SHEET INDEX	
NO.	DESCRIPTION
1	TITLE SHEET
2	SITE DEVELOPMENT PLAN
3	SEDIMENT CONTROL & SOILS PLAN
4	SEDIMENT CONTROL DETAILS
5	STORMWATER MANAGEMENT PLAN
6	STORMWATER MANAGEMENT DETAILS
7	ELEVATIONS & SITE DETAILS
8	LANDSCAPE PLAN
9	FOREST CONSERVATION PLAN
10	FOREST CONSERVATION DETAILS

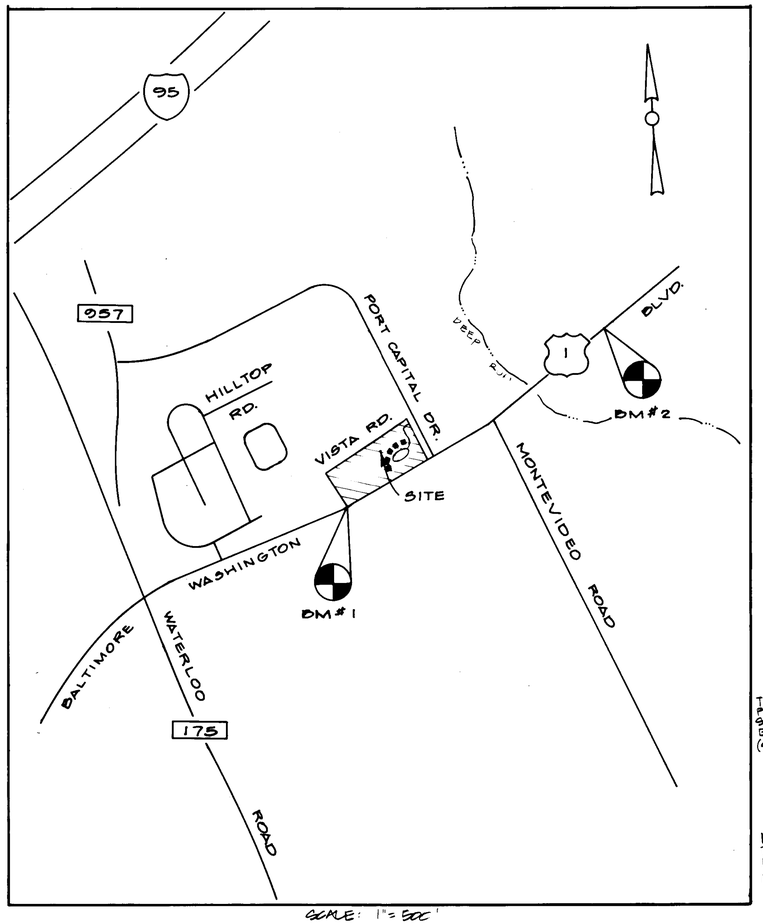
GENERAL NOTES

1. ALL WATER LINES SHALL BE CONSTRUCTED A MINIMUM OF 42" COVER BELOW FINISHED GRADE.
2. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL, VOLUME IV, i.e. STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION, 1990 AMENDMENTS.
3. 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.
4. THE CONTRACTOR SHALL TEST PIT EXISTING UTILITIES AT LEAST (5) DAYS BEFORE BEFORE STARTING WORK SHOWN ON THESE DRAWINGS TO VERIFY THEIR LOCATION AND ELEVATION. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY IF LOCATION OF UTILITIES IS OTHER THAN SHOWN.
5. CONTRACTOR TO NOTIFY THE FOLLOWING UTILITIES OR AGENCIES AT LEAST FIVE DAYS BEFORE STARTING WORK SHOWN ON THESE DRAWINGS:

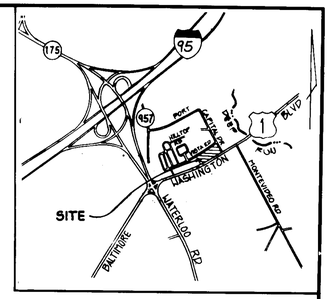
MISS UTILITY	1-800-257-7777
C&P TELEPHONE COMPANY	725-9976
HOWARD COUNTY BUREAU OF UTILITIES	313-4900
AT&T CABLE LOCATION DIVISION	393-3553
BALTIMORE GAS & ELECTRIC COMPANY	685-0123
STATE HIGHWAY ADMINISTRATION	531-5533
HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS/ CONSTRUCTION INSPECTION DIVISION	313-1880

6. ALL INLETS SHALL BE CONSTRUCTED IN ACCORDANCE WITH HOWARD COUNTY STANDARDS.
7. ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS.
8. THE CONTRACTOR SHALL PROVIDE A JOINT IN ALL SEWER MAINS WITHIN 2'-0" OF EXTERIOR MANHOLE WALLS.
9. PROFILE STATIONS SHALL BE ADJUSTED AS NECESSARY TO CONFORM TO PLAN DIMENSIONS.
10. NO PIPE SHALL BE LAID UNTIL LINES OF EXCAVATION HAVE BEEN BROUGHT TO SUBGRADE.
11. TOPO TAKEN FROM FIELD RUN SURVEY DATED 9/6/95 BY MORRIS-RITCHIE ASSOCIATES...
12. ALL PLAN DIMENSIONS ARE TO FACE OF CURB UNLESS OTHERWISE NOTED.
13. ALL STORM DRAIN PIPE BEDDING SHALL BE AS SHOWN IN DETAIL G2.01 (TRENCH IN ROCK OR TRENCH IN EARTH AS DETERMINED BY FIELD CONDITIONS) IN VOL. IV OF HOWARD COUNTY DESIGN MANUAL UNLESS OTHERWISE DIRECTED BY THE ENGINEER OR AS SHOWN ON THE DRAWINGS.
14. THE DEVELOPER IS RESPONSIBLE FOR THE ACQUISITION OF ALL EASEMENTS, RIGHTS AND/OR RIGHTS-OF-WAY THAT MAY BE REQUIRED FOR THE SEDIMENT AND EROSION CONTROL PRACTICES, STORMWATER MANAGEMENT PRACTICES AND THE DISCHARGE OF STORMWATER ONTO OR ACROSS ADJACENT OR DOWNSTREAM PROPERTIES INCLUDED IN THIS PLAN. HE IS ALSO RESPONSIBLE FOR THE ACQUISITION OF ALL EASEMENTS, RIGHTS AND/OR WORK ON ADJACENT PROPERTIES INCLUDED IN THIS PLAN.
15. THE PAVEMENT DETAILS SHOWN ON THESE PLANS REFLECT THE HOWARD COUNTY MINIMUM STANDARD PAVEMENT SECTIONS SHALL BE DETERMINED BY A QUALIFIED GEOTECHNICAL ENGINEER BASED ON IN-SITU TESTING OF THE FINISHED SUBGRADE. THE TESTING AND THE GEOTECHNICAL ENGINEER SHALL BE FURNISHED BY THE OWNER.
16. STORM DRAINAGE SYSTEM TO BE PRIVATELY MAINTAINED.

SITE DEVELOPMENT PLAN
NEW COLONY VILLAGE SALES CENTER
(FOR MODULAR / MOBILE HOMES)
1st ELECTION DISTRICT
HOWARD COUNTY, MARYLAND



SCALE: 1"=500'



VICINITY MAP
SCALE: 1" = 2000'

NOTES

1. GENERAL INFORMATION
   A. TAX ACCOUNT NO: 01-189794
   B. DEED REFERENCE: 2904/40
   C. ELECTION DISTRICT: 1
   D. CENSUS TRACT: 6012
   E. RESUBDIVISION PLAT NO: 4774 (PARCEL D-1)
   TAX MAP 43 GRID 9 PARCEL P-1
   WATER CODE BOL SEWER CODE 52420000
   ADC MAP # 15 GRID J-13
   PROPERTY STREET ADDRESS: 7708 U.S ROUTE 1
2. SITE ANALYSIS
   A. GROSS ACREAGE: 2.64 ACRES +/- (114,998 SF +/-)
   B. NET ACREAGE: 2.64 ACRES +/- (114,998 SF +/-)
   C. EXISTING ZONING: B-1
   D. EXISTING: VACANT, PARTIALLY WOODED LOT. THERE ARE NO KNOWN EXISTING BUILDING STRUCTURES ON SITE.
   E. PROPOSED DEVELOPMENT: PROPOSED MODULAR HOME SALES CENTER.
   F. MAXIMUM NUMBER OF EMPLOYEES EXPECTED: 3±
   G. PARKING REQUIRED: 4673 SF X 3.5 P.S. / 1000 SF = 16 P.S.
   PARKING PROPOSED: 18 P.S. (THIS INCLUDES 8-9'X18' SPACES IN THE PROPOSED PARKING BAY AND 10 PARKING SPACES IN UNIT DRIVEWAYS AND GARAGES. 2 HANDICAP SPACES WILL BE PROVIDED IN THE PARKING LOT.
   H. TOTAL BUILDING COVERAGE: 0.1 AC. BLDG AREA/2.6 AC. SITE AREA = 3.8% BUILDING COVERAGE
   I. THERE IS NO OPEN SPACE OR RECREATION SPACE REQUIRED FOR THIS PROJECT.
   J. BUILDING FLOOR SPACE: (SEE SHEET #7 FOR BUILDING SQUARE FOOTAGE INFO.)
   H. B-1 SETBACKS.

STRUCTURE/USE FROM PUBLIC R/W	30 FEET
PARKING USE FROM PUBLIC R/W	10 FEET
STRUCTURE/USE FROM RESIDENTIAL DISTRICT	30 FEET
OTHER THAN STREET R/W	40 FEET
MAXIMUM HEIGHT	

3.
4. THERE ARE NO 100 YEAR F.E.M.A. FLOODPLAINS ON THIS SITE.
5. THERE ARE NO KNOWN ARCHEOLOGICAL SITES OR STRUCTURES ON SITE.
6. A PETITION TO AMEND THE HOWARD COUNTY ZONING REGULATIONS WAS REQUESTED AND APPROVED BY THE ZONING BOARD ON NOVEMBER 20, 1995. BILL NO. 90-1995 (2RA-2) INCLUDES THE FOLLOWING:

   SECTION 3. BE IT FURTHER ENACTED BY THE COUNTY COUNCIL OF HOWARD COUNTY, MARYLAND THAT SECTION 118 OF THE ZONING REGULATIONS IS AMENDED AS FOLLOWS:

   SECTION 118 B-1 DISTRICT - BUSINESS LOCAL

   ADD THE FOLLOWING TO THE USES PERMITTED AS A MATTER OF RIGHT AND RENUMBER THE EXISTING USES TO REFLECT THE ADDITION:

   B. USES PERMITTED AS A MATTER OF RIGHT

   3028. MOBILE HOME AND MODULAR HOME SALES AND RENTALS, BUT NOT INCLUDING OCCUPANCY, PROVIDED THAT ANY SUCH USE IS LOCATED ON A LOT WHICH ADJOINS A LOT ZONED R-MH PURSUANT TO SECTION 113 OF THESE REGULATIONS.

   SECTION 4. BE IT FURTHER ENACTED BY THE COUNTY COUNCIL OF HOWARD COUNTY, MARYLAND, THAT THIS ACT SHALL BECOME EFFECTIVE 60 DAYS AFTER ITS ENACTMENT.
7. THE PROPOSED STRUCTURES ARE TO BE MODULAR OR MOBILE HOME UNITS ONLY. THEY WILL FUNCTION AS A SALES CENTER FOR THIS PRODUCT AND WILL BE REMOVED AT A LATER DATE, WHEN THE SALES CENTER IS NO LONGER REQUIRED.
8. THERE ARE NO KNOWN STREAMS OR ASSOCIATED BUFFERS ON THIS SITE. (REFER TO HILLIS CARNES WETLAND REPORT DATED 8/14/95).
9. THE 24' ACCESS LANE NEEDED TO SERVE THE ON SITE PARKING IS LOCATED WITHIN THE 30' USE SETBACK. THIS LOCATION ADDRESSES THE STEEP TOPOGRAPHY THAT EXISTS AT THE MAIN ENTRANCE. THE HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING REVIEWED THIS PROPOSED CONDITION AND WILL ACCEPT THE DRIVE LOCATION AS PROPOSED AT AN INTERACTIVE REVIEW ON 12-14-95. BECAUSE THIS USE IS TEMPORARY.
10. THE PERMITTED USE OF THE DRIVE AISLE THAT IS LOCATED WITHIN THE 75' FUTURE RIGHT-OF-WAY WILL BE TERMINATED WHEN THE SALES CENTER IS CLOSED OR AT THE TIME WHEN THE STATE HIGHWAY ADMINISTRATION REQUIRES THE DEDICATION OF THIS RIGHT-OF-WAY, WHICHEVER COMES FIRST.
11. HANDICAP ACCESS [redacted] ACCESS [redacted] WILL BE PROVIDED TO UNIT A ONLY. THE BUILDING WILL SERVE AS THE SALES CENTER.

THE ACCESS ROUTE FROM THE PARKING SPACES WILL NOT EXCEED 2% SLOPE. (SEE PLAN DETAIL ON SHEET #7).

12. TRASH COLLECTION WILL BE HANDLED PRIVATELY. STORAGE WILL OCCUR WITHIN THE UNITS OR GARAGES.
13. THE PROPOSED RETAINING WALL IS LESS THAN THREE FEET IN HEIGHT, FROM TOP OF WALL (TW) TO BOTTOM GRADE (BG). SEE SHEETS #2 AND #7 FOR FURTHER INFO.
14. A PORTION OF THE FOREST CONSERVATION OBLIGATIONS INCURRED BY THIS SUBDIVISION (0.9 AC. REFORESTATION) HAVE BEEN MET BY PAYMENT OF $3227.00 TO THE HOWARD COUNTY FOREST CONSERVATION FUND

BENCHMARKS

BM#1 HO.CO. MONUMENT
2244004 ELEV. 224.432
N 488084.270 E 862122.080

BM#2 HO.CO. MONUMENT
2345007 ELEV. 199.101
N 499304.449 E 863928.761

AS BUILT CERTIFICATE

DATE	NO.	REVISION
9-25-96		REVISED ENTRANCE
8-29-96	2	REV. PER COUNTY COMMENTS
2-12-96	1	REVISED PER COUNTY COMMENTS
DATE	NO.	REVISION
6-11-96	0	REV. PER COUNTY

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Chief, Development Engineering Division — Date 6/19/96
Chief, Division and Land Development and Research — Date 7/5/96
Director — Date 7/5/96

OWNER/DEVELOPER

ROUTE 175 ASSOCIATES, L.L.C.
25 MAIN STREET
REISTERSTOWN, MARYLAND 21136

PROJECT: NEW COLONY VILLAGE MODULAR HOMES SALES CENTER

AREA: TAX MAP NO. 43 PARCEL D-1 ZONED: B-1
1st ELECTION DISTRICT HOWARD COUNTY, MARYLAND

TITLE: TITLE SHEET
SDP-96-61

MRA
MORRIS & RITCHIE ASSOCIATES, INC.
ENGINEERS, PLANNERS, SURVEYORS AND LANDSCAPE ARCHITECTS
110 WEST ROAD SUITE 105
TOWSON, MARYLAND 21204
(410) 821-1690
FAX (410) 821-1748

8-28-96
DATE

DESIGNED BY: KAD
DRAWN BY: EJ
PROJECT NO.: 10192
DATE: NOV. 14, 1995
SCALE: AS SHOWN
DRAWING NO. 1 OF 10

Subdivision Name: New Colony Village Sales Center			Section/Area N/A		Lot/Parcel # D-1
Plat or L/F #4774	Block # 9	Zone B-1	Tax/Zone Map 43	Elect Distr 1	Census Tract 6012
Water Code B01			Sewer Code 2420000		

ADDRESS INFO:
BUILDING A - 7701 PORT CAPITAL DR.
BUILDING B - 7705 PORT CAPITAL DR.
BUILDING C - 7706 PORT CAPITAL DR.
BUILDING D - 7707 PORT CAPITAL DR.
BUILDING E - 7709 PORT CAPITAL DR.

SDP-96-61

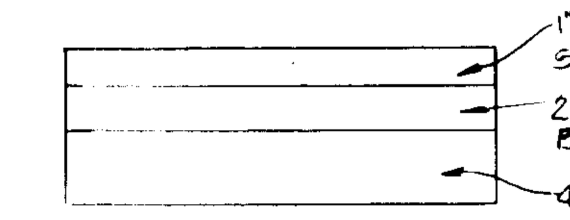
INLET SCHEDULE

Nº	TYPE	Q	INV. OUT	TOP ELEV.
I-1	'S' INLET	2.55	208.8	212.0 *
I-2	'S' INLET	2.46	208.8	212.0 *

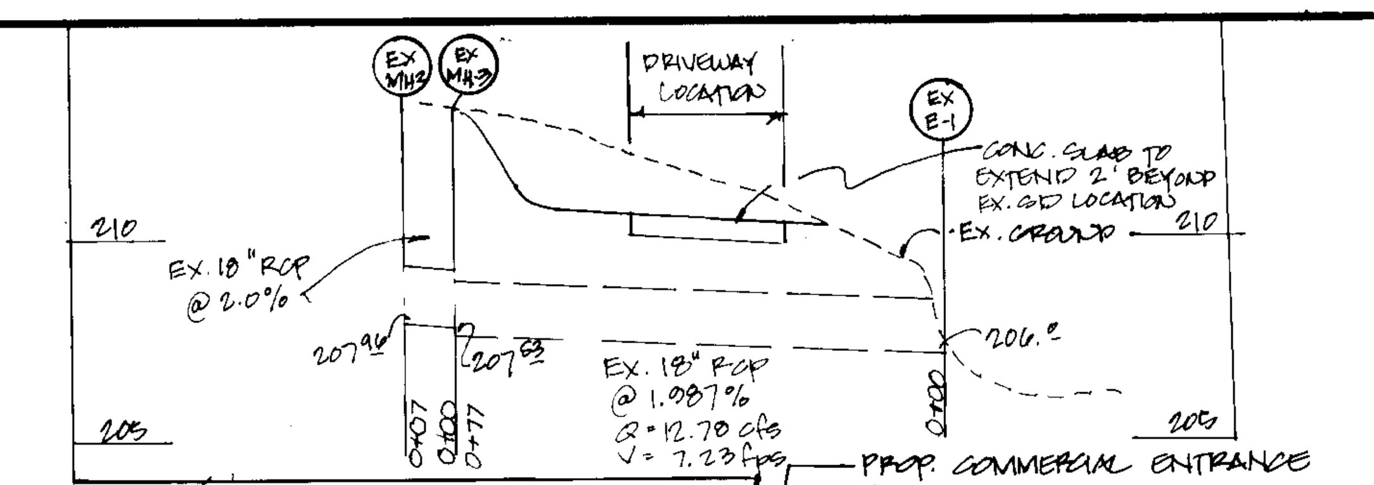
* GRATE ELEVATION

STRUCTURE SCHEDULE

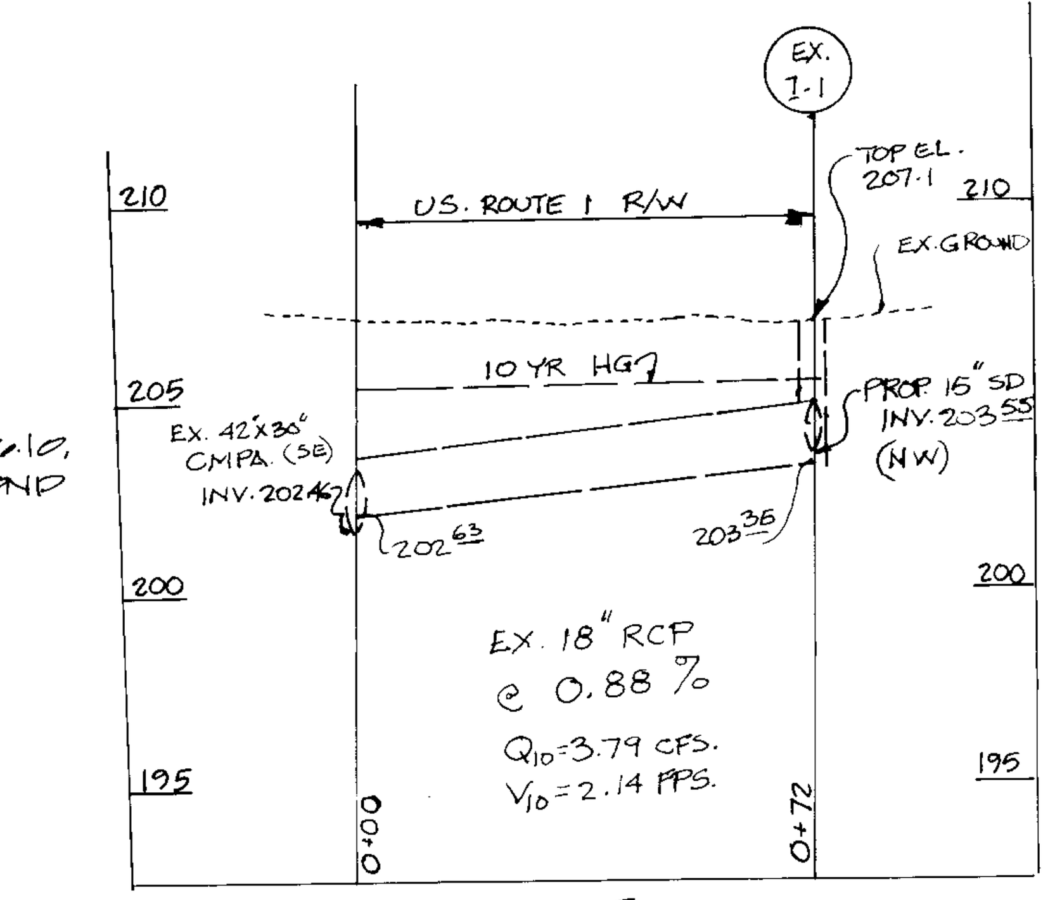
Nº	TYPE	SIZE	INV OUT
S-1	STORMCEPTOR	—	207.68
M-1	SHALLOW PRECAST DETAIL G5	4'	206.00



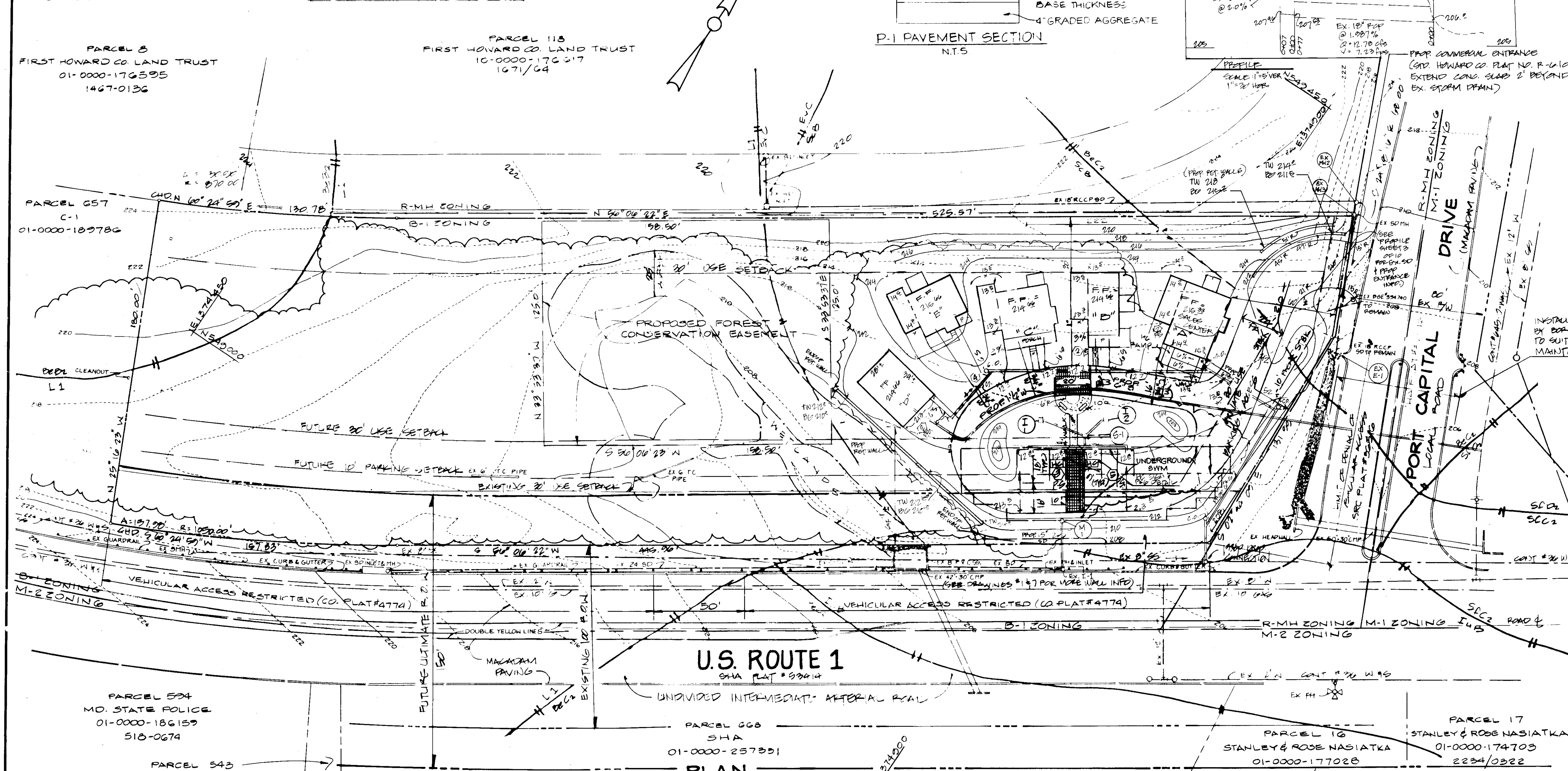
P-1 PAVEMENT SECTION
N.T.S.



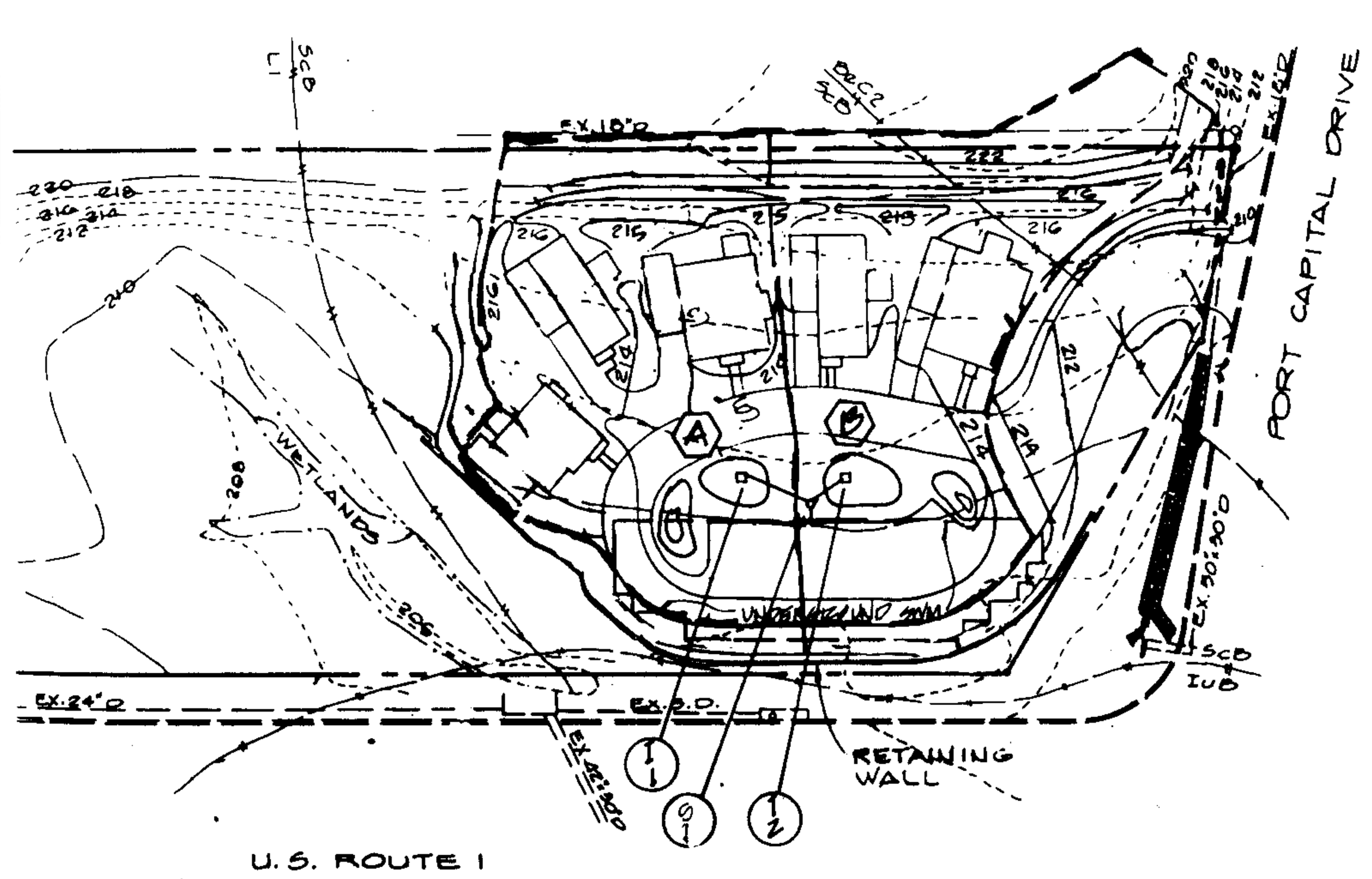
PROFILE



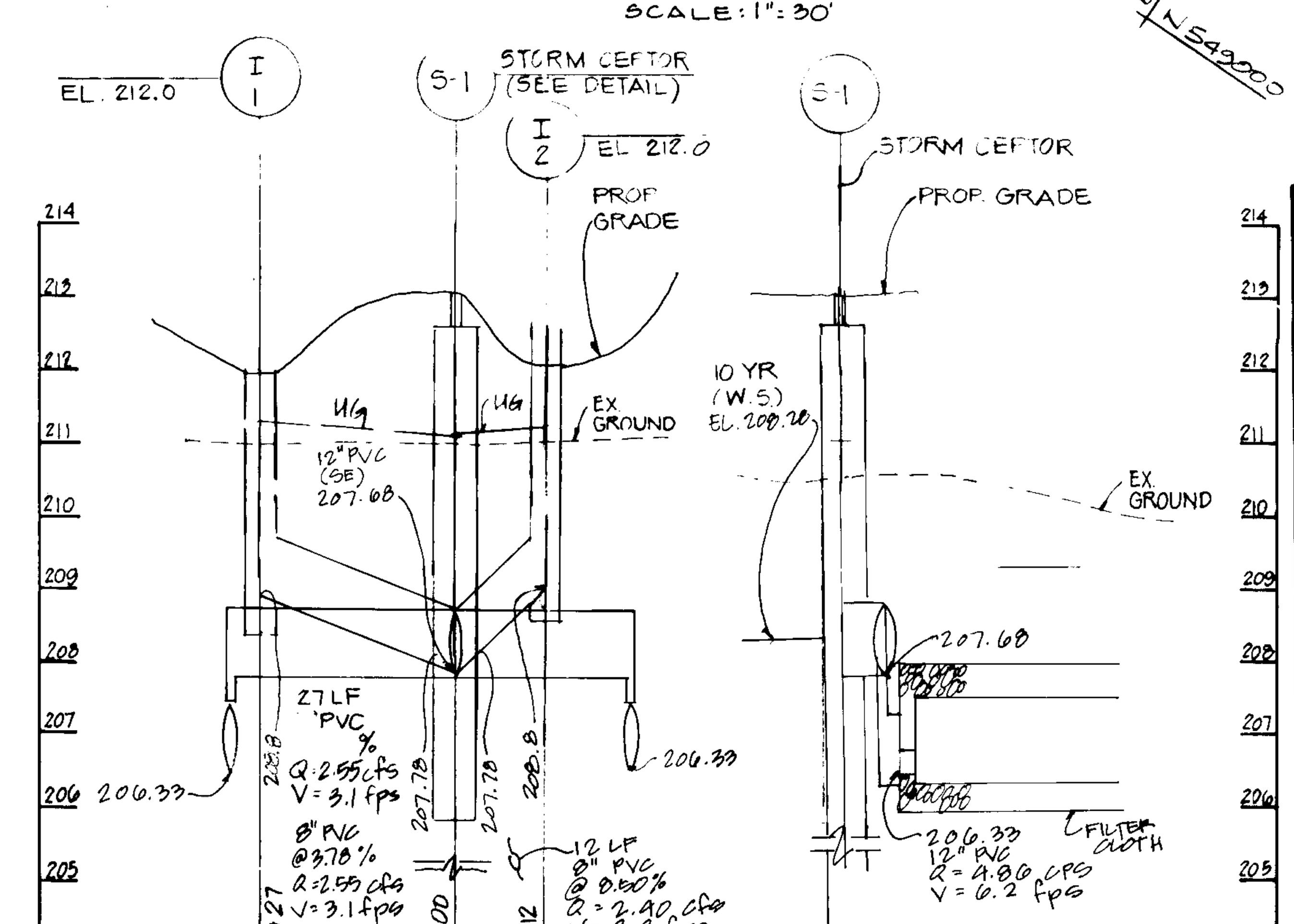
PROFILE



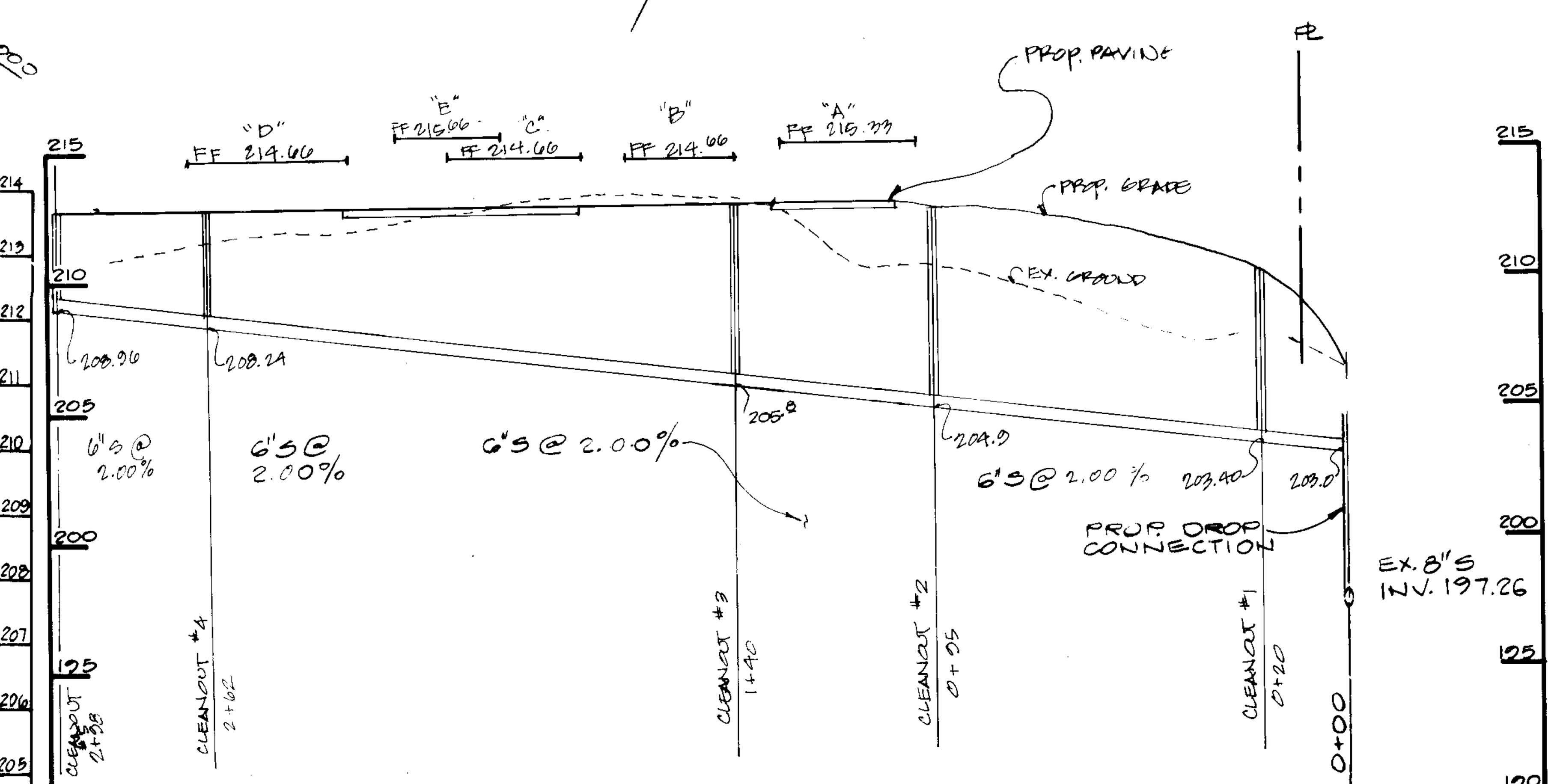
PLAN
SCALE: 1"=30'



PROPOSED DRAINAGE AREA
SCALE: 1"=60'



STORM DRAIN PROFILE
SCALE: HORIZ. 1"=20' VERT. 1"=2'



SEWER PROFILE
SCALE: HOR. 1"=30' VER. 1"=5'

9/25/96	REV. GRADING, UNIT, ENTRANCE & UTILITIES
DATE	REVISION

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Chief, Development Engineering Division — Date 6/19/96

Chief, Division and Land Development and Research — Date 7/5/96

Director — Date 7/5/96

DATE	NO.	REVISION
3-29-96		REV. PER COUNTY COMMENTS
2-12-96		REVISED PER COUNTY COMMENTS
		6/20/96 HC

OWNER/DEVELOPER

ROUTE 175 ASSOCIATES, L.L.C.
25 MAIN STREET
REISTERSTOWN, MARYLAND 21136

PROJECT: NEW COLONY VILLAGE MODULAR HOMES SALES CENTER

AREA: TAX MAP NO. 43 PARCEL D-1 ZONED: B-1
1st. ELECTION DISTRICT HOWARD COUNTY, MARYLAND

TITLE: SITE DEVELOPMENT PLAN
SDP #96-61

MORRIS & RITCHIE ASSOCIATES, INC.
ENGINEERS, PLANNERS, SURVEYORS AND LANDSCAPE ARCHITECTS
110 WEST ROAD SUITE 10
TOWSON, MARYLAND 21204
(410) 821-1690
FAX (410) 821-1748

11-14-95
DATE

STATE OF MARYLAND — DONALD N. MITTEN — NO. 16501 REGISTERED PROFESSIONAL ENGINEER

DESIGNED BY: KAD
DRAWN BY: EJ
PROJECT NO. 10192
DATE: NOV. 14, 1995
SCALE: AS SHOWN
DRAWING NO. 2 OF 10

SDP-96-61

PARCEL B
FIRST HOWARD CO. LAND TRUST
01-0000-176595
1467-0136

PARCEL 118
FIRST HOWARD CO. LAND TRUST
10-0000-176617
1671/64

PARCEL 657
C-1
01-0000-180786

PARCEL 594
MD. STATE POLICE
01-0000-186159
518-0674

PARCEL 543
MD. STATE BOARD
OF PRISONS
01-0000-186140
104/0384

PARCEL 666
SHA
01-0000-257851

PARCEL 16
STANLEY & ROSE NASIATKA
01-0000-177028
2259/0325

PARCEL 17
STANLEY & ROSE NASIATKA
01-0000-174703
2234/0322

U.S. ROUTE 1
SHA PLAT # 53414

PORT CAPITAL DRIVE

SEE FOREST CONSERVATION PLAN (SHEET #3) FOR INFO ON TEMPORARY TREE PROTECTION FENCE

SEE FOREST CONS. PLAN FOR TREES PROTECTION GUARDS

LIMIT OF DISTURBANCE

PROPOSED FOREST CONSERVATION EASEMENT

FUTURE 30' USE SETBACK

FUTURE 10' PARKING SETBACK

EXISTING 30' USE SETBACK

30' BLDG SETBACK

FUTURE ULTIMATE R.O.W

EXISTING 100' R.O.W

VEHICULAR ACCESS RESTRICTED (CO. PLAT #4774)

DOUBLE YELLOW LINES

R-MH ZONING
B-1 ZONING
M-1 ZONING
M-2 ZONING

Hydrologic Group	Symbol		K factor (Hydric)
B	ScB	Sandy and clayey land, gently sloping	U/A
D	L1	Leonardtown silt loam	.35 (Hydric)
C	BeB2	Beltsville silt loam, 1 to 5 percent slopes, moderately eroded	.35
C/D	Em	Elkton silt loam	.35
C	BeC2	Beltsville silt loam 5 to 10 percent slopes, moderately eroded	.35
C	IuB	Iuka loam, local alluvium, 1 to 5 percent slopes	.35
B	SfC2	Sassafras gravelly sandy loam, 5 to 10 percent slopes, moderately eroded	U/A
B	SfD2	Sassafras gravelly sandy loam, 10 to 15 percent slopes, moderately eroded	U/A

U/A - INFO NOT AVAILABLE

LEGEND

- 220 / 220 — EXISTING / PROPOSED CONTOUR
- SCE — STABILIZED CONSTRUCTION ENTRANCE
- SF — SILT FENCE
- SSF — SUPER SILT FENCE
- LIMIT OF DISTURBANCE
- INLET PROTECTION

TOTAL DISTURBED AREA = 396936 SF (9.11 AC.±)

BY THE DEVELOPER

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

DEVELOPER — DATE 11/6/95

BY THE ENGINEER:

I CERTIFY THAT THIS PLAN OF 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.

Donald N. Mitter — ENGINEER — DATE 11/6/95

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

NATURAL RESOURCES CONSERVATION SERVICE — DATE

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

HOWARD SOIL CONSERVATION DISTRICT — DATE

AS BUILT CERTIFICATE

DATE	NO.	REVISION
9-25-96		REVISED ENTRANCE & SD CONNECTION TO EX. I-1
3-29-96		REV PER COUNTY COMMENTS
2-12-96		REVISED PER COUNTY COMMENTS
DATE	NO.	6/23/96 HC REVISION

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Chief, Development Engineering Division — Date 6/19/96

Chief, Division and Land Development and Research — Date 7/5/96

Director — Date 7/5/96

OWNER/DEVELOPER

ROUTE 175 ASSOCIATES, L.L.C.
25 MAIN STREET
REISTERSTOWN, MARYLAND 21136

PROJECT: NEW COLONY VILLAGE
MODULAR HOME SALES CENTER

AREA: TAX MAP NO. 43 PARCEL 21 ZONED: B-1
1st. ELECTION DISTRICT HOWARD COUNTY MARYLAND

TITLE: SEDIMENT CONTROL AND SOILS PLAN
SDP #96-01

MORRIS & RITCHIE ASSOCIATES, INC.
ENGINEERS, PLANNERS, SURVEYORS AND LANDSCAPE ARCHITECTS
110 WEST ROAD SUITE 105
TOWSON, MARYLAND 21204
(410) 821-1690
FAX (410) 821-1748

5-28-96 DATE

STATE OF MARYLAND — DONALD N. MITTER — NO. 16501 — REGISTERED PROFESSIONAL ENGINEER

DESIGNED BY:	KAD
DRAWN BY:	EJ
PROJECT NO.:	10192
DATE:	NOV. 14, 1995
SCALE:	1" = 50'
DRAWING NO.	3 OF 10

SDP-96-01

20.0 STANDARDS AND SPECIFICATIONS
FOR
VEGETATIVE STABILIZATION

Definition

Using vegetation as cover for barren soil to protect it from forces that cause erosion.

Purpose

Vegetative Stabilization specifications are used to promote the establishment of vegetation on exposed soil. When soil is stabilized with vegetation, the soil is less likely to erode and more likely to allow infiltration of rainfall, thereby reducing sediment loads and runoff to downstream areas, and improving wildlife habitat and visual resources.

Conditions Where Practice Applies

This practice shall be used on denuded areas as specified on the plans and may be used on highly erodible or critically eroding areas. This specification is divided into Temporary Seeding, to quickly establish vegetative cover for short duration (up to one year), and Permanent Seeding, for long term vegetative cover. Examples of applicable areas for Temporary Seeding are temporary soil stockpiles, cleared areas being left idle between construction phases, earth dikes, etc. and for Permanent Seeding are lawns, dams, cut and fill slopes and other areas at final grade, former stockpile and staging areas, etc.

Effects on Water Quality and Quantity

Planting vegetation in disturbed areas will have an effect on the water budget, especially on volumes and rates of runoff, infiltration, evaporation, transpiration, percolation, and groundwater recharge. Vegetation, over time, will increase organic matter content and improve the water holding capacity of the soil and subsequent plant growth.

Vegetation will help reduce the movement of sediment, nutrients, and other chemicals carried by runoff to receiving waters. Plants will also help protect groundwater supplies by assimilating those substances present within the root zone.

Sediment control devices must remain in place during grading, seedbed preparation, seeding, mulching and vegetative establishment to prevent large quantities of sediment and associated chemicals and nutrients from washing into surface waters.

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/acre 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/acre 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/acre (1.4 lbs/1000 sq. ft.) of Kentucky 31 Tall Fescue. For the period May 1 -- July 31, seed with 50 lbs Kentucky 31 Tall Fescue per acre and 2 lbs/acre (.05 lbs/1000 sq. ft.) of weeping lovegrass. During the period of October 16 -- February 28, protect site by: Option 1 -- Two 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 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.

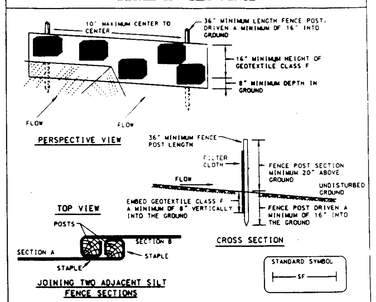
Soil Amendments: -- Apply 600 lbs/acre 10-10-10 fertilizer (14 lbs/1000 sq. ft.)

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 (.07 lbs/1000 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/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 slope 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.

DETAIL 22 - SILT FENCE



Construction Specifications

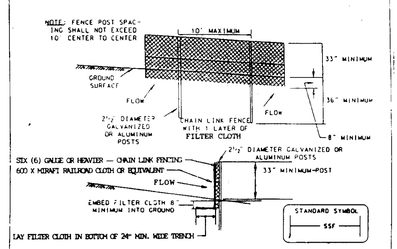
1. Fence posts shall be a minimum of 36" long driven 16" minimum into the ground. Wood posts shall be 1½" x 1½" square (minimum) cut, or 1¾" diameter (minimum) round and shall be of sound quality hardwood. Steel posts will be standard T or U section weighting not less than 1.00 pond per linear foot.
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 ft²/ 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 E - 18 - 8	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

DETAIL 33 - SUPER SILT FENCE

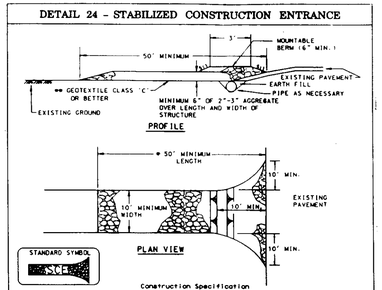


Construction Specifications

1. Fencing shall be 42 inches in height and constructed in accordance with the latest Maryland State Highway (SHA) Details for Chain Link Fencing. The SHA specifications for a 6 foot fence shall be used, substituting 42 inch fabric and 6 foot length posts.
2. The posts do not need to be set in concrete.
3. 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.
4. Filter Cloth shall be fastened securely to the chain link fence with ties spaced every 24" at the top and mid section.
5. Filter Cloth shall be embedded a minimum of 8" into the ground.
6. When two sections of geotextile fabric adjoin each other, they shall be overlapped by 6" and folded.
7. Maintenance shall be performed as needed and silt buildups removed when "bulges" develop in the silt fence, or when silt reaches 50% of the fence height.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE		MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

DETAIL 24 - STABILIZED CONSTRUCTION ENTRANCE

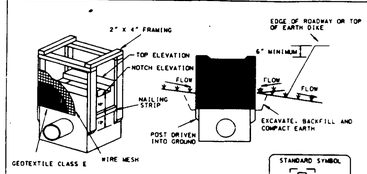


Construction Specification

1. Length - minimum of 50' (*50' 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 F - 17 - 8	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

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.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	PAGE E - 38 - 8	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

PERMANENT SEEDING SUMMARY

No.	Species	Seed Mixture (Hardiness Zone 7A) (From Table 25) Application Rate (lb/ac)	Seeding Date	Seeding Depths	Fertilizer Rate (10-20-20) N	P205	K20	Lime Rate
1	Tall Fescue (75%) Canada Bluegrass (10%) Kentucky Bluegrass (10%) Redtop (5%)	150 lbs./ac. total combined	3/1 - 5/15 8/15 - 11/15	1/4" - 1/2"	90 lbs./ac. (2.0 lb/ 1000 l.f.)	175 lbs./ac. (4 lb/ 1000 l.f.)	175 lbs./ac. (4 lb/ 100 l.f.)	2 tons/ac. (100 lb/ 1000 l.f.)
3	Tall Fescue (85%) Perennial Ryegrass (10%) Kentucky Bluegrass (5%)	125 lbs. 15 lbs. 10 lbs.	3/1 - 5/15 8/15 - 11/15	1/4" - 1/2"				

Table 26 Temporary Seeding Rates, Depths, and Dates

SPECIES	MINIMUM SEEDING RATES PER ACRE	LBS/1000 SQ.FT.	PLANTING DEPTH* INCHES	HARDINESS ZONES* AND SEEDING DATES ** 7a and 7b 2/1-4/30	5/1-8/14	8/15-11/30	6b 3/1-4/30	5/1-8/14	8/15-11/15	6a and 5b 3/15-5/31	6/1-7/31	8/1-10/31
CHOOSE ONE:												
BARLEY	2.5 BU. (122 lbs)	2.80	1-2	X	-	BY 10/15	X	-	BY 10/15	X	-	BY 10/1
OATS	3 BU. (96 lbs)	2.21	1-2	X	-	-	X	-	-	X	-	-
RYE *	2.5 BU. (140 lbs)	3.22	1-2	-	X	X	-	X	X	-	X	X
BARLEY OR RYE PLUS FOXTAIL MILLET*	150 lbs	3.45	1	X X	X X	10/15 X	X X	X X	10/15 X	X X	X X	10/1 X
WEEPING LOVEGRASS*	4 lbs	.09	1/4 - 1/2	-	X	-	-	X	-	-	X	-
ANNUAL RYEGRASS	50 lbs	1.15	1/4 - 1/2	X	-	11/1	X	-	11/1	X	-	8/15
MILLET*	50 lbs	1.15	1/2	-	X	-	-	X	-	-	X	-

* Appropriate on slopes of 3:1 or flatter
** Refer to Figure A - Adapted from USDA, ARS Miscellaneous Publication #1073, January 1990
*** Hardiness Rill and sorting seeding dates, see munch work if so used in fescue and mowed when clipped
* May be used as a nurse crop for late fall/early winter permanent seedings, add 50 lbs/ac to the permanent seeding mixture
* Maryland State Highway Administration Temporary Seed Mix
* May be used as a nurse crop for mid-summer permanent seedings. Add 10 lbs/ac to permanent seed mix.
* May be used as a nurse crop for mid-summer permanent seedings. Add 10 lbs/ac to the permanent seeding mix.

NEW COLONY
SEQUENCE OF CONSTRUCTION

1. OBTAIN GRADING PERMIT.
2. INSTALL S.C.E. AT ENTRANCE OF PORT CAPITAL DRIVE. (1 DAY)
3. INSTALL FOREST CONSERVATION TREE PROTECTION MEASURES. (1 DAY)
4. INSTALL SILT FENCES AND SUPER SILT FENCES. (1 DAY)
5. PERFORM ROUGH GRADING FOR ROADS AND ALL OTHER AREAS OF SITE. (2 WEEKS)
6. INSTALL STORM DRAINS, STORMCEPTOR AND UNDERGROUND STORMWATER MANAGEMENT FACILITY INCLUDING STONE FILTER INLET PROTECTION AS SHOWN ON PLAN. INSTALL ALL OTHER UTILITIES, INCLUDING WATER AND SEWER. (1 WEEK) THE STORMWATER MANAGEMENT FACILITY WILL BE BLOCKED UNTIL THE SITE IS STABILIZED AND PERMISSION IS GRANTED FROM THE SEDIMENT CONTROL INSPECTOR.
7. STABILIZE ALL AREAS IN ACCORDANCE WITH THE TEMPORARY SEEDING NOTES. (1 DAY)
8. STABILIZE ROAD AREAS BY INSTALLING FIRST COURSE OF ASPHALT PAVING. (1 DAY)
9. STABILIZE ALL AREAS IN ACCORDANCE WITH THE PERMANENT SEEDING NOTES. (1 DAY)
10. UPON PERMISSION OF THE HOWARD COUNTY DEPARTMENT OF LICENSES AND PERMITS SEDIMENT CONTROL INSPECTOR REMOVE ALL REMAINING SEDIMENT CONTROL DEVICES AND STABILIZE ALL DISTURBED AREAS IN ACCORDANCE WITH THE PERMANENT SEEDING NOTES. (1 DAY)

SEDIMENT CONTROL NOTES

1. 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).
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 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL AND EROSION CONTROL.
3. FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN: A) 7 CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DIKES, PERIMETER SLOPES AND ALL SLOPES GREATER THAN 3:1, B) 14 DAYS AS TO OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.
4. ALL SEDIMENT TRAPS/BASINS SHOWN MUST BE FENCED AND WARNING SIGNS POSTED AROUND THE PERIMETER IN ACCORDANCE WITH VOL. 1 CHAPTER 12, 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 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL AND EROSION CONTROL FOR PERMANENT SEEDINGS (SEC. 51), SOD (SEC. 54), TEMPORARY SEEDING (SEC. 50) AND MULCHING (SEC. 52). TEMPORARY STABILIZATION WITH MULCH ALONE CAN 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 THEIR REMOVAL HAS BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
7. SITE ANALYSIS:

   TOTAL AREA OF SITE 2.64 Ac.
   AREA DISTURBED 0.92 Ac.±
   AREA TO BE ROOFED OR PAVED 0.32 Ac±
   AREA TO BE VEGETATIVELY STABILIZED 0.60 Ac.±
   TOTAL CUT 1497 C.Y.
   TOTAL FILL 3071 C.Y.

8. ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE.
9. ADDITIONAL SEDIMENT CONTROLS MUST BE PROVIDED, IF DEEMED NECESSARY BY THE HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS SEDIMENT CONTROL INSPECTOR.
10. SITE GRADING WILL BEGIN ONLY AFTER ALL PERIMETER SEDIMENT CONTROL MEASURES HAVE BEEN INSTALLED AND ARE IN A FUNCTIONING CONDITION.
11. SEDIMENT WILL BE REMOVED FROM TRAPS WHEN ITS DEPTH REACHES CLEAN OUT ELEVATION SHOWN ON THE PLANS.
12. CUT AND FILL QUANTITIES PROVIDED UNDER SITE ANALYSIS DO NOT REPRESENT BID QUANTITIES. THESE QUANTITIES DO NOT DISTINGUISH BETWEEN TOPSOIL, STRUCTURAL FILL OR EMBANKMENT MATERIAL, NOR DO THEY REFLECT CONSIDERATION OF UNDERCUTTING OR REMOVAL OF UNSUITABLE MATERIAL. THE CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH SITE CONDITIONS WHICH MAY AFFECT THE WORK.

BY THE DEVELOPER

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

DEVELOPER — DATE

BY THE ENGINEER:

I CERTIFY THAT THIS PLAN OF 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.

Donald N. Mitten — 5/28/96
ENGINEER — DATE

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

NATURAL RESOURCES CONSERVATION SERVICE — DATE

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

HOWARD SOIL CONSERVATION DISTRICT — DATE

AS BUILT CERTIFICATE

DATE	NO.	REVISION
9-25-96		REVISED ENTRANCE

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Chief, Development Engineering Division — Date 6/19/96
Chief, Division and Land Development and Research — Date 7/5/96
Director — Date 7/5/96

DATE	NO.	REVISION
3-29-96		REV. PER COUNTY COMMENTS
2-12-96		REVISED PER COUNTY COMMENTS

OWNER/DEVELOPER

ROUTE 175 ASSOCIATES, L.L.C.
25 MAIN STREET
REISTERSTOWN, MARYLAND 21136

PROJECT: NEW COLONY VILLAGE
MODULAR HOME SALES CENTER

AREA: TAX MAP NO. 43 PARCEL D-1 ZONED: R-1

1st ELECTION DISTRICT HOWARD COUNTY, MARYLAND

TITLE: SEDIMENT CONTROL DETAILS
SDP-96-61

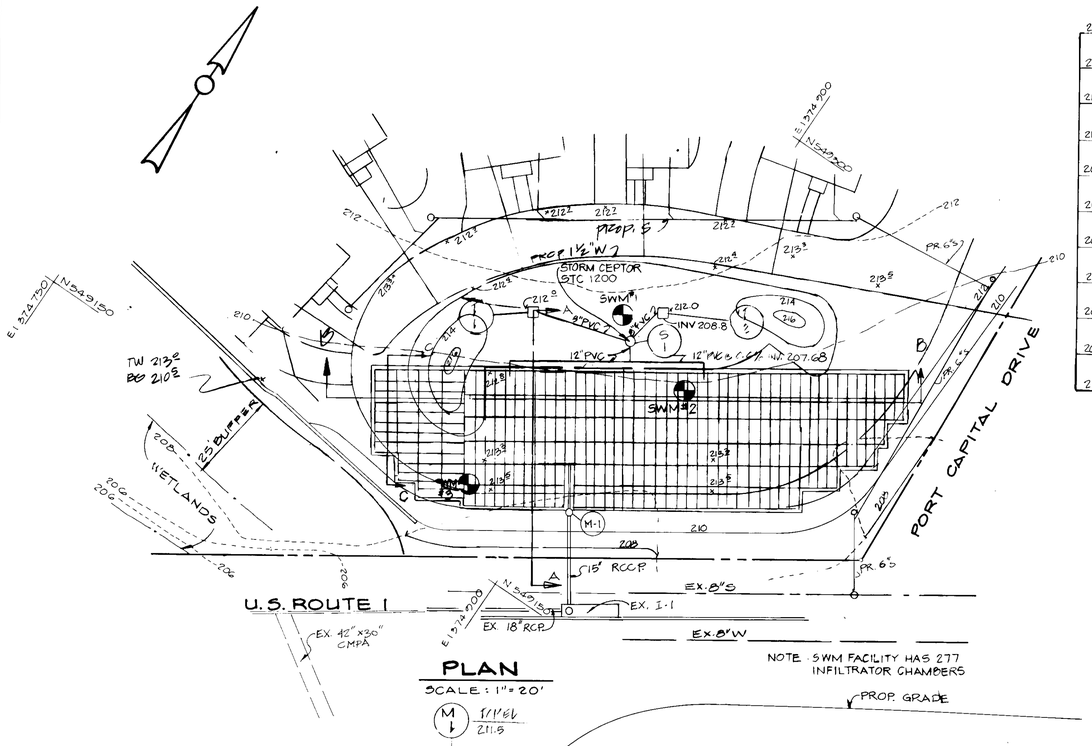
MRA
MORRIS & RITCHIE ASSOCIATES, INC.
ENGINEERS, PLANNERS, SURVEYORS AND LANDSCAPE ARCHITECTS
110 WEST ROAD SUITE 105
TOWSON, MARYLAND 21204
(410) 821-1690
FAX (410) 821-1748

5-28-96
DATE

STATE OF MARYLAND — DONALD N. MITTEN — No. 16585 — REGISTERED PROFESSIONAL ENGINEER

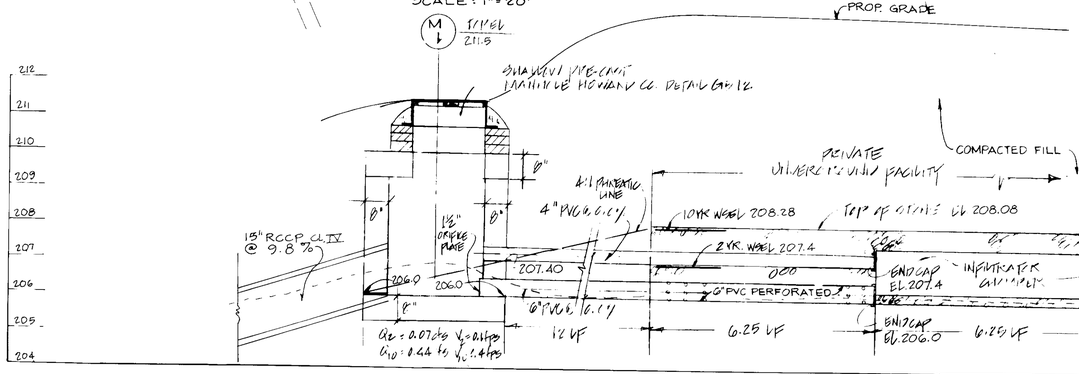
DESIGNED BY: KAD
DRAWN BY: EJ
PROJECT NO.: 10102
DATE: NOV. 14, 1995
SCALE: —
DRAWING NO. 4 OF 10

SDP-96-61



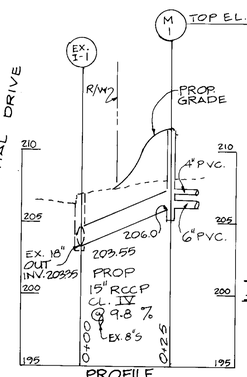
PLAN

SCALE: 1" = 20'



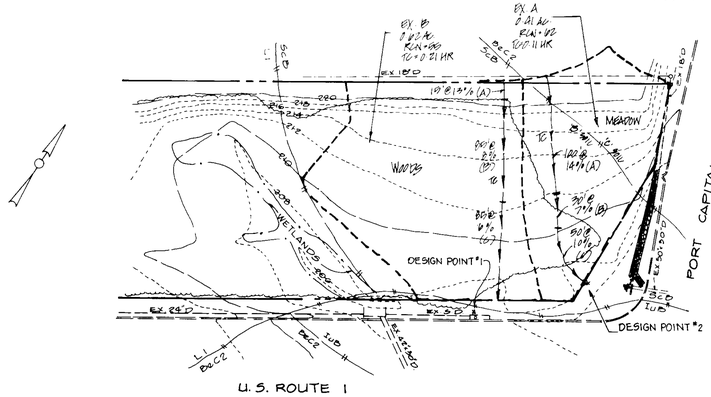
PROFILE

SCALE: 1" = 2' (HORIZ. & VERT.)



EXISTING DRAINAGE AREA

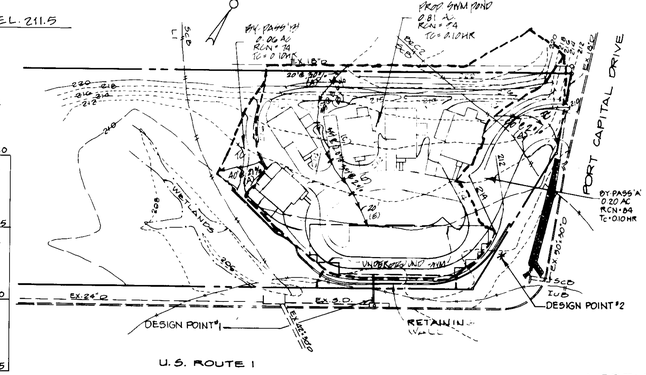
SCALE: 1" = 60'



UNDERGROUND SWM FACILITY WILL BE OWNED AND MAINTAINED BY: ROUTE 175 ASSOCIATES, LLC
25 MAIN STREET
REISTERSTOWN, MD. 21136

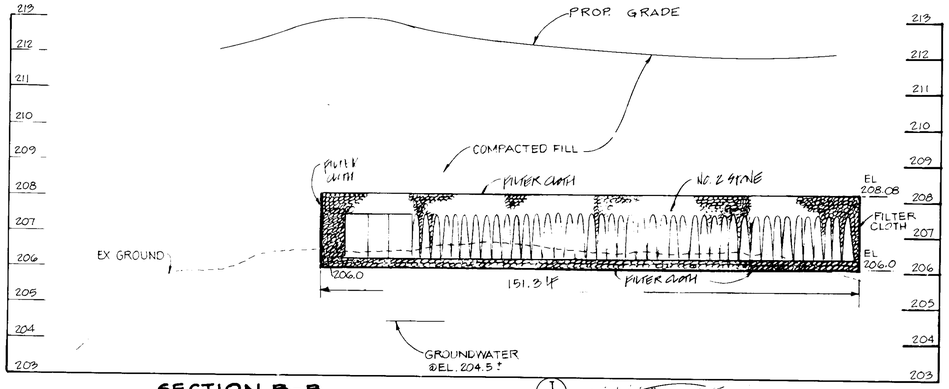
PROPOSED DRAINAGE AREA

SCALE: 1" = 60'



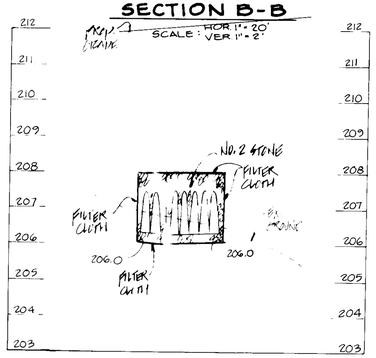
LEGEND

- SOILS LINE
- TIME OF CONCENTRATION
- DRAINAGE DIVIDE



SECTION B-B

SCALE: HOR. 1" = 20' VER 1" = 2'



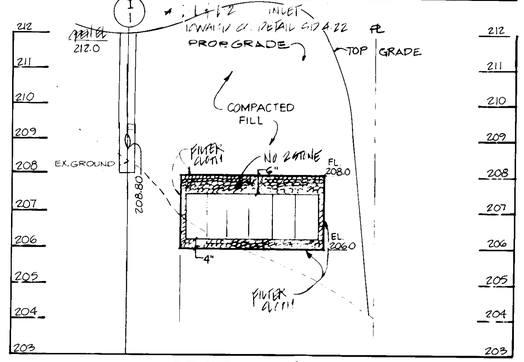
SECTION C-C

SCALE: HOR. 1" = 20' VER. 1" = 2'

NOTE: ORIFICE PLATE TO BE CEMENTED INTO WYE FLOW PIPE PRIOR TO ATTACHMENT OF EXTENDED DETENTION DEWATERING DEVICE. CEMENT PLATE ABOUT ENTIRE CIRCUMFERENCE & ATTACH SLEEVE.

ORIFICE PLATE DETAIL

N.T.S.



SECTION A-A

SCALE: HOR. 1" = 20' VER. 1" = 2'

Concrete Stormceptor® Order Request Form *

Contractor Information

Name
Address
City
State
Zip Code
Contact
Phone
Fax

Owner Information

Name: Mark Levy, RTE. 175 Assoc. LLC
Phone: 526-4020
Fax: 526-4765

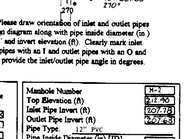
Stormceptor® Model

900	☐	3600	☐
1200	☒	4800	☐
1800	☐	6000	☐
2400	☐	7200	☐

Insert Size

22" ☒
32" ☐
44" ☐
Custom ___

Office Use Only: Order #, Date, Internal Sale



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

Manhole Number	MH-2
Top Elevation (ft)	211.90
Inlet Pipe Invert (ft)	207.78
Outlet Pipe Invert (ft)	207.68
Pipe Type	RCP
Pipe Inside Diameter (in) (ID)	12"
Pipe Outside Diameter (in) (OD)	15.36"

Project Name: New Colony Village Sales Center
Approximate time frame until required delivery (weeks)
Delivery Address: Street
City, State, Zip Code
Designer Company: Morris & Ritchie Associates, Inc.
Designer Contact: Bob Bayer, Phone (410) 821-1690, Fax (410) 821-1748

Please fax this sheet back to Virginia Precast (804) 798-3426
Attention: Ed O'Malley (Phone: 1-800-999-2278)
For credit information/applications contact Carole Broadus at (804) 798-6068

For Technical Assistance Please call Stormceptor Corporation at (301) 762-8361 or toll free at 1-800-762-4705

* TO BE INCLUDED ON SWM PLAN BY DESIGNER

(3/05/97)

BY THE DEVELOPER

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

DEVELOPER — DATE 11/6/95

BY THE ENGINEER:

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

ENGINEER — DATE 5/28/96

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

NATURAL RESOURCES CONSERVATION SERVICE — DATE

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

HOWARD SOIL CONSERVATION DISTRICT — DATE

AS BUILT CERTIFICATE

DATE	NO.	REVISION
9-25-96		REVISED SWM & STORMCEPTOR

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Chief, Development Engineering Division — Date 10/9/96

Chief, Division and Land Development and Research — Date 7/5/96

Director — Date 7/5/96

DATE	NO.	REVISION
5-29-96		REV. PER COUNTY COMMENTS
2-12-96		REVISED PER COUNTY COMMENTS

OWNER/DEVELOPER

ROUTE 175 ASSOCIATES, LLC.
25 MAIN STREET
REISTERSTOWN, MARYLAND 21136

PROJECT: NEW COLONY VILLAGE
MODULAR HOMES SALES CENTER

AREA: TAX MAP NO. 43 PARCEL 21 ZONED: R-1
1st ELECTION DISTRICT HOWARD COUNTY MARYLAND

TITLE: STORMWATER MANAGEMENT PLAN
SDP #96-61

MORRIS & RITCHIE ASSOCIATES, INC.
ENGINEERS, PLANNERS, SURVEYORS AND LANDSCAPE ARCHITECTS
110 WEST ROAD SUITE 105
TOWSON, MARYLAND 21204
(410) 821-1690
FAX (410) 821-1748

5-28-96 DATE

STATE OF MARYLAND — DONALD N. MITTEN — No. 18600 — REGISTERED PROFESSIONAL ENGINEER

DESIGNED BY:	KAD
DRAWN BY:	EJ
PROJECT NO.:	10152
DATE:	NOV. 14, 1995
SCALE:	AS SHOWN
DRAWING NO.	5 OF 10

SDP-96-61

STORMWATER MANAGEMENT CONSTRUCTION SPECIFICATIONS

I. 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 pond or 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.

II. EARTH FILL

A. 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 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.

B. 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 concurrent with fill placement and not excavated into the embankment.

C. 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.

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

III. 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 the 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.

IV. PIPE CONDUITS

A. POLYVINYL CHLORIDE (PVC) PIPE

All 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 on 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.

V. CONCRETE STRUCTURES

A. CONCRETE

Concrete shall meet the minimum requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, Section 414 Mix No. 3.

B. REINFORCEMENT

Reinforcement shall meet the minimum requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, Section 416 (Reinforcement for Concrete Structures), Section 906 (Reinforcing Steel - Grade 60, Wire Rope and Wire Fabric), and Section 909.02 (Steel for Miscellaneous Use).

VI. STABILIZATION

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

A. SOD

1. Specifications - Sod shall be "K-31" Tall Fescue or Kentucky Bluegrass/Red Fescue mixture or approved equal. Class of turfgrass sod shall be Maryland or Virginia state certified or approved sod.
2. Site Preparation - Where soil is acidic or composed of heavy clays, ground limestone shall be spread at the rate of 100 lbs./1000 sq. ft. In all soils 5-10-5 fertilizer or approved equal shall be applied at the rate of 30 lbs/1000 sq.ft. Fertilizer shall be uniformly applied and mixed into the top 3" of soil with the required lime. Slow release nitrogen, at the rate of 3.5 lbs/1000 sq. ft., shall be applied to the prepared soil immediately prior to sod installation. This material shall be approximately one-third immediately available and low thirds water insoluble nitrogen. Urea formaldehyde (UF) and isobutylidene (IBDU) meet these standards.
3. Sod Installation - The first row of sod shall be laid in a straight line with subsequent rows place parallel to and tightly wedged against each other. Lateral joints shall be staggered to promote more uniform growth and strength. Insure that sod is not stretched or overlapped and that all joints are butted tight in order to prevent voids which would cause air drying of the roots. On sloping areas where erosion may be a problem, sod shall be laid with long edges parallel to the contour and with staggered joints. Secure the sod by tamping and pegging or other approved methods. As sodding is completed in any one section, the entire area shall be rolled or tamped to insure solid contact of roots with the soil surface. Sod shall be watered immediately after rolling or tamping until the underside of the new sod pad and solid surface below the sod are thoroughly wet. The operation of laying, tamping and irrigating for any piece of sod shall be completed within eight hours.

B. PERMANENT SEEDING

All disturbed areas shall be stabilized as follows:

1. Seedbed Preparation - Loosen upper 3 inches of soil by raking, discing or other acceptable means before seeding.
2. Soil Amendments - Apply 2 tons per acre dolomitic limestone (92 lbs/1000 sq. ft.). 600 lbs. per acre 10-10-10 fertilizer (14 lbs./1000 sq. ft.) and 400 lbs. per acre of 30-0-0 ureaform fertilizer (9.2 lbs./100 sq. ft.). Harrow or disc lime and fertilizer into upper three inches of soil. At time of seeding, apply 400 lbs per acre (9.2 lbs./1000 sq. ft.) of 30-0-0 ureaform fertilizer and 500 lbs. per acre (11.5 lbs./1000 sq.ft.) of 10-10-10 fertilizer.
3. Seeding - For the period March 1 through April 30 seed with 40 lbs. per acre Kentucky 31 Tall Fescue and 15 lbs. per acre inoculated Crownvetch. For the period May 1 through July 31 seed with 60 lbs. per acre Kentucky 31 Tall Fescue and 2 lbs. per acre inoculated Weeping Lovegrass. For the period of August 1 through October 15 seed with 40 lbs. per acre Kentucky 31 Tall Descue and 20 lbs per acre inoculated Interstate Serica lespedeza. During the period of October 16 through 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. per acre Kentucky 31 Tall Fescue and mulch with 2 tons per acre well anchored straw. For the period of May 1 through February 28, inoculated Crownvetch shall be applied during the subsequent period of March 1 through April 30 at the rate of 15 lbs. per acre.
4. Mulching - Apply 1.5 to 2 tons per acre of unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using 218 gallons per acre of emulsified asphalt on flat areas. On slope 8 feet or higher, use 348 gallons per acre for anchoring.
5. Maintenance - Inspect all seeded areas and make needed repairs, replacements and reseeding.

HYDROLOGY SUMMARY
AT DP #2
PORT CAPITAL DRIVE

	EXISTING (EX. A)	PROPOSED (BYP. A)
2 YEAR	24 CFS	48 CFS
10 YEAR	0.88 CFS	92 CFS
100 YEAR	1.76 CFS	1.27 CFS

C. TEMPORARY SEEDING

1. Seedbed Preparation - Loosen upper 3 inches of soil by discing, raking or other acceptable means before seeding.
2. Soil Amendments - Apply 600 lbs. per acre of 10-10-10 fertilizer. Where soil is acidic or composed of heavy clays, ground limestone shall be applied at the rate of 2 tons per acre (92 lbs./1000 sq.ft.).
3. Seeding - For periods March 1 through April 30, and from August 15 through November 15, seed with 2.5 bushels per acre annual rye. For the period May 1 through August 14, seed with 3 lbs. per acres of weeping lovegrass. For the period November 16 through February 28, protect site by applying 2 tone per acre of well anchored straw mulch and seed as soon as possible in the spring or use sod.
4. Mulching - Same as permanent seeding.

VII. 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, as shown on these plans and as set forth in the latest "Standards & Specifications for Soil Erosion and Sediment Control in Developing Areas" of the Soil Conservation Service of Maryland, Baltimore County Soil Conservation District, as amended.

IX. ROCK RIPRAP

Rock riprap shall meet the requirements of Maryland Department of Transportation, State Highway Administration standard specifications for construction and materials, Section 901.

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 Standard Specifications for Construction and Materials, Section 921.09.

X. FILTER CLOTH

1. Filter Cloth to be Mirafi 140N or approved equal

XI. INSPECTION

The contractor shall notify the engineer at least 5 working days prior to starting any work shown on these plans so that stormwater management pond may be inspected during construction.

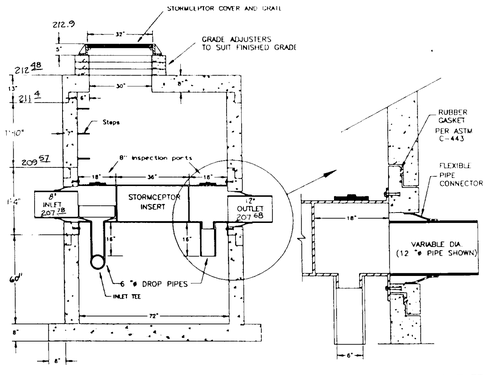
XII. CARE OF WATER DURING CONSTRUCTION

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 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.

XIII. REFERENCES

Unless otherwise noted, all materials and construction practices shall conform to the following:

1. "HOWARD COUNTY DESIGN MANUAL VOL. I" OF THE HOWARD COUNTY, MARYLAND DEPARTMENT OF PUBLIC WORKS AS AMENDED.
2. "Standard Specifications for Construction and Materials", 1993, of the Maryland State Highway Administration, as amended.



NOTE: 1. NON-SMOOTH OUTSIDE WALL PIPE TO BE GROUTED IN PLACE (NO KOR-N-SEAL BOOTS)
2. RISER SECTION ABOVE THE INSERT TO BE 72" ø FOR A MINIMUM OF 60" OR TO THE GRADE (WHICHEVER IS THE LESSER)
3. COVER TO BE LOCATED ADJACENT TO INLET INSPECTION PORT

ENLARGED OUTLET CONNECTION DETAIL

Design Specifications:
1. ASTM C 478
2. BASE WEIGHT = 7.6 TONS

STC1200 PRECAST CONCRETE STORMCEPTOR
1200 US GALLON CAPACITY
NTS

HYDROLOGY SUMMARY
SWM FACILITY DP #1

DESIGN STORM	EXISTING RUNOFF (AREA B)	BYPASS (B)	ALLOWABLE RELEASE	PROPOSED INFLOW	PROPOSED DISCHARGE FROM POND	WATER SURFACE ELEVATION	STORAGE VOLUME
WATER QUALITY							
2 YEAR	09 CFS	.04 CFS +	00 CFS	2.80 CFS	07 CFS	207.4 FT	.1167AC-FT
10 YEAR	67 CFS	20 CFS +	47 CFS	4.68 CFS	.44CFS	208.18FT	.183 AC-FT

MANAGEMENT PROVIDED: 2 & 10 YEAR & WATER QUALITY
DRAINAGE AREA: .81 ACRES (TO UNDERGROUND FACILITY)
LOCATION: TRIBUTARY OF THE WATERSHED MIDDLE PATUXENT WATERSHED
PRINCIPAL SPILLWAY CAPACITY: .44CFS
WATER QUALITY PROVIDED BY EXTENDED DETENTION

INFILTRATION SYSTEMS INCORPORATED

SPECIFICATION STANDARD

1.0 GENERAL

INFILTRATION chambers are manufactured plastic units designed to control stormwater runoff. An INFILTRATOR chamber system may be designed to retain water and infiltrate the water back into the soil, or detain the water and store it for a metered flow to an outfall.

2.0 TYPES AND FITTINGS

2.1 High Capacity units shall be plastic arch shaped, open-both-ended chamber with side wall openings. The nominal unit dimensions shall be 15" high x 34" wide x 75" long with a minimum distance of 10" below the invert.

2.2 H-10 units (American Association of State Highway and Traffic Officials AASHTO) shall have a load rating of 16,000 lbs/axle with 12" of backfill cover.

2.3 H-20 units (American Association of State Highway and Traffic Officials AASHTO) shall have a load rating of 32,000 lbs/axle with 18" of backfill cover.

2.4 Open End Plates shall be plastic plates which conform and attach to the end of a chamber unit. The inlet access hole shall be able to receive a 4" diameter pipe.

2.5 Closed End Plates shall be plastic plates which conform and attach to the end of a chamber unit. Solid plates shall be used to restrict soil and stone intrusion into the chamber. They shall also be utilized to accept larger diameter inlet pipes through a custom cut access port.

3.0 MANUFACTURING PROCESS

Each high density polyethylene unit shall be molded by a structural foam injection process.

4.0 PRODUCT PARAMETERS

4.1 Each unit shall have a nominal wall thickness of 1/4" structural foam.

4.2 Each unit shall have a bearing footprint of 1.5 - 1.7 square feet to prevent sinking and to minimize soil masking.

4.3 Each unit shall have a minimum nominal sidewall height of 10". Side openings shall extend to the top of each sidewall.

4.4 Each unit shall have a minimum of .025 square feet of sidewall openings per linear foot. Side openings shall be .028 in height and have ribs above and below to maximize infiltration and minimize fines intrusion. Ribs shall be a maximum of .025 high and the bottom of the openings shall slope upward at approximately 20° to prevent fines intrusion. Use of filter fabric or geotextile shall be prohibited, except at interface of soil and stone bedding.

4.5 Each unit shall have interlocking joints for the latching of units. A minimum of 1-1/4" overlap of each joint shall be provided.

4.6 Each chamber shall have a knockout access port sized to receive a 4" diameter pipe, and centered on top of each unit. (As required.)

5.0 MATERIALS

5.1 Plastic leaching chambers shall be manufactured fro high density polyethylene.

5.2 The density of polyethylene raw material shall be a minimum of .0950 gr/cm³. ASTM D1248, D1505.

5.3 The unit shall be color coded so to clearly identify H-10 and H-20 units.

6.0 TESTING REQUIREMENT

6.1 In ground structural tests shall have been performed by a registered Professional Engineer and meet an AASHTO rating H-10 (16,000 lbs/axle) with 12" of cover and H-20 (32,000 lbs/axle) with 18" of cover.

6.2 Drop wright impact testing shall have been performed at a minimum of 1 unit per 60, and shall conform to manufacturers specifications. The minimum standard shall require a 6 lb weight with a 1/4" diameter rounded head dropped from a height of 20 inches onto a panel of the product which rests on 2" diameter support ring.

7.0 GENERAL REQUIREMENT

7.1 Installation shall be in accordance with manufacturers recommendations and conform to all applicable state, county and local regulations.

NOTES:
1. THE STORMCEPTOR® IS PROTECTED BY U.S. PATENT NO. 4,985,148
2. CAST IRON FRAME & COVER TO BE APPROVED BY STORMCEPTOR CORPORATION. "STORMCEPTOR" TO BE EMBOSSED ON COVER.
3. BEDDING, BACKFILL AND GENERAL INSTALLATION REQUIREMENTS SHALL BE IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE MANUFACTURER AND A PROFESSIONAL ENGINEER BASED ON SITE SPECIFIC SOILS CONDITIONS, SUBJECT TO THE APPROVAL OF THE REGULATORY AGENCIES.
4. SIZING OF THE STORMCEPTOR® SHALL BE IN ACCORDANCE WITH THE GUIDELINES PROVIDED BY STORMCEPTOR CORPORATION, SUBJECT TO THE APPROVAL OF THE REGULATORY AGENCIES.
5. THE STORMCEPTOR® SHOULD BE MAINTAINED ANNUALLY AND/OR IMMEDIATELY FOLLOWING ANY KNOWN SPILLS.
6. THE STORMCEPTOR® CONFORMS TO ASTM C 478 DESIGN SPECIFICATIONS / STANDARDS.
7. THE 72" DIAMETER SECTION SHOULD EXTEND A MIN. OF 3' ABOVE THE INSERT OR TO THE SURFACE FOR ACCESS TO THE INSPECTION PORTS.
8. A MINIMUM OF 1 STEP IS TO BE USED IN THE ACCESS WAY.
9. COVER TO BE OFFSET 6" FROM ACCESS WALL ADJACENT TO INLET INSPECTION PORT.
10. NON-SMOOTH WALL O.D. PIPE TO BE GROUTED IN PLACE.
11. MAXIMUM OF 12" FALL FROM INLET TO OUTLET.
12. FURTHER TECHNICAL INFORMATION IS AVAILABLE FROM STORMCEPTOR CORPORATION AT (800) 762-4701.

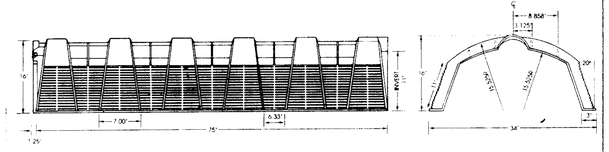
NOTE
1. THE INFILTRATOR® CHAMBER WILL BE INSTALLED ACCORDING TO SPECIFIC INSTALLATION INSTRUCTIONS PROVIDED BY INFILTRATOR SYSTEMS, INC.
2. INFILTRATOR SYSTEMS, INC. ENGINEERING DEPARTMENT WILL BE NOTIFIED PRIOR TO CONSTRUCTION (800) 221-4436.
3. THE CONTRACTOR SHALL NOTIFY MISS UTILITY AT LEAST 48 HOURS PRIOR TO STARTING EXCAVATION.

NEW COLONY VILLAGE SALES CENTER - 10192
MAINTENANCE NOTES

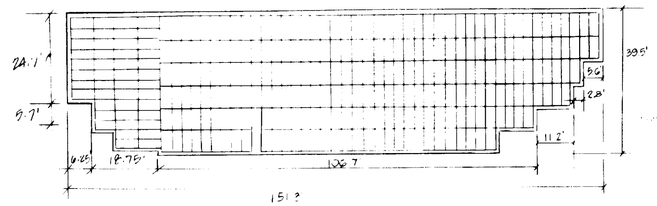
1. THIS IS A PRIVATELY OWNED FACILITY AND INSPECTION AND MAINTENANCE IS THE RESPONSIBILITY OF THE OWNER.
2. THE OWNER SHALL HAVE THE STORMCEPTOR INSPECTED AT INTERVALS NOT TO EXCEED SIX MONTHS AND AFTER ALL HEAVY RAINFALLS.
3. MAINTENANCE OF THIS FACILITY WILL INCLUDE CLEANING OUT STORMCEPTOR AND DISPOSAL OF WASTE AND THE REPAIR OF THE FACILITY AS NEEDED.
4. THE DISPOSAL OF THE LIQUID AND SOLID MATTER SHOULD BE AS FOLLOWS:
   A. ALL LIQUID MATERIAL IN THE STORMCEPTOR SHALL BE PUMPED INTO A SUITABLE TANK TRUCK AND DISPOSED AT AN APPROVED SANITARY DISTRICT DISCHARGE MANHOLE OR BE TAKEN TO AN APPROVED SEWAGE TREATMENT PLANT FOR DISCHARGE.
   B. THE SOLD MATERIAL SHALL BE TAKEN TO AN APPROVED SANITARY LANDFILL.
5. ALL STRUCTURAL COMPONENTS OF THE FACILITY INCLUDING PIPES, MANHOLES, INLETS AND MH COVERS SHALL BE REPAIRED OR REPLACED AS REQUIRED TO KEEP THE FACILITY SAFE AND SERVICEABLE.

THE HIGH CAPACITY INFILTRATOR® CHAMBER

No Scale



High Capacity Infiltrator® Chamber	
Size	3' x 6.25' x 1.33'
Weight	33 lbs.
Volume	16.3 ft³ (122 gal.)



INFILTRATOR PLACEMENT SCHEMATIC DETAIL (277 TOTAL CHAMBERS)
SCALE: 1"=20'

Concrete Stormceptor® Installation

The installation of the concrete Stormceptor® should conform in general to state highway or local specifications for the construction of manholes. Selected sections of a general specification that are applicable are summarized in the following sections.

Excavation

Excavation for the installation of the Stormceptor® should conform to state highway or local specifications. Topsoil that is removed during the excavation for the Stormceptor® should be stockpiled in designated areas and should not be mixed with subsoil or other materials. Topsoil stockpiles, and the general site preparation for the installation of the Stormceptor® should conform to state highway or local specifications.

The Stormceptor® should not be installed on frozen ground. Excavation should extend a minimum of 12 inches from the precast concrete surfaces plus an allowance for shoring and bracing where required. If the bottom of the excavation provides an unsuitable foundation additional excavation may be required.

In areas with a high water table, continuous dewatering should be provided to ensure that the excavation is stable and free of water.

Leveling

A 6 to 12 inch layer of granular material (conforming to local or state highway backfill specifications) should be installed, compacted, and leveled at the bottom of the excavation to the proper elevation for the installation of the interceptor base.

Backfilling

Backfill material should conform to state highway or local specifications. Generally, backfill material should be placed in uniform layers not exceeding 12 inches in depth. Each layer should be compacted to 95% of the maximum dry density. Backfill is not to contain topsoil.

Inlet and Outlet Pipes

Inlet and outlet pipes should be securely set into the by-pass chamber using grout or approved pipe seals so that the structure is watertight. Kor-N-Seal® boots are normally used and installed at the precast concrete plant prior to shipping. The Kor-N-Seal® boots are applicable for pipes with an outside diameter up to 48 inches. Stormceptor Corporation should be notified if the pipe is to be grouted in the field at the time of ordering (i.e. Kor-N-Seal® boots will not be used) since the boots are generally included in the price quotations.

Installation of the Kor-N-Seal® boots should follow the manufacturer's recommendations. As previously mentioned, the boots will already be attached to the Stormceptor® at the concrete plant. Accordingly, the following procedure should be followed to attach the inlet and outlet pipes to the Stormceptor® in the field:

1. Center the pipe in the boot opening.
2. Lubricate the outside of the pipe and/or inside of the boot if the pipe outside diameter is the same as the inside diameter of the boot.
3. Position the pipe clamp in the groove of the boot with the screw at the top.
4. Tighten the pipe clamp screw to 60 inch pounds.
5. On minimum outside diameter installations lift the boot such that it contacts the bottom of the pipe while tightening the pipe clamp to ensure even contraction of the rubber.
6. Move the pipe horizontally and/or vertically to bring it to grade.

Frame and Cover Installation

Precast concrete adjustment units should be installed to set the frame and cover at the required elevation. The adjustment units should be laid in a full bed of mortar with successive units being joined using sealant recommended by the manufacturer. Frames for the cover should be set in a full bed of mortar at the elevation specified.

Stormceptor® Construction Sequence

The concrete Stormceptor® is installed in sections in the following sequence:

1. aggregate base
2. base slab
3. treatment chamber section(s)
4. transition slab (if required)
5. by-pass section
6. connect inlet and outlet pipes
7. transition slab
8. maintenance access way
9. frame and access cover

The precast base should be placed level at the specified grade. The entire base should be in contact with the underlying compacted granular material. Subsequent sections, complete with joint seals, should be installed in accordance with the precast concrete manufacturer's recommendations.

Adjustment of the Stormceptor® can be performed by lifting the upper sections free of the excavated area, re-leveling the base, and re-installing the sections. Damaged sections and gaskets should be replaced. Once the Stormceptor® has been constructed, the lift holes should be plugged with mortar.

Down Pipe and Riser Pipe

Once the by-pass section has been attached to the treatment chamber the down pipe and riser pipe can be attached. To install these pipes a worker enters the treatment chamber through the central access way in the by-pass section.

STC 900, STC 1200, STC 1800

The inlet pipe (pipe with the tee at the end) is installed by coating the outside of the end of the pipe with quick dry PVC cement and pushing the pipe into the coupling provided on the underside of the by-pass section. The tee must be oriented such that water which enters the treatment chamber is directed tangentially around the inside walls of the chamber.

The outlet riser pipe (straight pipe without the tee) is installed in a similar fashion using the quick dry PVC cement and coupling provided underneath the by-pass section near the downstream pipe.

Stormceptor Corporation

BY THE DEVELOPER

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

DEVELOPER — DATE 11/6/96

BY THE ENGINEER:

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

ENGINEER — DATE 5/20/96

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

[illegible] — DATE

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

HOWARD SOIL CONSERVATION DISTRICT — DATE

AS BUILT CERTIFICATE

DATE	NO.	REVISION
9-25-96		REVISED SWM, STORMCEPTOR ELEVATIONS.

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Chief, Development Engineering Division — Date 10/19/96

Chief, Division of Land Development and Research — Date 7/5/96

Director — Date 11/6/96

DATE	NO.	REVISION
3-29-96		REV PER COUNTY COMMENTS
7-12-96		REVISED PER COUNTY COMMENTS

OWNER/DEVELOPER

ROUTE 175 ASSOCIATES, L.L.C.
25 MAIN STREET
REISTERSTOWN, MARYLAND 21136

PROJECT: NEW COLONY VILLAGE MODULAR HOMES SALES CENTER

AREA: TAX MAP NO. 43, PARCEL D-1 ZONED: R-1
5th ELECTION DISTRICT HOWARD COUNTY, MARYLAND

TITLE: STORMWATER MANAGEMENT DETAILS
SDP #96-61

MORRIS & RITCHIE ASSOCIATES, INC.
ENGINEERS, PLANNERS, SURVEYORS AND LANDSCAPE ARCHITECTS
110 WEST ROAD SUITE 105
TOWSON, MARYLAND 21204
(410) 821-1690
FAX (410) 821-1748

11-14-95
DATE

DONALD N. HUTCHISON — No. 10531 — REGISTERED PROFESSIONAL ENGINEER — STATE OF MARYLAND

DESIGNED BY: KAD	
DRAWN BY: EJ	
PROJECT NO.: 10192	
DATE: NOV. 14, 1995	
SCALE: AS SHOWN	
DRAWING NO. 6 OF 10	

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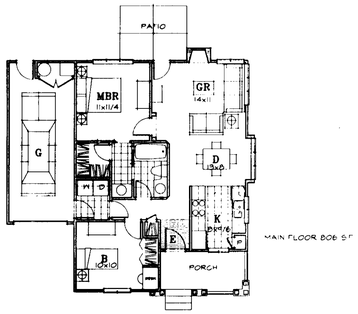
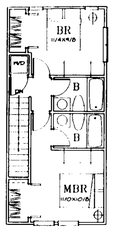
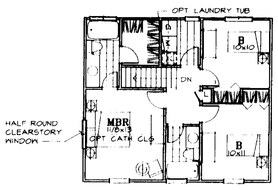


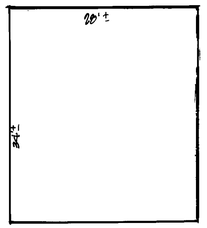
MAIN FLOOR 806 SF



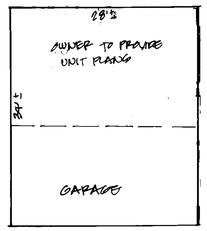
UPPER FLOOR



SECOND FLOOR

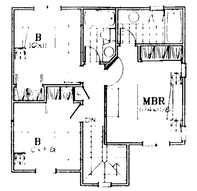


UPPER FLOOR

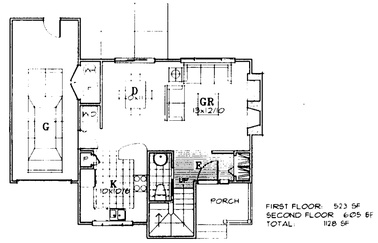


MAIN FLOOR 952 SF
SECOND FLOOR 952 SF
TOTAL 1904 SF

MAIN FLOOR PLAN

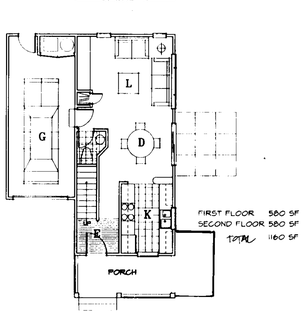


SECOND FLOOR PLAN

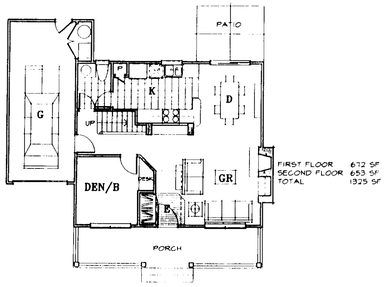


FIRST FLOOR: 923 SF
SECOND FLOOR 605 SF
TOTAL 1528 SF

FIRST FLOOR PLAN

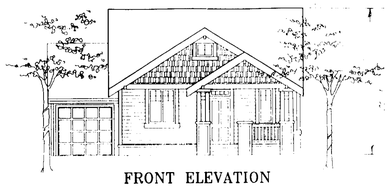


FIRST FLOOR 580 SF
SECOND FLOOR 580 SF
TOTAL 1160 SF

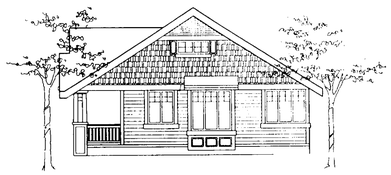


FIRST FLOOR 672 SF
SECOND FLOOR 653 SF
TOTAL 1325 SF

FIRST FLOOR



FRONT ELEVATION



SIDE ELEVATION

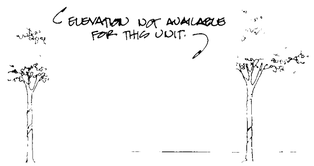
PLAN A

FRONT ELEVATION

PLAN B

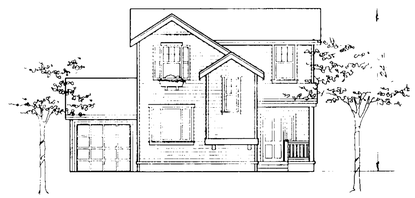
FRONT ELEVATION

PLAN C



FRONT ELEVATION

PLAN D



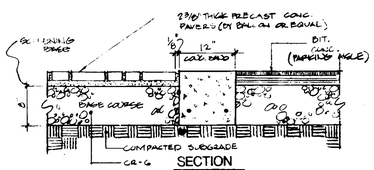
FRONT ELEVATION

PLAN E

(FINAL ROOFING UNIT SELECTION BY OWNER)

PRECAST CONCRETE PAVING UNITS TO BE INSTALLED IN MANUFACTURERS DETAILS & SPECIFICATIONS

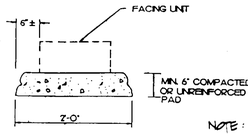
PAVING UNIT AS MANUFACTURED BY:
BELGARD INC
P.O. BOX 9300
2630 CORNAY ROAD
CHANTILLY, VA 22112
(OR APPROVED EQUAL)



PRECAST CONCRETE PAVERS

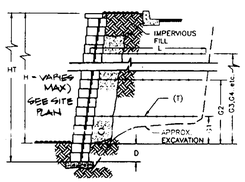
NTS

VEHICULAR AND PEDESTRIAN SPECIALTY PAVING



NOTE: MAXIMUM RETAINING WALL HEIGHT IS LESS THAN 3 FEET.

LEVELING PAD DETAIL

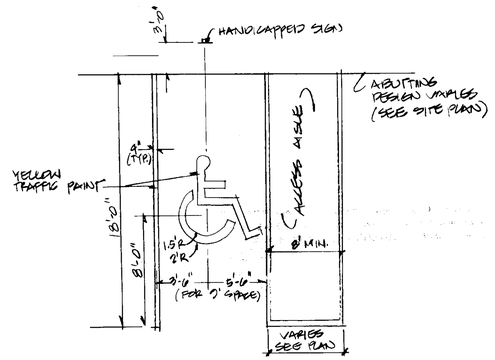


CONCRETE UNIT RETAINING WALL

NTS

NOTE:THIS DETAIL IS SHOWN AS A POSSIBLE RETAINING WALL OPTION. THE FINAL WALL MATERIAL SELECTION WILL BE DECIDED BY THE OWNER

NOTE:DETAIL DESIGN OF WALL TO BE PROVIDED BY CONTRACTOR



HANDICAP PARKING DETAIL

NTS

3-29-96		REVISED HOUSE PLANS.
DATE	NO.	REVISION

AS BUILT CERTIFICATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Chief, Development Engineering Division — Date 6/19/96

Chief, Division and Land Development and Research — Date 7/5/96

Director — Date 7/5/96

3-29-96		REV. PER COUNTY COMMENTS
2-12-96		REVISED PER COUNTY COMMENTS
DATE	NO.	REVISION

OWNER/DEVELOPER

ROUTE 175 ASSOCIATES, L.L.C.
25 MAIN STREET
REISTERSTOWN, MARYLAND 21136

PROJECT: NEW COLONY VILLAGE
MODULAR HOME SALES CENTER

AREA TAX MAP NO. 43 PARCEL D-1 ZONED: R-1

1st ELECTION DISTRICT HOWARD COUNTY, MARYLAND

TITLE
ELEVATIONS & SITE DETAILS
SDP #96-61

MRA
MORRIS & RITCHIE ASSOCIATES, INC.
ENGINEERS, PLANNERS, SURVEYORS AND LANDSCAPE ARCHITECTS
110 WEST ROAD SUITE 105
TOWSON, MARYLAND 21204
(410) 821-1690
FAX (410) 821-1748

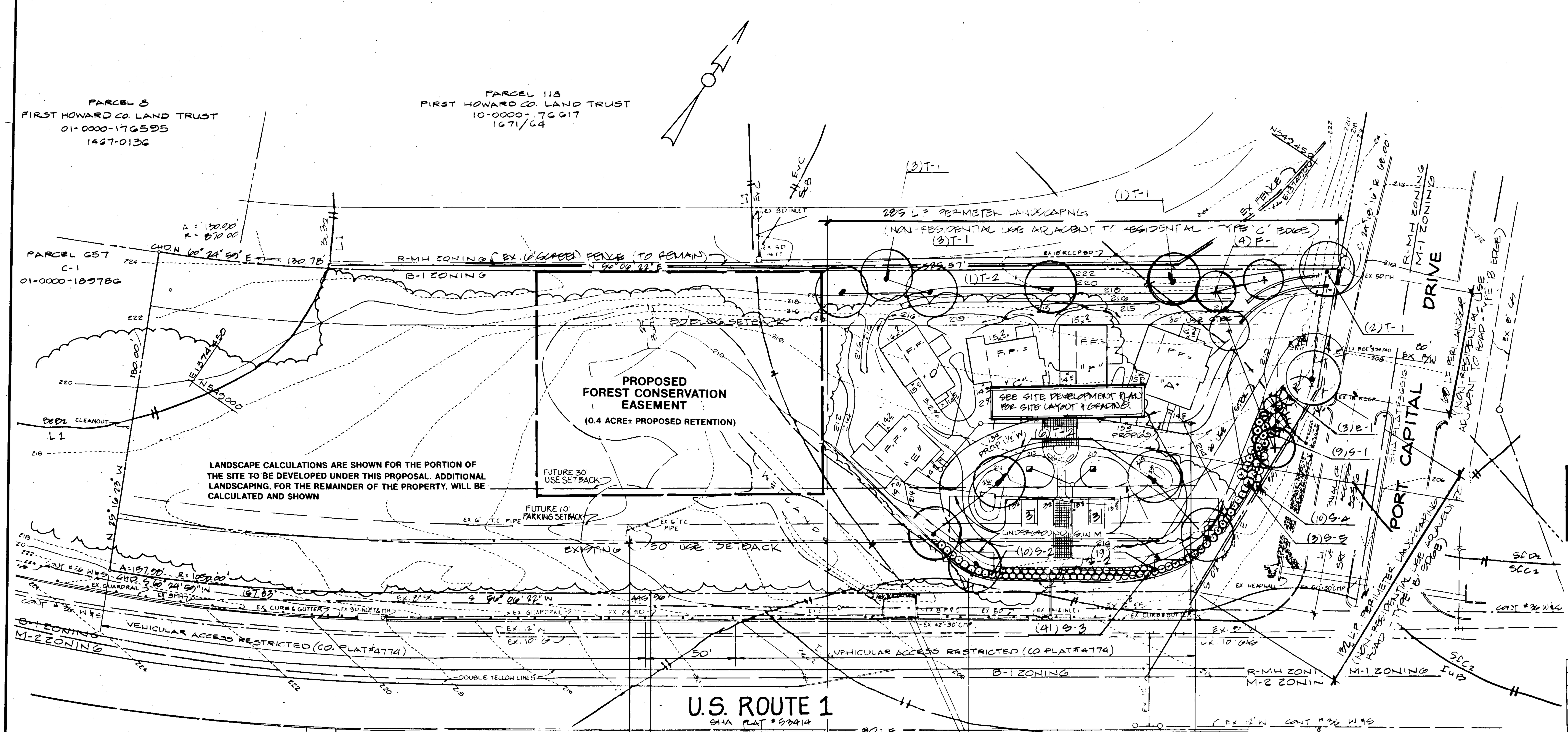
5-28-96
DATE

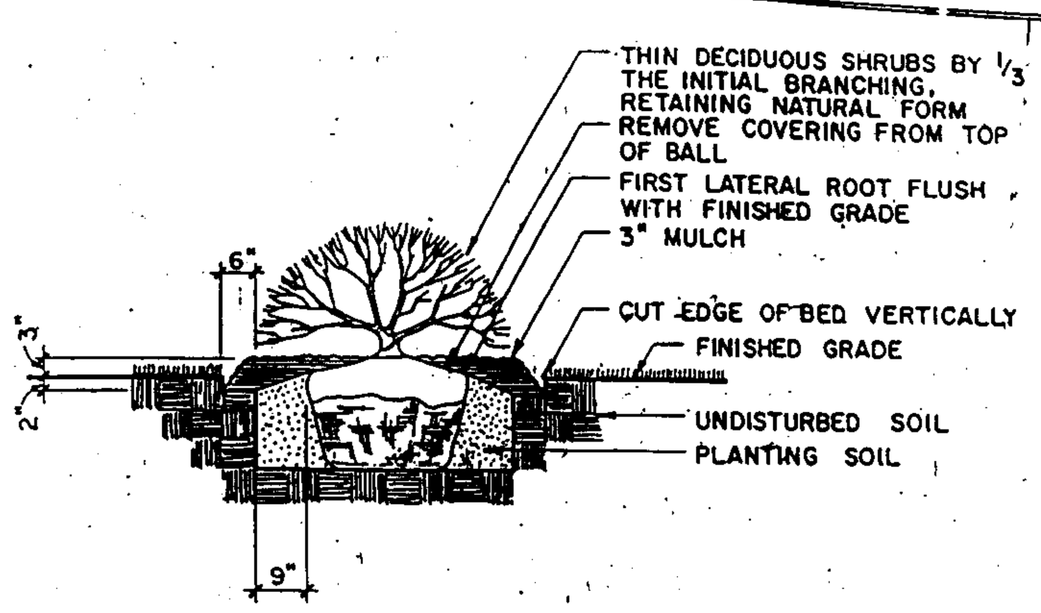
STATE OF MARYLAND — DONALD K. HITCHEN — NO. 16551 — REGISTERED PROFESSIONAL ENGINEER

DESIGNED BY: KAD	
DRAWN BY: EJ	
PROJECT NO.: 10192	
DATE: NOV. 14, 1995	
SCALE: AS SHOWN	
DRAWING NO. 7 OF 10	

C:\DRAWINGS\FREDCOST\HCCOBLNK.DWG

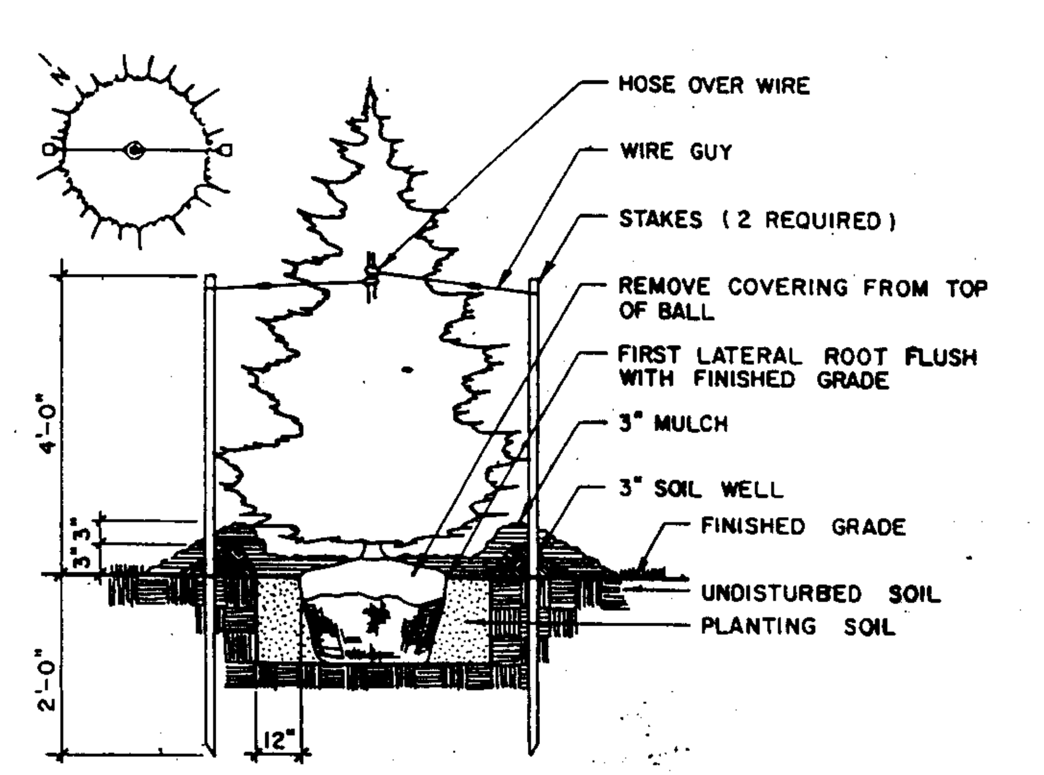
SDP-96-61





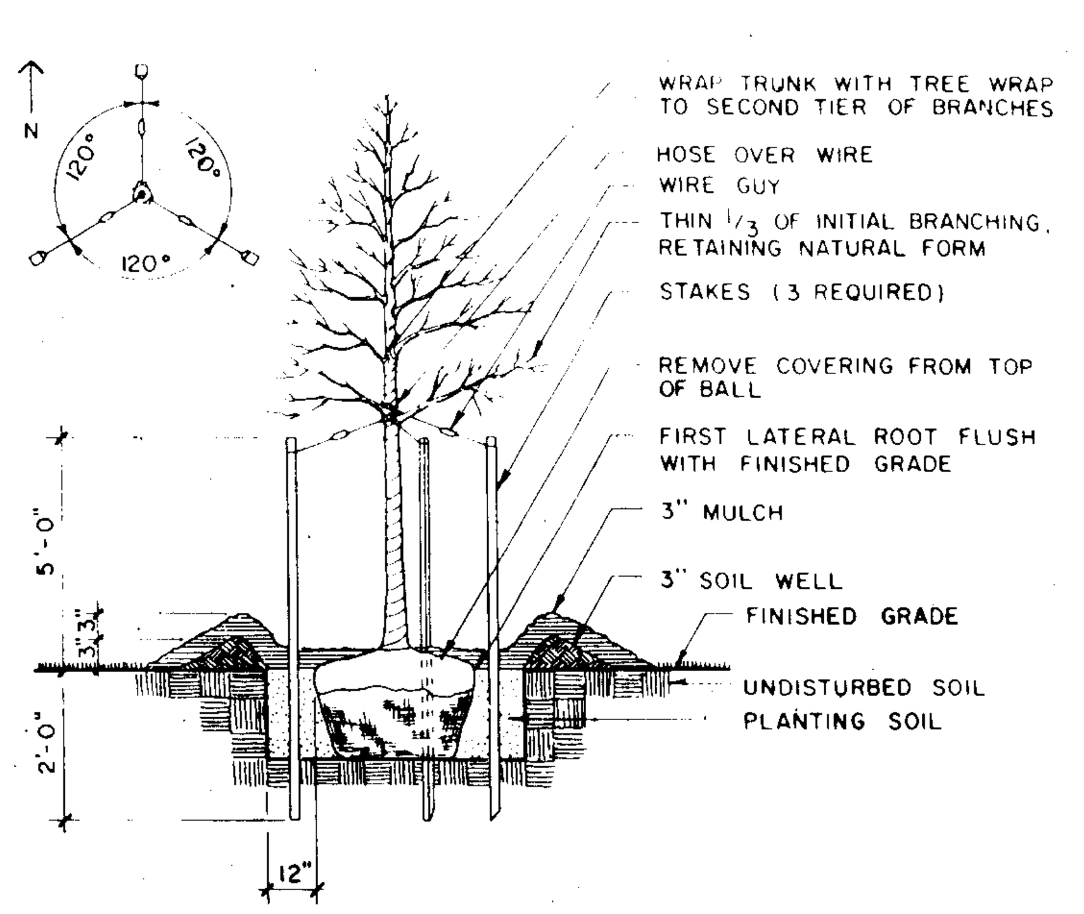
SHRUB DETAIL

N.T.S.



EVERGREEN TREE DETAIL

N.T.S.



DECIDUOUS TREE DETAIL

N.T.S.

LANDSCAPE PLAN GENERAL NOTES

1. Quantities of trees, evergreens, and shrubs, when noted on the plant list, are based upon the graphic symbols shown on the Drawings. Contractor shall provide and install this plant material based upon graphic symbol quantities. Contact Landscape Architect if a difference is found between the quantities noted in the plant list and the symbol count of plant materials shown on the Drawings.
2. Quantities of groundcovers, bulbs, perennials, annuals, and vines shall be as noted in the plant list regardless of the number of graphic symbols shown on the Drawings.
3. All plant materials shall be nursery grown and shall comply with the "American Standard for Nursery Stock (ANSI Z60.1), latest edition, published by the American Association of Nurserymen.
4. In the absence of a contract project manual containing planting specifications, all planting procedures and materials shall comply with the "Landscape Specification Guidelines for Baltimore-Washington Metropolitan Areas", latest edition, approved by the Landscape Contractors Association of Metropolitan Washington.

PLANT LIST

CANOPY TREES

KEY	QUANTITY	BOTANICAL NAME/ COMMON NAME	SIZE	ROOT	REMARKS
T-1	6	Acer platanoides 'CRIMSON KING' Crimson King Maple	2-1/2" - 3"	B & B	
T-2	7	Zelkova serrata 'VILLAGE GREEN' Village Green Zelkova	2-1/2" - 3"	B & B	

FLOWERING TREES

KEY	QUANTITY	BOTANICAL NAME/ COMMON NAME	SIZE	ROOT	REMARKS
F-1	4	Cornus kousa chinensis 'MILKY WAY' Milky Way Kousa Dogwood	8' - 10'	B & B	Tree-form

EVERGREEN TREES

KEY	QUANTITY	BOTANICAL NAME/ COMMON NAME	SIZE	ROOT	REMARKS
E-1	3	Picea abies Norway Spruce	6' - 8'	B & B	

SHRUBS

KEY	QUANTITY	BOTANICAL NAME/ COMMON NAME	SIZE	ROOT	REMARKS
S-1	9	Berberis t. 'ATROPURPUREA' Crimson Pygmy Barberry	18" - 24"	Cont.	
S-2	29	Cotoneaster dammeri 'SKOGHOLM' Christmas Carpet Cotoneaster	18" - 24"	Cont.	
S-3	41	Juniperus horizontalis 'PLUMOSA' Andorra Juniper	18" - 24"	Cont.	
S-4	10	Nandina domestica 'GULF STREAM' Gulf Stream Nandina	18" - 24"	Cont.	
S-5	3	Rhododendron 'PJM' Lavender Pink Rhododendron	2' - 2-1/2'	B & B	

GENERAL NOTES

1. LANDSCAPE CALCULATIONS:

   A. 280 L.F. NON RESIDENTIAL USE ADJACENT TO ROAD R/W (TYPE 'B') @ 1 SHADE TREE / 50 L.F. = 6 SHADE TREES; 1 EVERGREEN / 40 L.F. = 7 EVERGREEN TREES

   B. 285 L.F. NON RESIDENTIAL USE ADJACENT TO RESIDENTIAL USE (TYPE 'C') @ 1 SHADE TREE / 40 L.F. = 7 SHADE TREES; 1 EVERGREEN / 20 L.F. = 0 EVERGREEN TREES*
   (*EX. FENCE FULFILLS SCREENING REQUIREMENTS; SEE NOTE #3)

   C. 127 L.F. PARKING ADJACENT TO ROAD R/W (TYPE 'E') @ 1 SHADE TREE / 40 L.F. = 3 SHADE TREES; 1 SHRUB / 4 L.F. = 32 SHRUBS

   D. 6 PARKING SPACES @ 1 TREE / 20 P.S. = 1 SHADE TREES

   TOTAL PLANTING REQUIRED: 17 SHADE TREES, 7 EVERGREEN TREES, 32 SHRUBS

2. TOTAL PLANTING PROPOSED:

   13 SHADE TREES
   3 EVERGREEN TREES
   92 SHRUBS
   4 FLOWERING TREES

3. *AN EXISTING 6' WOODEN SCREEN FENCE CURRENTLY BUFFERS THE SITE FRONT THE ADJACENT MOBILE HOME PARK. THIS ADJACENT RESIDENTIAL PROPERTY IS OWNED BY THE APPLICANT, WHO WILL MAINTAIN THE EXISTING FENCE AS AN EFFECTIVE BUFFER.
4. SECTION 118.D.2 OF THE HOWARD COUNTY ZONING REGULATIONS PERMITS PARKING USES UP TO A 10' MINIMUM SETBACK FROM PROPERTY LINE. THE PROPOSED ACCESS DRIVE AND PARKING FACILITIES ARE LOCATED A MINIMUM OF 10' FROM THE LOT LINE TO PROVIDE THE REQUIRED LANDSCAPE BUFFER.
5. ALL STORMWATER MANAGEMENT WILL BE PROVIDED IN AN UNDERGROUND FACILITY.
6. FOREST CONSERVATION IS PROPOSED FOR THE SITE THROUGH ONSITE FOREST CONSERVATION EASEMENT AND A PARTIAL FEE-IN-LIEU OF REFORESTATION. 0.4 ACRE ± OF EXISTING FOREST WILL BE RETAINED IN THE EASEMENT. THE REMAINING CONSERVATION REQUIREMENT WILL BE MET THROUGH A FEE-IN-LIEU OF RETENTION / REFORESTATION BASED ON THE TOTAL FUTURE BUILD OUT FOR THE PROPERTY. (SEE FOREST CONSERVATION PLAN).

AS BUILT CERTIFICATE

DATE	NO.	REVISION
9-25-96		REVISED PLANTING AROUND ENTRANCE.

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Chief, Development Engineering Division — Date 6/19/96

Chief, Division and Land Development and Research — Date 7/5/96

Director — Date 7/5/96

DATE	NO.	REVISION
3-29-96		REV. PER COUNTY COMMENTS
2-12-96		REVISED PER COUNTY COMMENTS

OWNER/DEVELOPER

ROUTE 175 ASSOCIATES L.L.C.
25 MAIN STREET
REISTERSTOWN, MARYLAND 21136

PROJECT: NEW COLONY VILLAGE
MODULAR HOME SALES CENTER

AREA: TAX MAP NO. 43 PARCEL D-1 ZONED B-1
1st. ELECTION DISTRICT HOWARD COUNTY MARYLAND

TITLE: LANDSCAPE PLAN
SDP #96-61

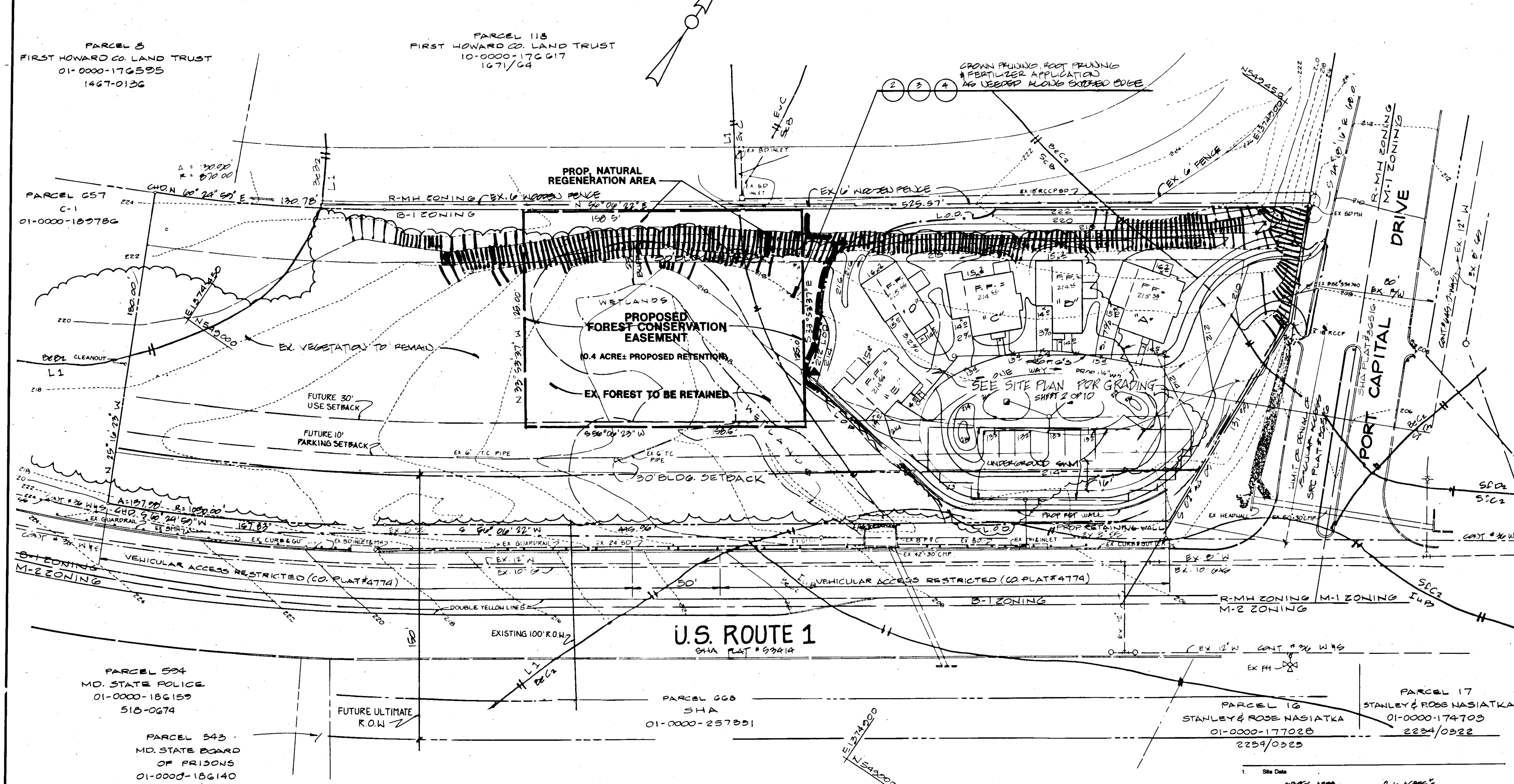
MORRIS & RITCHIE ASSOCIATES, INC.
ENGINEERS, PLANNERS, SURVEYORS AND LANDSCAPE ARCHITECTS
110 WEST ROAD SUITE 105
TOWSON, MARYLAND 21204
(410) 821-1690
FAX (410) 821-1748

STATE OF MARYLAND — KRISTINE A. TEBAY — NO. 942 — REGISTERED LANDSCAPE ARCHITECT

DATE

DESIGNED BY: KAT
DRAWN BY: KAT
PROJECT NO.: 10102
DATE: NOV. 14, 1995
SCALE: 1" = 30'
DRAWING NO. 8 OF 10

SDP-96-61



AS BUILT CERTIFICATE

FOREST CONSERVATION WORKSHEET

ACRES (1/10 acre)

I. BASIC SITE DATA

GROSS SITE AREA	2.6 AC
AREA WITHIN 100 YEAR FLOODPLAIN	0.0 AC
AREA WITHIN AGRICULTURAL USE OR PRESERVATION PARCEL (IF APPLICABLE)	0.0 AC.
NET TRACT AREA	2.6 AC
LAND USE CATEGORY (R-RLD, R-RMD, R-S, C/I/O, I)	B-1

II. INFORMATION FOR CALCULATIONS

A.	NET TRACT AREA	2.6 AC
B.	REFORESTATION THRESHOLD (15 % x A)	0.4 AC
C.	AFFORESTATION MINIMUM (15 % x A)	0.4 AC
D.	EXISTING FOREST ON NET TRACT AREA	2.0 AC.
E.	FOREST AREAS TO BE CLEARED	1.6 AC.
F.	FOREST AREAS TO BE RETAINED	0.4 AC.

III. DETERMINING REQUIREMENTS: AFFORESTATION OR REFORESTATION

1. Reforestation

If existing forest areas equal or exceed the afforestation minimum (if D equals or is more than C), and clearing of forest areas is proposed, reforestation requirements may apply.

GO TO SECTION IV

IV. REFORESTATION CALCULATIONS

A.	NET TRACT AREA	2.6 AC.
B.	REFORESTATION THRESHOLD (15 % x A)	0.4 AC.
D.	EXISTING FOREST ON NET TRACT AREA	2.0 AC.
E.	FOREST AREAS TO BE CLEARED	1.6 AC
F.	FOREST AREAS TO BE RETAINED	0.4 AC
G.	FOREST AREAS CLEARED ABOVE REFORESTATION THRESHOLD (D - F, if F equals or is greater than B, Alternate 1) (D - B, if F is less than B, Alternate 2)	1.6 AC.
H.	FOREST AREAS CLEARED BELOW REFORESTATION THRESHOLD (B - F, if applicable)	0.0 AC.
I.	FOREST AREAS RETAINED ABOVE REFORESTATION THRESHOLD (F - B, Retention Credit, if applicable)	0.0 AC.

Select the alternative that applies:

1. Clearing above the threshold only

If forest areas to be retained equal or are greater than the reforestation threshold (if F equals or is greater than B), the following calculations apply:

REFORESTATION FOR CLEARING ABOVE THRESHOLD G x 1/4 (1.6 x .25)	0.4 AC. ±
CREDIT FOR FOREST AREAS RETAINED ABOVE THRESHOLD I = Retention Credit 0	0.0 AC. ±
TOTAL REFORESTATION REQUIRED (G x 1/4) - I	0.4 AC. ±

If the total reforestation requirement is equal to or less than 0, no reforestation is required.

2. Clearing below the threshold

If forest areas to be retained are less than the reforestation threshold (if F is less than B), the following calculations apply:

REFORESTATION FOR CLEARING ABOVE THRESHOLD G x 1/4	0.4 AC. ±
REFORESTATION FOR CLEARING BELOW THRESHOLD H x 2	0.0 AC. ±
TOTAL REFORESTATION REQUIRED (G x 1/4) + (H x 2)	0.4 AC ±

Since clearing occurs below the threshold, no forest retention credit is possible.

SOILS CHART

Hydrologic Group	Symbol		K FACTOR (HYDRIC)
B	ScB	Sandy and clayey land, gently sloping	N/A
D	L1	Leonardtown silt loam	Y.35 (HYDRIC)
C	BeB2	Beltsville silt loam, 1 to 5 percent slopes, moderately eroded	Y.35
C/D	Em	Elkton silt loam	Y.35
C	BeC2	Beltsville silt loam 5 to 10 percent slopes, moderately eroded	Y.35
C	IuB	Iuka loam, local alluvium, 1 to 5 percent slopes	Y.35
B	SfC2	Sassafras gravelly sandy loam, 5 to 10 percent slopes, moderately eroded	N/A
B	SfD2	Sassafras gravelly sandy loam, 10 to 15 percent slopes, moderately eroded	N/A

N/A = HYD NOT AVAILABLE

LEGEND: (SEE DETAILS ON FOREST CONSERVATION DETAIL SHEET)

- TEMP. PROTECTION FENCE (DETAIL 5)
- L.O.D. LIMIT OF DISTURBANCE
- "TREE PROTECTION" SIGN (DETAIL 1)
- 15% TO 25% STEEP SLOPES
- STEEP SLOPES OVER 25%

1. Site Data

Gross Area:	2.6 Acres ±
Net Area:	2.6 Acres ±
Existing Zoning:	B-1 (Business, Local)
Existing Landuse:	Partially wooded, vacant lot
Proposed Landuse:	Proposed modular home sales center

2. Forest Conservation:

The Forest Conservation worksheet and the requirements generated are based on the ultimate development anticipated for this property. This includes both the clearing of existing forest for the development shown in the attached S.D.P. proposal, as well as the future buildout of the remaining portion west of the wetlands. Future access to this area will require future removal of existing vegetation and wetlands filling, due to the restricted access along U.S. Route 1.

The configuration of the proposed Forest Conservation Easement reflects the ultimate limit of disturbance. The Forest Conservation Easement includes the highest priority area on site, the existing wetlands and its associated buffer. The easement includes 0.4 acres of forest retention.

The ultimate clearing anticipated results in a 0.4 acre reforestation requirement. A fee in lieu of reforestation is proposed to meet this obligation, thus fulfilling the total Forest Conservation requirements for the entire site.

3. Forest Conservation Reservation Notes:

A. Non-disturbance note:

There shall be no clearing, grading, construction or disturbance of vegetation in the Forest Conservation Reservation except as permitted by Howard County. There will be limited earthwork disturbance and no stockpiling within the proposed Forest Conservation Reservations.

B. Protective Covenants notes:

A Forest Conservation Reservation shown hereon is subject to protective covenants which may be found in the Land Records of Howard County and which restrict disturbance and use of these areas.

C. Forest Conservation Specimen Tree non-disturbance note:

There shall be no clearing, grading, construction, soil compaction or excavation, introduction of toxic chemicals or other disturbances detrimental to the live specimen trees or critical root zones for these trees except as permitted by Howard County.

D. Access Note:

The proposed Forest Conservation Reservations will be accessible from the internal access drive.

DATE	NO	REVISION
9-25-96		REVISED SWM OUTFALL

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Chief, Development Engineering Division [signature]	Date 6/19/96
Chief, Division and Land Development and Research [signature]	Date 7/5/96
Director [signature]	Date 7/5/96

DATE	NO.	REVISION
3-29-96		REV PER COUNTY COMMENTS
2-12-96		REVISED PER COUNTY COMMENTS

OWNER/DEVELOPER

ROUTE 175 ASSOCIATES, L.L.C.
25 MAIN STREET
REISTERSTOWN, MARYLAND 21136

PROJECT: NEW COLONY VILLAGE
MODULAR HOMES SALES CENTER

AREA: TAX MAP NO. 43 PARCEL D-1 ZONED: B-1
1st ELECTION DISTRICT HOWARD COUNTY, MARYLAND

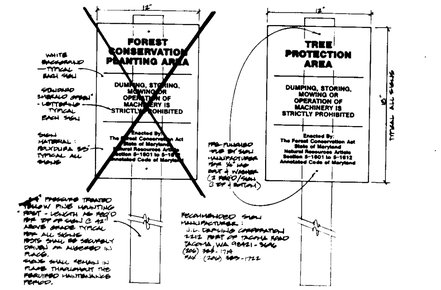
TITLE: (FCP SHEET 1 OF 2)
FORESTCONSERVATION PLAN
SDP #96-61

MORRIS & RITCHIE ASSOCIATES, INC.
ENGINEERS, PLANNERS, SURVEYORS AND LANDSCAPE ARCHITECTS
110 WEST ROAD SUITE 105
TOWSON, MARYLAND 21204
(410) 821-1690
FAX (410) 821-1748

DATE
STATE OF MARYLAND — KRISTINE A. TEBAY — REGISTERED LANDSCAPE ARCHITECT NO. 942

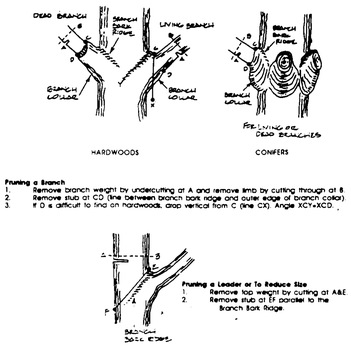
DESIGNED BY: KAT
DRAWN BY: KAT
PROJECT NO.: 10192
DATE: NOV. 14, 1995
SCALE: 1"=30'
DRAWING NO. 9 OF 10

SDP-96-61



1. TREE PROTECTION AREA SIGNS AND "FOREST CONSERVATION PLANTING AREA" SIGNS SHALL BE INSTALLED AT A MINIMUM OF ONE INTERVAL ALONG EACH PERIMETER AREA IN THE FIELD. A MINIMUM OF FOUR (4) SIGNS PER AS LISTED ON THIS DRAWING.
2. SIGNS SHALL NOT BE ATTACHED TO TREES.

1 FOREST CONSERVATION SIGN DETAILS

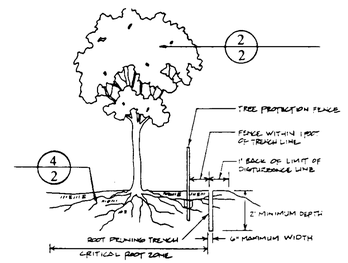


Pruning a Branch
1. Remove branch weight by undercutting at A and remove limb by cutting through at B.
2. Remove stub at CD (line between branch bark ridge and outer edge of branch collar).
3. If D is difficult to find on hardwoods, drop vertical from C (line CX). Angle XCY=XCD.

Pruning a Leader or To Reduce Size
1. Remove top weight by cutting at A&E.
2. Remove stub at EF parallel to the Branch Bark Ridge.

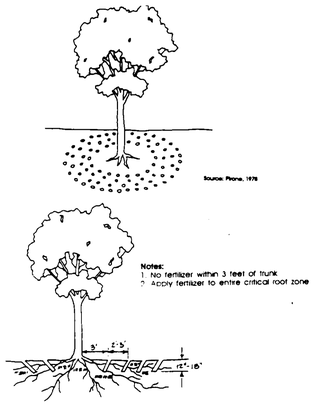
Notes:
No more than 30% of crown to be removed at one time.

2 CROWN PRUNING DETAIL
NOT TO SCALE



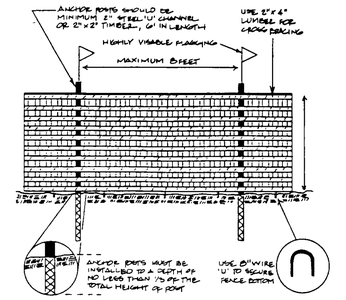
Notes:
1. Retention Areas will be set as part of the review process
2. Boundaries of Retention Areas should be staked flagged prior to trenching
3. Exact location of trench should be identified
4. Trench should be immediately backfilled with soil removed or other high organic soil
5. Roots should be cleanly cut using vibratory knife or other acceptable equipment

3 ROOT PRUNING DETAIL
NOT TO SCALE



Notes:
1. No fertilizer within 3 feet of trunk
2. Apply fertilizer to entire critical root zone

4 FERTILIZER APPLICATION DETAIL
NOT TO SCALE



Notes
1. Forest protection device only.
2. Retention Area will be set as part of the review process.
3. Boundaries of Retention Area should be staked and flagged prior to installing device.
4. Root damage should be avoided.
5. Protective signage may also be used.
6. Device should be maintained throughout construction.

5 BLAZE ORANGE PLASTIC MESH DETAIL
NOT TO SCALE

SEQUENCE OF FOREST CONSERVATION PROCEDURES:

A. PRE CONSTRUCTION PHASE:

1. Stake and flag boundaries of forest retention areas as shown on the Final Conservation Plan. Install temporary protection fencing and signage prior to any grading or clearing.
2. Evaluate for and implement stress reduction techniques and permanent protection devices, as needed, for isolated specimens and areas to be disturbed within the critical root zone of retained areas. Review proposed planting areas for selective application of herbicides to control invasives within the immediate vicinity.
3. Schedule and conduct on site pre-construction meeting with owner's representative and Howard County Inspectors.

B. CONSTRUCTION PHASE:

1. Maintain protection devices during construction and until all activity has ceased in the immediate vicinity.
2. No equipment, machinery, vehicles or excessive pedestrian traffic to be allowed into the retention area, during this or any of the other phases.
3. Contact Howard County prior to conducting any on site decisions regarding significant changes to the Final Conservation Plan.
4. Clip invasive vines at ground level and remove up to a height of six feet in existing retention areas.

C. POST CONSTRUCTION PHASE:

1. Where necessary, perform corrective measures to eliminate hazardous conditions and damage to existing plant material that occurred as the result of construction activities.
2. Schedule and conduct post-construction inspection with Howard County inspectors.
3. Remove temporary protection measures.
4. Permanent Protection Agreement for Forest Conservation Easements:

   Forest retention areas are located within Forest Conservation Easements recorded in the Land Records of Howard County. Uses in these areas will be limited by the Howard County Forest Conservation Regulations.

5. Implement 36 month maintenance program including:
   a. Maintain all permanent protection measures.
   b. Annual inspection of retention areas for disease, pests and exotics. Contact Howard County for technical assistance if necessary.
   c. Semi-annually clip invasive vines at ground level and remove from plant material as applicable.

AS BUILT CERTIFICATE

DATE	NO.	REVISION
9-25-96		REVISED PER COUNTY COMMENTS
3-29-96		REV PER COUNTY COMMENTS

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Chief, Development Engineering Division — Date 6/19/96

Chief, Division and Land Development and Research — Date 7/5/96

Director — Date 7/5/96

OWNER/DEVELOPER

ROUTE 175 ASSOCIATES, L.L.C.
25 MAIN STREET
REISTERSTOWN, MARYLAND 21136

PROJECT: NEW COLONY VILLAGE
MODULAR HOMES SALES CENTER

AREA: TAX MAP NO. 43 PARCEL D-1 ZONED B-1
1st ELECTION DISTRICT HOWARD COUNTY, MARYLAND

TITLE: FOREST CONSERVATION DETAILS
SDP-96-61

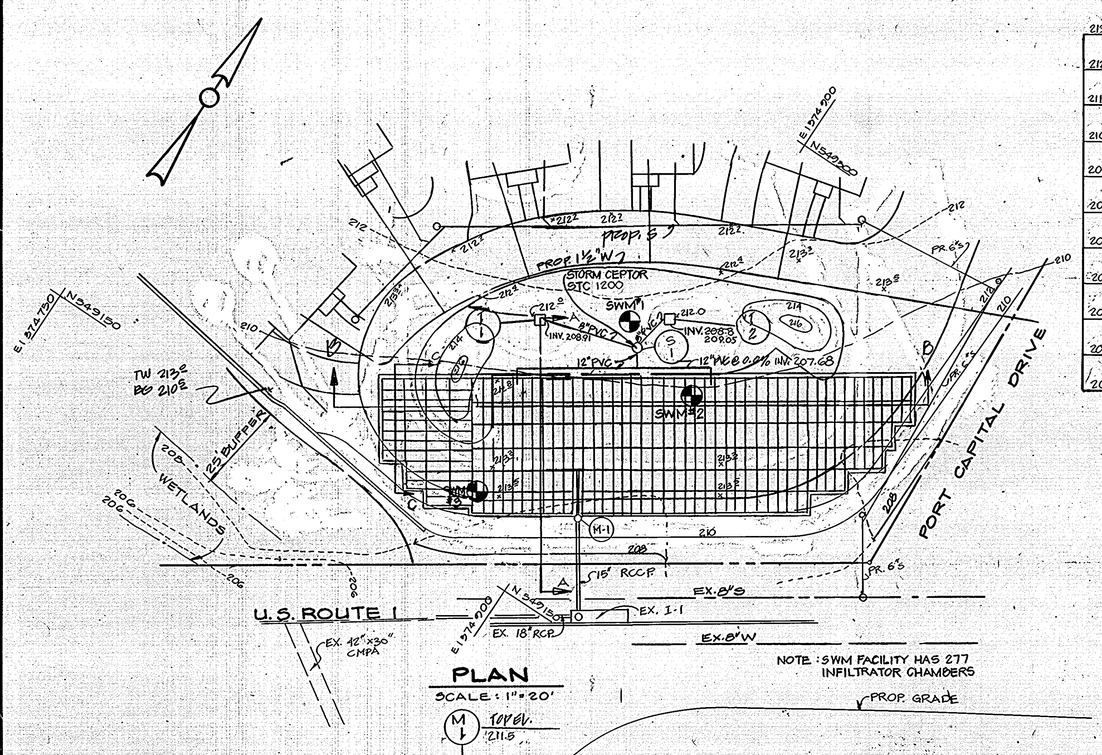
MRA
MORRIS & RITCHIE ASSOCIATES, INC.
ENGINEERS, PLANNERS, SURVEYORS AND LANDSCAPE ARCHITECTS
110 WEST ROAD SUITE 105
TOWSON, MARYLAND 21204
(410) 821-1690
FAX (410) 821-1748

DATE

DESIGNED BY: K.A.T
DRAWN BY: K.A.T.
PROJECT NO.: 10192
DATE: 11/14/95
SCALE: AS SHOWN
DRAWING NO. 10 OF 10

C:\DRAWINGS\PRODDSK\MODELINK.DWG

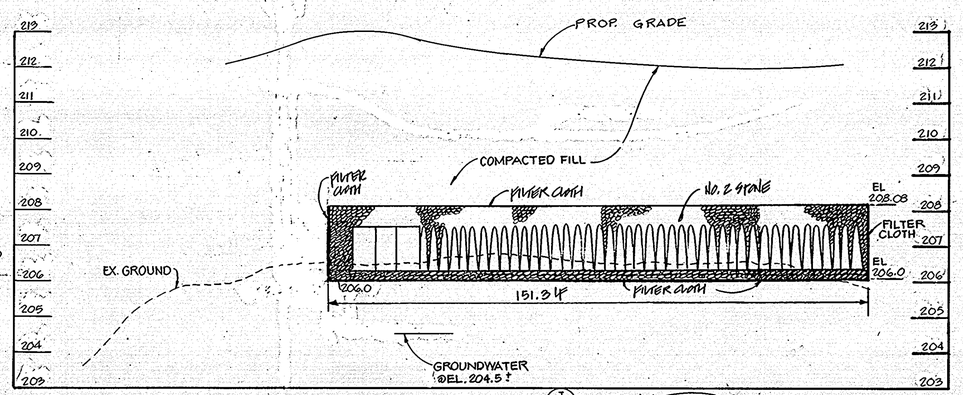
SDP-96-61



PLAN

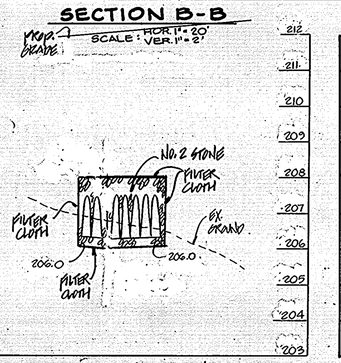
SCALE: 1" = 20'

NOTE: SWM FACILITY HAS 277 INFILTRATOR CHAMBERS



SECTION B-B

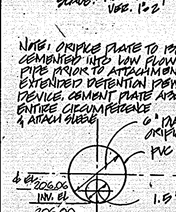
SCALE: HOR. 1" = 20' VER. 1" = 2'



SECTION C-C

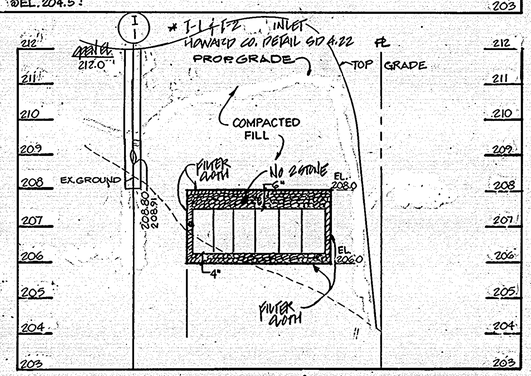
SCALE: HOR. 1" = 20' VER. 1" = 2'

NOTE: ORIFICE PLATE TO BE CEMENTED INTO LOW FLOW PIPE PRIOR TO ATTACHMENT OF EXTENDED DETENTION DEWATERING DEVICE. CEMENT PLATE ABOUT ENTIRE CIRCUMFERENCE & ATTACH SLEEVE



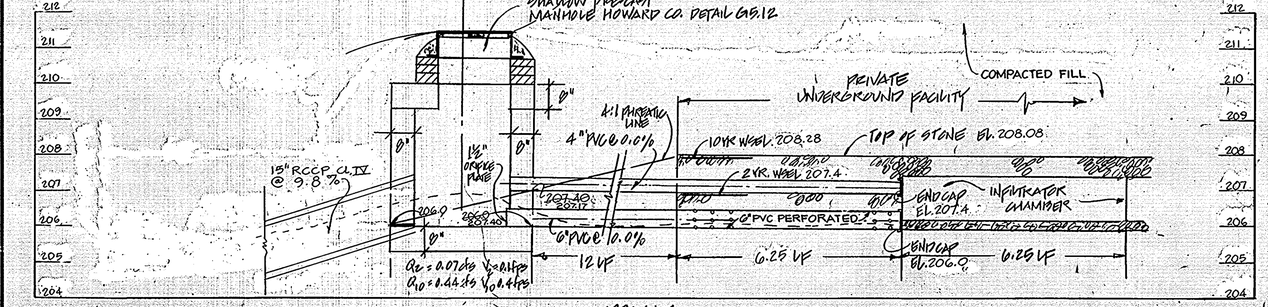
ORIFICE PLATE DETAIL

N.T.S.



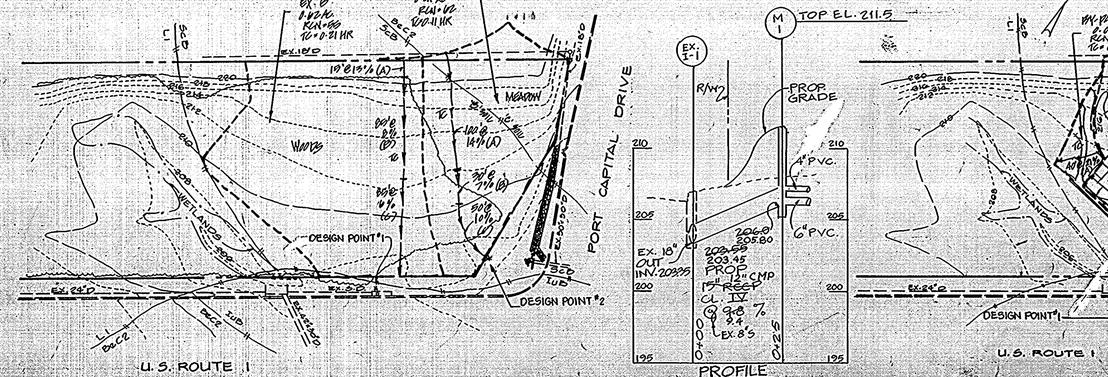
SECTION A-A

HOR. 1" = 20'
SCALE: VER. 1" = 2'



PROFILE

SCALE: 1" = 2' (HORIZ. & VERT.)



EXISTING DRAINAGE AREA

SCALE: 1" = 60'

PROFILE

SCALE: HOR. 1" = 20' VERT. 1" = 2'

UNDERGROUND SWM FACILITY WILL BE OWNED AND MAINTAINED BY: ROUTE 175 ASSOCIATES, LLC
25 MAIN STREET
REISTERSTOWN, MD. 21136

PROPOSED DRAINAGE AREA

SCALE: 1" = 60'

LEGEND
- SOILS LINE
- TIME OF CONCENTRATION
- DRAINAGE DIVIDE

BY THE DEVELOPER

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

DEVELOPER — DATE 11/6/95

BY THE ENGINEER:

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

ENGINEER — DATE 5/28/96

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

NATURAL RESOURCES CONSERVATION SERVICE — DATE 6/19/96

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

HOWARD SOIL CONSERVATION DISTRICT — DATE 6/19/96

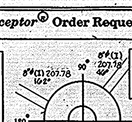
AS BUILT CERTIFICATE

Concrete Stormceptor® Order Request Form *

Contractor Information
Name
Address
City
State
Zip Code
Contact
Phone
Fax

Owner Information
Name: Mark Levy, Rte. 175 Assoc. LLC
Phone: 526-4030
Fax: 526-4763

Office Use Only: Order #, Date, Internal Sale



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

Stormceptor® Model: 900, 1200, 1800, 2400, 3600, 4800, 6000, 7200
Insert Size: 22", 32", 44", Custom
Manhole Number: In-3, Out-3
Top Elevation (ft): 217.85
Inlet Pipe Invert (fl): 207.78
Outlet Pipe Invert (fl): 207.68
Pipe Type: 12" PVC
Pipe Inside Diameter (in) [ID]: 12"
Pipe Outside Diameter (in) [OD]: 12.96"

Project Name: New Colony Village Sales Center
Approximate time frame until required delivery (weeks):
Delivery Address: Street
City — State — Zip Code
Designer Company: Morris & Ritchie Associates, Inc.
Designer Contact: Bob Royer — Phone: (410) 821-1690 — Fax: (410) 821-1748

Please fax this sheet back to Virginia Precast (804) 798-3426
Attention: Ed O'Malley (Phone: 1-800-999-2370)
For credit information/applications contact Carole Brookes at (804) 798-4968

For Technical Assistance Please call Stormceptor Corporation at (301) 762-8361 or toll free at 1-800-762-4703

* TO BE INCLUDED ON SWM PLAN BY DESIGNER

DATE	NO.	REVISION
9-25-96		REVISED SWM & STORMCEPTOR

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Chief, Development Engineering Division — Date 10/19/96

Chief, Division and Land Development and Research — Date 7/5/96

Director — Date 7/5/96

DATE	NO.	REVISION
5-29-96		REV. PER COUNTY COMMENTS
2-12-96		REVISED PER COUNTY COMMENTS

OWNER/DEVELOPER

ROUTE 175 ASSOCIATES, L.L.C.
25 MAIN STREET
REISTERSTOWN, MARYLAND 21136

PROJECT: NEW COLONY VILLAGE MODULAR HOMES SALES CENTER

AREA: TAX MAP NO. 43 PARCEL 121 ZONED: R-1
1st. ELECTION DISTRICT, HOWARD COUNTY MARYLAND

TITLE: STORMWATER MANAGEMENT PLAN
SDP #96-61

MORRIS & RITCHIE ASSOCIATES, INC.
ENGINEERS, PLANNERS, SURVEYORS AND LANDSCAPE ARCHITECTS
110 WEST ROAD SUITE 105
TOWSON, MARYLAND 21204
(410) 821-1690
FAX (410) 821-1748

5-28-96 DATE

STATE OF MARYLAND — DONALD K. DITTER — No. 16505 — REGISTERED PROFESSIONAL ENGINEER

DESIGNED BY:	KAD
DRAWN BY:	EJ
PROJECT NO.:	10192
DATE:	NOV. 14, 1995
SCALE:	AS SHOWN
DRAWING NO.:	3 OF 10

SDP-96-61