOR THIS SITE IS PROVIDED BY A PRIVATELY OWNED & MAINTAINED POCKET POND FOR W0V AND C0V AND THE DISCONNECTION OF NON-ROOFTOP RUNOFF CREDIT FOR REV.
 - APPROXIMATE LOCATION OF EXISTING UTILITIES ARE SHOWN. THE CONTRACTOR SHALL TAKE ALL AVAILABLE NECESSARY PRECAUTIONS TO PROTECT THE EXISTING UTILITIES AND MAINTAIN UNINTERRUPTED SERVICE. ANY DAMAGE INCURRED DUE TO CONTRACTOR'S OPERATION SHALL BE REPAIRED IMMEDIATELY AT THE CONTRACTOR'S EXPENSE. EXISTING UTILITIES ARE SHOWN BASED ON THE BEST AVAILABLE INFORMATION.
 - THIS PROJECT IMPACTS NO 100-YEAR FLOODPLAIN.
 - THIS PROJECT IMPACTS NO WETLANDS.
 - THIS PROJECT ONLY INVOLVES PARKING EXPANSION SO AFPO TRAFFIC ANALYSIS IS NOT INVOLVED.
 - NO NOISE STUDY IS REQUIRED.
 - THE GEOTECHNICAL STUDY FOR STORMWATER MANAGEMENT WAS PREPARED BY HILLIS-CARNES DATED NOV 2002.
 - THE BOUNDARY SURVEY FOR THIS PROJECT WAS PREPARED BY PHR&A. DATED OCTOBER, 2003.
 - SUBJECT PROPERTY ZONED RC-DEO PER 2-2-04 COMPREHENSIVE ZONING PLAN.
 - ALL ELEVATIONS SHOWN ARE BASED ON THE U.S.C. AND G.S. MEAN SEA LEVEL DATUM, 1929.
 - SEE DEPARTMENT OF PLANNING AND ZONING FILE NO'S. SDP-88-138
 - THE CONTRACTOR SHALL TEST PIT EXISTING UTILITIES AT LEAST (5) DAYS BEFORE STARTING WORK SHOWN ON THESE DRAWINGS.
 - CONTRACTOR IS SOLELY RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, PROCEDURES, AND SAFETY PRECAUTIONS AND PROGRAMS.
 - PIPE SHALL NOT BE INSTALLED BY THE CONTRACTOR UNTIL THE LENGTH CALLED FOR AT EACH STATION HAS BEEN APPROVED BY THE ENGINEER IN THE FIELD.
 - NO PIPE SHALL BE LAID UNTIL LINES OF EXCAVATION HAVE BEEN BROUGHT WITHIN 6" OF FINISHED GRADE.
 - ALL INLETS SHALL BE CONSTRUCTED IN ACCORDANCE WITH HOWARD COUNTY STANDARDS.
 - ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS.
 - STORM DRAIN TRENCHES WITHIN ROAD RIGHT OF WAY SHALL BE BACKFILLED AND COMPACTED IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL, VOLUME IV, I.E., STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION, LATEST AMENDMENTS.
 - PROFILE STATIONS SHALL BE ADJUSTED AS NECESSARY TO CONFORM TO PLAN DIMENSIONS.
 - ALL FILL AREAS WITHIN ROADWAY AND UNDER STRUCTURES TO BE COMPACTED TO A MINIMUM OF 95% COMPACTION OF AASHTO T180.
 - THERE ARE NO CEMETARIES ON THE SUBJECT PROPERTY.
 - ALL LIGHTING TO BE DIRECTED/REFLECTED AWAY FROM ADJACENT PUBLIC ROADS AND RESIDENTIALLY ZONED PROPERTIES, AND BE IN ACCORDANCE WITH SECTION 134 OF THE HOWARD COUNTY ZONING REGULATIONS.
 - THIS PROJECT COMPLIES WITH THE REQUIREMENTS OF SECTION 16.1200 OF THE HOWARD COUNTY CODE FOR FOREST CONSERVATION BY RETAINING 48.35 AC OF EXISTING FOREST. SURETY IN THE AMOUNT OF \$421,225.20 (2,106,126 SF X \$0.20/SF) WILL BE REQUIRED. THE FOREST CONSERVATION PLAN OF EASEMENT HAS BEEN RECORDED IN THE LAND RECORDS OF HOWARD COUNTY AS PLAT #16827, on 7/27/04.

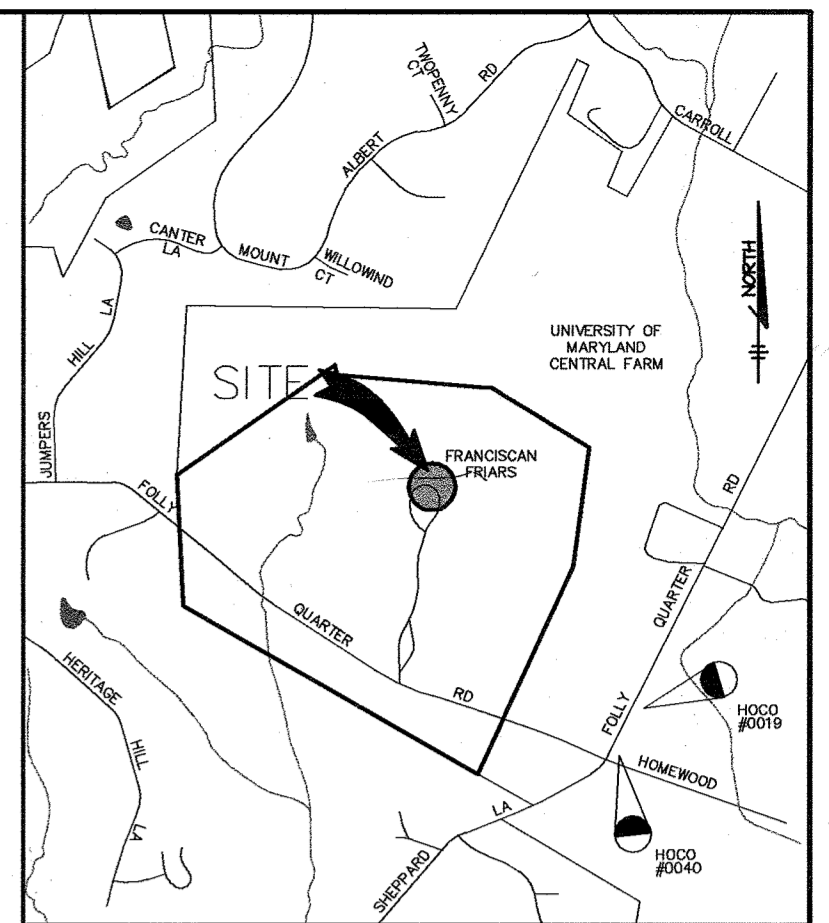
SITE DEVELOPMENT PLAN

FRANCISCAN FRIARS

PARKING ADDITION

3rd ELECTION DISTRICT

HOWARD COUNTY, MARYLAND



VICINITY MAP
SCALE: 1" = 2000'

COPYRIGHT AND THE MAP PEOPLE PERMITTED USE NO. 20694285

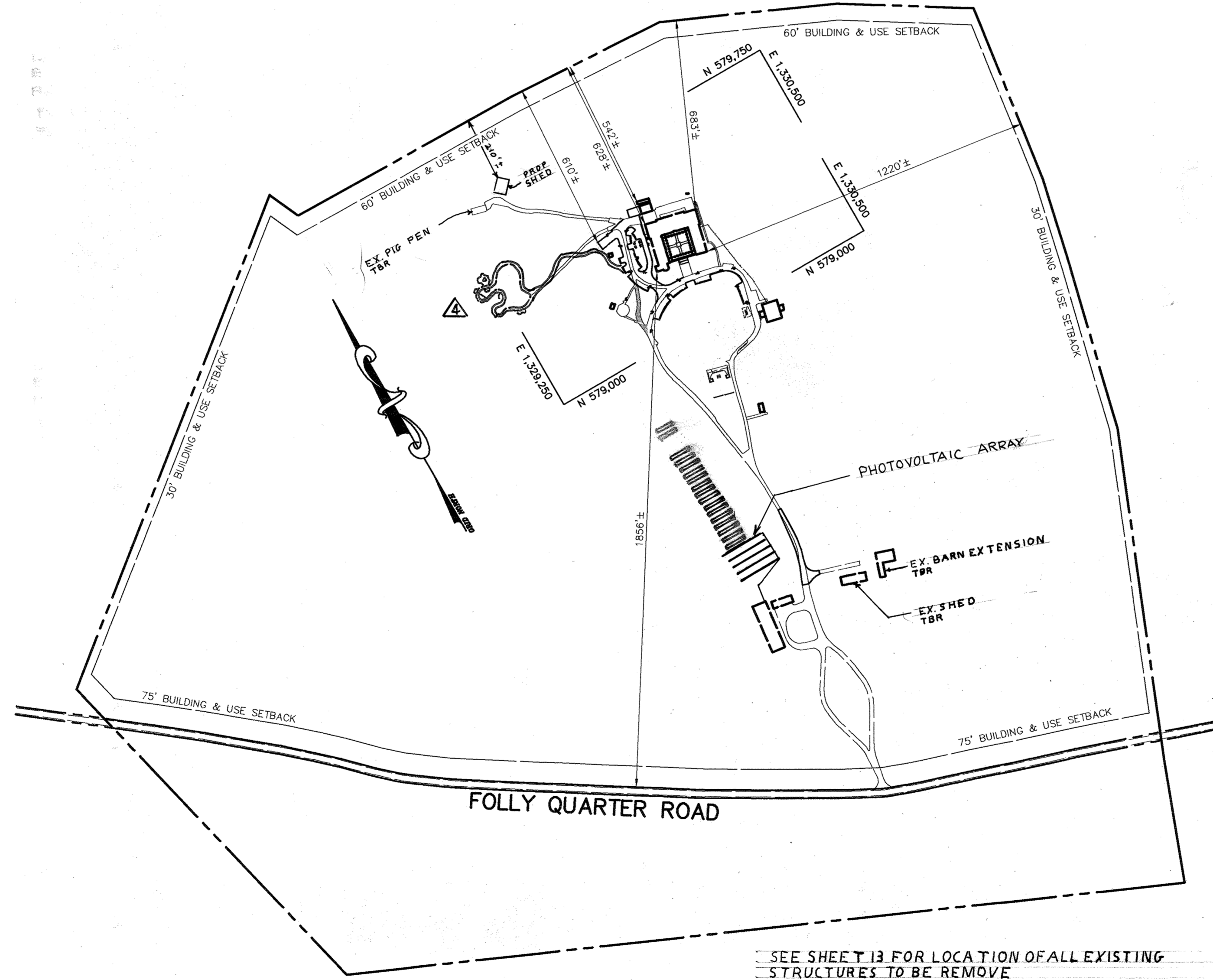
AREA TABULATION CHART

AREA OF SITE	196.26 ACRES
LIMIT OF DISTURBED AREA	2.52 ACRES
PRESENT ZONING	RC-DEO
EXISTING USE	RELIGIOUS FACILITY
PROPOSED USE	RELIGIOUS FACILITY
PROPOSED PARKING	56 SPACES (INCL. 6 HC) 2 BUS SPACES

NOTE: THE PURPOSE OF THIS PROJECT IS TO PROVIDE PARKING FOR THE CURRENT USERS AND VISITORS TO THE FACILITY. THE FRANCISCAN FRIARS FEEL THAT 56 SPACES ARE SUFFICIENT FOR THEIR NEEDS.

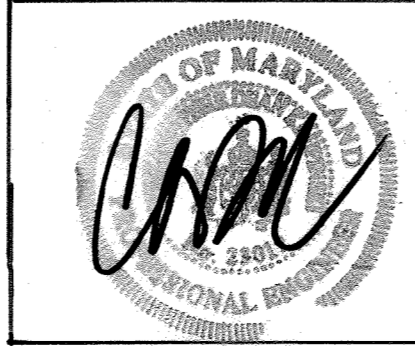
AS-BUILT CONTROL BENCH MARK

- ✓ HOWARD COUNTY CONTROL STATION 0040
N 577,270.615 (NAD83)
E 1,332,002.601 (NAD 83)
ELEV. 365.326
- ✓ HOWARD COUNTY CONTROL STATION 0019
N 580,468.133 (NAD 83)
E 1,333,675.522 (NAD 83)
ELEV. 365.870



PLAN
SCALE: 1"=300'

SEE SHEET 13 FOR LOCATION OF ALL EXISTING STRUCTURES TO BE REMOVE

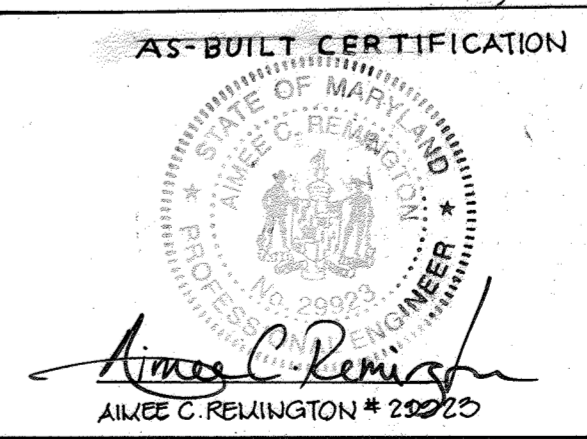
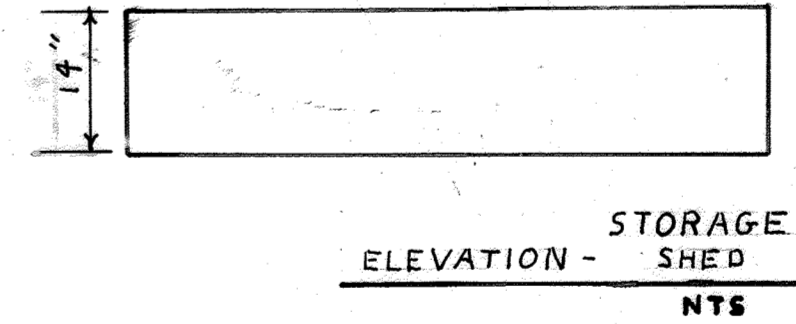


THE BULK SEAL ON THIS SET ONLY APPLIES TO THE REDLINE REVISIONS, ON SHEETS 1, 2, 3, 8, 10, 12, 13 AND NEW SHEETS 21-35.



PURPOSE STATEMENT: THE REDLINE REVISION DATED 7/23/21 FOR THE ADDITION OF A 1.3 ACRE PRAYER GARDEN ON THE SITE.

7/23/21	Revision to Add Prayer Garden
10-17-14	ADDED PHOTOVOLTAIC INSTALLATION PLAN - PHASE II



ADDRESS CHART

PARCEL NUMBER	STREET ADDRESS
46	12290 FOLLY QUARTER ROAD

PROJECT NAME	FRANCISCAN FRIARS	SECT./AREA		PARCEL	46
PLAT NO.		BLOCK #	24	ZONING	RC-DEO
		TAX MAP NO.	22	ELECT. DIST.	3
		CENSUS TRACT			6023.02
WATER CODE		SEWER CODE			

APPROVED: FOR PRIVATE WATER AND PRIVATE SEWERAGE SYSTEMS.
[Signature] 7/23/04
COUNTY HEALTH OFFICER
HOWARD COUNTY HEALTH DEPARTMENT

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.
[Signature] 7/28/04
DIRECTOR (ACTING)
CHIEF, DEVELOPMENT ENGINEERING DIVISION

[Signature] 7/24/04
CHIEF, DIVISION OF LAND DEVELOPMENT

1-17-13 ADDED PHOTOVOLTAIC INSTALLATION PLAN
6-10-08 NOTED STRUCTURE REMOVAL AND NEW SHED

OWNER / DEVELOPER
NOVIATIE OF FRANCISCAN FATHERS
MINOR CONVENTUALS OF MARYLAND, INC.
12290 FOLLY QUARTER ROAD
ELLCOTT CITY, MARYLAND 21042

PROJECT FRANCISCAN FRIARS PARKING ADDITION

AREA TAX MAP 22 PARCEL 46 ZONED RC-DEO
3rd ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE TITLE SHEET

Patton Harris Rust & Associates, pc
Engineers, Surveyors, Planners, Landscape Architects.
8818 Centre Park Drive
Columbia, MD 21045
T 410.997.8900
F 410.997.9282

DESIGNED BY: C.J.R.

DRAWN BY: MAD

PROJECT NO: 11439/2-0/ENGR PLANS/0000CV

DATE: JUNE 29, 2004

SCALE: AS SHOWN
DRAWING NO. 1 OF 25

AS-BUILT 6-3-05 SDP-04-64

NOTE: SEE SHEET 13 FOR LOCATION OF NEW 42' X 72' STORAGE SHED

LIGHTING FIXTURE SCHEDULE

TYPE	LAMPS	MOUNTING	DESCRIPTION / VOLTAGE	CATALOG NO.
AA	100W MH	14"x4" DIAMETER ROUND TAPERED ALUMINUM POLE	DECORATIVE POST TOP METAL HALIDE SITE FIXTURE WITH DIE CAST ALUMINUM HOUSING FINISHED IN BLACK POLYESTER POWDER COAT. SPECULAR ALUMINUM REFLECTOR INJECTION MOLDED ACRYLIC LENS PANELS AND NEMA TYPE III DISTRIBUTION. 208 VOLTS.	HADCO V092AT3NDF POLE 2540-14A
AB	100W MH	BASE	DECORATIVE 42" HIGH CAST ALUMINUM BOLLARD WITH CLEAR ACRYLIC LENS TYPE 5 RETRACTOR. 120 VOLTS.	HADCO TB361AB550H 100HF
AC	100W MH	14"x4" DIAMETER ROUND TAPERED ALUMINUM POLE	SAME AS FIXTURE "AA" EXCEPT TYPE V DISTRIBUTION.	HADCO

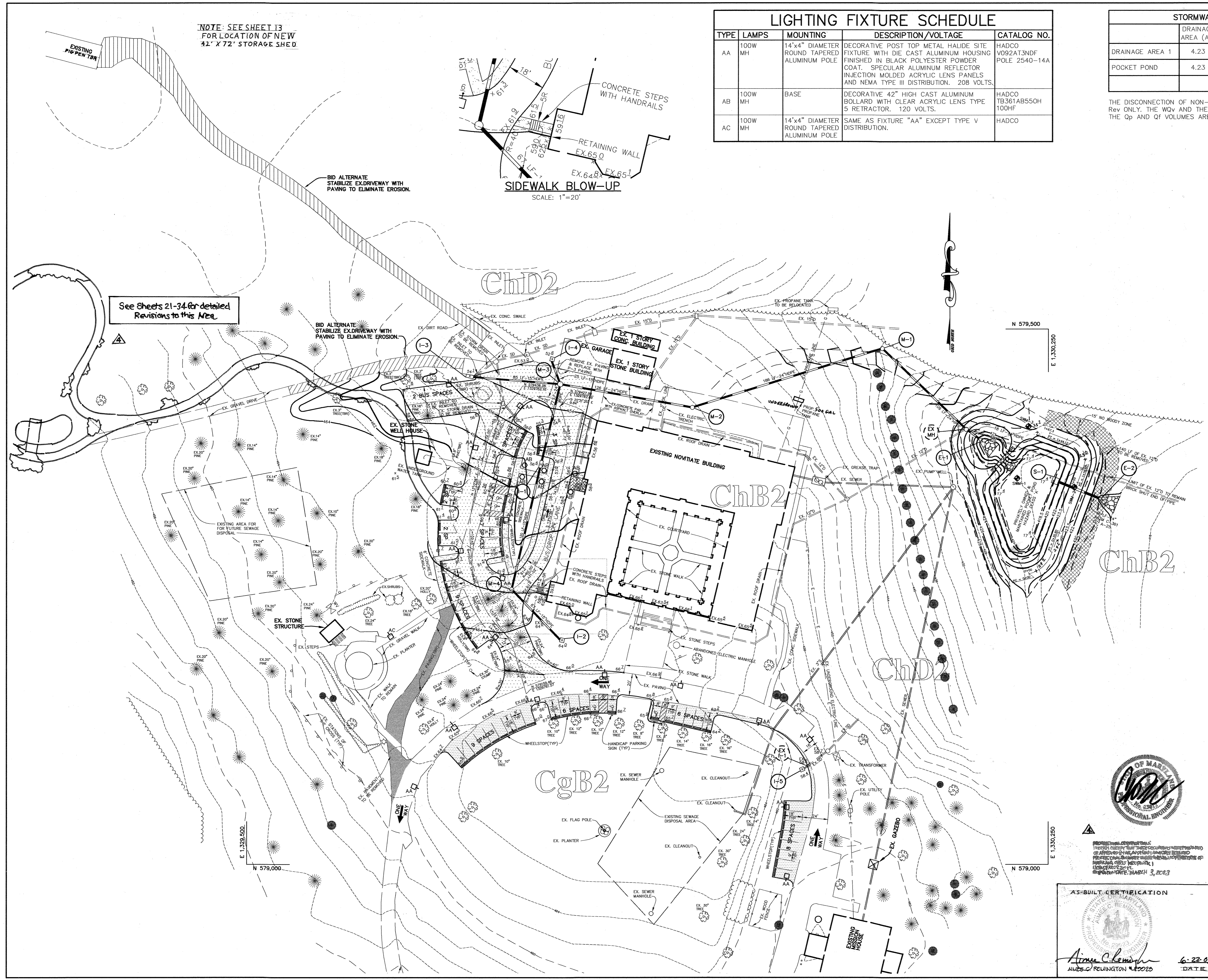
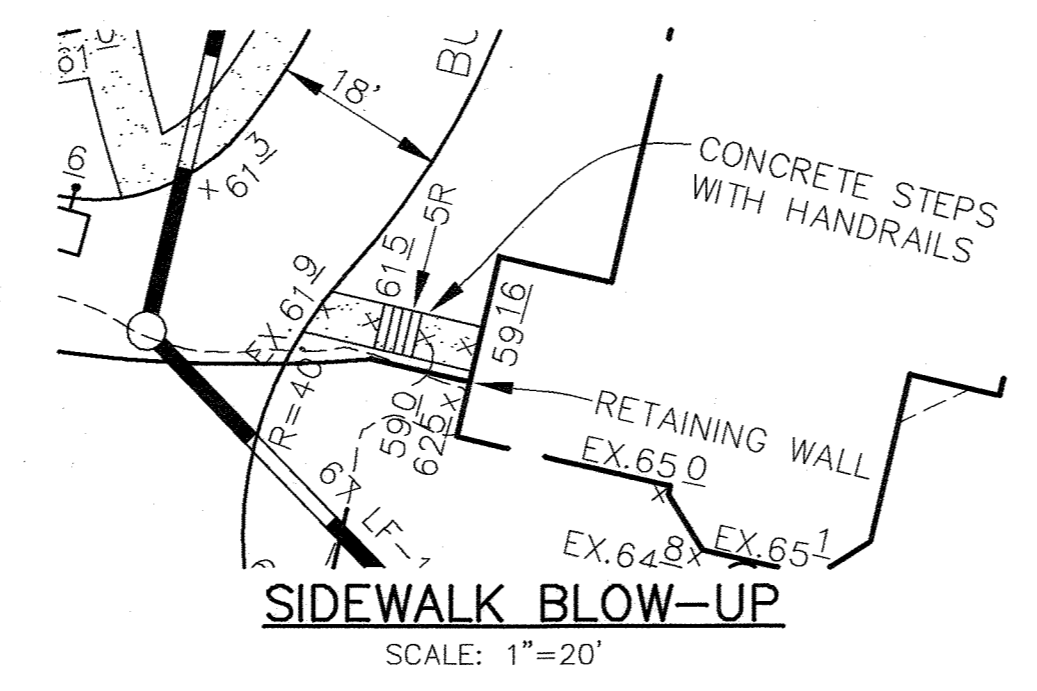
STORMWATER MANAGEMENT SUMMARY TABLE

	DRAINAGE AREA (AC)	WQv (CF)	Rev (CF)	Cpv (AC-FT)	Qp 1 (CFS)	Qp 10 (CFS)	Qp 100 (CFS)
DRAINAGE AREA 1	4.23	5766	2026 (0.56 AC)	0.216	4.50	10.77	21.62
POCKET POND	4.23	3173	-	0.138	0.11	14.09	22.71

THE DISCONNECTION OF NON-ROOFTOP RUNOFF CREDIT HAS BEEN APPLIED TOWARDS Rev ONLY. THE WQv AND THE Cpv WILL BE PROVIDED IN A POCKET POND. THE Qp AND Qf VOLUMES ARE NOT REQUIRED FOR THIS SITE.

- NOTES:**
- ALL RADII ARE 5' UNLESS OTHERWISE NOTED.
 - ALL DIMENSIONS ARE TO FACE OF CURB OR BUILDING UNLESS OTHERWISE NOTED.
 - ALL ON-SITE ROADS ARE PRIVATE.

- LEGEND**
- 450 --- EXISTING 10' CONTOURS
 - 448 --- EXISTING 2' CONTOURS
 - 450 --- PROPOSED 10' CONTOURS
 - 448 --- PROPOSED 2' CONTOURS
 - --- PROPOSED CURB & GUTTER
 - --- PROPOSED STORM DRAIN
 - --- EXISTING TREELINE
 - 1-1/2 OVERLAY
 - P-1 PAVING (HO.CO. DETAIL R-2.01)
 - P-3 PAVING (HO.CO. DETAIL R-2.01)
 - CONCRETE SIDEWALK (HO.CO. DETAIL R-3.05)
 - PAVEMENT/SIDEWALK TO BE REMOVED
 - 1R DENOTES NUMBER OF STEPS
 - TBR DENOTES TO BE REMOVED



APPROVED : FOR PRIVATE WATER AND PRIVATE SEWERAGE SYSTEMS
[Signature] 7/22/04
 COUNTY HEALTH OFFICER
 HOWARD COUNTY HEALTH DEPARTMENT MK DATE

APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.
[Signature] 7/22/04
 DIRECTOR (ACTING) DATE

[Signature] 7/14/04
 CHIEF, DEVELOPMENT ENGINEERING DIVISION MK DATE

[Signature] 7/24/04
 CHIEF, DIVISION OF LAND DEVELOPMENT WB DATE

7/23/04 REVISION TO ADD NEW PRAYER GARDEN
 6-2-05 NOTED NEW STORAGE SHED LOCATION
 DATE NO. REVISION

OWNER / DEVELOPER
 NOVITIATE OF FRANCISCAN FATHERS
 MINOR CONVENTUALS OF MARYLAND, INC.
 12290 FOLLY QUARTER ROAD
 ELLICOTT CITY, MARYLAND 21042

PROJECT **FRANCISCAN FRIARS PARKING ADDITION**

AREA TAX MAP 22 PARCEL 46 ZONED RC-DEO
 3rd ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

TITLE **SITE DEVELOPMENT PLAN**

Patton Harris Rust & Associates, pc
 Engineers, Surveyors, Planners, Landscape Architects.
 8818 Centre Park Drive
 Columbia, MD 21045
 T 410.997.8900
 F 410.997.9282

PHRA
 6-29-04
 DATE

DESIGNED BY : C.J.R.
 DRAWN BY: MAD
 PROJECT NO : 11439/2-0/ENGR
 PLANS/CA00SIT
 DATE : JUNE 29, 2004
 SCALE : 1"=40'
 DRAWING NO. 2 OF 25

AS-BUILT 6-3-05 **SDP-04-64**



AS-BUILT CERTIFICATION
 STATE OF MARYLAND
 PROFESSIONAL ENGINEER
[Signature] 6-22-05
 ANNE C. REID #19949
 DATE

P:\project\11439\2-0\Engr\Plans\CA00SIT.dwg, Layout1, 06/28/2004 03:26:58 PM, HP750C36.p3, 1:1

LEGEND

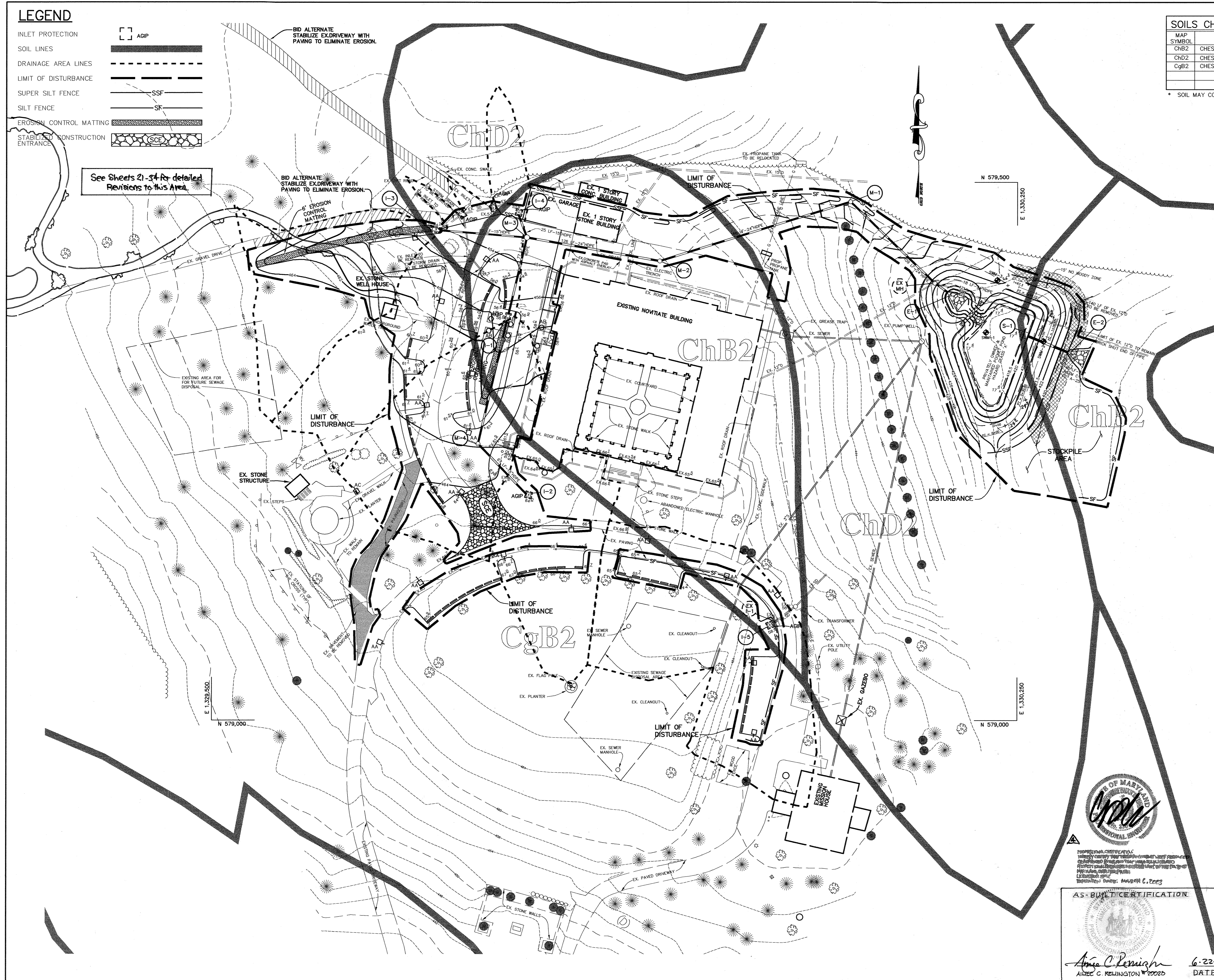
- INLET PROTECTION
- SOIL LINES
- DRAINAGE AREA LINES
- LIMIT OF DISTURBANCE
- SUPER SILT FENCE
- SILT FENCE
- EROSION CONTROL MATTING
- STABILIZED CONSTRUCTION ENTRANCE

See Sheets 21-24 for detailed Revisions to this Area

SOILS CHART					
MAP SYMBOL	NAME	EROSION HAZARD	HYDRIC (%)	SLOPE (%)	HSG
ChB2	CHESTER SILT LOAM	MODERATE	NO	3-8%	B
ChD2	CHESTER SILT LOAM	MODERATE	NO	15-25%	B
CgB2	CHESTER GRAVELLY SILT LOAM	MODERATE	NO	3-8%	B

* SOIL MAY CONTAIN HYDRIC INCLUSIONS

DRAINAGE DATA				
INLET NOS.	AREA IN ACRES	C FACTOR	PERCENT IMPERVIOUS	
I-1	0.57	0.68	74	
I-2	0.40	0.68	73	
I-3	0.44	0.68	73	
I-4	0.60	0.68	73	



BY THE DEVELOPER :

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

Donald G. ... 6-28-04
DEVELOPER DATE

BY THE ENGINEER :

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

Chap 5 Rev 6-29-04
ENGINEER DATE

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SOIL EROSION AND SEDIMENT CONTROL.

Jim Myers 7/12/04
NATURAL RESOURCES CONSERVATION DISTRICT DATE

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

John R. Blanton 7/12/04
HOWARD SOIL CONSERVATION DISTRICT DATE

APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

Stephen Lafferty 7/28/04
DIRECTOR (ACTING) DATE

John Pennington 7/14/04
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

Chris Hamilton 7/28/04
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

7/23/21 REVISION TO ADD NEW PRAYER GARDEN
DATE NO. REVISION

OWNER / DEVELOPER
NOVITATE OF FRANCISCAN FATHERS
MINOR CONVENTUALS OF MARYLAND, INC.
12290 FOLLY QUARTER ROAD
ELLCOTT CITY, MARYLAND 21042

PROJECT **FRANCISCAN FRIARS PARKING ADDITION**
AREA TAX MAP 22 PARCEL 46 ZONED RC-DEO
3rd ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE **GRADING, SEDIMENT CONTROL AND DRAINAGE AREA MAP**
Patton Harris Rust & Associates, pc
Engineers, Surveyors, Planners, Landscape Architects.
8818 Centre Park Drive
Columbia, MD 21045
T 410.997.8900
F 410.997.9282

6-29-04 DATE
DESIGNED BY : C.J.R.
DRAWN BY: MAD
PROJECT NO : 11439/2-0/ENGR PLANS/C200ESC
DATE : JUNE 29, 2004
SCALE : 1"=40'
DRAWING NO. 3 OF 35

MD-378 STANDARDS AND SPECIFICATIONS

SPECIFICATIONS

THESE SPECIFICATIONS ARE APPROPRIATE TO ALL PONDS WITH 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.

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.

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.

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.

COMPACTION - AREAS ON WHICH FILL IS TO BE PLACED SHALL BE SCARIFIED PRIOR TO PLACEMENT OF FILL MATERIALS. FILL MATERIALS SHALL BE PLACED IN MAXIMUM 6-INCH THICK (BEFORE COMPACTION) LAYERS WHICH ARE TO BE CONTINUOUS OVER THE ENTIRE LENGTH OF THE FILL.

COMPACTION - THE MOVEMENT OF THE HAULING AND SPREADING EQUIPMENT OVER THE FILL SHALL BE CONTROLLED SO THAT THE ENTIRE SURFACE OF EACH LIFT SHALL BE TRAVERSED BY NOT LESS THAN ONE TREAD TRACK OF THE EQUIPMENT OR COMPACTION SHALL BE ACHIEVED BY A MINIMUM OF FOUR COMPLETE PASSES OF A SHEEPSFOOT, RUBBER TIRE OR VIBRATORY ROLLER.

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.

CUTOFF 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 COVERED BY THE EQUIPMENT USED FOR EXCAVATION, WITH THE MINIMUM WIDTH BEING FOUR FEET.

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.

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.

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.

ROCK RIPRAP SHALL MEET THE REQUIREMENTS OF MARYLAND DEPARTMENT OF TRANSPORTATION, STATE HIGHWAY ADMINISTRATION STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS, SECTION 414, MIX NO. 3.

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 COATINGS SHALL HAVE A MINIMUM COATING THICKNESS OF 0.01 INCH (10MIL) ON BOTH SIDES OF THE PIPE.

MATERIALS - (ALUMINUM COATED STEEL PIPE) - THIS PIPE AND ITS APPURTENANCES SHALL CONFORM TO THE REQUIREMENTS OF AASHTO SPECIFICATIONS M-274 WITH WATERTIGHT COUPLING BANDS OR FLANGES.

MATERIALS - (ALUMINUM PIPE) - THIS PIPE AND ITS APPURTENANCES SHALL CONFORM TO THE REQUIREMENTS OF AASHTO SPECIFICATIONS M-196 OR M-211 WITH WATERTIGHT COUPLING BANDS OR FLANGES.

- 2. COUPLING BANDS, ANTI-SEEP COLLARS, END SECTIONS, ETC., MUST BE COMPOSED OF THE SAME MATERIAL AND COATED AS THE PIPE. METALS MUST BE INSULATED FROM DISSIMILAR MATERIALS WITH USE OF RUBBER OR PLASTIC INSULATING MATERIALS AT AT LEAST 24 MILS IN THICKNESS.

- 3. CONNECTIONS - ALL CONNECTIONS WITH PIPES MUST BE COMPLETELY WATERTIGHT. THE DRAIN PIPE OR BARREL CONNECTION TO THE RISER SHALL BE WELDED ALL AROUND WHEN THE PIPE AND RISER ARE METAL.

ALL CONNECTIONS SHALL USE A RUBBER OR NEOPRENE GASKET WHEN JOINING PIPE SECTIONS. THE END OF EACH PIPE SHALL BE RE-ROLLED AN ADEQUATE NUMBER OF CORRUGATIONS TO ACCOMMODATE THE BAND WIDTH.

HELICALLY CORRUGATED PIPE SHALL HAVE EITHER CONTINUOUSLY WELDED SEAMS OR HAVE LOCK SEAMS WITH INTERNAL CAULKING OR A NEOPRENE BEAD.

- 4. BEDDING - THE PIPE SHALL BE FIRMLY AND UNIFORMLY BEDDED THROUGHOUT ITS ENTIRE LENGTH. WHERE ROCK OR SOFT, SPONGY OR OTHER UNSTABLE SOIL IS ENCOUNTERED, ALL SUCH MATERIAL SHALL BE REMOVED AND REPLACED WITH SUITABLE EARTH COMPACTED TO PROVIDE ADEQUATE SUPPORT.

- 5. BACKFILLING SHALL CONFORM TO "STRUCTURE BACKFILL."

- 6. OTHER DETAILS (ANTI-SEEP COLLARS, VALVES, ETC.) SHALL BE AS SHOWN ON THE DRAWINGS.

REINFORCED CONCRETE PIPE - ALL OF THE FOLLOWING CRITERIA SHALL APPLY FOR REINFORCED CONCRETE PIPE:

- 1. MATERIALS - REINFORCED CONCRETE PIPE SHALL HAVE BELL AND SPIGOT JOINTS WITH RUBBER GASKETS AND SHALL EQUAL OR EXCEED ASTM DESIGNATION C-361.

- 2. BEDDING - ALL REINFORCED CONCRETE PIPE CONDUITS SHALL BE LAID IN A CONCRETE BEDDING/CRADLE FOR THEIR ENTIRE LENGTH. THIS BEDDING/CRADLE SHALL CONSIST OF HIGH STRENGTH CONCRETE PLACED UNDER THE PIPE AND UP THE SIDE OF THE PIPE AT LEAST 50% OF ITS OUTSIDE DIAMETER WITH A MINIMUM THICKNESS OF 6 INCHES.

- 3. LAYING PIPE - BELL AND SPIGOT PIPE SHALL BE PLACED WITH THE BELL END UPSTREAM. JOINTS SHALL BE MADE IN ACCORDANCE WITH RECOMMENDATIONS OF THE MANUFACTURER. AFTER THE JOINTS ARE SEALED FOR THE ENTIRE LINE, THE BEDDING SHALL BE PLACED SO THAT ALL SPACES UNDER THE PIPE ARE FILLED.

- 4. BACKFILLING SHALL CONFORM TO "STRUCTURE BACKFILL."

- 5. OTHER DETAILS (ANTI-SEEP COLLARS, VALVES, ETC.) SHALL BE AS SHOWN ON THE DRAWINGS.

PLASTIC PIPE - THE FOLLOWING CRITERIA SHALL APPLY FOR 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" 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.

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 AND MATERIALS, SECTION 311.

GEOTEXTILE SHALL BE PLACED UNDER ALL RIPRAP AND SHALL MEET THE REQUIREMENTS OF MARYLAND DEPARTMENT OF TRANSPORTATION, STATE HIGHWAY ADMINISTRATION STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS, SECTION 921.09, 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 TEMPORARY DIKES, LEVEES, COFFERDAMS, DRAINAGE CHANNELS, AND STREAM DIVERSIONS NECESSARY TO PROTECT THE AREAS TO BE OCCUPIED BY THE PERMANENT WORKS.

STABILIZATION

ALL BORROW AREAS SHALL BE GRADED TO PROVIDE PROPER DRAINAGE AND LEFT IN A SIGHTLY CONDITION. ALL EXPOSED SURFACES OF THE EMBANKMENT, SPILLWAY, SPILL 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.

REFER TO THE 2000 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR RATE AND METHODS NOT COVERED.

TEMPORARY SEEDING NOTES

APPLY TO GRADED OR CLEARED AREAS LIKELY TO BE REDISTURBED WHERE A SHORT-TERM VEGETATIVE COVER IS NEEDED.

SEEDBED PREPARATION: LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING, IF NOT PREVIOUSLY LOOSENED.

SOIL AMENDMENTS: APPLY 600 LBS. PER ACRE 10-10-10 FERTILIZER (14LBS. PER 1000 SQ.FT.).

SEEDING - FOR PERIODS MARCH 1 THRU APRIL 30 AND FROM AUGUST 15 THRU NOVEMBER 15, SEED WITH 2-1/2 BUSHELS PER ACRE OF ANNUAL RYE (3.2 LBS. PER 1000 SQ.FT.).

MULCHING: APPLY 1-1/2 TO 2 TONS PER ACRE (70 TO 90 LBS. PER 1000 SQ.FT.) OF UNROTTED SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING.

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

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, DISING 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. PER 1000 SQ.FT.) AND 600 LBS. PER ACRE 10-10-10 FERTILIZER (14 LBS. PER 1000 SQ.FT.) BEFORE SEEDING.

SEEDING: FOR THE PERIOD MARCH 1 THRU APRIL 30 AND FROM AUGUST 15 THRU OCTOBER 15, SEED WITH 80 LBS. PER ACRE (1.4LBS. PER 1000 SQ.FT.) OF KENTUCKY 31 TALL FESCUE.

- 1) 2 TONS PER ACRE OF WELL-ANCHORED MULCH STRAW AND SEED AS SOON AS POSSIBLE IN THE SPRING.

MULCHING: APPLY 1-1/2 TO 2 TONS PER ACRE (70 TO 90 LBS. PER 1000 SQ.FT.) OF UNROTTED SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING.

MAINTENANCE: INSPECT ALL SEEDED AREAS AND MAKE NEEDED REPAIRS, REPLACEMENTS AND RESEEDINGS.

STANDARD SEDIMENT CONTROL NOTES

- 1. A MINIMUM OF 48 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS, SEDIMENT CONTROL DIVISION PRIOR TO THE START OF ANY CONSTRUCTION (313-1855).

- 2. ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL AND REVISIONS THERETO.

- 3. FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN: A) 7 CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DIKES, PERIMETER SLOPES, AND ALL SLOPES STEEPER THAN 3:1; B) 14 DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.

- 4. ALL SEDIMENT TRAPS/BASINS SHOW MUST BE FENCED AND WARNING SIGNS POSTED AROUND THE PERIMETER IN ACCORDANCE WITH VOL. 1, CHAPTER 7, OF THE HOWARD COUNTY DESIGN MANUAL, STORM DRAINAGE.

- 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.

SEEDING DATES DO NOT ALLOW FOR PROPER GERMINATION AND ESTABLISHED OF GRASSES.

Table with 2 columns: Description and Area. Includes TOTAL AREA OF SITE (235.97 ACRES), AREA DISTURBED (2.52 ACRES), AREA TO BE ROOFED OR PAVED (0.73 ACRES), AREA TO BE VEGETATIVELY STABILIZED (1.79 ACRES), TOTAL CUT (2448 CU. YARDS), TOTAL FILL (2492 CU. YARDS), OFFSITE WASTE AREA LOCATION TO HAVE ACTIVE GRADING PERMIT.

- 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.

- 12. SITE GRADING WILL BEGIN ONLY AFTER ALL PERIMETER SEDIMENT CONTROL MEASURES HAVE BEEN INSTALLED AND ARE IN A FUNCTIONING CONDITION.

- 13. SEDIMENT WILL BE REMOVED FROM TRAPS WHEN ITS DEPTH REACHES CLEAN OUT ELEVATION SHOWN ON THE PLANS.

- 14. CUT AND FILL QUANTITIES PROVIDED UNDER SITE ANALYSIS DO NOT REPRESENT BULK QUANTITIES. THESE QUANTITIES DO NOT DISTINGUISH BETWEEN TOPSOIL, STRUCTURAL FILL OR EMBANKMENT MATERIAL, NOR DO THEY REFLECT CONSIDERATION OF UNDERROUTING OR REMOVAL OF UNSUITABLE MATERIAL.

21.0 STANDARD 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 VEGETATIVE 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 PROVIDE VEGETATIVE GROWTH.

- 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 CAN BE FOUND IN THE REPRESENTATIVE SOIL PROFILE SECTION IN THE SOIL SURVEY PUBLISHED BY USDA-SCS IN COOPERATION WITH MARYLAND AGRICULTURAL EXPERIMENTATION 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 SOIL SCIENTIST AND APPROVED BY THE APPROPRIATE APPROVAL AUTHORITY.

- II. TOPSOIL MUST BE FREE OF PLANTS OR PLANT PARTS SUCH AS BERMDUA GRASS, QUACKGRASS, JOHNSONGRASS, NUTSEDGE, POISON IVY, THISTLE, OR OTHERS AS SPECIFIED.

- III. WHERE 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 1000 SQUARE FEET) PRIOR TO THE PLACEMENT OF TOPSOIL.

- IV. FOR SITES HAVING DISTURBED AREAS UNDER 5 ACRES: I. PLACE TOPSOIL (IF REQUIRED) AND APPLY SOIL AMENDMENTS AS SPECIFIED IN 20.0 VEGETATIVE STABILIZATION - BSECTION 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 LIMING REQUIREMENTS 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 OR LESS THAN 6.0, SUFFICIENT LIME SHALL BE PRESCRIBED TO RAISE THE PH TO 6.5 OR HIGHER.

NOTE: TOPSOIL SUBSTITUTES TO 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 AMENDMENTS AS SPECIFIED IN 20.0 VEGETATIVE STABILIZATION - BSECTION I - VEGETATIVE STABILIZATION METHODS AND MATERIALS.

- 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, ALBERT 4" - 8" HIGHER IN ELEVATION.

- IV. TOPSOIL SHALL NOT BE PLACED 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.

- V. ALTERNATIVE FOR PERMANENT SEEDING - INSTEAD OF APPLYING THE FULL AMOUNTS OF LIME AND COMMERCIAL FERTILIZER, COMPOSTED SLUDGE AND AMENDMENTS MAY BE APPLIED AS SPECIFIED BELOW:

- I. COMPOSTED SLUDGE MATERIAL FOR USE AS A SOIL CONDITIONER FOR SITES HAVING DISTURBED AREAS OVER 5 ACRES SHALL BE TESTED TO PRESCRIBE AMENDMENTS AND FOR SITE HAVING DISTURBED AREAS UNDER 5 ACRES SHALL CONFORM TO THE FOLLOWING REQUIREMENTS: A. COMPOSTED SLUDGE SHALL BE SUPPLIED BY, OR ORIGINATE FROM, A PERSON OR PERSONS THAT ARE PERMITTED (AT THE TIME OF ACQUISITION OF THE COMPOST) BY THE MARYLAND DEPARTMENT OF THE ENVIRONMENT UNDER COMAR 26.04.06.

REFERENCES: GUIDELINE SPECIFICATIONS, SOIL PREPARATION AND SODDING, MD-VI, PUB. #1, COOPERATIVE EXTENSION SERVICE, UNIVERSITY OF MARYLAND AND VIRGINIA POLYTECHNIC INSTITUTES. REVISED 1973.

SEQUENCE OF CONSTRUCTION

- 1. OBTAIN GRADING PERMIT.
- 2. INSTALL STABILIZED CONSTRUCTION ENTRANCE, SILT FENCE, AND SUPER SILT FENCE. (1 WEEK).
- 3. UPON ACCEPTANCE BY THE COUNTY INSPECTOR CONTRACTOR TO PROCEED WITH ROUGH GRADING AND POND CONSTRUCTION, POND CONSTRUCTION CAN OCCUR AT ANY TIME DURING CONSTRUCTION AS IT IS NOT NEEDED FOR SEDIMENT CONTROL. (4 WEEKS)

- 4. AS SUBGRADE ELEVATIONS ARE ESTABLISHED, INSTALL STORM DRAINS AND INLET PROTECTIONS. (3 WEEKS)

- 5. BEGIN PAVING. (3 WEEKS)

- 6. APPLY TOPSOIL AND STABILIZE DISTURBED AREAS IN ACCORDANCE WITH PERMANENT SEEDING NOTES. (1 WEEK)

- 7. PERFORM FINE GRADING, LANDSCAPING, LIGHTING AND SIDEWALKS. (2 WEEKS)

- 8. UPON PERMISSION OF COUNTY SEDIMENT CONTROL INSPECTOR, REMOVE ALL REMAINING SEDIMENT CONTROL DEVICES.

AS-BUILT CERTIFICATION



BY THE DEVELOPER :

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

Signature of Developer: 6.28.04 DATE

BY THE ENGINEER :

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

Signature of Engineer: 6.29.04 DATE

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SOIL EROSION AND SEDIMENT CONTROL.

Signature of Reviewer: 7/12/04 DATE

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

Signature of District Director: 7/12/04 DATE

APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

Signature of Director: 7/28/04 DATE

Signature of Chief: 7/14/04 DATE

Signature of Chief: 7/14/04 DATE

OWNER / DEVELOPER

NOVIATIE OF FRANCISCAN FATHERS MINOR CONVENTUALS OF MARYLAND, INC. 12290 FOLLY QUARTER ROAD ELLICOTT CITY, MARYLAND 21042

PROJECT FRANCISCAN FRIARS PARKING ADDITION

AREA TAX MAP 22 PARCEL 46 ZONED RC-DEO 3rd ELECTION DISTRICT HOWARD COUNTY, MARYLAND

TITLE SEDIMENT CONTROL NOTES

Patton Harris Rust & Associates, pc Engineers, Surveyors, Planners, Landscape Architects.

8818 Centre Park Drive Columbia, MD 21045 T 410.997.8900 F 410.997.9282

Signature of Designer: 6.29.04 DATE

DESIGNED BY : C.J.R.

DRAWN BY: MAD

PROJECT NO : 11439/2-0/ENGR PLANS/C201ESC

DATE : JUNE 29, 2004

SCALE : AS SHOWN

DRAWING NO. 4 OF 25 SDP-04-64



LEGEND

- Cpv DRAINAGE AREA DIVIDE
- DRAINAGE AREA DESIGNATION
- TIME OF CONCENTRATION PATH
- EXISTING IMPERVIOUS AREA

APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

Stephen Lafferty 7/28/04
 DIRECTOR (ACTIVE) DATE

William R. ... 7/14/04
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

... 7/26/04
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

DATE NO. REVISION

OWNER / DEVELOPER
 NOVITIATE OF FRANCISCAN FATHERS
 MINOR CONVENTUALS OF MARYLAND, INC.
 12290 FOLLY QUARTER ROAD
 ELLICOTT CITY, MARYLAND 21042

PROJECT **FRANCISCAN FRIARS PARKING ADDITION**

AREA TAX MAP 22 PARCEL 46 ZONED RC-DEO
 3rd ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

TITLE **STORMWATER MANAGEMENT EXISTING DRAINAGE AREA MAP**

Patton Harris Rust & Associates, pc
 Engineers, Surveyors, Planners, Landscape Architects.
 8818 Centre Park Drive
 Columbia, MD 21045
 T 410.997.8900
 F 410.997.9282

6-29-04
 DATE

A PROFESSIONAL CERTIFICATION

Christopher J. Reid
 ALICE C. PELINGTON #20023 6-22-05
 DATE

DESIGNED BY : C.J.R.
 DRAWN BY: MAD
 PROJECT NO . 11439/2-0/ENGR
 PLANS/C410XDA
 DATE : JUNE 29, 2004
 SCALE : 1"=40'
 DRAWING NO. 7 OF 35



See Sheets 21-34 for detailed Revisions to this Area.

BID ALTERNATE STABILIZE EX-DRIVEWAY WITH PAVING TO ELIMINATE EROSION.

ULTIMATE LIMIT OF DRAINAGE AREA.

A = 4.23
RCN = 80
%TMP₁₀ = 50.8
ZONED RC-DEO

LEGEND

- DRAINAGE AREA DIVIDE
- ① DRAINAGE AREA DESIGNATION
- TIME OF CONCENTRATION PATH
A B
- ▨ IMPERVIOUS AREA USED FOR THE NON-ROOFTOP DISCONNECTION CREDIT

AS-BUILT CERTIFICATION

Aimee C. Reelington 6-22-05
AIMEE C. REELINGTON # 29923 DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

Stephen Caffery 7/28/04
DIRECTOR (Acting) DATE

Chris Dammann 7/14/04
CHIEF, DEVELOPMENT ENGINEERING DIVISION MK DATE

Chris Rhoades 7/24/04
CHIEF, DIVISION OF LAND DEVELOPMENT WB DATE

7/23/04 REVISION TO ADD NEW PRAYER GARDEN

DATE NO. REVISION

OWNER / DEVELOPER

NOVITIATE OF FRANCISCAN FATHERS
MINOR CONVENTUALS OF MARYLAND, INC.
12290 FOLLY QUARTER ROAD
ELLICOTT CITY, MARYLAND 21042

PROJECT FRANCISCAN FRIARS PARKING ADDITION

AREA TAX MAP 22 PARCEL 46 ZONED RC-DEO
3rd ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE STORMWATER MANAGEMENT PROPOSED DRAINAGE AREA MAP

Patton Harris Rust & Associates, pc
Engineers, Surveyors, Planners, Landscape Architects.
8818 Centre Park Drive
Columbia, MD 21045
T 410.997.8900
F 410.997.9282

PHRA

6-29-04
DATE

DESIGNED BY: C.J.R.

DRAWN BY: MAD

PROJECT NO: 11439/2-0/ENGR PLANS/C410PDA

DATE: JUNE 29, 2004

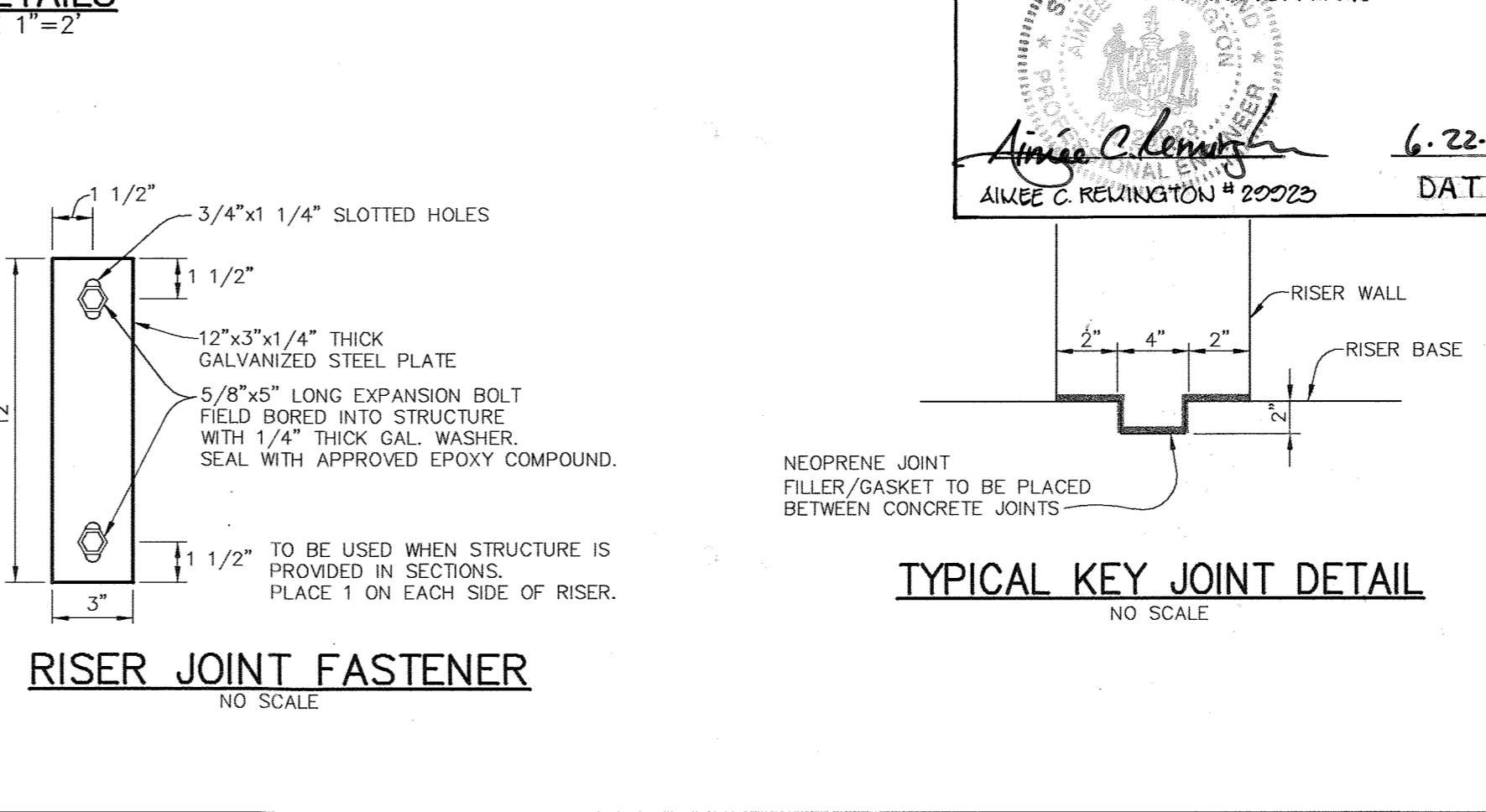
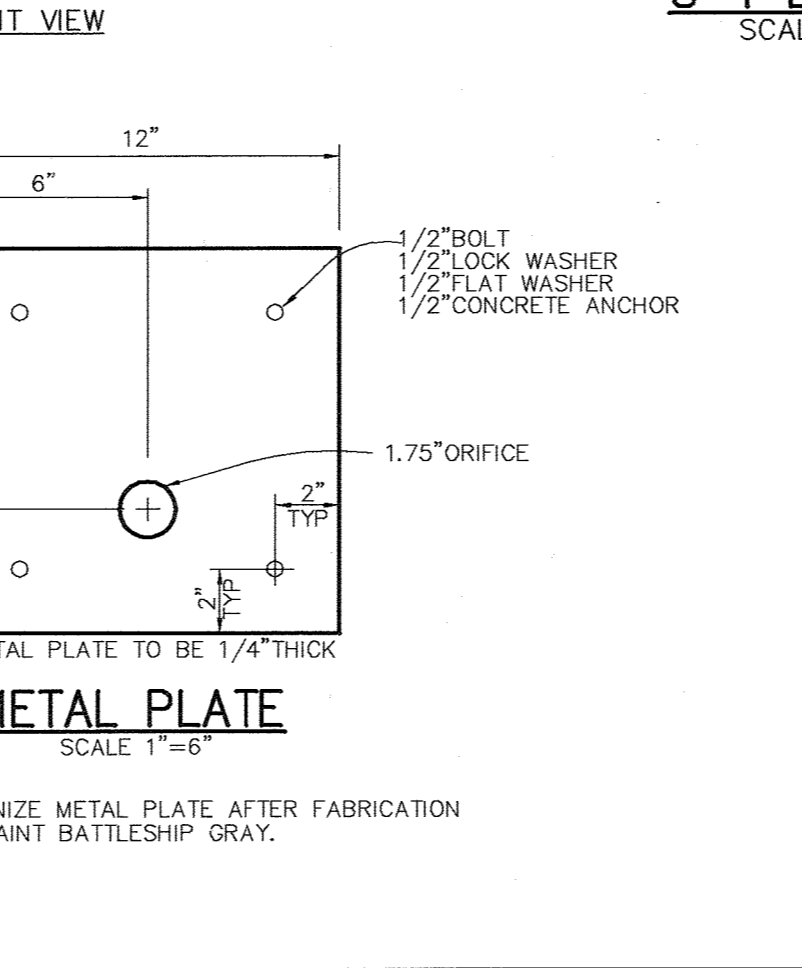
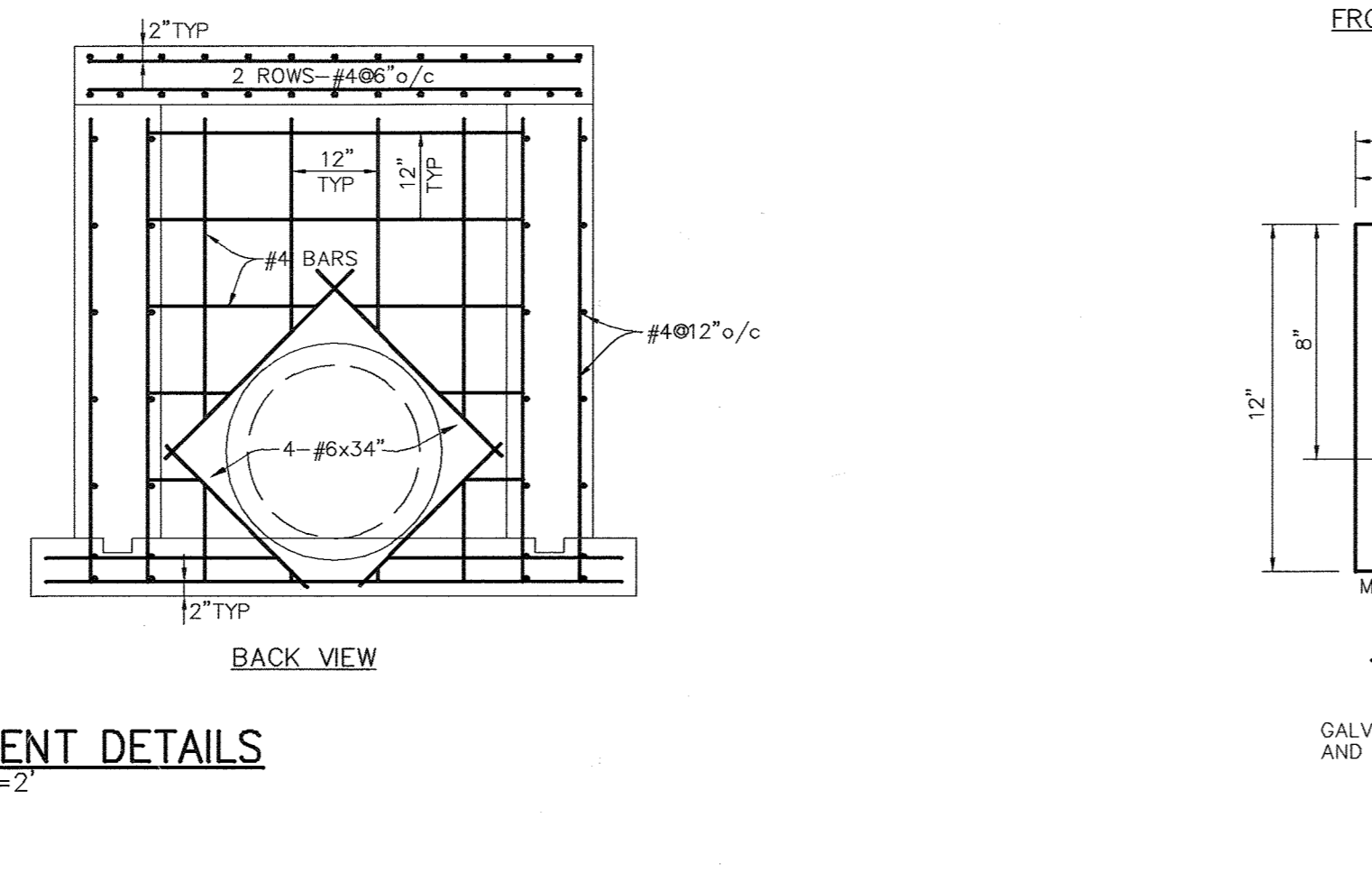
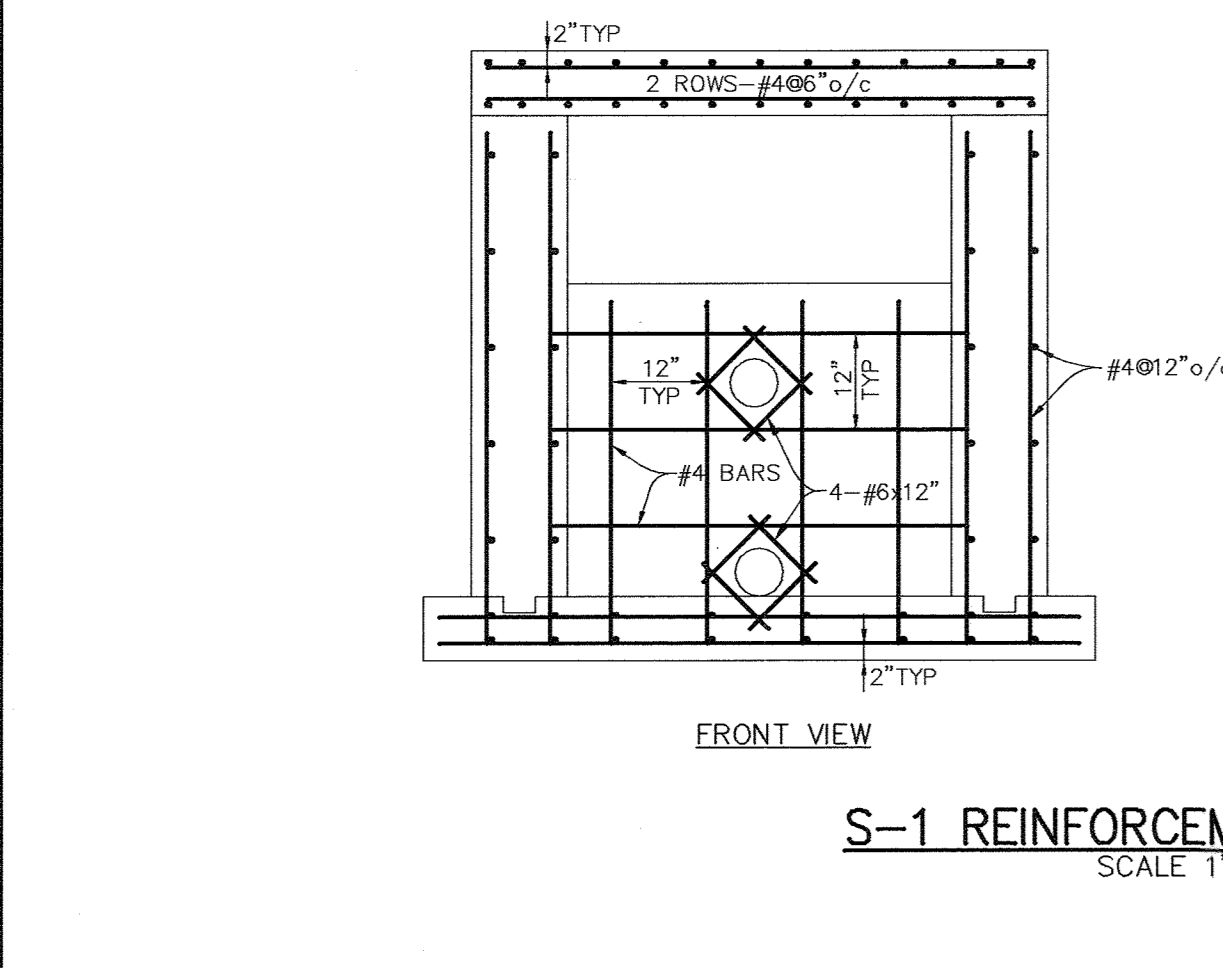
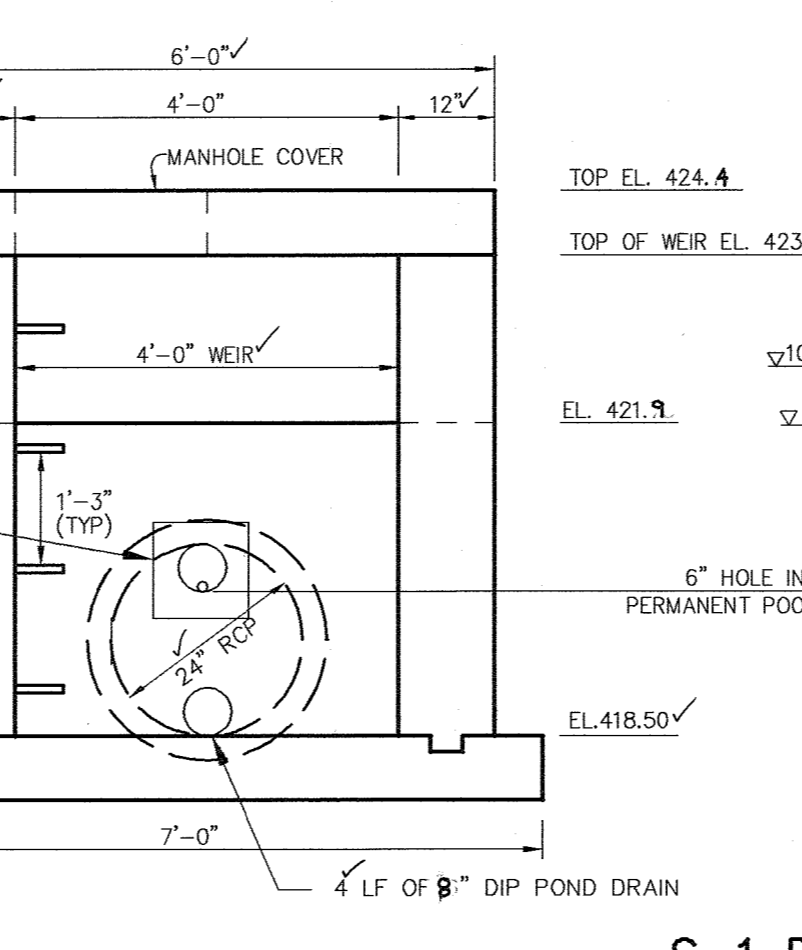
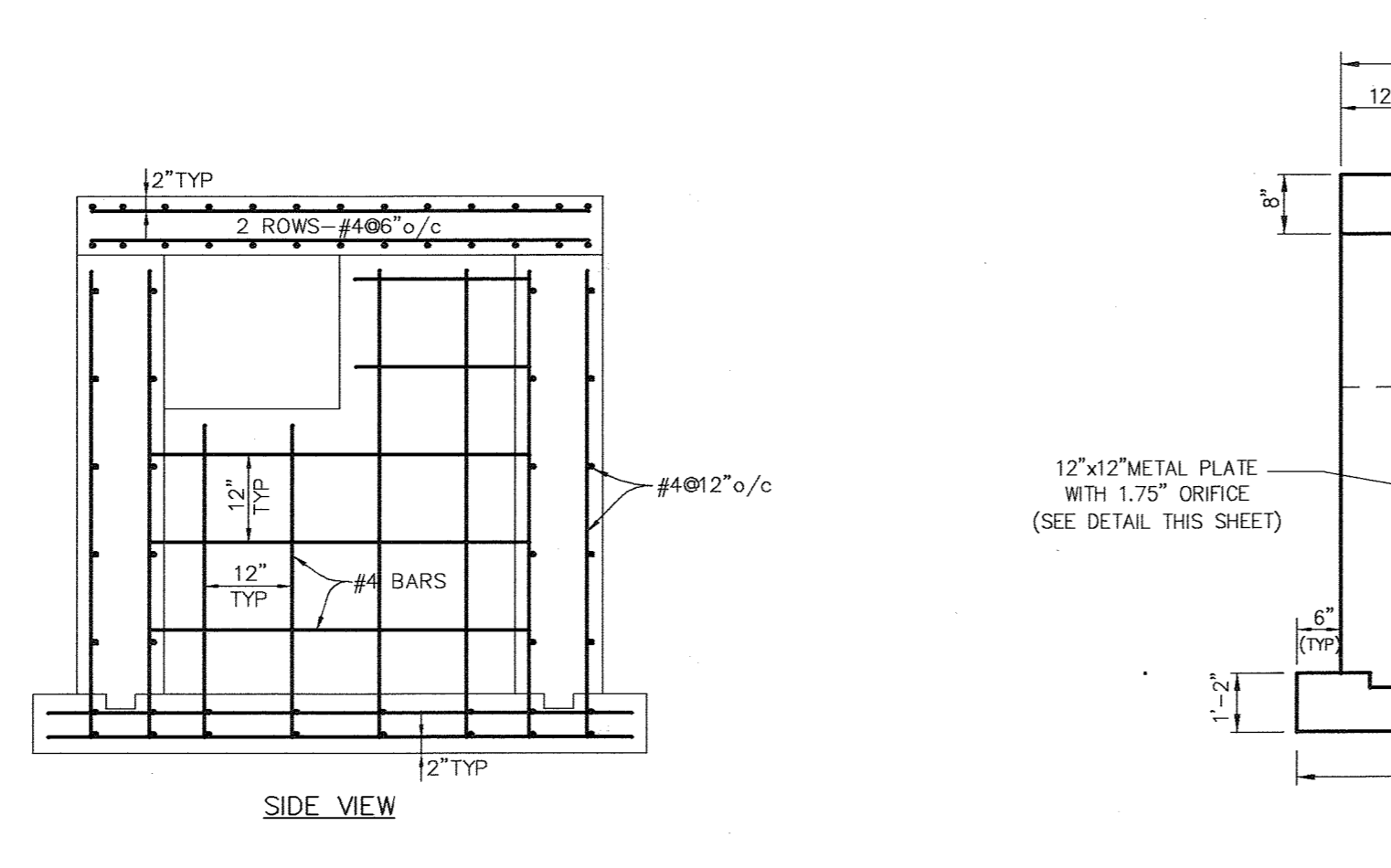
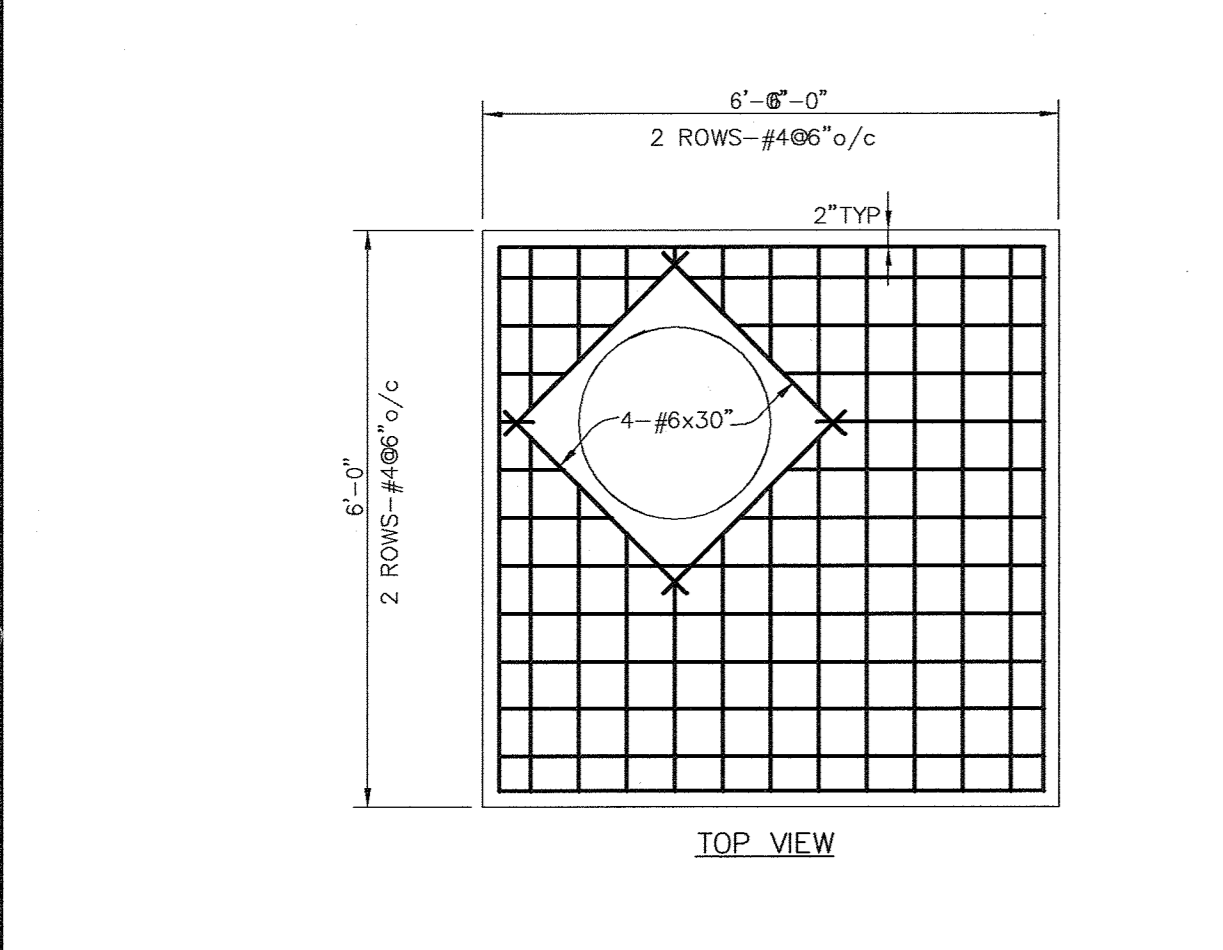
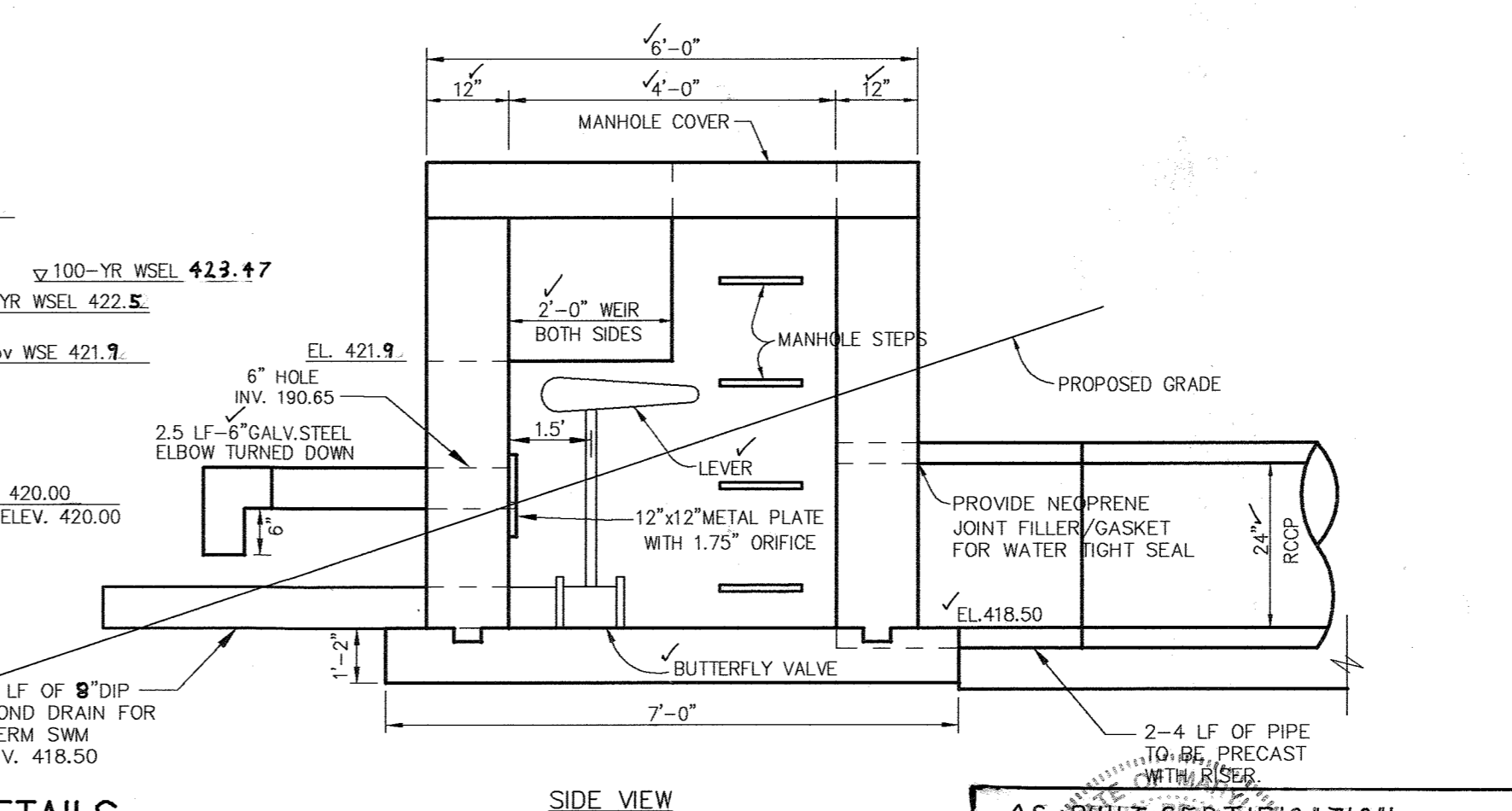
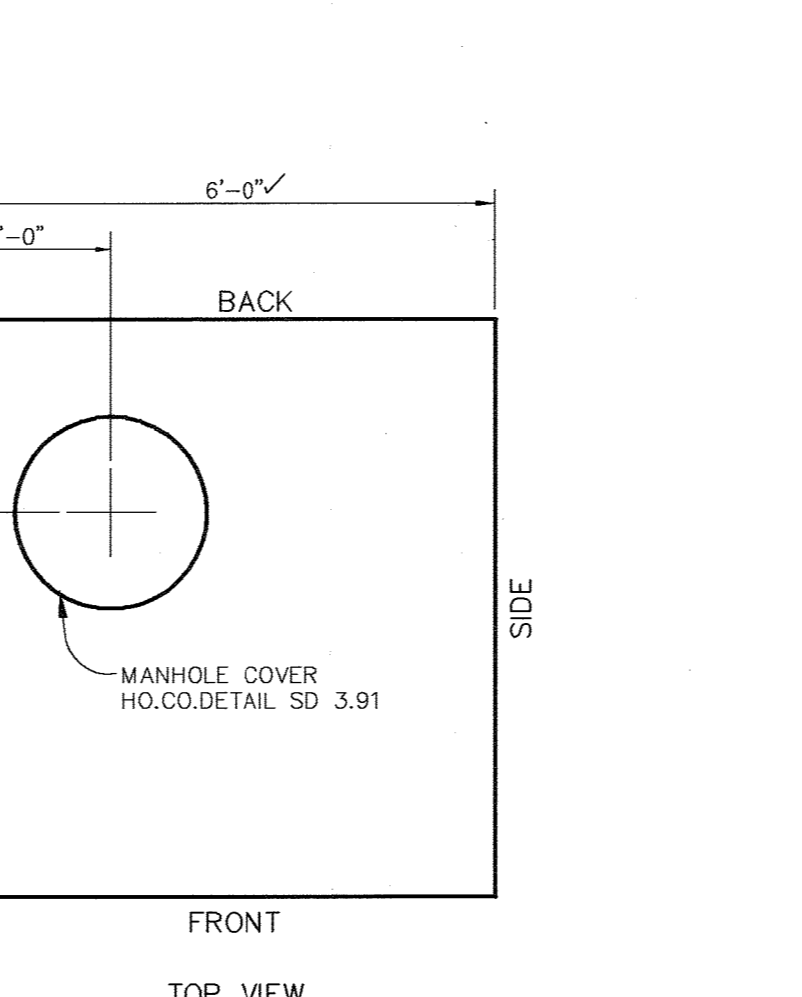
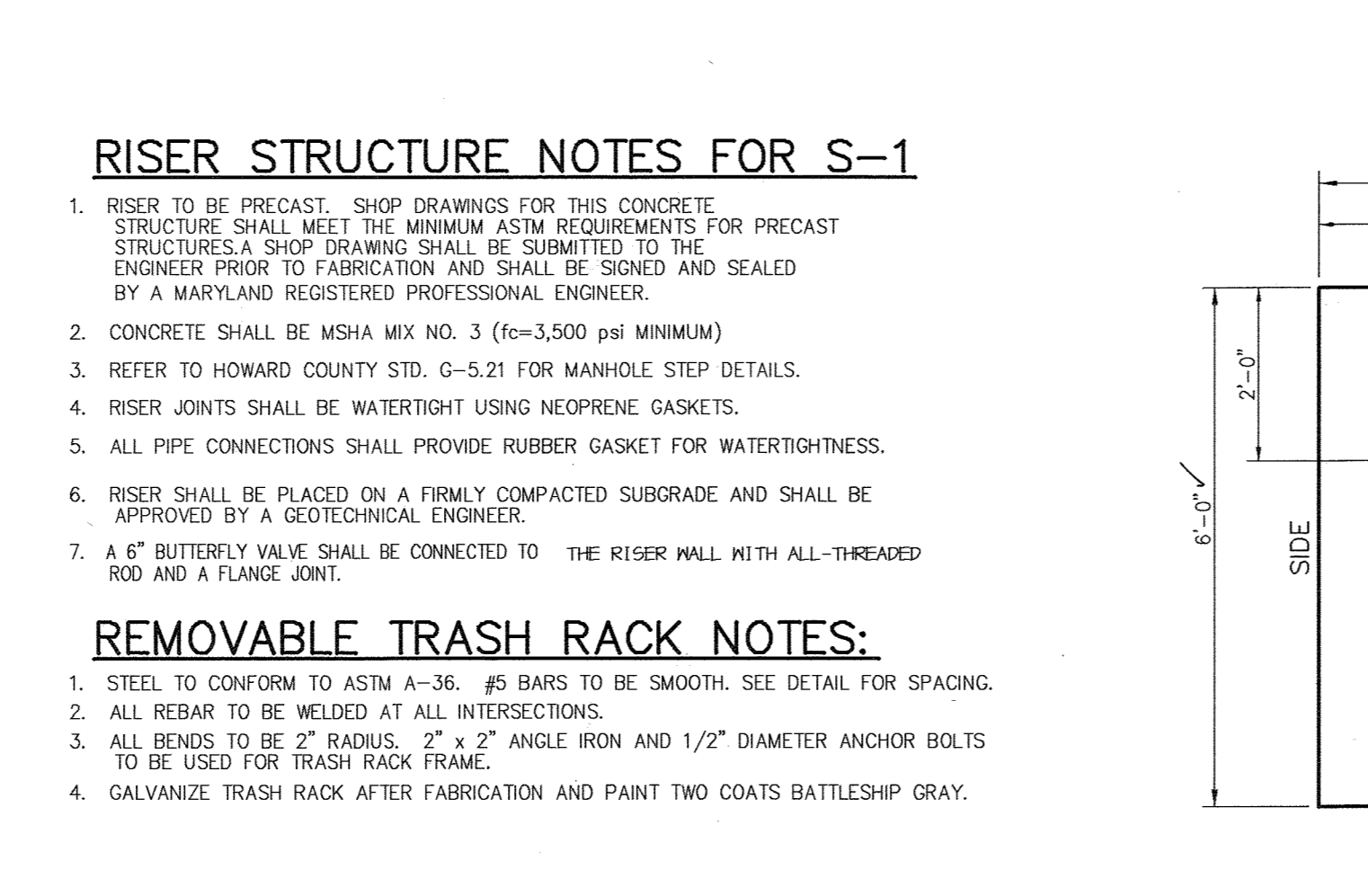
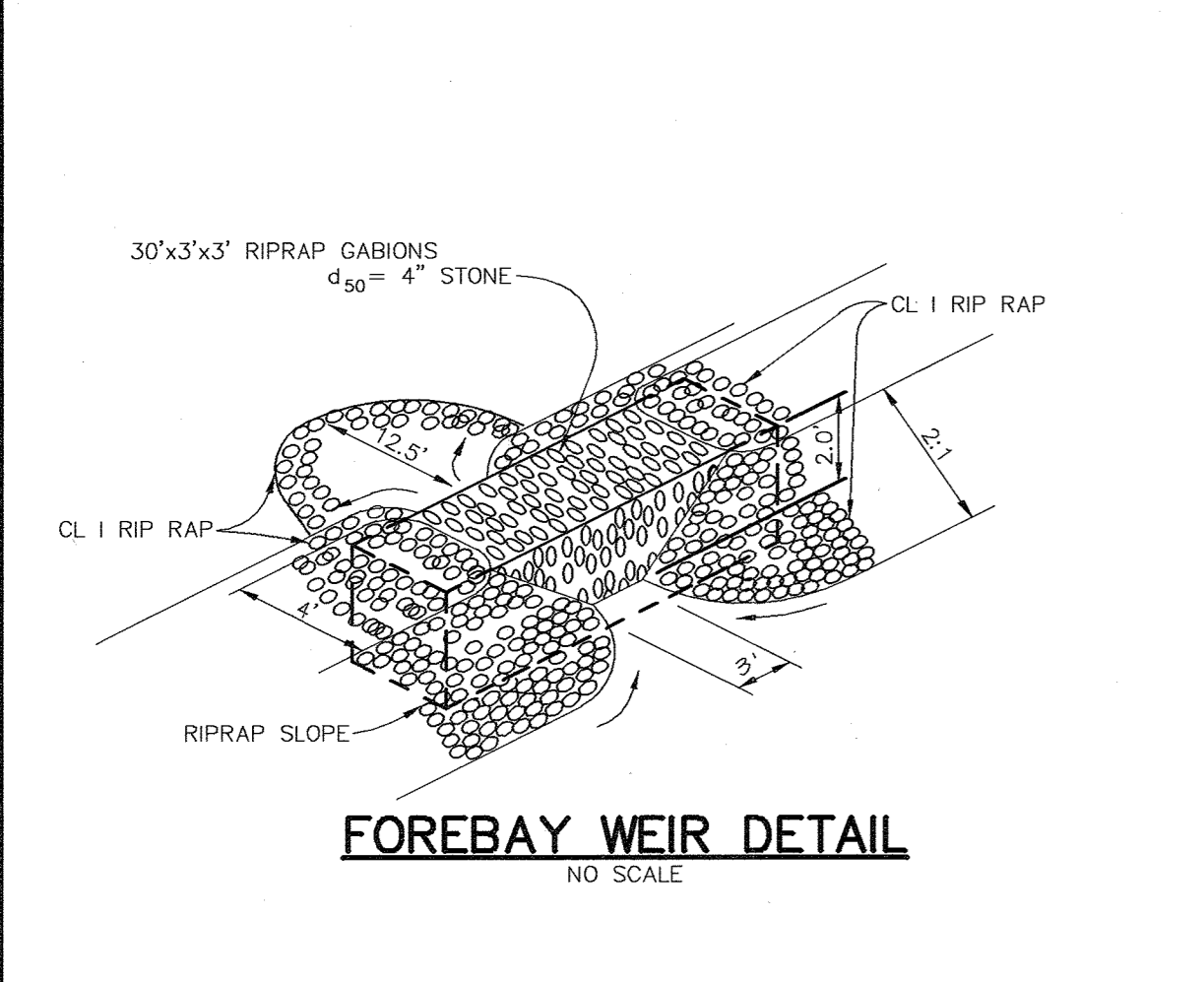
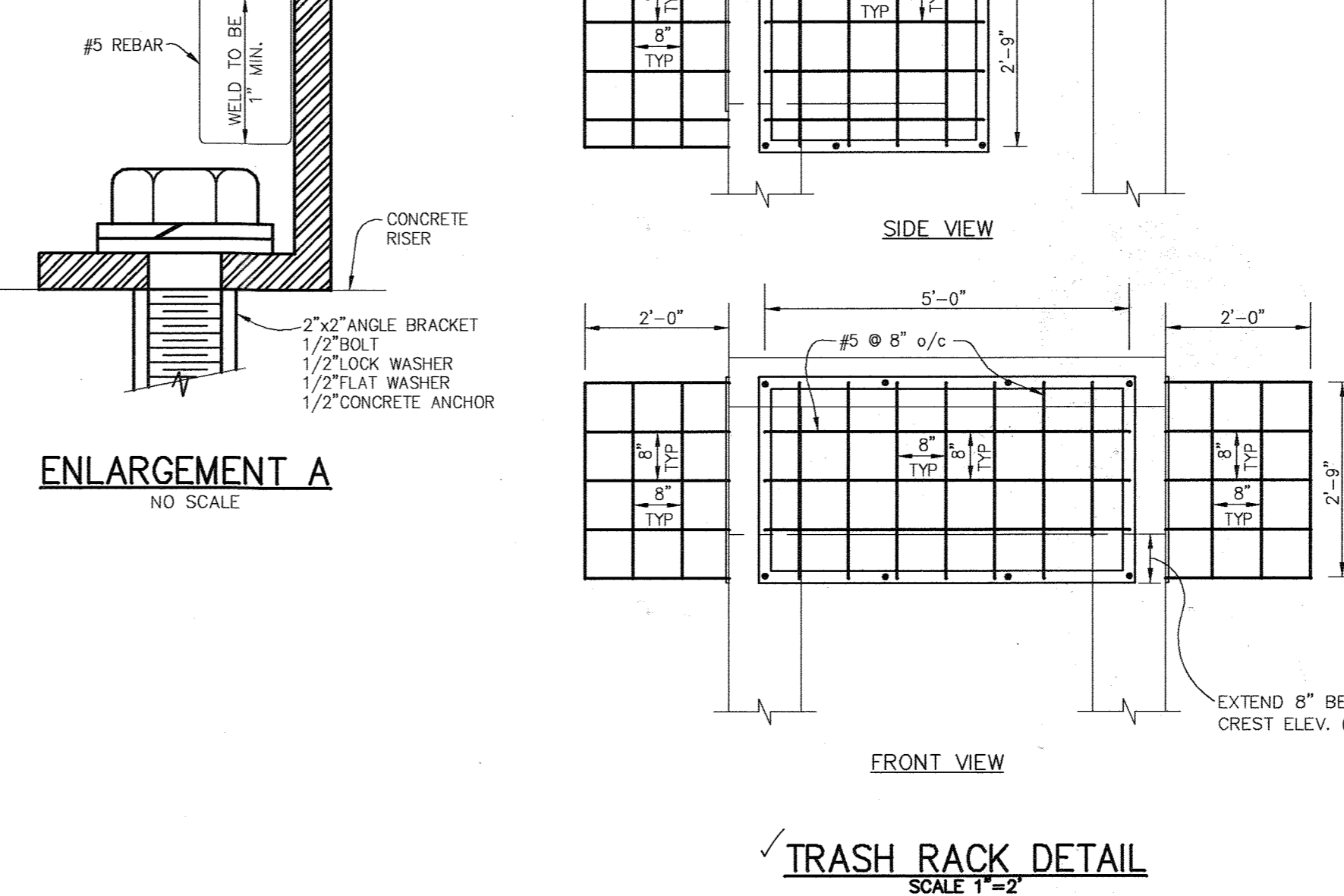
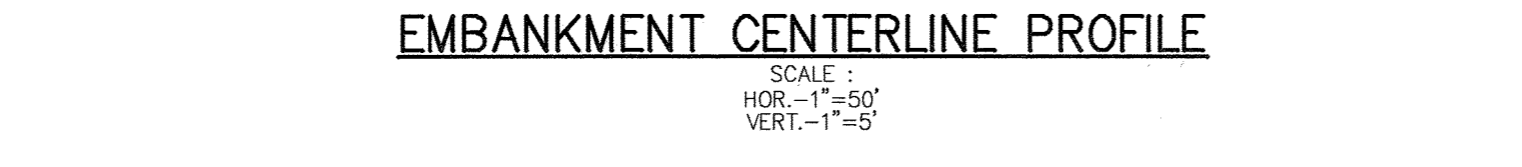
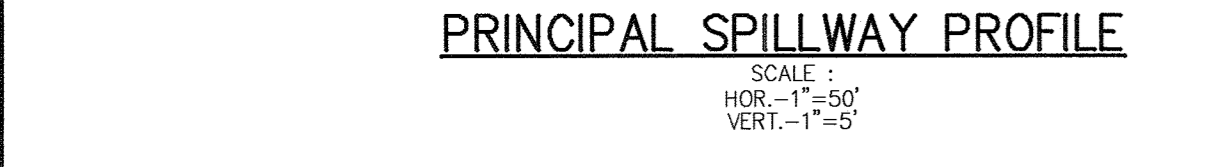
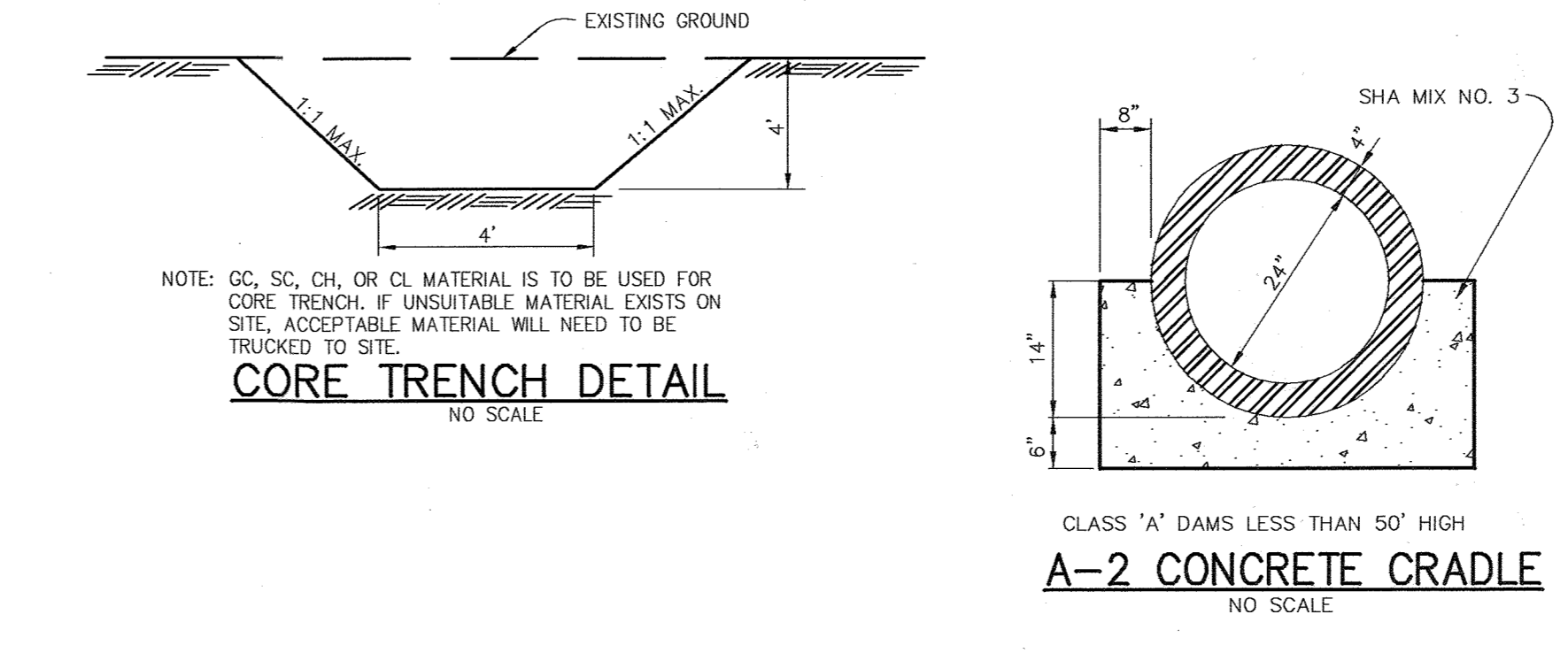
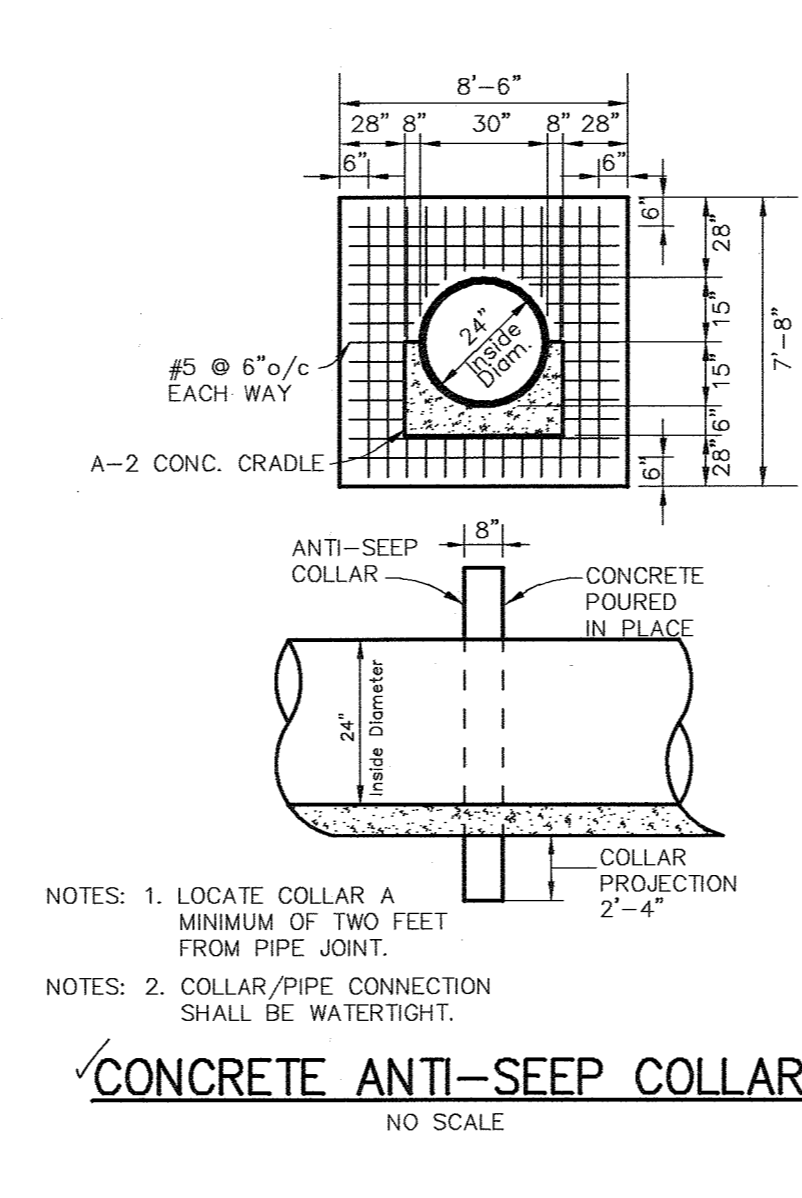
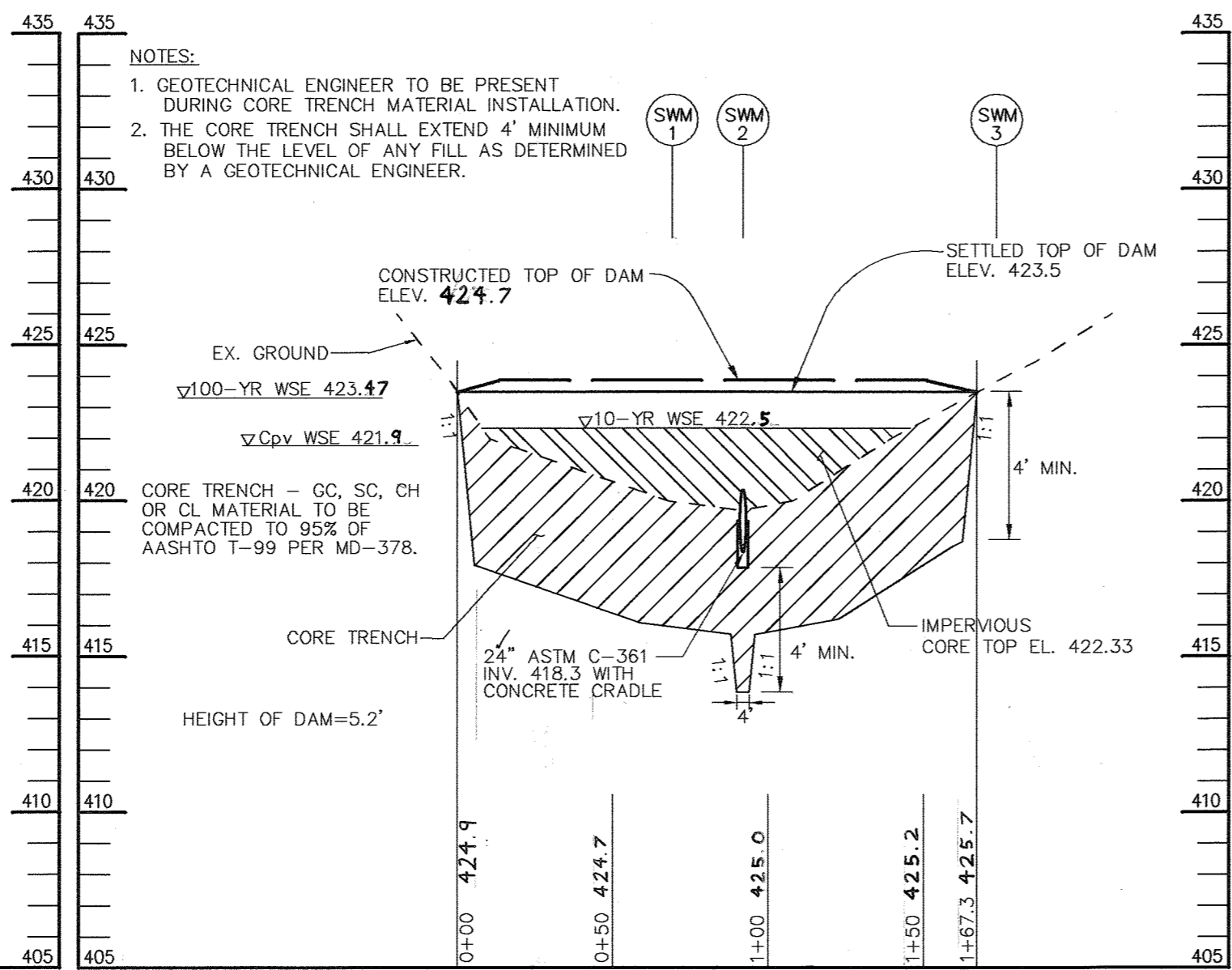
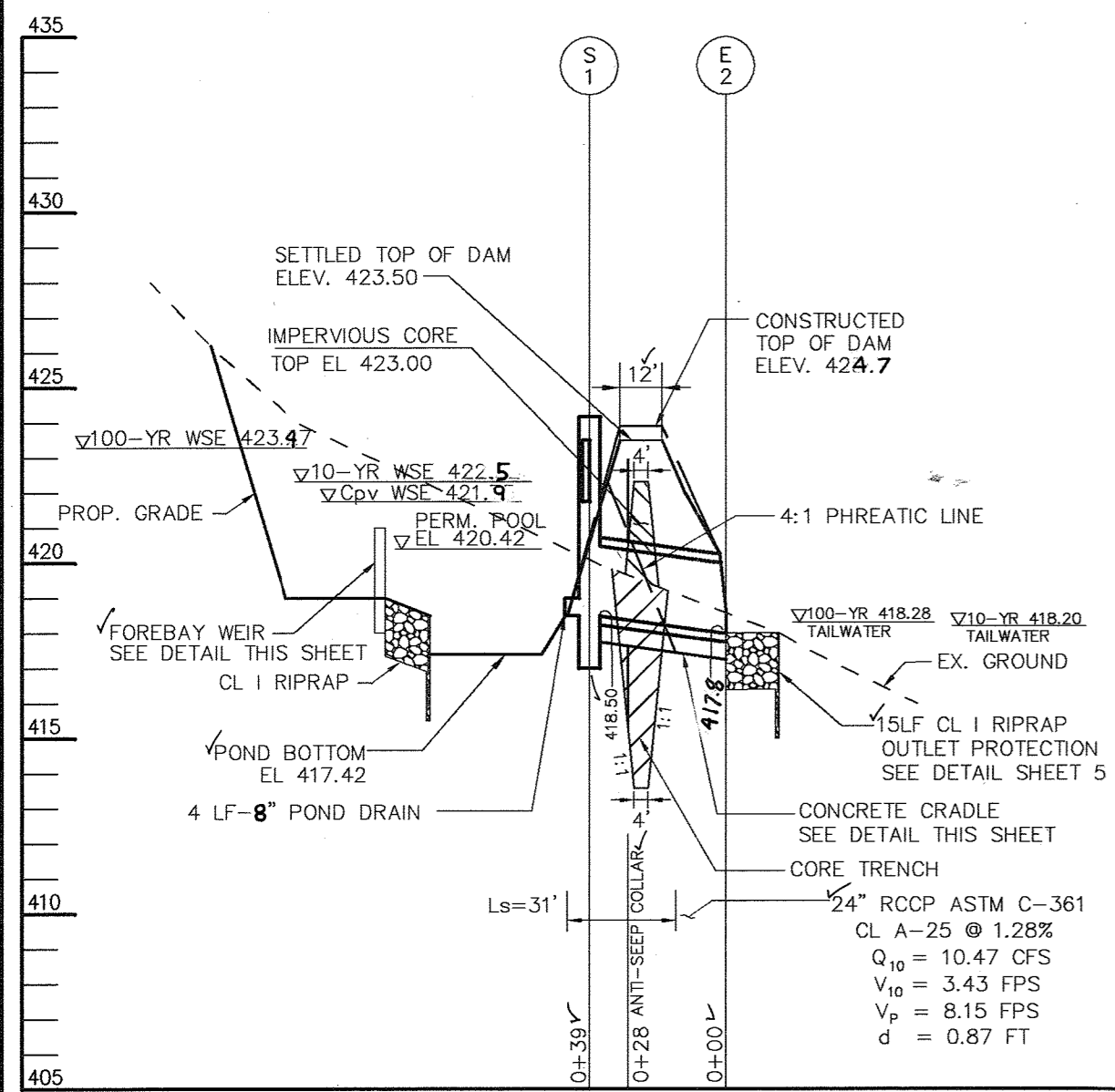
SCALE: 1"=40'

DRAWING NO. 8 OF 35

CHRISTOPHER J. REID #19949

STORMWATER MANAGEMENT SUMMARY TABLE						
DRAINAGE AREA (AC)	WQV (CF)	Rev (CF)	CpV (AC-FT)	Qp 1 (CFS)	Qp 10 (CFS)	Qp 100 (CFS)
DRAINAGE AREA 1	4.23	5766	2026 (0.56 AC)	0.216	4.50	10.77
POCKET POND	4.23	3173	-	0.138	0.11	14.09

THE DISCONNECTION OF NON-ROOFTOP RUNOFF CREDIT HAS BEEN APPLIED TOWARDS Rev ONLY. THE WQV AND THE CPV WILL BE PROVIDED IN A POCKET POND. THE Qp AND Qf VOLUMES ARE NOT REQUIRED FOR THIS SITE.



OPERATION AND MAINTENANCE SCHEDULE OF PRIVATELY OWNED AND MAINTAINED STORMWATER MANAGEMENT FACILITY

POCKET POND

ROUTINE MAINTENANCE

- Facility shall be inspected annually and after major storms. Inspections should be performed during wet weather to determine if the pond is functioning properly.
- 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, the bottom of the pond, and maintenance access should be mowed as needed.
- Debris and litter next to the outlet structure shall be removed during regular mowing operations and as needed.
- Visible signs of erosion in the pond as well as riprap outlet area shall be repaired as soon as it is noticed.

NON-ROUTINE MAINTENANCE

- Structural components of the pond such as the dam, the riser, and the pipes shall be repaired upon the detection of any damage. The components should be inspected during routine maintenance operations.
- Sediment should be removed when its accumulation significantly reduces the design storage, interfere with the function of the riser, when deemed necessary for aesthetic reasons, or when deemed necessary by the Howard County's Department of Public Works.

BY THE DEVELOPER :

1/4" I/CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT.

Developer Signature DATE: 6-28-04

BY THE ENGINEER :

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

Engineer Signature DATE: 6-29-04

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SOIL EROSION AND SEDIMENT CONTROL.

Soil Conservation District Reviewer Signature DATE: 7/12/04

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

Soil Conservation District Director Signature DATE: 7/12/04

APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

Director Signature DATE: 7/28/04

Chief, Development Engineering Division Signature DATE: 7/14/04

Chief, Division of Land Development Signature DATE: 7/26/04

DATE	NO.	REVISION

OWNER / DEVELOPER

NOVIATIE OF FRANCISCAN FATHERS
MINOR CONVENTUALS OF MARYLAND, INC.
12290 FOLLY QUARTER ROAD
ELLCOTT CITY, MARYLAND 21042

PROJECT FRANCISCAN FRIARS PARKING ADDITION

AREA TAX MAP 22 PARCEL 46 ZONED RC-DEO
3rd ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE SWM PROFILES & DETAILS

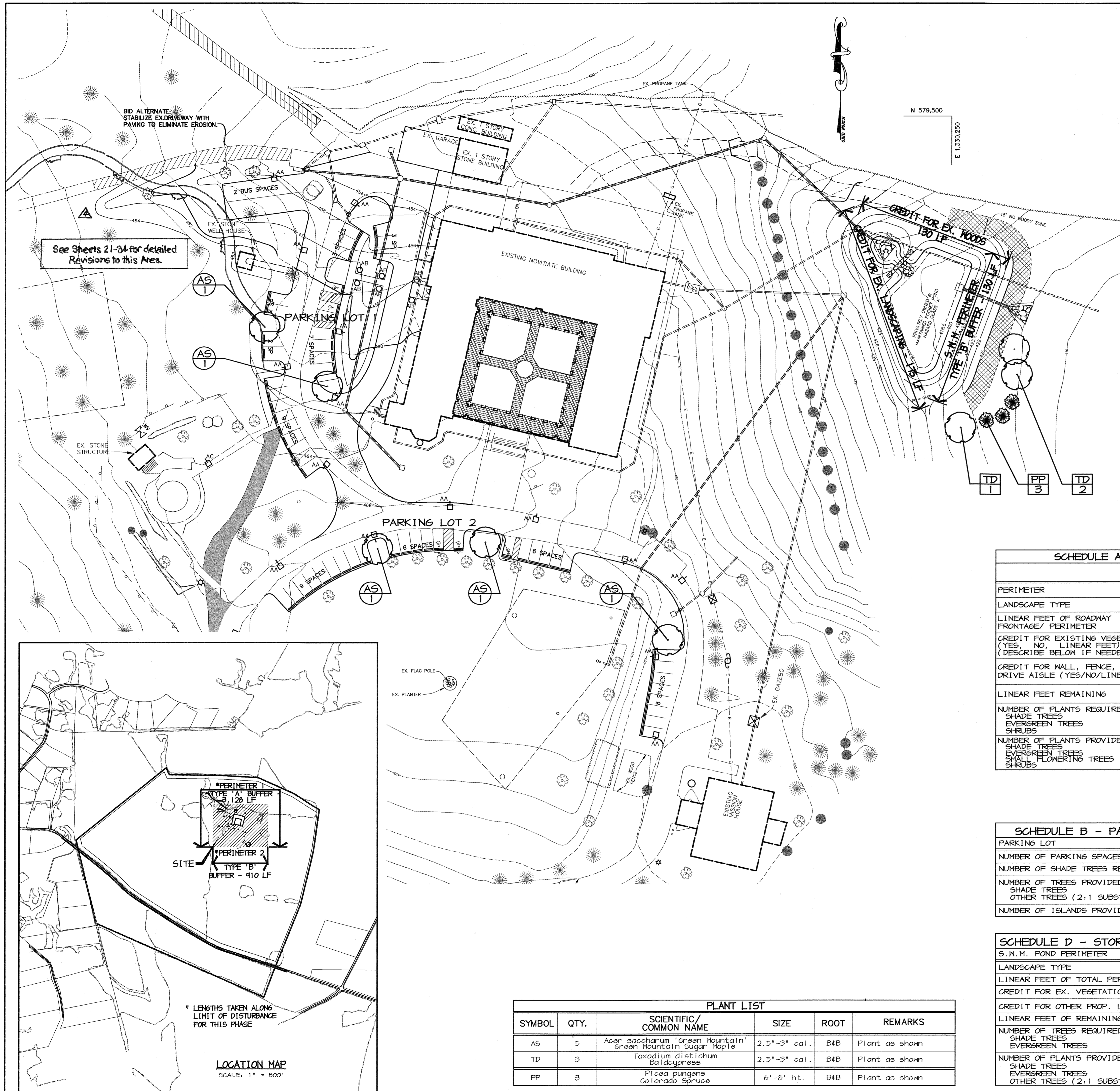
Patton Harris Rust & Associates, p.c.
Engineers, Surveyors, Planners, Landscape Architects.
8818 Centre Park Drive
Columbia, MD 21045
T 410.997.8900
F 410.997.9282

Engineer Signature DATE: 6-29-04

DESIGNED BY : C.J.R.
DRAWN BY : MAD
PROJECT NO : 11439/2-0/ENGR PLANS/C901DET
DATE : JUNE 29, 2004
SCALE : AS SHOWN
DRAWING NO. 9 OF 25

CHRISTOPHER J. REID #19949

SDP-04-64



See Sheets 21-34 for detailed Revisions to this Area.

- PARKING LOT LANDSCAPE REQUIREMENT
- S.M.M. LANDSCAPE REQUIREMENT

PLANTING LEGEND	
PROP. SHADE TREE	
PROP. EVERGREEN TREE	
EX. SHADE TREE	
EX. EVERGREEN TREE	
EX. TREELINE	

- GENERAL NOTES:**
- THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL.
 - FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING MUST BE POSTED AS PART OF THE DEVELOPER'S AGREEMENT IN THE AMOUNT OF \$2,850.
 0 SHADE TREES @ \$300 = \$2,400
 3 EVERGREEN TREES @ \$150 = \$450
 - THIS PLAN IS FOR LANDSCAPING PURPOSES ONLY.
 - CONTRACTOR IS SOLELY RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, PROCEDURES, AND SAFETY PRECAUTIONS AND PROGRAMS.
 - ALL MATERIAL SELECTED SHALL BE EQUAL TO OR BETTER THAN THE REQUIREMENTS OF THE "USA STANDARD FOR NURSERY STOCK", LATEST EDITION, AS PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERMEN.
 - ALL MATERIAL SHALL BE PLANTED IN ACCORDANCE WITH THE MINIMUM STANDARDS CITED IN THE LATEST EDITION OF "LANDSCAPE SPECIFICATION GUIDELINES" PUBLISHED BY THE LANDSCAPE CONTRACTORS ASSOCIATION.
 - NO SUBSTITUTIONS OR RELOCATION OF PLANTS MAY BE MADE WITHOUT PRIOR APPROVAL FROM THE DEPARTMENT OF PLANNING AND ZONING OF HOWARD COUNTY. ANY DEVIATION FROM THIS LANDSCAPE PLAN MAY RESULT IN A REQUIREMENT FOR SUBMITTAL OF AN OFFICIAL "REDLINE REVISION" TO THE SITE DEVELOPMENT PLAN(S) AND/OR DENIAL IN THE RELEASE OF LANDSCAPE SURETY.



AS-BUILT CERTIFICATION
 ALICE C. WELINGTON 6/22/05
 DATE

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 CERTIFICATION OF LANDSCAPE INSTALLATION, ACCOMPANIED BY AN EXECUTED ONE YEAR GUARANTEE OF PLANT MATERIALS, WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.

SCHEDULE A - PERIMETER LANDSCAPE EDGE*		
	ADJACENT TO PERIMETER PROPERTIES	ADJACENT TO ROADWAYS
PERIMETER	1	2
LANDSCAPE TYPE	A	B
LINEAR FEET OF ROADWAY FRONTAGE/ PERIMETER	3,128' ±	910' ±
CREDIT FOR EXISTING VEGETATION (YES, NO, LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	YES 3,128' ±	YES 910' ±
CREDIT FOR WALL, FENCE, BERM OR DRIVE AISLE (YES/NO/LINEAR FEET)	NO	NO
LINEAR FEET REMAINING	0'	0'
NUMBER OF PLANTS REQUIRED		
SHADE TREES	-	-
EVERGREEN TREES	-	-
SHRUBS	-	-
NUMBER OF PLANTS PROVIDED		
SHADE TREES	-	-
EVERGREEN TREES	-	-
SMALL FLOWERING TREES	-	-
SHRUBS	-	-

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.
 SIGNATURE: *[Signature]* DATE: 6.22.04
 DIRECTOR (Acting): *[Signature]* DATE: 7/23/04
 CHIEF, DEVELOPMENT ENGINEERING DIVISION: *[Signature]* DATE: 7/14/04
 CHIEF, DIVISION OF LAND DEVELOPMENT: *[Signature]* DATE: 7/14/04

7/23/04 REVISION TO ADD NEW PRAYER GARDEN
 OWNER / DEVELOPER: NOVITATE OF FRANCISCAN FATHERS MINOR CONVENTUALS OF MARYLAND, INC. 12290 FOLLY QUARTER ROAD ELLICOTT CITY, MARYLAND 21042

PROJECT: FRANCISCAN FRIARS PARKING ADDITION
 AREA: TAX MAP 22 PARCEL 46 ZONED RC-DEO 3rd ELECTION DISTRICT HOWARD COUNTY, MARYLAND

TITLE: LANDSCAPE PLAN

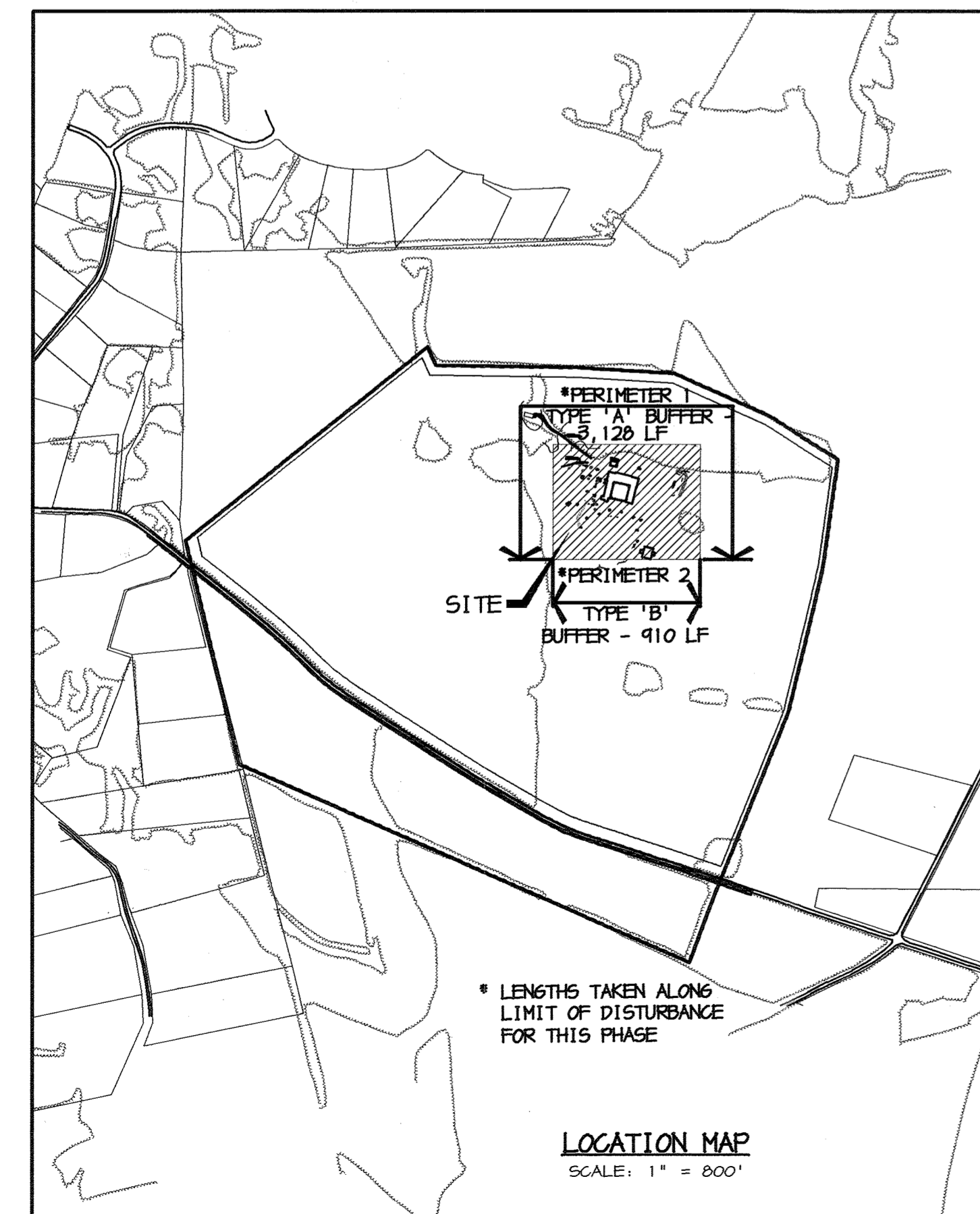
Patton Harris Rust & Associates, pc
 Engineers, Surveyors, Planners, Landscape Architects.
 8818 Centre Park Drive Columbia, MD 21045
 T 410.997.8900 F 410.997.9282

DESIGNED BY: G.T.H.
 DRAWN BY: G.T.H.
 PROJECT NO.: 11439/2-0/ENGR PLANS/L200LND
 DATE: JUNE 29, 2004
 SCALE: 1"=40'
 DRAWING NO. 10 OF 25

PLANT LIST					
SYMBOL	QTY.	SCIENTIFIC/COMMON NAME	SIZE	ROOT	REMARKS
AS	5	Acer saccharum 'Green Mountain'	2.5"-3" cal.	B4B	Plant as shown
TD	3	Taxodium distichum Baldcypress	2.5"-3" cal.	B4B	Plant as shown
PP	3	Picea pungens Colorado Spruce	6'-8' ht.	B4B	Plant as shown

SCHEDULE B - PARKING LOT INTERNAL LANDSCAPING		
PARKING LOT	1	2
NUMBER OF PARKING SPACES	27	24
NUMBER OF SHADE TREES REQUIRED (1/20 SPACES)	2	2
NUMBER OF TREES PROVIDED		
SHADE TREES	2	3
OTHER TREES (2:1 SUBSTITUTION)	-	-
NUMBER OF ISLANDS PROVIDED	2	2

SCHEDULE D - STORMWATER MANAGEMENT AREA LANDSCAPING	
S.M.M. POND PERIMETER	1
LANDSCAPE TYPE	B
LINEAR FEET OF TOTAL PERIMETER	±435'
CREDIT FOR EX. VEGETATION (NO OR YES & %)	YES, 130'
CREDIT FOR OTHER PROP. LANDSCAPING (NO OR YES & %)	YES, 175'
LINEAR FEET OF REMAINING PERIMETER	130'
NUMBER OF TREES REQUIRED:	
SHADE TREES	3
EVERGREEN TREES	3
NUMBER OF PLANTS PROVIDED	
SHADE TREES	3
EVERGREEN TREES	3
OTHER TREES (2:1 SUBSTITUTION, 50% MAX.)	1



* LENGTHS TAKEN ALONG LIMIT OF DISTURBANCE FOR THIS PHASE

LOCATION MAP
 SCALE: 1" = 800'

PLANTING SPECIFICATIONS

- Plants, related material, and operations shall meet the detailed description, as given on the plans and as described herein. Where discrepancies exist between Standards & Guidelines referenced within these specifications and the Howard County Landscape Manual, the latter takes precedence.
- All plant material, unless otherwise specified, that is not nursery grown, uniformly branched, does not have a vigorous root system, and does not conform to the most recent edition of the American Association of Nurserymen (AAN) Standards will be rejected. Plant material that is not healthy, vigorous, free from defects, decay, disfiguring roots, sunscald injuries, abrasions of the bark, plant disease, insect pest eggs, borers and all forms of insect infestations or objectionable disfigurements will be rejected. Plant material that is weak or which has been cut back from larger grades to meet specified requirements will be rejected. Trees with forked leaders will be rejected. All B & B plants shall be freshly dug; no healed-in plants or plants from cold storage will be accepted.
- Unless otherwise specified, all general conditions, planting operations, details and planting specifications shall conform to the most recent edition of the "Landscape Specification Guidelines by the Landscape Contractors Association of MD, DC, & VA", (hereinafter "Landscape Guidelines") approved by the Landscape Contractors Association of Metropolitan Washington and the Potomac Chapter of the American Society of Landscape Architects.
- Contractor shall guarantee all plant material for a period of one year after date of acceptance in accordance with the appropriate section on the Landscape Guidelines. Contractor's attention is directed to the maintenance requirements found within the one year specifications including watering and replacement of specified plant material.
- Contractor shall be responsible for notifying all relevant and appropriate utility companies, utility contractors, and "Miss Utility" a minimum of 48 hours prior to the beginning of any work. Contractor may make minor adjustments in spacing and location of plant material to avoid conflicts with utilities. Major changes will require the approval of the landscape architect. Damage to existing structure and utilities shall be repaired at the expense of the Contractor.
- Protection of existing vegetation to remain shall be accomplished via the temporary installation of 4 foot high snow fence at the drip line, see detail.
- Contractor is responsible for installing all material in the proper planting season for each plant type. All planting is to be completed within growing season of completion of site construction. Do not plant Pinus strobus or Xpresscuparis leylandii between November 15 and March 15. Landscape plants are not to be installed before site is graded to final grade.
- Contractor to regrade, fine grade, sod, hydroseed and straw mulch all areas disturbed by their work.
- Bid shall be based on actual site conditions. No extra payment shall be made for work arising from actual site conditions differing from those indicated on drawings and specifications.
- Plant quantities are provided for the convenience of the contractor only. If discrepancies exist between quantities shown on plan and those shown on the plant list, the quantities on the plan take precedence. Where discrepancies on the plan exist between the symbols and the callout leader, the number of symbols take precedence.
- All shrubs and groundcover areas shall be planted in continuous planting beds, prepared as specified, unless otherwise indicated on plans. (See Specification 13). Beds to be mulched with minimum 2' and maximum 3' of composted, double-shredded hardwood mulch throughout.
- Positive drainage shall be maintained on planting beds (minimum 2 percent slope).
- Bed preparation shall be as follows: Till into a minimum depth of 6" 1 yard of Compro or Leafgro per 200 SF of planting bed, and 1 yard of topsoil per 100 SF of bed. Add 3 lbs of standard 5-10-5 fertilizer per cubic yard of planting mix and till. Ericaceous plants (Azaleas, Rhododendrons, etc.): top dress after planting with Iron sulfate or comparable product according to package directions. Taxus baccata 'Repandens' (English weeping yews): Top dress after planting with 1/4 to 1/2 cup lime each.
- Planting mix: For trees not in a prepared bed, mix 50% Compro or Leafgro with 50% soil from tree hole to use as backfill, see tree planting detail.
- Weed & insect control: Incorporate a pre-emergent herbicide into the planting bed following recommended rates on the label. For tree planting, apply a pre-emergent on top of soil and root ball before mulching. Caution: For areas to be planted with a ground cover, be sure to carefully check the chemical used to assure its adaptability to the specific groundcover to be treated. Maintain the mulch weed-free for the extent of the warranty period. Under no circumstances is a pesticide containing chlorpyrifos to be used as a means of pest control.
- Water: All plant material planted shall be watered thoroughly the day of planting. All plant material not yet planted shall be properly protected from drying out until planted. At a minimum, water unplanted plant material daily and as necessary to avoid desiccation.
- Pruning: Do not heavily prune trees and shrubs at planting. Prune only broken, dead, or diseased branches.
- All areas within contract limits disturbed during or prior to construction not designated to receive plants and mulch shall be fine graded, grass seed planted, and covered with straw mulch.

NOTES:

- DO NOT HEAVILY PRUNE THE TREE AT PLANTING. PRUNE ONLY CROSSOVER LIMBS, CO-DOMINANT LEADERS, AND BROKEN OR DEAD BRANCHES. SOME INTERIOR TWIGS AND LATERAL BRANCHES MAY BE PRUNED; HOWEVER, DO NOT REMOVE THE TERMINAL BUDS OF BRANCHES THAT EXTEND TO THE EDGE OF THE CROWN.

- STAKE TREES ONLY IF RECOMMENDED ON THE PLANT SCHEDULE OR UPON THE APPROVAL OF THE LANDSCAPE ARCHITECT. STAKING DETAIL SHOWN ONLY IF RECOMMENDED.

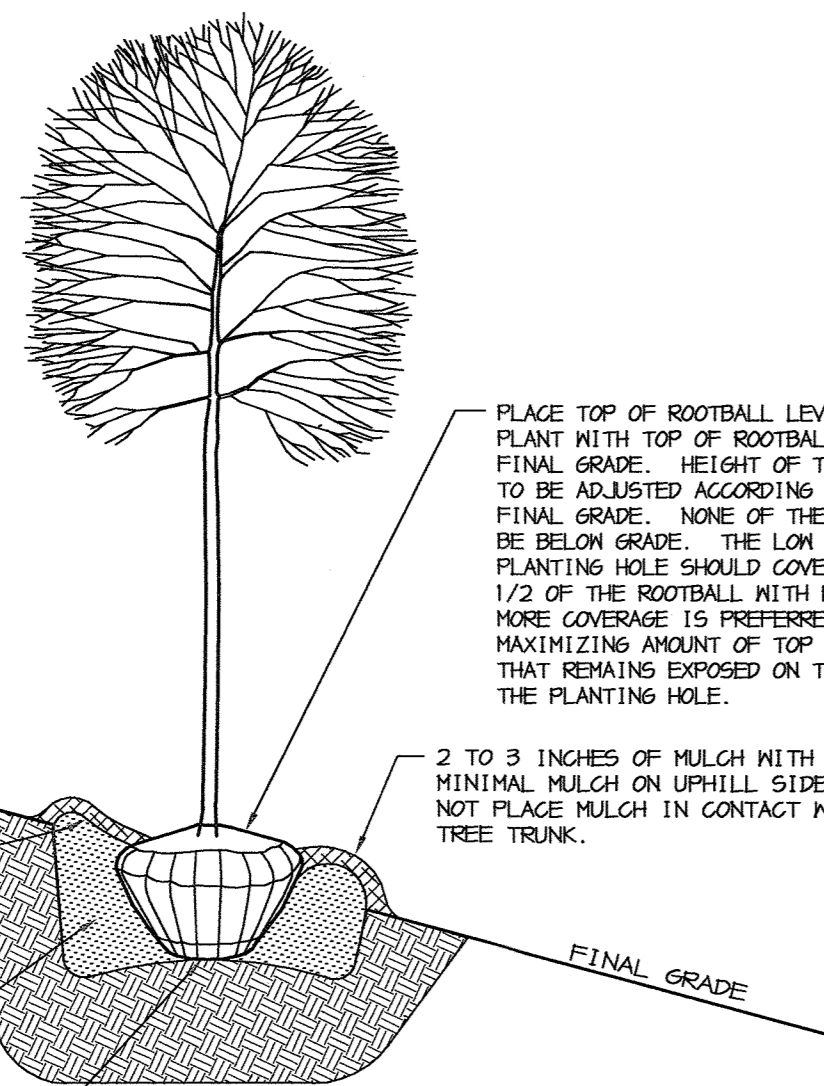
B&B TREES: DIG PLANTING PIT TWICE AS WIDE AS THE DIAMETER OF THE TOP OF THE ROOT BALL WITH A MINIMUM PLANTING PIT DIAMETER OF 5'.

CONTAINERIZED TREES: DIG PLANTING PIT TWO AND A HALF TIMES AS WIDE AS THE DIAMETER OF THE CONTAINER WITH A MINIMUM PLANTING PIT DIAMETER OF 30". REMOVE CONTAINER JUST BEFORE PLANTING. INSPECT HEALTH OF ROOTS. REJECT MATERIAL WITH UNHEALTHY OR INSUFFICIENT ROOTS. REMOVE ALL TWINE, ROPE, WIRE, AND BURLAP FROM TOP OF ROOT BALL. DO NOT REMOVE WIRE BASKET. BEND TOP OF WIRE BASKET DOWN INTO PLANTING PIT.

CONSTRUCT 3" SAUCER ALL AROUND PLANTING HOLE. FLOOD WITH WATER TWICE WITHIN 24 HOURS.

BACKFILL WITH PLANTING MIX (SEE PLANTING SPECIFICATIONS). TAMP SOIL AROUND ROOT BALL BASE FIRMLY WITH FOOT PRESSURE SO THAT ROOT BALL DOES NOT SHIFT.

PLACE ROOT BALL ON UNEXCAVATED OR COMPACTED SOIL.



DECIDUOUS B&B AND CONTAINERIZED TREE PLANTING DETAIL FOR STEEP SLOPES
NOT TO SCALE

NOTES:

- DO NOT HEAVILY PRUNE THE TREE AT PLANTING. PRUNE ONLY CROSSOVER LIMBS, CO-DOMINANT LEADERS, AND BROKEN OR DEAD BRANCHES. SOME INTERIOR TWIGS AND LATERAL BRANCHES MAY BE PRUNED; HOWEVER, DO NOT REMOVE THE TERMINAL BUDS OF BRANCHES THAT EXTEND TO THE EDGE OF THE CROWN.

- STAKE TREES ONLY IF RECOMMENDED ON THE PLANT SCHEDULE OR UPON THE APPROVAL OF THE LANDSCAPE ARCHITECT. STAKING DETAIL SHOWN ONLY IF RECOMMENDED.

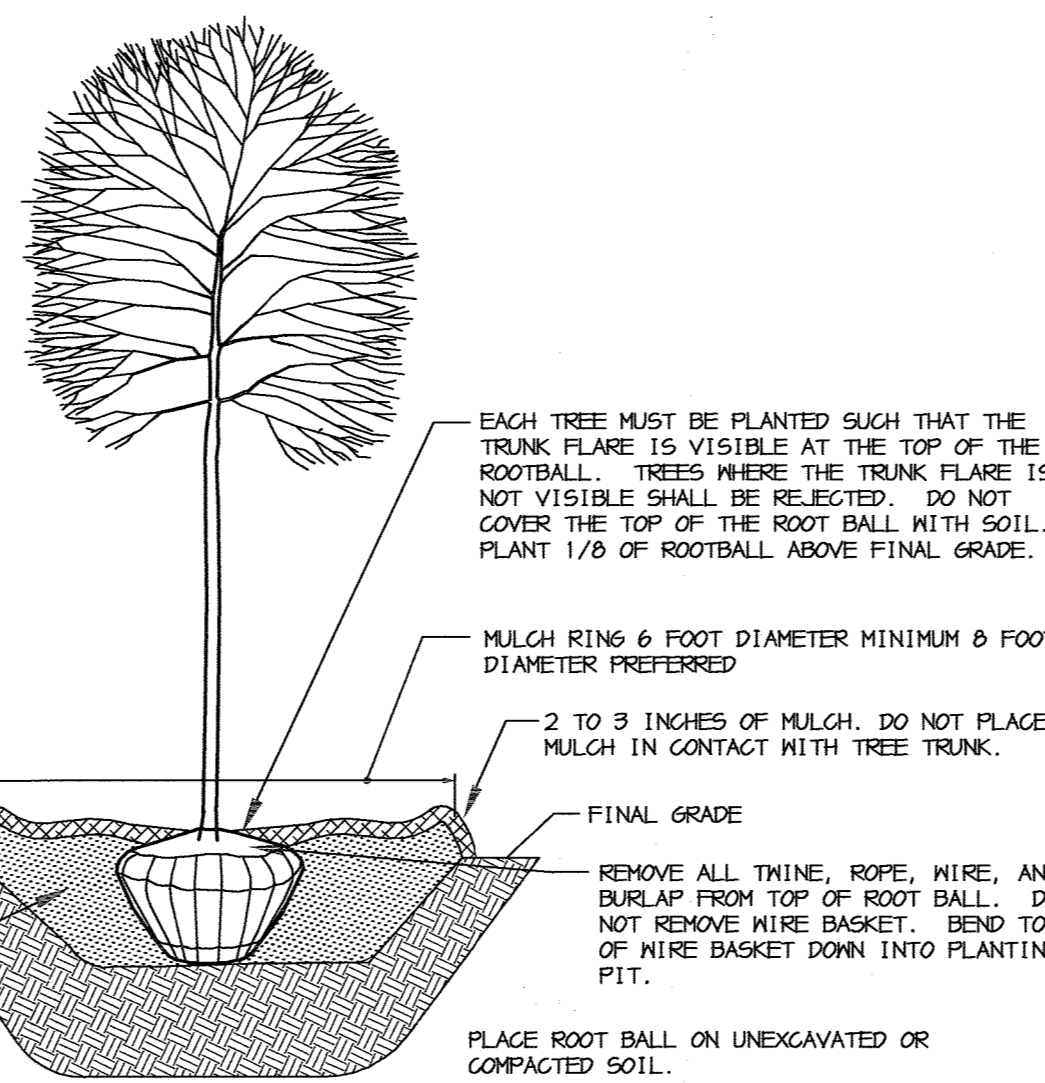
B&B TREES: DIG PLANTING PIT TWICE AS WIDE AS THE DIAMETER OF THE TOP OF THE ROOT BALL WITH A MINIMUM PLANTING PIT DIAMETER OF 5'.

CONTAINERIZED TREES: DIG PLANTING PIT TWO AND A HALF TIMES AS WIDE AS THE DIAMETER OF THE CONTAINER WITH A MINIMUM PLANTING PIT DIAMETER OF 30". REMOVE CONTAINER JUST BEFORE PLANTING. INSPECT HEALTH OF ROOTS. REJECT MATERIAL WITH UNHEALTHY OR INSUFFICIENT ROOTS. REMOVE ALL TWINE, ROPE, WIRE, AND BURLAP FROM TOP OF ROOT BALL. DO NOT REMOVE WIRE BASKET. BEND TOP OF WIRE BASKET DOWN INTO PLANTING PIT.

CONSTRUCT 3" SAUCER ALL AROUND PLANTING HOLE. FLOOD WITH WATER TWICE WITHIN 24 HOURS.

BACKFILL WITH PLANTING MIX (SEE PLANTING SPECIFICATIONS). TAMP SOIL AROUND ROOT BALL BASE FIRMLY WITH FOOT PRESSURE SO THAT ROOT BALL DOES NOT SHIFT.

DECIDUOUS B&B TREE PLANTING DETAIL
NOT TO SCALE



NOTES:

- SELECT ONLY NURSERY STOCK WITH A SINGLE LEADER UNLESS OTHERWISE SPECIFIED ON PLAN. PLANTS WITH CO-DOMINANT, MISSING, OR DAMAGED LEADERS SHALL BE REJECTED.

- STAKE TREES ONLY IF RECOMMENDED ON THE PLANT SCHEDULE OR UPON THE APPROVAL OF THE LANDSCAPE ARCHITECT. STAKING DETAIL SHOWN ONLY IF RECOMMENDED.

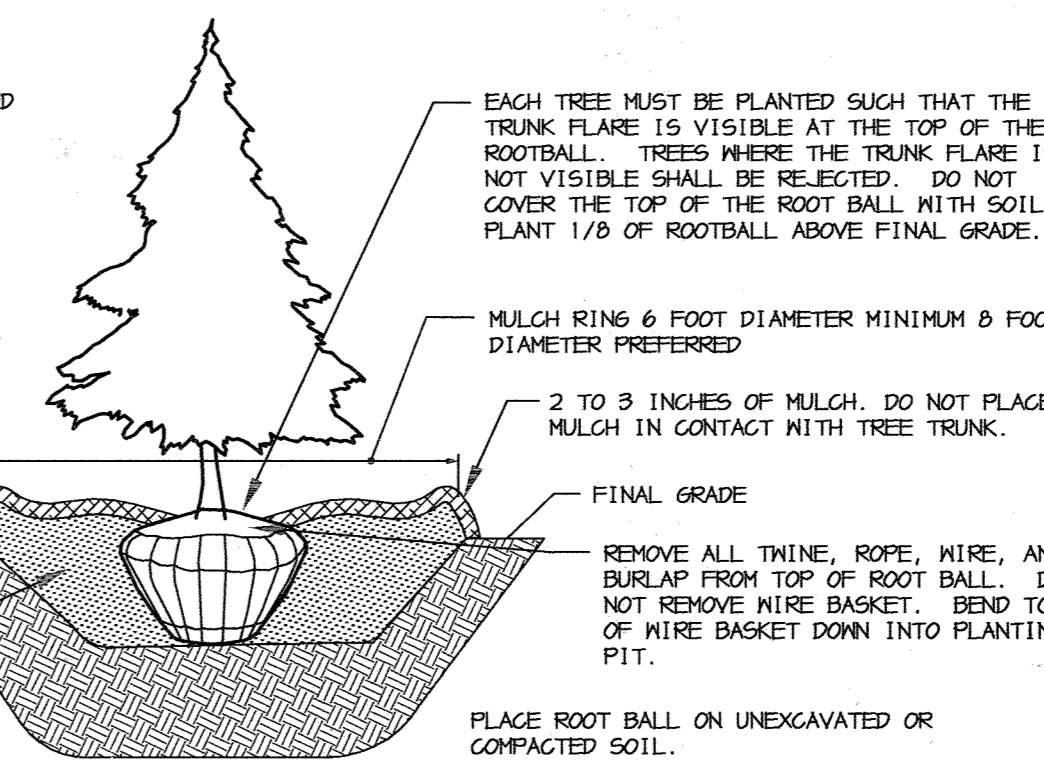
B&B TREES: DIG PLANTING PIT TWICE AS WIDE AS THE DIAMETER OF THE TOP OF THE ROOT BALL WITH A MINIMUM PLANTING PIT DIAMETER OF 5'.

CONTAINERIZED TREES: DIG PLANTING PIT TWO AND A HALF TIMES AS WIDE AS THE DIAMETER OF THE CONTAINER WITH A MINIMUM PLANTING PIT DIAMETER OF 30". REMOVE CONTAINER JUST BEFORE PLANTING. INSPECT HEALTH OF ROOTS. REJECT MATERIAL WITH UNHEALTHY OR INSUFFICIENT ROOTS. REMOVE ALL TWINE, ROPE, WIRE, AND BURLAP FROM TOP OF ROOT BALL. DO NOT REMOVE WIRE BASKET. BEND TOP OF WIRE BASKET DOWN INTO PLANTING PIT.

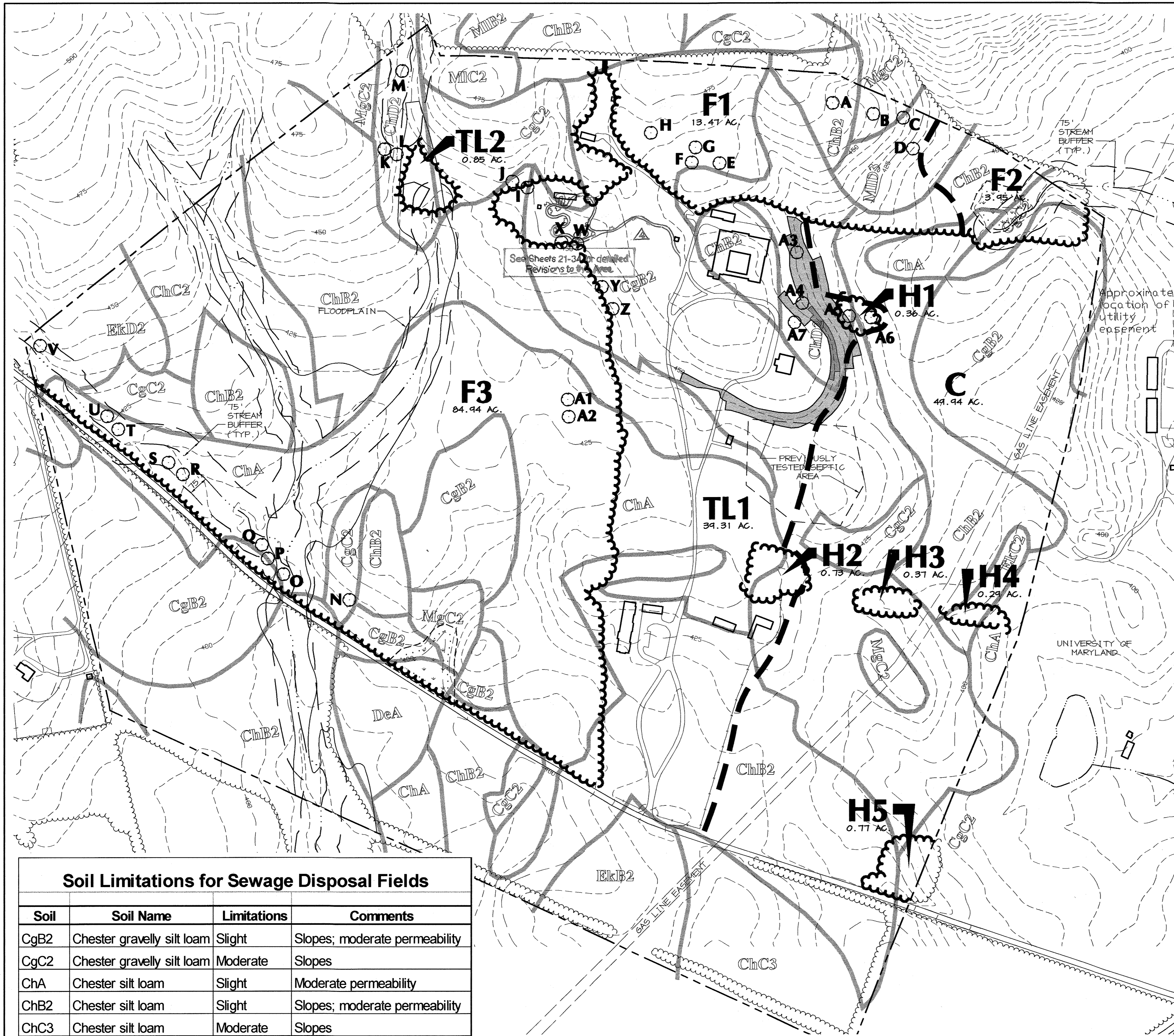
CONSTRUCT 3" SAUCER ALL AROUND PLANTING HOLE. FLOOD WITH WATER TWICE WITHIN 24 HOURS.

BACKFILL WITH PLANTING MIX (SEE PLANTING SPECIFICATIONS). TAMP SOIL AROUND ROOT BALL BASE FIRMLY WITH FOOT PRESSURE SO THAT ROOT BALL DOES NOT SHIFT.

EVERGREEN B&B TREE PLANTING DETAIL
NOT TO SCALE



 ALICE C. REMINGTON #00223	6-22-05 DATE	
APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.		
 DIRECTOR (As of now)	7/28/04 DATE	
 CHIEF, DEVELOPMENT ENGINEERING DIVISION MK	7/14/04 DATE	
 CHIEF, DIVISION OF LAND DEVELOPMENT HB	7/16/04 DATE	
DATE	NO.	REVISION
OWNER / DEVELOPER		
NOVITIATE OF FRANCISCAN FATHERS MINOR CONVENTUALS OF MARYLAND, INC. 12290 FOLLY QUARTER ROAD ELLICOTT CITY, MARYLAND 21042		
PROJECT	FRANCISCAN FRIARS PARKING ADDITION	
AREA	TAX MAP 22 PARCEL 46 ZONED RC-DEO 3rd ELECTION DISTRICT HOWARD COUNTY, MARYLAND	
TITLE	LANDSCAPE NOTES AND DETAILS	
Patton Harris Rust & Associates, pc Engineers, Surveyors, Planners, Landscape Architects. 8818 Centre Park Drive Columbia, MD 21045 T 410.997.8900 F 410.997.9282		
DATE	6-29-04	
DESIGNED BY :	G.T.H.	
DRAWN BY :	G.T.H.	
PROJECT NO :	11439/2-0/ENGR PLANS/ L201LND	
DATE :	JUNE 29, 2004	
SCALE :	AS SHOWN	
DRAWING NO.	11 OF 25	
SCOTT R. WOLFORD, R.L.A. #797		

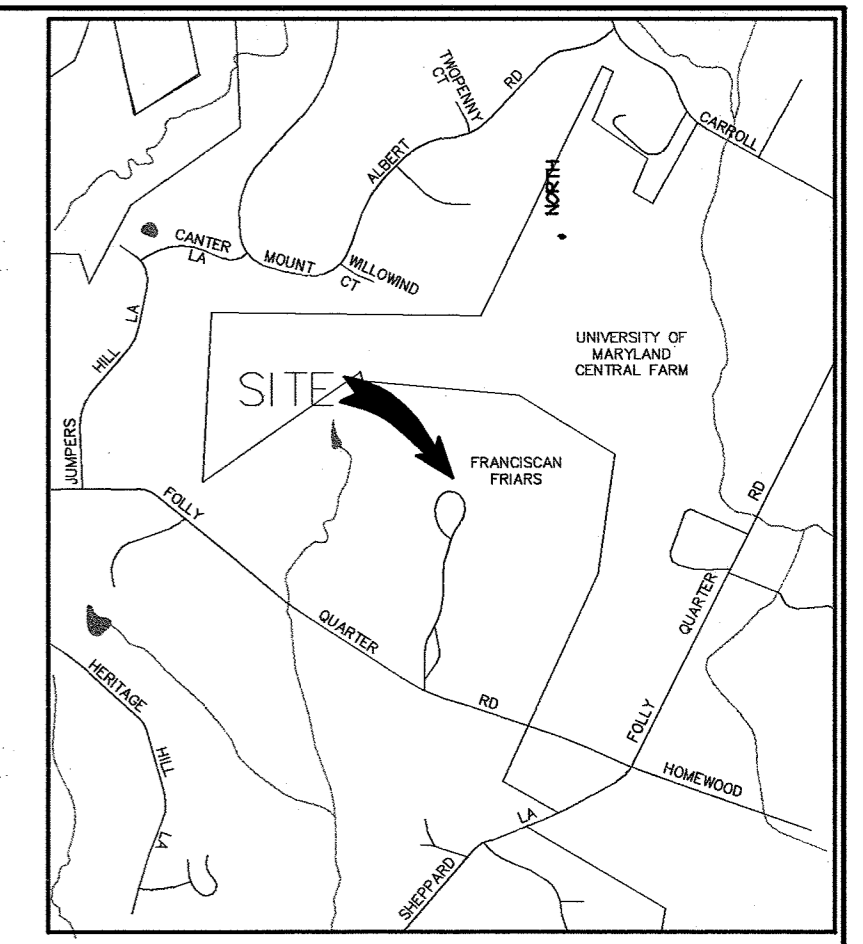


Soil Limitations for Sewage Disposal Fields			
Soil	Soil Name	Limitations	Comments
CgB2	Chester gravelly silt loam	Slight	Slopes; moderate permeability
CgC2	Chester gravelly silt loam	Moderate	Slopes
ChA	Chester silt loam	Slight	Moderate permeability
ChB2	Chester silt loam	Slight	Slopes; moderate permeability
ChC3	Chester silt loam	Moderate	Slopes
ChD2	Chester silt loam	Severe	Slopes
DeA	Delanco silt loam	Severe	Moderately slow permeability
EkB2	Elioak silt loam	Severe	Moderately slow permeability
EkC2	Elioak silt loam	Severe	Slopes; moderate permeability
MgC2	Manor gravelly loam	Moderate	Slopes
MIB2	Manor loam	Slight	Slopes; moderate permeability
MIC2	Manor loam	Moderate	Slopes
MID3	Manor loam	Severe	Slopes

SPECIMEN TREE CHART		
KEY	SPECIES	SIZE
A	TULIP TREE	32"
B	TULIP TREE (db)	45"
C	TULIP TREE	31"
D	TULIP TREE	33"
E	RED OAK	34"
F	TULIP TREE	32"
G	TULIP TREE	33"
H	TULIP TREE	34"
I	TULIP TREE	33"
J	WHITE OAK	30"
K	RED OAK	38"
L	TULIP TREE	36"
M	RED OAK	30"
N	RED OAK	30"
O	TULIP TREE	31"
P	TULIP TREE	36"
Q	TULIP TREE	30"
R	TULIP TREE	31"
S	TULIP TREE	30"
T	RED MAPLE	34"
U	TULIP TREE	35"
V	TULIP TREE	40"
W	RED OAK	30"
X	RED OAK	30"
Y	RED OAK	32"
Z	RED OAK	36"
A1	TULIP TREE	30"
A2	TULIP TREE	31"
A3	TULIP TREE	60"
A4	SYCAMORE	45"
A5	SUGAR MAPLE	41"
A6	SUGAR MAPLE	36"
A7	GREEN ASH	38"

LEGEND

- EX. TREELINE
- PROPERTY LINE
- WETLANDS AND 25' BUFFER
- PERENNIAL STREAM AND 50' BUFFER
- 100-YEAR FLOODPLAIN
- SOILS
- STEEP SLOPES 15%-25%
- STEEP SLOPES >25%
- CONTOUR LINES
- EX. BUILDING
- EX. SPECIMEN TREE (>30")
- STAND #
- STAND DIVISION LINE



GENERAL NOTES:

- THIS FOREST STAND DELINEATION (FSD) HAS BEEN PREPARED IN ACCORDANCE WITH HOWARD COUNTY REGULATIONS.
- THIS FSD IS BASED ON A FIELD INVESTIGATION BY GRAHAM HUBBARD, ENVIRONMENTAL TECHNICIAN OF PATTON HARRIS RUST & ASSOCIATES, PC ON SEPTEMBER 22 AND SEPTEMBER 24, 2003.
- TREELINES SHOWN ARE BASED ON AERIAL SURVEY AND FIELD APPROXIMATION.
- THIS SITE CONTAINS ONE SOIL WITH POSSIBLE HYDRIC INCLUSIONS, DELANCO SILT LOAM (DeA).
- NO CRITICAL HABITATS OF RARE, THREATENED OR ENDANGERED SPECIES WERE OBSERVED.
- NO TREES, SHRUBS, OR PLANTS IDENTIFIED AS RARE, THREATENED OR ENDANGERED SPECIES WERE OBSERVED.
- THERE ARE NO KNOWN CEMETERY OR BURIAL PLOTS LOCATED ON THE SITE, ACCORDING TO THE HOWARD COUNTY HISTORIC & CEMETERY SITE MAP.
- THIS SITE CONTAINS WETLANDS AND STREAMS, AS SHOWN ON THIS PLAN.
- ACCORDING TO THE FEDERAL EMERGENCY MANAGEMENT AGENCY'S "FLOOD INSURANCE RATE MAP" FOR HOWARD COUNTY, MARYLAND (2400440021B, DECEMBER 4, 1986), APPROXIMATELY 10.20 ACRES OF 100-YEAR FLOODPLAIN ARE LOCATED ON THE SITE.
- TWO STRUCTURES ON THE SITE ARE REGISTERED ON THE COUNTY HISTORIC STRUCTURES REGISTRY. THEY ARE THE NOVIATIA #132 AND THE RUINS OF FOLLY QUARTER MANOR/McTAVISH #16.
- SPECIMEN TREES ARE PRESENT ON THE SITE AS SHOWN ON THE PLAN.

SITE CHARACTERISTICS:

GROSS SITE AREA	196.26 ACRES
TOTAL FORESTED AREA	102.36 ACRES
100 YEAR FLOODPLAIN AREA	10.20 ACRES
FORESTED 100 YEAR FLOODPLAIN	4.50 ACRES
NET TRACT AREA	186.06 ACRES
NET TRACT AREA FOREST	92.86 ACRES

PLANT COMMUNITY TABLE:

KEY	DESCRIPTION	ACREAGE
F1	FOREST	13.47 AC.
F2	FOREST	3.95 AC.
F3	FOREST	84.94 AC.
H1	HEDGEROW	0.36 AC.
H2	HEDGEROW	0.73 AC.
H3	HEDGEROW	0.37 AC.
H4	HEDGEROW	0.29 AC.
H5	HEDGEROW	0.77 AC.
C	CROPS	49.94 AC.
TL1	TREES / LAWN	39.31 AC.
TL2	TREES / LAWN	0.85 AC.
IMP	IMPERVIOUS LAND	1.28 AC.
TOTAL		196.26 AC.

AS-BUILT CERTIFICATION

Amie C. Remington 6-22-05 DATE
ALICE C. REMINGTON # 20023

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

Joseph Laffer 7/28/04 DATE
DIRECTOR (Acting)

Mark M... .. 7/14/04 DATE
CHIEF, DEVELOPMENT ENGINEERING DIVISION MK

Chris... .. 7/26/04 DATE
CHIEF, DIVISION OF LAND DEVELOPMENT WB

7/23/01 REVISION TO ADD NEW PRAYER GARDEN
DATE NO. REVISION

OWNER / DEVELOPER
NOVIATIA OF FRANCISCAN FATHERS
MINOR CONVENTUALS OF MARYLAND, INC.
12290 FOLLY QUARTER ROAD
ELLCOTT CITY, MARYLAND 21042

PROJECT **FRANCISCAN FRIARS PARKING ADDITION**

AREA TAX MAP 22 PARCEL 46 ZONED RC-DEO
3rd ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE **FOREST STAND DELINEATION**

Patton Harris Rust & Associates, pc
Engineers, Surveyors, Planners, Landscape Architects.
8818 Centre Park Drive
Columbia, MD 21045
T 410.997.8900
F 410.997.9282

6-29-04 DATE
DESIGNED BY: GTH
DRAWN BY: GTH
PROJECT NO.: 11439-1-0
L200FSD.DWG
DATE: JUNE 29, 2004
SCALE: 1" = 200'
DRAWING NO. 12 OF 35

SCOTT R. WOLFORD, R.L.A. #797

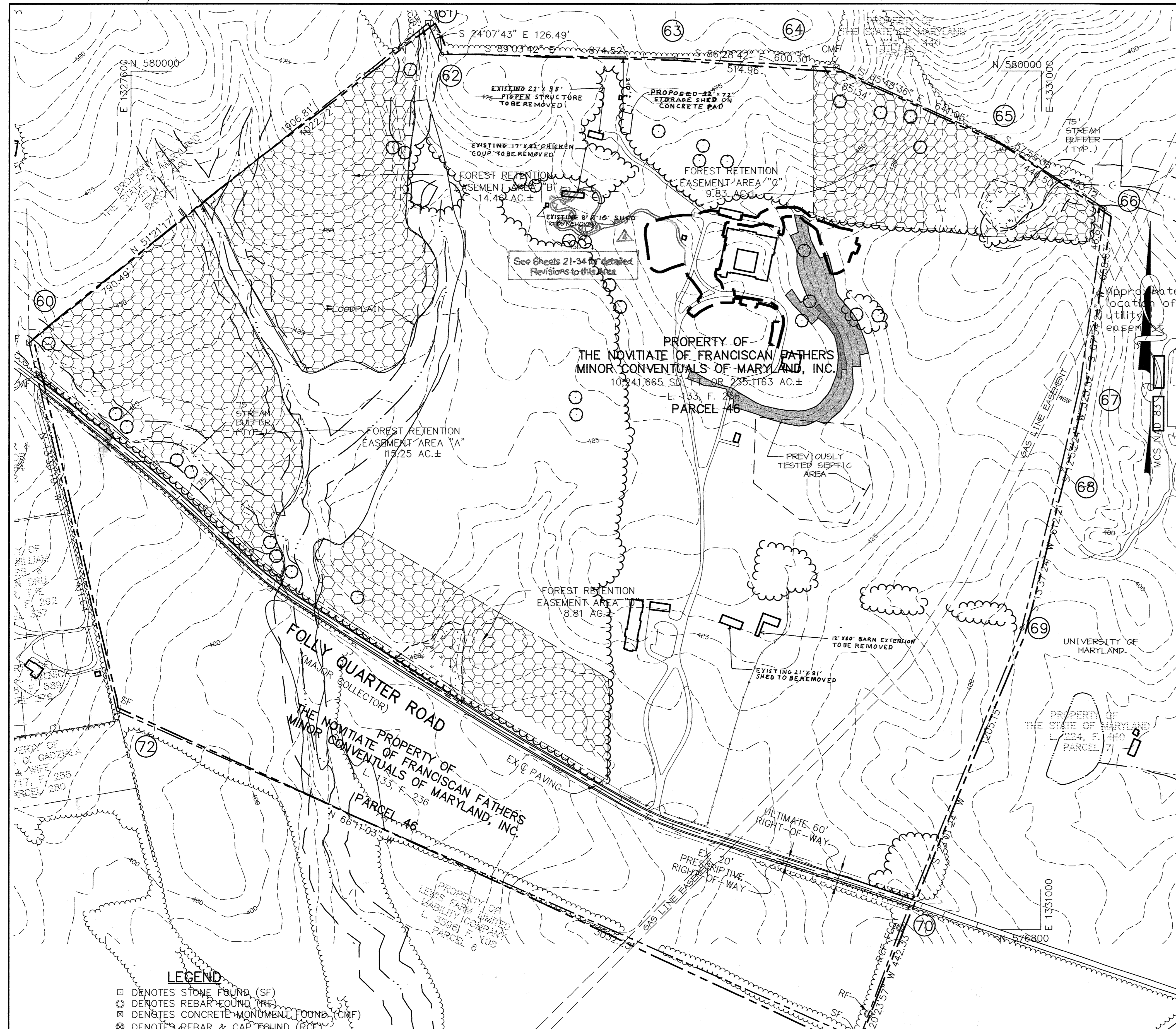
Project Name: Franciscan Friars
 Date: October 8, 2003

LEGEND

EX. TREELINE	
PROPERTY LINE	
NETLANDS AND 25' BUFFER	
PERENNIAL STREAM AND 50' BUFFER	
100-YEAR FLOODPLAIN	
SOILS	
STEEP SLOPES 15%-25%	
STEEP SLOPES >25%	
CONTOUR LINES	
EX. BUILDING	
EX. SPECIMEN TREE (>30')	
LIMIT OF DISTURBANCE	

Net Tract Area	Acres
A. Total Tract Area	A = 196.26
B. Other Deductions	B = 10.20
C. Net Tract Area - Net Tract Area = (A-B-C)	C = 186.06
D. Afforestation Threshold (Net Tract Area X 15%)	D = 27.91
E. Conservation Threshold (Net Tract Area X 20%)	E = 37.21
F. Existing Forest Cover	F = 92.86
G. Existing Forest Cover within the Net Tract Area	G = 55.85
H. Break Even Point	H = 48.34
I. Forest Clearing Permitted Without Mitigation	I = 44.52
J. Total Area of Forest to be Cleared	J = 44.51
K. Forest to be Cleared	K = 48.35
L. Total Area of Forest to be Retained	L = 0.00
M. Total Area of Forest to be Retained	M = 0.00
N. Total Area of Forest to be Retained	N = 11.14
P. Total Reforestation Required	P = 0.00
Q. Total Reforestation Required	Q = 0.00
R. Total Reforestation Required	R = 0.00

Fee-in-lieu @ \$0.50 square foot (Howard County) 90



LEGEND

□	DENOTES STONE FOUND (SF)
○	DENOTES REBAR FOUND (RF)
⊗	DENOTES CONCRETE MONUMENT FOUND (CMF)
⊗	DENOTES REBAR & CAP FOUND (RCF)

GENERAL NOTES:

- TREELINES SHOWN ARE BASED ON AERIAL SURVEY AND FIELD APPROXIMATION.
- NO CRITICAL HABITATS OF RARE, THREATENED OR ENDANGERED SPECIES WERE OBSERVED.
- NO TREES, SHRUBS, OR PLANTS IDENTIFIED AS RARE, THREATENED OR ENDANGERED SPECIES WERE OBSERVED.
- THERE ARE NO KNOWN CEMETERY OR BURIAL PLOTS LOCATED ON THE SITE, ACCORDING TO THE HOWARD COUNTY HISTORIC CEMETERY SITE MAP.
- THIS SITE CONTAINS WETLANDS AND STREAMS, AS SHOWN ON THIS PLAN.
- ACCORDING TO THE FEDERAL EMERGENCY MANAGEMENT AGENCY'S "FLOOD INSURANCE RATE MAP" FOR HOWARD COUNTY, MARYLAND (2400440021B, DECEMBER 4, 1986), APPROXIMATELY 10.20 ACRES OF 100-YEAR FLOODPLAIN ARE LOCATED ON THE SITE.
- TWO STRUCTURES ON THE SITE ARE REGISTERED ON THE COUNTY HISTORIC STRUCTURES REGISTRY. THEY ARE THE NOVITIATE #132 AND THE RUINS OF FOLLY QUARTER MANOR/McTAVISH #16.
- SPECIMEN TREES ARE PRESENT ON THE SITE. SEE FSD PLAN.
- THE FOREST CONSERVATION MANUAL SUPERCEDES ANY DISCREPANCIES BETWEEN THE MANUAL AND THIS PLAN.
- SEE SEDIMENT CONTROL PLAN FOR LOCATION OF TREE PROTECTION FENCE AND TREE PROTECTION FENCE DETAILS.
- THIS PROJECT COMPLIES WITH THE REQUIREMENTS OF SECTION 16.1200 OF THE HOWARD COUNTY CODE FOR FOREST CONSERVATION BY RETAINING 48.35 AC OF EXISTING FOREST. SURETY IN THE AMOUNT OF \$421,225.20 (2,106,126 SF X \$0.20/SF) WILL BE REQUIRED.

AS-BUILT CERTIFICATION

Almce C. Reington 6-22-05
 ALMCE C. REINGTON #29925 DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

Stephen J. Harty 7/28/04
 DIRECTOR (REGULATORY) DATE

Almce C. Reington 7/14/04
 CHIEF, DEVELOPMENT ENGINEERING DIVISION MK DATE

Chris Harty 7/28/04
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

7/28/04 REVISION TO ADD NEW PRAYER GARDEN

6-29-04 NOTED STRUCTURES TO BE REMOVE, ADDED SHED

DATE NO. REVISION

OWNER / DEVELOPER

NOVITIATE OF FRANCISCAN FATHERS
 MINOR CONVENTUALS OF MARYLAND, INC.
 12290 FOLLY QUARTER ROAD
 ELLICOTT CITY, MARYLAND 21042

PROJECT FRANCISCAN FRIARS
 PARKING ADDITION

AREA TAX MAP 22 PARCEL 46 ZONED RC-DEO
 3rd ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

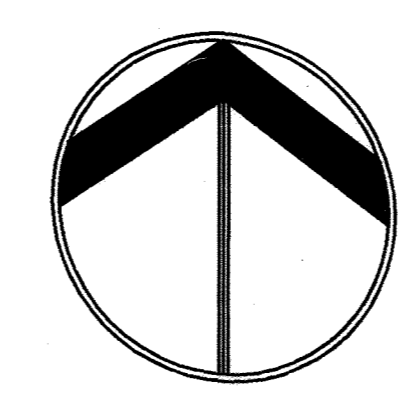
TITLE FOREST CONSERVATION PLAN

Patton Harris Rust & Associates, pc
 Engineers, Surveyors, Planners, Landscape Architects.
 8818 Centre Park Drive
 Columbia, MD 21045
 T 410.997.8900
 F 410.997.9282

6-29-04
 DATE

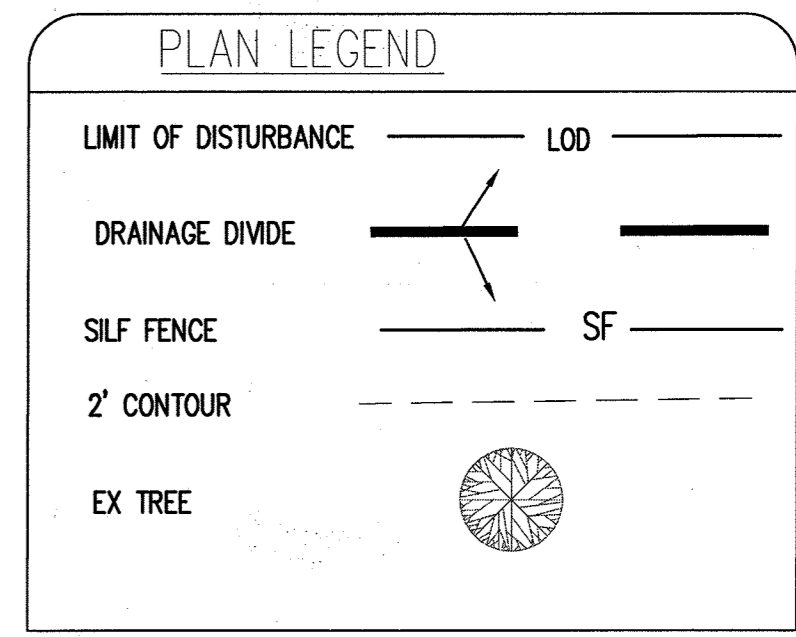
DESIGNED BY: GTH
 DRAWN BY: GTH
 PROJECT NO.: 11439-1-0
 L200FCO.DWG
 DATE: JUNE 29, 2004
 SCALE: 1" = 200'
 DRAWING NO. 13 OF 35

SCOTT R. WOLFORD, R.L.A. #797





AREA #10 E&SC AND SWM PLAN
SCALE: 1" = 40'



PRIOR TO VEHICLES LEAVING THE SITE, WHEELS SHALL BE CLEANED OR WASHED TO REMOVE SEDIMENT. ALL SEDIMENT SPILLED, DROPPED OR TRACKED ONTO ROAD MUST BE REMOVED IMMEDIATELY BY VACUUMING, SCRAPING OR SWEEPING. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE THAT DRAINS TO AN APPROVED SEDIMENT CONTROL DEVICE.

- SITE STABILIZATION AND SEEDING**
- TOPSOIL, SEED, FERTILIZE, LIME AND STABILIZE WITH STRAW ALL DISTURBED AREAS FLATTER THAN 3:1 SLOPE. SEED, FERTILIZE, LIME AND STABILIZE WITH SLOPE PROTECTION MATTING ALL DISTURBED AREAS THAT ARE STEEPER THAN A 3:1 SLOPE.
 - TOPSOIL, SEED MIXTURE AND APPLICATION SHALL BE IN CONFORMANCE WITH PERMANENT SEEDING SUMMARY.

SEQUENCE OF CONSTRUCTION

- OBTAIN ALL REQUIRED PERMITS. SCHEDULE AND ATTEND THE PRECONSTRUCTION MEETING. (1 DAY)
- INSTALL STABILIZED CONSTRUCTION ENTRANCE AT EDGE OF EXISTING PAVEMENT OFF PRIVATE DRIVE. (1 DAY)
- INSTALL PERIMETER SILT FENCE. (1 WEEK)
- WITH INSPECTORS APPROVAL BEGIN INSTALLATION OF SOLAR ARRAY.
- AS ARRAY IS INSTALLED STABILIZE WITH PERMANENT SEEDING.
- WITH PERMISSION OF COUNTY SEDIMENT CONTROL INSPECTOR, REMOVE ALL REMAINING SEDIMENT CONTROL DEVICES AND STABILIZE DISTURBED AREAS IN ACCORDANCE WITH PERMANENT SEEDING NOTES.

APPROVED : DEPARTMENT OF PLANNING AND ZONING

[Signature] 1/15/13
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

[Signature] 1/16/13
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

[Signature] 1/16/13
DIRECTOR DATE

12/7/12	1	ADDED PHOTOVOLTAIC INSTALLATION PLAN
DATE NO.		REVISION
OWNER		
NOVIATIE OF FRANCISCAN FATHERS MINOR COVENTUALS OF MARYLAND, INC. 12290 FOLLY QUARTER ROAD ELLCOTT CITY, MARYLAND 21042		
DEVELOPER		
PROJECT		
FRANCISCAN FRIARS PARKING ADDITION		
AREA		
TAX MAP 22 PARCEL 46 ZONING: RC-DEO 3RD ELECTION DISTRICT HOWARD COUNTY, MARYLAND		
TITLE		
REVISED SITE DEVELOPMENT PLAN GRADING, SEDIMENT CONTROL/SWM PHOTOVOLTAIC PLAN		

PHRA Patton Harris Rust & Associates
Engineers, Surveyors, Planners, Landscape Architects
A Perini Company 8818 Centre Park Drive, Suite 200, Columbia, MD, 21045
Tel: 410-997-8900 Fax: 410-997-9282

SEAL: *[Professional Engineer Seal]*

DESIGNED BY : JAR
DRAWN BY: JN
PROJECT NO : SOLR1205
DATE : 12/6/12
SCALE : 1" = 40'
DRAWING NO. 14 OF 25

SOILS SUMMARY
• GgB - Glenelg Loam - B soils Type

BY: *[Signature]*
PROFESSIONAL CERTIFICATION I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A FULLY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 21774, EXPIRATION DATE: 11-10-2017

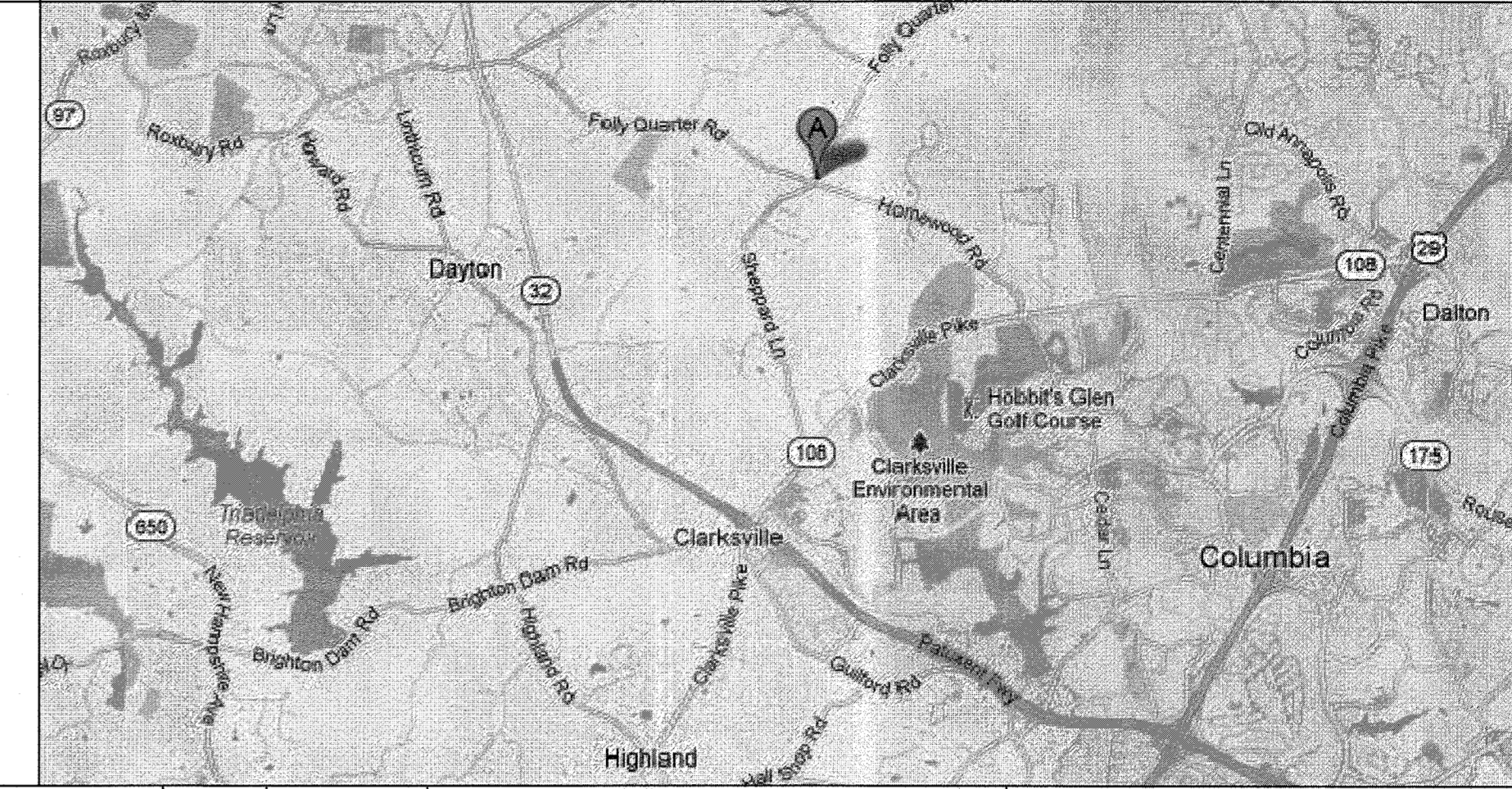
91.65 kW DC SOLAR PV SYSTEM FOR Order of Friars Minor Conventual, St Anthony of Padua Province

APN: 03285332

AERIAL MAP



VICINITY MAP



3055 Clearview Way, San Mateo, CA 94402
T: (650) 638-1028 | F: (650) 638-1029
(800)-SOL-CITY (765-2469) | www.solarcity.com

CONFIDENTIAL - THE INFORMATION
HEREIN CONTAINED SHALL NOT BE USED
FOR THE BENEFIT OF ANYONE EXCEPT
SOLARCITY INC. NOR SHALL IT BE
DISCLOSED IN WHOLE OR IN PART TO
OTHERS OUTSIDE THE RECIPIENT'S
ORGANIZATION, EXCEPT IN CONNECTION
WITH THE SALE AND USE OF THE
RESPECTIVE SOLARCITY EQUIPMENT,
WITHOUT THE WRITTEN PERMISSION OF
SOLARCITY INC.

ORD. OF FRIARS MINOR CONVENTUAL, ST ANTH. OF PADUA PROV.
91.65kW GROUND MOUNT PV SYSTEM
ORD. OF FRIARS MINOR CONVENTUAL, ST ANTH. OF PADUA PROV.
12300 FOLLY QUARTER ROAD
ELLCOTT CITY, MD 21042
4105311400102

ABBREVIATIONS

A	AMPERE
AC	ALTERNATING CURRENT
BLDG	BUILDING
CONC	CONCRETE
C	COMBINER BOX
D	DISTRIBUTION PANEL
DC	DIRECT CURRENT
ECC	EQUIPMENT GROUNDING CONDUCTOR
(E)	EXISTING
EMT	ELECTRICAL METALLIC TUBING
G	SOLAR GUARD METER
GALV	GALVANIZED
SEC	GROUNDING ELECTRODE CONDUCTOR
GND	GROUND
HDG	HOT DIPPED GALVANIZED
I	CURRENT
Imp	CURRENT AT MAX POWER
INVS	INVERTERS
Isc	SHORT CIRCUIT CURRENT
kVA	KILOVOLT AMPERE
kW	KILOWATT
LBW	LOAD BEARING WALL
MIN	MINIMUM
(N)	NEW
NEC	NATIONAL ELECTRIC CODE
NIC	NOT IN CONTRACT
NTS	NOT TO SCALE
OC	ON CENTER
PCP	OVERCURRENT PROTECTION
P	PANEL BOARD
PL	PROPERTY LINES
PV	PHOTOVOLTAIC
PVC	POLYVINYL CHLORIDE
S	SUBPANEL
SCH	SCHEDULE
SS	STAINLESS STEEL
SSD	SEE STRUCTURAL DRAWINGS
STC	STANDARD TESTING CONDITIONS
SWH	SOLAR WATER HEATER
TYP	TYPICAL
UN	UNLESS OTHERWISE NOTED
UPS	UNINTERRUPTIBLE POWER SUPPLY
V	VOLT
Vmp	VOLTAGE AT MAX POWER
Voc	VOLTAGE AT OPEN CIRCUIT
W	WATT
WR	NEMA 3R, RAINIGHT

SYSTEM SUMMARY

MODULE: (390) TRINA #TSM-235PA05
INVERTER: Solectria PVI 82KW - 208Vac
RACK TYPE: Schletter Ground Mount

DESIGN CRITERIA

ARRAY HEIGHT: 7.9'
GROSS ARRAY AREA: 13151 R²
WIND SPEED: 90
EXPOSURE: B
SNOW LOAD: 30PSF

CODE SUMMARY

BUILDING CODE
ALL WORK TO BE DONE TO THE 2012 INTERNATIONAL BUILDING CODE.

ELECTRICAL CODE
ALL ELECTRICAL WORK TO BE DONE TO THE 2011 NATIONAL ELECTRIC CODE.

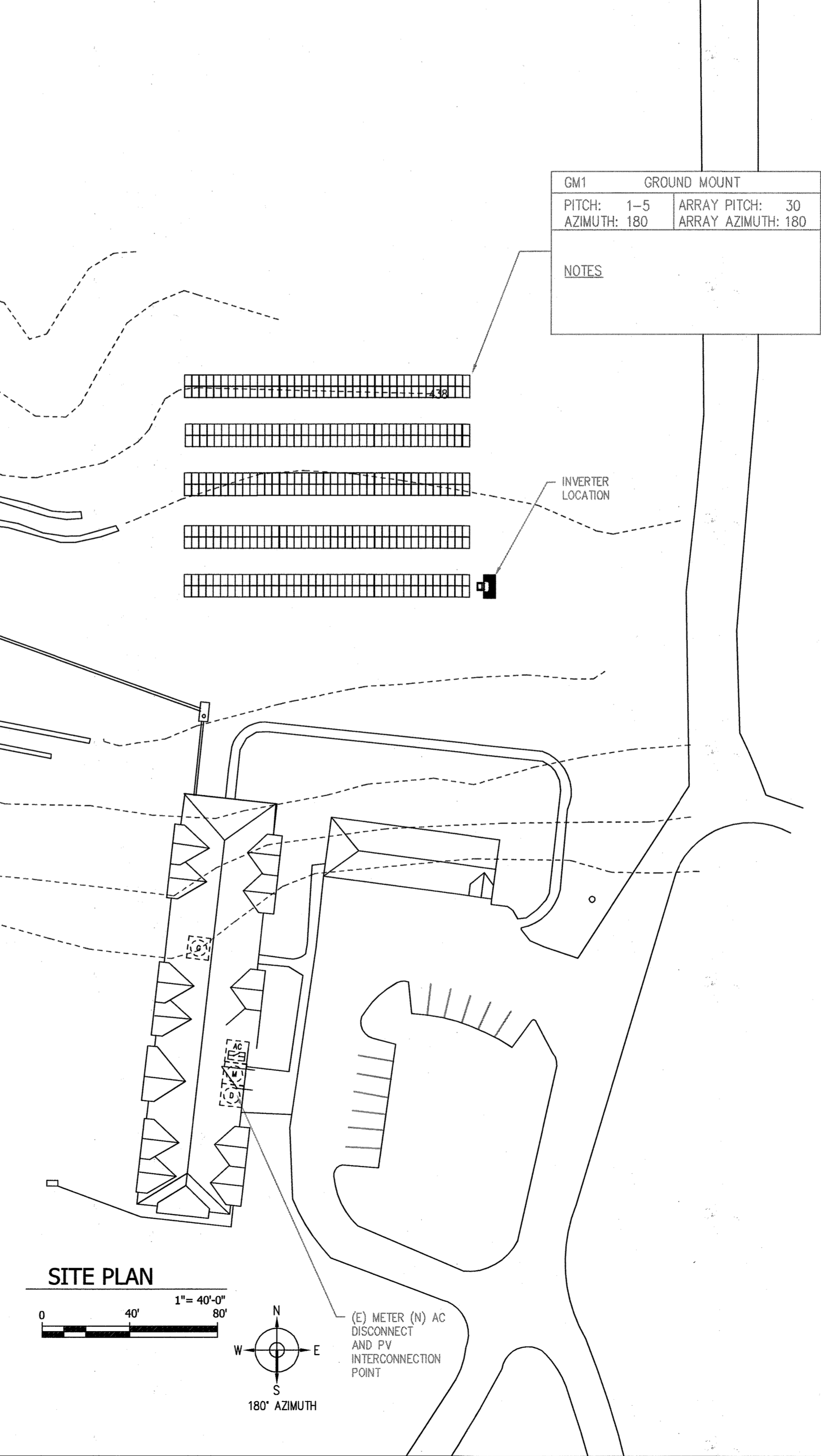
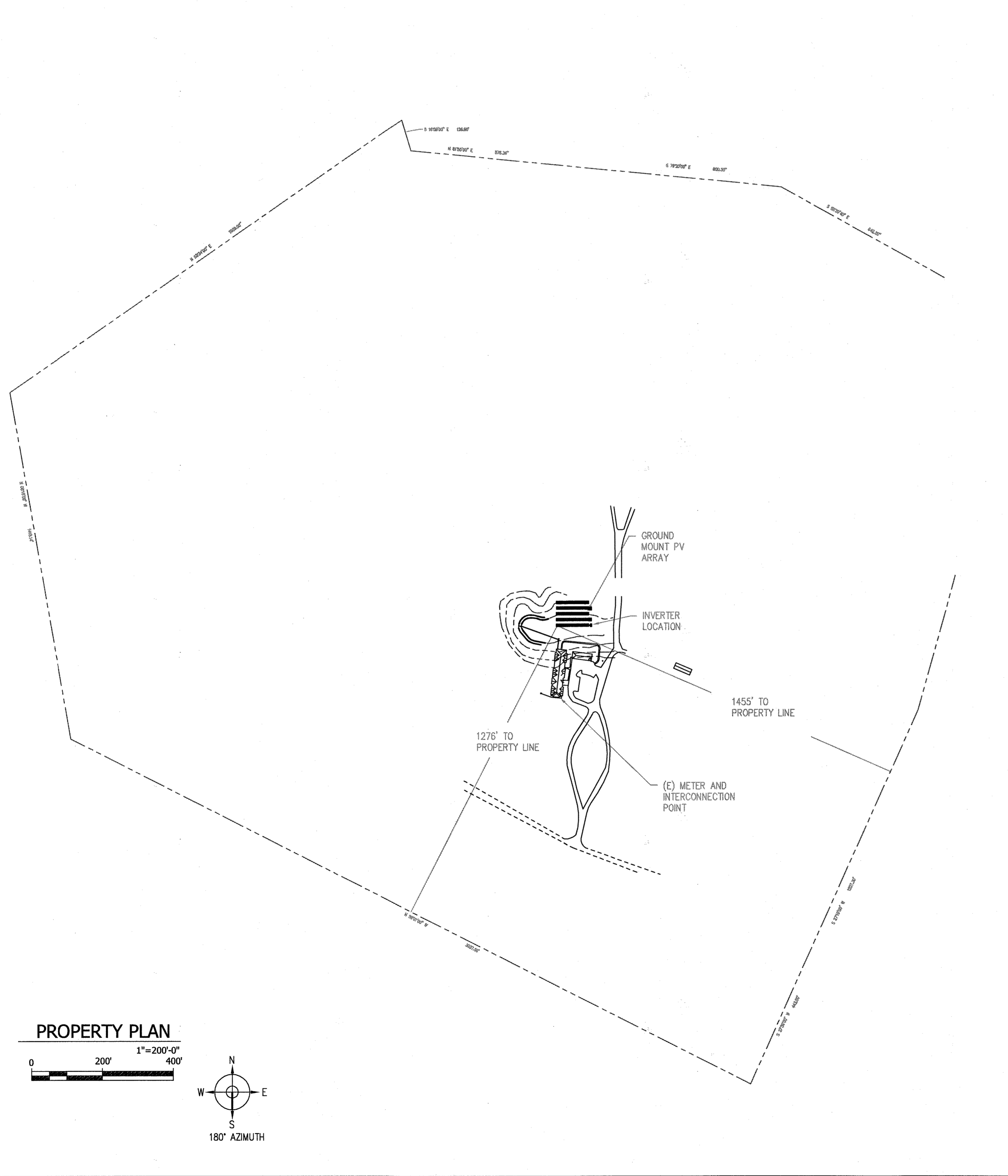
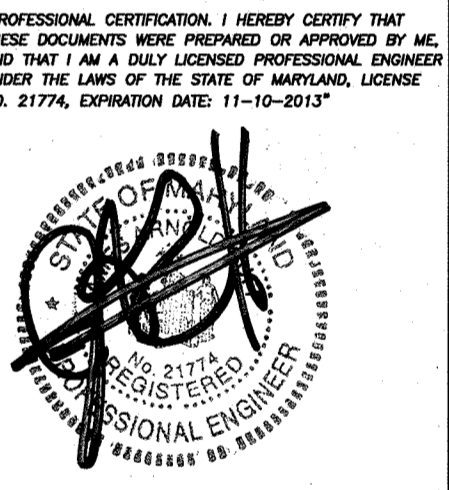
INDEX

- PV1 COVER SHEET
- PV2 PV SITE PLAN AND RACKING DETAILS
- PV3 EQUIPMENT DETAILS
- PV4 LINE DIAGRAM - AC
- PV5 LINE DIAGRAM - DC - 1
- PV6 MONITORING DETAILS
- PV7 ELECTRICAL CALCULATIONS
- PV8 WARNING LABELS
- PV9 CUTSHEETS

PROJECT TEAM

DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE:
NATE TRACHIMOWICZ
SOLARCITY, INC.
24 ST. MARTIN DR. BUILDING 2
MARLBOROUGH, MA 01752
TEL: (888) SOL-CITY x2355
FAX: (508) 460-0318
EMAIL: ntrachimowicz@solarcity.com

ELECTRICAL ENGINEER:
CLINT RAPIER, P.E.
HAWKINS DESIGN GROUP
2152 S. VINEYARD AVE # 107
MESA, AZ 85210
TEL: (480) 813-9000



GM1	GROUND MOUNT
PITCH: 1-5	ARRAY PITCH: 30
AZIMUTH: 180	ARRAY AZIMUTH: 180

NOTES

APPROVED : DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE 1/15/13
CHIEF, DIVISION OF LAND DEVELOPMENT DATE 1/16/13
DIRECTOR DATE 1/16/13

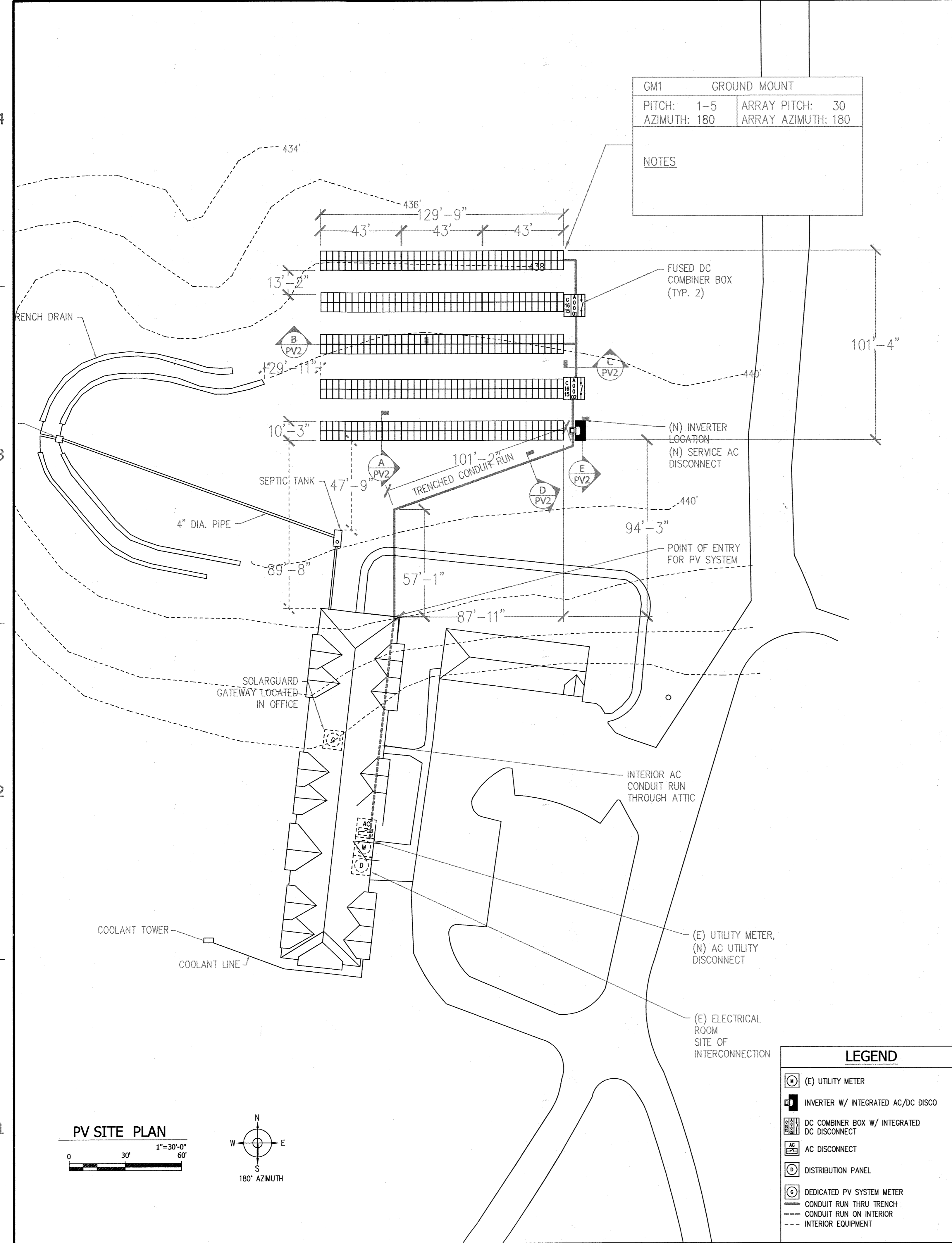
REV	BY	DATE	COMMENTS
REV A	NPT	1/15/13	INSTALLATION OF SOLAR ARRAY

JOB DETAILS

Howard County
MODULES: (390) TRINA SOLAR # TSM-235PA05
MOUNTING SYSTEM: GROUND MOUNT
INVERTER: (1) SOLECTRIA # PVI 82KW-208VAC
DATE: 7/5/2012
PAGE NO: 15
JOB NUMBER: JB-210241-00
PAGE: PV 1 15 of 33

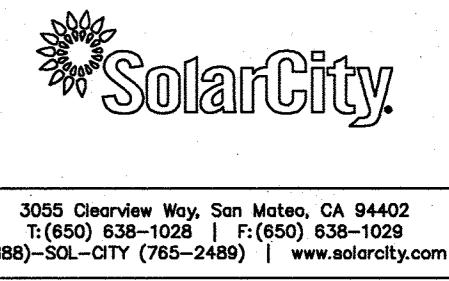
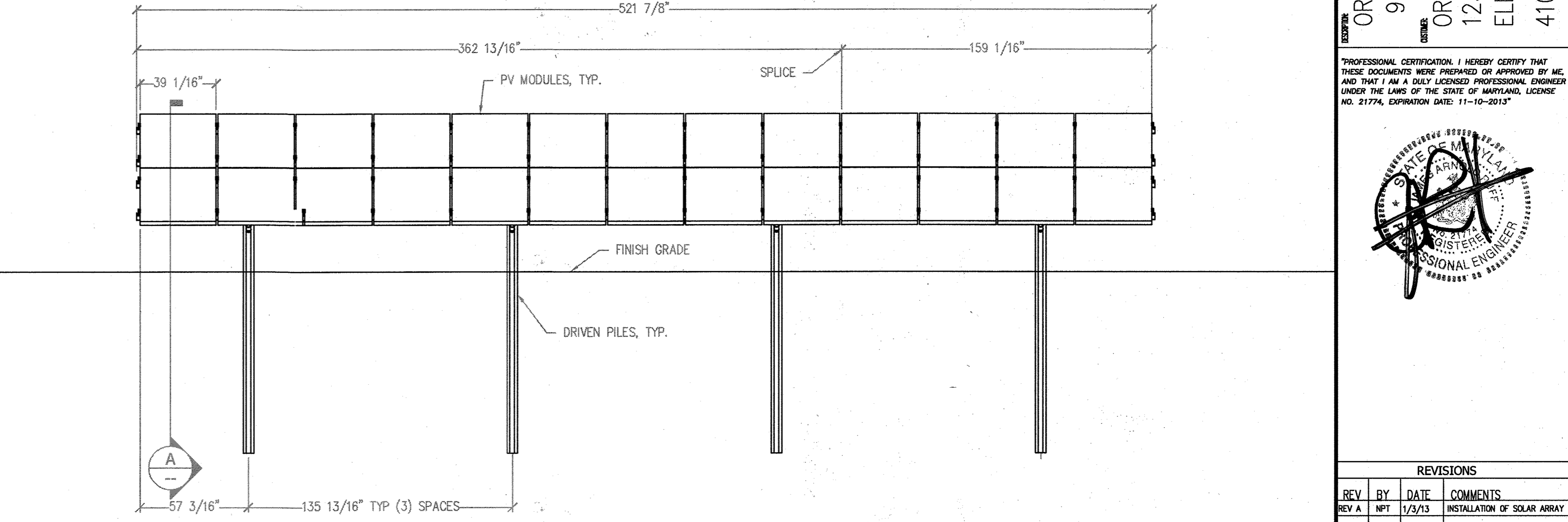
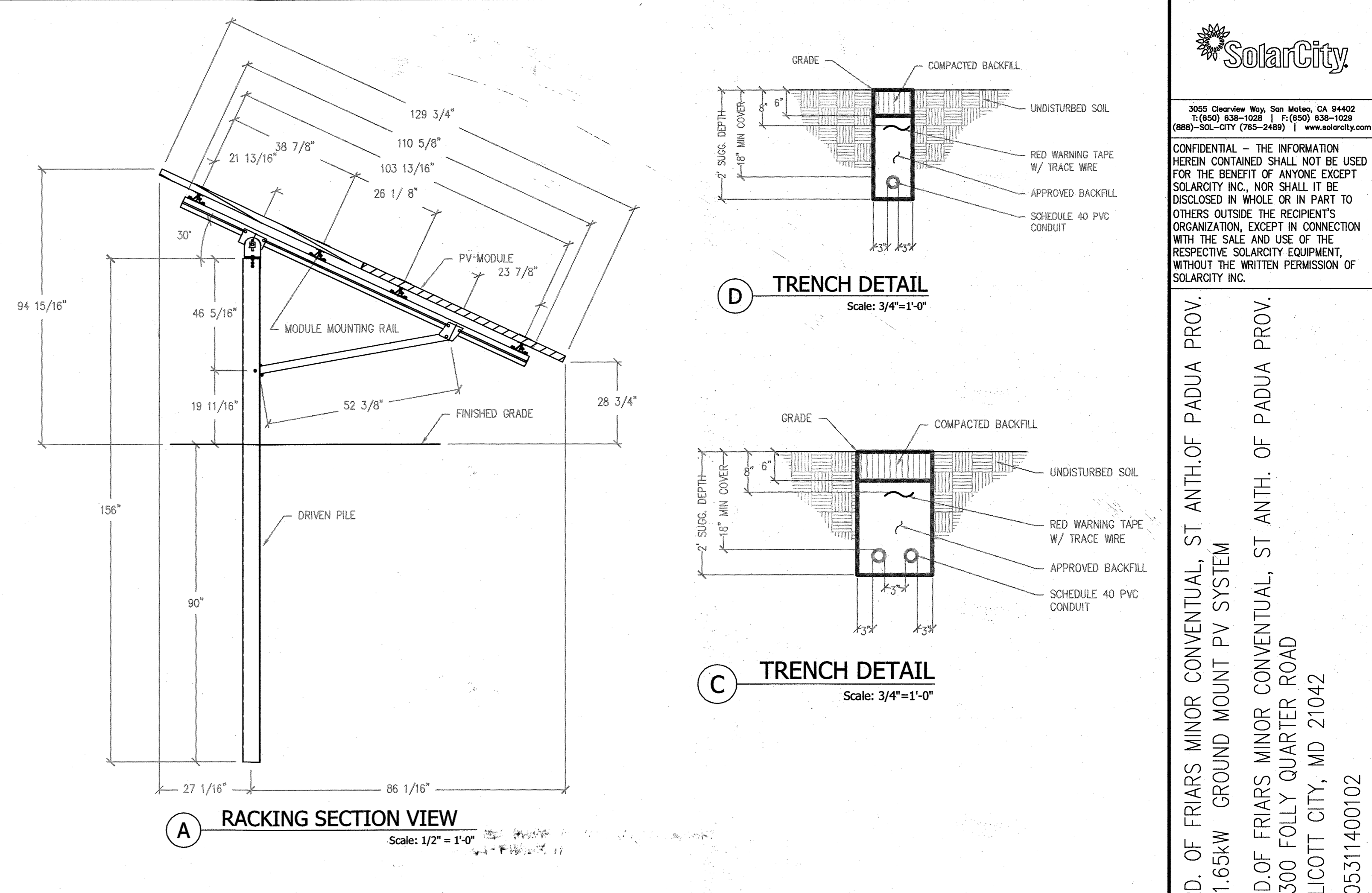
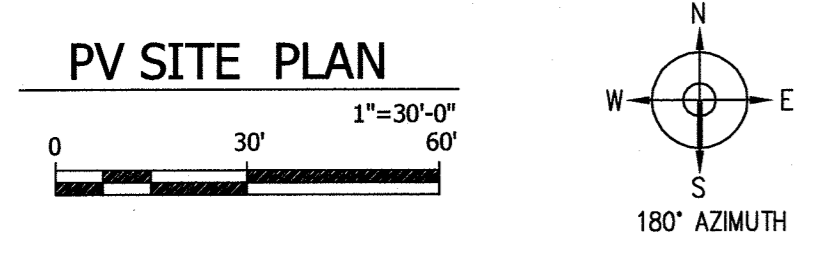
DATE	NO.	REVISION

- f - | - e - | - d - | - c - | - b - | - a -



GM1 GROUND MOUNT	
PITCH: 1-5	ARRAY PITCH: 30
AZIMUTH: 180	ARRAY AZIMUTH: 180
NOTES	

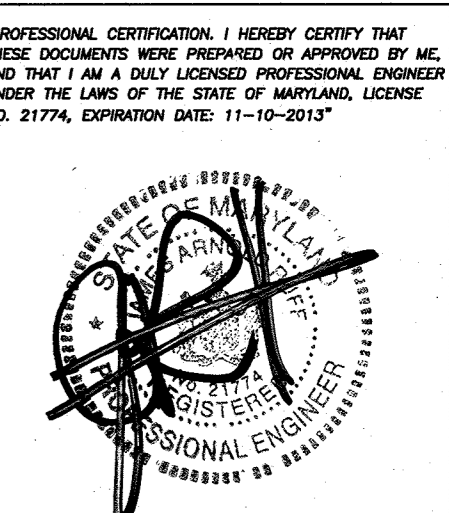
LEGEND	
	(E) UTILITY METER
	INVERTER W/ INTEGRATED AC/DC DISCO
	DC COMBINER BOX W/ INTEGRATED DC DISCONNECT
	AC DISCONNECT
	DISTRIBUTION PANEL
	DEDICATED PV SYSTEM METER
	CONDUIT RUN THRU TRENCH
	CONDUIT RUN ON INTERIOR
	INTERIOR EQUIPMENT



3055 ClearView Way, San Mateo, CA 94402
 T: (650) 638-1028 | F: (650) 638-1028
 (888)-SOL-CITY (765-2489) | www.solarcity.com

CONFIDENTIAL - THE INFORMATION HEREIN CONTAINED SHALL NOT BE USED FOR THE BENEFIT OF ANYONE EXCEPT SOLAR CITY INC. NOR SHALL IT BE DISCLOSED IN WHOLE OR IN PART TO OTHERS OUTSIDE THE RECIPIENT'S ORGANIZATION, EXCEPT IN CONNECTION WITH THE SALE AND USE OF THE RESPECTIVE SOLAR CITY EQUIPMENT, WITHOUT THE WRITTEN PERMISSION OF SOLAR CITY INC.

ORD. OF FRIARS MINOR CONVENTUAL, ST ANTH. OF PADUA PROV.
 91.65KW GROUND MOUNT PV SYSTEM
 ORD. OF FRIARS MINOR CONVENTUAL, ST ANTH. OF PADUA PROV.
 12300 FOLLY QUARTER ROAD
 ELLICOTT CITY, MD 21042
 4105311400102



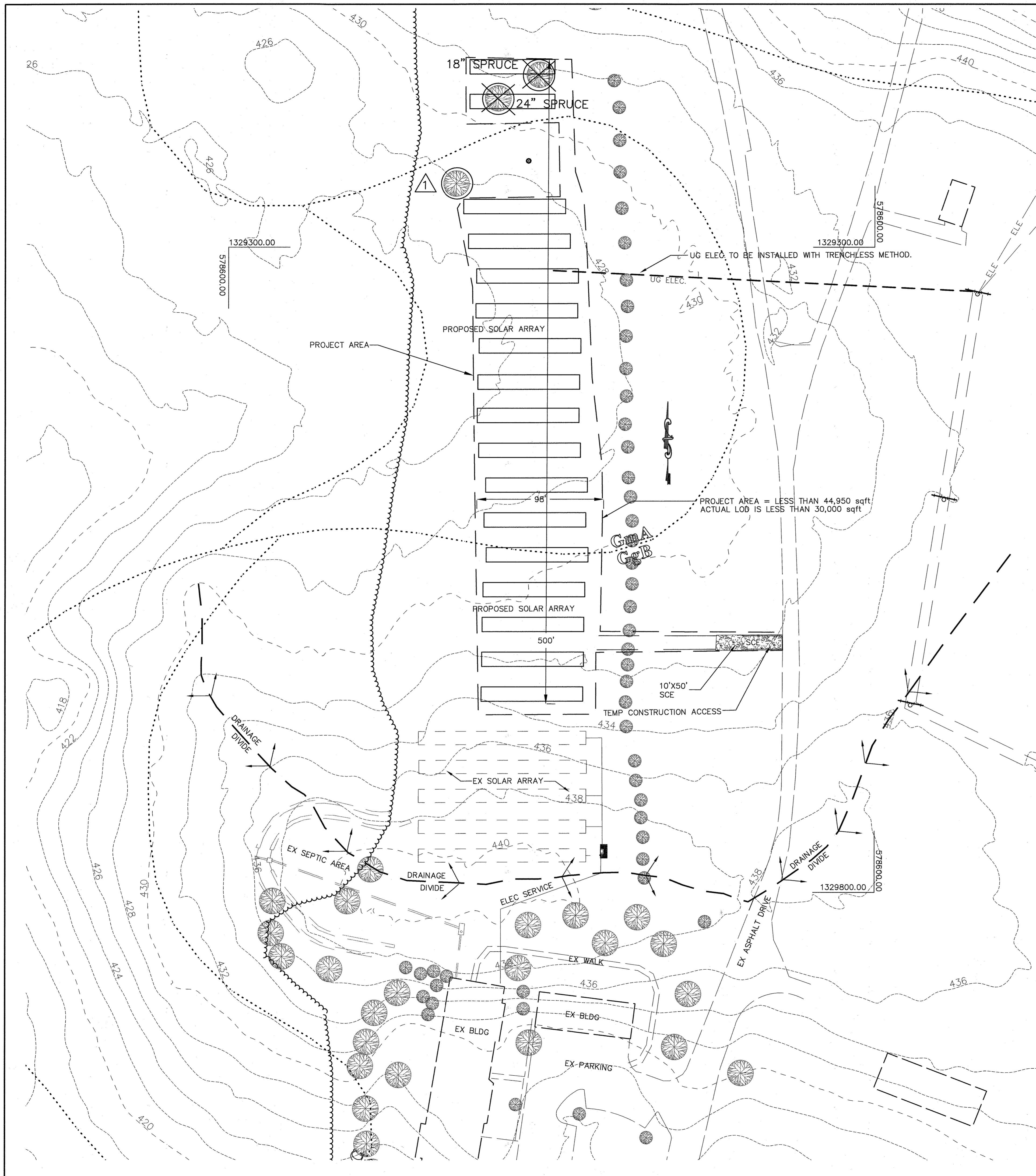
REVISIONS			
REV	BY	DATE	COMMENTS
REV A	NFT	1/3/13	INSTALLATION OF SOLAR ARRAY

JOB DETAILS	
#42	Howard County
MODULES	(390) TRINA SOLAR # TSM-235PA05

APPROVED : DEPARTMENT OF PLANNING AND ZONING			
CHIEF, DEVELOPMENT ENGINEERING DIVISION	<i>[Signature]</i>	DATE	1/15/13
CHIEF, DIVISION OF LAND DEVELOPMENT	<i>[Signature]</i>	DATE	1/16/13
DIRECTOR	<i>[Signature]</i>	DATE	1/16/13
DATE	NO.	REVISION	

MARKET	DESIGN #
CM/AM	
CHECKED BY:	
DATE	7/6/2012
PAGE NAME	REVISED SITE DEV. PLAN
PROJECT MANAGER	MGTT
JOB NUMBER	JB-210241-00
PAGE	REV
2	16 of 35

- f - | - e - | - d - | - c - | - b - | - a -



PRIOR TO VEHICLES LEAVING THE SITE, WHEELS SHALL BE CLEANED OR WASHED TO REMOVE SEDIMENT. ALL SEDIMENT SPILLED, DROPPED OR TRACKED ONTO ROAD MUST BE REMOVED IMMEDIATELY BY VACUUMING, SCRAPING OR SWEEPING. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE THAT DRAINS TO AN APPROVED SEDIMENT CONTROL DEVICE.

- SITE STABILIZATION AND SEEDING**
- TOPSOIL, SEED, FERTILIZE, LIME AND STABILIZE WITH STRAW ALL DISTURBED AREAS FLATTER THAN 3:1 SLOPE. SEED, FERTILIZE, LIME AND STABILIZE WITH SLOPE PROTECTION MATTING ALL DISTURBED AREAS THAT ARE STEEPER THAN 3:1 SLOPE
 - TOPSOIL, SEED MIXTURE AND APPLICATION SHALL BE IN CONFORMANCE WITH PERMANENT SEEDING SUMMARY

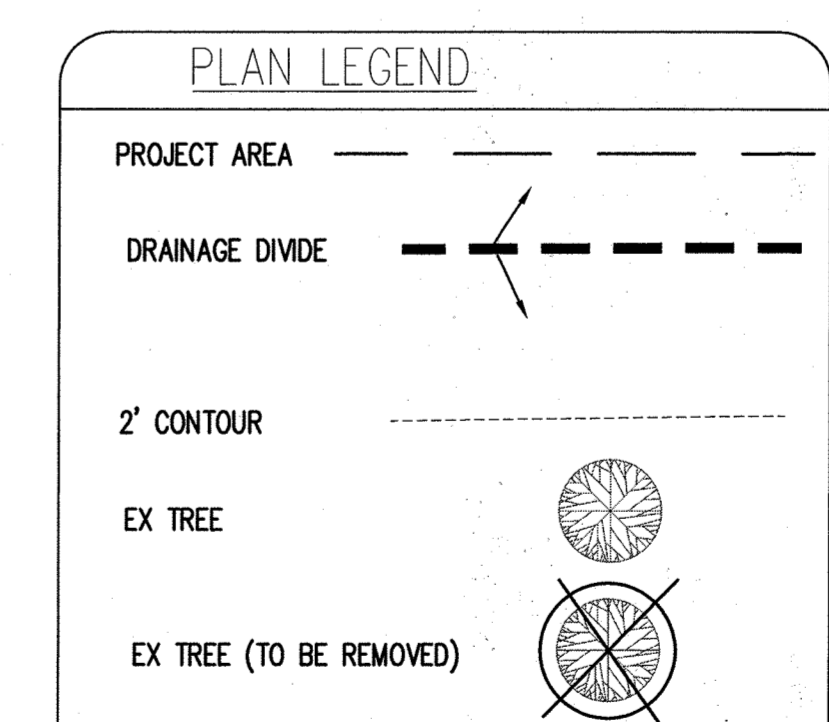
SEQUENCE OF CONSTRUCTION

1. OBTAIN ALL REQUIRED PERMITS. SCHEDULE AND ATTEND THE PRECONSTRUCTION MEETING. (1 DAY)
2. INSTALL STABILIZED CONSTRUCTION ENTRANCE AT EDGE OF EXISTING PAVEMENT OFF PRIVATE DRIVE. (1 DAY)
3. WITH INSPECTORS APPROVAL BEGIN INSTALLATION OF SOLAR ARRAY.
4. AS ARRAY IS INSTALLED STABILIZE WITH PERMANENT SEEDING.
5. WITH PERMISSION OF COUNTY SEDIMENT CONTROL INSPECTOR, REMOVE ALL REMAINING SEDIMENT CONTROL DEVICES AND STABILIZE DISTURBED AREAS IN ACCORDANCE WITH PERMANENT SEEDING NOTES.

PURPOSE STATEMENT

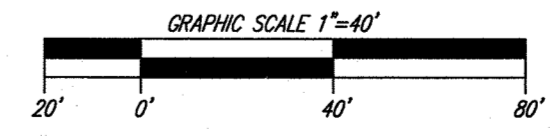
THE PURPOSE OF THE REDLINE REPLACEMENT SHEET IS TO EXPAND THE EXISTING SOLAR ARRAY.

- SOILS SUMMARY**
- GgB - Glenelg Loam - B soils Type
 - GmA - Glenville Silt Loam - A soils Type



BENCH MARK
 HOWARD COUNTY CONTROL STATION 0040
 N 577,270.615
 E 1,332,002.601
 ELEV. 385.326

HOWARD COUNTY CONTROL STATION 0019
 N 580,468.1331
 E 1,333,675.522
 ELEV. 385.870



PHASE II PHOTOVOLTAIC PLAN
 SCALE: 1" = 40'

APPROVED : DEPARTMENT OF PLANNING AND ZONING	
<i>[Signature]</i> CHIEF, DEVELOPMENT ENGINEERING DIVISION	10-22-14 DATE
<i>[Signature]</i> CHIEF, DIVISION OF LAND DEVELOPMENT	10-24-14 DATE
<i>[Signature]</i> DIRECTOR	10/24/14 DATE

DATE NO.	REVISION
OWNER	NOVIATIE OF FRANCISCAN FATHERS MINOR COVENTUALS OF MARYLAND, INC. 1229D FOLLY QUARTER ROAD ELLCOTT CITY, MARYLAND 21042
DEVELOPER	
PROJECT	FRANCISCAN FRIARS PARKING ADDITION
AREA	TAX MAP 22 GRID 24 PARCEL 46 ZONING: RC-DEO 3RD ELECTION DISTRICT HOWARD COUNTY, MARYLAND
TITLE	REVISED SITE DEVELOPMENT PLAN GRADING, SEDIMENT CONTROL/SWM PHOTOVOLTAIC PLAN - PHASE II

PHRA Patton Harris Rust & Associates
 Engineers, Surveyors, Planners, Landscape Architects
 8818 Centre Park Drive, Suite 200, Columbia, MD, 21045
 Tel: 410-997-8900 Fax: 410-997-9282

SEAL

DESIGNED BY : JAR
 DRAWN BY: JN
 PROJECT NO : SOLR1205
 DATE : 10/17/14
 SCALE : 1"=40'
 DRAWING NO. 17 OF 20-35

244 KW SOLAR PV SYSTEM FOR ORDER OF FRIARS MINOR CONVENTUAL, ST. ANTHONY OF PADUA PROVINCE

APN: 1403285332



3055 Clearview Way, San Mateo, CA 94402
TEL: (888) 406-1025 | F: (650) 638-1028
(888) 406-CITY (752-2489) | www.solarcity.com

CONFIDENTIAL - THE INFORMATION HEREIN CONTAINED SHALL NOT BE USED FOR THE BENEFIT OF ANYONE EXCEPT SOLARCITY INC., NOR SHALL IT BE DISCLOSED IN WHOLE OR IN PART TO OTHERS OUTSIDE THE RECIPIENT'S ORGANIZATION, EXCEPT IN CONNECTION WITH THE SALE AND USE OF THE RESPECTIVE SOLARCITY EQUIPMENT, WITHOUT THE WRITTEN PERMISSION OF SOLARCITY INC.

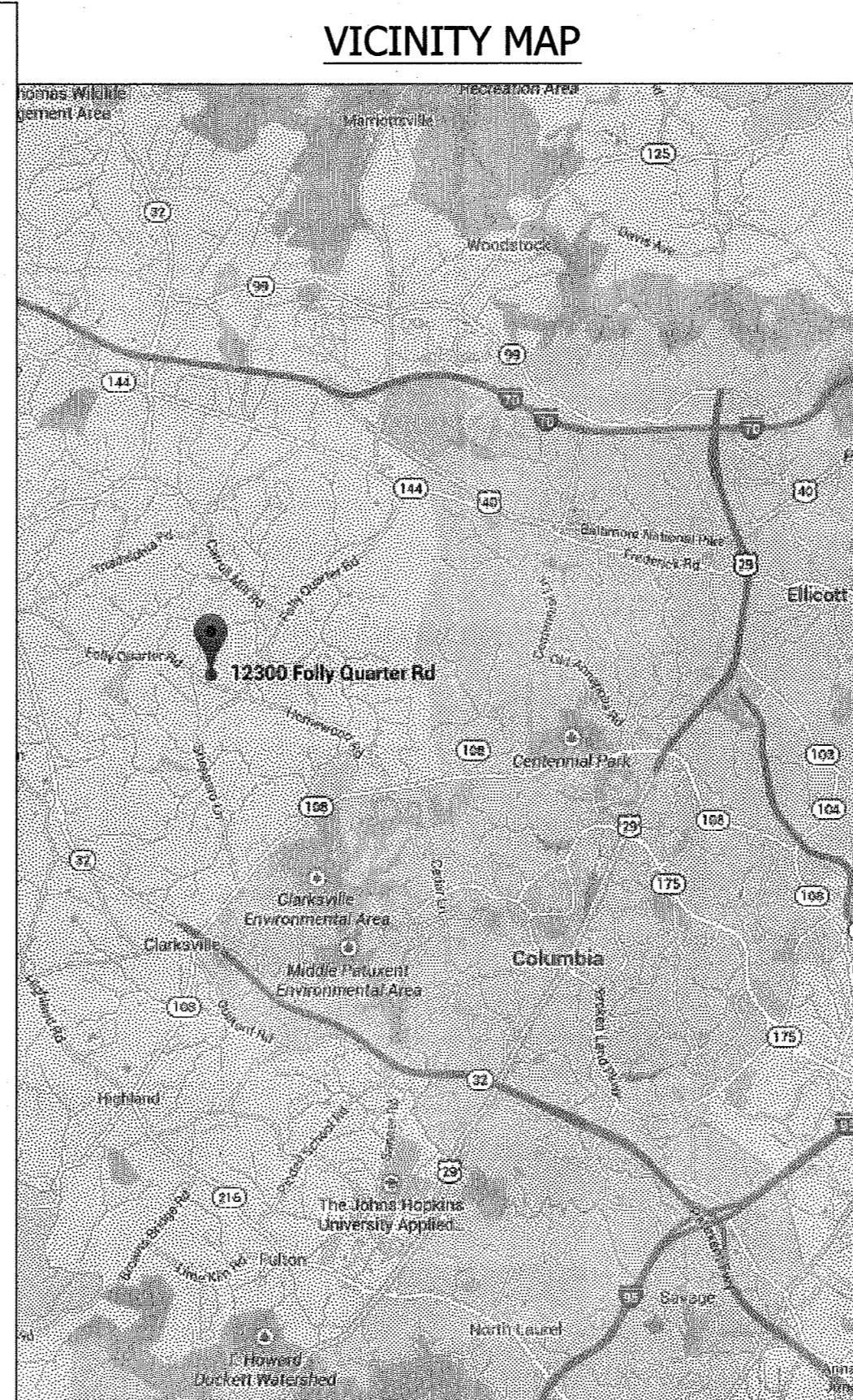
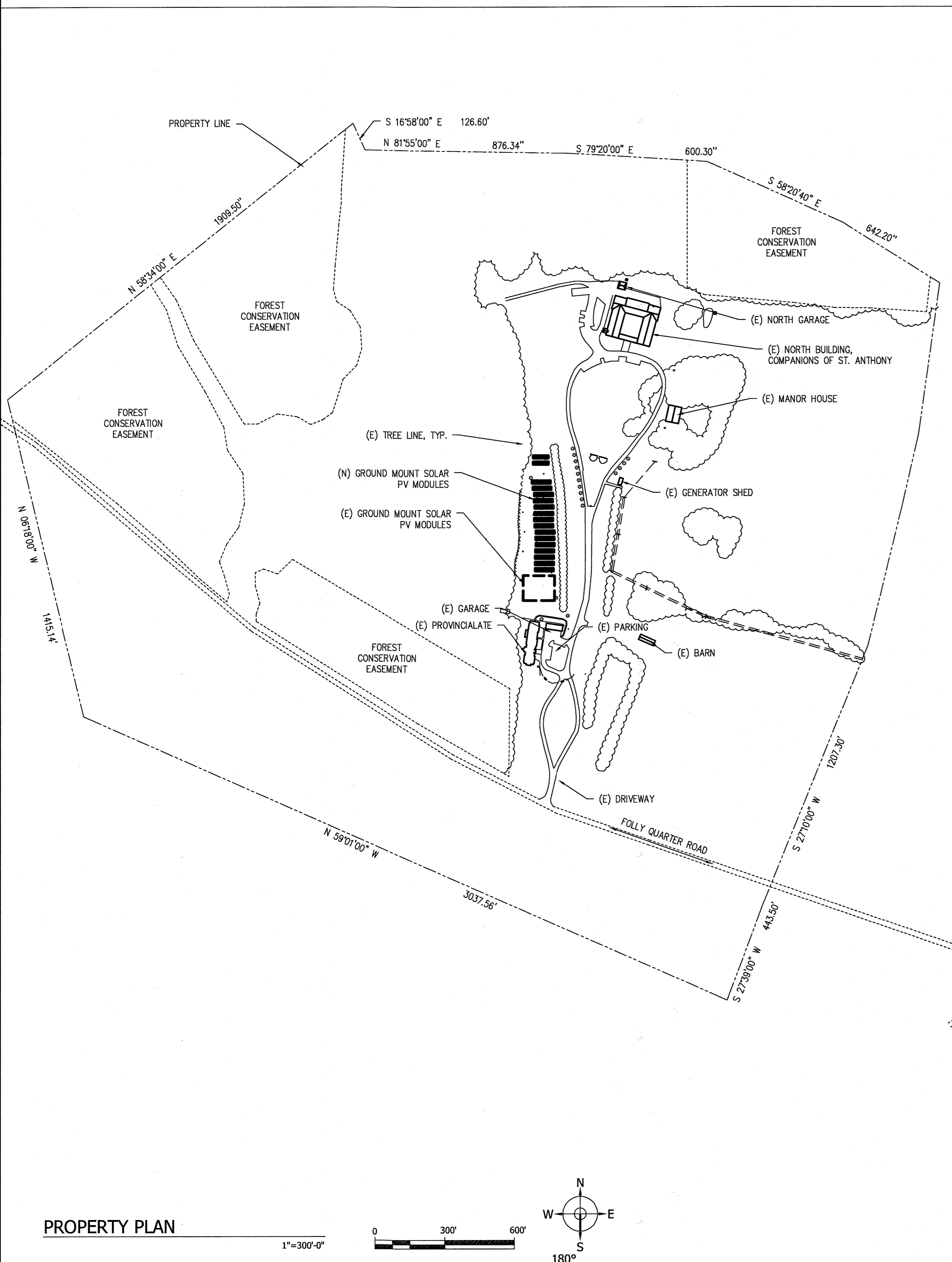
PROJECT TEAM

DESIGN PROFESSIONAL
IN RESPONSIBLE CHARGE:

ALLEN CHANG
SOLARCITY, INC.
3055 CLEARVIEW WAY
SAN MATEO, CA 94402
TEL: (888) 765-2489 x55783
FAX: (650) 362-2136
ACHANG@SOLARCITY.COM

ELECTRICAL ENGINEER:

MATTHEW BAILEY
SOLARCITY, INC.
3055 CLEARVIEW WAY
SAN MATEO, CA 94402
TEL: (720) 292-1521
FAX: (650) 362-2136
MBAILEY@SOLARCITY.COM



GENERAL NOTES

ALL WORK SHALL COMPLY WITH ALL STATE AND LOCAL CODES AND ANY OTHER REGULATING AUTHORITIES WHICH HAVE AUTHORITY OVER ANY PORTION OF THE WORK.

DRAWINGS HAVE BEEN DETAILED IN COMPLIANCE WITH UL LISTING REQUIREMENTS, OSM SOLAR PHOTOVOLTIC INSTALLATION REQUIREMENTS, AND BUILDING CODES FOR THE MATERIALS SPECIFIED.

PRIOR TO COMMENCEMENT OF ANY WORK, THE CONTRACTOR SHALL VERIFY EXISTING CONDITIONS AND NOTIFY THE DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE FROM SOLARCITY OF ANY DISCREPANCIES. ANY WORK PERFORMED IN CONFLICT WITH THE CONTRACT DOCUMENTS SHALL BE CORRECTED AT THE SUBCONTRACTORS SOLE EXPENSE.

SUBCONTRACTOR INITIATED CHANGES SHALL BE SUBMITTED IN WRITING TO SOLARCITY FOR APPROVAL BEFORE MAKING ANY CHANGES. DEVIATION FROM PLANS BEFORE WRITTEN APPROVAL FROM SOLARCITY PLACES LIABILITY ON THE SUBCONTRACTOR.

ALL EQUIPMENT SHALL BE MOUNTED AS SHOWN. WHERE DETAILS ARE NOT PROVIDED, CONTRACTOR SHALL USE STANDARD CONSTRUCTION PRACTICES.

ALL SURFACES SHALL BE PATCHED AND PAINTED AROUND NEW DEVICES AND EQUIPMENT TO MATCH EXISTING FINISHES.

ANY METAL SHAVINGS FROM SITE WORK SHALL BE CLEANED FROM ALL SURFACES WHERE OXIDIZED OR CONDUCTIVE METAL SHAVINGS MY CAUSE RUST, ELECTRICAL SHORT CIRCUITS, OR OTHER DAMAGE.

BEAMS OR PURLINS SHALL NOT BE DRILLED UNLESS AUTHORIZED BY SOLARCITY OR SHOWN IN THE DRAWINGS.

APPROVALS FROM BUILDING INSPECTORS SHALL NOT CONSTITUTE AUTHORITY TO DEVIATE FROM THE DRAWINGS.

ABBREVIATIONS

- A AMPERE
- AC ALTERNATING CURRENT
- ADA AMERICANS WITH DISABILITIES
- ACT ACT
- ASTM AMERICAN SOCIETY FOR TESTING AND MATERIALS
- BLDG BUILDING
- CLR CLEAR
- CONC CONCRETE
- DC DIRECT CURRENT
- DIA DIAMETER
- DIST DISTANCE
- EQ EQUAL
- EGC EQUIPMENT GROUNDING CONDUCTOR
- (E) EXISTING
- EA EACH
- EMT ELECTRICAL METALLIC TUBING
- GALV GALVANIZED
- GEC GROUNDING ELECTRODE CONDUCTOR
- GROUND GROUND
- HDG HOT DIPPED GALVANIZED CURRENT
- I Imp
- INVS INVERTERS
- Isc SHORT CIRCUIT CURRENT
- kVA KILOWATT AMPERE
- kW KILOWATT
- kWh KILOWATT-HOUR
- LBW LOAD BEARING WALL
- MAX MAXIMUM
- MIN MINIMUM
- (N) NEW
- NEC NATIONAL ELECTRIC CODE
- NIC NOT IN CONTRACT
- NTS NOT TO SCALE
- OC ON CENTER
- OCP OVERCURRENT PROTECTION
- PL PROPERTY LINES
- PV PHOTOVOLTAIC
- PVC POLYVINYL CHLORIDE
- SCH SCHEDULE
- SQ. IN. SQUARE INCHES
- SS STAINLESS STEEL
- SSD SEE STRUCTURAL DRAWINGS
- STC STANDARD TESTING CONDITIONS
- TYP TYPICAL
- UON UNLESS OTHERWISE NOTED
- UPS UNINTERRUPTIBLE POWER SUPPLY
- VIF VERIFY IN FIELD
- V VOLT
- Vmp VOLTAGE AT MAX POWER
- Voc VOLTAGE AT OPEN CIRCUIT
- W WATT
- 3R NEMA 3R, RAIN/TIGHT

SYSTEM SUMMARY

MODULE: (800) CANADIAN SOLAR CS6X-305-P

INVERTER: (10) SOLARMAX MTA 18KW

RACK TYPE: RBT

ARRAY TILT: 18.0

AZIMUTH: 30

DESIGN CRITERIA

GROSS ARRAY AREA: 30,360 SQFT

WIND SPEED: 90 MPH

EXPOSURE: CATEGORY B

SNOW LOAD: 30 PSF

CODE SUMMARY

BUILDING CODE
ALL WORK SHALL COMPLY WITH THE 2012 INTERNATIONAL BUILDING CODE.

ELECTRICAL CODE
ALL ELECTRICAL WORK SHALL COMPLY WITH THE 2011 NATIONAL ELECTRIC CODE.

INDEX

- PV1 COVER SHEET
- PV2 ELECTRICAL SITE PLAN
- PV3 ARRAY PLAN
- PV4 ACCESS PLAN
- PV5 DEMOLITION PLAN
- PV6 EQUIPMENT MOUNTING DETAILS
- PV7 EQUIPMENT DETAILS
- PV8 ELECTRICAL SYMBOLS & NOTES
- PV9 LINE DIAGRAM
- PV10 LINE DIAGRAM
- PV11 MONITORING LINE DIAGRAM
- PV12 WARNING LABELS

APPROVED : DEPARTMENT OF PLANNING AND ZONING

[Signature] 10-22-14
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

[Signature] 10-24-14
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

[Signature] 10/24/14
DIRECTOR DATE

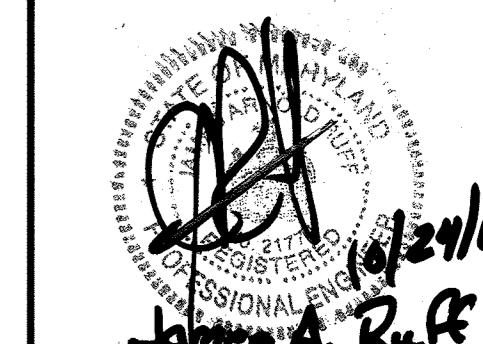
DATE	NO.	REVISION

RBT GROUND MOUNT RACKING
DRAWINGS AND CALCULATIONS BY
OTHERS

PURPOSE STATEMENT

THE PURPOSE OF THE REDLINE REPLACEMENT SHEET IS TO EXPAND THE EXISTING SOLAR ARRAY.

ORDER OF FRIARS MINOR CONVENTUAL
244 KW GROUND MOUNT PV SYSTEM
ORDER OF FRIARS MINOR CONVENTUAL,
ST ANTHONY OF PADUA PROVINCE
12300 FOLLY QUARTER ROAD, ELICOTT CITY, MD 21042
(410) 531-1400



REV	BY	DATE	COMMENTS
REV A	AC	8/28/14	PWMR UPSTED TO #10

JOB DETAILS
REL
Howard County
PROJECT
(800) CANADIAN SOLAR CS6X-305-P

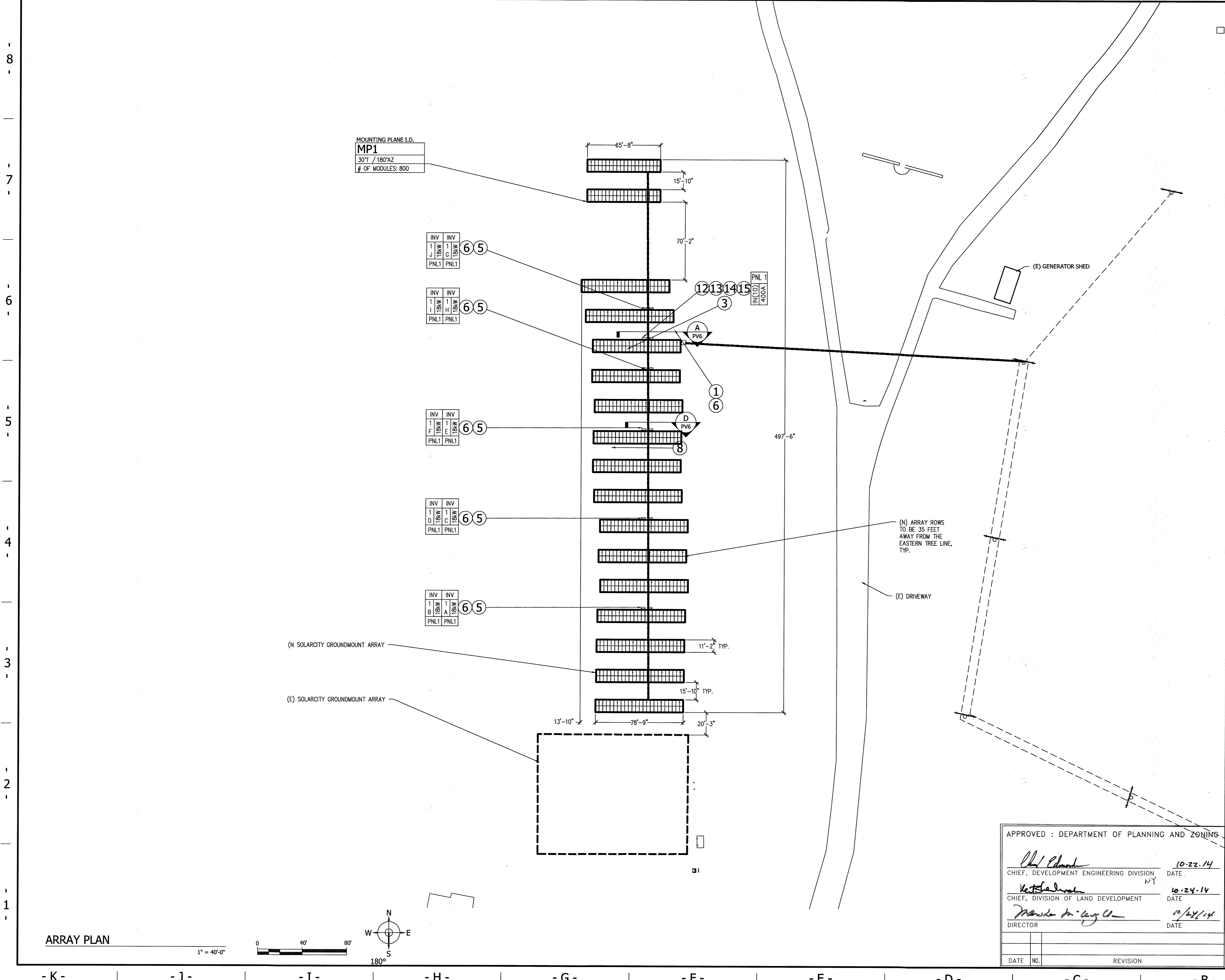
MARKET: PROJECT MANAGER
COM: MATT GITT

DATE: 7/21/2014 PAYMENT TYPE:
SHEET NAME: PPA
COVER SHEET

JOB NUMBER:
JB-210889-00

SHEET: 18 OF 35
PV 1 A

-K- | -J- | -I- | -H- | -G- | -F- | -E- | -D- | -C- | -B- | -A-

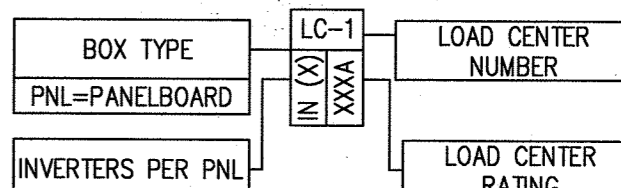


LEGEND

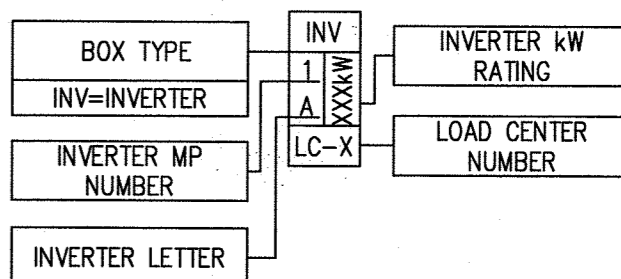
- (N) GROUND-MOUNTED SOLAR PV MODULES (ELECTRICALLY CONNECTED)
- ↓ DOWN SLOPE
- (E) GROUND-MOUNTED SOLAR PV ARRAY
- (E) UTILITY POLE

- KEYED NOTES**
- (N) UTILITY TRANSFORMER PROVIDED BY OTHERS/UTILITY. POINT OF (N) INTERCONNECTION. WARNING LABEL DETAIL 1/PV12.
 - (N) UTILITY METER, PROVIDED BY OTHERS/UTILITY.
 - (N) PV SYSTEM UTILITY AC DISCONNECT, ACDS-1. WARNING LABEL DETAIL 2/PV12.
 - NOT USED.
 - (N) PV INVERTER. WARNING LABEL DETAIL 8/PV12.
 - (N) DC DISCONNECT SWITCH(ES) LOCATED AT INVERTER. WARNING LABEL DETAIL 3/PV12.
 - NOT USED.
 - (N) BORE FOR UNDERGROUND CONDUIT, TYP.
 - NOT USED.
 - NOT USED.
 - NOT USED.
 - (N) MONITORING EQUIPMENT, SOLARGUARD GATEWAY.
 - (N) MONITORING EQUIPMENT, SOLARGUARD PV PRODUCTION kWh METER.
 - (N) MONITORING EQUIPMENT, POWERGUIDE LOAD kWh METER.
 - (N) AC COMBINER PANEL WARNING LABEL DETAILS 6-7/PV12.
 - NOT USED.
 - NOT USED.

INVERTER PANEL BOARD NUMBERING SYSTEM



INVERTER NUMBERING SYSTEM



PURPOSE STATEMENT
 THE PURPOSE OF THE REDLINE REPLACEMENT SHEET IS TO EXPAND THE EXISTING SOLAR ARRAY.

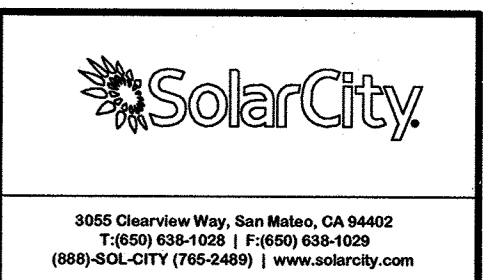
APPROVED : DEPARTMENT OF PLANNING AND ZONING

Chaf Ahmad 10-22-14
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

Katherine... 10-24-14
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

Monica... 10/24/14
 DIRECTOR DATE

DATE	NO.	REVISION



CONFIDENTIAL - THE INFORMATION HEREIN CONTAINED SHALL NOT BE USED FOR THE BENEFIT OF ANYONE EXCEPT SOLAR CITY INC., NOR SHALL IT BE DISCLOSED IN WHOLE OR IN PART TO OTHERS OUTSIDE THE RECIPIENT'S ORGANIZATION, EXCEPT IN CONNECTION WITH THE SALE AND USE OF THE RESPECTIVE SOLAR CITY EQUIPMENT, WITHOUT THE WRITTEN PERMISSION OF SOLAR CITY INC.

ORDER OF FRIARS MINOR CONVENTUAL
 244 KW GROUND MOUNT PV SYSTEM

ORDER OF FRIARS MINOR CONVENTUAL,
 ST ANTHONY OF PADUA PROVINCE
 12300 FOLLY QUARTER ROAD, ELLICOTT CITY, MD 21042
 (410) 531-1400

James A. Ruff
 REVISIONS

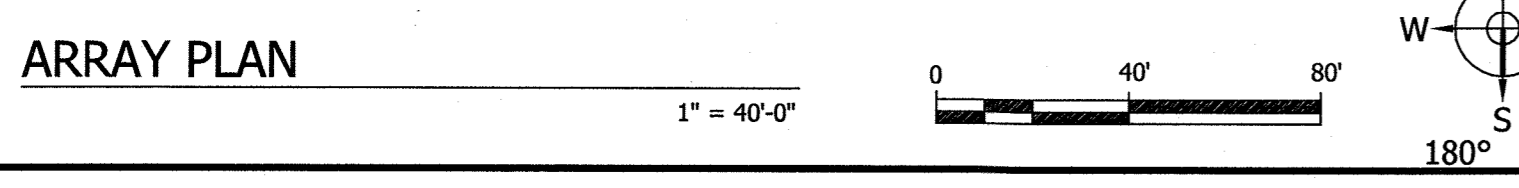
REV	BY	DATE	COMMENTS
REV A	AC	8/28/14	PVWRE UPDATED TO #10

JOB DETAILS

THE: Howard County
 MODULES: (800) CANADIAN SOLAR CS6X-305-P

MOUNTING SYSTEM
 GROUND MOUNT
 INVERTERS: (10) SolarMax # MTA 18
 DESIGNER: ALLEN CHANG

CHECKED BY: #
 MARKED: COMM PROJECT MANAGER: MATT GITT
 DATE: 7/21/2014 PERMIT TYPE: PPA
 SHEET NAME: ARRAY PLAN
 JOB NUMBER: JB-210889-00
 SHEET 19 OF 35
 PV 3 A



-K- | -J- | -I- | -H- | -G- | -F- | -E- | -D- | -C- | -B- | -A-

-K- | -J- | -I- | -H- | -G- | -F- | -E- | -D- | -C- | -B- | -A-



3055 Clearview Way, San Mateo, CA 94402
 T (800) 638-1029 | F (650) 638-1029
 (800) SOL-CITY (762-2487) | www.solarcity.com

CONFIDENTIAL - THE INFORMATION HEREIN CONTAINED SHALL NOT BE USED FOR THE BENEFIT OF ANYONE EXCEPT SOLAR CITY INC. NOR SHALL IT BE DISCLOSED IN WHOLE OR IN PART TO OTHERS OUTSIDE THE RECIPIENT'S ORGANIZATION, EXCEPT IN CONNECTION WITH THE SALE AND USE OF THE RESPECTIVE SOLAR CITY EQUIPMENT, WITHOUT THE WRITTEN PERMISSION OF SOLAR CITY INC.

ORDER OF FRIARS MINOR CONVENTUAL
 244 KW GROUND MOUNT PV SYSTEM
 ORDER OF FRIARS MINOR CONVENTUAL,
 ST ANTHONY OF PADUA PROVINCE
 12300 FOLLY QUARTER ROAD, ELLICOTT CITY, MD 21042
 (410) 531-1400

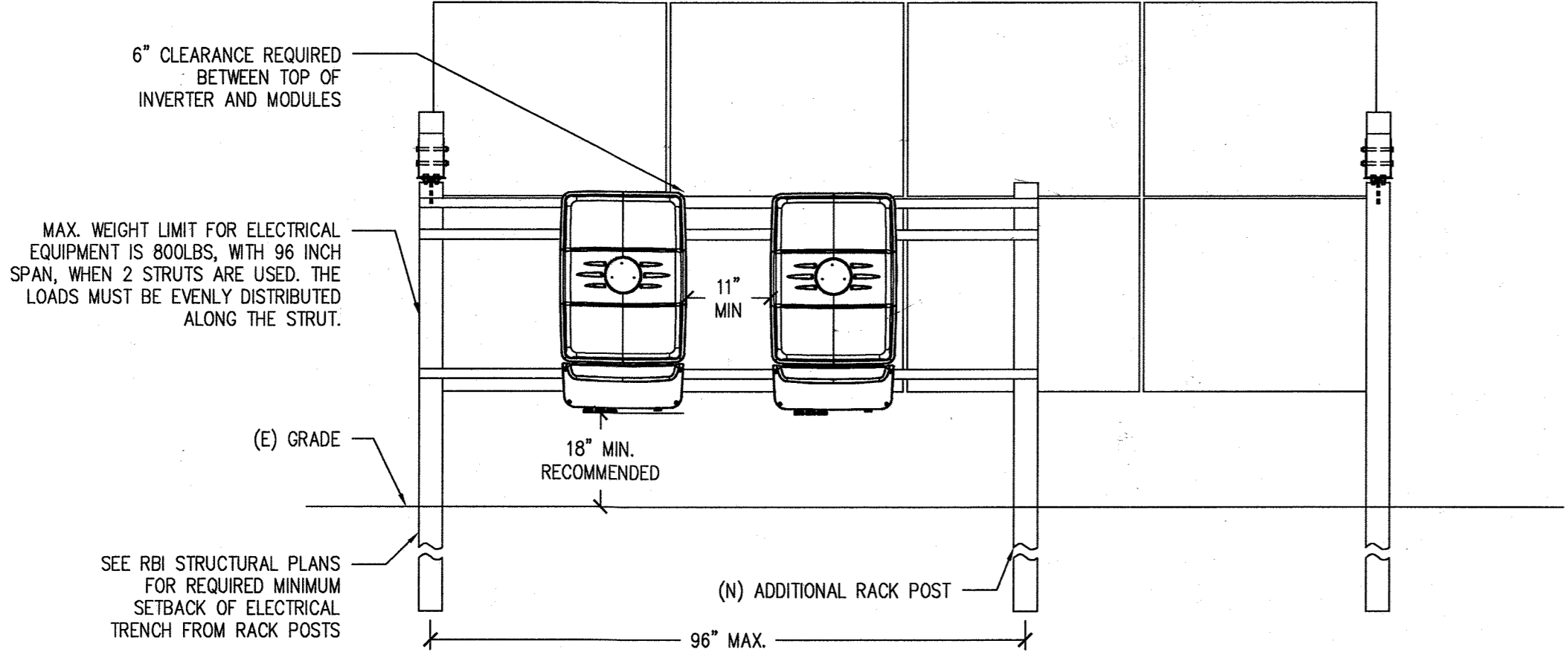


REVISIONS			
REV	BY	DATE	COMMENTS
REV A	AC	8/28/14	POWER UPDATES TO #10

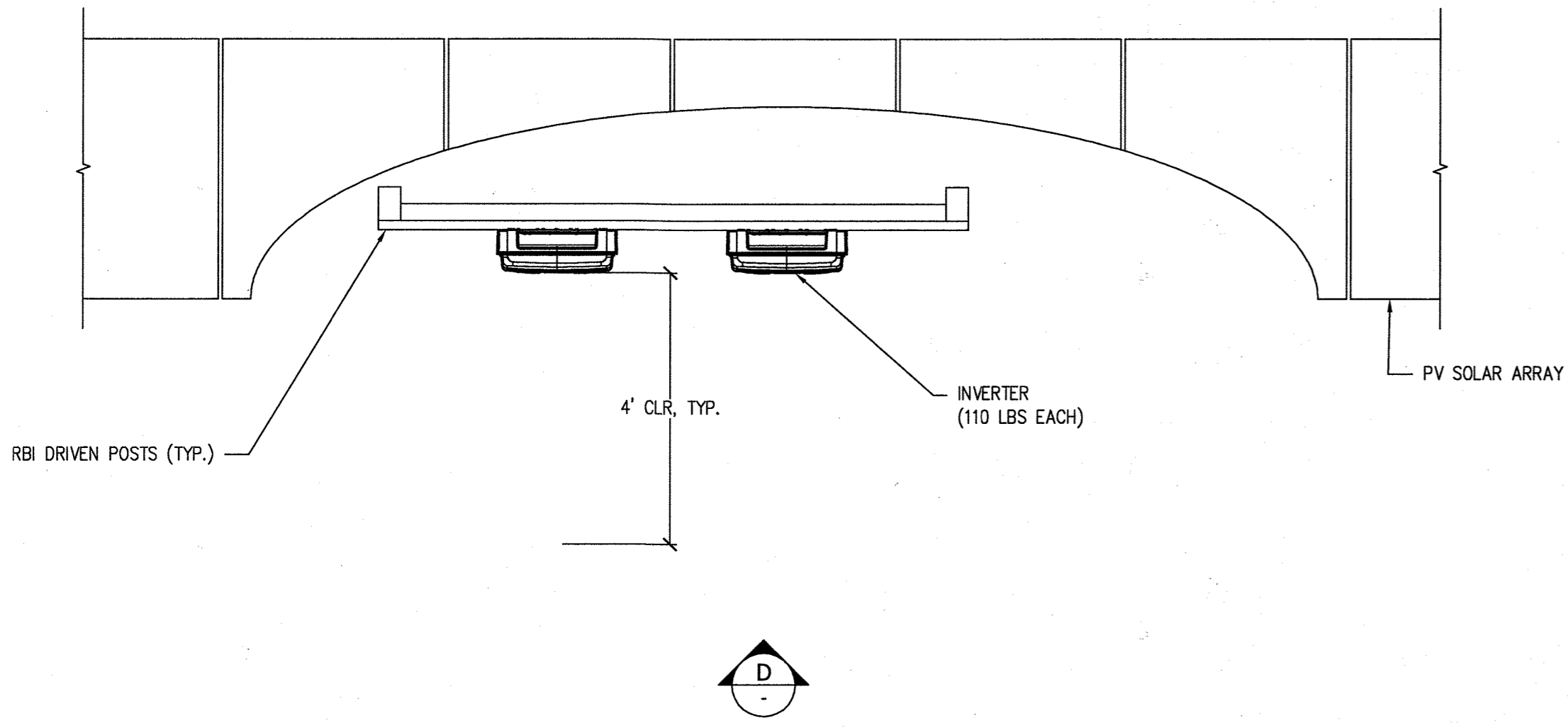
JOB DETAILS			
ALL	Howard County	PROJECT MANAGER:	MATT GITT
MOBILES	(800) CANADIAN SOLAR CS6X-305-P	DESIGNER:	ALLEN CHANG
MOUNTING SYSTEM:	GROUND MOUNT	INVERTER:	(10) SolarMax # MTA 18
CHECKED BY:	*	DATE:	10-22-14
MARKS:	COM/UM	DATE:	10-24-14
DATE:	7/21/2014	PAYMENT TYPE:	PPA
SHEET NAME:	EQUIPMENT MOUNTING DETAILS	DATE:	10/28/14
SHEET NUMBER:	JB-210889-00	DATE:	
DATE:	NO.	REVISION	

PURPOSE STATEMENT
 THE PURPOSE OF THE REDLINE REPLACEMENT SHEET IS TO EXPAND THE EXISTING SOLAR ARRAY.

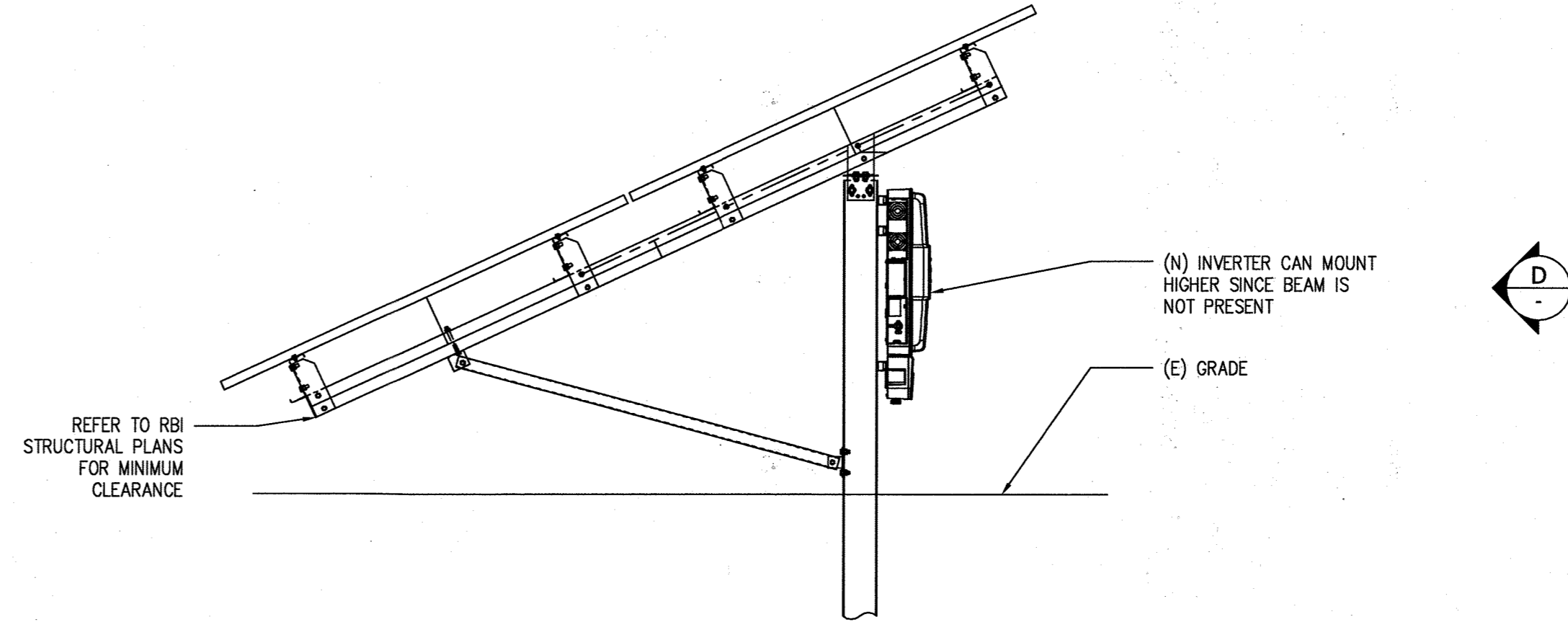
(D) INVERTER MOUNT, TYP. (REAR ELEVATION)
 1/2"=1'-0"



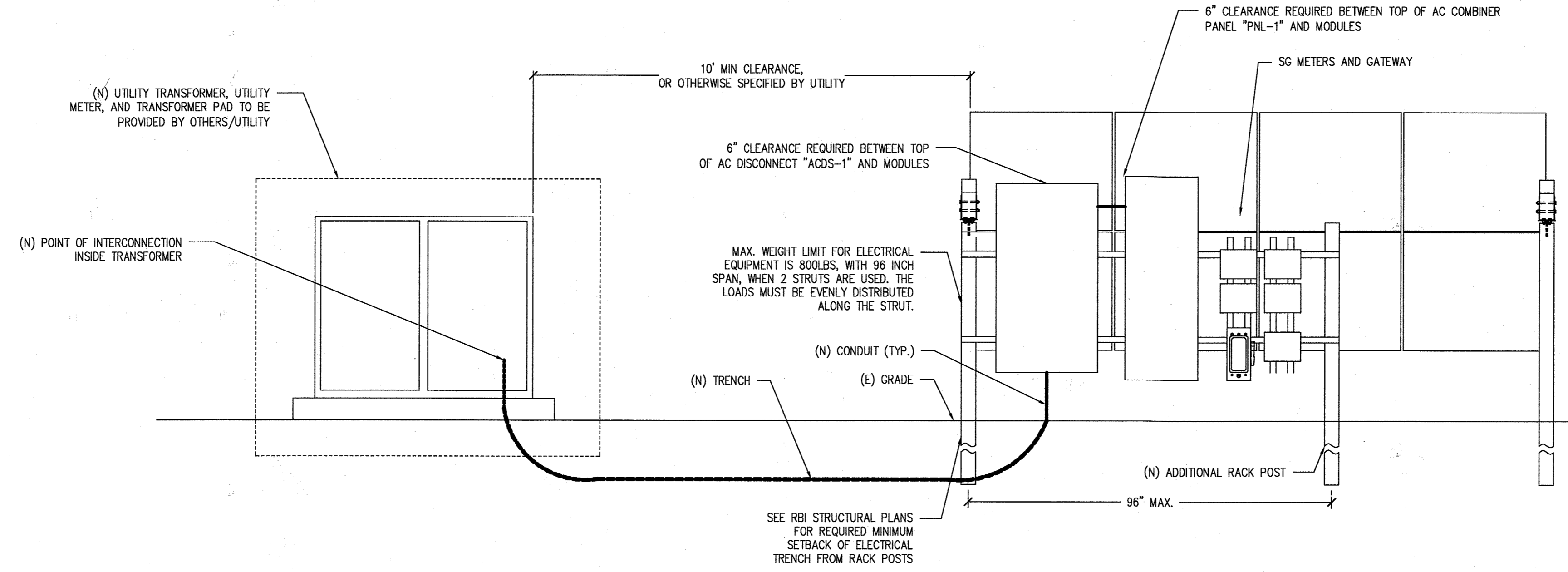
(C) INVERTER MOUNT, TYP. (PLAN VIEW)
 1/2"=1'-0"



(B) INVERTER MOUNT, TYP. (SIDE ELEVATION)
 1/2"=1'-0"



(A) EQUIPMENT RACK (REAR ELEVATION)
 1/2"=1'-0"



-K- | -J- | -I- | -H- | -G- | -F- | -E- | -D- | -C- | -B- | -A-

GENERAL NOTES

- COORDINATES, BEARINGS AND DISTANCES SHOWN HEREON ARE REFERRED TO THE MARYLAND COORDINATE SYSTEM (NAD'83/2011). ELEVATIONS SHOWN HEREON ARE REFERRED TO THE NAVD'88 DATUM. BOTH OF WHICH ARE BASED ON RTK OBSERVATIONS PERFORMED BY RK&K ON 10/08/2020.
- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO FIELD VERIFY ACTUAL SITE CONDITIONS PRIOR TO THE START OF WORK. THERE IS NO WARRANTY OR GUARANTEE ON THE COMPLETENESS OR CORRECTNESS OF THE EXISTING CONDITION INFORMATION SHOWN ON THESE DRAWINGS. ANY DISCREPANCY FOUND SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ENGINEER PRIOR TO STARTING WORK.
- THE CONTRACTOR SHALL FIELD VERIFY HORIZONTAL AND VERTICAL LOCATIONS OF EXISTING UTILITIES PRIOR TO STARTING WORK AND SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES THAT EXIST.
- ALL EXISTING UTILITY SURFACE FEATURES INCLUDING BUT NOT LIMITED TO INLETS, MANHOLES, HAND HOLES, MECHANICAL LIDS, FIRE HYDRANTS, VALVE BOXES, ETC. WITHIN THE LIMITS OF DISTURBANCE TO BE ADJUSTED TO FINISHED GRADE UNLESS OTHERWISE NOTED.
- SEE LANDSCAPE ARCHITECT PLANS FOR TREE PRESERVATION, PLANTING, HARDSCAPE DETAILS AND STAKEOUT PLANS FOR PATHWAYS AND PAVEMENT.
- ALL WORK TO BE COMPLETED IN ACCORDANCE WITH HOWARD COUNTY STANDARD DETAILS AND SPECIFICATIONS UNLESS OTHERWISE NOTED.

DEMOLITION NOTES

- ALL EXISTING FEATURES OUTSIDE OF THE LIMIT OF DISTURBANCE (LOD) ARE TO REMAIN, UNLESS OTHERWISE NOTED. ITEMS OUTSIDE OF THESE LIMITS THAT ARE DAMAGED OR REMOVED BY THE CONTRACTOR SHALL BE RETURNED TO PRE-DEMOLITION CONDITIONS OR REPLACED IN-KIND AT NO ADDITIONAL COST TO THE OWNER.
- CONTRACTOR SHALL SAWCUT ALONG INTERFACES BETWEEN PAVEMENT TO BE REMOVED AND PAVEMENT TO REMAIN. ALL CUTS OF EXISTING PAVEMENT SHALL BE NEAT AND IN A STRAIGHT LINE TO FACILITATE NEW PAVING. CONCRETE SAW CUTS SHALL BE REMOVED TO THE NEAREST JOINT.
- LIMIT OF DISTURBANCE AS SHOWN ON ALL DRAWINGS IS APPROXIMATE AND SHALL NOT PREVENT THE CONTRACTOR FROM EXTENDING BEYOND THESE LIMITS FOR COMPLETE INSTALLATION OF PROJECT ELEMENTS.
- ALL VEGETATION WITHIN THE LIMIT OF DISTURBANCE SHALL BE CLEARED AND GRUBBED. CONTRACTOR TO FLAG FOR DEMOLITION ANY TREES LOCATED OUTSIDE THE LOD THAT MAY BE PERMANENTLY DAMAGED BY CONSTRUCTION ACTIVITIES AND MAY NEED TO BE REMOVED. AT MINIMUM, THESE TREES SHOULD BE >2" CALIPER, HAVE A ROOT ZONE (AREA WITHIN DRIFLINE) THAT IS MORE THAN 25% DISTURBED BY CONSTRUCTION ACTIVITIES. CONTRACTOR TO REMOVE TREES UPON RECEIPT OF WRITTEN OWNER CONFIRMATION.
- CONTRACTOR TO PROTECT AND MAINTAIN IN SERVICE ALL UTILITIES TO REMAIN WITHIN LOD DURING CONSTRUCTION.

EXISTING CONDITIONS LEGEND

- 456 --- EXISTING MINOR CONTOUR
- 455 --- EXISTING MAJOR CONTOUR
- GgB Ha EXISTING SOIL BOUNDARIES AND TYPE
- 50 --- EXISTING EDGE OF ROAD
- 50 --- EXISTING STORM DRAIN AND INLET
- 50 --- EXISTING WATER AND FIRE HYDRANT
- 50 --- EXISTING ELECTRIC
- 50 --- CRITICAL ROOT ZONE
- 50 --- EXISTING UTILITY MANHOLE
- 50 --- EXISTING TREE LINE
- 50 --- EXISTING BUILDING

DEMOLITION LEGEND

- LOD --- LIMIT OF DISTURBANCE
- CLEAR AND GRUB
- MOW DOWN EXISTING GRASS
- GRAVEL TO BE REMOVED
- ASPHALT TO BE REMOVED
- TREES TO BE REMOVED

DEMOLITION KEY NOTES

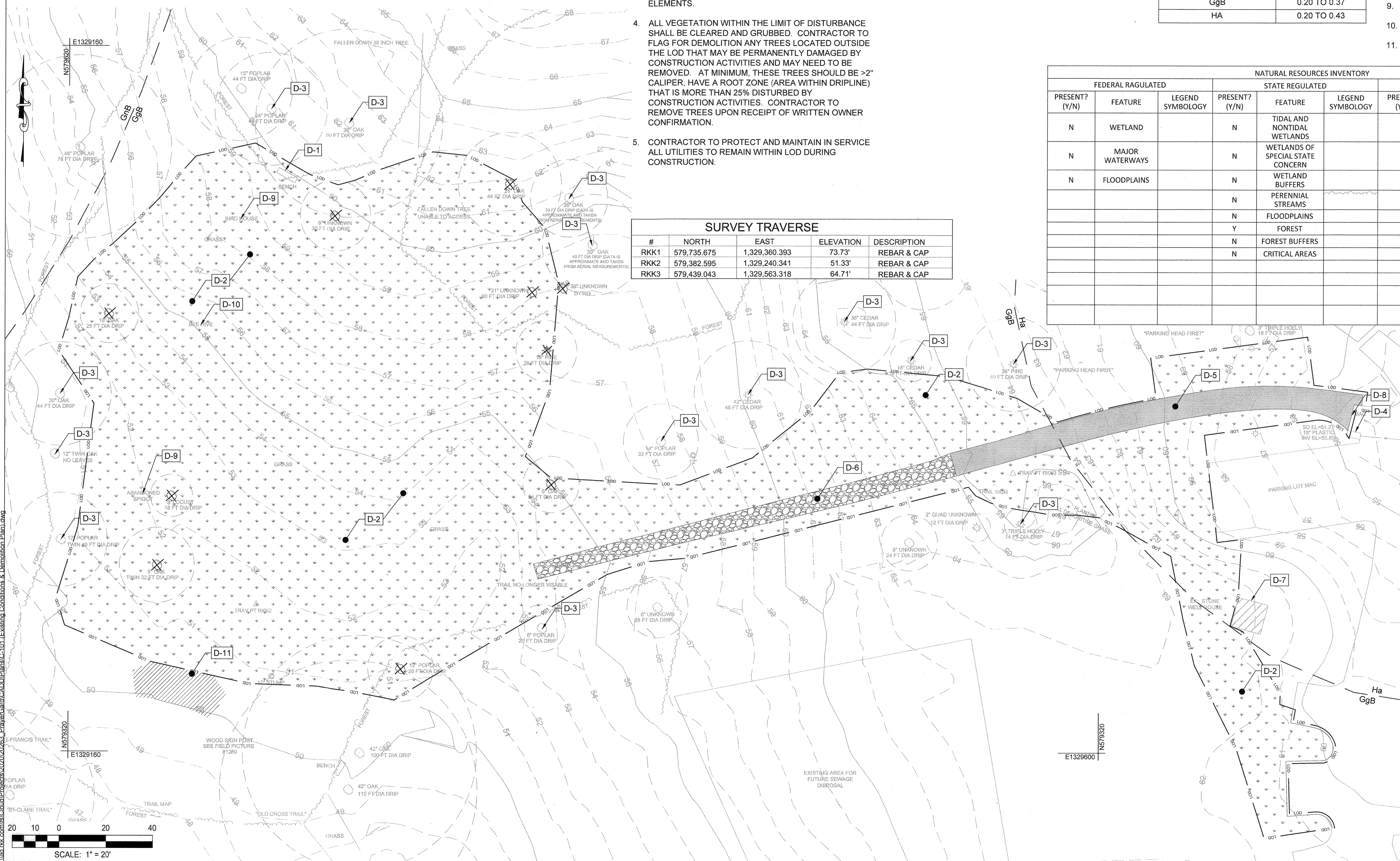


- EXISTING BENCH TO BE REMOVED.
- CLEAR AND GRUB.
- EXISTING TREE TO REMAIN UNDISTURBED.
- EXISTING INLET TO REMAIN UNDISTURBED.
- EXISTING FULL DEPTH ASPHALT PATH TO BE REMOVED.
- EXISTING FULL DEPTH GRAVEL PATH TO BE REMOVED.
- EXISTING STONE WELL HOUSE TO REMAIN UNDISTURBED.
- SAW CUT EXISTING ASPHALT PERPENDICULAR WITH EDGE OF EXISTING INLET.
- EXISTING STRUCTURE TO BE REMOVED.
- EXISTING BEE HIVE TO BE REMOVED.
- MOW DOWN EXISTING GRASS TO 3-4" HEIGHT. NO DISTURBANCE OF EARTH PERMITTED.

SOIL SUMMARY TABLE	
HYDROLOGIC SOIL	K FACTOR
GnB	0.37 TO 0.43
GgB	0.20 TO 0.37
HA	0.20 TO 0.43

SURVEY TRAVERSE				
#	NORTH	EAST	ELEVATION	DESCRIPTION
RKK1	579,735.675	1,329,360.393	73.73'	REBAR & CAP
RKK2	579,382.595	1,329,240.341	51.33'	REBAR & CAP
RKK3	579,439.043	1,329,563.318	64.71'	REBAR & CAP

NATURAL RESOURCES INVENTORY								
FEDERAL REGULATED			STATE REGULATED			LOCAL REGULATED		
PRESENT? (Y/N)	FEATURE	LEGEND SYMBOL	PRESENT? (Y/N)	FEATURE	LEGEND SYMBOL	PRESENT? (Y/N)	FEATURE	LEGEND SYMBOL
N	WETLAND		N	TIDAL AND NONTIDAL WETLANDS		N	STEEP SLOPES	
N	MAJOR WATERWAYS		N	WETLANDS OF SPECIAL STATE CONCERN		N	HIGHLY ERODIBLE SOILS	
N	FLOODPLAINS		N	WETLAND BUFFERS		N	ENHANCED STREAM BUFFERS	
			N	PERENNIAL STREAMS		Y	TOPOGRAPHY/SLOPES	
			N	FLOODPLAINS		N	SPRINGS	
			Y	FOREST		N	SEEPS	
			N	FOREST BUFFERS		N	INTERMITTENT STREAMS	
			N	CRITICAL AREAS		Y	VEGETATIVE COVER	
						Y	SOILS	
						N	BEDROCK/GEOLOGY	
						Y	EXISTING DRAINAGE AREA	
						N	EXISTING SWM FACILITIES	



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

DIRECTOR: *[Signature]* DATE: 12-10-21

CHIEF, DEVELOPMENT ENGINEERING DIVISION: *[Signature]* DATE: 12-1-21

CHIEF, DIVISION OF LAND DEVELOPMENT: *[Signature]* DATE: 12/1/21

DATE	NO.	REVISION

OWNER / DEVELOPER: NOVITIATE OF FRANCISCAN FATHERS, MINOR CONVENTUALS OF MD INC, 12300 FOLLY QUARTER RD, ELLICOTT CITY MD 21042

PROJECT: THE SHRINE OF SAINT ANTHONY PRAYER GARDEN

AREA: 12295 FOLLY QUARTER RD, ELLICOTT CITY, MD 21042, TAX MAP: 22, PARCEL: 46, GRID: 24, ZONED: AGR, ELECTION DISTRICT 3 - HOWARD COUNTY, MARYLAND

TITLE: EXISTING CONDITIONS & DEMOLITION PLAN

RK&K
P-410 728.2900
700 E. Pratt Street, Suite 500 | Baltimore, MD 21202
Engineers | Construction Managers | Planners | Scientists
www.rk.com
Responsive People | Creative Solutions

C-101

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. CHRIS RUPINSKI, LICENSE NO. 23017, EXPIRATION DATE: MARCH 6, 2023.

REVIEWED BY: CDK
DESIGN BY: CWMM/ZWB/MNC
DRAWN BY: ZWB/MNC
PROJECT NO.: 20263
DATE: JULY 23, 2021
SCALE: 1" = 20'
DRAWING NO.: 21_OF_35

COORDINATE SYSTEM: MARYLAND STATE PLANE (HORIZONTAL) NAVD88 (VERTICAL) SDP-04-064

I:\Projects\2020\20263_PrayerGarden\ADD\Drawings\C-101_Existing Conditions & Demolition Plan.dwg

GENERAL NOTES

- COORDINATES, BEARINGS AND DISTANCES SHOWN HEREON ARE REFERRED TO THE MARYLAND COORDINATE SYSTEM (NAD'83/2011). ELEVATIONS SHOWN HEREON ARE REFERRED TO THE NAVD'88 DATUM. BOTH OF WHICH ARE BASED ON RTK OBSERVATIONS PERFORMED BY RK&K ON 10/08/2020.
- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO FIELD VERIFY ACTUAL SITE CONDITIONS PRIOR TO THE START OF WORK. THERE IS NO WARRANTY OR GUARANTEE ON THE COMPLETENESS OR CORRECTNESS OF THE EXISTING CONDITION INFORMATION SHOWN ON THESE DRAWINGS. ANY DISCREPANCY FOUND SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ENGINEER PRIOR TO STARTING WORK.
- THE CONTRACTOR SHALL FIELD VERIFY HORIZONTAL AND VERTICAL LOCATIONS OF EXISTING UTILITIES PRIOR TO STARTING WORK AND SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES THAT EXIST.
- ALL EXISTING UTILITY SURFACE FEATURES INCLUDING BUT NOT LIMITED TO INLETS, MANHOLES, HAND HOLES, MECHANICAL LIDS, FIRE HYDRANTS, VALVE BOXES, ETC. WITHIN THE LIMITS OF DISTURBANCE TO BE ADJUSTED TO FINISHED GRADE UNLESS OTHERWISE NOTED.
- SEE LANDSCAPE ARCHITECT PLANS FOR TREE PRESERVATION, PLANTING, HARDSCAPE DETAILS AND STAKEOUT PLANS FOR PATHWAYS AND PAVEMENT.
- ALL WORK TO BE COMPLETED IN ACCORDANCE WITH HOWARD COUNTY STANDARD DETAILS AND SPECIFICATIONS UNLESS OTHERWISE NOTED.
- SEE SHEET C-101 FOR EXISTING CONDITIONS AND SURVEY LEGEND.

SITE & GRADING NOTES:

- THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY AT 1-800-257-7777 FIVE DAYS PRIOR TO THE START OF ANY EXCAVATION WORK. CONTRACTOR SHALL RECEIVE CLEARANCE FROM MISS UTILITY PRIOR TO THE START OF WORK.
- ALL EXISTING FEATURES OUTSIDE OF THE LIMIT OF DISTURBANCE (LOD) ARE TO REMAIN, UNLESS OTHERWISE NOTED. ITEMS OUTSIDE THESE LIMITS THAT ARE DAMAGED OR REMOVED BY THE CONTRACTOR SHALL BE RETURNED TO PRE-DEMOLITION CONDITIONS OR REPLACED IN-KIND AT NO ADDITIONAL COST TO THE OWNER.
- THE CONTRACTOR SHALL MAINTAIN, REPAIR, AND/OR REPLACE ANY EXISTING SEDIMENT CONTROL DEVICES ENCOUNTERED AND DISTURBED DURING THE COURSE OF CONSTRUCTION AT THE END OF EACH DAY. ALL MEASURES AND DEVICES SHALL BE REPAIRED OR REPLACED BEFORE LEAVING THE WORK SITE.
- ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE LATEST EDITIONS OF THE HOWARD COUNTY, STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS AND HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS STANDARD DETAILS.
- FINISHED GRADES SHALL FALL AWAY FROM EXISTING AND PROPOSED BUILDINGS AT A MINIMUM OF 4% FOR VEGETATED AREAS, A MINIMUM OF 1% FOR CONCRETE SURFACES, AND A MINIMUM OF 3% FOR BITUMINOUS SURFACES UNLESS OTHERWISE INDICATED.
- ALL DISTURBED AREAS NOT STABILIZED WITH STRUCTURES, PAVING, AND/OR PLANTINGS SHALL BE STABILIZED WITH FOUR INCHES OF TOPSOIL, SEED, MULCH AND WATERED TO ESTABLISH AN ADEQUATE GROWTH OF GRASS AS SPECIFIED ON THE EROSION AND SEDIMENT CONTROL NOTES.
- NUMERICAL DIMENSIONS AND ELEVATIONS SHOWN SHALL SUPERSEDE ANY DISCREPANCY IN SCALING ON THE DRAWINGS.
- LIMIT OF DISTURBANCE AS SHOWN ON ALL DRAWINGS IS APPROXIMATE AND SHALL NOT PREVENT THE CONTRACTOR FROM EXTENDING BEYOND THESE LIMITS FOR COMPLETE INSTALLATION OF PROJECT ELEMENTS.
- CONTRACTOR SHALL PROVIDE POSITIVE DRAINAGE AWAY FROM ALL EXISTING AND PROPOSED BUILDING ENTRANCES DURING ALL PHASES OF CONSTRUCTION. CONTRACTOR SHALL NOTIFY ENGINEER / OWNER IF EXISTING OR PROPOSED CONDITIONS RESTRICT ABILITY TO ACHIEVE POSITIVE DRAINAGE FROM BUILDINGS PRIOR TO THE START OF CONSTRUCTION.
- ALL CUTS OF EXISTING PAVEMENT SHALL BE NEAT AND IN A STRAIGHT LINE TO FACILITATE NEW PAVING. CONCRETE SAW CUTS SHALL BE AT THE NEAREST JOINT. PROPOSED CONCRETE SIDEWALK TO MEET EXISTING CONCRETE SIDEWALK AT NEAREST EXISTING CONSTRUCTION JOINT, BRICK OR ASPHALT.
- SPOT ELEVATIONS ARE APPROXIMATE. CONTRACTOR SHALL ADJUST AS NEEDED TO MEET THE DESIGN INTENT.

STORM DRAIN STRUCTURE TABLE

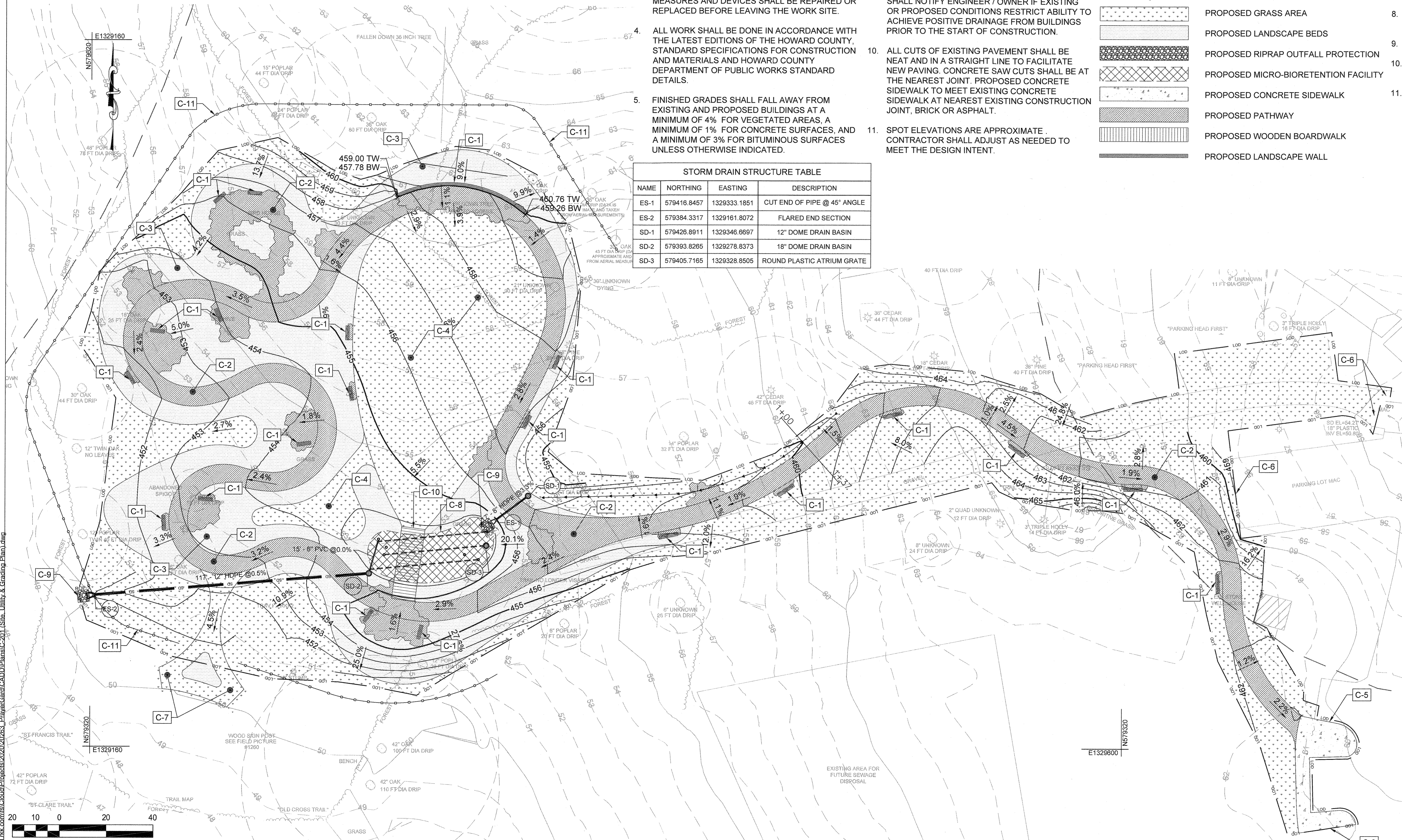
NAME	NORTHING	EASTING	DESCRIPTION
ES-1	579416.8457	1329333.1851	CUT END OF PIPE @ 45° ANGLE
ES-2	579384.3317	1329161.8072	FLARED END SECTION
SD-1	579426.8911	1329346.6697	12" DOME DRAIN BASIN
SD-2	579393.8265	1329278.8373	18" DOME DRAIN BASIN
SD-3	579405.7165	1329328.8505	ROUND PLASTIC ATRIUM GRATE

SITE LEGEND

- LIMIT OF DISTURBANCE
- LIMIT OF WORK
- PROPOSED MINOR CONTOUR
- PROPOSED MAJOR CONTOUR
- PROPOSED 6' CHAIN-LINK DEER FENCING
- SWALE CENTER LINE
- PROPOSED SLOPE
- PROPOSED STORM DRAIN PIPE
- PROPOSED OVERFLOW STRUCTURE
- PROPOSED FLARED END SECTION
- PROPOSED GRASS AREA
- PROPOSED LANDSCAPE BEDS
- PROPOSED RIPRAP OUTFALL PROTECTION
- PROPOSED MICRO-BIORETENTIVE FACILITY
- PROPOSED CONCRETE SIDEWALK
- PROPOSED PATHWAY
- PROPOSED WOODEN BOARDWALK
- PROPOSED LANDSCAPE WALL

SITE KEY NOTES

- KEY C-1
- PROPOSED BENCH/SEAT WALL. (SEE LANDSCAPE DRAWINGS FOR DETAILS)
 - PROPOSED WALKWAY. (SEE LANDSCAPE DRAWINGS FOR DETAILS AND STAKEOUT)
 - PROPOSED LANDSCAPE BEDS. (SEE LANDSCAPE DRAWINGS FOR DETAILS)
 - PROPOSED GRASS AREA. (SEE LANDSCAPE DRAWINGS FOR DETAILS)
 - PROPOSED CONCRETE SIDEWALK. (SEE SHEET C-250 FOR DETAIL)
 - MEET EXISTING.
 - PROPOSED GRASS PATH TO MEET WITH EXISTING TRAILS.
 - PROPOSED SWM FACILITY. (SEE SHEET C-301 FOR SWM PLANS)
 - PROPOSED 5'X5'X1' CLASS 0 RIPRAP OUTFALL.
 - PROPOSED BOARDWALK (SEE LANDSCAPE DRAWINGS FOR DETAILS AND STAKEOUT)
 - PROPOSED 6' CHAIN-LINK DEER FENCING (SEE SHEET C-250 FOR DETAIL)



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

DIRECTOR: *[Signature]* DATE: 12-10-21

CHIEF, DEVELOPMENT ENGINEERING DIVISION: *[Signature]* DATE: 12-1-21

CHIEF, DIVISION OF LAND DEVELOPMENT: *[Signature]* DATE: 12/10/21

DATE: NO. REVISION

OWNER / DEVELOPER: NOVITIATE OF FRANCISCAN FATHERS MINOR CONVENTUALS OF MD INC
12300 FOLLY QUARTER RD
ELLCOTT CITY MD 21042

PROJECT: THE SHRINE OF SAINT ANTHONY PRAYER GARDEN

AREA: 12286 FOLLY QUARTER RD, ELLCOTT CITY, MD 21042
TAX MAP: 22 PARCEL: 46 GRID: 24 ZONED: AGR
ELECTION DISTRICT 3 - HOWARD COUNTY, MARYLAND

TITLE: SITE, UTILITY & GRADING PLAN

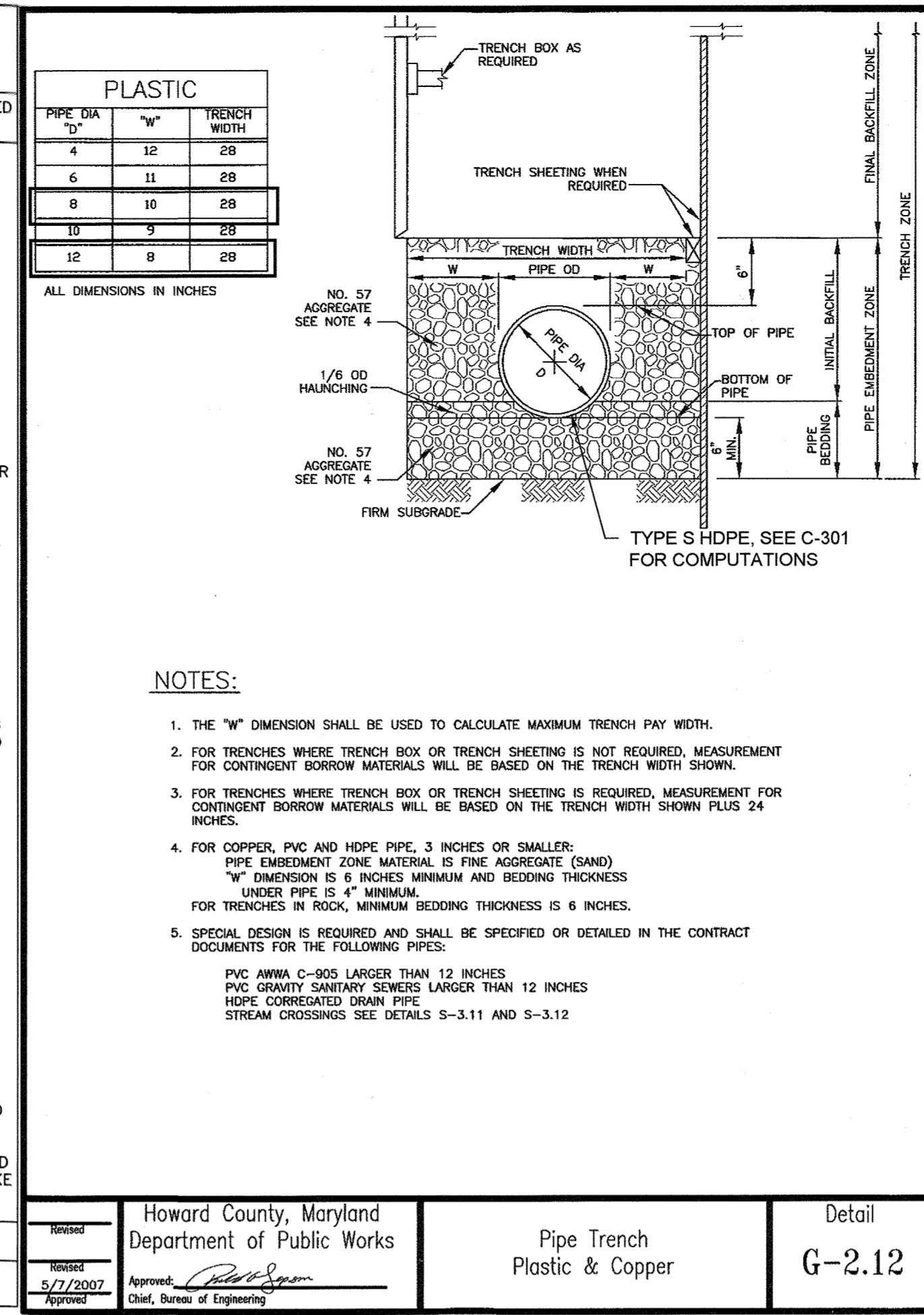
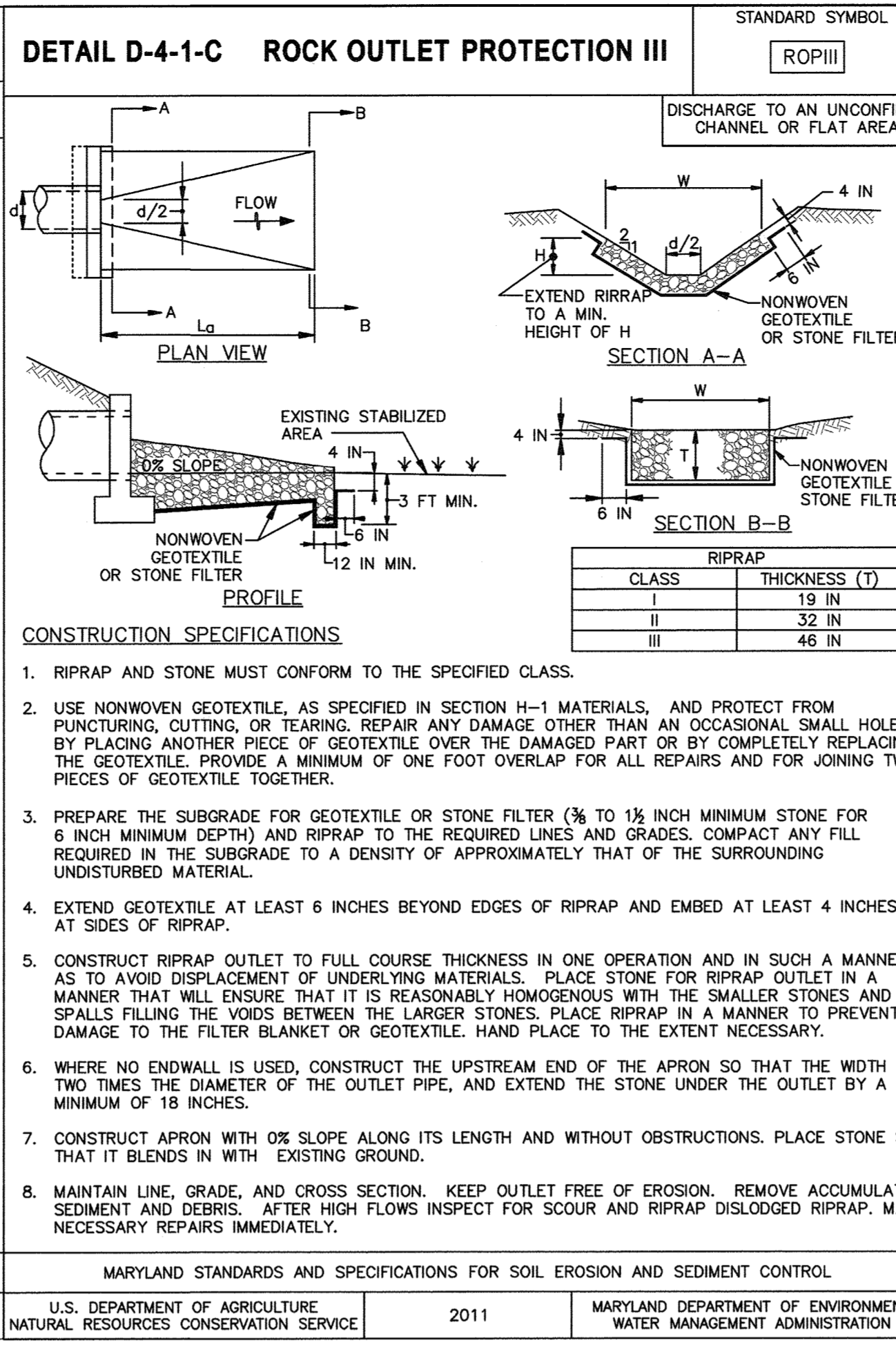
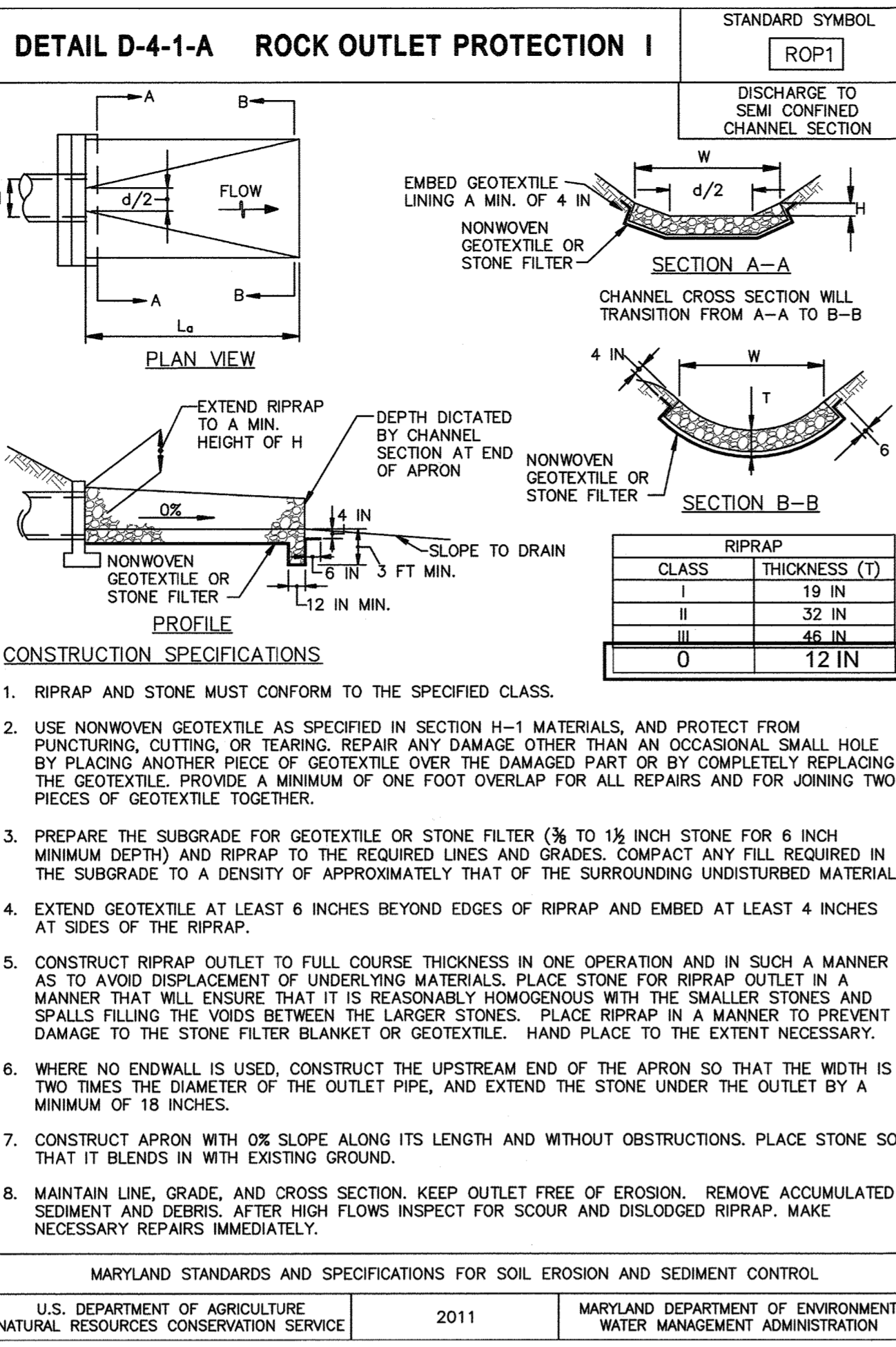
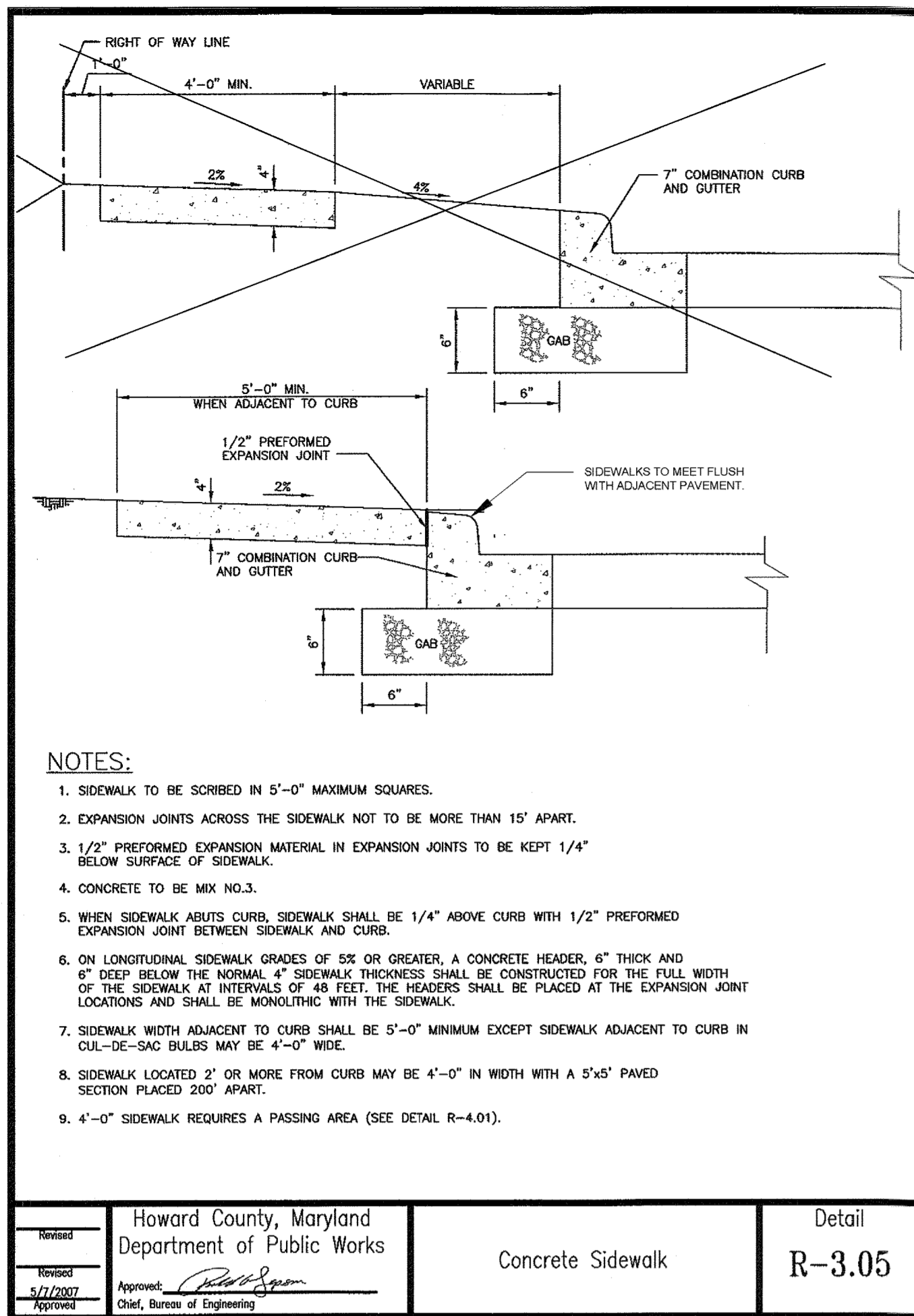
RK&K
P: 410.728.2900
700 E. Pratt Street, Suite 500 | Baltimore, MD 21202
Engineers | Construction Managers | Planners | Scientists
www.rk.com
Responsive People | Creative Solutions

C-201

REVIEWED BY: CDK
DESIGN BY: CWMM/ZWB/MNC
DRAWN BY: ZWB/MNC
PROJECT NO: 20263
DATE: JULY 23, 2021
SCALE: 1" = 20'
DRAWING NO. 22 OF 35

PROFESSIONAL CERTIFICATION: (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, CHRIS KRUPINSKI LICENSE NO. 29912 EXPIRATION DATE: MARCH 6, 2023)

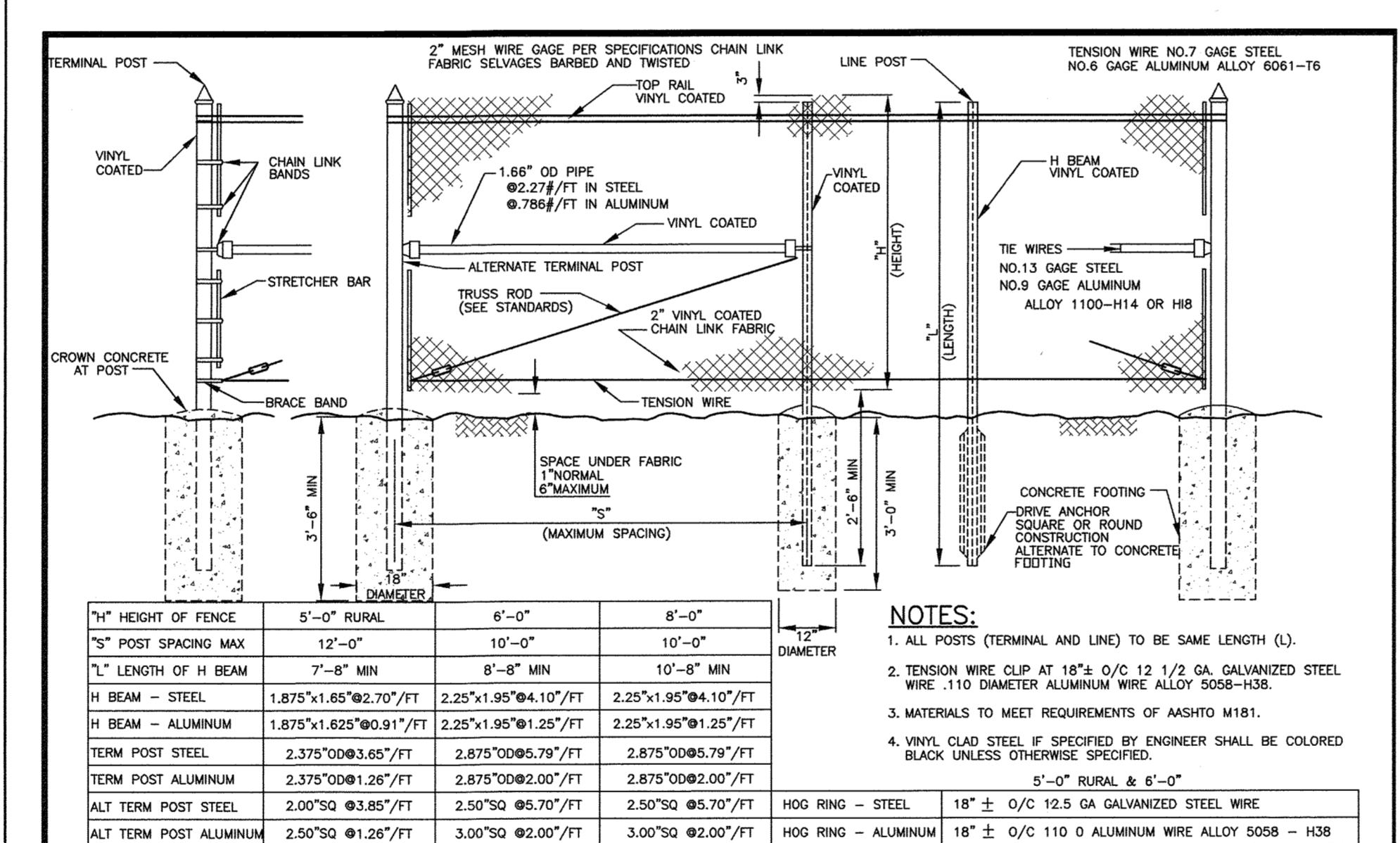
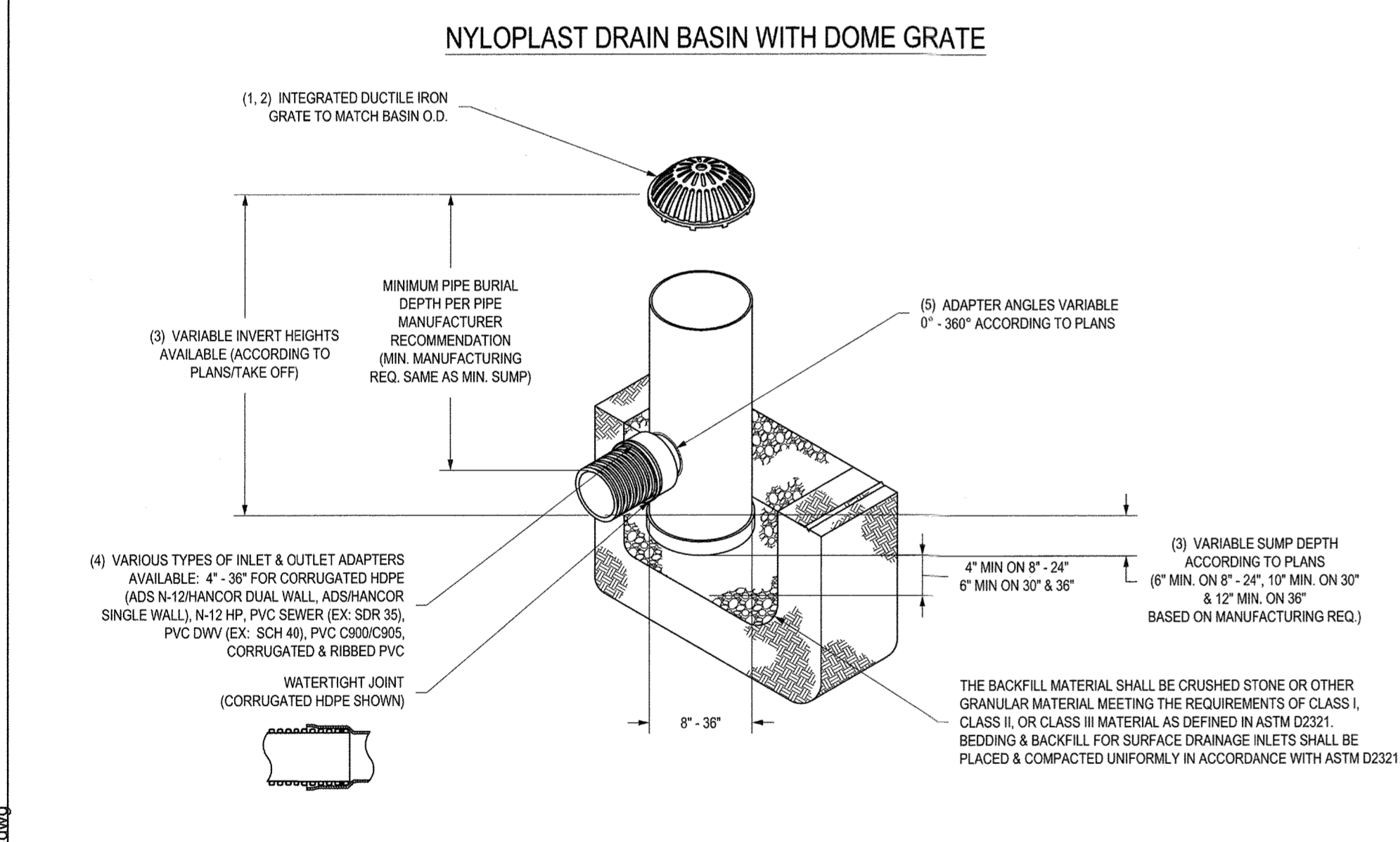
COORDINATE SYSTEM: MARYLAND STATE PLANE (HORIZONTAL) NAVD88 (VERTICAL) SDP-04-064



Howard County, Maryland Department of Public Works	Concrete Sidewalk	Detail R-3.05
---	-------------------	------------------

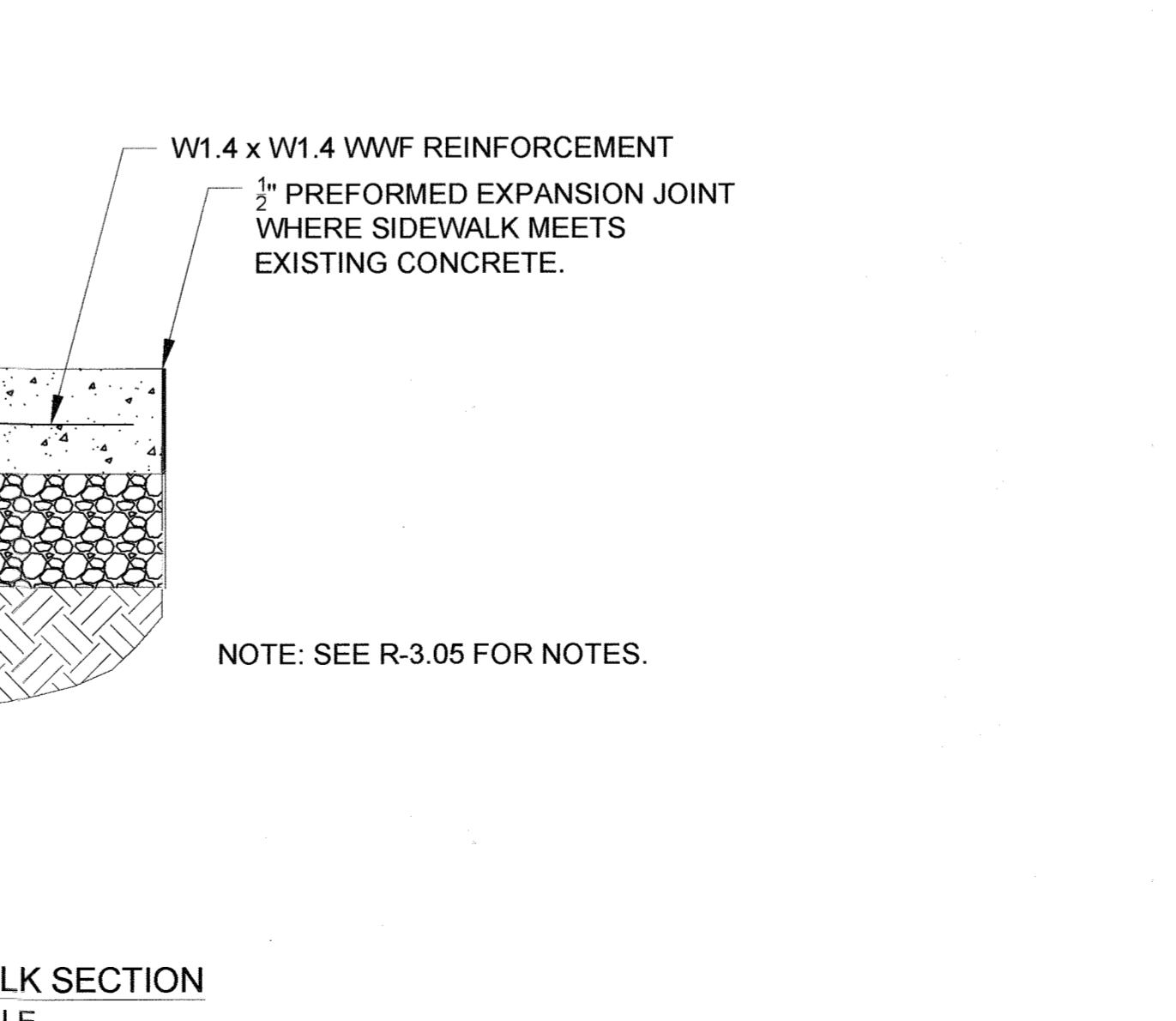
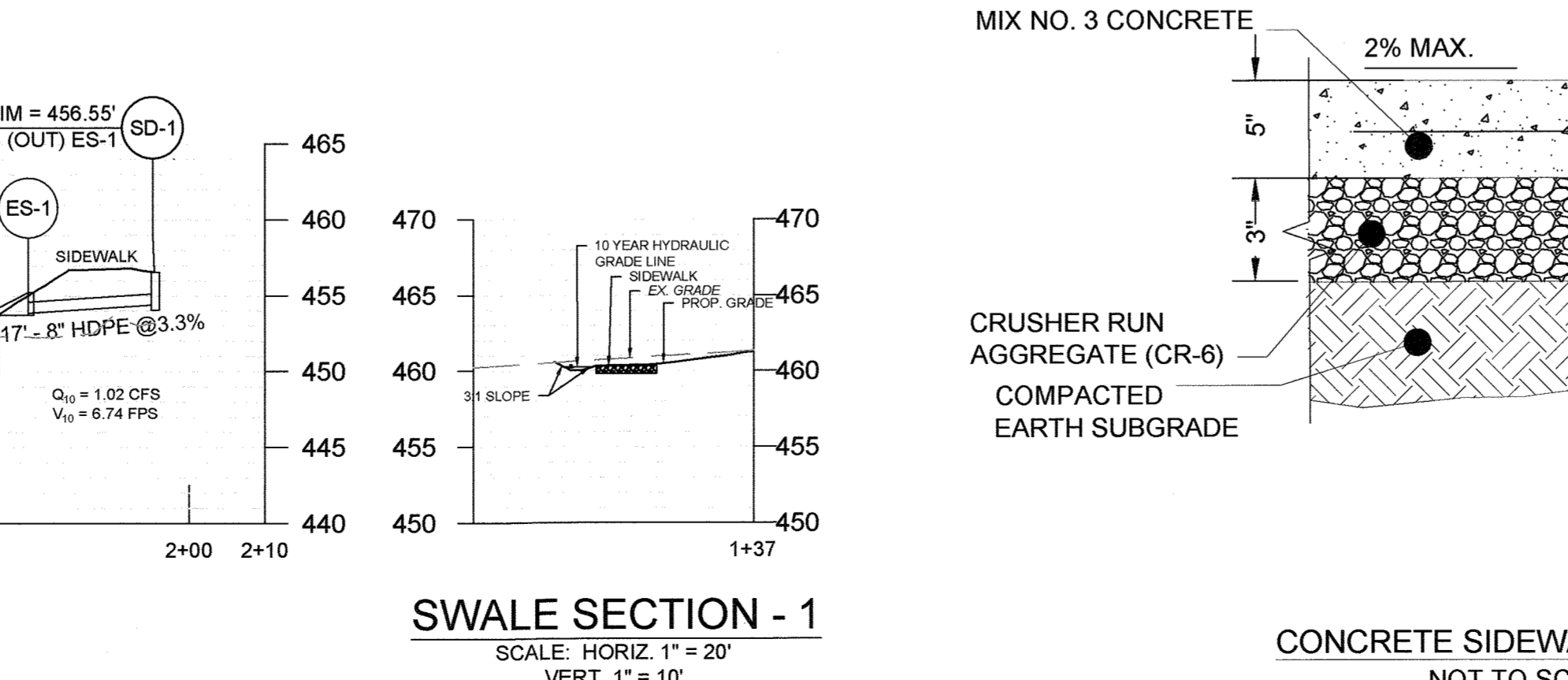
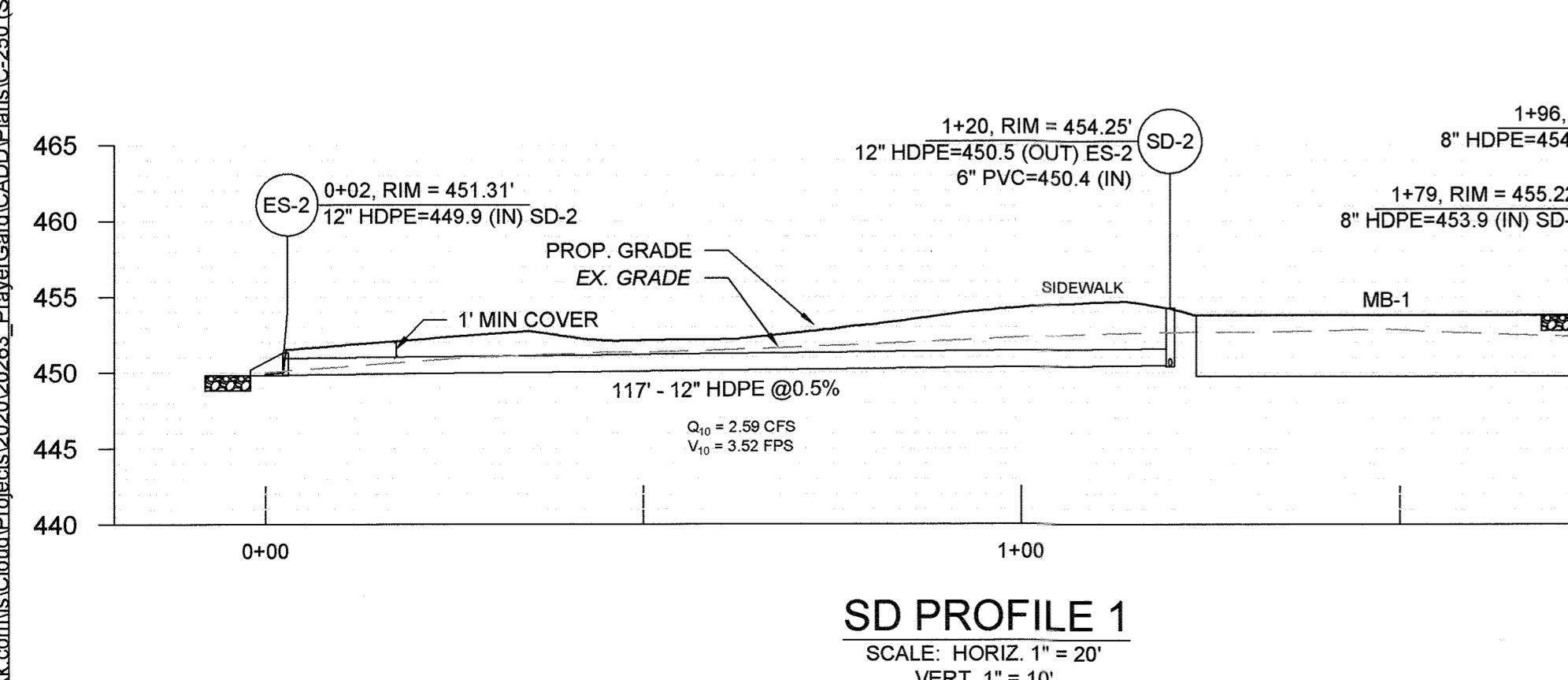
MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL	U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION	MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL	U.S. DEPARTMENT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

Howard County, Maryland Department of Public Works	Pipe Trench Plastic & Copper	Detail G-2.12
---	---------------------------------	------------------



Howard County, Maryland Department of Public Works	NYloplast	Detail G-7.21
---	-----------	------------------

MATERIAL	3130 VERONA AVE BURLINGAME, CA 94918 PHN (770) 332-3443 FAX (770) 332-9499 www.nyloplast-us.com
DRAWN BY	EBK
DATE	03-25-10
REVISION	MMH
DATE	06-12-18
DWG SIZE	A
SCALE	1:40
SHEET	1 OF 1
DWG NO.	7001-110-397
REV	E



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

DIRECTOR: *[Signature]* 12-10-21 DATE

CHIEF, DEVELOPMENT ENGINEERING DIVISION: *[Signature]* 12-1-21 DATE

CHIEF, DIVISION OF LAND DEVELOPMENT: *[Signature]* 12/1/21 DATE

OWNER / DEVELOPER: NOVITIATE OF FRANCISCAN FATHERS MINOR CONVENTUALS OF MD INC
12300 FOLLY QUARTER RD
ELlicott CITY MD 21042

PROJECT: THE SHRINE OF SAINT ANTHONY PRAYER GARDEN

AREA: 12290 FOLLY QUARTER RD, ELlicott CITY, MD 21042
TAX MAP: 22 PARCEL: 48 GRID: 24 ZONED: AGR
ELECTION DISTRICT 3 - HOWARD COUNTY, MARYLAND

TITLE: SITE, UTILITY & GRADING DETAILS

RK K
P. 410.728.2900
700 E. Pratt Street, Suite 500 | Baltimore, MD 21202
Engineers | Construction Managers | Planners | Scientists
www.rkk.com
Responsive People | Creative Solutions

C-250

REVIEWED BY: CDK
DESIGN BY: CWWM/ZWB/MNC
DRAWN BY: ZWB/MNC
PROJECT NO: 20263
DATE: JULY 23, 2021
SCALE:
DRAWING NO. 23 OF 35

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. CHRIS KOLPINSKI LICENSE NO. 20102 EXPIRATION DATE: MARCH 6, 2023

COORDINATE SYSTEM: MARYLAND STATE PLANE (HORIZONTAL) NAVD88 (VERTICAL) SDP-04-064

GENERAL NOTES

- COORDINATES, BEARINGS AND DISTANCES SHOWN HEREON ARE REFERRED TO THE MARYLAND COORDINATE SYSTEM (NAD'83/2011). ELEVATIONS SHOWN HEREON ARE REFERRED TO THE NAVD'88 DATUM. BOTH OF WHICH ARE BASED ON RTK OBSERVATIONS PERFORMED BY RK&K ON 10/08/2020.
- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO FIELD VERIFY ACTUAL SITE CONDITIONS PRIOR TO THE START OF WORK. THERE IS NO WARRANTY OR GUARANTEE ON THE COMPLETENESS OR CORRECTNESS OF THE EXISTING CONDITION INFORMATION SHOWN ON THESE DRAWINGS. ANY DISCREPANCY FOUND SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ENGINEER PRIOR TO STARTING WORK.
- THE CONTRACTOR SHALL FIELD VERIFY HORIZONTAL AND VERTICAL LOCATIONS OF EXISTING UTILITIES PRIOR TO STARTING WORK AND SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES THAT EXIST.
- ALL EXISTING UTILITY SURFACE FEATURES INCLUDING BUT NOT LIMITED TO INLETS, MANHOLES, HAND HOLES, MECHANICAL LIDS, FIRE HYDRANTS, VALVE BOXES, ETC. WITHIN THE LIMITS OF DISTURBANCE TO BE ADJUSTED TO FINISHED GRADE UNLESS OTHERWISE NOTED.
- SEE LANDSCAPE ARCHITECT PLANS FOR TREE PRESERVATION, PLANTING, HARDSCAPE DETAILS AND STAKEOUT PLANS FOR PATHWAYS AND PAVEMENT.
- ALL WORK TO BE COMPLETED IN ACCORDANCE WITH HOWARD COUNTY STANDARD DETAILS AND SPECIFICATIONS UNLESS OTHERWISE NOTED.
- SEE SHEET C-101 FOR EXISTING CONDITIONS AND SURVEY LEGEND.

LEGEND

- LIMIT OF DISTURBANCE
- PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- PROPOSED DRAINAGE AREA
- SOIL BOUNDARY
- PROPOSED MICRO-BIORETENTION FACILITY
- PROPOSED NON-ROOFTOP DISCONNECT TREATED AREA
- PROPOSED NON-ROOFTOP DISCONNECTION TREATMENT AREA

SWM NOTES

- THIS PROJECT IS CONSIDERED "NEW DEVELOPMENT" FOR STORMWATER MANAGEMENT PURPOSES.
- ON-SITE SWM FACILITIES ARE PROVIDED TO MEET SWM REQUIREMENTS. THESE ARE COMPRISED OF ONE MICROBIORETENTION FACILITY, NON-ROOFTOP DISCONNECT AND AN EXISTING POND BUILT UNDER PLAN SDP-04-64 WHICH TREATS 100% OF THE EXISTING CONDITIONS IMPERVIOUS AREA.
- FOR SWM COMPUTATIONS AND ADDITIONAL INFORMATION, SEE THE SWM REPORT.
- ALL SWM FACILITIES WILL BE MAINTAINED BY THE SHRINE OF SAINT ANTHONY.
- LIMIT OF DISTURBANCE NOTE:** THE LIMIT OF DISTURBANCE SHOWN REPRESENTS ONLY THOSE AREAS DEEMED DISTURBED FOR THE CALCULATION OF SWM REQUIREMENTS. FOR GROSS LIMIT OF DISTURBANCE, SEE EROSION AND SEDIMENT CONTROL PLAN. THE PROJECT WORK AREAS EXCLUDED FROM THE SWM LOD ARE:
 - TEMPORARY STAGING AND STOCKPILE AREA.
- CONTRACTOR'S MARYLAND LICENSED GEOTECHNICAL ENGINEER SHALL EVALUATE GROUNDWATER, INFILTRATION RATE AND DEPTH TO ROCK PRIOR TO CONSTRUCTION. IF GROUNDWATER IS ENCOUNTERED WITHIN 4' OF THE BOTTOM OF THE SWM FACILITY AN IMPERMEABLE LINER SHALL BE INSTALLED (SEE SHEET C-350 FOR SPECIFICATIONS) IF DEPTH TO ROCK IS LESS THAN 4' OR INFILTRATION RATE IS LESS THAN 0.52 IN/HR NOTIFY ENGINEER TO COORDINATE MODIFICATIONS TO THE DESIGN
- THE 1-YEAR POST DEVELOPMENT DISCHARGE IS LESS THAN 2.0 CFS, THEREFORE CHANNEL PROTECTION STORAGE VOLUME IS NOT REQUIRED.

TABLE IA: DA-1 EXISTING SITE CONDITIONS

Stormwater Study Area	0.79 ac.
Existing Impervious Area	0.03 ac.
Existing Pervious Area	0.76 ac.
% Ex. Imperviousness	4%
Weighted RCN	70

TABLE IB: DA-2 EXISTING SITE CONDITIONS

Stormwater Study Area	0.24 ac.
Existing Impervious Area	0.04 ac.
Existing Pervious Area	0.20 ac.
% Ex. Imperviousness	17%
Weighted RCN	74

TABLE IIA: DA-1 PROPOSED SITE CONDITIONS

Stormwater Study Area	0.78 ac.
Proposed Impervious Area	0.23 ac.
Proposed Pervious Area	0.56 ac.
% Imperviousness	30%
Weighted RCN	78

TABLE IIB: DA-2 PROPOSED SITE CONDITIONS

Stormwater Study Area	0.24 ac.
Proposed Impervious Area	0.06 ac.
Proposed Pervious Area	0.18 ac.
% Imperviousness	25%
Weighted RCN	76

TABLE IIIA: DA-1 SWM DESIGN SUMMARY

Required Impervious Area Treated	0.23 ac.
Provided MB-1 Area Treated	0.09 ac.
Provided NRD-1 Area Treated	0.14 ac.
Total Area Treated	0.23 ac.
Total Required ESDv	1,157 ft ³
Provided MB-1 ESDv	787 ft ³
Provided NRD-1 ESDv	483 ft ³
Total Provided ESDv	1,270 ft ³
Pe Required =	1.20 in
Pe Provided =	1.32 in
Required Rev =	251 ft ³
Provided Rev =	318 ft ³

TABLE IIIB: DA-2 SWM DESIGN SUMMARY

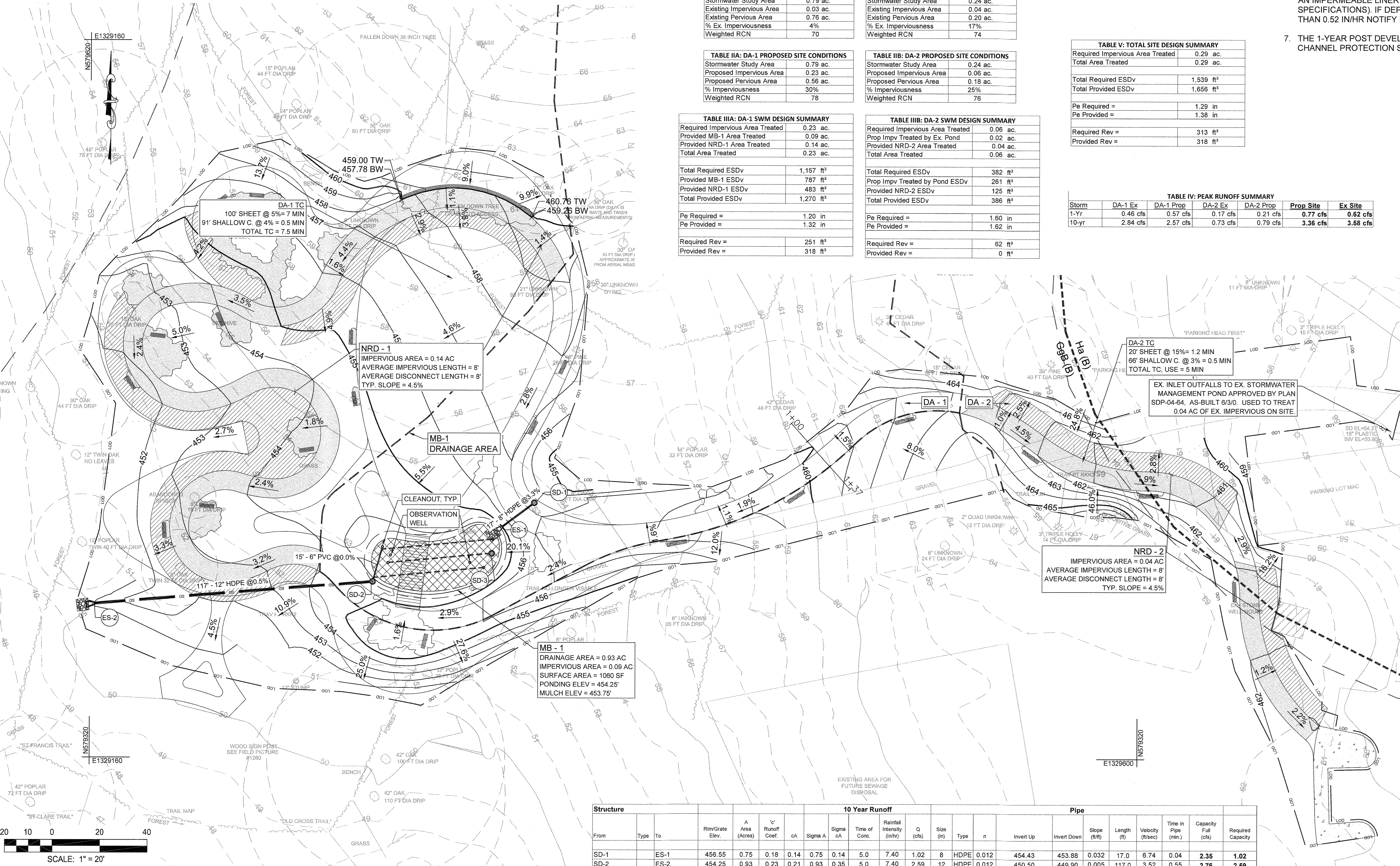
Required Impervious Area Treated	0.06 ac.
Prop Impv Treated by Ex. Pond	0.02 ac.
Provided NRD-2 Area Treated	0.04 ac.
Total Area Treated	0.06 ac.
Total Required ESDv	382 ft ³
Prop Impv Treated by Pond ESDv	261 ft ³
Provided NRD-2 ESDv	125 ft ³
Total Provided ESDv	386 ft ³
Pe Required =	1.80 in
Pe Provided =	1.62 in
Required Rev =	62 ft ³
Provided Rev =	0 ft ³

TABLE V: TOTAL SITE DESIGN SUMMARY

Required Impervious Area Treated	0.29 ac.
Total Area Treated	0.29 ac.
Total Required ESDv	1,539 ft ³
Total Provided ESDv	1,656 ft ³
Pe Required =	1.29 in
Pe Provided =	1.38 in
Required Rev =	313 ft ³
Provided Rev =	318 ft ³

TABLE IV: PEAK RUNOFF SUMMARY

Storm	DA-1 Ex	DA-1 Prop	DA-2 Ex	DA-2 Prop	Prop Site	Ex Site
1-Yr	0.46 cfs	0.57 cfs	0.17 cfs	0.21 cfs	0.77 cfs	0.62 cfs
10-yr	2.84 cfs	2.57 cfs	0.73 cfs	0.79 cfs	3.36 cfs	3.58 cfs



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.
 DIRECTOR: *[Signature]* 12-10-21 DATE
 CHIEF, DEVELOPMENT ENGINEERING DIVISION: *[Signature]* 12-1-21 DATE
 CHIEF, DIVISION OF LAND DEVELOPMENT: *[Signature]* 12/10/21 DATE

OWNER / DEVELOPER
NOVITIATE OF FRANCISCAN FATHERS
MINOR CONVENTUALS OF MD INC
 12300 FOLLY QUARTER RD
 ELLICOTT CITY MD 21042

PROJECT **THE SHRINE OF SAINT ANTHONY**
PRAYER GARDEN

AREA 12300 FOLLY QUARTER RD, ELLICOTT CITY, MD 21042
 TAX MAP: 22 PARCEL: 46 GRID: 24 ZONED: AGR
 ELECTION DISTRICT 3 - HOWARD COUNTY, MARYLAND

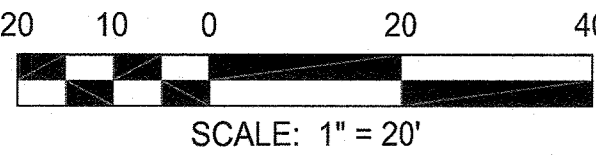
RK&K
 P-410.728.2900
 700 E. Pratt Street, Suite 500 | Baltimore, MD 21202
 Engineers | Construction Managers | Planners | Scientists
 www.rk.com
 Responsive People | Creative Solutions

C-301

REVIEWED BY: CDK
 DESIGN BY: CWM/ZWB/MNC
 DRAWN BY: ZWB/MNC
 PROJECT NO: 20283
 DATE: JULY 23, 2021
 SCALE: 1" = 20'
 DRAWING NO: 24 OF 35

PROFESSIONAL CERTIFICATION:
 I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A QUALY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. CHRIS KRUPPINGER
 LICENSE NO. 20052
 EXPIRATION DATE: MARCH 4, 2025

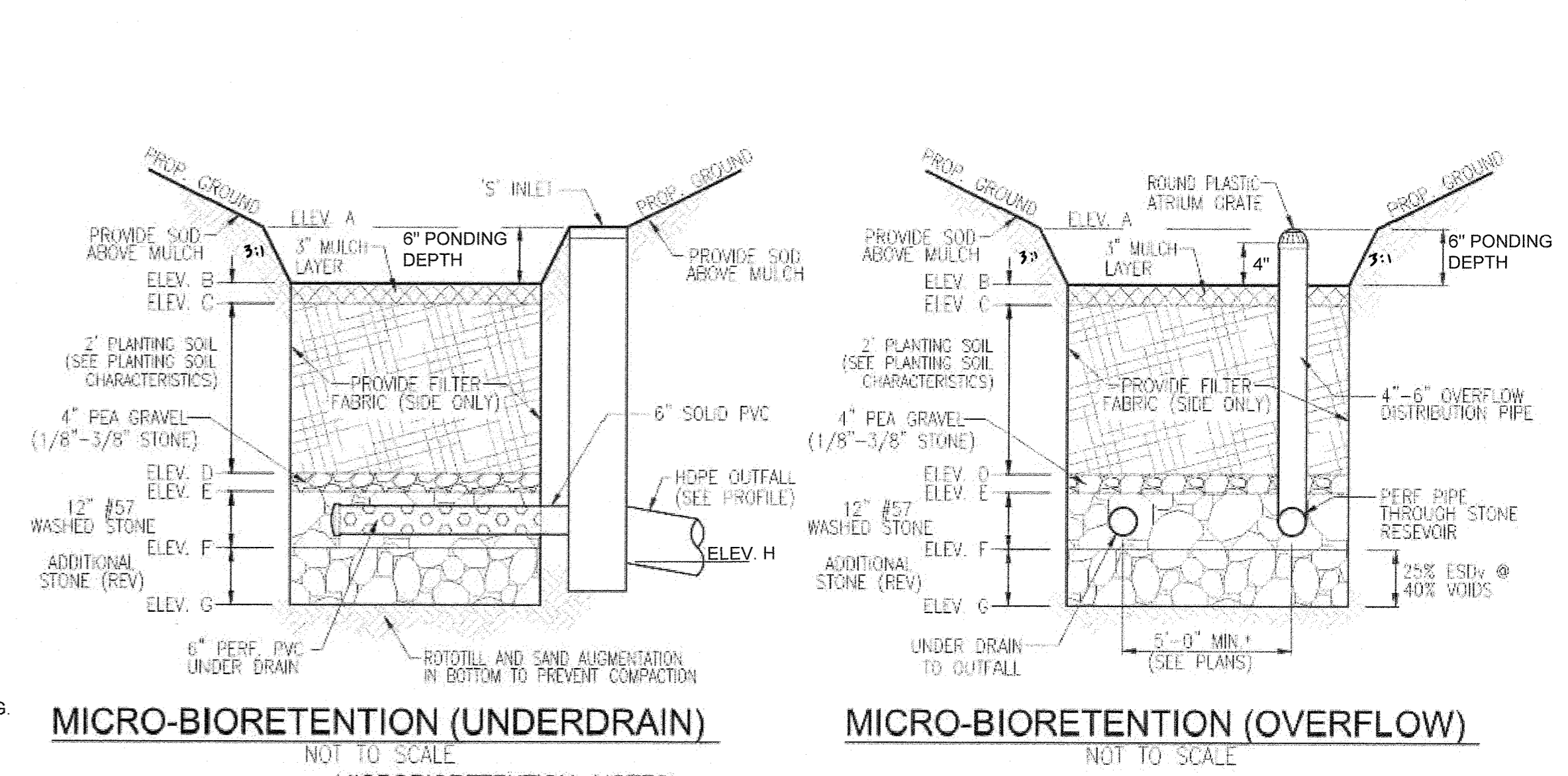
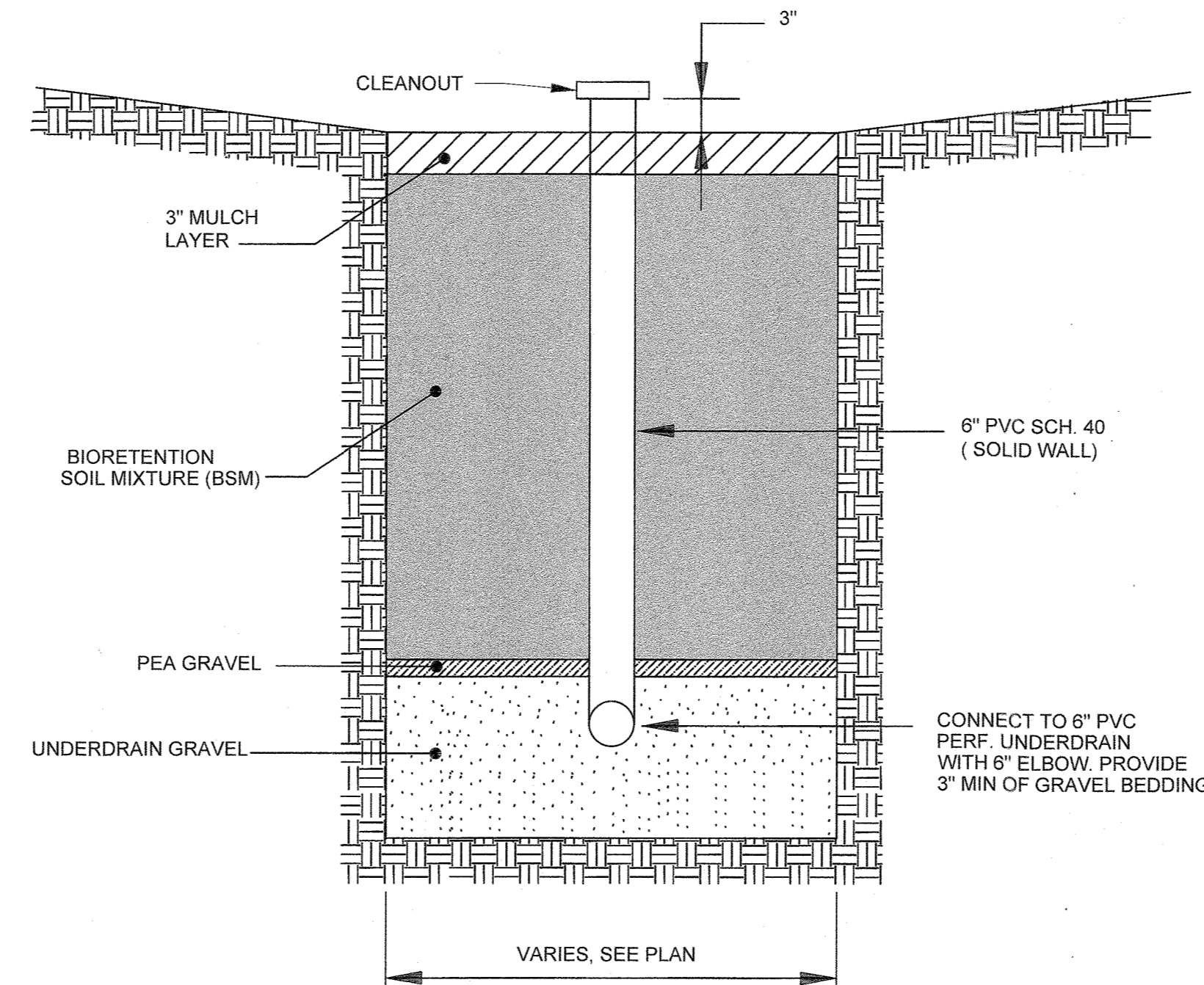
Structure		10 Year Runoff										Pipe										
From	Type	To	Rim/Grate Elev.	A Area (Acres)	c Runoff Coef.	cA	Sigma A	Sigma cA	Time of Conc.	Rainfall Intensity (in/hr)	Q (cfs)	Slope (ft)	Type	n	Invert Up	Invert Down	Slope (ft/ft)	Length (ft)	Velocity (ft/sec)	Time in Pipe (min.)	Capacity Full (cfs)	Required Capacity
SD-1		ES-1	456.55	0.75	0.18	0.14	0.75	0.14	5.0	7.40	1.02	8	HDPE	0.012	454.43	453.88	0.032	17.0	6.74	0.04	2.35	1.02
SD-2		ES-2	454.25	0.93	0.23	0.21	0.93	0.35	5.0	7.40	2.59	12	HDPE	0.012	450.50	449.90	0.005	117.0	3.52	0.55	2.76	2.59



AS-BUILT DATA FOR MICRO-BIORETENTION		
*TO BE COMPLETED BY THE CONTRACTOR'S CERTIFYING ENGINEER		
FACILITY NAME: MICRO-BIORETENTION FACILITY 1 - MB-1		
FEATURE	DESIGN	*AS-BUILT
OVERFLOW INLET ELEVATION	454.25 FT.	
SURFACE AREA	1,060 SF.	
FILTER BED DIMENSIONS (L X W X D)	45' x 21' x 4.33'	
FILTER BED SURFACE ELEVATION	453.75 FT.	
OUTLET PIPE SIZE / INVERT	12 IN. / 450.40 FT.	
ELEVATION OF BERM	454.75 FT.	
UNDERDRAIN PIPE SIZE / INVERT	6 IN. / 450.4 FT.	
THICKNESS OF FILTER MEDIA	2 FT.	
WEIR WALL ELEVATION ABOVE BED	N/A	
PLANTINGS	SEE LANDSCAPING DWGS	
GEOTEXTILE	PE TYPE 1 NON-WOVEN, SIDES ONLY	
COMPOSITION OF FILTER MEDIA	SEE TABLE B.4.1	
OBSERVATION WELL WITH DEPTH TO FILTER BOTTOM INDICATED ON CAP	4.63 FT.	
OVERFLOW INLET STRUCTURE LOCATION: MD STATE PLANE COORDINATES NAD 83	N: 579393.8265 E: 1329278.8373	

MICRO-BIORETENTION NOTES

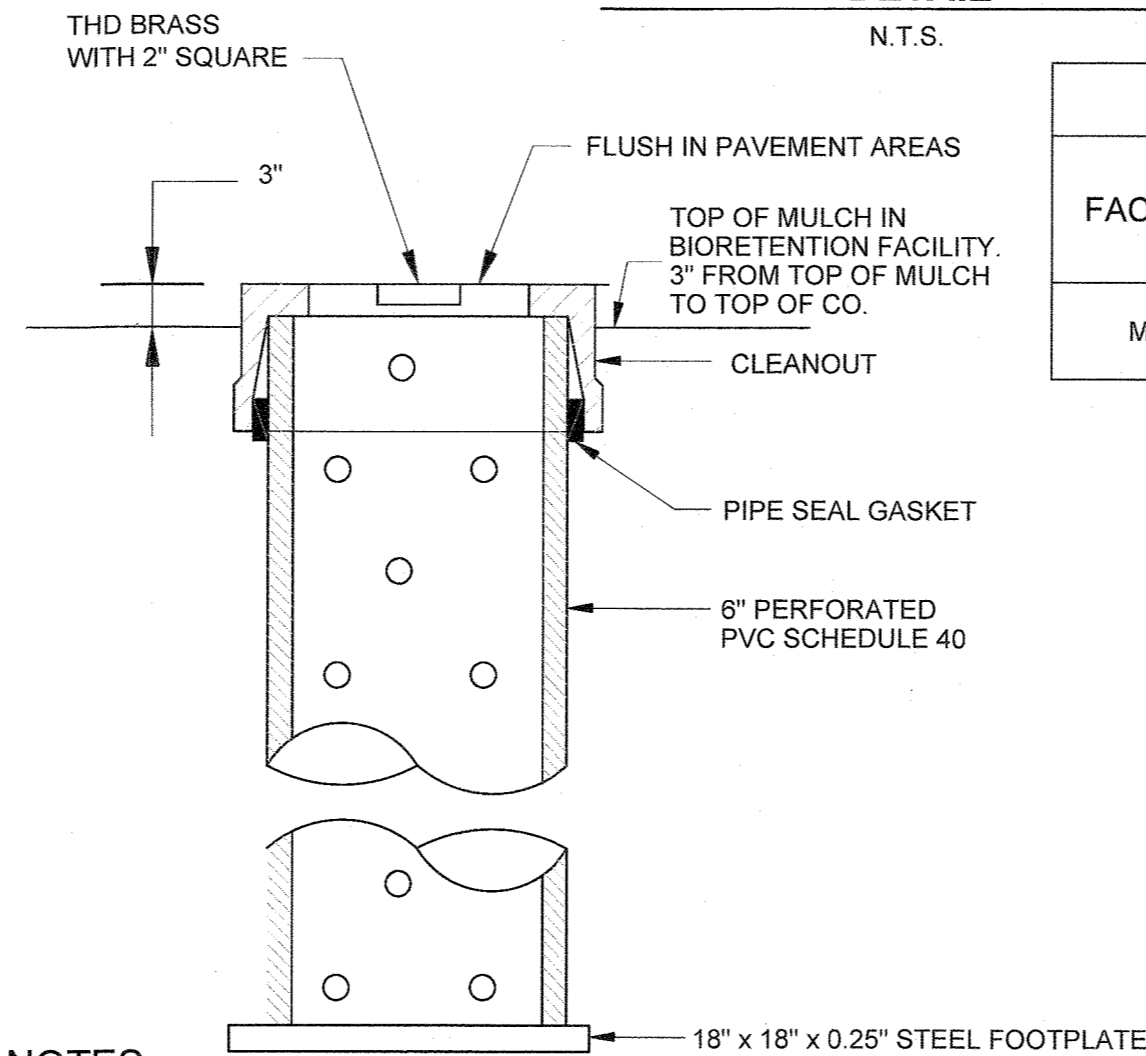
- BIORETENTION MATERIALS AND CONSTRUCTION SHALL MEET HOWARD COUNTY CONSTRUCTION SPECIFICATION FOR SHALLOW FACILITY.
- TREES AND PLANTS SHALL BE INSTALLED IN ACCORDANCE WITH LANDSCAPE PLANS. ALL PLANTINGS SHALL BE IN ACCORDANCE WITH THE HOWARD COUNTY LANDSCAPE MANUAL.
- THE UNDERDRAIN SHALL BE 6-INCH DIAMETER SCHEDULE 40 OR STRONGER PERFORATED PVC PIPE AT 0.00% SLOPE. PERFORATIONS MUST BE 3/8" INCH IN DIAMETER AND MUST BE LOCATED 6 INCHES ON CENTER, EVERY 90 DEGREES AROUND THE PIPE.
- WRAP THE PERFORATED MBR UNDERDRAIN PIPE WITH 1/4" MESH (4x4) OR SMALLER GALVANIZED HARDWARE CLOTH.
- PROVIDE 5' MINIMUM SPACING BETWEEN UNDER DRAIN AND PERFORATED PIPE THROUGH STONE RESERVOIR OR SPACE PIPE EQUALLY ACROSS BOTTOM FOR SMALL MICRO-BIORETENTIONS.
- BOTTOM OF FACILITY SHALL BE AT LEAST 2' ABOVE SEASONAL HIGH WATER TABLE AND BEDROCK AS DETERMINED BY GEOTECHNICAL INVESTIGATION.
- THE GRAVEL LAYER/STONE RESERVOIR LAYER SURROUNDING THE UNDERDRAIN PIPE(S) MUST MEET AASHTO M-43, AND MUST PROVIDE A MINIMUM OF 6 INCHES COVER OVER THE PIPE(S), AND MINIMUM 3 INCHES UNDER THE PIPE.
- NO GEOTEXTILE OR FILTER FABRIC IS ALLOWED TO BE PLACED HORIZONTALLY ANYWHERE WITHIN THE FILTER MEDIA.
- SEE TABLE B.4.1 MATERIALS SPECIFICATIONS FOR MICRO-BIORETENTION.



- MICROBIORETENTION NOTES:**
- ONLY THE SIDES OF MICROBIORETENTION ARE TO BE WRAPPED IN FILTER FABRIC. FILTER FABRIC BETWEEN LAYER OR AT THE BOTTOM OF THE MICROBIORETENTION WILL CAUSE THE MBR TO FAIL, AND THEREFORE SHALL NOT BE INSTALLED.
 - WRAP THE PERFORATED MBR UNDERDRAIN PIPE WITH 1/4" MESH (4x4) OR SMALLER GALVANIZED HARDWARE CLOTH.
 - PROVIDE 5' MINIMUM SPACING BETWEEN UNDER DRAIN AND PERFORATED PIPE THROUGH STONE RESERVOIR OR SPACE PIPE EQUALLY ACROSS BOTTOM FOR SMALL B'OS. (SEE PLANS)

IN-SITU INFILTRATION TEST

AT COMPLETION OF CONSTRUCTION, FOR EACH SWM FACILITY, THE CONTRACTOR SHALL PERFORM AN IN-SITU INFILTRATION TEST ON THE INSTALLED SWM SOILS USING MDE SPEC DETAILED IN "APPENDIX D.1 TESTING REQUIREMENTS FOR INFILTRATION, BIORETENTION AND SAND FILTER SUBSOILS" IN THE "MARYLAND STORMWATER DESIGN MANUAL", AND SUPPLEMENTS, FOR INFILTRATION TEST. THE SWM FACILITY WILL NOT BE ACCEPTED UNTIL THE CONTRACTOR HAS DOCUMENTED VIA THE INFILTRATION TESTS THAT THE COMPLETED FACILITY ACHIEVES A MINIMUM INFILTRATION RATE OF 0.52 IN/HR, INCLUDING DURING THE 2-YEAR WARRANTY PERIOD. THE TEST SHALL BE PERFORMED 8 INCHES BELOW THE SURFACE OF THE MICRO-BIORETENTION FACILITY.



- NOTES:**
- OBSERVATION WELLS (6" PVC SCH. 40 PIPE) SHALL BE PLACED IN THE FACILITY AT THE LOCATIONS INDICATED ON THE PLAN SHEETS.
 - THE WELL IS TO BE CAPPED USING A THREADED PVC FITTING AND SEWER CAP WITH A 2 INCH SQUARE LUG. THE DEPTH OF THE FACILITY IS TO BE MARKED ON THE CAP.
 - THE BOTTOM OF THE BIORETENTION FACILITY SHALL BE GRADED FLAT.
 - ENTIRE BARREL OF OBSERVATION WELL IS TO BE WRAPPED IN GEOTEXTILE.

CONTRACTOR AS-BUILT NOTE

AS-BUILT PLANS AND CERTIFICATION ARE REQUIRED FOR THIS STORMWATER MANAGEMENT FACILITY. THESE MUST BE PREPARED AND SEALED BY A REGISTERED PROFESSIONAL ENGINEER, OBTAINED BY THE CONTRACTOR, HOWARD COUNTY OR THE OWNER'S ENGINEER WILL NOT PERFORM INSPECTION OR PREPARE THE AS-BUILT PLANS OR CERTIFICATION. THE STORMWATER MANAGEMENT PERMIT SECURITY WILL NOT BE RELEASED UNTIL THE AS-BUILT PLANS AND CERTIFICATION ARE APPROVED BY HOWARD COUNTY.

IN ORDER TO PREPARE THE REQUIRED AS-BUILT PLANS AND CERTIFICATION, THIS STORMWATER MANAGEMENT FACILITY MUST BE INSPECTED BY THE CONTRACTOR'S ENGINEER AT SPECIFIC STAGES DURING CONSTRUCTION AND AS REQUIRED BY THE CURRENT HOWARD COUNTY STORMWATER MANAGEMENT POLICY AND DESIGN MANUAL. THE CONTRACTOR SHALL NOTIFY THE CONTRACTOR'S ENGINEER AT LEAST FIVE (5) WORKING DAYS PRIOR TO STARTING ANY WORK SHOWN ON THESE PLANS.

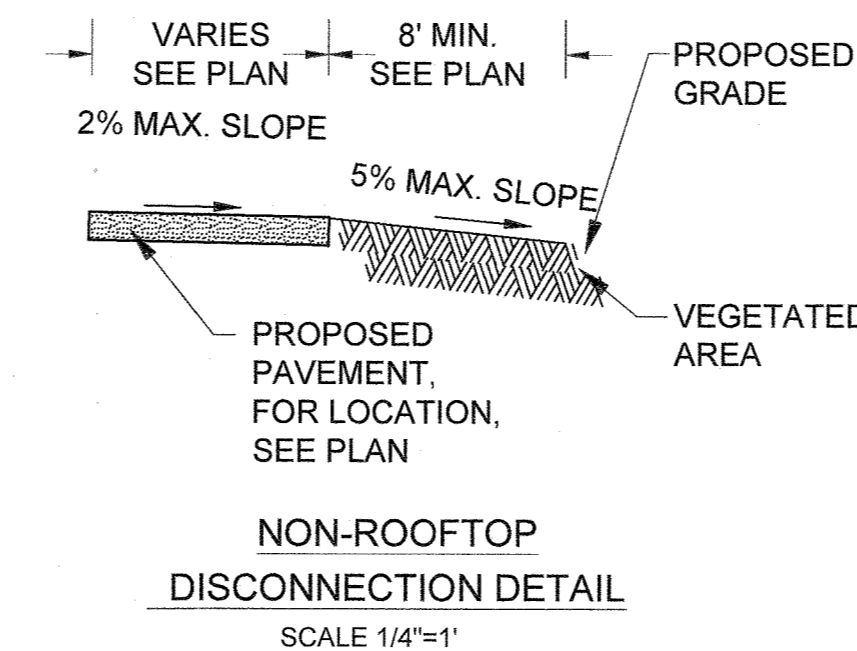
STORMWATER MAINTENANCE SCHEDULE BIORETENTION

Inspection Item	Frequency of Inspection	Inspection Requirements	Remedial Action
Bioretention Basin	Seasonally and after a major storm		
Dewatering		Facility must dewater within 48 hours of rainfall. Noticeable odors, stained water on the filter surface or at the outlet, or the presence of algae or aquatic vegetation are indicators of anaerobic conditions, and inadequate dewatering of the facility.	The top three inches of soil should be removed and replaced with soil material as per plan specifications. Follow up inspections must confirm adequate dewatering. If the facility does not function as intended after the above action, the entire filter and underdrain system may need maintenance. MDE approval may be necessary.
Mulch Layer		Check mulch for adequate cover, sediment accumulation, or discoloration.	Replace and remove old mulch and excess sediments. Provide adequate mulch cover according to approved design.
Vegetative Surfaces	Monthly		
Plant Composition and Health		Compare plant composition with approved plans. Check for invasive species or weeds. Check for dead or dying vegetation.	Remove and replace plants in accordance with plan specifications.
Vegetative Cover and Erosion		Check for evidence of erosion, runoff channelizing, or bare spots.	Re-seed or re-plant in accordance with approved landscaping plans. Re-grading may be required when concentrated flow causes rills or gullying through the facility.
Debris and Trash Cleanout	Monthly	Check that the facility is clean of trash and debris. Inlets, outlets, and contributing areas around the facility must be checked.	Trash and debris must be disposed of in an acceptable manner according to current regulations.
Structural Components	Annually	Check for evidence of structural deterioration, spalling, or cracking. Inlet and outlet structures must be in good condition.	Repair to good condition according to specifications on the approved plans.
Outlets	Seasonally and after a major storm	Check for evidence of erosion, rills, or gullying. Riprap outlet must be maintained in good functional condition.	Stabilize all eroded areas and grade to provide stable conveyance. Repair according to approved plan.
Pretreatment Forebays	Seasonally and after a major storm		
Sediment Accumulation		Check for sediment accumulation in the forebay.	When the forebay depth is less than half of the proposed design, sediment must be removed and the forebay restored according to the approved design.
Sand Layer		Check sand for staining and sediment accumulation.	Replace first three inches of sand layer with sand materials per plan specifications.
Gravel Diaphragm		Check gravel diaphragm for sediment accumulation and evidence of erosion.	Stabilize or replace gravel according to plan specifications.
Grass Channel Conveyance Systems	Seasonally and after a major storm	Check for erosion, flow blockages, and stable conveyance.	Stabilize and grade according to approved plan.
Overall Function of the Facility	Annually	Check that flow splitters are functioning as designed and that bypass is operating as designed.	Construction must be in accordance with approved plans.

* Field conditions may require a modification to the original approval in order to achieve the intended design function. Contact MDE's Sediment and Stormwater Management Plan Review Division at 410-537-3563 for review and approval of proposed modifications.

Appendix B.4. Construction Specifications for Environmental Site Design Practices

Material	Specification	Size	Notes
Plantings	see Appendix A, Table A.4	n/a	plantings are site-specific
Planting soil [2' to 4' deep]	loamy sand (60 - 65% & compost (35 - 40%) or sandy loam (30%) or coarse sand (30%) & compost (40%)	n/a	USDA soil types loamy sand or sandy loam; clay content < 5%
Organic content	Min. 10% by dry weight (ASTM D 2974)		aged 6 months, minimum; no pine or wood chips
Mulch	shredded hardwood		
Pea gravel diaphragm	pea gravel: ASTM-D-448	NO. 8 OR NO. 9 (1/8" TO 3/8")	
Curtain drain	ornamental stone: washed cobbles	stone: 2" to 5"	
Geotextile		n/a	PE Type 1 nonwoven
Gravel (underdrains and infiltration berms)	AASHTO M-43	NO. 57 OR NO. 6 AGGREGATE (3/8" TO 3/4")	
Underdrain piping	F 758, Type PS 28 or AASHTO M-278	4" to 6" rigid schedule 40 PVC or SDR35	Slotted or perforated pipe; 3/8" perf. @ 6" on center, 4 holes per row; minimum of 3" of gravel over pipes; not necessary underneath pipes. Perforated pipe shall be wrapped with 1/2-inch galvanized hardware cloth
Poured in place concrete (if required)	MSHA Mix No. 3; F _c = 3500 psi @ 28 days, normal weight, air-entrained; reinforcing to meet ASTM-615-60	n/a	on-site testing of poured-in-place concrete required: 28-day strength and slump test; all concrete design (cast-in-place or pre-cast) not using previously approved State or local standards requires design drawings sealed and approved by a professional structural engineer licensed in the State of Maryland - design to include meeting ACI Code 350R-89; vertical loading (H-10 or H-20); allowable horizontal loading (based on soil pressures); and analysis of potential cracking
Sand	AASHTO-M-6 or ASTM-C-33	0.02" to 0.04"	Sand substitutions such as Diabase and Graystone (AASHTO) #10 are not acceptable. No calcium carbonated or dolomitic sand substitutions are acceptable. No "rock dust" can be used for sand.



MICROBIORETENTION DATA									
FACILITY	PONDING (ELEV. A)	TOP OF MULCH LAYER (ELEV. B)	TOP OF BIORETENTION SOIL (BSM)- (ELEV. C)	BOTTOM OF BSM/ TOP OF CHOKER LAYER (ELEV. D)	BOTTOM OF CHOKER LAYER/ TOP OF RESERVOIR LAYER (ELEV. E)	12" #57 STONE ELEV. (ELEV. F)	BOTTOM OF MICRO-BIORETENTION FACILITY (ELEV. G)	OUTLET PIPE INV. ELEV (ELEV. H)	EXISTING GRADE (ELEV. I)
MB-1	454.25	453.75	453.50	451.50	451.17	450.17	449.12	450.40	MIN. 452.0 MAX. 453.0

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

DIRECTOR: *Shay Gowan* 12-10-21 DATE

CHIEF, DEVELOPMENT ENGINEERING DIVISION: *Phil Elbert* 12-1-21 DATE

CHIEF, DIVISION OF LAND DEVELOPMENT: *R. [Signature]* 12/10/21 DATE

OWNER / DEVELOPER: NOVITIATE OF FRANCISCAN FATHERS, MINOR CONVENTUALS OF MD INC, 12300 FOLLY QUARTER RD, ELLICOTT CITY MD 21042

PROJECT: THE SHRINE OF SAINT ANTHONY PRAYER GARDEN

AREA: 12290 FOLLY QUARTER RD, ELLICOTT CITY, MD 21042, TAX MAP: 22 PARCEL: 46 GRID: 24 ZONED: AGR, ELECTION DISTRICT 3 - HOWARD COUNTY, MARYLAND

TITLE: STORMWATER MANAGEMENT REPORT

RK K
P-410.729.2300
700 E. Pratt Street, Suite 500 | Baltimore, MD 21202
Engineers | Construction Managers | Planners | Scientists
www.rkk.com
Responsive People | Creative Solutions

PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, CHES 8819990, LICENSE NO. 23012, EXPIRATION DATE: MARCH 8, 2023.

C-350

REVIEWED BY: CDK
DESIGN BY: CWM/ZWB/MNC
DRAWN BY: ZWB/MNC
PROJECT NO.: 20283
DATE: JULY 23, 2021
SCALE:
DRAWING NO. 25 OF 35

COORDINATE SYSTEM: MARYLAND STATE PLANE (HORIZONTAL) NAVD83 (VERTICAL) SDP-04-064

**HOWARD COUNTY
STANDARD SEDIMENT CONTROL NOTES**

1. A PRE-CONSTRUCTION MEETING MUST OCCUR WITH THE HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS, CONSTRUCTION INSPECTION DIVISION (CID), 410-313-1855 AFTER THE FUTURE LOD AND PROTECTED AREAS ARE MARKED CLEARLY IN THE FIELD. A MINIMUM OF 48 HOUR NOTICE TO CID MUST BE GIVEN AT THE FOLLOWING STAGES:
 - a. PRIOR TO THE START OF EARTH DISTURBANCE,
 - b. UPON COMPLETION OF THE INSTALLATION OF PERIMETER EROSION AND SEDIMENT CONTROLS, BUT BEFORE PROCEEDING WITH ANY OTHER EARTH DISTURBANCE OR GRADING,
 - c. PRIOR TO THE START OF ANOTHER PHASE OF CONSTRUCTION OR OPENING OF ANOTHER GRADING UNIT,
 - d. PRIOR TO THE REMOVAL OR MODIFICATION OF SEDIMENT CONTROL PRACTICES.

OTHER BUILDING OR GRADING INSPECTION APPROVALS MAY NOT BE AUTHORIZED UNTIL THIS INITIAL APPROVAL BY THE INSPECTION AGENCY IS MADE. OTHER RELATED STATE AND FEDERAL PERMITS SHALL BE REFERENCED, TO ENSURE COORDINATION AND TO AVOID CONFLICTS WITH THIS PLAN.

2. ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, AND REVISIONS THERETO.
3. FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION IS REQUIRED WITHIN THREE (3) CALENDAR DAYS AS TO THE SURFACE OF ALL PERIMETER CONTROLS, DIKES, SWALES, DITCHES, PERIMETER SLOPES, AND ALL SLOPES STEEPER THAN 3 HORIZONTAL TO 1 VERTICAL (3:1); AND SEVEN (7) CALENDAR DAYS AS TO ALL OTHER DISTURBED AREAS ON THE PROJECT SITE EXCEPT FOR THOSE AREAS UNDER ACTIVE GRADING.
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 TOPSOIL (SEC. B-4-2), 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 APPLIED BETWEEN THE FALL AND SPRING SEEDING DATES IF THE GROUND IS FROZEN. INCREMENTAL STABILIZATION (SEC. B-4-1) SPECIFICATIONS SHALL BE ENFORCED IN AREAS WITH >15' OF CUT AND/OR FILL. STOCKPILES (SEC. B-4-8) IN EXCESS OF 20 FT. MUST BE BENCHED WITH STABLE OUTLET. ALL CONCENTRATED FLOW, STEEP SLOPE, AND HIGHLY ERODIBLE AREAS SHALL RECEIVE SOIL STABILIZATION MATTING (SEC. B-4-6).
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 CID.

6. SITE ANALYSIS:
 - *TOTAL AREA OF SITE: 1.35 ACRES
 - *AREA OF LIMIT OF WORK: 0.05 ACRES
 - *AREA OF DISTURBANCE: 1.30 ACRES
 - *AREA TO BE ROOFED OR PAVED: 0.28 ACRES
 - *AREA TO BE VEGETATIVELY STABILIZED: 1.02 ACRES
 - *TOTAL CUT: 2,640 CU. YDS.
 - *TOTAL FILL: 1,421 CU. YDS.

OFFSITE WASTE/BORROW AREA LOCATION: TO BE DETERMINED BY CONTRACTOR.

7. ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE.
8. ADDITIONAL SEDIMENT CONTROL MUST BE PROVIDED, IF DEEMED NECESSARY BY THE CID. THE SITE AND ALL CONTROLS SHALL BE INSPECTED BY THE CONTRACTOR WEEKLY, AND THE NEXT DAY AFTER EACH RAIN EVENT. A WRITTEN REPORT BY THE CONTRACTOR, MADE AVAILABLE UPON REQUEST, IS PART OF EVERY INSPECTION AND SHOULD INCLUDE:

- INSPECTION DATE
- INSPECTION TYPE (ROUTINE, PRE-STORM EVENT, DURING RAIN EVENT)
- NAME AND TITLE OF INSPECTOR
- WEATHER INFORMATION (CURRENT CONDITIONS AS WELL AS TIME AND AMOUNT OF LAST RECORDED PRECIPITATION)
- BRIEF DESCRIPTION OF PROJECT'S STATUS (E.G., PERCENT COMPLETE) AND/OR CURRENT ACTIVITIES
- EVIDENCE OF SEDIMENT DISCHARGES
- IDENTIFICATION OF PLAN DEFICIENCIES
- IDENTIFICATION OF SEDIMENT CONTROLS THAT REQUIRE MAINTENANCE
- IDENTIFICATION OF MISSING OR IMPROPERLY INSTALLED SEDIMENT CONTROLS
- COMPLIANCE STATUS REGARDING THE SEQUENCE OF CONSTRUCTION AND STABILIZATION REQUIREMENTS
- PHOTOGRAPHS
- MONITORING/SAMPLING
- MAINTENANCE AND/OR CORRECTIVE ACTION PERFORMED
- OTHER INSPECTION ITEMS AS REQUIRED BY THE GENERAL PERMIT FOR STORMWATER ASSOCIATED WITH CONSTRUCTION ACTIVITIES (NPDES, MDE).

9. TRENCHES FOR THE CONSTRUCTION OF UTILITIES IS LIMITED TO THREE PIPE LENGTHS OR THAT WHICH CAN AND SHALL BE BACK-FILLED AND STABILIZED BY THE END OF EACH WORKDAY, WHICH EVER IS SHORTER.

10. ANY MAJOR CHANGES OR REVISIONS TO THE PLAN OR SEQUENCE OF CONSTRUCTION MUST BE REVIEWED AND APPROVED BY THE HSCD PRIOR TO PROCEEDING WITH CONSTRUCTION. MINOR REVISIONS MAY ALLOWED BY THE CID PER THE LIST OF HSCD-APPROVED FIELD CHANGES.

11. DISTURBANCE SHALL NOT OCCUR OUTSIDE THE L.O.D. A PROJECT IS TO BE SEQUENCED SO THAT GRADING ACTIVITIES BEGIN ON ONE GRADING UNIT (MAXIMUM ACREAGE OF 20 AC. PER GRADING UNIT) AT A TIME. WORK MAY PROCEED TO A SUBSEQUENT GRADING UNIT WHEN AT LEAST 50 PERCENT OF THE DISTURBED AREA IN THE PRECEDING GRADING UNIT HAS BEEN STABILIZED AND APPROVED BY THE CID. UNLESS OTHERWISE SPECIFIED AND APPROVED BY THE HSCD, NO MORE THAN 30 ACRES CUMULATIVELY MAY BE DISTURBED AT A GIVEN TIME.

12. WASH WATER FROM ANY EQUIPMENT, VEHICLES, WHEELS, PAVEMENT, AND OTHER SOURCES MUST BE TREATED IN A SEDIMENT BASIN OR OTHER APPROVED WASHOUT STRUCTURE.
13. TOPSOIL SHALL BE STOCKPILED AND PRESERVED ON-SITE FOR REDISTRIBUTION ONTO FINAL GRADE.
14. ALL SILT FENCE AND SUPER SILT FENCE SHALL BE PLACED ON-THE-CONTOUR, AND BE IMBRICATED AT 25' MINIMUM INTERVALS, WITH LOWER ENDS CURLED UPHILL BY 2' IN ELEVATION.
15. STREAM CHANNELS MUST NOT BE DISTURBED DURING THE FOLLOWING RESTRICTED TIME PERIODS (INCLUSIVE):
 - USE I AND IP MARCH 1 - JUNE 15
 - USE III AND IIIP OCTOBER 1 - APRIL 30
 - USE IV MARCH 1 - MAY 31
16. A COPY OF THIS PLAN, THE 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, AND ASSOCIATED PERMITS SHALL BE ON-SITE AND AVAILABLE WHEN THE SITE IS ACTIVE.

MAINTENANCE OF SEDIMENT CONTROL DEVICES

1. SCE: SCE MUST BE MAINTAINED IN A CONDITION THAT MINIMIZES TRACKING OF SEDIMENT. THIS MAY REQUIRE ADDING STONE OR A CLEAN SURFACE, THE MOUNTABLE BERM, AND THE SPECIFIED DIMENSIONS. ALL STONE OR SEDIMENT SPILLED, DROPPED, OR TRACKED ONTO ADJACENT ROADWAY TO REMOVE MUD TRACKED ONTO PAVEMENT IS NOT ACCEPTABLE UNLESS THE WASH WATER IS DIRECTED TO AN APPROVED SEDIMENT CONTROL PRACTICE.
2. SILT FENCE ON PAVEMENT: ACCUMULATED SEDIMENT AND DEBRIS MUST BE REMOVED WHEN BULGES DEVELOP IN THE SILT FENCE OR WHEN SEDIMENT REACHES 25 PERCENT OF THE FENCE HEIGHT. THE GEOTEXTILE MUST BE REPLACED IF TORN. THE WATER TIGHT SEAL ALONG THE BOTTOM MUST BE MAINTAINED AND THE STONE REPLACED IF DISPLACED.
3. SILT FENCE: ACCUMULATED SEDIMENT AND DEBRIS MUST BE REMOVED WHEN BULGES DEVELOP IN THE SILT FENCE OR WHEN SEDIMENT REACHES 25 PERCENT OF THE FENCE HEIGHT. THE GEOTEXTILE MUST BE REPLACED IF TORN. IF UNDERMINING OCCURS, REINSTALL CHAIN LINK FENCING AND GEOTEXTILE.
4. EARTH DIKE: THE LINE, GRADE, AND CROSS SECTION MUST BE MAINTAINED. ACCUMULATED SEDIMENT AND DEBRIS MUST BE REMOVED AND POSITIVE DRAINAGE MAINTAINED. THE EARTH DIKE AND POINT OF DISCHARGE MUST BE KEPT FREE OF EROSION AND CONTINUOUSLY MEET THE REQUIREMENTS FOR ADEQUATE VEGETATIVE ESTABLISHMENT IN ACCORDANCE WITH SECTION B-4 VEGETATIVE STABILIZATION.
5. TEMPORARY STONE STRUCTURE OUTLET: REMOVE SEDIMENT WHEN IT HAS ACCUMULATED TO WITHIN SIX INCHES OF THE WEIR CREST. REPLACE THE GEOTEXTILE AND STONE FACING WHEN THE STRUCTURE CEASES TO DRAIN. THE LINE, GRADE, AND CROSS SECTION MUST BE MAINTAINED.
6. STORM DRAIN INLET PROTECTION: TO MAINTAIN FUNCTION AND AVOID PREMATURE CLOGGING ACCUMULATED SEDIMENT NEEDS TO BE REMOVED AFTER EACH RAIN EVENT. IF THE INLET PROTECTION DOES NOT COMPLETELY DRAIN WITHIN 24 HOURS AFTER A STORM EVENT, IT IS CLOGGED. WHEN THIS OCCURS, REMOVE ACCUMULATED SEDIMENT AND CLEAN, OR REPLACE THE GEOTEXTILE AND STONE.

CONTACT INFORMATION:

PROJECT: THE SHRINE AT ST. ANTHONY PRAYER GARDEN
12290 FOLLY QUARTER ROAD, ELLICOTT CITY, MD 21042

OWNER / APPLICANT: NOVITIATE OF FRANCISCAN FATHERS MINOR CONVENTUALS OF MD INC
12300 FOLLY QUARTER ROAD, ELLICOTT CITY, MD 21042

DESIGNER: CHRIS KRUPINSKI, P.E.
RK&K
700 E PRATT ST, SUITE 500, BALTIMORE, MD 21202
410-462-9303 ckrupinski@rkk.com

SEDIMENT CONTROL

Owners/Developer Certification:

"I/We hereby certify that any clearing, grading, construction, or development will be done pursuant to this approved erosion and sediment control plan, including inspecting and maintaining controls, and that the responsible personnel involved in the construction project will have a Certificate of Training at a Maryland Department of the Environment (MDE) approved training program for the control on erosion and sediment prior to beginning the project. I certify right-of-entry for periodic on-site evaluation by Howard County, the Howard Soil Conservation District and/or MDE."

FR. JAMES J. CURRY, O.M.S. Co. 1 5th March 2021
Owner's/Developer's Signature Date


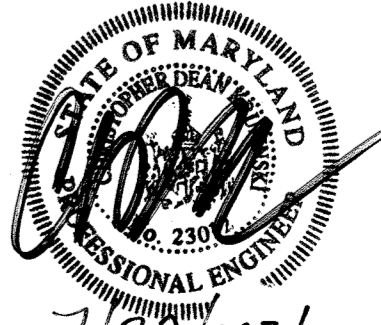
FR. JAMES J. CURRY, O.M.S. Co. 1
Printed Name & Title

Design Certification:

"I hereby certify that this plan has been designed in accordance with current Maryland erosion and sediment control laws, regulations, and standards, that it represents a practical and workable plan based on my personal knowledge of the site, and that it was prepared in accordance with the requirements of the Howard Soil Conservation District."

Chris Krupinski 2021.03.05
Designer's Signature Date

CHRIS KRUPINSKI MD Registration No. 23012
Printed Name (P.E., R.L.S., or R.L.A. (circle one))

HOWARD SCD SIGNATURE BLOCK:	
THIS PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.	
<i>Alexandra Butcher</i>	08/04/21
HOWARD SOIL CONSERVATION DISTRICT	DATE
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.	
<i>Angie Cowan</i>	12-10-21
DIRECTOR	DATE
<i>Paul Smith</i>	12-1-21
CHIEF, DEVELOPMENT ENGINEERING DIVISION	DATE
<i>Paul Smith</i>	12/1/21
CHIEF, DIVISION OF LAND DEVELOPMENT	DATE
DATE	NO. REVISION
OWNER / DEVELOPER	
NOVITIATE OF FRANCISCAN FATHERS MINOR CONVENTUALS OF MD INC 12300 FOLLY QUARTER RD ELLICOTT CITY MD 21042	
PROJECT	THE SHRINE OF SAINT ANTHONY PRAYER GARDEN
AREA	12290 FOLLY QUARTER RD, ELLICOTT CITY, MD 21042 TAX MAP: 22 PARCEL: 48 GRID: 24 ZONED: AGR ELECTION DISTRICT 3 - HOWARD COUNTY, MARYLAND
TITLE	EROSION & SEDIMENT CONTROL NOTES
 <p>P: 410.728.2900 700 E. Pratt Street, Suite 500 Baltimore, MD 21202 Engineers Construction Managers Planners Scientists www.rkk.com Responsive People Creative Solutions</p>	
	
<p align="center">C-400</p>	
REVIEWED BY:	CDK
DESIGN BY:	CWMM/ZWB/MNC
DRAWN BY:	ZWB/MNC
PROJECT NO.:	20263
DATE:	JULY 23, 2021
SCALE:	
DRAWING NO.:	26 OF 35
<small>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. CHRIS KRUPINSKI LICENSE NO. 23012 EXPIRATION DATE: MARCH 8, 2023</small>	

I:\rkk.com\InfoCloud\Projects\2020\20263_PrayerGarden\CADD\Plans\C-400_Erosion & Sediment Control Notes.dwg

STOCKPILE PROTECTION
EXCESS CUT OR REQUIRED BORROW MATERIAL STOCKPILED ON SITE PRIOR TO ITS DISPOSAL OR USE SHALL BE LOCATED WITHIN THE DESIGNATED LIMIT OF DISTURBANCE IN SUCH A MANNER SO AS TO NOT INTERFERE WITH THE FUNCTION OF ANY EROSION/SEDIMENT CONTROL DEVICES.

SAME DAY STABILIZATION NOTE
FOR ALL LANDSCAPE AREAS NOTED FOR SAME DAY STABILIZATION, STABILIZE SAME DAY AS DISTURBANCE WITH STABILIZATION MATTING, SEED AND STRAW OR GRADED AGGREGATE AS APPROPRIATE.

MAINTENANCE OF SEDIMENT CONTROL
CONTRACTOR SHALL, WITHOUT EXTRA COST TO THE PROJECT, REPAIR AND MAINTAIN EXISTING SEDIMENT CONTROL DEVICES UNTIL ALL AREAS WITHIN LIMITS OF CONSTRUCTION ARE STABILIZED. ALL SEDIMENT CONTROL MEASURES REFERRED TO ON THESE PLANS SHALL BE IN ACCORDANCE WITH PUBLICATION ENTITLED "2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL".

STANDARD STABILIZATION NOTE
FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN THREE (3) CALENDAR DAYS AS TO THE SURFACE OF ALL PERIMETER CONTROLS, DIKES, SWALES, DITCHES, PERIMETER SLOPES, AND ALL SLOPES GREATER THAN 3 HORIZONTAL TO 1 VERTICAL (3:1); AND SEVEN (7) DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE. DISTURBED AREAS OUTSIDE THE LIMITS OF SEDIMENT CONTROLS SHALL BE STABILIZED WITH TEMPORARY OR PERMANENT STABILIZATION BY THE END OF THE WORK DAY IN WHICH IT WAS DISTURBED.

SOIL SUMMARY TABLE	
HYDROLOGIC SOIL	K FACTOR
GnB	0.37 TO 0.43
GgB	0.20 TO 0.37
HA	0.20 TO 0.43

GENERAL NOTES

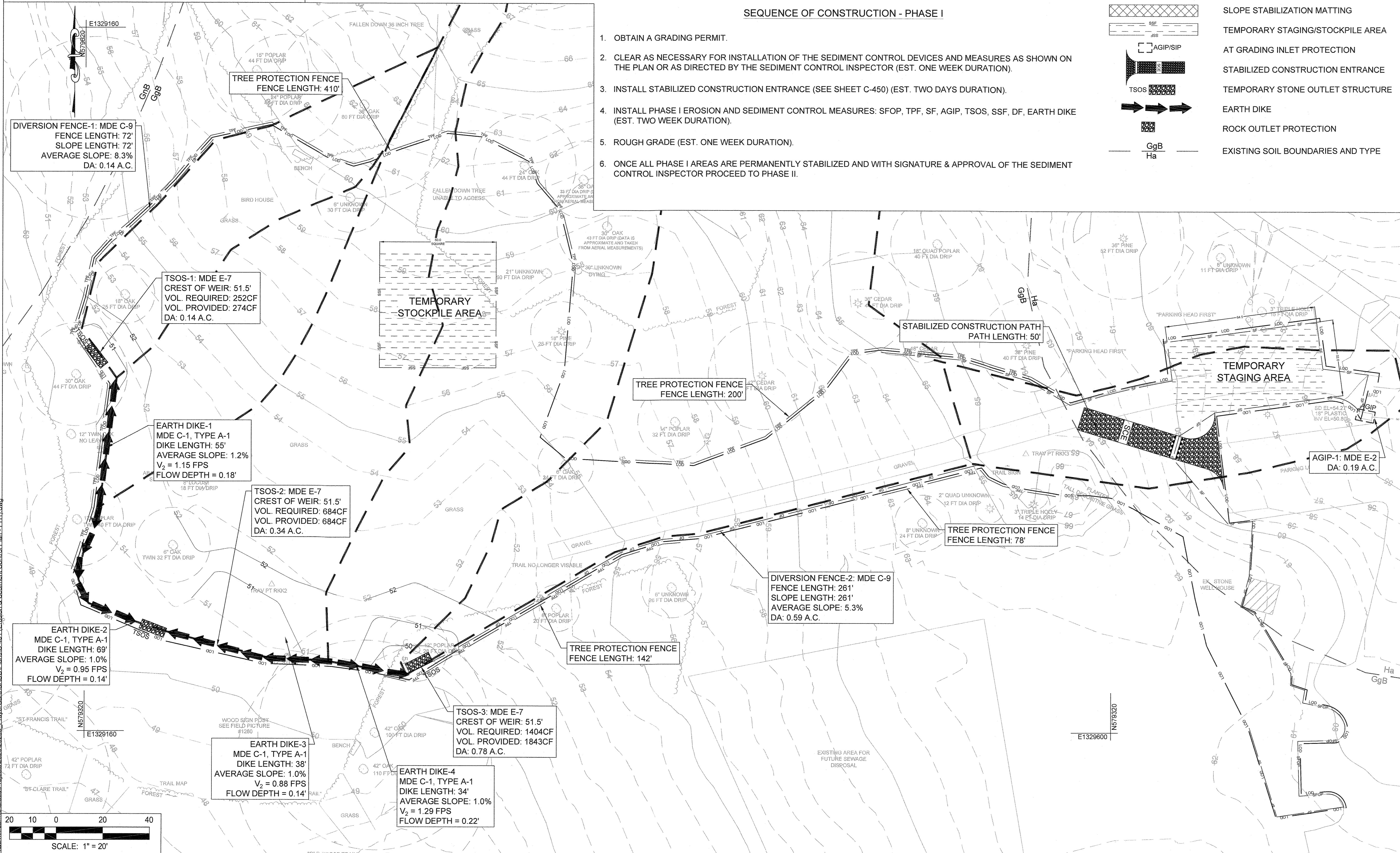
- COORDINATES, BEARINGS AND DISTANCES SHOWN HEREON ARE REFERRED TO THE MARYLAND COORDINATE SYSTEM (NAD'83/2011). ELEVATIONS SHOWN HEREON ARE REFERRED TO THE NAVD'88 DATUM. BOTH OF WHICH ARE BASED ON RTK OBSERVATIONS PERFORMED BY RK&K ON 10/08/2020.
- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO FIELD VERIFY ACTUAL SITE CONDITIONS PRIOR TO THE START OF WORK. THERE IS NO WARRANTY OR GUARANTEE ON THE COMPLETENESS OR CORRECTNESS OF THE EXISTING CONDITION INFORMATION SHOWN ON THESE DRAWINGS. ANY DISCREPANCY FOUND SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ENGINEER PRIOR TO STARTING WORK.
- THE CONTRACTOR SHALL FIELD VERIFY HORIZONTAL AND VERTICAL LOCATIONS OF EXISTING UTILITIES PRIOR TO STARTING WORK AND SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES THAT EXIST.
- ALL EXISTING UTILITY SURFACE FEATURES INCLUDING BUT NOT LIMITED TO INLETS, MANHOLES, HAND HOLES, MECHANICAL LIDS, FIRE HYDRANTS, VALVE BOXES, ETC. WITHIN THE LIMITS OF DISTURBANCE TO BE ADJUSTED TO FINISHED GRADE UNLESS OTHERWISE NOTED.
- SEE LANDSCAPE ARCHITECT PLANS FOR TREE PRESERVATION, PLANTING, AND HARDSCAPE DETAILS.
- SEE C-101 FOR EXISTING CONDITIONS AND LEGEND.

ESC PLAN LEGEND

- 451 PROPOSED MINOR CONTOUR
- 450 PROPOSED MAJOR CONTOUR
- LOD LIMIT OF DISTURBANCE
- LOW LIMIT OF WORK
- SF SILT FENCE
- SSF SUPER SILT FENCE
- SFOP SILT FENCE ON PAVEMENT
- DF DIVERSION SILT FENCE
- DRAINAGE AREA BOUNDARY
- TPF TREE PROTECTION FENCING
- SLOPE STABILIZATION MATTING
- TEMPORARY STAGING/STOCKPILE AREA
- AGIP/SIP AT GRADING INLET PROTECTION
- STABILIZED CONSTRUCTION ENTRANCE
- TSOS TEMPORARY STONE OUTLET STRUCTURE
- EARTH DIKE
- ROCK OUTLET PROTECTION
- GgB Ha EXISTING SOIL BOUNDARIES AND TYPE

SEQUENCE OF CONSTRUCTION - PHASE I

- OBTAIN A GRADING PERMIT.
- CLEAR AS NECESSARY FOR INSTALLATION OF THE SEDIMENT CONTROL DEVICES AND MEASURES AS SHOWN ON THE PLAN OR AS DIRECTED BY THE SEDIMENT CONTROL INSPECTOR (EST. ONE WEEK DURATION).
- INSTALL STABILIZED CONSTRUCTION ENTRANCE (SEE SHEET C-450) (EST. TWO DAYS DURATION).
- INSTALL PHASE I EROSION AND SEDIMENT CONTROL MEASURES: SFOP, TPF, SF, AGIP, TSOS, SSF, DF, EARTH DIKE (EST. TWO WEEK DURATION).
- ROUGH GRADE (EST. ONE WEEK DURATION).
- ONCE ALL PHASE I AREAS ARE PERMANENTLY STABILIZED AND WITH SIGNATURE & APPROVAL OF THE SEDIMENT CONTROL INSPECTOR PROCEED TO PHASE II.



HOWARD SCD SIGNATURE BLOCK:
THIS PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.

Alexander Datchi 08/04/21
HOWARD SOIL CONSERVATION DISTRICT DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

Greg Gow 12-16-21
DIRECTOR DATE

John Smith 12.1.21
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

John Smith
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

DATE NO. REVISION

OWNER / DEVELOPER
NOVIATTE OF FRANCISCAN FATHERS
MINOR CONVENTUALS OF MD INC
12300 FOLLY QUARTER RD
ELLCOTT CITY MD 21042

PROJECT THE SHRINE OF SAINT ANTHONY
PRAYER GARDEN

AREA 12290 FOLLY QUARTER RD, ELLCOTT CITY, MD 21042
TAX MAP: 22 PARCEL: 46 GRID: 24 ZONED: AGR
ELECTION DISTRICT 3 - HOWARD COUNTY, MARYLAND

TITLE EROSION & SEDIMENT CONTROL PLAN - PH1

RK&K
P: 410.728.2900
700 E. Pratt Street, Suite 500 | Baltimore, MD 21202
Eng. Neils | Construction Managers | Planners | Scientists
www.rk.com
Responsive People | Creative Solutions

C-401

REVIEWED BY: CDK
DESIGN BY: CWM/MZWB/MNC
DRAWN BY: ZWB/MNC
PROJECT NO.: 20263

DATE: JULY 23, 2021
SCALE: 1" = 20'
DRAWING NO.: 27 OF 35

PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DAILY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, CHRIS RUPPENSKIY, LICENSE NO. 23317, EXPIRATION DATE: MARCH 6, 2023.

7/23/21

STOCKPILE PROTECTION
EXCESS CUT OR REQUIRED BORROW MATERIAL STOCKPILED ON SITE PRIOR TO ITS DISPOSAL OR USE SHALL BE LOCATED WITHIN THE DESIGNATED LIMIT OF DISTURBANCE IN SUCH A MANNER SO AS TO NOT INTERFERE WITH THE FUNCTION OF ANY EROSION/SEDIMENT CONTROL DEVICES.

SAME DAY STABILIZATION NOTE
FOR ALL LANDSCAPE AREAS NOTED FOR SAME DAY STABILIZATION, STABILIZE SAME DAY AS DISTURBANCE WITH STABILIZATION MATTING, SEED AND STRAW OR GRADED AGGREGATE AS APPROPRIATE.

MAINTENANCE OF SEDIMENT CONTROL
CONTRACTOR SHALL, WITHOUT EXTRA COST TO THE PROJECT, REPAIR AND MAINTAIN EXISTING SEDIMENT CONTROL DEVICES UNTIL ALL AREAS WITHIN LIMITS OF CONSTRUCTION ARE STABILIZED. ALL SEDIMENT CONTROL MEASURES REFERRED TO ON THESE PLANS SHALL BE IN ACCORDANCE WITH PUBLICATION ENTITLED "2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL".

STANDARD STABILIZATION NOTE
FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN THREE (3) CALENDAR DAYS AS TO THE SURFACE OF ALL PERIMETER CONTROLS, DIKES, SWALES, DITCHES, PERIMETER SLOPES, AND ALL SLOPES GREATER THAN 3 HORIZONTAL TO 1 VERTICAL (3:1); AND SEVEN (7) DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE. DISTURBED AREAS OUTSIDE THE LIMITS OF SEDIMENT CONTROLS SHALL BE STABILIZED WITH TEMPORARY OR PERMANENT STABILIZATION BY THE END OF THE WORK DAY IN WHICH IT WAS DISTURBED.

ROCK OUTLET PROTECTION DIMENSIONS

NUMBER	PIPE DIAM.	La	W	T	ROCK CLASS
ES-1	8"	10'	10.67'	19"	CLASS 1
ES-2	12"	10'	11'	19"	CLASS 1

SOIL SUMMARY TABLE

HYDROLOGIC SOIL	K FACTOR
GnB	0.37 TO 0.43
GgB	0.20 TO 0.37
HA	0.20 TO 0.43

GENERAL NOTES

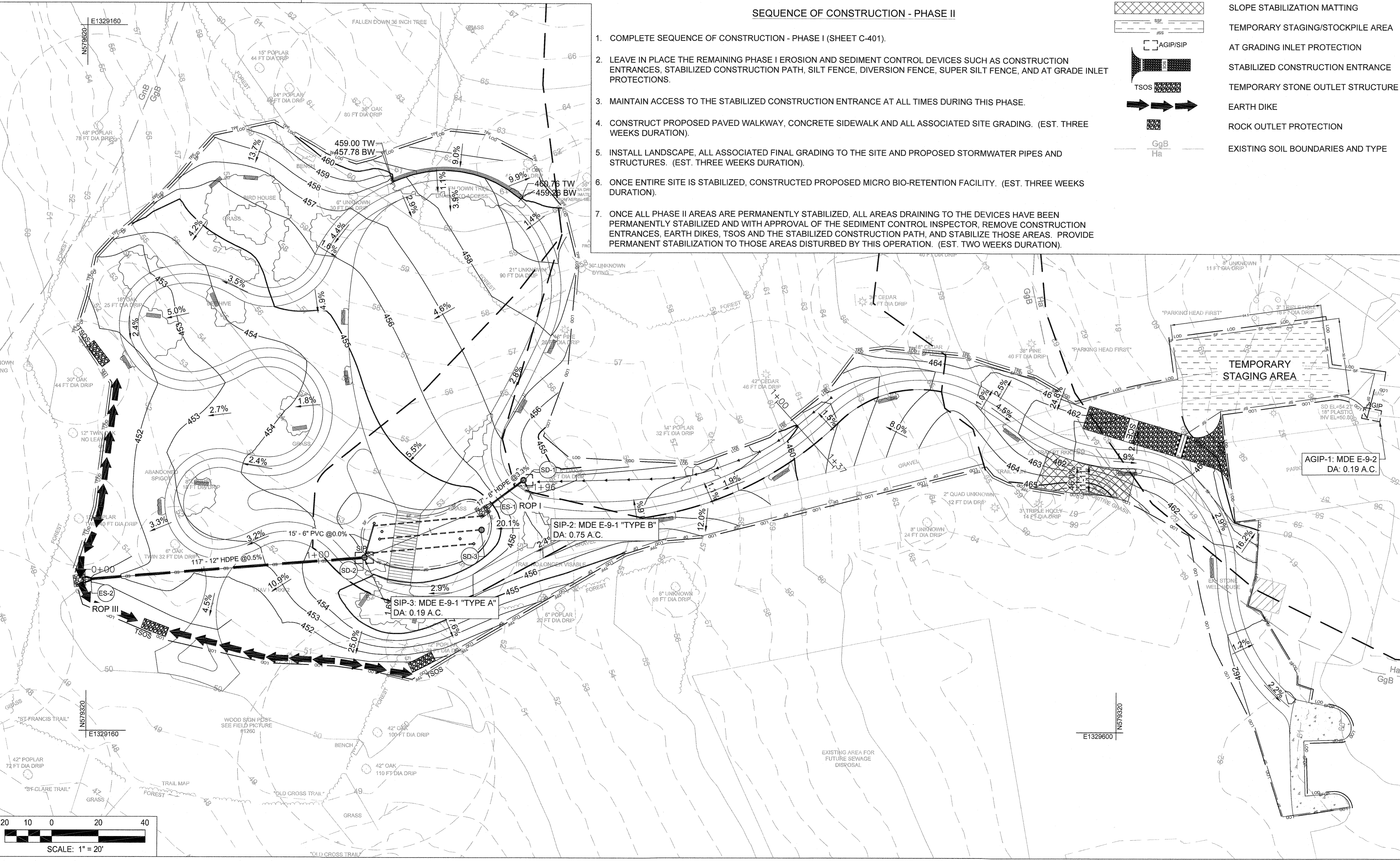
- COORDINATES, BEARINGS AND DISTANCES SHOWN HEREON ARE REFERRED TO THE MARYLAND COORDINATE SYSTEM (NAD'83/2011). ELEVATIONS SHOWN HEREON ARE REFERRED TO THE NAVD'88 DATUM. BOTH OF WHICH ARE BASED ON RTK OBSERVATIONS PERFORMED BY RK&K ON 10/08/2020
- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO FIELD VERIFY ACTUAL SITE CONDITIONS PRIOR TO THE START OF WORK. THERE IS NO WARRANTY OR GUARANTEE ON THE COMPLETENESS OR CORRECTNESS OF THE EXISTING CONDITION INFORMATION SHOWN ON THESE DRAWINGS. ANY DISCREPANCY FOUND SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ENGINEER PRIOR TO STARTING WORK.
- THE CONTRACTOR SHALL FIELD VERIFY HORIZONTAL AND VERTICAL LOCATIONS OF EXISTING UTILITIES PRIOR TO STARTING WORK AND SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES THAT EXIST.
- ALL EXISTING UTILITY SURFACE FEATURES INCLUDING BUT NOT LIMITED TO INLETS, MANHOLES, HAND HOLES, MECHANICAL LIDS, FIRE HYDRANTS, VALVE BOXES, ETC. WITHIN THE LIMITS OF DISTURBANCE TO BE ADJUSTED TO FINISHED GRADE UNLESS OTHERWISE NOTED.
- SEE LANDSCAPE ARCHITECT PLANS FOR TREE PRESERVATION, PLANTING, AND HARDSCAPE DETAILS.
- SEE C-101 FOR EXISTING CONDITIONS AND LEGEND.

ESC PLAN LEGEND

- 451 PROPOSED MINOR CONTOUR
- 450 PROPOSED MAJOR CONTOUR
- LOD LIMIT OF DISTURBANCE
- LOW LIMIT OF WORK
- SF SILT FENCE
- SSF SUPER SILT FENCE
- SFOP SILT FENCE ON PAVEMENT
- DF DIVERSION SILT FENCE
- DRAINAGE AREA BOUNDARY
- TFP TREE PROTECTION FENCING
- SLOPE STABILIZATION MATTING
- TEMPORARY STAGING/STOCKPILE AREA
- AGIP/SIP AT GRADING INLET PROTECTION
- TSOS STABILIZED CONSTRUCTION ENTRANCE
- TEMPORARY STONE OUTLET STRUCTURE
- EARTH DIKE
- ROCK OUTLET PROTECTION
- GgB Ha EXISTING SOIL BOUNDARIES AND TYPE

SEQUENCE OF CONSTRUCTION - PHASE II

- COMPLETE SEQUENCE OF CONSTRUCTION - PHASE I (SHEET C-401).
- LEAVE IN PLACE THE REMAINING PHASE I EROSION AND SEDIMENT CONTROL DEVICES SUCH AS CONSTRUCTION ENTRANCES, STABILIZED CONSTRUCTION PATH, SILT FENCE, DIVERSION FENCE, SUPER SILT FENCE, AND AT GRADE INLET PROTECTIONS.
- MAINTAIN ACCESS TO THE STABILIZED CONSTRUCTION ENTRANCE AT ALL TIMES DURING THIS PHASE.
- CONSTRUCT PROPOSED PAVED WALKWAY, CONCRETE SIDEWALK AND ALL ASSOCIATED SITE GRADING. (EST. THREE WEEKS DURATION).
- INSTALL LANDSCAPE, ALL ASSOCIATED FINAL GRADING TO THE SITE AND PROPOSED STORMWATER PIPES AND STRUCTURES. (EST. THREE WEEKS DURATION).
- ONCE ENTIRE SITE IS STABILIZED, CONSTRUCTED PROPOSED MICRO BIO-RETENTION FACILITY. (EST. THREE WEEKS DURATION).
- ONCE ALL PHASE II AREAS ARE PERMANENTLY STABILIZED, ALL AREAS DRAINING TO THE DEVICES HAVE BEEN PERMANENTLY STABILIZED AND WITH APPROVAL OF THE SEDIMENT CONTROL INSPECTOR, REMOVE CONSTRUCTION ENTRANCES, EARTH DIKES, TSOS AND THE STABILIZED CONSTRUCTION PATH, AND STABILIZE THOSE AREAS. PROVIDE PERMANENT STABILIZATION TO THOSE AREAS DISTURBED BY THIS OPERATION. (EST. TWO WEEKS DURATION).



HOWARD SCD SIGNATURE BLOCK:

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

Howard Soil Conservation District 08/04/21 DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

Director 12-10-21 DATE

Chief, Development Engineering Division 12-1-21 DATE

Chief, Division of Land Development 12/01/21 DATE

DATE	NO.	REVISION

OWNER / DEVELOPER

NOVIATTE OF FRANCISCAN FATHERS
MINOR CONVENTUALS OF MD INC
12300 FOLLY QUARTER RD
ELLCOTT CITY MD 21042

PROJECT THE SHRINE OF SAINT ANTHONY
PRAYER GARDEN

AREA 12296 FOLLY QUARTER RD, ELLCOTT CITY, MD 21042
TAX MAP: 22 PARCEL: 46 GRID: 24 ZONED: AGR
ELECTION DISTRICT 3 - HOWARD COUNTY, MARYLAND

TITLE

EROSION & SEDIMENT CONTROL PLAN - PH2

RK&K

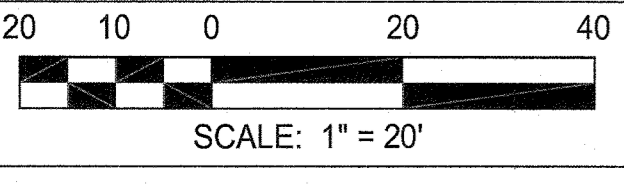
P: 410.728.2900
700 E. Pratt Street, Suite 500 | Baltimore, MD 21202
Engineers | Construction Managers | Planners | Scientists
www.rk.com
Responsive People | Creative Solutions

C-402

REVIEWED BY: CDK
DESIGN BY: CWM/ZWB/MNC
DRAWN BY: ZWB/MNC
PROJECT NO: 20263

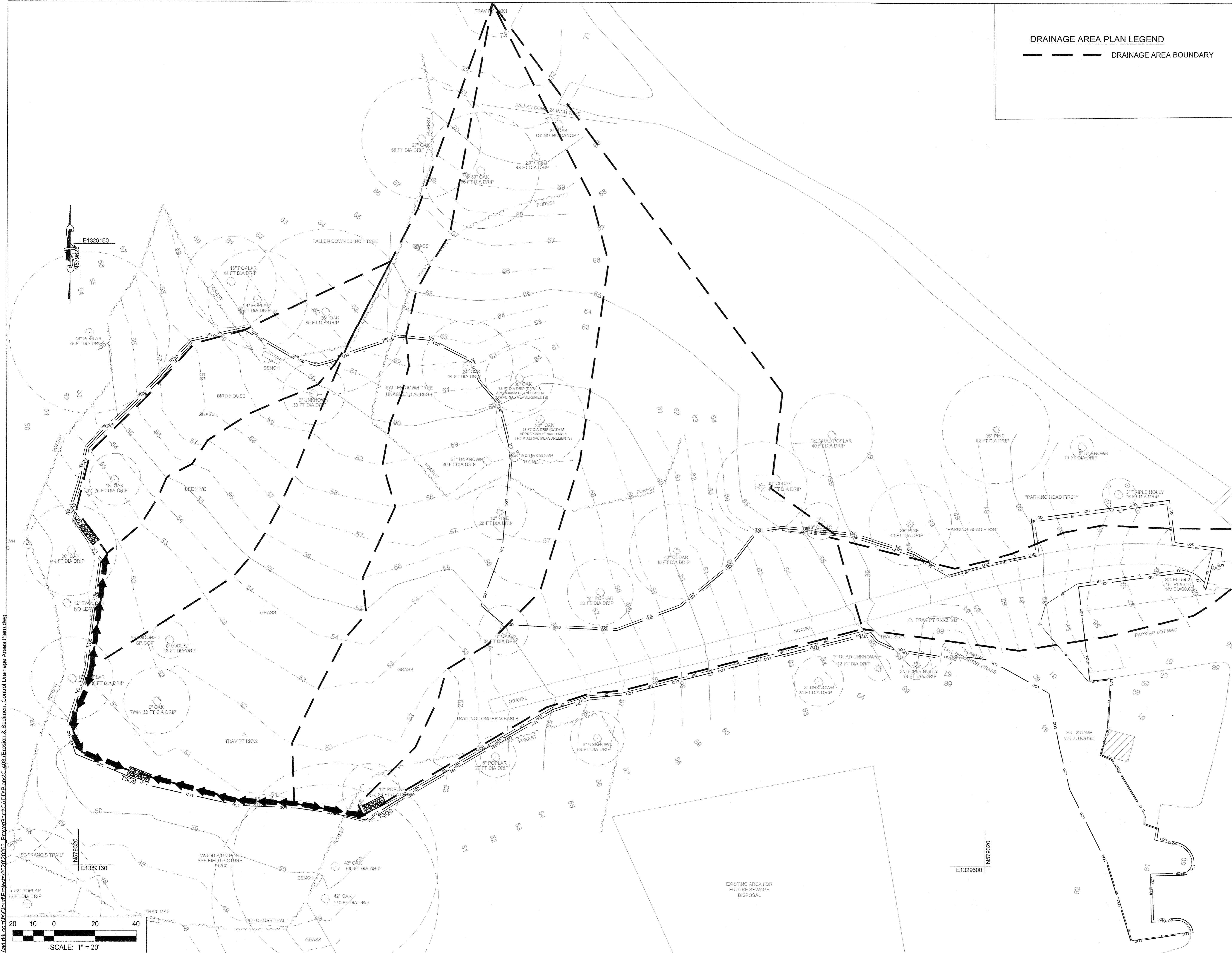
DATE: JULY 23, 2021
SCALE: 1" = 20'
DRAWING NO: 28 OF 35

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, CHRIS KRUPINSKI
LICENSE NO. 23912
EXPIRATION DATE: MARCH 6, 2023



DRAINAGE AREA PLAN LEGEND

--- DRAINAGE AREA BOUNDARY



HOWARD SCD SIGNATURE BLOCK:
 THIS PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
Alvan Ditch 08/04/21
 HOWARD SOIL CONSERVATION DISTRICT DATE
 APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.
Nguyen 12-10-21
 DIRECTOR DATE
Blumenthal 12-1-21
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE
 CHIEF, DIVISION OF LAND DEVELOPMENT 12/21/21 DATE

DATE	NO.	REVISION

OWNER / DEVELOPER
**NOVIATTE OF FRANCISCAN FATHERS
 MINOR CONVENTUALS OF MD INC**
 12300 FOLLY QUARTER RD
 ELLICOTT CITY MD 21042

PROJECT **THE SHRINE OF SAINT ANTHONY
 PRAYER GARDEN**

AREA 12290 FOLLY QUARTER RD, ELLICOTT CITY, MD 21042
 TAX MAP: 22 PARCEL: 46 GRID: 24 ZONED: AGR
 ELECTION DISTRICT 3 - HOWARD COUNTY, MARYLAND

TITLE **EROSION & SEDIMENT CONTROL
 DRAINAGE AREAS PLAN**

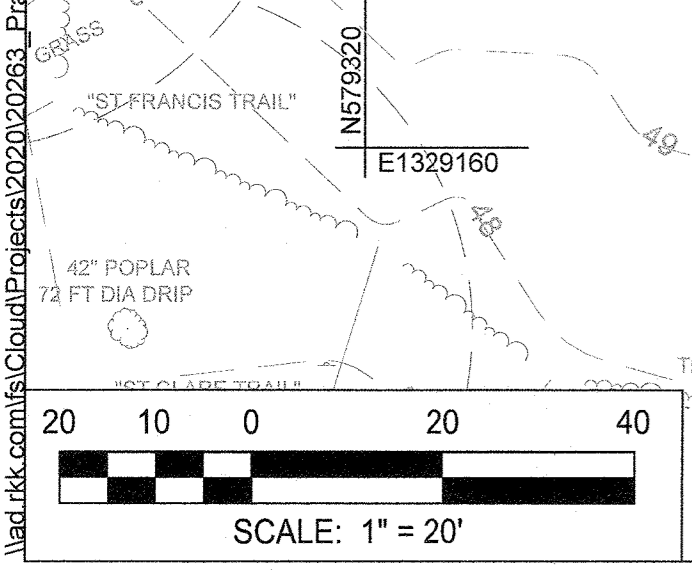
RK&K
 P. 410.728.2900
 700 E. Pratt Street, Suite 500 | Baltimore, MD 21202
 Engineers | Construction Managers | Planners | Scientists
 www.rk.com
 Responsive People | Creative Solutions

C-403

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. CHNS 080395980
 LICENSE NO. 22012
 EXPIRATION DATE: MARCH 6, 2023

7/23/21

REVIEWED BY:	CDK
DESIGN BY:	CWMMZYB/MNC
DRAWN BY:	ZWB/MNC
PROJECT NO.:	20263
DATE:	JULY 23, 2021
SCALE:	SCALE: 1" = 20'
DRAWING NO.:	29 OF 35



DETAIL E-9-2 AT-GRADE INLET PROTECTION

STANDARD SYMBOL: AGIP

MAXIMUM DRAINAGE AREA = 1 ACRE

CONSTRUCTION SPECIFICATIONS

- USE NONWOVEN GEOTEXTILE AS SPECIFIED IN SECTION H-1 MATERIALS.
- LIFT GRATE AND WRAP WITH NONWOVEN GEOTEXTILE TO COMPLETELY COVER ALL OPENINGS. SECURE WITH WIRE TIES AND SET GRATE BACK IN PLACE.
- PLACE CLEAN 3/4 TO 1 1/2 INCH STONE OR EQUIVALENT RECYCLED CONCRETE 6 INCHES THICK ON THE GRATE.
- STORM DRAIN INLET PROTECTION REQUIRES FREQUENT MAINTENANCE. REMOVE ACCUMULATED SEDIMENT AFTER EACH RAIN EVENT TO MAINTAIN FUNCTION AND AVOID PREMATURE CLOGGING. IF INLET PROTECTION DOES NOT COMPLETELY DRAIN WITHIN 24 HOURS AFTER A STORM EVENT, IT IS CLOGGED. WHEN THIS OCCURS, REMOVE ACCUMULATED SEDIMENT AND CLEAN, OR REPLACE GEOTEXTILE AND STONE.

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 E-9-1 STANDARD INLET PROTECTION

STANDARD SYMBOL: SIP

TYPE A MAXIMUM DRAINAGE AREA = 1/4 ACRE
TYPE B MAXIMUM DRAINAGE AREA = 1 ACRE

CONSTRUCTION SPECIFICATIONS

- USE WOVEN SLIT FILM GEOTEXTILE AS SPECIFIED IN SECTION H-1 MATERIALS.
- EXCAVATE COMPLETELY AROUND THE INLET TO A DEPTH OF 18 INCHES BELOW THE NOTCH ELEVATION.
- FOR TYPE A, USE NOMINAL 2 INCH X 4 INCH CONSTRUCTION GRADE LUMBER POSTS, DRIVEN 1 FOOT INTO THE GROUND AT EACH CORNER OF THE INLET. PLACE NAIL STRIPS THROUGH THE POSTS ON THE ENDS OF THE INLET. ASSEMBLE THE TOP PORTION OF THE 2X4 FRAME AS SHOWN. STRETCH 1/2 INCH GALVANIZED HARDWARE CLOTH TIGHTLY AROUND THE FRAME AND FASTEN SECURELY. FASTEN GEOTEXTILE SECURELY TO THE HARDWARE CLOTH WITH TIES SPACED EVERY 24 INCHES AT THE TOP AND MID SECTION. EMBED GEOTEXTILE AND HARDWARE CLOTH A MINIMUM OF 18 INCHES BELOW THE WEIR CREST. THE ENDS OF THE GEOTEXTILE MUST MEET AT A POST, BE OVERLAPPED AND FOLDED, THEN FASTENED TO THE POST.
- FOR TYPE B, USE 2 1/2 INCH DIAMETER GALVANIZED STEEL POSTS OF 0.095 INCH WALL THICKNESS AND 6 FOOT LENGTH, DRIVEN A MINIMUM OF 36 INCHES BELOW THE WEIR CREST AT EACH CORNER OF THE STRUCTURE. FASTEN 9 GAUGE OR HEAVIER CHAIN LINK FENCE, 42 INCHES IN HEIGHT, SECURELY TO THE FENCE POSTS WITH WIRE TIES. FASTEN GEOTEXTILE SECURELY TO THE CHAIN LINK FENCE WITH TIES SPACED EVERY 24 INCHES AT THE TOP AND MID SECTION. EMBED GEOTEXTILE AND CHAIN LINK FENCE A MINIMUM OF 18 INCHES BELOW THE WEIR CREST.
- BACKFILL AROUND THE INLET IN LOOSE 4 INCH LIFTS AND COMPACT UNTIL SOIL IS LEVEL WITH THE NOTCH ELEVATION ON THE ENDS AND TOP ELEVATION ON THE SIDES.
- STORM DRAIN INLET PROTECTION REQUIRES FREQUENT MAINTENANCE. REMOVE ACCUMULATED SEDIMENT AFTER EACH RAIN EVENT TO MAINTAIN FUNCTION AND AVOID PREMATURE CLOGGING. IF INLET PROTECTION DOES NOT COMPLETELY DRAIN WITHIN 24 HOURS AFTER A STORM EVENT, IT IS CLOGGED. WHEN THIS OCCURS, REMOVE ACCUMULATED SEDIMENT AND CLEAN, OR REPLACE GEOTEXTILE AND STONE.

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 E-9-1 STANDARD INLET PROTECTION

STANDARD SYMBOL: SIP

CONSTRUCTION SPECIFICATIONS

- USE WOVEN SLIT FILM GEOTEXTILE AS SPECIFIED IN SECTION H-1 MATERIALS.
- EXCAVATE COMPLETELY AROUND THE INLET TO A DEPTH OF 18 INCHES BELOW THE NOTCH ELEVATION.
- FOR TYPE A, USE NOMINAL 2 INCH X 4 INCH CONSTRUCTION GRADE LUMBER POSTS, DRIVEN 1 FOOT INTO THE GROUND AT EACH CORNER OF THE INLET. PLACE NAIL STRIPS THROUGH THE POSTS ON THE ENDS OF THE INLET. ASSEMBLE THE TOP PORTION OF THE 2X4 FRAME AS SHOWN. STRETCH 1/2 INCH GALVANIZED HARDWARE CLOTH TIGHTLY AROUND THE FRAME AND FASTEN SECURELY. FASTEN GEOTEXTILE SECURELY TO THE HARDWARE CLOTH WITH TIES SPACED EVERY 24 INCHES AT THE TOP AND MID SECTION. EMBED GEOTEXTILE AND HARDWARE CLOTH A MINIMUM OF 18 INCHES BELOW THE WEIR CREST. THE ENDS OF THE GEOTEXTILE MUST MEET AT A POST, BE OVERLAPPED AND FOLDED, THEN FASTENED TO THE POST.
- FOR TYPE B, USE 2 1/2 INCH DIAMETER GALVANIZED STEEL POSTS OF 0.095 INCH WALL THICKNESS AND 6 FOOT LENGTH, DRIVEN A MINIMUM OF 36 INCHES BELOW THE WEIR CREST AT EACH CORNER OF THE STRUCTURE. FASTEN 9 GAUGE OR HEAVIER CHAIN LINK FENCE, 42 INCHES IN HEIGHT, SECURELY TO THE FENCE POSTS WITH WIRE TIES. FASTEN GEOTEXTILE SECURELY TO THE CHAIN LINK FENCE WITH TIES SPACED EVERY 24 INCHES AT THE TOP AND MID SECTION. EMBED GEOTEXTILE AND CHAIN LINK FENCE A MINIMUM OF 18 INCHES BELOW THE WEIR CREST.
- BACKFILL AROUND THE INLET IN LOOSE 4 INCH LIFTS AND COMPACT UNTIL SOIL IS LEVEL WITH THE NOTCH ELEVATION ON THE ENDS AND TOP ELEVATION ON THE SIDES.
- STORM DRAIN INLET PROTECTION REQUIRES FREQUENT MAINTENANCE. REMOVE ACCUMULATED SEDIMENT AFTER EACH RAIN EVENT TO MAINTAIN FUNCTION AND AVOID PREMATURE CLOGGING. IF INLET PROTECTION DOES NOT COMPLETELY DRAIN WITHIN 24 HOURS AFTER A STORM EVENT, IT IS CLOGGED. WHEN THIS OCCURS, REMOVE ACCUMULATED SEDIMENT AND CLEAN, OR REPLACE GEOTEXTILE AND STONE.

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

- 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 (130 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.
- 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.
- PREPARE SUBGRADE AND PLACE NONWOVEN GEOTEXTILE, AS SPECIFIED IN SECTION H-1 MATERIALS.
- 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.
- 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

DETAIL C-1 EARTH DIKE

STANDARD SYMBOL: A-1

PLACE DESIGNATION (A, B, A-1) ON FLOW CHANNEL SIDE OF DIKE.

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

- REMOVE AND DISPOSE OF ALL TREES, BRUSH, STUMPS, OBSTRUCTIONS, AND OTHER OBJECTIONABLE MATERIAL SO AS NOT TO INTERFERE WITH PROPER FUNCTION OF EARTHDIKE.
- EXCAVATE OR SHAPE EARTH DIKE TO LINE, GRADE, AND CROSS SECTION AS SPECIFIED. BANK PROJECTIONS OR OTHER IRREGULARITIES ARE NOT ALLOWED.
- COMPACT FILL.
- CONSTRUCT FLOW CHANNEL ON AN UNINTERRUPTED, CONTINUOUS GRADE, ADJUSTING THE LOCATION DUE TO FIELD CONDITIONS AS NECESSARY TO MAINTAIN POSITIVE DRAINAGE.
- PROVIDE OUTLET PROTECTION AS REQUIRED ON APPROVED PLAN.
- STABILIZE EARTH DIKE WITHIN THREE DAYS OF INSTALLATION. STABILIZE FLOW CHANNEL FOR CLEAR WATER DIVERSION WITHIN 24 HOURS OF INSTALLATION.
- 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.
- 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 E-1 SILT FENCE

STANDARD SYMBOL: SF

CONSTRUCTION SPECIFICATIONS

- USE WOOD POSTS 1 3/4 X 1 3/4 X 1/2 INCH (MINIMUM) SQUARE CUT OF SOUND QUALITY HARDWOOD, AS AN ALTERNATIVE TO WOODEN POST USE STANDARD "T" OR "U" SECTION STEEL POSTS WEIGHING NOT LESS THAN 1 POUND PER LINEAR FOOT.
- USE 36 INCH MINIMUM POSTS DRIVEN 16 INCH MINIMUM INTO GROUND NO MORE THAN 6 FEET APART.
- USE WOVEN SLIT FILM GEOTEXTILE AS SPECIFIED IN SECTION H-1 MATERIALS AND FASTEN GEOTEXTILE SECURELY TO UPSLOPE SIDE OF FENCE POSTS WITH WIRE TIES OR STAPLES AT TOP AND MID-SECTION.
- PROVIDE MANUFACTURER CERTIFICATION TO THE AUTHORIZED REPRESENTATIVE OF THE INSPECTION/ENFORCEMENT AUTHORITY SHOWING THAT THE GEOTEXTILE USED MEETS THE REQUIREMENTS IN SECTION H-1 MATERIALS.
- EMBED GEOTEXTILE A MINIMUM OF 8 INCHES VERTICALLY INTO THE GROUND. BACKFILL AND COMPACT THE SOIL ON BOTH SIDES OF FABRIC.
- WHERE TWO SECTIONS OF GEOTEXTILE ADJOIN: OVERLAP, TWIST, AND STAPLE TO POST IN ACCORDANCE WITH THIS DETAIL.
- EXTEND BOTH ENDS OF THE 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 SILT FENCE.
- REMOVE ACCUMULATED SEDIMENT AND DEBRIS WHEN BULGES DEVELOP IN SILT FENCE OR WHEN SEDIMENT REACHES 25% OF FENCE HEIGHT. REPLACE GEOTEXTILE IF TORN. IF UNDERMINING OCCURS, REINSTALL FENCE.

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 E-1 SILT FENCE

STANDARD SYMBOL: SF

CONSTRUCTION SPECIFICATIONS

- USE WOOD POSTS 1 3/4 X 1 3/4 X 1/2 INCH (MINIMUM) SQUARE CUT OF SOUND QUALITY HARDWOOD, AS AN ALTERNATIVE TO WOODEN POST USE STANDARD "T" OR "U" SECTION STEEL POSTS WEIGHING NOT LESS THAN 1 POUND PER LINEAR FOOT.
- USE 36 INCH MINIMUM POSTS DRIVEN 16 INCH MINIMUM INTO GROUND NO MORE THAN 6 FEET APART.
- USE WOVEN SLIT FILM GEOTEXTILE AS SPECIFIED IN SECTION H-1 MATERIALS AND FASTEN GEOTEXTILE SECURELY TO UPSLOPE SIDE OF FENCE POSTS WITH WIRE TIES OR STAPLES AT TOP AND MID-SECTION.
- PROVIDE MANUFACTURER CERTIFICATION TO THE AUTHORIZED REPRESENTATIVE OF THE INSPECTION/ENFORCEMENT AUTHORITY SHOWING THAT THE GEOTEXTILE USED MEETS THE REQUIREMENTS IN SECTION H-1 MATERIALS.
- EMBED GEOTEXTILE A MINIMUM OF 8 INCHES VERTICALLY INTO THE GROUND. BACKFILL AND COMPACT THE SOIL ON BOTH SIDES OF FABRIC.
- WHERE TWO SECTIONS OF GEOTEXTILE ADJOIN: OVERLAP, TWIST, AND STAPLE TO POST IN ACCORDANCE WITH THIS DETAIL.
- EXTEND BOTH ENDS OF THE 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 SILT FENCE.
- REMOVE ACCUMULATED SEDIMENT AND DEBRIS WHEN BULGES DEVELOP IN SILT FENCE OR WHEN SEDIMENT REACHES 25% OF FENCE HEIGHT. REPLACE GEOTEXTILE IF TORN. IF UNDERMINING OCCURS, REINSTALL FENCE.

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 E-3 SUPER SILT FENCE

STANDARD SYMBOL: SSF

CONSTRUCTION SPECIFICATIONS

- INSTALL 2 1/2 INCH DIAMETER GALVANIZED STEEL POSTS OF 0.095 INCH WALL THICKNESS AND SIX FOOT LENGTH SPACED NO FURTHER THAN 10 FEET APART. DRIVE THE POSTS A MINIMUM OF 36 INCHES INTO THE GROUND.
- FASTEN 9 GAUGE OR HEAVIER GALVANIZED CHAIN LINK FENCE (2 1/2 INCH MAXIMUM OPENING) 42 INCHES IN HEIGHT SECURELY TO THE FENCE POSTS WITH WIRE TIES OR HUG RINGS.
- 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.
- WHERE ENDS OF THE GEOTEXTILE COME TOGETHER, THE ENDS SHALL BE OVERLAPPED BY 6 INCHES, FOLDED, AND STAPLED TO PREVENT SEDIMENT BY PASS.
- 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.
- PROVIDE MANUFACTURER CERTIFICATION TO THE INSPECTION/ENFORCEMENT AUTHORITY SHOWING THAT GEOTEXTILE USED MEETS THE REQUIREMENTS IN SECTION H-1 MATERIALS.
- REMOVE ACCUMULATED SEDIMENT AND DEBRIS WHEN BULGES DEVELOP IN FENCE OR WHEN SEDIMENT REACHES 25% OF FENCE HEIGHT. REPLACE GEOTEXTILE IF TORN. MAINTAIN WATER TIGHT SEAL ALONG BOTTOM. REPLACE STONE IF DISPLACED.

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 E-2 SILT FENCE ON PAVEMENT

STANDARD SYMBOL: SFOP

CONSTRUCTION SPECIFICATIONS

- USE NOMINAL 2 INCH X 4 INCH LUMBER.
- USE WOVEN SLIT FILM GEOTEXTILE, AS SPECIFIED IN SECTION H-1 MATERIALS.
- PROVIDE MANUFACTURER CERTIFICATION TO THE AUTHORIZED REPRESENTATIVE OF THE INSPECTION/ENFORCEMENT AUTHORITY SHOWING THAT THE GEOTEXTILE USED MEETS THE REQUIREMENTS IN SECTION H-1 MATERIALS.
- SPACE UPRIGHT SUPPORTS NO MORE THAN 10 FEET APART.
- PROVIDE A TWO FOOT OPENING BETWEEN EVERY SET OF SUPPORTS AND PLACE STONE IN THE OPENING OVER GEOTEXTILE.
- KEEP SILT FENCE TAUT AND SECURELY STAPLE TO THE UPSLOPE SIDE OF UPRIGHT SUPPORTS. EXTEND GEOTEXTILE UNDER 2X4.
- WHERE TWO SECTIONS OF GEOTEXTILE ADJOIN: OVERLAP, FOLD, AND STAPLE TO POST IN ACCORDANCE WITH THIS DETAIL. ATTACH LATHE.
- PROVIDE A MASTIC SEAL BETWEEN PAVEMENT, GEOTEXTILE, AND 2X4 TO PREVENT SEDIMENT-LADEN WATER FROM ESCAPING BENEATH SILT FENCE INSTALLATION.
- SECURE BOARDS TO PAVEMENT WITH 40D 5 INCH MINIMUM LENGTH NAILS.
- REMOVE ACCUMULATED SEDIMENT AND DEBRIS WHEN BULGES DEVELOP IN SILT FENCE OR WHEN SEDIMENT REACHES 25% OF FENCE HEIGHT. REPLACE GEOTEXTILE IF TORN. MAINTAIN WATER TIGHT SEAL ALONG BOTTOM. REPLACE STONE IF DISPLACED.

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 SCD SIGNATURE BLOCK:

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

Howard Soil Conservation District 08/04/21 DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

Director 12-10-21 DATE

Chief, Development Engineering Division 12-1-21 DATE

Chief, Division of Land Development 12/1/21 DATE

OWNER / DEVELOPER

NOVIATTE OF FRANCISCAN FATHERS
MINOR CONVENTUALS OF MD INC
12300 FOLLY QUARTER RD
ELLCOTT CITY MD 21042

PROJECT THE SHRINE OF SAINT ANTHONY
PRAYER GARDEN

AREA 12300 FOLLY QUARTER RD, ELLCOTT CITY, MD 21042
TAX MAP 22 PARCEL 46 GRID 24 ZONED AGR
ELECTION DISTRICT 3 - HOWARD COUNTY, MARYLAND

TITLE EROSION & SEDIMENT CONTROL DETAILS

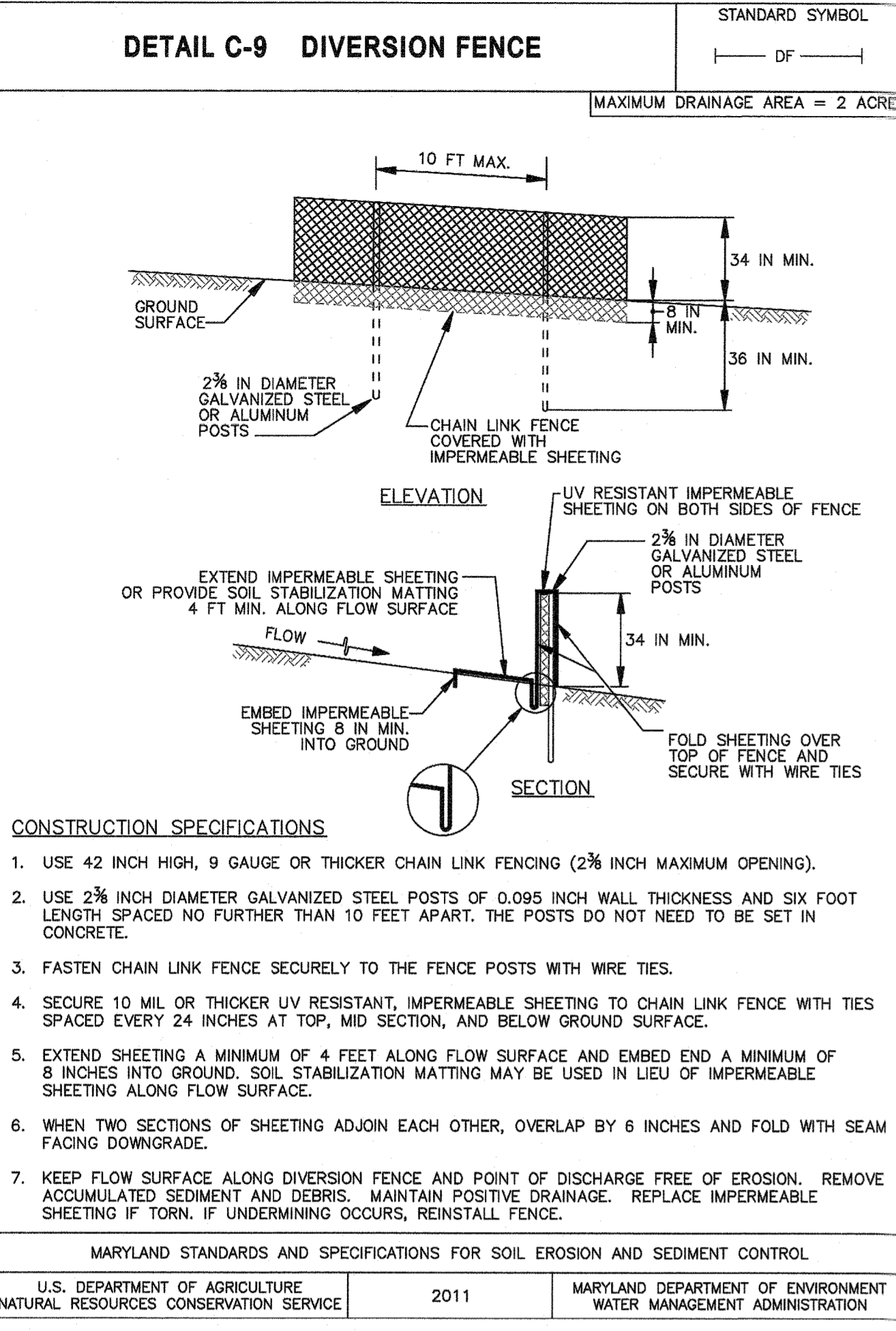
RK K
P: 410.728.2900
700 E. Pratt Street, Suite 500 | Baltimore, MD 21202
Engineers | Construction Managers | Planners | Scientists
www.rkk.com
Responsive People | Creative Solutions

PROFESSIONAL ENGINEER

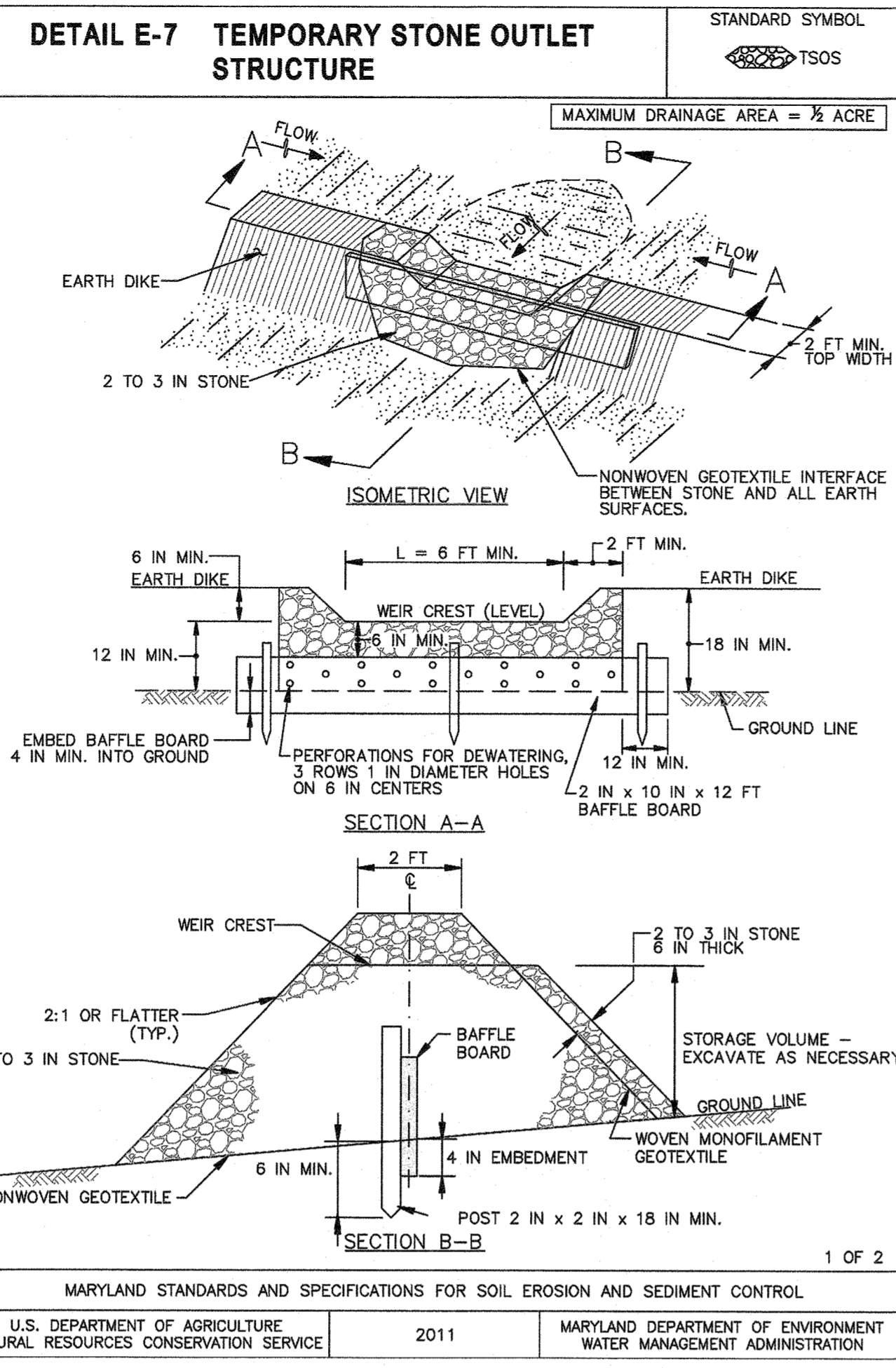
7/23/2021

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, CHRIS RUPINSKI LICENSE NO. 23912 EXPIRATION DATE: MARCH 6, 2023

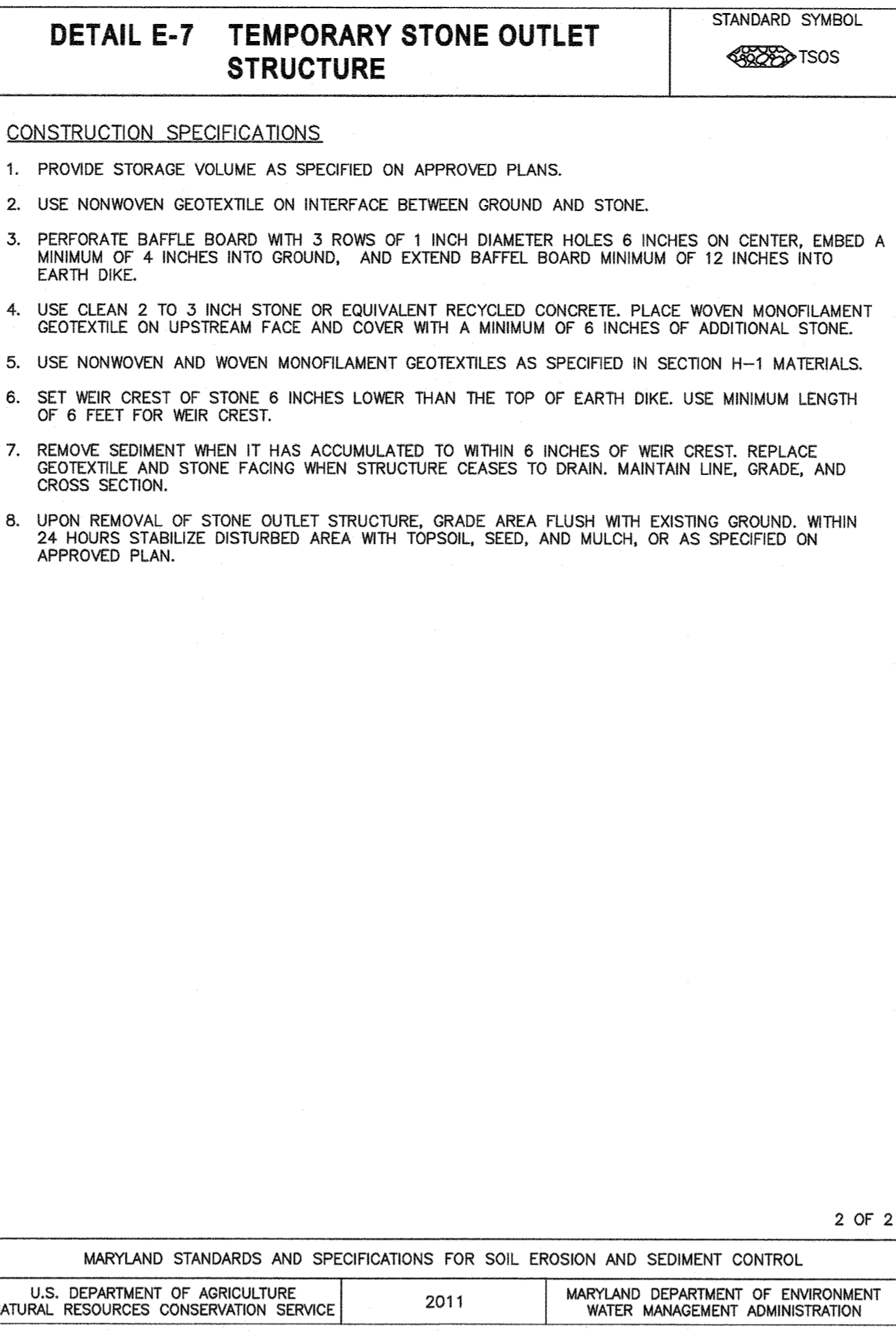
REVIEWED BY: CDK
DESIGN BY: CWMM/ZWB/MNC
DRAWN BY: ZWB/MNC
PROJECT NO: 20263
DATE: JULY 23, 2021
SCALE:
DRAWING NO. SDP-04-064



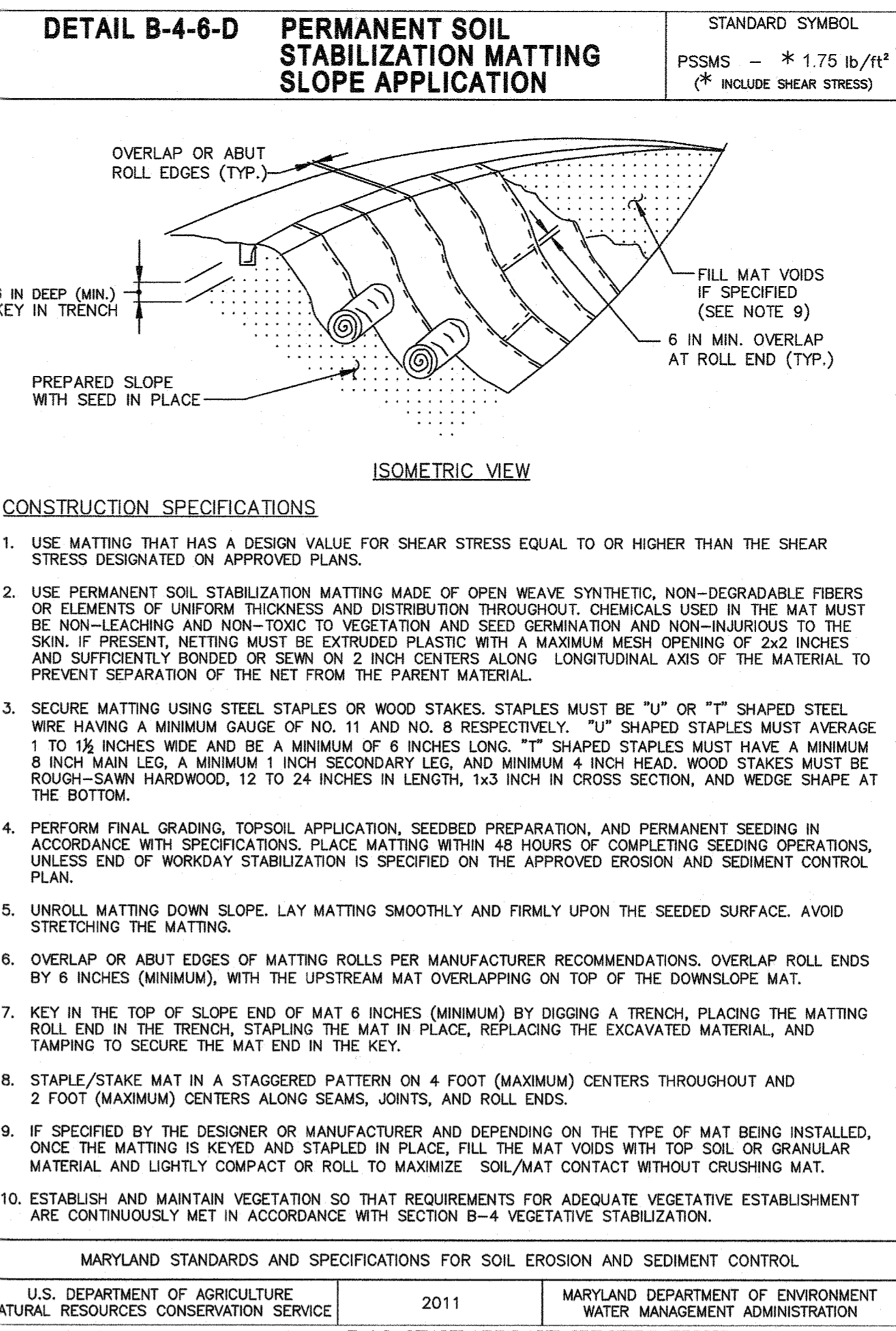
MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL	
U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011
MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION	



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	



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	

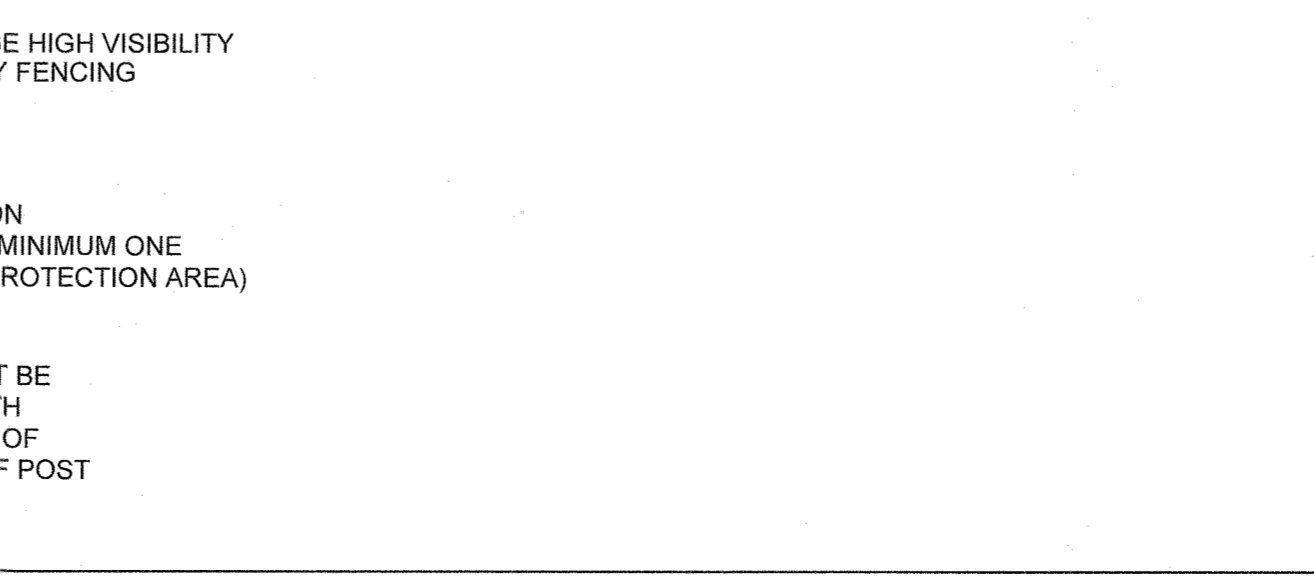
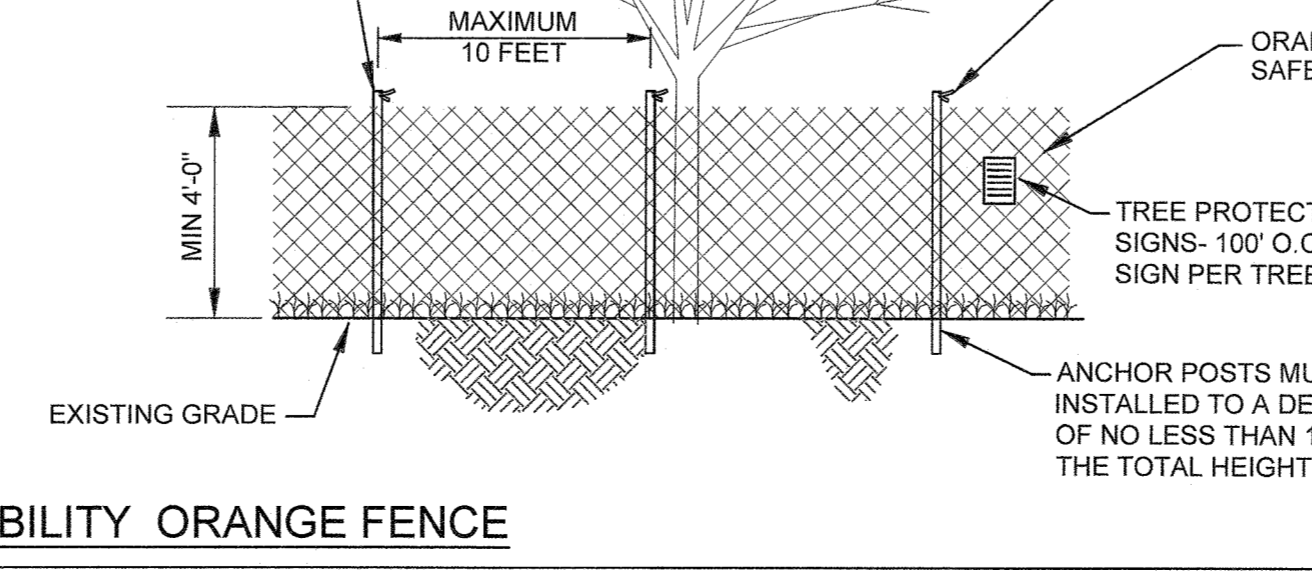
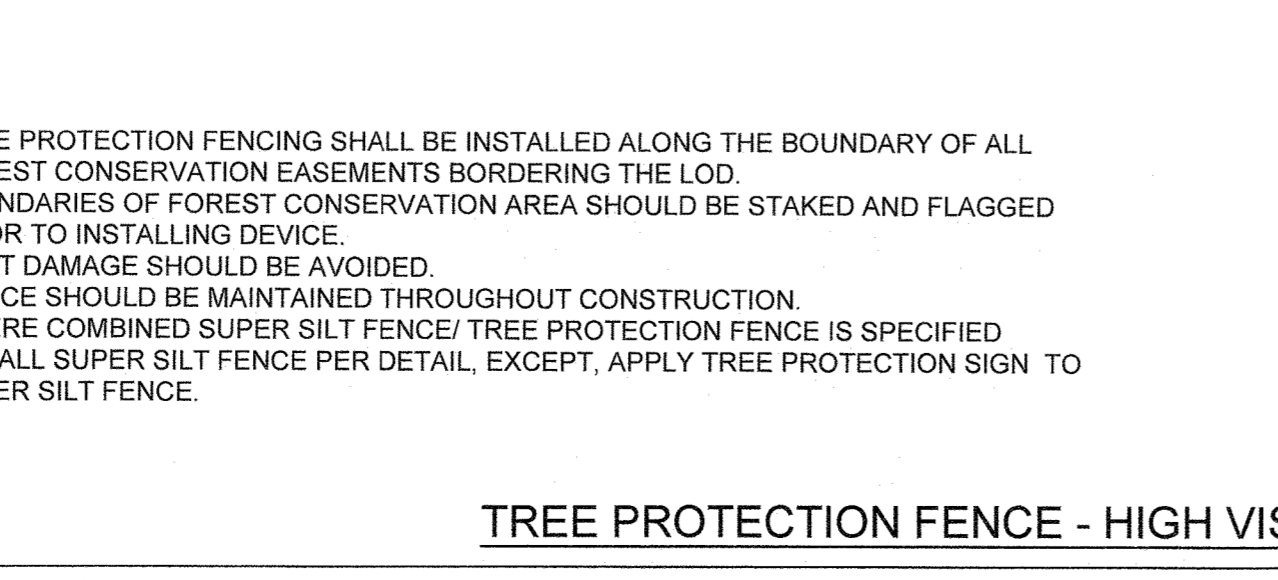
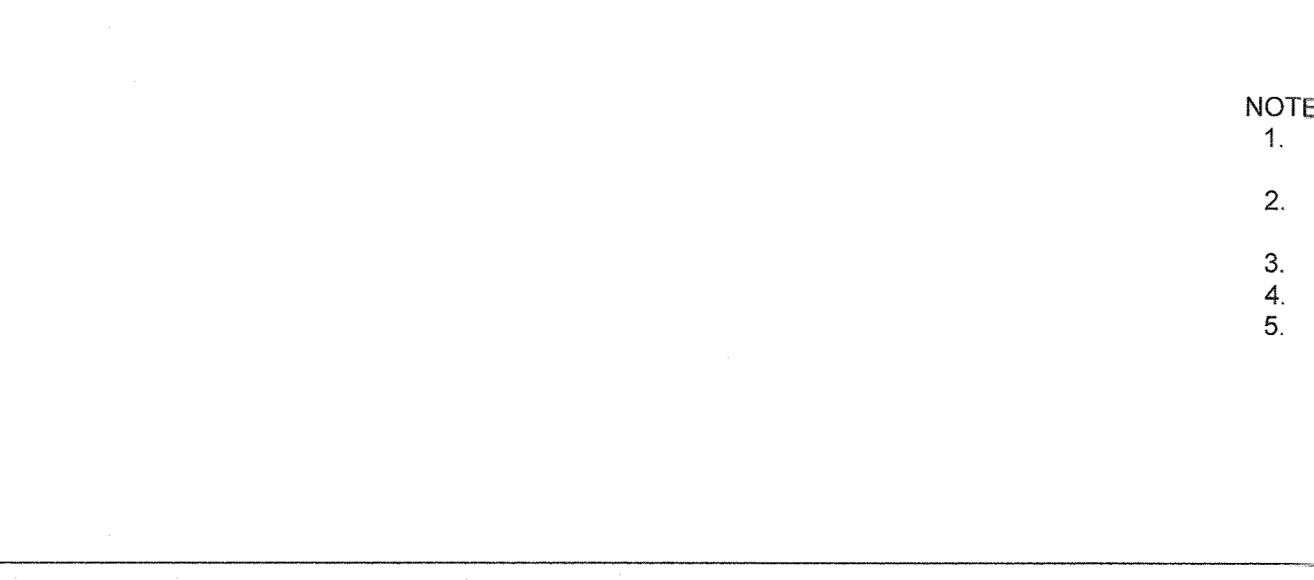


MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL	
U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011
MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION	

B-4 STANDARDS AND SPECIFICATIONS	
FOR VEGETATIVE STABILIZATION	
Definition	
Using vegetation as cover to protect exposed soil from erosion.	
Purpose	
To promote the establishment of vegetation on exposed soil.	
Conditions Where Practice Applies	
On all disturbed areas not stabilized by other methods. This specification is divided into sections on incremental stabilization; soil preparation, soil amendments and topsoiling; seeding and mulching; temporary stabilization; and permanent stabilization.	
Effects on Water Quality and Quantity	
Stabilization practices are used to promote the establishment of vegetation on exposed soil. When soil is stabilized with vegetation, the soil is less likely to erode and more likely to allow infiltration of rainfall, thereby reducing sediment loads and runoff to downstream areas.	
Planting vegetation in disturbed areas will have an effect on the water budget, especially on volumes and rates of runoff, infiltration, evaporation, transpiration, percolation, and groundwater recharge. Over time, vegetation will increase organic matter content and improve the water holding capacity of the soil and subsequent plant growth.	
Vegetation will help reduce the movement of sediment, nutrients, and other chemicals carried by runoff to receiving waters. Plants will also help protect groundwater supplies by assimilating those substances present within the root zone.	
Sediment control practices must remain in place during grading, seedbed preparation, seeding, mulching, and vegetative establishment.	
Adequate Vegetative Establishment	
Inspect seeded areas for vegetative establishment and make necessary repairs, replacements, and reseeds within the planting season.	
<ol style="list-style-type: none"> Adequate vegetative stabilization requires 95 percent groundcover. If an area has less than 40 percent groundcover, restabilize following the original recommendations for lime, fertilizer, seedbed preparation, and seeding. If an area has between 40 and 94 percent groundcover, over-seed and fertilize using half of the rates originally specified. Maintenance fertilizer rates for permanent seeding are shown in Table B.6. 	
B.9	

B-4-3 STANDARDS AND SPECIFICATIONS	
FOR SEEDING AND MULCHING	
Definition	
The application of seed and mulch to establish vegetative cover.	
Purpose	
To protect disturbed soils from erosion during and at the end of construction.	
Conditions Where Practice Applies	
To the surface of all perimeter controls, slopes, and any disturbed area not under active grading.	
Criteria	
A. Seeding	B. Mulching
<ol style="list-style-type: none"> Specifications <ol style="list-style-type: none"> All seed must meet the requirements of the Maryland State Seed Law. All seed must be subject to re-testing by a recognized seed laboratory. All seed used must have been tested within the 6 months immediately preceding the date of sowing such material on any project. Refer to Table B.4 regarding the quality of seed. Seed tags must be available upon request to the inspector to verify type of seed and seeding rate. Mulch alone may be applied between the fall and spring seeding dates only if the ground is frozen. The appropriate seeding mixture must be applied when the ground thaws. Inoculants: The inoculant for treating legume seed in the seed mixtures must be a pure culture of nitrogen fixing bacteria prepared specifically for the species. Inoculants must not be used later than the date indicated on the container. Add fresh inoculants as directed on the package. Use four times the recommended rate when hydrosowing. Note: It is very important to keep inoculant as cool as possible until used. Temperatures above 75 to 80 degrees Fahrenheit can weaken bacteria and make the inoculant less effective. Sod or seed must not be placed on 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. Application <ol style="list-style-type: none"> Dry Seeding: This includes use of conventional drop or broadcast spreaders. <ol style="list-style-type: none"> Incorporate seed into the subsoil at the rates prescribed on Temporary Seeding Table B.1, Permanent Seeding Table B.3, or site-specific seeding summaries. Apply seed in two directions, perpendicular to each other. Apply half the seeding rate in each direction. Roll the seeded area with a weighted roller to provide good seed to soil contact. 	<ol style="list-style-type: none"> Application <ol style="list-style-type: none"> Apply mulch to all seeded areas immediately after seeding. When straw mulch is used, spread it over all seeded areas at the rate of 2 tons per acre to a uniform loose depth of 1 to 2 inches. Apply mulch to achieve a uniform distribution and depth so that the soil surface is not exposed. When using a mulch anchoring tool, increase the application rate to 2.5 tons per acre. Wood cellulose fiber used as mulch must be applied at a net dry weight of 1500 pounds per acre. Mix the wood cellulose fiber with water to attain a mixture with a maximum of 50 pounds of wood cellulose fiber per 100 gallons of water. Anchoring <ol style="list-style-type: none"> Perform mulch anchoring immediately following application of mulch to minimize loss by wind or water. This may be done by one of the following methods (listed by preference), depending upon the size of the area and erosion hazard: <ol style="list-style-type: none"> A mulch anchoring tool is a tractor drawn implement designed to punch and anchor mulch into the soil surface a minimum of 2 inches. This practice is most effective on large areas, but is limited to flatter slopes where equipment can operate safely. If used on sloping land, this practice should follow the contour. Wood cellulose fiber may be used for anchoring straw. Apply the fiber binder at a net dry weight of 750 pounds per acre. Mix the wood cellulose fiber with water at a maximum of 50 pounds of wood cellulose fiber per 100 gallons of water. Synthetic binders such as Acrylic DLR (Agro-Tack), DCA-70, Petroset, Terra Tax II, Terra Tack AR or other approved equal may be used. Follow application rates as specified by the manufacturer. Application of liquid binders needs to be heavier at the edges where wind catches mulch, such as in valleys and on crests of banks. Use of asphalt binders is strictly prohibited. Lightweight plastic netting may be stapled over the mulch according to manufacturer recommendations. Netting is usually available in rolls 4 to 15 feet wide and 300 to 3,000 feet long.

B-4-8 STANDARDS AND SPECIFICATIONS	
FOR STOCKPILE AREA	
Definition	
A mound or pile of soil protected by appropriately designed erosion and sediment control measures.	
Purpose	
To provide a designated location for the temporary storage of soil that controls the potential for erosion, sedimentation, and changes to drainage patterns.	
Conditions Where Practice Applies	
Stockpile areas are utilized when it is necessary to salvage and store soil for later use.	
Criteria	
<ol style="list-style-type: none"> The stockpile location and all related sediment control practices must be clearly indicated on the erosion and sediment control plan. The footprint of the stockpile must be sized to accommodate the anticipated volume of material and based on a side slope ratio no steeper than 2:1. Benching must be provided in accordance with Section B-3 Land Grading. Runoff from the stockpile area must drain to a suitable sediment control practice. Access the stockpile area from the upgrade side. Clear water runoff into the stockpile area must be minimized by use of a diversion device such as an earth dike, temporary swale or diversion fence. Provisions must be made for discharging concentrated flow in a non-erosive manner. Where runoff concentrates along the toe of the stockpile fill, an appropriate erosion/sediment control practice must be used to intercept the discharge. Stockpiles must be stabilized in accordance with the 3/7 day stabilization requirement as well as Standard B-4-1 Incremental Stabilization and Standard B-4-4 Temporary Stabilization. If the stockpile is located on an impervious surface, a liner should be provided below the stockpile to facilitate cleanup. Stockpiles containing contaminated material must be covered with impermeable sheeting. 	
Maintenance	
The stockpile area must continuously meet the requirements for Adequate Vegetative Establishment in accordance with Section B-4 Vegetative Stabilization. Side slopes must be maintained at no steeper than a 2:1 ratio. The stockpile area must be kept free of erosion. If the vertical height of a stockpile exceeds 20 feet for 2:1 slopes, 30 feet for 3:1 slopes, or 40 feet for 4:1 slopes, benching must be provided in accordance with Section B-3 Land Grading.	
B.43	



NOTES:
 1. TREE PROTECTION FENCING SHALL BE INSTALLED ALONG THE BOUNDARY OF ALL FOREST CONSERVATION EASEMENTS BORDERING THE LOD.
 2. BOUNDARIES OF FOREST CONSERVATION AREA SHOULD BE STAKED AND FLAGGED PRIOR TO INSTALLING DEVICE.
 3. ROOT DAMAGE SHOULD BE AVOIDED.
 4. DEVICE SHOULD BE MAINTAINED THROUGHOUT CONSTRUCTION.
 5. WHERE COMBINED SUPER SILT FENCE/TREE PROTECTION FENCE IS SPECIFIED INSTALL SUPER SILT FENCE PER DETAIL, EXCEPT, APPLY TREE PROTECTION SIGN TO SUPER SILT FENCE.

1 OF 2

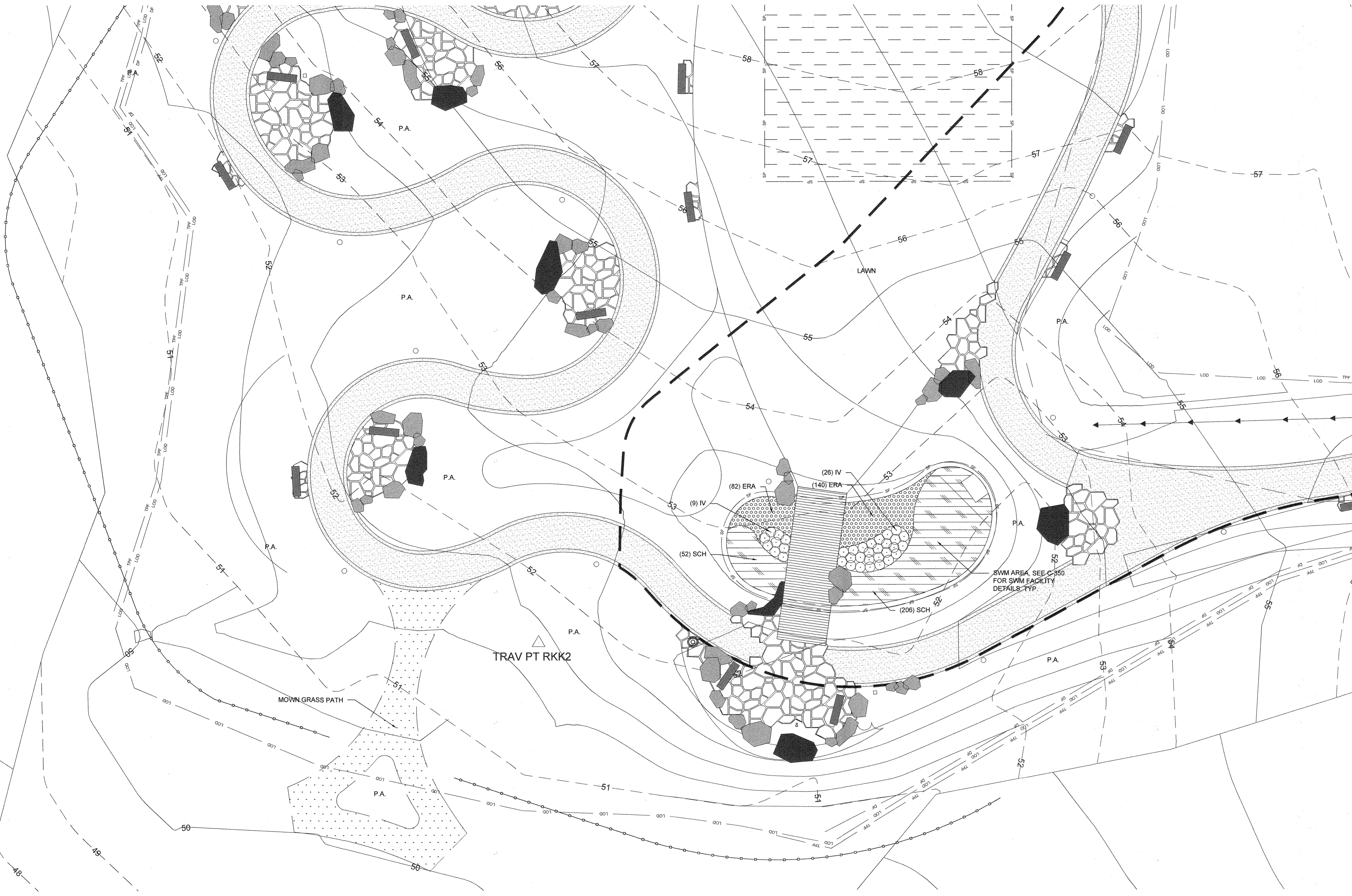
2 OF 2

2 OF 2

HOWARD SCD SIGNATURE BLOCK:	
THIS PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.	
	08/04/21 DATE
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.	
	12-10-21 DATE
	12-1-21 DATE
	12/1/21 DATE
DATE	NO.
REVISION	
OWNER / DEVELOPER	
NOVIATTE OF FRANCISCAN FATHERS MINOR CONVENTUALS OF MD INC 12300 FOLLY QUARTER RD ELLCOTT CITY MD 21042	
PROJECT THE SHRINE OF SAINT ANTHONY PRAYER GARDEN	
AREA 12298 FOLLY QUARTER RD, ELLCOTT CITY, MD 21042 TAX MAP: 22 PARCEL: 46 GRID: 24 ZONED: AGR ELECTION DISTRICT 3 - HOWARD COUNTY, MARYLAND	
TITLE EROSION & SEDIMENT CONTROL DETAILS	
 P-410.728.2900 700 E. Prent Street, Suite 500 Baltimore, MD 21202 Engineers Construction Managers Planners Scientists www.rkk.com Responsive People Creative Solutions	
C-451	
REVIEWED BY: CDK	DATE: JULY 23, 2021
DESIGN BY: CWWM/ZWB/MNC	SCALE:
DRAWN BY: ZWB/MNC	PROJECT NO: 20263
DRAWING NO. 31 OF 35	
COORDINATE SYSTEM: MARYLAND STATE PLANE (HORIZONTAL) NAVD88 (VERTICAL) SDP-04-064	

\\net.fdc.com\is\Cloud\Projects\2020\20263_PrayerGarden\CADD\Plans\C-450_Erosion & Sediment Control Details.dwg

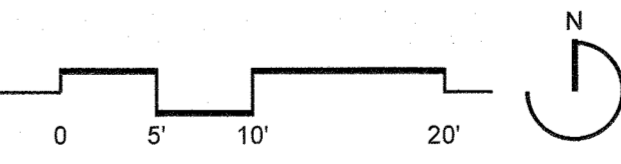
S:\20 Projects\20038 Saint Anthony Prayer Garden\MRA\03 County Review\Sheets\L-101 (Planting Plan).dwg



MASTER PLANT SCHEDULE (ONLY ON THIS SHEET)

QTY.	KEY	BOTANICAL/COMMON NAME	SIZE	ROOT	COMMENTS
35	IV	Ita virginica 'Sprich' Little Henry' Virginia Swetspire	#3	Cont.	24" O.C.
PERENNIALS / GROUNDCOVERS / GRASSES					
222	ERA	Eragrostis spectabilis Purple Love Grass	#1	Cont.	12" O.C.
258	SCH	Schizachyrium scoparium Little Bluestem	1#	Cont.	18" O.C.

1 SWM PLANTING PLAN
1"=10'-0"



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.
 DIRECTOR: *Steve Gray* 12-10-21 DATE
 CHIEF, DEVELOPMENT ENGINEERING DIVISION: *Paul Edmund* 12-6-21 DATE
 CHIEF, DIVISION OF LAND DEVELOPMENT: *[Signature]* 12/10/21 DATE

OWNER / DEVELOPER
NOVIATTE OF FRANCISCAN FATHERS
MINOR CONVENTUALS OF MD INC
 12300 FOLLY QUARTER RD
 ELLICOTT CITY MD 21042

PROJECT **THE SHRINE OF SAINT ANTHONY PRAYER GARDEN**

AREA 12290 FOLLY QUARTER RD, ELLICOTT CITY, MD 21042
 TAX MAP: 22 PARCEL: 46 GRID: 24 ZONED: AGR
 ELECTION DISTRICT 3 - HOWARD COUNTY, MARYLAND

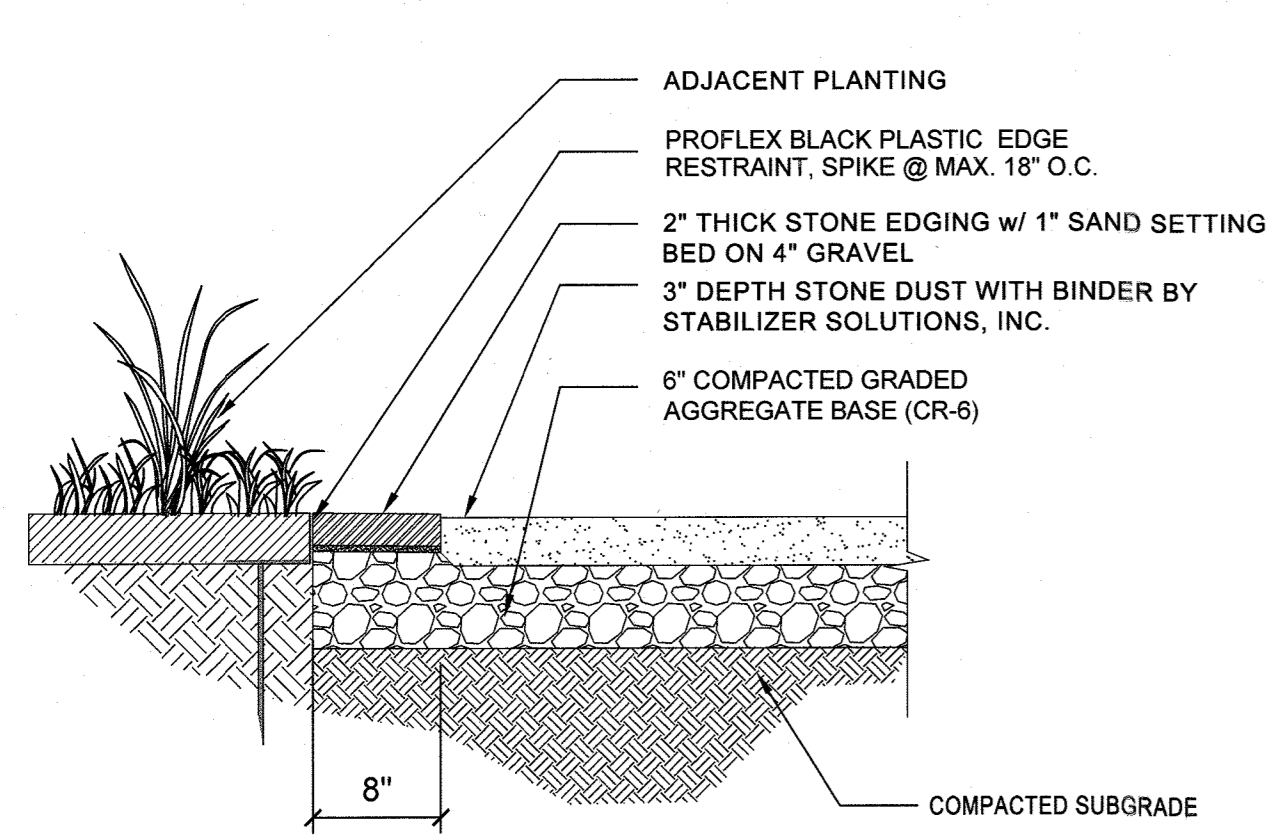
TITLE **PLANTING PLAN**

MAHAN RYKIEL
 ASSOCIATES INC
 Whitehall Mill 3300 Clipper Mill Road
 Suite 200 Baltimore, MD 21211 410.835.6001

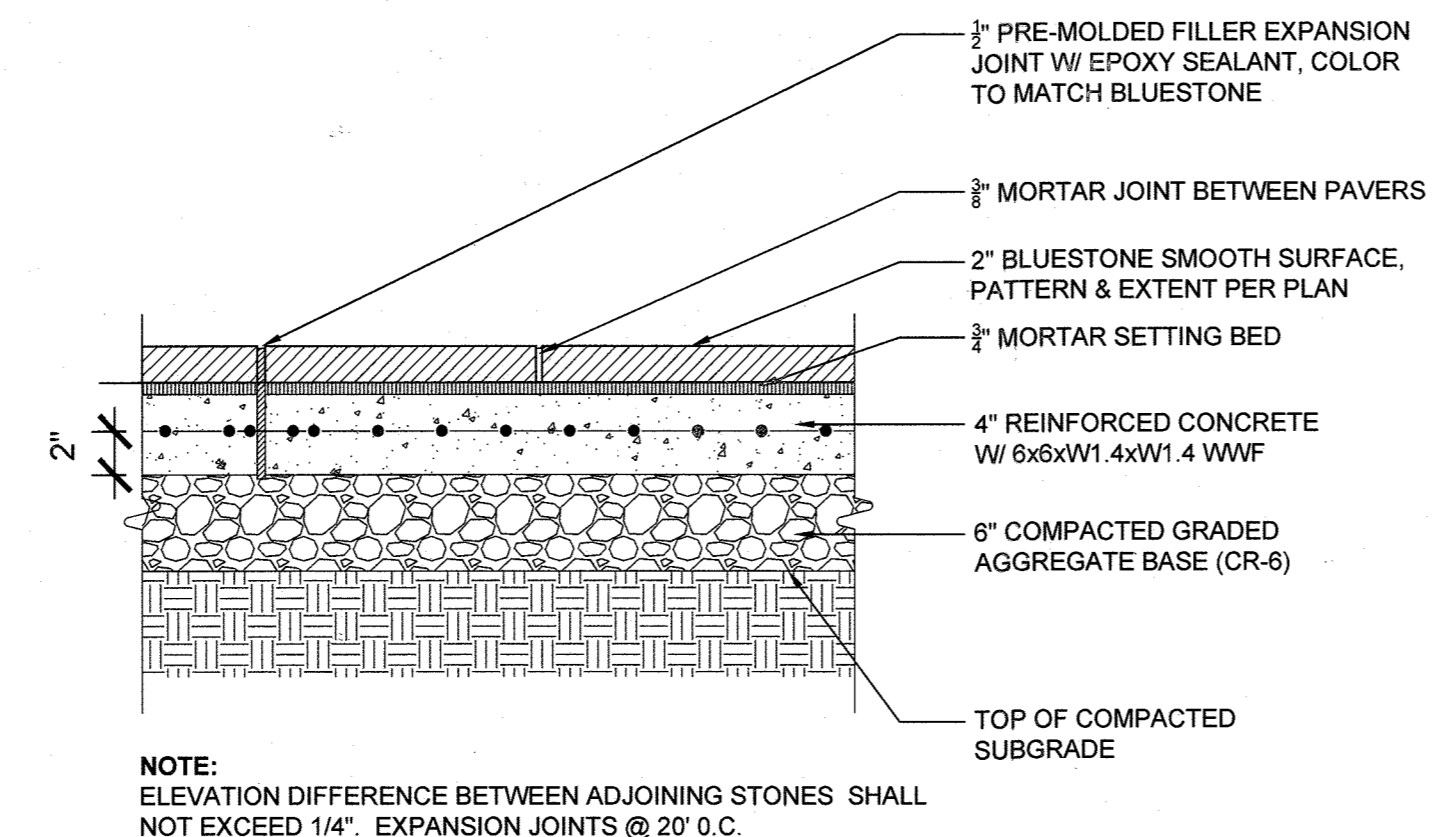
L-101

REVIEWED BY:	PG
DESIGN BY:	PG
DRAWN BY:	SW
PROJECT NO:	20038
DATE:	DECEMBER 06, 2021
SCALE:	SEE DRAWING
DRAWING NO:	33 OF 35

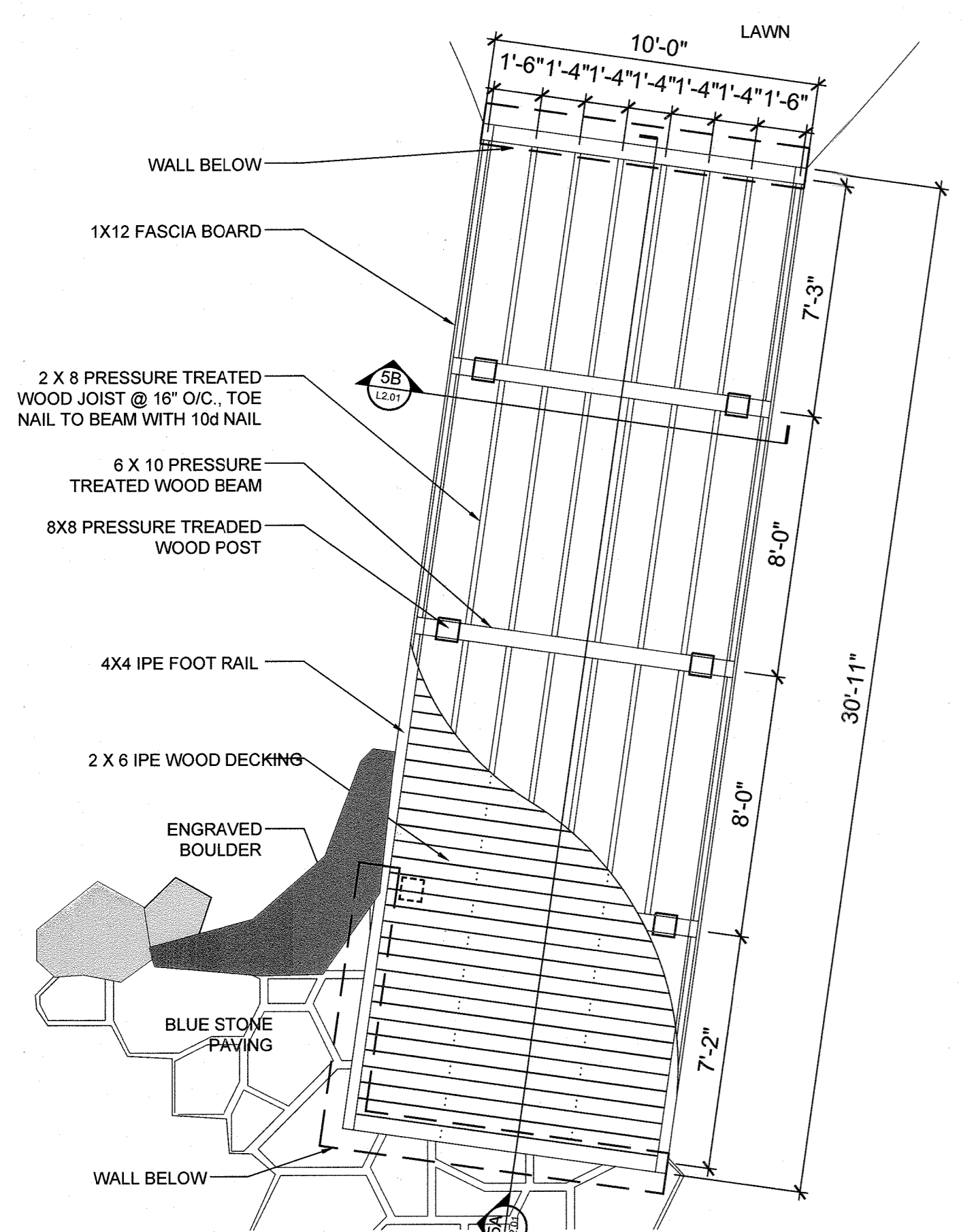
PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A FULLY LICENSED PROFESSIONAL LANDSCAPE ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND. SCOTT JON RYKIEL LICENSE NO. 631 EXPIRATION DATE: SEP. 21, 2021



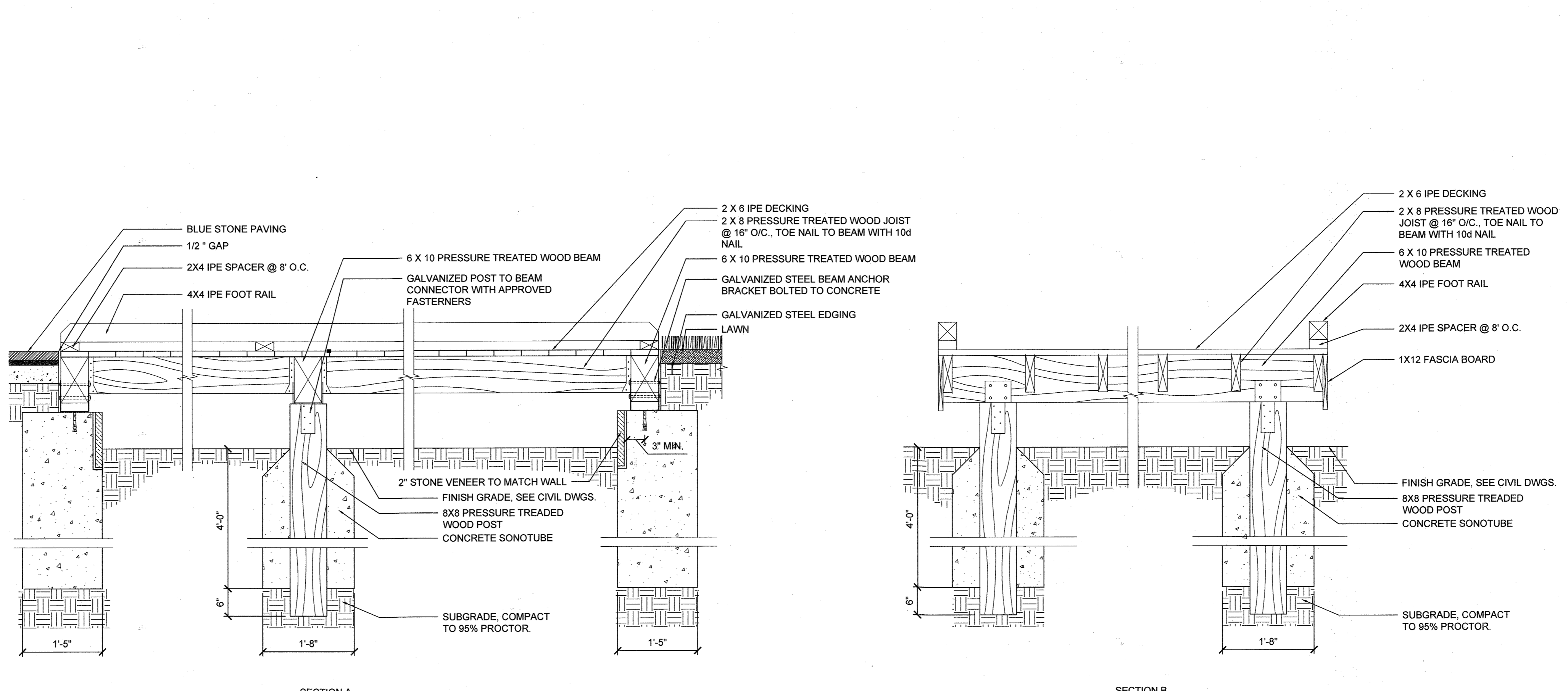
1 Stone Dust Pathway Paving
1"=1' 0"



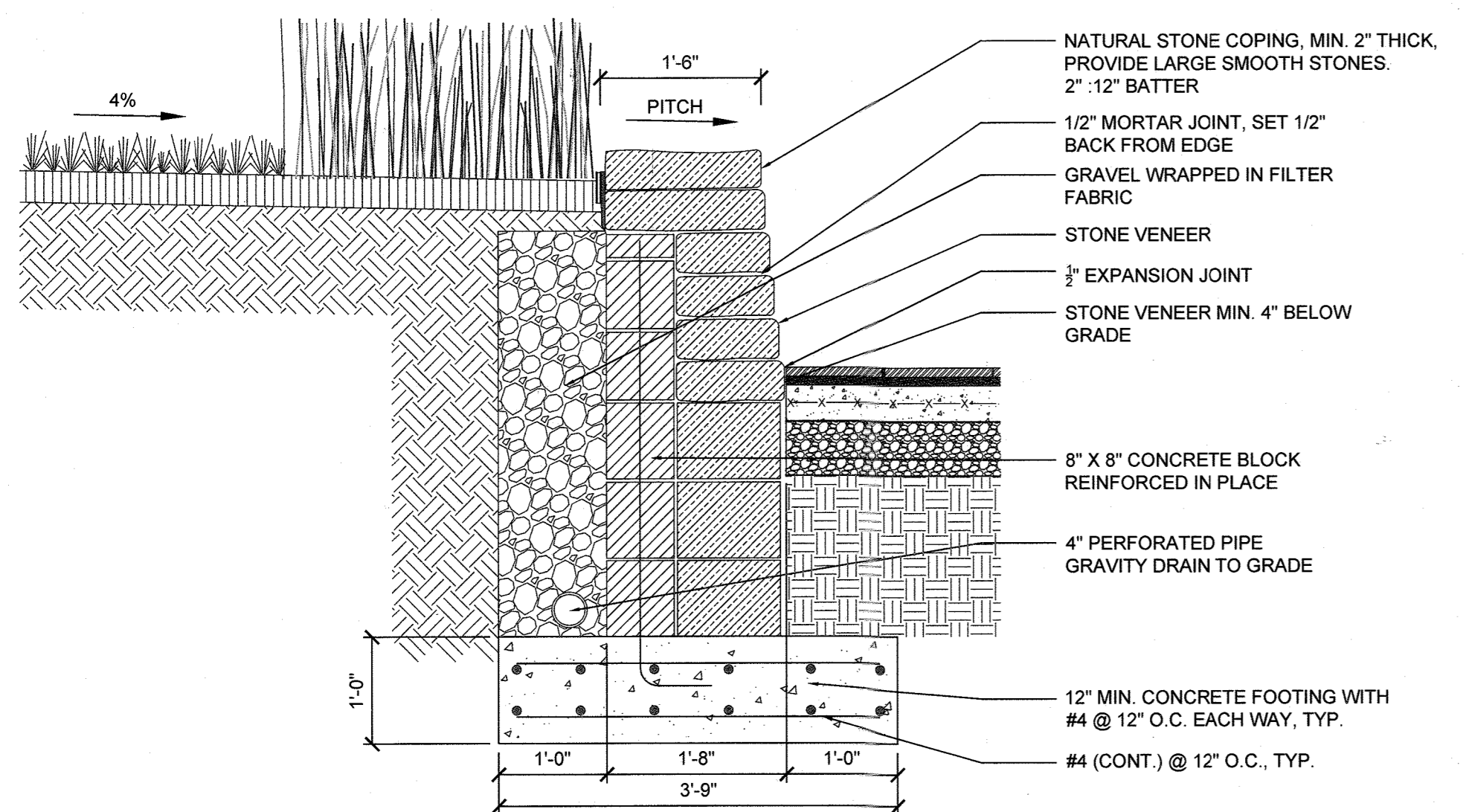
2 Blue Stone Paving
1"=1' 0"



3 Wood Bridge Materials Plan
1/8"=1' 0"



4 Wood Bridge Section
3/4"=1' 0"



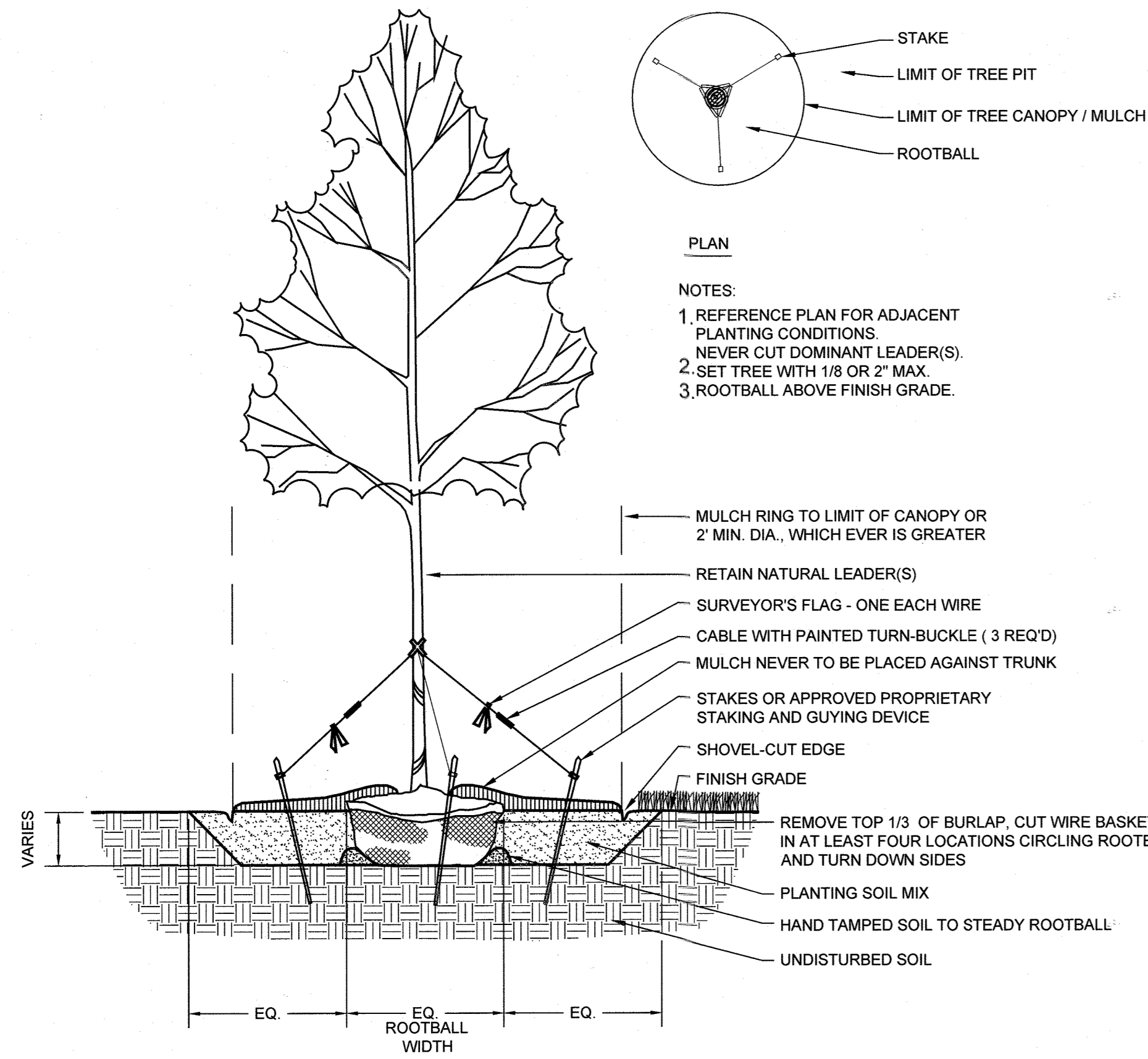
5 Stone Retaining Wall
3/4"=1' 0"

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.
 DIRECTOR: *Shay Gowan* 12-10-21 DATE
 CHIEF, DEVELOPMENT ENGINEERING DIVISION NY DATE
 CHIEF, DIVISION OF LAND DEVELOPMENT 12/10/21 DATE

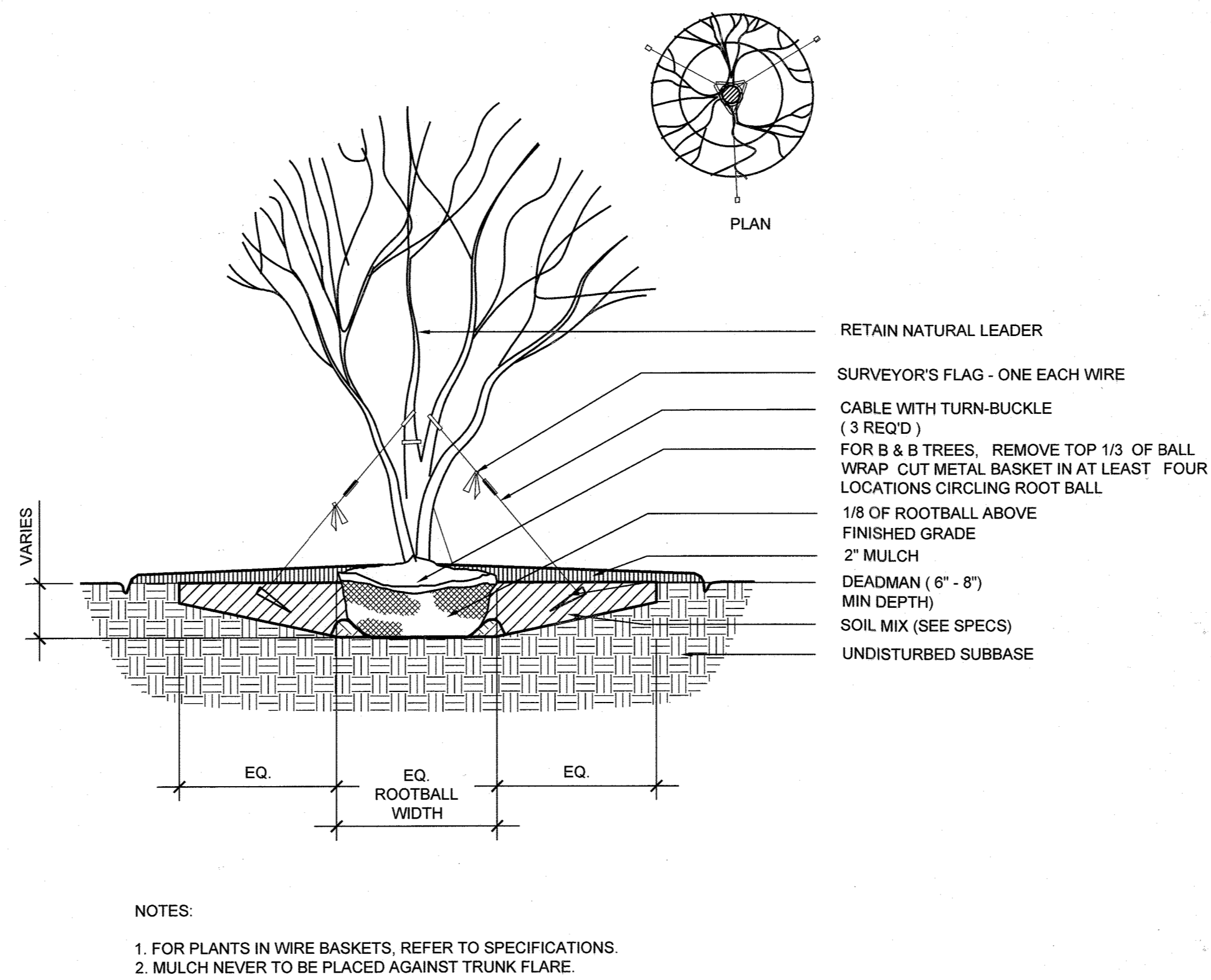
DATE NO. REVISION
 OWNER / DEVELOPER
 NOVITIATE OF FRANCISCAN FATHERS
 MINOR CONVENTUALS OF MD INC
 12300 FOLLY QUARTER RD
 ELLICOTT CITY MD 21042
 PROJECT THE SHRINE OF SAINT ANTHONY
 PRAYER GARDEN
 AREA 12290 FOLLY QUARTER RD, ELLICOTT CITY, MD 21042
 TAX MAP: 22 PARCEL: 46 GRID: 24 ZONED: AGR
 ELECTION DISTRICT 3 - HOWARD COUNTY, MARYLAND

TITLE
 SITE DETAILS
 MAHAN RYKIEL
 ASSOCIATES INC
 Whitehall Mill 3300 Clipper Mill Road
 Suite 200 Baltimore, MD 21211 410.235.5001

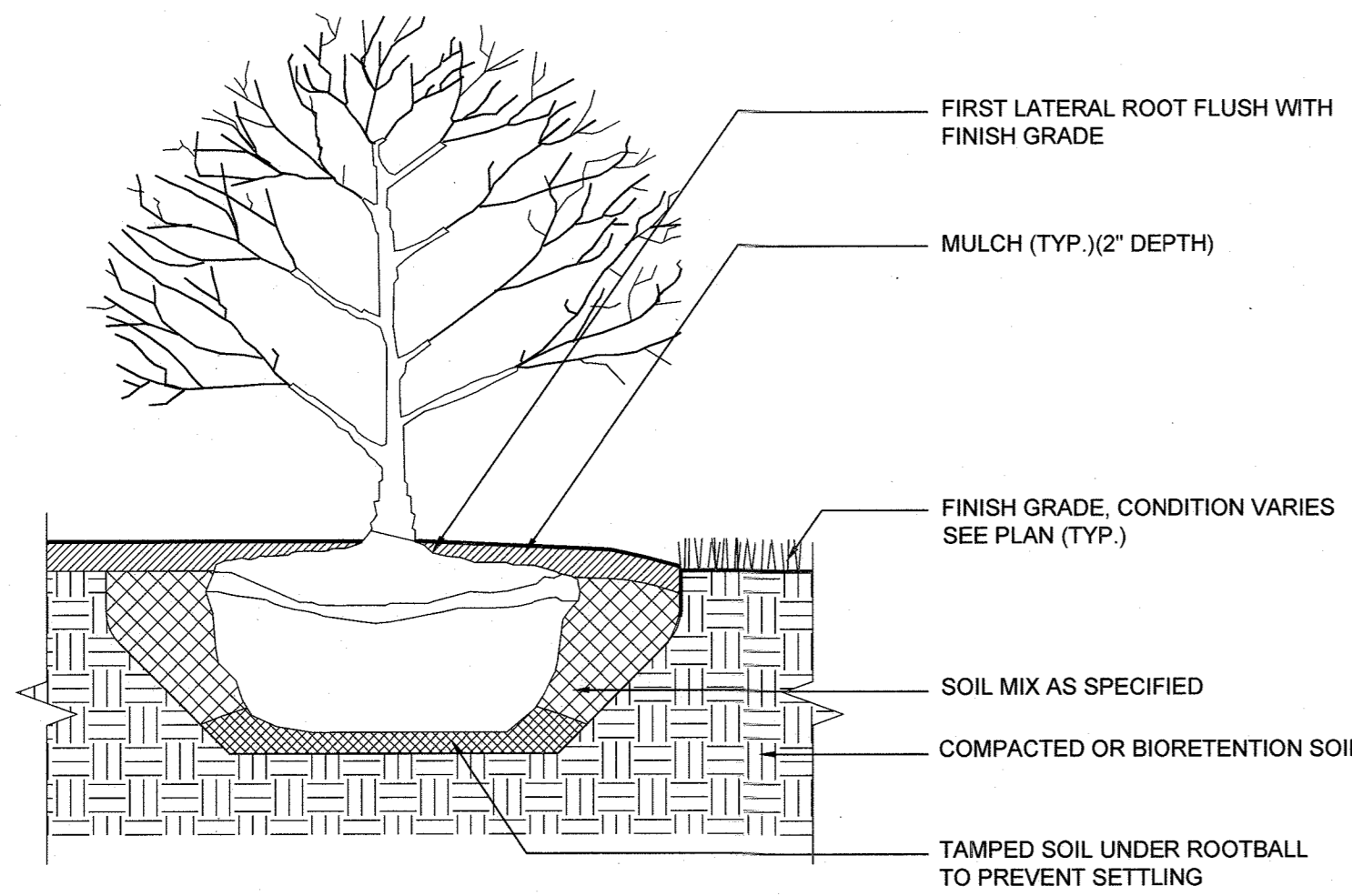
STATE OF MARYLAND
 SCOTT JON RYKIEL
 REGISTERED LANDSCAPE ARCHITECT
 LICENSE NO. 631
 EXPIRES/TONDATE: SEP. 21, 2021
L-201
 REVIEWED BY: PG
 DESIGN BY: PG
 DRAWN BY: SW
 PROJECT NO.: 20038
 DATE: JULY 23, 2021
 SCALE: SEE DRAWING
 DRAWING NO. 34 OF 35



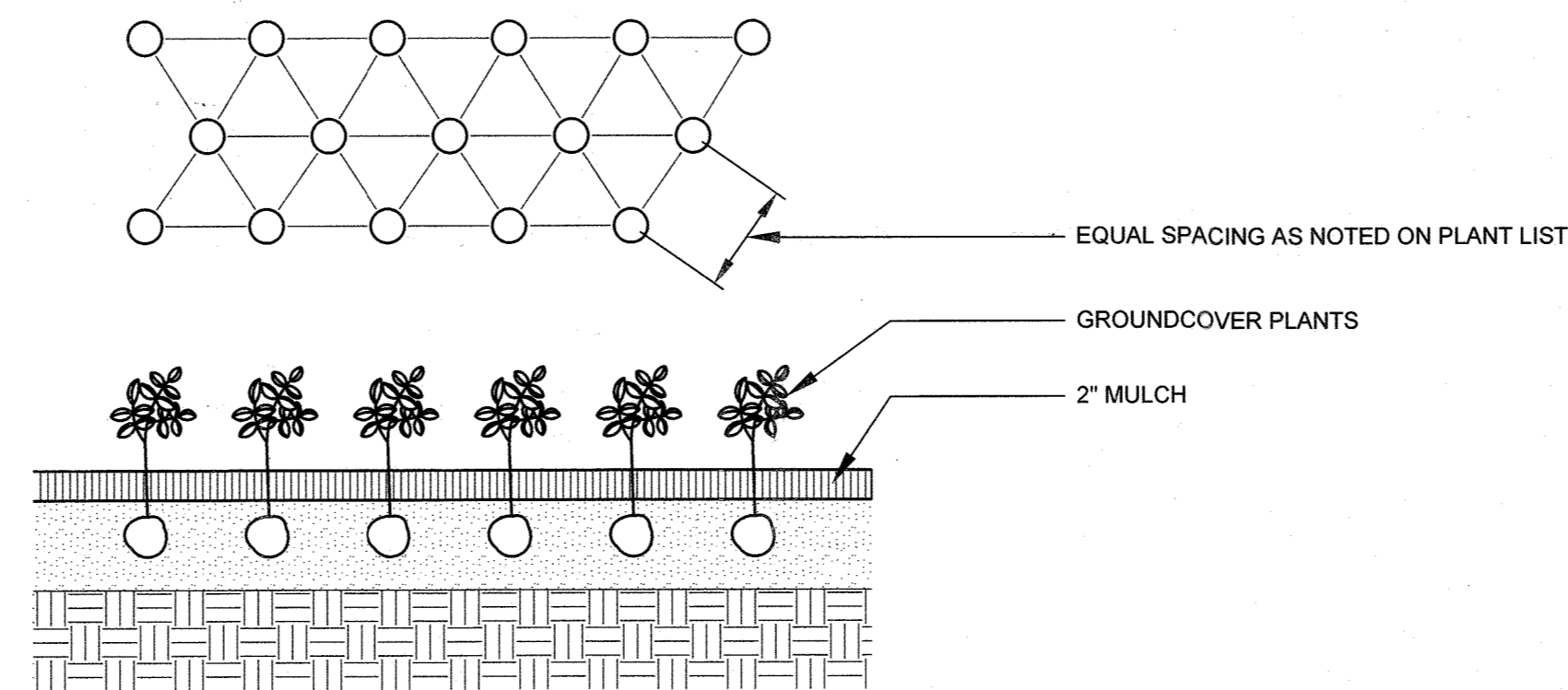
1 Tree Planting Detail
1/2"=1' 0"



2 Multi-Stem Tree Planting Detail
1/2"=1' 0"



3 Shrub Planting Detail
1"=1' 0"



4 Groundcover Planting Detail
1"=1' 0"

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.
 DIRECTOR: *John Casner* 12-10-21 DATE
 CHIEF, DEVELOPMENT ENGINEERING DIVISION: *John Edmister* 12-1-21 DATE
 CHIEF, DIVISION OF LAND DEVELOPMENT: *[Signature]* 12/10/21 DATE

DATE NO. REVISION
 OWNER / DEVELOPER

NOVIATIE OF FRANCISCAN FATHERS
 MINOR CONVENTUALS OF MD INC
 12300 FOLLY QUARTER RD
 ELLICOTT CITY MD 21042

PROJECT THE SHRINE OF SAINT ANTHONY
 PRAYER GARDEN

AREA 12290 FOLLY QUARTER RD, ELLICOTT CITY, MD 21042
 TAX MAP: 22 PARCEL: 46 GRID: 24 ZONED: AGR
 ELECTION DISTRICT 3 - HOWARD COUNTY, MARYLAND

TITLE LANDSCAPE DETAILS

MAHAN RYKIEL
 ASSOCIATES INC
 Whitehall Mill 3300 Clipper Mill Road
 Suite 200 Baltimore, MD 21211 410.235.6001



L-301

REVIEWED BY: PG
 DESIGN BY: PG
 DRAWN BY: SW
 PROJECT NO: 20038
 DATE: JULY 23, 2021
 SCALE: SEE DRAWING
 DRAWING NO: 35 OF 35

PROFESSIONAL CERTIFICATION:
 I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL LANDSCAPE ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND, SCOTT JON RYKIEL, LICENSE NO. 631, EXPIRES/RENEW DATE: SEP 21, 2021