

ROAD CONSTRUCTION PLANS

EMERSON 2/2

LOTS 65 THRU 153 AND OPEN SPACE LOTS 154-156

A RESUBDIVISION OF PARCELS C-1 AND C-2

GENERAL NOTES:

1. SITE DATA
- | | PARCEL C-1 | PARCEL C-2 | TOTAL |
|--------------------------------------|------------|------------|-----------|
| A. Existing Zoning: | MX-D | MX-D | MX-D |
| B. Gross Area: | 5.3736 AC | 4.2041 AC | 9.5776 AC |
| C. Net Area of Tract: | 5.3736 AC | 4.2041 AC | 9.5776 AC |
| D. Area of Proposed Buildable Lots: | 2.6513 AC | 2.5539 AC | 5.2052 AC |
| Number of Buildable Lots: | 45 | 44 | 89 SFA |
| E. Area of Public Road Right-of-Way: | 1.0593 AC | 0.6314 AC | 1.6907 AC |
| F. Area of Proposed Open Space: | 1.6629 AC | 1.0188 AC | 2.6817 AC |
| G. Parking Required: | 90 | 88 | 178 |
| Parking Provided: | 199 | 199 | 398 |
| H. Overflow Parking Required: | 14 | 14 | 28 |
| Overflow Parking Provided: | 18 | 24 | 42 |
- Applicable DPZ File References: ZB-979M (Re-Zoning), S-99-12, PB-339, PB-359, F-01-136, F-01-145, F-01-137, F-03-113, SP-03-06, P-00-16.
 - Proposed use of site or structure(s) is Single Family Attached.
 - Public Water and Sewer to be utilized. (Middle Patuxent Drainage Area) Site is in metropolitan district.
 - This project is in conformance with the latest Howard County Standards
 - The proposed development is in coordination with the APFO study for this development.
 - There are no floodplains on site.
 - Boundary information based on a field-run monumented survey by Clark, Finefrock & Sackett, Inc., on or about 6/8/2000.
 - Topography shown has a 2' contour interval and was obtained through approved Emerson Mass Grading Plan, GP-03-33
 - Soil information was taken from Howard County Soil Survey Map #33.
 - There are no known burial grounds or cemeteries on the property.
 - The Stormwater management facilities are provided by F-01-136 and F-01-145.
 - No clearing, grading or construction is permitted within wetland or stream buffers unless approved by the Department of Planning and Zoning of Howard County. Previously existing wetland area was filled in as approved under WP-02-78, and Parcel C was re-recorded to delete the wetland area (F-03-20, plat# 15618 & 15619).
 - SFA setbacks:

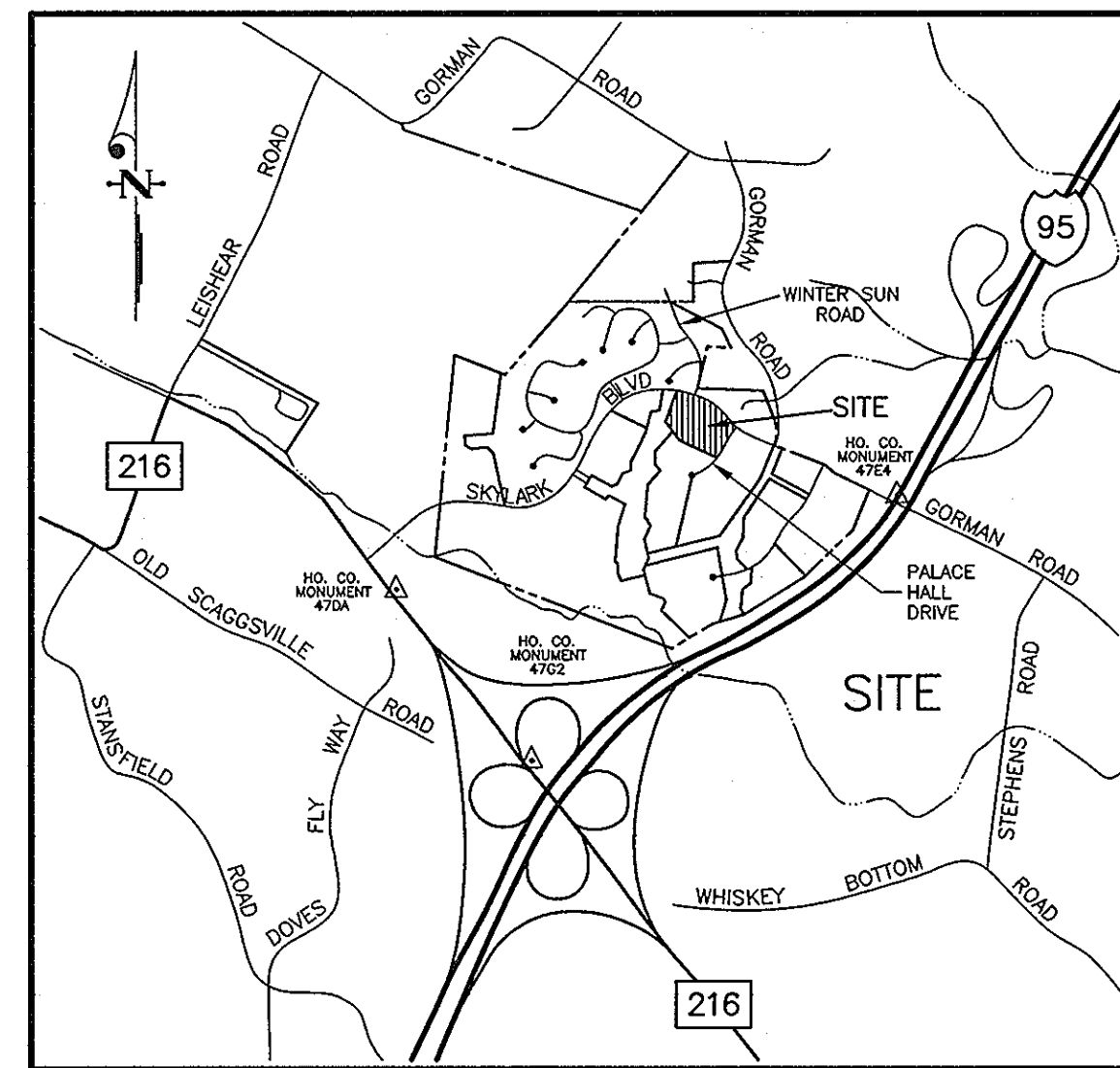
Front	5' from the right-of-way to the house or garage
Side	5' from the property line for end units
Rear	15' from the property line
	30' front to front
	50' back to back
	50' front to back
	15' for all other conditions

The Planning Board has the ability to approve setback reductions on site plans.
 - For flag or pipestem lots, refuse collection, snow removal and road maintenance are provided to the junction of the flag or pipestem and the road right-of-way line.
 - Quality and Quantity Stormwater Management for Section 2, Phase 2 is provided by two wet pond facilities on HOA Open Space Lot 1 Emerson Section 2 Phase 1A, DPZ File No. F-01-136 and HOA Open Space Lot 174 Emerson Section 2, Phase 2 DPZ File No. F-01-145. The wet pond facilities will be privately owned and maintained by the said HOA. Access to the SWM Facility is via Palace Hall Drive and Skyline Blvd. The subdivision is in the Patuxent River Sub-Basin and is a Class One watershed.
 - Driveways shall be provided prior to residential occupancy to insure safe access for fire and emergency vehicles per the following minimum requirements:

A) WIDTH	- 12' (14' serving more than one residence).
B) SURFACE	- 6" of compact crusher run base with tar and chip coating.
C) GEOMETRY	- Maximum 15% grade, maximum 10% grade change and minimum 45' turning radius.
D) STRUCTURES (CULVERTS/BRIDGES)	- Capable of supporting 25 gross tons (H25 loading).
E) DRAINAGE ELEMENTS	- Capable of safely passing a 100-year flood with no more than 1 foot depth over driveway surface.
F) STRUCTURE CLEARANCES	- Minimum of 12 feet.
G) MAINTENANCE	- Sufficient to insure all weather use.
 - Two of the initial 80 tentative housing unit allocations reserved for Parcel "A" (Plat 15208) were shifted to Parcel "C", Emerson section 2, Phase 2 (Plat 15318) when the phase 2 plat was recorded. Parcel "A" was left with 78 tentative housing unit allocations, Parcel "B" had 34 tentative housing unit allocations, and Parcel "C" had 88 tentative housing unit allocations. A resubdivision plan (P-02-25) has been submitted to subdivide Parcel A-1 into 48 units, and a resubdivision plan (P-02-28) has been submitted to subdivide Parcel B-1 into 63 units. Since parcel A-1 will only have 48 units, there are 30 excess tentative housing unit allocations (78-48=30). Twenty nine (29) of these excess unit allocations were shifted to Parcel B-1, from Parcel "A" in order to create the 63 (34+29=63) proposed units for Parcel B-1. This left 1 housing unit allocation remaining which was shifted to Parcel C, Emerson section 2, phase 2, for a total of 89 housing unit allocations (86+2+1=89) on Parcel "C", with the recordation of F-02-107. Parcel C was resubdivided into Parcels C-1 and C-2 by F-03-113, record Plat number 15825.

- Garages may not be converted to living area unless adequate parking is maintained.
- Open Space Lots 90, 91 and 92 to be dedicated to Home Owner's Association.
- Phasing for this project is in accordance with the Decision and Order for Zoning Case ZB-979M and the Decision and Order for PB-339 (Comprehensive Sketch Plan S-99-12).
- Open space areas may contain active recreation facilities as allowed in the approved Development Criteria.
- Existing utilities are based on plans of record.
- On September 3, 1998, the Zoning Board granted approval of ZB-979M for the Preliminary Development Plan and Development Criteria for 516 acres of land re-zoned as PEC-MXD-3 and R-SC-MXD-3.
- Development for this phase will be done in accordance with the Development Criteria approved with Comprehensive Sketch Plan S-99-12 (PB-339).
- For lots on private roads, refuse collection, snow removal and road maintenance are provided to the junction of the public road right-of-way line and the private road.
- Noise study provided under S-99-12.
- The APFO / traffic study provided under S-99-12 and as re-approved under PB-359.
- Street lights will be required in the development in accordance with the design manual. Street light placement and the type of fixture and pole selected shall be in accordance with the latest Howard County Design Manual, Volume III (1993) and as modified by "Guidelines for Street Lights in Residential Developments (June 1993)". The June 1993 policy includes guidelines for lateral and longitudinal placement. A minimum of 20' shall be maintained between any street light and any tree.
- In a residential zoning district and residential land use areas of the MXD Districts (but not in the NT District), open or enclosed porches and decks may project not more than 10' into any required front or rear setback area or into a required setback from a project boundary or different zoning district. Exterior stairways or ramps, above or below ground level, may extend not more than 10 feet into front setback area or a setback from a project boundary or different zoning district, and not more than 16 feet into a rear setback area.
- Forest conservation provided under F-01-145.
- Geotechnical report prepared by Geo-Technology Associates, Inc.
- No slopes of 25% of greater exist on site.
- All construction shall be in accordance with the latest standards and specifications of Howard County.
- The contractor shall notify the Department of Public Works/Construction inspection division at (410) 313-1880 at least five (5) days prior to the start of work.
- The contractor shall notify "Miss Utility" at 1-800-257-7777 at least 48 hours prior to any excavation work.
- Sag and crest vertical curves were designed in accordance with "Howard County Design Manual", Vol. III.
- Concrete sidewalk ramps shall be provided at all intersections and as indicated on the plans. The ramp shall conform to the Americans with Disabilities Act (ADA) 1992.
- Sediment control shall be provided in accordance with the requirements of the "1994 Maryland Standards and Specification for Soil Erosion and Sediment Control."
- Street trees shown are tentative and are to be used for bond purposes only. The final location and variety of trees may vary to accommodate field conditions and builders landscape program.
- Street trees shall be planted a minimum of five (5) feet from storm drain, waterline, sewer pipe, and manholes; also a minimum of twenty (20) feet from street lights. Street tree locations must comply with approved Development Criteria for Emerson MXD project.
- Traffic control devices, markings, and signing shall be in accordance with the latest edition of the Manual on Uniform Traffic Control Devices (MUTCD).

A. Stop Signs R1-1, 30" x 30" Octagon
B. Stop Ahead Signs W3-1A, 30" x 30" Diamond
C. Speed Limit Signs R2-1, 24" x 30" Rectangular
- County Road: Land dedicated to Howard County, Maryland for purposes of a public road 1.6847 acres.
- Water and sewer service to these lots will be granted under the provisions of Section 18.122B of the Howard County Code.
- Developer reserves unto itself, its successors and assigns, all easements shown on this plan for water, sewer, storm drainage, other public utilities and forest conservation (designated as "Forest Conservation Area"), located in, on, over and through lots/parcels, any conveyances of the aforesaid lots/parcels shall be subject to the easements herein reserved, whether or not expressly stated in the deed(s) conveying said lot(s)/parcels. Developer shall execute and deliver deeds for the easements herein reserved to Howard County with a metes and bounds description of the forest conservation area. Upon completion of the public utilities and their acceptance by Howard County, and in the case of the forest conservation easement(s), upon completion of the developer's obligations under the forest conservation installation and maintenance agreement executed by the developer and the County, and the release of developer's surety posted with said agreement. The County shall accept the easements and record the deed(s) of easement in the Land Records of Howard County.
- Street trees shall be provided in accordance with a certified Landscape Plan included with the road construction plan set in accordance with Section 18.124 of the Howard County Code and the Landscape Manual. Perimeter landscaping shall be addressed with the final site plan.
- Street lights will be provided as required by the Design Manual.

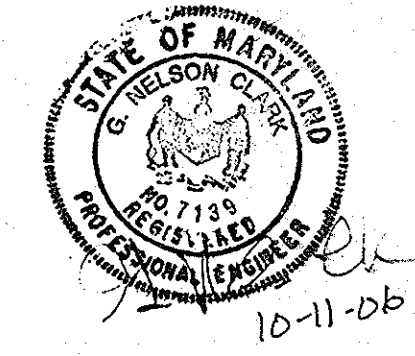


VICINITY MAP
SCALE: 1" = 2000'

BENCH MARKS

HOWARD COUNTY MONUMENT #47DA	ELEV. 315.905
N 535405.459	E 1349362.707
HOWARD COUNTY MONUMENT #47G2	ELEV. 364.210
N 532938.964	E 1351224.095
HOWARD COUNTY MONUMENT #47E2	ELEV. 338.910
N 535846.137	E 1355431.196

SHEET INDEX	
SHEET	DESCRIPTION
1	COVER SHEET
2	SITE DEVELOPMENT AND GRADING PLAN
3	EVENING BIRD LANE- PLAN & PROFILE
4	SNOW BIRD LANE AND MYSTIC DANCE LANE PLAN & PROFILE
5	PRIVATE SECTIONS OF EVENING BIRD LANE AND SNOW BIRD LANE- PLAN & PROFILE
6	CONSTRUCTION AND LANDSCAPE DETAILS
7	STORM DRAIN PROFILES
8	STORM DRAIN PROFILES
9	STORM DRAINAGE AREA MAP
10	GRADING, SEDIMENT AND EROSION CONTROL PLAN
11	SEDIMENT AND EROSION CONTROL DETAILS
12	LANDSCAPE PLAN



ASBUILT
9-00

APPROVED: DEPARTMENT OF PUBLIC WORKS
William F. Mahan 10-28-03
CHIEF, BUREAU OF HIGHWAYS MS DATE

APPROVED: DEPARTMENT OF PLANNING & ZONING
Cindy Korman 12/3/03
CHIEF, DIVISION OF LAND DEVELOPMENT HB DATE

Mike 12/1/05
CHIEF, DEVELOPMENT ENGINEERING DIVISION MK DATE

CLARK • FINEFROCK & SACKETT, INC.
ENGINEERS • PLANNERS • SURVEYORS

7135 MINSTREL WAY • COLUMBIA, MD 21045 • (410) 381-7500 BALT. • (301) 621-8100 WASH.

DESIGNED AS/JS	COVERSHEET	SCALE AS SHOWN
DRAWN AS/JS	LOTS 65-153 AND OPEN SPACE LOTS 154-156	DRAWING
CHECKED AS/JS	EMERSON 2/2	1 of 12
JS/AS	A RESUBDIVISION OF PARCELS C-1 AND C-2	JOB NO. 02-081
DATE 10-8-03	PLAT #15825 & #15826	02-082
	TAX MAP 47 PART OF PARCELS 3, 462 & 837	02-082
	SIXTH (6TH) ELECTION DISTRICT HOWARD COUNTY, MARYLAND	FILE NO.
	FOR: THE TROUTMAN COMPANY 9030 RED BRANCH ROAD COLUMBIA, MARYLAND 21045	02-081
	BEAZER HOMES 8965 GUILFORD ROAD COLUMBIA, MARYLAND 21046	

COORDINATE TABLE		
NO.	NORTH	EAST
89	536,267.732	1,353,069.587
211	536,305.421	1,353,176.619
212	536,299.702	1,353,154.755
213	536,291.006	1,353,108.821
237	536,987.948	1,352,743.697
238	537,036.454	1,352,805.456
239	537,121.482	1,352,904.940
240	537,151.896	1,352,888.507
241	537,093.755	1,353,083.336
242	536,890.889	1,353,397.750
243	536,822.743	1,353,456.894
244	536,795.761	1,353,456.216
245	536,549.865	1,353,322.588
255	536,927.441	1,352,721.470
326	536,837.897	1,352,716.984
327	536,710.977	1,352,728.344
330	536,675.118	1,352,736.408
331	536,599.301	1,352,762.234
333	536,873.670	1,352,714.786

CURVE DATA							
ROAD	STATIONS	DELTA	RADIUS	LENGTH	TANGENT	CHORD	
MYSTIC DANCE LANE	0+09.55 - 1+09.55	57°08'12"	100.28'	100.00'	54.60	S11°57'10"E	95.91
SNOW BIRD LANE	0+25.33 - 1+05.90	61°33'06"	75.00'	80.57'	44.67	N80°15'22"E	76.75
SNOW BIRD LANE	1+19.85 - 3+09.84	107°07'50"	60.00'	112.19'	81.28	S19°24'10"E	96.54
SNOW BIRD LANE	3+09.84 - 3+81.89	12°18'47"	336.18'	72.05'	36.16	S32°01'22"W	71.91
SNOW BIRD LANE	4+56.58 - 5+25.26	65°34'45"	60.00'	66.68'	36.65	S6°54'25"E	64.99
SNOW BIRD LANE	5+81.47 - 6+82.06	30°19'55"	190.00'	100.59'	51.50	S5°54'15"E	99.41
EVENING BIRD LANE	1+79.08 - 2+36.25	54°35'41"	60.00'	57.17'	30.97	S22°10'58"W	55.03
EVENING BIRD LANE	3+67.35 - 4+70.47	36°55'37"	160.00'	103.12'	53.42	S23°34'41"E	101.34
EVENING BIRD LANE	5+85.52 - 6+85.78	18°24'44"	350.00'	100.26'	50.47	S50°14'51"E	99.91
EVENING BIRD LANE	7+88.15 - 8+90.37	6°53'27"	850.00'	102.22'	51.17	S55°00'30"E	102.17
SNOW BIRD LANE (PRIVATE)	0+23.18 - 0+58.18	20°03'25"	100.00'	35.01'	17.64	N30°00'00"E	38.83
SNOW BIRD LANE (PRIVATE)	1+21.98 - 1+67.32	25°58'59"	100.00'	45.35'	23.07	N27°02'14"E	44.96

NOTE: THIS PLAN IS FOR INFRASTRUCTURE IMPROVEMENTS ONLY, NOT FOR RESIDENTIAL UNITS.

STREET LIGHT SCHEDULE			
STREET NAME	STATION	OFFSET	FIXTURE/POLE TYPE
SKYLARK BOULEVARD	44+00	24'RT	250 WATT HPS VAPOR PENDANT (SAG) MOUNTED AT 5' ON A BRONZE FIBER-GLASS POLE WITH A 12" ARM
MYSTIC DANCE LANE	0+37	20'RT	150 WATT HPS VAPOR PRIMER POST-TOP FIXTURE MOUNTED ON A 14" BLACK FIBER-GLASS POLE
PALACE HALL DRIVE	2+75	24'RT	150 WATT HPS VAPOR PRIMER POST-TOP FIXTURE MOUNTED ON A 14" BLACK FIBER-GLASS POLE
MYSTIC DANCE LANE	1+17	14'LT	
EVENING BIRD LANE	0+05	15'LT	
EVENING BIRD LANE	1+85	15'RT	100 WATT HPS VAPOR PRIMER POST-TOP FIXTURE MOUNTED ON A 14" BLACK FIBER-GLASS POLE
EVENING BIRD LANE	4+38	15'RT	
EVENING BIRD LANE	5+88	15'RT	
EVENING BIRD LANE	7+88	15'RT	
EVENING BIRD LANE	8+96	15'LT	
SNOW BIRD LANE	0+68	15'LT	
SNOW BIRD LANE	2+52	15'LT	
SNOW BIRD LANE	4+85	15'RT	
SNOW BIRD LANE	7+15	15'LT	
PALACE HALL DRIVE	1+50	17'RT	150 WATT HPS VAPOR PRIMER POST-TOP FIXTURE MOUNTED ON A 14" BLACK FIBER-GLASS POLE
PALACE HALL DRIVE	4+00	17'RT	

LEGEND

- 262--- EXISTING CONTOUR
- 260--- PROPOSED CONTOUR
- EX. TREES
- EX. STREAM
- STOP SIGN
- DIRECTION OF FLOW
- STREET LIGHT
- ☆ 100 Watt Premier Post Top
- * 150 Watt Premier Post Top
- ⊕ 250 Watt (Sag)



ASBUILT

⊕=PROPERTY CORRS. SET

APPROVED: DEPARTMENT OF PUBLIC WORKS

William J. Mahoney Jr. 10-28-03
CHIEF, BUREAU OF HIGHWAYS MW DATE

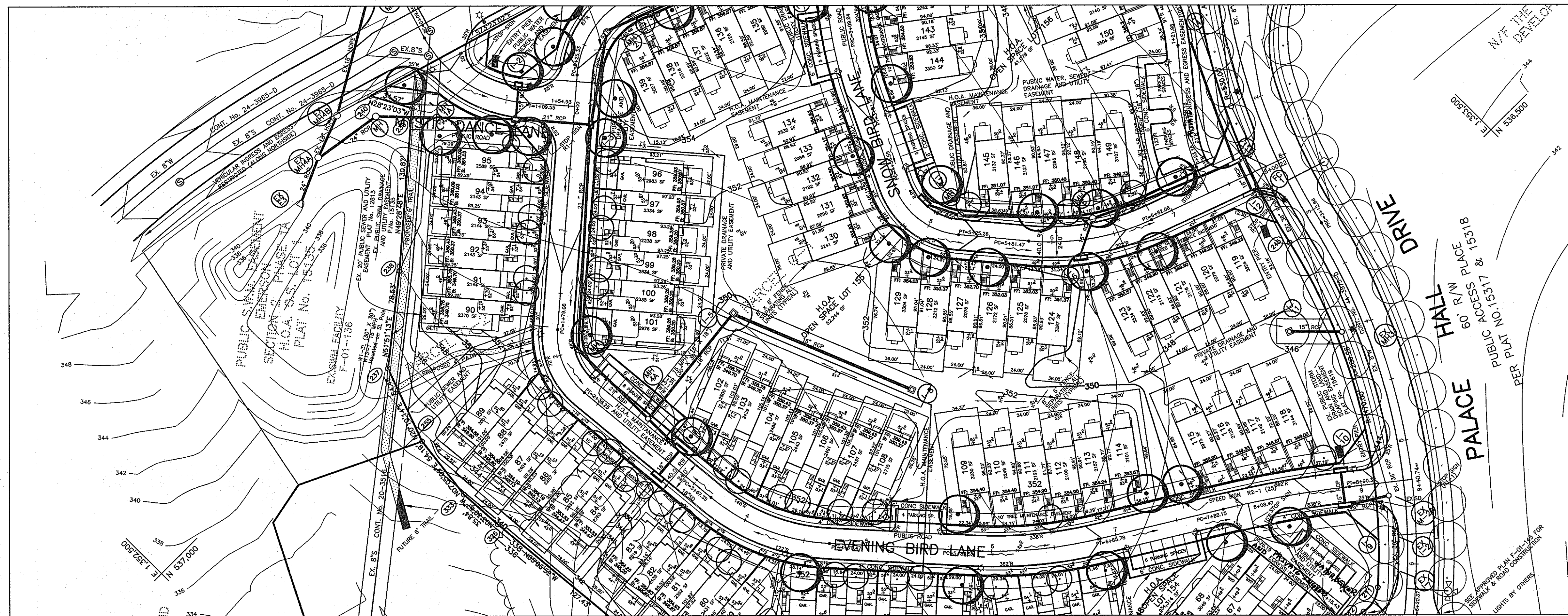
APPROVED: DEPARTMENT OF PLANNING & ZONING

Cindy Hamilton 12/5/02
CHIEF, DIVISION OF LAND DEVELOPMENT HB DATE
Mike Quannum 12/10/02
CHIEF, DEVELOPMENT ENGINEERING DIVISION MK DATE

CLARK • FINEFROCK & SACKETT, INC.
ENGINEERS • PLANNERS • SURVEYORS

DESIGNED	SITE DEVELOPMENT & GRADING PLAN LOTS 65 THRU 153 AND OPEN SPACE LOTS 154-156 EMERSON 2/2 A RESUBDIVISION OF PARCELS C-1 AND C-2 TAX MAP 47 PART OF PARCELS 3, 462 & 837 SIXTH (6TH) ELECTION DISTRICT HOWARD COUNTY, MARYLAND	SCALE
TD/AS/JS		1" = 50'
DRAWN		DRAWING
LAI/CRH2		2 of 12
CHECKED		JOB NO.
AS/JS	02-081	
DATE	FILE NO.	
10-8-03	02-081	





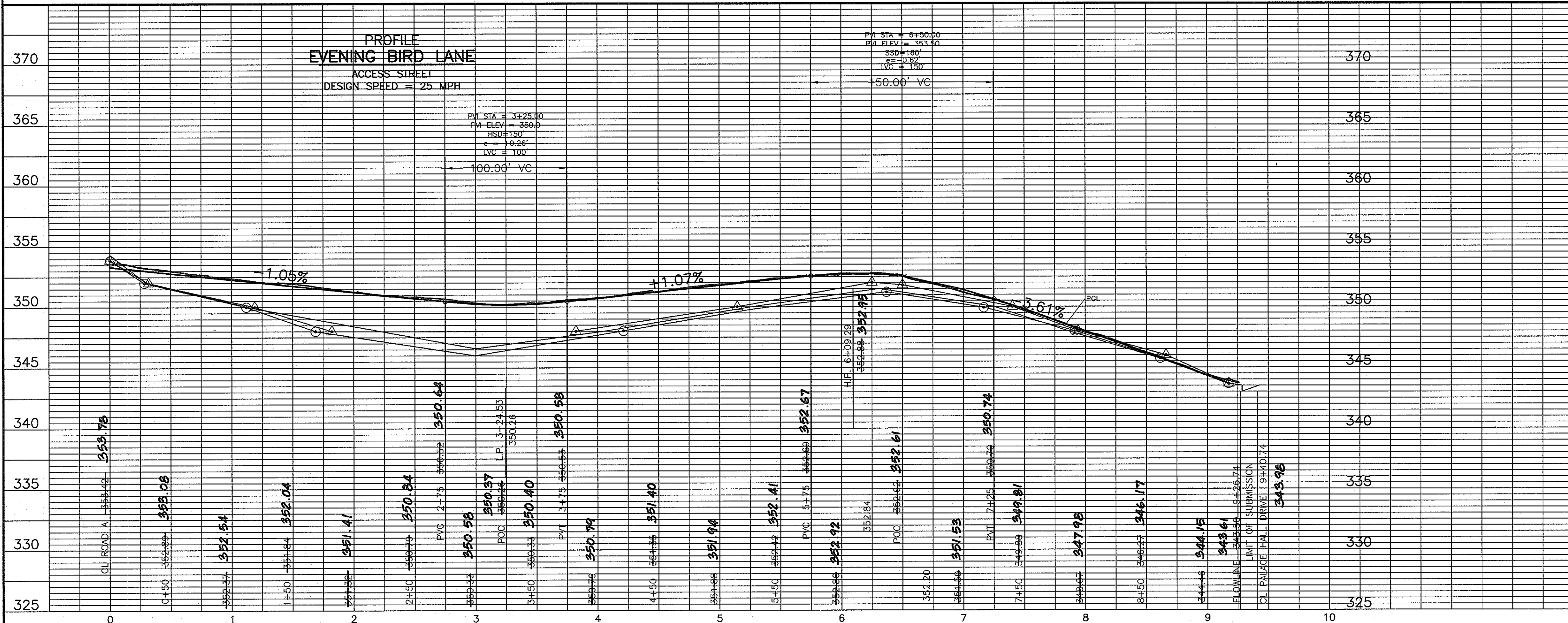
APPROVED: DEPARTMENT OF PUBLIC WORKS
William F. Wilson 10-28-03
 CHIEF, BUREAU OF HIGHWAYS MS DATE

APPROVED: DEPARTMENT OF PLANNING & ZONING
Cynthia Hamilton 12/3/03
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE
M.K. Commins 12/1/03
 CHIEF, DEVELOPMENT ENGINEERING DIVISION MK DATE

CLARK • FINEFROCK & SACKETT, INC.
 ENGINEERS • PLANNERS • SURVEYORS

7135 MINSTREL WAY • COLUMBIA, MD 21045 • (410) 381-7500 BALT. • (301) 621-8100 WASH.

DESIGNED AS	AS	EVENING BIRD LANE LOTS 1 THRU 89 AND OPEN SPACE LOTS 90-92 EMERSON 2/2 A RESUBDIVISION OF PARCELS C-1 AND C-2 TAX MAP 47 PART OF PARCELS 3, 462 & 837 SIXTH (6TH) ELECTION DISTRICT HOWARD COUNTY, MARYLAND	SCALE 1"=51' VERT. 1"=50' HORZ.
DRAWN AS/JS	AS/JS		DRAWING 3 of 12
CHECKED AS	AS	JOB NO. 02-081	FILE NO. 02-081 P
DATE 10-8-03	FOR: THE TROUTMAN COMPANY 9030 RED BRANCH ROAD COLUMBIA, MARYLAND 21045	BEAZER HOMES 8565 GULFORD ROAD COLUMBIA, MARYLAND 21046	

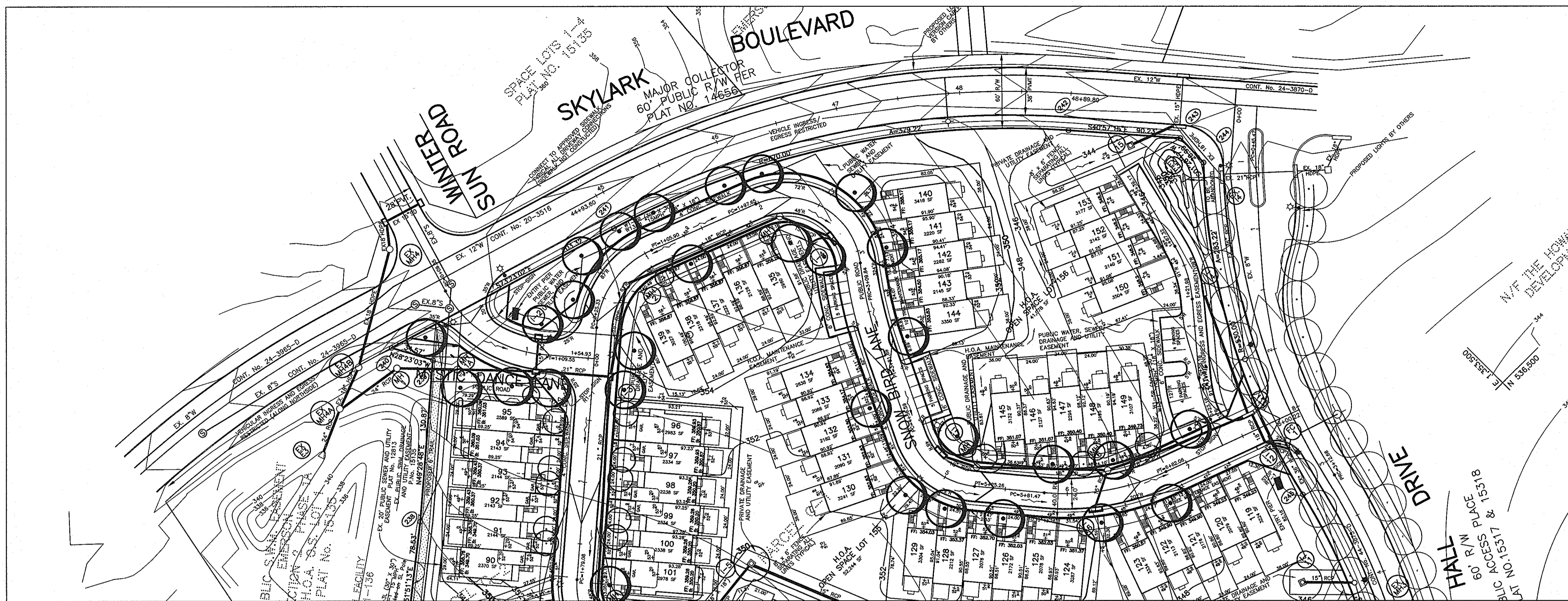


LEGEND

- EX & _____
- PGL _____
- 45°LT
- 45°RT

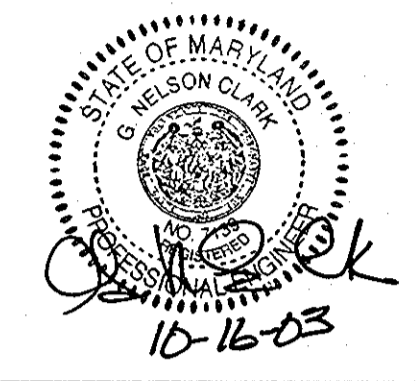
STREET LIGHT SCHEDULE

STREET NAME	STATION	OFFSET	FIXTURE/POLE TYPE
SKYLARK BOULEVARD	44+00	24'RT	250 WATT HPS VAPOR PENDANT (SAG) MOUNTED AT 30' ON A BRONZE FIBER GLASS POLE WITH A 12' ARM
EVENING BIRD LANE	0+37	20'RT	
PALACE HALL DRIVE	2+75	24'RT	150 WATT HPS VAPOR PRIMER POST-TOP FIXTURE MOUNTED ON A 14' BLACK FIBERGLASS POLE
PALACE HALL DRIVE	5+55	28'RT	
EVENING BIRD LANE	1+17	14'LT	
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MYSTIC DANCE LANE	2+52	15'LT	
MYSTIC DANCE LANE	4+85	15'RT	
MYSTIC DANCE LANE	7+15	15'LT	
PALACE HALL DRIVE	1+50	17'RT	150 WATT HPS VAPOR PRIMER POST-TOP FIXTURE MOUNTED ON A 14' BLACK FIBERGLASS POLE
PALACE HALL DRIVE	4+00	17'RT	



LEGEND

- EX ϵ _____
- PGL _____
- 45' LT \triangle _____
- 45' RT \circ _____

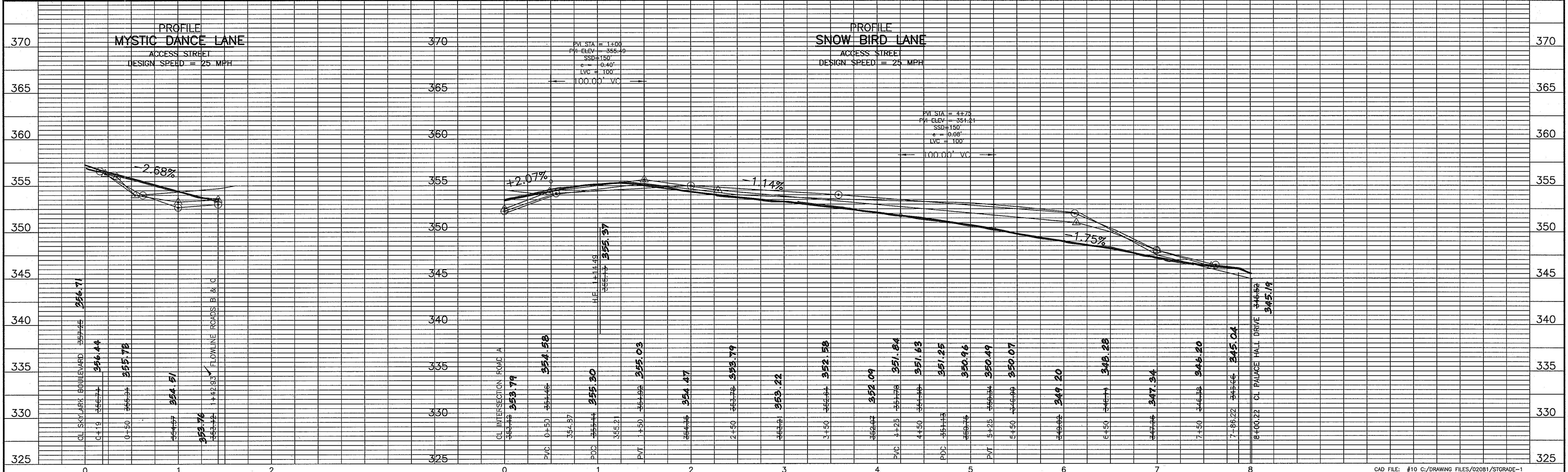


APPROVED: DEPARTMENT OF PUBLIC WORKS
William T. Mahon 10-28-03
 CHIEF, BUREAU OF HIGHWAYS MK DATE

APPROVED: DEPARTMENT OF PLANNING & ZONING
Cindy Hamilton 12/3/03
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE
William Mahon 12/1/03
 CHIEF, DEVELOPMENT ENGINEERING DIVISION MK DATE

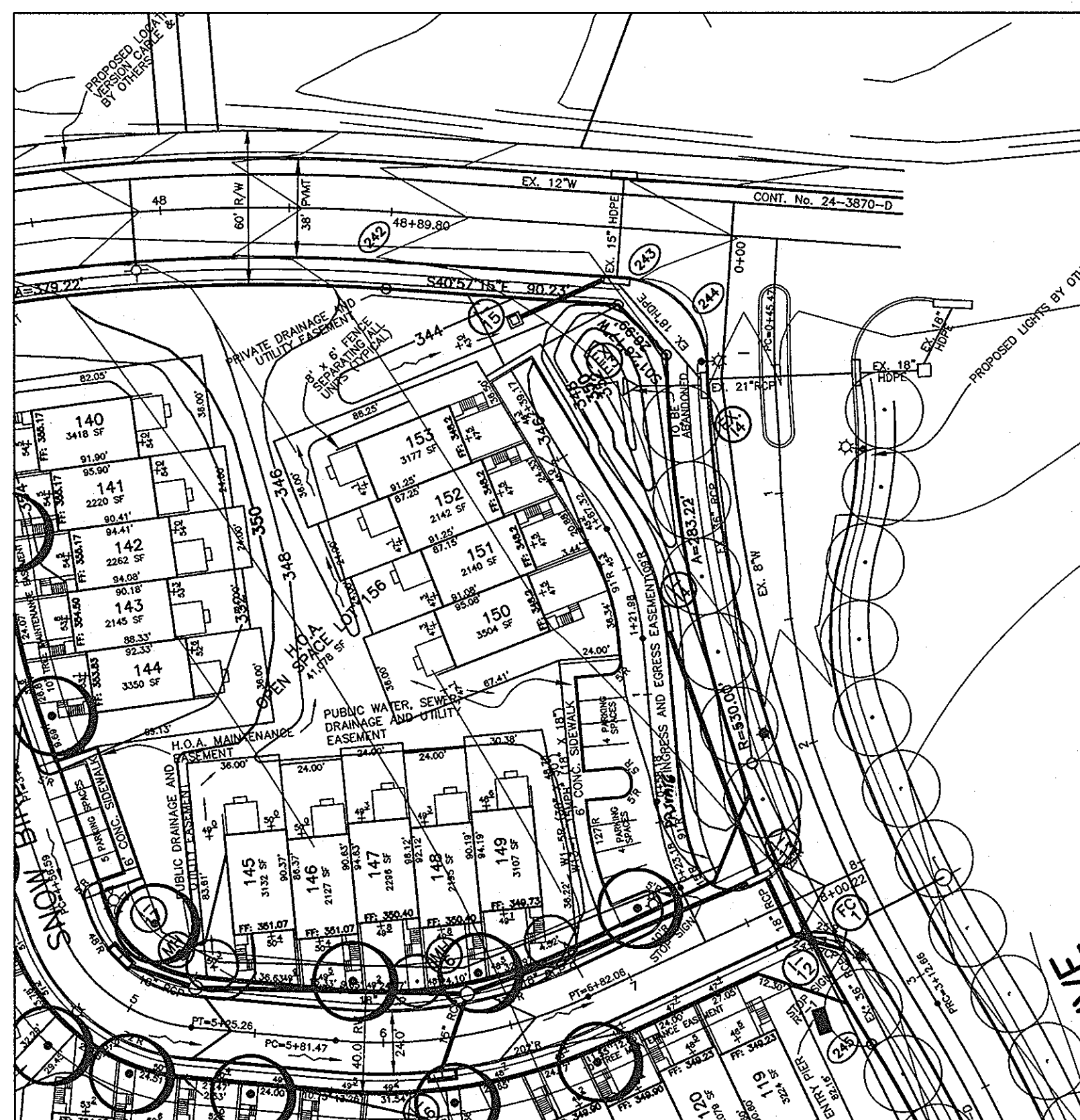
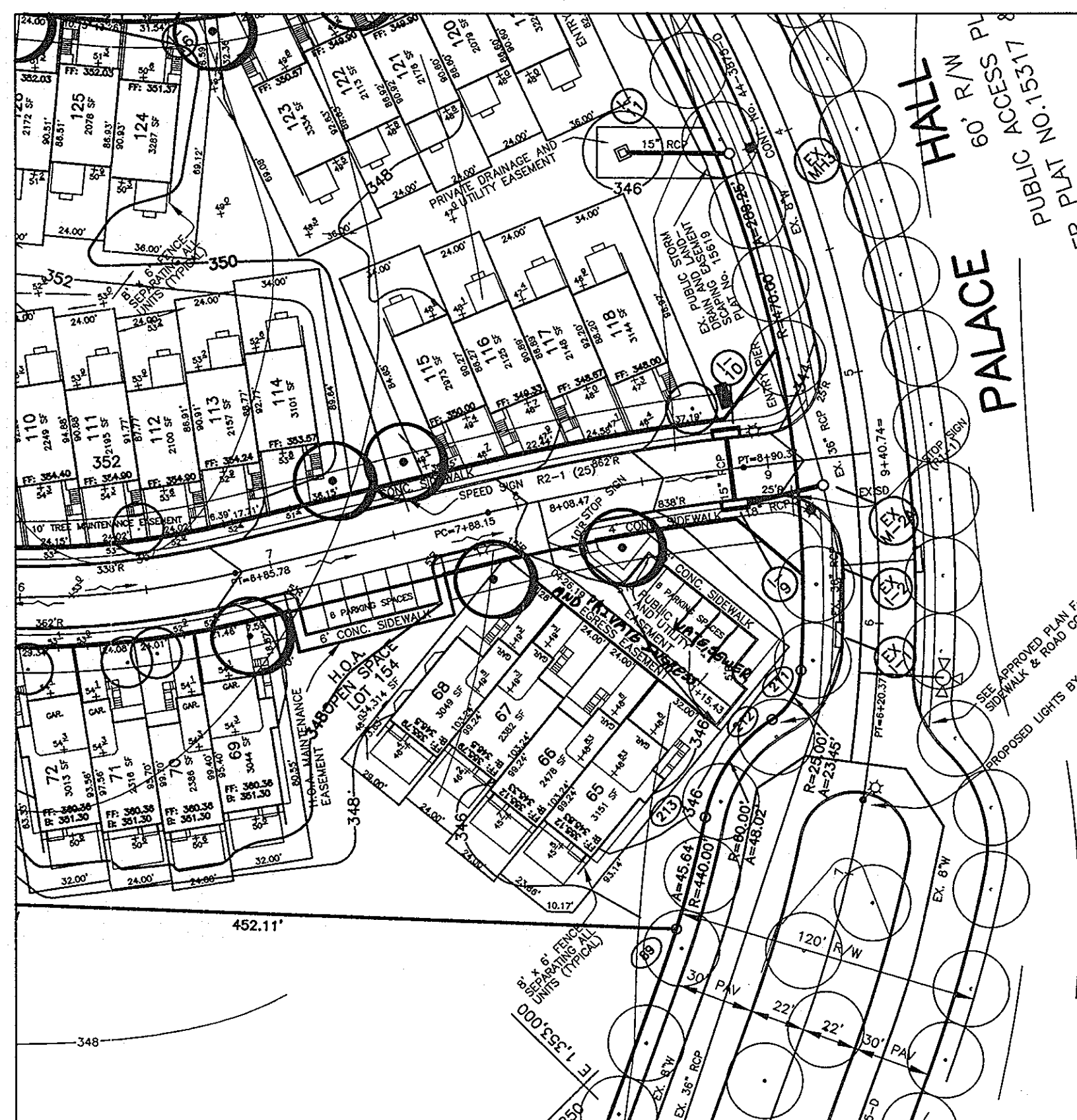
CLARK · FINEFROCK & SACKETT, INC.
 ENGINEERS · PLANNERS · SURVEYORS
 7135 MINSTREL WAY · COLUMBIA, MD 21045 · (410) 381-7500 BALT. · (301) 621-8100 WASH.

DESIGNED AS	MYSTIC DANCE LANE AND SNOW BIRD LANE	SCALE 1"=5' VERT.
DRAWN AS/JS	LOTS 1 THRU 89 AND OPEN SPACE LOTS 90-92	1"=50' HORZ.
CHECKED AS	EMERSON 2/2	DRAWING 4 of 12
DATE 10-8-03	A RESUBDIVISION OF PARCELS C-1 AND C-2 TAX MAP 47 PART OF PARCELS 3, 462 & 837 SIXTH (6TH) ELECTION DISTRICT HOWARD COUNTY, MARYLAND	JOB NO. 02-081
	FOR: THE TROUTMAN COMPANY 9030 RED BRANCH ROAD COLUMBIA, MARYLAND 21045	FILE NO. 02-081 P
	BEAZER HOMES 8965 GUILFORD ROAD COLUMBIA, MARYLAND 21046	



LEGEND

- EX & _____
- PGL _____
- 45'LT
- 45'RT



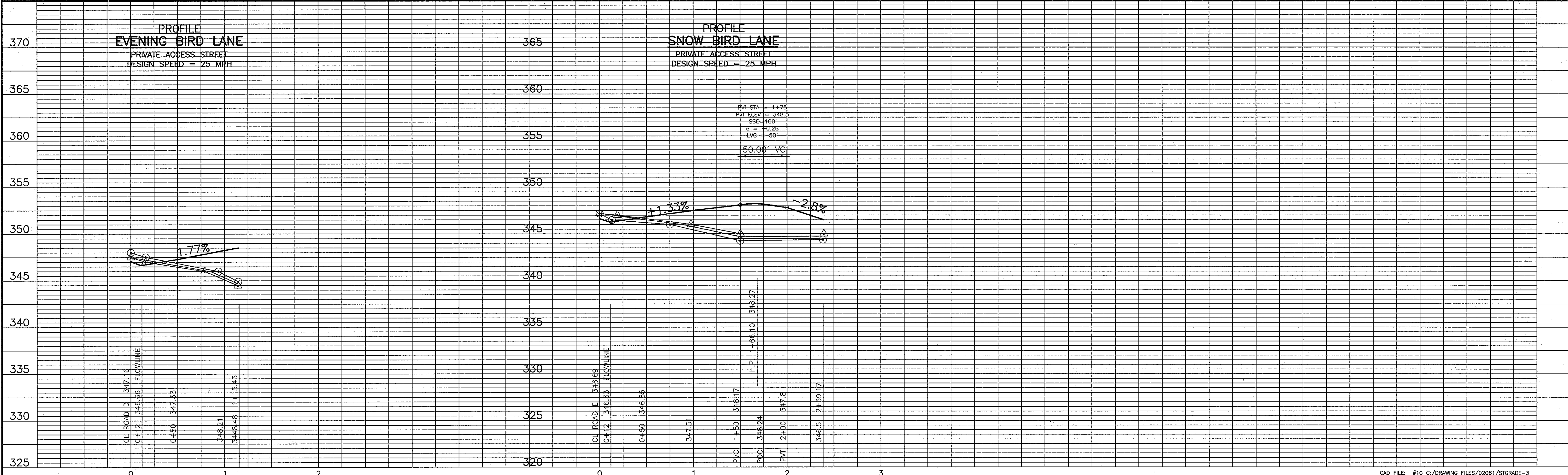
APPROVED: DEPARTMENT OF PUBLIC WORKS
William F. Johnson 10-28-03
 CHIEF, BUREAU OF HIGHWAYS DATE

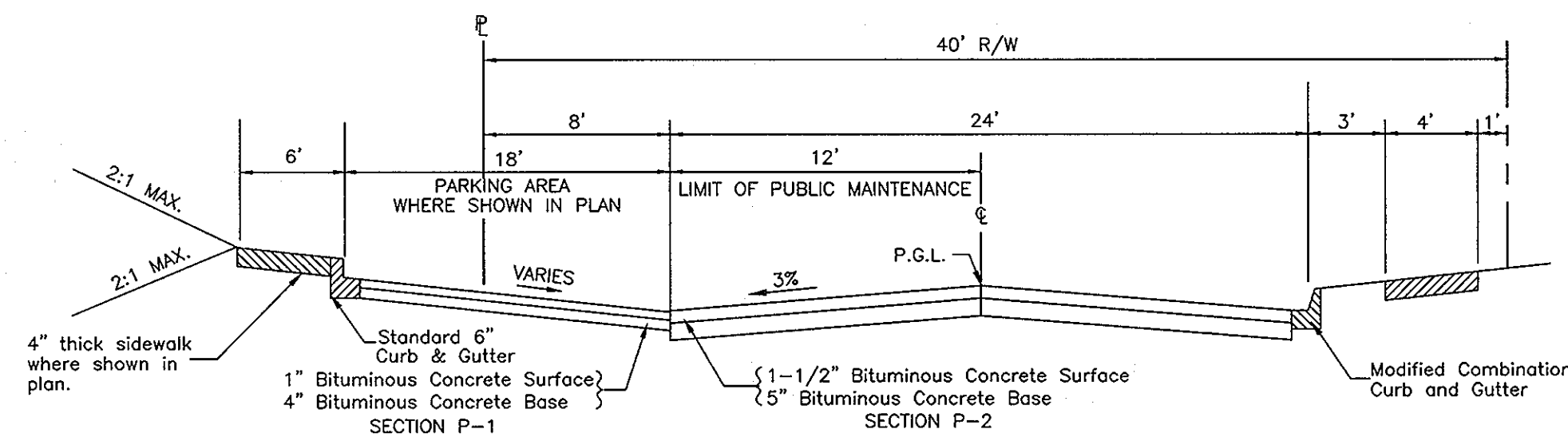
APPROVED: DEPARTMENT OF PLANNING & ZONING
Carly Khamis 12/3/03
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

M. K. 12/1/03
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

CLARK • FINEFROCK & SACKETT, INC.
 ENGINEERS • PLANNERS • SURVEYORS
 7125 MINSTREL WAY • COLUMBIA, MD 21045 • (410) 381-7500 BALT. • (301) 621-8100 WASH.

DESIGNED AS	PRIVATE SECTIONS OF EVENING BIRD LANE AND SNOW BIRD LANE LOTS 1 THRU 89 AND OPEN SPACE LOT 90-92	SCALE 1"=5' VERT. 1"=50' HORZ.
DRAWN AS/JS	EMERSON 2/2	DRAWING 5 of 12
CHECKED AS	A RESUBDIVISION OF PARCELS C-1 AND C-2 TAX MAP 47 PART OF PARCELS 3, 462 & 837 SIXTH (6TH) ELECTION DISTRICT HOWARD COUNTY, MARYLAND	JOB NO. 02-081
DATE 10-8-03	FOR: THE TROUTMAN COMPANY 9030 RED BRANCH ROAD COLUMBIA, MARYLAND 21045 BEAZER HOMES 8965 GULFORD ROAD COLUMBIA, MARYLAND 21046	FILE NO. 02-081 P



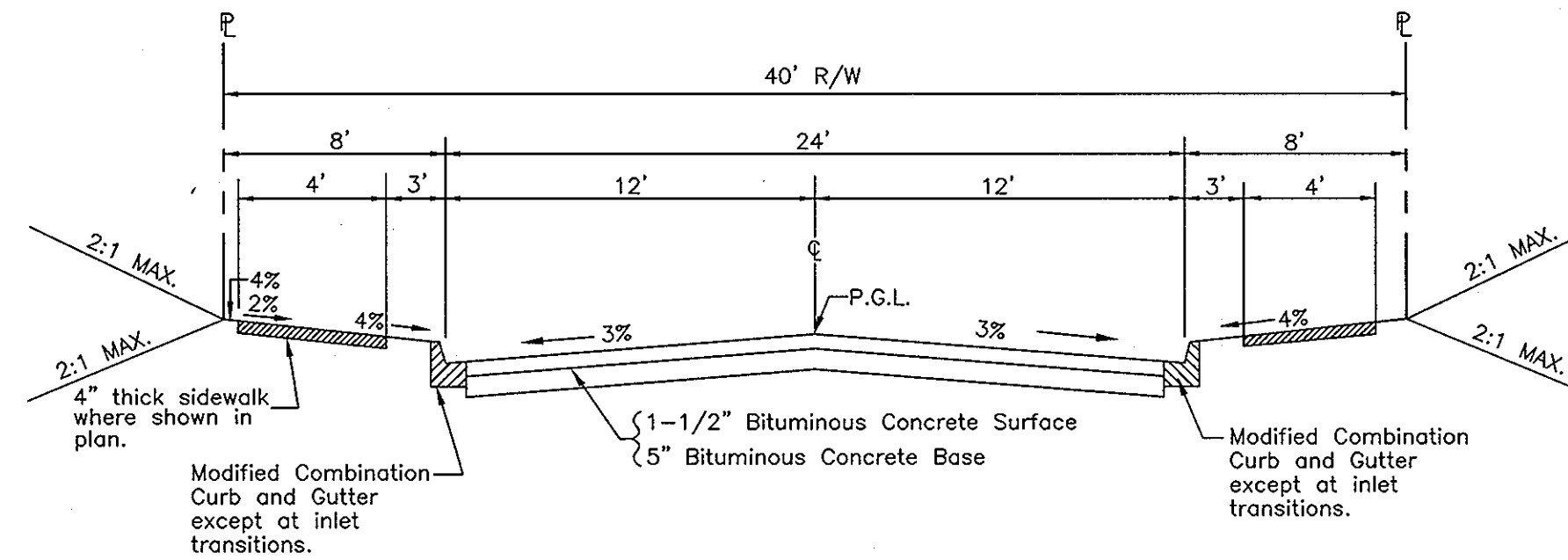


TYPICAL SECTION ACCESS STREETS

NO SCALE

* Provide sidewalk per typical parking detail above.
DESIGN SPEED = 25 MPH

Station 0+00 to 2+39.17 (Private Mystic Dance Lane)
Station 0+00 to Station 1+15.43 (Private Snow Bird Lane)

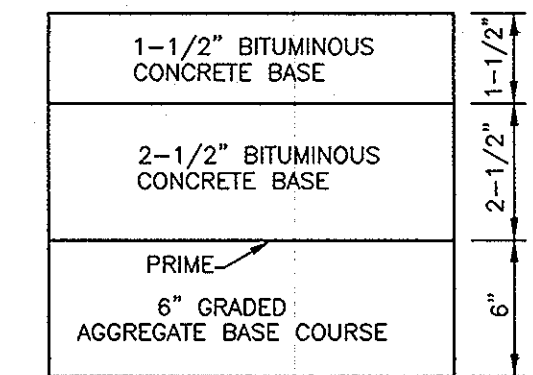


TYPICAL SECTION ACCESS STREETS

NO SCALE

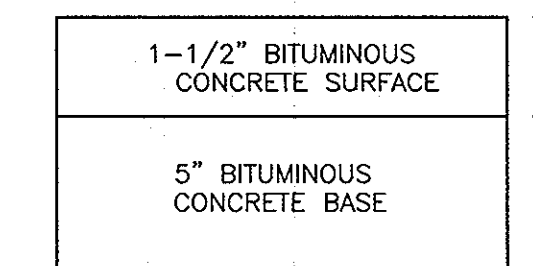
DESIGN SPEED = 25 MPH

Station 0+00 to Station 9+40.74 (Snow Bird Lane)
Station 0+00 to Station 1+54.93 (Evening Bird Lane)
Station 0+00 to Station 8+00.22 (Mystic Dance Lane)



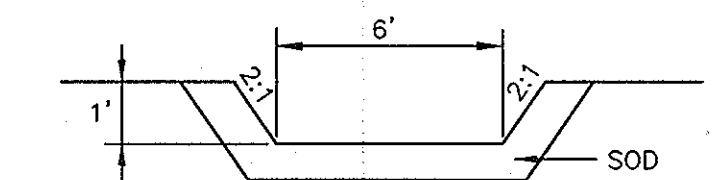
TYPICAL PAVING SECTION GRANULAR BASE ALTERNATE

NO SCALE
(SECTION P-2)

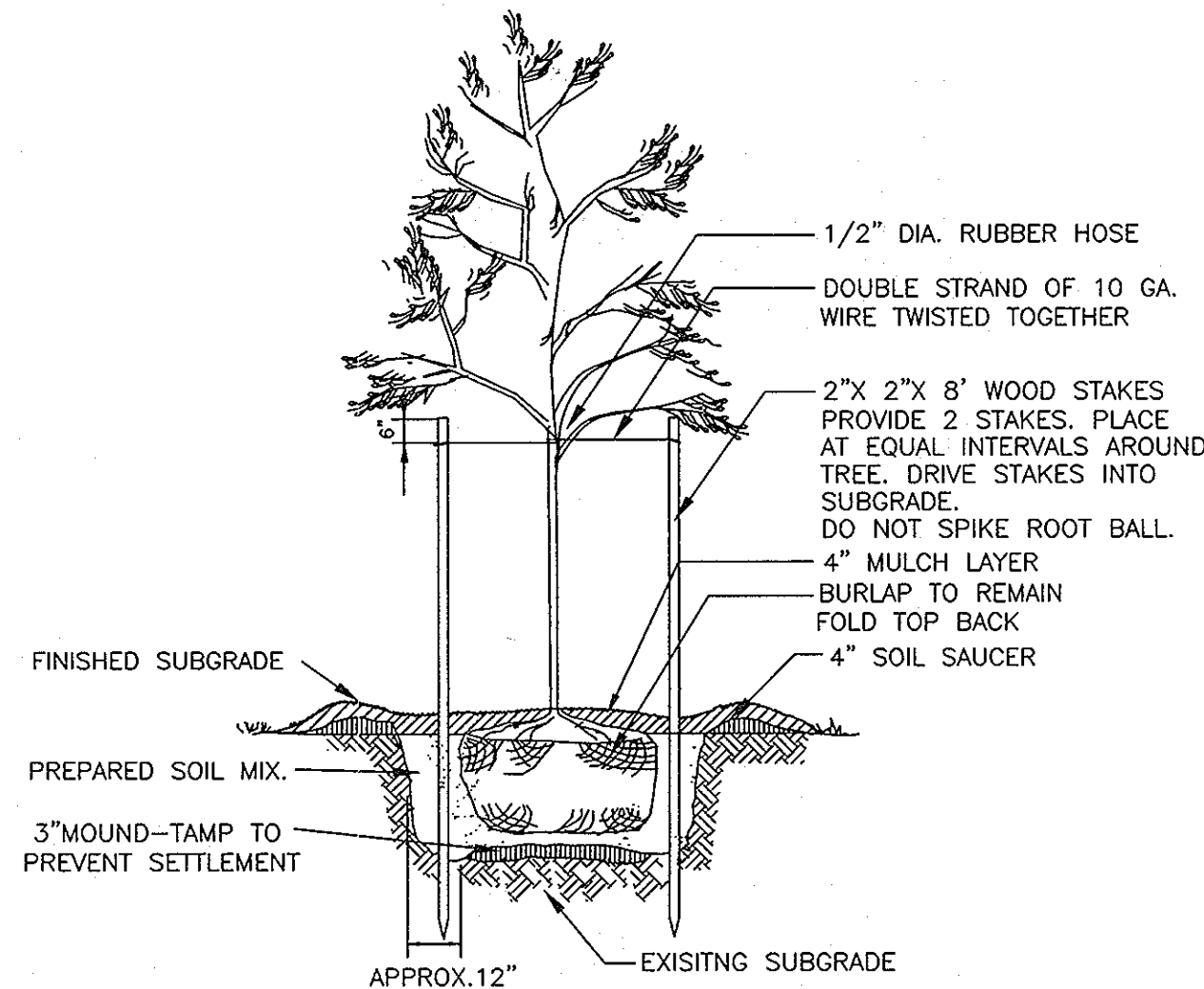


TYPICAL PAVING SECTION FULL DEPTH ALTERNATE

NO SCALE
(SECTION P-2)

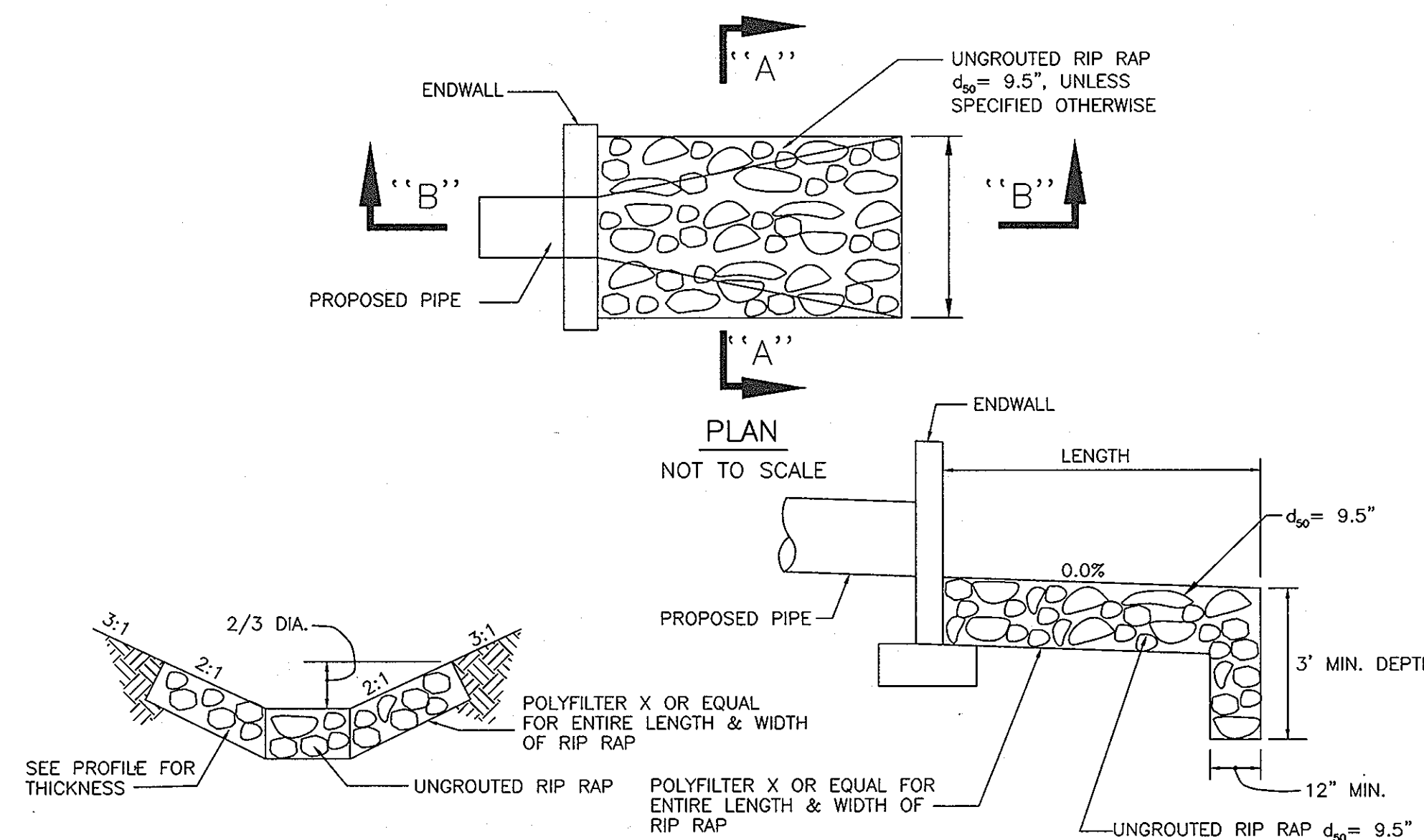


TYPICAL SECTION SOD CHANNEL



STREET TREE PLANTING DETAIL

NO SCALE



SECTION "A"- "A"

SECTION "B"- "B"

UNGRADED RIP RAP DETAIL

NO SCALE

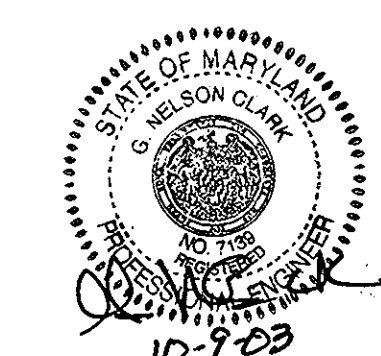
RIPRAP AND GABION CONSTRUCTION SPECIFICATIONS

- The subgrade for the filter, rip-rap, or gabion shall be prepared to the required lines and grades. Any fill required in the subgrade shall be compacted to a density of approximately that of the surrounding undisturbed material.
- The rock or gravel shall conform to the specified grading limits when installed respectively in the rip-rap or filter.
- Geotextile Class C28 or better shall be protected from punching, cutting, or tearing. Any damage other than an occasional small hole shall be repaired by placing another piece of geotextile fabric over the damaged part or by completely replacing the geotextile fabric. All overlaps whether for repairs or for joining two pieces of geotextile fabric shall be a minimum of one foot.
- Stone for the rip-rap or gabion outlets may be placed by equipment. They shall be constructed to the full course thickness in one operation and in such a manner as to avoid displacement of underlying materials. The stone for rip-rap or gabion outlets shall be delivered and placed in a manner that will ensure that it is reasonably homogenous with the smaller stones and spalls filling the voids between the larger stones. Rip-rap shall be placed in a manner to prevent damage to the filter blanket or geotextile fabric. Hand placement will be required to the extent necessary to prevent damage to the permanent works.
- The stone shall be placed so that it blends in with the existing ground. If the stone is placed too high then the flow will be forced out of the channel and scour adjacent to the stone will occur.
- Riprap is SHA Class 1.

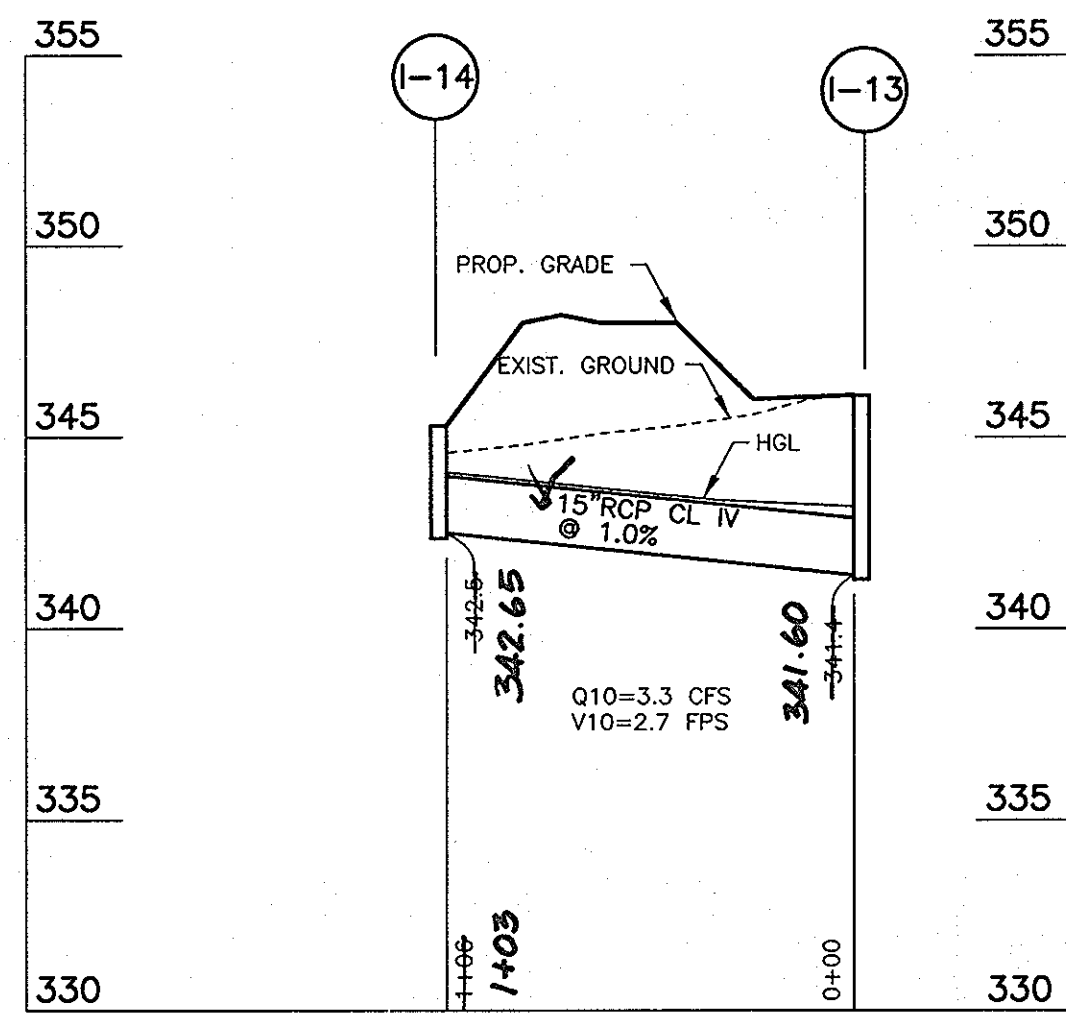
NOTES:

- All plant materials shall be full and heavy, be well formed and symmetrical, conform to the most current AAN specifications and be installed in accordance with HRD planting specifications.
- Contractor shall verify location of all underground utilities prior to digging.
- Final location of plant material may need to vary to meet final field conditions. Trees shall not be planted in the bottom of drainage swales.

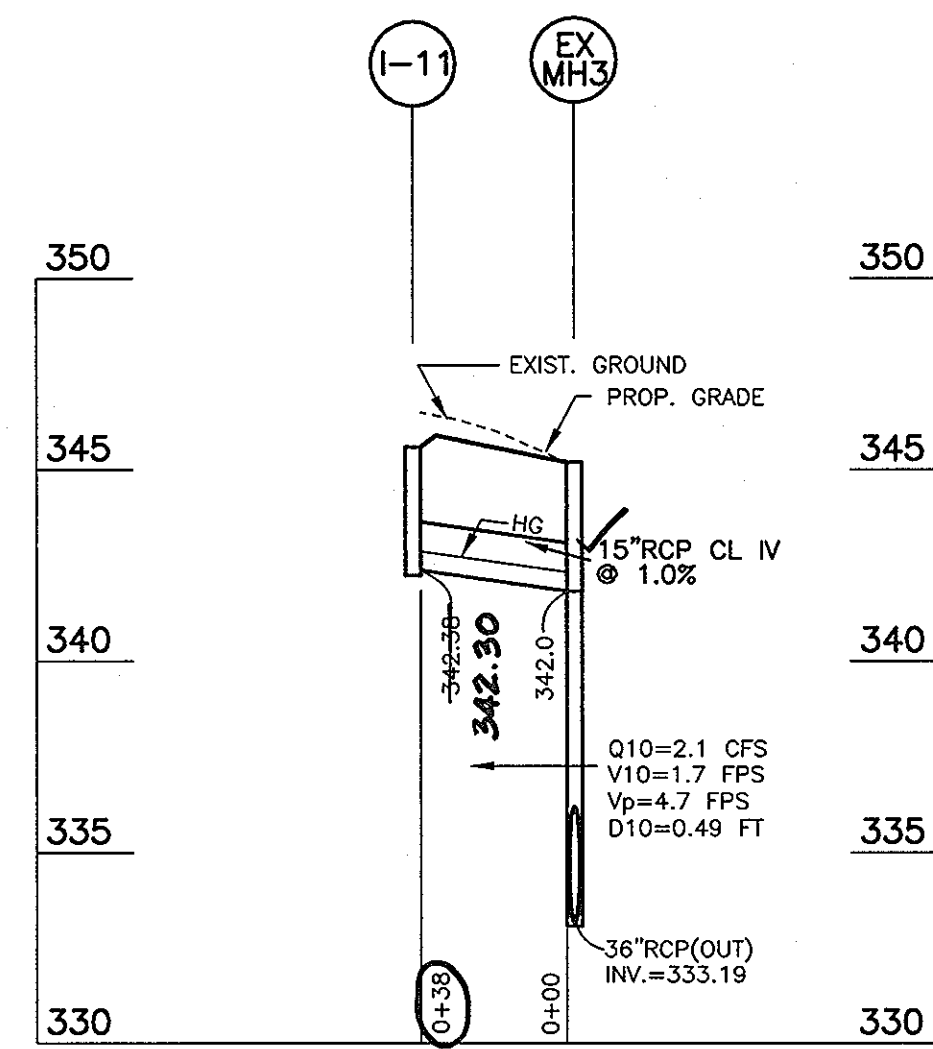
APPROVED:	HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS	
	<i>William F. Whelan Jr.</i>	10-28-03
	CHIEF, BUREAU OF HIGHWAYS	DATE
APPROVED:	HOWARD COUNTY DEPT. OF PLANNING & ZONING	
	<i>Cathy Hester</i>	12/3/03
	CHIEF, PLANNING AND DEVELOPMENT	DATE
	<i>Mark</i>	12/1/03
	CHIEF, DEVELOPMENT ENGINEERING DIVISION	DATE



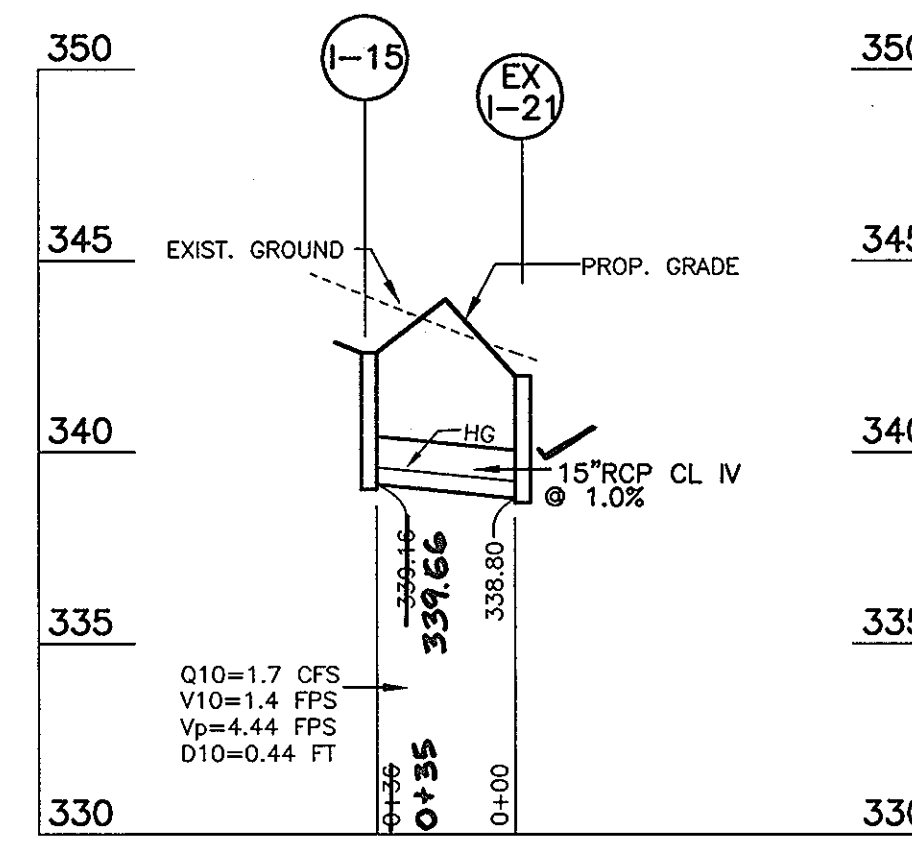
CLARK • FINEFROCK & SACKETT, INC. ENGINEERS • PLANNERS • SURVEYORS 7135 MINSTREL WAY • COLUMBIA, MD 21045 • (410) 381-7500 BALT. • (301) 621-8100 WASH.		
DESIGNED	CONSTRUCTION AND LANDSCAPING DETAILS	SCALE
AS/JS	LOTS 65 THRU 153 AND OPEN SPACE LOTS 154-156	NONE
DRAWN	EMERSON 2/2	DRAWING
AS	A RESUBDIVISION OF PARCELS C-1 AND C-2	6 of 12
CHECKED	TAX MAP #47 PART OF PARCELS 3, 462 & 837	JOB NO.
AS	SIXTH (6TH) ELECTION DISTRICT HOWARD COUNTY, MARYLAND	02-081
DATE	FOR: THE TROUTMAN COMPANY	FILE NO.
10-8-03	9030 RED BRANCH ROAD BEAZER HOMES	02-081
	COLUMBIA, MARYLAND 21045	



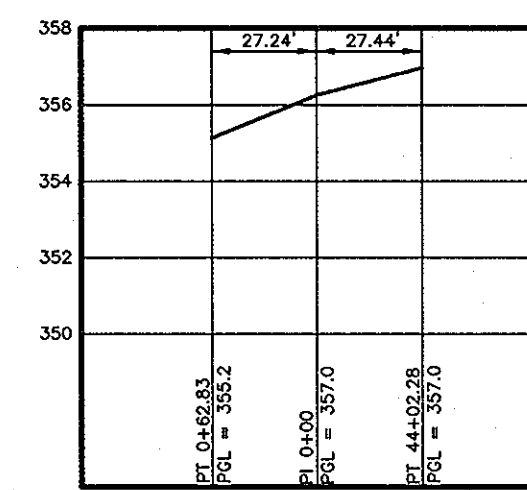
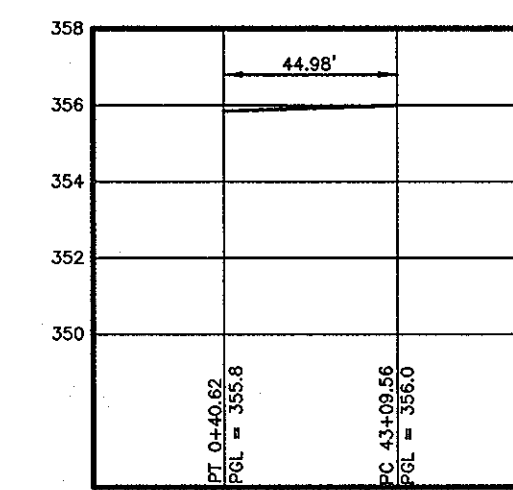
STORM DRAIN PROFILE
SCALE: HOR. 1"=50'
VER. 1"=5'



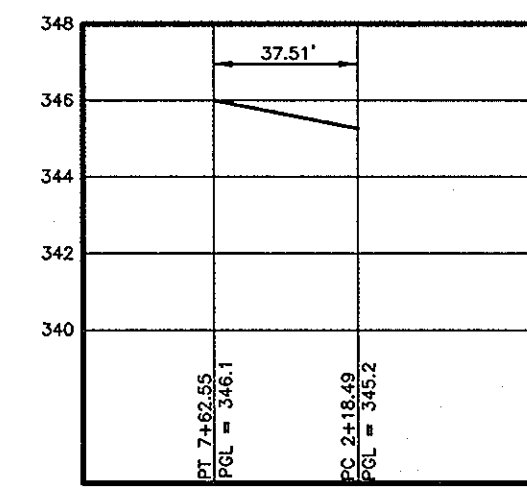
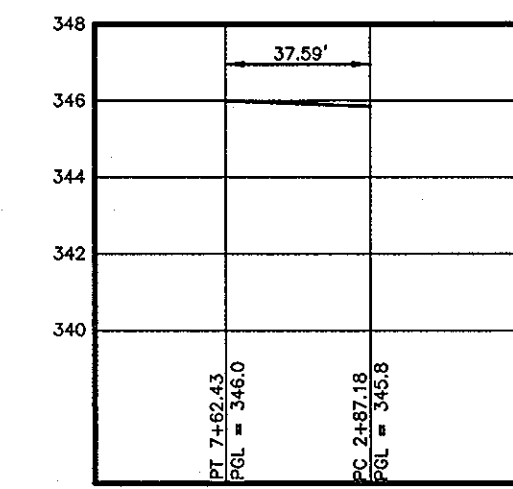
STORM DRAIN PROFILE
SCALE: HOR. 1"=50'
VER. 1"=5'



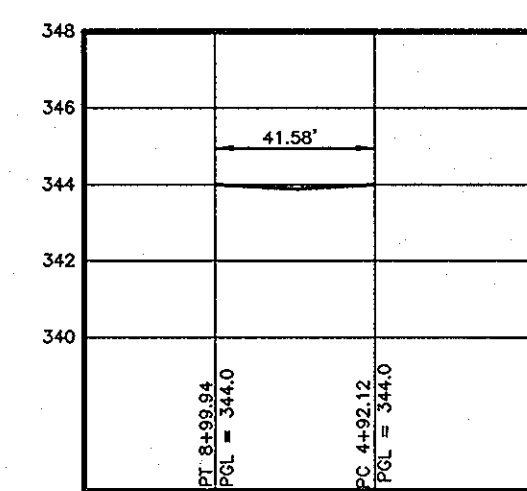
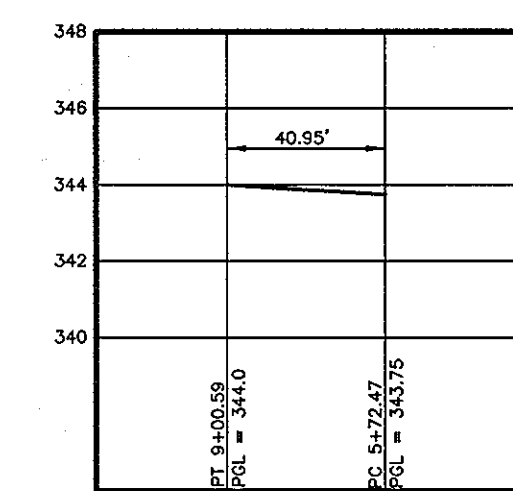
STORM DRAIN PROFILE
SCALE: HOR. 1"=50'
VER. 1"=5'



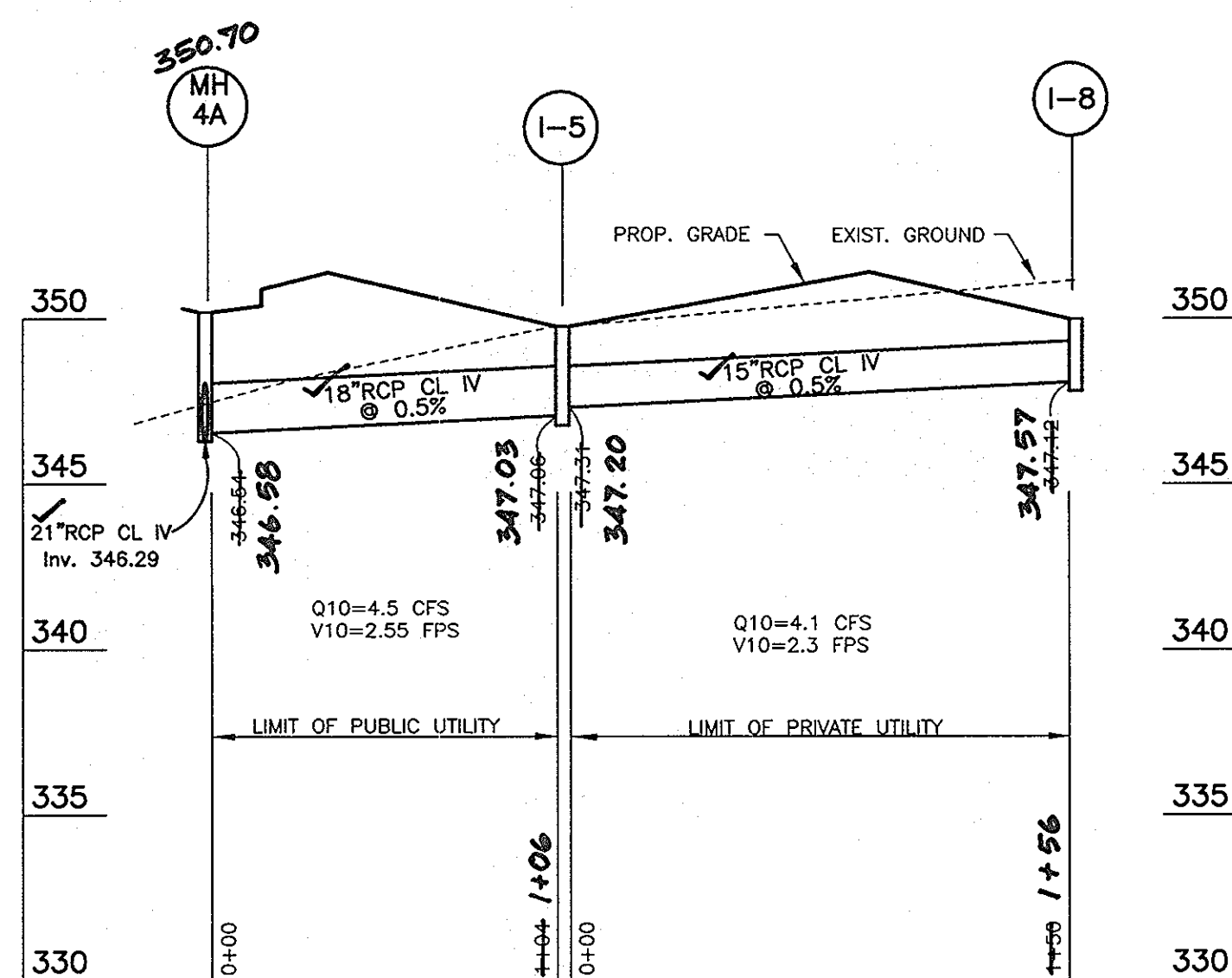
CURB RETURN PROFILES
SCALE: HORZ. 1" = 20'
VERT. 1" = 2'



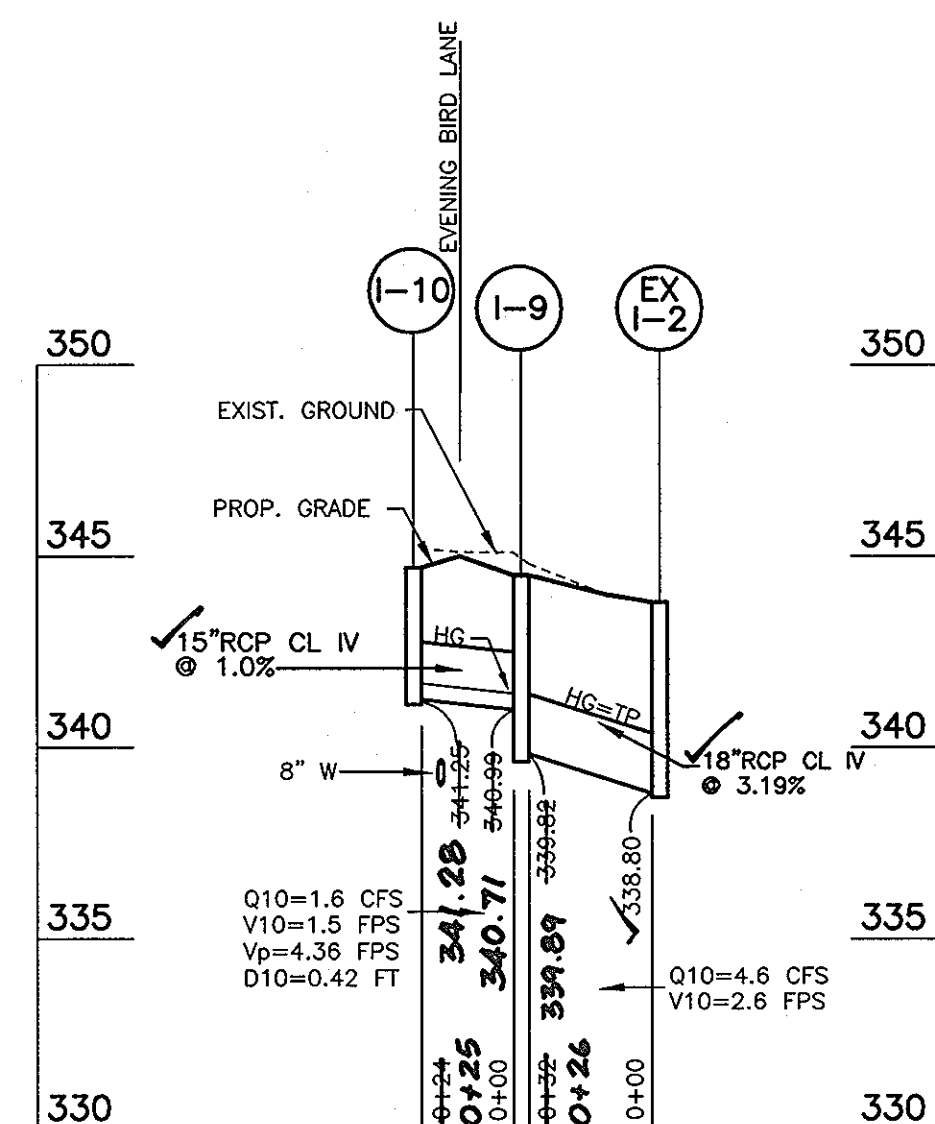
CURB RETURN PROFILES
SCALE: HORZ. 1" = 20'
VERT. 1" = 2'



CURB RETURN PROFILES
SCALE: HORZ. 1" = 20'
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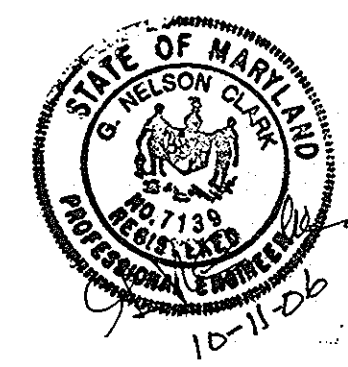
STORM DRAIN PROFILE
SCALE: HOR. 1"=50'
VER. 1"=5'



STORM DRAIN PROFILE
SCALE: HOR. 1"=50'
VER. 1"=5'

SIZE	TYPE	TOTAL
15"	RCP	469 LF
18"	RCP	632 LF
21"	RCP	302 LF
24"	RCP	204 LF

NO.	TYPE	INVERT		TOP ELEVATION		REMARKS	LOCATION
		UPPER	LOWER	UPPER/LOWER			
I-1	A-5	347.5/344.43	344.18	353.9	354.48	SD 4.01	1+08.42 14'RT
I-2	A-5	-	347.75	353.9	354.48	SD 4.01	1+08.42 14'LT
I-3	A-5	344.93/346.80	344.7	354.42	354.74	SD 4.01	0+12.75 14'LT
I-4	A-5	-	350.37	355.56	353.70	SD 4.01	2+79.12 14'RT
I-5	D	346.72	346.47	350.2	350.6	SD 4.11	2+82.57 58.92' LT
I-6	A-10	346.85	346.60	350.4	350.5	SD 4.02	3+23.25 14'LT
I-7	A-10	-	346.97	350.4	350.4	SD 4.02	3+23.25 14'RT
I-8	D	-	346.94	348.08	350.9	SD 4.11	2+77.06 109.25'LT
I-9	A-10	340.99	339.82	344.5	344.5	SD 4.02	8+85.97 14'RT
I-10	A-10	-	341.25	344.7	344.7	SD 4.02	8+85.97 14'LT
I-11	D	-	342.38	344.6	345.4	SD 4.11	3+58.47 64.98'RT
I-12	A-10	338.04	335.4	346.67	345.5	SD 4.02	7+63.55 14'RT
I-13	A-10	341.4/336.40	338.28	346.67	346.2	SD 4.02	7+63.55 14'LT
I-14	A-10	-	342.50	345.26	345.3	SD 4.02	1+28.22 9'RT
I-15	D	-	339.50	342.6	342.6	SD 4.11	49+25.00 49.0' RT
I-16	A-10	-	341.84	348.8	348.9	SD 4.02	6+21.24 14'RT
I-17	A-10	-	345.97	351.4	351.16	SD 4.02	4+83.15 14'LT
FC1	FIELD CONNECTION	334.5	333.8	-	-	SD 2.01	2+70.67 23'RT
MH-1	PRECAST MANHOLE	343.41	343.16	352.62	352.9	G 5.12	0+27.04 68.48'RT
MH-1A	PRECAST MANHOLE	343.96	343.71	354.34	354.0	G 5.12	0+61.19 36.97' RT
MH-2	PRECAST MANHOLE	338.46	347.51	354.66	354.7	G 5.12	0+84.68 15'RT
MH-3	PRECAST MANHOLE	349.96	349.68	354.26	354.3	G 5.12	2+17.55 15'RT
MH-4	PRECAST MANHOLE	346.07	345.82	351.4	351.4	G 5.12	1+98.58 15'LT
MH-4A	PRECAST MANHOLE	345.92/346.54	345.80	350.06	350.7	G 5.12	2+86.81 15'LT
MH-5	PRECAST MANHOLE	345.76	345.51	350.48	350.5	G 5.12	5+25.26 15'LT
MH-6	PRECAST MANHOLE	341.55/344.50	341.30	348.5	348.5	G 5.12	6+37.29 15'LT



APPROVED: DEPARTMENT OF PUBLIC WORKS
William E. Warden 10-28-03
 CHIEF, BUREAU OF HIGHWAYS DATE

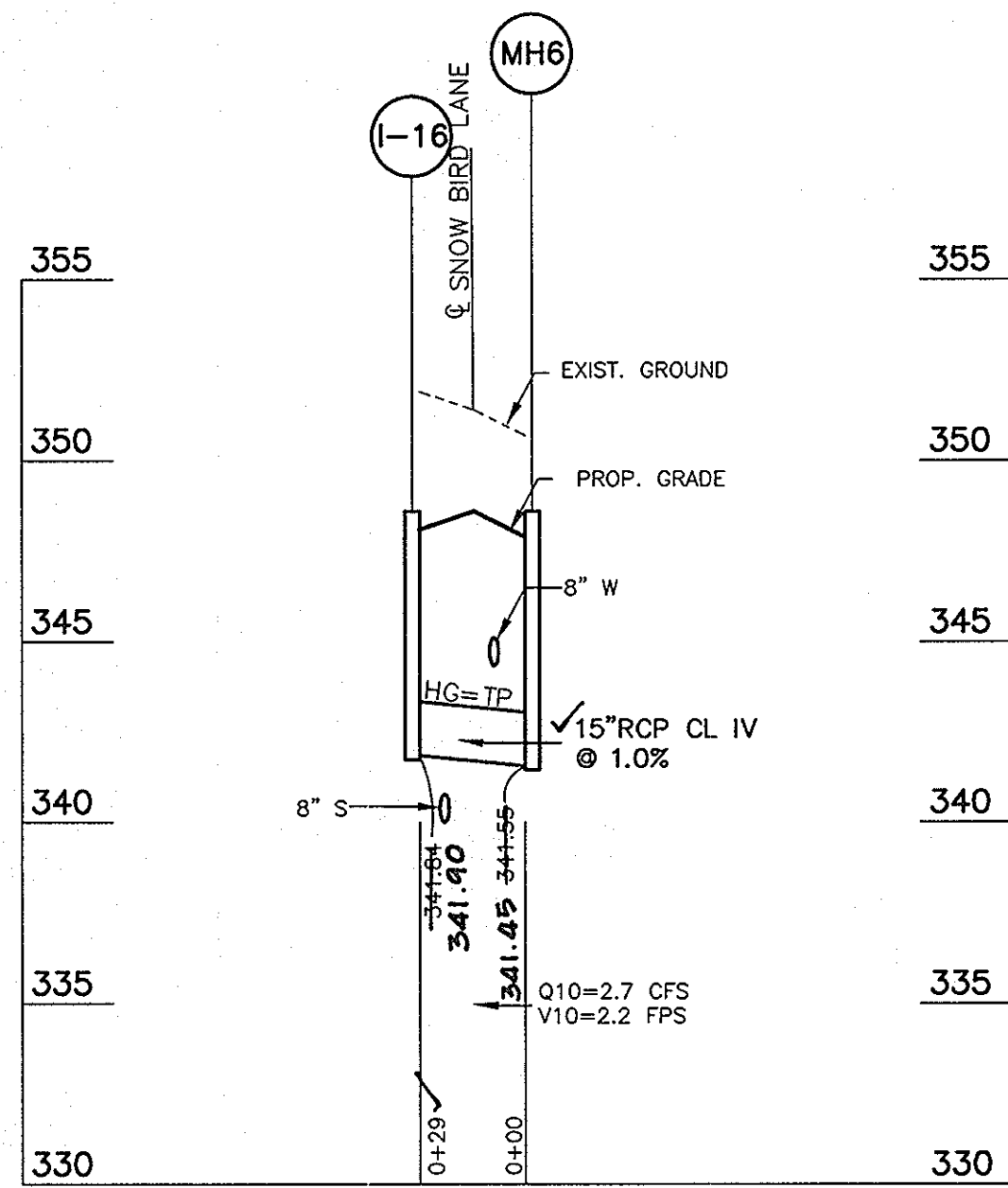
APPROVED: DEPARTMENT OF PLANNING & ZONING
Andy Hamilton 12/3/03
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

William E. Warden 12/1/03
 CHIEF, DEVELOPMENT ENGINEERING DIVISION MK DATE

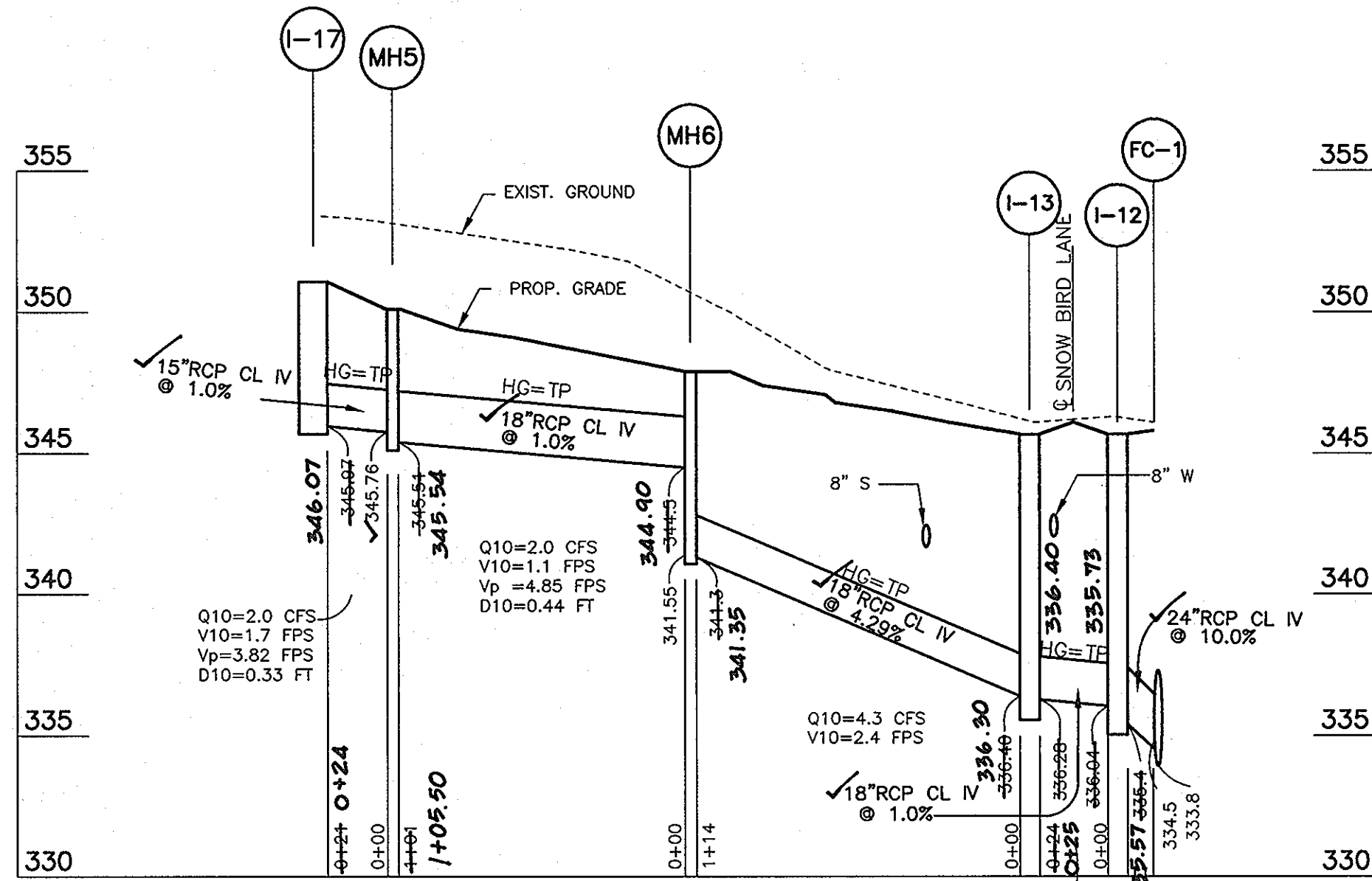
CLARK · FINEFROCK & SACKETT, INC.
 ENGINEERS · PLANNERS · SURVEYORS
 7135 MINSTREL WAY · COLUMBIA, MD 21045 · (410) 381-7500 BALT. · (301) 621-8100 WASH.

DESIGNED AS SHOWN
 AS DRAWING 7 OF 12
 CHECKED JOB NO. 02-081
 DATE 10-8-03 FOR: THE TROUTMAN COMPANY 9030 RED BRANCH ROAD COLUMBIA, MD 21045 BEAZER HOMES 8965 GUILDFORD ROAD COLUMBIA, MD 21046 FILE NO. 02-081 02-082

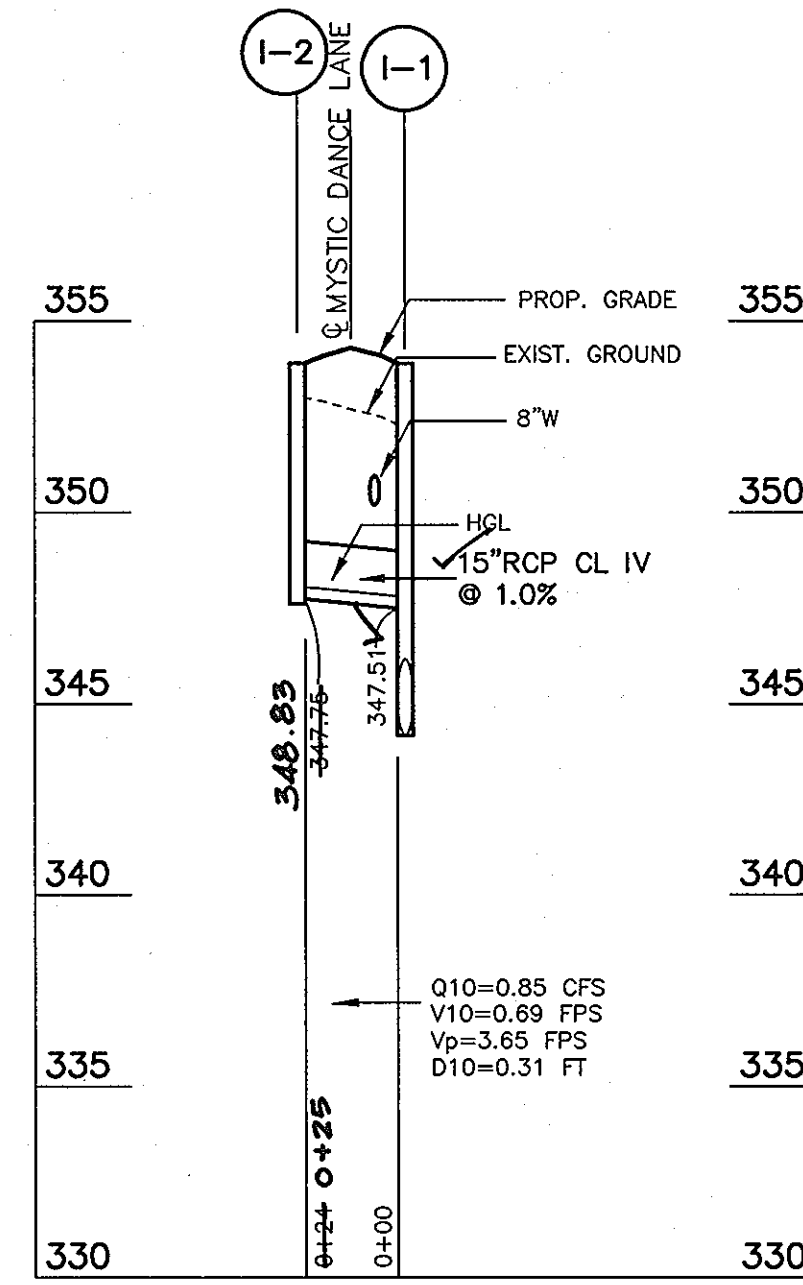
STORM DRAIN PROFILES
 LOTS 65- THRU 153 AND
 OPEN SPACE LOTS 154-156
EMERSON 2/2
 A RESUBDIVISION OF PARCELS C-1 AND C-2
 TAX MAP 47 PART OF PARCELS 3, 462 & 837
 SIXTH (6TH) ELECTION DISTRICT HOWARD COUNTY, MARYLAND



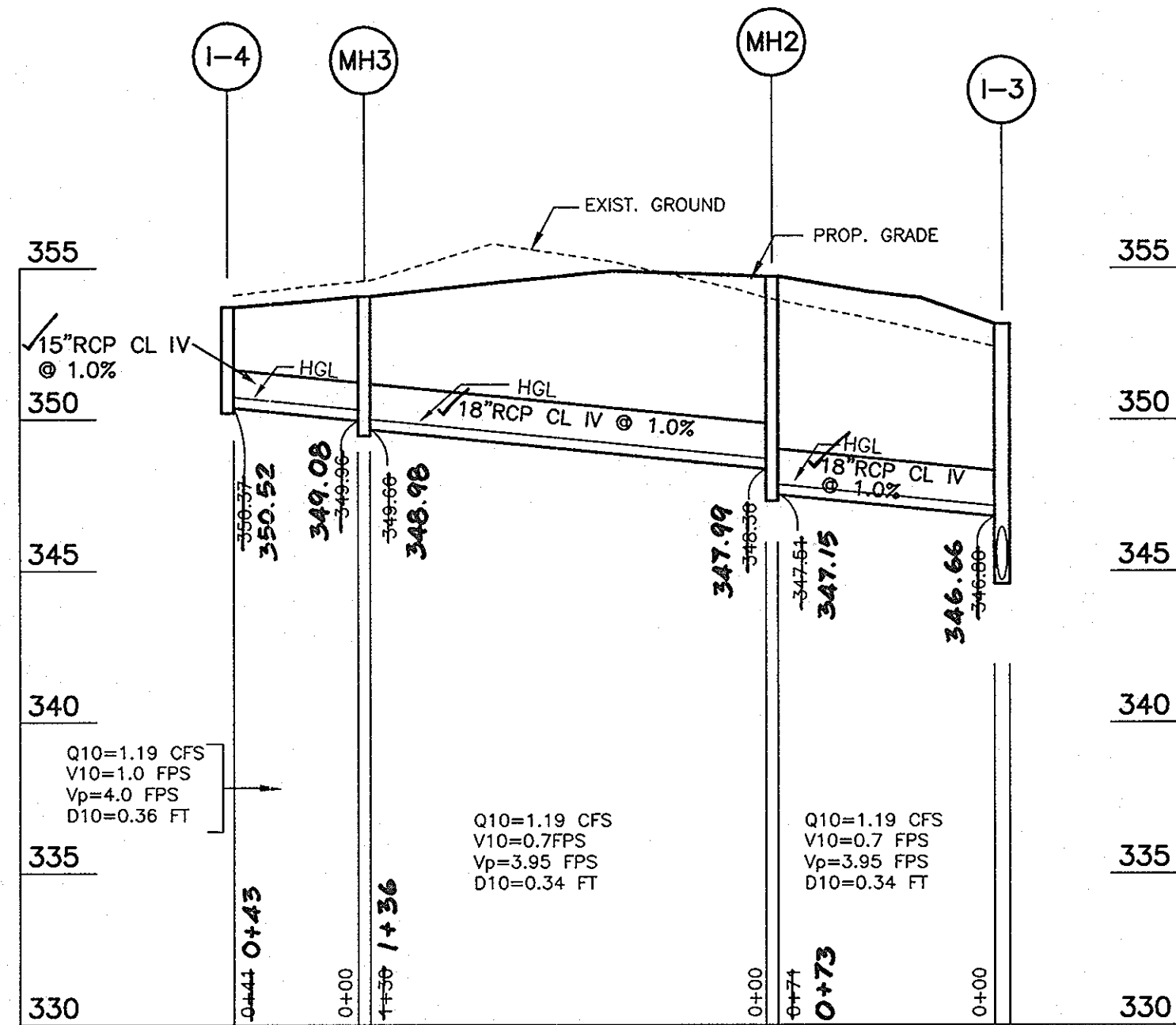
STORM DRAIN PROFILE
SCALE: HOR. 1"=50'
VER. 1"=5'



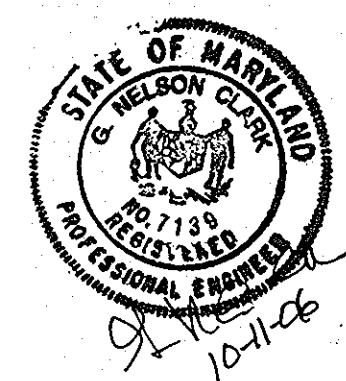
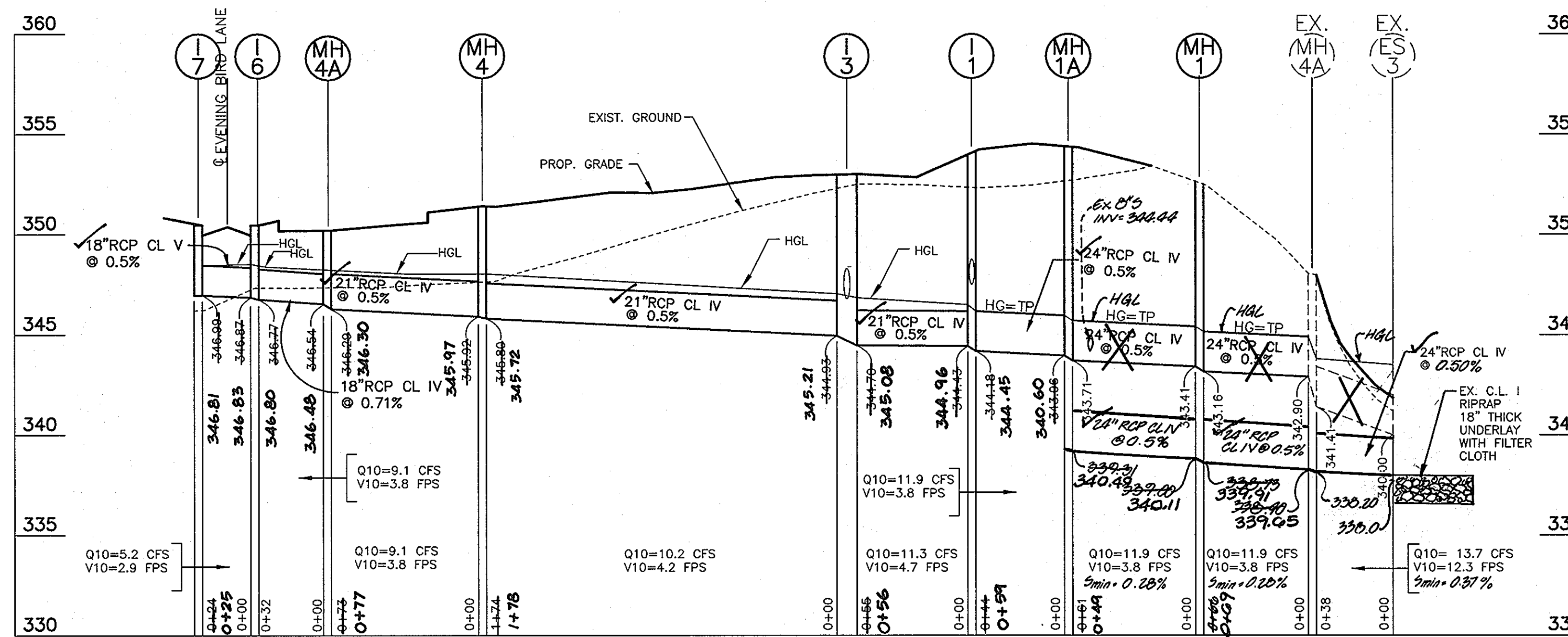
STORM DRAIN PROFILE
SCALE: HOR. 1"=50'
VER. 1"=5'



STORM DRAIN PROFILE
SCALE: HOR. 1"=50'
VER. 1"=5'



STORM DRAIN PROFILE
SCALE: HOR. 1"=50'
VER. 1"=5'



APPROVED: DEPARTMENT OF PUBLIC WORKS

William T. Melton
CHIEF, BUREAU OF HIGHWAYS *WJM* 10-28-03
DATE

APPROVED: DEPARTMENT OF PLANNING & ZONING

Cindy Kramer
CHIEF, DIVISION OF LAND DEVELOPMENT 12/3/03
DATE
Mark
CHIEF, DEVELOPMENT ENGINEERING DIVISION MK 12/1/03
DATE

CLARK · FINEFROCK & SACKETT, INC.
ENGINEERS · PLANNERS · SURVEYORS
7135 MINSTREL WAY · COLUMBIA, MD 21045 · (410) 381-7500 BALT. · (301) 621-8100 WASH.

DESIGNED AS	STORM DRAIN PROFILES LOTS 65 THRU 153 AND OPEN SPACE LOTS 154-156	SCALE AS SHOWN
DRAWN EWM	EMERSON 2/2	DRAWING 8 OF 12
CHECKED JBS	A RESUBDIVISION OF PARCELS C-1 AND C-2	JOB NO. 02-081
DATE 10-8-03	TAX MAP 47 PART OF PARCELS 3, 462 & 837 SIXTH (6TH) ELECTION DISTRICT HOWARD COUNTY, MARYLAND	02-082
	FOR: THE TROUTMAN COMPANY 9030 RED BRANCH ROAD COLUMBIA, MD 21045	FILE NO. 02-081
	BEAZER HOMES 8965 GUILFORD ROAD COLUMBIA, MD 21046	02-082

1	REV. STORM DRAIN OUTFALL	12-17-03
1/2	REVISION	DATE

(#9)F:/Drawings/emerson/sd-profiles2.dwg



SOILS LEGEND		
SYMBOL	NAME / DESCRIPTION	TYPE
GnB2	Glenville Silt Loam, 3 to 8 percent slopes, moderately eroded.	C
GIC2	Gleniel Loam, 8 to 15 percent slopes, moderately eroded.	B
GIB2	Gleniel Loam, 3 to 8 percent slopes, moderately eroded.	B
MIB2	Manor Loam, 3 to 8 percent slopes, moderately eroded.	B
MIC2	Manor Loam, 8 to 15 percent slopes, moderately eroded.	B
Ba	Baile Silt Loam.	D
SIC2	Sassafras Gravelly Sandy Loam, 5 to 10 percent slopes, moderately eroded.	B
SIB2	Sassafras Gravelly Sandy Loam, 1 to 5 percent slopes, moderately eroded.	B
ChB2	Chester Silt Loam, 3 to 8 percent slopes, moderately eroded.	B
ChB3	Chester Silt Loam, 8 to 15 percent slopes, moderately eroded.	B

LEGEND

- 262 --- EXISTING CONTOUR
- 260 --- PROPOSED CONTOUR
- EX. TREES ---
- EX. STREAM ---
- STOP SIGN ---
- DIRECTION OF FLOW ---
- STREET LIGHT ---
- DRAINAGE AREA DIVIDE ---
- 100 Watt Premier Post Top ---
- 150 Watt Premier Post Top ---
- 250 Watt (Sag) ---

APPROVED: DEPARTMENT OF PUBLIC WORKS

William T. Mahan Jr. 10-28-03
 CHIEF, BUREAU OF HIGHWAYS HB DATE

APPROVED: DEPARTMENT OF PLANNING & ZONING

Cindy Hamilton 12/9/03
 CHIEF, DIVISION OF LAND DEVELOPMENT HB DATE

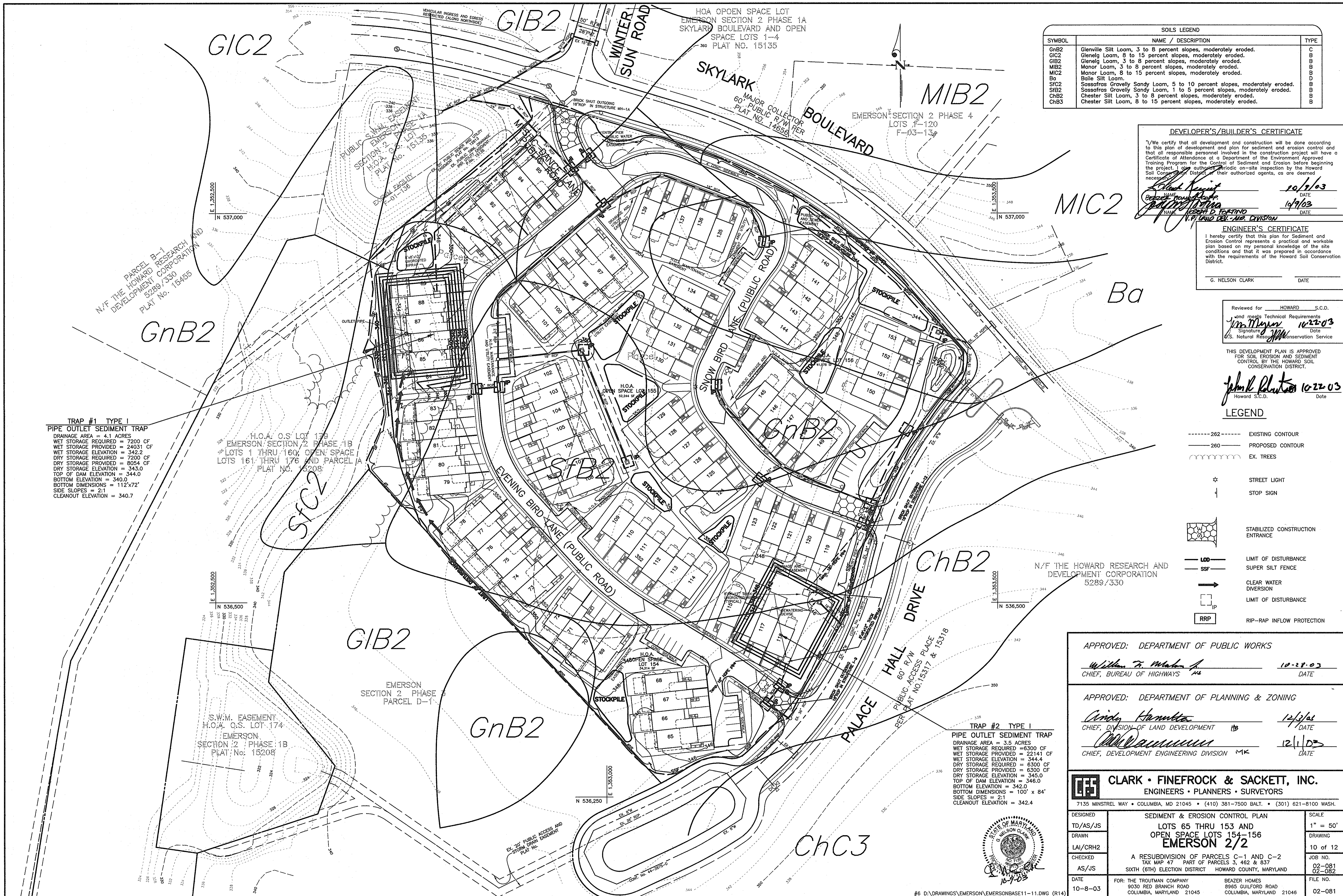
Mike Cummings 12/1/03
 CHIEF, DEVELOPMENT ENGINEERING DIVISION MK DATE

CLARK • FINEFROCK & SACKETT, INC.
 ENGINEERS • PLANNERS • SURVEYORS

7135 MINSTREL WAY • COLUMBIA, MD 21045 • (410) 381-7500 BALT. • (301) 621-8100 WASH.

DESIGNED TD/AS/JS	STORM DRAINAGE AREA MAP LOTS 65 THRU 153 AND OPEN SPACE LOTS 154-156 EMERSON 2/2	SCALE 1" = 50'
DRAWN LA/CRH2		DRAWING 9 of 12
CHECKED AS/JS	A RESUBDIVISION OF PARCELS C-1 AND C-2 TAX MAP 47 PART OF PARCELS 3, 462 & 837 SIXTH (6TH) ELECTION DISTRICT HOWARD COUNTY, MARYLAND	JOB NO. 02-081 02-082
DATE 10-8-03	FOR: THE TROUTMAN COMPANY 9030 RED BRANCH ROAD COLUMBIA, MARYLAND 21045	BEAZER HOMES 8965 GUILFORD ROAD COLUMBIA, MARYLAND 21046
		FILE NO. 02-081





SOILS LEGEND		
SYMBOL	NAME / DESCRIPTION	TYPE
GnB2	Glenville Silt Loam, 3 to 8 percent slopes, moderately eroded.	C
GIC2	Glenelg Loam, 8 to 15 percent slopes, moderately eroded.	B
GIB2	Glenelg Loam, 3 to 8 percent slopes, moderately eroded.	B
MIB2	Manor Loam, 3 to 8 percent slopes, moderately eroded.	B
MIC2	Manor Loam, 8 to 15 percent slopes, moderately eroded.	B
Bo	Baile Silt Loam.	D
SIC2	Sassafras Gravely Sandy Loam, 5 to 10 percent slopes, moderately eroded.	B
SIB2	Sassafras Gravely Sandy Loam, 1 to 5 percent slopes, moderately eroded.	B
ChB2	Chester Silt Loam, 3 to 8 percent slopes, moderately eroded.	B
ChB3	Chester Silt Loam, 8 to 15 percent slopes, moderately eroded.	B

DEVELOPER'S/BUILDER'S CERTIFICATE

I/We certify that all development and construction will be done according to this plan of development and plan for sediment and erosion control and that all 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/We authorize periodic on-site inspection by the Howard Soil Conservation District or their authorized agents, as are deemed necessary.

Robert K. Kuntz 10/1/03
 DEVELOPER
 DATE

Robert D. Fortino 10/1/03
 NAME
 DATE

Robert D. Fortino
 V.P. LAND DEV. DIVISION

ENGINEER'S CERTIFICATE

I hereby certify that this plan for Sediment and Erosion 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.

G. NELSON CLARK DATE

Reviewed for HOWARD S.C.D. and meets Technical Requirements

John M. Meyer 10/22/03
 Signature DATE
 U.S. Natural Resources Conservation Service

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

John M. Meyer 10/22/03
 Howard S.C.D. DATE

LEGEND

- 262 --- EXISTING CONTOUR
- 260 --- PROPOSED CONTOUR
- EX. TREES
- ☆ STREET LIGHT
- STOP SIGN
- STABILIZED CONSTRUCTION ENTRANCE
- LOD --- LIMIT OF DISTURBANCE
- SSF --- SUPER SILT FENCE
- CLEAR WATER DIVERSION
- IP --- LIMIT OF DISTURBANCE
- RRP RIP-RAP INFLOW PROTECTION

TRAP #1 TYPE I
 PIPE OUTLET SEDIMENT TRAP
 DRAINAGE AREA = 4.1 ACRES
 WET STORAGE REQUIRED = 7200 CF
 WET STORAGE PROVIDED = 24031 CF
 WET STORAGE ELEVATION = 342.2
 DRY STORAGE REQUIRED = 7200 CF
 DRY STORAGE PROVIDED = 8064 CF
 DRY STORAGE ELEVATION = 343.0
 TOP OF DAM ELEVATION = 344.0
 BOTTOM ELEVATION = 340.0
 BOTTOM DIMENSIONS = 112'x72'
 SIDE SLOPES = 2:1
 CLEANOUT ELEVATION = 340.7

TRAP #2 TYPE I
 PIPE OUTLET SEDIMENT TRAP
 DRAINAGE AREA = 3.5 ACRES
 WET STORAGE REQUIRED = 6300 CF
 WET STORAGE PROVIDED = 22141 CF
 WET STORAGE ELEVATION = 344.4
 DRY STORAGE REQUIRED = 6300 CF
 DRY STORAGE PROVIDED = 6300 CF
 DRY STORAGE ELEVATION = 345.0
 TOP OF DAM ELEVATION = 346.0
 BOTTOM ELEVATION = 342.0
 BOTTOM DIMENSIONS = 100' x 84'
 SIDE SLOPES = 2:1
 CLEANOUT ELEVATION = 342.4

APPROVED: DEPARTMENT OF PUBLIC WORKS

William T. Mahan 10-28-03
 CHIEF, BUREAU OF HIGHWAYS DATE

APPROVED: DEPARTMENT OF PLANNING & ZONING

Cindy Hamilton 12/3/02
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

John Dammann 12/1/03
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

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 ENGINEERS • PLANNERS • SURVEYORS

7135 MINSTREL WAY • COLUMBIA, MD 21045 • (410) 381-7500 BALT. • (301) 621-8100 WASH.

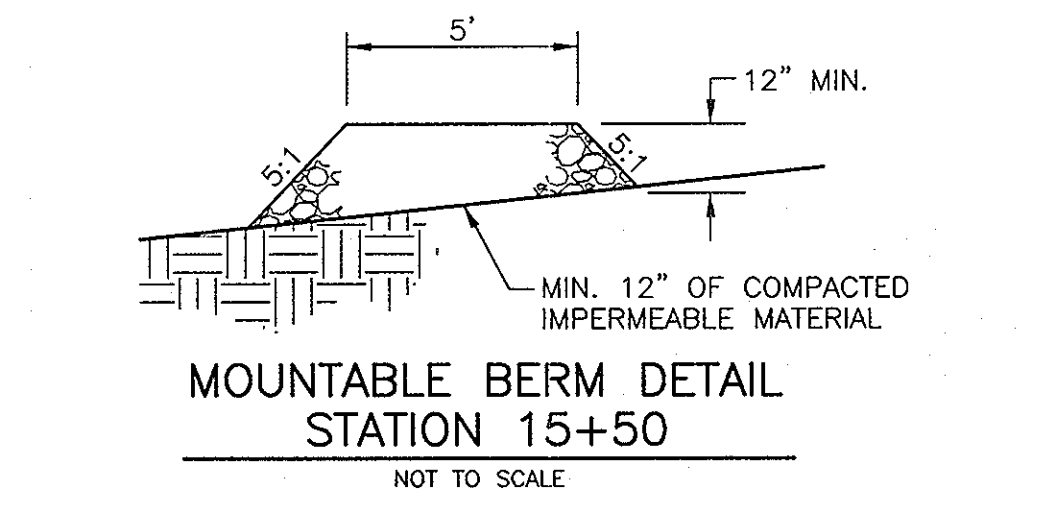
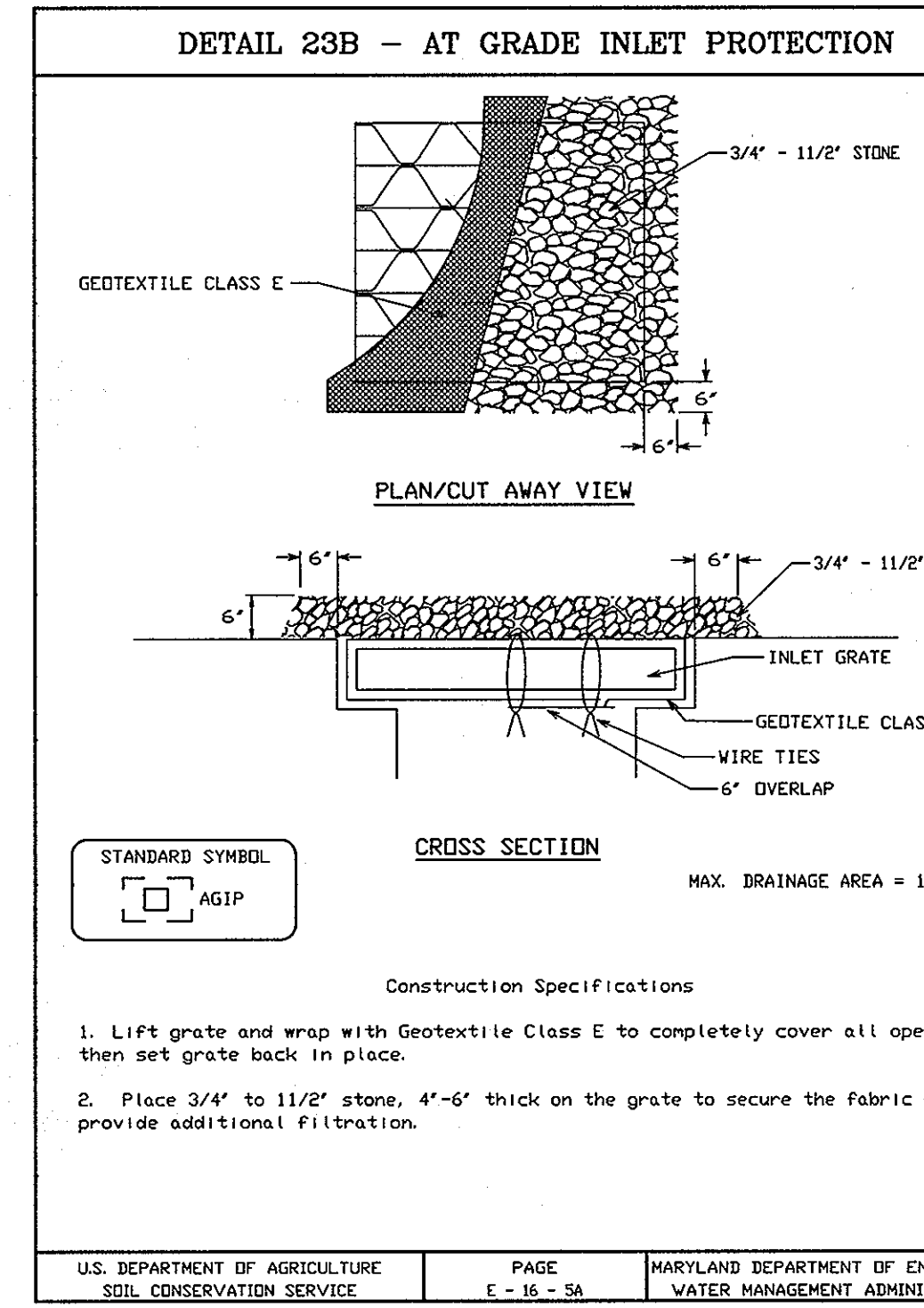
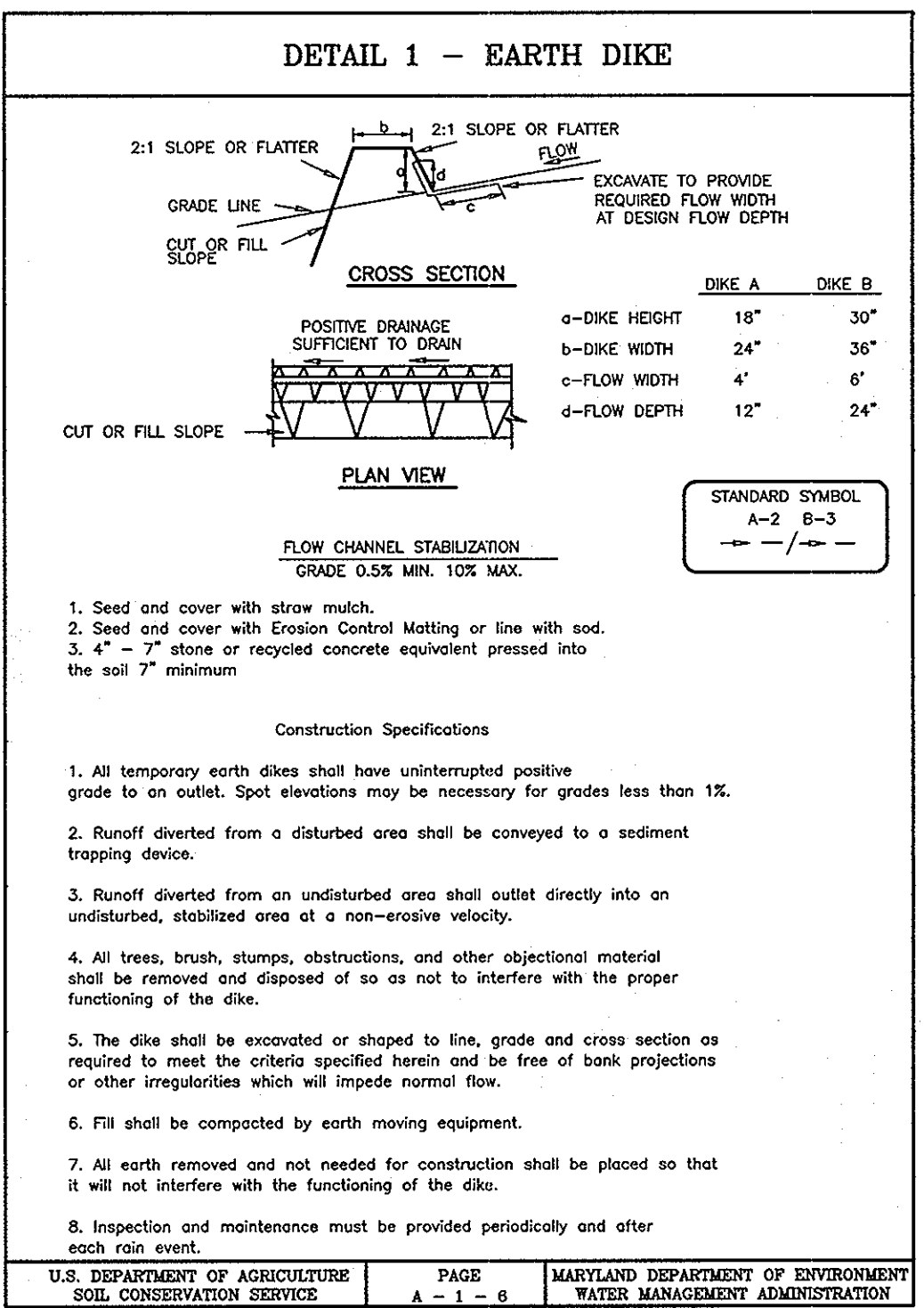
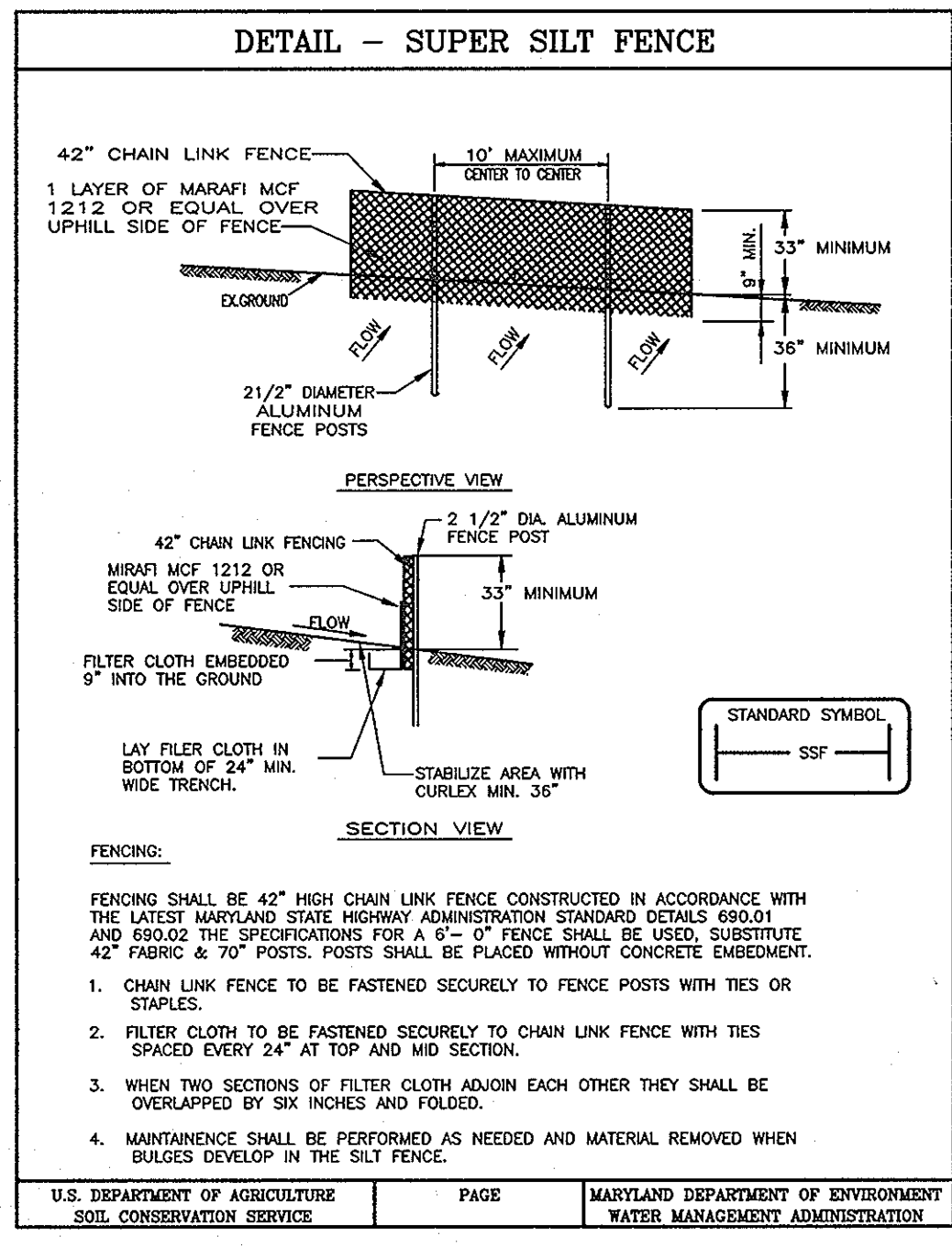
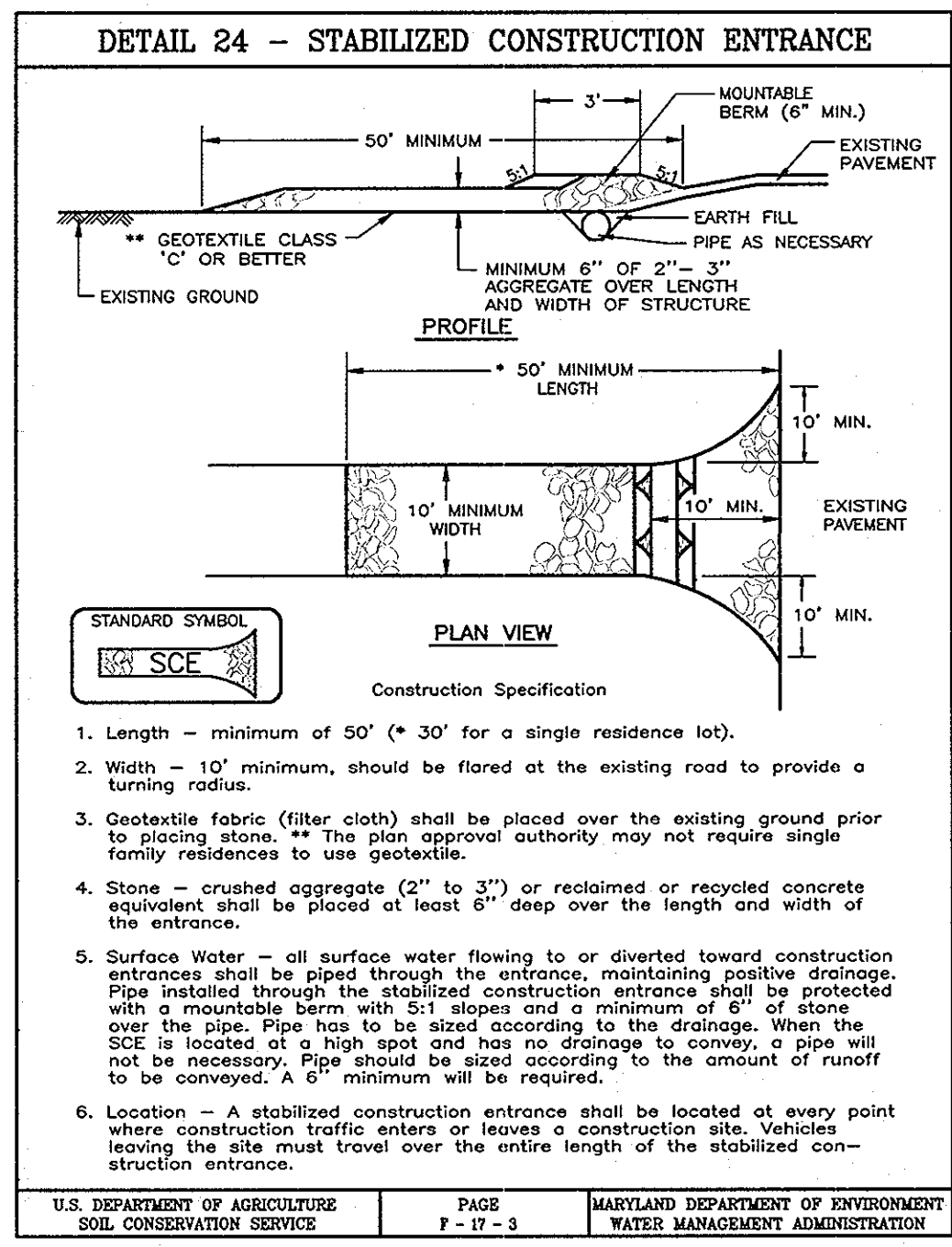
DESIGNED	SCALE
TD/AS/JS	1" = 50'
DRAWN	DRAWING
LAI/CRH2	10 of 12
CHECKED	JOB NO.
AS/JS	02-081
DATE	FILE NO.
10-8-03	02-081

SEDIMENT & EROSION CONTROL PLAN
 LOTS 65 THRU 153 AND
 OPEN SPACE LOTS 154-156
EMERSON 2/2

A RESUBDIVISION OF PARCELS C-1 AND C-2
 TAX MAP 47 PART OF PARCELS 3, 462 & 837
 SIXTH (6TH) ELECTION DISTRICT HOWARD COUNTY, MARYLAND

FOR: THE TROUTMAN COMPANY 8930 RED BRANCH ROAD COLUMBIA, MARYLAND 21045
 BEAZER HOMES 8965 GUILFORD ROAD COLUMBIA, MARYLAND 21046





APPROVED: DEPARTMENT OF PLANNING & ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

CHIEF, DIVISION OF LAND DEVELOPMENT DATE

DIRECTOR DATE

OPEN CHANNEL MAINTENANCE CRITERIA

OPEN CHANNEL SYSTEMS AND GRASS FILTER STRIPS SHOULD BE MOWED AS REQUIRED DURING THE GROWING SEASON TO MAINTAIN GRASS HEIGHTS IN THE 4 TO 6 INCH RANGE.

SEDIMENT BUILD-UP WITHIN THE BOTTOM OF THE CHANNEL OR FILTER STRIP SHALL BE REMOVED WHEN 3" HAS BEEN EXCEEDED.

Reviewed for HOWARD S.C.D. and meets Technical Requirements

John K. Blanton 10-22-03
Signature Date
S. Natural Resources Conservation Service

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

John K. Blanton 10-22-03
Signature Date
HOWARD S.C.D.

21.0 STANDARDS AND SPECIFICATIONS FOR TOPSOIL

Definition
Placement of topsoil over a prepared subsoil prior to establishment of permanent vegetation.

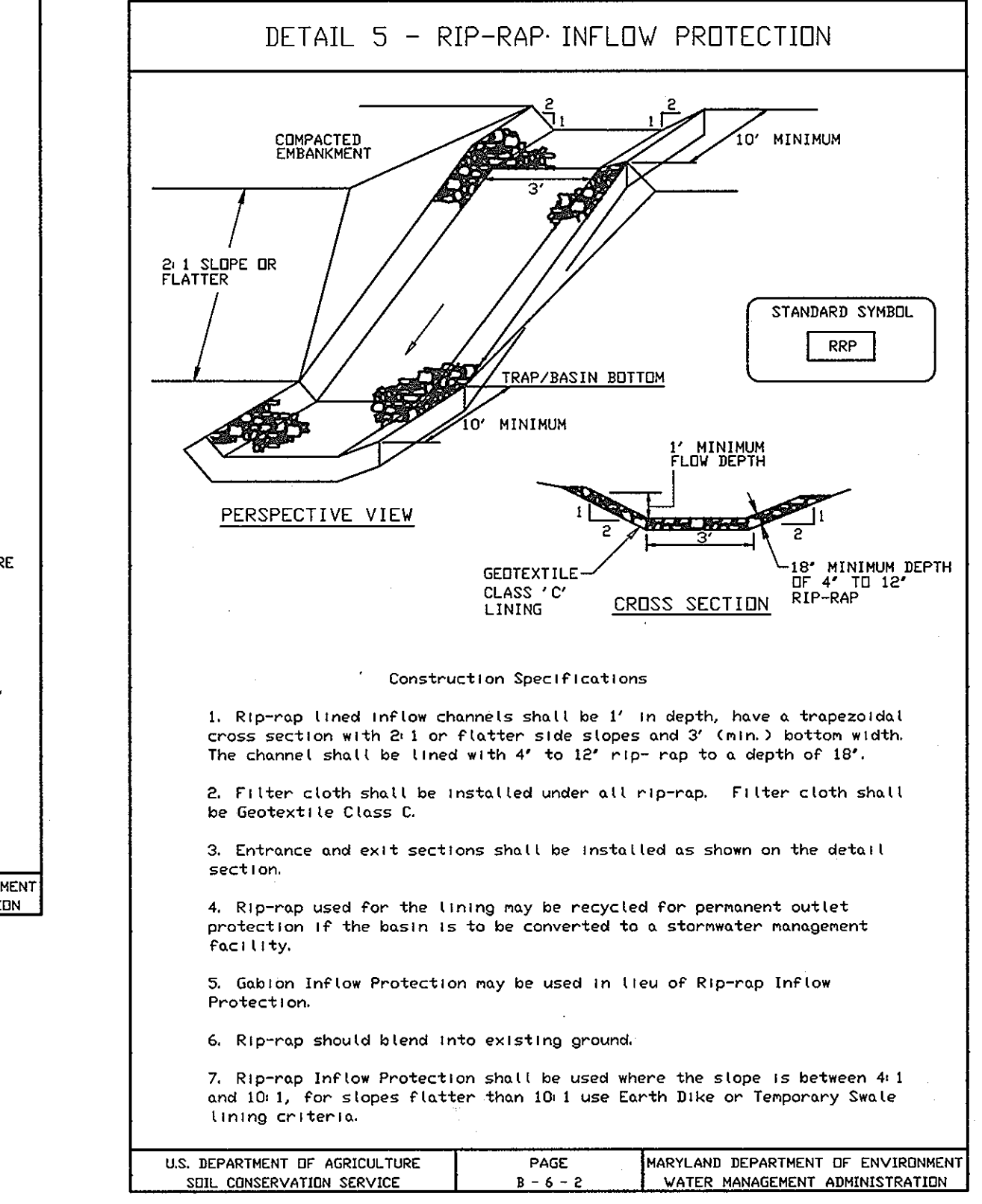
Purpose
To provide a suitable soil medium for vegetable growth. Soils of concern have low moisture content, low nutrient levels, low pH, materials toxic to plants, and/or unacceptable soil gradation.

Conditions Where Practice Applies

- I. This practice is limited to areas having 2:1 or flatter slopes where:
 - The texture of the exposed subsoil/parent material is not adequate to produce vegetative growth.
 - The soil material is so shallow that the rooting zone is not deep enough to support plants or furnish continuing supplies of moisture and plant nutrients.
 - The original soil to be vegetated contains material toxic to plant growth.
 - The soil is so acidic that treatment with limestone is not feasible.
- II. For the purpose of these Standards and Specifications, areas having slopes steeper than 2:1 require special consideration and design for adequate stabilization. Areas having slopes steeper than 2:1 shall have the appropriate stabilization shown on the plans.

Construction and Material Specifications

- I. Topsoil salvaged from the existing site may be used provided that it meets the standards as set forth in these specifications. Typically, the depth of topsoil to be salvaged for a given soil type can be found in the representative soil profile section in the Soil Survey published by USDA-SCS in cooperation with Maryland Agricultural Experiment Station.
- II. Topsoil Specifications - Soil to be used as topsoil must meet the following:
 - Topsoil shall be a loam, sandy loam, clay loam, silt loam, sandy clay loam, loamy sand. Other soils may be used if recommended by an agronomist or a soil scientist and approved by the appropriate approval authority. Regardless, topsoil shall not be a mixture of contrasting textured subsoils and shall contain less than 5% by volume of cinders, stones, slag, coarse fragments, gravel, sticks, roots, trash, or other materials larger than 1 1/2" in diameter.
 - Topsoil must be free of plants or plant parts such as Bermuda grass, quackgrass, Johnsongrass, nutedge, poison ivy, thistle, or others as specified.
 - Where the subsoil is either highly acidic or composed of heavy clays, ground limestone shall be spread at the rate of 4-8 tons/acre (200-400 pounds per 1,000 square feet) prior to the placement of topsoil. Lime shall be distributed uniformly over designated areas and worked into the soil in conjunction with tillage operations as described in the following procedures.
 - For sites having disturbed areas under 5 acres:
 - Place topsoil (if required) and apply soil amendments as specified in 20.0 Vegetative Stabilization - Section I - Vegetative Stabilization Methods and Materials.
 - For sites having disturbed areas over 5 acres:
 - On soil meeting topsoil specifications, obtain test results dictating fertilizer and lime amendments required to bring the soil into compliance with the following:
 - pH for topsoil shall be between 6.0 and 7.5. If the tested soil demonstrates a pH of less than 6.0, sufficient lime shall be prescribed to raise the pH to 6.5 or higher.
 - Organic content of topsoil shall be not less than 1.5 percent by weight.
 - Topsoil having soluble salt content greater than 500 parts per million shall not be used.
 - No sod or seed shall be placed on soil which has been treated with soil sterilants or chemicals used for weed control until sufficient time has elapsed (14 days min.) to permit dissipation of phytotoxic materials.
 - NOTE: Topsoil substituted or amendments, as recommended by a qualified agronomist or soil scientist and approved by the appropriate approval authority, may be used in lieu of natural topsoil.
 - II. Place topsoil (if required) and apply soil amendments specified in 20.0 Vegetative Stabilization - Section I - Vegetative Stabilization Methods and Materials.
 - V. Topsoil Application
 - When topsoiling, maintain needed erosion and sediment control practices such as diversions, Grade Stabilization Structures, Earth Dikes, Slope Silt Fence and Sediment Traps and Basins.
 - Grades on the areas to be topsoiled, which have been previously established, shall be maintained, albeit 4" - 8" higher in elevation.
 - Topsoil shall be uniformly distributed in a 4"-8" layer and lightly compacted to a minimum thickness of 4". Spreading shall be performed in such a manner that sodding or seeding can proceed with a minimum of additional soil preparation and tillage. Any irregularities in the surface resulting from topsoiling or other operations shall be corrected in order to prevent the formation of depressions or water pockets.
 - Topsoil shall not be placed while the topsoil or subsoil is in a frozen or muddy condition, when the subsoil is excessively wet or in a condition that may otherwise be detrimental to proper grading and seeded preparation.



DEVELOPER'S/BUILDER'S CERTIFICATE

"I/We certify that all development and construction will be done according to this plan of development and plan for sediment and erosion control and that all responsible personnel involved in the construction project will have a Certificate of Attendance at a Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I also authorize periodic on-site inspection by the Howard Soil Conservation District or their authorized agents, as are deemed necessary."

Robert H. King 10/9/03
Signature Date
DEVELOPER

G. Nelson Clark 10/9/03
Signature Date
ENGINEER

PERMANENT SEEDING NOTES

APPLY TO GRADED OR CLEARED AREAS NOT SUBJECT TO IMMEDIATE FURTHER DISTURBANCE WHERE A PERMANENT LONG-LIVED VEGETATIVE COVER IS NEEDED.

SEEDBED PREPARATION: Loosen upper three inches of soil by raking, discing or other acceptable means before seeding, if not previously loosened.

SOIL AMENDMENTS: In lieu of soil test recommendations, use one of the following schedules:

- 1) Preferred-Apply 2 tons per acre dolomitic limestone (92 lbs./100 sq.ft.) and 600 lbs. per acre 10-10-10 fertilizer (14 lbs./1000 sq.ft.) before seeding. Harrow or disc into upper three inches of soil. At the time of seeding, apply 400 lbs. per acre 30-0-0 ureaform fertilizer (9 lbs./1000 sq.ft.)
- 2) Acceptable-Apply 2 tons per acre dolomitic limestone (92 lbs./1000 sq.ft.) and apply 1000 lbs. per acre 10-10-10 fertilizer (23 lbs./1000 sq.ft.) before seeding. Harrow or disc into upper three inches of soil.

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

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

MAINTENANCE: Inspect all seeded areas and make needed repairs, replacements and seedings.

TEMPORARY SEEDING NOTES

SEEDBED PREPARATION: Loosen upper three inches of soil by raking, discing or other acceptable means before seeding, if not previously loosened.

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

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

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

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

SEDIMENT AND EROSION CONTROL NOTES

1. A minimum of 48 hours notice must be given to the Howard County Department of Inspections, Licenses and Permits, Sediment Control Division prior to the start of any construction (313-1855).
2. All vegetative and structural practices are to be installed according to the provisions of this plan and are to be in conformance with the 1994 MARYLAND STANDARDS AND SPECS. FOR SOIL EROSION AND SEDIMENT CONTROL and revisions thereto.
3. Following initial soil disturbance or redistribution, 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 all other disturbed or graded areas on the project site.
4. All sediment traps/basins shown must be fenced and warning signs posted around their perimeters in accordance with Vol. I, Chapter 7, of the HOWARD COUNTY DESIGN MANUAL, Storm Drainage.
5. All disturbed areas must be stabilized within the time period specified above, in accordance with the 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for permanent seedings, sod, temporary seeding and mulching (Sec. C). 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:	9,577 Acres
Area Disturbed:	3.58 Acres
Area to be roofed or paved:	5.2 Acres
Area to be vegetatively stabilized:	4,276 Acres
Total Cut:	2,400 CY
Total Fill:	2,100 CY
Offsite Waste/Borrow Area Location:	N/A
8. Any sediment control practice which is disturbed by grading activity for placement of utilities must be repaired on the same day of disturbance.
9. Additional sediment control must be provided, if deemed necessary by the Howard County DPW Sediment Control Inspector.
10. On all sites with disturbed areas in excess of 2 acres, approval of the inspection agency shall be requested upon completion of installation of perimeter erosion and sediment controls, but before proceeding with any other earth disturbance or grading. Other building or grading inspection approvals may not be authorized until this initial approval by the inspection agency is made.
11. Trenches for the construction of utilities shall be backfilled and stabilized within one working day, or is limited to three pipe lengths.
12. The total amount of earth dike = 220 LF
13. The total amount of silt fence = 513 LF
14. The total amount of super silt fence = 1527 LF

CONSTRUCTION SEQUENCE FOR ROADS AND STORM DRAINS:

PHASE	NO. OF DAYS
1. Obtain grading permit.	7
2. Install Stabilized Construction Entrances. Add additional stone as needed to stabilize existing access roads.	2
3. Construct staging area and drives. Access staging area from all three driveways. Clear and grub for sediment control measures.	7
PHASE 2	
4. Construct S-1 and S-2 traps.	3
5. Construct earth dikes, install silt fence and super silt fence.	3
6. With approval of Sediment Control Inspector, install pipes and gabions to S-1 & S-2 traps. If dewatering is required, use filter bag at discharge point.	5
PHASE 3	
7. Construct road fill to elevations on plan, stabilize supporting slopes.	7
8. With approval of Sediment Control Inspector, grade balance site and install utilities, storm drains, install At Grade Inlet Protection on each inlet as constructed.	120
9. Pave road, stabilize disturbed areas. Stabilize buffer areas using appropriate seed mix.	14
10. With approval of sediment control inspector, remove sediment controls, install street trees, and stabilize all disturbed areas.	14

APPROVED: DEPARTMENT OF PUBLIC WORKS

William T. Mahan Jr. 10-28-03
CHIEF, BUREAU OF HIGHWAYS DATE

APPROVED: DEPARTMENT OF PLANNING & ZONING

Cindy Hammett 12/1/03
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

Mark Dammeyer 12/1/03
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

CLARK • FINEFROCK & SACKETT, INC.
ENGINEERS • PLANNERS • SURVEYORS

7135 MINSTREL WAY • COLUMBIA, MD 21045 • (410) 381-7500 BALT. • (301) 621-8100 WASH.

DESIGNED	SCALE
JBS	AS SHOWN
DRAWN	DRAWING
JBS	11 of 12
CHECKED	JOB NO.
JBS	02-081
DATE	FILE NO.
10-8-03	02-081

SEDIMENT AND EROSION CONTROL DETAILS

LOTS 65 THRU 153 AND OPEN SPACE LOTS 154-156

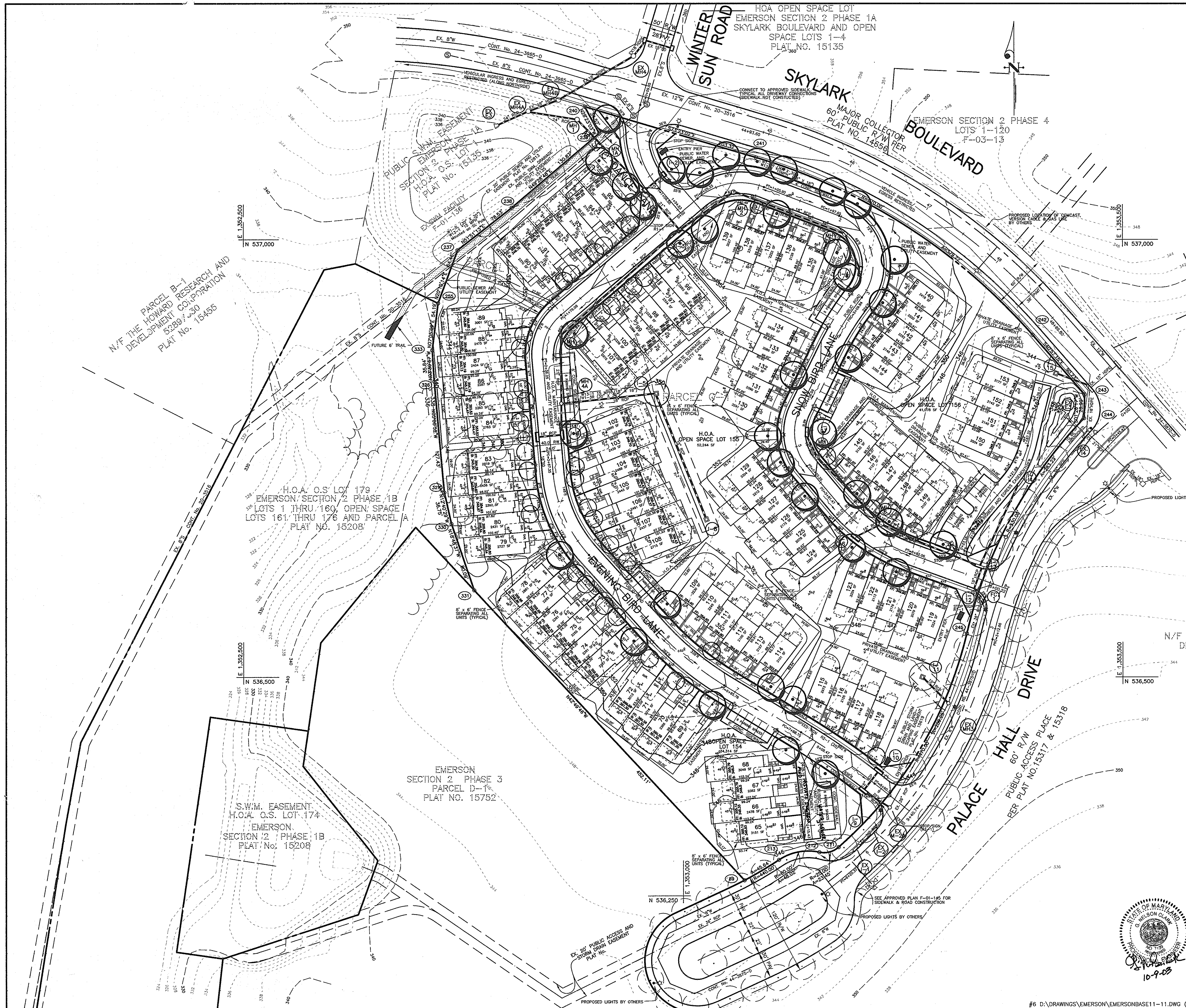
EMERSON 2/2

A RESUBDIVISION OF PARCELS C-1 AND C-2
TAX MAP 47 PART OF PARCELS 3, 462 & 837
SIXTH (6TH) ELECTION DISTRICT HOWARD COUNTY, MARYLAND

FOR: THE TROUTMAN COMPANY 9030 RED BRANCH ROAD COLUMBIA, MARYLAND 21045

BEAZER HOMES 8965 GULFORD ROAD COLUMBIA, MARYLAND 21046

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SCHEDULE A PERIMETER LANDSCAPE EDGE				
KEY	QUANTITY	PLANT NAME	SIZE	REMARKS
	39	ZELKOVA SERRATA "GREEN VASE" GREEN VASE ZELKOVA	2 1/2-3" CAL	B & B HEAVY
	37	PRUNUS OKAME OKAME CHERRY	2 1/2-3" CAL	

- NOTES**
- Street tree locations shown are tentative and are to be used for bond purposes only. The final location and variety of trees may vary to accommodate field conditions and builder landscape program.
 - Final landscape plant materials and locations is subject to approval by the Architectural Committee.
 - Landscape planting is prohibited in any public easements.
 - This plan has been prepared in accordance with the provisions of Section 16.124 of the Howard County Code, The Landscape Manual and the Development Criteria approved by the Planning Board on July 1, 1999 per Case No. P.B. 339.
 - Street trees shall be planted a minimum of five (5) feet from storm drain, waterline or sewer pipe manholes; also a minimum of twenty (20) feet from street lights.
 - Street Tree & Landscape Bonding
 - Final location of street trees and design of required internal landscaping and buffers shall be prepared in accordance with The Landscape Manual and the Development Criteria approved by the Planning Board on July 1, 1999 and shall be specified, approved and bonded under the builder's site and landscape plans.
 - Street trees shown are for bond purposes only and are included in the cost estimate and engineering fee submitted with these road construction plans.
 - Perimeter landscaping and Residential Internal landscaping requirements will be addressed on the site development plan.

LEGEND

- 262 EXISTING CONTOUR
- 260 PROPOSED CONTOUR
- EX. TREES
- EX. STREAM
- STOP SIGN
- DIRECTION OF FLOW
- STREET LIGHT
- SHADE TREES
- FLOWERING TREES
- EXISTING SHADE TREES PER F-01-145

N/F THE HOWARD RESEARCH AND DEVELOPMENT CORPORATION
5288/330

APPROVED: DEPARTMENT OF PUBLIC WORKS

William T. Mahan 10-28-02
CHIEF, BUREAU OF HIGHWAYS *ms* DATE

APPROVED: DEPARTMENT OF PLANNING & ZONING

Cindy Khamis 12/3/03
CHIEF, DIVISION OF LAND DEVELOPMENT *rb* DATE
M. D. ... 12/1/03
CHIEF, DEVELOPMENT ENGINEERING DIVISION *MK* DATE

CLARK • FINEFROCK & SACKETT, INC.
ENGINEERS • PLANNERS • SURVEYORS

DESIGNED TD/AS/JS	LANDSCAPE PLAN LOTS 65 THRU 153 AND OPEN SPACE LOTS 154-156 EMERSON 2/2	SCALE 1" = 50'
DRAWN LA/CRH2		12 of 12
CHECKED AS/JS	A RESUBDIVISION OF PARCELS C-1 AND C-2 TAX MAP 47 PART OF PARCELS 3, 462 & 837 SIXTH (6TH) ELECTION DISTRICT HOWARD COUNTY, MARYLAND	JOB NO. 02-081 02-082
DATE 10-8-03	FOR: THE TROUTMAN COMPANY 9030 RED BRANCH ROAD COLUMBIA, MARYLAND 21045	BEAZER HOMES 8965 GUILFORD ROAD COLUMBIA, MARYLAND 21046
		FILE NO. 02-081

