

# COLUMBIA GATEWAY PARCEL 'T-20' SITE DEVELOPMENT PLAN

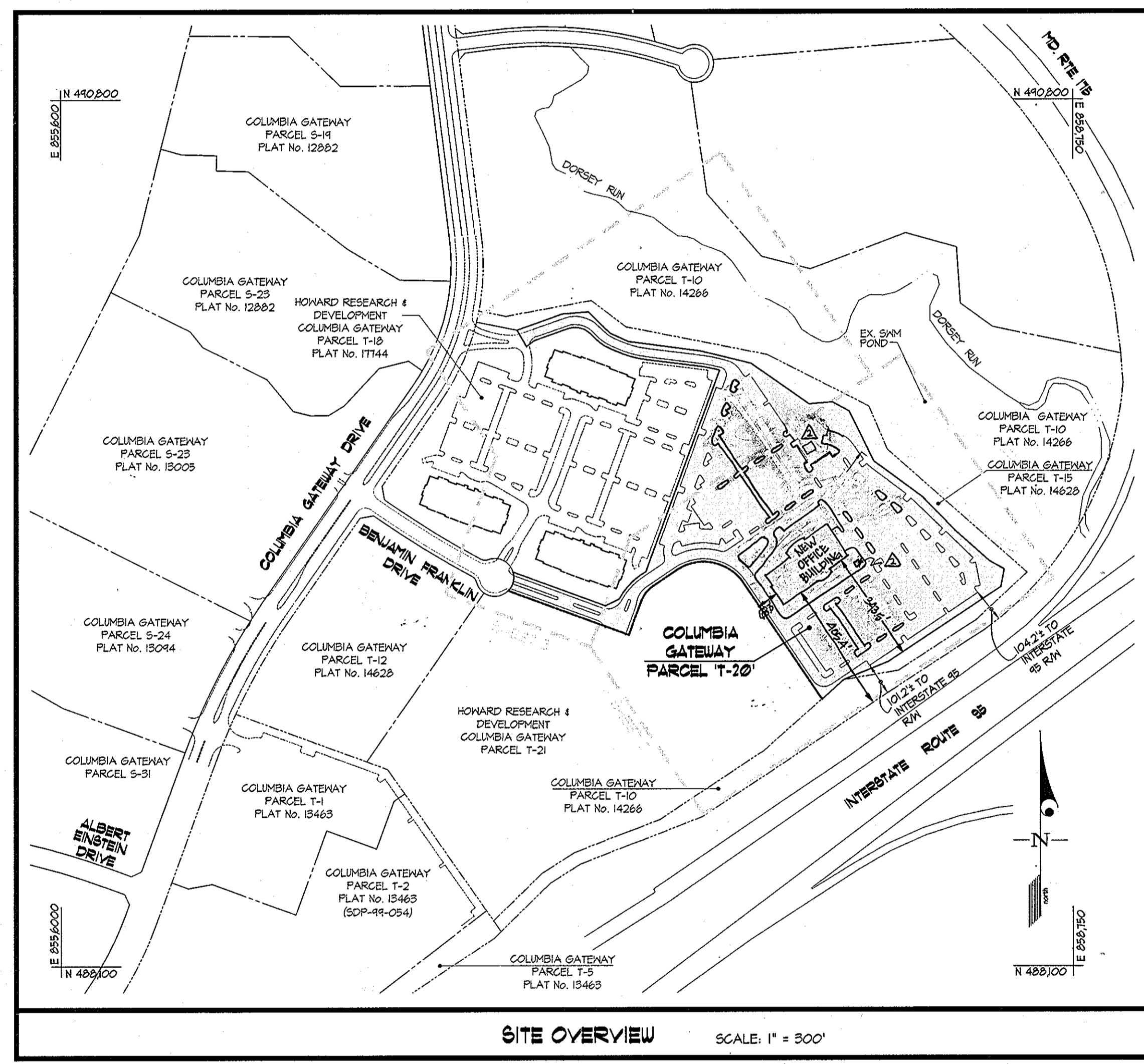
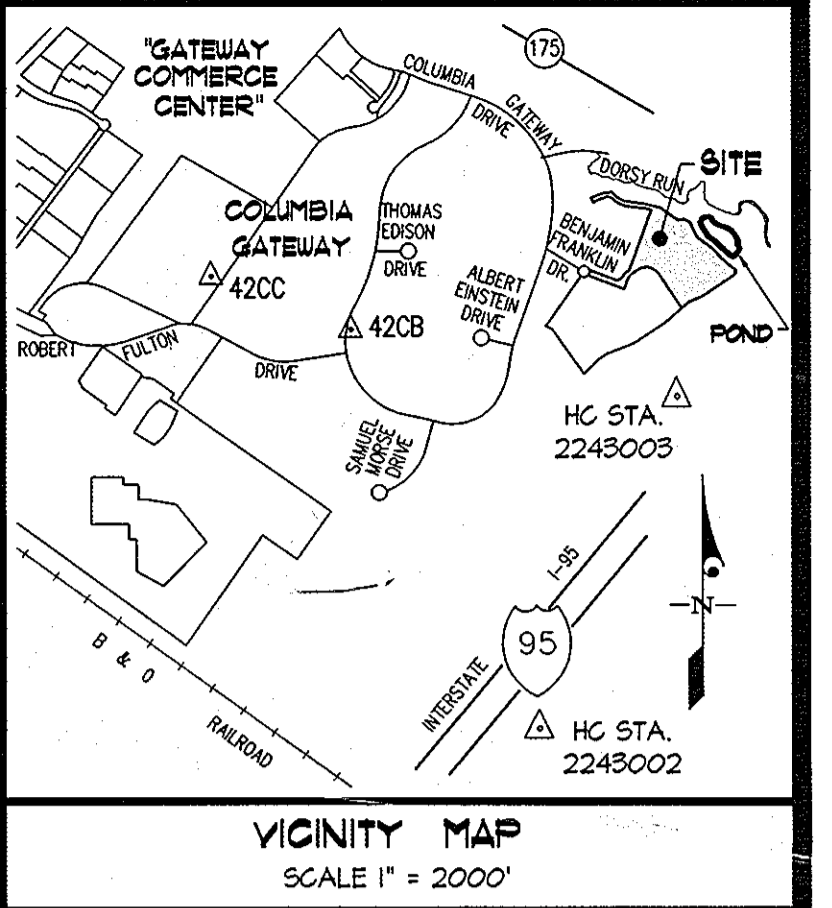
## SIXTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

**GENERAL NOTES**

1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY PLUS MEHA STANDARDS AND SPECIFICATIONS IF APPLICABLE.
2. THE CONTRACTOR SHALL NOTIFY THE BUREAU OF ENGINEERING/CONSTRUCTION INSPECTION DIVISION AT (410) 513-1880 AT LEAST FIVE (5) WORKING DAYS PRIOR TO START OF WORK.
3. THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-TITI AT LEAST 48-HOURS PRIOR TO ANY EXCAVATION WORK.
4. PROJECT BACKGROUND:  
LOCATION: TAX MAP 31, GRID 2  
ZONING: M-1  
ELECTION DISTRICT: 6TH DISTRICT  
SECTION/AREA: N/A  
SITE AREA: 14,9640 AC. (PARCEL T-20)  
DEPT. OF PLANNING & ZONING APPROVED FILE NUMBERS FOR REFERENCES:  
P-86-22, S-84-44, S-85-28, HP-88-41, VP-84-150, VP-85-34, VP-85-35, VP-86-61,  
VP-86-75, VP-86-119, F-86-127, F-86-182, F-87-63, F-87-125, F-91-81, F-91-91, F-00-152,  
F-06-091 (PLAT 17744) AND F-07-016 (PLAT 18666-67)
5. TRAFFIC CONTROL DEVICES, MARKINGS, AND SIGNING SHALL BE IN ACCORDANCE WITH THE LATEST 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.
6. ALL PLAN DIMENSIONS ARE TO THE FACE OF CURB OR FACE OF BUILDING UNLESS OTHERWISE NOTED. DIMENSIONS ARE MEASURED PERPENDICULAR OF RADIALLY BETWEEN ITEMS UNLESS OTHERWISE NOTED.
7. EXISTING TOPOGRAPHY AND FEATURES WERE DERIVED FROM AVAILABLE PUBLIC RECORDS (P-00-152). THIS SITE HAS MASS GRADED UNDER F-00-152.
8. COORDINATES ARE BASED ON HOWARD COUNTY GEODETIC CONTROL STA. NO. 42CC AND 42CC. THE VERTICAL DATUM IS IN NVD21.
9. THIS SITE WILL BE SERVED BY PUBLIC WATER & SEWER UNDER THE EXISTING CONTRACT #24-3914-D AND #24-4362-D AND THE ON-SITE PUBLIC WATER & SEWER EXTENSION UNDER CONTRACT #24-4361-D TO BE CONSTRUCTED UNDER A DEVELOPER'S AGREEMENT PER THIS SDP.
10. STORMWATER MANAGEMENT (FOR 2 & 10 YR QUANTITY & QUALITY) IS PROVIDED BY THE SHM FACILITY CONSTRUCTED UNDER F-00-152, ON PARCELS T-10 AND T-15. TEMPORARY SHM FOR NEWLY GRADED LAND IS PROVIDED IN THE SAME POND (F-00-152)
11. ALL ON-SITE STORM DRAINS PROPOSED UNDER THIS SDP ARE PRIVATE.
12. THE EXISTING UTILITIES SHOWN HEREIN WERE DERIVED FROM AVAILABLE PUBLIC RECORDS. THE CONTRACTOR MUST HAND DIG TEST PITS AT ALL UTILITY CROSSINGS AND CONNECTION POINTS TO VERIFY EXACT LOCATION.
13. ALL PROPOSED RAMPS SHALL BE IN ACCORDANCE WITH CURRENT A.D.A. STANDARDS. MAXIMUM SIDEWALK GROSS SLOPE SHALL BE (2%) TWO PERCENT. PROVIDE A MINIMUM OF (5.5) FIVE BY FIVE FOOT LEVEL LANDINGS (2% MAX.) AT THE TOP AND BOTTOM OF ALL RAMPS AND BUILDING INGRESS/EGRESS POINTS.
14. ALL ON-SITE PAVING AND ROADWAYS ARE PRIVATELY OWNED AND MAINTAINED.
15. ANY DAMAGE TO COUNTY OWNED RIGHT-OF-WAY TO BE CORRECTED AT THE CONTRACTOR'S EXPENSE.
16. TRENCH BEDDING FOR STORM DRAINAGE STRUCTURES SHALL BE IN ACCORDANCE WITH HOWARD COUNTY STANDARD 62.01. CLASS "C" BEDDING, UNLESS OTHERWISE NOTED.
17. GUTTER PAN OF CURBS SHALL BE FITTED TO CONFORM TO THE ADJACENT DRAINAGE PATTERN OF THE ADJOINING PAVING FOR VEHICULAR USE. FOR PAVING AND CURB DESIGNATION SEE SHEET 4.
18. ALL CURB FILLETS ARE 5' RADIUS UNLESS NOTED OTHERWISE. SPOT ELEVATIONS ALONG CURB LINE ARE FOR THE FLOW LINE (BOTTOM OF CURB), UNLESS NOTED OTHERWISE.
19. THERE ARE NO KNOWN GRAVE SITES OR CEMETERIES ON THIS SITE.
20. OTHER TOPICS RELATED TO THIS SITE:  
- TRAFFIC ANALYSIS PREPARED BY NELLS & ASSOCIATES, LLC. (DATED 12/09/05 AND 3/16/06)
21. ALL OUTSIDE LIGHTING SHALL COMPLY WITH ZONING REGULATION SECTION 154 WHICH REQUIRES LIGHTS TO BE INSTALLED TO DIRECT/REFLECT LIGHT DOWNWARDS AND INWARDS ON SITE AWAY FROM ALL ADJOINING PUBLIC STREETS AND RESIDENTIAL AREAS. SEE ELECTRICAL DRAWINGS WHICH IS PART OF THE ARCHITECTURAL PLAN SET SUBMITTED FOR BUILDING PERMIT REVIEW.
22. THE BUILDING SHALL HAVE AN INSIDE WATER METER SETTING AND IT SHALL BE EQUIPPED WITH AN AUTOMATIC FIRE PREVENTION SPRINKLER SYSTEM.
23. SEE ARCHITECTURAL DRAWINGS FOR DETAILS OF MASONRY DUMPSTER ENCLOSURES & LOADING DOCK/SERVICE AREA.
24. THIS SDP IS EXEMPT FROM THE FOREST CONSERVATION ORDINANCE IN ACCORDANCE WITH SECTION 16.1202(B)(IV), A PLANNED OFFICE PARK.
25. NO CLEARING, GRADING OR CONSTRUCTION IS PERMITTED WITHIN A WETLAND, WETLAND BUFFER, STREAM BUFFER OR FLOODPLAIN.
26. LANDSCAPE SURETY IN THE AMOUNT OF \$10,000.00 IS POSTED AS PART OF THE DEVELOPER'S AGREEMENT FOR THIS SDP. FOR INFORMATION ON THE REQUIRED LANDSCAPE PLANTING AND ASSOCIATED SURETY, SEE SHEETS 1 & 2.

**HOWARD COUNTY CONTROL**

	NAD21 HORIZONTAL DATA & NVD21 VERTICAL DATA	NAD83 HORIZONTAL DATA
42CB	N 488571.4 E 859408.9 ELV.=336.146	N 549320.8174 E 1366321.2652 ELV.=335.484
42CC	N 484127.3 E 852454.6 ELV.=346.707	N 549416.1555 E 1364873.0106 ELV.=345.999



**SITE ANALYSIS DATA CHART**

1. GENERAL SITE DATA
  - A. PRESENT ZONING: M-1
  - B. PROPOSED USE OF SITE OR STRUCTURES: GENERAL OFFICE
  - C. SEE GENERAL NOTE #4 FOR APPLICABLE DPZ FILE NUMBERS.
2. AREA TABULATION
  - A. TOTAL PROJECT AREA: 14,9640 ACRES (AREA OF PARCEL T-20)
  - B. AREA OF THIS PLAN SUBMISSION: 16.12 ACRES (L.O.D.)
  - C. LIMIT OF DISTURBED AREA BY THIS SDP: 16.12 ACRES
  - D. BUILDING AREA (GFA): 210,600 S.F. TOTAL FOR A 7 STORY OFFICE BUILDING  
30,200 S.F. (1-2) + 24,781 S.F. (EACH FLOOR 4-7) = 209,728 S.F. ACTIVITY SHELTER - 600 S.F.  
SMOKING SHELTER - 275 S.F.
  - E. BUILDING COVERAGE OF SITE: 0.712 ACRES OR 4.76% OF PARCEL T-20 SITE AREA 875 S.F.
  - F. TOTAL PAVED SURFACES (PARKING, DRIVEWAYS, SIDEWALKS, SERVICE AREA, ETC.): 9,162 AC. (61.3% OF SITE)
3. OPEN SPACE DATA
  - A. OPEN SPACE REQUIRED ON SITE: N/A
  - B. OPEN SPACE PROPOSED: N/A
4. PARKING SPACE DATA
  - A. REQUIRED PARKING PER ZONING REGULATIONS SEC. 133D.3.A.  
(GENERAL OFFICE USES\* AT 3.3 SPACES PER 1000 S.F.):  
209,728 x 3.3 = 693 SPACES MINIMUM
  - B. THE TOTAL NUMBER OF PARKING SPACES PROVIDED IS 988 OF WHICH 20 ARE ACCESSIBLE SPACES (OR 2% OF THE TOTAL). THE PARKING SPACES PROVIDED ARE:  
988 = 918' STANDARD PARKING SPACES  
15' REGULAR ACCESSIBLE SPACES  
5' DESIGNATED VAN ACCESSIBLE SPACES  
988 TOTAL PARKING SPACES

**SHEET INDEX**

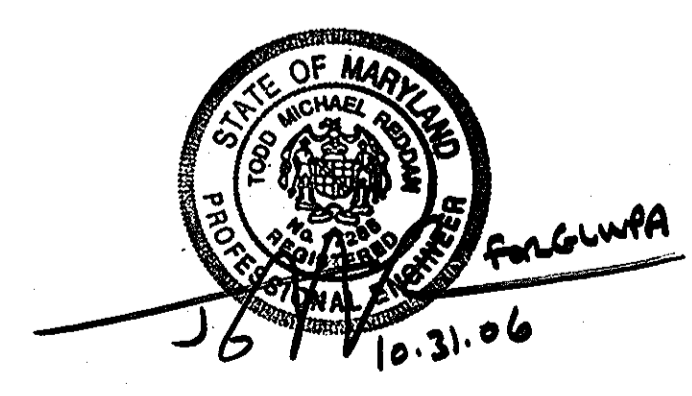
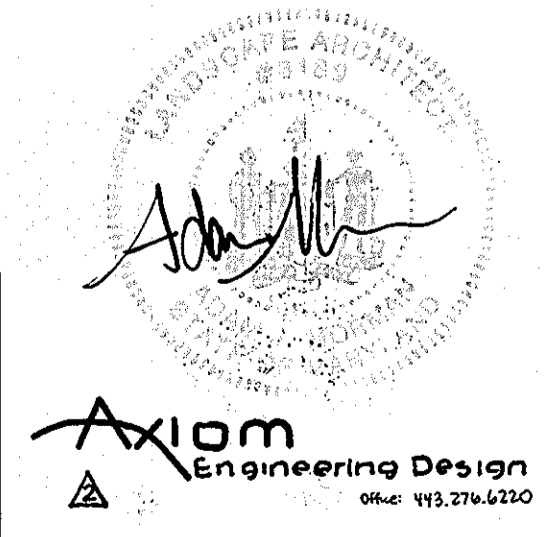
- 1 COVER SHEET
- 2 SITE DEVELOPMENT PLAN
- 3 SITE DEVELOPMENT PLAN
- 4 CURB AND PAVING DELINEATION PLAN
- 5 SITE DETAILS
- 6 STORM DRAIN PROFILES
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- 14 SITE AND LANDSCAPE DETAILS & NOTES
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APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

*Rasha de'Veleth* 2/1/07  
Director Date

*Charles H. Harts* 1/30/07  
Chief, Division of Land Development Date

*Michael J. ...* 12/1/06  
Chief, Development Engineering Division Date



ADDRESS CHART

STREET ADDRESS	
6821 BENJAMIN FRANKLIN DRIVE	

WATER CODE: E06	SEWER CODE: 3380000
PROJ. NAME: COLUMBIA GATEWAY PARCEL T-20	SECTION/AREA: N/A
PLAT: 17744 & 18666-67	ZONE: M-1
	TAX MAP BLOCK: 43
	ELEC. DIST.: 2
	CENSUS TRACT: 6081029

**GLWGUTSCHICK LITTLE & WEBBER, P.A.**  
CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS  
3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK  
BURTONSVILLE, MARYLAND 20868  
TEL: 301-421-4024 BALT: 410-889-1820 DC/VA: 301-989-2524 FAX: 301-421-4186

DATE	REVISION	BY	APPR.
5/7/07	REVISED BUILDING FOOTPRINT AND ADJACENT PARKING LOT CONFIGURATION		cc1
8/3/11	REVISED PARKING LOT CONFIGURATION & ADD ACCESSORY STRUCTURES		AXIOM
	ACTIVITY SHELTER & SMOKING SHELTER - REVISED SITE DEVELOPMENT PLAN		

PREPARED FOR:  
OWNER/DEVELOPER  
THE HOWARD RESEARCH & DEVELOPMENT CORP.  
10275 LITTLE PATIENT PARKWAY  
COLUMBIA, MD 21044  
Phone: 410-592-6027  
Attn: PAUL CAVANAUGH

COVER SHEET

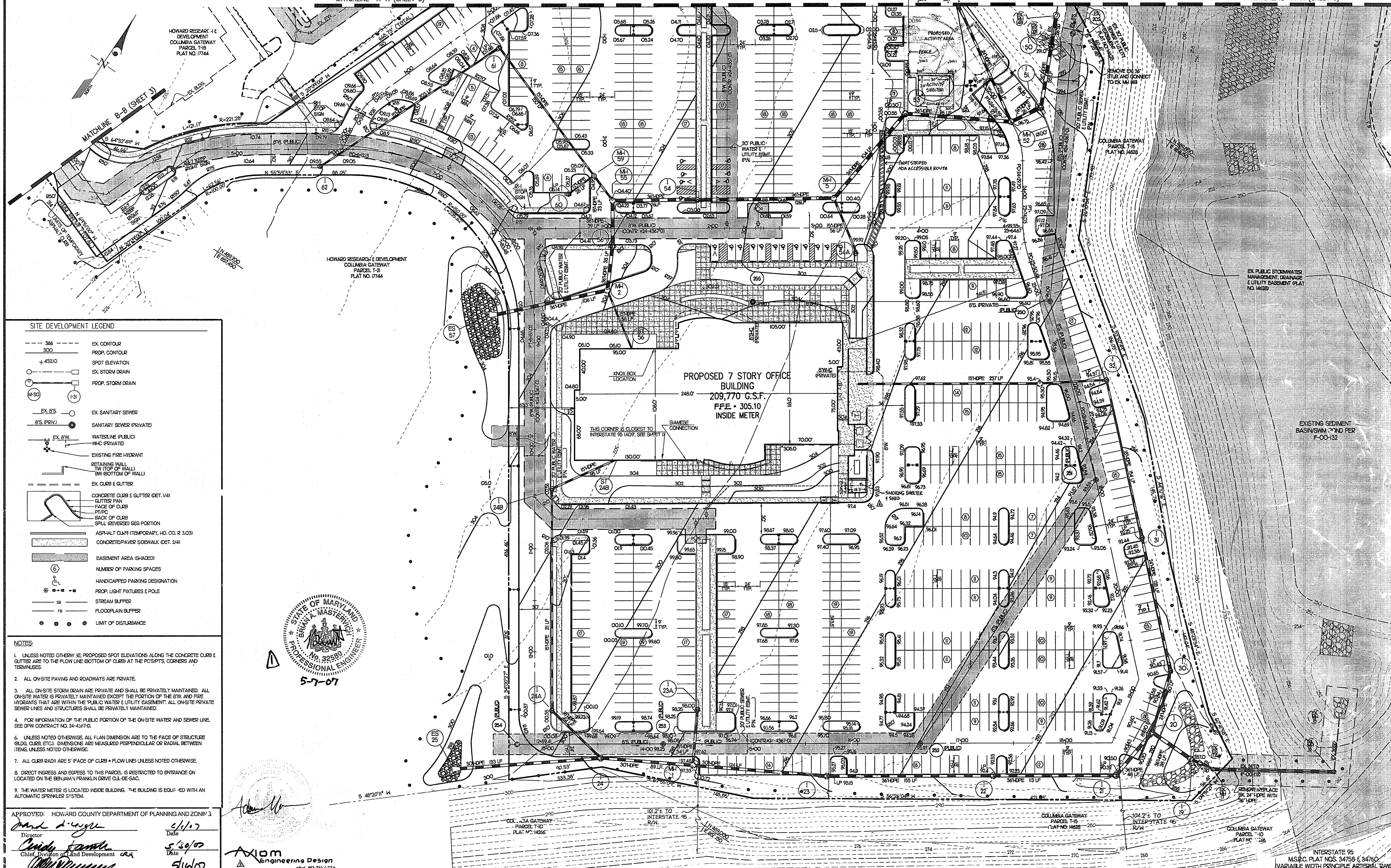
**COLUMBIA GATEWAY  
PARCEL T-20'**

PLAT No. 17744 & 18666-67

SCALE: AS SHOWN	ZONING: M-1	G. L. W. FILE No.: 05-105
DATE: OCTOBER, 2006	TAX MAP - GRID: 43 2	SHEET: 1 OF 16

HOWARD COUNTY, MARYLAND

ELECTION DISTRICT No. 6	SDP-06-075
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SITE DEVELOPMENT LEGEND

- 366 --- EX. CONTOUR
- 300 --- PROP. CONTOUR
- + 4.5210 SPOT ELEVATION
- EX. STORM DRAIN
- PROP. STORM DRAIN
- EX. S.S.
- EX. SANITARY SEWER
- S.S. (PRIVATE)
- SANITARY SEWER (PRIVATE)
- EX. B.W.
- WATERLINE (PUBLIC)
- W.C. (PRIVATE)
- EXISTING FIRE HYDRANT
- RETAINING WALL (TOP OF WALL)
- BW (BOTTOM OF WALL)
- EX. CURB & GUTTER
- CONCRETE CURB & GUTTER (DET. 1/4)
- GUTTER PAN
- FACE OF CURB
- P/T/P
- BACK OF CURB
- SPILL (REVERSED) G/S PORTION
- ASPHALT CURB (TEMPORARY, I.O. CO. R 3.03)
- CONCRETE/PAVER SIDEWALK (DET. 2/4)
- EASEMENT AREA (SHADED)
- (6)
- NUMBER OF PARKING SPACES
- HANDICAPPED PARKING DESIGNATION
- PROP. LIGHT FIXTURES & POLE
- SB
- STREAM BUFFER
- FB
- FLOODPLAIN BUFFER
- ● ● ● ●
- LIMIT OF DISTURBANCE

- NOTES:
- UNLESS NOTED OTHERWISE, PROPOSED SPOT ELEVATIONS ALONG THE CONCRETE CURB & GUTTER ARE TO THE FLOW LINE (BOTTOM OF CURB) AT THE POSPTS, CORNERS AND TERMINUSES.
  - ALL ON-SITE PAVING AND ROADWAYS ARE PRIVATE.
  - ALL ON-SITE STORM DRAIN ARE PRIVATE AND SHALL BE PRIVATELY MAINTAINED. ALL ON-SITE WATER IS PRIVATELY MAINTAINED EXCEPT THE PORTION OF THE S.W. AND FIRE HYDRANTS THAT ARE WITHIN THE PUBLIC WATER & UTILITY EASEMENT. ALL ON-SITE PRIVATE SEWER LINES AND STRUCTURES SHALL BE PRIVATELY MAINTAINED.
  - FOR INFORMATION OF THE PUBLIC PORTION OF THE ON-SITE WATER AND SEWER LINE, SEE DPW CONTRACT NO. 24-4567D.
  - UNLESS NOTED OTHERWISE, ALL FLAN DIMENSION ARE TO THE FACE OF STRUCTURE (BLDG, CURB, ETC). DIMENSIONS ARE MEASURED PERPENDICULAR OR RADIAL BETWEEN ITEMS, UNLESS NOTED OTHERWISE.
  - ALL CURB RADI ARE 5' (FACE OF CURB = FLOW LINE) UNLESS NOTED OTHERWISE.
  - DIRECT INGRESS AND EGRESS TO THIS PARCEL IS RESTRICTED TO ENTRANCE ON LOCATED ON THE BENJAMIN FRANKLIN DRIVE CUL-DE-SAC.
  - THE WATER METER IS LOCATED INSIDE BUILDING. THE BUILDING IS EQUIPPED WITH AN AUTOMATIC SPRINKLER SYSTEM.



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

*Paul D. Wynn* 6/1/07  
Director Date

*Chris J. Smith* 5/30/07  
Chief, Division of Land Development Date

*William J. Williams* 5/16/07  
Chief, Development Engineering Division Date

**Axiom**  
Engineering Design  
913.276.2226

**christopher consultants**  
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7172 columbia gateway drive (suite 107) · columbia, md. 21046-2990  
410.892.8800 · fax 410.892.8893

Date	No.	Revision Description
5/7/07	1	REVISED SITE DEVELOPMENT PLAN
5/15/07	2	REVISE BUILDING FOOTPRINT & ADJACENT PARKING LOT CONFIGURATION
	3	REVISED PARKING LOT CONFIGURATION & ADJ. ACCESSORY STRUCTURES
	4	ACTIVITY SHELTER & SMOKING SHELTER - REVISE SITE DEVELOPMENT PLAN

OWNER / DEVELOPER  
THE HOWARD RESEARCH & DEVELOPMENT CORP.  
10275 LITTLE PATUXENT PARKWAY  
COLUMBIA, MD 21044  
PHONE: 410-912-6027  
ATTN: PAUL CAVANAUGH

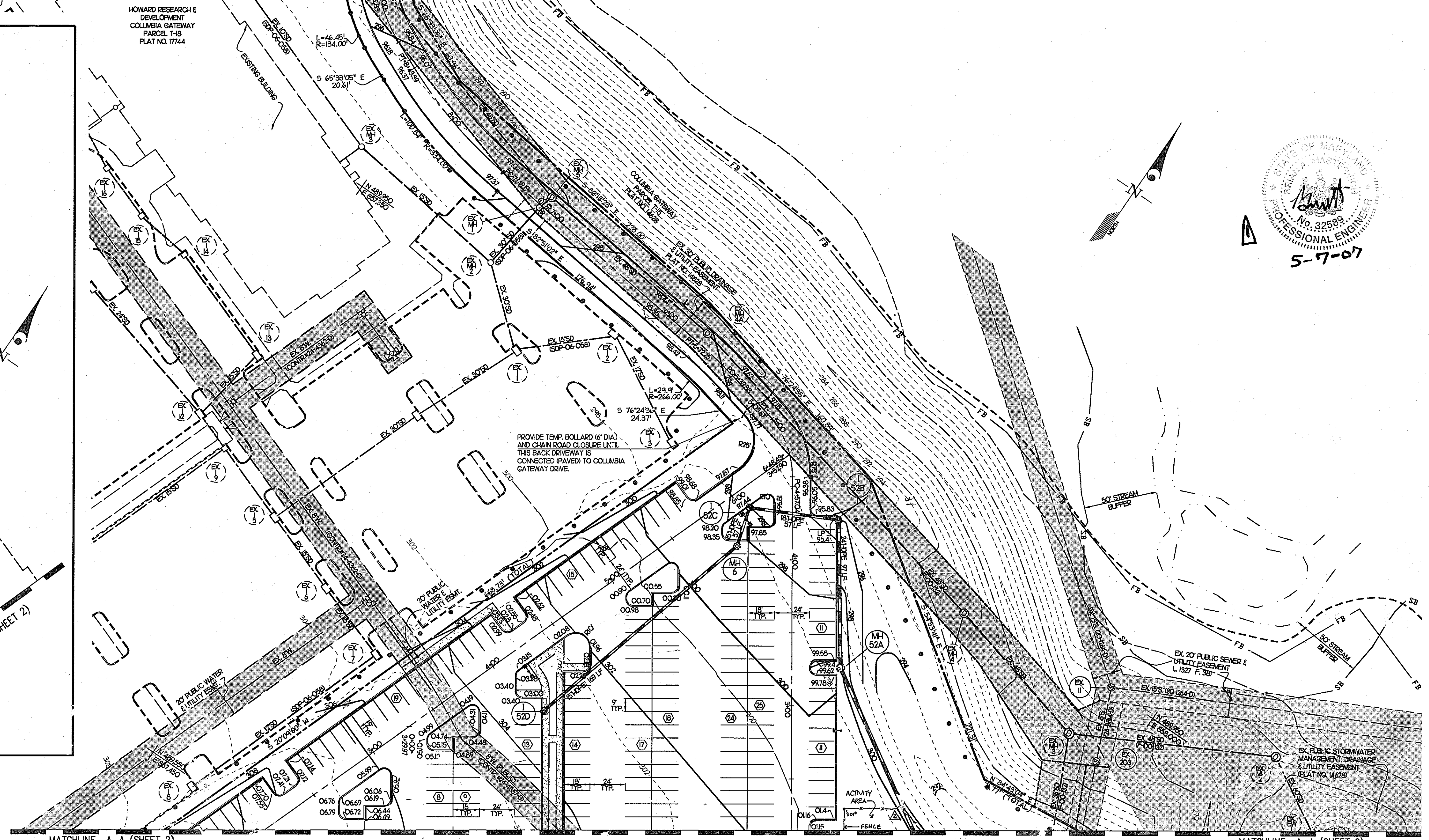
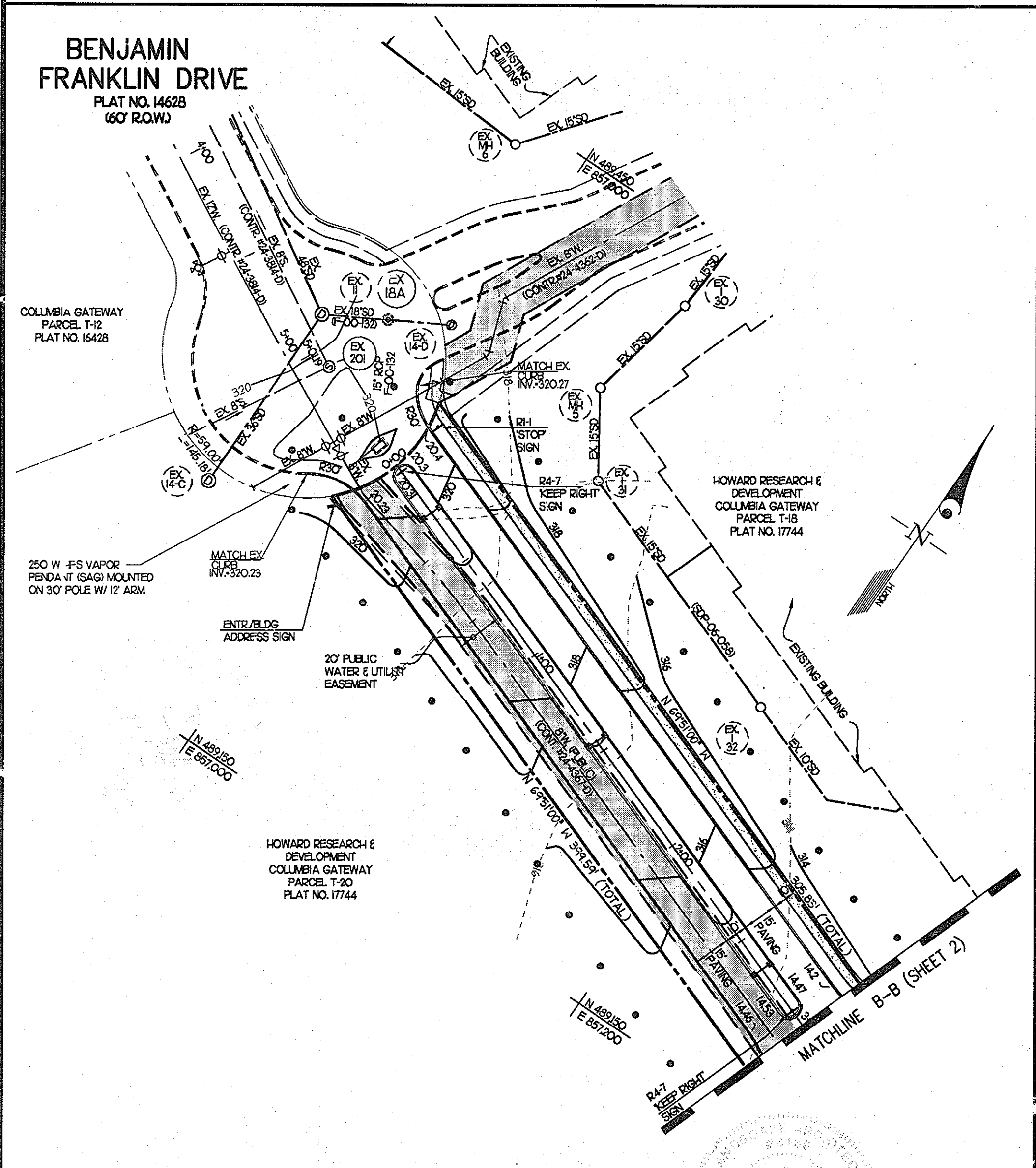
**SITE DEVELOPMENT PLAN**  
**COLUMBIA GATEWAY**  
**PARCEL T-20**  
ELECTION DISTRICT No. 6  
PLAT NO. 17744 & 18666-67  
HOWARD COUNTY, MARYLAND

SCALE:	ZONING:	CCL PROJECT NO.:
1"=40'	M-1	06F201.00
DATE:	TAX MAP- GRID	
MAY, 2007	43 2	
		2 OF 16

**COLUMBIA GATEWAY DRIVE**  
FLAT NOS. 6770 & 7540  
(60' PUBLIC R/W)

LIGHTING FIXTURE SCHEDULE				
TYPE/SYMBOL	MANUFACTURER	WATTAGE	LAMP	POLE AND FIXTURE
—	LITHONIA LIGHTING 'AERIS' AS2	400	METAL HALIDE	FULL CUT-OFF FIXTURE COLOR LIGHT GREY ON 30' POLES KW INDUSTRIES, ROUND TAPERED STEEL POLES, COLOR TO MATCH FIXTURE

**BENJAMIN FRANKLIN DRIVE**  
FLAT NO. 14628  
(60' R.O.W)



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING  
 Director: *Frank [Name]* Date: 6/1/07  
 Chief, Division of Land Development: *Condy [Name]* Date: 5/31/07  
 Chief, Development Engineering Division: *[Signature]* Date: 5/16/07

**Axiom Engineering Design**  
 3/1/13  
 OR# 919.276.0250

**christopher consultants**  
 engineering · surveying · land planning  
 christopher consultants, ltd.  
 7172 columbia gateway drive (suite 100) · columbia, md. 21046-2990  
 410.872.8882 · fax 410.872.8883

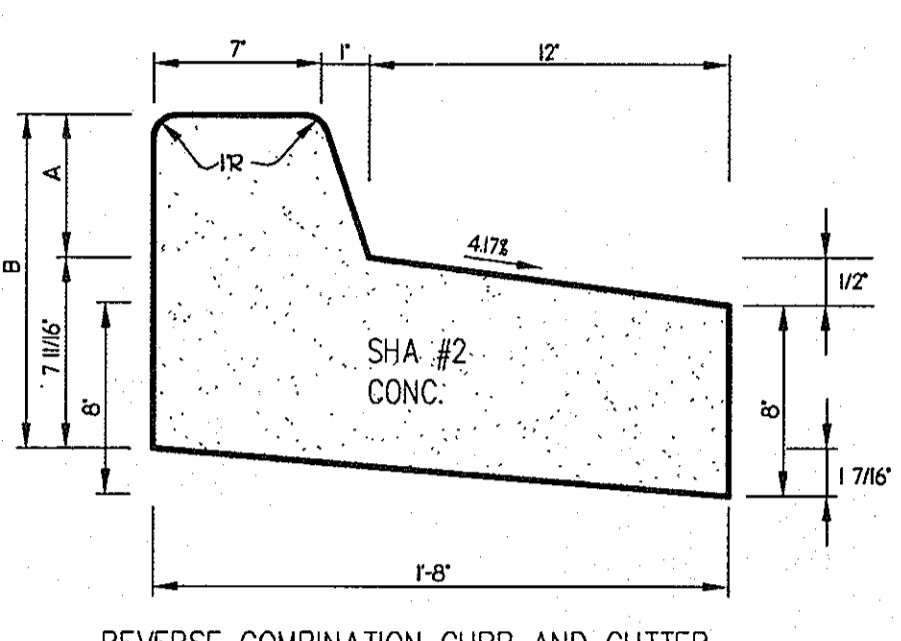
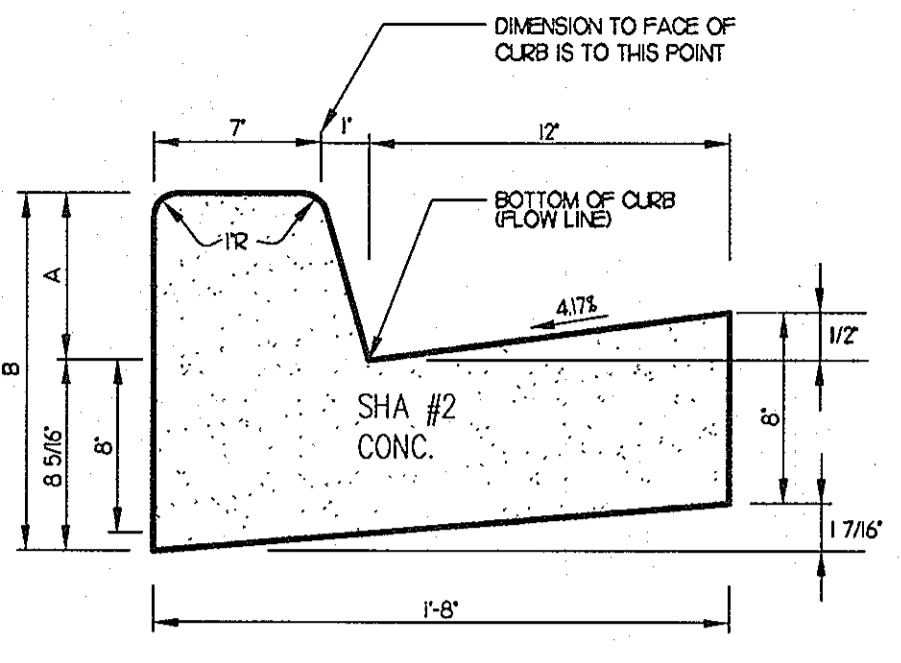
Date	No.	Revised Description
5/7/07	1	REVISED SITE DEVELOPMENT PLAN
8/3/11	2	REVISE BUILDING FOOTPRINT & ADJACENT PARKING LOT CONFIGURATION REVISE PARKING LOT CONFIGURATION & ADD ACCESSORY STRUCTURES ACTIVITY SHELTER & SMOKING SHELTER - REVISED SITE DEVELOPMENT PLAN

**OWNER / DEVELOPER**  
 THE HOWARD RESEARCH & DEVELOPMENT CORP.  
 10275 LITTLE PATENT PARKWAY  
 COLUMBIA, MD 21044  
 PHONE: 410-492-6027  
 ATTN: PAUL CAVANAUGH

**SITE DEVELOPMENT PLAN**  
**COLUMBIA GATEWAY**  
**PARCEL 'T-20'**  
 ELECTION DISTRICT No. 6  
 PLAT NO. 17744 & 18666-67  
 HOWARD COUNTY MARYLAND

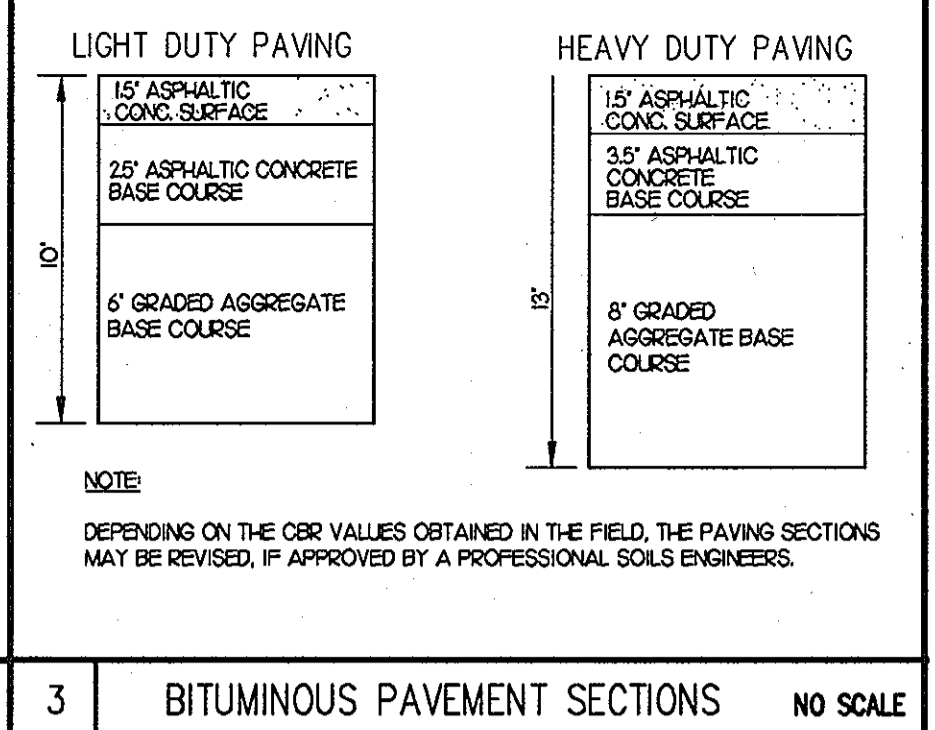
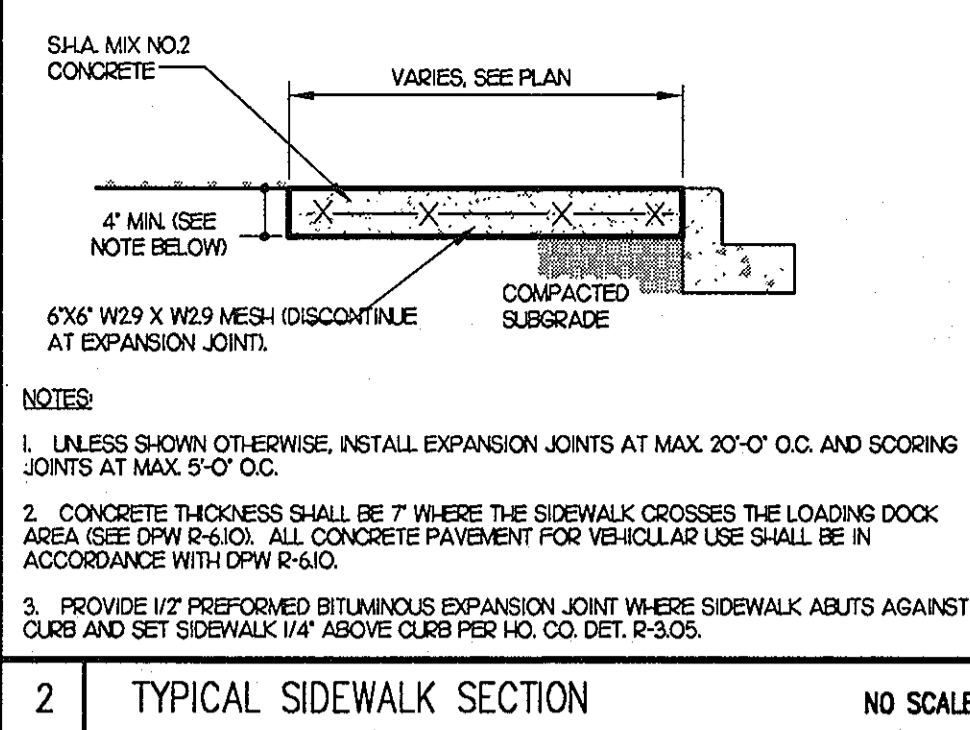
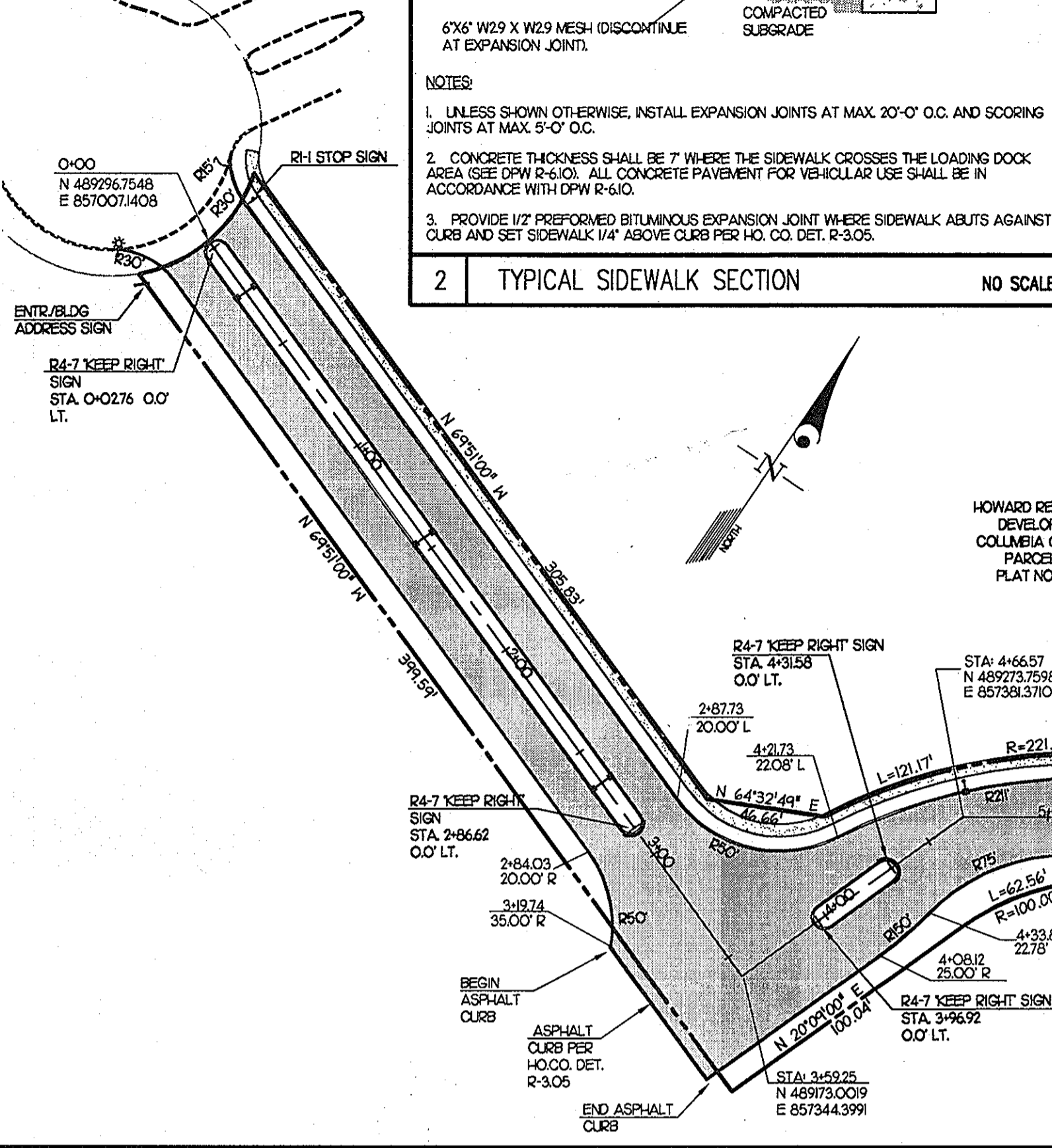
SCALE: 1" = 40'	ZONING: M-1	CCL PROJECT NO: 06F201.00
DATE: MAY, 2007	TAX MAP - GRID: 43 2	3 OF 16

CURB TYPE	A	B
6'-CURB	6'	1'-2 5/16"
7'-CURB	7 3/16"	1'-3 1/2"



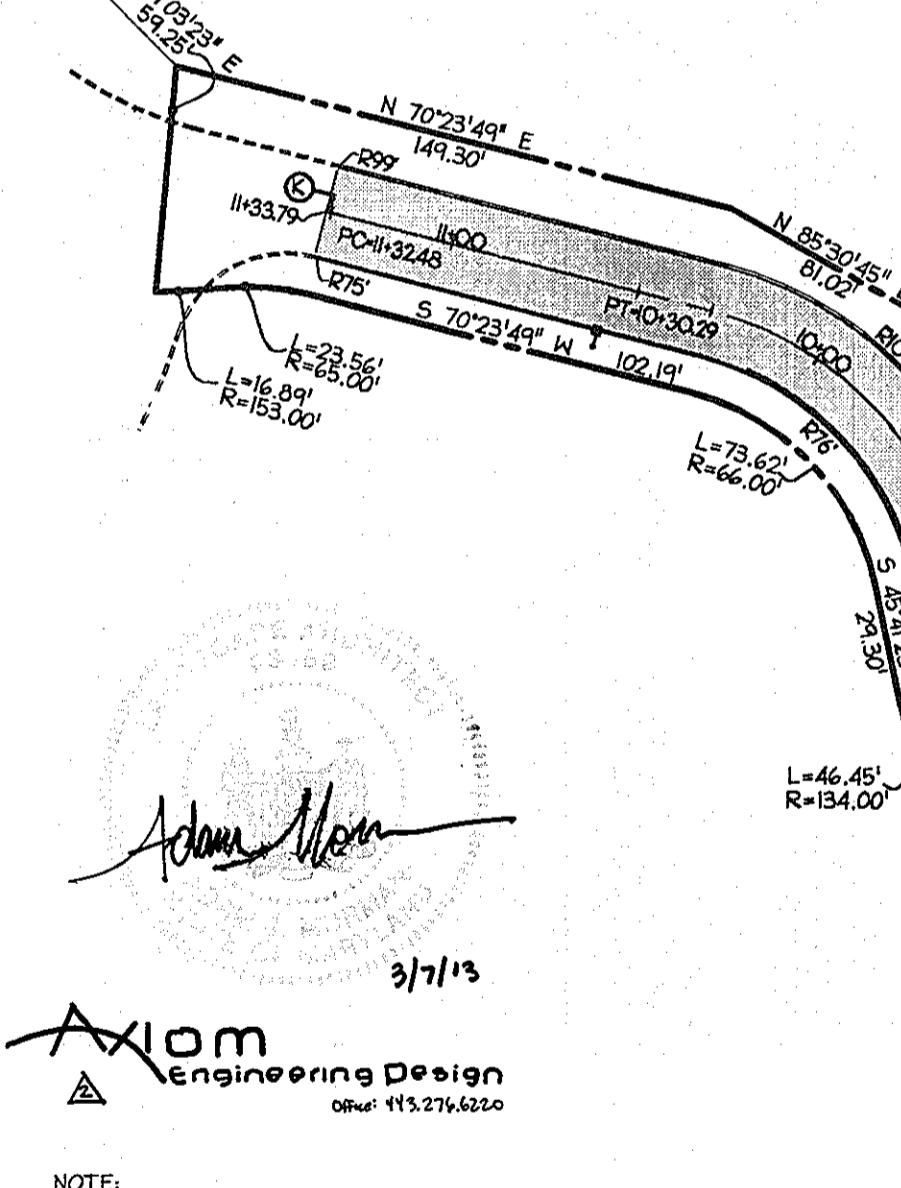
NOTES:  
 1. 50' MAX. BETWEEN EXPANSION JOINTS & 10' MAX. BETWEEN CONTROL JOINTS.  
 2. ALL ON-SITE CURBS & GUTTERS SHALL BE 6'-CURB. CURB & GUTTER IN BENJAMIN FRANKLIN DRIVE R.O.W. SHALL BE 7'-CURB.  
 3. STANDARD (A-C) CURB & GUTTER SHALL BE USED WHERE THE ADJACENT PAVEMENT SLOPES TOWARDS THE CURB & GUTTER. REVERSE (R) CURB & GUTTER SHALL BE USED WHERE THE ADJACENT PAVEMENT SLOPES AWAY FROM THE CURB & GUTTER.

**BENJAMIN FRANKLIN DRIVE**  
 PLAT NO. 14628  
 (60' R.O.W.)



**LEGEND**

- [Pattern] LIGHT DUTY PAVING (DET. 3/4, THIS SHEET)
- [Pattern] HEAVY DUTY PAVING (DET. 3/4, THIS SHEET)
- [Pattern] CONCRETE PAVING (DET. 2/4, THIS SHEET)
- [Pattern] REVERSED CURB & GUTTER (DET. 1/4, THIS SHEET)
- [Pattern] CURB & GUTTER (DET. 1/4, THIS SHEET)



CURVE	LENGTH	RADIUS	TANGENT	CHORD	BEARING	DELTA
(A)	274.84'	175.00'	247.49'	N 79°00'27" W	92°00'00"	
(B)	43.60'	130.00'	22.01'	S 43°36'54" E	181°25'31"	
(C)	46.89'	70.00'	46.02'	N 53°11'54" E	38°22'53"	
(D)	34.23'	38.00'	18.38'	S 81°40'06" W	51°37'07"	
(E)	17.91'	38.00'	9.16'	S 06°36'04" W	27°05'52"	
(F)	46.62'	63.00'	24.44'	N 59°12'31" W	42°24'09"	
(G)	32.37'	288.00'	16.20'	N 79°37'41" W	62°26'24"	
(H)	94.20'	312.00'	47.46'	S 74°12'04" E	177°17'57"	
(I)	39.89'	112.00'	19.61'	S 55°37'14" E	19°51'42"	
(J)	98.16'	88.00'	54.90'	N 77°38'47" W	63°54'48"	
(K)	1.31'	87.00'	0.65'	S 69°58'01" W	0°51'37"	

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING  
 Director: [Signature] Date: 6/1/10  
 Chief, Division of Land Development: [Signature] Date: 5/16/07  
 Chief, Development Engineering Division: [Signature] Date: 5/16/07



**CURB AND PAVING DELINEATION PLAN**  
 COLUMBIA GATEWAY  
 PARCEL 'T-20'

SCALE: 1"=50'	ZONING: M-1	CCL PROJECT NO: 06F201.00
DATE: MAY, 2007	TAX MAP- GRID: 43 2	4 of 16

**christopher consultants**  
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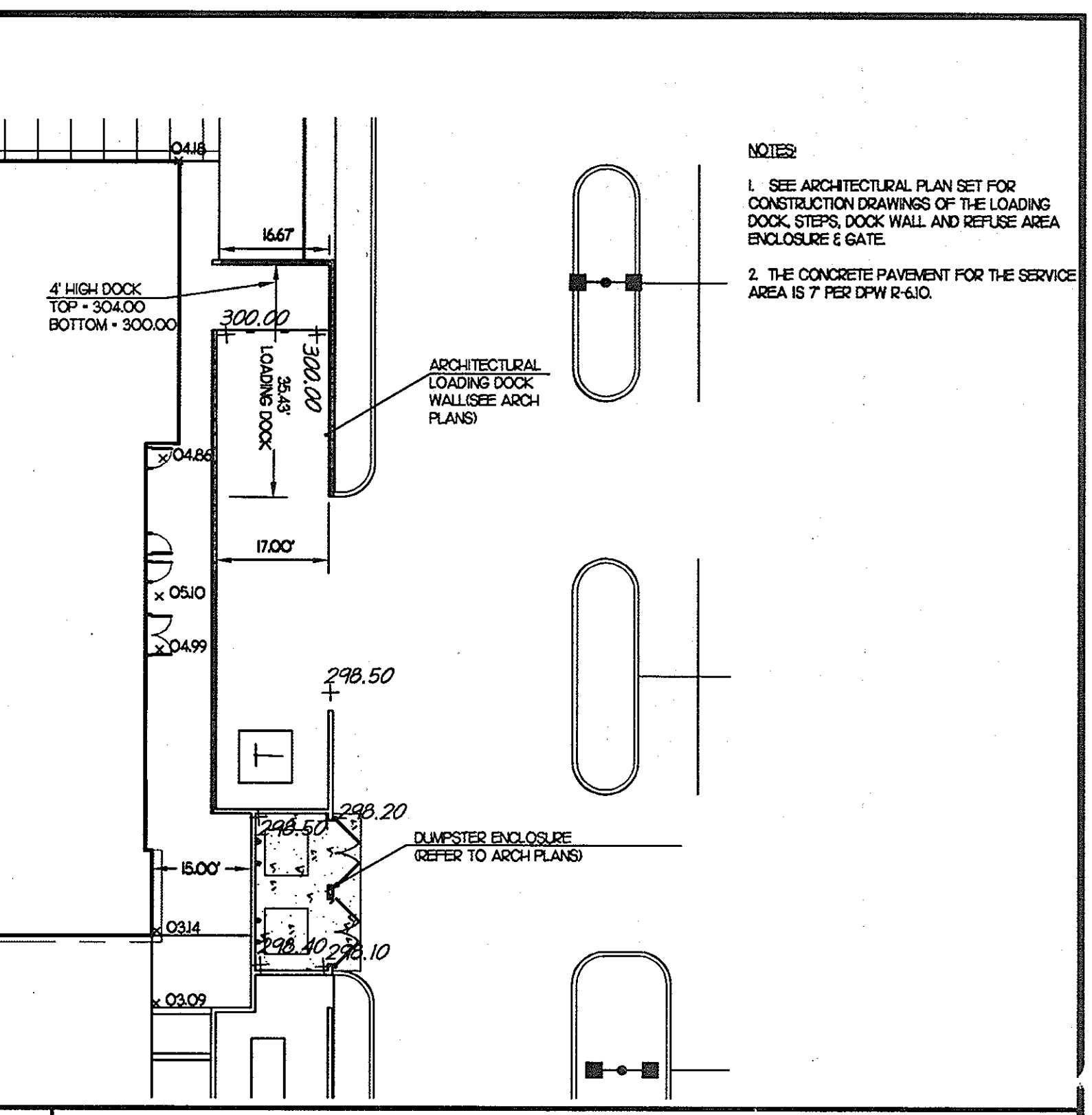
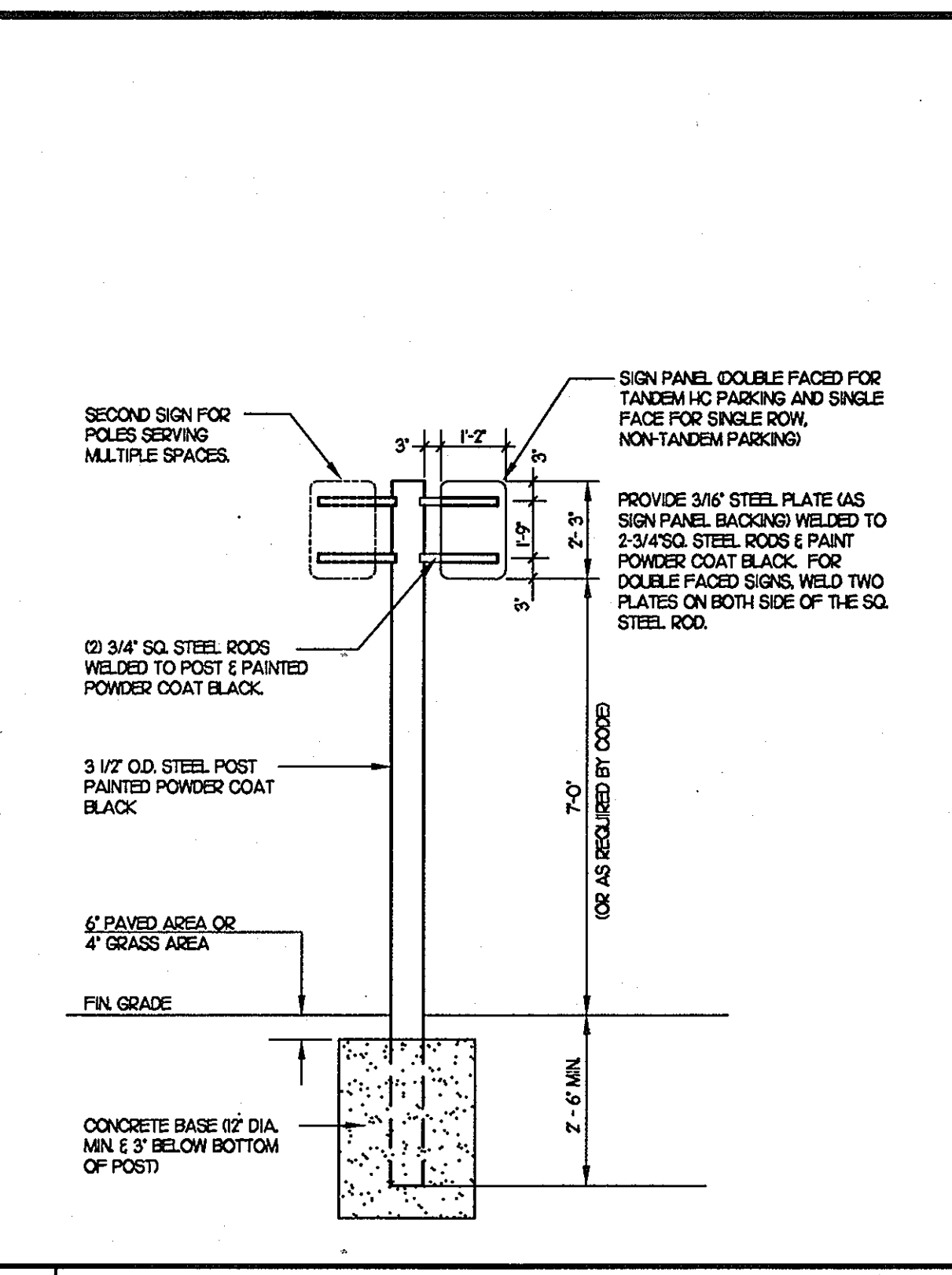
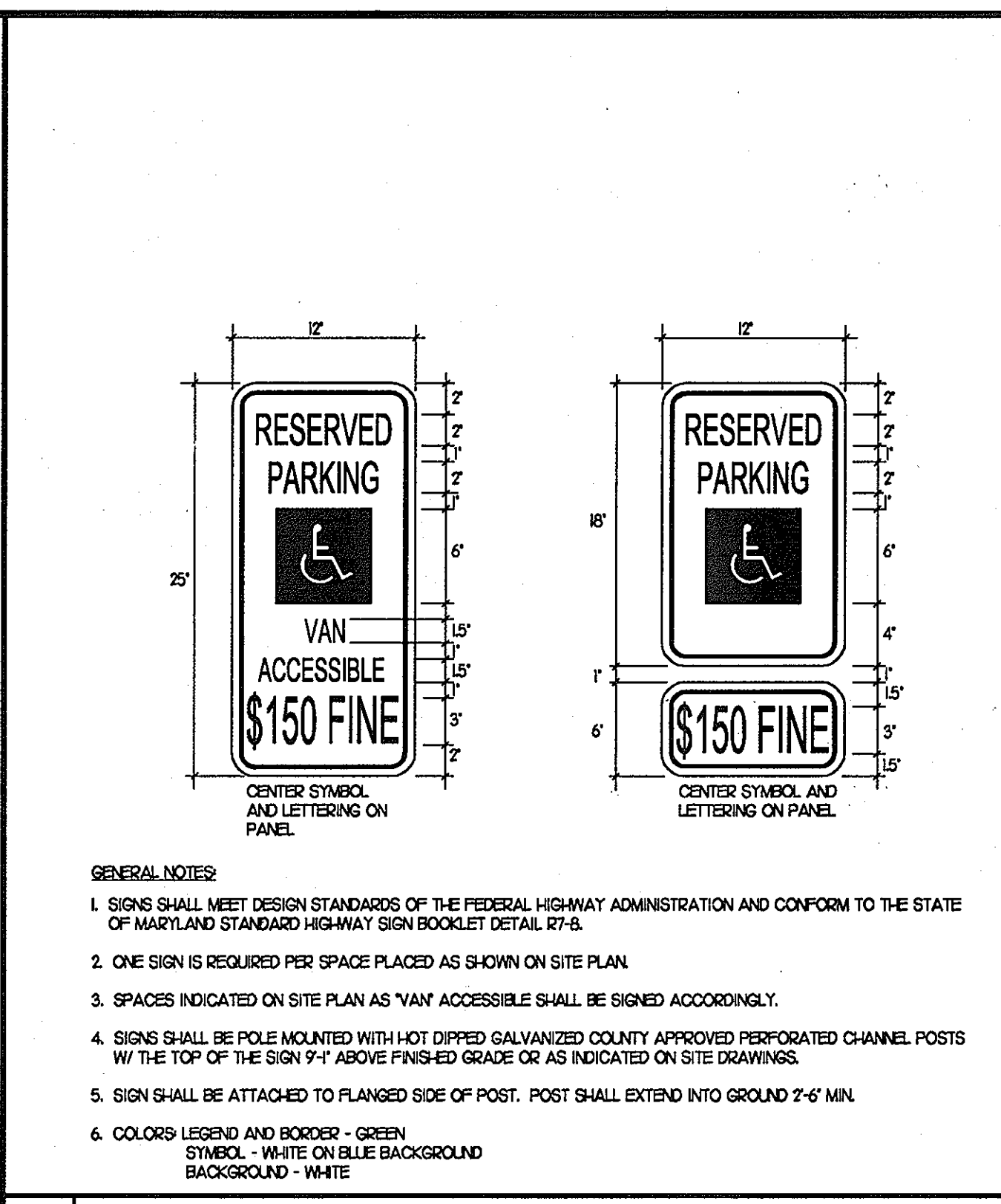
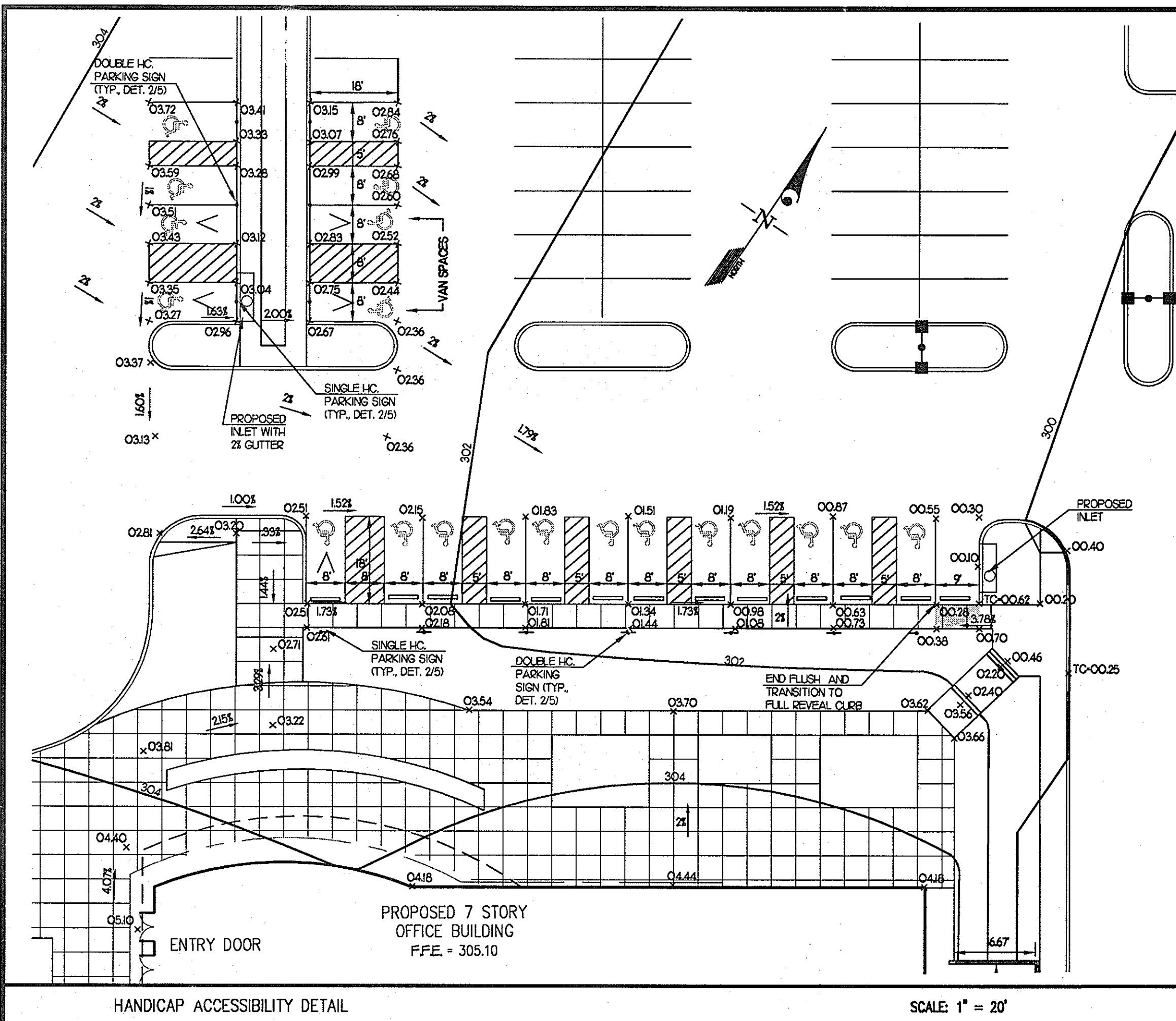
Date	No.	Revision Description
5/7/07	1	"REVISED SITE DEVELOPMENT PLAN SHEET"
8/3/11	2	REVISED BUILDING FOOTPRINT & ADJACENT PARKING LOT CONFIGURATION REVISED PARKING LOT CONFIGURATION & ADA ACCESSORY STRUCTURES -ACTIVITY SHELTER & SMOKING SHELTER - REVISED SITE DEVELOPMENT PLAN

**OWNER / DEVELOPER**  
 THE HOWARD RESEARCH & DEVELOPMENT CORP.  
 10275 LITTLE PATENT PARKWAY  
 COLUMBIA, MD 21044  
 PHONE: 410-992-6027  
 ATTN: PAUL CAVANAUGH

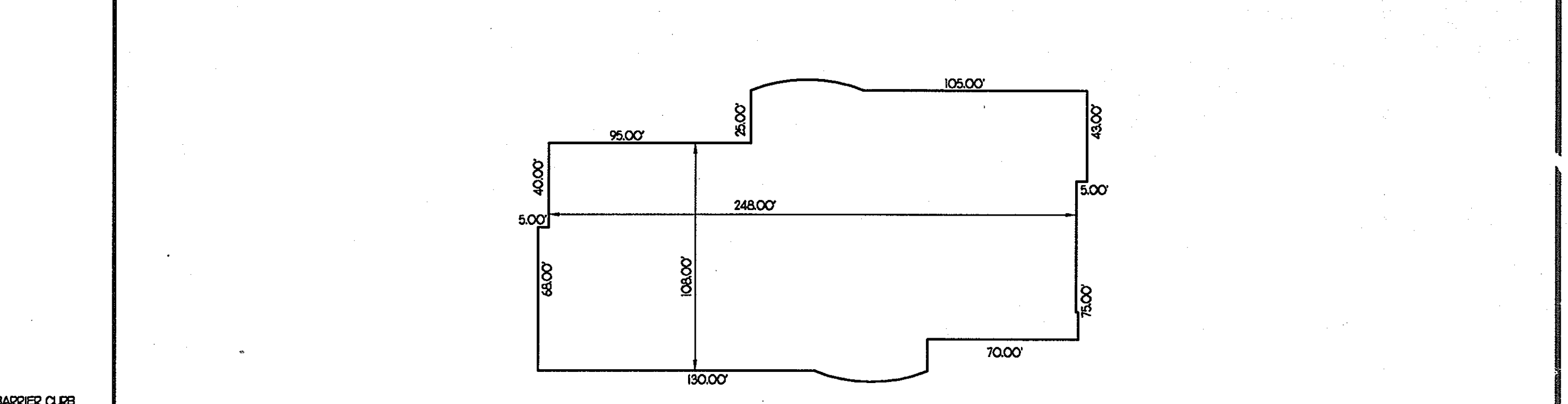
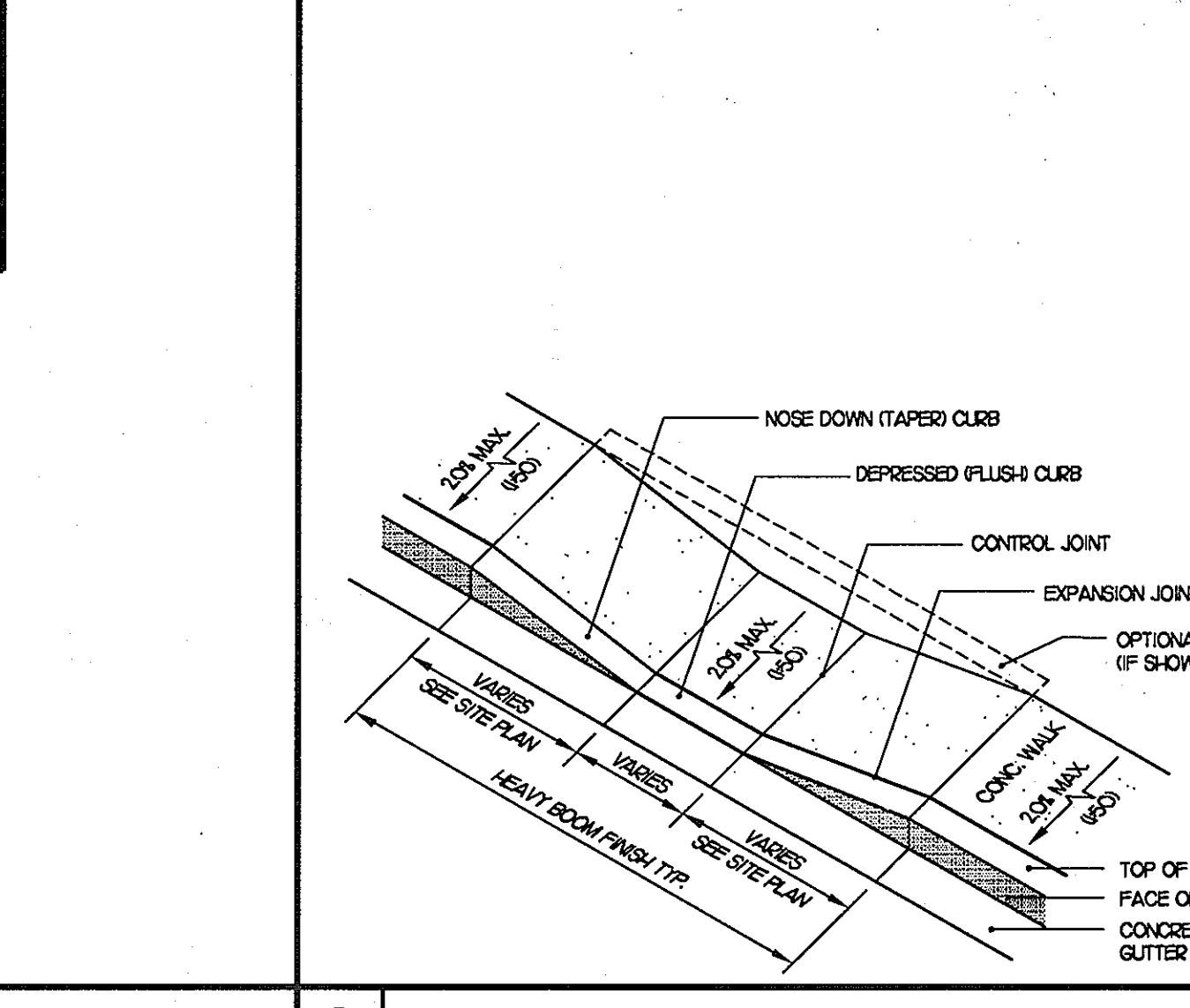
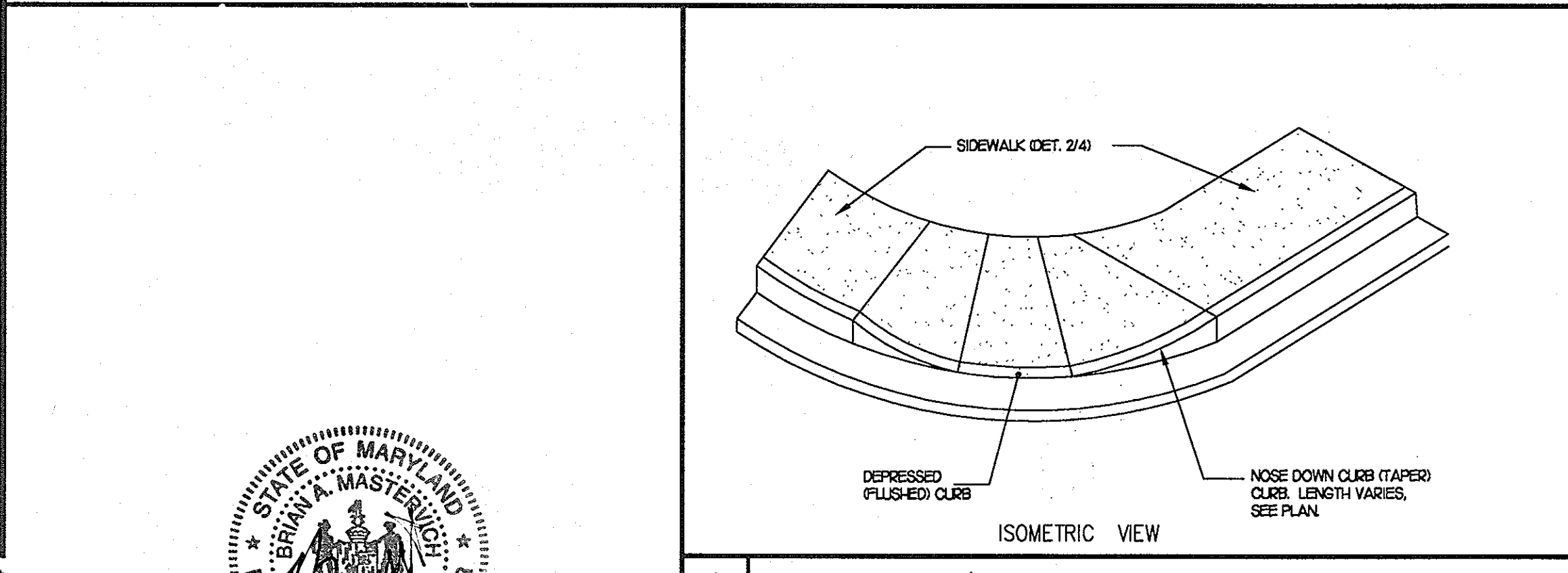
ELECTION DISTRICT No. 6

PLAT NO. 17744 & 18666-67

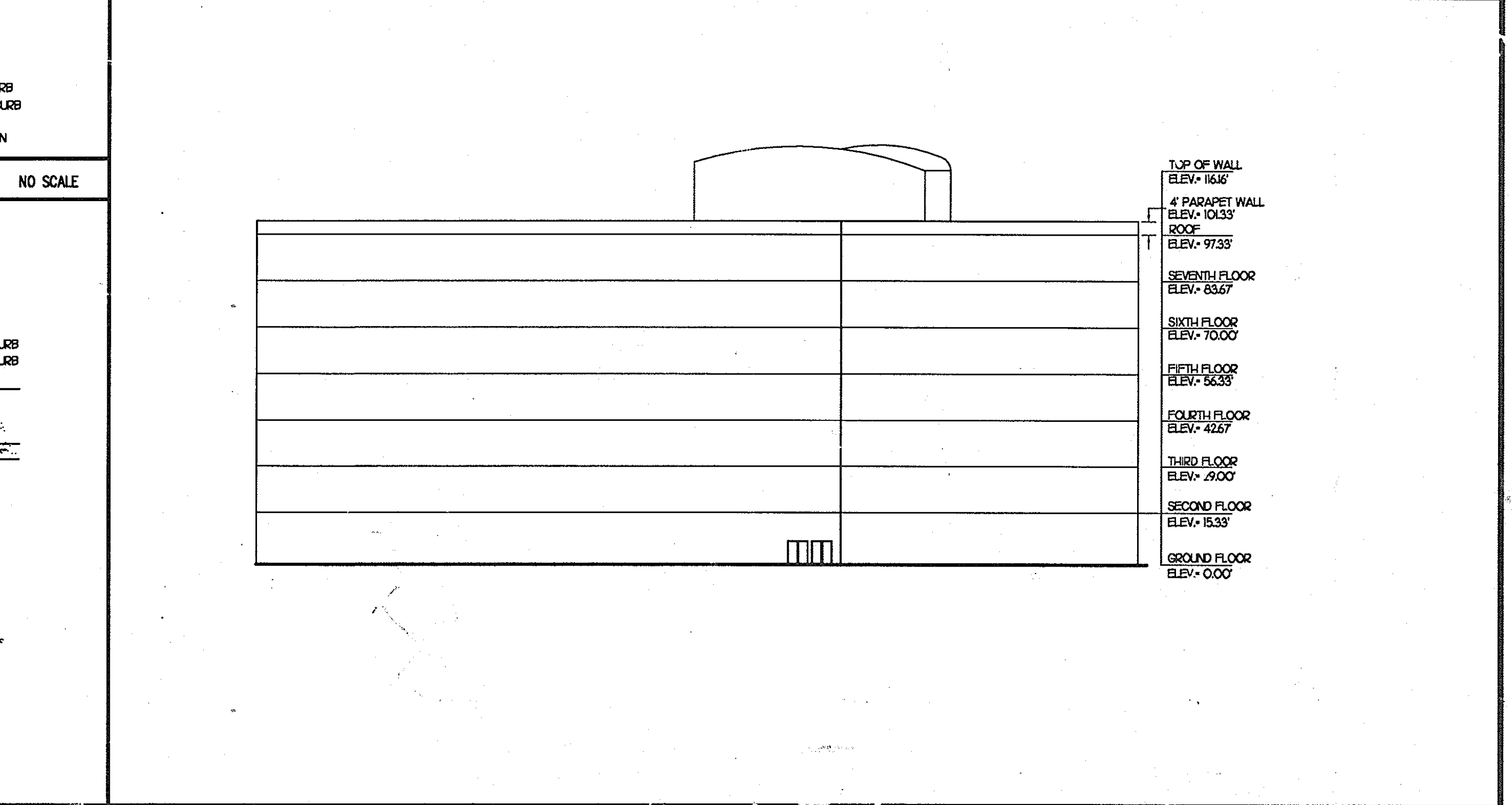
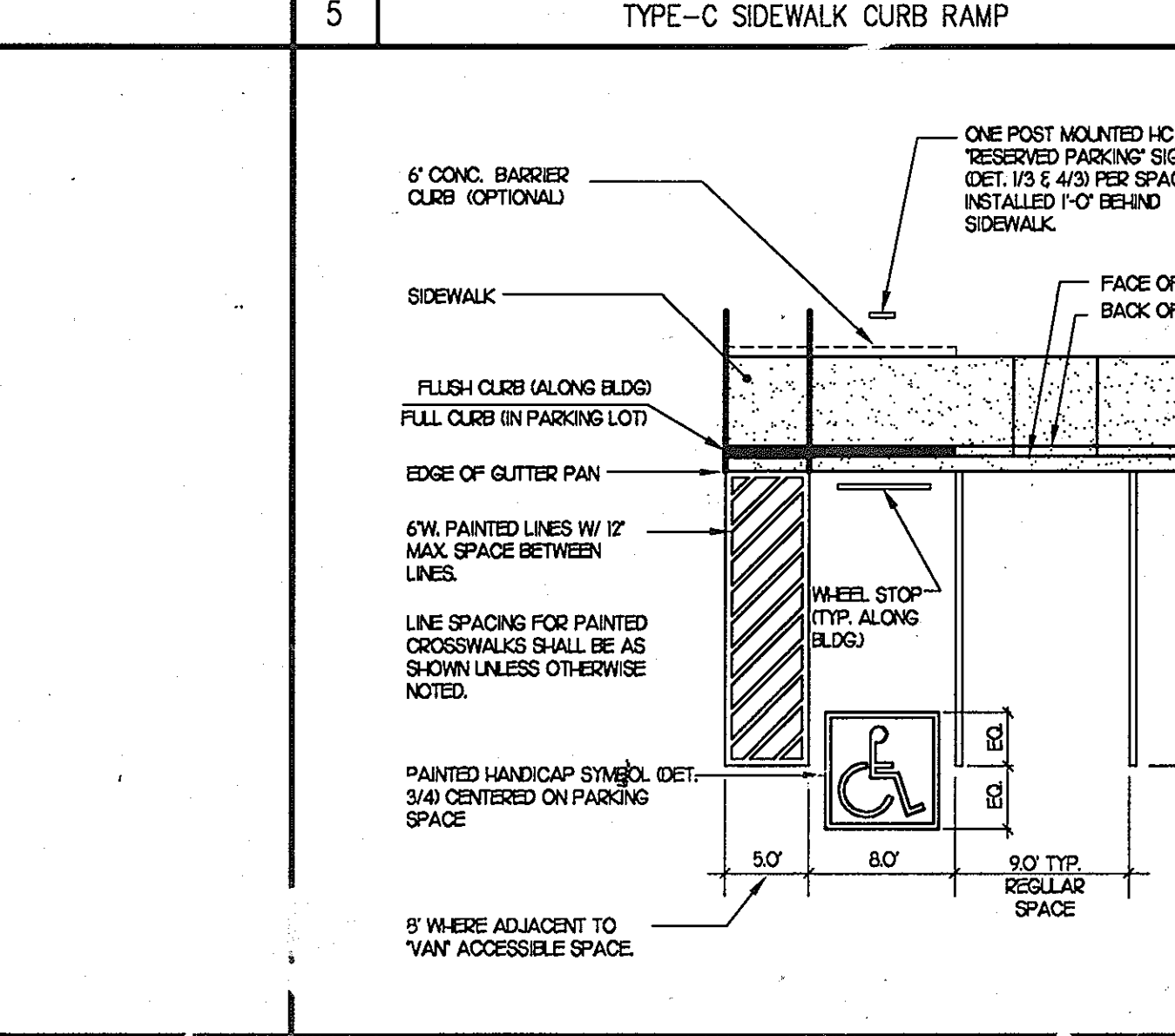
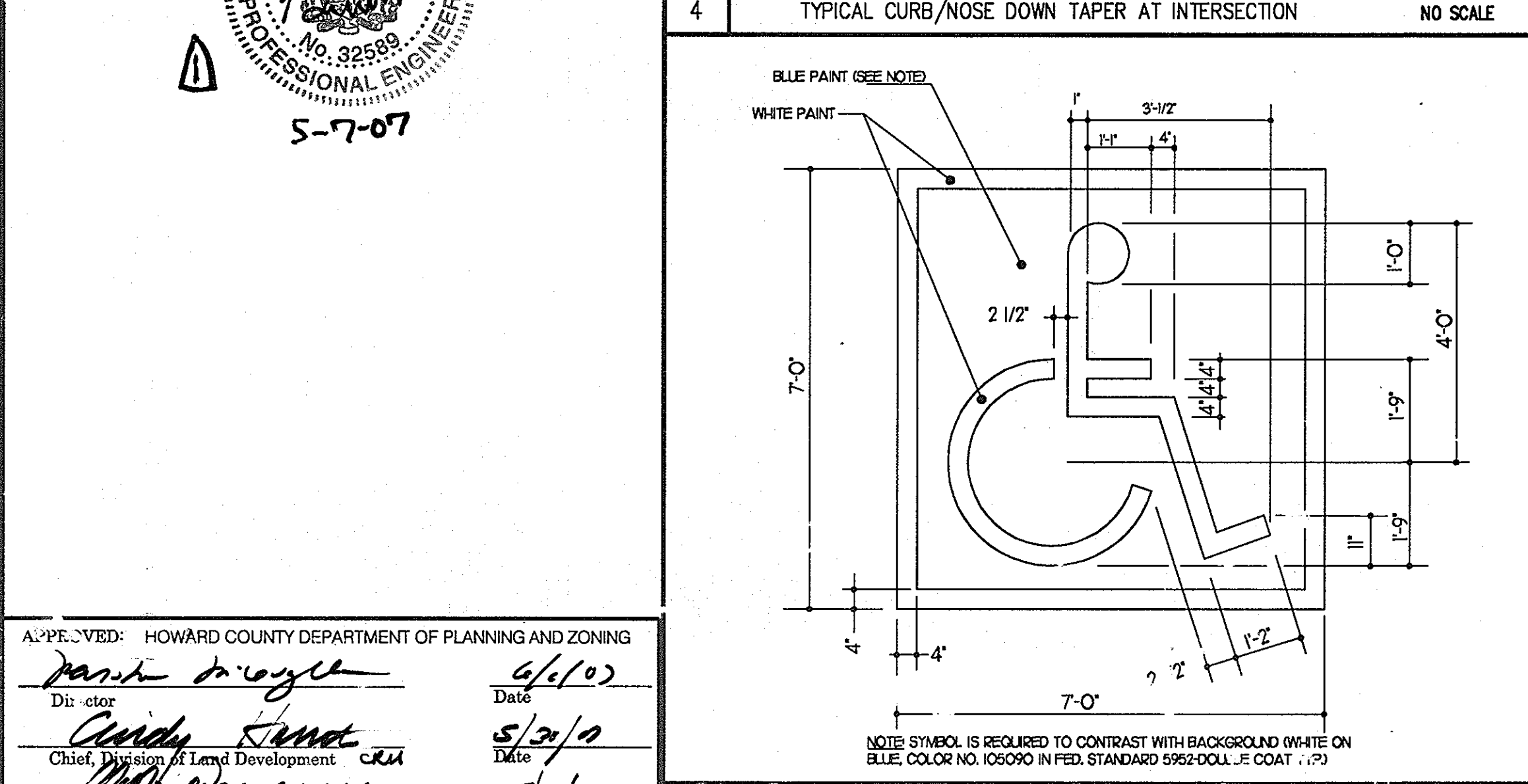
HOWARD COUNTY, MARYLAND



1 HANDICAP PARKING SIGNS DETAIL NO SCALE 2 POST AND SIGN DETAIL FOR PARKING RESTRICTION SIGN NO SCALE 3 BUILDING SERVICE AREA SCALE: 1" = 20'



4 TYPICAL CURB/NOSE DOWN TAPER AT INTERSECTION NO SCALE 5 TYPE-C SIDEWALK CURB RAMP NO SCALE 6 BUILDING FOOTPRINT SCALE: 1" = 50'



7 HANDICAP SPACE STENCIL LAYOUT NO SCALE 8 TYPICAL PARKING SPACE LAYOUT NO SCALE 9 BUILDING ELEVATION SCALE: 1" = 30'

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING  
 Director: *[Signature]* Date: 6/1/07  
 Chief, Division of Land Development: *[Signature]* Date: 5/23/07  
 Development Engineering Division: *[Signature]* Date: 5/16/07

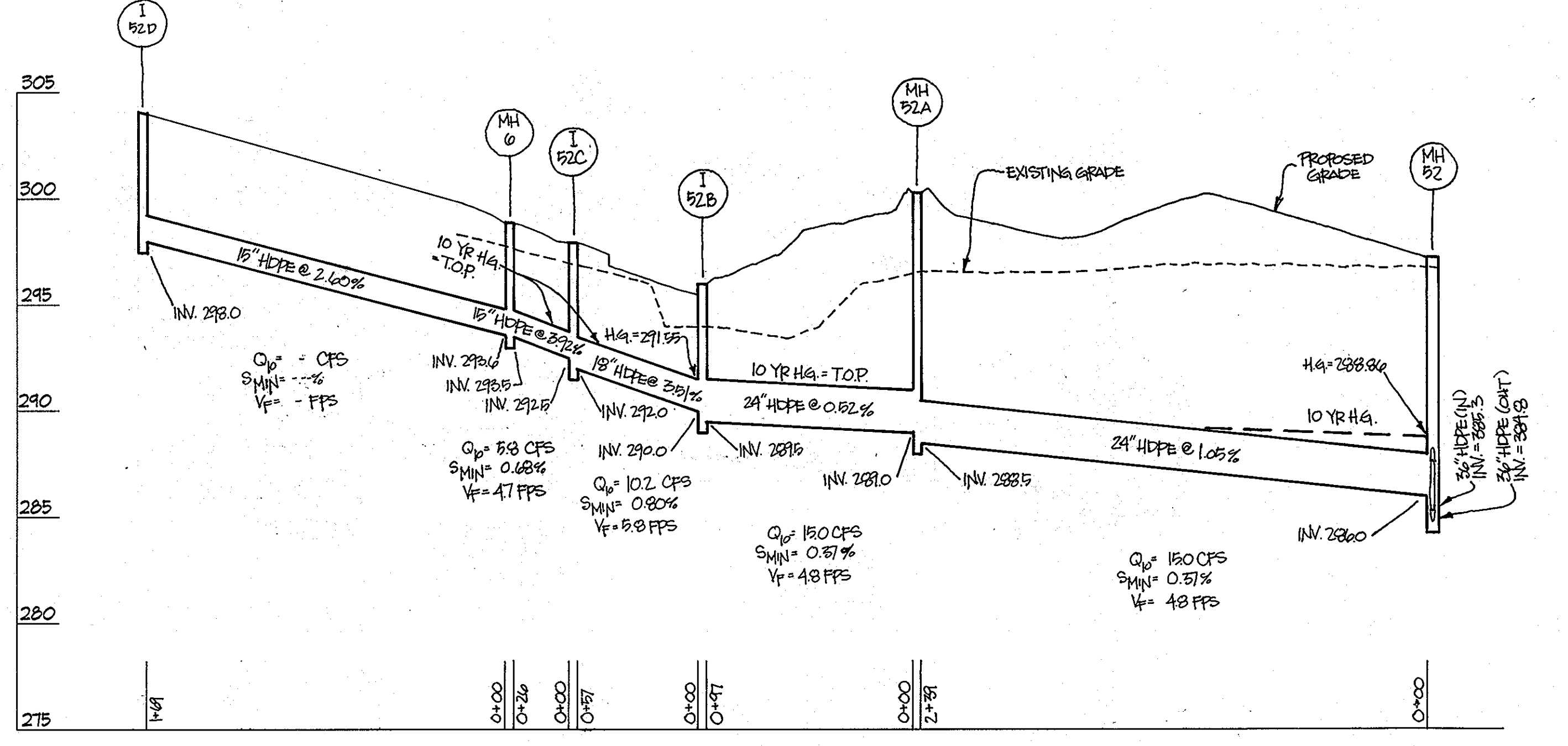
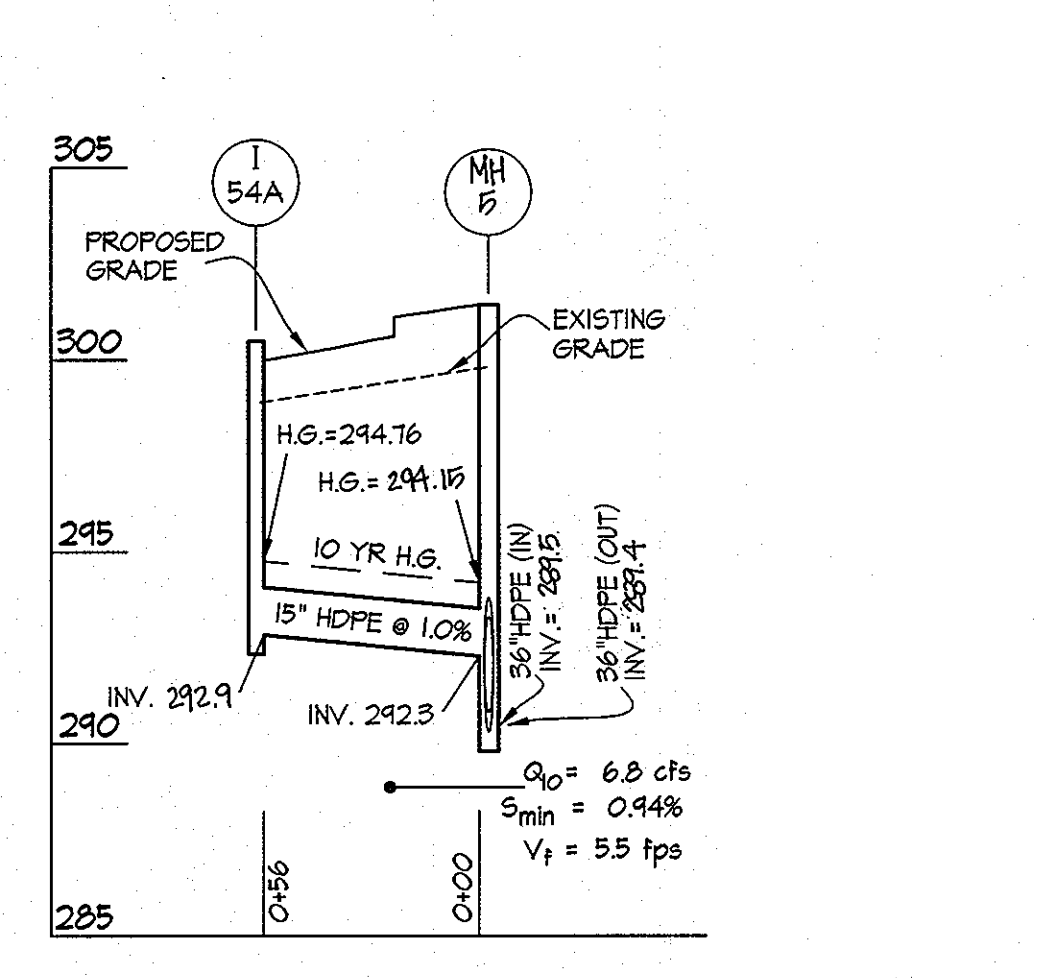
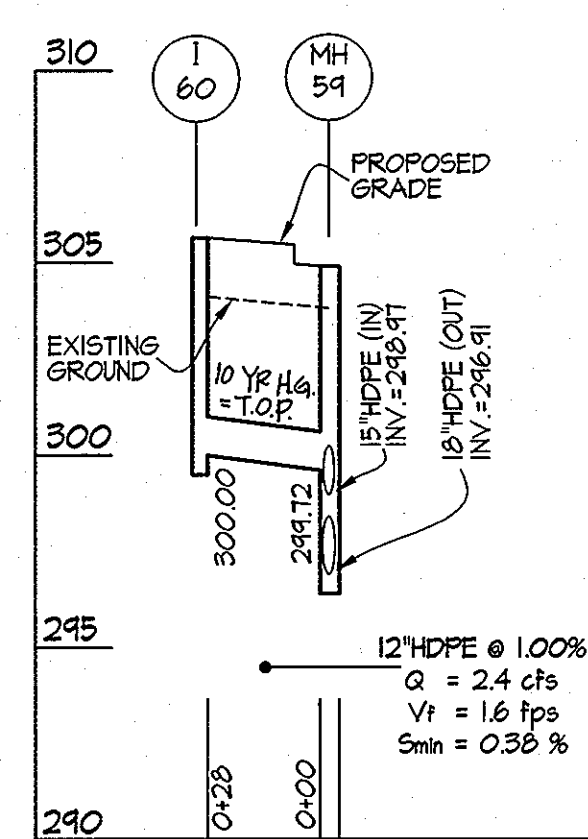
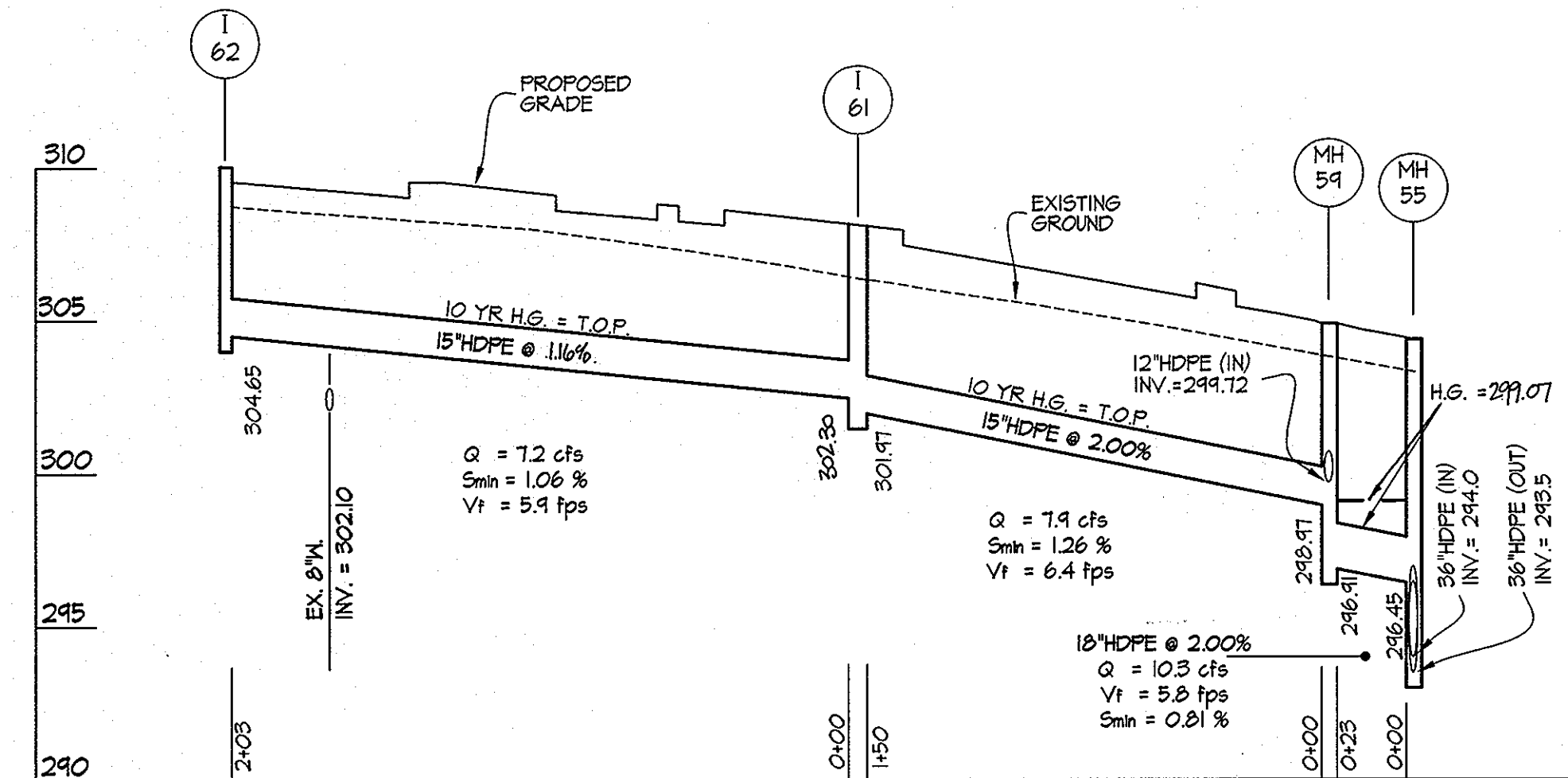
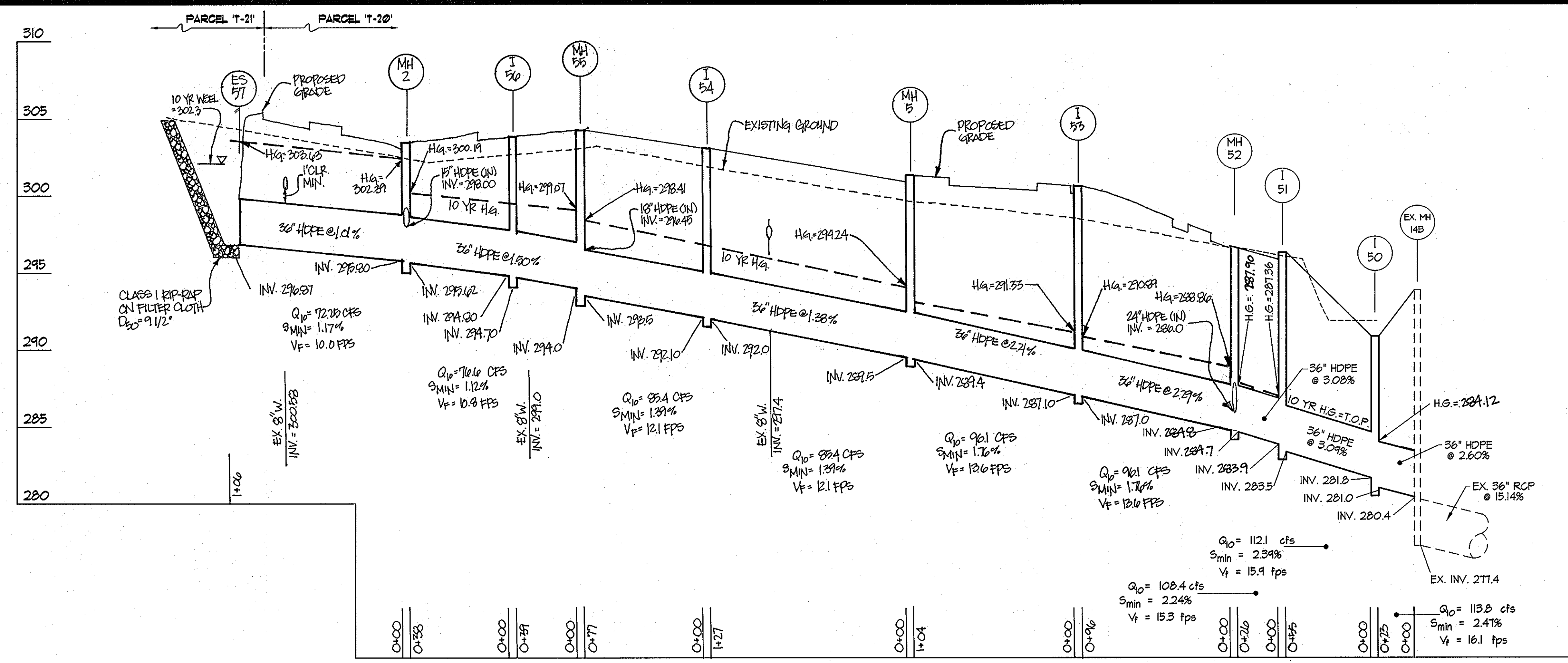
**christopher consultants**  
 engineering · surveying · land planning  
 christopher consultants, ltd.  
 7172 columbia gateway drive (suite 100) · columbia, md 21046-2990  
 410.872.8600 · metro 301.881.9148 · fax 410.872.8833

Date	No.	Revision Description
5/7/07	1	REVISED SITE DEVELOPMENT PLAN
	2	REVISE BUILDING FOOTPRINT & ADJACENT PARKING LOT CONFIGURATION

OWNER / DEVELOPER  
 THE HOWARD RESEARCH & DEVELOPMENT CORP.  
 10275 LITTLE PATUXENT PARKWAY  
 COLUMBIA, MD 21044  
 PHONE: 410-711-3227  
 ATTN: PAUL CAVANAUGH

**SITE DETAILS**  
 COLUMBIA GATEWAY  
 PARCEL 'T-20'  
 ELECTION DISTRICT No. 6  
 PLAT NO. 17744 & 18666-67  
 HOWARD COUNTY, MARYLAND

SCALE: AS SHOWN	ZONING: M-1	CCL PROJECT NO: 06F201.00
DATE: MAY, 2007	TAX MAP- GRID: 43 2	5 OF 16



**S.D. STRUCTURE SCHEDULE**

NO.	TYPE	DIAM.	TOP ELEVATION		INVERT ELEVATION		STANDARD DETAIL	LOCATIONS & REMARKS
			BASE	UPPER	UPPER	LOWER		
I-19	SHALLOW MANHOLE	60"	287.0	287.0	282.50	282.50	G-513V	PROVIDE SLOTS ON ALL FOUR SIDES
I-20	COS-15 INLET	72"	290.4	290.4	289.80	289.30	MD-374.63	SEE PLAN
I-21	COS-10 INLET	60"	291.1	290.8	284.70	284.30	MD-374.62	SEE PLAN
I-22	COS-10 INLET	60"	293.1	292.9	286.10	285.70	"	SEE PLAN
M-1	STD MANHOLE	72"	298.1	298.1	294.20	292.0	H.O. STD 512	SEE PLAN
I-24	COS-15 INLET	60"	299.8	299.6	294.20	293.90	"	SEE PLAN
ES-25	END SECTION	36"	-----	-----	-----	295.80	N/A	SEE PLAN
I-24A	COS-15 INLET	48"	301.0	300.9	298.30	295.80	MD-374.62	SEE PLAN
I-24B	COS-15 INLET	48"	303.2	303.1	298.70	298.40	"	SEE PLAN
I-23A	COS-10 INLET	48"	298.9	298.8	terminal	294.0	"	SEE PLAN
I-30	COS-10 INLET	48"	291.1	290.9	285.10	284.60	"	SEE PLAN
I-31	COS-10 INLET	48"	292.9	292.8	286.90	286.40	"	SEE PLAN
I-32	COS-10 INLET	48"	295.0	294.9	288.90	288.40	"	SEE PLAN
I-33	COS-10 INLET	72"	295.8	295.7	290.5/289.5	289.0	MD-374.62	SEE PLAN
I-50	MOD MANHOLE *	60"	291.0	291.0	281.80	281.00	H.O. CO. STD 512 *	* SLOTTED COVER (INLET)
I-51	COS-15 INLET	60"	296.4	296.4	288.90	288.50	MD-374.63	SEE PLAN
MH-52	STD MANHOLE	72"	296.8	296.8	286.00	284.70	H.O. CO. STD 512	SEE PLAN
I-53	COS-5 INLET	60"	300.9	300.8	287.10	287.0	MD-374.62	SEE PLAN
I-54	COS-10 INLET	60"	303.6	303.5	292.10	292.0	MD-374.62#	* MAINTAIN 2% SLOPE IN WINTER PAN
I-54A	COS-10 INLET	60"	300.62	300.42	terminal	292.90	MD-374.62	SEE PLAN
MH-55	STD MANHOLE	72"	304.4	304.4	296.45	293.50	H.O. CO. STD 512	SEE PLAN
I-56	COS-10 INLET	60"	309.8	309.4	289.80	289.7	MD-374.62	SEE PLAN
ES-57	END SECTION	36"	-----	-----	-----	298.87	N/A	SEE PLAN
MH-52A	4' MANHOLE	48"	300.2	300.2	289.00	288.50	H.O. CO. STD 512	SEE PLAN
I-52B	COS-10 INLET	48"	296.3	295.9	290.00	289.50	MD-374.62	SEE PLAN
I-52C	COS-15 INLET	48"	298.2	297.9	292.50	292.00	"	SEE PLAN
I-52D	COS-10 INLET	48"	304.1	304.0	terminal	298.0	"	SEE PLAN
MH-54	4' MANHOLE	48"	304.91	-----	299.72	296.91	SEE PLAN	SEE PLAN
I-60	COS-5 INLET	48"	305.7	305.6	terminal	300.00	"	SEE PLAN
I-61	COS-5 INLET	48"	308.3	308.2	302.47	301.97	"	SEE PLAN
I-62	COS-15 INLET	48"	310.2	310.0	terminal	304.50	"	SEE PLAN
I-70	A-10 PREGAST	60"	296.0	295.5	-----	284.50	H.O. CO. STD 4.41	SEE PLAN
M-3	STD MANHOLE	72"	300.9	300.9	289.5	289.4	H.O. CO. STD 512	SEE PLAN
M-2	STD MANHOLE	72"	309.0	309.0	295.62	295.62	H.O. CO. STD 512	SEE PLAN
M-6	STD MANHOLE	48"	297.7	297.7	293.6	293.5	MD-374.62	SEE PLAN

\* REPLACE STANDARD SOLID LID WITH SLOTTED COVER ON STRUCTURE I-50. USE NEENAH R-2594 (SLOTTED COVER) OR EQUIVALENT.

**S.D. PIPE SUMMARY TABLE**

SIZE (IN)	TYPE	QUANTITY (LF)	REMARKS
12	HDPE	28	AASHTO M294-90 TYPE 'S'
15	HDPE	785	AASHTO M294-90 TYPE 'S'
18	HDPE	298	AASHTO M294-90 TYPE 'S'
24	HDPE	52A	AASHTO M294-90 TYPE 'S'
30	HDPE	346	AASHTO M294-90 TYPE 'S'
36	HDPE	1234	AASHTO M294-90 TYPE 'S'

HDPE = HIGH DENSITY POLYETHYLENE - DOUBLE WALL, SMOOTH INTERIOR PIPE BY ADS, INC. (N-12 PIPE) OR EQUIVALENT

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING  
 Director: *[Signature]* Date: 2/1/02  
 Chief, Division of Land Development: *[Signature]* Date: 1/30/02  
 Chief, Development Engineering Division: *[Signature]* Date: 12/11/06

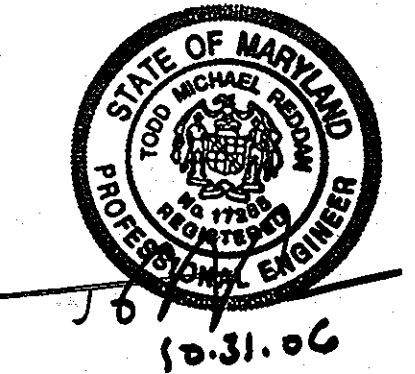
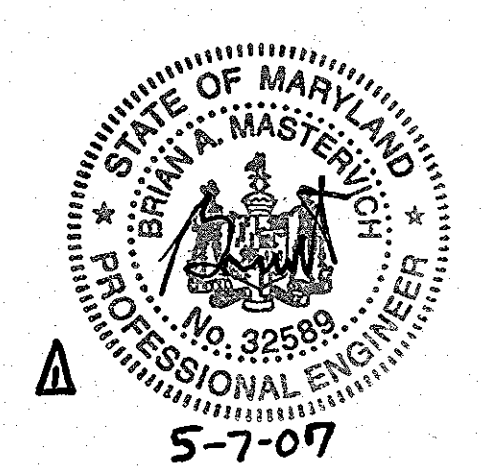
**GLWGUTSCHICK LITTLE & WEBER, P.A.**  
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS  
 3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK  
 BURTONSVILLE, MARYLAND 20866  
 TEL: 301-421-4024 BALT: 410-680-1820 DC/VA: 301-999-2524 FAX: 301-421-4186

DATE	REVISION	BY	APP'R.
1/7/07	REVISED BUILDING FOOTPRINT AND ADJACENT PARKING LOT CONFIGURATION		

PREPARED FOR:  
 OWNER/DEVELOPER  
 THE HOWARD RESEARCH & DEVELOPMENT CORP.  
 10275 LITTLE PATIENT PARKWAY  
 COLUMBIA, MD 21044  
 Phone: 410-992-6027  
 Attn: PAUL CAVANAUGH

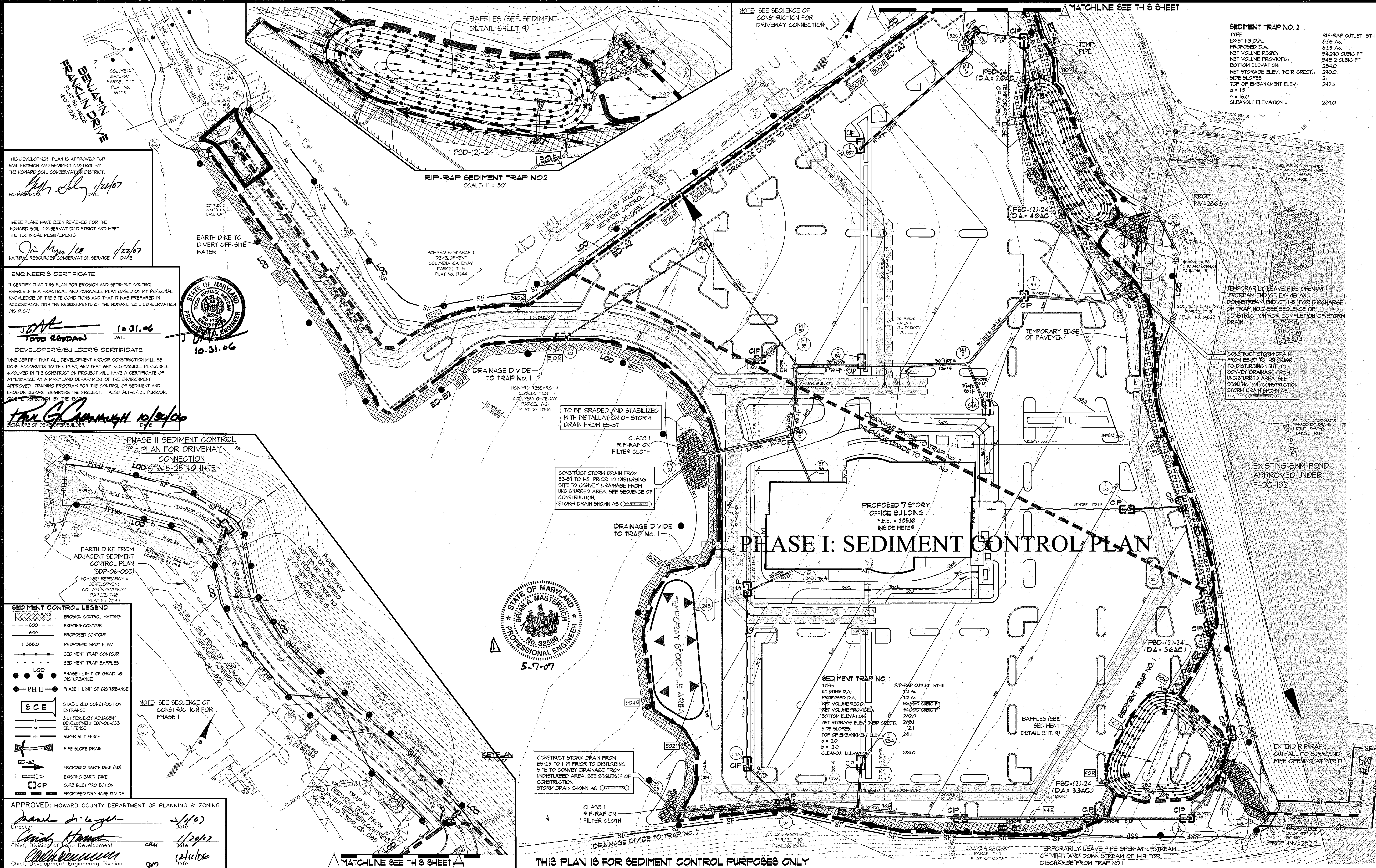
STORM DRAIN PROFILES  
**COLUMBIA GATEWAY**  
 PARCEL T-20  
 PLAT No. 17744 & 18666-67  
 ELECTION DISTRICT No. 6  
 HOWARD COUNTY, MARYLAND

SCALE	ZONING	G. L. W. FILE No.
AS SHOWN	M-1	05-105
DATE	TAX MAP - GRID	SHEET
October, 2006	43 2	6 OF 16



PROFILES  
 SCALES: 1" = 5' VERT.  
 1" = 50' HORZ.





THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING.

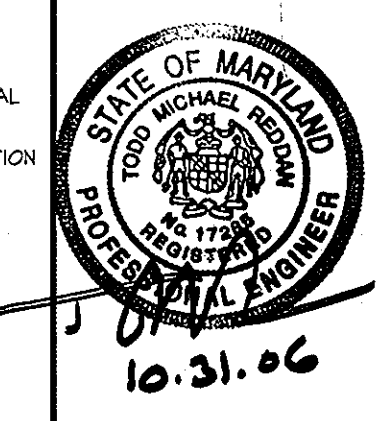
*John S. ...* 1/22/07  
DATE

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING AND MEET THE TECHNICAL REQUIREMENTS.

*Jim ...* 1/22/07  
DATE

**ENGINEER'S CERTIFICATE**

I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING.



*1000 Reddan* 10.31.06  
DATE

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

I HEREBY CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A HAZARD PREVENTION AND EROSION CONTROL TRAINING PROGRAM APPROVED BY THE HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING.

*Paul G. Cavanaugh* 10/24/06  
DATE

**PHASE II SEDIMENT CONTROL PLAN FOR DRIVEWAY CONNECTION**

CONNECTION STA. 5+25 TO 1+15

**SEDIMENT CONTROL LEGEND**

- EROSION CONTROL MATTING
- EXISTING CONTOUR
- PROPOSED CONTOUR
- PROPOSED SPOT ELEV.
- SEDIMENT TRAP CONTOUR
- SEDIMENT TRAP BAFFLES
- PH I LIMIT OF GRADING DISTURBANCE
- PH II LIMIT OF DISTURBANCE
- STABILIZED CONSTRUCTION ENTRANCE
- SILT FENCE BY ADJACENT DEVELOPMENT (SOP-06-083)
- SILT FENCE
- SUPER SILT FENCE
- PIPE SLOPE DRAIN
- PROPOSED EARTH DIKE (ED)
- EXISTING EARTH DIKE
- CURB INLET PROTECTION
- PROPOSED DRAINAGE DIVIDE

**APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING**

*John S. ...* 2/1/07  
Director Date

*Chris ...* 1/30/07  
Chief, Division of Land Development Date

*Chris ...* 12/14/06  
Chief, Development Engineering Division Date

**GLWGUTSCHICK LITTLE & WEBER, P.A.**

CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS

3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK  
BURTONSVILLE, MARYLAND 20866  
TEL: 301-421-4024 BALT: 410-880-1820 DC/WV: 301-989-2524 FAX: 301-421-4186

DATE	REVISION	BY	APPR.
8/7/07	REVISED BUILDING FOOTPRINT AND ADJACENT PARKING LOT CONFIGURATION	ecf	

DATE	REVISION	BY	APPR.

PREPARED FOR:  
OWNER/DEVELOPER  
THE HOWARD RESEARCH & DEVELOPMENT CORP.  
10275 LITTLE PATRIBUT FERRYWAY  
COLUMBIA, MD 21044  
Phone: 410-992-6027  
Attn: PAUL CAVANAUGH

**SEDIMENT CONTROL PLAN**

**COLUMBIA GATEWAY**

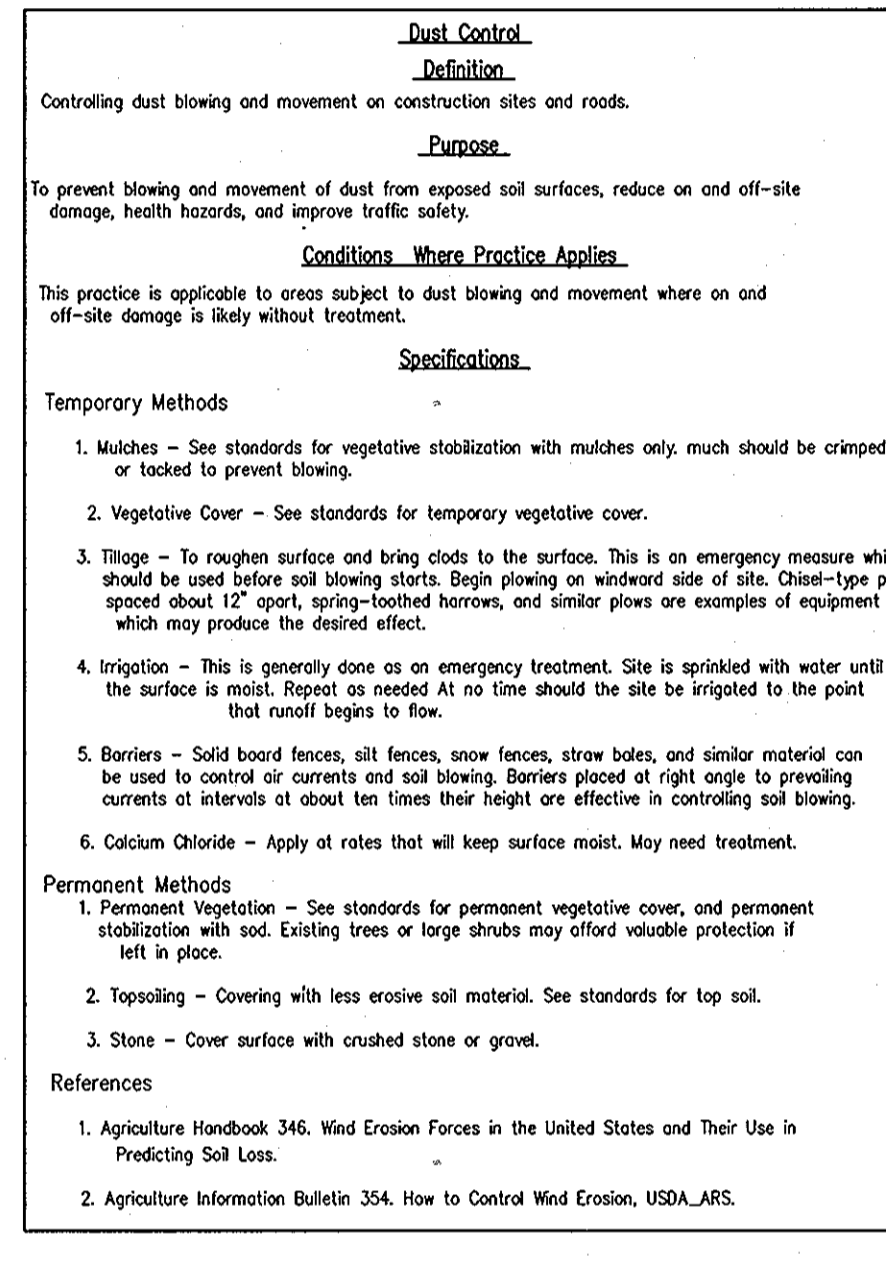
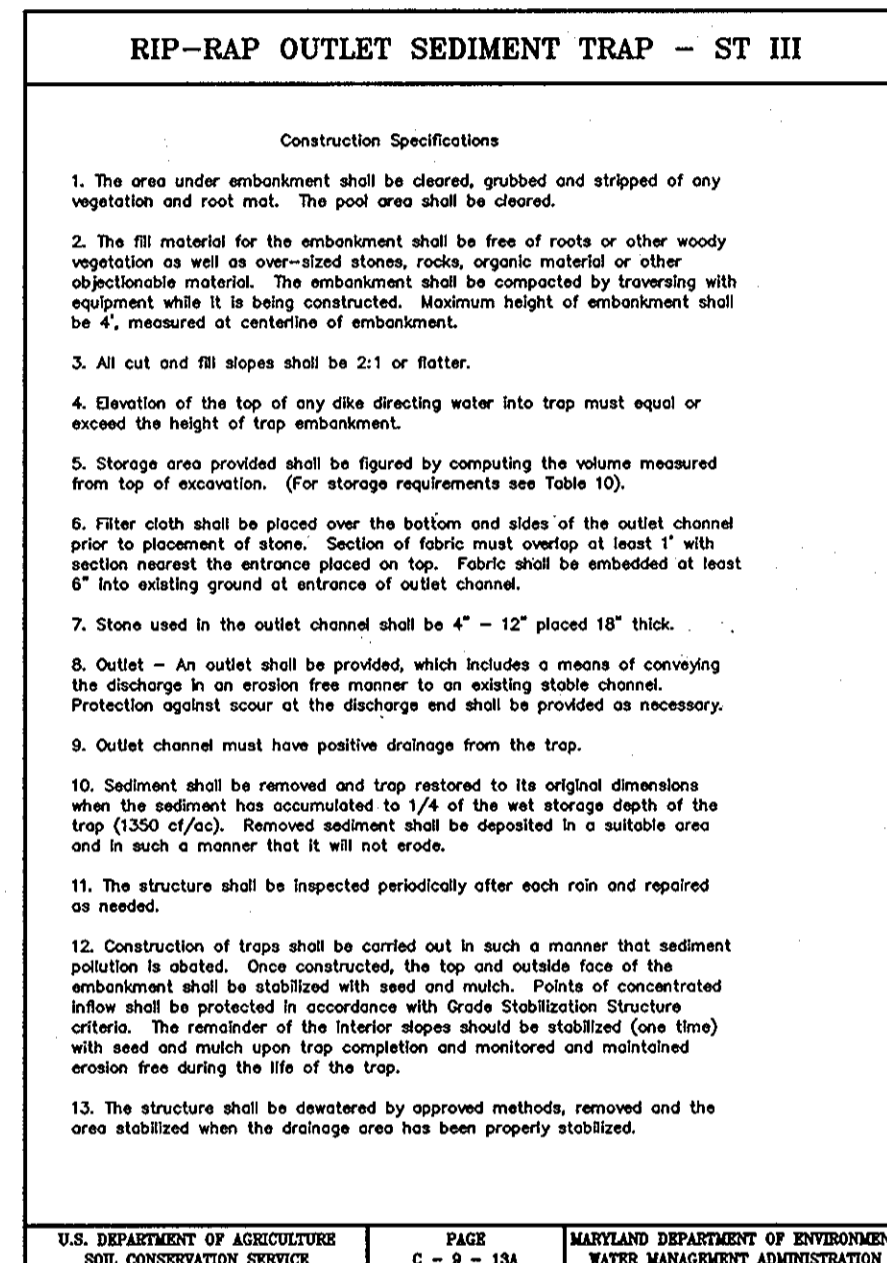
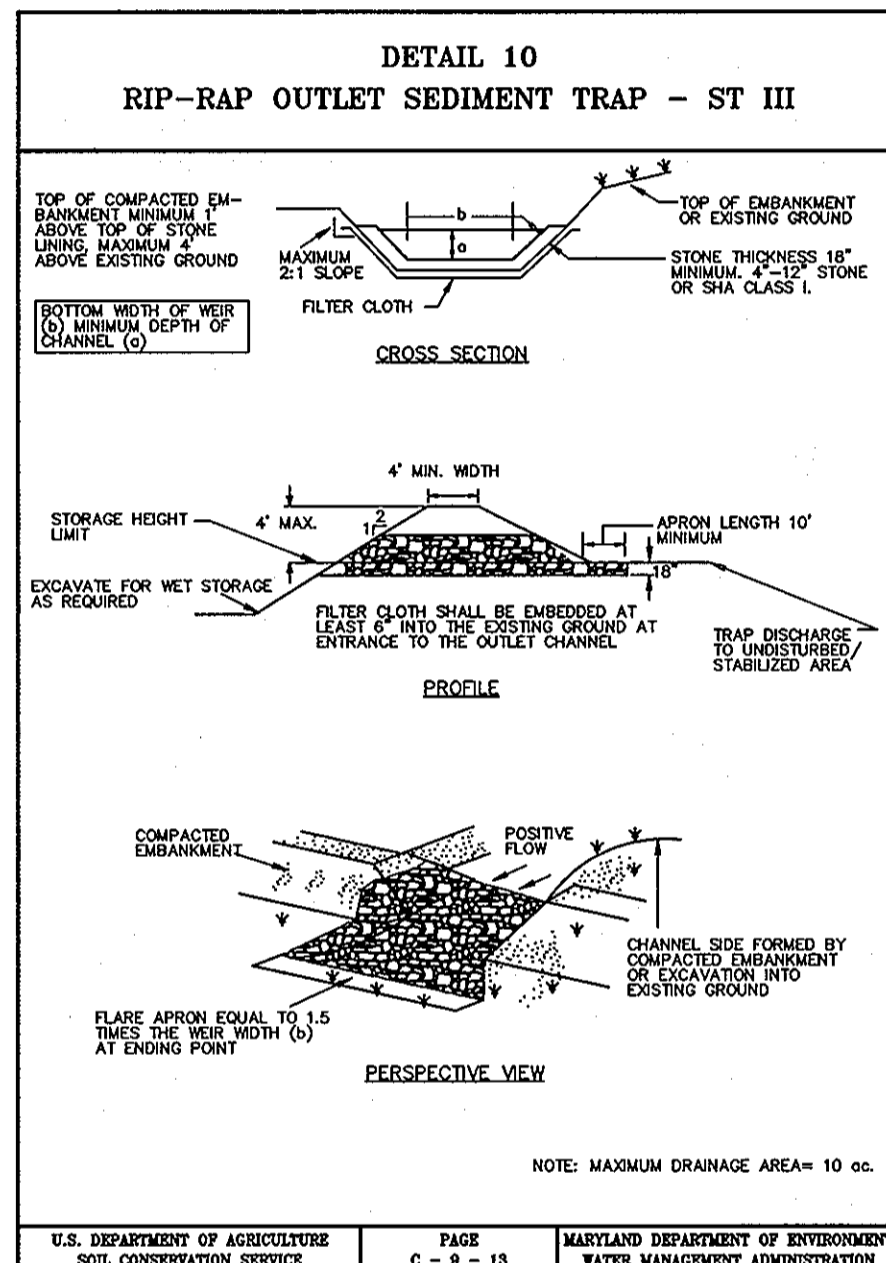
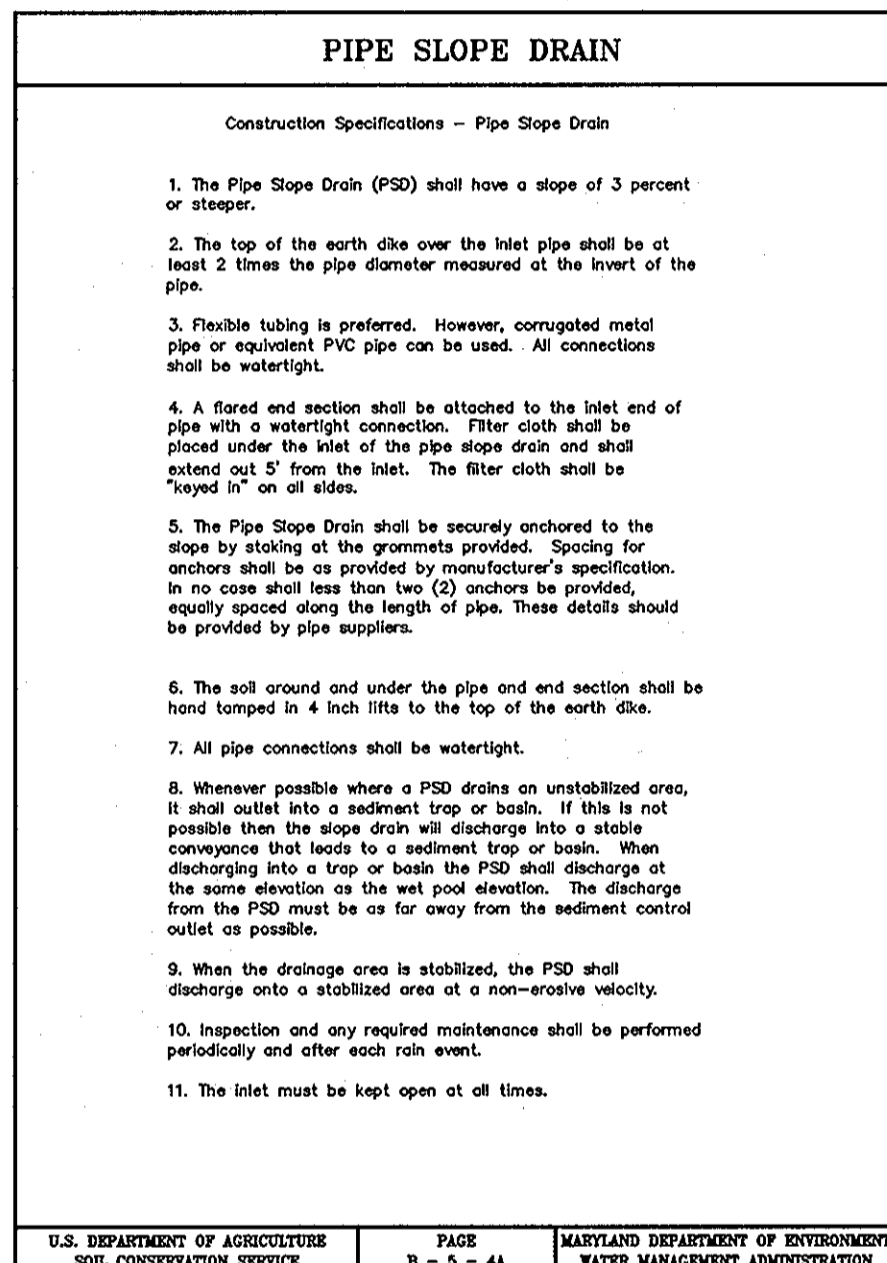
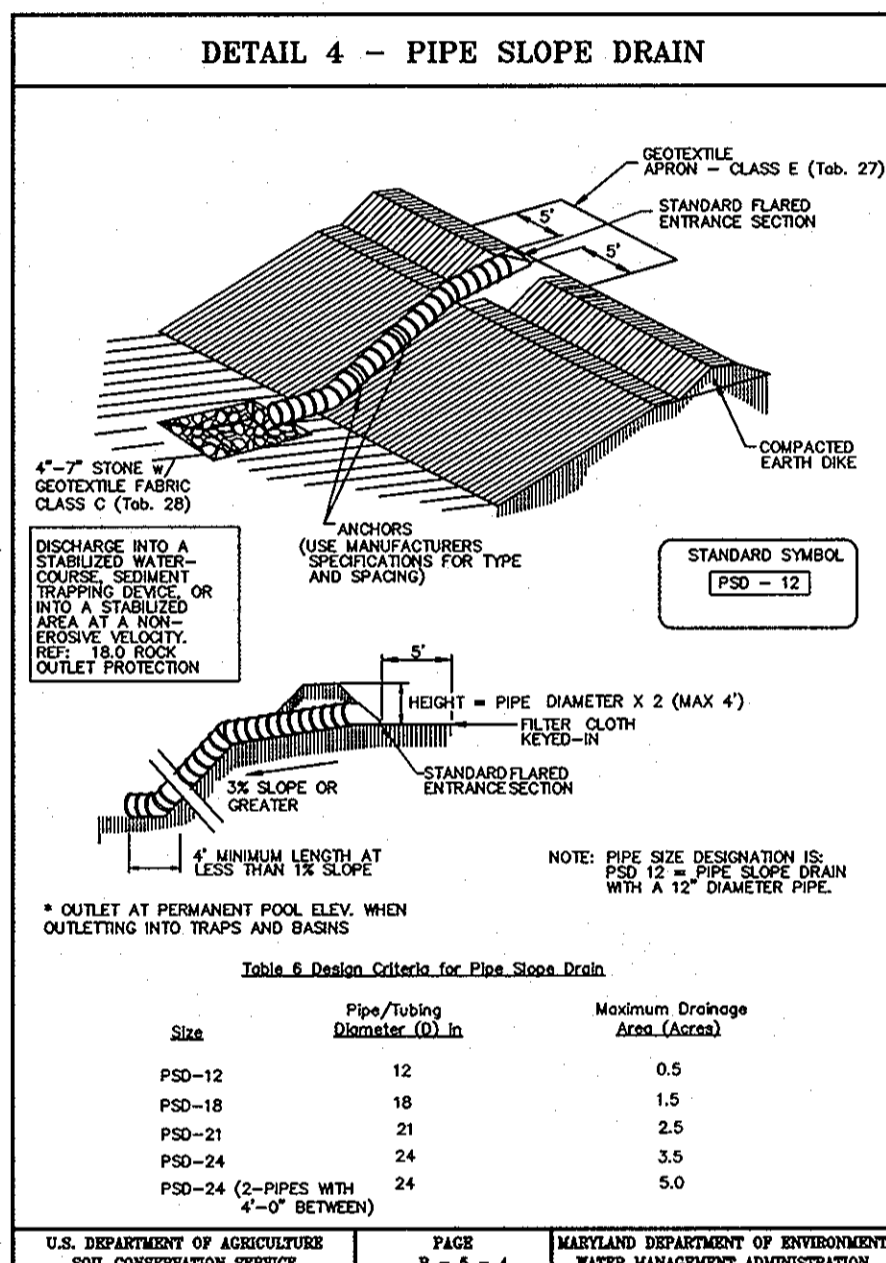
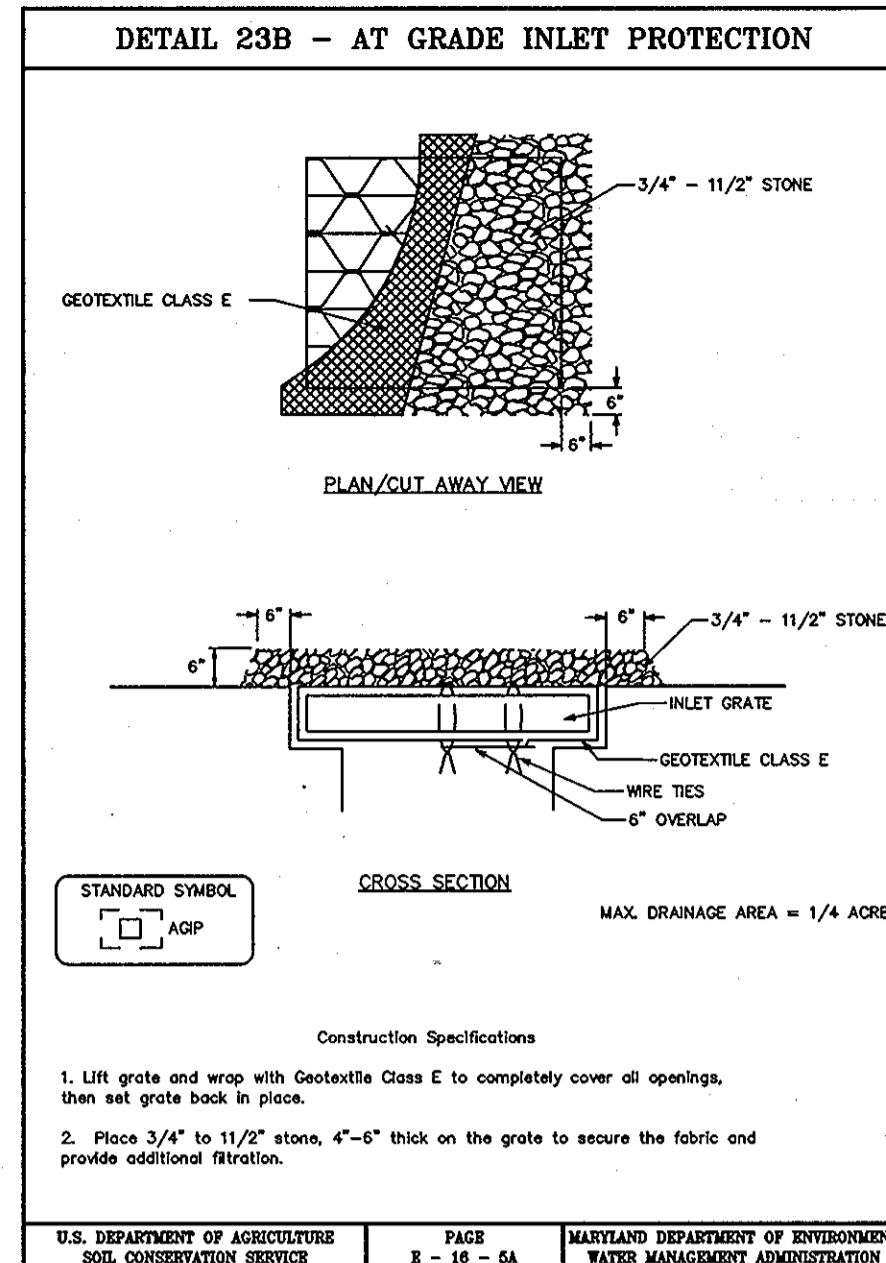
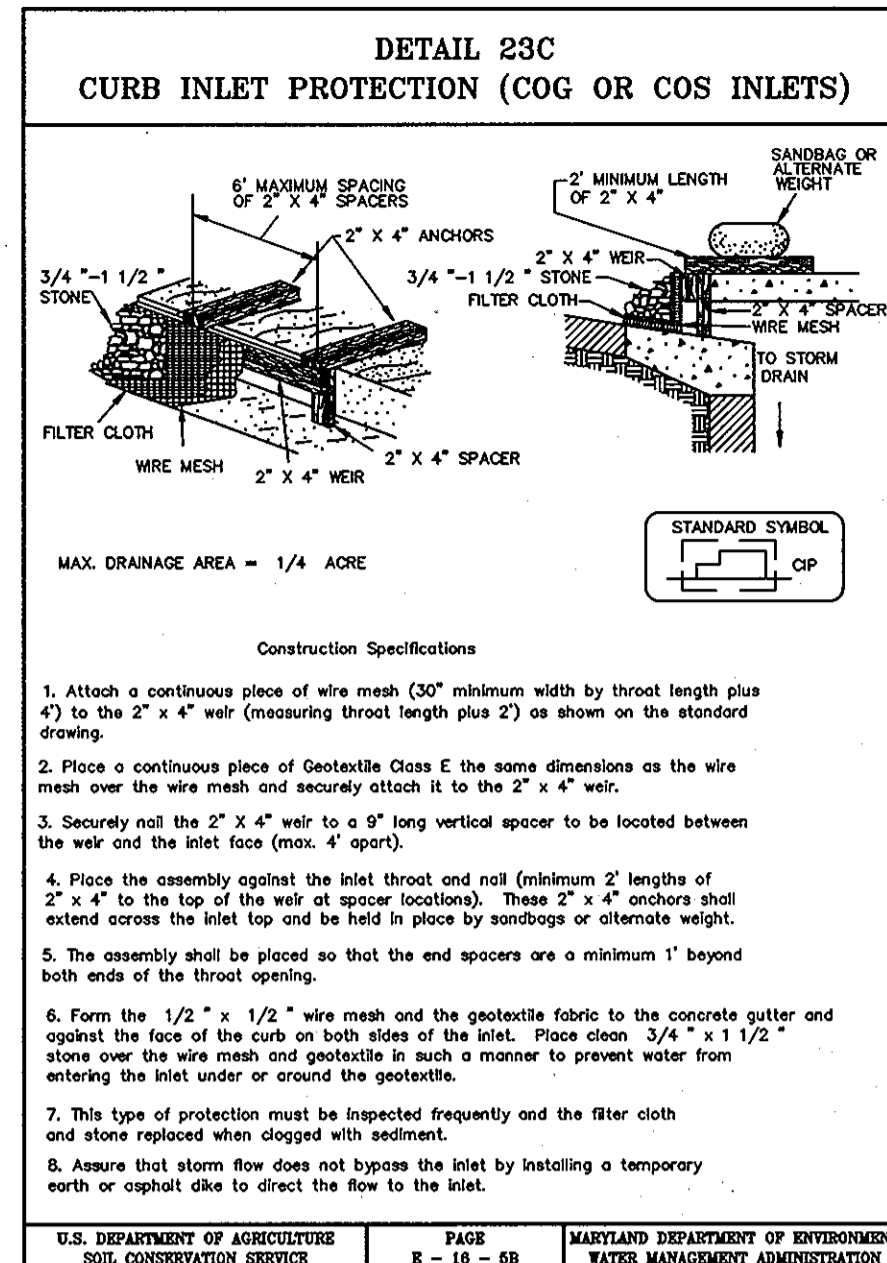
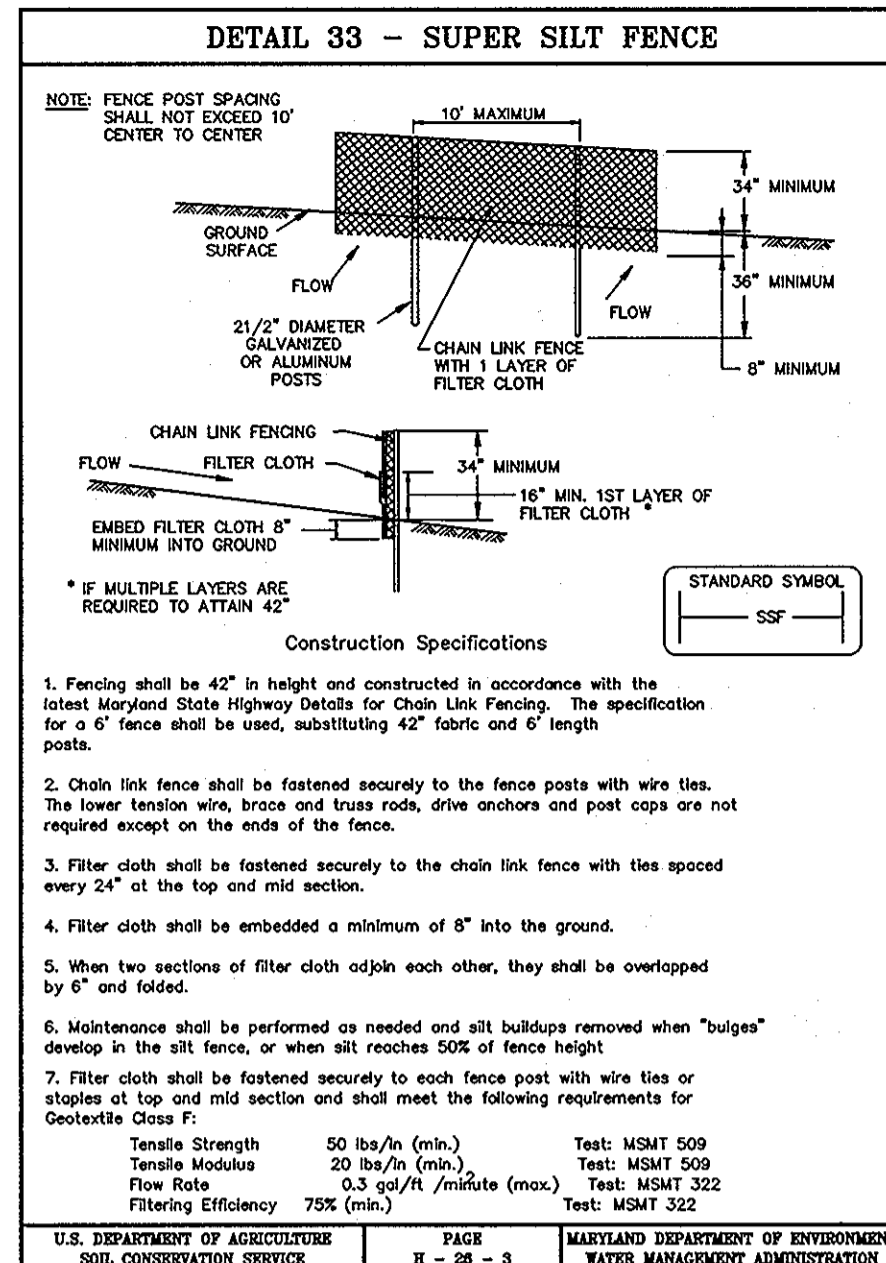
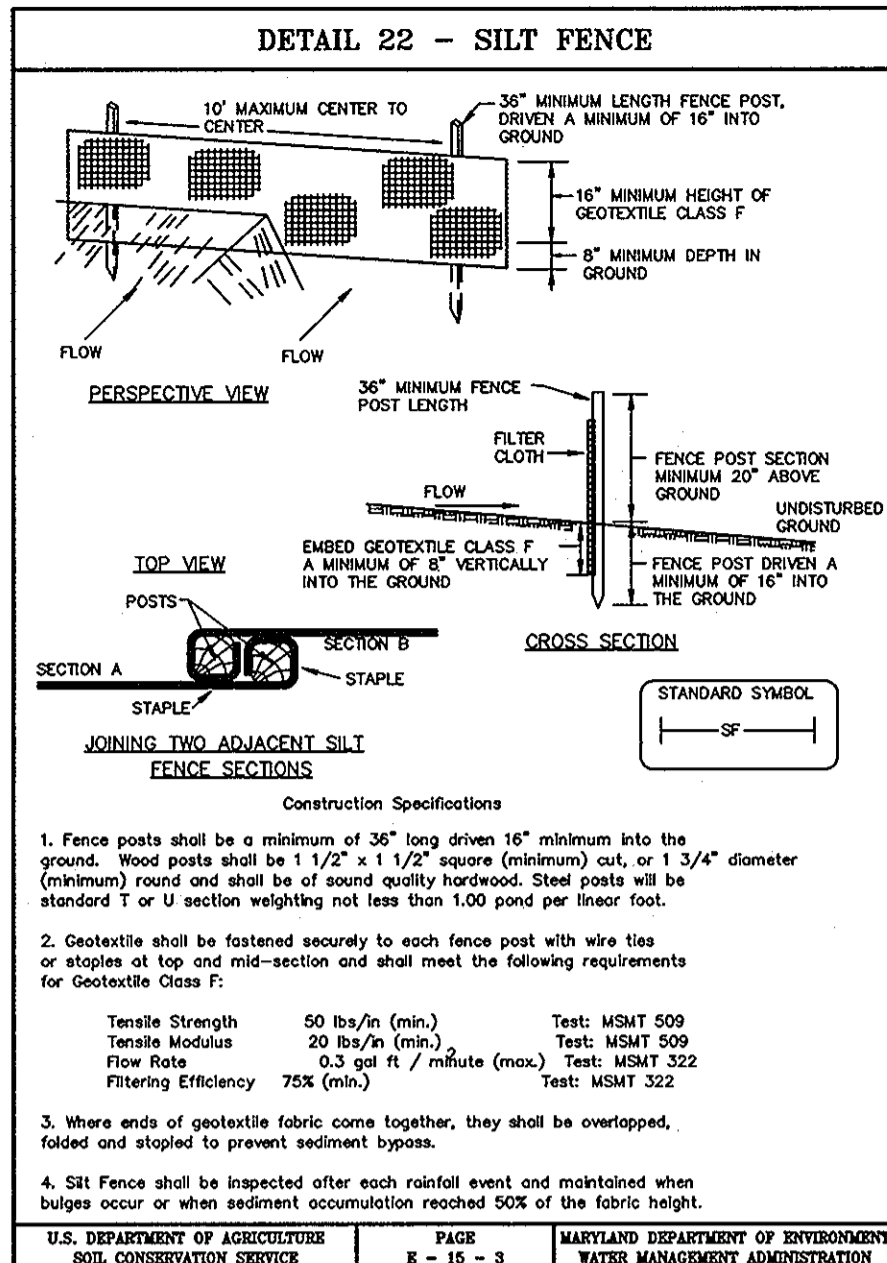
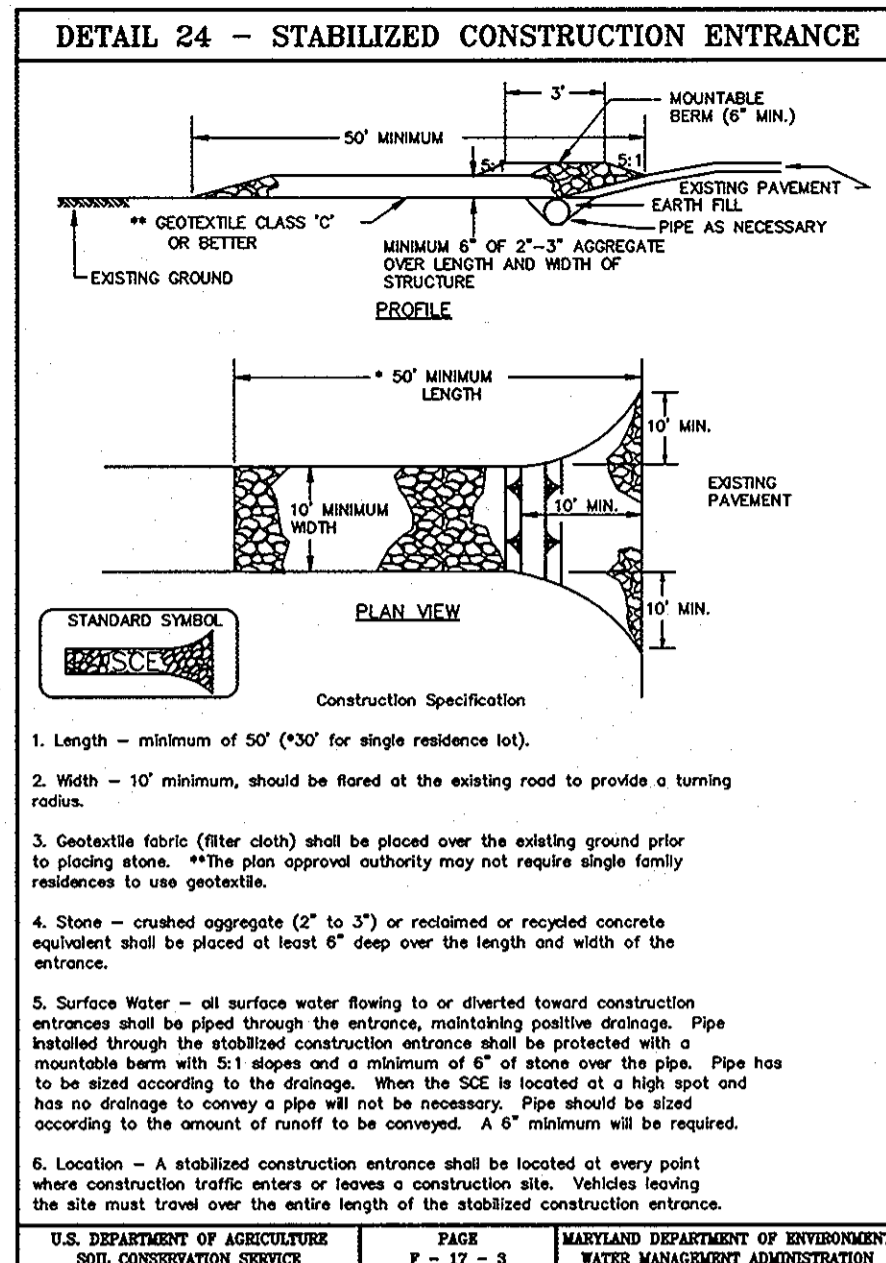
**PARCEL T-20'**

PLAT No. 17744 & 18666-67

HOWARD COUNTY, MARYLAND

SCALE	ZONING	G. L. W. FILE No.
1"=50'	M-1	05-105
DATE	TAX MAP - GRID	SHEET
OCTOBER, 2006	43 2	8 OF 16





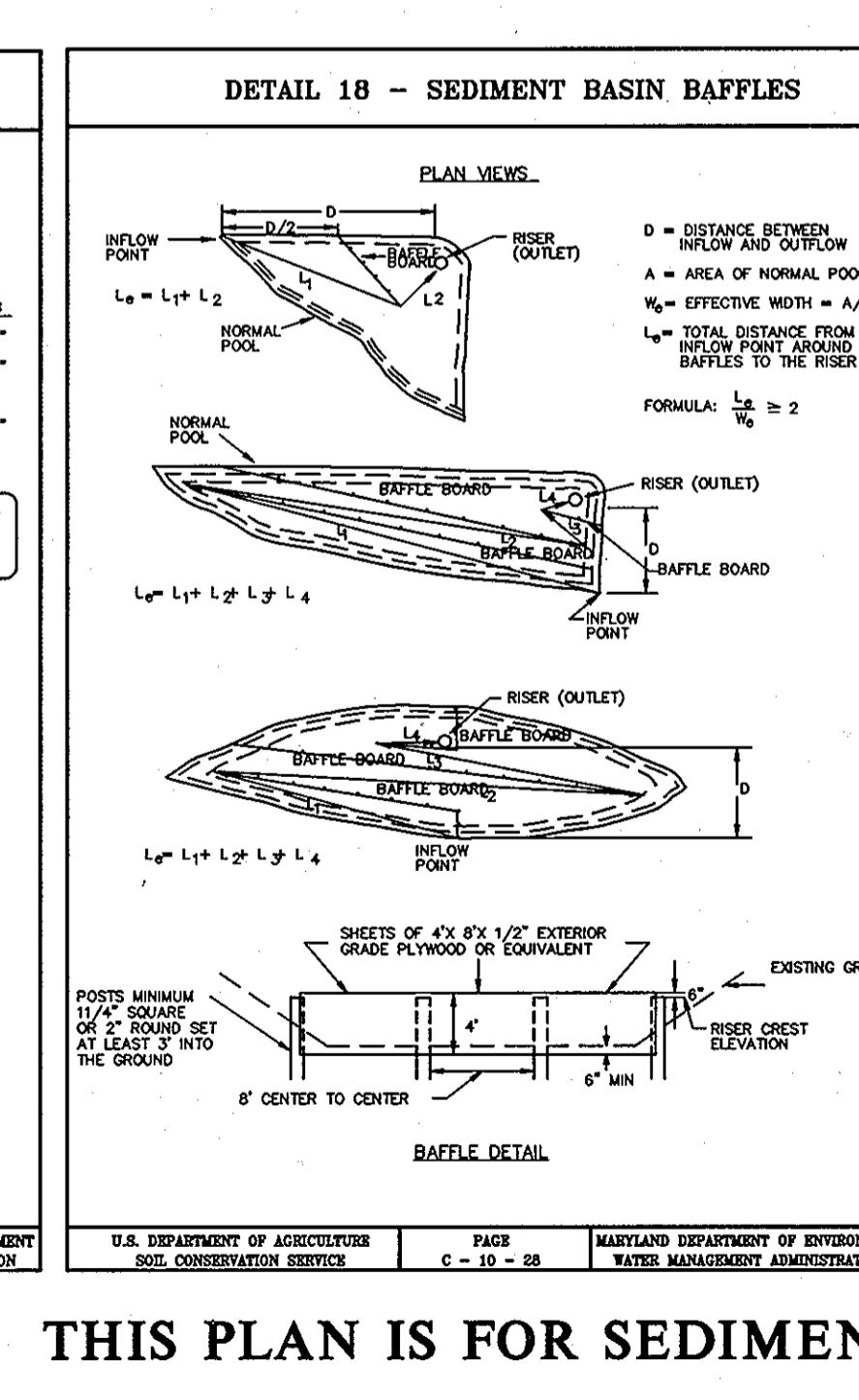
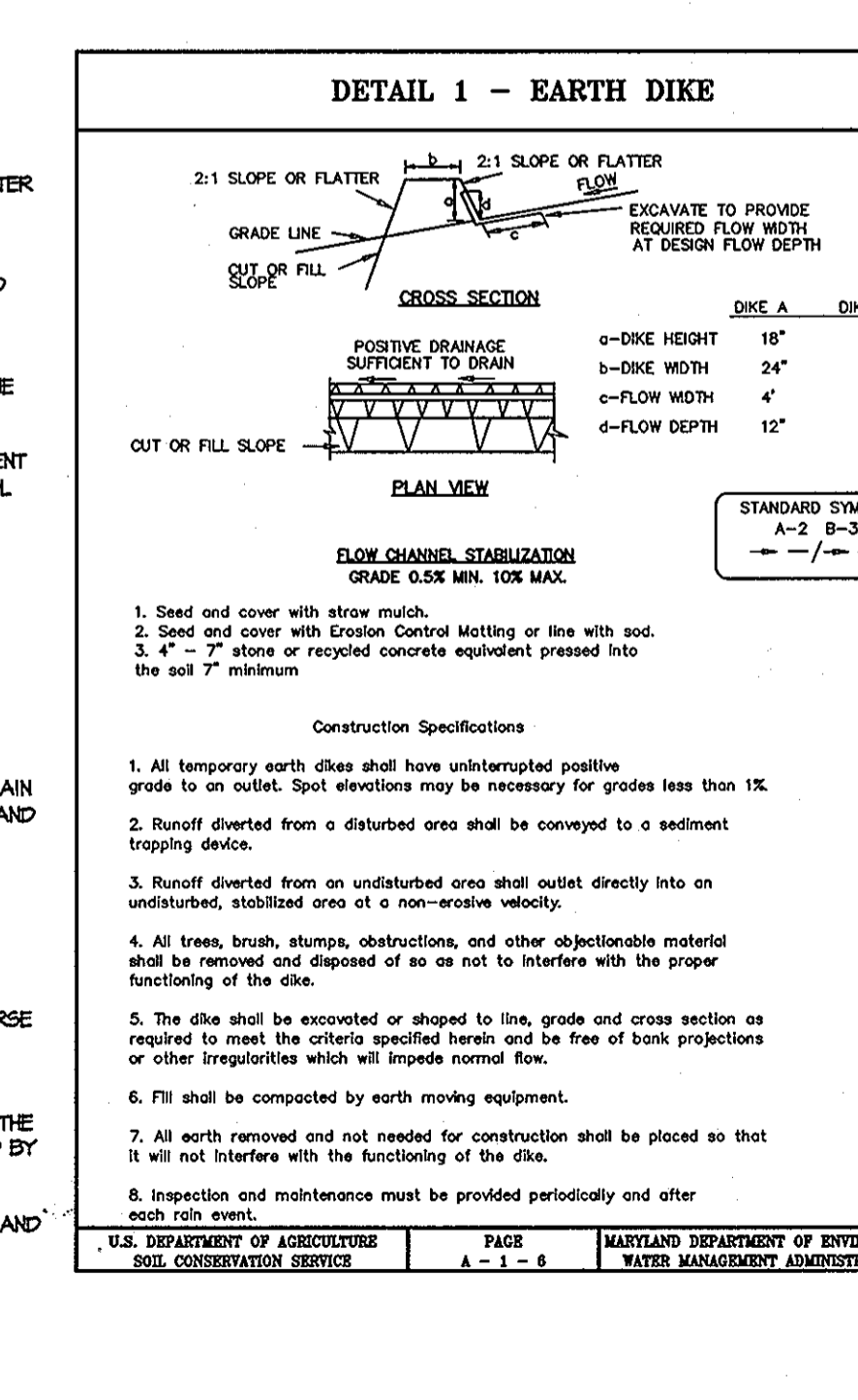
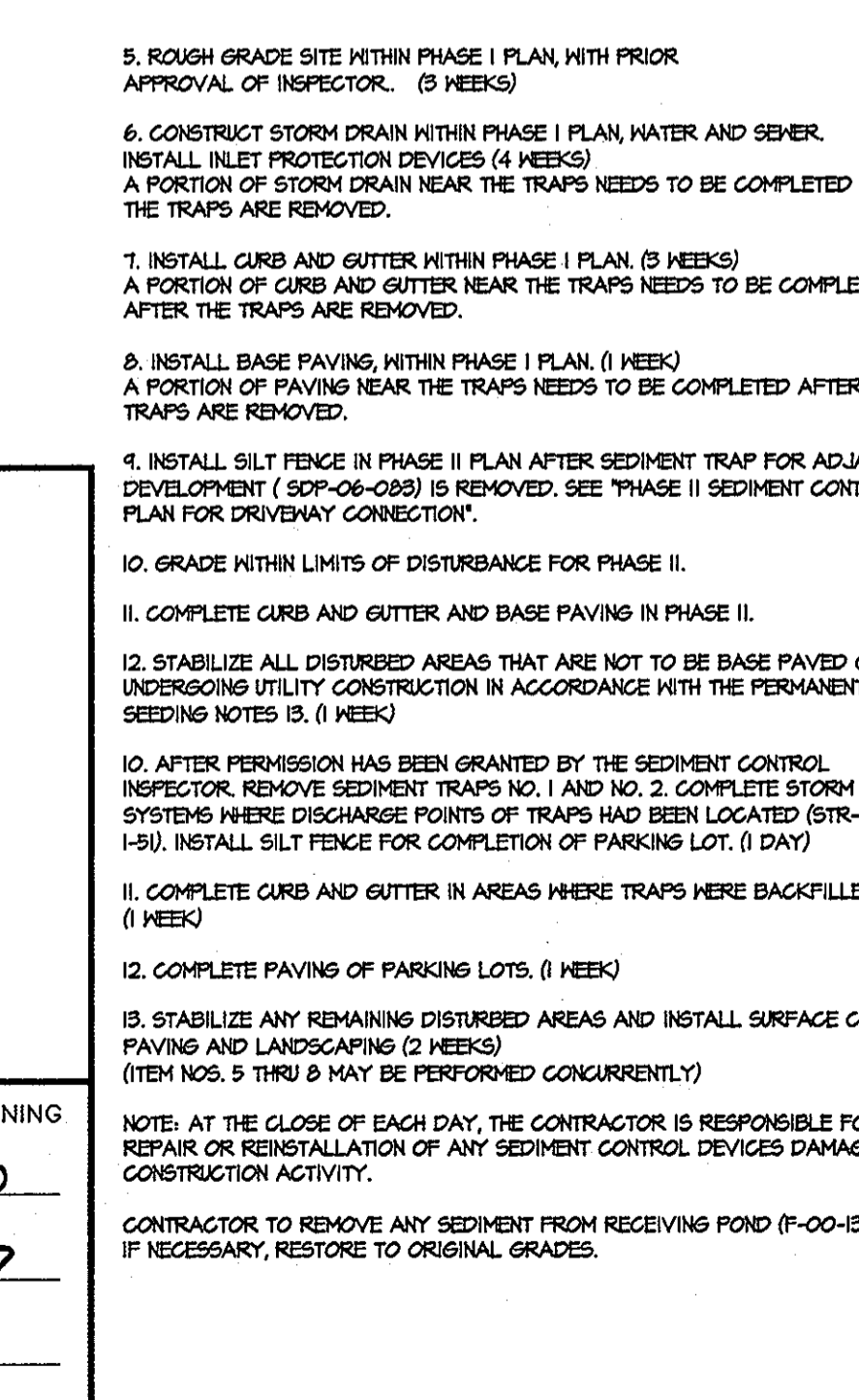
### SEQUENCE OF CONSTRUCTION

- APPLY FOR GRADING PERMIT.
- OBTAIN GRADING PERMIT AT ON-SITE PRE-CONSTRUCTION MEETINGS. (1 DAY)
- INSTALL STORM DRAIN FROM STRUCTURE E5-75 THRU I-14 AND STRUCTURE E5-57 THRU I-51. STABILIZE THE ENTRANCE TO E5-75 AND E5-57 LEAVE PIPES UNCONNECTED AT I-14 AND I-51. SEE PLAN.
- INSTALL SEDIMENT CONTROL DEVICES IN PHASE I SEDIMENT CONTROL PLAN (1 DAY)
  - STABILIZE CONSTRUCTION ENTRANCE AT BENJAMIN FRANKLIN DRIVE
  - SEDIMENT TRAPS NO. 1 AND NO. 2. INSTALL TRAPS BEFORE DRIVE DIKES
  - EARTH DIKE
- ROUGH GRADE SITE WITHIN PHASE I PLAN WITH PRIOR APPROVAL OF INSPECTOR. (3 WEEKS)
- CONSTRUCT STORM DRAIN WITHIN PHASE I PLAN, WATER AND SEWER. INSTALL INLET PROTECTION DEVICES (4 WEEKS)
  - A PORTION OF STORM DRAIN NEAR THE TRAPS NEEDS TO BE COMPLETED AFTER THE TRAPS ARE REMOVED.
- INSTALL CURB AND GUTTER WITHIN PHASE I PLAN (2 WEEKS)
  - A PORTION OF CURB AND GUTTER NEAR THE TRAPS NEEDS TO BE COMPLETED AFTER THE TRAPS ARE REMOVED.
- INSTALL BASE PAVING WITHIN PHASE I PLAN (1 WEEK)
  - A PORTION OF PAVING NEAR THE TRAPS NEEDS TO BE COMPLETED AFTER THE TRAPS ARE REMOVED.
- INSTALL SILT FENCE IN PHASE II PLAN AFTER SEDIMENT TRAP FOR ADJACENT DEVELOPMENT (SOP-06-088) IS REMOVED. SEE PHASE II SEDIMENT CONTROL PLAN FOR DRIVEWAY CONNECTION.
- GRADE WITHIN LIMITS OF DISTURBANCE FOR PHASE II.
- COMPLETE CURB AND GUTTER AND BASE PAVING IN PHASE II.
- STABILIZE ALL DISTURBED AREAS THAT ARE NOT TO BE BASE PAVED OR UNDERGOING UTILITY CONSTRUCTION IN ACCORDANCE WITH THE PERMANENT SEEDING NOTES 15. (1 WEEK)
- AFTER PERMISSION HAS BEEN GRANTED BY THE SEDIMENT CONTROL INSPECTOR, REMOVE SEDIMENT TRAPS NO. 1 AND NO. 2. COMPLETE STORM DRAIN SYSTEMS WHERE DISCHARGE POINTS OF TRAPS HAD BEEN LOCATED (E-14 AND I-51). INSTALL SILT FENCE FOR COMPLETION OF PARKING LOT. (1 DAY)
- COMPLETE CURB AND GUTTER IN AREAS WHERE TRAPS WERE BACKFILLED (1 WEEK)
- COMPLETE PAVING OF PARKING LOTS. (1 WEEK)
- STABILIZE ANY REMAINING DISTURBED AREAS AND INSTALL SURFACE COURSE PAVING AND LANDSCAPING (2 WEEKS) (ITEM NOS. 5 THRU 8 MAY BE PERFORMED CONCURRENTLY)

NOTE: AT THE CLOSE OF EACH DAY, THE CONTRACTOR IS RESPONSIBLE FOR THE REPAIR OR REINSTALLATION OF ANY SEDIMENT CONTROL DEVICES DAMAGED BY CONSTRUCTION ACTIVITY.

CONTRACTOR TO REMOVE ANY SEDIMENT FROM RECEIVING POND (P-00-132) AND IF NECESSARY, RESTORE TO ORIGINAL GRADES.

U.S. DEPARTMENT OF AGRICULTURE PAGE 11-3 MARYLAND DEPARTMENT OF ENVIRONMENT SOIL CONSERVATION SERVICE WATER MANAGEMENT ADMINISTRATION



### STANDARD AND SPECIFICATIONS FOR TOPSOIL

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

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

**CONDITIONS WHERE PRACTICE APPLIES**

- THIS PRACTICE IS LIMITED TO AREAS HAVING 2:1 OR FLATTER SLOPE WHERE:
  - THE TEXTURE OF THE EXPOSED SUBSOIL/PARENT MATERIAL IS NOT ADEQUATE TO PRODUCE VEGETATIVE GROWTH.
  - THE SOIL MATERIAL IS SO FULFON THAT THE ROOTING ZONE IS NOT DEEP ENOUGH TO SUPPORT PLANTS OR FURNISH CONTINUOUS SUPPLY OF MOISTURE AND PLANT NUTRIENTS.
  - THE ORIGINAL SOIL TO BE VEGETATED CONTAINS MATERIAL TOXIC TO PLANT GROWTH.
  - THE SOIL IS SO ACIDIC THAT TREATMENT WITH LIMESTONE IS NOT FEASIBLE.
- FOR THE PURPOSE OF THESE STANDARDS AND SPECIFICATIONS, AREAS HAVING SLOPES STEEPER THAN 2:1 REQUIRE SPECIAL CONSIDERATION AND DESIGN FOR ADEQUATE STABILIZATION. AREAS HAVING SLOPES STEEPER THAN 2:1 SHALL HAVE THE APPROPRIATE STABILIZATION SHOWN ON THE PLAN.

**CONSTRUCTION AND MATERIAL SPECIFICATIONS**

- TOPSOIL SALVAGED FROM THE EXISTING SITE MAY BE USED PROVIDED THAT IT MEETS THE STANDARDS AS SET FORTH IN THESE SPECIFICATIONS. TYPICALLY, THE DEPTH OF TOPSOIL TO BE SALVAGED FOR A GIVEN SITE TYPE CAN BE FOUND IN THE RESPECTIVE SOIL PROFILE SECTION IN THE SOIL SURVEY PUBLISHED BY USDA-SOCS IN COOPERATION WITH MARYLAND AGRICULTURAL EXPERIMENTAL 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 AGRICULTURIST OR SOIL SCIENTIST AND APPROVED BY THE APPROPRIATE APPROVAL AUTHORITY. REGARDLESS, TOPSOIL SHALL NOT BE A MIXTURE OF CONTRASTING TEXTURED SUBSTRALS AND SHALL CONTAIN LESS THAN 5% BY VOLUME SANDS, STONES, SLUGS, COARSE FRAGMENTS, GRAVEL, STICKS, ROOTS, TRASH, OR OTHER MATERIALS LARGER THAN 1 1/2" IN DIAMETER.
  - TOPSOIL MUST BE FREE OF PLANT PARTS SUCH AS BERNARDIA GRASS, QUACKGRASS, JOHNSONGRASS, NUTBUSH, POISON IVY, HEMLOCK, OR OTHERS AS SPECIFIED.
  - WHERE THE TOPSOIL IS EITHER HIGHLY ACIDIC OR COMPOSED OF HEAVY CLAYS, GROUND LIME SHALL BE SPREAD AT THE RATE OF 4-6 TONS/ACRE (200-400 POUNDS PER 1000 SQUARE FEET) PRIOR TO THE PLACEMENT OF TOPSOIL. LIME SHALL BE DISTRIBUTED UNIFORMLY OVER DESIGNATED AREAS AND WORKED INTO THE SOIL IN CONNECTION WITH TILLAGE OPERATIONS AS DESCRIBED IN THE FOLLOWING PROCEDURES.
- TRUCKS FOR THE CONSTRUCTION OF UTILITIES IS LIMITED TO 5 PIPE LENGTHS OR THAT WHICH SHALL BE BACKFILLED AND STABILIZED WITH WORKING DIRT, WHICHEVER IS SHORTER.

**PERMANENT SEEDING NOTES**

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

SEEDBED PREPARATION: LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISKING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING (UNLESS PREVIOUSLY LOOSEN).

SOIL AMENDMENTS: IN LIEU OF SOIL TEST RECOMMENDATIONS, USE ONE OF THE FOLLOWING SCHEDULES

- PREFERRED - APPLY 2 TONS PER ACRE DOLOMITIC LIMESTONE (12 LBS/1000 SQ FT) AND 600 LBS PER ACRE 10-10-10 FERTILIZER (14 LBS/1000 SQ FT) BEFORE SEEDING.
- ORGANIC MATTER: APPLY 2 TONS PER ACRE OF SOIL AT THE TIME OF SEEDING. APPLY 400 LBS PER ACRE 50-0-0 UREA-FORM FERTILIZER (4 LBS/1000 SQ FT).
- ACCEPTABLE - APPLY 2 TONS PER ACRE DOLOMITIC LIMESTONE (12 LBS/1000 SQ FT) AND 1000 LBS PER ACRE OF 10-10-10 FERTILIZER (25 LBS/1000 SQ FT) BEFORE SEEDING. HARROW OR DISC INTO FURROW THREE INCHES OF SOIL.

NOTE: TOPSOIL SUBSTITUTES OR AMENDMENTS, AS RECOMMENDED BY A QUALIFIED AGRICULTURIST OR SOIL SCIENTIST AND APPROVED BY THE APPROPRIATE APPROVAL AUTHORITY, MAY BE USED IN LIEU OF NATURAL TOPSOIL.

- PLACE TOPSOIL (IF REQUIRED) AND APPLY SOIL AMENDMENTS AS SPECIFIED IN 2.0 VEGETATIVE STABILIZATION - SECTION I - VEGETATIVE STABILIZATION METHODS AND MATERIALS (SEE SEEDING NOTES).

**TOPSOIL APPLICATION**

- AGRICULTURE HANDBOOK 346, Wind Erosion Forces in the United States and Their Use in Predicting Soil Loss.
- Agriculture Information Bulletin 354, How to Control Wind Erosion, USDA-ARS.

U.S. DEPARTMENT OF AGRICULTURE PAGE 11-3 MARYLAND DEPARTMENT OF ENVIRONMENT SOIL CONSERVATION SERVICE WATER MANAGEMENT ADMINISTRATION

### SEDIMENT CONTROL NOTES

- A MINIMUM OF 24 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY OFFICE OF INSPECTION AND PERMITS PRIOR TO THE START OF ANY CONSTRUCTION. (410) 313-1855
- ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE 1994 MARYLAND STANDARDS AND 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 1 CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DIKES AND PERIMETER SLOPES AND ALL SLOPES GREATER THAN 3:1. BY 14 DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.
- ALL SEDIMENT TRAPSPASSING 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 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, FOR PERMANENT SEEDINGS, SO, TEMPORARY SEEDINGS AND MULCHING (SEE G). 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 PERMANENT VEGETATION IS ESTABLISHED. MAINTENANCE RECORDS FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
- TOTAL AREA OF SITE: 14,940.02 ACRES
- AREA DISTURBED: 16,014 ACRES
- AREA TO BE ROOFED OR PAVED: 1,713 ACRES
- AREA TO BE VEGETATIVELY STABILIZED: 6,713 ACRES
- TOTAL CUT: 10,000 CU. YDS.
- TOTAL FILL: 10,000 CU. YDS.
- OFF-SITE PASTE/BORROW AREA LOCATION: NONE
- AN ADDITIONAL SEDIMENT CONTROL MUST BE PROVIDED, IF DEEMED NECESSARY BY THE HOWARD COUNTY DPM 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.
- TRUCKS FOR THE CONSTRUCTION OF UTILITIES IS LIMITED TO 5 PIPE LENGTHS OR THAT WHICH SHALL BE BACKFILLED AND STABILIZED WITH WORKING DIRT, WHICHEVER IS SHORTER.

U.S. DEPARTMENT OF AGRICULTURE PAGE 11-3 MARYLAND DEPARTMENT OF ENVIRONMENT SOIL CONSERVATION SERVICE WATER MANAGEMENT ADMINISTRATION

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

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

Director: *Mark McLaughlin* DATE: 1/22/07

Chief, Division of Land Development: *Cam* DATE: 1/22/07

Chief, Development Engineering Division: *gjs* DATE: 1/22/07

GLWGSCHICK LITTLE & WEBER, P.A.  
CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS  
3509 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK  
BURTONSVILLE, MARYLAND 20866  
TEL: 301-421-4024 FAX: 410-880-1820 DC/VL 301-989-2524 FAX 301-421-4186

DATE	REVISION	BY	APPR.

PREPARED FOR:  
OWNER/DEVELOPER  
THE HOWARD RESEARCH & DEVELOPMENT CORP.  
10275 LITTLE PATENT PARKWAY  
COLUMIA, MD 21046  
Phone: 410-292-6027  
Attn: PAUL CAVANAUGH

THIS PLAN IS FOR SEDIMENT CONTROL PURPOSES ONLY

### DEVELOPER'S/BUILDER'S CERTIFICATE

I/WE CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A MARYLAND DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERMITS ON-SITE INSPECTION BY THE HCCO.

Signature: *Paul G. Cavanaugh* DATE: 10/30/06

### ENGINEER'S CERTIFICATE

I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT HAS BEEN PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD COUNTY DEPARTMENT OF THE ENVIRONMENT.

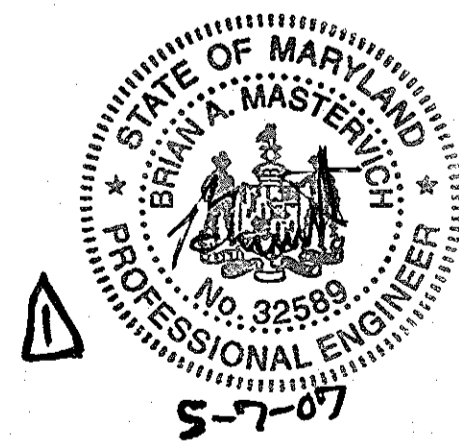
Signature: *John R. Bowman* DATE: 10/31/06

ZONING: G. L. W. FILE No. NO SCALE M-1 05-105  
DATE: TAX MAP - GRID SHEET 43 2 9 OF 16  
PLAT No. 17744 & 18466-6-7  
ELECTION DISTRICT No. 6  
HOWARD COUNTY, MARYLAND  
SDP-06-075

- LEGEND**
- 600--- EXISTING CONTOUR
  - 600— PROPOSED CONTOUR
  - PROPOSED STORM DRAIN DRAINAGE DIVIDE
  - ③③ DRAINAGE AREA DESIGNATION (SAME AS INLET & PIPE STUB NUMBER)
  - STORM DRAIN SYSTEM ALIGNMENT
  - PROPOSED NEW CURB & GUTTER (DOUBLE PARALLEL LINE)
  - - - ANTICIPATED FUTURE CURB & GUTTER (SINGLE DASH LINE)

DRAINAGE AREA INFORMATION		
INLET	AREA (ACRES)	C VALLE
<b>BENJAMIN FRANKLIN DRIVE</b>		
H-9A	0.36	0.85
<b>PARCEL T-20</b>		
I-20	1.14	
I-21	0.65	
I-22	0.55	
I-23	0.42	
I-23A	0.67	
I-24	0.09	
I-24A	0.16	
I-24B	0.20	
ROOF 1	0.35	
ES-25	6.0	
I-9	0.18	0.85
I-30	0.89	0.85
I-31	0.80	
I-32	1.06	
I-50	0.54	0.85
I-51	0.64	
I-52B	1.13	
I-52C	0.51	
I-53	0.34	
I-53	0.17	
I-54	0.62	
I-54A	0.93	
I-55	0.43	
ROOF 2	0.35	
ES-57	10.0	
I-60	0.33	0.85
I-61	0.07	
I-62	0.97	
I-70	1.11	0.85

- NOTES**
- THIS SITE WAS PREVIOUSLY MASS GRADED.
  - THE PROPOSED STORM DRAIN SYSTEMS DISCHARGE ULTIMATELY INTO THE EXISTING F-00132 SEDIMENT BASIN/SWM FACILITY IMMEDIATELY TO THE EAST OF THIS SITE. THIS FACILITY PROVIDES BOTH TEMPORARY AND PERMANENT SWM.



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING  
 Director: *Paul H. Gage* Date: 6/1/07  
 Chief, Division of Land Development: *Condy Hensch* Date: 5/29/07  
 Chief, Development Engineering Division: *John DeWitt* Date: 5/16/07

**christophe consultants**  
 engineering · surveying · land planning  
 christophe consultants, ltd.  
 1172 columbia gateway drive (suite 100) · columbia, md. 21046-2290  
 410.872.8880 · fax 410.872.8833

Date	No.	Revision Description
5/7/07	1	REVISED 5-7-07 DEVELOPMENT PLAN REVISE BUILDING FOOTPRINT & ADJACENT PARKING LOT CONFIGURATION

**OWNER / DEVELOPER**  
 THE HOWARD RESEARCH & DEVELOPMENT CORP  
 10275 LITTLE PATENT PARKWAY  
 COLUMBIA, MD 21044  
 PHONE: 410-227-6027  
 ATTN: PAUL JAVNAUGH

ELECTION DISTRICT No. 6

**DRAINAGE AREA MAP**  
 COLUMBIA GATEWAY  
 PARCEL T-20'  
 PLAT NO. 17744 & 18666-67

THIS PLAN IS FOR DRAINAGE AREA ANALYSIS PURPOSES ONLY

SCALE: 1"=80'	ZONING: M-1	CCL PROJECT NO: 06F201.00
DATE: MAY, 2007	TAX MAP- GRID 43 2	10 OF 16

MATCHLINE SEE THIS SHEET

BENJAMIN FRANKLIN DRIVE  
COLUMBIA GATEWAY  
PARCEL T-12  
PLAT NO. 16428

250 W.HPS VAPOR  
PENDANT SLAG MOUNTED  
ON 52' POLE W/ 12' ARM

INTERNAL PERIMETER

HOWARD RESEARCH &  
DEVELOPMENT  
COLUMBIA GATEWAY  
PARCEL T-13  
PLAT NO. 17744

INTERNAL PERIMETER

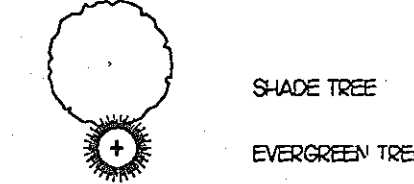
INTERNAL PERIMETER

INTERNAL PERIMETER

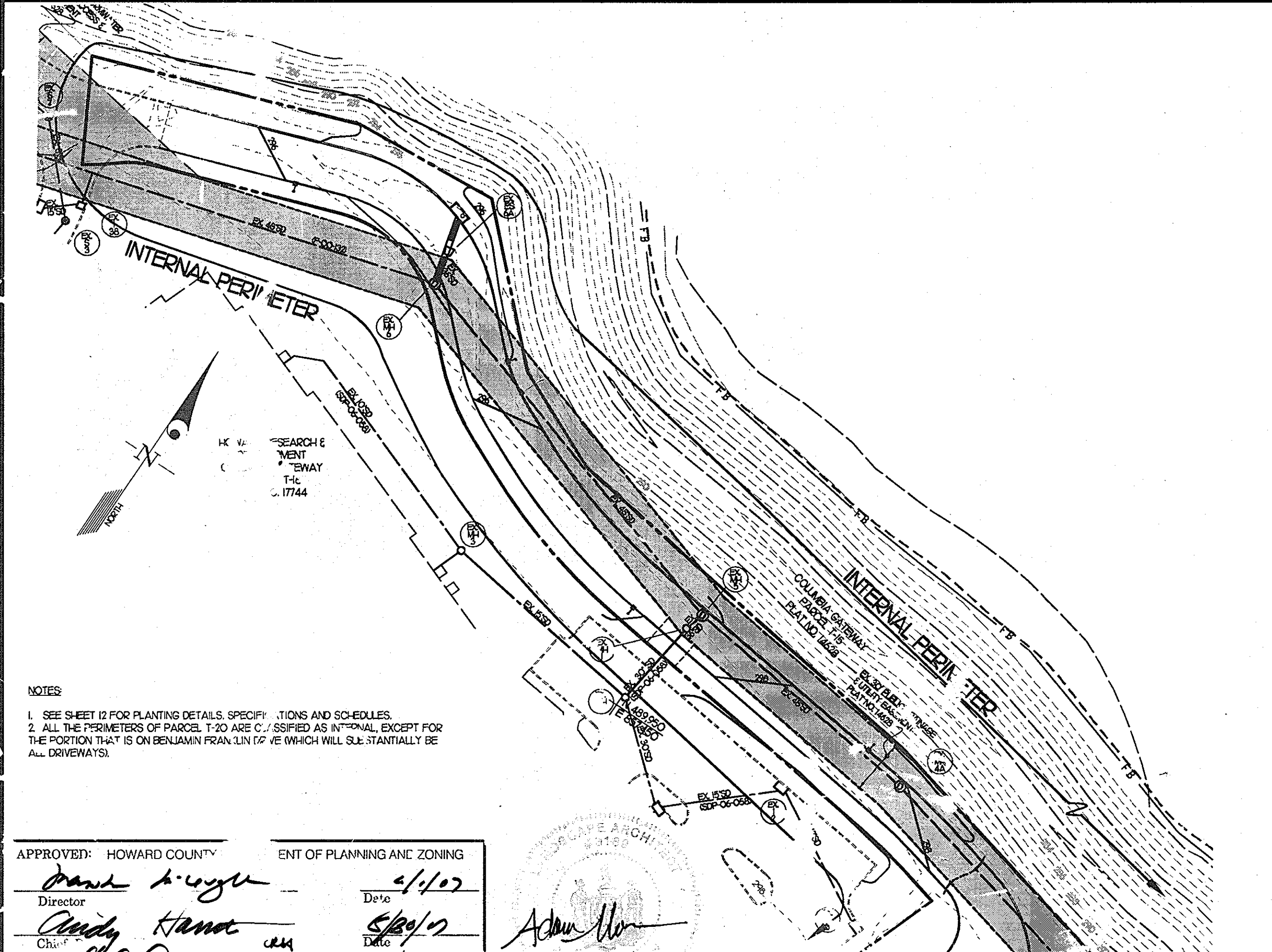
INTERNAL PERIMETER

INTERNAL PERIMETER

PLANT LEGEND

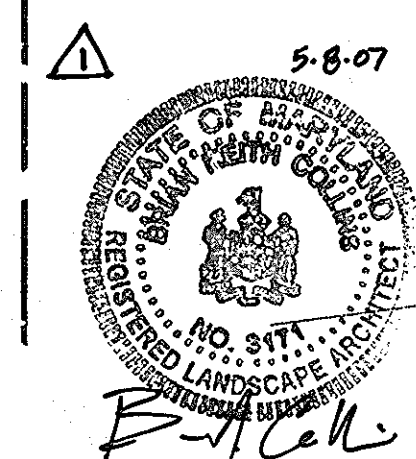


THIS PLAN IS FOR PLANTING PURPOSES ONLY



NOTES:  
1. SEE SHEET 12 FOR PLANTING DETAILS, SPECIFICATIONS AND SCHEDULES.  
2. ALL THE PERIMETERS OF PARCEL T-20 ARE CLASSIFIED AS INTERNAL EXCEPT FOR THE PORTION THAT IS ON BENJAMIN FRANKLIN DRIVE WHICH WILL SUBSTANTIALLY BE A DRIVEWAY.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING  
Director: *David Hough* Date: 4/1/07  
Chief: *Andy Khand* Date: 5/20/07  
Chief, Dev: *Alan Damiani* Date: 5/16/07



5-8-07

MATCHLINE SEE THIS SHEET

INTERNAL PERIMETER

PROPOSED 7 STORY OFFICE BUILDING  
209,770 G.S.F.  
P.F.F.E. - 305.10  
INSIDE METER

SMOKING SHELTER

INTERNAL PERIMETER

COLUMBIA GATEWAY  
PARCEL T-15  
PLAT NO. 16628-200



christopher consultants  
engineering · surveying · land planning  
christopher consultants, inc.  
1175 columbia gateway drive suite 1110 coltsville, md 21046-2990  
301.872.8600 · fax 301.872.8602

REV.	DATE	DESCRIPTION
1	2/3/07	PROPOSED SITE DEVELOPMENT PLAN
2	2/3/07	REVISED PARKING LOT CONFIGURATION & AGENT PARCEL LOT CONFIGURATION
3	2/3/07	REVISED PARKING LOT CONFIGURATION & ADD ACCESSORY STRUCTURE
4	2/3/07	ACTIVITY SHELTER & SMOKING SHELTER - REVISED SITE DEVELOPMENT PLAN

OWNERS: THE HOWARD RESEARCH & DEVELOPMENT CORP.  
102 LITTLE PATTERICK WAY  
COLUMBIA, MD 21044  
PHONE: 410-292-6027  
ATTN: PAUL CAVANAUGH

ELECTION DISTRICT No. 6

LANDSCAPE PLAN  
COLUMBIA GATEWAY  
PARCEL T-20

PLAT NO. 17744 & 18666-67

HOWARD COUNTY, MARYLAND

SCALE: 1" = 50'	CONING: 1" = 1'	CCL PROJECT NO: 06F201.00
DATE: MAY, 2007	TAX MAP GRID: 43 2	11 OF 16

**SPECIFICATIONS: PLANT MATERIALS AND PLANTING METHODS**

**A. PLANT MATERIALS**

THE LANDSCAPE CONTRACTOR SHALL FURNISH AND INSTALL AND/OR DIG, BALL, BURLAP AND TRANSPORT ALL OF THE PLANT MATERIALS CALLED FOR ON DRAWINGS AND/OR LISTED IN THE PLANT SCHEDULE.

1. PLANT NAMES  
PLANT NAMES USED IN THE PLANT SCHEDULE SHALL CONFORM WITH "STANDARDIZED PLANT NAMES," LATEST EDITION.

2. PLANT STANDARDS  
ALL PLANT MATERIAL SHALL BE EQUAL TO OR BETTER THAN THE REQUIREMENTS OF THE USA STANDARD FOR NURSERY STOCK, LATEST EDITION, AS PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSEMEN (HEREAFTER REFERRED TO AS A.A.N. STANDARDS). ALL PLANTS SHALL BE TYPICAL OF THEIR SPECIES AND VARIETY. SHALL HAVE A NORMAL HABIT OF GROWTH AND SHALL BE FIRST QUALITY, SOUND, VIGOROUS, WELL-BRANCHED AND WITH HEALTHY, WELL-FURNISHED ROOT SYSTEMS. THEY SHALL BE FREE OF DISEASE, INSECT FESTS AND MECHANICAL INJURIES.

ALL PLANTS SHALL BE NURSERY GROWN AND SHALL HAVE BEEN GROWN UNDER THE SAME CLIMATE CONDITIONS AS THE LOCATION OF THIS PROJECT FOR AT LEAST TWO YEARS BEFORE PLANTING. NEITHER HEEL-IN PLANTS NOR PLANTS FROM COLD STORAGE WILL BE ACCEPTED.

3. PLANT MEASUREMENTS  
ALL PLANTS SHALL CONFORM TO THE MEASUREMENTS SPECIFIED IN THE PLANT SCHEDULE AS APPROVED BY THE DESIGN REVIEW COMMITTEE (DRC).

A. CALIPER MEASUREMENTS SHALL BE TAKEN SIX INCHES (6") ABOVE GRADE FOR TREES UNDER FOUR-INCH (4") CALIPER AND TWELVE (12") ABOVE GRADE FOR TREES FOUR INCHES (4") IN CALIPER AND OVER.

B. MINIMUM BRANCHING HEIGHT FOR ALL SHADE TREES SHALL BE SIX FEET (6'), MAXIMUM EIGHT FEET (8').

C. CALIPER, HEIGHT, SPREAD AND SIZE OF BALL SHALL BE GENERALLY AS FOLLOWS:

CALIPER	HEIGHT	SPREAD	SIZE OF BALL
3" - 3.5"	14'-16'	6'-8'	32" DIAMETER
3.5" - 4"	14'-16'	8'-10'	36" DIAMETER
4" - 4.5"	16'-18'	8'-10'	40" DIAMETER
4.5" - 5"	16'-17'	10'-12'	44" DIAMETER
5" - 5.5"	18'-20'	10'-12'	48" DIAMETER
5.5" - 6"	18'-20'	12'-14'	52" DIAMETER

ALL PLANT MATERIAL SHALL GENERALLY AVERAGE THE MEDIAN FOR THE SIZE RANGES INDICATED ABOVE AS INDICATED IN THE "A.A.N. STANDARDS".

4. PLANT IDENTIFICATION  
LEGIBLE LABELS SHALL BE ATTACHED TO ALL SHADE TREES, MINOR TREES, SPECIMEN SHRUBS AND BUNDLES OR BOXES OF OTHER PLANT MATERIAL, GIVING THE BOTANICAL AND COMMON NAMES, SIZE AND QUANTITY OF EACH. EACH SHIPMENT OF PLANTS SHALL BEAR CERTIFICATES OF INSPECTION AS REQUIRED BY FEDERAL, STATE AND COUNTY AUTHORITIES.

5. PLANT INSPECTION  
THE DESIGN REVIEW COMMITTEE MAY, UPON REQUEST BY THE BUILDER OR DEVELOPER, AT LEAST TEN (10) DAYS PRIOR TO THE INSTALLATION OF ANY PROPOSED PLANT MATERIAL, INSPECT ALL PROPOSED PLANT MATERIAL AT THE SOURCE OF ORIGIN.

B. PLANTING METHODS  
ALL PROPOSED PLANT MATERIALS THAT MEET THE SPECIFICATIONS IN SECTION A ARE TO BE PLANTED IN ACCORDANCE WITH THE FOLLOWING METHODS DURING THE PROPER PLANTING SEASONS AS DESCRIBED IN THE FOLLOWING.

1. PLANTING SEASONS  
THE PLANTING OF DECIDUOUS TREES, SHRUBS AND VINES SHALL BE FROM MARCH 15TH TO JUNE 15TH AND FROM SEPTEMBER 15TH TO DECEMBER 15TH. PLANTING OF DECIDUOUS MATERIAL MAY BE CONTINUED DURING THE WINTER MONTHS PROVIDED THERE IS NO FROST IN THE GROUND AND FROST-FREE TOPSOIL PLANTING MIXTURES ARE USED.

THE PLANTING OF EVERGREEN MATERIAL SHALL BE FROM MARCH 15TH TO JUNE 15TH AND FROM AUGUST 15TH TO DECEMBER 15TH. NO PLANTING SHALL BE DONE WHEN THE GROUND IS FROZEN OR EXCESSIVELY MOIST. NO FROZEN OR WET TOPSOIL SHALL BE USED AT ANY TIME.

2. DIGGING  
ALL PLANT MATERIAL SHALL BE DUG, BALLED AND BURLAPPED (B4B) IN ACCORDANCE WITH THE "A.A.N. STANDARDS".

3. EXCAVATION OF PLANT FITS  
THE LANDSCAPING CONTRACTOR SHALL EXCAVATE ALL PLANT FITS, VINE FITS, HEDGE TRENCHES AND SHRUB BEDS IN ACCORDANCE WITH THE FOLLOWING SCHEDULE:

A. LOCATIONS OF ALL PROPOSED PLANT MATERIAL SHALL BE STAKED AND APPROVED IN THE FIELD BY THE LANDSCAPE ARCHITECT BEFORE ANY OF THE PROPOSED PLANT MATERIAL IS INSTALLED BY THE LANDSCAPE CONTRACTOR.

B. ALL FITS SHALL BE GENERALLY CIRCULAR IN OUTLINE. VERTICAL SIDES, DEPTH SHALL NOT BE LESS THAN 6" DEEPER THAN THE ROOT BALL DIAMETER. SHALL NOT BE LESS THAN TWO TIMES THE DIAMETER OF THE ROOT BALL AS SET FORTH IN THE FOLLOWING SCHEDULE.

C. IF AREAS ARE DESIGNATED AS SHRUB BEDS OR HEDGE TRENCHES, THEY SHALL BE EXCAVATED TO AT LEAST 18" DEPTH MINIMUM. AREAS DESIGNATED FOR GROUND COVERS AND VINES SHALL BE EXCAVATED TO AT LEAST 12" IN DEPTH MINIMUM.

**D. DIAMETER AND DEPTH OF TREE FITS SHALL GENERALLY BE AS FOLLOWS:**

PLANT SIZE	ROOT BALL	FIT DIA.	FIT DEPTH
3" - 3.5" CAL.	32"	64"	20"
3.5" - 4" CAL.	36"	72"	22"
4" - 4.5" CAL.	40"	80"	26"
4.5" - 5" CAL.	44"	88"	40"
5" - 5.5" CAL.	48"	96"	44"
5.5" - 6" CAL.	52"	104"	48"

A 20% COMPACTION FIGURE OF THE SOIL TO BE REMOVED IS ASSIGNED AND WILL BE ALLOWED IN CALCULATION OF EXTRA TOPSOIL. THE TABULATED PIT SIZES ARE FOR PURPOSES OF UNIFORM CALCULATION AND SHALL NOT OVERRIDE THE SPECIFIED DEPTHS BELOW THE BOTTOMS OF THE ROOT BALLS.

4. STAKING, GUYING AND WRAPPING  
ALL PLANT MATERIAL SHALL BE STAKED OR GUYED, AND WRAPPED IN ACCORDANCE WITH THE FOLLOWING SPECIFICATIONS:

A. STAKES SHALL BE SOUND WOOD 2" X 2" ROUGH SAWN OAK OR SIMILAR DURABLE WOODS OR LENGTHS, MINIMUM 7'-0" FOR MAJOR TREES AND 5'-0" MINIMUM FOR MINOR TREES.

B. WIRE AND CABLE: WIRE SHALL BE #10 GA. GALVANIZED OR BETHAZEN ANNEALED STEEL WIRE. FOR TREES OVER 3" CALIPER, PROVIDE 5/8" TURN BUCKLES, EYE AND EYE WITH 4" TAKEUP. FOR TREES OVER 5" CALIPER, PROVIDE 3/4" 1" STRAND CABLE CADMIUM PLATED STEEL WITH GALVANIZED "EYE" THIMBLES OF WIRE AND HOSE ON TREES UP TO 3" IN CALIPER.

C. HOSE: SHALL BE NE# 2 PLY REINFORCED RUBBER HOSE, MINIMUM 1/2" I.D. "PLASTIC LOCK TIES" OR "PAUL'S TREES BRACES" MAY BE USED IN PLACE OF WIRE AND HOSE ON TREES UP TO 3" IN CALIPER.

D. ALL TREES UNDER 3" IN CALIPER ARE TO BE PLANTED AND STAKED IN ACCORDANCE WITH THE ATTACHED PLANTING DETAILS.

**5. PLANT PRUNING, EDGING AND MULCHING**

A. EACH TREE, SHRUB OR VINE SHALL BE PRUNED IN AN APPROPRIATE MANNER TO ITS PARTICULAR REQUIREMENTS, IN ACCORDANCE WITH ACCEPTED STANDARD PRACTICE. BROKEN OR BRUISED BRANCHES SHALL BE REMOVED WITH CLEAN CUTS FLUSH WITH THE ADJACENT TRUNK OR BRANCHES. ALL CUTS OVER 1" IN DIAMETER SHALL BE PAINTED WITH AN APPROVED ANTISEPTIC TREE WOUND DRESSING.

B. ALL TRENCHES AND SHRUB BEDS SHALL BE EDGED AND CULTIVATED TO THE LINES SHOWN ON THE DRAWINGS. THE AREAS AROUND ISOLATED PLANTS SHALL BE EDGED AND CULTIVATED TO THE FULL DIAMETER OF THE PIT. SO# WHICH HAS BEEN REMOVED AND STAKED SHALL BE USED TO TRIM THE EDGES OF ALL EXCAVATED AREAS TO THE NEAT LINES OF THE PLANT FIT SAUCERS, THE EDGES OF SHRUB AREAS, HEDGE TRENCHES AND VINE POCKETS.

C. AFTER CULTIVATION, ALL PLANT MATERIALS SHALL BE MULCHED WITH A 3" LAYER OF FINE, SHREDDED PINE BARK, PEAT MOSS OR ANOTHER APPROVED MATERIAL OVER THE ENTIRE AREA OF THE BED OR SAUCER.


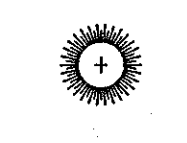
6. PLANT INSPECTION AND ACCEPTANCE  
THE DESIGN REVIEW COMMITTEE SHALL BE RESPONSIBLE FOR INSPECTING ALL PLANTING PROJECTS ON A PERIODIC BASIS TO ASSURE THAT ALL WORK IS PROCEEDING IN ACCORDANCE WITH THE APPROVED PLANS AND SPECIFICATIONS.

1. PLANT GUARANTEE  
ALL PLANT MATERIAL SHALL BE GUARANTEED FOR THE DURATION OF ONE FULL GROWING SEASON AFTER FINAL INSPECTION AND ACCEPTANCE OF THE WORK IN THE PLANTING PROJECT. PLANTS SHALL BE ALIVE AND IN SATISFACTORY GROWING CONDITION AT THE END OF THE GUARANTEE PERIOD.

A. FOR THIS PURPOSE, THE "GROWING SEASON" SHALL BE THAT PERIOD BETWEEN THE END OF THE "SPRING" PLANTING SEASON AND THE COMMENCEMENT OF THE "FALL" PLANTING SEASON.  
B. GUARANTEE FOR PLANTING PERFORMED AFTER THE SPECIFIED END OF THE "SPRING" PLANTING SEASON, SHALL BE EXTENDED THROUGH THE END OF THE NEXT FOLLOWING "SPRING" PLANTING SEASON.

SOODING  
ALL SOODING SHALL BE IN ACCORDANCE TO THE "LANDSCAPE SPECIFICATION GUIDELINES FOR BALTIMORE-WASHINGTON METROPOLITAN AREAS" LATEST EDITION, APPROVED BY THE LANDSCAPE CONTRACTORS ASSOCIATION OF METROPOLITAN WASHINGTON AND THE AMERICAN SOCIETY OF LANDSCAPE ARCHITECTS.

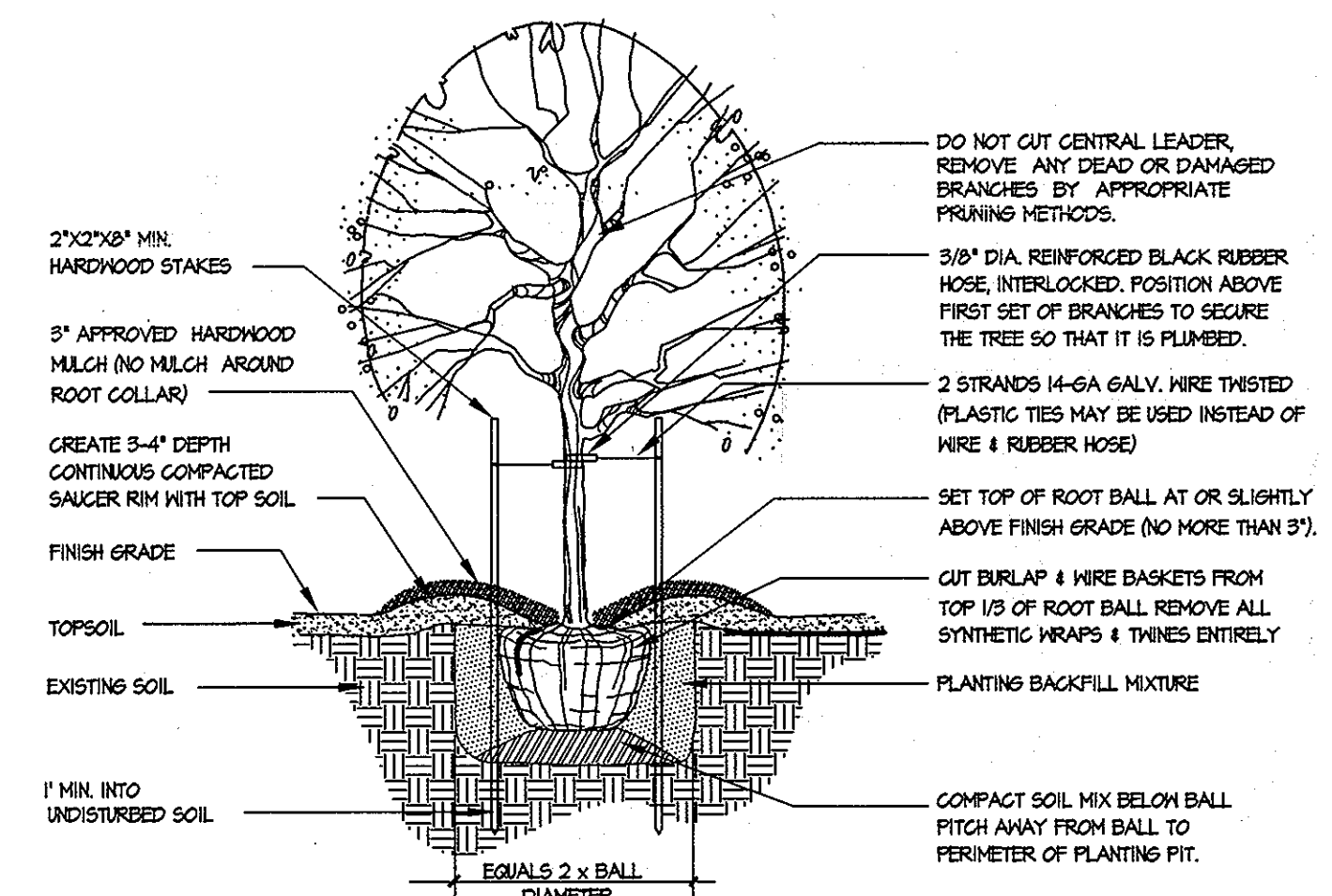
ALL SO# SHALL BE STRONGLY ROOTED SO#, NOT LESS THAN TWO YEARS OLD AND FREE OF WEEDS AND UNDESIRABLE NATIVE GRASSES. PROVIDE ONLY SO# CAPABLE OF GROWTH DEVELOPMENT WHEN PLANTED AND IN STRIPS NOT MORE THAN 18" WIDE X 4' LONG. PROVIDE SO# COMPOSED PRINCIPALLY OF IMPROVED STRAIN KENTUCKY BLUEGRASS, SUCH AS, COLUMBIA, VICTA, OR ESCORT.

PLANT SCHEDULE				
TYPE & SYMBOL	QUANT.	SELECT FROM THE FOLLOWING NAME (BOTANICAL/COMMON)	MINIMUM SIZE	REMARK
CANOPY SHADE TREE 	111	ACER RUBRUM / OCTOBER GLORY / OCTOBER GLORY RED MAPLE	25"-3.0" CAL.	B4B, FULL
		LIQUIDAMBAR STRACILFLUA / SWEETGUM	25"-3.0" CAL.	B4B, FULL
		PLATANUS OCCIDENTILIS / SYCAMORE	25"-3.0" CAL.	B4B, FULL
		QUERCUS COCCINEA / SCARLET OAK	25"-3.0" CAL.	B4B, FULL
EVERGREEN TREE 	9	QUERCUS PHELLOS / WILLOW OAK	25"-3.0" CAL.	B4B, FULL
		QUERCUS PALUSTRIS / PIN OAK	25"-3.0" CAL.	B4B, FULL
		FINIS STROBUS / EASTERN WHITE PINE	8'-10" HT.	B4B, INTACT CENTRAL LEADER
		CUPRESSOCYPARIS LEYLANDII / LEYLAND CYPRESS	6'-8" HT.	B4B, INTACT CENTRAL LEADER
		PICEA ORMORICA / SERBIAN SPRUCE	8'-10" HT.	B4B, INTACT CENTRAL LEADER

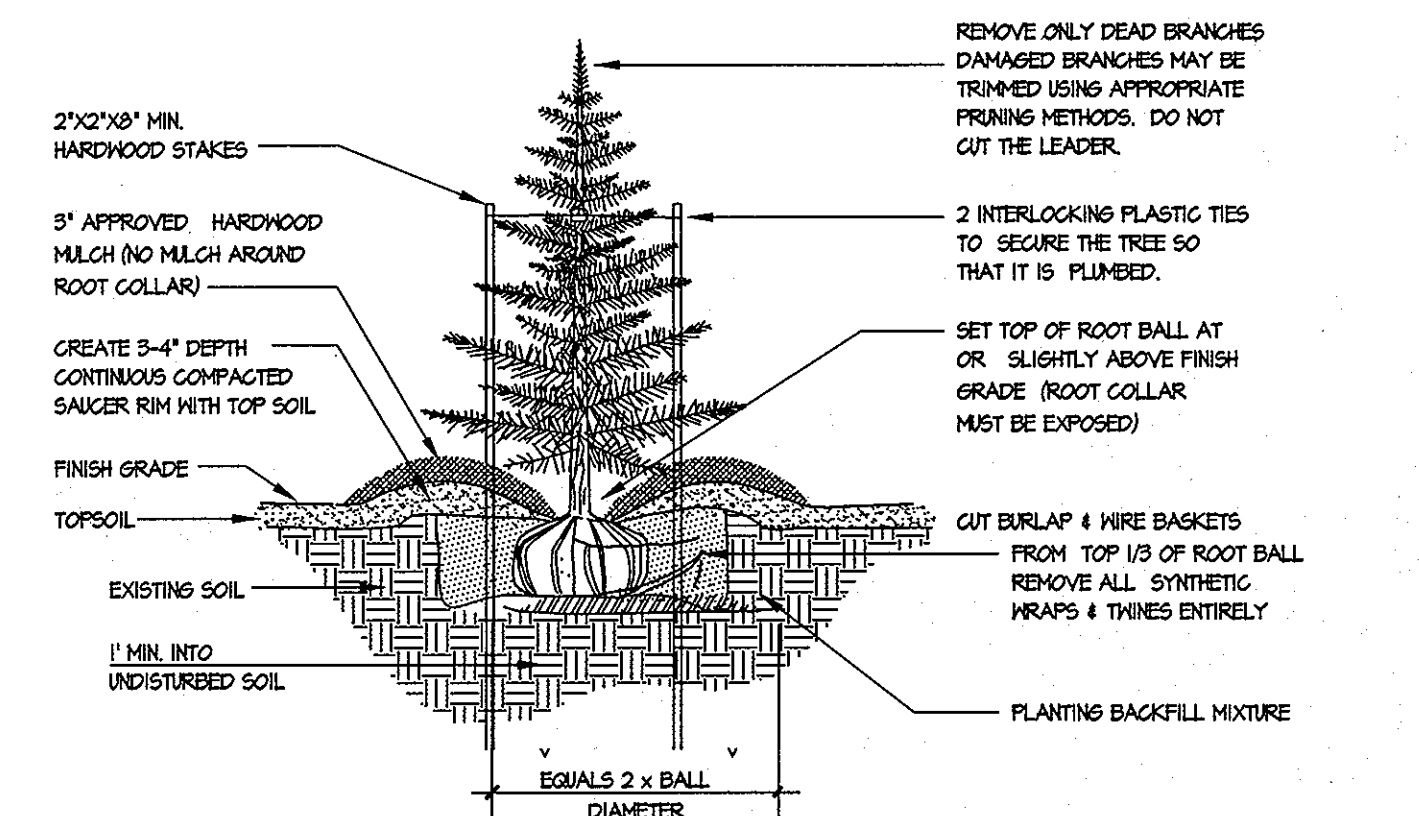
SCHEDULE-A: PERIMETER LANDSCAPE EDGE		
PERIMETER LOCATION	AT CUL-DE-SAC	INTERNAL (ALL OTHERS)
USE SITUATION	FRONT OF NON-RESIDENTIAL TO R.O.W.	INTERNAL
LANDSCAPE TYPE	B	N/A
LINEAR FEET OF ROADWAY FRONTAGE/PERIMETER	63 LF (DRIVEWAY OPENING & WATER & UTILITY EASEMENT)	N/A
CREDIT FOR EXISTING VEGETATION	NONE	N/A
CREDIT FOR WALL, FENCE OR BERM	NONE	N/A
NUMBER OF PLANTS REQUIRED		N/A
SHADE TREES	0	
EVERGREEN TREES	0	
SHRUBS	0	
NUMBER OF PLANTS PROVIDED		N/A
SHADE TREES	0	
EVERGREEN TREES	0	
OTHER TREES (@ 2:1 substitution)	0	
SHRUBS (10:1 substitution)	0	

SCHEDULE B -- PARKING LOT INTERNAL LANDSCAPING	
NUMBER OF PARKING SPACES	1006 SPACES
NUMBER OF TREES REQUIRED	50 (1 SHADE TREE PER 20 COMMERCIAL PARKING SPACES)
NUMBER OF TREES PROVIDED	
SHADE TREES	OVER 50 SHADE TREES
OTHER TREES (2:1 substitution)	N/A

LANDSCAPE SURETY FOR THE REQUIRED QUANTITY OF TREES PER SCHEDULES A & B IS \$15,000.00 FOR THE FOLLOWING:  
50 SHADE TREES AT \$300/TREE = \$ 15,000.00.



NOTE: ALL SUPPORTING DEVICES (STAKES, TIRES, ETC.) SHALL BE REMOVED AFTER 2 GROWING SEASONS.  
**DECIDUOUS TREE PLANTING DETAIL**  
FOR PLANTING MATERIAL UP TO 3 1/2" CALIPER  
NTS



NOTE: ALL SUPPORTING DEVICES (STAKES, TIRES, ETC.) SHALL BE REMOVED AFTER 2 GROWING SEASONS.  
**EVERGREEN TREE PLANTING DETAIL**  
NTS

**LANDSCAPE NOTES**

- THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH SECTION 16.024 OF THE HOWARD COUNTY CODE & THE HOWARD COUNTY LANDSCAPE MANUAL.
- CONTRACTOR SHALL NOTIFY ALL UTILITIES AT LEAST (5) FIVE DAYS BEFORE STARTING WORK. ALL GENERAL NOTES, ESPECIALLY THOSE REGARDING UTILITIES, ON SHEET N61 SHALL APPLY.
- FIELD VERIFY UNDERGROUND UTILITY LOCATIONS AND EXISTING CONDITIONS BEFORE STARTING PLANTING WORK. CONTACT CONSTRUCTION MANAGER OR OWNER IF ANY RELOCATIONS ARE REQUIRED.
- PLANT QUANTITIES SHOWN ON THE PLAN LIST ARE PROVIDED FOR THE CONVENIENCE OF THE CONTRACTOR ONLY. IF DISCREPANCIES EXIST BETWEEN QUANTITIES SHOWN ON THE PLAN AND THOSE SHOWN ON THE PLANT LIST, THE QUANTITIES ON THE PLAN SHALL TAKE PRECEDENCE.
- ALL PLANT MATERIAL SHALL BE FULL, HEAVY, WELL FORMED, SYMMETRICAL, AND CONFORM TO THE A.A.N. SPECIFICATIONS. IN ADDITION, ALL REQUIRED PLANTING FOR THE LANDSCAPE ISLANDS IN THE PARKING LOT SHALL CONFORM TO THE HOWARD COUNTY LANDSCAPE MANUAL. ALL PLANT MATERIAL SHALL BE INSTALLED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS AND THIS PLAN.
- NO SUBSTITUTION SHALL BE MADE WITHOUT PRIOR APPROVAL FROM HOWARD COUNTY DPZ AND THE OWNER OR HIS REPRESENTATIVE.
- ALL AREAS DISTURBED BY CONSTRUCTION ACTIVITIES BUT NOT OTHERWISE PLANTED, PAVED, OR MULCHED SHALL BE SOODING OR SEEDING IN ACCORDANCE WITH THE PERMANENT SEEDING SPECIFICATION. A MINIMUM OF 4" OF TOPSOIL SHALL BE PROVIDED TO ALL PLANTING AREAS.
- THE CONTRACTOR SHALL NOTIFY THE OWNER IN WRITING IF HE/SHE ENCOUNTERS SOIL DRAINAGE CONDITIONS THAT MAY BE DETRIMENTAL TO THE GROWTH OF THE PLANTS.
- ALL EXPOSED EARTH WITHIN THE LIMITS OF PLANTING BEDS SHALL BE MULCHED WITH SHREDDED HARDWOOD MULCH PER THE PLANTING DETAILS.
- DO NOT PLANT WITHIN THE PUBLIC WATER, SEWER AND UTILITY EASEMENT.
- COORDINATE THE PLANTING UNDER F-00-182 THE WORK ON THIS SITE DEVELOPMENT PLAN.
- SCHEDULES 'A' AND 'B' ARE PROVIDED FOR LANDSCAPE SURETY CALCULATION PURPOSES. FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING SHALL BE POSTED AS PART OF THE DPZ DEVELOPER'S AGREEMENT IN THE AMOUNT OF \$15,000.00 FOR THE FOLLOWING PLANTS:  
50 SHADE TREES AT \$300/TREE = \$15,000.00
- FOR LANDSCAPE INSPECTION TO OBTAIN THE RELEASE OF THE SURETY, CONTACT HOWARD COUNTY DEPT. OF PLANNING & ZONING AT 410-318-2350.

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

I/WE CERTIFY THAT THE LANDSCAPING SHOWN ON THIS PLAN WILL BE DONE ACCORDING TO THE PLAN, SECTION 16.024 OF THE HOWARD COUNTY CODE AND THE HOWARD COUNTY LANDSCAPE MANUAL, AND THE APPROVED MAPLE LAWN FARMS LANDSCAPE DESIGN DEVELOPMENT CRITERIA. I/WE FURTHER CERTIFY THAT UPON COMPLETION, A LETTER OF LANDSCAPE INSTALLATION ACCOMPANIED BY AN EXPECTED ONE-YEAR GUARANTEE OF PLANT MATERIALS, WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.

*Paul G. Cavanaugh* 10/20/00  
NAME (DEVELOPER/BUILDER) DATE

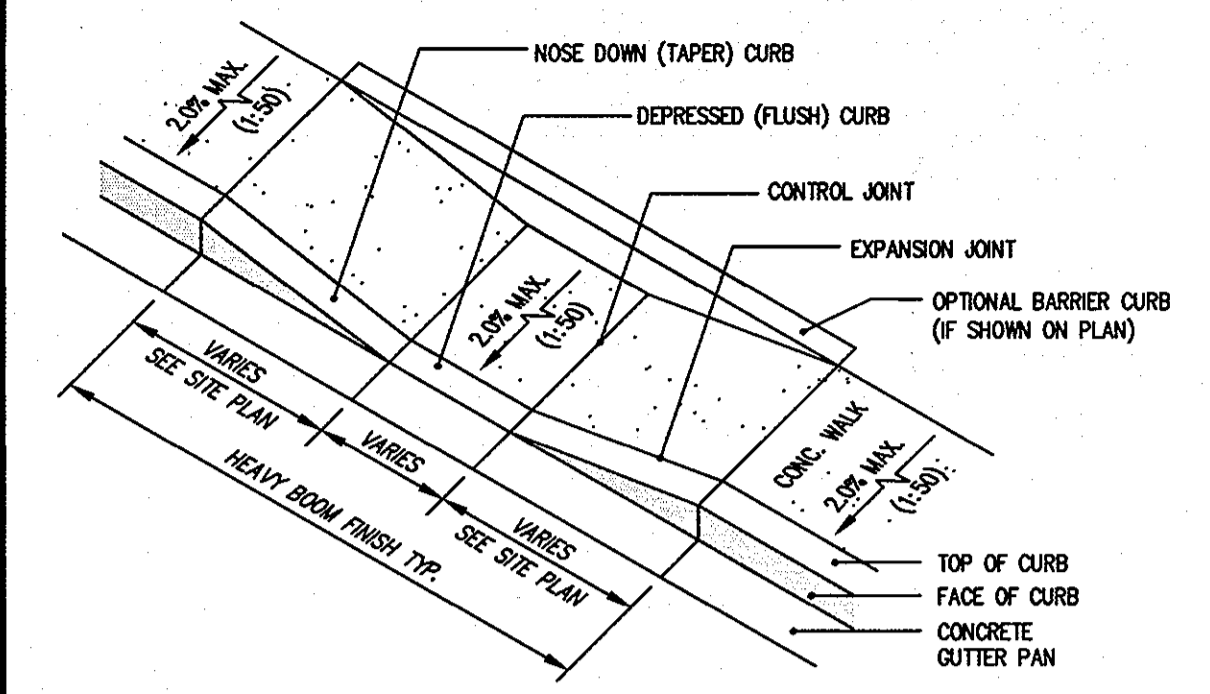
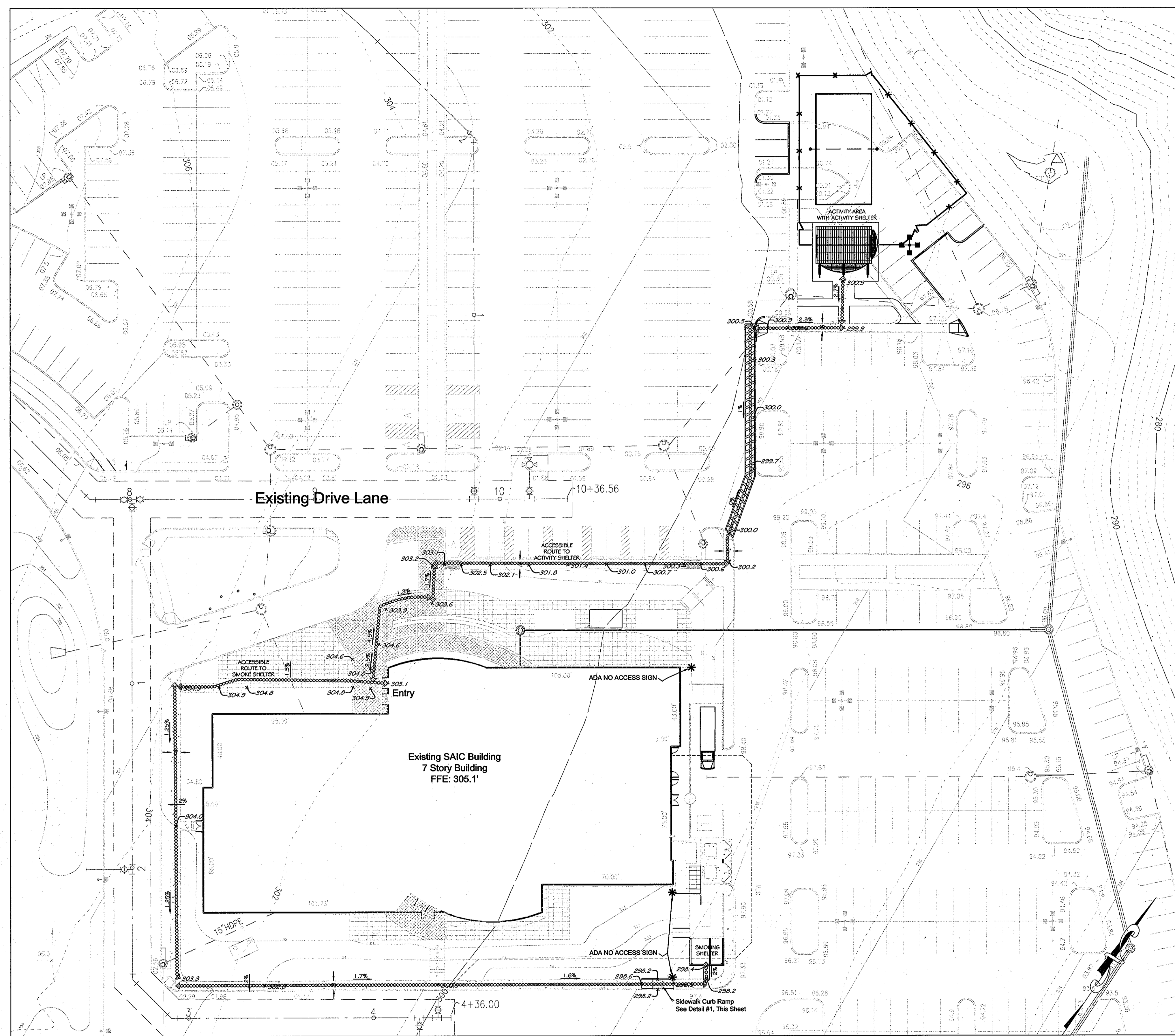
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING  
*Mark A. Gough* 2/1/02  
Director Date  
*Andy Harris* 1/30/02  
Chief, Division of Land Development CAN Date  
*William* 12/1/00  
Chief, Development Engineering Division QW Date

**GLWGUTSCHICK LITTLE & WEBER, P.A.**  
CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS  
3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK  
BURTONSVILLE, MARYLAND 20866  
TEL: 301-421-4024 BAL: 410-880-1820 DC/VA: 301-988-2524 FAX: 301-421-4186

STATE OF MARYLAND  
Michael B. Tran  
*Michael B. Tran*  
988 LANDSCAPE ARCHITECT



FILE NAME: Y:\2008 Projects\08-0001.01 - SAIC Site Improvements\Design\Site\_Axiom.dwg LAYOUT NAME: SAIC - Refined\_15 PLOTTED: Friday, August 05, 2011 - 8:19pm USER: A.Morman



1 TYPE-C SIDEWALK CURB RAMP NO SCALE



- GENERAL NOTES:
1. COLORS: LEGEND AND BORDER - GREEN  
SYMBOL - WHITE ON BLUE BACKGROUND  
BACKGROUND - WHITE
  2. PLACE SIGN AT BOTTOM AND TOP OF LOADING DOCK SERVICE RAMP

2 NOT ACCESSIBLE ROUTE - SIGNS DETAIL NO SCALE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING  
*Mmas J. Suttler* 8/24/11  
 Director Date  
*Kat Shadlock* 8/24/11  
 Chief, Division of Land Development Date  
*Adam J. Morman* 8/10/11  
 Chief, Development Engineering Division Date

STATE OF MARYLAND  
 LANDSCAPE ARCHITECT  
 Adam J. Morman, RLA  
 Landscape Architect  
 6900 Columbia Gateway Drive, Suite 150, Columbia, Maryland 21046  
 Ph: 443-276-6220 Fax: 443-276-6221 a.morman@axiom-ed.com

PROFESSIONAL CERTIFICATION  
 I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM DULY LICENSED LANDSCAPE ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 3189, EXPIRATION DATE 3/17/2015

**Axiom Engineering Design**  
 Civil Engineering • Land Surveying • Landscape Architecture • Land Planning  
 6900 Columbia Gateway Dr. Ste 150 Office: 443.276.6220  
 Columbia, Maryland 21046 Fax: 443.276.6221  
 www.axiom-ed.com info@axiom-ed.com

Date	No.	Revision Description
8/31/11	1	REVISE PARKING LOT CONFIGURATION + ADD ACCESSORY STRUCTURES ACTIVITY SHELTER + SMOKING SHELTER
3/7/13		

OWNER / DEVELOPER  
 Franklin Center, LLC  
 6841 Benjamin Franklin Drive  
 Columbia, Maryland 21046  
 PHONE: 443-367-7808  
 ATTN: Scott Roark

REVISED SITE DEVELOPMENT PLAN  
 A.D.A. ACCESSIBLE ROUTES TO ACCESSORY SITE STRUCTURES  
 RECORD SET - 5/23/2011  
 COLUMBIA GATEWAY  
 PARCEL 'T-20'

SCALE: 1"=30'	ZONING: M-1	AED PROJECT NO: 08-0001.00
DATE: MAY, 20 2011	TAX MAP- GRID 43 2	15 OF 16

ELECTION DISTRICT No. 6

HOWARD COUNTY, MARYLAND

**SPECIFICATIONS: PLANT MATERIALS AND PLANTING METHODS**

**A. PLANT MATERIALS**

THE LANDSCAPE CONTRACTOR SHALL FURNISH AND INSTALL AND/OR DIG, BALL, BURLAP AND TRANSPORT ALL OF THE PLANT MATERIALS CALLED FOR ON DRAWINGS AND/OR LISTED IN THE PLANT SCHEDULE.

- PLANT NAMES**  
PLANT NAMES USED IN THE PLANT SCHEDULE SHALL CONFORM WITH "STANDARDIZED PLANT NAMES," LATEST EDITION.
- PLANT STANDARDS**  
ALL PLANT MATERIAL SHALL BE EQUAL TO OR BETTER THAN THE REQUIREMENTS OF THE "USA STANDARD FOR NURSERY STOCK" LATEST EDITION, AS PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMEN (HERE-AFTER REFERRED TO AS "AAS" STANDARDS). ALL PLANTS SHALL BE TYPICAL OF THEIR SPECIES AND VARIETY, SHALL HAVE A NORMAL HABIT OF GROWTH AND SHALL BE FIRST QUALITY, SOUND, VIGOROUS, WELL-BRANCHED AND WITH HEALTHY, WELL-FURNISHED ROOT SYSTEMS. THEY SHALL BE FREE OF DISEASE, INSECT PESTS AND MECHANICAL INJURIES.  
ALL PLANTS SHALL BE NURSERY GROWN AND SHALL HAVE BEEN GROWN UNDER THE SAME CLIMATE CONDITIONS AS THE LOCATION OF THIS PROJECT FOR AT LEAST TWO YEARS BEFORE PLANTING. NEITHER HEEL-IN PLANTS NOR PLANTS FROM COLD STORAGE WILL BE ACCEPTED.
- PLANT MEASUREMENTS**  
ALL PLANTS SHALL CONFORM TO THE MEASUREMENTS SPECIFIED IN THE PLANT SCHEDULE AS APPROVED BY THE DESIGN REVIEW COMMITTEE (DRC).

- CALIPER MEASUREMENTS** SHALL BE TAKEN SIX INCHES (6") ABOVE GRADE FOR TREES UNDER FOUR-INCH (4") CALIPER AND TWELVE (12") ABOVE GRADE FOR TREES FOUR INCHES (4") IN CALIPER AND OVER.
- MINIMUM BRANCHING HEIGHT** FOR ALL SHADE TREES SHALL BE SIX FEET (6'), MAXIMUM EIGHT FEET (8').

C. CALIPER, HEIGHT, SPREAD AND SIZE OF BALL SHALL BE GENERALLY AS FOLLOWS:

CALIPER	HEIGHT	SPREAD	SIZE OF BALL
3" - 3.5"	14'-16"	6'-8"	32" DIAMETER
3.5" - 4"	14'-16"	8'-10"	36" DIAMETER
4" - 4.5"	16'-18"	8'-10"	40" DIAMETER
4.5" - 5"	16'-17"	10'-12"	44" DIAMETER
5" - 5.5"	16'-20"	10'-12"	48" DIAMETER
5.5" - 6"	18'-20"	12'-14"	52" DIAMETER

ALL PLANT MATERIAL SHALL GENERALLY AVERAGE THE MEDIAN FOR THE SIZE RANGES INDICATED ABOVE AS INDICATED IN THE "AAS STANDARDS".

- PLANT IDENTIFICATION**  
LEGIBLE LABELS SHALL BE ATTACHED TO ALL SHADE TREES, MINOR TREES, SPECIMEN SHRUBS AND BUNDLES OR BOXES OF OTHER PLANT MATERIAL GIVING THE BOTANICAL AND COMMON NAMES, SIZE AND QUANTITY OF EACH. EACH SHIPMENT OF PLANTS SHALL BEAR CERTIFICATES OF INSPECTION AS REQUIRED BY FEDERAL, STATE AND COUNTY AUTHORITIES.

- PLANT INSPECTION**  
THE DESIGN REVIEW COMMITTEE MAY, UPON REQUEST BY THE BUILDER OR DEVELOPER, AT LEAST TEN (10) DAYS PRIOR TO THE INSTALLATION OF ANY PROPOSED PLANTING MATERIAL, INSPECT ALL PROPOSED PLANT MATERIAL AT THE SOURCE OF ORIGIN.

- PLANTING METHODS**  
ALL PROPOSED PLANT MATERIALS THAT MEET THE SPECIFICATIONS IN SECTION A ARE TO BE PLANTED IN ACCORDANCE WITH THE FOLLOWING METHODS DURING THE PROPER PLANTING SEASONS AS DESCRIBED IN THE FOLLOWING:

- PLANTING SEASONS**  
THE PLANTING OF DECIDUOUS TREES, SHRUBS AND VINES SHALL BE FROM MARCH 1ST TO JUNE 15TH AND FROM SEPTEMBER 15TH TO DECEMBER 15TH. PLANTING OF DECIDUOUS MATERIAL MAY BE CONTINUED DURING THE WINTER MONTHS PROVIDING THERE IS NO FROST IN THE GROUND AND FROST-FREE TOPSOIL PLANTING MIXTURES ARE USED.  
THE PLANTING OF EVERGREEN MATERIAL SHALL BE FROM MARCH 15TH TO JUNE 15TH AND FROM AUGUST 15TH TO DECEMBER 1ST. NO PLANTING SHALL BE DONE WHEN THE GROUND IS FROZEN OR EXCESSIVELY MOIST. NO FROZEN OR WET TOPSOIL SHALL BE USED AT ANY TIME.

- DIGGING**  
ALL PLANT MATERIAL SHALL BE DIG, BALLED AND BURLAPPED (B&B) IN ACCORDANCE WITH THE "AAS STANDARDS".

- EXCAVATION OF PLANT PITS**  
THE LANDSCAPING CONTRACTOR SHALL EXCAVATE ALL PLANT PITS, VINE PITS, HEDGE TRENCHES AND SHRUB BEDS IN ACCORDANCE WITH THE FOLLOWING SCHEDULE:

- LOCATIONS OF ALL PROPOSED PLANT MATERIAL SHALL BE STAKED AND APPROVED IN THE FIELD BY THE LANDSCAPE ARCHITECT BEFORE ANY OF THE PROPOSED PLANT MATERIAL IS INSTALLED BY THE LANDSCAPE CONTRACTOR.**

- ALL PITS SHALL BE GENERALLY CIRCULAR IN OUTLINE, VERTICAL SIDES; DEPTH SHALL NOT BE LESS THAN 6" DEEPER THAN THE ROOT BALL. DIAMETER SHALL NOT BE LESS THAN TWO TIMES THE DIAMETER OF THE ROOT BALL AS SET FORTH IN THE FOLLOWING SCHEDULE.**

- IF AREAS ARE DESIGNATED AS SHRUB BEDS OR HEDGE TRENCHES, THEY SHALL BE EXCAVATED TO AT LEAST 18" DEPTH MINIMUM. AREAS DESIGNATED FOR GROUND COVERS AND VINES SHALL BE EXCAVATED TO AT LEAST 12" IN DEPTH MINIMUM.**

D. DIAMETER AND DEPTH OF TREE PITS SHALL GENERALLY BE AS FOLLOWS:

PLANT SIZE	ROOT BALL	PIT DIA.	PIT DEPTH
3" - 3.5" CAL.	32"	64"	28"
3.5" - 4" CAL.	36"	72"	32"
4" - 4.5" CAL.	40"	80"	36"
4.5" - 5" CAL.	44"	88"	40"
5" - 5.5" CAL.	48"	96"	44"
5.5" - 6" CAL.	52"	104"	48"

A 20% COMPACTION FIGURE OF THE SOIL TO BE REMOVED IS ASSUMED AND WILL BE ALLOWED IN CALCULATION OF EXTRA TOPSOIL. THE TABULATED PIT SIZES ARE FOR PURPOSES OF UNIFORM CALCULATION AND SHALL NOT OVERRIDE THE SPECIFIED DEPTHS BELOW THE BOTTOMS OF THE ROOT BALLS.

- STAKING, GUYING AND WRAPPING**  
ALL PLANT MATERIAL SHALL BE STAKED OR GUYED, AND WRAPPED IN ACCORDANCE WITH THE FOLLOWING SPECIFICATIONS:

A. STAKES: SHALL BE SOUND WOOD 2" X 2" ROUGH SAWN OAK OR SIMILAR DURABLE WOODS, OR LENGTHS, MINIMUM 7'-0" FOR MAJOR TREES AND 5'-0" MINIMUM FOR MINOR TREES.

B. WIRE AND CABLE: WIRE SHALL BE #10 GA. GALVANIZED OR BETHANIZED ANNEALED STEEL WIRE. FOR TREES OVER 3" CALIPER, PROVIDE 5/16" TURN BUCKLES, EYE AND EYE WITH 4" TAKE-UP. FOR TREES OVER 5" CALIPER, PROVIDE 3/16" 7-STRAND CABLE CADMIUM PLATED STEEL, WITH GALVANIZED "EYE" THIMBLES OF WIRE AND HOSE ON TREES UP TO 3" IN CALIPER.

C. HOSE: SHALL BE NEW, 2 PLY REINFORCED RUBBER HOSE, MINIMUM 1/2" I.D. "PLASTIC LOCK TIES" OR "PAUL'S TREES BRACES" MAY BE USED IN PLACE OF WIRE AND HOSE ON TREES UP TO 3" IN CALIPER.

D. ALL TREES UNDER 3" IN CALIPER ARE TO BE PLANTED AND STAKED IN ACCORDANCE WITH THE ATTACHED PLANTING DETAILS.

- PLANT PRUNING, EDGING AND MULCHING**

A. EACH TREE, SHRUB OR VINE SHALL BE PRUNED IN AN APPROPRIATE MANNER TO ITS PARTICULAR REQUIREMENTS, IN ACCORDANCE WITH ACCEPTED STANDARD PRACTICE. BROKEN OR BRUISED BRANCHES SHALL BE REMOVED WITH CLEAN CUTS FLUSH WITH THE ADJACENT TRUNK OR BRANCHES. ALL CUTS OVER 1" IN DIAMETER SHALL BE PAINTED WITH AN APPROVED ANTISEPTIC TREE WOUND DRESSING.

B. ALL TRENCHES AND SHRUB BEDS SHALL BE EDGED AND CULTIVATED TO THE LINES SHOWN ON THE DRAWING. THE AREAS AROUND ISOLATED PLANTS SHALL BE EDGED AND CULTIVATED TO THE FULL DIAMETER OF THE PIT. SOD WHICH HAS BEEN REMOVED AND STACKED SHALL BE USED TO TRIM THE EDGES OF ALL EXCAVATED AREAS TO THE NEAT LINES OF THE PLANT PIT SAUCERS, THE EDGES OF SHRUB AREAS, HEDGE TRENCHES AND VINE POCKETS.

C. AFTER CULTIVATION, ALL PLANT MATERIALS SHALL BE MULCHED WITH A 3" LAYER OF FINE, SHREDDED PINE BARK, PEAT MOSS, OR ANOTHER APPROVED MATERIAL OVER THE ENTIRE AREA OF THE BED OR SAUCER.

- PLANT INSPECTION AND ACCEPTANCE**  
THE DESIGN REVIEW COMMITTEE SHALL BE RESPONSIBLE FOR INSPECTING ALL PLANTING PROJECTS ON A PERIODIC BASIS TO ASSURE THAT ALL WORK IS PROCEEDING IN ACCORDANCE WITH THE APPROVED PLANS AND SPECIFICATIONS.

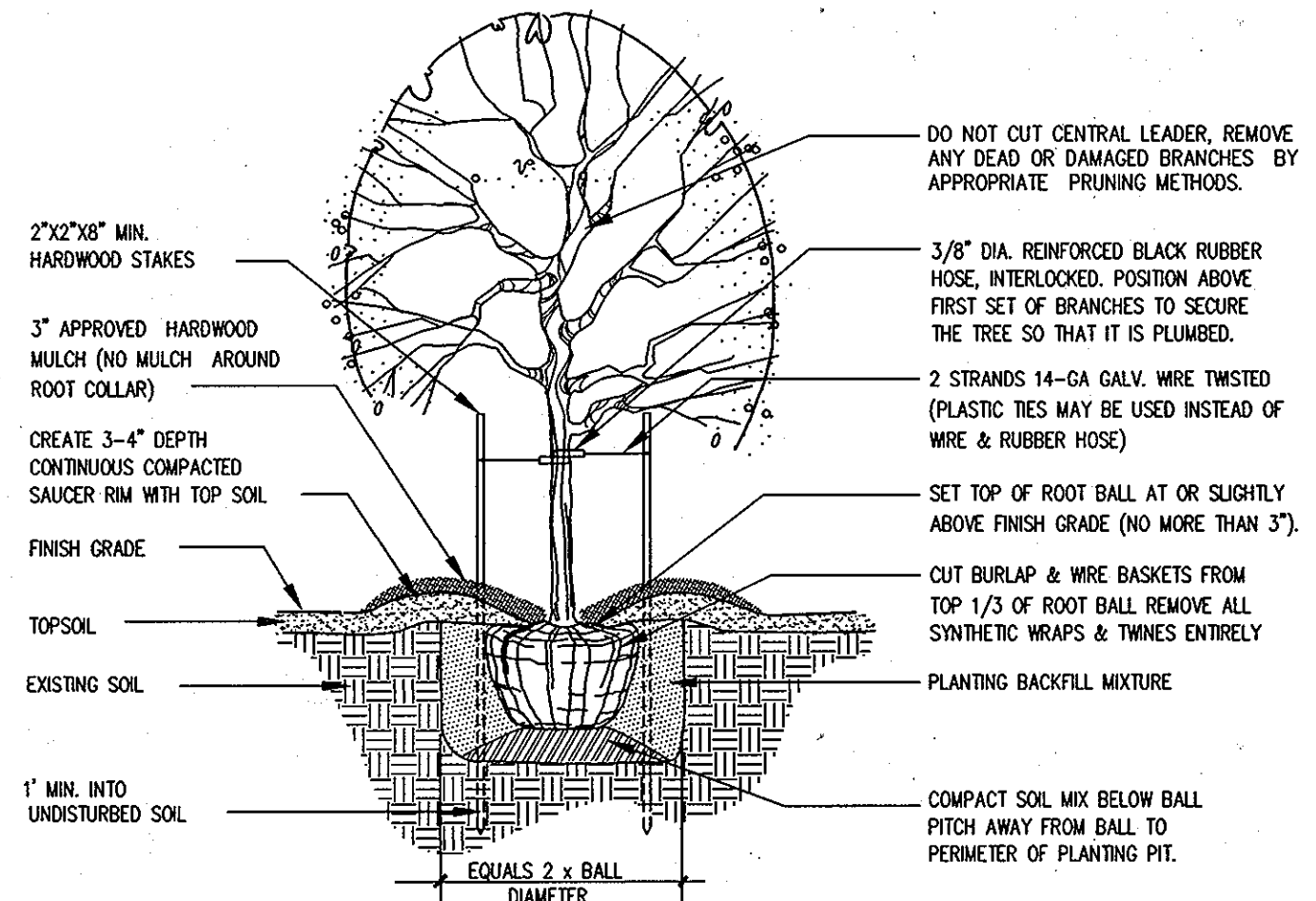
- PLANT GUARANTEE**  
ALL PLANT MATERIAL SHALL BE GUARANTEED FOR THE DURATION OF ONE FULL GROWING SEASON, AFTER FINAL INSPECTION AND ACCEPTANCE OF THE WORK IN THE PLANTING PROJECT. PLANTS SHALL BE ALIVE AND IN SATISFACTORY GROWING CONDITION AT THE END OF THE GUARANTEE PERIOD.

A. FOR THIS PURPOSE, THE "GROWING SEASON" SHALL BE THAT PERIOD BETWEEN THE END OF THE "SPRING" PLANTING SEASON, AND THE COMMENCEMENT OF THE "FALL" PLANTING SEASON.

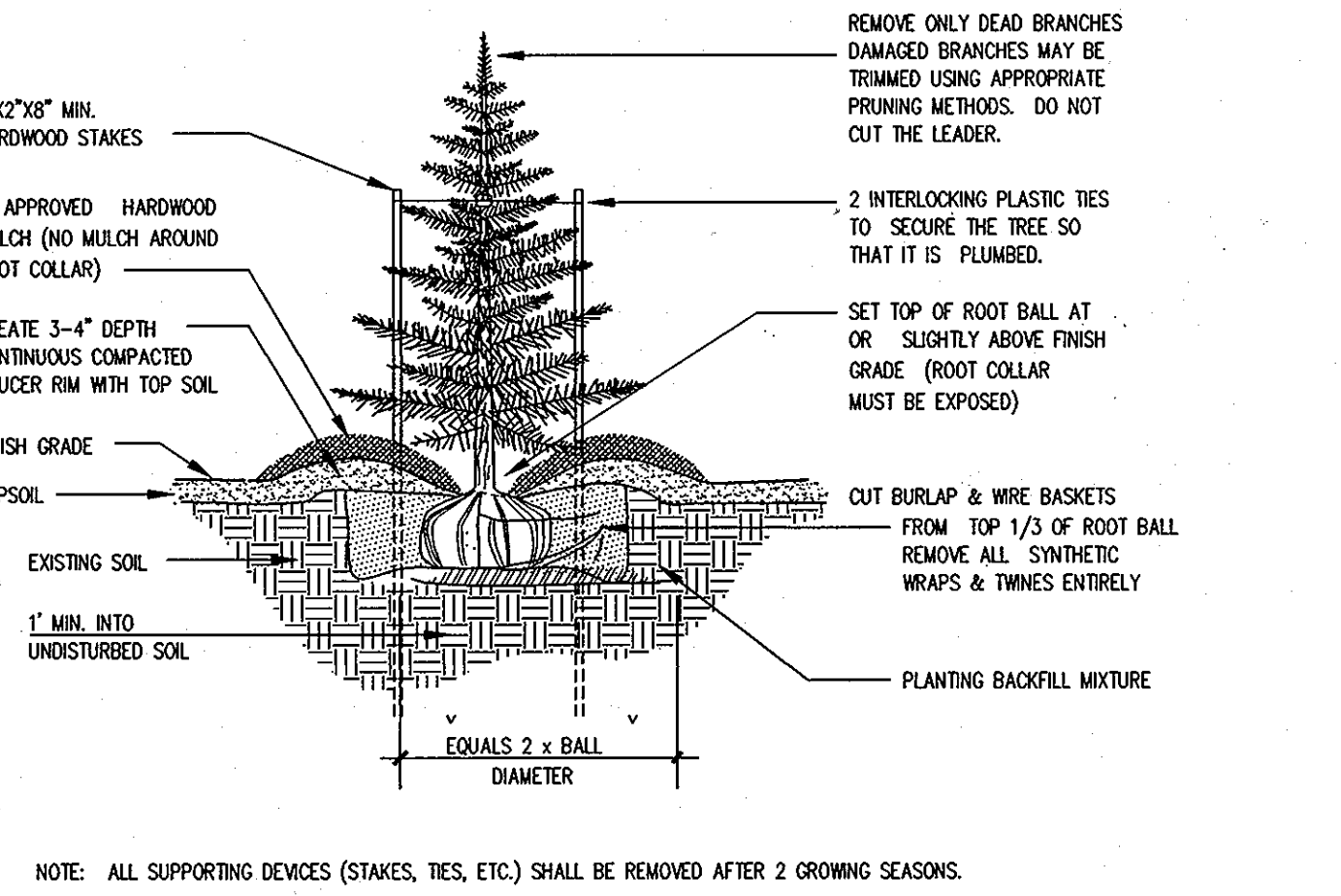
B. GUARANTEE FOR PLANTING PERFORMED AFTER THE SPECIFIED END OF THE "SPRING" PLANTING SEASON, SHALL BE EXTENDED THROUGH THE END OF THE NEXT FOLLOWING "SPRING" PLANTING SEASON.

**SODDING**

ALL SODDING SHALL BE IN ACCORDANCE TO THE "LANDSCAPE SPECIFICATION GUIDELINES FOR BALTIMORE-WASHINGTON METROPOLITAN AREAS" LATEST EDITION, APPROVED BY THE LANDSCAPE CONTRACTORS ASSOCIATION OF METROPOLITAN WASHINGTON AND THE AMERICAN SOCIETY OF LANDSCAPE ARCHITECTS.  
ALL SOD SHALL BE STRONGLY ROOTED SOD, NOT LESS THAN TWO YEARS OLD AND FREE OF WEEDS AND UNDESIRABLE NATIVE GRASSES. PROVIDE ONLY SOD CAPABLE OF GROWTH DEVELOPMENT WHEN PLANTED AND IN STRIPS NOT MORE THAN 18" WIDE X 4" LONG. PROVIDE SOD COMPOSED PRINCIPALLY OF IMPROVED STRAIN KENTUCKY BLUEGRASS, SUCH AS, COLUMBIA, VICTA, OR ESCORT.

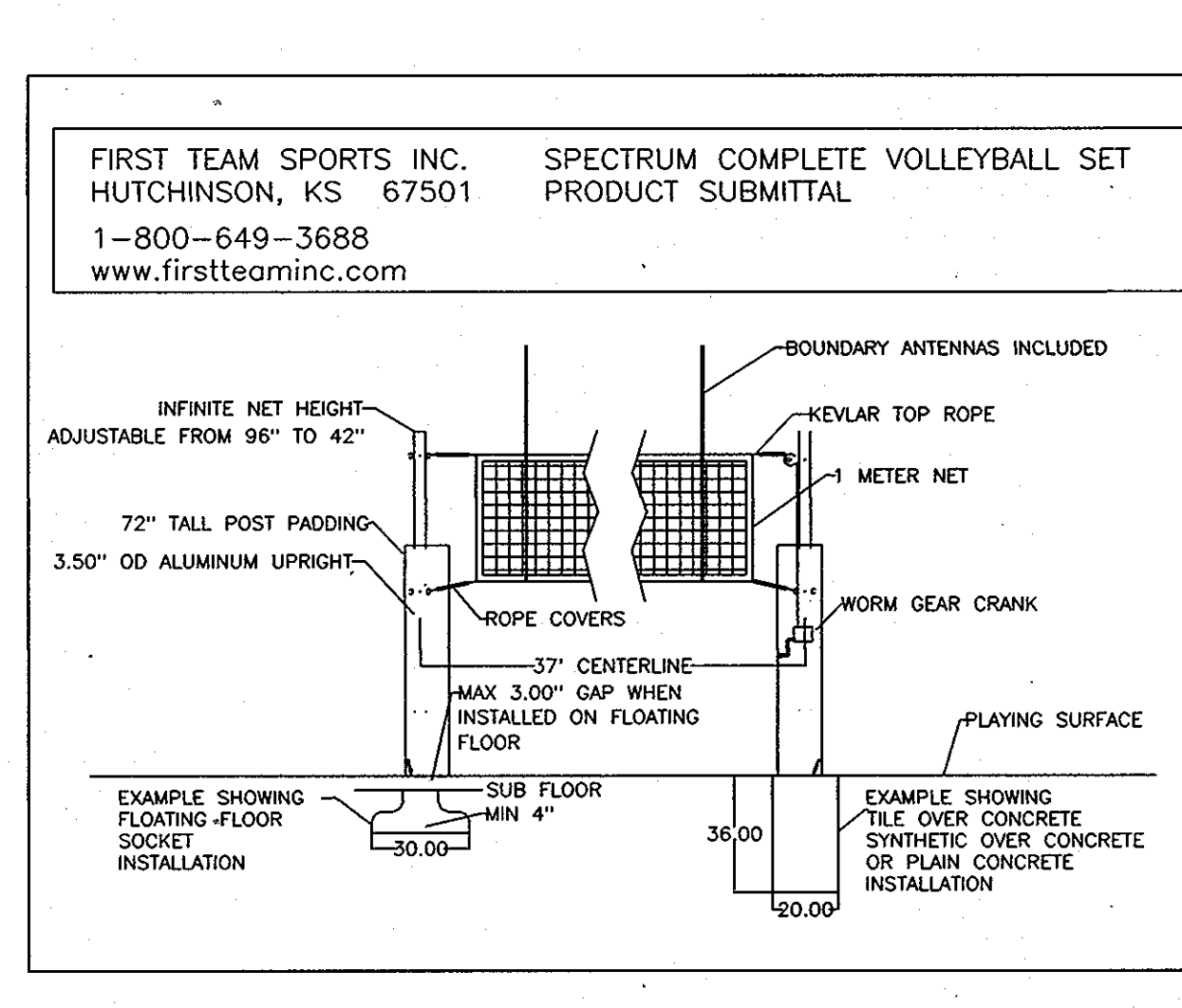


DECIDUOUS TREE PLANTING DETAIL  
FOR PLANTING MATERIAL UP TO 3 1/2" CALIPER N.T.S.



EVERGREEN TREE PLANTING DETAIL N.T.S.

1 CONCRETE PAVING DETAIL N.T.S.



3 PORTABLE VOLLEYBALL NET DETAIL N.T.S.

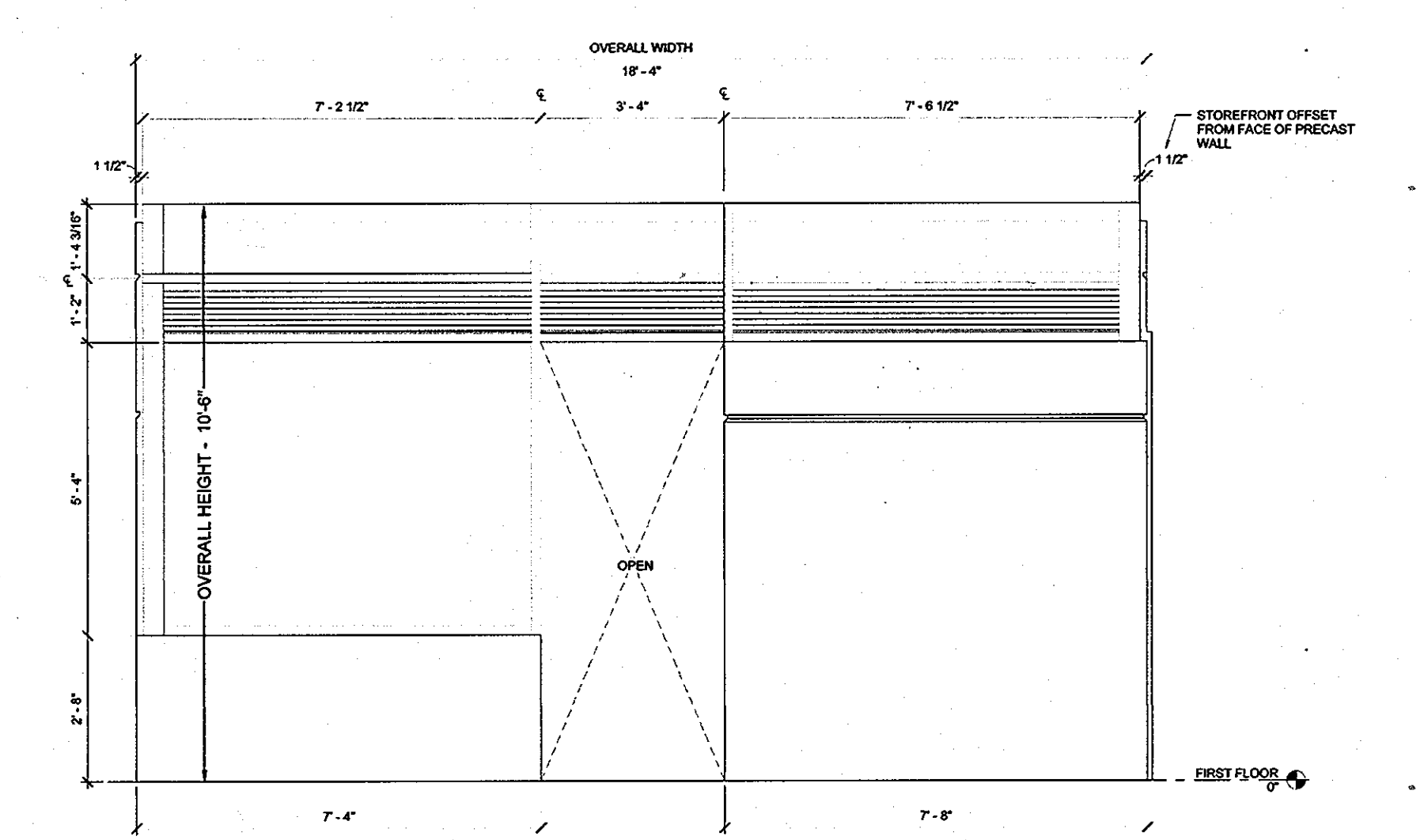
**DELGARD PREMIER ALUMINUM FENCING**  
8600 RIVER ROAD, DELAIR, NJ, 08110  
TOLL FREE: 1-800-235-0185  
PHONE: (856) 963-2900  
FAX: (856) 963-1257  
www.delgard.com

**2 FENCE DETAIL** (or approved equal) N.T.S.

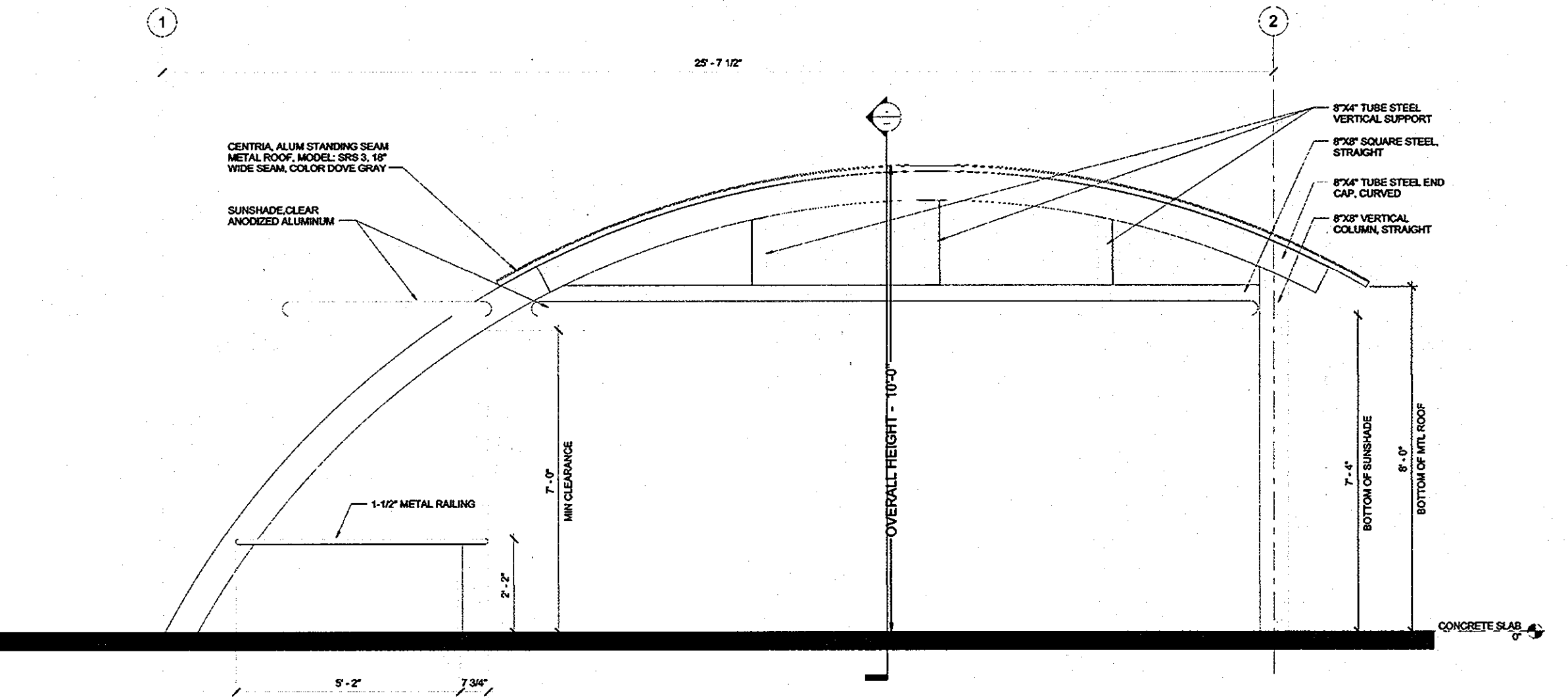
NOTES:  
1. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.  
2. ALL DIMENSIONS ARE CONSIDERED TRUE AND REFLECT MANUFACTURER'S SPECIFICATIONS.  
3. DO NOT SCALE DRAWING.  
4. CONTRACTOR'S NOTE: FOR PRODUCT AND COMPANY INFORMATION VISIT www.CADetails.com/inf REFERENCE NUMBER 4144919.

**72\"/>**

4 PICNIC TABLE UNDER PAVILION (OR APPROVED EQUAL) N.T.S.



5 SMOKER SHELTER/SHED - SCHEMATIC PROFILE ELEVATION N.T.S.



5 ACTIVITY SHELTER - SCHEMATIC PROFILE ELEVATION N.T.S.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING  
*Morgan & Butler* 8/24/11  
 Director Date  
*Walt Shubert* 8/24/11  
 Chief, Division of Land Development Date  
*W.D. DeWitt* 8/10/11  
 Chief, Development Engineering Division Date

STATE OF MARYLAND  
 REGISTERED PROFESSIONAL LANDSCAPE ARCHITECT  
 Adam J. Morman, RLA  
 Landscape Architect  
 8900 Columbia Gateway Drive, Suite 150, Columbia, Maryland 21046  
 Ph: 443-276-6220 Fax: 443-276-6221 a.morman@axiom-ed.com

PROFESSIONAL CERTIFICATION  
 I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM DULY LICENSED LANDSCAPE ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 3189, EXPIRATION DATE 5/17/2015

**AXIOM Engineering Design**  
 Civil Engineering • Land Surveying • Landscape Architecture • Land Planning  
 8900 Columbia Gateway Dr. Ste 150 Office: 443.276.6220  
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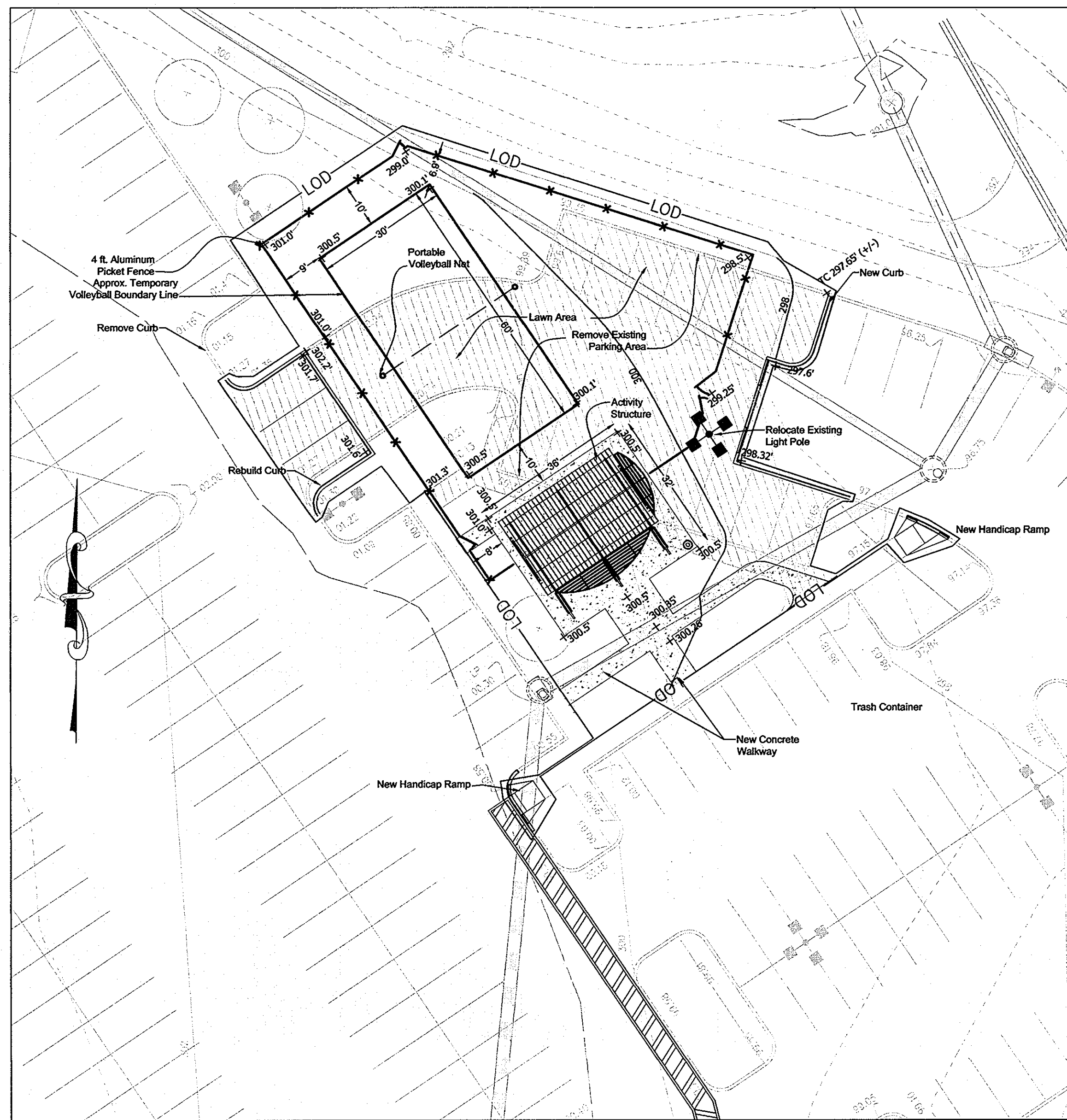
Date	No.	Revision Description
8/3/11	1	REVISE PARKING LOT CONFIGURATION & ADD ACCESSORY STRUCTURES ACTIVITY SHELTER & SMOKING SHELTER

OWNER / DEVELOPER  
 Franklin Center, LLC  
 6841 Benjamin Franklin Drive  
 Columbia, Maryland 21046  
 PHONE: 443-387-7806  
 ATTN: Scott Rook

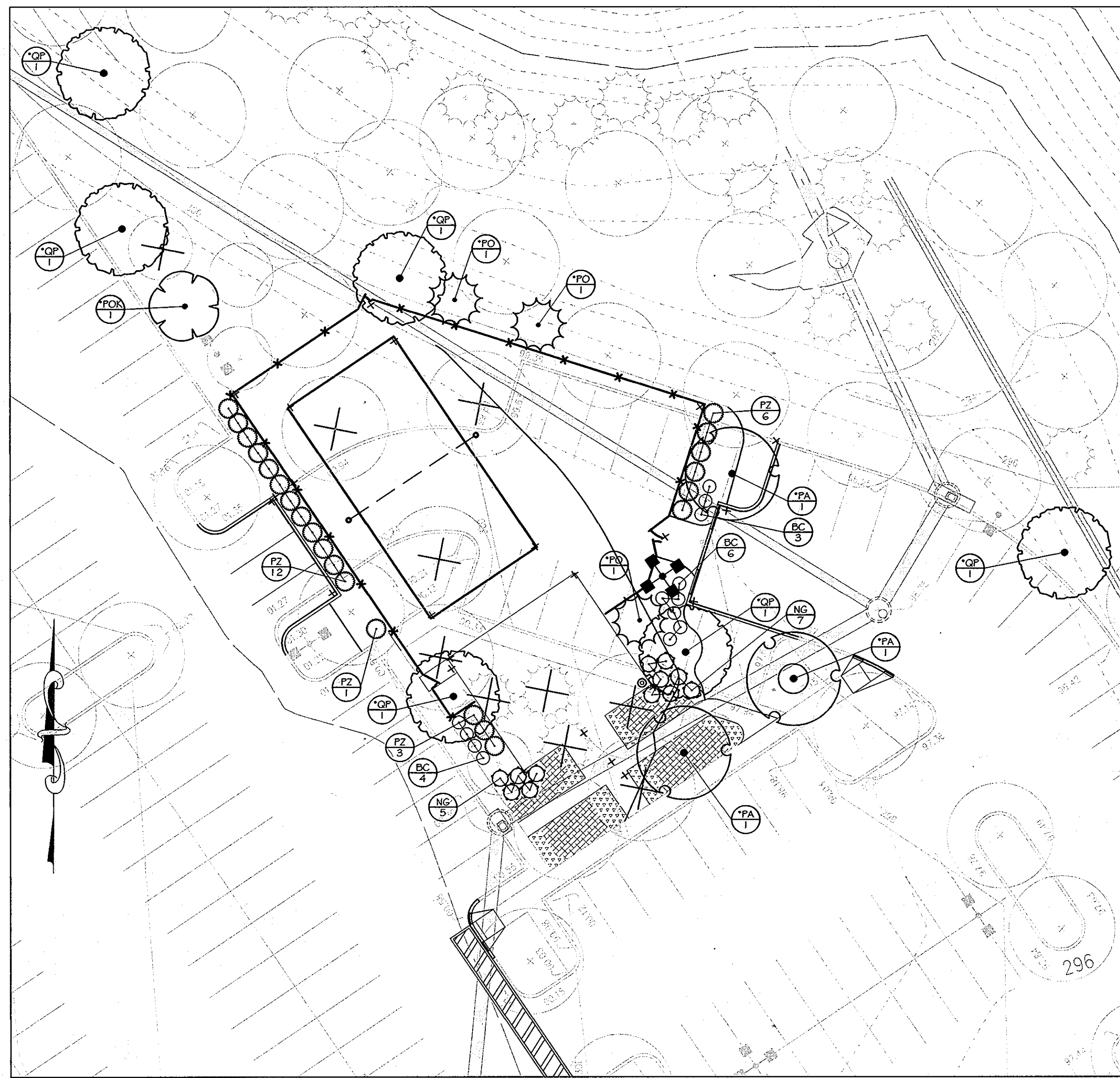
REVISED SITE DEVELOPMENT PLAN  
 SITE AND LANDSCAPE DETAILS & NOTES  
 RECORD SET - 5/23/2011  
 COLUMBIA GATEWAY  
 PARCEL 'T-20'  
 ELECTION DISTRICT No. 6  
 HOWARD COUNTY, MARYLAND

SCALE: NTS	ZONING: M-1	AED PROJECT NO: 08-0001.00
DATE: MAY, 20 2011	TAX MAP- GRID 43 2	14 OF 16

FILE NAME: Y:\2008 Projects\08-0001-00 Franklin Center\Planning\08-0001-01 - SAC Site Improvements\Design\Site\_Axiom.dwg LAYOUT NAME: SAC - Revised\_14 PLOTTED: Friday, August 05, 2011 - 5:56pm USER: A.Morman



SITE PLAN - Outdoor Activity Area and Activity Shelter



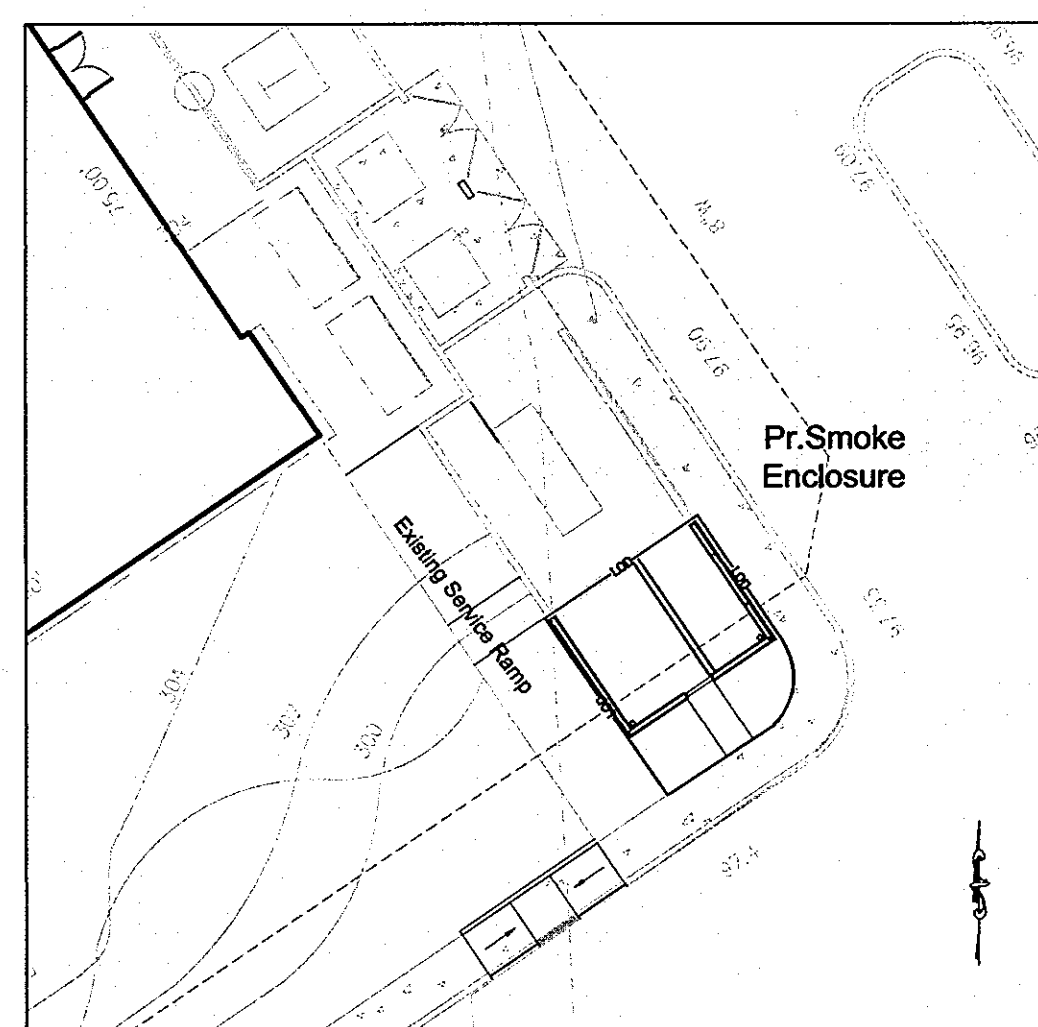
LANDSCAPE PLAN - Outdoor Activity Area and Activity Shelter

PLANT SCHEDULE

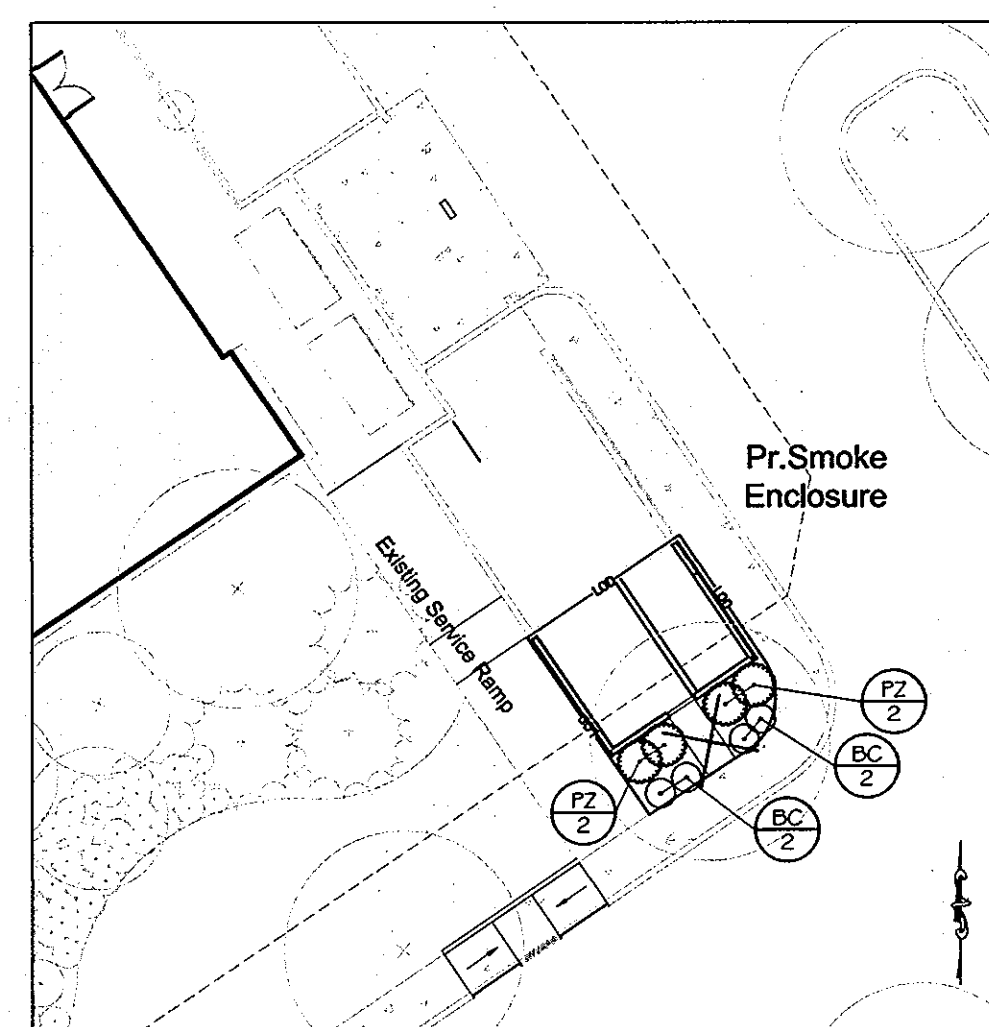
TREES	CODE	QTY	BOTANICAL NAME / COMMON NAME	CONT	CAL
	*PA	3	Platanus acerifolia / "Bloodgood" London Planetree Transplant from Existing	Transplant	
	*QP	6	Quercus phellos / Willow Oak Transplant from Existing	Transplant	
EVERGREEN TREES	CODE	QTY	BOTANICAL NAME / COMMON NAME	CONT	CAL
	*PO	3	Picea omaria / Serbian Spruce Transplant	Transplant	
FLOWERING TREES	CODE	QTY	BOTANICAL NAME / COMMON NAME	CONT	CAL
	*POK	1	Prunus x okame / Okame Cherry Transplant from Existing	Transplant	
SHRUBS	CODE	QTY	BOTANICAL NAME / COMMON NAME	CONT	HT
	BC	17	Berberis thunbergii "Crimson Pygmy" / Crimson Pygmy Barberry	3 gal	
	NG	12	Nandina domestica "Gulf Stream" TM / Heavenly Bamboo	3 gal	
	PZ	26	Prunus laurocerasus "Zabelana" / Zabel Laurel	B & B	24'-36"
GROUND COVERS	CODE	QTY	BOTANICAL NAME / COMMON NAME	CONT	
	AC	249	Annual Color	flat @ 12" oc	
	LL2	238	Liriodendron muscari "Lilac Beauty" / Lilac Beauty Liriodendron	4" pot @ 18" oc	

LANDSCAPE NOTES

- THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH SECTION 16.124 OF THE HOWARD COUNTY CODE & THE HOWARD COUNTY LANDSCAPE MANUAL.
- FIELD VERIFY UNDERGROUND UTILITY LOCATION AND EXISTING CONDITIONS BEFORE STARTING PLANTING WORK.
- CONTACT LANDSCAPE ARCHITECT IF ANY RELOCATIONS ARE REQUIRED.
- PLANT QUANTITIES SHOWN ON THE PLAN LIST ARE PROVIDED FOR THE CONVENIENCE OF THE CONTRACTOR ONLY. IF DISCREPANCIES EXIST BETWEEN QUANTITIES SHOWN ON THE PLAN AND THOSE SHOWN ON THE PLANT LIST, THE QUANTITIES ON THE PLAN SHALL TAKE PRECEDENCE.
- ALL PLANT MATERIAL SHALL BE FULL, HEAVY, WELL FORMED, SYMMETRICAL, AND CONFORM TO THE A.A.N. SPECIFICATIONS.
- ALL AREAS DISTURBED BY CONSTRUCTION ACTIVITIES BUT NOT OTHERWISE PLANTED, PAVED, OR MULCHED SHALL BE SOLOD OR SEEDED IN ACCORDANCE WITH THE PERMANENT SEEDING SPECIFICATION. A MINIMUM OF 4" OF TOPSOIL SHALL BE PROVIDED TO ALL PLANTING AREAS.
- ALL EXPOSED EARTH WITHIN THE LIMITS OF PLANTING BEDS SHALL BE MULCHED WITH SHREDDED HARDWOOD MULCH PER THE PLANTING DETAILS.
- DO NOT PLANT WITHIN THE PUBLIC WATER, SEWER AND UTILITY EASEMENT.
- TRANSPLANTED PLANT MATERIAL SHALL HAVE AN ADEQUATE ROOT BALL, WRAPPED WITH BURLAP AND COVERED WITH MULCH UNTIL SUCH TIME AS THEY CAN BE RE-PLANTED. PLANT MATERIAL SHALL BE ADEQUATELY WATERED, WHILE AWAITING TRANSPLANT.



SITE PLAN - Smoke Shelter



LANDSCAPE PLAN - Smoke Shelter

PROJECT DESCRIPTION

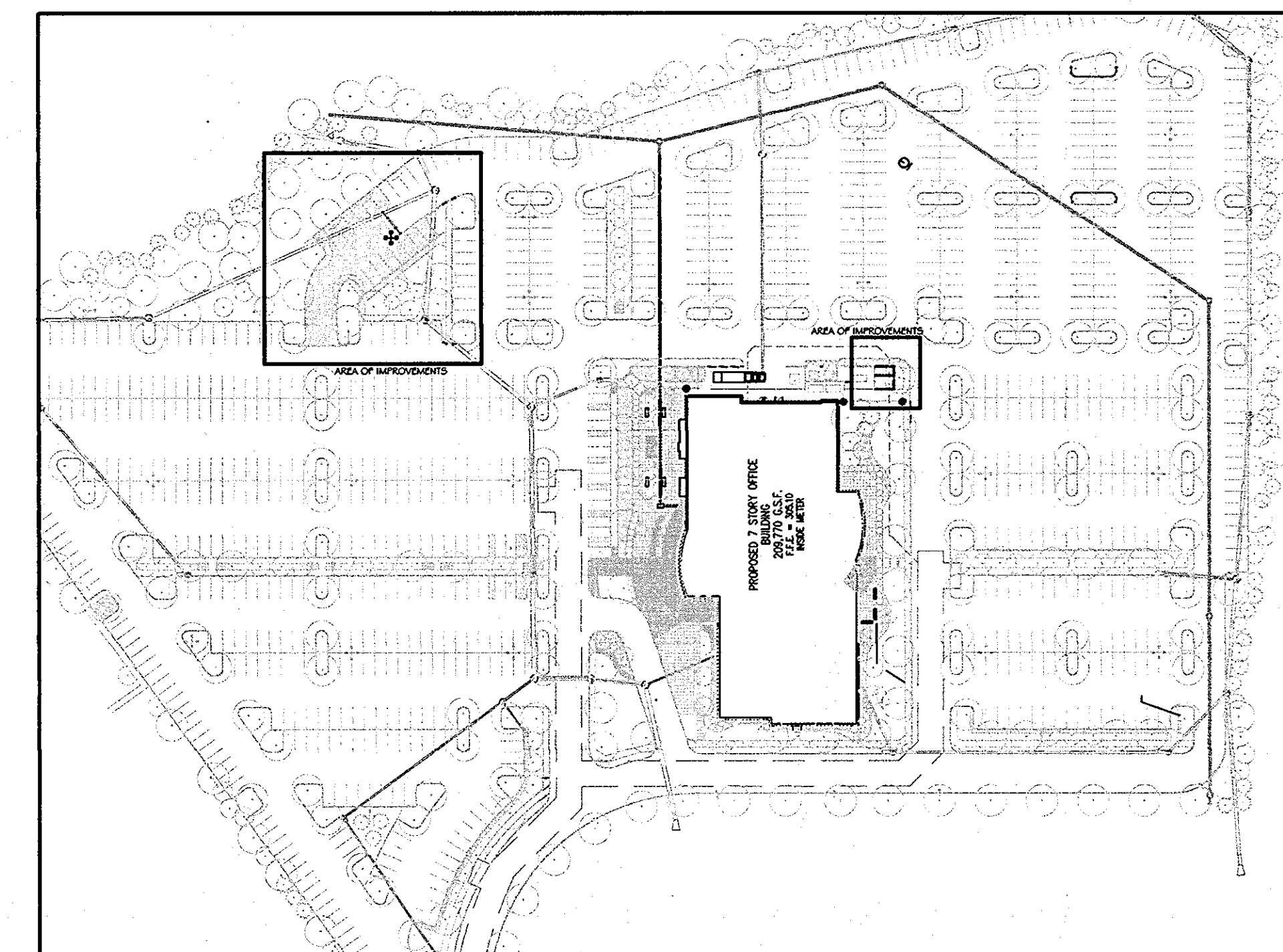
- AREA 1 - SMOKER SHELTER / OUTDOOR STORAGE**
- THE PROPOSED PROJECT INCLUDES THE ADDITION OF A COVERED AND ENCLOSED STRUCTURE TO BE USED FOR THE PURPOSES OF CIGARETTE SMOKING AND TO KEEP INDIVIDUALS SMOKING CIGARETTES AWAY FROM BUILDING ENTRANCES.
  - THIS STRUCTURE SHALL ALSO HAVE AN OUTDOOR STORAGE AREA FOR BUILDING MAINTENANCE USE.
  - THIS STRUCTURE WILL BE BUILT IN THE SIMILAR FASHION AS THE EXISTING SCREENING WALL IN THE LOADING DOCK AREA.
  - THIS AREA HAS A NET INCREASE OF 300SF OF IMPERMEABLE AREA.
- AREA 2 - OUTDOOR ACTIVITY AREA WITH ACTIVITY SHELTER**
- THE PROPOSED PROJECT INCLUDES THE REMOVAL OF APPROXIMATELY 5,100SF OF EXISTING ASPHALT (IMPERMEABLE AREA) AND THE INSTALLATION OF APPROXIMATELY 1,600SF OF PROPOSED PAVING. THERE IS A NET REDUCTION OF APPROXIMATELY 3,500SF OF IMPERMEABLE SURFACE FROM THE SITE.
  - THE OUTDOOR ACTIVITY AREA SHALL BE COMPRISED OF A CUSTOM ACTIVITY SHELTER, A SEMI-ENCLOSED IN AREA, NEW PAVING AND LARGER LAWN AREA TO ACCOMMODATE OCCASIONAL ACTIVITIES SUCH AS FRISBEE, VOLLEYBALL, TEAM BUILDING ACTIVITIES AND COOK-OUTS.
  - EXISTING SIDEWALKS SHALL HAVE HANDICAP RAMPS CONSTRUCTED TO ALLOW FOR ADEQUATE ACCESSIBILITY TO THE AREA.
  - EXISTING DECIDUOUS AND EVERGREEN TREES ARE INTENDED TO BE TRANSPLANTED, WHERE POSSIBLE. SHOULD PLANT MATERIAL BE IN POOR HEALTH, CONTRACTOR SHALL PLANT NEW MATERIAL IN ITS PLACE.

GENERAL NOTES

- EXTERIOR SITE IMPROVEMENTS ARE IN REFERENCE TO SDP-06-075, FRANKLIN CENTER.
- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY, PLUS MSHA STANDARDS AND SPECIFICATIONS, IF APPLICABLE.
- ALL PROPOSED CONCRETE SIDEWALKS, CONCRETE PAVING AREAS, CURB AND GUTTER, AND ASPHALT PAVING TO BE CONSTRUCTED TO MATCH EXISTING DETAILS ON SITE.
- THE CONTRACTOR SHALL NOTIFY THE BUREAU OF ENGINEERING / CONSTRUCTION INSPECTION DIVISION AT LEAST FIVE (5) WORKING DAYS PRIOR TO START OF WORK.
- THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48-HOURS PRIOR TO ANY EXCAVATION WORK.
- EXISTING TOPOGRAPHY HAS NOT BEEN FIELD SURVEYED.
- LOCATIONS OF EXISTING CURBS, SIDEWALKS, UTILITIES, AND BUILDING STRUCTURES HAVE NOT BEEN FIELD VERIFIED. LOCATIONS ARE BASED ON THE APPROVED SDP-06-075 PLANS, MAY 2007.
- STORMWATER MANAGEMENT IS PROVIDED BY THE SWM FACILITY CONSTRUCTED UNDER F-03-132, ON PARCELS T-10 AND T-15.
- ALL PROPOSED RAMPS SHALL BE IN ACCORDANCE WITH CURRENT A.D.A. STANDARDS. MAXIMUM SIDEWALK CROSS SLOPE SHALL BE (2%) TWO PERCENT. PROVIDE A MINIMUM OF (5'x5') FIVE BY FIVE LEVEL LANDING (2% MAX) AT THE TOP AND BOTTOM OF ALL RAMPS AND BUILDING INGRESS/EGRESS.
- SEE ARCHITECTURAL DRAWINGS FOR DETAILS OF SMOKER SHELTER / STORAGE SHED AND FOR OUTDOOR ACTIVITY STRUCTURE.
- PROPOSED PLANTINGS (TREES / SHRUBS) ARE NOT PART OF THE MINIMUM REQUIRED. ALL PLANTINGS ARE IN ADDITION TO THE MINIMUM REQUIREMENTS, PER LANDSCAPE MANUAL.
- NO WETLANDS ARE LOCATED WITHIN THE PROPOSED WORK AREAS.

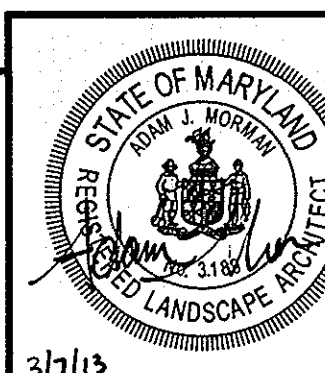
KEY PLAN - Areas of Site Improvements

(Scale = 1" = 100')



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

*Mona S. Swick* 8/24/11  
Director Date  
*Val S. Swick* 8/24/11  
Chief, Division of Land Development Date  
*William J. Morman* 8/18/11  
Chief, Development Engineering Division Date



Adam J. Morman, RLA  
Landscape Architect  
6990 Columbia Gateway Drive, Suite 150, Columbia, Maryland 21046  
Ph: 443-276-6220 Fax: 443-276-6221 a.morman@axiom-ed.com

PROFESSIONAL CERTIFICATION  
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM DULY LICENSED LANDSCAPE ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 3189, EXPIRATION DATE 3/17/2015

**Axiom Engineering Design**  
Civil Engineering • Land Surveying • Landscape Architecture • Land Planning  
6990 Columbia Gateway Dr. Ste 150 Office: 443.276.6220  
Columbia, Maryland 21046 Fax: 443.276.6221  
www.axiom-ed.com info@axiom-ed.com

Date	No.	Revision Description
8/23/11	1	REVISE PARKING LOT CONFIGURATION & ADD ACCESSORY STRUCTURES ACTIVITY SHELTER & SMOKING SHELTER

OWNER / DEVELOPER  
Franklin Center, LLC  
6841 Benjamin Franklin Drive  
Columbia, Maryland 21046  
PHONE: 443-367-7806  
ATN: Scott Roark

ELECTION DISTRICT No. 6

REVISED SITE DEVELOPMENT PLAN  
SITE PLAN & LANDSCAPE PLAN MODIFICATIONS

RECORD SET - 5/23/2011

COLUMBIA GATEWAY  
PARCEL 'T-20'

HOWARD COUNTY, MARYLAND

SCALE:	ZONING:	AED PROJECT NO:
1"=20'	M-1	08-0001.00
DATE:	TAX MAP- GRID	
MAY, 20 2011	43 2	13 OF 16