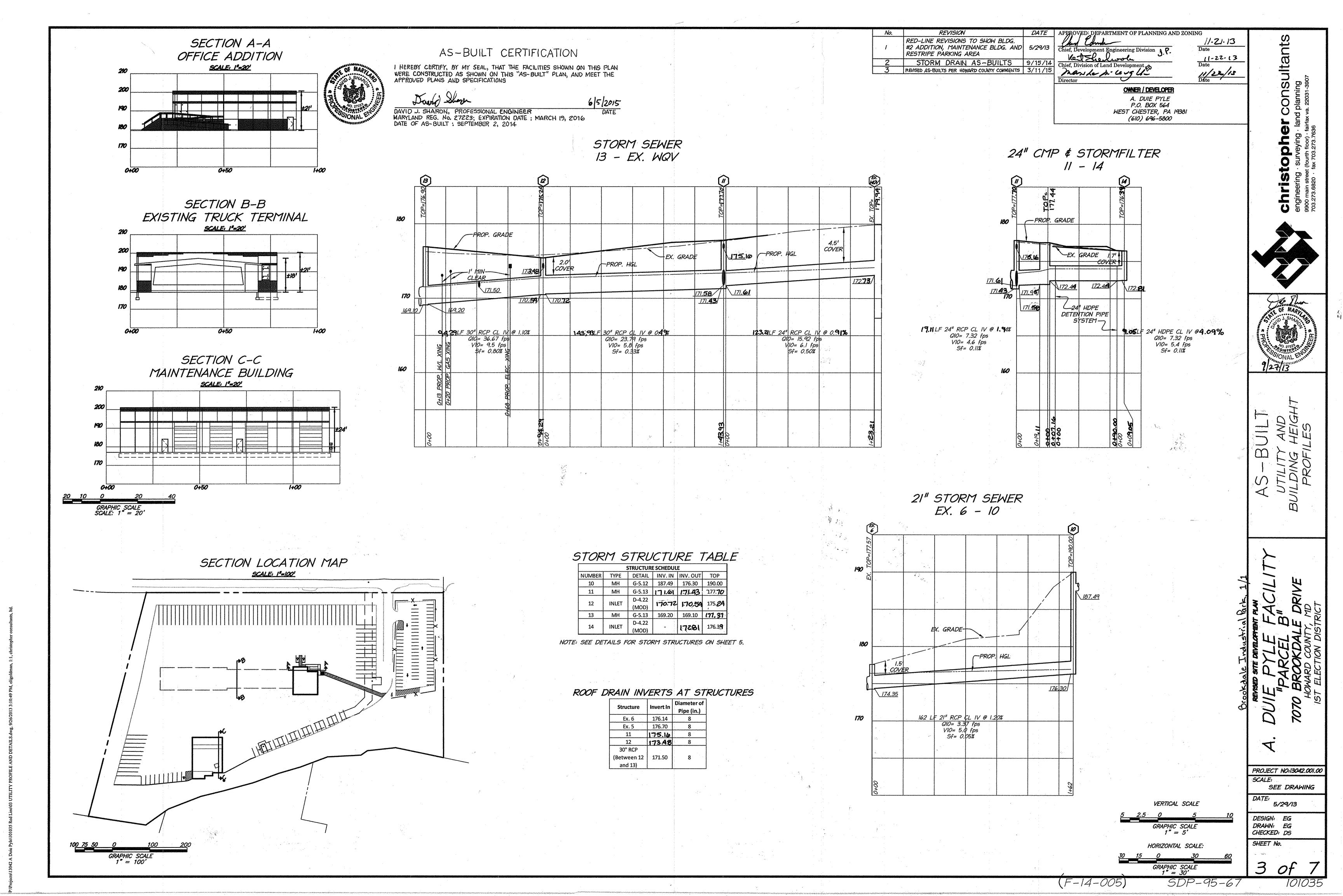
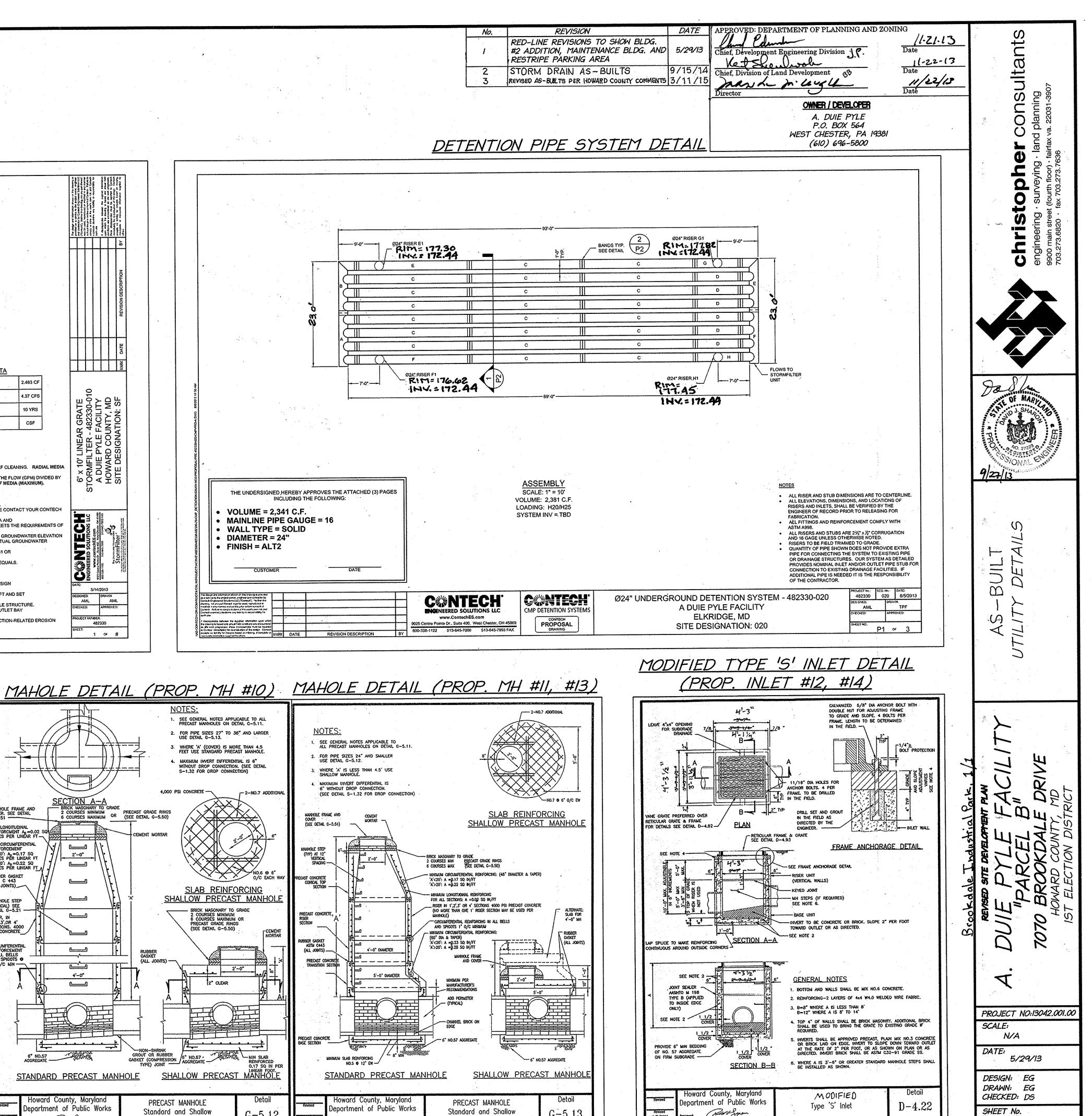
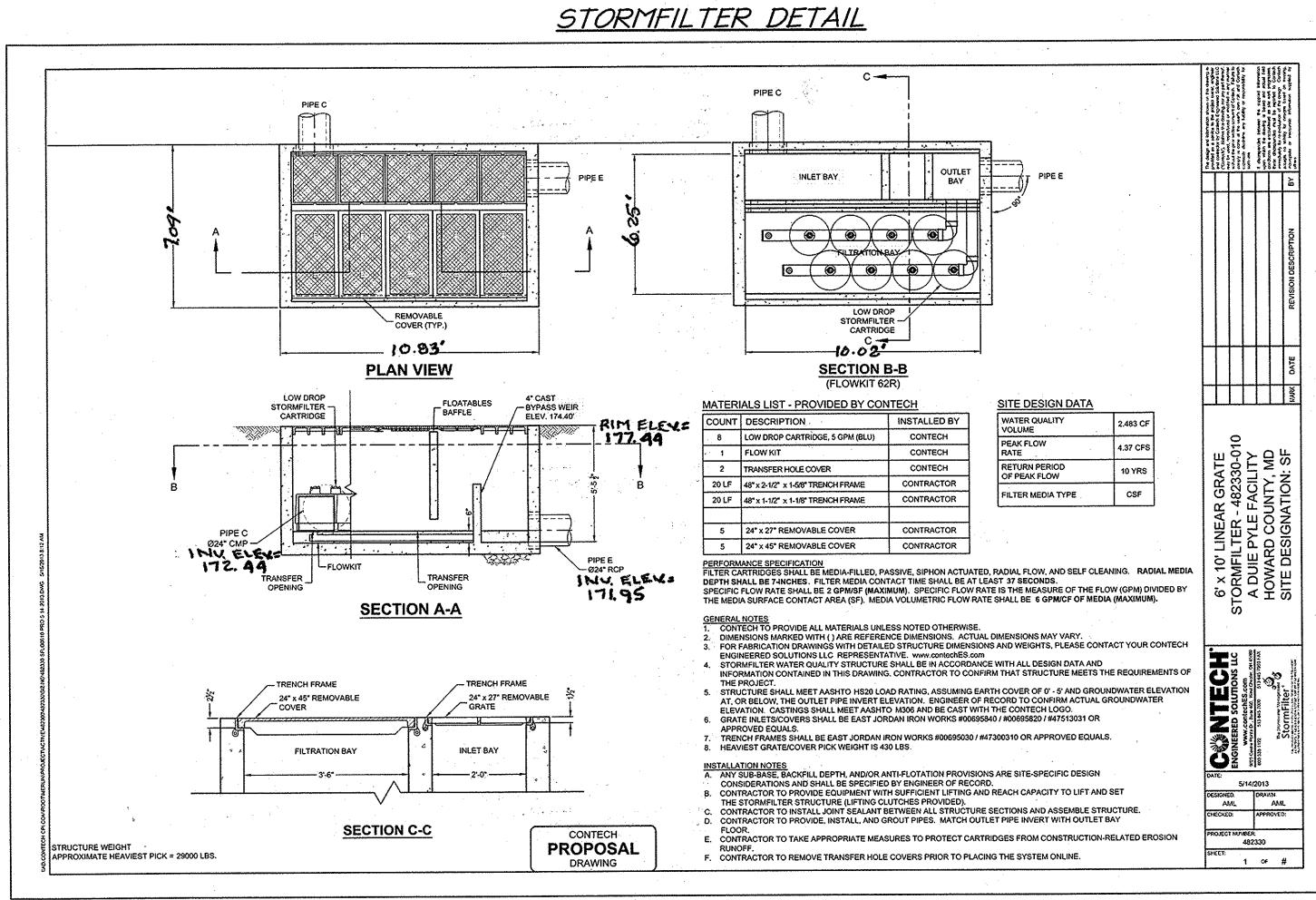


SDP-95-67



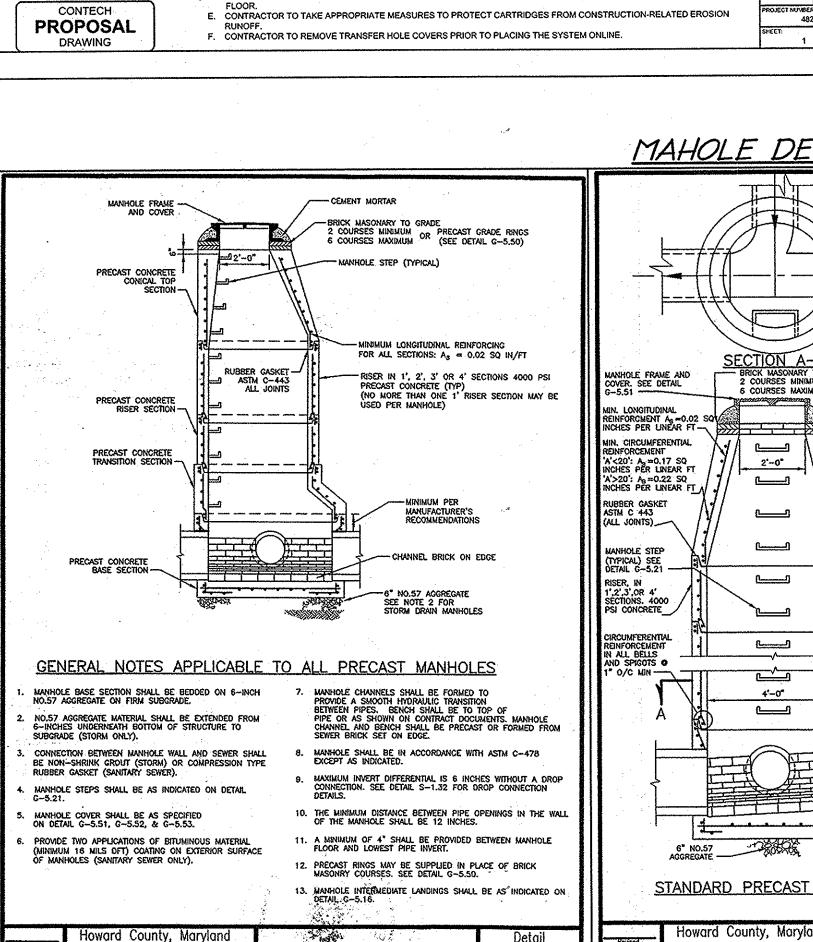




Department of Public Works

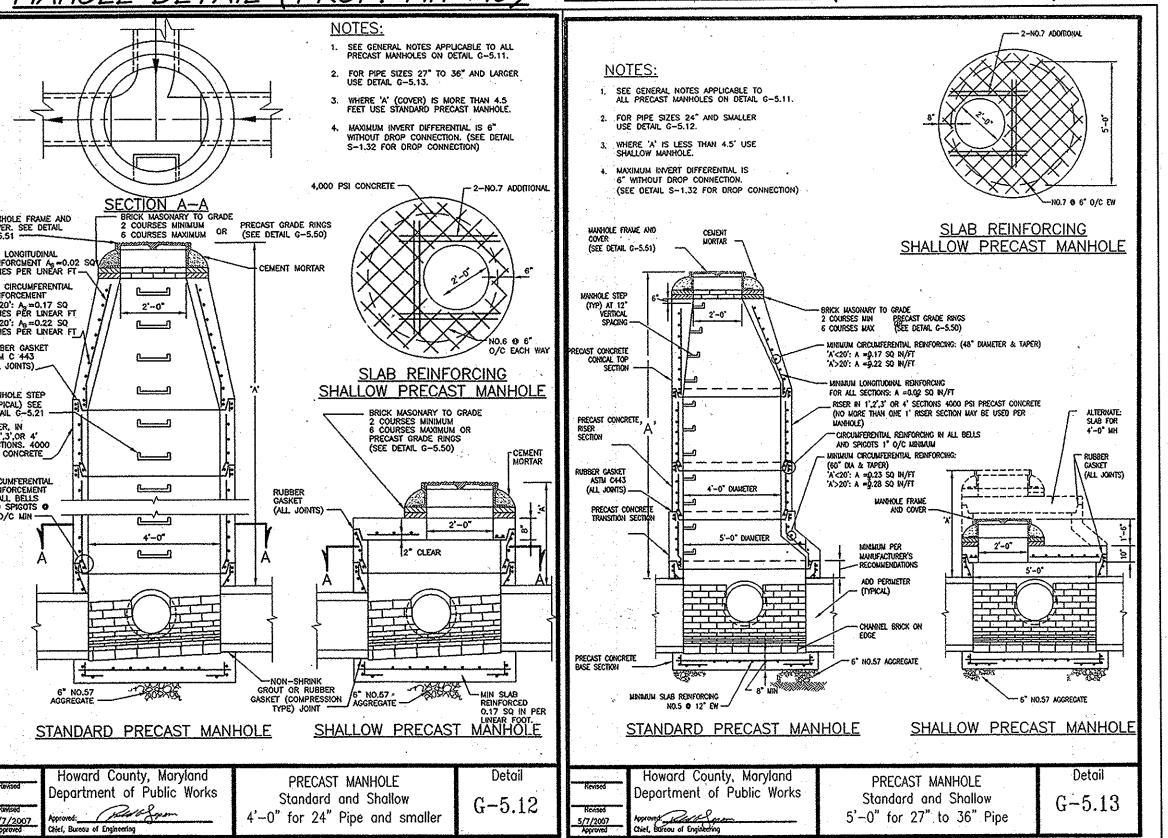
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Chief, Bureou of Engineering



PRECAST, MANHOLE

G-5.11



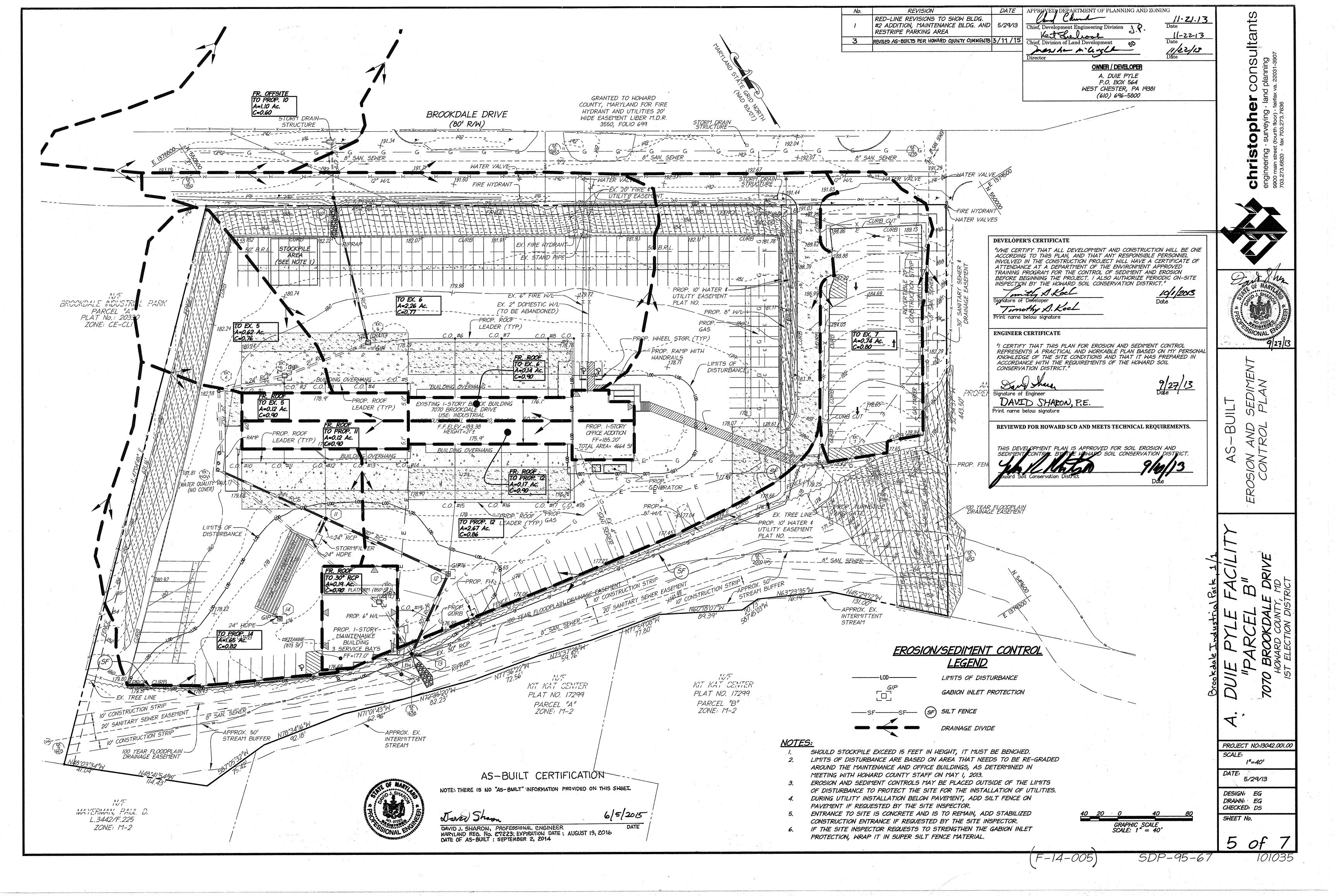
AS-BUILT CERTIFICATION I HEREBY CERTIFY, BY MY SEAL, THAT THE FACILITIES SHOWN ON THIS PLAN WERE CONSTRUCTED AS SHOWN ON THIS "AS-BUILT" PLAN, AND MEET THE

David Shan 6/5/2015

DAVIO.). SHARON, PROFESSIONAL ENGINEER MARYLAND REG. NO. 27223; EXPIRATION DATE: MARCH 19, 2016 DATE OF AS-BUILT: SEPTEMBER 2, 2014

APPROVED PLANS AND SPECIFICATIONS.



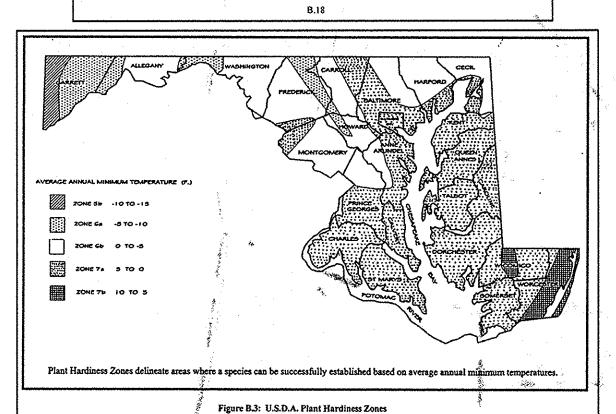


To use fast growing vegetation that provides cover on disturbed soils.

Conditions Where Practice Applie Exposed soils where ground cover is needed for a period of 6 months or less. For longer duration of time, permanent stabilization practices are required.

- 1. Select one or more of the species or seed mixtures listed in Table B.1 for the appropriate Plant Hardiness Zone (from Figure B.3), and enter them in the Temporary Seeding Summary below along with application rates, seeding dates and seeding depths. If this Summary is not put on the plan and completed, then Table B.1 plus fertilizer and lime rates must be put on the plan.
- 2. For sites having soil tests performed, use and show the recommended rates by the testing agency Soil tests are not required for Temporary Seeding.
- 3. When stabilization is required outside of a seeding season, apply seed and mulch or straw mulch alone as prescribed in Section B-4-3.A.1.b and maintain until the next seeding season.

	Hardiness Zon Seed Mixture	Fertilizer Rate				
No.	Species	Application Rate (lb/ac)	Seeding Dates	Seeding Depths	(10-20-20)	Lime Rate
	ANNUAL RYEGRASS	40	31-515, 01-1015	0.5"		**
	FOXTAIL MILLET	30	5/16-7/19	0.5*	436 lb/ac	2 tons/ac (90 lb/1000 s
			·		(10 lb/1000 sf)	
					•	



	Seeding Rate U		Seeding	Recommended Seeding Dates by Plant Hardiness Zone ³		
Plant Species	lb/ac	15/1000 ft ²	Depth ² (inches)	5b and 6a	6b	7a and 7b
Cool-Season Grasses	43958	e program	ensky sky	CONTRACTOR STREET	is desirable contract	de place particular
Annual Ryograss (Lolium perenne ssp. multiflorum)	40	1.0	0.5	Mar 15 to May 31; Aug 1 to Sep 30	Mar 1 to May 15; Aug 1 to Oct 15	Feb 15 to Apr 30; Au 15 to Nov 30
Barley (Hordeum vulgare)	96	2.2	1.0	Mar 15 to May 31; Aug 1 to Sep 30	Mar 1 to May 15; Aug 1 to Oct 15	Feb 15 to Apr 30; Au 15 to Nov 30
Oats (Avena sativa)	72	1.7	1.0	Mar 15 to May 31; Aug 1 to Sep 30	Mar 1 to May 15; Aug 1 to Oct 15	Feb 15 to Apr 30; Au 15 to Nov 30
Wheat (Triticum aestivum)	120	2.8	1.0	Mar 15 to May 31; Aug 1 to Sep 30	Mar 1 to May 15; Aug 1 to Oct 15	Feb 15 to Apr 30; Au 15 to Nov 30

Table B.1: Temporary Seeding for Site Stabilization

2.8 1.0 Mar 15 to May 31; Aug 1 to Oct 31 Mar 1 to May 15; Aug Feb 15 to Apr 30; Aug 1 to Nov 15 15 to Dec 15 Cereal Rye (Secale cereals) 30 0.7 0.5 Jun 1 to Jul 31 May I to Aug 14 oxtail Millet (Setaria Italica) Pearl Millet (Pennisetum glaucum) 20 0.5 0.5 Jun 1 to Jul 31 May 16 to Jul 31 May I to Aug 14

tested. Adjustments are usually not needed for the cool-season grasses Seeding rates listed above are for temporary seedings, when planted alone. When planted as a nurse crop with permanent seed mixes, use 1/3 of the seeding rate listed above for barley, oats, and wheat. For smaller-seeded gresses (annual pregrass, pearl millet, foxtail millet), do not exceed more than 5% (by weight) of the overall permanent seeding mix. Cereal rye generally should not be used as a nurse crop, unless planting will occur in very late fall beyond the seeding dates for other temporary seedings. Cereal rye has allelopathic properties that inhibit the germination and growth of other plants. If it must be used as a nurse crop, seed at 1/3 of the rate listed above.

For sandy soils, plant seeds at twice the depth listed above.

DEVELOPER'S CERTIFICATE

"I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE ONE 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 INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT."

ENGINEER CERTIFICATE

"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."

DAVED SHARON P.E. Print name below signature

1200

REVIEWED FOR HOWARD SCD AND MEETS TECHNICAL REQUIREMENTS.

PERMANENT SEEDING NOTES **B-4-5 STANDARDS AND SPECIFICATIONS** <u>FOR</u> PERMANENT STABILIZATION

To stabilize disturbed soils with permanent vegetation

To use long-lived perennial grasses and legumes to establish permanent ground cover on disturbed soils. Conditions Where Practice Applies

Exposed soils where ground cover is needed for 6 months or more.

a. Select one or more of the species or mixtures listed in Table B.3 for the appropriate Plant Hardiness Zone (from Figure B.3) and based on the site condition or purpose found on Table B.2. Enter selected mixture(s), application rates, and seeding dates in the Permanent Seeding Summary. The Summary is to be placed on the plan.

b. Additional planting specifications for exceptional sites such as shorelines, stream banks, or dunes or for special purposes such as wildlife or aesthetic treatment may be found in USDA-NRCS Technical Field Office Guide, Section 342 - Critical Area Planting. c. For sites having disturbed area over 5 acres, use and show the rates recommended by the soil

d. For areas receiving low maintenance, apply urea form fertilizer (46-0-0) at 3 1/2 pounds per 1000 square feet (150 pounds per acre) at the time of seeding in addition to the soil amendments shown in the Permanent Seeding Summary .

a. Areas where turfgrass may be desired include lawns, parks, playgrounds, and commercial sites which will receive a medium to high level of maintenance.

b. Select one or more of the species or mixtures listed below based on the site conditions or purpose. Enter selected mixture(s), application rates, and seeding dates in the Permanent eding Summary. The summary is to be placed on the plan. i. Kentucky Bluegrass: Full Sun Mixture: For use in areas that receive intensive management. Irrigation required in the areas of central Maryland and Eastern Shore.

ranging from 10 to 35 percent of the total mixture by weight ii. Kentucky Bluegrass/Perennial Rye: Full Sun Mixture: For use in full sun areas where

Recommended Certified Kentucky Bluegrass Cultivars Seeding Rate: 1.5 to 2.0 pounds per

1000 square feet. Choose a minimum of three Kentucky bluegrass cultivars with each

rapid establishment is necessary and when turf will receive medium to intensive management. Certified Perennial Ryegrass Cultivars/Certified Kentucky Bluegrass Seeding Rate: 2 pounds mixture per 1000 square feet. Choose a minimum of three Kentucky pluegrass cultivars with each ranging from 10 to 35 percent of the total mixture by weight. iii. Tall Fescue/Kentucky Bluegrass: Full Sun Mixture: For use in drought prone areas and/or

for areas receiving low to medium management in full sun to medium shade. Recommended mixture includes; Certified Tall Fescue Cultivars 95 to 100 percent, Certified Kentucky Bluegrass Cultivars 0 to 5 percent. Seeding Rate: 5 to 8 pounds per 1000 square feet. One or more cultivars may be blended. iv. Kentucky Bluegrass/Fine Fescue: Shade Mixture: For use in areas with shade in Bluegrass lawns. For establishment in high quality, intensively managed turf area. Mixture includes; Certified Kentucky Bluegrass Cultivars 30 to 40 percent and Certified Fine Fescue and 60

to 70 percent. Seeding Rate: 11/2 to 3 pounds per 1000 square feet. Select turfgrass varieties from those listed in the most current University of Maryland Publication, Agronomy Memo #77, "Turfgrass Cultivar Recommendations for Maryland"

Choose certified material. Certified material is the best guarantee of cultivar purity. The certification program of the Maryland Department of Agriculture, Turf and Seed Section, provides a reliable means of consumer protection and assures a pure genetic line

c. Ideal Times of Seeding for Turf Grass Mixtures Western MD: March 15 to June 1, August 1 to October 1 (Hardiness Zones: 5b, 6a) Central MD: March 1 to May 15, August 15 to October 15 (Hardiness Zone: 6b) Southern MD, Eastern Shore: March 1 to May 15, August 15 to October 15

(Hardiness Zones: 7a, 7b) No. 201 Sec. 26/2006 d. Till areas to receive seed by disking or other approved methods to a depth of 2 to 4 inches, level and rake the areas to prepare a proper seedbed. Remove stones and debris over 11/2 inches in diameter. The resulting seedbed must be in such condition that future mowing of grasses will

STABILIZED CONSTRUCTION ENTRANCE

(SEE NOTE 5 ON SHEET 5)

PLAN / CUT AWAY VIEW

2. LIFT GRATE AND WRAP WITH NONWOVEN GEOTEXTILE TO COMPLETELY COVER ALL OPENINGS. SECURE WITH WIRE TIES AND SET GRATE BACK IN PLACE.

3. PLACE CLEAN % TO 1% INCH STONE OR EQUIVALENT RECYCLED CONCRETE 6 INCHES THICK ON THE CRAIF.

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

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

E.26

DETAIL E-9-2 AT-GRADE INLET PROTECTION

CONSTRUCTION SPECIFICATIONS

1. USE NONWOVEN GEOTEXTILE AS SPECIFIED IN SECTION H-1 MATERIALS.

[AGIP

AXIMUM DRAINAGE AREA = 1 ACR

- ¾ TO 1½ IN STONE

e. If soil moisture is deficient, supply new seedings with adequate water for plant growth (½ to 1 inch every 3 to 4 days depending on soil texture) until they are firmly established. This is especially true when seedings are made late in the planting season, in abnormally dry or hot

PERMANENT SEEDING NOTES (CONT.)

1/4-1/2 in | 45 pounds

1/4- 1/2 in per acre (1.0 lb/

1/4-1/2 in 1000 sf)

a. Class of turfgrass sod must be Maryland State Certified. Sod labels must be made available to

b. Sod must be machine cut at a uniform soil thickness of ¼ inch, plus or minus ¼ inch, at the time of cutting. Measurement for thickness must exclude top growth and thatch. Broken pads and

c. Standard size sections of sod must be strong enough to support their own weight and retain their

d. Sod must not be harvested or transplanted when moisture content (excessively dry or wet) may

e. Sod must be harvested, delivered, and installed within a period of 36 hours. Sod not

a. During periods of excessively high temperature or in areas having dry subsoil, lightly irrigate

b. Lay the first row of sod in a straight line with subsequent rows placed parallel to it and tightly

c. Wherever possible, lay sod with the long edges parallel to the contour and with staggering

d. Water the sod immediately following rolling and tamping until the underside of the new sod pad and soil surface below the sod are thoroughly wet. Complete the operations of laying, tamping

a. In the absence of adequate rainfall, water daily during the first week or as often and sufficiently

b. After the first week, sod watering is required as necessary to maintain adequate moisture

c. Do not mow until the sod is firmly rooted. No more than 1/2 of the grass leaf must be removed

AS-BUILT CERTIFICATION

NOTE: THERE IS NO "AS-BUILT" INFORMATION PROVIDED ON THIS SHEET.

MARYLAND REG. No. 27223 EXPIRATION DATE: MARCH 19, 2016

Theren

DAVID J. SHARON, PROFESSIONAL ENGINEER

DATE OF AS-BUILT : SEPTEMBER 2, 2014

by the initial cutting or subsequent cuttings. Maintain a grass height of at least 3 inches unless

as necessary to maintain moist soil to a depth of 4 inches. Water sod during the heat of the day

joints. Roll and tamp, peg or otherwise secure the sod to prevent slippage on slopes. Ensure

wedged against each other. Stagger lateral joints to promote more uniform growth and strength.

Ensure that sod is not stretched or overlapped and that all joints are butted tight in order to

transplanted within this period must be approved by an agronomist or soil scientist prior to its

AND THE PROPERTY OF THE PARTY O

size and shape when suspended vertically with a firm grasp on the upper 10 percent of the

Fertilizer Rate

P₂O₅

90 lb/ac

(21b/

1000 sf)

K₂0

1000 sf) 1000 sf)

2 tons/ac

90 lb/ac

(2 16/

Hardiness Zone (from Figure B.3): 6b

Rate (lb/ac)

B. Sod: To provide quick cover on disturbed areas (2:1 grade or flatter).

the subsoil immediately prior to laying the sod.

prevent voids which would cause air drying of the roots.

and irrigating for any piece of sod within eight hours.

solid contact exists between sod roots and the underlying soil surface.

the job foreman and inspector

Seed Mixture (from Table B.3):

1. General Specifications

SMITCH GRUSS 10

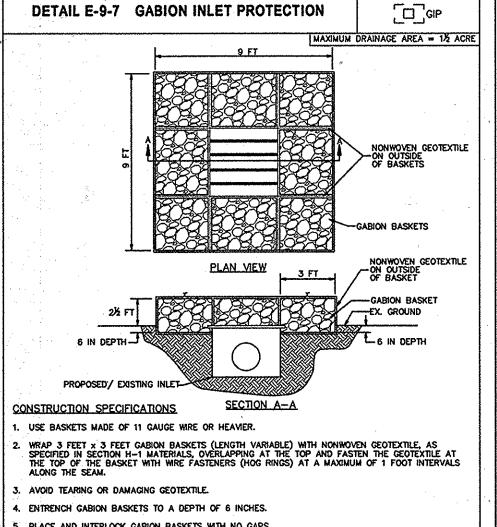
CREEPING RED 15

BUSH CLOVER 2

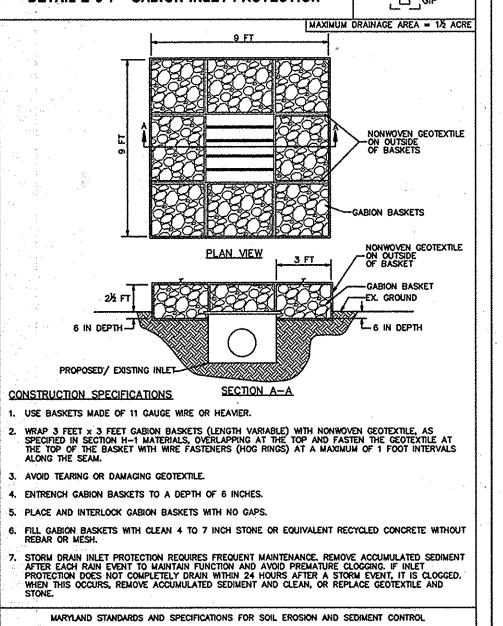
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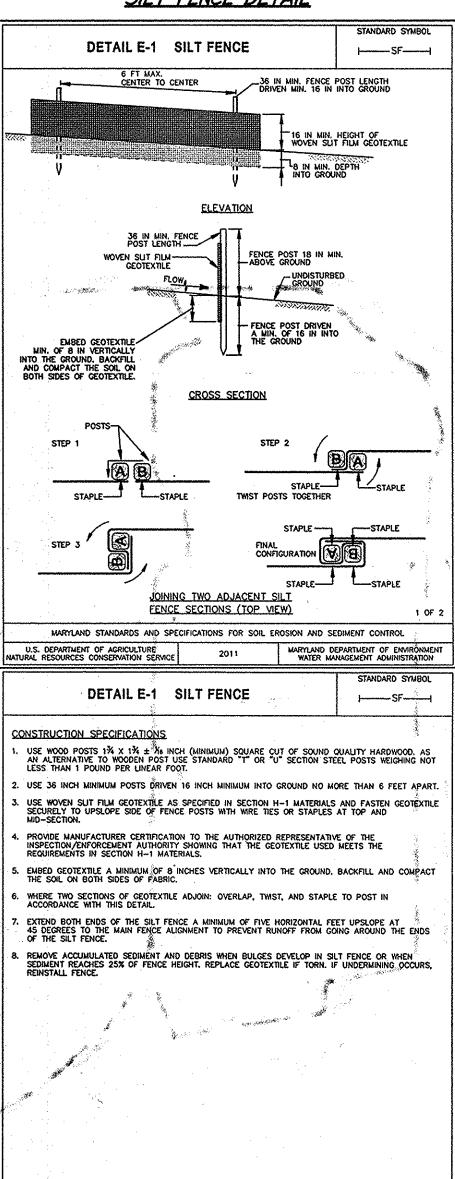
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David



GABION INLET PROTECTION (SEE NOTE 6 ON SHEET 5) STANDARD SYMBOL



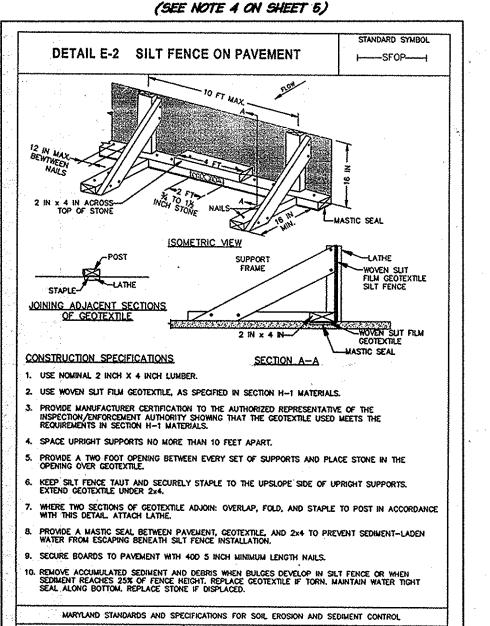


<u>SILT FENCE ON PAVEMENT</u>

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

2011

U.S. DEPARTMENT OF AGRICULTURE TURAL RESOURCES CONSERVATION SERVICE



2011

SILT FENCE DETAIL

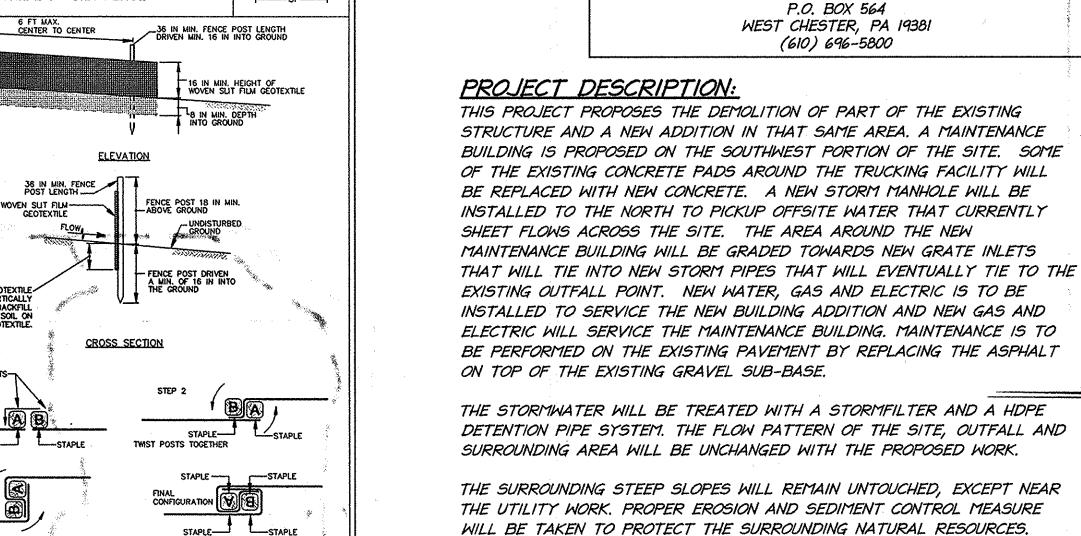
REVISION

RESTRIPE PARKING AREA

RED-LINE REVISIONS TO SHOW BLDG.

#2 ADDITION, MAINTENANCE BLDG. AND

REVISED AS-BUILTS PER HOWARD COUNTY COMMENTS 3/11/15



5/29/13

SEQUENCE OF CONSTRUCTION

REQUEST FOR A PRE-CONSTRUCTION MEETING WITH THE APPROPRIATE ENFORCEMENT AUTHORITY. (I DAY) 2. CLEARING AND GRUBBING AS NECESSARY FOR THE INSTALLATION OF

PPROVED: DEPARTMENT OF PLANNING AND ZONING

OWNER / DEVELOPER

A. DUIE PYLE

Chief, Development Engineering Division 🔒 👂

nief, Division of Land Development

manch milyell

PERIMETER CONTROLS. (10 DAYS) 3. INSTALL SUPER SILT FENCE AND AT-GRADE INLET PROTECTION (ON

EXISTING GRATE INLETS) AS SHOWN ON THE EROSION AND SEDIMENT CONTROL SHEET. (I DAY) 4. REMAINING CLEARING AND GRUBBING WITHIN THE INSTALLED

PERIMETER CONTROLS. (10 DAYS) 5. DEMOLITION OF THE EXISTING BUILDING. (10 DAYS) 6. INSTALL GAS, ELECTRIC, WATER AND STORM PIPE FROM EXISTING WOV TO MANHOLE #II, INLET #I2 AND MANHOLE #I3. (15 DAYS)

7. CONSTRUCTION OF THE OFFICE BUILDING ADDITION. (4 MONTHS) 8. ADD AT-GRADE INLET PROTECTION TO NEW INLETS. (I DAY) 9. DEMO THE EXISTING STORM MANHOLE FROM EX. WQV TO PROPOSED MANHOLE #13. (5 DAYS)

IO. BEGIN ROUGH GRADING AROUND MAINTENANCE BUILDING. (2 DAYS) II. INSTALL STORMFILTER AND CMP DETENTION SYSTEM. (5 DAYS) 12. CONSTRUCTION ON THE MAINTENANCE BUILDING MAY BEGIN. (4

MONTHS) 13. ROOF LEADERS CAN NOW BE INSTALLED AND TIE IN TO THE STORM SYSTEM. (5 DAYS)

14. COMPLETE RE-SURFACING OF LOT WITH CONCRETE OR ASPHALT, AS SHOWN ON THIS PLAN. (10 DAYS)

5. APPROVAL OF THE APPROPRIATE ENFORCEMENT AUTHORITY PRIOR TO REMOVAL OF SEDIMENT CONTROLS. (I DAY) 16. REMOVAL OF CONTROLS AND STABILIZATION OF AREAS THAT ARE

DISTURBED BY REMOVAL OF SEDIMENT CONTROLS. (I DAY)

Rev. 4/2013

DURATIONS SHOWN IN THE SEQUENCE OF CONSTRUCTION ARE SUBJECT TO CHANGE BASED ON SITE CONDITIONS.

> HOWARD SOIL CONSRVATION DISTRICT STANDARD SEDIMENT CONTROL NOTES

1. A minimum of 48 hours notice must be given to the Howard County Department of Inspections, Licenses and Permits, Sediment Control Division prior to the start of any construction (313-1855).

. All vegetative and structural practices are to be installed according to the provisions of this plan and are to be in conformance with the most current MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL

B. Following initial soil disturbance or re-disturbance, permanent or temporary stabilization shall be completed within: a) 3 calendar days for all perimeter sediment control structures, dikes, perimeter slopes and all slopes greater than 3:1, b) 7 days as to all other disturbed or graded areas on the project site.

All disturbed areas must be stabilized within the time period specified above in accordance with the 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for permanent seeding (Sec. B-4-5), temporary seeding (Sec. B-4-4) and mulching (Sec.B-4-3). Temporary stabilization with mulch alone can only be done when recommended seeding dates do not allow for proper germination and establishment of grasses.

5. All sediment control structures are to remain in place and are to be maintained in operative condition until permission for their removal has been obtained from the Howard County Sediment Control Inspector.

Site Analysis: Total Area of Site Area Disturbed Area to be roofed or paved Area to be vegetatively stabilized Acres Total Fill Cu. Yds. Offsite waste/borrow are location

Any sediment control practice that 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 Howard County Sediment

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

initial approval by the inspection agency is made. 10. Trenches for the construction of utilities is limited to three pipe lengths or that which shall be back-filled and stabilized by the end of each workday, whichever is shorter.

earth disturbance or grading. Other building or grading inspection approvals may not be authorized until this

Any changes or revisions to the sequence of construction must be reviewed and approved by the plan

approval authority prior to proceeding with construction.

12. A project is to be sequenced so that grading activities begin on one grading unit (maximum acreage of 20 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 be stabilized and approved by the enforcement authority. Unless otherwise specified and approved by the approval authority, no more than 30 acres cumulatively may be disturbed at a given time.

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11-21-13

11-22-13 Date

11/22/13 Date







5 ∞ S

PROJECT NO:13042.001.00 SCALE: N/A

DATE: 5/29/13

DESIGN: EG

DRAWN: EG CHECKED: DS SHEET No.

