SITE DEVELOPMENT PLAN

ROUTE 175 COMMERCIAL
SECTION 1 AREA 2
PARCELS C-1 THRU C-3
COLUMBIA MD

General Notes

1. All construction shall be in accordance with the latest standards and specifications of Howard County plus MSHA standards and specifications if applicable.
2. The contractor shall notify the Department of Public Works, Bureau of Engineering, Construction Inspection Division at (410) 313-1880 at least 48 Hours prior to the start of work.
3. The contractor shall notify "Miss Utility" at 1-800-257-7777 at least 48 hours prior to any excavation work.
4. The contractor shall notify the Howard County Department of Public Works, Bureau of Utilities at (410) 313-4900 at least five (5) working days prior to starting any excavation work.
5. Site area: Parcel C-1 = 10.06 acres
   Parcel C-2 = 6.54 acres
   Parcel C-3 = 2.02 acres
6. The subject property is zoned NT-Employment center-commerical, FDP235.
7. Proposed Use: Bldg A - General Retail Bldg. C - General Retail
   Bldg B - General Retail Bldg. D - General Retail (4)
8. All plan dimensions are to face of curb unless otherwise noted.
9. Existing topography is shown per field run survey information by Gutshcick, Little Weber, P.A. by air-flown topography & by design grades from rough grading plan.
10. Coordinates and bearings are based upon the MD State plane system (NAD '83).
11. Water and sewer shown is private and public.
12. Stormwater management for this site is proposed by SDP-01-09. Water quality manholes are proposed on this plan for area draining to pond No.8.
13. All existing water and sewer is per Contracts 20-3474-D, 24-3463-D and 24-3413-D.
14. All existing public storm drain is per F 90-53 & F 96-41.
15. See trench bedding class "C" for storm drains.
16. Project background: See Dept. of Planning & Zoning File Numbers: F-00-149, S 99-05, FDP 235, PB 337, WP 99-117, WP 00-24, WP-99-41, SDP-01-09, PLAT NO'S 14637 & 14638 ,F-02-12-PN 14901
17. Recording reference: Plat No. 14901 recorded on August 16 2001
18. Existing utilities are based on approved design plans for construction and field location by Gutschick, Little & Weber, P.A.
19. There is no floodplain on Site.
20. There are no wetlands on Site.
21. Building setbacks and building restrictions are per FDP 235.
22. Forest Stand Delineation is not required per section 16.1202(b)(1)(iv) of the Subdivision Regulations.
23. NOTE: In case of discrepancies between the plat and the plans, the plat shall govern.
24. No clearing, grading or construction is permitted within any wetland, wetlands, buffer, 50' stream buffer or floodplan.
25. All outdoor lighting shall comply with the requirements of zoning section 134.

- On March 23,1999, WP.99.41: waiver of section 16.119 (f)(1), was approved to permit a private commercial driveway direct access to an arterial road, subject to various conditions in the approval letter.

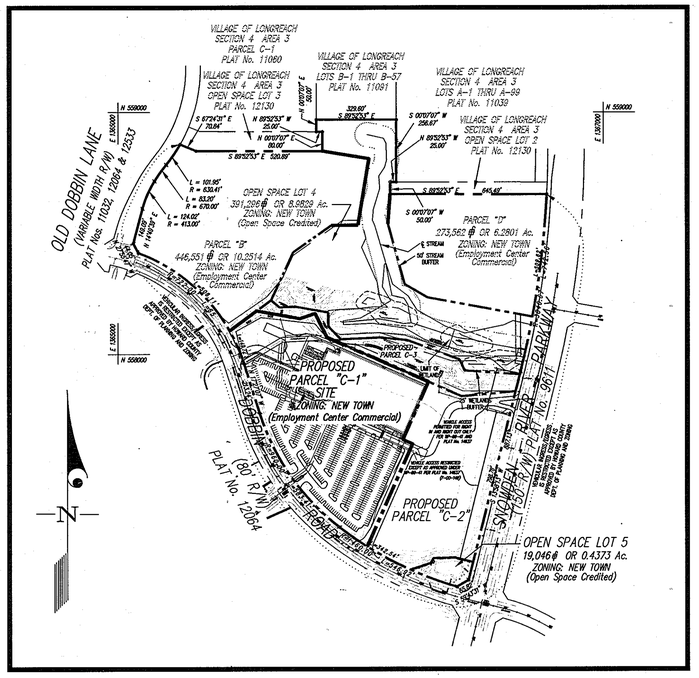
20. See sheet 2 of 14 for Unlimited Area Building Requirements.

Sheet Index

1. Cover Sheet
2. Overall Site Plan (50 Scale)
3. Site Plan (30 Scale)
4. Site Plan (30 Scale)
5. Site Detail Sheet
6. Site Plan H.C. Accessibility Plan
7. Storm Drain Profiles
8. Storm Drain Details
9. Sediment Control Plan
10. Sediment Control Details
11. Paving Plan
12. Landscape Plan
13. Landscape Plan
14. Landscape Detail Sheet

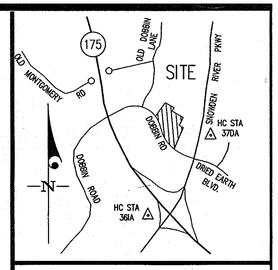
LEGEND

366	EX. CONTOUR
300	PROP CONTOUR
	EX TREELINE
	PROP TREELINE
	EX. STORM DRAIN
	PROP. STORM DRAIN
	LIMIT OF DISTURBED AREA
SVB SVB	STREAM VALLEY BUFFER
FP	100 YR FLOODPLAIN
FB	100 YEAR FLOODPLAIN BUFFER
FC	FOREST CONSERVATION
W	WETLANDS
WB	WETLANDS BUFFER
	EX. STREAM
	RIP-RAP
	SANITARY SEWER
	WATERLINE
	CONCRETE CURB & GUTTER

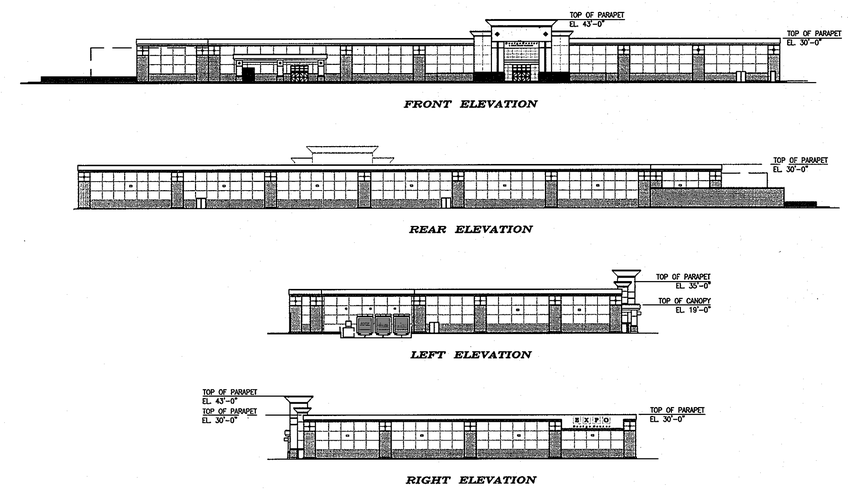


KEY MAP

SCALE : 1" = 300'



VICINITY MAP
SCALE: 1"=2000'



APPROVED
PLANNING BOARD
of HOWARD COUNTY
DATE 08/23/01

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

Director	Date 10/15/01
Chief, Division of Land Development ~~and Research~~	Date 10/2/01
Chief, Development Engineering Division MK	Date 9/25/01

Owner	OWNER	DEVELOPER/CONTRACT PURCHASER	Prepared For:
Madison Columbia LLC c/o Madison Marquette 1201 Pennsylvania Ave. NW Washington, DC 20004-1050 202-741-3800	HOWARD RESEARCH & DEVELOPMENT CORPORATION 10275 LITTLE PATUXENT PARKWAY COLUMBIA, MD. 21044	EXPO DESIGN CENTER 877 FRANKLIN ROAD, SUITE 205 MARIETTA, GA 30067	Mulvanny G-2 Architects 1110 112th Avenue, NE Suite 500 Bellevue, WA 98004 425-453-2000

PREPARED FOR :
GRENNBERG FARROW
ARCHITECTURE ENGINEERING DEVELOPMENT
POST-BRIDGE PLAZA
50 DUNSBAR STREET-SUITE 300
SOMMERVILLE, NJ 08876
TEL: 908-725-5857
ATTN: JOHN M. KEREKES

Address Chart		
Parcel No.	Bldg.	Street Address
C-1	A	6100 Dobbin Road
C-1	B	6110 Dobbin Road
C-1	C	Dobbin Road
C-1	D	Dobbin Road

ADDRESS CHART	
PARCEL NUMBER	STREET ADDRESS
C-1	6100 DOBBIN ROAD (Bldg A)
	6110 Dobbin Rd (Bldg B)

WATER CODE: E08	SEWER CODE: 3460000		
SUBDIVISION NAME: ROUTE 175 COMMERCIAL		SECTION/AREA 1 / 2	PARCELS C-1 THRU C-3
PLAT 14901	ZONE NT	TAX MAP 36 37	BLOCK 15 13
ELEC. DIST. 6	CENSUS TRACT 6067.03		

GLW GUTSCHICK 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/VA: 301-989-2524 FAX: 301-421-4186

\DRAWINGS\01014\DESIGN\01014SP1 | DES. | DRN. | CHK.

DATE	REVISION	BY	APP'R.
7/18/10	rev. prop. building areas, "Prepared For" information & address chart	klr/dev	
2/19/10	Rev. Prepared For Info.	WEJ	
7/20/01	REVISED: ADDRESS FOR BLDG B, PARCEL C-1		
7/13/01	REVISED PER EXPO BUILDING REVISIONS & HOWARD COUNTY COMMENTS		

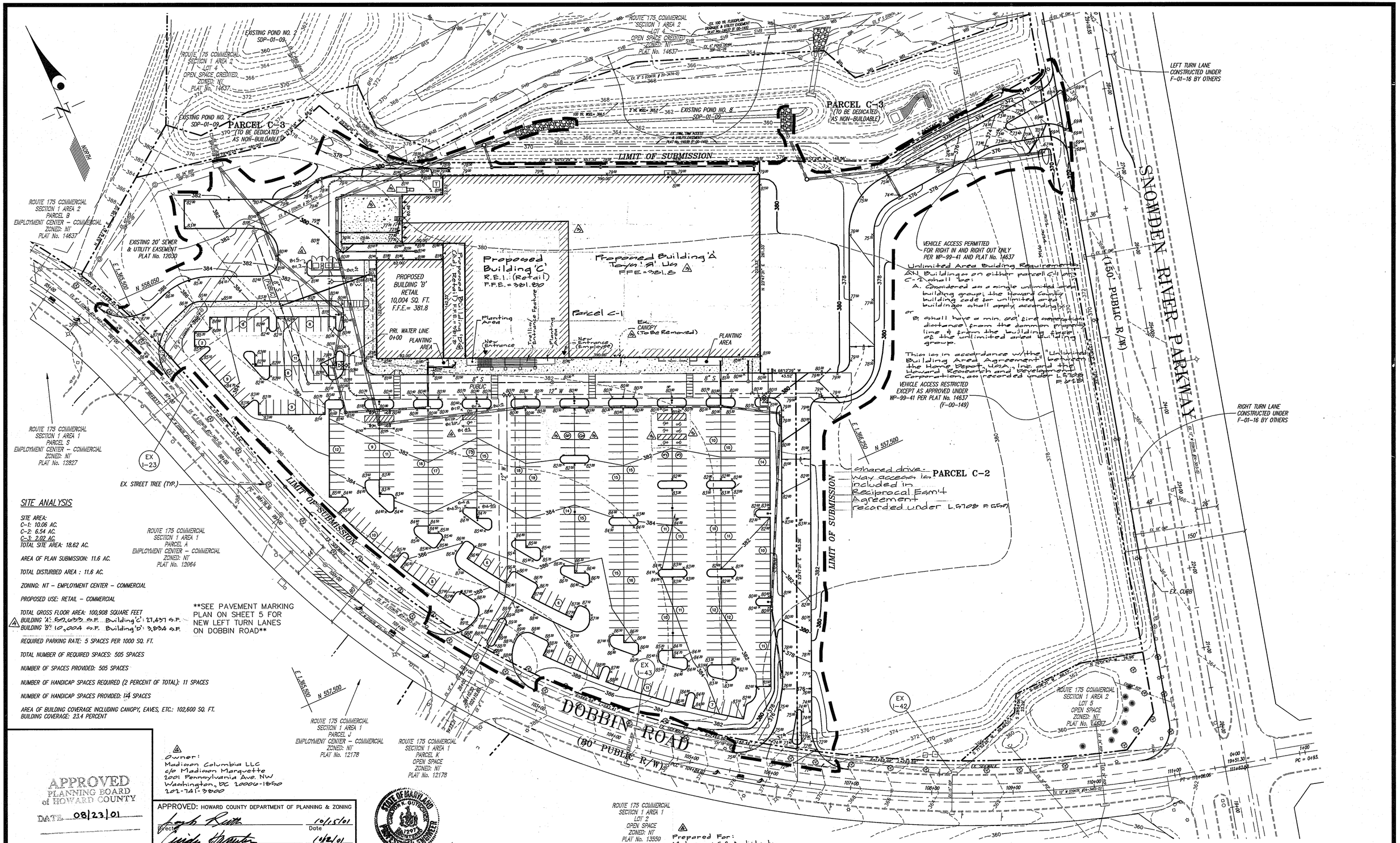
COVER SHEET

ROUTE 175 COMMERICAL
SECTION 1, AREA 2
PARCELS 'C-1' THRU 'C-3'

ELECTION DISTRICT No.6 — HOWARD COUNTY, MARYLAND

SCALE	ZONING	G. L. W. FILE No.
AS SHOWN	NT	01014
DATE	TAX MAP - GRID	SHEET
APRIL 2001	36-18 37-13	1 OF 14

SDP-01-132



SITE ANALYSIS

SITE AREA:
C-1: 10.06 AC.
C-2: 6.54 AC.
C-3: 2.02 AC.
TOTAL SITE AREA: 18.62 AC.

AREA OF PLAN SUBMISSION: 11.6 AC.

TOTAL DISTURBED AREA : 11.6 AC.

ZONING: NT - EMPLOYMENT CENTER - COMMERCIAL

PROPOSED USE: RETAIL - COMMERCIAL

TOTAL GROSS FLOOR AREA: 100,908 SQUARE FEET
BUILDING 'A': 60,033 G.F. Building 'C': 27,437 G.F.
BUILDING 'B': 10,004 G.F. Building 'D': 3,834 G.F.

REQUIRED PARKING RATE: 5 SPACES PER 1000 SQ. FT.

TOTAL NUMBER OF REQUIRED SPACES: 505 SPACES

NUMBER OF SPACES PROVIDED: 505 SPACES

NUMBER OF HANDICAP SPACES REQUIRED (2 PERCENT OF TOTAL): 11 SPACES

NUMBER OF HANDICAP SPACES PROVIDED: 14 SPACES

AREA OF BUILDING COVERAGE INCLUDING CANOPY, EAVES, ETC.: 102,600 SQ. FT.
BUILDING COVERAGE: 23.4 PERCENT

SEE PAVEMENT MARKING PLAN ON SHEET 5 FOR NEW LEFT TURN LANES ON DOBBIN ROAD

Owner:
Madison Columbia LLC
c/o Madison Marquette
2001 Pennsylvania Ave. NW
Washington, DC 20006-1850
202-741-3000

Prepared For:
Mulvanny G·2 Architects
1110 112th Avenue NE Suite 500
Bellevue, WA 98004
425-453-2000

APPROVED
PLANNING BOARD
of HOWARD COUNTY
DATE 08/23/01

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

Director	Date 10/15/01
Chief, Division of Land Development ~~and Research~~	Date 10/2/01
Chief, Development Engineering Division MK	Date 9/25/01

STATE OF MARYLAND — JOHN K. GUTSCHICK — No. 12915 — PROFESSIONAL ENGINEER

GLW GUTSCHICK 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/VA: 301-989-2524 FAX: 301-421-4186

\DRAWINGS\01014\DESIGN\01014SP2.dwg | DES. JMC/TMR | DRN. JMG | CHK. TMR

DATE	REVISION	BY	APP'R.
7/29/10	rev. bldg. footprint, added trash enclosure, rev. parking to provide HC spaces	klp/dev	
2/10/10	Rev. Footprint, Add Ret. Wall, Trench Drain Comp. chairs & Rev. Prepared For Info.	wcj	
7/13/01	REVISED PER EXPO BUILDING REVISIONS & HOWARD COUNTY COMMENTS		

PREPARED FOR:
GREENBERG FARROW
ARCHITECTURE ENGINEERING DEVELOPMENT
POST OFFICE PLAZA
50 DIVISION STREET, SUITE 300
SOMERVILLE, NJ 08876
TEL: 908-725-5857
ATTN: JOHN M. KEREKES

SITE DEVELOPMENT PLAN

ROUTE 175 COMMERCIAL
SECTION 1, AREA 2
PARCELS 'C-1' THRU 'C-3'

ELECTION DISTRICT No. 6 — HOWARD COUNTY, MARYLAND

SCALE	ZONING	G. L. W. FILE No.
1"=50'	NT	01014
DATE	TAX MAP - GRID	SHEET
APRIL 2001	36-18 37-13	2 OF 14

SDP-01-132

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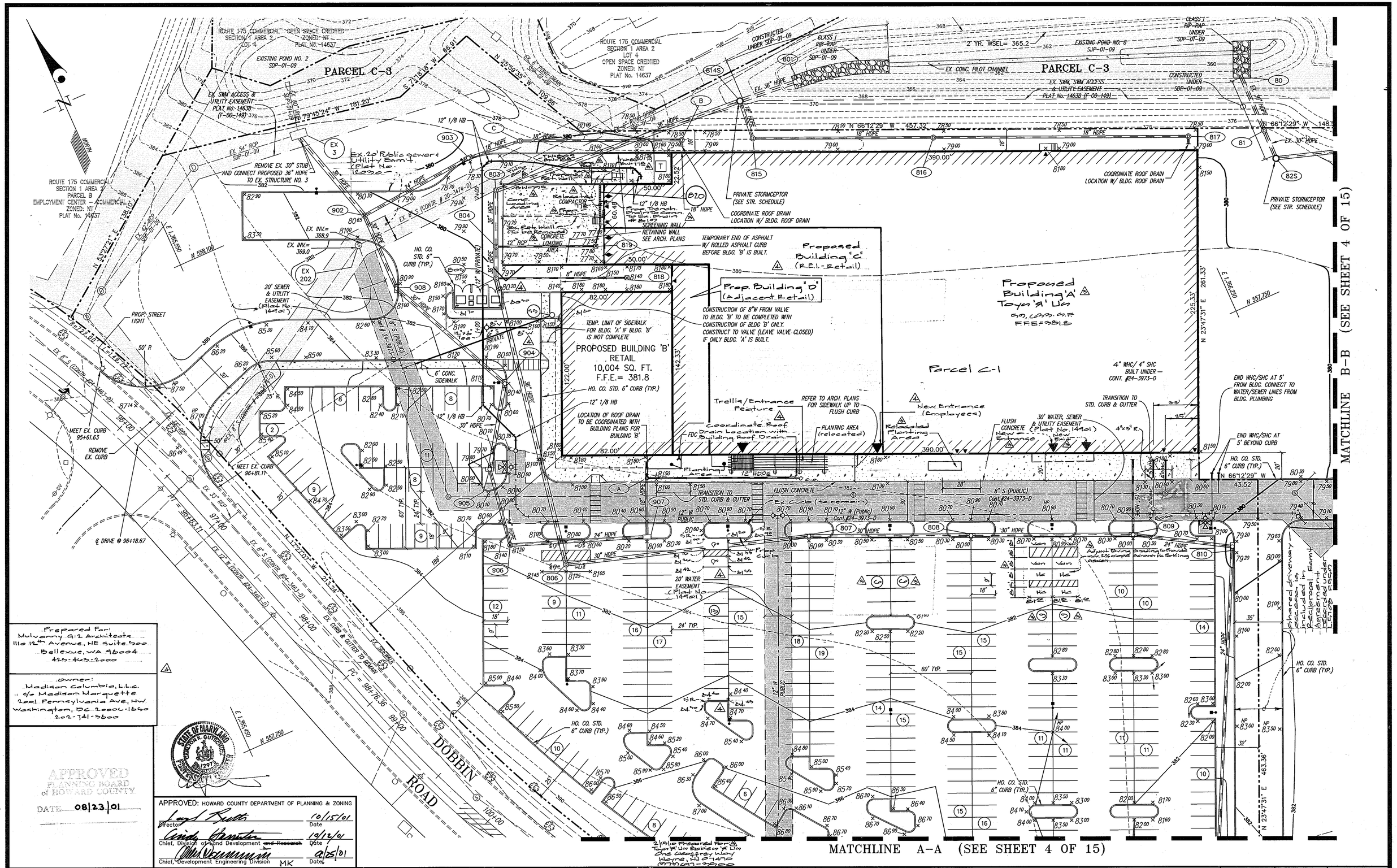

Prepared For:
Mulvanny G:2 Architects
1110 112th Avenue, NE Suite 500
Bellevue, WA 98004
425-453-2000

Owner:
Madison Columbia, L.L.C.
c/o Madison Marquette
2001 Pennsylvania Ave, NW
Washington, DC 20006-1850
202-741-3600

APPROVED
PLANNING BOARD
of HOWARD COUNTY
DATE 08/23/01

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

Director	Date 10/15/01
Chief, Division of Land Development ~~and Research~~	Date 10/12/01
Chief, Development Engineering Division MK	Date 9/25/01

GLW GUTSCHICK LITTLE & WEBER, P.A.
CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
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\DRAWINGS\01014\DESIGN\01014SP3.dwg DES. JMG/TMR DRN. JMG CHK. TMR

DATE	REVISION	BY	APP'R.
1/10/02	Revised W.H.c.t.s.H.c. location and revise planting areas	klp/dev	
2/10/10	Rev. Footprint, Add Retaining Wall, Trash Bin Compound, Rev. Prepared For Info.	klp-1	
7/23/10	Revise Building footprint, add trash enclosure, revise parking to provide H.C. spaces, revise "owner" information; add "Prepared For"	klp/dev	
7/13/01	REVISED PER EXPO BUILDING REVISIONS & HOWARD COUNTY COMMENTS		

PREPARED FOR:
GREENBERG FARROW
ARCHITECTURE, ENGINEERING, DEVELOPMENT
POST OFFICE PLAZA
50 DIVISION STREET, SUITE 300
SOMERVILLE, NJ 08876
TEL: 908-725-5857
ATTN: JOHN M. KEREKES

2/10/10 Prepared For: Turner Wu Bakker 'A' Llc
One Geoffrey Way
Wayne, NJ 07470
973-694-3500

SITE PLAN

ROUTE 175 COMMERCIAL
SECTION 1, AREA 2
PARCELS 'C-1' THRU 'C-3'

ELECTION DISTRICT No. 6 — HOWARD COUNTY, MARYLAND

SCALE	ZONING	G. L. W. FILE No.
1"=30'	NT	01014
DATE	TAX MAP – GRID	SHEET
APRIL 2001	36-18 37-13	3 OF 14

SDP-01-132

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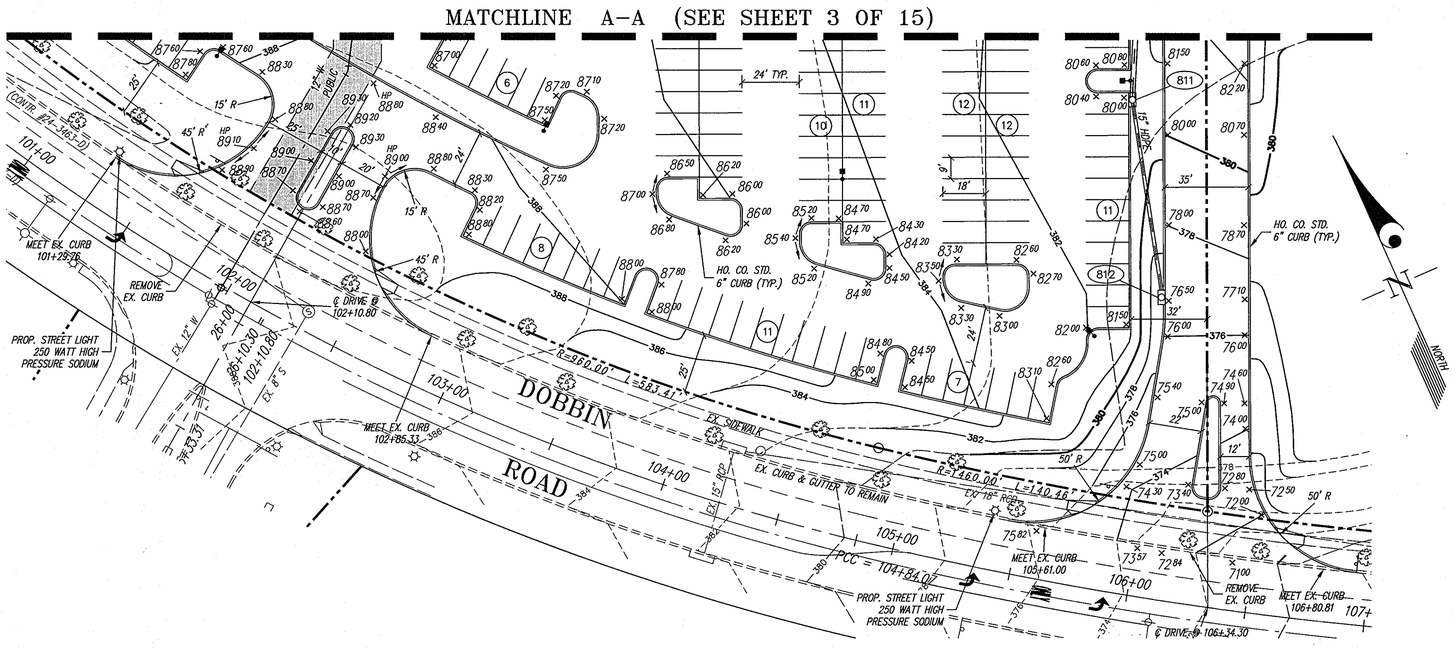

APPROVED
PLANNING BOARD
of HOWARD COUNTY
DATE 08/23/01

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

Director	Date 10/15/01
Chief, Division of Land Development ~~and Research~~	Date 10/12/01
Chief, Development Engineering Division MK	Date 9/25/01

STATE OF MARYLAND — JOHN M. GUTSCHICK — 17071 — PROFESSIONAL ENGINEER

GLW GUTSCHICK LITTLE & WEBER, P.A.
CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
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DATE	REVISION	BY	APP'R.
7/13/01	REVISED PER EXPO BUILDING REVISIONS & HOWARD COUNTY COMMENTS		

PREPARED FOR :
GREENBERG FARROW
ARCHITECTURE ENGINEERING DEVELOPMENT
POST OFFICE PLAZA
50 DIVISION STREET, SUITE 300
SOMERVILLE, NJ 08876
TEL: 908-725-5857
ATTN: JOHN M. KEREKES

SITE PLAN

ROUTE 175 COMMERCIAL
SECTION 1, AREA 2
PARCELS 'C-1' THRU 'C-3'

ELECTION DISTRICT No. 6 — HOWARD COUNTY, MARYLAND

SCALE	ZONING	G. L. W. FILE No.
1"=30'	NT	01014
DATE	TAX MAP – GRID	SHEET
APRIL 2001	36-18 37-13	4 OF 14

SDP-01-132

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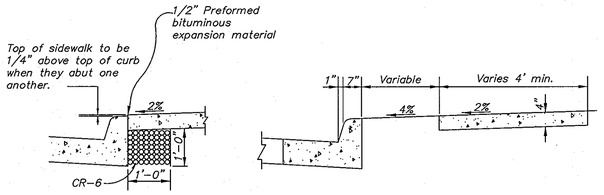
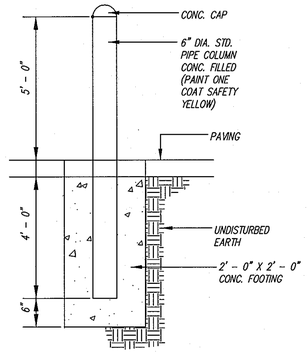


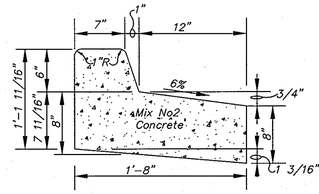
Detail A

Notes:

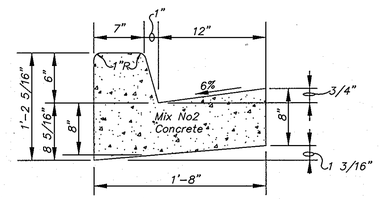
1. Sidewalk to be scribed in 5' maximum squares.
2. Expansion joints across the sidewalk not to be more than 15' apart.
3. 1/2" preformed bituminous expansion material in expansion joints to be kept 1/4" below surface of sidewalk.
4. Concrete to be mix No.2
5. When sidewalk abuts curb, walk shall be 1/4" above curb with preformed bituminous expansion material between sidewalk and curb and resting on a compacted crushed stone base. See detail A this sheet.
6. On longitudinal sidewalk grades of 5% or greater, a concrete header, 6" thick and 6" deep below the normal 4" sidewalk thickness shall be constructed for the full width of the sidewalk at intervals of 48'. The headers shall be placed at expansion joint locations and shall be monolithic with the sidewalk.



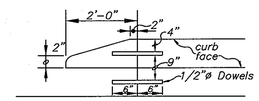
BOLLARD DETAIL
N.T.S.



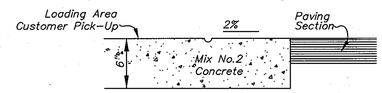
REVERSE 6" COMBINATION CURB & GUTTER
N.T.S.



STANDARD 6" COMBINATION CURB & GUTTER
N.T.S.



NOSE DOWN CURB DETAIL
N.T.S.

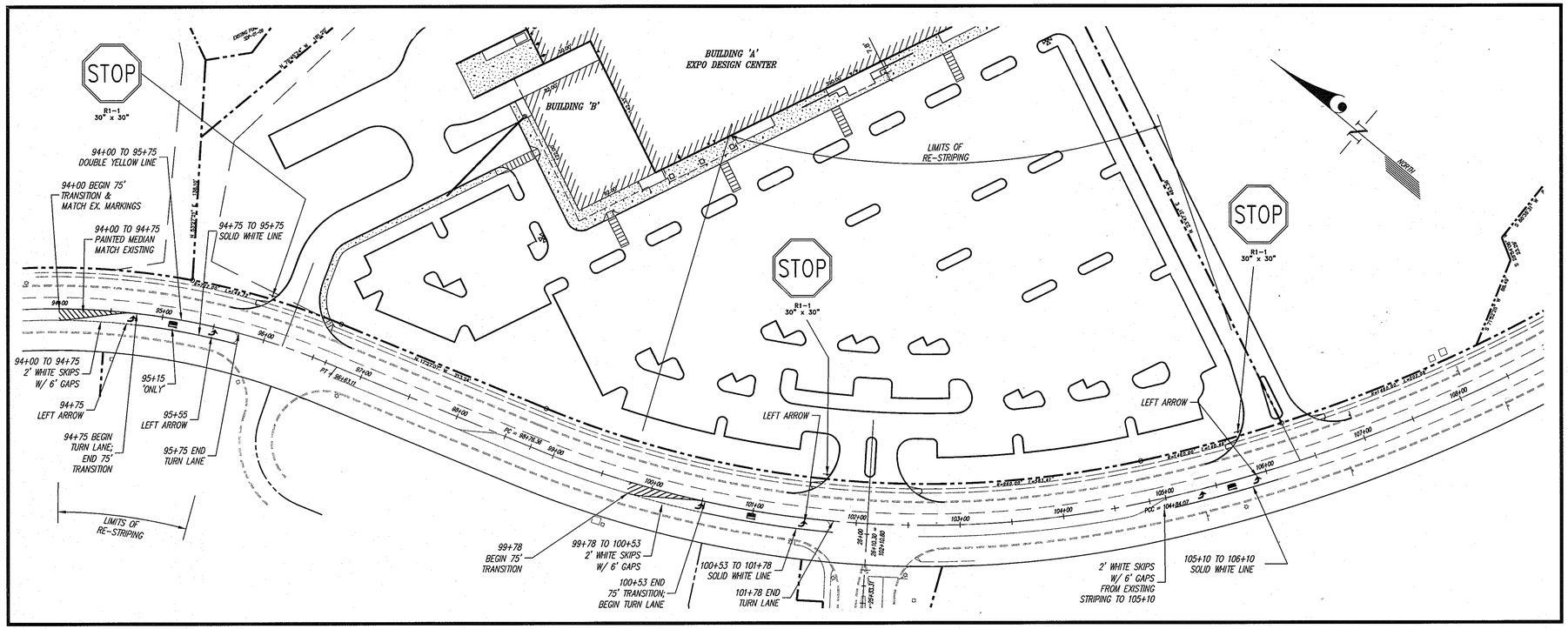


DEPRESSED CURB ENTRANCE
N.T.S.

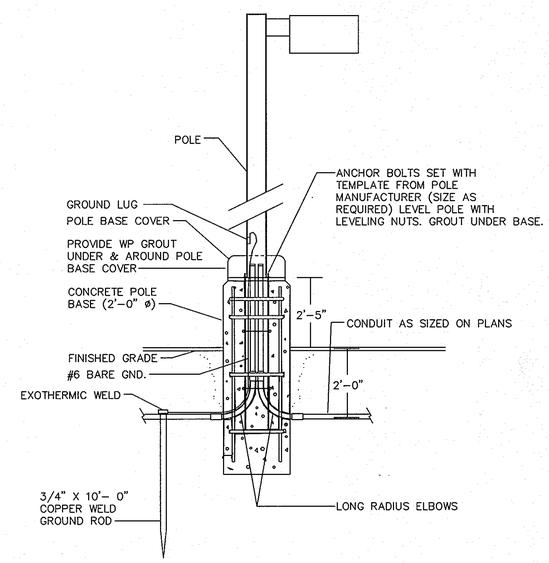
PAVING TYPE	PAVING SECTION	PAVING TYPE
STANDARD DUTY PAVING (SEE PAVING PLAN)	2" Bit Conc. Surface; 2" Bit Conc. Base; 6" Graded Aggregate Base (10")	SIDEWALK SECTION (NON TRAFFIC BEARING) — SLOPE AWAY FROM BLDG; 4"; COMPACTED SUB GRADE
HEAVY DUTY PAVING (SEE PAVING PLAN)	2 1/2" Bit Conc. Surface; 3" Bit Conc. Base; 6" Graded Aggregate Base (11 1/2")	CONCRETE SECTION FOR CUSTOMER PICK-UP — 6"; 9"; COMPACTED CRUSHED STONE (CR-6)
CONCRETE SECTION FOR TRUCK LOADING (SEE STRUCTURAL PLANS)		

NOTE: PAVING SECTIONS EXCEED EXPO DESIGN CRITERIA. SECTIONS WERE SPECIFIED BASED ON GEOTECHNICAL REPORT.

PAVING SECTIONS
N.T.S.



PAVEMENT MARKING PLAN FOR DOBBIN ROAD
SCALE: 1" = 60'-0"



NOTE:

POLE BASE DETAIL SHOWN HERE FOR INFORMATIONAL PURPOSES ONLY. POLE BASE TO BE CONSTRUCTED IN STRICT ACCORDANCE WITH STRUCTURAL DETAILS.

SITE LIGHTING POLE BASE DETAIL
N.T.S.

APPROVED
PLANNING BOARD
of HOWARD COUNTY
DATE 08/23/01

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

Director	Date 10/15/01
Chief, Division of Land Development	Date 10/12/01
Chief, Development Engineering Division MK	Date 9/25/01

STATE OF MARYLAND — CHARLES K. GUTSCHICK — No. 9991 — PROFESSIONAL ENGINEER

Prepared For:
Mulvanny G-2 Architects
1110 112th Avenue NE
Suite 500
Bellevue, WA 98004
425-453-2000

Owner:
Madison Columbia LLC
c/o Madison Marquette
2001 Pennsylvania Ave. NW
Washington, DC 20006-1850
202-741-3800

GLW GUTSCHICK 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/VA: 301-989-2524 FAX: 301-421-4186

\DRAWINGS\01014\DESIGN\01014SP5.DWG | DES. JMG/TMR | DRN. JMG/DG | CHK. TMR

DATE	REVISION	BY	APP'R.
9/13/01	REVISED PAVEMENT MARKING PLAN PER HOWARD COUNTY COMMENTS		
7/13/01	REVISED PER EXPO BUILDING REVISIONS & HOWARD COUNTY COMMENTS		

PREPARED FOR:
GREENBERG FARROW
ARCHITECTURE ENGINEERING DEVELOPMENT
POST-SECOND PLAZA
50 DIVISION STREET, SUITE 300
SOMERVILLE, NJ 08876
TEL: 908-725-5857
ATTN: JOHN M. KEREKES

SITE DETAILS / PAVING PLAN

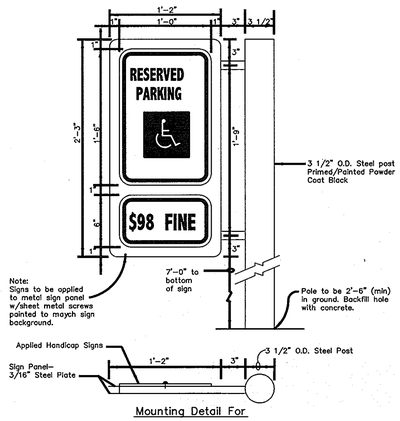
ROUTE 175 COMMERCIAL
SECTION 1, AREA 2
PARCELS 'C-1' THRU 'C-3'

ELECTION DISTRICT No. 6 — HOWARD COUNTY, MARYLAND

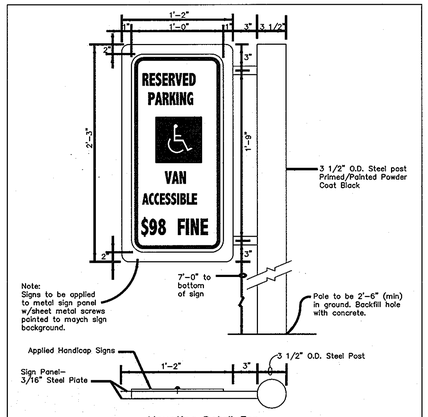
SCALE	ZONING	G. L. W. FILE No.
AS SHOWN	NT	01014
DATE	TAX MAP – GRID	SHEET
APRIL, 2001	36-18 37-13	5 OF 14

SDP-01-132

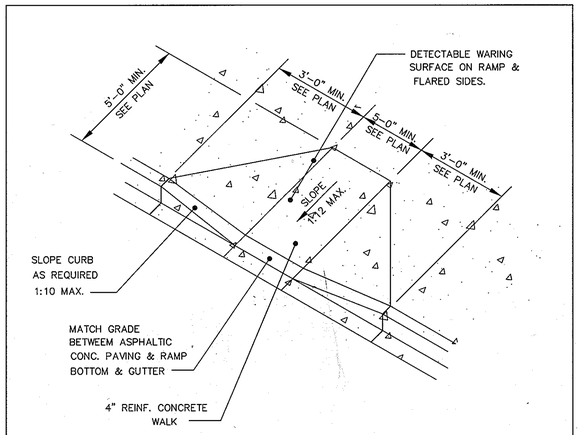
01014sp5.dwg 9-13-01 12:29:32 pm EST



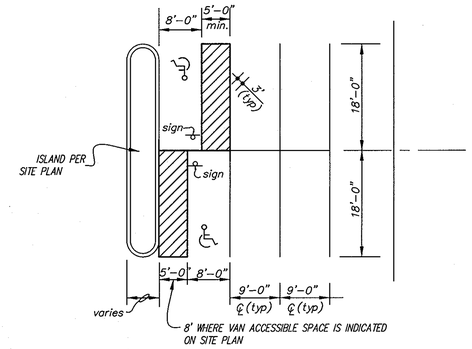
Mounting Detail For
Parking Restriction Sign
N.T.S.



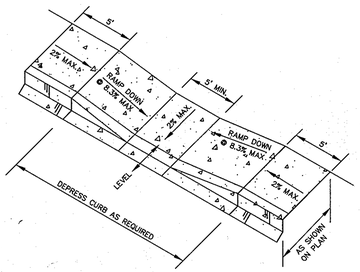
Mounting Detail For
Parking Restriction Sign
N.T.S.



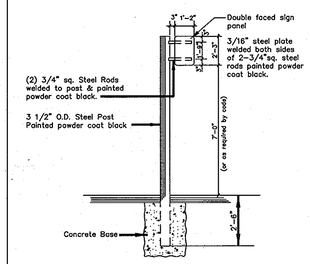
6/9 TYPE 1 CURB RAMP DETAIL
N.T.S.



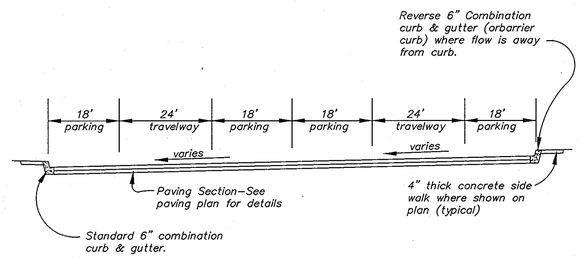
Typical Striping of Parking Lot and
Handicap Parking Detail
Note: 4" wide white stripes typical (unless noted otherwise)



HANDICAP RAMP DETAIL (TYPE 1)
N.T.S.



Post & Sign Panel Detail For
Parking Restriction Sign
N.T.S.



Typical Section–Private Parking
N.T.S.

APPROVED
PLANNING BOARD
of HOWARD COUNTY
DATE 08/23/01

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

Director	Date 10/15/01
Chief, Division of Land Development	Date 10/16/01
Chief, Development Engineering Division MK	Date 9/25/01

STATE OF MARYLAND
CLAYTON K. GUTSCHICK
No. 7297
REGISTERED
PROFESSIONAL ENGINEER

Prepared For:
Mulvanny G2 Architects
1110 112th Avenue NE
Suite 500
Bellevue, WA 98004
425-462-2000

Owner:
Madison Columbia LLC
c/o Madison Marquette
2001 Pennsylvania Ave. NW
Washington, DC 20006-1850
202-741-9800

GLW GUTSCHICK 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/VA: 301-989-2524 FAX: 301-421-4186

\DRAWINGS\01014\DESIGN\01014SP6.DWG | DES. TMR | DRN. DCF | CHK. TMR

DATE	REVISION	BY	APP'R.
7/13/01	REVISED PER EXPO BUILDING REVISIONS & HOWARD COUNTY COMMENTS		

PREPARED FOR:
GREENBERG FARROW
ARCHITECTURE ENGINEERING DEVELOPMENT
POST OFFICE PLAZA
50 DIVISION STREET, SUITE 300
SOMERVILLE, NJ 08876
TEL: 908-725-5857
ATTN: JOHN M. KEREKES

HANDICAP ACCESS DETAILS

ROUTE 175 COMMERCIAL
SECTION 1, AREA 2
PARCELS 'C-1' THRU 'C-3'

ELECTION DISTRICT No. 6 — HOWARD COUNTY, MARYLAND

SCALE	ZONING	G. L. W. FILE No.
N.T.S.	NT	01014
DATE	TAX MAP – GRID	SHEET
APRIL, 2001	36-18 37-13	6 OF 14

SDP-01-132

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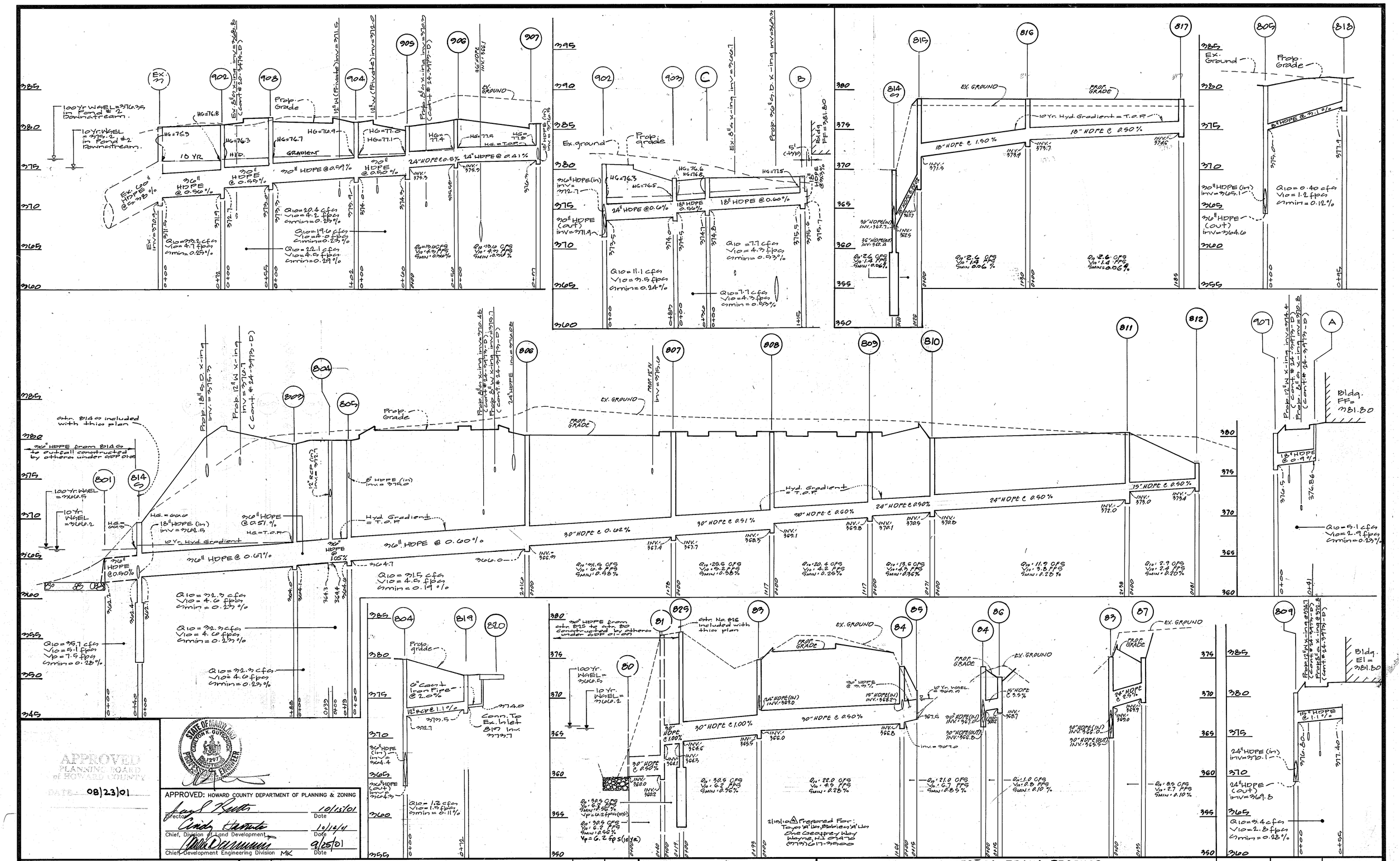

APPROVED
PLANNING BOARD
of HOWARD COUNTY
DATE 08/23/01

STATE OF MARYLAND
CLINTON K. GUTSCHICK
No. 12973
PROFESSIONAL ENGINEER

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

Director	Date 10/15/01
Chief, Division of Land Development	Date 10/12/01
Chief, Development Engineering Division MK	Date 9/25/01

GLW GUTSCHICK LITTLE & WEBER, P.A.
CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
3909 NATIONAL DRIVE – SUITE 250 – BURTONSVILLE OFFICE PARK
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DES.	DRN.	CHK.

DATE	REVISION	BY	APP'R.
2/15/10	Add Profile & Rev. Prepared For Info.	WGJ	
7/13/01	Rev. per rev. arch. plans and Howard County Comments		

Prepared For:
Mulvanny G-2 Architects
1110 112th Avenue, NE
Suite 500
Bellevue, WA 98004
425-463-2000

Owner:
Madison Columbia LLC
c/o Madison Marquette
2001 Pennsylvania Ave. NW
Washington, DC 20006-1850
202-741-3800

STORM DRAIN PROFILES

Route 175 Commercial
Section 1, Area 2
Parcels "C-1" thru "C-3"

ELECTION DISTRICT No. 6 — HOWARD COUNTY, MARYLAND

SCALE	ZONING	G. L. W. FILE No.
1" = 50' HOR. 1" = 5' VERT.	NT	01014
DATE	TAX MAP – GRID	SHEET
APRIL, 2001	36-18 37-13	7 OF 14

SDP-01-132

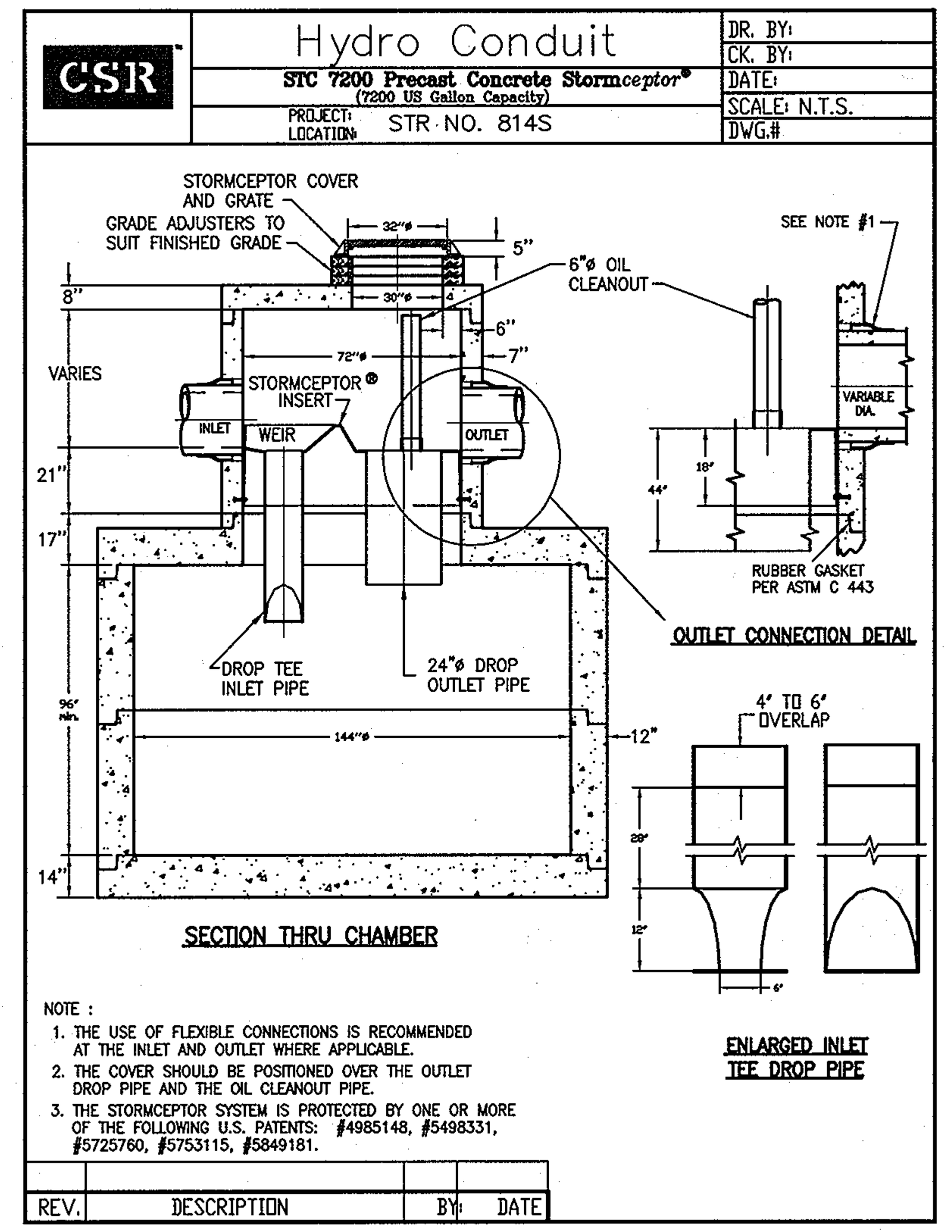
CONTRACTOR INSTALLATION PROCEDURE FOR INLET STORMCEPTOR

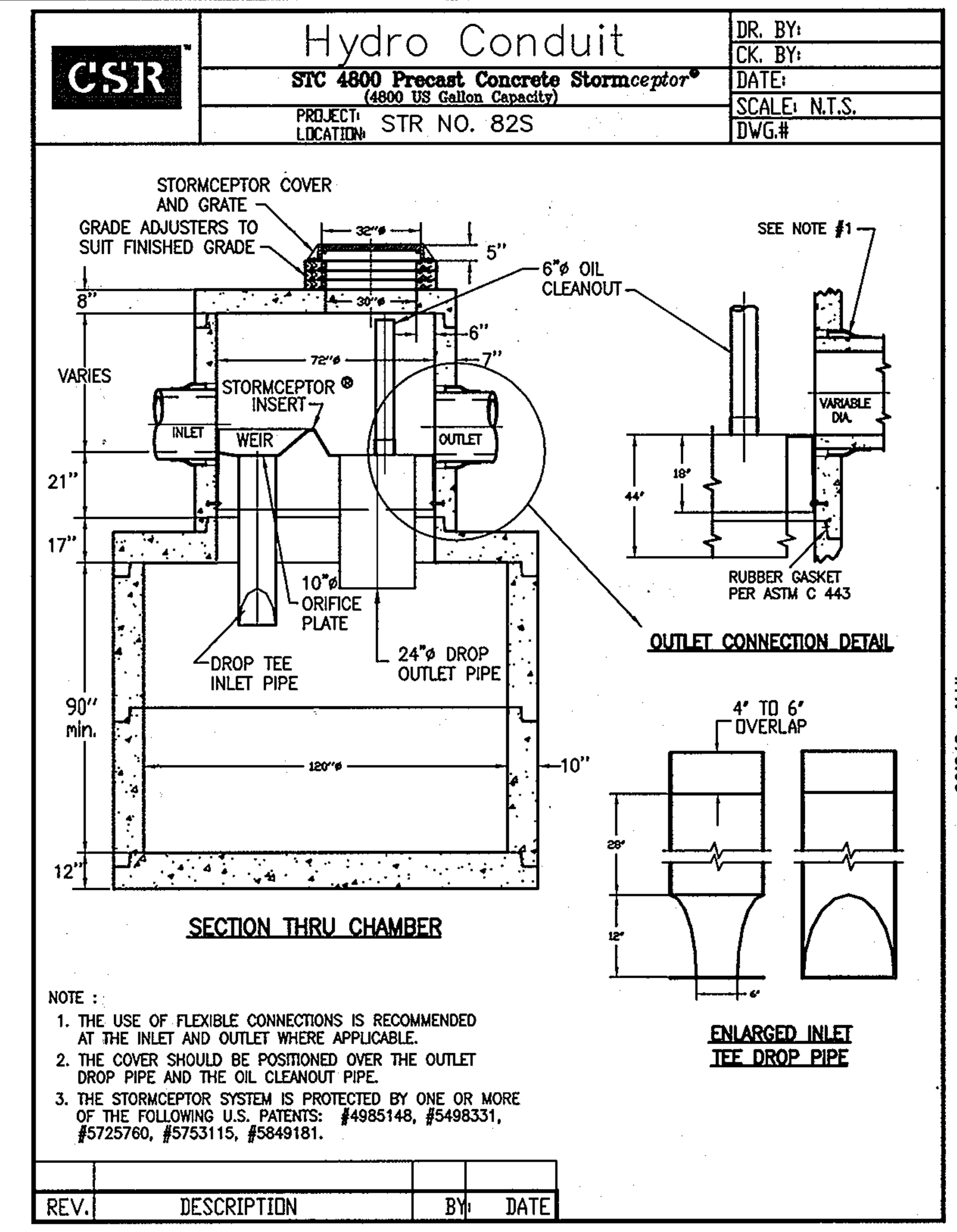
1. STAKE-OUT THE LOCATION OF THE INLET STORMCEPTOR AND EXCAVATE HOLE. EXCAVATE ADEQUATE SPACE TO CONNECT INLET AND OUTLET PIPES TO UNIT. INSTALL A 12" DEEP (OR AS REQUIRED) LAYER OF COMPACTED AGGREGATE SUBBASE AT BOTTOM OF EXCAVATION.
2. CHECK ELEVATION OF UNIT BY MEASURING ITS SECTIONS FROM THE BASE OF THE STORAGE CHAMBER (BOTTOM OF BASE SLAB) TO THE INVERT OF THE UNIT BYPASS CHAMBER OUTLET ELEVATION (FIBERGLASS INSERT). SUBTRACT THIS DISTANCE FROM DESIGN OUTLET ELEVATION TO DETERMINE TOP OF SUBBASE ELEVATION. CHECK ELEVATION OF INSTALLED SUBBASE AND ADJUST AS NEEDED.
3. SECURE INSPECTOR APPROVAL OF SUB GRADE AND SUBBASE.
4. INSTALL STORAGE CHAMBER. ATTACH CABLES OR CHAINS TO THE THREE PULLING IRONS ON THE BASE SLAB. USING LARGE EQUIPMENT OR CRANE, LIFT AND PLACE THE BASE SECTION OF THE STORAGE CHAMBER IN THE EXCAVATED HOLE ON THE SUBBASE. MAKE SURE THE BASE IS LEVEL. SPECIFIC ALIGNMENT OF THIS PART IS NOT REQUIRED. INSTALL RUBBER GASKET ON THE BASE UNIT AND APPLY LUBRICATING SOAP (PROVIDED IN SHIPMENT).
5. INSTALL BYPASS CHAMBER OF INLET STORMCEPTOR WITH FACTORY INSTALLED INSERT. LIFT BYPASS SECTION, LUBRICATE BELL, AND INSTALL WHILE CHECKING ALIGNMENT AND GRADE OF OUTLET DRAINAGE PIPE. CHECK AND MAKE SURE BYPASS CHAMBER IS SET FLUSH, LEVEL, AND IS AT THE PROPER ELEVATION. INSTALL RUBBER GASKET ON TOP OF BYPASS RISER AN LUBRICATE.
6. INSTALL INLET AND OUTLET STORM DRAIN PIPES. CONNECT PIPE WITH FLEXIBLE BOOTS (WHEN PROVIDED) AND WITH NON-SHRINK GROUT WHEN FLEXIBLE BOOTS ARE NOT PROVIDED. THE INVERT OF THE OUTLET PIPE IS TO MATCH THE INVERT OF THE STORMCEPTOR INSERT. FLEXIBLE BOOT INSTALLATION PROCEDURES: CENTER THE PIPE IN THE BOOT OPENING. LUBRICATE THE OUTSIDE OF THE PIPE AND/OR THE INSIDE OF THE BOOT. POSITION THE PIPE CLAMP IN THE GROOVE OF THE BOOT WITH THE SCREW AT THE TOP. TIGHTEN THE PIPE CLAMP WHILE ENSURING EVEN CONTRACTION OF THE RUBBER.
7. INSTALL INLET DOWN PIPE WITH HANDLE AND 4" VENT PIPE ACCORDING TO INSTALLATION INSTRUCTIONS FOR INLET STORMCEPTOR MODEL STC450i.
8. INSTALL RISER SECTION. ALIGN STEPS ABOVE INLET(12") DOWN PIPE. NOTE, FOR SHALLOW INSTALLATIONS THIS SECTION MAY NOT BE REQUIRE.
9. INSTALL FLATTOP WITH OPENING FOR STORMCEPTOR FRAME AND GRATE ORIENTED ABOVE THE STORMCEPTOR 12" INLET DOWN PIPE.
10. BACK FILL STORMCEPTOR WITH APPROVED BACK FILL MATERIAL (NO ORGANIC OR TOP SOIL IS TO BE USED FOR BACK FILL). BACK FILL AND COMPACT IN 8" LIFTS. BACK FILL SHOULD BE COMPACTED TO LOCAL/STATE REQUIREMENTS.
11. INSTALL AND SET GRADE ADJUSTING RINGS, AS NEEDED.
12. INSTALL AND SET FRAME AND GRATE.
13. THE STORMCEPTOR SHOULD BE PUMPED OUT WHEN SEDIMENT CONTROL MEASURES ARE REMOVED (SITE PERMANENTLY STABILIZED).
14. FINAL INSPECTION.

FOR TECHNICAL INFORMATION CALL CSR HYDRO CONDUIT AT 301-698-7373

PROCEDURE TO SEAL LIFT HOLES

1. *LIFT HOLES IN THE TANK SECTION ARE TO BE PLUGGED WITH A TAPPERED FLEXIBLE PLUG AND KNOCKED INTO THE HOLE WITH A HAMMER. (PLUG MAY BE PLACED IN THE INSIDE OR OUTSIDE OF THE TANK)*
2. *ONCE THE PLUG IS SET IN PLACE, THE INSIDE AND OUTSIDE OF THE LIFT HOLES MUST BE COVERED WITH CEMENT GROUT.*
3. *CEMENT GROUT SEAL SHOULD EXTEND FOR 2 TO 3 INCHES BEYOND THE LIFT HOLE OPENING.*
4. *LIFT HOLES WHICH ARE NOT PART OF THE TANK SECTION NEED ONLY BE SEALED WITH THE FLEXIBLE PLUG KNOCKED INTO PLACE.*





30" HDPE INV.= 373.66

STORMCEPTOR DROP PIPE INSTALLATION PROCEDURE

1. *DROP PIPES ARE TO BE INSTALLED ONCE THE RISER SECTION CONTAINING THE INSERT HAS BEEN INSTALLED ON THE STORAGE CHAMBER.*
2. *ENTER THE STORAGE CHAMBER AND INSTALL THE INLET DROP PIPE FROM UNDERNEATH THE INSERT. THE INLET DROP PIPE IS EASLIY IDENTIFIABLE BY THE T-SECTION FITTING. THE TEE IS ORIENTED SUCH THAT IT IS PERPENDICULAR TO THE DIRECTION OF FLOW IN THE UPSTREAM STORM SEWER. FOR THE SMALLER MODELS (LESS THAN 2000) THE INLET DROP PIPE IS CEMENTED INTO THE COUPLING THAT IS PROVIDED USING THE SUPPLIED PVC CEMENT. FOR THE LARGER MODELS (GREATER THAN 2000) THE INLET DROP PIPE IS CONNECTED INTO A GASKETTED COUPLING USING THE SUPPLIED PIPE LUBRICANT.*

   ONCE THE INLET DROP PIPE HAS BEEN INSTALLED, THE CONNECTION SHOULD ALSO BE CAULKED USING THE SUPPLIED (CHEMREX 948 OR BULLDOG PREMIUM PL) SEALANT TO ENSURE AN OIL/WATER TIGHT CONNECTION.
3. *THE LARGE 24" (610 mm) RISER PIPE IS INSERTED INTO THE PROVIDED OUTLET SLEEVE FROM ABOVE WHILE STANDING ON THE INSERT. A FLANGE IS PROVIDED ON THE OUTLET RISER PIPE TO PREVENT IT FROM FALLING INTO THE STORAGE CHAMBER. THE UNDERSIDE OF THE FLANGE MUST BE CAULKED WITH THE PROVIDED CHEMREX 948 SEALANT TO ENSURE AN OIL/WATER TIGHT CONNECTION.*
4. *A 6" (150 mm) COUPLING IS PROVIDED ON THE INSERT FOR THE SUPPLIED 6" (150mm) PVC VENT PIPE. THE VENT PIPE SHOULD BE ATTACHED TO THE COUPLING USING THE SUPPLIED PVC CEMENT. ONCE THE CEMENT HAS SET, THE CONNECTION SHOULD ALSO BE CAULKED USING THE SUPPLIED CHEMREX 948 SEALANT TO ENSURE AN OIL/WATER TIGHT CONNECTION.*

MAINTENANCE NOTES
(Water Quality Structure Waste)

1. *Water Quality Structure will require periodic cleaning .*
2. *Maintenance of the facility will consist of cleaning the water quality device and disposal of the waste and repair of the facility as needed. Periodic inspection of the facility will be made by the owner.*
3. *The disposal of the liquid and solid matter shall be as follows:*
   - *A. All liquid material in the water quality device shall be pumped into a suitable tank truck disposal at an approved sanitary district discharge manhole or be taken to an approved sewage treatment plant for discharge.*
   - *B. The solid material shall be landfilled in an approved sanitary landfill.*
4. *The inlet pipes and structural parts shall be repaired as needed.*
5. *Water quality device inlet and outlet assembly shall be periodically inspected. Blockages shall be removed and disposed of as required in 3B above.*

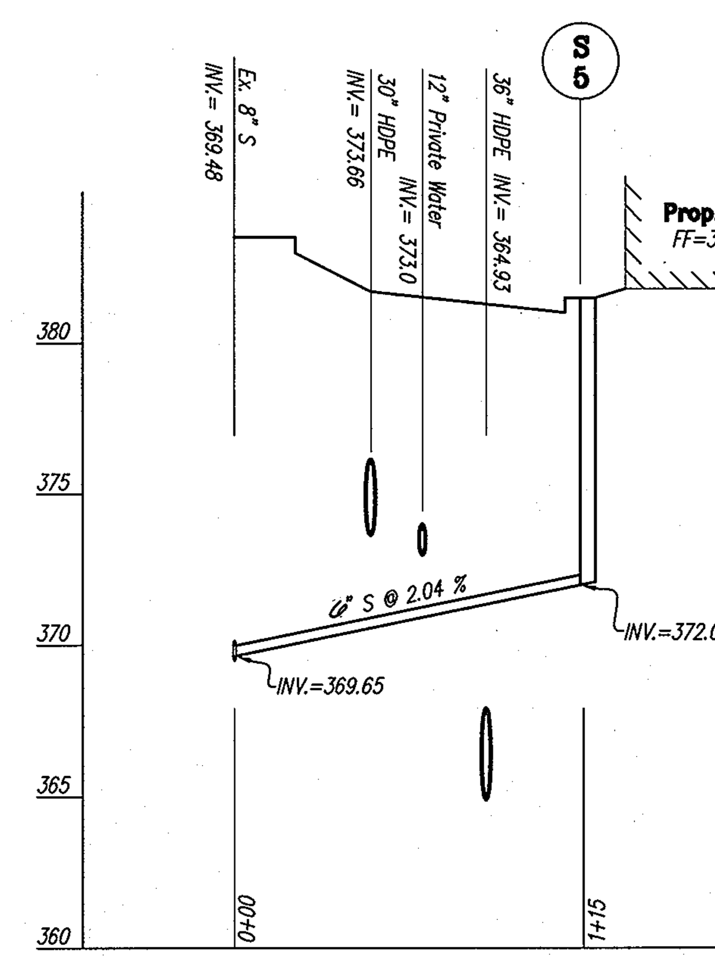
Structure Schedule

No.	Type	Width (inside)	Top Elevation Upper	Top Elevation Lower	Invert Elevation Upper	Invert Elevation Lower	St'd Detail	Locations	Remarks
801			—	—					BY OTHERS
802	NOT USED	—							
803	STANDARD MH	72"Diam.	379.5	379.5	364.1	364.0	G 513	SEE PLAN	MODIFIED BASE DIAM.
804	STANDARD MH	72"Diam.	379.6	379.6	364.40	364.30	G 5.13	" "	" " "
805	STANDARD MH	72"Diam.	380.0	380.0	364.70	364.60	G 5.13	" "	
806	STANDARD MH	72"Diam.	381.05	381.05	366.3	366.0	G 5.13	" "	MODIFIED BASE DIAM.
807	COS-10 INLET	60"Diam.	3805	380.5	367.7	367.40	MD 374.63	" "	
808	COS-10 INLET	60"Diam.	380.5	380.50	369.10	368.30	" "	" "	
809	COS-10 INLET	60"Diam.	380.5	380.5	370.1	369.80	" "	" "	
810	COS-10 INLET	60"Diam.	379.7	379.7	370.8	370.5	" "	" "	
811	COG-10 INLET	48"Diam.	380.65	380.5	373.0	372.0	" "	" "	
812	A-10 INLET	2'-6"	377.45	377.0	373.40	—	G 4.02	" "	
813	Not Used								
814S	STORMCEPTOR	STD.	370.0	370.0	362.7	362.4	STC 7200	" "	
815	STANDARD MH	48"Diam.	378.65	378.65	371.5	367.7	G 5.12	" "	
816	SHALLOW MH	48"Diam.	378.65	378.65	373.7	373.4	G 5.12	" "	
817	SHALLOW MH	48"Diam.	378.65	378.65	374.6	—	G 5.12	" "	
818	SINGLE WR INLET	STD.	381.4	381.4	377.9	—	SD 4.37	" "	
819	SINGLE WR INLET	STD.	377.5	377.5	—	373.5	SD 4.37		
820	Trench Drain	—	377.8	377.8	374.0		N/A H-20 RATED	See Plan	Polydrain/H20 Rated By ABT Inc. or Equiv.
902	STANDARD MH	72"Diam.	380.65	380.65	372.7	371.90	G 5.13	" "	
903	A-10 INLET(Pre-cast)	3'-0"	378.8	378.8	374.5	374.0	SD 4.41	" "	
904	COS-10	72"Diam.	380.9	380.9	374.0	373.90	MD 374.63	" "	
905	A-10 INLET	2'-6"	380.3	380.2	375.30	374.30	G 4.41	" "	
906	SHALLOW MH	48"Diam.	381.20	381.2	375.90	375.58	G 5.12	" "	
907	A-10 INLET	3'-0"	380.5	380.5	376.30	—	SD 4.02	" "	
908	COG-10 INLET	72"Diam.	381.5	381.4	373.3	373.0	MD 374.62		
80			—	—					BY OTHERS
81							G 5.13		BY OTHERS
82S	STORMCEPTOR		378.0	378.0	364.6	364.3	STC 7200	SEE PLAN	
83	STANDARD MH	60"Diam.	375.0	375.0	366.0	365.5	G 5.13	" "	
84	SHALLOW MH	60"Diam.	373.0	373.0	367.0	366.8	G 5.13	" "	
85	TYPE "E" HEADWALL	STD.					SD 5.13	" "	
86	A10-INLET	2'-6"	371.2	370.6	368.7	—	SD 4.02	" "	
87	COS-10 INLET	60"Diam.	374.9	374.9		369.9	SD 374.63		
A	DRAIN BASIN	24" Diam	381.65	381.65	376.9	—	SEE BELOW		SOLID COVER
B	DRAIN BASIN	24" Diam	379.0	379.0	375.6	375.5	SEE BELOW		SOLID COVER
C	DRAIN BASIN	24" Diam	380.0	380.0	374.8	374.7	SEE BELOW		SOLID COVER

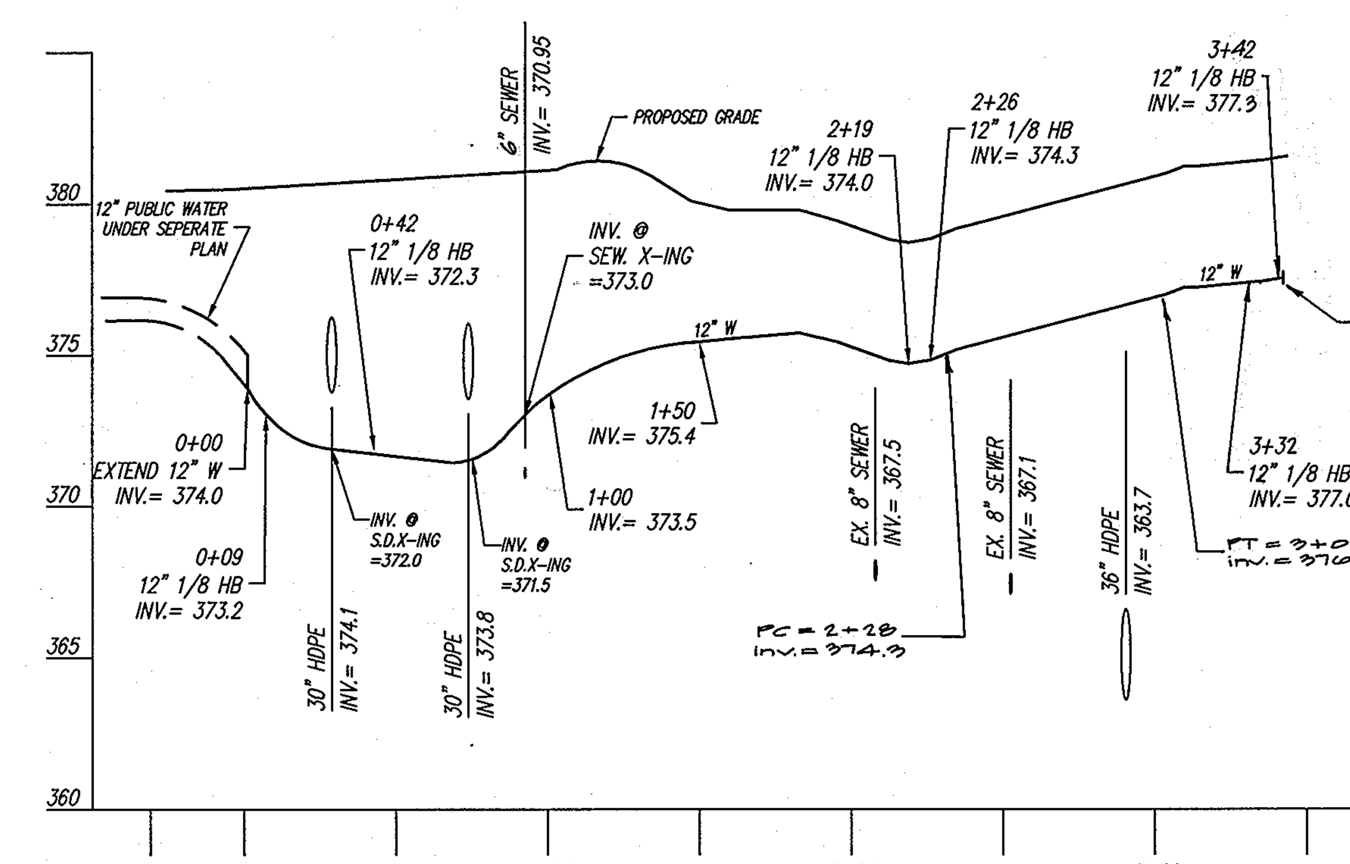
FOR STRUCTURES "A" & "B", "C", USE SCHED 40 PVC M.H'S BY NYLOPLAST, INC. OR SIMILAR (USE H-20 INSTALLATION)

PIPE SCHEDULE

SIZE	TYPE	QUANTITY(lf)	REMARKS
8"	HDPE	95	
15"	HDPE	151	
18"	HDPE	533	
24"	HDPE	580	
30"	HDPE	901	
36"	HDPE	534	
12"	HDPE	72	



PROFILE OF PRIVATE SEWER
SCALE : 1" = 50' (HOR.)
1" = 5' (VER.)



PRIVATE WATER PROFILE
1"=50' HORIZONTAL SCALE
1"=5' VERTICAL SCALE

Prepared For:
Mulvanny G-2 Architects
1110 112th Avenue NE
Suite 500
Bellevue, WA 98004
425-463-2000

Madison Columbia LLC
c/o Madison Marquette
2001 Pennsylvania Ave. NW
Washington, DC 20006-1850
202-741-3800

APPROVED
PLANNING BOARD
of HOWARD COUNTY
DATE 08/23/01

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

Director [signature]	Date 10/15/01
Chief, Division of Land Development [signature]	Date 10/12/01
Chief, Development Engineering Division [signature] MK	Date 9/25/01

GLW GUTSCHICK LITTLE & WEBER, P.A.
CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
3909 NATIONAL DRIVE – SUITE 250 – BURTONSVILLE OFFICE PARK
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DATE	REVISION	BY	APP'R.
1/15/02	Revise profile for private water and sewer.	klp/dev	
2/15/10	Rev. Prepared For Info. & Add 820 str. sch.	Wod	
7/13/01	REVISED PER EXPO BUILDING REVISIONS & HOWARD COUNTY COMMENTS		

~~PREPARED FOR :
GREENBERG FARROW
ARCHITECTURE ENGINEERING DEVELOPMENT
POST OFFICE PLAZA
50 DIVISION STREET, SUITE 300
SOMERVILLE, NJ 08876
TEL: 908-725-5857
ATTN: JOHN M. KEREKES~~

WATER & STORM DRAIN DETAIL SHEET

ROUTE 175 COMMERCIAL
SECTION 1, AREA 2
PARCELS 'C-1' THRU 'C-3'

ELECTION DISTRICT No. 6 — HOWARD COUNTY, MARYLAND

SCALE	ZONING	G. L. W. FILE No.
N.T.S.	NT	01014
DATE	TAX MAP – GRID	SHEET
APRIL 2001	37-13	8 OF 14

SDP-01-132

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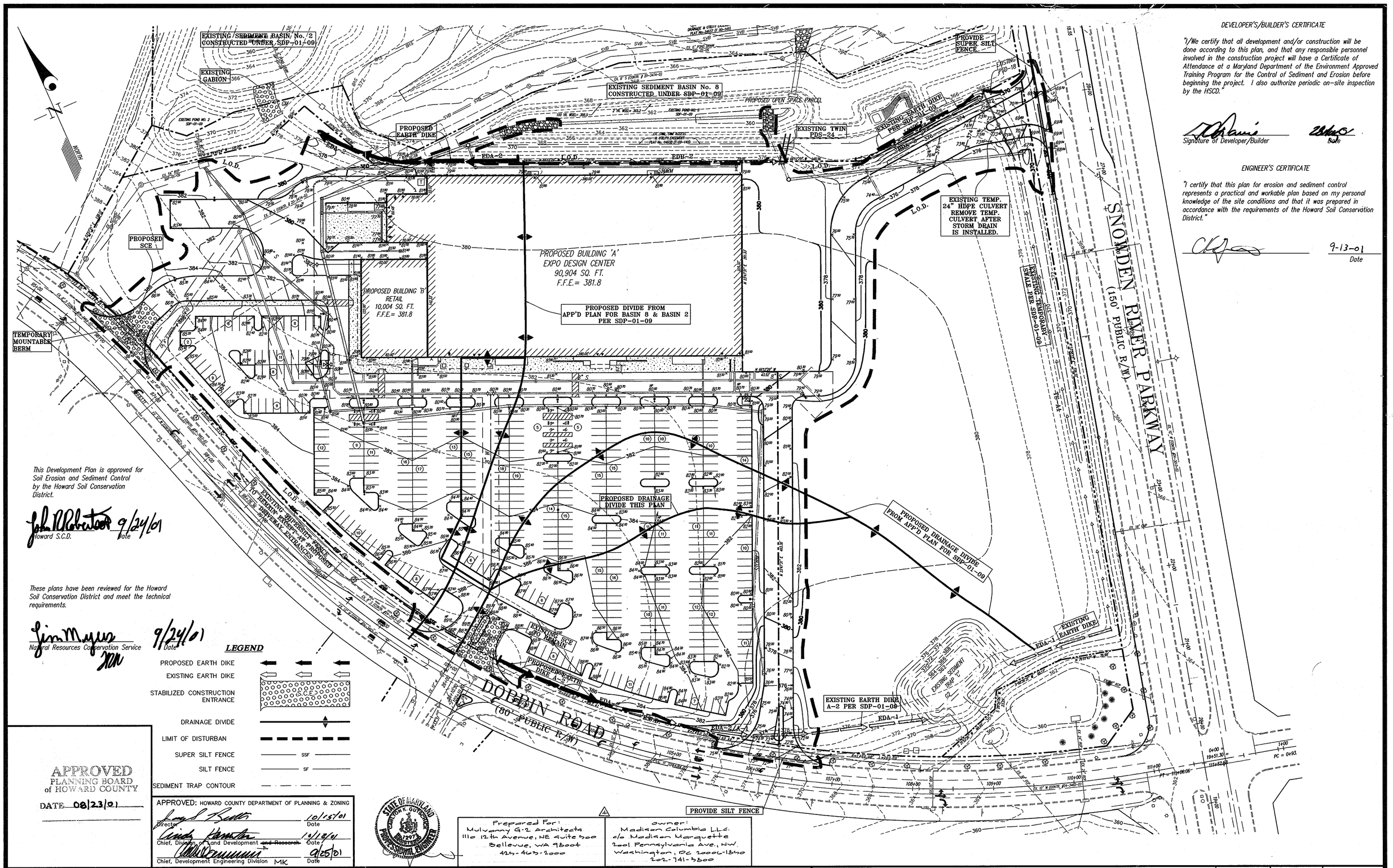

This Development Plan is approved for Soil Erosion and Sediment Control by the Howard Soil Conservation District.

John R Robertson 9/24/01
Howard S.C.D. Date

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

Jim Myers 9/24/01
Natural Resources Conservation Service Date

LEGEND

- PROPOSED EARTH DIKE
- EXISTING EARTH DIKE
- STABILIZED CONSTRUCTION ENTRANCE
- DRAINAGE DIVIDE
- LIMIT OF DISTURBAN
- SUPER SILT FENCE — SSF —
- SILT FENCE — SF —
- SEDIMENT TRAP CONTOUR

APPROVED
PLANNING BOARD
of HOWARD COUNTY
DATE 08/23/01

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

Director — Date 10/15/01
Chief, Division of Land Development ~~and Research~~ — Date 10/12/01
Chief, Development Engineering Division MK — Date 9/25/01

STATE OF MARYLAND — CARLTON K. GUTSCHICK — No. 12071 — PROFESSIONAL ENGINEER

Prepared For:
Mulvanny G+2 Architects
1110 112th Avenue, NE Suite 500
Bellevue, WA 98004
425-463-2000

owner:
Madison Columbia L.L.C.
c/o Madison Marquette
2001 Pennsylvania Ave., NW.
Washington, DC 20006-1850
202-741-3600

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 periodic on-site inspection by the HSCD."

Signature of Developer/Builder — 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 Soil Conservation District."

9-13-01
Date

GLW GUTSCHICK LITTLE & WEBBER, 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/VA: 301-989-2524 FAX: 301-421-4186

DATE	REVISION	BY	APP'R.
7/26/10	Revise "owner" information; add "Prepared For" information.	kp/dev	
8/28/01	BID SET TO EXPO		
7/13/01	REVISED PER EXPO BUILDING REVISIONS & HOWARD COUNTY COMMENTS		

~~PREPARED FOR:~~
~~GREENBERG FARROW~~
~~ARCHITECTURE ENGINEERING DEVELOPMENT~~
~~POST OFFICE PLAZA~~
~~50 DIVISION STREET, SUITE 300~~
~~SOMERVILLE, NJ 08876~~
~~TEL: 908-725-9857~~
~~ATTN: JOHN M. KERENES~~

SEDIMENT CONTROL PLAN

ROUTE 175 COMMERCIAL
SECTION 1, AREA 2
PARCELS 'C-1' THRU 'C-3'

ELECTION DISTRICT No. 6 — HOWARD COUNTY, MARYLAND

SCALE	ZONING	G. L. W. FILE No.
1"=50'	NT	01014
DATE	TAX MAP – GRID	SHEET
APRIL 2001	36-18 37-13	9 OF 14

\DRAWINGS\01014\DESIGN\01014SC1.dwg DES. TMR DRN. DCF CHK. TMR

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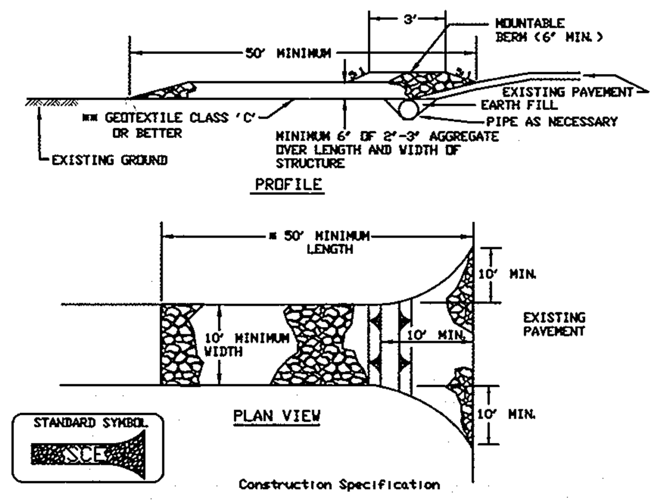
SDP-01-132

DETAIL 24 - STABILIZED CONSTRUCTION ENTRANCE



Construction Specification

1. Length - minimum of 50' (*30' for single residence lot).

2. Width - 10' minimum, should be flared at the existing road to provide a turning radius.

3. Geotextile fabric (filter cloth) shall be placed over the existing ground prior to placing stone. **The plan approval authority may not require single family residences to use geotextile.

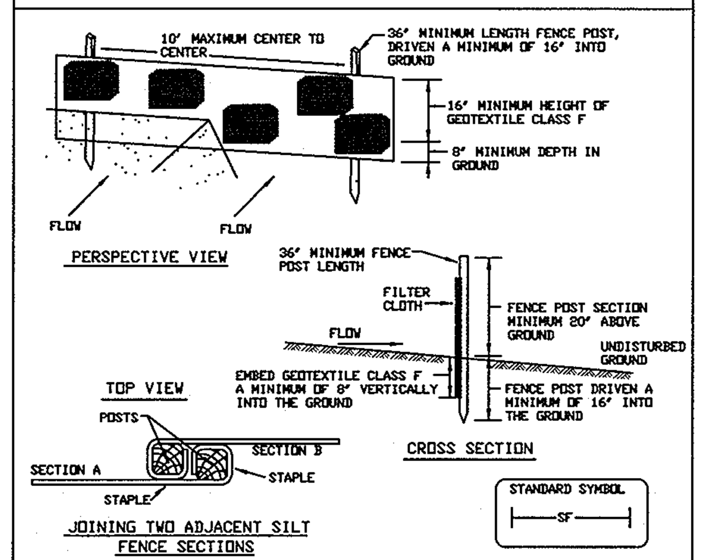
4. Stone - crushed aggregate (2" to 3") or reclaimed or recycled concrete equivalent shall be placed at least 6" deep over the length and width of the entrance.

5. Surface Water - all surface water flowing to or diverted toward construction entrances shall be piped through the entrance, maintaining positive drainage. Pipe installed through the stabilized construction entrance shall be protected with a mountable berm with 5:1 slopes and a minimum of 6" of stone over the pipe. Pipe has to be sized according to the drainage. When the SCE is located at a high spot and has no drainage to convey a pipe will not be necessary. Pipe should be sized according to the amount of runoff to be conveyed. A 6" minimum will be required.

6. Location - A stabilized construction entrance shall be located at every point where construction traffic enters or leaves a construction site. Vehicles leaving the site must travel over the entire length of the stabilized construction entrance.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	PAGE F - 17 - 3	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

DETAIL 22 - SILT FENCE



Construction Specifications

1. Fence posts shall be a minimum of 36" long driven 16" minimum into the ground. Wood posts shall be 11/2" x 11/2" square (minimum) cut, or 13/4" diameter (minimum) round and shall be of sound quality hardwood. Steel posts will be standard T or U section weighting not less than 1.00 pond per linear foot.

2. Geotextile shall be fastened securely to each fence post with wire ties or staples at top and mid-section and shall meet the following requirements for Geotextile Class F:

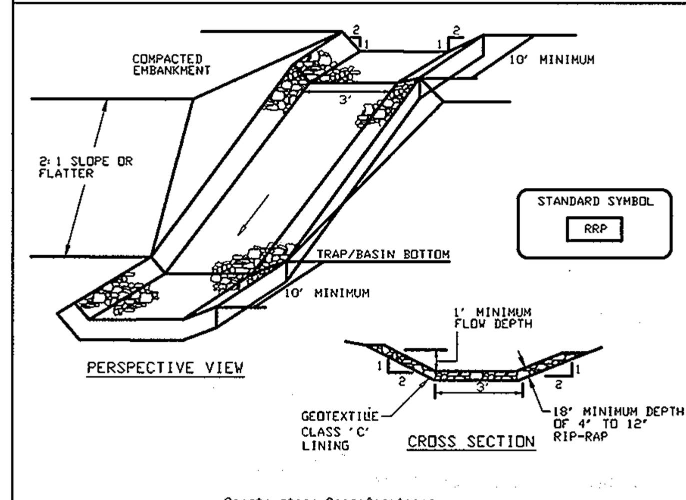
Tensile Strength	50 lbs/in (min.)	Test: MSMT 509
Tensile Modulus	20 lbs/in (min.)	Test: MSMT 509
Flow Rate	0.3 gal ft²/ minute (max.)	Test: MSMT 322
Filtering Efficiency	75% (min.)	Test: MSMT 322

3. Where ends of geotextile fabric come together, they shall be overlapped, folded and stapled to prevent sediment bypass.

4. Silt Fence shall be inspected after each rainfall event and maintained when bulges occur or when sediment accumulation reached 50% of the fabric height.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	PAGE E - 15 - 3	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

DETAIL 5 - RIP-RAP INFLOW PROTECTION



Construction Specifications

1. Rip-rap lined inflow channels shall be 1' in depth, have a trapezoidal cross section with 2:1 or flatter side slopes and 3' (min.) bottom width. The channel shall be lined with 4" to 12" rip- rap to a depth of 18".

2. Filter cloth shall be installed under all rip-rap. Filter cloth shall be Geotextile Class C.

3. Entrance and exit sections shall be installed as shown on the detail section.

4. Rip-rap used for the lining may be recycled for permanent outlet protection if the basin is to be converted to a stormwater management facility.

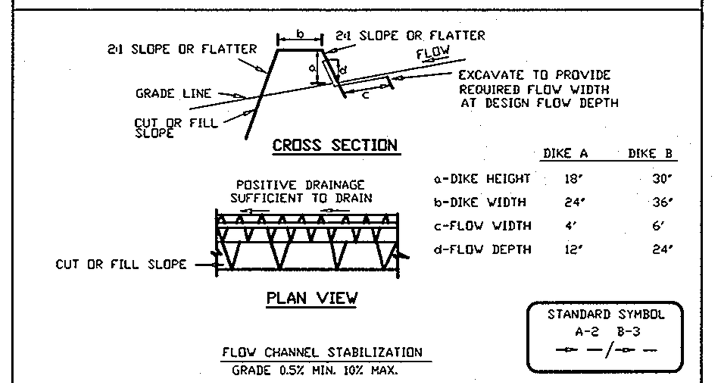
5. Gabion Inflow Protection may be used in lieu of Rip-rap Inflow Protection.

6. Rip-rap should blend into existing ground.

7. Rip-rap Inflow Protection shall be used where the slope is between 4:1 and 10:1, for slopes flatter than 10:1 use Earth Dike or Temporary Swale lining criteria.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	PAGE D - 6 - 2	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

DETAIL 1 - EARTH DIKE



	DIKE A	DIKE B
a-DIKE HEIGHT	18"	30"
b-DIKE WIDTH	24"	36"
c-FLOW WIDTH	4'	6'
d-FLOW DEPTH	12"	24"

STANDARD SYMBOL A-2 B-3

FLOW CHANNEL STABILIZATION
GRADE 0.5% MIN. 10% MAX.

1. Seed and cover with straw mulch.
2. Seed and cover with Erosion Control Matting or line with sod.
3. 4" - 7" stone or recycled concrete equivalent pressed into the soil 7" minimum

Construction Specifications

1. All temporary earth dikes shall have uninterrupted positive grade to an outlet. Spot elevations may be necessary for grades less than 1%.

2. Runoff diverted from a disturbed area shall be conveyed to a sediment trapping device.

3. Runoff diverted from an undisturbed area shall outlet directly into an undisturbed, stabilized area at a non-erosive velocity.

4. All trees, brush, stumps, obstructions, and other objectional material shall be removed and disposed of so as not to interfere with the proper functioning of the dike.

5. The dike shall be excavated or shaped to line, grade and cross section as required to meet the criteria specified herein and be free of bank projections or other irregularities which will impede normal flow.

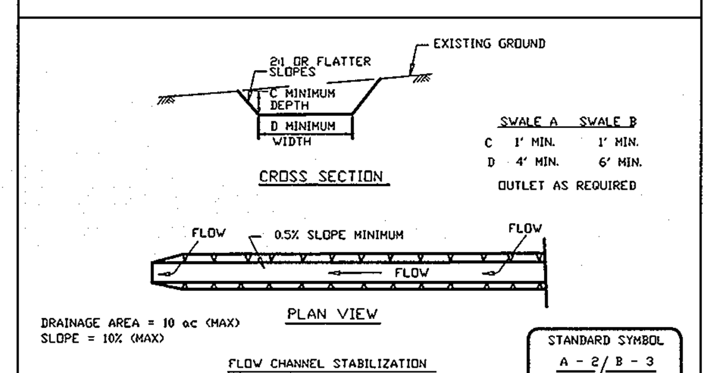
6. Fill shall be compacted by earth moving equipment.

7. All earth removed and not needed for construction shall be placed so that it will not interfere with the functioning of the dike.

8. Inspection and maintenance must be provided periodically and after each rain event.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	PAGE A - 1 - 6	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

DETAIL 2 - TEMPORARY SWALE



	SWALE A	SWALE B
C	1' MIN.	1' MIN.
D	4' MIN.	6' MIN.

OUTLET AS REQUIRED

DRAINAGE AREA = 10 ac (MAX)
SLOPE = 10% (MAX)

STANDARD SYMBOL A - 2/B - 3

FLOW CHANNEL STABILIZATION
GRADE 0.5% MIN. 10% MAX.

1. Seed and cover with straw mulch.
2. Seed and cover with Erosion Control Matting or line with sod.
3. 4"-7" stone or recycled concrete equivalent pressed into soil in a minimum 7" layer.

Construction Specifications

1. All temporary swales shall have uninterrupted positive grade to an outlet. Spot elevations may be necessary for grades less than 1%.

2. Runoff diverted from a disturbed area shall be conveyed to a sediment trapping device.

3. Runoff diverted from an undisturbed area shall outlet directly into an undisturbed stabilized area at a non-erosive velocity.

4. All trees, brush, stumps, obstructions, and other objectional material shall be removed and disposed of so as not to interfere with the proper functioning of the swale.

5. The swale shall be excavated or shaped to line, grade and cross section as required to meet the criteria specified herein and be free of bank projections or other irregularities which will impede normal flow.

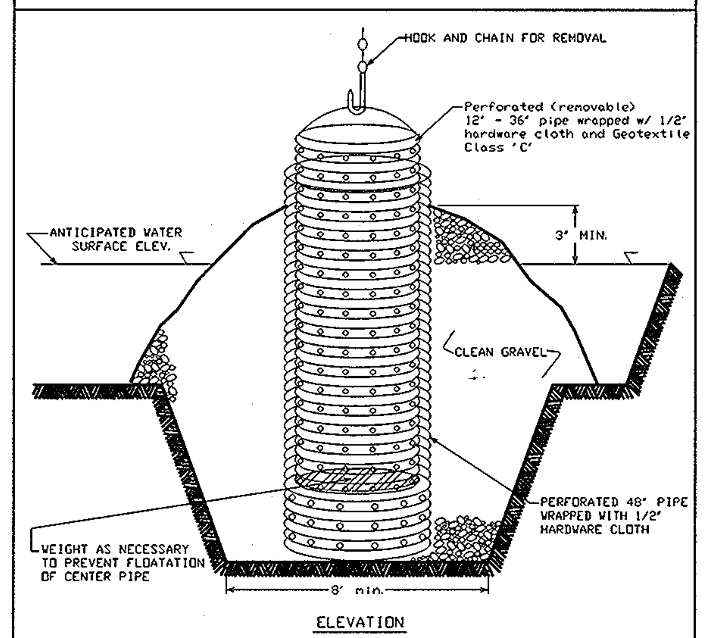
6. Fill, if necessary, shall be compacted by earth moving equipment.

7. All earth removed and not needed for construction shall be placed so that it will not interfere with the functioning of the swale.

8. Inspection and maintenance must be provided periodically and after each rain event.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	PAGE A - 2 - 4	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

DETAIL 20A - REMOVABLE PUMPING STATION



Construction Specifications

1. The outer pipe should be 48" dia. or shall, in any case, be at least 4" greater in diameter than the center pipe. The outer pipe shall be wrapped with 1/2" hardware cloth to prevent backfill material from entering the perforations.

2. After installing the outer pipe, backfill around outer pipe with 2" aggregate or clean gravel.

3. The inside stand pipe (center pipe) should be constructed by perforating a corrugated or PVC pipe between 12" and 36" in diameter. The perforations shall be 1/2" X 6" slits or 1" diameter holes 6" on center. The center pipe shall be wrapped with 1/2" hardware cloth first, then wrapped again with Geotextile Class C.

4. The center pipe should extend 12" to 18" above the anticipated water surface elevation or riser crest elevation when dewatering a basin.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	PAGE D - 12 - 4	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

SEDIMENT BASIN NUMBER 8

Pre-development Drainage Area: 10.2 Ac.
Post Development Drainage Area: 11.35 Ac. 11.6 (This Sheet)
Storage Required-Wet Volume: 11 Ac. x 1800 c.f./Ac= 20,430 c.f. 20,880 c.f.(This Sheet)
Storage Required-Dry Volume: 11.35 Ac. x 1800 c.f./Ac=20,430 c.f. 20,880 c.f.(This Sheet)
Bottom elevation: 360.00
Drawdown orifice and permanent pool elevation: 363.31
Riser crest elevation: 365.20
Basin cleanout elevation: 362.17
Design high water elevation: 366.50
Limit of Storage Elevation: 366.50
Side Slopes: 2:1
Top of Embankment Elevation: 368.50
Dry Volume Provided: 32,548 c.f.@ 365.20 (Sufficient This Plan)
Wet Volume Provided: 28,325 c.f.@ 363.31 (Sufficient This Plan)

SEDIMENT BASIN NUMBER 2

Pre-development Drainage Area: 10Ac. 30.9 Ac.
Post Development Drainage Area: 36.1 Ac. 35.85 (This Sheet)
Storage Required-Wet Volume: 36.1 Ac. x 1800 c.f./Ac= 64,980 c.f.
Storage Required-Dry Volume: 36.1 Ac. x 1800 c.f./Ac= 64,980 c.f.
Bottom elevation: 360.00
Drawdown orifice and permanent pool elevation: 368.10
Riser crest elevation: 375.43
Basin cleanout elevation: 365.48
Design high water elevation: 376.50
Limit of Storage Elevation: 376.50
Side Slopes: 2:1
Top of Embankment Elevation: 378.50
Dry Volume Provided: 258,467 c.f.@ 374.03 (Sufficient This Plan)
Wet Volume Provided: 168,279 c.f.@ 368.10 (Sufficient This Plan)

Existing Sediment Trap Number C
(Approved Design Valves)

Type of Sediment Trap: Stone Outlet
Pre-development Drainage Area: 4.66 Ac.
Post Development Drainage Area: 3.7 Ac. (Revised This Plan)
Storage Required- Wet Volume: 4.66 Ac. x 1800 c.f./Ac.=8,388 c.f.
Storage Required- Dry Volume: 4.66 Ac. x 1800 c.f./Ac=8,388 c.f. min
Bottom evelation: 362.00
Outlet Elevation: 366.00
Limit of Storage Elevation: 370.00
Side Slopes: 2:1
Top of Embankment Elevation: 371.00
Outlet Length: 19 ft.
Surface Area @ Bottom: 2,250 s.f.
Surface Area @ Outlet: 4.186 s.f.
Surface Area @ Limit of Storage: 6,634 s.f.
Storage Volume Provided:
Wet Storage provided: (2,250+4,186 /2)(4)=12,872 c.f. @ 366.00
Dry Storage provided: 21,584 c.f. @ 370.00

DUST CONTROL

Definition

Controlling dust blowing and movement on construction sites and roads.

Purpose

To prevent blowing and movement of dust from exposes soil surfaces, reduce on and off-site damage, health hazards, and improve traffic safety.

Conditions Where Practice Applies

This practice is applicable to areas subject to dust blowing and movements where on and off-site damage is likely without treatment.

Specifications

Temporary Methods

1. *Mulches - See standards for vegetative stabilization with mulches only. Mulch should be crimped or tacked to prevent blowing.*
2. *Vegetative Cover - See standards for temporary vegetative cover.*
3. *Tillage - To roughen surface and bring clods to the surface. This is an emergency measure which should be used before soil blowing starts. Begin plowing on windward side of site. Chisel-type plows spaces about 12" apart, spring-toothed harrows, and similar plows are examples of equipment which may produce the desired effect.*
4. *Irrigation - This is generally done as an emergency treatment. Site is sprinkled with water until the surface is moist. Repeat as needed. At no time should the site be irrigated to the point that runoff begins to flow.*
5. *Barriers - Solid board fences, silt fences, burlap fences, straw bales, and similar material can be used to control air currents and soil blowing. Barriers placed at right angles to prevailing currents at intervals of about 10 times their height are effective in controlling soil blowing.*
6. *Calcium Chloride - Apply at rates that will keep surface moist. May need retreatment.*

Permanent Methods

1. *Permanent Vegetation - See standards for permanent vegetative cover, and permanent stabilization with sod. Existing trees or large shrubs may afford valuable protection if left in place.*
2. *Topsoiling - Covering with less erosive soil materials. See standards for topsoiling.*
3. *Stone - Cover surface with crushed stone or coarse gravel.*

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, discing or other acceptable means before seeding (unless previously loosened).

Soil Amendments: In lieu of soil test recommendations, use one of the following schedules

1) Preferred - Apply 2 tons per acre dolomitic limestone (92 lbs/1000 square feet) and 600 lbs per acre 10-10-10 fertilizer (14 lbs/1000 sq ft) before seeding. Harrow or disc into upper three inches of soil. At time of seeding, apply 400 lbs per acre 30-0-0 unreaform fertilizer (9 lbs/1000 sq ft).

2) Acceptable - Apply 2 tons per acre dolomitic limestone (92 lbs/1000 sq ft) and 1000 lbs per acre 10-10-10 fertilizer (23 lbs/1000 sq ft) before seeding. Harrow or disc into upper three inches of soil.

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

Mulching: Apply 1-1/2 to 2 tons per acre (70 to 90 lbs/1000 sq ft) of unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gallons per acre (5 gal/1000 sq ft) of emulsified asphalt on flat areas. On slopes 8 feet or higher, use 348 gallons per acre (8 gal/1000 sq ft) for anchoring.

Maintenance: Inspect all seeded areas and make needed repairs, replacements and reseedings.

TEMPORARY SEEDING NOTES

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

Seedbed Preparation: Loosen upper three inches of soil by raking, discing or other acceptable means before seeding (unless previously loosened).

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

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

Mulching: Apply 1-1/2 to 2 tons per acre (70 to 90 lbs/1000 sq ft) of unrotted, weed-free, small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gal per acre (5 gal/1000 sq ft) of emulsified asphalt on flat areas. On slopes, 8 ft or higher, use 348 gal per acre (8 gal/1000 sq ft) for anchoring.

Refer to the 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for rate and methods not covered.

SEDIMENT CONTROL NOTES

1. 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.

2. All vegetative and structural practices are to be installed according to the provisions of this plan and are to be in conformance with the 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL.

3. Following initial soil disturbance or redisturbance, permanent or temporary stabilization shall be completed within: a) 7 calendar days for all perimeter sediment control structures, dikes and perimeter slopes and all slopes greater than 3:1, b) 14 days as to all other disturbed or graded areas on the project site.

4. All sediment traps/basins shown must be fenced and warning signs posted around their perimeter in accordance with Vol. 1, Chapter 12, of the HOWARD COUNTY DESIGN MANUAL, Storm Drainage.

5. All disturbed areas must be stabilized within the time period specified above in accordance with the 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for permanent seedings, sod, temporary seeding and mulching (Sec. G).
Temporary stabilization, with mulch alone, can only be done when recommended seeding dates do not allow for proper germination and establishment of grasses.

6. All sediment control structures are to remain in place and are to be maintained in operative condition until permission for their removal has been obtained from the Howard County Sediment Control Inspector.

7. Site Analysis:

Total Area of Site	:	*18.6*	*Acres*
Area Disturbed	:	*10.8*	*Acres*
Area to be roofed or paved	:	*8.5*	*Acres*
Area to be vegetatively stabilized	:	*2.3*	*Acres*
Total Cut	:	*3000*	*Cu. Yds.*
Total Fill	:	*3000*	*Cu. Yds.*
Off-site waste/borrow area location:			*N/A*

8. Any sediment control practice which is disturbed by grading activity for placement of utilities must be repaired on the same day of disturbance.

9. Additional sediment control must be provided, if deemed necessary by the Howard County DPW Sediment Control Inspector.

10. 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.

11. Trenches for the construction of utilities is limited to 3 pipe lengths or that which shall be backfilled and stabilized within one working day, whichever is shorter.

NOTE: TOTAL CUT AND FILL QUANTITIES ARE FOR PLAN PURPOSES ONLY. CONTRACTOR IS RESPONSIBLE FOR DETERMINING EARTHWORK AT TIME OF CONTRACT

Sequence of Construction

1. Apply for grading permit.

2. Obtain grading permit at on-site pre-construction meeting. (1 Day)

3. Install on-site sediment control devices (7 Days)
* Super silt fence along L.O.D.
* Stabilized construction entrance
* Earth Dike along the L.O.D
* Offsite sediment basins no. 8 and no.2 will be existing and used for this plan.

4. Rough grade site within limits of disturbance. (3 weeks)

5. Construct building (6 months)

6. Install water, sewer, and storm drain (5 weeks)

7. Install remaining utilities and light pole bases (3 weeks)

8. Install curb and gutter and sidewalks (4 weeks)

9. Install base course paving (1 week)

10. Install landscaping (1week)

11. Stabilize all disturbed areas within the limits of disturbance of this plan. (1 week)

12. Flush out storm drain system and pump sediment out of Stormceptors.(1 day)

13. Remove on-site sediment control devices with prior approval from inspector (1 day)
Offsite sediment basins to remain if corresponding contributory drainage areas are still disturbed.

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.

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 periodic on-site inspection by the HSCD."

Signature of Developer/Builder — 28Aug01 *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 Soil Conservation District."

9-13-01 *Date*

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

Natural Resources Conservation Service — 9/24/01 *Date*

This Development Plan is approved for Soil Erosion and Sediment Control by the Howard Soil Conservation District.

Howard S.C.D. — *Date* 9/24/01

APPROVED
PLANNING BOARD
of HOWARD COUNTY
DATE 08/23/01

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
Director — Date 10/15/01
Chief, Division of Land Development ~~and Research~~ — Date 10/12/01
Chief, Development Engineering Division MK — Date 9/25/01

STATE OF MARYLAND — CARLTON K. GUTSCHICK — 12975 REGISTERED — PROFESSIONAL ENGINEER

4
Prepared For:
Mulvanny G2 Architects
1110 12th Avenue, NE Suite 500
Bellevue, WA 98004
425-463-2000

owner
Madison Columbia, L.L.C.
c/o Madison Marquette
2001 Pennsylvania Ave., NW
Washington, DC 20006-1850
202-741-3800

4
~~PREPARED FOR :~~
~~GREENBERG FARROW~~
~~ARCHITECTURE ENGINEERING DEVELOPMENT~~
~~POST OFFICE PLAZA~~
~~50 DIVISION STREET, SUITE 300~~
~~SOMERVILLE, NJ 08876~~
~~TEL: 908-725-5857~~
~~ATTN: JOHN M. KEREKES~~

GLW GUTSCHICK 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/VA: 301-989-2524 FAX: 301-421-4186

\DRAWINGS\01014\DESIGN\01014scd.dwg | DES. TMR | DRN. DCF | CHK. TMR

DATE	REVISION	BY	APP'R.
7/28/10	4 Revise "owner" information; add "Prepared For" information.	wp/dev	
8/28/01	BID SET TO EXPO		
7/13/01	REVISED PER EXPO BUILDING REVISIONS & HOWARD COUNTY COMMENTS		

SEDIMENT CONTROL NOTES & DETAILS

ROUTE 175 COMMERCIAL
SECTION 1, AREA 2
PARCELS 'C-1' THRU 'C-3'

ELECTION DISTRICT No. 6 — *HOWARD COUNTY, MARYLAND*

SCALE	ZONING	G. L. W. FILE No.
N.T.S.	NT	01014
DATE	TAX MAP - GRID	SHEET
APRIL, 2001	36-18 37-13	10 OF 14

SDP-01-132

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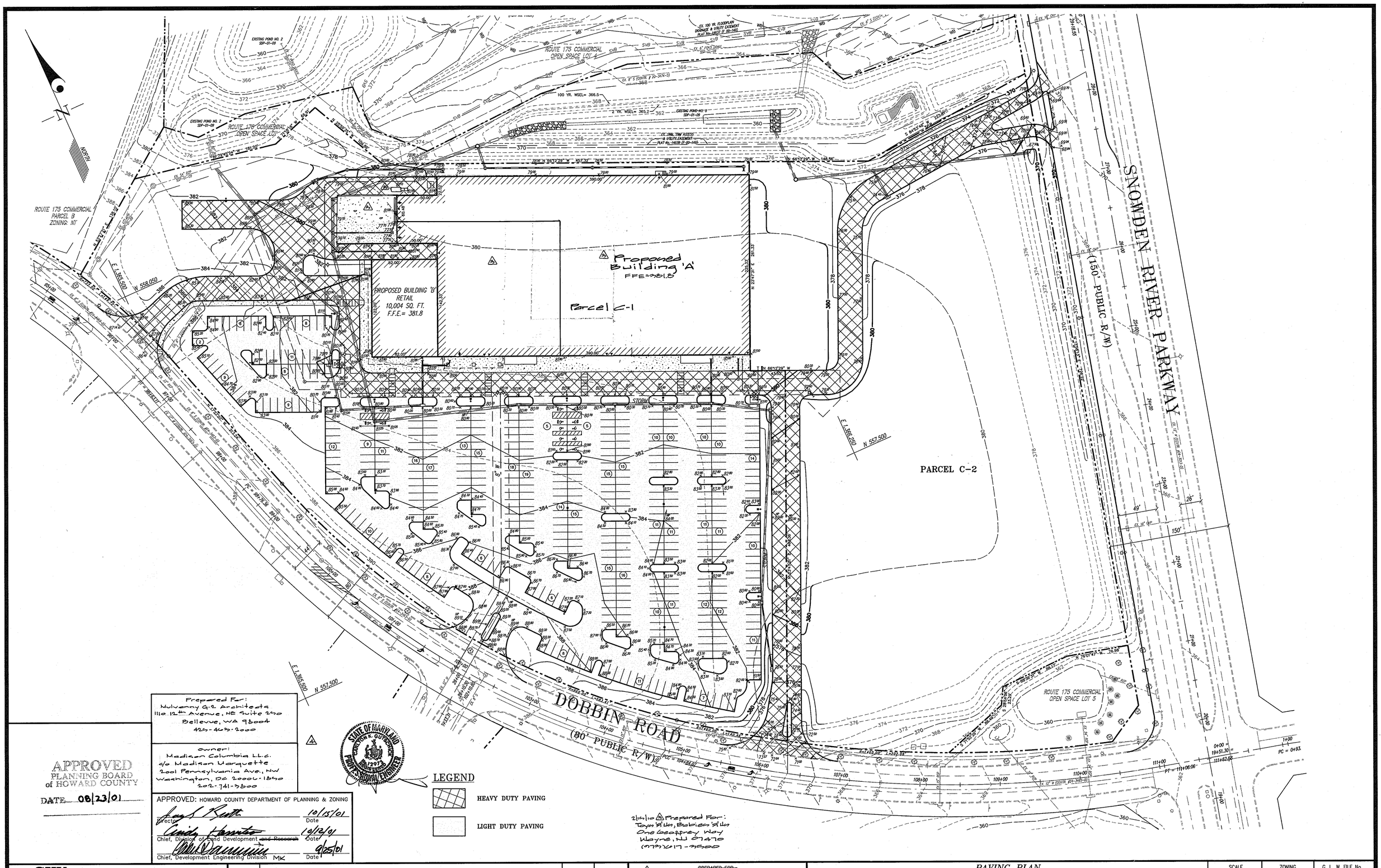

Prepared For:
Nulvanny G-2 Architects
110 12th Avenue, NE Suite 200
Bellevue, WA 98004
425-453-2000

owner:
Madison Columbia L.L.C.
c/o Madison Marquette
2001 Pennsylvania Ave., NW
Washington, DC 20006-1850
202-741-3500

APPROVED
PLANNING BOARD
of HOWARD COUNTY
DATE 08/23/01

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

Director	Date 10/15/01
Chief, Division of Land Development ~~and Research~~	Date 10/12/01
Chief, Development Engineering Division MK	Date 9/25/01

STATE OF MARYLAND
CARMON K. GUTSCHICK
No. 12973
PROFESSIONAL ENGINEER

LEGEND

HEAVY DUTY PAVING

LIGHT DUTY PAVING

2/15/10 △4 Prepared For:
Toys 'R' Us, Babies 'R' Us
One Geoffrey Way
Wayne, NJ 07470
(973)617-3500

△4 ~~PREPARED FOR: GREENBERG FARROW ARCHITECTURE ENGINEERING DEVELOPMENT POST OFFICE PLAZA 50 DIVISION STREET, SUITE 300 SOMERVILLE, NJ 08876 TEL: 908-725-5057 ATTN: JOHN M. KERKES~~

GLW GUTSCHICK LITTLE & WEBER, P.A.

CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
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\DRAWINGS\01014\DESIGN\01014PAV.dwg DES. TMR DRN. JMG CHK. TMR

DATE	REVISION	BY	APP'R.
7/22/10	△3 Revise "owner" information; add "Prepared For" information.	klp/dev	
2/15/10	△2 Rev. Footprint, Add Ret. Wall, Trench Drain, Lamp & Rev. Prepared For Info	WJJ	
7/13/01	REVISED PER EXPO BUILDING REVISIONS & HOWARD COUNTY COMMENTS		

PAVING PLAN

ROUTE 175 COMMERCIAL

SECTION 1, AREA 2
PARCELS 'C-1' THRU 'C-3'

ELECTION DISTRICT No. 6 *HOWARD COUNTY, MARYLAND*

SCALE	ZONING	G. L. W. FILE No.
1"=50'	NT	01014
DATE	TAX MAP – GRID	SHEET
APRIL 2001	36-18 37-13	11 OF 14.

SDP-01-132

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1041 LINEAR FEET OF INTERIOR PERIMETER. NO BUFFER REQUIRED.

ADJACENT PROPOSED TREES FOR BUFFERING SWM. SEE SDP-01-09 (TYP. SYMBOL)

EXISTING TREES ARE FOUND IN F-96-41

PROPOSED SIGN B
DESIGNED BY OTHERS

PROPOSED SIGN A
DESIGNED BY OTHERS

EXISTING TREE TO BE REMOVED (TBR)

Prop. Building "C" (R.E.I. - Retail)

Prop. Building "D" (Adjacent Retail)

Trellis/Entrance Feature (See Architecturals for details)

New Entrance

New Entrance (Employees)

Relocated Landscape Area (See Architecturals for details)

MATCHLINE B-B (SEE SHEET 13)

MATCHLINE A-A (SEE SHEET 13)

170 LINEAR FEET OF INTERIOR PERIMETER. NO BUFFER REQUIRED.

Prepared For:
Mulvanny G2 Architects
116 12th Avenue, NE Suite 500
Bellevue, WA 98004
425-462-1000

EDGE A:
BUFFER ALONG A ROADWAY WITHOUT PARKING
80 LINEAR FEET OF E BUFFER REQUIRED
REQUIRED PLANTING: 2 SHADE TREES, 20 SHRUBS

EDGE B:
BUFFER PARKING FROM ROADWAY
510 LINEAR FEET OF E BUFFER REQUIRED
REQUIRED PLANTING: 13 SHADE TREES, 128 SHRUBS

EDGE C:
BUFFER PARKING FROM ROADWAY
337 LINEAR FEET OF E BUFFER REQUIRED
REQUIRED PLANTING: 8 SHADE TREES, 84 SHRUBS

Owner:
Madison Columbia L.L.C.
c/o Madison Marquette
1001 Pennsylvania Ave., NW
Washington, DC 20004-1890
202-741-3600

APPROVED
PLANNING BOARD
of HOWARD COUNTY
DATE 08/23/01

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

Director	Date 10/15/01
Chief, Division of Land Development ~~and Research~~	Date 10/12/01
Chief, Development Engineering Division MK	Date 9/25/01

SEE SHEET 14 FOR LANDSCAPING NOTES AND DETAILS.

THIS SHEET FOR LANDSCAPE PURPOSES ONLY.

DATE	REVISION	BY	APP'R.
1/15/02	Revise number of "Carpinus betulus" in planting areas on south side of building.	kp/dev	
2/15/10	Rev. Footprint, Add Ret. Wall, Trench Drain, Comp. Chairs, Rev. Prepared For Inf.	Wed	
7/23/10	Revise building footprint, add trash enclosure, revise parking to provide H.C. spaces, revise owner information; add "Prepared For."	kp/dev	
7/13/01	REVISED PER EXPO BUILDING REVISIONS & HOWARD COUNTY COMMENTS	LMM	

GLW GUTSCHICK 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/VA: 301-989-2524 FAX: 301-421-4186

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PREPARED FOR:
GREENBERG FARROW
ARCHITECTURE ENGINEERING DEVELOPMENT
POST OFFICE PLAZA
50 DUNSANY STREET, SUITE 300
SOMERVILLE, NJ 08876
TEL: 908-725 5857
ATTN: JOHN M. KEREKES

Prepared For:
Taylor 'A' Llc Bobbie St Llc
One Geoffrey Way
Wayne, NJ 07470
(973)694-7800

LANDSCAPE PLAN

ROUTE 175 COMMERCIAL
SECTION 1, AREA 2
PARCELS C-1 THRU C-3

ELECTION DISTRICT No. 6 — HOWARD COUNTY, MARYLAND

SCALE	ZONING	G. L. W. FILE No.
1"=30'	NT	01014
DATE	TAX MAP – GRID	SHEET
APRIL 2001	36-18 37-13	12 OF 14

SDP-01-132

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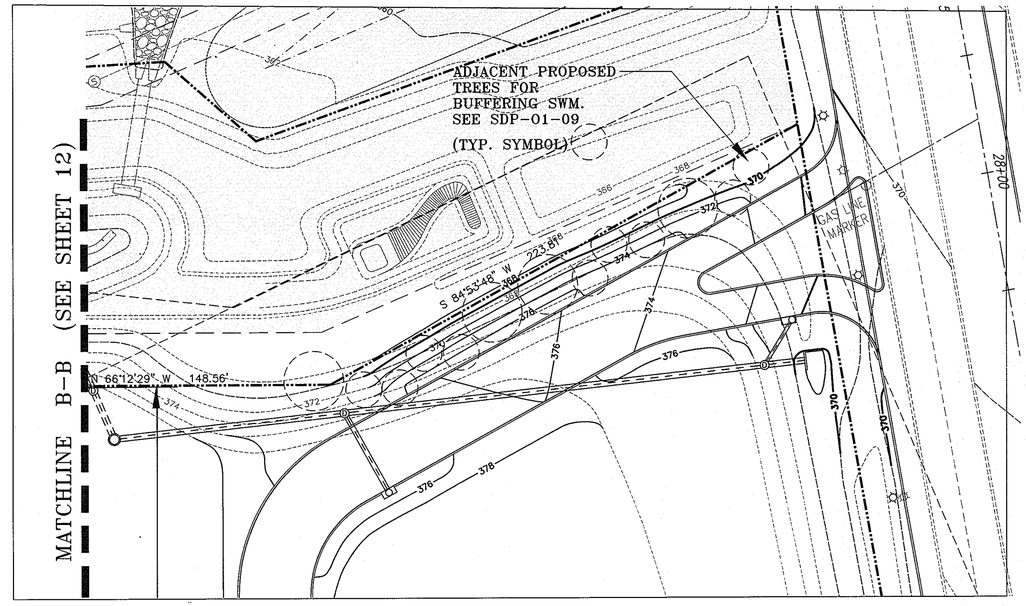

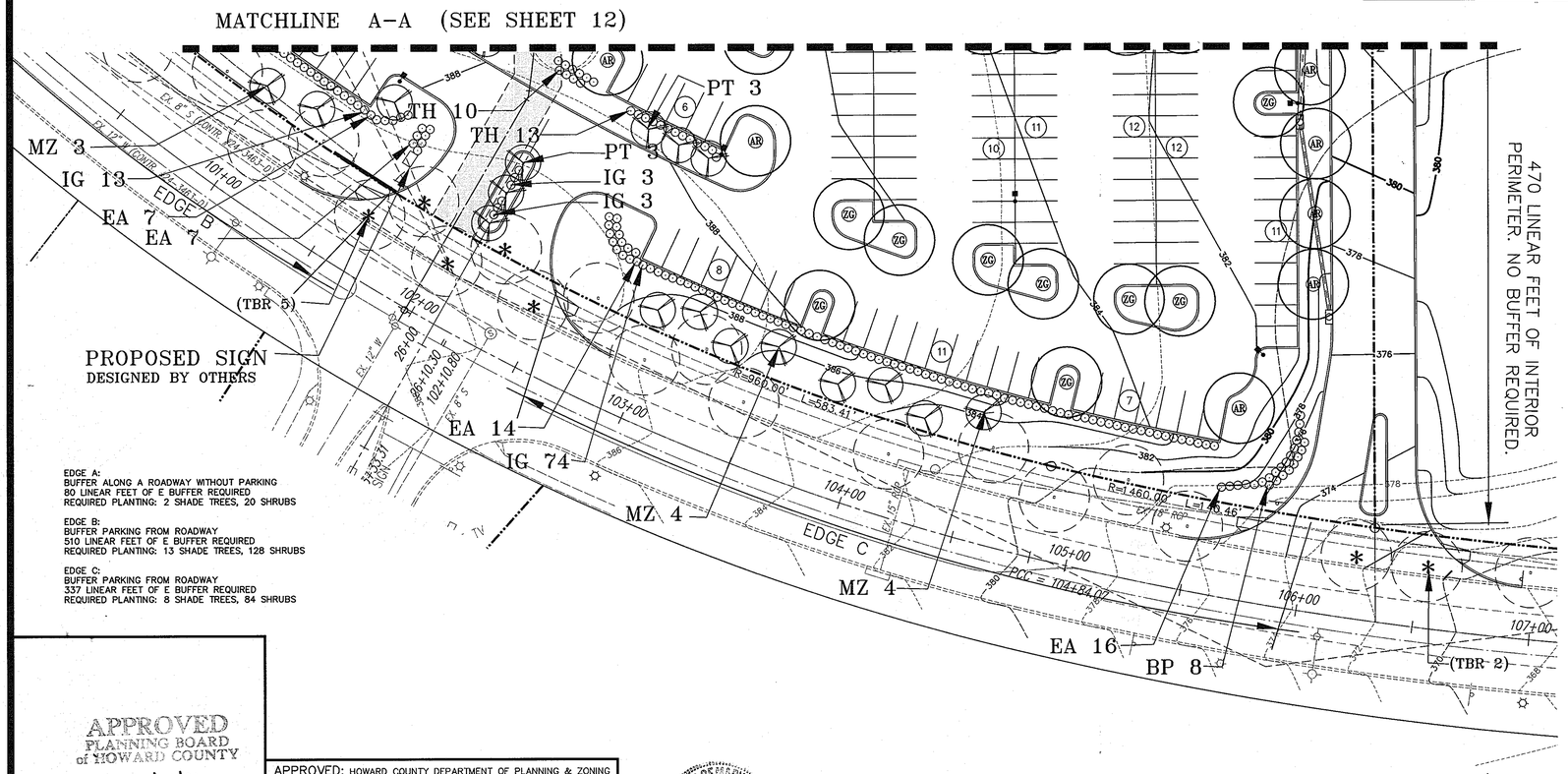

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Director	Date 10/15/01
Chief, Division of Land Development ~~and Research~~	Date 10/12/01
Chief, Development Engineering Division MK	Date 9/25/01

STATE OF MARYLAND — CARLTON K. GUTSCHICK — No. 7291 — PROFESSIONAL ENGINEER

Prepared For:
Mulvanny G.2 Architects
1110 112th Avenue, NE Suite 500
Bellevue, WA 98004
425-453-2000

owner
Madison Columbia L.L.C.
c/o Madison Marquette
1001 Pennsylvania Ave., NW
Washington, D.C. 20004-1890
202-741-3300

SEE SHEET 14 FOR LANDSCAPING NOTES AND DETAILS.
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DATE	REVISION	BY	APP'R.
7/25/10	4 Revise "owner" information & add "Prepared For" information.	kp/dev.	
7/13/01	REVISED PER EXPO BUILDING REVISIONS & HOWARD COUNTY COMMENTS	LMM	

4 ~~PREPARED FOR: GREENBERG FARROW ARCHITECTURE ENGINEERING DEVELOPMENT POST OFFICE PLAZA 50 DIVISION STREET, SUITE 300 SOMERVILLE, NJ 08876 TEL: 908 725 5057 ATTN: JOHN W. KEREKES~~

LANDSCAPE PLAN

ROUTE 175 COMMERCIAL
SECTION 1, AREA 2
PARCELS C-1 THRU C-3

ELECTION DISTRICT No. 6 — HOWARD COUNTY, MARYLAND

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PLANT MATERIALS AND PLANTING METHODS

A. Plant Materials

The landscape contractor shall furnish and install and/or dig, ball, burlap and transplant 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 Nurserymen (hereafter referred to as AAN 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 heeled-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 ARC.

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"	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 "AAN 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 ARC 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 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 ground is frozen or excessively moist. No frozen or wet topsoil shall be used at any time.

3. 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:

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 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.

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 pits shall generally be as follows:

PLANT SIZE	ROOT BALL	PIT DIAMETER	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.

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 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 "Typical Tree Staking Detail".

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 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 2" 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 ARC 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.

7. 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.

LANDSCAPING NOTES

1. This plan has been prepared in accordance with the New Town Alternative Compliance provisions of Section 16.124 of the Howard County Code and the Howard County Landscape Manual.

2. Contractor shall notify all utilities at least (5) five days before starting work. All General Notes, especially those regarding utilities, on Sheet 1 shall apply.

3. Field verify underground utility locations and existing conditions before starting planting work. Contact engineer / landscape architect if any relocation's are required.

4. Plant quantities shown on Plant 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.

5. All plant material shall be full, heavy, well formed, and symmetrical, and conform to the A.A.N. Specifications, and be installed in accordance with project specifications.

6. No substitution shall be made without written consent of the owner or his representative.

7. All areas disturbed by construction activities but not otherwise planted, paved, or mulched shall be seeded or sodded in accordance with the project specifications.

8. The contractor shall notify the owner in writing if he/she encounters soil drainage conditions which may be detrimental to the growth of the plants.

9. All exposed earth within limits of planting beds shall be mulched with shredded hardwood mulch per Planting Details.

10. Financial surety for the required landscaping per schedule A and B shall be posted with the developers' agreement in the amount of $21,360.00.

11. Tabulation for landscape shown:
Required planting by HRD for 10.3 acre of office combined at 20 trees/acre = 206 trees

Planting provided:

Shade Trees	92	
Ornamental Trees	63 = 32	E.S.T. 1 2:1
Evergreen Trees	47 = 24	E.S.T. 1 2:1
Shrubs provided:	423 = 42	E.S.T. 1 10:1
Trees provided on SDP-01-09	16	
Total E.S.T. = *E.S.T., or Equivalent Shade Tree*	= 206	

12. The owner, tenant, and /or their agents shall be responsible for maintenance of the required landscaping, including both plant materials and berms, fences and walls. All plant materials shall be maintained in good growing condition, and when necessary, replaced with new materials to ensure continued compliance with applicable regulations. All other required landscaping shall be permanently maintained in good condition, and when necessary, repaired or replaced.

SCHEDULE A PERIMETER LANDSCAPE EDGE Category	EDGE A	EDGE B	EDGE C	
	Adj. to Roadway	Buffer P'king from Roadway	buffer P'king from Roadway	Adj. to Perimeter Property
Landscape Buffer Type	D	E	E	N/A - Internal Perimeter
Linear Feet of Roadway/ Perimeter Frontage	80'	510'	337'	
Credit for Ex. Vegetation (Yes, No, Linear Feet) (describe below if needed)	NO	NO	NO	
Credit for Wall, Fence or Berm (Yes, No, Linear Feet) (describe below if needed)	No	No	No	
Number of Plants Required Shade Trees Evergreen Trees Shrubs	 2 20 0	 13 128 0	 8 84 0	
Number of Plants Provided Shade Trees Evergreen Trees Other Trees (2:1 subst.) Shrubs (10:1 subst.) (describe plant substitution credits below if needed)	 2 0 2 42	 2 9 17 174	 0 0 8 107	

Bond Requirement - Surety for Schedule A:
Schedule 'A' Number of Shade Trees for bonding: 23 x $300 = $ 6,900.00
Schedule 'A' Number of Evergreen Trees for bonding: 0 x $150 = $ 0.00
Schedule 'A' Number of Shrubs for bonding: 232 x $30 = $ 6,960.00

Schedule 'B' Number of required Shade Trees for bonding: 25 x$300 = $7,500.00
TOTAL Estimate for Surety: $21,360.00
COMMENTS:

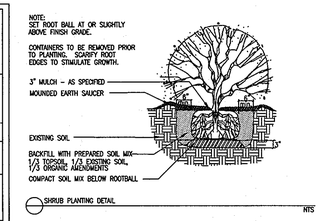
SCHEDULE B PARKING LOT INTERNAL LANDSCAPING
Number of Parking Spaces = 505 Spaces (Provided)
Number of Trees Required = 25 Trees @ 1 per 20 spaces
Number of Trees Provided Shade Trees 62 Other Trees (2:1 substitution) NOTE: Number of parking islands required: 1 island per 9 spaces, 56 islands required. Number of parking islands provided: 62 islands provided.
Schedule 'B' Number of required Shade Trees for bonding: 25 x $300 = $7,500.00

DEVELOPER'S / BUILDER'S CERTIFICATE

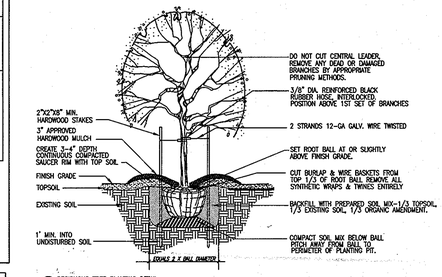
I/We certify that the landscaping shown on this plan will be done according to the plan, Section 16.124 of the Howard County Code and the Howard County Landscape manual. I/We further cerify that upon completion, a Certification of Landscape Installation, accompanies by an executed one-year guarantee of plant materials, will be submitted to the Department of Planning and Zoning.

Name (Developer's /Builder's) Date 28 Aug '01

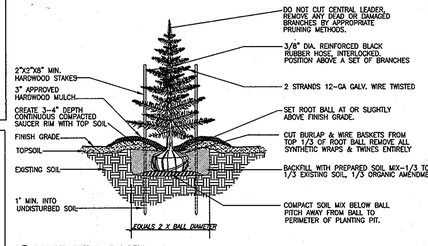
Financial surety for the required landscaping has been posted as part of the DPW Developer's Agreement in the amount of $21,360.00.



SHRUB PLANTING DETAIL NTS



DECIDUOUS TREE PLANTING DETAIL
FOR PLANTING MATERIAL UP TO 3 1/2" CALIPER NTS



EVERGREEN TREE PLANTING DETAIL NTS

BUFFER SUBSTITUTIONS AND OMISSION JUSTIFICATION:

PERIMETER A: PLANTING REQUIREMENTS EXCEEDED.
PERIMETER B: ORNAMENTAL AND EVERGREEN TREES USED DUE TO LIMITED SPACE BETWEEN EXISTING STREET TREES.
TREE SUBSTITUTIONS MADE TO 2:1 RATIO.
PERIMETER C: ORNAMENTAL AND EVERGREEN TREES USED DUE TO LIMITED SPACE BETWEEN EXISTING STREET TREES.

PLANT LIST

QTY.	SYMBOL.	NAME (BOTANICAL/COMMON)	SIZE	SPACING	ROOT	COMMENTS
Shade Trees						
23	AR	Acer rubrum 'Red Sunset'/ Red Sunset Maple	2 1/2" - 3" Cal.		B&B	
64	ZG	Zelcova serrata 'Village Green' Patmore Green Ash	2 1/2" - 3" Cal.		B&B	
5	QP	Quercus palustris/ Pin Oak	2 1/2" - 3" Cal.		B&B	
Ornamental Trees						
6	CB	Carpinus betulus 'Fastigiata' Fastigate Hop Hornbeam	2-2 1/2" Cal.		B&B	
16	MZ	Malus floribunda 'Zumi' Zumi Crabapple	2-2 1/2" Cal.		B&B	
39	PT	Prunus cerasifera 'Thundercloud' Purple Leafed Plum	2-2 1/2" Cal.		B&B	
Evergreen Trees						
30	PA	Picea abies Norway Spruce	6-8' Ht.		B&B	
17	PS	Pinus strobus White Pine	6-8' Ht.		B&B	
Shrubs						
29	BP	Berberis thunbergiona'Crimson Pygmy' Crimson Pygmy Barberry	18-24" Ht.	3.5' O.C.	B&B	
113	EA	Euonymus alata 'compacta' Burning Bush	24-30" Ht.	3.5' O.C.	B&B	
258	IG	Ilex glabra/ Inkberry	24-30" Ht.	3.5' O.C.	B&B	
23	TH	Taxus xmedia 'Hicksii' Hicks Yew	24-30" Ht.	3.5' O.C.	B&B	

Note: - Plant quantities to be verified by contractor.
Symbol indicates larger plant material.

APPROVED
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DATE 08/23/01

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

Director — Date 10/15/01
Chief, Division of Land Development — Date 10/12/11
Chief, Development Engineering Division MK — Date 9/25/01

STATE OF MARYLAND — CARLTON K. GUTSCHICK — No. 12973 — PROFESSIONAL ENGINEER

Prepared For:
Mulvanny G2 Architects
1110 112th Avenue, NE Suite 500
Bellevue, WA 98004
425-453-2000

Owner:
Madison Columbia LLC.
c/o Madison Marquette
2001 Pennsylvania Ave, NW
Washington, DC 20006-1850
202-741-7800

DATE	REVISION	BY	APP'R.
1/15/02	Revise number of "Carpinus betulus" in plant list	klp/dev.	
7/26/10	4 Revise "owner" information & add "Prepared For" information	klp/dev.	
7/13/01	REVISED PER EXPO BUILDING REVISIONS & HOWARD COUNTY COMMENTS		

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~~ENGINEERING DEVELOPMENT~~
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LANDSCAPE NOTES & DETAILS

ROUTE 175 COMMERCIAL
SECTION 1, AREA 2
PARCELS 'C-1' THRU 'C-3'

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