

**GENERAL NOTES**

- All construction shall be in accordance with the latest standards and specifications of Howard County plus MSHA standard and specifications if applicable.
- The contractor shall notify the Department of Public Works Bureau of Engineering, Construction Inspection Division at (410) 315-1880 at least five working days prior to start of work.
- The contractor shall notify "Miss Utility" at 1-800-251-7777 at least 48 hours prior to any excavation work. Contractor is to contact all utility companies with Existing Facilities located in the areas under construction and improvement. The contractor will coordinate his/her activities in and appropriate utility provider.
- The contractor shall notify the Howard County Department of Public Works, Bureau of Utilities at (410) 315-4400 at least five working days prior to starting any excavation work.
- Site area: 6.022 acres. SDP 97-31
- All plan dimensions are to face of curb unless otherwise noted.
- Existing topography reflects grading indicated on Field Topo Study dated 3/6/95 by McCrone Inc.
- Coordinates and bearings are based upon the MD. State Plane System (NAD '83).
- Water and sewer shown is Private Service to the site will be from Existing line in Access Road, Contract No. 345534 Drainage Area Middle Patuxent River.
- Stormwater management for this site; See below
- All existing water and sewer is per Contracts 34-3523-D and 34-3534.
- All curb radii are as noted.
- Sidewalks adjacent to perpendicular parking shall be 6' wide. All other sidewalks shall be 4' wide except where dimensioned otherwise.
- Contractor shall utilize D.I.P. (CL33) for 6" water line connections.
- Use trench bedding class "C" for storm drains.
- Recording reference: By Plat of Consolidation E-97-59.
- All proposed ramps shall be in accordance with current A.D.A. standards. Maximum sidewalk cross slope shall be two percent. Provide a five-foot by five-foot level (2 percent max.) landing at the top and bottom of all ramps and building entrances and exits.
- Water meter shall be located inside buildings.
- All proposed site utilities are to be terminated 5' from the building. See Mechanical Drawings for Details of utility extensions into building.
- Existing utilities are based on field topo study dated 3/6/95 by McCrone Inc. and approved design plans for construction.
- There is no floodplain on this site.
- Wetlands on this site, are delineated refer to LOA #96-NT-0014 / 199601454 for permit to grade in wetland buffer (see Howard County Navier WF-96 25)
- A traffic study is not required for this site.
- All HDPE stormdrain pipe shall be smooth-lined (ADS N-12 or approved equivalent).
- All stormdrain connections to downspouts to be at minimum of 18".
- The setbacks and bulk regulations for the new town portion of the sites are as stipulated by final development plan, phase 222 part 2.
- Existing Water Wells to be Abandoned, and Filled as necessary.

**SITE ANALYSIS: PARCEL**

- Area of Site: (Includes Access Road R/W) 6.022 Ac.
- Zoning: B-2 and NT
- Proposed Use: Fire Station / Community Hall
- Building Area: 35,560 S.F. (upper level 18,178 S.F. lower level 17,382 S.F.)
- Total Parking Required: 168
- Total Parking Provided: 219
- Total No. of Handicap Spaces Required: 7
- Total No. of Van Spaces Required: 1
- Total No. of Handicap Spaces Provided: 6
- Total No. of Van Spaces Provided: 2

**PARKING COMPUTATIONS**

A - Community Hall : Required 14 spaces per 1,000 s.f. (HALL = 12,000 S.F.)  
 14 X 12 = 168 Spaces Required (NOTE : this site is to be used as a park and ride facility by the State Highway Administration)

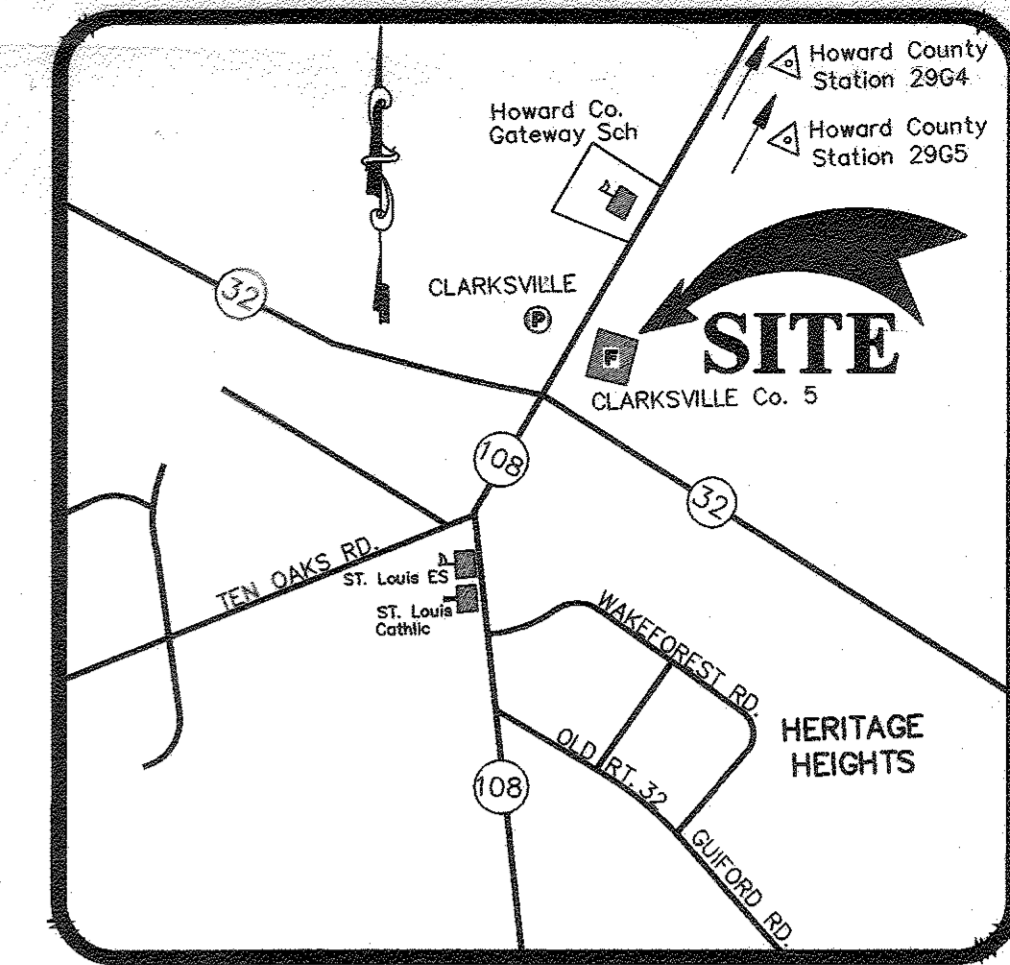
**STORMWATER MANAGEMENT NOTES**

- Quantity Control will be provided for this site in HRD's offsite SWM system, per letter dated 12-28-95 (copy of letter from HRD is attached)
- Quality Control for this site will be accomplished with onsite Stormceptor. Stormceptor will be privately owned and maintained.
- Per agreement, dated 2-16-96, section 3.2, between Howard County, and HRD. HRD will accommodate stormwater quantity management requirements off site site for improvements associate with this project. The maximum quantity management shall be 0.80 acre-feet for the project. The County will provide Stormwater Quality for the project.

# 5TH DISTRICT VOLUNTEER FIRE STATION CLARKSVILLE, MARYLAND

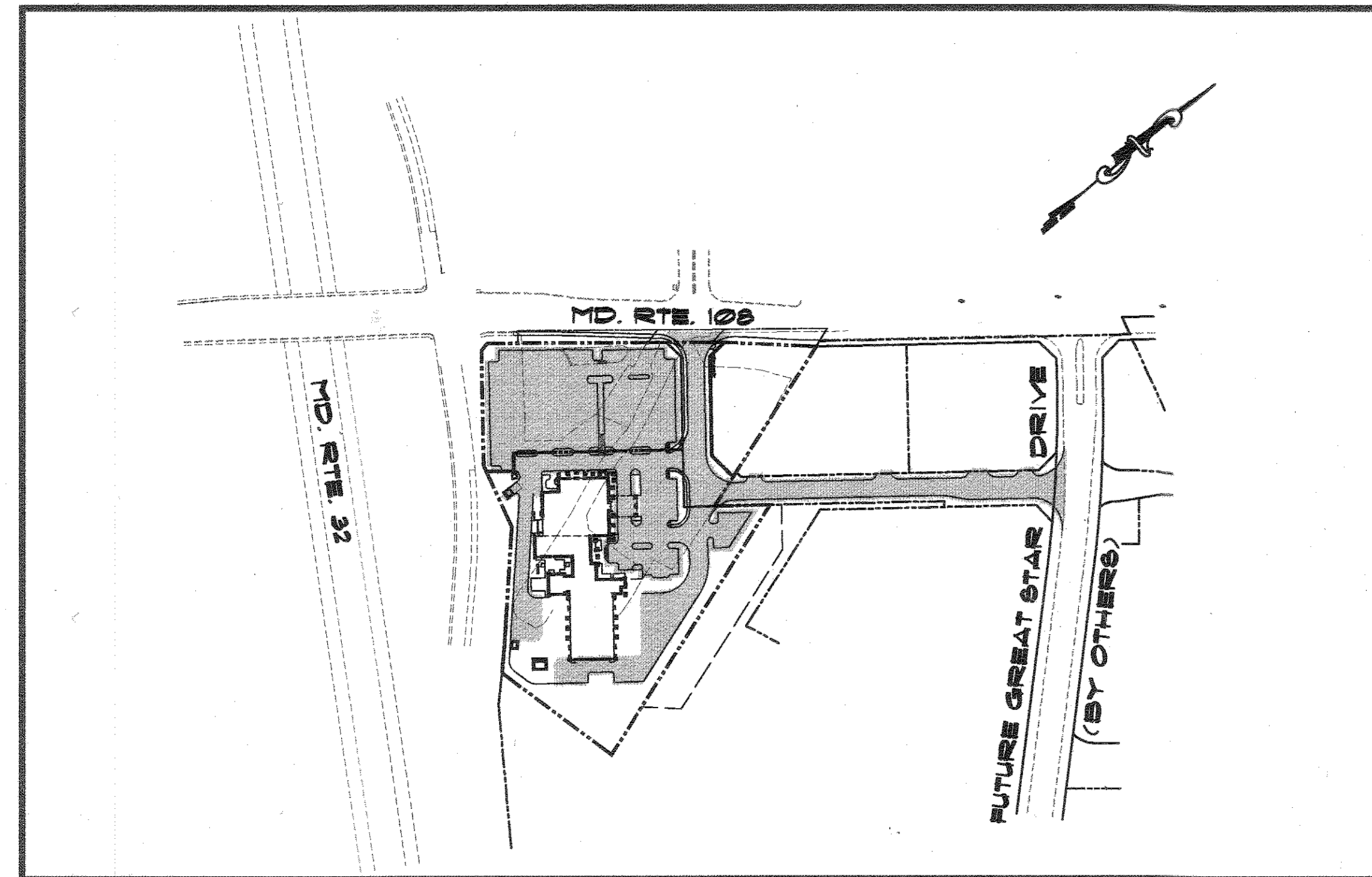
**BENCH MARKS**

Coordinates shown hereon are based on the Maryland State Grid System (NAD83) as per Howard County Monument Nos. 2964 and 2965.



**VICINITY MAP**  
Scale: 1"=2000'

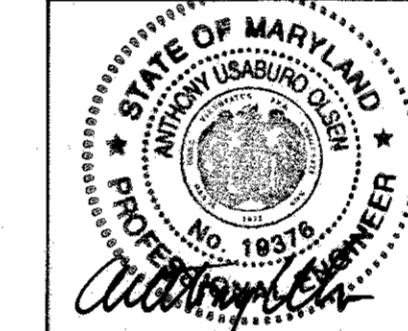
NOTE: SITE IS LOCATED WITHIN MAP 14, GRID E-7 OF THE HOWARD COUNTY APC MAP BOOK.



**LOCATION MAP**  
Scale: 1"=200'

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NUMBER 12376, EXPIRATION DATE SEPTEMBER 22, 2017.

NOTE: THIS CERTIFICATION APPLIES TO REVISIONS 11Z CORRECTIONS ONLY



\* SHEETS SUBMITTED AS PART OF REVISIONS FOR 50T-77-31, DATED 12-14-16

**PREPARED FOR :**

5th DISTRICT VOLUNTEER FIRE DEPARTMENT  
 P.O. BOX 601  
 CLARKSVILLE, MD. 21029  
 ATTN: MR. PAT MARLATT  
 PHONE: (301) 220-1250

**INDEX OF DRAWINGS**

Sheet	Description
* 1 of 14	Cover Sheet
* 2 of 14	Site Development Plan
* 3 of 14	Grading Plan
4 of 14	Drainage Area Maps & Water & Sewer Profiles
5 of 14	Sediment & Erosion Control Plan Contract 1
6 of 14	Sediment & Erosion Control Plan Contract 2
7 of 14	Grading & Sediment Control Plan and Notes
8 of 14	Grading & Sediment Control Details
* 9 of 14	Storm Drain Profile Sheet
* 10 of 14	Landscape Plan
11 of 14	Landscape Details
12 of 14	Site Details
13 of 14	SHA Road Widening Plan
14 of 14	Access Road Profile
13A of 14	RTE. 108 SHA ROAD PLAN
13B of 14	RTE. 108 SHA ROAD PLAN

**LEGEND**

Property Line	---
Existing Contour	20
Existing Utility Pole w/Overhead Line	○—○
Existing Waterline w/Fire Hydrant	—○—
Existing Storm Drain	—□—
Existing Spot Elevation	50.50
Existing Tree Line	~ ~ ~
Prop. Tree Line	~ ~ ~
Proposed Curb & Gutter/Edge of Paving	—
Proposed Light Duty Paving	▨
Proposed Heavy Duty Paving	▩
Proposed Contour	30
Proposed Spot Elevation	30.2
Limit of Disturbance	L.O.D.
Silt Fence	—○—
Stabilized Construction Entrance	—□—
Soil Boring	⊕
Flow Arrow	→
T.B.R.	→
tbr	→

These plans have been reviewed for the Howard County Soil Conservation District and meet technical requirements for Soil Erosion and Sediment Control.

*John L. Carter*  
 Howard Soil Conservation District  
**ENGINEER'S CERTIFICATE**  
 12/16/96 date

"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." \* NOT APPLICABLE THIS PROJECT.

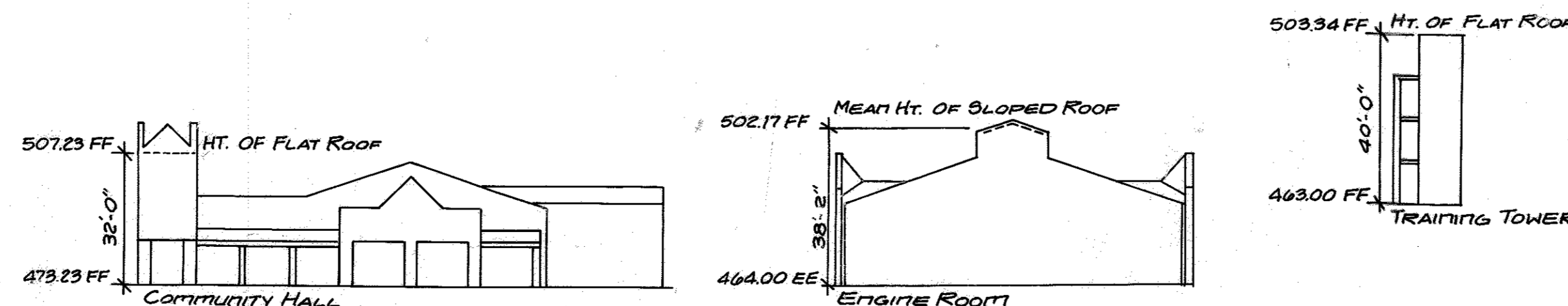
*T.H. Vourmet*  
 11-8-96 Date

These plans for Soil Erosion and Sediment Control meet the requirement of the Howard Soil Conservation District Natural Resources Conservation Service

*Cheryl S. Jannace*  
 Howard Soil Conservation District  
**DEVELOPER'S/BUILDER'S CERTIFICATE**  
 12-05-96 date

"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 Maryland 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.

*J. Paton Marlatt*  
 12-4-96 Date



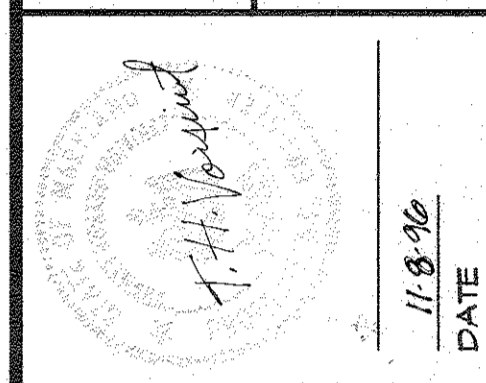
Approved: Howard County Department of Planning and Zoning  
*James S. Denton* 12/20/96 Date  
*John L. Carter* 12/15/96 Date  
*William J. Blood* 12/19/96 Date  
 Chief, Development Engineering Division

ADDRESS CHART		PARCEL	
WATER CODE:	SEWER CODE:	PARCEL NUMBER:	STREET ADDRESS:
		12335 CLARKSVILLE PIKE	
SUBMISSION NUMBER:		SECTION/AREA:	PARCEL:
5th District Volunteer Fire Department		AA, BB+CC	
PLAT: 12523+12524	ZONE: 82+NT	TAX MAP: 34	ELEC. DIST.: 5th
		BLOCK: 6+12	CENSUS TRACT: 6055

SHEET NO. 1 OF 14  
 CADD FILE: CLK-SPI  
 FILE NO. J-35-24

**COVER SHEET**  
**5th DISTRICT VOLUNTEER FIRE STATION**  
**12335 CLARKSVILLE PIKE**  
**(PARCEL AA, BB, CC)**  
 CLARKSVILLE, 5th ELECTION DISTRICT HOWARD COUNTY, MD.

DATE	DATE	DATE	DATE



**McCRONE**  
 ENGINEERING & ENVIRONMENTAL SCIENCES  
 LAND PLANNING & SURVEYING & CONSTRUCTION SERVICES  
 20 RIDGELY AVENUE, 21401  
 ANNAPOLIS, MARYLAND  
 (410) 267-8821  
 ANNAPOLIS-CENTREVILLE-ELKTON-LEONARDTOWN-ODESSA-PRICE-FREDERICK-SALISBURY-WALDORF



PREPARED FOR:  
FIFTH DISTRICT VOLUNTEER  
FIRE DEPARTMENT  
12335 CLARKSVILLE PIKE  
CLARKSVILLE, MD. 21029  
ATTN: MR. PAT MARLATT  
PHONE : (301) 220-7250

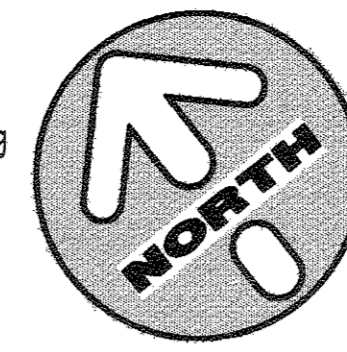
LIMITS OF WORK  
STA 5+412  
T.C. ELEV. = 488.82±

PROPERTY OF HOWARD  
RESEARCH AND DEVELOPMENT  
VILLAGE OF RIVER HILL  
SECTION 4, PARCEL 1, PHASE 1  
FUTURE PARCEL B-1  
ZONED: N1

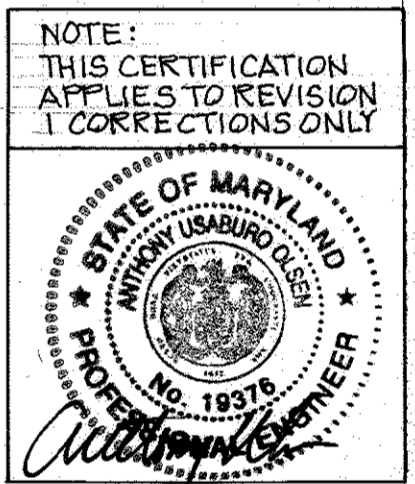
- See Structural and Architectural Plans for Retaining Wall Details. (See Sheet 8)
- Limits of Structural Concrete Slab, See Structural Plans for Details.
- Proposed Bent Pipe Bollard Typ.
- Proposed 10'x12' Concrete Fuel Tank Pad, and 13'x30' Concrete Dumpster Pad, See Mechanical Plans for Details.
- See Architectural and Mechanical Plans for Details on Training Tank.
- Nose Down Curb & Sutter From Fillet to Fillet.
- Proposed Transformer Pad.
- Emergency Generator Pad.
- Condenser Pad.
- Training Tower See Architectural Plans For Detail. (See page 3 for Schematics)
- Proposed Dumpster Location
- Grease Trap See Mech Plan for Details
- See Mech Plan for Details
- Abandoned Monitoring Well Excavate and remove as required.
- See Mechanical Drawings For Sewer From Building to This Point.
- Oil Interceptor
- 600 Gallon Waste Oil Storage
- Sand Interceptor
- Proposed Kneewall & Sign

EX. AUTO DRIVE

ROAD ACCESS ROAD  
(PUBLIC R/W)



I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND LICENSE NUMBER 19370 EXPIRATION DATE SEPTEMBER 22, 2017.



NOTE:  
1. THE CONTRACTOR WILL CONTACT ALL UTILITY COMPANIES WITH EXISTING FACILITIES LOCATED IN THIS AREA PRIOR TO START OF CONSTRUCTION THE CONTRACTOR WILL COORDINATE HIS/HER WORK IN OR AROUND THESE UTILITIES. ALSO, NOTE AN EXISTING FIBER OPTIC CABLE RUNS N.E. S.W. IN R/F 108. CONTACT THE OWNER FOR REQUIREMENTS TO INSURE IT IS NOT DAMAGED DURING CONSTRUCTION.

EX. MD. ROUTE 108

EX. OFF RAMP NORTHBOUND ROUTE 32

NOTE: WATER METER IS INTERNAL  
-(PRIVATE)

PROPERTY OF MARYLAND  
STATE HIGHWAY ADMINISTRATION

APPROVED  
PLANNING BOARD  
OF HOWARD COUNTY  
DATED NOV. 6, 1996

Approved: Howard County Department of Planning and Zoning  
Director: *[Signature]* 12/20/96  
Chief, Division of Land Development: *[Signature]* 12/18/96  
Chief, Development Engineering Division: *[Signature]* 12/14/96

NOTE:  
THE CONTRACTOR SHALL NOT PROCEED WITH PARK AND RIDE CONSTRUCTION IN THE AREA OF THE SUBJECT HILL AND SEPTIC FIELD FOLLOWING ABANDONMENT AND REMOVAL UNTIL APPROVAL IS OBTAINED FROM THE HOWARD COUNTY HEALTH DEPARTMENT.

**MCCORNE**  
ENGINEERING & ENVIRONMENTAL SCIENCES  
LAND PLANNING & SURVEYING & CONSTRUCTION SERVICES  
20 RIDGELY AVENUE  
ANNAPOLIS, MARYLAND 21401  
(410) 267-8821

DATE	SCALE	JOB NO.	DRAWN BY	DATE	REVISION
11/6/96	1"=50'	108	EM/MS	11/6/96	1
					2
					3
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					20

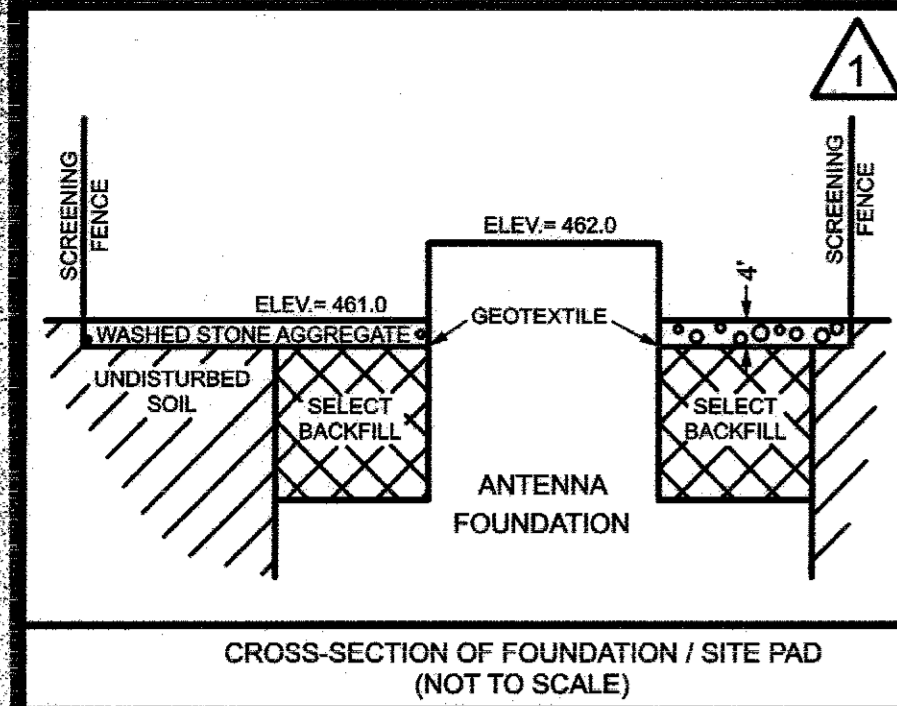
**5th DISTRICT  
VOLUNTEER FIRE STATION**  
12335 CLARKSVILLE PIKE  
(PARCEL AA, BB, CC)

CLARKSVILLE, 5th ELECTION DISTRICT  
HOWARD COUNTY, MD.

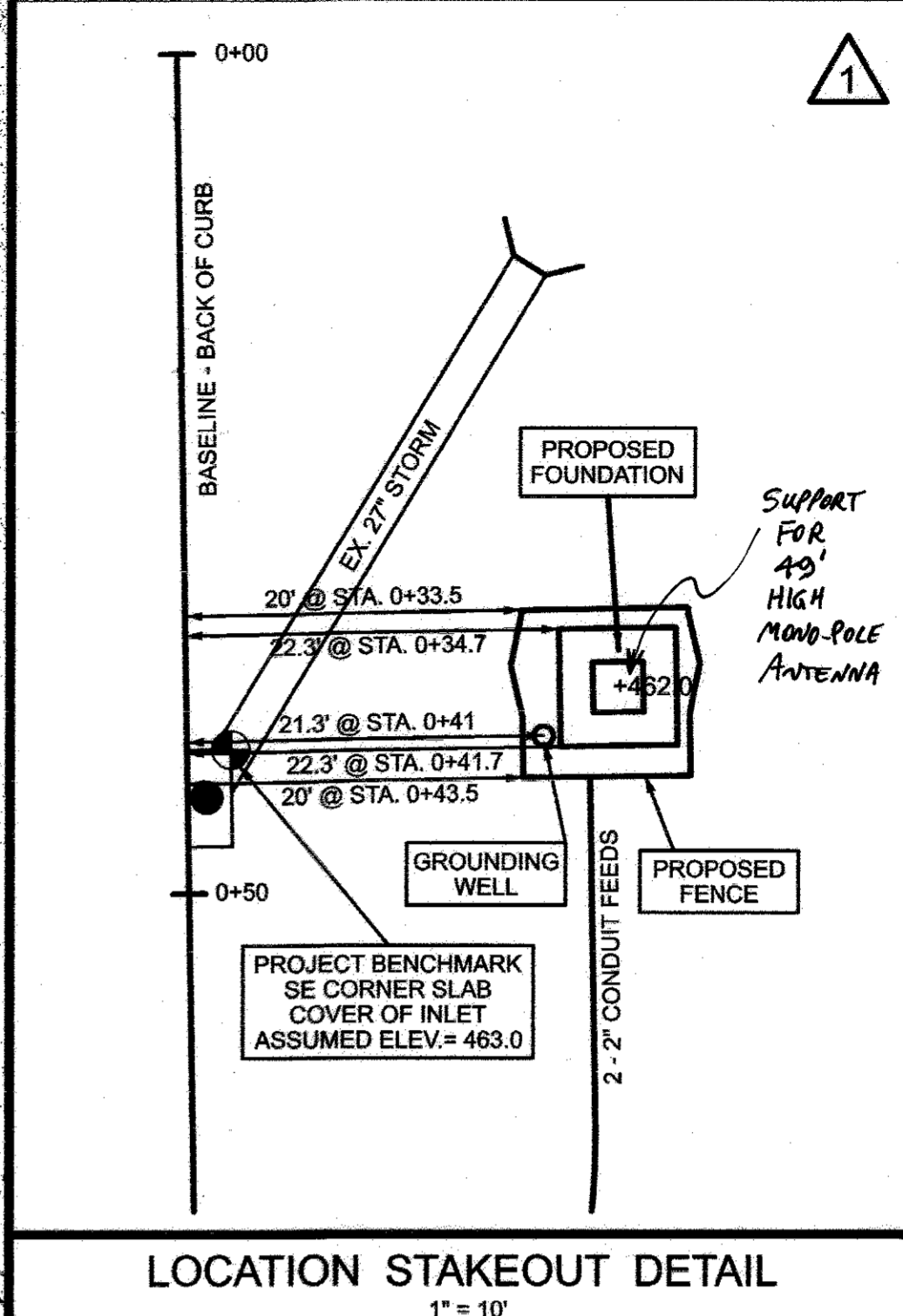
SHEET NO. 2 OF 14  
CADD FILE: CLK-5P2  
FILE NO. J-35-24a

SDP 97-81





- GENERAL NOTES:**
1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY PLUS MSHA STANDARDS AND SPECIFICATIONS, IF APPLICABLE.
  2. THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS BUREAU OF ENGINEERING, CONSTRUCTION INSPECTION DIVISION AT (410) 313-1880 AT LEAST FIVE WORKING DAYS PRIOR TO START OF WORK.
  3. THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK. CONTRACTOR IS TO CONTACT ALL UTILITY COMPANIES WITH EXISTING FACILITIES WHICH MAY BE LOCATED IN THE AREA UNDER CONSTRUCTION AND IMPROVEMENTS. THE CONTRACTOR WILL COORDINATE HIS/HER ACTIVITIES WITH THE APPROPRIATE PROVIDER. THE CONTRACTOR IS HEREBY NOTIFIED THAT THE SCOPE OF SERVICES FOR THIS PROJECT DID NOT INCLUDE UTILITY DESIGNATIONS, AND AS SUCH, THE DRAWINGS MAY NOT INCLUDE THE LATEST INFORMATION REGARDING POSSIBLE LOCATIONS OF UTILITIES.
  4. THE CONTRACTOR SHALL NOTIFY THE HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS, BUREAU OF UTILITIES AT (410) 313-4900 AT LEAST FIVE WORKING DAYS PRIOR TO STARTING ANY EXCAVATION WORK.



EX. AUTO DRIVE

EX. MD. ROUTE 108

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NUMBER 19310 EXPIRATION DATE SEPTEMBER 22, 2017.

NOTE: THIS CERTIFICATION APPLIES TO REVISION 2 CORRECTIONS ONLY



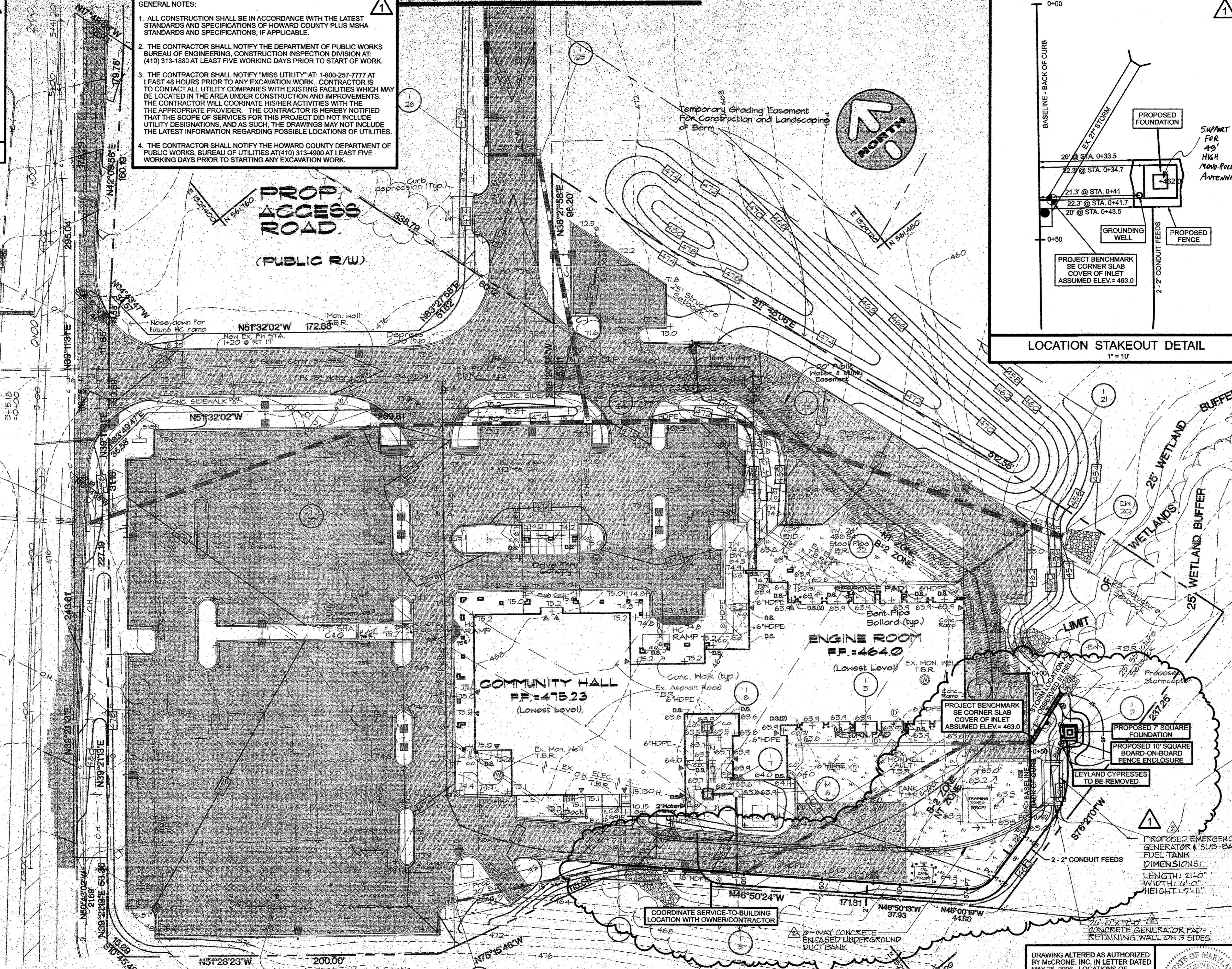
Approved: Howard County Department of Planning and Zoning

Director: *James Smith* Date: 12/20/06

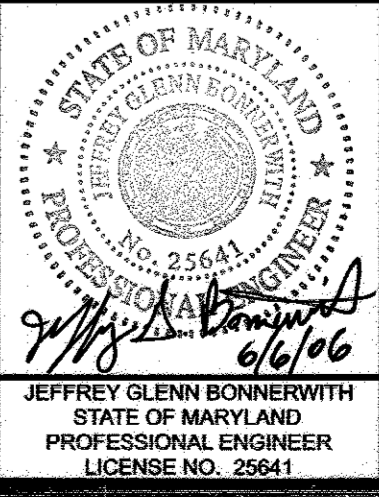
Chief, Division of Land Development: *Richard Blood* Date: 12/19/06

Chief, Development Engineering Division: *John Verducci* Date: 12/19/06

MATCHLINE SEE SHEET 7



DRAWING ALTERED AS AUTHORIZED BY McCRONE, INC. IN LETTER DATED MAY 25, 2006. LOCATIONS OF PROPOSED ANTENNA FOUNDATION, SCREENING FENCE, GROUNDING WELL AND CONDUIT FEEDS WERE GRAPHICALLY ADDED AND REFERENCED TO EXISTING SITE FEATURES.



DATE	DATE	DATE	DATE

**McCRONE**  
ENGINEERING & ENVIRONMENTAL SCIENCES  
LAND PLANNING & SURVEYING & CONSTRUCTION SERVICES  
20 RIDGELY AVENUE  
ANNAPOLIS, MARYLAND 21401  
(410) 267-8621

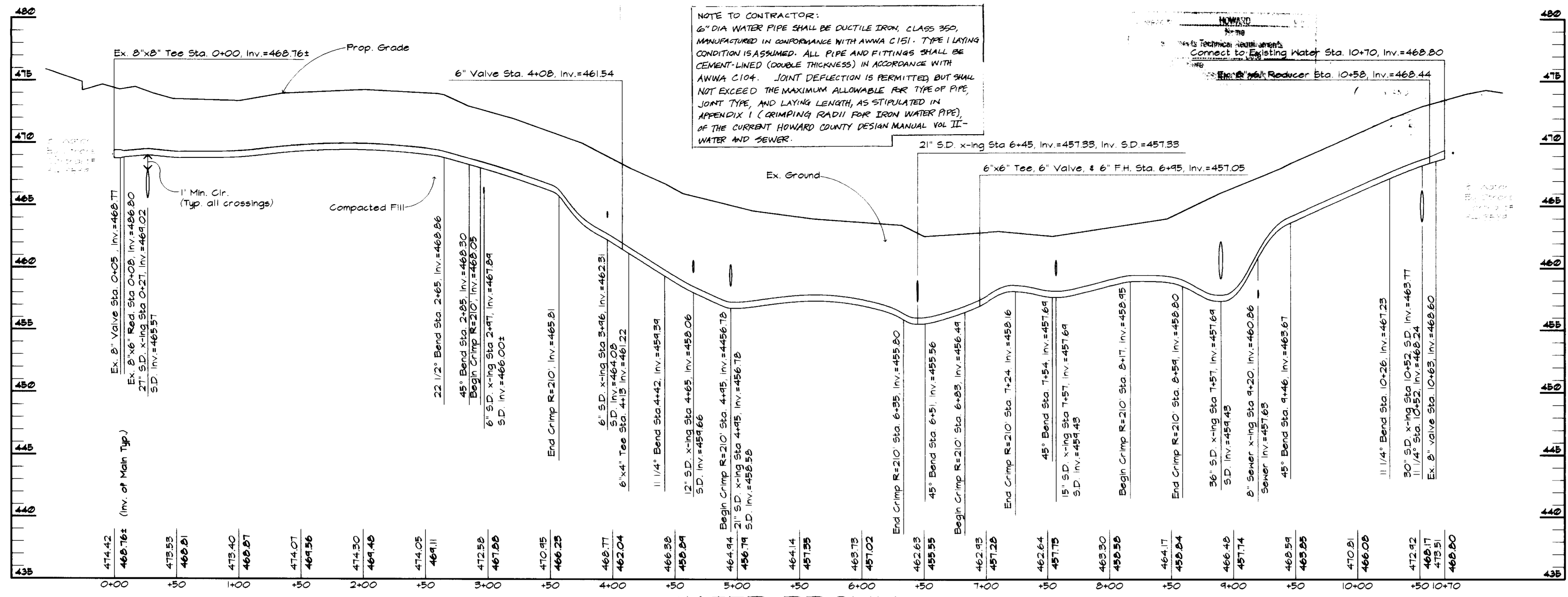
DATE	SCALE	DRAWN BY	APPROVED BY
11/16/06	1"=50'	CHS/CBS	THD
		FOLDER REF	REVISION
		DATE	REVISION

**5th DISTRICT VOLUNTEER FIRE STATION**  
12335 CLARKSVILLE PIKE  
(PARCEL AA, BB, CC)  
CLARKSVILLE 5th ELECTION DISTRICT HOWARD COUNTY, MD.

GRADING PLAN

SHEET NO. 3 OF 14  
CADD FILE: CLK-5P3  
FILE NO. J-35-24b





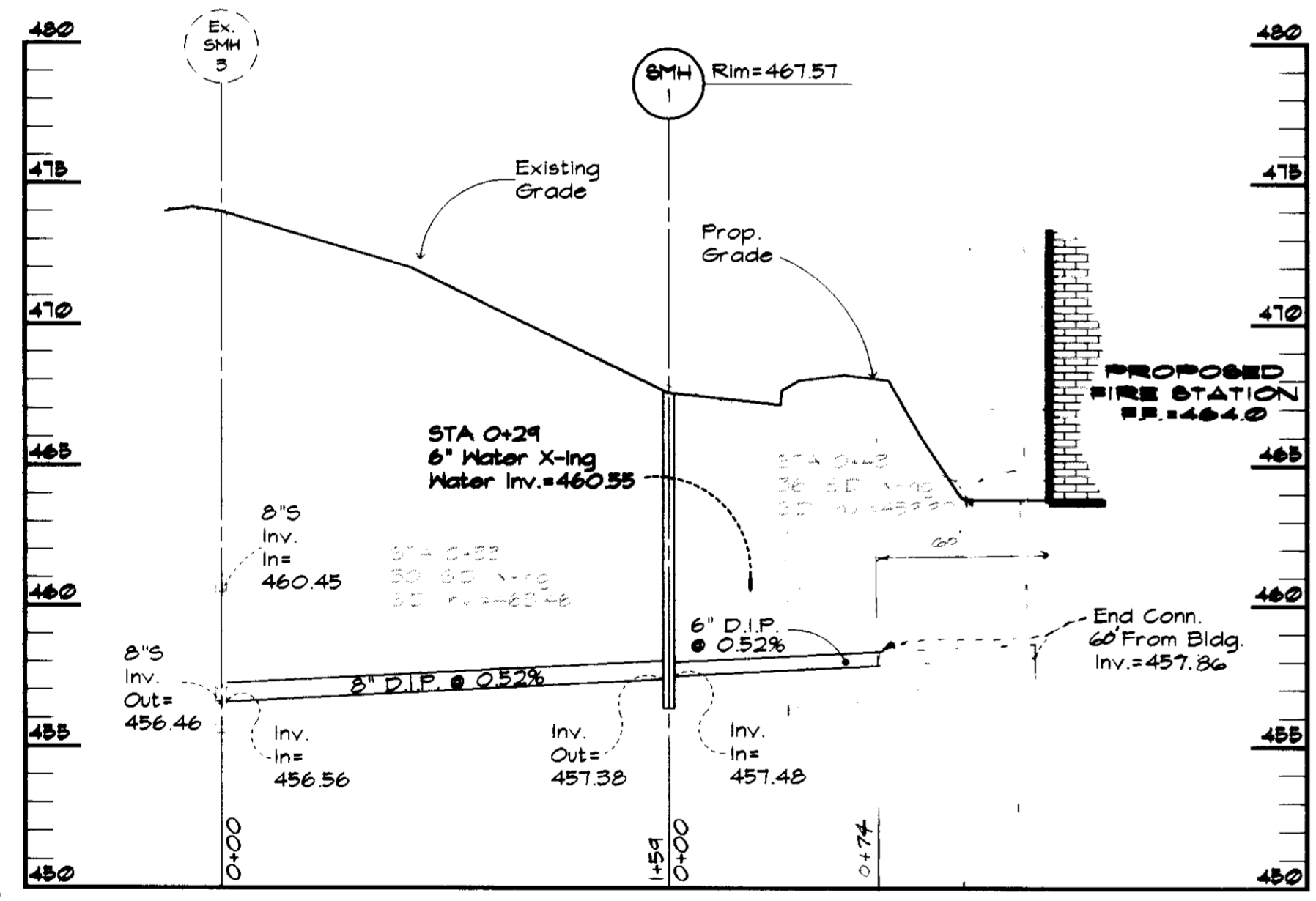
**AREA AND "C" FACTOR TABULATION**

AREA (ac) (A)	"C" FACTOR (C) * 25 yr	% IMPERVIOUS (P)
0.47	0.96	100%
0.38	0.74	80%
1.80	0.90*0.22*	85%*
0.22	0.95	100%
0.65	0.82	84%
0.20	0.95	100%
0.24	0.86	89%
0.08	0.95	100%
0.46	0.74	74%
0.11	0.95	100%
0.15	0.73	73%
0.07	0.61	57%
0.34	0.95	100%
0.01	0.95	100%
0.02	0.55	50%
0.03	0.95	100%
0.03	0.63	60%
0.17	0.95	100%
0.17	0.84	86%
0.15	0.93	98%
0.14	0.95	100%
0.14	0.94	99%
1.61	0.90*0.22*	85%*
8.58		

\*For Inlet 26: Inlet capacity will be determined using Ex. Land Use (C=0.22). Inflow will consider possibility of future connection (pipe) from development (C=0.90).

**WATER PROFILE**

Scale: Hor: 1"=50'  
Vert: 1"=5'

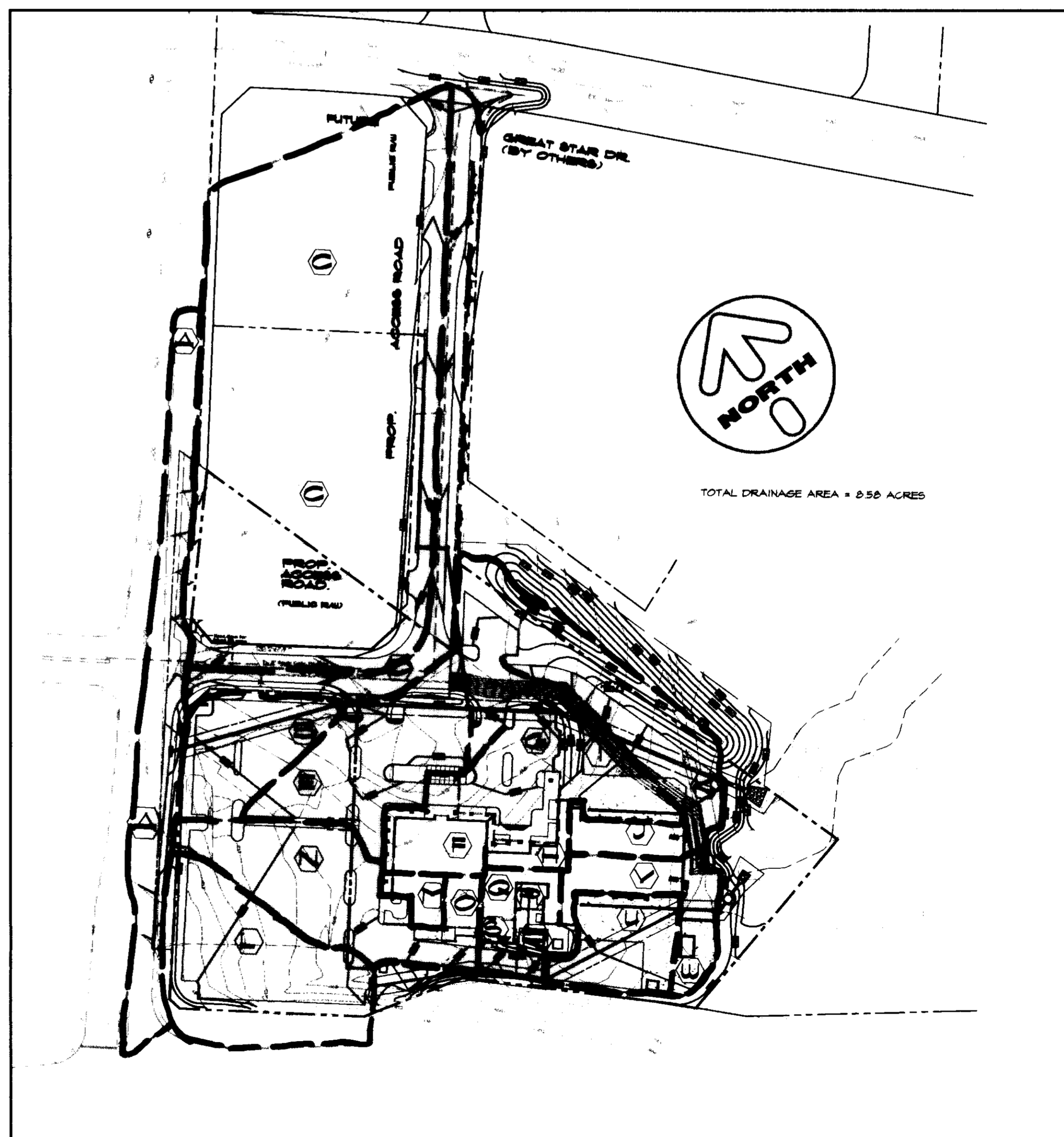


**PROFILE**

Scale: Hor: 1"=50'  
Vert: 1"=5'

**STORM DRAIN INLET & STRUCTURE SCHEDULE**

STRUCTURE NO	TYPE	AGENCY & STD DETAIL #	STRUCTURE TOP ELEVATION	INVERT
1-28	15' cos inlet	MSHA MD-374.61	475.89	Ex 24" in = 468.59 (approx) 27" out = 466.82
1-27	5' cos inlet	MSHA MD-374.61	474.47	27" in = 465.87 27" out = 465.77
1-24	5' cos inlet	MSHA MD-374.61	473.30	30" in = 463.64 27" in = 463.10 12" in = 470.20 36" out = 463.14
1-23	5' cos inlet	MSHA MD-374.61	472.10	8" in = 469.28 36" in = 462.16 36" out = 460.83
1-21	5' cos inlet	MSHA MD-374.61	460.60	36" in = 454.30 15" in = 456.05 42" out = 453.80
EW-20	"A" Endwall	MSHA MD-374.61	457.49	42" in = 452.59
1-26a	10' Precast cos inlet	MSHA MD-374.51	HI-474.97 Low-474.84	24" in = 468.61 24" out = 468.51
1-26	10' Precast cos inlet	MSHA MD-374.61	472.05	24" in = 465.25 30" out = 464.75
1-25	Precast 5' cos inlet	MSHA MD-374.61	472.05	30" in = 464.60 30" out = 464.50
1-10	Precast 5' cos inlet	MSHA MD-374.61	473.57	15" out = 464.12
1-9	5' cos inlet	MSHA MD-374.51	HI-469.91 Low-469.65	15" in = 463.28 6" in = 464.03 18" out = 463.03
1-5	5' cos inlet	MSHA MD-374.51	HI-465.69 Low-465.51	18" in = 461.81 12" in = 459.61 21" out = 458.86
1-2	5' cos inlet	MSHA MD-374.61	462.10	21" in = 457.09 27" out = 456.59
Storm-ceptor	Model STC - 2400	---	461.90	27" in = 455.75 27" out = 455.75
EW-1	"A" Endwall	MSHA MD-374.51	459.40	27" in = 455.65
1-8	"S" Inlet with rectangular gate	MSHA MD-374.61	463.30	6" in(2) = 466.60 12" out = 460.43
1-7	"S" Inlet with rectangular gate	MSHA MD-374.61	463.20	12" in = 460.14 12" out = 460.04
M-6	Shallow Precast	MSHA MD-383.00	463.60	12" in = 459.95 6" in = 460.45 12" out = 459.85



**PROPOSED CONDITIONS DRAINAGE AREA MAP**

Scale: 1" = 100'

APPROVED  
 DATE: NOV. 6, 1996

Approved: Howard County Department of Planning and Zoning  
 Director: [Signature] Date: 12/20/96  
 Chief, Division of Land Development: [Signature] Date: 12/19/96  
 Chief, Development Engineering Division: [Signature] Date: 12/19/96

PREPARED FOR:  
**FIFTH DISTRICT VOLUNTEER FIRE DEPARTMENT**  
 12335 CLARKSVILLE PIKE  
 CLARKSVILLE, MD. 21029  
 ATTN: MR. PAT MARLATT  
 PHONE: \_\_\_\_\_

**McCRONE**  
 ENGINEERING & ENVIRONMENTAL SCIENCES  
 LAND PLANNING & SURVEYING & CONSTRUCTION SERVICES  
 20 RIDGELY AVENUE  
 ANNAPOLIS, MARYLAND 21401  
 (410) 267-8621

CLARKSVILLE 5th ELECTION DISTRICT  
 VOLUNTEER FIRE STATION  
 12335 CLARKSVILLE PIKE  
 (PARCEL AA, BB, CC)

CLARKSVILLE 5th ELECTION DISTRICT  
 HOWARD COUNTY, MD

DATE: \_\_\_\_\_ DATE: \_\_\_\_\_  
 DATE: \_\_\_\_\_ DATE: \_\_\_\_\_

SCALE: 1/8"=1'-0"  
 DATE: 11/6/96  
 JOB NO: 96-001  
 DRAWN BY: CLK  
 CHECKED BY: CLK  
 FOLDER REF: 96-001  
 APPROVED: CLK  
 DATE: 5-8-97  
 REVISION: 1  
 DRAWING TITLE: DRAINAGE AREA MAP  
 STRUC-TITLE: SCHEDULE

SHEET NO. 4 OF 14  
 CADD FILE: CLK-5P4  
 FILE NO. J-35-24c



SDP 97-31

### SEDIMENT TRAP #1

TYPE: ST I  
 EX. DRAINAGE AREA: 1.27 ac.  
 PROP. DRAINAGE AREA: 2.06 ac.  
 STORAGE REQUIRED  
 NET: 5144 cf.  
 DRY: 5144 cf.  
 TOTAL: 7488 cf.  
 STORAGE PROVIDED  
 NET: 5185.5 cf.  
 DRY: 5185.5 cf.  
 TOTAL: 7571 cf.  
 BOTTOM DIMENSIONS: 15' x 14' x 5'  
 EMBANKMENT ELEVATION: 495x0  
 RISER CREST ELEVATION: 451x0  
 CLEANOUT ELEVATION: 454x15  
 BARREL DIA: 15"  
 RISER DIA: 15"  
 TRASH RACK DIA: 21"  
 SIDE SLOPES: 2:1

### SEDIMENT TRAP #2

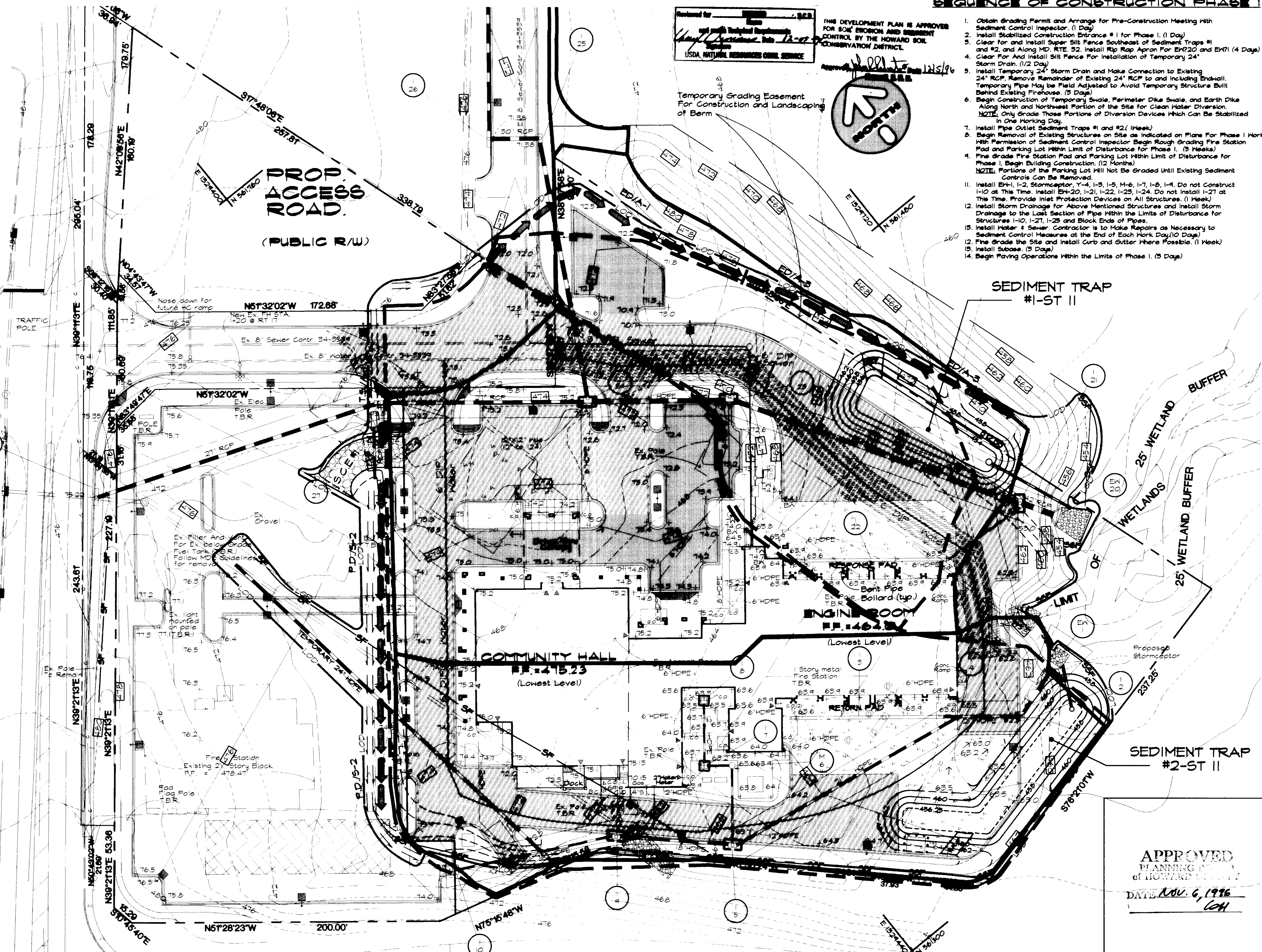
TYPE: ST  
 EX. DRAINAGE AREA: 2.61 ac.  
 PROP. DRAINAGE AREA: 1.55 ac.  
 STORAGE REQUIRED  
 NET: 4645 cf.  
 DRY: 4645 cf.  
 TOTAL: 6946 cf.  
 STORAGE PROVIDED  
 NET: 4715 cf.  
 DRY: 4715 cf.  
 TOTAL: 7428 cf.  
 BOTTOM DIMENSIONS: 16' x 14' x 5'  
 EMBANKMENT ELEVATION: 460x25  
 RISER CREST ELEVATION: 454x25  
 CLEANOUT ELEVATION: 451x0  
 BARREL DIA: 15"  
 RISER DIA: 21"  
 TRASH RACK DIA: 50"  
 SIDE SLOPES: 2:1

EX. MD. ROUTE 108

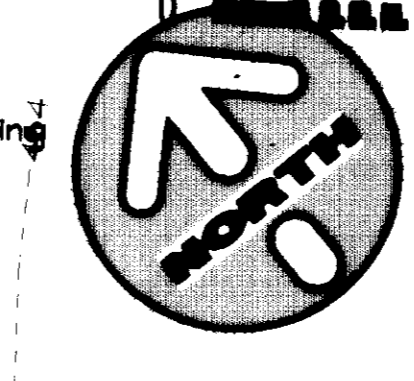
EX. AUTO DRIVE

DROP ACCESS ROAD (PUBLIC R/W)

EX. OFF RAMP NORTHBOUND ROUTE 32



APPROVED FOR: [Signature]  
 DATE: 12/15/96  
 USA, NATURAL RESOURCES CONSERVATION SERVICE



### SEQUENCE OF CONSTRUCTION PHASE I

1. Obtain Grading Permit and Arrange for Pre-Construction Meeting With Sediment Control Inspector. (1 Day)
2. Install Stabilized Construction Entrance # 1 for Phase I. (1 Day)
3. Clear for and install Super Silt Fence Southeast of Sediment Traps #1 and #2, and Along MD. RTE. 52. Install Rip Rap Apron For EHP20 and EHP71 (4 Days)
4. Clear For And Install Silt Fence For Installation of Temporary 24\"/>

DATE	DATE	DATE	DATE

**McCRONE**  
 ENGINEERING & SURVEYING & ENVIRONMENTAL SCIENCES  
 LAND PLANNING & SURVEYING & CONSTRUCTION SERVICES  
 20 RIDGELY AVENUE  
 ANNAPOLIS, MARYLAND 21401  
 (410) 267-6621

DATE	SCALE	BY	DATE	REVISION

SEDIMENT & EROSION CONTROL PLAN PHASE I  
**5th DISTRICT**  
**VOLUNTEER FIRE STATION**  
 12335 CLARKSVILLE PIKE  
 (PARCEL AA, BB, CC)  
 CLARKSVILLE, 5th ELECTION DISTRICT  
 HOWARD COUNTY, MD.

APPROVED  
 PLANNING DEPARTMENT  
 OF HOWARD COUNTY  
 DATE: NOV. 6, 1996  
 [Signature]

Approved: Howard County Department of Planning and Zoning  
 [Signature] 12/20/96  
 [Signature] 12/15/96  
 [Signature] 12/19/96

SHEET NO. 5 OF 14  
 CADD FILE: CLK-SFS  
 FILE NO. J-35-24d



MATCHLINE SEE SHEET 7

These plans have been reviewed for the Howard County Soil Conservation District and meet technical requirements for Soil Erosion and Sediment Control.  
Howard Soil Conservation District  
12-09-96  
Date

These plans for Soil Erosion and Sediment Control meet the requirements of the Howard Soil Conservation District.  
Howard Soil Conservation District  
12/5/96  
Date

EX. AUTO DRIVE

EX. MD. ROUTE 108

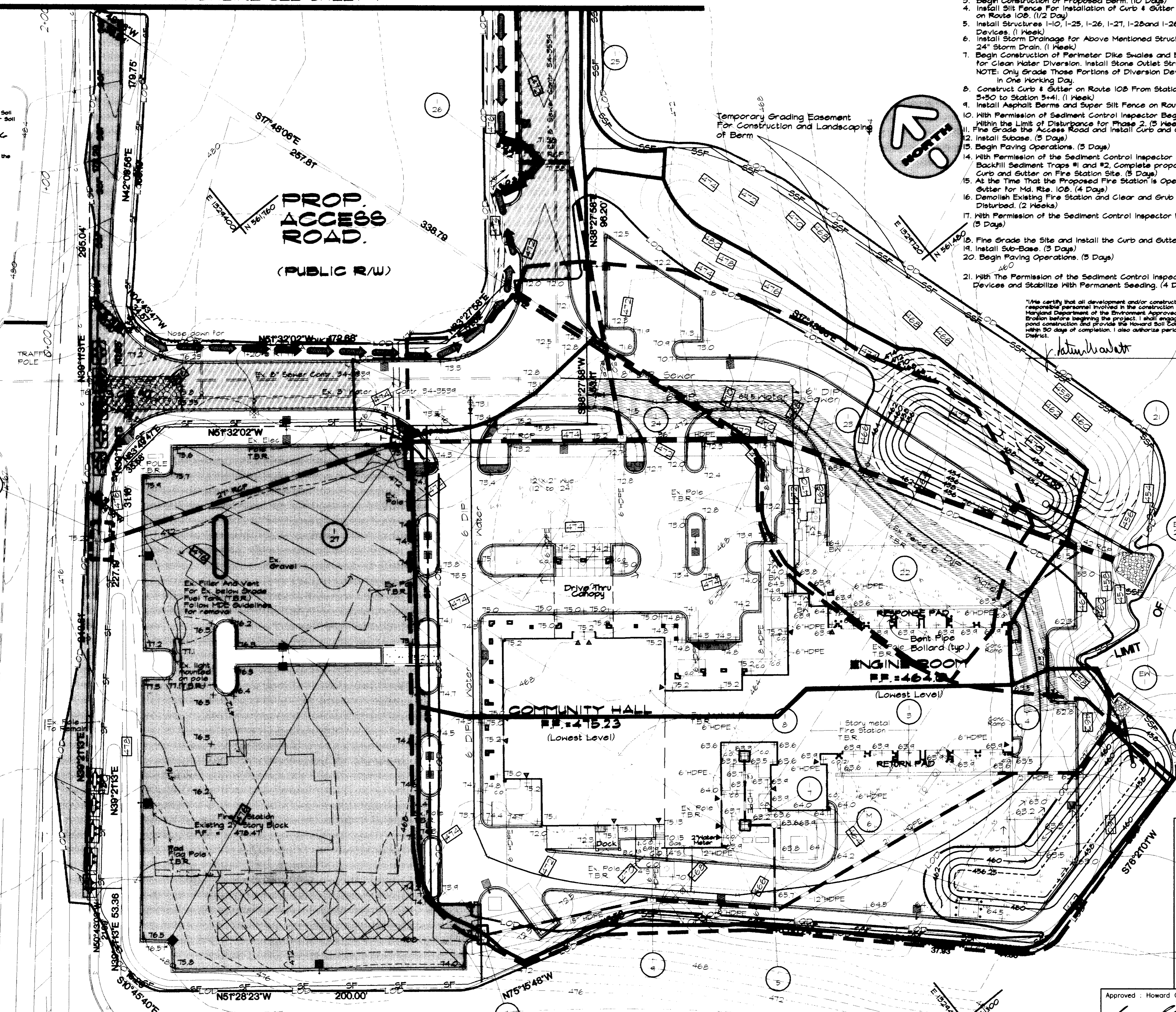
EX. OFF RAMP NORTHBOUND ROUTE 32

**SEQUENCE OF CONSTRUCTION PHASE 2**

1. Install Stabilized Construction Entrance #2 for Phase 2.
2. Clear for and install Super Silt Fence Down Stream of Access Road and Proposed Berm. (2 Days)
3. Begin Construction of Proposed Berm. (10 Days)
4. Install Silt Fence For Installation of Curb & Gutter on Route 108. (1/2 Day)
5. Install Structures 1-10, 1-25, 1-26, 1-27, 1-28 and 1-26A. Provide Inlet Protection Devices. (1 Week)
6. Install Storm Drainage for Above Mentioned Structures and Remove Temporary 24" Storm Drain. (1 Week)
7. Begin Construction of Perimeter Dike Swales and Earth Dike Above Access Road for Clean Water Diversion. Install Stone Outlet Structures #1 & #2. (2 Weeks)  
NOTE: Only Grade Those Portions of Diversion Devices Which Can Be Stabilized in One Working Day.
8. Construct Curb & Gutter on Route 108 From Station 0+81 to Station 2+55 and Station 3+50 to Station 5+41. (1 Week)
9. Install Asphalt Berms and Super Silt Fence on Route 108 for Clean Water Diversion. (1 Day)
10. With Permission of Sediment Control Inspector Begin Rough Grading Access Road. Within the Limit of Disturbance for Phase 2. (5 Weeks)
11. Fine Grade the Access Road and Install Curb and Gutter. (1 Week)
12. Install Subbase. (5 Days)
13. Begin Paving Operations. (5 Days)
14. With Permission of the Sediment Control Inspector and During Dry Day Conditions, Backfill Sediment Traps #1 and #2, Complete proposed Berm, and install Remainder of Curb and Gutter on Fire Station Site. (5 Days)
15. At the Time That the Proposed Fire Station is Operational Complete Remainder of Curb and Gutter for Md. Rte. 108. (4 Days)
16. Demolish Existing Fire Station and Clear and Grub Remainder of Site (Park and Ride) to be Disturbed. (2 Weeks)
17. With Permission of the Sediment Control Inspector Rough Grade the Remainder of the Site. (5 Days)
18. Fine Grade the Site and Install the Curb and Gutter. (1 Week)
19. Install Sub-Base. (3 Days)
20. Begin Paving Operations. (5 Days)
21. With The Permission of the Sediment Control Inspector Remove Remaining Sediment Control Devices and Stabilize With Permanent Seeding. (4 Days)

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 as a Maryland 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 90 days of completion. I also authorize periodic on-site inspections by the Howard Soil Conservation District.

*John M. M...  
12-4-96  
Date*



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 90 days of completion.  
*John M. M...  
12-4-96  
Date*

Approved: Howard County Department of Planning and Zoning  
*Joseph Rutter* 12/20/96  
Director Date  
*Richard Blaz* 12/18/96  
Chief, Division of Land Development and Research Date  
*William ...* 12/19/96  
Chief, Development Engineering Division Date

**MCCRONE**  
ENGINEERING & ENVIRONMENTAL SCIENCES  
LAND PLANNING & SURVEYING & CONSTRUCTION SERVICES  
20 RIDGELY AVENUE  
ANNAPOLIS, MARYLAND 21401  
(410) 267-8821

ANNAPOLIS - CENTREVILLE - EUXTON - LEADERSVILLE - DESSA - PRINCE FREDRICK - SAUSBURY - WADORS

DATE	SCALE	DATE	SCALE
12-4-96	1"=50'		

SEDIMENT & EROSION CONTROL PLAN PHASE 2  
5th DISTRICT  
VOLUNTEER FIRE STATION  
12335 CLARKSVILLE PIKE  
(PARCEL AA, BB, CC)  
CLARKSVILLE, 5th ELECTION DISTRICT  
HOWARD COUNTY, MD.

SHEET NO. 6 OF 14  
CADD FILE: CLK-SP6  
FILE NO. J-35-24e



**SEDIMENT CONTROL NOTES**

- 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. (5/15/95)
- All vegetative and structural practices are to be installed according to the provisions of this plan and to be in conformance with the most current "MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL", and revisions thereto.
- Following initial soil disturbance or redisturbance, permanent or temporary stabilization shall be completed within: a) 7 calendar days for all perimeter sediment control structures, dikes, perimeter slopes and all slopes greater than 5:1, b) 14 days as to all other disturbed or graded areas on the project site.
- All sediment traps/basins shown must be fenced and warning signs posted around their perimeter in accordance with Vol. 1, Chapter 12, of the HOWARD COUNTY DESIGN MANUAL, Storm Drainage.
- All disturbed areas must be stabilized within the time period specified above in accordance with the 1991 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for permanent seeding (Sec. 51), sod (Sec. 54), temporary seeding (Sec. 50) and mulching (Sec. 52). Temporary stabilization with mulch along can only be done when recommended seeding dates do not allow for proper germination and establishment of grasses.
- All sediment control structures are to remain in place and are to be maintained in operative condition until permission for their removal has been obtained from the Howard County Sediment Control Inspector.
- Site Analysis:
 

Total Area of Site	6.022	Acres.
Area Disturbed	2.70*	Acres. (* INCLUDES BEERM & PUBLIC R/W WORK)
Area to be roofed or paved	3.26	Acres
Area to be vegetatively stabilized	2.80	Acres
Total Cut	4,925	Cu. Yds.
Total Fill	1,345	Cu. Yds.

 Offsite waste/erosion area location: Lot C (adjacent)
- Any sediment control practice which is disturbed by grading activity for placement of utilities must be repaired on the same day of disturbance.
- Additional sediment control must be provided, if deemed necessary by the Howard County Sediment Control Inspector.
- On all sites with disturbed areas in excess of 2 acres, approval of the inspection agency shall be requested upon completion of installation of perimeter erosion and sediment controls, but before proceeding with any other earth disturbance or grading. Other building or grading inspection approvals may not be authorized until this initial approval by the inspection agency is made.
- Trenches for the construction of utilities is limited to three pipe lengths or that which can be backfilled and stabilized within one working day, whichever is shorter.

**PERMANENT SEEDING NOTES**

Apply to graded or cleared areas not subject to immediate further disturbance where a permanent long-lined vegetative cover is needed.

**Seeded Preparation:** Loosen upper three inches of soil by raking, disking, or other acceptable means before seeding, if not previously loosened.

**Soil Amendments:** In lieu of soil test recommendations, use one of the following schedules:  
 1. Preferred - Apply 2 tons/acre dolomitic limestone (42 lbs/1000 sq. ft.) and 600 lbs/acre 10-10-10 fertilizer (14 lbs/1000 sq. ft.) before seeding. Harrow or disk into upper three inches of soil. At time of seeding, apply 30-0-0 urea-form fertilizer (14 lbs/1000 sq. ft.).  
 2. Acceptable - Apply 2 tons/acre dolomitic limestone (42 lbs/1000 sq. ft.) and 1000 lbs/acre 10-10-10 fertilizer (28 lbs/1000 sq. ft.) before seeding. Harrow or disk into upper three inches of soil.

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

**Mulching -** Apply 1-1/2 to 2 tons per acre (70 to 90 lbs/1000 sq. ft.) of unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 2lb gallons per acre (5 gal/1000 sq. ft.) of emulsified asphalt on flat areas. On slopes 3 feet or higher, use 348 gallons per acre (8 gal/1000 sq. ft.) for anchoring gallons per acre (5 gal/1000 sq. ft.) of emulsified asphalt on flat areas. On slopes 3 feet or higher, use 348 gallons per acre (8 gal/1000 sq. ft.) for anchoring.

**Maintenance -** Inspect all seeding areas and make needed repairs, replacements and reseeding.

**TEMPORARY SEEDING NOTES**

Apply to graded or cleared areas likely to be re-disturbed where a short-term vegetative cover is needed.

**Seeded Preparation -** Loosen upper three inches of soil by raking, disking or other acceptable means before seeding, if not previously loosened.

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

**Seeding -** For periods March 1 - April 30 and from August 15 - October 15, seed with 2-1/2 bushel per acre of annual rye (3.2 lbs/1000 sq. ft.). For the period May 1 - August 14, seed with 3 lbs/acre of weeping lovegrass (.07 lbs/1000 sq. ft.) For the period November 16 - February 28, protect site by applying 2 tons/acre of well anchored straw mulch and seed as soon as possible in the spring, or use sod.

**Mulching -** Apply 1-1/2 to 2 tons/acre (70 to 90 lbs/1000 sq. ft.) of unrotted weed-free, small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 2lb gal. per acre (5 gal/1000 sq. ft.) of emulsified asphalt on flat areas. On slopes 3 ft. or higher, use 348 gal. per acre (8 gal/1000 sq. ft.) for anchoring to the 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for additional rates and methods not covered.

**DEVELOPER'S/BUILDER'S CERTIFICATE**

"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 Maryland 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."

*John D. ...* 12-4-96 Date

These plans have been reviewed for the Howard Soil Conservation District and meet the technical requirements for soil erosion and

*Charles ...* 12-05-96 Date  
 Natural Resources Conservation  
 Sediment Control

**ENGINEER'S CERTIFICATE**

"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." \*

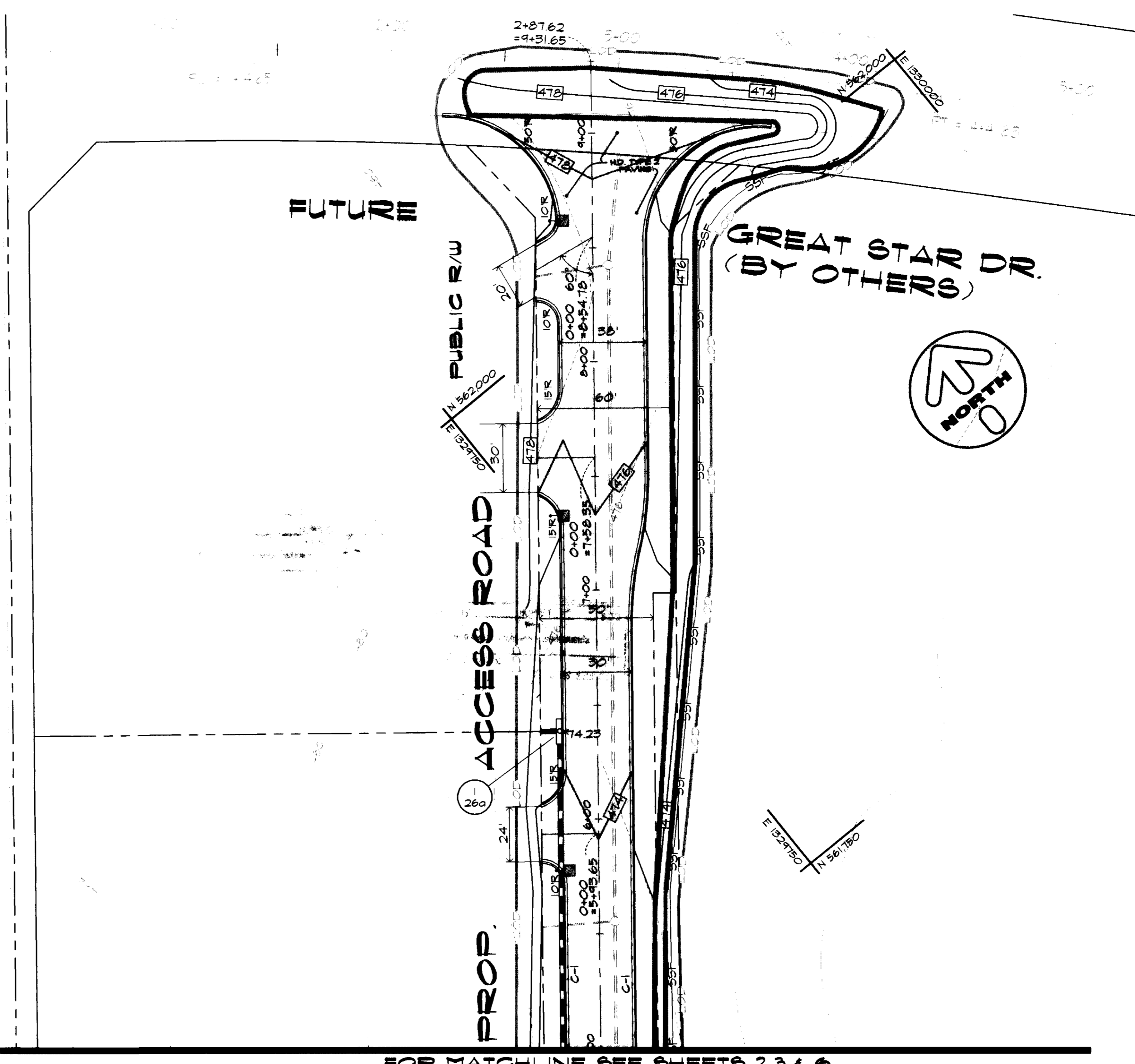
*J.H. ...* 11-8-96 Date  
 \* NOT APPLICABLE THIS PROJECT

These Plans for soil erosion and sediment control meet the requirements of the Howard Soil Conservation District.  
*John ...* 12/5/96 Date  
 Howard Soil Conservation District

Approved: Howard County Department of Planning and Zoning  
*James ...* 12/20/96 Date  
 Director  
*Richard ...* 12/18/96 Date  
 Chief, Division of Land Development  
*...* 12/17/96 Date  
 Chief, Development Engineering Division

**SEQUENCE OF CONSTRUCTION CONTRACT 1**

- Obtain Grading Permit and Arrange For Pre-Construction Meeting With Sediment Control Inspector. (1 Day)
- Install Stabilized Construction Entrance. (1 Day)
- Clear For And Install Silt Fence For Installation of Storm Drain Structures E#1, 20, 123, 124, 125, 126, 127, & 128. Install Silt Fence for Installation of Curb & Gutter on Route 108. (1/2 Day)
- Clear for and install Super Silt Fence Down Stream of Access Road and Proposed Berm. (2 Days)
- Install Structures E#1, 20, 121, 123, 124, 125, 126, 127. Do Not Install 128 at This Time. (1 Week)
- Install Rip Rap Apron For E#20 and Storm Drainage for Above Mentioned Structures. Do Not Construct the Last Section of Pipe for Connection to 128 at This Time. (3 Days)
- Provide Inlet Protection Devices on Structures 126 and 125. Begin Construction of Perimeter Dike Swales and Earth Dike Above Access Road for Clean Water Diversion. Install Stone Outlet Structures #1 & #2. (2 Weeks) NOTE: Only Grade Those Portions of Diversion Devices Which Can Be Stabilized in One Working Day.
- Construct Curb & Gutter on Route 108 From Station 0+81 to Station 2+55 and Station 3+50 to Station 5+41. (1 Week)
- Construct 128 and Complete Connection to Proposed Storm Drainage. Install Asphalt Berms and Super Silt Fence on Route 108 for Clean Water Diversion in One Working Day. (1 Day)
- Clear for and install Silt Fence for Removal of Existing 27" RCP. Remove Remainder of Existing 27" RCP. (3 Days)
- Clear for and install Silt Fence for Installation of Storm Drain Structures E#1, 12, M4, 18, 19, & 110. (1/2 Day)
- Install Structures E#1, 12, M4, 18, & 19. Do Not Construct 110 at This Time. (1 Week)
- Install Rip Rap Apron for E#1 and Storm Drainage for Above Mentioned Structures and Last Section of Pipe to 110. Do Not Construct 110 at This Time. (3 Days)
- Provide Inlet Protection Devices on 12, 18, & 19. Begin Construction of Perimeter Dike Swale and Earth Dike at Along MD. Rte 52. (2 Weeks) NOTE: Only Grade Those Portions of Diversion Devices Which Can Be Stabilized in One Working Day.
- Install Pipe Outlet Sediment Traps #1 and #2. (1 Week)
- Remove Existing Structures on Site as Indicated on Plans. (2 Weeks)
- With Permission of Sediment Control Inspector Begin Rough Grading Access Road and Fire Station Pad. (3 Weeks) NOTE: Rough Grading of Access Road Can Begin at Any Time After Step 15 and Can Be Concurrent With Step 16.
- Final Grade Fire Station Pad and Begin Building Construction. (6 Months)
- Install Water & Sewer. Contractor is to Make Repairs as Necessary to Sediment Control Measures at the End of Each Work Day. (10 Days)
- Final Grade the Site and Install Curb and Gutter Where Possible. (1 Week)
- With Permission of the Sediment Control Inspector and During a Dry Weather Forecast, Backfill Sediment Traps #1 and #2, Install 110 and Remainder of Curb and Gutter. (3 Days)
- Install Subbase. (3 Days)
- Begin Paving Operations. (3 Days)
- With the Permission of the Sediment Control Inspector Remove Remaining Sediment Control Devices and Stabilize With Permanent Seeding. (4 Days)



DATE	11-8-96	DATE	
DATE		DATE	
<b>McCRONE</b> ENGINEERING & ENVIRONMENTAL SCIENCES LAND PLANNING & SURVEYING & CONSTRUCTION SERVICES 20 RIDGELY AVENUE ANNAPOLIS, MARYLAND 21401 (410) 267-8621 ANNAPOLIS - CENTREVILLE - ELTON - EDWARDSVILLE - GALESSA - PRINCE - FREDERICK - SALISBURY - WASHINGTON			
SCALE	AS SHOWN	DATE	
DRAWN BY		DATE	
CHECKED BY		DATE	
APPROVED BY		DATE	
REVISION		DATE	
GRADING & SEDIMENT CONTROL PLAN & NOTES <b>5th DISTRICT</b> <b>VOLUNTEER FIRE STATION</b> 12335 CLARKSVILLE PIKE (PARCEL AA, BB, CC) CLARKSVILLE 5th ELECTION DISTRICT HOWARD COUNTY, MD.			
SHEET NO. 7 OF 14 CADD FILE: CLK-SPT FILE NO. J-35-24F			

15-Lb dds

NOV. 6, 1996  
 CH







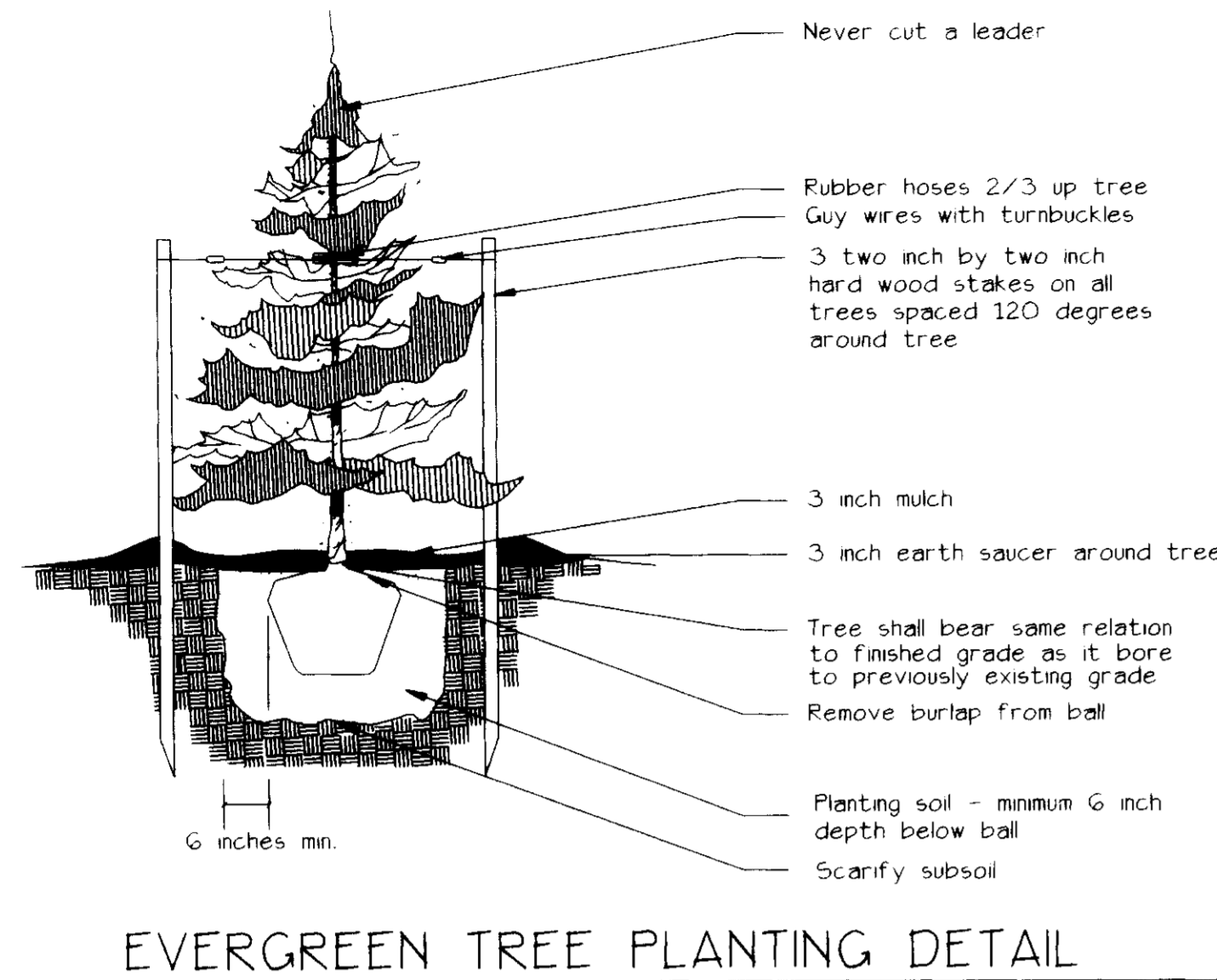






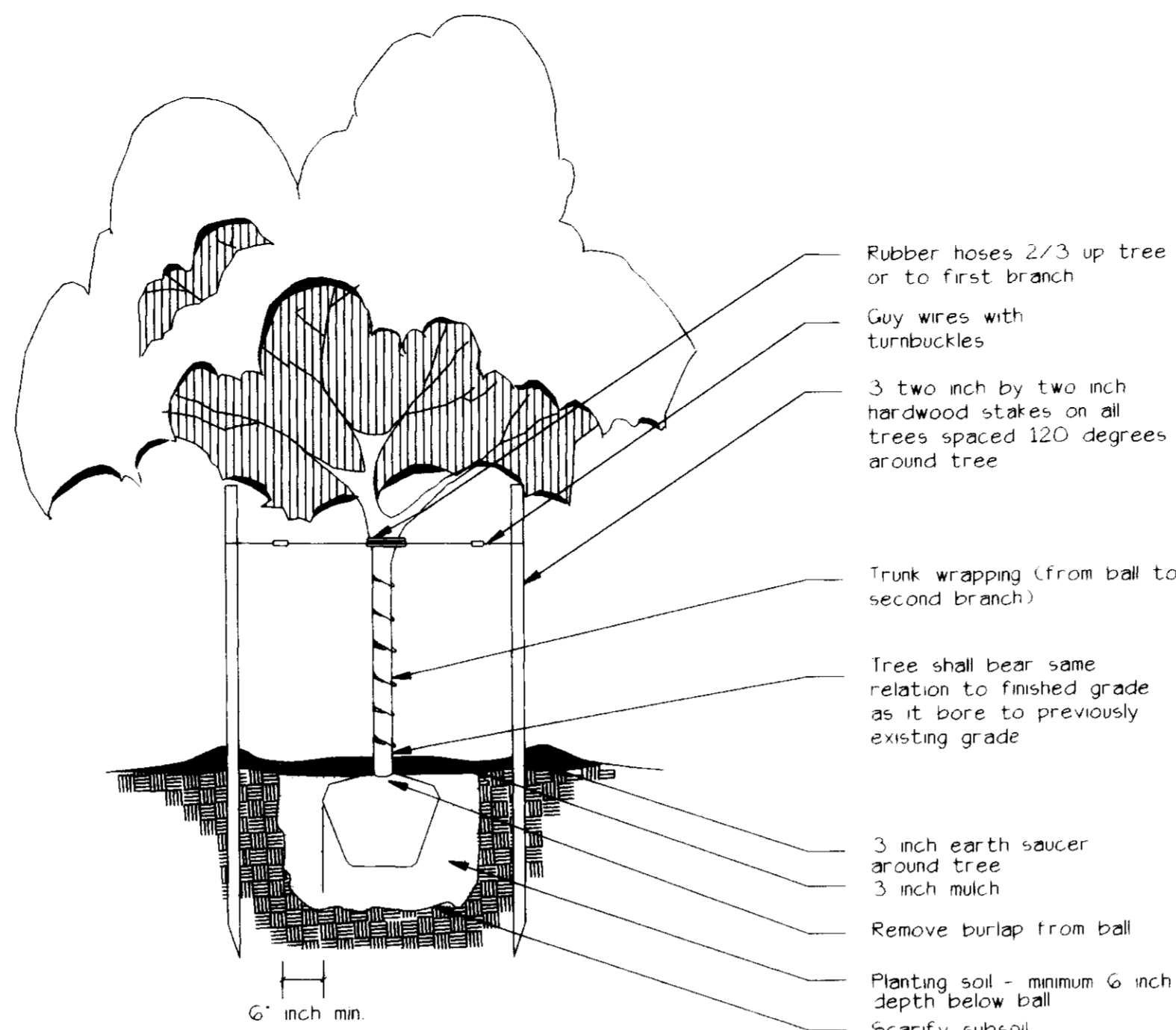


# LANDSCAPE SPECIFICATIONS



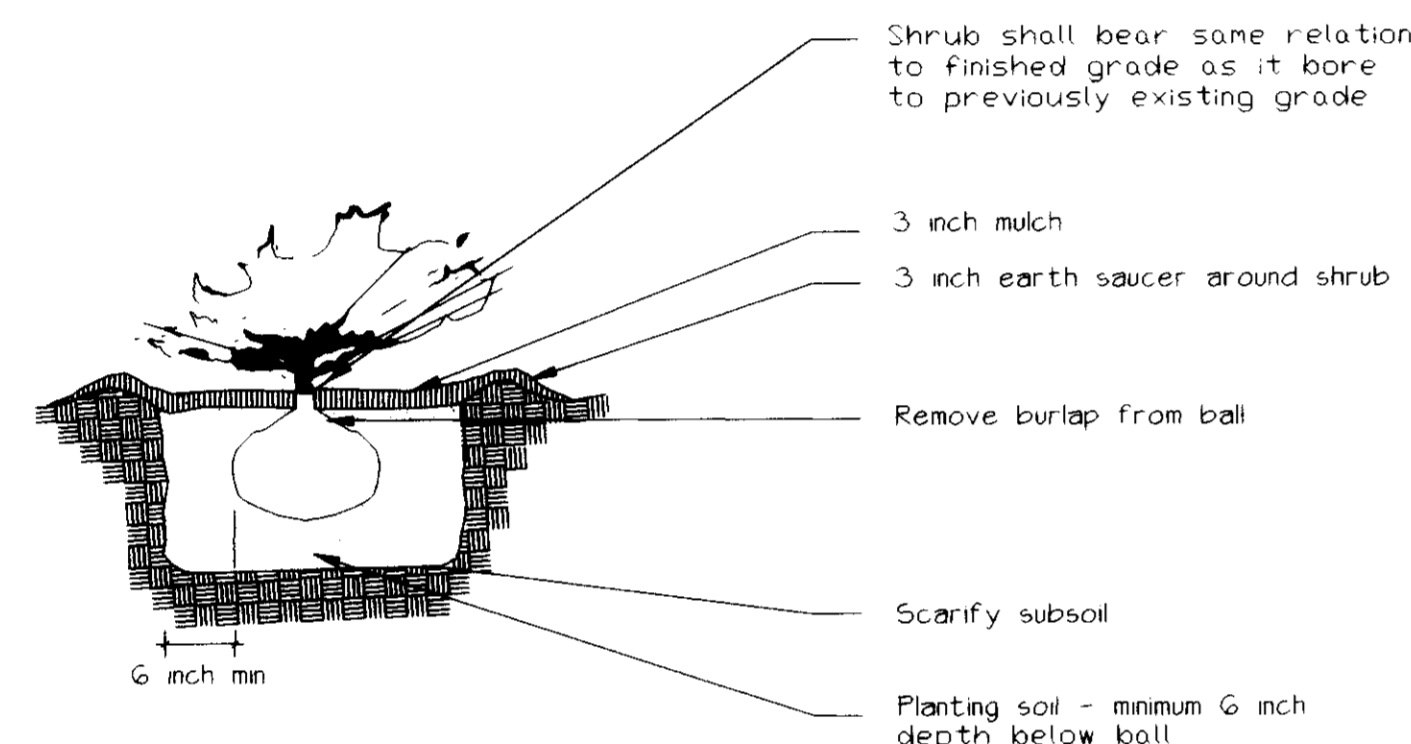
EVERGREEN TREE PLANTING DETAIL

Not to scale



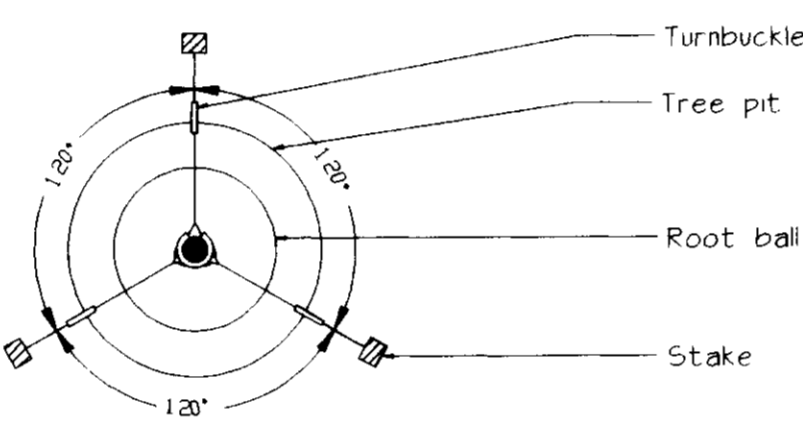
TREE PLANTING DETAIL

Not to scale



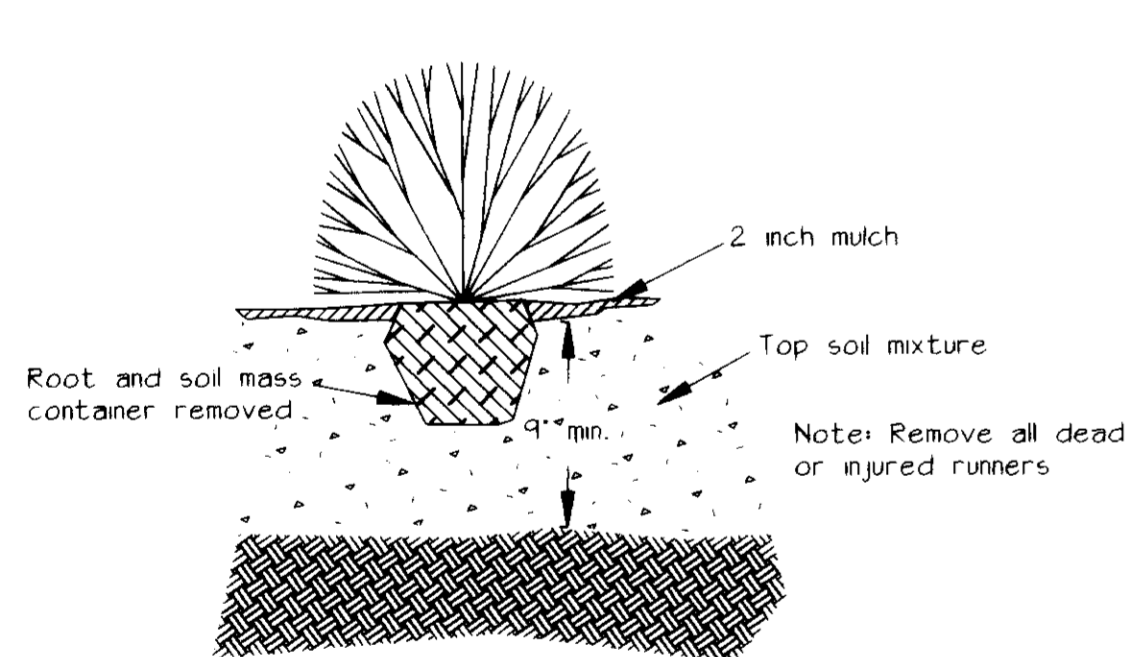
SHRUB PLANTING DETAIL

Not to scale



TREE GUYING PLAN

Not to scale



TYP. GROUND COVER PLANTING DETAIL

Not to scale

PLANT SPACING 'B'	ROW SPACING 'A'
6'	5.2'
8'	6.93'
10'	8.66'
12'	10.40'
15'	13.00'
18'	15.60'
24'	20.80'

KEY	BOTANICAL NAME	COMMON NAME	QTY.	SIZE	CONTAINER	COMMENTS
<b>DECIDUOUS TREES :</b>						
QP	Quercus Phellos	Willow Oak	22	2" GAL	B + B	
AR	Acer Rubrum 'October Glory'	October Glory Red Maple	10	2 1/2" GAL	B + B	
PA	Platanus X acerifolia 'Columbia'	Columbia London Plane	8	2 1/2" GAL	B + B	
FP	Fraxinus Pennsylvanica	Green Ash	2	2 1/2"-3" GAL	B + B	
FB	Fagus Grandifolia	American Beech	1	2 1/2"-3" GAL	B + B	
QR	Quercus Rubra	Red Oak	1	2 1/2"-3" GAL	B + B	
ZB	Zelkova Borrata	Japanese Zelkova	2	2 1/2"-3" GAL	B + B	
<b>ORNAMENTAL TREES :</b>						
KP	Koeleria paniculata	Golden Rain Tree	3	8 - 10'	B + B	
CC	Cercis Canadensis	Eastern Redbud	13	6 - 8'	B + B	
CK	Cornus Kousa	Kousa Dogwood	5	6 - 8'	B + B	
CP	Crataegus Phaeopyrum	Washington Hawthorn	6	6 - 8'	B + B	
<b>EVERGREEN TREES :</b>						
PB	Pinus Strobus	White Pine	9	6' - 8'	B + B	
AC	Abies Concolor	White Fir	4	8 - 10'	B + B	
TC	Taxus Canadensis	Eastern Hemlock	3	8 - 10'	B + B	
ES	Thuja Occidentalis 'Emerald Green'	Emerald Green Arborvitae	10	6' - 8'	B + B	
T	Taxus X Media Hickell	Hicks Yew	2	3'	B + B	
CL	Cupressocyparis X Leylandii	Leyland Cypress	22	6' - 8'	B + B	
<b>SHRUBS :</b>						
IG	Ilex Grenata 'Green Lustre'	Green Lustre Holly	71	2 1/2"-3" HT	CONT.	
PR	Rhodinx X Fraseri	Fraseri Photinia	291	2 1/2"-3" HT	CONT.	
EA	Illyonox Alistus 'Compacta'	Compact Burning Bush	141	2 1/2"-3" HT	CONT.	
A	Azalea 'Hershey Red'	Hershey Red Azalea	52	18"-24" SP	CONT.	
BT	Barberis Thunbergii Atropurpurea	Crimson Pygmy Barberry	36	18"-24" SP	CONT.	
FI	Rosythia Intermedia 'Spring Glory'	Border Forsythia	16	18"-24" SP	CONT.	
<b>GROUND COVER :</b>						
VM	Vinca Minor 'Atropurpurea'	Wine Periwinkle				Cover 3,053 SF

**A. MATERIALS:**

1. Plants shall be nursery grown in accordance with good horticultural practices and grown under climatic conditions similar to those in the locality of the project. They shall have been root pruned preferably within the last year.

They shall be sound, healthy and vigorous, well branched and densely foliated when in leaf. They shall be free of disease, pest, eggs or larvae, and shall have a healthy developed root system.

Plants shall not be pruned before delivery. Trees with a damaged or crooked leader or multiple leaders, abrasions on the bark, sunscald, disfiguring knots or fresh cuts over 1 1/4 inch will be rejected.

No change in quantity, size, kind, or quality of plant specified will be permitted without the approval of the landscape architect.

2. Topsoil shall be fertile, friable and typical of the locality; it shall be free of stones, lumps, plants, roots, sticks and shall not be delivered in a frozen or muddy condition.

3. Planting soil (backfill mix) shall be five parts topsoil and one part wet loose peatmoss.

4. Staking materials: Guy wire shall be pliable 12 gauge galvanized twisted two strand wire. Hose shall be a suitable length of two-ply rubber hose 3/4 inch in diameter stakes shall conform to the detail on this sheet.

5. Wrapping material shall be a standard manufactured tree wrapping paper with crinkled surface and fastened by an approved method.

**B. APPLICABLE SPECIFICATIONS AND STANDARDS:**

1. 'Standard Plant Names,' Latest Edition American Joint Committee on Horticultural Nomenclature.

2. 'American Standard for Nursery Stock,' Latest Edition, American Association of Nurserymen.

**C. DIGGING AND HANDLING OF PLANT MATERIALS:**

1. Immediately before digging, spray all evergreen or deciduous plant material in full leaf with anti-desiccant, applying an adequate film over trunks, branches, twigs, and/or foliage.

2. Dig ball and burlap (B + B) plants with firm natural balls of earth, of diameter not less than that recommended by American Standard for Nursery Stock, and of sufficient depth to include the fibrous and feeding roots. Plants moved with a ball will not be accepted if the ball is cracked or broken before or during planting operations.

**D. EXCAVATION OF PLANTING AREAS:**

Stake out on the ground locations for plants and outline of area to be planted and obtain approval of the landscape architect before excavation is begun. Landscaped areas to be thoroughly weeded prior to planting operation.

**E. PLANTING OPERATIONS:**

Set plants at same relationship to finished grade as they bore to the ground from which they were dug. Use planting soil to backfill approximately 2/3 full, water thoroughly before installing remainder of the planting soil to top of pits, eliminating all air pockets.

Set planting plumb and brace rigidly in position until the planting soil has been stamped solidly around the ball and roots. Cut ropes or strings from the top of ball after plant has been set. Leave burlap or cloth wrapping intact around balls. Turn under and bury portions of burlap at top of ball.

Protect plants at all times from sun or drying winds. Plants that cannot be planted immediately on delivery shall be kept in the shade, well protected with soil, wet moss or other acceptable material and shall be kept well watered. Plants shall not remain unplanted for longer than three days after delivery.

Plants shall not be bound with wire or rope at any time so as to damage the bark or break branches. Plants shall be lifted and handled from the bottom of the ball only.

Mulch all pits and beds with a two inch layer of barkmulch immediately after planting and work into the top three inches of the planting soil. Form a 3" earth saucer around each plant. Water all plants immediately after planting. Add additional mulch to make a total 3" mulch depth.

**F. STAKING, WRAPPING AND PRUNING:**

Staking shall be completed immediately after planting. Plants shall stand plumb after staking. Stakes and guy wires shall be removed at the end of the guarantee period and disposed of off site by the Contractor.

Wrap deciduous tree trunks starting at the base of the tree up to the second branch. Remove wrapping at the end of the guarantee period.

Prune plants at the time of planting as directed by the landscape architect to remove a maximum of 1/3 of the foliage. Remove all dead wood, suckers or broken branches and preserve the natural character of the plant.

**G. GUARANTEE:**

All plant material shall be guaranteed by the contractor to be in a healthy and vigorous condition at the beginning of the second growing season following acceptance by the landscape architect.

**SCHEDULE B  
PARKING LOT INTERNAL LANDSCAPING**

NUMBER OF PARKING SPACES	218
NUMBER OF TREES REQUIRED	11
NUMBER OF TREES PROVIDED	13
SHADE TREES	10
OTHER TREES (2:1 substitution)	3

**SCHEDULE A  
PERIMETER LANDSCAPE EDGE**

CATEGORY	ADJACENT TO ROADWAYS		ADJACENT TO PERIMETER PROPERTIES
	B	D	C
LANDSCAPE TYPE			
LINEAR FEET OF ROADWAY FRONTAGE/PERIMETER	752	357	• 752' LF (PERIMETER)
CREDIT FOR EXISTING VEGETATION (OFFSITE BUFFER)	NO	YES	YES - 316 LF
CREDIT FOR WALL, FENCE OR BERM (YES NO LINEAR FEET)	YES = 85' LF	NO = 357'	NO = 434' LF
NUMBER OF PLANTS REQUIRED			
SHADE TREES	17	5	11
EVERGREEN TREES	0	36	22
SHRUBS	167	0	0
NUMBER OF PLANTS PROVIDED			
SHADE TREES	25	6	12
EVERGREEN TREES	0	23	17
SHRUBS (12:1 substitution credits BELOW IF NEEDED)	req'd	0	1

APPROVED  
NOV. 6, 1996  
[Signature]

Approved: Howard County Department of Planning and Zoning  
Director: [Signature] 12/20/96  
Chief, Division of Land Development and Research: [Signature] 12/19/96  
Chief, Development Engineering Division: [Signature] 12/19/96

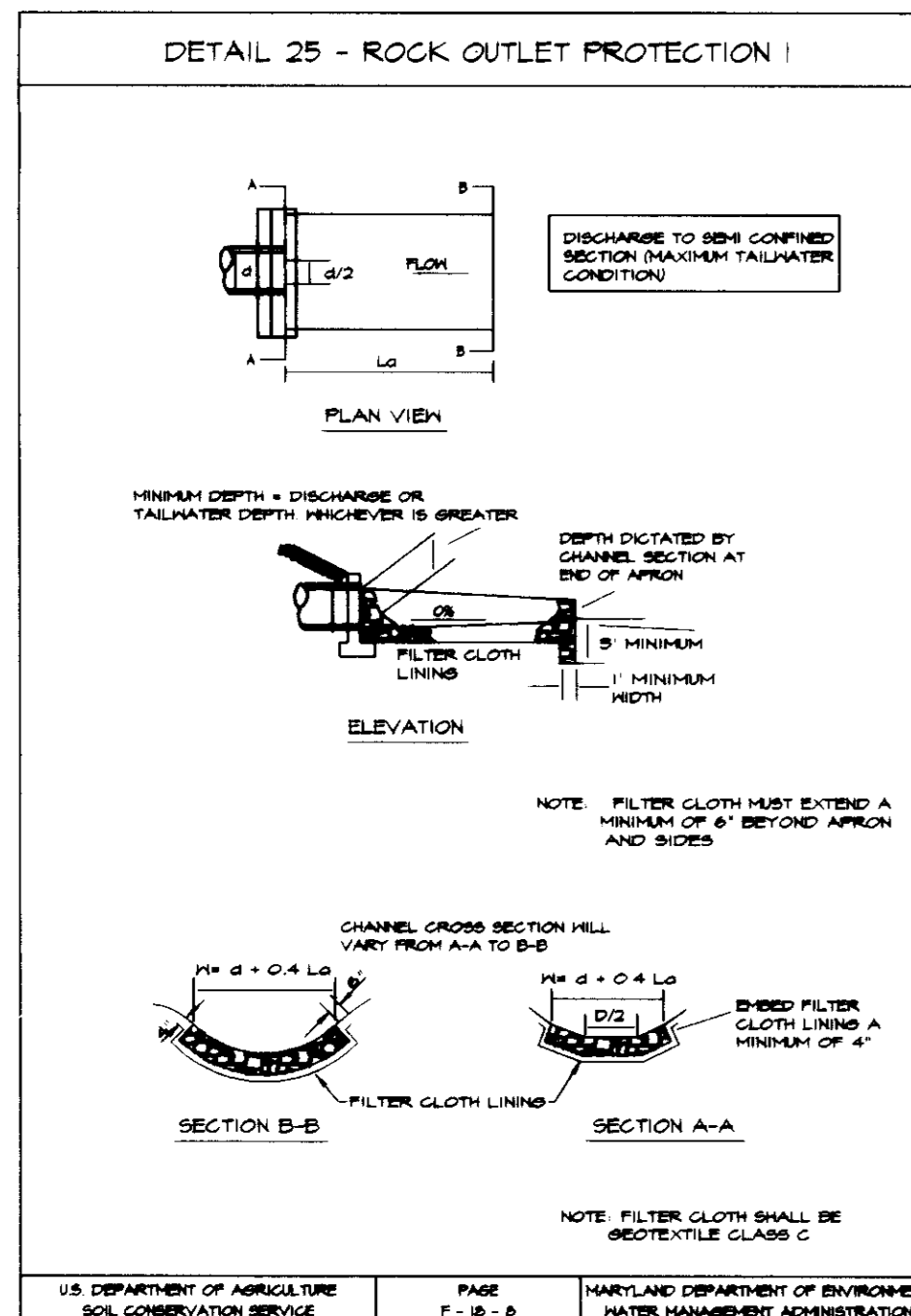
DATE \_\_\_\_\_ DATE \_\_\_\_\_ DATE \_\_\_\_\_ DATE \_\_\_\_\_

**MICROCRONE**  
ENGINEERING & SURVEYING & CONSTRUCTION SERVICES  
20 RIDGELY AVENUE  
ANNAPOLIS, MARYLAND 21401  
(410) 267-8621

LANDSCAPE DETAILS  
**5th DISTRICT  
VOLUNTEER FIRE STATION  
12335 CLARKSVILLE PIKE  
(PARCEL AA, BB, CC)CLARKSVILLE, 5th ELECTION DISTRICT HOWARD COUNTY, MD**

SHEET NO. 11 OF 14  
CADD FILE: CLK-SPII  
FILE NO. J-35-24J

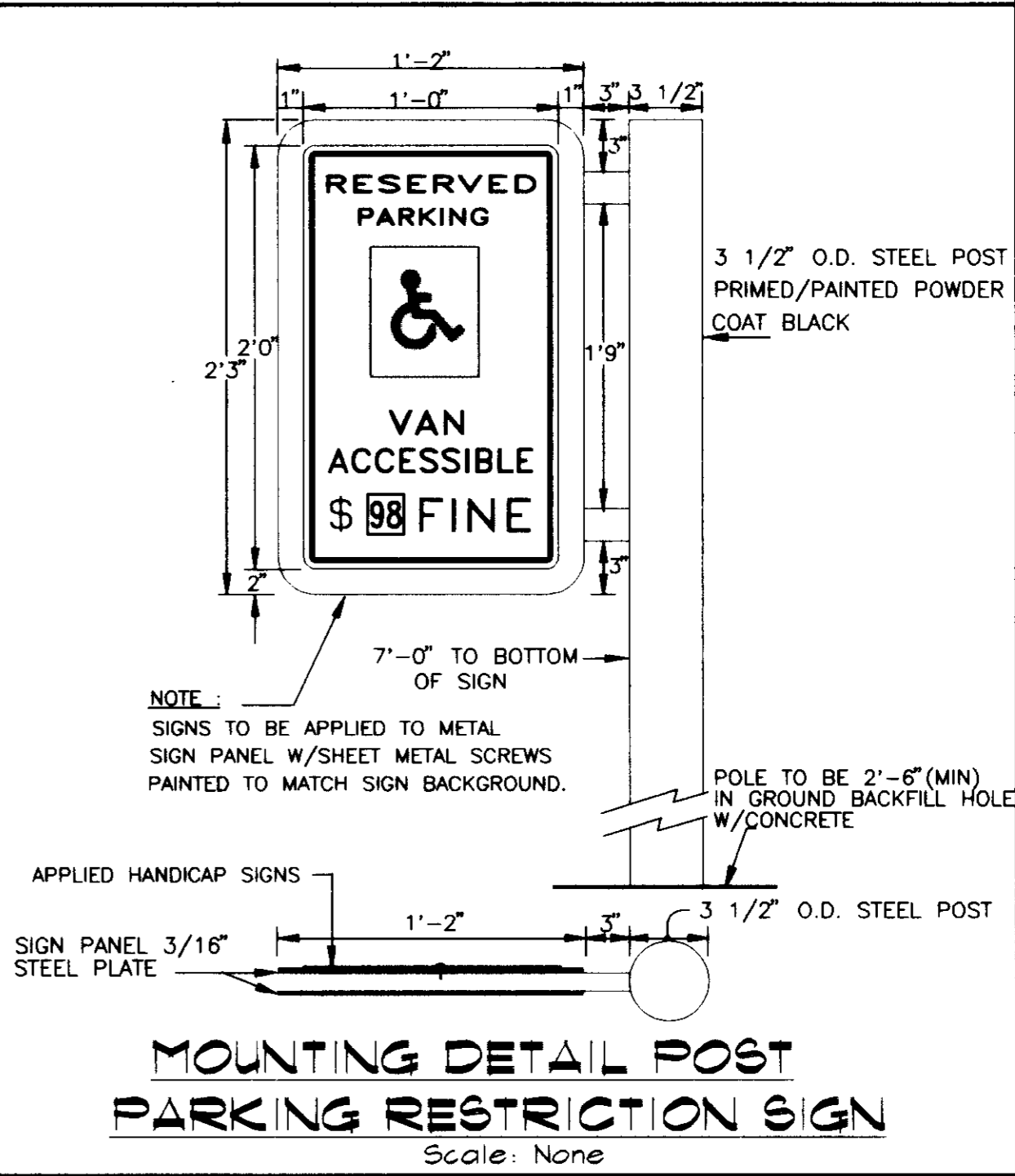
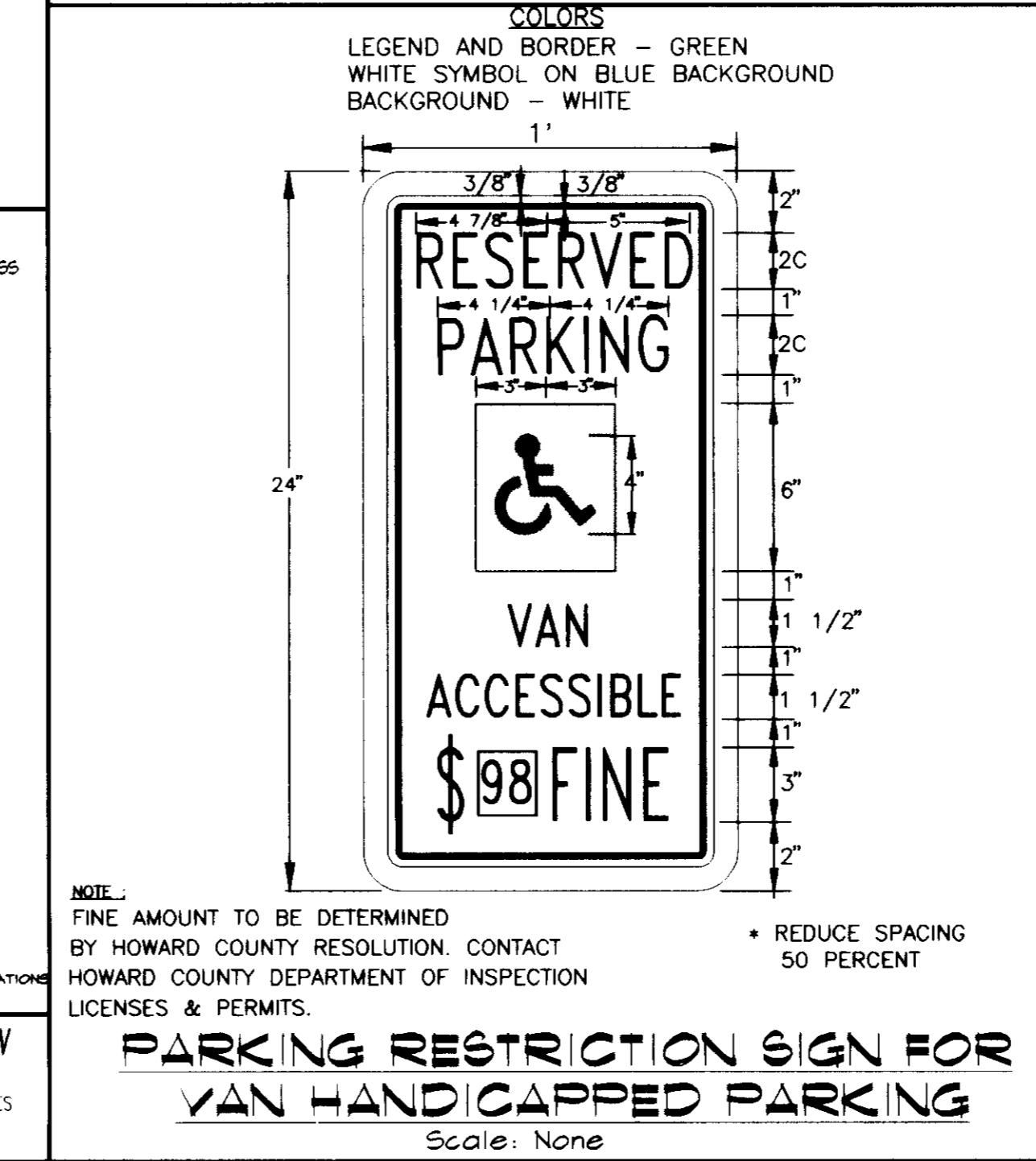
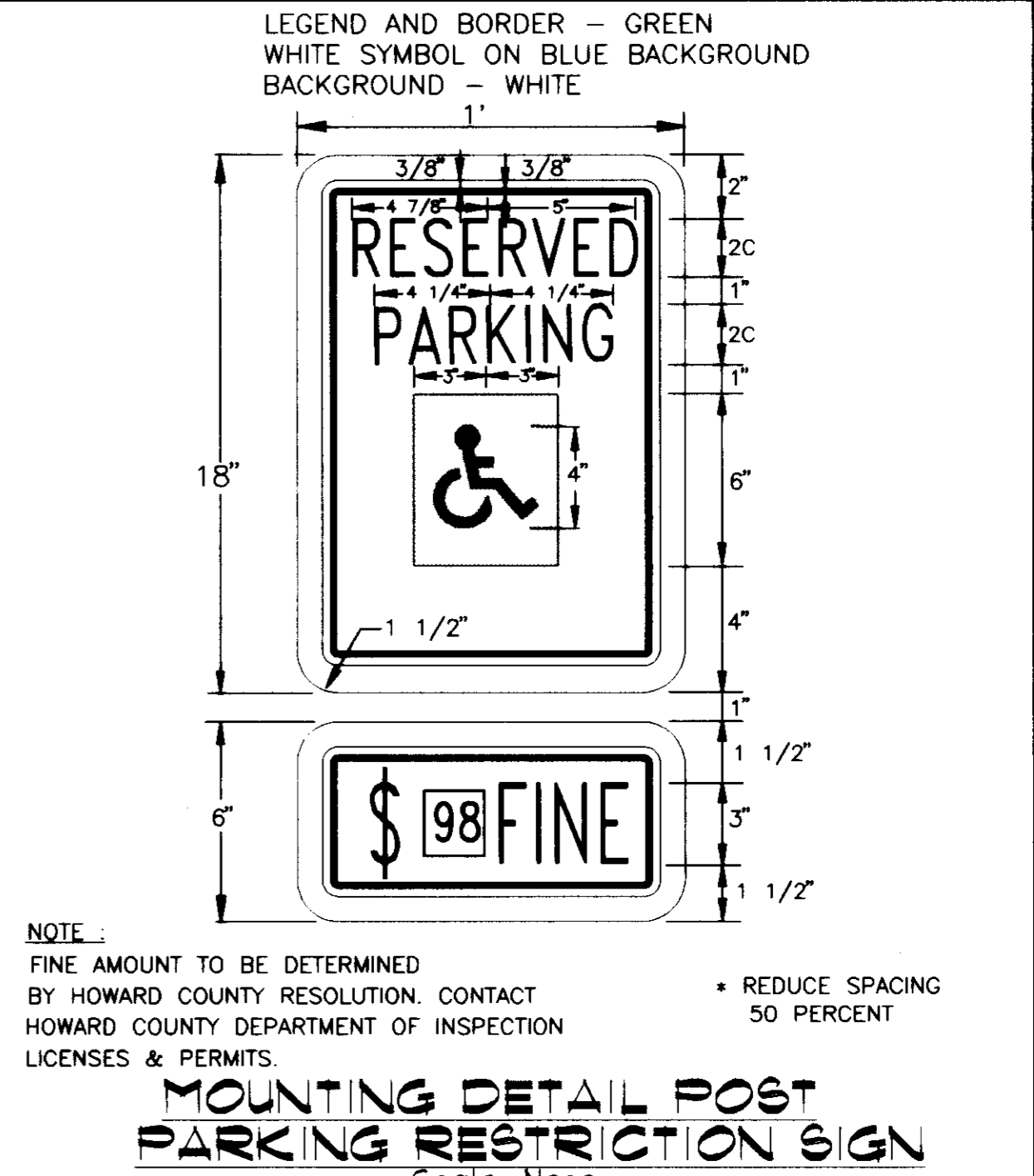
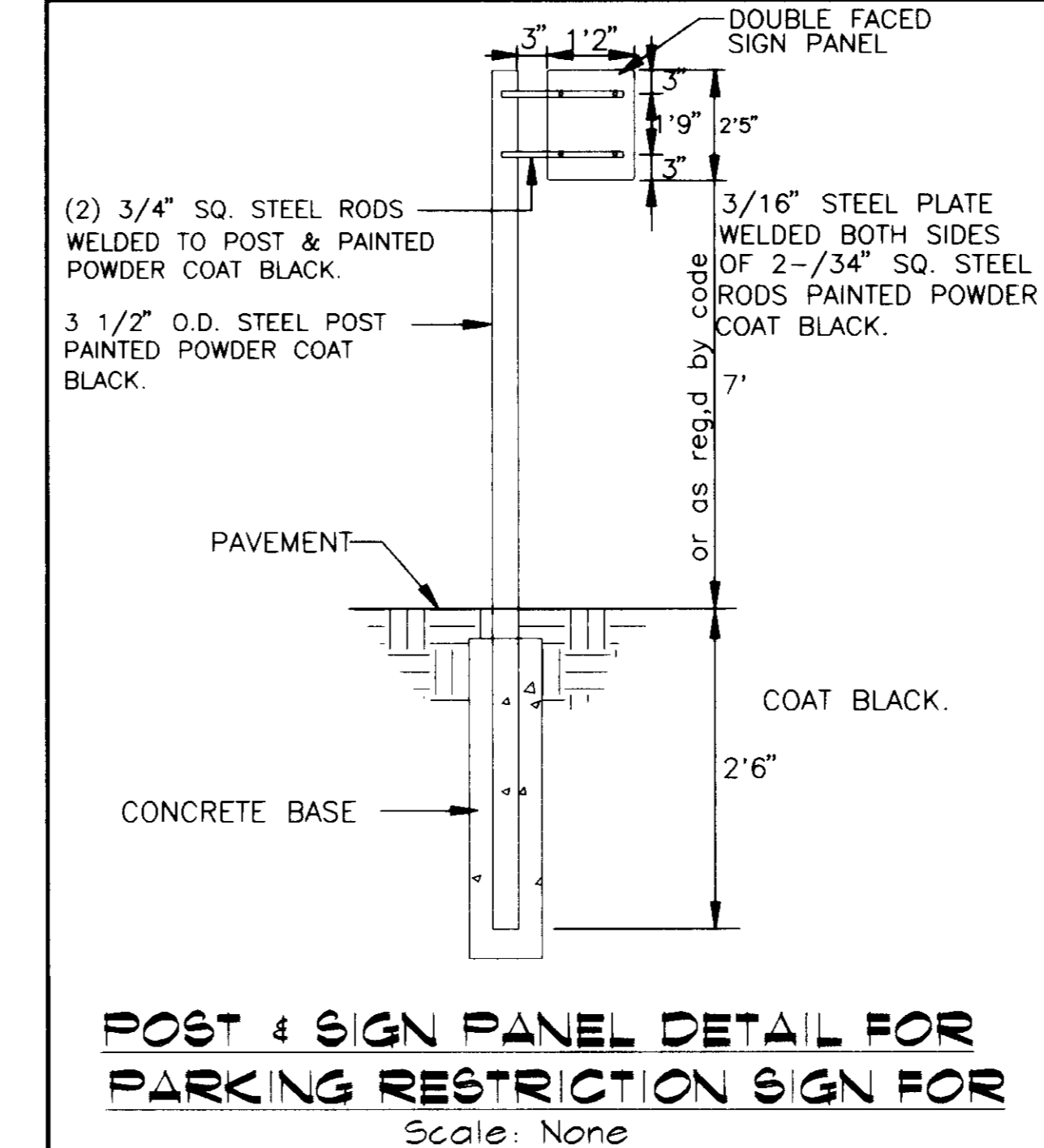
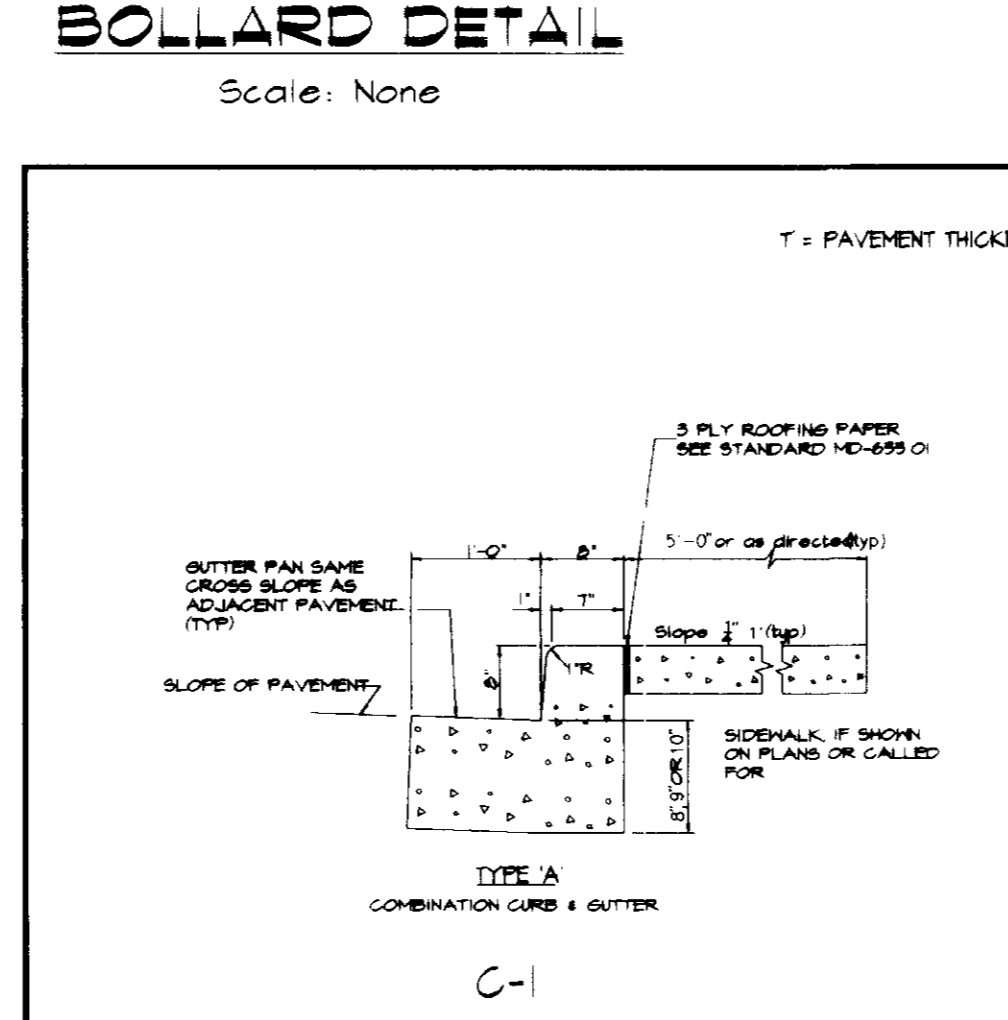
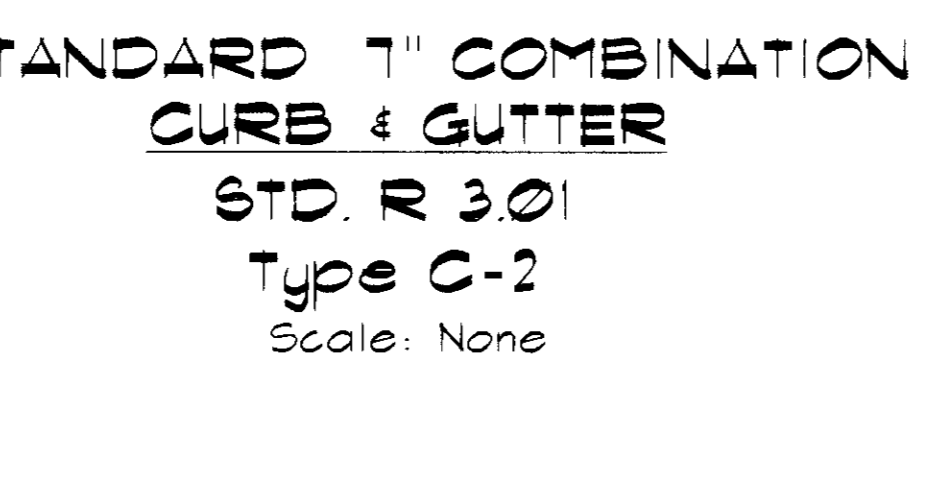
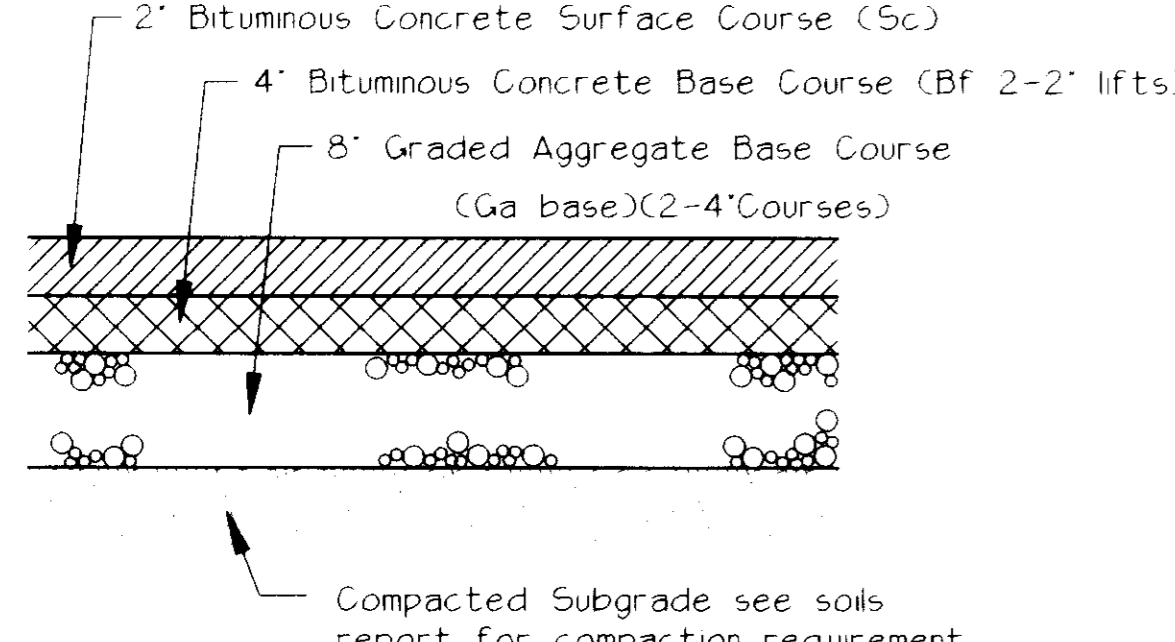
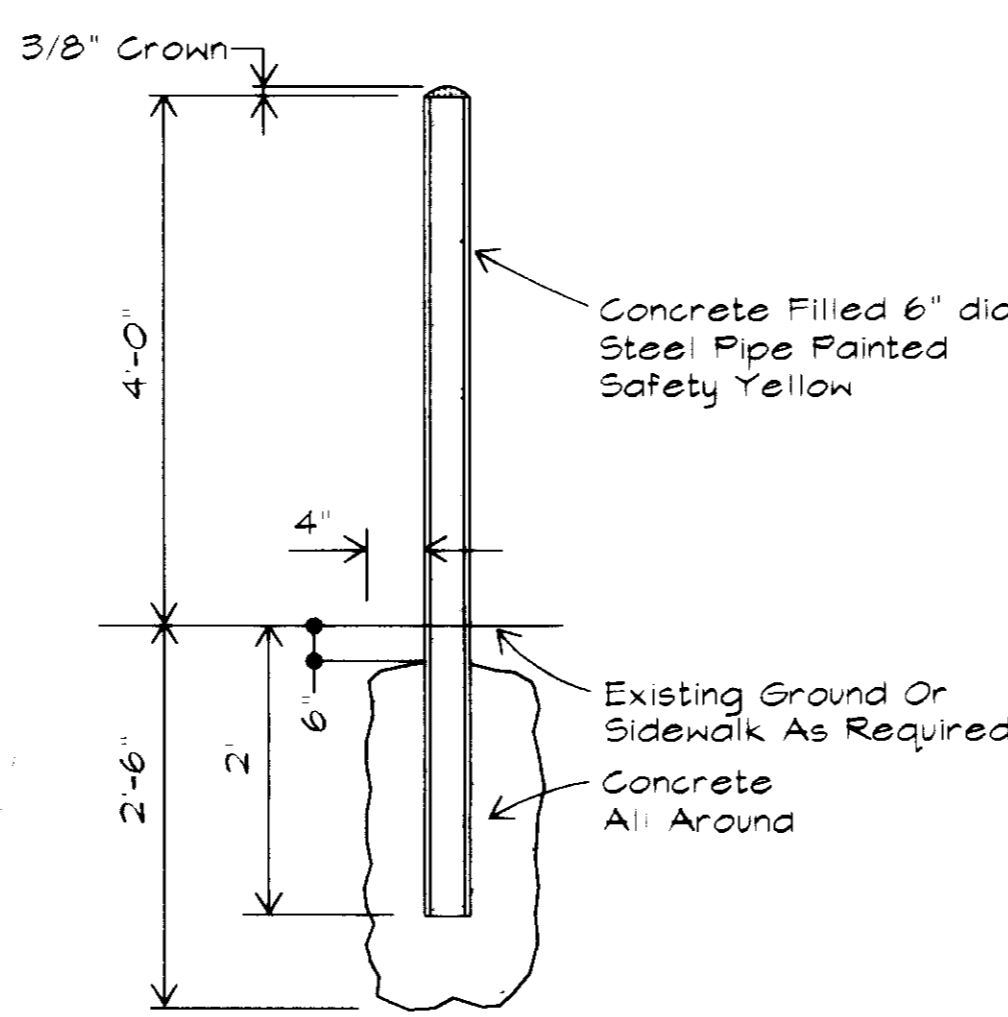
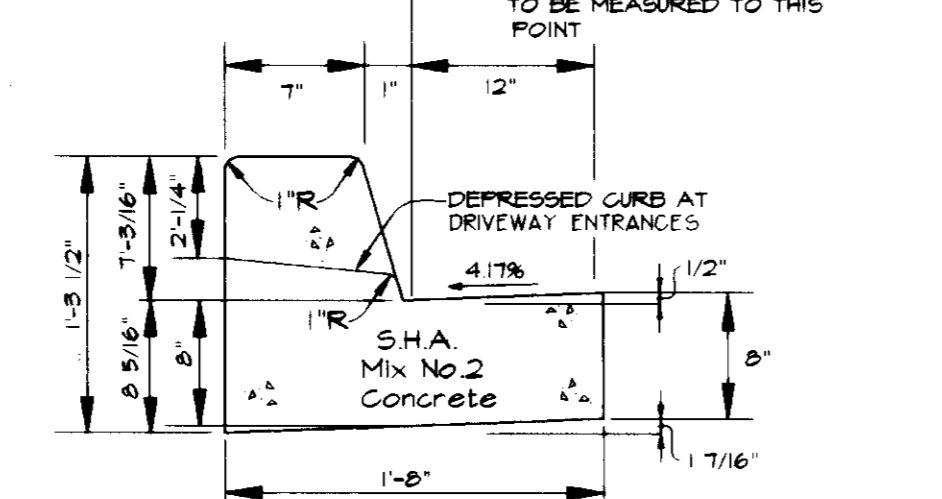
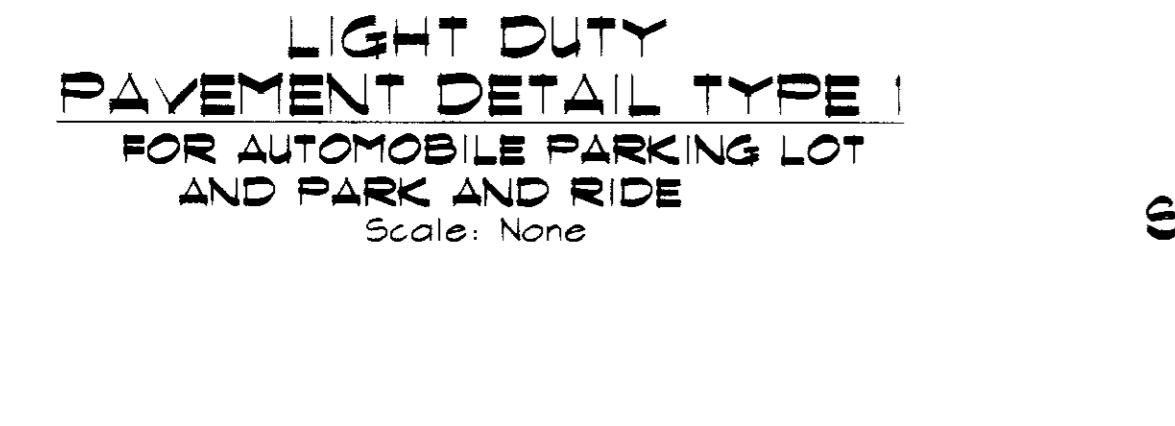
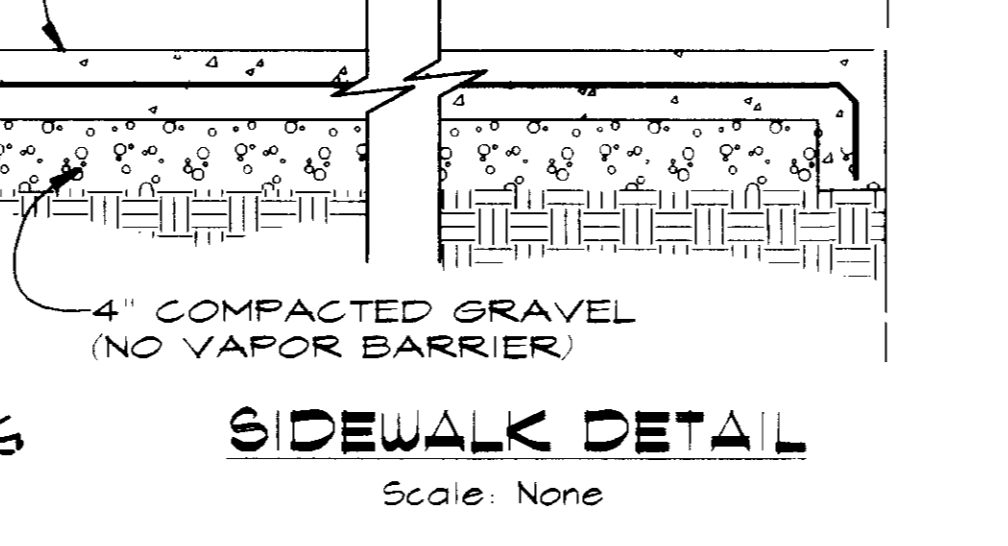
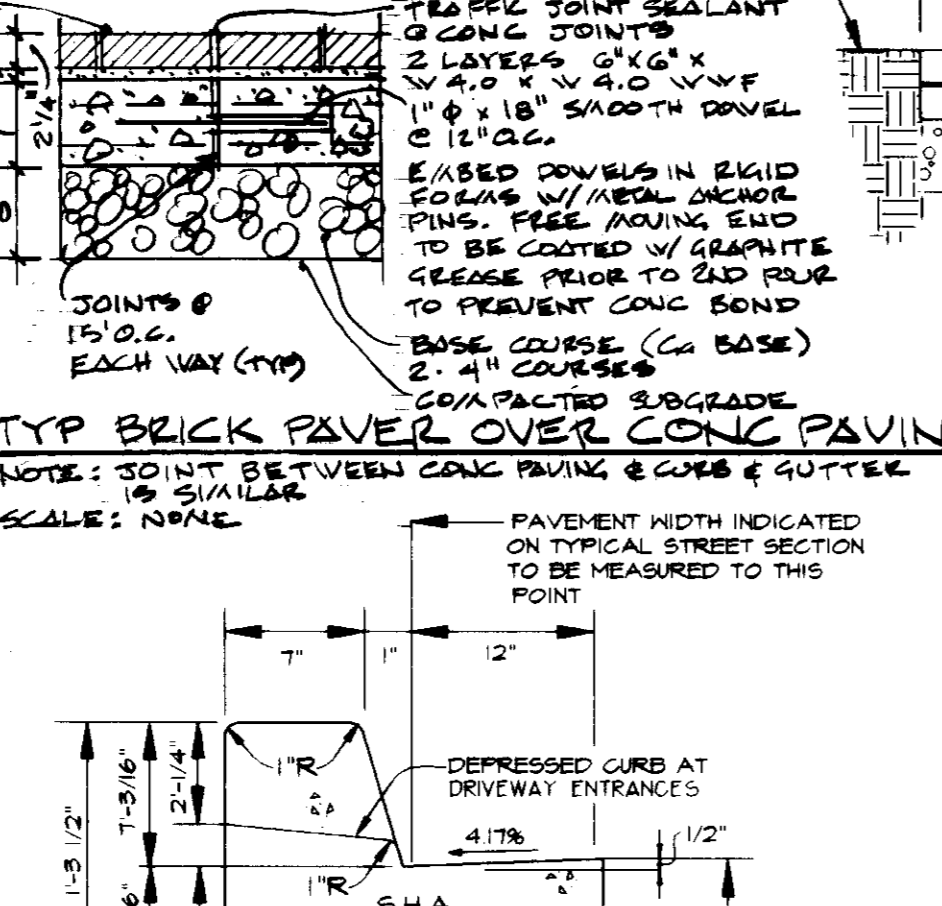
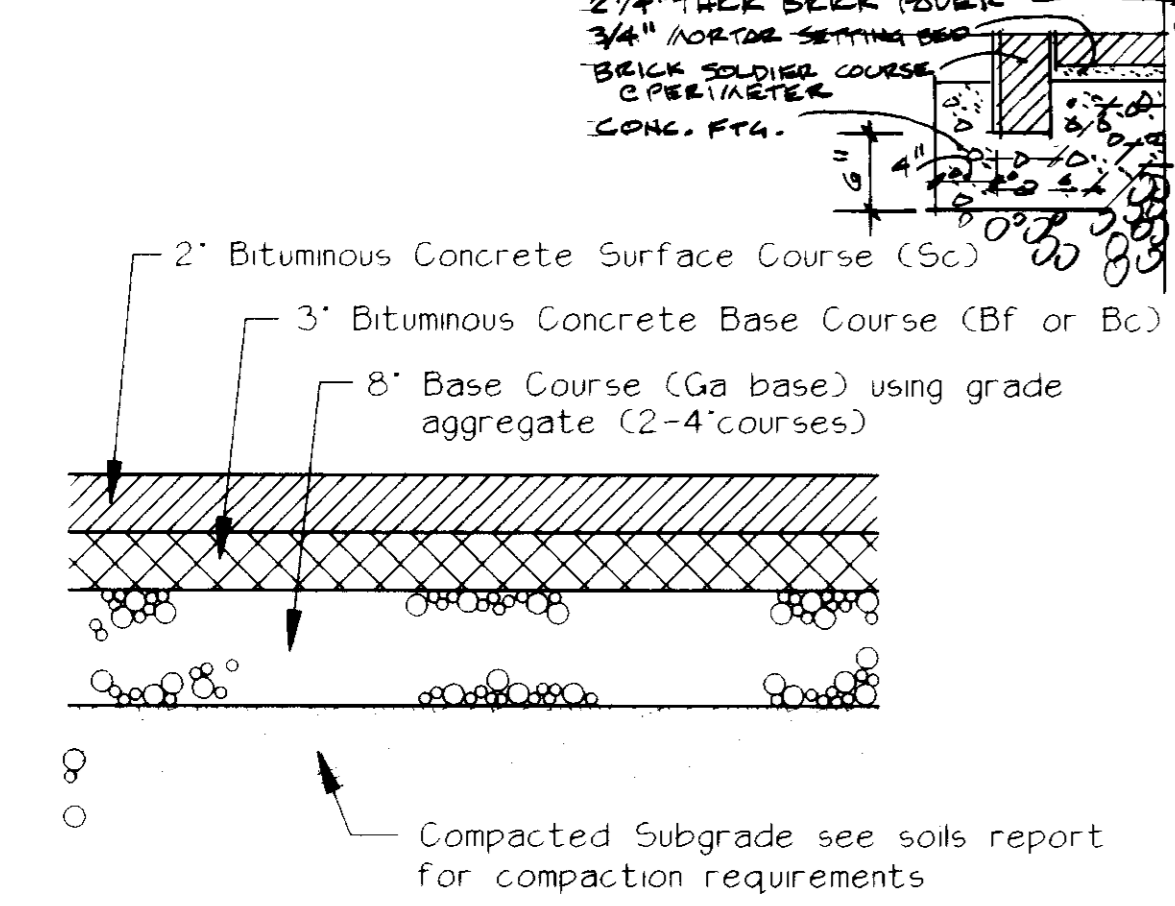
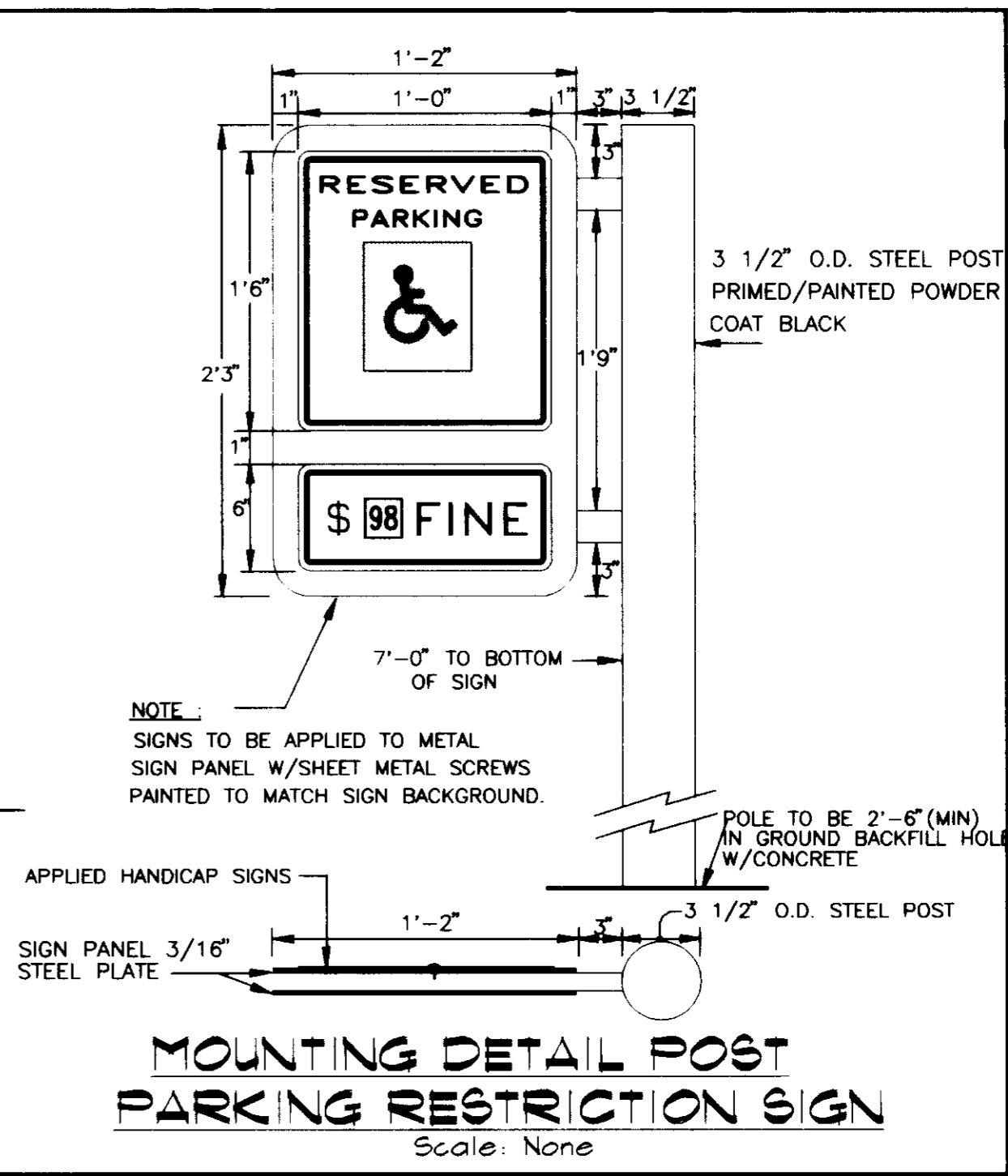
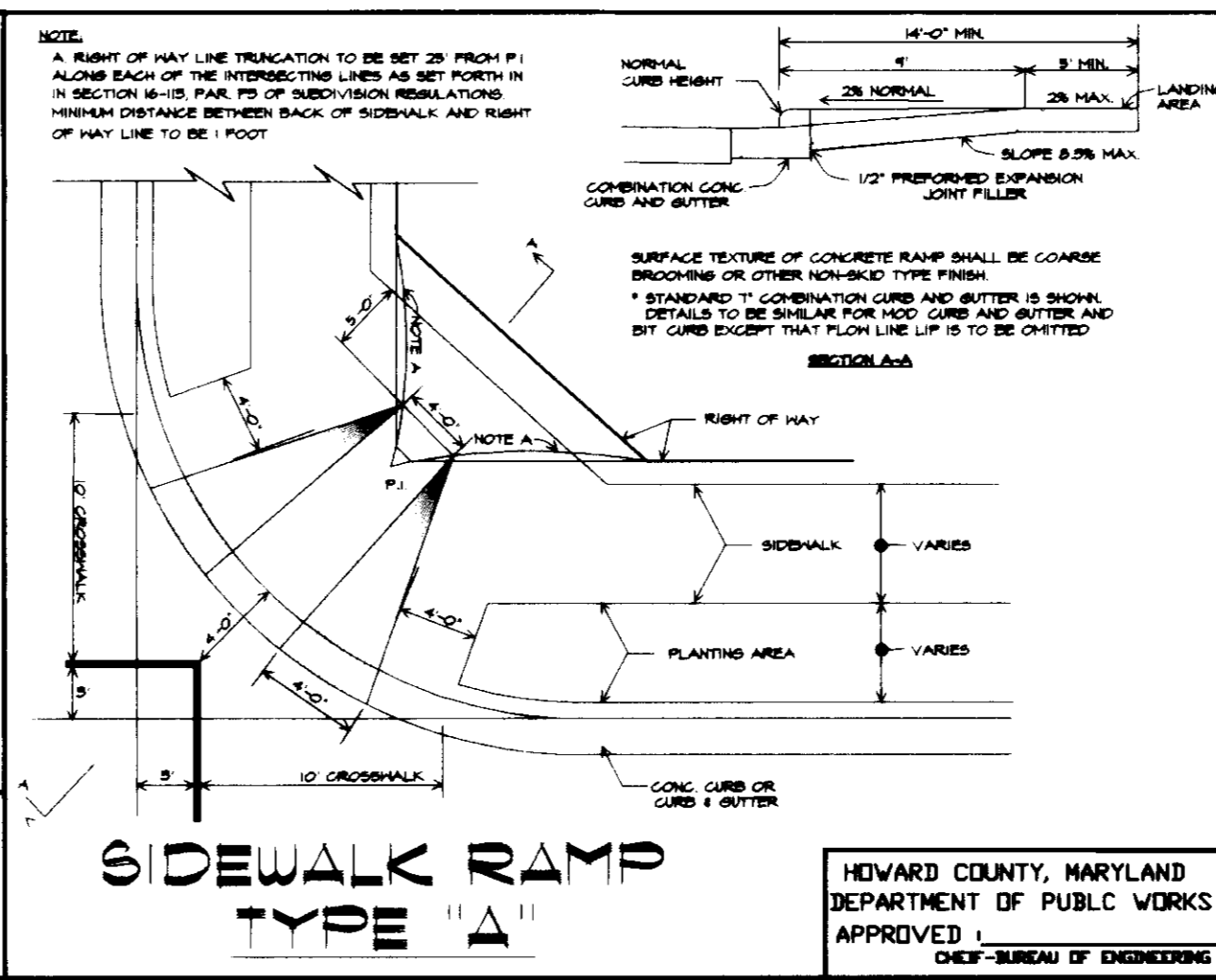
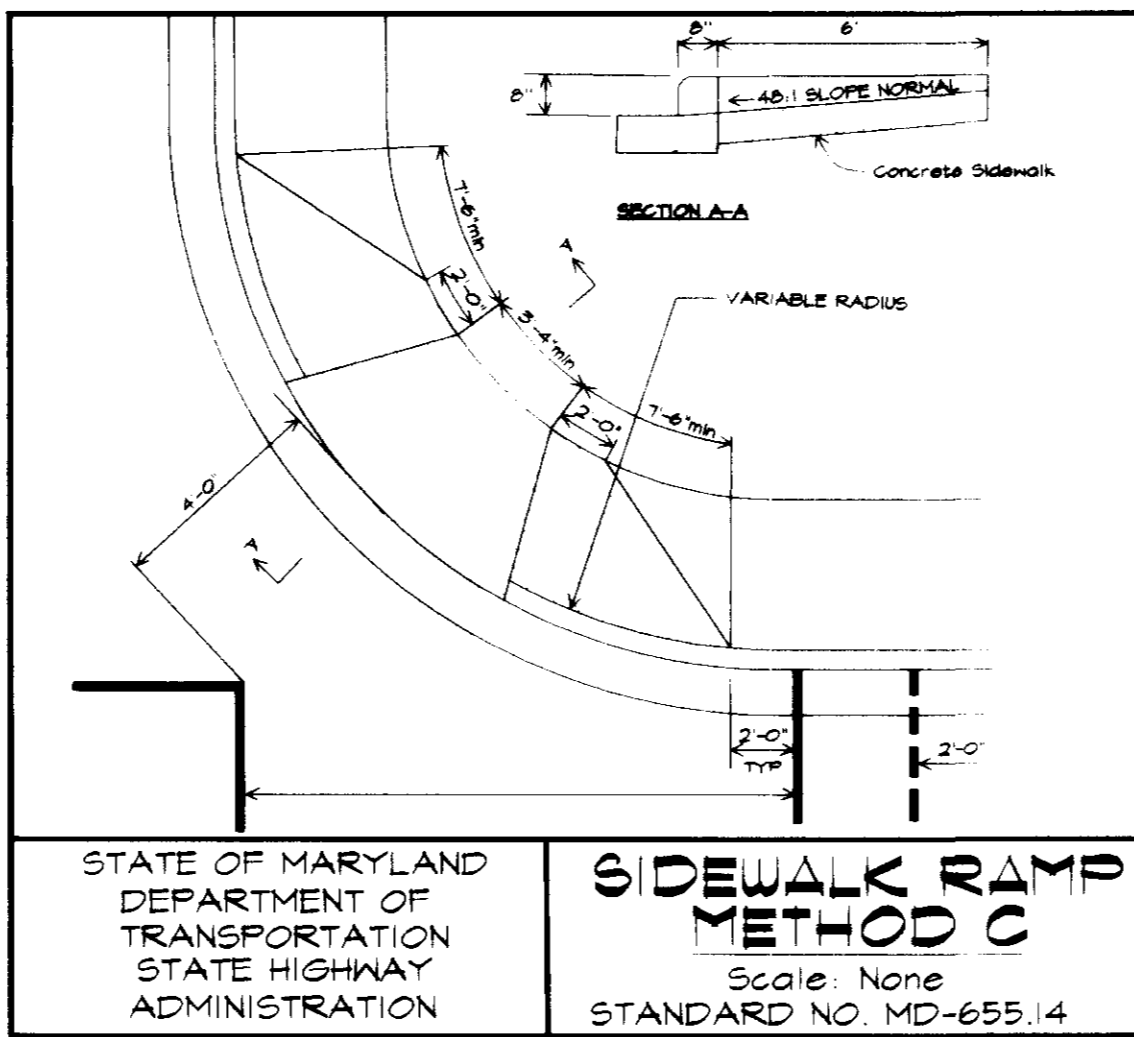




**ROCK OUTLET PROTECTION**

Construction Specifications

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



Approved: Howard County Department of Planning and Zoning

*Joyce K. Butler* 12/20/96  
 Director Date

*Richard Blair* 12/19/96  
 Chief, Division of Land Development and Research Date

*John D. ...* 12/19/96  
 Chief, Development Engineering Division Date

NOV. 6, 1996  
 D.H.

MARYLAND DEPARTMENT OF TRANSPORTATION  
 STATE HIGHWAY ADMINISTRATION  
 STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES  
 STANDARD TYPES OF CONCRETE CURB  
 COMBINATION CONCRETE CURB & GUTTER



**McCRONE**  
 ENGINEERING & ENVIRONMENTAL SCIENCES  
 LAND PLANNING & SURVEYING & CONSTRUCTION SERVICES  
 20 RIDGELY AVENUE, ANNAPOLIS, MARYLAND 21401  
 (410) 267-8621

DATE	SCALE	AS SHOWN	DRAWN BY	DESIGNED BY	APPROVED	REVISION	DATE
11/6/96	AS SHOWN						

**SITE DETAILS**  
**5th DISTRICT**  
**VOLUNTEER FIRE STATION**  
 12335 CLARKSVILLE PIKE  
 (PARCEL 4A, 4B, 4C)  
 CLARKSVILLE 5th ELECTION DISTRICT  
 HOWARD COUNTY MD

SHEET NO. 12 OF 14  
 CADD FILE: CLK-9P12  
 FILE NO. J-35-24k



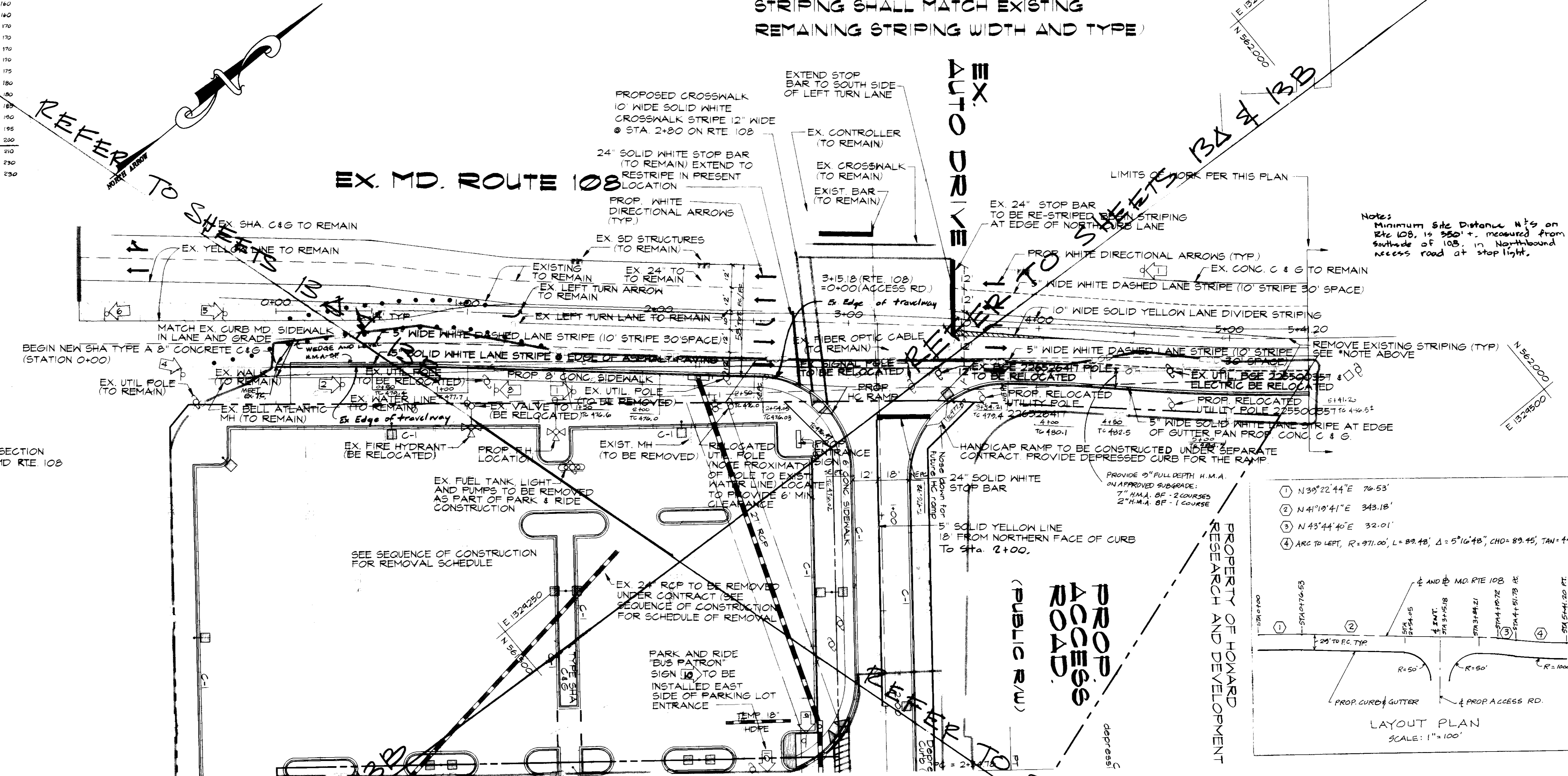
TABLE C-2  
Stopping Sight Dist. (Feet)  
Design Speed (MPH)

Grade	50	55	60	65	70	75	80	85	90
0%	440	490	540	590	640	690	740	790	840
+1%	440	490	540	590	640	690	740	790	840
+2%	440	490	540	590	640	690	740	790	840
+3%	440	490	540	590	640	690	740	790	840
+4%	440	490	540	590	640	690	740	790	840
+5%	440	490	540	590	640	690	740	790	840
+6%	440	490	540	590	640	690	740	790	840
+7%	440	490	540	590	640	690	740	790	840
+8%	440	490	540	590	640	690	740	790	840
+9%	440	490	540	590	640	690	740	790	840
+10%	440	490	540	590	640	690	740	790	840

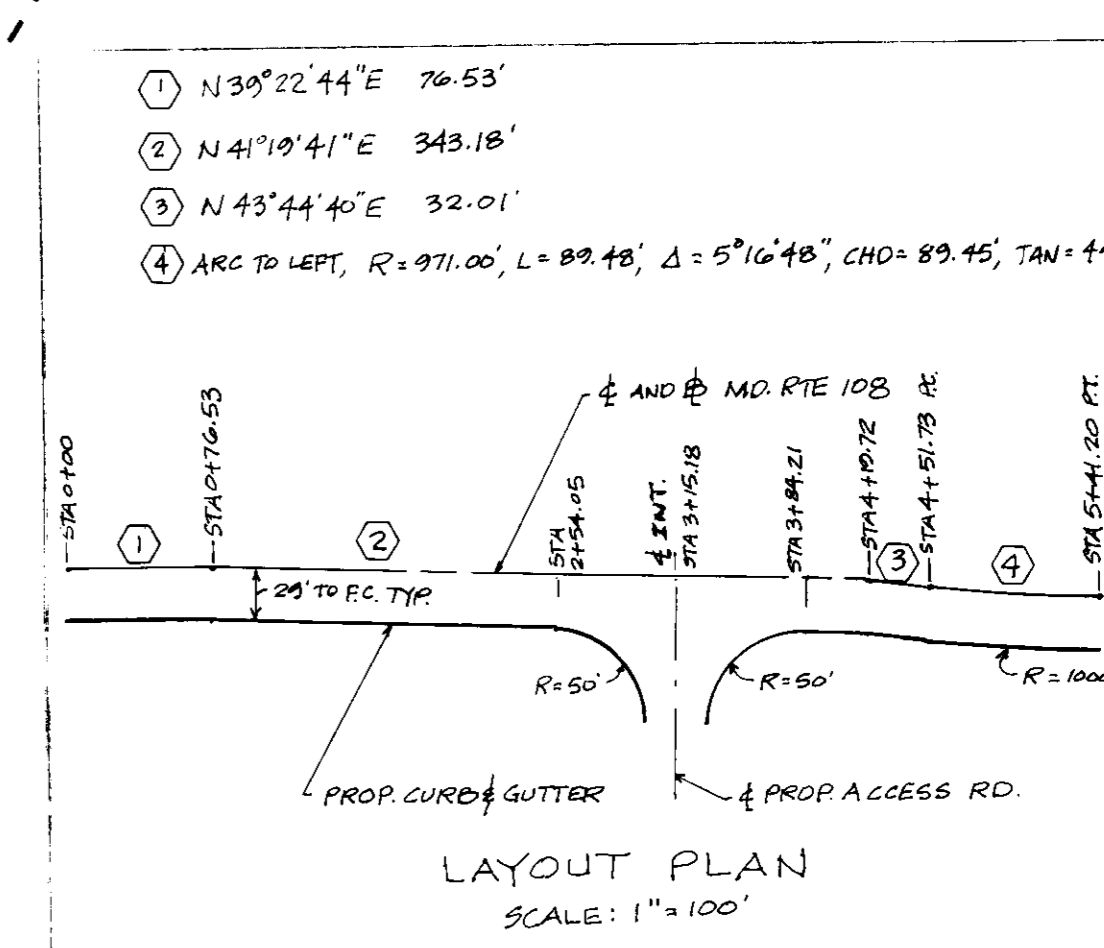
550 = 3.675V + 1.47  
 30 (F + G)  
 F = Friction Factor  
 G = Average Grade  
 V = Speed in MPH

\* NOTE: ALL EXISTING STRIPING TO BE REMOVED AND RESTRIPIED FOR NEW LANE CONFIGURATIONS. (NEW STRIPING SHALL MATCH EXISTING REMAINING STRIPING WIDTH AND TYPE)

NOTE:  
FOR TRAFFIC SIGNAL SEE SIGNAL DESIGN PLAN



Notes  
Minimum Side Distance N's on Rte 108, is 350' +/- measured from southside of 108, in Northbound access road at stop light.

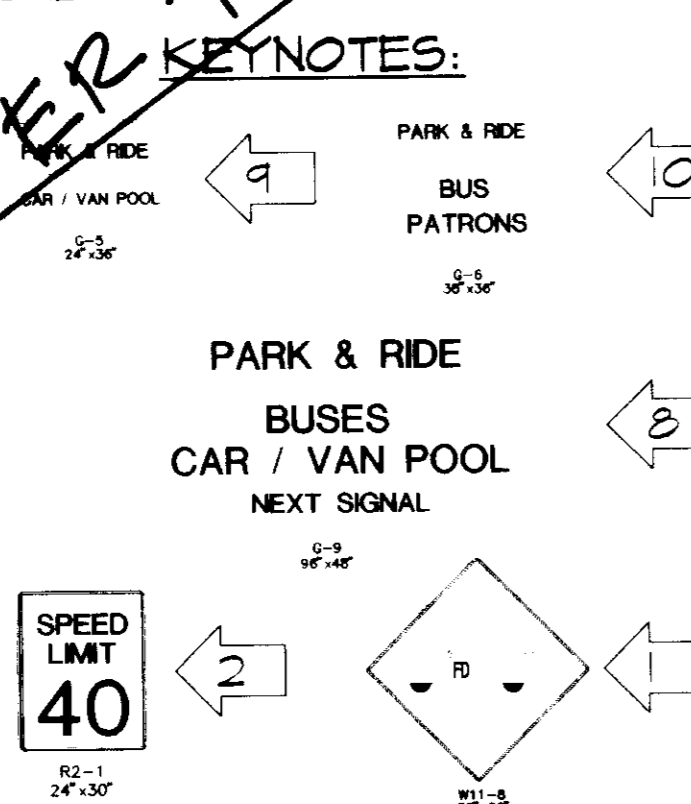
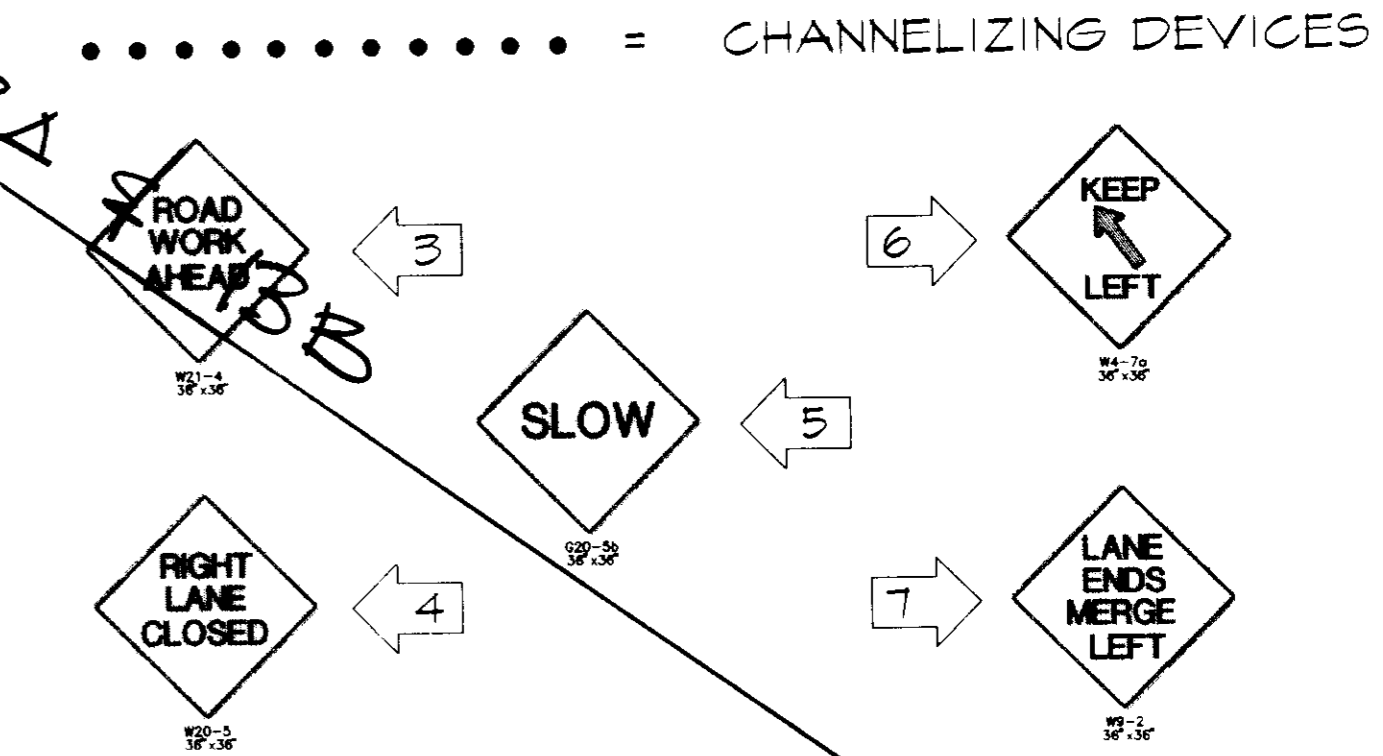


- NOTE:
1. THE CONTRACTOR SHALL NOTIFY MISS UTILITY 1-800-251-7111, FIVE (5) WORKING DAYS BEFORE STARTING WORK SHOWN ON THESE DRAWINGS
  2. EX 16 BANK FIBER OPTIC LABEL RUNS ALONG RTE 108 CONTRACTOR MUST TAKE EXTREME CAUTION TO DETERMINE EXACT LOCATION PRIOR PRIOR TO COMMENCING WORK.
  3. CONTRACTOR TO COORDINATE RELOCATION OF COMBINED BELL ATLANTIC AND BGE OVERHEAD FACILITIES WITH BOTH UTILITY COMPANIES.
  4. ALL SIGNS REFER TO STATE OF MARYLAND STANDARD HIGHWAY SIGNS. SIGN SIZE SHALL BE MINIMUM SPECIFIED.
  5. ALL CONSTRUCTION TRAFFIC SIGNS ARE TEMPORARY FOR THE DURATION OF CONSTRUCTION, AND SHALL BE REMOVED IMMEDIATELY UPON COMPLETION.
  6. CONSTRUCTION TRAFFIC SIGNS IN PAVED AREAS ARE TO BE ATTACHED TO CHANNELIZING DEVICE (NOT BORED THROUGH PAVEMENT).

GENERAL NOTES:

1. COORDINATES, BEARINGS, AND ELEVATIONS SHOWN ON THESE DRAWINGS ARE BASED ON THE MARYLAND STATE GRID SYSTEM (NAD83) AS PER HOWARD COUNTY MONUMENT Nos. 2464 AND 2465.
2. ALL CONSTRUCTION MATERIALS AND PRACTICES SHALL CONFORM TO THE MARYLAND DEPARTMENT OF TRANSPORTATION, STATE HIGHWAY ADMINISTRATION, 'STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS' DATED OCTOBER 1993 AND ALL FOLLOWING SUPPLEMENTAL SPECIFICATIONS.
3. THE PROJECTS BENCH MARKS ESTABLISHED FOR THIS PROJECT ARE TO BE VERIFIED BY THE CONTRACTOR BEFORE USE.
4. THE LOCATION OF ALL UTILITIES SHOWN ON THESE DRAWINGS ARE APPROXIMATE. THE CONTRACTOR SHALL NOTIFY 'MISS UTILITY' (410-251-7111) FIVE (5) DAYS BEFORE STARTING WORK SHOWN ON THESE DRAWINGS.
5. THE CONTRACTOR IS TO CONTACT ALL UTILITY COMPANIES AND VERIFY THE LOCATION OF UTILITIES SHOWN ON THE PLANS. ANY DISRUPTION OR INTERFERENCE WITH UTILITY SERVICES WILL BE RE-ESTABLISHED BY THE CONTRACTOR WITH THE USE OF LIKE MATERIALS. NO ADDITIONAL COMPENSATION WILL BE AWARDED FOR THIS WORK EFFORT.
6. GEOLOGICAL AND SOILS DATA SHOWN ON THESE PLANS ARE FOR INFORMATIONAL PURPOSES ONLY. THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN GEOLOGICAL SURVEY AND FOR IDENTIFYING ANY UNUSUAL SOIL CONDITIONS IN THE PROJECT SITE.
7. THE CONTRACTOR WILL REPLACE IN KIND ANY EXISTING PROPERTY DAMAGED DURING CONSTRUCTION WHICH IS OUTSIDE OF THE PLAN LIMITS. NO ADDITIONAL COMPENSATION WILL BE AWARDED FOR MATERIAL, LABOR OR TOOLS REQUIRED TO COMPLETE THIS WORK EFFORT.
8. THE CONTRACTOR SHALL NOTIFY THE STATE HIGHWAY ADMINISTRATION (410-333-1350) FIVE (5) DAYS BEFORE STARTING WORK ON THESE DRAWINGS.
9. THE CONTRACTOR MUST MAINTAIN EXISTING TRAFFIC MOVEMENT ALONG MD ROUTE 108 DURING ALL PHASES OF CONSTRUCTION.
10. THE CONTRACTOR IS RESPONSIBLE FOR DUST AND MUD ON MD ROUTE 108 DUE TO VEHICLES ARRIVING AND LEAVING THE JOB.
11. TRAFFIC CONTROL TO BE MAINTAINED ACCORDING TO THIS APPROVED TRAFFIC CONTROL PLAN FOR THIS PROJECT. THE CONTRACTOR MAY SUBMIT AN ALTERNATE CONSTRUCTION SEQUENCE AND TRAFFIC CONTROL PLAN FOR THIS PROJECT FOR APPROVAL BY THE MSHA.
12. TREE TRIMMING AND FELLING SHALL BE AS SPECIFIED IN THE STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS, (MDOT & SHA OCTOBER 1993 EDITION), SECTION 712 AND 714 RESPECTIVELY, AND DESCRIBED BELOW:
  - A. ALL TREES WITHIN SIX (6) FEET OF THE EDGE OF SHOULDER SHALL BE REMOVED AS SPECIFIED IN SECTION 714, OPERATION 1 OR OPERATION 2 AS APPLICABLE.
  - B. ALL TREE BRANCHES THAT ENCRUSH OVER THE SHOULDER SHALL BE TRIMMED AS SPECIFIED IN SECTION 712 UP TO A HEIGHT OF SIXTEEN (16) FEET (ABOVE THE EDGE OF THE SHOULDER).
13. ALL EXISTING PAVING MARKINGS SHALL BE REMOVED BY GRINDING THE ASPHALT. ALL PROPOSED PAVEMENT MARKINGS SHALL BE THERMOPLASTIC.

CONSTRUCTION TRAFFIC KEYNOTES:



Approved Howard County Department of Planning and Zoning  
 Director: [Signature] Date: 12/20/96  
 Chief, Division of Land Development and Planning: [Signature] Date: 12/19/96  
 Chief, Development Engineering Division: [Signature] Date: 12/19/96

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 ANNAPOLIS, MARYLAND 21401  
 (410) 267-8621

CLARKSVILLE 5th ELECTION DISTRICT  
 VOLUNTEER FIRE STATION  
 12335 CLARKSVILLE PIKE  
 (PARCEL AA, BB, CC)

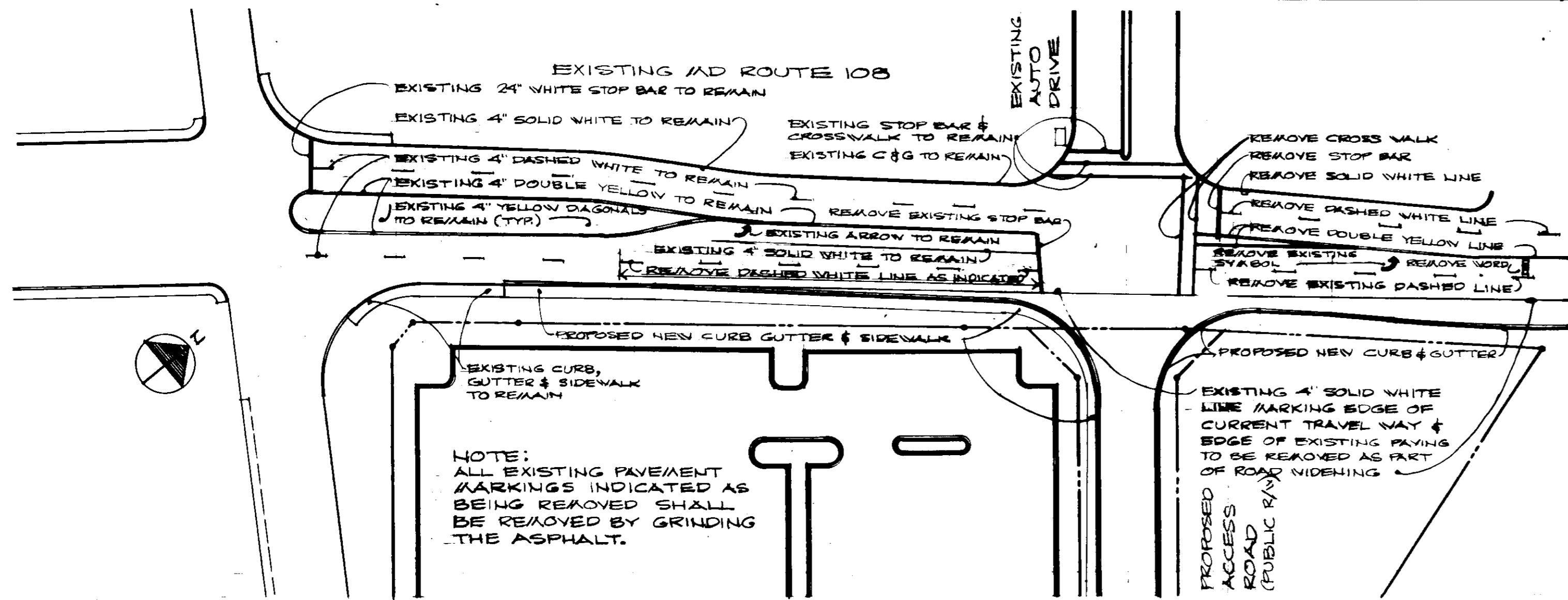
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SHEET NO. 13 OF 14  
 CADD FILE CLK-SPI3  
 FILE NO J-35-241

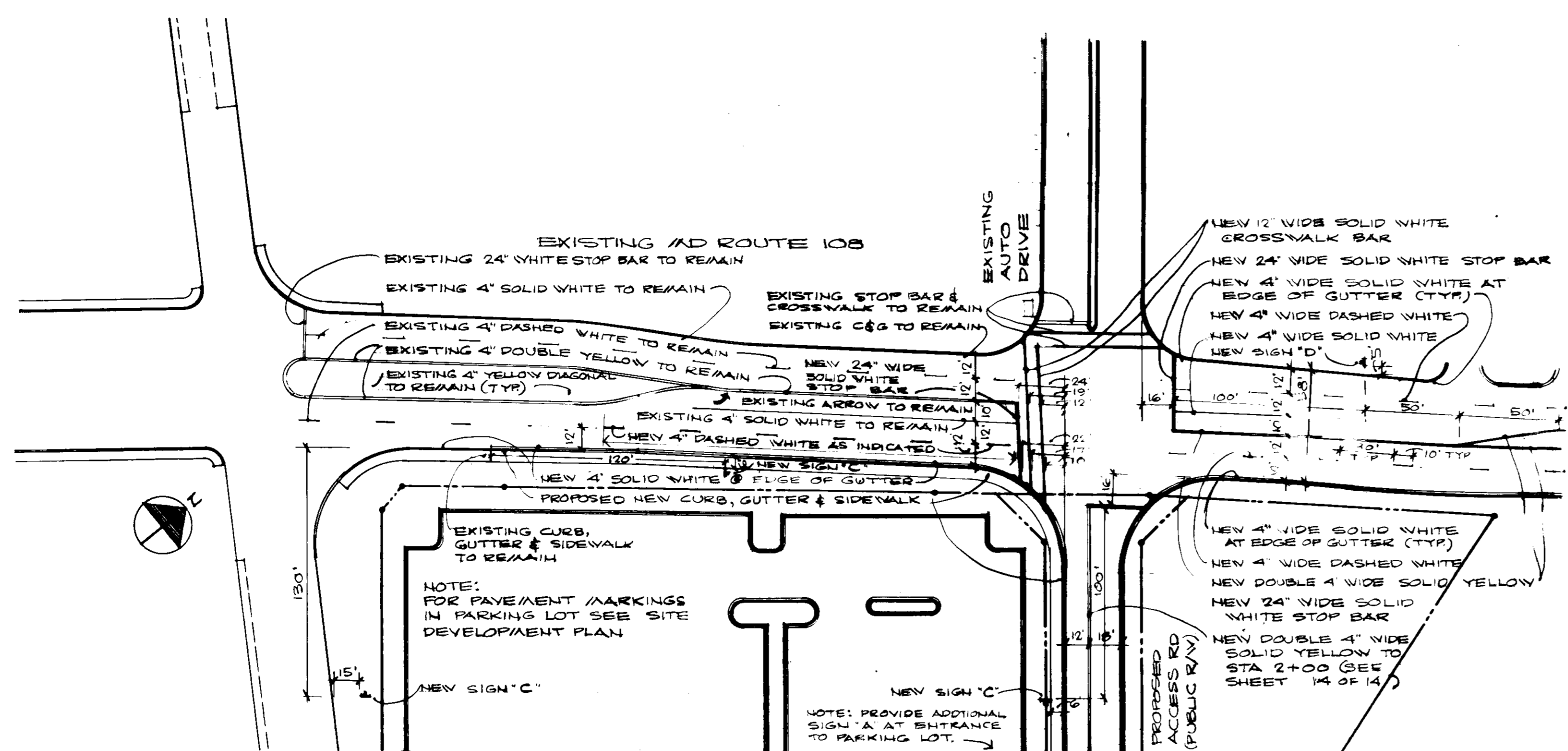




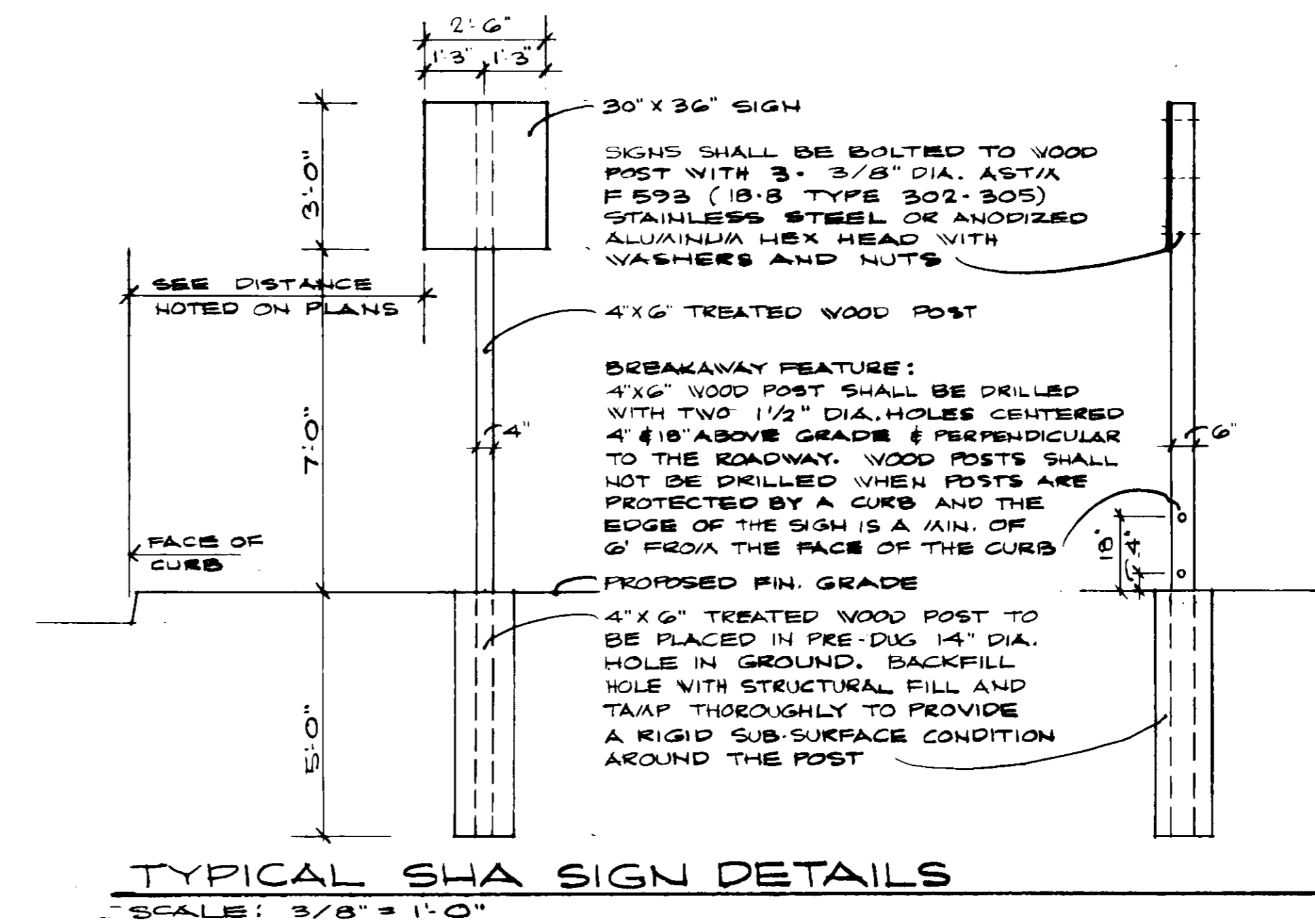
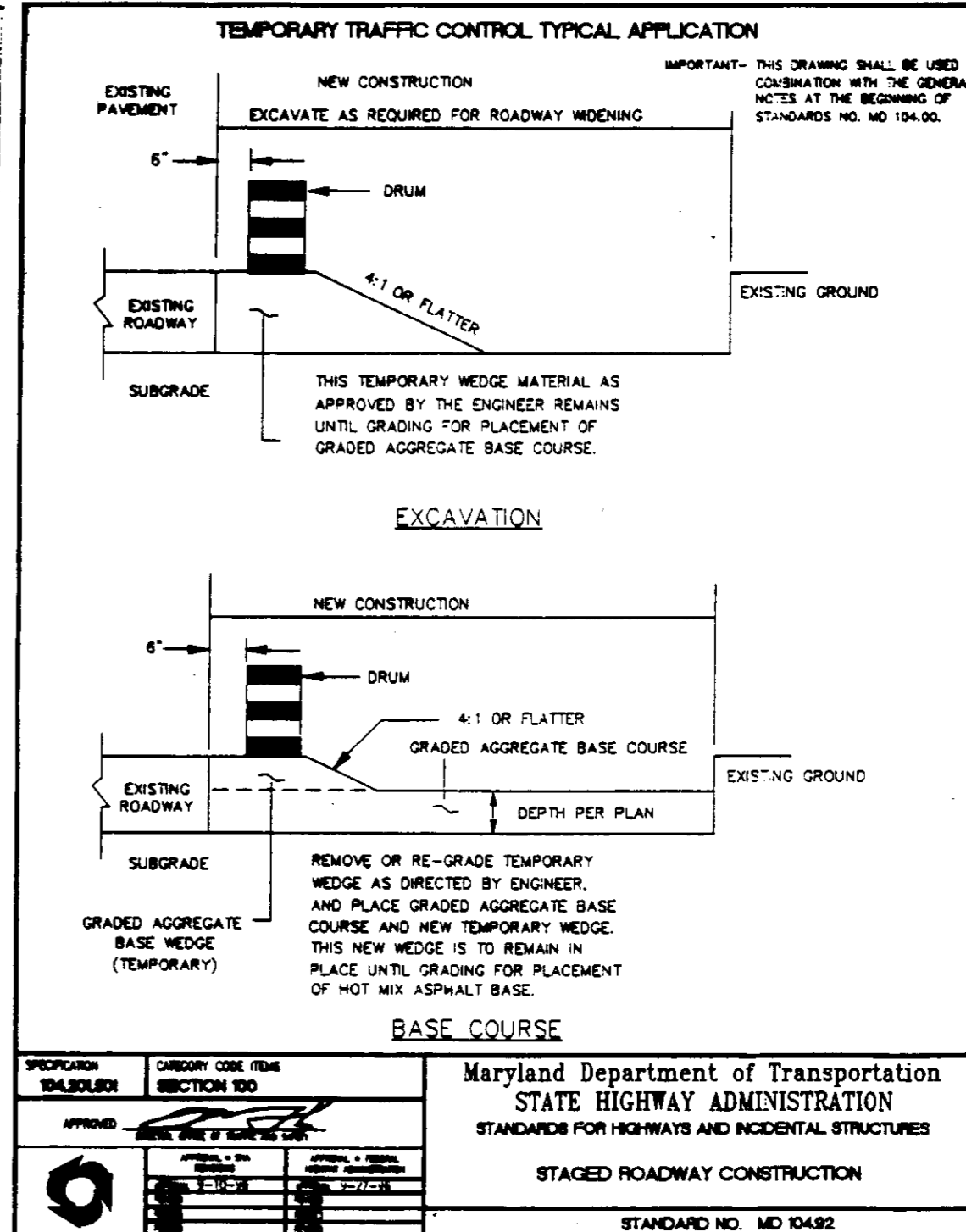
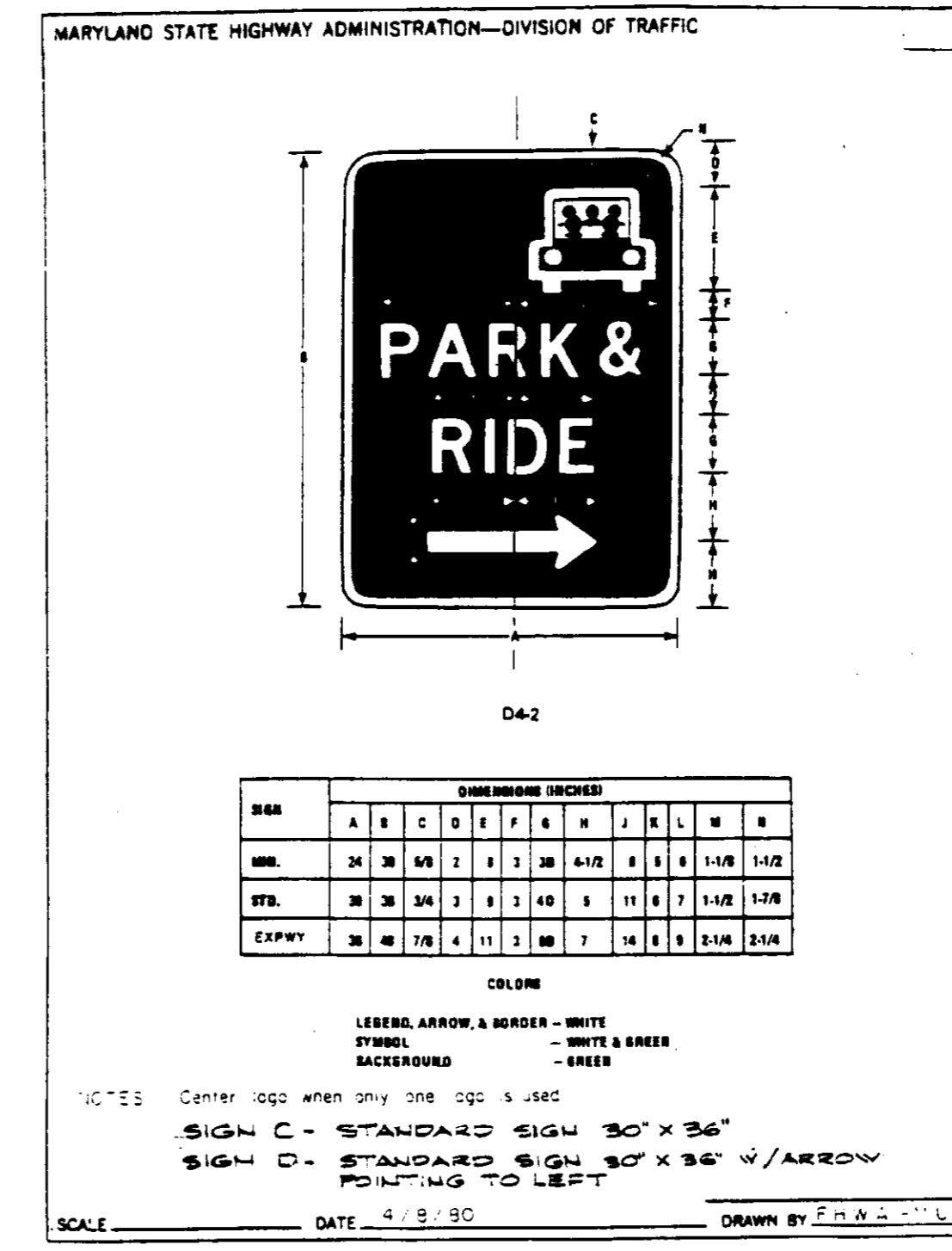




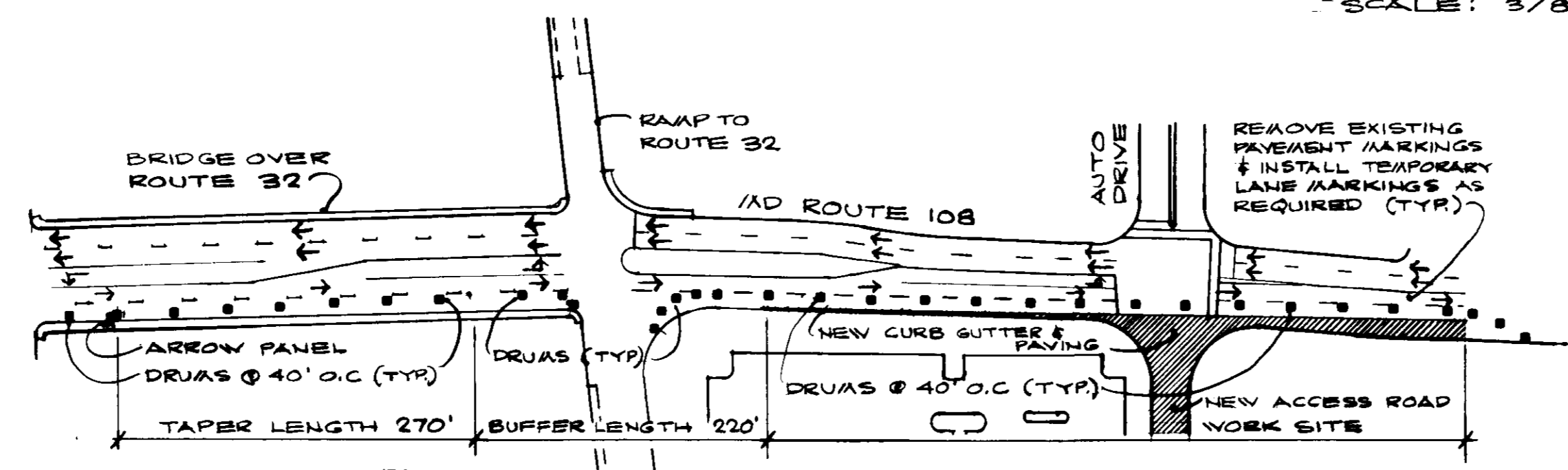
PLAN SHOWING EXISTING PAVEMENT MARKINGS  
SCALE: 1" = 50'



PLAN SHOWING PROPOSED PAVEMENT MARKINGS & SIGNS  
SCALE: 1" = 50'



TYPICAL SHA SIGN DETAILS  
SCALE: 3/8" = 1'-0"



TEMPORARY TRAFFIC CONTROL PLAN  
SCALE: 1" = 100'

NOTES:  
 • TRAFFIC CONTROL TO BE MAINTAINED ACCORDING TO THIS TRAFFIC CONTROL PLAN. THE CONTRACTOR MAY SUBMIT AN ALTERNATE TEMPORARY TRAFFIC CONTROL PLAN FOR THIS PROJECT FOR APPROVAL BY THE MSHA.  
 • ALL TEMPORARY TRAFFIC CONTROL MEASURES SHALL BE IN ACCORDANCE WITH STANDARD NO. MD 104.00-02 AND ALL GENERAL NOTES AD104.00-01 THRU 104.00-30 DATED SEPT. 1996.  
 • CONTRACTOR SHALL PROVIDE ALL TEMPORARY TRAFFIC CONTROL SIGNS INDICATED IN STANDARD NO. MD 104.00-02 & INSTALL THEM IN ACCORDANCE WITH STANDARD NO. MD 104.00-20. SIGNS IN PAVED AREAS ARE TO BE ATTACHED TO CHANNELIZING DEVICE (NOT BORED THROUGH PAVEMENT). ALL TEMPORARY SIGNS SHALL BE REMOVED IMMEDIATELY UPON COMPLETION OF THE WORK.

APPROVED  
 DATE: Nov 6, 1996

SDP 97-31  
 Approved: Howard County Department of Planning and Zoning  
 Date: 6/12/97  
 Division of Land Development  
 Date: 6/10/97  
 Chief, Development Engineering Division  
 Date: 6/6/97

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 (410) 267-8621

CLARKSVILLE, 5th ELECTION DISTRICT, HOWARD COUNTY, MD

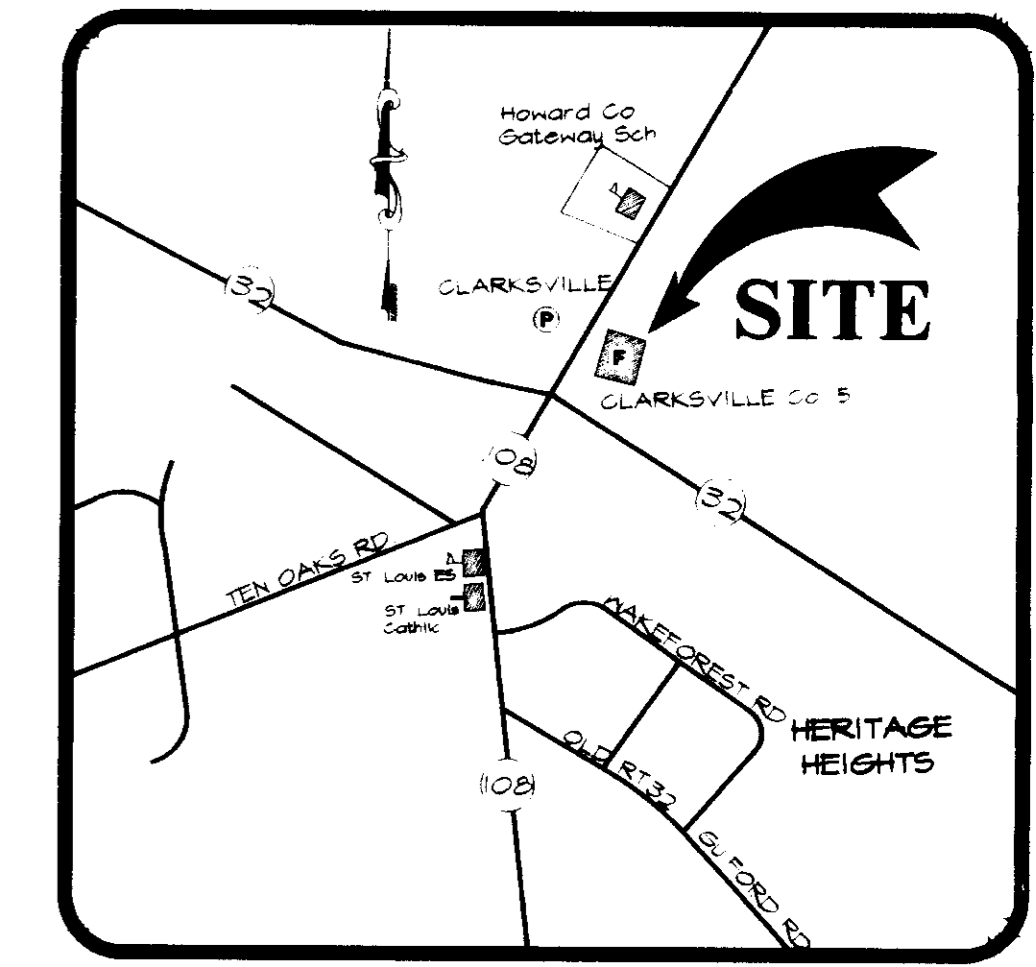
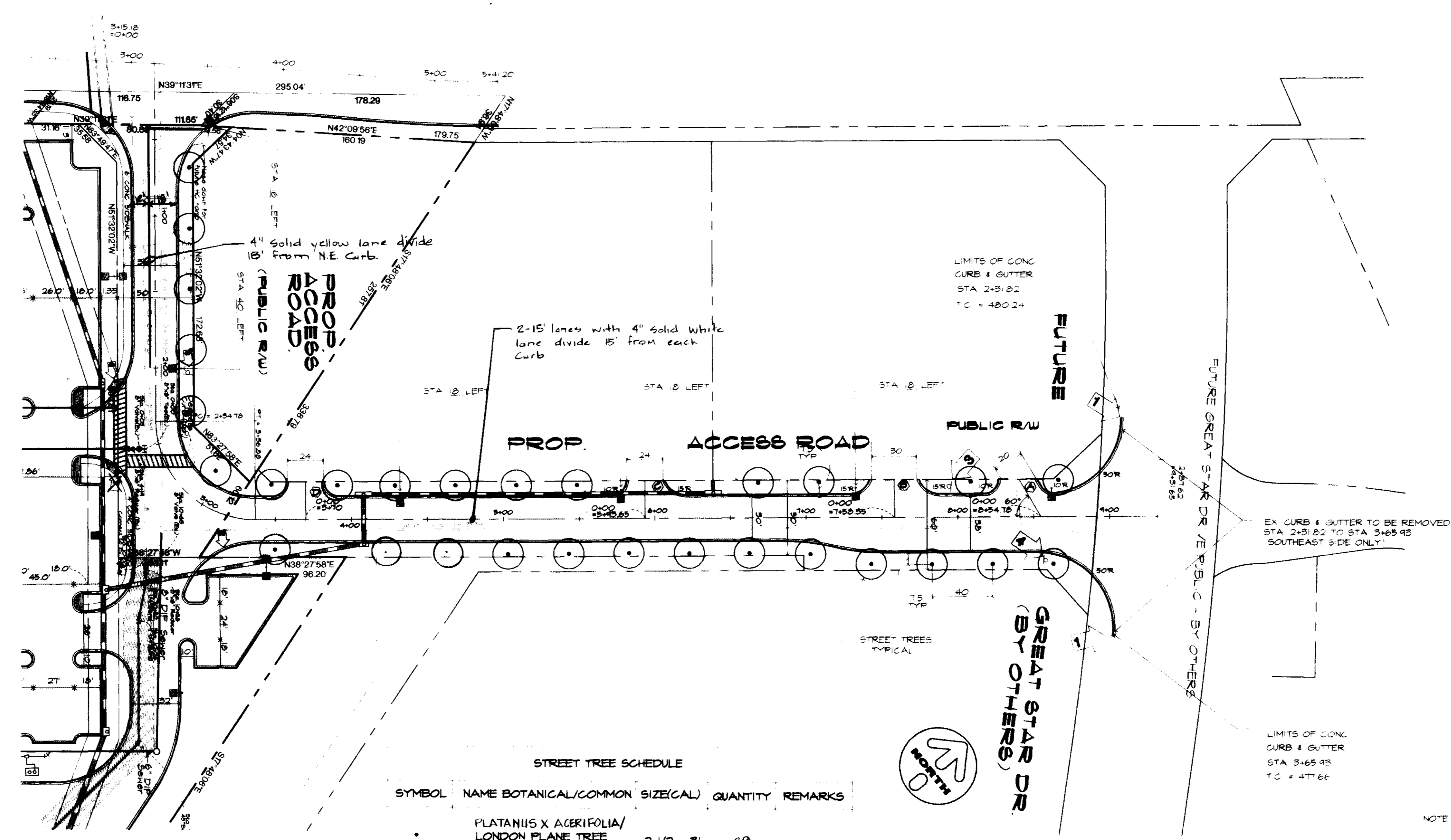
5th DISTRICT  
 VOLUNTEER FIRE STATION  
 12335 CLARKSVILLE PIKE  
 (PARCEL AA, BB, CC)

DATE: \_\_\_\_\_ DATE: \_\_\_\_\_ DATE: \_\_\_\_\_ DATE: \_\_\_\_\_

SHEET NO. 136 OF 14  
 CADD FILE: CLK-SP15  
 FILE NO. J-35-241

SDP 97-31 replacement sheet

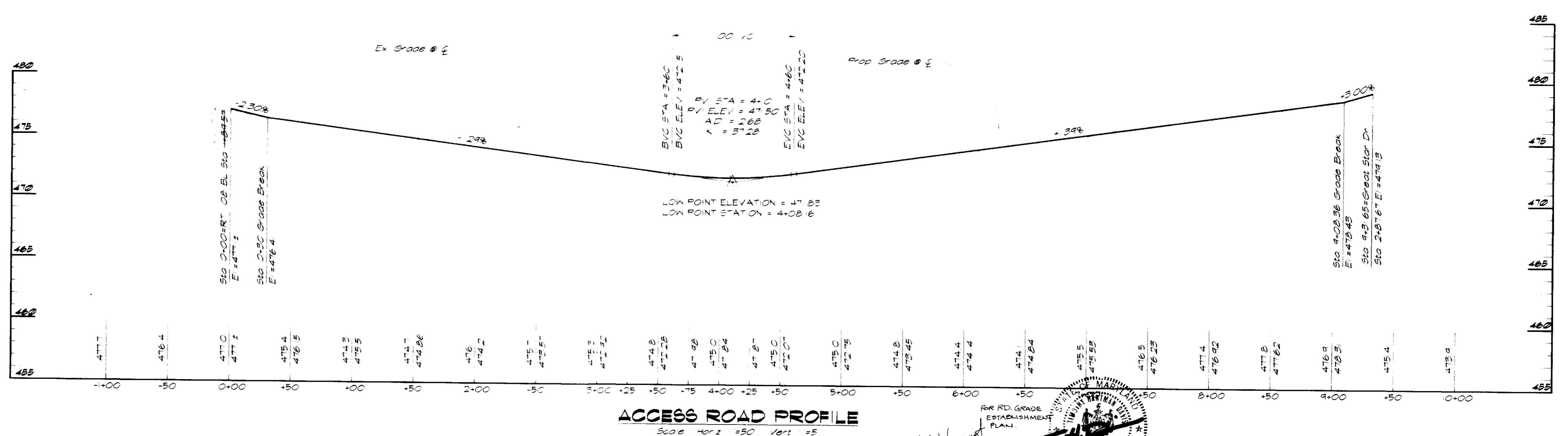




- LEGEND**
- TBR TO BE REMOVED
  - BY TO BE RELOCATED
  - STREET TREE
  - STREET LIGHTS
  - 50 W HPS BRONZE COBRA HEAD FIXTURE (CUTOFF MOUNTED) ON 50 GALVANIZED STEEL POLE BRONZE
- KEY NOTES**
- 1 THE CONTRACTOR SHALL TRANSITION FROM SHA TYPE 'A' TO CONG. C&G ON THE ACCESS ROAD TO HOWARD COUNTY 'T' CONCRETE CURB AND GUTTER ON GREAT STAR DRIVE.
  - 2 CONTRACTOR SHALL TRANSITION FROM SHA TYPE 'A' CONG. CURB & GUTTER TO CURB & GUTTER SECTION AS DESCRIBED ON THE ATTACHED SITE PLAN SHEET 3.
  - 3 SPEED LIMITS 25' SIGN R2- 24'X36' RECTANGLE
  - 4 STOP SIGN R1- 30'X30' OCTAGONAL

**STREET TREE SCHEDULE**

SYMBOL	NAME BOTANICAL/COMMON	SIZE(CAL)	QUANTITY	REMARKS
	PLATANUS X ACERIFOLIA/ LONDON PLANE TREE	2 1/2 - 3'	29	



NOV. 6, 1996  
DH

Approved Howard County Department of Planning and Zoning  
 Chief Development Engineering Division  
 Date: 12/20/96  
 Date: 12/17/96

DES:			
DRN:			
CHK:			
DATE	BY NO.	REVISION	DATE

**McCRONE**  
 ENGINEERING - ENVIRONMENTAL SCIENCES  
 LAND PLANNING & SURVEYING & CONSTRUCTION SERVICES  
 20 RIDGELY AVENUE  
 ANNAPOLIS, MARYLAND 21401  
 (410) 267-8621  
 ANNAPOLIS CENTREVILLE ELKTON PRINCE FREDERICK SALISBURY

5TH ELECTION DISTRICT  
 HOWARD COUNTY, MARYLAND  
 CAPITAL PROJECT  
 CONTRACT NO.

SCALE AS SHOWN  
 DRAWING CLK-SP14  
 SHEET 14 OF 14