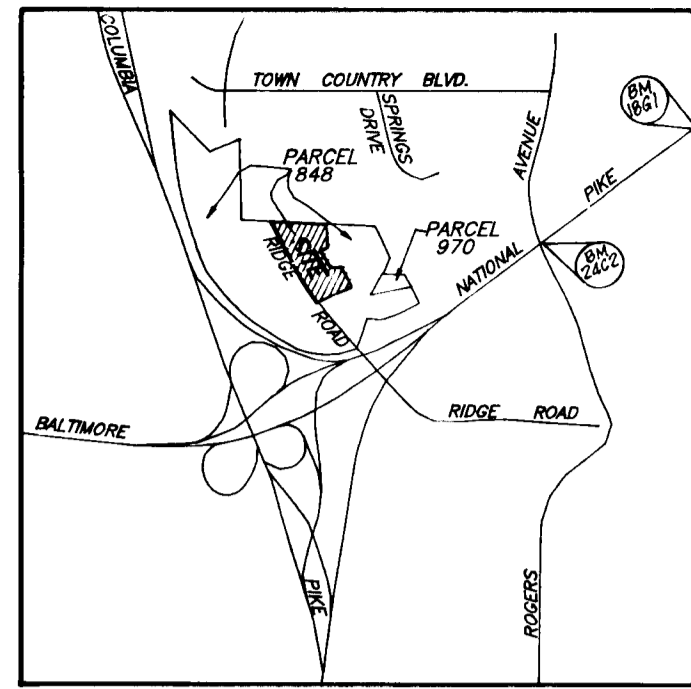
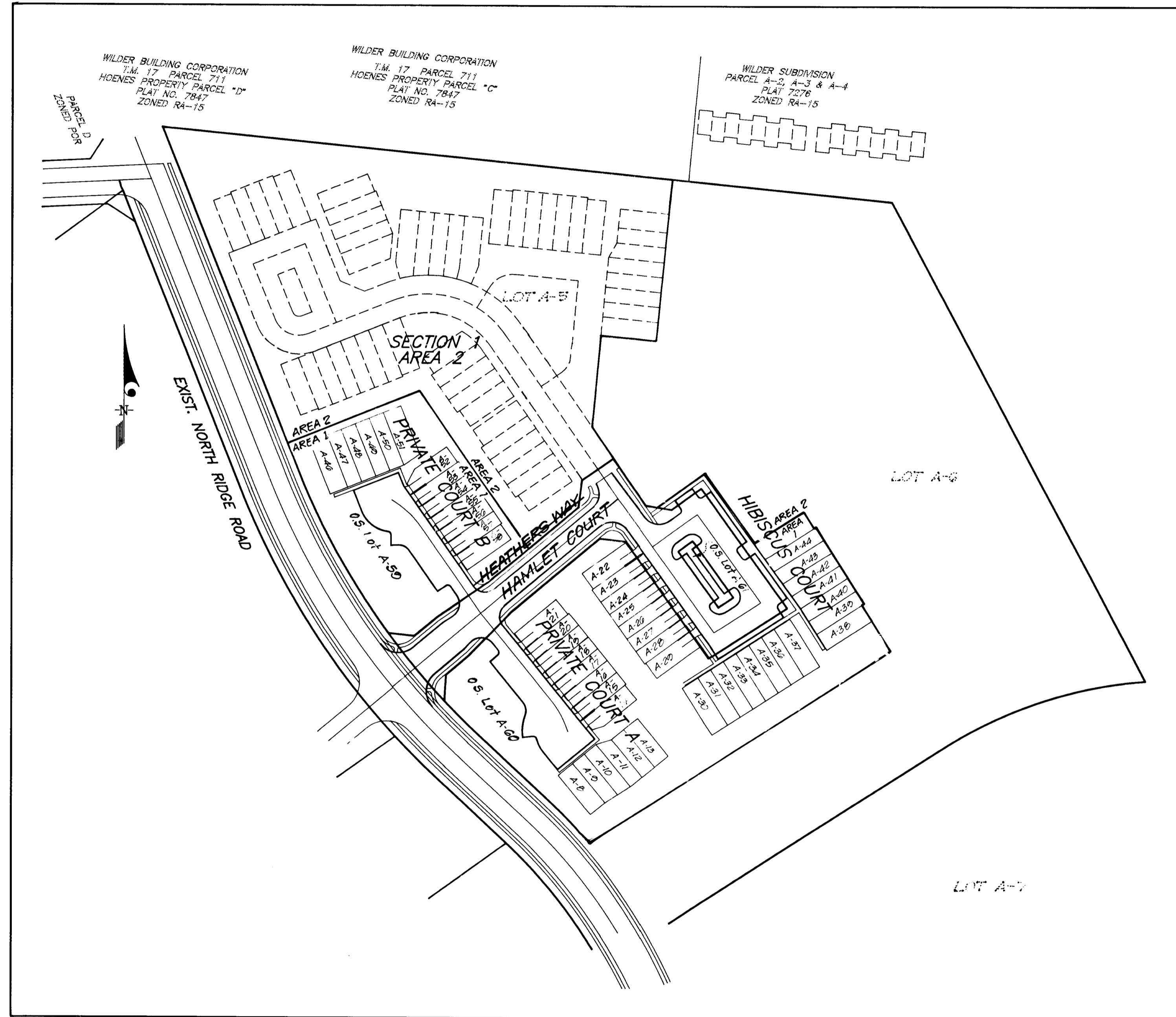


ROAD CONSTRUCTION PLANS HOWARDS RIDGE SECTION 1 AREA 1 SECOND (2nd) ELECTION DISTRICT HOWARD COUNTY, MARYLAND



VICINITY MAP
SCALE 1"=2.00'



GENERAL NOTES:

1. All construction shall be in accordance with the latest standards and specifications of Howard County plus MSHA standards and specifications, if applicable.
2. The contractor shall notify the Department of Public Works/Bureau of Engineering, Construction Inspection Division at (410) 313-1870 at least five (5) working days prior to the start of work.
3. The contractor shall notify "Miss Utility" at 1-800-257-7777 at least 48 hours prior to any excavation work.
4. Project Background:
Zoning: R-A-15
Total Tract Area: 21.80 ac.
Number of Proposed lots: 51 Buildable, 3 Open Space, and 3 non-buildable.
Design Speed: 30 MPH (Heathers Way), 25 MPH (Hibiscus Court)
5. Date Preliminary Plan approved and DPZ Reference file#: October 17, 1995 SP-96-01.
6. Topography, at 2' intervals is based on the mass grading shown on SDP-96-01, aerial survey dated Oct. 1986 and by Howard County 200 scale topography maps.
7. Public water and sewer is to be utilized. Contract number for F-96-01 is 14-3453, site drainage area is the Patapsco.
8. All utilities shown were compiled from available records.
9. Street trees in accordance with Subdivision and Land Development Regulations, Section 16.124.
10. A wetland study was performed by Reimer, Muegge & Associates Inc. on November, 1993 per P-95-21.
11. Sag and Crest Vertical Curves were designed in accordance with Howard County Design Manual Vol. III.
12. Trench compaction for storm drains within the road or street rights of way limits shall be in accordance with Howard County Design Manual Vol. IV, Std. No. G-2.01.
13. Storm Water Management is provided off-site for quality and quantity control in the Extended Detention SWM Facility approved under SDP-96-01. The SWM Facility will be privately maintained.
14. See previous county files S-95-01, ZB-941, Dated 10-18-93, F-85-57, P-95-21, F-96-01, SP-96-01.
15. APFO study as previously submitted and approved under S-95-01.
16. Traffic study prepared for the site by the Traffic Group, Inc., Dated October 19, 1995, Per S-95-01.
17. Geotechnical report by Hillis Carnes, Inc. dated 11-15-94. Addendum dated 5-26-95. Approved 6-23-95.
18. Coordinates based on NAD '83 Maryland Coordinate System as projected by Howard County Geodetic Control Stations:
No. 18G1 Elev. 408.54
No. 24C2 Elev. 354.93
19. Street lights will be required in this 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 spacing of 20' shall be maintained between any street light and any tree.
20. All fillet radii are 5 ft. unless indicated otherwise.
21. Provide Handicap Ramps where shown in plan. See Howard County Std. Detail R-4.01, R-4.02, and R-4.03.
22. See sheet 3 for planting details and bonding requirements

STREET LIGHT SUMMARY TABLE

STREET NAME	STATION/LOCATION	LIGHT TYPE
NORTH RIDGE ROAD	9+90, 26' RT	150-WATT HPS VAPOR PENDANT FIXTURE (CUT OFF) MOUNTED ON A 30 FOOT GALVANIZED STEEL POLE
HAMLET COURT		
CT. HEATHERS WAY	1+84, 15' LT	100-WATT "TRADITIONAIRE" HPS VAPOR POST TOP FIXTURE ON A 14 FOOT BLACK FIBERGLASS POLE.
HEATHERS WAY	3+64, 17' LT	
HIBISCUS COURT	0+21, 22' RT	
HIBISCUS COURT	1+96, 22' RT	

COVER SHEET

No.	DESCRIPTION
1	COVER SHEET HAMLET COURT
2	PROFILES - FOR HEATHERS WAY AND PRIVATE COURTS A & B
3	PROFILE - FOR HIBISCUS COURT
4	STORM DRAIN PROFILES
5	STORM DRAIN AND PAVING DETAILS
6	DRAINAGE AREA MAP
7	SEDIMENT EROSION CONTROL AND GRADING PLAN
8	SEDIMENT EROSION CONTROL DETAILS

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

Andrew M. Casale
CHIEF, BUREAU OF HIGHWAYS
DATE: 8-14-96

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

Chitra Swaminathan
CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH
DATE: 8/19/96
[Signature]
CHIEF, DEVELOPMENT ENGINEERING DIVISION
DATE: 8/18/96

DEVELOPER / OWNER
M-10 RESIDENTIAL LAND DEVELOPMENT, INC.
1205 YORK ROAD, PENTHOUSE
LUTHERVILLE, MARYLAND 21093
PHONE: (410)-825-8400



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

7135 MINSTREL WAY • COLUMBIA, MD. 21046 • (410) 381-7500 - BALTO. • (301) 621-8100 - WASH.

DESIGNED Z.A.L.	COVER SHEET LOTS A-5 THRU A-61 A RESUBDIVISION OF PARCEL A-3, HOENES PROP. HOWARDS RIDGE SECTION 1 AREA 1 TAX MAP 24 PARCEL 848 SECOND (2nd) ELECTION DISTRICT HOWARD COUNTY, MARYLAND	SCALE 1"=100'
DRAWN Z.A.H.		DRAWING 1 OF 8
CHECKED gds		JOB NO. 95-050
DATE 7-19-96		FILE NO. 95-050-D

0287

CURB & GUTTER LEGEND
 Modified Combination Curb & Gutter
 Standard 7" Combination Curb & Gutter
 Reversed 7" Combination Curb & Gutter
 Standard 6" Combination Curb & Gutter
 Reversed 6" Combination Curb & Gutter

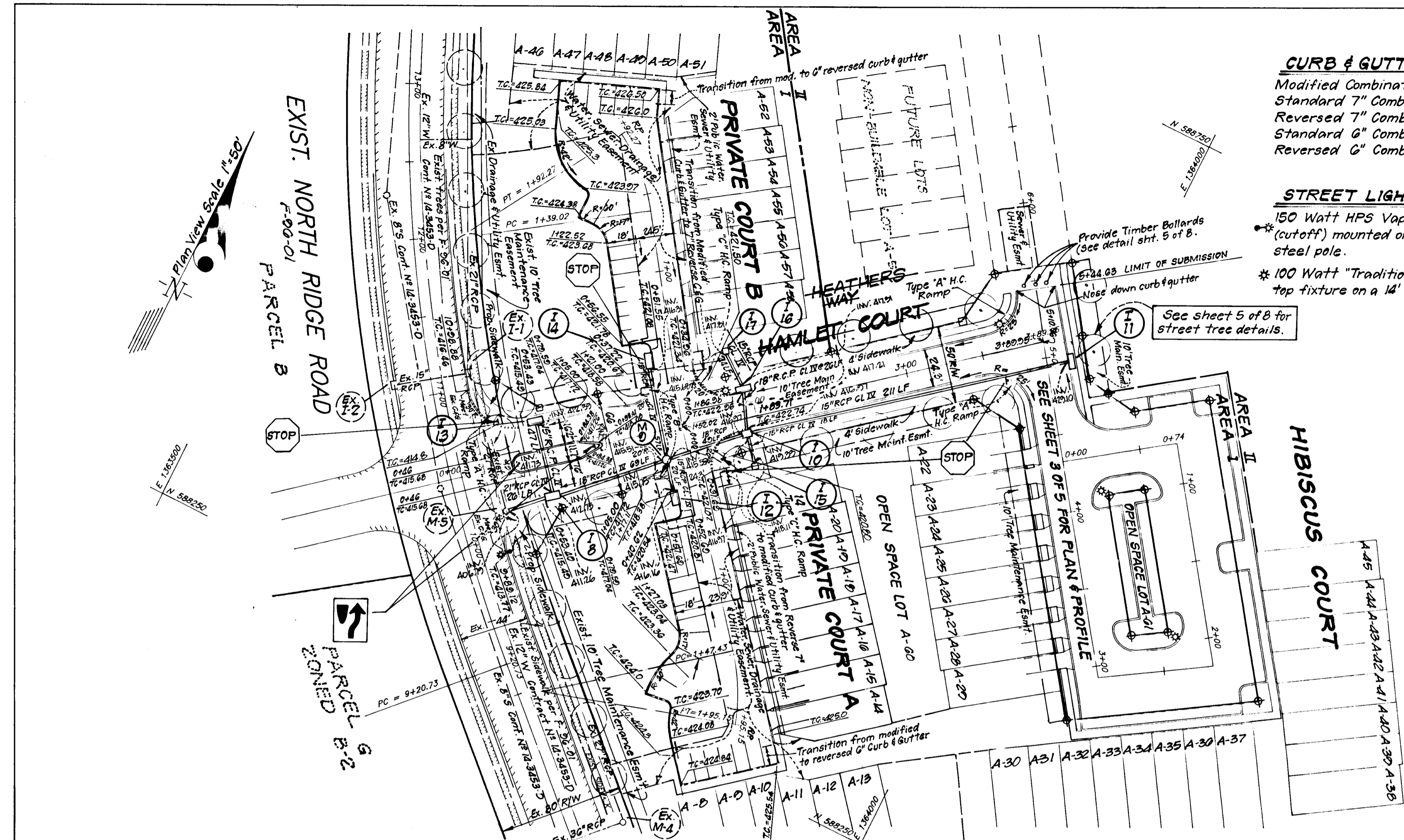
STREET LIGHT LEGEND
 50 Watt HPS Vapor Pendant Fixture (cutoff) mounted on a 30' galvanized steel pole.
 * 100 Watt "Traditionaire" HPS Vapor Post top fixture on a 14' black fiberglass pole.

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
Richard D. Decker 8-14-96
 CHIEF, BUREAU OF HIGHWAYS
 DATE

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING
John J. Williams 8/19/96
 CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH
 DATE

CLARK • FINEFROCK & SACKETT, INC.
 ENGINEERS • PLANNERS • SURVEYORS
 7135 MINISTREL WAY • COLUMBIA, MD 21045 • (301) 381-7500 • BALTO • (301) 671-8100 • WASH

DESIGNED: Z.A.L. SCALE: AS SHOWN
 DRAWN: Z.A.H. DRAWING: 2 OF 8
 CHECKED: J.S.S. JOB NO: 95-050
 DATE: 7-19-96 FOR: M-10 RESIDENTIAL LAND DEVELOPMENT, INC. PHONE: (410)-825-8400
 1205 YORK ROAD, FENTON, MARYLAND 21083 95-050-D

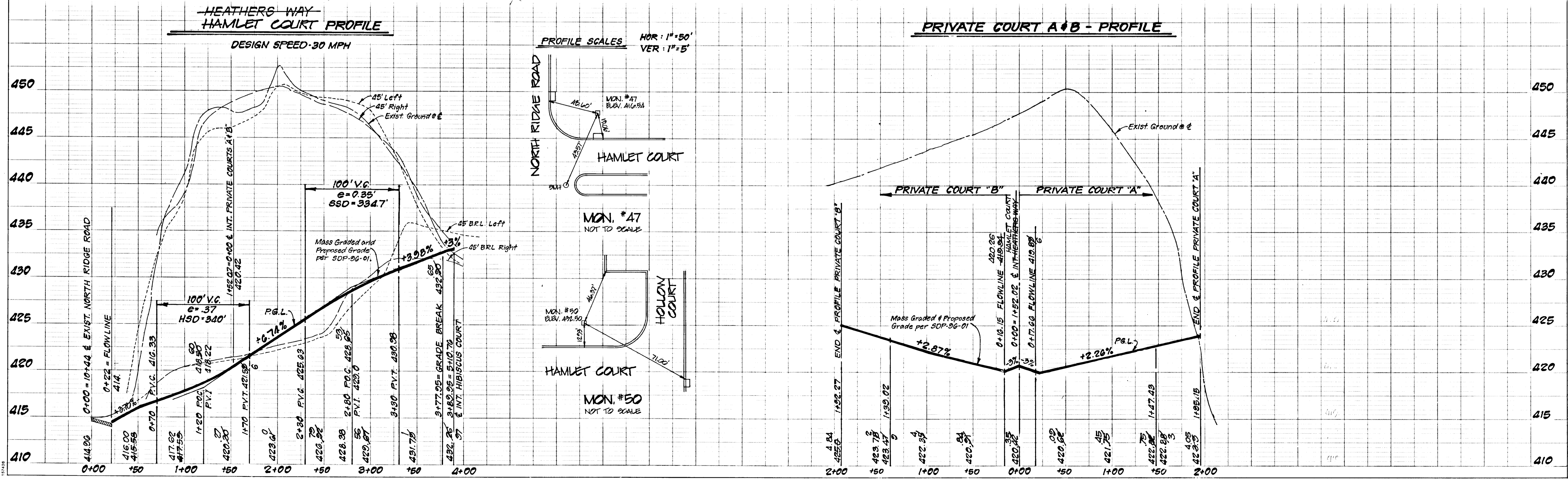


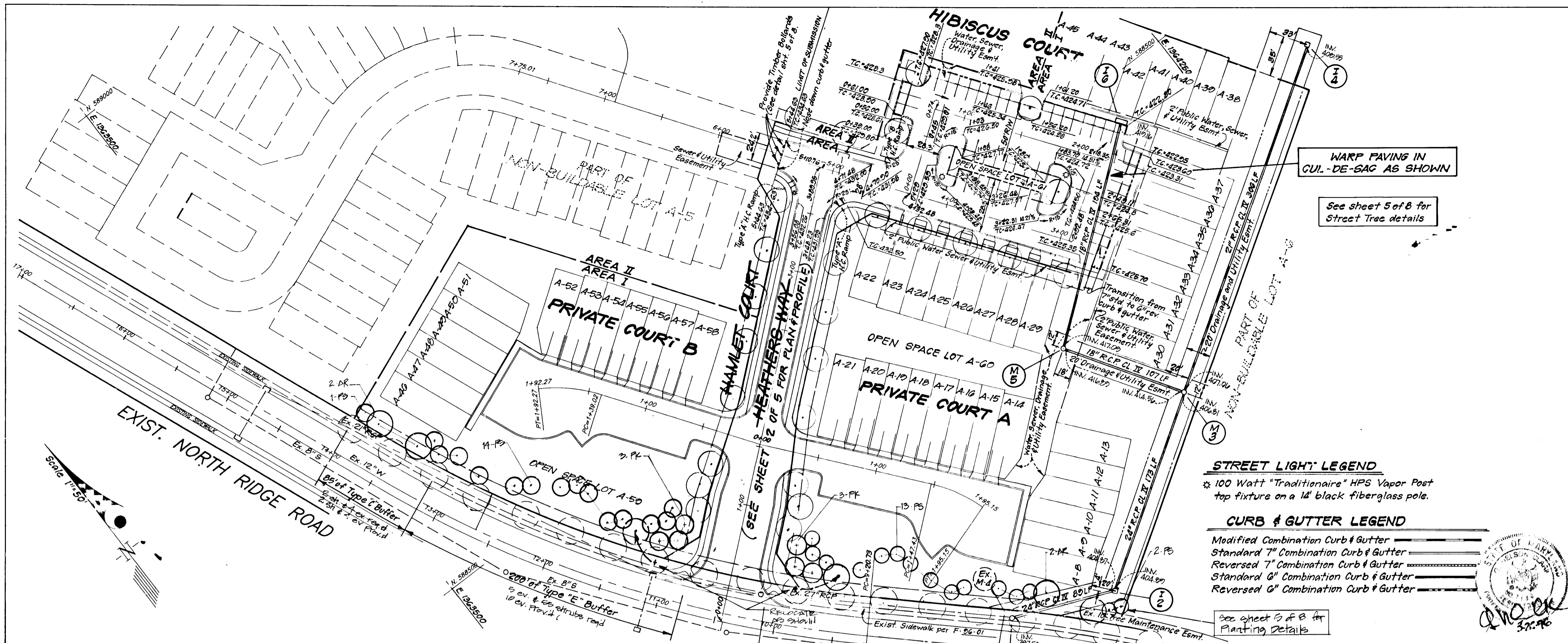
⊕ = R.C.C. (C&G) UNLESS NOTED OTHERWISE
 □ = CONCRETE MONUMENT SET

CENTERLINE CURVE DATA FOR PRIVATE COURTS A & B

PC Sta to PT Sta	Radius	Delta	Arc	Tan	Chord	Bearing
1+47.43 to 1+35.15	125.0'	21°52'23"	47.72'	24.16'	47.43'	S 28°22'45" E
1+35.02 to 1+52.27	125.0'	24°24'33"	53.25'	27.64'	52.85'	N 47° 01' 16" W

8281





APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
Andrew M. Daniels 8-14-96
 CHIEF, BUREAU OF HIGHWAYS 1/3 DATE

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING
Uma J. Williams 8/19/96
 CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH 3/ DATE

DEVELOPMENT ENGINEERING DIVISION 1/3/96 DATE

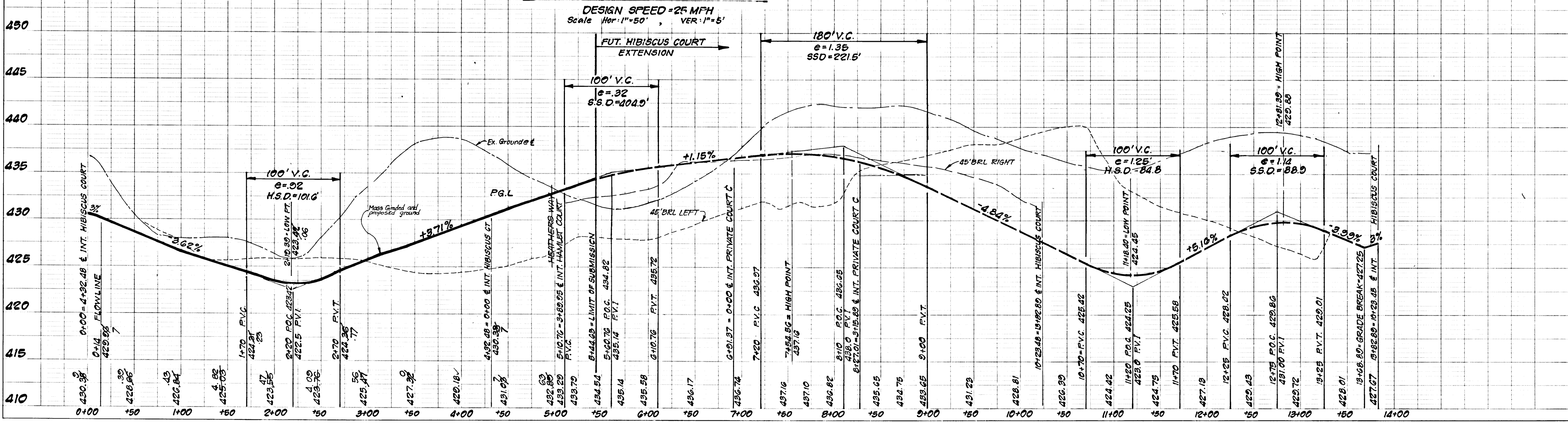
CLARK • FINEROCK & SACKETT, INC.
 ENGINEERS • PLANNERS • SURVEYORS
 7135 MINSTREL WAY • COLUMBIA, MD 21045 • (301) 381-7500 • BAL TO • (301) 671-8100 • WASH

DESIGNED: Z.A.L. SCALE: AS SHOWN
 DRAWN: Z.A.H. DRAWING: 3 OF 8
 CHECKED: J.L.S. JOB NO: 95-050
 DATE: 7-19-96 FOR: 14-10 RESIDENTIAL LAND DEVELOPMENT, INC. PHONE: (410)-825-8400
 1205 YORK ROAD, FENTON, MARYLAND 21093 95-050-D

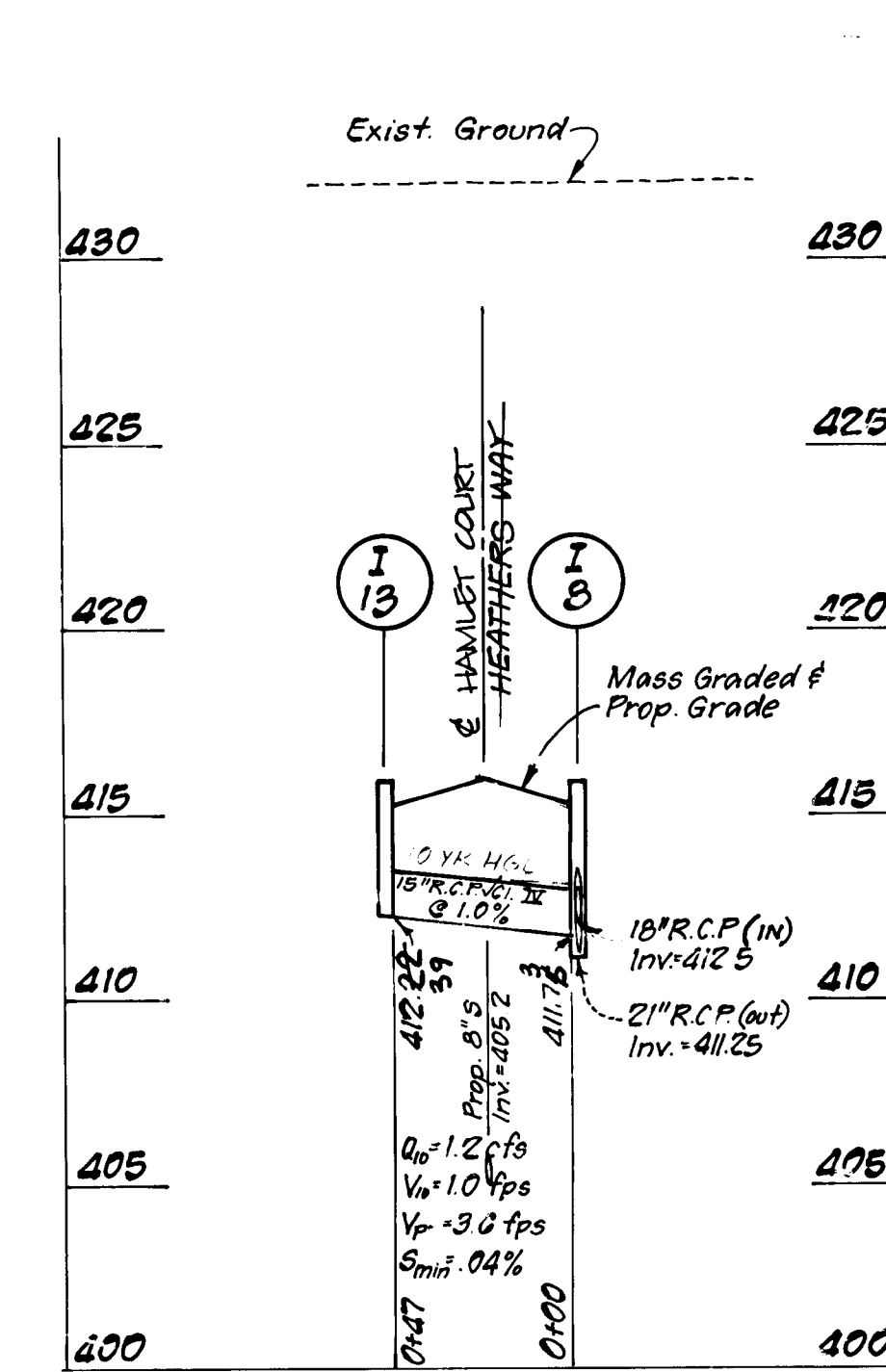
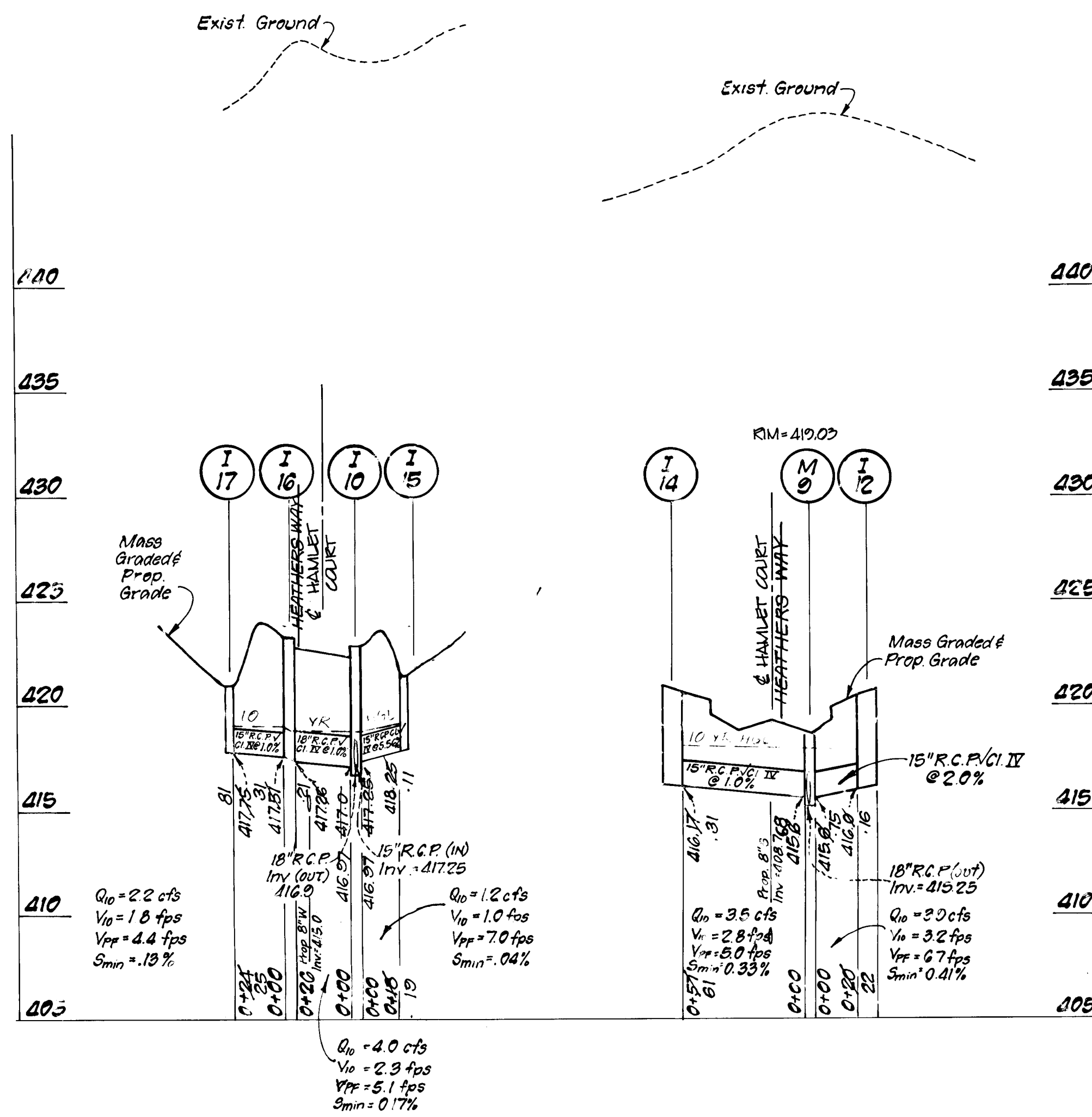
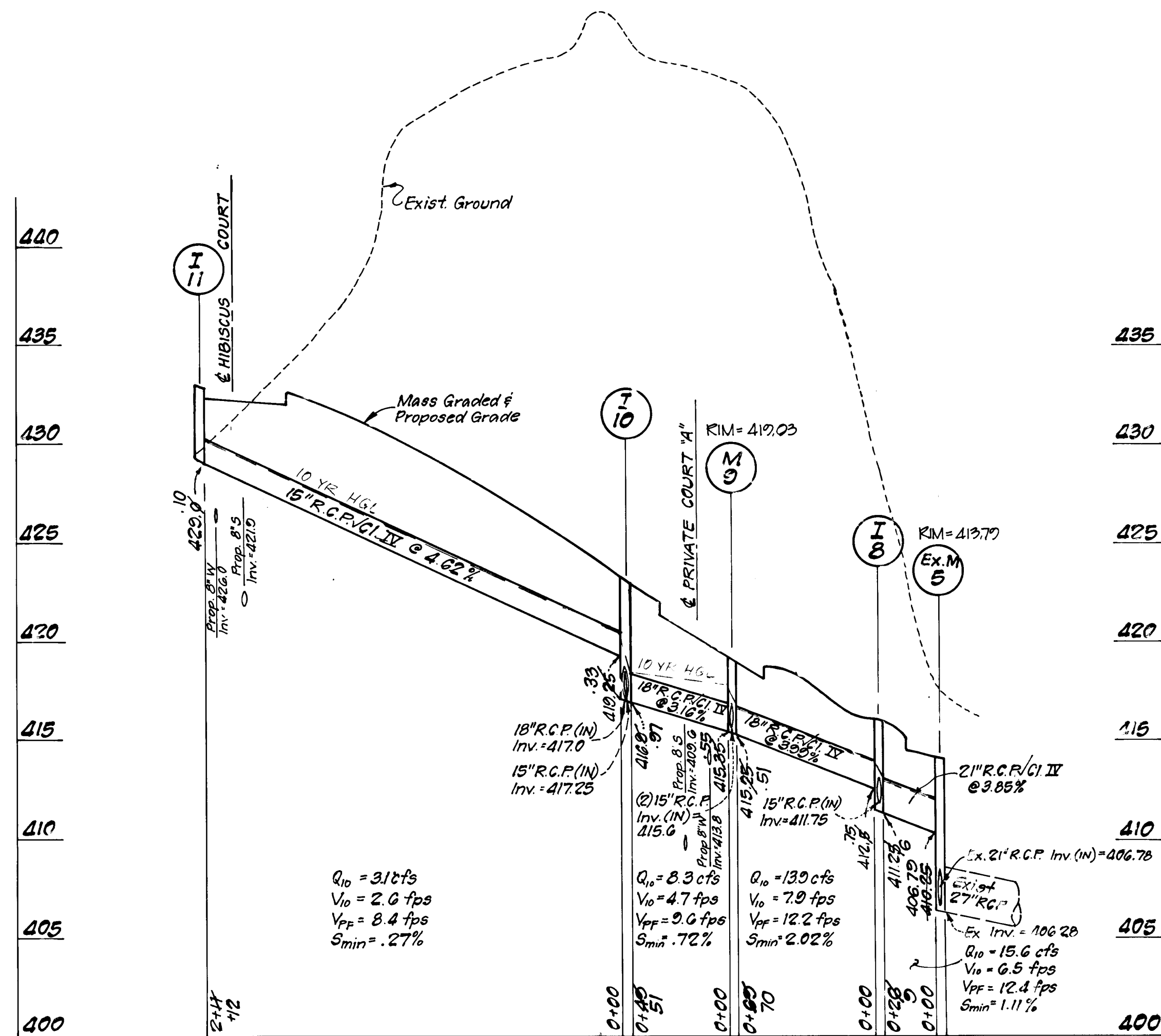
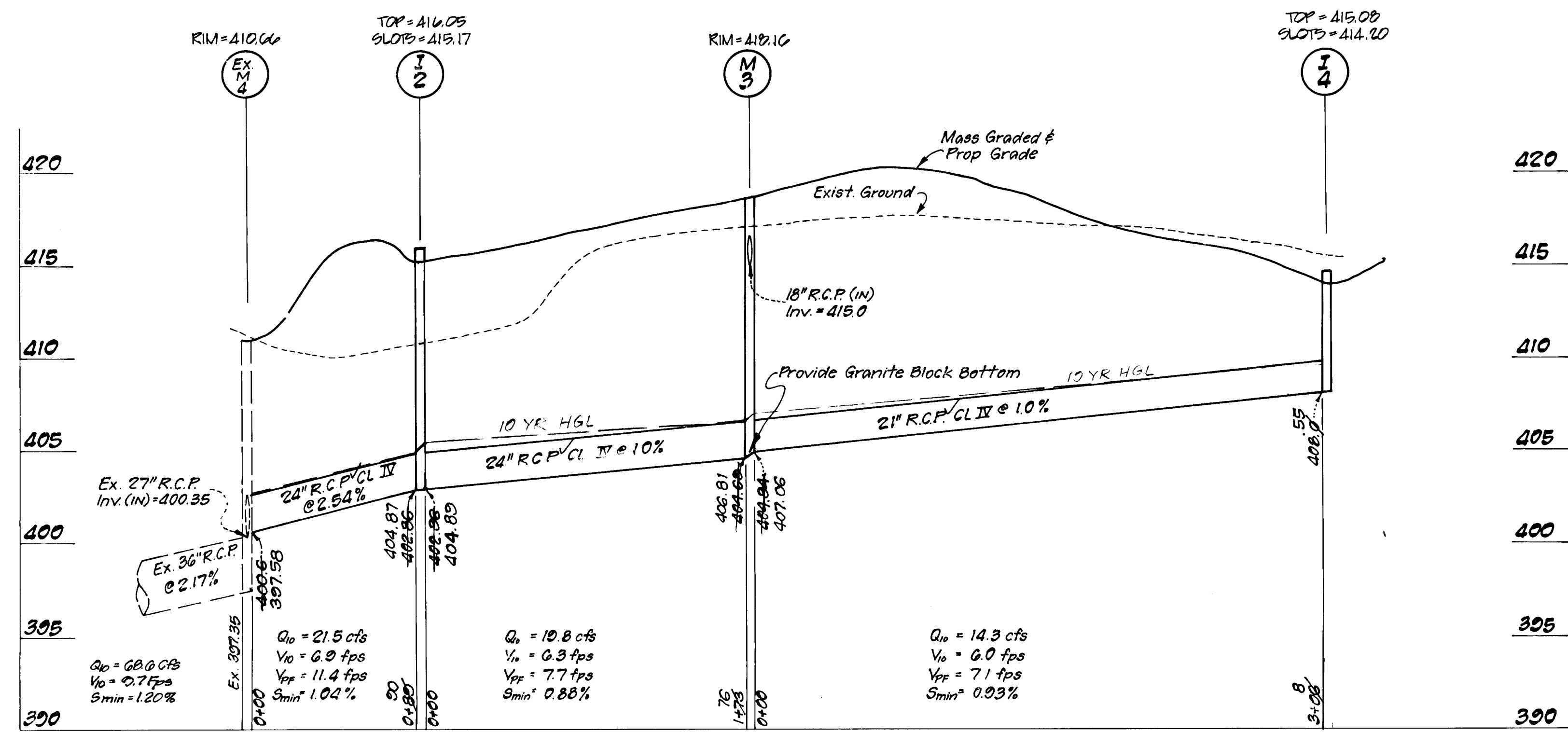
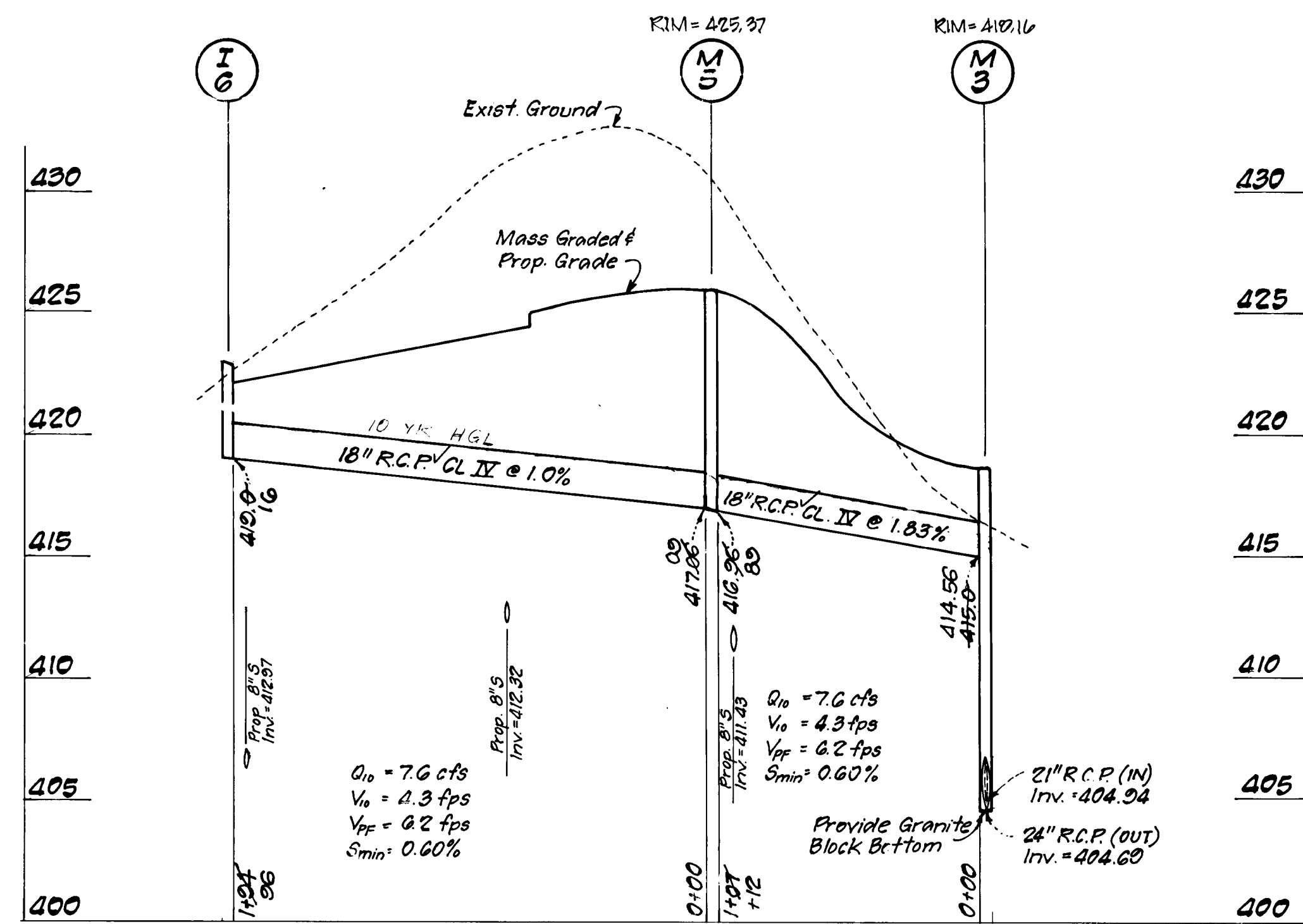
PROFILE
 HIBISCUS COURT
HOWARDS RIDGE
 SECTION 1 AREA 1
 TAX MAP 24 PARCEL 848
 SECOND (2nd) ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

- STREET LIGHT LEGEND**
- 100 Watt "Traditionaire" HPS Vapor Post top fixture on a 14' black fiberglass pole.
- CURB & GUTTER LEGEND**
- Modified Combination Curb & Gutter
 - Standard 7" Combination Curb & Gutter
 - Reversed 7" Combination Curb & Gutter
 - Standard 8" Combination Curb & Gutter
 - Reversed 8" Combination Curb & Gutter

PROFILE - HIBISCUS COURT



1828



APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
Richard M. Daniels 8-19-96
 CHIEF, BUREAU OF HIGHWAYS DATE

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING
John J. Jankowski 8/19/96
 CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH DATE

APPROVED: *[Signature]* 8/19/96
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

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

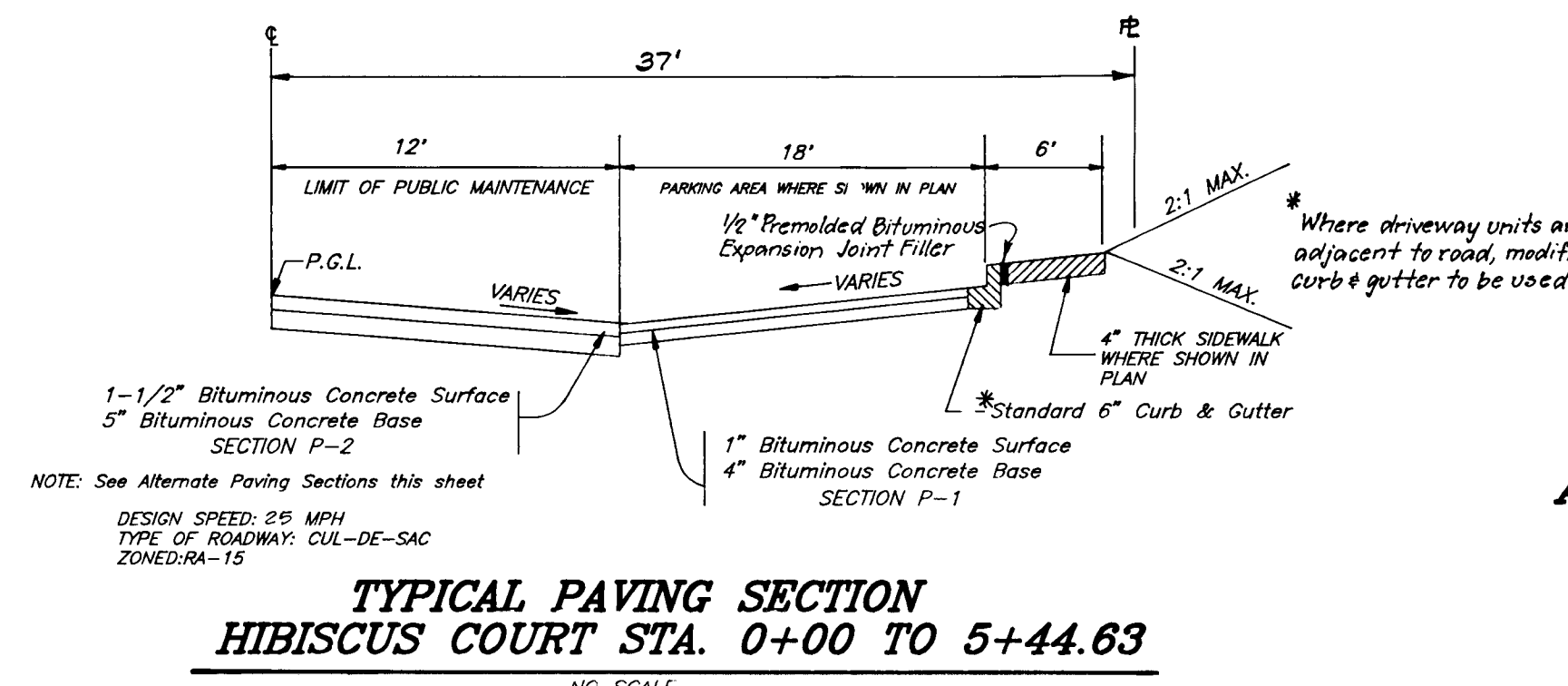
DESIGNED: Z.A.L.
 DRAWN: Z.A.H.
 CHECKED: *[Signature]*
 DATE: 7-19-96

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 VER: 1"=5'

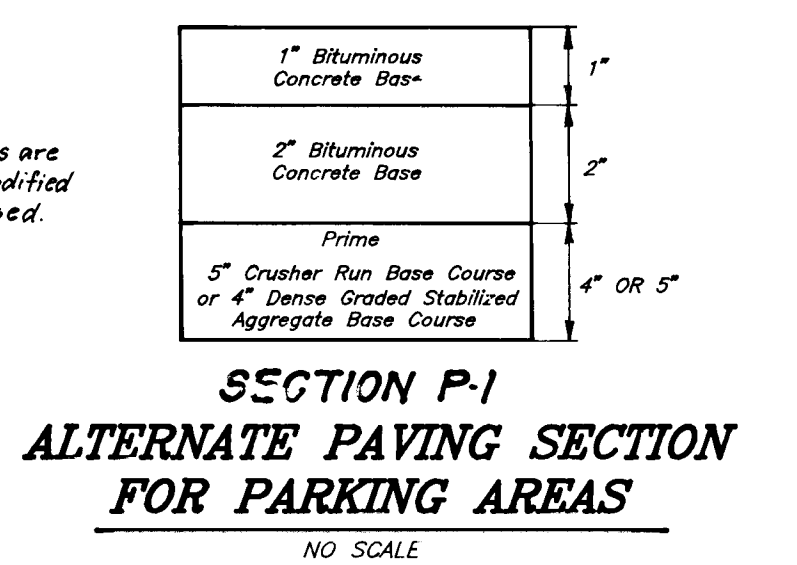
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 JOB NO.: 95-050
 FILE NO.: 95-050-D

STORM DRAIN PROFILES
HOWARDS RIDGE
 SECTION 1 AREA 1
 TAX MAP 24 PARCEL 848
 SECOND (2nd) ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

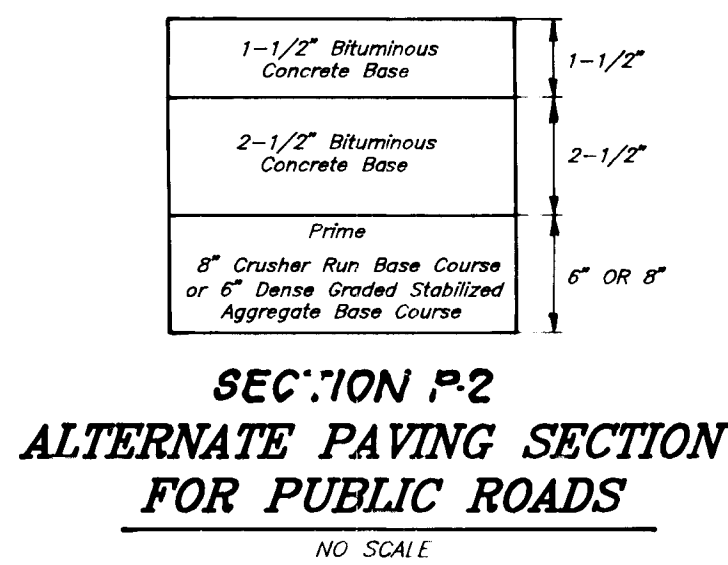
FOR: M-10 RESIDENTIAL LAND DEVELOPMENT, INC.
 1305 YORK ROAD, PENTHOUSE
 LUTHERVILLE, MARYLAND 21093
 PHONE: (410) 825-8400



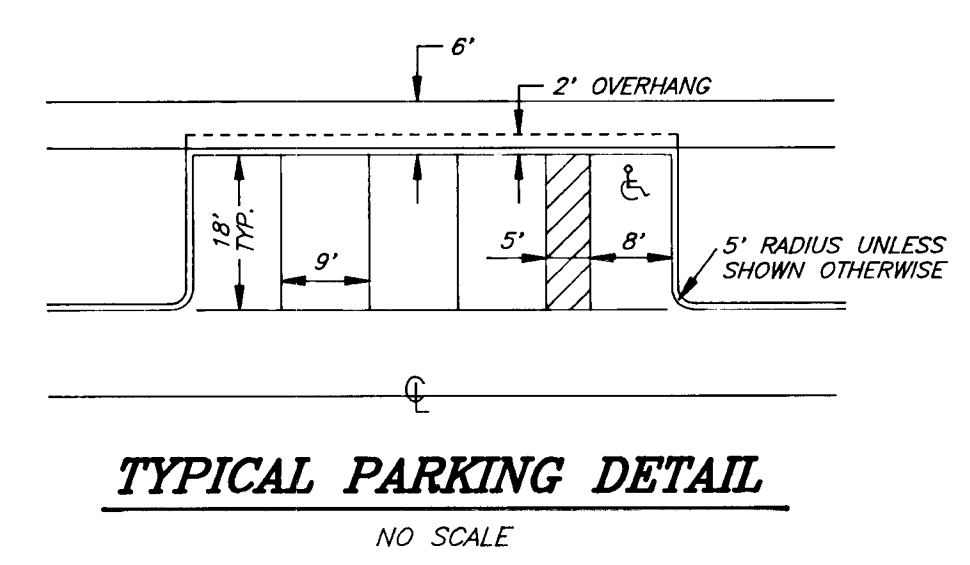
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HIBISCUS COURT STA. 0+00 TO 5+44.63**
NO SCALE



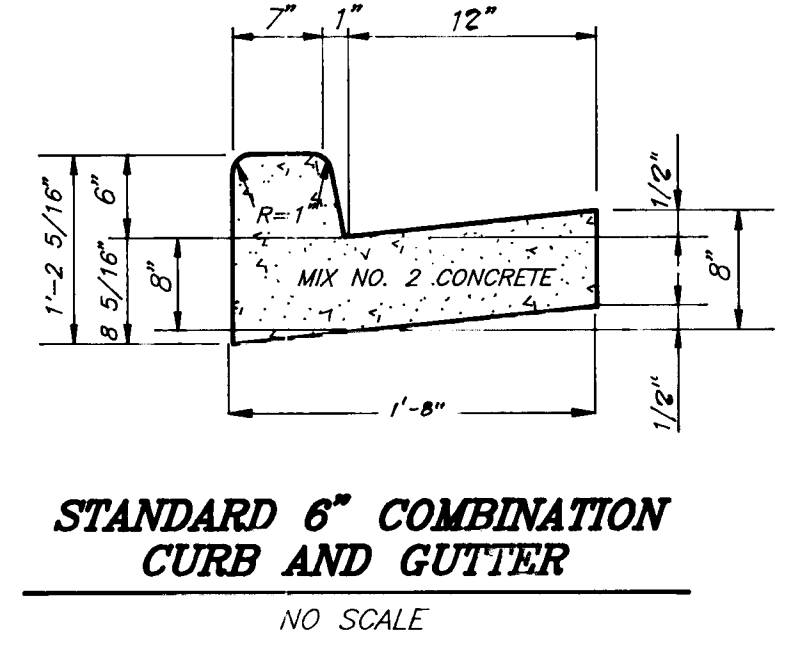
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ALTERNATE PAVING SECTION
FOR PARKING AREAS**
NO SCALE



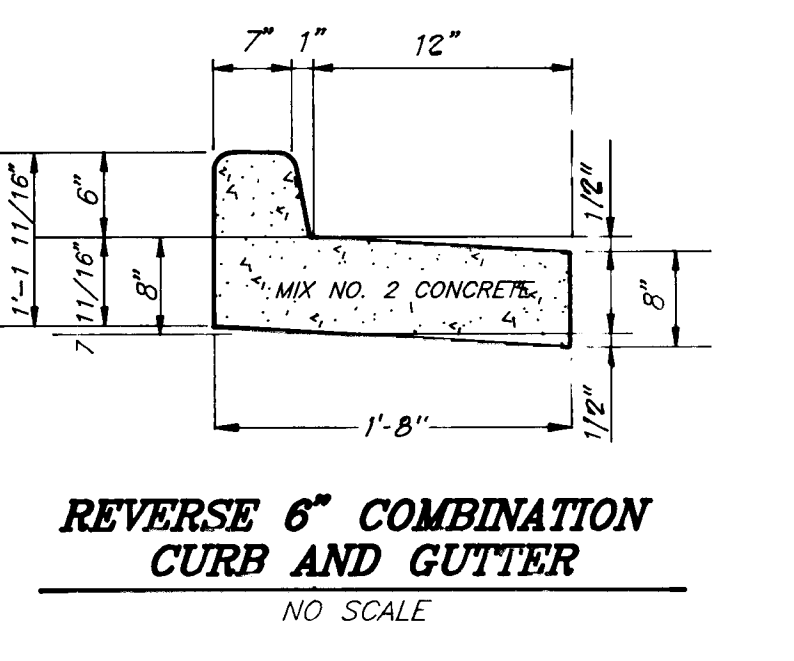
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ALTERNATE PAVING SECTION
FOR PUBLIC ROADS**
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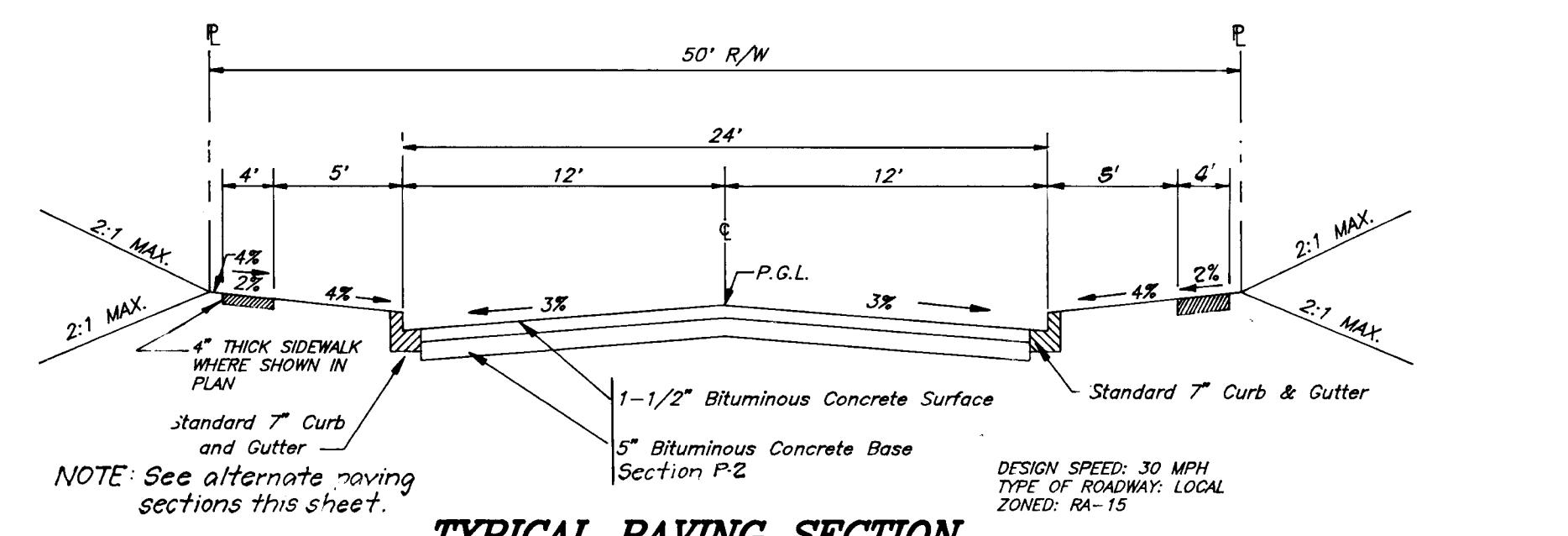
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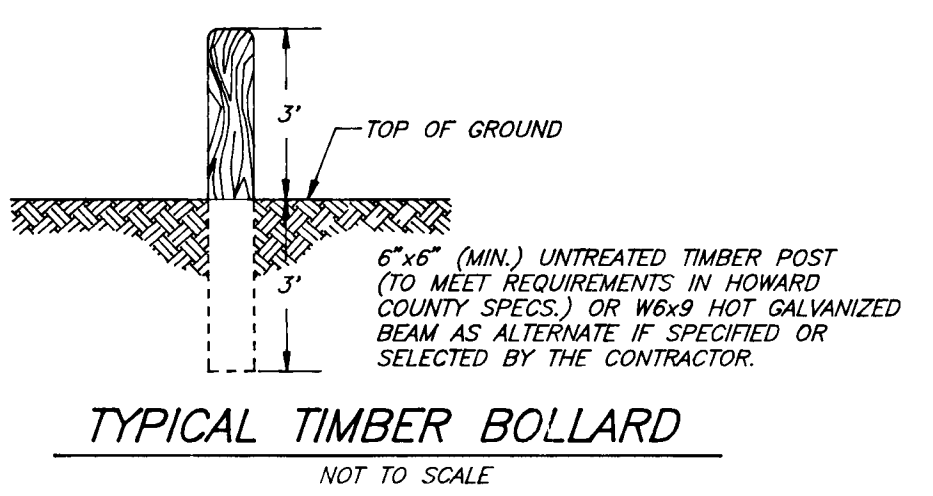
**STANDARD 6" COMBINATION
CURB AND GUTTER**
NO SCALE



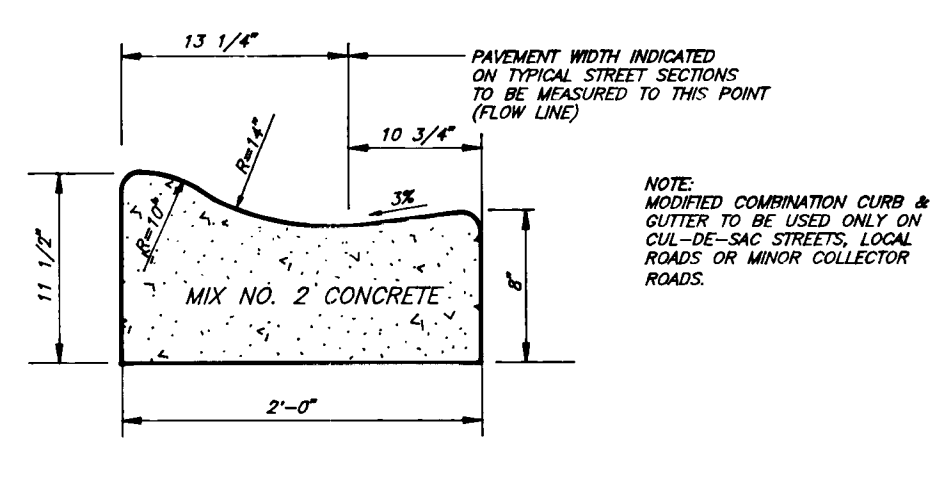
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CURB AND GUTTER**
NO SCALE



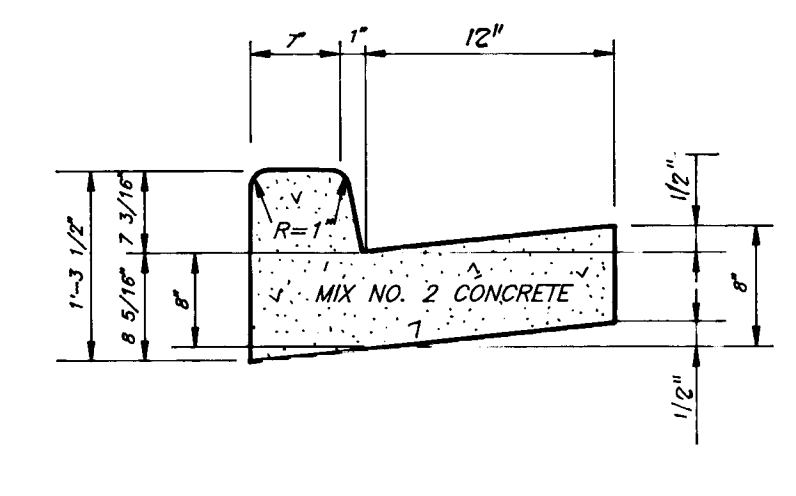
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HEATHERS WAY STA. 1+05 TO 3+89.95**
NO SCALE



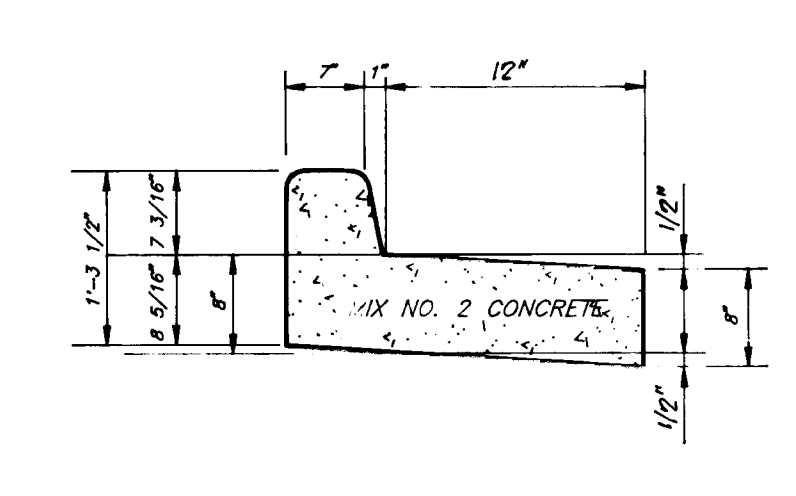
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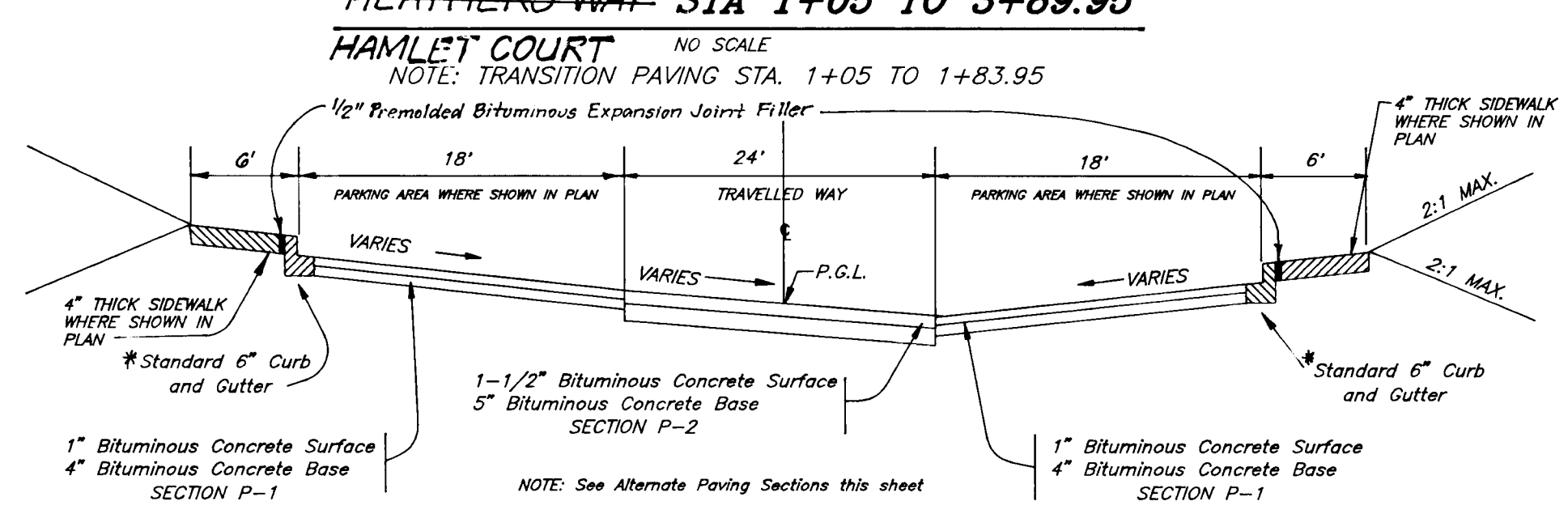
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CURB AND GUTTER**
NO SCALE



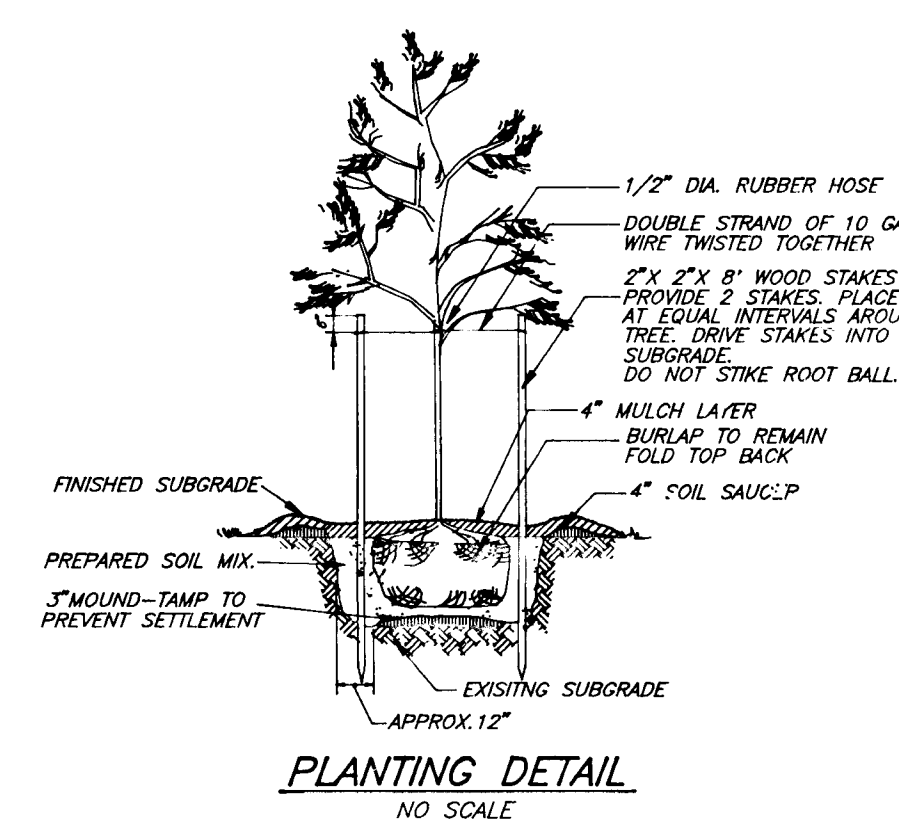
**STANDARD 7" COMBINATION
CURB AND GUTTER**
NO SCALE



**REVERSE 7" COMBINATION
CURB AND GUTTER**
NO SCALE



**TYPICAL PAVING SECTION
PRIVATE COURTS "A" AND "B"**
NO SCALE



PLANTING DETAIL
NO SCALE

PLANT LIST				
KEY	QNTY.	PLANT NAME	SIZE	REMARKS
•	28	ACER RUBRUM "Red Sunset"	2 1/2" CAL	B & B
•		Red Sunset Maple		

- NOTES:
- ALL PLANTING SHALL BE DONE IN ACCORDANCE WITH THE BALT./MASH SPECIFICATIONS OF L.C.A.M.W.
 - CONTRACTOR SHALL VERIFY LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO DIGGING.
 - FINAL LOCATION OF PLANT MATERIAL MAY VARY PER FINAL FIELD CONDITIONS.
 - TREES SHOWN ON NORTH RIDGE WERE TAKEN FROM F-36-01
 - PERMANENT LANDSCAPE EDGE & STREET TREES SHOWN PLANTED PER THIS PLAN. SEE SDP-30-131 FOR INTERNAL PARKING LOT & ESTHETICAL LANDSCAPING.

STREET TREE TABULATION (Bonded as part of the final construction cost estimate.)

1. HEATHERS WAY	2. HIBISCUS COURT
A. 720 LF. OF RIGHT-OF-WAY.	A. 47 PARKING SPACES
B. 18 TREES REQUIRED (1 TREE/ 40 LF)	B. 5 TREES REQUIRED (1 TREE/ 10 PARKING SPACES)
C. 18 TREES PROVIDED	C. 5 TREES PROVIDED
	D. 190 LF. OF RIGHT OF WAY
	E. 5 TREES REQUIRED (1 TREE/40 LF)
	F. 5 TREES PROVIDED

STRUCTURE SCHEDULE						
NO	TYPE	INVERT		TOP ELEVATION		REMARKS
		IN	OUT	UPPER	LOWER	
* I-2	"D" Inlet 2'-6" Dia	404.87	402.96	408.88	416.8	Ho Co. Std. SD 4.11
M-8	Standard Manhole 4'-0" Dia	404.84	404.68	416.16	416.16	Ho Co. Std. G 5.12
I-4	"D" Inlet 2'-6" Dia	397.58	397.35	408.85	416.8	Ho Co. Std. SD 4.11
M-4	Existing Manhole	397.58	397.35	-5.08	-2.0	
* M-5	Standard Manhole 4'-0" Dia	417.06	416.36	426.0	426.37	Ho Co. Std. G 5.12
M-5	Existing Manhole	410.25	406.28	-26	-3.00	
I-4	A-10 Inlet	419.16	419.16	429.10	429.00	Ho Co. Std. SD 4.41
* I-9	A-10 Inlet	411.75	411.75	416.01	415.81	Ho Co. Std. SD 4.41
* M-9	Shallow Precast Manhole 4'-0" Dia	415.25	415.25	425.08	425.08	Ho Co. Std. G 5.12
* I-10	A-5 Inlet	416.97	416.97	423.25	423.25	Ho Co. Std. SD 4.40
I-11	A-10 Inlet	429.10	429.10	429.00	429.00	Ho Co. Std. SD 4.41
I-12	A-10 Inlet	416.16	420.81	420.81	420.81	Ho Co. Std. SD 4.41
I-13	A-10 Inlet	412.30	416.81	415.81	415.81	Ho Co. Std. SD 4.41
I-14	A-10 Inlet	410.31	421.01	420.78	420.78	Ho Co. Std. SD 4.41
I-15	Yard Inlet 24" Dia	418.51	421.0	420.80	420.80	Ho Co. Std. SD 4.14
* I-16	A-10 Inlet	417.31	417.31	423.94	423.16	Ho Co. Std. SD 4.41
I-17	Yard Inlet 24" Dia	-	417.31	421.16	421.16	Ho Co. Std. SD 4.14

* Inlets to be fully developed
** SEE PROFILES FOR INVERTS

PIPE SCHEDULE		
SIZE	TYPE	LENGTH
18"	R.C.P. CI II	577 LF
18"	R.C.P. CI II	446 LF
24"	R.C.P. CI II	382 LF
24"	R.C.P. CI II	262 LF

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
Richard M. Davelle 5-14-96
CHIEF, BUREAU OF HIGHWAYS

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING
Anna Szymanski 8/19/96
CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH

W. J. ...
CHIEF, DEVELOPMENT ENGINEERING DIVISION

Key	Quantity	Plant Name	Size	Remarks
AR	4	ACER RUBRUM "October Glory"	2 1/2" - J	B & B
FP	---	FRAXINUS PENN. "Marshall's"	2 1/2" - J	B & B
CF	---	CORNUS FLORIDA "Rubra"	8"-10" HL	B & B
PK	6	PRUNUS SERR. "Kwanzon"	8"-10" HL	B & B
PT	---	PRUNUS X THUNDERCLOUD	8"-10" HL	B & B
PS	30	PINUS STROBUS	6"-8" HL	B & B
TC	---	TSUGA CANADENSIS	6"-8" HL	B & B

SCHEDULE A PERIMETER LANDSCAPE EDGE		
Category	Adjacent to Roadways	Adjacent to Perimeter Properties
Landscaping Type	C	E
Linear Feet of Roadway Frontage/Perimeter	180'	420' parking
Credit for Existing Vegetation (Yes, No, Linear Feet)	-	-
Credit for Wall, Fence or Berm (Yes, No, Linear Feet)	-	-
Number of Plants Required	4 (1/40)	10 (1/40)
Shade Trees	9 (1/20)	* 10% (1/4)
Number of Plants Provided	4	* 20
Shade Trees		
Evergreen Trees		
Other Trees (2:1 substitution)		
Shrubs (10:1 substitution)		

BONDING NOTE:
THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 15.124 OF THE HOWARD COUNTY CODE AND LANDSCAPE MANUAL. FINANCIAL SURETY FOR THE PERIMETER TREES IN SCHEDULE A IN THE AMOUNT OF \$3300.00 SHALL BE PART OF THE DEVELOPERS AGREEMENT.

Comments: • THE 10 EVERGREEN TREES SUBSTITUTED FOR THE 10% SHRUBS ARE INCLUDED IN THE BOND TOTAL.

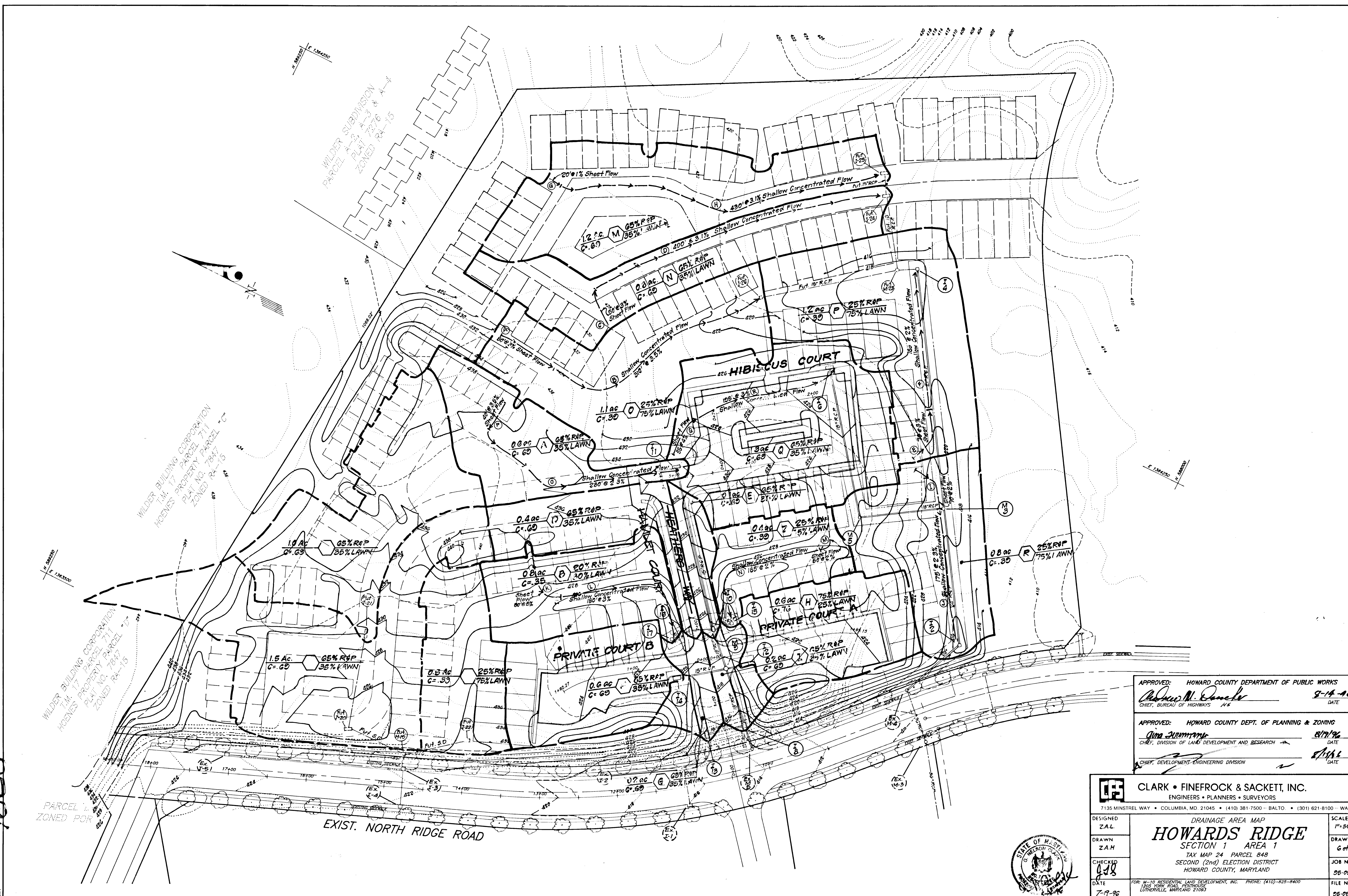
CLARK • FINEFROCK & SACKETT, INC.
ENGINEERS • PLANNERS • SURVEYORS
7135 MINSTREL WAY • COLUMBIA, MD. 21045 • (410) 381-7500 - BALTO. • (301) 621-8100 - WASH.

DESIGNED: Z.A.L.
DRAWN: Z.A.L.
CHECKED: J.L.B.
DATE: 7-19-96

SCALE: AS SHOWN
DRAWING: 5 of 8
JOB NO.: 95-050
FILE NO.: 95-050 D

STORM DRAIN AND PAVING DETAILS
HOWARDS RIDGE
SECTION 1 AREA 1
TAX MAP 24 PARCEL 848
SECOND (2nd) ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

FOR: M-10 RESIDENTIAL LAND DEVELOPMENT INC.
1205 YORK ROAD, PENTHOUSE
LUTHERVILLE, MARYLAND 21093
PHONE: (301) 352-8100



8287

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
Robert M. Daniels 9-14-96
 CHIEF, BUREAU OF HIGHWAYS H.S. DATE

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING
Uma Summers 8/17/96
 CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH DATE

CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

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

DESIGNED Z.A.L.
 DRAWN Z.A.H.
 CHECKED *[Signature]*
 DATE 7-19-96

DRAINAGE AREA MAP
HOWARDS RIDGE
 SECTION 1 AREA 1
 TAX MAP 24 PARCEL 848
 SECOND (2nd) ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

SCALE 1"=50'
 DRAWING 6 of 8
 JOB NO. 95-050
 FILE NO. 95-050-D

FOR: M-10 RESIDENTIAL LAND DEVELOPMENT, INC. PHONE: (410)-825-8400
 1205 YORK ROAD, PENTHOUSE
 LUTHERVILLE, MARYLAND 21093

NOTE
 THE PROPOSED CONTOURS PER THIS PLAN ARE THE SAME AS THE MASS GRADED CONTOURS PER SDP-96-01.

EXIST. P.O.S.T. TRAP #6
 Initial D.A. = 7.4 ac
 Final D.A. = 4.3 ac
 Wet Storage Req'd = 12,600 cu ft
 Dry Storage Req'd = 12,600 cu ft
 Wet Storage Prov'd = 13,016 cu ft
 Dry Storage Prov'd = 14,686 cu ft
 Bottom Dim. = 45'x108'
 Bottom Elev. = 409.75
 Side Slopes = 2:1
 Top of Embankment = 415.00
 Exist. Ground @ Embankment = 412.25
 Cleanout Elev. = 410.90

EXIST. S.O.S.T. TRAP #5
 Initial D.A. = 3.25 ac
 Final D.A. = 3.44 ac
 Wet Storage Req'd = 6192 cu ft
 Dry Storage Req'd = 6192 cu ft
 Wet Storage Prov'd = 6440 cu ft
 Dry Storage Prov'd = 7700 cu ft
 Bottom Dim. = 78'x50'
 Bottom Elev. = 402.0
 Side Slopes = 2:1
 Weir Crest Elev. = 405.0
 Weir Length = 14'
 Top of Embankment = 406.0
 Ex. Ground @ Embank. = 403.50
 Cleanout Elev. = 402.75

LEGEND
 Contour Interval - 2'
 Exist. Contour ——— 2'0" ———
 Prop. Contour ——— 2'0" ———
 Exist. Earth Dike ———> ———
 Exist. Silt Fence — SF — SF —
 Stabilized Construction Entrance [Symbol]
 Limit of Disturbed Area
 Mass Graded Contour ——— 4'32" ———

Reviewed for HOWARD S.C.D.
 and meets Technical Requirements
J. A. Worsham 8/7/96
 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 K. Robertson 8/7/96
 Approved

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 also authorize periodic on-site inspection by the Howard Soil Conservation District or their authorized agents, as are deemed necessary.
John M. Payne 3.26.96
 NAME DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
Richard M. Ducek 8-14-96
 CHIEF, BUREAU OF HIGHWAYS DATE

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING
Jim Zimmerman 8/19/96
 CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH DATE

John M. Payne DATE

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

NOTE:
 Sediment and Erosion Controls for the portion of this site not draining to traps 5 & 6 are provided off-site in the temporary Sediment Basin as approved under SDP-96-01. Run-off will be conveyed to the basin through the existing storm drainage system.

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
 G. NELSON CLARK



NOTE: BRICK SHUT ALL INLETS

EXIST. NORTH RIDGE ROAD
 PROVIDE TEMP. GRADING AS SHOWN TO ALLOW FOR POSITIVE DRAINAGE TO STREET.

18281

21.0 STANDARD AND SPECIFICATIONS FOR TOPSOIL

Definition

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

Purpose

To provide a suitable soil medium for 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:

a. The texture of the exposed subsoil/parent material is not adequate to produce vegetative growth.

b. The soil material is so shallow that the rooting zone is not deep enough to support plants or furnish continuing supplies of moisture and plant nutrients.

c. The original soil to be vegetated contains material toxic to plant growth.

d. The soil is so acidic that treatment with limestone is not feasible.

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

Construction and Material Specifications

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

II. Topsoil Specifications - Soil to be used as topsoil must meet the following:

i. 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 and 1/2" in diameter.

ii. Topsoil must be free of plants or plant parts such as Bermuda grass, quackgrass, Johnsongrass, nutsedge, poison ivy, thistle, or others as specified.

iii. 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.

II. For sites having disturbed areas under 5 acres:

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

V. Topsoil Application

i. 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.

ii. Grades on the areas to be topsoiled, which have been previously established, shall be maintained, albeit 4" - 8" higher in elevation.

iii. 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.

iv. Topsoil shall not be placed while the topsoil or subsoil is in a frozen or muddy condition, when the subsoil is excessively wet or in a condition that may otherwise be detrimental to proper grading and seedbed preparation.

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 reseeding.

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 bushels 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

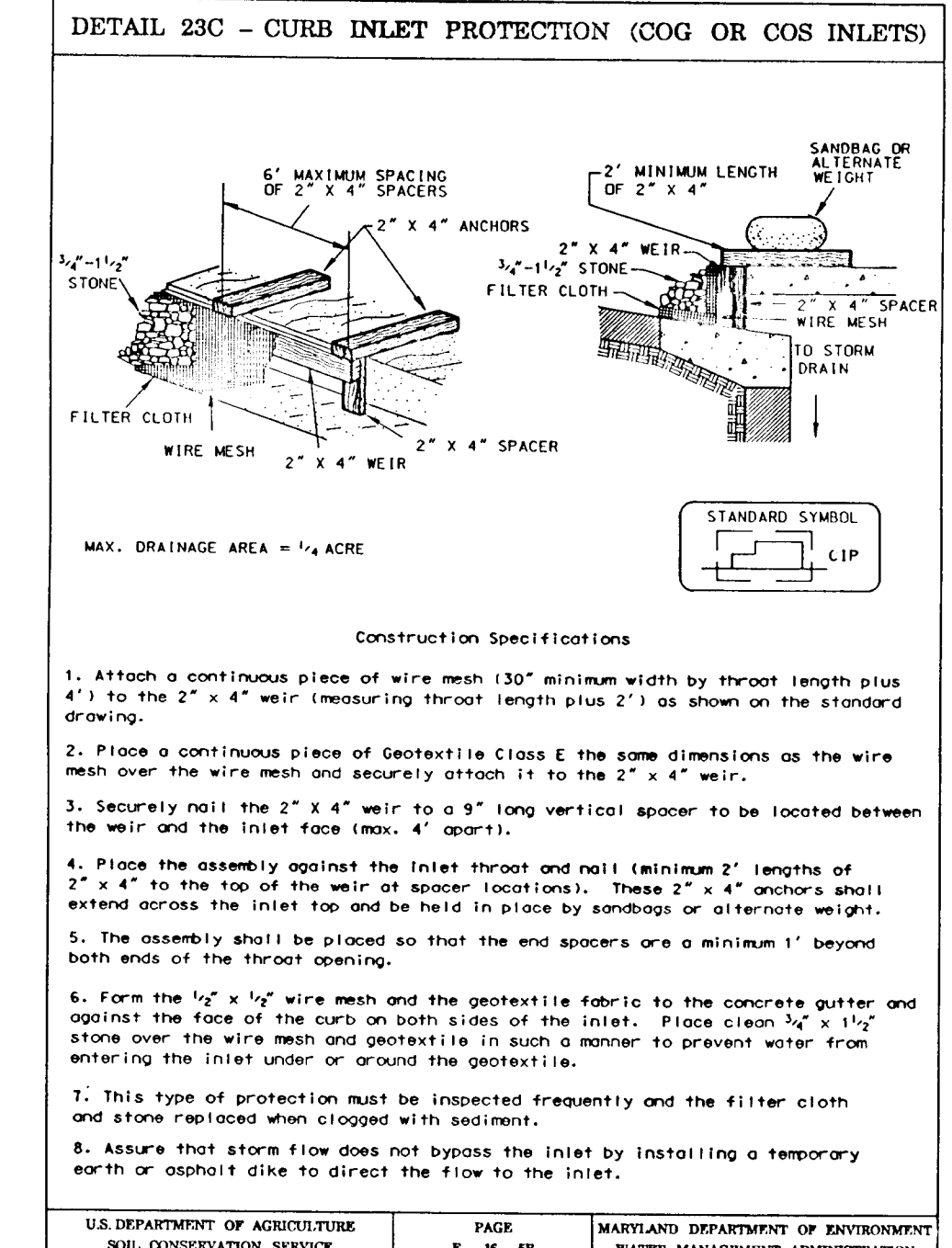
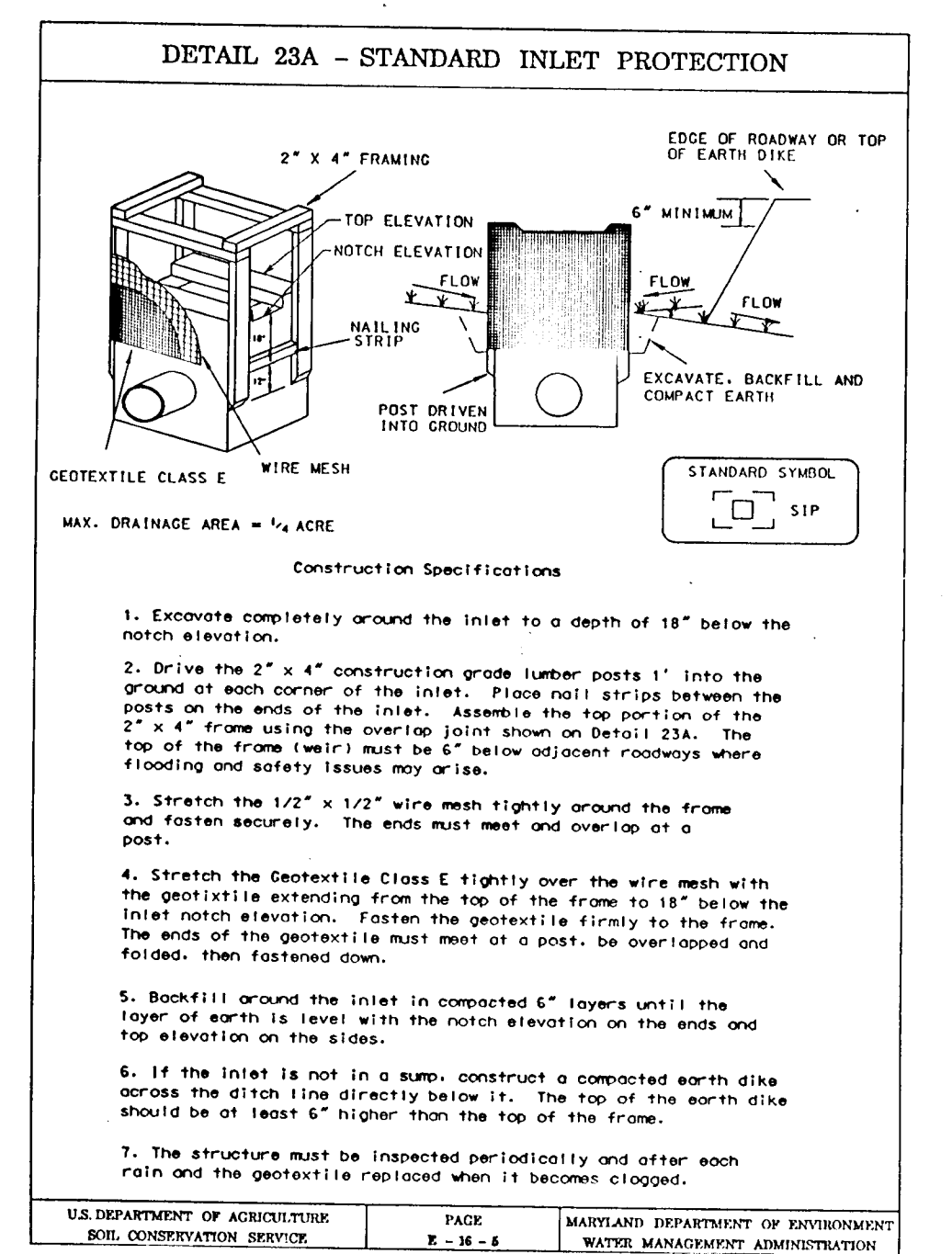
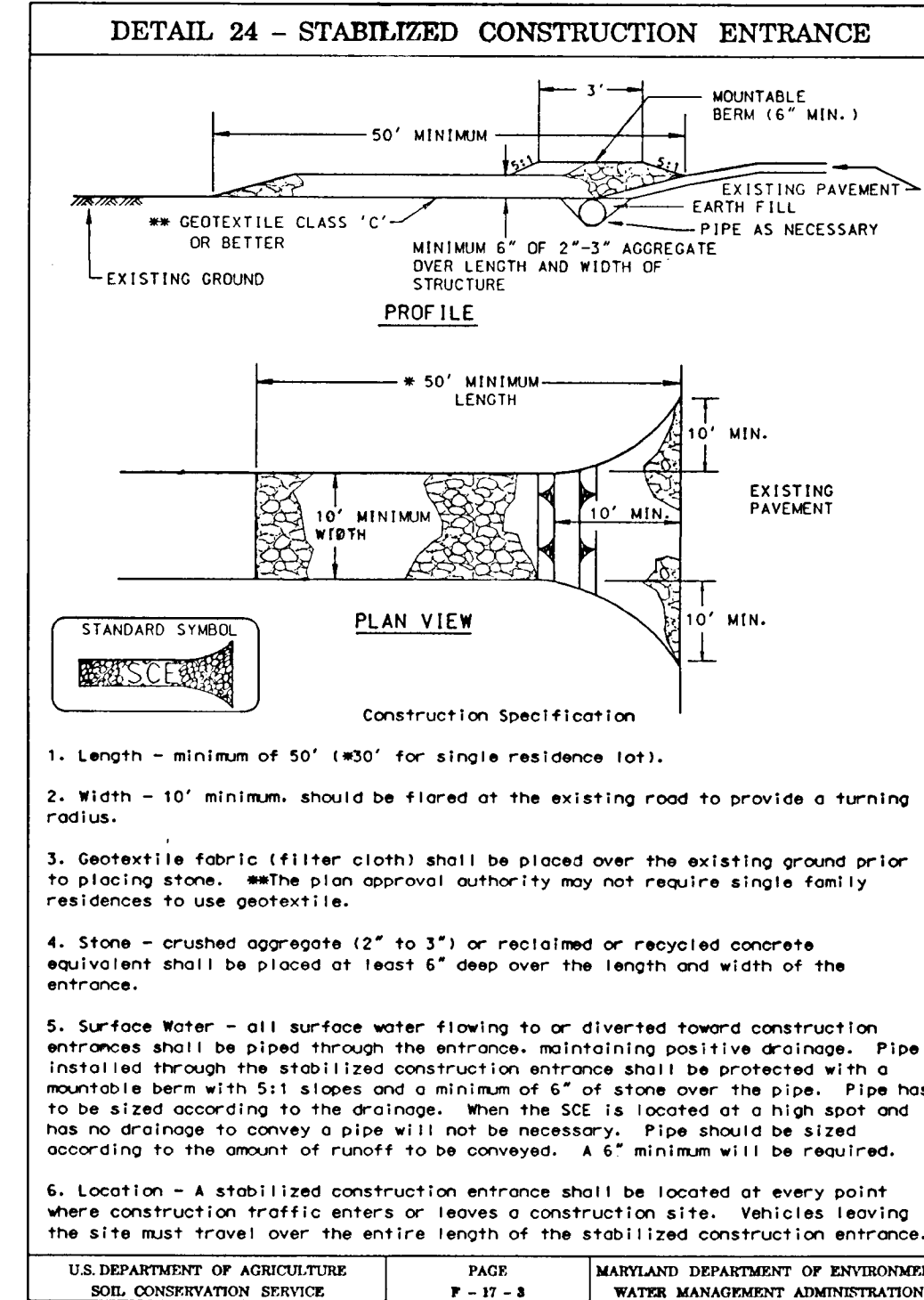
1. A minimum of 24 hours notice must be given to the Howard County Office of Inspection and Permits prior to the start of any construction. (13-1855).
2. All vegetative and structural practices are to be installed according to the provisions of this plan and are to be in conformance with the 1994 MARYLAND STANDARDS AND SPECS. FOR SOIL EROSION AND SEDIMENT CONTROL.
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. 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 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for permanent seedings (Sec. 51), sod (Sec. 54), temporary seedings (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:	21.86 ac
Area Disturbed:	12.0 Ac
Area to be roofed or paved:	1.4 Ac
Area to be vegetatively stabilized:	10.6 Ac
Total Cut:	
Total Fill:	
Offsite Waste/Borrow Area Location:	
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. The total amount of silt fence = N/A

* It is the responsibility of the contractor to identify the spoil/borrow site and notify and gain approval from the sediment control inspector of the site and it's grading permit number at the time of construction.

CONSTRUCTION SEQUENCE

	No of Days
1. Obtain a grading permit.	7
2. Install all sediment and erosion control devices and stabilize.	7
3. Rough grade site.	20
4. Construct all storm drainage structures, and block inlets.	20
5. Construct all utilities.	30
6. Construct paving, sidewalks and structures.	60
7. Final grade and stabilize.	14
8. Obtain approval from the Sediment Control Inspector, remove all sediment and erosion control devices and stabilize.	7



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DESIGNED Z.A.L.	SEDIMENT EROSION CONTROL DETAILS HOWARDS RIDGE SECTION 1 AREA 1 TAX MAP 24 PARCEL 848 SECOND (2nd) ELECTION DISTRICT HOWARD COUNTY, MARYLAND	SCALE -
DRAWN Z.A.H.		DRAWING B of B
CHECKED J.S.		JOB NO. 95-050
DATE 7-19-96		FILE NO. 95-050-D

FOR: 14-10 RESIDENTIAL LANE DEVELOPMENT, INC. PHONE: (410)-625-8400
1205 YORK ROAD, PENTHOUSE LUTHERVILLE, MARYLAND 21093

Reviewed for: HOWARD S.C.D.
and meets Technical Requirements
Signature: J.H. N... Date: 8/19/96
Natural Resources Conservation Service

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.
Signature: J.H. N... Date: 8/19/96
Approved

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
Signature: J.H. N... Date: 8/19/96
Approved

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
Signature: Thomas M. Donohue Date: 8-14-96
CHIEF, BUREAU OF HIGHWAYS

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING
Signature: Jim Manning Date: 8/19/96
CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH

CHIEF, DEVELOPMENT ENGINEERING DIVISION

18287