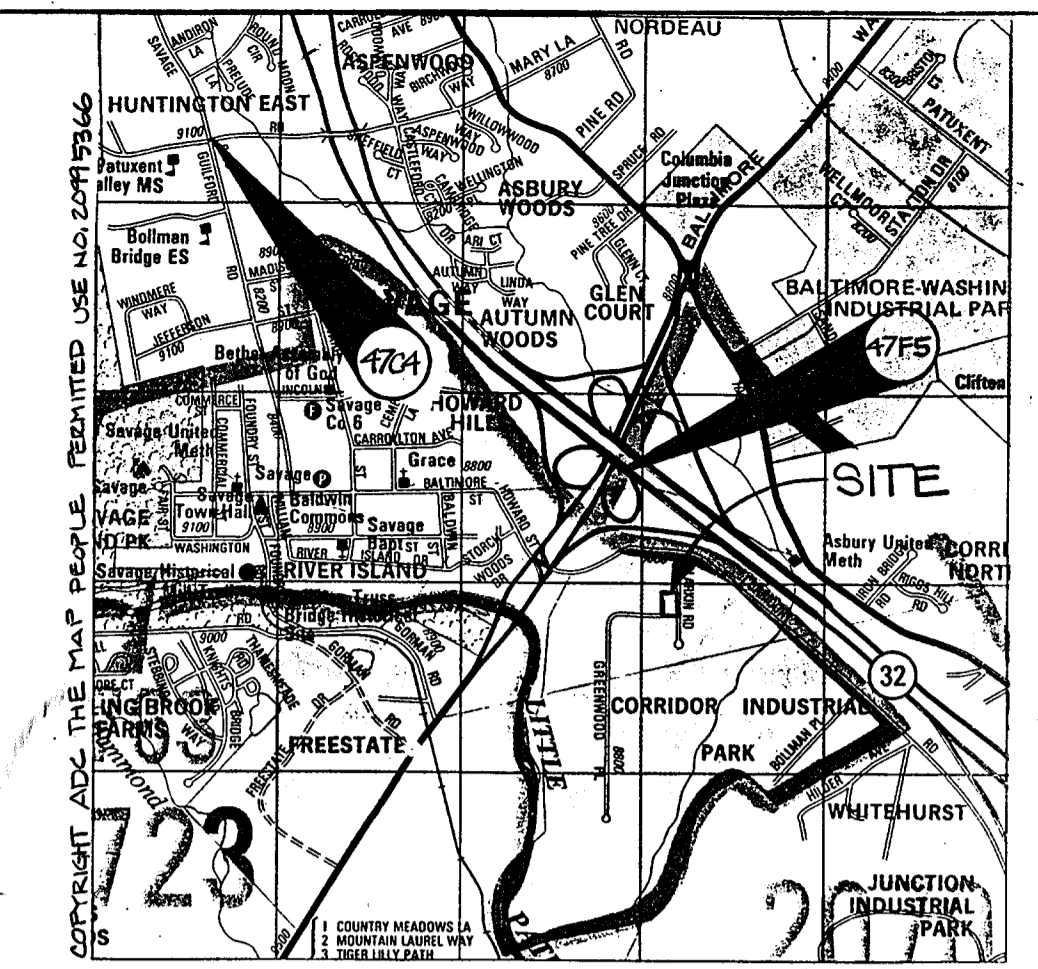


Sheet Index

SHEET	DESCRIPTION
1	COVER SHEET
2	SITE PLAN
3	SITE DETAILS
4	SEDIMENT CONTROL PLAN & SD O.A.M
5	SEDIMENT CONTROL DETAILS / NOTES
6	STORMWATER MANAGEMENT DET.
7	STORMWATER MANAGEMENT DET.
8	SWM DRAINAGE AREA MAP
9	LANDSCAPE PLAN
10	RETAINING WALL PLAN

SITE DEVELOPMENT PLAN FOR CIENA PARKING LOT AT CORRIDOR INDUSTRIAL PARK PARCEL B HOWARD COUNTY, MARYLAND



LOCATION MAP

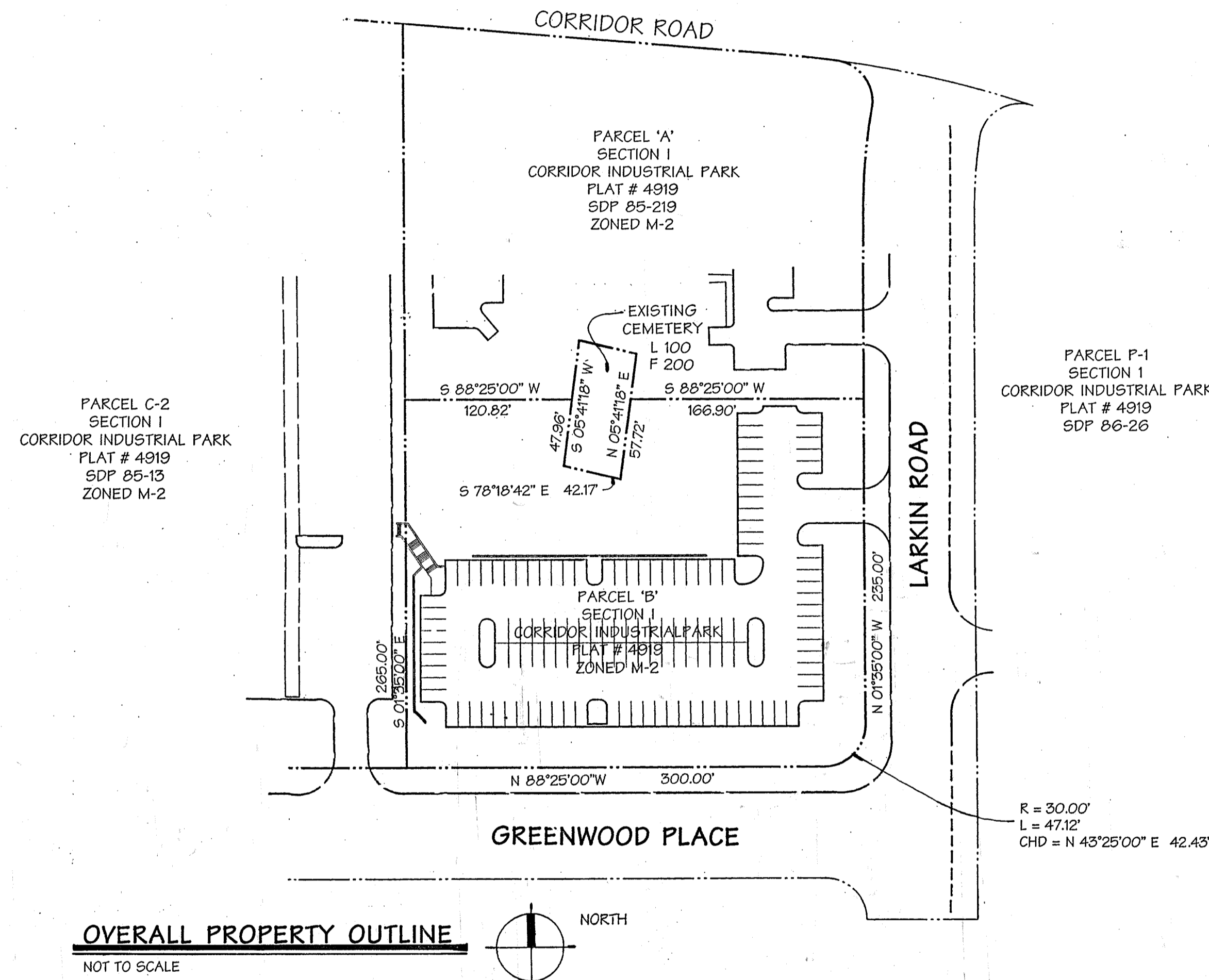
SCALE: 1" = 2,000'



HORIZONTAL AND VERTICAL DATA FROM HOWARD COUNTY SURVEY CONTROL STATIONS:

47F5 N 163348.5709 M E 416252.0078 M EL. 235.14'
47C4 N 164484.3288 M E 414747.2600 M EL. 288.156'

DATA SOURCES: THE EXISTING TOPOGRAPHY INSIDE PROPERTY LINE WAS BASED ON FIELD RUN SURVEY BY DMW, INC. IN SEPTEMBER 1997.



SITE ANALYSIS DATA CHART

- General Site Data
 - a. Present Zoning: M-2
 - b. Applicable DPZ File References: F 75-57, 6F 74-65
 - c. Proposed Use of Site or Structure(s): PARKING LOT
 - d. Proposed Water and Sewer Systems: Public
 - e. Water and Sewer Contract Number: 2660-D-W & S
- Area Tabulation
 - a. Total Project Area: 1.95 Acres (Indicate by Section and Area As Shown on the Final Plat or As Shown on Deed)
 - b. Net Area of Site: 1.95 Acres (Indicate by Section and Area As Shown on Final Plat)
 - c. Area of This Plan Submission: 1.95 Acres
 - d. Limit of Disturbed Area: 1.75 ACRES IMPERVIOUS AREA 0.91 Acres
 - e. Building Coverage of Site: 0 Acres and 0 % of Gross Area (Proposed)
- Open Space Data: N/A
- Parking Space Data:
 - a. Floor Space on Each Level per Building(s) per Use: N/A First Floor N/A Second Floor
 - b. Number of Parking Spaces Required by Zoning Regulations: N/A
 - c. Total Number of Parking Spaces Provided On-Site: 132
 - d. Number of Handicapped Parking Spaces Provided: N/A HANDICAPPED SPACES PROVIDED FOR PARCEL C-2 USER ON WEST SIDE OF BUILDING.

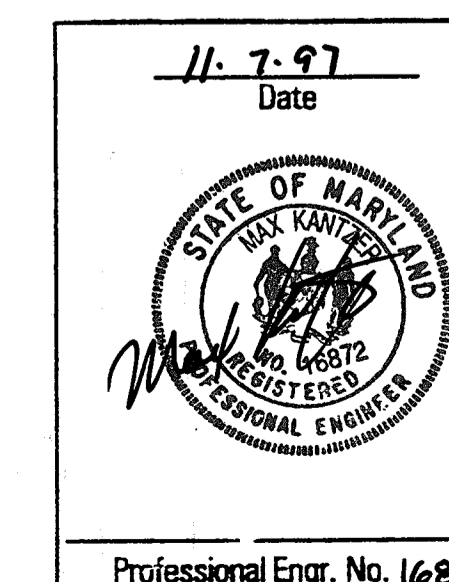
GENERAL NOTES

- All construction shall be performed in accordance with the latest standards and specification of Howard County, plus MSHA standards and specifications if applicable or as specified.
- Approximate location of existing utilities are based solely on available records. Contractor shall verify the location of any utilities which may be impacted by the work. 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 AT CONTRACTOR'S EXPENSE.**
- The contractor shall test pit existing utilities at least five (5) days before starting work shown on these drawings to verify their location and elevation. The contractor shall notify the engineer immediately if the location of utilities is other than shown.
- The contractor shall notify 'Miss Utility' at 1 (800) 257-7777 at least 48 hours prior to any excavation work being done, and shall notify the Department of Public Works/Bureau of Engineering/Construction Inspection Division at (410) 313-1890 at least five (5) working days prior to the start of the work.
- Traffic control devices, markings, and signing, shall be in accordance with the latest edition of the Manual on Uniform Traffic Control Devices (MUTCD). All street and regulatory signs be in place prior to the placement of asphalt.
- Any damage caused by the contractor to existing public right-of-way, existing paving, existing curb and gutter, existing utilities, etc. shall be repaired at the contractor's expense.
- The existing topography inside property line was based on field run survey by DMW, Inc. in September 1997.
- All hydraulic data is for the 10-year storm unless otherwise noted.
- The subsurface exploration and geotechnical engineering analysis for this project was completed by Herbst and Associates in September 1997.
- All fill areas shall be compacted to a minimum of 95% of the maximum dry density as determined and verified in accordance with AASHTO T-180.
- All plan dimensions are to face of curb unless otherwise noted. Numerically written dimensions take precedence over scale dimensions.
- The coordinates shown hereon are based upon the Howard County geodetic control which is based upon the Maryland State plane coordination system.
- Storm water management quantity and quality is provided on site by underground detention facility and stormceptors.
- Neither public water nor public sewer to be utilized. (Contract 2660, main Patuxent Area)
- There are no 100 year floodplains or wetlands on this site.
- There are no known cemeteries or burial grounds on this site. Cemetery to north of parcel is identified on the Howard County inventory as site 47-1; it was field checked.
- No traffic study is required for this project.
- Outdoor lighting has been designed in conformance with the Howard County Zoning Regulations Section 13-4.

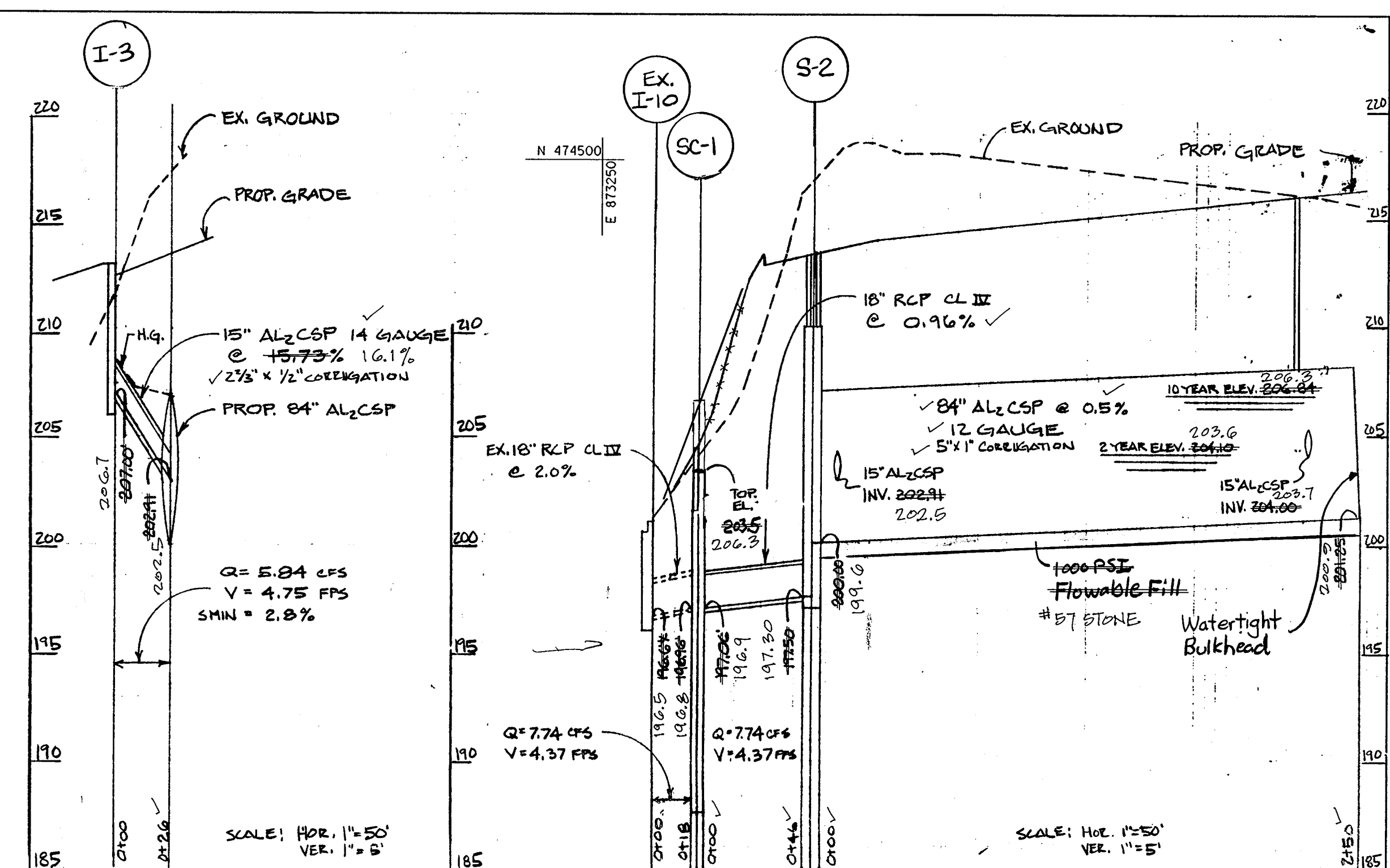
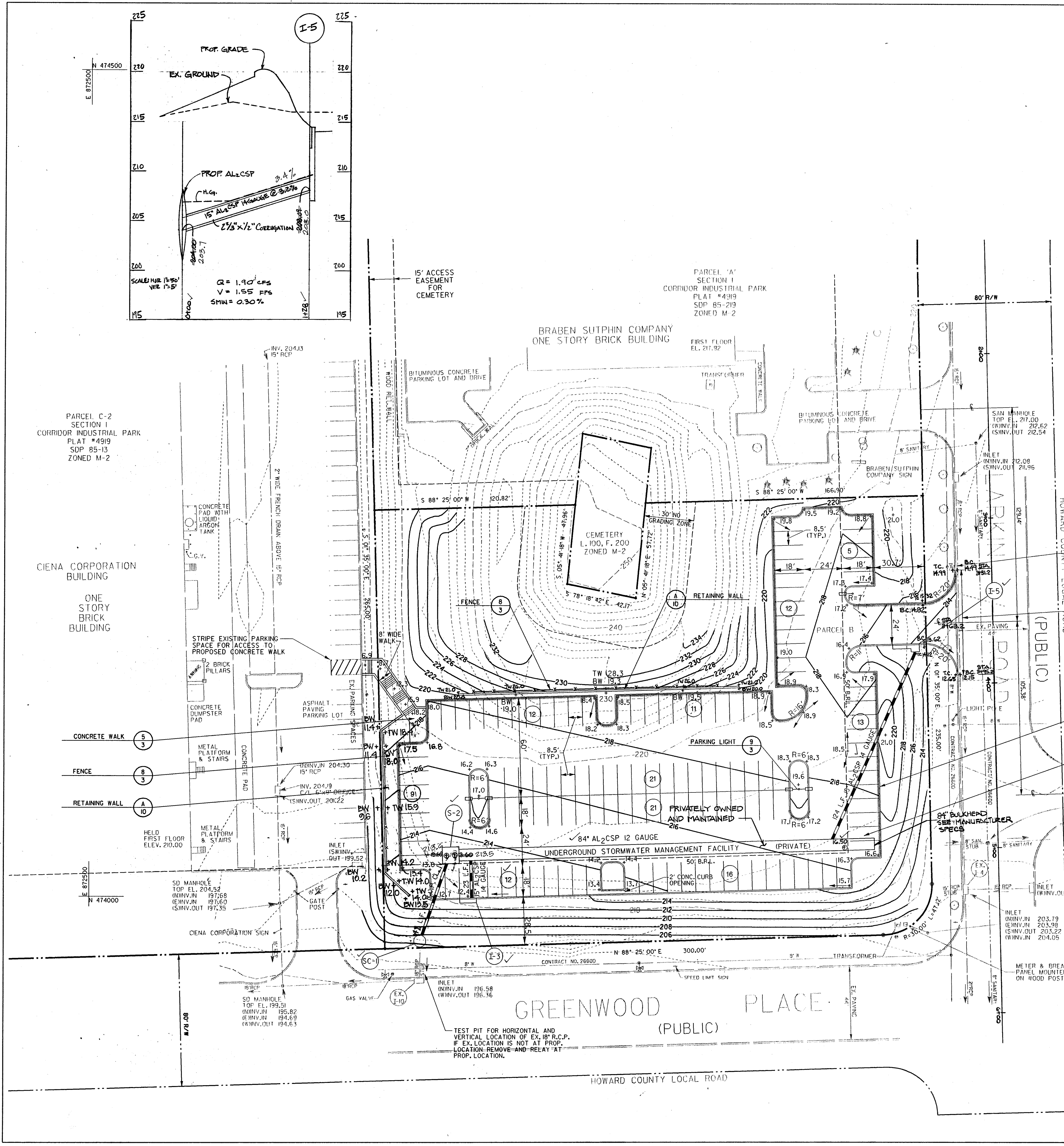
APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING	
<i>[Signature]</i> CHIEF, DEVELOPMENT ENGINEERING DIVISION	11/14/97 DATE
<i>[Signature]</i> CHIEF, DIVISION OF LAND DEVELOPMENT	11/14/97 DATE
<i>[Signature]</i> DIRECTOR	11/14/97 DATE

Date	No.	Revision Description
		CIENA PARKING LOT PARCEL B CORRIDOR INDUSTRIAL PARK HOWARD COUNTY, MD.
		OWNER/ DEVELOPER: THE CREANEY AND SMITH GROUP 925 FELL ST., BALTIMORE, MD., 21231

DMW Dennis M. Walker, Inc. 200 West Pennsylvania Avenue Towson, Maryland 21286 (410) 286-3333 Fax 286-4706				A Team of Land Planners, Landscape Architects, Engineers, Surveyors & Environmental Professionals	
PROJECT NO.	1	DATE	11/14/97	PLAT #	B
PLAT #	4919	BLK #	12	ZONE	M-2
DATE	604	SCALE	411000	DATE	6064
TITLE					
COVER SHEET					
Des By	MM	Scale	AS SHOWN	Proj. No.	97087A
Dm By	CSC	Date	11/7/97		1 OF 10
Chk By	MK	Approved			



Professional Engr. No. 16872



FACILITY SUMMARY

EX. 2YR	DEV. 2YR	EX. 10YR	DEV. 10YR	2YR ELEV.	10YR ELEV.	2YR STORAGE	10YR STORAGE	D.A.
2.04	1.38	4.9	4.06	204.10	206.84	0.61	2.47	2.08
				203.6	206.3			

STRUCTURE SCHEDULE

NO.	TYPE	INV. IN	INV. OUT	TOP ELEVATION	LOWER	REMARKS
I-3	A-10 INLET W=2'-6"		207.00	206.1	212.5	HOCO. STD. S.D.4.41
I-5	S.H.A. COG 15 INLET		208.09	215.22	213.93	S.H.A. STD. MD-374.51

NOTE: UNLESS SHOWN ALL FILLET RADIARE 5'

EXISTING FIRE HYDRANT SHALL BE RELOCATED AS NECESSARY TO CONSTRUCT PROPOSED CURB AND GUTTER

REMOVE EXISTING CURB AND GUTTER IN ORDER TO CONSTRUCT PROPOSED ENTRANCE FROM STA. 3+31.2 TO 3+15.2

CONTRACTOR TO TEST PIT EX. 8" W AT PROPOSED DRIVEWAY ENTRANCE AND MAINTAIN MIN 3'-6" COVER TO FINISHED GRADE. 8" WATER SHALL BE LOWERED IF NECESSARY TO MAINTAIN 3'-6" COVER

- LEGEND**
- 210 --- EXISTING CONTOUR
 - 210 --- PROPOSED CONTOUR
 - PROPOSED CURB & GUTTER
 - PROPOSED REVERSE SLOPE CURB & GUTTER
 - 15" D. --- PROPOSED STORM DRAIN
 - 13 --- PROPOSED PARKING SPACE COUNT
 - + 18.8 --- SPOT ELEVATION
 - PROPOSED FENCE
 - PROPOSED PARKING LIGHT
 - PROPOSED RETAINING WALL

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

[Signature] 11/14/97
CHIEF, DEVELOPMENT ENGINEERING DIVISION

[Signature] 11/14/97
CHIEF, DIVISION OF LAND DEVELOPMENT

[Signature] 11/14/97
DIRECTOR

Date No. Revision Description

**CENIA PARKING LOT
PARCEL B
CORRIDOR INDUSTRIAL PARK
HOWARD COUNTY, MD**

OWNER /DEVELOPER:
THE CREANEY AND SMITH GROUP
925 FELL STREET, BALTIMORE, MD, 21231

DMW
Darr McCune-Walker, Inc.
200 East Pennsylvania Avenue
Potosi, Maryland 21868
(410) 296-3333
Fax 296-4706

A Team of Land Planners,
Landscape Architects,
Engineers, Surveyors &
Environmental Professionals

11-7-97
Date

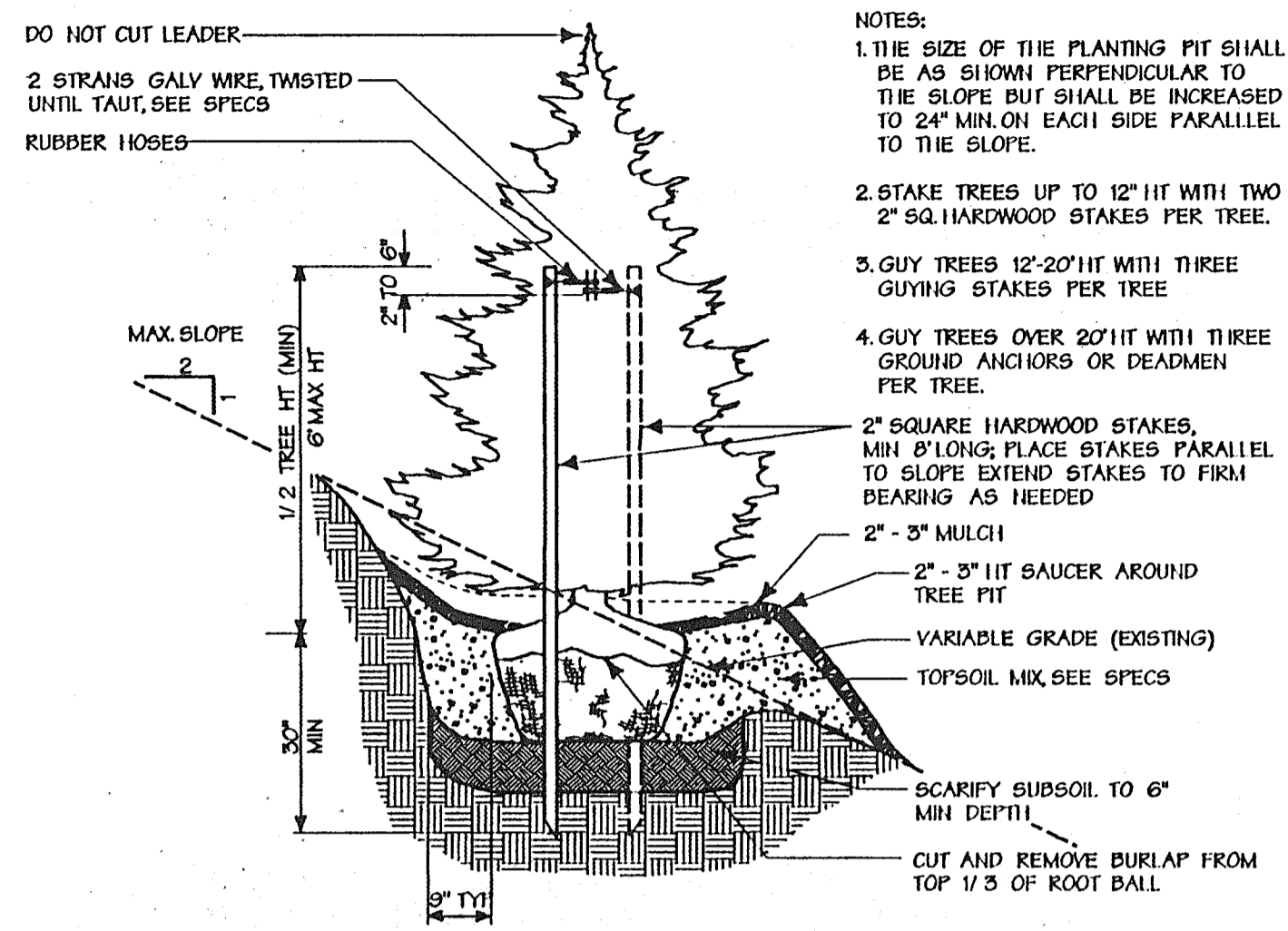
SITE DEVELOPMENT PLAN

Des By JWM Scale 1" = 30' Proj. No. 97087.A
Dwn By JWM Date 11/14/97
Chk By MK Approved 2 OF 10

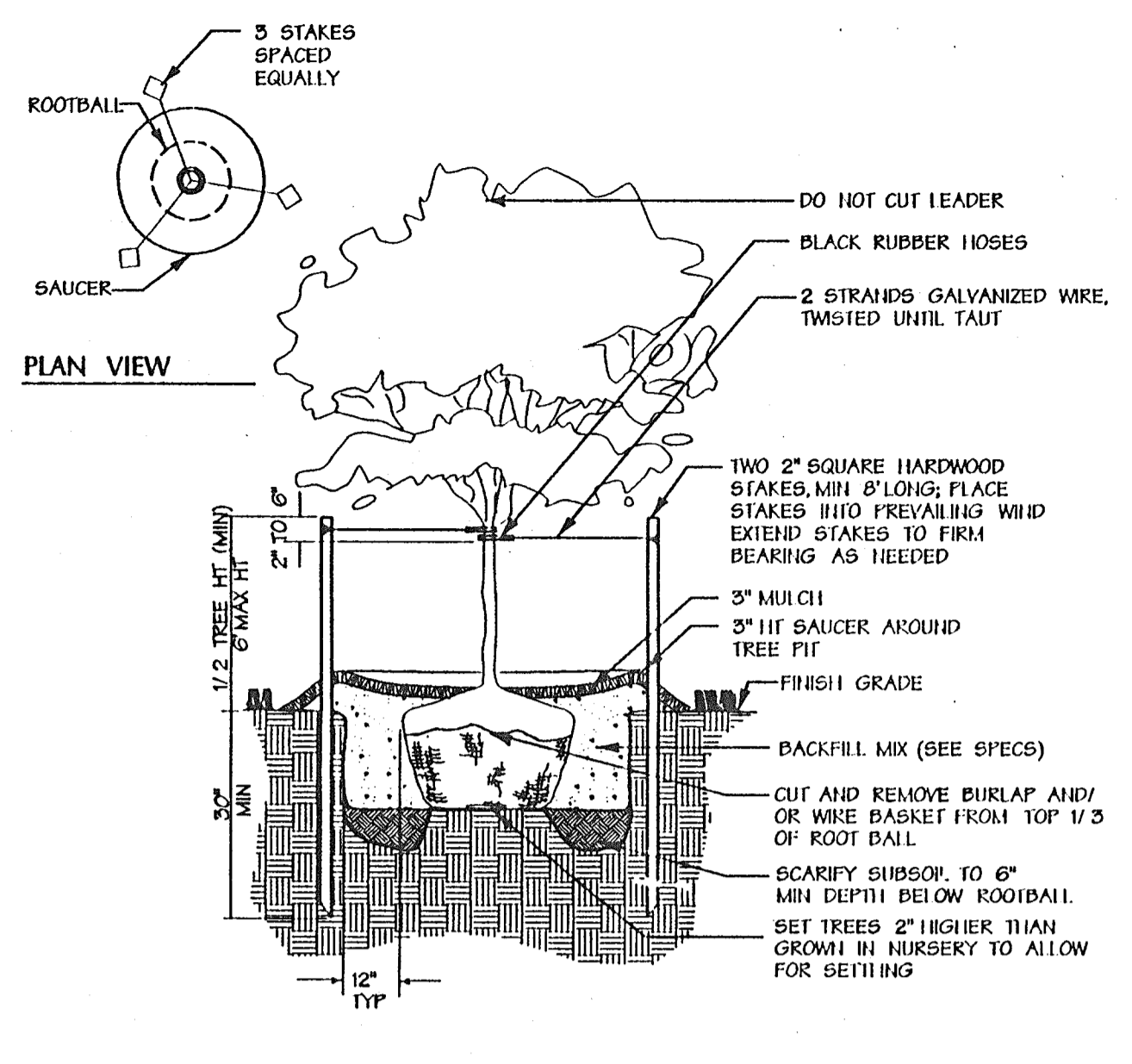
Professional Engr. No. 16872



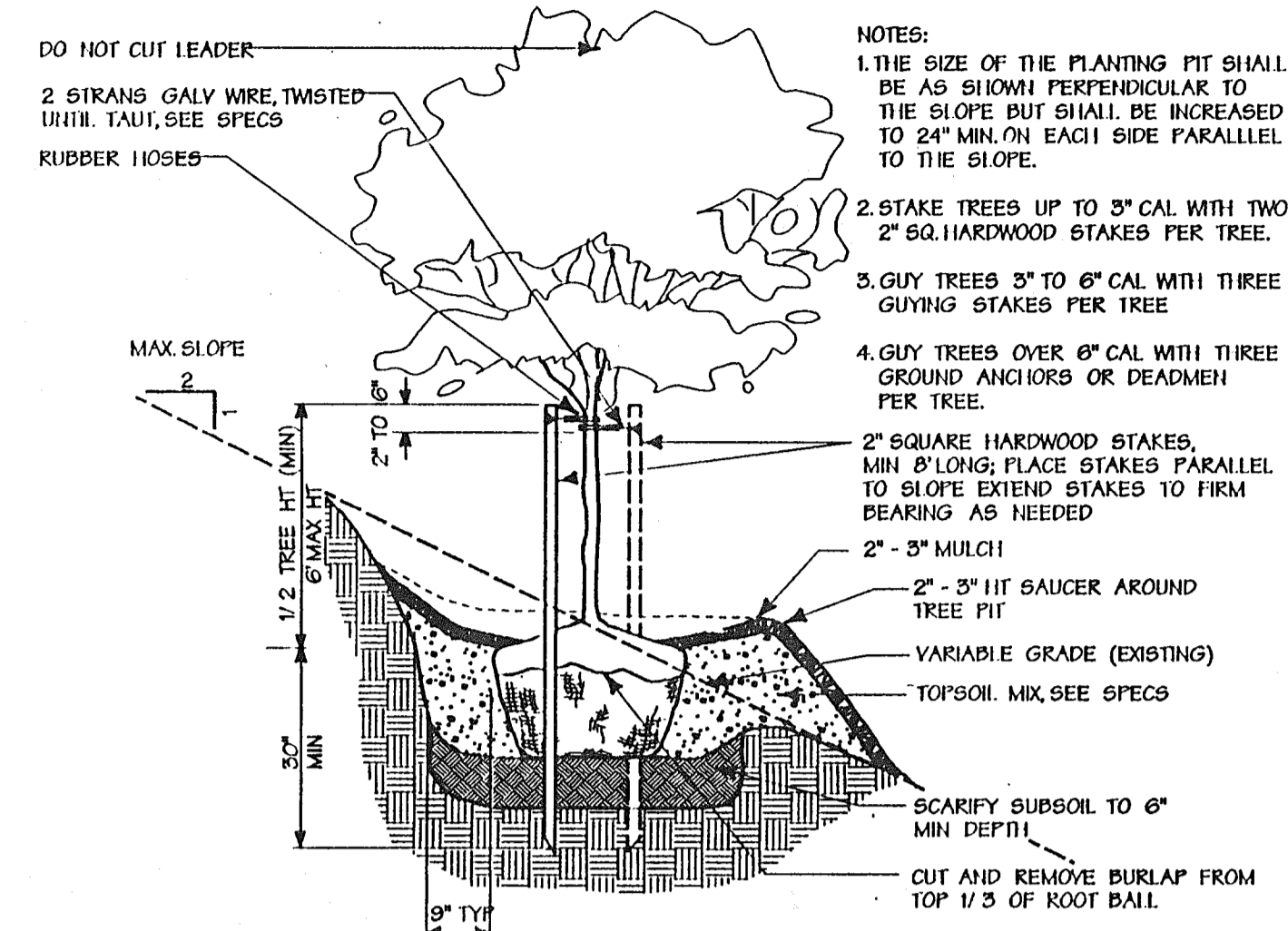
R. Alonso Cheddes
AS-BUILT PLAN
PE 10227 9/2/98
AS-BUILT SWM PLAN sheet 1 of 4



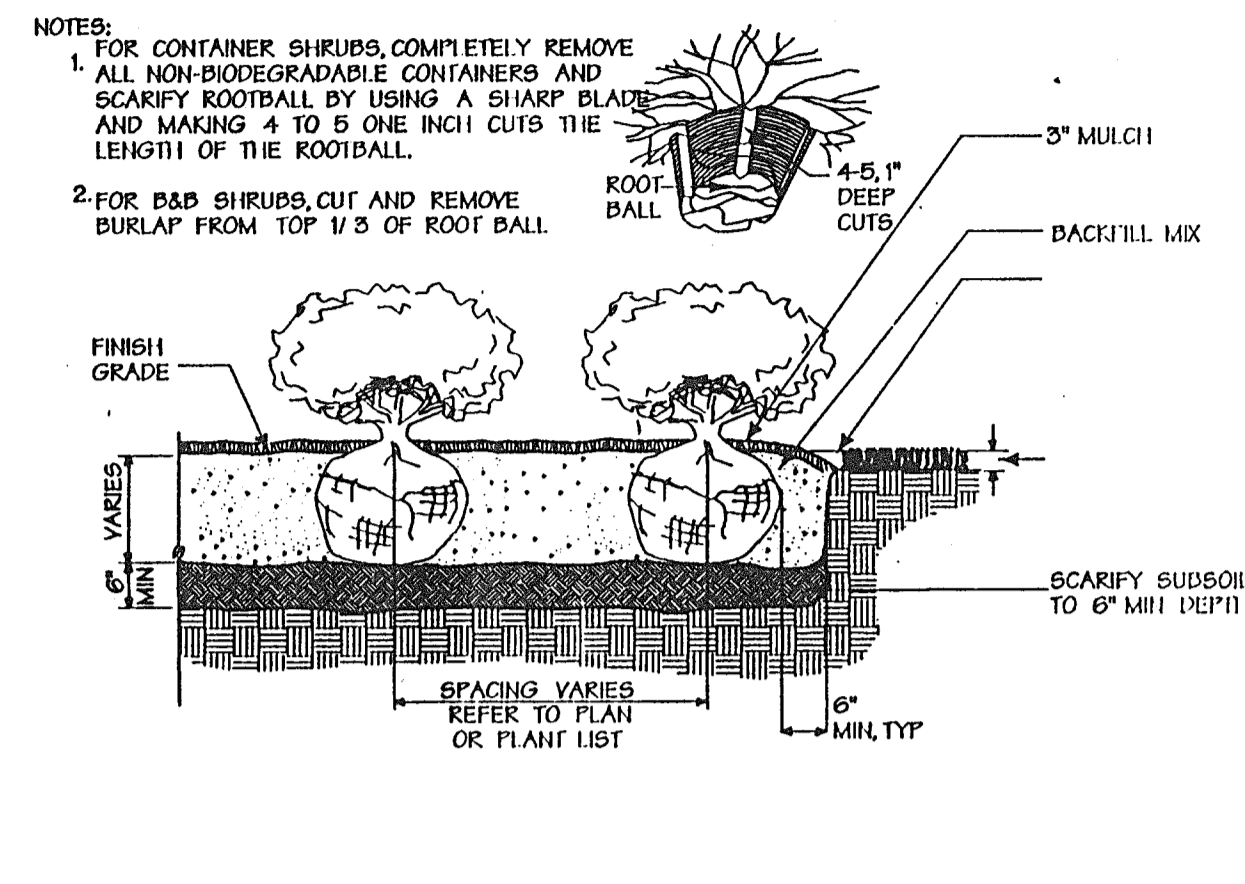
1 Evergreen Tree Planting on Slope
Not To Scale



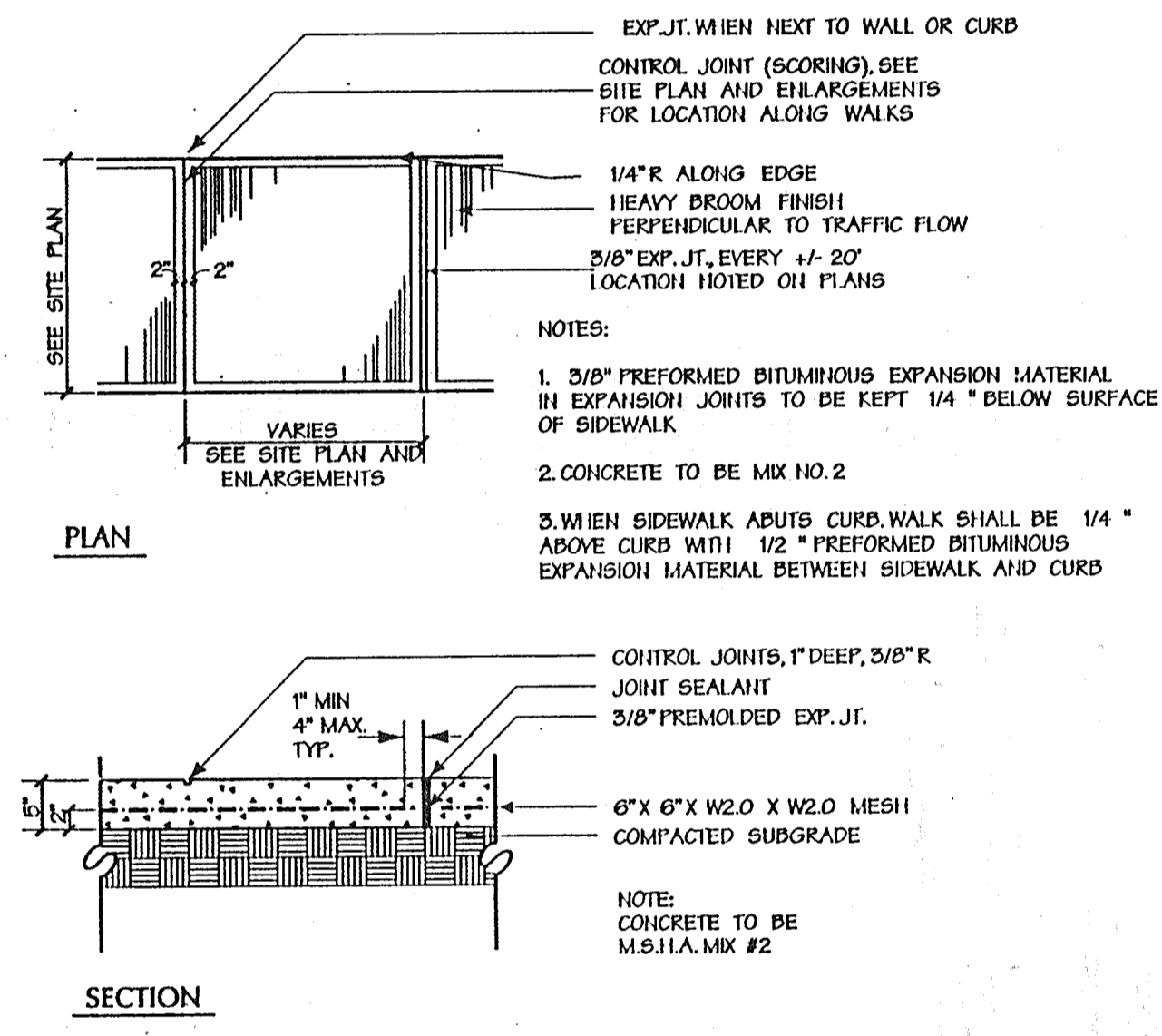
2 Less Than 3" Cal. Tree Planting
Not To Scale



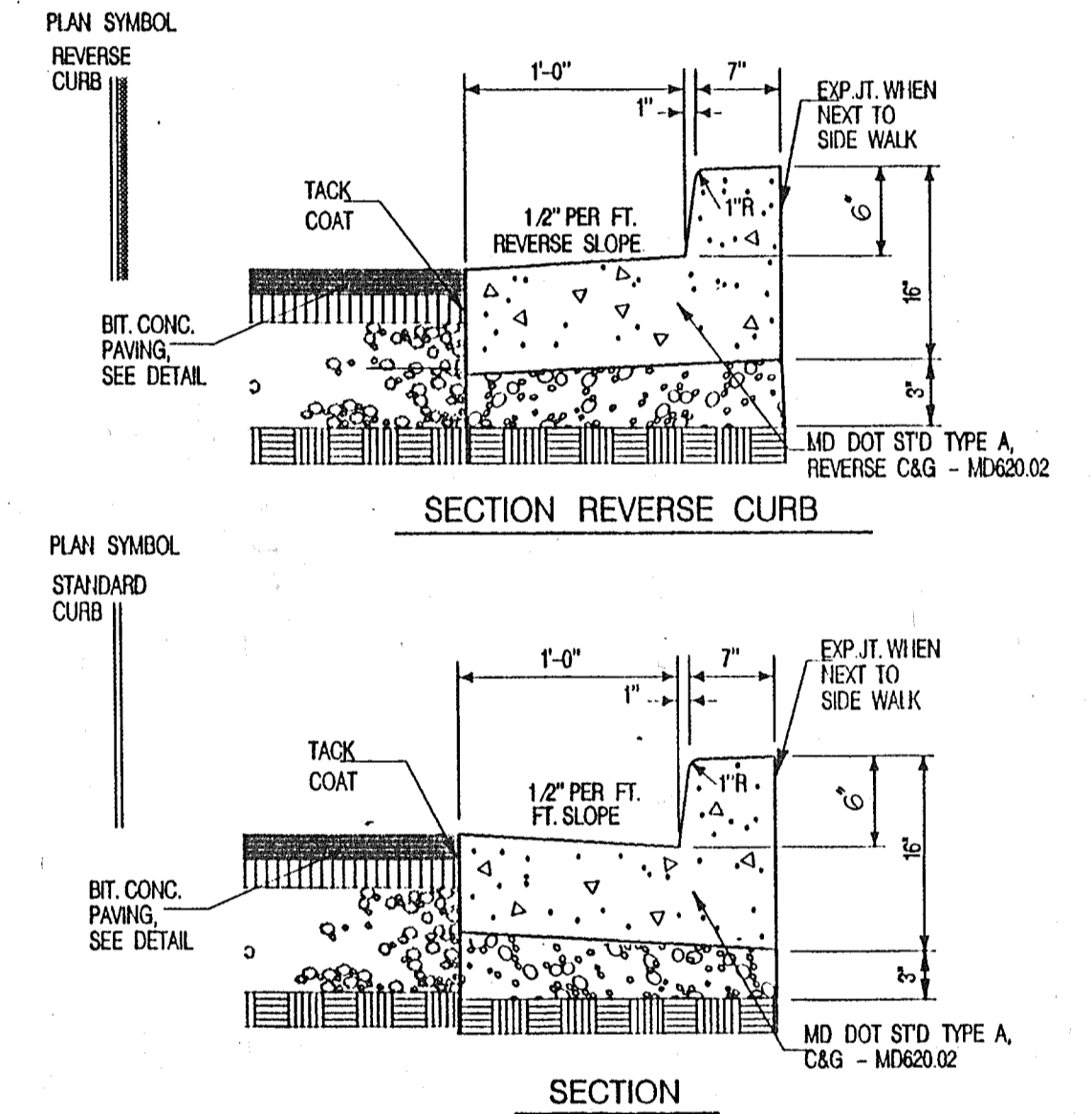
3 Tree Planting on Slope
Not To Scale



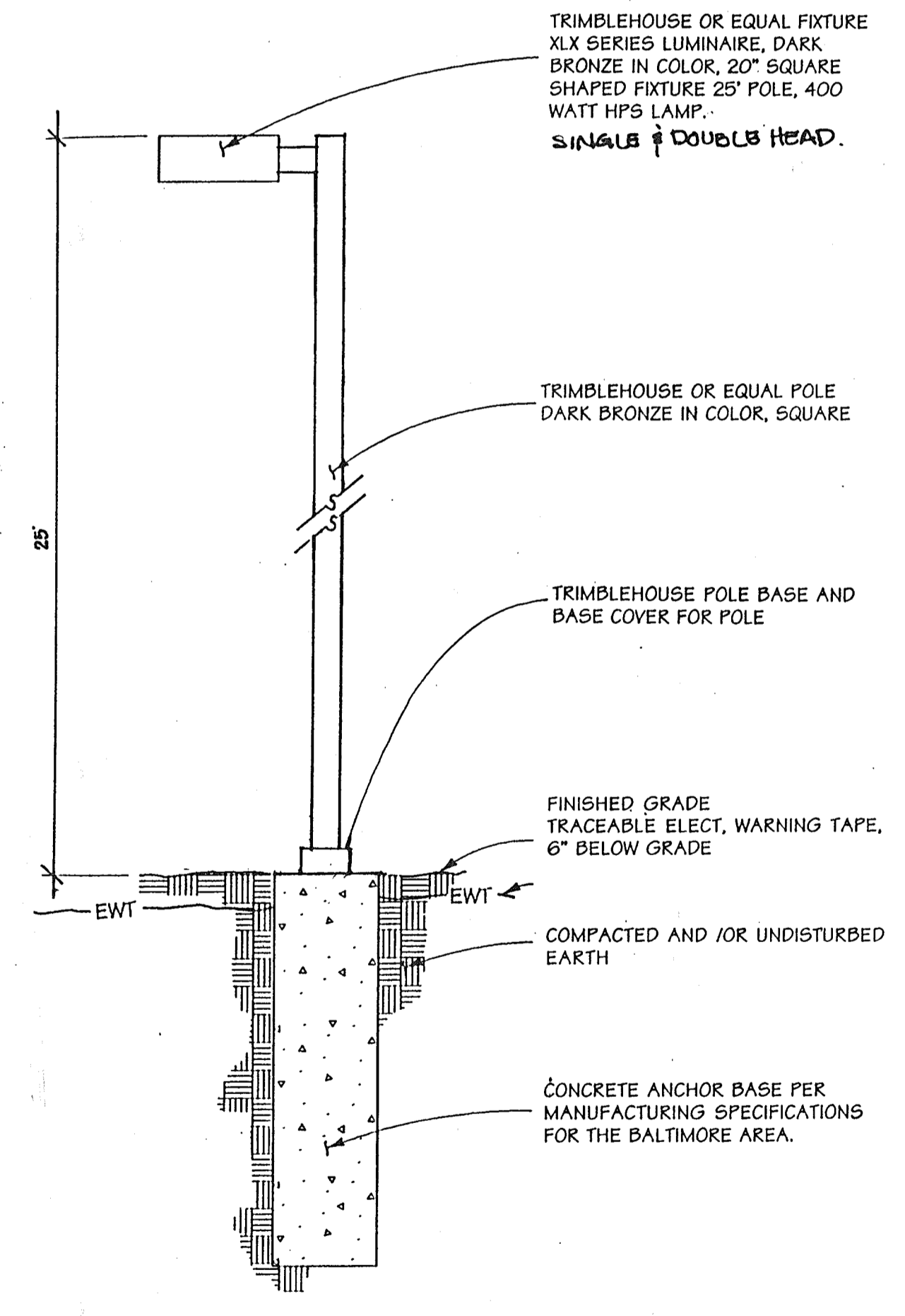
4 Shrub Bed Planting
Not To Scale



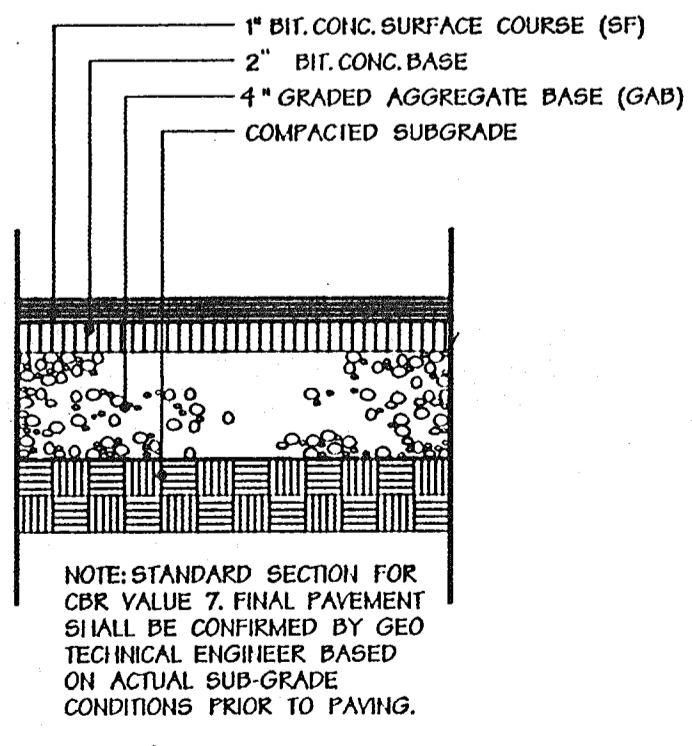
5 Concrete Walk
Not To Scale



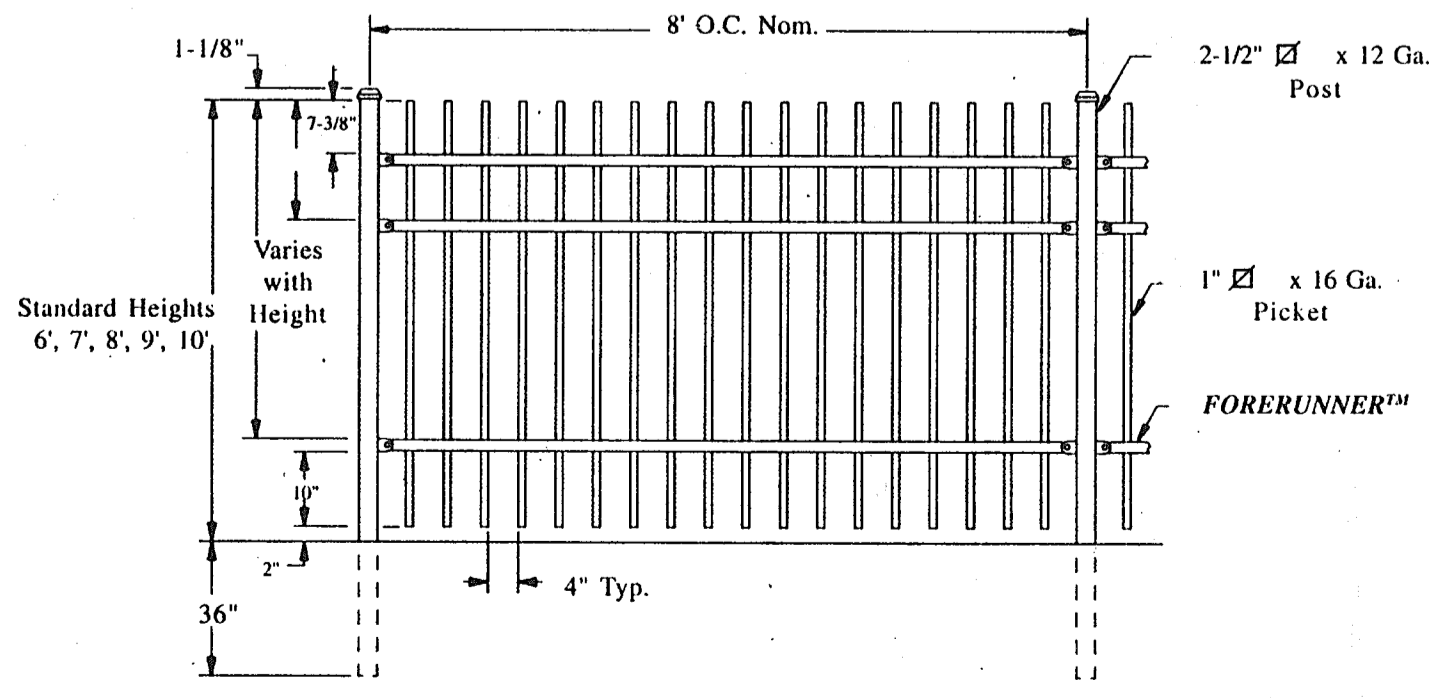
6 Concrete Curb, Typical
Not To Scale



9 Parking Light
Not To Scale



7 P1 Paving
Not To Scale



8 TYPICAL RAIL FENCE

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION, DATE 11/14/97

CHIEF, DIVISION OF LAND DEVELOPMENT, DATE 11/14/97

DIRECTOR, DATE 11/14/97

Date	No.	Revision Description

CIENA PARKING LOT
PARCEL B
CORRIDOR INDUSTRIAL PARK
HOWARD COUNTY, MD.

OWNER/ DEVELOPER: THE CREANEY AND SMITH GROUP
925 FELL ST., BALTIMORE, MD., 21231

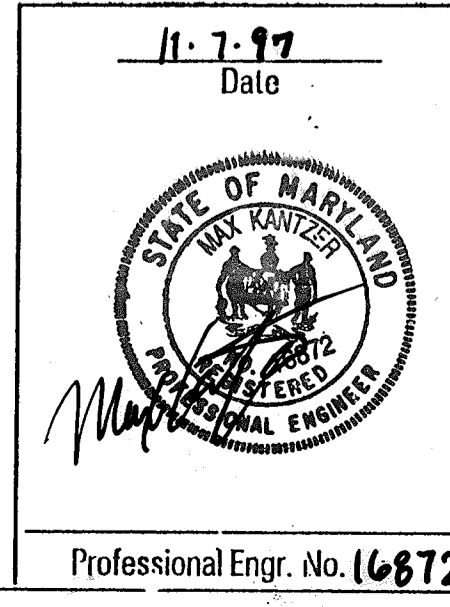
DMW
Duff McCona Walker, Inc.
200 East Penna Iowita Avenue
Towson, Md. 21286
(410) 298-3333
Fax 298-4708

A Team of Planners, Architects, Engineers, Surveyors & Environmental Professionals

PROJECT NO.	SECTION	DATE	SCALE	DATE	SCALE
CORRIDOR IND. PK.	1	11/14/97	AS SHOWN	11/14/97	AS SHOWN
PLAT OF L.P.	12	11/14/97	47	6th	6064
PLAT CODE	604	SEWER CODE	411000		

TITLE
SITE DETAILS

Des By	MM	Scale	AS SHOWN	Proj. No.	37087.A
Dirn By	CSC	Date	11/14/97		
Chk By	MK	Appr'd			3 OF 10



PARCEL C-2
SECTION I
CORRIDOR INDUSTRIAL PARK
PLAT #4919
SDP 85-13
ZONED M-2

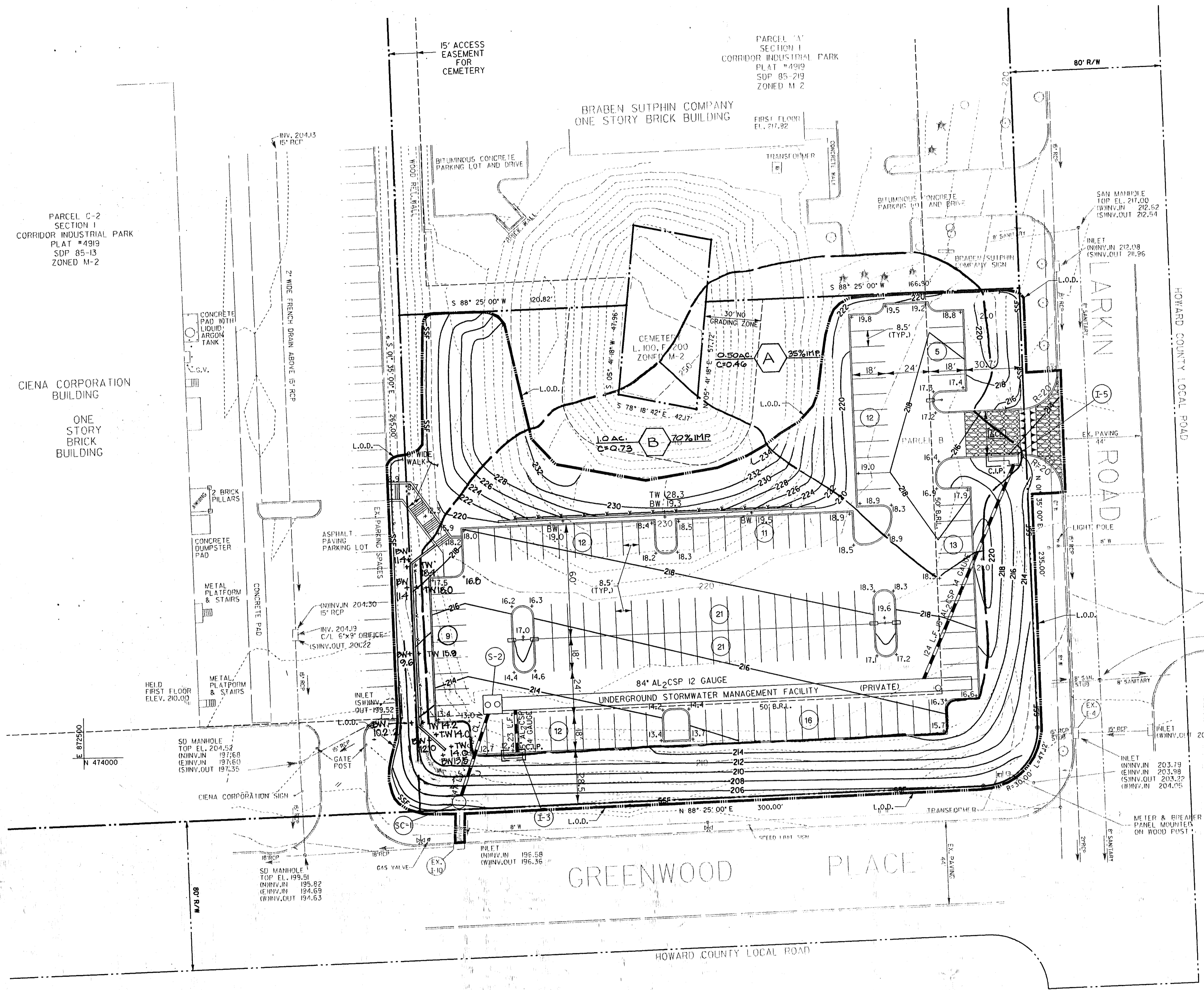
CIENA CORPORATION
BUILDING
ONE
STORY
BRICK
BUILDING

BRABEN SUTPHIN COMPANY
ONE STORY BRICK BUILDING

PARCEL 'A'
SECTION I
CORRIDOR INDUSTRIAL PARK
PLAT #4919
SDP 85-219
ZONED M-2

- SEQUENCE OF CONSTRUCTION
1. OBTAIN GRADING PERMIT. 1 DAY
 2. INSTALL EROSION AND SEDIMENT CONTROL MEASURES. 1 DAY
 3. REMOVE, RELOCATE AND CONSTRUCT UTILITIES, UNDERGROUND STORMWATER FACILITY AND STORMCEPTOR. 14 DAYS
 4. CONSTRUCT RETAINING WALLS AND ROUGH GRADE PARKING LOT. 14 DAYS
 5. FINE GRADE AND CONSTRUCT PARKING LOT. 21 DAYS
 6. FINE GRADE AND STABILIZE DISTURBED AREAS ON SITE IN ACCORDANCE WITH STANDARDS AND SPECIFICATIONS. 14 DAYS
 7. UPON APPROVAL OF THE SEDIMENT CONTROL INSPECTOR, REMOVE SEDIMENT CONTROL MEASURES AND STABILIZE. 1 DAY

NOTE: ALL SOILS ARE
HYDROLOGIC GROUP C



LEGEND

- 210 --- EXISTING CONTOUR
- 210 --- PROPOSED CONTOUR
- 15" D. --- PROPOSED CURB & GUTTER
- 13 --- PROPOSED STORM DRAIN
- 13 --- PROPOSED PARKING SPACE COUNT
- --- LIMIT OF DISTURBANCE
- --- SPOT SILT FENCE
- --- SUPER SILT FENCE
- --- CURB INLET PROTECTION
- --- STABILIZED CONSTRUCTION ENTRANCE

REVIEWED FOR HOWARD S.C.D. AND MEETS TECHNICAL REQUIREMENTS

Cheryl Simmons 11/13/97
U.S. NATURAL RESOURCE CONSERVATION SERVICE DATE

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

John R. Roberts 11/13/97
HOWARD S.C.D. DATE

ENGINEER'S CERTIFICATION:

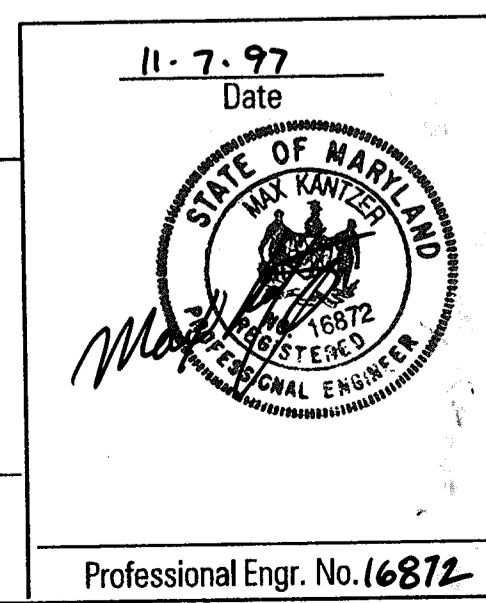
I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

Max Kantzer 11-7-97
SIGNATURE OF ENGINEER DATE
PRINT NAME BELOW SIGNATURE
Max Kantzer

DEVELOPER'S CERTIFICATION:

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

Craig M. Smith 11-7-97
SIGNATURE OF DEVELOPER DATE
PRINT NAME BELOW SIGNATURE
Craig M. Smith



APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

Cheryl Simmons 11/14/97
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

Andy Hamilton 11/14/97
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

James R. Rytter 11/14/97
DIRECTOR DATE

Date	No.	Revision Description

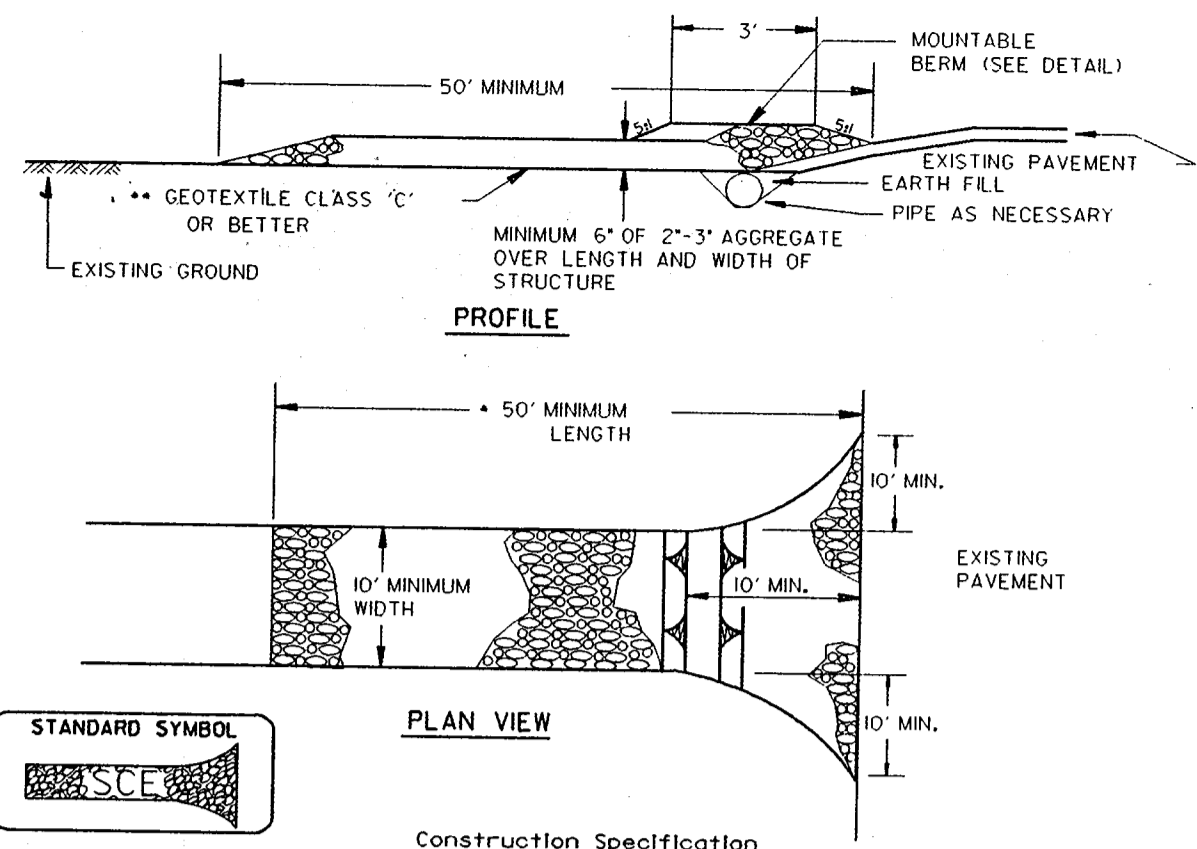
CIENA PARKING LOT
PARCEL B
CORRIDOR INDUSTRIAL PARK
HOWARD COUNTY, MD

OWNER / DEVELOPER:
THE CREANEY AND SMITH GROUP
925 FELL STREET, BALTIMORE, MD., 21231

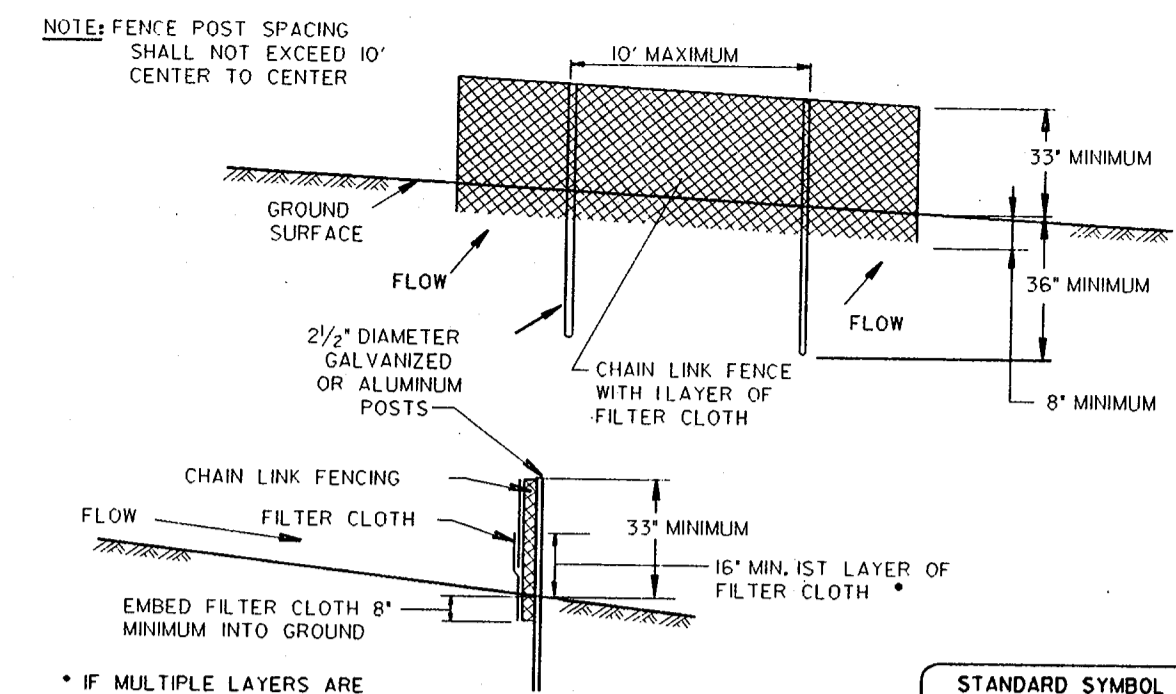
DMW
Duff McCune Walker, Inc.
200 East Pennsylvania Avenue
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(410) 296-3333
Fax 296-4705

A Team of Land Planners,
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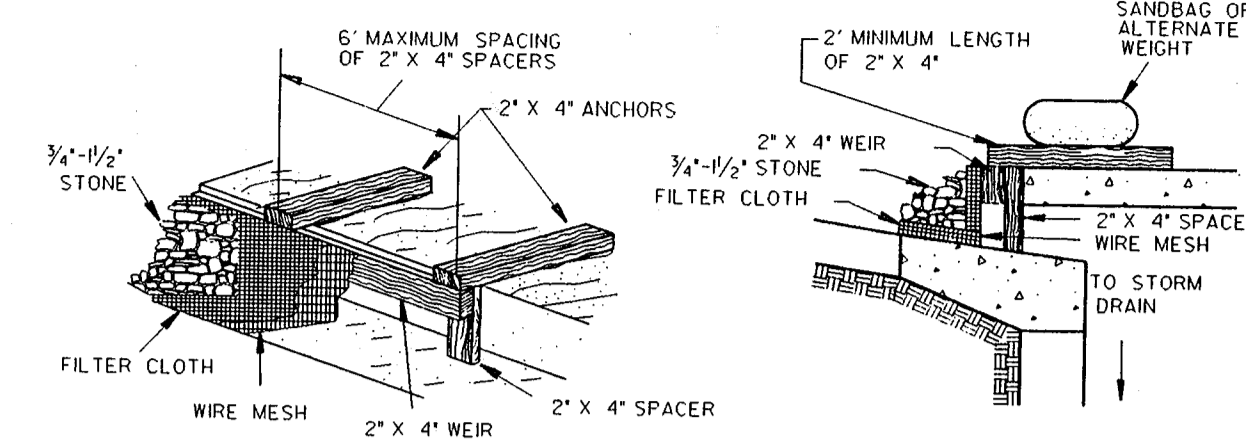
SUBDIVISION NAME CORRIDOR INDUSTRIAL PARK	BLOCK # 47	LOT # 12	TRACT # M-2	SECTION # 6	GRID TRACT # 6064
WATER CODE 604	SEWER CODE 41100	TITLE SEDIMENT CONTROL PLAN & STORM DRAIN DRAINAGE AREA MAP			
Des By JWM	Scale 1" = 30'	Proj. No. 97087-A			
Dwn By JWM	Date 11/7/97	4 OF 10			
Chk By MK	Approved				



- Construction Specifications
- Length - minimum of 50' (+50' for single residence lot).
 - Width - 10' minimum, should be flared at the existing road to provide a turning radius.
 - Geotextile fabric Class C (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.
 - 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.
 - 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' 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.
 - 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.



- Construction Specifications
- Fencing shall be 42 inches in height and constructed in accordance with the latest Maryland State Highway (SHA) Details for Chain Link Fencing. The specification for a 6' fence shall be used, substituting 42" fabric and 6' length posts.
 - The posts do not need to be set in concrete.
 - Chain link fence shall be fastened securely to the fence posts with wire ties or staples. The lower tension wire, brace and truss rods, drive anchors and post caps are not required except on the ends of the fence. The chain link fencing shall be six (6) gauge or heavier.
 - Filter cloth shall be fastened securely to the chain link fence with ties spaced every 24" at the top and mid section.
 - Filter cloth shall be embedded a minimum of 8" into the ground.
 - When two sections of filter cloth adjoin each other, they shall be overlapped by 6" and folded.
 - 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.



- Construction Specifications
- Attach a continuous piece of 3/4" x 1/2" wire mesh (30' minimum width by throat length plus 4" to the 2' x 4' weir measuring throat length plus 2") as shown on the standard drawing.
 - Place a continuous piece of geotextile Class E the same dimensions as the wire mesh over the wire mesh and securely attach it to the 2' x 4' weir.
 - Securely nail the 2' x 4' weir to a 9" long vertical spacer to be located between the weir and the inlet face (max. 4' apart).
 - Place the assembly against the inlet throat and nail minimum 2' lengths of 2' x 4" to the top of the weir at spacer locations. These 2' x 4" anchors shall extend across the inlet top and be held in place by sandbags or alternate weight.
 - The assembly shall be placed so that the end spacers are a minimum 1' beyond both ends of the throat opening.
 - Form the 1/2" x 1/2" wire mesh and the geotextile fabric to the concrete gutter and against the face of the curb on both sides of the inlet. Place clean 3/4" x 1/2" stone over the wire mesh and geotextile in such a manner to prevent water from entering the inlet under or around the geotextile.
 - This type of protection must be inspected frequently and the filter cloth and stone replaced when clogged with sediment.
 - Assure that storm flow does not bypass the inlet by installing a temporary earth or asphalt dike to direct the flow to the inlet.

- A MINIMUM OF 24 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY OFFICE OF INSPECTIONS AND PERMITS PRIOR TO THE START OF ANY CONSTRUCTION (992-2437).
- 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.
- FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN:
 - SEVEN CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DIKES, PERIMETER SLOPES AND ALL SLOPES GREATER THAN 3%.
 - FOURTEEN DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.
- ALL SEDIMENT TRAPS/BASINS SHOWN MUST BE FENCED AND WARNING SIGNS POSTED AROUND THEIR PERIMETER IN ACCORDANCE WITH VOL. I, CHAPTER 12, OF THE 'HOWARD COUNTY DESIGN MANUAL,' STORM DRAINAGE.
- 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 SEEDINGS, SOIL TEMPORARY SEEDING, AND MULCHING (SECTION G). TEMPORARY STABILIZATION WITH MULCH ALONE CAN ONLY BE DONE WHEN RECOMMENDED SEEDING DATES DO NOT ALLOW FOR PROPER GERMINATION AND ESTABLISHMENT OF GRASSES.
- 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	1.95 ACRES
AREA DISTURBED	1.75 ACRES
AREA TO BE ROOFED OR PAVED	0.91 ACRES
AREA TO BE VEGETATIVELY STABILIZED	0.84 ACRES
TOTAL CUT	5,645 CUBIC YARDS
TOTAL FILL	1,675 CUBIC YARDS
OFF-SITE WASTE/BORROW AREA LOCATION WASTE	= NA
- ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE.
- ADDITIONAL SEDIMENT CONTROLS MUST BE PROVIDED, IF DEEMED NECESSARY BY THE HOWARD COUNTY DPW SEDIMENT CONTROL INSPECTOR.
- 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.

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

STABILIZED CONSTRUCTION ENTRANCE
NOT TO SCALE

U.S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE
H - 28 - 3
MARYLAND DEPARTMENT OF ENVIRONMENT
WATER MANAGEMENT ADMINISTRATION

SUPER SILT FENCE
NOT TO SCALE

U.S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE
E - 16 - 6B
MARYLAND DEPARTMENT OF ENVIRONMENT
WATER MANAGEMENT ADMINISTRATION

CURB INLET PROTECTION (COG OR COS INLETS)
NOT TO SCALE

SEDIMENT CONTROL GENERAL NOTES

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 PER ACRES DOLOMITIC LIMESTONE (92 LBS./1000 SQ.FT.) AND 1000 LBS. PER 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. PER ACRE 30-0-0 UREAFORM FERTILIZER (9 LBS./1000 SQ.FT.)
2. ACCEPTABLE - APPLY 2 TONS PER ACRES DOLOMITIC LIMESTONE (92 LBS./1000 SQ.FT.) AND 1000 LBS. PER ACRE 10-10-10 FERTILIZER (23 LBS./1000 SQ.FT.) BEFORE SEEDING. HARROW OR DISK INTO UPPER THREE INCHES OF SOIL.

SEEDING - FOR THE PERIODS MARCH 1 THRU APRIL 30, AND AUGUST 1 THRU OCTOBER 15, SEED WITH 60 LBS. PER ACRE (14 LBS./1000 SQ.FT.) OF KENTUCKY 31 TALL FESCUE. FOR THE PERIOD MAY 1 THRU JULY 31 SEED WITH 60 LBS. KENTUCKY 31 TALL FESCUE PER ACRE AND 2 LBS. PER ACRE (.05 LBS./1000 SQ.FT.) OF WEEPING LOVEGRASS. DURING THE PERIOD OF OCTOBER 16 THRU FEBRUARY 28, PROTECT SITE BY: OPTION (1) - 2 TONS PER ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING. OPTION (2) - USE SOD. OPTION (3) - SEED WITH 60 LBS./ACRE KENTUCKY 31 TALL FESCUE AND MULCH WITH 2 TONS/ACRE WELL ANCHORED STRAW.

MULCHING - APPLY 1-1/2 TO 2 TONS PER ACRE (70 TO 90 LBS./1000 SQ.FT.) OF UNROTTED SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 218 GALLONS PER ACRE (5 GAL/1000 SQ.FT.) OF EMULSIFIED ASPHALT ON FLAT AREAS. ON SLOPES 8 FEET OR HIGHER, USE 348 GALLONS PER ACRE (8 GAL/1000 SQ.FT.) FOR ANCHORING.

MAINTENANCE - INSPECT ALL SEEDING AREAS AND MAKE NEEDED REPAIRS, REPLACEMENTS AND RESEEDING.

TEMPORARY SEEDING NOTES

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

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

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

SEEDING - FOR THE PERIODS MARCH 1 THRU APRIL 30, AND 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 THRU AUGUST 14, SEED WITH 3 LBS PER ACRE OF WEEPING LOVEGRASS (.07 LBS./1000 SQ.FT.) FOR THE PERIOD NOVEMBER 16 THRU FEBRUARY 28, PROTECT SITE BY APPLYING 2 TONS PER ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING, OR USE SOD.

MULCHING - APPLY 1-1/2 TO 2 TONS PER ACRE (70 TO 90 LBS./1000 SQ.FT.) OF UNROTTED WEED FREE SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 218 GAL. PER ACRE (5 GAL/1000 SQ.FT.) OF EMULSIFIED ASPHALT ON FLAT AREAS. ON SLOPES 8 FT. OR HIGHER, USE 348 GAL. PER ACRE (8 GAL/1000 SQ.FT.) FOR ANCHORING.

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

PERMANENT SEEDING NOTES

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

- This practice is limited to areas having 2:1 or flatter slopes where:
 - The texture of the exposed subsoil/parent material is not adequate to produce vegetative growth.
 - 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.
 - The original soil to be vegetated contains material toxic to plant growth.
 - The soil is so acidic that treatment with limestone is not feasible.
- 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

- Topsoil salvaged from the existing site may be used provided that it meets the standards as set forth in these specifications. Typically, the depth of topsoil to be salvaged for a given soil type can be found in the representative soil profile section in the Soil Survey published by USDA-SCS in cooperation with Maryland Agricultural Experimental Station.
- Topsoil Specifications - Soil to be used as topsoil must meet the following:
 - 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.
 - Topsoil must be free of plants or plant parts such as bermuda grass, quackgrass, Johnsongrass, nutsedge, poison ivy, thistle, or others as specified.

- 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.

- 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.
- For sites having disturbed areas over 5 acres:
 - On soil meeting Topsoil specifications, obtain test results dictating fertilizer and lime amendments required to bring the soil into compliance with the following:
 - 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.
 - Organic content of topsoil shall be not less than 1.5 percent by weight.
 - Topsoil having soluble salt content greater than 500 parts per million shall not be used.
 - 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 recommended by a qualified agronomist or soil scientist approved by the appropriate approval authority, may be used in lieu of natural topsoil.

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

Topsoil Application

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

- 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:
 - 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:
 - 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.
 - 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.
 - Composted sludge shall be applied at a rate of 1 ton/1,000 square feet.
 - 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.

APPROVED:	HOWARD COUNTY DEPT. OF PLANNING & ZONING
<i>[Signature]</i>	11/14/97
CHIEF, DEVELOPMENT ENGINEERING DIVISION	DATE
<i>[Signature]</i>	11/18/97
CHIEF, DIVISION OF LAND DEVELOPMENT	DATE
<i>[Signature]</i>	11/18/97
DIRECTOR	DATE

Date	No.	Revision Description

**CIENA PARKING LOT
PARCEL B
CORRIDOR INDUSTRIAL PARK
HOWARD COUNTY, MD**

OWNER / DEVELOPER:
THE FREELY AND SMITH GROUP
925 CREEK STREET, BALTIMORE, MD., 21231

DMW
Duff McCune-Walker, Inc.
200 East Pennsylvania Avenue
Towson, Maryland 21286
(410) 296-3333
Fax 296-4706

A Team of Land Planners,
Landscape Architects,
Engineers, Surveyors &
Environmental Professionals

SUBSHEET NO.	CORRIDOR INDUSTRIAL PARK	SECTION/AREA	1	EDWARDS #	B
DATE OR LA	4/91	BLOCK #	12	TAXIDISTRICT	47
MAP		TRACEDISTRICT	6	GENUS TRACT	6084
WATER CODE	604	SEWER CODE	411000		

TITLE
**SEDIMENT CONTROL
DETAILS AND NOTES**

Des By	JVM	Scale	1" = 30'	Proj. No.	97087-A
Drn By	JVM	Date	11/7/97		
Chk By	MK	Approved			5 OF 10

Professional Engr. No. 16872

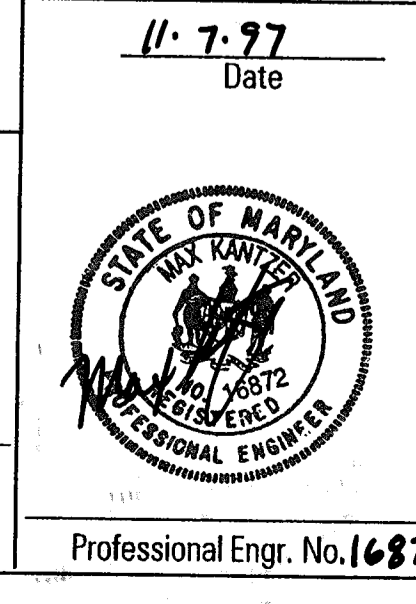
REVIEWED FOR HOWARD S.C.D. AND MEETS TECHNICAL REQUIREMENTS	
<i>[Signature]</i>	11/13/97
M.S. NATURAL RESOURCE CONSERVATION SERVICE	DATE
THIS DEVELOPMENT PLAN IS APPROVED FOR EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.	
<i>[Signature]</i>	11/13/97
HOWARD S.C.D.	DATE

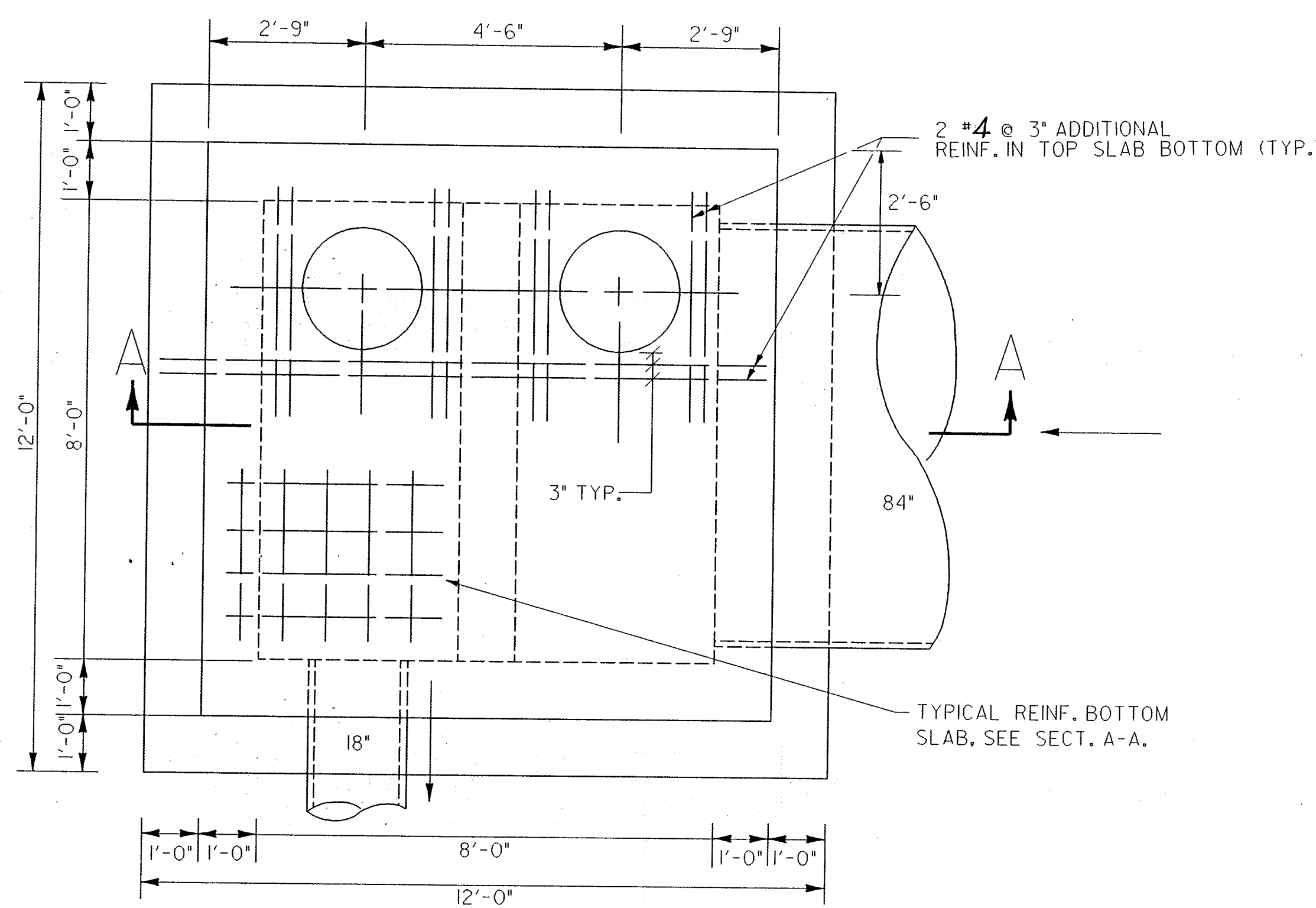
ENGINEER'S CERTIFICATION:
I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

[Signature]
SIGNATURE OF ENGINEER
PRINT NAME BELOW SIGNATURE
Max Kantzer
DATE
11-7-97

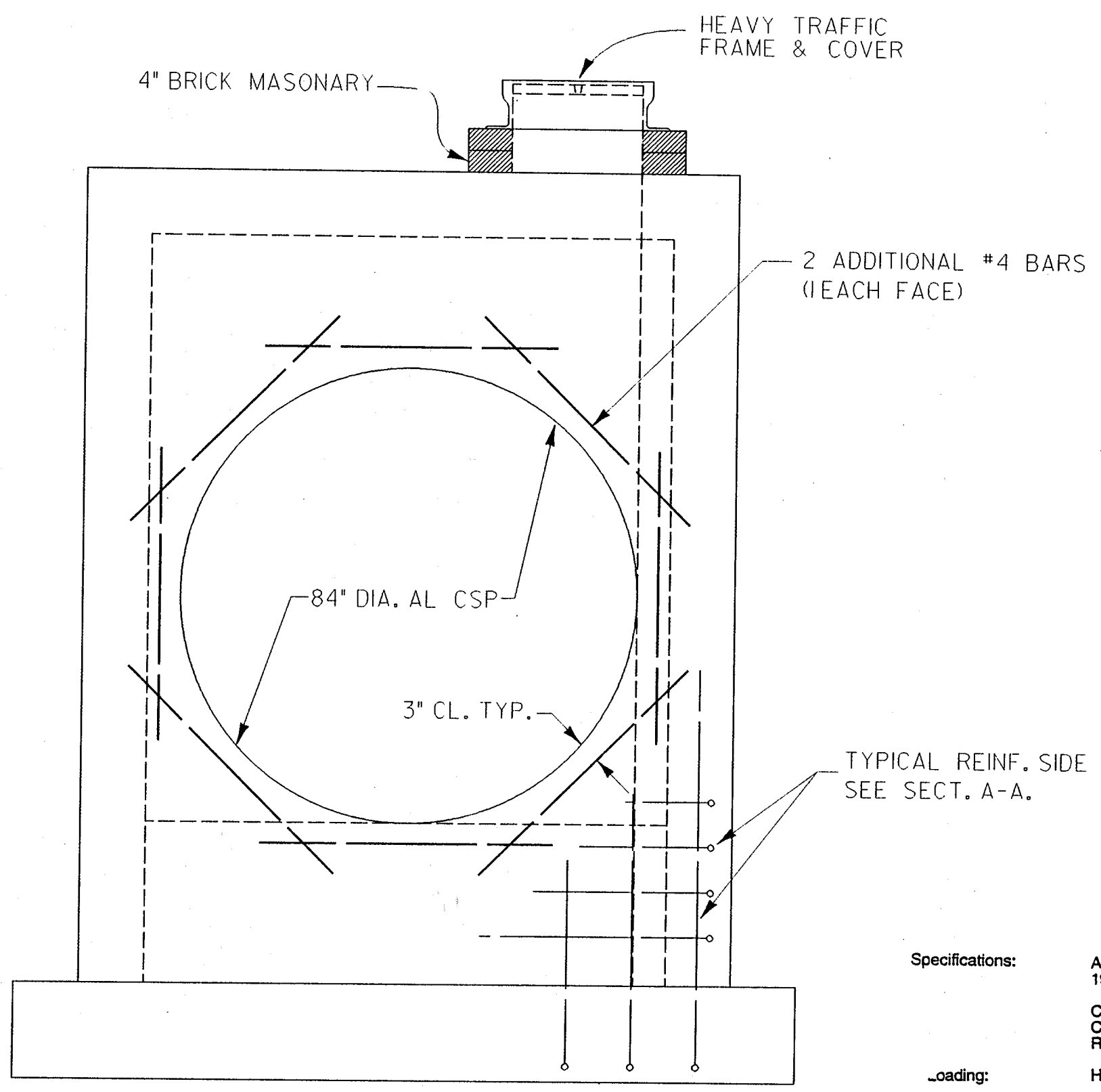
DEVELOPER'S CERTIFICATION:
I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL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

[Signature]
SIGNATURE OF DEVELOPER
PRINT NAME BELOW SIGNATURE
CAROL M. SMITH
DATE
11-7-97

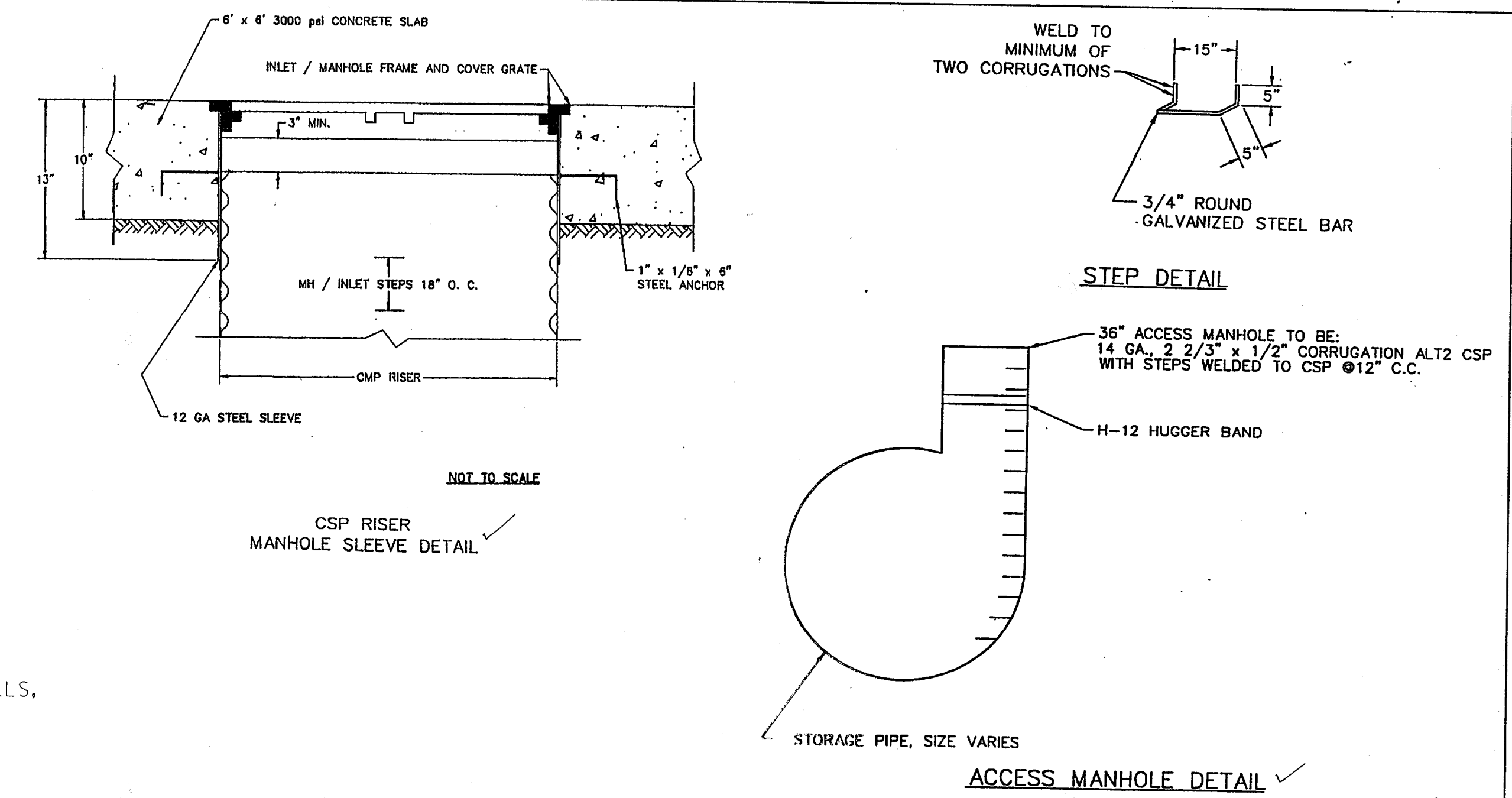




PLAN (CAST IN PLACE)
SCALE: 1/2" = 1'-0"



SECT. B-B (CAST IN PLACE)
SCALE: 1/2" = 1'-0"



General Notes

Specifications: AASHTO "Standard Specifications for Highway Bridges" dated 1989 for design, including all interim specifications.

Concrete Design: Service load design method.
Concrete: $f_c = 1,200$ PSI
Reinforcing Steel: $f_s = 24,000$ PSI

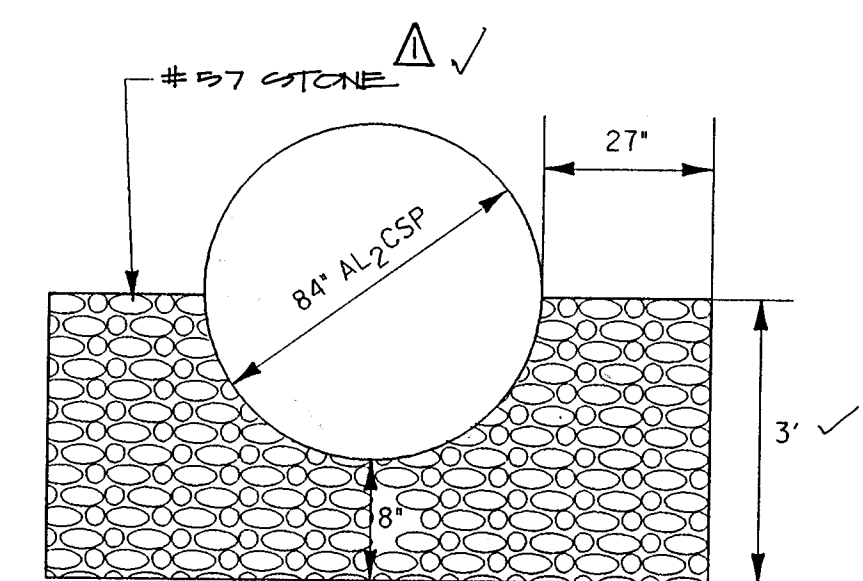
Loading: HS20

Concrete: All concrete shall have a minimum compressive strength of 3,500 PSI at 28 days.

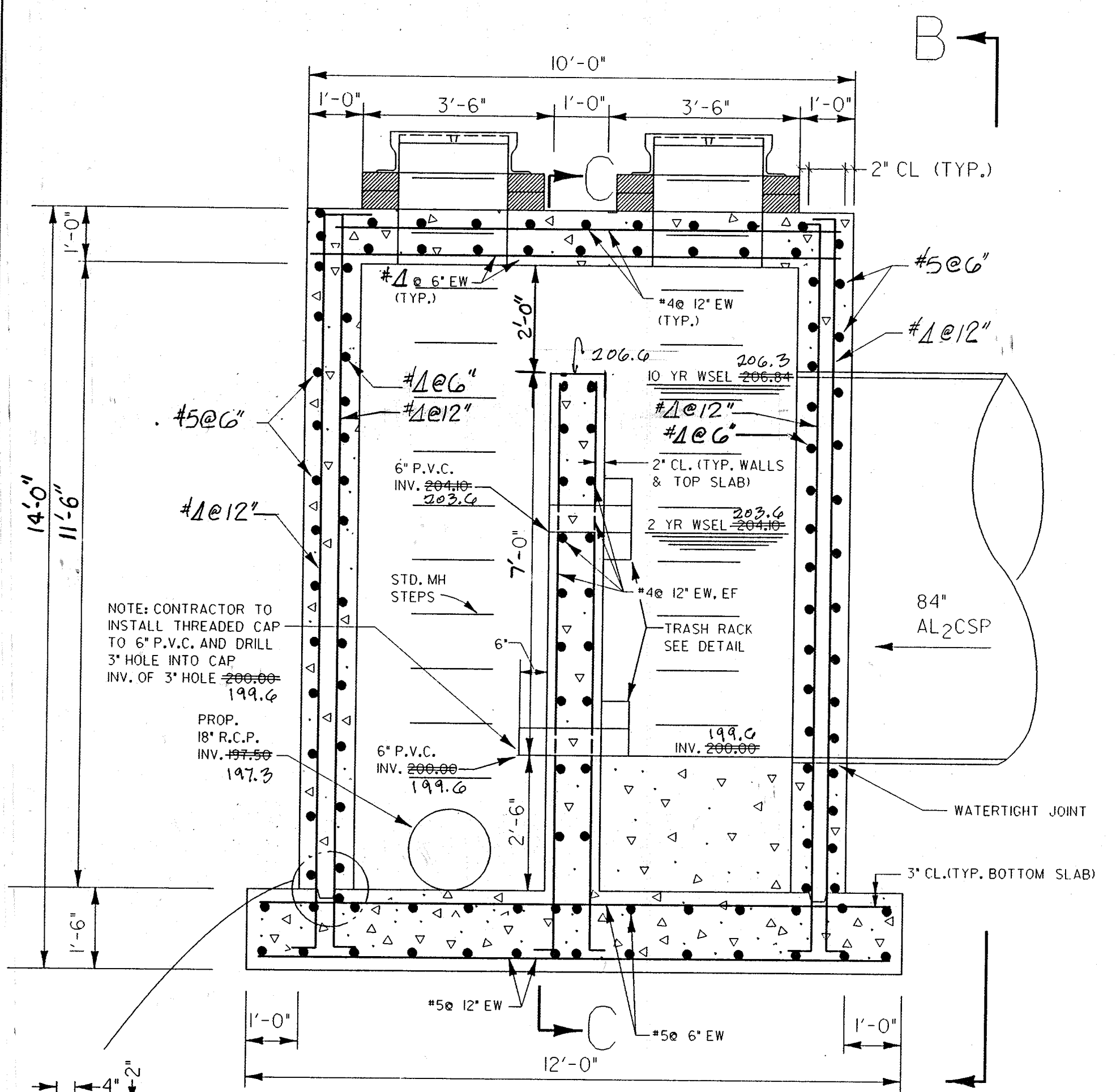
Keys: All keys are nominal size

Reinforcing Steel: Reinforcing steel shall conform to ASTM A-615, Grade 60. Where not indicated, bar lap splices shall be in accordance with AASHTO specifications. The minimum concrete cover shall be 2 inches unless otherwise noted.

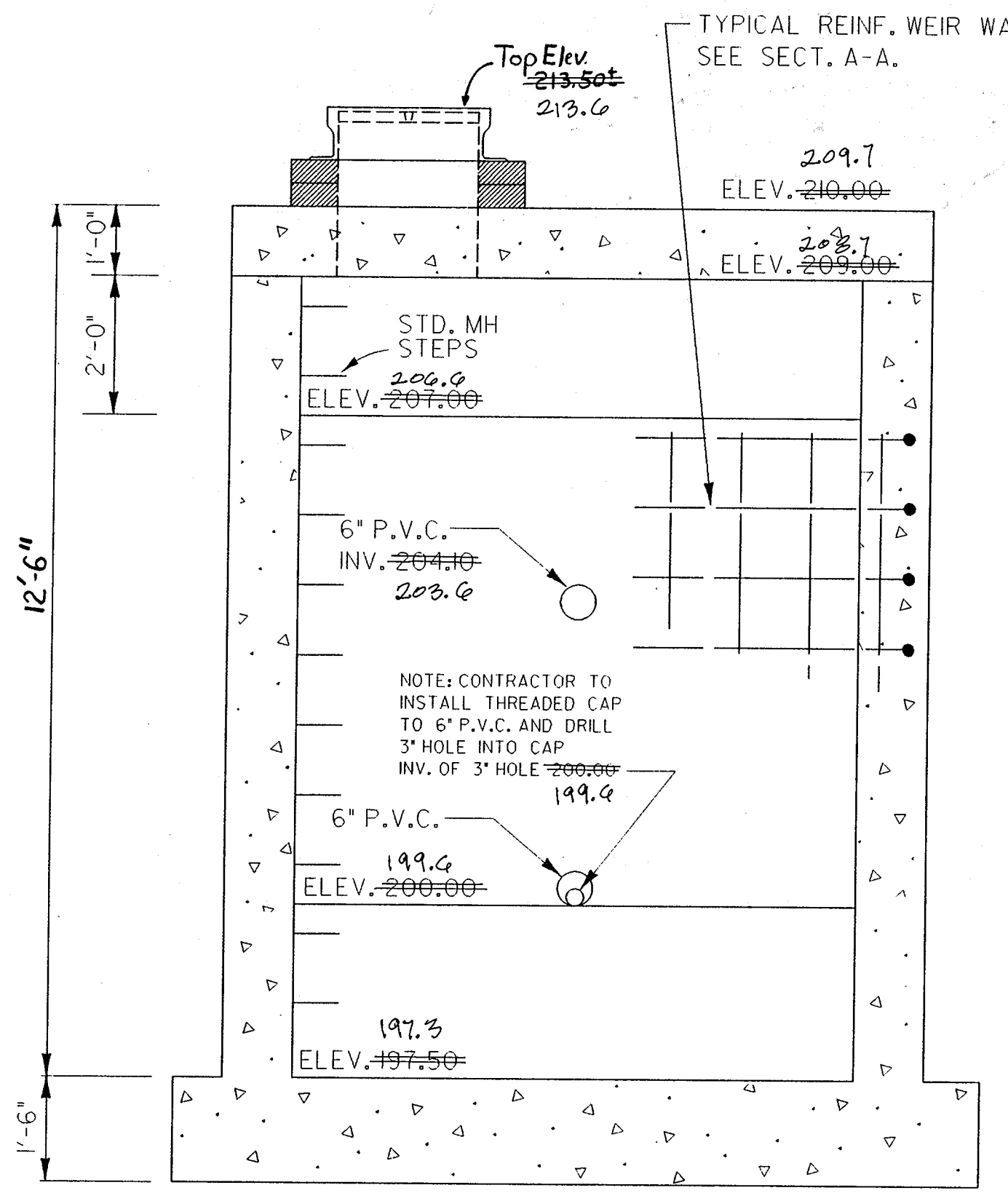
Foundation: Presumed soil bearing capacity - 2,500 PSF. The engineer must approve all foundations prior to concrete placement. If unsuitable material is encountered, the material shall be undercut and backfilled with structural backfill.



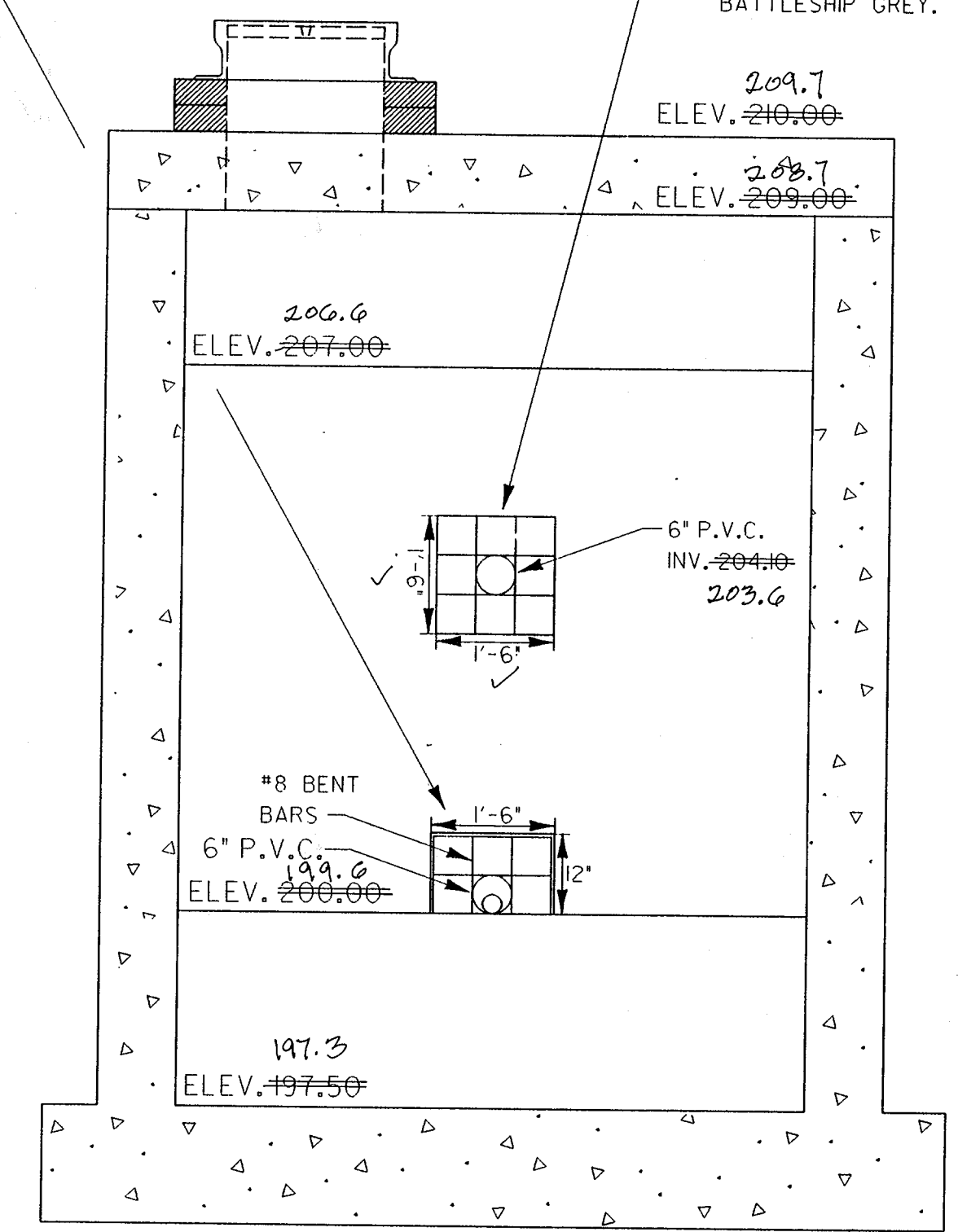
BEDDING DETAIL FOR 84" AL₂CSP
NTS



SECT. A-A (CAST IN PLACE)
SCALE: 1/2" = 1'-0"



SECT. C-C (CAST IN PLACE)
SCALE: 1/2" = 1'-0"



TRASH RACK
N.T.S.

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

Howard Hamilton 11/14/97
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

David Hamilton 11/14/97
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

James S. Smith 11/14/97
DIRECTOR DATE

12-17-97
Date No. CHANGE BEDDING DETAIL
Revision Description

**CIENA PARKING LOT
PARCEL B
CORRIDOR INDUSTRIAL PARK
HOWARD COUNTY, MD**

OWNER / DEVELOPER:
THE CREANEY AND SMITH GROUP
925 FELL STREET, BALTIMORE, MD., 21231

IDMW
Duff-McCune-Walkers, Inc.
200 East Pennsylvania Avenue
Towson, Maryland 21286
(410) 296-3232
Fax: 296-4705

A Team of Land Planners,
Landscape Architects,
Engineers, Surveyors &
Environmental Professionals

SUBDIVISION NAME	CORRIDOR INDUSTRIAL PARK	SECTION/AREA	1	LOT/PARCEL #	B
PROJ. OR LOT #	4919	BLK. #	12	LOT/SECTION #	47
WATER CODE	504	SEWER CODE	411000	CENSUS TRACT	6064

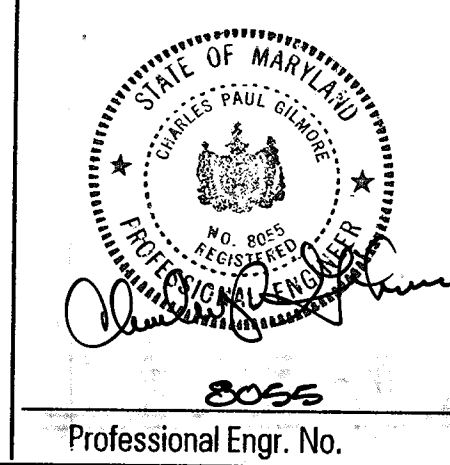
STORMWATER MANAGEMENT DETAILS

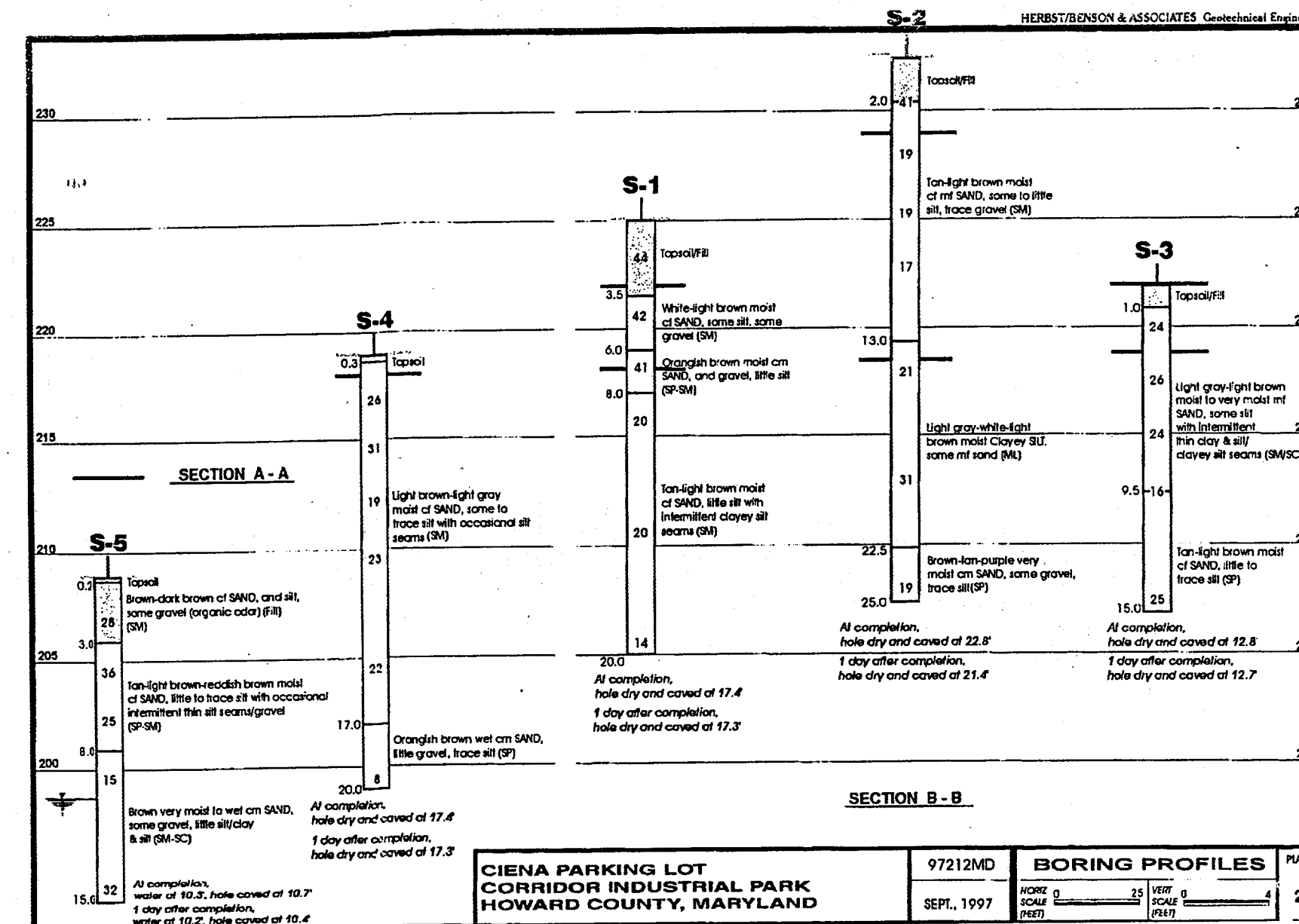
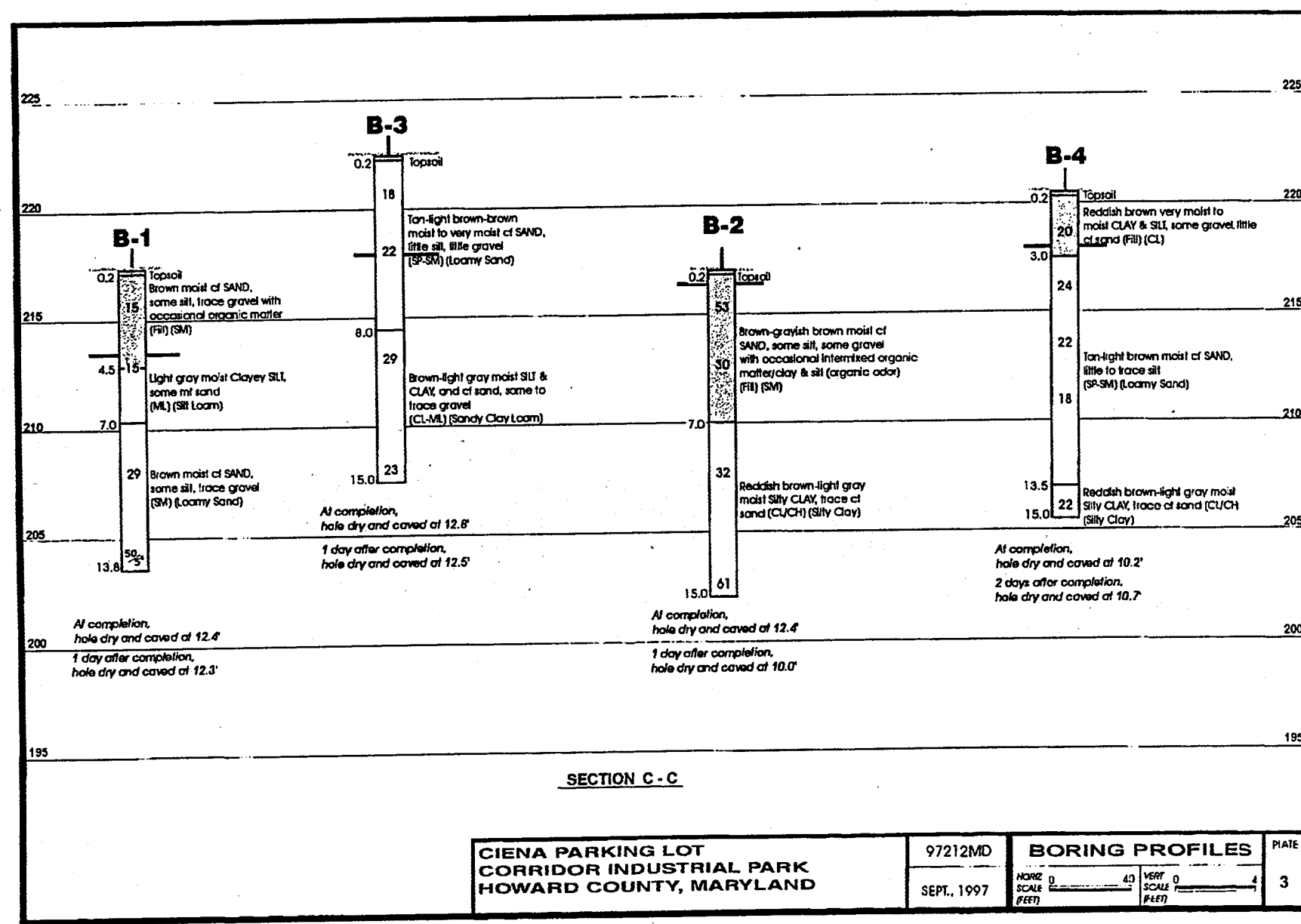
Des By: JWM Scale: AS SHOWN Proj. No.: 97087.A
Dwn By: JWM Date: 11/17/97
Chk By: MK Approved: 6 OF 10



R. Alvaro Chelres
AS-BUILT PLAN
PE 10227 9/2/98

November 7, 1997
Date



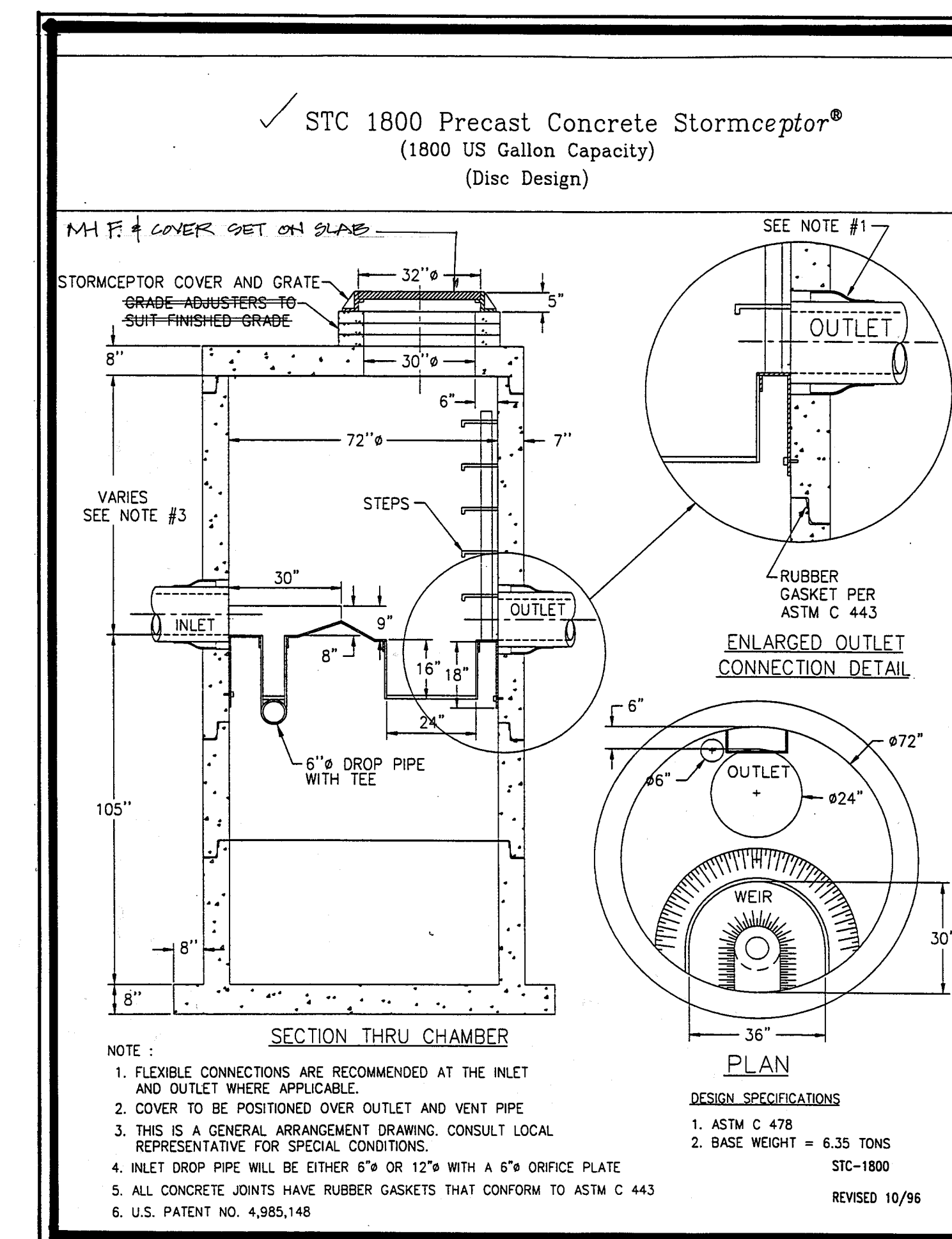


OPERATION AND MAINTENANCE SCHEDULE FOR STORMCEPTOR WATER QUALITY DEVICE

- 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 ("studs 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.
- The Stormceptor water quality structure shall be checked and cleaned immediately after petroleum spills. The owner shall contact the appropriate regulatory agencies.
- 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.
- 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.
- The owner shall retain and make the Stormceptor Inspection/Monitoring Forms available to the Howard County officials upon their request.

Concrete Stormceptor® Order Request Form *

Contractor Information Name _____ Address _____ City _____ State _____ Zip Code _____ Contact _____ Phone _____ Fax _____		Office Use Only Order # _____ Date _____ Internal Sale _____	
Owner Information Name <u>THE CREANEY AND SMITH GROUP</u> Phone _____ Fax _____		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.	
Stormceptor® Model 900 <input type="checkbox"/> 3600 <input type="checkbox"/> 1200 <input type="checkbox"/> 4800 <input type="checkbox"/> 1800 <input checked="" type="checkbox"/> 6000 <input type="checkbox"/> 2400 <input type="checkbox"/> 7200 <input type="checkbox"/> IMPERV. D. AREA = 0.97 Ac.	Insert Size DISC <input checked="" type="checkbox"/> 22" <input type="checkbox"/> 32" <input type="checkbox"/> 44" <input type="checkbox"/> Custom _____	Manhole Number Finish Top Elevation (ft) <u>206.7</u> Top Slab Elevation (ft) <u>206.3</u> Inlet Pipe Invert (ft) <u>196.9</u> Outlet Pipe Invert (ft) <u>196.8</u> Pipe Type: <u>R.C.P.</u> Pipe Inside Diam. (in) [ID] <u>18"</u> Pipe Outside Diam. (in) [OD] <u>23"</u>	
Project Name <u>CIENA PARKING LOT</u> Approximate time frame until required delivery (weeks) _____ Delivery Address: Street _____ City _____ State <u>MARYLAND</u> Zip Code _____ Designer Company <u>DAFT - McCUNE - WALKER</u> Designer Contact <u>JOE MCGRAW</u> Phone <u>410-296-3333</u> Fax <u>410-296-4705</u>			
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			



Underground S.W.M. Facility Maintenance Schedule

The facility shall be inspected twice annually. The underground facility owner(s) and any heirs, successors, or assigns shall be responsible for the safety of the facility and the continued operation, surveillance, inspection, and maintenance thereof. All appurtenances shall be kept free of trash.

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION [Signature] DATE 11/14/97

CHIEF, DIVISION OF LAND DEVELOPMENT [Signature] DATE 11/14/97

DIRECTOR [Signature] DATE 11/14/97

Date	No.	Revision Description

CIENA PARKING LOT
PARCEL B
CORRIDOR INDUSTRIAL PARK
HOWARD COUNTY, MD.

OWNER / DEVELOPER: THE CREANEY AND SMITH GROUP
925 FELL ST., BALTIMORE MD. 21231

DMW
DAFT-McCUNE-WALKER, Inc.
300 East Pennsylvania Avenue
Towson, Maryland 21286
(410) 296-3333
Fax: 296-4705

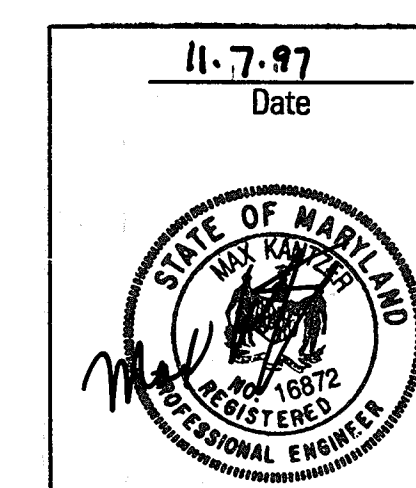
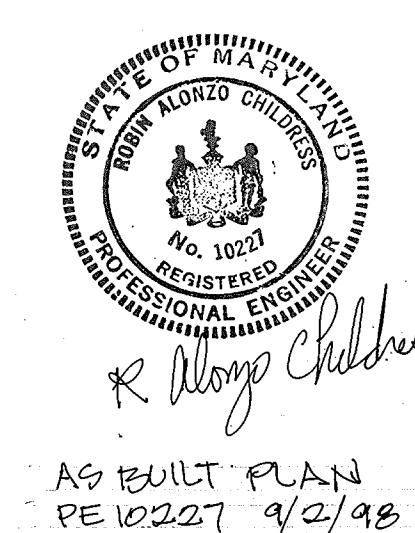
A Team of Land Planners,
Landscape Architects,
Engineers, Surveyors &
Environmental Professionals

PROJ. NO.	1	DATE	11-7-97
PLAN NO.	4918	DATE	11-7-97
WATER CODE	604	SEWER CODE	411000

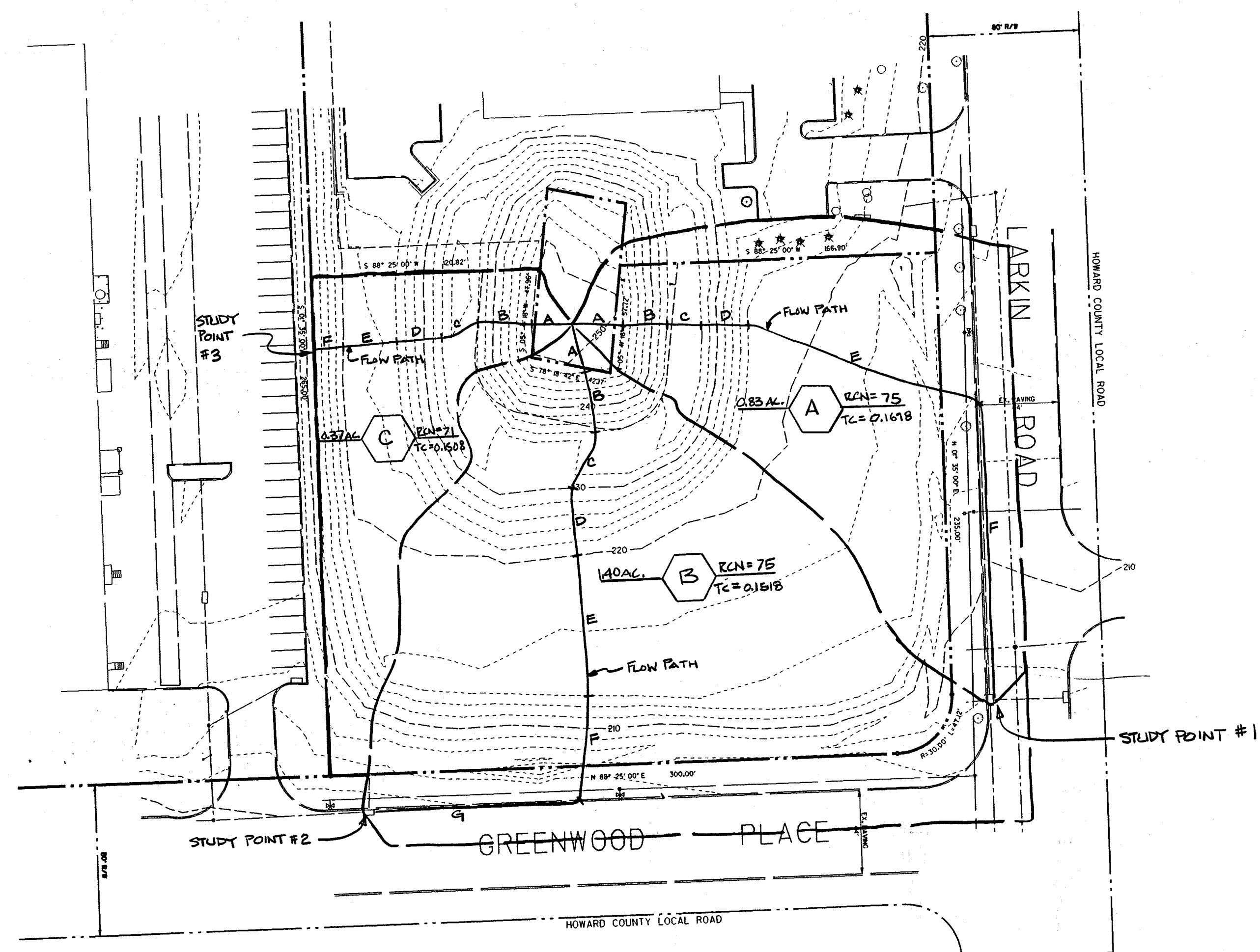
TITLE: **STORMWATER MANAGEMENT DETAILS**

Des By	JWM	Scale	AS SHOWN	Proj. No.	97087.A
Dim By	CSC	Date	11/7/97		
Chk By	MK	Approved			7 OF 10

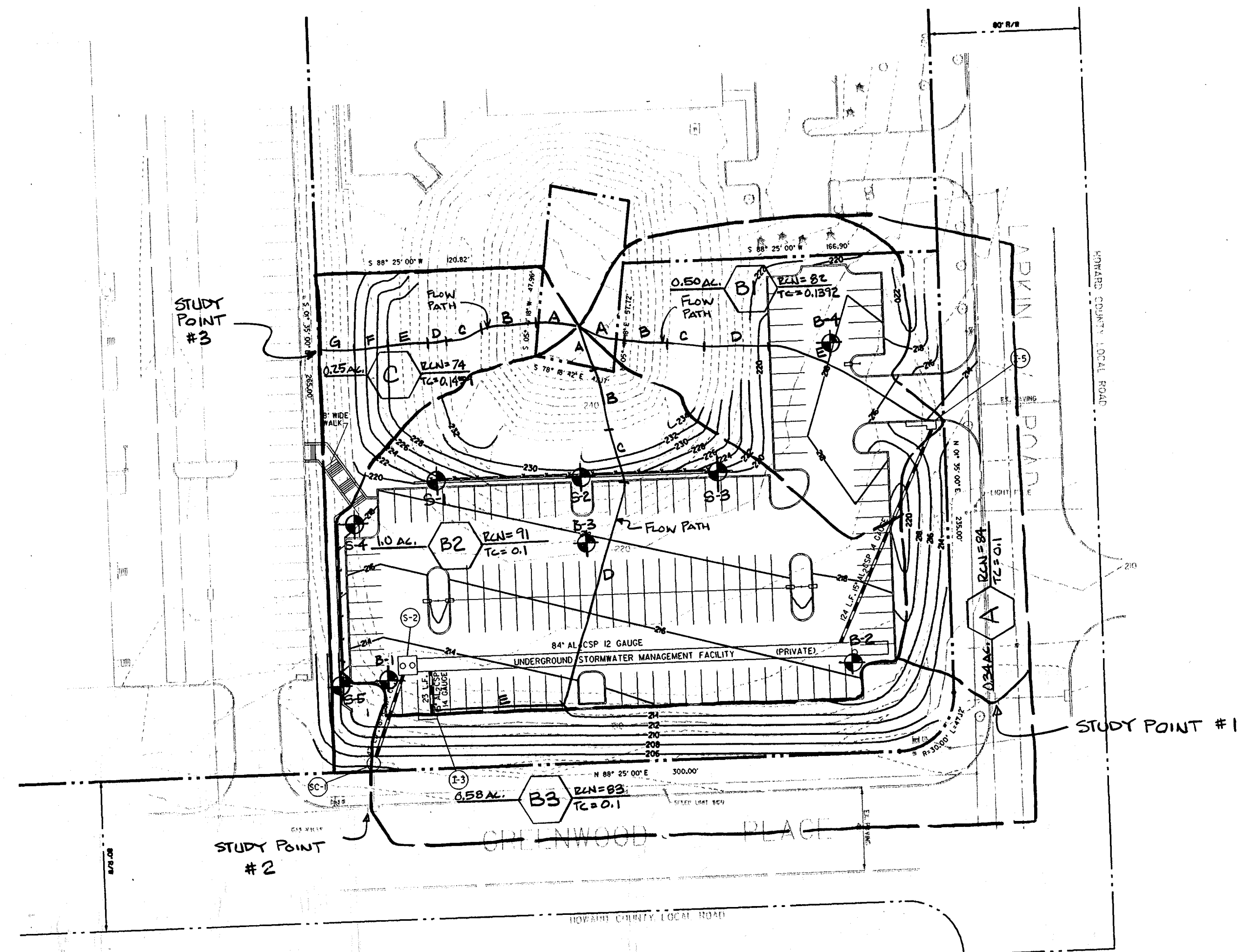
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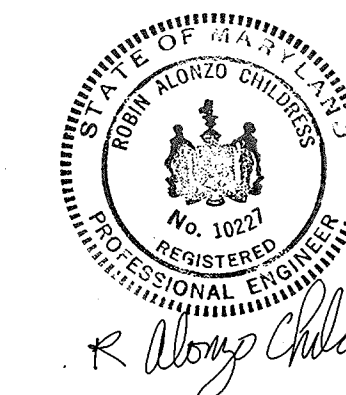
AS BUILT SWM PLAN
PE 10227 9/2/98



EXISTING CONDITIONS



DEVELOPED CONDITIONS ✓



AS BUILT PLAN
RE 10227 9/2/98

AS BUILT SWM PLAN Sheet 4 of 4

11-7-97
Date

Professional Engr. No. 16872

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

Mr. Dammann 11/14/97
CHIEF, DEVELOPMENT ENGINEERING DIVISION / DATE

Andy Hamilton 11/14/97
CHIEF, DIVISION OF LAND DEVELOPMENT / DATE

James S. Rutter 11/14/97
DIRECTOR / DATE

Date	No.	Revision Description
		CIENA PARKING LOT PARCEL B CORRIDOR INDUSTRIAL PARK HOWARD COUNTY, MD

OWNER / DEVELOPER:
THE CREANEY AND SMITH GROUP
925 FELL STREET, BALTIMORE, MD., 21231

DMW
Daft-McCune-Walker, Inc.
200 East Pennsylvania Avenue
Towson, Maryland 21286
(410) 286-3333
Fax 286-4706

A Team of Land Planners,
Landscape Architects,
Engineers, Surveyors &
Environmental Professionals

SUPROVISOR NAME CORRIDOR INDUSTRIAL PARK	SECTION AREA 4919	1	TOP/PANEL # B
REVISION # 4919	BLK # 12	TRAC # M-2	LOT # 47
WATER CODE 604	SEWER CODE 411000	LOT # 6	SEWER TRACT 6064

TITLE
**STORMWATER MANAGEMENT
DRAINAGE AREA MAP**

Des By JWM	Scale 1" = 50'	Proj. No. 97087.A
Dm By JWM	Date 11/7/97	8 OF 10
Chk By MK	Approved	

**SCHEDULE A
PERIMETER LANDSCAPE EDGE**

CATEGORY	ADJACENT TO ROADWAYS	ADJACENT TO PERIMETER PROPERTIES
Landscape Type	E	N/A
Linear Feet of Roadway Frontage/Perimeter	582'	
Credit for Existing Vegetation (Yes, No, Linear Feet) (Describe below if needed)	NO	
Credit for Wall, Fence or Berm (Yes, No, Linear Feet) (Describe below if needed)	NO	
Number of Plants Required		
Shade Trees	15	
Evergreen Trees	0	
Shrubs	146	
Number of Plants Provided		
Shade Trees	11	
Evergreen Trees	0	
Other Trees (2:1 substitution)	0*	
Shrubs (10:1 substitution)	146	
(Describe plant substitution credits below if needed)		

Comments *8 EVERGREENS TREES ARE SUBSTITUTED FOR 4 SHADE TREES
SEE SHEET 3 FOR PLANTING DETAILS.

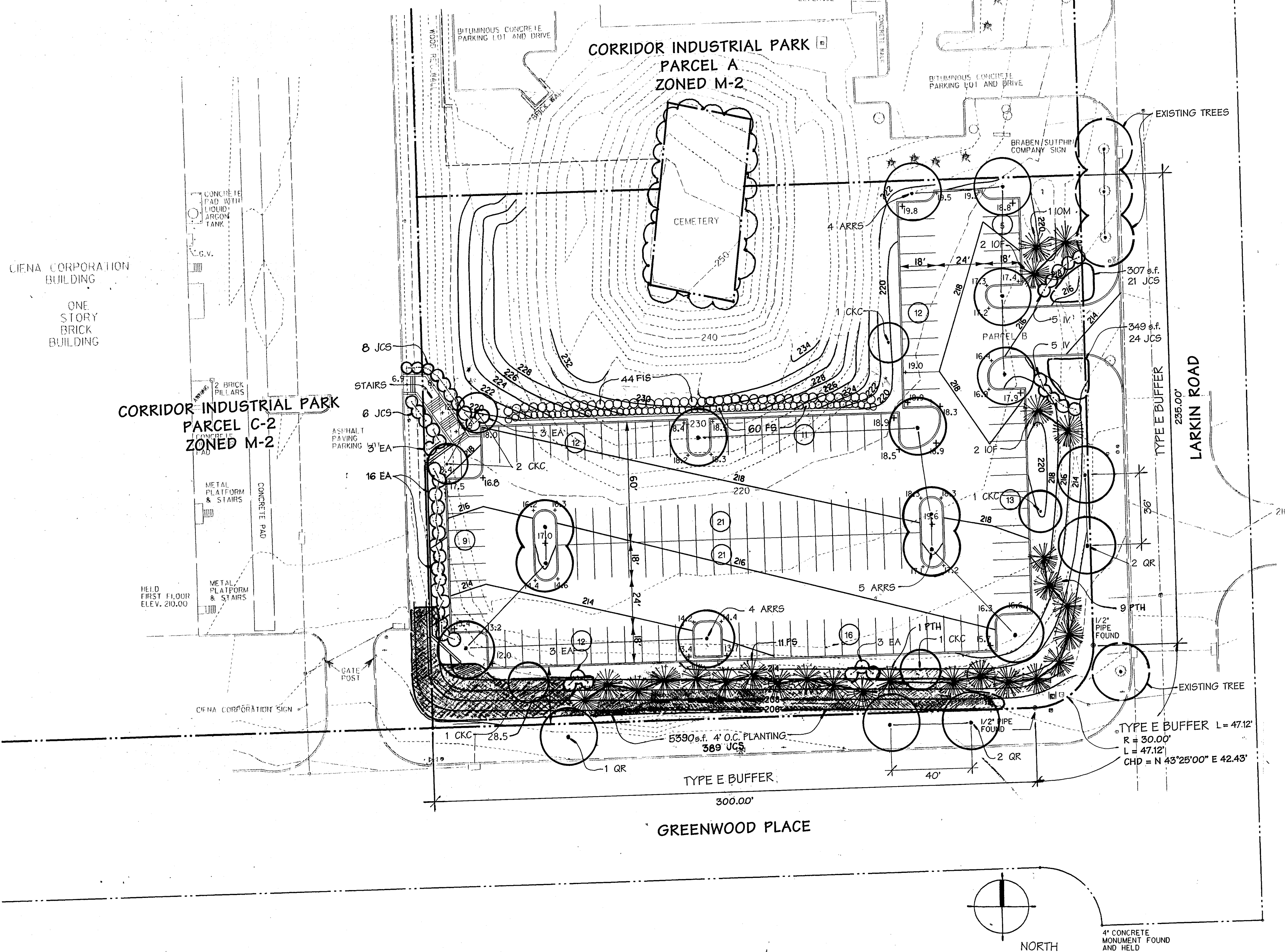
**SCHEDULE B
PARKING LOT INTERNAL LANDSCAPING**

Number of Parking Spaces	132
Number of Trees Required	7
Number of Trees Provided	7
Shade Trees	0
Other Trees (2:1 substitution)	0

ISLANDS REQUIRED 7
ISLANDS PROVIDED 8

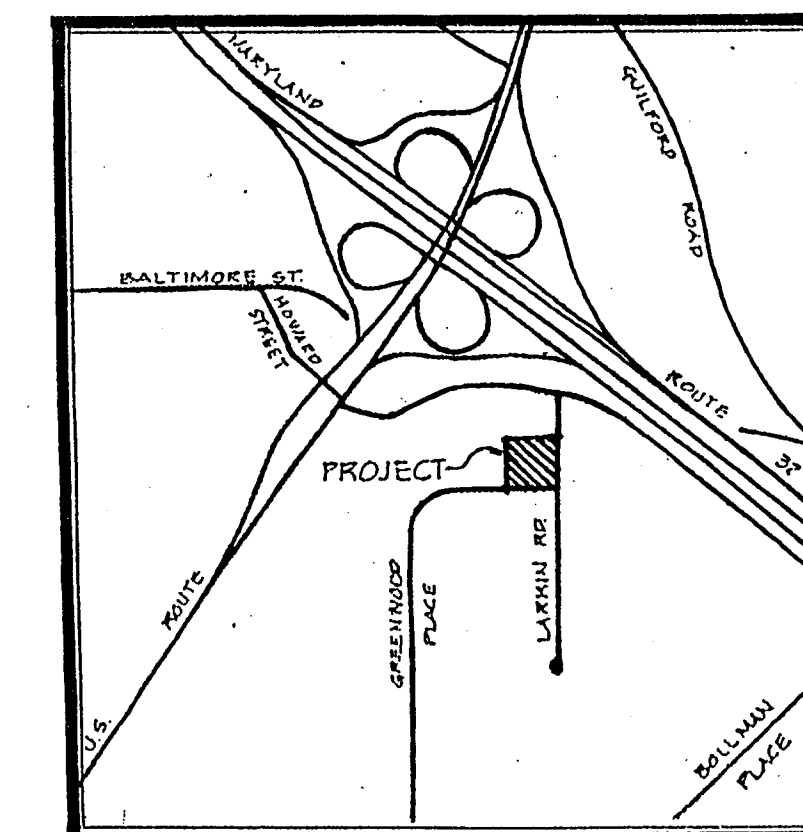
PLANT LIST

QUANTITY	CODE	BOTANICAL NAME	COMMON NAME	SIZE	CONDITION	REMARKS
13	ARRS	<i>Acer rubrum</i> 'Red Sunset'	Red Sunset Maple	2 1/2" - 3" CAL.	B & B	FULL CROWN
5	QR	<i>Quercus rubra</i>	Red Oak	2 1/2" - 3" CAL.	B & B	FULL CROWN
6	SMALL DECIDUOUS	<i>Cornus kousa</i>	Kousa Dogwood	8-10' HT.	B & B	
4	IOF	<i>Ilex opaca</i> (Female)	Female American Holly	6-8' HT.	B & B	
1	IOM	<i>Ilex opaca</i> (Male)	Male American Holly	6-8' "	B & B	
11	FS	<i>Pinus strobus</i>	Eastern White Pine	6-8' "	B & B	Natural
10	PTH	<i>Pinus thunbergiana</i>	Japanese Black Pine	6-8' "	B & B	Natural
28	EA	<i>Euonymus alatus</i>	Winged Euonymus	24-30" HT.	#3 Can	6" O.C.
10	IV	<i>Ilex verticillata</i> 'Harvest Red'	Harvest Red Winterberry	24-30" "	#5 Can	5" O.C.
44	JCS	<i>Juniperus chinensis</i> 'Sargentii'	Sargent Juniper	18-24" SPREAD	#3 Can	4" O.C.
44	FIS	<i>Forsythia X intermedia</i> 'Spectabilis'	Showy Border Forsythia	36-42" HT.	#5 Can	4.50" O.C.
60	FS	<i>Forsythia europaea</i>	Weeping Forsythia	18-24" SPREAD	#3 Can	4" O.C.



LANDSCAPE NOTES

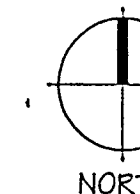
- The contractor shall review architectural/ engineering plan to become thoroughly familiar with grading and surface utilities.
- All equipment and tools shall be placed so as not to interfere or hinder the pedestrian and vehicular traffic flow.
- The contractor shall coordinate with a lighting contractor regarding the timing of the installation of plant material.
- The contractor shall insure that his work does not interrupt established or projected drainage patterns.
- During planting operations, excess waste materials shall be promptly and frequently removed from the site.
- The contractor is advised of the existence of underground utilities on the site. Their exact location shall be verified in the field with the owner or general contractor prior to the commencement of any digging operations. In the event they are uncovered, the contractor shall be held responsible for all damage to utilities and such damage shall not result in any additional expenses to the owner.
- If utility lines are encountered in excavation of tree pits, other locations for trees shall be made by the contractor without additional compensation. No changes of location shall be made without approval of the landscape architect.
- Maintain positive drainage out of planting beds at a minimum 2% slope. All grades, dimensions, and existing conditions shall be verified by the contractor on site before construction begins. Any discrepancies shall be brought to the attention of the landscape architect or owner.
- Every possible safeguard shall be taken to protect building surfaces, equipment, and furnishings. The contractor shall be responsible for any damage or injury to person or property which may occur as a result of his negligence in the execution of the work.
- In the event of variation between quantities shown on the plant list and the plans, the plans shall control. The contractor is responsible for verifying all plant quantities prior to the commencement of work. All discrepancies shall be reported to the landscape architect for clarification prior to bidding. The contractor shall furnish plant materials in sizes as specified in the plant list.
- The contractor shall stake all materials located on the site for review and/or adjustment by the landscape architect prior to planting. All location are to be approved by the landscape architect before excavation.
- Plants shall conform to current "American Standards for Nursery Stock" by American Association of Nurserymen (AAN), particularly with regard to size, growth, size of ball, and density of branch structure. Plant material shall be tagged at the source by the landscape architect unless this requirement is specifically waived.
- All plants (B & B or container) shall be properly identified by weather-proof labels securely attached thereto before delivery to project site. Label shall identify plants by name, species, and size. Labels shall not be removed until the final inspection by the landscape architect or agent in charge.
- Any material and/or work may be rejected by the landscape architect if it does not meet the requirements of the specifications. All rejected material shall be removed from the site by the contractor.
- No substitutions shall be made without written consent of the owner or landscape architect.
- The landscape architect or owner shall have the right at any stage of the operations, to reject any and all work and material which, in his opinion, does not meet the requirements of these plans and specifications.
- The contractor shall be wholly responsible for stability and conditions of all trees and shrubs and shall be legally liable for any damage caused by instability of any plant materials.
- All proposed trees to be installed either entirely in or entirely out of planting beds. Planting beds lines are not to be obstructed. All shrubs and ground cover areas shall be planted in continuous prepared bed and top dressed with 3-inch shredded hardwood mulch. Mulch shall have been shredded within the last six months.
- All planting beds adjacent to lawn, sod, or seeded areas shall be spade edged.
- Maintenance shall begin after each plant has been installed and shall continue until 90 days after final acceptance by the architect or owner representative. Maintenance includes mowing of turf, watering, pruning, weeding, fertilizing, mulching, replacement of sick or dead plants, and any other care necessary for the proper growth of the plant material. The contractor must be able to provide continued maintenance if requested by the owner.
- Upon completion of all landscaping, an acceptance of the work shall be held. The contractor shall notify the landscape architect or owner for scheduling the inspection at least seven (7) days prior to the anticipated inspection date.
- All trees shall be guaranteed for 12 months from the date of acceptance. All shrubs and ground covers shall be guaranteed for 12 months from the date of acceptance.
- The contractor shall dispose of stumps and major roots of all plants to be removed. Any depression caused by the removal operations shall be refilled with fertile, friable soil placed and compacted so as to reestablish proper grade for new planting and / or lawn areas.
- The contractor shall insure adequate vertical drainage in all plant beds and planters.
- All disturbed areas on the site not planted with shrubs or ground cover shall be fine graded and seeded as noted on the landscape plan.
- This plan has been prepared in accordance with the provisions of Section 16.124 of the Howard County code and the landscape manual.
- Financial surety for the required landscaping has been posted as part of the DFW Developers agreement in the amount of \$4000.00.



COPYRIGHT ADC- THE MAP PEOPLE, PERMITTED USE #20995366.

LOCATION MAP

SCALE: 1" = 2,000'



DATA SOURCES: THE EXISTING TOPOGRAPHY INSIDE PROPERTY LINE WAS BASED ON FIELD RUN SURVEY BY DMW, INC. IN SEPTEMBER 1997.

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING
 [Signature] 11/14/97
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
 [Signature] 11/19/97
 CHIEF, DIVISION OF LAND DEVELOPMENT
 [Signature] 11/19/97
 DIRECTOR

Date	No.	Revision Description

**CIENA PARKING LOT
PARCEL B
CORRIDOR INDUSTRIAL PARK
HOWARD COUNTY, MD.**

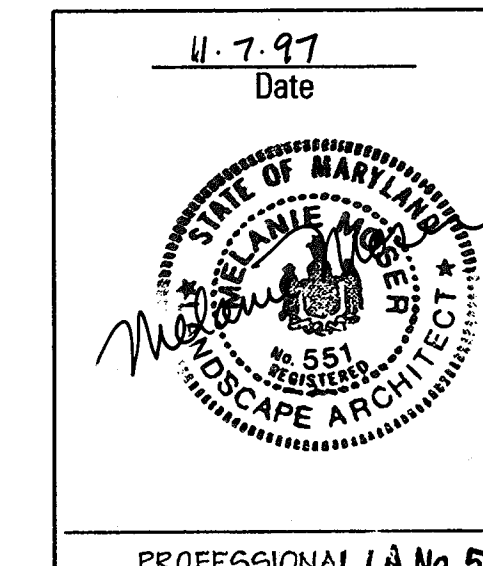
OWNER/ DEVELOPER: THE CREANEY AND SMITH GROUP
925 FELL ST., BALTIMORE, MD., 21231

DMW
 Dash McCreary Walker, Inc.
 200 East Pennsylvania Avenue
 Towson, Maryland 21286
 (410) 286-3333
 Fax: 286-4706
 A Team of Land Planners,
 Landscape Architects,
 Engineers, Surveyors &
 Environmental Professionals

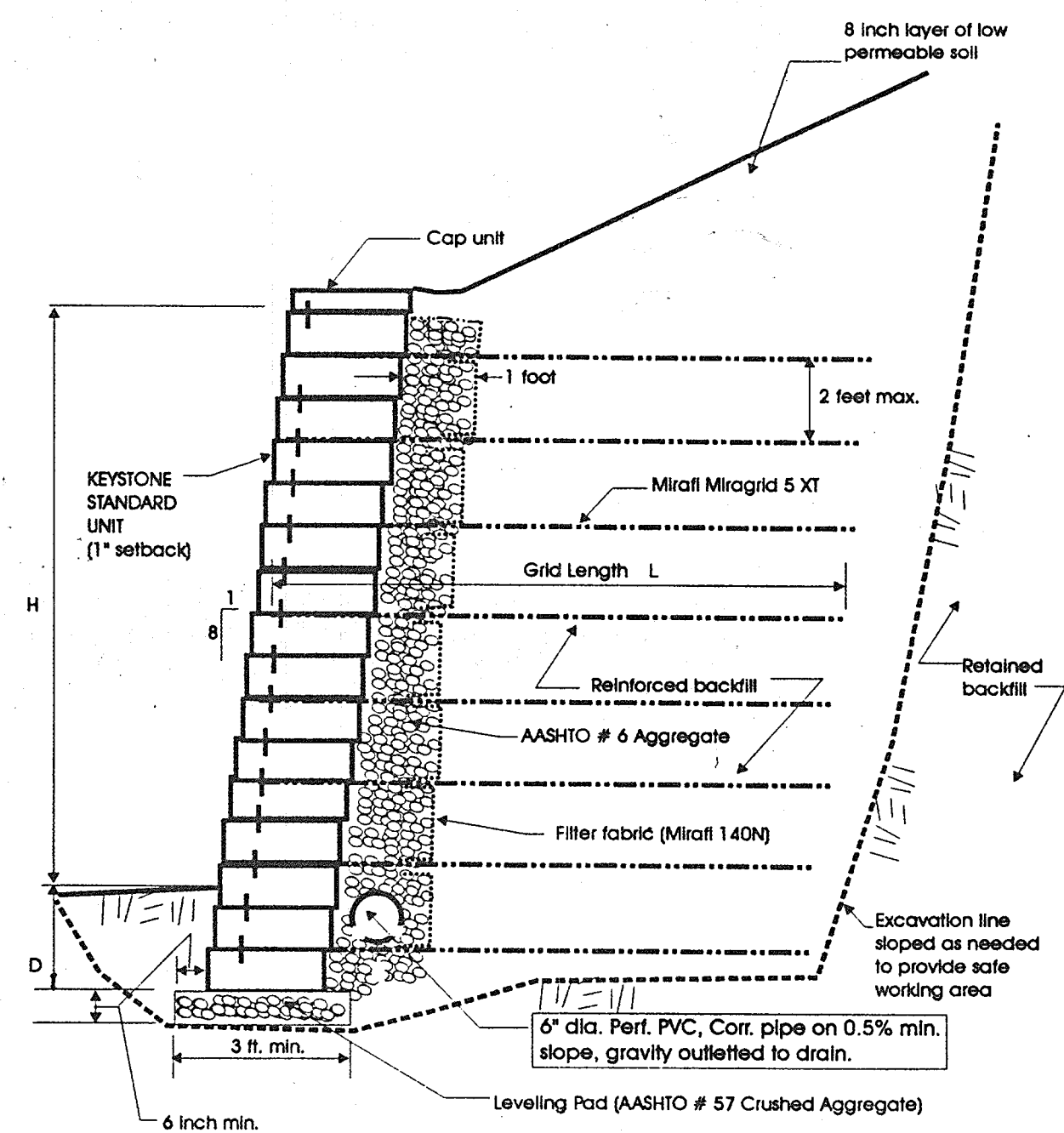
PROJECT NAME	CORRIDOR IND. PK.	SHEET NO.	47	TOTAL SHEETS	6th	GEN. TRACT	6064
DATE	6/04	SEWER CODE	411000				

LANDSCAPE PLAN

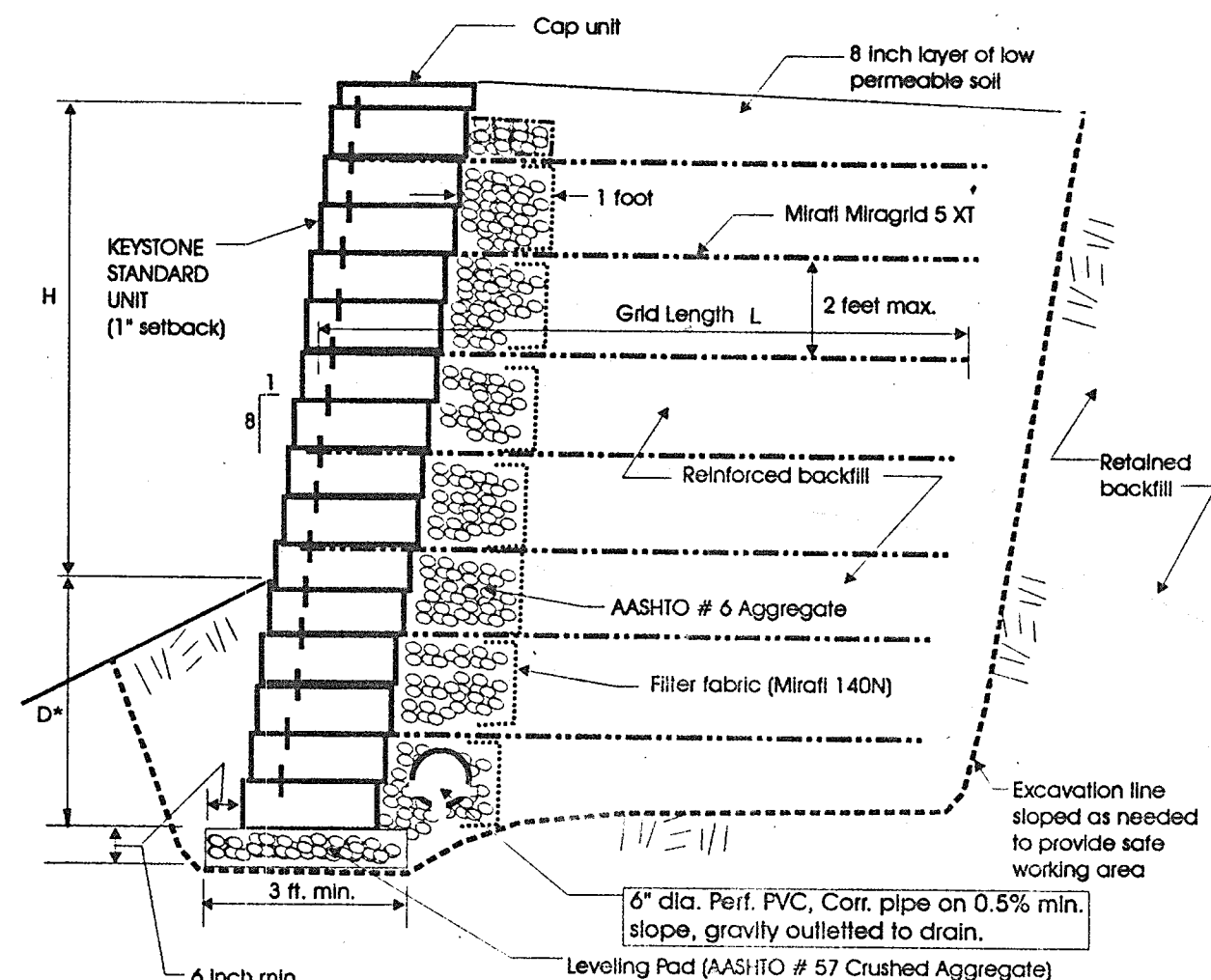
Des By	MM	Scale	1" = 30'-0"	Proj. No.	97087.A
Drn By	CSC	Date	11/7/97	9 OF 10	
Chk By	MM	Approved			



PROFESSIONAL LA No. 551



TYPICAL REINFORCED SECTION "A"
NOT TO SCALE



TYPICAL REINFORCED SECTION "B"
NOT TO SCALE

RECOMMENDED RETAINING WALL CONSTRUCTION GUIDELINES

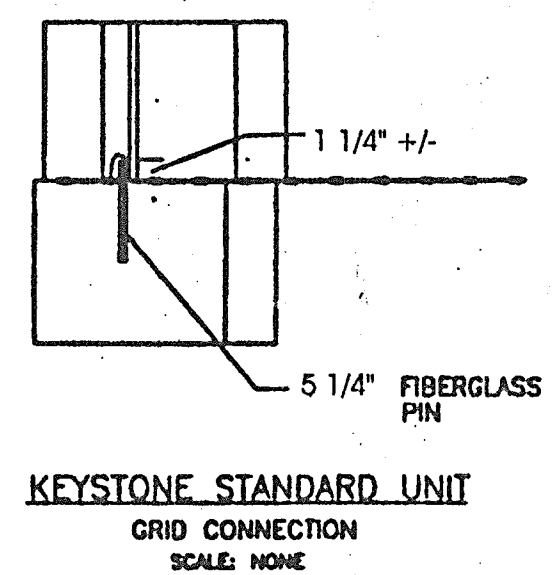
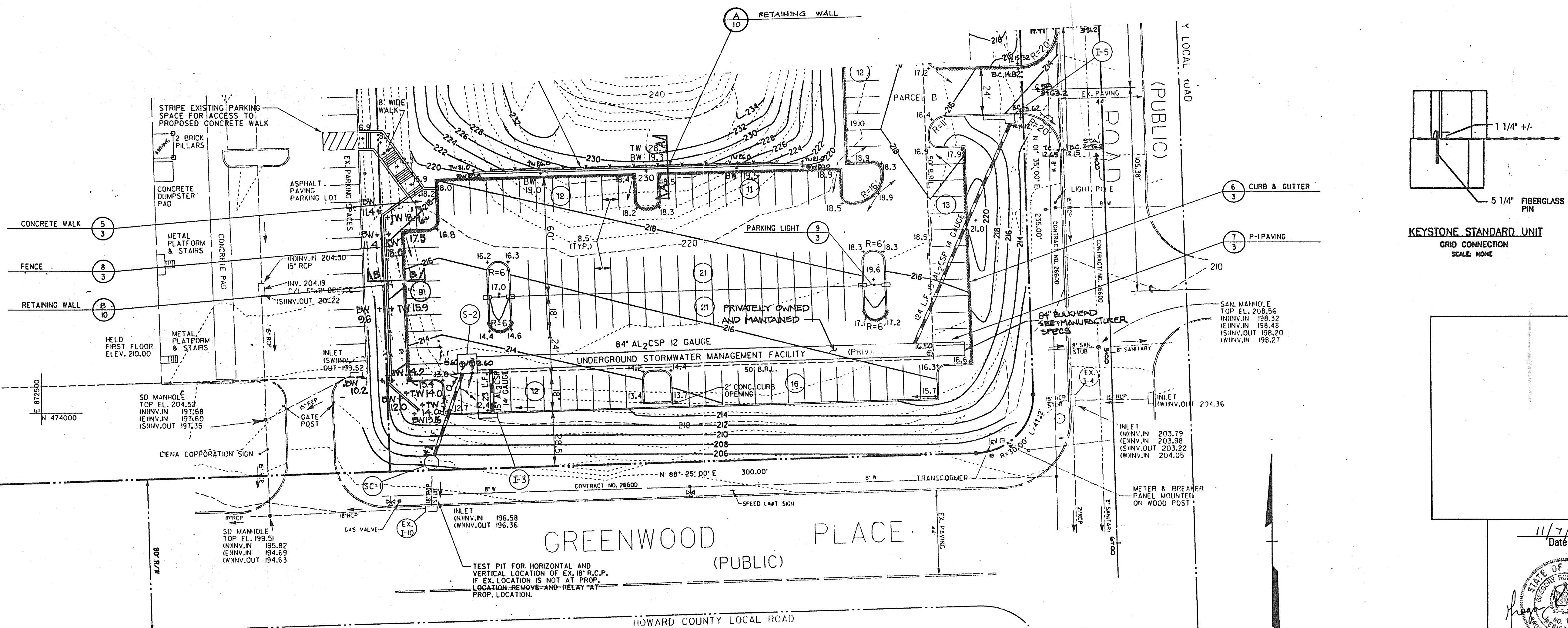
Total Height (Ft.) (H+D)	Minimum *Depth (Ft.) (D)	Minimum No. of Geogrid Layers	Minimum Geogrid Length (Ft.) (L)
3	1.5	1	5
4	1.5	2	6
5	1.5	3	7
6	1.5	4	8
7	1.5	5	9
8	1.5	6	10
9	1.5	7	11
10	1.5	8	12
11	1.5	8	12
12	1.5	8	13

*Depth of retaining wall parallel to existing parking lot to be no higher than 1 foot above adjacent existing parking lot grade.

Foundation soil must be examined by the soils engineer to assure the actual foundation soil strength meets or exceeds assumed design strength.

The proposed construction of all retaining walls shall be performed under the observation of a Maryland Registered Professional Engineer specialized in geotechnical engineering.

Refer to Specification Guidelines - KEYSTONE Concrete Modular Retaining Wall - Section 02276 for further details.



APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING			
<i>Howard County</i>	4	11/14/97	DATE
CHIEF, DEVELOPMENT ENGINEERING DIVISION			
<i>Cindy Hamilton</i>		11/14/97	DATE
CHIEF, DIVISION OF LAND DEVELOPMENT			
<i>Joseph S. Smith</i>		11/14/97	DATE
DIRECTOR			

Date	No.	Revision Description
		CIENA PARKING LOT PARCEL B CORRIDOR INDUSTRIAL PARK HOWARD COUNTY, MD

OWNER / DEVELOPER:
THE CREANEY AND SMITH GROUP
925 FELL STREET, BALTIMORE, MD., 21231

DMW DRAFTING & CONSTRUCTION, INC. 200 East Pennsylvania Avenue Towson, Maryland 21286 (410) 294-3333 Fax: 294-4708				A Team of Land Planners, Landscape Architects, Engineers, Surveyors & Environmental Professionals			
PROJECT NAME	CORRIDOR INDUSTRIAL PARK	SECTION	1	OFFICE #	B		
PLAT #	4819	BLK #	12	TAXING DIST	47	GENR TRACT	
WATER CODE	604	SEWER CODE	M-2	BLK DISTRICT	6	GENR TRACT	
						6064	
TITLE RETAINING WALL PLAN							
Des By	JWM	Scale	1"=30'	Proj. No.	97087.A		
Drn By	JWM	Date	11/5/97				
Chk By	MK	Approved			10 OF 10		

HERBST/BENSON & ASSOCIATES
GEOTECHNICAL ENGINEERS
414 MAIN STREET REISTERTOWN, MARYLAND 21138

11/7/97
Date
Professional Engr. No.