SITE DEVELOPMENT PLAN
OWENS CORNING

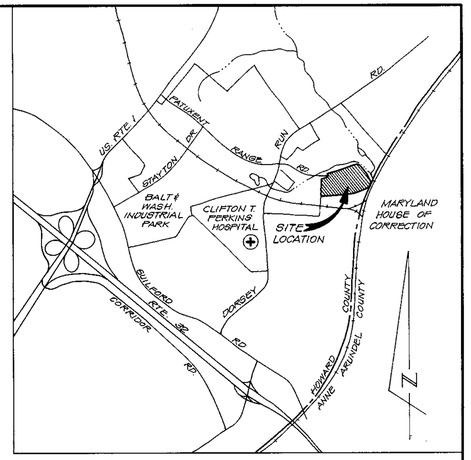
PARKING AND STORAGE FACILITY
AN ADDITION TO SDP 89-238

PATUXENT PARK INDUSTRIAL AREA
REVISED PLAT OF SECTION 2 PARCEL A

GENERAL NOTES

1. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL, VOLUME IV, i.e., STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION.
2. APPROXIMATE LOCATION OF EXISTING UTILITIES ARE SHOWN FROM BEST AVAILABLE INFORMATION. THE CONTRACTOR SHALL TAKE ALL 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.
3. CONTRACTOR TO NOTIFY THE FOLLOWING UTILITIES OR AGENCIES AT LEAST FIVE DAYS BEFORE STARTING WORK SHOWN ON THESE DRAWINGS.

MISS UTILITY	1-800-257-7777
C&P TELEPHONE COMPANY	725-9979
HOWARD COUNTY BUREAU OF UTILITIES	992-2366
AT&T CABLE LOCATION DIVERSION	393-3553
BALTIMORE GAS & ELECTRIC COMPANY	685-0123
STATE HIGHWAY ADMINISTRATION	531-5533
HOWARD COUNTY CONSTRUCTION / INSPECTION SURVEY DIVISION (24 HOURS NOTICE PRIOR TO COMMENCEMENT OF WORK)	*410-313-1880*



VICINITY MAP
SCALE: 1"=2000'

Site Analysis

A. Area of parcel.....14.07 ac. +/-
B. Zoning.....M-2
C. Proposed use.....Parking Addition and Storage Facility
D. Existing building designation / area / use / # of employees
   R-1 / 104,000 sf / office & warehouse / 44
   R-2 / 1,250 sf / Superheater house / 0
   R-3 / 48 sf / Guard house / 1
   R-4 / 4,450 sf / Maintenance / 0
   A-1 / 6,000 sf / office & pouring shed / 5
   A-2 / 6,000 sf / warehouse / 2
   A-3 / 6,000 sf / pouring shed / 2
   A-4 / 900 sf / office / 2
   Tanks, containment areas and paved areas / *6.89* ac. / drivers / 4
   Totals:
   Building Area.....128,648
   Employees.....60 (17 - office; 43 - production)
E. Total number of units allowed.....N/A
F. Total number of units provided.....8
G. Maximum number of employees / per use.....See D' above.
H. Parking Required: Based on factor from SDP # 89-238
   1 space per employee = 60 spaces (Exceeds)
   Zoning Ordinance requires 1 space per 2 employees.
I. Parking Provided:
   Existing - 65 spaces w/ 3 hdcp. (Minimum)
   Proposed- *18* standard spaces *+ 1 hdcp. (VAN ACC.)*
   Total - 83 spaces w/ 4 hdcp.
J. Open space area: Existing - 3.76 ac.; Proposed - *2.78 ac.*
   Percent of site area: Existing - 26.72 % ; Proposed - *19.76%*
K. Recreation open space area: N/A.
L. Building coverage area: 128,648 sf (Unchanged)
   Percent of site area: 20.99%

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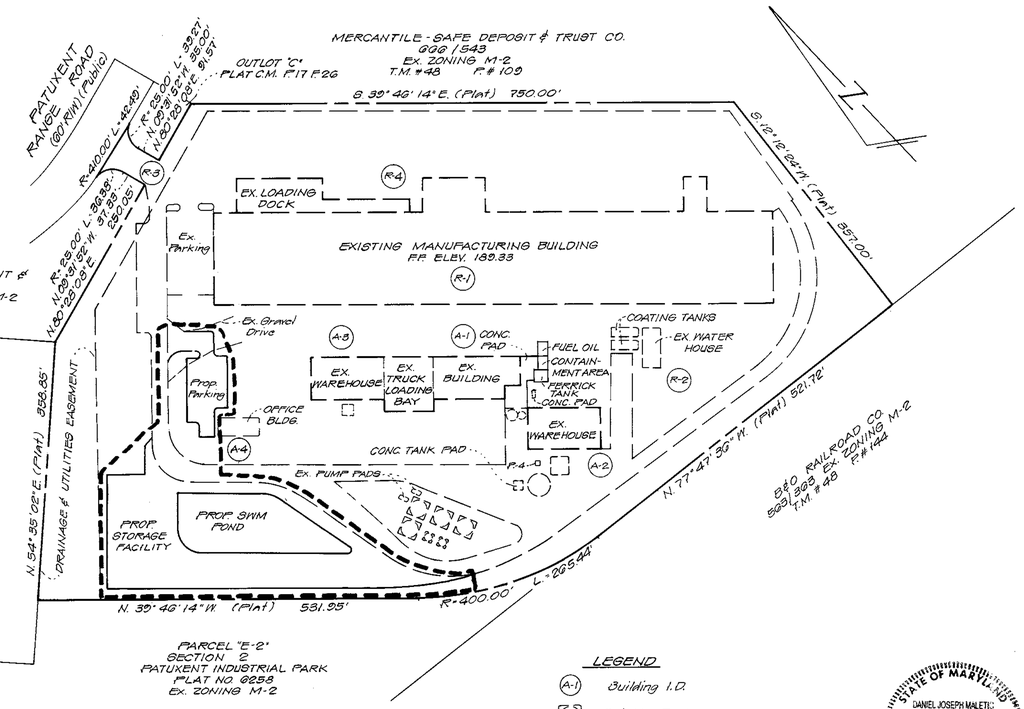

PLAN
SCALE 1" = 100'

1	TITLE SHEET
2	SITE DEVELOPMENT PLAN
3	DETAIL SHEET
4	DETAIL SHEET
5	SEDIMENT CONTROL PLAN
6	SED. CONT. NOTES & DETAILS
7	LANDSCAPE PLAN

OWNER / DEVELOPER
OWENS CORNING
8239 PATUXENT RANGE ROAD
JESSUP MARYLAND 20794

STATE OF MARYLAND
DANIEL JOSEPH MALETIC
No. 13759
REGISTERED PROFESSIONAL ENGINEER

AS-BUILT
July, 2000

APPROVED: HOWARD COUNTY DEPT. OF PLANNING AND ZONING.

CHIEF, DEVELOPMENT ENG. DIVISION — DATE 5/24/98
CHIEF, DIVISION OF LAND DEVELOPMENT — DATE 6/1/98
DIRECTOR — DATE 6/1/98

STATE OF MARYLAND
DANIEL JOSEPH MALETIC
No. 13759
REGISTERED PROFESSIONAL ENGINEER

PROJ. MGR.	D.J.
DESIGNED	D.A.
DRAWN	A.S.
CHECKED	D.A.

DATE	REVISIONS	BY

GPI GREENMAN-PEDERSEN, INC.
ENGINEERS, ARCHITECTS, PLANNERS, CONSTRUCTION ENGINEERS & INSPECTORS
14502 GREENVIEW DRIVE, SUITE 100, LAUREL, MD. 20708
WASH. (301) 470-2772 BALT. (410) 880-3055
FAX: (301) 490-2649 www.gpinet.com

ADDRESS CHART

LOT NUMBER	STREET ADDRESS
PARCEL 'A'	8239 PATUXENT RANGE ROAD

SUBDIVISION NAME: PATUXENT PARK INDUSTRIAL AREA			SECT./AREA SEC. 2		LOT/PARCEL # PARCEL-A
PLAT# OR L/F	BLOCK #	ZONE	TAX/ZONE MAP	ELEC. DIST.	CENSUS TR
P.B. 17 F.26	2 & 3	M-2	48	6th	6064
WATER CODE B 02			SEWER CODE		

OWENS CORNING
PARKING ADDITION & STORAGE FACILITY

TITLE SHEET

REF: SDP 82-108, SDP 85-137, F 68-68, SDP 89-59

DATE	PROJECT No.
11/21/97	97173.02
SCALE AS SHOWN	SHEET 1 OF 7

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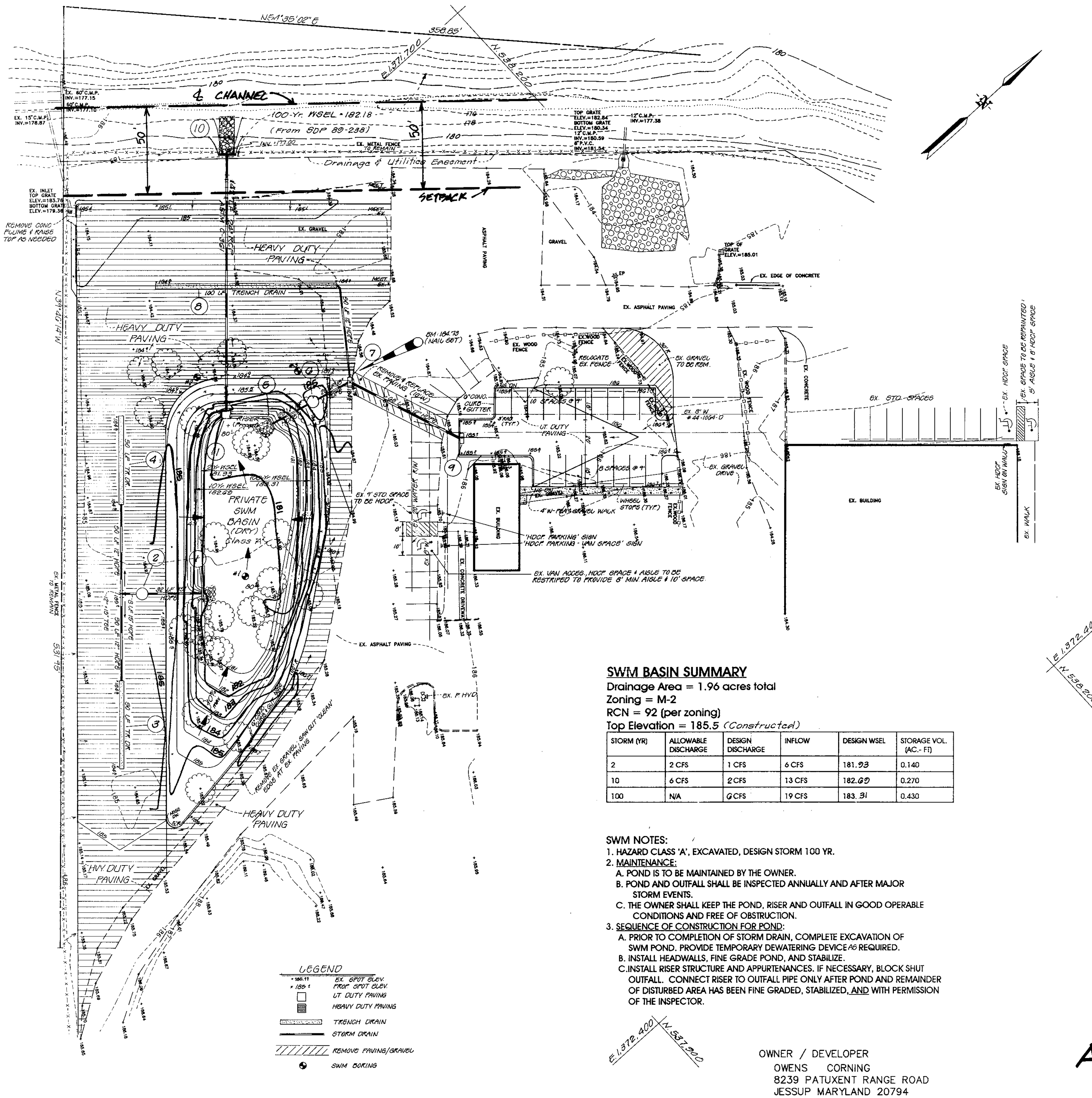
SDP-98-65



SWM BASIN SUMMARY

Drainage Area = 1.96 acres total
Zoning = M-2
RCN = 92 (per zoning)
Top Elevation = 185.5 (Constructed)

STORM (YR)	ALLOWABLE DISCHARGE	DESIGN DISCHARGE	INFLOW	DESIGN WSEL	STORAGE VOL. (AC.- FT)
2	2 CFS	1 CFS	6 CFS	181.93	0.140
10	6 CFS	2 CFS	13 CFS	182.69	0.270
100	N/A	6 CFS	19 CFS	183.31	0.430

SWM NOTES:
1. HAZARD CLASS 'A', EXCAVATED, DESIGN STORM 100 YR.
2. MAINTENANCE:
   A. POND IS TO BE MAINTAINED BY THE OWNER.
   B. POND AND OUTFALL SHALL BE INSPECTED ANNUALLY AND AFTER MAJOR STORM EVENTS.
   C. THE OWNER SHALL KEEP THE POND, RISER AND OUTFALL IN GOOD OPERABLE CONDITIONS AND FREE OF OBSTRUCTION.
3. SEQUENCE OF CONSTRUCTION FOR POND:
   A. PRIOR TO COMPLETION OF STORM DRAIN, COMPLETE EXCAVATION OF SWM POND. PROVIDE TEMPORARY DEWATERING DEVICE AS REQUIRED.
   B. INSTALL HEADWALLS, FINE GRADE POND, AND STABILIZE.
   C. INSTALL RISER STRUCTURE AND APPURTENANCES. IF NECESSARY, BLOCK SHUT OUTFALL. CONNECT RISER TO OUTFALL PIPE ONLY AFTER POND AND REMAINDER OF DISTURBED AREA HAS BEEN FINE GRADED, STABILIZED, AND WITH PERMISSION OF THE INSPECTOR.

OWNER / DEVELOPER
OWENS CORNING
8239 PATUXENT RANGE ROAD
JESSUP MARYLAND 20794

* POND SPECIFICATIONS *

SPECIFICATIONS

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

Site Preparation

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

Areas to be covered by the reservoir will be cleared of all trees, brush, logs, fences, rubbish and other objectionable material unless otherwise designated on the plans. Trees, brush and stumps shall be cut approximately level with the ground surface. For dry stormwater management ponds, a minimum of a 50 foot radius around the inlet structure shall be cleared.

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

Earth Fill

Material - The fill material shall be taken from approved designated borrow areas. It shall be free of roots, stumps, wood, rubbish, stones greater than 6", frozen or other objectionable materials. Fill material for the center of the embankment and cut off trench shall conform to Unified Soil Classification GC, SC, CH, or CL. ~~Consideration may be given to the use of other materials in the embankment if design and construction are supervised by a geotechnical engineer.~~

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

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

Where a minimum required density is specified, it shall not be less than 95% of maximum dry density with a moisture content within ±2% of the optimum. Each layer of fill shall be compacted as necessary to obtain that density, and is to be certified by the Engineer at the time of construction. All compaction is to be determined by AASHTO Method T-99.

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

Structure Backfill

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

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 - (Steel Pipe) - This pipe and its appurtenances shall be galvanized and fully bituminous coated and shall conform to the requirements of AASHTO Specification M-190 Type A with watertight coupling bands. Any bituminous coating damaged or otherwise removed shall be replaced with cold applied bituminous coating compound. Steel pipes with polymeric coatings shall have a minimum coating thickness of 0.01 inch (10 mil) on both sides of the pipe. The following coatings or an approved equal may be used: Nexon, Plasti-Cote, Blac-Klad, and Beth-Cu-Loy. Coated corrugated steel pipe shall meet the requirements of AASHTO M-245 and M-246.

   Materials - (Aluminum Coated Steel Pipe) - This pipe and its appurtenances shall conform to the requirements of AASHTO Specification M-274 with watertight coupling bands or flanges. Any aluminum coating damaged or otherwise removed shall be replaced with cold applied bituminous coating compound.

   Materials - (Aluminum Pipe) - This pipe and its appurtenances shall conform to the requirements of AASHTO Specification M-196 or M-211 with watertight coupling bands or flanges. Aluminum surfaces that are to be in contact with concrete shall be painted with one coat of zinc chromate primer. Hot dip galvanized bolts may be used for connections. The pH of the surrounding soils shall be between 4 and 9.

2. Coupling bands, anti-seep collars, end sections, etc., must be composed of the same material as the pipe. Metals must be insulated from dissimilar materials with use of rubber or plastic insulating materials 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. Anti-seep collars shall be connected to the pipe in such a manner as to be completely watertight. Dimple bands are not considered to be watertight.

   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. The following type connections are acceptable for pipes less than 24" in diameter: flanges on both ends of the pipe, a 12" wide standard lap type band with 12" wide by 3/8" thick closed cell circular neoprene gasket; and a 12" wide hugger type band with 0-ring gaskets having a minimum diameter of 1/2" greater than the corrugation depth. Pipes 24" in diameter and larger shall be connected by a 24" long annular corrugated band using rods and lugs. A 12" wide by 3/8" thick closed cell circular neoprene gasket will be installed on the end of each pipe for a total of 24".

   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 for their entire length. This bedding shall consist of high slump concrete placed under the pipe and up the sides of the pipe at least 10% of its outside diameter with a minimum thickness of 3 inches, or as shown on the drawings.

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 of the material. After the joints are sealed for the entire line, the bedding shall be placed so that all spaces under the pipe are filled. Care shall be exercised to prevent any deviation from the original line and grade of the pipe. The first joint must be located within 2 feet from the riser.

4. Backfilling shall conform to "Structure Backfill."

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

Polyvinyl Chloride (PVC) Pipe - All of the following criteria shall apply for polyvinyl chloride (PVC) pipe:

1. Materials - PVC pipe shall be PVC-1120 or PVC-1220 conforming to ASTM D-1785 or ASTM D-2241.

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 301 and 902.01.

The riprap shall be placed to the required thickness in one operation. The rock shall be delivered and placed in a manner that will insure the riprap in place shall be reasonably homogeneous with the larger rocks uniformly distributed and firmly in contact one to another with the smaller rocks filling the voids between the larger rocks. Filter cloth 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

Care of Water during Construction

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

Stabilization

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

Erosion and Sediment Control

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

OPERATION AND MAINTENANCE SCHEDULE FOR STORMCEPTOR WATER QUALITY DEVICE

1. The Stormceptor water quality structure shall be periodically inspected and cleaned to maintain operation and function. The owner shall inspect the Stormceptor unit yearly at a minimum, utilizing the Stormceptor Inspection/Monitoring Form. Inspections shall be done by using a clear Plexiglass tube ("sludge judge") to extract a water column sample. When the sediment depths exceed the level specified in Table 6 of the Stormceptor Technical Manual, the unit must be cleaned.

2. The Stormceptor water quality structure shall be checked and cleaned immediately after petroleum spills. The owner shall contact the appropriate regulatory agencies.

3. The maintenance of the Stormceptor unit shall be done using a vacuum truck which will remove the water, sediment, debris, floating hydrocarbons and other materials in the unit. Proper cleaning and disposal of the removed materials and liquid must be followed by the owner.

4. The inlet and outlet pipes shall be checked for any obstructions at least once every six months. If obstructions are found the owner shall have them removed. Structural parts of the Stormceptor unit shall be repaired as needed.

5. The owner shall retain and make the Stormceptor Inspection/Monitoring Forms available the Howard County officials upon their request.

Operation and Maintenance Schedule of Privately Owned and Maintained Stormwater Management Facility Detention Pond

Routine Maintenance

1. Facility shall be inspected annually and after major storms. Inspections should be performed during wet weather to determine if the pond is functioning properly.

2. top and side slopes of the embankment shall be mowed a minimum of two (2) times a year, once in June and once in September. Other side slopes and maintenance access should be mowed as needed.

3. Debris and litter next to the outlet structure shall be removed during regular mowing operations and as needed.

4. Visible signs of erosion in the pond as well as riprap outlet area shall be repaired as soon as it is noticed.

Non-Routine Maintenance

1. Structural components of the pond such as the dam, the riser, and the pipe shall be repaired upon the detection of any damage. The components should be inspected during routine maintenance operations.

2. Sediment should be removed when its accumulation significantly reduce 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.

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N 538,200

STATE OF MARYLAND
DANIEL JOSEPH MALETIC
No. 13759
REGISTERED PROFESSIONAL ENGINEER

AS-BUILT
July, 2000

APPROVED: HOWARD COUNTY DEPT. OF PLANNING AND ZONING.

Signature	Date
CHIEF, DEVELOPMENT ENGINEERING DIVISION	5/22/98
CHIEF, DIV. OF LAND DEVELOPMENT	6/1/98
DIRECTOR	6/1/98

STATE OF MARYLAND
DANIEL JOSEPH MALETIC
No. 13759
REGISTERED PROFESSIONAL ENGINEER

PROJ. MGR.	DJ
DESIGNED	RDA
DRAWN	RDA/ID
CHECKED	DJ

DATE	REVISIONS	BY

GPI
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WASH. (301) 470-2772 BALT. (410) 880-3055
FAX: (301) 490-2649 www.gpinet.com

ADDRESS CHART

LOT NUMBER	STREET ADDRESS
PARCEL 'A'	8239 PATUXENT RANGE ROAD

SUBDIVISION NAME: PATUXENT PARK INDUSTRIAL AREA		SECT./AREA SEC. 2		LOT/PARCEL # PARCEL-A	
PLAT# OR L/F	BLOCK #	ZONE	TAX/ZONE MAP	ELEC. DIST.	CENSUS TR
P.B. 17 F.26	2 & 3	M-2	48	6th	6064
WATER CODE B 02			SEWER CODE		

OWENS CORNING
PARKING ADDITION & STORAGE FACILITY

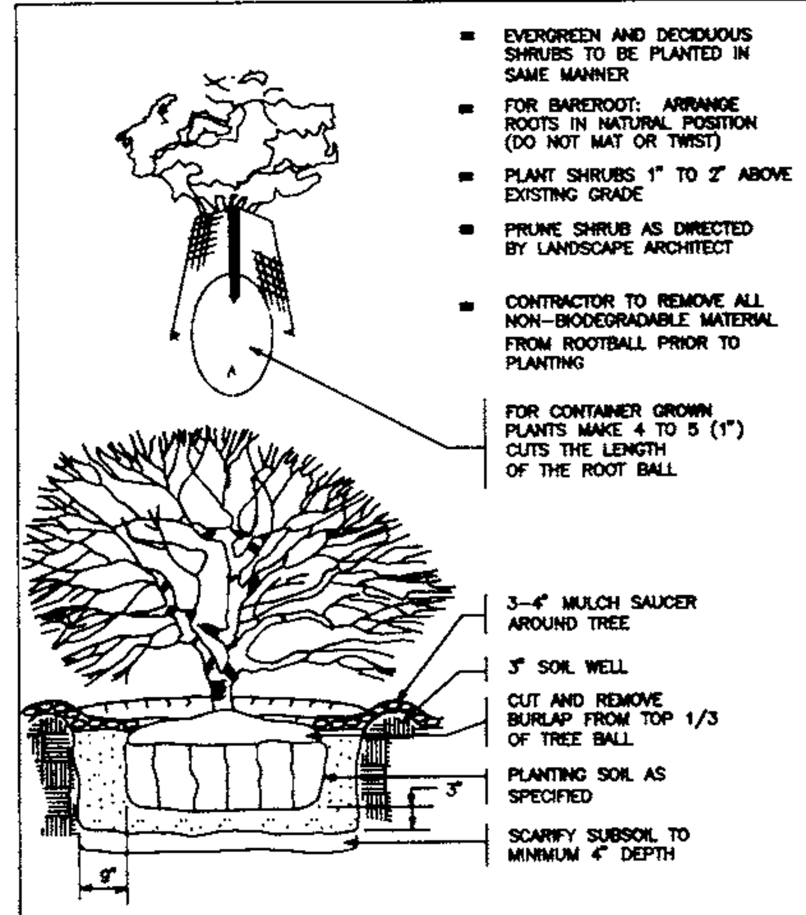
SITE DEVELOPMENT PLAN

SWM POND AS-BUILT

REF: SDP 82-108, SDP 85-137, F 68-68, SDP 89-59

DATE	PROJECT No.
11/21/97	97173
SCALE	SHEET
1" = 30'	2 OF 7

N:\PROJECTS\97173\DWG\SP01OWEN.DWG
SDP-98-65



SHRUB PLANTING DETAIL
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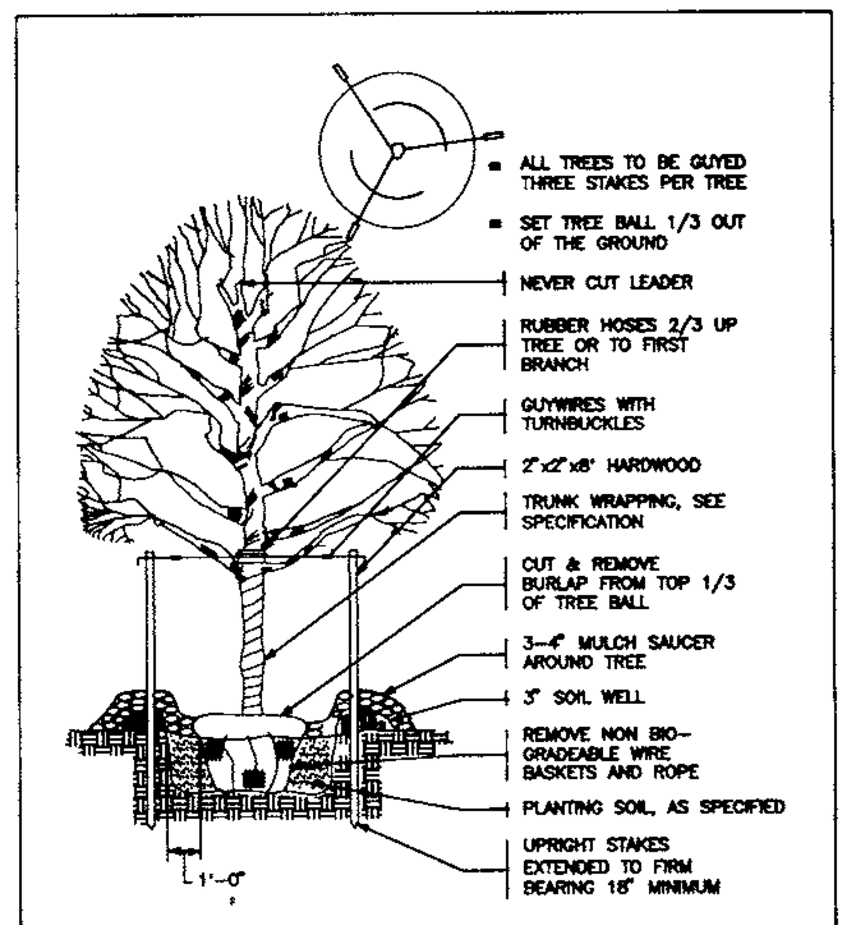

DECIDUOUS TREE PLANTING DETAIL
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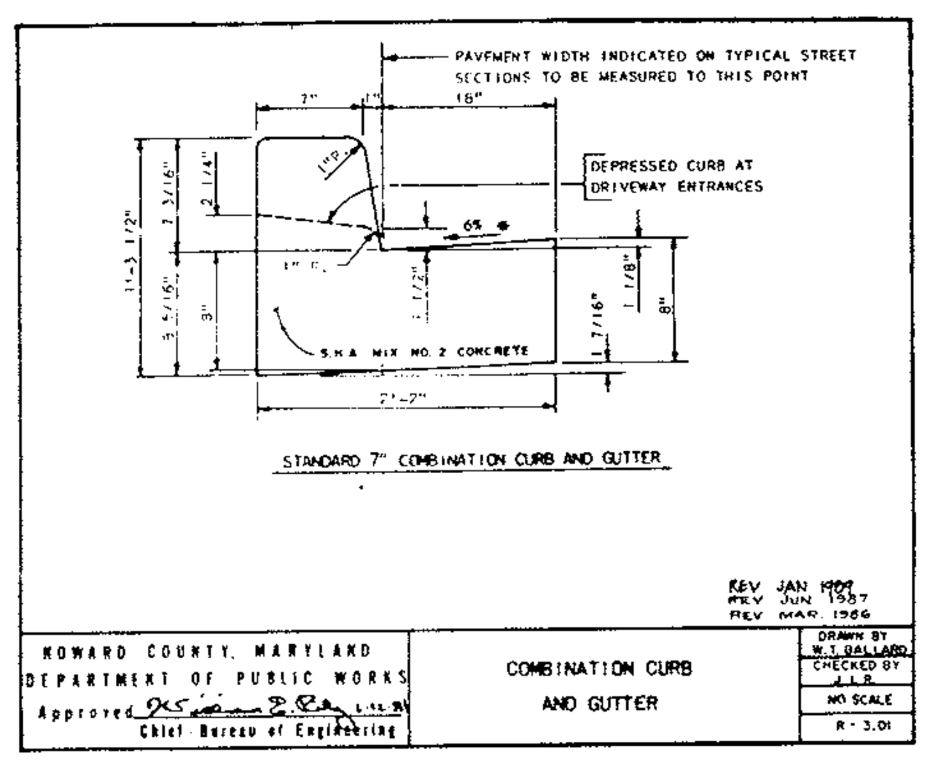
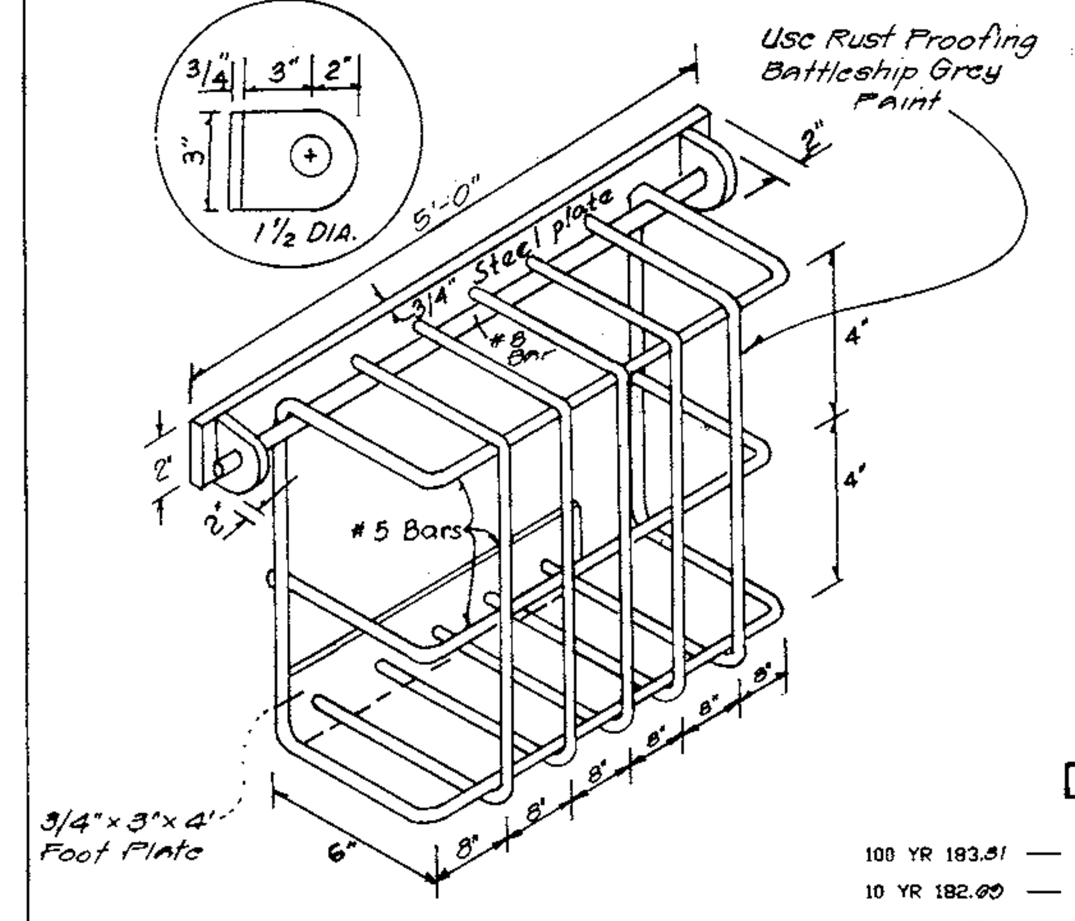
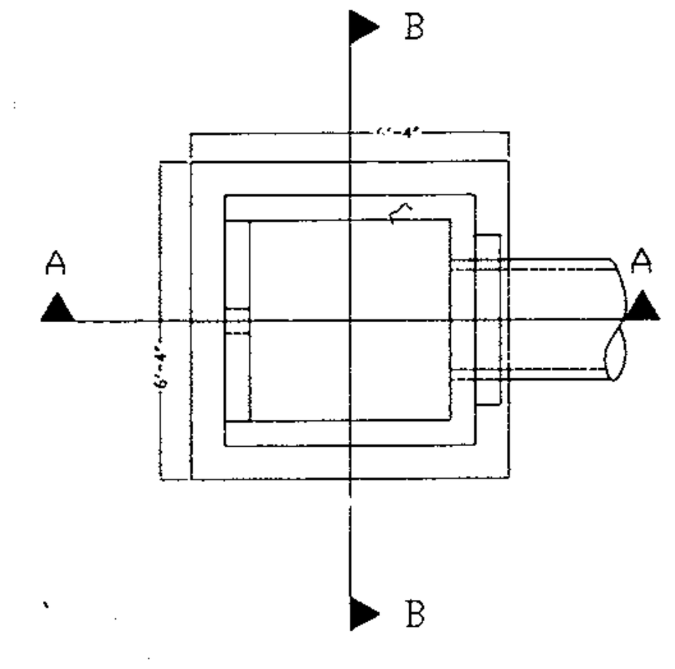
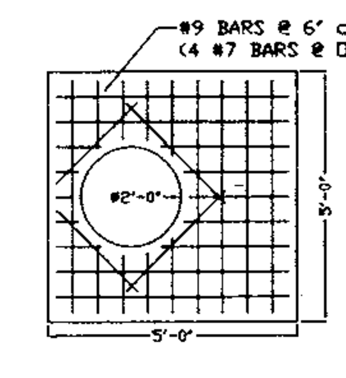




OVERFLOW WEIR



PLAN UNDER SLAB



TOP SLAB PLAN

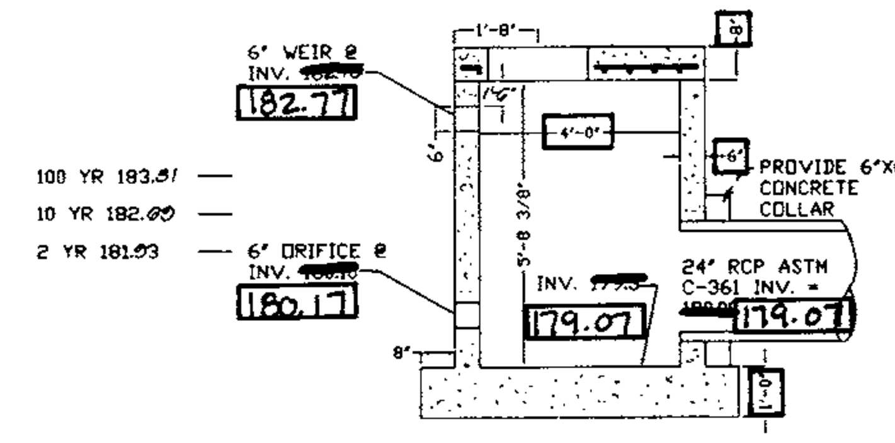
PRECAST RISER NOTES:

1. 4000 PSI CONCRETE (28 DAY) & GRADE 60 STEEL (ASTM A-615) TO BE USED IN THE FABRICATION OF THE PRECAST RISER AND ITS COMPONENTS.

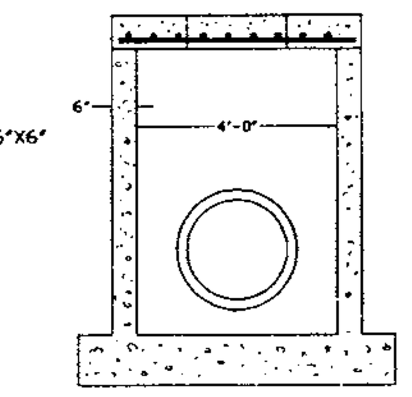
2. TRASH RACKS SHALL BE REMOVEABLE AND BOLTED TO THE RISER. THE BOLTS SHALL BE MINIMUM 1/2" DIA. @ 12" C.C. CAST INTO THE STRUCTURE.

3. THE CONTRACTOR SHALL PROVIDE SHOP DRAWINGS SEALED BY A REGISTERED STRUCTURAL ENGINEER FOR APPROVAL PRIOR TO FABRICATION.

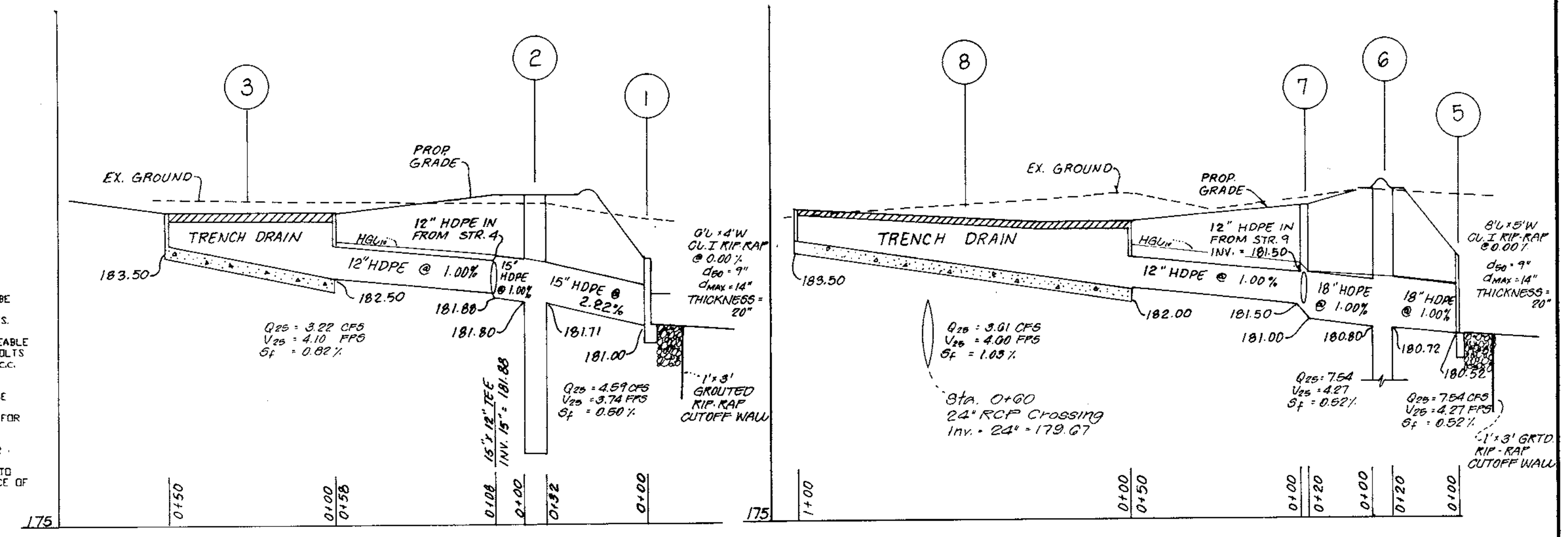
4. PROVIDE MINIMUM 1' COVER OVER OUTFALL PIPE AT THE BACK OF STRUCTURE WITH A SMOOTH GRADE TO THE LOW FLOW INVERT AT THE FACE OF STRUCTURE.

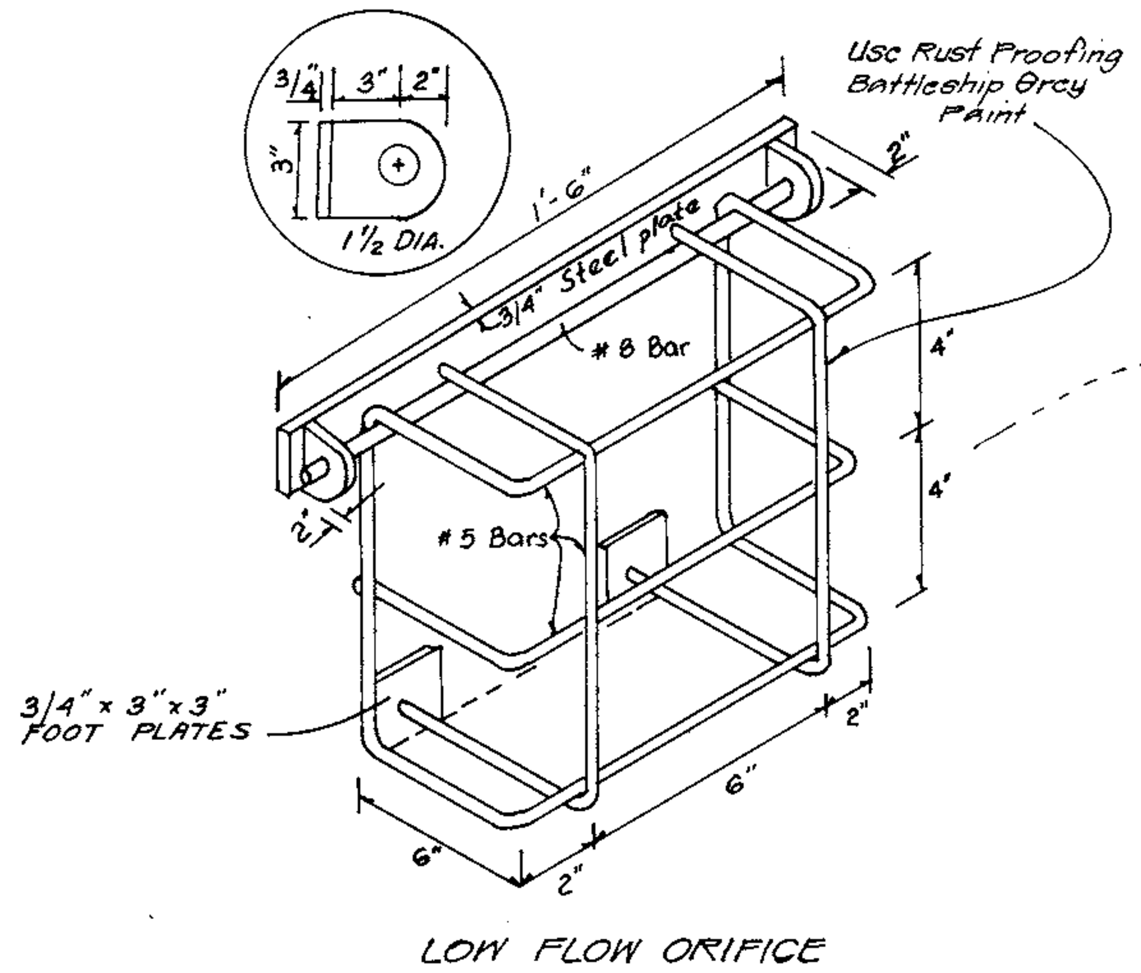


SECTION A-A

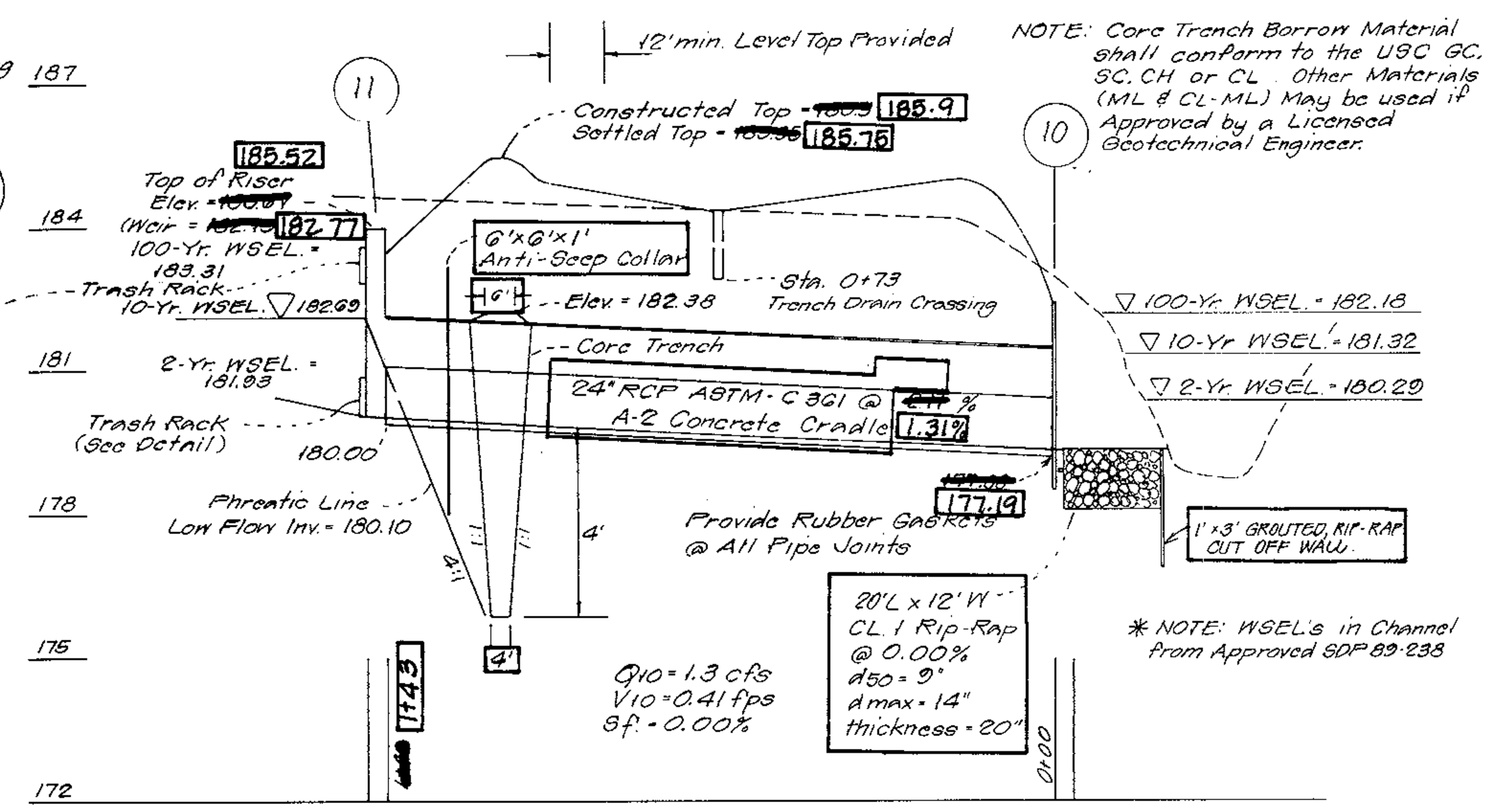


SECTION B-B





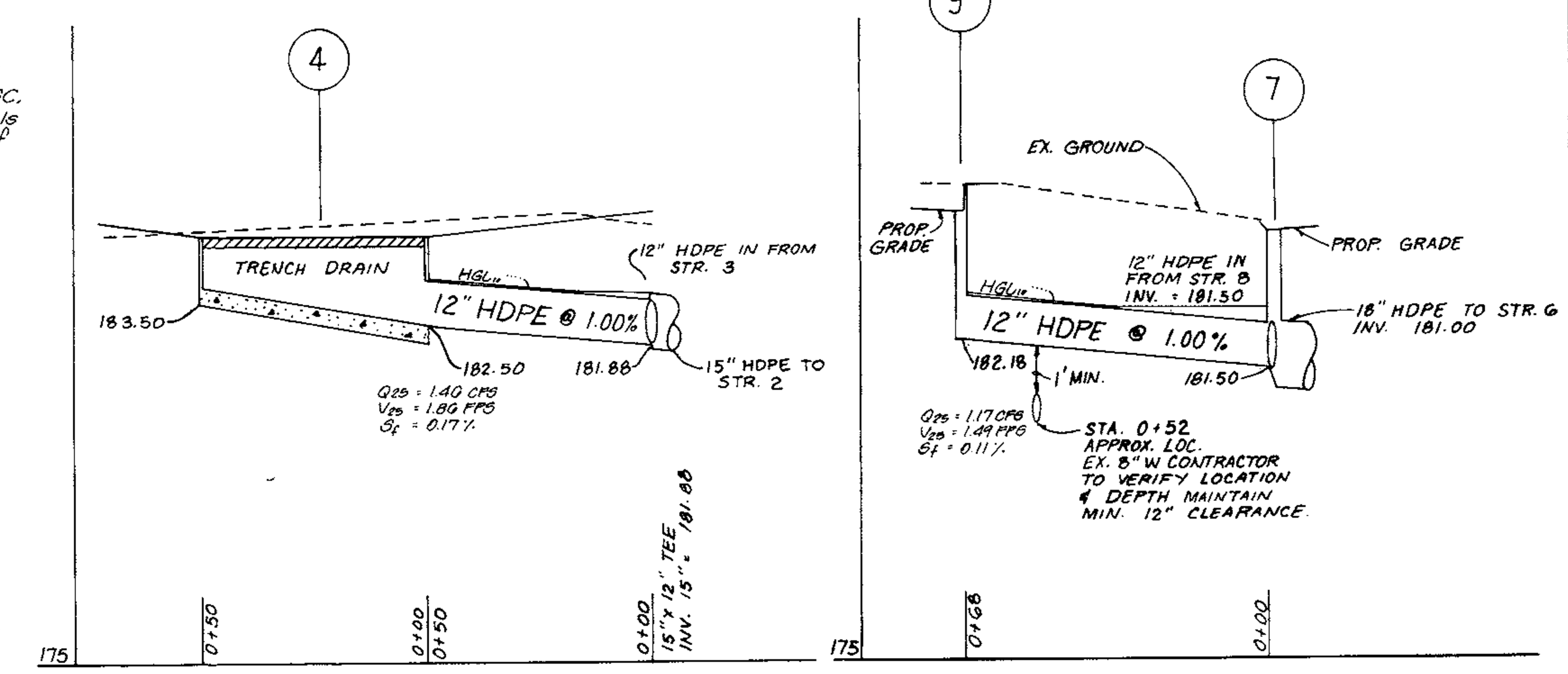
TRASH RACK DETAILS
NTS



NOTE: Core Trench Borrow Material Shall conform to the USC GC, SC, CH or CL. Other Materials (ML & CL-ML) May be used if Approved by a Licensed Geotechnical Engineer.

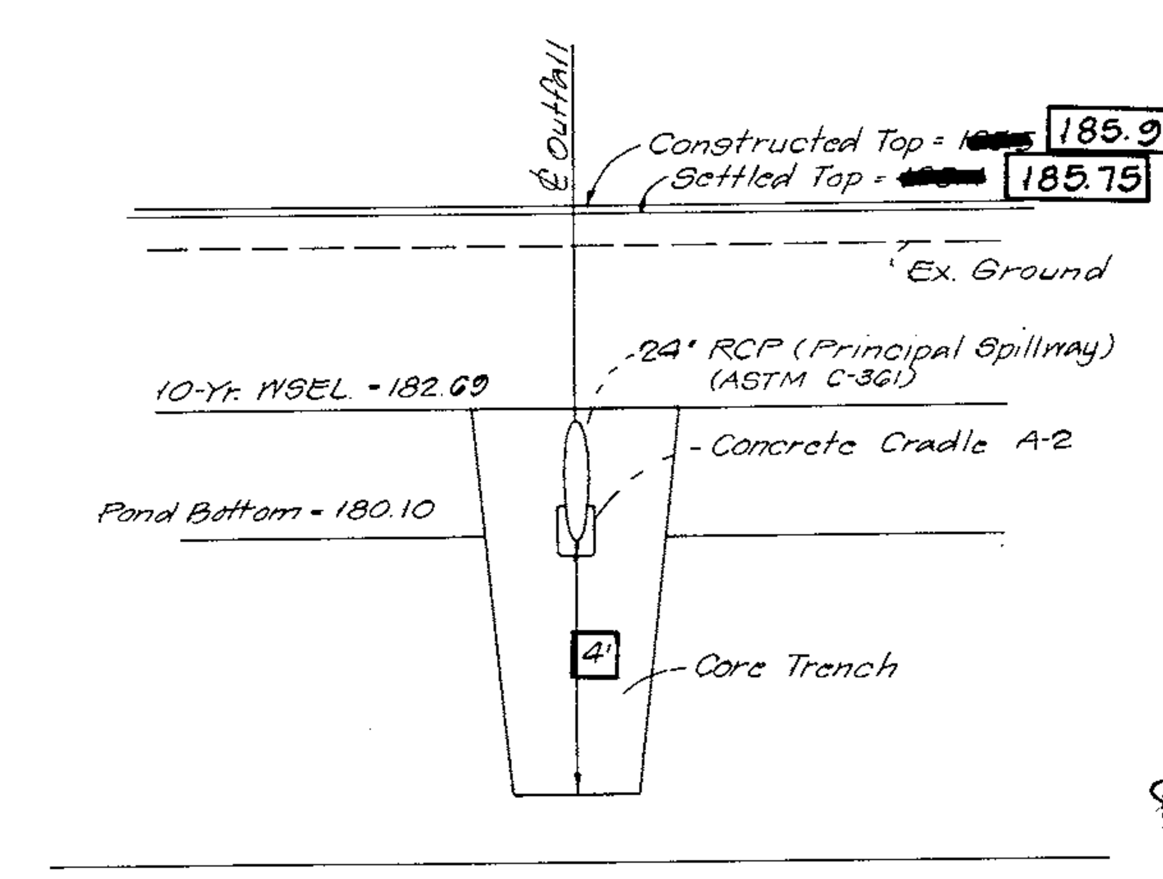
* NOTE: WSEL's in Channel from Approved SDP 89-238

PROFILE THROUGH EMBANKMENT
Scale: Horiz. = 1" = 30'
Vert. = 1" = 3'



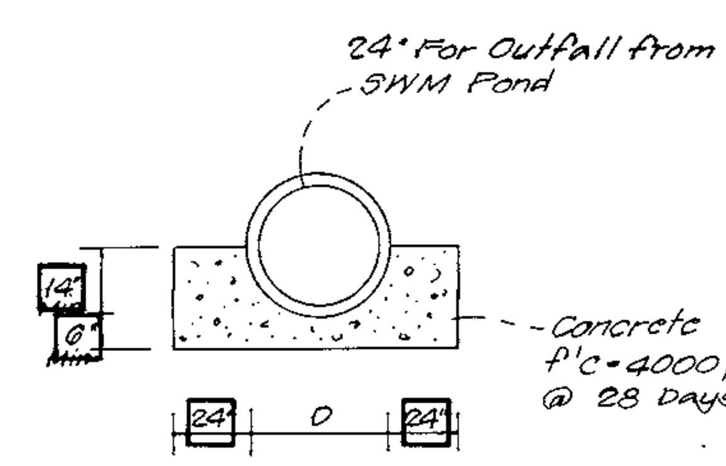
NOTE:
ALL HDPE PIPE SHALL BE ADS N-12 OR ENGINEER APPROVED EQUAL.

PROFILES
SCALE: HOR. = 1" = 30'
VERT. = 1" = 3'

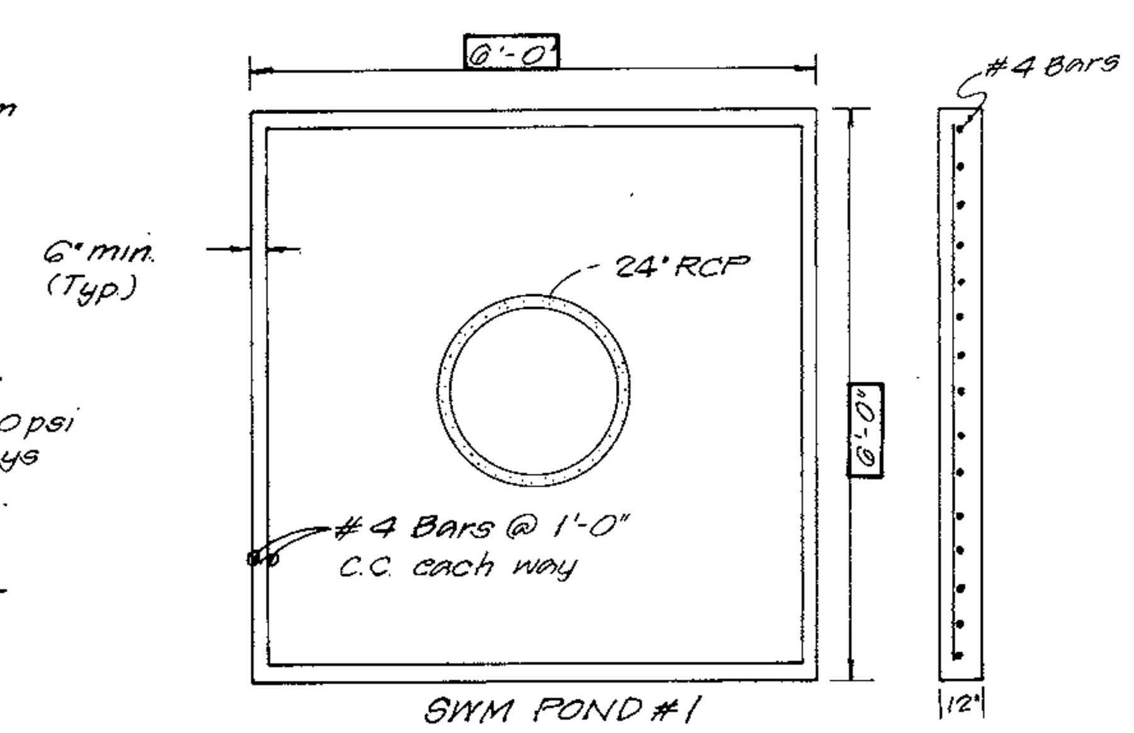


CROSS-SECTION OF DAM
Scale Horiz. 1" = 30'
Vert 1" = 3'

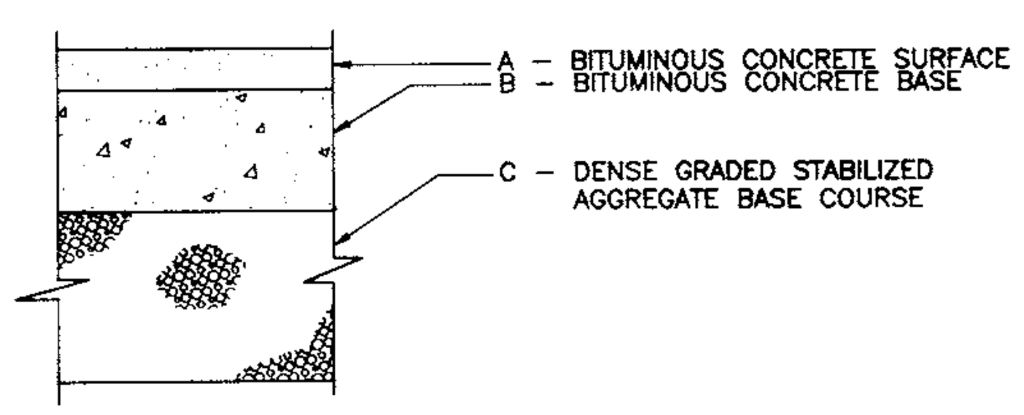
AS-BUILT
July, 2000



A-2 CONCRETE CRADLE DETAIL



ANTI-SEEP COLLAR (N.T.S.)



TYPICAL PAVING SECTIONS
N.T.S.

Letter	LIGHT DUTY	HEAVY DUTY
A	2"	2"
B	3"	4"
C	8" *	12"

* Cement Stabilized Subgrade 50#/ Sq. Yd.

NOTE:
1. UNSUITABLE MATERIAL MUST BE REMOVED AND REPLACED WITH SUITABLE MATERIAL TO A DEPTH DIRECTED BY THE ENGINEER.
2. GENERAL SITE PREPARATION PER GTA REPORT.
3. COMPACT SUBGRADE TO 95% PROCTOR PLUS OR MINUS 2% OPTIMUM MOISTURE PER GTA REPORT
4. GEOTECHNICAL FABRIC PER SYSCO SPECS.

OWNER / DEVELOPER
OWENS CORNING
8239 PATUXENT RANGE ROAD
JESSUP MARYLAND 20794

APPROVED: HOWARD COUNTY DEPT. OF PLANNING AND ZONING
CHEIF, DEVELOPMENT ENG. DIVISION — DATE 5/22/98
CHEIF, DIVISION OF LAND DEVELOPMENT — DATE 6/1/98
DIRECTOR — DATE 6/1/98

STATE OF MARYLAND — DANIEL JOSEPH MALETIC — No. 13759 — REGISTERED PROFESSIONAL ENGINEER

PROJ. MGR. D.J.			
DESIGNED D.A.			
DRAWN			
CHECKED D.A.	DATE	REVISIONS	BY

GPI GREENMAN-PEDERSEN, INC.
ENGINEERS, ARCHITECTS, PLANNERS, CONSTRUCTION ENGINEERS & INSPECTORS
14502 GREENVIEW DRIVE, SUITE 100, LAUREL, MD. 20708
WASH. (301) 470-2772 BALT. (410) 880-3055
FAX: (301) 490-2649 www.gpinet.com

ADDRESS CHART

LOT NUMBER	STREET ADDRESS
PARCEL 'A'	8239 PATUXENT RANGE ROAD

SUBDIVISION NAME: PATUXENT PARK INDUSTRIAL AREA			SECT./AREA SEC. 2	LOT/PARCEL # PARCEL-A	
PLAT# OR L/F	BLOCK #	ZONE	TAX/ZONE MAP	ELEC. DIST.	CENSUS TR
P.B. 17 F.26	2 & 3	M-2	48	6th	6064
WATER CODE B 02			SEWER CODE		

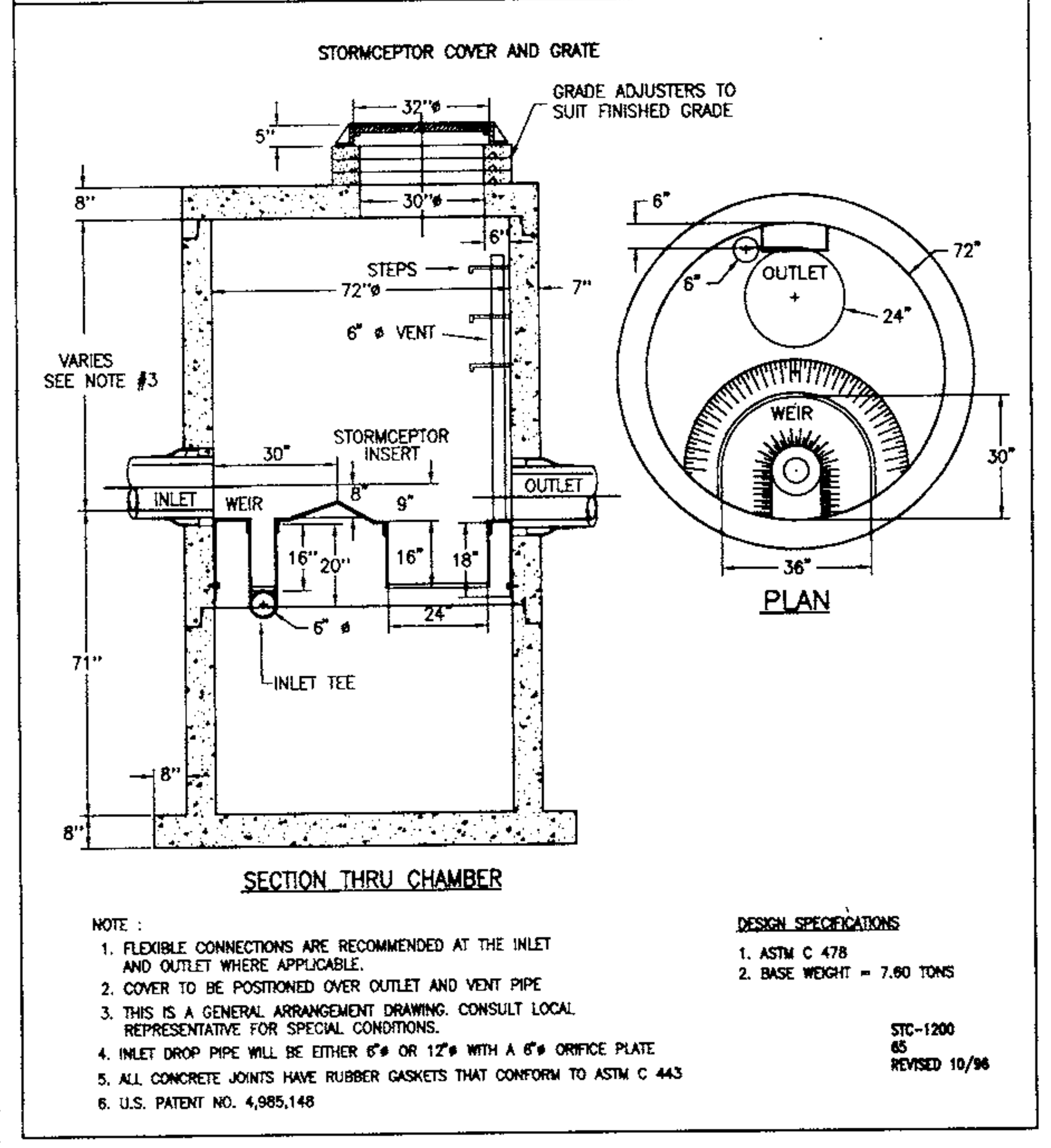
OWENS CORNING
PARKING ADDITION & STORAGE FACILITY

DETAILS SHEET
SWM POND AS-BUILT

DATE	PROJECT No.
11/19/97	97173.02
SCALE	SHEET
AS SHOWN	3 OF 7

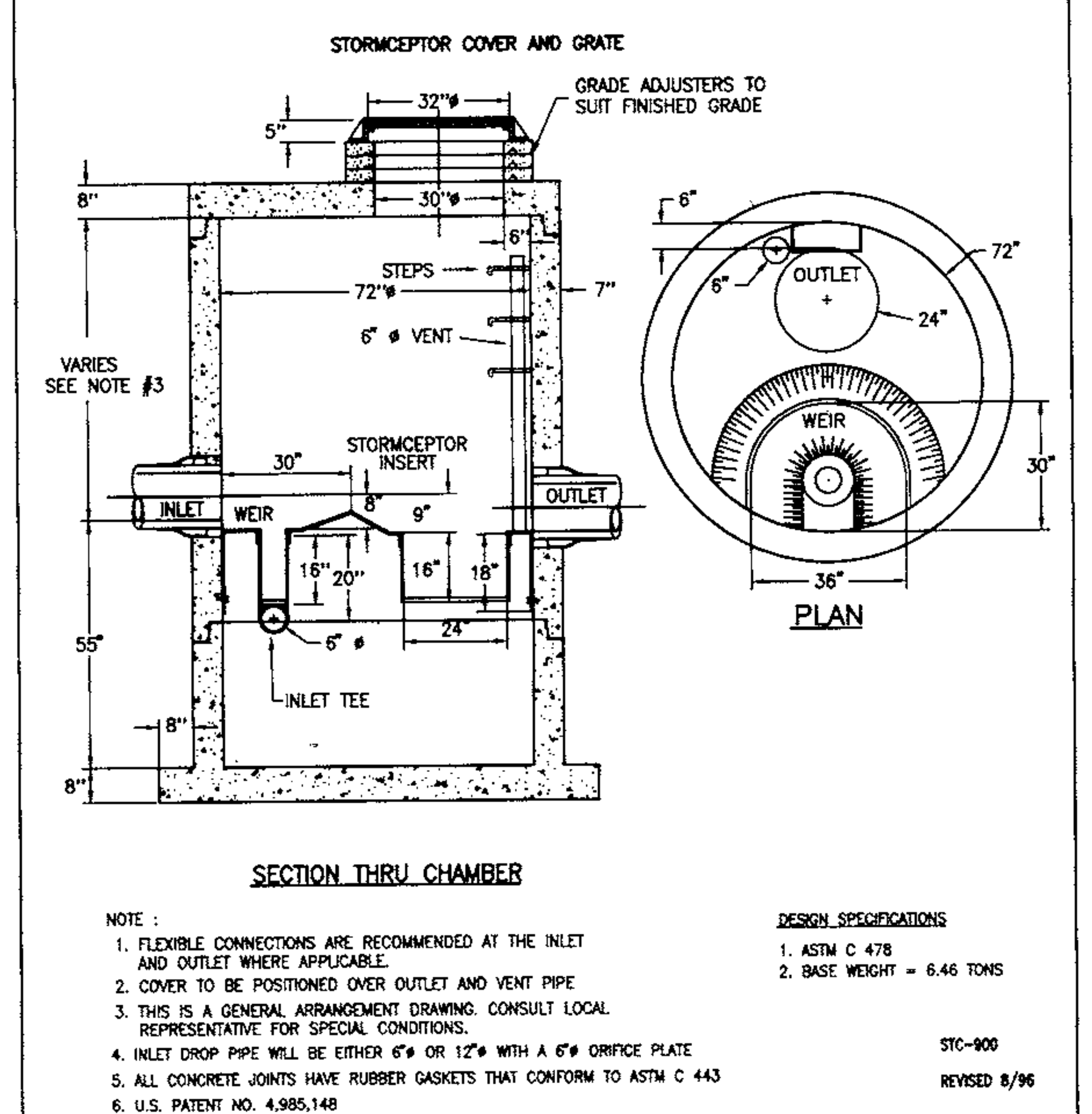
SDP-98-65

STC 1200 Precast Concrete Stormceptor®
(1200 US Gallon Capacity)
(Disc Design)



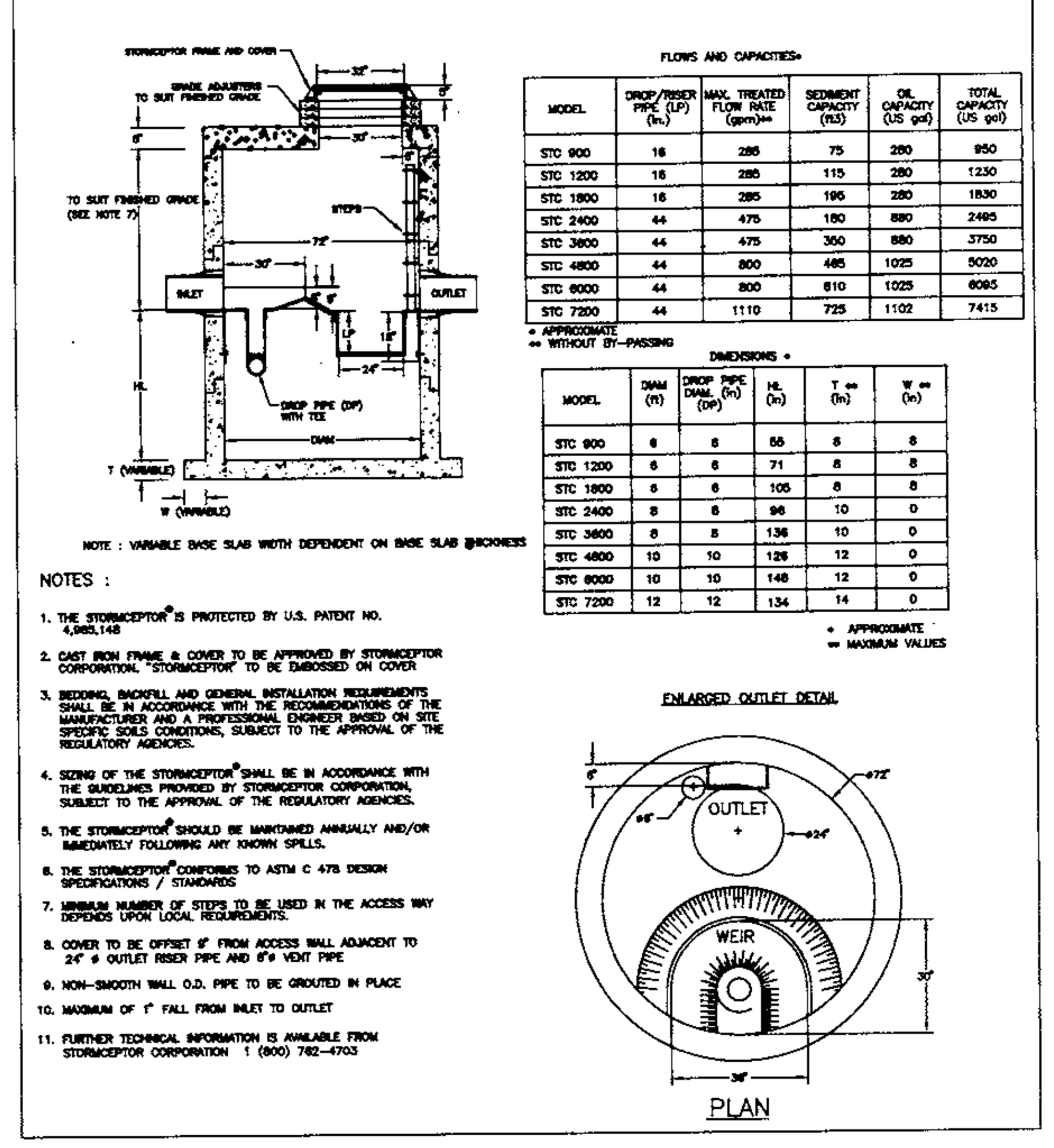
NOTE :
1. FLEXIBLE CONNECTIONS ARE RECOMMENDED AT THE INLET AND OUTLET WHERE APPLICABLE.
2. COVER TO BE POSITIONED OVER OUTLET AND VENT PIPE
3. THIS IS A GENERAL ARRANGEMENT DRAWING. CONSULT LOCAL REPRESENTATIVE FOR SPECIAL CONDITIONS.
4. INLET DROP PIPE WILL BE EITHER 6"ø OR 12"ø WITH A 6"ø ORIFICE PLATE
5. ALL CONCRETE JOINTS HAVE RUBBER GASKETS THAT CONFORM TO ASTM C 443
6. U.S. PATENT NO. 4,985,148

STC 900 Precast Concrete Stormceptor®
(900 US Gallon Capacity)
(Disc Design)



NOTE :
1. FLEXIBLE CONNECTIONS ARE RECOMMENDED AT THE INLET AND OUTLET WHERE APPLICABLE.
2. COVER TO BE POSITIONED OVER OUTLET AND VENT PIPE
3. THIS IS A GENERAL ARRANGEMENT DRAWING. CONSULT LOCAL REPRESENTATIVE FOR SPECIAL CONDITIONS.
4. INLET DROP PIPE WILL BE EITHER 6"ø OR 12"ø WITH A 6"ø ORIFICE PLATE
5. ALL CONCRETE JOINTS HAVE RUBBER GASKETS THAT CONFORM TO ASTM C 443
6. U.S. PATENT NO. 4,985,148

Stormceptor® Specifications
(Concrete – Disc Design)



CONTRACTOR INSTALLATION INSTRUCTIONS: PRECAST CONCRETE STORMCEPTOR 'DISC' DESIGN

1. STAKE-OUT THE LOCATION OF THE STORMCEPTOR AND EXCAVATE HOLE. EXCAVATE ADEQUATE SPACE TO CONNECT INLET AND OUTLET PIPES TO UNIT. INSTALL A 12 INCH DEEP (OR AS REQUIRED) LAYER OF COMPACTED AGGREGATE SUBBASE AT THE BOTTOM OF THE EXCAVATION. INSTALL TRENCH BOX OR SHORING AS NEEDED.

2. CHECK ELEVATION OF UNIT BY MEASURING ITS SECTIONS FROM BASE OF THE STORAGE CHAMBER (OUTSIDE BOTTOM OF UNIT'S SLAB) TO THE INVERT OF STORMCEPTOR BYPASS CHAMBER INLET ELEVATION (FIBERGLASS INSERT). SUBTRACT THIS DISTANCE FROM DESIGN INVERT ELEVATION TO DETERMINE TOP OF SUBBASE ELEVATION. CHECK ELEVATION OF INSTALLED SUBBASE AND ADJUST AS NEEDED.

3. SECURE INSPECTOR APPROVAL OF SUBGRADE AND SUBBASE. ALL LIFTING APPARATUS IS TO BE PROVIDED BY THE INSTALLATION CONTRACTOR.

4. INSTALL STORAGE CHAMBER. (INSTALL SCREW LIFTING PINS OR HOOKS INTO BASE OF STORAGE CHAMBER.) ATTACH CABLES OR CHAINS TO LIFT LUGS ON THE BASE SLAB. USING LARGE EQUIPMENT OR CRANE, LIFT AND PLACE THE BASE SECTION OF THE STORAGE CHAMBER IN THE EXCAVATED HOLE ON THE SUBBASE. MAKE SURE THAT THE BASE IS LEVEL. SPECIFIC ALIGNMENT OF THIS PART IS NOT REQUIRED. INSTALL RUBBER GASKET ON BASE UNIT AND COAT WITH LUBRICATING GREASE (PROVIDED IN SHIPMENT), IF NOT PRELUBRICATED. INSTALL ADDITIONAL STORAGE CHAMBER SECTIONS, AS REQUIRED (PROCEDURE IS SAME AS STEP 9)

(FOR STORMCEPTOR MODELS STC-900, STC-1200 AND STC-1800 SKIP STEP 5 AND GO TO STEP 6)

5. INSTALL REDUCING SLAB. (STORMCEPTOR MODELS STC-2400, STC-3600, STC-4800, STC-6000 AND STC-7200) CHECK THAT SECTION IS SET FLUSH, LEVEL AND IS AT THE PROPER ELEVATION. INSTALL RUBBER GASKET ON THE TRANSITION SLAB SPIGOT AND COAT WITH LUBRICATING GREASE (PROVIDED IN SHIPMENT).

6. INSTALL BYPASS SECTION OF STORMCEPTOR WITH FACTORY INSTALLED STORMCEPTOR INSERT. LIFT BYPASS SECTION AND INSTALL, WHILE CHECKING ALIGNMENT AND GRADE OF INLET AND OUTLET DRAINAGE PIPES. CHECK TO MAKE SURE THE BYPASS CHAMBER IS SET FLUSH, LEVEL AND IS AT THE PROPER ELEVATION. THE BYPASS SECTION MUST BE ORIENTED SUCH THAT INLET PIPE DISCHARGES INTO THE V-SHAPED FIBERGLASS WEIRS (INSIDE INSERT). INSTALL RUBBER GASKET ON TOP OF BYPASS SECTION AND COAT WITH LUBRICATING GREASE, IF NOT PRELUBRICATED.

7. INSTALL INLET AND OUTLET STORMDRAIN PIPES. CONNECT INLET AND OUTLET STORM DRAIN PIPES WITH FLEXIBLE BOOTS (WHEN PROVIDED) AND WITH NON-SHRINK GROUT WHEN NO FLEXIBLE BOOTS ARE PROVIDED. THE INVERT OF THE INLET AND OUTLET PIPE IS TO MATCH WITH THE INVERT OF THE STORMCEPTOR INSERT. FLEXIBLE BOOT INSTALLATION PROCEDURES: CENTER THE PIPE IN THE BOOT OPENING. LUBRICATE THE OUTSIDE OF THE PIPE AND/OR THE INSIDE OF THE BOOT. IF THE PIPE OUTSIDE DIAMETER IS THE SAME AS THE INSIDE DIAMETER OF THE BOOT, POSITION THE PIPE CLAMP IN THE GROVE OF THE BOOT WITH THE SCREW AT THE TOP. TIGHTEN THE PIPE CLAMP SCREW TO 60 INCH POUNDS. IF THE PIPE IS MUCH SMALLER THAN THE BOOT LIFT THE BOOT SUCH THAT IT CONTACTS THE BOTTOM OF THE PIPE WHILE TIGHTENING THE CLAMP TO ENSURE EVEN CONTRACTION OF THE RUBBER. MOVE THE PIPE HORIZONTALLY AND/OR VERTICALLY TO BRING IT TO GRADE.

8. INSTALL STORMCEPTOR DROP PIPES ACCORDING TO STC PIPE INSTALLATION PROCEDURE ON PAGE 2 OF THESE INSTRUCTIONS.

9. INSTALL RISER SECTION. LIFT RISER SECTION AND INSTALL, WHILE CHECKING THAT SECTION IS SET FLUSH AND IS AT PROPER ELEVATION AND THAT UNIT IS LEVEL. SPECIFIC ALIGNMENT OF THIS PART IS REQUIRED, IF STEP(S) ARE INCLUDED. ALIGN STEPS PROPERLY FOR ACCESS FROM MANHOLE OPENING AND ADJACENT TO VENT PIPE. NOTE, FOR SHALLOW INSTALLATIONS THIS SECTION MAY NOT BE REQUIRED.

10. INSTALL TOP SLAB (CAP) WITH MANHOLE OPENING FOR STORMCEPTOR FRAME AND COVER. MANHOLE OPENING OFFSET (NOT CENTERED), SHOULD BE ORIENTED SO OPENING IS ABOVE STEPS AND ADJACENT TO VENT PIPE, SUCH THAT 6" VENT PIPE CAN BE CUT 1 INCH BELOW TOP OF SLAB AND SECURLY ATTACHED TO INSIDE EDGE OF MANHOLE ACCESS OPENING. TOP SLAB OPENING SHOULD BE ORIENTED ABOVE THE STORMCEPTOR OUTLET (24 INCH) DROP PIPE AND ABOVE THE 6 INCH VENT PIPE.

11. BACKFILL STORMCEPTOR WITH APPROVED BACKFILL MATERIAL (NO ORGANIC OR TOPSOIL IS TO BE USED FOR BACKFILL). BACKFILL AND COMPACT IN 8 INCH LIFTS. BACKFILL SHOULD BE COMPACTED TO LOCAL/STATE REQUIREMENTS.

12. INSTALL AND SET GRADE ADJUSTING RINGS OR USE APPROVED GRADE ADJUSTING METHOD AND LEVELING MATERIALS, AS NEEDED. PLUG ALL LIFT HOLES WITH TAPERED FLEXIBLE PLUG (PROVIDED) AND KNOCK IN TO PLACE. PLUGS IN STORAGE CHAMBER MUST ALSO BE GROUTED INSIDE AND OUTSIDE WITH GROUT. GROUT ALL OTHER LIFT HOLES.

13. INSTALL AND SET STORMCEPTOR FRAME AND COVER.

14. THE STORMCEPTOR SHOULD BE PUMPED OUT AND SEDIMENT AND DEBRIS MATERIAL DISPOSED OF PROPERLY, WHEN THE PROJECT'S SEDIMENT CONTROL MEASURES ARE REMOVED (SITE PERMANENTLY STABILIZED).

15. FILL UNIT WITH CLEAN WATER AFTER UNIT IS CLEANED OUT, IF REQUIRED BY LOCAL INSPECTION PERSONNEL.

16. FINAL INSPECTION.

Stormceptor® GASKET INSTALLATION INSTRUCTIONS

GUIDELINES FOR ASSEMBLING PROFILE GASKETS ON A SINGLE STEP Stormceptor® JOINT

The Stormceptor® section should be handled with care to avoid any chipping of the bell or spigot.

Carefully clean all dirt and debris from the spigot, including the step seating area of the gasket. Clean the inside area of the bell.

Place the profile gasket in the step of the "dry" spigot. Verify that the pointed end of the gasket is directed towards the shoulder of the spigot. (See Figure 1)

Insert a smooth, round rod, such as a screwdriver, between the gasket and the spigot. Be careful not to cut or lacerate the gasket. Equalize the gasket stretch by running the rod around the entire circumference several times.

Apply joint lubricant to the inner surface of the bell including the leading edge. Lubricate the spigot and gasket.

Align the Stormceptor® sections (spigot with the bell). Verify that the gasket touches the lead-in taper around the entire circumference.

Gently push the joint home. Note that every Stormceptor section will not home exactly the same. (See Figure 2)

If jointing problems arise, do not force the Stormceptor® sections together (cracking may occur). Contact CSR Hydro Conduit immediately.

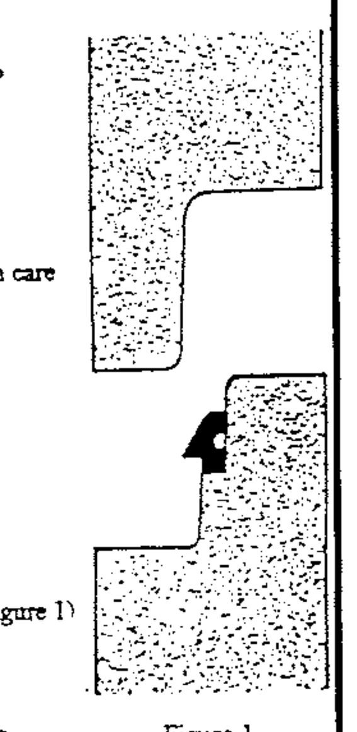


Figure 1

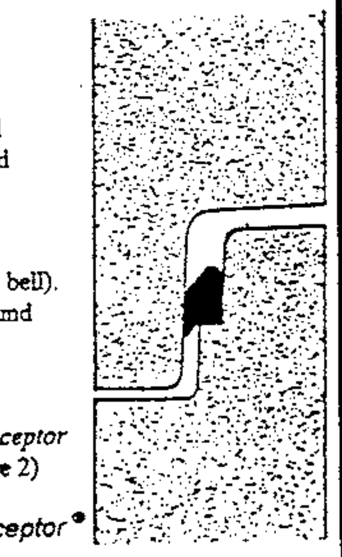
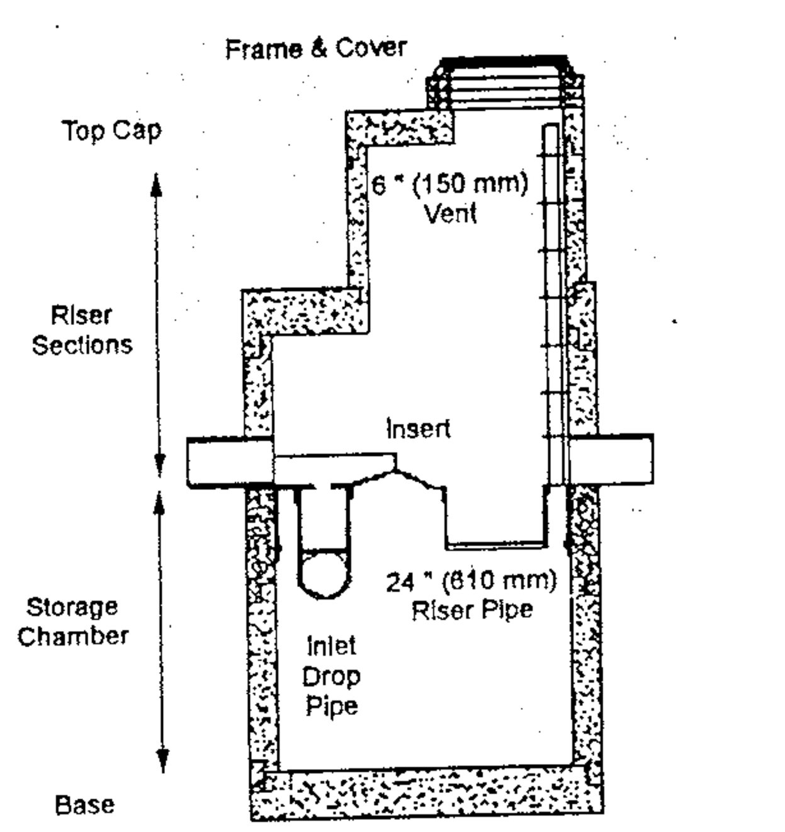
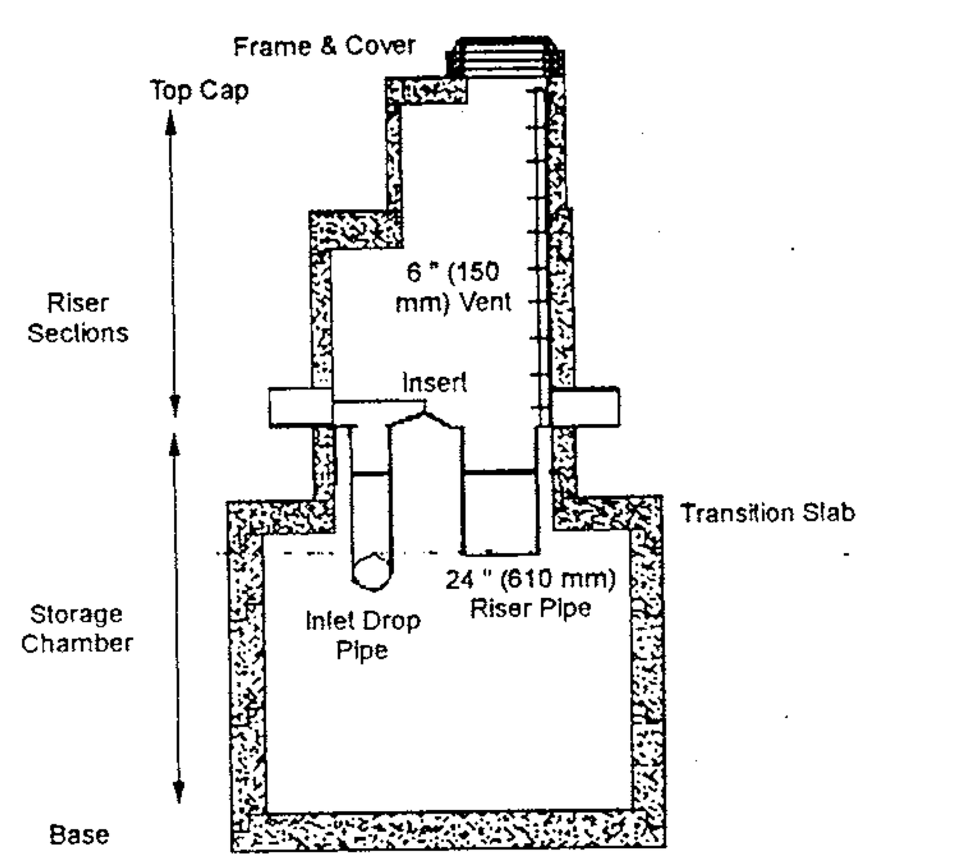


Figure 2

Stormceptor Pipe Installation Procedure



US Models STC 900, STC 1200, STC 1800
Canadian Models STC 750, STC 1000, STC 1500



US Models STC 2400, STC 3600, STC 4800, STC 6000, STC 7200
Canadian Models STC 2000, STC 3000, STC 4000, STC 5000, STC 6000

1. Drop Pipes are to be installed once the riser section containing the insert has been installed on the storage chamber.

2. Enter the Storage Chamber and install the Inlet Drop Pipe from underneath the insert. The Inlet Drop pipe is easily identifiable by the T-section fitting. The tee is oriented such that it is perpendicular to the direction of flow in the upstream storm sewer. For the smaller models (< 2000) the Inlet Drop Pipe is cemented into the coupling that is provided using the supplied PVC cement. For the larger models (>=2000) the Inlet Drop Pipe is connected into a gasketed coupling using the supplied pipe lubricant. Once the Inlet Drop Pipe has been installed, the connection should also be caulked using the supplied (Chemrex 948 or Bulldog Premium PL) sealant to ensure an oil/water tight connection.

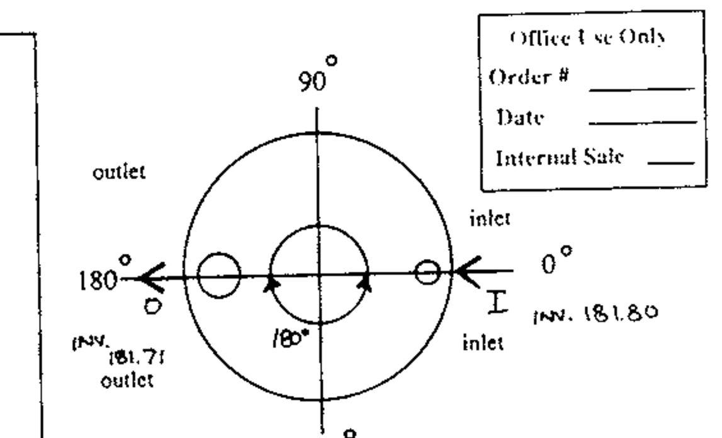
3. The large 24" (610 mm) Riser Pipe is inserted into the provided outlet sleeve from above while standing on the insert. A flange is provided on the Outlet Riser Pipe to prevent it from falling into the Storage Chamber. The underside of the flange must be caulked with the provided Chemrex 948 sealant to ensure an oil/water tight connection.

4. A 6" (150 mm) coupling is provided on the insert for the 6" (150 mm) supplied PVC Vent Pipe. The Vent Pipe should be attached to the coupling using the supplied PVC cement. Once the cement has set, the connection should also be caulked using the supplied Chemrex 948 sealant to ensure an oil/water tight connection.

Concrete Stormceptor® Order Request Form *

Contractor Information TO BE DETERMINED
Name
Address
City
State
Zip Code
Contact
Phone
Fax

Office Use Only
Order #
Date
Internal Sale



Please draw orientation (angle) of inlet pipes (max 2) and outlet pipe (1) on diagram along with pipe inside diameter (in.) and invert elevation (ft). Clearly mark inlet pipes with an I and outlet pipe with an O and provide the inlet/outlet pipe angle in degrees.

Owner Information
Name: OWENS CORNING
Phone: 410-792-4611
Fax: 410-792-0626

Stormceptor® Model: 900 ☒ 1200 ☐ 1800 ☐ 2400 ☐ 3600 ☐ 4800 ☐ 6000 ☐ 7200 ☐
IMPERV. D. AREA= 0.48 Ac.

Insert Size: DISC ☒ 22" ☐ 32" ☐ 44" ☐ Custom ___

Manhole Number	2
Finish Top Elevation (ft)	185.0
Top Slab Elevation (ft)	
Inlet Pipe Invert (ft)	181.80
Outlet Pipe Invert (ft)	181.71
Pipe Type:	ADS N-12 (HDPE)
Pipe Inside Diam. (in) [ID]	15 IN.
Pipe Outside Diam. (in) [OD]	

Project Name: OWENS CORNING
Approximate time frame until required delivery (weeks): EIGHT (8)
Delivery Address : Street: 8239 PATUXENT RANGE ROAD
City: JESSUP State: MD Zip Code: 20794
Designer Company: GREENMAN-PEDERSEN, INC.
Designer Contact: IAN DODSON Phone: (301)470-2772 Fax: (301) 490-2649

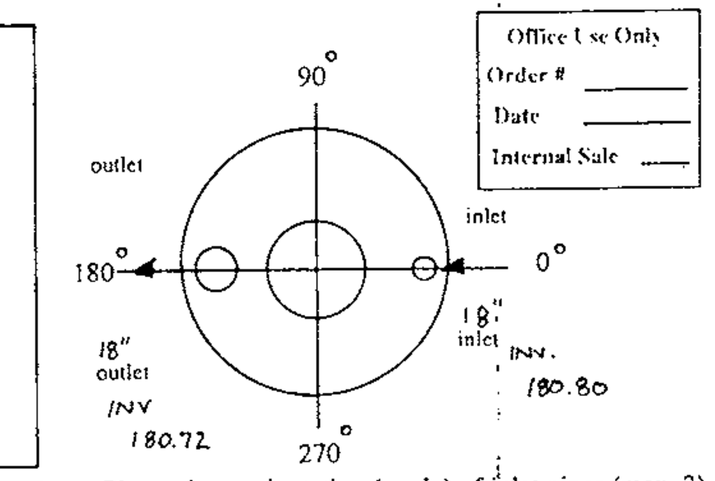
Please fax this order to Stormceptor at (301) 762-4190
For Technical Assistance Please Call Stormceptor Corporation at (301) 762-8361 or toll free at 1 (800) 762-4703

ALL LIFTING APPARATUS TO BE PROVIDED BY THE INSTALLATION CONTRACTOR

Concrete Stormceptor® Order Request Form *

Contractor Information
Name
Address
City
State
Zip Code
Contact
Phone
Fax

Office Use Only
Order #
Date
Internal Sale



Please draw orientation (angle) of inlet pipes (max 2) and outlet pipe (1) on diagram along with pipe inside diameter (in.) and invert elevation (ft). Clearly mark inlet pipes with an I and outlet pipe with an O and provide the inlet/outlet pipe angle in degrees.

Owner Information
Name: SAME
Phone
Fax

Stormceptor® Model: 900 ☐ 1200 ☒ 1800 ☐ 2400 ☐ 3600 ☐ 4800 ☐ 6000 ☐ 7200 ☐
IMPERV. D. AREA=______ Ac.

Insert Size: DISC ☒ 22" ☐ 32" ☐ 44" ☐ Custom ___

Manhole Number	6
Finish Top Elevation (ft)	185.3
Top Slab Elevation (ft)	
Inlet Pipe Invert (ft)	180.80
Outlet Pipe Invert (ft)	180.72
Pipe Type:	ADS N-12 (HDPE)
Pipe Inside Diam. (in) [ID]	18 IN.
Pipe Outside Diam. (in) [OD]	

Project Name: SAME
Approximate time frame until required delivery (weeks)
Delivery Address : Street
City State Zip Code
Designer Company: GREENMAN-PEDERSEN, INC.
Designer Contact: IAN DODSON Phone: (301) 470-2772 Fax: (301) 490-2649

Please fax this order to Stormceptor at (301) 762-4190
For Technical Assistance Please Call Stormceptor Corporation at (301) 762-8361 or toll free at 1 (800) 762-4703

ALL LIFTING APPARATUS TO BE PROVIDED BY THE INSTALLATION CONTRACTOR

Private Structure Schedule

No.	Type	Width/Dia.	Invert	Top	Remarks
1	S.D.-5.21 Type 'C' Endwall	7'-9"	181.00	183.0	
2	Stormceptor STC-900	72"	*	185.0	*
3	Trench Drain	50'	183.5/182.5	184.5	
4	Trench Drain	50'	183.5/182.5	184.5	
5	S.D.-5.21 Type 'C' Endwall	9'-0"	180.52	182.77	
6	Stormceptor STC-1200	72"	*	185.3	*
7	S.D.-4.37 Single WR Inlet		181.00	184.5	
8	Trench Drain	100'	183.5/182.0	184.5/184.0	
9	S.D.-4.37 Single WR Inlet		182.18	185.0	
10	SD-5.21 Type-'C' Endwall		177.00	182.04	
11	Riser (Precast)	**	**	**	**

Private Pipe Schedule

To	From	Type	Size	Length	Remarks
1	2	HDPE	15"	32'	Plus 8 LF 15" From Tee
2	3	HDPE	12"	50'	
2	4	HDPE	12"	50'	
5	6	HDPE	18"	20'	
6	7	HDPE	18"	20'	
7	8	HDPE	12"	50'	
7	9	HDPE	12"	68'	
10	11	RCP (ASTM C-361)	24"	142'	Provide Rubber Gaskets and Concrete Cradle

Notes:
* See Stormceptor details.
** See Also the Riser details.

OWNER / DEVELOPER
OWENS CORNING
8239 PATUXENT RANGE ROAD
JESSUP MARYLAND 20794

STATE OF MARYLAND — DANIEL JOSEPH MALETIC No. 13759 — REGISTERED PROFESSIONAL ENGINEER

AS-BUILT
July, 2000

APPROVED DEPARTMENT OF PLANNING AND ZONING
Chief, Development Engineering Division — Date 5/22/98
Chief, Division of Land Development — Date 6/1/98
Director — Date 6/1/98

STATE OF MARYLAND — DANIEL JOSEPH MALETIC No. 13759 — REGISTERED PROFESSIONAL ENGINEER

PROJ. MGR.	D.J.
DESIGNED	D.A.
DRAWN	G.W.D.
CHECKED	D.A.

DATE | REVISIONS | BY

GPI
GREENMAN-PEDERSEN, INC.
ENGINEERS, ARCHITECTS, PLANNERS, CONSTRUCTION ENGINEERS & INSPECTORS
14502 GREENVIEW DRIVE, SUITE 100, LAUREL, MD. 20708
WASH. (301) 470-2772 BALT. (410) 880-3055
FAX: (301) 490-2649 www.gpinet.com

ADDRESS CHART

LOT NUMBER	STREET ADDRESS
PARCEL 'A'	8239 PATUXENT RANGE ROAD

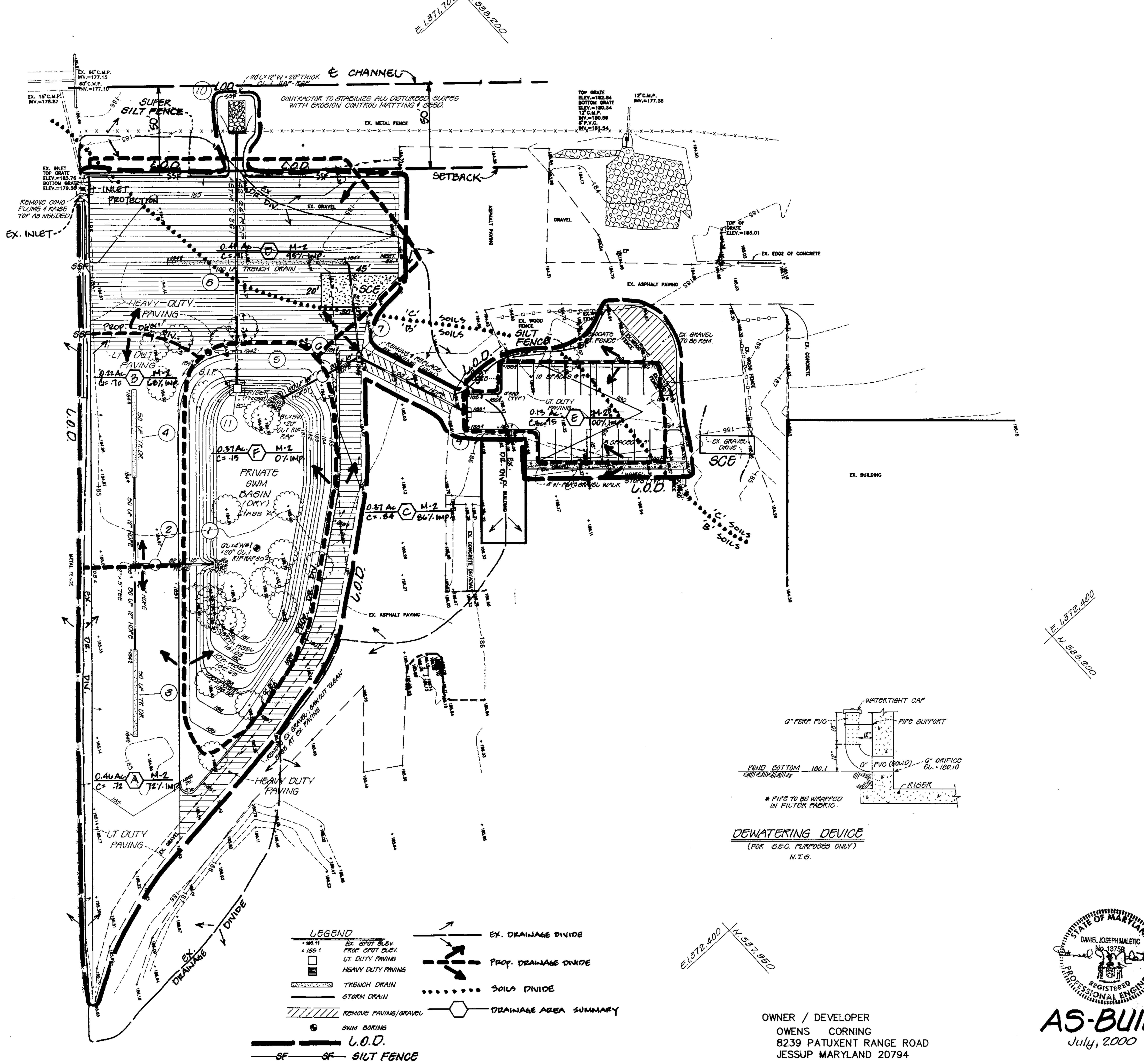
SUBDIVISION NAME: PATUXENT PARK INDUSTRIAL AREA | SECT./AREA: SEC. 2 | LOT/PARCEL #: PARCEL-A
PLAT# OR L/F: P.B. 17 F.26 | BLOCK #: 2 & 3 | ZONE: M-2 | TAX/ZONE MAP: 48 | ELEC. DIST.: 6th | CENSUS TR: 6064
WATER CODE: B 02 | SEWER CODE

OWENS CORNING
PARKING ADDITION & STORAGE FACILITY

STORM DRAIN NOTES & DETAILS

DATE: 11/21/97
PROJECT No.: 97173.02
SCALE: AS SHOWN
SHEET 4 OF 7

SDP-98-65



DEWATERING DEVICE
(FOR SEC. PURPOSES ONLY)
N.T.S.

OWNER / DEVELOPER
OWENS CORNING
8239 PATUXENT RANGE ROAD
JESSUP MARYLAND 20794

AS-BUILT
July, 2000

APPROVED: HOWARD COUNTY DEPT. OF PLANNING AND ZONING.

CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 5/29/98
CHIEF, DIV. OF LAND DEVELOPMENT — DATE 6/1/98
DIRECTOR — DATE 6/1/98

PROJ. MGR.	DJ
DESIGNED	RDA
DRAWN	RDA/ID
CHECKED	DJ

DATE	REVISIONS	BY

GPI
GREENMAN-PEDERSEN, INC.
ENGINEERS, ARCHITECTS, PLANNERS, CONSTRUCTION ENGINEERS & INSPECTORS
14502 GREENVIEW DRIVE, SUITE 100, LAUREL, MD. 20708
WASH. (301) 470-2772 BALT. (410) 880-3055
FAX: (301) 490-2649 www.gpinet.com

ADDRESS CHART

LOT NUMBER	STREET ADDRESS
PARCEL 'A'	8239 PATUXENT RANGE ROAD

SUBDIVISION NAME: PATUXENT PARK INDUSTRIAL AREA			SECT./AREA SEC. 2		LOT/PARCEL # PARCEL-A
PLAT# OR L/F P.B. 17 F.26	BLOCK # 2 & 3	ZONE M-2	TAX/ZONE MAP 48	ELEC. DIST. 6th	CENSUS TR 6064
WATER CODE B 02			SEWER CODE		

OWENS CORNING
PARKING ADDITION & STORAGE FACILITY
SEDIMENT CONTROL PLAN

REF: SDP 82-108, SDP 85-137, F 68-68, SDP 89-59

DATE	PROJECT No.
11/21/97	97173
SCALE	SHEET
1" = 30'	5 OF 7

SDP-98-65

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19.0 STANDARDS AND SPECIFICATIONS FOR LAND GRADING

Design Criteria

The grading plan should be based upon the incorporation of building designs and street layouts that fit and utilize existing topography and desirable natural surroundings to avoid extreme grade modifications. Information submitted must provide sufficient topographic surveys and soil investigations to determine limitations that must be imposed on the grading operation related to slope stability, effect on adjacent properties and drainage patterns, measures for drainage and water removal and vegetative treatment, etc.

Many counties have regulations and design procedures already established for land grading and cut and fill slopes. Where these requirements exist, they shall be followed. The plan must show existing and proposed contours of the area(s) to be graded. The plan shall also include practices for erosion control, slope stabilization, safe disposal of runoff water and drainage, such as waterways, lined ditches, reverse slope benches (include grade and cross section), grade stabilization structures, retaining walls, and surface and subsurface drains. The plan shall also include phasing of these practices. The following shall be incorporated into the plan:

I. Provisions shall be made to safely conduct surface runoff to storm drains, protected outlets or to stable water courses to insure that surface runoff will not damage slopes or other graded

II. Cut and fill slopes that are to be stabilized with grasses shall not be steeper than 2:1. (Where the slope is to be mowed the slope should be no steeper than 3:1; 4:1 is preferred because of safety factors related to mowing steep slopes.) Slopes exceeding 2:1 shall require special design and stabilization considerations that shall be adequately shown on the plans.

III. Reverse benches shall be provided whenever the vertical interval (height) of any 2:1 slope exceeds 20 feet; for 3:1 slope it shall be increased to 30 feet and for 4:1 to 40 feet. Benches shall be located to divide the slope face as equally as possible and shall convey the water to a stable outlet. Soils, seeps, rock outcrops, etc., shall also be taken into consideration when designing benches.

A. Benches shall be a minimum of six-feet wide to provide for ease of maintenance.

B. Benches shall be designed with a reverse slope of 6:1 or flatter to the toe of the upper slope and with a minimum of one foot in depth. Bench gradient to the outlet shall be between 2 percent and 3 percent, unless accompanied by appropriate design and computations.

C. The flow length within a bench shall not exceed 800' unless accompanied by appropriate design and computations. For flow channel stabilization see temporary

IV. Surface water shall be diverted from the face of all cut and/or fill slopes by the use of earth dikes, ditches and swales or conveyed downslope by the use of a designed structure, except

A. The face of the slope is or shall be stabilized and the face of all graded slopes shall be protected from surface runoff until they are stabilized.

B. The face of the slope shall not be subject to any concentrated flows of surface water such as from natural drainageways, graded swales, downspouts, etc.

C. The face of the slope will be protected by special erosion control materials, to include, but not limited to: approved vegetative stabilization practices (see section G), rip-rap or other approved stabilization methods.

V. Cut slopes occurring in ripable rock shall be serrated as shown on the following diagram. These serrations shall be made with conventional equipment as the excavation is made. Each step or serration shall be constructed on the contour and will have steps cut at nominal two-foot intervals with nominal three-foot horizontal shelves. These steps will vary depending on the slope ratio or the cut slope. The nominal slope line is 1:1. These steps will weather and act to hold moisture, lime, fertilizer and seed thus producing a much quicker and longer lived vegetative cover and better slope stabilization. Overland flow shall be diverted from the top of all serrated cut slopes and carries to a suitable outlet.

VI. Subsurface drainage shall be provided where necessary to intercept seepage that would otherwise adversely affect slope stability or create excessively wet site conditions.

VII. Slopes shall not be created so close to property lines as to endanger adjoining properties without adequately protecting such properties against sedimentation, erosion, slippage, settlement, subsidence or other related damages.

VIII. Fill material shall be free of brush, rubbish, rocks, logs, stumps, building debris, and other objectionable material. It should be free of stones over two (2) inches in diameter where compacted by hand or mechanical tampers or over eight (8) inches in diameter where compacted by rollers or other equipment. Frozen material shall not be placed in the fill nor shall the fill material be placed on a frozen foundation.

IX. Stockpiles, borrow areas and spoil shall be shown on the plans and shall be subject to the provisions of this Standard and Specifications.

X. All disturbed areas shall be stabilized structurally or vegetatively in compliance with 20.0 Standards and Specifications for Vegetative Stabilization.

Sequence of Construction

1. Obtain all necessary permits.
2. Install sediment control devices. Once devices are in place, obtain permission from the sidement control inspector to proceed with grading operations.
   2 days
3. Rough grade site within limits of disturbance.
   3 days
4. Begin storm drain and stormwater management facility.
   A. Prior to completion of storm drain, complete excavation of SWM Pond. Provide temporary dewatering device as required.
   B. Install headwalls, fine grade pond, and stabilize.
   C. Install riser structure and appurtenances. If necessary, block shut outfall. Connect riser to outfall pipe only after pond and remainder of disturbed area has been fine graded, stabilized, and with permission of the inspector.
   1 week
5. Install parking compound.
   1 week
6. Complete storm drain and SWM facility; begin storage facility.
   2 weeks
7. Complete storage facility.
   2 weeks
8. Fine grade, stabilize, replace any amenities.
   3 days
9. With site complete and stabilized and with approval from the inspector, remove sediment control devices.
   1 day

DEVELOPERS CERTIFICATE

"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 Approval 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.

Signature of Developer — For: — 2/12/98 DATE

ENGINEERS CERTIFICATE

"I certify that this plan for erosion and sediment control represents a practical and workable plan based on 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 — Feb. 12, 1998 DATE

HOWARD SOIL CONSERVATION DISTRICT

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, disking 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/acres dolomitic limestone (92 lbs/1000 sq. ft.) And 600 lbs/acre 10-10-10 fertilizer (14 lbs/1000 sq. ft.) before seeding. Harrow or disk into upper three inches of soil. At time of seeding, apply 400 lbs/acre 30-0-0 ureaform fertilizer (9 lbs/1000 sq. ft.)
2. Acceptable – Apply 2 tons/acres dolomitic limestone (92 lbs/1000 sq. ft.)and 1000 lbs/acre 10-10-10 fertilizer (23 lbs/1000 sq. ft.) Before seeding. Harrow or disk into upper three inches of soil.

Seeding: For the periods March 1 – April 30, and August 1 – October 15, seed with 60 lbs/acres (1.4 lbs/1000 sq. ft.) Of Kentucky 31 Tall Fescue per acres and 2 lbs/acre (0.05 lbs/1000 sq. ft.) Of weeping lovegrass. During the period of October 16 – February 28, protect site by:
Option 1 – Two tons per acres of well anchored straw mulch and seed as soon as possible in the spring.
Option 2 – use sod.
Option 3 – seed with 60 lbs/acres Kentucky 30 tall fescue and mulch with 2 tons/acre well anchored straw.

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

Maintenance: Inspect all seeding areas and make needed repairs, replacements and reseedings.

TEMPORARY SEEDING NOTES

Apply to graded or cleared areas likely to be re-disturbed where a short-term vegetative cover is needed.

Seedbed Preparation: Loosen upper three inches of soil by raking, disking or other acceptable means before seeding, if not previously loosened.

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

Seeding: For periods March 1 – April 30 and from August 15 – October 15, seed with 2-1/2 bushel per acre of annual rye (3.2 lbs/1000 sq. ft.). For the period May 1 – August 14, seed with 3 lbs/acre of weeping lovegrass (0.07 lbs/1000 lbs/sq. ft.). For the period November 16 – February 28, protect site by applying 2 tons/acre of well anchored straw mulch and seed as soon as possible in the spring, or use sod.

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

HOWARD SOIL CONSERVATION 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 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 calender days for all perimeter sediment control structures, dikes, perimeter slopes and all slopes steeper than 3:1.
   B) 14 calender days as to all other disturbed or graded areas on the project site.
4. All sediment traps/basins shown must be fenced and warning signs posted around their perimeter in accordance with Vol. 1, Chapter 7 of the HOWARD COUNTY DESIGN MANUAL, Storm drainage.
5. All disturbed areas must be stabilized within the time period specified above in accordance with the 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for permanent seeding, sod, temporary seeding and mulching (section g). Temporary stabilization with mulch alone shall only be done when recommended seeding dates do not allow for proper germination and establishment of grasses.
6. All sediment control structures are to remain in place and are to be maintained in operative condition until permission for there removal has been obtained from the Howard County Sediment Control Inspector.
7. Site Analysis:

Total Area of Site	=	14.07 Acres
Area Disturbed	=	1.71 Acres
Area to be Roofed or Paved	=	0.98 Acres
Area to be Vegetatively Stabilized	=	+/- 0.73 Acres
Total Cut	=	+/- 4,280 Cu. Yds.
Total Fill	=	+/- 1,910 Cu. Yds.
Offsite waste/borrow area location		TO BE DETERMINED

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 control 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.

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 produce vegetative growth.
   B. The soil material is so shallow that the rooting zone is not deep enough to support plants or furnish continuing supplies of moisture and plant nutrients.
   C. The original soil to be vegetated contains material toxic to plant growth.
   D. The soil is so acidic that treatment with limestone is not feasible.

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

Construction and Material Specifications

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

II. Topsoil Specifications – Soil to be used as topsoil must meet the following:
   A. 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. Regardless, topsoil shall not be a mixture of contrasting textured subsoils and shall contain less than 5% by volume of cinders, stones, slag, coarse fragments, gravel, sticks, roots, trash, or other materials larger than 1 1/2" in diameter.
   B. Topsoil must be free of plants or plant parts such as bermuda grass, quackgrass, Johnsongrass, nutsedge, poison ivy, thistle, or others as specified.
   C. Where the subsoil is either highly acidic or composed of heavy clays, (ground limestone shall be spread at the rate of 4-8 tons/acre (200-400 pounds per 1,000 square feet) prior to the placement of topsoil. Lime shall be distributed uniformly over designated areas and worked into the soil in conjunction with tillage operations as described in the following procedures.

III. For sites having disturbed areas under 5 acres place topsoil (if required) and apply soil amendments as specified in 20.0 Vegetative Stabilization – Section I – Vegetative Stabilization Methods and Materials.

IV. For sites having disturbed areas over 5 acres:
   A. On soil meeting Topsoil specifications, obtain test results dictating fertilizer and lime amendments required to bring the soil into compliance with the following:
      1. pH for topsoil shall be between 6.0 and 7.5. If the tested soil demonstrates a pH of less than 6.0, sufficient lime shall be prescribed to raise the pH to 6.5 or higher.
      2. Organic content of topsoil shall be not less than 1.5 percent by weight.
      3. Topsoil having soluble salt content greater than 500 parts per million shall not be used.
      4. No sod or seed shall 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,

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

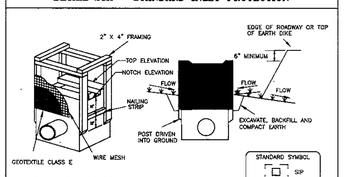
   B. Place topsoil (if required) and apply soil amendments as specified in 20.0 Vegetative Stabilization – Section I – Vegetative Stabilization Methods and Materials.

V. Topsoil Application
   A. 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.
      1. Grades on the areas to be topsoiled, which have been previously established, shall be maintained, albeit 4" – 8" higher in elevation.
      2. Topsoil shall be uniformly distributed in a 4" – 8" layer and lightly compacted to a minimum thickness of 4". Spreading shall be performed in such a manner that sodding or seeding can proceed with a minimum of additional soil preparation and tillage. Any irregularities in the surface resulting, from topsoiling or other operations shall be corrected in order to prevent the formation of depressions or water packets.
      3. 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.

VI. 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:
   A. 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 sites having disturbed areas under 5 acres shall conform to the following, requirements:
      1. 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.
      2. Composted sludge shall contain at least 1 percent nitrogen, 1.5 percent phosphorus, and 0.2 percent potassium and have a Ph of 7.0 to 8.0. If compost does not meet these requirements, the appropriate constituents must be added to meet the requirements prior to use.
      3. Composted sludge shall be applied at a rate of 1 ton/1,000 square feet.
   B. Composted sludge shall be amended with a potassium fertilizer applied at the rate of 4 lb/1,000 square feet, and 1/3 the normal lime application rate.

References: Guideline Specifications, Soil Preparation and Sodding MD-VA, Pub. #1, Cooperative Extension Service, University of Maryland and Virginia Polytechnic Institutes. Revised 1973.

DETAIL 23A – STANDARD INLET PROTECTION



Construction Specifications

1. Excavate completely around the inlet to a depth of 18" below the notch elevation.
2. Drive the 2" x 4" construction grade lumber posts 1' into the ground at each corner of the inlet. Place nail strips between the posts on the ends of the inlet. Assemble the top portion of the 2" x 4" frame using the overlap joint shown on Detail 23A. The top of the frame (weir) must be 6" below adjacent roadways where flooding and safety issues may arise.
3. Stretch the 1/2" x 1/2" wire mesh tightly around the frame and fasten securely. The ends must meet and overlap at a post.
4. Stretch the Geotextile Class E tightly over the wire mesh with the geotextile extending from the top of the frame to 18" below the inlet notch elevation. Fasten the geotextile firmly to the frame. The ends of the geotextile must meet at a post, be overlapped and folded, then fastened down.
5. Backfill around the inlet in compacted 6" layers until the layer of earth is level with the notch elevation on the ends and top elevation on the sides.
6. If the inlet is not in a sump, construct a compacted earth dike across the ditch line directly below it. The top of the earth dike should be at least 6" higher than the top of the frame.
7. The structure must be inspected periodically and after each rain and the geotextile replaced when it becomes clogged.

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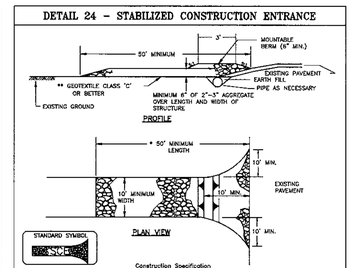
DETAIL 24 – STABILIZED CONSTRUCTION ENTRANCE

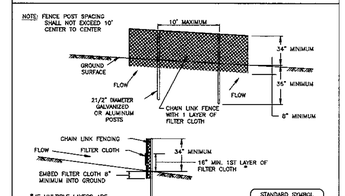


Construction Specification

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

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

DETAIL 33 – SUPER SILT FENCE



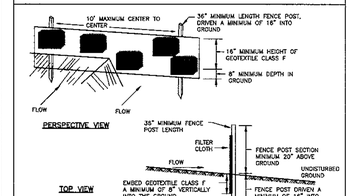
Construction Specifications

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

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

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

DETAIL 22 – SILT FENCE



Construction Specifications

1. Fence posts shall be a minimum of 36" long driven 16" minimum into the ground. Wood posts shall be 1 1/2" x 1 1/2" square (minimum) cut, or 1 3/4" diameter (minimum) round and shall be of round quality hardwood. Steel posts will be standard T or U section weighting not less than 1.00 pond per linear foot.
2. Geotextile shall be fastened securely to each fence post with wire ties or staples at top and mid-section and shall meet the following requirements for Geotextile Class F:

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

3. Where ends of geotextile fabric come together, they shall be overlapped, folded and stapled to prevent sediment bypass.
4. Silt Fence shall be inspected after each rainfall event and maintained when bulges occur or when sediment accumulation reached 50% of the fabric height.

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

APPROVED:

Reviewed for HOWARD SCD and meets Technical Requirements.

USDA-Natural Resources Conservation Service — Date 5/21/98

APPROVED:

This development plan is approved for soil erosion and sediment control by the HOWARD SOIL CONSERVATION DISTRICT.

Howard SCD — Date 5/21/98

APPROVED DEPARTMENT OF PLANNING AND ZONING

Chief, Development Engineering Division — Date 5/28/98

Chief, Division of Land Development — Date 6/1/98

Director — Date 6/1/98

DANIEL JOSEPH HALE No. 19759 REGISTERED PROFESSIONAL ENGINEER

OWNER / DEVELOPER
OWENS CORNING
8239 PATUXENT RANGE ROAD
JESSUP MARYLAND 20794

AS-BUILT
July, 2000

PROJ. MGR. D.J.			
DESIGNED D.A.			
DRAWN G.W.D.			
CHECKED D.A.			
	DATE	REVISIONS	BY

GPI GREENMAN-PEDERSEN, INC.
ENGINEERS, ARCHITECTS, PLANNERS, CONSTRUCTION ENGINEERS & INSPECTORS
14502 GREENVIEW DRIVE, SUITE 100, LAUREL, MD. 20708
WASH. (301) 470-2772 BALT. (410) 880-3055
FAX: (301) 490-2649 www.gpinet.com

ADDRESS CHART

LOT NUMBER	STREET ADDRESS
PARCEL 'A'	8239 PATUXENT RANGE ROAD

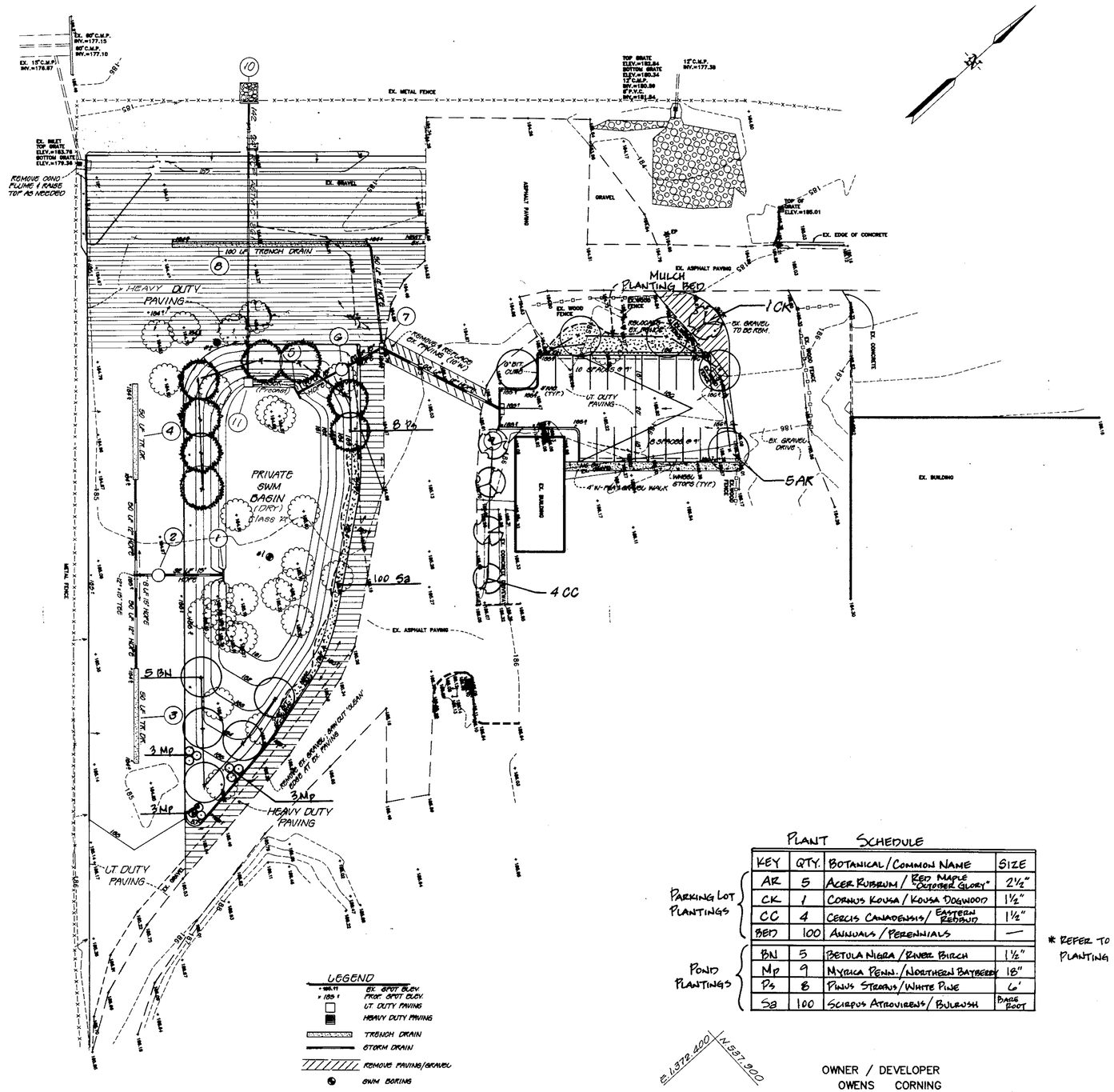
SUBDIVISION NAME: PATUXENT PARK INDUSTRIAL AREA		SECT./AREA SEC. 2		LOT/PARCEL # PARCEL-A	
PLAT# OR L/F P.B. 17 F.26	BLOCK # 2 & 3	ZONE M-2	TAX/ZONE MAP 48	ELEC. DIST. 6th	CENSUS TR 6064
WATER CODE B 02		SEWER CODE			

OWENS CORNING
PARKING ADDITION & STORAGE FACILITY

SEDIMENT CONTROL NOTES & DETAILS

DATE	PROJECT No.
11/21/97	97173.02
SCALE AS SHOWN	SHEET 6 OF 7

SDP-98-65



PLANT SCHEDULE

	KEY	QTY.	BOTANICAL / COMMON NAME	SIZE
PARKING LOT PLANTINGS	AR	5	ACER RUBRUM / RED MAPLE 'OCTOBER GLORY'	2½"
	CK	1	CORNUS KOUSA / KOUSA DOGWOOD	1½"
	CC	4	CERCIS CANADENSIS / EASTERN REDBUD	1½"
	BED	100	ANNUALS / PERENNIALS	—
POND PLANTINGS	BN	5	BETULA NIGRA / RIVER BIRCH	1½"
	Mp	9	MYRICA PENN. / NORTHERN BAYBERRY	18"
	Ps	8	PINUS STROBUS / WHITE PINE	6'
	Sa	100	SCIRPUS ATROVIRENS / BULRUSH	BARE ROOT

* REFER TO SHT. 3 FOR PLANTING DETAILS.

OWNER / DEVELOPER
OWENS CORNING
8239 PATUXENT RANGE ROAD
JESSUP MARYLAND 20794

AS-BUILT
July, 2000

SCHEDULE B
PARKING LOT INTERNAL LANDSCAPING

Number of parking spaces:	20
Number of Trees required:	1
Number of Trees provided: Shade / Other	5 / 5

SCHEDULE D
STORMWATER MANAGEMENT AREA LANDSCAPING

Linear feet of perimeter	N/A
Number of Trees required: Shade / Evergreen	None
Credit for existing landscaping:	N/A
Credit for other landscaping:	N/A
Number of Trees provided: Shade / Evergreen	5 / 8

*Note: Schedules A & C of the Howard County Landscape Manual are not applicable to this site.

Landscaping Notes:
1. The owner, tenant, and/or their agents shall be responsible for maintenance fo the required landscaping, including both plant materials and berms, fences and walls. All plant materials shall be maintained in good growing condition, and when necessary, replaced with new materials to ensure continued compliance with applicable regulations. All other required landscaping shall be permanently maintained in good condition, and when necessary, repaired or replaced.
2. This plan has been prepared in accordance with the provisions of Section 16.124 of the Howard County Code and Landscape Manual.
3. Financial Surety for the required landscaping has been posted as part of the DPW Developer's Agreement in the amount of $ 1,900.00 .

DANIEL JOSEPH MALETIC No. 13759 REGISTERED PROFESSIONAL ENGINEER STATE OF MARYLAND

APPROVED: HOWARD COUNTY DEPT. OF PLANNING AND ZONING.

CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 5/22/98

CHIEF, DIV. OF LAND DEVELOPMENT — DATE 6/1/98

DIRECTOR — DATE 6/1/98

DANIEL JOSEPH MALETIC No. 13759 REGISTERED PROFESSIONAL ENGINEER STATE OF MARYLAND

PROJ. MGR.	DATE	REVISIONS	BY
DJ			
DESIGNED RDA			
DRAWN RDA/ID			
CHECKED DJ			

GPI GREENMAN-PEDERSEN, INC.
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ADDRESS CHART

LOT NUMBER	STREET ADDRESS
PARCEL 'A'	8239 PATUXENT RANGE ROAD

SUBDIVISION NAME: PATUXENT PARK INDUSTRIAL AREA		SECT./AREA SEC. 2		LOT/PARCEL # PARCEL-A
PLAT# OR L/F	BLOCK #	ZONE	TAX/ZONE MAP	ELEC. DIST. CENSUS TR
P.B. 17 F.26	2 & 3	M-2	48	6th 6064
WATER CODE B 02			SEWER CODE	

OWENS CORNING
PARKING ADDITION & STORAGE FACILITY

LANDSCAPE PLAN

REF: SDP 82-108, SDP 85-137, F 68-68, SDP 89-59

DATE	PROJECT No.
11/21/97	97173
SCALE 1" = 30'	SHEET 7 OF 7

SDP-98-65

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