

Construction Notes

- THE CONTRACTOR SHALL NOTIFY THE HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS CONSTRUCTION INSPECTION DIVISION AT 410-3180 AT LEAST 24 HOURS PRIOR TO STARTING ANY OF THE WORK SHOWN HEREON.
- ALL PLAN DIMENSIONS ARE GIVEN TO FACE OF CURB UNLESS OTHERWISE NOTED. SEE ARCHITECTURAL DRAWINGS FOR EXACT BUILDING DIMENSIONS.
- THE CONTRACTOR SHALL NOTE THAT IN CASE OF DISCREPANCY BETWEEN ANY SCALED DIMENSIONS AND THE FIGURED DIMENSIONS SHOWN ON THESE PLANS, THE FIGURED DIMENSIONS SHALL GOVERN.
- CONTRACTOR SHALL MEET ALL EXISTING IMPROVEMENTS SMOOTHLY FOR LINE, GRADE AND FINISH.
- ALL WORK SHOWN ON THESE PLANS SHALL BE COMPLETED IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF THE HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS AND OF THE MARYLAND STATE HIGHWAY ADMINISTRATION AND THE HOWARD COUNTY PLUMBING CODE, UNLESS OTHERWISE NOTED.
- IT SHALL BE DISTINCTLY UNDERSTOOD THAT FAILURE TO MENTION SPECIFICALLY ANY WORK WHICH WOULD NORMALLY BE REQUIRED TO COMPLETE THIS PROJECT SHALL NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY TO PERFORM SUCH WORK. THE COST OF SUCH WORK SHALL BE INCLUDED IN THE BASE BID.
- THE CONTRACTOR SHALL INSPECT THE SITE TO DETERMINE IF ANY TREES, PAVING, ETC. ARE TO BE REMOVED PRIOR TO PLACING A BID ON SUCH ITEMS.
- THE LOCATIONS OF EXISTING UTILITIES SHOWN HEREON ARE APPROXIMATE ONLY AND ARE PROVIDED FOR THE CONVENIENCE OF THE CONTRACTOR ONLY. THE LOCATIONS ARE TAKEN FROM EXISTING RECORDS AND DO NOT REPRESENT FIELD-VERIFIED LOCATIONS. THE CONTRACTOR SHALL NOTIFY MISS UTILITY AT 1-800-257-7777 A MINIMUM OF 5 WORKING DAYS PRIOR TO DIGGING. THE CONTRACTOR SHALL CONFIRM TO HIS OWN SATISFACTION THE LOCATION OF ALL UTILITIES PRIOR TO ANY EXCAVATION OR PLACEMENT OF MATERIALS. IF ANY CONFLICT IS FOUND BETWEEN UNDERGROUND UTILITIES AND THE PROPOSED LOCATION OF ANY CONSTRUCTION, THE CONTRACTOR SHALL CONTACT G. W. STEPHENS AND THE OWNER OF THE UTILITY IMMEDIATELY. ANY DAMAGE OR DISRUPTION OF SERVICE SHALL BE AT THE EXPENSE OF THE CONTRACTOR. RELOCATION OF ANY EXISTING UTILITIES, IF NECESSARY, SHALL BE AT THE EXPENSE OF THE OWNER. THE CONTRACTOR SHALL COORDINATE RELOCATION OF THESE FACILITIES, IF NECESSARY.
- CONTRACTOR SHALL PROTECT ALL EXISTING TREES OUTSIDE THE LIMIT OF DISTURBANCE AT ALL TIMES DURING CONSTRUCTION.
- CONTRACTOR SHALL PROTECT ALL EXISTING IMPROVEMENTS NOT SCHEDULED FOR REMOVAL OR DEMOLITION. COST OF REPAIR TO EXISTING IMPROVEMENTS SHALL BE INCLUDED IN THE BASE BID. ALL EXISTING SITE FEATURES NOT BEING RETAINED SHALL BE REMOVED AND DISPOSED OF AT AN APPROVED LOCATION. ANY DAMAGE TO OFF-SITE ROADS, RIGHTS OF WAY, OR ADJACENT PROPERTY SHALL BE REPAIRED IMMEDIATELY AT THE EXPENSE OF THE CONTRACTOR.
- THE CONTRACTOR SHALL CLEAR THE PROJECT SITE OF ALL TREES, PAVING, STRUCTURES, ETC. WITHIN THE CONSTRUCTION AREA UNLESS OTHERWISE NOTED ON THE PLAN.
- ONLY SUITABLE MATERIAL SHALL BE USED AS FILL AND ALL FILL SHALL BE PLACED AND COMPACTED AS SPECIFIED IN THE SOILS REPORT PREPARED FOR THIS SITE OR AS RECOMMENDED BY THE GEOTECHNICAL ENGINEER. ALL 2:1 SLOPES SHOWN HEREON, EXCEPTING THOSE ASSOCIATED WITH LANDSCAPE BERMINGS, ALL GRADING UNDER PROPOSED PAVING, AND ALL FILL AND COMPACTION SHALL BE APPROVED BY A GEOTECHNICAL ENGINEER.
- CONTRACTOR SHALL PROVIDE MINIMUM 4 FOOT BENCH AT EDGE OF PAVING IN FILL AREAS. MAXIMUM SLOPE OF BENCH SHALL BE 2:1 (4 IN PER FOOT).
- MAXIMUM SLOPE SHALL BE 2 HORIZONTALLY TO 1 VERTICALLY.
- CONTRACTOR SHALL PLACE A WITNESS POST AT THE TERMINUS OF ALL UTILITY STRIPS.
- ALL UTILITIES INSTALLED SHALL RECEIVE FULL TRENCH COMPACTION.
- CONTRACTOR SHALL PROVIDE A MINIMUM OF 1 FOOT OF PROTECTIVE FILL OVER STORM DRAIN PIPES DURING CONSTRUCTION.
- CONTRACTOR SHALL PROVIDE ALL PAVEMENT MARKINGS AND SIGNAGE FOR HANDICAP PARKING SPACES INDICATED HEREON IN ACCORDANCE WITH ALL APPLICABLE CODES. ALL PAVEMENT MARKINGS TO BE TRAFFIC WHITE.
- ALL HANDICAPPED FACILITIES TO BE CONSTRUCTED IN ACCORDANCE WITH THE "DESIGN OF BARRIER FREE FACILITIES" AND THE MARYLAND BUILDING CODE FOR THE HANDICAPPED" AND AGED, LATEST EDITION.
- ALL TRAFFIC CONTROL DEVICES, MARKINGS, AND SIGNAGE SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES." ALL STREET AND REGULATORY SIGNS SHALL BE INSTALLED PRIOR TO INSTALLATION OF FINISHED PAVING.
- THE CONTRACTOR SHALL REPLACE ANY EXISTING BITUMINOUS PAVING OR SUB-BASE WHICH IS DAMAGED OR REMOVED DURING CONSTRUCTION. ALL EXCAVATED AREAS SHALL BE BACKFILLED AND IN ACCORDANCE WITH THE SOILS REPORT AND/OR AS DIRECTED BY GEOTECHNICAL ENGINEER. ANY AREAS TO BE PAVED WHICH EXHIBIT UNSTABLE SUBGRADE CONDITIONS SHALL BE EXCAVATED TO BEARING SOIL, REFINED AND COMPACTED.
- ALL AREAS NOT BEING PAVED OR RECEIVING BUILDING COVERAGE SHALL BE STABILIZED IN ACCORDANCE WITH THE PLANS APPROVED BY THE HOWARD SOIL CONSERVATION DISTRICT.
- PREFORMED ELASTOMERIC COMPRESSION JOINT MATERIAL SHALL BE INSTALLED AT ALL MEETINGS OF EXISTING AND PROPOSED CONCRETE PAVING AND SIDEWALKS.
- ALL STORM DRAINS TO BE RCCP OR HDPE UNLESS OTHERWISE NOTED.
- ALL EXTERIOR LIGHTING SHALL CONFORM TO ZONING REGULATIONS, SECTION 134.
- THE PERMIT FOR GRADING IN ENVIRONMENTAL BUFFERS FOR SWM AND STORM DRAIN UTILITIES WP 99-66 WAS APPROVED FEBRUARY 26, 1999.
- THE WET POND AND UNDERGROUND STORMWATER MANAGEMENT FACILITIES ARE DESIGNED AS DETENTION SWF FACILITIES. THE WET PONDS PERMANENT POOL IS ONLY AN AMENITY, AND SERVES NO STORMWATER MANAGEMENT PURPOSES.
- THE STORMWATER MANAGEMENT WET POND FACILITY MEETS ALL REQUIREMENTS FOR HAZARD CLASS A, REFINED OILS STORED IN THE SOIL CONSERVATION SERVICE - MARYLAND STANDARDS AND SPECIFICATIONS FOR POND CODE 37B, NOVEMBER 1992.
- M.D.E. WETLAND TRACKING NUMBER: 98-NF-0692/1999060988
- TRAFFIC GROUP, INC. SHALL COORDINATE THE DESIGN AND INSTALLATION OF THE PROPOSED TRAFFIC SIGNAL LOCATED AT THE INTERSECTION OF UNIVERSITY BLVD. AND MD 108 WITH THE SHA.
- FOREST CONSERVATION ORDINANCE HAS BEEN COMPLIED WITH IN ACCORDANCE WITH SECTION 16.02(B)(2) OF THE HOWARD COUNTY CODE AND THE FOREST CONSERVATION MANUAL WITH THE FILING OF A DECLARATION OF INTENT FOR A SINGLE LOT CLEARING LESS THAN 10,000 SQUARE FEET OF FOREST RESOURCES.

PARKING CALCULATION CHART

PRINCIPAL USE	TOTAL PARKING REQUIRED	WEEKDAY				WEEKEND				NIGHTTIME	
		DAYTIME 6 A.M. - 6 P.M. PERCENT REQUIRED	EVENING 6 P.M. - MIDNIGHT PERCENT REQUIRED	PERCENT REQUIRED	PERCENT REQUIRED	DAYTIME 6 A.M. - 6 P.M. PERCENT REQUIRED	EVENING 6 P.M. - MIDNIGHT PERCENT REQUIRED	PERCENT REQUIRED	PERCENT REQUIRED	PERCENT REQUIRED	PERCENT REQUIRED
OFFICE 900,917 SQ. FT. 3.3 SP./1,000 SQ. FT.	993	100%	99%	10%	99%	10%	99%	5%	50%	5%	50%
RETAIL / BANK 49,275 SQ. FT. 5.0 SP./1,000 SQ. FT.	241	60%	14%	90%	21%	100%	24%	70%	16%	5%	12%
RESTAURANT 9,432 SQ. FT. 14 SP./1,000 SQ. FT.	118	50%	5%	100%	11%	100%	11%	100%	11%	10%	12%
DAY CARE 8,100 SQ. FT. 3.0 SP./1,000 SQ. FT.	24	100%	24%	5%	2%	5%	2%	5%	2%	0%	0%
TOTAL PARKING REQUIRED	*1376		1221		436		460		339		74

*SHARED PARKING 1221 SPACES REQUIRED

Site Data

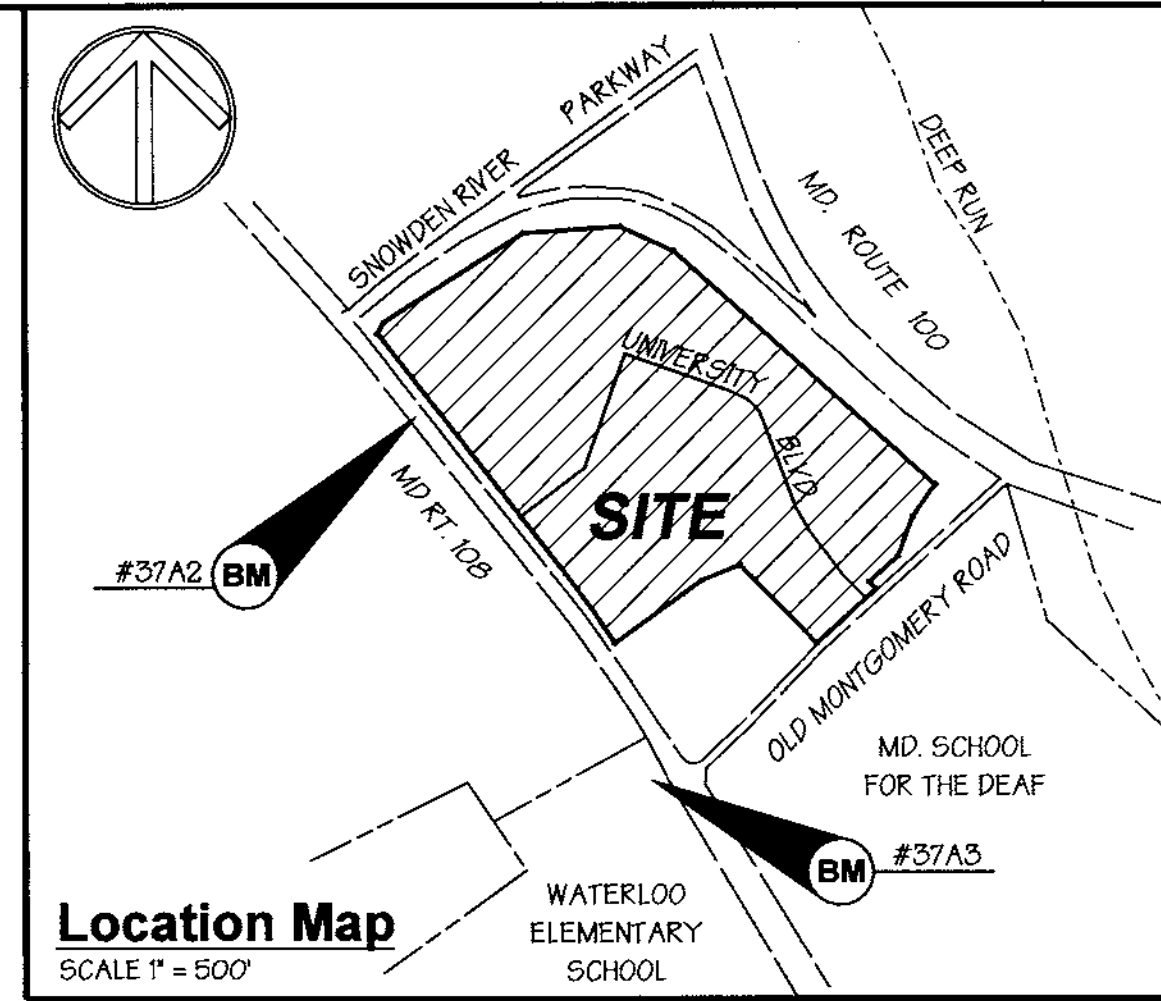
TOTAL AREA OF SITE - EXISTING ZONING - PROPERTY REFERENCE - EXISTING USE - PROPOSED USE - BUILDING COVERAGE - FLOOR AREA - FLOOR AREA RATIO - AREA TO BE PAVED PLUS BUILDING AREA - TOTAL AREA OF PARKING LOT - % OF PARKING LOT COVERAGE - AREA TO BE DISTURBED - AREA TO BE VEGETATIVELY STABILIZED -

892,109 Sq. Ft. or 20.48 Ac. +/- (± 985) POR L. 153 F. 288 HORSE FARM OFFICE / RETAIL USE / RESTAURANT / BANK 139,248 Sq. Ft. 16% 365,724 Sq. Ft. 41% 597,643 Sq. Ft. or 13.72 Ac. 448,596 Sq. Ft. or 10.30 Ac. +/- 50% 913,017.6 Sq. Ft. or 20.96 Ac. +/- 294,466 Sq. Ft. or 6.76 Ac. +/-

Benchmarks

Pt. #37A2, Aka - 2643002 - Howard Co. Geodetic Control
 Northing : 56120.856
 Easting : 1369300.289
 NAD27 datum N 501371.9, E 856882.1
 Elevation : 403.675'

Pt. #37A3, Aka - 2643003 - Howard Co. Geodetic Control
 Northing : 561130.803
 Easting : 1369913.306
 NAD27 datum N 500381.9, E 857495.1
 Elevation : 385.627'



Site Development Plans

for

The Horse Farm

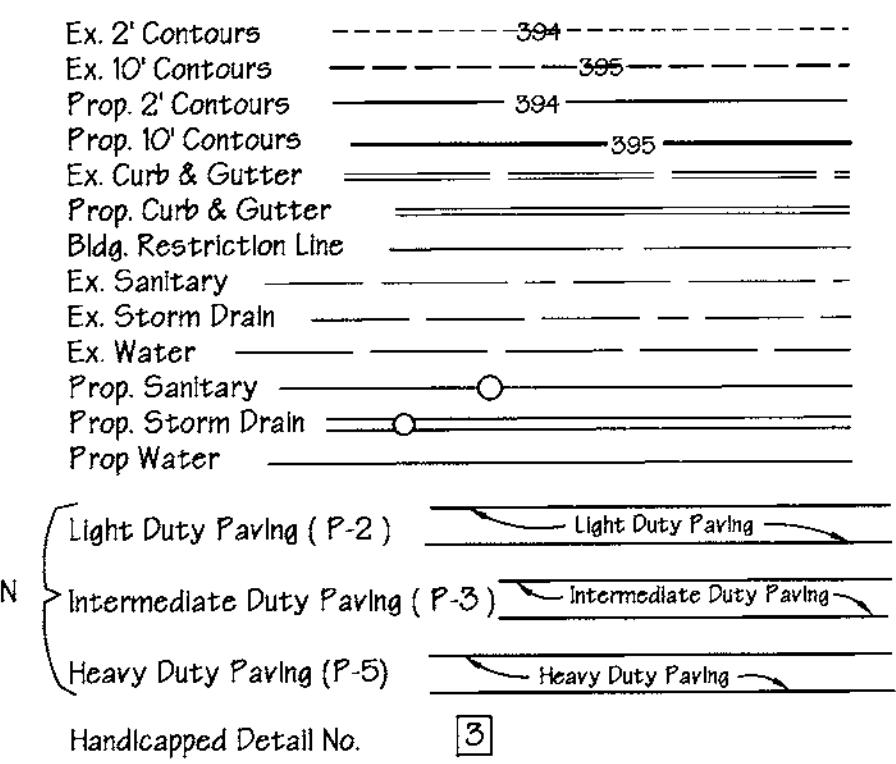
Howard County, Maryland

S.D.P. 99 - 65

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SHEET NO. 6	SITE DETAILS
SHEET NO. 7, 8, 9, 10, 11	SITE DETAILS & SECTIONS
SHEET NO. 12	DRAINAGE AREA MAP & PROFILES
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SHEET NO. 35 & 36	RETAINING WALL DETAILS SECTIONS & NOTES
SHEET NO. 37	MD ROUTE 108 & OLD MONTGOMERY ROAD PAVEMENT MARKING PLAN

Legend



SITE USE AND PARKING SUMMARY

BUILDING	PRINCIPAL USE	HOURS OF OPERATION	BUILDING S.F.	PARKING REQUIRED	PARKING PROVIDED	HANDICAPPED PARKING PROVIDED
BUILDING #1	41,289 SQ. FT. GENERAL OFFICE 3.3 SP. / 1,000 SQ. FT. 13,765 SQ. FT. RETAIL 5 SP. / 1,000 SQ. FT.	8:00 A.M. - 5:00 P.M.	55,052 S.F.	205	(UNDERGROUND) 104 =(101) 205	(UNDERGROUND) 4 =(2) 6
BUILDING #2	78,874 SQ. FT. GENERAL OFFICE 3.5 SP. / 1,000 SQ. FT. 28,281 SQ. FT. RETAIL 5 SP. / 1,000 SQ. FT.	8:00 A.M. - 5:00 P.M.	105,165 S.F.	391	297 =(94) 391	6 =(2) 8
BUILDING #3	104,500 SQ. FT. GENERAL OFFICE 3.3 SP. / 1,000 SQ. FT.	8:00 A.M. - 5:00 P.M.	104,500 S.F.	345	275 =(70) 345	7 =(2) 9
BUILDING #4	69,198 SQ. FT. GENERAL OFFICE 3.3 SP. / 1,000 SQ. FT. 6,500 SQ. FT. RETAIL 5 SP. / 1,000 SQ. FT.	8:00 A.M. - 5:00 P.M.	75,698 S.F.	261	155 =(106) 261	5 =(2) 7
BUILDING #5	8,100 SQ. FT. DAY CARE FACILITY 3.0 SP. / 1,000 SQ. FT.	7:30 A.M. - 5:30 P.M.	8,100 S.F.	24	34	2
BUILDING #6	7,056 SQ. FT. GENERAL OFFICE 3.3 SP. / 1,000 SQ. FT.	7:30 A.M. - 5:30 P.M.	7,056 S.F.	23	27	2
BUILDING #7	8,432 SQ. FT. RESTAURANT 14 SP. / 1,000 SQ. FT.	7:30 A.M. - 5:30 P.M.	8,432 S.F.	118	31	4
BUILDING #8	1,721 SQ. FT. BANK 5.0 SP. / 1,000 SQ. FT.	7:30 A.M. - 5:30 P.M.	1,721 S.F.	9	15	1
TOTAL			365,724 S.F.	*1376 (1221 REQUIRED SHARED)	938 (877 TOTAL)	39

*SEE PARKING TABULATION CHART ABOVE

NOTE: The owner shall provide a separate and independent sewer connection for each tenant or occupant of any building shown on this site development plan who will discharge non-domestic waste to the public sewerage system if each separate and independent sewer connection shall include a standard manhole and other waste pretreatment devices as required and approved by Howard County. Waste lines on the interior of the building shall be designed, constructed or modified such that non-domestic waste will be discharged to the separate and independent sewer connection. No tenant or occupant of any building shown on this site development plan shall discharge regulated non-domestic waste to the public sewerage system prior to installation of the separate and independent sewer connection and related interior waste lines. The above statement shall apply to all initial and future occupants or tenants.

PREPARED BY:

GEORGE W. STEPHENS, JR. AND ASSOCIATES, INC.

Civil Engineers and Land Surveyors

658 Kenilworth Drive, Suite 100
 Towson, Maryland 21204
 (410) 825-8120

OWNER / DEVELOPER

HORSE FARM - LINDEN, L.L.C.

906 POPLAR HILL ROAD SUITE 200
 BALTIMORE, MARYLAND, 21210
 410 - 532-6250

DESIGNED BY: P.R.C.

DRAWN BY: E.M.T., K.E.

CHECKED BY: P.R.C.

REVISIONS

COVER SHEET

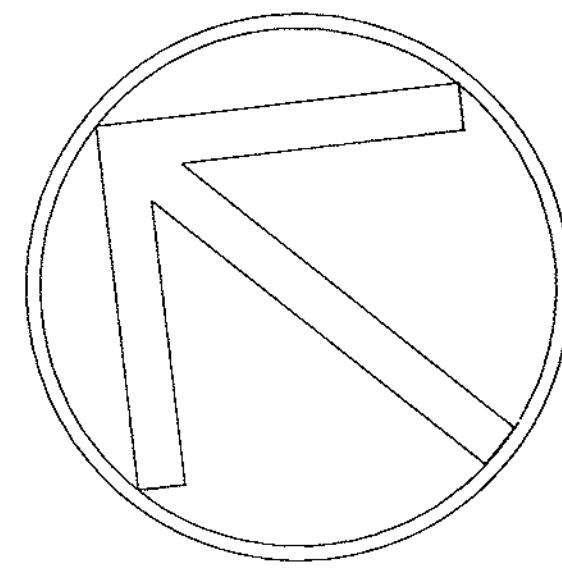
THE HORSE FARM

ELECTION DISTRICT : 1
 HOWARD CO., MARYLAND
 SHEET 1 OF 37

SCALE : As Shown
 DATE : Nov. 25, 1998

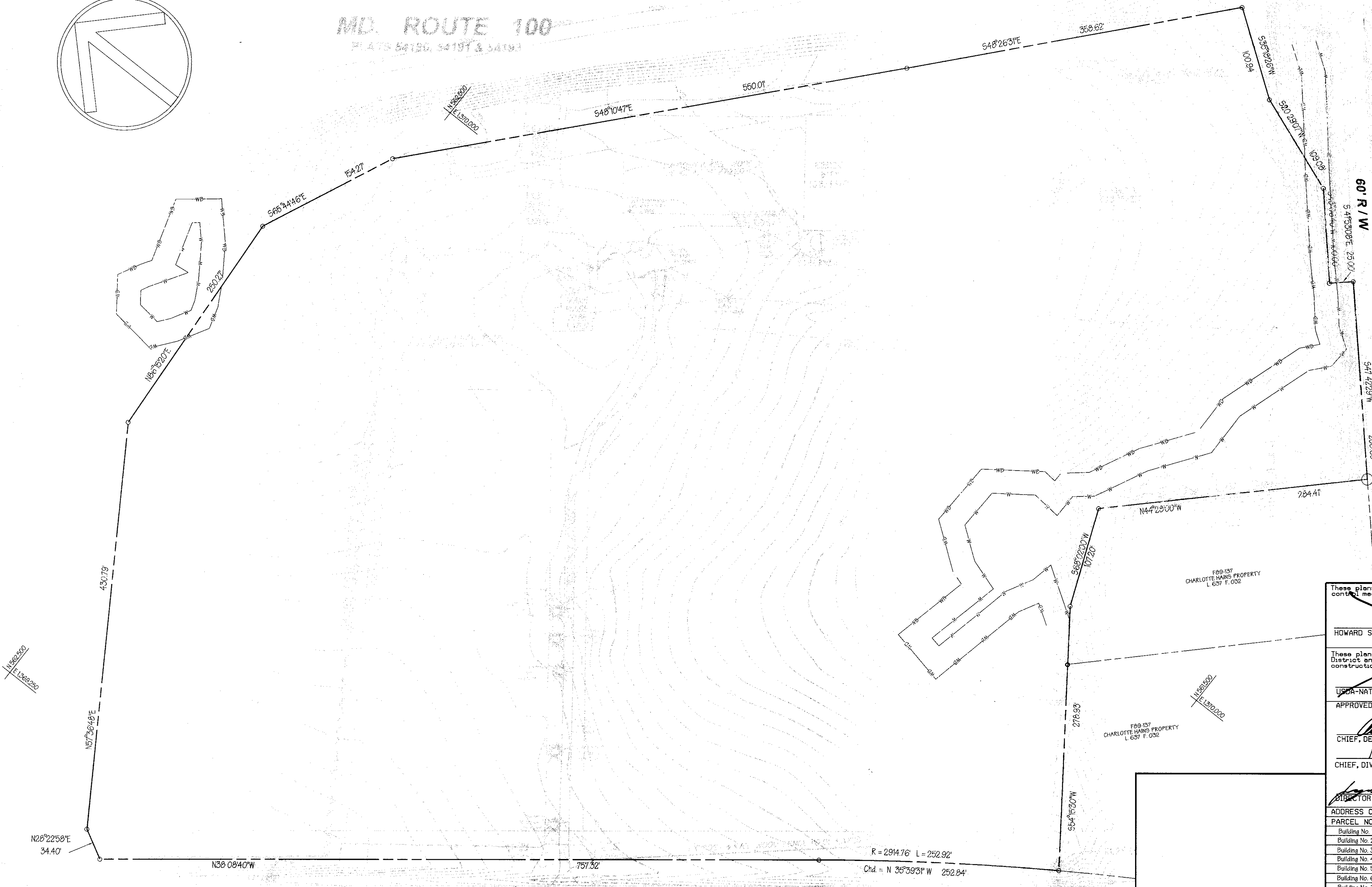
SDP 99-65

NAME : 8594covershts01 P/N : 8594



MD. ROUTE 100
PLATS 54150, 54197 & 54198

OLD MONTGOMERY ROAD



~~These plans for small pond construction, soil erosion and sediment control meet the requirements of Howard Soil Conservation District.~~

~~HOWARD SOIL CONSERVATION DISTRICT _____ DATE _____~~

~~These plans have been reviewed for the Howard Soil Conservation District and meet the technical requirements for small pond construction, soil erosion and sediment control.~~

~~USDA-NATURAL RESOURCES CONSERVATION SERVICE _____ DATE _____~~

~~APPROVED: Howard County Department of Planning and Zoning~~

~~CHIEF, DEVELOPMENT ENGINEERING DIVISION _____ DATE 12/21/95~~

~~CHIEF, DIVISION OF LAND DEVELOPMENT _____ DATE 12/29/99~~

~~DIRECTOR _____ DATE 12/29/95~~

PARCEL NO.	STREET ADDRESS
Building No. 1	6010 University Boulevard
Building No. 2	6011 University Boulevard
Building No. 3	6021 University Boulevard
Building No. 4	6020 University Boulevard
Building No. 5	6040 University Boulevard
Building No. 6	6031 University Boulevard
Building No. 7	6041 University Boulevard
Building No. 8	6051 University Boulevard

SUBDIVISION NAME	SECTION NAME	PARCEL #
The Horse Farm	N/A	552

PLAT #	BLOCK #	ZONE	TAX MAP	ELECT. DIST.	CENSUS TRACT
N/A	218	POK	37	1	6011.02

WATER CODE E-07 SEWER CODE 2780000

EXISTING CONDITIONS PLAN
THE HORSE FARM

ELECTION DISTRICT : 1 HOWARD CO., MARYLAND SHT. 2 OF 37 SCALE : As Shown DATE : Nov.25, 1998

MD RT. 108
100' R / W
S.H.A. PLATS 12453 & 12454

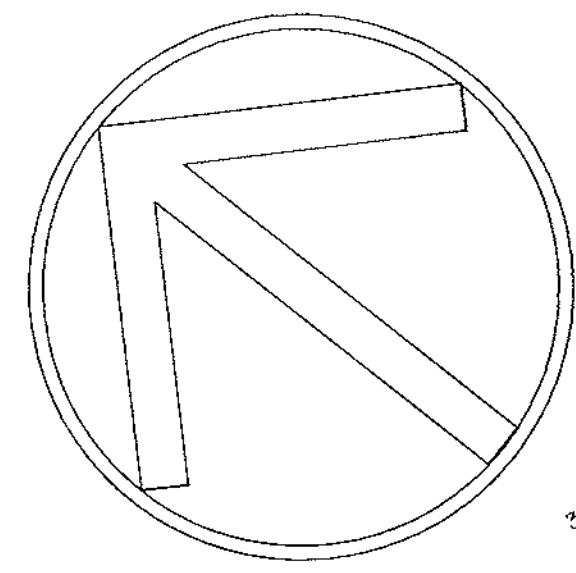
PLAN
SCALE : 1" = 50'

PREPARED BY:

GEORGE W. STEPHENS, JR. AND ASSOCIATES, INC.
Civil Engineers and Land Surveyors
658 Kenilworth Drive, Suite 100
Towson, Maryland 21204
(410) 825-8120

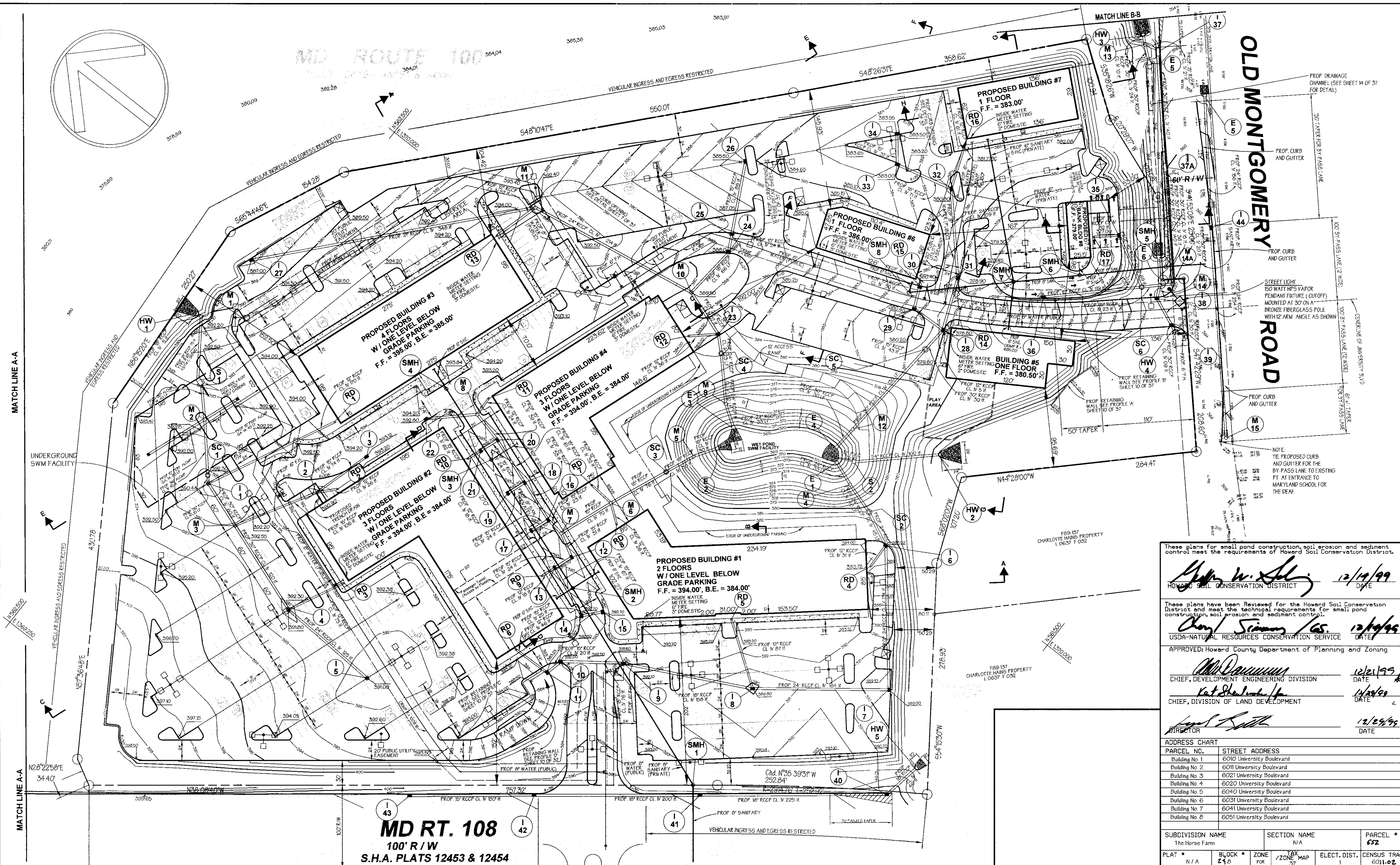
OWNER - DEVELOPER
HORSE FARM - LINDEN L.L.C.
906 POPLAR HILL ROAD SUITE 200
BALTIMORE, MARYLAND, 21210
410 - 532 6250

DESIGNED BY: P.R.C.
DRAWN BY: E.M.T., K.E.
CHECKED BY: P.R.C.
REVISIONS



MD ROUTE 100

OLD MONTGOMERY ROAD



MD RT. 108
100' R/W
S.H.A. PLATS 12453 & 12454

These plans for the small pond construction, soil erosion and sediment control meet the requirements of Howard Soil Conservation District.

John W. Selig 12/14/99
HOWARD SOIL CONSERVATION DISTRICT DATE

These plans have been reviewed for the Howard Soil Conservation District and meet the technical requirements for small pond construction, soil erosion and sediment control.

Carol Stearns 12/14/99
USDA-NATURAL RESOURCES CONSERVATION SERVICE DATE

APPROVED: Howard County Department of Planning and Zoning

John Dammann 12/21/99
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE


Kat Shulman 1/4/00
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

Scott Smith 12/29/99
DIRECTOR DATE


PARCEL NO.	STREET ADDRESS
Building No. 1	6010 University Boulevard
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Building No. 3	6021 University Boulevard
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Building No. 6	6031 University Boulevard
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Building No. 8	6051 University Boulevard

SUBDIVISION NAME The Horse Farm		SECTION NAME N/A	PARCEL # 652
PLAT # N/A	BLOCK # Z 1 B	ZONE FOR Z 1 B	ELECT. DIST. 1
WATER CODE E-07		TAX MAP 37	CENSUS TRACT 6011.02
		SEWER CODE 2780000	

PREPARED BY:



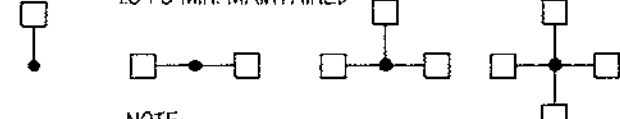
GEORGE W. STEPHENS, JR. AND ASSOCIATES, INC.
Civil Engineers and Land Surveyors
658 Kenilworth Drive, Suite 100
Towson, Maryland 21204
(410) 825-8120



VEHICULAR INGRESS AND EGRESS RESTRICTED

PLAN
SCALE: 1" = 50'

TYPICAL LIGHTING
400 W METAL HALID
30 FOOT POLES
15 FC MIN. MAINTAINED



NOTE: ALL EXTERIOR LIGHTING SHALL CONFORM TO ZONING REGULATIONS, SECTION 134.

NOTE: FOR BUILDING NO. 1, 2, 3, 4 HANDICAPPED DETAILS SEE SHEET 8 OF 36.
NOTE: ALL CURB RADIUS ARE TO BE 5' UNLESS OTHERWISE SPECIFIED.
NOTE: FOR MD ROUTE 108 & OLD MONTGOMERY ROAD PAVEMENT MARKING PLAN SEE SHEET 37 OF 37.

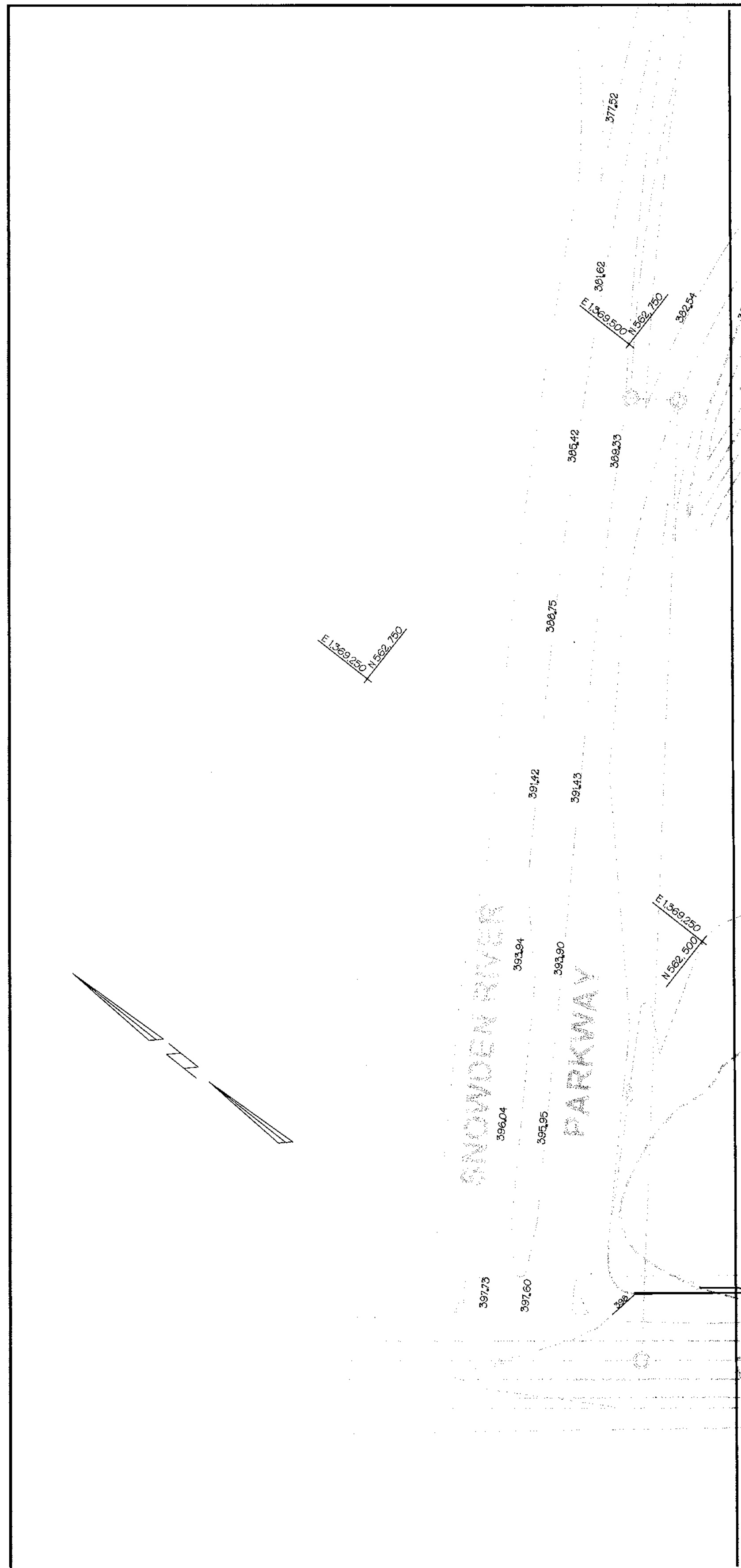
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906 POPULAR HILL ROAD SUITE 200
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DRAWN BY: E.M.T., K.E.
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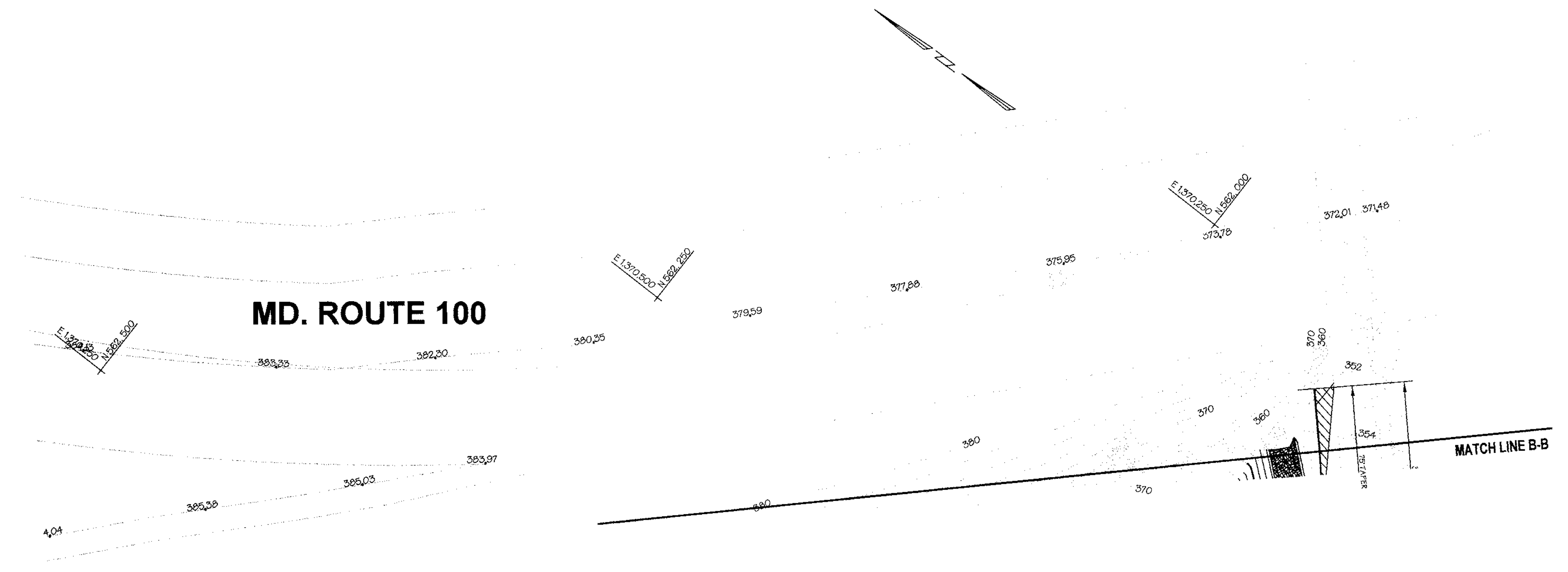
SITE PLAN
THE HORSE FARM

ELECTION DISTRICT: 1
HOWARD CO., MARYLAND
SCALE: As Shown
DATE: Nov 25, 1998

SDP 99-65 FILE NAME: #594-overall-site-plan-01 FIN: 8054



PLAN
SCALE: 1" = 50'



PLAN
SCALE: 1" = 50'

These plans for small pond construction, soil erosion and sediment control meet the requirements of Howard Soil Conservation District.

[Signature] 12/14/99
HOWARD SOIL CONSERVATION DISTRICT DATE

These plans have been Reviewed for the Howard Soil Conservation District and meet the technical requirements for small pond construction, soil erosion and sediment control.

[Signature] 12/14/99
USDA-NATURAL RESOURCES CONSERVATION SERVICE DATE

APPROVED: Howard County Department of Planning and Zoning

[Signature] 12/21/99
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

[Signature] 12/22/99
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

[Signature] 12/23/99
DIRECTOR DATE

PARCEL NO.	STREET ADDRESS
Building No. 1	6010 University Boulevard
Building No. 2	6011 University Boulevard
Building No. 3	6021 University Boulevard
Building No. 4	6020 University Boulevard
Building No. 5	6040 University Boulevard
Building No. 6	6031 University Boulevard
Building No. 7	6041 University Boulevard
Building No. 8	6051 University Boulevard

SUBDIVISION NAME The Horse Farm		SECTION NAME N/A	PARCEL # 532
PLAT # N/A	BLOCK # 248	ZONE PKR	TAX MAP 37
ELECT. DIST. 1		CENSUS TRACT 6011.02	
WATER CODE E-07		SEWER CODE 2780000	

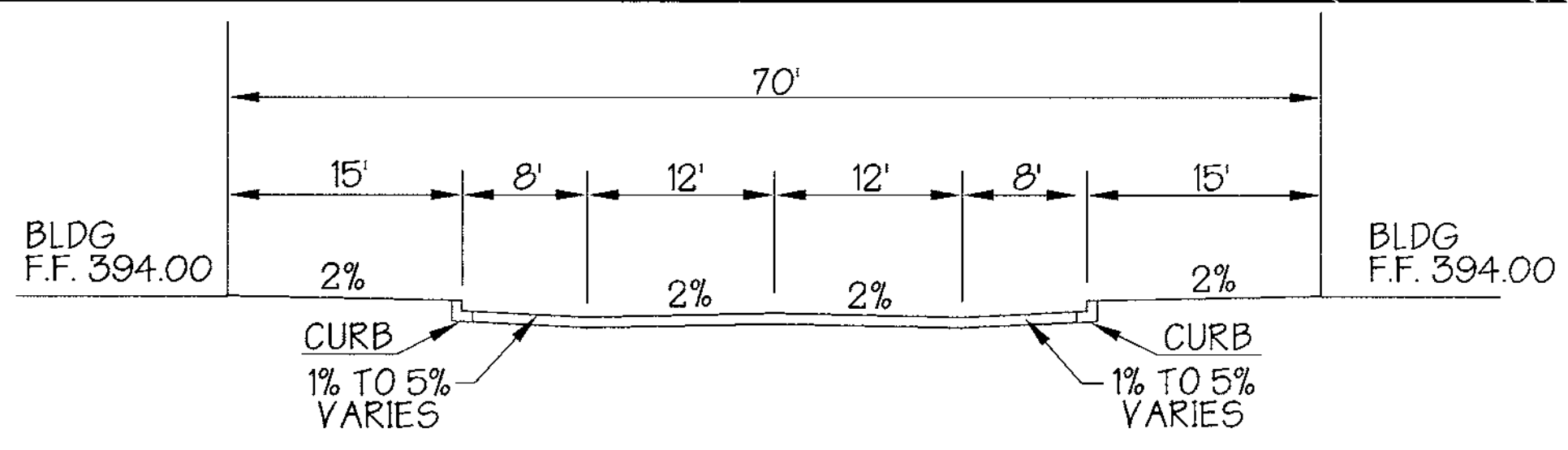
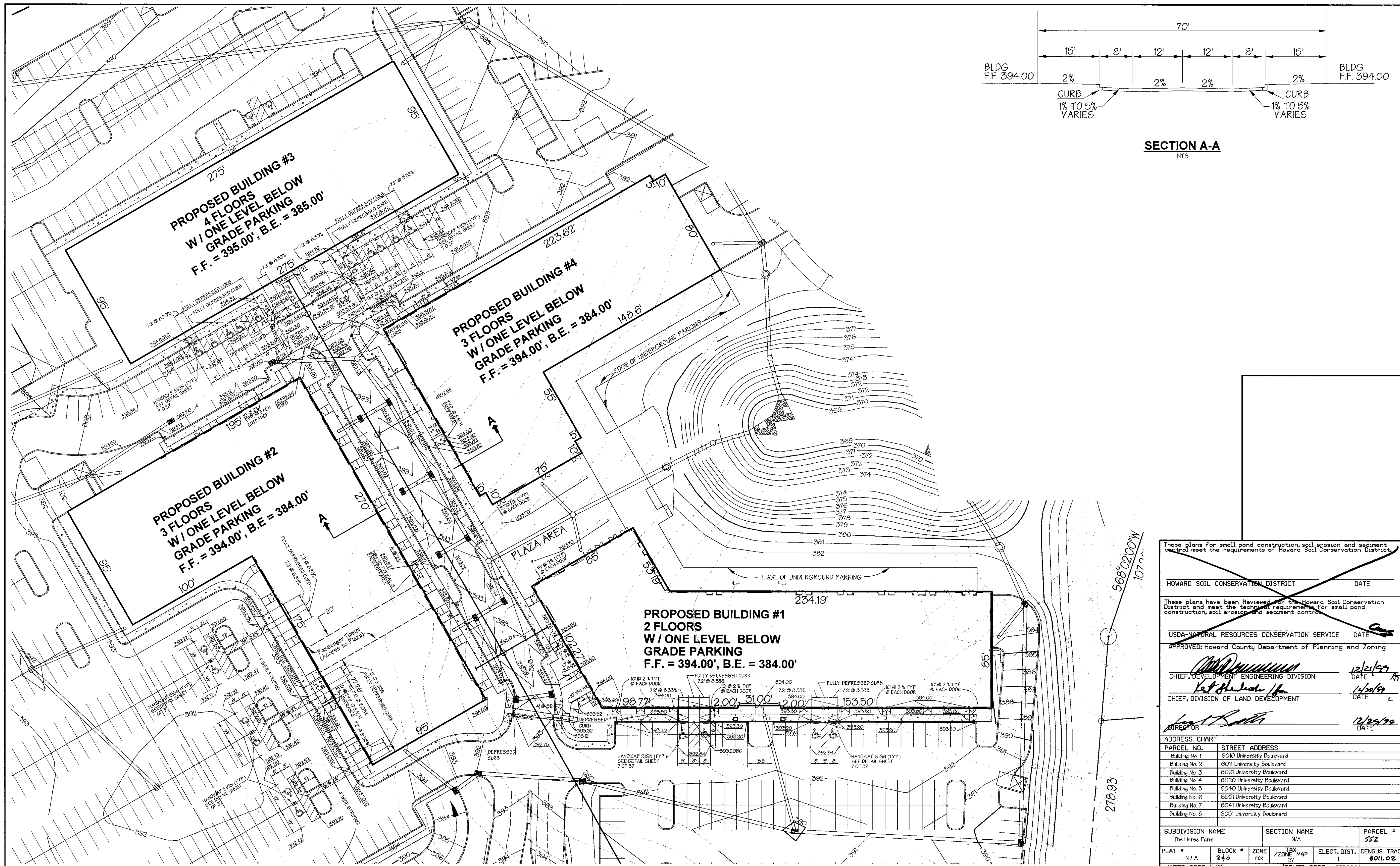
PREPARED BY:
GWS
GEORGE W. STEPHENS, JR. AND ASSOCIATES, INC.
Civil Engineers and Land Surveyors
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OWNER / DEVELOPER
HORSE FARM - LINDEN, L.L.C.
906 POPLAR HILL ROAD SUITE 200
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410 - 532-6250

DESIGNED BY: P.R.C.
DRAWN BY: E.M.T., K.E.
CHECKED BY: P.R.C.
REVISIONS

SITE PLAN
THE HORSE FARM
ELECTION DISTRICT : 1
HOWARD CO., MARYLAND SHT. 4 OF 37
SCALE: As Shown
DATE: Nov. 25, 1998



SECTION A-A
NTS

These plans for small pond construction, soil erosion and sediment control meet the requirements of Howard Soil Conservation District.

HOWARD SOIL CONSERVATION DISTRICT _____ DATE _____

These plans have been reviewed for the Howard Soil Conservation District and meet the technical requirements for small pond construction, soil erosion and sediment control.

USDA-NATURAL RESOURCES CONSERVATION SERVICE _____ DATE _____

APPROVED: Howard County Department of Planning and Zoning

[Signature] 12/21/99
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

[Signature] 1/30/99
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

[Signature] 12/21/99
DIRECTOR DATE

ADDRESS CHART	
PARCEL NO.	STREET ADDRESS
Building No. 1	6010 University Boulevard
Building No. 2	6011 University Boulevard
Building No. 3	6021 University Boulevard
Building No. 4	6020 University Boulevard
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SUBDIVISION NAME		SECTION NAME	PARCEL #
The Horse Farm		N/A	552

PLAT #	BLOCK #	ZONE	TAX MAP	ELECT. DIST.	CENSUS TRACT
N/A	248	PKR	37	1	6011.02

WATER CODE E-07 SEWER CODE 2780000

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(410) 825-8120



PLAN
SCALE: 1" = 30'

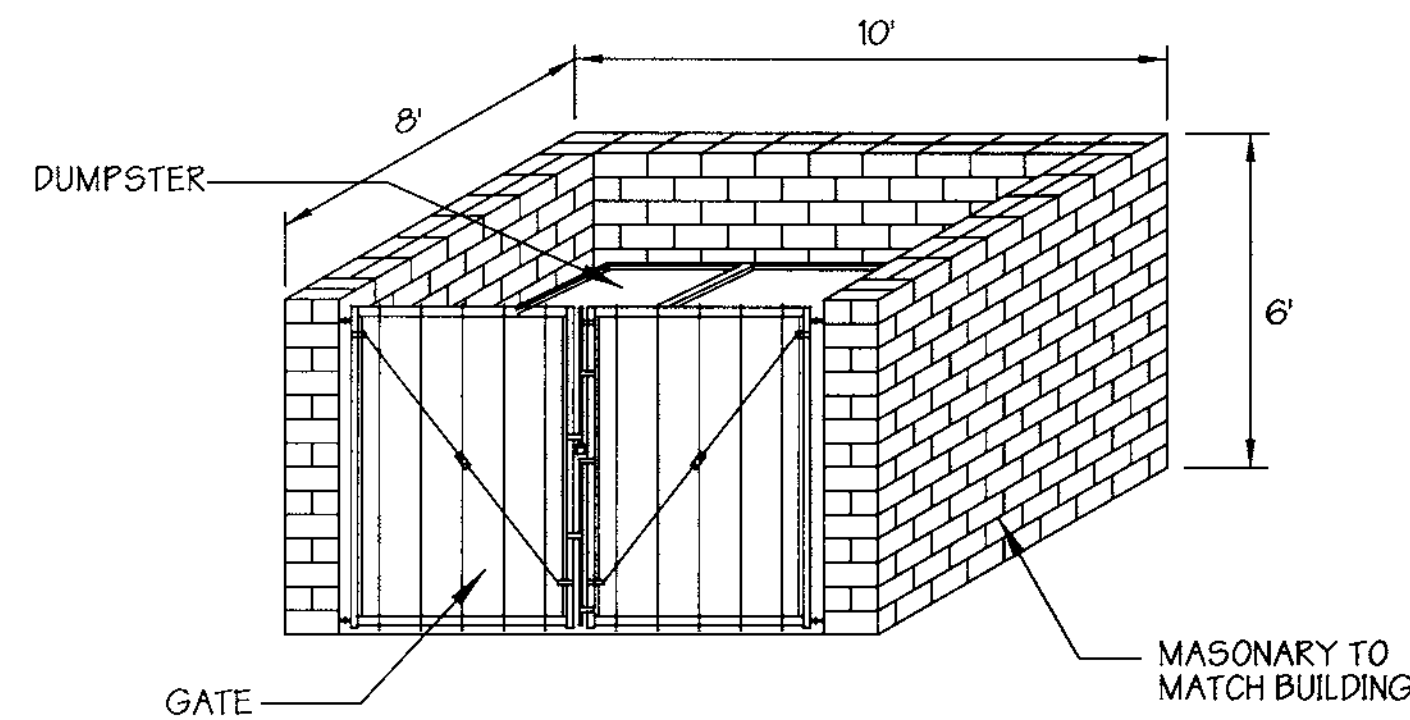
OWNER - DEVELOPER
HORSE FARM - LINDEN L.L.C.
906 POPLAR HILL ROAD SUITE 200
BALTIMORE, MARYLAND, 21210
410 - 532 6250

DESIGNED BY: P.R.C.
DRAWN BY: E.M.T., K.E.
CHECKED BY: P.R.C.
REVISIONS

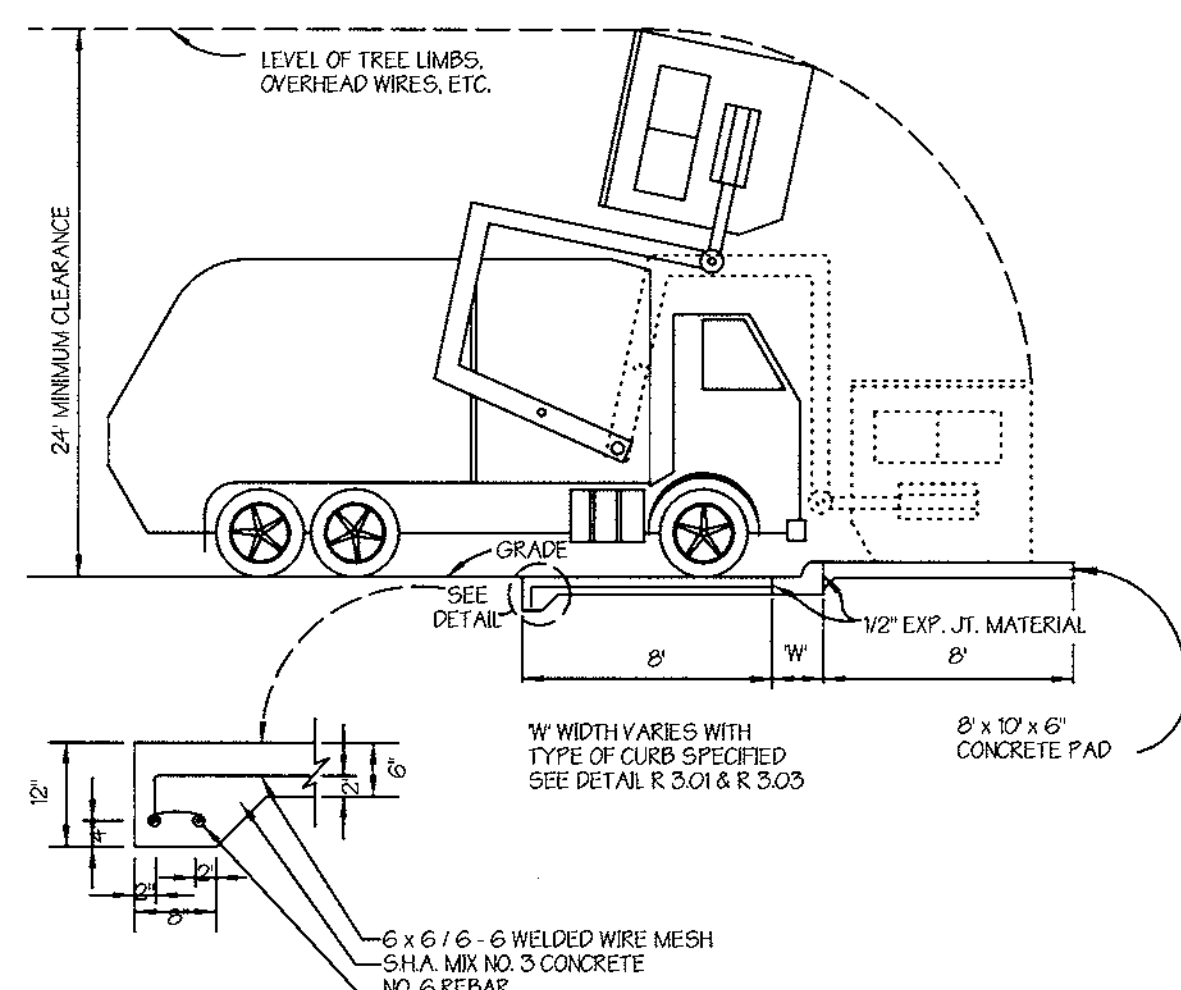
SITE PLAN DETAIL
THE HORSE FARM

ELECTION DISTRICT: 1
HOWARD CO., MARYLAND SHT. 6 OF 37 SCALE: As Shown
DATE: Nov.25, 1998

SDP 99-65 FILE NAME: 8594siteplan.dwg P/W: 8594



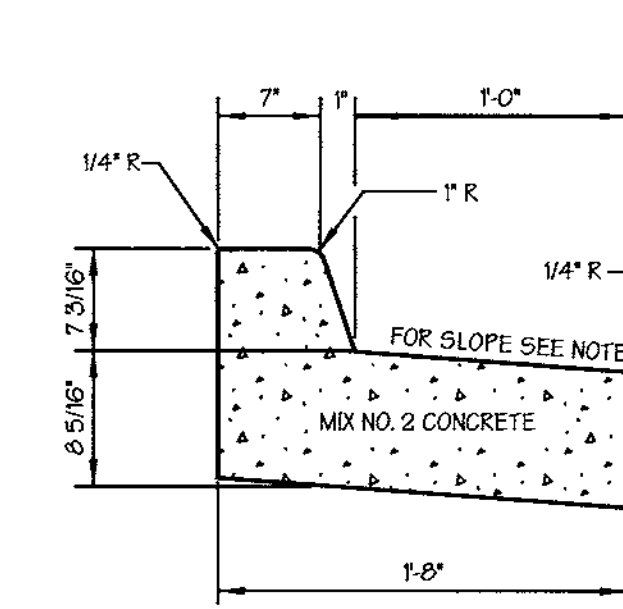
Dumpster Enclosure Detail
NOT TO SCALE



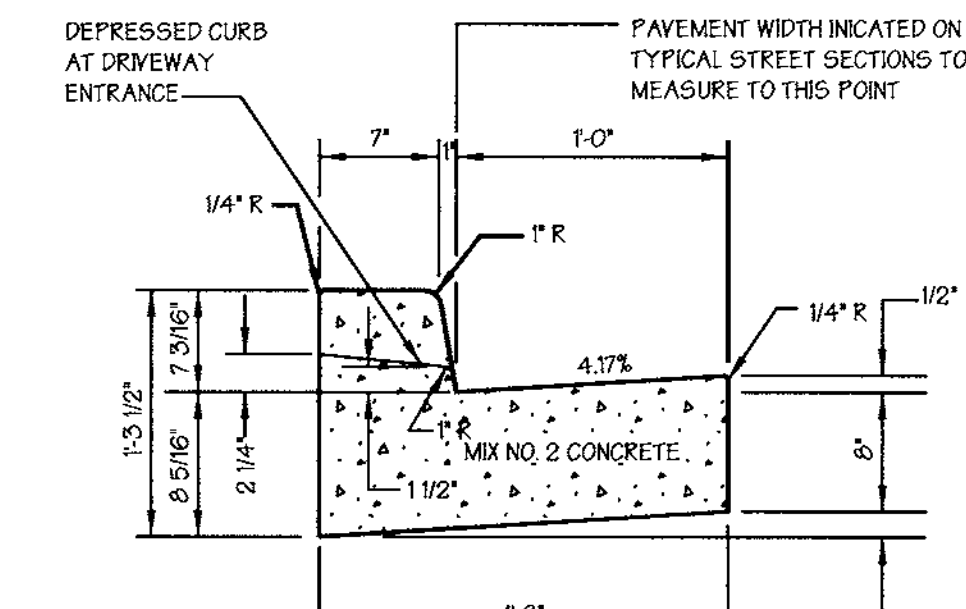
Solid Waste Service Pad
NOT TO SCALE



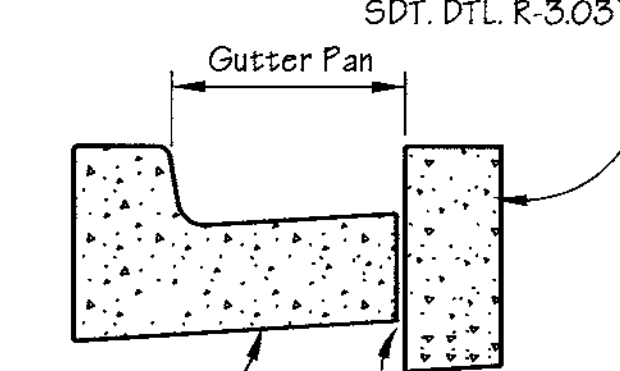
HANDICAPPED SIGN DETAIL
NOT TO SCALE



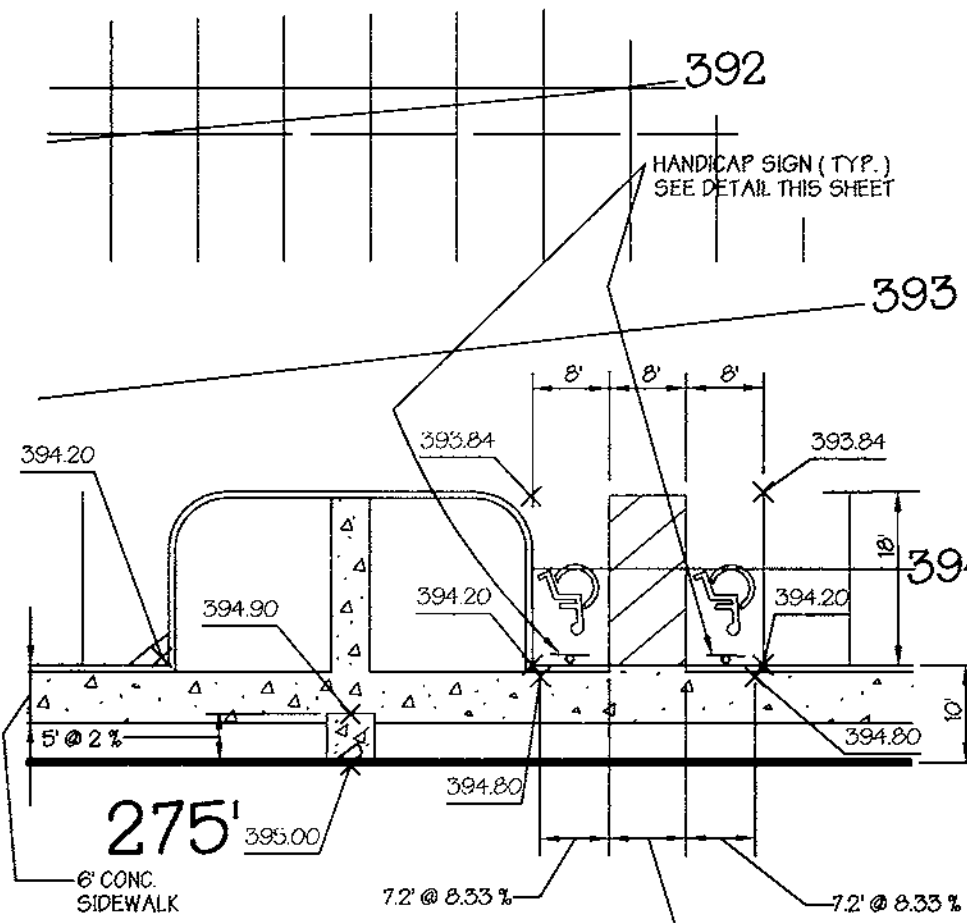
REVERSE SLOPE CURB AND GUTTER
NOT TO SCALE



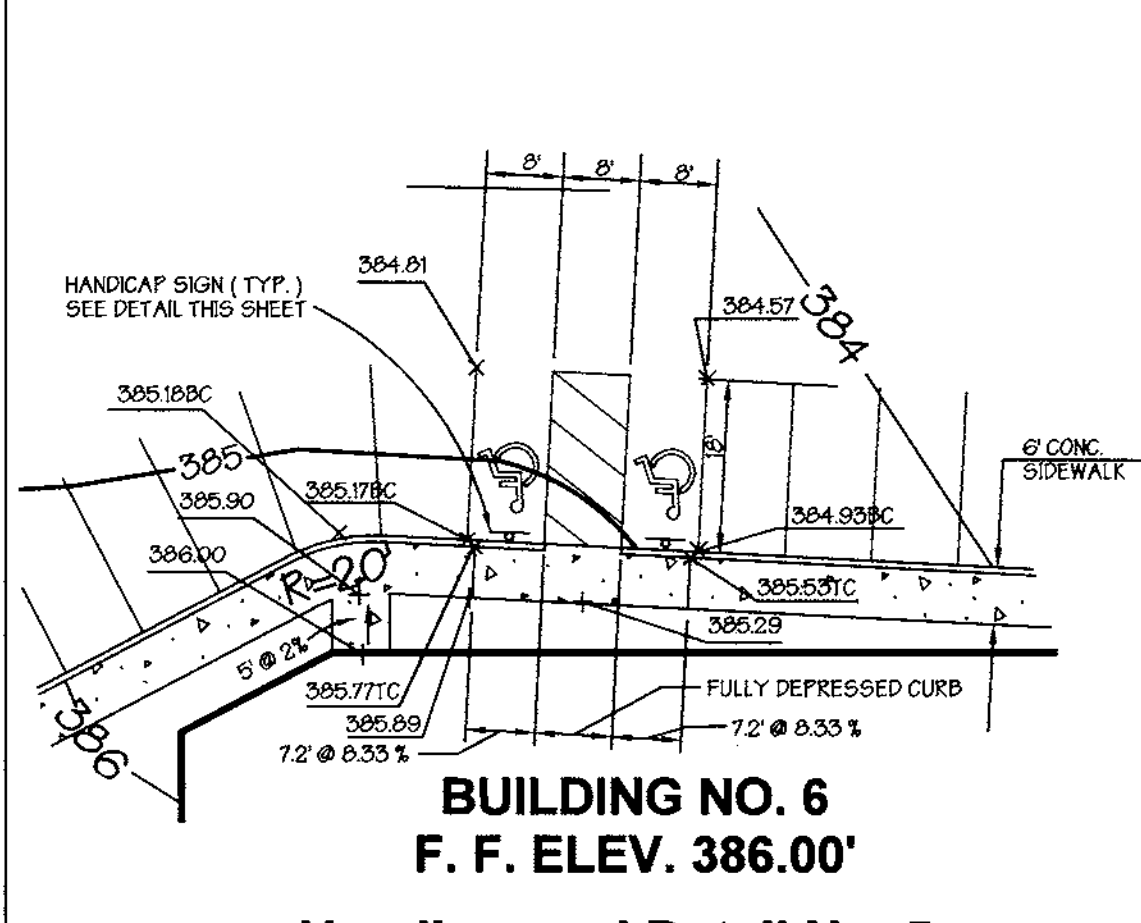
CURB AND GUTTER DETAIL
NOT TO SCALE



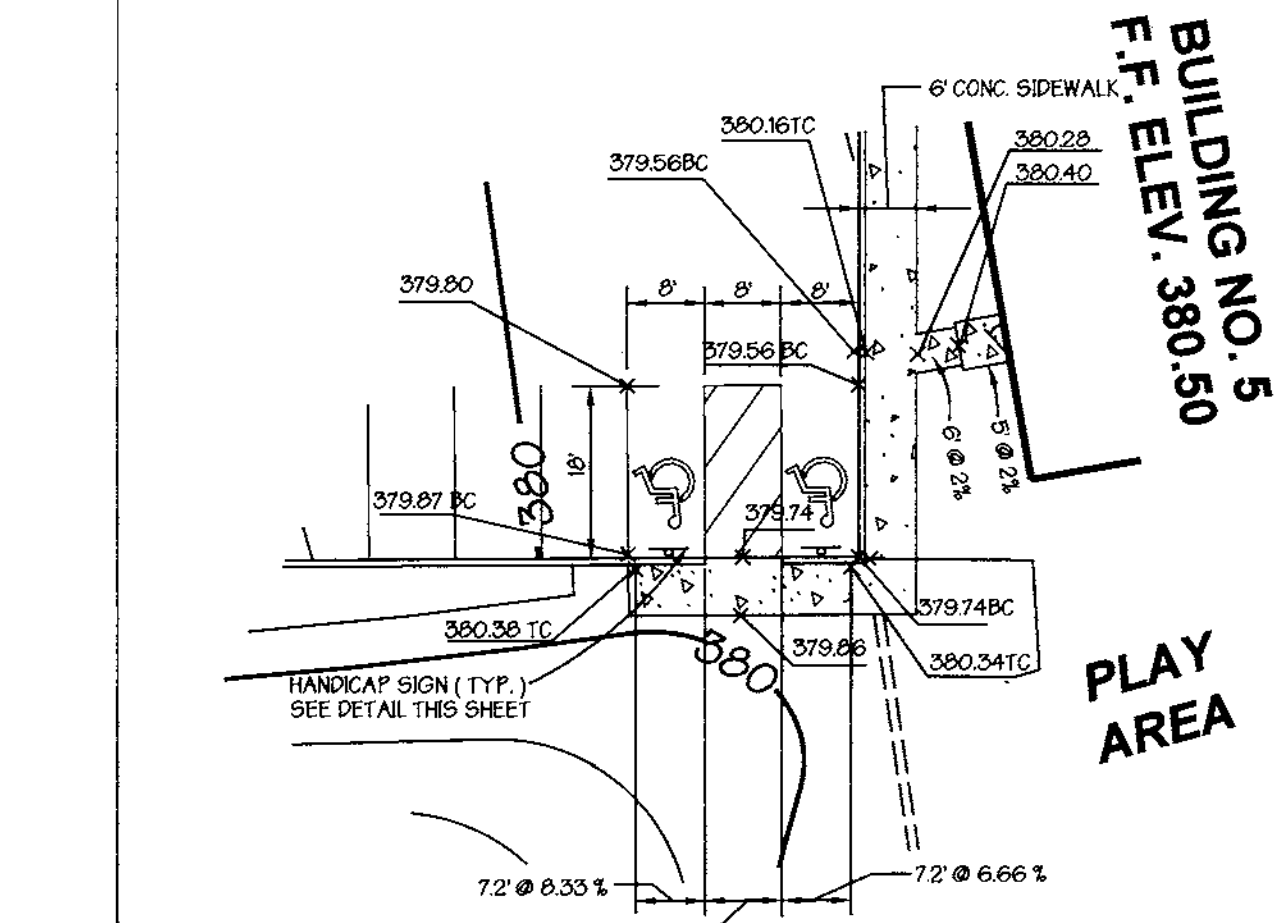
Curb Opening Detail
NOT TO SCALE



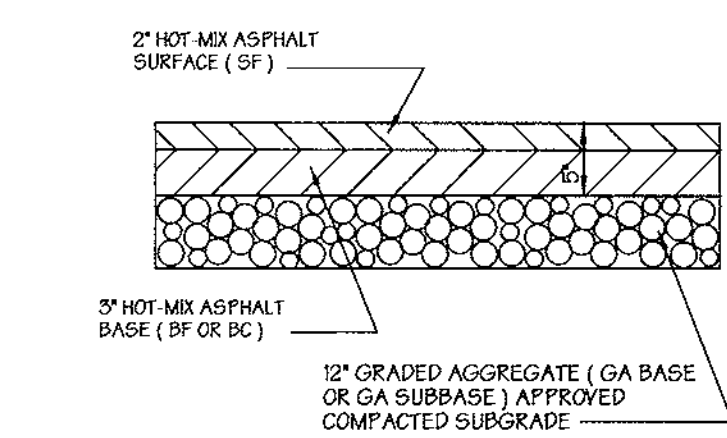
BUILDING NO. 3
F. F. ELEV. 395.00'
Handicapped Detail No. 4
SCALE: 1" = 20'



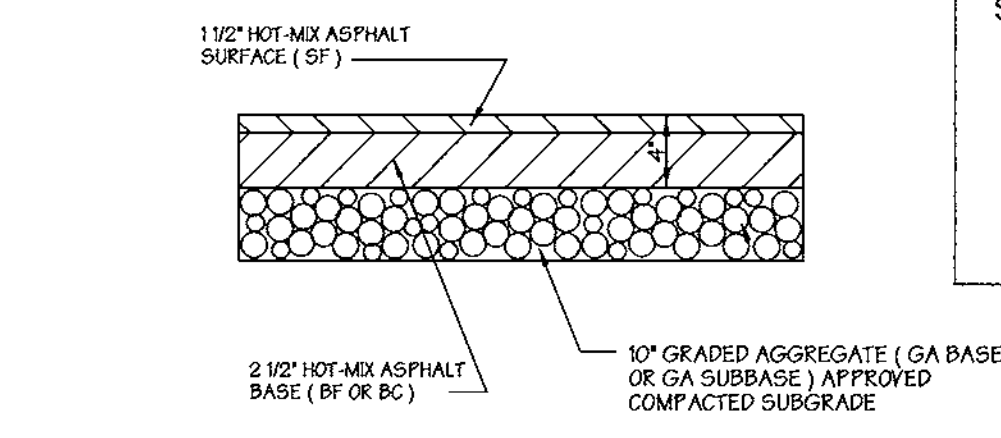
BUILDING NO. 6
F. F. ELEV. 386.00'
Handicapped Detail No. 5
SCALE: 1" = 20'



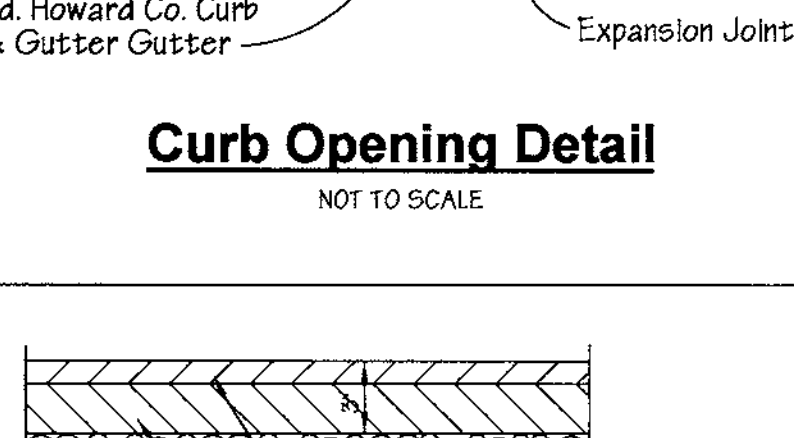
BUILDING NO. 5
F. F. ELEV. 380.50'
Handicapped Detail No. 6
SCALE: 1" = 20'



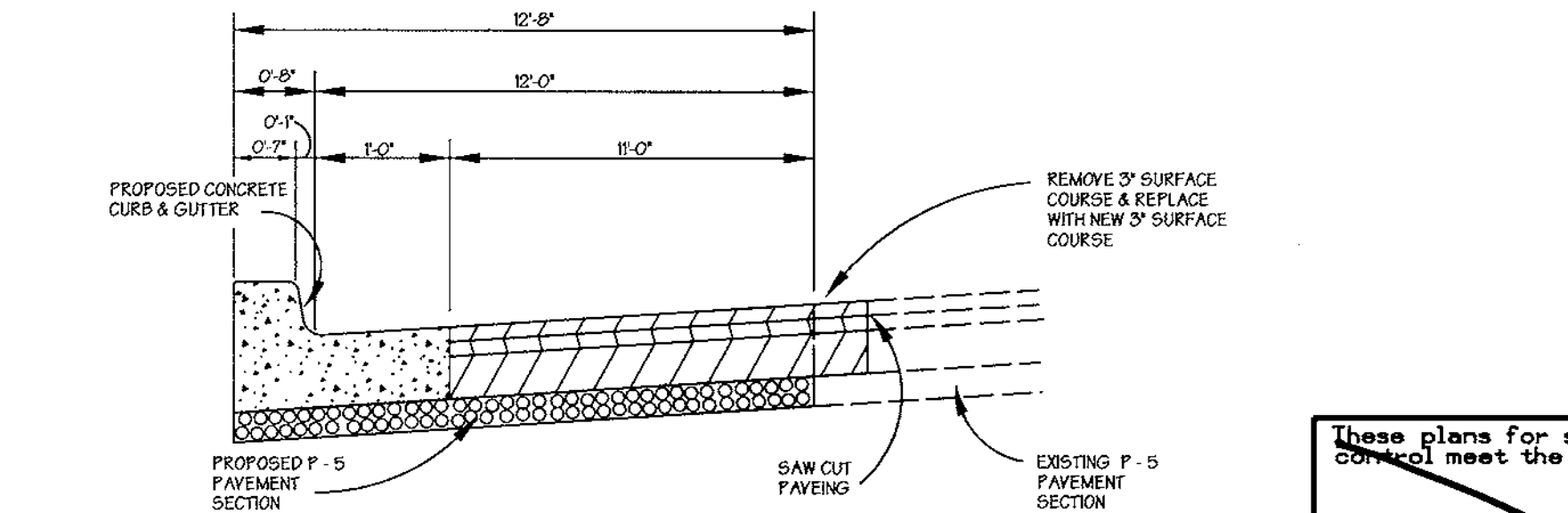
HEAVY DUTY PAVING
P-5 Pavement Section
NOT TO SCALE



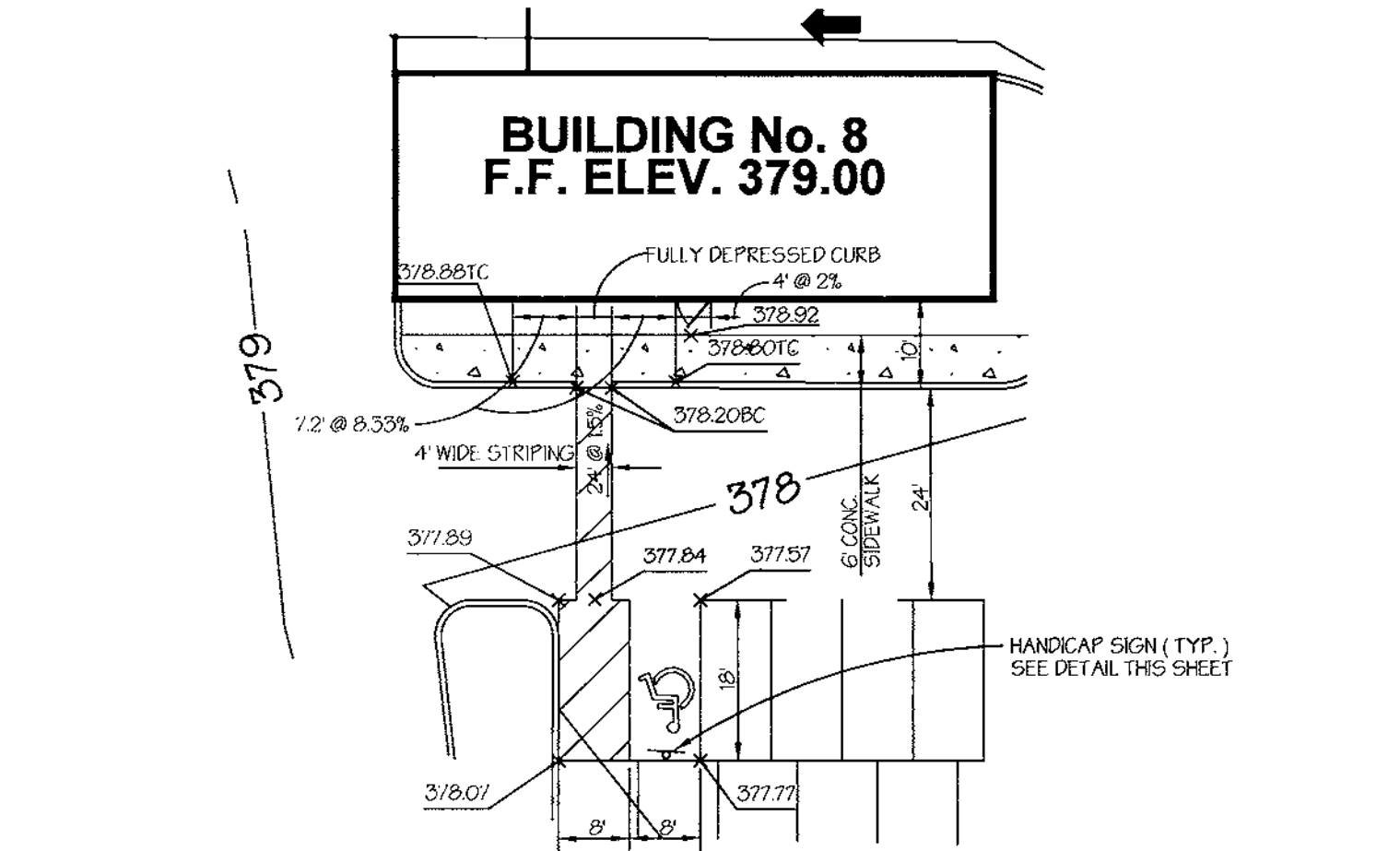
INTERMEDIATE DUTY PAVING
P-3 Pavement Section
NOT TO SCALE



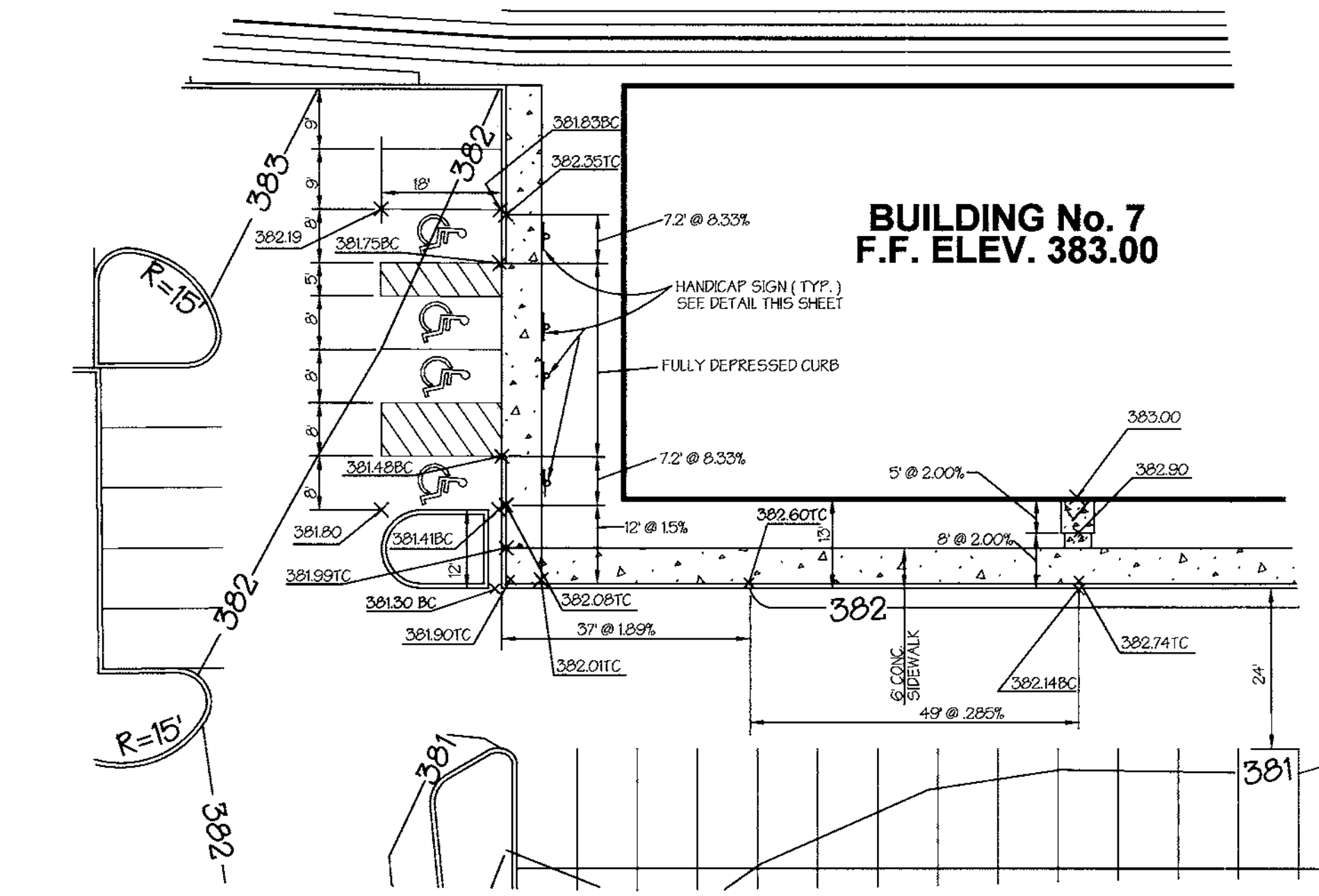
LIGHT DUTY PAVING
P-2 Pavement Section
NOT TO SCALE



Typical Road - Widening Section
NOT TO SCALE
* ACCELERATION AND DECELERATION LANES AT MD. ROUTE 108
* DECELERATION LANE AT OLD MONTGOMERY ROAD
* BY-PASS LANE AT OLD MONTGOMERY ROAD



BUILDING No. 8
F.F. ELEV. 379.00'
Handicapped Detail No. 7
SCALE: 1" = 20'



BUILDING No. 7
F.F. ELEV. 383.00'
Handicapped Detail No. 8
SCALE: 1" = 20'

PREPARED BY:
GEORGE W. STEPHENS, JR. AND ASSOCIATES, INC.
Civil Engineers and Land Surveyors
658 Kenilworth Drive, Suite 100
Towson, Maryland 21204
(410) 825-8120



OWNER - DEVELOPER
HORSE FARM - LINDEN L.L.C.
906 POPLAR HILL ROAD SUITE 200
BALTIMORE, MARYLAND, 21210
410 - 532 6250

DESIGNED BY: P.R.C.
DRAWN BY: E.M.T., K.E.
CHECKED BY: P.R.C.
REVISIONS

~~These plans for small pond construction, soil erosion and sediment control meet the requirements of Howard Soil Conservation District.~~

HOWARD SOIL CONSERVATION DISTRICT _____ DATE _____

~~These plans have been reviewed for the Howard Soil Conservation District and meet the technical requirements for small pond construction, soil erosion and sediment control.~~

USDA NATURAL RESOURCES CONSERVATION SERVICE _____ DATE _____

APPROVED: Howard County Department of Planning and Zoning

[Signature] _____ DATE 12/24/95
CHIEF, DEVELOPMENT ENGINEERING DIVISION

[Signature] _____ DATE 11/24/99
CHIEF, DIVISION OF LAND DEVELOPMENT

[Signature] _____ DATE 12/24/95
DIRECTOR

PARCEL NO.	STREET ADDRESS
Building No. 1	6010 University Boulevard
Building No. 2	6011 University Boulevard
Building No. 3	6021 University Boulevard
Building No. 4	6020 University Boulevard
Building No. 5	6040 University Boulevard
Building No. 6	6031 University Boulevard
Building No. 7	6041 University Boulevard
Building No. 8	6051 University Boulevard

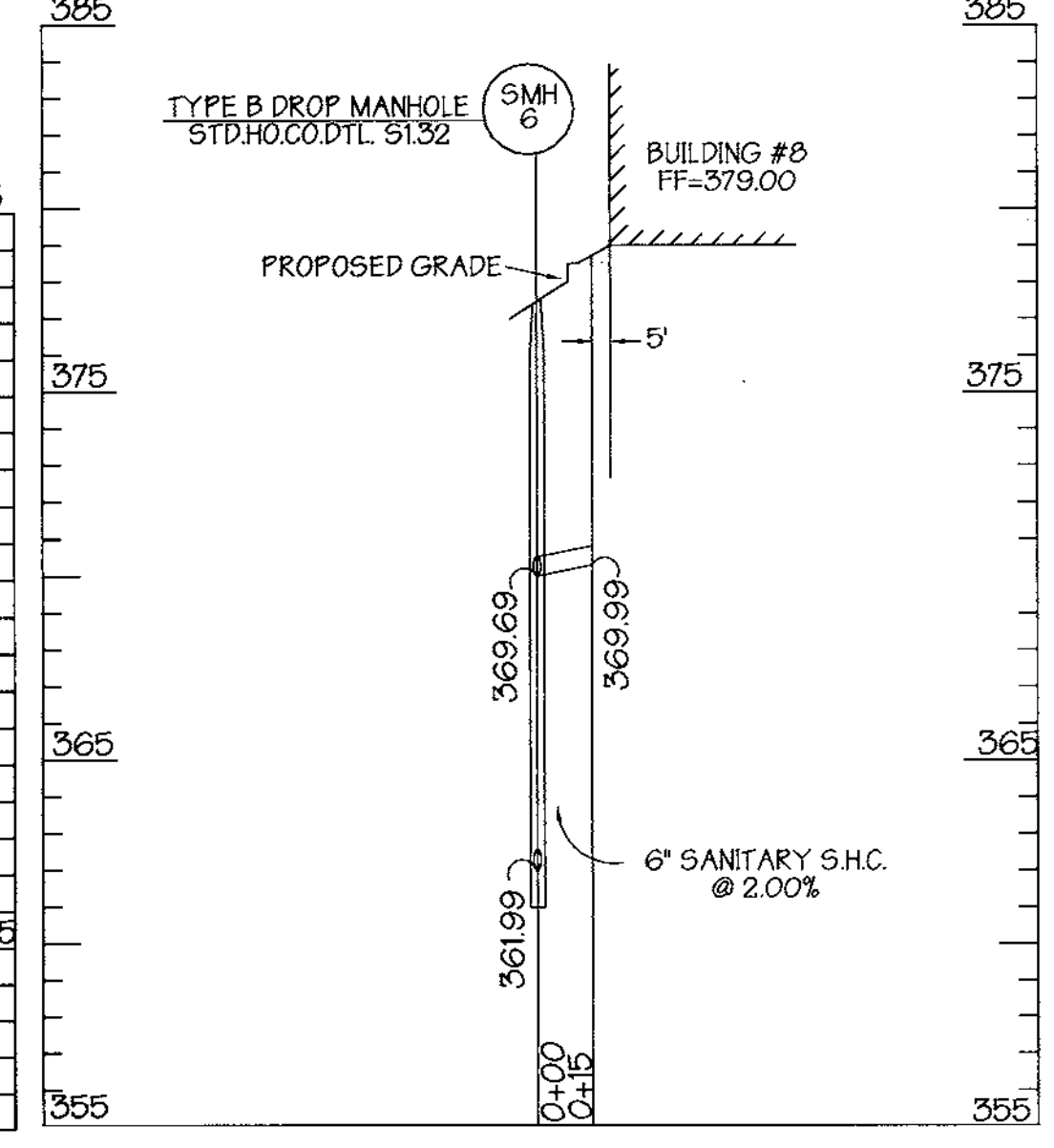
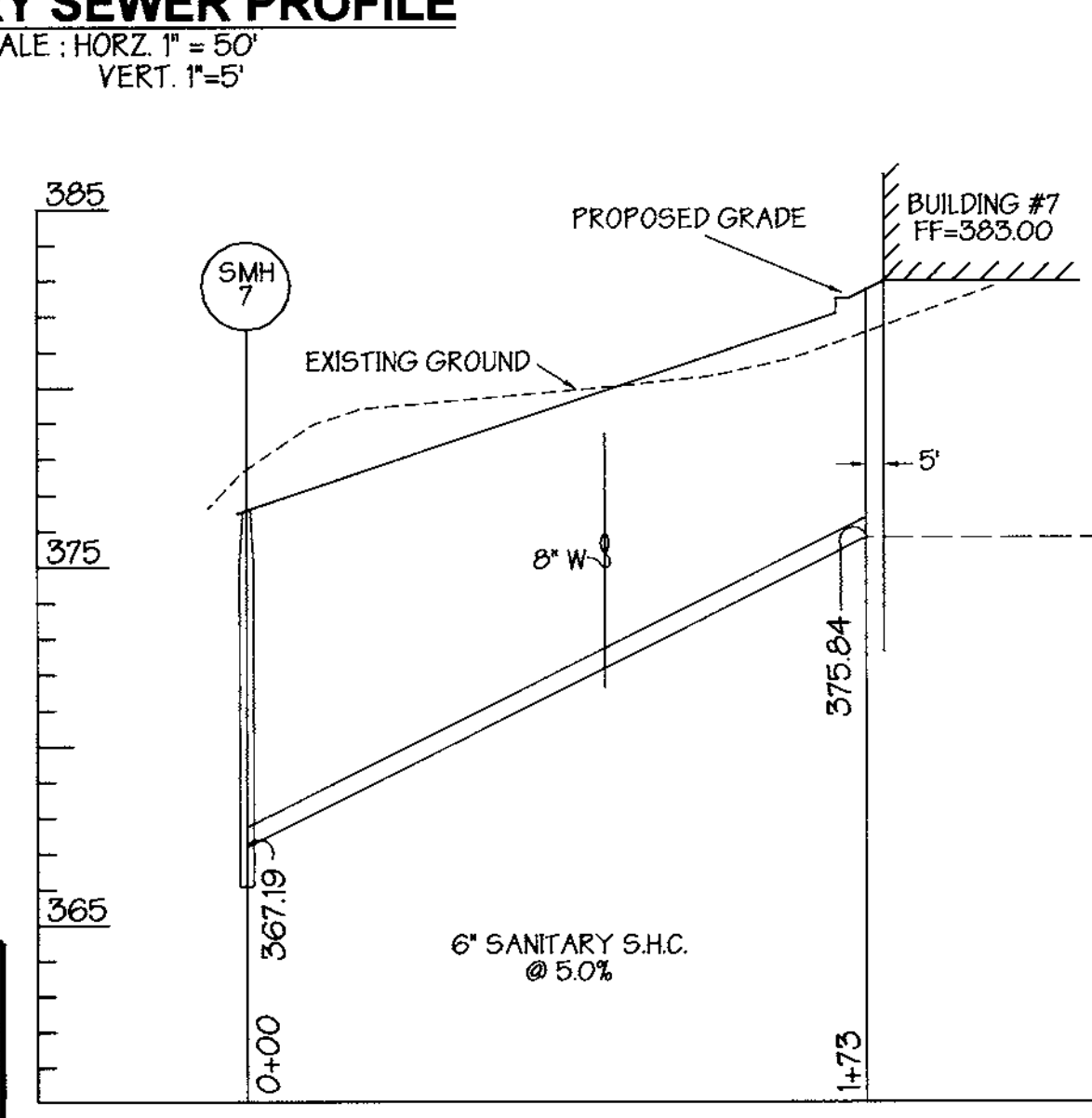
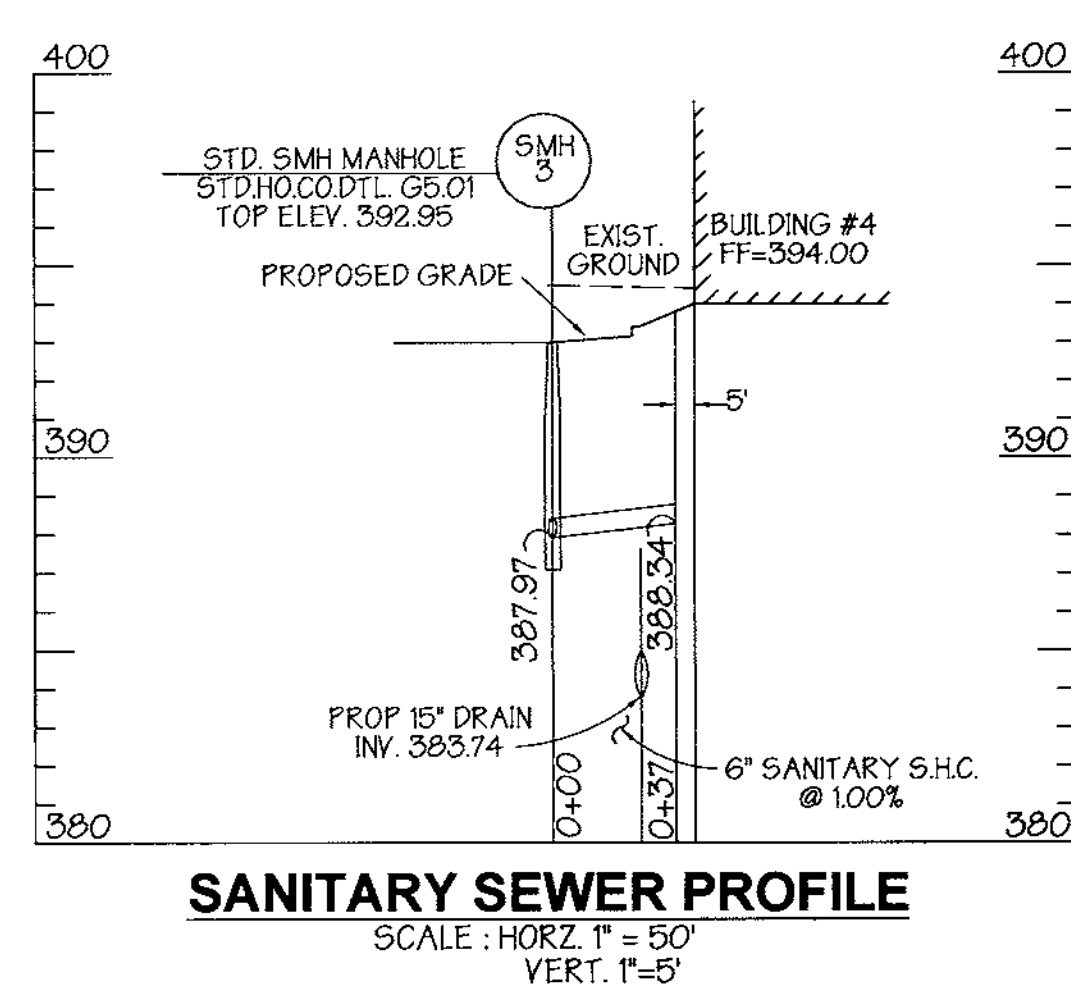
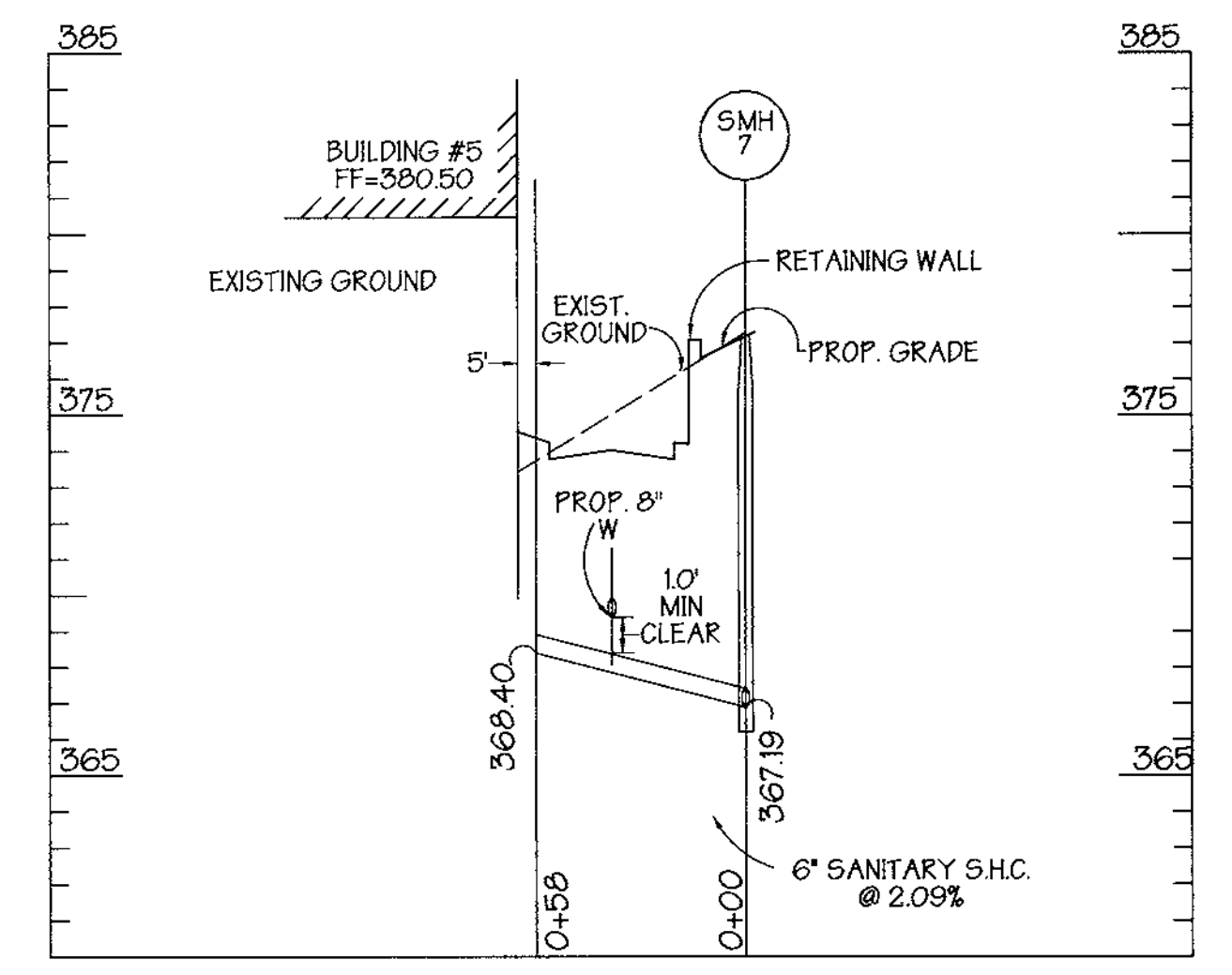
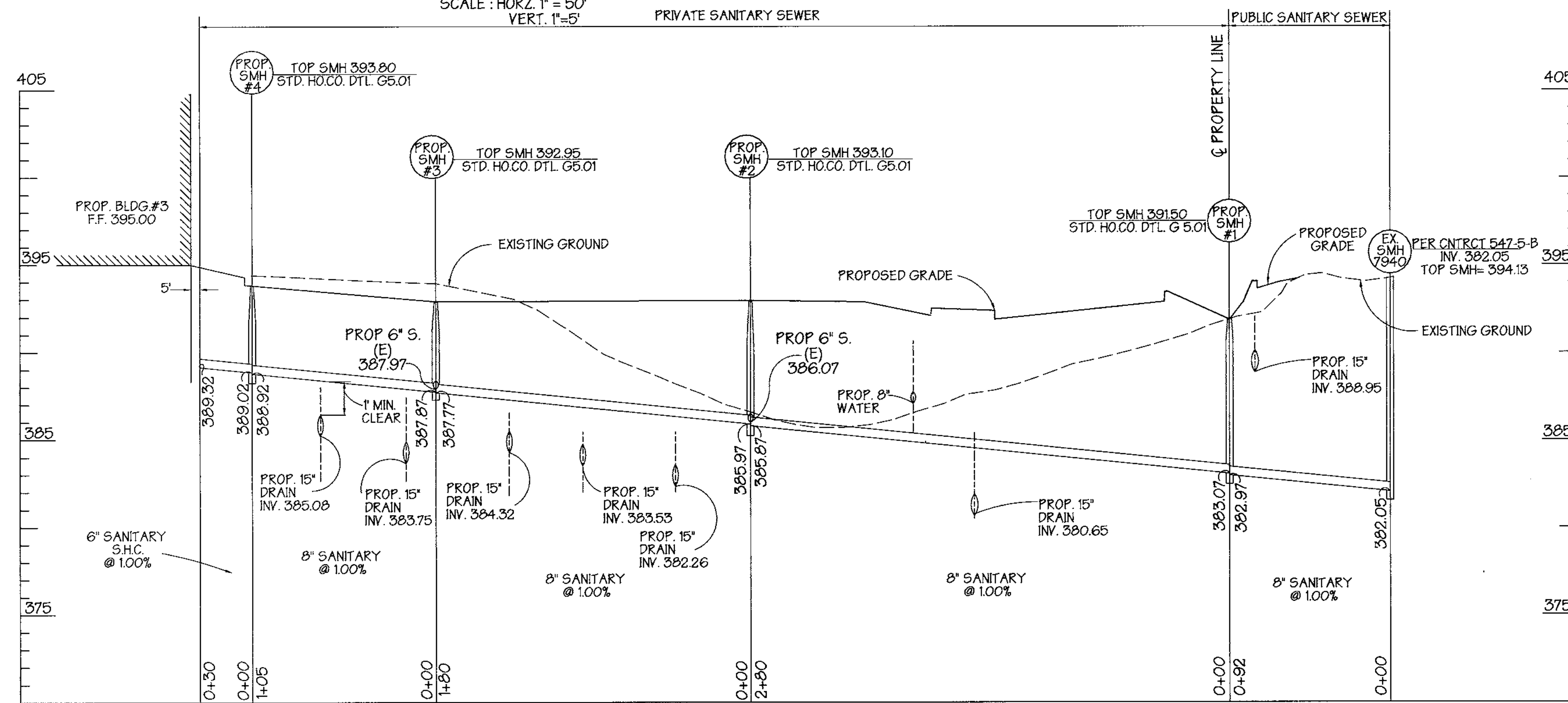
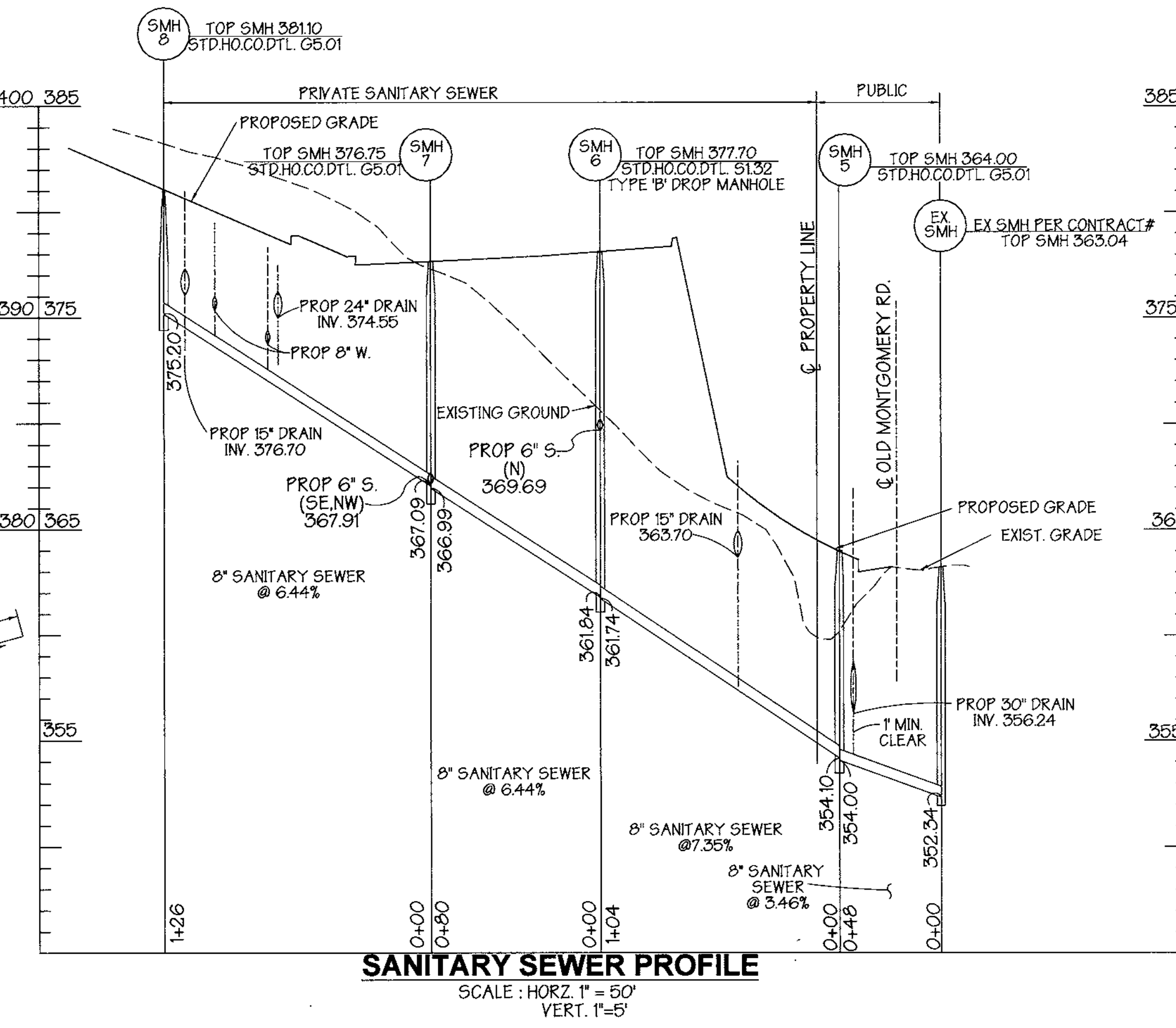
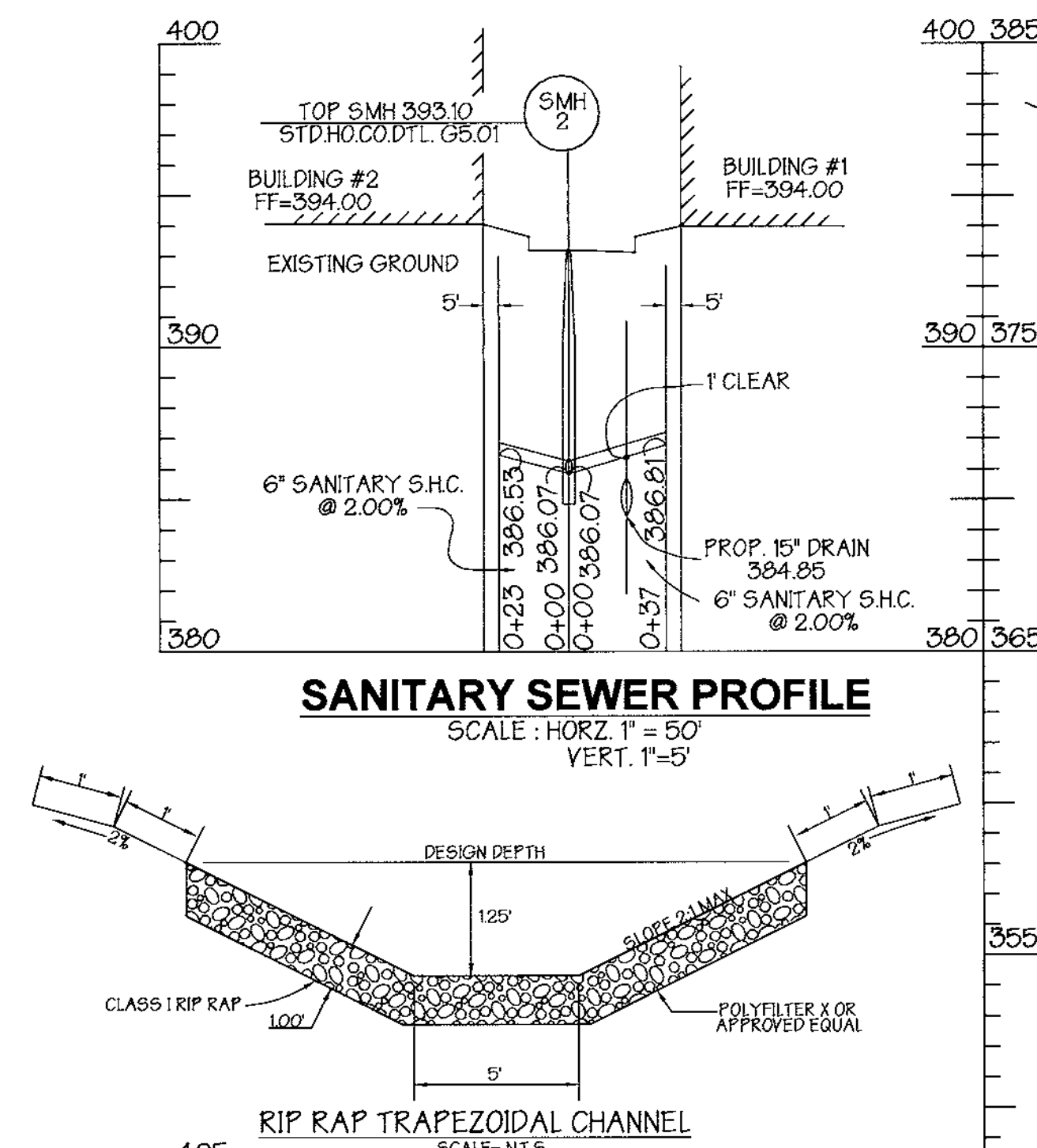
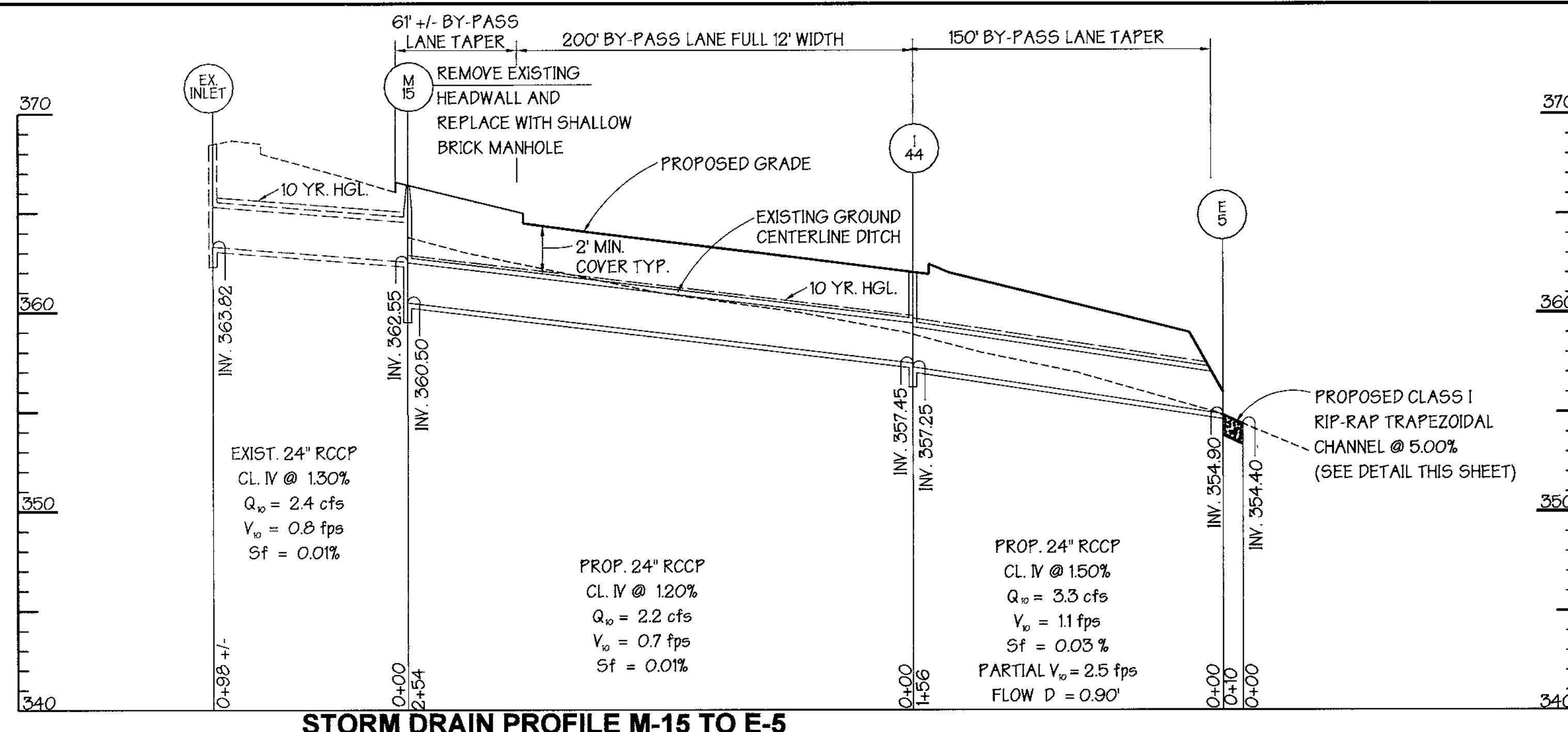
SUBDIVISION NAME The Horse Farm		SECTION NAME N/A	PARCEL # 552
PLAT # N/A	BLOCK # 2-B	ZONE / ZONE MAP PKR / 37	ELECT. DIST. 1
WATER CODE E-07		TAX MAP 37	CENSUS TRACT 6011.02
SEWER CODE 2780000			

SITE PLAN DETAILS
THE HORSE FARM

ELECTION DISTRICT: 1
HOWARD CO., MARYLAND

SHT. 7 OF 37

SCALE: As Shown
DATE: Nov. 25, 1998



These plans for small pond construction, soil erosion and sediment control meet the requirements of Howard Soil Conservation District.

[Signature] 12/19/99
HOWARD SOIL CONSERVATION DISTRICT DATE

These plans have been Reviewed for the Howard Soil Conservation District and meet the technical requirements for small pond construction, soil erosion and sediment control.

[Signature] 12/19/99
USDA-NATURAL RESOURCES CONSERVATION SERVICE DATE

APPROVED: Howard County Department of Planning and Zoning

[Signature] 12/21/99
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

[Signature] 12/29/99
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

[Signature] 12/29/99
DIRECTOR DATE

ADDRESS CHART

PARCEL NO.	STREET ADDRESS
Building No. 1	6010 University Boulevard
Building No. 2	6011 University Boulevard
Building No. 3	6021 University Boulevard
Building No. 4	6020 University Boulevard
Building No. 5	6040 University Boulevard
Building No. 6	6031 University Boulevard
Building No. 7	6041 University Boulevard
Building No. 8	6051 University Boulevard

SUBDIVISION NAME The Horse Farm	SECTION NAME N/A	PARCEL # 532
PLAT # N/A	BLOCK # 2 & B	ZONE POR
TAX MAP 27	ELECT. DIST. 1	CENSUS TRACT 601L02
WATER CODE E-07	SEWER CODE	2780000

PREPARED BY:

GWS

GEORGE W. STEPHENS, JR. AND ASSOCIATES, INC.
Civil Engineers and Land Surveyors
658 Kenilworth Drive, Suite 100
Towson, Maryland 21204
(410) 825-8120

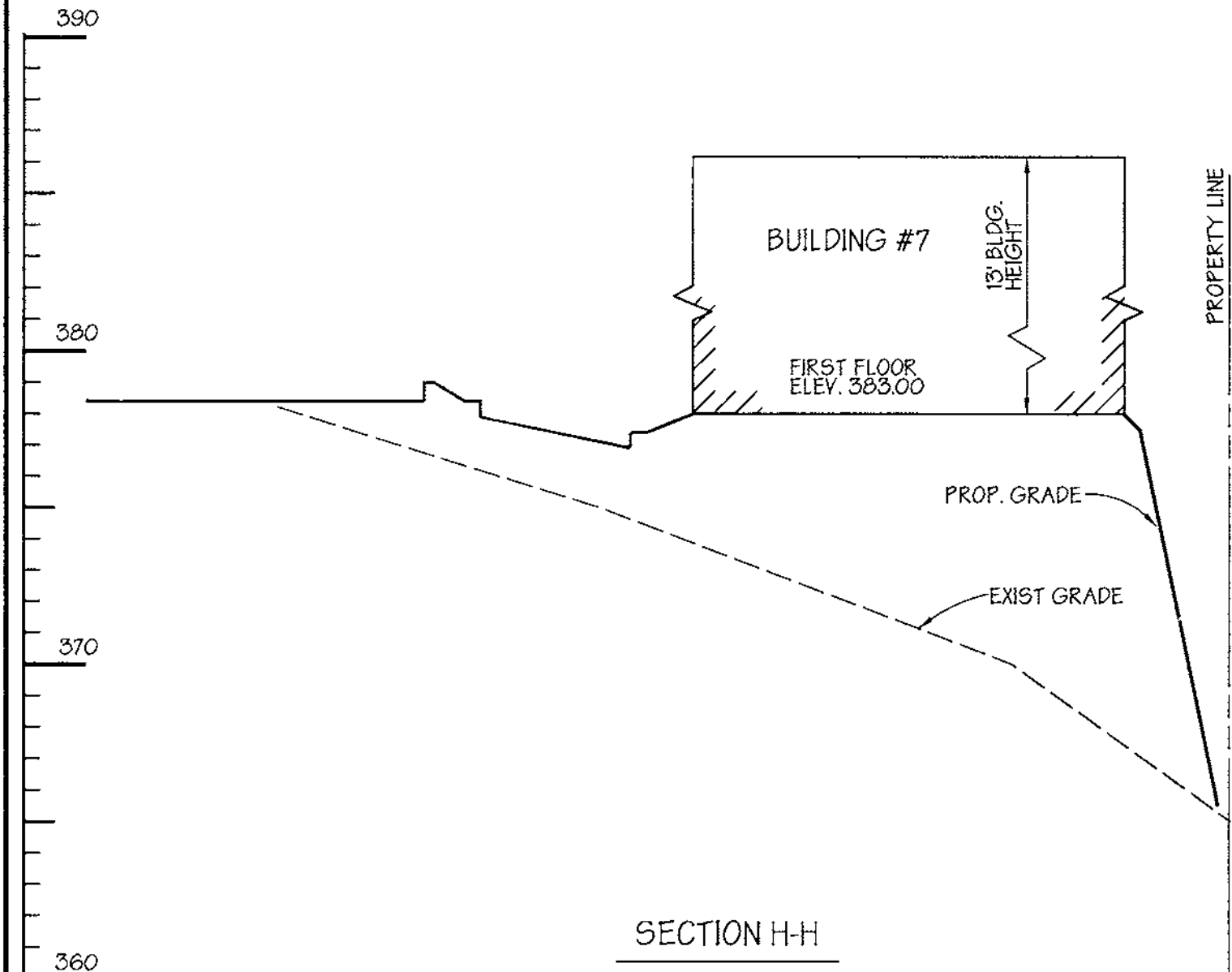
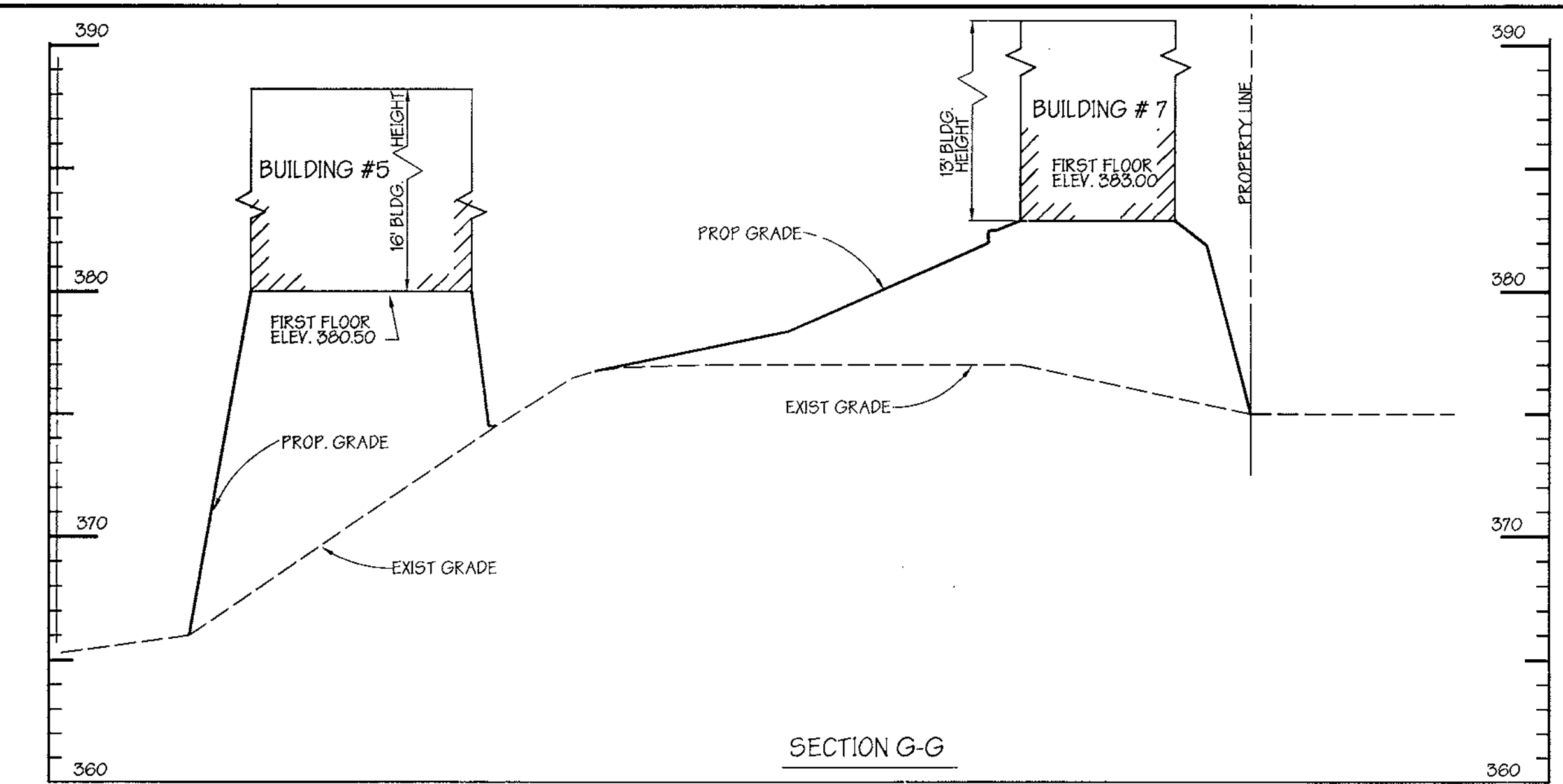
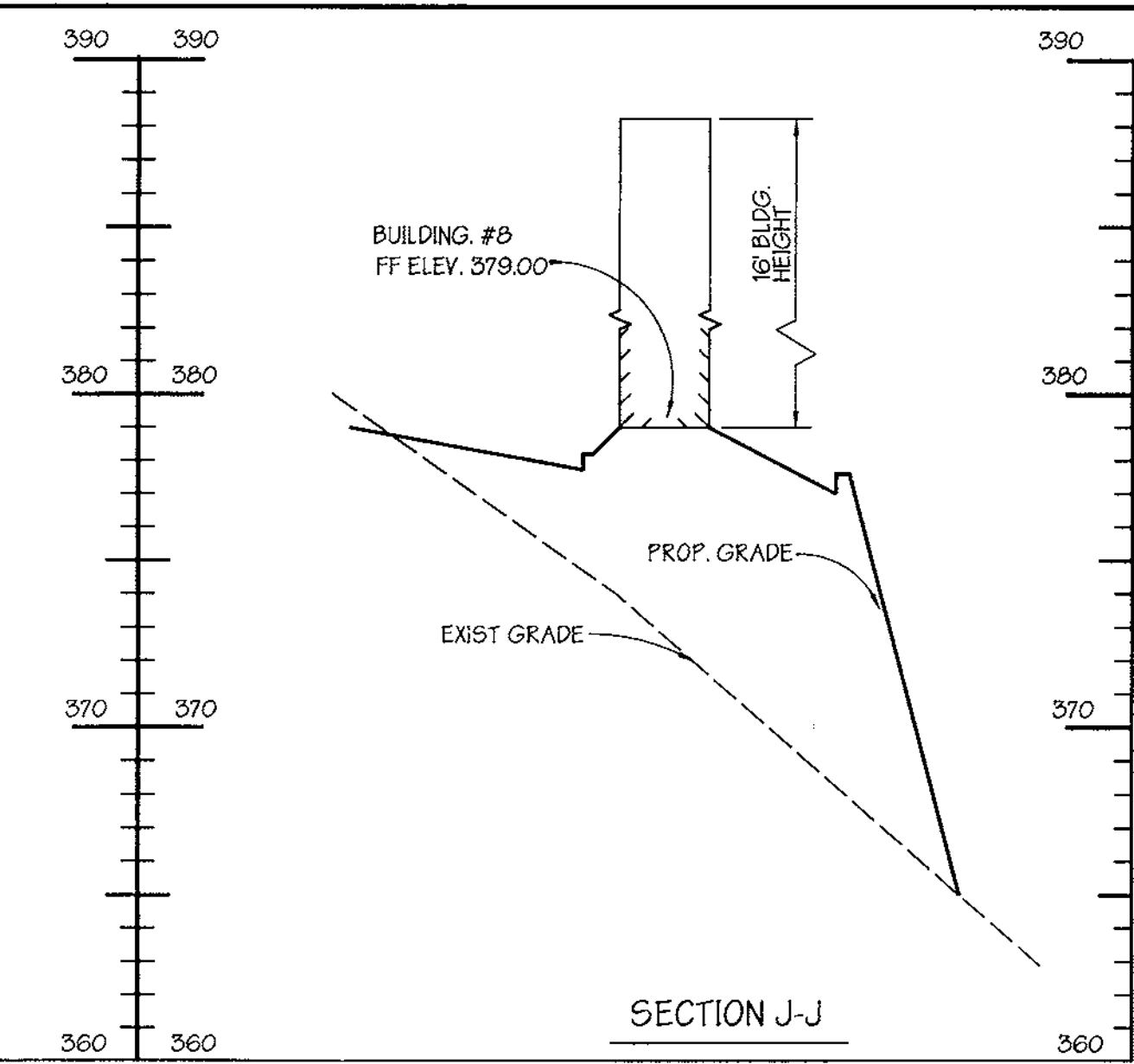
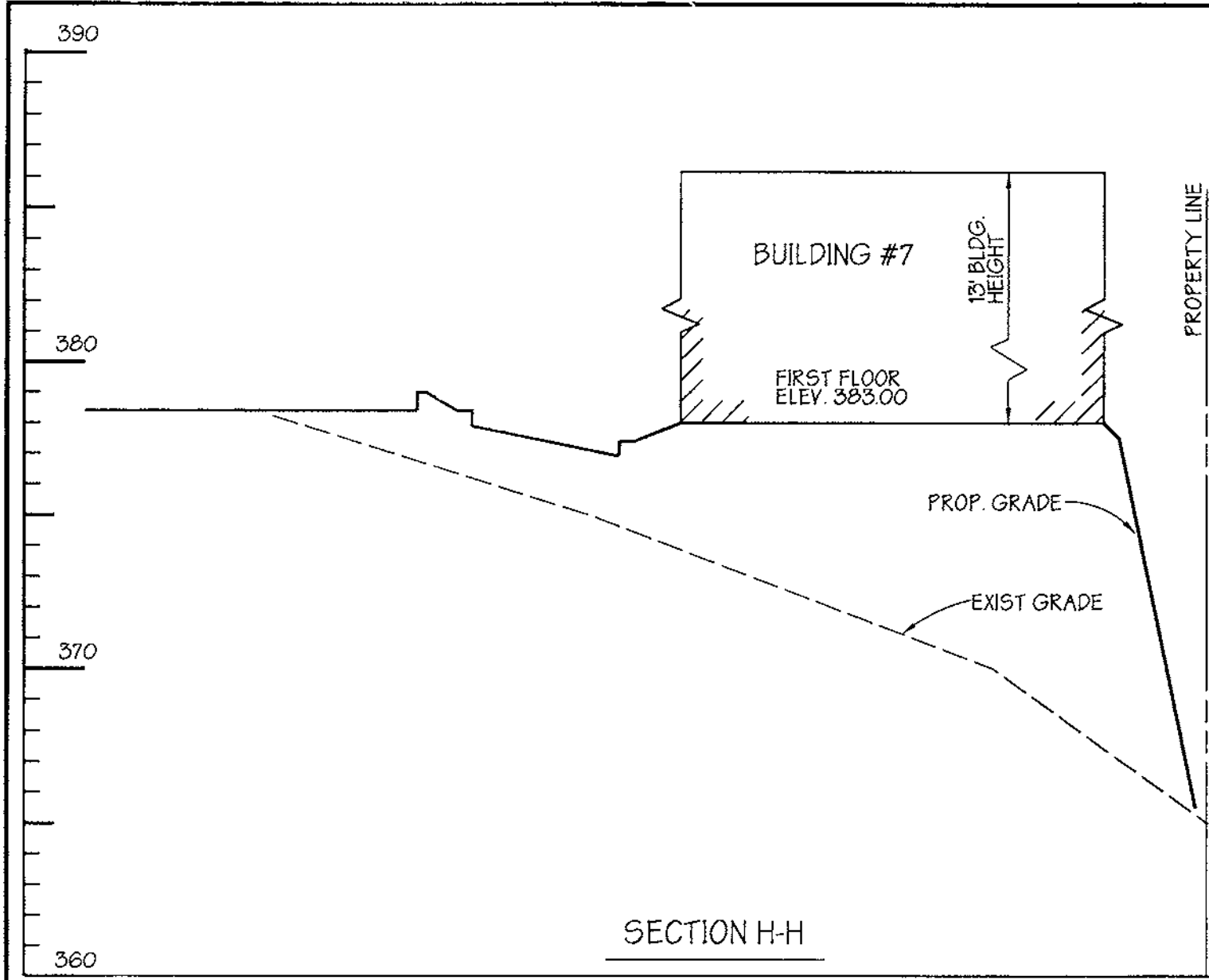


OWNER / DEVELOPER
HORSE FARM - LINDEN, L.L.C.
906 POPLAR HILL ROAD SUITE 200
BALTIMORE, MARYLAND, 21210
410-532-6250

DESIGNED BY: P.R.C.
DRAWN BY: E.M.T., K.E.
CHECKED BY: P.R.C.
REVISIONS

SITE PLAN DETAILS
THE HORSE FARM

ELECTION DISTRICT: 1
HOWARD CO., MARYLAND
SCALE: As Shown
DATE: Nov. 25, 1998



SCALE HORZ. 1" = 50'
VERT. 1" = 5'

SCALE HORZ. 1" = 50'
VERT. 1" = 5'

NOTES:

- UNLESS OTHERWISE NOTED, PAINTED RAILING SHALL BE FURNISHED.
- RAILING AND POSTS TO BE PAINTED SHALL CONFORM TO A.S.T.M. DESIGNATION A36.
- RAILING AND POSTS TO BE GALVANIZED SHALL CONFORM TO A.S.T.M. DESIGNATION A-441. SEE SPECIFICATIONS SECTION 20.18-35(8).
- UNLESS OTHERWISE NOTED, RAILING SHALL BE FURNISHED FOR BOTH SIDES OF STAIRS AND ON ALL STAIRS HAVING 4 RISERS AND OVER.
- RAILING SHALL BE ALL WELDED WITH ITS JOINTS GRIND SMOOTH AND FREE OF BURRS.
- RAILING POSTS SHALL BE SET IN METAL SLEEVES, 6" DEEP AND FILLED WITH HOT POURED LEAD OR HOT POURED SULFUR OR AN EQUIVALENT EPOXY COMPOUND.
- GALVANIZED RAILINGS SHALL BE HOT DIPPED GALVANIZED AFTER FABRICATION.
- PAINTED RAILINGS SHALL BE PAINTED IN ACCORDANCE TO SECTION 34.07-31651 OF THE SPECIFICATIONS, EXCEPT THAT THE FINAL COAT SHALL BE BLACK.
- THIS HANDRAIL IS TO BE USED ONLY AS A PROTECTION FOR PEDESTRIANS AND SHOULD NOT BE PLACED IN ANY LOCATION WHERE IT MIGHT BE SUBJECT TO VEHICULAR IMPACT. FOR VEHICULAR PROTECTION, STANDARD GUARD RAIL SHOULD BE USED.
- THE RAILING SHALL BE PAID FOR AT THE UNIT PRICE BID PER LINEAR FOOT, MEASURED HORIZONTALLY, FOR "STANDARD ORNAMENTAL RAILING FOR CONCRETE STAIRS" COMPLETE IN PLACE, OR ITS COST SHALL BE INCLUDED IN THE LUMP SUM PRICE BID FOR "STANDARD CONCRETE STAIRS", COMPLETE IN PLACE.

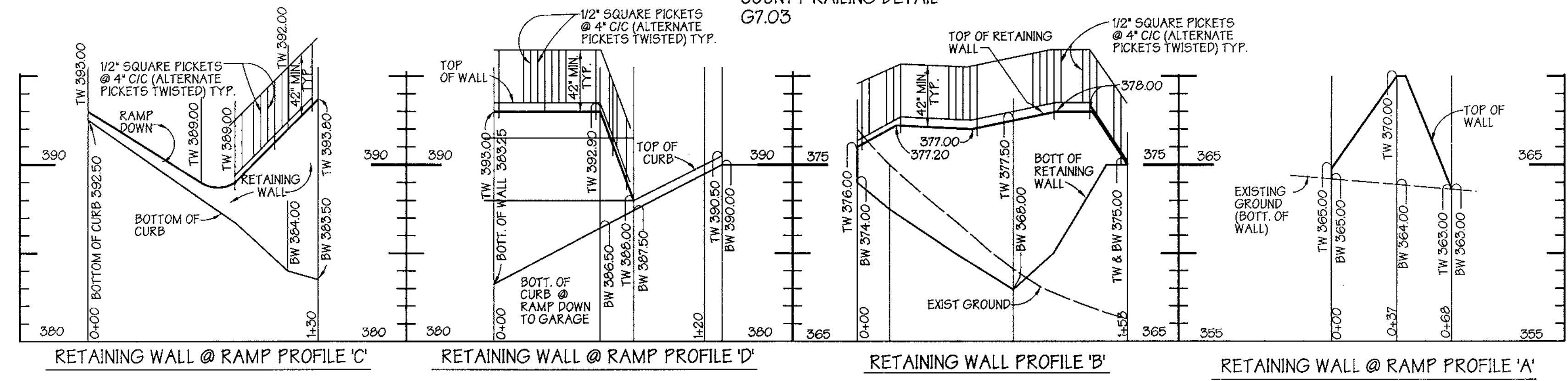
HOWARD COUNTY, MARYLAND
DEPARTMENT OF PUBLIC WORKS
Approved: *[Signature]* Date: *[Date]*
Chief: *[Signature]* Date: *[Date]*

STANDARD ORNAMENTAL RAILING FOR RETAINING WALLS

NOV. 1982
DRAWN BY: *[Signature]*
CHECKED BY: *[Signature]*
SCALE: AS SHOWN
NO. 67.03

NOTE:
42" GAURDRAIL MINIMUM
SEE STANDARD HOWARD
COUNTY RAILING DETAIL
G7.03

NOTE:
PROPOSED RETAINING WALLS
UNI-BLOCK OR APPROVED EQUAL



SCALE HORZ. 1" = 50'
VERT. 1" = 5'

NOTE:
FOR RETAINING WALL
DESIGNS, ELEVATIONS,
NOTES AND SECTIONS
SEE SHEETS 35 AND 36
OF 37.

~~These plans for small pond construction, soil erosion and sediment control meet the requirements of Howard Soil Conservation District~~

HOWARD SOIL CONSERVATION DISTRICT _____ DATE _____

~~These plans have been Reviewed for the Howard Soil Conservation District and meet the technical requirements for small pond construction, soil erosion and sediment control.~~

USDA-NATURAL RESOURCES CONSERVATION SERVICE _____ DATE _____

APPROVED: Howard County Department of Planning and Zoning

[Signature] 12/21/99
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

[Signature] 11/25/99
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

[Signature] 12/29/99
DIRECTOR DATE

ADDRESS CHART

PARCEL NO.	STREET ADDRESS
Building No. 1	6010 University Boulevard
Building No. 2	6011 University Boulevard
Building No. 3	6021 University Boulevard
Building No. 4	6020 University Boulevard
Building No. 5	6040 University Boulevard
Building No. 6	6031 University Boulevard
Building No. 7	6041 University Boulevard
Building No. 8	6051 University Boulevard

SUBDIVISION NAME THE HORSE FARM		SECTION NAME N/A		PARCEL # 552
PLAT # N/A	BLOCK # 248	ZONE FOR	TAX MAP 37	ELECT. DIST. 1
WATER CODE E-07		SEWER CODE 2780000		

SITE PLAN DETAILS
THE HORSE FARM

ELECTION DISTRICT: 1
HOWARD CO., MARYLAND

SHT. 10 OF 37
DATE: Nov. 25, 1998

SCALE: As Shown

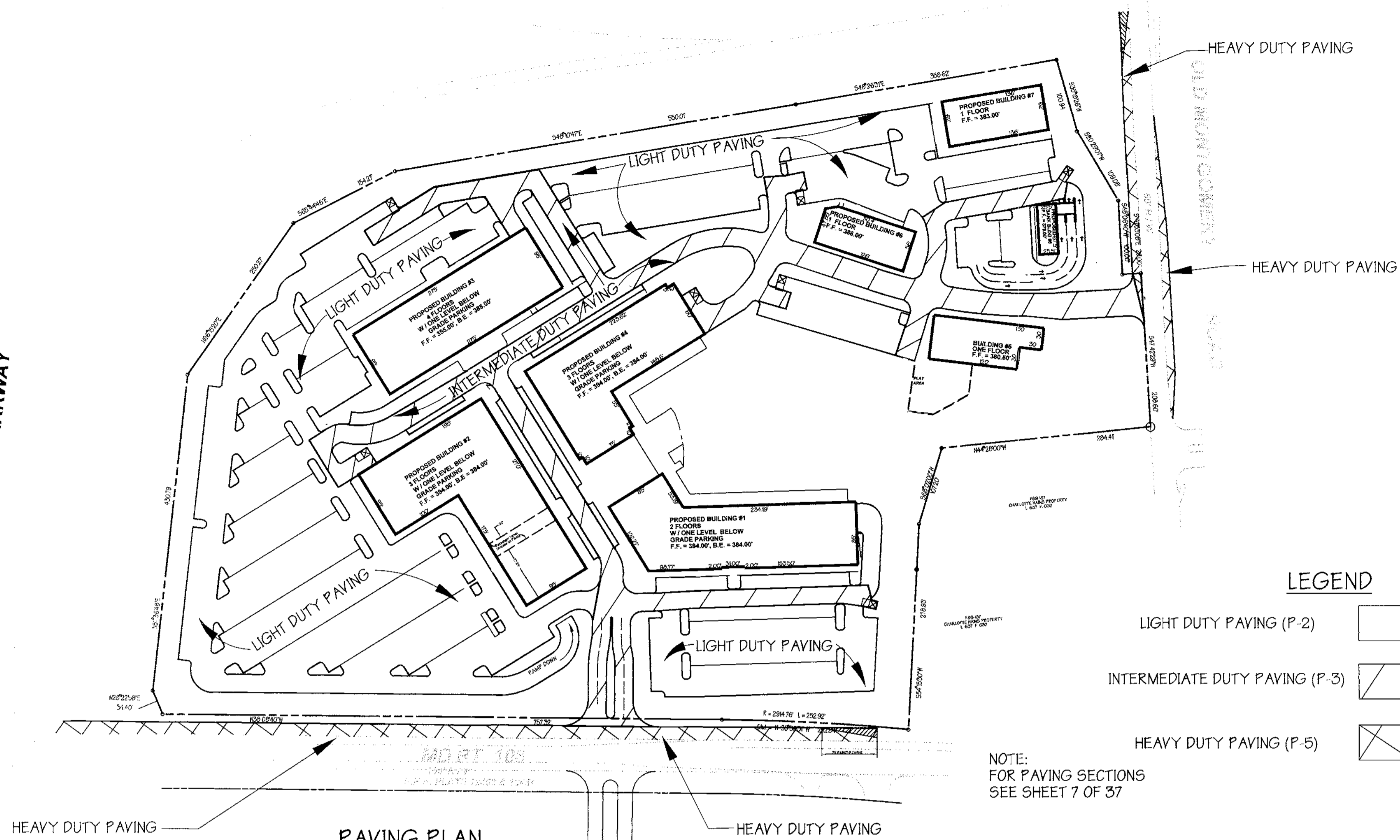
PREPARED BY:

GWS GEORGE W. STEPHENS, JR. AND ASSOCIATES, INC.
Civil Engineers and Land Surveyors
658 Kenilworth Drive, Suite 100
Towson, Maryland 21204
(410) 825-8120

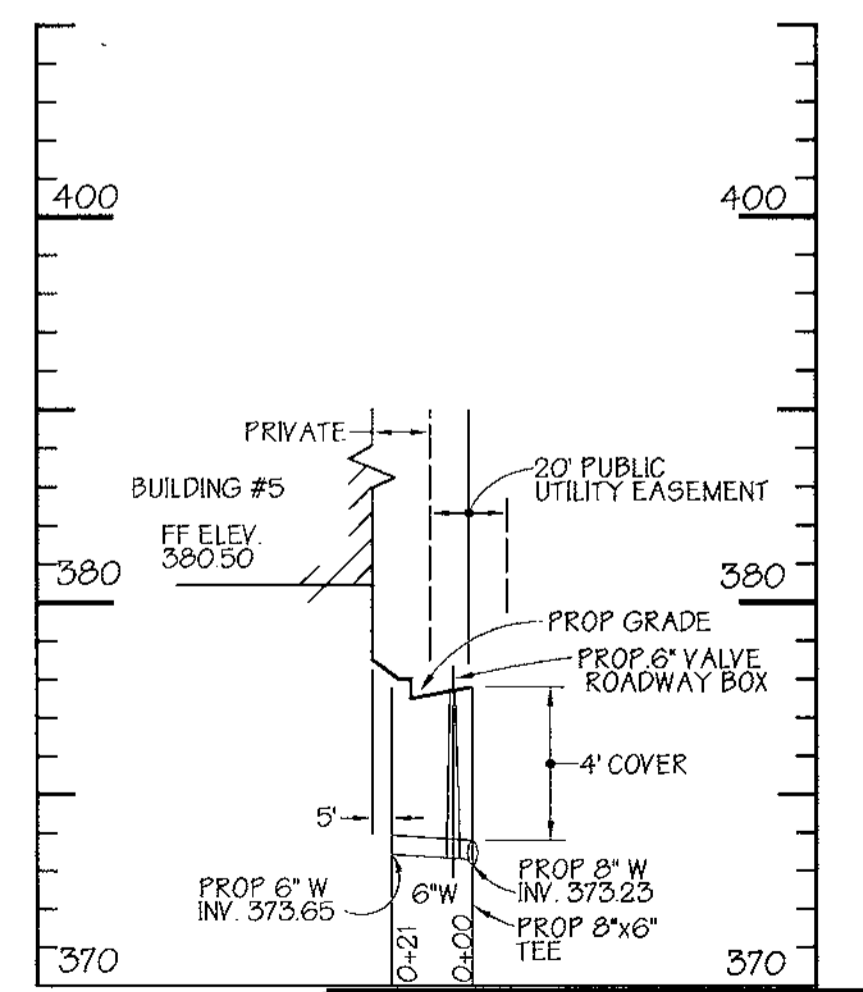
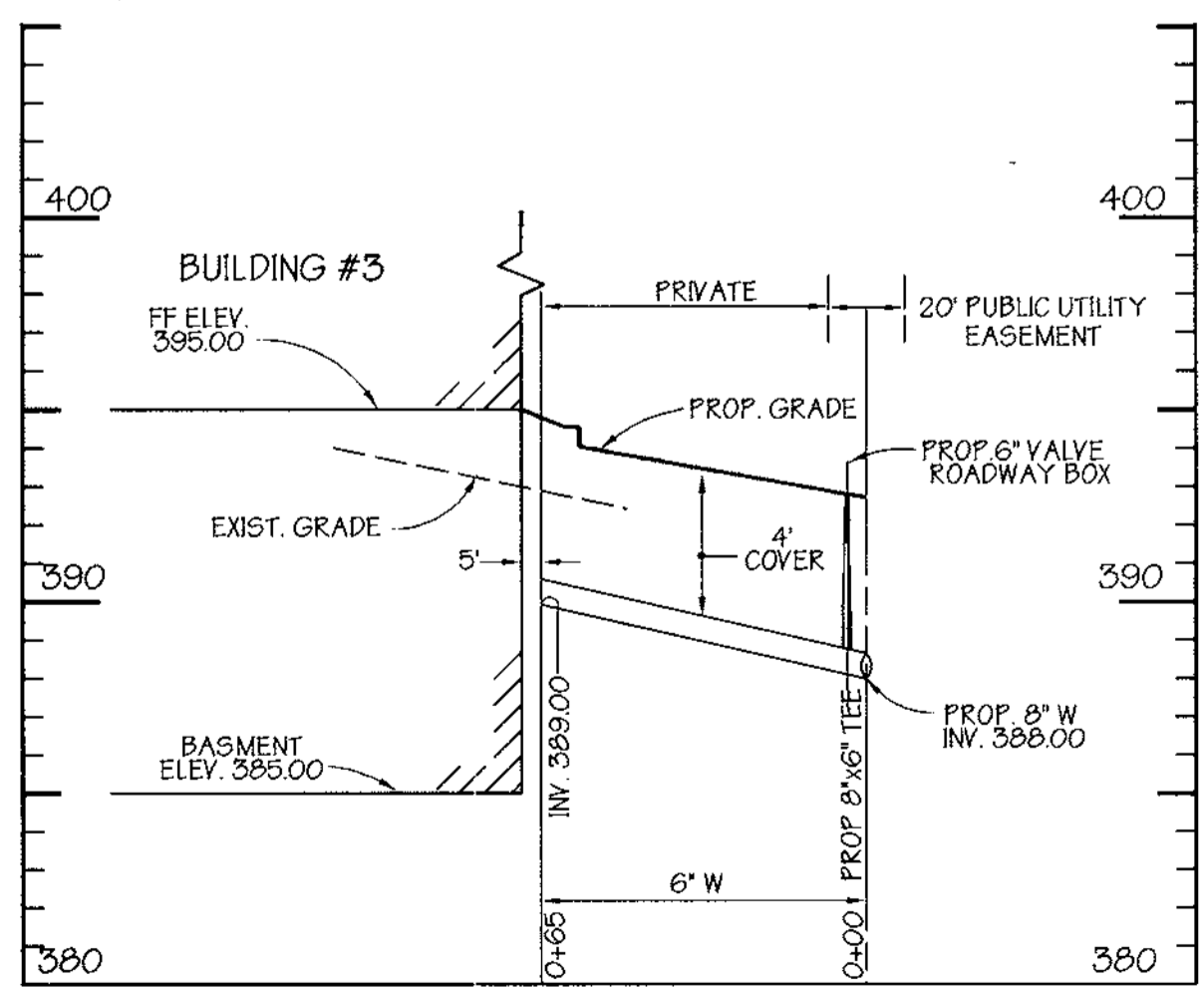
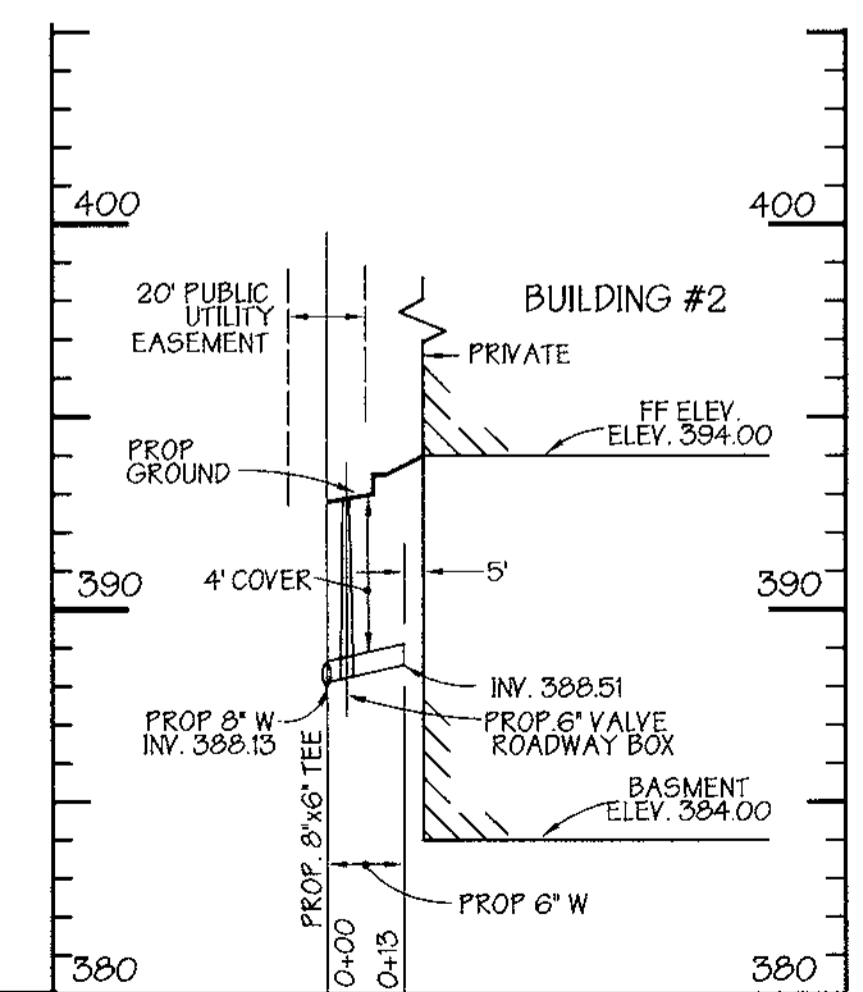
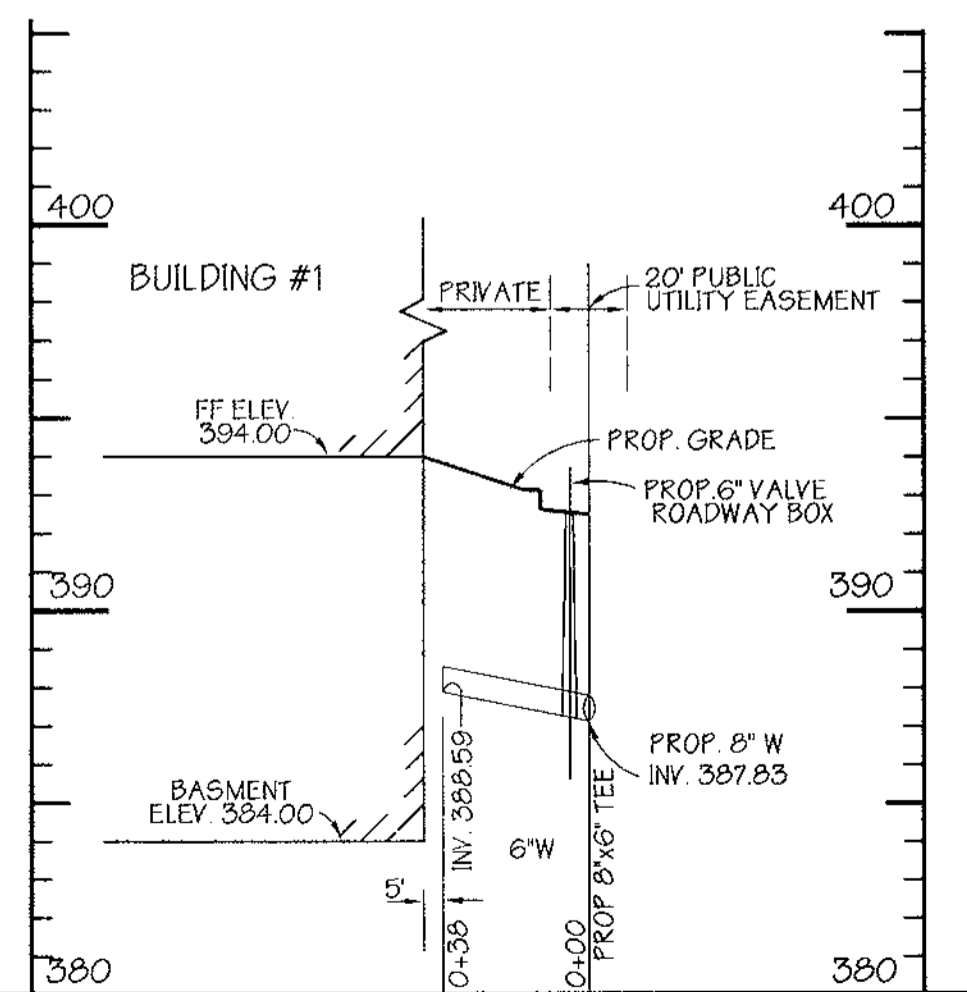
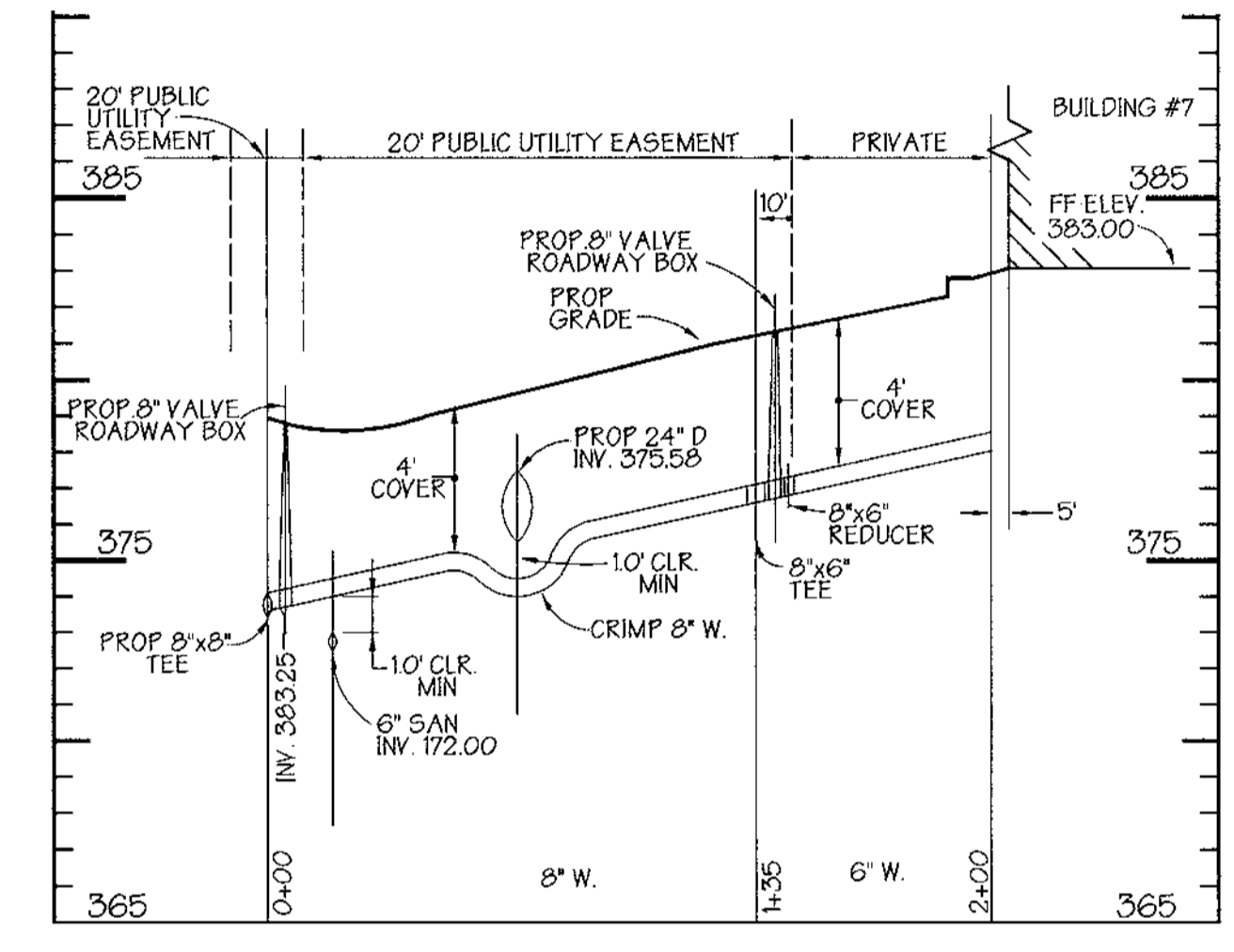
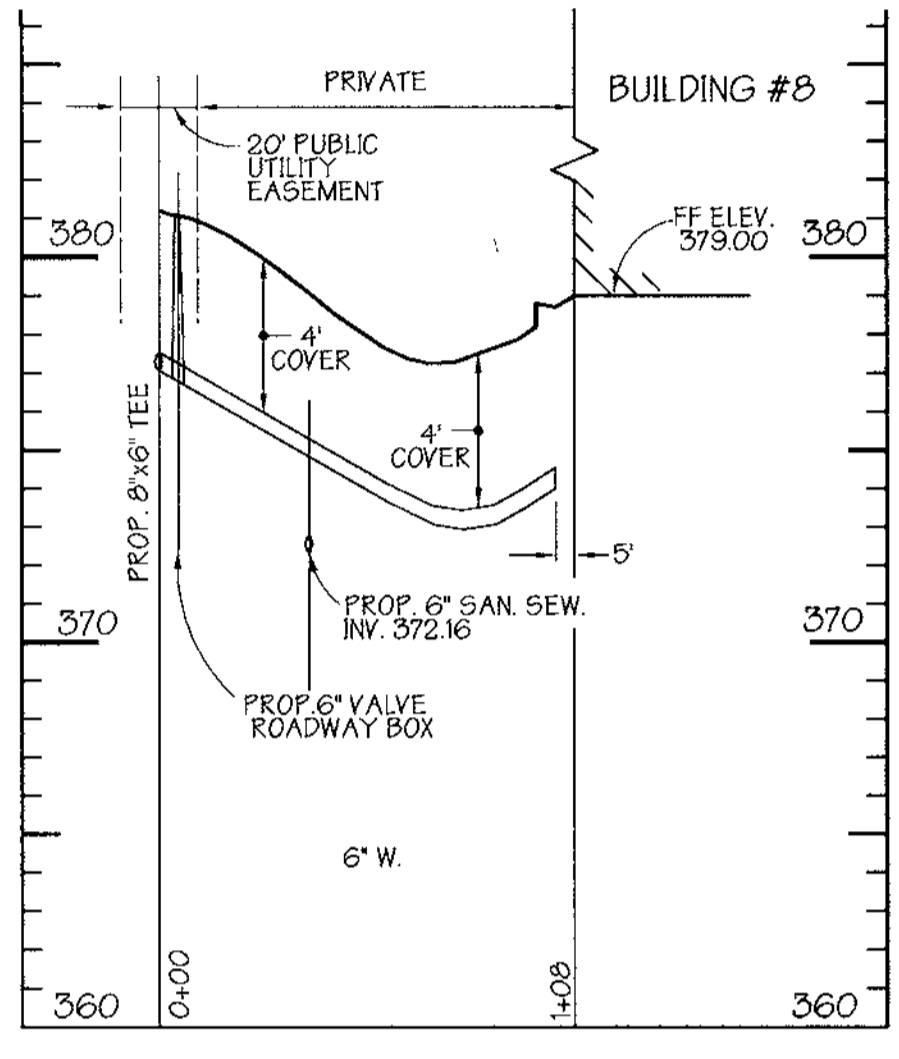
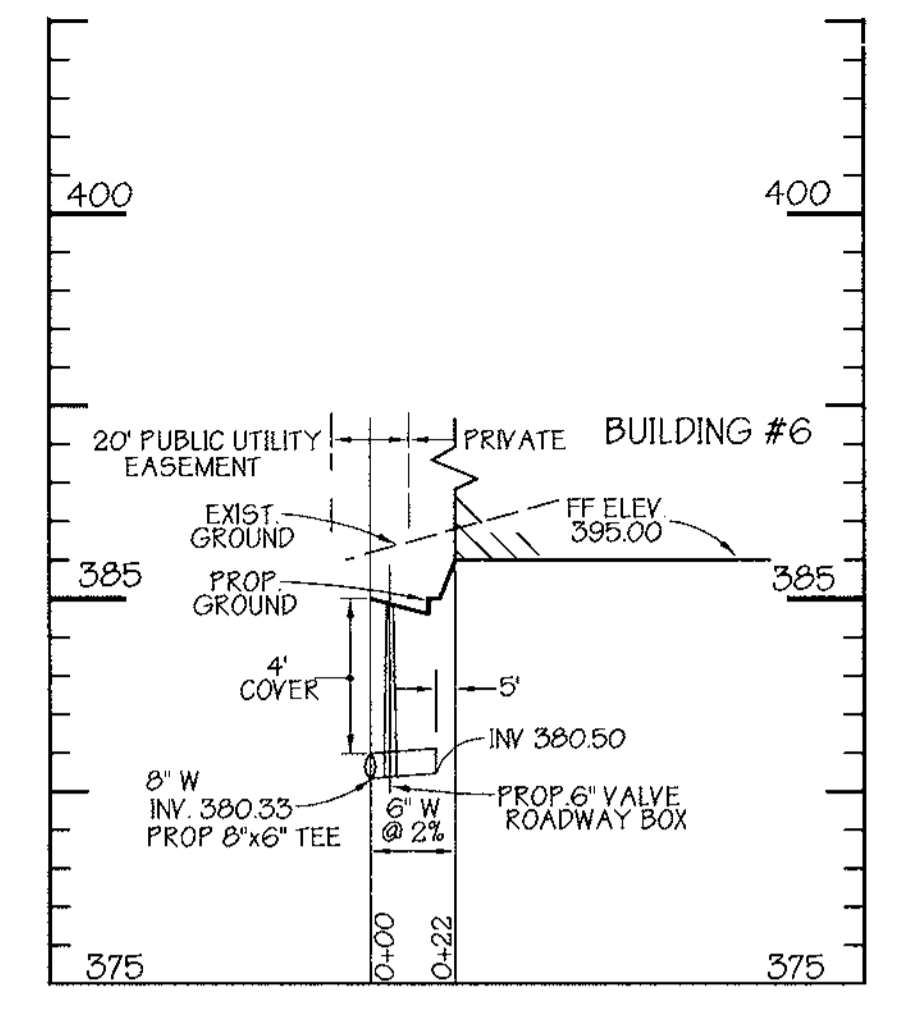
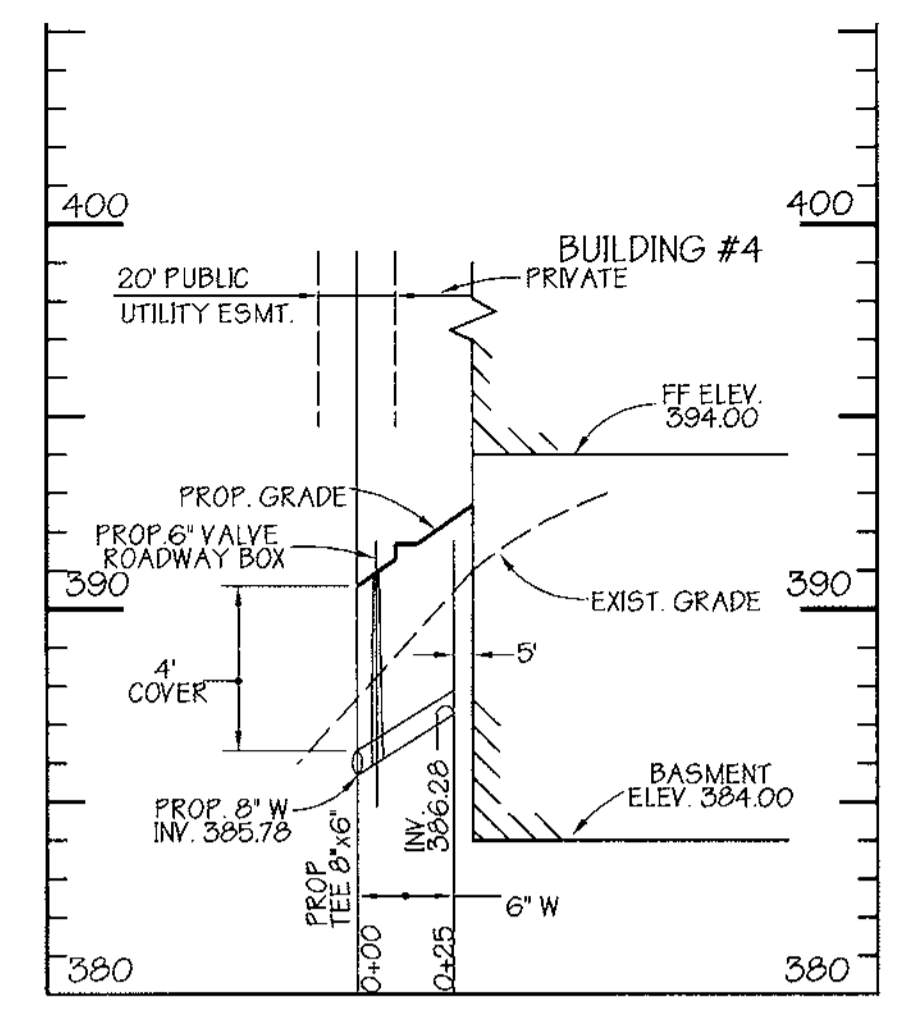
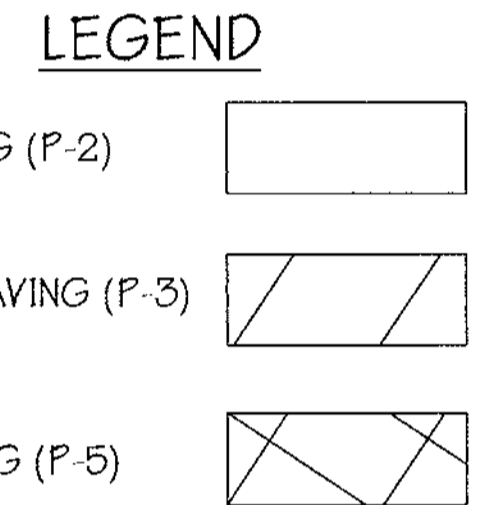
OWNER - DEVELOPER
HORSE FARM - LINDEN L.L.C.
908 POPLAR HILL ROAD SUITE 200
BALTIMORE, MARYLAND, 21210
410-532-6250

DESIGNED BY: P.R.C.
DRAWN BY: E.M.T., K.E.
CHECKED BY: P.R.C.
REVISIONS

SNOWDEN RIVER PARKWAY



NOTE:
FOR PAVING SECTIONS
SEE SHEET 7 OF 37



WATER PROFILES
SCALE: HORZ. 1" = 50', VERT. 1" = 5'

PREPARED BY:
GWS
GEORGE W. STEPHENS, JR.
AND ASSOCIATES, INC.
Civil Engineers and Land Surveyors
658 Kenilworth Drive, Suite 100
Towson, Maryland 21204
(410) 825-8120



OWNER - DEVELOPER
HORSE FARM - LINDEN L.L.C.
306 POPLAR HILL ROAD SUITE 200
BALTIMORE, MARYLAND, 21210
410 - 532 6250

DESIGNED BY: P.R.C.
DRAWN BY: E.M.T., K.E.
CHECKED BY: P.R.C.
REVISIONS

These plans for small pond construction, soil erosion and sediment control meet the requirements of Howard Soil Conservation District.

HOWARD SOIL CONSERVATION DISTRICT DATE

These plans have been Reviewed for the Howard Soil Conservation District and meet the technical requirements for small pond construction, soil erosion and sediment control.

USDA-NATURAL RESOURCES CONSERVATION SERVICE DATE *12/21/99*

APPROVED: Howard County Department of Planning and Zoning

Mark D. ... 12/21/99
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE
Kent ... 11/16/99
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

... 12/29/99
DIRECTOR DATE

ADDRESS CHART

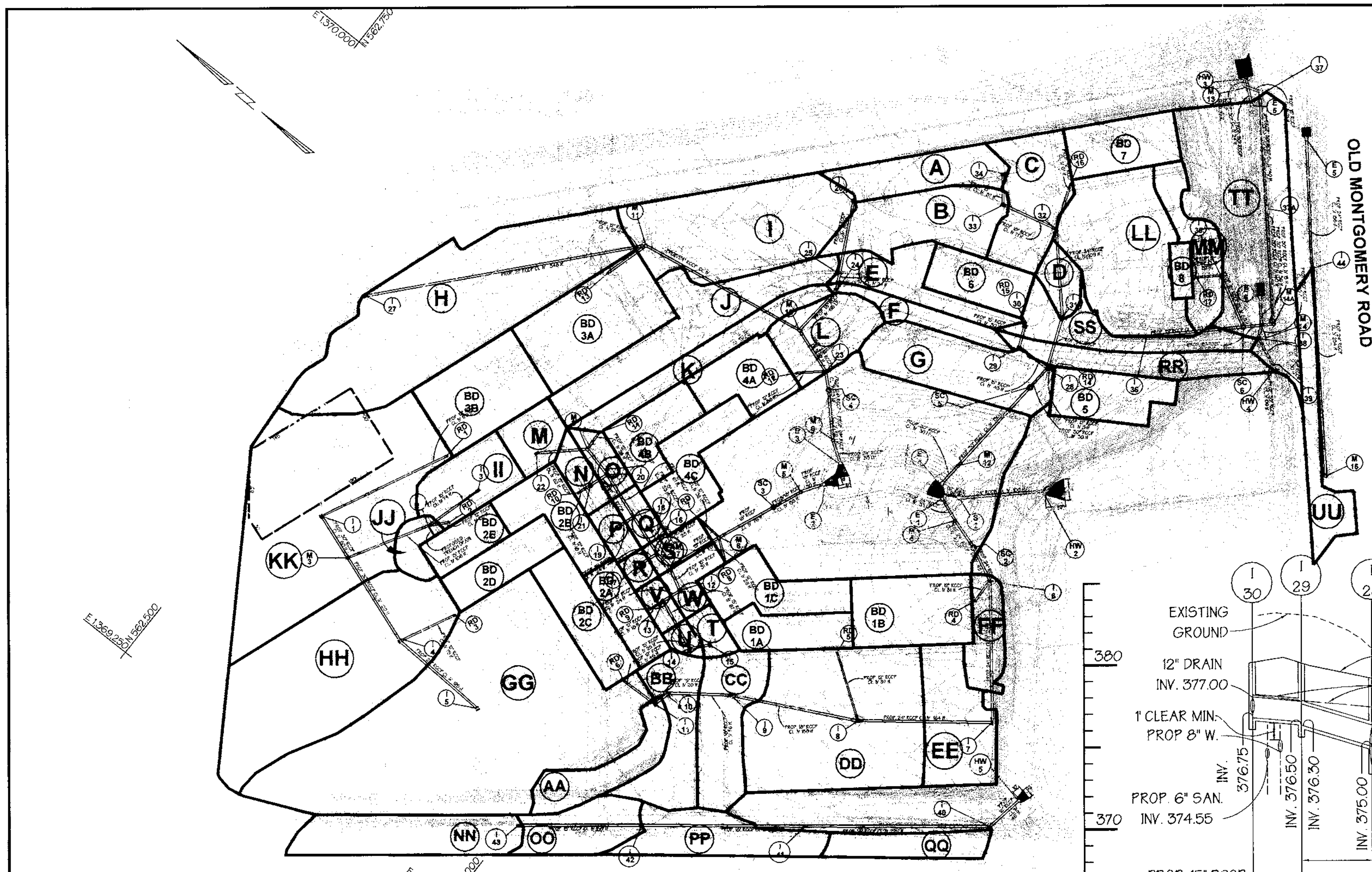
PARCEL NO.	STREET ADDRESS
Building No. 1	6010 University Boulevard
Building No. 2	6011 University Boulevard
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Building No. 6	6031 University Boulevard
Building No. 7	6041 University Boulevard
Building No. 8	6051 University Boulevard

SUBDIVISION NAME	SECTION NAME	PARCEL #
The Horse Farm	N/A	552
PLAT #	BLOCK #	ZONE
37	218	FOR
		/ZONE MAP
		37
		ELECT. DIST.
		1
		CENSUS TRACT
		6011.02
WATER CODE E-07	SEWER CODE	2780000

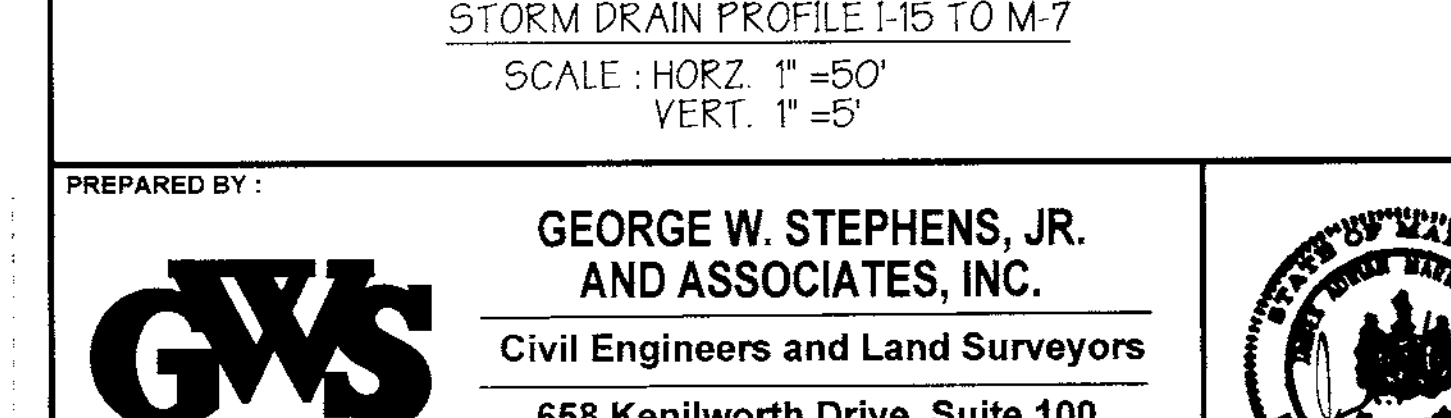
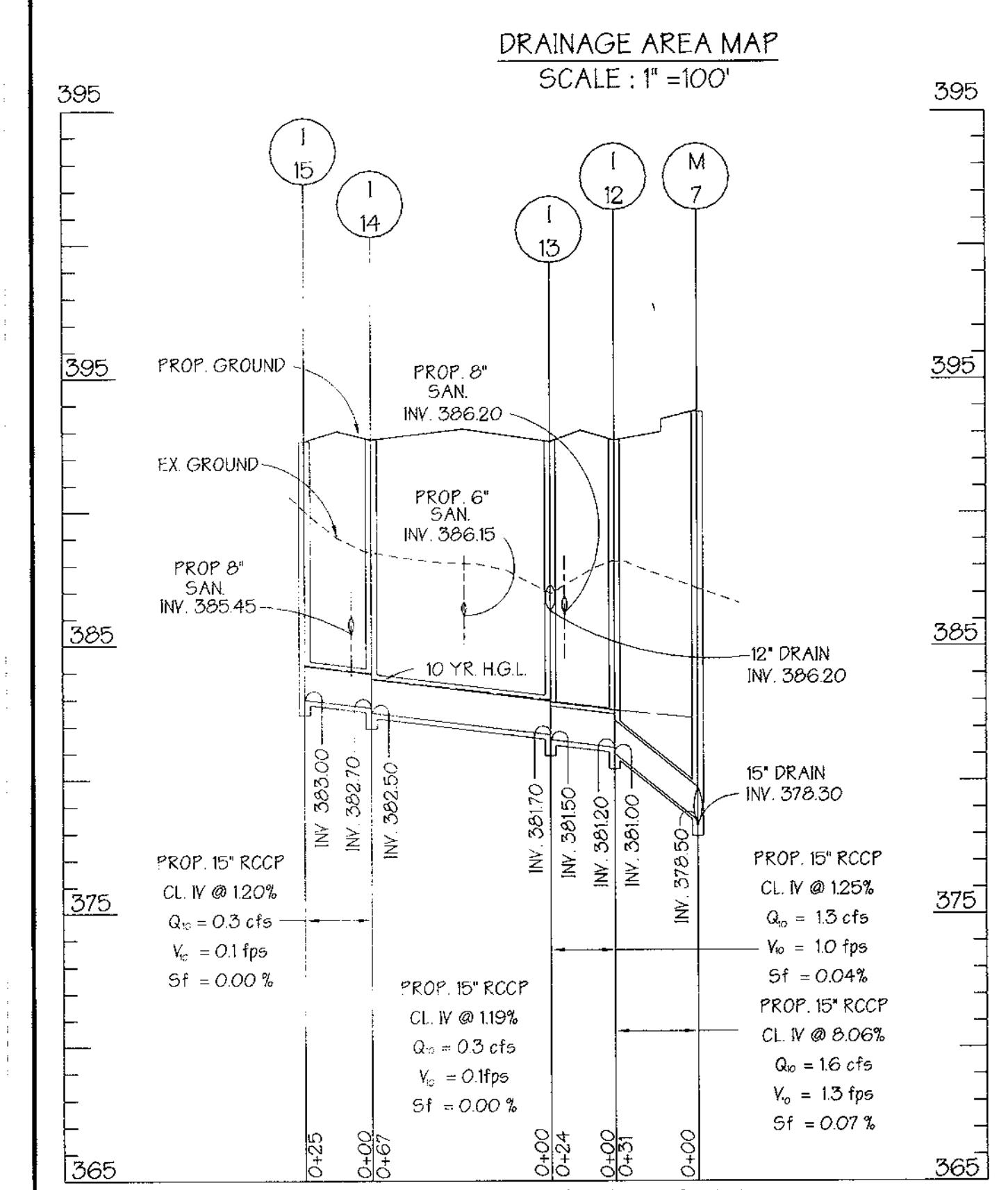
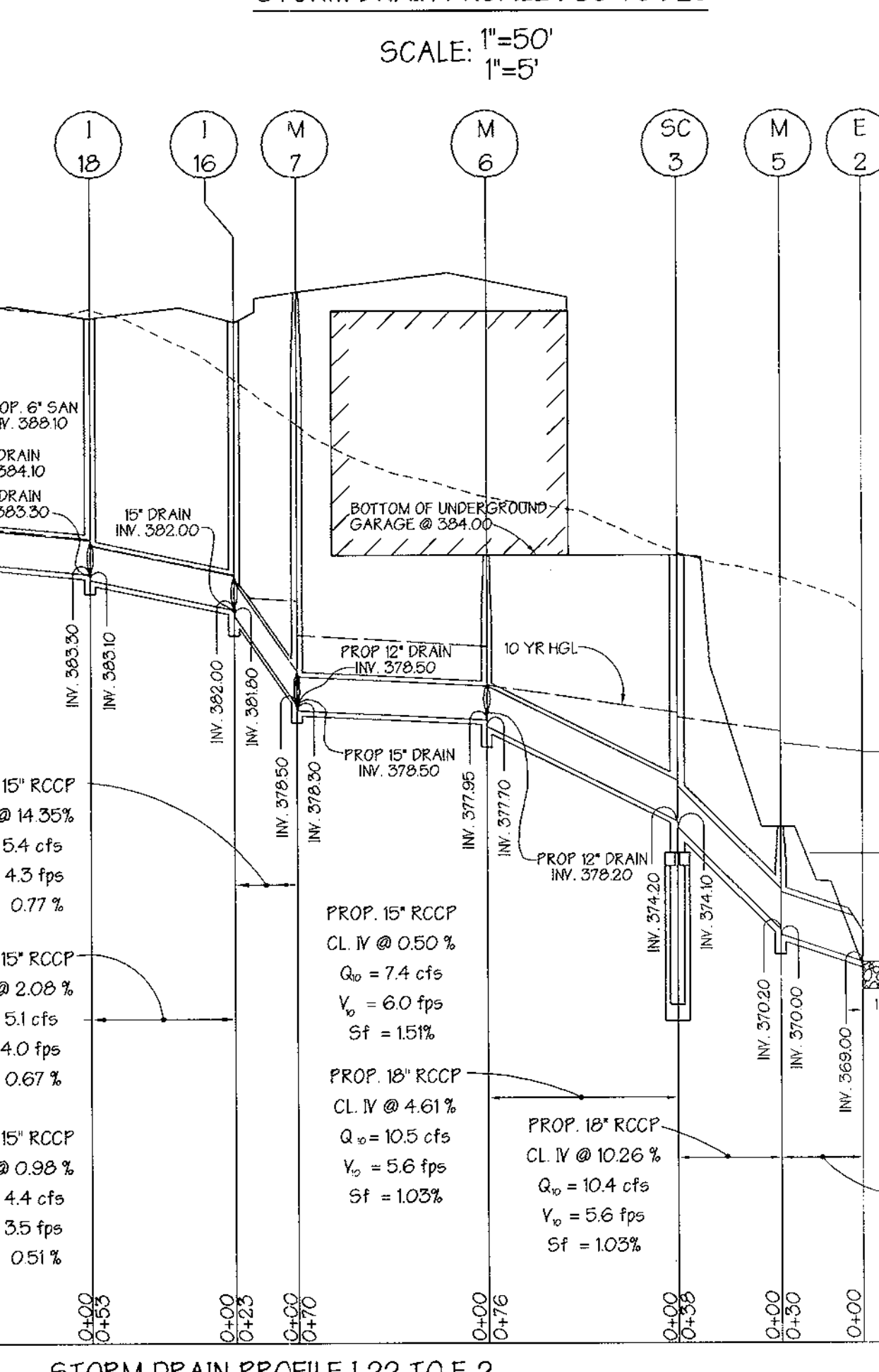
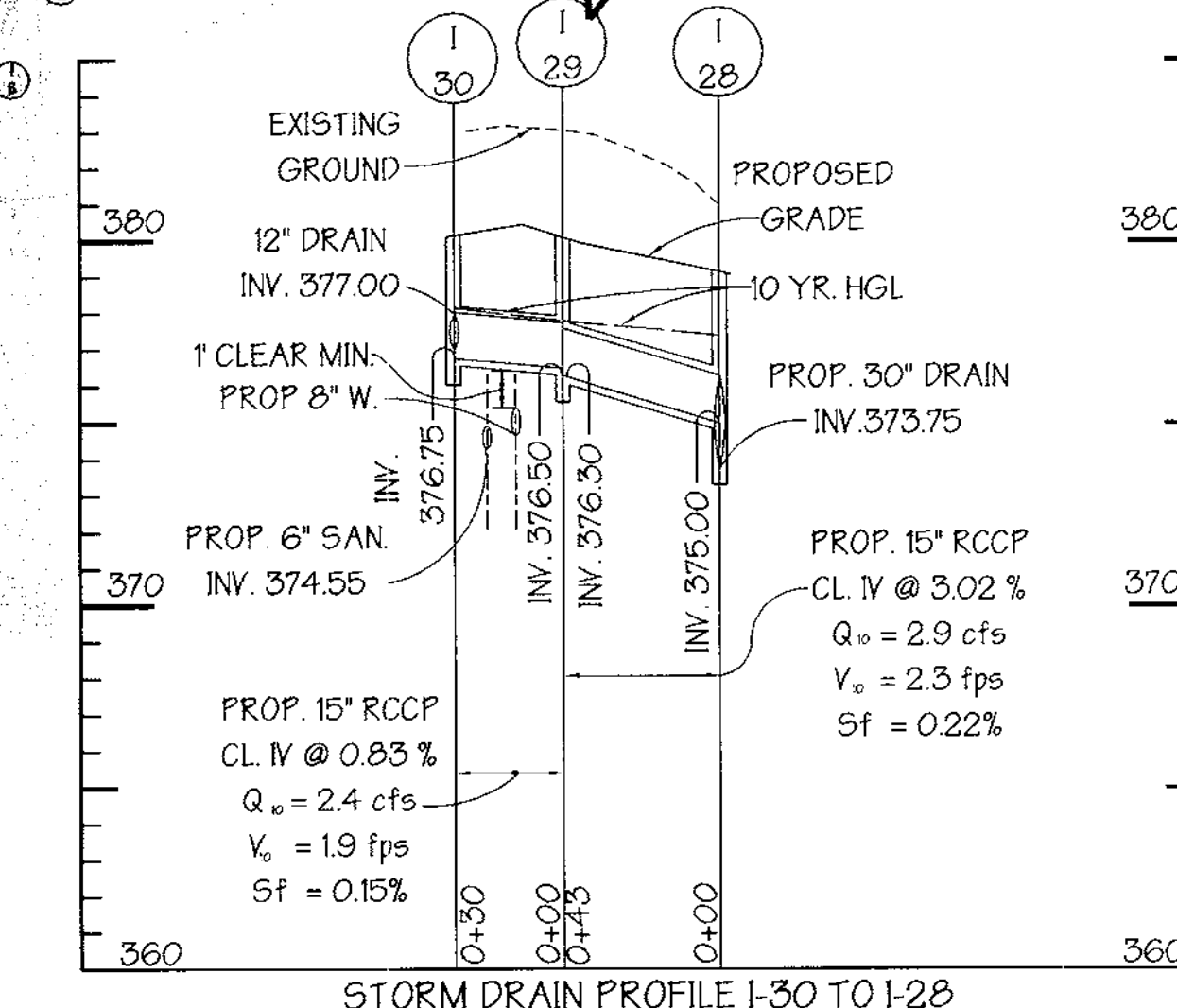
SITE PLAN DETAILS
THE HORSE FARM

ELECTION DISTRICT: 1
HOWARD CO., MARYLAND
SHT. 11 OF 37
SCALE: As Shown
DATE: Nov. 25, 1998

SDP 99-65



AREA	ACREAGE	C'	% IMP.	INLET SCHEDULE						STRUCTURE SCHEDULE							
				NO.	TYPE	TOP ELEV.	INV. IN	INV. OUT	Qc.f.s.	HO. CO. DTL.	NO.	TYPE	TOP ELEV.	INV. IN	INV. OUT	HO. CO. DTL.	
A	0.27	0.90	92.6%														
B	0.36	0.76	75.0%														
C	0.32	0.76	75.0%														
D	0.06	0.69	66.7%														
E	0.22	0.53	45.5%														
F	0.10	0.72	70.0%														
G	0.36	0.83	83.3%														
H	1.42	0.92	94.4%														
I	0.75	0.88	89.3%														
J	0.36	0.80	82.8%														
K	0.20	0.58	50.0%														
L	0.21	0.56	47.6%														
M	0.11	0.75	72.7%														
N	0.10	0.58	50.0%														
O	0.10	0.58	50.0%														
P	0.06	0.70	66.7%														
Q	0.06	0.70	66.7%														
R	0.04	0.58	50.0%														
S	0.07	0.38	28.6%														
T	0.05	0.50	40.0%														
U	0.03	0.70	66.7%														
V	0.05	0.65	60.0%														
W	0.09	0.45	33.3%														
AA	0.31	0.49	38.7%														
BB	0.24	0.70	66.7%														
CC	0.26	0.58	50.0%														
DD	0.22	0.88	89.0%														
EE	0.29	0.88	89.7%														
FF	0.10	0.73	70.0%														
GG	1.68	0.77	75.6%														
HH	1.05	0.88	90.5%														
II	0.18	0.58	50.0%														
JJ	0.09	0.79	77.8%														
KK	1.05	0.83	83.8%														
LL	0.57	0.82	82.5%														
MM	0.18	0.92	94.4%														
NN	0.30	0.75	73.3%														
OO	0.23	0.73	69.8%														
PP	0.20	0.73	75.0%														
QQ	0.18	0.96	100.0%														
RR	0.19	0.70	63.2%														
SS	0.22	0.60	54.6%														
TT	0.46	0.57	47.8%														
UU	0.25	0.93	96.0%														
BD1A	0.21	0.96	100.0%														
BD1B	0.12	0.96	100.0%														
BD1C	0.34	0.96	100.0%														
BD2A	0.16	0.96	100.0%														
BD2B	0.21	0.96	100.0%														
BD2C	0.18	0.96	100.0%														
BD2D	0.17	0.96	100.0%														
BD2E	0.11	0.96	100.0%														
BD3A	0.40	0.96	100.0%														
BD3B	0.40	0.96	100.0%														
BD4A	0.20	0.96	100.0%														
BD4B	0.16	0.96	100.0%														
BD4C	0.24	0.96	100.0%														
BD5	0.22	0.96	100.0%														
BD6	0.17	0.96	100.0%														
BD7	0.19	0.96	100.0%														
BD8	0.04	0.96	100.0%														



* ELEVATIONS ARE @ TOP OF GRATE
 ** TRENCH DRAIN SHALL BE POLY DRAIN SYSTEM AS MANUFACTURED BY ABT, INC., TROUTMAN, NC. OR APPROVED EQUAL.
 *** SEE SHEET 32 OF 37 FOR M-2 DETAIL AND NOTES

These plans for small pond construction, soil erosion and sediment control meet the requirements of Howard Soil Conservation District.
 HOWARD SOIL CONSERVATION DISTRICT
 12/19/99

These plans have been reviewed for the Howard Soil Conservation District and meet the technical requirements for small pond construction, soil erosion and sediment control.
 USDA-NATURAL RESOURCES CONSERVATION SERVICE
 12/19/99

APPROVED: Howard County Department of Planning and Zoning
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
 CHIEF, DIVISION OF LAND DEVELOPMENT
 12/21/99
 1/28/99
 2/25/99

PARCEL NO.	STREET ADDRESS
Building No. 1	6010 University Boulevard
Building No. 2	6011 University Boulevard
Building No. 3	6021 University Boulevard
Building No. 4	6020 University Boulevard
Building No. 5	6040 University Boulevard
Building No. 6	6031 University Boulevard
Building No. 7	6041 University Boulevard
Building No. 8	6051 University Boulevard

SUBDIVISION NAME: The Horse Farm
 SECTION NAME: N/A
 PARCEL #: 552
 PLAT: N/A
 BLOCK: 2 f 8
 ZONE: FOR
 WATER CODE: E-07
 SEWER CODE: 2780000

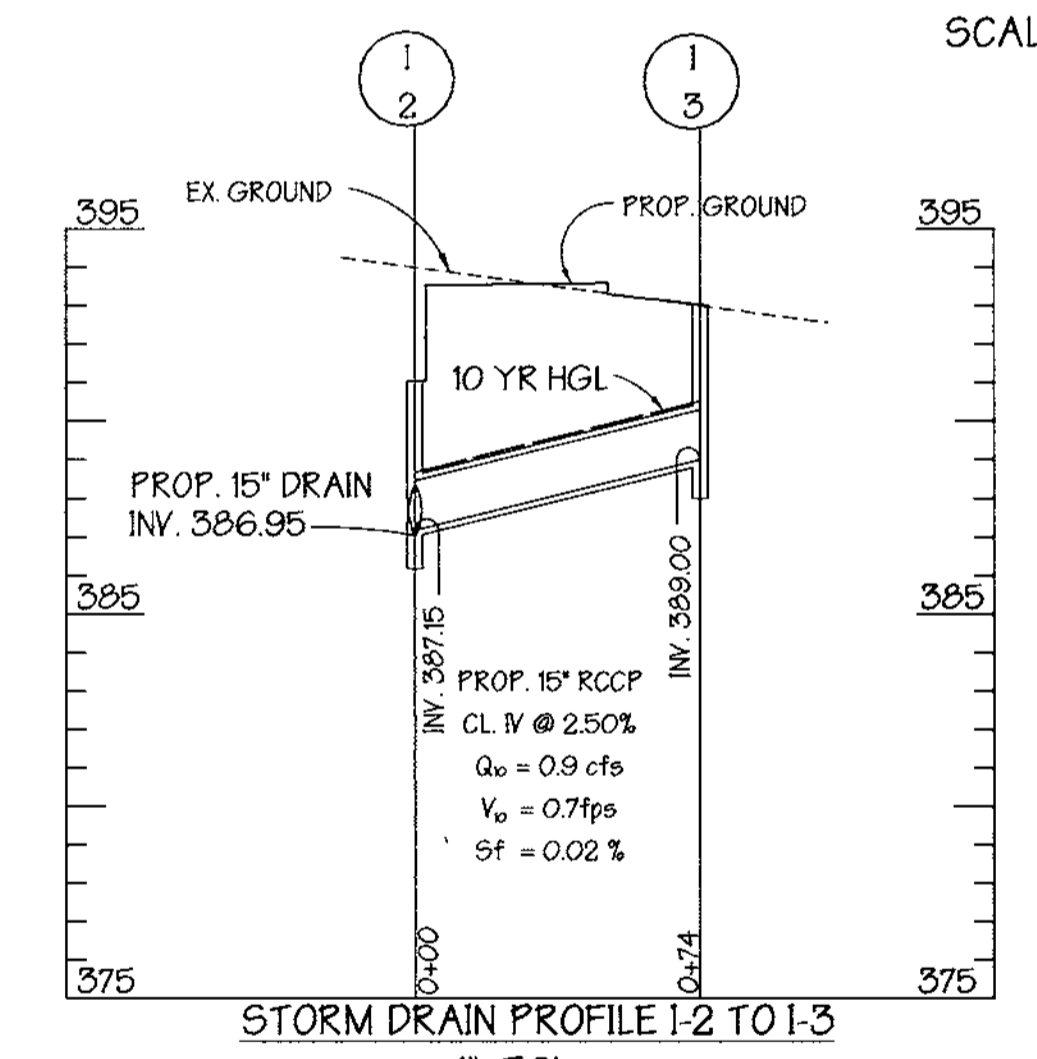
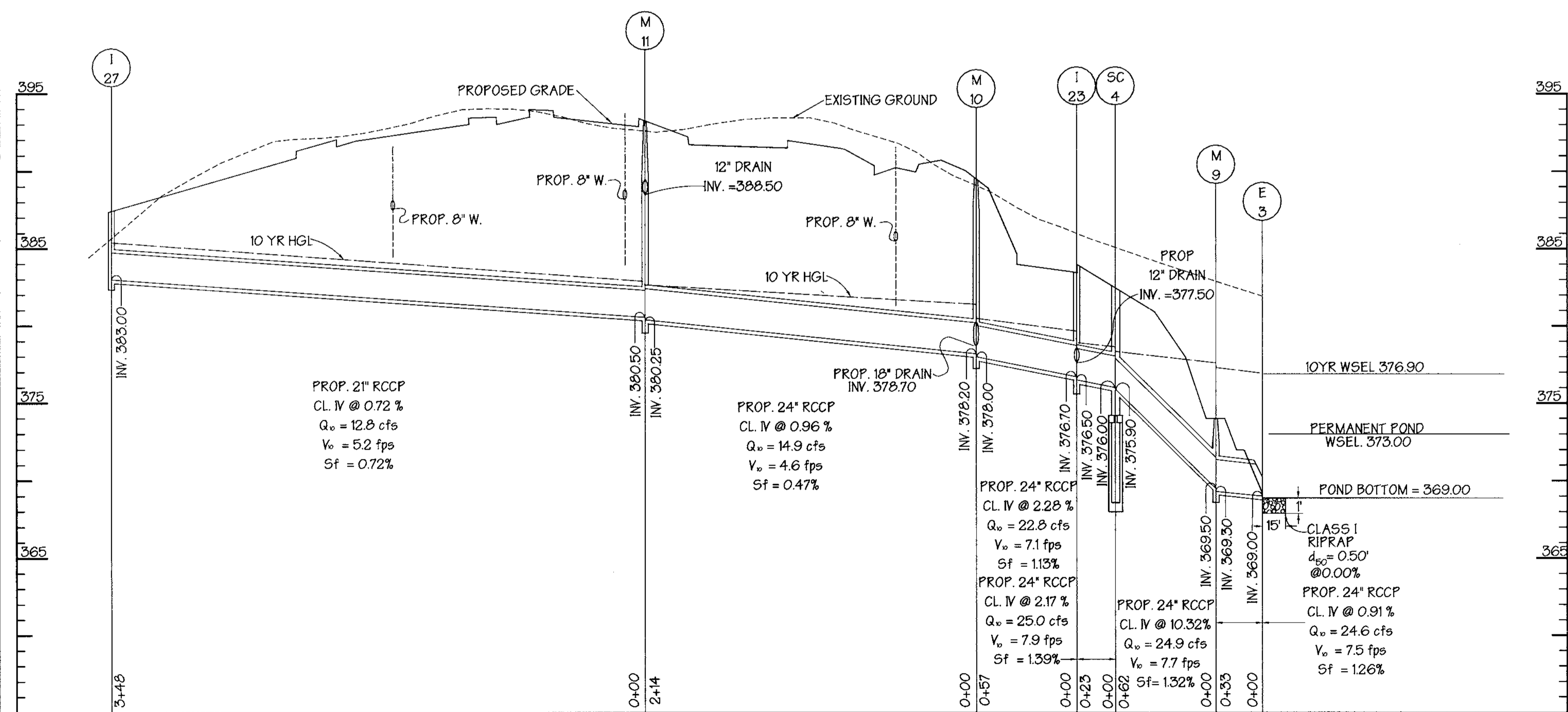
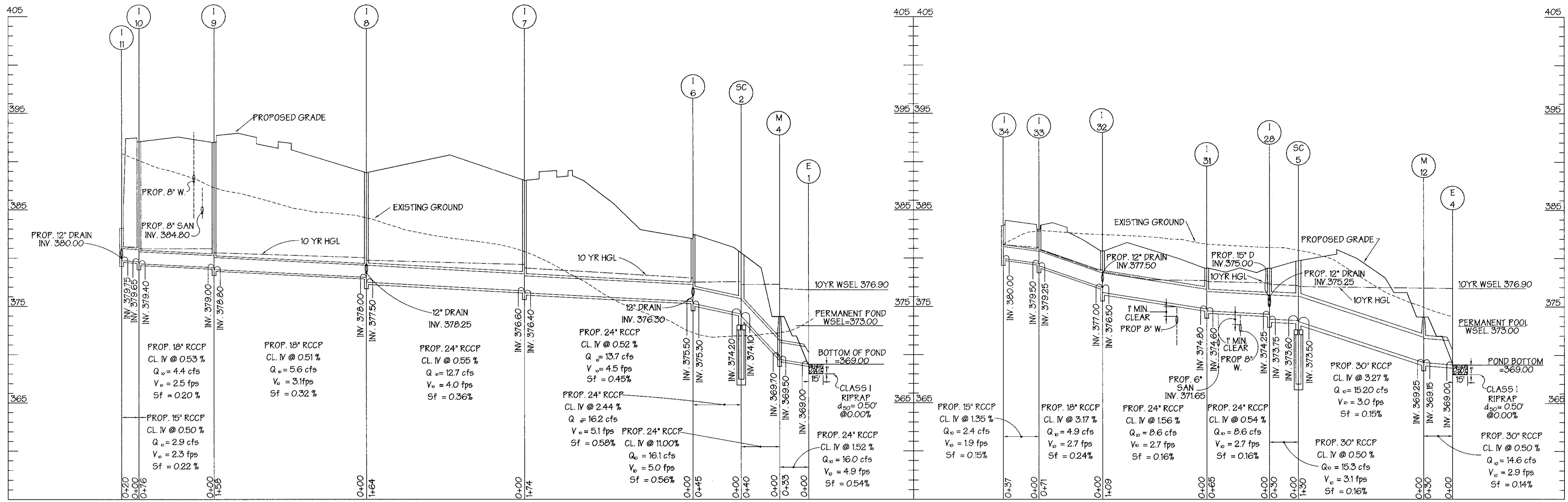
DRAINAGE AREA MAP AND PROFILES THE HORSE FARM

ELECTION DISTRICT: 1
 HOWARD CO., MARYLAND
 SHEET: 12 OF 37
 SCALE: As Shown
 DATE: Nov. 25, 1998

PREPARED BY:
GWS
GEORGE W. STEPHENS, JR. AND ASSOCIATES, INC.
 Civil Engineers and Land Surveyors
 658 Kenilworth Drive, Suite 100
 Towson, Maryland 21204
 (410) 825-8120

OWNER / DEVELOPER
HORSE FARM - LINDEN, L.L.C.
 906 POPLAR HILL ROAD SUITE 300
 BALTIMORE, MARYLAND, 21210
 410-532-6250

DESIGNED BY: P.R.C.
 DRAWN BY: E.M.T., K.E.
 CHECKED BY: P.R.C.
 REVISIONS:



These plans for small pond construction, soil erosion and sediment control meet the requirements of Howard Soil Conservation District.

Shelley W. Shig 12/19/99
HOWARD SOIL CONSERVATION DISTRICT DATE

These plans have been Reviewed for the Howard Soil Conservation District and meet the technical requirements for small pond construction, soil erosion and sediment control.

Cheryl Simmons 12/19/99
USDA-NATURAL RESOURCES CONSERVATION SERVICE DATE

APPROVED: Howard County Department of Planning and Zoning

John D. ... 12/21/99
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

Kate ... 12/21/99
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

... 12/21/99
DIRECTOR DATE

PARCEL NO.	STREET ADDRESS
Building No. 1	6010 University Boulevard
Building No. 2	6011 University Boulevard
Building No. 3	6021 University Boulevard
Building No. 4	6020 University Boulevard
Building No. 5	6040 University Boulevard
Building No. 6	6031 University Boulevard
Building No. 7	6041 University Boulevard
Building No. 8	6051 University Boulevard

ADDRESS CHART

SUBDIVISION NAME: The Horse Farm SECTION NAME: N/A PARCEL #: 552

PLAT: N/A BLOCK: 278 ZONE: FOR /ZONE MAP: 37 ELECT. DIST.: 1 CENSUS TRACT: 601102

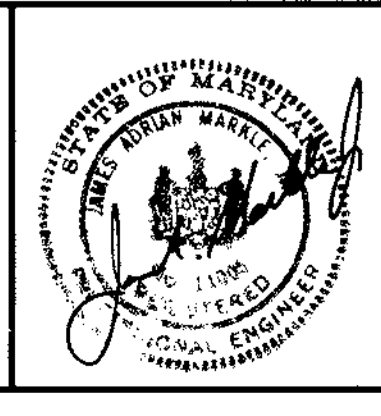
WATER CODE: E-07 SEWER CODE: 2780000

STORM DRAIN PROFILES
THE HORSE FARM

ELECTION DISTRICT: 1 HOWARD CO., MARYLAND SHEET: 13 OF 37 SCALE: As Shown DATE: Nov. 25, 1998

PREPARED BY:

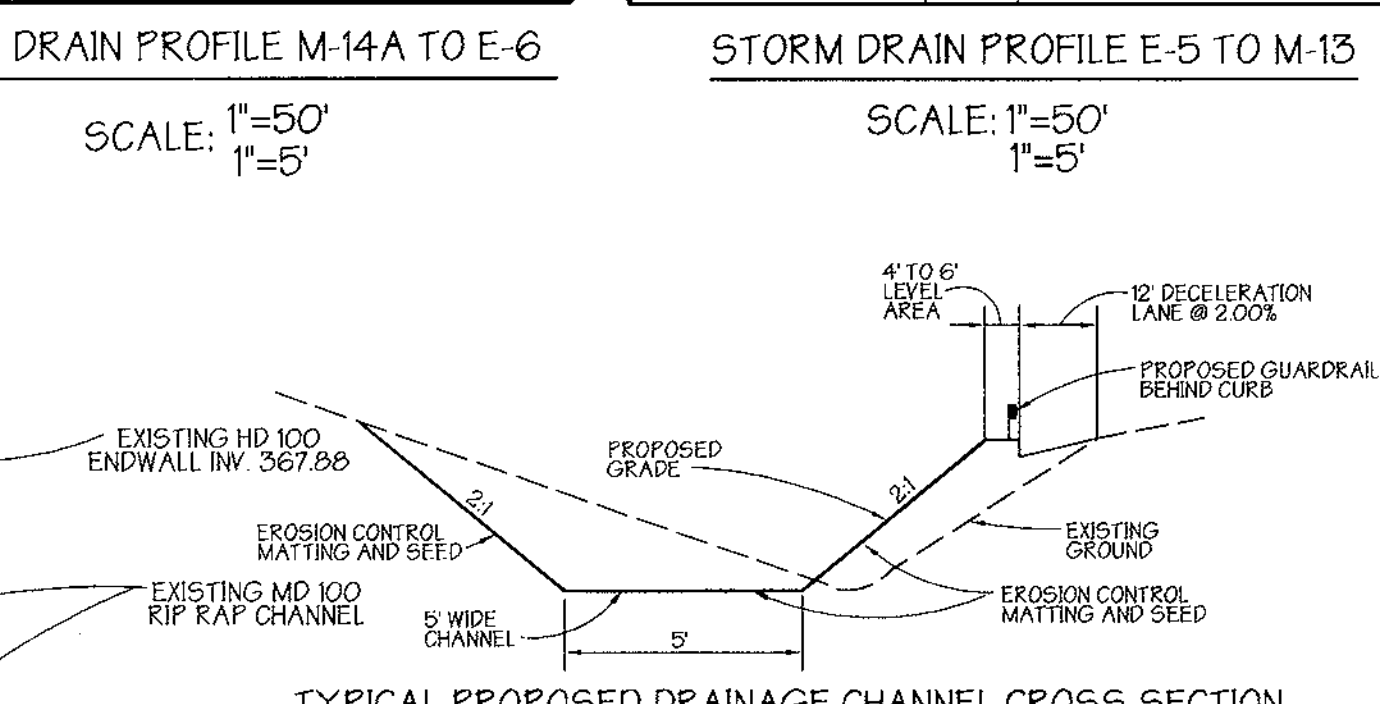
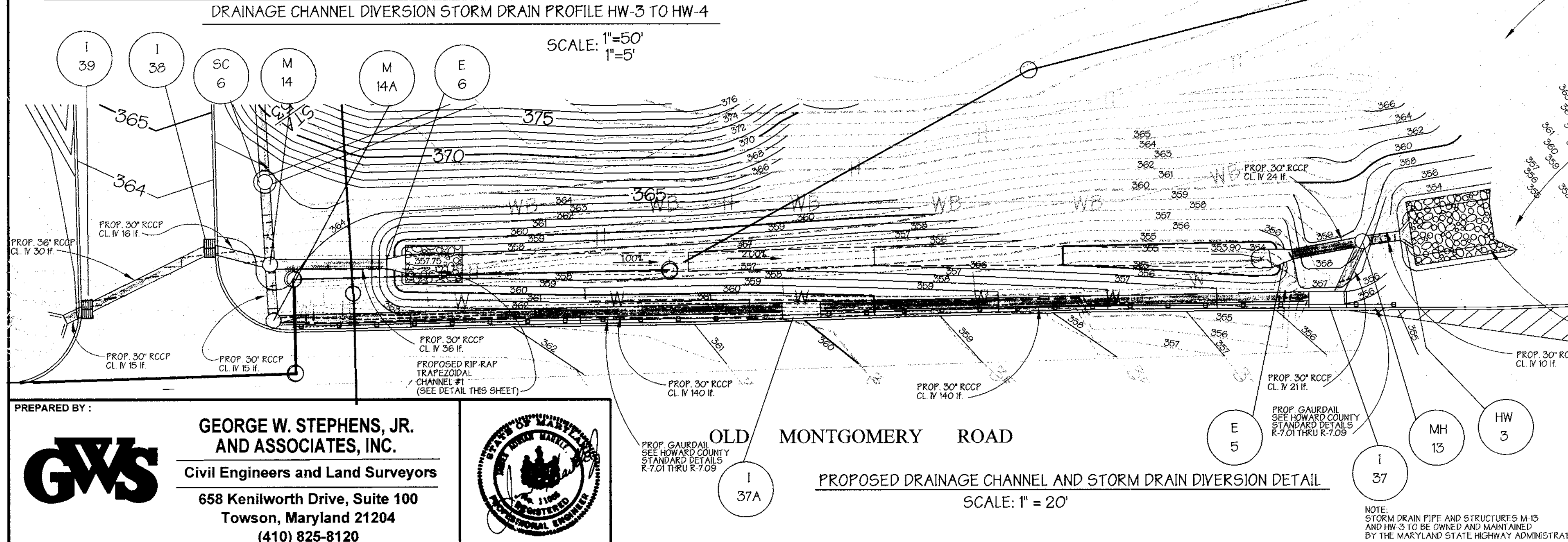
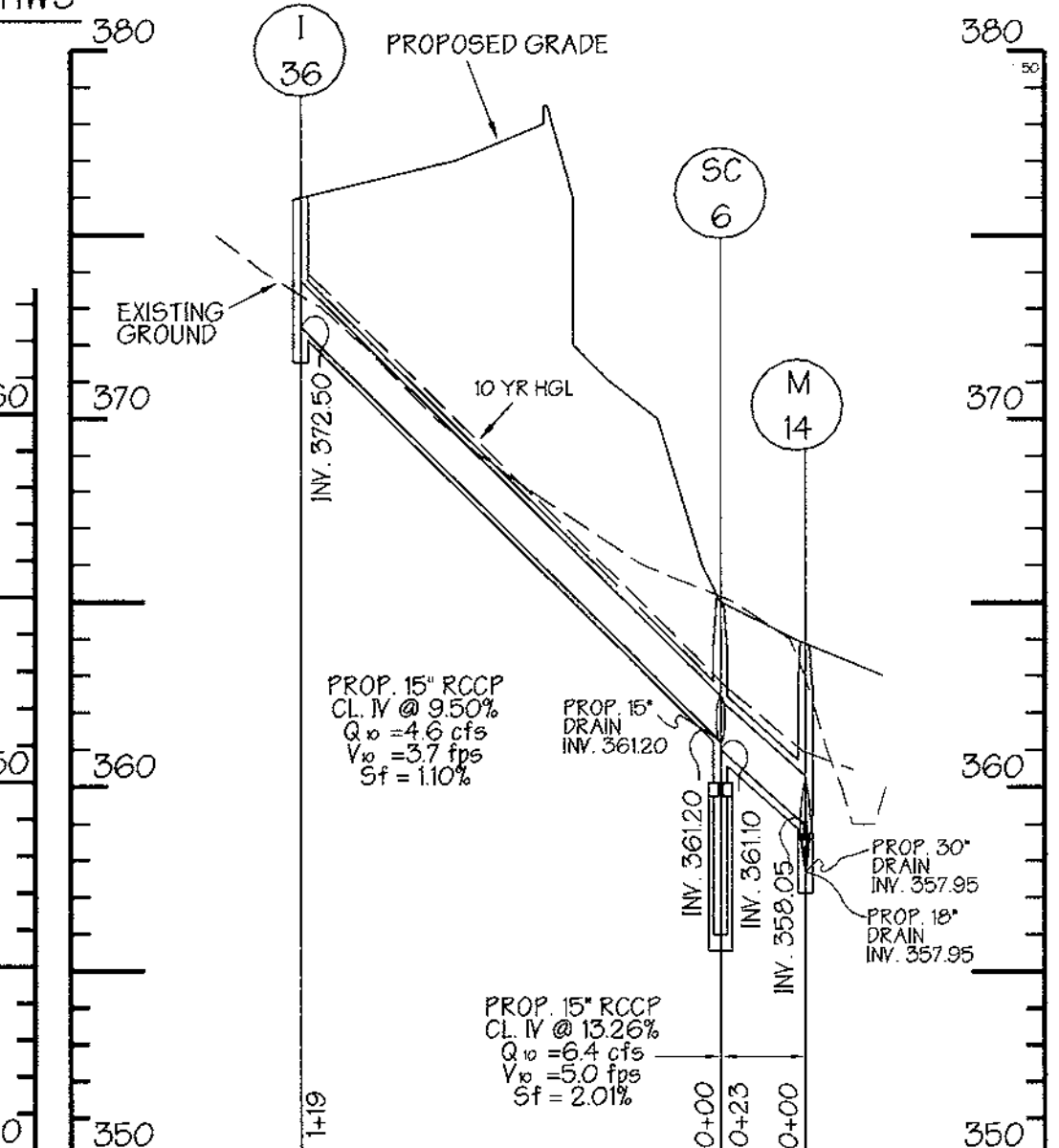
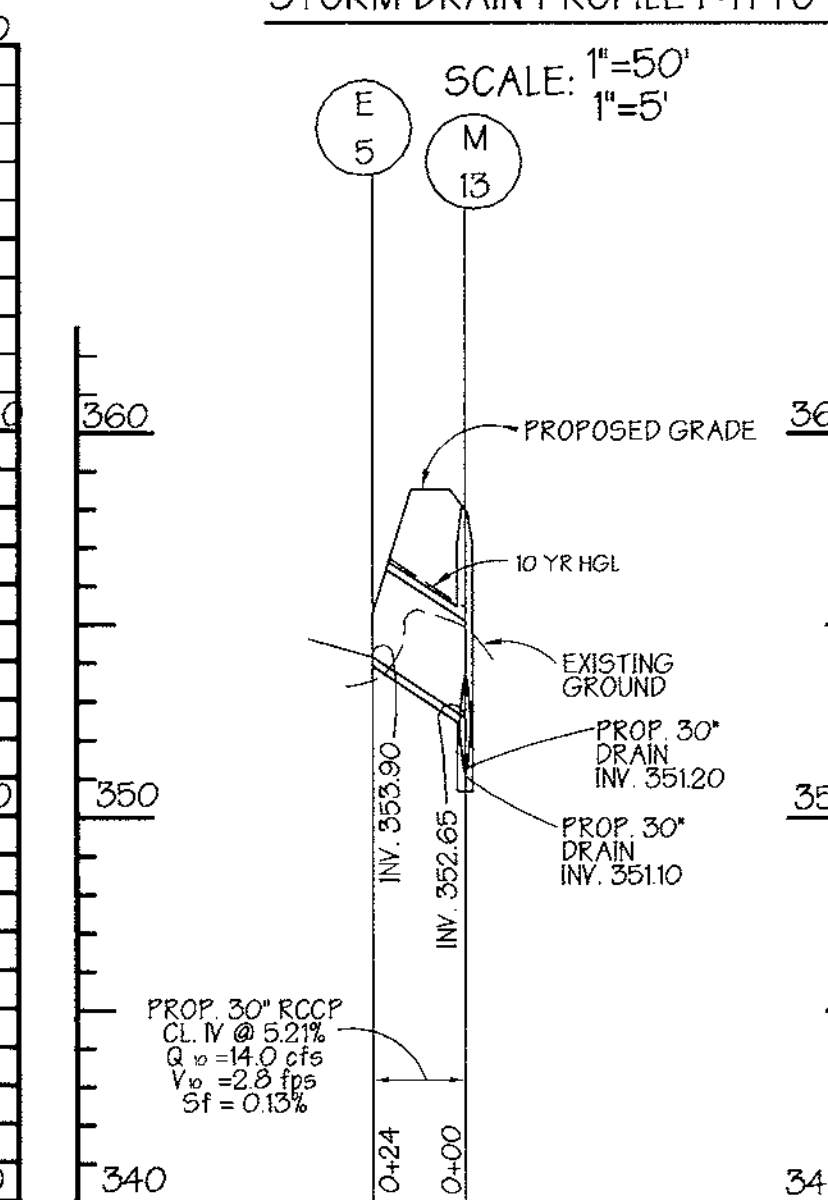
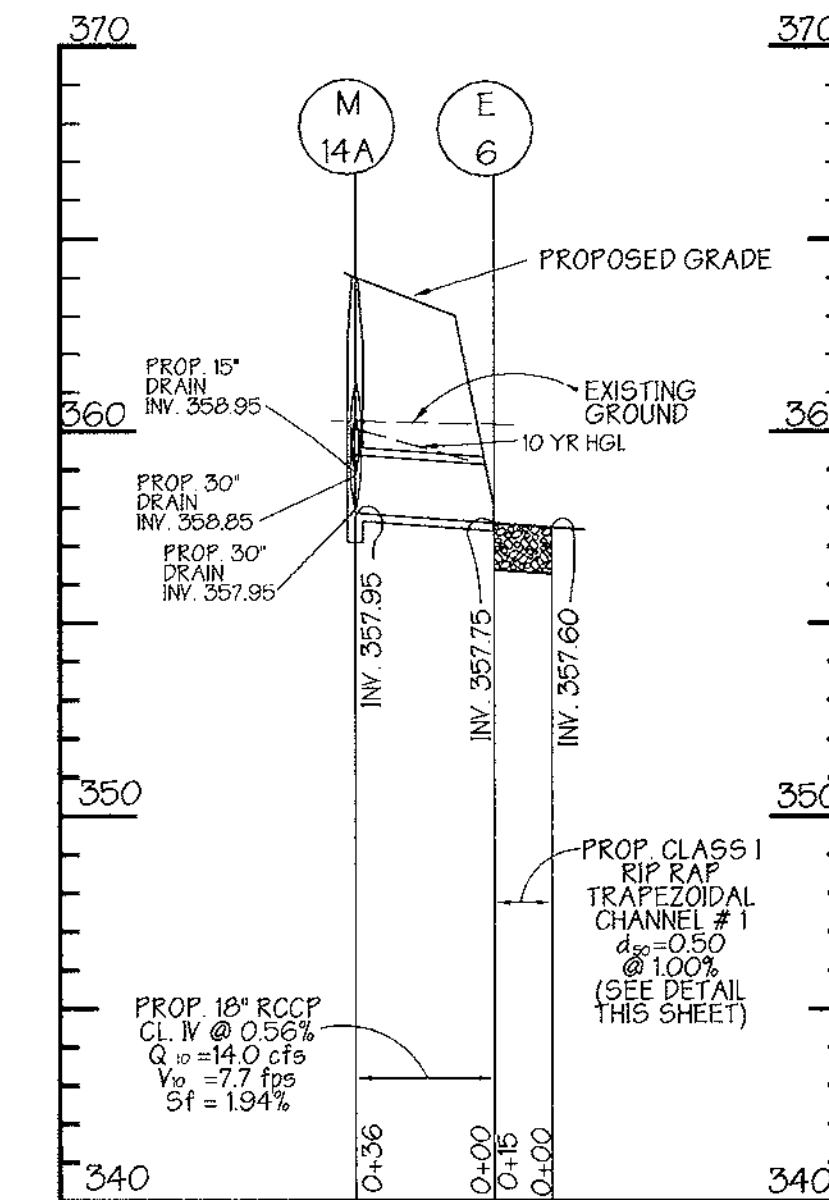
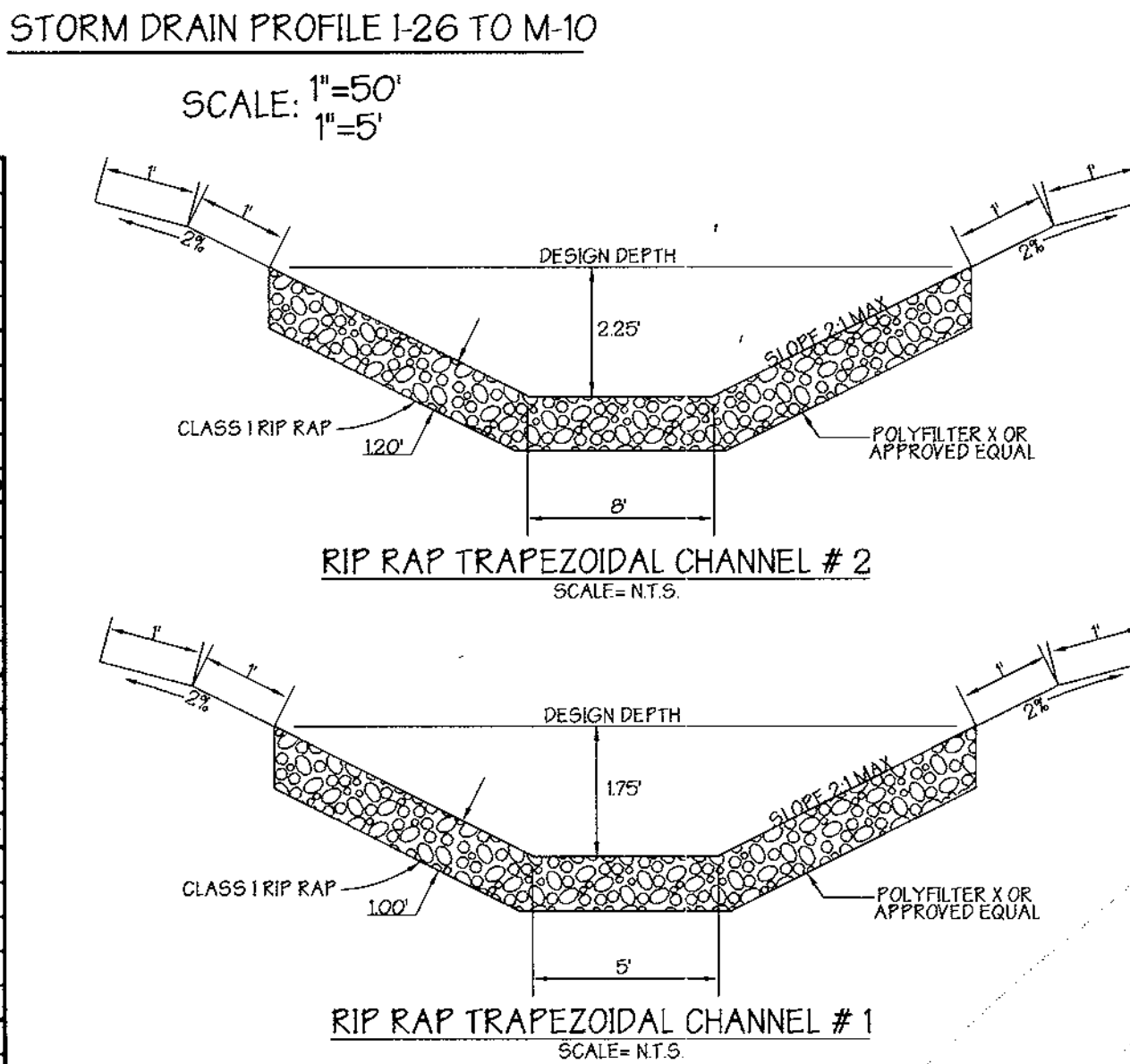
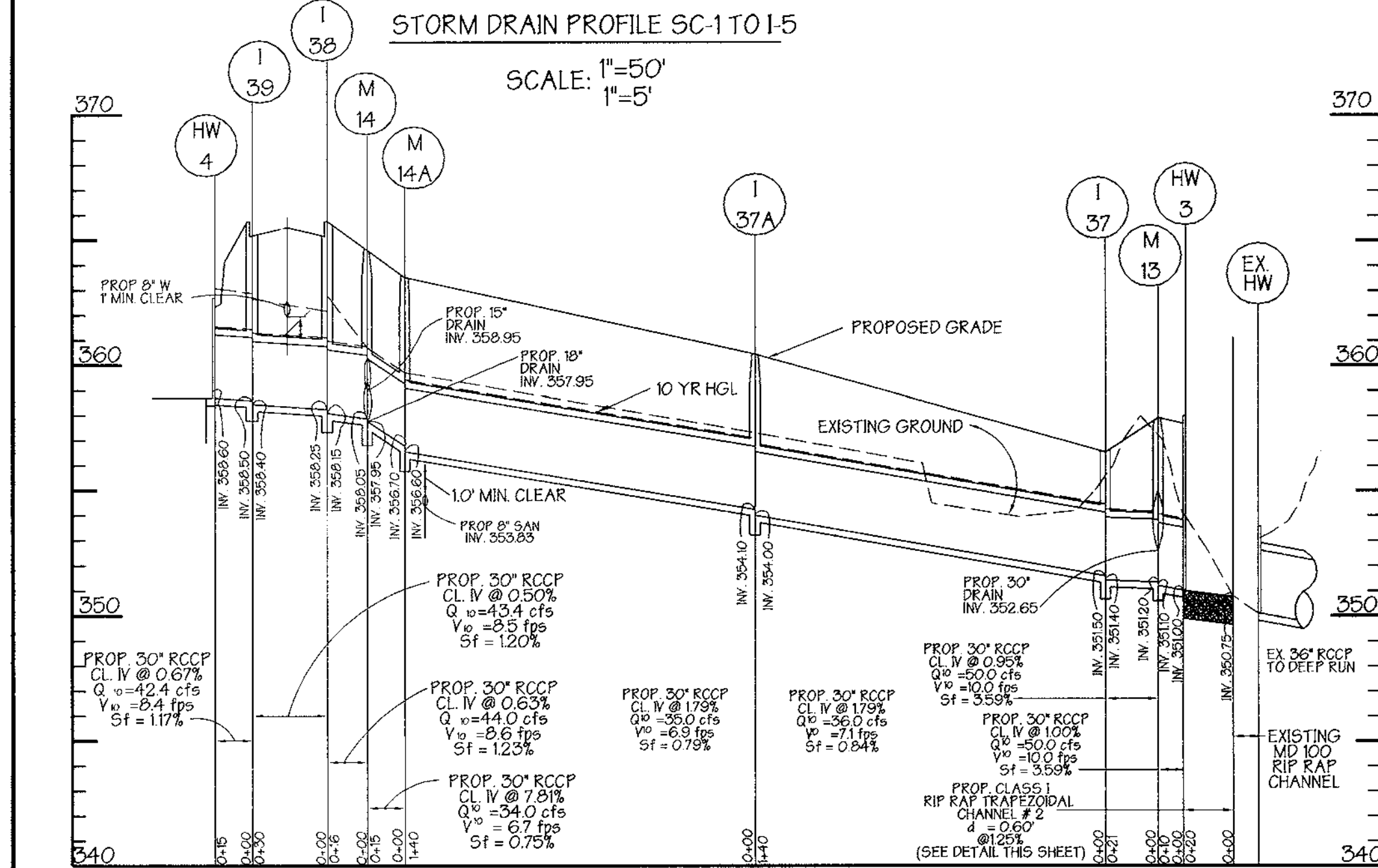
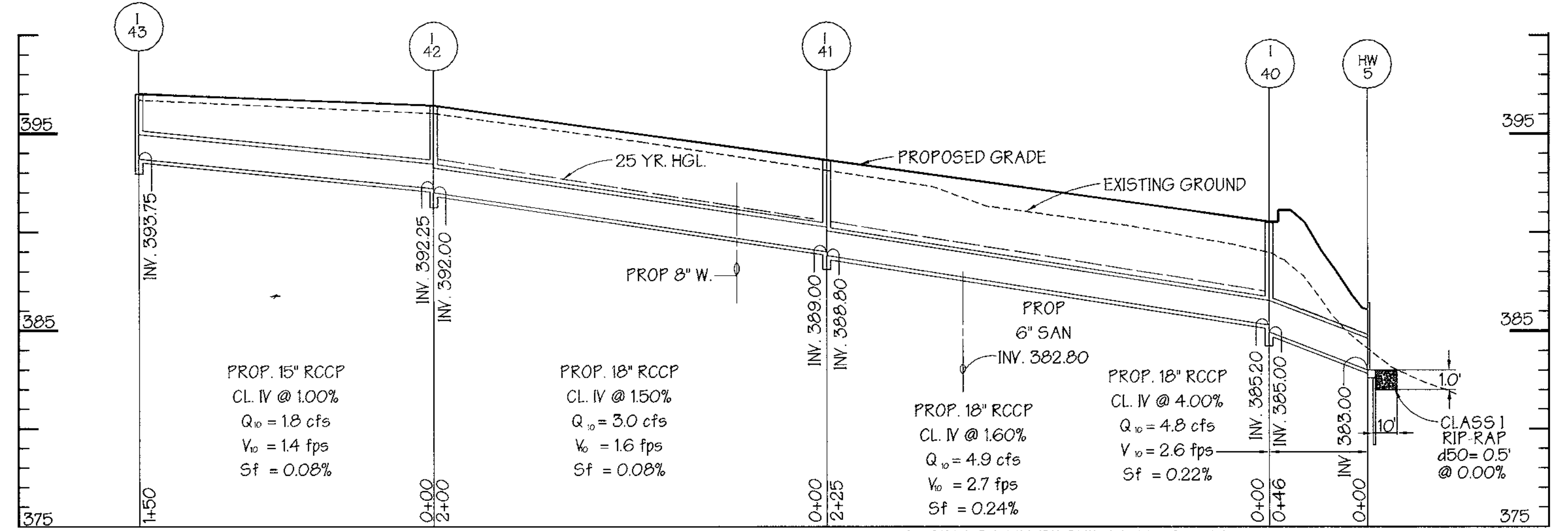
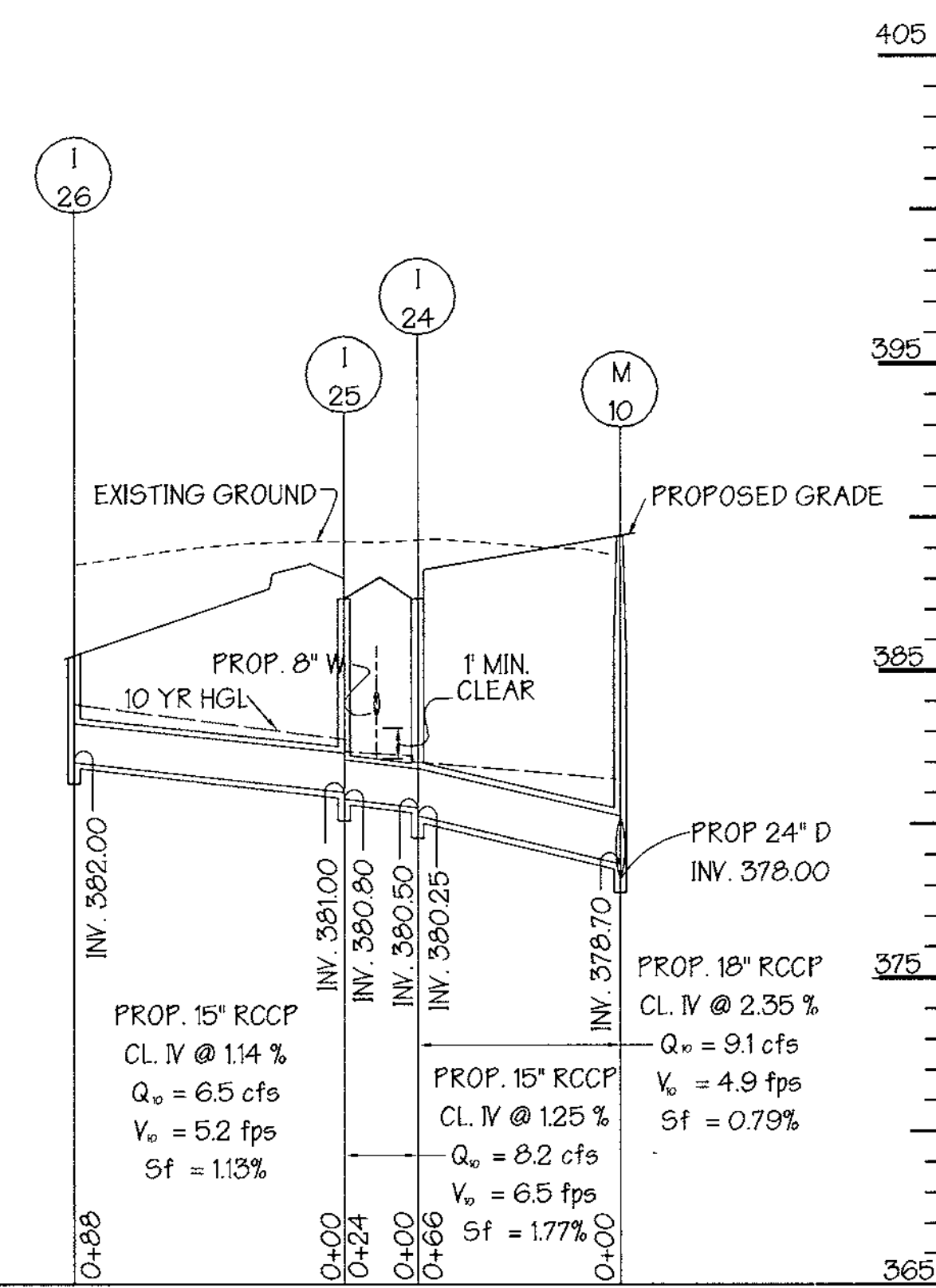
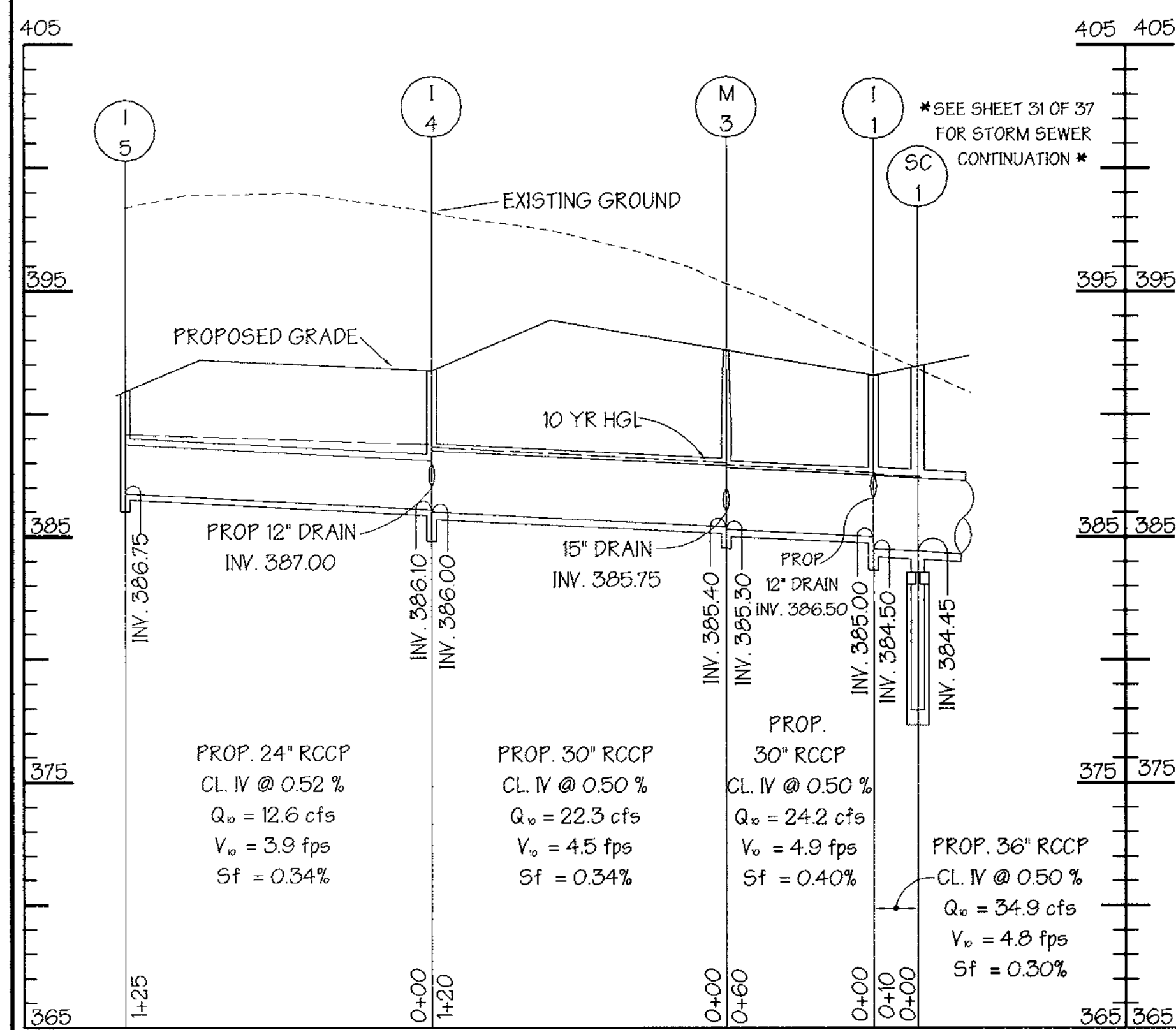
GEORGE W. STEPHENS, JR. AND ASSOCIATES, INC.
Civil Engineers and Land Surveyors
658 Kenilworth Drive, Suite 100
Towson, Maryland 21204
(410) 825-8120



OWNER - DEVELOPER
HORSE FARM - LINDEN L.L.C.
906 POPLAR HILL ROAD SUITE 200
BALTIMORE, MARYLAND, 21210
410-532-6250

DESIGNED BY: P.R.C.
DRAWN BY: E.M.T., K.E.
CHECKED BY: P.R.C.

REVISIONS



These plans for small pond construction, soil erosion and sediment control meet the requirements of Howard Soil Conservation District.

John W. Sims 12/10/99
HOWARD SOIL CONSERVATION DISTRICT DATE

These plans have been Reviewed for the Howard Soil Conservation District and meet the technical requirements for small pond construction, soil erosion and sediment control.

Cheryl Simmons 12/10/99
USDA-NATURAL RESOURCES CONSERVATION SERVICE DATE

APPROVED: Howard County Department of Planning and Zoning

John W. Sims 12/21/99
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

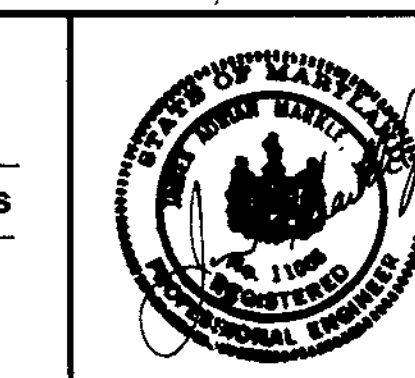
Ken St. Louis 12/24/99
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

John W. Sims 12/24/99
DIRECTOR DATE

PARCEL NO.	STREET ADDRESS
Building No. 1	6070 University Boulevard
Building No. 2	6011 University Boulevard
Building No. 3	6021 University Boulevard
Building No. 4	6020 University Boulevard
Building No. 5	6040 University Boulevard
Building No. 6	6031 University Boulevard
Building No. 7	6041 University Boulevard
Building No. 8	6051 University Boulevard

SUBDIVISION NAME The Horse Farm	SECTION NAME N/A	PARCEL # 552
PLAT # N/A	BLOCK # 218	ZONE FOR
WATER CODE E-07		SEWER CODE 2780000

PREPARED BY:
GWS
GEORGE W. STEPHENS, JR. AND ASSOCIATES, INC.
Civil Engineers and Land Surveyors
658 Kenilworth Drive, Suite 100
Towson, Maryland 21204
(410) 825-8120



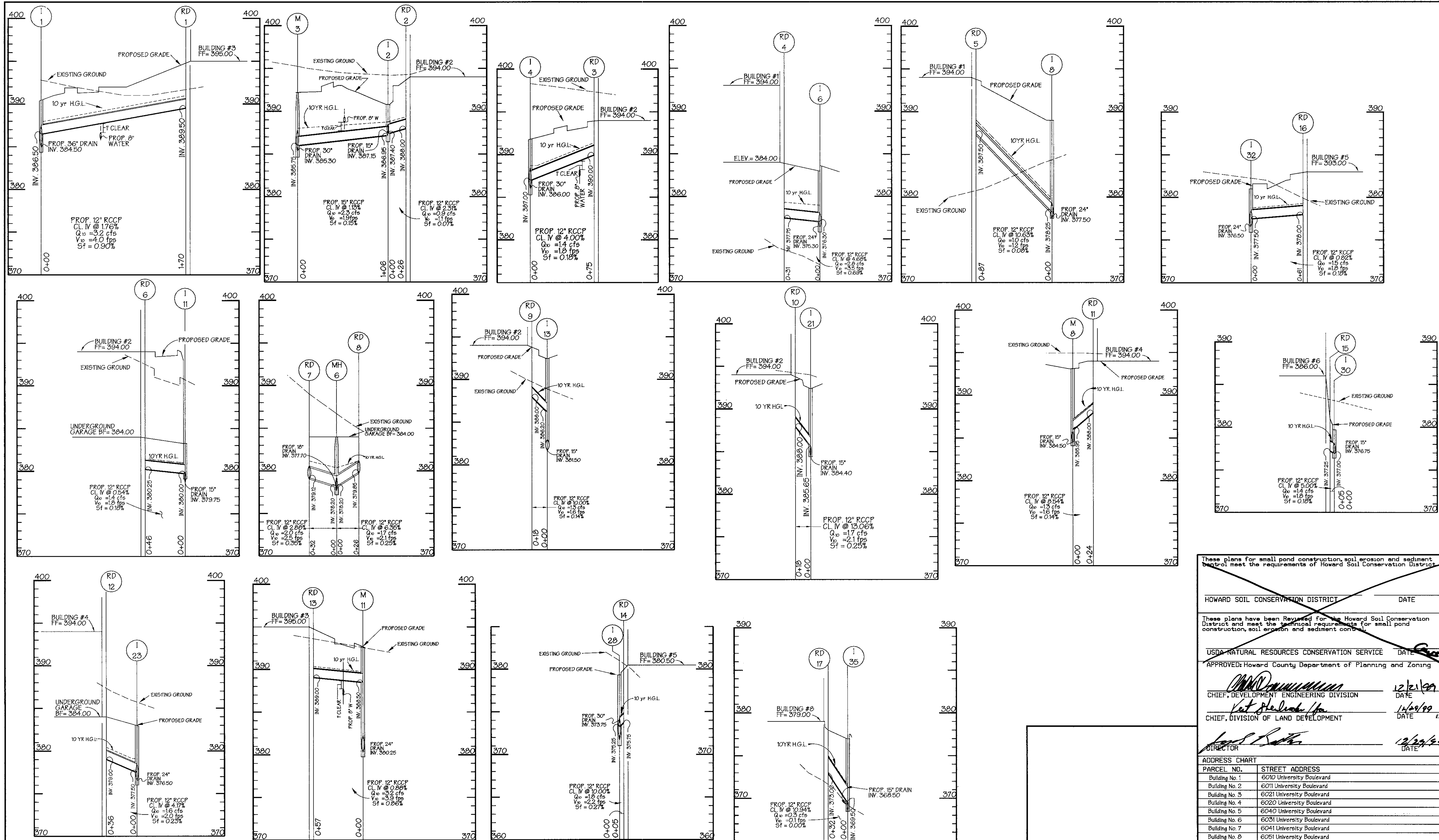
OWNER / DEVELOPER
HORSE FARM - LINDEN, L.L.C.
906 POPLAR HILL ROAD SUITE 200
BALTIMORE, MARYLAND, 21210
410-532-6250

DESIGNED BY: P.R.C.
DRAWN BY: E.M.T., K.E.
CHECKED BY: P.R.C.
REVISIONS

ELECTION DISTRICT: 1
HOWARD CO., MARYLAND
SHT. 14 OF 37
SCALE: As Shown
DATE: Nov. 25, 1998

STORM DRAIN PROFILES
THE HORSE FARM

SDP 99-65
NAME: 8594sdprf14e2.s01 P/N: 0594



ROOF DRAIN PROFILES
 SCALE: HORZ. 1" = 50'
 VERT. 1" = 5'

These plans for small pond construction, soil erosion and sediment control meet the requirements of Howard Soil Conservation District.

~~HOWARD SOIL CONSERVATION DISTRICT~~ DATE

These plans have been reviewed for the Howard Soil Conservation District and meet the technical requirements for small pond construction, soil erosion and sediment control.

USDA NATURAL RESOURCES CONSERVATION SERVICE DATE

APPROVED: Howard County Department of Planning and Zoning

[Signature] 12/21/99
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

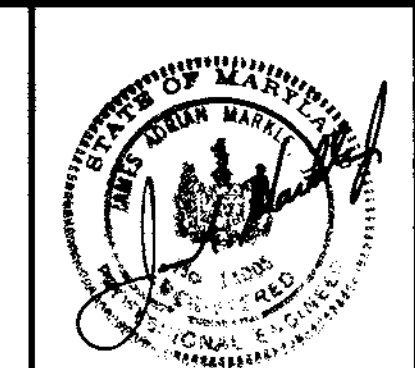
[Signature] 11/29/99
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

[Signature] 12/24/99
 DIRECTOR DATE

PARCEL NO.	STREET ADDRESS
Building No. 1	6010 University Boulevard
Building No. 2	6011 University Boulevard
Building No. 3	6021 University Boulevard
Building No. 4	6020 University Boulevard
Building No. 5	6040 University Boulevard
Building No. 6	6031 University Boulevard
Building No. 7	6041 University Boulevard
Building No. 8	6051 University Boulevard

SUBDIVISION NAME The Horse Farm	SECTION NAME N/A	PARCEL # 552
PLAT * N/A	BLOCK * 218	ZONE PKR
TAX MAP 57	ELECT. DIST. 1	CENSUS TRACT 6011.02
WATER CODE E-07	SEWER CODE	2780000

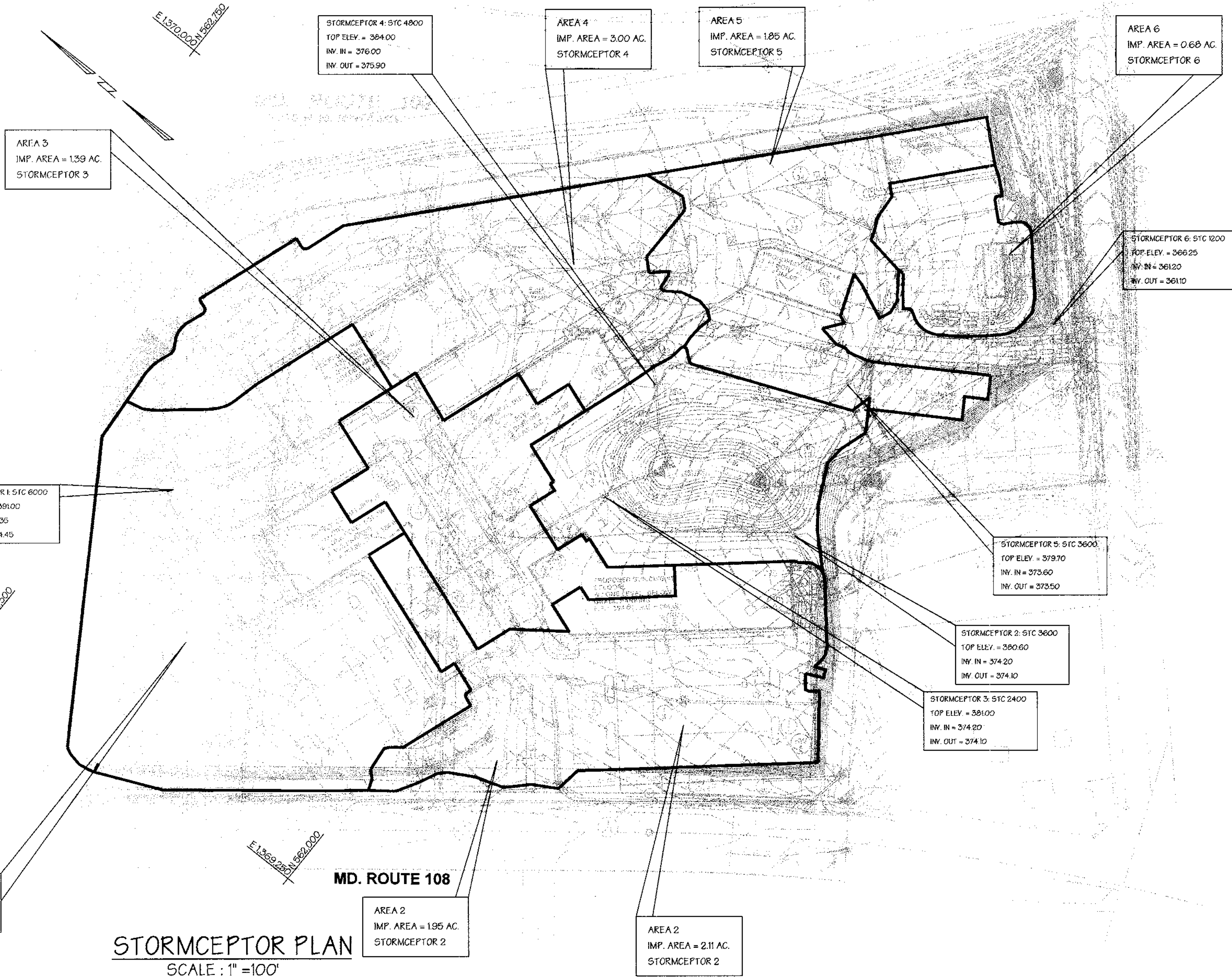
PREPARED BY:
GWS
GEORGE W. STEPHENS, JR. AND ASSOCIATES, INC.
 Civil Engineers and Land Surveyors
 658 Kenilworth Drive, Suite 100
 Towson, Maryland 21204
 (410) 825-8120



OWNER - DEVELOPER
HORSE FARM - LINDEN L.L.C.
 906 POPLAR HILL ROAD SUITE 200
 BALTIMORE, MARYLAND, 21210
 410-532-6250

DESIGNED BY: P.R.C.
 DRAWN BY: E.M.T., K.E.
 CHECKED BY: P.R.C.
 REVISIONS

STORM DRAIN PROFILES
THE HORSE FARM
 ELECTION DISTRICT: 1
 HOWARD CO., MARYLAND
 SHEET: 15 OF 37
 SCALE: As Shown
 DATE: Nov. 25, 1999
 SDP 99-65
 NAME: 0564dprof163x01 PIN: 8594



10 Installation Procedures

11 Concrete Stormceptor® Installation

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

Excavation

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

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

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

Leveling

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

Backfilling

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

Stormceptor® Construction Sequence

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

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

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

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

Down Pipe and Riser Pipe

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

STC 900, STC 1200, STC 1800

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

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

STC 2400, STC 3600, STC 4800, STC 6000, STC 7200

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

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

Inlet and Outlet Pipes

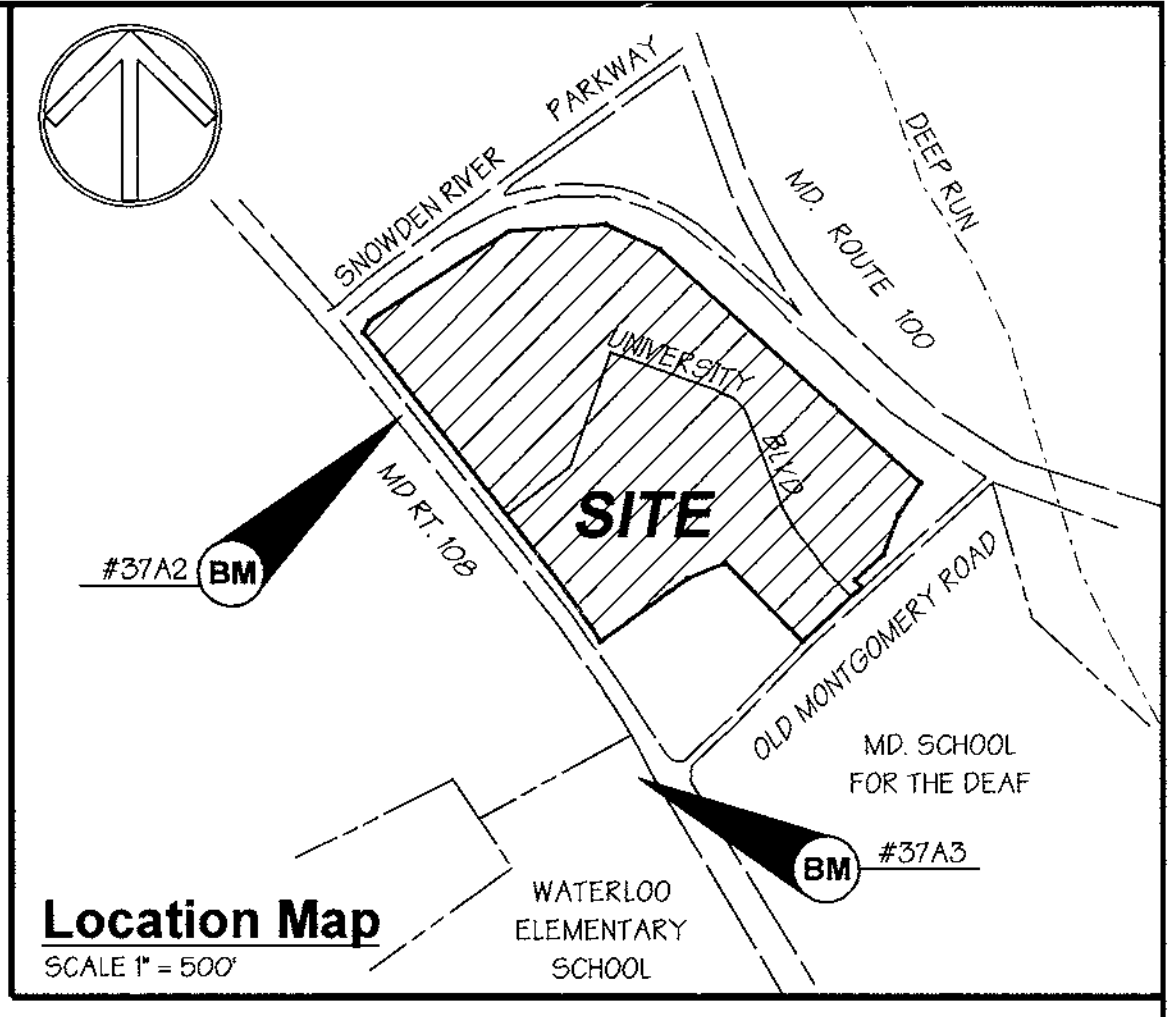
Inlet and outlet pipes should be securely set into the by-pass chamber using grout or approved pipe seals so that the structure is watertight. Kor-N-Seal® boots are normally used and installed at the precast concrete plant prior to shipping. The Kor-N-Seal® boots are applicable for pipes with an outside diameter up to 46 inches. Stormceptor Corporation should be notified if the pipe is to be grouted in the field at the time of ordering (i.e. Kor-N-Seal® boots will not be used) since the boots are generally included in the price quotations.

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

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

Frame and Cover Installation

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



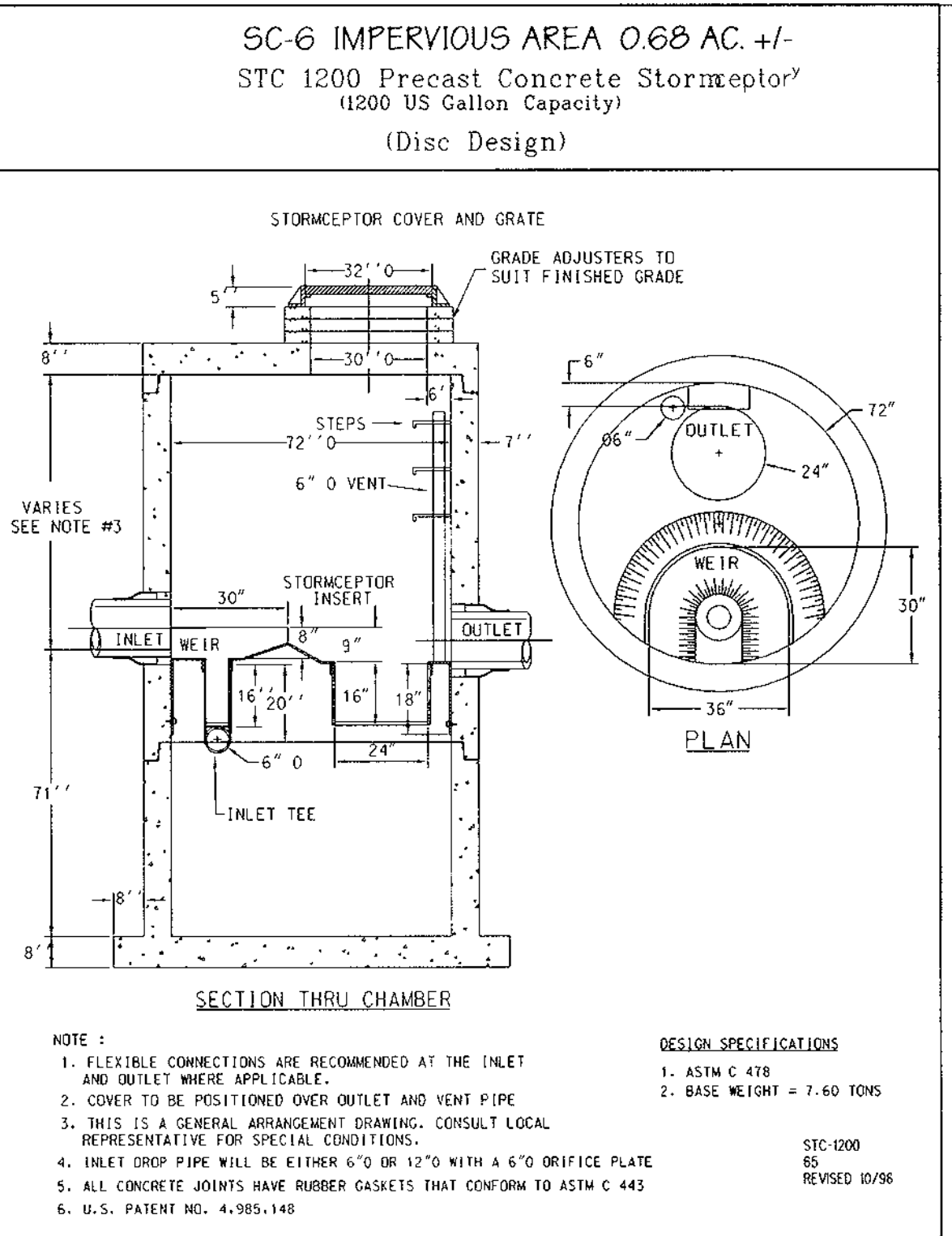
Benchmarks

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 Easting : 1369300.289
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 Elevation : 403.675

Pt. #37A3, Aka - 2643003 - Howard Co. Geodetic Control
 Northing : 561130.803
 Easting : 1369913.306
 NAD27 datum N 5003819. E 857495.1
 Elevation : 385.627

OPERATION AND MAINTENANCE SCHEDULE FOR STORMCEPTOR WATER QUALITY DEVICE

1. The Stormceptor water quality structure shall be periodically inspected and cleaned to maintain operation and function. The owner shall inspect the Stormceptor units yearly at a minimum, utilizing the Stormceptor Inspection Monitoring Form. Inspections shall be done by using a clear Plexiglass tube ("budge judge") to extract a water column sample. When the sediment depths exceed the level specified in Table 6 of the Stormceptor Technical Manual, the unit must be cleaned.
2. The Stormceptor water quality structure shall be checked and cleaned immediately after petroleum spills. The owner shall contract the appropriate regulatory agencies.
3. The maintenance of the Stormceptor unit shall be done using a vacuum truck which will remove the water, sediment, debris, floating hydrocarbons and other materials in the unit. Proper cleaning and disposal of the removed materials and liquid must be followed by the owner.
4. The inlet and outlet pipes shall be checked for any obstructions at least once every six months. If obstructions are found the owner shall have them removed. Structural parts of the Stormceptor unit shall be repaired as needed.
5. The owner shall retain and make the Stormceptor Inspection/Monitoring Forms available to the Howard County Officials upon their request.



Concrete Stormceptor® Order Request Form

Contractor Information

Name: _____
 Address: _____
 City: _____
 State: _____
 Zip Code: _____
 Contract #: _____
 Phone: _____
 Fax: _____

Owner Information

Name: LINDEN ASSOCIATES
 Phone: 410-532-6250
 Fax: _____

Stormceptor® Model

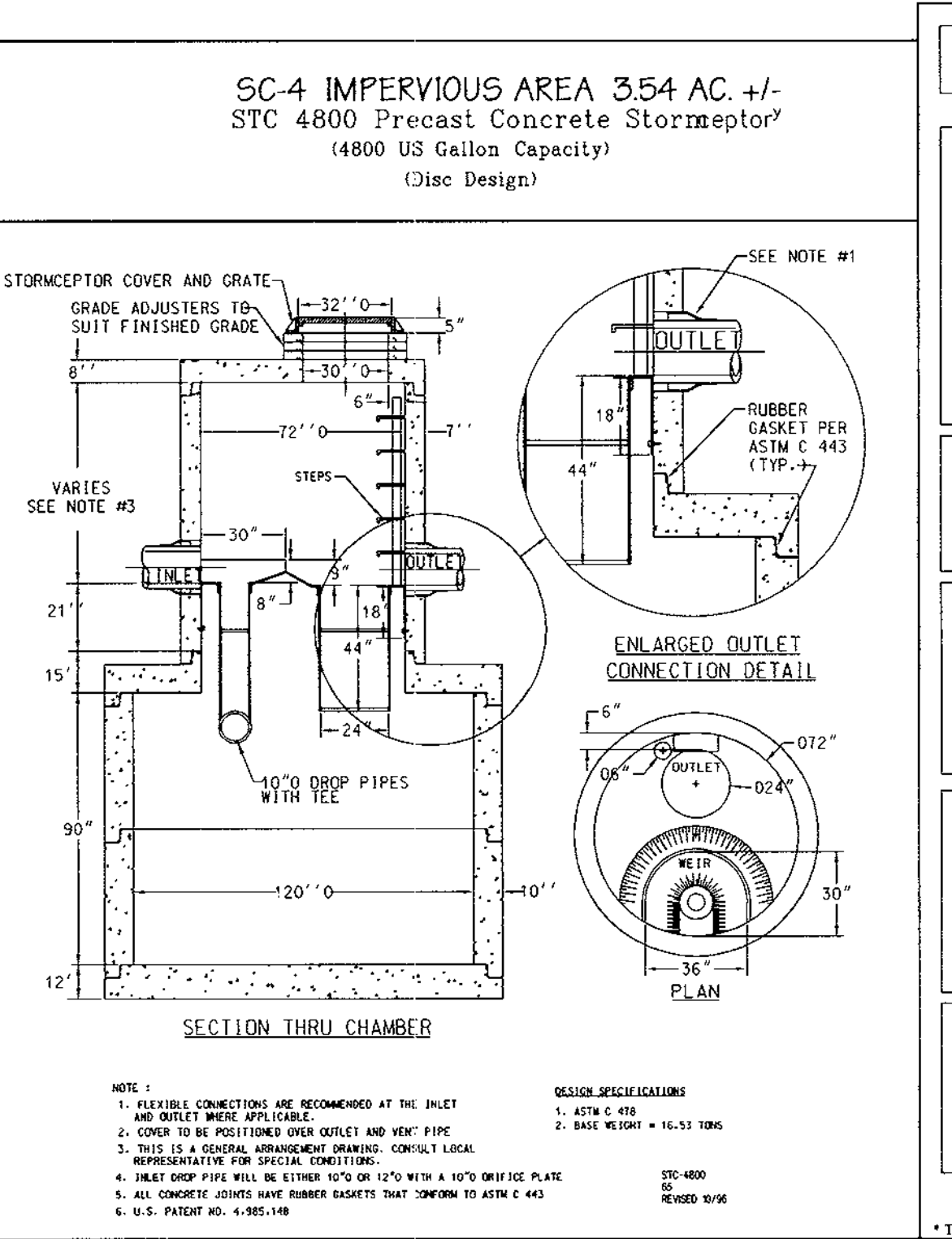
900	3600	32"	SC-6
1200	4800	32"	36420
1800	6000	44"	36120
2400	7200	Custom	36110

Insert Size

Manhole Number: _____
 Top Elevation (ft): _____
 Inlet Pipe Invert (ft): _____
 Outlet Pipe Invert (ft): _____
 Pipe Type: R.C.C.P.
 Pipe Inside Diameter (in) (ID): _____
 Pipe Outside Diameter (in) (OD): _____

Project Name: THE HORSE FARM
 Approximate site frame until required delivery (weeks): _____
 Delivery Address: Street _____ State _____ Zip Code _____
 City _____ State _____ Zip Code _____
 Designer Company: GEORGE W. STEPHENS, JR. & ASSOCIATES
 Designer Contact: PAT CIARLO Phone: 410-825-8120 Fax: 410-583-0280

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



Concrete Stormceptor® Order Request Form

Contractor Information

Name: _____
 Address: _____
 City: _____
 State: _____
 Zip Code: _____
 Contract #: _____
 Phone: _____
 Fax: _____

Owner Information

Name: LINDEN ASSOCIATES
 Phone: 410-532-6250
 Fax: _____

Stormceptor® Model

900	3600	22"	SC-4
1200	4800	32"	36400
1800	6000	44"	37600
2400	7200	Custom	37590

Insert Size

Manhole Number: _____
 Top Elevation (ft): _____
 Inlet Pipe Invert (ft): _____
 Outlet Pipe Invert (ft): _____
 Pipe Type: R.C.C.P.
 Pipe Inside Diameter (in) (ID): _____
 Pipe Outside Diameter (in) (OD): _____

Project Name: THE HORSE FARM
 Approximate site frame until required delivery (weeks): _____
 Delivery Address: Street _____ State _____ Zip Code _____
 City _____ State _____ Zip Code _____
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 Designer Contact: PAT CIARLO Phone: 410-825-8120 Fax: 410-583-0280

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

~~These plans for small pond construction, soil erosion and sediment control meet the requirements of Howard Soil Conservation District.~~

~~HOWARD SOIL CONSERVATION DISTRICT DATE~~

~~These plans have been Reviewed for the Howard Soil Conservation District and meet the technical requirements for small pond construction, soil erosion and sediment control.~~

~~USDA-NATURAL RESOURCES CONSERVATION SERVICE DATE~~

APPROVED: Howard County Department of Planning and Zoning

John P. Williams 12/2/99
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

Kat Sheehy 1/4/99
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

James A. Markle Jr. 10/25/98
 DIRECTOR DATE

PARCEL NO.	STREET ADDRESS
Building No. 1	6010 University Boulevard
Building No. 2	6011 University Boulevard
Building No. 3	6021 University Boulevard
Building No. 4	6020 University Boulevard
Building No. 5	6040 University Boulevard
Building No. 6	6031 University Boulevard
Building No. 7	6041 University Boulevard
Building No. 8	6051 University Boulevard

SUBDIVISION NAME	SECTION NAME	PARCEL #
The Horse Farm	N/A	552

PLAT #	BLOCK #	ZONE	TX MAP	ELECT. DIST.	CENSUS TRACT
N/A	218	PKR	57		6011.02

WATER CODE E-07 SEWER CODE 2780000

PREPARED BY:

GEORGE W. STEPHENS, JR. AND ASSOCIATES, INC.
 Civil Engineers and Land Surveyors
 658 Kenilworth Drive, Suite 100
 Towson, Maryland 21204
 (410) 825-8120

DEVELOPER CERTIFICATION:

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

Developer Name: *Christopher W. Kurr* Date: 8/30/99

ENGINEER CERTIFICATION:

I certify that this plan for erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District.

Engineer Name: *James A. Markle Jr.* Date: 8/30/99 PE # 11005

OWNER - DEVELOPER

HORSE FARM - LINDEN L.L.C.
 906 POPLAR HILL ROAD SUITE 200
 BALTIMORE, MARYLAND, 21210
 410 - 532 6250

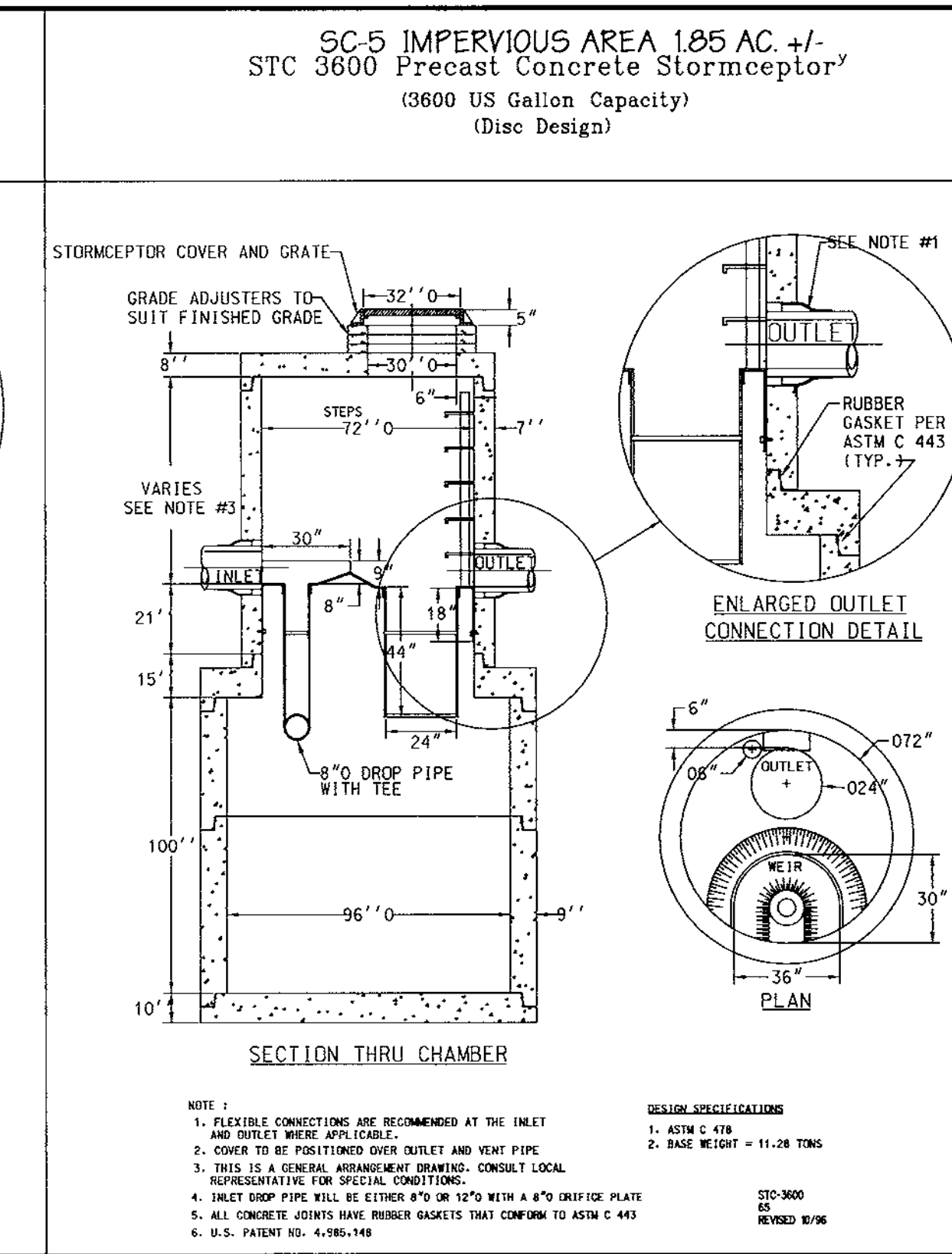
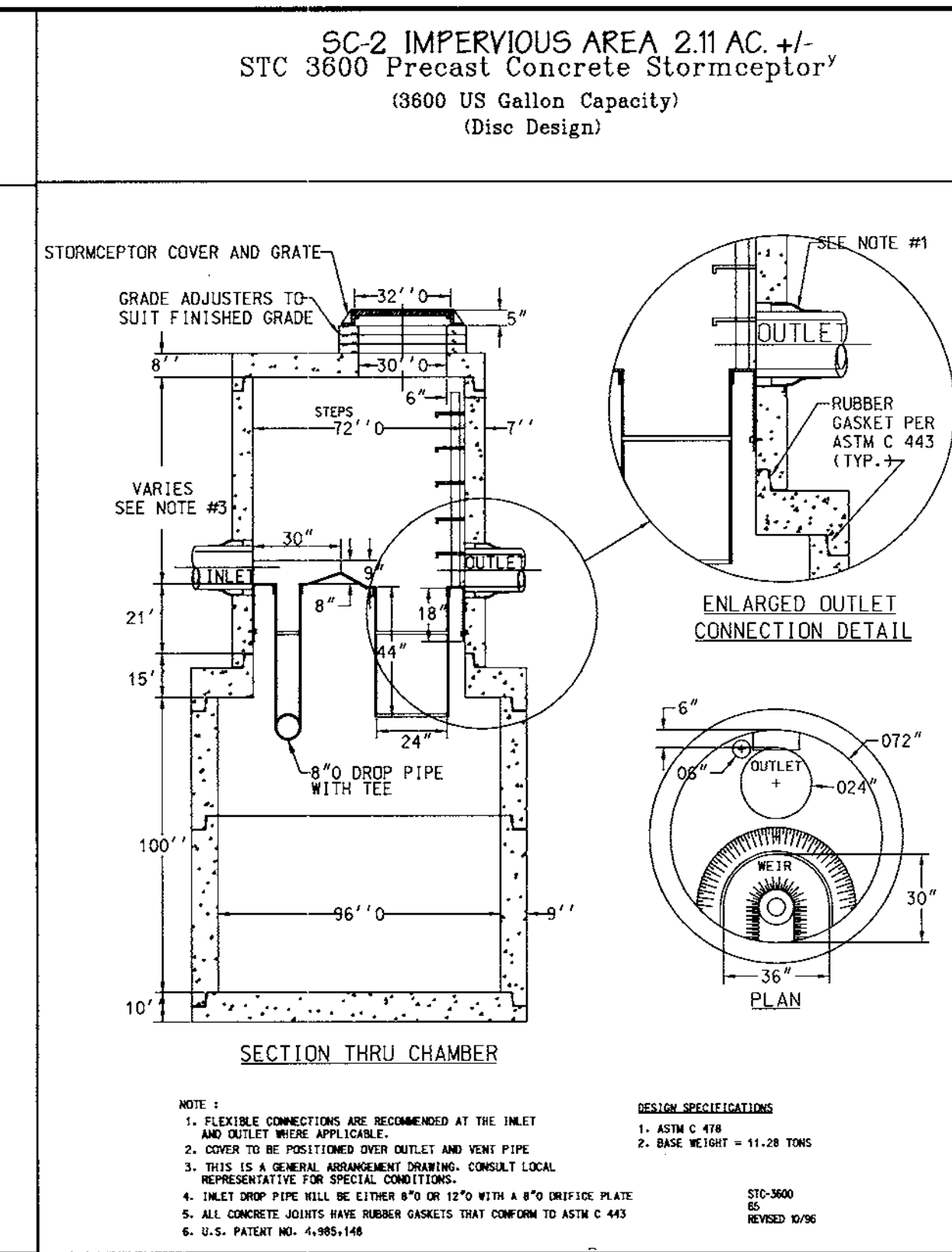
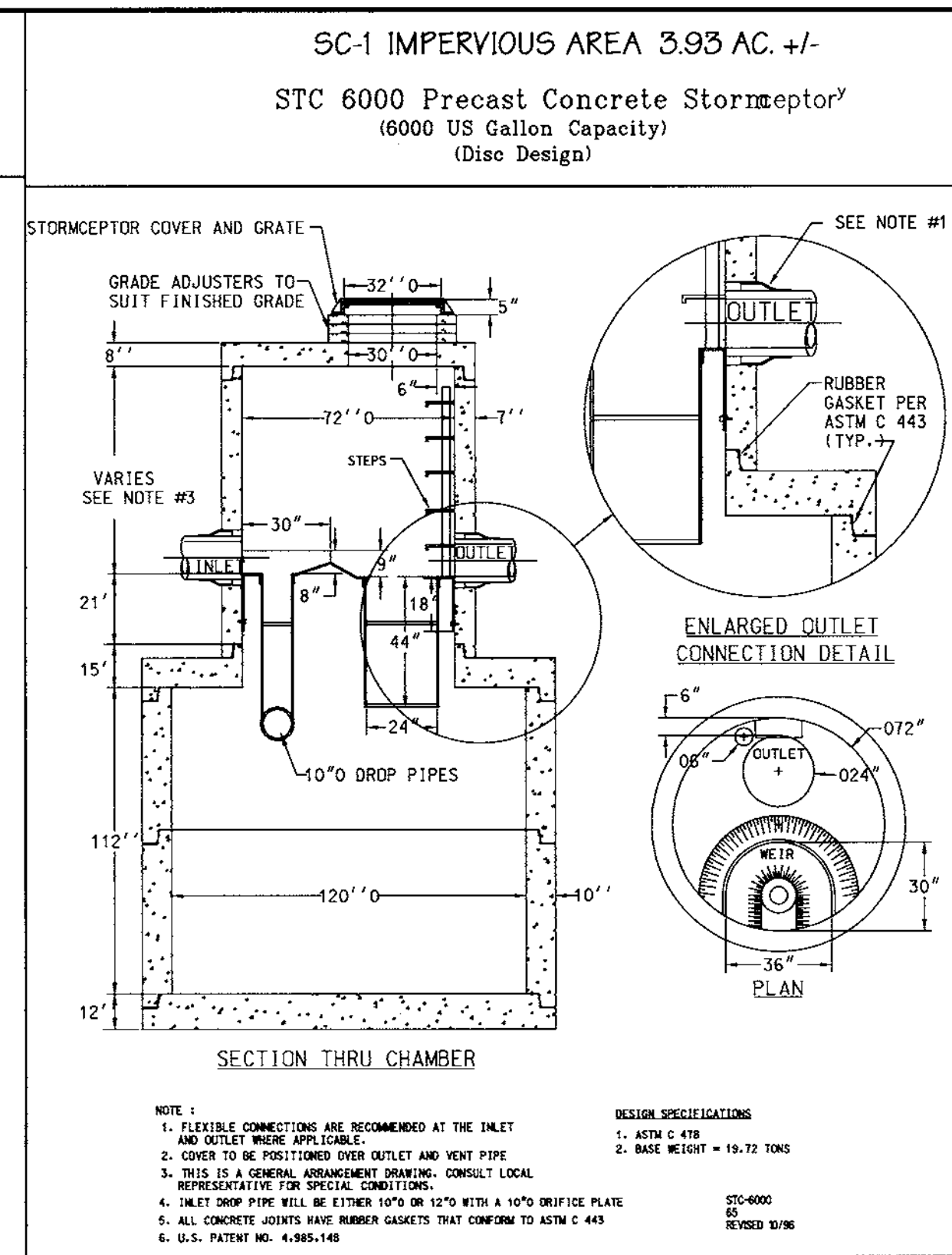
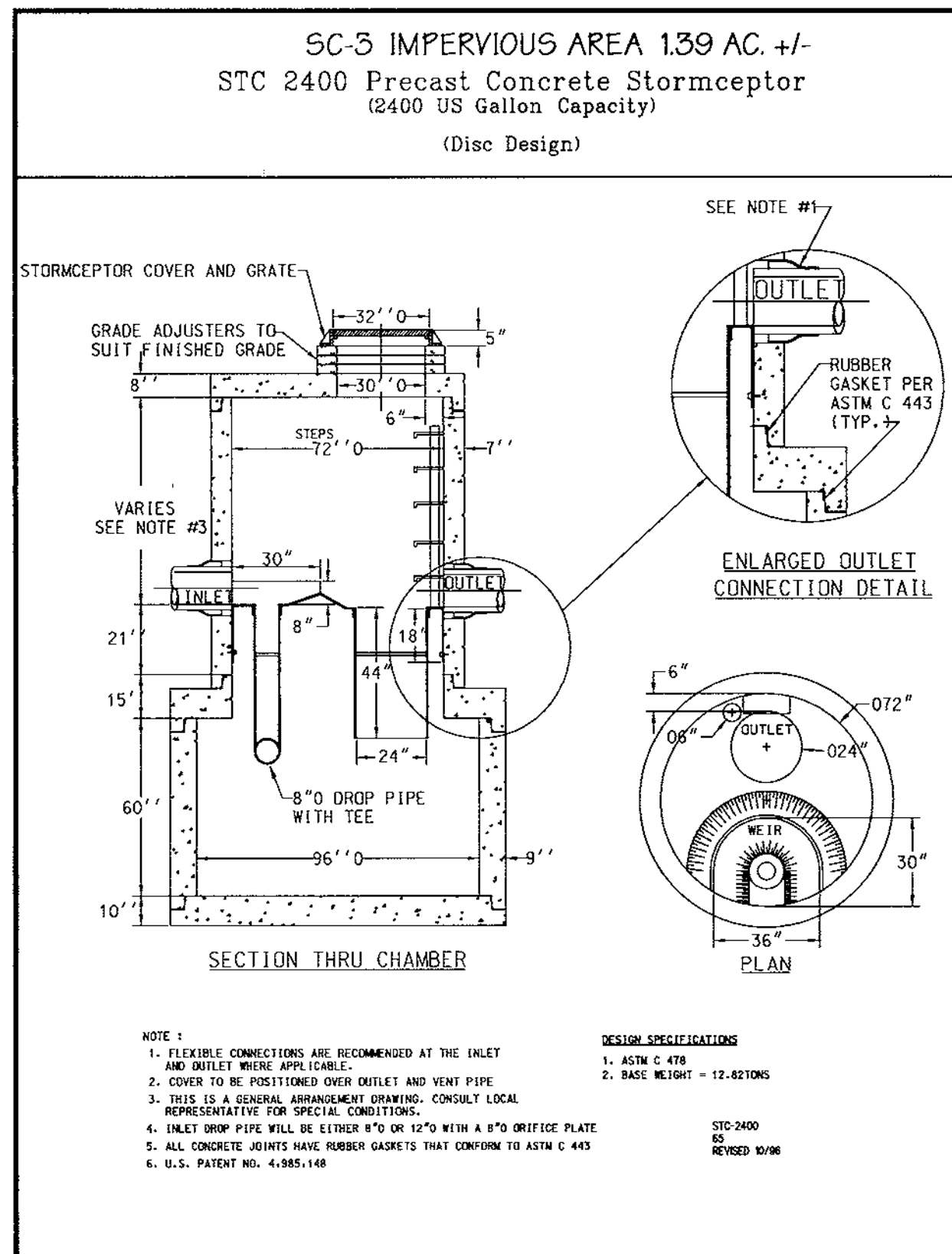
DESIGNED BY: P.R.C.
 DRAWN BY: E.M.T., K.E.
 CHECKED BY: P.R.C.
 REVISIONS

STORMCEPTOR PLAN

THE HORSE FARM

ELECTION DISTRICT: 1
 HOWARD CO., MARYLAND SHT. 16 OF 37 SCALE: As Shown DATE: Nov. 25, 1998

SDP 99-65 NAME: 8594stormceptorplan1.s01 P/N: 8594



Concrete Stormceptor® Order Request Form

Contractor Information:
Name: _____
Address: _____
City: _____
State: _____
Zip Code: _____
Contract: _____
Phone: _____
Fax: _____

Office Use Only:
Order # _____
Date: _____
Internal Sale: _____

Owner Information:
Name: LINDEN ASSOCIATES
Phone: 410-532-8250
Fax: _____

Stormceptor® Model: 900, 1200, 1800, 2400
Insert Size: 22", 32", 44", Custom
Manhole Number: 36100, 37420, 37410

Project Name: THE HORSE FARM
Approximate time frame until required delivery (weeks): _____
Delivery Address: Street _____, City _____, State _____, Zip Code _____
Designer Company: GEORGE W. STEPHENS, JR. & ASSOCIATES
Designer Contact: PAT CARLO, Phone: 410-825-8120, Fax: 410-583-0288

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

ALL LIFTING APPARATUS TO BE PROVIDED BY THE INSTALLATION CONTRACTOR

* TO BE INCLUDED ON SWM PLAN BY DESIGNER

Concrete Stormceptor® Order Request Form

Contractor Information:
Name: _____
Address: _____
City: _____
State: _____
Zip Code: _____
Contract: _____
Phone: _____
Fax: _____

Office Use Only:
Order # _____
Date: _____
Internal Sale: _____

Owner Information:
Name: LINDEN ASSOCIATES
Phone: 410-532-8250
Fax: _____

Stormceptor® Model: 900, 1200, 1800, 2400
Insert Size: 22", 32", 44", Custom
Manhole Number: 36100, 37420, 37410

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Name: _____
Address: _____
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State: _____
Zip Code: _____
Contract: _____
Phone: _____
Fax: _____

Office Use Only:
Order # _____
Date: _____
Internal Sale: _____

Owner Information:
Name: LINDEN ASSOCIATES
Phone: 410-532-8250
Fax: _____

Stormceptor® Model: 900, 1200, 1800, 2400
Insert Size: 22", 32", 44", Custom
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Name: _____
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State: _____
Zip Code: _____
Contract: _____
Phone: _____
Fax: _____

Office Use Only:
Order # _____
Date: _____
Internal Sale: _____

Owner Information:
Name: LINDEN ASSOCIATES
Phone: 410-532-8250
Fax: _____

Stormceptor® Model: 900, 1200, 1800, 2400
Insert Size: 22", 32", 44", Custom
Manhole Number: 36100, 37420, 37410

Project Name: THE HORSE FARM
Approximate time frame until required delivery (weeks): _____
Delivery Address: Street _____, City _____, State _____, Zip Code _____
Designer Company: GEORGE W. STEPHENS, JR. & ASSOCIATES
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Please fax this order to stormceptor at (301) 762-4190
For Technical Assistance Please Call Stormceptor Corporation at (301) 762 - 8361 or toll free at 1 (800) 762 - 4703

ALL LIFTING APPARATUS TO BE PROVIDED BY THE INSTALLATION CONTRACTOR

* TO BE INCLUDED ON SWM PLAN BY DESIGNER

These plans for small pond construction, soil erosion and sediment control meet the requirements of Howard Soil Conservation District.

HOWARD SOIL CONSERVATION DISTRICT _____ DATE _____

These plans have been reviewed for the Howard Soil Conservation District and meet the technical requirements for small pond construction, soil erosion and sediment control.

USDA-NATURAL RESOURCES CONSERVATION SERVICE _____ DATE _____

APPROVED: Howard County Department of Planning and Zoning

_____ 12/21/99
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

_____ 12/28/99
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

_____ 12/29/99
DIRECTOR DATE

ADDRESS CHART

PARCEL NO.	STREET ADDRESS
Building No. 1	6010 University Boulevard
Building No. 2	6011 University Boulevard
Building No. 3	6021 University Boulevard
Building No. 4	6020 University Boulevard
Building No. 5	6040 University Boulevard
Building No. 6	6031 University Boulevard
Building No. 7	6041 University Boulevard
Building No. 8	6051 University Boulevard

SUBDIVISION NAME: The Horse Farm SECTION NAME: N/A PARCEL #: 532

PLAT #: N/A BLOCK #: 2 FB ZONE: FOR / ZONE MAP: 1 ELECT. DIST.: 1 CENSUS TRACT: 6011.02

WATER CODE: E-07 SEWER CODE: 2780000

OWNER - DEVELOPER: HORSE FARM - LINDEN L.L.C.
908 POPLAR HILL ROAD SUITE 200
BALTIMORE, MARYLAND, 21210
410 - 532 8250

DESIGNED BY: P.R.C.
DRAWN BY: E.M.T., K.E.
CHECKED BY: P.R.C.
REVISIONS

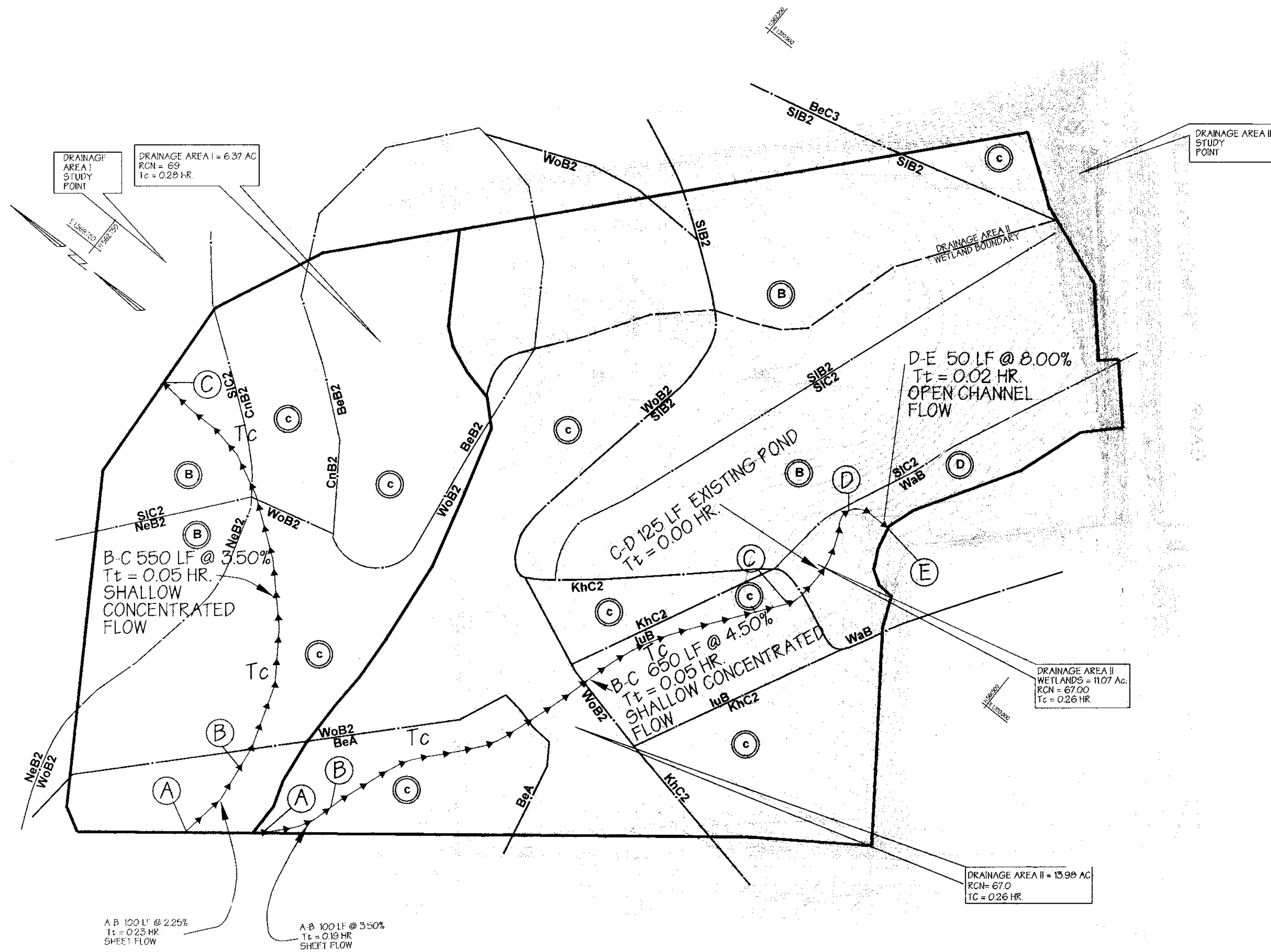
ENGINEER CERTIFICATION:
I certify that this plan for erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District.
Engineer: _____ Date: 8/30/99
Name: JAMES A. MARBLE JR. PE # 11005

DEVELOPER CERTIFICATION:
I/We certify that all development and construction will be done according to this plan, and that any responsible personnel involved in the construction project will have a Certificate of Attendance at a Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I also authorize periodic on-site inspection by the Howard Soil Conservation District.
Developer: _____ Date: 8/30/99
Name: CHRISTOPHER W. KURTZ

PREPARED BY: GEORGE W. STEPHENS, JR. AND ASSOCIATES, INC.
Civil Engineers and Land Surveyors
658 Kenilworth Drive, Suite 100
Towson, Maryland 21204
(410) 825-8120

ELECTION DISTRICT: 1 HOWARD CO., MARYLAND SHT. 17 OF 37 SCALE: As Shown DATE: Nov. 25, 1998

SDP 99-65 NAME: 85941stormceptorplan.s01 P/N: 8594



EXISTING DRAINAGE AREA MAP
SCALE: 1" = 100'

SEQUENCE OF OPERATIONS

(UNDERGROUND STORMWATER MANAGEMENT FACILITY POND)

1) COMPLETE SEDIMENT AND EROSION CONTROL SEQUENCE OF OPERATIONS UNTIL STEP #13

2) WITH PERMISSION OF SEDIMENT CONTROL INSPECTOR, CONVERT PIPE QUALITY SEDIMENT TRAP TO UNDERGROUND STORMWATER MANAGEMENT FACILITY

a) CLEANOUT BASIN
b) MAKE NECESSARY CHANGES TO RELEASE STRUCTURE.
c) REMOVE VERTICAL DRAW DOWN DEVICE

3) INSTALL REMAINING PIPES WITHIN THE UNDERGROUND STORMWATER MANAGEMENT FACILITY

4) NOTIFY ENGINEER IN CHARGE, (410) 825-8120, SO THAT HE OR SHE MAY COMPLETE THE AS-BUILT SURVEY AND STUDY AND SUBMIT TO THE APPROPRIATE AGENCIES WITHIN 30 DAYS

5) COMPLETE THE REST OF THE SEDIMENT AND EROSION CONTROL SEQUENCE OF OPERATIONS

SEQUENCE OF OPERATIONS

(WET POND STORMWATER MANAGEMENT FACILITY)

1) COMPLETE SEDIMENT AND EROSION CONTROL SEQUENCE OF OPERATIONS UNTIL STEP #14

2) WITH PERMISSION OF SEDIMENT CONTROL INSPECTOR, CONVERT SEDIMENT BASIN TO WET POND STORMWATER MANAGEMENT FACILITY

a) CLEANOUT BASIN
b) MAKE NECESSARY CHANGES TO RELEASE STRUCTURE.
c) REMOVE VERTICAL DRAW DOWN DEVICE

3) NOTIFY ENGINEER IN CHARGE (410) 825-8120, SO THAT HE OR SHE MAY COMPLETE THE AS-BUILT SURVEY AND STUDY AND SUBMIT TO THE APPROPRIATE AGENCIES WITHIN 30 DAYS

4) COMPLETE THE REST OF THE SEDIMENT AND EROSION CONTROL SEQUENCE OF OPERATIONS

SOILS CHART

Soil Symbol	Soil Group	Soil Name	Soil Classification
BeA	C	Beltsville	Silt Loam
BeB2	C	Beltsville	Silt Loam
BeC3	C	Beltsville	Silt Loam
CnB2	C	Chrome	Chrome
luB	C	luka	Loam
KhC2	C	Keyport	Silt Loam
NeB2	B	Neshaminy	Silt Loam
SIB2	B	Sassafras	Loam
SIC2	B	Sassafras	Loam
WaB	D	Watchung	Silt Loam
WoB2	C	Woodstone	Sandy Loam

LEGEND

SOILS

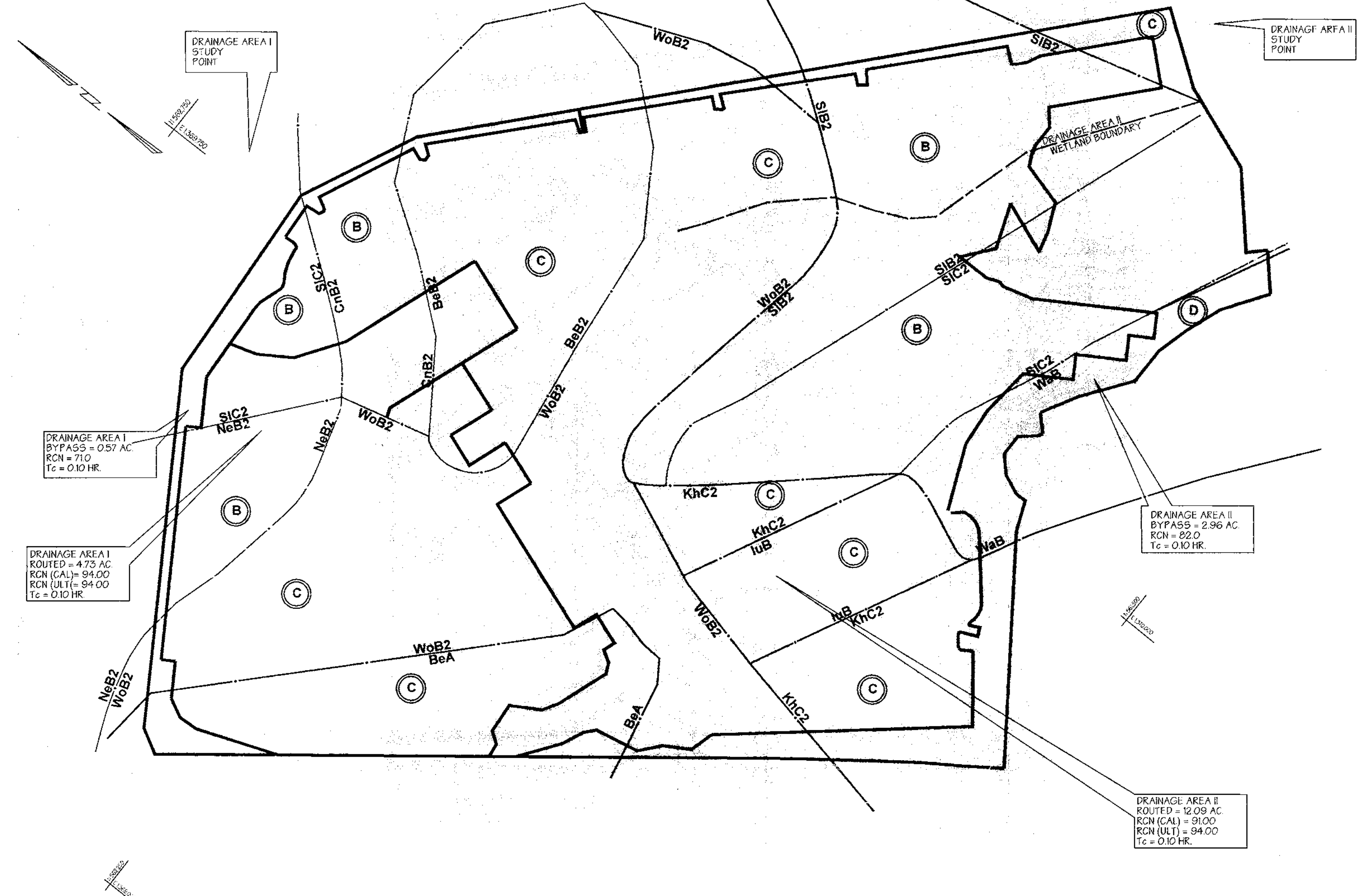
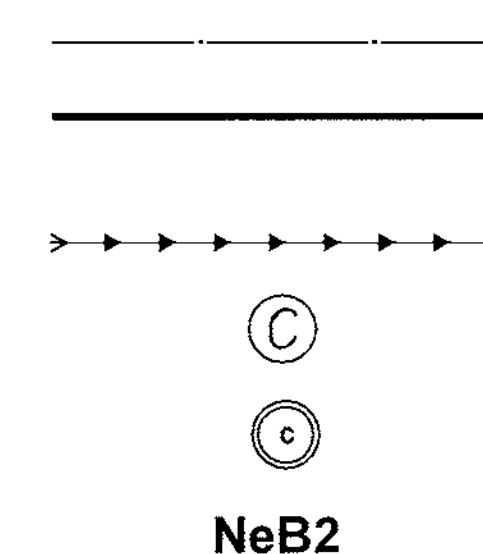
DRAINAGE AREA LINES

Tc PATH

Tc POINT

Soil Group

Soil Symbol



PROPOSED DRAINAGE AREA MAP
SCALE: 1" = 100'

These plans for small pond construction, soil erosion and sediment control meet the requirements of Howard Soil Conservation District.

Gregory L. Selig 12/21/89
HOWARD SOIL CONSERVATION DISTRICT DATE

These plans have been reviewed for the Howard Soil Conservation District and meet the technical requirements for small pond construction, soil erosion and sediment control.

Carol S. Simon 12/21/89
USDA-NATURAL RESOURCES CONSERVATION SERVICE DATE

APPROVED: Howard County Department of Planning and Zoning

William D. ... 12/21/89
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

Robert ... 12/21/89
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

Joseph ... 12/21/89
DIRECTOR DATE

ADDRESS CHART

PARCEL NO.	STREET ADDRESS
Building No. 1	6010 University Boulevard
Building No. 2	6011 University Boulevard
Building No. 3	6021 University Boulevard
Building No. 4	6020 University Boulevard
Building No. 5	6040 University Boulevard
Building No. 6	6031 University Boulevard
Building No. 7	6041 University Boulevard
Building No. 8	6051 University Boulevard

SUBDIVISION NAME The Horse Farm		SECTION NAME N/A	PARCEL # 552
PLAT # N/A	BLOCK # 218	ZONE / ZONE MAP PKR	ELECT. DIST. 1
WATER CODE E-07		SEWER CODE 2780000	

PREPARED BY:
GWS
GEORGE W. STEPHENS, JR. AND ASSOCIATES, INC.
Civil Engineers and Land Surveyors
658 Kenilworth Drive, Suite 100
Towson, Maryland 21204
(410) 825-8120

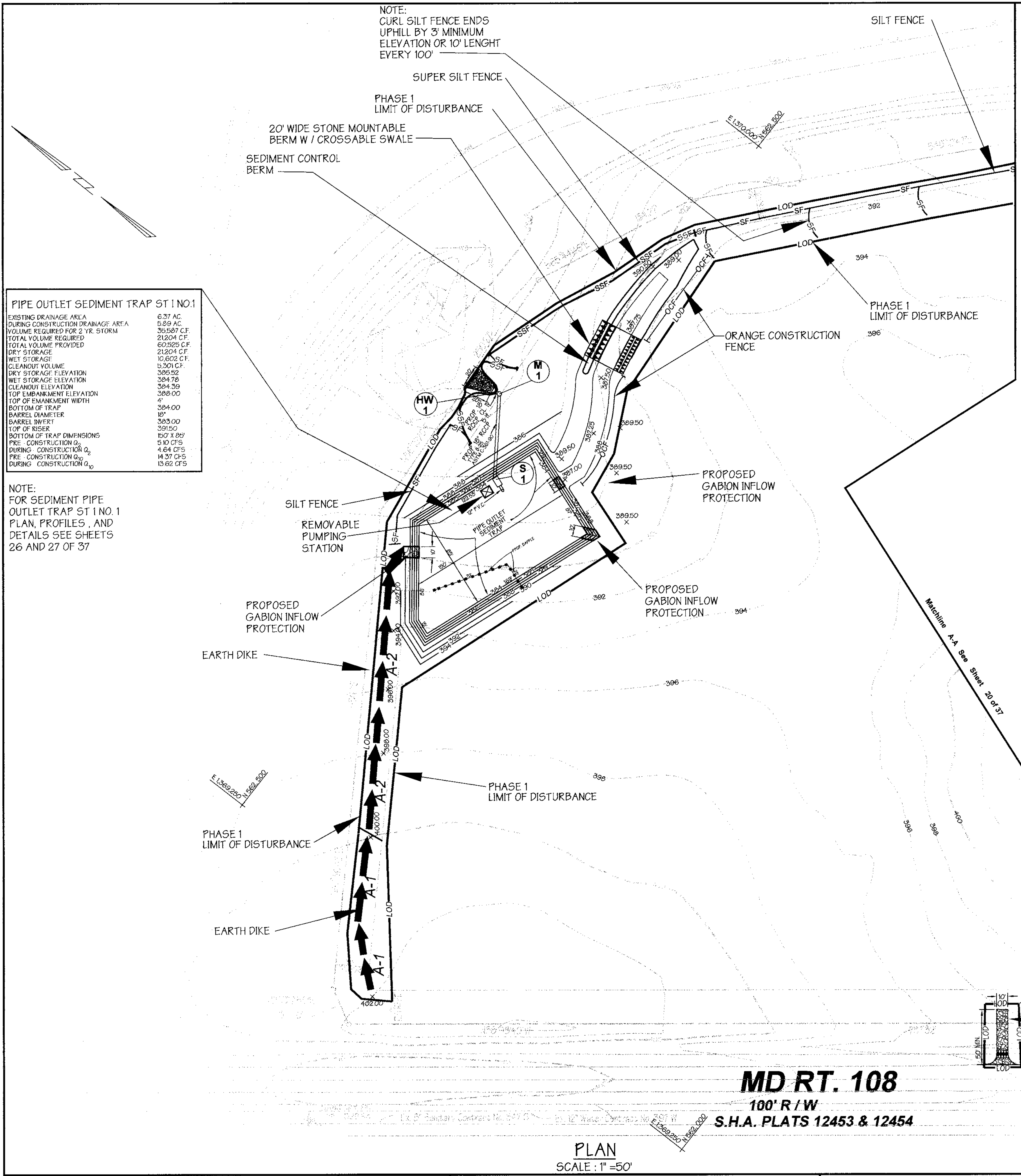
OWNER - DEVELOPER
HORSE FARM - LINDEN L.L.C.
906 POPLAR HILL ROAD SUITE 200
BALTIMORE, MARYLAND, 21210
410-532-6250

DESIGNED BY: P.R.C.
DRAWN BY: E.M.T., K.E.
CHECKED BY: P.R.C.
REVISIONS

EXISTING AND PROPOSED DRAINAGE AREA MAPS THE HORSE FARM

ELECTION DISTRICT: 1
HOWARD CO., MARYLAND
SHT. 18 OF 37
SCALE: As Shown
DATE: Nov 25, 1998

SDP 99-65
NAME: 06956expmap.s01
P/N: 0594



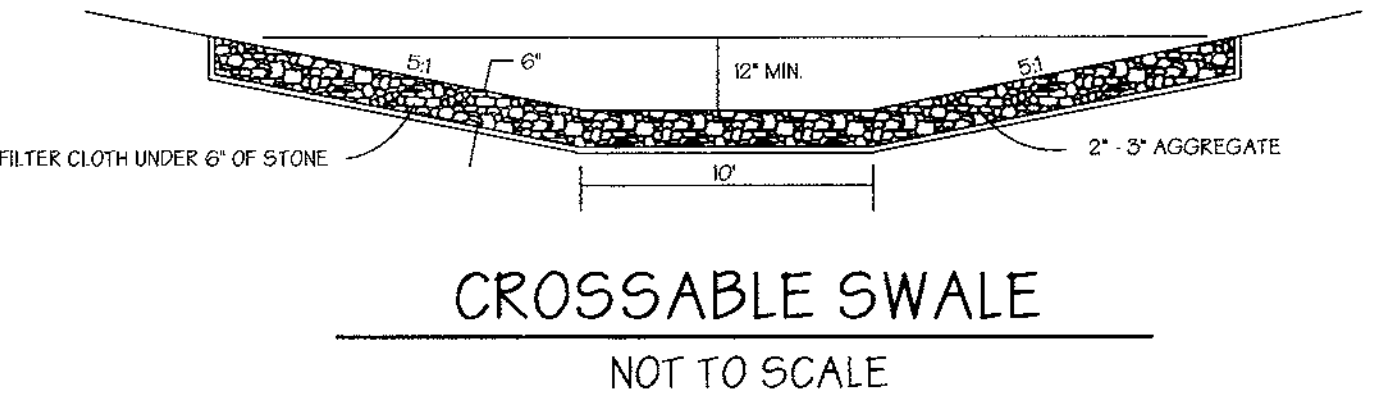
PIPE OUTLET SEDIMENT TRAP ST I NO. 1

EXISTING DRAINAGE AREA	6.37 AC.
DURING CONSTRUCTION DRAINAGE AREA	5.89 AC.
VOLUME REQUIRED FOR 2 YR. STORM	33,887 CF.
TOTAL VOLUME REQUIRED	21,204 CF.
DRY STORAGE	60,525 CF.
WET STORAGE	21,204 CF.
WET STORAGE ELEVATION	3,962.52
WET STORAGE ELEVATION	3,947.78
CLEANOUT ELEVATION	3,943.59
TOP EMBANKMENT ELEVATION	3,958.00
TOP OF EMBANKMENT WIDTH	4'
BOTTOM OF TRAP	3,943.00
BARREL DIAMETER	18"
BARREL INVERT	3,943.00
TOP OF RISER	3,951.50
BOTTOM OF TRAP DIMENSIONS	12' X 12'
PRE CONSTRUCTION Q ₂	5.10 CFS
DURING CONSTRUCTION Q ₂	4.64 CFS
PRE CONSTRUCTION Q ₁₀	14.37 CFS
DURING CONSTRUCTION Q ₁₀	13.62 CFS

NOTE:
FOR SEDIMENT PIPE
OUTLET TRAP ST I NO. 1
PLAN, PROFILES, AND
DETAILS SEE SHEETS
26 AND 27 OF 37

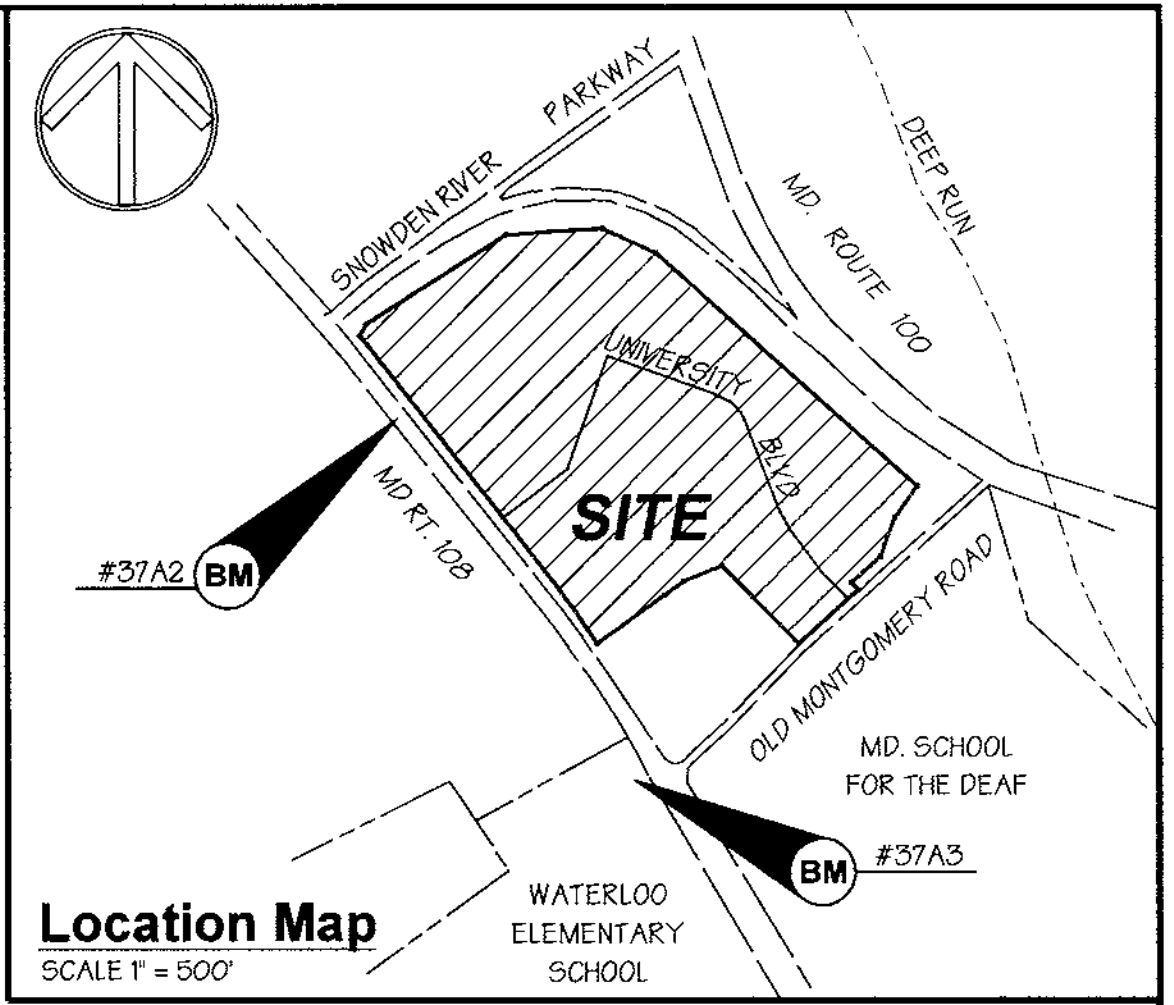
**Phase 1
Sequence of Operation**

- OBTAIN GRADING PERMIT. (1 DAY)
- NOTIFY THE HOWARD COUNTY DEPARTMENT OF PERMITS AND LICENSES 48 HOURS BEFORE BEGINNING WORK. (1 DAY)
- WITH PERMISSION FROM SEDIMENT CONTROL INSPECTOR INSTALL STABILIZED CONSTRUCTION ENTRANCE SCE #1 AT MD RT 108. (2 DAYS)
- INSTALL HIGH VISIBILITY ORANGE CONSTRUCTION FENCE AT THE LIMIT OF DISTURBANCE WITHIN 50' OF WETLANDS BUFFER. (30 DAYS)
- CLEAR AND GRUB FOR INSTALLATION OF SEDIMENT BASIN, PIPE OUTLET SEDIMENT TRAP ST-1 #1, #2 AND DRAINAGE CHANNEL DIVERSION STORM DRAIN SYSTEM FROM HW 3 TO HW 4. ALL BASIN AND TOP SOIL TO BE PLACED WITHIN DRAINAGE AREA OF BASIN AND TRAPS. (4 DAYS)
- INSTALL SEDIMENT BASIN, INSTALL SEDIMENT BASIN ACCORDING TO SWM PLANS AND SPECIFICATIONS WITH MODIFICATIONS FOR SEDIMENT BASIN. (14 DAYS)
- INSTALL PIPE OUTLET SEDIMENT TRAP ST-1 #1, #2 AND DRAINAGE CHANNEL DIVERSION STORM DRAIN SYSTEM FROM HW 3 TO HW 4. BLOCK FUTURE STORM DRAIN OPENINGS WITH BRICK IN M-13 FROM E-S, AND IN M-14 FROM SC-6 AND TO E-6 FOR SEDIMENT CONTROL. BEGIN EACH DAY OF STORM SEWER CONSTRUCTION BY INSTALLING SAND BAGS IN THE EXISTING CHANNEL ALONG OLD MONTGOMERY ROAD UPSTREAM OF THE AREA TO BE CONSTRUCTED THAT DAY. PUMP THE FLOW COLLECTED FROM THE SAND BAGS IN THE EXISTING CHANNEL AROUND THE DISTURBED AREA TO THE EXISTING STORM SEWER FOR MD ROUTE 100. OPEN TRENCH THAT CAN ONLY BE BACKFILLED IN ONE WORKING DAY. DURING CONSTRUCTION PLACE 1 FOOT OF COVER OVER STORM DRAIN LEAVING UPSTREAM OPEN TO THE EXISTING CHANNEL AT THE END OF WORKING DAY. INSTALL SILT FENCE / SUPER SILT FENCE PERPENDICULAR TO OLD MONTGOMERY ROAD, AND REMOVE PUMP AND SAND BAGS. WITH PERMISSION FROM SEDIMENT CONTROL INSPECTOR INSTALL STABILIZED CONSTRUCTION ENTRANCE SCE #2 AT OLD MONTGOMERY ROAD. (14 DAYS)
- CLEAR AND GRUB FOR INSTALLATION OF SEDIMENT AND EROSION CONTROL MEASURES. INSTALL EARTH DIKES, SEDIMENT CONTROL BERMS, AND REMAINING SEDIMENT AND EROSION CONTROL MEASURES ONLY. NO MASS GRADING OR EARTH WORK IS TO OCCUR. INSTALL HIGH VISIBILITY ORANGE CONSTRUCTION FENCE ALONG EARTH DIKE (C) TO (D) AND SEDIMENT CONTROL BERMS. (4 DAYS)
- WITH PERMISSION FROM THE SEDIMENT CONTROL INSPECTOR CONTINUE TO PHASE 2 SEQUENCE OF OPERATIONS.



NOTE:
THIS PLAN IS TO BE USED FOR THE INSTALLATION AND MAINTENANCE OF THE SEDIMENT AND EROSION CONTROL MEASURES AND DEVICES ONLY. SEE SITE PLAN FOR MORE SPECIFIC DETAILS.

NOTE:
EARTH QUANTITIES ARE PROVIDED FOR THE CONVENIENCE OF THE CONTRACTOR ONLY. CONTRACTOR IS ADVISED TO PERFORM HIS OWN ANALYSIS PRIOR TO PLACING A BID ON THIS ITEM.



Legend

Ex. 2' Contours	---
Ex. 10' Contours	---
Prop. 2' Contours	---
Prop. 10' Contours	---
Ex. Curb & Gutter	---
Prop. Curb & Gutter	---
Bldg. Restriction Line	---
Ex. Sanitary	---
Ex. Storm Drain	---
Ex. Water	---
Prop. Sanitary	---
Prop. Storm Drain	---
Prop. Water	---
Light Duty Paving	---
Intermediate Duty Paving	---
Heavy Duty Paving	---
Limit of Disturbance	LOD
Super Silt Fence	SSF
Silt Fence	SF
Stabilized Construction Entrance	SCE
Orange Construction Fence	OCF
Earth Dike	A-2
Inlet Protection	IP
Removable Pumping Station	IP

These plans for small pond construction, soil erosion and sediment control meet the requirements of Howard Soil Conservation District.

Christopher W. Kurz 12/19/99
HOWARD SOIL CONSERVATION DISTRICT DATE

These plans have been reviewed for the Howard Soil Conservation District and meet the technical requirements for small pond construction, soil erosion and sediment control.

Cheryl Simms 12/19/99
USDA-NATURAL RESOURCES CONSERVATION SERVICE DATE

APPROVED: Howard County Department of Planning and Zoning

John D. Williams 12/21/99
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

John D. Williams 12/21/99
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

James A. Markle Jr. 12/29/99
DIRECTOR DATE

ADDRESS CHART

PARCEL NO.	STREET ADDRESS
Building No. 1	6010 University Boulevard
Building No. 2	6011 University Boulevard
Building No. 3	6021 University Boulevard
Building No. 4	6020 University Boulevard
Building No. 5	6040 University Boulevard
Building No. 6	6031 University Boulevard
Building No. 7	6041 University Boulevard
Building No. 8	6051 University Boulevard

SUBDIVISION NAME		SECTION NAME	PARCEL #
The Horse Farm		N/A	552
PLAT #	BLOCK #	ZONE	PERM. MAP
N/A	298	POR	27
WATER CODE		E-07	SEWER CODE
			2780000

PREPARED BY:

GEORGE W. STEPHENS, JR. AND ASSOCIATES, INC.
Civil Engineers and Land Surveyors
658 Kenilworth Drive, Suite 100
Towson, Maryland 21204
(410) 825-8120

DEVELOPER CERTIFICATION:
I certify that all development and/or construction will be done according to these plans, and that any responsible personnel involved in the construction project will have a certificate of attendance at a Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I shall engage a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion. I also authorize periodic inspections by the Howard Soil Conservation District.

Signature of Developer: *Christopher W. Kurz* Date: 8/30/99
Print Name: **CHRISTOPHER W. KURZ**

ENGINEER CERTIFICATION:
I certify that this plan for pond construction, erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions. This plan was prepared in accordance with the requirements of the Howard Soil Conservation District. I have notified the developer that he/she must engage a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion.

Signature of Engineer: *James A. Markle Jr.* Date: 12/2/99
Print Name: **JAMES A. MARKLE JR.** PE # 11005

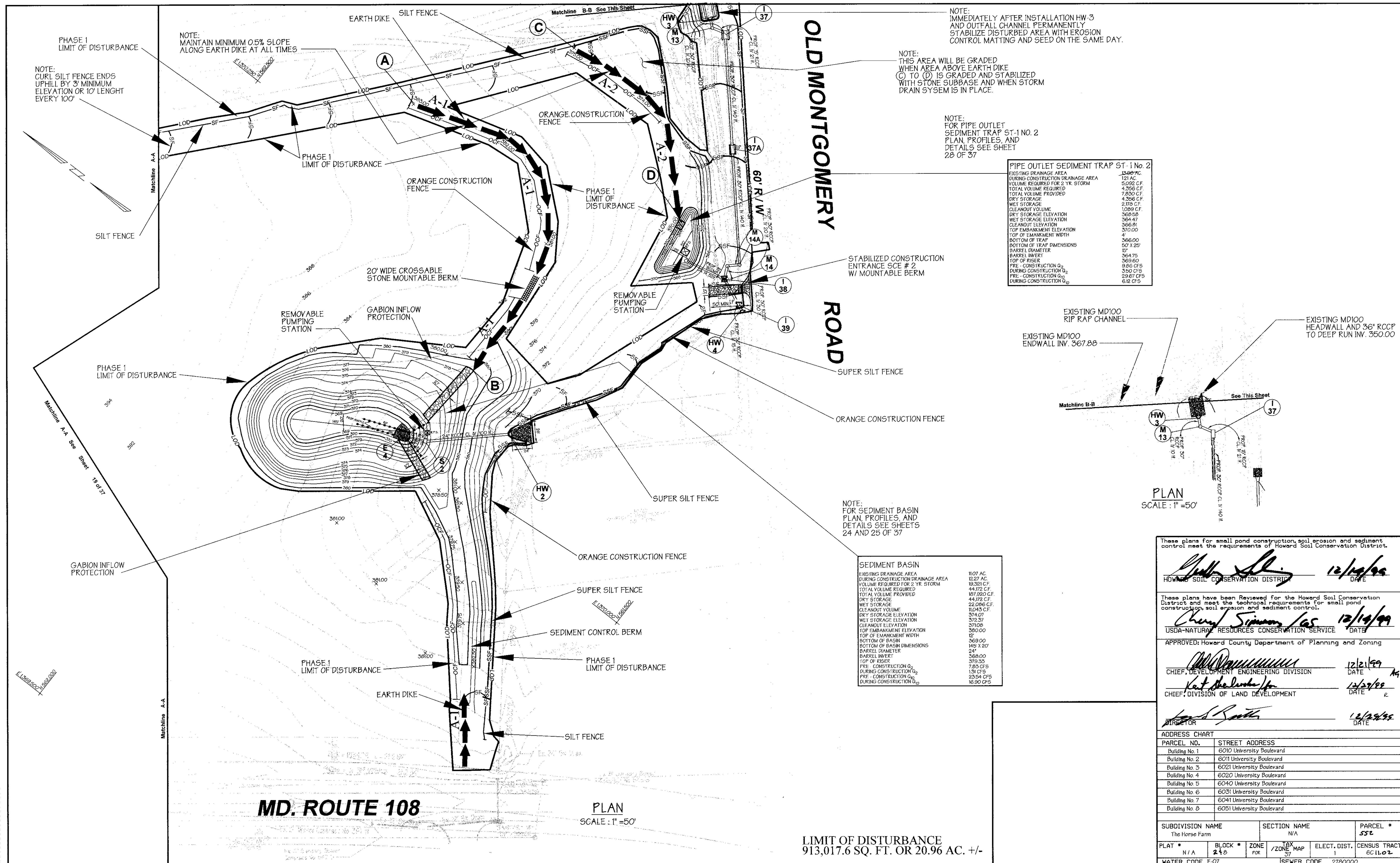
OWNER / DEVELOPER
HORSE FARM - LINDEN, L.L.C.
906 POPLAR HILL ROAD SUITE 200
BALTIMORE, MARYLAND, 21210
410-532-8250

DESIGNED BY: P.R.C.
DRAWN BY: E.M.T., K.E.
CHECKED BY: P.R.C.
REVISIONS:

EROSION AND SEDIMENT CONTROL PHASE 1 PLAN THE HORSE FARM

ELECTION DISTRICT: 1
HOWARD CO., MARYLAND
SHT. 19 OF 37
SCALE: As Shown
DATE: Nov. 25, 1998

SDP 99-65 NAME: 8594sdc.com\st1s01 P/N: 8594



NOTE: IMMEDIATELY AFTER INSTALLATION HW-3 AND OUTFALL CHANNEL PERMANENTLY STABILIZE DISTURBED AREA WITH EROSION CONTROL MATTING AND SEED ON THE SAME DAY.

NOTE: THIS AREA WILL BE GRADED WHEN AREA ABOVE EARTH DIKE (C) TO (D) IS GRADED AND STABILIZED WITH STONE SUBBASE AND WHEN STORM DRAIN SYSTEM IS IN PLACE.

NOTE: FOR PIPE OUTLET SEDIMENT TRAP ST-1 NO. 2 PLAN, PROFILES, AND DETAILS SEE SHEET 28 OF 37

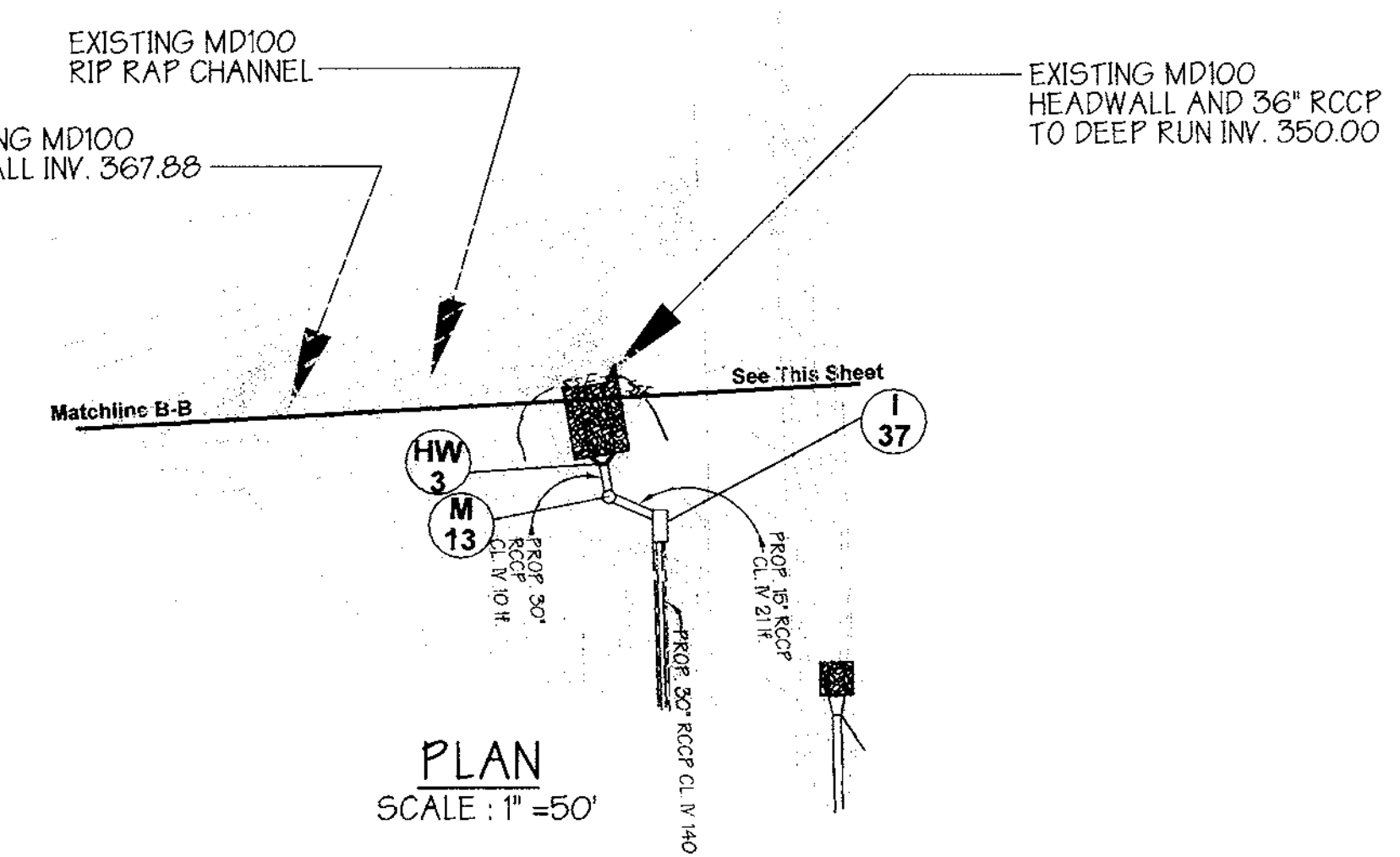
PIPE OUTLET SEDIMENT TRAP ST-1 No. 2

EXISTING DRAINAGE AREA	121 AC
DURING CONSTRUCTION DRAINAGE AREA	5,092 C.F.
VOLUME REQUIRED FOR 2 YR. STORM	4,266 C.F.
TOTAL VOLUME REQUIRED	7,300 C.F.
TOTAL VOLUME PROVIDED	4,266 C.F.
DRY STORAGE	2,179 C.F.
WET STORAGE	2,109 C.F.
CLEANOUT VOLUME	368.50
DRY STORAGE ELEVATION	364.47
WET STORAGE ELEVATION	366.91
CLEANOUT ELEVATION	370.00
TOP OF EMBANKMENT WIDTH	4
BOTTOM OF TRAP	366.00
BOTTOM OF TRAP DIMENSIONS	50' X 20'
BARREL DIAMETER	5'
BARREL INVERT	364.75
TOP OF RISER	369.60
PRE - CONSTRUCTION Q ₂	9.86 CFS
DURING CONSTRUCTION Q ₂	35.0 CFS
PRE - CONSTRUCTION Q ₁₀	29.67 CFS
DURING CONSTRUCTION Q ₁₀	6.12 CFS

NOTE: FOR SEDIMENT BASIN PLAN, PROFILES, AND DETAILS SEE SHEETS 24 AND 25 OF 37

SEDIMENT BASIN

EXISTING DRAINAGE AREA	1107 AC
DURING CONSTRUCTION DRAINAGE AREA	12,27 AC
VOLUME REQUIRED FOR 2 YR. STORM	19,261 C.F.
TOTAL VOLUME REQUIRED	44,172 C.F.
TOTAL VOLUME PROVIDED	197,990 C.F.
DRY STORAGE	44,172 C.F.
WET STORAGE	22,086 C.F.
CLEANOUT VOLUME	11,043 C.F.
DRY STORAGE ELEVATION	374.07
WET STORAGE ELEVATION	372.37
CLEANOUT ELEVATION	371.09
TOP OF EMBANKMENT ELEVATION	380.00
TOP OF EMBANKMENT WIDTH	12
BOTTOM OF BASIN	369.00
BOTTOM OF BASIN DIMENSIONS	148' X 20'
BARREL DIAMETER	24'
BARREL INVERT	369.00
TOP OF RISER	379.33
PRE - CONSTRUCTION Q ₂	7.83 CFS
DURING CONSTRUCTION Q ₂	131 CFS
PRE - CONSTRUCTION Q ₁₀	23.54 CFS
DURING CONSTRUCTION Q ₁₀	16.90 CFS



These plans for small pond construction, soil erosion and sediment control meet the requirements of Howard Soil Conservation District.

John A. Stephens 12/14/99
HOWARD SOIL CONSERVATION DISTRICT DATE

These plans have been reviewed for the Howard Soil Conservation District and meet the technical requirements for small pond construction, soil erosion and sediment control.
Cheryl Simmons Las 12/14/99
USDA-NATURAL RESOURCES CONSERVATION SERVICE DATE

APPROVED: Howard County Department of Planning and Zoning
John P. Williams 12/14/99
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE
Karl Theodor 12/23/99
CHIEF, DIVISION OF LAND DEVELOPMENT DATE
David Smith 12/23/99
DIRECTOR DATE

ADDRESS CHART

PARCEL NO.	STREET ADDRESS
Building No. 1	6010 University Boulevard
Building No. 2	6011 University Boulevard
Building No. 3	6021 University Boulevard
Building No. 4	6020 University Boulevard
Building No. 5	6040 University Boulevard
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Building No. 7	6041 University Boulevard
Building No. 8	6051 University Boulevard

SUBDIVISION NAME		SECTION NAME	PARCEL #
The Horse Farm		N/A	552
PLAT #	BLOCK #	ZONE	ELECT. DIST.
N/A	248	FOR	1
WATER CODE E-07		SEWER CODE	2780000

EROSION AND SEDIMENT CONTROL PHASE 1 PLAN THE HORSE FARM

ELECTION DISTRICT: 1
HOWARD CO., MARYLAND SHT. 20 OF 37 SCALE: As Shown
DATE: Nov 25, 1998

PREPARED BY:

GEORGE W. STEPHENS, JR. AND ASSOCIATES, INC.
Civil Engineers and Land Surveyors
658 Kenilworth Drive, Suite 100
Towson, Maryland 21204
(410) 825-8120

DEVELOPER CERTIFICATION:
I certify that all development and/or construction will be done according to these plans, and that any responsible personnel involved in the construction project will have a certificate of attendance at a Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I shall engage a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion. I also authorize periodic on-site inspections by the Howard Soil Conservation District.

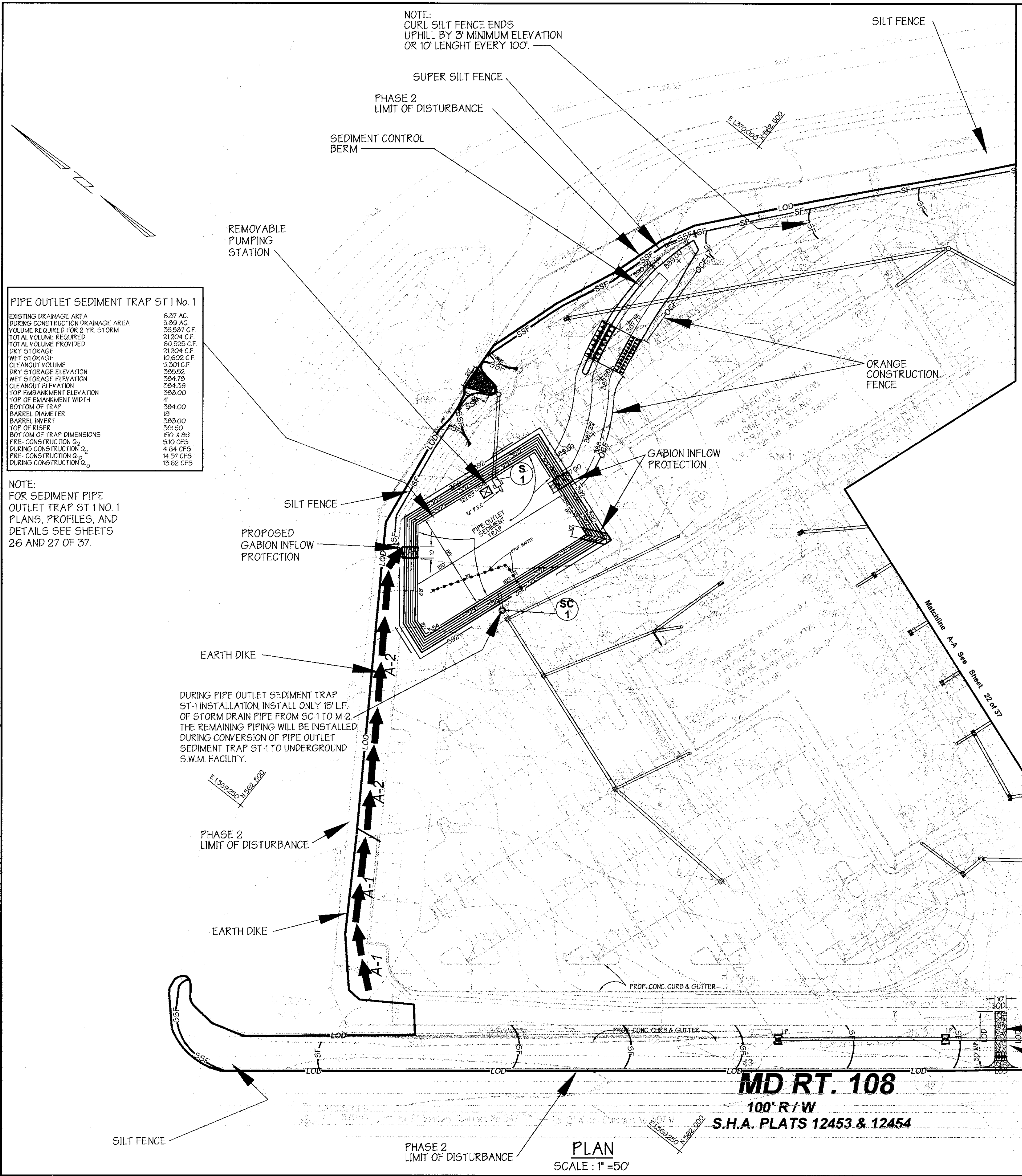
Signature of Developer: *Christopher W. Kurz* Date: 8/30/99
Print Name: CHRISTOPHER W. KURZ

ENGINEER CERTIFICATION:
I certify that this plan for pond construction, erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions. This plan was prepared in accordance with the requirements of the Howard Soil Conservation District. I have notified the developer that he/she must engage a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion.

Signature of Engineer: *James A. Markle Jr.* Date: 12/7/99
Print Name: JAMES A. MARKLE JR. PE # 11005

OWNER / DEVELOPER
HORSE FARM - LINDEN, L.L.C.
906 POPLAR HILL ROAD SUITE 200
BALTIMORE, MARYLAND, 21210
410-532-9250

DESIGNED BY: P.R.C.
DRAWN BY: E.M.T., K.E.
CHECKED BY: P.R.C.
REVISIONS:



PIPE OUTLET SEDIMENT TRAP ST 1 No. 1

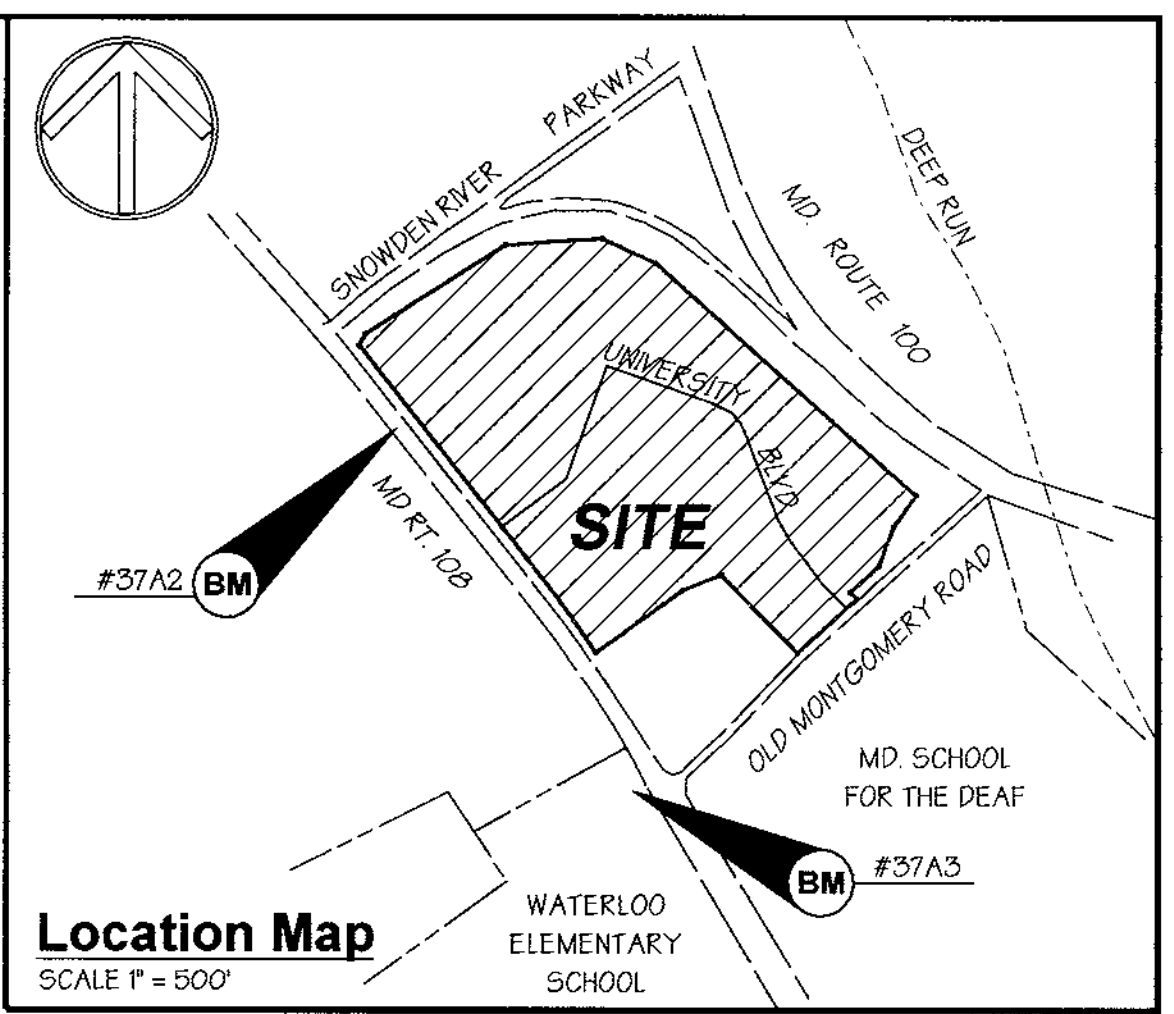
EXISTING DRAINAGE AREA	6.37 AC
DURING CONSTRUCTION DRAINAGE AREA	3.69 AC
VOLUME REQUIRED FOR 2 YR. STORM	35,587 CF
TOTAL VOLUME REQUIRED	21,204 CF
TOTAL VOLUME PROVIDED	62,526 CF
DRY STORAGE	21,204 CF
WET STORAGE	10,502 CF
CLEANOUT VOLUME	5,301 CF
DRY STORAGE ELEVATION	365.52
WET STORAGE ELEVATION	364.78
CLEANOUT ELEVATION	364.35
TOP EMBANKMENT ELEVATION	368.00
TOP OF EMBANKMENT WIDTH	15'
BOTTOM OF TRAP	364.00
BARREL DIAMETER	15'
BARREL INVERT	363.00
TOP OF RISER	361.50
BOTTOM OF TRAP DIMENSIONS	150 X 85'
PRE-CONSTRUCTION Q ₂	5.10 CFS
DURING CONSTRUCTION Q ₂	1.64 CFS
PRE-CONSTRUCTION Q ₁₀	14.37 CFS
DURING CONSTRUCTION Q ₁₀	13.62 CFS

NOTE:
FOR SEDIMENT PIPE
OUTLET TRAP ST 1 NO. 1
PLANS, PROFILES, AND
DETAILS SEE SHEETS
26 AND 27 OF 37.

DURING PIPE OUTLET SEDIMENT TRAP ST-1 INSTALLATION, INSTALL ONLY 15' LF. OF STORM DRAIN PIPE FROM SC-1 TO M-2. THE REMAINING PIPING WILL BE INSTALLED DURING CONVERSION OF PIPE OUTLET SEDIMENT TRAP ST-1 TO UNDERGROUND S.W.M. FACILITY.

Phase 2 Sequence of Operation

1. CLEAR AND GRUB REMAINDER OF THE SITE, AND BEGIN GRADING OPERATIONS. MAINTAIN A MINIMUM 0.5% SLOPE ALONG EARTH DIKES AND SEDIMENT CONTROL BERMS TO PROVIDE POSITIVE DRAINAGE TO SEDIMENT CONTROL MEASURES AND DEVICES. (18 DAYS)
2. CONTINUE GRADING. BEGIN BUILDING FOOTINGS AND BUILDING CONSTRUCTION EXCEPT FOR BUILDING NO. 7 AND NO. 8. (15 DAYS)
3. AS WORK PROGRESSES BEGIN INSTALLATION OF UTILITIES AND PROPOSED DRAINAGE CHANNEL EXCEPT FOR STORM DRAIN SYSTEM 1-35 TO 1-35, M-14 TO E-6 AND SANITARY SEWER SYSTEM SM-5 TO SM-8. INSTALL TEMPORARY 15 LF OF 36" R/CMP STORM DRAIN FROM SC-1 TO PIPE OUTLET SEDIMENT TRAP ST-1 #1. DO NOT INSTALL STORM DRAINS INSIDE UNDERGROUND STORMWATER MANAGEMENT FACILITY. INSTALL INLET PROTECTION FOR 1-37, 1-39, 1-39, 1-40, 1-41, 1-42, 1-43, 1-44. AT THE COMPLETION OF STORM DRAIN SYSTEMS E-1 TO E-6 AND E-4 TO E-34, AND WITH PERMISSION FROM THE SEDIMENT CONTROL INSPECTOR REMOVE EARTH DIKE (A) TO (C) AND SEDIMENT CONTROL BERMS. (25 DAYS)
4. CONTINUE GRADING AND BUILDING CONSTRUCTION. FINE GRADE AND INSTALL STONE SUBBASE AND CONCRETE CURB AND GUTTER EXCEPT WITHIN PIPE OUTLET SEDIMENT TRAP ST-1 NO. 1 AND NO. 2 AREA. PROCEED WITH LANDSCAPING AND STABILIZATION OPERATION. (10 DAYS)
5. COMPLETE PERMANENT STABILIZATION WITHIN PIPE OUTLET SEDIMENT TRAP ST-1 #1, #2 AND PROPOSED DRAINAGE CHANNEL WITH PERMISSION FROM THE SEDIMENT CONTROL INSPECTOR. FLUSH THE STORM DRAIN SYSTEM GOING INTO PIPE OUTLET SEDIMENT TRAP ST-1 #1. CLEAN THE TRAP OUT, AND PROCEED WITH THE INSTALLATION OF THE UNDERGROUND SWM FACILITY AS PER APPROVED SWM PLANS. INSTALL REMAINING STONE SUBBASE AND CONCRETE CURB AND GUTTER. WITH PERMISSION FROM THE SEDIMENT CONTROL INSPECTOR, CLEAN OUT AND REMOVE REMOVE PIPE OUTLET SEDIMENT TRAP ST-1 #2, AND INSTALL STORM DRAIN SYSTEM 1-38 TO 1-35, M-14 TO E-6, AND SM-5 TO SM-8. REMOVE EARTH DIKE (C) TO (E) AND PROCEED WITH CONSTRUCTION OF BUILDINGS NO. 7 AND NO. 8. INSTALL REMAINING UTILITIES, STONE SUBBASE, CONCRETE CURB AND GUTTER AND REMAINING LANDSCAPING OPERATIONS. REMOVE ALL REMAINING SEDIMENT AND EROSION CONTROL MEASURES AND DEVICES. (20 DAYS)
6. COMPLETE PERMANENT STABILIZATION WITHIN SEDIMENT BASIN DRAINAGE AREA. WITH PERMISSION FROM THE SEDIMENT CONTROL INSPECTOR, FLUSH THE STORM DRAIN SYSTEM GOING INTO SEDIMENT BASIN, CLEAN THE BASIN OUT, AND CONVERT SEDIMENT BASIN INTO SWM POND AS PER APPROVED SWM PLANS. (12 DAYS)
7. PROCEED WITH PAVING OPERATIONS. (20 DAYS)



Legend

Ex. 2' Contours	394
Ex. 10' Contours	395
Prop. 2' Contours	394
Prop. 10' Contours	395
Ex. Curb & Gutter	
Prop. Curb & Gutter	
Bldg. Restriction Line	
Ex. Sanitary	
Ex. Storm Drain	
Ex. Water	
Prop. Sanitary	
Prop. Storm Drain	
Prop. Water	
Light Duty Paving (P-2)	
Intermediate Duty Paving (P-3)	
Heavy Duty Paving (P-2)	
Limit of Disturbance	LOD
Super Silt Fence	SSF
Silt Fence	SF
Stabilized Construction Entrance	SCE
Orange Construction Fence	OCF
Earth Dike	A-2
Inlet Protection	IP
Removable Pumping Station	

NOTE:
EARTH QUANTITIES ARE PROVIDED FOR THE CONVENIENCE OF THE CONTRACTOR ONLY. CONTRACTOR IS ADVISED TO PERFORM HIS OWN ANALYSIS PRIOR TO PLACING A BID ON THIS ITEM.

NOTE:
THIS PLAN IS TO BE USED FOR THE INSTALLATION AND MAINTENANCE OF THE SEDIMENT AND EROSION CONTROL MEASURES AND DEVICES ONLY. SEE SITE PLAN FOR MORE SPECIFIC DETAILS.

INLET PROTECTION
THE CONTRACTOR IS REQUIRED TO INSTALL INLET PROTECTION ON ALL STORM DRAIN INLETS WITH THE EXCEPTION OF THE FOLLOWING:
* 1. ANY INLET OUTFALLING DIRECTLY INTO A SEDIMENT TRAPPING DEVICE.
* 2. INLETS ON PRIVATE OR PUBLIC PAVED ROADWAYS OPEN TO THE PUBLIC.

STABILIZED CONSTRUCTION ENTRANCE SCE # W/ MOUNTABLE BERM

NOTE:
INSTALL MD ROUTE 108 STORM DRAIN SYSTEM AND INLET PROTECTION. BEGIN EXCAVATION FROM THE LOWER END. INSTALL SILT FENCE EVERY 100'. INSTALL STONE SUBBASE AND CONCRETE CURB AND GUTTER. STABILIZE ALL REMAINING AREAS. PROCEED WITH PAVING OPERATION.

LIMIT OF DISTURBANCE
913,017.6 SQ. FT. OR 20.96 AC. +/-

These plans for small pond construction, soil erosion and sediment control meet the requirements of Howard Soil Conservation District.
Howard W. Stephens, Jr. 12/14/99
HOWARD SOIL CONSERVATION DISTRICT DATE

These plans have been Reviewed for the Howard Soil Conservation District and meet the technical requirements for small pond construction, soil erosion and sediment control.
Clayton Summers / C.S. 12/14/99
USDA-NATURAL RESOURCES CONSERVATION SERVICE DATE

APPROVED: Howard County Department of Planning and Zoning
John R. [Signature] 12/21/99
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE
Ken [Signature] 12/29/99
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

[Signature] 12/29/99
DIRECTOR DATE

ADDRESS CHART

PARCEL NO.	STREET ADDRESS
Building No. 1	6010 University Boulevard
Building No. 2	6011 University Boulevard
Building No. 3	6021 University Boulevard
Building No. 4	6020 University Boulevard
Building No. 5	6040 University Boulevard
Building No. 6	6031 University Boulevard
Building No. 7	6041 University Boulevard
Building No. 8	6051 University Boulevard

SUBDIVISION NAME The Horse Farm		SECTION NAME N/A	PARCEL # 532
PLAT # N/A	BLOCK # 24 B	ZONE FOR Z-37	ELECT. DIST. 1
WATER CODE E-07		TAX MAP 2780000	SEWER CODE 2780000

PREPARED BY:
GEORGE W. STEPHENS, JR. AND ASSOCIATES, INC.
Civil Engineers and Land Surveyors
658 Kenilworth Drive, Suite 100
Towson, Maryland 21204
(410) 825-8120

DEVELOPER CERTIFICATION:
I certify that all development and/or construction will be done according to these plans, and that any responsible personnel involved in the construction project will have a certificate of attendance of a Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I shall engage a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with an 'as-built' plan of the pond within 30 days of completion. I also authorize periodic on-site inspections by the Howard Soil Conservation District.

Signature of Developer: *Christopher W. Kurz* Date: 8/30/99
Print Name: CHRISTOPHER W. KURZ

ENGINEER CERTIFICATION:
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Signature of Engineer: *James A. Markle Jr.* Date: 12/1/99
Print Name: JAMES A. MARKLE JR. PE # 11005

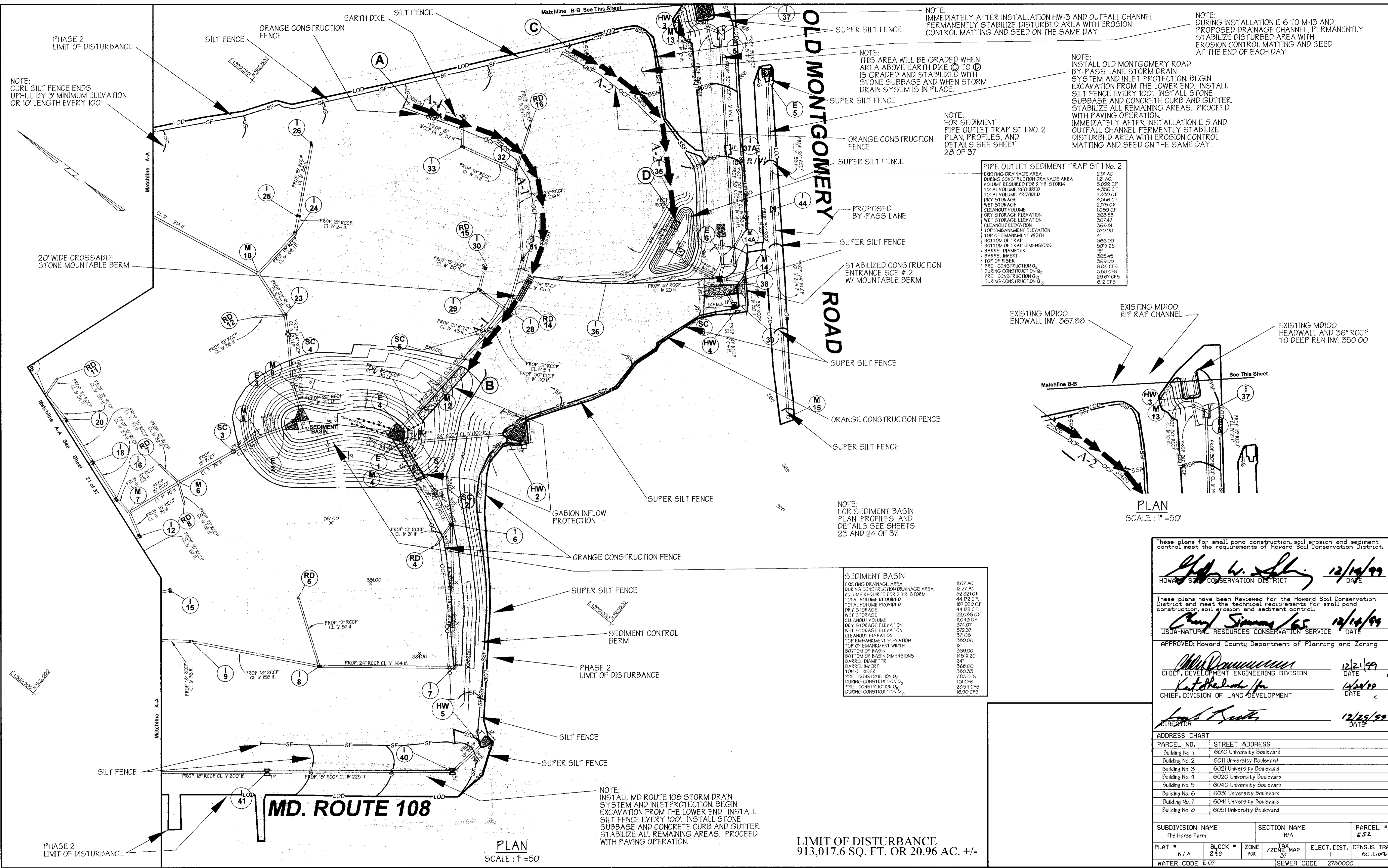
OWNER / DEVELOPER
HORSE FARM - LINDEN, L.L.C.
906 POPLAR HILL ROAD SUITE 200
BALTIMORE, MARYLAND, 21210
410-532-8250

DESIGNED BY: P.R.C.
DRAWN BY: E.M.T., K.E.
CHECKED BY: P.R.C.
REVISIONS

EROSION AND SEDIMENT CONTROL PHASE 2 PLAN
THE HORSE FARM

ELECTION DISTRICT: 1
HOWARD CO., MARYLAND SHT. 21 OF 37 SCALE: As Shown
DATE: Nov. 25, 1998

SDP 99-65 NAME: E594sdccont1901 10-07-98 P/N: 8594

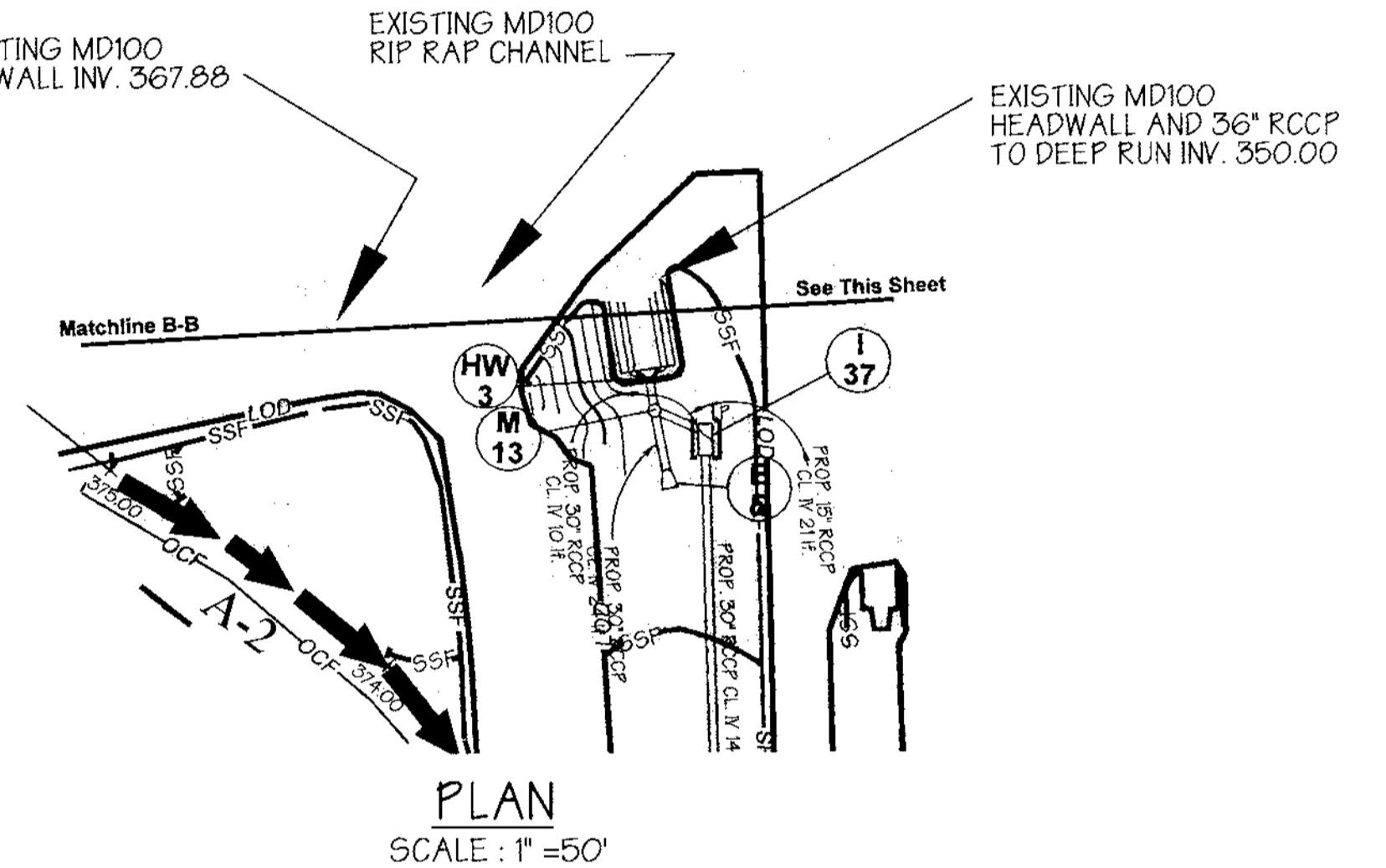


PIPE OUTLET SEDIMENT TRAP ST I No. 2

EXISTING DRAINAGE AREA	2.91 AC
DURING CONSTRUCTION DRAINAGE AREA	121 AC
VOLUME REQUIRED FOR 2 YR. STORM	5,022 CF
TOTAL VOLUME REQUIRED	4,356 CF
TOTAL VOLUME PROVIDED	7,830 CF
DRY STORAGE	4,356 CF
WET STORAGE	2,178 CF
CLEANOUT VOLUME	1,089 CF
WET STORAGE ELEVATION	368.98
CLEANOUT ELEVATION	367.47
TOP OF EMANKMENT ELEVATION	370.00
TOP OF EMANKMENT WIDTH	4
BOTTOM OF TRAP	356.00
BOTTOM OF TRAP DIMENSIONS	57'x125'
BARREL DIAMETER	15'
BARREL INVERT	365.45
TOP OF RISER	369.00
PRE- CONSTRUCTION Q ₂	9.86 CFS
DURING CONSTRUCTION Q ₂	350 CFS
PRE- CONSTRUCTION Q ₁₀	29.67 CFS
DURING CONSTRUCTION Q ₁₀	6.12 CFS

SEDIMENT BASIN

EXISTING DRAINAGE AREA	1107 AC
DURING CONSTRUCTION DRAINAGE AREA	1227 AC
VOLUME REQUIRED FOR 2 YR. STORM	92,321 CF
TOTAL VOLUME REQUIRED	44,172 CF
TOTAL VOLUME PROVIDED	197,920 CF
DRY STORAGE	44,172 CF
WET STORAGE	22,086 CF
CLEANOUT VOLUME	11,043 CF
WET STORAGE ELEVATION	374.07
CLEANOUT ELEVATION	372.37
TOP OF EMANKMENT ELEVATION	371.09
TOP OF EMANKMENT WIDTH	12
BOTTOM OF BASIN	369.00
BOTTOM OF BASIN DIMENSIONS	145'x120'
BARREL DIAMETER	24'
BARREL INVERT	369.00
TOP OF RISER	390.33
PRE- CONSTRUCTION Q ₂	7.83 CFS
DURING CONSTRUCTION Q ₂	134 CFS
PRE- CONSTRUCTION Q ₁₀	23.54 CFS
DURING CONSTRUCTION Q ₁₀	16.90 CFS



These plans for small pond construction, soil erosion and sediment control meet the requirements of Howard Soil Conservation District.

George W. Stephens, Jr. 12/14/99
 HOWARD SOIL CONSERVATION DISTRICT DATE

These plans have been Reviewed for the Howard Soil Conservation District and meet the technical requirements for small pond construction, soil erosion and sediment control.

Carol Simmons 12/14/99
 USDA-NATURAL RESOURCES CONSERVATION SERVICE DATE

APPROVED: Howard County Department of Planning and Zoning

William D. ... 12/14/99
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

Kurt ... 12/29/99
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

James A. Markle Jr. 12/29/99
 DIRECTOR DATE

ADDRESS CHART

PARCEL NO.	STREET ADDRESS
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Building No. 4	6020 University Boulevard
Building No. 5	6040 University Boulevard
Building No. 6	6031 University Boulevard
Building No. 7	6041 University Boulevard
Building No. 8	6051 University Boulevard

SUBDIVISION NAME The Horse Farm		SECTION NAME N/A	PARCEL # 532
PLAT # N/A	BLOCK # 210	ZONE FOR	ELECT. DIST. 1
WATER CODE E-07		SEWER CODE 2780000	CENSUS TRACT 6C11.02

PREPARED BY:
GEORGE W. STEPHENS, JR. AND ASSOCIATES, INC.
 Civil Engineers and Land Surveyors
 658 Kenilworth Drive, Suite 100
 Towson, Maryland 21204
 (410) 825-8120

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Signature of Developer: *Christopher W. Kurz* Date: 8/30/99
 Print Name: CHRISTOPHER W. KURZ

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Signature of Engineer: *James A. Markle Jr.* Date: 12/7/99
 Print Name: JAMES A. MARLE JR. PE # 11005

OWNER / DEVELOPER
HORSE FARM - LINDEN, L.L.C.
 906 POPLAR HILL ROAD SUITE 200
 BALTIMORE, MARYLAND, 21210
 410-532-6250

DESIGNED BY: P.R.C.
 DRAWN BY: E.M.T., K.E.
 CHECKED BY: P.R.C.
 REVISIONS

EROSION AND SEDIMENT CONTROL PHASE 2 PLAN THE HORSE FARM

ELECTION DISTRICT: 1
 HOWARD CO., MARYLAND SHT. 22 OF 37 SCALE: As Shown
 DATE: Nov. 25, 1998

SDP 99-65 NAME: B594and.cad:2010.07.98 PLOT: B594

Stabilization Specifications

Section I - Vegetative Stabilization Methods and Materials
1. Soil Preparation
a. Soil tests must be performed to determine the exact ratios and application rates for both lime and fertilizer on a long-term basis...

Section II - Turfgrass Establishment
1. Site Preparation
a. Areas previously graded in accordance with the drawings shall be maintained to a true and even grade...

Section III - Permanent Seeding
1. Seed and Fertilizer
a. Seed shall be applied to a uniform soil surface at the rate of 100 lbs per acre...

Section IV - Sod
1. Sod Installation
a. Sod shall be installed in a staggered pattern with the sod joints staggered to prevent water runoff...

Table 26 - Temporary Seeding Rates, Depths, and Dates. Table 27 - Geotextile Fabric. Table 28 - Permanent Seeding for Low Maintenance Areas.

Section V - Sod
1. Sod Installation
a. Sod shall be installed in a staggered pattern with the sod joints staggered to prevent water runoff...

GEORGE W. STEPHENS, JR. AND ASSOCIATES, INC. Civil Engineers and Land Surveyors. 658 Kenilworth Drive, Suite 100, Towson, Maryland 21204

Sediment Control Notes

1. A MINIMUM OF 48 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS, SEDIMENT CONTROL DIVISION PRIOR TO THE START OF ANY CONSTRUCTION (S.C.S.).
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 NATIONAL STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL AND REVISIONS THEREOF...

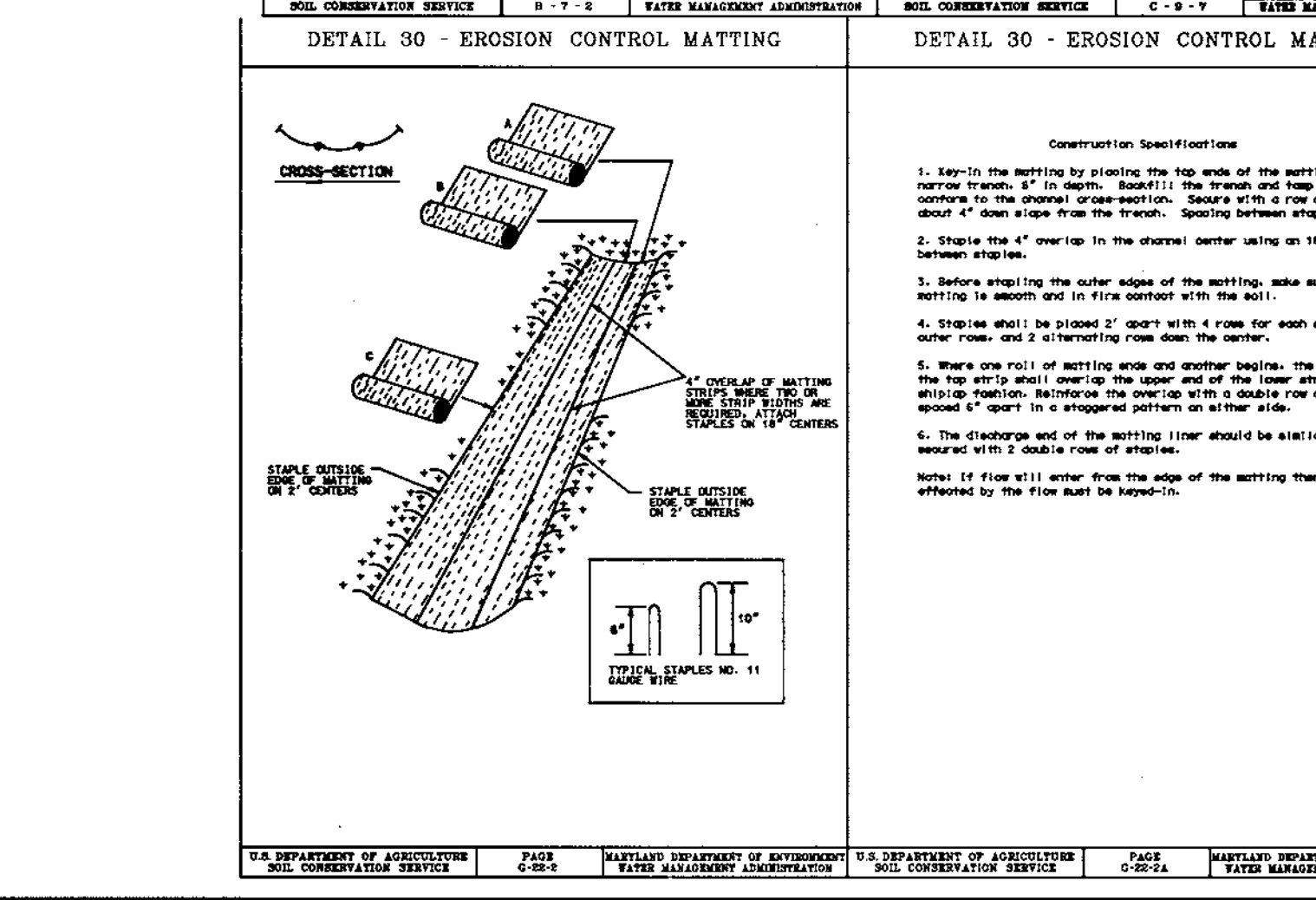
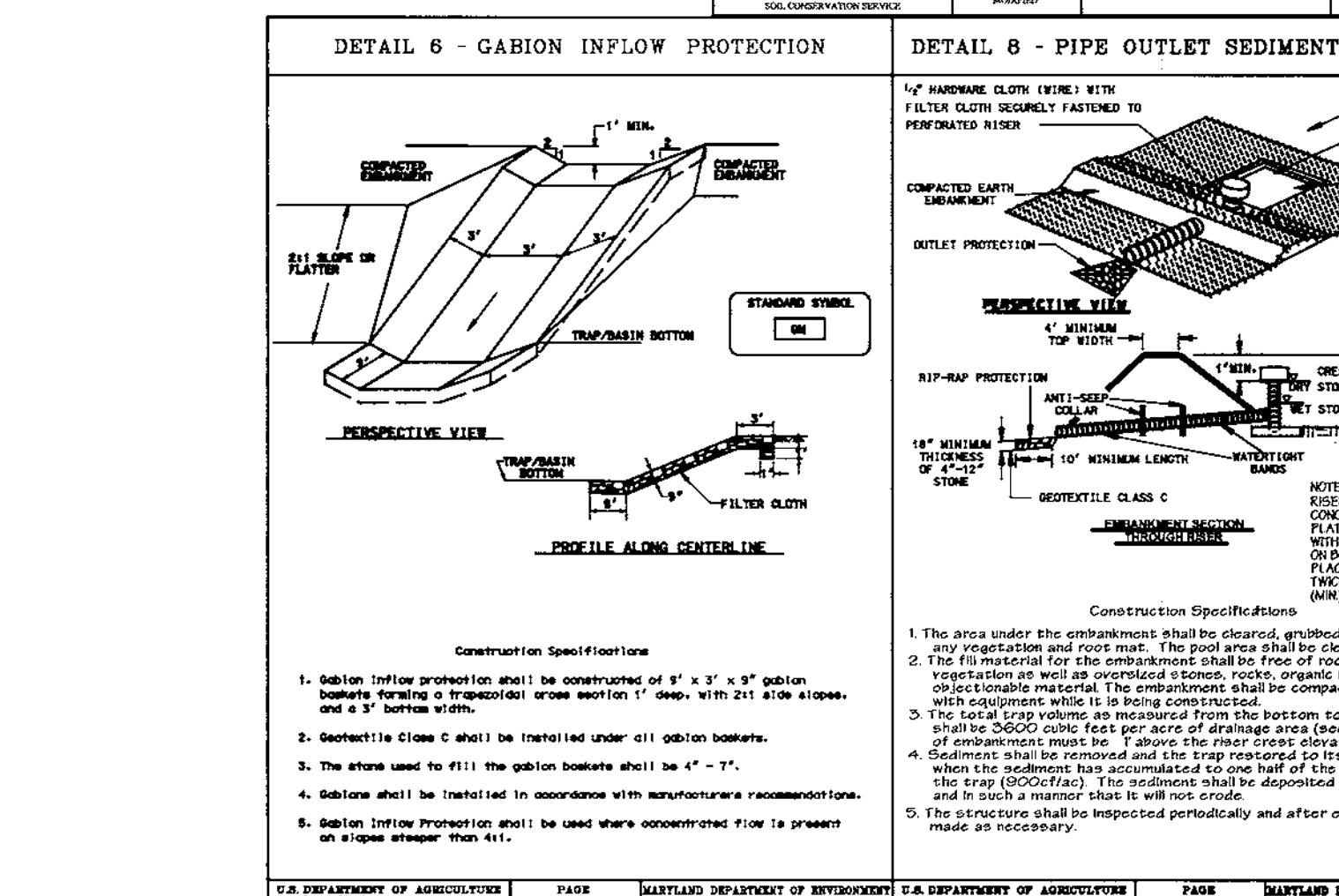
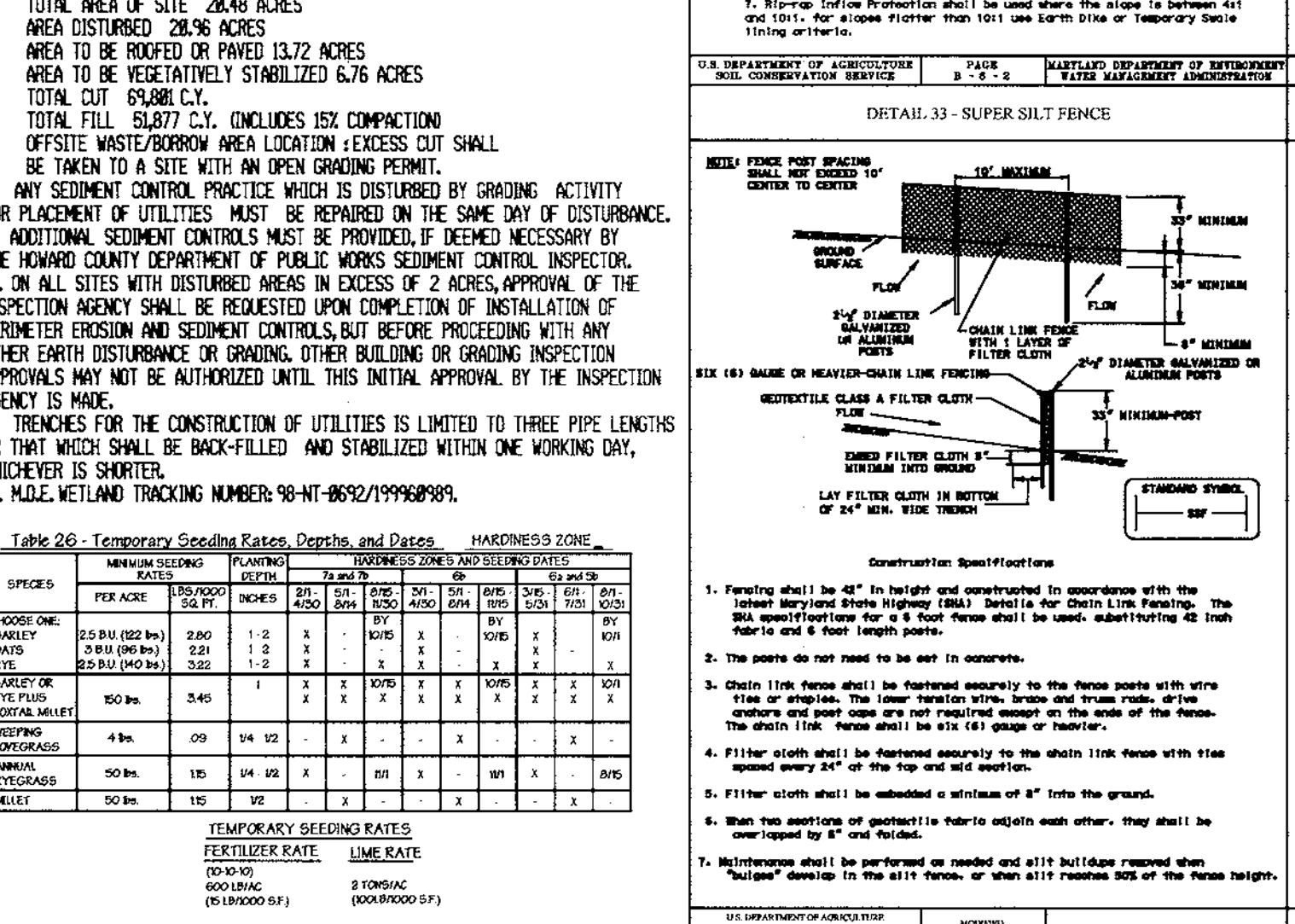
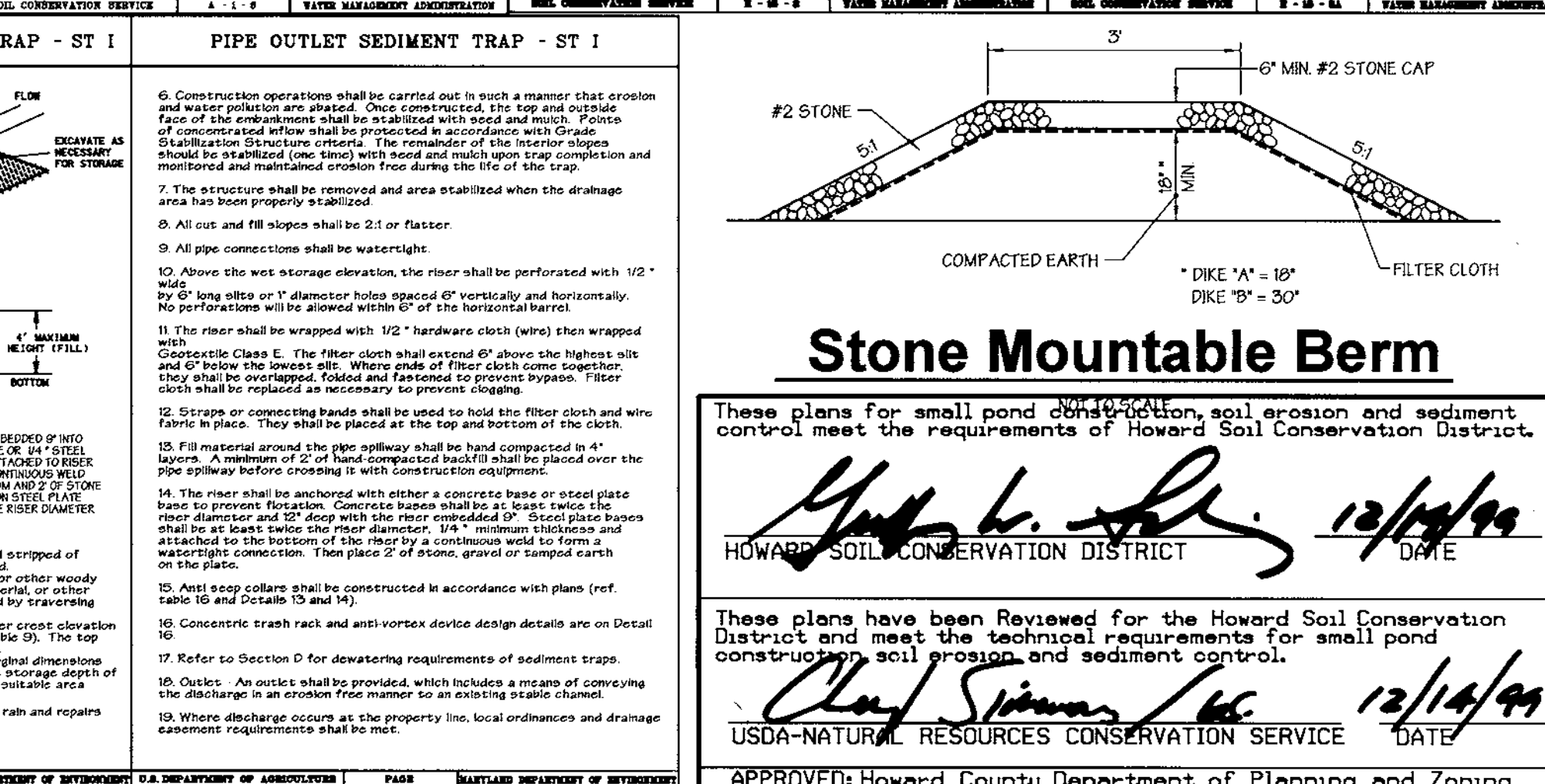
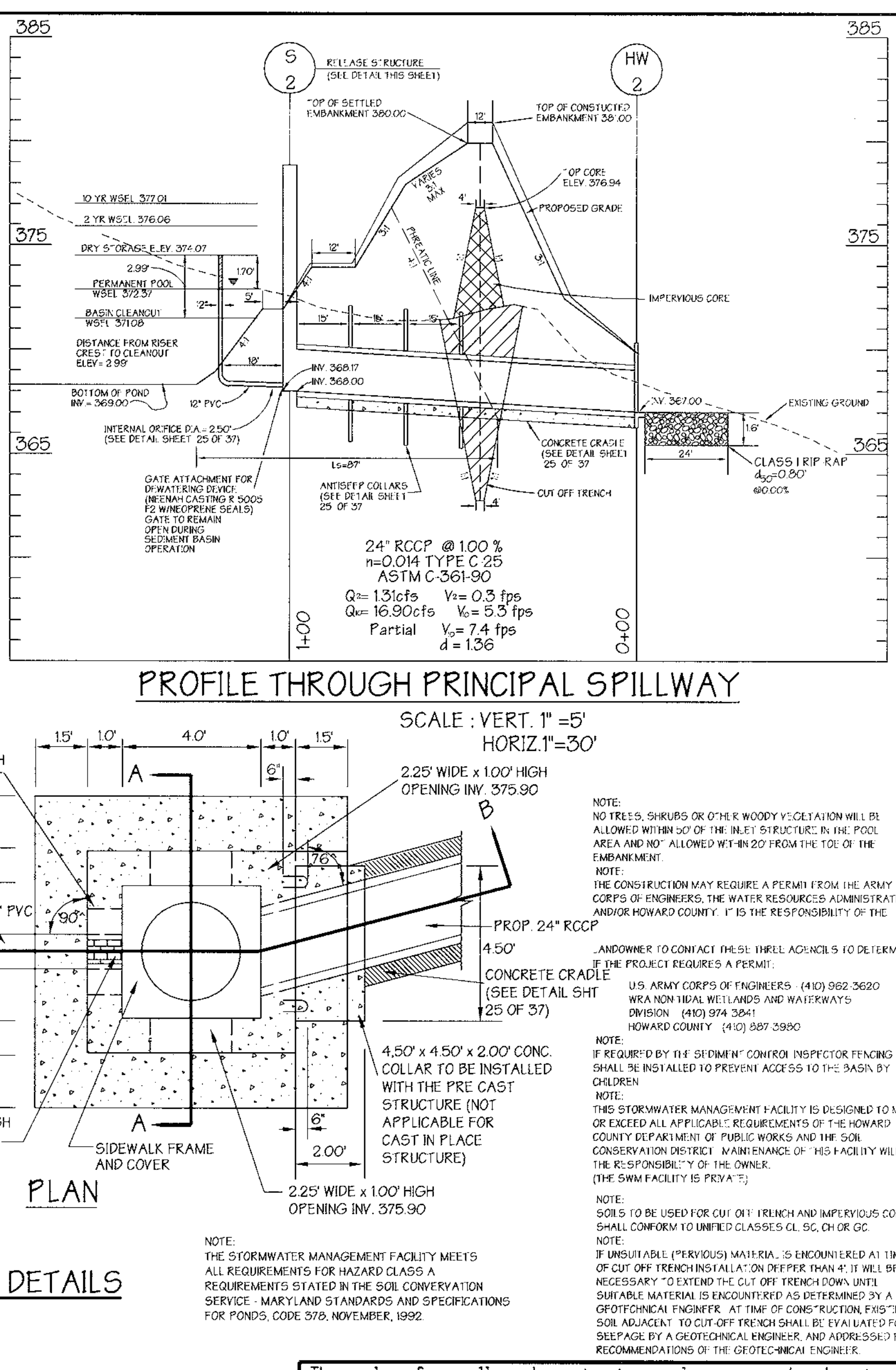
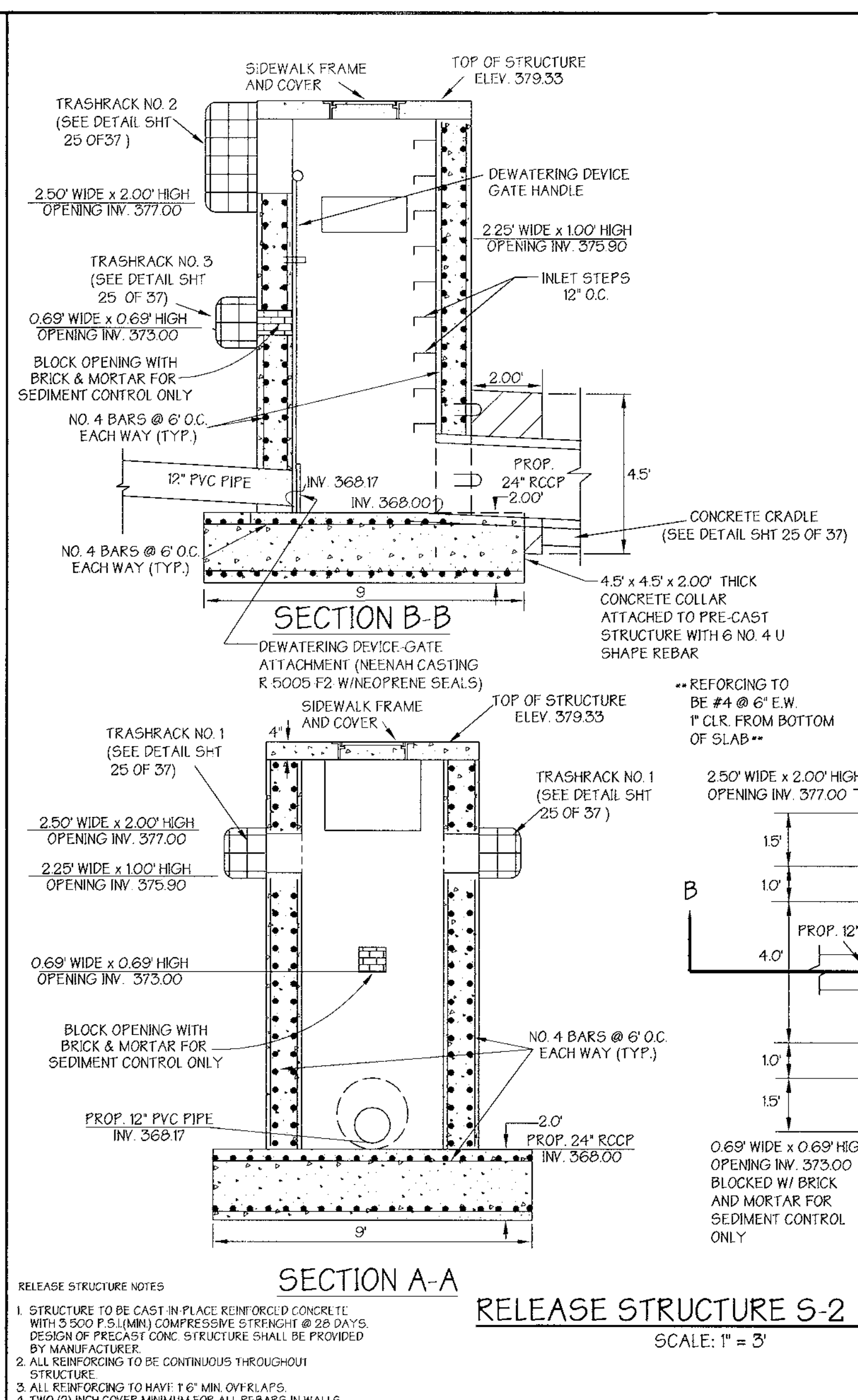
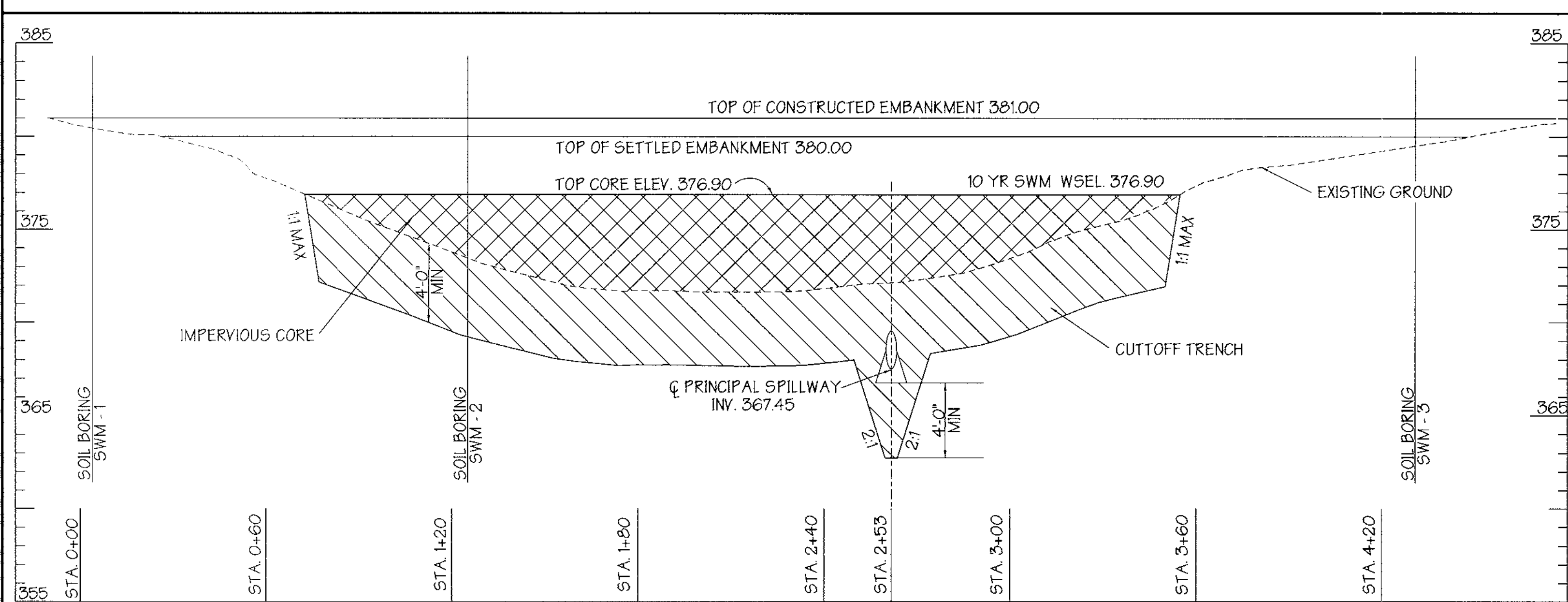
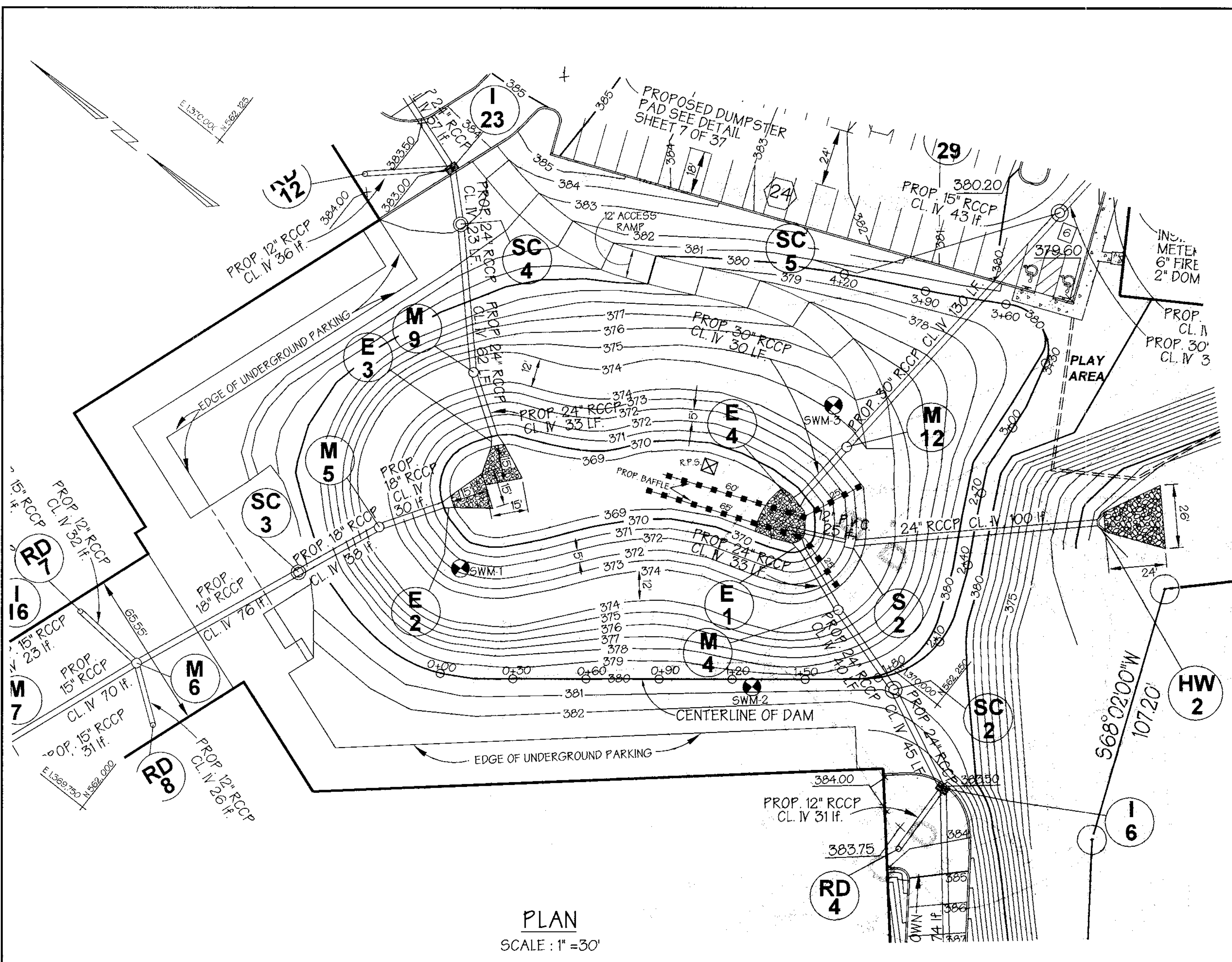


Table 29 - Temporary Seeding Rates, Depths, and Dates. Table 30 - Permanent Seeding Rates, Depths, and Dates.



HOWARD SOIL CONSERVATION DISTRICT. Stone Mountable Berm. These plans for small pond construction, soil erosion and sediment control meet the requirements of Howard Soil Conservation District.

ENGINEER CERTIFICATION: I certify that this plan for pond construction, erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions. This plan was prepared in accordance with the requirements of the Howard Soil Conservation District...



RELEASE STRUCTURE S-2 DETAILS SCALE: 1"=3'

RELEASE STRUCTURE NOTES:

- STRUCTURE TO BE CAST IN PLACE REINFORCED CONCRETE WITH 5000 P.S.I. (MIN) COMPRESSIVE STRENGTH @ 28 DAYS. DESIGN OF PRECAST CONC. STRUCTURE SHALL BE PROVIDED BY MANUFACTURER.
- ALL REINFORCING TO BE CONTINUOUS THROUGHOUT STRUCTURE.
- ALL REINFORCING TO HAVE 1" MIN. OVERLAPS.
- TWO (2) INCH COVER MINIMUM FOR ALL REBARS IN WALLS AND THREE (3) INCHES FOR THE BASES.
- PROVIDE ADDITIONAL #4 REBARS ALONG THE PERIMETER OF ALL OPENINGS WITH THE AREA OF STEEL EQUAL TO OR GREATER THAN THE AREA OF STEEL "MULDED" DUE TO OPENING.
- SHOP DRAWINGS FOR PRECAST CONCRETE RISERS WITH SUPPORTING STRUCTURAL COMPUTATIONS (SHOWN AND SEALED BY A MD REGISTERED ENGINEER) MEETING A.S.I.M. REQUIREMENTS FOR PRECAST STRUCTURES MUST BE SUBMITTED TO THE ENGINEER, AND THE APPROVING AGENCY FOR APPROVAL PRIOR TO FABRICATION. IF ANY STRUCTURE DIMENSIONS VARY FROM WHAT WAS ORIGINALLY REVIEWED AND APPROVED, THEN THE HYDRAULIC LOCATION AND STRUCTURAL INTEGRITY OF THE STRUCTURE WILL HAVE TO BE RE-ANALYZED.
- ALL EXPOSED CORNERS OF CONCRETE SHALL BE CHAMFERED WITH 3/4" x 3/4" MILLED CHAMFER STRIPS.

DESIGN STORM	FACILITY DISCHARGE (CF)	DURING CONSTRUCTION FACILITY INFLOW (CF)	DURING CONSTRUCTION FACILITY DISCHARGE (CF)	ALLOWABLE FACILITY DISCHARGE (CF)	WATER SURFACE ELEVATION (FT)	STORAGE VOLUME PROVIDED
2 YR	906	37.97	131	7.83	376.06	1683
10 YR	2967	65.77	1630	23.54	377.01	2326

POND SPECIFICATIONS FOR STORMWATER MANAGEMENT		DATA
STRUCTURE CLASSIFICATION		A (PRIVATE)
STORAGE X HEIGHT PRODUCT		(2.70 AC FT) = 13.5 AC FT ²
WATERSHED AREA TO THE POND		12.27 AC
POND TYPE		DETENTION
FREEBOARD	REQUIRED/ PROVIDED	2.0' / 2.10'
IMPERVIOUS AREA		8.64 AC
TOP OF EMBANKMENT		380.0

CONSULTANT'S HAZARD CLASS CERTIFICATION:

I certify that this pond meets all requirements for hazard class (A) B or C (requirements as stated in the soil conservation service - maryland standards and specifications for pond, code 378 november 1992). All necessary investigations and computations have been performed to verify the finding. A copy of said information has been supplied to Howard County soil conservation district.

Engineer: *James A. Markle Jr.* Date: 8/30/99
Name: JAMES A. MARKLE JR.

AS-BUILT CERTIFICATION:

I hereby certify that the facility shown on this plan was constructed as shown on the 'as-built' plans and meet the approved plans and specifications.

Signature: _____ Date: _____

Consultant means to state or declare a professional opinion based upon on-site inspections and material tests which are conducted during construction. The on-site inspections and material tests are those inspections and tests deemed sufficient and appropriate by commonly accepted engineering standards. Certify does not mean or imply a guarantee by the engineer nor does an engineer's certification relieve any other party from meeting requirements imposed by contract, employment, or other means, including meeting commonly accepted industry practices.

SUBDIVISION NAME	SECTION NAME	PARCEL #
The Horse Farm	N/A	552

PLAT #	BLOCK #	ZONE FOR	TAX MAP /ZONE	ELECT. DIST.	CENSUS TRACT
N/A	21B		37	1	6011.02

WATER CODE E-07 SEWER CODE 2780000

PREPARED BY:
GEORGE W. STEPHENS, JR. AND ASSOCIATES, INC.
Civil Engineers and Land Surveyors
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Towson, Maryland 21204
(410) 825-8120

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Signature of Developer: *Christopher W. Kurl* Date: 8/30/99
Print Name: CHRISTOPHER W. KURL

ENGINEER CERTIFICATION:
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Signature of Engineer: *James A. Markle Jr.* Date: 8/30/99
Print Name: JAMES A. MARKLE JR. PE # 11005

OWNER - DEVELOPER
HORSE FARM - LINDEN L.L.C.
906 POPLAR HILL ROAD SUITE 200
BALTIMORE, MARYLAND, 21210
410 - 532 6250

DESIGNED BY: P.R.C.
DRAWN BY: E.M.T., K.E.
CHECKED BY: P.R.C.
REVISIONS

SEDIMENT BASIN PLAN AND PROFILES THE HORSE FARM

ELECTION DISTRICT: 1
HOWARD CO., MARYLAND
SCALE: As Shown
DATE: Nov. 25, 1998

SDP 99-65 NAME: 8594acc@esplanprof.sdi.com PIN: 8594

POND CONSTRUCTION SPECIFICATIONS

These specifications are appropriate to... Standard practice MD-30B... apply to the most recent version.

SITE PREPARATION

Areas designated for borrow areas, embankment, and structural works shall be cleared, grubbed, and stripped of topsoil.

Areas to be covered by the reservoir will be cleared of all trees, brush, logs, fences, rubbish, and other objectionable material.

All cleared and grubbed material shall be disposed of outside and below the limits of the dam and reservoir as directed by the owner.

EARTH FILL

MATERIAL - The fill material shall be taken from approved designated borrow areas. It shall be free of roots, stumps, wood, rubbish, stones greater than 6" in size or other objectionable materials.

PLACEMENT - Areas in which fill is to be placed shall be scarified prior to placement of fill. Fill materials shall be placed in a maximum 8" thick (before compaction) layers which are to be continuous over the entire length of the fill.

COMPACTION - The movement of the heavy area spreading equipment over the fill shall be controlled so that the entire surface of each lift shall be traversed by not less than one track of the equipment or compaction shall be achieved by a minimum of four complete passes of a sheepsfoot, rubber tired or vibratory roller.

Minimum required density shall not be less than 95% of maximum dry density with a moisture content within +/- 2% of the optimum.

STRUCTURE BACKFILL - Backfill adjacent to pipes or structures shall be of the type and quality conforming to that specified for the adjoining fill material.

PIPE CONDUITS - All pipes shall be circular in cross section.

REINFORCED CONCRETE PIPE - All pipe to be circular in cross section.

REINFORCED CONCRETE PIPE - All pipe to be circular in cross section.

All the following criteria shall apply for reinforced concrete pipe:

1. Materials - Reinforced concrete pipe shall have bell and spigot joints with rubber gaskets and shall equal or exceed ASTM Designation C-361.

2. Bedding - All reinforced concrete pipe conduits shall be laid in a concrete bedding for their entire length.

3. Laying Pipe - Bell and spigot pipe shall be placed with the bell end upstream. Joints shall be made in accordance with recommendations of the manufacturer of the material.

4. Backfilling shall conform to "Structure Backfill"

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

PERFORATED PIPE - Bitumastic coated corrugated metal pipe (BCCMP) shall conform to the requirements of AASHTO M36 (pipe should be specified to be fully bitumastic coated in accordance with AASHTO M190).

CONCRETE - Concrete shall meet the requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, Section 910B (Portland Cement Concrete Mixtures), Mix No. 3.

REINFORCING STEEL IN CONCRETE STRUCTURES - Reinforcing steel shall be ASTM A 601, Grade 60. Steel angles and anchor bars shall be ASTM 136.

ROCK RIP RAP - Rock riprap shall meet the requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, Section 905.

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

CONCRETE ANTI-SEEP COLLAR - Constructed fencing in accordance with the State Highway Administration standard details 6800.01 and 6800.02. Use specifications for a 6" fence, substituting 42" fabric and 6" tie posts. Construct the gate in accordance with the S.H.A. standard detail 6800.01 with 42" fabric.

OPERATION AND MAINTENANCE SCHEDULE FOR STORMWATER MANAGEMENT FOND. TRASH, AND DEBRIS AS NECESSARY.

2. VEGETATION GROWING ON THE EMBANKMENT TOP OR FACES IS NOT ALLOWED TO EXCEED 18 INCHES IN HEIGHT AT ANY TIME.

3. ANNUAL INSPECTION AND REPAIR OF THE STRUCTURE.

OPERATION AND MAINTENANCE SCHEDULE FOR STORMWATER MANAGEMENT FOND. TRASH, AND DEBRIS AS NECESSARY.

2. VEGETATION GROWING ON THE EMBANKMENT TOP OR FACES IS NOT ALLOWED TO EXCEED 18 INCHES IN HEIGHT AT ANY TIME.

3. ANNUAL INSPECTION AND REPAIR OF THE STRUCTURE.

CARE OF WATER DURING CONSTRUCTION

All work on permanent structures shall be carried out in areas free from water. The contractor shall construct and maintain all temporary dikes, levees, cofferdams, drainage channels, and stream diversions necessary to protect the area to be occupied by the permanent works.

STABILIZATION

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

Stormwater management facility will be stabilized with permanent slope seeding as follows:

1. Seeded Preparation - loosen upper 3 inches of soil by raking, ditching or other acceptable means before seeding.

2. Soil Amendments - apply 2 tons per acre Dolomitic Limestone (92 lbs/1000 sq. ft.), 600 lbs per acre 10-10-10 fertilizer (14 lbs/1000 sq. ft.), and 400 lbs per acre of 30-0-0 Ureaform Fertilizer (92 lbs/1000 sq. ft.).

3. Seeding - for the period March 1 through April 30 seed with 40 lbs. per acre Kentucky 31 Tall Fescue, and 15 lbs. per acre inoculated Crown Vetch.

4. Mulching - apply 15 to 2 tons per acre of a root-killed small grain straw immediately after seeding. Anchor mulch immediately after application using 210 gallons per acre of emulsified asphalt.

5. Maintenance - inspect all seeded areas and make needed repairs, replacements and re-seeding.

EROSION AND SEDIMENT CONTROL Construction operations will be carried out in such a manner that erosion will be controlled and water and air pollution minimized.

PERMANENT SLOPE SEEDING After spreading 4" topsoil, seed with a mixture of 30% inoculated Crown Vetch and 70% Kentucky 31 Tall Fescue.

3. Laying Pipe - Bell and spigot pipe shall be placed with the bell end upstream. Joints shall be made in accordance with recommendations of the manufacturer of the material.

4. Backfilling shall conform to "Structure Backfill"

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

PERFORATED PIPE - Bitumastic coated corrugated metal pipe (BCCMP) shall conform to the requirements of AASHTO M36 (pipe should be specified to be fully bitumastic coated in accordance with AASHTO M190).

CONCRETE - Concrete shall meet the requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, Section 910B (Portland Cement Concrete Mixtures), Mix No. 3.

REINFORCING STEEL IN CONCRETE STRUCTURES - Reinforcing steel shall be ASTM A 601, Grade 60. Steel angles and anchor bars shall be ASTM 136.

ROCK RIP RAP - Rock riprap shall meet the requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, Section 905.

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

CONCRETE ANTI-SEEP COLLAR - Constructed fencing in accordance with the State Highway Administration standard details 6800.01 and 6800.02. Use specifications for a 6" fence, substituting 42" fabric and 6" tie posts. Construct the gate in accordance with the S.H.A. standard detail 6800.01 with 42" fabric.

OPERATION AND MAINTENANCE SCHEDULE FOR STORMWATER MANAGEMENT FOND. TRASH, AND DEBRIS AS NECESSARY.

2. VEGETATION GROWING ON THE EMBANKMENT TOP OR FACES IS NOT ALLOWED TO EXCEED 18 INCHES IN HEIGHT AT ANY TIME.

3. ANNUAL INSPECTION AND REPAIR OF THE STRUCTURE.

OPERATION AND MAINTENANCE SCHEDULE FOR STORMWATER MANAGEMENT FOND. TRASH, AND DEBRIS AS NECESSARY.

2. VEGETATION GROWING ON THE EMBANKMENT TOP OR FACES IS NOT ALLOWED TO EXCEED 18 INCHES IN HEIGHT AT ANY TIME.

3. ANNUAL INSPECTION AND REPAIR OF THE STRUCTURE.

CUT-OFF TRENCH - THE CUT-OFF TRENCH SHALL BE EXCAVATED INTO IMPERVIOUS MATERIAL ALONG OR PARALLEL TO THE CENTERLINE OF THE EMBANKMENT AS SHOWN ON THE PLANS. THE BOTTOM WIDTH OF THE TRENCH SHALL BE GOVERNED BY THE EQUIPMENT USED FOR EXCAVATION.

IMPERVIOUS CORE - THE CORE SHALL BE FILLED ALONG OR PARALLEL TO THE CENTERLINE OF THE EMBANKMENT AS SHOWN ON THE PLANS. THE TOP WIDTH OF THE FILL SHALL BE GOVERNED BY THE EQUIPMENT USED, WITH MINIMUM WIDTH BEING FOUR FEET. THE TOP WIDTH SHALL BE SHOWN ON THE PLAN. THE SIDE SLOPES OF THE FILL SHALL BE 1:1 OR FLATTER.

OPERATION AND MAINTENANCE SCHEDULE FOR STORMWATER MANAGEMENT FOND. TRASH, AND DEBRIS AS NECESSARY.

2. VEGETATION GROWING ON THE EMBANKMENT TOP OR FACES IS NOT ALLOWED TO EXCEED 18 INCHES IN HEIGHT AT ANY TIME.

3. ANNUAL INSPECTION AND REPAIR OF THE STRUCTURE.

OPERATION AND MAINTENANCE SCHEDULE FOR STORMWATER MANAGEMENT FOND. TRASH, AND DEBRIS AS NECESSARY.

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3. ANNUAL INSPECTION AND REPAIR OF THE STRUCTURE.

COMPACTED FILL

A. Embankment shall be constructed of approved materials from the excavation or from other sources. The material shall be free from organic material, trash, rock, roots, frost and other objectionable substances.

B. Before depositing fill, the ground surface shall be cleared of all refuse, brush, grass, rocks, and other material. All vegetation and other debris shall be removed from the surface to be filled.

C. Where fill is made on hillside or slope, the slope of the original ground upon which the fill is to be placed shall be preserved or, where the slope rises to the original ground, it shall be restored to its original condition.

D. Pacing, Spreading and Compacting Fill Materials: 1. The fill material shall be placed in layers which, before compaction, shall not exceed 8 inches.

2. After each layer has been placed, tamped and spread evenly, it shall be thoroughly compacted to not less than 97% of the maximum dry density as determined by ASTM D 998.

3. The moisture content of the fill shall be as required in order to attain the degree of compaction specified.

4. Compaction shall be by approved multiple-wheel pneumatic-tyred rollers, vibratory rollers or other types of acceptable rollers.

5. The filling operation shall be continued as specified above until the fill has been brought to the subgrade shown on the plan.

6. The fill shall be constructed in such a manner that the surface will be sloped to drain at all times, and all vegetation and other debris shall be removed from the surface to be filled.

7. When the work is interrupted by rain, filling shall not be resumed until some indication that the moisture content and density of the top 6 inches of fill conform to the above specification requirements.

8. The fill shall be constructed in such a manner that the surface will be sloped to drain at all times, and all vegetation and other debris shall be removed from the surface to be filled.

9. When the work is interrupted by rain, filling shall not be resumed until some indication that the moisture content and density of the top 6 inches of fill conform to the above specification requirements.

10. The fill shall be constructed in such a manner that the surface will be sloped to drain at all times, and all vegetation and other debris shall be removed from the surface to be filled.

11. When the work is interrupted by rain, filling shall not be resumed until some indication that the moisture content and density of the top 6 inches of fill conform to the above specification requirements.

12. The fill shall be constructed in such a manner that the surface will be sloped to drain at all times, and all vegetation and other debris shall be removed from the surface to be filled.

13. When the work is interrupted by rain, filling shall not be resumed until some indication that the moisture content and density of the top 6 inches of fill conform to the above specification requirements.

14. The fill shall be constructed in such a manner that the surface will be sloped to drain at all times, and all vegetation and other debris shall be removed from the surface to be filled.

15. When the work is interrupted by rain, filling shall not be resumed until some indication that the moisture content and density of the top 6 inches of fill conform to the above specification requirements.

16. The fill shall be constructed in such a manner that the surface will be sloped to drain at all times, and all vegetation and other debris shall be removed from the surface to be filled.

17. When the work is interrupted by rain, filling shall not be resumed until some indication that the moisture content and density of the top 6 inches of fill conform to the above specification requirements.

18. The fill shall be constructed in such a manner that the surface will be sloped to drain at all times, and all vegetation and other debris shall be removed from the surface to be filled.

19. When the work is interrupted by rain, filling shall not be resumed until some indication that the moisture content and density of the top 6 inches of fill conform to the above specification requirements.

20. The fill shall be constructed in such a manner that the surface will be sloped to drain at all times, and all vegetation and other debris shall be removed from the surface to be filled.

21. When the work is interrupted by rain, filling shall not be resumed until some indication that the moisture content and density of the top 6 inches of fill conform to the above specification requirements.

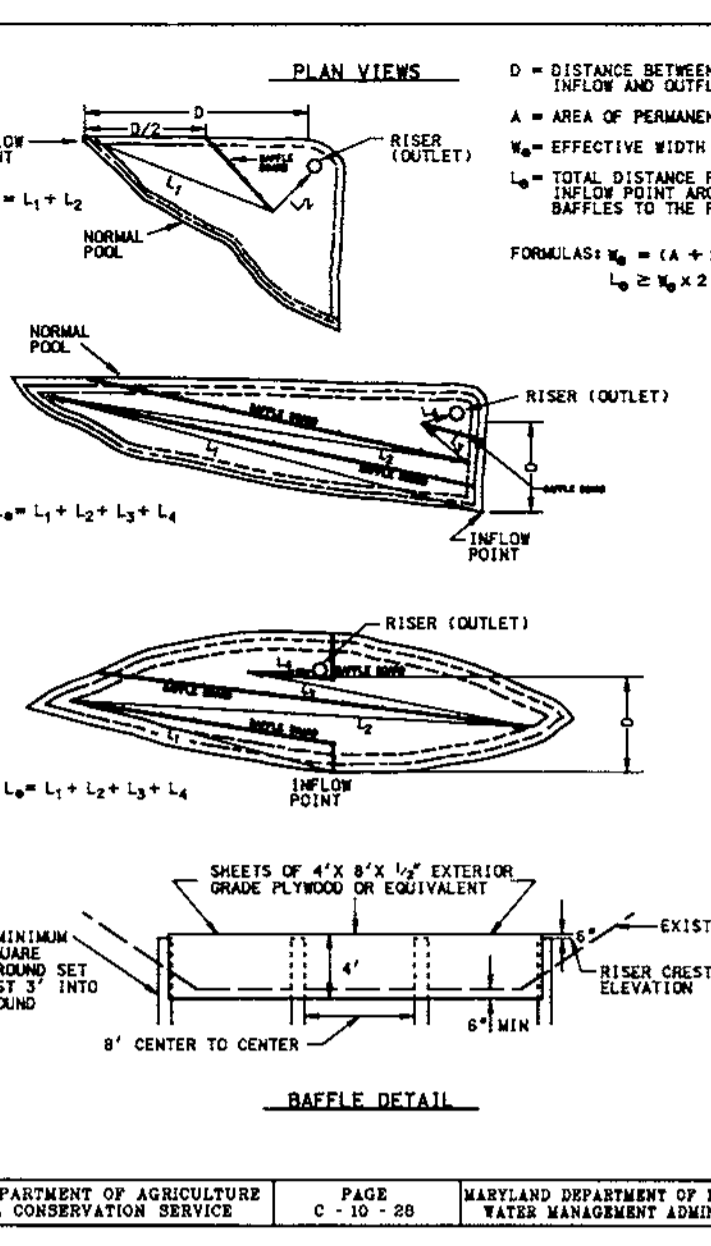
22. The fill shall be constructed in such a manner that the surface will be sloped to drain at all times, and all vegetation and other debris shall be removed from the surface to be filled.

23. When the work is interrupted by rain, filling shall not be resumed until some indication that the moisture content and density of the top 6 inches of fill conform to the above specification requirements.

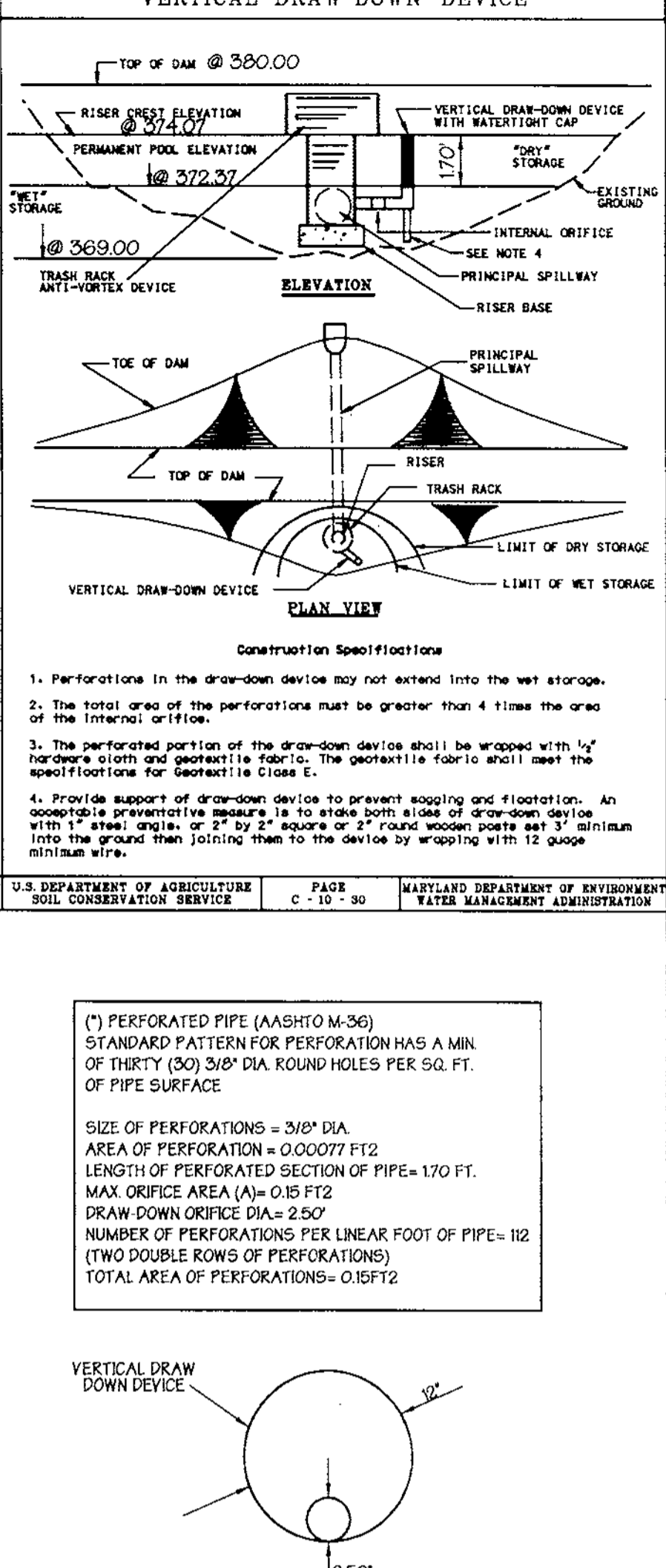
24. The fill shall be constructed in such a manner that the surface will be sloped to drain at all times, and all vegetation and other debris shall be removed from the surface to be filled.

25. When the work is interrupted by rain, filling shall not be resumed until some indication that the moisture content and density of the top 6 inches of fill conform to the above specification requirements.

DETAIL 18 - SEDIMENT BASIN Baffles



BASIN DRAWDOWN SCHEMATIC VERTICAL DRAW-DOWN DEVICE



(*) PERFORATED PIPE (AASHTO M-36) STANDARD PATTERN FOR PERFORATION HAS A MIN OF THIRTY (30) 3/8" DIA. ROUND HOLES PER SQ. FT. OF PIPE SURFACE. SIZE OF PERFORATIONS = 3/8" DIA. AREA OF PERFORATION = 0.00077 FT2. LENGTH OF PERFORATED SECTION OF PIPE= 170 FT. MAX. ORIFICE AREA (A) = 0.15 FT2. DRAW-DOWN ORIFICE DIA.= 2.50". NUMBER OF PERFORATIONS PER LINEAR FOOT OF PIPE= 182 (TWO DOUBLE ROWS OF PERFORATIONS). TOTAL AREA OF PERFORATIONS = 0.87FT2.

CONSULTANT'S HAZARD CLASS CERTIFICATION: I certify that this pond meets all requirements for hazard class B or C. (requirements as stated in the soil conservation service - Maryland standards and specifications for pond, code 375, November 1992).

AS-BUILT CERTIFICATION: I hereby certify that the facility shown on this plan was constructed as shown on the "as-built" plans and meet the approved plans and specifications.

Table with columns: ADDRESS CHART, SUBDIVISION NAME, SECTION NAME, PARCEL #, PLAT #, BLOCK #, ZONE, TAX MAP, ELECT. DIST., CENSUS TRACT, WATER CODE, SEWER CODE.

Prepared by: GEORGE W. STEPHENS, JR. AND ASSOCIATES, INC. Civil Engineers and Land Surveyors. 658 Kenilworth Drive, Suite 100, Towson, Maryland 21204. (410) 825-8120.

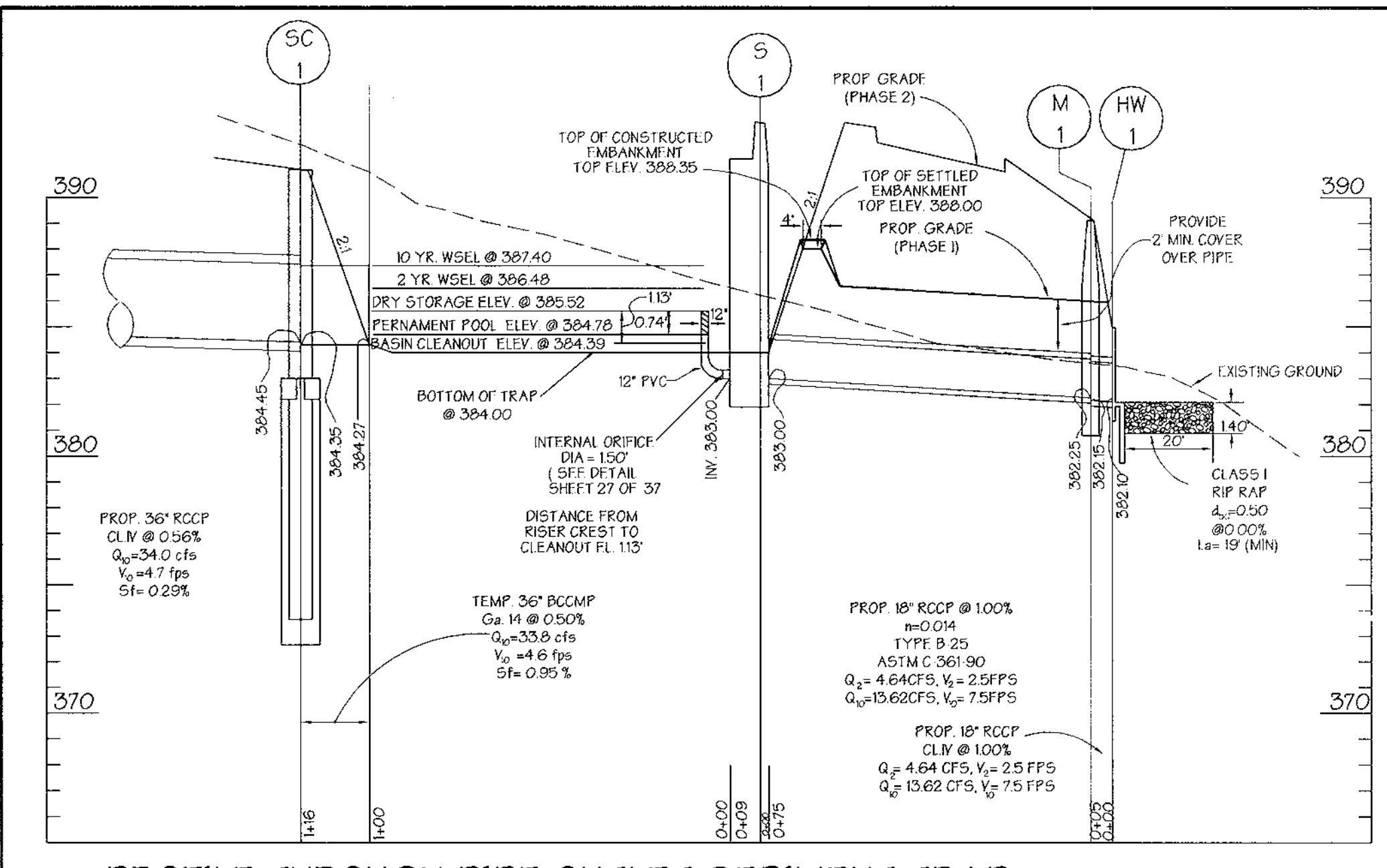
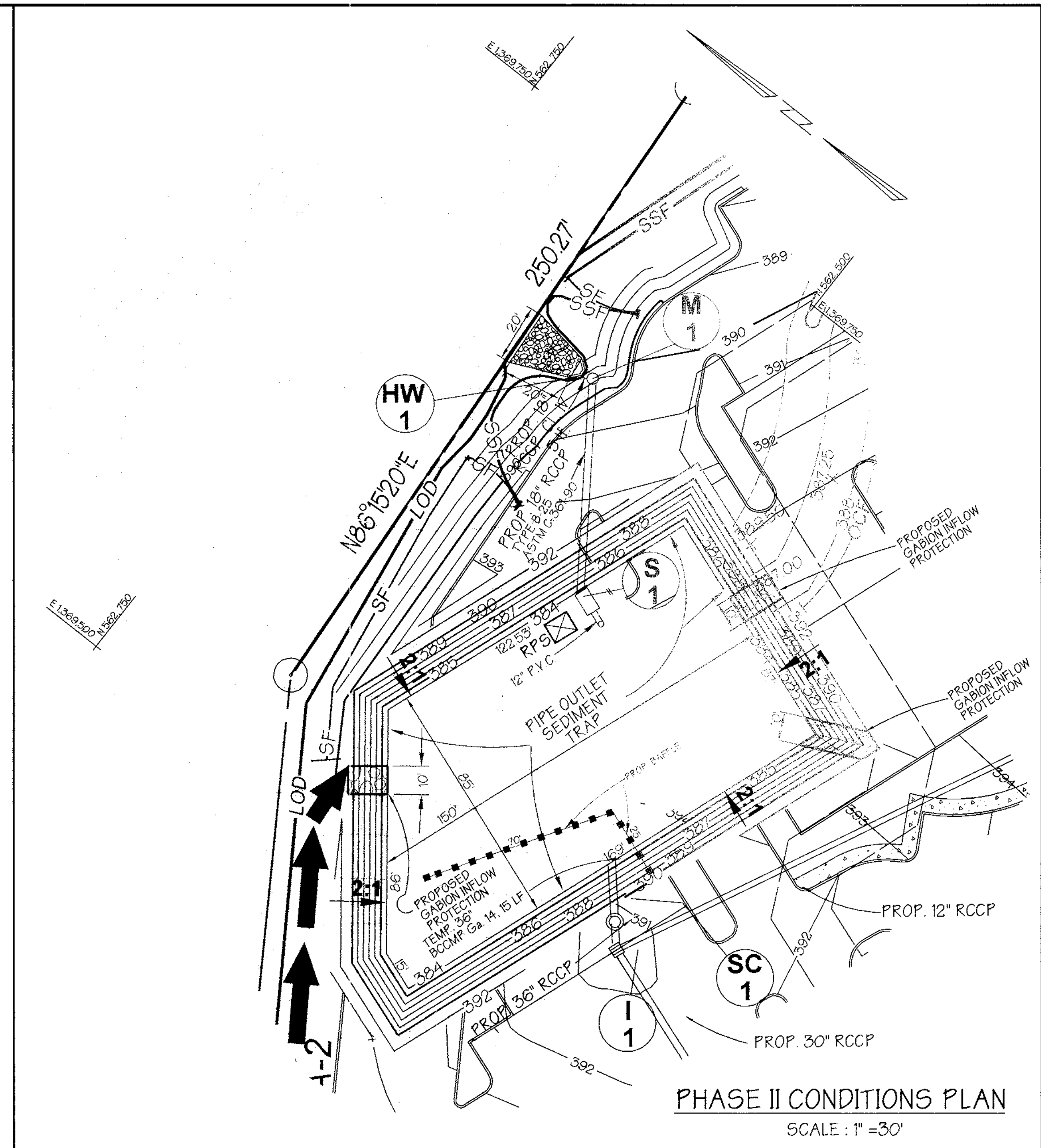
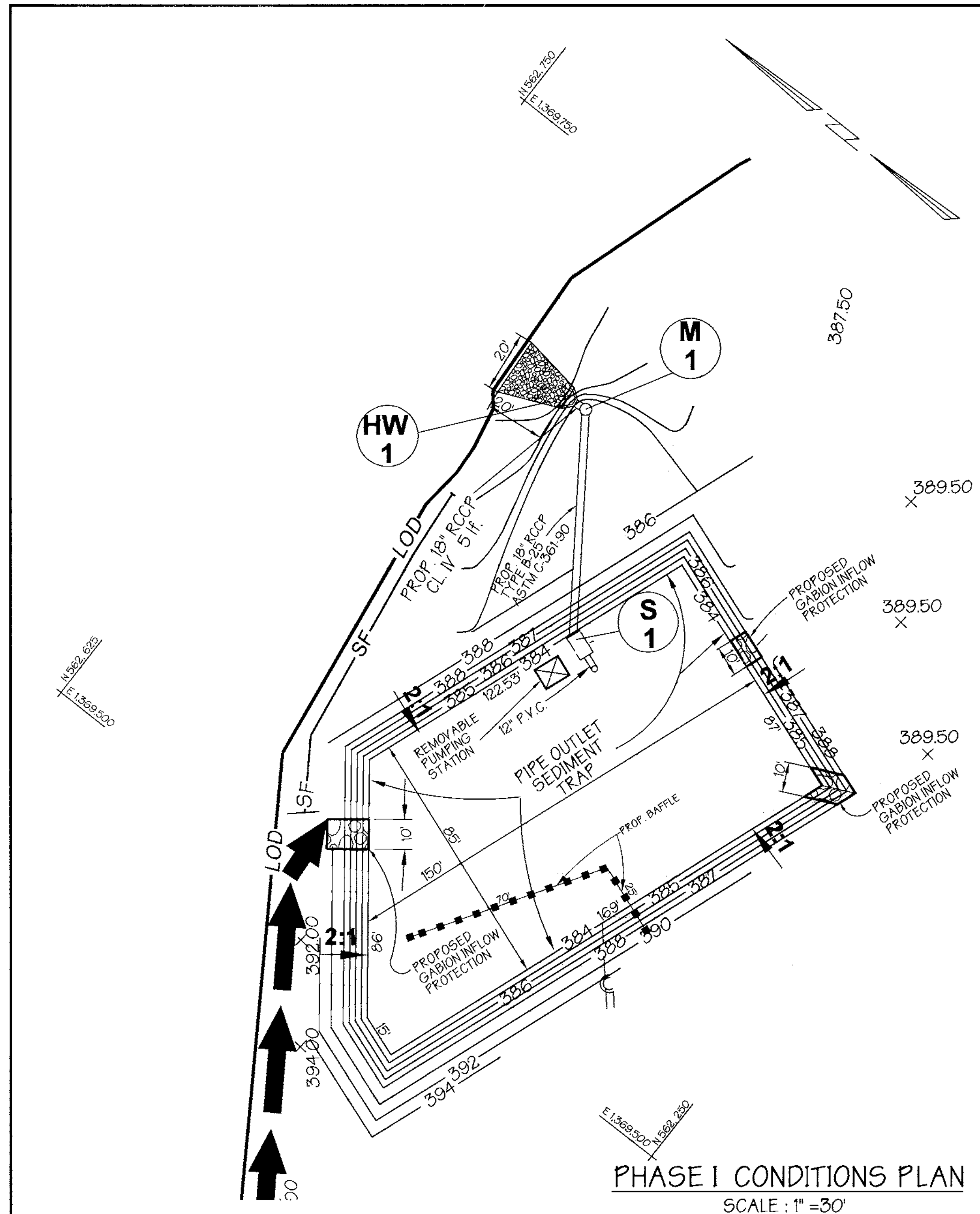
Developer Certification: I certify that development and/or construction will be done according to these plans, and that any responsible person involved in the construction project will have a certificate of attendance at a Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project.

Engineer Certification: I certify that this plan for pond construction, erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions. This plan was prepared in accordance with the requirements of the Howard Soil Conservation District.

Owner / Developer: HORSE FARM - LINDEN, L.L.C. 906 POPLAR HILL ROAD SUITE 200, BALTIMORE, MARYLAND, 21210. 410-572-9530.

Designed by: P.R.C. Drawn by: E.M.T., K.E. Checked by: P.R.C. Revisions:

Sediment Basin, Erosion and Sediment Control Notes and Details. THE HORSE FARM. ELECTION DISTRICT: 1 HOWARD CO., MARYLAND. SHEET: 25 OF 37. SCALE: As Shown. DATE: Nov. 25, 1998.



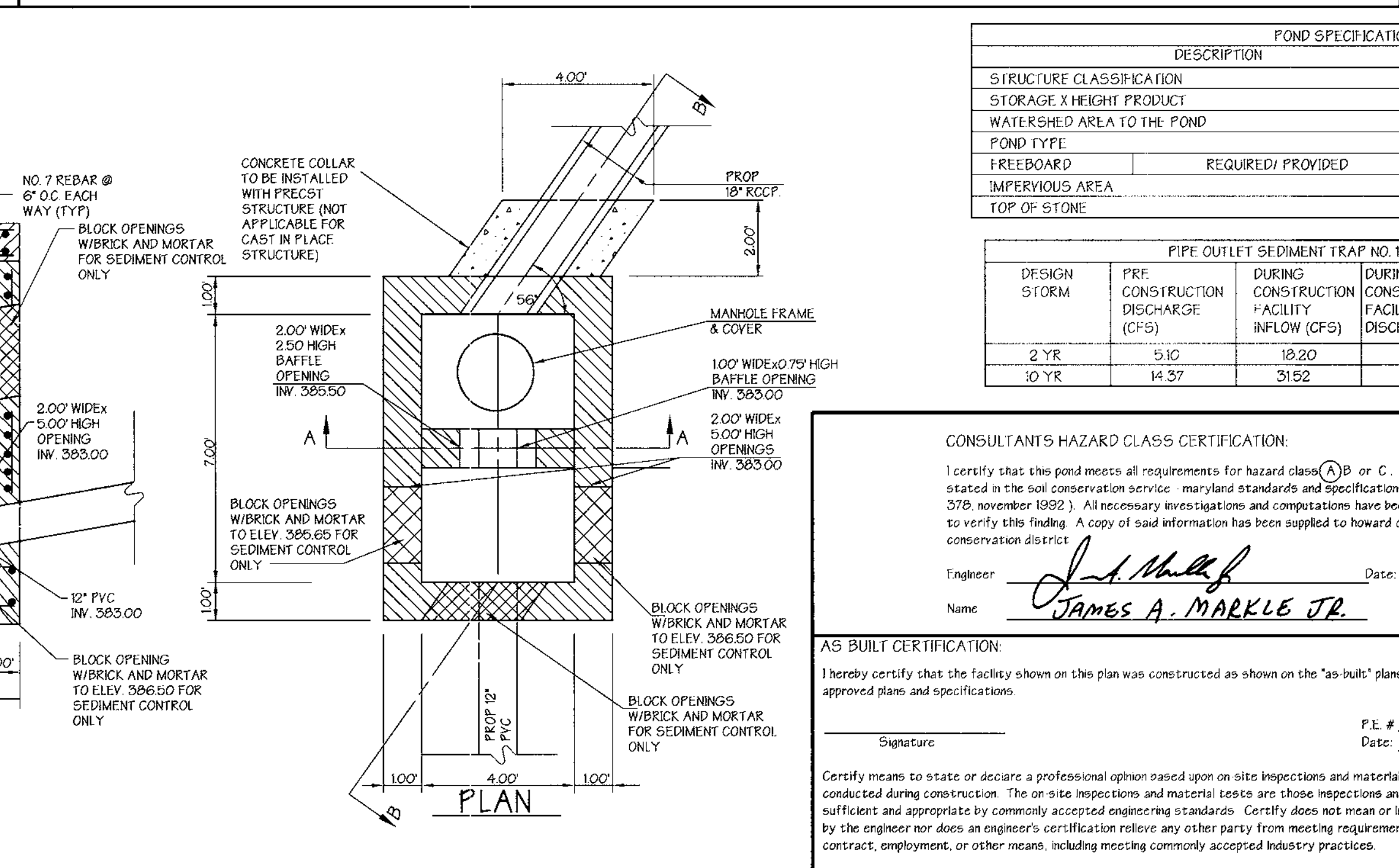
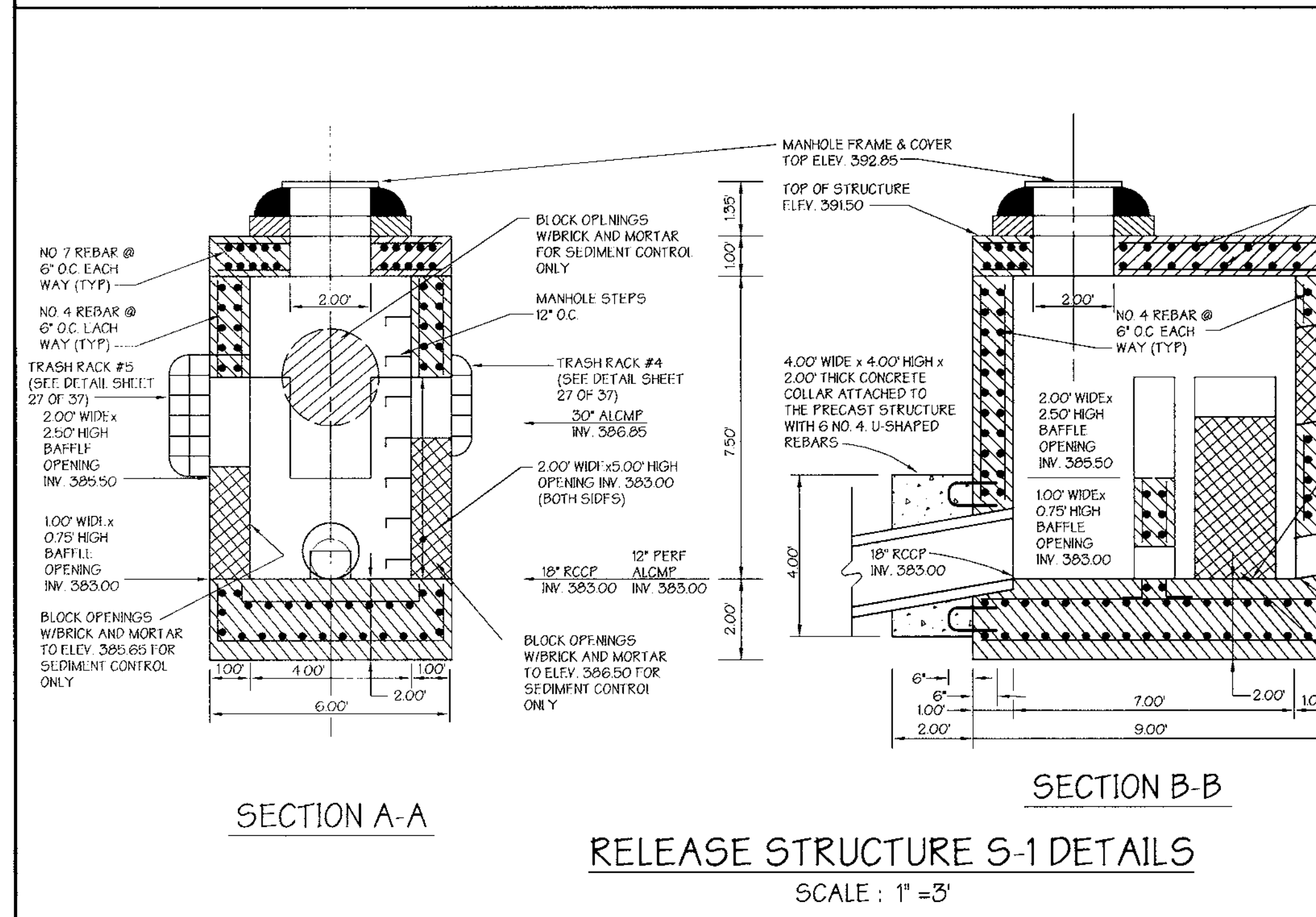
NOTE:
THE CONSTRUCTION MAY REQUIRE A PERMIT FROM THE ARMY CORPS OF ENGINEERS, THE WATER RESOURCES ADMINISTRATION AND/OR HOWARD COUNTY. IT IS THE RESPONSIBILITY OF THE LANDOWNER TO CONTACT THESE THREE AGENCIES TO DETERMINE IF THE PROJECT REQUIRES A PERMIT.
U.S. ARMY CORPS OF ENGINEERS (410) 962 3620
WRA NON-TIDAL WETLANDS AND WATERWAYS DIVISION (410) 874 3841
HOWARD COUNTY (410) 887 5980

NOTE:
IF REQUIRED BY THE SEDIMENT CONTROL INSPECTOR FENCING SHALL BE INSTALLED TO PREVENT ACCESS TO THE BASIN BY CHILDREN.

NOTE:
THIS STORMWATER MANAGEMENT FACILITY IS DESIGNED TO MEET OR EXCEED ALL APPLICABLE REQUIREMENTS OF THE HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS AND THE SOIL CONSERVATION DISTRICT. MAINTENANCE OF THIS FACILITY WILL BE THE RESPONSIBILITY OF THE OWNER. (THE SWM FACILITY IS PRIVATE).

RELEASE STRUCTURE NOTES

- STRUCTURE TO BE CAST-IN-PLACE REINFORCED CONCRETE WITH 3500 P.S.I. (MIN) COMPRESSIVE STRENGTH @ 28 DAYS. DESIGN OF PRECAST CONC. STRUCTURE SHALL BE PROVIDED BY MANUFACTURER.
- ALL REINFORCING TO BE CONTINUOUS THROUGHOUT STRUCTURE.
- ALL REINFORCING TO HAVE 2' MIN OVERLAPS.
- TWO (2) INCH COVER MINIMUM FOR ALL REBARS IN WALLS AND THREE (3) INCHES FOR THE BASE.
- PROVIDE ADDITIONAL #4 REBARS ALONG THE PERIMETER OF ALL OPENINGS WITH THE AREA OF STEEL EQUAL TO OR GREATER THAN THE AREA OF STEEL "REMOVED" DUE TO OPENING.
- SHOP DRAWINGS FOR PRECAST CONCRETE RISERS WITH SUPPORTING STRUCTURAL COMPUTATIONS (SIGNED AND SEALED BY A MD REGISTERED ENGINEER) MEETING ASTM REQUIREMENTS FOR PRECAST STRUCTURES MUST BE SUBMITTED TO THE ENGINEER AND THE APPROVING AGENCY FOR APPROVAL PRIOR TO FABRICATION. IF ANY STRUCTURE DIMENSIONS VARY FROM WHAT WAS ORIGINALLY REVIEWED/ APPROVED, THEN THE HYDRAULICS, FLotation AND STRUCTURAL INTEGRITY OF THE STRUCTURE WILL HAVE TO BE REANALYZED.
- ALL EXPOSED CORNERS OF CONCRETE SHALL BE CHAMFERED WITH 3/4" X 3/4" MILLED CHAMFER STRIPS.



These plans for small pond construction, soil erosion and sediment control meet the requirements of Howard Soil Conservation District.

John W. Stephens, Jr. 8/14/99
HOWARD SOIL CONSERVATION DISTRICT DATE

These plans have been Reviewed for the Howard Soil Conservation District and meet the technical requirements for small pond construction, soil erosion and sediment control.

Cheryl Simmons, Esq. 12/14/99
USDA-NATURAL RESOURCES CONSERVATION SERVICE DATE

APPROVED: Howard County Department of Planning and Zoning

John D. ... 12/21/99
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

Ket ... 12/29/99
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

James A. Markle Jr. 12/29/99
DIRECTOR DATE

ADDRESS CHART

PARCEL NO.	STREET ADDRESS
Building No. 1	6070 University Boulevard
Building No. 2	6011 University Boulevard
Building No. 3	6021 University Boulevard
Building No. 4	6020 University Boulevard
Building No. 5	6040 University Boulevard
Building No. 6	6031 University Boulevard
Building No. 7	6041 University Boulevard
Building No. 8	6051 University Boulevard

SUBDIVISION NAME The Horse Farm
SECTION NAME N/A
PARCEL # 552

PLAT # N/A
BLOCK # 23 B
ZONE ROK
10X MAP 37
ELECT. DIST. 1
CENSUS TRACT 6011.02

WATER CODE E-07
SEWER CODE 2780000

PREPARED BY:
GEORGE W. STEPHENS, JR. AND ASSOCIATES, INC.
Civil Engineers and Land Surveyors
658 Kenilworth Drive, Suite 100
Towson, Maryland 21204
(410) 825-8120

DEVELOPER CERTIFICATION:
I certify that all development and/or construction will be done according to these plans, and that any responsible personnel involved in the construction project will have a certificate of Attendance at a Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I shall engage a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion. I also authorize periodic on-site inspections by the Howard Soil Conservation District.
Signature of Developer: *Christopher W. Kurz* Date: 8/30/99
Print Name: **CHRISTOPHER W. KURZ**

ENGINEER CERTIFICATION:
I certify that this plan for pond construction, erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions. This plan was prepared in accordance with the requirements of the Howard Soil Conservation District. I have notified the developer that he/she must engage a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion.
Signature of Engineer: *James A. Markle Jr.* Date: 8/30/99
Print Name: **JAMES A. MARKLE JR.** PE # 11005

OWNER - DEVELOPER
HORSE FARM - LINDEN L.L.C.
906 POPLAR HILL ROAD SUITE 200
BALTIMORE, MARYLAND, 21210
410 - 532 6250

DESIGNED BY: P.R.C.
DRAWN BY: E.M.T., K.E.
CHECKED BY: P.R.C.
REVISIONS

PIPE OUTLET SEDIMENT TRAP NO.1, EROSION AND SEDIMENT CONTROL PLAN & PROFILES
THE HORSE FARM

ELECTION DISTRICT: 1
HOWARD CO., MARYLAND
SCALE: As Shown
DATE: Nov. 25, 1998

SDP 99-65
NAME: 8594UndergroundIngral301
PR: 8594

POND CONSTRUCTION SPECIFICATIONS

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

SITE PREPARATION

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

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

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

EARTH FILL

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

PLACEMENT: Areas on which fill is to be placed shall be scarified prior to placement of fill. Fill materials shall be placed in a maximum 6" thick (before compaction) layers which are to be continuous over the entire length of the fill. The most permeable borrow material shall be placed in the downstream portions of the embankment. The principal spillway must be installed concurrently with fill placement and not excavated into the embankment.

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

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

STRUCTURE BACKFILL

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

PIPE CONDUITS: All pipes shall be circular in cross section.

REINFORCED CONCRETE PIPE: All pipe to be circular in cross section.

All the following criteria shall apply for reinforced concrete pipe:

- Materials - Reinforced concrete pipe shall have bell and spigot joints with rubber gaskets and shall equal or exceed ASTM Designation C-391.
- Bedding - All reinforced concrete pipe conduits shall be laid in a concrete bedding for their entire length. This bedding shall consist of high slump concrete placed under the pipe and up the sides of the pipe at least 10% of its outside diameter with a minimum thickness of 3 inches, or as shown on the drawings.
- Laying Pipe - Bell and spigot pipe shall be placed with the bell end upstream. Joints shall be made in accordance with recommendations of the manufacturer of the material. After the joints are sealed for the entire line, the bedding shall be placed so that all spaces under the pipe are filled. Care shall be exercised to prevent any deviation from the original line and grade of the pipe. The first joint must be located within 2 feet from the riser.
- Backfilling shall conform to "Structure Backfill".
- Other details (anti-seep collars, valves, etc.) shall be as shown on the drawings.

PERFORATED PIPE

Bituminous coated corrugated metal pipe (BCCMP) shall conform to the requirements of AASHTO M193 pipe shall be specified to be fully bituminous coated in accordance with AASHTO M193. Perforated pipe is TYPE III. Pipes shall have CLASS 2 perforations 3/8" in diameter.

CONCRETE

Concrete shall meet the requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, Section 919 (Portland Cement Concrete Mixture), Mix No. 3.

REINFORCING STEEL IN CONCRETE STRUCTURES

Reinforcing steel shall be ASTM A 615, Grade 60. Steel angles and anchor bars shall be ASTM 1136.

ROCK RIP RAP

Rock riprap shall meet the requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, Section 905.

The riprap shall be placed to the required thickness in one operation. The rock shall be delivered and placed in a manner that will insure the riprap in place shall be reasonably homogeneous with the larger rocks uniformly distributed and firmly in contact one to another, with the smaller rocks filling the voids between the larger rocks. Filter cloth shall be placed under all riprap and shall meet the requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, Section 919.12.

CARE OF WATER DURING CONSTRUCTION

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

STABILIZATION

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

Stormwater management facility will be stabilized with permanent slope seeding as follows:

- Seeding Preparation - loosen upper 3 inches of soil by raking, disking or other appropriate means before seeding.
- Soil Amendments - apply 2 tons per acre Dolomitic Limestone (90 lbs./1000 sq. ft.), 600 lbs. per acre 10-10-10 fertilizer (14 lbs./1000 sq. ft.), and 400 lbs. per acre of 30-0-0 Ureaform Fertilizer (92 lbs./1000 sq. ft.). Harrow or disc lime and fertilizer into upper 3 inches of soil. At time of seeding, apply 400 lbs. (92 lbs./1000 sq. ft.) of 30-0-0 Ureaform Fertilizer and 500 lbs. per acre (115 lbs./1000 sq. ft.) of 10-0-0 fertilizer.
- Seeding - for the period March 1 through April 30 seed with 40 lbs. per acre Kentucky 31 Tall Fescue, and 15 lbs. per acre inoculated Crown Vetch. For the period May 1 through July 31 seed with 60 lbs. per acre Kentucky 31 Tall Fescue and 2 lbs. per acre inoculated Weeping Lovegrass. For the period August 1 through October 15 seed with 40 lbs. per acre Kentucky 31 Tall Fescue, and 20 lbs. per acre inoculated Interstate Sericea Lespedeza. For the period October 16 through February 28 protect the site by Option (I); 2 tons per acre of well anchored straw. For the period May 1 through February 28 inoculated Crown Vetch shall be applied during the subsequent period of March 1 through April 30 at the rate of 15 lbs. per acre.
- Mulching - apply 15 to 2 tons per acre of un-rotted small grain straw immediately after seeding. Anchor mulch immediately after application using 210 gallons per acre of emulsified asphalt. On flat areas of slope 8 feet or higher, use 340 gallons per acre of anchoring.
- Maintenance - inspect all seeded areas and make needed repairs, replacements and re-seeding.

EROSION AND SEDIMENT CONTROL

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

PERMANENT SLOPE SEEDING

After spreading 4" topsoil, seed with a mixture of 30% inoculated Crown Vetch and 70% Kentucky 31 Tall Fescue applied at a rate of 60 lbs./acre; 10-20-20 fertilizer shall be applied at a rate of 25 lbs./1000 sq. ft., lime at a rate of 92 lbs./1000 sq. ft. mulch area with unweathered small grain straw at a rate of 15 tons/acre, anchor with a rapid curing asphalt (RC-70, R-250 or RC-800) at a rate of 0.1 gal./sq. ft.

FILTER CLOTH

Filter cloth shall meet or exceed the requirements in Section 2025-5 of the Baltimore County Standard Specifications and Details for Construction. Durable filter fabrics for drainage purposes are not limited to Miraf 1406, DuPont TYPAC No. 3341 or 3401.

Filter cloth shall be protected from punching or tearing. Any damage other than an occasional small hole shall be repaired by placing another small piece of filter cloth over the damaged area or by replacing the cloth section. All overlaps shall be a minimum of one foot.

GABIONS

Gabions shall meet the requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, Section 312 and must be CI IV, PVC coated.

OUTFALL PROTECTION

Subgrade for riprap or gabion outfalls shall be prepared to the required line and grades. Any fill required in the subgrade shall be compacted to a density of approximately that of the surrounding undisturbed material. All rock or gravel shall conform to the specified grading limits when installed in the riprap or gabion. All stones shall be delivered and placed in a manner that will insure the stones in place shall be reasonably homogeneous with the larger rocks uniformly distributed and firmly in contact one to another, with the smaller rocks filling the voids between the larger rocks. Stones for outfalls may be placed by equipment. Riprap or gabion outlets shall be constructed to full course thickness in one operation and in such a manner as to avoid any displacement of underlying materials. The contractor shall avoid damage to the filter blanket or cloth during placement of riprap. Hand placement shall be required as needed to prevent damage to the permanent works. Filter cloth shall be placed under all riprap and gabions.

FENCE

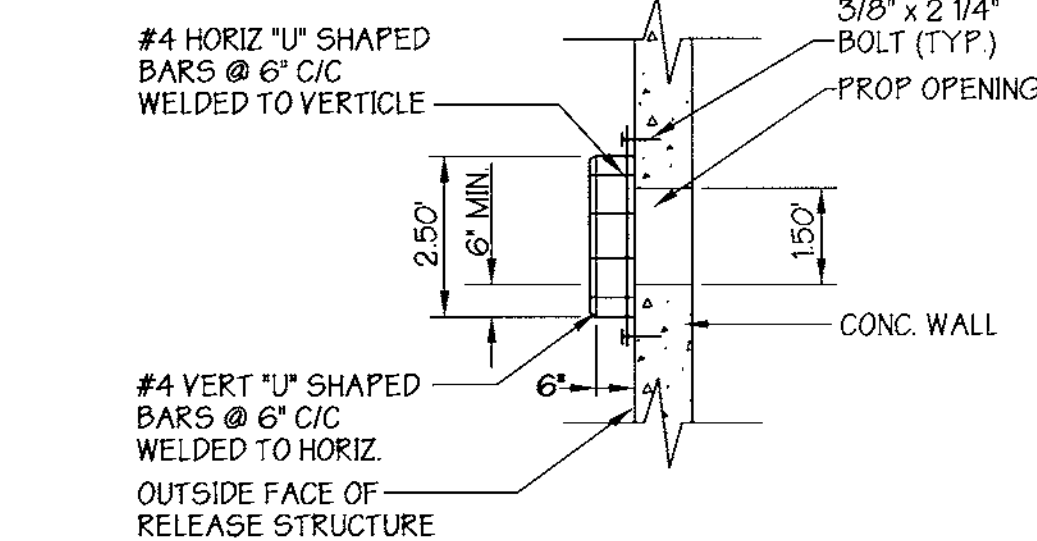
Construct fencing in accordance with the State Highway Administration standard details 680.01 and 690.02. Use specifications for a 6" fence, substituting 42" fabric and 6" 0" line posts. Construct the gate in accordance with the S.H.A. standard detail 680.01 with 42" fabric. The fabric used for the fence and gate must conform to AASHTO designation M-18174. Dark vinyl coating is required for the fence posts and wire fabric in accordance with the landscape manual adopted by resolution 56-80, October 1, 1990. *3 Split rail (wood) fence is optional.

CUT-OFF TRENCH: THE CUT-OFF TRENCH SHALL BE EXCAVATED INTO IMPERVIOUS MATERIAL ALONG OR PARALLEL TO THE CENTERLINE OF THE EMBANKMENT AS SHOWN ON THE PLANS. THE BOTTOM WIDTH OF THE TRENCH SHALL BE GOVERNED BY THE EQUIPMENT USED FOR EXCAVATION, WITH THE MINIMUM WIDTH BEING FOUR FEET. THE DEPTH SHALL BE AT LEAST FOUR FEET BELOW EXISTING GRADE OR AS SHOWN ON THE PLANS. THE SIDE SLOPES OF THE TRENCH SHALL BE 1:1 OR FLATTER. THE BACKFILL SHALL BE COMPACTED WITH CONSTRUCTION EQUIPMENT, ROLLERS, OR HAND TAMPERS TO ASSURE MAXIMUM DENSITY AND MINIMUM PERMEABILITY.

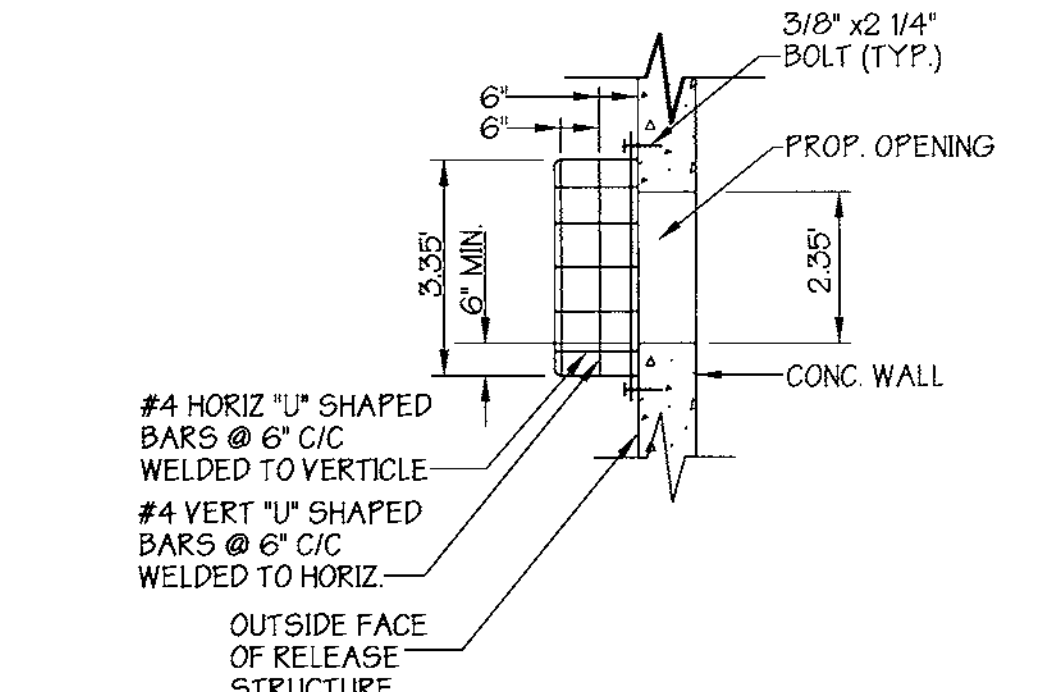
IMPERVIOUS CORE: THE CORE SHALL BE FILLED ALONG OR PARALLEL TO THE CENTERLINE OF THE EMBANKMENT AS SHOWN ON THE PLANS. THE TOP WIDTH OF THE FILL SHALL BE GOVERNED BY THE EQUIPMENT USED, WITH MINIMUM WIDTH BEING FOUR FEET. THE TOP WIDTH SHALL BE SHOWN ON THE PLAN. THE SIDE SLOPES OF THE FILL SHALL BE 1:1 OR FLATTER. THE BACKFILL SHALL BE COMPACTED WITH CONSTRUCTION EQUIPMENT, ROLLERS OR HAND TAMPERS TO ASSURE MAX. PERMEABILITY.

OPERATION AND MAINTENANCE SCHEDULE FOR STORMWATER MANAGEMENT UNDERGROUND FACILITY.

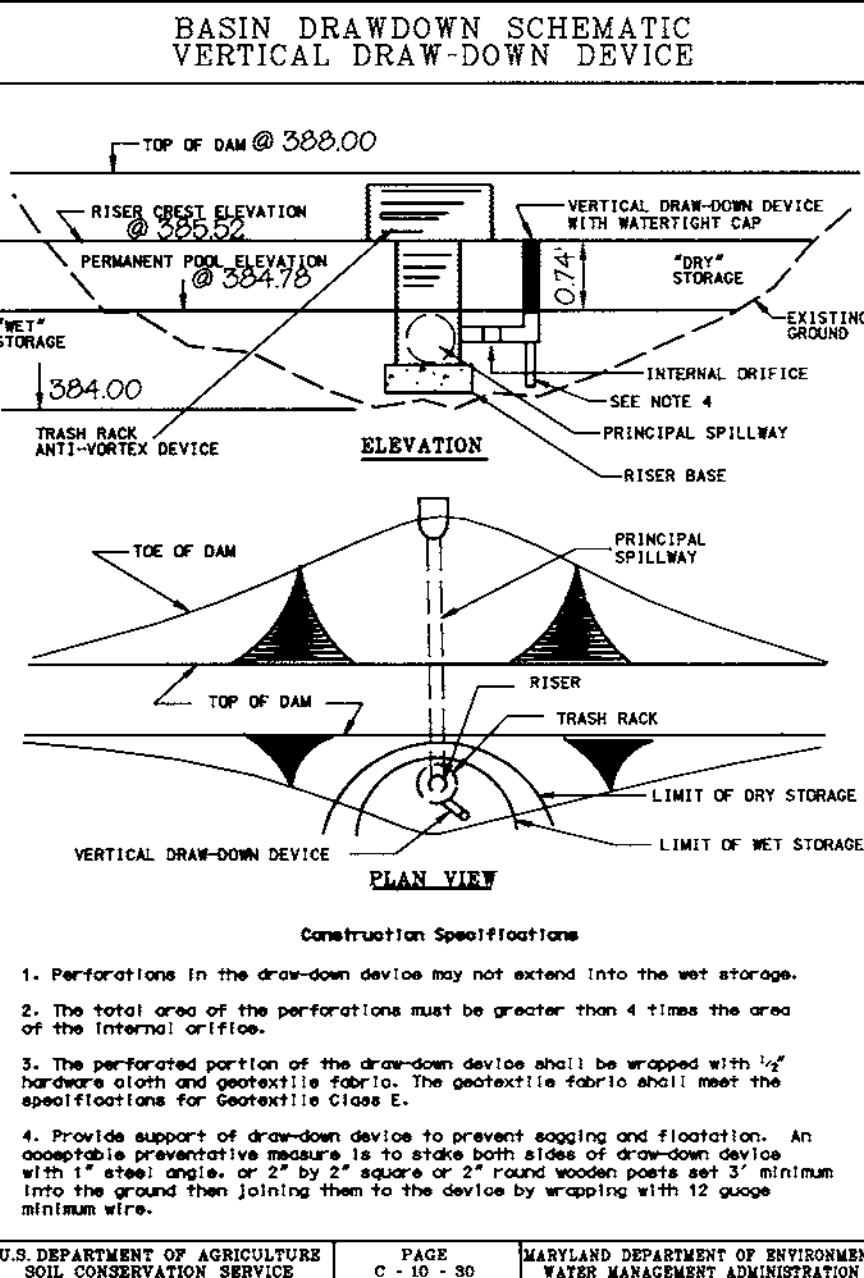
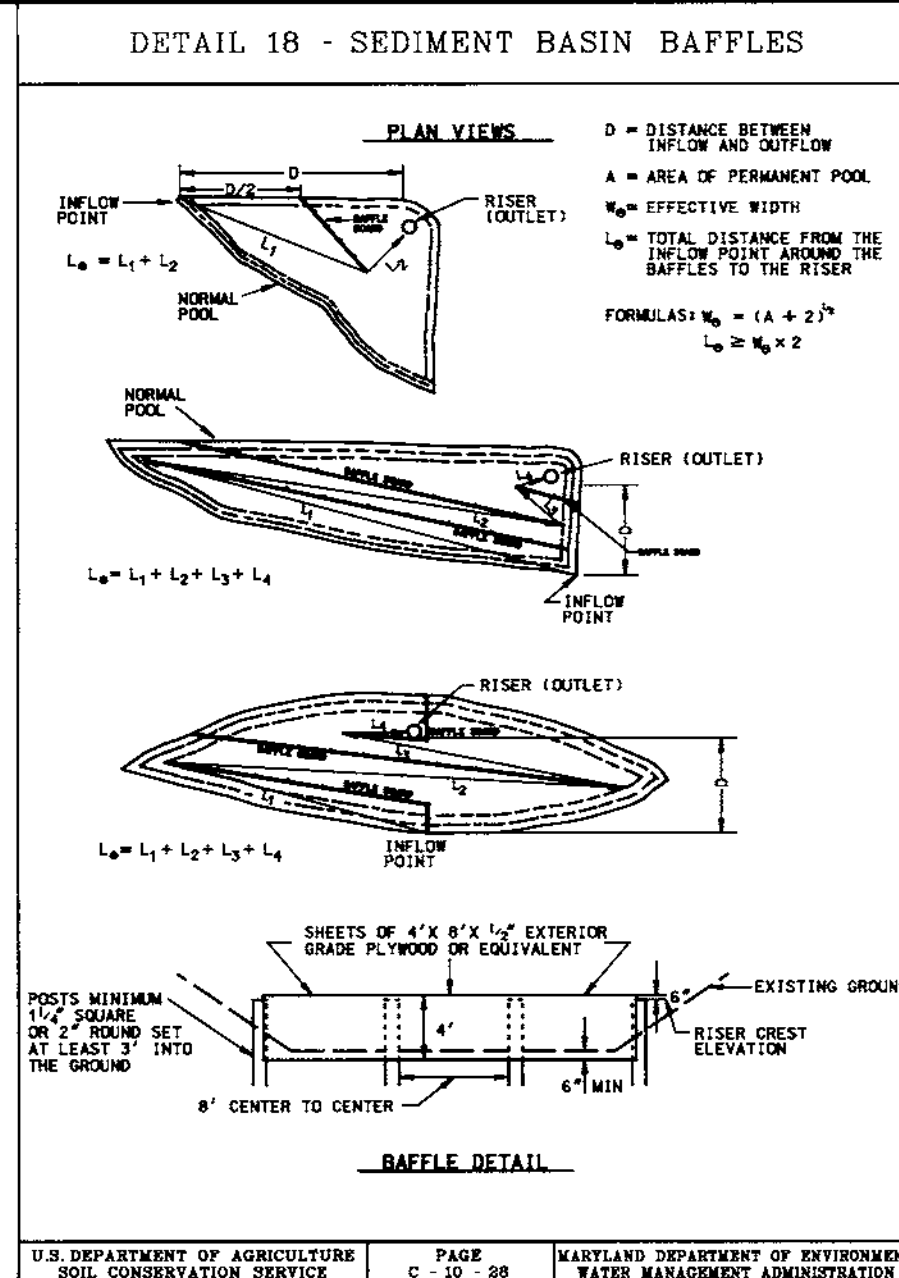
- REMOVAL OF ACCUMULATED PAPER, TRASH, AND DEBRIS AS NECESSARY.
- ANNUAL INSPECTION AND REPAIR OF THE STRUCTURE.



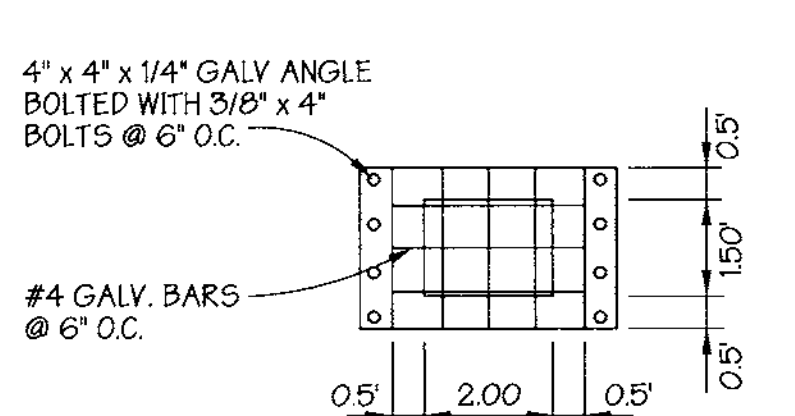
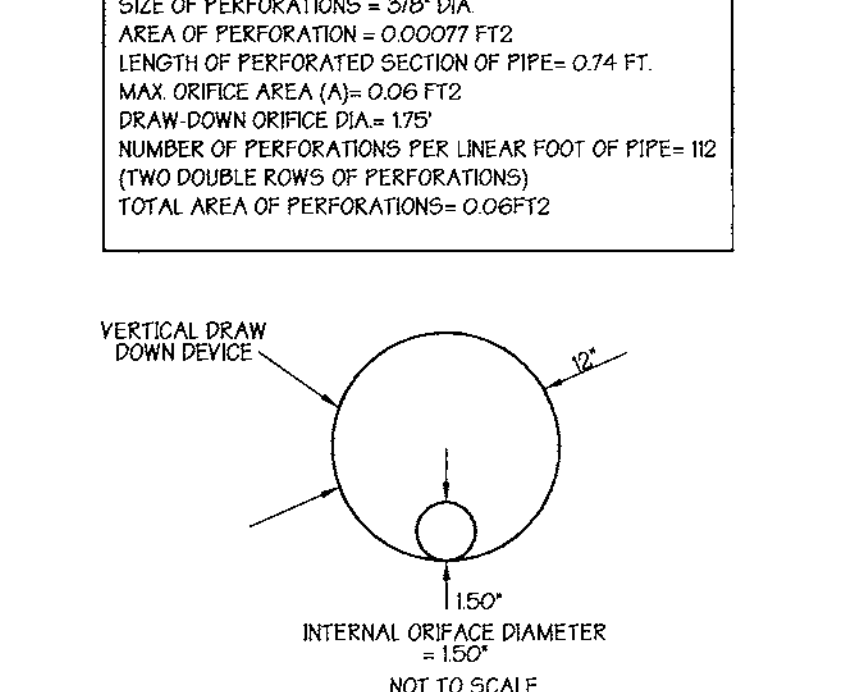
NOTE: TRASH RACK SHALL BE HOT DIPPED GALVANIZED AFTER FABRICATION REMOVABLE AND PAINTED W/ 2 COATS OF BATTLESHIP GRAY PAINT



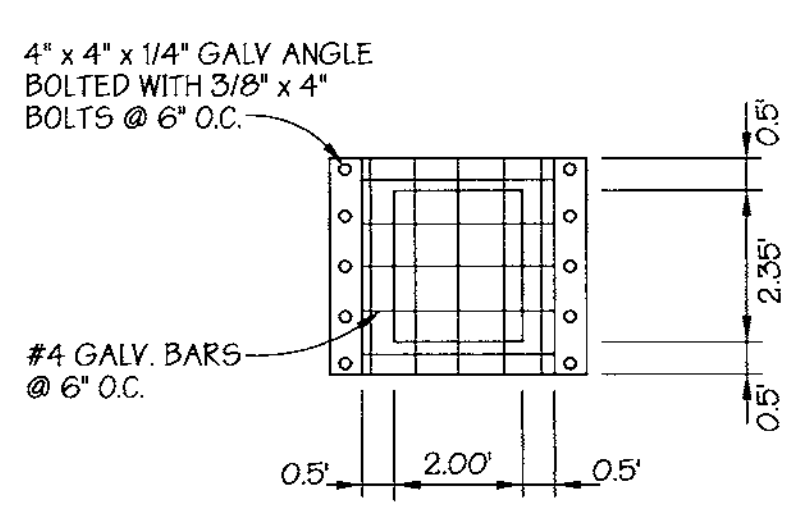
NOTE: TRASH RACK SHALL BE HOT DIPPED GALVANIZED AFTER FABRICATION REMOVABLE AND PAINTED W/ 2 COATS OF BATTLESHIP GRAY PAINT



(*) PERFORATED PIPE (AASHTO M-36) STANDARD PATTERN FOR PERFORATION HAS A MIN OF THIRTY (30) 3/8" DIA ROUND HOLES PER SQ. FT. OF PIPE SURFACE.



TRASH RACK DETAIL #4 TYPICAL TRASH RACK DETAIL N.T.S.



TRASH RACK DETAIL #5 TYPICAL TRASH RACK DETAIL N.T.S.

These plans for small pond construction, soil erosion and sediment control meet the requirements of Howard Soil Conservation District.

Howard Soil Conservation District
 12/14/99
 DATE

These plans have been reviewed for the Howard Soil Conservation District and meet the technical requirements for small pond construction, soil erosion and sediment control.

USDA-NATURAL RESOURCES CONSERVATION SERVICE
 12/14/99
 DATE

APPROVED: Howard County Department of Planning and Zoning

CHIEF, DEVELOPMENT ENGINEERING DIVISION
 12/21/99
 DATE
 CHIEF, DIVISION OF LAND DEVELOPMENT
 12/21/99
 DATE
 DIRECTOR
 12/21/99
 DATE

PARCEL NO.	STREET ADDRESS
Building No. 1	6010 University Boulevard
Building No. 2	6011 University Boulevard
Building No. 3	6021 University Boulevard
Building No. 4	6020 University Boulevard
Building No. 5	6040 University Boulevard
Building No. 6	6031 University Boulevard
Building No. 7	6041 University Boulevard
Building No. 8	6051 University Boulevard

SUBDIVISION NAME	SECTION NAME	PARCEL #
The Horse Farm	N/A	552

PLAT	BLOCK	ZONE	ZONING MAP	ELECT. DIST.	CENSUS TRACT
N/A	2-B	POB	Z-37	1	6011.02

WATER CODE	SEWER CODE
E-07	2780000

PREPARED BY:
GEORGE W. STEPHENS, JR. AND ASSOCIATES, INC.
 Civil Engineers and Land Surveyors
 658 Kenilworth Drive, Suite 100
 Towson, Maryland 21204
 (410) 825-8120

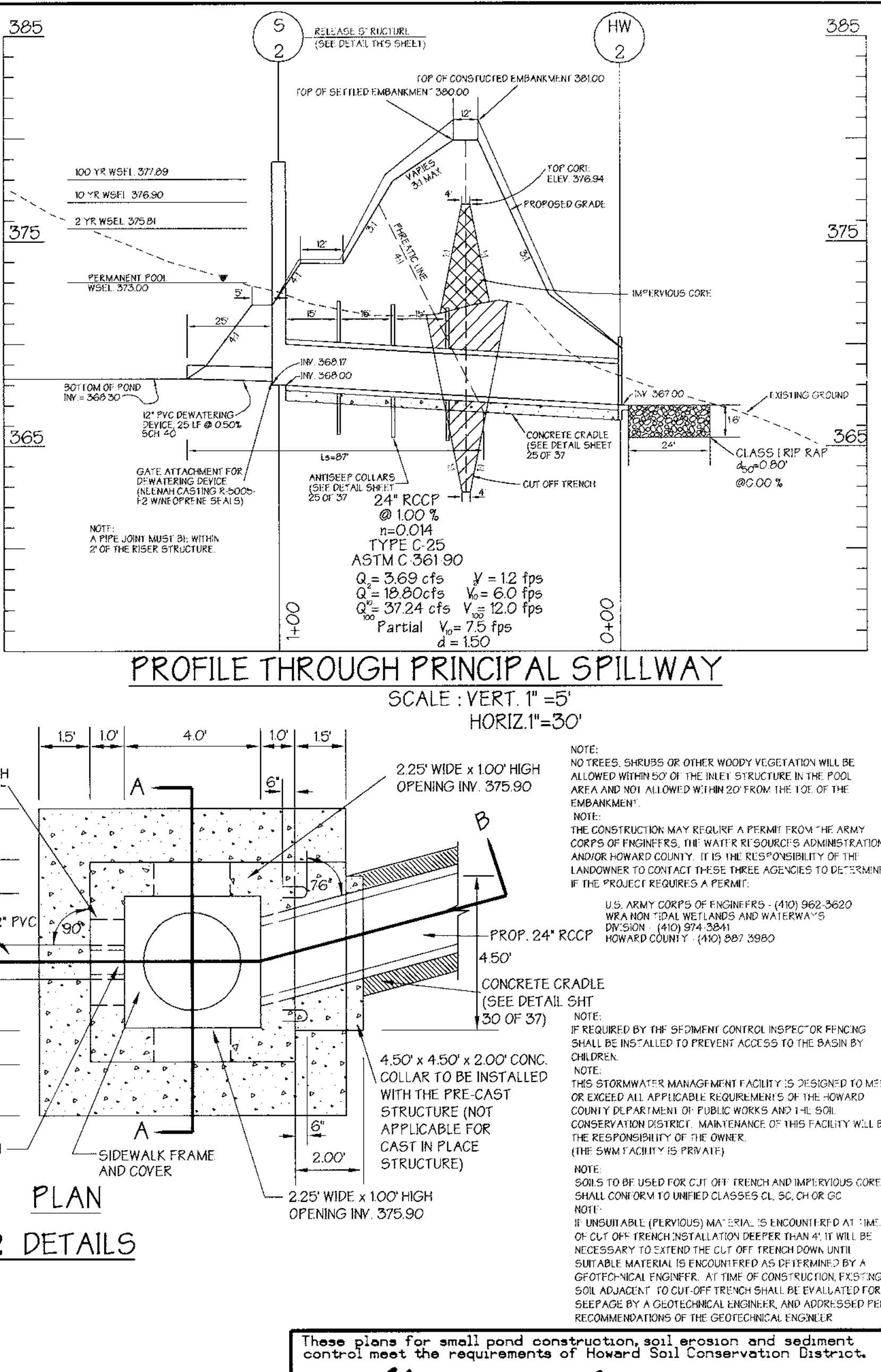
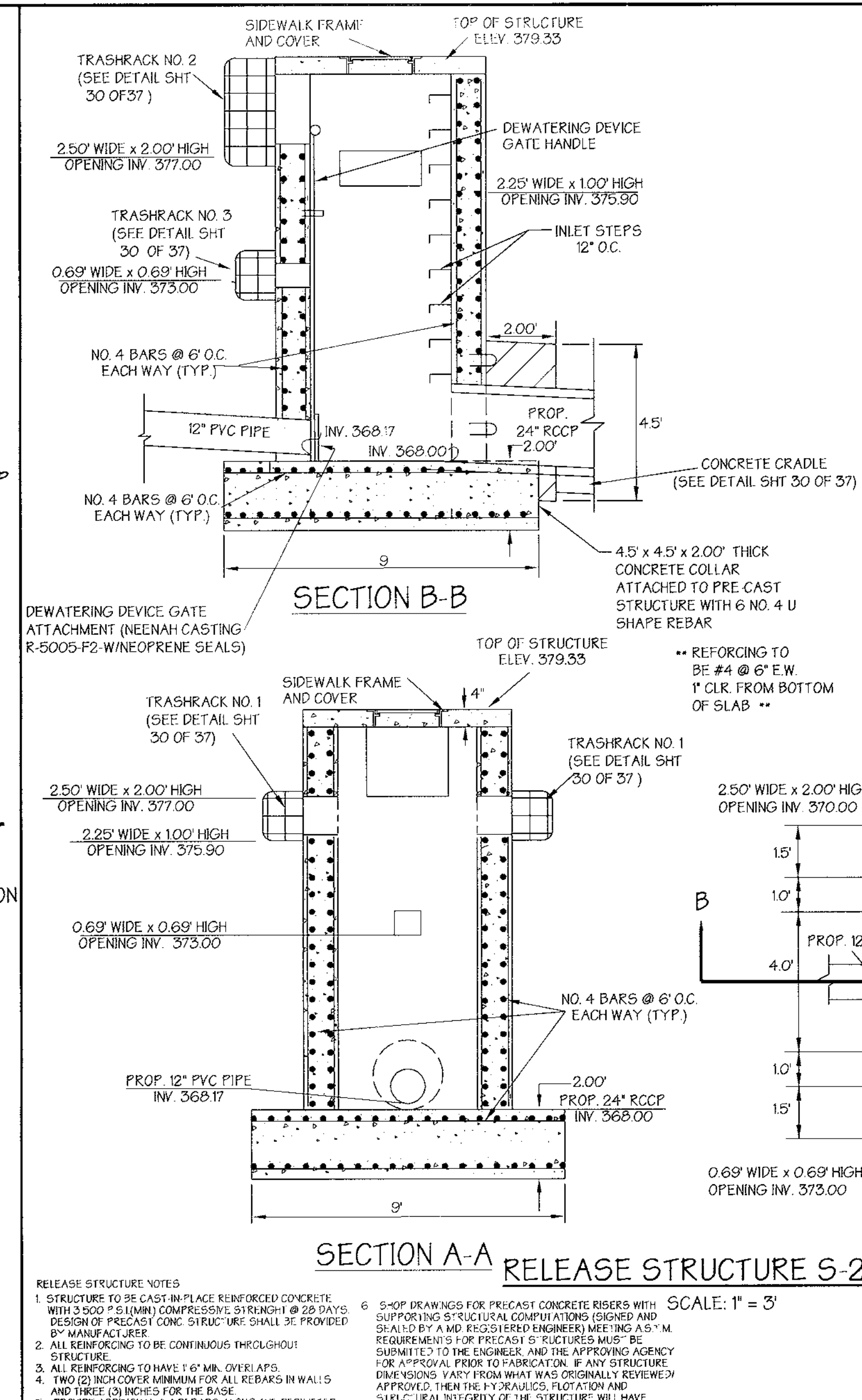
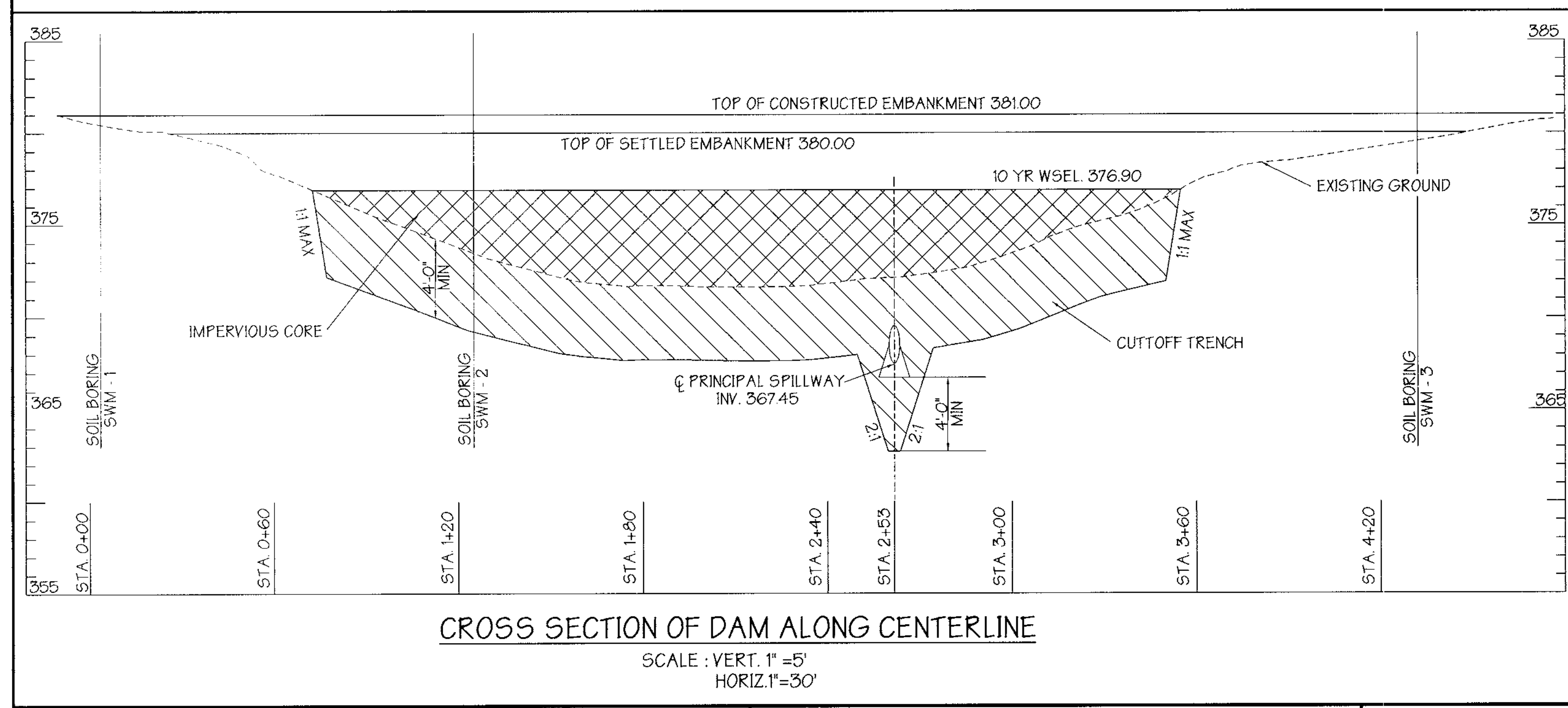
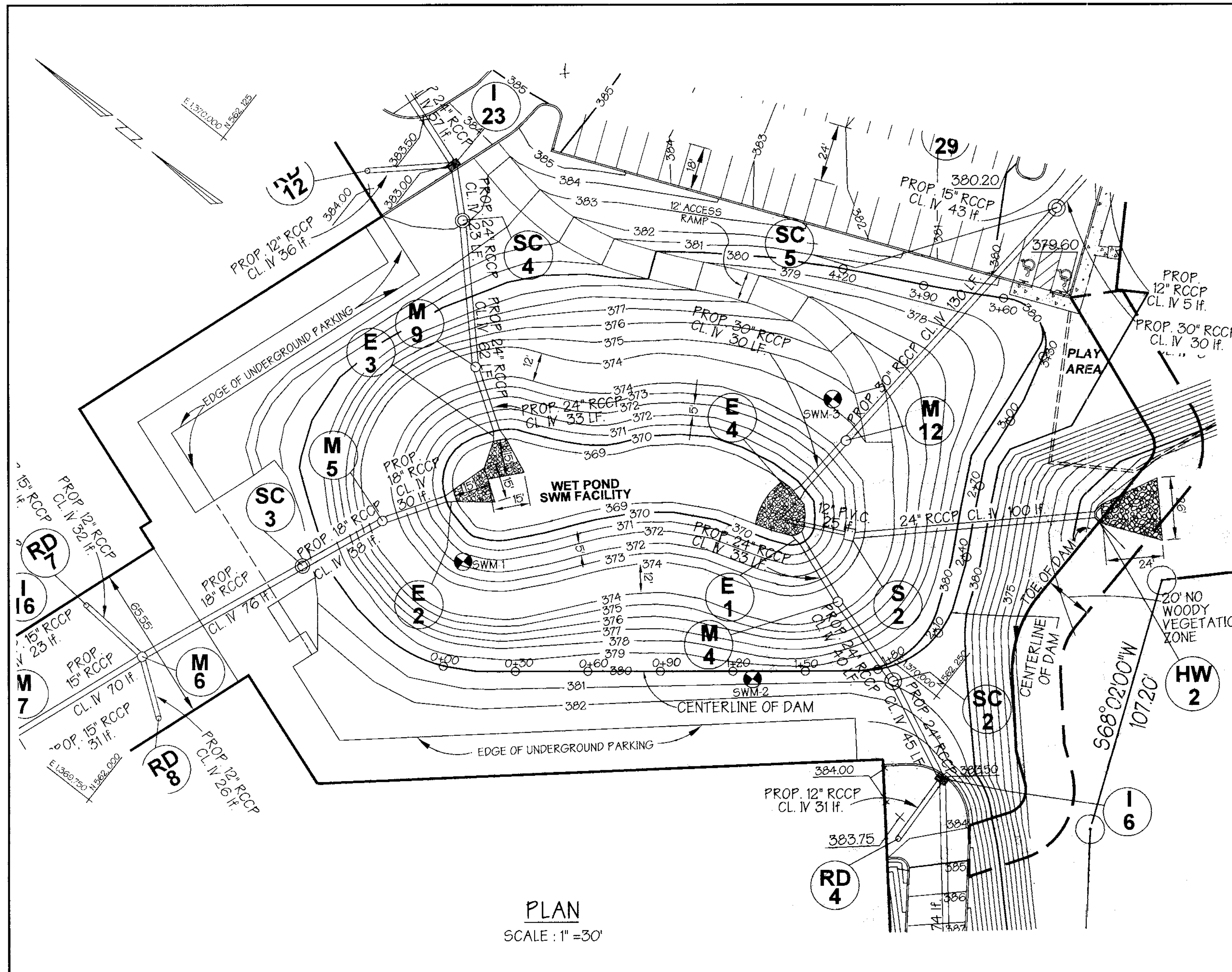
DEVELOPER CERTIFICATION:
 I certify that all development and/or construction will be done according to these plans, and that any responsible personnel involved in the construction project will have a certificate of Attendance at a Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I shall engage a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion. I also authorize periodic on-site inspections by the Howard Soil Conservation District.
 Signature of Developer: *Christopher W. Kube*
 Print Name: CHRISTOPHER W. KUBE
 Date: 8/30/99

ENGINEER CERTIFICATION:
 I certify that this plan for pond construction, erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions. This plan was prepared in accordance with the requirements of the Howard Soil Conservation District. I have notified the developer that he/she must engage a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion.
 Signature of Engineer: *James A. Markle Jr.*
 Print Name: JAMES A. MARKLE JR.
 Date: 8/30/99
 PE # 11005

OWNER - DEVELOPER
HORSE FARM - LINDEN L.L.C.
 906 POPLAR HILL ROAD SUITE 200
 BALTIMORE, MARYLAND, 21210
 410-532-6250

DESIGNED BY: P.R.C.
 DRAWN BY: E.M.T., K.E.
 CHECKED BY: P.R.C.
 REVISIONS

PIPE OUTLET SEDIMENT TRAP NO. 1, EROSION AND SEDIMENT CONTROL NOTES & DETAILS
THE HORSE FARM
 ELECTION DISTRICT: 1
 HOWARD CO., MARYLAND
 SHEET: 27 OF 37
 SCALE: As Shown
 DATE: Nov. 25, 1998
 SDP 99-65
 NAME: B694undergroundsdnot1d101 P/N: B694



RELEASE STRUCTURE NOTES

- STRUCTURE TO BE CAST IN PLACE REINFORCED CONCRETE WITH 3000 PSI MINIMUM COMPRESSIVE STRENGTH @ 28 DAYS. DESIGN OF PRECAST CONC. STRUCTURE SHALL BE PROVIDED BY MANUFACTURER.
- ALL REINFORCING TO BE CONTINUOUS THROUGHOUT STRUCTURE.
- ALL REINFORCING TO HAVE 1/2" MIN. COVERS AND THREE (3) INCHES FOR THE BASE.
- TWO (2) INCH COVER MINIMUM FOR ALL REBARS IN WALLS AND THREE (3) INCHES FOR THE BASE.
- PROVIDE ADDITIONAL 4# REBARS ALONG THE PERIMETER OF ALL OPENINGS WITH THE AREA OF STEEL EQUAL TO OR GREATER THAN THE AREA OF STEEL REMOVED DUE TO OPENING.
- 5'-0" DRAWINGS FOR PRECAST CONCRETE RISERS WITH SUPPORTING STRUCTURAL COMPUTATIONS DESIGNED AND SEALED BY A MD REGISTERED ENGINEER MEETING ALL REQUIREMENTS FOR PRECAST STRUCTURES MUST BE SUBMITTED TO THE ENGINEER AND THE APPROVING AGENCY FOR APPROVAL PRIOR TO FABRICATION. IF ANY STRUCTURE DIMENSIONS VARY FROM WHAT WAS ORIGINALLY REVIEWED APPROVED, THEN THE HYDROLOGIST, HYDROLOGIC AND STRUCTURAL INTEGRITY OF THE STRUCTURE WILL HAVE TO BE RE-EVALUATED.
- ALL EXPOSED CORNERS OF CONCRETE SHALL BE CHAMFERED WITH 3/4" x 3/4" MILD CHAMFER STRIPS.

POND SUMMARY							
DESIGN STORM	FACILITY INFLOW (CFS)	FACILITY DISCHARGE (CFS)	ALLOWABLE FACILITY DISCHARGE (CFS)	BYPASS DISCHARGE (CFS)	TOTAL DISCHARGE (CFS)	TOTAL ALLOWABLE DISCHARGE (CFS)	STORAGE VOLUME PROVIDE (AC. FT.)
2 YR	4112	3.69	7.83	6.58	8.73	9.86	1308
10 YR	6850	18.80	23.54	13.13	25.94	29.67	2,029
100 YR	9839	37.24	44.21	20.54	51.85	55.71	2,770

POND SPECIFICATIONS FOR STORMWATER MANAGEMENT		DATA
STRUCTURE CLASSIFICATION		A (PRIVATE)
STORAGE X HEIGHT PRODUCT		(2.82 AC. FT.) (5.0 FT.) = 14.1 AC. FT. 2
WATERSHED AREA TO THE POND		12.09 AC.
POND TYPE		DETENTION
FREEBOARD	REQUIRED/PROVIDED	2.0/2.10'
IMPERVIOUS AREA		8.64 AC.
TOP OF EMBANKMENT		380.0

CONSULTANTS HAZARD CLASS CERTIFICATION:

I certify that this pond meets all requirements for hazard class (B) or (C), (requirements as stated in the soil conservation service, maryland standards and specifications for pond, code 378, november 1992). All necessary investigations and computations have been performed to verify this finding. A copy of said information has been supplied to howard county soil conservation districts.

Engineer: *J.A. Markle Jr.* Date: 8/30/99
Name: JAMES A. MARKLE JR.

AS-BUILT CERTIFICATION:

I hereby certify that the facility shown on this plan was constructed as shown on the "as-built" plans and meet the approved plans and specifications.

Signature: _____ Date: _____

CERTIFICATION MEANS TO STATE OR DECLARE A PROFESSIONAL OPINION BASED UPON SITE INSPECTIONS AND MATERIAL TESTS WHICH ARE CONDUCTED DURING CONSTRUCTION. THE ON-SITE INSPECTIONS AND MATERIAL TESTS ARE THOSE INSPECTIONS AND TESTS DEEMED SUFFICIENT AND APPROPRIATE BY COMMONLY ACCEPTED ENGINEERING STANDARDS. CERTIFY DOES NOT IMPLY A GUARANTEE BY THE ENGINEER NOR DOES AN ENGINEER'S CERTIFICATION RELIEVE ANY OTHER PARTY FROM MEETING REQUIREMENTS IMPOSED BY CONTRACT, EMPLOYMENT, OR OTHER MEANS, INCLUDING MEETING COMMONLY ACCEPTED INDUSTRY PRACTICES.

These plans for small pond construction, soil erosion and sediment control meet the requirements of Howard Soil Conservation District.

John L. Anthony 12/14/99
HOWARD SOIL CONSERVATION DISTRICT DATE

These plans have been reviewed for the Howard Soil Conservation District and meet the technical requirements for small pond construction, soil erosion and sediment control.

Cheryl Sumner 12/14/99
USDA-NATURAL RESOURCES CONSERVATION SERVICE DATE

APPROVED: Howard County Department of Planning and Zoning

Michael J. ... 12/21/99
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

Keith ... 12/20/99
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

James ... 12/22/99
DIRECTOR DATE

PARCEL NO.	STREET ADDRESS
Building No. 1	6010 University Boulevard
Building No. 2	6011 University Boulevard
Building No. 3	6021 University Boulevard
Building No. 4	6020 University Boulevard
Building No. 5	6040 University Boulevard
Building No. 6	6031 University Boulevard
Building No. 7	6041 University Boulevard
Building No. 8	6051 University Boulevard

SUBDIVISION NAME	SECTION NAME	PARCEL #
The Horse Farm	N/A	572

PLAT	BLOCK	ZONE	MAP	ELECT. DIST.	CENSUS TRACT
N/A	218	FOR	37	1	6011.02

WATER CODE E-07 SEWER CODE 27800000

PREPARED BY:

GEORGE W. STEPHENS, JR. AND ASSOCIATES, INC.
Civil Engineers and Land Surveyors
658 Kenilworth Drive, Suite 100
Towson, Maryland 21204
(410) 825-8120

DEVELOPER CERTIFICATION:

I certify that all development and/or construction will be done according to these plans, and that any responsible personnel involved in the construction project will have a certificate of attendance of a department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I shall engage a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion. I shall authorize periodic on-site inspections by the Howard Soil Conservation District.

Signature of Developer: *Christopher W. Kurz* Date: 8/30/99
Print Name: CHRISTOPHER W. KURZ

ENGINEER CERTIFICATION:

I certify that this plan for pond construction, erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions. This plan was prepared in accordance with the requirements of the Howard Soil Conservation District. I have notified the developer that he/she must engage a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion.

Signature of Engineer: *J.A. Markle Jr.* Date: 8/30/99
Print Name: JAMES A. MARKLE JR. PE # 11005

OWNER - DEVELOPER
HORSE FARM - LINDEN L.L.C.
906 POPLAR HILL ROAD SUITE 200
BALTIMORE, MARYLAND, 21210
410-532-8250

DESIGNED BY: P.R.C.
DRAWN BY: E.M.T. K.E.
CHECKED BY: P.R.C.
REVISIONS

STORM WATER MANAGEMENT PLAN AND PROFILES THE HORSE FARM

ELECTION DISTRICT: 1
HOWARD CO., MARYLAND SHT. 29 OF 37 DATE: As Shown Nov. 25, 1998

SDP 99-65 NAME: B694swrplanprof.s01 P/N: 8594

POND CONSTRUCTION SPECIFICATIONS

These specifications are appropriate to all ponds within the scope of the Standard Practice MD-519. All references to ASTM and AASHTO specifications apply to the most recent version.

SITE PREPARATION

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

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

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

EARTH FILL

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

PLACEMENT: Areas on which fill is to be placed shall be scarified prior to placement of fill. Fill materials shall be placed in a maximum 6" thick (before compaction) layers which are to be continuous over the entire length of the fill. The most permeable borrow material shall be placed in the downstream portions of the embankment. The principal spillway must be installed concurrently with fill placement and not excavated into the embankment.

COMPACTION: The movement of the hauling and spreading equipment over the fill shall be controlled so that the entire surface of each lift shall be traversed by no less than one tread track of the equipment or compaction shall be achieved by a minimum of four complete passes of a sheepsfoot, rubber tired or vibratory roller. Fill material shall contain sufficient moisture such that the required degree of compaction will be obtained with the equipment used. The fill material shall contain sufficient moisture so that if formed into a ball it will not crumble yet not be so wet that the water can be squeezed out.

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

STRUCTURE BACKFILL

Backfill adjacent to pipes or structures shall be of the type and quality conforming to that specified for the adjoining fill material. The fill shall be placed in horizontal layers not to exceed four inches in thickness and compacted by hand tampers or other manually directed compaction equipment. The material needs to be compacted in four complete passes of a sheepsfoot, rubber tired or vibratory roller. Fill material shall contain sufficient moisture such that the required degree of compaction will be obtained with the equipment used. The fill material shall contain sufficient moisture so that if formed into a ball it will not crumble yet not be so wet that the water can be squeezed out.

PIPE CONDUITS All pipes shall be circular in cross section.

REINFORCED CONCRETE PIPE: All pipe to be circular in cross section.

All the following criteria shall apply for reinforced concrete pipe:

1. **Materials:** Reinforced concrete pipe shall have bell and spigot joints with rubber gaskets and shall equal or exceed ASTM Designation C 361.
2. **Bedding:** All reinforced concrete pipe conduits shall be laid on a concrete bedding for their entire length. This bedding shall consist of high strength concrete placed under the pipe and up the sides of the pipe at least 10% of its outside diameter with a minimum thickness of 3 inches, or as shown on the drawings.
3. **Laying Pipe:** Bell and spigot pipe shall be placed with the bell end upstream. Joints shall be made in accordance with recommendations of the manufacturer of the material. After the joints are sealed for the entire line, the bedding shall be placed so that all spaces under the pipe are filled. Care shall be exercised to prevent any deviation from the original line and grade of the pipe. The first joint must be located within 2 feet from the riser.
4. **Backfilling:** shall conform to "Structure Backfill".
5. Other details (anti seep collars, valves, etc) shall be as shown on the drawings.

PERFORATED PIPE

Pitmanco coated corrugated metal pipe (CCMP) shall conform to the requirements of AASHTO M306 (pipe should be specified to be fully pitmanco coated in accordance with AASHTO M190). Perforated pipe is TYPE III. Pipe shall have CLASS 2 perforations 3/8" in diameter.

CONCRETE

Concrete shall meet the requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, Section 919 (Portland Cement Concrete Mixture), Mix No. 3.

REINFORCING STEEL IN CONCRETE STRUCTURES

Reinforcing steel shall be ASTM A 615, Grade 60. Steel angles and anchor bars shall be ASTM 136.

ROCK RIP RAP

Rock riprap shall meet the requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, Section 905.

The riprap shall be placed to the required thickness in one operation. The rock shall be delivered and placed in a manner that will be compacted to a density that will be reasonably homogeneous with the larger rocks uniformly distributed and firmly in contact one to another with the smaller rocks filling the voids between the larger rocks. Filter cloth shall be placed under all riprap and shall meet the requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, Section 919.12.

CARE OF WATER DURING CONSTRUCTION

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

STABILIZATION

All borrow areas shall be graded to provide proper drainage and left in a slightly condition. All exposed surfaces of the embankment, spillway, spill and borrow areas, and berms shall be stabilized by seeding, liming, fertilizing and mulching in accordance with the Maryland Soil Conservation Service Standards and Specifications for Critical Area Planting (MD-242) or as shown on the accompanying drawings.

Stormwater management facility will be stabilized with permanent slope seeding as follows:

1. **Seedbed Preparation:** loosen upper 3 inches of soil by raking, disking or other acceptable means before seeding.
2. **Soil Amendments:** apply 2 tons per acre Dolomitic Limestone (92 lbs/1000sq. ft.), 600 lbs. per acre 10-10-10 fertilizer (14 lbs/1000 sq. ft.), and 400 lbs. per acre of 30-0-0 Ureaform Fertilizer (92 lbs/1000 sq. ft.). Harrow or disc lime and fertilizer into upper 3 inches of soil. At time of seeding, apply 400 lbs. (92 lbs/1000 sq. ft.) of 30-0-0 Ureaform Fertilizer and 500 lbs. per acre (115 lbs/1000 sq. ft.) of 10-0-0 fertilizer.
3. **Seeding:** for the period March 1 through April 30 seed with 40 lbs. per acre Kentucky 31 Tall Fescue, and 15 lbs. per acre inoculated Crown Vetch. For the period May 1 through July 31 seed with 60 lbs. per acre Kentucky 31 Tall Fescue and 2 lbs. per acre inoculated Weeping Lovegrass. For the period August 1 through October 15 seed with 40 lbs. per acre Kentucky 31 Tall Fescue, and 20 lbs. per acre inoculated Interstate Serika Lespedeza. For the period October 16 through February 28 protect the site by Option (I): 2 tons per acre of well anchored straw. For the period May 1 through February 28 inoculated Crown Vetch shall be applied during the subsequent period of March 1 through April 30 at the rate of 15 lbs. per acre.
4. **Mulching:** apply 15 to 2 tons per acre of a rotted small grain straw immediately after seeding. Anchor mulch immediately after application using 210 gallons per acre of emulsified asphalt. On flat areas of slope 6 feet or higher, use 240 gallons per acre of anchoring.
5. **Maintenance:** inspect all seeded areas and make needed repairs, replacements and re-seeding.

EROSION AND SEDIMENT CONTROL

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

PERMANENT SLOPE SEEDING

After spreading 4" topsoil seed with a mixture of 30% inoculated Crown Vetch and 70% Kentucky 31 Tall Fescue applied at a rate of 60 lbs/acre 10-20-20 fertilizer shall be applied at a rate of 25 lbs/1000 sq. ft.; lime at a rate of 92 lbs/1000 sq. ft.; mulch area with unweathered small grain straw at a rate of 15 tons/acre; anchor with a rigid curbed asphalt (RC-70, RC-250 or RC-800 at a rate of 0.1 gal/sy).

FILTER CLOTH

Filter cloth shall meet or exceed the requirements in Section 2025-5 of the Baltimore County Standard Specifications and Details for Construction. Durable filter fabrics for drainage purposes are not limited to Miraf 1405, DuPont TYFAC No. 3341 or 3401.

Filter cloth shall be protected from puncturing or tearing. Any damage other than an occasional small hole shall be repaired by placing another small piece of filter cloth over the damaged area or by replacing the cloth section. All overlaps shall be a minimum of one foot.

GABIONS

Gabions shall meet the requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, Section 912 and must be Class IV, PVC coated.

OUTFALL PROTECTION

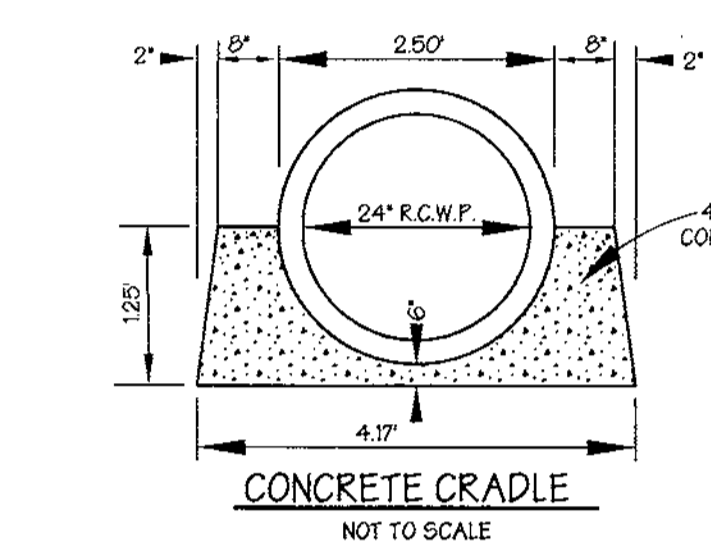
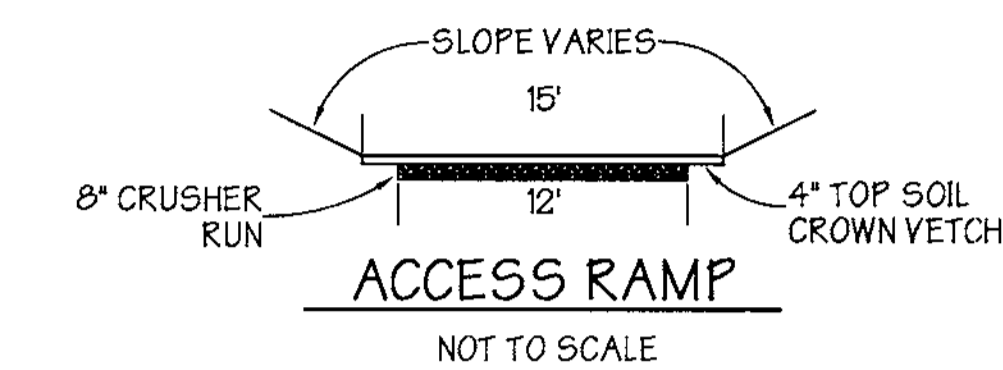
Subgrade for riprap or gabion outfalls shall be prepared to the required line and grades. Any fill required in the subgrade shall be compacted to a density of approximately that of the surrounding undisturbed material. All rock or gravel shall conform to the specified grading limits when installed in the riprap or gabion. All stone shall be delivered and placed in a manner that will insure the stone in place shall be reasonably homogeneous with the larger rocks uniformly distributed and firmly in contact one to another, with the smaller rocks filling the voids between the larger rocks. Stone for outfalls may be placed by equipment. Riprap or gabion outfalls shall be constructed to full course thickness in one operation and in such a manner as to avoid any displacement of underlying materials. The contractor shall avoid damage to the filter blanket or cloth during placement of riprap. Hand placement shall be required as needed to prevent damage to the permanent works. Filter cloth shall be placed under all riprap and gabions.

FENCE

Construct fencing in accordance with the State Highway Administration standard details 690-01 and 690-02. Use specifications for a 6" fence, substituting 42" fabric and 6" x 6" line posts. Construct the gate in accordance with the SHA standard detail 690-01 with 42" fabric. The fabric used for the fence and gate must conform to AASHTO designation M-18174. Dark vinyl coating is required for the fence posts and wire fabric in accordance with the landscape manual adopted by resolution 56-30, October 1, 1990. *3 Splice rail (wood) fence is optional.

CUT-OFF TRENCH: THE CUT-OFF TRENCH SHALL BE EXCAVATED INTO IMPERVIOUS MATERIAL ALONG OR PARALLEL TO THE CENTERLINE OF THE EMBANKMENT AS SHOWN ON THE PLANS. THE BOTTOM WIDTH OF THE TRENCH SHALL BE GOVERNED BY THE EQUIPMENT USED FOR EXCAVATION WITH THE MINIMUM WIDTH BEING FOUR FEET. THE DEPTH SHALL BE AT LEAST FOUR FEET BELOW EXISTING GRADE OR AS SHOWN ON THE PLANS. THE SIDE SLOPES OF THE TRENCH SHALL BE 1:1 OR FLATTER. THE BACKFILL SHALL BE COMPACTED WITH CONSTRUCTION EQUIPMENT, ROLLERS, OR HAND TAMPERS TO ASSURE MAXIMUM DENSITY AND MINIMUM PERMEABILITY.

IMPERVIOUS CORE: THE CORE SHALL BE FILLED ALONG OR PARALLEL TO THE CENTERLINE OF THE EMBANKMENT AS SHOWN ON THE PLANS. THE TOP WIDTH OF THE FILL SHALL BE GOVERNED BY THE EQUIPMENT USED, WITH MINIMUM WIDTH BEING FOUR FEET. THE TOP WIDTH SHALL BE SHOWN ON THE PLAN. THE SIDE SLOPES OF THE FILL SHALL BE 1:1 OR FLATTER. THE BACKFILL SHALL BE COMPACTED WITH CONSTRUCTION EQUIPMENT, ROLLERS OR HAND TAMPERS TO ASSURE MAX. PERMEABILITY.



APPENDIX

CONSTRUCTED FILL

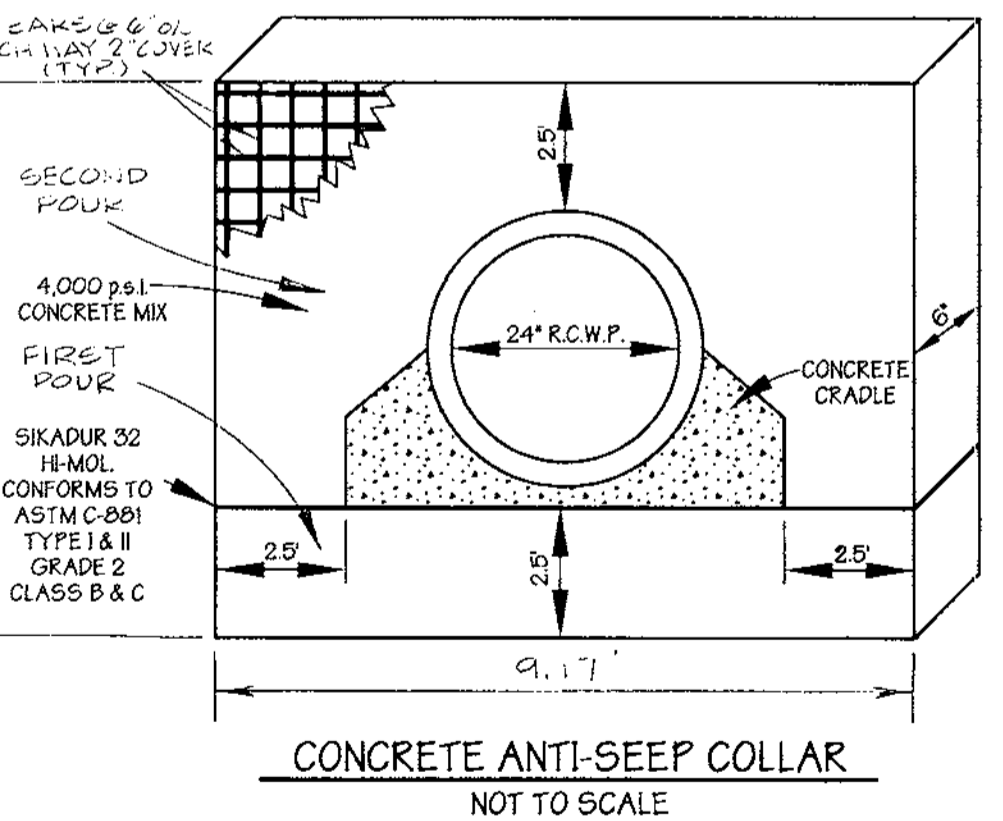
A. Embankment shall be constructed of approved materials from the excavation or from other sources. The material shall be free from approved materials, such as rock, roots, stumps and other deleterious substances.

B. Before depositing fill, the ground surface shall be cleared of all stumps, brush, roots, ice and frozen material. All exposed surface and other deleterious material shall be removed from the surface to be filled. The exposed surface shall be prepared or mulched if required by a depth of 1 inch. Soil to be mulched, or which has been mulched by grading and seeding operations, shall be compacted to uniform and below by discing, liming, rolling and compacting at the moisture content and to the density specified below for compacted embankment.

C. Where fills are made on alluvial or sloping, the slope of the original ground upon which the fill is to be placed shall be removed or mulched deeply, or when the slope ratio of the original ground is steeper than 1 horizontal to 1 vertical, the base shall be stepped or benched, when considered necessary by the Engineer, to prevent slippage of the fill in horizontal layers.

D. Placing, Spreading and Compacting Fill Materials:

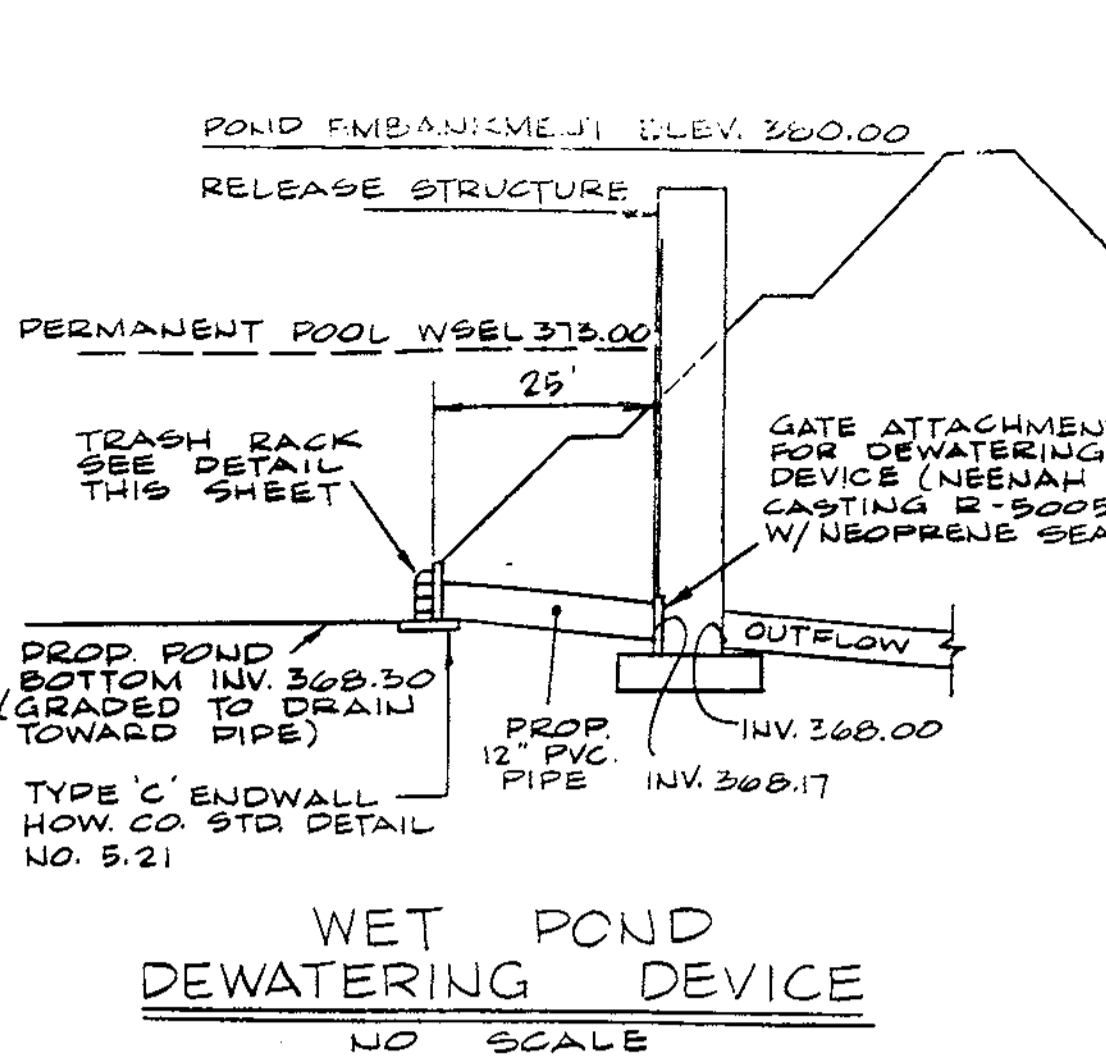
1. The fill materials shall be placed in layers which, before compaction, shall not exceed 3 inches. Each layer shall be spread uniformly and evenly and shall be thoroughly blade mixed during the spreading to insure uniformity of materials in each layer.
2. After each layer has been placed, mixed and spread evenly, it shall be thoroughly compacted to not less than 90% of the maximum dry density as determined by ASTM D 1556.
3. The ultimate compactness of the fill shall be as required in order to attain the degree of compaction specified.
4. Compaction shall be by approved multiple-wheel pneumatic-tired rollers, vibratory rollers or other types of acceptable rollers.
5. The filling operations shall be continued as specified above until the fill has been brought to the subgrade shown on the plans.
6. The fill shall be constructed in such a manner that the surface will be allowed to drain at all times, and all fill shall be deposited to prevent excessive moisture accumulation from rainwater.
7. When the work is interrupted by rain, filling shall not be resumed until tests indicate that the ultimate compactness and density of the top 4 inches of fill conform to the above specifications requirements.



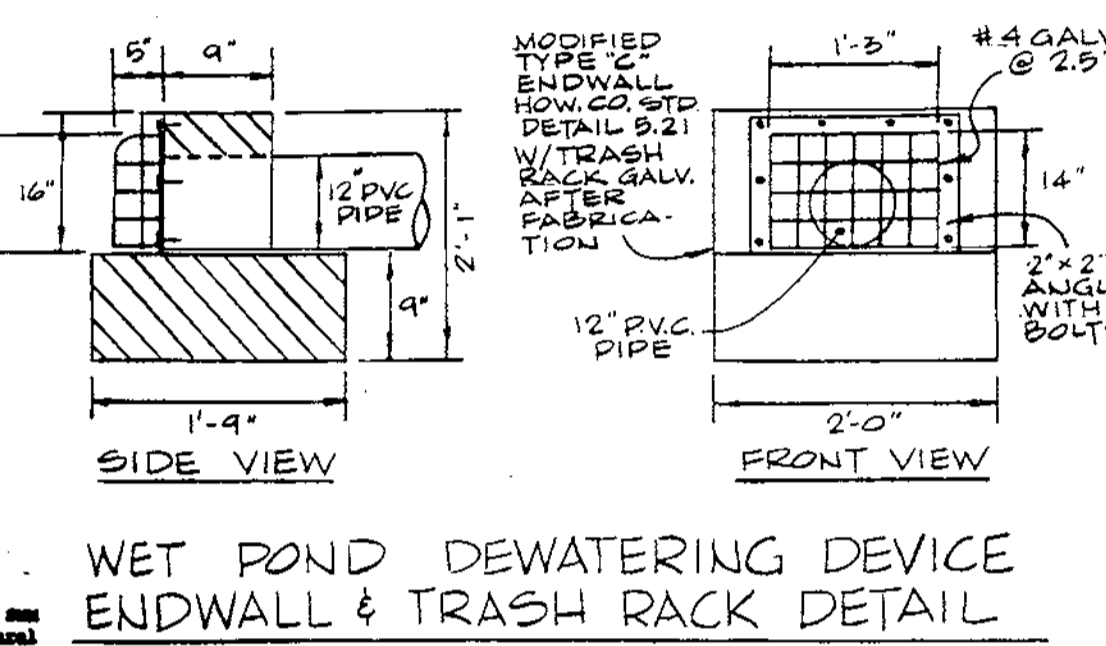
NOTE:
1. LOCATE 2' MIN. FROM ALL PIPE JOINTS.
2. ALL MATERIAL TO BE IN ACCORDANCE WITH CONSTRUCTION AND CONSTRUCTION MATERIALS SPECIFICATIONS.
3. THE SEAL BETWEEN THE PIPE AND COLLAR SHALL BE WATER TIGHT.
4. COLLAR SHALL PROJECT A MIN. OF 2.0\"/>

OPERATION AND MAINTENANCE SCHEDULE FOR STORMWATER MANAGEMENT POND.

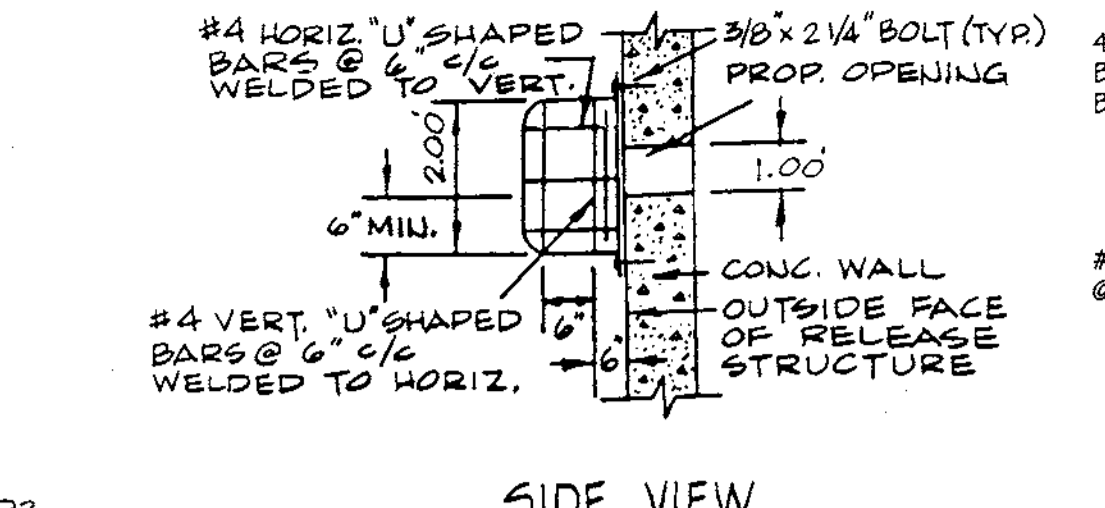
1. REMOVAL OF ACCUMULATED PAPER, TRASH AND DEBRIS AS NECESSARY.
2. VEGETATION GROWING ON THE EMBANKMENT TOP OR FACES IS NOT ALLOWED TO EXCEED 18 INCHES IN HEIGHT AT ANY TIME.
3. ANNUAL INSPECTION AND REPAIR OF THE STRUCTURE.



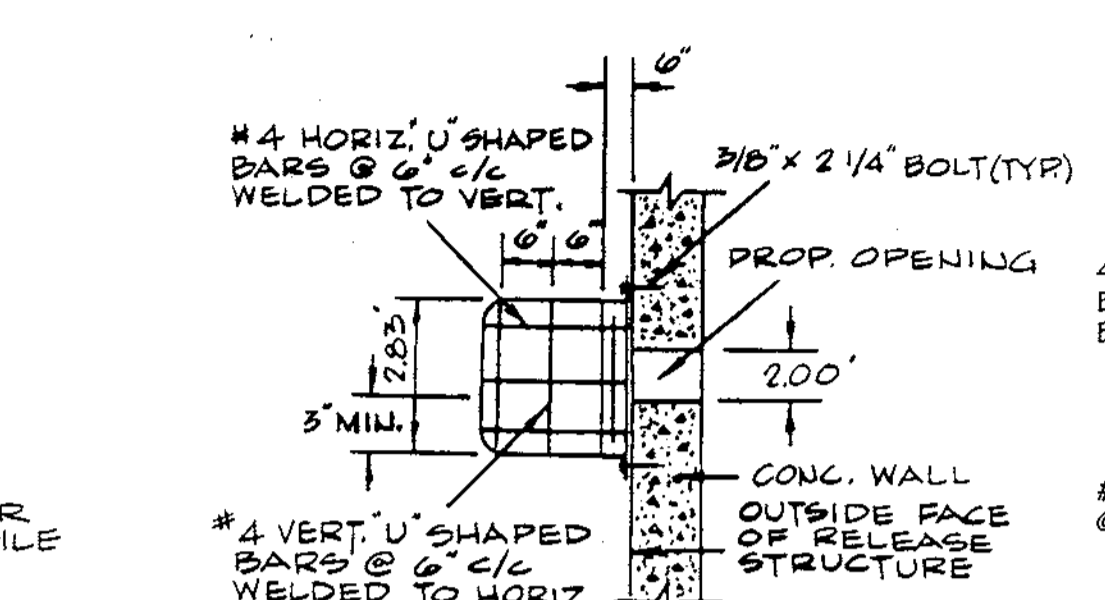
1. SET PIPE AT INVERTS SPECIFIED ON STORMWATER MANAGEMENT PLANS, PRINCIPAL SPILLWAY PROFILE



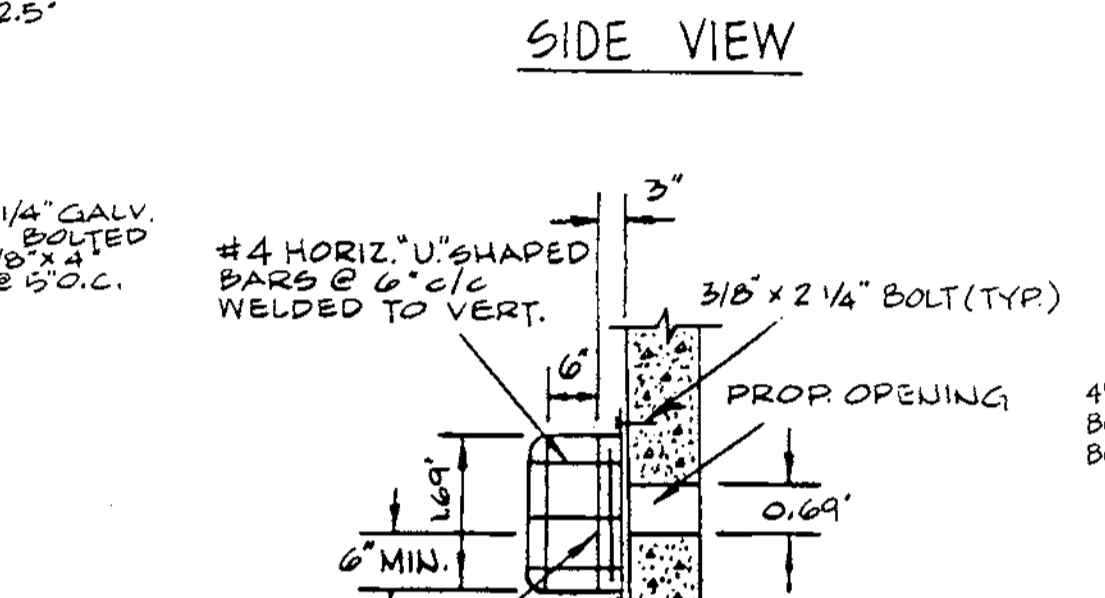
NO SCALE



NOT TO SCALE



NOT TO SCALE



NOT TO SCALE

VI. BACKFILL CONSTRUCTION

All fill placed for the building pads, pavement areas, SWM pond and any other locations requiring stable, permanent support shall be constructed as specified embankment. The fill construction for the building and pavement areas shall be in accordance with APPENDIX III, CONSTRUCTED FILL. For the SWM pond areas, the fill construction shall be in accordance with APPENDIX I, CONSTRUCTED FILL.

VII. SOIL WATER MANAGEMENT

Referring to PART 4, BORING PROFILES, an examination of the logs shows that from about 20'-0" to 25'-0" the upper native subsoils predominantly consist of silty clay loam to silty clay classification Sandy Clay Loam, Clay loam and Clay layers with the lower subsoils being depths of 2 feet at SWS-1 and 15 feet at SWS-1 consisting of loam or sandy loam layers. The Maryland Department of Natural Resources (MDNR) recommends that infiltration facilities be placed only in native subsoils which have minimum infiltration rates of 0.52 inches per hour or greater. Also, the MDNR recommends that infiltration structures be placed only in areas where the bottom of the structures are 2 feet or more above the seasonally high ground water table and/or bedrock (i.e., impervious material).

Given the boring data, it is noted that the native subsoils which are situated at least 2 feet above the ground water level consist of Clay loam or Sandy Clay loam which have MDNR minimum infiltration rates of less than 0.52 inches according to MDNR classification criteria. Thus, storm water disposal by infiltration is not considered feasible within the SWM areas.

Based upon the boring and test information, we consider that the subsoil conditions are basically acceptable to support typical SWM pond construction. Given the indicated water levels, dewatering should be anticipated in any excavations extended below the rounded levels. The following general earthwork preparation is recommended for the pond areas:

1. Within the plan fill embankment area, strip the topsoil and any soft or otherwise unsuitable materials to expose stable, undisturbed native subsoils.
 2. Proof roll the exposed surface to a uniform condition further cutting out any soft or otherwise unsuitable spots.
 3. Construct the cut-off trench, backfill the resulting excavation with acceptable fine-grained materials and construct the principal spillway. The cut-off trench and principal spillway construction for the SWM pond should be completed in accordance with the approved County Specifications for the main type of embankment. In any trench construction, the bottom of the trench should be constructed below the rounded water level. Any ramp pipe or structure required should be constructed within the embankment, beneath the water level, and the concrete of the SWM embankment with the actual location approved by the Geotechnical Engineer prior to construction.
 4. Fill the designated embankment area with controlled fill to achieve plan grade. All fill placement and proof rolling shall be in accordance with the SHA standard CONSTRUCTED FILL. The soil types used in the fill shall be approved for the intended use.
 5. Within the basin area, construct connecting the pond to achieve grade. Dewatering should be anticipated in the basin area to facilitate construction.
- We consider that the subsoil conditions are basically acceptable to support typical principal spillway construction. Pond structures shall be constructed by means of floating type foundations placed on compacted undisturbed native soils at normal plan grade below ground level. Foundation in any adjacent foundations shall be placed at a minimum depth of 30 inches below the adjacent grade.

CONSULTANTS HAZARD CLASS CERTIFICATION:

I certify that this pond meets all requirements for hazard class B or C. (requirements as stated in the soil conservation service - maryland standards and specifications for pond, code 378, november 1992). All necessary investigations and computations have been performed to verify this finding. A copy of said information has been supplied to Howard county soil conservation district.

Engineer: *James A. Markie Jr.* Date: 3/4/99

DEVELOPER CERTIFICATION:

I/We certify that all development and/or construction will be done according to these plans, and that any responsible personnel involved in the construction project will have a Certificate of Attendance at a Dept. of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I shall engage a Professional Engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion. I also authorize periodic on-site inspections by the Howard Soil Conservation District.

Developer: *Christopher W. Kirz* Date: 3-4-99

OWNER / DEVELOPER
HORSE HILL - LINDEN L.L.C.
906 POPLAR HILL ROAD SUITE 200
BALTIMORE, MARYLAND, 21210
410 - 532 6250

DESIGNED BY: P.R.C.
DRAWN BY: E.M.T., K.E.
CHECKED BY: P.R.C.
REVISIONS

These plans for small pond construction, soil erosion and sediment control meet the requirements of Howard Soil Conservation District.

John L. Selig 12/14/98
HOWARD SOIL CONSERVATION DISTRICT DATE

These plans have been reviewed for the Howard Soil Conservation District and meet the technical requirements for small pond construction, soil erosion and sediment control.

Charles Simmons 12/14/98
USDA-NATURAL RESOURCES CONSERVATION SERVICE DATE

APPROVED: Howard County Department of Planning and Zoning

John Dammann 12/21/99
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

Karl Sheldahl 12/24/98
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

Paul Suter 12/22/99
DIRECTOR DATE

ADDRESS CHART	
PARCEL NO.	STREET ADDRESS
Building No. 1	6010 University Boulevard
Building No. 2	6011 University Boulevard
Building No. 3	6021 University Boulevard
Building No. 4	6020 University Boulevard
Building No. 5	6040 University Boulevard
Building No. 6	6031 University Boulevard
Building No. 7	6041 University Boulevard
Building No. 8	6051 University Boulevard

SUBDIVISION NAME	SECTION NAME	PARCEL #
THE HORSE FARM	N/A	552

PLAT	BLOCK	ZONE	MAP	ELECT. DIST.	CENSUS TRACT
N/A	24B	PKR	37		6C11.02

WATER CODE	SEWER CODE
E06	5333000

STORM WATER MANAGEMENT NOTES AND DETAILS THE HORSE FARM

ELECTION DISTRICT : 1
HOWARD CO., MARYLAND
SHT. 30 OF 37
SCALE : As Shown
DATE : Nov. 25, 1998

PREPARED BY:
GEORGE W. STEPHENS, JR. AND ASSOCIATES, INC.
Civil Engineers and Land Surveyors
658 Kenilworth Drive, Suite 100
Towson, Maryland 21204
(410) 825-8120

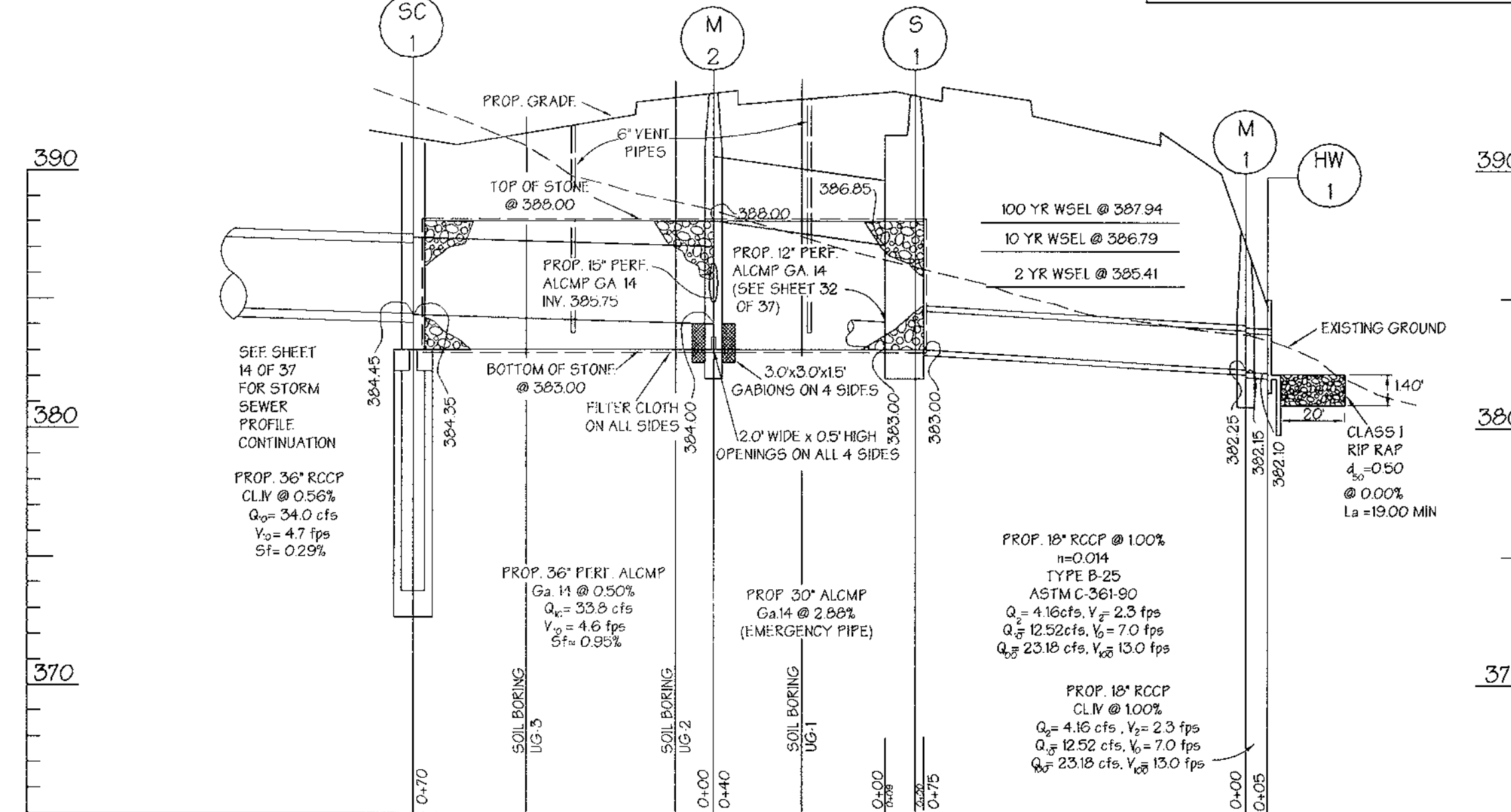


AS-BUILT CERTIFICATION:
I hereby certify that the facility shown on this plan was constructed as shown on the "as-built" plans and meets the approved plans and specifications.
Signature: _____ Date: _____
P.E.# _____

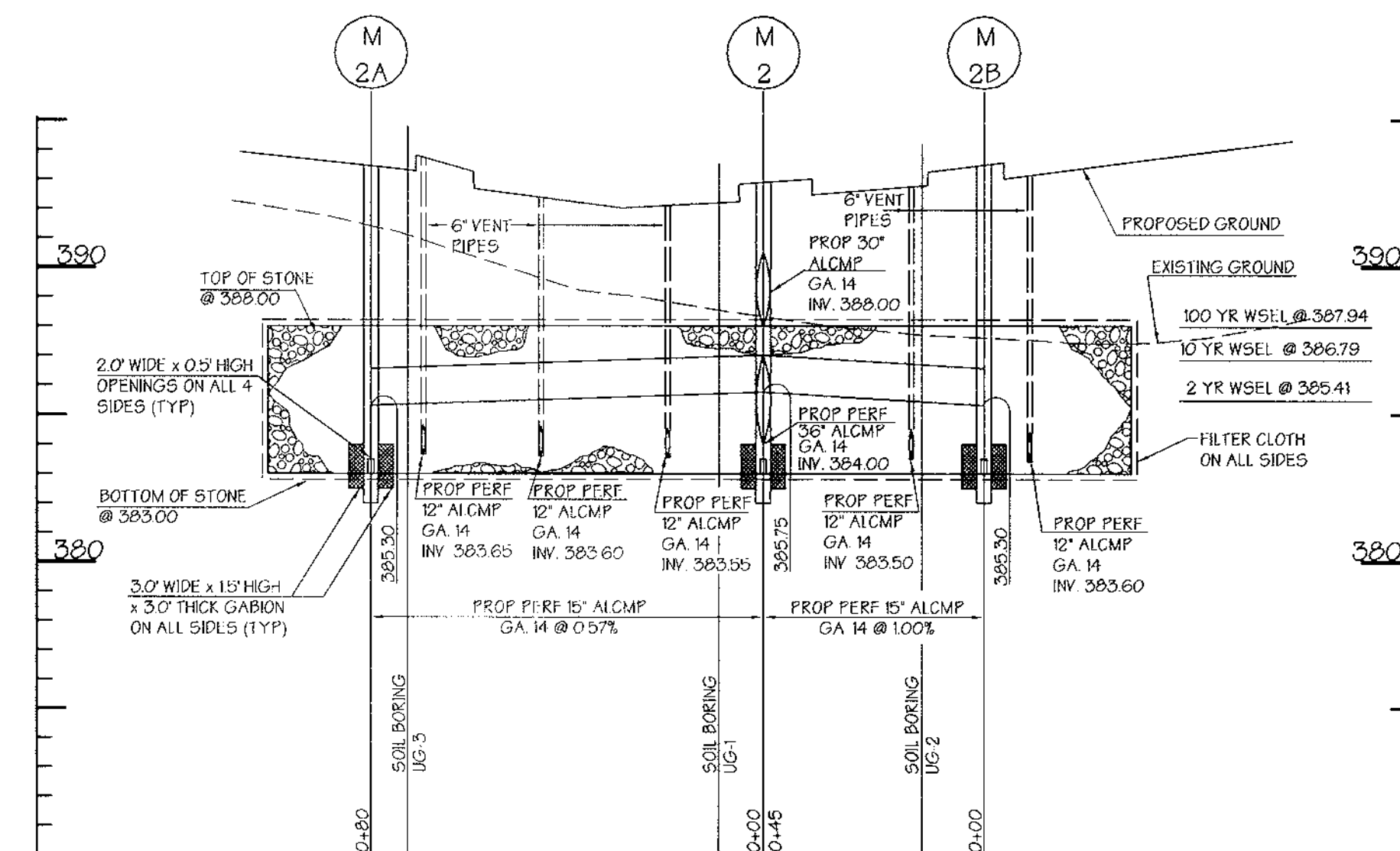
Certify means to state or declare a professional opinion based upon on-site inspections and material tests which are conducted during construction. The on-site inspections and material tests are those inspections and tests deemed sufficient and appropriate by commonly accepted engineering standards. Certify does not mean or imply a guarantee by the engineer nor does an engineer's certification relieve any other party from meeting requirements imposed by contract, employment, or other means, including meeting commonly accepted industry practices.

ENGINEER CERTIFICATION:
I certify that this plan for pond construction, erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions. This plan was prepared in accordance with the requirements of the Howard Soil Conservation District. I have notified the developer that he/she must engage a registered Professional Engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion.
Engineer: *James A. Markie Jr.* P.E.# 3/4/99
Name: *James A. Markie Jr.* Date: 11/05

FOND SUMMARY							POND SPECIFICATIONS FOR STORMWATER MANAGEMENT		
DESIGN STORM	FACILITY INFLOW (CFS)	FACILITY DISCHARGE (CFS)	BYPASS DISCHARGE (CFS)	TOTAL DISCHARGE (CFS)	TOTAL ALLOWABLE DISCHARGE (CFS)	WATER SURFACE ELEVATION (FT)	STORAGE VOLUME (AC. FT)	DESCRIPTION	DATA
2 YR	15.21	4.16	0.73	4.61	5.10	386.41		STRUCTURE CLASSIFICATION	A (PRIVATE)
10 YR	25.33	12.52	1.85	13.67	14.37	386.79		STORAGE X HEIGHT PRODUCT	(0.800AC. FT) (5.0 FT) = 4.00AC. FT ²
100 YR	36.38	23.18	3.22	25.50	26.26	387.94		WATERSHED AREA TO THE POND	4.73 AC.
								POND TYPE	UNDERGROUND STONE STORAGE
								FRFEEBOARD	N/A
								IMPERVIOUS AREA	3.93 AC
								TOP OF EMBANKMENT	388.00



PROFILE THROUGH UNDERGROUND STONE STORAGE FACILITY AND PRINCIPAL SPILLWAY: SECTION A-A
SCALE: VERT. 1" = 5'
HORIZ. 1" = 30'



PROFILE THROUGH UNDERGROUND STONE STORAGE FACILITY: SECTION B-B
SCALE: VERT. 1" = 5'
HORIZ. 1" = 30'

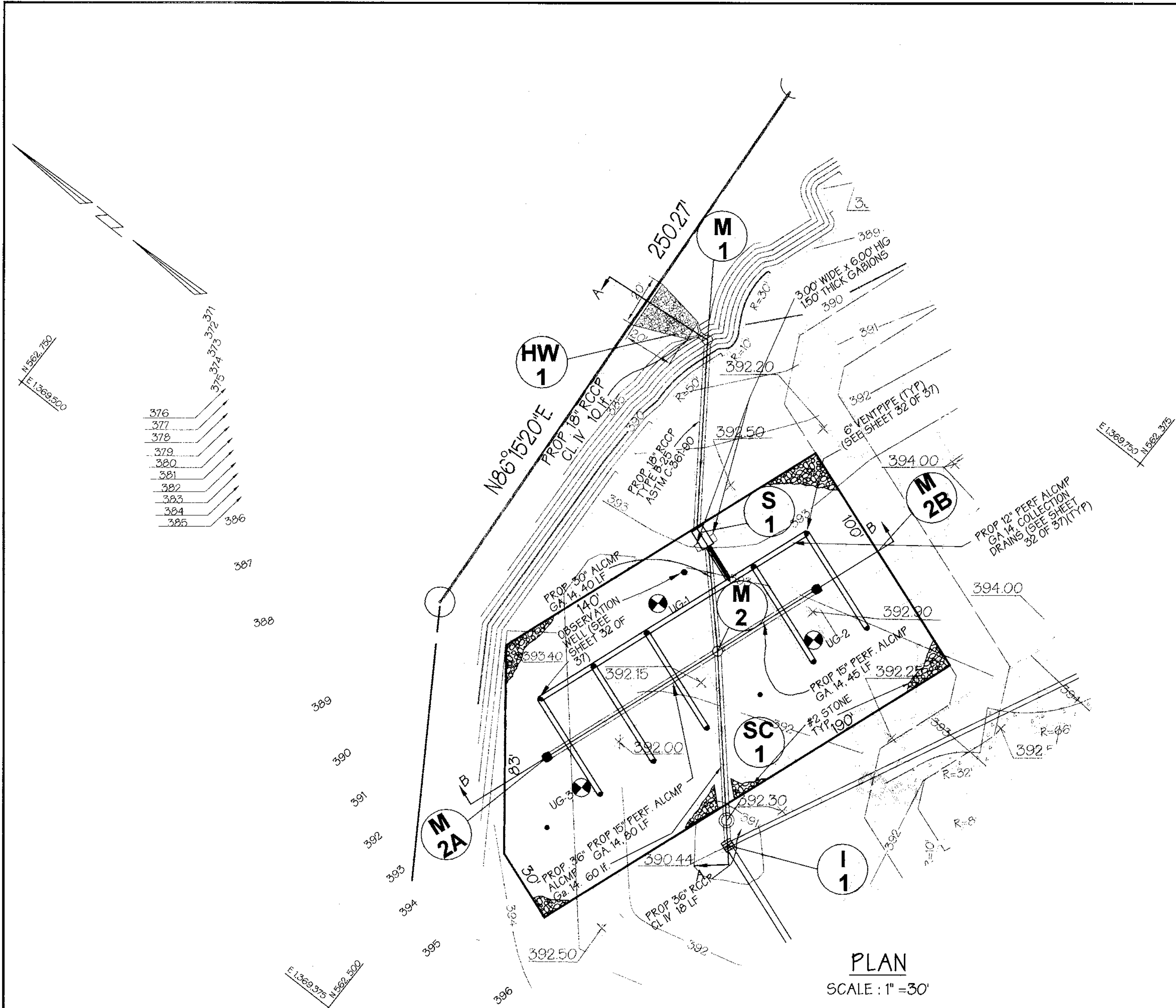
RELEASE STRUCTURE NOTES

- STRUCTURE TO BE CAST-IN-PLACE REINFORCED CONCRETE WITH 3500 P.S.I. (MIN) COMPRESSIVE STRENGTH @ 28 DAYS. DESIGN OF PRECAST CONC. STRUCTURE SHALL BE PROVIDED BY MANUFACTURER.
- ALL REINFORCING TO BE CONTINUOUS THROUGHOUT STRUCTURE.
- ALL REINFORCING TO HAVE 1" MIN. OVERLAPS AND THREE (3) INCHES FOR THE BASH.
- PROVIDE ADDITIONAL #4 REBARS ALONG THE PERIMETER OF ALL OPENINGS WITH THE AREA OF STEEL EQUAL TO OR GREATER THAN THE AREA OF STEEL REMOVED DUE TO OPENING.
- SHOP DRAWINGS FOR PRECAST CONCRETE RISERS WITH SUPPORTING STRUCTURAL COMPUTATIONS (SIGNED AND SEALED BY A MD REGISTERED ENGINEER MEETING A.S.T.M. REQUIREMENTS FOR PRECAST STRUCTURES MUST BE SUBMITTED TO THE ENGINEER AND THE APPROVING AGENCY FOR APPROVAL PRIOR TO FABRICATION. IF ANY STRUCTURE DIMENSIONS VARY FROM WHAT WAS ORIGINALLY REVIEWED/ APPROVED, THEN THE HYDRAULICS, FLOTATION AND STRUCTURAL INTEGRITY OF THE STRUCTURE WILL HAVE TO BE RE-ANALYZED.
- ALL EXPOSED CORNERS OF CONCRETE SHALL BE CHAMFERED WITH 3/4" X 3/4" MILLED CHAMFER STRIPS.

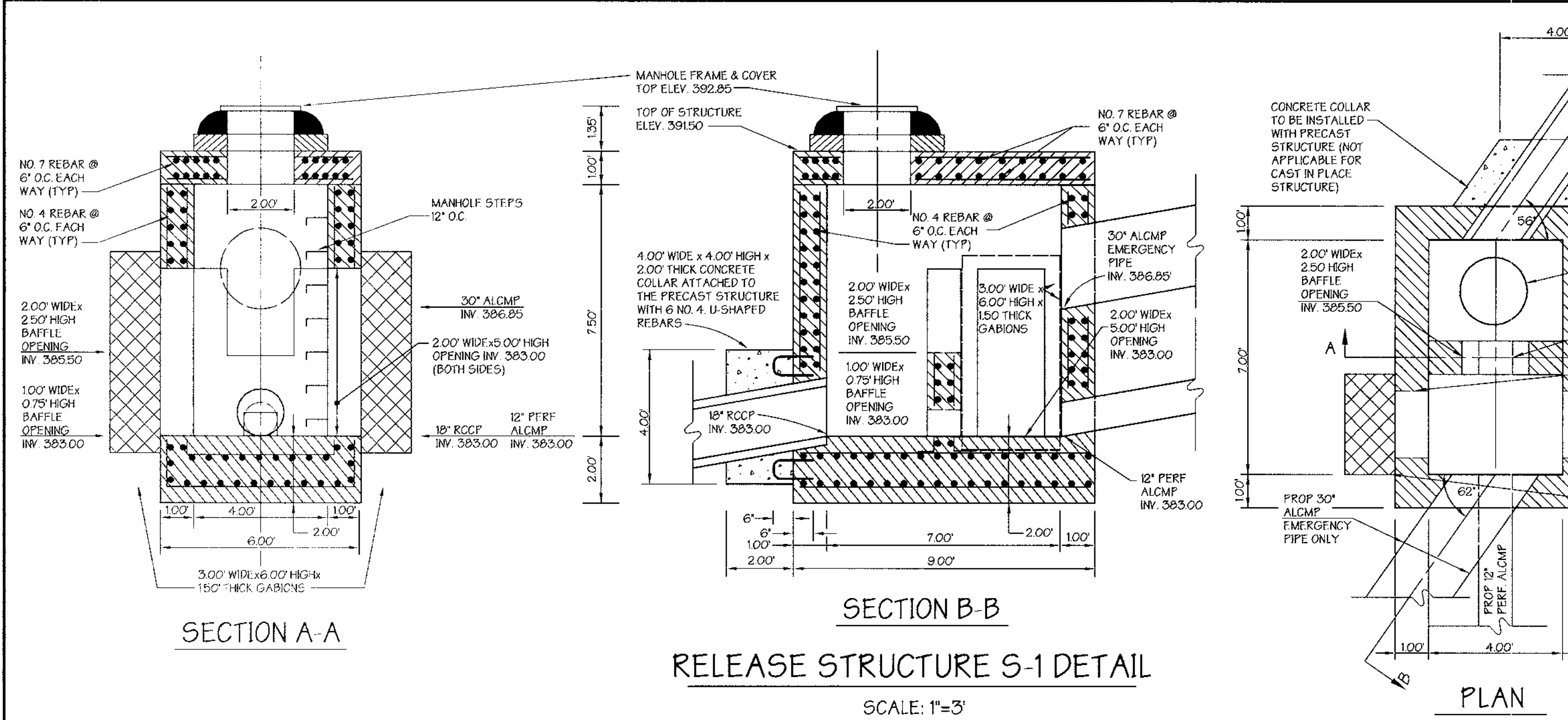
NOTE:
THE CONSTRUCTION MAY REQUIRE A PERMIT FROM THE ARMY CORPS OF ENGINEERS, THE WATER RESOURCES ADMINISTRATION AND/OR HOWARD COUNTY. IT IS THE RESPONSIBILITY OF THE LANDOWNER TO CONTACT THESE THREE AGENCIES TO DETERMINE IF THE PROJECT REQUIRES A PERMIT.
U.S. ARMY CORPS OF ENGINEERS (410) 962-3620
WRA NON-TIDAL WETLANDS AND WATERWAYS DIVISION (410) 574-3541
HOWARD COUNTY (410) 887-3380

NOTE:
IF REQUIRED BY THE SEDIMENT CONTROL INSPECTOR FENCING SHALL BE INSTALLED TO PREVENT ACCESS TO THE BASIN BY CHILDREN.

NOTE:
THIS STORMWATER MANAGEMENT FACILITY IS DESIGNED TO MEET OR EXCEED ALL APPLICABLE REQUIREMENTS OF THE HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS AND THE SOIL CONSERVATION DISTRICT. MAINTENANCE OF THIS FACILITY WILL BE THE RESPONSIBILITY OF THE OWNER.
(THE SWM FACILITY IS PRIVATE)



PLAN
SCALE: 1" = 30'



SECTION A-A
SECTION B-B
RELEASE STRUCTURE S-1 DETAIL
SCALE: 1" = 3'

CONSULTANT'S HAZARD CLASS CERTIFICATION:

I certify that this pond meets all requirements for hazard class (B) or (C). (requirements as stated in the soil conservation service maryland standards and specifications for pond, code 370, november 1992). All necessary investigations and computations have been performed to verify the finding. A copy of said information has been supplied to howard county soil conservation district.

Engineer: *James A. Markle Jr.* Date: 8/30/99
Name: JAMES A. MARKLE JR.

AS BUILT CERTIFICATION:

I hereby certify that the facility shown on this plan was constructed as shown on the "as built" plans and meet the approved plans and specifications.

Signature: _____ Date: _____
Certify means to state or declare a professional opinion based upon on-site inspections and material tests which are conducted during construction. This on-site inspections and material tests are those inspections and tests deemed sufficient and appropriate by commonly accepted engineering standards. Certify does not mean or imply a guarantee by the engineer nor does an engineer's certification relieve any other party from meeting requirements imposed by contract, employment, or other means, including meeting commonly accepted industry practices.

These plans for small pond construction, soil erosion and sediment control meet the requirements of Howard Soil Conservation District.

HOWARD SOIL CONSERVATION DISTRICT DATE

These plans have been reviewed for the Howard Soil Conservation District and meet the technical requirements for small pond construction, soil erosion and sediment control.

USDA NATURAL RESOURCES CONSERVATION SERVICE DATE
APPROVED: Howard County Department of Planning and Zoning

Chief, Development Engineering Division DATE 12/21/99
Chief, Division of Land Development DATE 12/21/99

Signature: _____ DATE 12/23/99
STREATOR

PARCEL NO.	STREET ADDRESS
Building No. 1	6070 University Boulevard
Building No. 2	6011 University Boulevard
Building No. 3	6021 University Boulevard
Building No. 4	6020 University Boulevard
Building No. 5	6040 University Boulevard
Building No. 6	6031 University Boulevard
Building No. 7	6041 University Boulevard
Building No. 8	6051 University Boulevard

SUBDIVISION NAME	SECTION NAME	PARCEL #
The Horse Farm	N/A	552

PLAT	BLOCK	ZONE	TAX MAP	ELECT. DIST.	CENSUS TRACT
N/A	248	FOR	37	1	6C11.02

WATER CODE E-07 SEWER CODE 2780000

UNDERGROUND STORM WATER MANAGEMENT PLAN & PROFILES THE HORSE FARM

ELECTION DISTRICT: 1 HOWARD CO., MARYLAND SHEET 31 OF 37 SCALE: As Shown DATE: Nov. 25, 1998

PREPARED BY:
GEORGE W. STEPHENS, JR. AND ASSOCIATES, INC.
Civil Engineers and Land Surveyors
658 Kenilworth Drive, Suite 100
Towson, Maryland 21204
(410) 825-8120

DEVELOPER CERTIFICATION:
I certify that all development and/or construction will be done according to these plans, and that any responsible personnel involved in the construction project will have a certificate of Attendance at a Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I shall engage a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion. I also authorize periodic on-site inspections by the Howard soil conservation District.

Signature of Developer: *Christopher W. Kurz* Date: 8/30/99
Print Name: CHRISTOPHER W. KURZ

ENGINEER CERTIFICATION:
I certify that this plan for pond construction, erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions. This plan was prepared in accordance with the requirements of the Howard Soil Conservation District. I have notified the developer that he/she must engage a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion.

Signature of Engineer: *James A. Markle Jr.* Date: 8/30/99
Print Name: JAMES A. MARKLE JR. PE # 11005

OWNER - DEVELOPER
HORSE FARM - LINDEN L.L.C.
906 POPLAR HILL ROAD SUITE 200
BALTIMORE, MARYLAND, 21210
410-532-6250

DESIGNED BY: P.R.C.
DRAWN BY: E.M.T., K.E.
CHECKED BY: P.R.C.
REVISIONS

POND CONSTRUCTION SPECIFICATIONS

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

SITE PREPARATION

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

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

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

EARTH FILL

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

PLACEMENT - Areas on which fill is to be placed shall be scarified prior to placement of fill. Fill materials shall be placed in a maximum 6" thick (before compaction) layers which are to be continuous over the entire length of the fill. The most permeable borrow material shall be placed in the downstream portions of the embankment. The principal spillway must be installed concurrently with fill placement and not excavated into the embankment.

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

Minimum required density shall not be less than 90% of maximum dry density with a moisture content within +/- 2% of the optimum. Each layer of fill shall be compacted as necessary to obtain that density, and is to be certified by the Engineer as the time of construction. All compaction is to be determined by AASHTO Method T-99.

STRUCTURE BACKFILL

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

PIPE CONDUITS All pipes shall be circular in cross section.

REINFORCED CONCRETE PIPE - All pipe to be circular in cross section.

All the following criteria shall apply for reinforced concrete pipe:

- Materials - Reinforced concrete pipe shall have bell and gasket joints with rubber gaskets and shall equal or exceed ASTM Designation C-361.
- Bedding - All reinforced concrete pipe conduits shall be laid in a concrete bedding for their entire length. This bedding shall consist of high slump concrete placed under the pipe and up the sides of the pipe at least 1/2" of its outside diameter with a minimum thickness of 3 inches, or as shown on the drawings.
- Laying Pipe - Bell and spigot pipe shall be placed with the bell end upstream. Joints shall be made in accordance with recommendations of the manufacturer of the material. After the joints are sealed for the entire line, the bedding shall be placed so that all spaces under the pipe are filled. Care shall be exercised to prevent any deviation from the original line and grade of the pipe. The final joints must be located within 2 feet from the riser.
- Backfilling shall conform to "Structure Backfill".
- Other details (anti-seep collars, valves, etc.) shall be as shown on the drawings.

PERFORATED PIPE

Bituminous coated corrugated metal pipe (BCCMP) shall conform to the requirements of AASHTO M-96 (pipe shall be specified to be fully bituminous coated in accordance with AASHTO M-96). Perforated pipe is TYPE III. Pipe shall have CLASS 2 perforations 3/8" diameter.

CONCRETE

Concrete shall meet the requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, Section 319 (Portland Cement Concrete Mixture), Mix No. 3.

REINFORCING STEEL IN CONCRETE STRUCTURES

Reinforcing steel shall be ASTM A 615, Grade 60. Steel angles and anchor bars shall be ASTM 136.

ROCK RIP RAP

Rock riprap shall meet the requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, Section 305.

The riprap shall be placed to the required thickness in one operation. The rock shall be delivered and placed in a manner that will insure the riprap in place shall be reasonably homogeneous with the larger rocks uniformly distributed and firmly in contact one to another with the smaller rocks filling the voids between the larger rocks. Filter cloth shall be placed under all riprap and shall meet the requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, Section 318.2.

CARE OF WATER DURING CONSTRUCTION

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

STABILIZATION

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

Stormwater management facility will be stabilized with permanent slope seeding as follows:

- Seeded Preparation - loosen upper 3 inches of soil by raking, discing or other acceptable means before seeding.
- Soil Amendments - apply 2 tons per acre Dolomitic Limestone (92 lbs/1000sq. ft.), 600 lbs. per acre 10-10-10 fertilizer (14 lbs/1000 sq. ft.), and 400 lbs. per acre of 30-0-0 Ureaform Fertilizer (92 lbs/1000 sq. ft.). Harrow or disc lime and fertilizer into upper 3 inches of soil. At time of seeding, apply 400 lbs. (92 lbs/1000 sq. ft.) of 30-0-0 Ureaform Fertilizer and 500 lbs. per acre (115 lbs/1000 sq. ft.), of 10-0-0 fertilizer.
- Seeding - for the period March 1 through April 30 seed with 40 lbs. per acre Kentucky 31 Tall Fescue, and 15 lbs. per acre inoculated Crown Vetch. For the period May 1 through July 31 seed with 60 lbs. per acre Kentucky 31 Tall Fescue and 2 lbs. per acre inoculated Weeping Lovegrass. For the period August 1 through October 15 seed with 40 lbs. per acre Kentucky 31 Tall Fescue, and 20 lbs. per acre inoculated Interstate Sorica Lespedeza. For the period October 16 through February 28 protect the site by Option (1); 2 tons per acre of well anchored straw. For the period May 1 through February 28 inoculated Crown Vetch shall be applied during the subsequent period of March 1 through April 30 at the rate of 15 lbs. per acre.
- Mulching - apply 15 to 2 tons per acre of un-rotted small grain straw immediately after seeding. Anchor mulch immediately after application using 210 gallons per acre of emulsified asphalt. On flat areas of slope 8 feet or higher, use 348 gallons per acre of anchoring.
- Maintenance - inspect seeded areas and make needed repairs, replacements and re-seeding.

EROSION AND SEDIMENT CONTROL

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

PERMANENT SLOPE SEEDING

After spreading 4" topsoil, seed with a mixture of 30% inoculated Crown Vetch and 70% Kentucky 31 Tall Fescue applied at a rate of 60 lbs./acre; 10-20-20 fertilizer shall be applied at a rate of 25 lbs/1000sq. ft.; lime at a rate of 32 lbs./1000 sq. ft.; mulch area with unweathered small grain straw at a rate of 15 tons/acre; anchor with a rapid curing asphalt (RC-70, R-250 or RC-900) at a rate of 0.1 gal./sq. yd.

FILTER CLOTH

Filter cloth shall meet or exceed the requirements in Section 2025-5 of the Baltimore County Standard Specifications and Details for Construction. Durable filter fabrics for drainage purposes are not limited to Mifflin 140S, DuPont TYAC No. 3341 or 3401.

Filter cloth shall be protected from puncturing or tearing. Any damage other than an occasional small hole shall be repaired by placing another small piece of filter cloth over the damaged area or by replacing the cloth section. All overlaps shall be a minimum of one foot.

GABIONS

Gabions shall meet the requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, Section 302 and must be CL IV, PVC coated.

OUTFALL PROTECTION

Subgrade for riprap or gabion outfalls shall be prepared to the required line and grades. Any fill required in the subgrade shall be compacted to a density of approximately that of the surrounding undisturbed material. All rock or gravel shall conform to the specified grading limits when installed in the riprap or gabion. All stone shall be delivered and placed in a manner that will insure the stone in place shall be reasonably homogeneous with the larger rocks uniformly distributed and firmly in contact one to another, with the smaller rocks filling the voids between the larger rocks. Stone for outfalls may be placed by equipment. Riprap or gabion outfalls shall be constructed to full course thickness in one operation and in such a manner as to avoid any displacements of underlying materials. The contractor shall avoid damage to the filter blankets or cloth during placement of riprap. Hand placements shall be required as needed to prevent damage to the permanent works. Filter cloth shall be placed under all riprap and gabions.

FENCE

Construct fencing in accordance with the State Highway Administration standard details 690.01 and 690.02. Use specifications for a 6' fence, substituting 42" fabric and 6" posts. Construct this gate in accordance with the S.H.A. standard detail 690.01 with 42" fabric. The fabric used for the fence and gate must conform to AASHTO designation M-191-74. Dark vinyl coating is required for the fence posts and wire fabric in accordance with the landscape manual adopted by resolution 56-90, October 1, 1990.

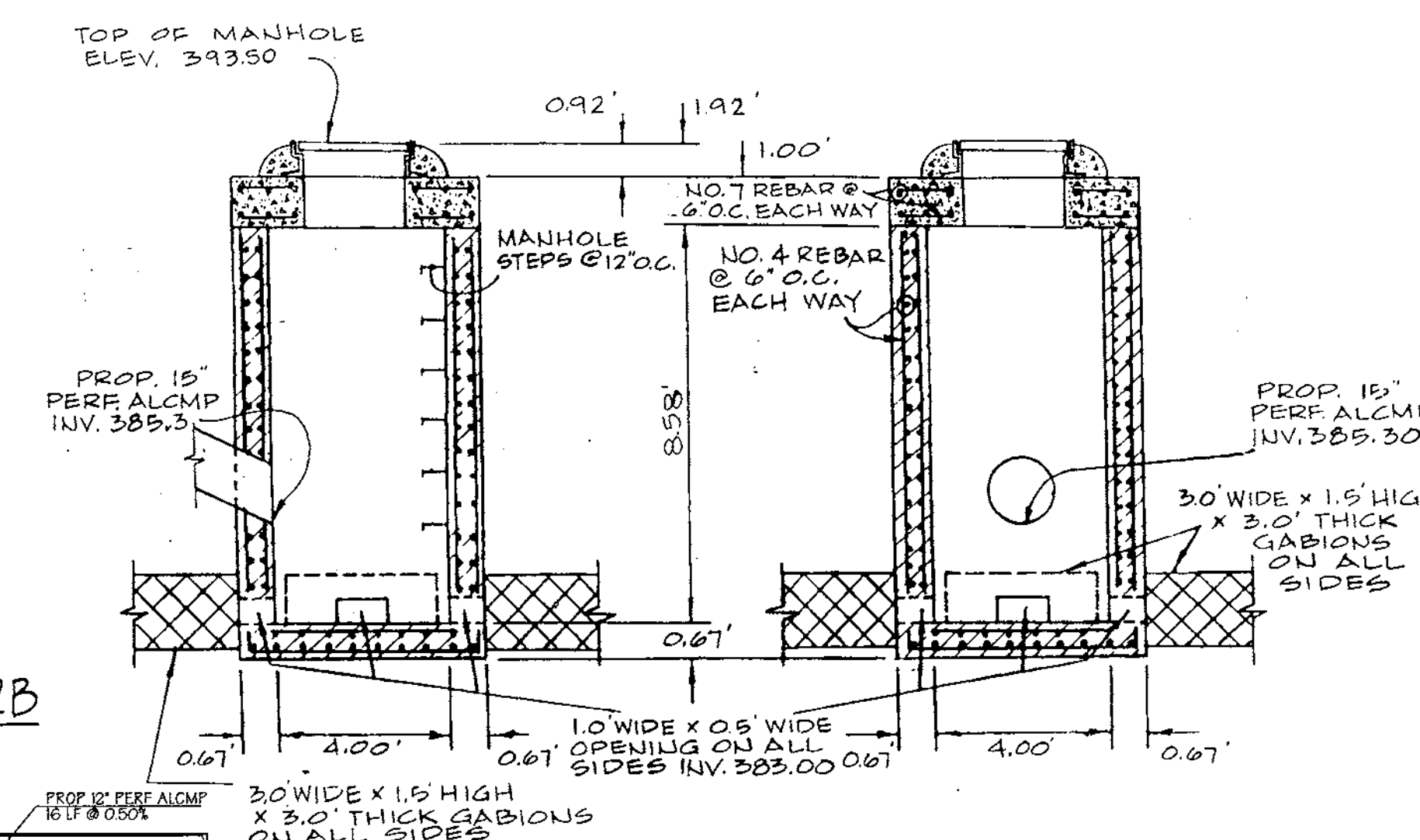
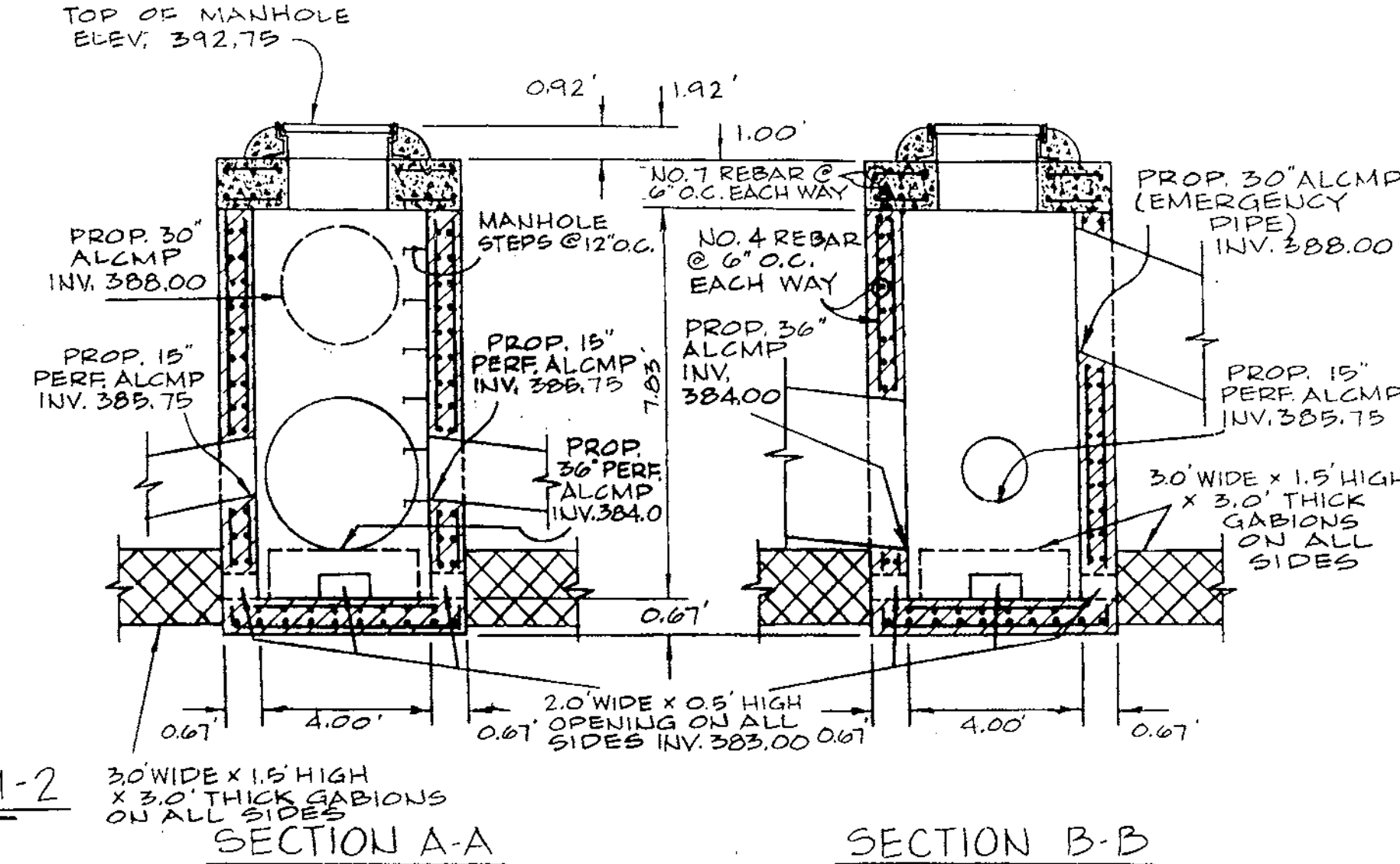
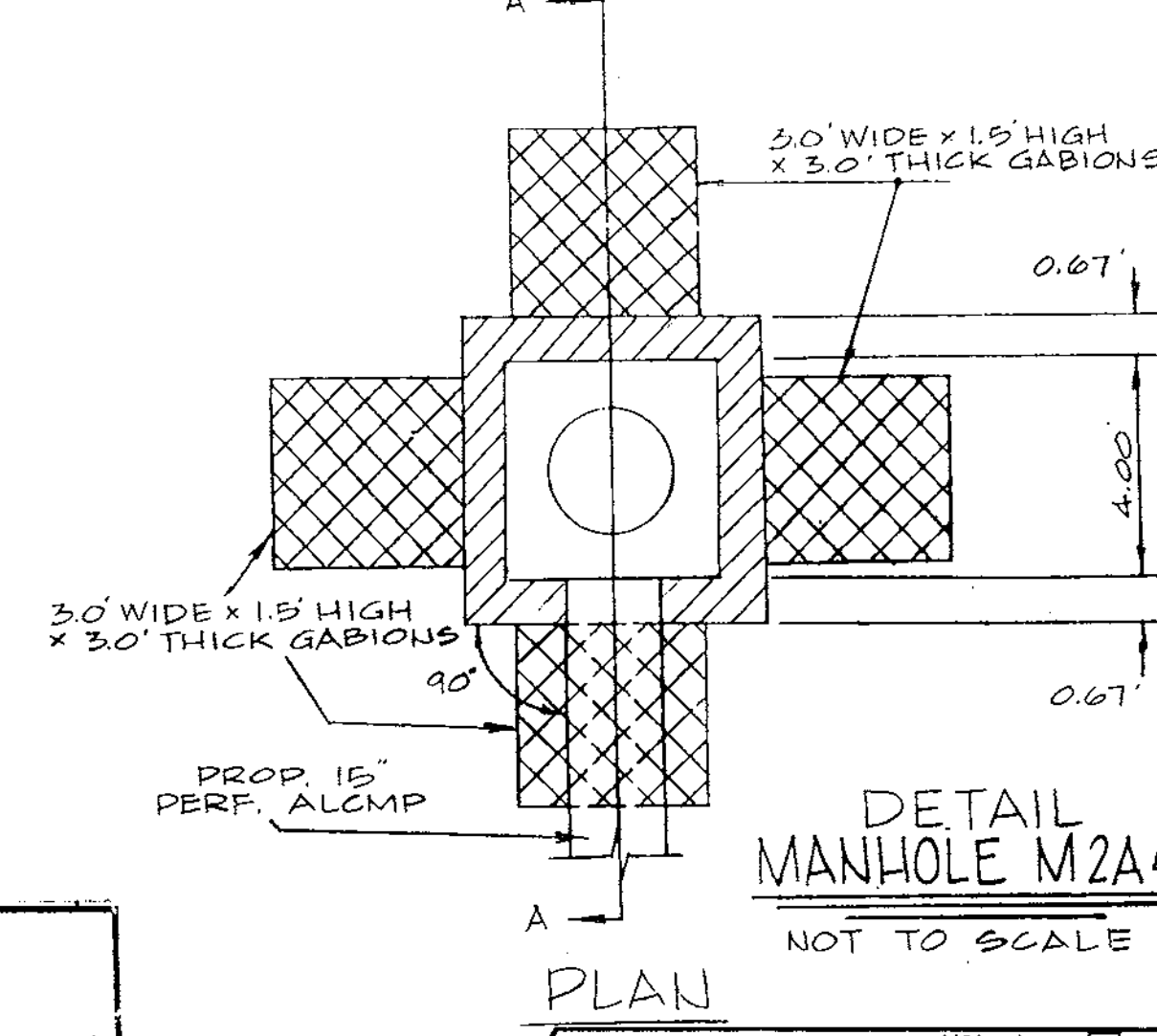
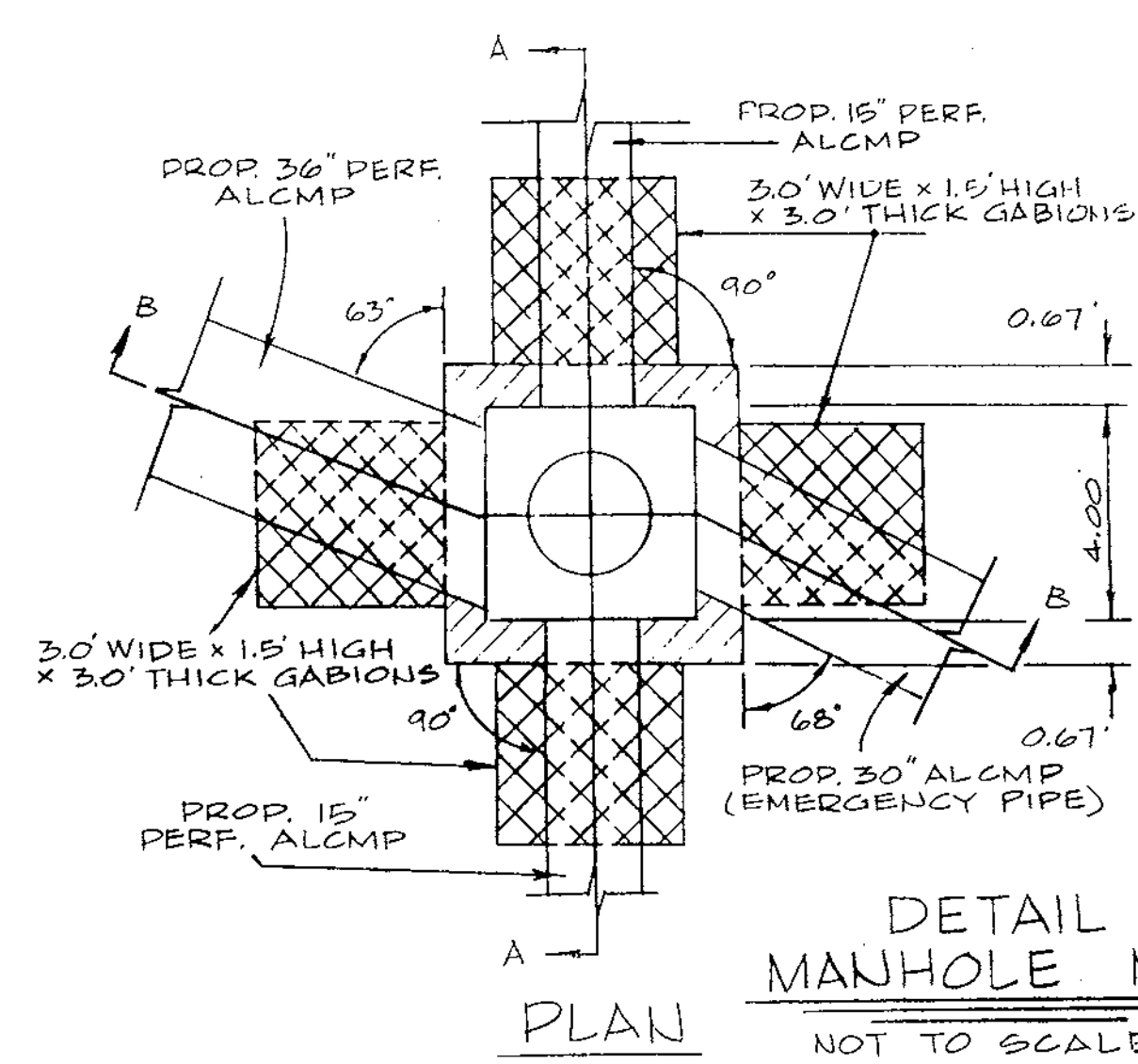
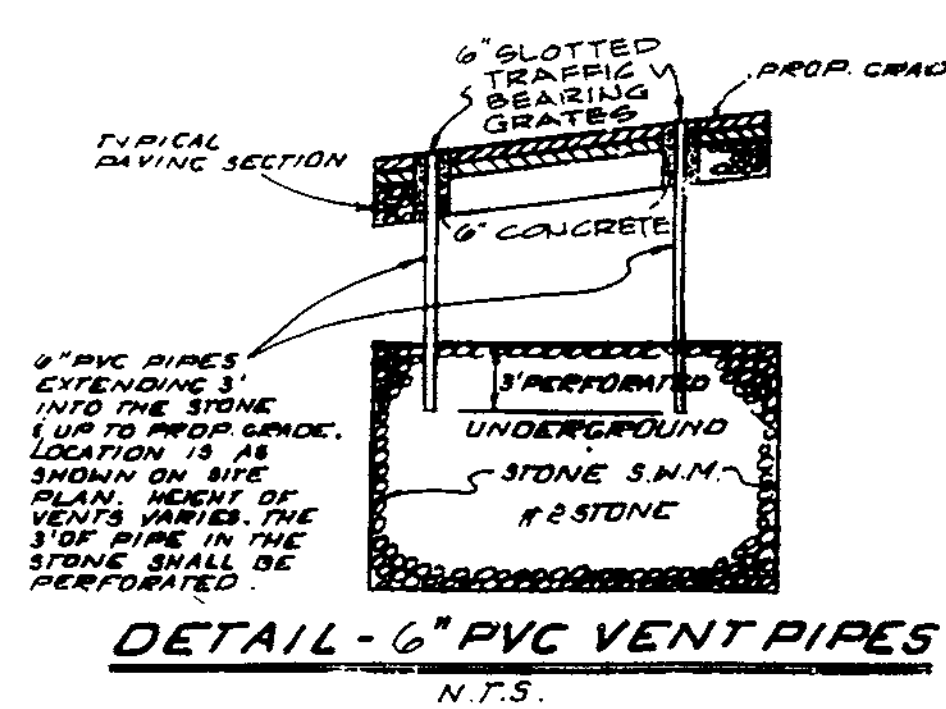
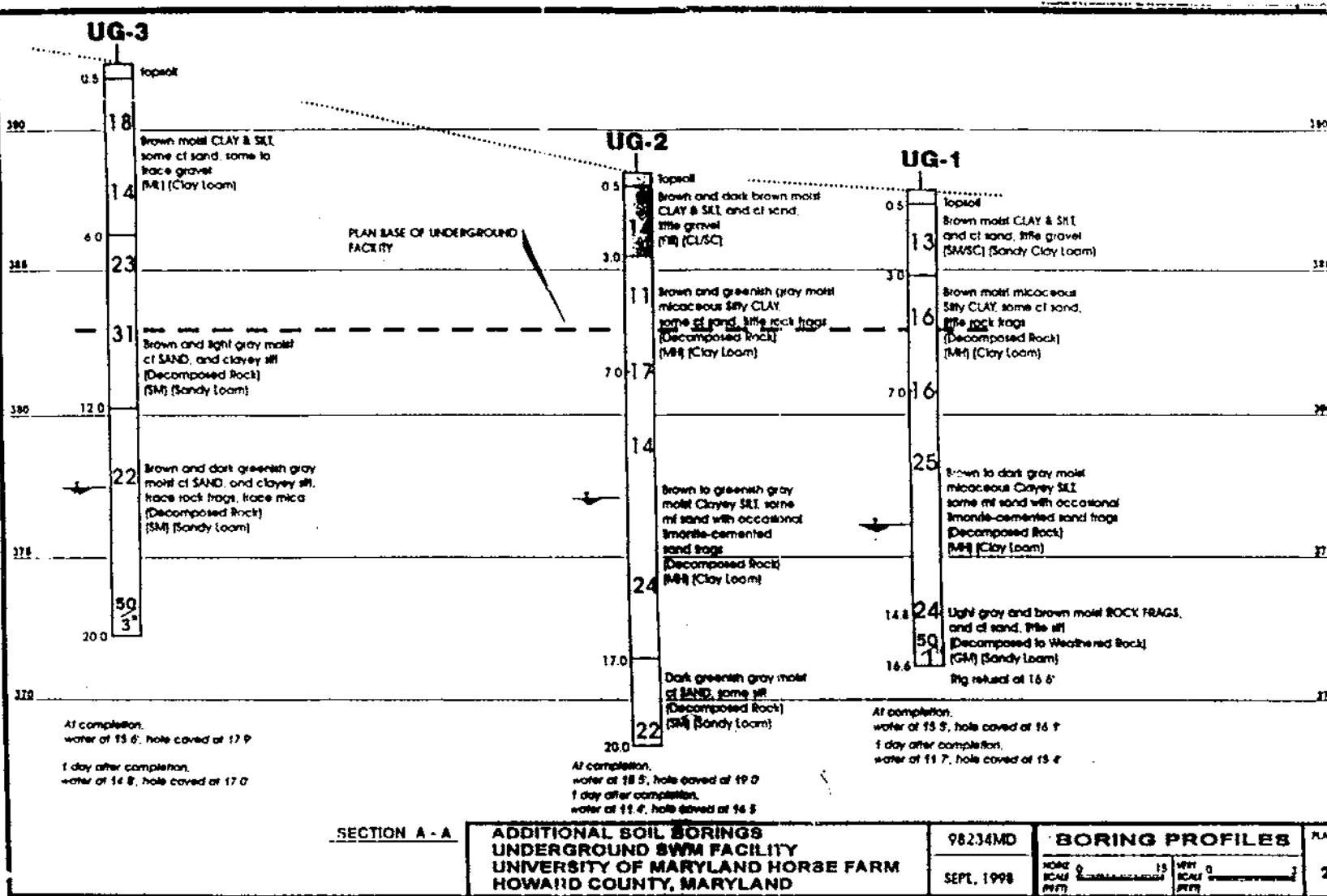
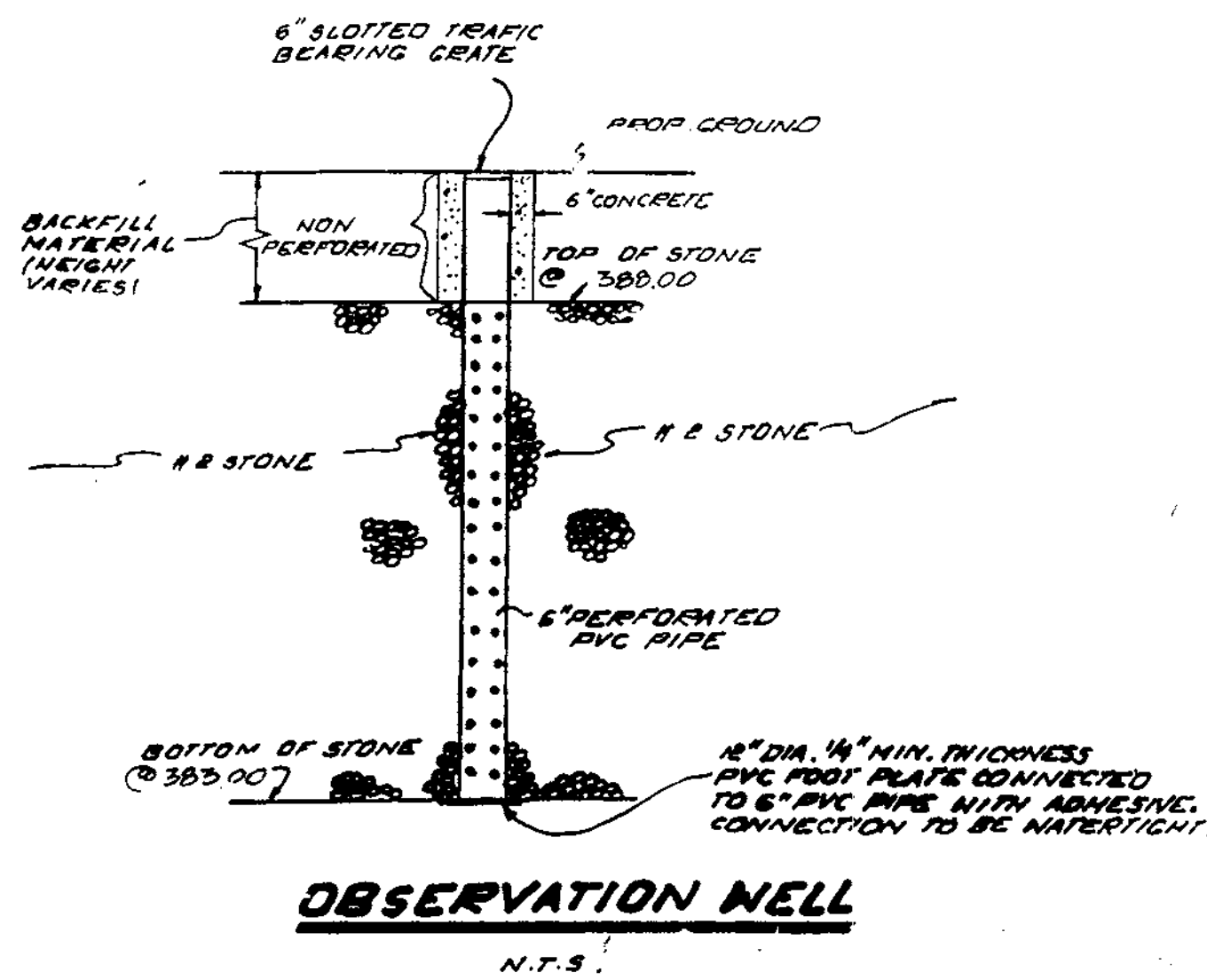
*5 Split rail (wood) fence is optional.

CUT-OFF TRENCH - THE CUT-OFF TRENCH SHALL BE EXCAVATED INTO IMPERVIOUS MATERIAL ALONG OR PARALLEL TO THE CENTERLINE OF THE EMBANKMENT AS SHOWN ON THE PLANS. THE BOTTOM WIDTH OF THE TRENCH SHALL BE GOVERNED BY THE EQUIPMENT USED FOR EXCAVATION, WITH THE MINIMUM WIDTH BEING FOUR FEET. THE DEPTH SHALL BE AT LEAST FOUR FEET BELOW EXISTING GRADE OR AS SHOWN ON THE PLANS. THE SIDE SLOPES OF THE TRENCH SHALL BE 1:1 OR FLATTER. THE BACKFILL SHALL BE COMPACTED WITH CONSTRUCTION EQUIPMENT, ROLLERS, OR HAND TAMPERS TO ASSURE MAXIMUM DENSITY AND MINIMUM PERMEABILITY.

IMPERVIOUS CORE - THE CORE SHALL BE FILLED ALONG OR PARALLEL TO THE CENTERLINE OF THE EMBANKMENT AS SHOWN ON THE PLANS. THE TOP WIDTH OF THE FILL SHALL BE GOVERNED BY THE EQUIPMENT USED, WITH MINIMUM WIDTH BEING FOUR FEET. THE TOP WIDTH SHALL BE SHOWN ON THE PLAN. THE SIDE SLOPES OF THE FILL SHALL BE 1:1 OR FLATTER. THE BACKFILL SHALL BE COMPACTED WITH CONSTRUCTION EQUIPMENT, ROLLERS OR HAND TAMPERS TO ASSURE MAX. PERMEABILITY.

OPERATION AND MAINTENANCE SCHEDULE FOR STORMWATER MANAGEMENT UNDERGROUND FACILITY:

- REMOVAL OF ACCUMULATED PAPER, TRASH, AND DEBRIS AS NECESSARY.
- ANNUAL INSPECTIONS AND REPAIR OF THE STRUCTURE.



UNDERGROUND STONE STORAGE FACILITY COLLECTION DRAINS, VENT PIPES, AND OBSERVATION WELL LAYOUT

SCALE: 1" = 30'

CONSULTANT'S HAZARD CLASS CERTIFICATION:
I certify that this plan meets all requirements for hazard class (B) or C. (requirements as stated in the soil conservation service - maryland standards and specifications for pond, code 378, november 1992). All necessary investigations and computations have been performed to verify this finding. A copy of said information has been supplied to howard county soil conservation district.

Engineer: *James A. Markle Jr.* Date: 3/4/99
Name: *James A. Markle Jr.*

AS-BUILT CERTIFICATION:
I hereby certify that the facility shown on this plan was constructed as shown on the "as-built" plans and meet the approved plans and specifications.

Certify means to state or declare a professional opinion based upon on-site inspections and material tests which are conducted during construction. The on-site inspections and material tests are those inspections and tests deemed sufficient and appropriate by commonly accepted engineering standards. Certify does not mean or imply a guarantee by the engineer nor does an engineer's certification relieve any other party from meeting requirements imposed by contract, employment, or other means, including meeting commonly accepted industry practices.

OWNER / DEVELOPER
HORSE FARM - LINDEN L.L.C.
906 POPLAR HILL ROAD SUITE 200
BALTIMORE, MARYLAND, 21210
410 - 532-6250

DESIGNED BY: P.R.C.
DRAWN BY: E.M.T., K.E.
CHECKED BY: P.R.C.
REVISIONS

UNDERGROUND STORM WATER MANAGEMENT NOTES AND DETAILS THE HORSE FARM

ELECTION DISTRICT: 1
HOWARD CO., MARYLAND SHT. 32 OF 37 SCALE: As Shown
DATE: Nov. 25, 1998

PREPARED BY:
GEORGE W. STEPHENS, JR. AND ASSOCIATES, INC.
Civil Engineers and Land Surveyors
658 Kenilworth Drive, Suite 100
Towson, Maryland 21204
(410) 825-8120

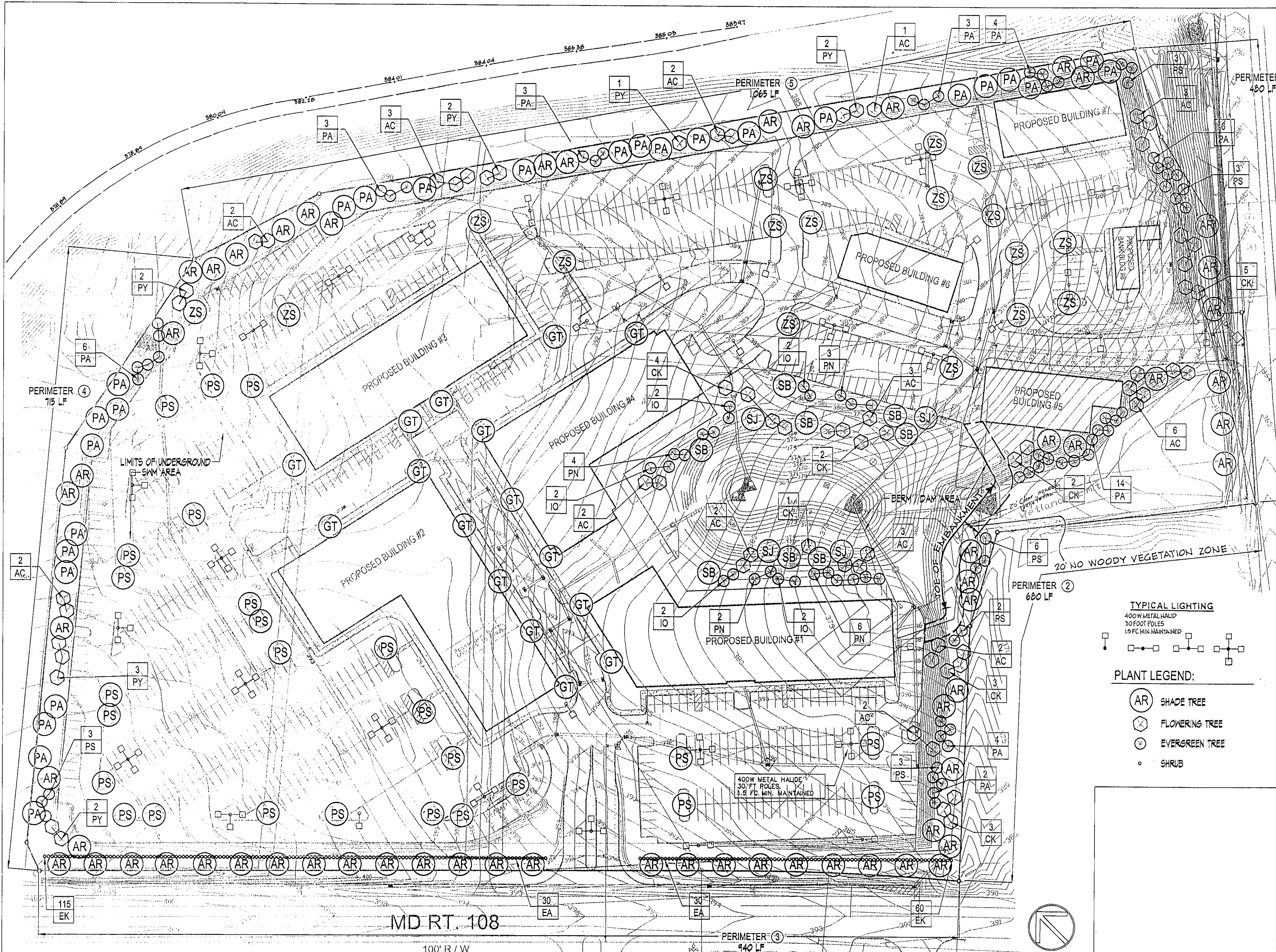


DEVELOPER CERTIFICATION:
I certify that all development and/or construction will be done according to these plans, and that any responsible personnel involved in the construction project will have a certificate of Attendance at a Department of the Environment Approved Training Program for the Control of Sedimentation before beginning the project. I shall engage a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion. I also authorize periodic on-site inspections by the Howard Soil Conservation District.

Signature of Developer: *Christopher W. Kurb* Date: 3-4-99
Print Name: *CHRISTOPHER W. KURB*

ENGINEER CERTIFICATION:
I certify that this plan for pond construction, erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions. This plan was prepared in accordance with the requirements of the Howard Soil Conservation District. I have notified the developer that he/she must engage a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion.

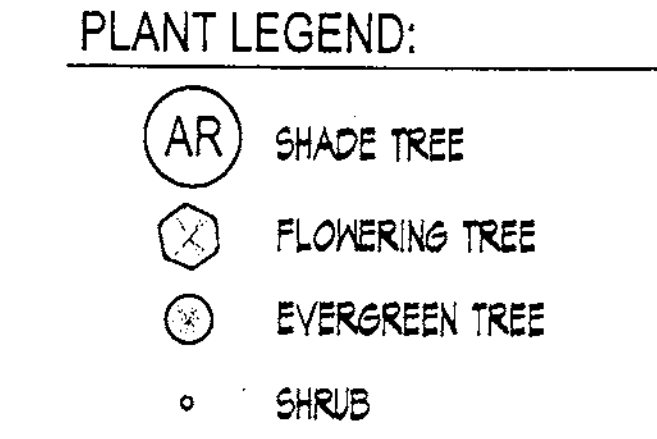
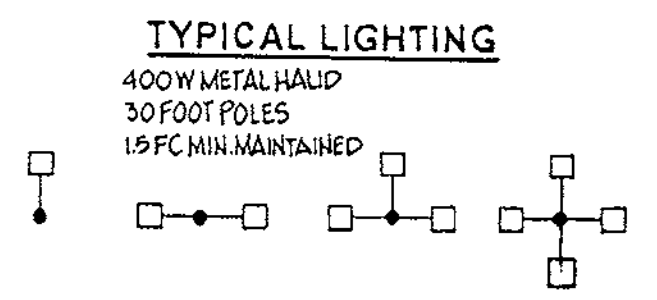
Signature of Engineer: *James A. Markle Jr.* Date: 3/4/99
Print Name: *James A. Markle Jr.* PE # 11005



OLD MONTGOMERY ROAD

DEVELOPER'S / BUILDER'S CERTIFICATE
 I/We certify that the landscaping shown on this plan will be done according to the plan section 16.124 of the Howard County Code and the Howard County Landscape Manual: 1.7. We further certify that upon completion a certification of landscape installation accompanied by an executed one year guarantee of plant materials will be submitted to the Department of Planning and Zoning.

Christopher W. Kuep
 NAME: _____ DATE: 5-9-99
 PRINT NAME: CHRISTOPHER W. KUEP



These plans for small pond construction, soil erosion and sediment control meet the requirements of Howard Soil Conservation District.

Shirley L. Spill 12/14/99
 APPROVED: HOWARD SOIL CONSERVATION DISTRICT DATE

These plans have been reviewed for the Howard Soil Conservation District and meet the technical requirements for small pond construction, soil erosion and sediment control.

Cheryl Simmons / GS 12/14/99
 USDA - NATURAL RESOURCES CONSERVATION SERVICE DATE

APPROVED: Howard County Department of Planning and Zoning

John Dammann 12/21/99
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

Karl Steinhilber / JF 12/24/99
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

James S. Butler 12/29/99
 DIRECTOR DATE

PARCEL NO.	STREET ADDRESS
Building No. 1	6010 University Boulevard
Building No. 2	6011 University Boulevard
Building No. 3	6021 University Boulevard
Building No. 4	6020 University Boulevard
Building No. 5	6040 University Boulevard
Building No. 6	6031 University Boulevard
Building No. 7	6041 University Boulevard
Building No. 8	6051 University Boulevard

PLAT #	BLOCK #	ZONE	TAX MAP	ELECT. DIST.	CENSUS TRACT
N / A	248	POR	1	1	6011.02

SUBDIVISION NAME	SECTION NAME	PARCEL #
THE HORSE FARM	N/A	552

WATER CODE	SEWER CODE
-E06	5333000

MD RT. 108
 100' R / W
 S.H.A. PLATS 12453 & 12454

PLANTING PLAN
 SCALE: 1" = 50'

THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL. FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING HAS BEEN POSTED AS PART OF THE DPW DEVELOPER'S AGREEMENT IN THE AMOUNT OF \$75,320.00

GENERAL NOTE:
 PLAN IS FOR LANDSCAPE INFORMATION ONLY.
 FOR EXACT SITE UTILITY AND LAYOUT REFER TO CIVIL ENGINEERING PLANS.

OWNER / DEVELOPER
HORSE FARM - LINDEN L.L.C.
 906 POPLAR HILL ROAD SUITE 200
 BALTIMORE, MARYLAND, 21210
 410 - 532 8250

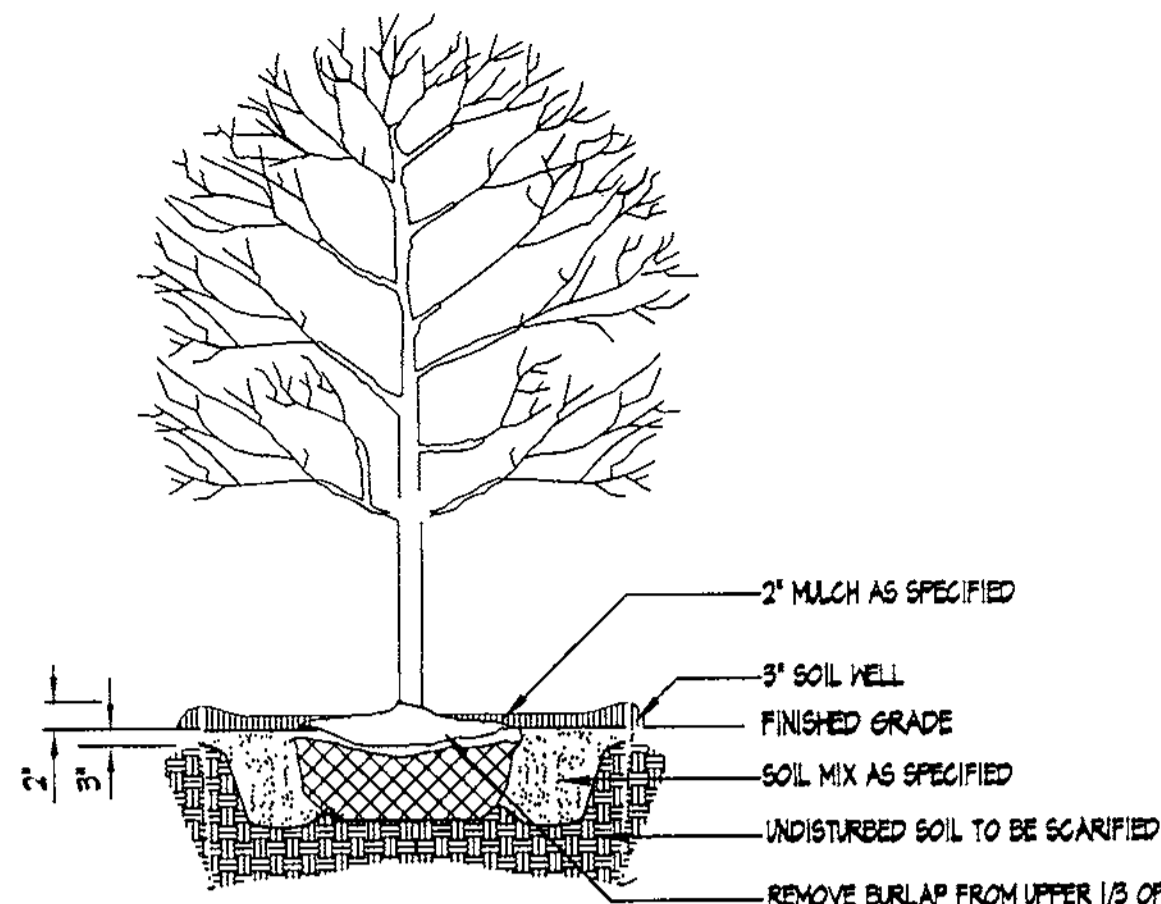
DESIGNED BY: MW
 DRAWN BY: JY
 CHECKED BY: MW
 REVISIONS

LANDSCAPE PLAN
THE HORSE FARM

ELECTION DISTRICT : 1
 HOWARD CO., MARYLAND
 SHT. 33 OF 37
 SCALE : As Shown
 DATE : Nov. 25, 1998

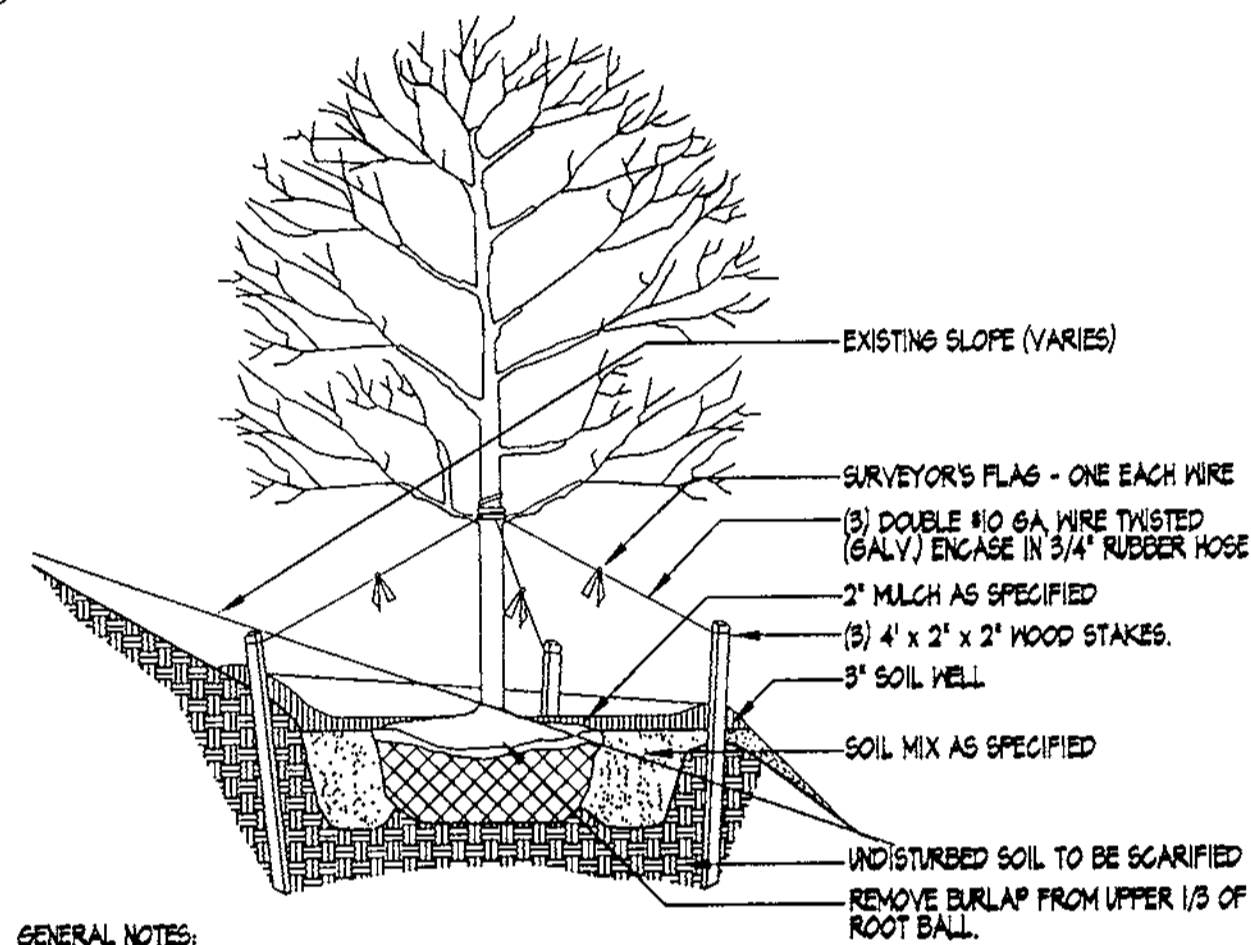
MAHAN RYKIEL ASSOCIATES INC.
 Landscape Architects
 1330 Smith Avenue
 Baltimore, MD 21209 USA
 Tel. 410.435.1700
 Fax. 410.435.1701

LANDSCAPE ARCHITECT
 ANASTASIA C. MAHAN
 STATE OF MARYLAND



- GENERAL NOTES:
1. THIN BRANCHES & FOLIAGE BY 1/3, RETAINING NORMAL TREE SHAPE.
 2. NEVER CUT CENTRAL LEADER.
 3. SET TREE WITH 1/3 OF ROOT BALL ABOVE GRADE.
 4. STAKES, WIRES, AND HOSES SHALL BE REMOVED AFTER ONE YEAR.
 5. SCARIFY SUBSOIL AND SIDES OF TREE PIT TO A MIN. OF 4" DEPTH.

A TYPICAL SHADE TREE PLANTING
NO SCALE

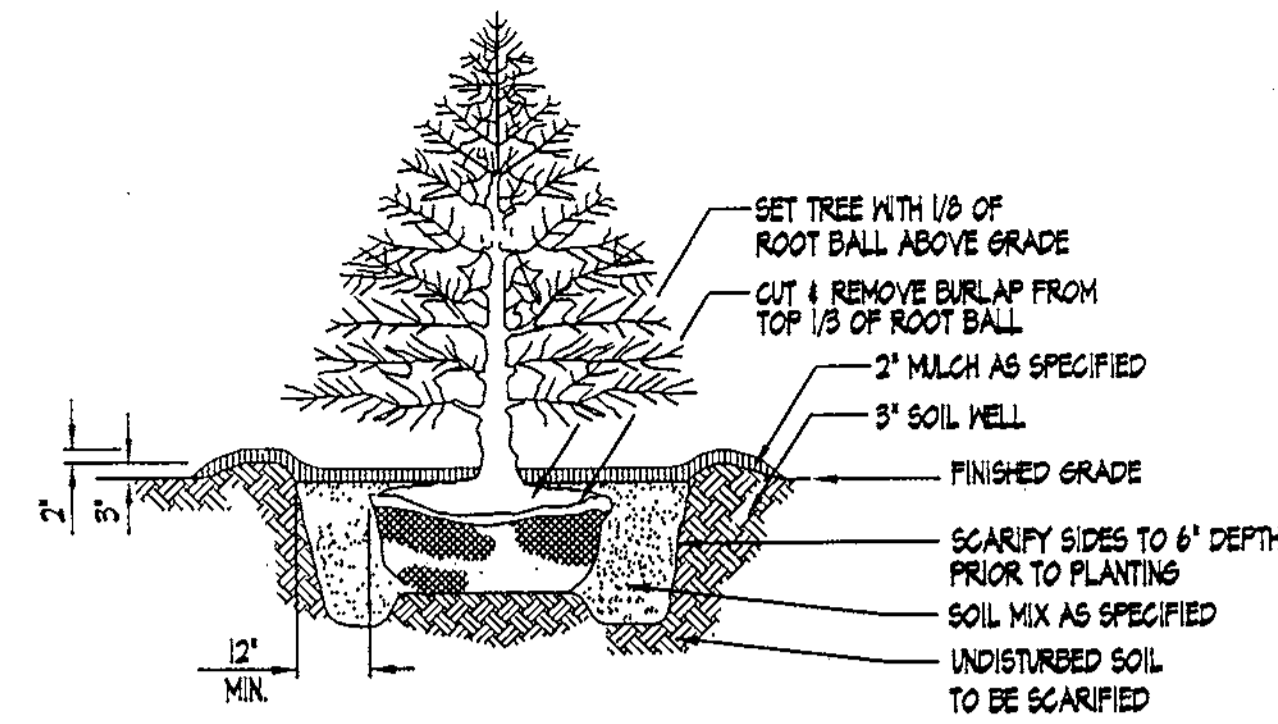


- GENERAL NOTES:
1. THIN BRANCHES & FOLIAGE BY 1/3, RETAINING NORMAL TREE SHAPE.
 2. NEVER CUT CENTRAL LEADER.
 3. SET TREE WITH 1/3 OF ROOT BALL ABOVE GRADE.
 4. STAKES, WIRES, AND HOSES SHALL BE REMOVED AFTER ONE YEAR.
 5. SCARIFY SUBSOIL AND SIDES OF TREE PIT TO A MIN. OF 4" DEPTH.

B TYPICAL SHADE TREE PLANTING ON SLOPE
NO SCALE

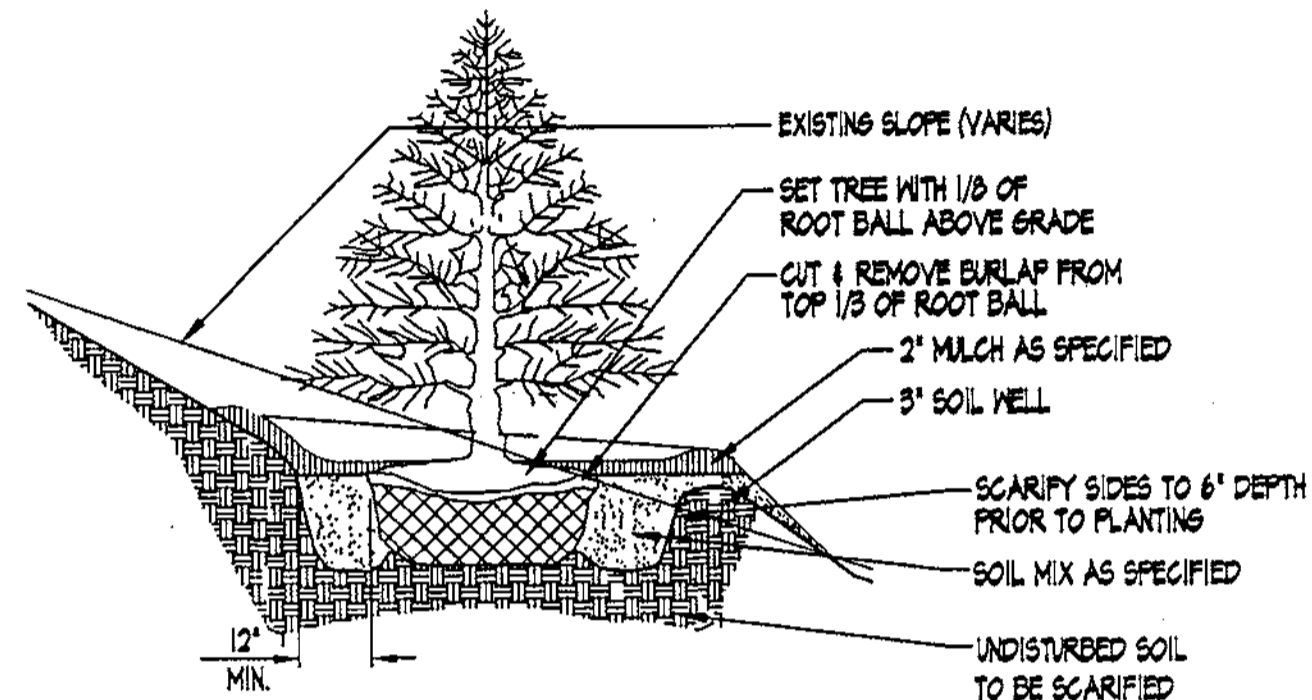
SCHEDULE A
PERIMETER LANDSCAPE EDGE

Category	Perimeter ①	Perimeter ②	Perimeter ③	Perimeter ④	Perimeter ⑤
Landscape Type	B	C	E	E	E
Linear Feet of Roadway Frontage / Perimeter	480	680	940	715	1,065
Credit for Existing Vegetation (Yes, No, Linear Feet) (Describe below if needed)	NO	NO	NO	NO	NO
Credit for Wall, Fence, or Berm (Yes, No, Linear Feet) (Describe below if needed)	NO	NO	NO	NO	NO
Number of Plants Required					
Shade Trees	10	17	24	18	27
Evergreen Trees	12	34	--	--	--
Shrubs	--	--	235	178	266
Number of Plants Provided					
Shade Trees	6	11	24	18	27
Evergreen Trees	12	28	--	9	15
Other Trees (2:1 substitution)	8	18	--	9	15
Shrubs (10:1 substitution)	--	--	235	--	--
(Describe plant substitution credits below if needed)	4 Shade Trees = 6 Flow. Trees	6 Shade Trees = 12 Flow. Trees & 6 Evgr. Trees		178 Shrubs = 13 Flow. Trees & 9 Evgr. Trees	266 Shrubs = 13 Flow. Trees & 13 Evgr. Trees



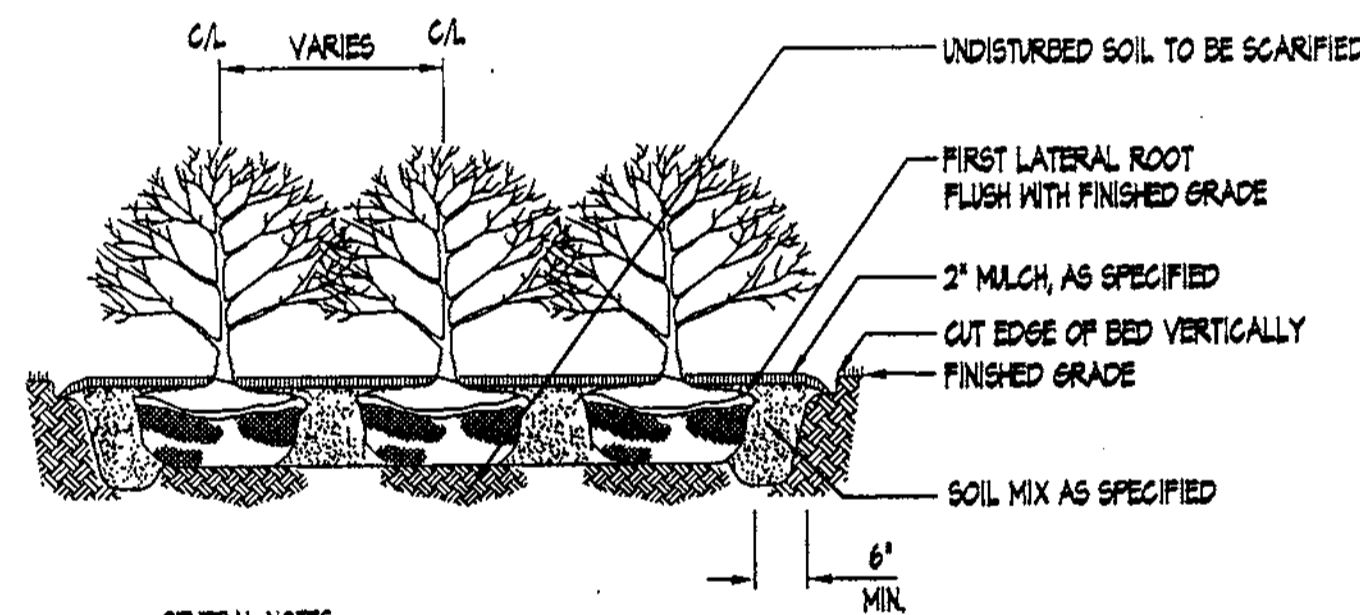
- GENERAL NOTES:
1. NEVER CUT CENTRAL LEADER

C TYPICAL EVERGREEN TREE PLANTING
NO SCALE



- GENERAL NOTES:
1. NEVER CUT CENTRAL LEADER

D TYPICAL EVERGREEN TREE PLANTING ON SLOPE
NO SCALE



- GENERAL NOTES:
1. CUT AND REMOVE BURLAP FROM TOP 1/3 OF ROOT BALL AS SHOWN
 2. THIN DECIDUOUS SHRUBS BY 1/3 THE INITIAL BRANCHING, RETAINING NATURAL FORM.

E TYPICAL SHRUB PLANTING
NO SCALE

SCHEDULE B
PARKING LOT INTERNAL LANDSCAPING

Number of Parking Spaces	904
Number of Trees Required	45
Number of Trees Provided	54
Shade Trees	25
Other Trees (2:1 substitution)	29

PLANT LIST

SYM	QTY	BOTANICAL / COMMON NAME	SIZE	COND	REMARKS
TREES					
AR	54	Acer rubrum 'October Glory' / 'October Glory' Red Maple	2 1/2"-3" cal.	B&B	FULL
GT	16	Gleditsia triacanthos inermis 'Imperial' / 'Imperial' Thornless Honeylocust	2 1/2"-3" cal.	B&B	FULL
PA	27	Platanus x acerifolia 'Bloodgood' / 'Bloodgood' London Plane Tree	2 1/2"-3" cal.	B&B	FULL
SB	8	Salix Babylonica / Weeping Willow	1 1/2"-2" cal.	B&B	FULL
SJ	4	Sophora japonica / Japanese Pagoda Tree	2 1/2"-3" cal.	B&B	FULL
ZS	17	Zelkova serrata 'Village Green' / 'Village Green' Japanese Zelkova	2 1/2"-3" cal.	B&B	FULL
PS	26	Prunus sargentii / Sargent Cherry	2 1/2"-3" cal.	B&B	MATCHED
FLOWERING TREES					
AC	33	Amelanchier canadensis / Shadblow Serviceberry	8'-10' ht.	B&B	MULTI-STEM, FULL
CK	20	Cornus kousa / Kousa Dogwood	8'-10' ht.	B&B	
PY	12	Prunus x yedoensis / Yoshino Cherry	1 1/2"-2" cal.	B&B	
EVERGREEN TREES					
IO	10	Ilex opaca / American Holly	5'-6' ht.	B&B	FULL TO BASE
PA	45	Picea abies / Norway Spruce	6'-8' ht.	B&B	FULL TO BASE
PN	15	Pinus nigra / Austrian Pine	6'-8' ht.	B&B	FULL TO BASE
PS	17	Pinus strobus / Eastern White Pine	6'-8' ht.	B&B	FULL TO BASE
SHRUBS					
EA	60	Evonymus alatus 'Compacta' / Dwarfed King Evonymus	2'-2 1/2' ht.	B&B	DENSE FOLIAGE
EK	175	Evonymus katuschovicus / Manhattan Evonymus	2 1/2"-3" ht.	B&B	DENSE FOLIAGE

DEVELOPER'S / BUILDER'S CERTIFICATE

I / We certify that the landscaping shown on this plan will be done according to the plan section 16.124 of the Howard County Code and the Howard County Landscape Manual. I / We further certify that upon completion a certification of landscape installation accompanied by an executed one year guarantee of plant materials will be submitted to the Department of Planning and Zoning.

NAME: Christopher W. Kurr DATE: 5-4-99
PRINT NAME: CHRISTOPHER W. KURR

These plans for small pond construction, soil erosion and sediment control meet the requirements of Howard Soil Conservation District.

APPROVED: HOWARD SOIL CONSERVATION DISTRICT DATE

These plans have been reviewed for the Howard Soil Conservation District and meet the technical requirements for small pond construction, soil erosion and sediment control.

USDA - NATURAL RESOURCES CONSERVATION SERVICE DATE: 5/25/99

APPROVED: Howard County Department of Planning and Zoning

CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE: 12/21/98

CHIEF, DIVISION OF LAND DEVELOPMENT DATE: 1/24/99

RECEIVED DATE: 12/29/97

ADDRESS CHART

PARCEL NO.	STREET ADDRESS
Building No. 1	6010 University Boulevard
Building No. 2	6011 University Boulevard
Building No. 3	6021 University Boulevard
Building No. 4	6020 University Boulevard
Building No. 5	6040 University Boulevard
Building No. 6	6031 University Boulevard
Building No. 7	6041 University Boulevard
Building No. 8	6051 University Boulevard

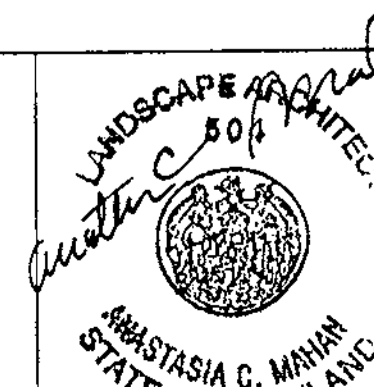
SUBDIVISION NAME SECTION NAME PARCEL #

THE HORSE FARM N/A 552

PLAT # N / A BLOCK # ZONE / ZONE MAP ELECT. DIST. CENSUS TRACT

248 POR 37 1 8011.02

WATER CODE -E06 SEWER CODE 6333000



DETAILS AND SCHEDULES

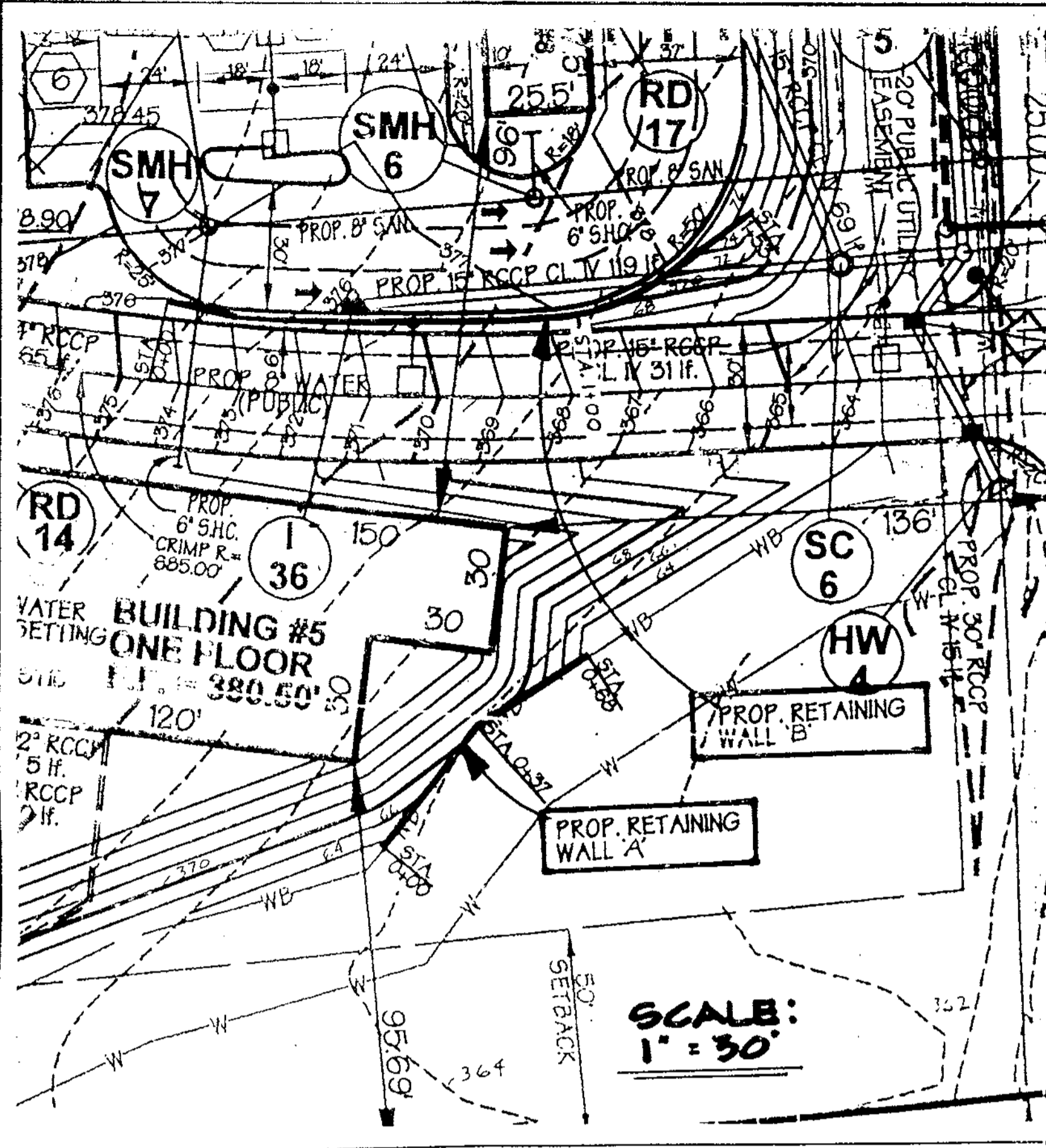
SCALE: NO SCALE

OWNER / DEVELOPER
HORSE FARM - LINDEN L.L.C.
906 POPLAR HILL ROAD SUITE 200
BALTIMORE, MARYLAND, 21210
410-532-6250

DESIGNED BY: MW
DRAWN BY: JY
CHECKED BY: MW
REVISIONS

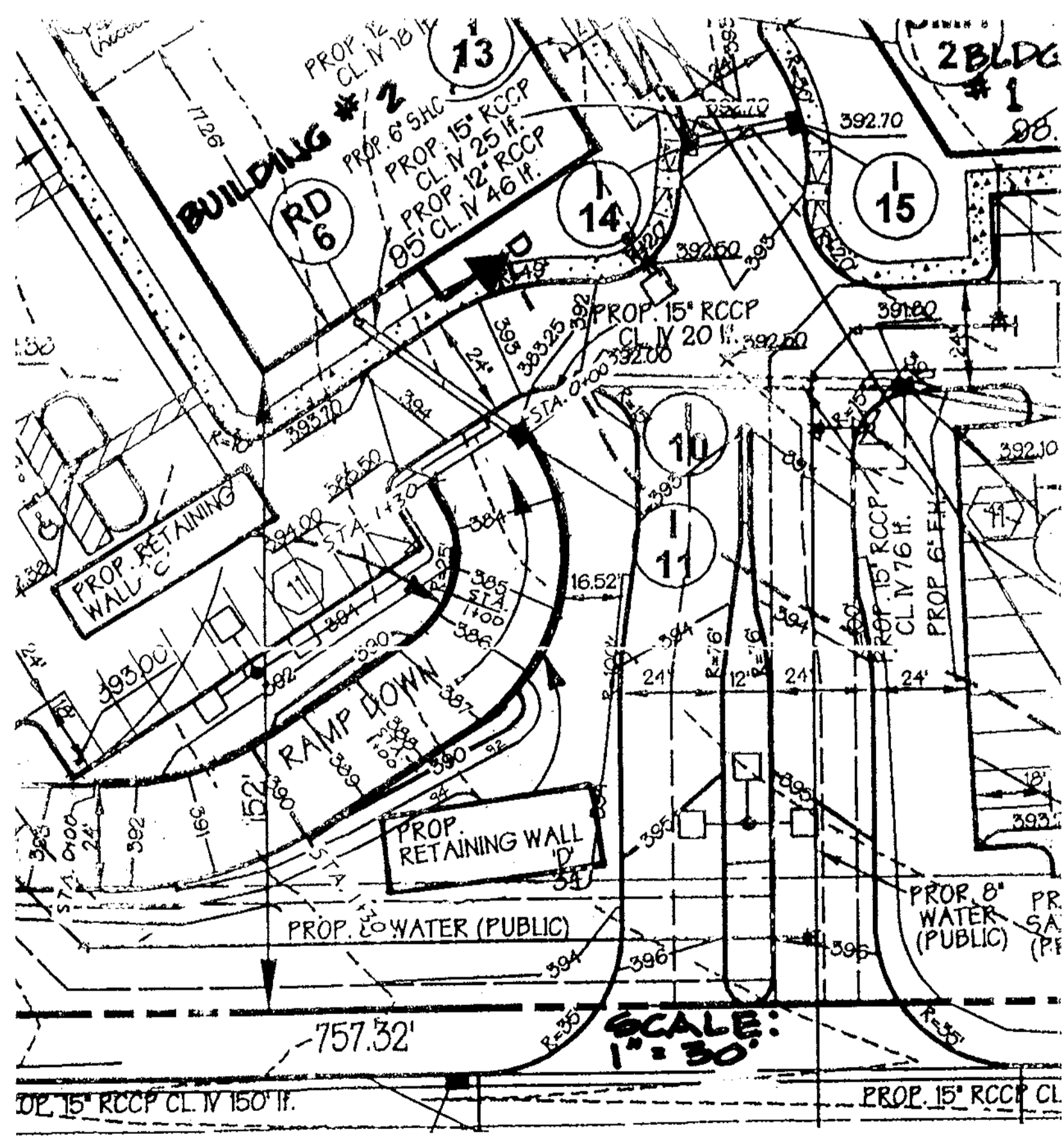
LANDSCAPE DETAILS
THE HORSE FARM

ELECTION DISTRICT: 1 HOWARD CO., MARYLAND SHT. 34 OF 37 SCALE: As Shown DATE: Nov. 25, 1998



RETAINING WALLS - PLAN NO. 1
THE HORSE FARM

NOTE: FOR SECTIONS
AND PROFILES SEE
SHEET 36 OF 37



RETAINING WALLS - PLAN NO. 2
THE HORSE FARM

SPECIFICATION GUIDELINES
KEYSTONE CONCRETE MODULAR RETAINING WALL

PART 1: GENERAL

- 1.01 DESCRIPTION**
- A. Work includes furnishing and installing modular block retaining wall units to the lines and grades designated on the construction drawings and as specified herein.
 - B. Work includes preparing foundation soil, furnishing and installing leveling pad, unit fill and backfill to the lines and grades designated on the construction drawings.
 - C. Furnishing and installing all appurtenant materials required for construction of the retaining wall as shown on the construction drawings.
- 1.02 RELATED WORK**
- A. Section 02275 - Geogrid Soil Reinforcement.
- 1.03 REFERENCE STANDARDS**
- A. ASTM C90 - 85 Hollow Load Bearing Masonry Units.
 - B. ASTM C140 - 75 Sampling and Testing Concrete Masonry Units.
 - C. ASTM C145 - 85 Solid Load Bearing Concrete Masonry Units.
- 1.04 DELIVERY, STORAGE AND HANDLING**
- A. Contractor shall check the materials upon delivery to assure that proper material has been received.
 - B. Contractor shall prevent excessive mud, wet cement, epoxy, and like materials which may affix themselves, from coming in contact with the materials.
 - C. Contractor shall protect the materials from damage. Damaged material shall not be incorporated into the retaining wall structure.
- 1.05 SUBMITTALS**
- A. Samples of all products used in the work of this section.
 - B. Latest edition of manufacturers specifications for proposed materials, method of installation and list of material proposed for use.
- 1.06 QUALITY ASSURANCE**
- A. Soil testing and inspection services for quality control testing during earthwork operations will be supplied by the owner.

PART 2: PRODUCTS

- 2.01 CONCRETE UNITS**
- A. Masonry units shall be Keystone® Retaining Wall Units as manufactured by:
 - B. Concrete wall units shall have a minimum net 28 day compressive strength of 3000 psi. The concrete shall have a maximum moisture absorption of 8 to 8.5 lbs/ft³.
 - C. Exterior dimensions may vary in accordance with ASTM C90 - 85. Standard and Compact units shall have a minimum of 1 square foot face area each. Mini units shall have a minimum 1/2 square foot face area each.
 - D. Keystone Standard units shall provide a minimum of 150 psf of wall face area. Fill which is contained within the dimensions of the units may be considered as 80% effective weight.

- E. Units shall have angled sides capable of concave and convex alignment curves with a minimum radius of 3.5 feet.
 - F. Units shall be interlocked with non-corrosive fiberglass pins.
 - G. Units shall be interlocked as to provide a minimum 1/4 inch setback per each course of wall height.
 - H. NOTE: Where applicable, zero setback or one inch setback per course options can be used.
- 2.02 FIBERGLASS CONNECTING PINS**
- A. Connecting pins shall be 1/2 inch diameter thermoset isophthalic polyester resin/pultruded fiberglass reinforcement rods.
 - B. Pins shall have a minimum flexural strength of 128,000 psi and short beam shear of 8400 psi.
- 2.03 BASE LEVELING PAD MATERIAL**
- A. Material shall consist of compacted sand, gravel, crushed rock or leveling concrete (non-reinforced) as shown on construction drawings. The compacted leveling pad shall be a minimum 6 inches thick. When using a non-reinforced leveling concrete option, 1" to 3" thick, maintain the total leveling pad thickness.
- 2.04 UNIT FILL**
- A. Fill for units shall be free draining crushed stone, 3/8" to 3/4", or coarse gravel (no more than 5% shall pass the No. 200 sieve with a maximum size of 3/4"). Gradation of the fill shall be approved by the Engineer.
 - B. Place recommended fill behind the retaining wall units.
- 2.05 BACKFILL**
- A. Material shall be in situ soils when approved by the engineer unless otherwise specified in the drawings. Unsuitable soils for backfill (heavy clays or organic soils) shall not be used in the backfill or in the reinforced soil mass.
 - B. Where additional fill is required contractor shall submit sample and specifications to the engineer to determine if acceptable.

PART 3: EXECUTION

- 3.01 EXCAVATION**
- A. Contractor shall excavate to the lines and grades shown on the construction drawings. Over excavation shall not be paid for and replacement with compacted fill and/or wall system components will be required at contractor expense. Contractor shall be careful not to disturb embankment materials beyond lines shown.
- 3.02 FOUNDATION SOIL PREPARATION**
- A. Foundation soil shall be excavated as required for footing dimensions shown on the construction drawings, or as directed by the Engineer.

- B. Foundation soil shall be examined by the Engineer to assure that the actual foundation soil strength meets or exceeds assumed design strength. Soils not meeting required strength shall be removed and replaced with acceptable material.
 - C. Over-excavated areas shall be filled with so-processed compacted backfill material.
- 3.03 BASE LEVELING PAD**
- A. Leveling pad materials shall be placed as shown on the construction drawings, upon undisturbed in situ soil, to a minimum thickness of 6 inches.
 - B. Material shall be compacted so as to provide a level hard surface on which to place the first course of units. Compaction shall be to 95% of standard proctor for sand or gravel type materials. For crushed rock, material shall be densely compacted.
 - C. Leveling pad shall be prepared to insure complete contact of retaining wall unit with base.
 - D. Leveling pad materials shall be to the depths and widths shown. Contractor may opt for using reduced depth of sands, gravel or crushed rock using a concrete topping. Concrete shall be unreinforced and a maximum of 1" to 3" thick.
- 3.04 UNIT INSTALLATION**
- A. First course of concrete wall units shall be placed on the base leveling pad. The units shall be checked for level and alignment. The first course is the most important to insure accurate and acceptable results.
 - B. Insure that units are in full contact with base.
 - C. Units are placed side by side for full length of wall alignment. Alignment may be done by means of a string line or offset from base line.
 - D. Install fiberglass connecting pins and fill all voids at units with unit fill material. Tamp fill.
 - E. Sweep all excess material from top of units and install next course. Insure each course is completely unit filled, backfilled and compacted prior to proceeding to next course.
 - F. Lay up each course insuring that pins protrude into adjoining courses above a minimum of one inch. Two pins are required per unit. Pull each unit forward, away from the embankment, against pins in the previous course and backfill as the course is completed. Repeat procedure to the extent of wall height.
 - G. As appropriate where the wall changes elevation, units can be stepped with grade or torted into the embankment with a convex return end. Provide appropriate buried units on compacted leveling pad in area of convex return end.
- 3.05 CAP INSTALLATION**
- A. Place Keystone Cap units over projecting pins from units below. Pull forward to set back position. Back fill and compact to finished grade.
 - B. As required, provide permanent mechanical connection to wall units with construction adhesive or epoxy. Apply adhesive or epoxy to bottom surface of cap units and install on units below.
- 3.06 GEOGRID INSTALLATION**
- A. Follow the requirements of Section 02275, GEOGRID SOIL REINFORCEMENT.

GEOGRID SOIL REINFORCEMENT

PART 1: GENERAL

- 1.01 DESCRIPTION**
- A. Work includes furnishing and installing geogrid reinforcement, wall fill, and backfill to the lines and grades designated on the construction drawings.
 - B. Work includes furnishing and installing all appurtenant materials required for construction of the geogrid reinforced soil retaining wall as shown on the construction drawings.
- 1.02 RELATED WORK**
- A. Section 02275 - KEYSTONE CONCRETE MODULAR RETAINING WALL.
- 1.03 REFERENCE STANDARDS**
- A. See applicable manufacturers reference standards.
- 1.04 DELIVERY, STORAGE AND HANDLING**
- A. Contractor shall check the geogrid upon delivery to assure that the proper material has been received.
 - B. Geogrid shall be stored above -20°F.
 - C. Contractor shall prevent excessive mud, wet cement, epoxy and like materials which may affix themselves to the geogrid, from coming in contact with the geogrid material.
 - D. Rolled geogrid material may be laid flat or stood on end for storage.
- 1.05 SUBMITTALS**
- A. Samples of all products used in the work of this section.
 - B. Latest edition of manufacturers specifications for proposed materials, method of installation and list of material proposed for use.
- 1.06 QUALITY ASSURANCE**
- A. Soil testing and inspection services for quality control testing during earthwork operation will be supplied by the owner.

PART 2: PRODUCTS

- 2.01 DEFINITIONS**
- A. Geogrid products shall be high density polyethylene expanded sheet or polyester woven fiber materials, specifically fabricated for use as soil reinforcement.
 - B. Concrete retaining wall units are as detailed on the drawings and are specified under Section 02275 - KEYSTONE CONCRETE MODULAR RETAINING WALL.
 - C. Wall fill is a free draining granular material used within the concrete units.
 - D. Backfill is the soil which is used as the reinforced soil mass.
 - E. Foundation soil is the in situ soil.
- 2.02 GEOGRID**
- A. Geogrid shall be the type as shown on the drawings having the property requirements described within the manufacturers specifications.
 - B. Rubber-liked equipment may pass over the geogrid reinforcement at slow speeds, less than 10 MPH. Sudden braking and sharp turning shall be avoided.
- 2.03 ACCEPTABLE MANUFACTURERS**
- A. A manufacturer's product shall be approved by the Engineer prior to bid opening.

PART 3: EXECUTION

- 3.01 FOUNDATION SOIL PREPARATION**
- A. Foundation soil shall be excavated to the lines and grades as shown on the construction drawings or as directed by the Engineer.
 - B. Foundation soil shall be examined by the Engineer to assure that the actual foundation soil strength meets or exceeds assumed design strength.
 - C. Over-excavated areas shall be filled with so-processed compacted backfill material.
 - D. Foundation soil shall be proof rolled prior to fill and geogrid placement.
- 3.02 WALL ERECTION**
- A. Wall erection shall be as specified under Section 02275 - KEYSTONE CONCRETE MODULAR RETAINING WALL.
- 3.03 GEOGRID INSTALLATION**
- A. The geogrid soil reinforcement shall be laid horizontally on compacted backfill. Connect to the concrete wall units by hooking geogrid over fiberglass pins. Pull taut, and anchor before backfill is placed on the geogrid.
 - B. Slack in the geogrid at the wall unit connections shall be removed.
 - C. Geogrid shall be laid at the proper elevation and orientation as shown on the construction drawings or as directed by the Engineer.
 - D. Correct orientation (roll direction) of the geogrid shall be verified by the contractor.
 - E. To pretension geogrid, pull pinned geogrid taut to eliminate loose links. Stakes or secure back edge of geogrid prior to and during backfill and compaction.
 - F. Follow manufacturers guidelines relative to covering requirements of uniaxial and biaxial geogrids.
- 3.04 FILL PLACEMENT**
- A. Backfill material shall be placed in 8 inch lifts and compacted to 95% of Standard Proctor.
 - B. Backfill shall be placed, spread, and compacted in such a manner that minimizes the development of slack or loss of pretension of the geogrid.
 - C. Only hand-operated compaction equipment shall be allowed within 3 feet of the back surface of the Keystone units.
 - D. Backfill shall be placed from the wall rearward into the embankment to insure that the geogrid remains taut.
 - E. Backfill construction equipment shall not be operated directly on the geogrid. A minimum wheel thickness of 6 inches is required prior to operation of tracked vehicles over the geogrid. Turning of tracked vehicles should be kept to a minimum to prevent tracks from displacing the fill and damaging the geogrid.



These plans for small pond construction, soil erosion and sediment control meet the requirements of Howard Soil Conservation District.

HOWARD SOIL CONSERVATION DISTRICT DATE

These plans have been reviewed for the Howard Soil Conservation District and meet the requirements of small pond construction, soil erosion and sediment control.

USDA-NATURAL RESOURCES CONSERVATION SERVICE DATE

APPROVED: Howard County Department of Planning and Zoning

CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE 12/21/99

CHIEF, DIVISION OF LAND DEVELOPMENT DATE 12/29/99

DIRECTOR DATE 12/29/99

PARCEL NO.	STREET ADDRESS
Building No. 1	6010 University Boulevard
Building No. 2	6011 University Boulevard
Building No. 3	6021 University Boulevard
Building No. 4	6020 University Boulevard
Building No. 5	6040 University Boulevard
Building No. 6	6031 University Boulevard
Building No. 7	6041 University Boulevard
Building No. 8	6051 University Boulevard

SUBDIVISION NAME: THE HORSE FARM SECTION NAME: N/A PARCEL #: 552

PLAT: N/A BLOCK: 248 ZONE: ZON MAP 37 ELECT. DIST. 1 CENSUS TRACT 601102

WATER CODE: E06 SEWER CODE: 5335000

PREPARED BY:

GWS GEORGE W. STEPHENS, JR. AND ASSOCIATES, INC.
Civil Engineers and Land Surveyors
658 Kenilworth Drive, Suite 100
Towson, Maryland 21204
(410) 825-8120

HILLIS-CARNES ENGINEERING ASSOCIATES, INC.
12011 GUILFORD ROAD, ANNAPOLIS JUNCTION, MARYLAND 20701 880-4788 WASH. AREA 470-4239

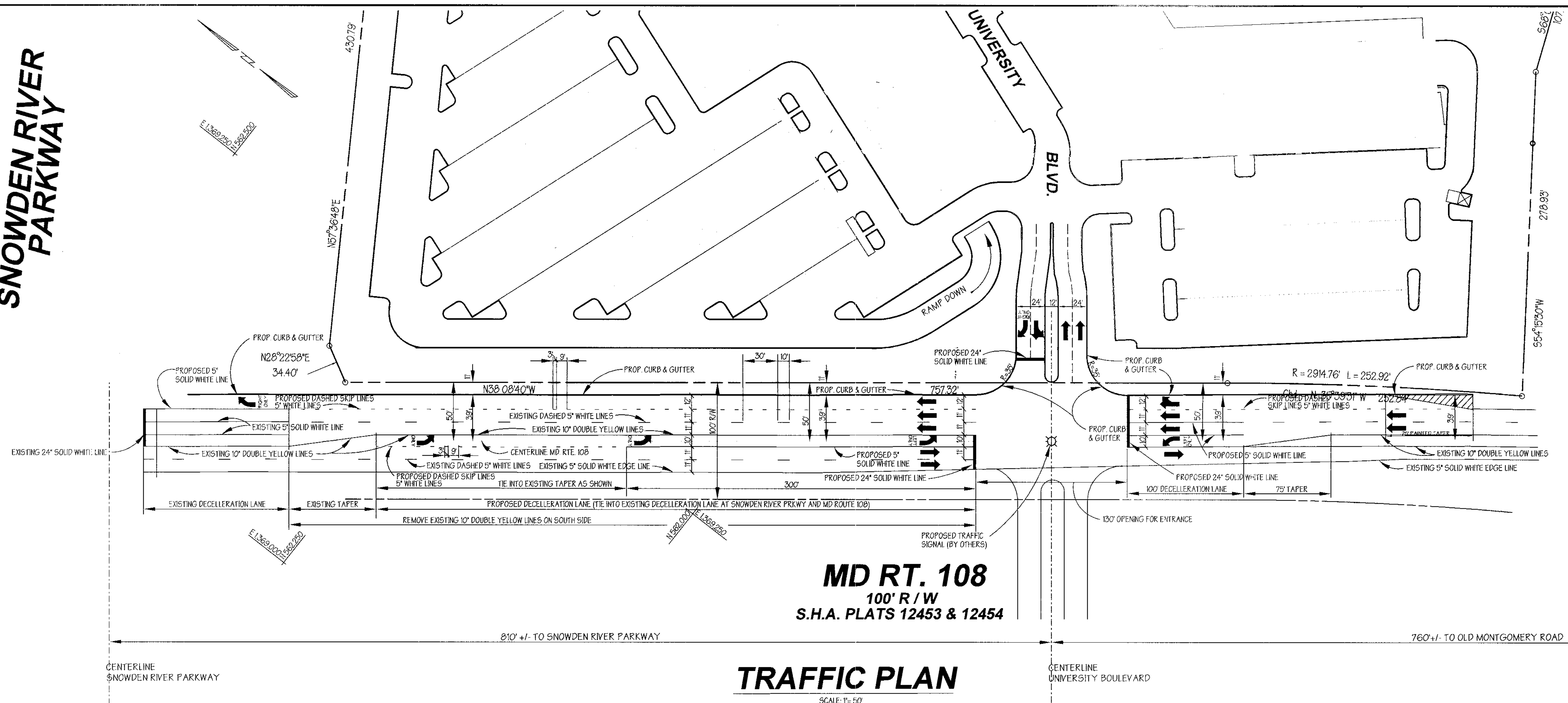


OWNER - DEVELOPER
HORSE FARM - LINDEN L.L.C.
906 POPLAR HILL ROAD SUITE 200
BALTIMORE, MARYLAND, 21210
410 - 532 6250

DESIGNED BY: P.R.C.
DRAWN BY: E.M.T., K.E.
CHECKED BY: P.R.C.
REVISIONS:

**RETAINING WALL
DETAILS & SECTIONS
THE HORSE FARM**

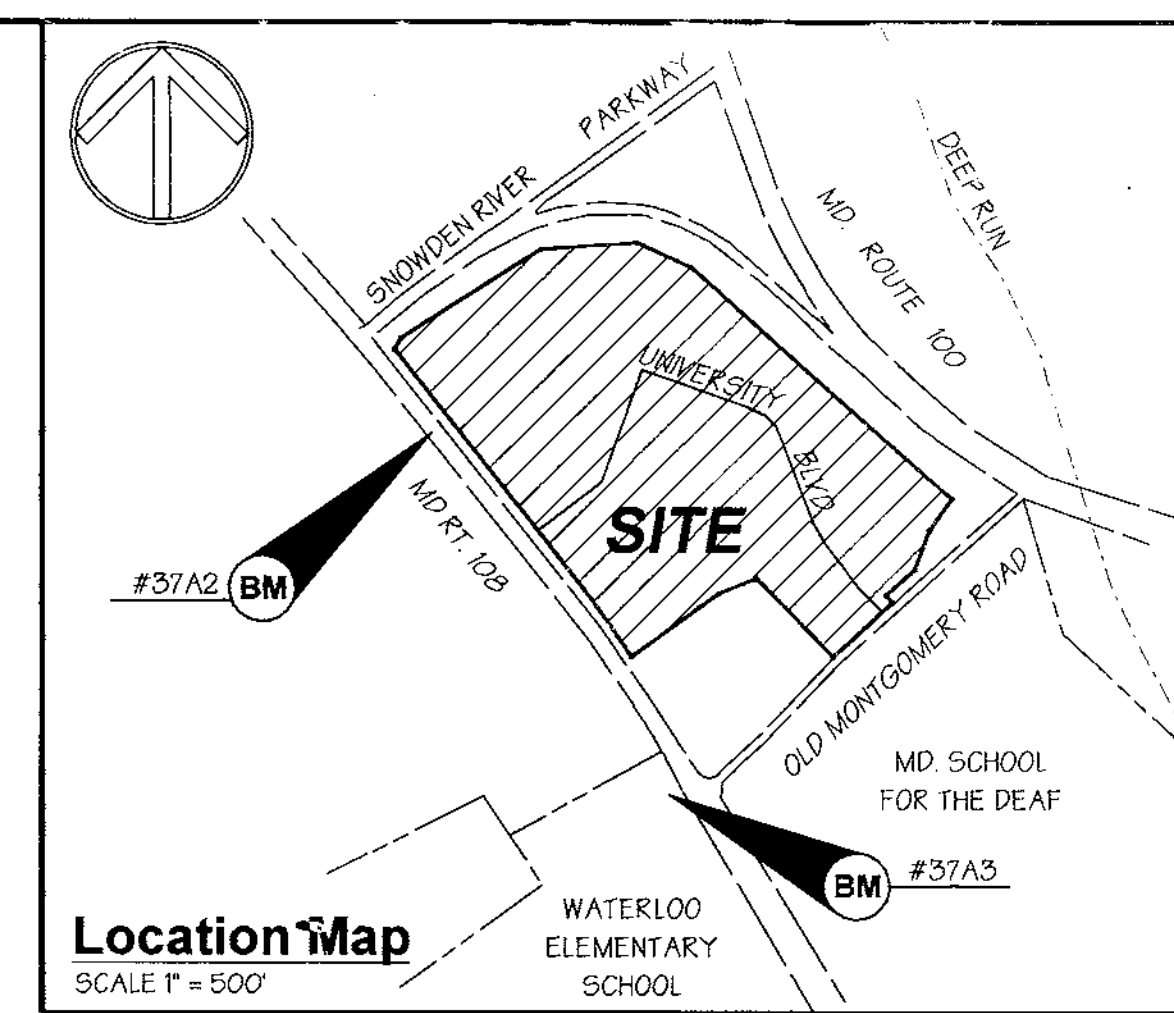
SNOWDEN RIVER PARKWAY



MD RT. 108
100' R / W
S.H.A. PLATS 12453 & 12454

TRAFFIC PLAN

SCALE: 1" = 50'



Location Map
SCALE 1" = 500'

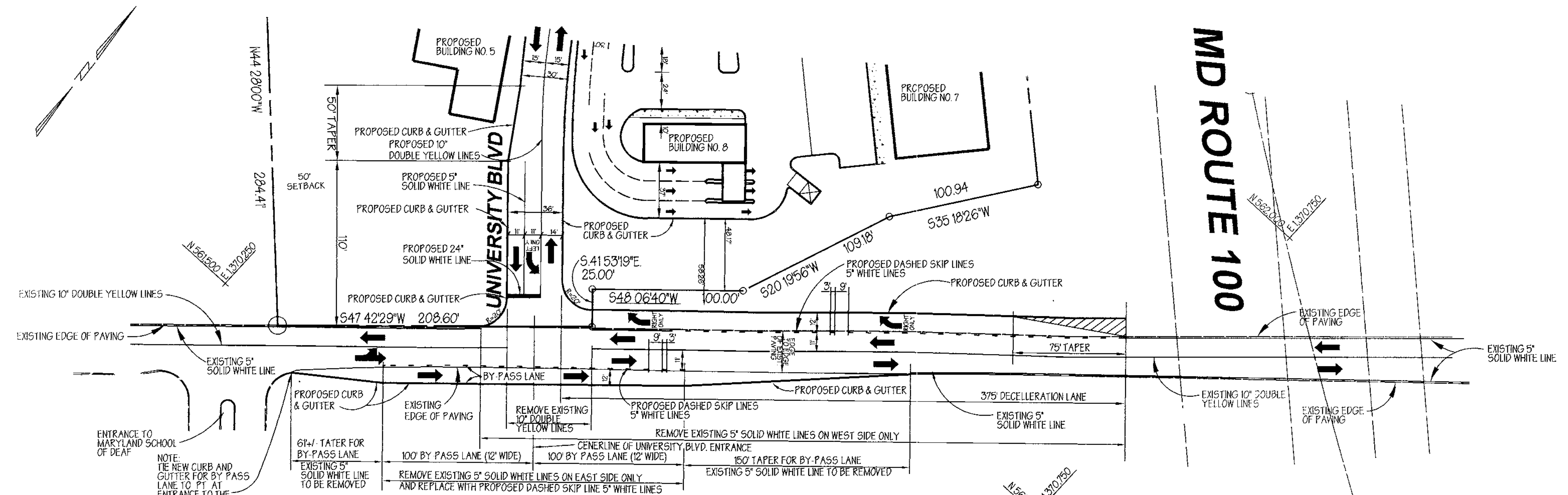
Benchmarks

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 Elevation: 403.675'

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 Northing: 56130.803
 Easting: 1369313.306
 NAD27 datum N 5003819, E 857495.1
 Elevation: 385.627'

Legend

- ← DIRECTION OF TRAFFIC ARROWS (PAINTED WHITE)
- DIRECTION OF TRAFFIC ARROWS (PAINTED WHITE)



OLD MONTGOMERY ROAD

TRAFFIC PLAN

SCALE: 1" = 50'

~~These plans for small pond construction, soil erosion and sediment control meet the requirements of Howard Soil Conservation District.~~

HOWARD SOIL CONSERVATION DISTRICT _____ DATE _____

~~These plans have been reviewed for the Howard Soil Conservation District and meet the technical requirements for small pond construction, soil erosion and sediment control.~~

USDA-NATURAL RESOURCES CONSERVATION SERVICE _____ DATE _____

APPROVED: Howard County Department of Planning and Zoning

[Signature] 12/21/99
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

[Signature] 12/21/99
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

[Signature] 12/21/99
 DIRECTOR DATE

ADDRESS CHART

PARCEL NO.	STREET ADDRESS
Building No. 1	6010 University Boulevard
Building No. 2	6011 University Boulevard
Building No. 3	6021 University Boulevard
Building No. 4	6020 University Boulevard
Building No. 5	6040 University Boulevard
Building No. 6	6031 University Boulevard
Building No. 7	6041 University Boulevard
Building No. 8	6051 University Boulevard

SUBDIVISION NAME The Horse Farm		SECTION NAME N/A	PARCEL # 552
PLAT # N/A	BLOCK # 24 B	ZONE / ZONE MAP 37	ELECT. DIST. 1
WATER CODE E-07		SEWER CODE 2780000	

MD ROUTE 108 & OLD MONTGOMERY ROAD PAVEMENT MARKING PLAN

THE HORSE FARM

ELECTION DISTRICT: 1
 HOWARD CO., MARYLAND

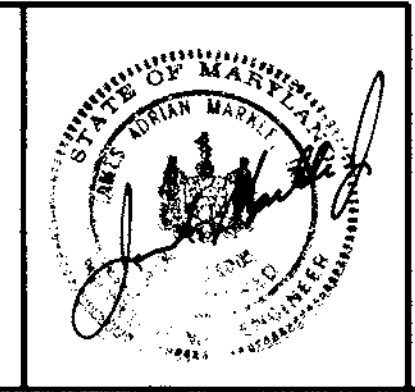
SHT. 37 OF 37
 DATE: Nov 25, 1998

SCALE: As Shown

PREPARED BY:

GWS

GEORGE W. STEPHENS, JR. AND ASSOCIATES, INC.
 Civil Engineers and Land Surveyors
 658 Kenilworth Drive, Suite 100
 Towson, Maryland 21204
 (410) 825-8120



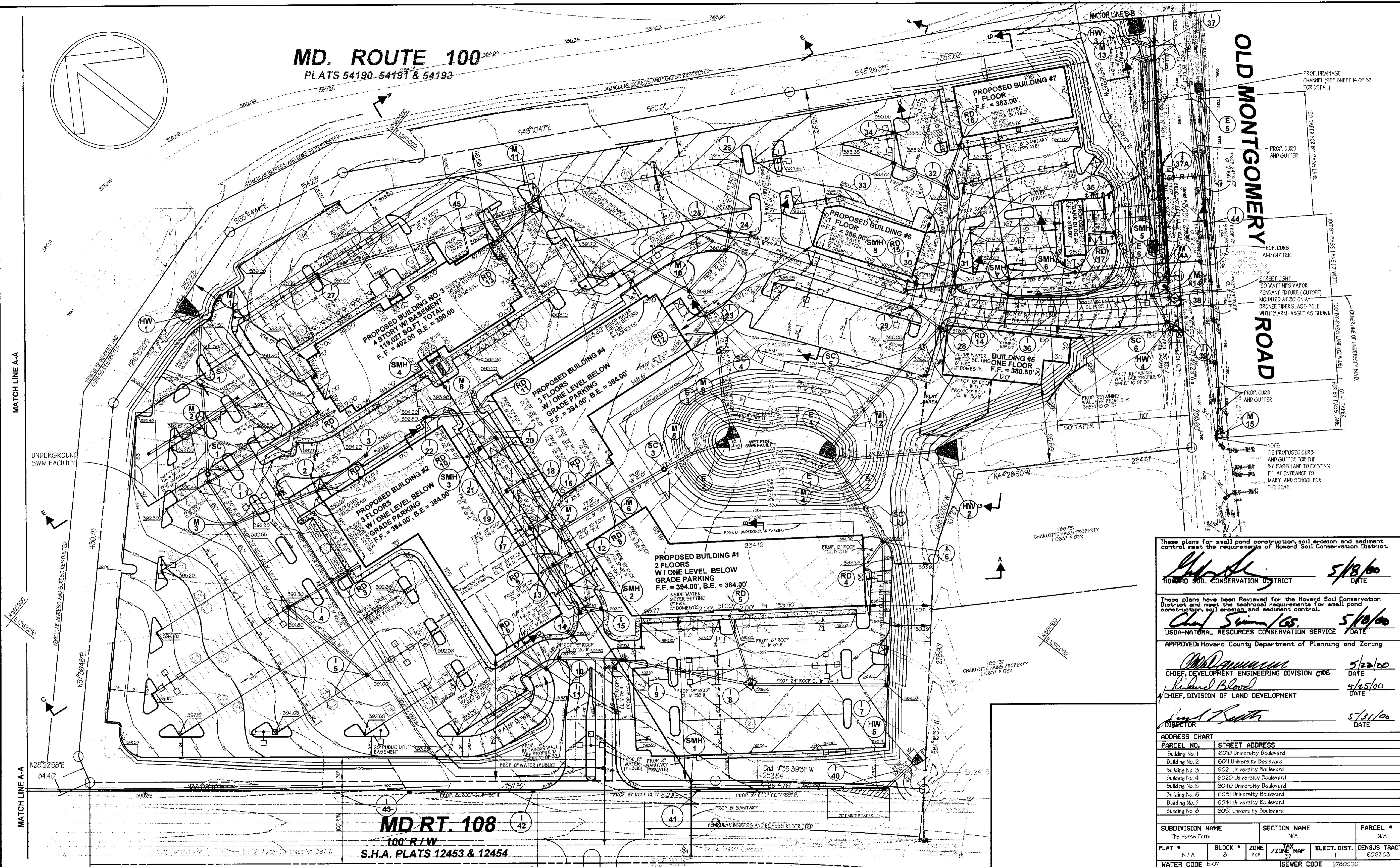
OWNER - DEVELOPER
HORSE FARM - LINDEN L.L.C.
 906 POPLAR HILL ROAD SUITE 200
 BALTIMORE, MARYLAND, 21210
 410-532-6250

DESIGNED BY: P.R.C.
 DRAWN BY: E.M.T., K.E.
 CHECKED BY: P.R.C.
 REVISIONS

MD. ROUTE 100
PLATS 54190, 54191 & 54193

OLD MONTGOMERY ROAD

MD RT. 108
100' R/W
S.H.A. PLATS 12453 & 12454



These plans for small pond construction, soil erosion and sediment control meet the requirements of Howard Soil Conservation District.

[Signature] 5/13/00
HOWARD SOIL CONSERVATION DISTRICT DATE

These plans have been Reviewed for the Howard Soil Conservation District and meet the technical requirements for small pond construction, soil erosion, and sediment control.
[Signature] 5/10/00
USDA-NATURAL RESOURCES CONSERVATION SERVICE DATE

APPROVED: Howard County Department of Planning and Zoning

[Signature] 5/23/00
CHIEF, DEVELOPMENT ENGINEERING DIVISION CRE DATE

[Signature] 5/25/00
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

[Signature] 5/31/00
DIRECTOR DATE

PARCEL NO.	STREET ADDRESS
Building No. 1	6010 University Boulevard
Building No. 2	6011 University Boulevard
Building No. 3	6021 University Boulevard
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SUBDIVISION NAME The Horse Farm		SECTION NAME N/A	PARCEL # N/A
PLAT # N/A	BLOCK # B	ZONE POR	ELECT. DIST. 1
WATER CODE E-07		SEWER CODE 2780000	

PREPARED BY:
GWS
GEORGE W. STEPHENS, JR. AND ASSOCIATES, INC.
Civil Engineers and Land Surveyors
658 Kenilworth Drive, Suite 100
Towson, Maryland 21204
(410) 825-8120



PLAN
SCALE: 1" = 50'

TYPICAL LIGHTING
400 W METAL HALID
30 FOOT POLES
15 FC MIN MAINTAINED

NOTE: ALL EXTERIOR LIGHTING SHALL CONFORM TO ZONING REGULATIONS, SECTION 134

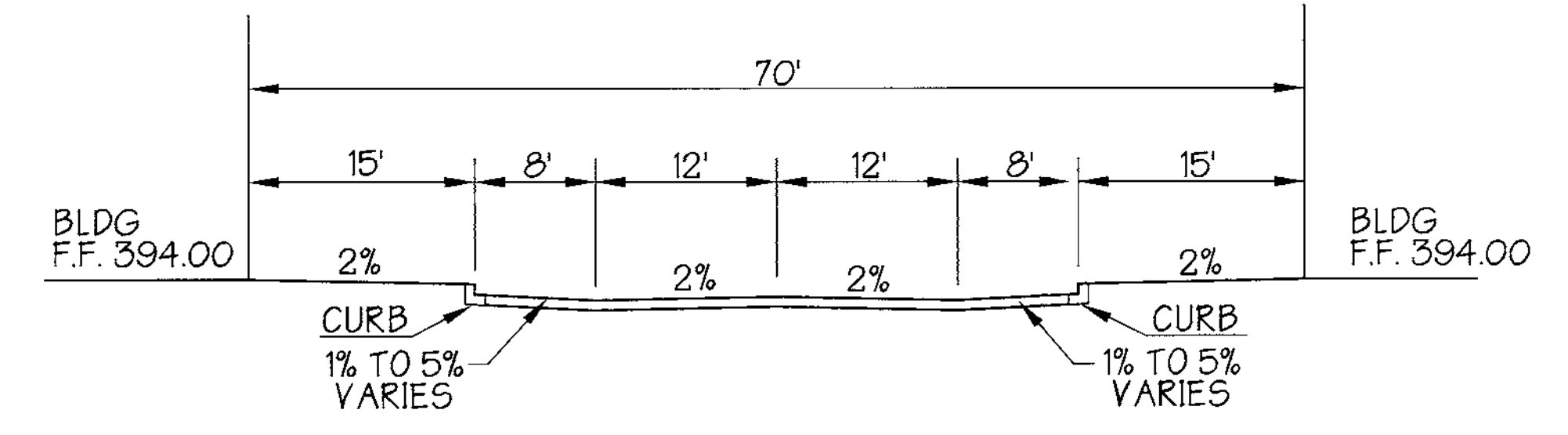
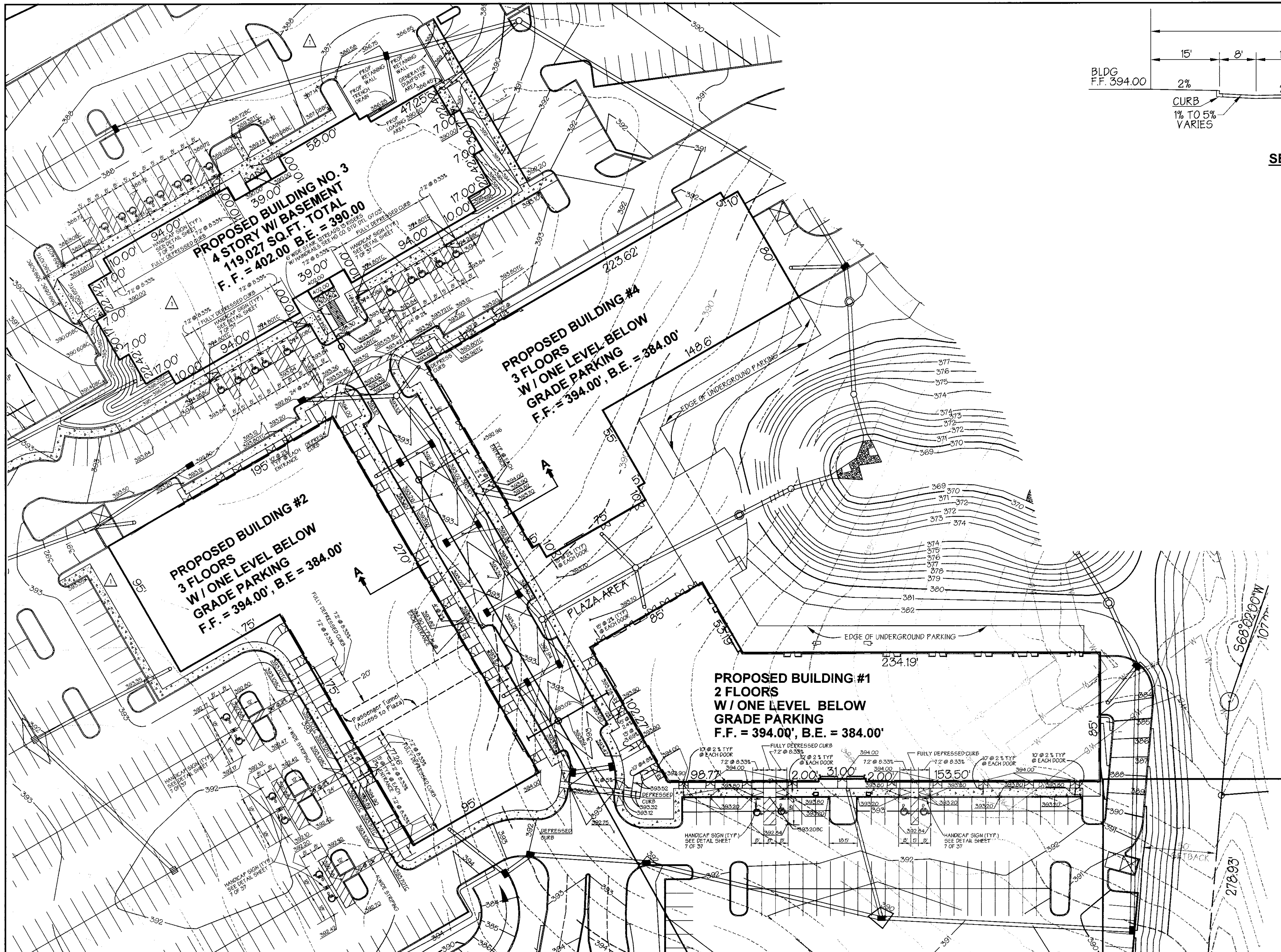
NOTE: FOR BUILDING NO. 1, 2, 3, 4 HANDICAPPED DETAILS SEE SHEET 6 OF 36.
*NOTE: ALL CURB RADIUS ARE TO BE 5' UNLESS OTHERWISE SPECIFIED *
NOTE: FOR MD ROUTE 108 & OLD MONTGOMERY ROAD PAVEMENT MARKING PLAN SEE SHEET 37 OF 37.

OWNER / DEVELOPER
HORSE FARM - LINDEN, L.L.C.
906 POPLAR HILL ROAD SUITE 200
BALTIMORE, MARYLAND 21210
410 - 532-6250

DESIGNED BY: P.R.C.
DRAWN BY: E.M.T., K.E.
CHECKED BY: P.R.C.
REVISIONS
05/03/2000 BY GWS
REVISED BUILDING NO. 3,
RELATED PARKING
AND GRADING AND
REVISED BUILDING NO. 2
SQUARE FOOTAGE

SITE PLAN
REVISED SITE DEVELOPMENT PLAN
THE HORSE FARM

ELECTION DISTRICT: 1
HOWARD CO., MARYLAND SHT. 3 OF 37
SCALE: As Shown
DATE: Nov.25, 1998



SECTION A-A
N.T.S.

These plans for small pond construction, soil erosion and sediment control meet the requirements of Howard Soil Conservation District.

HOWARD SOIL CONSERVATION DISTRICT _____ DATE _____

These plans have been reviewed for the Howard Soil Conservation District and meet the technical requirements for small pond construction, soil erosion and sediment control.

USDA NATURAL RESOURCES CONSERVATION SERVICE _____ DATE _____

APPROVED: Howard County Department of Planning and Zoning

Richard Blotzel 5/23/00
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

Richard Blotzel 5/25/00
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

Paul R. Smith 5/31/00
DIRECTOR DATE

PARCEL NO.	STREET ADDRESS
Building No. 1	6010 University Boulevard
Building No. 2	6011 University Boulevard
Building No. 3	6021 University Boulevard
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Building No. 7	6041 University Boulevard
Building No. 8	6051 University Boulevard

SUBDIVISION NAME	SECTION NAME	PARCEL #
The Horse Farm	N/A	N/A

PLAT #	BLOCK #	ZONE	MAP	ELECT. DIST.	CENSUS TRACT
N/A	B	POR	37	1	6067.03

WATER CODE E-07 SEWER CODE 2780000

PREPARED BY:
GWS
GEORGE W. STEPHENS, JR.
AND ASSOCIATES, INC.
Civil Engineers and Land Surveyors
658 Kenilworth Drive, Suite 100
Towson, Maryland 21204
(410) 825-8120



PLAN
SCALE: 1" = 30'

OWNER / DEVELOPER
HORSE FARM - LINDEN, L.L.C.
906 POPLAR HILL ROAD SUITE 200
BALTIMORE, MARYLAND, 21210
410 - 532-8250

DESIGNED BY: P.R.C.
DRAWN BY: E.M.T., K.E.
CHECKED BY: P.R.C.

REVISIONS
5/03/2000 BY GWS
REVISED BLDG. NO. 3
RELATED PARKING
AND GRADING AND
REVISED BLDG. NO. 2
SQUARE FOOTAGE.

SITE PLAN DETAIL
'REVISED SITE DEVELOPMENT PLAN'
THE HORSE FARM

ELECTION DISTRICT: 1
HOWARD CO., MARYLAND SHT. 6 OF 37
SCALE: As Shown
DATE: Nov. 25, 1998

SDP 99-65 FILE NAME: 8594siteplananddetail.s01 P/N: 0594