

**GENERAL NOTES**

- THE SUBJECT PROPERTY IS ZONED R-SC PER THE 10-18-93 COMPREHENSIVE ZONING PLAN.
- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY, PLUS MSHA STANDARDS AND SPECIFICATIONS, IF APPLICABLE.
- THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS CONSTRUCTION INSPECTION DIVISION AT (410) 313-1880 AT LEAST 5 (FIVE) WORKING DAYS PRIOR TO THE START OF WORK.
- THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK.
- PROJECT BACKGROUND:  
LOCATION: TAX MAP 50 - BLOCK 3 - PARCEL 426  
ZONING: R-SC  
TOTAL TRACT AREA: 15.62 AC±  
NUMBER OF EXISTING LOTS: 69  
\*PLAT WAS RECORDED IN APPROXIMATELY 1898 AS PLAT NO. 61/470.
- TRAFFIC CONTROL DEVICES, MARKINGS AND SIGNING SHALL BE IN ACCORDANCE WITH THE MOST CURRENT EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). ALL STREET AND REGULATORY SIGNS SHALL BE IN PLACE PRIOR TO THE PLACEMENT OF ANY ASPHALT.
- TOPOGRAPHY ALONG THE ROADS WAS FIELD RUN ON OR ABOUT DECEMBER, 2001 BY BENCHMARK ENGINEERING, INC. CONTOUR INTERVAL IS 2 FEET.
- HOWARD COUNTY MONUMENTS 1741003 AND 1741002-R (NAD 27) WERE USED FOR HORIZONTAL AND VERTICAL DATUM.
- WATER AND SEWER SERVICE TO THESE LOTS WILL BE GRANTED UNDER THE PROVISIONS OF SECTION 18.122.B OF THE HOWARD COUNTY CODE. THE WATER AND SEWER CONTRACT NUMBERS ARE 24-4041-D, 24-4127-D, 24-4127-D. THE DRAINAGE AREA IS THE PATUXENT WATERSHED. PUBLIC WATER AND SEWAGE ALLOCATION WILL BE GRANTED AT THE TIME OF ISSUANCE OF THE BUILDING PERMIT IF CAPACITY IS AVAILABLE AT THAT TIME.
- STORMWATER MANAGEMENT QUANTITY AND QUALITY CONTROL HAS BEEN PROVIDED BY THE EXISTING STORMWATER MANAGEMENT FACILITIES CONSTRUCTED UNDER F-98-05.
- WETLAND DELINEATION COMPILED BY ECO-SCIENCE PROFESSIONALS, INC. DATED 10/11/2000.
- WITH THE EXCEPTION OF LOTS 39 'I' AND 37 'J', THERE IS NO 100-YEAR FLOODPLAIN LOCATED ON THIS SITE.
- THIS SUBDIVISION IS EXEMPT FROM THE REQUIREMENTS OF SECTION 16.1200 OF THE HOWARD COUNTY CODE FOR FOREST CONSERVATION BECAUSE THE LOTS WERE CREATED BY DEED PRIOR TO THE ADOPTION OF THE FOREST CONSERVATION ACT AND NO ADDITIONAL LOTS ARE BEING CREATED.
- A TRAFFIC STUDY IS NOT REQUIRED FOR THIS PROPERTY. THE SPEED STUDY WAS PERFORMED BY MARS GROUP ON FEBRUARY 21, 2003.
- EXISTING UTILITIES WERE LOCATED BY RECORD DRAWINGS AND FIELD LOCATIONS. CONTRACTOR SHALL VERIFY LOCATION OF UTILITIES PRIOR TO CONSTRUCTION.
- UNLESS NOTED AS "PRIVATE" ALL EASEMENTS ARE PUBLIC.
- THERE ARE NO EXISTING STRUCTURES LOCATED ON THIS SITE.
- PREVIOUS DEPARTMENT OF PLANNING AND ZONING REFERENCE NUMBERS:  
F-02-151 (VOIDED) F-03-081 (VOIDED) WP-03-99
- STREET LIGHTS WILL BE REQUIRED IN THIS DEVELOPMENT IN ACCORDANCE WITH THE DESIGN MANUAL. STREET LIGHT PLACEMENT AND THE TYPE OF FIXTURE AND POLE SELECTED SHALL BE IN ACCORDANCE WITH THE LATEST HOWARD COUNTY DESIGN MANUAL, VOLUME III (1993) AND AS MODIFIED BY GUIDELINES STREET LIGHTS IN RESIDENTIAL DEVELOPMENTS (JUNE, 1993). THE JUNE 1993 POLICY INCLUDES GUIDELINES FOR LATERAL AND LONGITUDINAL PLACEMENT. A MINIMUM SPACING OF 20' SHALL BE MAINTAINED BETWEEN STREET LIGHTS AND ANY TREE. STREET LIGHTS FOR THIS SUBDIVISION SHALL BE 100 WATT HPS VAPOR PREMIER COLONIAL POST TOP MOUNTED ON 14' BLACK FIBERGLASS POLE LOCATED AS SHOWN ON THIS PLAN.
- STREET TREES FOR THE PUBLIC AND PRIVATE RIGHTS-OF-WAY AND FENCING FOR THE REFUSE PAD SHALL BE PROVIDED IN ACCORDANCE WITH SECTION 16.124 OF THE HOWARD COUNTY CODE AND LANDSCAPE MANUAL. SURETY FOR THE REQUIRED PRIVATE ACCESS PLACE STREET TREES IN THE AMOUNT OF \$18,000.00 AND SURETY FOR THE REFUSE PAD FENCING IN THE AMOUNT OF \$1,600.00 WILL BE POSTED WITH THE DEVELOPER'S AGREEMENT.
- ALL HANDICAP RAMPS SHALL BE IN ACCORDANCE WITH HOWARD COUNTY STANDARD DETAIL R-4.03 AND ALL CURRENT ADA REQUIREMENTS.
- A USE-IN-COMMON MAINTENANCE AGREEMENT FOR LOTS 39-41 BLOCK 'I' SHALL BE RECORDED BY THE DEVELOPER IN THE LAND RECORDS OFFICE OF HOWARD COUNTY.  
A USE-IN-COMMON MAINTENANCE AGREEMENT FOR LOTS 32-34 BLOCK 'I' SHALL BE RECORDED BY THE DEVELOPER IN THE LAND RECORDS OFFICE OF HOWARD COUNTY.  
A PRIVATE ACCESS PLACE MAINTENANCE AGREEMENT FOR LOTS 35-37, 43-48 BLOCK 'J' SHALL BE RECORDED BY THE DEVELOPER IN THE LAND RECORDS OFFICE OF HOWARD COUNTY.  
A PRIVATE ACCESS PLACE MAINTENANCE AGREEMENT FOR LOTS 52-54 BLOCK 'O' AND 39-43 BLOCK 'P' SHALL BE RECORDED BY THE DEVELOPER IN THE LAND RECORDS OFFICE OF HOWARD COUNTY.  
A PRIVATE ACCESS PLACE MAINTENANCE AGREEMENT FOR LOTS 55-57 BLOCK 'O' AND 44-48 BLOCK 'P' SHALL BE RECORDED BY THE DEVELOPER IN THE LAND RECORDS OFFICE OF HOWARD COUNTY.
- ALL PLAN DIMENSIONS ARE TO FACE OF CURB UNLESS OTHERWISE NOTED.
- NO GRADING, REMOVAL OF VEGETATIVE COVER OR TREES, OR PLACEMENT OF NEW STRUCTURES IS PERMITTED WITHIN THE LIMITS OF WETLANDS, WETLAND BUFFERS, STREAMS OR 100-YEAR FLOODPLAIN EXCEPT AS CONSIDERED ESSENTIAL BY THE DEPARTMENT OF PLANNING AND ZONING.
- ALL ROAD FILLS SHALL BE COMPACTED TO 95% AS DETERMINED BY AASHTO T-180.
- DRIVEWAYS SHALL BE PROVIDED PRIOR TO ISSUANCE OF A RESIDENTIAL OCCUPANCY PERMIT FOR ANY NEW DWELLINGS TO INSURE SAFE ACCESS FOR FIRE AND EMERGENCY VEHICLES PER THE FOLLOWING MINIMUM REQUIREMENTS:  
1) WIDTH - 12' (14' SERVING MORE THAN ONE RESIDENCE);  
2) SURFACE - 6" OF COMPACT CRUSHER RUN BASE WITH TAR AND CHIP COATING (1-1/2" MIN.);  
3) GEOMETRY - MAX. 15% GRADE, MAX. 10% GRADE CHANGING AND MIN. 45' TURNING RADIUS.  
4) STRUCTURES (CULVERTS/BRIDGES) - CAPABLE OF SUPPORTING 25 GROSS TONS (H25 LOADING)  
5) DRAINAGE ELEMENTS - CAPABLE OF SAFELY PASSING 100 YEAR FLOODPLAIN WITH NO MORE THAN 1 FOOT DEPTH OVER DRIVEWAY.  
6) MAINTENANCE - SUFFICIENT TO INSURE ALL WEATHER USE.
- THIS SUBDIVISION IS EXEMPT FROM OPEN SPACE REQUIREMENTS IN ACCORDANCE WITH SECTION 16.121 THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS BECAUSE THE LOTS WERE CREATED PRIOR TO THE ADOPTION OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS AND NO NEW LOTS ARE BEING CREATED.
- FOR FLAG OR PIPE STEM LOTS, REFUSE COLLECTION, SNOW REMOVAL AND ROAD MAINTENANCE ARE PROVIDED TO THE JUNCTION OF THE FLAG OR PIPE STEM AND ROAD RIGHT OF WAY LINE AND NOT THE FLAG OR PIPE STEM LOT DRIVEWAY.
- WP-03-99 A WAIVER PETITION TO WAIVE SECTION 16.102.4.1, WHICH REQUIRES THAT RESUBDIVISIONS ARE EXEMPT FROM SKETCH AND PRELIMINARY PLANS ONLY IF: 1) THERE ARE NO PUBLIC ROADS OR PRIVATE ACCESS PLACE IMPROVEMENTS AND 2) THERE IS NO ADDITIONAL AREA TO THE PREVIOUSLY RECORDED LOTS, WAS APPROVED ON 4-24-03 BASED ON THE FOLLOWING 2 CONDITIONS:  
#1 - THERE WILL BE NO INCREASE IN ACREAGE TO THE PROPOSED SUBDIVISION AS SHOWN ON F-03-99 AND NO ADDITIONAL LOTS ARE CREATED BEYOND THE 66 PREVIOUSLY RECORDED LOTS UNDER PLAT NO. 61/470.  
#2 - THE DEVELOPER SHALL CONSTRUCT A PUBLIC ROAD CONNECTION BETWEEN WASHINGTON AND MARYLAND AVENUES. THIS WILL BE DONE VIA A FUTURE REDLINE BETWEEN THE ROAD CONSTRUCTION PLANS AND REVISION TO THIS PLAN. REVISIONS MUST BE ACCOMPANIED BY A REVISION TO THE SITE DEVELOPMENT PLAN. ANY REVISIONS MUST BE IMPACTED BY THIS CONNECTION.
- WETLAND CROSSING PERMIT FOR THE OFFSHORE SEWER (CONTRACT #24-4127-D) SHALL BE OBTAINED PRIOR TO INSTALLATION. FLOODPLAIN CROSSING PERMIT FOR THE OFFSHORE SEWER CROSSING (CONTRACT #24-4126-D) SHALL BE OBTAINED PRIOR TO INSTALLATION.

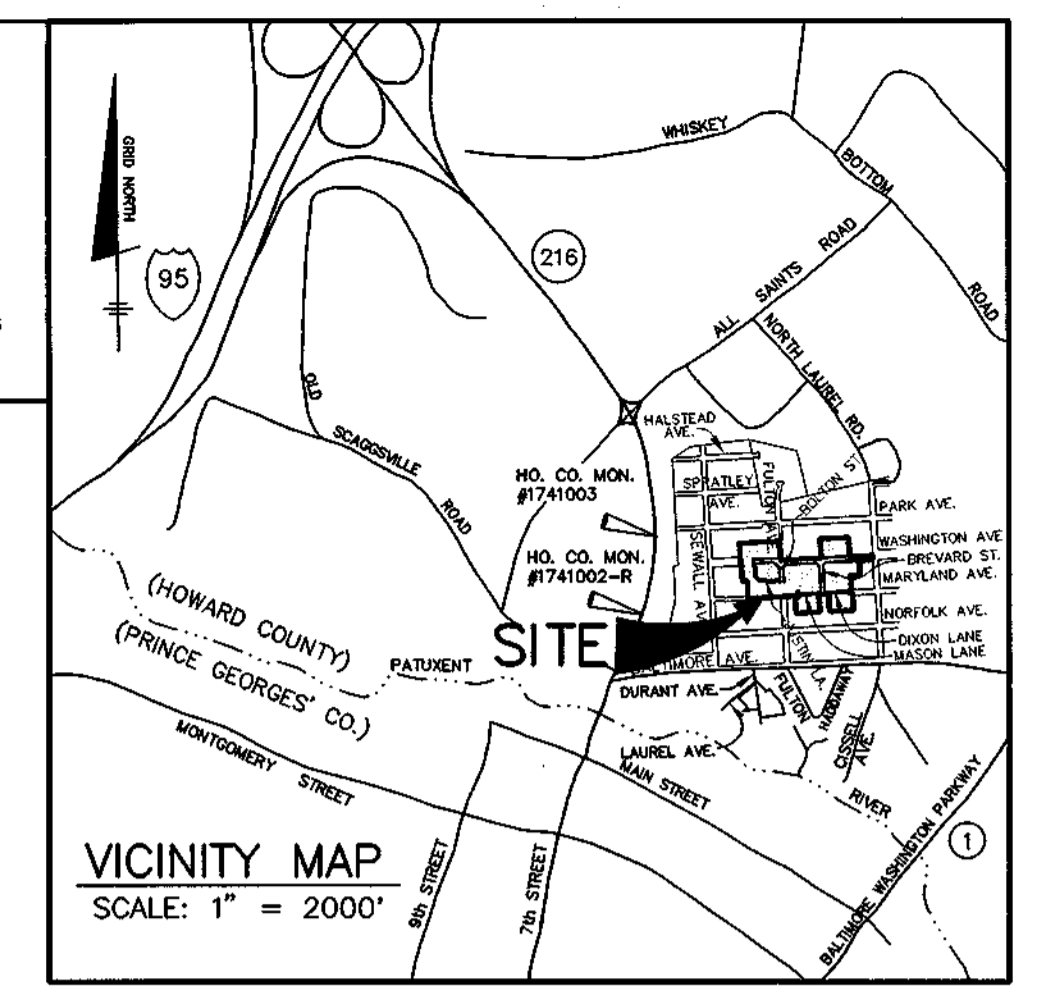
# ROAD AND STORM DRAIN CONSTRUCTION PLANS

## NORTH LAUREL PARK

WASHINGTON AVENUE, BOLTON STREET, JUSTIN LANE, BREVARD STREET, MASON LANE AND DIXON LANE LOTS 32-34, 39-43 BLOCK 'I'; 35-48 BLOCK 'J'; 39-44 BLOCK 'N' 12-16, 41-63 BLOCK 'O' AND LOTS 39-48 BLOCK 'P'

6th ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

**BENCH MARKS NAD 27**  
HO. CO. #1741003 NAD 27  
CONCRETE MONUMENT ON WEST SIDE OF ROUTE 216 AND 0.2' BELOW SURFACE. ELEV. 198.395  
HO. CO. #1741002-R NAD 27  
CONCRETE MONUMENT ON TOP OF BANK EAST OF EAST EDGE OF MAC. OF ROUTE 216 FLUSH WITH SURFACE. ELEV. 197.368



SHEET INDEX	
NO.	DESCRIPTION
1	TITLE SHEET
2	ROAD AND LANDSCAPE PLAN
3	ROAD AND LANDSCAPE PLAN
4	ROAD PROFILES
5	ROAD PROFILES AND DETAILS
6	STORM DRAIN DRAINAGE AREA MAP
7	STORM DRAIN DRAINAGE AREA MAP
8	STORM DRAIN DRAINAGE AREA MAP
9	STORM DRAIN PROFILES
10	GRADING, SEDIMENT AND EROSION CONTROL PLAN
11	GRADING, SEDIMENT AND EROSION CONTROL PLAN
12	GRADING, SEDIMENT AND EROSION CONTROL PLAN
13	SEDIMENT AND EROSION CONTROL NOTES AND DETAILS AND TRAFFIC CONTROL PLAN

NO.	DATE	REVISION

**BENCHMARK ENGINEERING, INC.**  
ENGINEERS & LAND SURVEYORS & PLANNERS  
8480 BALTIMORE NATIONAL PIKE & SUITE 418  
ELLICOTT CITY, MARYLAND 21043  
phone: 410-465-6105 A fax: 410-465-6844  
email: Benchmark@ccis.com

*Ronald Mason*

4/26/03

APPROVED: DEPARTMENT OF PUBLIC WORKS  
*William J. Mahoney* 7-11-03  
CHIEF, BUREAU OF HIGHWAYS

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
*Cindy Romate* 7/16/03  
CHIEF, DIVISION OF LAND DEVELOPMENT

*Chad Williamson* 7/15/03  
CHIEF, DEVELOPMENT ENGINEERING DIVISION

OWNER/DEVELOPER: CORNERSTONE HOLDINGS, L.L.C.  
9691 NORFOLK AVENUE  
LAUREL, MARYLAND 20723  
410-792-2565

PROJECT: NORTH LAUREL PARK  
WASHINGTON AVENUE, BOLTON STREET, JUSTIN LANE, BREVARD STREET, MASON LANE AND DIXON LANE LOTS 32-34, 39-43 BLOCK 'I'; 35-48 BLOCK 'J'; 39-44 BLOCK 'N'; 12-16, 41-63 BLOCK 'O'; AND LOTS 39-48 BLOCK 'P'

LOCATION: TAX MAP: 50 P/O PARCEL: 426  
GRID: 3 ZONED: R-SC  
6th ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

TITLE: TITLE SHEET

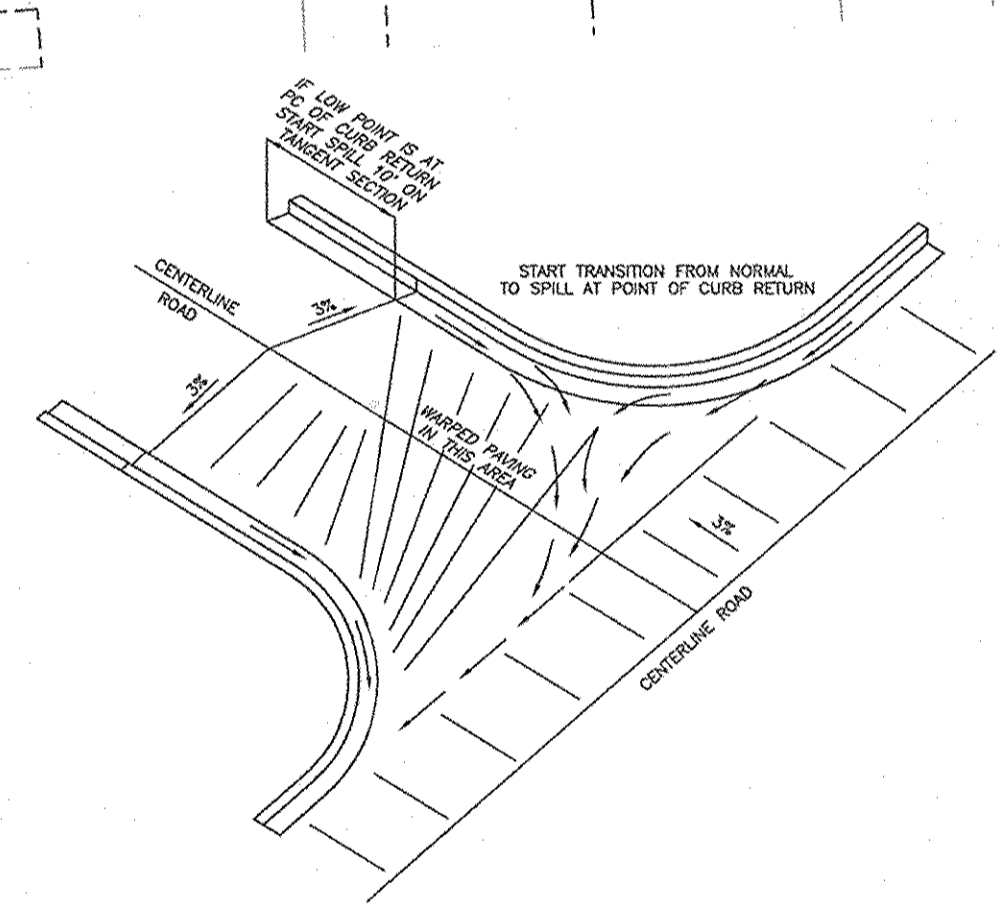
DATE: MAY, 2003 PROJECT NO. 1515  
DESIGN: DBT DRAFT: DBT CHECK: CAM SCALE: AS SHOWN SHEET 1 OF 13



MATCH LINE SEE SHEET 3



PLAN VIEW  
SCALE: 1" = 30'



INTERSECTION DRAINAGE DETAIL  
SCALE: NOT TO SCALE

APPROVED: DEPARTMENT OF PUBLIC WORKS  
*William J. M... 7-11-03*  
 CHIEF, BUREAU OF HIGHWAYS DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
*... 7/16/03*  
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

*... 7/16/03*  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

NO.	DATE	REVISION
2	11-17-05	ADD STORM DRAIN FROM M-3 TO 1-9 TO 1-10
1	10-29-04	REVISE MASON & DIXON LANES TO BE 18' WIDE

**BENCHMARK**  
 ENGINEERS & LAND SURVEYORS & PLANNERS  
**ENGINEERING, INC.**

8480 BALTIMORE NATIONAL PIKE & SUITE 418  
 ELLICOTT CITY, MARYLAND 21043  
 phone: 410-465-6105 fax: 410-465-6644  
 email: Benchmark@cois.com

*Donald Mason*  
 6/16/03

OWNER/DEVELOPER: CORNERSTONE HOLDINGS, L.L.C. 9691 NORFOLK AVENUE LAUREL, MARYLAND 20723 410-792-2565	PROJECT: <b>NORTH LAUREL PARK</b> WASHINGTON AVENUE, BOLTON STREET, BREVARD STREET, MASON LANE AND DIXON LANE LOTS 32-34, 39-43 BLOCK 'P'; 35-48 BLOCK 'O'; 39-44 BLOCK 'N'; 12-16, 41-43 BLOCK 'O'; AND LOTS 39-48 BLOCK 'P'
LOCATION: TAX MAP: 50 P/O PARCEL: 426 GRID: 3 8th ELECTION DISTRICT HOWARD COUNTY, MARYLAND ZONED: R-SC	TITLE: <b>ROAD AND LANDSCAPE PLAN</b>
DATE: MAY, 2003 PROJECT NO. 1515	SCALE: AS SHOWN SHEET 2 OF 13



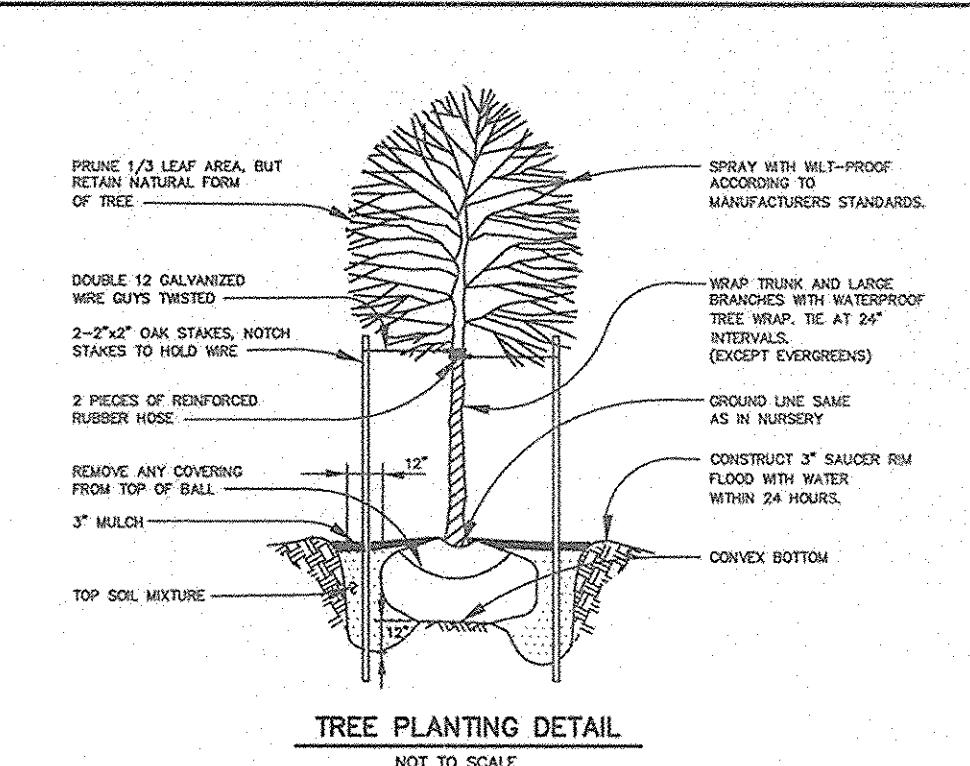


SCHEDULE A PERIMETER LANDSCAPE EDGE	
CATEGORY	ADJACENT TO TRASH PAD
LANDSCAPE TYPE	B
LINEAR FEET OF ROADWAY FRONTAGE/PERIMETER	28' EACH (10+10+4+4)
CREDIT FOR EXISTING VEGETATION (YES, NO, LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	NO
CREDIT FOR WALL, FENCE OR BERM (YES, NO, LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	PROF. FENCE AROUND EACH PAD
NUMBER OF PLANTS REQUIRED	0 L.F. EACH
SHADE TREES	-
EVERGREEN TREES	-
OTHER TREES (2:1 SUBSTITUTE) SHRUBS	-
NUMBER OF PLANTS PROVIDED	-
SHADE TREES	-
EVERGREEN TREES	-
OTHER TREES (2:1 SUBSTITUTE) SHRUBS (10:1 SUBSTITUTE)	-
(DESCRIBE PLANT SUBSTITUTION CREDITS BELOW IF NEEDED)	

PERIMETER LANDSCAPE FENCING LIST			
SYMBOL	QUANTITY	NAME	REMARKS
□	5	3" HIGH WOODEN BOARD ON BOARD FENCE	5 L.F. BY 11 L.F. (32 L.F. EACH x 5 PADS= 160 L.F. TOTAL)

PUBLIC STREET TREE PLANTING LIST			
SYMBOL	QUANTITY	NAME	REMARKS
○	72 (1:40)	TILIA AMERICANA, 'REDMOND' (Redmond Littleleaf Linden)	2 1/2" MIN. CAL. FULL HEAD
○	51 TREES	2040.0' WASHINGTON AVENUE	
○	7 TREES	249.4' BOLTON STREET	
○	14 TREES	551.6' BREVARD STREET	

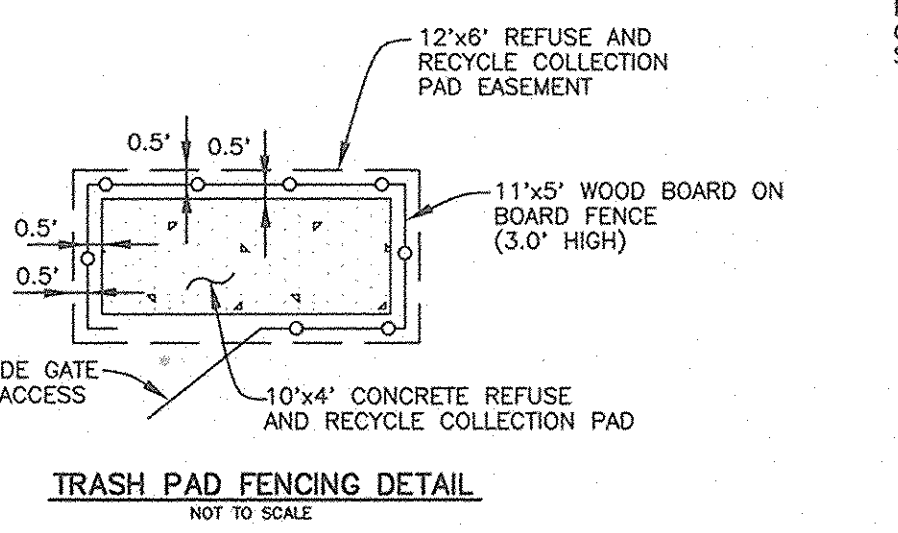
PRIVATE STREET TREE PLANTING LIST			
SYMBOL	QUANTITY	NAME	REMARKS
⊕	60 (1:30)	ACER GRiseum (Paperback Maple)	2 1/2" MIN. CAL. FULL HEAD
⊕	26 TREES	780.4' JUSTIN LANE	
⊕	18 TREES	536.0' DIXON LANE	
⊕	16 TREES	472.2' MASON LANE	



TREE PLANTING DETAIL  
NOT TO SCALE

STREET TREE PLANTING NOTES

- TREES SHOULD BE PLANTED A MINIMUM OF 4 FEET FROM CURB OR SIDEWALK AND 10 FEET FROM A DRIVEWAY.
- A MINIMUM DISTANCE OF 20 FEET MUST BE MAINTAINED BETWEEN ANY TREES LOCATED ALONG THE CURB LINE AND ANY STREET LIGHT.
- STREET TREES FOR THE PUBLIC RIGHTS-OF-WAY AND PERIMETER LANDSCAPING FOR THE REFUSE PAD SHALL BE PROVIDED IN ACCORDANCE WITH SECTION 16.124 OF THE HOWARD COUNTY CODE AND LANDSCAPE MANUAL. SURETY FOR THE REQUIRED PUBLIC RIGHTS-OF-WAY STREET TREES IN THE AMOUNT OF \$18,000.00 AND REQUIRED TRASH PAD FENCING IN THE AMOUNT OF \$1,600.00 SHALL BE POSTED WITH THE DEVELOPER'S AGREEMENT.

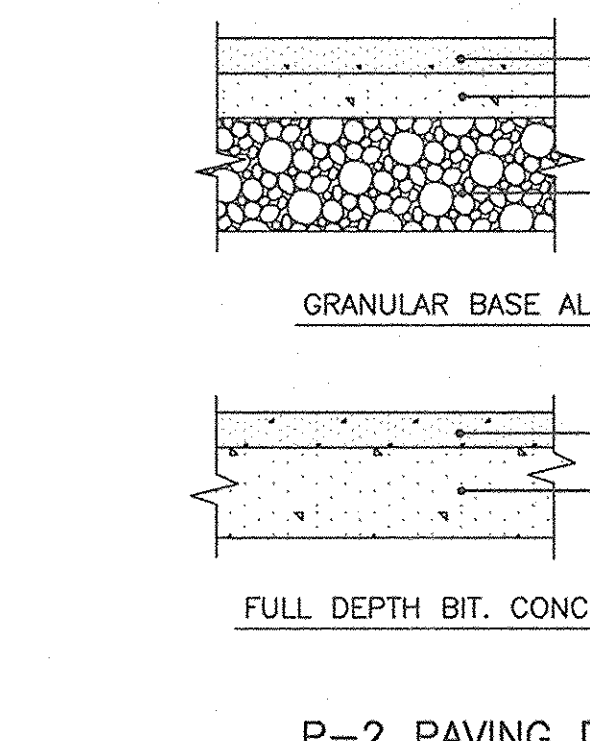


TRASH PAD FENCING DETAIL  
NOT TO SCALE

CENTERLINE CONTROL DATA			
STREET NAME	STATION	NORTH	EAST
WASHINGTON AVENUE	START=0+00	466582.92	844470.32
	PC=10+21.44	466538.00	843450.36
	PT=10+88.82	466551.44	843420.87
	END=12+89.81	466554.06	843190.68
BREVARD STREET	START=0+00	466561.99	843895.93
	END=1+96.58	466343.12	843487.10
BOLTON STREET	START=0+00	466524.78	843204.75
	END=1+16.92	466408.03	843211.14
JUSTIN LANE	START=0+00	466360.84	843263.80
	END=2+11.91	466361.74	843280.22
MASON LANE	START=0+00	466224.67	843884.04
	END=2+36.00	466211.76	843648.39
DIXON LANE	START=0+00	466227.95	843943.95
	END=2+70.01	466242.71	844213.55

STREET LIGHT SCHEDULE			
SYMBOL	LOCATION	DESCRIPTION	
☀	WASHINGTON AVENUE	CL STA. 0+17 OFFSET 24' RIGHT	100 WATT HPS VAPOR PREMIER COLONIAL POST TOP MOUNTED ON 14" BLACK FIBERGLASS POLE
	CL STA. 2+75 OFFSET 15' RIGHT		
	CL STA. 6+00 OFFSET 18' LEFT		
	CL STA. 8+25 OFFSET 15' RIGHT		
	CL STA. 10+18 OFFSET 16' LEFT		
○	BOLTON STREET	CL STA. 10+69 OFFSET 13' RIGHT	30" x 30" OCTAGON HO. CO. STD. R1-1
	BOLTON ST.	CL STA. 1+67 OFFSET 13' RIGHT	
○	BREVARD ST.	CL STA. 3+47 OFFSET 14' RIGHT	30" x 30" OCTAGON HO. CO. STD. R1-1
	BOLTON ST.	CL STA. 1+67 OFFSET 13' RIGHT	

STOP SIGN SCHEDULE			
SYMBOL	LOCATION	DESCRIPTION	
○	MARYLAND AVENUE	CL STA. 0+30.00 OFFS. 16' LEFT	30" x 30" OCTAGON HO. CO. STD. R1-1
	BOLTON STREET	CL STA. 0+25.00 OFFS. 16' LEFT	
○	BOLTON STREET	CL STA. 0+25.00 OFFS. 16' LEFT	30" x 30" OCTAGON HO. CO. STD. R1-1
	BREVARD STREET	CL STA. 0+25.00 OFFS. 18' LEFT	



P-2 PAVING DETAIL

STORM DRAIN SCHEDULE		
NO.	DATE	REVISION
1	2-5-2007	DOUBLE STORM DRAIN FROM I-8 TO E-2 ON LOTS 37 & 38

**BENCHMARK ENGINEERING, INC.**  
 ENGINEERS & LAND SURVEYORS & PLANNERS  
 840 BALTIMORE NATIONAL PIKE & SUITE 418  
 ELLICOTT CITY, MARYLAND 21043  
 phone: 410-465-6105 & fax: 410-465-6644  
 email: Benchmark@cois.com

OWNER/DEVELOPER: CORNERSTONE HOLDINGS, L.L.C.  
 9691 NORFOLK AVENUE  
 LAUREL, MARYLAND 20723  
 410-792-2565

PROJECT: NORTH LAUREL PARK  
 WASHINGTON AVENUE, BOLTON STREET, JUSTIN LANE,  
 BREVARD STREET, MASON LANE AND DIXON LANE.  
 LOTS 32-34, 39-43 BLOCK 'I'; 35-48 BLOCK 'J';  
 39-44 BLOCK 'N'; 12-16, 41-43 BLOCK 'O';  
 AND LOTS 38-48 BLOCK 'P'

LOCATION: TAX MAP: 50 P/O PARCEL: 426  
 GRID: 3 ZONED: R-SC

TITLE: ROAD AND LANDSCAPE PLAN

DATE: MAY, 2003 PROJECT NO. 1515  
 SCALE: AS SHOWN SHEET 3 OF 13

APPROVED: DEPARTMENT OF PUBLIC WORKS  
*Willie Z. ...* 7-11-03  
 CHIEF, BUREAU OF HIGHWAYS DATE

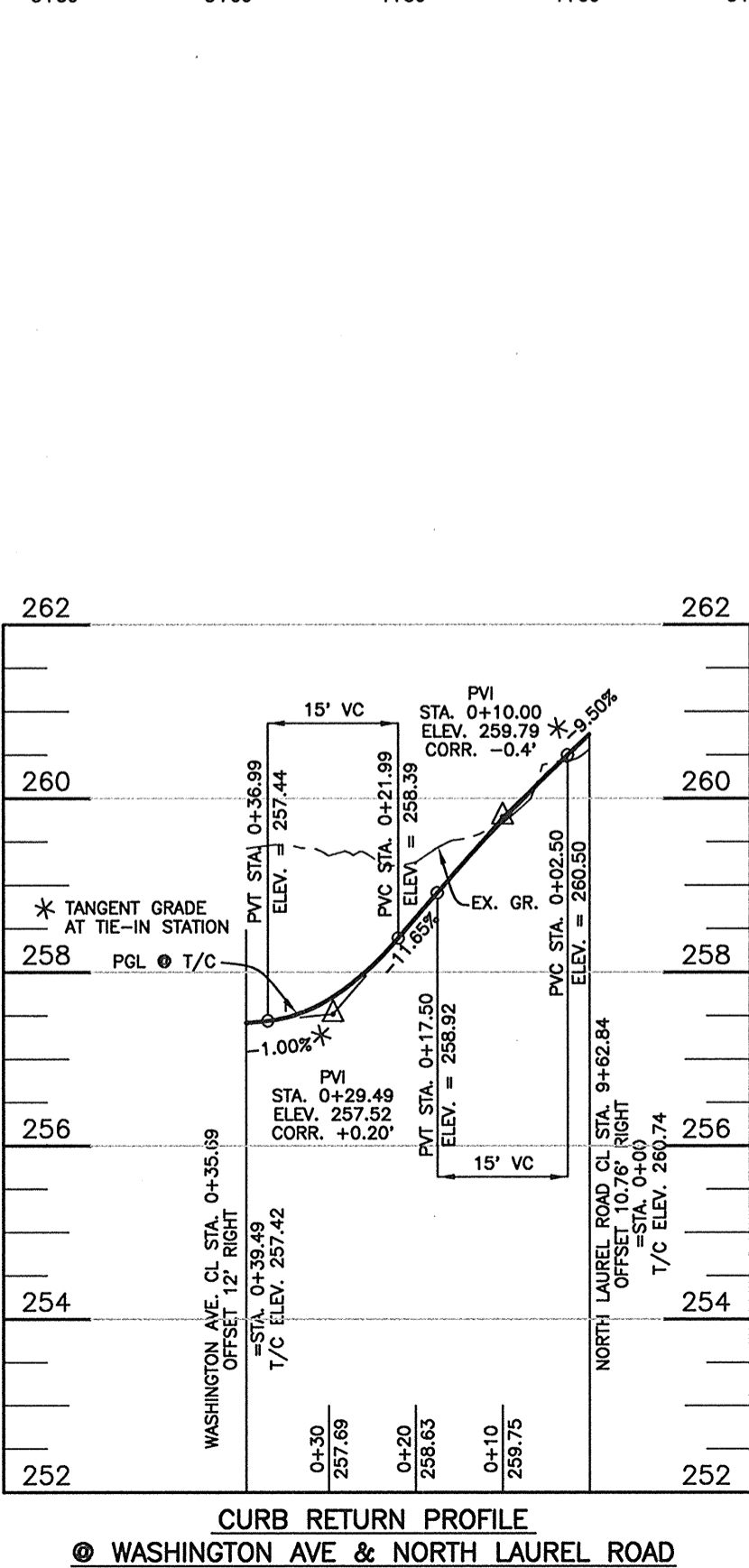
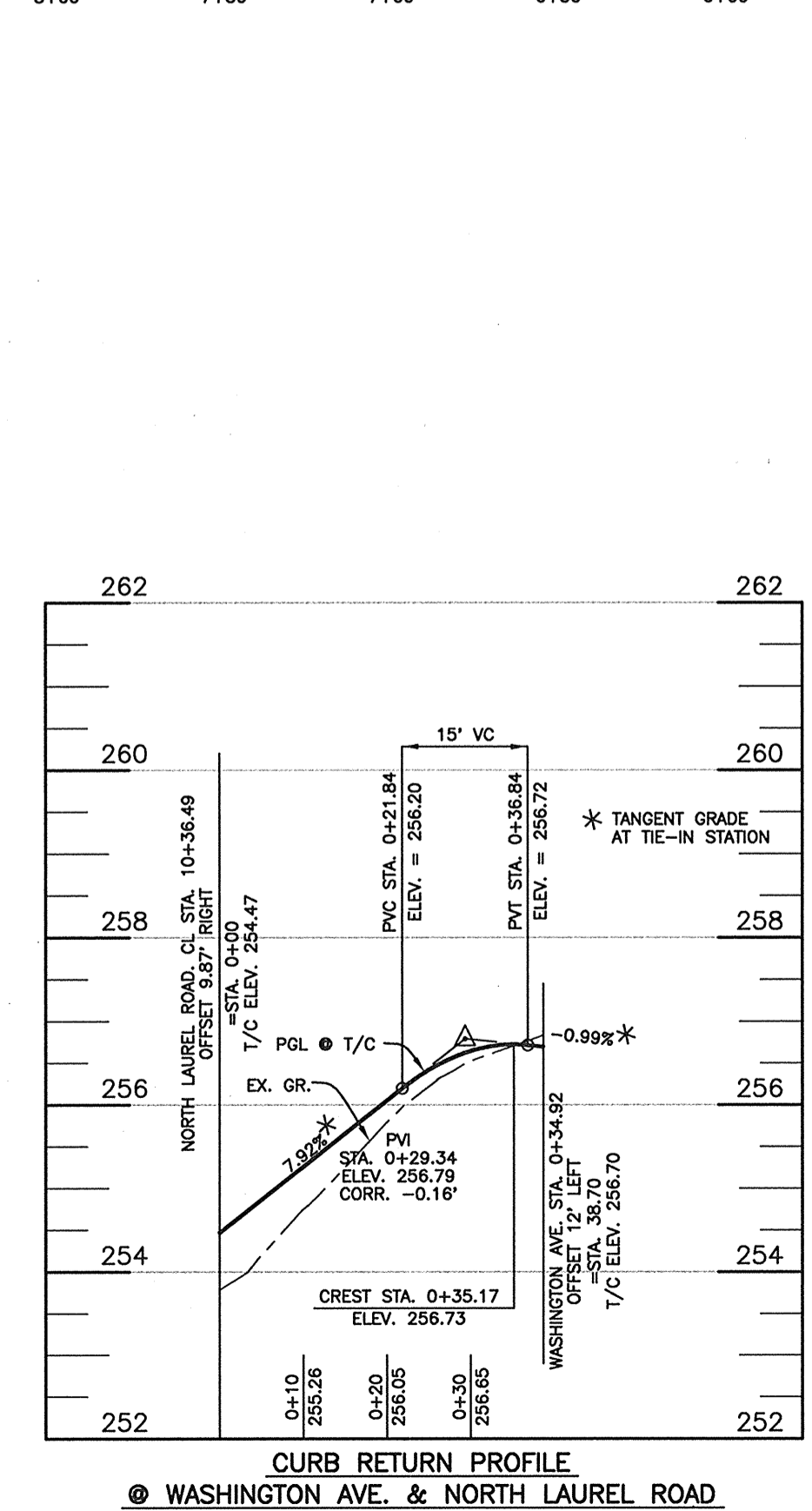
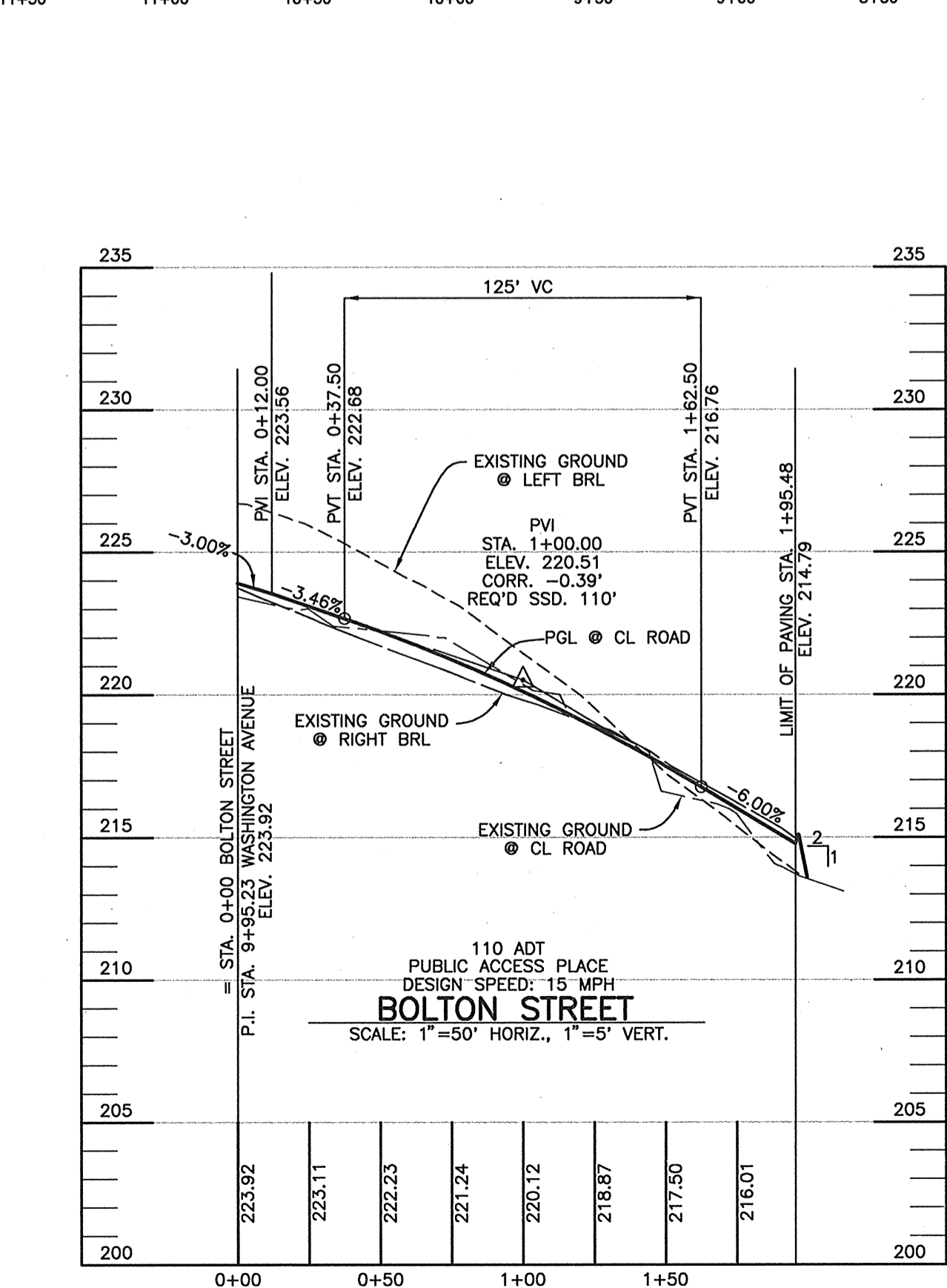
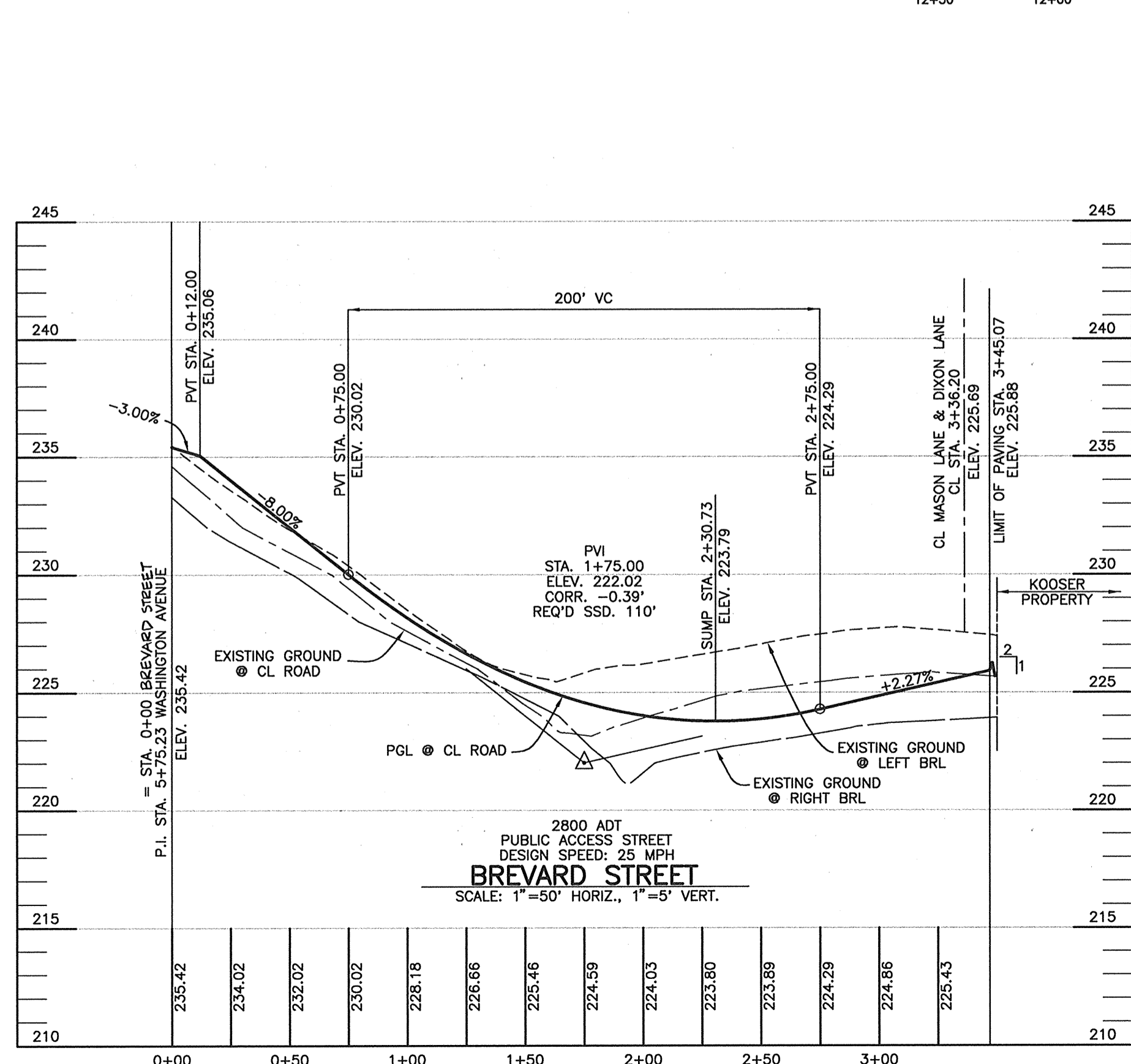
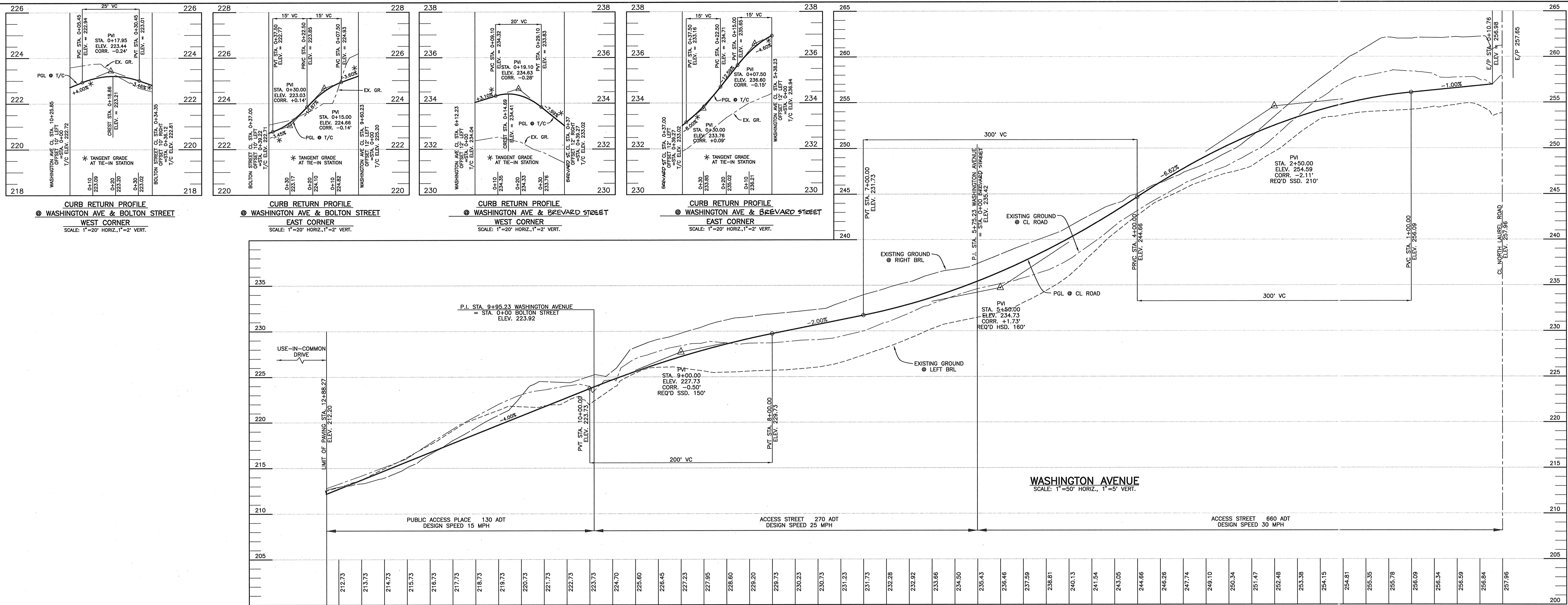
APPROVED: DEPARTMENT OF PLANNING AND ZONING  
*Cinda ...* 7/14/05  
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

*...* 7/18/05  
 CHIEF, DEVELOPMENT ENGINEERING DATE

PLAN VIEW  
 SCALE: 1" = 30'

CENTERLINE CURVE DATA						
ROAD	STATION	RADIUS	LENGTH	TANGENT	DELTA	CHORD
WASHINGTON AVENUE	10+21.44	10+55.13	35.00'	33.69'	18.28'	N65°30'26"W 32.40'
	10+55.13	10+88.82	35.00'	33.69'	18.28'	N65°30'26"W 32.40'
	1+16.92	1+95.46	50.00'	78.54'	50.00'	N48°08'02"W 70.71'
JUSTIN LANE	2+11.91	2+39.35	50.00'	27.43'	14.07'	S77°24'52"E 27.09'
	2+39.35	2+66.78	50.00'	27.44'	14.07'	S77°24'52"E 27.09'





APPROVED: DEPARTMENT OF PUBLIC WORKS  
*William J. Mahan* 7-11-03  
 CHIEF, BUREAU OF HIGHWAYS DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
*Chris Parnell* 7/6/03  
 CHIEF, DIVISION OF LAND DEVELOPMENT 8/3 DATE

*Chris Parnell* 7/15/03  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

10-29-04		REVISE "ROAD A" LABELS TO "BREVARD STREET"	REVISION
NO.	DATE		

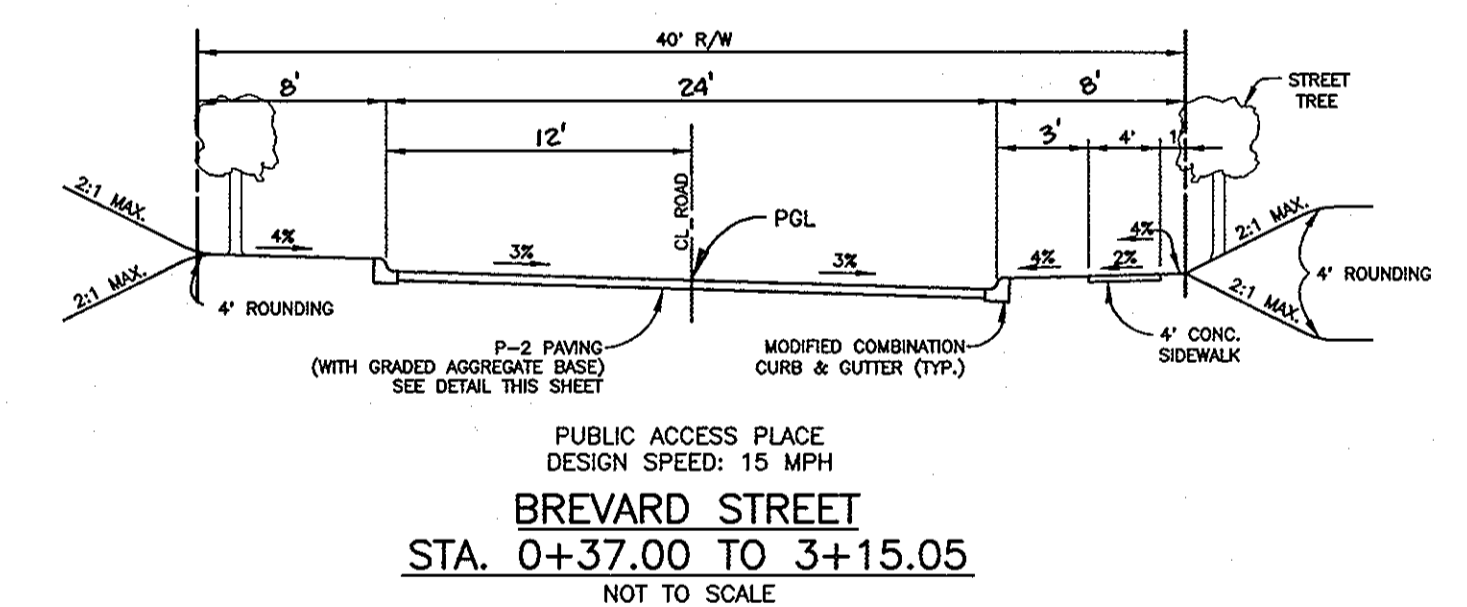
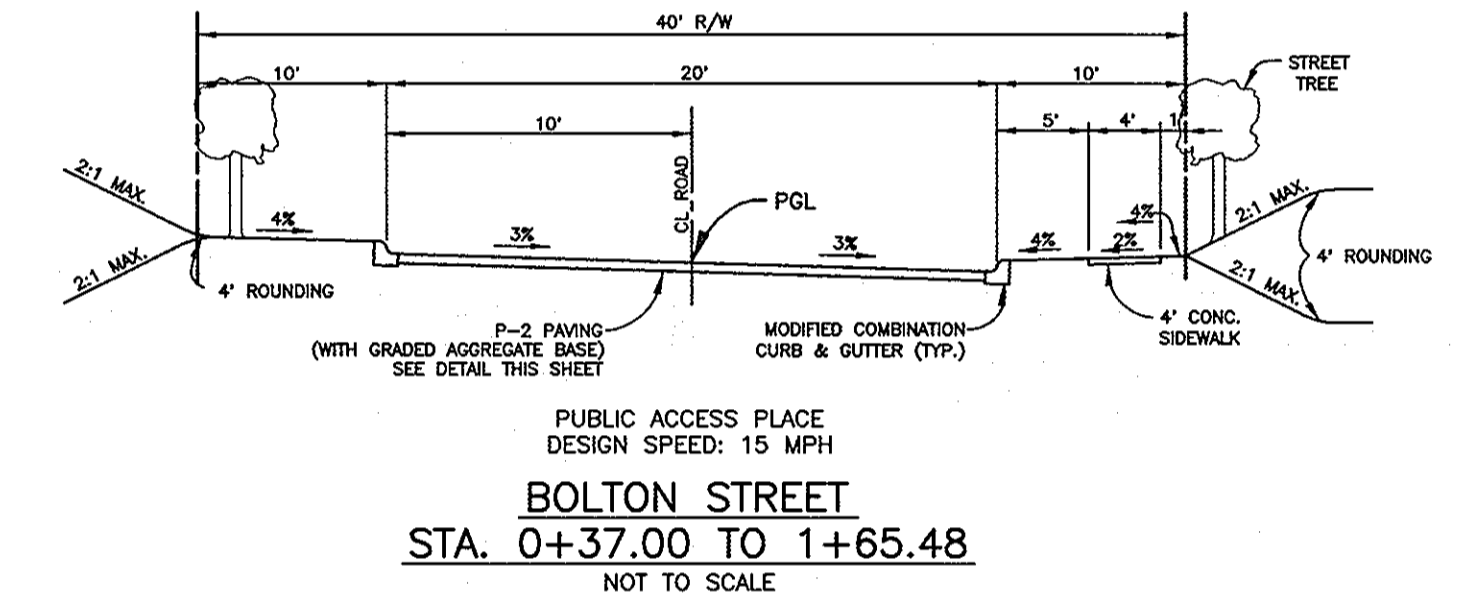
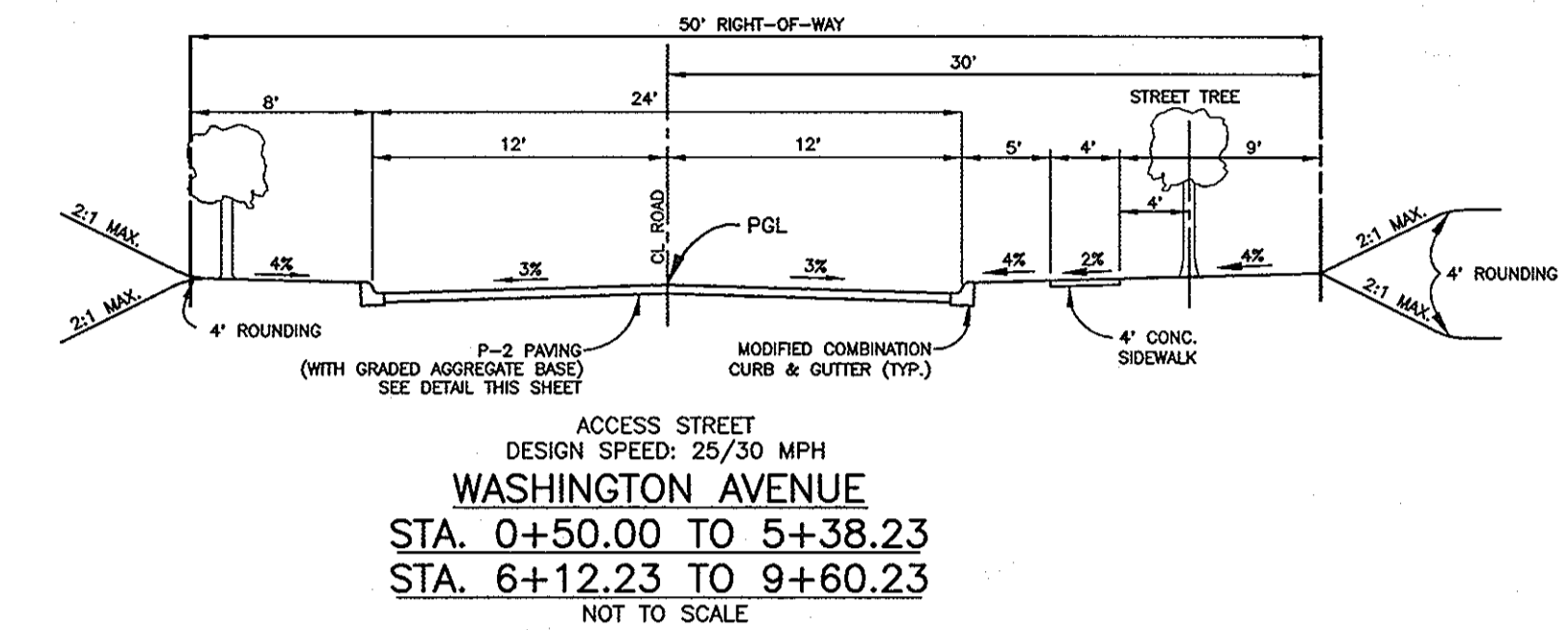
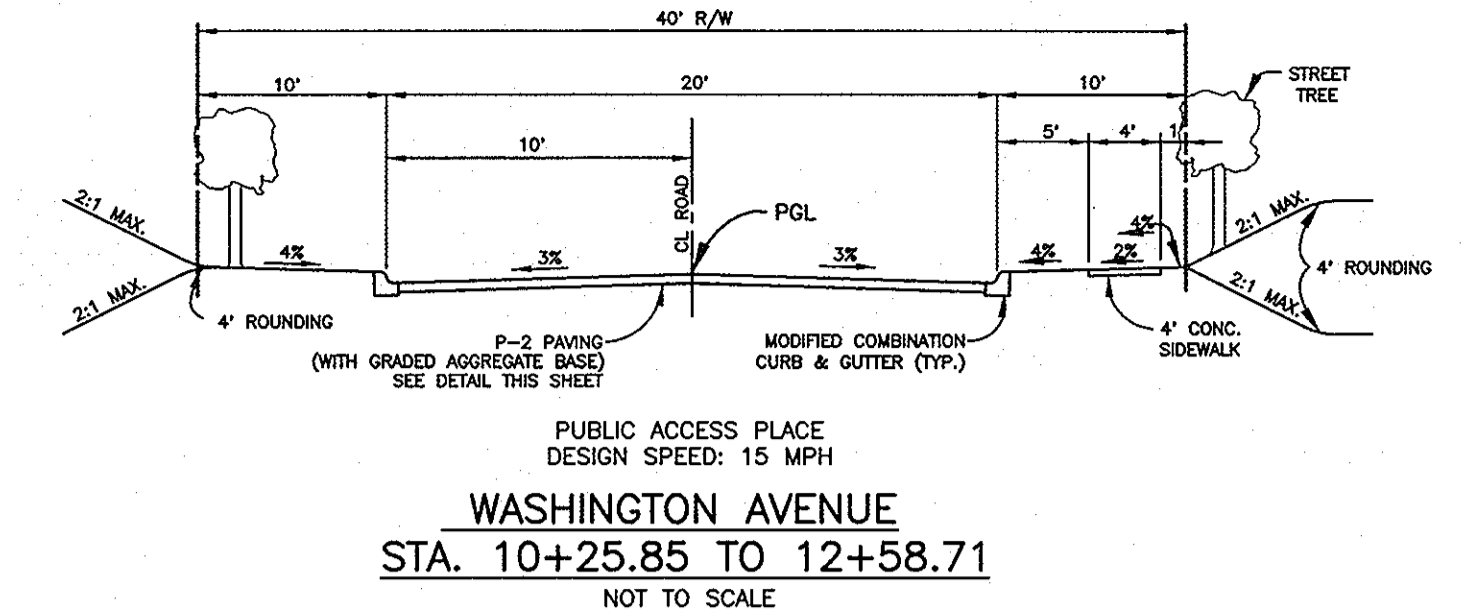
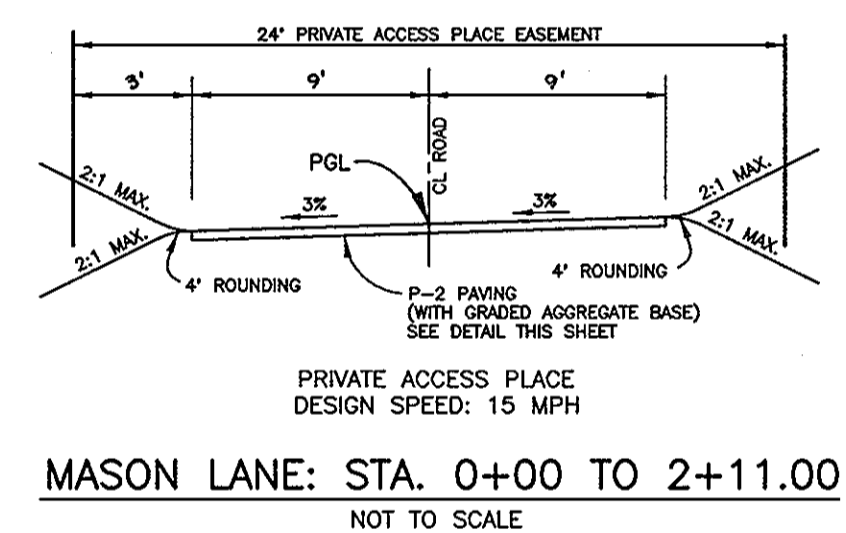
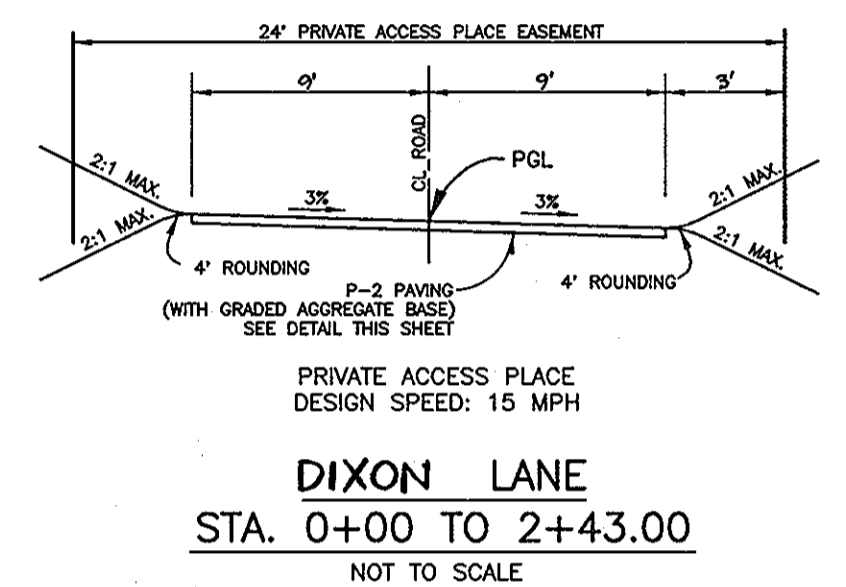
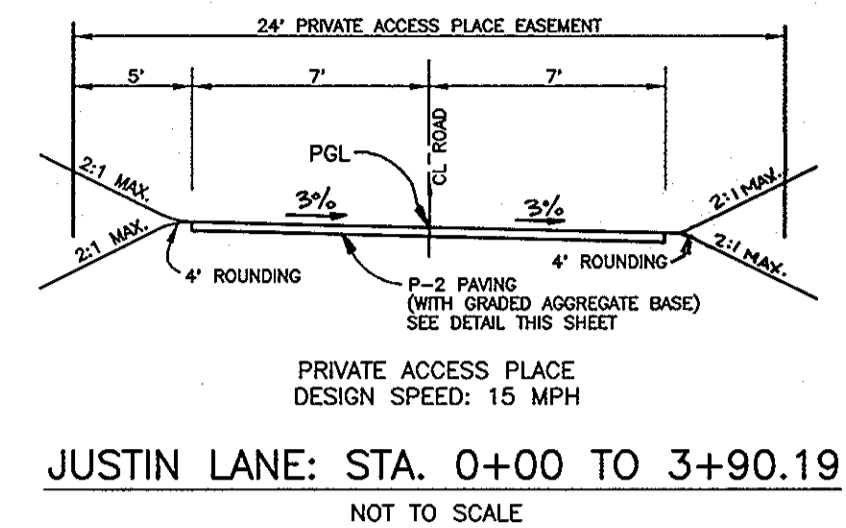
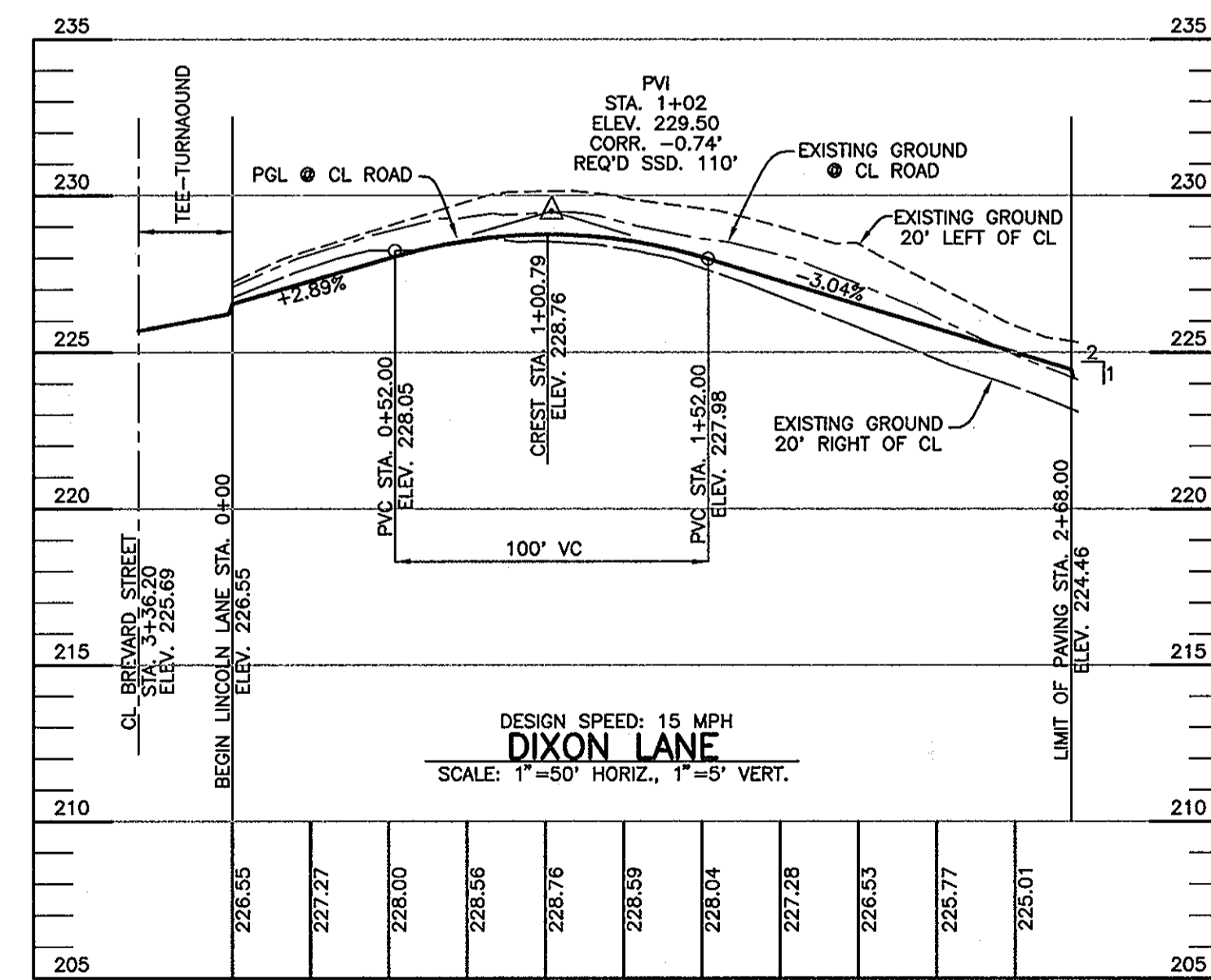
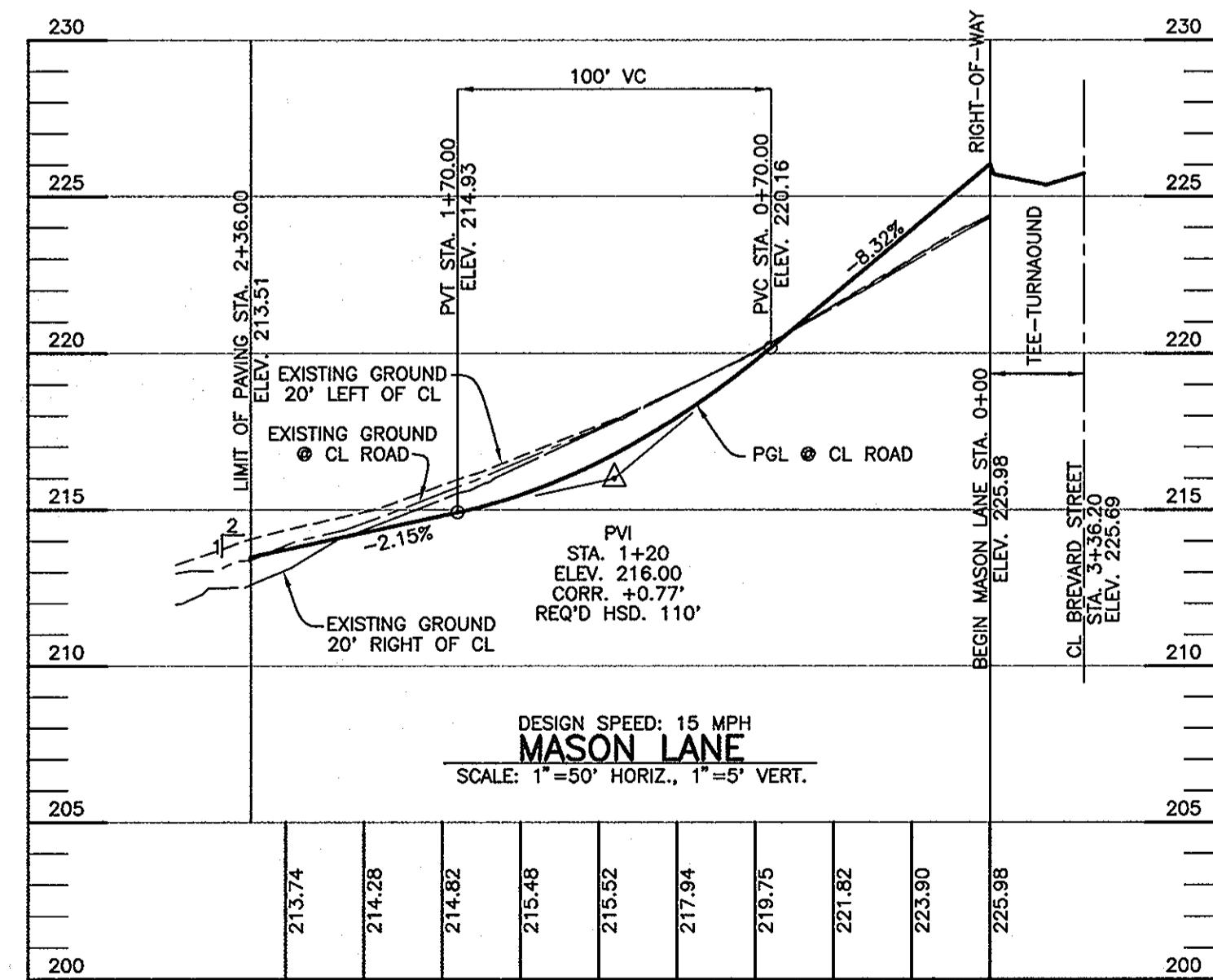
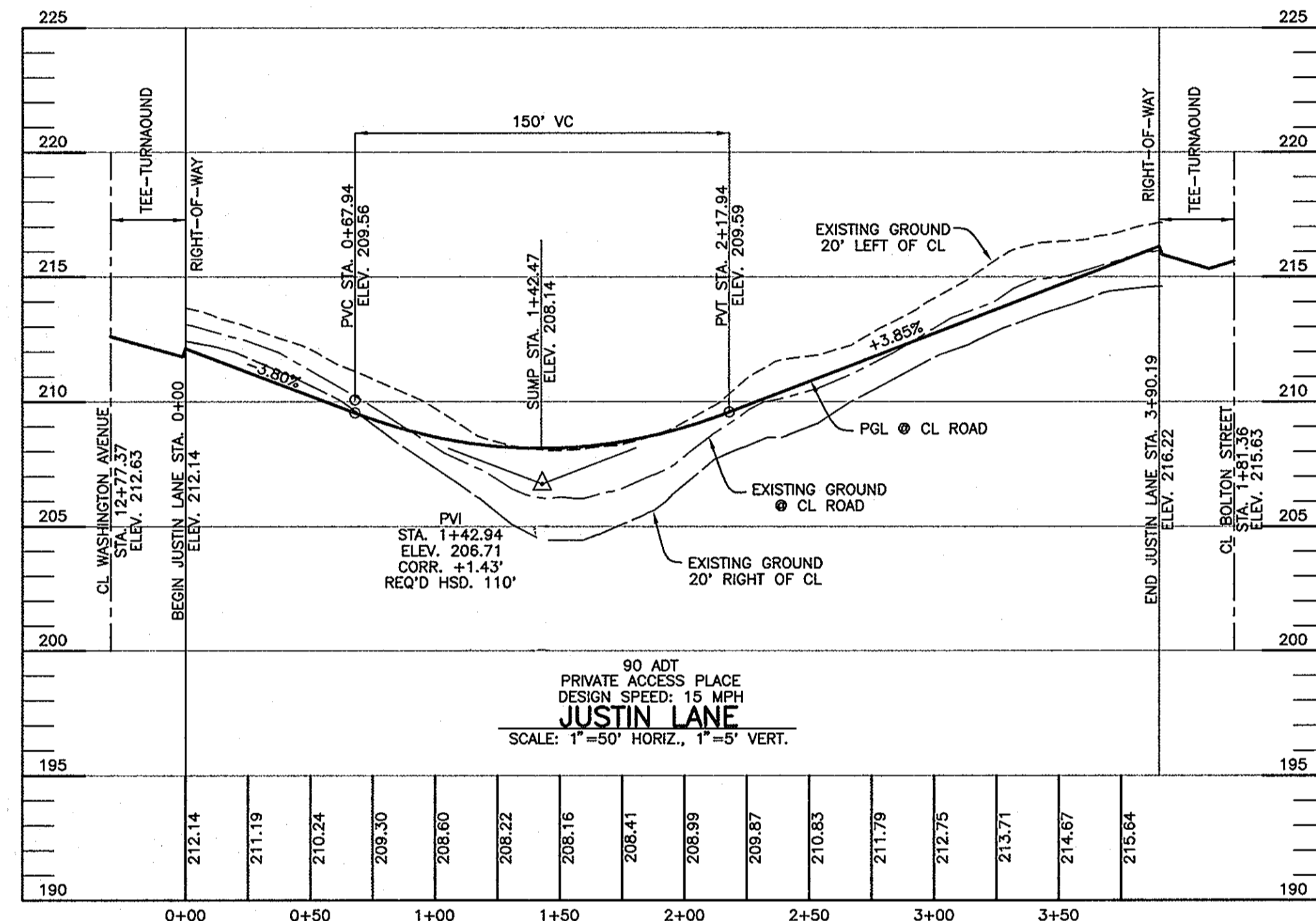
**BENCHMARK**  
ENGINEERS & LAND SURVEYORS & PLANNERS  
**ENGINEERING, INC.**

8480 BALTIMORE NATIONAL PIKE & SUITE 418  
ELLCOTT CITY, MARYLAND 21043  
phone: 410-465-6105 • fax: 410-465-6644  
email: Benchmark@eais.com

*Ronald Maan*

ALE/03

OWNER/DEVELOPER: CORNERSTONE HOLDINGS, L.L.C. 9631 NORFOLK AVENUE LAUREL, MARYLAND 20723 410-792-2565	PROJECT: <b>NORTH LAUREL PARK</b> WASHINGTON AVENUE, BOLTON STREET, JUSTIN LANE, BREVARD STREET, MASON LANE AND DIXON LANE, LOTS 32-34, 39-43 BLOCK "I"; 35-48 BLOCK "J"; 39-44 BLOCK "K"; 12-16, 41-63 BLOCK "O"; AND LOTS 39-48 BLOCK "P"
LOCATION: TAX MAP: 50 GRID: 3 6th ELECTION DISTRICT HOWARD COUNTY, MARYLAND	P/O PARCEL: 426 ZONED: R-SC
TITLE: <b>ROAD PROFILES</b>	
DATE: MAY, 2003	PROJECT NO. 1515
DES: RPS/DBT	DRAFT: RPS/DBT
SCALE: AS SHOWN	SHEET 4 OF 13



NO.	DATE	REVISION
2	2-5-2007	DELETE 18" HDPE CROSSING ALONG JUSTIN LANE. REVERSE JUSTIN LANE/BREVARD ST. TYPICAL SECS.
1	10-29-04	REVISE MASON & DIXON LANES TO BE 18' WIDE

**BENCHMARK**  
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8480 BALTIMORE NATIONAL PIKE A SUITE 418  
ELLCOTT CITY, MARYLAND 21043  
phone: 410-465-6105 A fax: 410-465-6644  
email: Benchmark@ccis.com

*Donald W. Mason*  
4/21/03

OWNER/DEVELOPER: CORNERSTONE HOLDINGS, L.L.C. 9691 NORFOLK AVENUE LAUREL, MARYLAND 20723 410-792-2565	PROJECT: <b>NORTH LAUREL PARK</b> WASHINGTON AVENUE, BOLTON STREET, JUSTIN LANE, BREVARD STREET, MASON LANE AND DIXON LANE LOTS 32-34, 39-43 BLOCK 'I'; 35-48 BLOCK 'J'; 39-44 BLOCK 'N'; 12-16, 41-63 BLOCK 'O'; AND LOTS 39-48 BLOCK 'P'
LOCATION: TAX MAP: 50 P/O PARCEL: 426 GRID: 3 ZONED: R-SC 6th ELECTION DISTRICT HOWARD COUNTY, MARYLAND	TITLE: <b>ROAD PROFILES AND DETAILS</b>
DATE: MAY, 2003 PROJECT NO. 1515	DESIGN: DBT DRAFT: DBT CHECK: CAM SCALE: AS SHOWN SHEET 5 OF 13

APPROVED: DEPARTMENT OF PUBLIC WORKS  
*William J. ...* 7-11-03  
CHIEF, BUREAU OF HIGHWAYS DATE

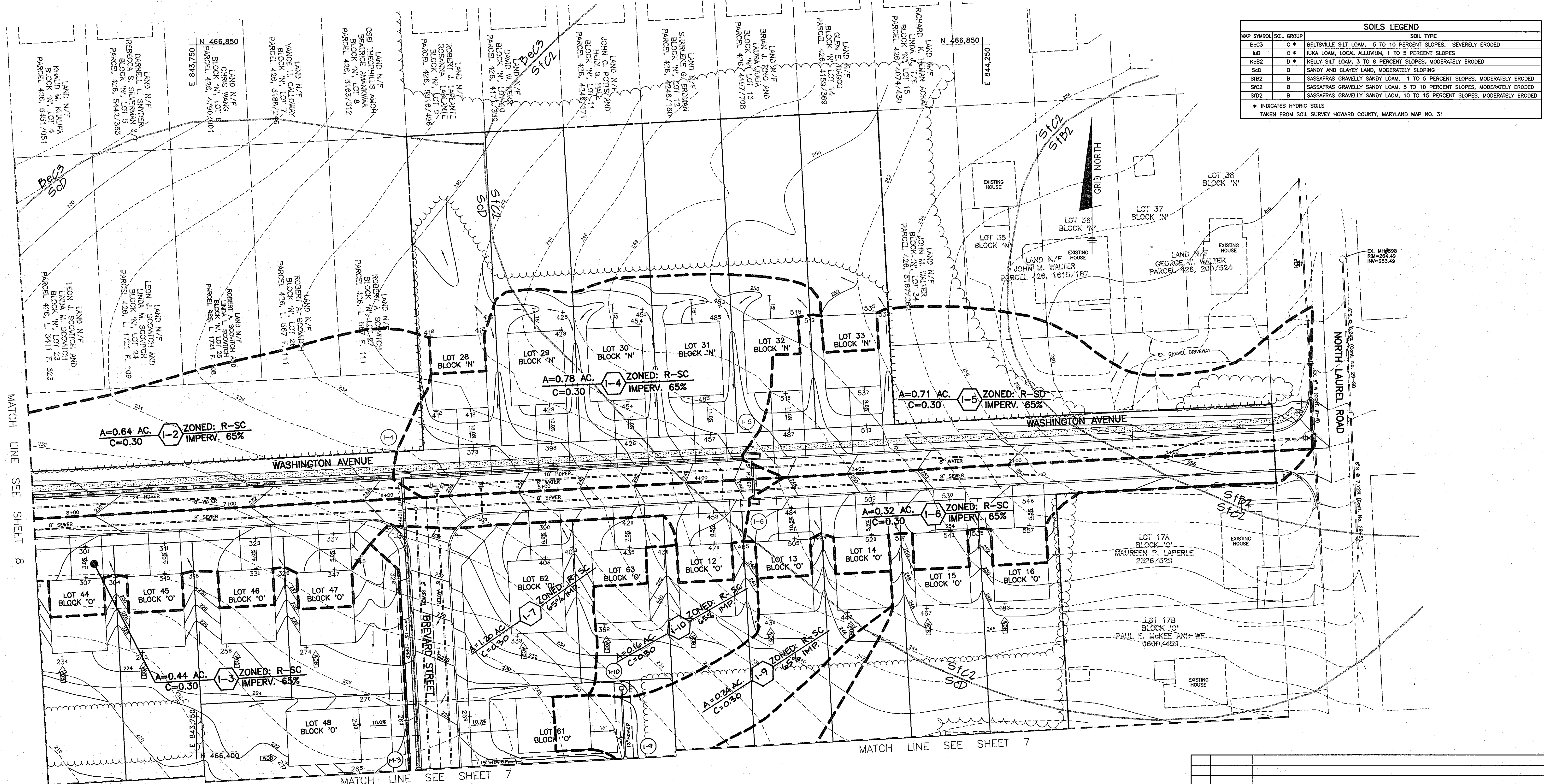
APPROVED: DEPARTMENT OF PLANNING AND ZONING  
*Cindy ...* 7/16/03  
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

*...* 7/15/03  
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE



SOILS LEGEND		
MAP SYMBOL	SOIL GROUP	SOIL TYPE
BcC3	C *	BELTSVILLE SILT LOAM, 5 TO 10 PERCENT SLOPES, SEVERELY ERODED
IuB	C *	IUKA LOAM, LOCAL ALLUVIUM, 1 TO 5 PERCENT SLOPES
KeB2	D *	KELLY SILT LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED
SdD	B	SANDY AND CLAYEY LAND, MODERATELY SLOPING
SfB2	B	SASSAFRAS GRAVELLY SANDY LOAM, 1 TO 5 PERCENT SLOPES, MODERATELY ERODED
SfC2	B	SASSAFRAS GRAVELLY SANDY LOAM, 5 TO 10 PERCENT SLOPES, MODERATELY ERODED
SfD2	B	SASSAFRAS GRAVELLY SANDY LOAM, 10 TO 15 PERCENT SLOPES, MODERATELY ERODED

\* INDICATES HYDRIC SOILS  
 TAKEN FROM SOIL SURVEY HOWARD COUNTY, MARYLAND MAP NO. 31



PLAN VIEW  
 SCALE: 1" = 30'

NO.	DATE	REVISION
1	11-17-05	ADD STORM DRAIN FROM M-3 TO I-9 TO I-10, REVISE DRAINAGE AREAS.

**BENCHMARK**  
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**ENGINEERING, INC.**

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 ELLICOTT CITY, MARYLAND 21043  
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 email: Benchmark@ccis.com



4/29/03

OWNER/DEVELOPER: CORNERSTONE HOLDINGS, L.L.C. 9691 NORFOLK AVENUE LAUREL, MARYLAND 20723 410-792-2565	PROJECT: <b>NORTH LAUREL PARK</b> WASHINGTON AVENUE, BOLTON STREET, JUSTIN LANE, BREVARD STREET, MASON LANE AND DIXON LANE LOTS 32-34, 39-43 BLOCK 'N'; 35-48 BLOCK 'O'; 39-44 BLOCK 'N'; 12-16, 41-63 BLOCK 'O'; AND LOTS 39-48 BLOCK 'P'
LOCATION: TAX MAP: 50 P/O PARCEL: 426 GRID: 3 ZONED: R-SC 6th ELECTION DISTRICT HOWARD COUNTY, MARYLAND	TITLE: <b>STORM DRAIN DRAINAGE AREA MAP</b>
DESIGN: DBT DRAFT: DBT CHECK: DAM	DATE: MAY, 2003 PROJECT NO. 1515 SCALE: AS SHOWN SHEET 6 OF 13

APPROVED: DEPARTMENT OF PUBLIC WORKS  
*William F. White Jr.* 7-11-03  
 CHIEF, BUREAU OF HIGHWAYS

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
*Cindy Hammett* 7/16/03  
 CHIEF, DIVISION OF LAND DEVELOPMENT

*Chris D...* 7/15/03  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION



MAP SYMBOL SOIL GROUP		SOIL TYPE	
BcC3	C *	BELTSVILLE SILT LOAM, 5 TO 10 PERCENT SLOPES, SEVERELY ERODED	
uB	C *	LUKA LOAM, LOCAL ALLUVIUM, 1 TO 5 PERCENT SLOPES	
KeB2	D *	KELLY SILT LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED	
ScD	B	SANDY AND CLAYEY LAND, MODERATELY SLOPING	
SfB2	B	SASSAFRAS GRAVELLY SANDY LOAM, 1 TO 5 PERCENT SLOPES, MODERATELY ERODED	
SfC2	B	SASSAFRAS GRAVELLY SANDY LOAM, 5 TO 10 PERCENT SLOPES, MODERATELY ERODED	
SfD2	B	SASSAFRAS GRAVELLY SANDY LOAM, 10 TO 15 PERCENT SLOPES, MODERATELY ERODED	
* INDICATES HYDRIC SOILS			
TAKEN FROM SOIL SURVEY HOWARD COUNTY, MARYLAND MAP NO. 31			



PLAN VIEW  
SCALE: 1" = 30'

NO.	DATE	REVISION
1	11-17-05	ADD STORM DRAIN FROM M-3 TO I-9, REVISE DRAINAGE AREAS

**BENCHMARK**  
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phone: 410-465-6105 • fax: 410-465-6644  
email: Benchmark@cois.com

*Donald Mann*

APPROVED: DEPARTMENT OF PUBLIC WORKS  
*William J. Anderson P.* 7/11/03 DATE  
CHIEF, BUREAU OF HIGHWAYS

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
*Cindy Hammet* 7/16/03 DATE  
CHIEF, DIVISION OF LAND DEVELOPMENT

*Bill Damman* 7/15/03 DATE  
CHIEF, DEVELOPMENT ENGINEERING DIVISION

OWNER/DEVELOPER: CORNERSTONE HOLDINGS, L.L.C.  
9691 NORFOLK AVENUE  
LAUREL, MARYLAND 20723  
410-792-2565

PROJECT: **NORTH LAUREL PARK**  
WASHINGTON AVENUE, BOLTON STREET, JUSTIN LANE,  
BREVARD STREET, MASON LANE AND DIXON LANE,  
LOTS 32-34, 39-43 BLOCK 'P'; 35-48 BLOCK 'U';  
39-44 BLOCK 'W'; 12-16, 41-43 BLOCK 'O';  
AND LOTS 39-48 BLOCK 'P'

LOCATION: TAX MAP: 50 P/O PARCEL: 426  
GRID: 3 ZONED: R-SC  
8th ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

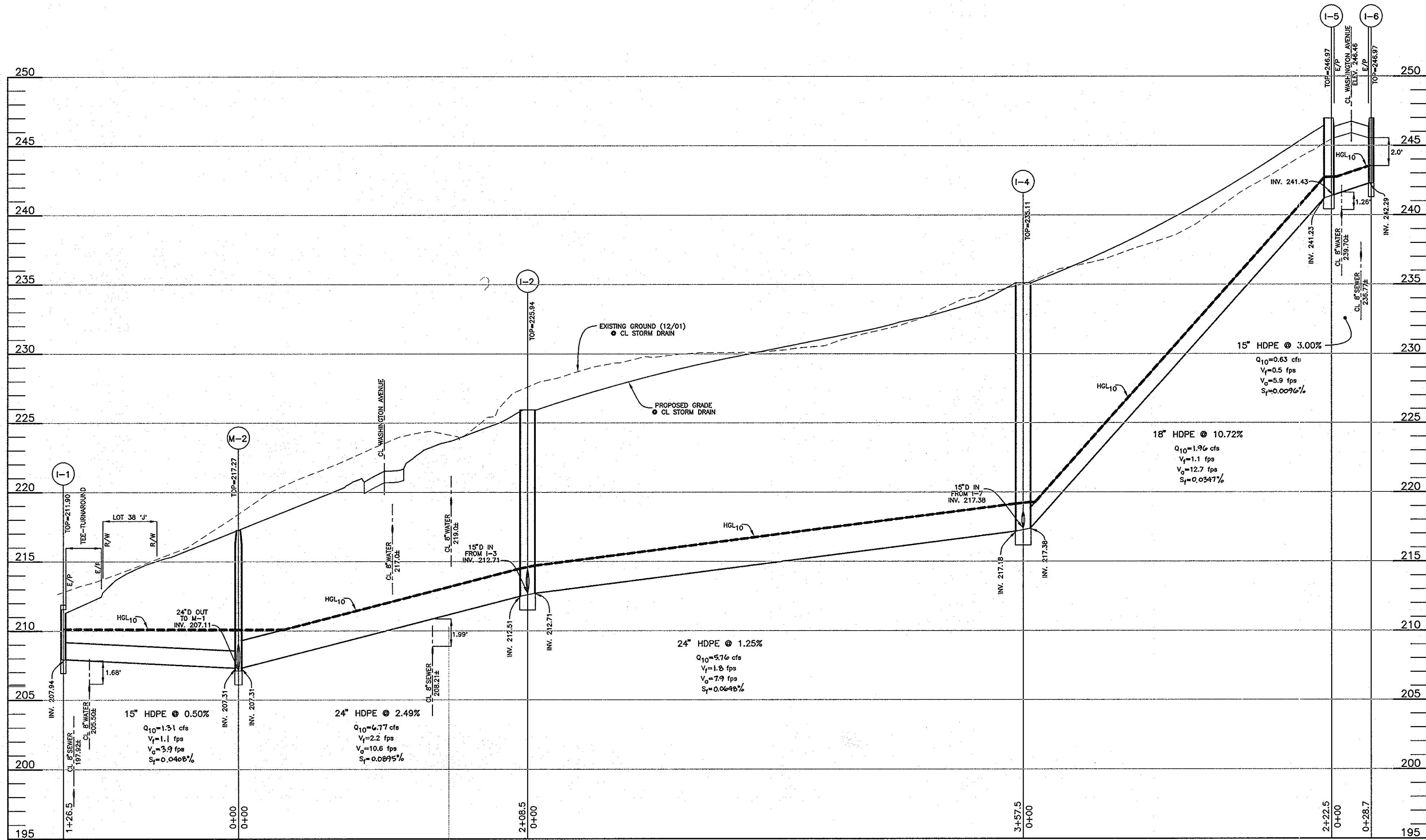
TITLE: **STORM DRAIN DRAINAGE AREA MAP**

DATE: MAY, 2003 PROJECT NO. 1515  
SCALE: AS SHOWN SHEET 7 OF 13

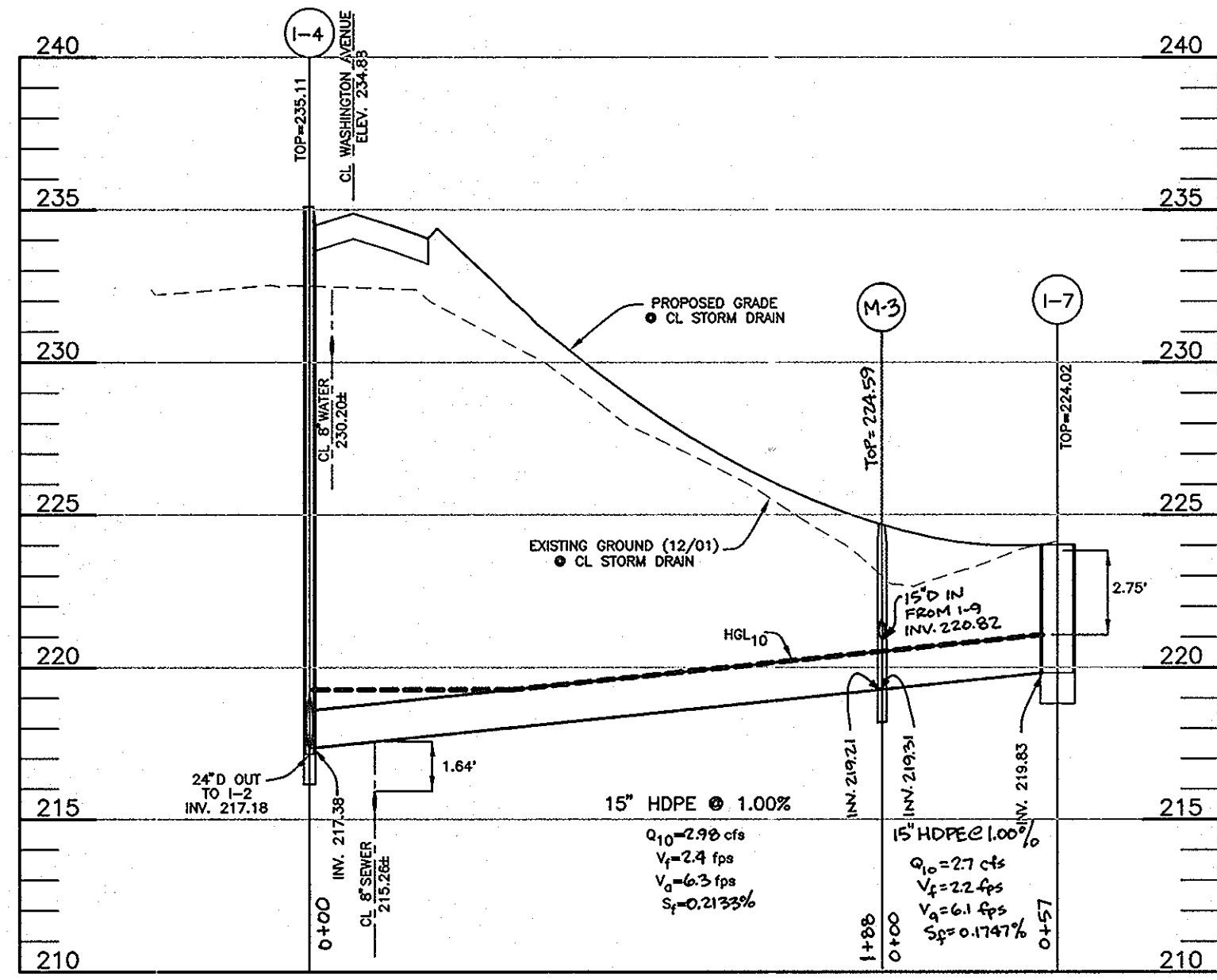




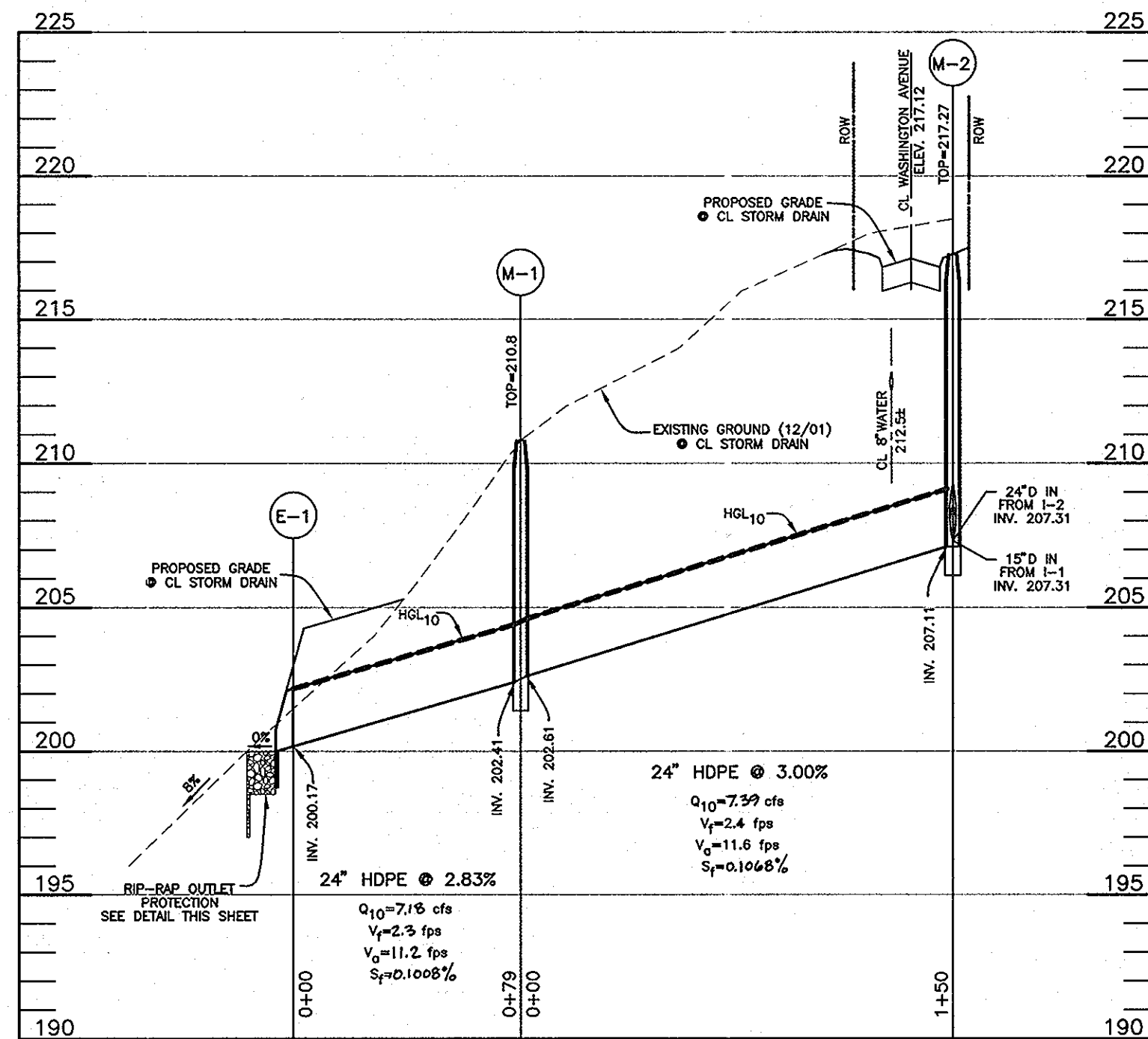




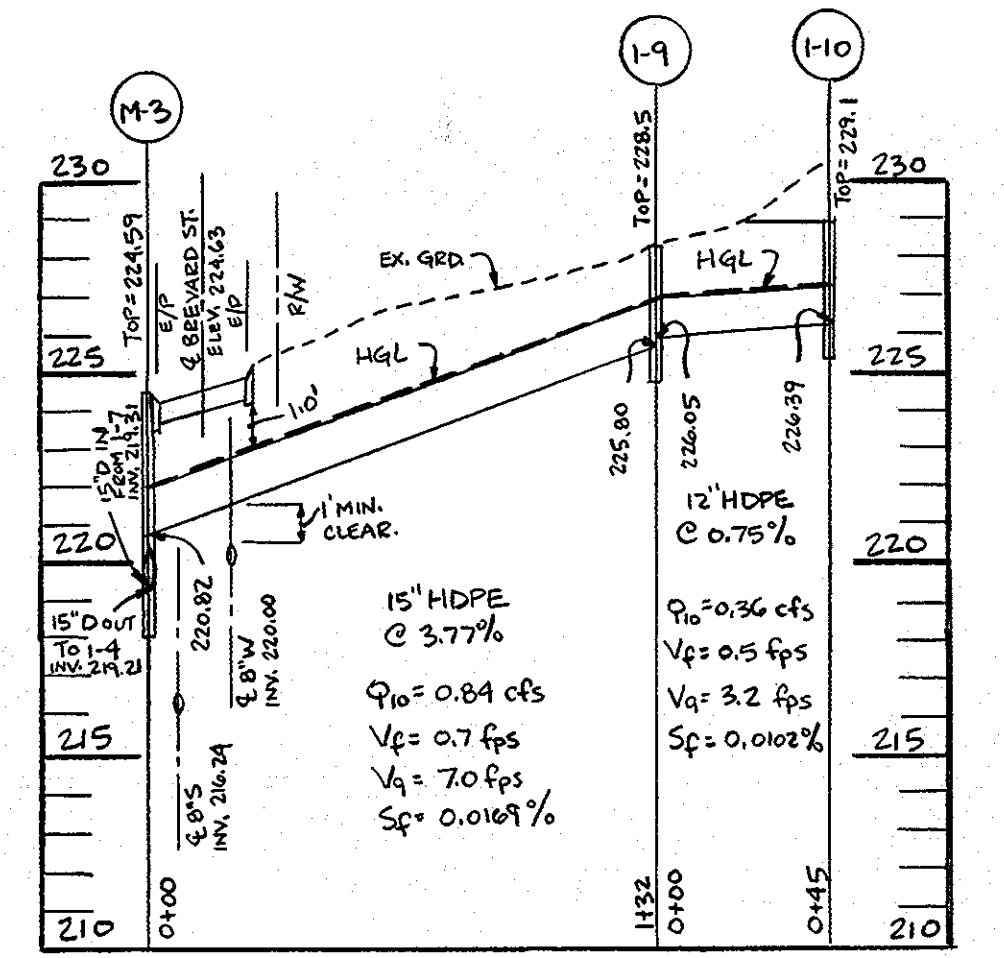
STORM DRAIN PROFILE  
SCALE: 1"=50' HORIZ., 1"=5' VERT.



STORM DRAIN PROFILE  
SCALE: 1"=50' HORIZ., 1"=5' VERT.

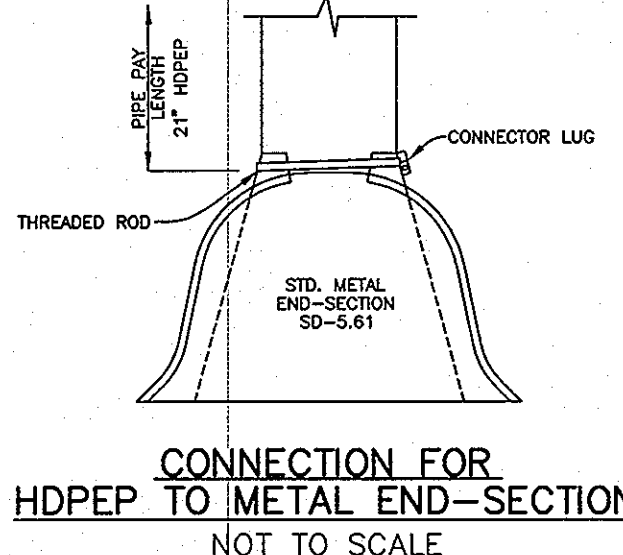


STORM DRAIN PROFILE  
SCALE: 1"=50' HORIZ., 1"=5' VERT.

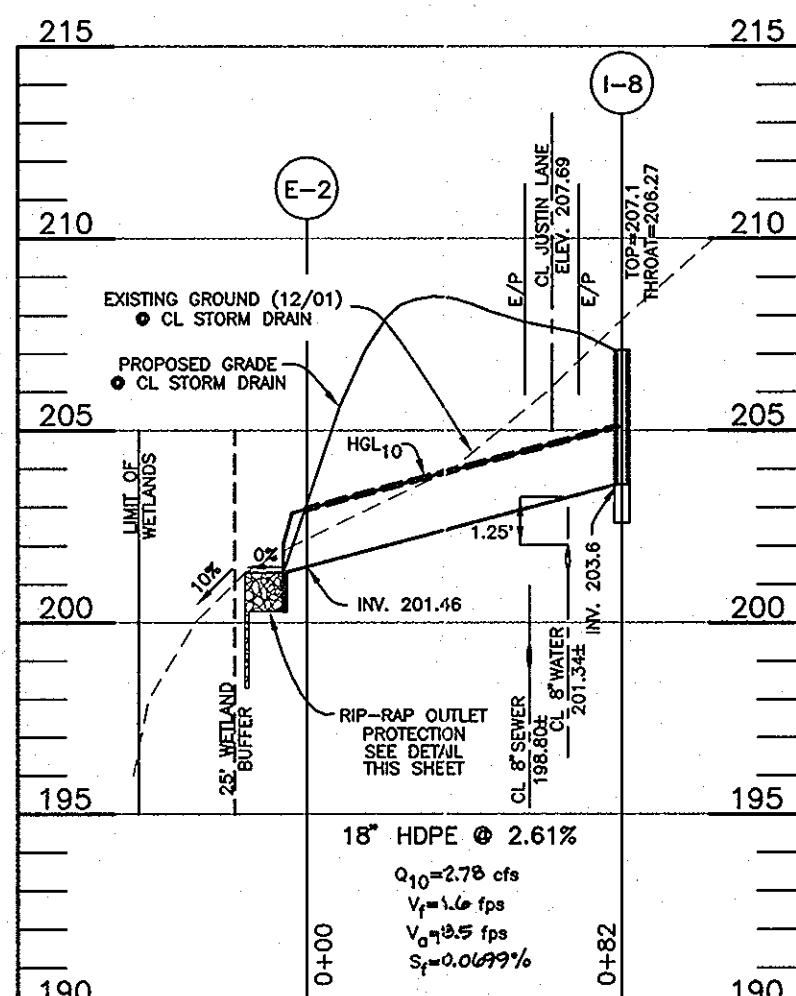


STRUCTURE SCHEDULE						
NO.	TYPE	LOCATION	INV. IN	INV. OUT	TOP ELEV.	HO. CO. STD.
E-1	21" METAL END SECTION	N 466742.67 E 843244.51	200.17	200.00	-	SD-5.61
I-1	A-5	CL STA. 12+89.14 WASHINGTON AVENUE; OFFSET 26.40' LEFT	-	207.94	211.90	SD - 4.01 OR 4.40 (3.5' WIDE)
I-2	A-10	CL STA. 9+47.06 WASHINGTON AVENUE; OFFSET 12.43' RIGHT	212.71 (15') 212.21 (24')	212.51	225.94	SD - 4.02 OR 4.41 (3.5' WIDE)
I-3	A-5	CL STA. 9+47.06 WASHINGTON AVENUE; OFFSET 12.43' LEFT	-	215.58	225.94	SD - 4.01 OR 4.40 (3.5' WIDE)
I-4	A-10	CL STA. 5+89.58 WASHINGTON AVENUE; OFFSET 12.43' RIGHT	217.38 (15') 217.38 (24')	217.18	235.11	SD - 4.02 OR 4.41 (3.5' WIDE)
I-5	A-10	CL STA. 3+67.00 WASHINGTON AVENUE; OFFSET 12.43' RIGHT	-	241.43	246.97	SD - 4.02 OR 4.41 (3.5' WIDE)
I-6	A-5	CL STA. 3+67.00 WASHINGTON AVENUE; OFFSET 12.43' LEFT	-	242.29	246.97	SD - 4.01 OR 4.40 (3.5' WIDE)
I-7	A-10	CL STA. 2+30.50 BREVARD STREET; OFFSET 12.43' RIGHT	-	219.83	224.02	SD - 4.02 OR 4.41 (3.5' WIDE)
I-9	YARD INLET	N 466595.02 E 844023.09	226.05	225.80	228.50	SD-A.14
I-10	YARD INLET	N 466499.96 E 844020.67	-	226.39	229.10	SD-A.14
M-1	4'-0" MANHOLE	CL STA. 11+65.49 WASHINGTON AVENUE; OFFSET 134.23' RIGHT	202.61	202.41	210.80	G - 5.12
M-2	4'-0" MANHOLE	CL STA. 11+65.35 WASHINGTON AVENUE; OFFSET 14.35' LEFT	207.31 (15') 207.31 (24')	207.11	217.27	G - 5.12
M-3	4'-0" MANHOLE	CL STA. 1+73.57 BREVARD STREET; OFFSET 14.35' RIGHT	228.82 (15') 228.82 (24')	219.21	224.59	G-5.14 W/OFFSET COVER

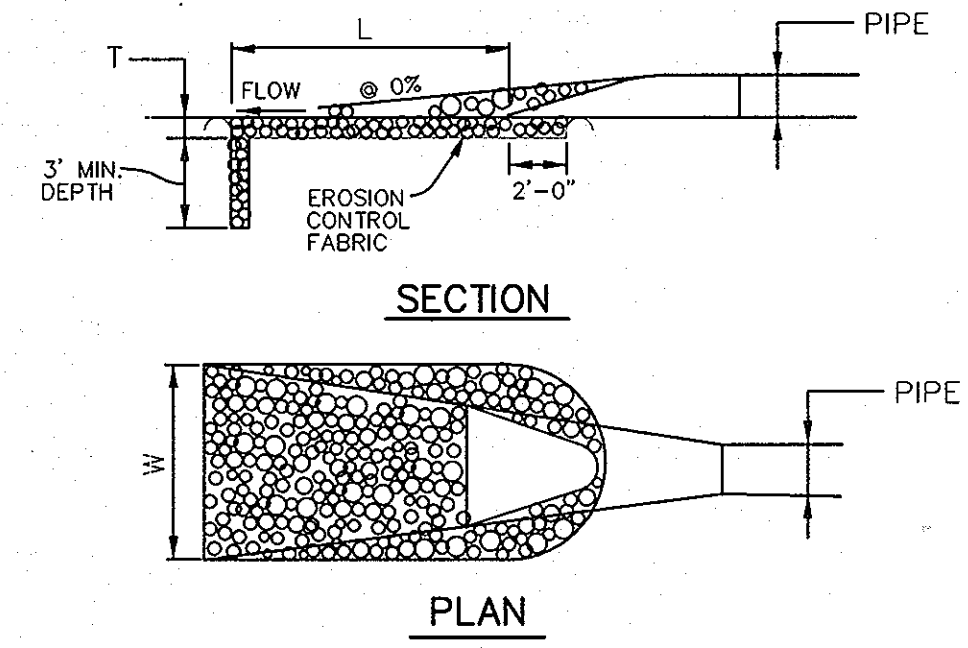
- STRUCTURE ELEVATION AND LOCATION FOR MANHOLES IS AT THE TOP AND CENTER OF RIM.
- STRUCTURE ELEVATION AND LOCATION FOR INLETS IS AT THE TOP OF CURB AT MIDPOINT OF THE INLET.
- STRUCTURE ELEVATION AND LOCATION FOR ENDECTIONS IS AT THE CONNECTION OF PIPE AND END SECTION.
- PRECAST STRUCTURES MEETING HS-20 LOADING MAY BE USED.
- ALL STORM DRAINS SHALL BE HIGH DENSITY POLYETHYLENE PIPE UNLESS OTHERWISE NOTED.



PIPE SCHEDULE		
PIPE SIZE	LENGTH	TYPE
15"	560.9'	HDPEP
18"	222.5'	HDPEP
24"	695.0'	HDPEP
12"	45.0'	HDPEP



PRIVATE STORM DRAIN PROFILE  
SCALE: 1"=50' HORIZ., 1"=5' VERT.



STRUCTURE	D-SO	LENGTH (L)	WIDTH (W)	THICKNESS (T)	SHA CLASS
E-1	9.5'	10'	12'	19"	I

OUTLET PROTECTION DETAIL  
NOT TO SCALE

APPROVED: DEPARTMENT OF PUBLIC WORKS  
*William J. ...* 7-11-03  
 CHIEF, BUREAU OF HIGHWAYS  
 APPROVED: DEPARTMENT OF PLANNING AND ZONING  
*Cindy Hamstra* 7/16/03  
 CHIEF, DIVISION OF LAND DEVELOPMENT  
*Chris ...* 7/15/03  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

NO.	DATE	REVISION
2	2-5-2007	DELETE PROFILE FOR SD FROM I-6 TO E2. REVISE STR. SCHED, PIPE SCHED, OUTLET DETAIL.
1	11-17-05	ADD STORM DRAIN FROM M-3 TO I-9 TO I-10. REVISE COMP. S, STRUCTURE SCHED, & PIPE SCHED.

**BENCHMARK ENGINEERING, INC.**  
 8480 BALTIMORE NATIONAL PIKE & SUITE 418  
 ELLICOTT CITY, MARYLAND 21043  
 phone: 410-465-6105 • fax: 410-465-6644  
 email: Benchmark@cois.com

**OWNER/DEVELOPER:** CORNERSTONE HOLDINGS, L.L.C.  
 9691 NORFOLK AVENUE  
 LAUREL, MARYLAND 20723  
 410-792-2565

**PROJECT:** NORTH LAUREL PARK  
 WASHINGTON AVENUE, BOLTON STREET, JUSTIN LANE,  
 BREVARD STREET, MASON LANE AND DIXON LANE  
 LOTS 32-34, 39-43 BLOCK 'I'; 35-48 BLOCK 'J';  
 39-44 BLOCK 'N'; 12-16, 41-63 BLOCK 'O';  
 AND LOTS 39-48 BLOCK 'P'

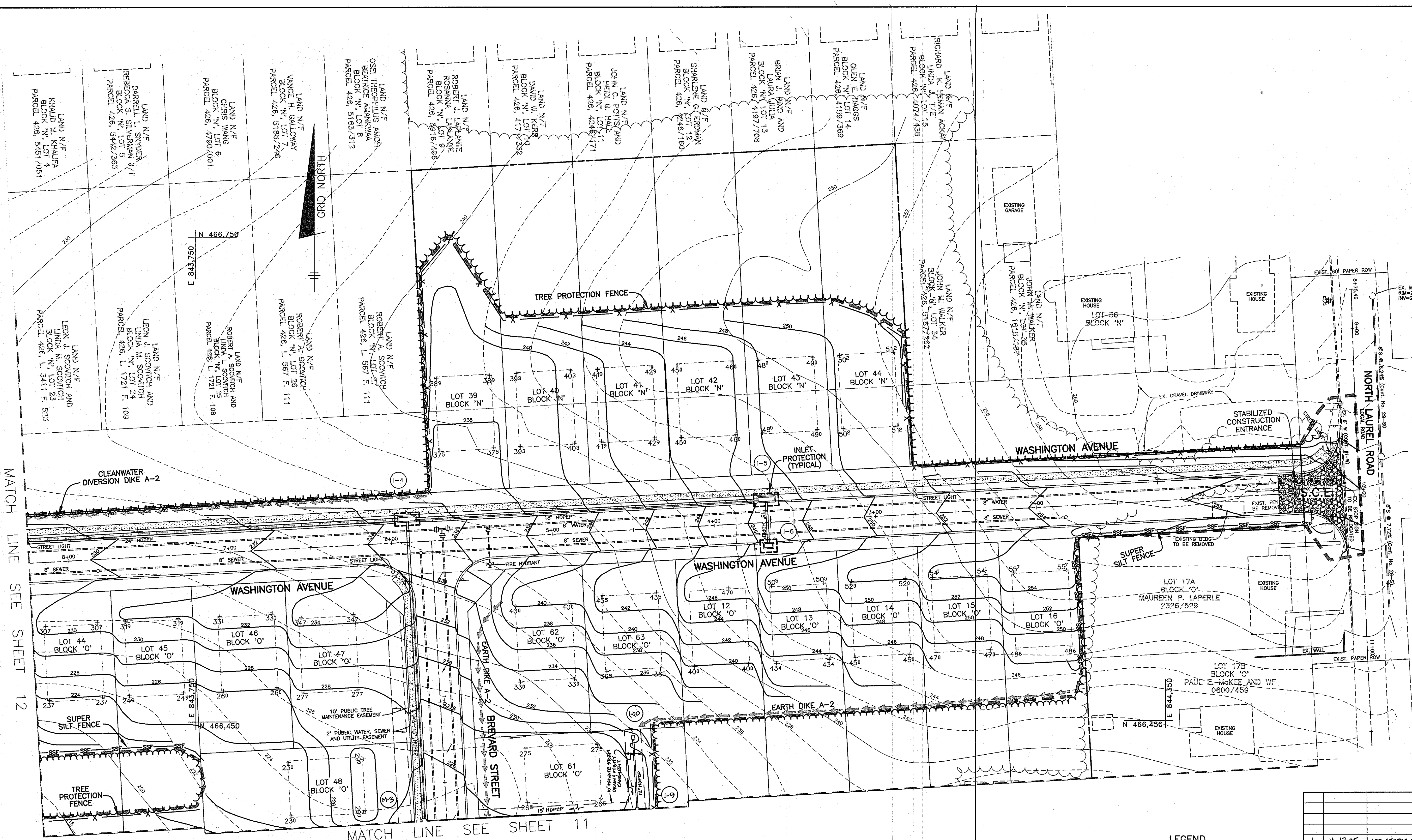
**LOCATION:** TAX MAP: 50 P/O PARCEL: 426  
 GRID: 3 ZONED: R-SC  
 5th ELECTION DISTRICT  
 HOWARD COUNTY, MARYLAND

**TITLE:** STORM DRAIN PROFILES

**DATE:** MAY, 2003 **PROJECT NO.:** 1515

**DESIGN:** DBT **DRAFT:** DBT **CHECK:** DAM **SCALE:** AS SHOWN **SHEET 9 OF 13**





MATCH LINE SEE SHEET 12

MATCH LINE SEE SHEET 11

**PLAN VIEW**  
SCALE: 1" = 30'

- SEQUENCE OF CONSTRUCTION**  
NOTIFY SEDIMENT CONTROL DIVISION 48 HOURS PRIOR TO START OF CONSTRUCTION
- DAY 1 1. OBTAIN GRADING PERMIT.
  - DAY 2-12 2. CLEAR AND GRUB AS REQUIRED TO INSTALL SEDIMENT CONTROL DEVICES AND TREE PROTECTION FENCES AND INSTALL THOSE DEVICES.
  - DAY 13-26 4. WITH SEDIMENT CONTROLS IN PLACE AND WITH PERMISSION OF SEDIMENT CONTROL INSPECTOR CLEAR AND GRUB SITE, ROUGH GRADE AND STABILIZE AS REQUIRED.
  - DAY 27-67 5. CONSTRUCT ALL UTILITIES INCLUDING SANITARY SEWER, WATER LINES AND ROADS.
  - DAY 68-65 6. FINE GRADE ANY REMAINING AREAS AND PERMANENTLY STABILIZE ALL DISTURBED AREAS.
  - DAY 66-70 7. WITH THE APPROVAL OF THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR, REMOVE SEDIMENT CONTROL DEVICES AND STABILIZE ALL REMAINING DISTURBED AREAS WITH PERMANENT STABILIZATION.

**LEGEND**

	EXISTING CONTOURS
	PROPOSED CONTOURS
	TEMPORARY CONTOURS FOR SEDIMENT TRAP
	EXISTING TREELINE
	PROPOSED TREELINE
	TREE PROTECTION FENCE
	SILT FENCE
	SUPER SILT FENCE
	EARTH DIKE
	LIMIT OF DISTURBANCE
	INLET PROTECTION
	PROPOSED HOUSE PAD

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

*Donald Mason* 4/29/03  
ENGINEER - DONALD A. MASON, P.E. # 21443 DATE

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

*B O B* 4/29/03  
DEVELOPER DATE

REVIEWED FOR HOWARD SCD AND MEETS TECHNICAL REQUIREMENTS

*Jim Myers* 7-1-03  
USA NATURAL RESOURCE CONSERVATION SERVICE DATE

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

*John R. Robinson* 7-1-03  
HOWARD SCD DATE

APPROVED: DEPARTMENT OF PUBLIC WORKS

*William J. ...* 7-11-03  
CHIEF, BUREAU OF HIGHWAYS DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING

*Chris ...* 7/16/03  
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

*Chad ...* 7/15/03  
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

NO.	DATE	REVISION
1	11-17-05	ADD STORM DRAIN FROM M-3 TO I-9 TO I-10.

**BENCHMARK ENGINEERING, INC.**  
ENGINEERS • LAND SURVEYORS • PLANNERS

8480 BALTIMORE NATIONAL PIKE A SUITE 418  
ELLICOTT CITY, MARYLAND 21043  
phone: 410-465-6105 • fax: 410-465-6644  
email: Benchmark@ceda.com

*Donald Mason*  
4/29/03

OWNER/DEVELOPER: CORNERSTONE HOLDINGS, L.L.C.  
9691 NORFOLK AVENUE  
LAUREL, MARYLAND 20723  
410-792-2565

PROJECT: NORTH LAUREL PARK  
WASHINGTON AVENUE, BOLTON STREET, JUSTIN LANE,  
BREVARD STREET, MASON LANE AND DIXON LANE  
LOTS 32-34, 39-43 BLOCK 'N'; 35-48 BLOCK 'O';  
39-44 BLOCK 'N'; 12-16, 41-63 BLOCK 'O';  
AND LOTS 39-48 BLOCK 'P'

LOCATION: TAX MAP: 50 P/O PARCEL: 426  
GRID: 3 ZONED: R-SC  
6th ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

TITLE: GRADING, SEDIMENT AND EROSION CONTROL PLAN

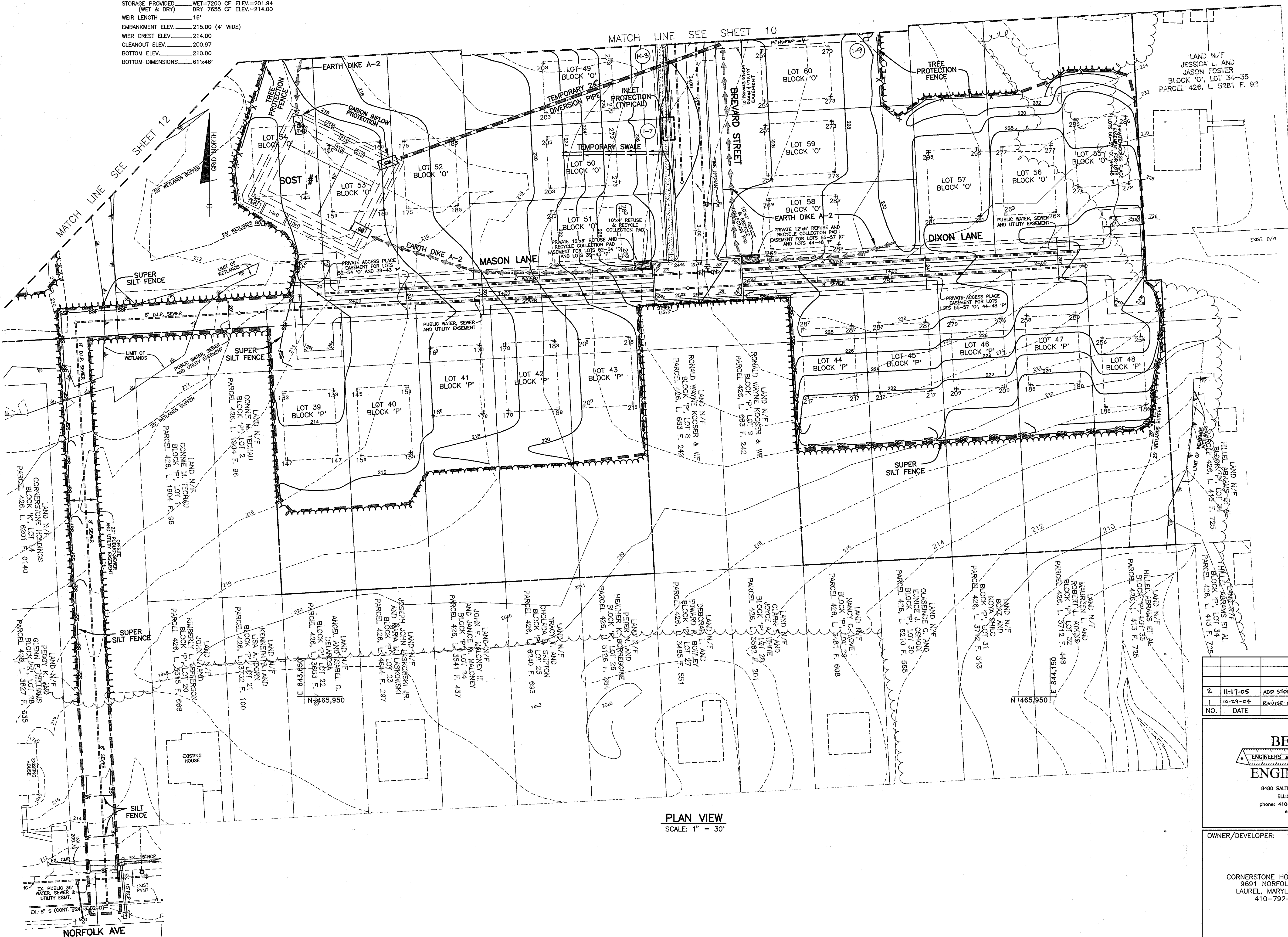
DATE: MAY, 2003 PROJECT NO. 1515

DESIGN: DBT DRAFT: DBT CHECK: DAM SCALE: AS SHOWN SHEET 10 OF 13



**SOST #1**

TYPE OF TRAP \_\_\_\_\_ ST-II  
 DRAINAGE AREA \_\_\_\_\_ 4.0 AC.  
 STORAGE REQUIRED \_\_\_\_\_ WET=7200 CF  
 (WET & DRY) \_\_\_\_\_ DRY=7200 CF  
 STORAGE PROVIDED \_\_\_\_\_ WET=7200 CF ELEV.=201.94  
 (WET & DRY) \_\_\_\_\_ DRY=7655 CF ELEV.=214.00  
 WEIR LENGTH \_\_\_\_\_ 18'  
 EMBANKMENT ELEV. \_\_\_\_\_ 215.00 (4' WIDE)  
 WEIR CREST ELEV. \_\_\_\_\_ 214.00  
 CLEANOUT ELEV. \_\_\_\_\_ 200.97  
 BOTTOM ELEV. \_\_\_\_\_ 210.00  
 BOTTOM DIMENSIONS \_\_\_\_\_ 61'x48'



**PLAN VIEW**  
 SCALE: 1" = 30'

**ENGINEER'S CERTIFICATE**  
 I HEREBY CERTIFY THAT THIS PLAN FOR SEDIMENT AND EROSION CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.  
*Donald Mason* 6/2/03  
 ENGINEER - DONALD A. MASON, P.E. # 21443 DATE

**DEVELOPER'S CERTIFICATE**  
 I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT FOR SEDIMENT AND EROSION CONTROL, AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT.  
*B O By* 6/2/03  
 DEVELOPER DATE

REVIEWED FOR HOWARD SCD AND MEETS TECHNICAL REQUIREMENTS  
*Jim Myers* 7-1-03  
 USNR - NATURAL RESOURCES CONSERVATION SERVICE DATE

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.  
*John Robertson* 7-1-03  
 HOWARD SCD DATE

APPROVED: DEPARTMENT OF PUBLIC WORKS  
*Walter J. Walsh Jr.* 7-11-03  
 CHIEF, BUREAU OF HIGHWAYS DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
*Chris Henson* 7/6/03  
 CHIEF, DIVISION OF LAND DEVELOPMENT 58 DATE

*Chad Dammann* 7/15/03  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION 7 DATE

NO.	DATE	REVISION
2	11-17-05	ADD STORM DRAIN FROM M-3 TO I-9
1	10-27-04	REVISE MASON & DIXON LANES TO BE 18' WIDE

**BENCHMARK ENGINEERING, INC.**  
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 email: Benchmark@cois.com

*Donald Mason*  
 6/2/03

OWNER/DEVELOPER: CORNERSTONE HOLDINGS, L.L.C.  
 9691 NORFOLK AVENUE  
 LAUREL, MARYLAND 20723  
 410-792-2565

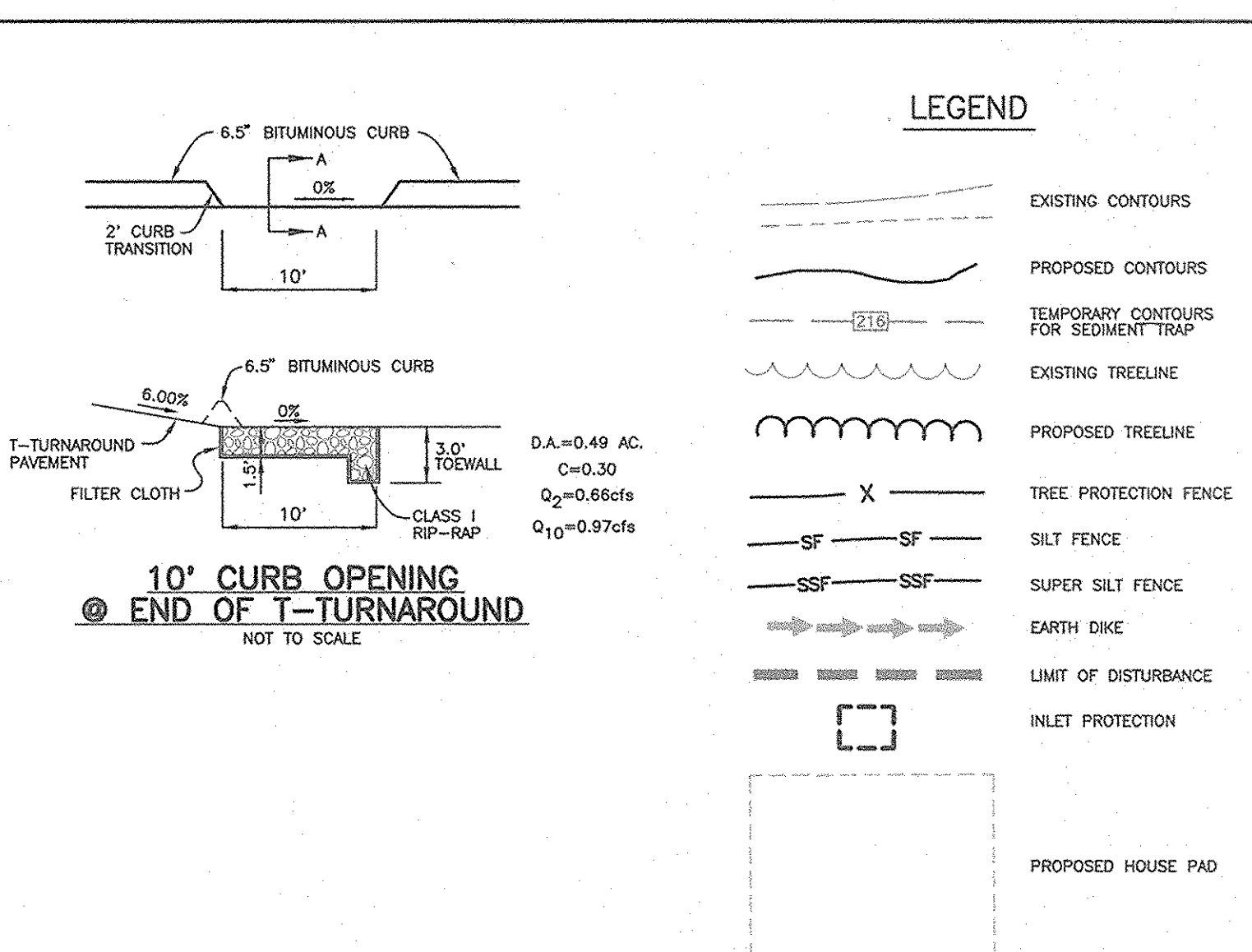
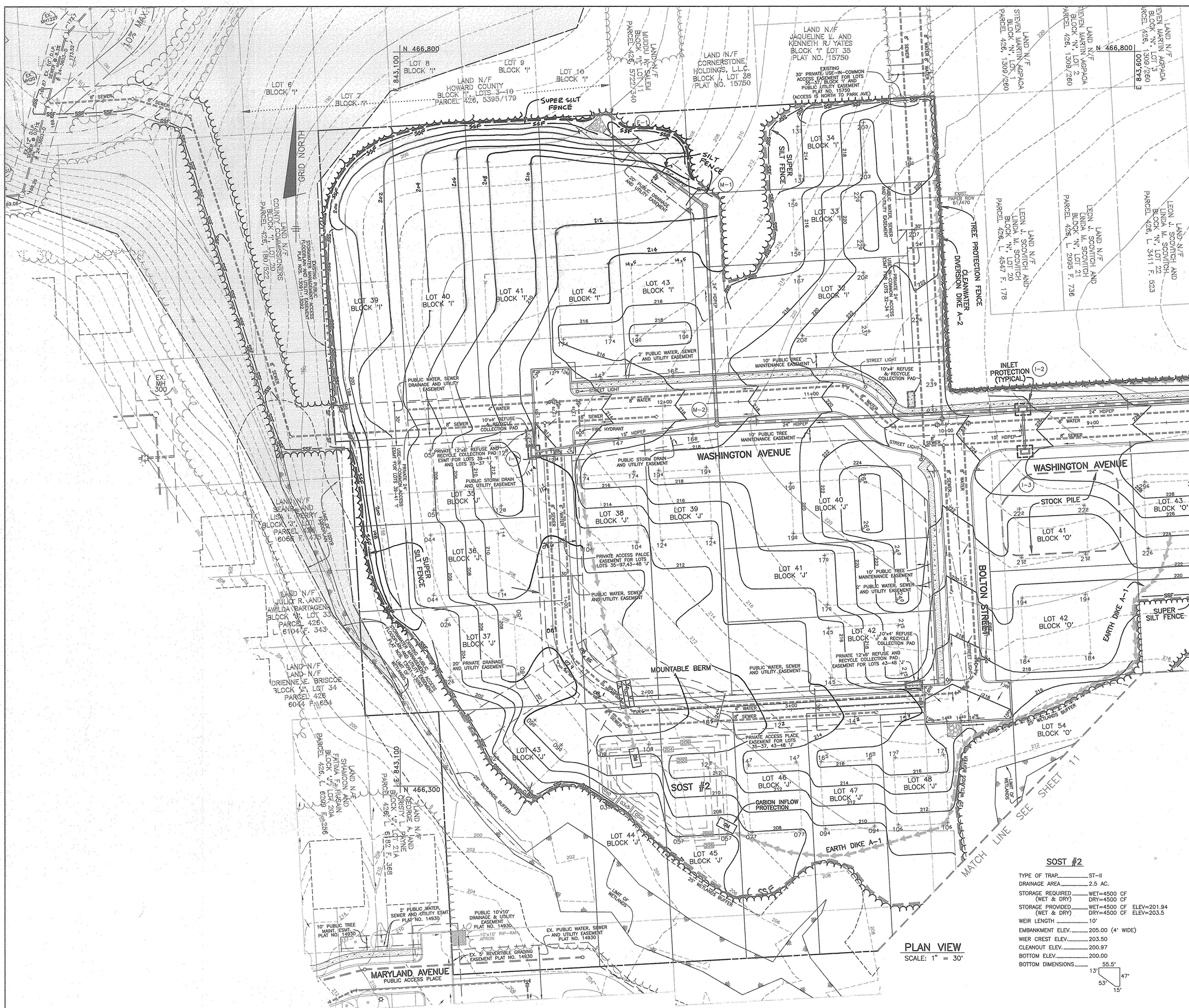
PROJECT: **NORTH LAUREL PARK**  
 WASHINGTON AVENUE, BOLTON STREET, JUSTIN LANE,  
 BREVARD STREET, MASON LANE AND DIXON LANE  
 LOTS 32-34, 39-43 BLOCK 'O'; 35-48 BLOCK 'O';  
 39-44 BLOCK 'N'; 12-16, 41-43 BLOCK 'O';  
 AND LOTS 39-48 BLOCK 'P'

LOCATION: TAX MAP: 50 P/O PARCEL: 426  
 GRID: 3 ZONED: R-SC  
 6th ELECTION DISTRICT  
 HOWARD COUNTY, MARYLAND

TITLE: **GRADING, SEDIMENT AND EROSION CONTROL PLAN**

DATE: MAY, 2003 PROJECT NO. 1515  
 SCALE: AS SHOWN SHEET 11 OF 13





**ENGINEER'S CERTIFICATE**  
 I HEREBY CERTIFY THAT THIS PLAN FOR SEDIMENT AND EROSION CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.  
*Donald A. Mason* 6/2/03  
 ENGINEER - DONALD A. MASON, P.E. # 21443 DATE

**DEVELOPER'S CERTIFICATE**  
 I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT FOR SEDIMENT AND EROSION CONTROL, AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT.  
*B. D. By* 6/2/03  
 DEVELOPER DATE

REVIEWED FOR HOWARD SCD AND MEETS TECHNICAL REQUIREMENTS  
*Jim Meyer* 7-1-03  
 USER - NATURAL RESOURCES CONSERVATION SERVICE DATE

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.  
*John R. Robertson* 7-1-03  
 HOWARD SCD DATE

APPROVED: DEPARTMENT OF PUBLIC WORKS  
*William T. Males* 7-11-03  
 CHIEF, BUREAU OF HIGHWAYS DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
*David Harant* 7/6/03  
 CHIEF, DIVISION OF LAND DEVELOPMENT 88 DATE

*Chris Dammann* 7/15/03  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

NO.	DATE	REVISION
2	2-5-2007	DELETE STORM DRAIN FROM I-8 TO E-2 ON LOTS 37, 38, 39. REVISE GRADES ON JUSTIN LANE.
1	9-26-05	REVISE GRADES AND L.O.D. IN REAR OF LOTS 39, 43, 44 AND 35-37 'J'

**BENCHMARK ENGINEERING, INC.**  
 ENGINEERS • LAND SURVEYORS • PLANNERS  
 8480 BALTIMORE NATIONAL PIKE A SUITE 418  
 ELLICOTT CITY, MARYLAND 21043  
 phone: 410-465-6105 A fax: 410-465-6644  
 email: Benchmark@cois.com

*Donald A. Mason* 6/2/03

OWNER/DEVELOPER: CORNERSTONE HOLDINGS, L.L.C.  
 9691 NORFOLK AVENUE  
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PROJECT: NORTH LAUREL PARK  
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TITLE: GRADING, SEDIMENT AND EROSION CONTROL PLAN

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 SCALE: AS SHOWN SHEET 12 OF 13

DESIGN: DBT DRAFT: DBT CHECK: DAM

PLAN VIEW  
 SCALE: 1" = 30'

**SOST #2**

TYPE OF TRAP	ST-II
DRAINAGE AREA	2.5 AC.
STORAGE REQUIRED (WET & DRY)	WET=4500 CF DRY=4500 CF
STORAGE PROVIDED (WET & DRY)	WET=4500 CF ELEV=201.94 DRY=4500 CF ELEV=203.5
WEIR LENGTH	10'
EMBANKMENT ELEV.	205.00 (4' WIDE)
WIENER CREST ELEV.	203.50
CLEANOUT ELEV.	200.97
BOTTOM ELEV.	200.00
BOTTOM DIMENSIONS	55.5' x 47' x 15'



**SEDIMENT CONTROL NOTES**

- A MINIMUM OF 24 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY DEPARTMENT OF INSPECTION, LICENSES AND PERMITS, SEDIMENT CONTROL DIVISION PRIOR TO THE START OF ANY CONSTRUCTION. (313-1850).
- ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE MOST CURRENT "MARYLAND STANDARDS AND SPECIFICATION FOR SOIL EROSION AND SEDIMENT CONTROL" REVISIONS THERE TO.
- FOLLOWING INITIAL SOIL DISTURBANCE OR RESTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN 7 CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DIKES, PERIMETER SLOPES AND ALL SLOPES GREATER THAN 3:1. 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 1984 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR PERMANENT SEEDINGS (SEC. 51) SOO (SEC. 54), TEMPORARY SEEDING (SEC. 50) AND MULCHING (SEC. 52). TEMPORARY STABILIZATION WITH MULCH ALONE CAN ONLY BE DONE WHEN RECOMMENDED SEEDING DATES DO NOT ALLOW FOR PROPER GERMINATION AND ESTABLISHMENT OF GRASSES.
- 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:
 

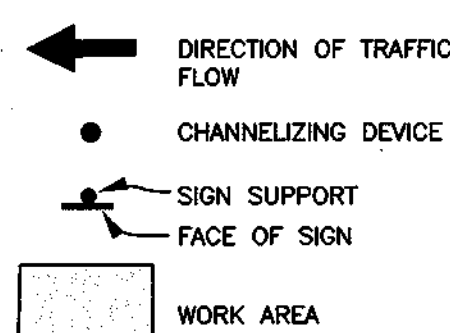
TOTAL AREA OF SITE	15.62± ACRES
AREA DISTURBED	12.2± ACRES
AREA TO BE ROOFED OR PAVED	1.6± ACRES
AREA TO BE VEGETATIVELY STABILIZED	10.6± ACRES
TOTAL CUT	11,757 CY
TOTAL FILL	18,490 CY

 OFFSITE WASTE AREA LOCATION: SITE WITH APPROVED SED. CONTROL PLAN  
 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 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 BACK FILLED AND STABILIZED WITHIN ONE WORKING DAY, WHICHEVER IS SHORTER.

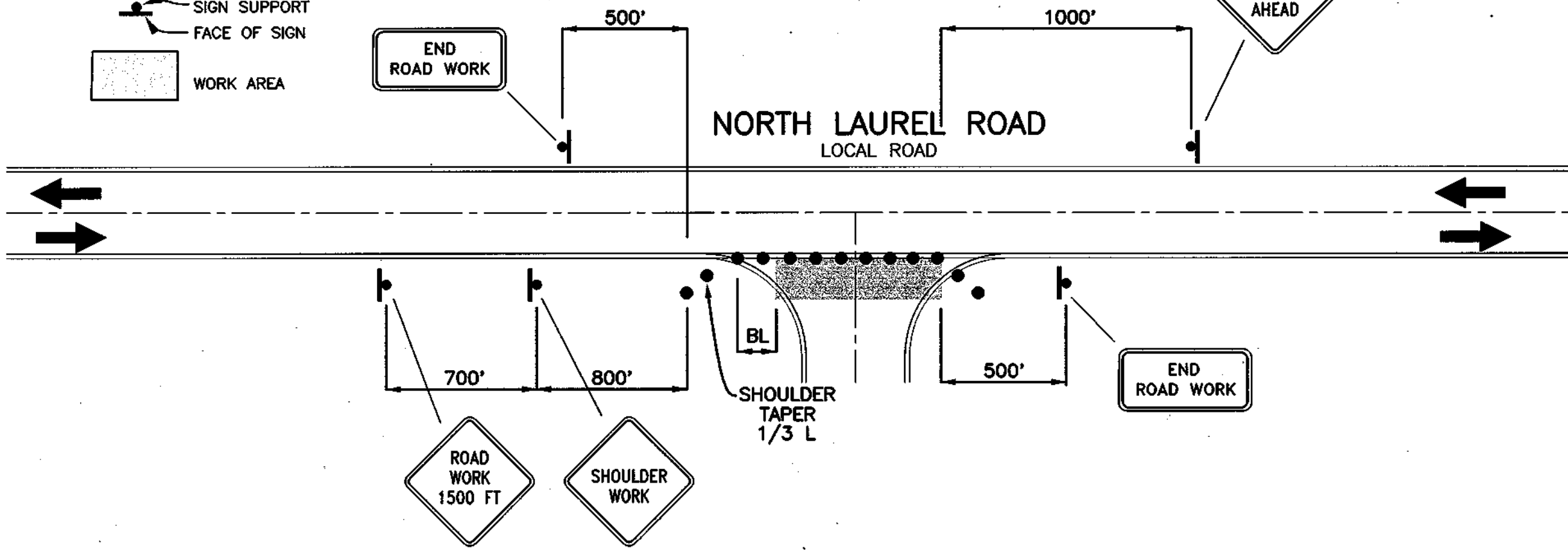
**TOPSOIL SPECIFICATIONS**

- Topsoil salvaged from the existing site may be used provided that it meets the standards set forth in these specifications. Typically, the depth of topsoil to be salvaged for a given soil type can be found in the representative soil profile section in the Soil Survey published by USDA-SCS in cooperation with Maryland Agricultural Experiment Station.
- Topsoil Specifications - Soil to be used as topsoil must meet the following:
  - Topsoil shall be a loam, sandy loam, clay loam, silt loam, sandy clay loam, loamy sand. Other soils may be used if recommended by an agronomist or soil scientist and approved by the appropriate approval authority. Regardless, topsoil shall not be a mixture of contrasting textures and shall contain less than 5% by volume of clumps, stones, weed stems, twigs, sticks, roots, trash, or other materials larger than 1-1/2" in diameter.
  - Topsoil must be free of plants or plant parts such as Bermuda grass, quack grass, Johnson grass, nutgrass, poison ivy, thistle, or others as specified.
  - Where the subsoil is either highly acidic or composed of heavy clays, ground limestone shall be spread at the rate of 4-6 tons/acre (100-400 pounds per 1,000 square feet) prior to the placement of topsoil. Lime shall be distributed uniformly over designated areas and worked into the soil in conjunction with tillage operations as described in the following procedures.
- For sites having disturbed areas under 5 acres:
  - Place topsoil (if required) and apply soil amendments as specified in 20.0 Vegetative Stabilization - Section 1 - Vegetative Stabilization Methods and Materials.
- For sites having disturbed areas over 5 acres:
  - On soil meeting Topsoil specifications, obtain test results dictating fertilizer and lime amendments required to bring the soil into compliance with the following:
    - pH for topsoil shall be between 6.0 and 7.5. If the tested soil demonstrates a pH of less than 6.0, sufficient lime shall be prescribed to raise the pH to 6.5 or higher.
    - Organic content or topsoil shall be not less than 1.5 percent by weight.
    - Topsoil having soluble salt content greater than 500 parts per million shall not be used.
    - No soil or seed shall be placed on soil which has been treated with soil sterilants or chemicals used for weed control until sufficient time has elapsed (14 days min.) to permit dissipation of phytotoxic materials.
  - Topsoil shall be uniformly distributed in a 4" - 6" layer and lightly compacted to a minimum thickness of 4". Spreading shall be performed in such a manner that no sodding or seeding can proceed with a minimum of additional soil preparation and tillage. Any irregularities in the surface resulting from topsoiling or other operations shall be corrected in order to prevent the formation of depressions or water pockets.
  - Topsoil shall not be placed while the topsoil or subsoil is in a frozen or muddy condition, when the subsoil is excessively wet or in a condition that may otherwise be detrimental to proper grading and seedbed preparation.
- Alternative for Permanent Seeding - Instead of applying the full amounts of lime and commercial fertilizer, composted sludge and amendments may be applied as specified below:
  - Composted Sludge Material for use as a soil conditioner for sites having disturbed areas over 5 acres shall be tested to prescribe amendments and for sites having disturbed areas under 5 acres shall conform to the following requirements:
    - Composted sludge shall be supplied by, or originate from, a person or persons that are permitted (at the time of acquisition of the compost) by the Maryland Department of the Environment under COMAR 26.04.09.
    - Composted sludge shall contain at least 1 percent nitrogen, 1.5 percent phosphorus, and 0.2 percent potassium and have a pH of 7.0 to 8.0. If compost does not meet these requirements, the appropriate constituents must be added to meet the requirements prior to use.
    - Composted sludge shall be applied at a rate of 1 ton/1,000 square feet.
  - Composted sludge shall be amended with a potassium fertilizer applied at the rate of 4 lb/1,000 square feet, and 1/3 the normal lime application rate.

**KEY**

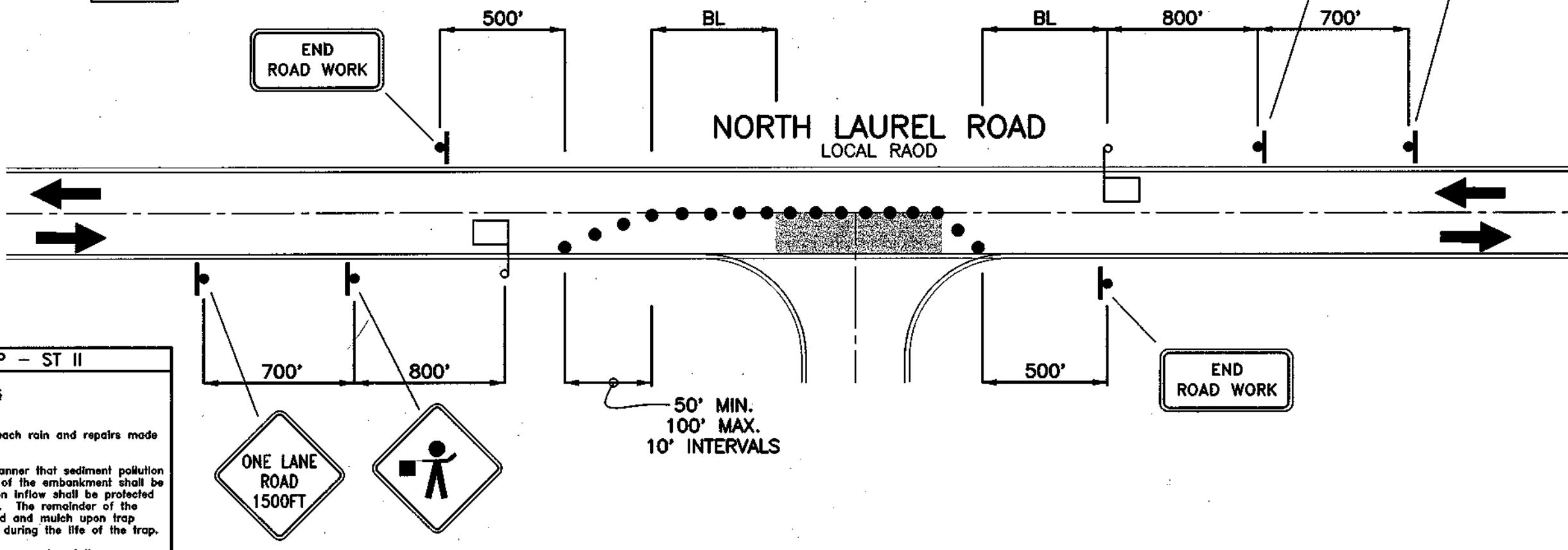
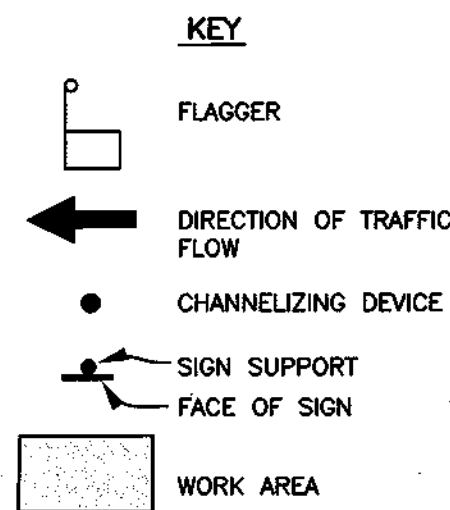


**IMPORTANT:** THIS DRAWING SHALL BE USED IN COMBINATION WITH THE GENERAL NOTES AT THE BEGINNING OF STANDARDS NO. MD 104.00.



(STANDARD NO. MD 104.04-02)  
**TEMPORARY TRAFFIC CONTROL PLAN**  
NOT TO SCALE:

**IMPORTANT:** THIS DRAWING SHALL BE USED IN COMBINATION WITH THE GENERAL NOTES AT THE BEGINNING OF STANDARDS NO. MD 104.00.



(STANDARD NO. MD 104.31-02)  
**TEMPORARY TRAFFIC CONTROL PLAN**  
NOT TO SCALE:

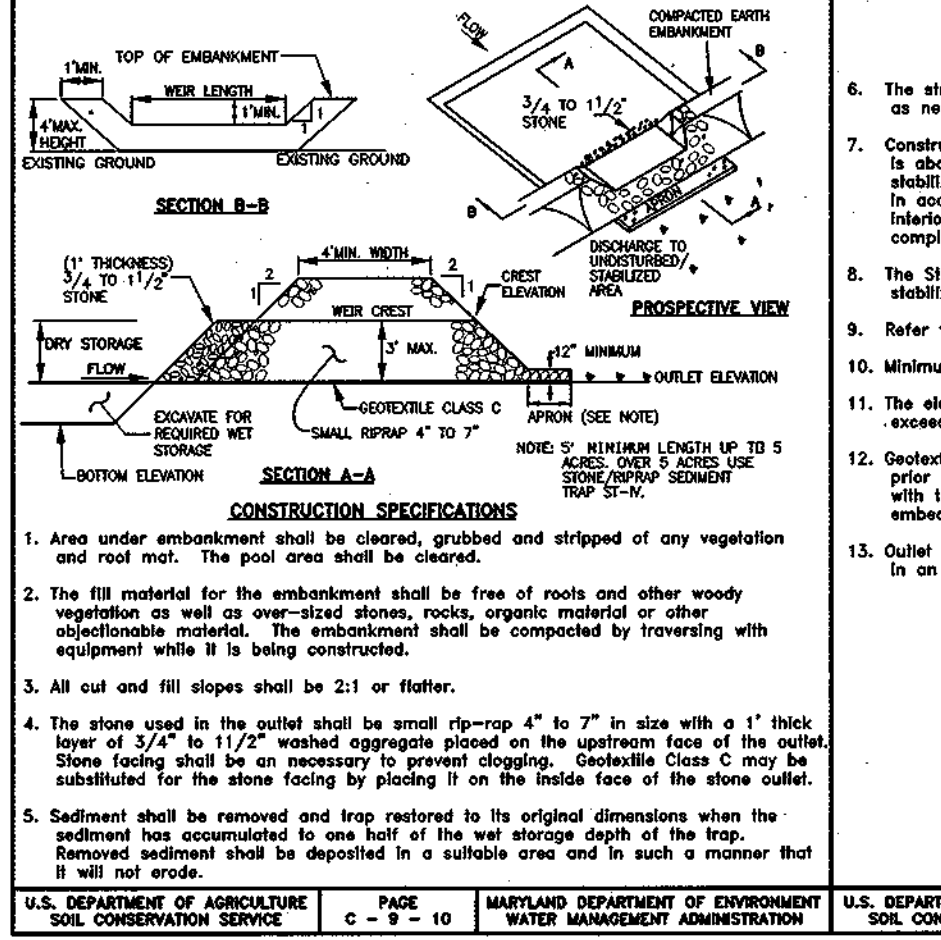
**TEMPORARY SEEDBED PREPARATIONS**

- APPLY TO GRADED OR CLEARED AREAS LIKELY TO BE REDISTURBED WHERE A SHORT-TERM VEGETATIVE COVER IS NEEDED.
- SEEDBED PREPARATION: LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISCING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING, IF NOT PREVIOUSLY LOOSENED.
- SOIL AMENDMENTS: APPLY 600 LBS PER ACRE 10-10-10 FERTILIZER (14 LBS/1000 SQ FT).
- SEEDING: FOR PERIOD MARCH 1 THROUGH APRIL 30 AND FROM AUGUST 15 THROUGH NOVEMBER 15, SEED WITH 2-1/2 BUSHELS PER ACRE OF ANNUAL RYE (3.2 LBS/1000 SQ FT). FOR THE PERIOD MAY 1 THROUGH AUGUST 14, SEED WITH 3 LBS PER ACRE OF WHEATING LOVEGRASS (0.7 LBS/1000 SQ FT). FOR THE PERIOD NOVEMBER 16 THROUGH FEBRUARY 28, PROTECT SITE BY APPLYING 2 TONS PER ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING, OR USE SOO.
- 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 216 GALLONS PER ACRE (5 GAL/1000 SQ FT) OF EMULSIFIED ASPHALT ON FLAT AREAS, ON SLOPES, 8 FT OR HIGHER, USE 348 GALLONS PER ACRE (8 GAL/1000 SQ FT) FOR ANCHORING.
- REFER TO THE 1984 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR RATE AND METHODS NOT COVERED.

**PERMANENT SEEDBED PREPARATIONS**

- SEEDBED PREPARATION: LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISCING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING, IF NOT PREVIOUSLY LOOSENED.
- SOIL AMENDMENTS: IN LIEU OF SOIL TEST RECOMMENDATIONS, USE ONE OF THE FOLLOWING SCHEDULES:
- PREFERRED - APPLY 2 TONS PER ACRE DOLOMITIC LIMESTONE (92 LBS/1000 SQ FT) AND 600 LBS PER ACRE 10-10-10 FERTILIZER (14 LBS/1000 SQ FT) BEFORE SEEDING. HARROW OR DISC INTO UPPER THREE INCHES OF SOIL AT TIME OF SEEDING. APPLY 400 LBS PER ACRE 30-0-0-0 UREAFORM FERTILIZER (9 LBS/1000 SQ FT).
  - ACCEPTABLE - APPLY 2 TONS PER ACRE DOLOMITIC LIMESTONE (92 LBS/1000 SQ FT) AND 1000 LBS PER ACRE 10-10-10 FERTILIZER (23 LBS/1000 SQ FT) BEFORE SEEDING. HARROW OR DISC INTO UPPER THREE INCHES OF SOIL.
- SEEDING: FOR THE PERIODS MARCH 1 THROUGH APRIL 30 AND AUGUST 1 THROUGH OCTOBER 15, SEED WITH 60 LBS PER ACRE (1.4 LBS/1000 SQ FT) OF KENTUCKY 31 TALL FESCUE PER ACRE AND 2 LBS PER ACRE (0.5 LBS/1000 SQ FT) OF WHEATING LOVEGRASS DURING THE PERIOD OF OCTOBER 16 THROUGH FEBRUARY 28. PROTECT SITE BY: OPTION (1) 2 TONS PER ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING. OPTION (2) USE SOO. OPTION (3) SEED WITH 60 LBS PER ACRE OF KENTUCKY 31 TALL FESCUE AND MULCH WITH 2 TONS PER ACRE OF 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 216 GALLONS PER ACRE (5 GAL/1000 SQ FT) OF EMULSIFIED ASPHALT ON FLAT AREAS, ON SLOPES 8 FEET OR HIGHER, USE 348 GALLONS PER ACRE (8 GAL/1000 SQ FT) FOR ANCHORING.
- MAINTENANCE: INSPECT ALL SEEDBED AREAS AND MAKE NEEDED REPAIRS, REPLACEMENTS AND RESEEDINGS.

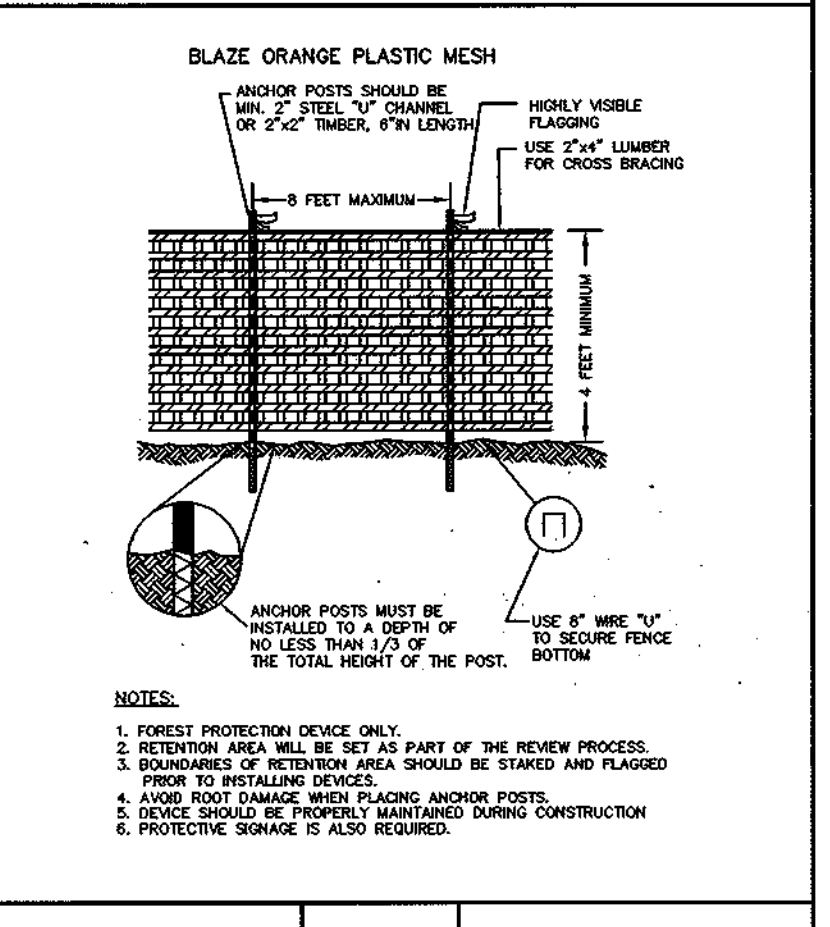
**DETAIL 9 - STONE OUTLET SEDIMENT TRAP - ST II**



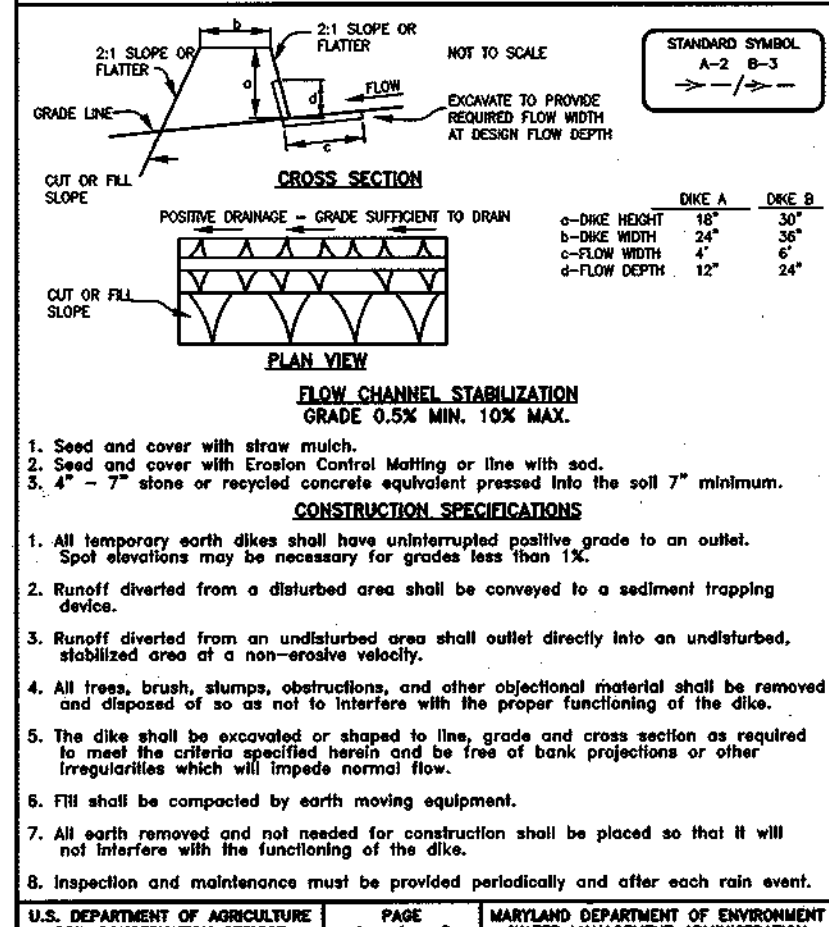
**STONE OUTLET SEDIMENT TRAP - ST II**

- CONSTRUCTION SPECIFICATIONS**
- The structure shall be inspected periodically and after each rain and repairs made as needed.
  - Construction of traps shall be carried out in such a manner that sediment pollution is avoided. Once constructed, the top and outside face of the embankment shall be stabilized with seed and mulch. Points of concentration inflow shall be protected in accordance with grade stabilization structure criteria. The remainder of the interior slopes should be stabilized (one time) with seed and mulch upon trap completion and monitored and maintained erosion free during the life of the trap.
  - The structure shall be dewatered by approved methods, removed and the area stabilized when the drainage area has been properly stabilized.
  - Refer to Section D for specifications concerning trap dewatering.
  - Minimum trap depth shall be measured from the water elevation.
  - The elevation of the top if any discharge water into the trap must equal or exceed the elevation of the trap embankment.
  - Geotextile Class C shall be placed over the bottom and sides of the outlet channel with the section nearest the entrance placed on top. The filter cloth shall be embedded at least 6" into existing ground at the entrance of the outlet channel.
  - Outlet - An outlet shall be provided, including a means of conveying the discharge in an erosion free manner to an existing stable channel.

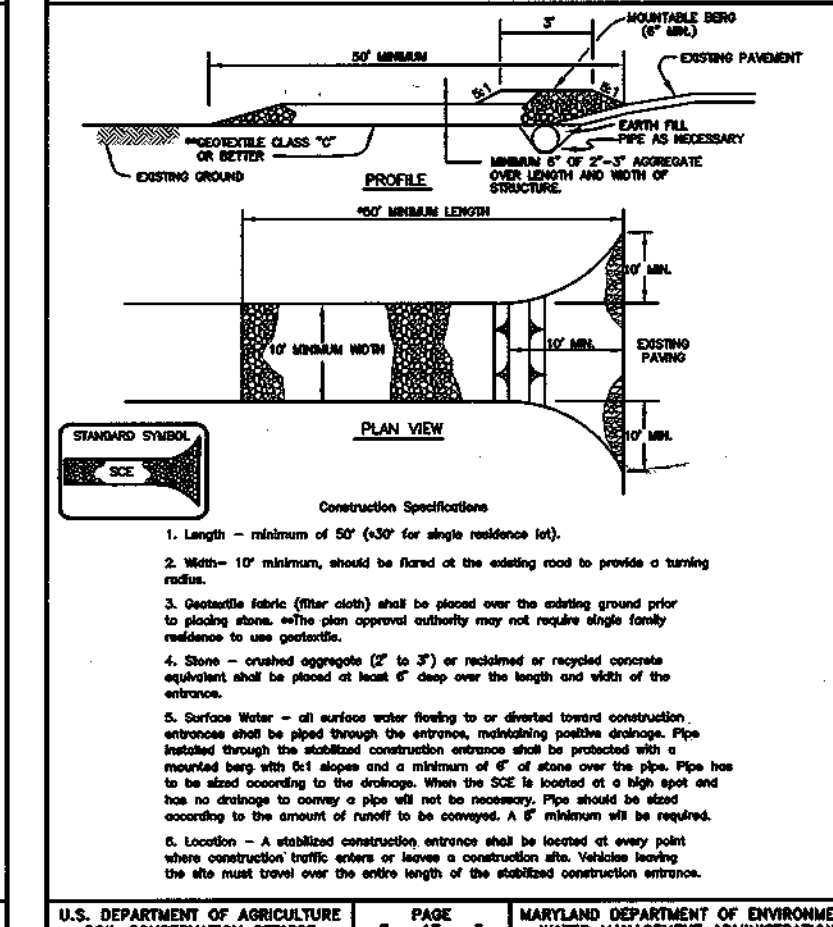
**TREE PROTECTION FENCE**



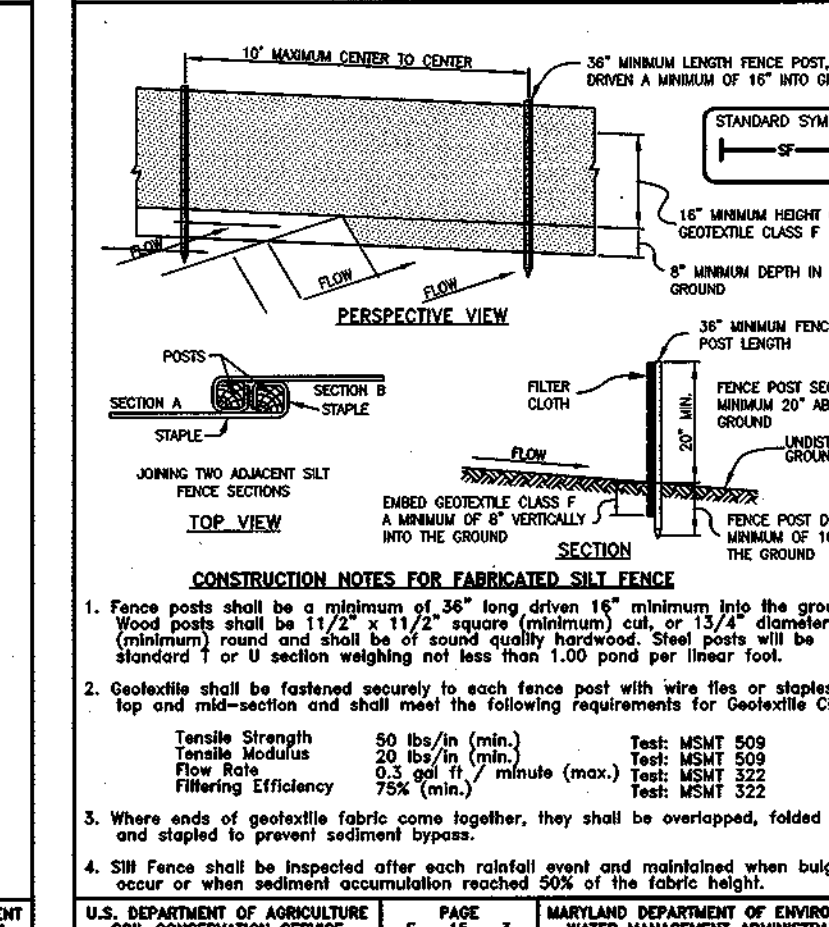
**DETAIL 1 - EARTH DIKE**



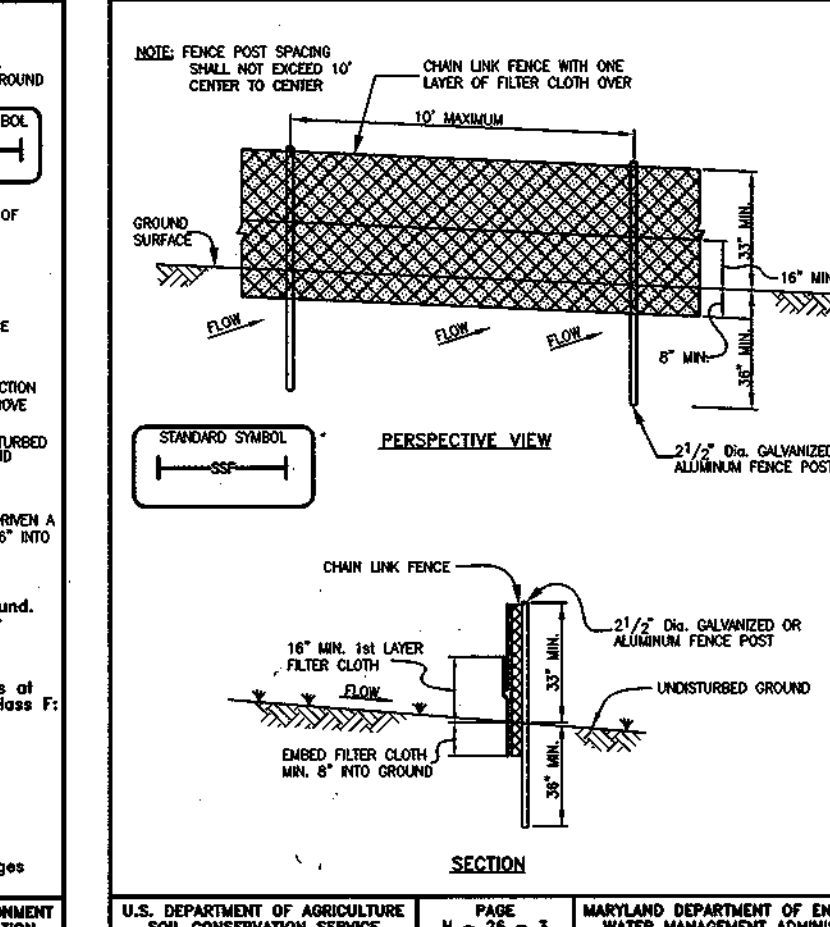
**DETAIL 24 - STABILIZED CONSTRUCTION ENTRANCE**



**DETAIL 22 - SILT FENCE**



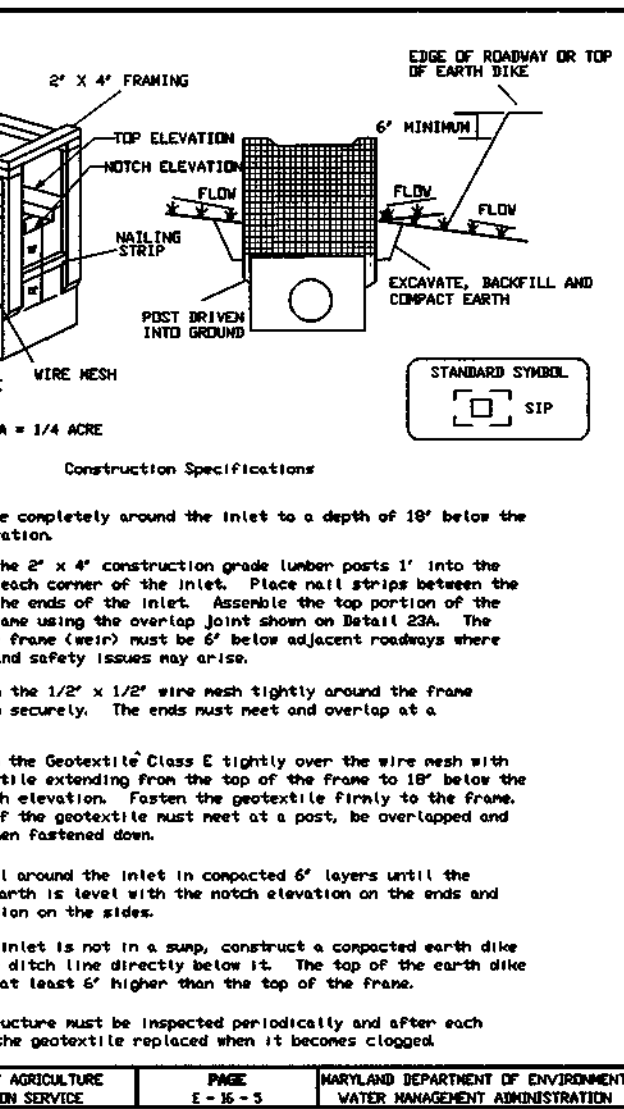
**DETAIL 33 - SUPER SILT FENCE**



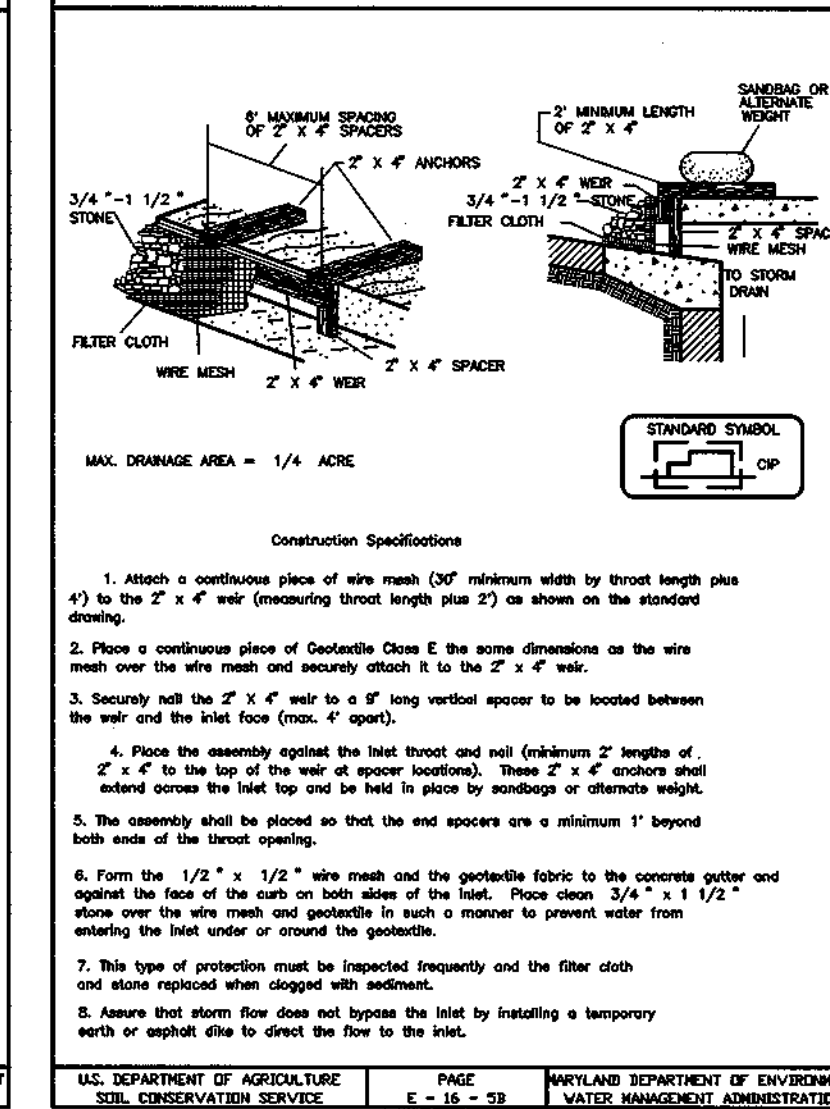
**SUPER SILT FENCE**

- CONSTRUCTION SPECIFICATIONS**
- Fencing shall be 42" in height and constructed in accordance with the latest Maryland State Highway Details for Chain Link Fencing. The specification for a 6' fence shall be used, substituting 12' fabric and 6' height.
  - Chain link fence shall be fastened securely to the fence posts with wire ties. The lower tension wire, brace and trap rods, drive anchors and post caps are not required except on the ends of the fence.
  - Filter cloth shall be fastened securely to the chain link fence with ties spaced every 24" at the top and mid section.
  - Filter cloth shall be embedded a minimum of 6" into the ground.
  - When two sections of filter cloth adjoin each other, they shall be overlapped by 6" and folded.
  - Maintenance shall be performed as needed and all bulges repaired when "bulges" develop in the filter fence, or when soil reaches 50% of fence height.
  - Filter cloth shall be fastened securely to each fence post with wire ties or staples of top and mid-section and shall meet the following requirements for Geotextile Class F:
- |                   |                   |               |
|-------------------|-------------------|---------------|
| Tensile Strength  | 50 lbs/in (min.)  | Test: MMT 509 |
| Flow Rate         | 20 lbs/in (min.)  | Test: MMT 509 |
| Filter Efficiency | 0.5 gpm/ft (min.) | Test: MMT 522 |
| Filter Efficiency | 75% (min.)        | Test: MMT 522 |
- SUPER SILT FENCE DESIGN CRITERIA**
- | Slope    | Slope Stoppers | Slope Length (Maximum) | Silt Fence Length (Minimum) |
|----------|----------------|------------------------|-----------------------------|
| 0 - 10%  | 0 - 10ft       | Unlimited              | Unlimited                   |
| 10 - 20% | 10ft - 5ft     | 200 feet               | 1,500 feet                  |
| 20 - 33% | 5ft - 3ft      | 100 feet               | 1,000 feet                  |
| 33 - 60% | 3ft - 2ft      | 100 feet               | 500 feet                    |
| 60% +    | 2ft +          | 50 feet                | 250 feet                    |

**DETAIL 23A - STANDARD INLET PROTECTION**



**DETAIL 23C - CURB INLET PROTECTION (CGG OR CDS INLETS)**



NO.	DATE	REVISION

**BENCHMARK ENGINEERS & LAND SURVEYORS & PLANNERS, INC.**  
 8480 BALTIMORE NATIONAL PIKE & SUITE 418  
 ELLICOTT CITY, MARYLAND 21043  
 phone: 410-465-6105 A fax: 410-465-6644  
 email: Benchmark@bcis.com

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**LOCATION:** TAX MAP: 50 P/O PARCEL: 426  
 GRID: 3 ZONED: R-3C  
 6th ELECTION DISTRICT  
 HOWARD COUNTY, MARYLAND

**TITLE:** SEDIMENT AND EROSION CONTROL NOTES AND DETAILS AND TRAFFIC CONTROL PLAN

**DATE:** MAY, 2003 **PROJECT NO.:** 1515

**DESIGN:** DBT **DRAFT:** DBT **CHECK:** CAM **SCALE:** AS SHOWN **SHEET:** 13 OF 13

**ENGINEER'S CERTIFICATE**  
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 Donald Mason  
 ENGINEER - DONALD A. MASON, P.E. # 21443  
 4/29/03 DATE

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 I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT FOR SEDIMENT AND EROSION CONTROL, AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD COUNTY CONSERVATION DISTRICT.  
 D O By  
 DEVELOPER  
 4/29/03 DATE

REVIEWED FOR HOWARD SCD AND MEETS TECHNICAL REQUIREMENTS  
 Jim Meyer  
 USA - NATURAL RESOURCES CONSERVATION SERVICE  
 7-1-03 DATE

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD COUNTY CONSERVATION DISTRICT.  
 Jim Meyer  
 HOWARD SCD  
 7-1-03 DATE

APPROVED: DEPARTMENT OF PUBLIC WORKS  
 With 2 mod. 7-1-03  
 CHIEF, BUREAU OF HIGHWAYS DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
 Cindy Hamilton  
 CHIEF, DIVISION OF LAND DEVELOPMENT 7/14/03 DATE  
 7/15/03 DATE