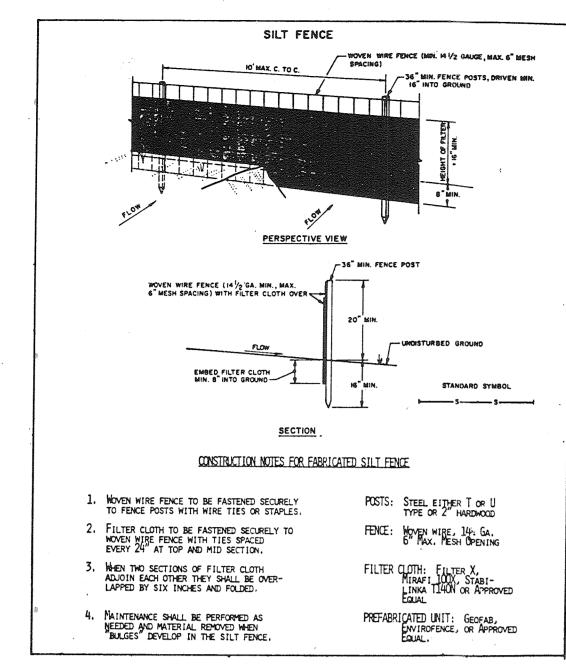
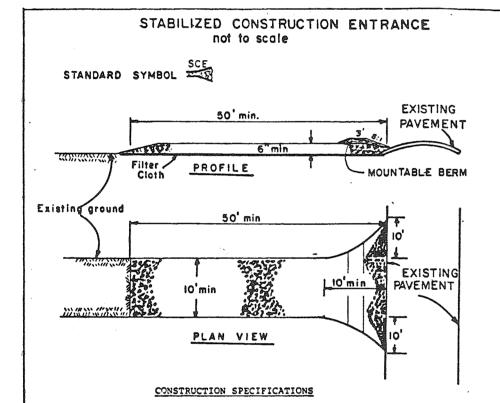


SEDIMENT & EROSION CONTROL NOTES AND DETAILS





S SILT FENCE DETAIL



- . Stone Size Jse 2° stone, or reclaimed or recycled concrete equivalent. Length - As required, but not less than 50 feet (except on a single resi-
- dence lot where a 30 foot minimum length would apply). Thickness - Not less than six (6) inches. 4. Width - Ten (10; foot minimum, but not less than the full width at
- points where ingress or egress occurs. Filter Cloth - Will be placed over the entire area prior to placing of stone
- Filter will not be required on a single family residence lot. Surface Water - All surface water flowing or diverted toward construction entrances shall be piped across the entrance. If piping is impractical,
- a mountable berm with 5:1 slopes will be permitted. Maintenance - The entrance shall be maintained in a condition which will prevent tracking or flowing of sediment onto public rights-of-way. This may require periodic top dressing with additional stone as conditions demand and repair and/or cleanout of any measures used to trap sediment. All sediment spilled, dropped, washed or tracked onto public rights-of-way must
- Washing Wheels shall be cleaned to remove sediment prior to entrance onto public rights-of-way. When washing is required, it shall be done on an area stabilized with stone and which drains into an approved sediment trapping
- Periodic inspection and needed maintenance shall be provided after each rain.

SCE STAB. CONSTRUCTION ENTRANCE



be removed immediately.

Anionic asphalt emulsion

Resin-in-water emulsion

Latex emulsion

NTS.

TEMPORARY METHOD FOR DUST CONTROL Mulches - See standards for critical area stabilization with mulches Chemical mulch binders may be used instead of asphalt to bind mulch material. Binders such as Curasol or Terratack should be used

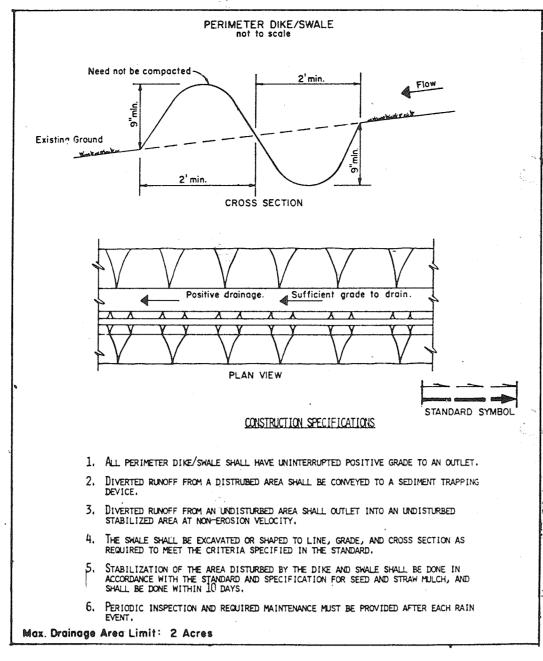
according to manufacturer's recommendations. B. Vegetative Cover - See standards for temporary vegetative cover.

Spray-on Adhesives - On mineral soils (not effective on muck soils).

Gallons/Ac 121/2:1 Fine Spray Fine Spray 4:1

Tillage - to roughen surface and bring clods to the surface. This is an emergency measure which should be used before soil blowing starts. Begin plowing on windward side of site. Chisel-type plows spaced about 12" apart, spring-toothed harrows, and similar plows are examples of equipment which may produce the desired effect.

- . Irrigation This is generally done as an emergency treatment. Site is sprinkled with water until the surface is moist. Repeat as needed
- Barriers Solid board fences, snow fences, burlap fences, crate walls, bales of hay and similar material can be used to control air currents and soil blowing. Barriers placed at right angles to prevailing currents at intervals of about 15 times their height are effective in controlling soil blowing.
- G. Calcium Coride Apply at rate that will keep surface moist. May



.PDS-1 PERIMETER DIKE/SWALE DETAIL, N.T.S.

PERMANENT SEEDING NOTES

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

Seedbed Preparation: Loosen upper three inches of soil by raking, discing or other

Soil Amendments: In lieu of soil test recommendations, use one of the following schedules 1) Preferred - Apply 2 tons per acre dolomitic limestone (92 lbs/1000 square ft) and 600 lbs per acre 10-10-10 fertilizer (14 lbs/1000 sq ft) before seeding. Harrow or disc into upper three inches of soil. At time of seeding, apply 400 lbs per acre 30-0-0 ureaform fertilizer (9 lbs/1000 sq ft).

2) Acceptable - Apply 2 tons per acre dolomitic limestone (92 lbs/1000 sq ft) and 1000 lbs per acre 10-10-10 fertilizer (23 lbs/1000 sq ft) before seeding. Harrow or disc into upper three inches of soil.

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

Mulching - Apply 11 to 2 tons per acre (70 to 90 lbs/1000 sq ft) of unrotted small grain mulch anchoring tool or 218 gallons per acre (5 gal/1000 sq.ft) of emulsified asphalt on flat areas. On slopes 8 feet or higher, use 348 gallons per acre (8 gal/1000 sq ft) for anchoring.

Matinenance - Inspect all seeded areas and make needed repairs, replacements and

TEMPORARY SEEDING NOTES

Apply to graded or cleared areas likely to be redisturbed where a short-term vegetative

Seedbed Preparation: Loosen upper three inches of soil by raking, discing or other acceptable means before seeding.

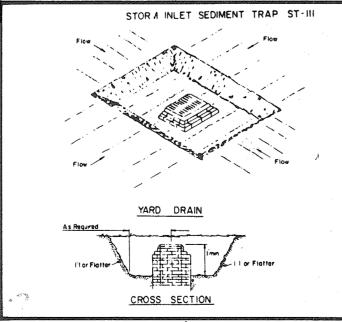
. Soil Amendments: Apply 600 lbs per acre 10-10-10 fertilizer (14 lbs/1000 sq ft)

For periods March 1 thru April 30 and from August 15 thru November 15, seed with 22 bushel per acre of annual rye (3.2 1bs/1000 sq ft). For the period May 1 thru August 14, seed with 3 lbs per acre of weeping lovegrass (.07 lbs/1000 sq ft). For the period November 16 thru February 28, protect site by applying 2 tons per acre of well anchored straw mulch and seed as soon as possible in the spring, or use sod.

Mulching: Apply 12 to 2 tons per acre (70 to 90 lbs/1000 sq ft) of unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gal per acre (5 gal/1000 sq ft) of emulsified asphalt on flat areas. On slopes, 8 ft or higher, use 348 gal per acre (8 gal/1000 sq ft) for anchoring. Refer to the 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT

'PURPOSE STATEMENT' (4.26.10)

THE PURPOSE OF THIS REVISED GITE DEVELOPMENT PLAN IS TO: ADD A KEYSTONE RETAINING WALL ALONG THE REAR DRIVE ISLE AND LOWER STORM DRAIN OUTFALL FROM STRUCTURE D.5 TO D.G. TO ACCOMODATE SAME. ONE (1) NEW SHEET HAS BEEN ADDED 18 OF 18



CONTROL for rate and methods not covered.

CONSTRUCTION SPECIFICATION FOR ST-III

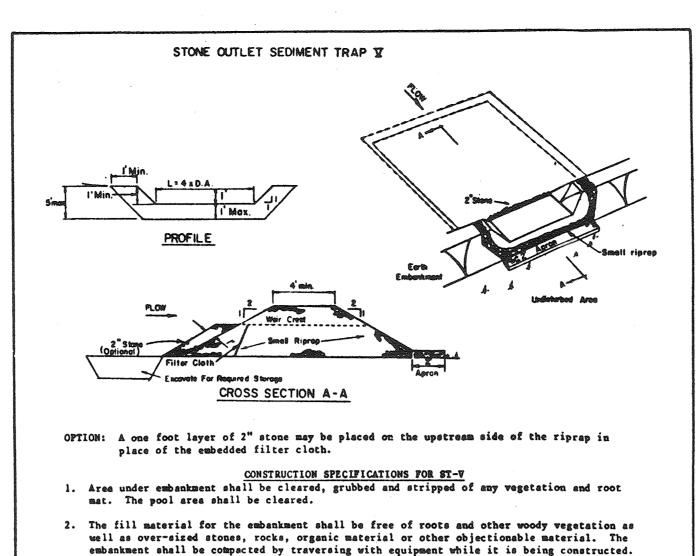
1. Sediment shall be removed and the trap restored to its original dimensions when the sediment has accumulated to is the design depth of the trap. Removed sediment shall be deposited in a suitable area and in such ${f a}$

2. The volume of sediment storage shall be 1800 cubic feet per acre of 3. The structure shall be inspected after each rain and repairs made as

4. Construction operations shall be carried out in such a manner that erusion and water pollution shall be minimized 5. The sediment trap shall be removed and the area stabilized when the

6. All cut slopes shall be 1:1 or flatter. Maximum Drainage Area: 3 Acres

STORM INLET SEDIMENT



embankment shall be compacted by traversing with equipment while it is being constructed.

4. The stone used in the outlet shall be small riprap 4"-8" along with a l' thickness of 2" aggregate placed on the up-grade side on the small riprap or embedded filter cloth in the

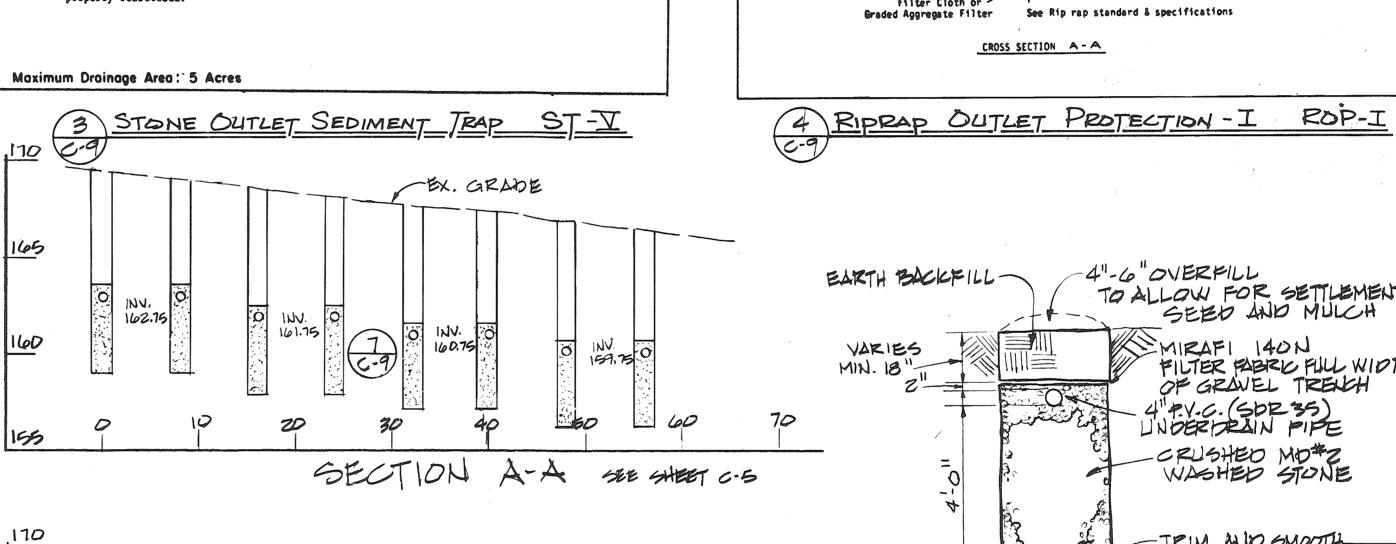
5. Sediment shall be removed and trap restored to its original dimensions when the sediment has accusulated to is the design depth of the trap.

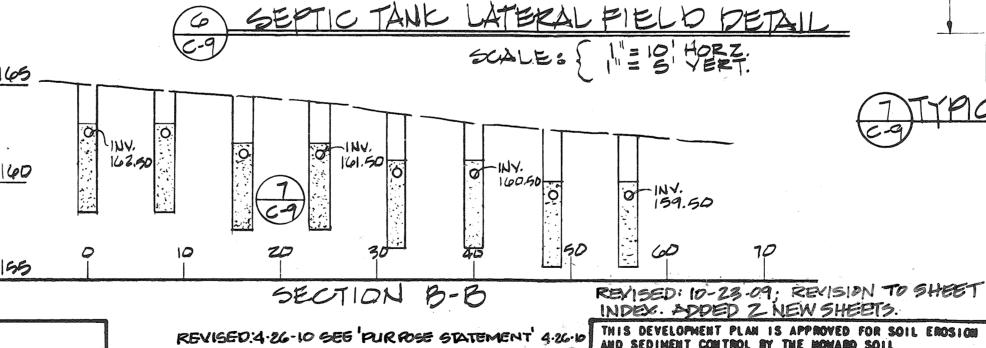
3. All cut and fill slopes shall be 2:1 or flatter.

7. Construction operations shall be carried out in such a manner than erosion and water

6. The structure shall be inspected after each rain and repairs made as needed.

8. The structure shall be removed and the area stabilized when the drainage area has been properly stabilized





AND SEDIMENT CONTROL BY THE NOWARD SOIL CONSERVATION DISTRICT. RESPONSIBLE PERSONNEL CERTIFICATION I HEREBY CERTIFY THAT ANY RESPONSIBLE PERSONNEL A CERTIFICATE OF ATTENDANCE FROM A DEPARTMENT OF MATURAL RESOURCES APPROVED TRAINING PROCRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT". REVIEWED FOR HOWARD S.C.D. AND MEETS TECHNICAL REQUIREMENTS. SIGNATURE: DATE 9-2-87 1/34/87 SIGNATORE/OF DEVELOPER V.S.SOIL CONSERVATION SERVICE CERTIFICATION BY THE DIGINEER CERTIFICATION BY THE DEVELOPER I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CERTIFY THAT ALL DEVELOPMENT AND OR CONSTRUCTION

CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT AND PLAN FOR EROSION AND SEDIMENT CONTROL AND I ALSO CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE NOWARD SOIL CONSERVATION DISTRICT OR THIER AUTHORIZED AGENTS.

SIGNATURE MEDEVELOPED

DATE

ADMINISTRATION

APPROVED: For HOWARD COUNTY HEALTH DEPARTMENT 9 45.07 DEVELOPMENT AND ZONING

TO ALLOW FOR SETTLEMENT SEED AND MULCH

FILTER PUBRIC FULL WIDTH

OF GRAVEL TREACH

"P.V.C. (SDR 35)

L'NDERDRAIN PIPE

-CRUSHED MOSZ

WASHED STUNE

TRIM AND SMOOT

PE#27729

PURDUM & JESCHKE

CONSULTING ENGINEERS

LAND SURVEYORS

1029 North Calvert Street

Baltimore, Maryland 21202 301/837-0194

EXP. 7-15-2010

TRENCH TO FULL

DIMENSION

APPROVED: STORM DRAINAGE SYSTEMS AND PUBLIC ROADS.

MIRAFI 140N

Discharge to Unconfined Section

(Minimum Tailwater Condition

PLAN VIEW

Rip rap to be embedded in proposed transition section

CROSS SECTION A - A

See Rip rap standard & specifications

Filter Cloth or

Gaudreau, Inc. **Architects Planners Engineers Baltimore**

810 Light Street Baltimore Maryland 21230

Faisant Associates, Inc. Structural Engineers

Kibart, Inc. Mechanical/Electrical Engineers

Purdum & Jeschke Civil Engineers

DEVELOPER'S CERTIFICATION

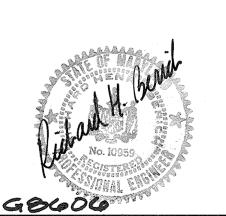
I CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN AND ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATION OF ATTENDANCE AT THE DEPARTMENT OF NATURAL RESOURCES APPROVED TRAINING PROGRAM FOR THE CONTROL OF ANY SEDIMENT EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY HOWARD SCIL CONSERVATION DISTRICT.

ENGINEER'S CERTIFICATION

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

Kichard H. Berich 8/26/81 DEED: 393/29 **ELECTION DISTRICT: 3**

TAX MAP 10 | PARCEL 35



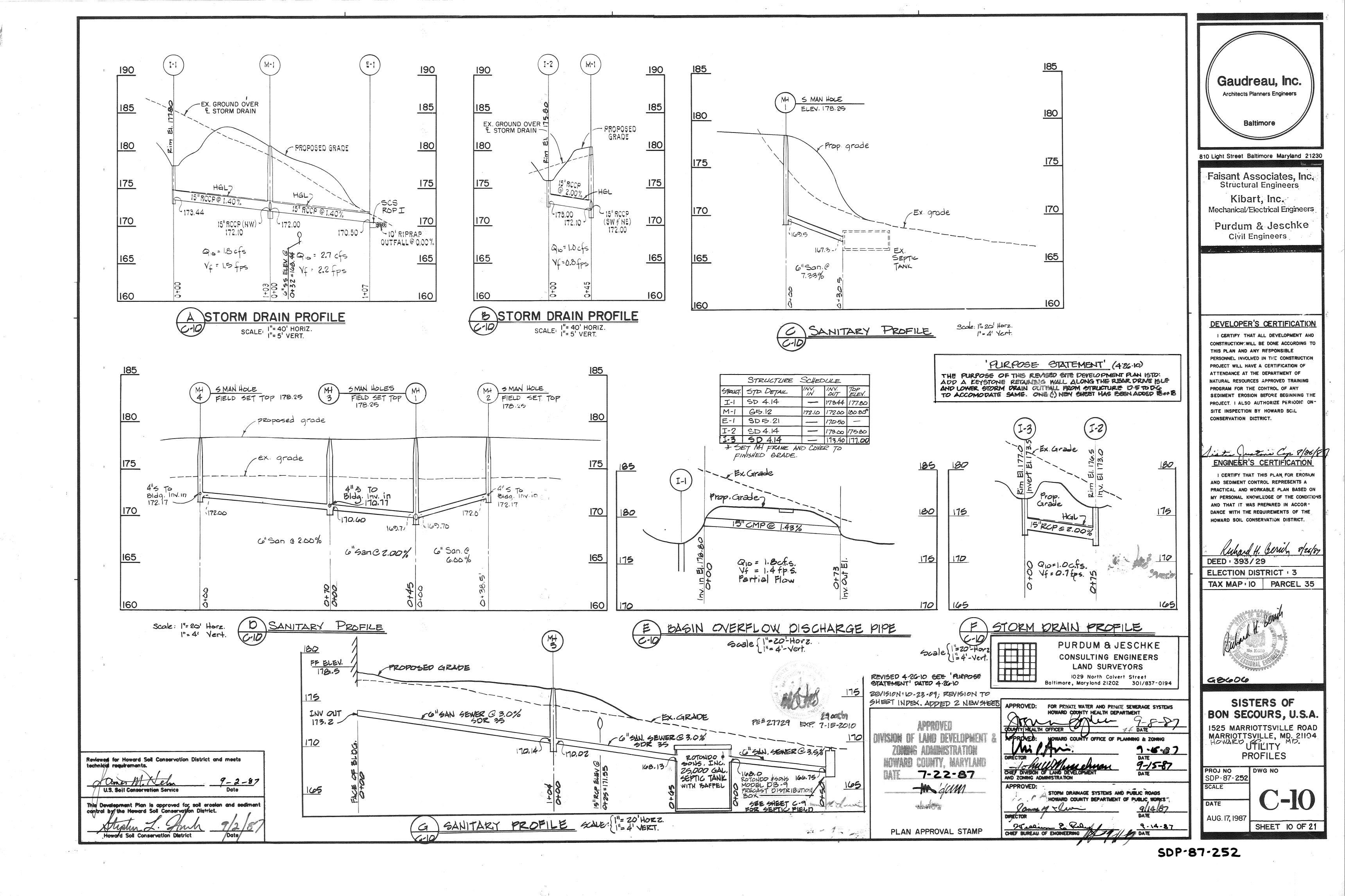
SISTERS OF BON SECOURS, U.S.A.

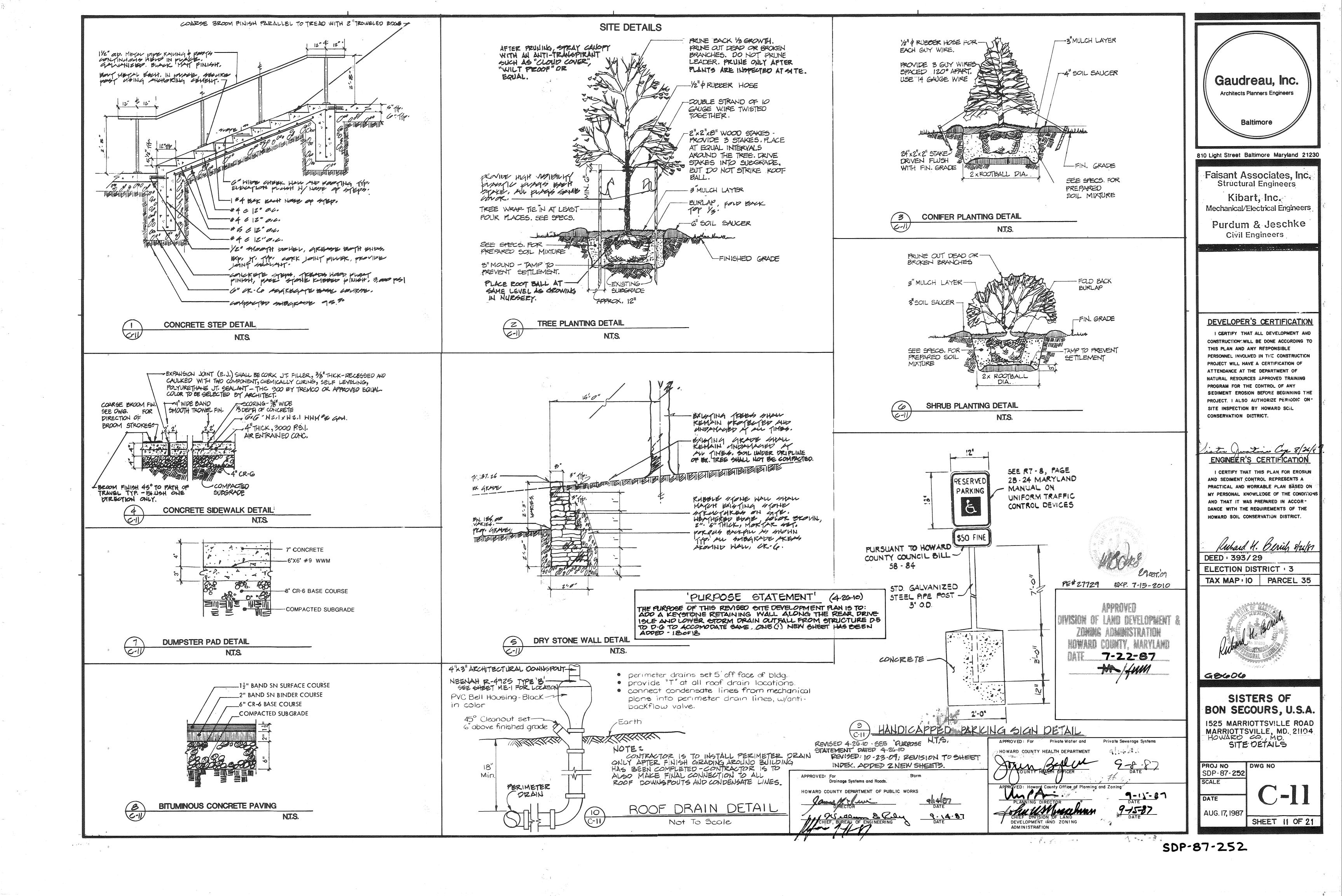
1525 MARRIOTTSVILLE ROAD MARRIOTTSVILLE, MD. 21104 HOWARD CO., MD.

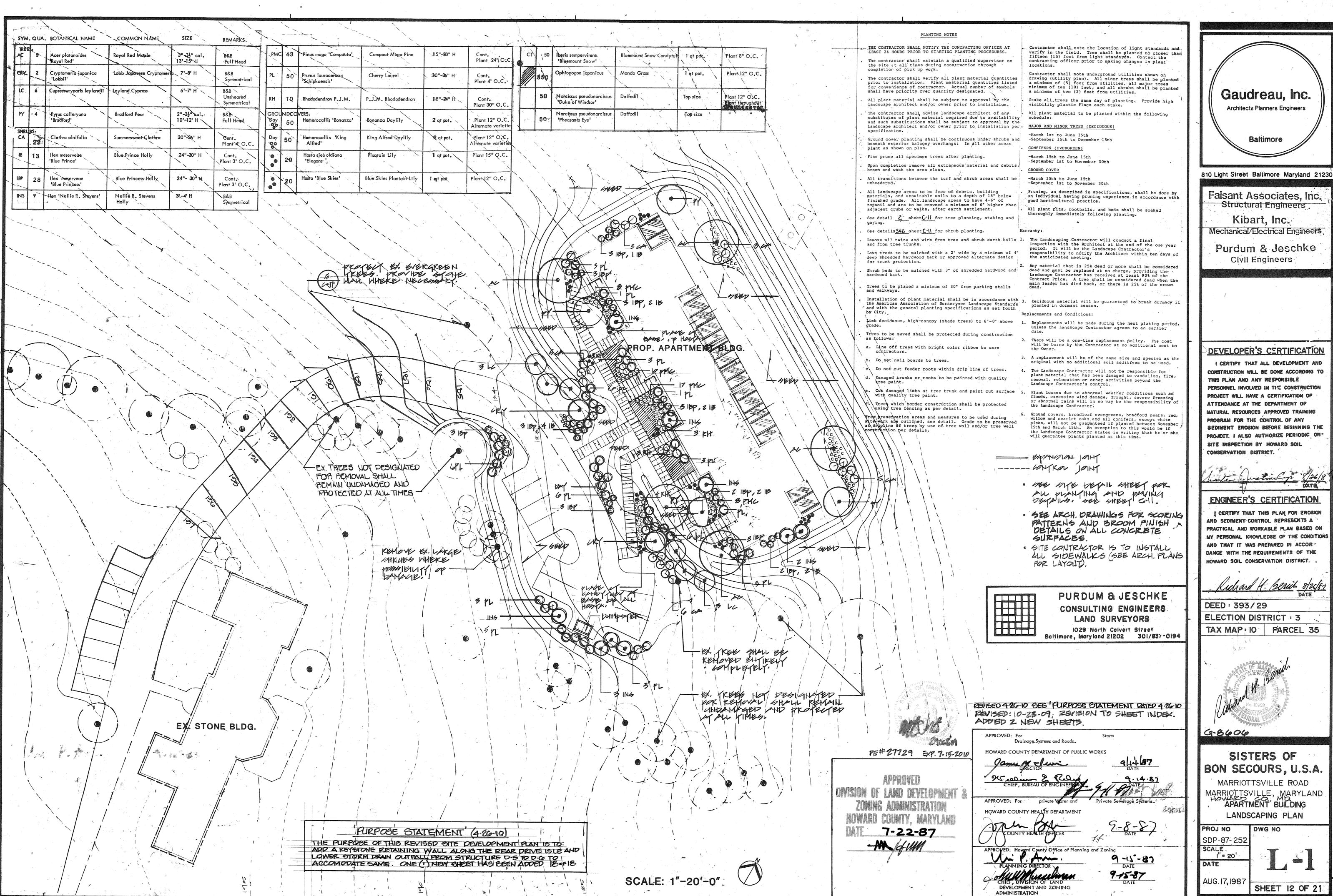
EROSION CONTROL DETAILS DWG NO

SDP-87-252 SCALE DATE AUG. 17, 1987

SHEET 9 OF 21







Gaudreau, Inc. Architects Planners Engineers Baltimore

Faisant Associates, Inc. Structural Engineer's

Kibart, Inc. Mechanical/Electrical Engineers

Purdum & Jeschke

I CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN AND ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATION OF ATTENDANCE AT THE DEPARTMENT OF MATURAL RESOURCES APPROVED TRAINING PROGRAM FOR THE CONTROL OF ANY SEDIMENT EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY HOWARD SOIL

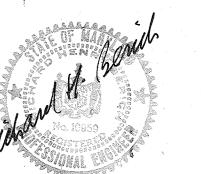
ENGINEER'S CERTIFICATION

I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A DANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

Richard H. Berich 8/24/87

ELECTION DISTRICT : 3

TAX MAP 10 PARCEL 35

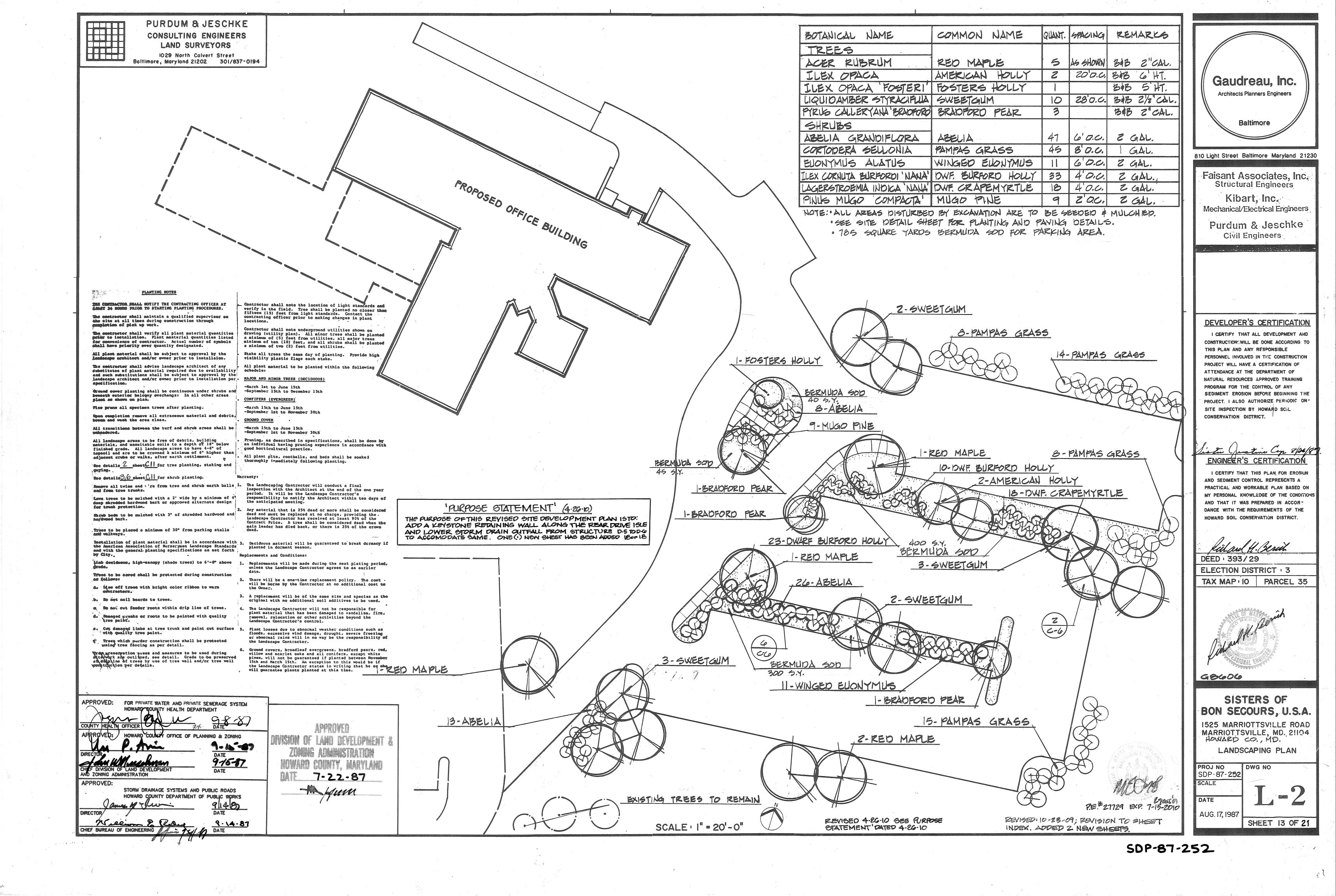


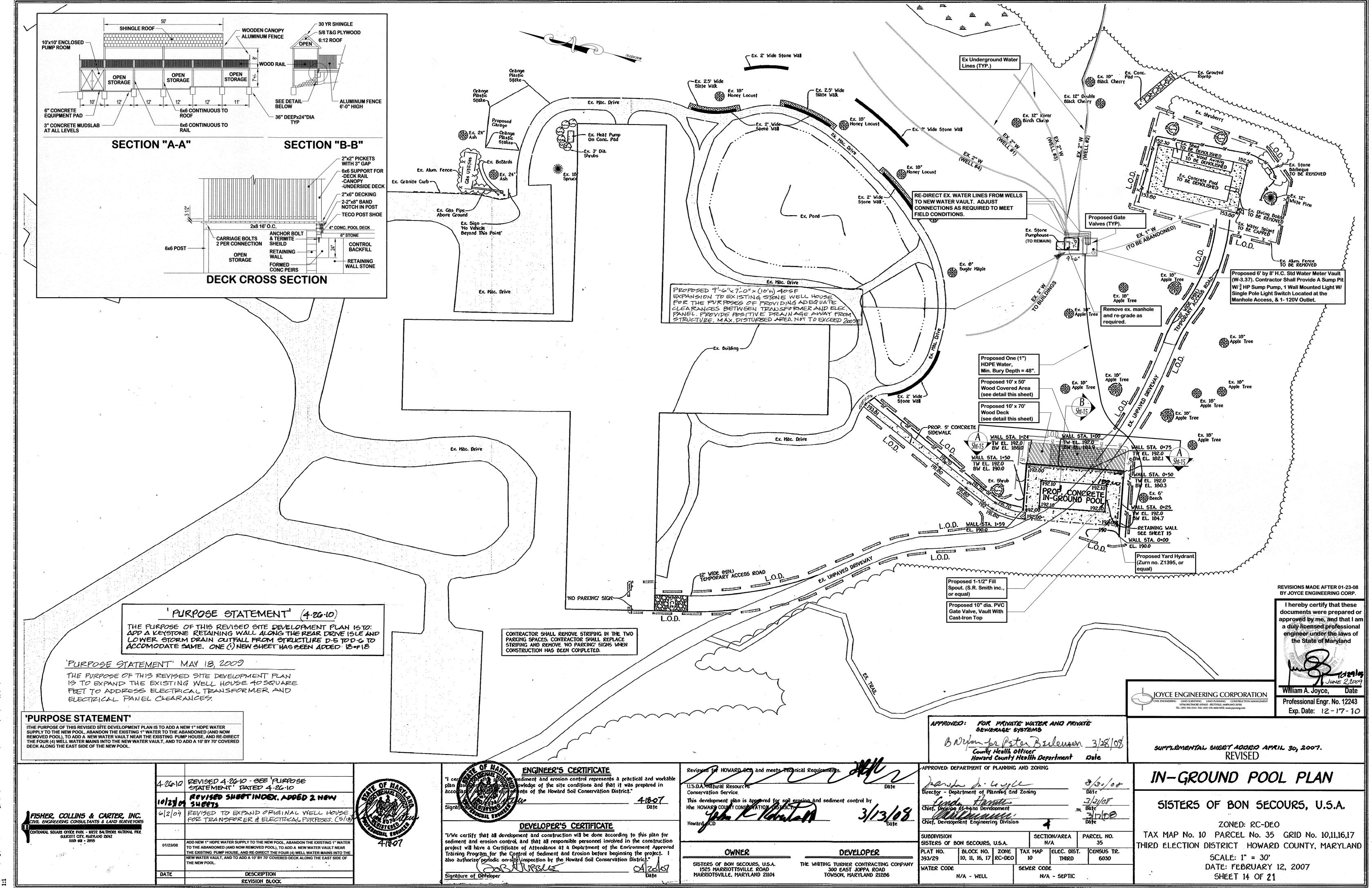
SISTERS OF BON SECOURS, U.S.A.

MARRIOTTSVILLE ROAD MARRIOTTSVILLE, MARYLAND HOWARD CO. MD APARTMENT BUILDING LANDSCAPING PLAN

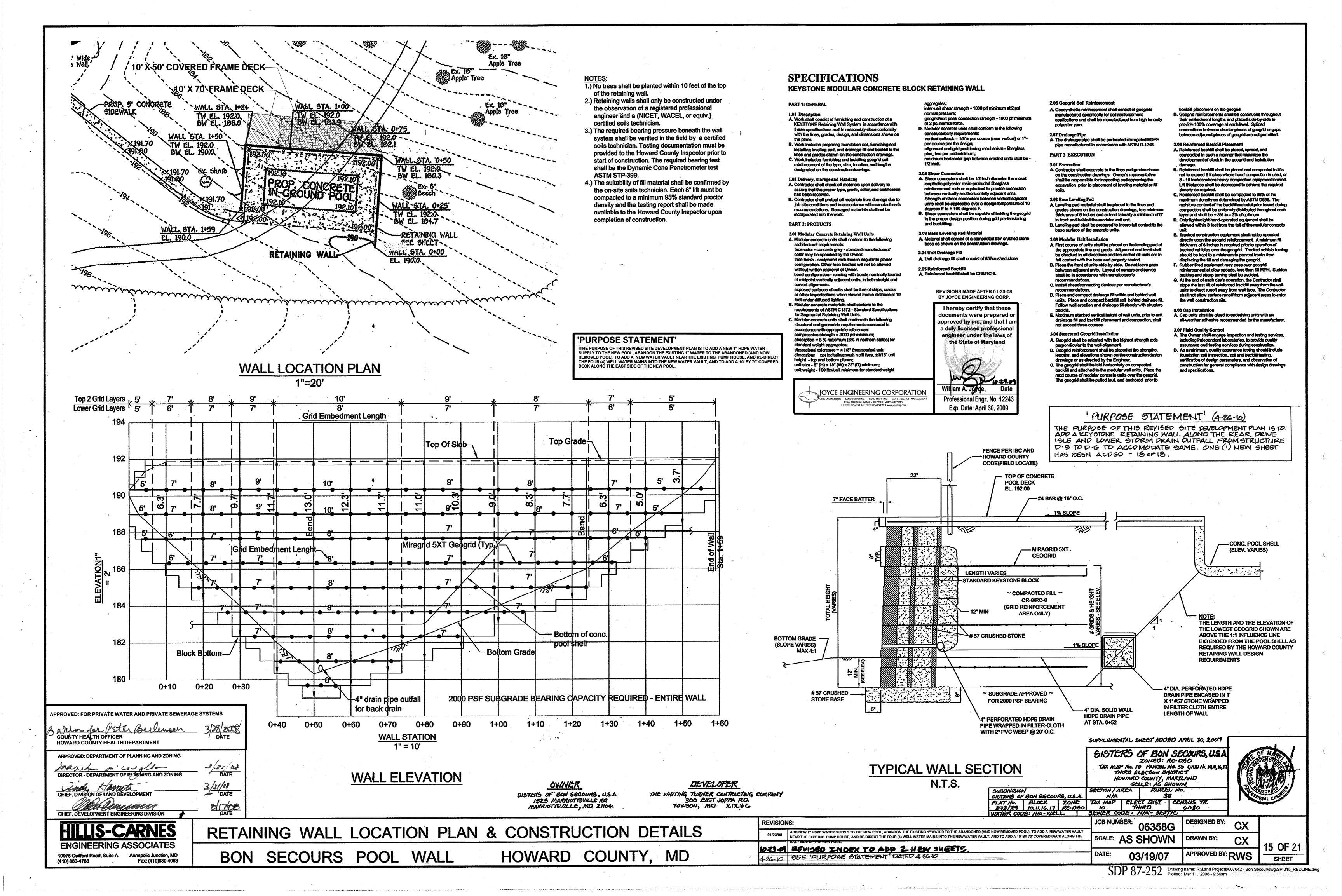
SHEET 12 OF 21

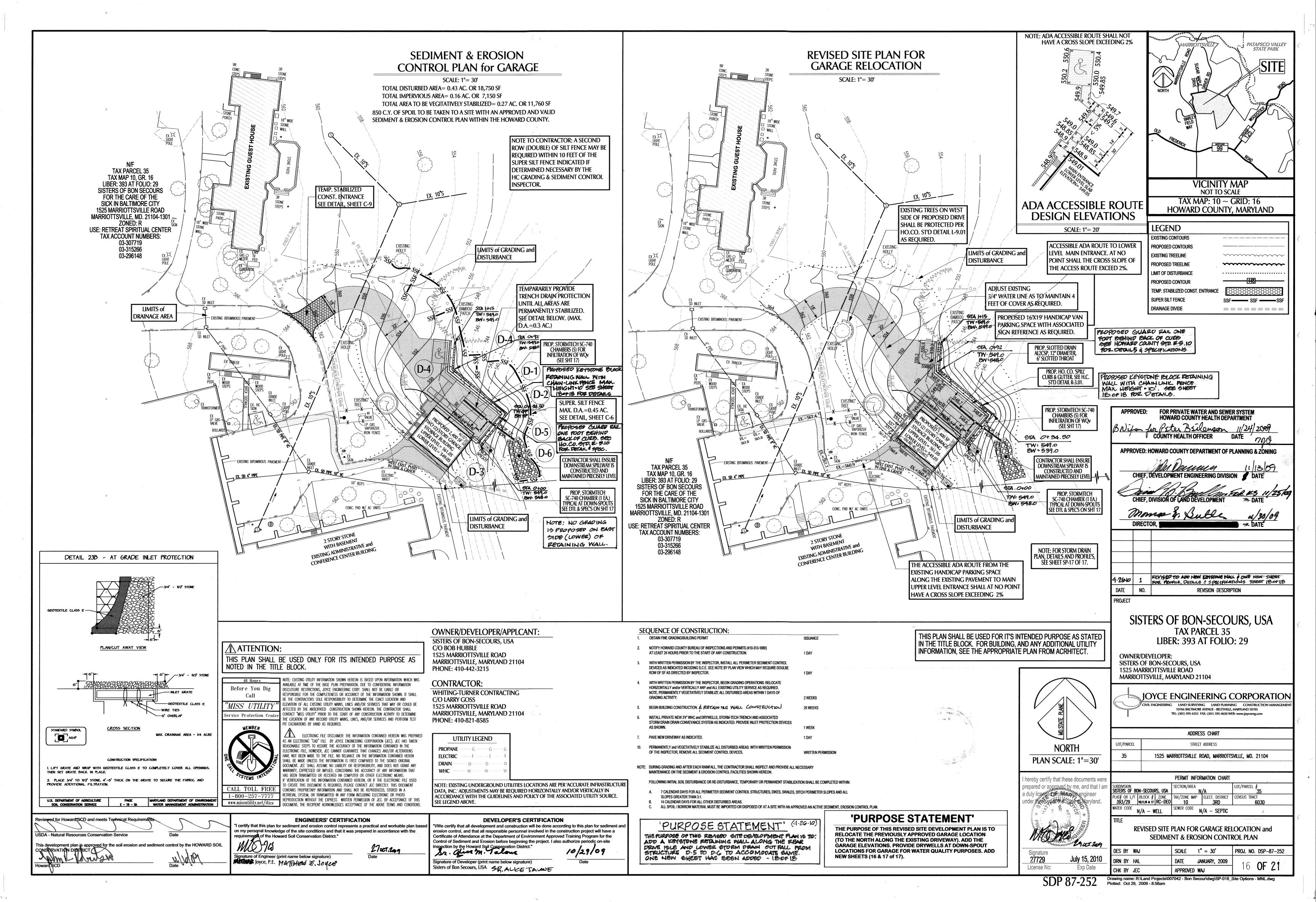
SDP-87-252

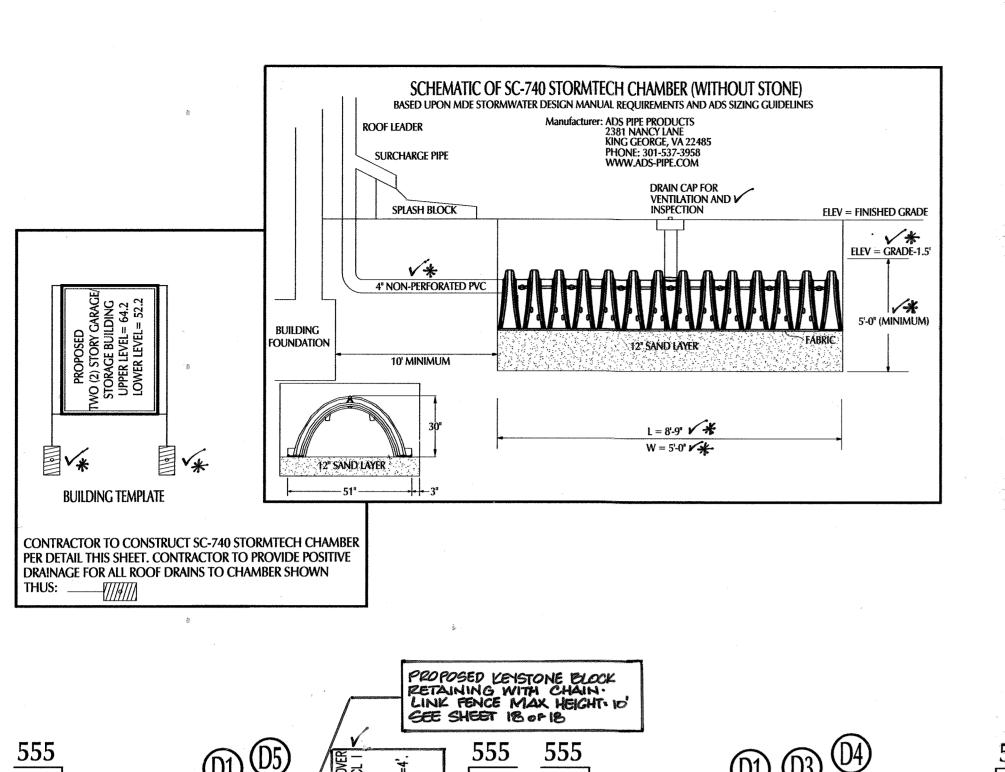


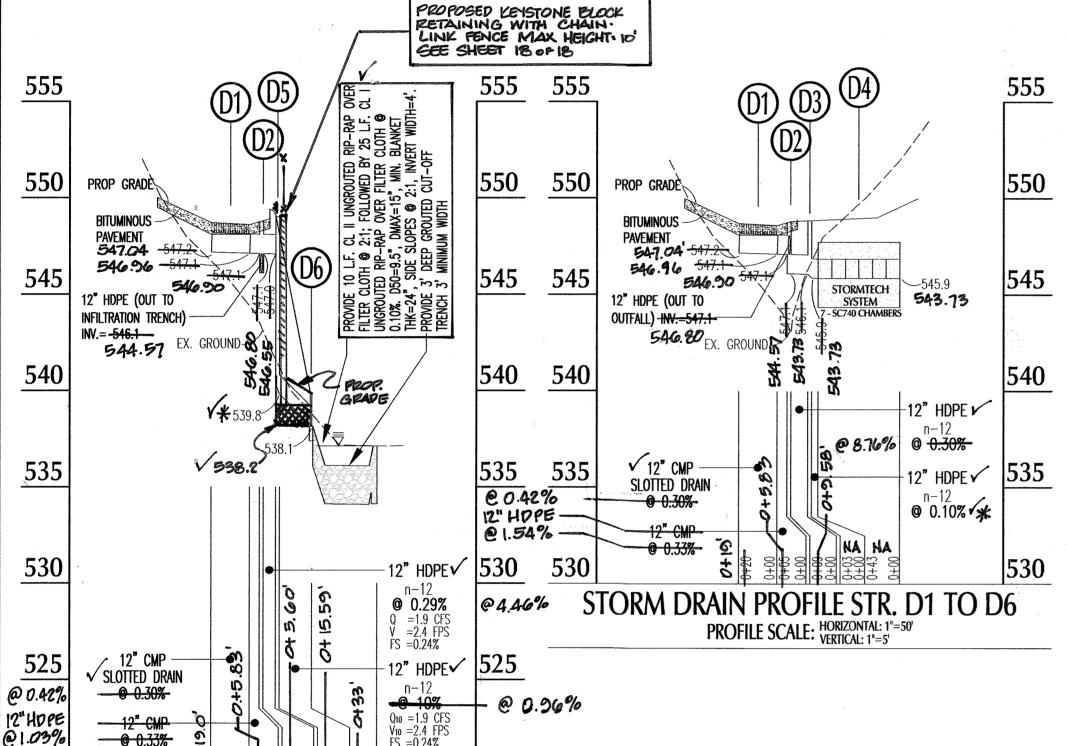


SDP 87-252 Drawing name: R:\Land Projects\007042 - Bon Secour\dwg\SP-014_REDLINE.dwg Plotted: Mar 11, 2008 - 9:58am









0.50% |520 STORM DRAIN PROFILE STR. D1 TO D6 PROFILE SCALE: HORIZONTAL: 1"=50' VERTICAL: 1"=5'

OPERATION AND MAINTENANCE SCHEDULE FOR PRIVATELY OWNED AND MAINTAINED

UNDERGROUND FACILITIES (I-1) 1. THE UNDERGROUND STORMWATER MANAGEMENT FACILITY IS PRIVATELY OWNED AND IT SHALL BE THE RESPONSIBILITY OF THE OWNER TO PERIODICALLY INSPECT AND CLEAN THE FACILITY TO MAINTAIN ITS OPERATION AND FUNCTION.

2. THE UNDERGROUND STORMWATER MANAGEMENT FACILITY SHALL BE INSPECTED YEARLY AT A MINIMUM AND AFTER ESPECIALLY SEVERE STORM EVENTS

3. WHEN SEDIMENT ACCUMULATION OF MORE THAN 2" IS OBSERVED OR ANY DEBRIS THAT MIGHT OBSTRUCT THE OUTFALL IS OBSERVED, THE FACILITY SHALL BE CLEANED.

4. THE FACILITY SHALL BE CLEANED IMMEDIATELY AFTER PETROLEUM SPILLS. THE OWNER SHALL CONTACT THE APPROPRIATE REGULATORY AGENCIES NOTIFYING THEM OF THE SPILL

5. THE SEDIMENT AND DEBRIS SHALL BE REMOVED FROM THE UNDERGROUND STORMWATER MANAGEMENT FACILITY BY VACUUM TRUCK OR OTHER MANUAL MEANS. THE OWNER SHALL FOLLOW PROPER CLEANING AND DISPOSAL OF THE REMOVED

6. THE INLET AND OUTLET PIPES SHALL BE CHECKED FOR ANY OBSTRUCTIONS AT LEAST ONCE EVERY SIX (6) MONTHS. IF OBSTRUCTIONS ARE FOUND, THE OWNER SHALL HAVE THEM REMOVED AND PROPERLY DISPOSED OF.

OPERATION AND MAINTENANCE SCHEDULE FOR PRIVATELY OWNED AND MAINTAINED STORMWATER INFILTRATION TRENCHES (I-1, I-2, & I-3)

1. THE MONITORING WELLS AND STRUCTURES SHALL BE INSPECTED ON A QUARTERLY BASIS AND AFTER EVERY LARGE STORM EVENT. 2. WATER LEVELS AND SEDIMENT BUILD UP IN THE MONITORING WELLS SHALL BE

RECORDED OVER A PERIOD OF SEVERAL DAYS TO ENSURE TRENCH DRAINAGE. 3. A LOGBOOK SHALL BE MAINTAINED TO DETERMINE THE RATE AT WHICH THE FACILITY

4. WHEN THE FACILITY BECOMES CLOGGED SO THAT IT DOES NOT DRAIN DOWN WITHIN THE 72 HOUR TIME PERIOD, CORRECTIVE ACTION SHALL BE TAKEN.

5. THE MAINTENANCE LOGBOOK SHALL BE AVAILABLE TO HOWARD COUNTY FOR INSPECTION TO ENSURE COMPLIANCE WITH OPERATION AND MAINTENANCE CRITERIA

6. ONCE THE PERFORMANCE CHARACTERISTICS OF THE INFILTRATION FACILITY HAVE BEEN VERIFIED, THE MONITORING SCHEDULE CAN BE REDUCED TO AN ANNUAL BASIS UNLESS THE PERFORMANCE DATA INDICATES THAT A MORE FREQUENT SCHEDULE IS REQUIRED.

STORMTECH DOWNSPOUT SPECIFICATION AND NOTES

- STORMTECH CHAMBERS ARE DESIGNED TO CONTROL STORMWATER RUNOFF. AS A SUBSURFACE RETENTION SYSTEM, STORMTECH CHAMBERS RETAIN AND ALLOW EFFECTIVE INFILTRATION OF WATER INTO THE SOIL. AS A SUBSURFACE PROPERTY. A SUBSURFACE DETENTION SYSTEM, STORMTECH CHAMBERS DETAIN AND ALLOW FOR THE METERED FLOW OF WATER TO AN OUTFALL.
- 2.0 CHAMBER PARAMETERS
 2.1 THE CHAMBER SHALL BE INJECTION MOLDED OF
 POLYPROPYLENE RESIN TO BE INHERENTLY RESISTANT
 TO ENVIRONMENTAL STRESS CRACKING (ESCR), AND TO
 MAINTAIN ADEQUATE STIFFNESS THROUGH HIGHER
 TEMPORATING
- 2 THE NOMINAL CHAMBER DIMENSIONS OF THE STORMTECH SC-740 SHALL BE 30.0 INCHES TALL, 51.0 INCHES WIDE AND 90.7 INCHES LONG. THE NOMINAL CHAMBER DIMENSIONS OF THE STORMTECH SC-310 SHALL BE 16.0 INCHES TALL, 34.0 INCHES WIDE AND 90.7 INCHES LONG. THE INSTALLED LENGTH OF A JOINED CHAMBER SHALL BE 85.4 INCHES.
- 2.3 THE CHAMBER SHALL HAVE A CONTINUOUSLY CURVED SECTION PROFILE.
- 4 THE CHAMBER SHALL BE OPEN-BOTTOMED CORRUGATION JOINT SYSTEM TO ALLOW CHAMBER ROWS OF ALMOST ANY LENGTH TO BE CREATED. THE OVERLAPPING CORRUGATION JOINT SYSTEM SHALL BE EFFECTIVE WHILE ALLOWING A CHAMBER TO BE TRIMMED TO SHORTEN ITS OVERALL LENGTH.
- 2.6 THE NOMINAL STORAGE VOLUME OF A JOINED STORMTECH SC-740 CHAMBER SHALL BE 74.9 CUBIC FEET PER CHAMBER WHEN INSTALLED PER STORMTECH'S TYPICAL DETAILS (INCLUDES THE VOLUME OF CRUSHED ANGULAR STONE WITH AN VOLUME OF CRUSHED ANGULAR STONE WITH AN ASSUMED 40% POROSITY). THIS EQUATES TO 2.2 CUBI FEET OF STORAGE/SQUARE FOOT OF BED. THE NOMINAL STORAGE VOLUME OF AN INSTALLED STORMTECH SC-310 CHAMBER SHALL BE 31.0 CUBIC FEET PER CHAMBER WHEN INSTALLED PER STORMTECH'S TYPICAL DETAILS (INCLUDES THE VOLUME OF CRUSHED ANGULAR STONE WITH AN ASSUMED 40% POROSITY). THIS EQUATES TO 1.3 CUBI FEET OF STORAGE/SQUARE FOOT OF BED.
- THE CHAMBER SHALL HAVE FORTY-EIGHT ORIFICES
 PENETRATING THE SIDEWALLS TO ALLOW FOR LATERAL
 COMPANION OF MATERIAL

2.8 THE CHAMBER SHALL HAVE TWO ORIFICES NEAR ITS TOP TO ALLOW FOR EQUALIZATION OF AIR PRESSURE BETWEEN ITS INTERIOR AND EXTERIOR.

- EXISTING BITUMINOUS PAVEMENT-

2.9 THE CHAMBER SHALL HAVE BOTH OF ITS ENDS OPEN TO ALLOW FOR UNIMPEDED HYDRAULIC FLOWS AND VISUAL INSPECTIONS DOWN A ROW'S ENTIRE LENGTH.

2.10 THE CHAMBER SHALL HAVE 14 CORRUGATIONS

- 2.11 THE CHAMBER SHALL HAVE A CIRCULAR, INDENTED. FLAT SURFACE ON THE TOP OF THE CHAMBER FOR OPTIONAL 4-INCH INSPECTION PORT OR CLEAN-OUT 2.12 THE CHAMBER SHALL BE ANALYZED AND DESIGNED
- I THE CHAMBER SHALL BE ANALYZED AND DESIGNED USING AASHTO METHODS FOR THERMOPLASTIC CULVERTS CONTAINED IN THE LIRTD BRIDGE DESIGN SPECIFICATIONS, 2ND EDITION, INCLUDING INTERIM SPECIFICATIONS THROUGH 2001. DESIGN LIVE LOAD SHALL BE THE AASHTO HSZO TRUCK. DESIGN SHALL CONSIDER EARTH AND LIVE LOADS AS APPROPRIATE FOR THE MINIMUM TO MAXIMUM SPECIFIED DEPTH OF EIL! 2.13 THÉ CHAMBER SHALL BE MANUFACTURED IN AN ISO 9001:2000 CERTIFIED FACILITY.
- 3.0 END CAP PARAMETERS
 3.1 THE END CAP SHALL BE INJECTION MOLDED OF POLYPROPYLENE RESIN TO BE INHERENTLY RESISTANT TO ENVIRONMENTAL STRESS CRACKING, AND TO MAINTAIN ADEQUATE STIFFNESS THROUGH HIGHER TEMPERATI IRPS EXPERIENCED DISPINAL INSTALL ATTOM
- 3.2 THE END CAP SHALL BE DESIGNED TO FIT INTO ANY CORRUGATION OF A CHAMBER, WHICH ALLOWS: CAPPING A CHAMBER THAT HAS ITS LENGTH TRIMMED SEGMENTING ROWS INTO STORAGE BASINS OF VARIABLE LENGTH.

PERATURES EXPERIENCED DURING INSTALLATION

3.3 THE END CAP SHALL HAVE SAW GUIDES TO ALLOW EASY CUTTING FOR VARIOUS DIAMETERS OF PIPE THAT MAY 3.4 THE END CAP SHALL HAVE EXCESS STRUCTURAL ADEQUACIES TO ALLOW CUTTING AN ORIFICE OF ANY SIZE AT ANY INVERT ELEVATION.

3.6 THE END CAP SHALL BE MANUFACTURED IN AN ISO

3.5 THE PRIMARY FACE OF AN END CAP SHALL BE CURVED OUTWARD TO RESIST HORIZONTAL LOADS GENE NEAR THE EDGES OF BEDS.

VX AS-BUILT DATA BASED ON PLAN INFORMATION

STORM DRAIN AS-BUILT SHEET 1 of 1

WITH BASEMENT EXISTING ADMINISTRATIVE and

CONFERENCE CENTER BUILDING

ENGINEER'S AS-BUILT CERTIFICATION: 02-26-13 HEREBY CERTIFY TO THE BEST OF MY KNOWLEDGE AND BELIEF, THIS STORM WATER MANAGEMENT FACILITY HAS BEEN CONSTRUCTED IN ACCORPANCE WITH THE APPROVED PLANS AND SPECIFICATIONS.

DRAIN CAP

POR VENTILATION

AND INSPECTION

ONLY JOYCE ENGINEERING CORPORATION DID NOT PROVIDE INSPECTION SERVICE DURING CONSTRUCTION AS NECESSARY TO OBTAIN FIELD AS BUILT INFORMATION.

STORM DRAIN AS BUILT 02.26.2013

BY JOYCE ENGINEERING CORP.

PROPOSED GUARD BAIL ONE FOOT BEHIND BACKOF CURB

SEE HO.CO. STD R.5.10 FOR DETAILS & SPECIFICATION

> PROP. STORMTECH SC-740 CHAMBERS (7) FOR

INFILTRATION OF WOV

(SEE SHT 17)

PROP. SLOTTED DRAIN

AL2CSP, 12" DIAMETER

PROP. STORMTECH

SEE DETAIL & SPEC'S BELOW

SC-740 CHAMBER (1 EA.) TYPICAL AT DOWN-SPOUTS

1 hereby certify that these documents were prepared or approved by me, and tratlam aduly licensed professional engineer unde the laws of the State of Many land A Joyce, Rate nofessional Eng. Nº 1224 Exp. Date: Dec. 17, 2014

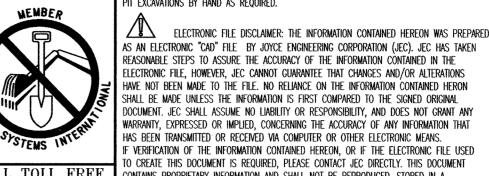
PURPOSE STATEMENT

THE PURPOSE OF THIS REVISED SITE DEVELOPMENT PLAN IS TO: ADD A KEYSTONE RETAINING WALL ALONG THE REAR. DRIVE ISLE & LOWER STORM DEAIN OUTFALL FROM STRUCTURE D. 5 TO D.G TO ACCOMODATE SAME. ONE NEW CHEET HAS BEEN ADDED - 18 of 18 (4.26.10)



THIS PLAN SHALL BE USED ONLY FOR ITS INTENDED PURPOSE AS NOTED IN THE TITLE BLOCK.

AVAILABLE AT TIME OF THE BASE PLAN PREPARATION. DUE TO CONFIDENTIAL INFORMATION DISCLOSURE RESTRICTIONS, JOYCE ENGINEERING CORP. SHALL NOT BE LIABLE OR RESPONSIBLE FOR THE COMPLETENESS OR ACCURACY OF THE INFORMATION SHOWN. IT SHALL BE THE CONTRACTORS SOLE RESPONSIBILITY TO DETERMINE THE EXACT LOCATION AND LEVATION OF ALL EXISTING UTILITY MAINS, LINES AND/OR SERVICES THAT MAY OR COULD BE FFECTED BY THE ANTICIPATED CONSTRUCTION SHOWN HEREON. THE CONTRACTOR SHALL CONTACT "MISS UTILITY" PRIOR TO THE START OF ANY CONSTRUCTION ACTIVITY TO DETERMINE THE LOCATION OF ANY RECORD UTILITY MAINS, LINES, AND/OR SERVICES AND PERFORM TEST



O CREATE THIS DOCUMENT IS REQUIRED, PLEASE CONTACT JEC DIRECTLY. THIS DOCUMENT CONTAINS PROPRIETARY INFORMATION AND SHALL NOT BE REPRODUCED, STORED IN A RETRIEVAL SYSTEM, OR TRANSMITTED IN ANY FORM INCLUDING ELECTRONIC OR PHOTO REPRODUCTION WITHOUT THE EXPRESS WRITTEN PERMISSION OF JEC. BY ACCEPTANCE OF THIS DOCUMENT. THE RECIPIENT ACKNOWLEDGES ACCEPTANCE OF THE ABOVE TERMS AND CONDITIONS

OWNER/DEVELOPER/APPLCANT:

SISTERS OF BON-SECOURS, USA C/O BOB HUBBLE 1525 MARRIOTTSVILLE ROAD MARRIOTTSVILLE, MARYLAND 21104 PHONE: 410-442-3215

CONTRACTOR: WHITING-TURNER CONTRACTING C/O LARRY GOSS 1525 MARRIOTTSVILLE ROAD MARRIOTTSVILLE, MARYLAND 21104 PHONE: 410-821-8585

UTILITY LEGEND ELECTRIC --- E --- E ---DRAIN -WHC -----W-----W

PROPOSED KEYSTONE BLOCK RETAINING WALL WITH CHAIN. LINK FENCE MAX HOGHT-10 SEE SHEET 180018

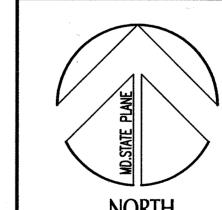
CONTRACTOR SHALL ENSURE DOWNSTREAM SPILLWAY IS CONSTRUCTED AND MAINTAINED PRECISELY LEVEL

THIS PLAN SHALL BE USED FOR IT'S INTENDED PURPOSE AS STATED IN THE TITLE BLOCK FOR BUILDING, AND ANY ADDITIONAL UTILITY INFORMATION, SEE THE APPROPRIATE PLAN FROM ACRHITECT.

'PURPOSE STATEMENT'

RELOCATE THE PREVIOUSLY APPROVED GARAGE LOCATION (TO THE NORTH ALONG THE EXISTING DRIVEWAY), ADD THE GARAGE ELEVATIONS. PROVIDE DRYWELLS AT DOWN-SPOUT LOCATIONS FOR GARAGE FOR WATER QUALITY PURPOSES, ADD **NEW SHEETS (16 & 17 of 17).**

NOTE: EXISTING UNDERGROUND UTILITIES LOCATIONS ARE PER 'ACCURATE INFRASTRUCTURE DATA, INC. ADJUSTMENTS MAY BE REQUIRED HORIZONTALLY AND/OR VERTICALLY IN ACCORDANCE WITH THE GUIDELINES AND POLICY OF THE ASSOCIATED UTILITY SOURCE. SEE LEGEND ABOVE.



hereby certify that these documents were

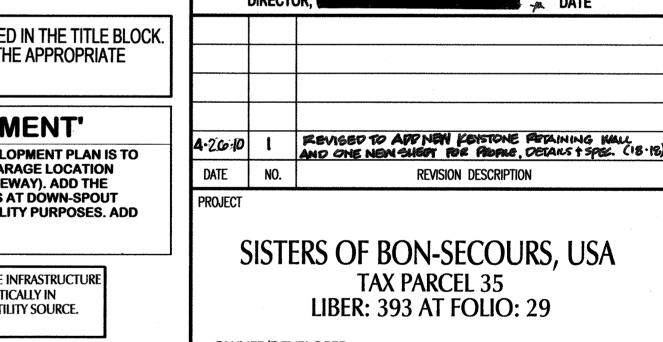
prepared or approved by me, and that I ar under the laws of the State of Maryland

License No.

PLAN SCALE: 1"=30'

STORM DRAIN & STORMWATER MANAGEMENT PLAN, PROFILES, NOTES, AND DETAILS FOR PROPOSED GARAGE

SCALE 1" = 30'PROJ. NO. DSP-87-252 DATE JANUARY, 2009 OF 21 APPROVED WAJ



OWNER/DEVELOPER: SISTERS OF BON-SECOURS, USA 1525 MARRIOTTSVILLE ROAD **MARRIOTTSVILLE, MARYLAND 21104**

> JOYCE ENGINEERING CORPORATION LAND SURVEYING LAND PLANNING CONSTRUCTION MANAGEM 10766 BALTIMORE AVENUE - BELTSVILLE, MARYLAND 20705

VICINITY MAP

NOT TO SCALE

TAX MAP: 10 ~ GRID: 16

HOWARD COUNTY, MARYLAND

LEGEND

EXISTING CONTOURS

PROPOSED CONTOURS

EXISTING TREELINE

PROPOSED TREELIN

LIMIT OF DISTURBANC

PROPOSED CONTOUR

SUPER SILT FENCE

TEMP. STABILIZED CONST. ENTRANC

FOR PRIVATE WATER AND SEWER SYSTEM

HOWARD COUNTY HEALTH DEPARTMENT

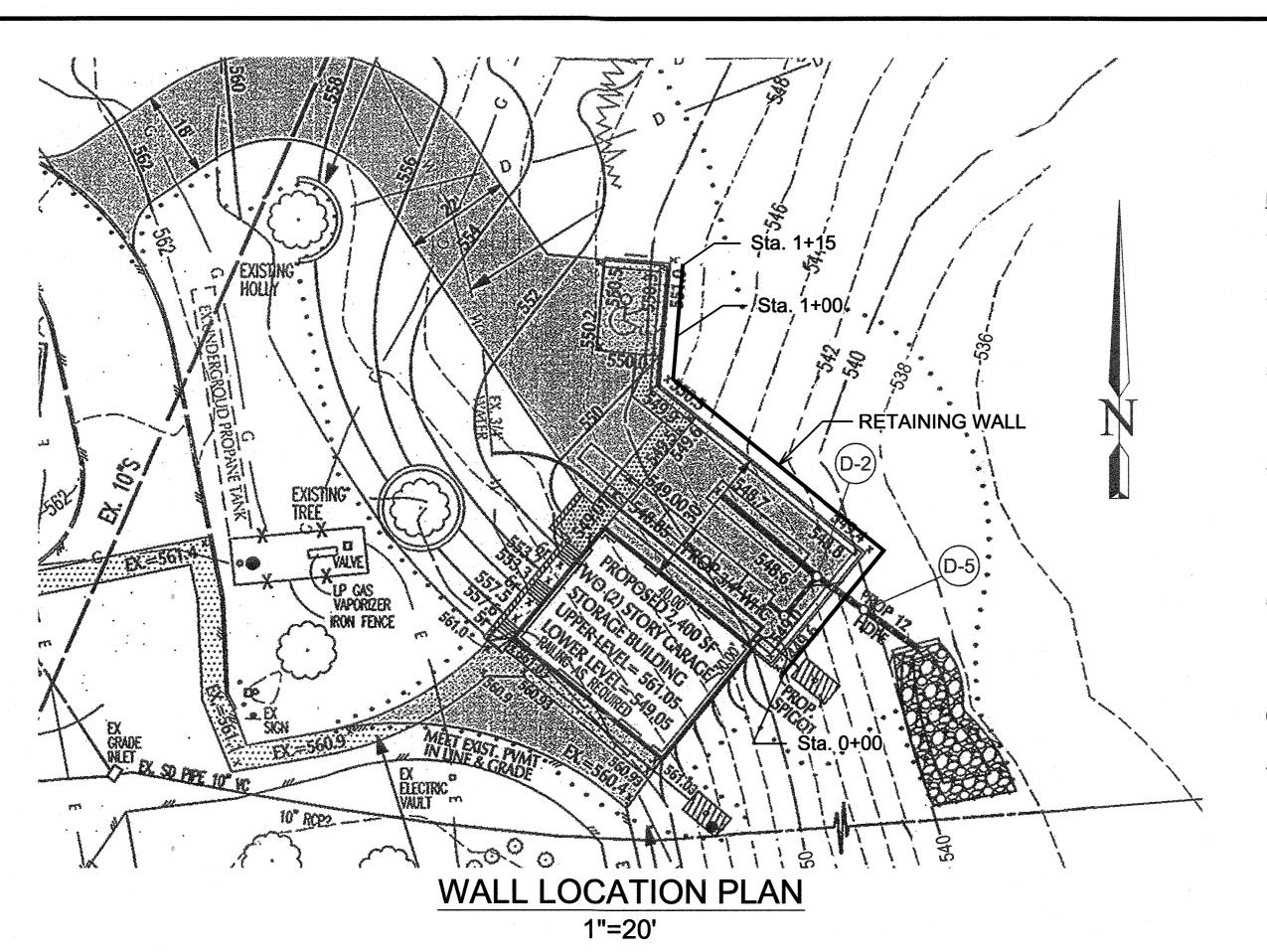
COUNTY HEALTH OFFICER

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

	ADDRESS CHART
LOT/PARCEL	STREET ADDRESS
35	1525 MARRIOTTSVILLE ROAD, MARRIOTTSVILLE, MD. 21104

PERMIT INFORMATION CHART PLAT# OR L/F BLOCK # ZONE TAX/ZONE MAP ELECT. DISTRICT CENSUS TRACT 393/29 10,11,16 & 17 RC-DEO 10 3RD 60 SEWER CODE N/A - SEPTIC N/A — WELL

DES BY WAJ Jul.15, 2010 DRN BY HAL



FENCE PER HOWARD COUNTY

(MIN. 36" TALL WITH PICKETS

DISTANCE VARIES (3' MIN)

CONTINUOUS FILTER

FABRIC OVER #57 STONE

ABOVE TOP GRID LAYER

- TOP GRADE

(SLOPE VARIES)

MIRAGRID 3XT

4" PERFORATED HDPE DRAIN

PIPE AT BASE OF BACK DRAIN

GEOGRID

~ COMPACTED FILL ~

TYPE SM

 γ = 125 PCF

 $Ø = 28^{\circ} MIN$

- STD CURB

PUNCH THRU

TOP OF BACKDRAIN

GEOGRID

ELEV. 542.0

--- PAVEMENT

REQUIREMENTS

SPACED MAX. 4")

LENGTH VARIES

CUT HOLE IN **GEOGRID TO FIT**

SONO-TUBE

— 4" SOLID WALL HDPE DRAIN

DAYLIGHT THRU WALL BLOCK

~ SUBGRADE APPROVED ~

FOR 2000 PSF BEARING

CAPACITY

TYPICAL WALL SECTION

N.T.S.

PIPE SLOPED 1% TO

57 CRUSHED STONE

8" DIA. X 18" DEEP —

12"

SONO-TUBES INSTALLED

DURING WALL CONSTRUCTION

7° MIN.

COMPAC BLOCK

4" HDPE DRAIN-

FILTER FABRIC

WITH 2" PVC

MIN. BLOCK

2 COURSES

BURIED

C/IS/CO DATÉ

57 CRUSHED

STONE BASE

PIPE WRAPPED IN

WEEP @ 20' O.C.

BOTTOM GRADE -

APPROVED: DEPARTMENT OF PLANNING AND ZONING

DIRECTOR - DEPARTMENT OF PLANNING AND ZONING

CHIEF, DIVISION OF LAND DEVELOPMENT

(SLOPE VARIES)

FACE BATTER

TYP.

NOTES

- 1. No trees shall be planted within 10 feet of the top of the retaining wall.
- 2. Retaining walls shall only be constructed under the observation of a registered professional engineer and a (NICET, WACEL, or equiv.) certified soils technician.
- 3. One soil boring shall be required every one hundred feet along the entire length of the wall. Copies of all boring reports shall be provided to the Howard County Inspector Prior to the start of construction.
- 4. The required bearing pressure beneath the wall system shall be verified in the field by a certified soils technician. Testing documentation must be provided to the Howard County Inspector prior to start of construction. The required bearing test shall be the Dynamic Cone Penetrometer test ASTM STP-399.
- 5. The suitability of fill material shall be confirmed by the on-site soils technician. Each 8" lift must be compacted to a minimum 95% standard proctor density and the testing report shall be made available to the Howard County Inspector upon completion of construction.
- Walls shall not be constructed on uncertified fill materials.
- Walls shall not be constructed within a Howard Co. right-of-way or easement

SPECIFICATIONS

MODULAR CONCRETE BLOCK RETAINING WALL

PART 1: GENERAL

1.01 Description

A. Work shall consist of furnishing and construction of a Modular Retaining Wall System in accordance with these at 2 psi normal force. specifications and in reasonably close conformity with the D. Modular concrete units shall conform to the following lines, grades, design, and dimensions shown on the plans.

constructability requirements: (If applicable) Work includes preparing foundation soil, furnishing and vertical setback = 1/8"± per course (near vertical) or 1"+ B. installing leveling pad, unit drainage fill and backfill to the lines and grades shown on the construction drawings. per course per the design; Work includes furnishing and installing geogrid soil pins, two per unit minimum; C. reinforcement of the type, size, location, and lengths designated on the construction drawings.

- 1.02 Delivery, Storage and Handling A. Contractor shall check all materials upon delivery to
- assure that the proper type, grade, color, and certification has been received. B. Contractor shall protect all materials from damage due to job site conditions and in accordance with manufacturer's recommendations. Damaged materials shall not be incorporated into the work.

PART 2: PRODUCTS

2.01 Modular Concrete Retaining Wall Units A. Modular concrete units shall conform to the following architectural requirements:

face color - concrete gray - standard manufacturers' color may be specified by the Owner. face finish - sculptured rock face in angular tri-planer or flat configuration. Other face finishes will not be allowed without written approval of Owner. bond configuration - running with bonds nominally located at midpoint vertically adjacent units, in both straight and curved alignments

exposed surfaces of units shall be free of chips, cracks or other imperfections when viewed from a distance of 10 feet under diffused lighting.

B. Modular concrete materials shall conform to the requirements of ASTM C1372 - Standard Specifications for Segmental Retaining Wall Units.

C. Modular concrete units shall conform to the following structural and geometric requirements measured in accordance with appropriate references: compressive strength = 3000 psi minimum; absorption = 8 % maximum (6% in northern states) for standard weight aggregates; dimensional tolerances = ± 1/8" from nominal unit dimensions not including rough split face, ±1/16" unit height - top and bottom planes; unit size - 8" (H) x 18" (W) x 12" (D) minimum;

unit weight - 75 lbs/unit minimum for standard weight

inter-unit shear strength - 1000 plf minimum at 2 psi

geogrid/unit peak connection strength - 1000 plf minimum

alignment and grid positioning mechanism - fiberglass maximum horizontal gap between erected units shall be -1/2 inch.

2.02 Shear Connectors (If applicable) A. Shear connectors shall be 1/2 inch diameter thermoset isopthalic polyester resin-protruded fiberglass

reinforcement rods or equivalent to provide connection between vertically and horizontally adjacent units. Strength of shear connectors between vertical adjacent units shall be applicable over a design temperature of 10 degrees F to + 100 degrees F

B. Shear connectors shall be capable of holding the geogrid in the proper design position during grid pre-tensioning and backfilling.

2.03 Base Leveling Pad Material A. Material shall consist of a compacted #57 crushed stone

base as shown on the construction drawings. 2.04 Unit Drainage Fill

A. Unit drainage fill shall consist of #57crushed stone

2.05 Reinforced Backfill A Reinforced backfill shall type SM, be free of debris and

meet the following gradation tested in accordance with ASTM D-422 and meet other properties shown on the

Sieve Size 2 inch 100-75 3/4 inch No. 40 No. 200 Plasticity Index (PI) <10 and Liquid Limit <40 per ASTM

B. Material can be site excavated soils where the above requirements can be met. Unsuitable soils for backfill (high plastic clays or organic soils) shall not be used in the reinforced soil mass.

2.06 Geogrid Soil Reinforcement

A. Geosynthetic reinforcement shall consist of geogrids manufactured specifically for soil reinforcement

applications and shall be manufactured from high tenacity polyester yarn.

2.07 Drainage Pipe

A. The drainage pipe shall be perforated corrugated HDPE pipe manufactured in accordance with ASTM D-1248.

PART 3 EXECUTION 3.01 Excavation

A. Contractor shall excavate to the lines and grades shown on the construction drawings. Owner's representative shall be responsible for inspecting and approving the excavation prior to placement of leveling material or fill

3.02 Base Leveling Pad A. Leveling pad material shall be placed to the lines and grades shown on the construction drawings, to a minimum thickness of 6 inches and extend laterally a minimum of 6" in front and behind the modular wall unit.

B. Leveling pad shall be prepared to insure full contact to the base surface of the concrete units.

3.03 Modular Unit Installation

A. First course of units shall be placed on the leveling pad at the appropriate line and grade. Alignment and level shall

be checked in all directions and insure that all units are in

full contact with the base and properly seated. B. Place the front of units side-by-side. Do not leave gaps between adjacent units. Layout of corners and curves shall be in accordance with manufacturer's recommendations

C. Install shear/connecting devices per manufacturer's

recommendations. D. Place and compact drainage fill within and behind wall units. Place and compact backfill soil behind drainage fill. Follow wall erection and drainage fill closely with structure

E. Maximum stacked vertical height of wall units, prior to unit drainage fill and backfill placement and compaction, shall

not exceed three courses. 3.04 Structural Geogrid Installation

A. Geogrid shall be oriented with the highest strength axis perpendicular to the wall alignment.

B. Geogrid reinforcement shall be placed at the strengths, lengths, and elevations shown on the construction design drawings or as directed by the Engineer.

C. The geogrid shall be laid horizontally on compacted backfill and attached to the modular wall units. Place the next course of modular concrete units over the geogrid. The geogrid shall be pulled taut, and anchored prior to

backfill placement on the geogrid. D. Geogrid reinforcements shall be continuous throughout their embedment lengths and placed side-by-side to provide 100% coverage at each level. Spliced connections between shorter pieces of geogrid or gaps

between adjacent pieces of geogrid are not permitted 3.05 Reinforced Backfill Placement A. Reinforced backfill shall be placed, spread, and

compacted in such a manner that minimizes the development of slack in the geogrid and installation B. Reinforced backfill shall be placed and compacted in lifts

not to exceed 6 inches where hand compaction is used, or 8 - 10 inches where heavy compaction equipment is used. Lift thickness shall be decreased to achieve the required density as required.

C. Reinforced backfill shall be compacted to 95% of the maximum density as determined by ASTM D698. The moisture content of the backfill material prior to and during compaction shall be uniformly distributed throughout each

layer and shall be + 3% to - 3% of optimum. D. Only lightweight hand-operated equipment shall be allowed within 3 feet from the tail of the modular concrete

. Tracked construction equipment shall not be operated directly upon the geogrid reinforcement. A minimum fill thickness of 6 inches is required prior to operation of tracked vehicles over the geogrid. Tracked vehicle turning should be kept to a minimum to prevent tracks from

displacing the fill and damaging the geogrid. F. Rubber tired equipment may pass over geogrid reinforcement at slow speeds, less than 10 MPH. Sudden

braking and sharp turning shall be avoided. G. At the end of each day's operation, the Contractor shall slope the last lift of reinforced backfill away from the wall units to direct runoff away from wall face. The Contractor shall not allow surface runoff from adjacent areas to enter the wall construction site.

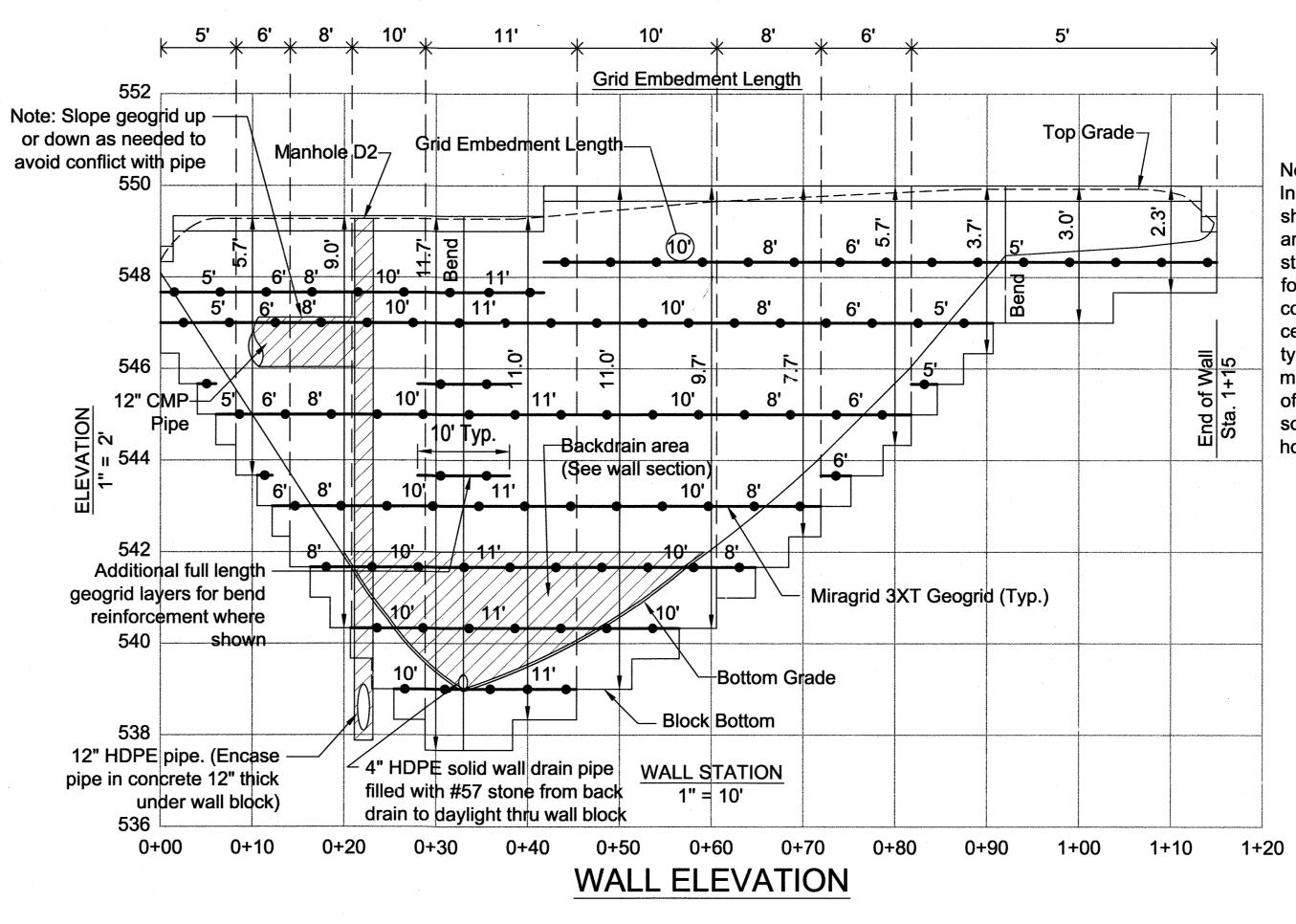
3.06 Cap Installation

A. Cap units shall be glued to underlying units with an all-weather adhesive recommended by the manufacturer.

3.07 Field Quality Control

A. The Owner shall engage inspection and testing services, including independent laboratories, to provide quality assurance and testing services during construction.

B. As a minimum, quality assurance testing should include foundation soil inspection, soil and backfill testing, verification of design parameters, and observation of construction for general compliance with design drawings and specifications.



Install manhole structures and related pipe shown during wall construction. Backfill around entire perimeter of manhole structure D-2 for full wall height with a 3 foot thick wrap of compacted soil-cement consisting of a ratio of 180 lbs. Portland cement thoroughly mixed with 1 cu. yd. type SM soil at 3% over optimum moisture. Trim full length geogrids at face of manhole structure and embed in soil-cement. Place soil-cement within 2 hours after mixing

> WALL DETAILS & SPEC'S FOR DEDISED SITE PEUELOPMENT FLAN SISTERS OF BON SECOURS, USA 1525 MARRIOTSVILLE ROAD MARRIOTISVILLE, MD 21104 HOWARD COUNTY, MD TAX MAP: 10 PARCEL: 35 ELECTION DISTRICT: 3 SPP 87-252 PLAT LIBER 393 FOLIO: 29 BLOCK: 10,11,16,17

ZONE: R CENSUS: 6030 OWNER /ADDRESS: SAME AS ABOVE ATTN: BOB HUBBLE, PM

PROFESSIONAL CERTIFICATION

'PURPOSE STATEMENT'

THE PURPOSE OF THIS REVISED SITE DEVELOPMENT PLAN IS TO ADD A KEYSTONE RETAINING WALL ALONG THE REAR DRIVE ISLE AND LOWER STORM DRAIN OUTFALL FROM STRUCTURE D-5 TO D-6 TO ACCOMMODATE SAME. ONE (1) NEW SHEET HAS BEEN ADDED - 18 OF 18.

HEREBY CERTIFY THAT THESE PLANS ERE PREPARED OR APPROVED BY ME PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 14434, EXPIRATION DATE: 05/13/11.

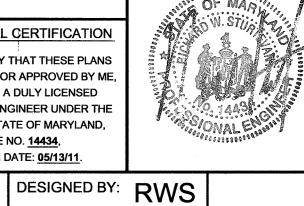
DRAWN BY:

APPROVED BY: RWS

06358-G

04/05/10

SCALE: AS SHOWN



CHIÉF, DEVELOPMENT ENGINEERING DIVISION REVISIONS: 04/26/2010 - REVISED TO ADD THIS SHEET FOR THE PURPOSE OF THE NEW JOB NUMBER: RETAINING WALL CONSTRUCTION DETAILS KEYSTONE BLOCK RETAINING WALL ENGINEERING ASSOCIATES BON SECOURS GARAGE WALL HOWARD COUNTY, MD 10975 Guilford Road, Suite A Annapolis Junction, MD (410) 880-4788 Fax: (410)880-4098

INSTALL BACKDRAIN CONSISTING

OF #57 STONE WRAPPED IN

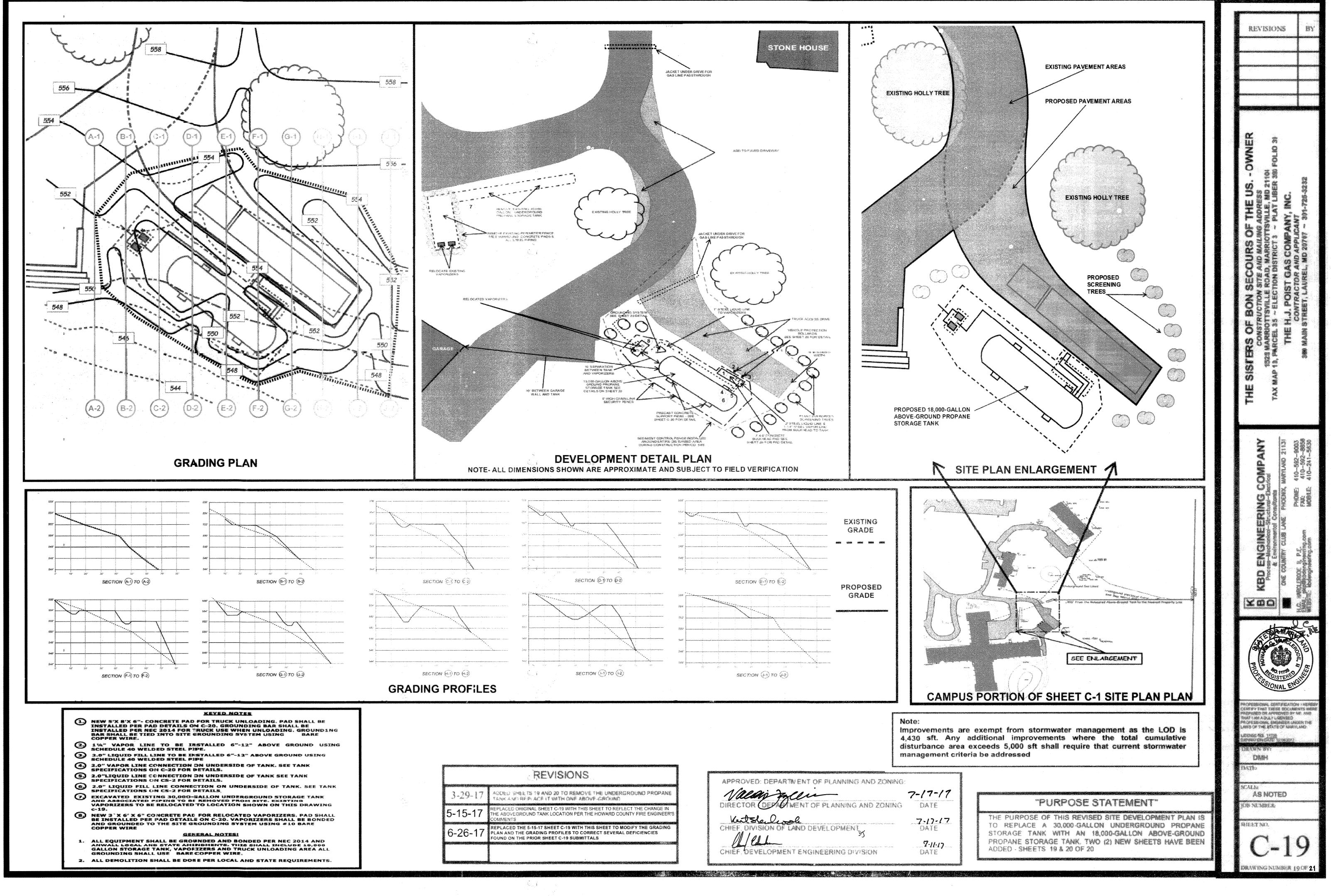
MIRAFI 140-N FILTER FABRIC

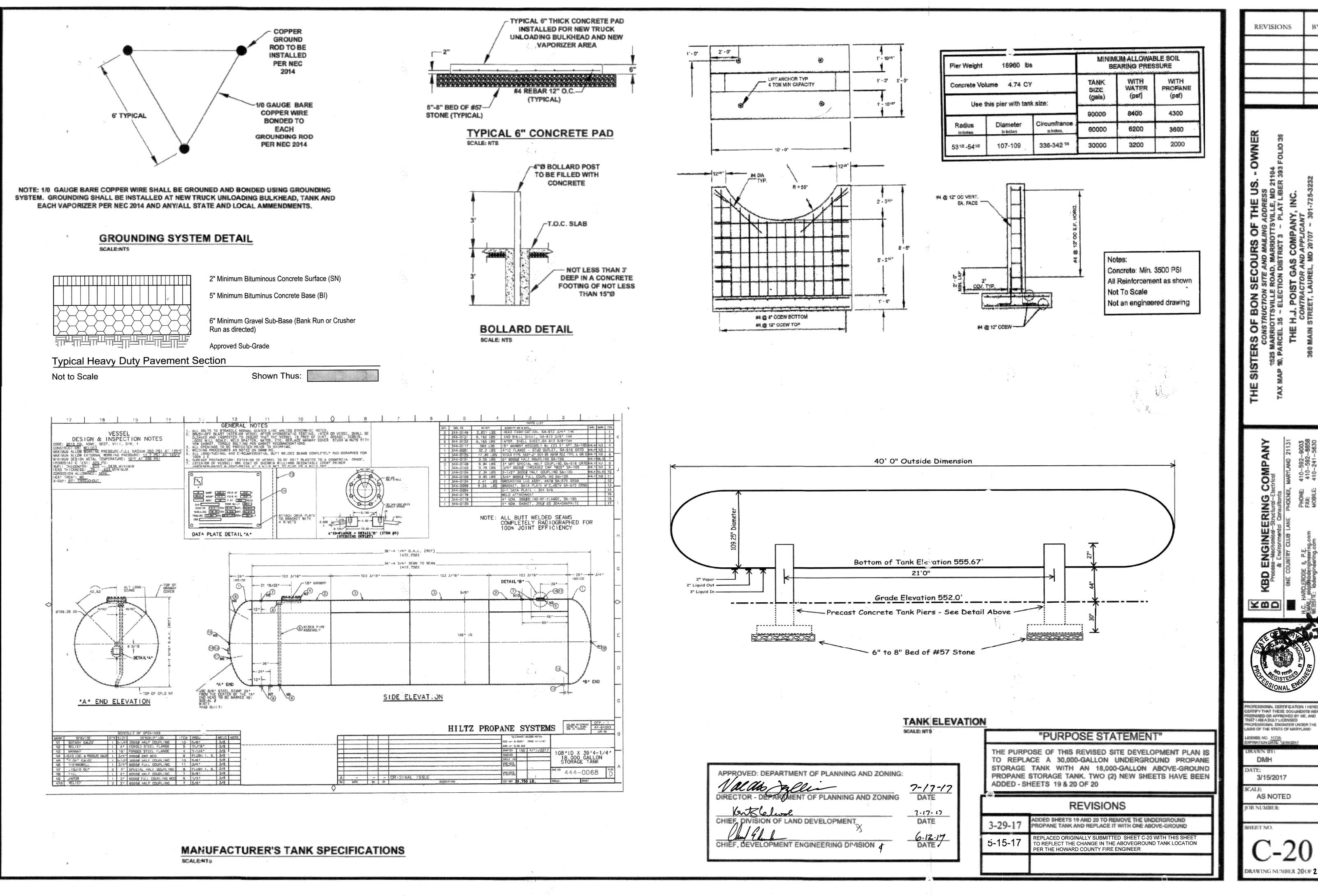
BEHIND GEOGRID LAYERS

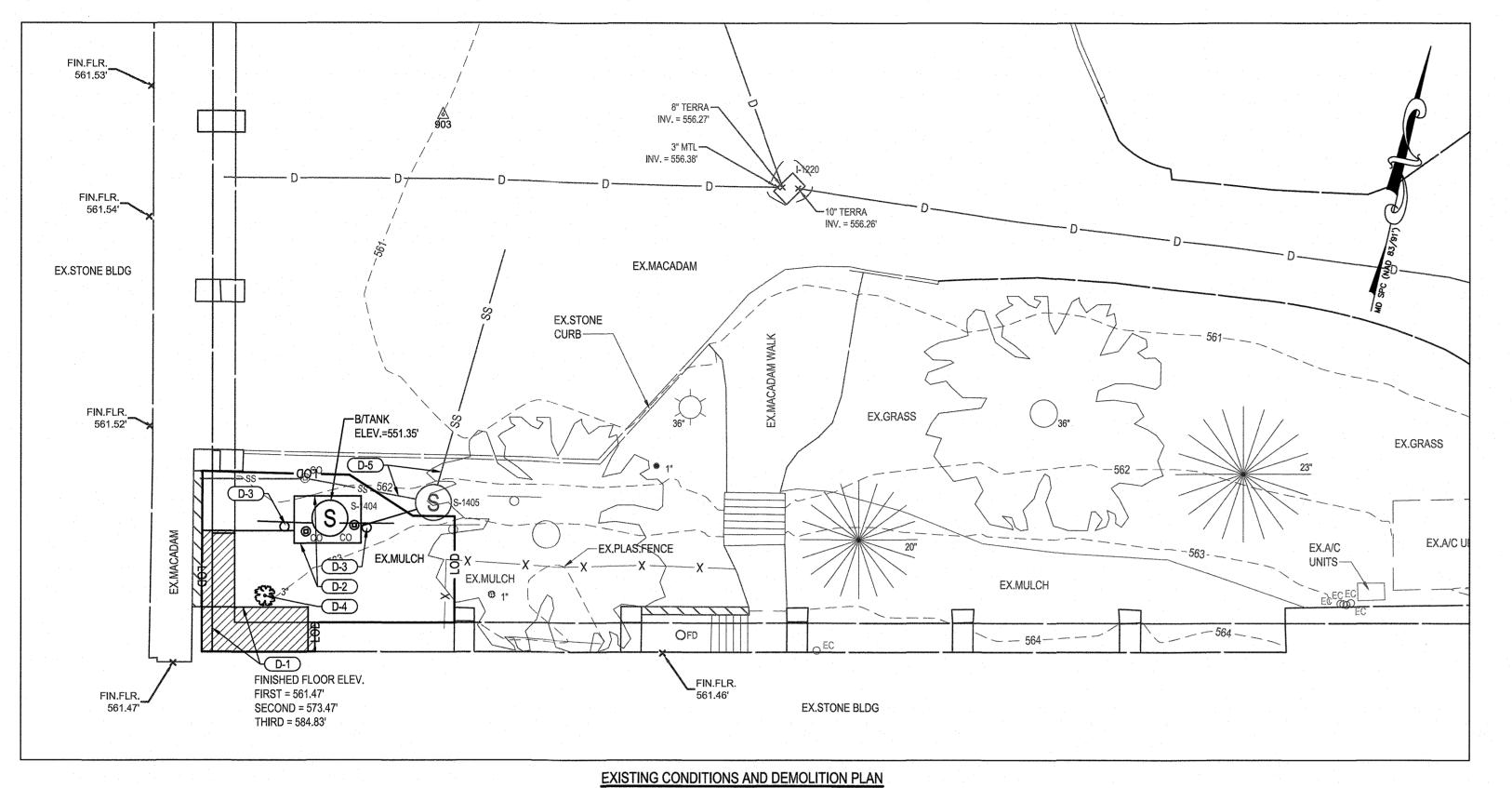
SDP 87-252

18 of 21

AM





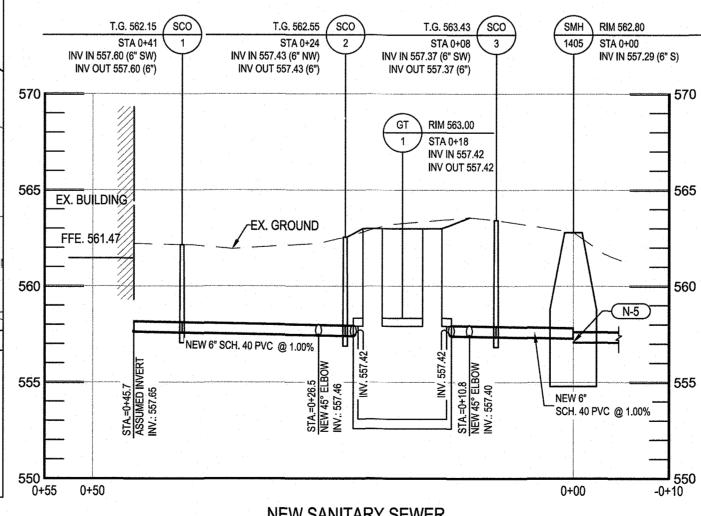


DEMOLITION NOTES

- D-1 REMOVE PORTION OF BUILDING AND CANOPY AS NECESSARY FOR NEW CONSTRUCTION.
- D-2 REMOVE SANITARY SEWER GREASE TRAP AND CONNECTING PIPES.
- D-3 REMOVE AND SALVAGE SIGN TO BE RELOCATED.
- D-4 REMOVE EXISTING TREE.
- D-5 MAINTAIN AND PROTECT EXISTING SANITARY SEWER TO REMAIN.

CONSTRUCTION NOTES

- N-2 NEW BUILDING ADDITION, SEE AGRICULTURAL PLANS FOR DETAILS.
- N-3 NEW 750 GALLON GREASE TRAP INCEPTOR. SEE DETAIL ON SHEET C103.
- N-4 NEW 6" SCH. 40 PVC SANITARY SEWER.
- N-5 CONTRACTOR SHALL CONFIRM INVERT OUT OF EXISTING SANITARY SEWER AT EXISTING MANHOLE TO REMAIN. THE DESIGN SHOWN HEREIN IS BASED UPON AN ASSUMED INVERT OUT BELOW THE ELEVATION OF THE NEW 6" PIPE IN (557.29'). THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY, AND PRIOR TO THE START OF CONSTRUCTION OF ANY DISCREPANCIES.



8" TERRA -INV. = 556,27' 3" MTL-INV. = 556.38' EX.MACADAM EX.STONE CURB-**EX.GRASS** SCO HORIZONTAL CLEARANCE / **EX.GRASS** EX.A/C L -EX.PLAS.FENCE EX,A/C EX.MULCH ಮ¶ NEW CONNECTION LOBBY F.F.E. 561.47 **O**FD

EX.STONE BLDG

SITE LAYOUT AND GRADING PLAN SCALE: 1" =10'

APPROYED: DEPARTMENT OF PLANNING AND ZONING 9-16-19

FINISHED FLOOR ELEV.

FIRST = 561.47'

SECOND = 573.47'

THIRD = 584.83'

EX.STONE BLDG

NEW SANITARY SEWER SCALE: HORIZ. 1"=10' VERT. 1"=5" W.B.C.M. SURVEY TRAVERSE CONTROL LISTING

PT# NORTHING EASTING ELEV. DESCRIPTION 900 605,831.65 1,341,680.09 561.18 MAGNAIL 901 605,912.58 1,341,762.46 553.37 MAGNAIL 902 605,909.30 1,341,646.26 563.61 MAGNAIL

903 605,776.50 1,341,623.84 560.99 MAGNAIL

VICINITY MAP SCALE: 1"=8,333'

GENERAL NOTES

- THIS PLAT IS BASED UPON A FIELD-RUN TOPOGRAPHIC SURVEY PERFORMED BY WBCM IN SEPTMEBER, 2018 AND REFLECTS SITE CONDITIONS AS OF THAT DATE.
- 2. COORDINATES AND DIRECTIONS SHOWN HEREON ARE REFERRED TO THE MARYLAND STATE PLANE COORDINATE SYSTEM, NAD 83/2011 AS DETERMINED FROM REAL TIME KINEMATIC SURVEYING AS BROADCAST BY THE LEICA SMARTNET NETWORK.

BASE STATION LATITUDE 39° 19' 05.90464" N LONGITUDE 77° 11' 45.52346" W

ELEVATIONS SHOWN HEREON ARE REFERRED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88), AS DETERMINED BY R.T.K. G.P.S. OBSERVATONS AS BROADCASTED BY THE LEICA SMARTNET NETWORK(GEOID12A).

BASE STATION ELEVATION = 203.02'

WALL

CONC. CURB

SURVEY LIMITS

WOOD FENCE

METAL FENCE

U/G SANITARY

GUARDRAIL

- 4. ADDITIONAL SPOT ELEVATIONS RESIDE IN THE ELECTRONIC VERSION OF THIS DRAWING BUT ARE NOT
- THE LOCATION OF EXISTING UNDERGROUND UTILITIES IS SHOWN IN AN APPROXIMATE WAY ONLY. THE DESCRIPTION OF THE UNDERGROUND UTILITIES AS SHOWN HEREON WERE BASED SOLEY UPON FIELD OBSERVATIONS AND HAVE NOT BEEN COMPARED TO OR VERIFIED WITH RECORD UTILITY DRAWINGS OR FIELD TEST PITS. THE SIZE, TYPE AND LOCATION OF THE UTILITY LINES SHOULD BE VERIFIED BY THE USER OF THIS
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY ACTUAL SITE CONDITIONS PRIOR TO THE START OF ANY WORK. THERE IS NO WARRANTY OR GUARANTEE ON THE COMPLETENESS OR CORRECTNESS OF THE EXISTING CONDITION INFORMATION. ANY DISCREPANCY FOUND SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ARCHITECT/ENGINEER PRIOR TO THE START OF ANY WORK.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING "MISS UTILITY" AT 1-800-257-7777 THREE DAYS PRIOR TO THE START OF ANY EXCAVATION WORK.
- THE WORDS "CERTIFY" OR "CERTIFICATION" AS USED HEREON ARE UNDERSTOOD TO BE AN EXPRESSION OF PROFESSIONAL OPINION BY THE UNDERSIGNED SURVEYOR, BASED UPON HIS BEST KNOWLEDGE, INFORMATION, AND BELIEF. AS SUCH, IT DOES NOT CONSTITUTE A GUARANTEE NOR A WARRANTY, EXPRESSED OR IMPLIED.

DESCRIPTION EXISTING EX. BLDG BUILDING BITUMINOUS CONCRETE PAVING EX. MACADAM PORTLAND CEMENT CONCRETE EX. CONC. **PAVERS** CONCRETE UNIT PAVERS ~~~~ WOODED/BUSH AREA 3" £ 12" £ 6" (3" DECIDUOUS / EVERGREEN TREES **CLEAN OUT** DRAIN INLET FIRE HYDRANT **GAS VALVE** HAND BOX INLET MH POWER POLE PROPERTY MON. **O**600 SANITARY MH SIGN (ONE-POST) SIGN (TWO POST) MANHOLE SANITARY MANHOLE 0 STREET LIGHT TELEPHONE MH 0 T.R. TELEPHONE RISER ∆900 TRAVERSE STATION **UNKNOWN MH** WATER MH WATER VALVE × 564.5 SPOT ELEVATION + 564.5 MAJOR CONTOUR __ _ _ _ _ 564 _ _ _ _ _ _ MINOR CONTOUR

.

 $\times excession as excession as excession and excession excession are excession as excession and excession excession are excession and excession excession are excession and excession are excession are excession and excession are excession and excession are excession are excession are excession and excession are excession and excession are excession are excession are excession and excession are excession are$

0 0 0 0 0 0

CAUTION: IF THIS DRAWING IS A REDUCTION, USE THE GRAPHIC SCALES.

SHEET 21 OF 21

PROJECT:

SDP-87-252

© WBCM 2019

prepared or approved by me, and that I am duly licensed professional engineer under the laws of the State of Maryland. License #34682 Expiration Date: 07/08/21

> LAYOUT FERENCE CENTENTE ROAD
> LE, MD, 21104
> LE, MD, SITE AND

ELEVATOR /
SECOURS CONF
1525 MARRIOTTSVILLE
MARRIOTTSVILLE

DESIGNED: R.W.H. R.S.S. CHECKED: B.W.L. SCALE: 1" = 10' DATE: 07/26/2019

DRAWING: C-21

2017.0087.02.0