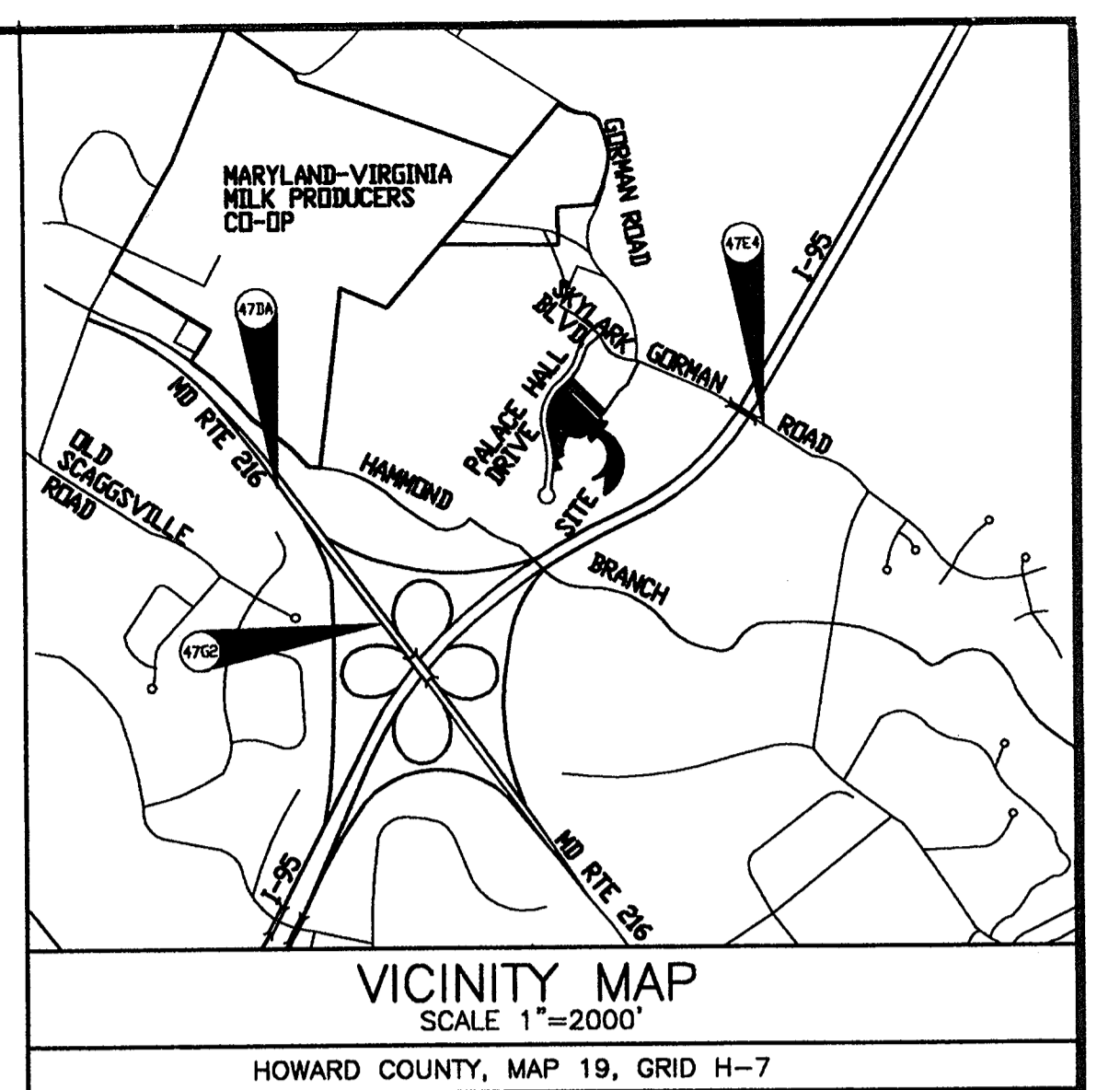


PRELIMINARY PLAN

EMERSON TOWNHOUSES

SECTION 2, PHASE 6A, LOTS 1-41, OPEN SPACE LOTS 42 & 43 AND PARCEL A-1 A RESUBDIVISION OF PARCEL "A-1" AND "B-1" 6th ELECTION DISTRICT HOWARD COUNTY, MARYLAND



BENCHMARK

Horizontal Datum: Howard County Grid System
 NAD83 (91)
 Vertical Datum: NAD 83/91
 Howard County Monument 470A
 N535405.46, E1349362.71, Elev. 315.90
 Howard County Monument 4762
 N532938.96, E1351224.09, Elev. 364.21
 Howard County Monument 47E4
 N535846.14, E1355431.19, Elev. 338.91

AREA TABULATION

EXISTING ZONING	MDX-3-OR
SFA BUILDING LOT AREA	1.98 ACRES
OPEN SPACE LOTS 42-43 TO HOA	1.59 ACRES
OPEN SPACE AREA TO EMERSON OPEN SPACE LOT 1	1.00 ACRES
PUBLIC ROAD AREA	0.89 ACRES
GROSS SITE AREA - PARCEL A-1	4.835 ACRES
LESS STEEP SLOPES	0.00 ACRES
LESS 100'-YEAR FLOODPLAIN	0.00 ACRES
NET SITE AREA	10.29 ACRES
LIMIT OF DISTURBANCE	5.93 ACRES

AREA TABULATION

DENSITY: NO. OF UNITS ALLOWED AT 12:1 D.U./NET ACRE	66 D.U.
PROPOSED RESIDENTIAL LOTS/D.U. ATTACHED	41 D.U.
PARCEL B-1 PROPOSED SFA UNITS (THIS PLAN)	41 D.U.
TOTAL PROPOSED RESIDENTIAL LOTS/D.U. EMERSON S/2	41 D.U.
OPEN SPACE LOTS - EMERSON PARCEL B-1	4 LOTS

OPEN SPACE TABULATION

OPEN SPACE REQUIRED	0.00 ACRES**
**THE REQUIRED 35% OPEN SPACE WAS ADDRESSED AND PROVIDED FOR THIS PHASE PER F-02-178F-04-127F-01-137F-06-25	
OPEN SPACE PROVIDED	
OPEN SPACE - CREDITED (LOT 1)	1.00 ACRES
OPEN SPACE - NON-CREDITED	1.59 ACRES
TOTAL OPEN SPACE PROVIDED	2.59 ACRES

PARKING

PARKING REQUIRED: 41 UNITS @ 2.3 SPACES PER UNIT = 95 SPACES
 PARKING PROVIDED: 112 SPACES (30 COMMON ON-STREET SPACES AND AT LEAST 82 SPACES ON LOTS)

TENTATIVELY APPROVED
 DEPT. OF PLANNING AND
 ZONING OF
 HOWARD COUNTY

Janet D. Gault 1/26/06
 PLANNING DIRECTOR DATE

OWNER:
THE HOWARD RESEARCH AND DEVELOPMENT CORPORATION
 10275 LITTLE PATUXENT PKWY
 COLUMBIA, MD 21044
 TEL: (410) 992-6027 FAX: (410) 992-8149

AREA:
TAX MAP 47
ZONING MDX-3-OR
6TH ELECTION DISTRICT

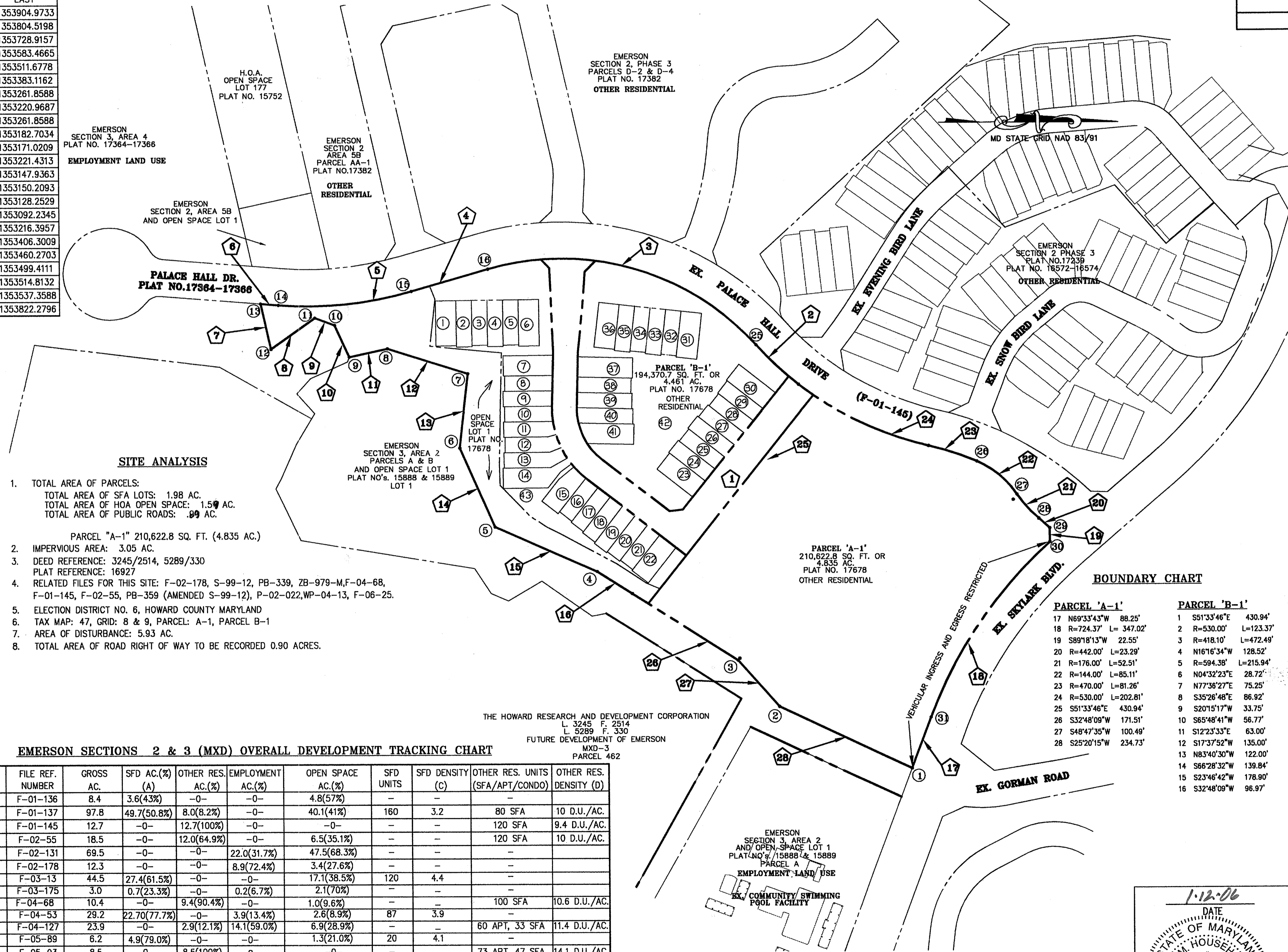
BLOCKS 8&9
 PARCELS A & B
 HOWARD COUNTY, MARYLAND

DESIGN: BAM SCALE: 1" = 100' PROJECT: 049101.00
 DRAWN: DAM DATE: 1/11/06
 CHECKED: BAM APPROVED: JMH **1** OF **5**

- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL, VOL. IV "STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION" PLUS MSHA STANDARDS AND SPECIFICATIONS, IF APPLICABLE.
- THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/BUREAU OF ENGINEERING/ CONSTRUCTION INSPECTION DIVISION AT (410) 313-1880 AT LEAST FIVE (5) 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 BEING DONE.
- 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.
- ALL PLAN DIMENSIONS ARE TO FACE OF CURB UNLESS OTHERWISE NOTED.
- THE EXISTING TOPOGRAPHY SHOWN WAS COMPLETED BY christopher consultants, ltd ON DECEMBER 2004.
- THE COORDINATES SHOWN HEREON ARE BASED UPON THE HOWARD COUNTY GEODETIC CONTROL WHICH IS BASED UPON THE MARYLAND STATE PLAN COORDINATE SYSTEM MONUMENT NOS 47DA,47G2 AND 47E4 WERE USED FOR THIS PROJECT (NAD 1983/91).
- WATER IS TO BE PUBLIC.
- SEWER IS TO BE PUBLIC.
- EX. UTILITIES ARE BASED ON FIELD RUN TOPOGRAPHY BY christopher consultants, ltd ON DECEMBER 2004, AND SUPPLEMENTED WITH HOWARD COUNTY RECORDS.
- CONTRACTOR SHALL VERIFY SIZE AND LOCATIONS OF ALL UNDERGROUND UTILITIES AND TEST PIT ALL UTILITIES, INCLUDING PROPOSED NEW, IN LOCATIONS, AT LEAST 5 DAYS PRIOR TO STARTING ANY WORK ON THESE DRAWINGS. DISCREPANCIES SHALL BE IMMEDIATELY REPORTED TO THE ENGINEER AND IN ADVANCE OF CONSTRUCTION START.
- ANY DAMAGE CAUSED BY THE CONTRACTOR TO EXISTING PUBLIC RIGHT-OF-WAY, EXISTING PAVING, EXISTING CURB AND GUTTER, EXISTING UTILITIES, ETC. SHALL BE REPAIRED AT THE CONTRACTORS EXPENSE.
- ALL FILL AREAS SHALL BE COMPACTED TO A MINIMUM OF 95% OF THE MAXIMUM DRY DENSITY AS DETERMINED AND VERIFIED IN ACCORDANCE WITH AASHTO T-180--STANDARD.
- CONTRACTOR SHALL MAINTAIN ALL SEDIMENT CONTROL DEVICES WITHIN THE LIMITS OF THE SITE DURING CONSTRUCTION OF THE SITE IMPROVEMENTS. CONTRACTOR SHALL PROVIDE ADDITIONAL EROSION AND SEDIMENTATION CONTROL MEASURES AS MAY BE NECESSARY DURING CONSTRUCTION AND/OR BY GOVERNING AGENCIES.
- THERE ARE NO KNOWN CEMETERIES OR BURIAL GROUNDS ON THIS SITE. HOWEVER, UPON DISCOVERY OF ANY EVIDENCE OF BURIAL OR GRAVES, THE DEVELOPER WILL BE SUBJECT TO SECTION 16.1005 OF THE HOWARD COUNTY SUBDIVISION AND LAND DEVELOPMENT REGULATIONS.
- NO CLEARING, GRADING OR CONSTRUCTION IS PERMITTED WITHIN THE WETLANDS, STREAM(S) OR THEIR REQUIRED BUFFERS AND FOREST CONSERVATION EASEMENT AREAS.
- THE SUBJECT PROPERTY IS ZONED MDX-3 "OTHER RESIDENTIAL" PER THE 2/2/04 COMPREHENSIVE ZONING PLAN AND ZB-979M.
- THE CONTRACTOR SHALL TEST PIT ALL EXISTING UTILITIES AT LEAST FIVE (5) DAYS PRIOR TO STARTING ANY WORK SHOWN ON THESE DRAWINGS.
- OPERATING EXISTING VALVES, SWITCHES, SERVICES OR START UP OF NEW SERVICES SHALL BE COORDINATED WITH THE OWNERS REPRESENTATIVE.
- STREET LIGHT PLACEMENT AND THE TYPE OF FIXTURE AND POLE SHALL BE IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL, VOLUME III (1993) AND AS MODIFIED BY "GUIDELINES FOR STREET LIGHTS IN RESIDENTIAL DEVELOPMENTS, (JANUARY 1998)". A MINIMUM SPACING OF 20' SHALL BE MAINTAINED BETWEEN ANY STREET LIGHT AND ANY TREE.
- THE PUBLIC STORMWATER MANAGEMENT FOR THIS SITE WILL BE PROVIDED BY PRIVATE WET POND PREVIOUSLY BUILT UNDER F-02-178 & F-01-145.
- THE TRAFFIC STUDY FOR THIS PROJECT AREA WAS PREPARED BY WELLS & ASSOCIATES, DATED FEBRUARY 2000.
- THE NOISE STUDY FOR THIS PROJECT AREA WAS PREPARED BY CENTURY ENGINEERING, DATED MARCH 1999.
- THE BOUNDARY SURVEY FOR THIS PROJECT AREA WAS PREPARED BY DAFT, McCUNE, & WALKER, INC. DATED JULY 2000.
- ALL ELEVATIONS SHOWN ARE BASED ON THE U.S.C. AND G.S. MEAN SEA LEVEL DATUM, 1929.
- CONTRACTOR IS SOLELY RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, PROCEDURES, AND SAFETY PRECAUTIONS AND PROGRAMS.
- PIPES SHALL NOT BE INSTALLED BY THE CONTRACTOR UNTIL THE LENGTH CALLED FOR AT EACH STATION HAS BEEN APPROVED BY THE ENGINEER IN THE FIELD.
- NO PIPE SHALL BE LAID UNTIL LINES OF EXCAVATION HAVE BEEN BROUGHT WITHIN 6" OF FINISHED GRADE.
- ALL INLETS SHALL BE CONSTRUCTED IN ACCORDANCE WITH HOWARD COUNTY STANDARDS.
- ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS.
- STORM DRAIN TRENCHES WITHIN ROAD RIGHT OF WAY SHALL BE BACKFILLED AND COMPACTED IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL, VOLUME IV (16), STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION, LATEST AMENDMENTS.
- PROFILE DIMENSIONS SHALL BE ADJUSTED AS NECESSARY TO CONFORM TO PLAN DIMENSIONS.
- DESIGNED TRAFFIC SPEED IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL VOL. III. ALL 40' & 50' RIGHT OF WAY SHALL BE 25MPH.
- ALL FILL AREAS WITHIN ROADWAY AND UNDER STRUCTURES TO BE COMPACTED TO A MINIMUM OF 95% COMPACTION OF AASHTO T180.
- ALL STREET CURBS SHALL HAVE 10' RADII UNLESS OTHERWISE NOTED.
- ALL STREET LIGHTS SHALL BE LOCATED BETWEEN 2'-0" AND 4'-0" BEHIND FACE OF CURB.
- STREET TREES (63) LOCATION, TYPE AND NUMBER OF TREES SHOWN ON THIS PLAN ARE TENTATIVE AND ARE USED FOR BONDING PURPOSES ONLY. THE FINAL LOCATION AND VARIETY OF TREES MAY VARY TO ACCOMMODATE FIELD CONDITIONS INCLUDING 20' CLEARANCE OF ANY STREET LIGHT AND SHALL BE IN ACCORDANCE WITH THE SUBDIVISION REGULATIONS AND THE LANDSCAPE MANUAL AND THE APPROVED EMERSON STREETSCAPE DESIGN CRITERIA. BOND RELEASE IS CONTINGENT UPON SECTION 16.114 OF THE HOWARD COUNTY SUBDIVISION REGULATIONS, AS APPROVED BY THE DEPARTMENT OF PLANNING AND ZONING.
- THERE ARE NO EXISTING PERMANENT STRUCTURES ON-SITE.
- FOREST CONSERVATION OBLIGATIONS AND OPEN SPACE REQUIREMENTS FOR THIS PHASE OF THE EMERSON MXD PROJECT WERE ADDRESSED UNDER F-04-68.
- RESIDENTIAL INTERNAL LANDSCAPING AND PARKING LOT INTERNAL LANDSCAPING WILL BE ADDRESSED ON THE FUTURE SITE DEVELOPMENT PLAN FOR EMERSON SECTION TWO, PH 6A.
- TRASH SERVICE WILL BE PROVIDED AT THE PUBLIC RIGHT OF WAY FOR LOTS 1-41. MAIL WILL BE PROVIDED IN A CENTRAL KIOSK SERVICE.
- OPEN SPACE AREAS MAY CONTAIN ACTIVE RECREATION FACILITIES AS ALLOWED IN THE APPROVED DEVELOPMENT CRITERIA.
- STREAM BUFFERS ARE DETERMINED BY LAND USE ADJOINING THE OPEN SPACE. EMPLOYMENT USE = 50' BUFFER FROM ANY STREAM. RESIDENTIAL USES = 30' BUFFER FOR INTERMITTENT STREAMS AND 75' BUFFER FOR PERENNIAL STREAMS.
- PHASING FOR THIS PROJECT IS IN ACCORDANCE WITH THE DECISION AND ORDER FOR ZONING CASE ZB-979M AND THE DECISION AND ORDER FOR PB-339 (COMPREHENSIVE SKETCH PLAN S-99-12).
- ON SEPT. 3, 1998, THE ZONING BOARD GRANTED APPROVAL OF ZB-979M FOR THE PRELIMINARY DEVELOPMENT PLAN AND DEVELOPMENT CRITERIA FOR 516 ACRES OF LAND RE-ZONED AS RES-MXD-3 AND R-3C-MXD-3.
- DEVELOPMENT FOR THIS PHASE WILL BE DONE IN ACCORDANCE WITH THE DEVELOPMENT CRITERIA APPROVED WITH COMPREHENSIVE SKETCH PLAN S-99-12 (PB-339).
- 50 HOUSING UNIT ALLOCATIONS WERE RESERVED FOR THIS PARCEL. 9 ALLOCATIONS SHALL BE SHIFTED TO PARCEL "A", EMERSON SECTION 2 PHASE 7 (F-05-93).
- THE MINIMUM BUILDING SETBACK RESTRICTIONS FROM PROPERTY LINES AND PUBLIC ROAD RIGHT OF WAY LINES FOR ALL SFA LOTS SHALL BE IN ACCORDANCE WITH THE COMPREHENSIVE SKETCH PLAN DEVELOPMENT CRITERIA APPROVED UNDER S-99-12, PB-339 AND F8-359.
- WP-04-13 WAS APPROVED ON 8/4/03 FOR THE SUBJECT PROPERTY. THIS WAIVER PETITION FROM THE DIVISION OF LAND DEVELOPMENT WAS A WAIVER FROM SECTION 16.146 TO NOT SUBMIT A PRELIMINARY PLAN FOR PHASE 6 OF THE EMERSON MXD PROJECT AND PROCEED WITH SUBMISSION OF THE FINAL PLAN. THE ONLY CONDITION APPLIED TO THE WAIVER WAS THAT THE PETITIONER SHALL PROCEED WITH SUBMISSION OF A FINAL PLAN APPLICATION WITHIN 9 MONTHS OF THE APPROVAL OF THE WAIVER.
- THIS DEVELOPMENT WILL NOT INCLUDE ANY MODERATE INCOME HOUSING UNITS.

BOUNDARY COORDINATE TABLE

NO.	NORTH	EAST
1	536506.8740	1353904.9733
2	536294.7218	1353804.5198
3	536228.5194	1353728.9157
4	536002.8472	1353583.4665
5	535839.9125	1353511.6778
6	535783.3200	1353383.1162
7	535796.4237	1353261.8588
8	535668.1019	1353220.9687
9	535606.5698	1353261.8588
10	535583.3089	1353182.7034
11	535551.6503	1353171.0209
12	535480.8380	1353221.4313
13	535464.6892	1353147.9363
14	535493.3164	1353150.2093
15	535706.9480	1353128.2529
16	535830.3130	1353092.2345
25	536260.5019	1353216.3957
26	536613.2665	1353406.3009
27	536677.4709	1353460.2703
28	536712.1799	1353499.4111
29	536729.6519	1353514.8132
30	536729.6519	1353537.3588
31	536537.6901	1353822.2796



SITE ANALYSIS

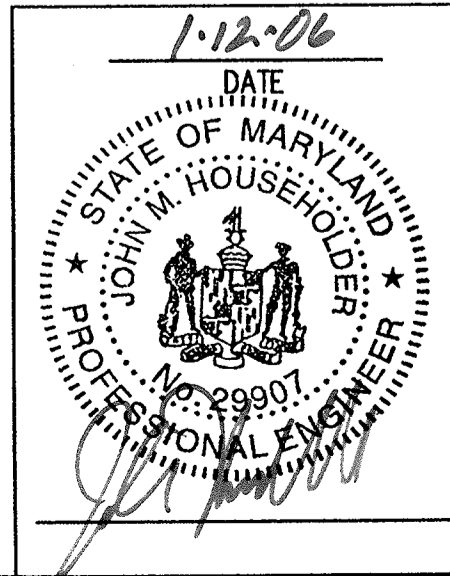
- TOTAL AREA OF PARCELS:
 TOTAL AREA OF SFA LOTS: 1.98 AC.
 TOTAL AREA OF HOA OPEN SPACE: 1.59 AC.
 TOTAL AREA OF PUBLIC ROADS: .99 AC.
- PARCEL "A-1" 210,622.8 SQ. FT. (4.835 AC.)
- IMPERVIOUS AREA: 3.05 AC.
- DEED REFERENCE: 3245/2514, 5289/330
 PLAT REFERENCE: 16927
- RELATED FILES FOR THIS SITE: F-02-178, S-99-12, PB-339, ZB-979-M-F-04-68, F-01-145, F-02-55, PB-359 (AMENDED S-99-12), P-02-022, WP-04-13, F-06-25.
- ELECTION DISTRICT NO. 6, HOWARD COUNTY MARYLAND
- TAX MAP: 47, GRID: 8 & 9, PARCEL: A-1, PARCEL B-1
- AREA OF DISTURBANCE: 5.93 AC.
- TOTAL AREA OF ROAD RIGHT OF WAY TO BE RECORDED 0.90 ACRES.

EMERSON SECTIONS 2 & 3 (MXD) OVERALL DEVELOPMENT TRACKING CHART

SECTION & PHASE	FILE REF. NUMBER	GROSS AC.	SFD AC.(%)		OTHER RES. AC.(%)		EMPLOYMENT AC.(%)		OPEN SPACE AC.(%)		SFD UNITS	SFD DENSITY (C)	OTHER RES. UNITS (SFA/APT/CONDO)	OTHER RES. DENSITY (D)
			(A)	(B)	(A)	(B)	(A)	(B)	(A)	(B)				
2/1A	F-01-136	8.4	3.6(43%)	-	-	-	-	4.8(57%)	-	-	-	-	-	-
2/1B	F-01-137	97.8	49.7(50.8%)	8.0(8.2%)	-	-	-	40.1(41%)	160	3.2	80 SFA	10 D.U./AC.	9.4 D.U./AC.	
2/2	F-01-145	12.7	-	12.7(100%)	-	-	-	-	-	-	-	-	-	-
2/3	F-02-55	18.5	-	12.0(64.9%)	-	-	-	6.5(35.1%)	-	-	-	-	120 SFA	10 D.U./AC.
3/1	F-02-131	69.5	-	-	22.0(31.7%)	-	-	47.5(68.3%)	-	-	-	-	-	-
3/2	F-02-178	12.3	-	-	8.9(72.4%)	-	-	3.4(27.6%)	-	-	-	-	-	-
2/4	F-03-13	44.5	27.4(61.5%)	-	-	-	-	17.1(38.5%)	120	4.4	-	-	-	-
2/5C	F-03-175	3.0	0.7(23.3%)	-	0.2(6.7%)	-	-	2.1(70%)	-	-	-	-	-	-
2/6A(F)	F-04-68	10.4	-	9.4(90.4%)	-	-	-	1.0(9.6%)	-	-	-	100 SFA	10.6 D.U./AC.	
2/5A & 3/3	F-04-53	29.2	22.7(77.7%)	-	3.9(13.4%)	-	-	2.6(8.9%)	87	3.9	-	-	-	-
2/5B & 3/4	F-04-127	23.9	-	2.9(12.1%)	14.1(59.0%)	-	-	6.9(28.9%)	-	-	-	60 APT, 33 SFA	11.4 D.U./AC.	
2/6B	F-05-89	6.2	4.9(79.0%)	-	-	-	-	1.3(21.0%)	20	4.1	-	-	-	-
2/7	F-05-93	8.5	-	8.5(100%)	-	-	-	-	-	-	73 APT, 47 SFA	14.1 D.U./AC.		
TOTAL		344.9	109.0(31.6%)	53.5(15.5%)	49.1(14.2%)	-	-	133.3(38.7%)	387	3.6	133 APT, 500 SFA	10.7 D.U./AC.		
OVERALL DENSITY TABS	(E) PROPOSED	(B) ALLOWED	LAND USE ACREAGES	PROP.	ALLOWED	MAX. RES. UNITS PROP.	MAX. RES. UNITS ALLOWED	ZB-979	S-99-12					
OVERALL SFD DENSITY	3.6	3.8	SFD	109.0	117	387	SFD	450(37.5%)	395(34.5%)					
OVERALL OR DENSITY	10.7	12.1	OR	53.5	62	133	APT	250(20.8%)	250(21.8%)					
OVERALL PROJECT DENSITY	2.0	2.32	EMP	49.1	154.9	500	SFA	500(41.7%)	500(43.7%)					
			OPEN SPACE	133.3	183			1200	1145					
			TOTAL	344.9	516.9									

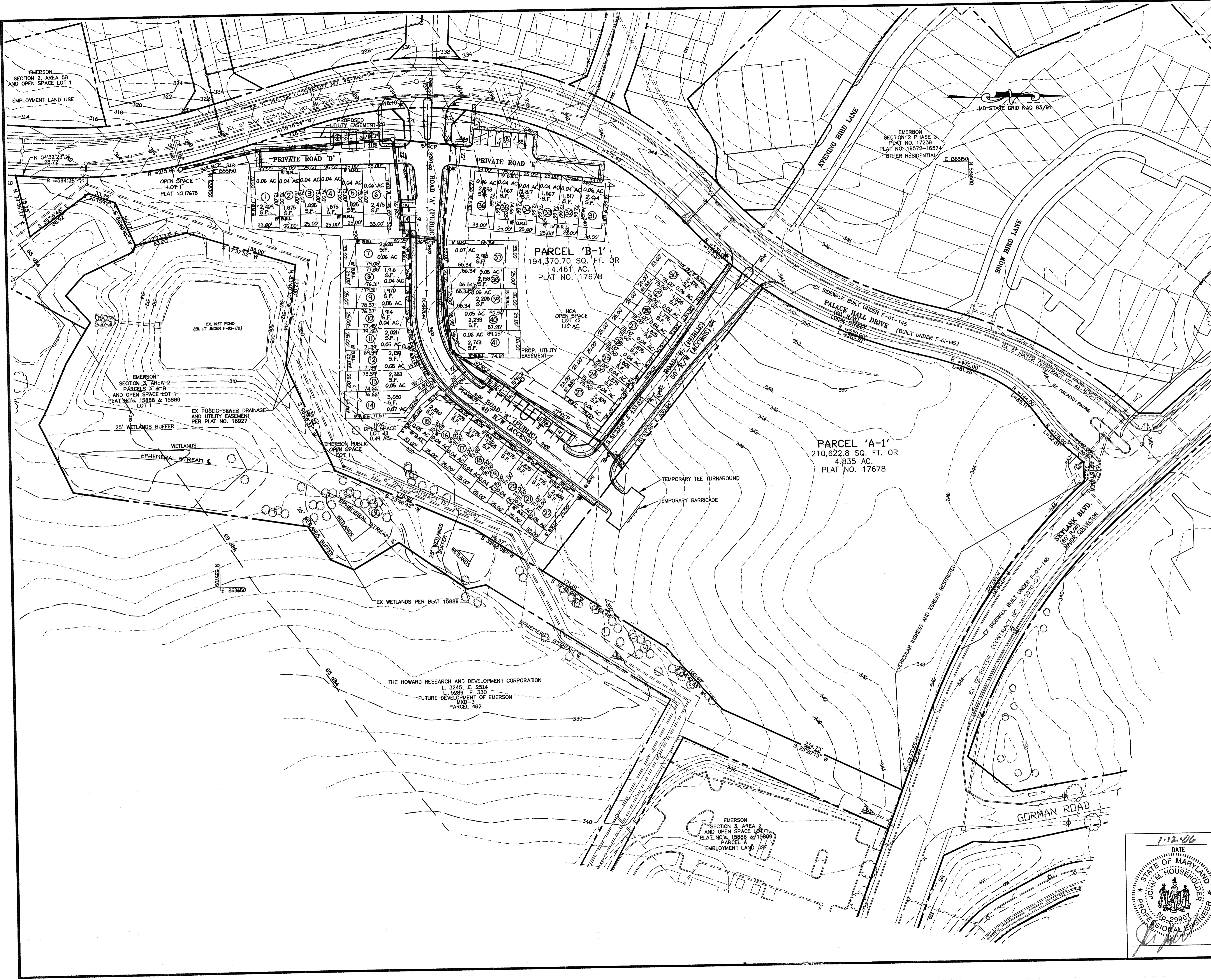
OVERALL VIEW
 SCALE: 1"=100'

(A) SFD ACREAGE INCLUDES COMMON OPEN AREA(COA LOTS).
 (B) OVERALL ALLOWED DENSITY BASED ON MAXIMUM NUMBER OF UNITS ALLOWED PER ZB 979M AND MAX ALLOWED LAND USE ACREAGES.
 (C) MAX DENSITY FOR AN INDIVIDUAL SFD AREA IS 5.0 UNITS/ACRE.
 (D) MAX DENSITY FOR AN INDIVIDUAL OR AREA IS 20.0 UNITS/ACRE.
 (E) PROPOSED DENSITY TABULATIONS ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
 (F) RE-SUBDIVIDED BY F-06-25 TO CREATE 1.0 AC. OF CREDITED OPEN SPACE.



LEGEND

- EX CONTOURS
- STREAM
- 100YR INSEL
- EX. STORMDRAIN
- EX. SANITARY
- EX. WATER
- EX. TREE
- PROP. CURB
- PROPERTY LINE



MD STATE GRID NAD 83/91

PARCEL 'B-1'
194,370.70 SQ. FT. OR
4.461 AC.
PLAT NO. 17678

PARCEL 'A-1'
210,622.8 SQ. FT. OR
4.835 AC.
PLAT NO. 17678

PROVISIONALLY APPROVED
ZONING OF
DEPT. OF PLANNING AND
HOWARD COUNTY

David A. Coughlin 1/11/06
PLANNING DIRECTOR DATE



OWNER:
THE HOWARD RESEARCH AND DEVELOPMENT CORPORATION
10275 LITTLE PATUXENT PKWY
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TEL: (410) 992-6027 FAX: (410) 992-6149

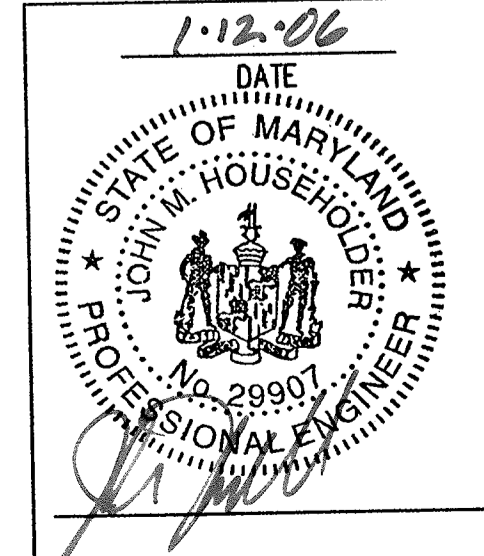
AREA:
TAX MAP 47 BLOCKS 8&9
ZONED: MXD-3-OR PARCELS A & B
8TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

christopher consultants
engineering · surveying · land planning
christopher consultants, llc
7173 columbia gateway drive (suite 100) · columbia, md 21046-2990
410.872.8800 · metro 301.981.0149 · fax 410.872.8893

PROJECT:
EMERSON TOWNHOUSES
SECT. 2, PH. 6A, LOTS 1-41, OPEN SPACE LOTS 42 & 43 AND
PARCEL A-1, A RESUBDIVISION OF PARCEL "A-1" & "B-1"

TITLE:
PRELIMINARY PLAN

DESIGN: BAM	SCALE: 1" = 50'	PROJECT: 049101.00
DRAWN: DAM	DATE: 1/11/06	2 of 5
CHECKED: BAM	APPROVED: JMH	



MDC-204

DRAINAGE CHART				
AREA	INLET NO.	DRAINAGE AREA (AC.)	"C" FACTOR	% IMPER.
A	I-1	0.31	0.73	70
B	I-4	0.17	0.51	41
C	I-5	1.32	0.52	42
D	Ex. Inlet	0.21	0.44	32
F	I-2	0.31	0.60	53
G	I-8	1.22	0.43	30
H	I-7	0.12	0.71	68
J	I-6	0.45	0.65	60
K	I-11	1.55	0.45	33
L	I-9	0.98	0.68	64
M	Ex. Inlet	0.69	0.64	59
N	I-10	0.60	0.53	44



LEGEND

- EX CONTOURS
- STREAM
- 100YR WSEL
- EX. STORMDRAIN
- EX. SANITARY
- EX. WATER
- EX. TREE
- PROP. CURB
- PROPERTY LINE
- SOILS
- TEMPORARY DIVERSION DIKE
- LOD - LIMITS OF DISTURBANCE
- SSF - SUPER SILT FENCE
- STABILIZED CONSTRUCTION ENTRANCE

SOIL ANALYSIS (HO. CO. SOILS MAP #33)

SYMBOL	SOIL NAME	SLOPE	ERODABILITY	GROUP
Ba	BAILE SILT LOAM	0% TO 3%	MODERATELY	D
Bx2	BELTSVILLE FINE SANDY LOAM	2% TO 5%	MODERATELY	C
Ch2	CHESTER SILT LOAM	3% TO 8%	MODERATELY	B
Ch3	CHESTER SILT LOAM	8% TO 15%	SEVERELY	B
Cm2	CHILLUM SILT LOAM	1% TO 5%	MODERATELY	B
Cm2	CHILLUM SILT LOAM	5% TO 10%	MODERATELY	B
Cm2	CHILLUM-FAIRFAX LOAMS	1% TO 5%	MODERATELY	B
Gr2	GLENVILLE SILT LOAM	3% TO 8%	MODERATELY	C
Mic2	MANOR LOAM	8% TO 15%	MODERATELY	B
Sf2	SASSAFRAS GRAVELLY SANDY LOAM	1% TO 5%	MODERATELY	B

MISS UTILITY
Service Protection Center
CALL TOLL FREE 1-800-257-7777

TENTATIVELY APPROVED
DEPT. OF PLANNING AND ZONING OF HOWARD COUNTY
PLANNING DIRECTOR

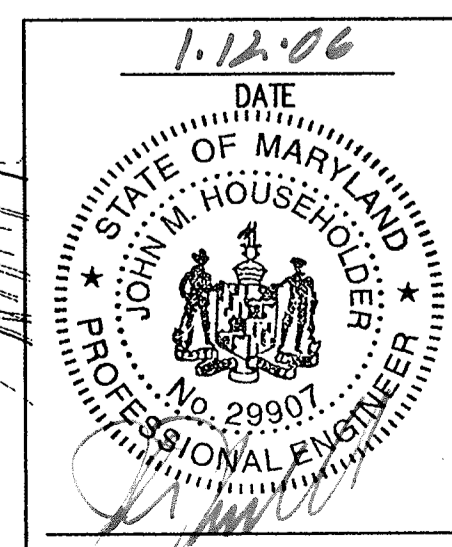
OWNER:
THE HOWARD RESEARCH AND DEVELOPMENT CORPORATION
10275 LITTLE PATUXENT PKWY
COLUMBIA, MD 21044
TEL: (410) 992-6027 FAX: (410) 992-6149

AREA:
TAX MAP 47 ZONED: MXD-3-OR 6TH ELECTION DISTRICT
BLOCKS 8&9 PARCELS A & B HOWARD COUNTY, MARYLAND

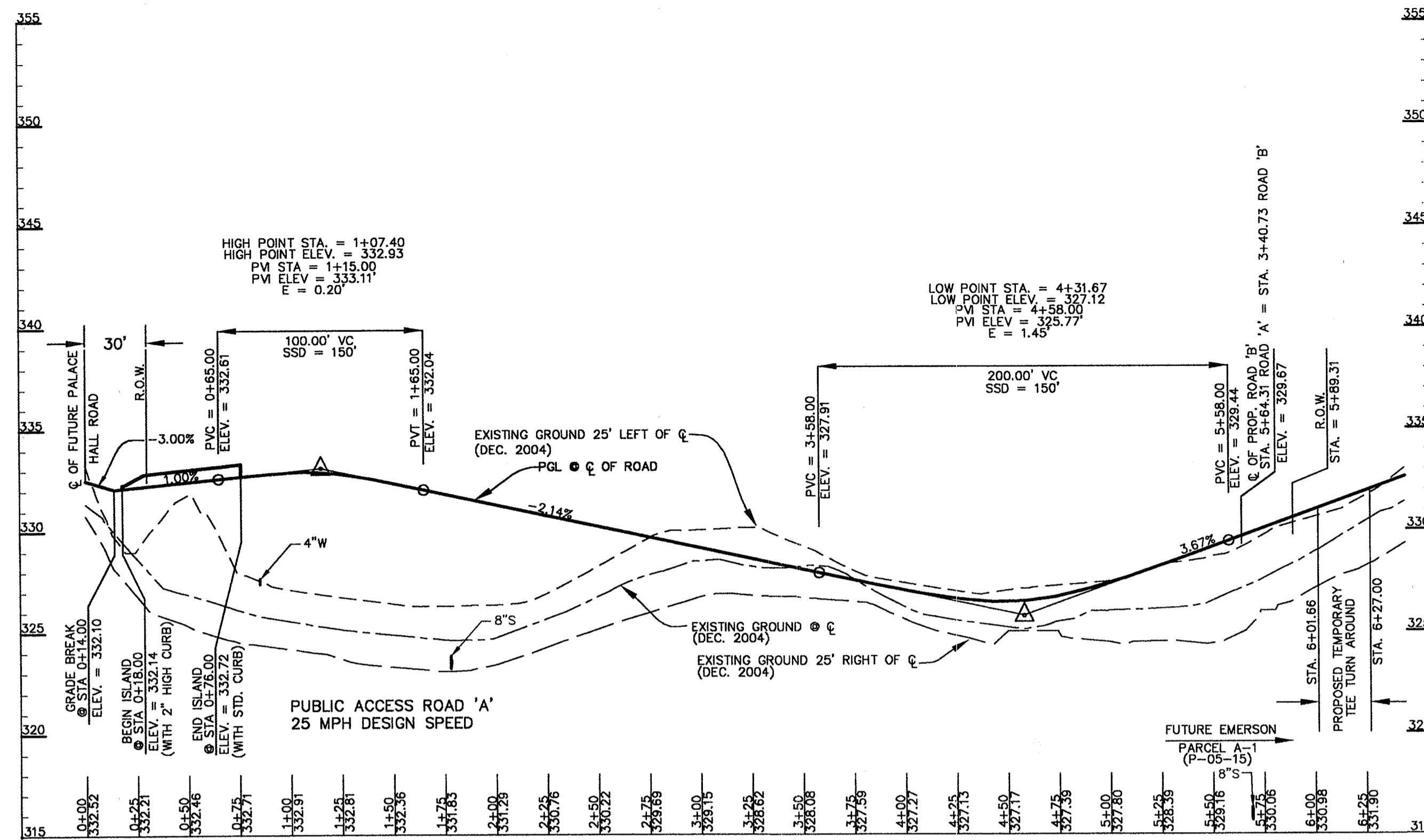
christopher consultants
engineering · surveying · land planning
christopher consultants, llc
7112 columbia gateway drive (suite 100) · columbia, md 21046-2990
410.922.8990 · fax: 410.922.8993

PROJECT: EMERSON TOWNHOUSES
SECT. 2, PH. 6A, LOTS 1-41, OPEN SPACE LOTS 42 & 43 AND PARCEL A-1, A RESUBDIVISION OF PARCEL "A-1" & "B-1"
TITLE: PRELIMINARY GRADING PLAN, DRAINAGE AREA, AND SOILS MAP

DESIGN: BAM SCALE: 1" = 50'
DRAWN: DAM DATE: 1/11/06 PROJECT: 049101.00
CHECKED: BAM APPROVED: JMH **3 OF 5**

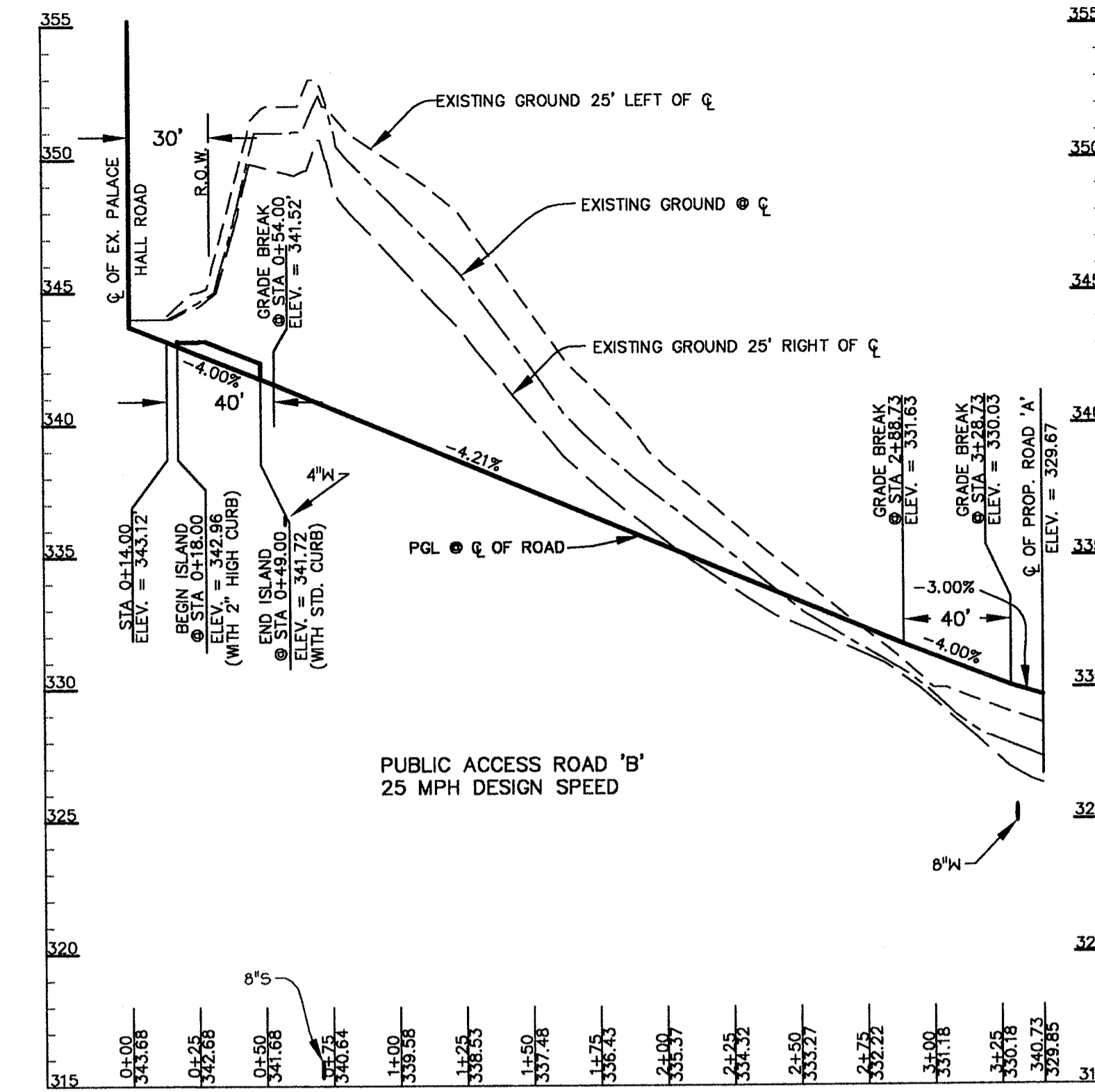


MDC-204



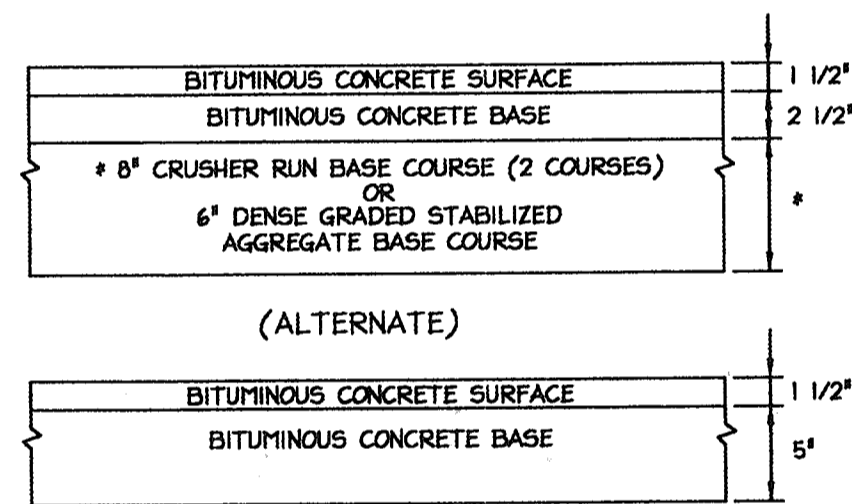
ROAD 'A' PROFILE (PUBLIC)

SCALE:
HORIZONTAL - 1"=50'
VERTICAL - 1"=5'



ROAD 'B' PROFILE (PUBLIC)

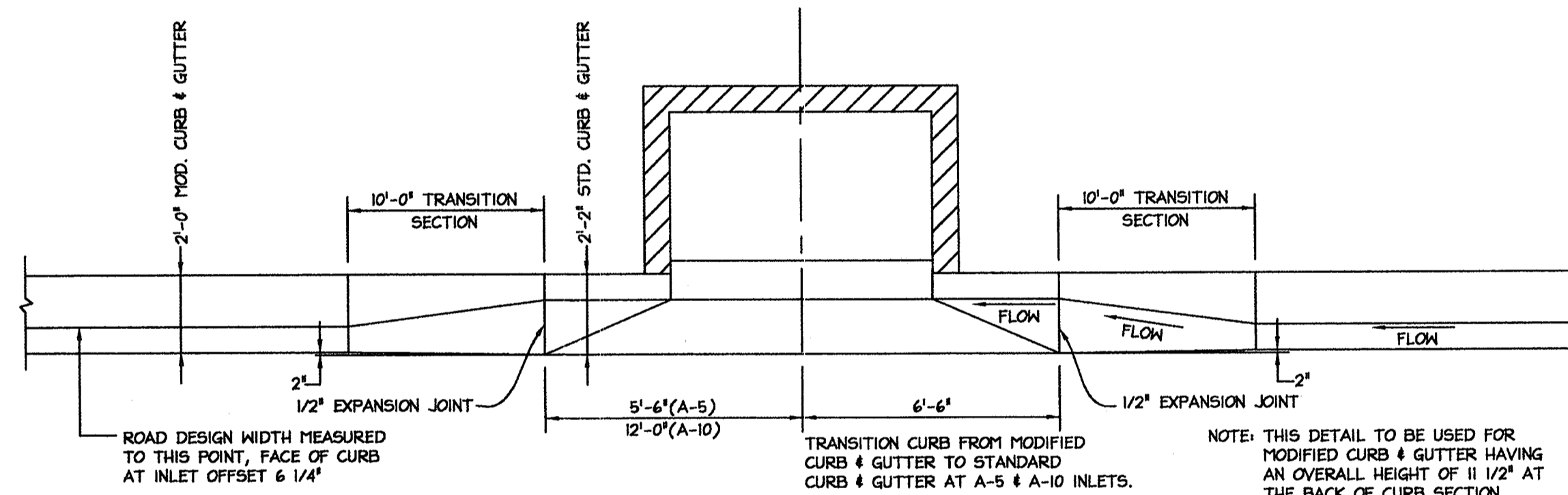
SCALE:
HORIZONTAL - 1"=50'
VERTICAL - 1"=5'



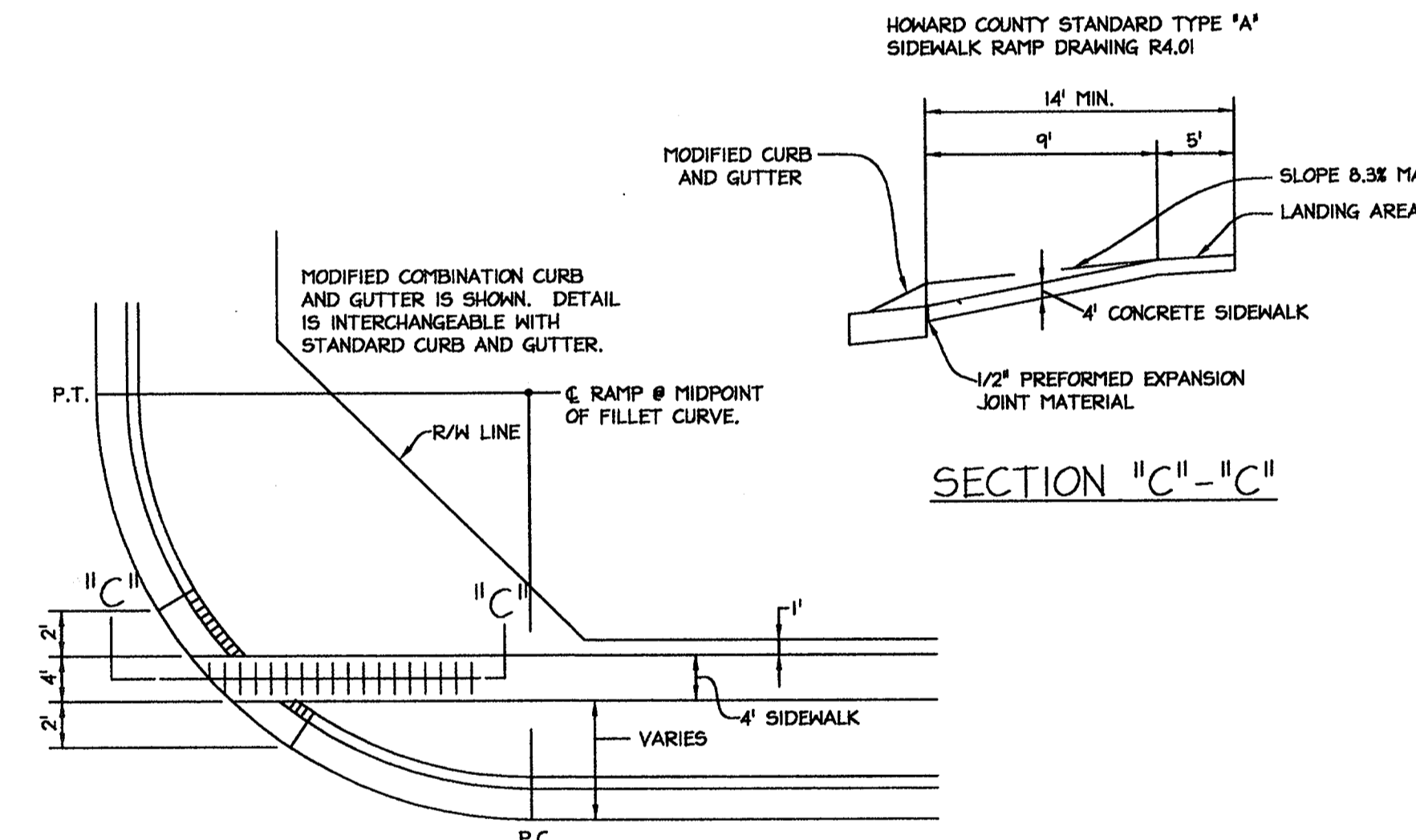
HOWARD COUNTY DESIGN MANUAL VOLUME IV - STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION (DRAWING R-2.01)

P-2 PAVING

NO SCALE

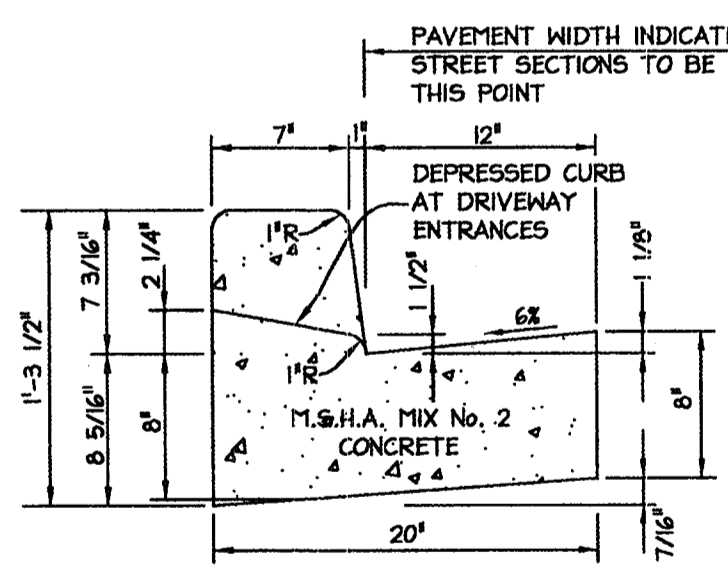


MODIFIED COMBINATION CURB AND GUTTER TRANSITION CURB SECTION AT "A" TYPE INLETS



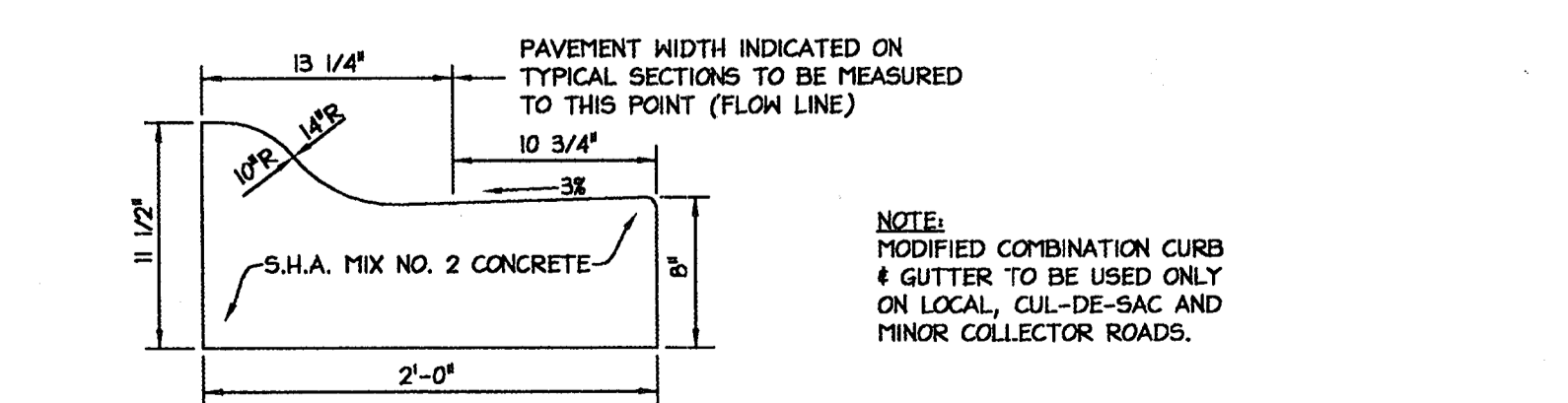
HANDICAP RAMP DETAIL

NO SCALE



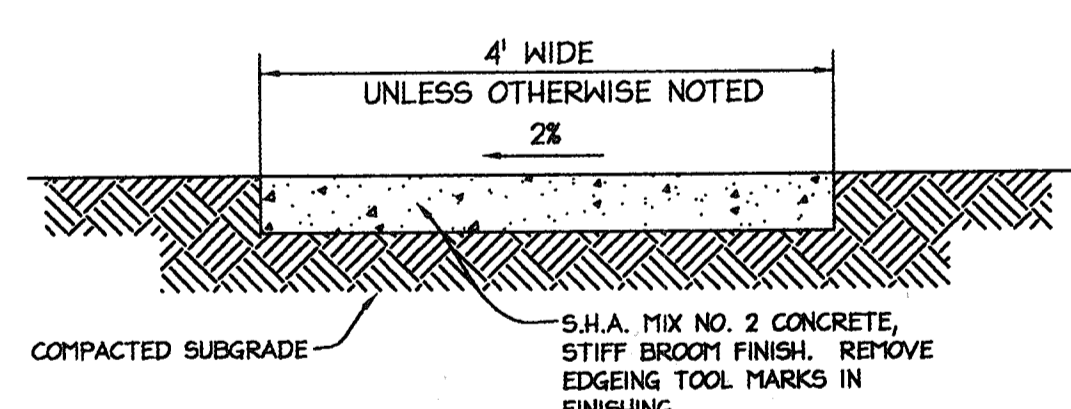
STANDARD 7" COMBINATION CURB AND GUTTER

NO SCALE



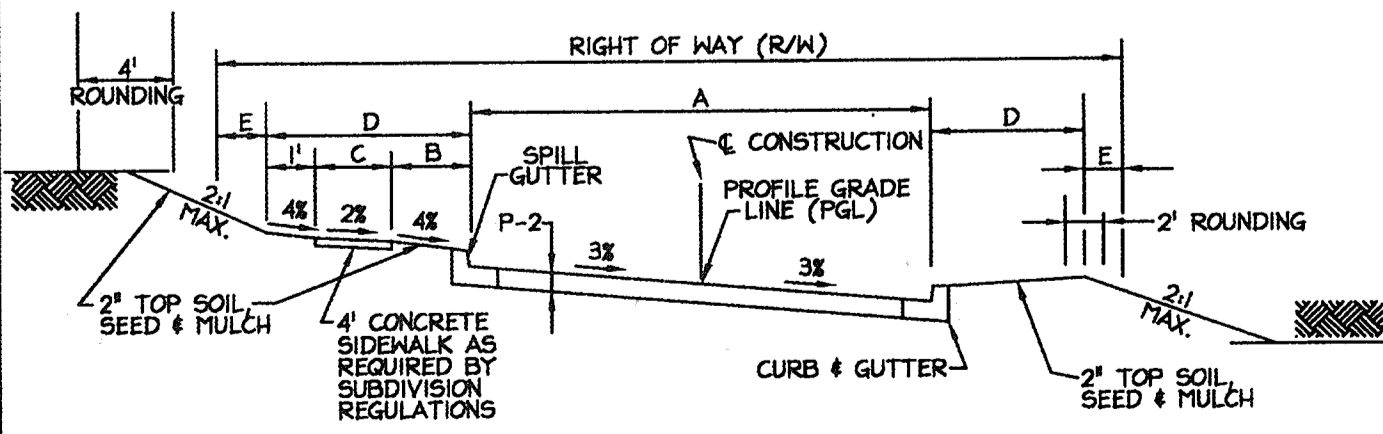
MODIFIED COMBINATION CURB AND GUTTER

* GUTTER PAN AT THE MEDIAN EDGE OF INTERMEDIATE ARTERIALS OR THE HIGH SIDE OF SUPERELEVATED SECTIONS SHALL BE SLOPED AT THE SAME RATE AND IN THE SAME DIRECTION AS THE PAVEMENT. MATCH PAVEMENT CROSS SLOPE WHEN CURB IS LOCATED ON THE LOW SIDE OF SUPERELEVATED SECTION AND THE RATE OF SUPERELEVATION IS GREATER THAN 3% FOR MODIFIED CURB AND GUTTER.



SIDEWALK DETAIL

NO SCALE



TYPICAL SECTION ACCESS STREET

NO SCALE

CLASSIFICATION	A	B	C	D	E	R/W
ACCESS STREET	24'	3'	4'	8'	0'	47'
	24'	7'	4'	12'	1'	50'

TENTATIVELY APPROVED
DEPT. OF PLANNING AND ZONING OF HOWARD COUNTY
David A. Wright
PLANNING DIRECTOR 1/20/06
DATE

OWNER:
THE HOWARD RESEARCH AND DEVELOPMENT CORPORATION
10275 LITTLE PATUXENT PKWY
COLUMBIA, MD 21044
TEL: (410) 992-6027 FAX: (410) 992-6149

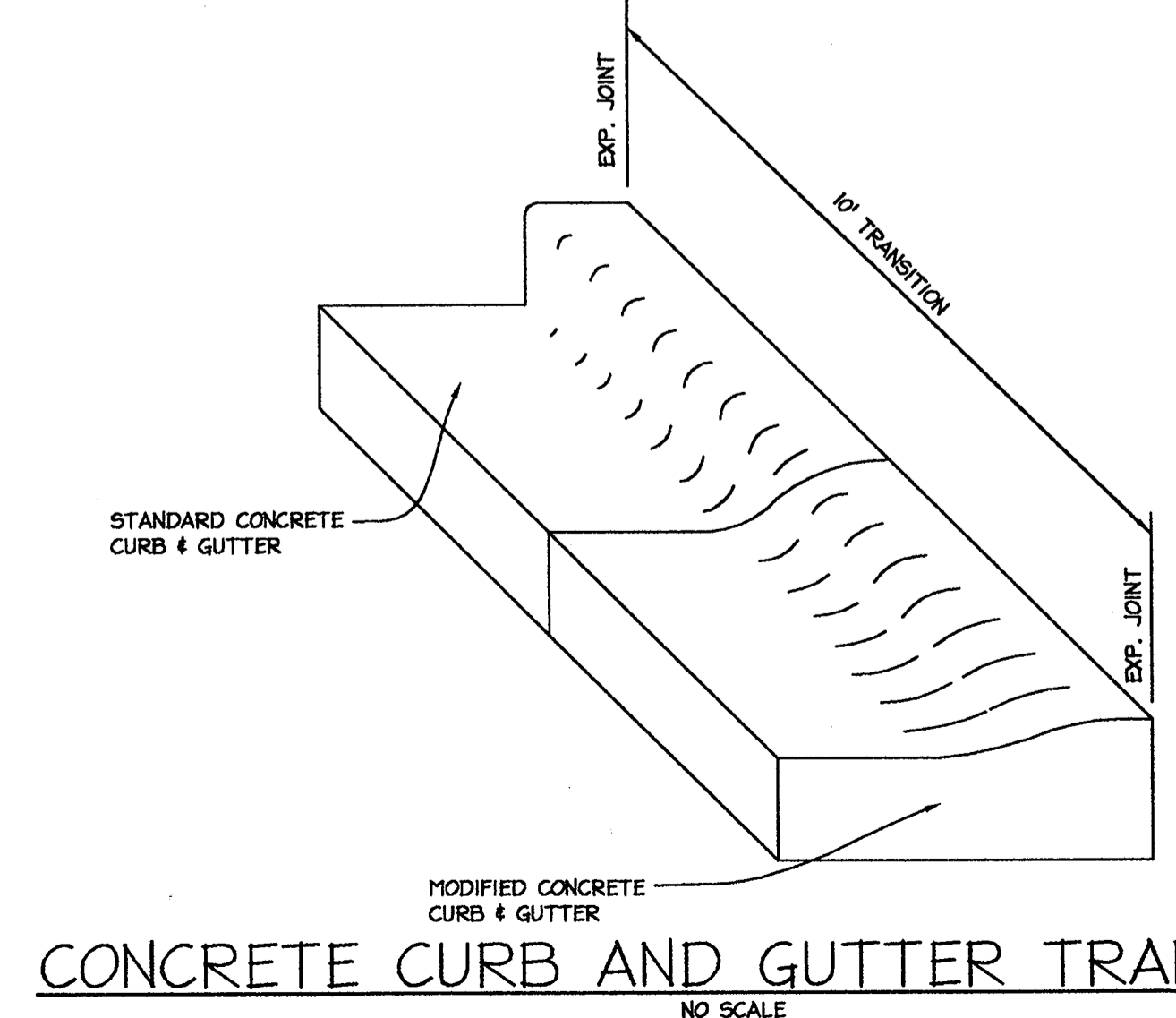
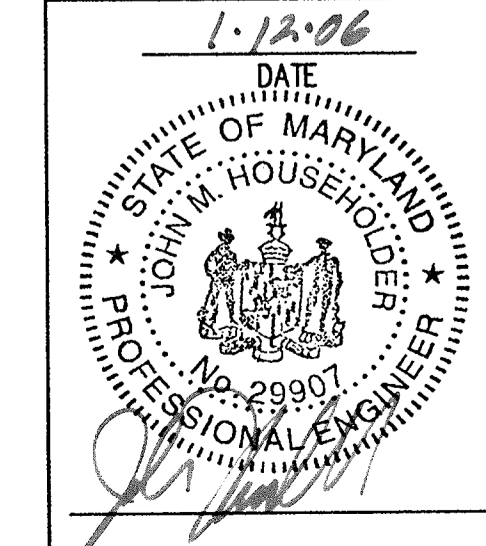
AREA:
TAX MAP 47
ZONED: MXD-3-OR
6TH ELECTION DISTRICT
BLOCKS 8&9
PARCELS A & B
HOWARD COUNTY, MARYLAND

christopher consultants
engineering surveying land planning
christopher consultants, llc
7172 columbia gateway drive suite 100 - columbia, md 21046-2990
410.822.8600 metro 301.881.0148 fax 410.822.8603

PROJECT: EMERSON TOWNHOUSES
SECT. 2, PH. 6A, LOTS 1-41, OPEN SPACE LOTS 42 & 43 AND PARCEL A-1, A RESUBDIVISION OF PARCEL "A-1" & "B-1"

TITLE: ROAD PROFILES

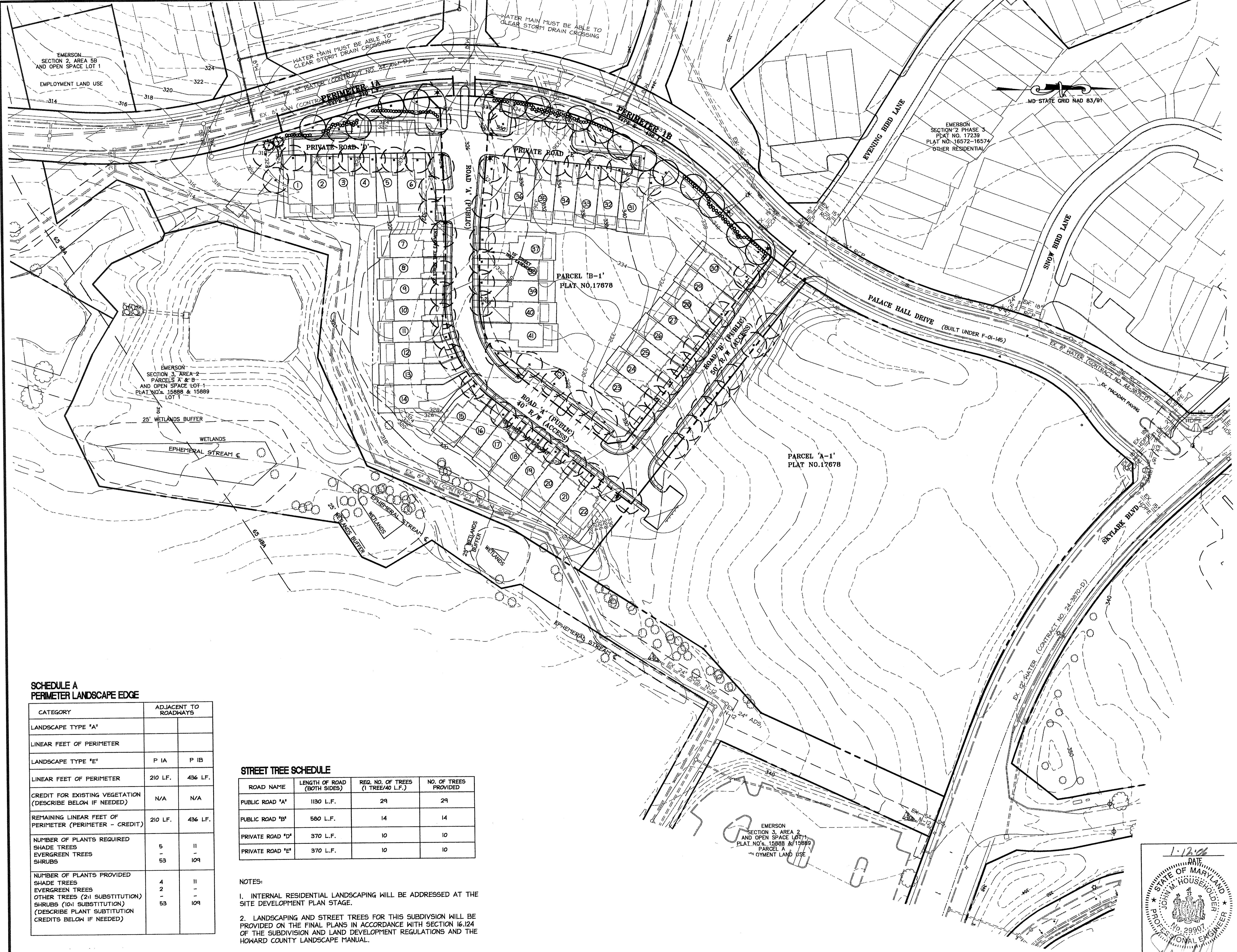
DESIGN: BAM SCALE: 1" = 50' PROJECT: 049101.00
DRAWN: DAM DATE: 1/11/06
CHECKED: JMH APPROVED: 4 OF 5



CONCRETE CURB AND GUTTER TRANSITION

NO SCALE

MDC-204



LEGEND

	EX CONTOURS
	STREAM
	100YR WSEL
	EX. STORMDRAIN
	EX. SANITARY
	EX. WATER
	EX. TREE
	PROP. CURB
	PROPERTY LINE
	PROP. SHADE TREE
	PROP. STREET TREE
	PROP. ORNAMENTAL TREE
	PROP. EVERGREEN TREE

**SCHEDULE A
PERIMETER LANDSCAPE EDGE**

CATEGORY	ADJACENT TO ROADWAYS	
	P IA	P IB
LANDSCAPE TYPE "A"		
LINEAR FEET OF PERIMETER		
LANDSCAPE TYPE "E"	P IA	P IB
LINEAR FEET OF PERIMETER	210 LF.	436 LF.
CREDIT FOR EXISTING VEGETATION (DESCRIBE BELOW IF NEEDED)	N/A	N/A
REMAINING LINEAR FEET OF PERIMETER (PERIMETER - CREDIT)	210 LF.	436 LF.
NUMBER OF PLANTS REQUIRED		
SHADE TREES	5	11
EVERGREEN TREES	-	-
SHRUBS	53	109
NUMBER OF PLANTS PROVIDED		
SHADE TREES	4	11
EVERGREEN TREES	2	-
OTHER TREES (21 SUBSTITUTION)	-	-
SHRUBS (101 SUBSTITUTION) (DESCRIBE PLANT SUBSTITUTION CREDITS BELOW IF NEEDED)	53	109

STREET TREE SCHEDULE

ROAD NAME	LENGTH OF ROAD (BOTH SIDES)	REQ. NO. OF TREES (1 TREE/40 L.F.)	NO. OF TREES PROVIDED
PUBLIC ROAD "A"	1130 L.F.	29	29
PUBLIC ROAD "B"	560 L.F.	14	14
PRIVATE ROAD "D"	370 L.F.	10	10
PRIVATE ROAD "E"	370 L.F.	10	10

NOTES:

- INTERNAL RESIDENTIAL LANDSCAPING WILL BE ADDRESSED AT THE SITE DEVELOPMENT PLAN STAGE.
- LANDSCAPING AND STREET TREES FOR THIS SUBDIVISION WILL BE PROVIDED ON THE FINAL PLANS IN ACCORDANCE WITH SECTION 16.124 OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS AND THE HOWARD COUNTY LANDSCAPE MANUAL.

48 Hours
Before You Dig
Call
"MISS UTILITY"
Service Protection Center

CALL TOLL FREE
1-800-257-7777

TENTATIVELY APPROVED
DEPT. OF PLANNING AND
ZONING OF
HOWARD COUNTY
David L. Wright
PLANNING DIRECTOR
DATE: 1/11/06

OWNER:
THE HOWARD RESEARCH AND DEVELOPMENT CORPORATION
10275 LITTLE PATUXENT PKWY
COLUMBIA, MD 21044
TEL: (410) 992-8027 FAX: (410) 992-8149

AREA:
TAX MAP 47
ZONED: MXD-3-OR
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PARCELS A & B
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7172 columbia gateway drive (suite 100) · columbia, md 21046-2990
410.872.8890 · mdc@301.981.0148 · fax 410.872.8893

PROJECT:
SECT. 2, PH. 6A, LOTS 1-41, OPEN SPACE LOTS 42 & 43 AND
PARCEL A-1, A RESUBDIVISION OF PARCEL "A-1" & "B-1"

TITLE:
PRELIMINARY LANDSCAPE PLAN

DESIGN: LES	SCALE: 1" = 50'	PROJECT: 049101.00
DRAWN: LES	DATE: 1/11/06	5 of 5
CHECKED: BKC	APPROVED:	

1-12-06
DATE
STATE OF MARYLAND
JOHN W. HOUSEHOLDER
PROFESSIONAL ENGINEER
No. 29907