

General Notes:

- All construction shall be in accordance with the latest standards and specifications of Howard County plus MSHA standards and specifications if applicable.
- The contractor shall notify the Department of Public Works/ Bureau of Engineering/ Construction Inspection Division at (410) 313-1800 at least five (5) working days prior to the start of work.
- The contractor shall notify "Miss Utility" at 1-800-251-7777 at least 48 hours prior to any excavation work being done.
- Street light placement and the type of fixtures and poles shall be in accordance with the Howard County Design Manual, Volume III (2006), Section 5.5.A. A minimum of 20' shall be maintained between any street light and any tree.
- Traffic Control Devices: a) The R1-1 (STOP) signs and the street name signs (SNS) assemblies for this development must be installed before the base paving is completed. b) The traffic control device locations shown on the plans are approximate and must be field approved by Howard County traffic division (410-313-2430) prior to the installation of any traffic control devices. c) All traffic control devices and their locations shall be in accordance with the latest edition of the Maryland Manual on Uniform Traffic Control Devices (MUTCD). d) All sign posts used for traffic control signs installed in the County Right-of-Way shall be mounted on a 2" galvanized steel, perforated ("Quick Punch"), square tube post (14 gauge) inserted into a 2-1/2" galvanized steel, perforated square tube sleeve (12 gauge) - 3' long. The anchor shall not extend more than two "Quick Punch" holes above ground level. A galvanized steel pole cap shall be mounted on top of each post.
- 95% compaction in fill areas shall meet AASHTO T-180 requirements.
- The property is zoned NT per the September 11, 2011 comprehensive Zoning Plan.
- Applicable DPZ File Reference: FDP-DC-Warfield-I, ECP 12-058, SDP 41-018, SDP 41-107, F 43-03 AND 6P 13-032. This project is in conformance with the latest Howard County standards unless waivers have been approved. Traffic Impact Study and Traffic Signal Warrant Analysis submitted and approved as a part of the Final Development Plan (FDP-DC-Warfield-I) by Wells and Associates.
- Boundary information is from boundary surveys by Gutschick, Little, and Weber, P.A., dated November, 2011.
- Horizontal and vertical datum is based on Howard County Control Stations: 306A, 36AA.
- Aerial topography by McKenzie Snyder, Inc., on March, 2007 and Gutschick, Little and Weber on August, 2011. Topography north and west of Broken Land Parkway provided by Howard County GIS.
- There are no wetlands or streams within the limit of this project. No clearing, grading or construction is permitted within wetlands, streams or their required buffers, unless approved by the Department of Planning and Zoning as necessary disturbances or waivers have been approved.
- Vehicular ingress & egress to Broken Land Parkway is restricted except as approved by Howard County Department of Planning and Zoning.
- The Cemetery Inventory Maps do not show any cemeteries within the project limits.
- The Scenic Roads Map does not indicate any scenic roads within or adjacent to the project limits. Existing utilities are based on available Howard County records.
- This property is within the Metropolitan District.
- Water and Sewer are Public per Contract No. 24-4750-D and are within the Little Patuxent Sewerage Area.
- There are no 100-year flood plains within the limits of this project.
- This subdivision is exempt from the requirements of Section 16.102(b)(1)(v) of the Howard County Code for forest conservation because the subject property is part of a Planned Unit development which has preliminary development plan approval and 50% or more of the land is recorded and substantially developed before December 31, 1992.
- Where referred to herein, "Lot(s)" includes lot(s) as defined in Subdivision Sections 100(b)(30) and 100(b)(60).
- On December 5, 2011, a letter was issued by the department of Planning and Zoning, Division of Research in accordance with the provisions of Section 16.1104 granting housing unit allocations for FDP-DC-Warfield-I as follows:

Phase	Allocation Year	No. of Units
1	2013	340
2	2015	261 (271)
3	2016	160

A Site Development Plan for Phase 1 must be submitted by August 24, 2012. A Site Development Plan for Phase 2 must be submitted between July 1, 2012 and April 1, 2013 (October 1, 2013). A Site Development Plan for Phase 3 must be submitted between July 1, 2013 and April 1, 2014.

A waiver of Section 16.106(e) was approved on January 14, 2013 modifying the number of units and the latest date that a Site Development Plan can be submitted for Phase 2. The change is indicated in parentheses behind the originally set number of units and date. See note 31 below.

- This site is subject to the Final Development Plan recorded as plat numbers 22008 thru 22011, the Neighborhood Concept Plan (NCP) recorded as plat numbers 22012 thru 22015, the Neighborhood Specific Design Guidelines (NSDG) recorded as Liber 14166 Folio 1 thru 250 and the Neighborhood Specific Implementation Plan (NSIP) recorded as Liber 14166 Folio 251 thru 287.
- There are no known existing dedicated bicycle lanes or narrow bicycle and vehicular travel lanes.
- For information on the potential transit route circulation, see the Neighborhood Specific Implementation Plan pages IO and II.
- For information on the locations of primary and secondary pedestrian routes and the bicycle circulation, see Chapter 3 of the Warfield Neighborhood Specific Design Guidelines. For information on the Street Framework changes, see Chapter 3 of the Warfield Neighborhood Specific Design Guidelines.
- Tabulation of Net New Downtown Community Commons:

Note: Additional surplus Downtown Community Commons area, if any, will be determined at Site Development Plan stage.

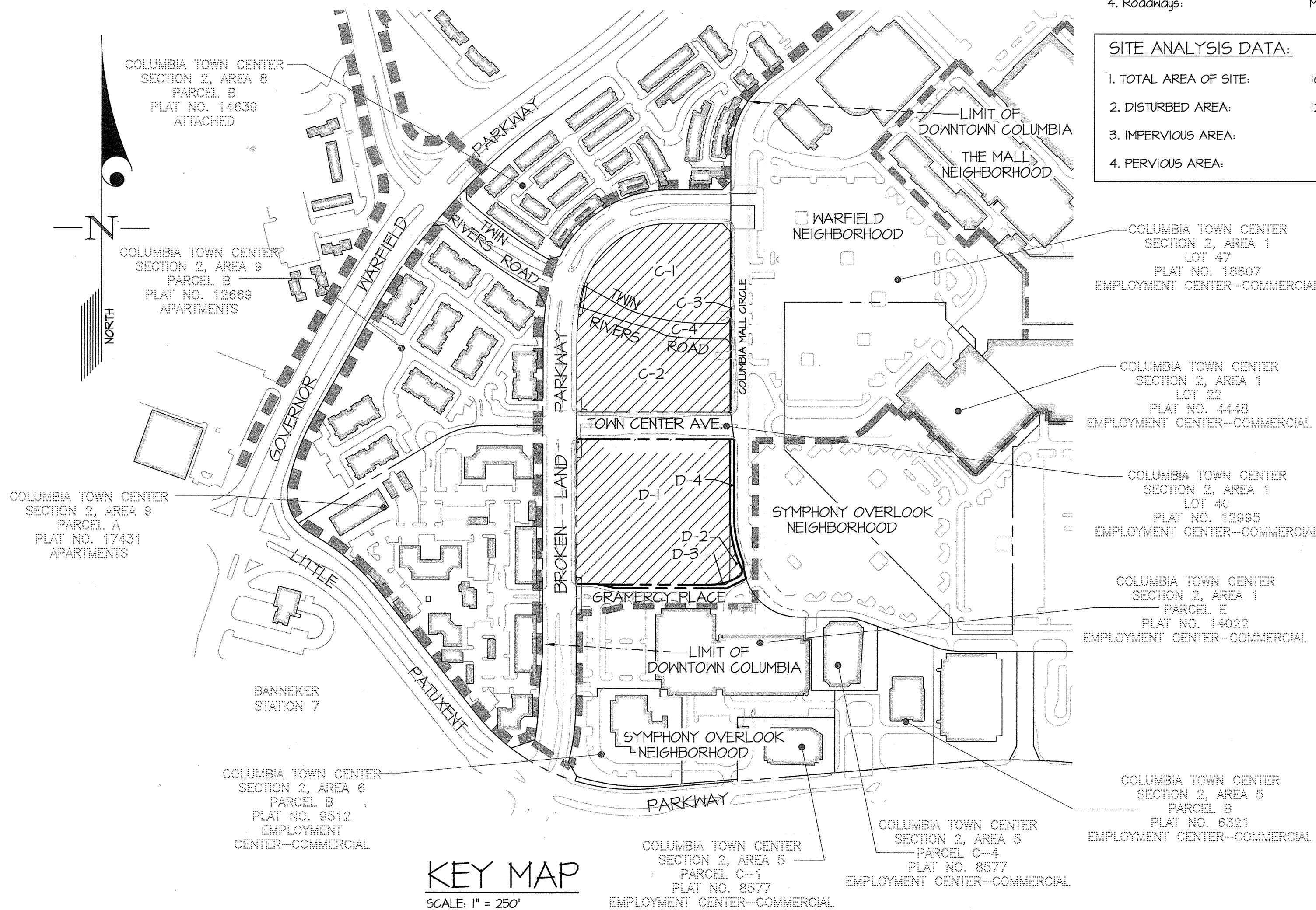
- Street trees and landscape plans have been prepared by a Registered landscape Architect and are certified to conform with the Warfield Neighborhood Design Guidelines recorded in the Land Records of Howard County in Liber 14166, Folio 1 thru 250.
- This site is subject to the existing Development Area Declaration and Agreement dated December 1, 1970 recorded in Liber 552, Folio 380.
- Landscape surety in the amount of \$600,000 for street trees not within micro bio-retention facilities will be provided with the Developer's Agreement.

- The developer is 100% responsible for the design and installation of the future traffic signals at intersections of Broken Land Parkway and Gramercy Place, Broken Land Parkway and Twin Rivers Road and Broken Land Parkway and Columbia Mall Circle. A realine to these plans will be required to add the signal plans when a signal is warranted.

- On January 14, 2013, MP 13-045 granted a waiver of Section 16.106(e) which states that Adequate Public Facilities milestones for Downtown Columbia occur nine months after the starting date. Milestones are assigned for Downtown Columbia at the time the Final Development Plan is initially submitted for review. Subject to the following conditions in the approval letters:
 - The Site Development Plan for Parcel C-2 must be submitted for review on or before October 1, 2013;
 - No more than 271 residential units may be requested for Parcel C-2;
 - Development proposals for Parcels C-2 (Allocation Year 2015) and Parcel C-1 (Allocation Year 2016) may be submitted as one integrated Site Development Plan to be submitted on or before October 1, 2013 and proposing no more than 437 residential units;
 - The Road Construction Drawings and the Final Plat, F 13-015, and the Site Development Plan (SDP 13-007) originals shall include the updated allocations chart with a footnote referencing the amendments granted as a part of this waiver petition (MP 13-045).
 - A general note shall be included on the Road Construction Drawings and Final Plat (F 13-015) and the Site Development Plan (SDP 13-007) that references this waiver petition and includes the purpose of the waiver, date of the approval, and lists the conditions of approval.

FINAL PLAN DOWNTOWN COLUMBIA WARFIELD NEIGHBORHOOD

PARCELS C-1 THRU C-4 PARCELS D-1 THRU D-4



KEY MAP
SCALE: 1" = 250'

STORMWATER MANAGEMENT PRACTICE CHART:

SITE	PRACTICES TO BE UTILIZED
1. Parcel C-1:	Micro bio-retention (M-6) and Rainwater Harvesting (M-1)
2. Parcel C-2:	Micro bio-retention (M-6) and Rainwater Harvesting (M-1)
3. Parcels D-1 & D-3:	Micro bio-retention (M-6) and Rainwater Harvesting (M-1)
4. Roadways:	Micro bio-retention (M-6)

SITE ANALYSIS DATA:

1. TOTAL AREA OF SITE:	10.23 ACRES
2. DISTURBED AREA:	12.05 ACRES
3. IMPERVIOUS AREA:	3.03 ACRES
4. PERVIOUS AREA:	4.02 ACRES

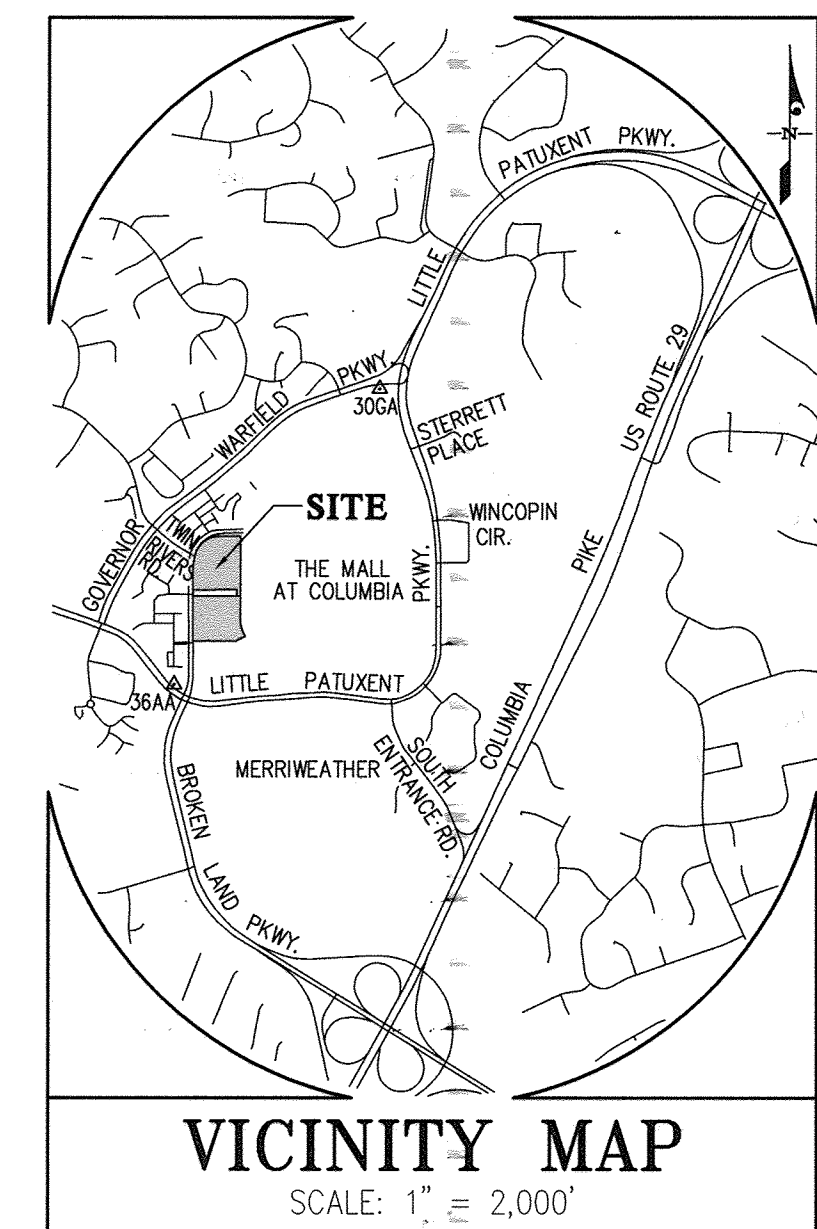
LEGEND

- EXIST. CURB & GUTTER/PAVEMENT
- STANDARD CURB & GUTTER
- PROPOSED REVERSE
- EX. 8" S. EXISTING SEWER MAIN
- EX. 8" W. EXISTING WATER MAIN
- EX. 18" SD EXISTING STORM DRAIN
- PROPOSED STORM DRAIN
- PROPOSED SIDEWALK
- NUMBER OF PARKING SPACES
- LOD PROP. LIMIT OF DISTURBANCE
- PROPOSED STORM DRAIN STRUCTURE NUMBER
- EXISTING STORM DRAIN STRUCTURE NUMBER
- EXISTING CONTOUR
- PROP. CONTOUR
- STREET LIGHT LOCATION
- EXISTING PAVING
- PROPOSED MICRO BIO-RETENTION FACILITY

SHEET INDEX

- COVER SHEET
- TOWN CENTER AVENUE AND GRAMERCY PLACE PLAN & PROFILE
- COLUMBIA MALL CIRCLE PLAN & PROFILE
- TWIN RIVERS ROAD PLAN & PROFILE
- PAVING DETAILS
- PAVING REHABILITATION PLAN
- GRADING PLAN
- SEDIMENT CONTROL PLAN
- SEDIMENT TRAP ENLARGEMENT PLAN
- SEDIMENT CONTROL NOTES AND DETAILS
- UNDERDRAIN MANIFOLD PLAN, PIPE SUMMARY AND ESD DETAILS
- UNDERDRAIN MANIFOLD PLAN, PIPE SUMMARY, ESD NOTES & DETAILS
- STORM DRAIN PROFILES & SCHEDULES
- STORM DRAIN PROFILES
- STORM DRAIN DRAINAGE AREA MAP
- STORMWATER MANAGEMENT DRAINAGE AREA MAP
- STREET TREE PLAN
- LANDSCAPE PLANT LIST, DETAILS & SCHEDULES
- SIGNING, PAVEMENT MARKING AND LIGHTING PLAN
- PAVEMENT MARKING AND SIGNING DETAILS
- TRAFFIC SIGNAL MODIFICATION PLAN.
- TRAFFIC SIGNAL MODIFICATION PLAN.

HOWARD COUNTY CONTROL STATIONS
306A
NORTHING: 566,053.9474
EASTING: 1352,111.5307
ELEVATION: 354.878
(LATEST ADJ. NOV. 2008)
36AA
NORTHING: 562,804.8537
EASTING: 1344,906.1701
ELEVATION: 354.151
(LATEST ADJ. NOV. 2008)



PURPOSE NOTE:
PARCEL C-3 IS FOR THE WIDENING ADJUSTMENT OF COLUMBIA MALL CIRCLE. PARCEL C-4 IS FOR THE EXTENSION OF TWIN RIVERS ROAD.
PARCEL D-4 IS FOR WIDENING ADJUSTMENTS OF COLUMBIA MALL CIRCLE AND GRAMERCY PLACE AND COLUMBIA MALL CIRCLE INTERIM ALIGNMENT. PARCEL D-2 IS FOR THE FUTURE WIDENING OF COLUMBIA MALL CIRCLE TO THE ULTIMATE ALIGNMENT. PARCEL D-3 IS FOR GRAMERCY PLACE WIDENING ADJUSTMENT TO THE ULTIMATE ALIGNMENT AND SHALL BECOME PART OF THE DEVELOPMENT PARCEL (D-1).

NOTE:
CONTRACTOR SHALL TEST PIT ALL CONNECTIONS TO EXISTING UTILITIES PRIOR TO CONSTRUCTION TO VERIFY THE CONDITIONS. IF THEY ARE NOT AS INDICATED ON THE PLANS, NOTIFY THE ENGINEER IMMEDIATELY.

NOTE:
ALL IMPROVEMENTS FROM THE BACK OF THE CURB INTO THE DEVELOPABLE PARCEL ARE TO BE COORDINATED AND CONSTRUCTED WITH THE APPLICABLE SITE DEVELOPMENT PLANS.

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
PRIVATE ROADS, SD AND STORMWATER
Chief, Bureau of Highways Date

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
Division of Land Development
Chief, Development Engineering Division Date

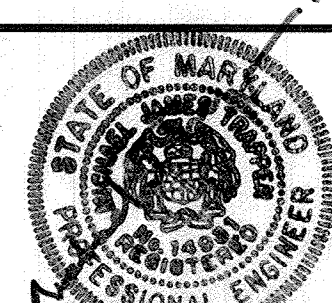
GLWGUTSCHICK LITTLE & WEBER, P.A.
CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
3909 NATIONAL DRIVE - SUITE 250 - BURTNSVILLE OFFICE PARK
BURTNSVILLE, MARYLAND 20866
TEL: 301-421-4024 BAL: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186

DATE	BY	REVISION
2-18-15	ADD GENERAL NOTE 31	

PREPARED FOR:
THE HOWARD HUGHES CORPORATION
10275 LITTLE PATUXENT PARKWAY
COLUMBIA, MARYLAND 21044
ATTN: BOB JENKINS
410-964-5443

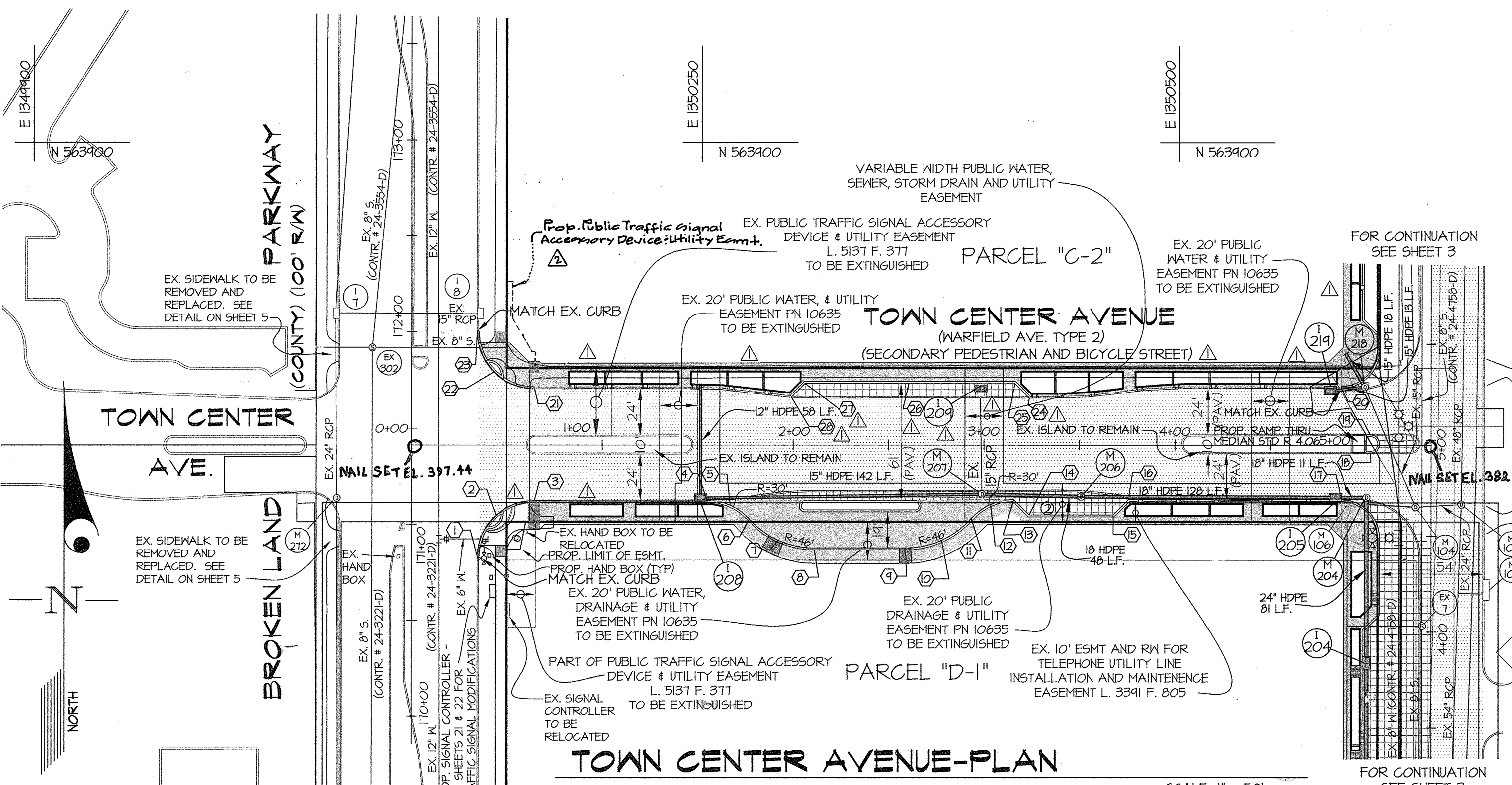
PROFESSIONAL CERTIFICATION

I HEREBY CERTIFY THAT THESE PLANS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 16891, EXPIRATION DATE: MAY 21, 2016

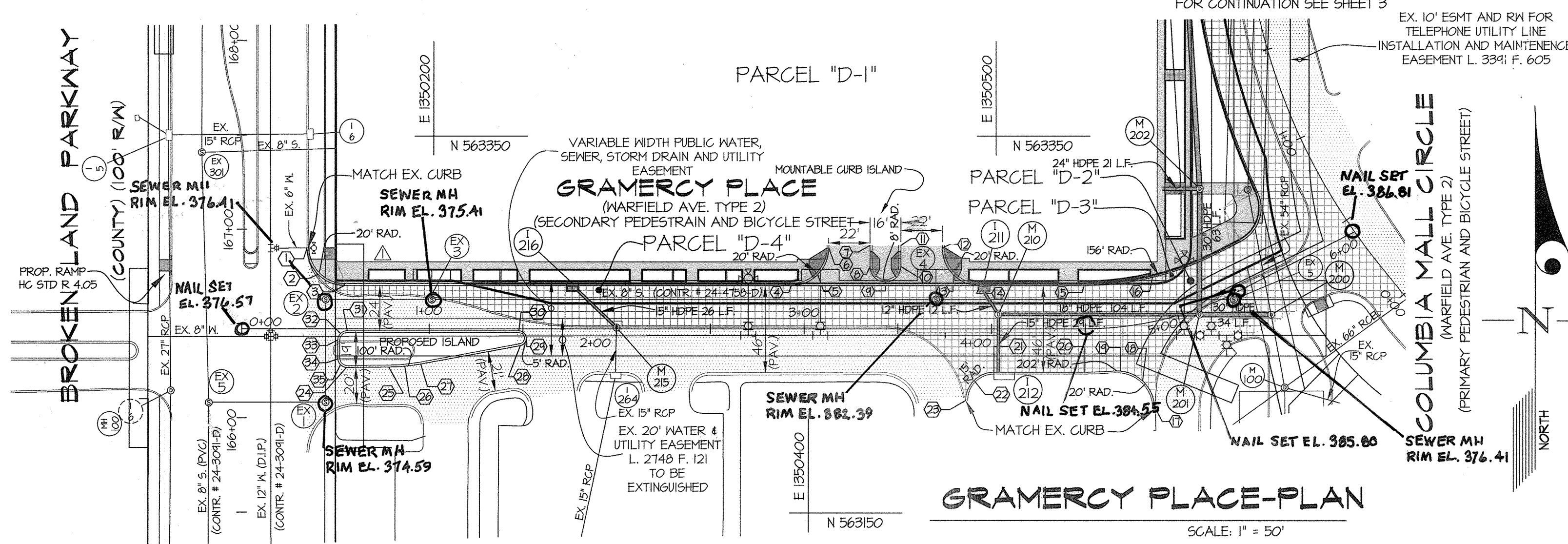
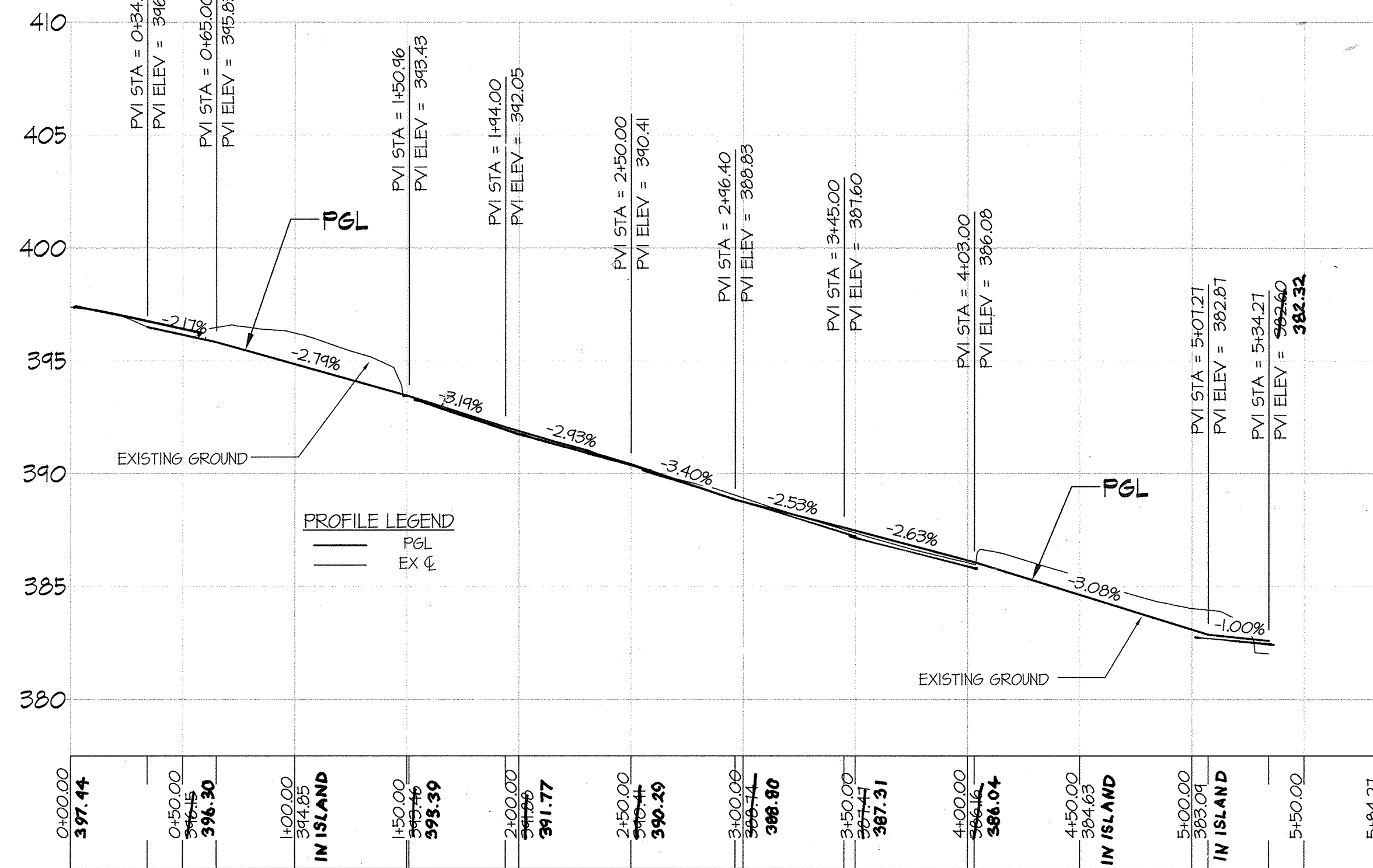


REVISION
COVER SHEET
**DOWNTOWN COLUMBIA
WARFIELD NEIGHBORHOOD
PARCELS C-1 THRU C-4 & PARCELS D-1 THRU D-4
COLUMBIA TOWN CENTER
LOTS 40 & 47 SECTION 2 AREA 1 & PARCEL E, SECTION 2 AREA 8
FDP-DC-WARFIELD-I**
HOWARD COUNTY, MARYLAND

SCALE	ZONING	G. L. W. FILE NO.
AS SHOWN	NT	11053
DATE	TAX MAP - GRID	SHEET
FEB., 2015	36 - 01	1 OF 22



- NOTES:
- SEE SHEET 4 FOR TYPICAL ROAD SECTIONS.
 - SEE SHEET 14 FOR STREET LIGHT LOCATIONS.
 - SEE SHEET 17 FOR STREET TREE LOCATIONS.
 - SEE SHEET 11 & 12 FOR UNDERDRAIN MANIFOLD NOTES & DETAILS.
 - SEE SHEET 13 & 14 FOR STORM DRAIN PROFILES.
 - ALL SIDEWALK RAMP SURFACE SHALL CONFORM TO ADAAG 4.24 FOR DETECTABLE WARNINGS. ADAAG 4.24 STATES: "DETECTABLE WARNINGS SHALL CONSIST OF RAISED TRUNCATED DOMES WITH A DIAMETER OF NOMINAL 0.9", A HEIGHT OF NOMINAL 0.2" AND A CENTER TO CENTER SPACING OF NOMINAL 2.35" AND CONTRAST VISUALLY WITH ADJOINING SURFACES, EITHER LIGHT OR DARK ON LIGHT." CONTRACTOR SHALL COORDINATE WITH OWNER & ARCHITECT ON COLOR SELECTION FOR ALL CURB RAMPS. SEE MD-655.40
 - TOWN CENTER AVE. AND GRAMERCY PL ARE BOTH SECONDARY PEDESTRIAN AND BICYCLE STREETS.
 - CURB RAMPS AT THE DROP-OFF ALONG TOWN CENTER AVENUE ARE HOWARD COUNTY STANDARD R.4.06.
 - FOR SIGNING AND PAVEMENT MARKINGS, INCLUDING CROSSWALK LOCATIONS AND DETAILS, SEE SHEETS 19 AND 20.
 - SIDEWALKS ARE PROVIDED ON SDP 13-001 UNLESS THERE ARE SECTIONS TO BE CONSTRUCTED WITH THESE ROAD CONSTRUCTION DRAWINGS.
 - PROVIDE ONE FOUR-INCH PVC CONDUIT FOR FUTURE STREET LIGHT USE ACROSS TOWN CENTER AVENUE AND GRAMERCY PLACE AT BROKEN LAND PARKWAY. CONDUIT SHALL BE PLACED 24-INCHES BELOW PROPOSED GRADE AND 17-FEET BACK OF FLOWLINE BROKEN LAND PARKWAY.
 - INTERSECTION OF BROKEN LAND PARKWAY AND GRAMERCY PLACE SHALL BE PROVIDED WITH CONDUITS FOR FUTURE INTERSECTION SIGNALIZATION. COORDINATE NUMBER AND LOCATIONS WITH WELLS AND ASSOCIATES. SEE ALSO HOWARD COUNTY STANDARD T-101



CENTERLINE CURVE DATA

STREET NAME	P.C. STA.	P.C.G. STA.	P.T. STA.	RADIUS	ARC	TANGENT	CHORD	BEARING	DELTA
GRAMERCY PLACE	4444.41	---	5133.13	174.00'	84.32'	42.96'	83.54'	N. 16° 30' 11" E.	26° 54' 25"

TOWN CENTER AVENUE CURB FLOW LINE ELEVATION TABLE

PT. NO.	STATION	OFFSET	ELEV.
1	0+34.53	58.92' R.	M.E.G.
2	0+44.28	36.53' R.	M.E.G.
3	0+44.40	28.84' R.	M.E.G.
4	1+54.83	28.75' R.	342.63
5	1+67.01	31.32' R.	342.24
6	1+77.10	38.60' R.	342.18
7	1+92.44	44.64' R.	341.75
8	2+10.96	53.61' R.	341.44
9	2+54.11	53.61' R.	340.30
10	2+71.84	44.63' R.	340.34
11	2+83.32	38.36' R.	340.52
12	3+03.42	31.01' R.	340.14
13	3+15.63	28.41' R.	340.77
14	3+23.66	36.41' R.	340.82
15	3+47.66	36.41' R.	340.55
16	3+75.66	28.41' R.	340.10
17	4+01.21	28.38' R.	M.E.G.
18	5+02.35	4.21' R.	M.E.G.
19	5+12.35	5.65' L.	M.E.G.
20	4+81.01	24.57' L.	M.E.G.
21	0+84.52	24.57' L.	M.E.G.
22	0+43.30	38.04' L.	M.E.G.
23	0+34.50	54.24' L.	M.E.G.
24	3+23.72	24.45' L.	M.E.G.
25	3+16.17	32.00' L.	341.53
26	2+61.17	32.00' L.	342.22
27	2+06.17	32.00' L.	340.91
28	1+48.94	24.82' L.	M.E.G.

GRAMERCY PLACE CURB FLOW LINE ELEVATION TABLE

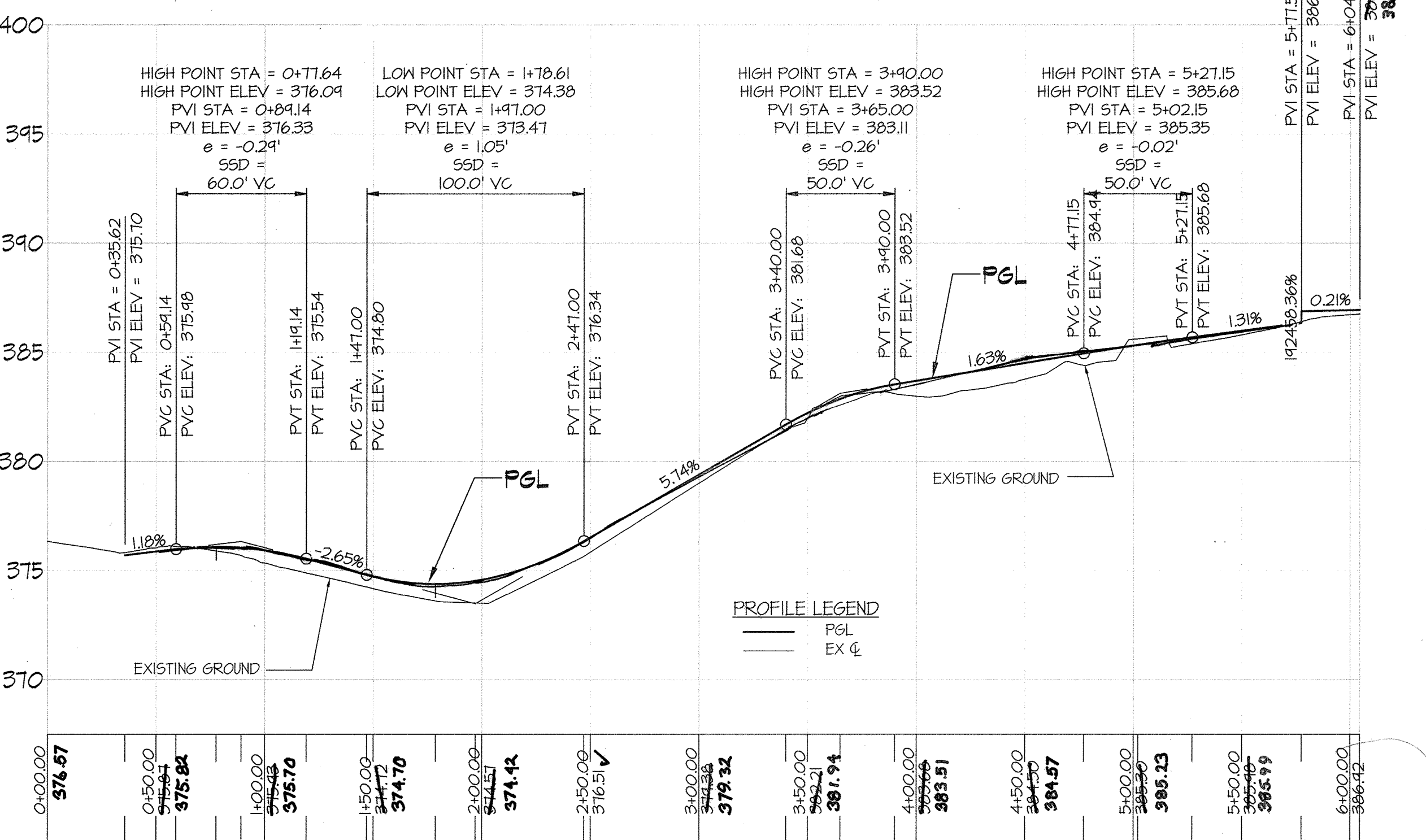
PT. NO.	STATION	OFFSET	ELEV.
1	0+34.83	42.84' R.	M.E.G.
2	0+40.84	28.85' L.	371.02
3	0+54.83	23.00' L.	376.53
4	2+43.14	23.00' L.	378.44
5	3+07.28	28.86' L.	374.86
6	3+13.14	43.00' L.	381.25
7	3+35.14	44.24' L.	381.53
8	3+35.14	33.00' L.	381.17
9	3+43.37	25.00' L.	381.33
10	3+51.54	33.00' L.	381.16
11	3+51.54	44.24' L.	382.04
12	3+73.54	43.00' L.	382.50
13	3+74.45	28.86' L.	382.52
14	3+43.54	23.00' L.	383.00
15	4+44.41	23.00' L.	383.93
16	4+91.57	23.00' L.	384.60
17	4+74.97	45.56' R.	M.E.G.

GRAMERCY PLACE CURB FLOW LINE ELEVATION TABLE

PT. NO.	STATION	OFFSET	ELEV.
18	4+76.23	24.45' R.	384.20
19	4+66.55	23.00' R.	383.42
20	4+48.41	23.00' R.	383.13
21	4+01.23	23.00' R.	383.03
22	3+40.62	21.34' R.	383.03
23	3+86.23	38.00' R.	M.E.G.
24	0+54.30	28.48' R.	375.30
25	0+78.41	20.26' R.	375.58
26	0+46.98	14.81' R.	375.56
27	0+45.47	18.63' R.	375.52
28	1+43.16	9.42' R.	374.65
29	1+41.24	4.55' R.	374.68
30	1+42.26	0.00' R.	374.42
31	0+54.25	0.00' R.	375.42
32	0+50.72	1.46' R.	375.82
33	0+44.25	5.00' R.	375.66
34	0+44.25	15.48' R.	375.33
35	0+50.73	14.03' R.	375.26

GRAMERCY PLACE AS-BUILT FLOWLINE ELEV. TABLE

PT. NO.	STATION	OFFSET	ELEV.
1	0+34.94	41.4' L.	377.40
2	0+41.61	27.5' L.	376.89
3	0+56.06	23.2' L.	376.55
4	2+91.82	23.4' L.	379.44
5	3+107.01	28.1' L.	379.77
6	3+132.21	31.4' L.	380.94
7	3+134.89	41.8' L.	381.44
8	3+34.70	34.2' L.	381.30
9	3+42.93	24.3' L.	381.14
10	3+51.83	26.7' L.	381.81
11	3+51.87	44.1' L.	381.91
12	3+73.70	42.1' L.	382.95
13	3+80.24	49.3' L.	382.95
14	3+94.93	22.9' L.	382.93
15	4+34.38	23.7' L.	383.47
16	4+80.39	23.1' L.	384.68
17	4+78.57	45.5' R.	383.06



APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
PRIVATE ROADS, SD AND STORMWATER
 Chief, Bureau of Highways

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
 Chief, Division of Land Development

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
 Chief, Development Engineering Division

OWNERS:

PARCELS C-1 THRU C-4 (OLD PARCEL C)
 PARCEL C BUSINESS TRUST
 c/o THE HOWARD HUGHES CORPORATION
 10275 LITTLE PATUXENT PARKWAY
 COLUMBIA, MD 21044

LOT 40
 MALL ENTRANCES BUSINESS TRUST
 PO BOX 617905
 CHICAGO, IL 60661

LOT 47
 MALL IN COLUMBIA BUSINESS TRUST
 PO BOX 617905
 CHICAGO, IL 60661

PARCEL E
 CMI CORPORATE PARKING BUSINESS TRUST
 PO BOX 833
 COLUMBIA, MD 21044

AS-BUILT CERTIFICATION
 I HEREBY CERTIFY, BY SEAL, THAT THE FACILITIES SHOWN ON THIS PLAN WERE CONSTRUCTED AS SHOWN ON THIS PLAN MEET THE CURRENT APPROVED PLANS AND SPECIFICATIONS.

Scott Shanabarger
 6. SCOTT SHANABARGER
 SHANABARGER & LANE
 PROFESSIONAL LAND SURVEYOR #10849
 LICENSE EXPIRATION DATE 1/2/2016
 AS-BUILT SURVEY DATE 7/27/2018

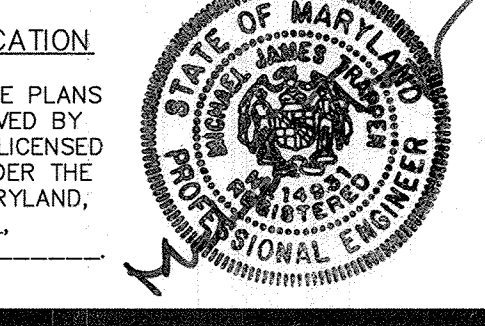
GLW GUTSCHICK LITTLE & WEBER, P.A.
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
 3909 NATIONAL DRIVE - SUITE 250 - BURTONTOWN OFFICE PARK
 BURTONTOWN, MARYLAND 20866
 TEL: 301-421-4024 FAX: 301-421-4186

PREPARED FOR:
 THE HOWARD HUGHES CORPORATION
 10275 LITTLE PATUXENT PARKWAY
 COLUMBIA, MARYLAND 21044
 ATTN: BOB JENKINS
 410-964-5443

PROFESSIONAL CERTIFICATION
 I HEREBY CERTIFY THAT THESE PLANS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 1683
 EXPIRATION DATE: MAY 21, 2016

DATE	REVISION	BY	APPR.
7/12/15	Revise Traffic Signal Easement NE Quadrant	g	g
2/18/15	REVISE PLANTER LOCATIONS, ADD ON-STREET PARKING, ADD I-204	BTS	BTS

TOWN CENTER AVENUE & GRAMERCY PLACE PLAN AND PROFILE
DOWNTOWN COLUMBIA
 WARFIELD NEIGHBORHOOD
 PARCELS C-1 THRU C-4 & PARCELS D-1 THRU D-4
COLUMBIA TOWN CENTER
 LOTS 40 & 47 SECTION 2 AREA 1 & PARCEL E, SECTION 2 AREA 8
 FDP-DC-WARFIELD-1



SCALE	ZONING	G. L. W. FILE NO.
AS SHOWN	NT	11053
DATE	TAX MAP - GRID	SHEET
FEB, 2015	36 - 01	2 OF 22

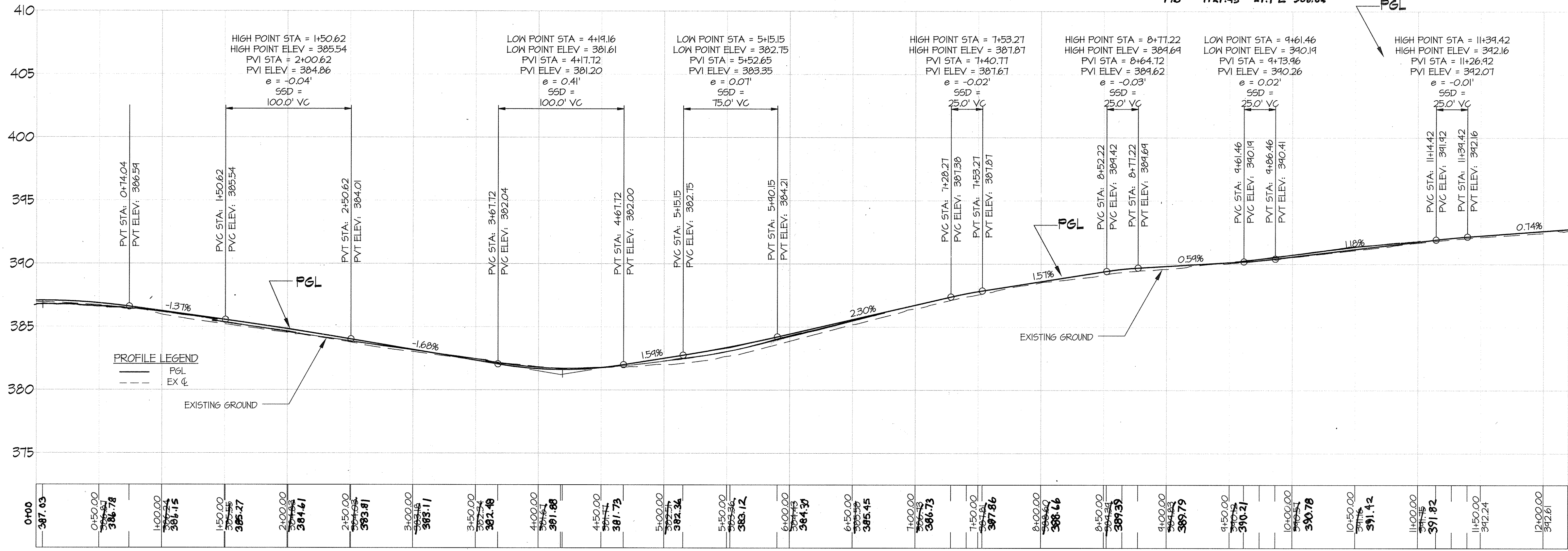
GRAMERCY PLACE CURB FLOW LINE ELEVATION TABLE			
PT. NO.	STATION	OFFSET	ELEV.
(1)	5+33.73	23.00' L.	385.18
(2)	5+47.08	23.00' L.	385.38
(3)	5+61.71	28.61' L.	385.45

COLUMBIA MALL CIRCLE CURB FLOW LINE ELEVATION TABLE			
PT. NO.	STATION	OFFSET	ELEV.
(4)	0+85.31	33.18' L.	386.19
(5)	1+58.72	21.70' L.	384.70
(6)	2+32.80	21.12' L.	383.64
(7)	2+38.84	21.02' L.	383.54
(8)	2+46.65	35.00' L.	383.20
(9)	4+00.65	35.00' L.	381.22
(10)	4+08.65	21.00' L.	381.36
(11)	4+48.47	21.00' L.	381.84
(12)	4+63.12	32.86' L.	382.27
(13)	4+48.07	21.00' L.	382.73
(14)	5+32.74	32.95' L.	383.32
(15)	5+46.47	21.00' L.	383.51
(16)	5+54.72	21.00' L.	383.64
(17)	5+62.72	35.00' L.	383.84
(18)	7+16.72	35.00' L.	386.25
(19)	7+24.72	21.00' L.	386.63
(20)	7+35.22	21.00' L.	386.87
(21)	7+44.36	32.86' L.	387.15
(22)	8+05.08	32.86' L.	387.74
(23)	8+20.67	21.00' L.	388.25
(24)	8+28.67	35.00' L.	388.77
(25)	10+70.67	35.00' L.	392.05
(26)	10+78.67	21.00' L.	392.08
(27)	10+84.41	21.00' L.	392.25
(28)	11+03.94	32.90' L.	392.64
(29)	11+04.34	47.11' L.	M.E.G.

PAVING LEGEND

- P-5 PRIVATE PAVING
- CONCRETE PAVING
- PAVING OVERLAY

- NOTES:**
- SEE SHEET 4 FOR TYPICAL ROAD SECTIONS.
 - SEE SHEET 14 FOR STREET LIGHT LOCATIONS.
 - SEE SHEET 17 FOR STREET TREE LOCATIONS.
 - SEE SHEETS 11 & 12 FOR UNDERDRAIN MANIFOLD NOTES & DETAILS.
 - SEE SHEET 13 & 14 FOR STORM DRAIN PROFILES.
 - ALL SIDEWALK RAMP SURFACE SHALL CONFORM TO ADAAG 4.24 FOR DETECTABLE WARNINGS. ADAAG 4.24 STATES: "DETECTABLE WARNINGS SHALL CONSIST OF RAISED TRUNCATED DOMES WITH A DIAMETER OF NOMINAL 0.9", A HEIGHT OF NOMINAL 0.2" AND A CENTER TO CENTER SPACING OF NOMINAL 2.35" AND CONTRAST VISUALLY WITH ADJOINING SURFACES, EITHER LIGHT ON DARK OR DARK ON LIGHT." CONTRACTOR SHALL COORDINATE WITH OWNER & ARCHITECT ON COLOR SELECTION FOR ALL CURB RAMP. SEE MD-655.40
 - COLUMBIA MALL CIRCLE IS A PRIMARY PEDESTRIAN AND BICYCLE STREET.
 - FOR SIGNING AND PAVEMENT MARKINGS, INCLUDING SIDEWALK LOCATIONS AND DETAILS, SEE SHEETS 14 AND 20.
 - SIDEWALKS ARE PROVIDED ON SDP 13-007 UNLESS THERE ARE SECTIONS TO BE CONSTRUCTED ON THESE ROAD CONSTRUCTION DRAWINGS.
 - INTERSECTION OF BROKEN LAND PARKWAY AND COLUMBIA MALL CIRCLE SHALL BE PROVIDED WITH CONDUITS FOR FUTURE INTERSECTION SIGNALIZATION. COORDINATE NUMBER AND LOCATIONS WITH WELLS AND ASSOCIATES. SEE ALSO HOWARD COUNTY STANDARD T-101



OWNERS:

PARCELS C-1 THRU C-4 (OLD PARCEL C)
PARCEL C BUSINESS TRUST
c/o THE HOWARD HUGHES CORPORATION
10275 LITTLE PATUXENT PARKWAY
COLUMBIA, MD 21044

LOT 40
MALL ENTRANCES BUSINESS TRUST
PO BOX 617905
CHICAGO, IL 60661

LOT 47
MALL IN COLUMBIA BUSINESS TRUST
PO BOX 617905
CHICAGO, IL 60661

PARCEL E
CMI CORPORATE PARKING BUSINESS TRUST
PO BOX 833
COLUMBIA, MD 21044

AS-BUILT CERTIFICATION
I HEREBY CERTIFY BY SEAL THAT THE FACILITIES SHOWN ON THIS PLAN WERE CONSTRUCTED AS SHOWN ON THIS PLAN MEET THE CURRENT APPROVED PLANS AND SPECIFICATIONS

Scott Shamberger 1/3/19
G. SCOTT SHAMBERGER
SHAMBERGER & LANE
PROFESSIONAL LAND SURVEYOR #10849
LICENSE EXPIRATION DATE 4/2/2020
AS-BUILT SURVEY DATE 7/27/2018

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
PRIVATE ROADS, SD AND STORMWATER
Chief, Bureau of Highways _____ Date _____

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

Chief, Division of Land Development _____ Date 12-21-15

Chief, Development Engineering Division _____ Date 3-25-15

GLW GUTSCHICK LITTLE & WEBER, P.A.
CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
3509 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK
BURTONSVILLE, MARYLAND 20866
TEL: 301-421-4024 FAX: 301-421-4186

DATE	REVISION	BY	APPR.
10-14-15	Revise Loading and Parking Entrances	JT	
2/7/15	REVISE PLANTER LOCATIONS	BTS	

PREPARED FOR:
THE HOWARD HUGHES CORPORATION
10275 LITTLE PATUXENT PARKWAY
COLUMBIA, MARYLAND 21044
ATTN: BOB JENKINS
410-964-5443

PROFESSIONAL CERTIFICATION
I HEREBY CERTIFY THAT THESE PLANS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 1681
EXPIRATION DATE: MAY 21, 2016



REVISED

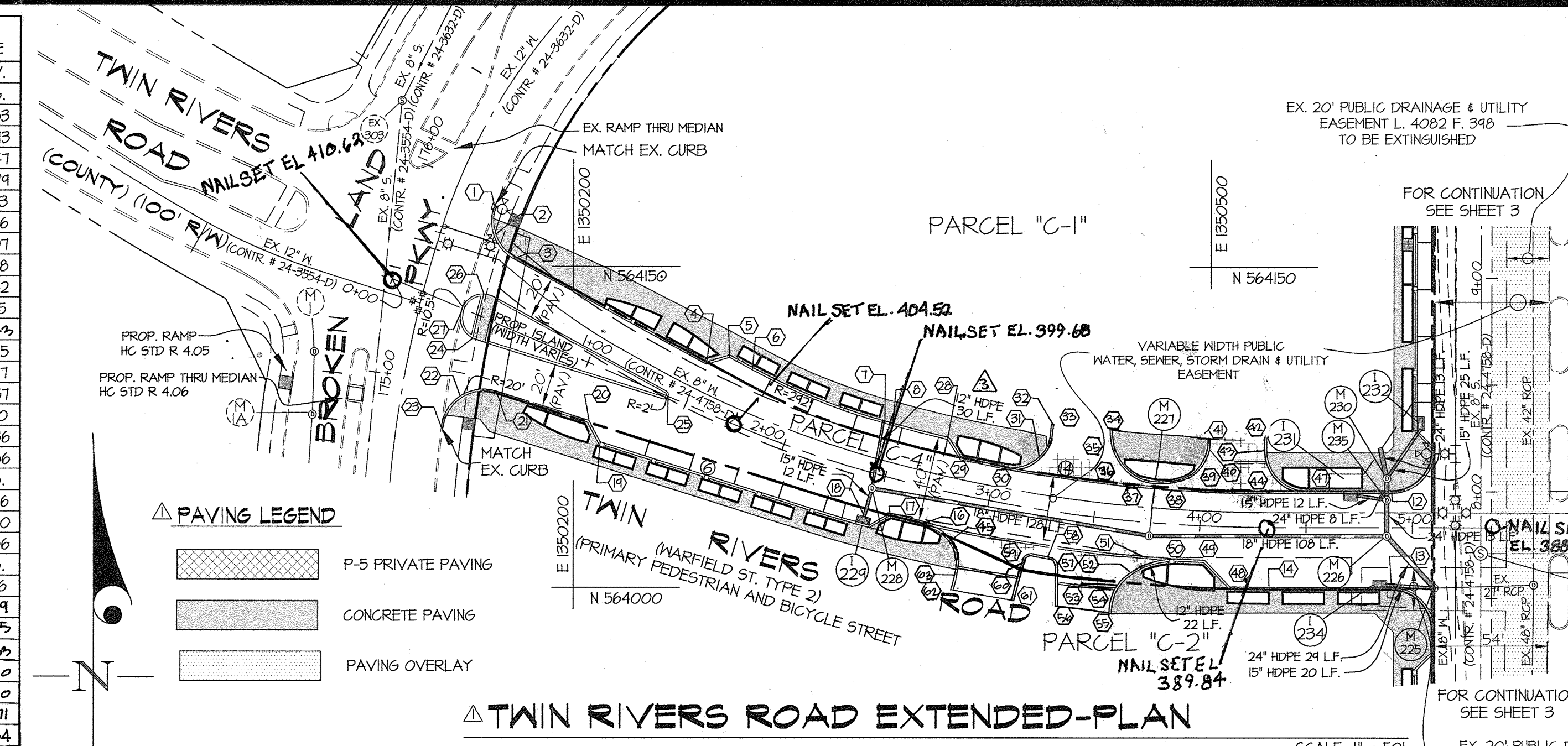
COLUMBIA MALL CIRCLE AND PROFILE
DOWNTOWN COLUMBIA
WARFIELD NEIGHBORHOOD
PARCELS C-1 THRU C-4 & PARCELS D-1 THRU D-4
COLUMBIA TOWN CENTER
LOTS 40 & 47 SECTION 2 AREA 1 & PARCEL E, SECTION 2 AREA 8
FDP-DC-WARFIELD-1

SCALE AS SHOWN
ZONING NT
DATE FEB, 2015
TAX MAP - GRID 36 - 01
SHEET 3 OF 22
G. L. W. FILE NO. 11053

TWIN RIVERS ROAD AS-BUILT FLOWLINE ELEV TABLE

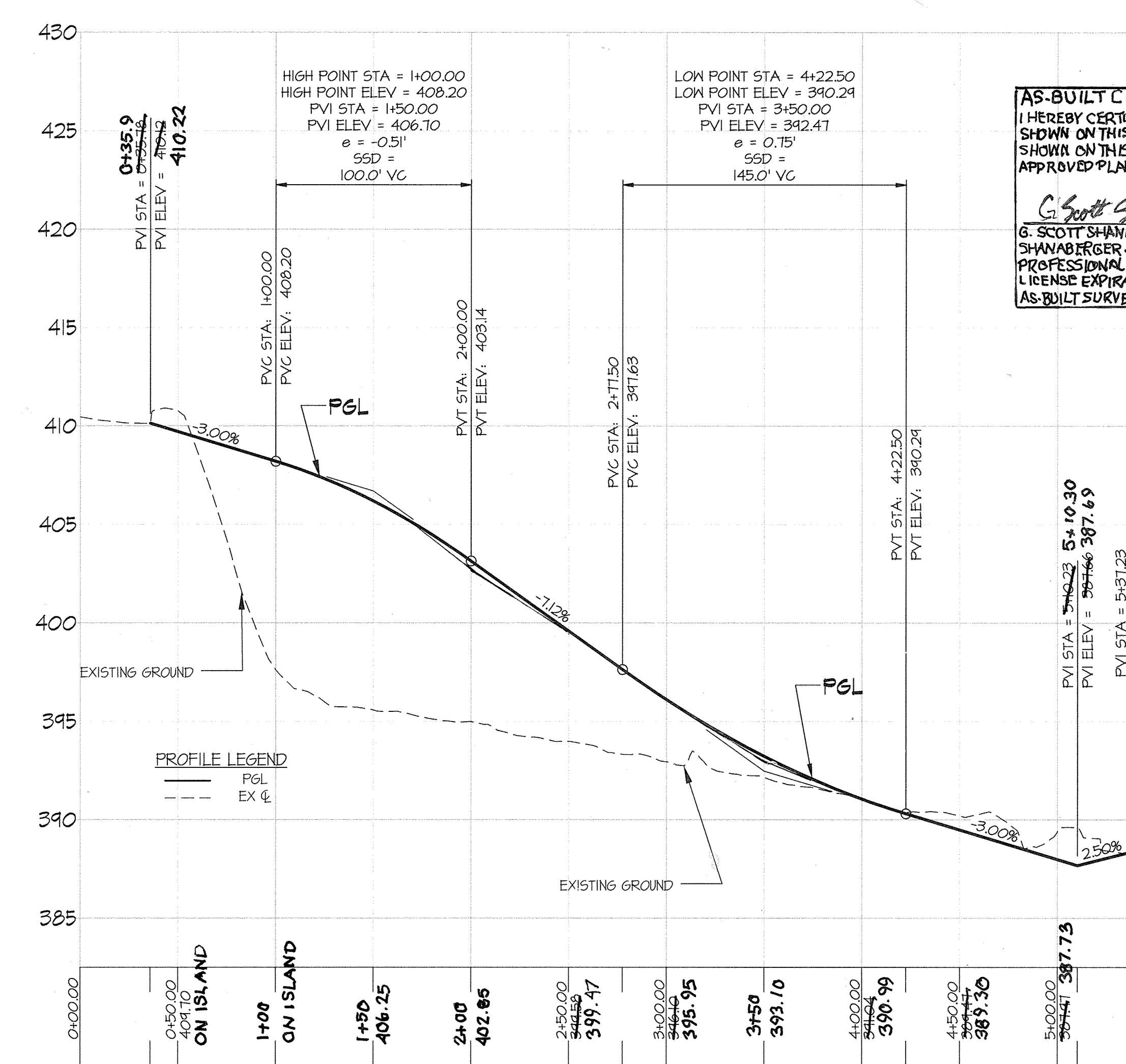
PT. NO.	STATION	OFFSET	ELEV.
1	0+51.21	49.5' L	410.35
2	0+35.00	39.4' L	410.15
3	0+48.52	30.8' L	409.14
4	1+51.52	28.8' L	408.55
5	1+60.38	27.8' L	404.73
6	1+67.93	27.1' L	404.28
7			
8	2+53.41	23.7' L	398.56
9	4+89.48	15.9' L	388.04
10	4+88.38	27.9' R	387.44
11	4+41.02	28.1' R	389.02
12	2+74.64	16.2' R	397.81
13	2+56.90	16.1' R	396.72
14	2+48.26	23.9' R	399.00
15	1+19.30	32.0' R	404.66
16	1+10.99	24.8' R	407.21
17	0+44.47	29.3' R	408.98
18	0+48.74	41.8' R	409.29
19	0+47.40	51.6' R	404.51
20	0+45.64	107.7' R	409.77
21	1+40.95	03' L	406.75
22	0+42.48	10.1' L	409.88
23	0+35.36	1.8' R	410.26
24	2+74.39	13.8' R	397.04
25	2+82.66	15.9' L	396.48
26	3+06.95	16.3' L	395.25
27	3+18.65	21.2' L	397.72
28	3+24.55	35.5' L	395.02
29	3+35.07	40.3' L	394.93
30	3+53.48	46.2' L	393.75
31	3+55.26	51.5' L	393.55
32	3+61.91	63.7' L	392.75
33	3+70.16	19.2' L	392.00
34	3+78.45	17.7' L	391.40
35	3+97.90	24.9' L	390.76
36	4+03.11	32.7' L	390.57
37	4+04.38	40.8' L	390.40
38	4+30.04	41.2' L	390.48
39	4+31.83	28.9' L	390.25
40	4+41.74	18.0' L	389.24
41	2+68.10	23.9' R	394.59
42	4+49.05	16.1' L	389.89
43	4+13.99	28.1' R	390.88
44	4+03.30	16.0' R	390.54
45	3+87.95	14.3' R	391.24
46	3+76.40	19.8' R	391.44
47	3+49.81	23.4' R	391.51
48	3+44.46	29.0' R	391.74
49	3+62.17	36.2' R	391.87
50	3+61.26	42.5' R	392.00
51	3+88.19	43.1' R	393.32
52	3+34.00	25.3' R	393.49
53	3+31.41	20.5' R	393.76
54	3+24.31	20.5' R	394.20
55	3+19.22	24.3' R	394.51
56	3+14.98	43.7' R	394.95
57	2+92.31	43.9' R	396.21
58	2+92.22	39.2' R	394.13

PT. NO.	STATION	OFFSET	ELEV.
(1)	0+30.90	50.19' L.	M.E.G.
(2)	0+36.26	37.06' L.	404.53
(3)	0+48.98	30.71' L.	408.93
(4)	1+51.75	20.87' L.	405.47
(5)	1+60.48	28.06' L.	404.74
(6)	1+72.66	28.84' L.	404.13
(7)	2+43.04	24.00' L.	394.36
(8)	2+47.04	24.00' L.	394.07
(9)	4+40.23	16.00' L.	387.18
(10)	4+40.23	28.00' R.	387.42
(11)	4+32.54	28.00' R.	384.15
(12)	2+75.15	16.00' R.	397.44
(13)	2+56.40	16.00' R.	398.65
(14)	2+48.53	24.00' R.	398.97
(15)	1+41.72	32.00' R.	406.57
(16)	1+00.99	24.80' R.	407.10
(17)	0+65.44	24.20' R.	408.36
(18)	0+50.74	37.98' R.	408.86
(19)	0+48.23	54.93' R.	M.E.G.
(20)	0+45.70	10.71' R.	409.76
(21)	1+40.96	0.00'	406.90
(22)	0+42.38	10.22' L.	408.86
(23)	0+35.84	1.44' L.	M.E.G.
(24)	2+74.60	24.00' L.	397.16
(25)	2+82.74	16.00' L.	396.79
(26)	3+04.18	16.00' L.	394.35
(27)	3+10.70	22.91' L.	394.85
(28)	3+15.35	31.34' L.	395.10
(29)	3+25.14	40.60' L.	395.10
(30)	3+32.88	40.91' L.	393.71
(31)	3+54.46	36.07' L.	393.64
(32)	3+61.45	23.15' L.	392.72
(33)	3+75.48	18.00' L.	391.58
(34)	3+81.45	18.00' L.	391.32
(35)	3+96.40	24.01' L.	391.06
(36)	4+02.60	38.55' L.	391.30
(37)	4+02.56	41.61' L.	391.35
(38)	4+30.95	42.03' L.	390.00
(39)	4+30.37	56.00' L.	389.91
(40)	4+36.34	21.86' L.	389.74
(41)	4+87.05	22.04' R.	390.61
(42)	4+50.44	16.00' L.	388.98
(43)	4+14.83	28.00' R.	389.67
(44)	4+03.10	16.00' R.	390.47
(45)	3+42.78	16.00' R.	390.83
(46)	3+00.26	17.99' R.	391.19
(47)	3+68.97	23.75' R.	391.55
(48)	3+63.02	30.84' R.	391.69
(49)	3+60.93	39.98' R.	391.85
(50)	3+60.94	44.25' R.	392.00
(51)	3+38.20	44.24' R.	393.50
(52)	3+35.58	24.28' R.	393.50
(53)	3+31.76	20.84' R.	393.80
(54)	3+23.41	20.84' R.	394.28
(55)	3+19.59	24.27' R.	394.54
(56)	2+16.90	44.23' R.	394.87
(57)	2+12.18	44.21' R.	396.50
(58)	2+12.16	36.51' R.	396.46



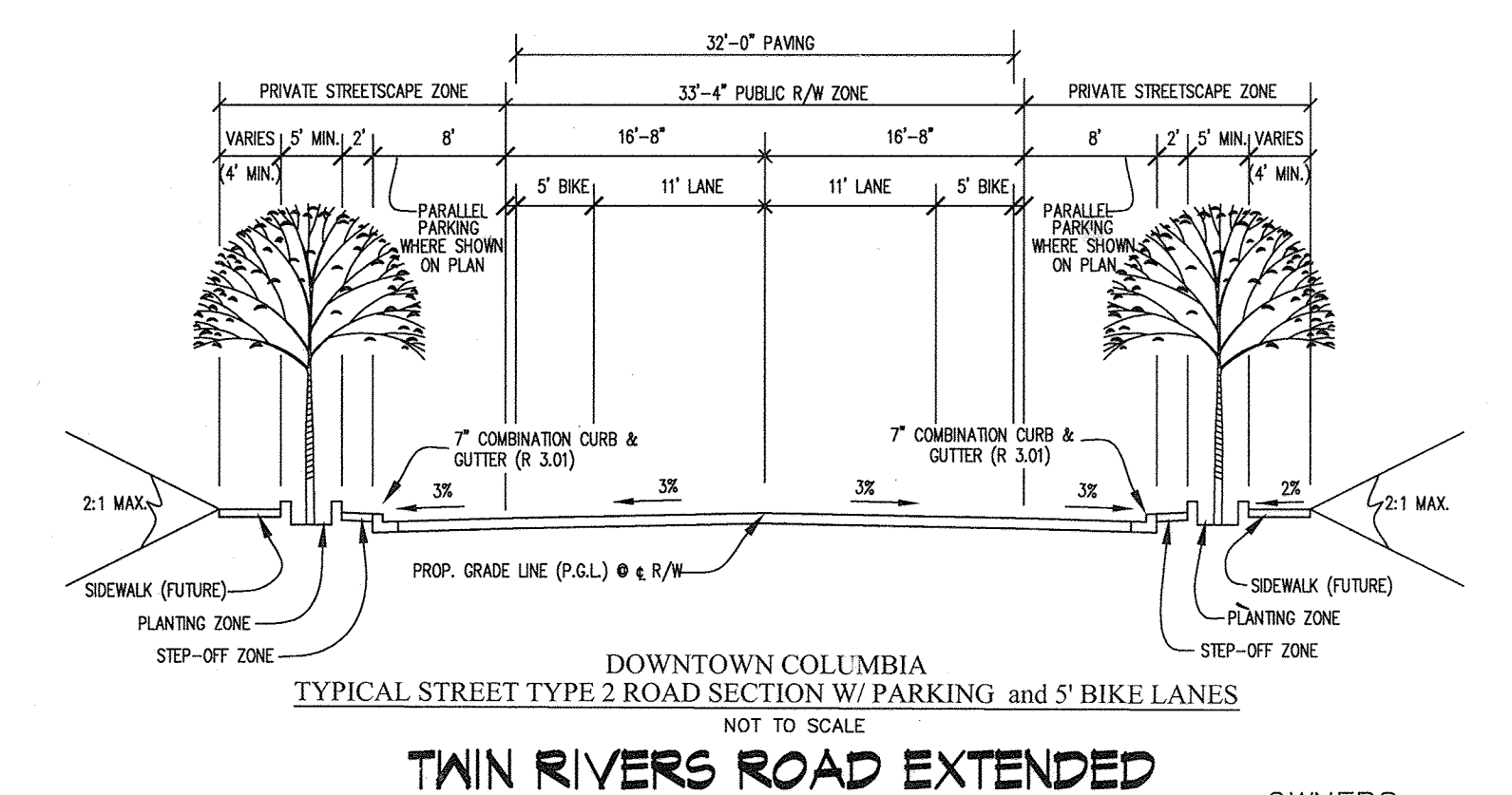
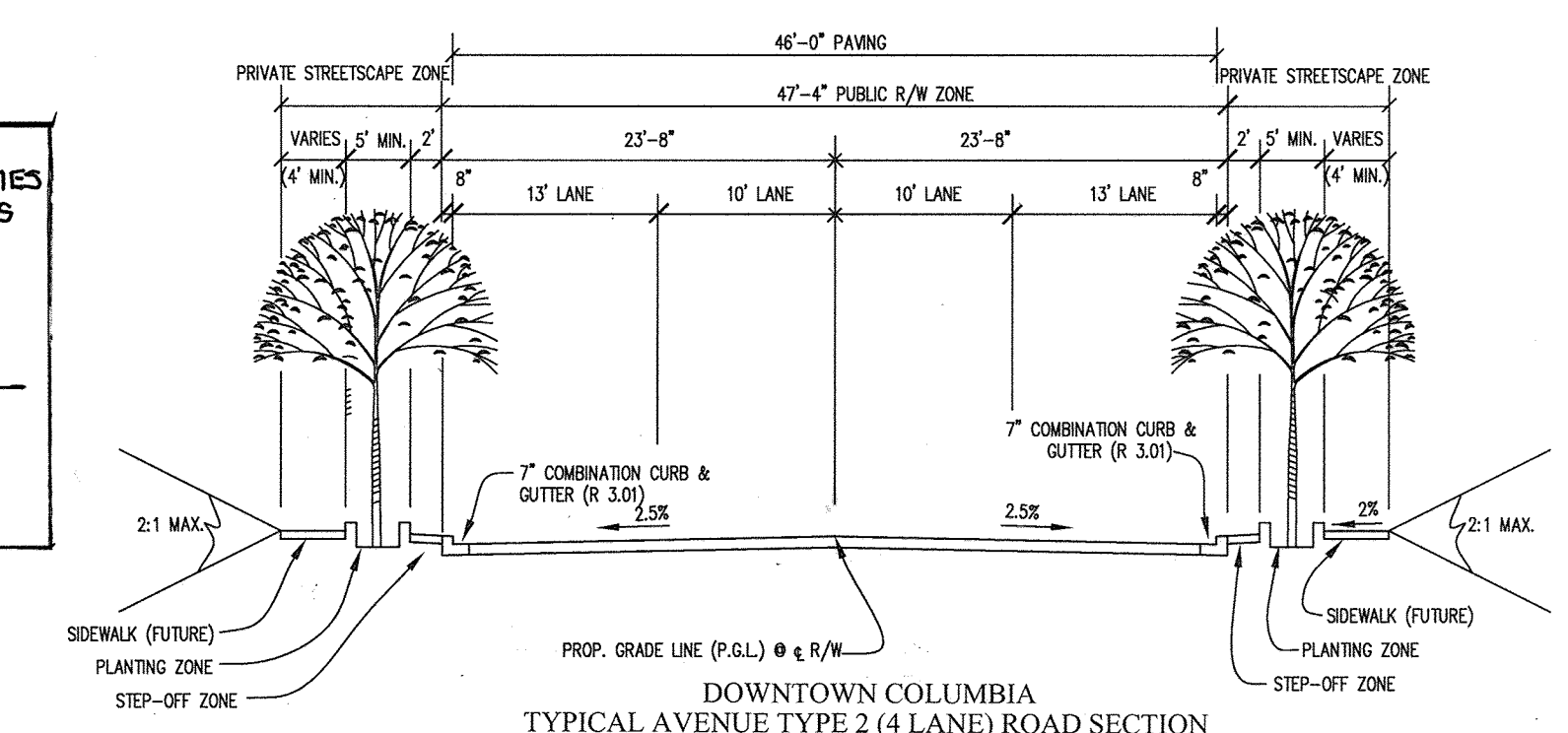
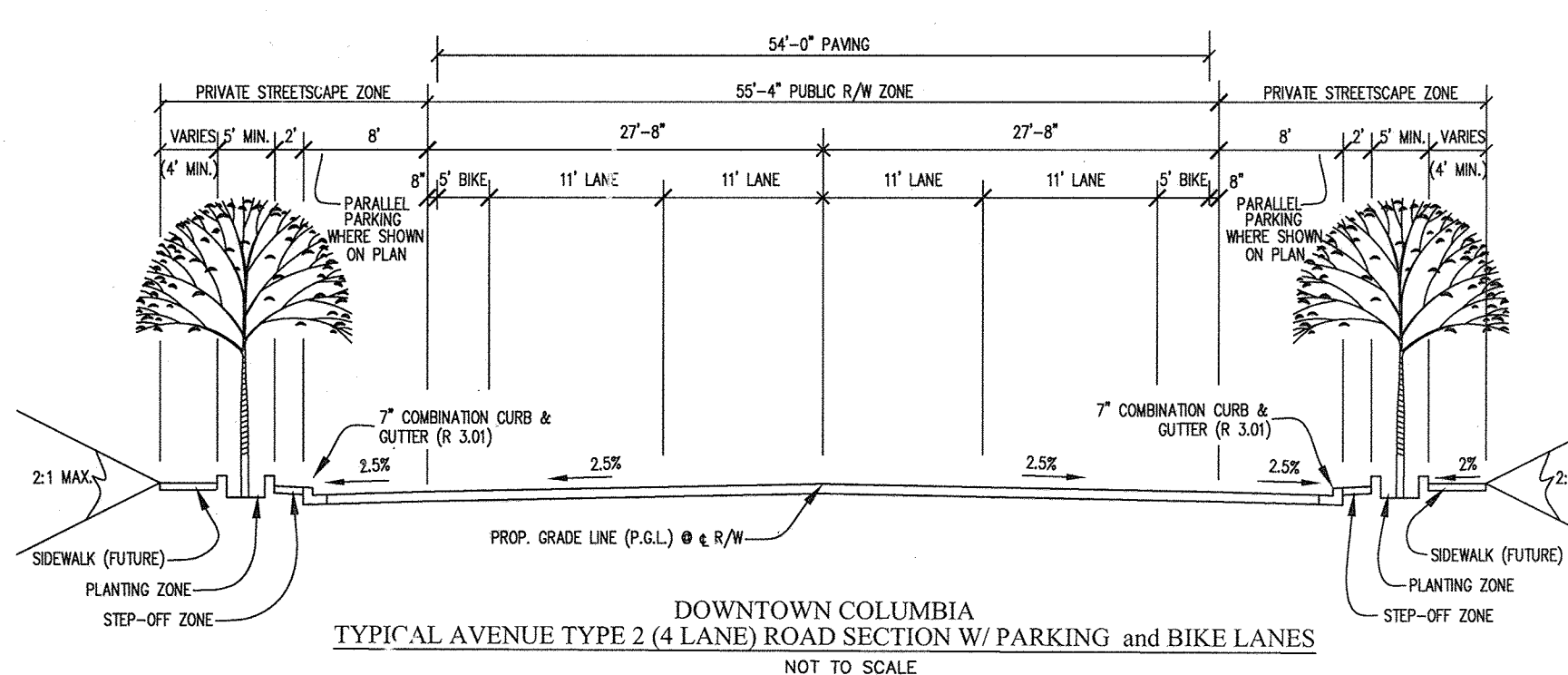
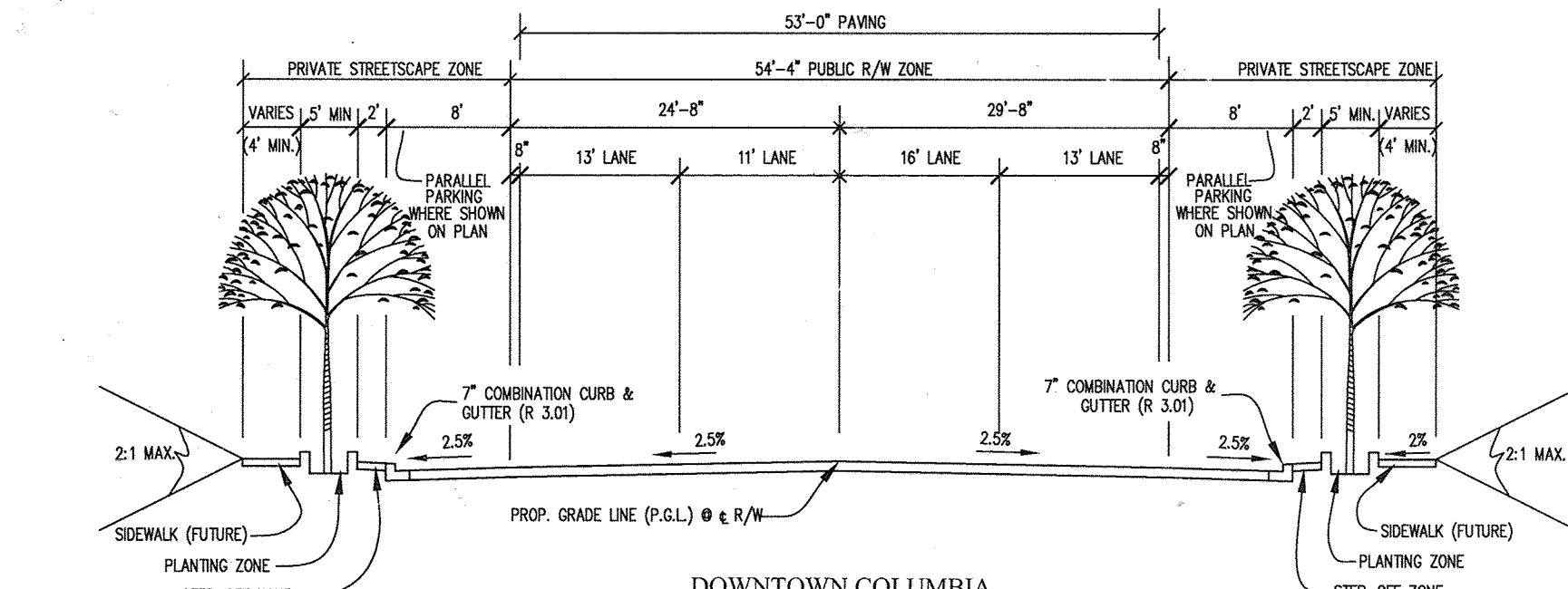
STREET NAME	P.C. STA.	P.C.C. STA.	P.T. STA.	RADIUS	ARC	TANGENT	CHORD	BEARING	DELTA
TWIN RIVERS ROAD	1+74.08	---	2+41.01	542.42'	73.00'	36.56'	12.95'	S. 10° 58' 04" E	15° 10' 48"
TWIN RIVERS ROAD	2+41.01	---	4+32.54	700.00'	184.92'	43.28'	184.92'	S. 82° 24' 36" E	07° 42' 16"

TWIN RIVERS ROAD AS-BUILT FLOWLINE ELEVATION TABLE SEE SHEET 3 OF 22

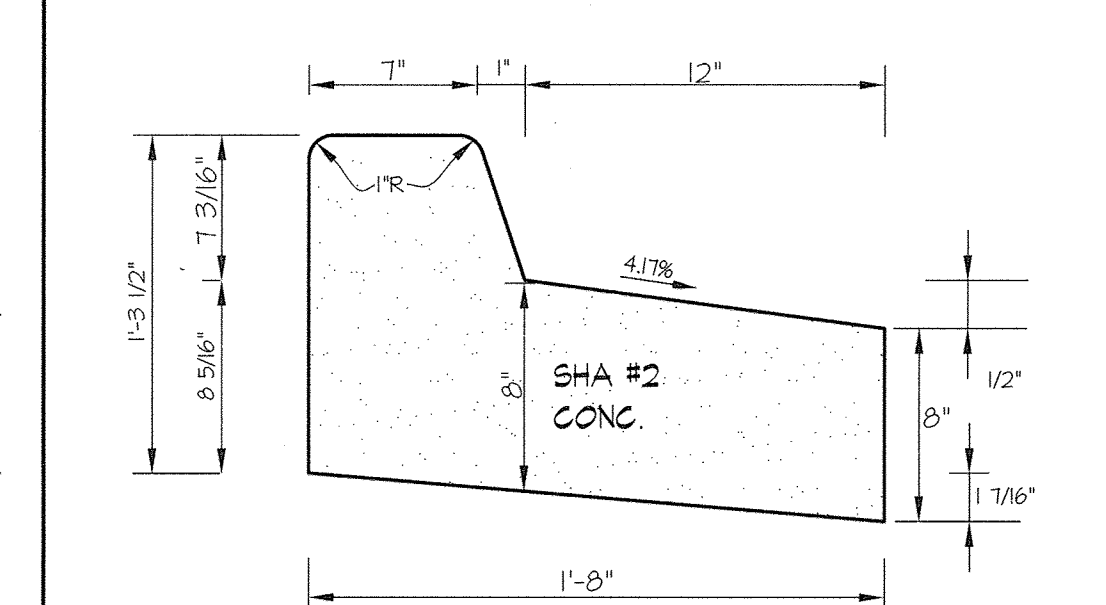
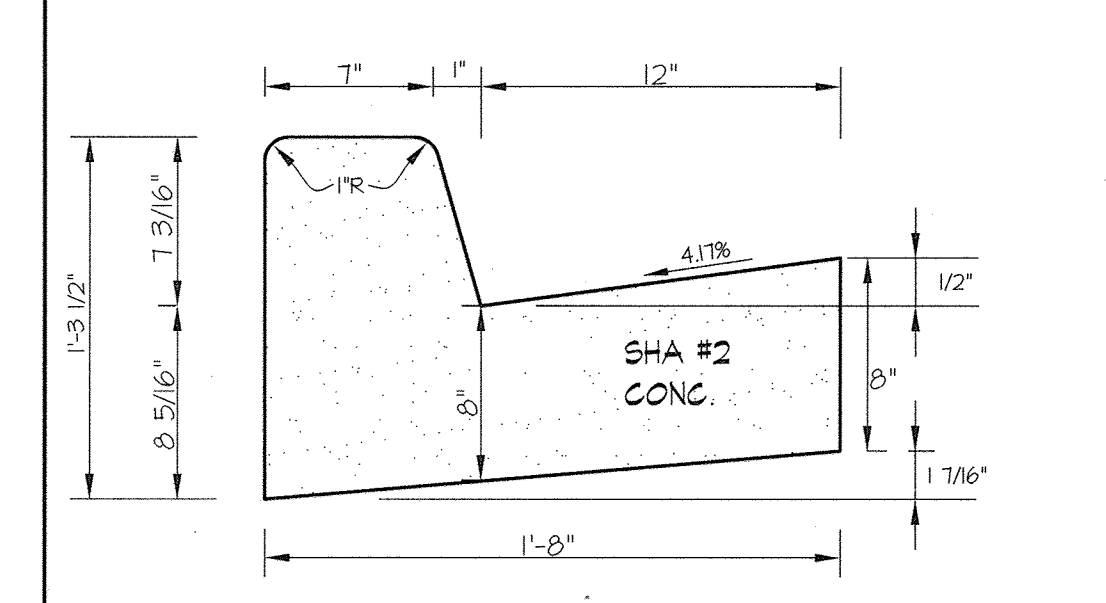


AS-BUILT CERTIFICATION
I HEREBY CERTIFY, BY SEAL, THAT THE FACILITIES SHOWN ON THIS PLAN WERE CONSTRUCTED AS SHOWN ON THIS PLAN MEETING THE CURRENT APPROVED PLANS AND SPECIFICATIONS.

G. Scott Shanabarger 4/3/19
G. SCOTT SHANABARGER
SHANABARGER & LANE
PROFESSIONAL LAND SURVEYORS
LICENSE EXPIRATION DATE 11/21/2026
AS-BUILT SURVEY DATE 1/27/2019

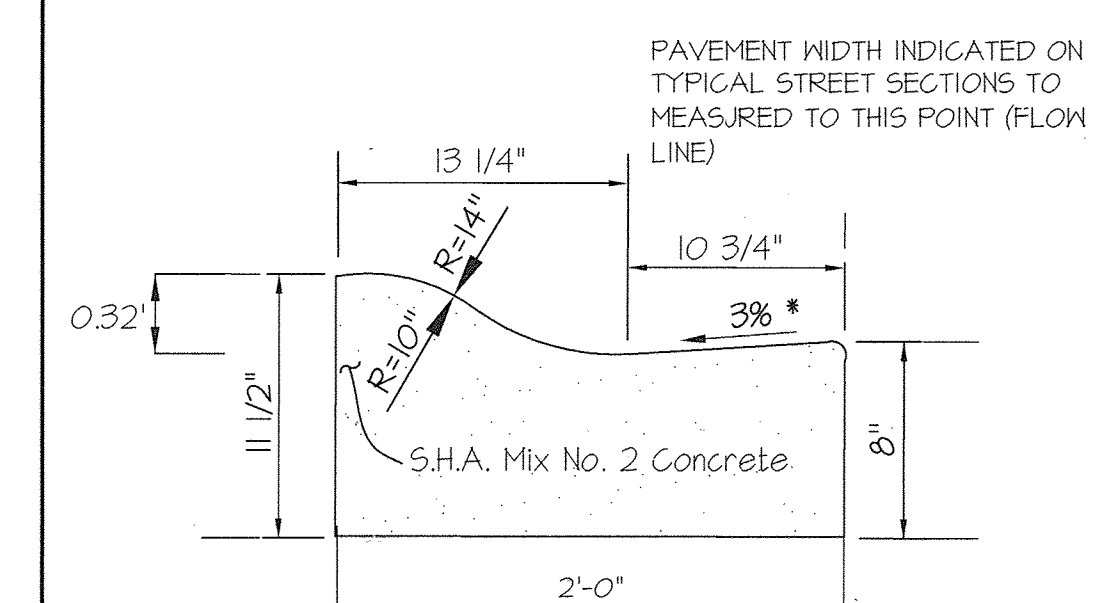


ROAD NAME	STATION	ROAD CLASSIFICATION	30 MPH	PAVING SECTION
TOWN CENTER AVENUE	0+36 TO 5+34.27	AVENUE TYPE 2	30 MPH	P-5
COLUMBIA MALL CIRCLE	7+32.26 TO 8+35.99	AVENUE TYPE 2	30 MPH	P-5
GRAMERCY PLACE	0+36 TO 6+04.44	AVENUE TYPE 2	30 MPH	P-5
TWIN RIVERS ROAD	0+36 TO 5+10.23	STREET TYPE 2	25 MPH	P-5



NOTES:

- 50' MAX. BETWEEN EXPANSION JOINTS & 10' MAX. BETWEEN CONTROL JOINTS.
- ALL ON-SITE CURB & GUTTER SHALL BE 6" HIGH.
- STANDARD CURB & GUTTER SHALL BE USED WHERE THE DRIVEWAY SLOPES TOWARDS THE CURB & GUTTER. REVERSE CURB & GUTTER SHALL BE USED WHERE THE DRIVEWAY SLOPES AWAY FROM THE CURB & GUTTER.
- PROVIDE A 5' TRANSITION TO OPEN SECTION.



NOTES:

- * 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.

OWNERS:

PARCELS C-1 THRU C-4 (OLD PARCEL C)
PARCEL C BUSINESS TRUST
c/o THE HOWARD HUGHES CORPORATION
10275 LITTLE PATUXENT PARKWAY
COLUMBIA, MD 21044

LOT 40
MALL ENTRANCES BUSINESS TRUST
PO BOX 617905
CHICAGO, IL 60661

PARCELS D-1 THRU D-4 (OLD PARCEL D)
PARCEL D PROPERTY LLC
c/o KETTLER
1751 PINNACLE DRIVE
SUITE 700
MCLEAN, VA 22101

LOT 47
MALL IN COLUMBIA BUSINESS TRUST
PO BOX 617905
CHICAGO, IL 60661

PARCEL E
CMI CORPORATE PARKING BUSINESS TRUST
PO BOX 833
COLUMBIA, MD 21044

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
PRIVATE ROADS, SD AND STORMWATER
Chief, Bureau of Highways Date

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
Neil Sh... 12-21-15
Chief, Division of Land Development Date

Chad Ed... 3-25-15
Chief, Development Engineering Division Date

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 FAX: 301-421-4186

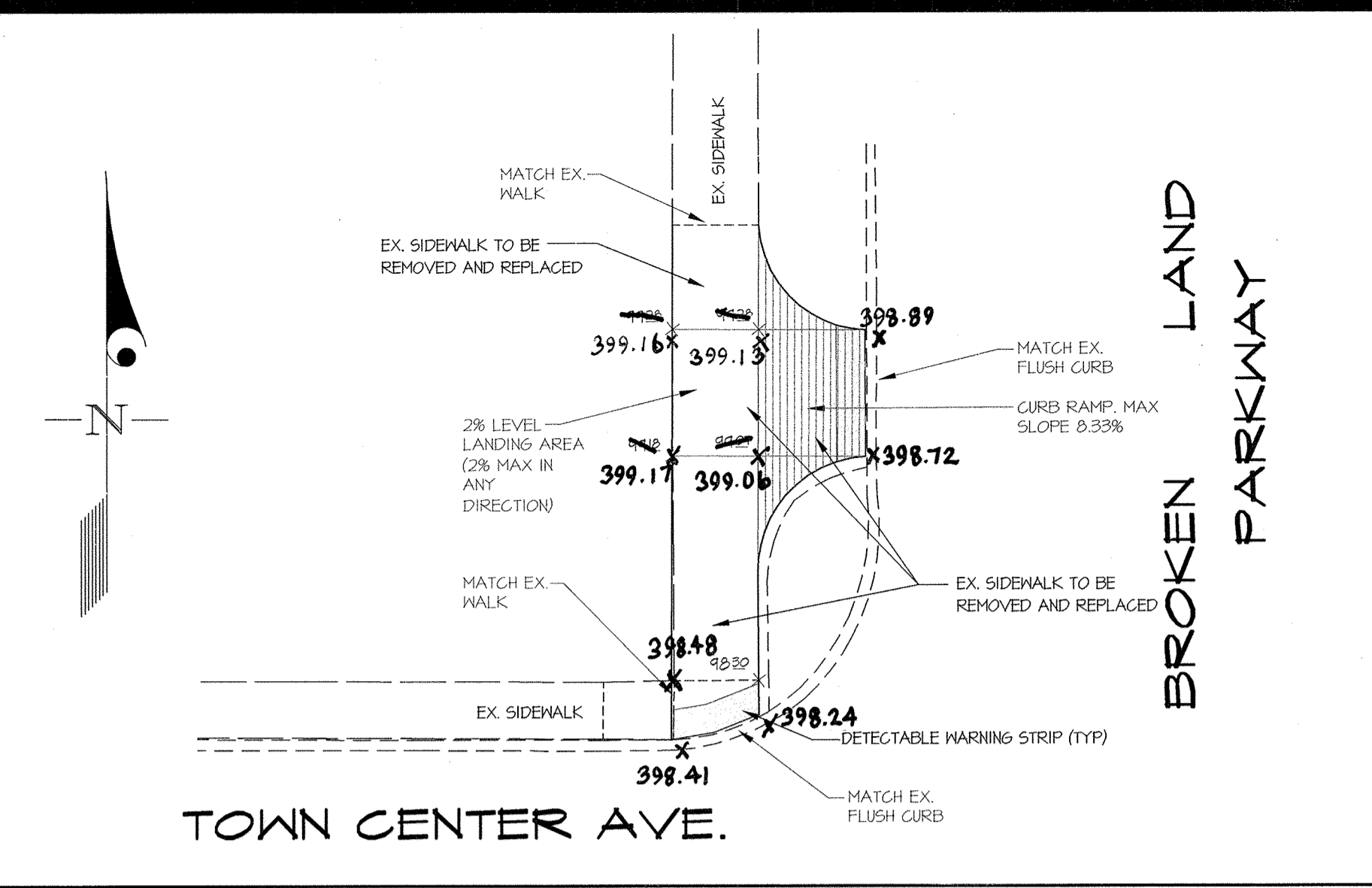
DATE	REVISION	BY	APP'R.
11/14/15	Revise loading and Parking Entrances	GL	
2/18/15	REVISE PLANTER LOCATIONS, ADD ON-STREET PARKING, ADD I-204	BT	

PREPARED FOR:
THE HOWARD HUGHES CORPORATION
10275 LITTLE PATUXENT PARKWAY
COLUMBIA, MARYLAND 21044
ATTN: BOB JENKINS
410-964-5443

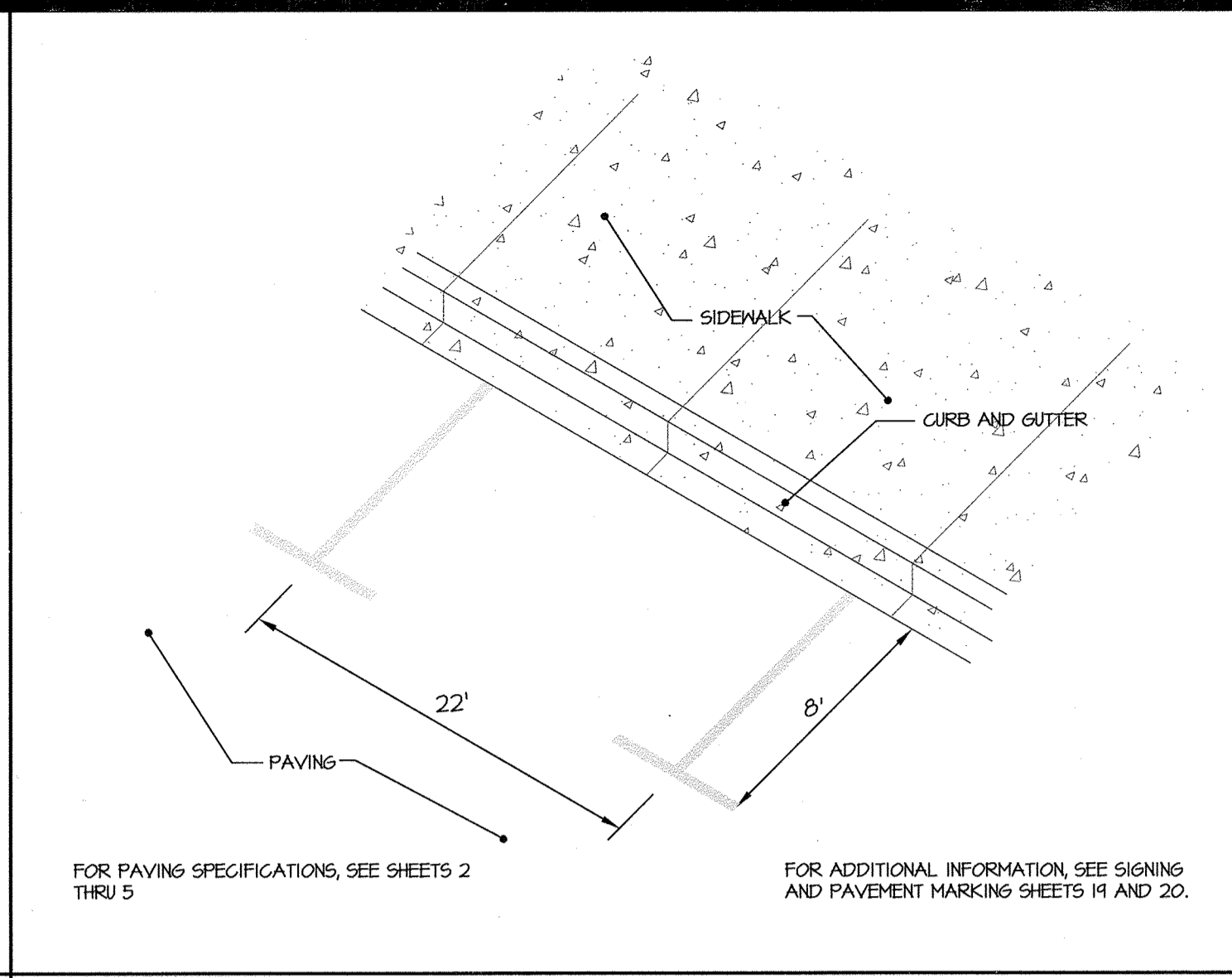
PROFESSIONAL CERTIFICATION
I HEREBY CERTIFY THAT THESE PLANS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 1683
EXPIRATION DATE: MAY 21, 2016

TWIN RIVERS ROAD EXTENDED PLAN & PROFILE
DOWNTOWN COLUMBIA
WARFIELD NEIGHBORHOOD
PARCELS C-1 THRU C-4 & PARCELS D-1 THRU D-4
COLUMBIA TOWN CENTER
LOTS 40 & 47 SECTION 2 AREA 1 & PARCEL E, SECTION 2 AREA 8
FDP-DC-WARFIELD-1

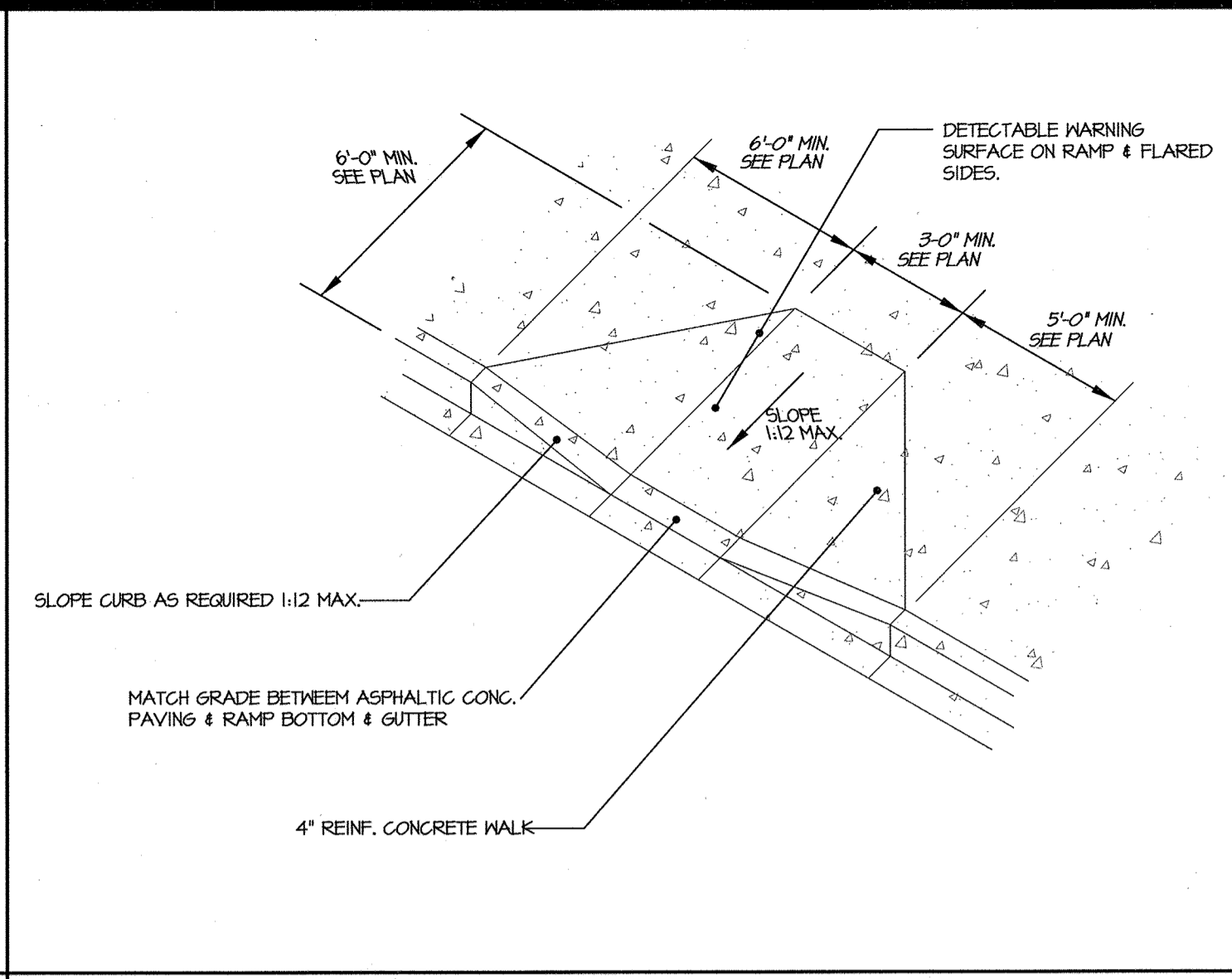
SCALE	ZONING	G. L. W. FILE NO.
AS SHOWN	NT	11053
DATE	TAX MAP - GRID	SHEET
FEB, 2015	36 - 01	4 OF 22



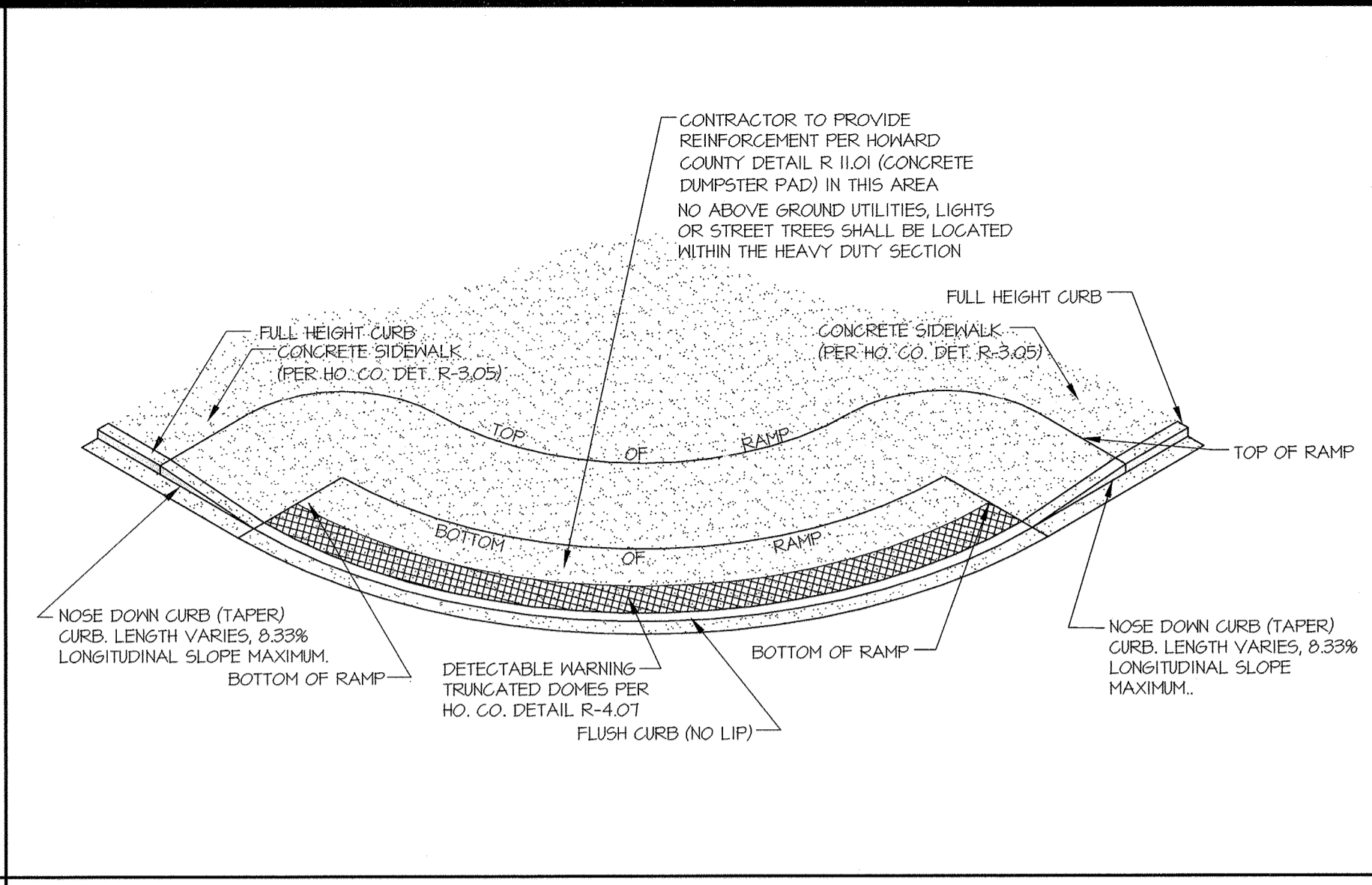
EX. RAMP REHABILITATION - NW QUADRANT, BROKEN LAND PARKWAY AT TOWN CENTER AVE. NOT TO SCALE



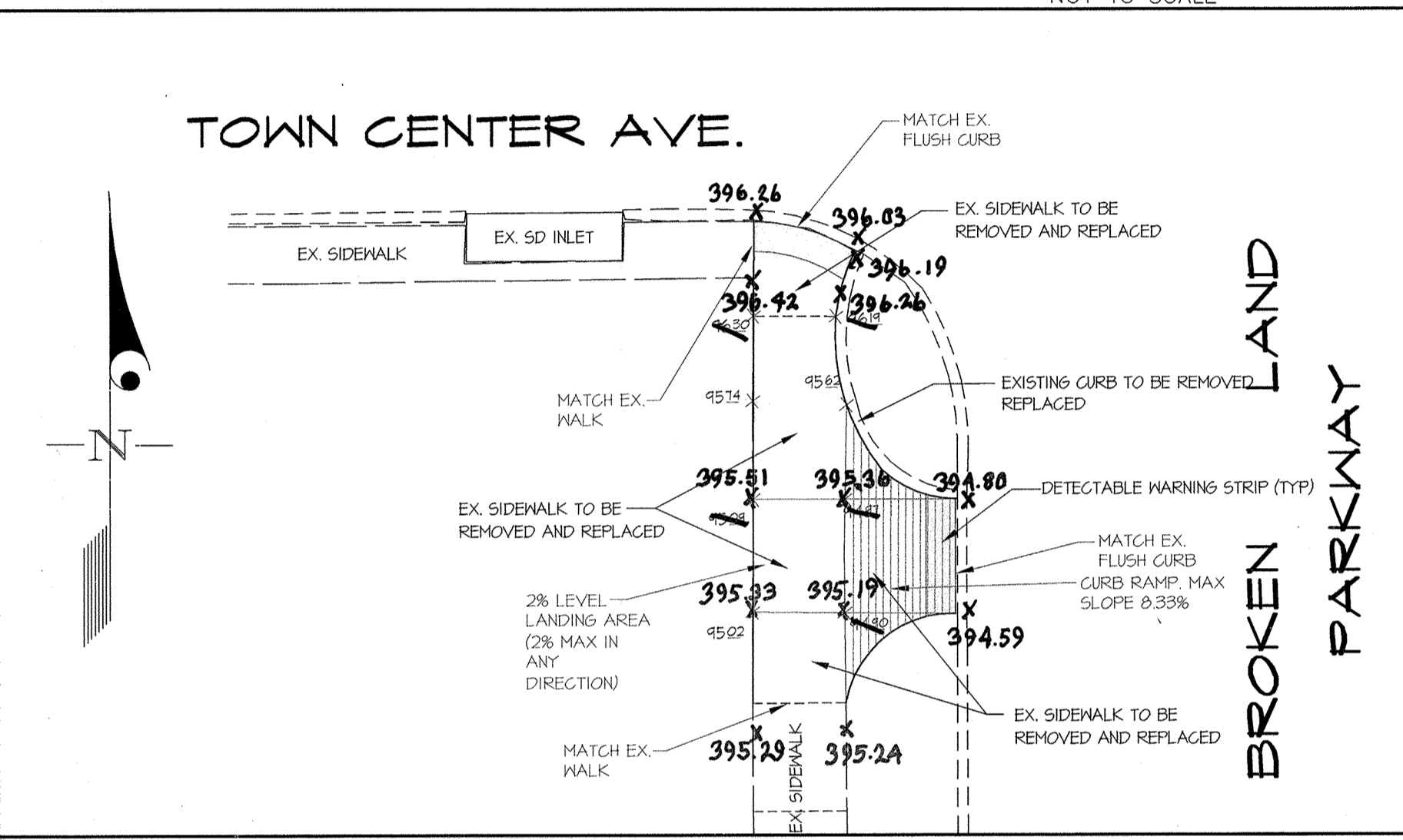
TYPICAL ON-STREET PARKING SPACE - PRIVATE NOT TO SCALE



TYPE-I CURB RAMP ALONG GRAMERCY PLACE ENTRANCE TO PARCEL D-1 NOT TO SCALE



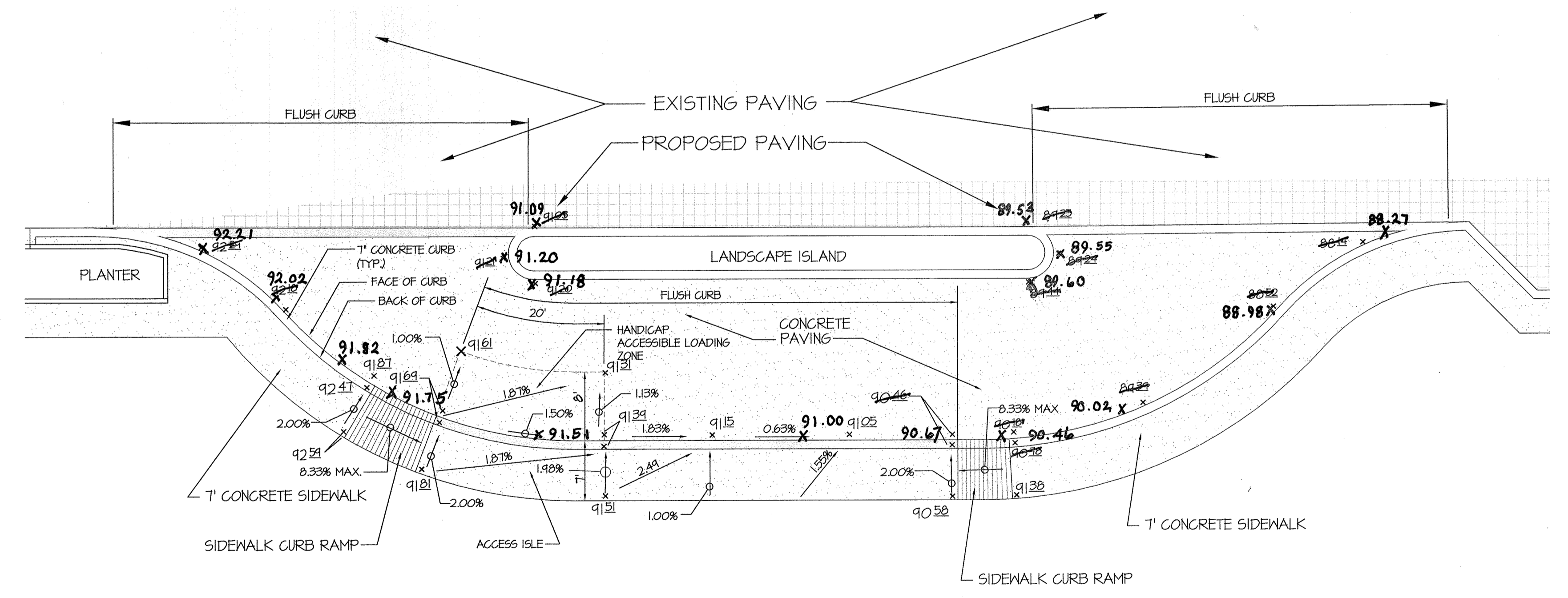
TYPICAL INTERSECTION RAMPING DETAIL - PRIVATE NOT TO SCALE



EX. RAMP REHABILITATION - SW QUADRANT, BROKENLAND PARKWAY AT TOWN CENTER AVE. NOT TO SCALE

HANDICAP ACCESSIBILITY NOTES:

1. MAXIMUM SIDEWALK CROSS SLOPE IS 2%.
2. A 5' X 5' MINIMUM LEVEL (2% LANDING IS REQUIRED AT THE TOP AND BOTTOM OF ALL RAMP. RAMP SLOPES GREATER THAN 5%.
3. MAXIMUM SLOPE IN ANY DIRECTION OF THE HANDICAP PARKING IS 2%.
4. DETECTABLE WARNINGS ARE REQUIRED ON ALL SIDEWALK RAMP IN THE COUNTY RIGHT-OF-WAY.
5. DETECTABLE WARNINGS ARE REQUIRED ON ALL SIDEWALKS WITHOUT CURB RAMP THAT TERMINATE AT FLUSH CURB FOR ROADWAYS.



PAVING AND HANDICAP ACCESSIBILITY DETAIL SCALE: 1"=10'

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
PRIVATE ROADS, SD AND STORMWATER
 Chief, Bureau of Highways Date

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
 Chief, Division of Land Development Date

Chief, Development Engineering Division Date

OWNERS:

PARCELS C-1 THRU C-4 (OLD PARCEL C)
 PARCEL C BUSINESS TRUST
 c/o THE HOWARD HUGHES CORPORATION
 10275 LITTLE PATUXENT PARKWAY
 COLUMBIA, MD 21044

LOT 40
 MALL ENTRANCES BUSINESS TRUST
 PO BOX 617905
 CHICAGO, IL 60661

LOT 47
 MALL IN COLUMBIA BUSINESS TRUST
 PO BOX 617905
 CHICAGO, IL 60661

PARCEL E
 CMI CORPORATE PARKING BUSINESS TRUST
 PO BOX 833
 COLUMBIA, MD 21044

AS-BUILT CERTIFICATION
 I HEREBY CERTIFY, BY SEAL, THAT THE FACILITIES SHOWN ON THIS PLAN WERE CONSTRUCTED AS SHOWN ON THIS PLAN MEET THE CURRENT APPROVED PLANS AND SPECIFICATIONS.

6. SCOTT SHANABARGER
 SHANABARGER & LANE
 PROFESSIONAL LAND SURVEYOR #10899
 LICENSE EXPIRATION DATE 4/12/2020
 AS-BUILT SURVEY DATE 7/27/2018

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: 410-860-1020 DC/VA: 301-989-2524 FAX: 301-421-4186

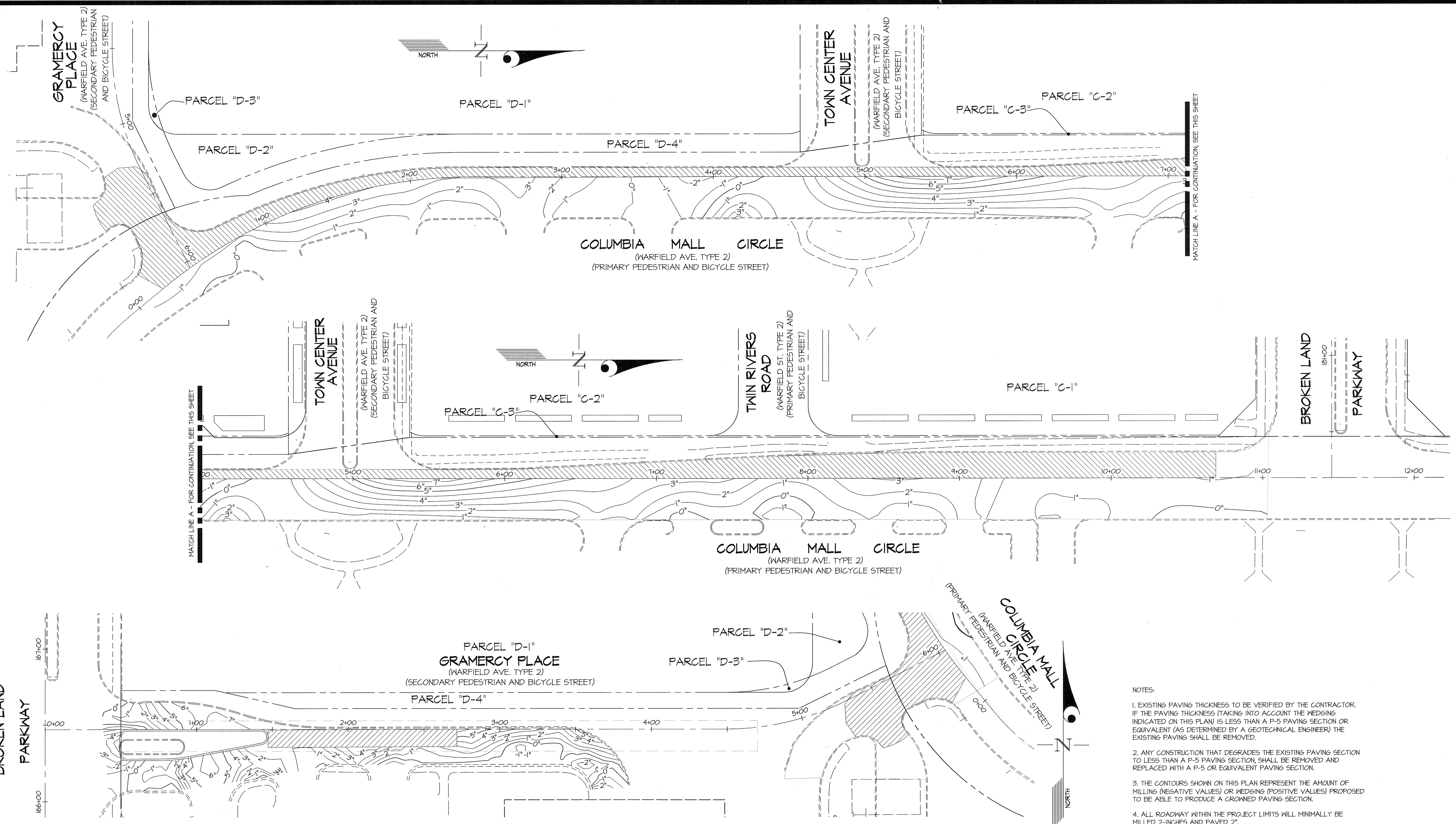
DATE	REVISION	BY	APP'R.

PREPARED FOR:
 THE HOWARD HUGHES CORPORATION
 10275 LITTLE PATUXENT PARKWAY
 COLUMBIA, MARYLAND 21044
 ATTN: BOB JENKINS
 410-964-5443

PROFESSIONAL CERTIFICATION
 I HEREBY CERTIFY THAT THESE PLANS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.
 LICENSE NO. 14931
 EXPIRATION DATE: MAY 21, 2014

PAVING DETAILS
DOWNTOWN COLUMBIA
 WARFIELD NEIGHBORHOOD
 PARCELS C-1 THRU C-4 & PARCELS D-1 THRU D-4
 COLUMBIA TOWN CENTER
 LOTS 40 & 47 SECTION 2 AREA 1 & PARCEL E, SECTION 2 AREA 8
 FDP-DC-WARFIELD-1
 HOWARD COUNTY, MARYLAND

SCALE	ZONING	G. L. W. FILE No.
AS SHOWN	NT	11053
DATE	TAX MAP - GRID	SHEET
MAR., 2013	36 - 01	5 OF 22



MATCH LINE A - FOR CONTINUATION SEE THIS SHEET

MATCH LINE A - FOR CONTINUATION SEE THIS SHEET

- NOTES:
- EXISTING PAVING THICKNESS TO BE VERIFIED BY THE CONTRACTOR. IF THE PAVING THICKNESS (TAKING INTO ACCOUNT THE WEDGING INDICATED ON THIS PLAN) IS LESS THAN A P-5 PAVING SECTION OR EQUIVALENT (AS DETERMINED BY A GEOTECHNICAL ENGINEER) THE EXISTING PAVING SHALL BE REMOVED.
 - ANY CONSTRUCTION THAT DEGRADES THE EXISTING PAVING SECTION TO LESS THAN A P-5 PAVING SECTION, SHALL BE REMOVED AND REPLACED WITH A P-5 OR EQUIVALENT PAVING SECTION.
 - THE CONTOURS SHOWN ON THIS PLAN REPRESENT THE AMOUNT OF MILLING (NEGATIVE VALUES) OR WEDGING (POSITIVE VALUES) PROPOSED TO BE ABLE TO PRODUCE A CROWNED PAVING SECTION.
 - ALL ROADWAY WITHIN THE PROJECT LIMITS WILL MINIMALLY BE MILLED 2-INCHES AND PAVED 2".

OWNERS:

PARCELS C-1 THRU C-4 (OLD PARCEL C)
 PARCEL C BUSINESS TRUST
 c/o THE HOWARD HUGHES CORPORATION
 10275 LITTLE PATUXENT PARKWAY
 COLUMBIA, MD 21044

PARCELS D-1 THRU D-4 (OLD PARCEL D)
 PARCEL D PROPERTY LLC
 c/o KETTLER
 1751 PINNACLE DRIVE
 SUITE 700
 MCLEAN, VA 22101

LOT 40
 MALL ENTRANCES BUSINESS TRUST
 PO BOX 617905
 CHICAGO, IL 60661

LOT 47
 MALL IN COLUMBIA BUSINESS TRUST
 PO BOX 617905
 CHICAGO, IL 60661

PARCEL E
 CMI CORPORATE PARKING BUSINESS TRUST
 PO BOX 833
 COLUMBIA, MD 21044

LEGEND

PAVING TO BE REMOVED

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
PRIVATE ROADS, SD AND STORMWATER
 Chief, Bureau of Highways Date

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
 Chief, Division of Land Development Date
 Chief, Development Engineering Division Date

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 BAL: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186

PREPARED FOR:
 THE HOWARD HUGHES CORPORATION
 10275 LITTLE PATUXENT PARKWAY
 COLUMBIA, MARYLAND 21044
 ATTN: BOB JENKINS
 410-964-5443

PROFESSIONAL CERTIFICATION
 I HEREBY CERTIFY THAT THESE PLANS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.
 LICENSE NO. 19937
 EXPIRATION DATE: MAY 21, 2014

PAVING REHABILITATION PLAN
DOWNTOWN COLUMBIA
WARFIELD NEIGHBORHOOD
 PARCELS C-1 THRU C-4 & PARCELS D-1 THRU D-4
COLUMBIA TOWN CENTER
 LOTS 40 & 47 SECTION 2 AREA 1 & PARCEL E, SECTION 2 AREA 8
 FDP-DC-WARFIELD-1
 HOWARD COUNTY, MARYLAND

SCALE	ZONING	G. L. W. FILE No.
1"=30'	NT	11053
DATE	TAX MAP - GRID	SHEET
MAR., 2013	36 - 01	6 OF 22

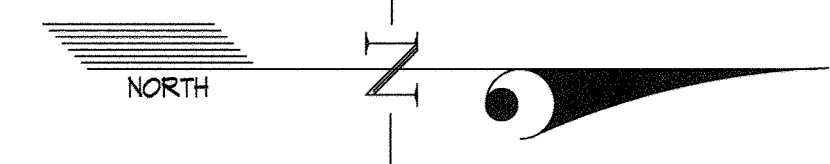
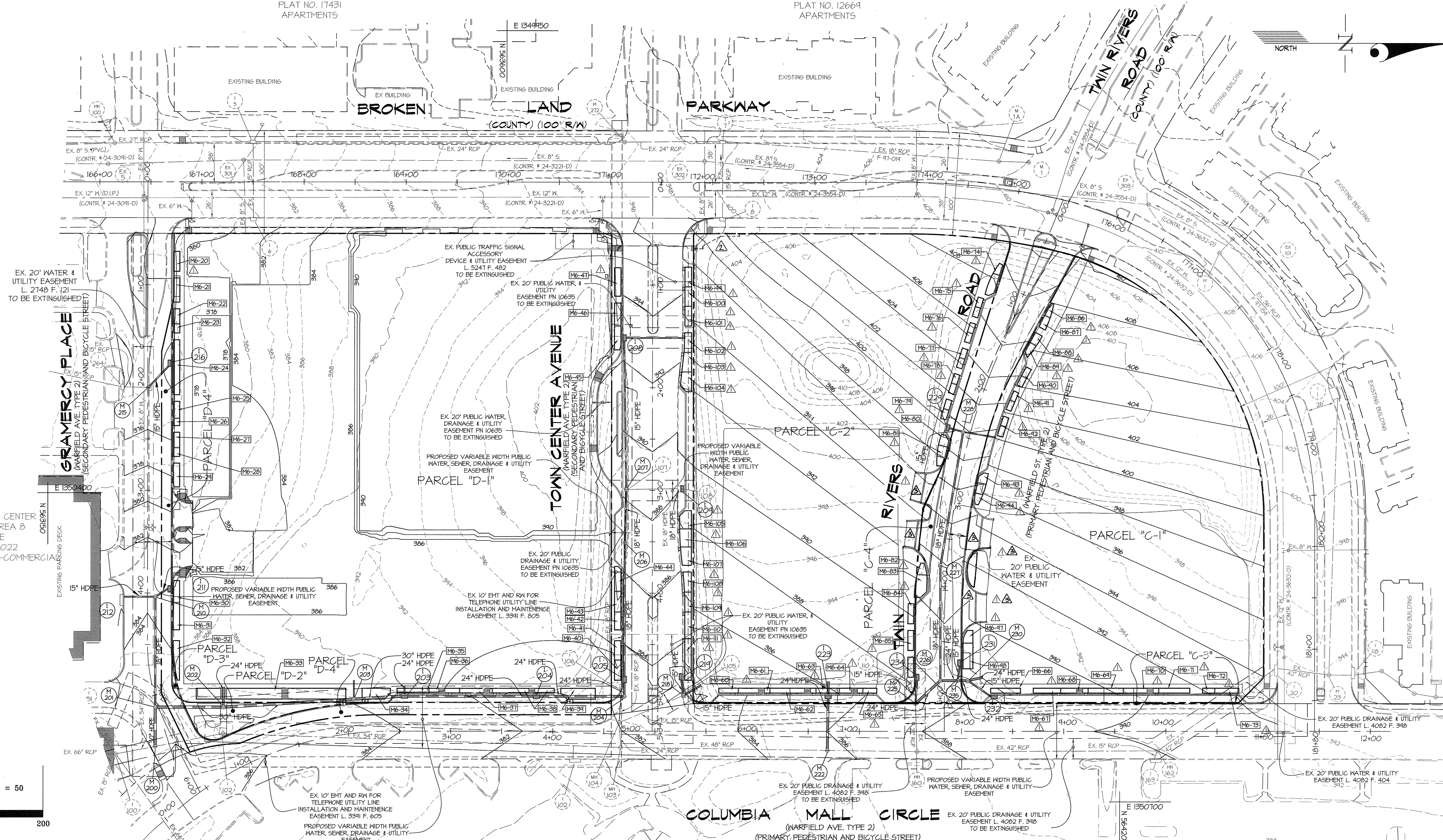
NOTE: THERE IS NO AS-BUILT INFORMATION PROVIDED ON THIS SHEET.

Scott Shanaberger
 G. SCOTT SHANABERGER
 SHANABERGER & LANE
 PROFESSIONAL L.S. #10849 Exp. Date 4/2/2018
 AS-BUILT DATE 7/21/2013

L:\CADD\DRAWINGS\11053\PLANS BY QMW\11053-F-06.dwg DES. MJT DRN. WsdJ CHK. MJT DATE REVISION BY APPR.

COLUMBIA TOWN CENTER
SECTION 2, AREA 1
PARCEL A
PLAT NO. 17431
APARTMENTS

COLUMBIA TOWN CENTER
SECTION 2, AREA 1
PARCEL B
PLAT NO. 12669
APARTMENTS

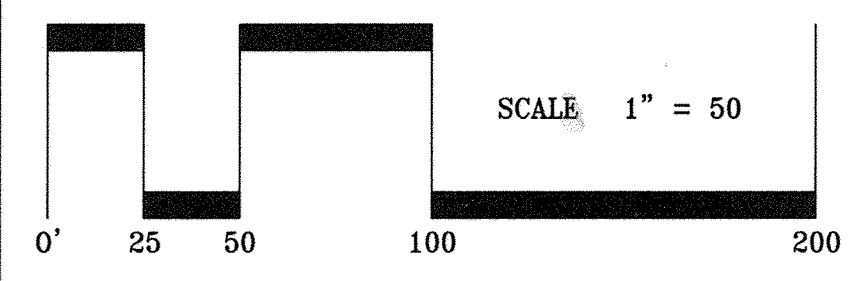


EX. 20' WATER & UTILITY EASEMENT L. 2149 F. 121 TO BE EXTINGUISHED

GRAMERCY PLACE
(WARFIELD AVE. TYPE 2)
(SECONDARY PEDESTRIAN AND BICYCLE STREET)

COLUMBIA TOWN CENTER
SECTION 2, AREA 8
PARCEL E
PLAT NO. 14022
EMPLOYMENT CENTER-COMMERCIAL

COLUMBIA TOWN CENTER
SECTION 2, AREA 8
PARCEL B
PLAT NO. 14639
SINGLE FAMILY ATTACHED



OWNERS:

- PARCELS C-1 THRU C-4 (OLD PARCEL C)
PARCEL C BUSINESS TRUST
c/o THE HOWARD HUGHES CORPORATION
10275 LITTLE PATUXENT PARKWAY
COLUMBIA, MD 21044
- LOT 40
MALL ENTRANCES BUSINESS TRUST
PO BOX 617905
CHICAGO, IL 60661
- PARCELS D-1 THRU D-4 (OLD PARCEL D)
PARCEL D PROPERTY LLC
c/o KETTLER
1751 PINNACLE DRIVE
SUITE 700
MCLEAN, VA 22101
- LOT 47
MALL IN COLUMBIA BUSINESS TRUST
PO BOX 617905
CHICAGO, IL 60661
- PARCEL E
CMI CORPORATE PARKING BUSINESS TRUST
PO BOX 833
COLUMBIA, MD 21044

COLUMBIA TOWN CENTER
SECTION 2, AREA 1
LOT 47
PLAT NO. 18607
COMMERCIAL

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
PRIVATE ROADS, SD AND STORMWATER
Chief, Bureau of Highways _____ Date _____

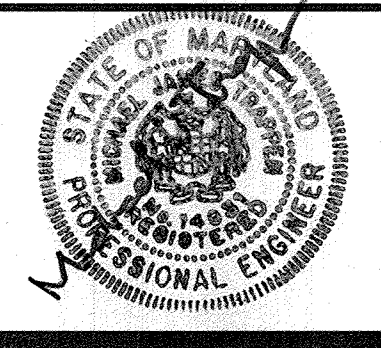
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
John S. ... 12-21-15
Chief, Division of Land Development
Ed Edman 3-25-15
Chief, Development Engineering Division

GLWGUTSCHICK LITTLE & WEBER, PA.
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	APPR.
12.14.15	Revised Loading and Parking Entrances		JT
02.02.16	Revised Traffic Signal Easement NE Quadrant		JT
2/16/15	REVISE PLANTER LOCATIONS, ADD ON-STREET PARKING, ADD I-204		BTS

PREPARED FOR:
THE HOWARD HUGHES CORPORATION
10275 LITTLE PATUXENT PARKWAY
COLUMBIA, MARYLAND 21044
ATTN: BOB JENKINS
410-964-5443

PROFESSIONAL CERTIFICATION
I HEREBY CERTIFY THAT THESE PLANS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 14631
EXPIRATION DATE: MAY 21, 2016



REVISED
GRADING PLAN
DOWNTOWN COLUMBIA
WARFIELD NEIGHBORHOOD
PARCELS C-1 THRU C-4 & PARCELS D-1 THRU D-4
COLUMBIA TOWN CENTER
LOTS 40 & 47 SECTION 2 AREA 1 & PARCEL E, SECTION 2 AREA 8
FDP-DC-WARFIELD-1
ELECTION DISTRICT No. 5

NOTE: THERE IS NO AS-BUILT INFORMATION PROVIDED ON THIS PLAN.
G. Scott Shanaberger
G. SCOTT SHANABERGER
SHANABERGER & LANE
Professional L.S. #14631 Exp. Date 4/22/2016
AS-BUILT DATE: 7/27/2016

SCALE	ZONING	G. L. W. FILE NO.
1"=50'	NT	11053
DATE	TAX MAP - GRID	SHEET
FEB, 2015	36 - 01	7 OF 22

L:\CAD\DRAWINGS\11053\PLANS BY GUY\PLANS\11053-F-07.dwg PLOTTED: 2/19/2015 7:48 AM, LAST SAVED: 2/19/2015 7:47 AM, PLOTTED BY: Mike Toopson

- LEGEND**
- SSF PROPOSED SUPER SILT FENCE
 - LOD LIMITS OF DISTURBANCE/LOD
 - SCF STABILIZED CONSTRUCTION ENTRANCE
 - ED A-2(II) PROPOSED EARTH DIKE
 - T5 A-2(II) PROPOSED TEMPORARY SNAKE
 - CIP PROPOSED INLET PROTECTION
 - EXIST. SEC. DRAINAGE DIVIDE
 - PROP. SEC. DRAINAGE DIVIDE
 - SOILS BOUNDARY

MAX DRAINAGE AREA TO SUPER SILT FENCE = 0.12 AC

MAX DRAINAGE AREA TO INLET PROTECTION = 0.12 AC

SEDIMENT TRAP 'D-2' DATA TABLE

STONE OUTLET SEDIMENT TRAP

WORST CASE EXISTING DRAINAGE AREA : 3.2 AC
INTERIM DRAINAGE AREA : 2.5 AC

NET STORAGE VOL. REQUIRED : 0.16 AC-FT
NET STORAGE VOL. PROVIDED : 0.28 AC-FT
NET STORAGE ELEV. : 375.00
DRY STORAGE REQUIRED : 0.16 AC-FT
DRY STORAGE PROVIDED : 0.41 AC-FT
DRY STORAGE WEEL : 378.00
EXISTING Q-TYR : 10.69 cfs
INTERIM Q-TYR : 0 cfs
SAFE PASS OF 10-YR STORM PROVIDED
Q₀ = 22.69 cfs
10-YR WEEL = 376.42 ft.
BOTTOM ELEVATION : 373.00
TOP OF EMBANKMENT : 374.00
WEIR CREST ELEVATION : 378.00
WEIR LENGTH : 16.5'

EMERGENCY SPILLWAY ELEV. : NONE
CLEANOUT ELEVATION : 374.00
EMBANKMENT TOP WIDTH : 4'
SIDE SLOPES : 2:1 INTERIOR - 2:1 EXTERIOR

MAX DRAINAGE AREA TO SUPER SILT FENCE = 0.08 AC

SEDIMENT TRAP 'D-1' DATA TABLE

STONE OUTLET SEDIMENT TRAP

WORST CASE EXISTING DRAINAGE AREA : 0.7 AC
INTERIM DRAINAGE AREA : 0.0 AC

NET STORAGE VOL. REQUIRED : 0.04 AC-FT
NET STORAGE VOL. PROVIDED : 0.04 AC-FT
NET STORAGE ELEV. : 380.20
DRY STORAGE REQUIRED : 0.04 AC-FT
DRY STORAGE PROVIDED : 0.11 AC-FT
DRY STORAGE WEEL : 384.5

BOTTOM ELEVATION : 378.5
TOP OF EMBANKMENT : 385.5
WEIR CREST ELEVATION : 384.5
WEIR LENGTH : 4.0'

EMERGENCY SPILLWAY ELEV. : NONE
CLEANOUT ELEVATION : 380.20
EMBANKMENT TOP WIDTH : 4'
SIDE SLOPES : 2:1 INTERIOR - 2:1 EXTERIOR

MAX DRAINAGE AREA TO SUPER SILT FENCE = 0.17 AC

SEDIMENT TRAP 'D-3' DATA TABLE

STONE OUTLET SEDIMENT TRAP

EXISTING DRAINAGE AREA : 1.2 AC
WORST CASE INTERIM DRAINAGE AREA : 2.0 AC

NET STORAGE VOL. REQUIRED : 0.08 AC-FT
NET STORAGE VOL. PROVIDED : 0.11 AC-FT
NET STORAGE ELEV. : 383.5
DRY STORAGE REQUIRED : 0.08 AC-FT
DRY STORAGE PROVIDED : 0.21 AC-FT
DRY STORAGE WEEL : 385.5
EXISTING Q-TYR : 4.4 cfs
INTERIM Q-TYR : 0 cfs
SAFE PASS OF 10-YR STORM PROVIDED
Q₀ = 11.1 cfs
10-YR WEEL = 385.84 ft.
BOTTOM ELEVATION : 382.0
TOP OF EMBANKMENT : 382.5
WEIR CREST ELEVATION : 384.5
WEIR LENGTH : 16.5'

EMERGENCY SPILLWAY ELEV. : NONE
CLEANOUT ELEVATION : 381.5
EMBANKMENT TOP WIDTH : 4'
SIDE SLOPES : 2:1 INTERIOR - 2:1 EXTERIOR

MAX DRAINAGE AREA TO SUPER SILT FENCE = 0.16 AC

SEDIMENT TRAP 'C-1' DATA TABLE

STONE OUTLET SEDIMENT TRAP

WORST CASE EXISTING DRAINAGE AREA : 5.6 AC
INTERIM DRAINAGE AREA : 5.2 AC

NET STORAGE VOL. REQUIRED : 0.28 AC-FT
NET STORAGE VOL. PROVIDED : 0.50 AC-FT
NET STORAGE ELEV. : 383.5
DRY STORAGE REQUIRED : 0.28 AC-FT
DRY STORAGE PROVIDED : 0.72 AC-FT
DRY STORAGE WEEL : 385.5
EXISTING Q-TYR : 11.66 cfs
INTERIM Q-TYR : 0 cfs
SAFE PASS OF 10-YR STORM PROVIDED
Q₀ = 31.09 cfs
10-YR WEEL = 385.84 ft.
BOTTOM ELEVATION : 382.00
TOP OF EMBANKMENT : 382.5
WEIR CREST ELEVATION : 385.5
WEIR LENGTH : 22.5'

EMERGENCY SPILLWAY ELEV. : NONE
CLEANOUT ELEVATION : 382.75
EMBANKMENT TOP WIDTH : 4'
SIDE SLOPES : 2:1 INTERIOR - 2:1 EXTERIOR

MAX DRAINAGE AREA TO SUPER SILT FENCE = 0.41 AC

SEDIMENT TRAP 'C-1' DATA TABLE

STONE OUTLET SEDIMENT TRAP

WORST CASE EXISTING DRAINAGE AREA : 5.6 AC
INTERIM DRAINAGE AREA : 5.2 AC

NET STORAGE VOL. REQUIRED : 0.28 AC-FT
NET STORAGE VOL. PROVIDED : 0.50 AC-FT
NET STORAGE ELEV. : 383.5
DRY STORAGE REQUIRED : 0.28 AC-FT
DRY STORAGE PROVIDED : 0.72 AC-FT
DRY STORAGE WEEL : 385.5
EXISTING Q-TYR : 11.66 cfs
INTERIM Q-TYR : 0 cfs
SAFE PASS OF 10-YR STORM PROVIDED
Q₀ = 31.09 cfs
10-YR WEEL = 385.84 ft.
BOTTOM ELEVATION : 382.00
TOP OF EMBANKMENT : 382.5
WEIR CREST ELEVATION : 385.5
WEIR LENGTH : 22.5'

EMERGENCY SPILLWAY ELEV. : NONE
CLEANOUT ELEVATION : 382.75
EMBANKMENT TOP WIDTH : 4'
SIDE SLOPES : 2:1 INTERIOR - 2:1 EXTERIOR

MAX DRAINAGE AREA TO SUPER SILT FENCE = 0.06 AC

OWNERS:

PARCELS C-1 THRU C-4 (OLD PARCEL C)
PARCEL C BUSINESS TRUST
c/o THE HOWARD HUGHES CORPORATION
10275 LITTLE PATUXENT PARKWAY
COLUMBIA, MD 21044

LOT 40
MALL ENTRANCES BUSINESS TRUST
PO BOX 617905
CHICAGO, IL 60661

LOT 47
MALL IN COLUMBIA BUSINESS TRUST
PO BOX 617905
CHICAGO, IL 60661

PARCEL E
CMI CORPORATE PARKING BUSINESS TRUST
PO BOX 833
COLUMBIA, MD 21044

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

PRIVATE ROADS, SD AND STORMWATER

Chief, Bureau of Highways

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

Chief, Division of Land Development

Chief, Development Engineering Division

GLW GUTSCHICK LITTLE & WEBER, P.A.

CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS

3909 NATIONAL DRIVE - SUITE 250 - BURTNSVILLE OFFICE PARK
BURTNSVILLE, MARYLAND 20866

TEL: 301-421-4024 BALT: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186

DATE	REVISION	BY	APP'R.
11.14.15	Revise Loading and Parking Entrances		
7.30.15	Revise Traffic Signal Elevation Quadrant		
2/18/15	REVISE PLANTER LOCATIONS, ADD ON-STREET PARKING, ADD I-204		

NOTE: THERE IS NO AS-BUILT INFORMATION PROVIDED ON THIS SHEET

G. SCOTT SHANBERGER
Professional L.S. #19549 Exp. Date: 4/22/2025
AS-BUILT DATE: 7/27/2018

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

John S. C.D. 2/26/15
Date

ENGINEER'S CERTIFICATE

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

Michael J. Trapp 2/18/15
ENGINEER'S SIGNATURE DATE

DEVELOPER'S/BUILDER'S CERTIFICATE

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

Robert G. Jenkin 2/17/15
SIGNATURE OF DEVELOPER/BUILDER DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

Chief, Bureau of Highways

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

Chief, Division of Land Development

Chief, Development Engineering Division

GLW GUTSCHICK LITTLE & WEBER, P.A.

CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS

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TEL: 301-421-4024 BALT: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186

L:\CAD\DRAWINGS\11053\PLANS BY GLW\11053-F-08.dwg DES: MJT DRN: WSJ CHK:

© GLW 2012

PREPARED FOR:

THE HOWARD HUGHES CORPORATION
10275 LITTLE PATUXENT PARKWAY
COLUMBIA, MARYLAND 21044

ATTN: BOB JENKINS
410-964-5443

PROFESSIONAL CERTIFICATION

I HEREBY CERTIFY THAT THESE PLANS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 14631

EXPIRATION DATE: MAY 21, 2016

ELECTION DISTRICT No. 5

SCALE 1"=50'

ZONING NT

G. L. W. FILE NO. 11053

DATE TAX MAP - GRID SHEET

FEB, 2015 36 - 01 8 OF 22

THIS PLAN IS FOR SEDIMENT CONTROL PURPOSES ONLY!

REVISED

SEDIMENT CONTROL PLAN & SOILS MAP

DOWNTOWN COLUMBIA

WARFIELD NEIGHBORHOOD

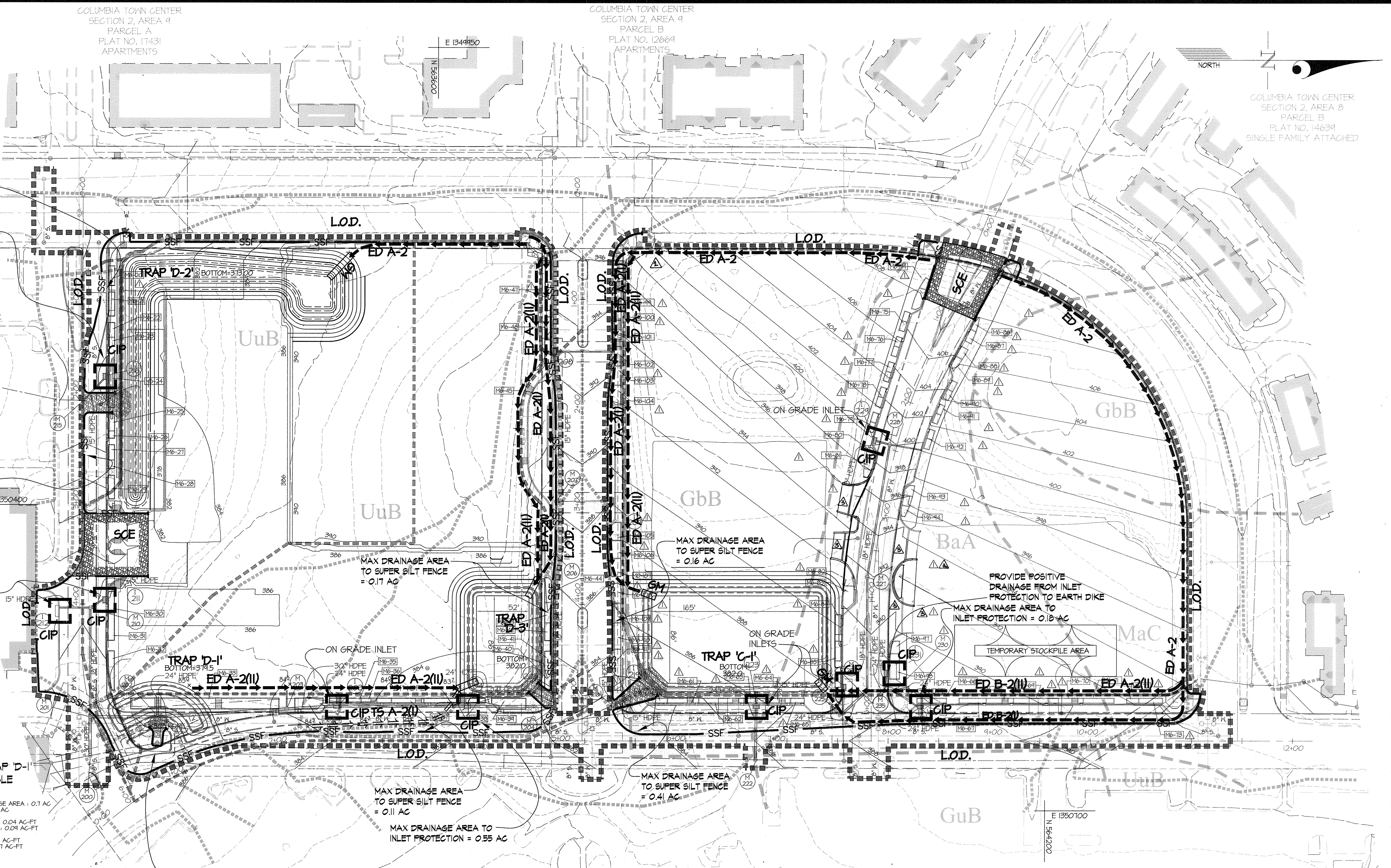
PARCELS C-1 THRU C-4 & PARCELS D-1 THRU D-4

COLUMBIA TOWN CENTER

LOTS 40 & 47 SECTION 2 AREA 1 & PARCEL E, SECTION 2 AREA 8

FDP-DC-WARFIELD-1 HOWARD COUNTY, MARYLAND

F 13-015



NOTE: FOR SEDIMENT TRAP ENLARGEMENT AND BAFFLE PLAN SEE SHEET 8

SOIL TYPE	SOIL DESCRIPTION	SOILS GROUP
BaA	Baile silt loam, 0 to 3 percent slopes	"D"
GbB	Gladstone loam, 3 to 8 percent slopes	"B"
GuB	Glennville-Urban land-Udorthents complex, 0 to 8 percent slopes	"B"
MaC	Manor loam, 8 to 15 percent slopes	"B"
UuB	Urban land-Udorthents complex, 0 to 8 percent slopes	"B"

THIS PLAN IS FOR SEDIMENT CONTROL PURPOSES ONLY!
REVISED

SEDIMENT CONTROL PLAN & SOILS MAP

DOWNTOWN COLUMBIA

WARFIELD NEIGHBORHOOD

PARCELS C-1 THRU C-4 & PARCELS D-1 THRU D-4

COLUMBIA TOWN CENTER

LOTS 40 & 47 SECTION 2 AREA 1 & PARCEL E, SECTION 2 AREA 8

FDP-DC-WARFIELD-1 HOWARD COUNTY, MARYLAND

SCALE 1"=50'

ZONING NT

G. L. W. FILE NO. 11053

DATE TAX MAP - GRID SHEET

FEB, 2015 36 - 01 8 OF 22

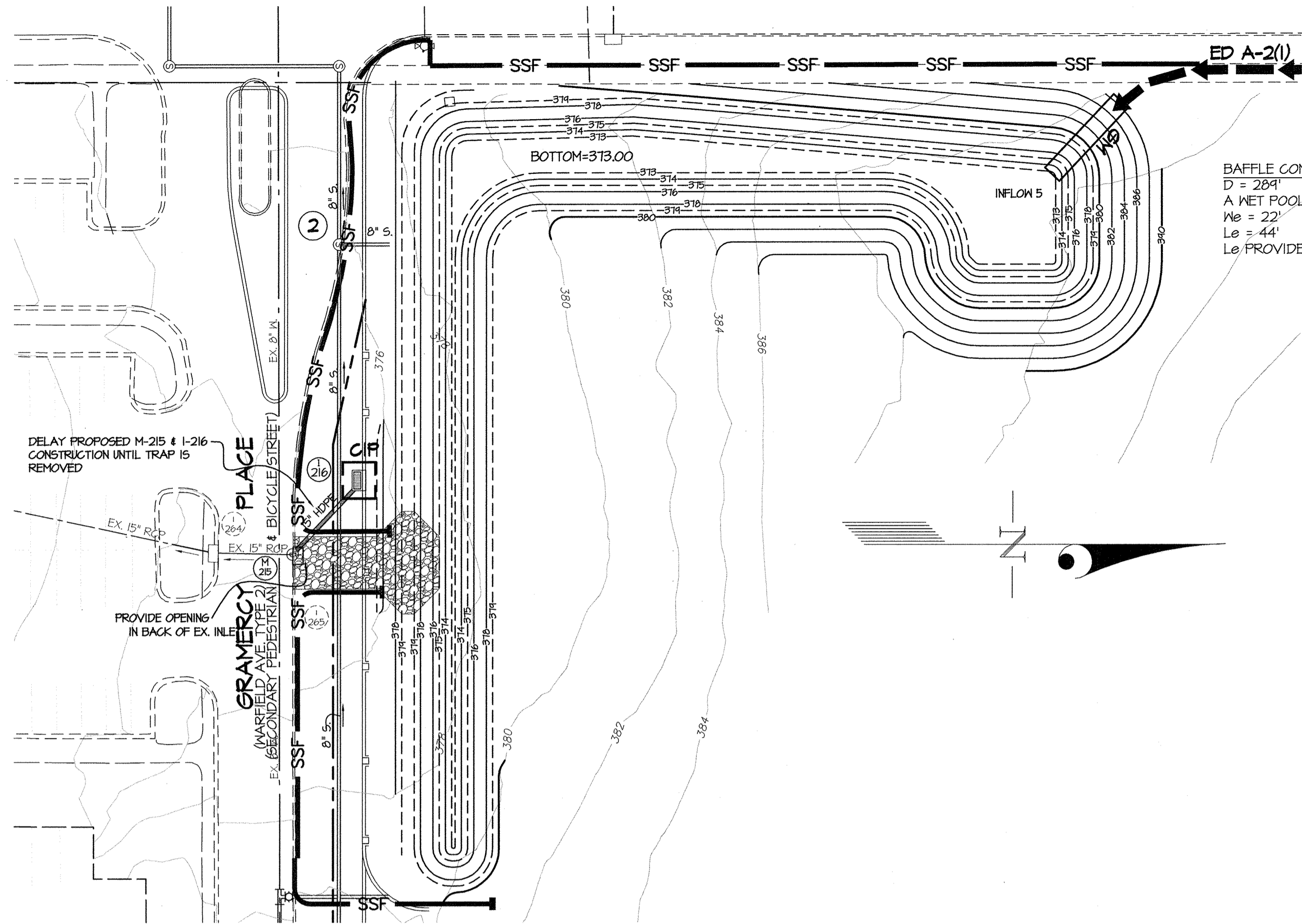
THIS PLAN IS FOR SEDIMENT CONTROL PURPOSES ONLY!

REVISED

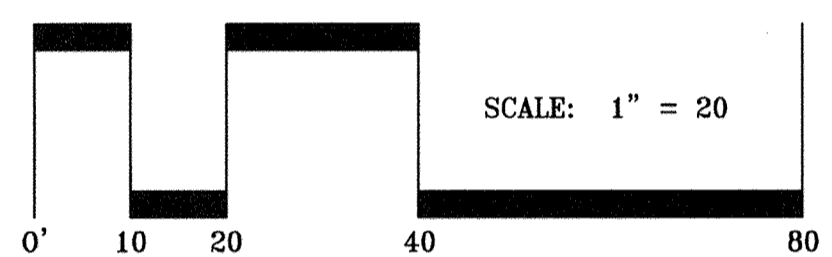
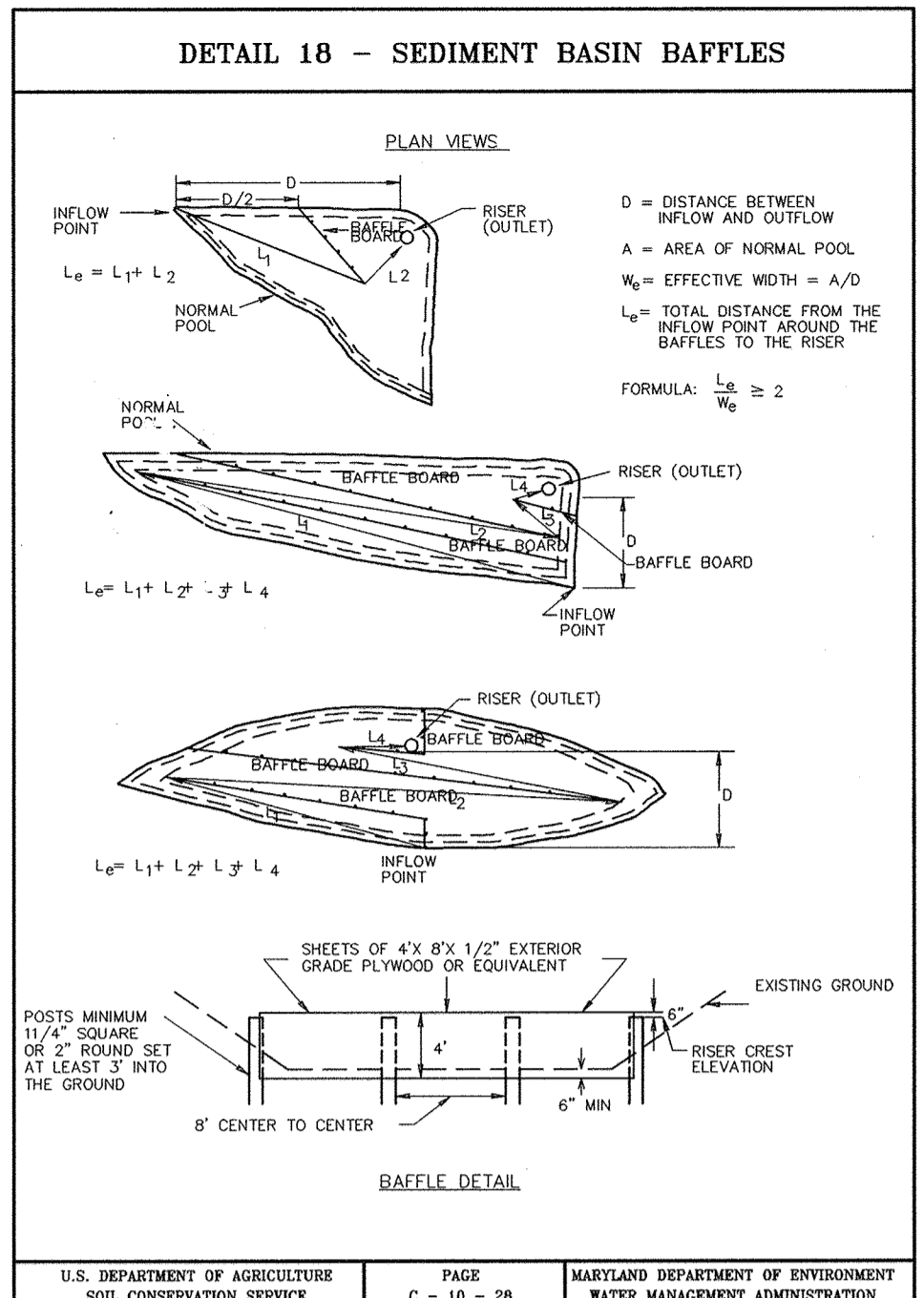
SEDIMENT CONTROL PLAN & SOILS MAP

DOWNTOWN COLUMBIA

F 13-015



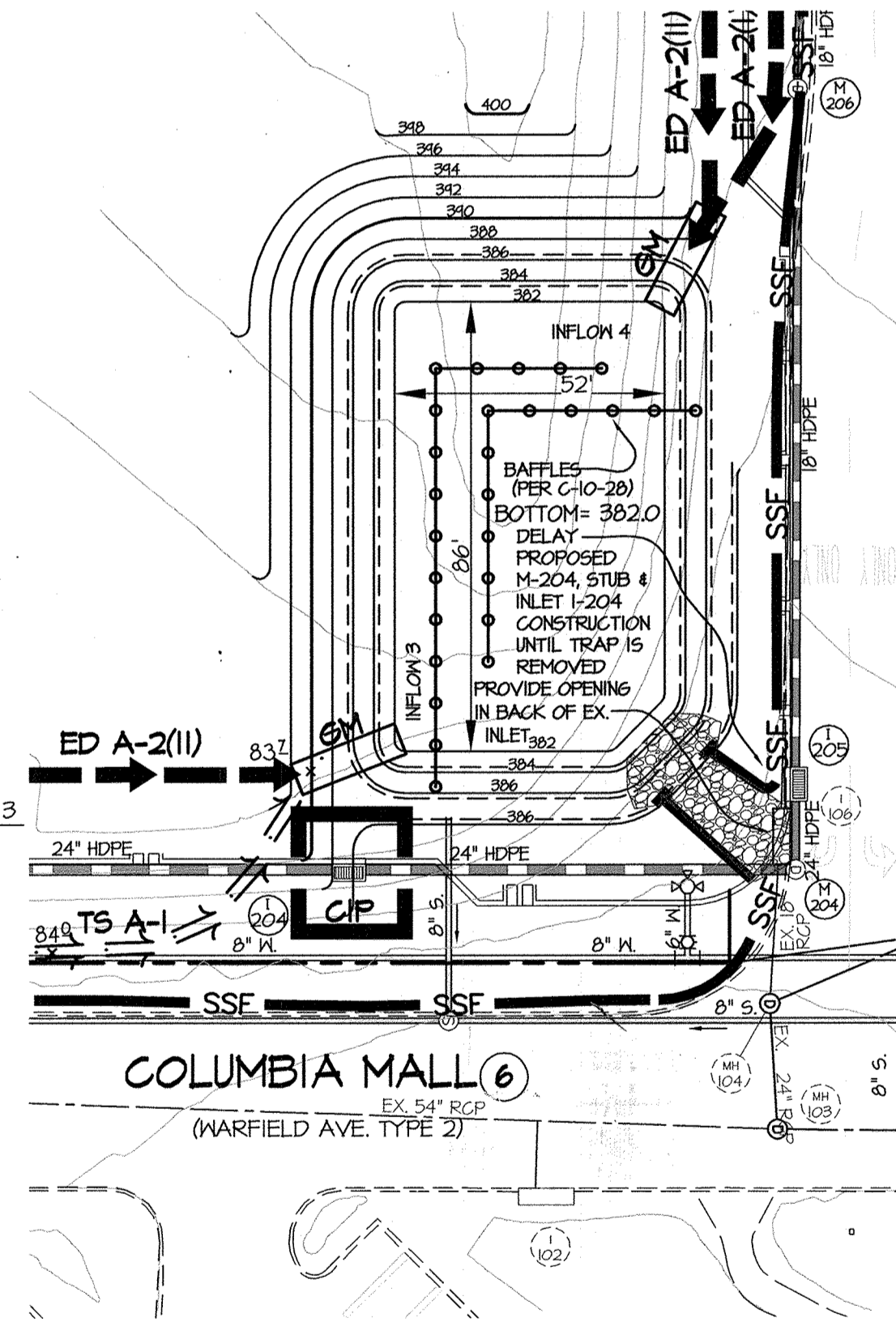
BAFFLE COMPUTATION INFLOW 5
 D = 289'
 A WET POOL = 6267 SF
 We = 22'
 Le = 44'
 Le PROVIDED = 289'



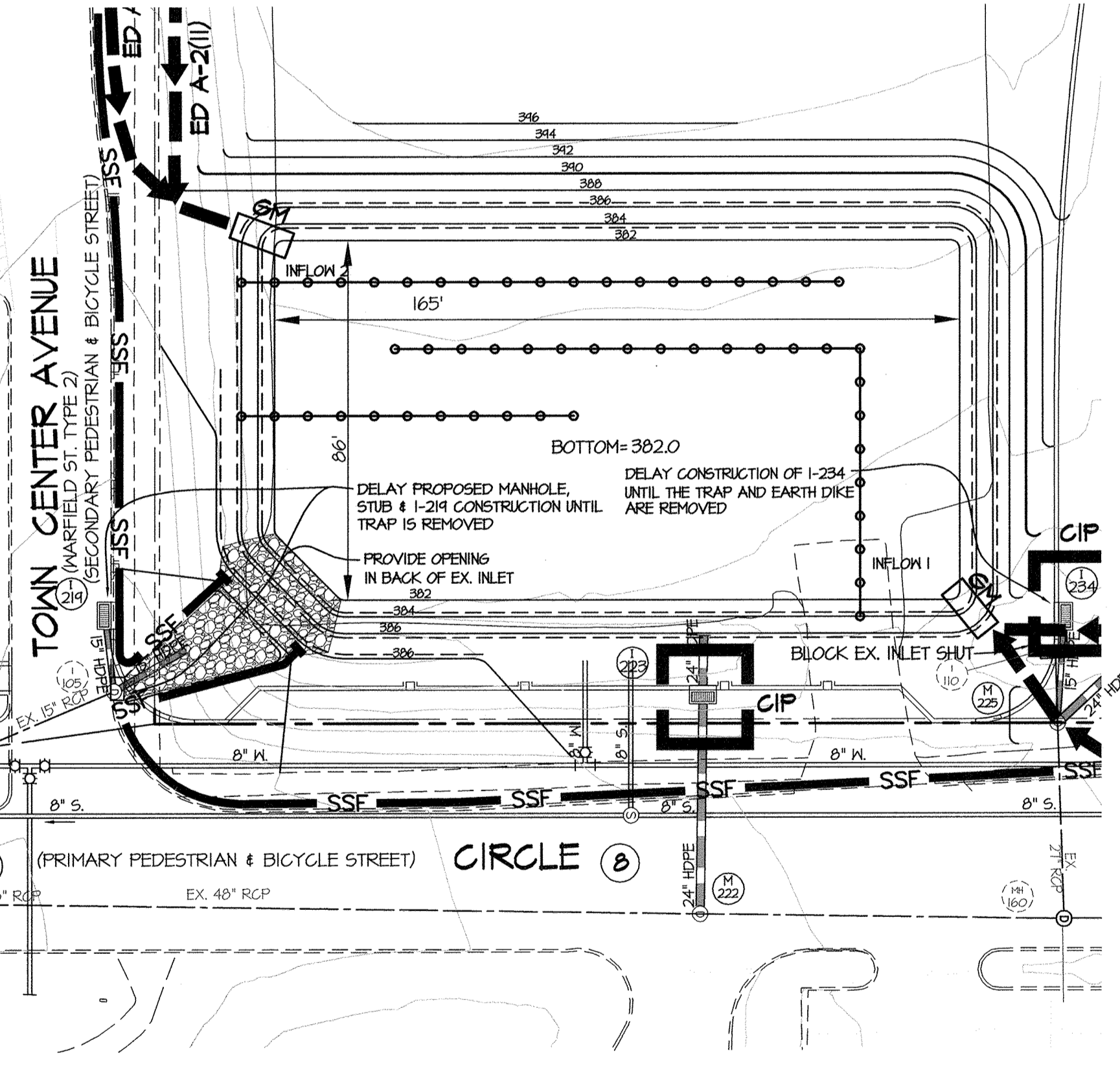
TRAP 'D-2' ENLARGEMENT
 SCALE: 1" = 30'

BAFFLE COMPUTATION INFLOW 4
 D = 86'
 A WET POOL = 5250 SF
 We = 61'
 Le = 122'
 Le PROVIDED = 124'

BAFFLE COMPUTATION INFLOW 2
 D = 82'
 A WET POOL = 15114 SF
 We = 184'
 Le = 369'
 Le PROVIDED = 346'



BAFFLE COMPUTATION INFLOW 3
 D = 52'
 A WET POOL = 5250 SF
 We = 101'
 Le = 202'
 Le PROVIDED = 210'



BAFFLE COMPUTATION INFLOW 1
 D = 161'
 A WET POOL = 15114 SF
 We = 44'
 Le = 188'
 Le PROVIDED = 300'

TRAP 'D-3' ENLARGEMENT
 SCALE: 1" = 30'

SEDIMENT TRAP 'C-1' ENLARGEMENT
 SCALE: 1" = 30'

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

Howard S.C.D. 3/19/13
 Date

ENGINEER'S CERTIFICATE

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

Michael J. Tray 2/22/13
 ENGINEER'S SIGNATURE DATE

DEVELOPER'S/BUILDER'S CERTIFICATE

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

Robert Jenkins 2-22-13
 SIGNATURE OF DEVELOPER/BUILDER DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
PRIVATE ROADS, SD AND STORMWATER
 Chief, Bureau of Highways Date

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
 Chief, Division of Land Development Date
 Chief, Development Engineering Division Date

- OWNERS:
- PARCELS C-1 THRU C-4 (OLD PARCEL C) PARCEL C BUSINESS TRUST c/o THE HOWARD HUGHES CORPORATION 10275 LITTLE PATUXENT PARKWAY COLUMBIA, MD 21044
 - LOT 40 MALL ENTRANCES BUSINESS TRUST PO BOX 617905 CHICAGO, IL 60661
 - LOT 47 MALL IN COLUMBIA BUSINESS TRUST PO BOX 617905 CHICAGO, IL 60661
 - PARCEL E CMI CORPORATE PARKING BUSINESS TRUST PO BOX 833 COLUMBIA, MD 21044
 - PARCELS D-1 THRU D-4 (OLD PARCEL D) PARCEL D PROPERTY LLC c/o KETTLER 1751 PINNACLE DRIVE SUITE 700 MCLEAN, VA 22101

GLW GUTSCHICK LITTLE & WEBER, P.A.
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
 3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK
 BURTONSVILLE, MARYLAND 20886
 TEL: 301-421-4024 BALT: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186

PREPARED FOR:
 THE HOWARD HUGHES CORPORATION
 10275 LITTLE PATUXENT PARKWAY
 COLUMBIA, MARYLAND 21044
 ATTN: BOB JENKINS
 410-964-5443

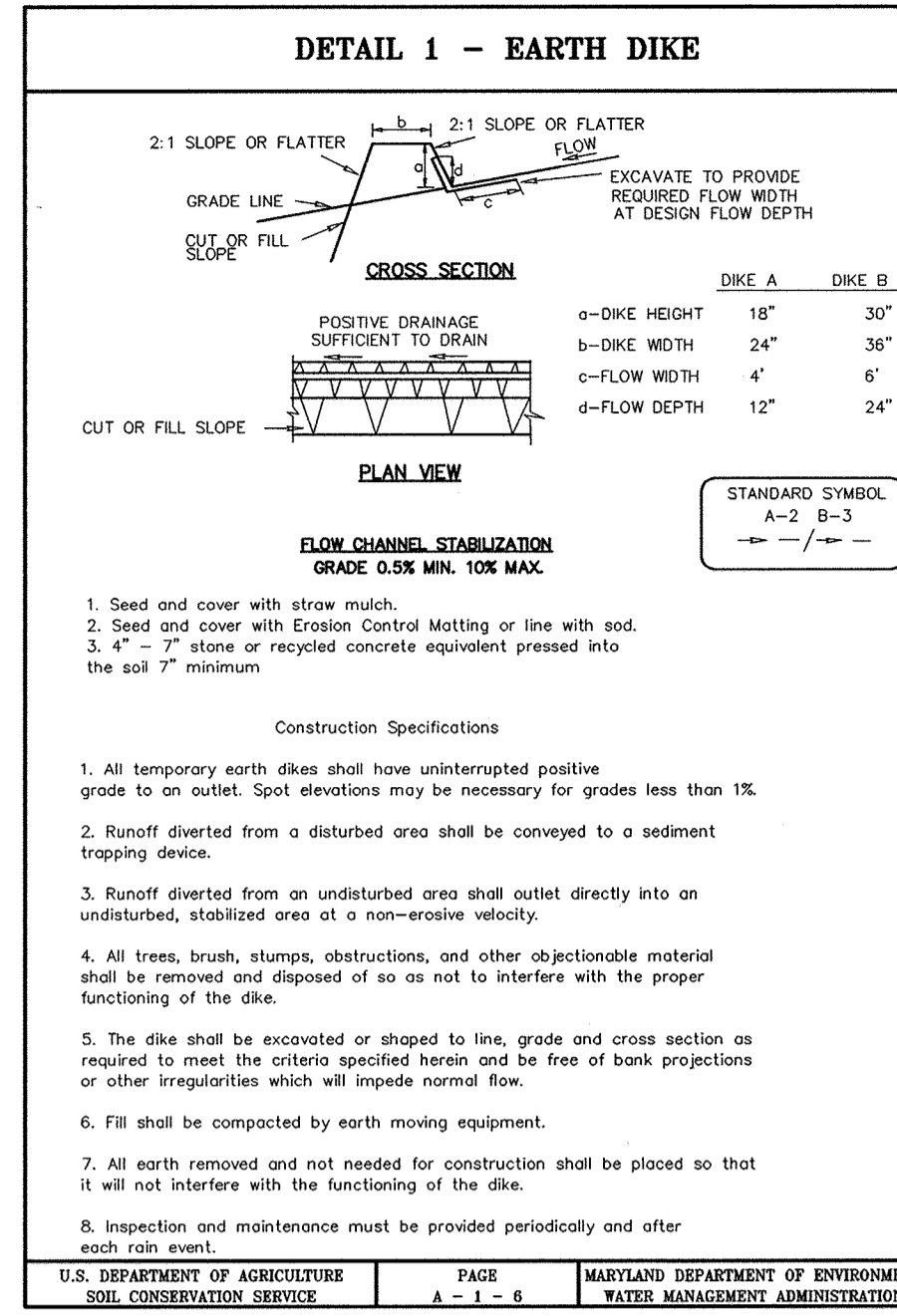
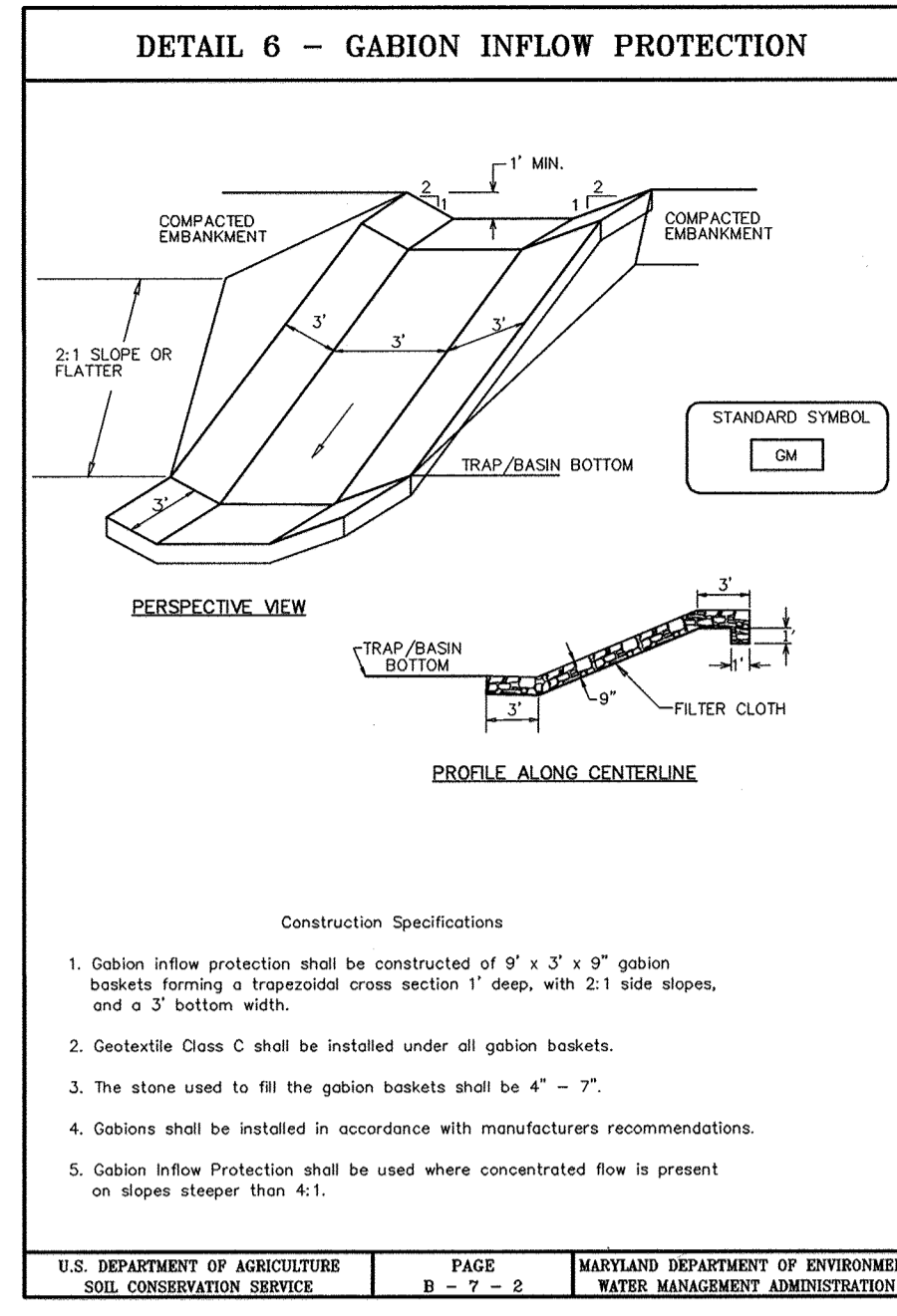
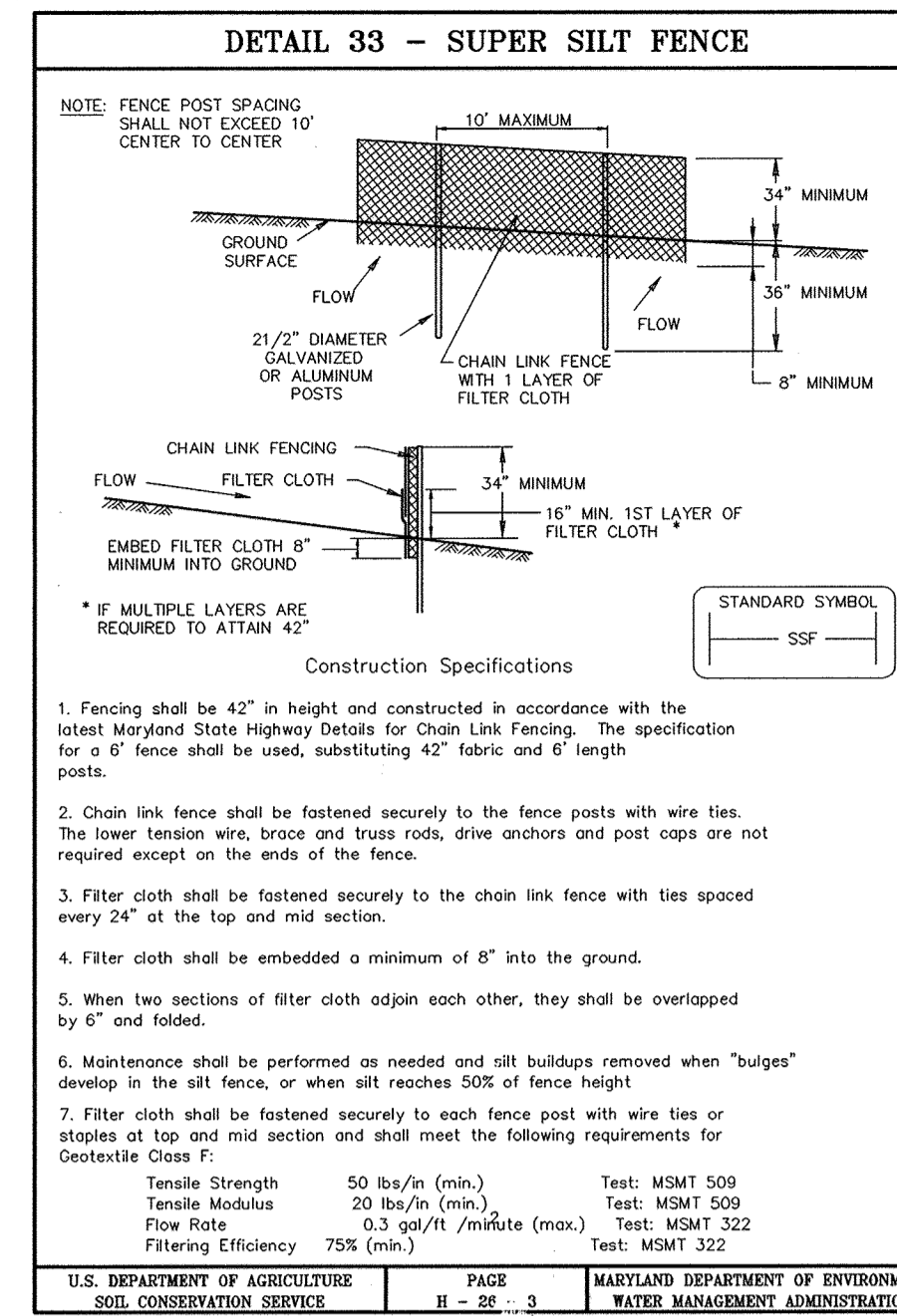
PROFESSIONAL CERTIFICATION
 I HEREBY CERTIFY THAT THESE PLANS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 19897, EXPIRATION DATE: MAY 21, 2014

SEDIMENT TRAP DETAILS
DOWNTOWN COLUMBIA
WARFIELD NEIGHBORHOOD
 PARCELS C-1 THRU C-4 & PARCELS D-1 THRU D-4
 COLUMBIA TOWN CENTER
 LOTS 40 & 47 SECTION 2 AREA 1 & PARCEL E, SECTION 2 AREA 8
 FDP-DC-WARFIELD-1
 HOWARD COUNTY, MARYLAND

SCALE	ZONING	G. L. W. FILE NO.
1" = 30'	NT	11053
DATE	TAX MAP - GRID	SHEET
MAR., 2013	36 - 01	9 OF 22

NOTE: THERE IS NO AS-BUILT INFORMATION PROVIDED BY THIS SHEET.
 G. SCOTT SWANBERGER
 SWANBERGER & LANE
 PROFESSIONAL L.S. #10849 Exp. Date 4/2/2014
 AS-BUILT DATE: 1/27/2018

L:\CAD\DRAWINGS\11053\PLANS BY GHW\FINALS\11053-F-09.dwg DES. XXX DRN. XXX CHK. XXX DATE REVISION BY APPR.



SEDIMENT CONTROL NOTES

- A minimum of 24 hours notice must be given to the Howard County Office of Inspection and Permits prior to the start of any construction. (410) 313-1055
- 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.
- Following initial soil disturbance or redistribution, permanent or temporary stabilization shall be completed within:
 - 3 calendar days for all perimeter sediment control structures, dikes and perimeter slopes and all slopes greater than 3:1, b) 7 days as to all other disturbed or graded areas on the project site.
- All sediment traps/basins shown must be fenced and warning signs posted around their perimeter in accordance with Vol. 1, Chapter 12, of the HOWARD COUNTY DESIGN MANUAL, Storm Drainage.
- All disturbed areas must be stabilized within the time period specified above in accordance with the 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for permanent seedings (Sec. 5), sod (Sec. 54), temporary seedings (Sec. 50) and mulch (Sec. 52). Temporary stabilization, with mulch alone, can only be done when recommended seeding dates do not allow for proper germination and establishment of grasses.
- All sediment control structures are to remain in place and are to be maintained in operable condition until permission for their removal has been obtained from the Howard County Sediment Control Inspector.
- Site Analysis:

Total Area of Site	10.23 Acres
Area Disturbed	12.05 Acres
Area to be roofed or paved	3.03 Acres
Area to be vegetatively stabilized	4.02 Acres
Total Cut	66,324 Cu. Yds.
Total Fill	8,912 Cu. Yds.
- Site Analysis:

Total Area of Site	10.23 Acres
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Area to be roofed or paved	3.03 Acres
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Total Cut	66,324 Cu. Yds.
Total Fill	8,912 Cu. Yds.

PERMANENT SEEDING NOTES

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

Seeded 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

- Preferred - Apply 2 tons per acre dolomitic limestone (42 lbs/1000 square feet) and 600 lbs per acre 10-10-10 fertilizer (4 lbs/1000 sq ft) before seeding. Harrow or disc into upper three inches of soil.
- Acceptable - Apply 2 tons per acre dolomitic limestone (42 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 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 keeping leovgrass. 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 (10 to 40 lbs/1000 sq ft) of unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 2lb gallons per acre (5 gal/1000 sq ft) of emulsified asphalt on flat areas. On slopes 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.

STANDARD AND SPECIFICATIONS FOR TOPSOIL DEFINITION

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

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

CONDITIONS WHERE PRACTICE APPLIES

- This practice is limited to areas having 2:1 or flatter slopes where:
 - The texture of the exposed subsoil/parent material is not adequate to produce vegetative growth.
 - The soil material is so shallow that the rooting zone is not deep enough to support plants or furnish continuing supplies of moisture and plant nutrients.
 - The original soil to be vegetated contains material toxic to plant growth.
 - The soil is so acidic that treatment with limestone is not feasible.
- For the purpose of these Standards and Specifications, areas having slopes steeper than 2:1 require special consideration and design for adequate stabilization. Areas having slopes steeper than 2:1 shall have the appropriate stabilization shown on the plans.

CONSTRUCTION AND MATERIAL SPECIFICATIONS

- Topsoil salvaged from the existing site may be used provided that it meets the standards set forth in these specifications. Typically, the depth of topsoil to be salvaged for a given soil type can be found in the respective soil profile section in the Soil survey published by USDA-SCS in cooperation with Maryland Agricultural Experiment Station.
- Topsoil specifications - soil to be used as topsoil must meet the following:
 - Topsoil shall be a loam, sandy loam, clay loam, silt loam, sandy clay loam, loamy sand. Other soils may be used if recommended by an agronomist or soil scientist and approved by the appropriate approval authority. Regardless, topsoil shall not be a mixture of contrasting textured subsoils and shall contain less than 5% by volume of chiders, stones, slag, coarse fragments, gravel, sticks, roots, trash, or other materials larger than 1 1/2" in diameter.
 - Topsoil must be free of plant parts such as bermuda grass, quackgrass, Johnsongrass, nutgrass, poison ivy, thistle, or others as specified.
 - Where the subsoil is either highly acidic or composed of heavy clay, ground limestone shall be spread at the rate of 4-8 tons/acre (200-400 pounds per 1000 square feet) prior to the placement of topsoil. Lime shall be distributed uniformly over designated areas and worked into the soil in conjunction with tillage operations as described in the following procedures.
- For sites having disturbed areas under 5 acres:
 - Place topsoil (if required) and apply soil amendments as specified in 2.0 Vegetative Stabilization - Section I - Vegetative Stabilization Methods and Materials.
 - On soil meeting Topsoil specifications, obtain test results dictating fertilizer and lime amendments required to bring the soil into compliance with the following:
 - pH for topsoil shall be between 6.0 and 7.5. If the tested soil demonstrates a pH of less than 6.0, sufficient lime shall be prescribed to raise the pH to 6.5 or higher.
 - Organic content of topsoil shall be not less than 15 percent by weight.
 - Topsoil having soluble salt greater than 500 parts per million shall be used.
 - No sod or seed shall be placed on soil which has been with soil sterilants or chemicals used for weed control until sufficient time has elapsed (4-6 days min) to permit dissipation of photo-toxic materials.
- Topsoil substitutes or amendments, as recommended by a qualified agronomist or soil scientist and approved by the appropriate approval authority may be used in lieu of natural topsoil.

Maryland Department of the Environment under COMAR 26.04.06.

- Composted sludge shall contain at least 1 percent nitrogen, 15 percent phosphorus, and 0.2 percent potassium and have a Ph of 7.0 to 8.0. If compost does not meet these requirements, the appropriate prior to use.
- Composted sludge shall be applied at a rate of 1 ton/1,000 square feet.
- Composted sludge shall be amended with a potassium fertilizer applied at a rate of 4lb/1,000 square feet, and 1/3 the normal lime application rate.

References: Guideline Specifications, Soil Preparation and Sodding, MD-VI P16. II., Cooperative Extension Service, University of Maryland and Virginia Polytechnic Institutes. Revised 11/13.

DUST CONTROL

Definition
Controlling dust blowing and movement on construction sites and roads.

Purpose
To prevent blowing and movement of dust from exposed 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

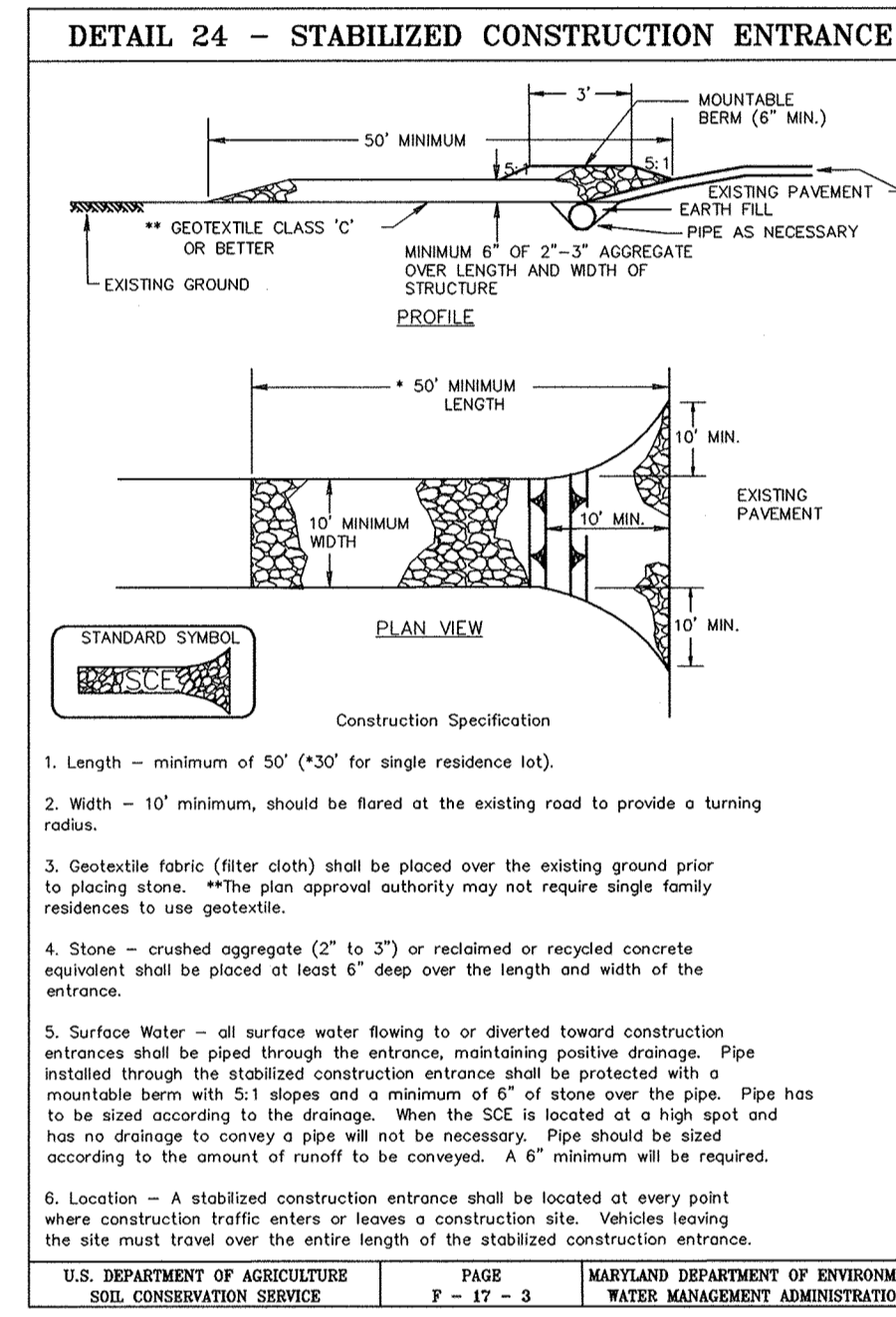
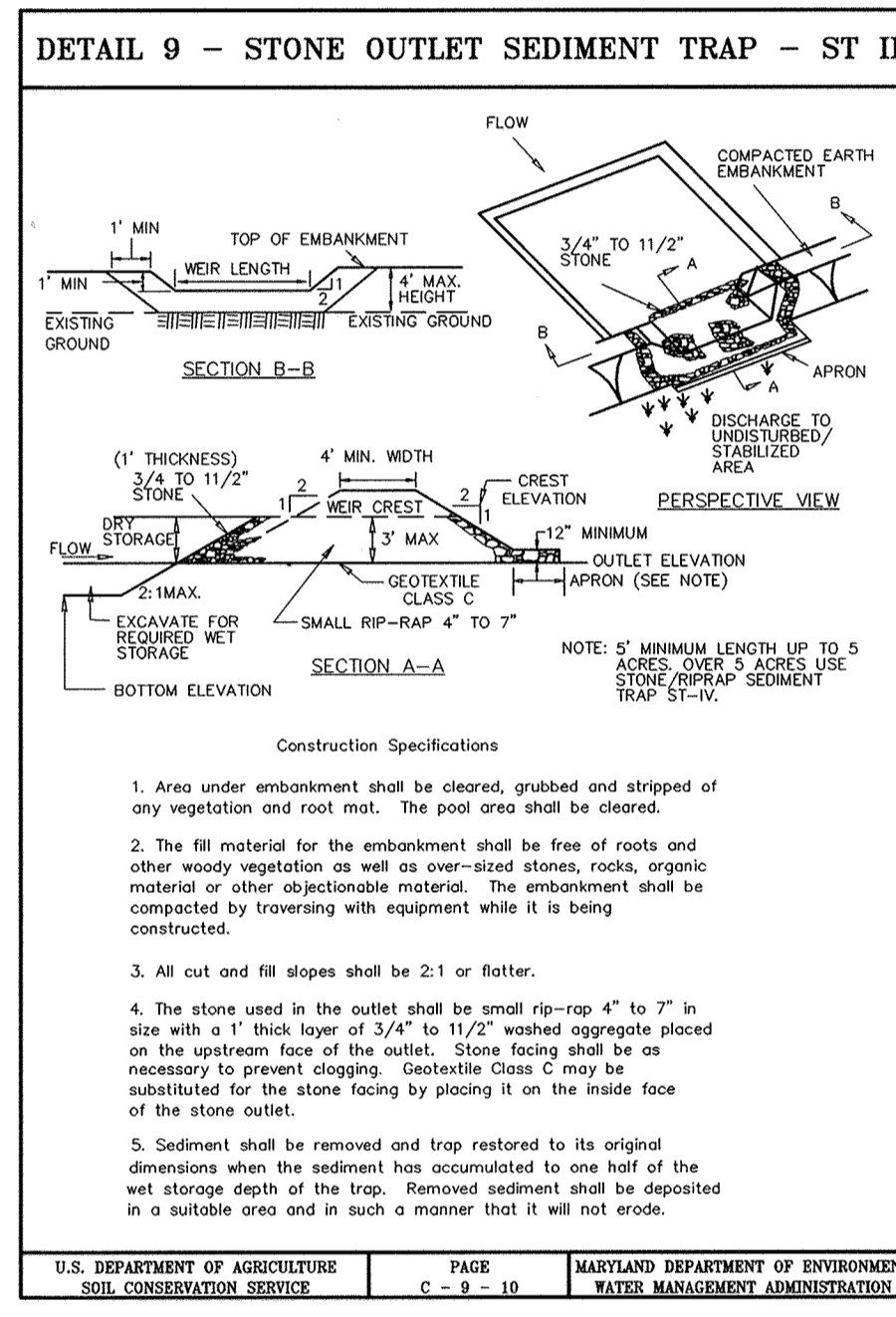
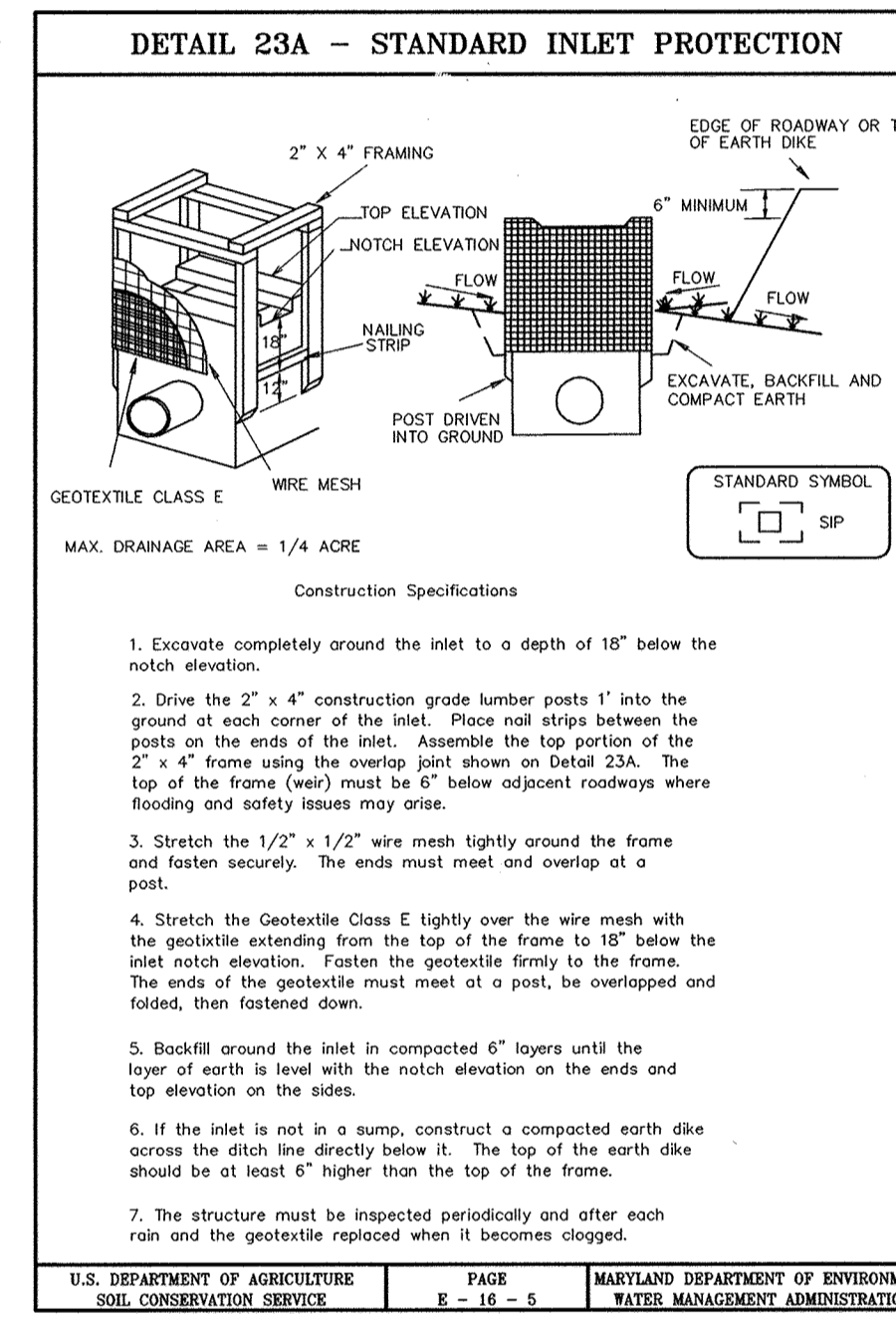
- Mulches - See standards for vegetative stabilization with mulches only. Mulch should be crimped or tacked to prevent blowing.
- Vegetative Cover - See standards for temporary vegetative cover.
- Tillage - To roughen surface and bring clods to the surface. This is an emergency measure which should be used before soil blowing starts. Begin plowing at windward side of site. Chisel-type plows spaced about 12' apart, spring-tooled harrows, and similar plows are examples of equipment which may produce the desired effect.
- Watering - 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 occurs.
- 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.
- Calcium Chloride - Apply at rates that will keep surface moist. May need retreatment.

Permanent Methods

- 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.
- Topsoiling - Covering with less erosive soil materials. See standards for topsoiling.
- Stone - Cover surface with crushed stone or coarse gravel.

SEQUENCE OF CONSTRUCTION

- Arrange pre-construction meeting with the Sediment Control Inspector and obtain the Grading Permit. 1 DAY
- Install stabilize construction entrances, silt fence and perimeter earth dikes, earth dikes (1) temporary swales (1) and stone outlet sediment traps. 3 WEEKS
- Grade site. 2 MONTHS
- As soon as areas draining to Trap D-1 have been brought up to grade, the area will drain to Trap D-3 and permission has been granted by the sediment control inspector, backfill and bring up to proposed grade Trap D-1. 2 WEEKS
- As soon as areas for proposed road widening have been graded and permission has been obtained from the sediment control inspector, install earth dikes (1). Remove earth dikes (1) and temporary swales (1). 2 MONTHS
- Install utilities and inlet protection as applicable. In areas where utilities are to be installed in existing paving, install only as much as that which shall be backfilled and stabilized within one working day. Temporarily place all excavated material in areas that are protected by sediment controls. Delay construction of proposed storm drain in the vicinity of trap outfalls until the traps are no longer being used and are being backfilled and brought up to proposed grade. 6 MONTHS
- Install curb and gutter, sidewalks and stormwater planters and base paving except for areas near the trap outfalls. 2 MONTHS
- Stabilize all non-paved areas with grass seed and mulch. 1 WEEK
- When all areas drain to the sediment controls have been stabilized and permission has been granted by the Sediment Control Inspector, remove those sediment controls. Install remaining utilities, curb and gutter and base paving. Stabilize the remaining areas. 1 WEEK



TEMPORARY SEEDING NOTES

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

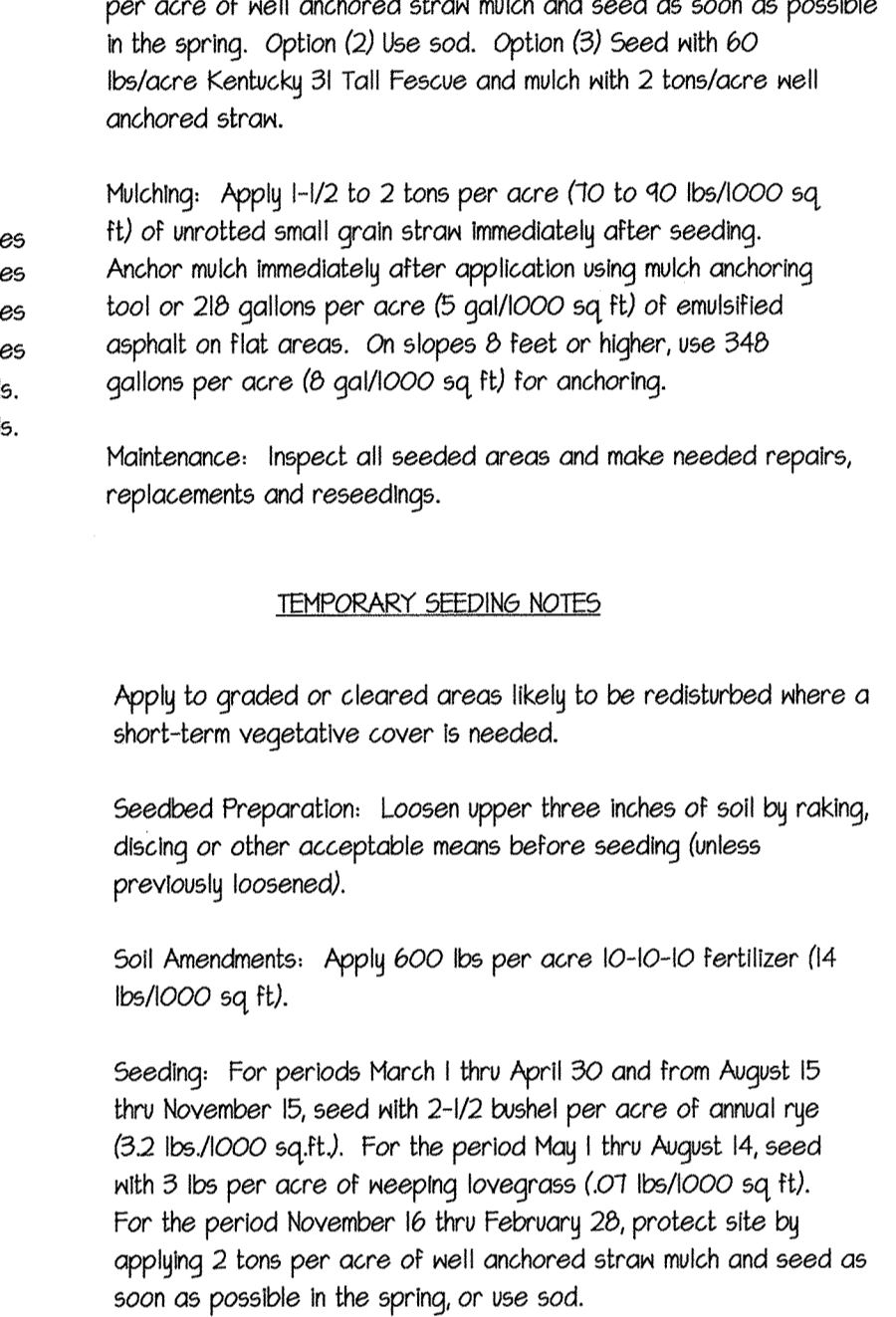
Seeded Preparation: Loosen upper three inches of soil by raking, discing or other acceptable means before seeding (unless previously loosened).

Soil Amendments: Apply 600 lbs per acre 10-10-10 fertilizer (4 lbs/1000 sq ft).

Seeding: For periods March 1 thru April 30 and from August 15 thru November 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 keeping leovgrass (0.7 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 (10 to 40 lbs/1000 sq ft) of unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 2lb gallons per acre (5 gal/1000 sq ft) of emulsified asphalt on flat areas. On slopes 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 DETAILS

DOWNTOWN COLUMBIA

WARFIELD NEIGHBORHOOD

PARCELS C-1 THRU C-4 & PARCELS D-1 THRU D-4

COLUMBIA TOWN CENTER

LOTS 40 & 47 SECTION 2 AREA 1 & PARCEL E, SECTION 2 AREA 8

FDP-DC-WARFIELD-1

SCALE: AS SHOWN
ZONING: NT
G. L. W. FILE No. 11053
DATE: MAR, 2013
TAX MAP - GRID: 36 - 01
SHEET: 10 OF 22

ENGINEER'S CERTIFICATE

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

Michael J. Tray
ENGINEER'S SIGNATURE
3/28/13
DATE

DEVELOPER'S/BUILDER'S CERTIFICATE

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

Robert Perkins
SIGNATURE OF DEVELOPER/BUILDER
3-28-13
DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

PRIVATE ROADS, SD AND STORMWATER

Chief, Bureau of Highways
Date

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

Chief, Division of Land Development
3/28/13
Date

Chief, Development Engineering Division
3/27/13
Date

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

John R. Burt
Howard S.C.D.
3/19/13
Date

OWNERS:

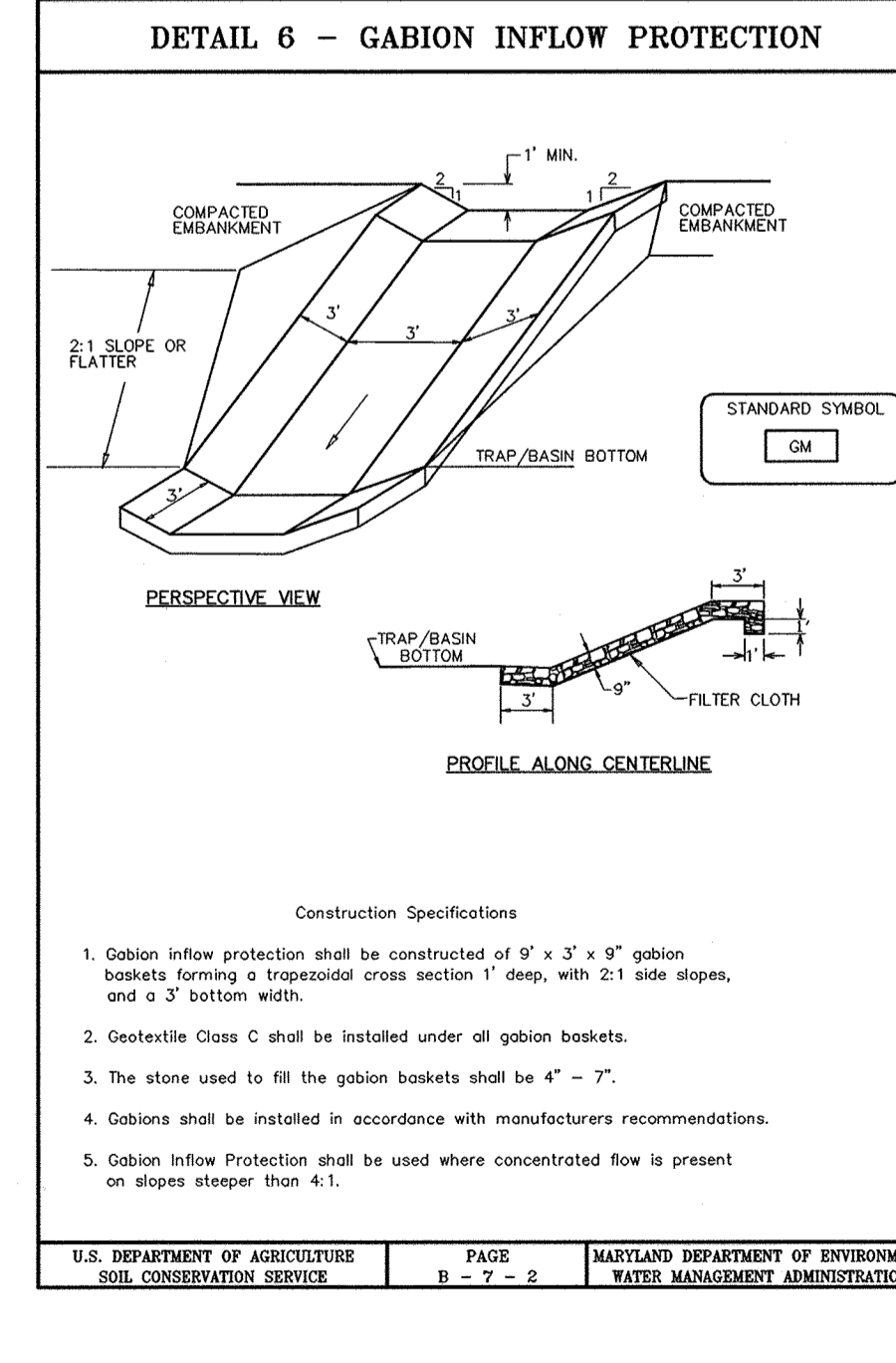
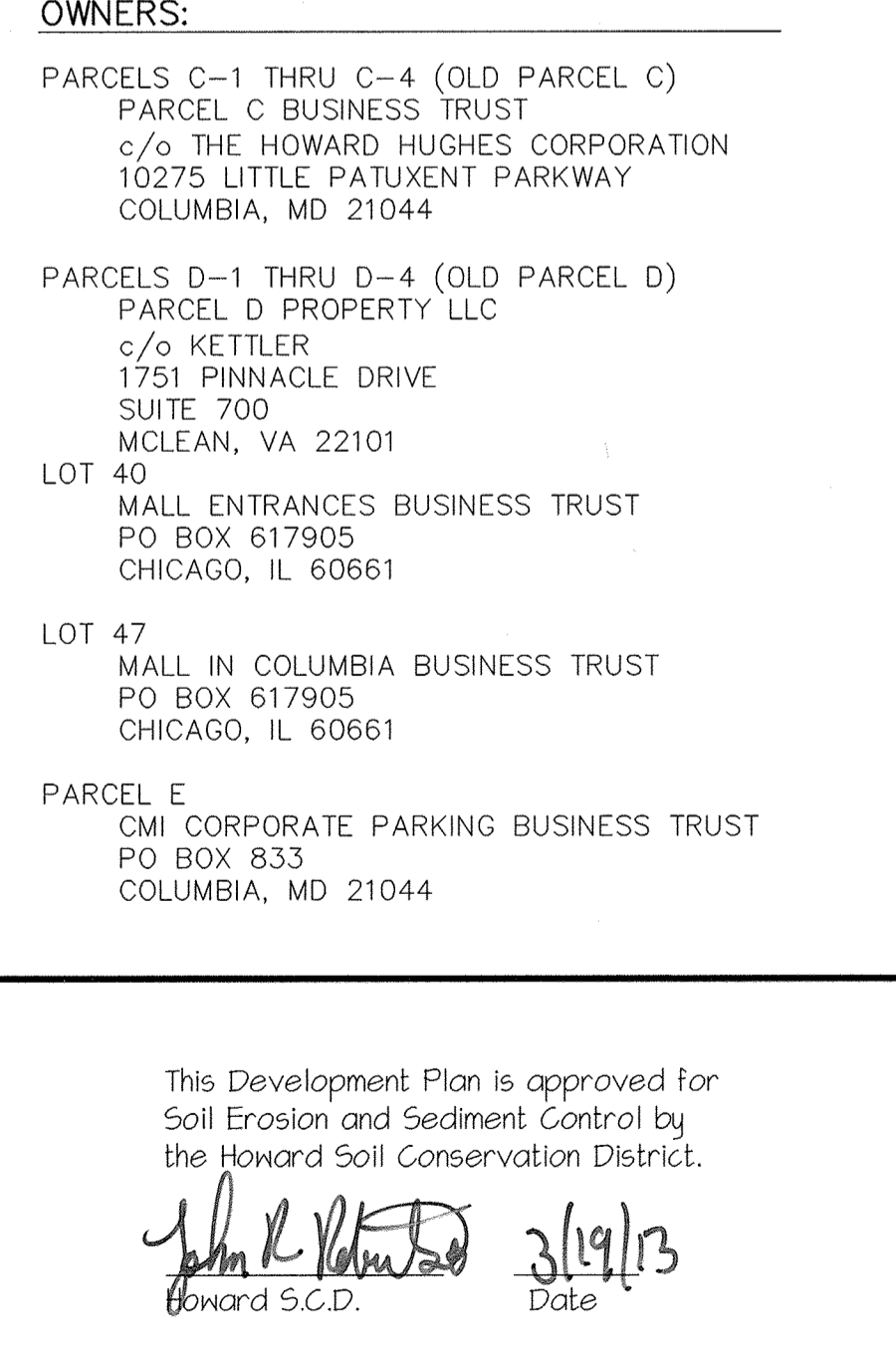
PARCELS C-1 THRU C-4 (OLD PARCEL C)
PARCEL C BUSINESS TRUST
c/o THE HOWARD HUGHES CORPORATION
10275 LITTLE PATUXENT PARKWAY
COLUMBIA, MD 21044

PARCELS D-1 THRU D-4 (OLD PARCEL D)
PARCEL D PROPERTY LLC
c/o KETTLER
1751 PINNACLE DRIVE
SUITE 700
MCLEAN, VA 22101

LOT 40
MALL ENTRANCES BUSINESS TRUST
PO BOX 617905
CHICAGO, IL 60661

LOT 47
MALL IN COLUMBIA BUSINESS TRUST
PO BOX 617905
CHICAGO, IL 60661

PARCEL E
CMI CORPORATE PARKING BUSINESS TRUST
PO BOX 833
COLUMBIA, MD 21044



SEDIMENT CONTROL DETAILS

DOWNTOWN COLUMBIA

WARFIELD NEIGHBORHOOD

PARCELS C-1 THRU C-4 & PARCELS D-1 THRU D-4

COLUMBIA TOWN CENTER

LOTS 40 & 47 SECTION 2 AREA 1 & PARCEL E, SECTION 2 AREA 8

FDP-DC-WARFIELD-1

SCALE: AS SHOWN
ZONING: NT
G. L. W. FILE No. 11053
DATE: MAR, 2013
TAX MAP - GRID: 36 - 01
SHEET: 10 OF 22

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I HEREBY CERTIFY THAT THESE PLANS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 14937
EXPIRATION DATE: MAY 31, 2014

Michael J. Tray
ENGINEER'S SIGNATURE

SEDIMENT CONTROL DETAILS

DOWNTOWN COLUMBIA

WARFIELD NEIGHBORHOOD

PARCELS C-1 THRU C-4 & PARCELS D-1 THRU D-4

COLUMBIA TOWN CENTER

LOTS 40 & 47 SECTION 2 AREA 1 & PARCEL E, SECTION 2 AREA 8

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PREPARED FOR:

THE HOWARD HUGHES CORPORATION
10275 LITTLE PATUXENT PARKWAY
COLUMBIA, MARYLAND 21044
ATTN: BOB JENKINS
410-964-5443

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GLWGUTSCHICK LITTLE & WEBER, P.A.

CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
3909 NATIONAL DRIVE - SUITE 250 - BURTONTVILLE OFFICE PARK
BURTONTVILLE, MARYLAND 20866
TEL: 301-421-4024 BALT: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186

L:\CAD\DRAWINGS\11053\PLANS BY GJM\FINALS\11053-F-10.dwg
DATE: 3/28/13 10:46 AM
USER: GJM
PLOT: 3/28/13 10:46 AM
PLOTTER: HP DesignJet 5000

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

PRIVATE ROADS, SD AND STORMWATER

Chief, Bureau of Highways
Date

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

Chief, Division of Land Development
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3/19/13
Date

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DOWNTOWN COLUMBIA

WARFIELD NEIGHBORHOOD

PARCELS C-1 THRU C-4 & PARCELS D-1 THRU D-4

COLUMBIA TOWN CENTER

LOTS 40 & 47 SECTION 2 AREA 1 & PARCEL E, SECTION 2 AREA 8

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DOWNTOWN COLUMBIA

WARFIELD NEIGHBORHOOD

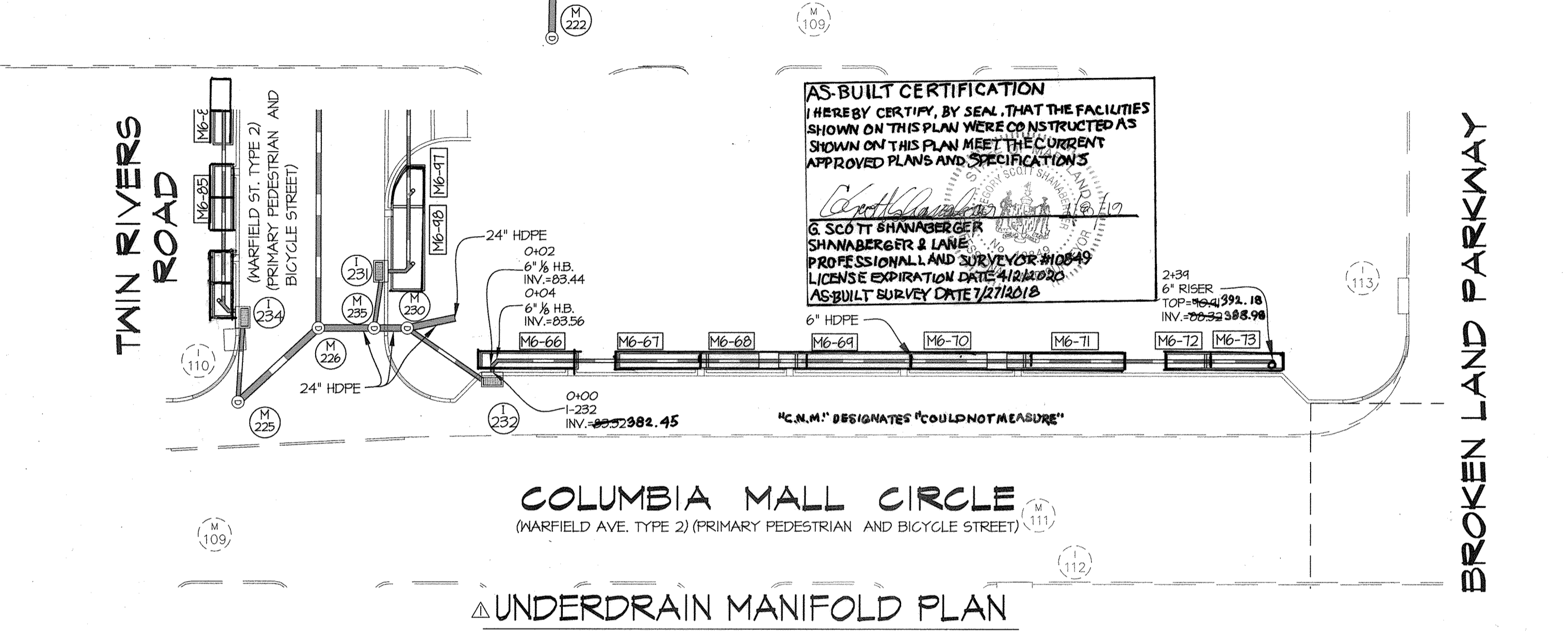
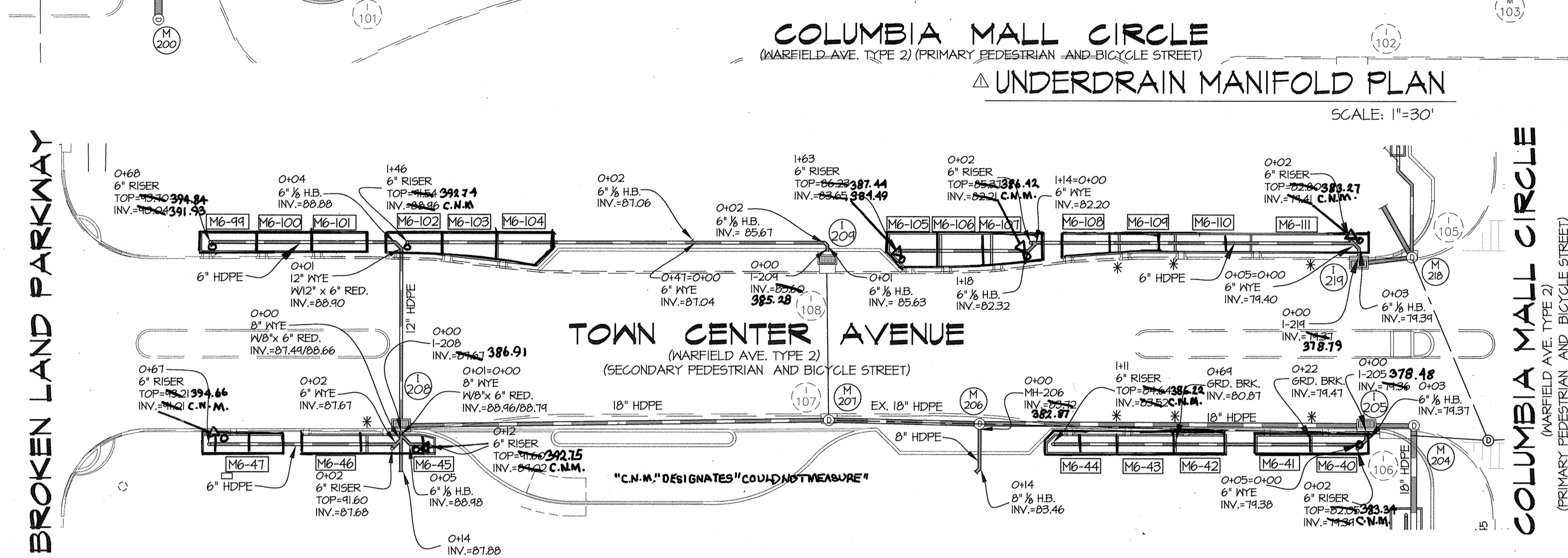
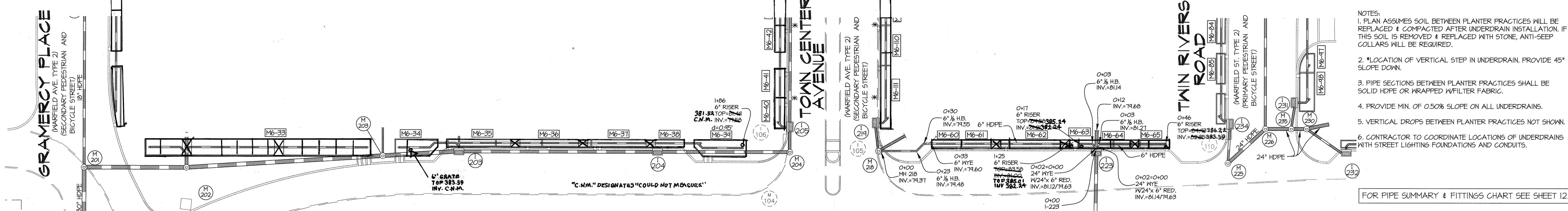
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COLUMBIA TOWN CENTER

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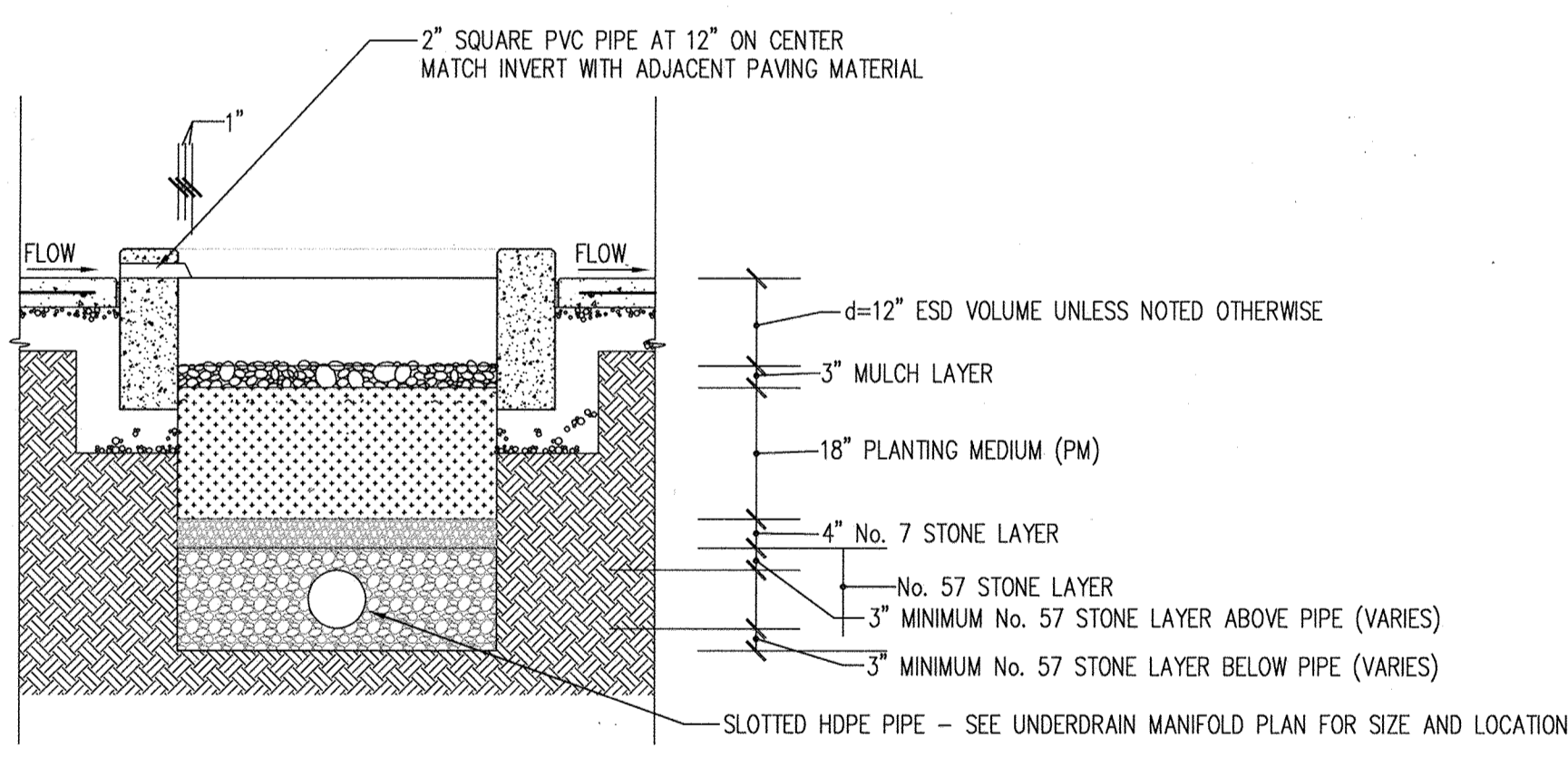
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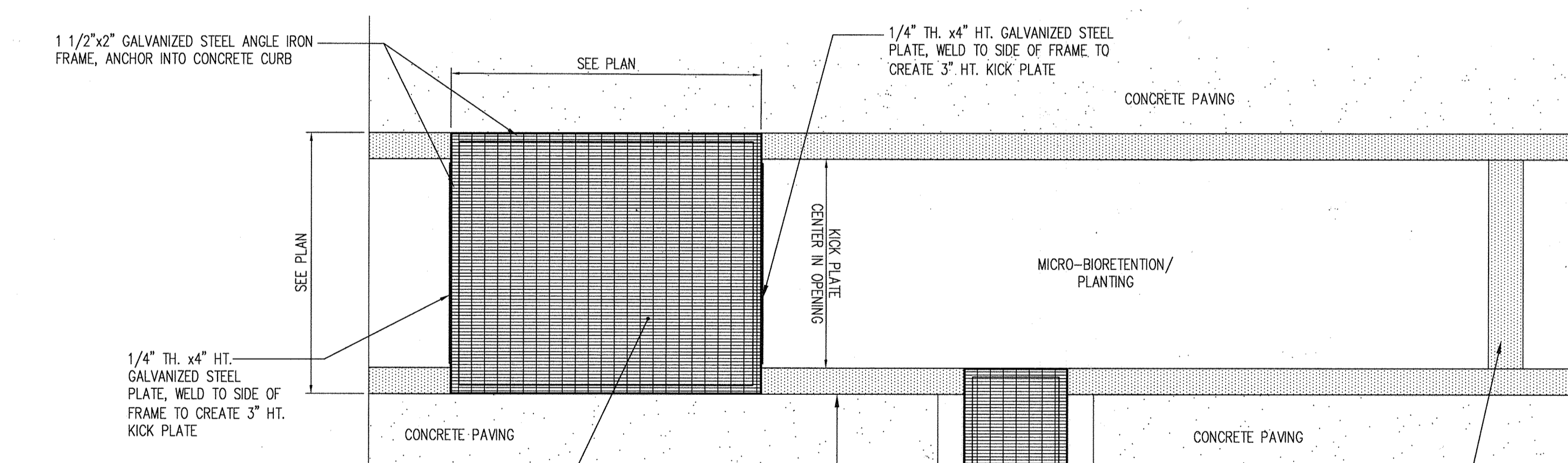


AS-BUILT CERTIFICATION
 I HEREBY CERTIFY BY SEAL THAT THE FACILITIES SHOWN ON THIS PLAN WERE OR INSTRUCTED AS SHOWN ON THIS PLAN MEET THE CURRENT APPROVED PLANS AND SPECIFICATIONS

G. Scott Shnaberger
 G. SCOTT SHNABERGER
 SHNABERGER & LANE
 PROFESSIONAL ENGINEER AND SURVEYOR #10849
 LICENSE EXPIRATION DATE 11/30/2020
 AS-BUILT SURVEY DATE 7/27/2018



TYPICAL SECTION THROUGH MICRO BIO-RETENTION PLANTER 'A'
 SCALE: 1"=2'



CURB CUT AND BRIDGE AT MICRO BIO-RETENTION DETAIL PLANTER 'A'
 SCALE: 1"=2'

Town Center Avenue ESD Planter Tabulation

Practice	Begin Station	Offset	End Station	Offset	Center 2' Curb Cut Station 1	Center 2' Curb Cut Station 2	Center 2' Curb Cut Station 3	Begin Walk Elevation	End Walk Elevation	Begin Top of Planter Elevation	End Top of Planter Elevation	Top of Mulch Elevation	Top of Weir Wall	
M6-140	205.31	3.00	205.61	3.00	205.31	205.31	205.31	384.14	383.44	383.44	383.44	383.44	384.14	
M6-141	205.61	3.00	205.91	3.00	205.61	205.61	205.61	384.72	384.14	384.14	384.14	384.14	384.72	
M6-142	205.91	3.00	206.21	3.00	205.91	205.91	205.91	385.54	385.04	385.04	385.04	385.04	385.54	
M6-143	206.21	3.00	206.51	3.00	206.21	206.21	206.21	386.10	385.54	385.54	385.54	385.54	386.10	
M6-144	206.51	3.00	206.81	3.00	206.51	206.51	206.51	386.93	386.10	386.10	386.10	386.10	386.93	
M6-145	206.81	3.00	207.11	3.00	206.81	206.81	206.81	393.71	392.99	392.99	392.99	392.99	393.71	
M6-146	207.11	3.00	207.41	3.00	207.11	207.11	207.11	394.40	393.71	393.71	393.71	393.71	394.40	
M6-147	207.41	3.00	207.71	3.00	207.41	207.41	207.41	395.73	394.62	394.62	394.62	394.62	395.73	
M6-99	208.81	3.00	209.11	3.00	208.81	208.81	208.81	395.73	394.87	394.87	394.87	394.87	395.73	
M6-100	209.11	3.00	209.41	3.00	209.11	209.11	209.11	394.87	394.28	394.28	394.28	394.28	394.87	
M6-101	209.41	3.00	209.71	3.00	209.41	209.41	209.41	394.28	393.72	393.72	393.72	393.72	394.28	
M6-102	209.71	3.00	210.01	3.00	209.71	209.71	209.71	393.52	392.93	392.93	392.93	392.93	393.52	
M6-103	210.01	3.00	210.31	3.00	210.01	210.01	210.01	392.93	392.36	392.36	392.36	392.36	392.93	
M6-104	Please See ESD Atypical Tabulation Planters Chart													
M6-105	Please See ESD Atypical Tabulation Planters Chart													
M6-106	210.31	3.00	210.61	3.00	210.31	210.31	210.31	387.93	387.41	387.41	387.41	387.41	387.93	
M6-107	210.61	3.00	210.91	3.00	210.61	210.61	210.61	387.41	386.79	386.79	386.79	386.79	387.41	
M6-108	210.91	3.00	211.21	3.00	210.91	210.91	210.91	386.61	386.06	386.06	386.06	386.06	386.61	
M6-109	211.21	3.00	211.51	3.00	211.21	211.21	211.21	386.06	385.52	385.52	385.52	385.52	386.06	
M6-110	211.51	3.00	211.81	3.00	211.51	211.51	211.51	385.52	384.77	384.77	384.77	384.77	385.52	
M6-111	211.81	3.00	212.11	3.00	211.81	211.81	211.81	384.77	383.38	383.38	383.38	383.38	384.77	

Columbia Mall Circle ESD Planter Tabulation

Practice	Begin Station	Offset	End Station	Offset	Center 2' Curb Cut Station 1	Center 2' Curb Cut Station 2	Center 2' Curb Cut Station 3	Begin Walk Elevation	End Walk Elevation	Begin Top of Planter Elevation	End Top of Planter Elevation	Top of Mulch Elevation	Top of Weir Wall
M6-133	218.11	3.00	218.41	3.00	218.11	218.11	218.11	385.64	384.76	384.76	384.76	384.76	385.64
M6-134	218.41	3.00	218.71	3.00	218.41	218.41	218.41	384.55	384.13	384.13	384.13	384.13	384.55
M6-135	218.71	3.00	219.01	3.00	218.71	218.71	218.71	383.83	383.31	383.31	383.31	383.31	383.83
M6-136	219.01	3.00	219.31	3.00	219.01	219.01	219.01	383.31	382.80	382.80	382.80	382.80	383.31
M6-137	219.31	3.00	219.61	3.00	219.31	219.31	219.31	382.80	382.26	382.26	382.26	382.26	382.80
M6-138	219.61	3.00	219.91	3.00	219.61	219.61	219.61	382.26	381.82	381.82	381.82	381.82	382.26
M6-139	219.91	3.00	220.21	3.00	219.91	219.91	219.91	381.87	382.34	382.34	382.34	382.34	381.87
M6-140	220.21	3.00	220.51	3.00	220.21	220.21	220.21	384.54	384.38	384.38	384.38	384.38	384.54
M6-141	220.51	3.00	220.81	3.00	220.51	220.51	220.51	384.90	384.54	384.54	384.54	384.54	384.90
M6-142	220.81	3.00	221.11	3.00	220.81	220.81	220.81	385.53	384.90	384.90	384.90	384.90	385.53
M6-143	221.11	3.00	221.41	3.00	221.11	221.11	221.11	386.06	385.53	385.53	385.53	385.53	386.06
M6-144	221.41	3.00	221.71	3.00	221.41	221.41	221.41	386.58	386.06	386.06	386.06	386.06	386.58
M6-145	221.71	3.00	222.01	3.00	221.71	221.71	221.71	386.89	386.58	386.58	386.58	386.58	386.89
M6-146	222.01	3.00	222.31	3.00	222.01	222.01	222.01	389.27	389.14	389.14	389.14	389.14	389.27
M6-147	222.31	3.00	222.61	3.00	222.31	222.31	222.31	389.28	389.41	389.41	389.41	389.41	389.28
M6-148	222.61	3.00	222.91	3.00	222.61	222.61	222.61	389.74	389.28	389.28	389.28	389.28	389.74
M6-149	222.91	3.00	223.21	3.00	222.91	222.91	222.91	390.16	389.74	389.74	389.74	389.74	390.16
M6-150	223.21	3.00	223.51	3.00	223.21	223.21	223.21	390.88	390.16	390.16	390.16	390.16	390.88
M6-151	223.51	3.00	223.81	3.00	223.51	223.51	223.51	391.60	390.88	390.88	390.88	390.88	391.60
M6-152	223.81	3.00	224.11	3.00	223.81	223.81	223.81	392.16	391.88	391.88	391.88	391.88	392.16
M6-153	224.11	3.00	224.41	3.00	224.11	224.11	224.11	393.28	392.16	392.16	392.16	392.16	393.28

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
PRIVATE ROADS, SD AND STORMWATER
 Chief, Bureau of Highways _____ Date _____

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
 Chief, Division of Land Development _____ Date 12-21-15

Chief, Development Engineering Division _____ Date 3-25-15

OWNERS:

PARCELS C-1 THRU C-4 (OLD PARCEL C)
 PARCEL C BUSINESS TRUST
 c/o THE HOWARD HUGHES CORPORATION
 10275 LITTLE PATUXENT PARKWAY
 COLUMBIA, MD 21044

PARCELS D-1 THRU D-4 (OLD PARCEL D)
 PARCEL D PROPERTY LLC
 c/o KETTLER
 1751 PINNACLE DRIVE
 SUITE 700
 MCLEAN, VA 22101

LOT 40
 MALL ENTRANCES BUSINESS TRUST
 PO BOX 617905
 CHICAGO, IL 60661

LOT 47
 MALL IN COLUMBIA BUSINESS TRUST
 PO BOX 617905
 CHICAGO, IL 60661

PARCEL E
 CMI CORPORATE PARKING BUSINESS TRUST
 PO BOX 833
 COLUMBIA, MD 21044

CURB CUT AND BRIDGE AT MICRO BIO-RETENTION DETAIL PLANTER 'A'
 SCALE: 1"=2'

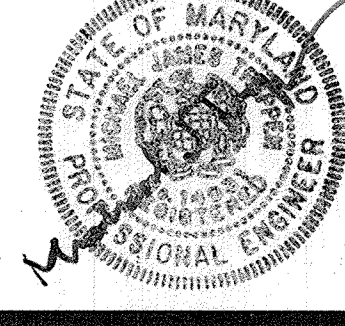
FOR MAIN LINE STORM DRAIN PROFILES SEE SHEETS 13 & 14.

GLWGUTSCHICK LITTLE & WEBER, P.A.
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
 3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK
 BURTONSVILLE, MARYLAND 20866
 TEL: 301-421-4024 BALT: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186

DATE	REVISION	BY	APP'R.
2/18/15	REVISE PLANTER LOCATIONS, ADD ON-STREET PARKING, ADD 1-204 A	DES. MJT	CHK.

PREPARED FOR:
 THE HOWARD HUGHES CORPORATION
 10275 LITTLE PATUXENT PARKWAY
 COLUMBIA, MARYLAND 21044
 ATTN: BOB JENKINS
 410-964-5443

PROFESSIONAL CERTIFICATION
 I HEREBY CERTIFY THAT THESE PLANS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 14681
 EXPIRATION DATE: MAY 21, 2016

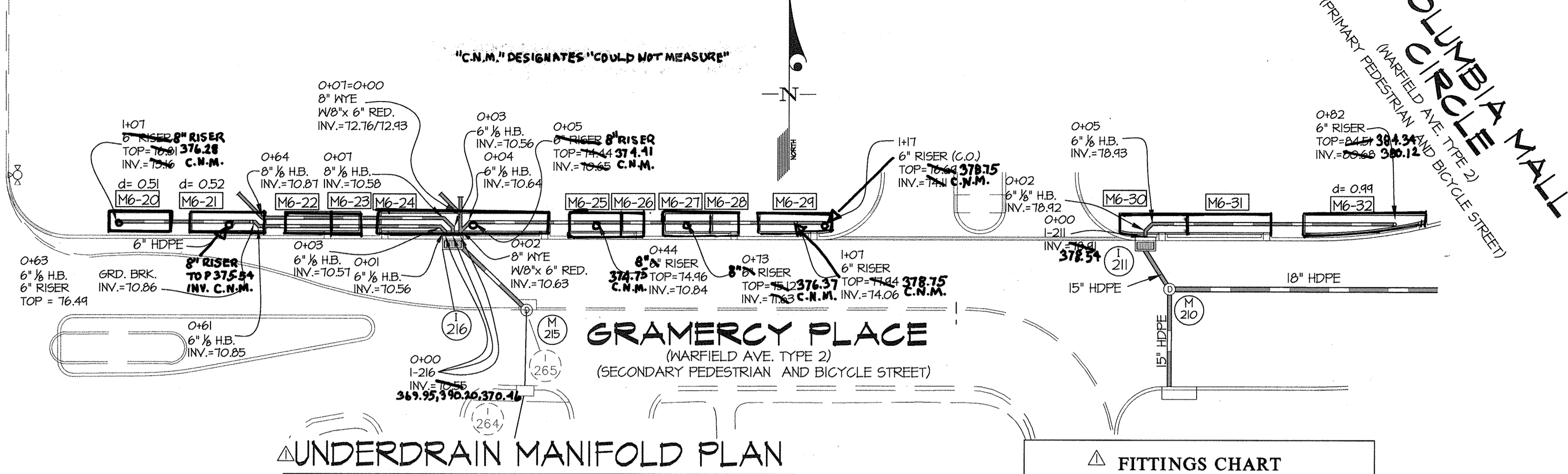


REVISED
UNDERDRAIN MANIFOLD PLAN, NOTES & PIPE SUMMARY
DOWNTOWN COLUMBIA
 WARFIELD NEIGHBORHOOD
 PARCELS C-1 THRU C-4 & PARCELS D-1 THRU D-4
 COLUMBIA TOWN CENTER
 LOTS 40 & 47 SECTION 2 AREA 1 & PARCEL E, SECTION 2 AREA 8
 FDP-DC-WARFIELD-1
 HOWARD COUNTY, MARYLAND

SCALE	ZONING	G. L. W. FILE NO.
AS SHOWN	NT	11053
DATE	TAX MAP - GRID	SHEET
FEB, 2015	36 - 01	11 OF 22

L:\CAD\DRAWINGS\11053\PLANS BY GLW\FINALS\11053-F-1112.dwg PLOTTED 2/19/2015 9:03 AM LAST SAVE: 2/19/2015 6:07 AM PLOTTED BY: Mike J. Tompkins

BROKEN LAND PARKWAY



UNDERDRAIN MANIFOLD PLAN

SCALE: 1"=30'

Gramercy Place ESD Planter Tabulation

Table with columns: Practice, Begin Station, Offset, End Station, etc. for Gramercy Place ESD Planter Tabulation.

FITTINGS CHART PRIVATELY OWNED AND MAINTAINED

Table with columns: SIZE (in), TYPE, QUANTITY for fittings.

S.D. PIPE SUMMARY TABLE PRIVATELY OWNED AND MAINTAINED

Table with columns: SIZE (in), TYPE, QUANTITY (L.F.), REMARKS for S.D. pipe.

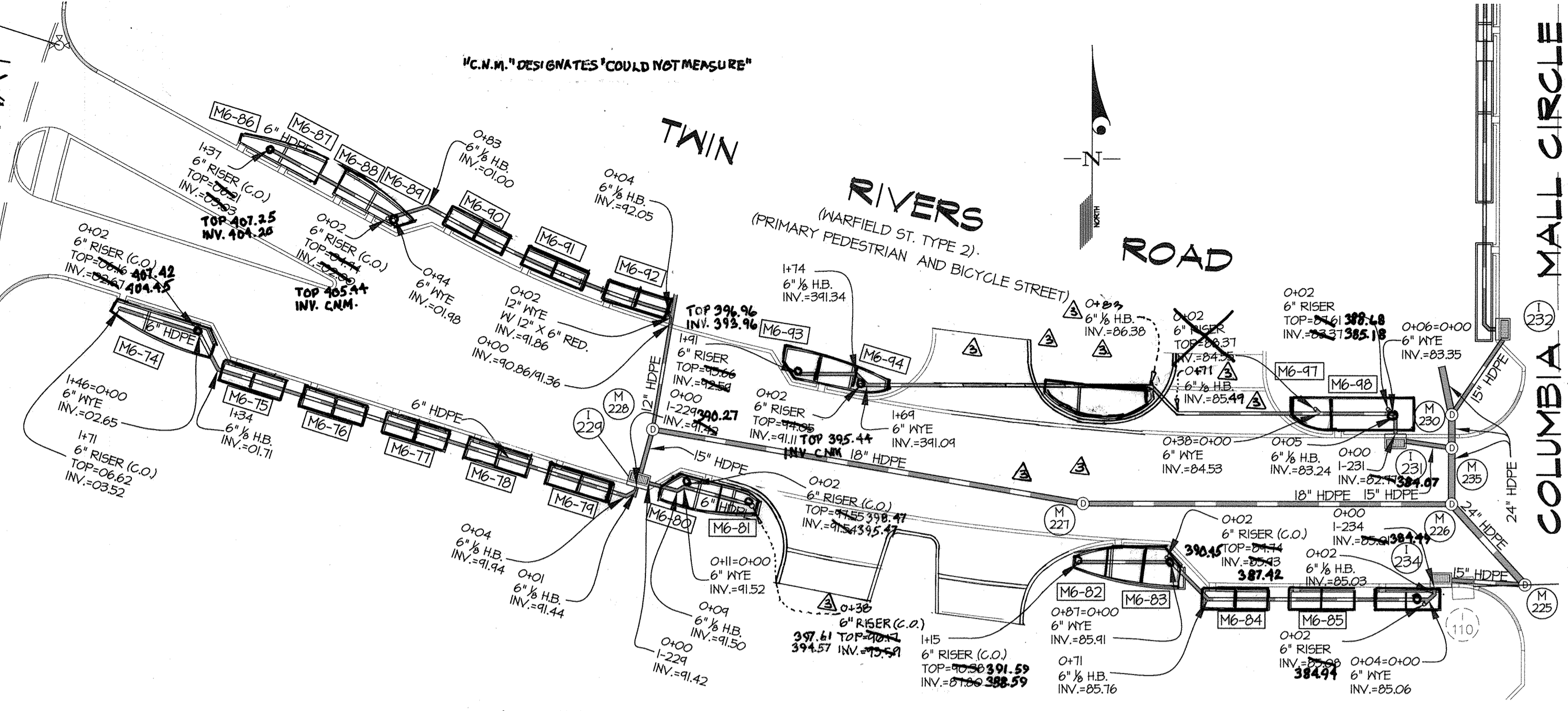
- NOTES: 1. IN CASE OF DISCREPANCIES BETWEEN THE CHART AND THE PLAN, THE PLAN SHALL GOVERN. 2. ALL RISERS FOR CLEANOUT LOCATIONS SHALL BE PVC WITH REMOVABLE PLUGS. 3. VERTICAL FITTINGS NOT INCLUDED. 4. ALL DRAIN RISERS SHALL HAVE NDS #40 ROUND GRATES OR EQUIVALENT AT THE SPECIFIED ELEVATION UNLESS NOTES OTHERWISE.

OPERATION AND MAINTENANCE SCHEDULE FOR LANDSCAPE INFILTRATION (M-3) MICRO-BIORETENTION (M-6), RAIN GARDENS (M-7), BIOTENTION SWALE (M-8), ENHANCED FILTERS (M-9)

- a. The Owner shall maintain the plant material, mulch layer and soil layer annually. Maintenance of mulch and soil is limited to correcting areas of erosion or wash out. Any mulch replacement shall be done in the spring. Plant material shall be checked for disease and insect infestation and maintenance will address dead material and pruning. Acceptable replacement plant material is limited to the following: 2000 Maryland Stormwater Design Manual Volume II, Table A.4.1 and 2. b. The Owner shall perform a plant in the spring and in the fall of each year. During the inspection, the Owner shall remove dead and diseased vegetation considered beyond treatment, replace dead plant material with acceptable replacement plant material, treat diseased trees and shrubs, and replace all deficient stakes and wires. c. The Owner shall inspect the mulch each spring. The mulch shall be replaced every two to three years. The previous mulch layer shall be removed before the new layer is applied. d. The Owner shall correct soil erosion on an as needed basis, with a minimum of once per month and after each heavy storm.

Table with columns: Material, Specification, Size, Notes for various materials used in the project.

COLUMBIA MALL



UNDERDRAIN MANIFOLD PLAN

SCALE: 1"=30'

Twin Rivers Road ESD Planter Tabulation

Table with columns: Practice, Begin Station, Offset, End Station, etc. for Twin Rivers Road ESD Planter Tabulation.

Twin Rivers Road ESD Planter Tabulation

Table with columns: Practice, Begin Station, Offset, End Station, etc. for Twin Rivers Road ESD Planter Tabulation (continued).

REVISED

UNDERDRAIN MANIFOLD PLAN, NOTES & PIPE SUMMARY

DOWNTOWN COLUMBIA WARFIELD NEIGHBORHOOD PARCELS C-1 THRU C-4 & PARCELS D-1 THRU D-4 COLUMBIA TOWN CENTER LOTS 40 & 47 SECTION 2 AREA 1 & PARCEL E, SECTION 2 AREA 8 FDP-DC-WARFIELD-1

AS BUILT CERTIFICATION I HEREBY CERTIFY BY SEAL THAT THE FACILITIES SHOWN ON THIS PLAN WERE CONSTRUCTED AS SHOWN ON THIS PLAN MEET THE CURRENT APPROVED PLANS AND SPECIFICATIONS

6 SCOTT SHAMBERGER

SHAMBERGER & LANE

PROFESSIONAL LAND SURVEYOR

LICENSE EXPIRATION DATE 12/28/20

AS BUILT SURVEY DATE 1/17/2018

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS PRIVATE ROADS, SD AND STORMWATER

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

PARCELS C-1 THRU C-4 (OLD PARCEL C) PARCEL C BUSINESS TRUST c/o THE HOWARD HUGHES CORPORATION 10275 LITTLE PATUXENT PARKWAY COLUMBIA, MD 21044

PARCELS D-1 THRU D-4 (OLD PARCEL D) PARCEL D PROPERTY LLC c/o KETTLER 1751 PINNACLE DRIVE SUITE 700 MCLEAN, VA 22101

GLWGUTSCHICK LITTLE & WEBER, P.A. CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS

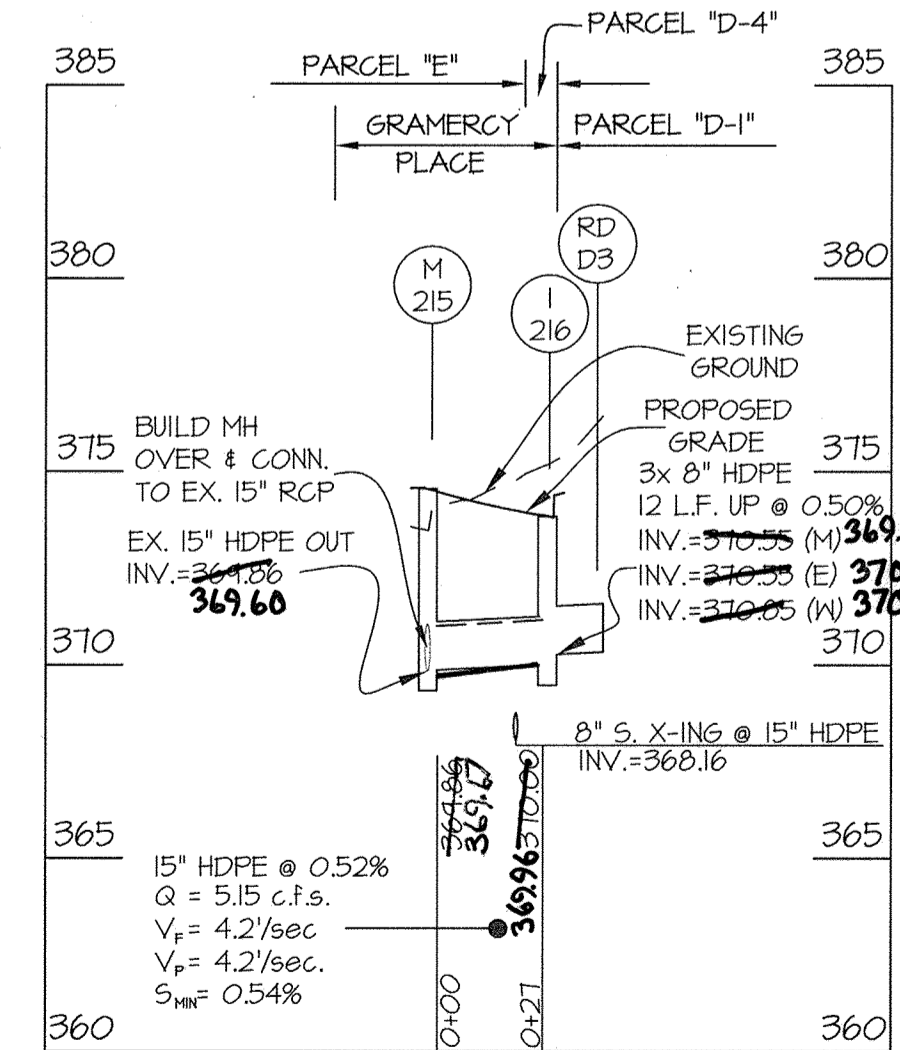
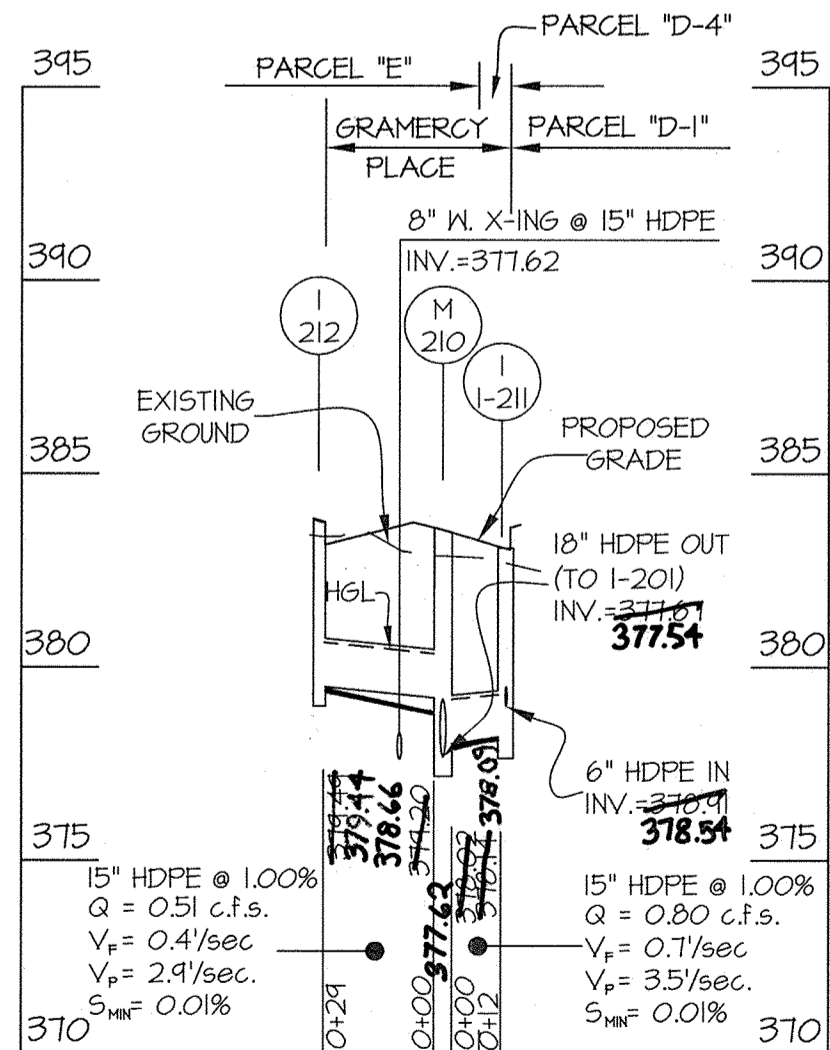
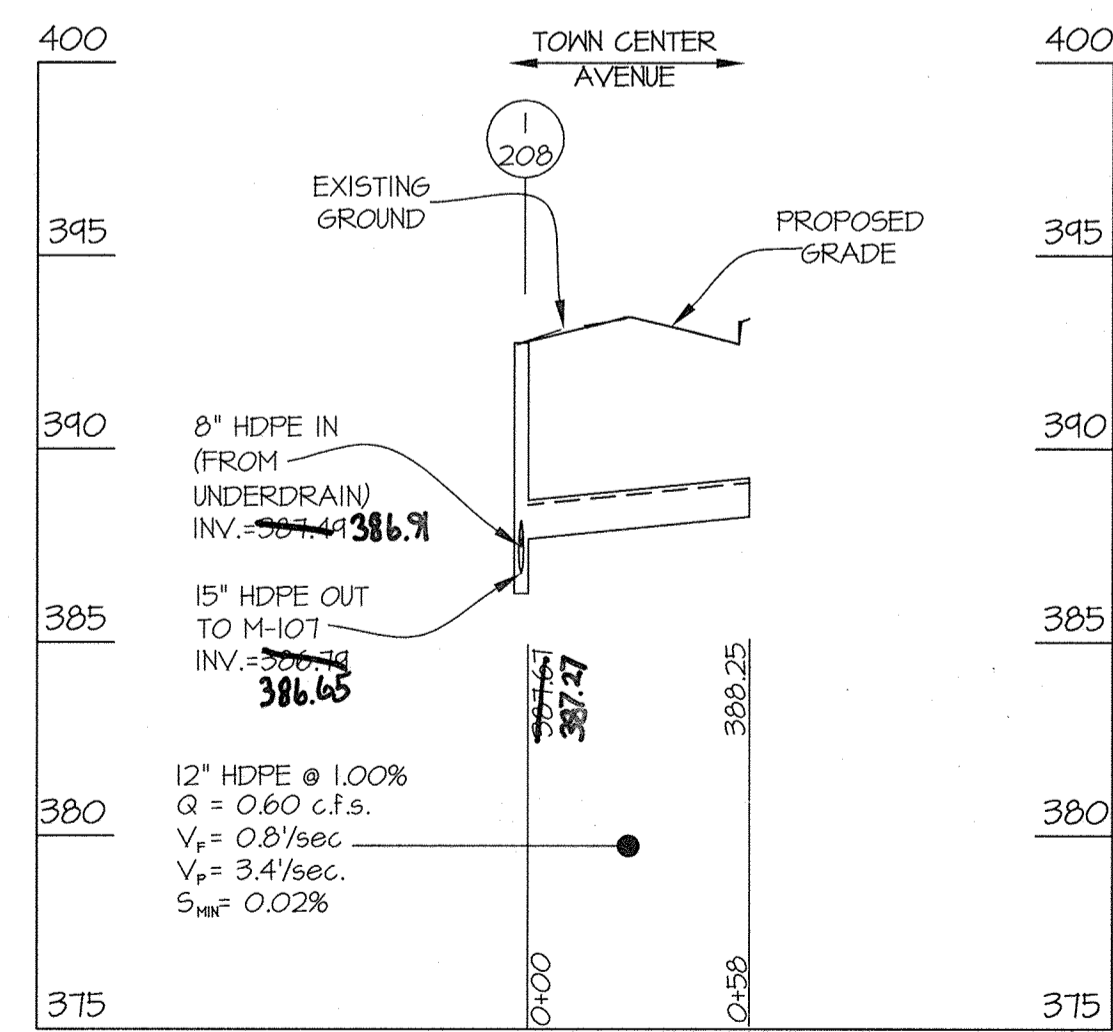
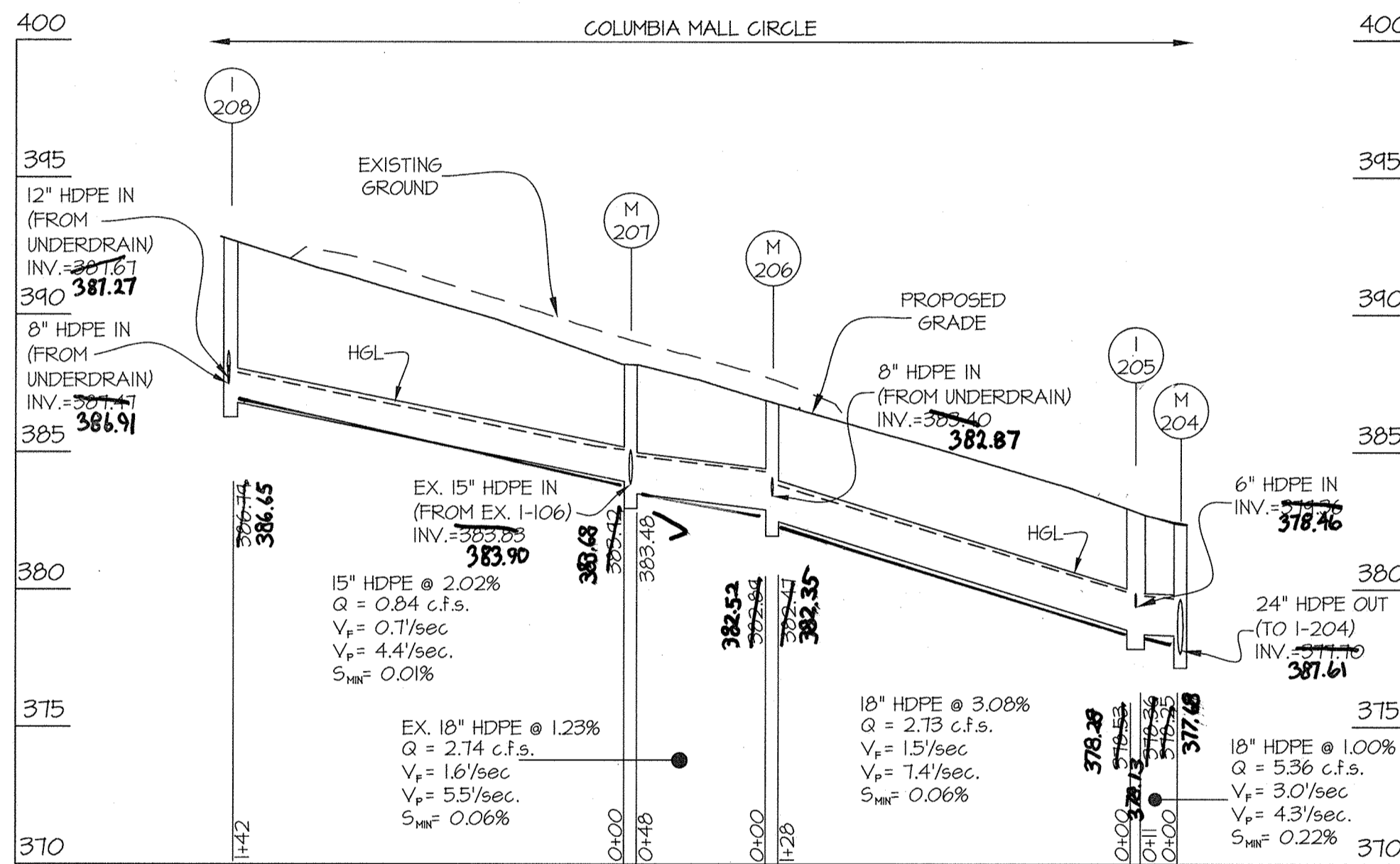
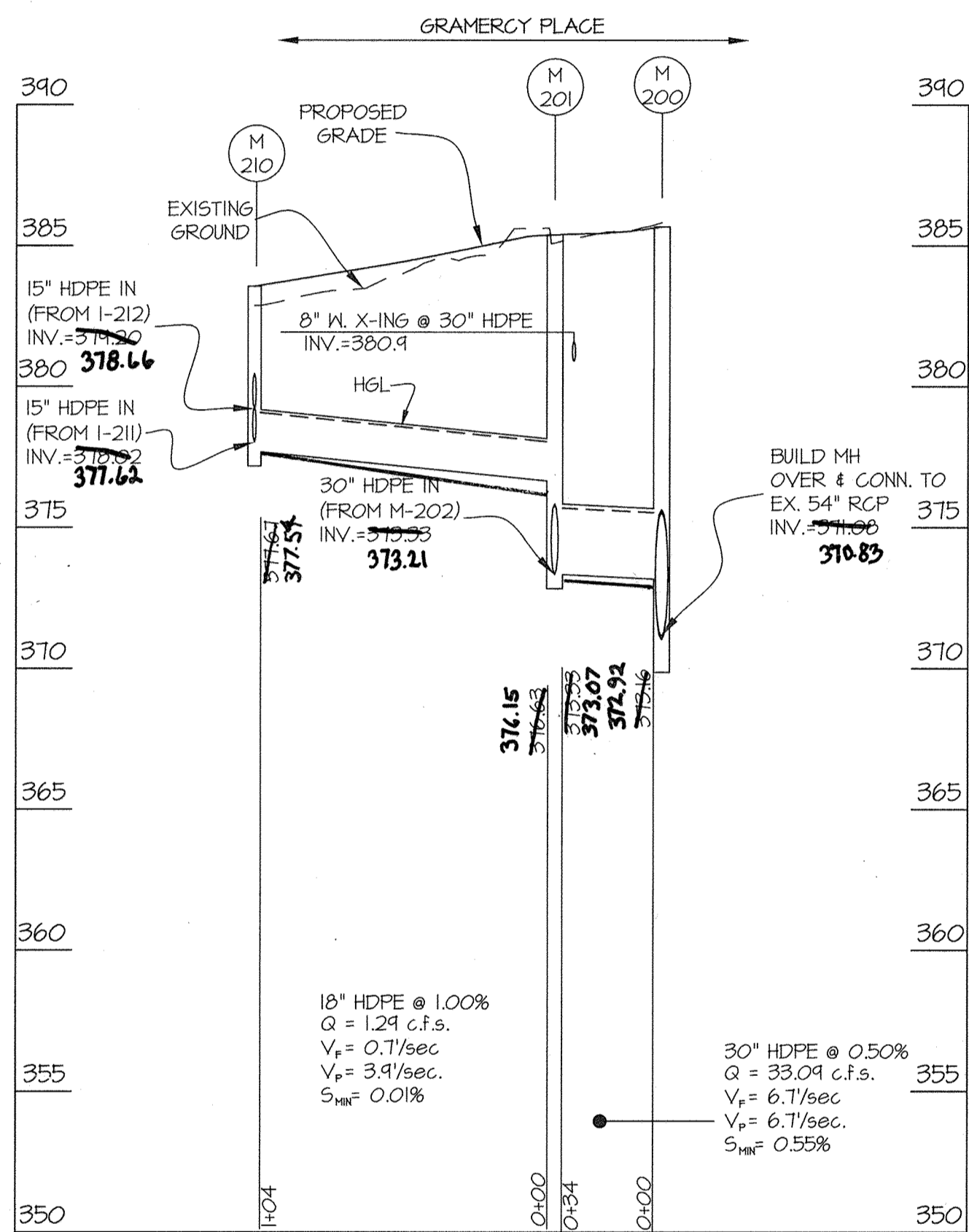
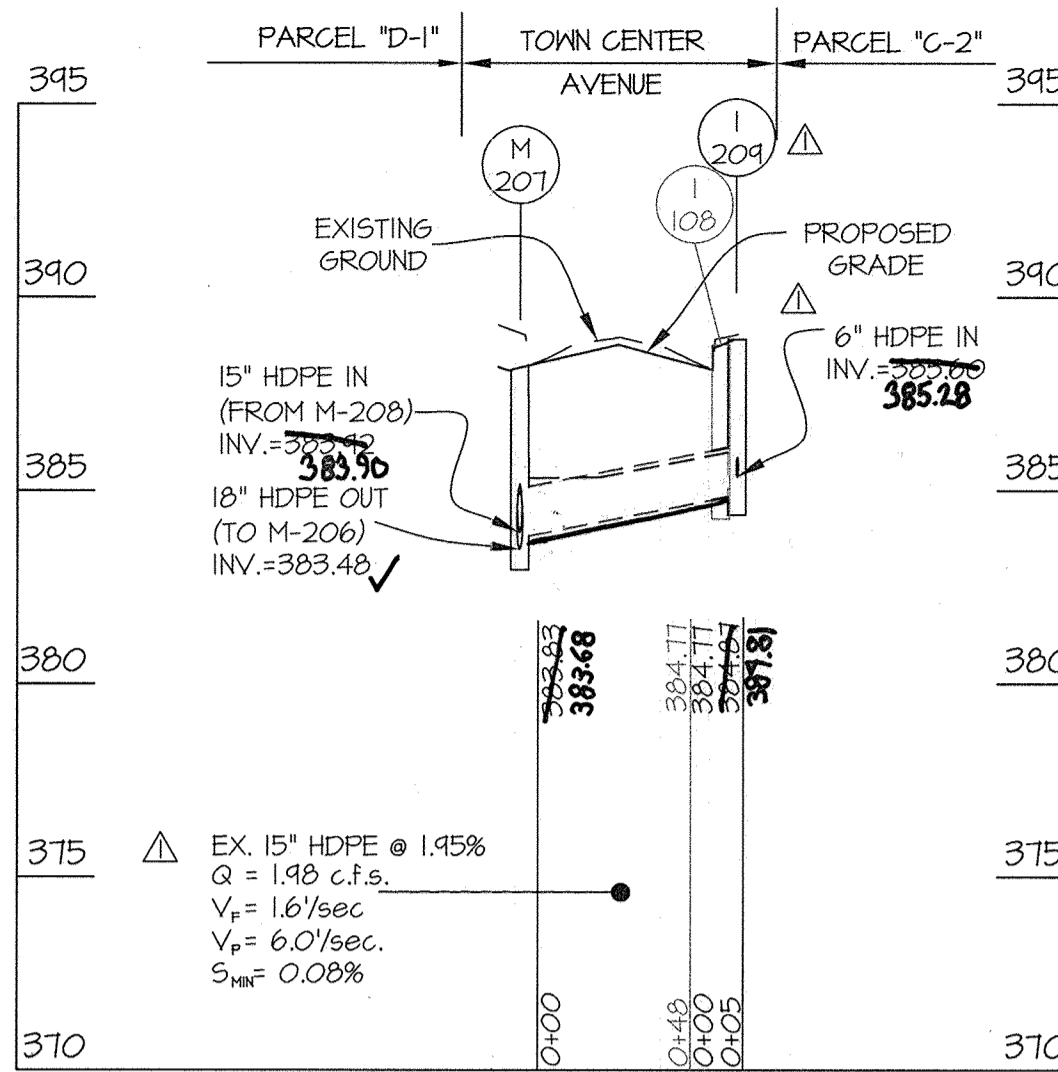
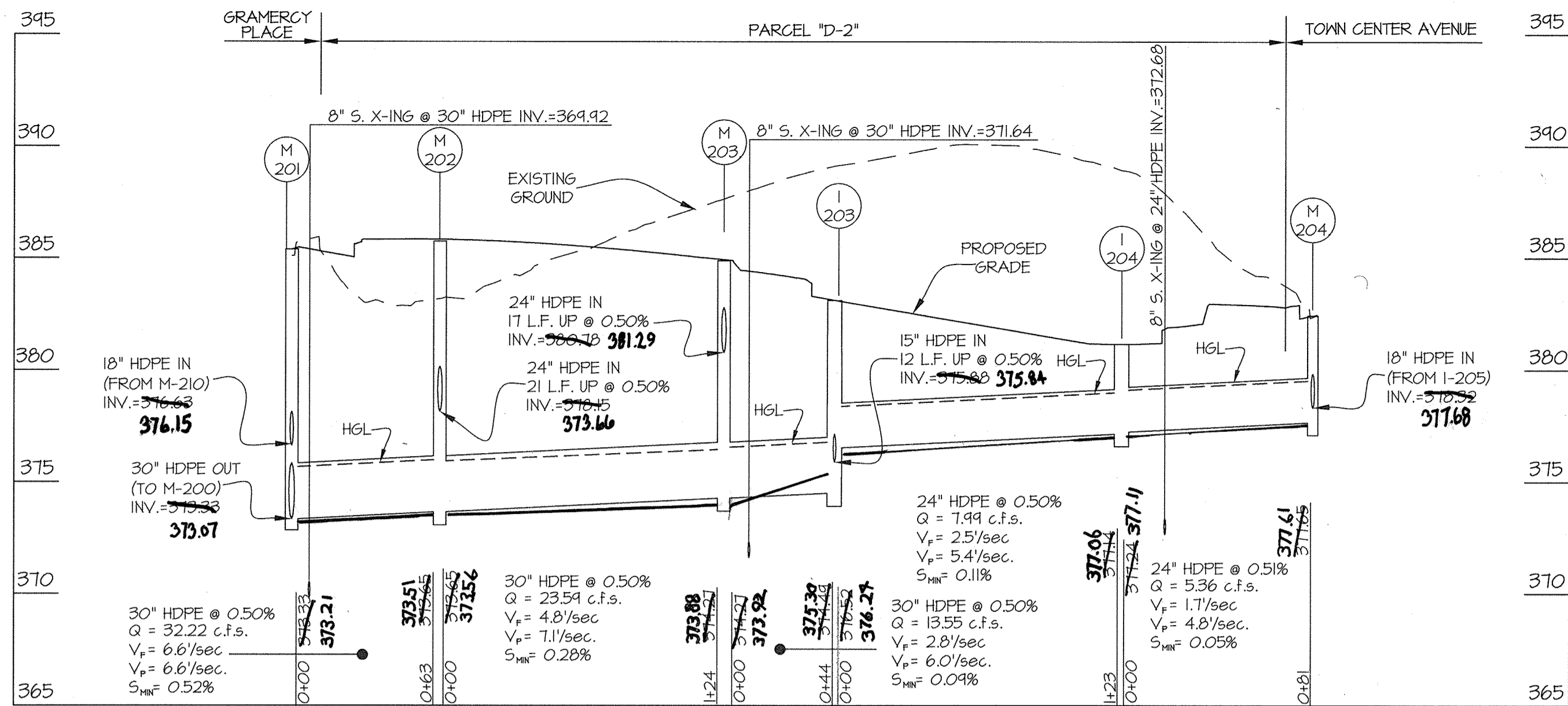
PREPARED FOR: THE HOWARD HUGHES CORPORATION 10275 LITTLE PATUXENT PARKWAY COLUMBIA, MARYLAND 21044

PROFESSIONAL CERTIFICATION I HEREBY CERTIFY THAT THESE PLANS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.



UNDERDRAIN MANIFOLD PLAN, NOTES & PIPE SUMMARY DOWNTOWN COLUMBIA WARFIELD NEIGHBORHOOD PARCELS C-1 THRU C-4 & PARCELS D-1 THRU D-4 COLUMBIA TOWN CENTER LOTS 40 & 47 SECTION 2 AREA 1 & PARCEL E, SECTION 2 AREA 8 FDP-DC-WARFIELD-1

Table with columns: SCALE, ZONING, G. L. W. FILE No., DATE, TAX MAP - GRID, SHEET.



S.D. STRUCTURE SCHEDULE										
NO.	TYPE	WIDTH (INSIDE)	TOP ELEVATION		INVERT ELEVATION		STANDARD DETAIL	NOTES	LOCATION	OWNERSHIP & MAINTENANCE
			UPPER	LOWER	UPPER	LOWER				
M-200	MANHOLE	5'-0"	385.14	385.14	374.74	370.77	HO. CO. 6. 512		GRAMERCY PLACE 544.81 - 18.02' RIGHT	PRIVATE
M-201	MANHOLE	5'-0"	385.30	385.30	386.10	380.07	HO. CO. 6. 512		GRAMERCY PLACE 511.03 - 3.00' RIGHT	PRIVATE
M-202	MANHOLE	5'-0"	385.90	385.90	373.16	373.51	HO. CO. 6. 512		COLUMBIA MALL CIRCLE 049.66 - 8.01' LEFT	PRIVATE
M-203	MANHOLE	4'-0"	381.10	381.10	373.82	373.88	HO. CO. 6. 512		COLUMBIA MALL CIRCLE 249.41 - 31.44' LEFT	PRIVATE
M-204	MANHOLE	4'-0"	384.50	384.50	377.68	377.61	HO. CO. 6. 512		COLUMBIA MALL CIRCLE 417.01 - 33.91' LEFT	PRIVATE
I-203	DOUBLE WR	2'-1/2"	383.00	383.00	376.24	375.36	HO. CO. D. 4.35		COLUMBIA MALL CIRCLE 254.82 - 33.33' LEFT	PRIVATE
I-204	DOUBLE WR	2'-1/2"	383.10	383.10	377.11	377.04	HO. CO. D. 4.35		COLUMBIA MALL CIRCLE 318.41 - 33.35' LEFT	PRIVATE
I-205	DOUBLE WR	2'-1/2"	383.20	383.20	378.28	378.21	HO. CO. D. 4.35		484.02 - 26.15' RIGHT	PRIVATE
M-206	MANHOLE	4'-0"	387.05	387.05	386.52	384.35	HO. CO. 6. 512		TOWN CENTER AVENUE 345.85 - 26.94' RIGHT	PRIVATE
M-207	MANHOLE	4'-0"	386.50	386.50	383.90	383.68	HO. CO. 6. 512		TOWN CENTER AVENUE 248.42 - 25.70' RIGHT	PRIVATE
I-208	DOUBLE WR	2'-1/2"	383.30	383.30	382.21	382.21	HO. CO. D. 4.35		TOWN CENTER AVENUE 151.01 - 21.11' RIGHT	PRIVATE
M-210	MANHOLE	4'-0"	383.48	383.48	378.66	377.54	HO. CO. 6. 512		GRAMERCY PLACE 440.35 - 18.11' LEFT	PRIVATE
I-211	DOUBLE WR	2'-1/2"	383.50	383.50	378.54	378.59	HO. CO. D. 4.35		GRAMERCY PLACE 345.80 - 21.35' LEFT	PRIVATE
I-212	A-10	3'-0"	383.80	383.80	383.80	terminal	HO. CO. D. 4.04		GRAMERCY PLACE 440.73 - 23.00' RIGHT	PRIVATE
M-215	MANHOLE	4'-0"	384.11	384.11	383.67	381.10	HO. CO. 6. 512		GRAMERCY PLACE 148.84 - 0.68' LEFT	PRIVATE
I-216	DOUBLE WR	2'-1/2"	378.54	378.54	378.46	378.50	HO. CO. D. 4.35		GRAMERCY PLACE 116.43 - 21.35' LEFT	PRIVATE
M-218	MANHOLE	4'-0"	383.22	383.22	375.10	377.11	HO. CO. 6. 512		COLUMBIA MALL CIRCLE 521.62 - 34.75' LEFT	PRIVATE
I-219	DOUBLE WR	2'-1/2"	383.30	383.30	378.75	378.23	HO. CO. D. 4.35		COLUMBIA MALL CIRCLE 440.30 - 21.92' LEFT	PRIVATE
M-222	MANHOLE	5'-0"	385.40	385.40	377.55	377.90	HO. CO. 6. 512		COLUMBIA MALL CIRCLE 648.78 - 18.60' RIGHT	PRIVATE
I-223	DOUBLE WR	2'-1/2"	385.24	385.24	375.50	375.50	HO. CO. D. 4.35		COLUMBIA MALL CIRCLE 649.41 - 33.35' LEFT	PRIVATE
M-225	MANHOLE	4'-0"	387.22	387.22	386.76	386.76	HO. CO. 6. 512		COLUMBIA MALL CIRCLE 154.95 - 21.00' LEFT	PRIVATE
M-226	MANHOLE	4'-0"	381.66	381.66	381.95	380.89	HO. CO. 6. 512		TWIN RIVERS ROAD 448.84 - 4.00' RIGHT	PRIVATE
M-227	MANHOLE	4'-0"	381.10	381.10	380.23	380.23	HO. CO. 6. 512		TWIN RIVERS ROAD 317.60 - 6.25' RIGHT	PRIVATE
M-228	MANHOLE	4'-0"	377.57	377.57	382.35	381.80	HO. CO. 6. 512		TWIN RIVERS ROAD 245.40 - 1.01' RIGHT	PRIVATE
I-229	DOUBLE WR	2'-1/2"	377.40	377.40	377.04	377.72	HO. CO. D. 4.35		TWIN RIVERS ROAD 245.41 - 22.34' RIGHT	PRIVATE
M-230	MANHOLE	4'-0"	380.40	380.40	380.24	380.24	HO. CO. 6. 512		MALL RING ROAD 154.95 - 21.00' LEFT	PRIVATE
I-231	DOUBLE WR	2'-1/2"	380.24	380.24	382.24	382.24	HO. CO. D. 4.35		TWIN RIVERS ROAD 417.80 - 18.00' LEFT	PRIVATE
I-232	DOUBLE WR	2'-1/2"	380.24	380.24	382.45	382.15	HO. CO. D. 4.35		COLUMBIA MALL CIRCLE 843.92 - 33.35' LEFT	PRIVATE
I-234	DOUBLE WR	2'-1/2"	380.24	380.24	383.50	383.50	HO. CO. D. 4.35		TWIN RIVERS ROAD 484.75 - 26.34' RIGHT	PRIVATE
M-235	MANHOLE	4'-0"	381.70	381.70	381.10	381.10	HO. CO. 6. 512		TWIN RIVERS ROAD 448.84 - 12.40' LEFT	PRIVATE
I-204	DOUBLE WR	2'-1/2"	388.78	388.78	384.81	384.81	terminal		TOWN CENTER AVENUE 248.52 - 30.74' LEFT	PRIVATE

- EXISTING STRUCTURE NOTES:
- EX. I-101 CONVERT EXISTING TYPE D YARD INLET TO MANHOLE. RIM= 385.43 381.53
 - EX. M-103 RIM= 381.58 CANNOT FIND
 - EX. M-104 RIM= 382.03 381.98
 - EX. I-105 REMOVE EXISTING A-5 INLET AND PLACE MANHOLE OVER AND CONNECT TO EXISTING SD. ✓
 - EX. I-106 REMOVE EXISTING A-10 INLET AND REMOVE PIPE BACK TO EXISTING MANHOLE M-104. ✓
 - EX. I-107 REMOVE EXISTING A-5 INLET AND PLACE MANHOLE OVER AND CONNECT TO EXISTING SD. ✓
 - EX. M-109 RIM= 381.42 CANNOT FIND
 - EX. I-110 REMOVE EXISTING YARD INLET AND REMOVE EXISTING PIPE BACK TO PROPOSED INLET M-225. ✓
 - EX. M-111 RIM= 380.00 CANNOT FIND
 - EX. I-265 REMOVE EXISTING A-5 INLET AND PLACE MANHOLE OVER AND CONNECT TO EXISTING SD. ✓
 - EX. I-108 REMOVE EXISTING A-5 INLET AND EXTEND PIPE IN LINE AND GRADE TO PROPOSED INLET I-204. ✓

AS-BUILT CERTIFICATION
 I HEREBY CERTIFY BY SEAL, THAT THE FACILITY SHOWN ON THIS PLAN WERE CONSTRUCTED AS SHOWN ON THIS PLAN MEET THE CURRENT APPROVED PLANS AND SPECIFICATIONS
 6. SCOTT SHAMBERGER
 SHAMBERGER & LANE
 PROFESSIONAL LAND SURVEYOR # 10049
 LICENSE EXPIRATION DATE 4/1/2015
 AS-BUILT SURVEY DATE 7/27/2010

NOTE: FOR ADDITIONAL INFORMATION ON MICRO BIO-RETENTION UNDERDRAIN CONNECTIONS WITH STORM DRAIN, SEE SHEETS 11 & 12.

OWNERS:

PARCELS C-1 THRU C-4 (OLD PARCEL C)
 PARCEL C BUSINESS TRUST
 c/o THE HOWARD HUGHES CORPORATION
 10275 LITTLE PATUXENT PARKWAY
 COLUMBIA, MD 21044

PARCELS D-1 THRU D-4 (OLD PARCEL D)
 PARCEL D PROPERTY LLC
 c/o KETTLER
 1751 PINNACLE DRIVE
 SUITE 700
 MCLEAN, VA 22101

LOT 40
 MALL ENTRANCES BUSINESS TRUST
 PO BOX 617905
 CHICAGO, IL 60661

LOT 47
 MALL IN COLUMBIA BUSINESS TRUST
 PO BOX 617905
 CHICAGO, IL 60661

PARCEL E
 CMI CORPORATE PARKING BUSINESS TRUST
 PO BOX 833
 COLUMBIA, MD 21044

PROFILE SCALES:
 1" = 5' VERT.
 1" = 50' HORIZ.

S.D. PIPE SUMMARY TABLE			
PRIVATELY OWNED AND MAINTAINED			
SIZE (IN)	TYPE	QUANTITY (L.F.)	REMARKS
8"	HDPE	12	
12"	HDPE	88	
15"	HDPE	325	
18"	HDPE	479	
24"	HDPE	367	
30"	HDPE	265	

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
PRIVATE ROADS, SD AND STORMWATER
 Chief, Bureau of Highways _____ Date _____

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
 Chief, Division of Land Development _____ Date 12-28-15
 Chief, Development Engineering Division _____ Date 3-25-15

GLWGUTSCHICK LITTLE & WEBER, P.A.
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
 3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK
 BURTONSVILLE, MARYLAND 20866
 TEL: 301-421-4024 BALT: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186

DATE	REVISION	BY	APPR.
2/18/15	REVISE PLANTER LOCATIONS, ADD ON-STREET PARKING, ADD 2-104		
	REVISION		

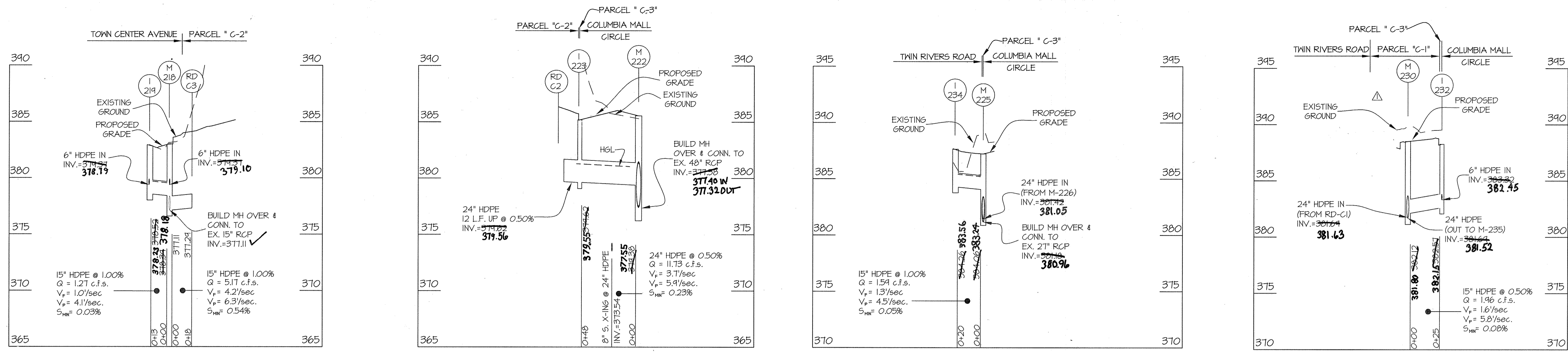
PREPARED FOR:
 THE HOWARD HUGHES CORPORATION
 10275 LITTLE PATUXENT PARKWAY
 COLUMBIA, MARYLAND 21044
 ATTN: BOB JENKINS
 410-964-5443

PROFESSIONAL CERTIFICATION
 I HEREBY CERTIFY THAT THESE PLANS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.
 LICENSE NO. 1893
 EXPIRATION DATE: MAY 21, 2016

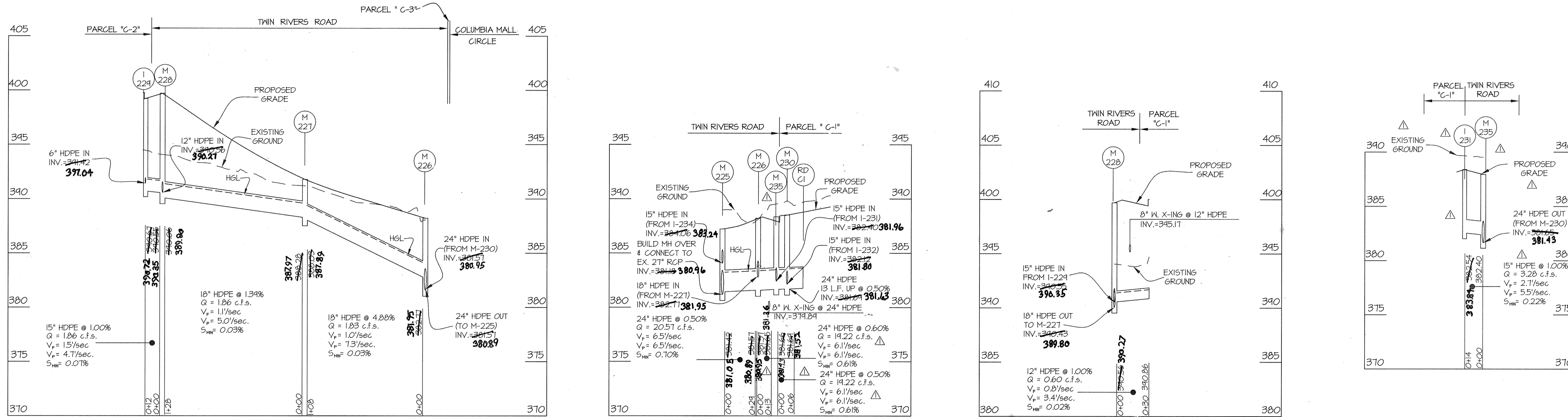


REVISED
STORM DRAIN PROFILES & SCHEDULES
DOWNTOWN COLUMBIA
 WARFIELD NEIGHBORHOOD
 PARCELS C-1 THRU C-4 & PARCELS D-1 THRU D-4
 COLUMBIA TOWN CENTER
 LOTS 40 & 47 SECTION 2 AREA 1 & PARCEL E, SECTION 2 AREA 8
 FDP-DC-WARFIELD-1
 HOWARD COUNTY, MARYLAND

SCALE	ZONING	G. L. W. FILE NO.
AS SHOWN	NT	11053
DATE	TAX MAP - GRID	SHEET
FEB., 2015	36 - 01	13 OF 22



NOTE: FOR ADDITIONAL INFORMATION ON MICRO BIO-RETENTION UNDERDRAIN CONNECTIONS WITH STORM DRAIN, SEE SHEETS 11 & 12.



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

OWNERS:
 PARCELS C-1 THRU C-4 (OLD PARCEL C)
 PARCEL C BUSINESS TRUST
 c/o THE HOWARD HUGHES CORPORATION
 10275 LITTLE PATUXENT PARKWAY
 COLUMBIA, MD 21044
 LOT 40
 MALL ENTRANCES BUSINESS TRUST
 PO BOX 617905
 CHICAGO, IL 60661
 PARCELS D-1 THRU D-4 (OLD PARCEL D)
 PARCEL D PROPERTY LLC
 c/o KETTLER
 1751 PINNACLE DRIVE
 SUITE 700
 MCLEAN, VA 22101
 LOT 47
 MALL IN COLUMBIA BUSINESS TRUST
 PO BOX 617905
 CHICAGO, IL 60661
 PARCEL E
 CMI CORPORATE PARKING BUSINESS TRUST
 PO BOX 833
 COLUMBIA, MD 21044

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
PRIVATE ROADS, SD AND STORMWATER
 Chief, Bureau of Highways Date: _____
 APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
 Chief, Division of Land Development Date: 3-23-15
 Chief, Development Engineering Division Date: 3-25-15

AS-BUILT CERTIFICATION
 I HEREBY CERTIFY, BY SEAL, THAT THE FACILITIES SHOWN ON THIS PLAN WERE CONSTRUCTED AS SHOWN ON THIS PLAN MEET THE CURRENT APPROVED PLANS AND SPECIFICATIONS
 G. SCOTT SHAMBERGER
 SHAMBERGER & BLANE
 PROFESSIONAL LAND SURVEYORS
 LICENSE NO. 10849
 LICENSE EXPIRES DATE 11/27/2018
 AS-BUILT SURVEY DATE 7/27/2012

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 BAL: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186

DATE	REVISION	BY	APPR.
2/18/15	REVISE PLANTER LOCATIONS, ADD ON-STREET PARKING, ADD 1-204	BTS	

PREPARED FOR:
 THE HOWARD HUGHES CORPORATION
 10275 LITTLE PATUXENT PARKWAY
 COLUMBIA, MARYLAND 21044
 ATTN: BOB JENKINS
 410-964-5443

PROFESSIONAL CERTIFICATION
 I HEREBY CERTIFY THAT THESE PLANS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.
 LICENSE NO. 10849
 EXPIRATION DATE: MAY 21, 2016



REVISED
STORM DRAIN PROFILES
DOWNTOWN COLUMBIA
 WARFIELD NEIGHBORHOOD
 PARCELS C-1 THRU C-4 & PARCELS D-1 THRU D-4
 COLUMBIA TOWN CENTER
 LOTS 40 & 47 SECTION 2 AREA 1 & PARCEL E, SECTION 2 AREA 8
 FDP-DC-WARFIELD-1
 HOWARD COUNTY, MARYLAND

SCALE	ZONING	G. L. W. FILE NO.
AS SHOWN	NT	11053
DATE	TAX MAP - GRID	SHEET
FEB., 2015	36 - 01	14 OF 22

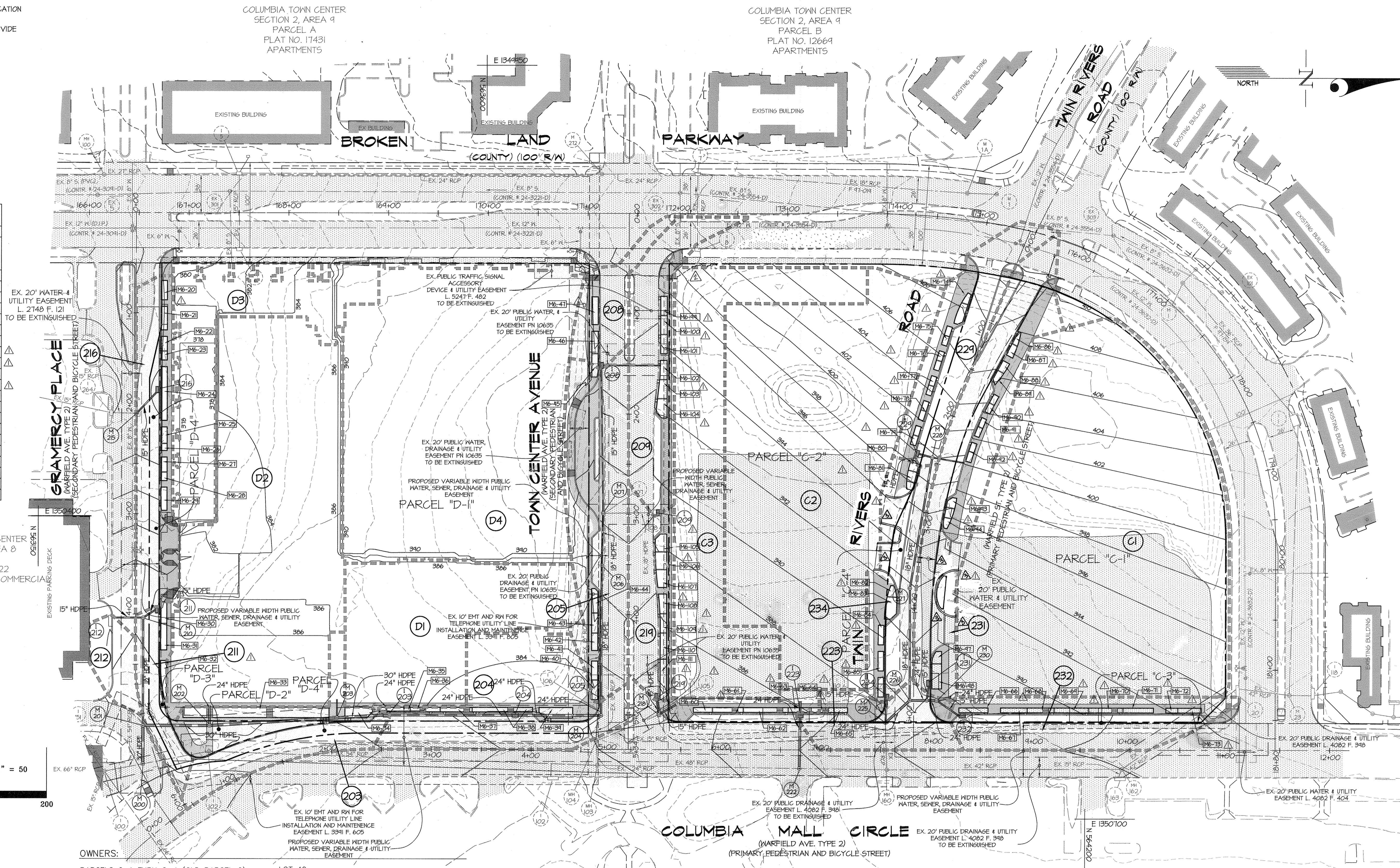
L:\CAD\DRAWINGS\11053\PLANS BY G:\VFN\SL\11053-F-1314.dwg, PLOTTED: 2/18/2015 8:43 AM, LAST SAVED: 2/19/2015 8:42 AM, PLOTTED BY: Mcc, Trogan

LEGEND

- 102 DRAINAGE AREA IDENTIFICATION
- PROP. 10 YR DRAINAGE DIVIDE

Drainage Area Summary Chart

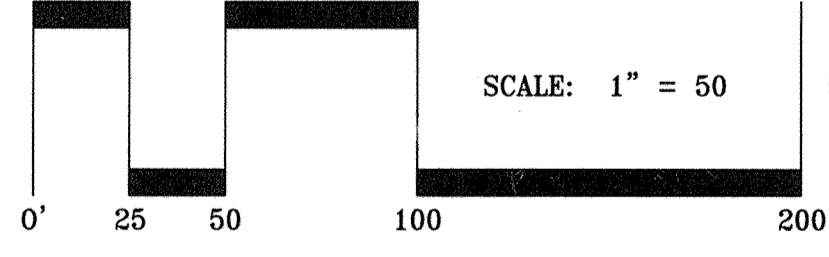
No.	Area (sq ft)	Area (Ac.)	Composite C	% Impervious
203	13,068	0.300	0.76	85
204	18,731	0.430	0.76	85
205	19,115	0.439	0.76	85
208	5,682	0.130	0.76	85
211	5,382	0.124	0.76	85
212	3,424	0.079	0.76	85
216	13,068	0.300	0.76	85
219	8,652	0.199	0.76	85
209	13,285	0.305	0.76	85
223	8,260	0.190	0.76	85
229	12,572	0.289	0.76	85
231	22,113	0.508	0.76	85
232	13,220	0.303	0.76	85
234	10,707	0.246	0.76	85
C1	83,984	1.928	0.86	100
C2	62,565	1.436	0.86	100
C3	30,799	0.707	0.86	100
D1	25,265	0.580	0.86	100
D2	55,757	1.280	0.86	100
D3	19,166	0.440	0.86	100
D4	65,340	1.500	0.86	100



EX. 20' WATER & UTILITY EASEMENT L. 2749 F. 121 TO BE EXTINGUISHED

COLUMBIA TOWN CENTER SECTION 2, AREA 8 PARCEL E PLAT NO. 14022 EMPLOYMENT CENTER-COMMERCIAL

COLUMBIA TOWN CENTER SECTION 2, AREA 8 PARCEL B PLAT NO. 14639 SINGLE FAMILY ATTACHED



OWNERS:

PARCELS C-1 THRU C-4 (OLD PARCEL C)
 PARCEL C BUSINESS TRUST
 c/o THE HOWARD HUGHES CORPORATION
 10275 LITTLE PATUXENT PARKWAY
 COLUMBIA, MD 21044

LOT 40
 MALL ENTRANCES BUSINESS TRUST
 PO BOX 617905
 CHICAGO, IL 60661

PARCELS D-1 THRU D-4 (OLD PARCEL D)
 PARCEL D PROPERTY LLC
 c/o KETTLER
 1751 PINNACLE DRIVE
 SUITE 700
 MCLEAN, VA 22101

LOT 47
 MALL IN COLUMBIA BUSINESS TRUST
 PO BOX 617905
 CHICAGO, IL 60661

PARCEL E
 CMI CORPORATE PARKING BUSINESS TRUST
 PO BOX 833
 COLUMBIA, MD 21044

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
PRIVATE ROADS, SD AND STORMWATER
 Chief, Bureau of Highways _____ Date _____

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
 Chief, Division of Land Development _____ Date 12-21-15

Chief, Development Engineering Division _____ Date 3-25-15

GLWGUTSCHICK LITTLE & WEBER, P.A.
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
 3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK
 BURTONSVILLE, MARYLAND 20866
 TEL: 301-421-4024 BALT: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186

DATE	REVISION	BY	APP'R.
11-14-15	Revise Loading and Parking Entrances	JK	JK
12-21-15	Revise Traffic Signal Easement NE Quadrant	JK	JK
2/18/16	REVISE PLANTER LOCATIONS, ADD ON-STREET PARKING, ADD 1-204	BTS	JK

PREPARED FOR:
 THE HOWARD HUGHES CORPORATION
 10275 LITTLE PATUXENT PARKWAY
 COLUMBIA, MARYLAND 21044
 ATTN: BOB JENKINS
 410-964-5443

PROFESSIONAL CERTIFICATION
 I HEREBY CERTIFY THAT THESE PLANS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 14831
 EXPIRATION DATE: MAY 21, 2016



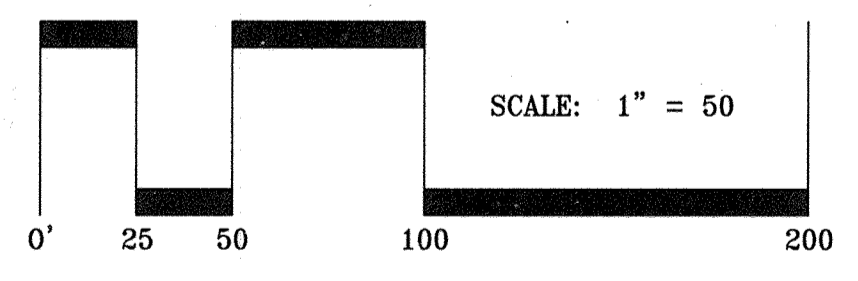
REVISED
STORM DRAIN DRAINAGE AREA MAP
DOWNTOWN COLUMBIA
 WARFIELD NEIGHBORHOOD
 PARCELS C-1 THRU C-4 & PARCELS D-1 THRU D-4
 COLUMBIA TOWN CENTER
 LOTS 40 & 47 SECTION 2 AREA 1 & PARCEL E, SECTION 2 AREA 8
 FDP-DC-WARFIELD-1
 ELECTION DISTRICT No. 5

SCALE	ZONING	G. L. W. FILE NO.
1"=50'	NT	11053
DATE	TAX MAP - GRID	SHEET
FEB, 2015	36 - 01	15 OF 22

NOTE: THERE IS NO AGREEMENT FOR INFORMATION PROVIDED HEREIN.
 G. SCOTT SHANABARGER
 SHANABARGER & LANE
 PROFESSIONAL ENGINEERS
 AS-BUILT DATE: 3/27/2018

L:\CAD\DRAWINGS\11053\PLANS BY GUY FINA\S\11053-F-15.dwg PLOTTED: 2/19/2015 8:51 AM, LAST SAVED: 2/19/2015 6:36 AM, PLOTTED BY: Mike Tringali

ESD Drainage Area Summary Chart							
No.	Practice No.	Area	Area (Ac.) Overland (O)	Area (Ac.) Roads (R)	% Impv.	Rational Formula C Factor	
20	M6-20	262	0.008	---	100	0.98	
21	M6-21	438	0.010	---	100	0.98	
22	M6-22	369	0.008	810	0.019	100	0.98
23	M6-23	---	---	---	100	0.98	
24L	M6-24L	724	0.017	1,039	0.024	100	0.98
24R	M6-24R	---	---	968	0.022	100	0.98
25	M6-25	---	---	---	100	0.98	
26	M6-26	313	0.007	839	0.019	100	0.98
27	M6-27	---	---	---	100	0.98	
28	M6-28	417	0.010	604	0.014	100	0.98
29	M6-29	509	0.012	3,882	0.089	100	0.98
30	M6-30	315	0.007	870	0.020	100	0.98
31	M6-31	346	0.008	1,418	0.033	100	0.98
32	M6-32	230	0.005	1,953	0.045	100	0.98
33	M6-33	4,857	0.112	4,717	0.108	100	0.98
34	M6-34	293	0.007	1,870	0.043	100	0.98
35	M6-35	159	0.004	998	0.023	100	0.98
36	M6-36	147	0.003	1,341	0.031	100	0.98
37	M6-37	153	0.004	551	0.013	100	0.98
38	M6-38	4374	0.100	999	0.023	100	0.98
39	M6-39	359	0.008	3,374	0.077	100	0.98
40	M6-40	315	0.007	852	0.015	100	0.98
41	M6-41	814	0.014	852	0.020	100	0.98
42	M6-42	224	0.005	873	0.015	100	0.98
43	M6-43	324	0.007	695	0.018	100	0.98
44	M6-44	336	0.008	11,834	0.272	100	0.98
45	M6-45	311	0.007	877	0.020	100	0.98
46	M6-46	347	0.008	911	0.019	100	0.98
47	M6-47	568	0.013	2,954	0.068	100	0.98
60	M6-60	354	0.008	618	0.014	100	0.98
61	M6-61	534	0.012	1,584	0.036	100	0.98
62	M6-62	777	0.018	188	0.004	100	0.98
63	M6-63	360	0.008	801	0.018	100	0.98
64	M6-64	424	0.010	443	0.010	100	0.98
65	M6-65	485	0.011	6,295	0.145	100	0.98
66	M6-66	404	0.009	1,450	0.033	100	0.98
67	M6-67	470	0.011	951	0.022	100	0.98
68	M6-68	468	0.011	1,539	0.035	100	0.98
69	M6-69	615	0.014	3,544	0.081	100	0.98
70	M6-70	589	0.014	336	0.008	100	0.98
71	M6-71	754	0.017	---	---	100	0.98
72	M6-72	204	0.005	---	---	100	0.98
73	M6-73	863	0.020	---	---	100	0.98
74	M6-74	2,293	0.053	2,341	0.054	100	0.98
75	M6-75	232	0.005	1,030	0.024	100	0.98
76	M6-76	322	0.007	769	0.018	100	0.98
77	M6-77	322	0.007	831	0.019	100	0.98
78	M6-78	310	0.007	745	0.017	100	0.98
79	M6-79	384	0.009	688	0.016	100	0.98
80	M6-80	349	0.008	---	---	100	0.98
81	M6-81	758	0.017	572	0.013	100	0.98
82	M6-82	268	0.006	---	---	100	0.98
83	M6-83	613	0.014	4,839	0.111	100	0.98
84	M6-84	316	0.007	489	0.011	100	0.98
85	M6-85	320	0.007	843	0.019	100	0.98
86	M6-86	2,047	0.047	3,503	0.080	100	0.98
87	M6-87	207	0.005	383	0.009	100	0.98
88	M6-88	210	0.005	544	0.012	100	0.98
89	M6-89	328	0.008	250	0.006	100	0.98
90	M6-90	316	0.007	435	0.010	100	0.98
91	M6-91	293	0.007	762	0.017	100	0.98
92	M6-92	366	0.008	719	0.017	100	0.98
93	M6-93	220	0.005	---	---	100	0.98
94	M6-94	508	0.012	2,755	0.063	100	0.98
96	M6-96	296	0.007	---	---	100	0.98
96	M6-96	366	0.008	---	---	100	0.98
97	M6-97	251	0.006	---	---	100	0.98
98	M6-98	636	0.015	5,115	0.117	100	0.98
99	M6-99	621	0.014	2,541	0.058	100	0.98
100	M6-100	312	0.007	1,019	0.023	100	0.98
101	M6-101	321	0.007	861	0.020	100	0.98
102	M6-102	335	0.008	994	0.023	100	0.98
103	M6-103	368	0.008	550	0.013	100	0.98
104	M6-104	410	0.009	583	0.013	100	0.98
105	M6-105	389	0.009	1,235	0.028	100	0.98
106	M6-106	380	0.009	317	0.007	100	0.98
107	M6-107	364	0.008	387	0.009	100	0.98
108	M6-108	352	0.008	695	0.016	100	0.98
109	M6-109	346	0.008	583	0.013	100	0.98
110	M6-110	536	0.012	601	0.014	100	0.98
111	M6-111	869	0.020	586	0.013	100	0.98



APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
PRIVATE ROADS, SD AND STORMWATER
 Chief, Bureau of Highways _____ Date _____

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
 Chief, Division of Land Development _____ Date 3-21-14

Chief, Development Engineering Division _____ Date 3-25-15

GLWGUTSCHICK LITTLE & WEBER, P.A.
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
 3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK
 BURTONSVILLE, MARYLAND 20866
 TEL: 301-421-4024 FAX: 301-421-4196

OWNERS:

PARCELS C-1 THRU C-4 (OLD PARCEL C)
 PARCEL C BUSINESS TRUST
 c/o THE HOWARD HUGHES CORPORATION
 10275 LITTLE PATUXENT PARKWAY
 COLUMBIA, MD 21044

LOT 40
 MALL ENTRANCES BUSINESS TRUST
 PO BOX 617905
 CHICAGO, IL 60661

LOT 47
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PARCEL E
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 COLUMBIA, MD 21044

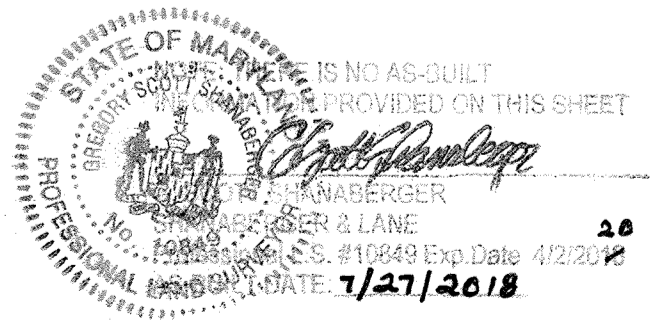
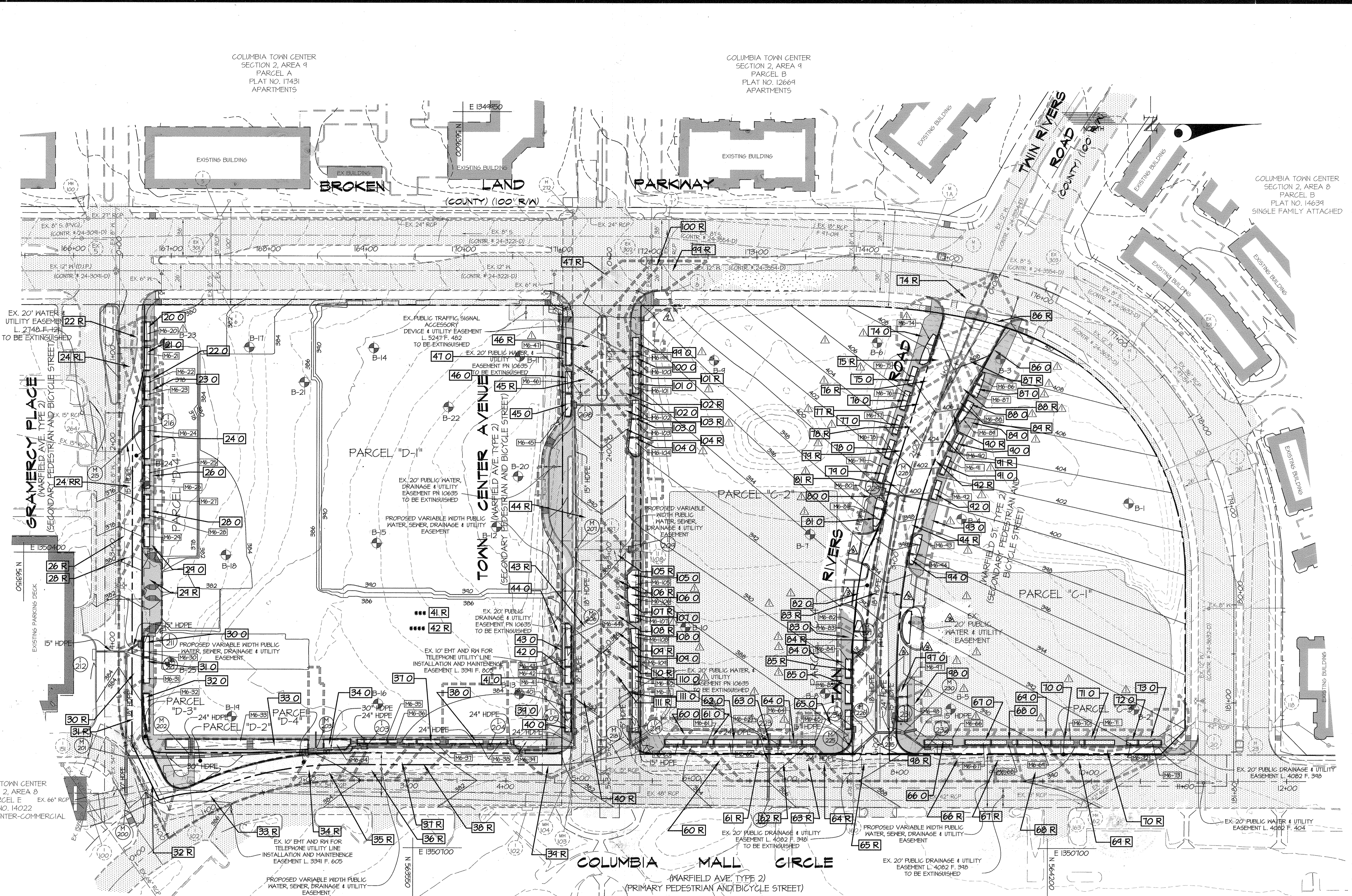
DATE	REVISION	BY	APP'R.
12.14.15	Revise Loading and Parking Entrances		gt
12.22.15	Revise Traffic Signal Easement NE Quadrant		gt
2/18/15	REVISE PLANTER LOCATIONS, ADD ON-STREET PARKING, ADD 1-204		BTS

PREPARED FOR:
 THE HOWARD HUGHES CORPORATION
 10275 LITTLE PATUXENT PARKWAY
 COLUMBIA, MARYLAND 21044
 ATTN: BOB JENKINS
 410-964-5443

PROFESSIONAL CERTIFICATION
 I HEREBY CERTIFY THAT THESE PLANS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 19331
 EXPIRATION DATE: MAY 21, 2016

REVISED
ESD DRAINAGE AREA MAP
DOWNTOWN COLUMBIA
WARFIELD NEIGHBORHOOD
 PARCELS C-1 THRU C-4 & PARCELS D-1 THRU D-4
COLUMBIA TOWN CENTER
 LOTS 40 & 47 SECTION 2 AREA 1 & PARCEL E, SECTION 2 AREA 8
 FDP-DC-WARFIELD-1

SCALE	ZONING	G. L. W. FILE NO.
1"=50'	NT	11053
DATE	TAX MAP - GRID	SHEET
FEB, 2015	36 - 01	16 OF 22



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 PLOTTED: 2/19/2015 8:15 AM, LAST SAVED: 2/19/2015 8:14 AM, PLOTTED BY: Mike Trostman

NOTES:

1. FINANCIAL SURETY FOR THE 4 STREET TREES (4 ORNAMENTAL) IN THE AMOUNT OF \$600.00 IS PART OF THE DPW DEVELOPER'S AGREEMENT.

2. THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.125 OF THE HOWARD COUNTY CODE, THE ALTERNATIVE COMPLIANCE PROVISIONS OF THE LANDSCAPE MANUAL, AND THE LANDSCAPE GUIDELINES FOUND WITHIN THE WARFIELD NEIGHBORHOOD DESIGN GUIDELINES.

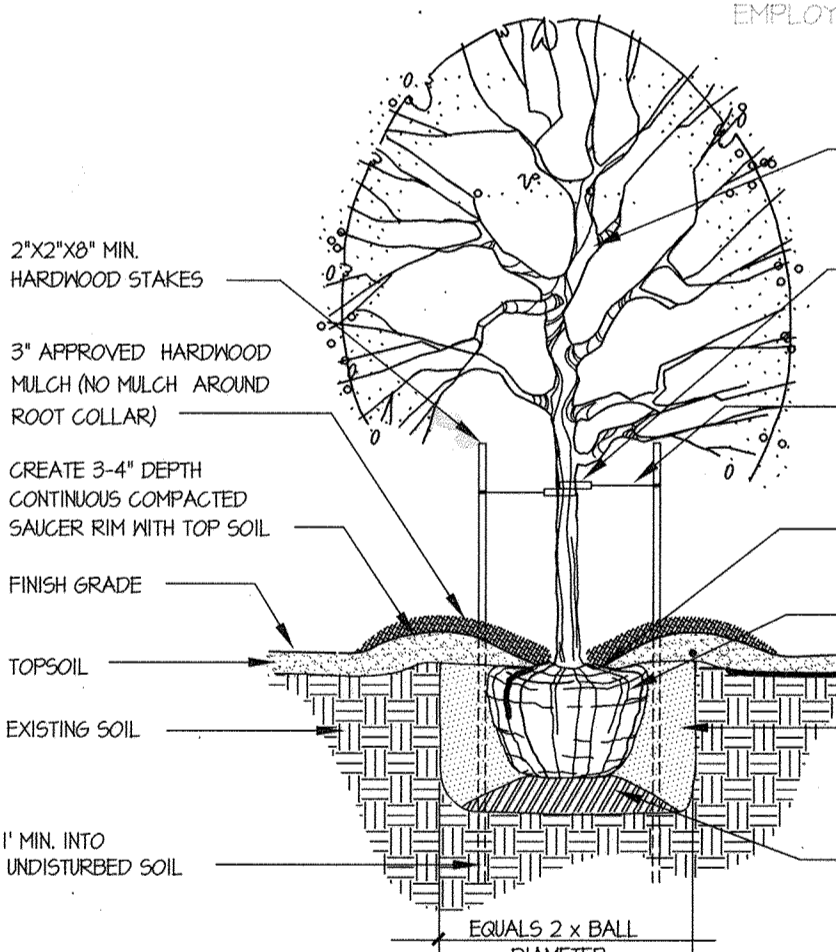
3. AT THE TIME OF PLANT INSTALLATION, ALL SHRUBS AND TREES LISTED AND APPROVED ON THE LANDSCAPE PLAN SHALL COMPLY WITH THE PROPER HEIGHT REQUIREMENT IN ACCORDANCE WITH THE HOWARD COUNTY LANDSCAPE MANUAL AND THE WARFIELD NEIGHBORHOOD DESIGN GUIDELINES. IN ADDITION, NO SUBSTITUTIONS OR RELOCATIONS OF THE REQUIRED PLANTINGS MAY BE MADE WITHOUT PRIOR REVIEW AND APPROVAL FROM THE DEPARTMENT OF PLANNING AND ZONING. ANY DEVIATION FROM THE APPROVED LANDSCAPE PLAN MAY RESULT IN DENIAL OR DELAY IN THE RELEASE OF LANDSCAPE SURETY UNTIL SUCH TIME AS ALL REQUIRED MATERIALS ARE PLANTED AND/OR REVISIONS ARE MADE TO THE APPLICABLE PLANS.

4. ALL PLANTINGS SHALL BE A MINIMUM OF FOUR FEET FROM THE EDGE OF CROSSWALKS AND HANDICAP CURB CUTS.

5. STREET TREES SHALL BE A MINIMUM OF 15 FEET FROM ALL SIGNS AND INTERSECTIONS WHEN PLANTED BETWEEN THE CURB AND SIDEWALK AND LOCATED WITH CONSIDERATION TO UNDERGROUND UTILITIES AND STRUCTURES.

6. STREET TREES SHALL NOT BE PLACED WITHIN 5 FEET OF A DRAIN INLET STRUCTURE, WITHIN 5 FEET OF AN OPEN SPACE ACCESS STRIP OR WITHIN 10 FEET OF A DRIVEWAY.

7. THE OWNER, TENANTS, AND/OR THEIR AGENTS SHALL BE RESPONSIBLE FOR MAINTENANCE OF THE REQUIRED LANDSCAPING INCLUDING BOTH PLANT MATERIALS AND BERRIES, FENCES, AND WALLS. ALL PLANT MATERIAL 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.



NOTE: ALL SUPPORTING DEVICES (STAKES, WIRES, ETC) SHALL BE REMOVED AFTER 2 GROWING SEASONS.

DECIDUOUS TREE PLANTING DETAIL

FOR PLANTING MATERIAL UP TO 3 1/2\"/>

OWNERS: NTS

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

PRIVATE ROADS, SD AND STORMWATER
 Chief, Bureau of Highways Date

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

Chief, Division of Land Development Date
 Chief, Development Engineering Division Date

PARCELS C-1 THRU C-4 (OLD PARCEL C)
 PARCEL C BUSINESS TRUST
 c/o THE HOWARD HUGHES CORPORATION
 10275 LITTLE PATUXENT PARKWAY
 COLUMBIA, MD 21044

PARCELS D-1 THRU D-4 (OLD PARCEL D)
 PARCEL J PROPERTY LLC
 c/o KETTLER
 1751 PINNACLE DRIVE
 SUITE 700
 MCLEAN, VA 22101

LOT 40
 MALL ENTRANCES BUSINESS TRUST
 PO BOX 617905
 CHICAGO, IL 60661

LOT 47
 MALL IN COLUMBIA BUSINESS TRUST
 PO BOX 617905
 CHICAGO, IL 60661

PARCEL E
 CMI CORPORATE PARKING BUSINESS TRUST
 PO BOX 833
 COLUMBIA, MD 21044

GLWGUTSCHICK LITTLE & WEBER, PA.

CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
 3909 LANDOR DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK
 BURTONSVILLE, MARYLAND 20866
 TEL: 301-421-4024 FAX: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186

DATE	REVISION	BY	APPR.
06-15-18	Delete 2 Street Trees North side of TC Ave - Replace w/2 ex. Trees in Median	jt	mjt
12-14-15	Revise Loading Parking Entrances	jt	jt
02-02-15	Revise Traffic Signal Easement NE Quadrant	jt	jt
2/18/15	REVISE PLANTER LOCATIONS, ADD ON-STREET PARKING, ADD 1-104	BT	BT

PREPARED FOR:
 THE HOWARD HUGHES CORPORATION
 10275 LITTLE PATUXENT PARKWAY
 COLUMBIA, MARYLAND 21044
 ATTN: BOB JENKINS
 410-964-5443

PROFESSIONAL CERTIFICATION

I HEREBY CERTIFY THAT THESE PLANS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 1483
 EXPIRATION DATE: MAY 21, 2018

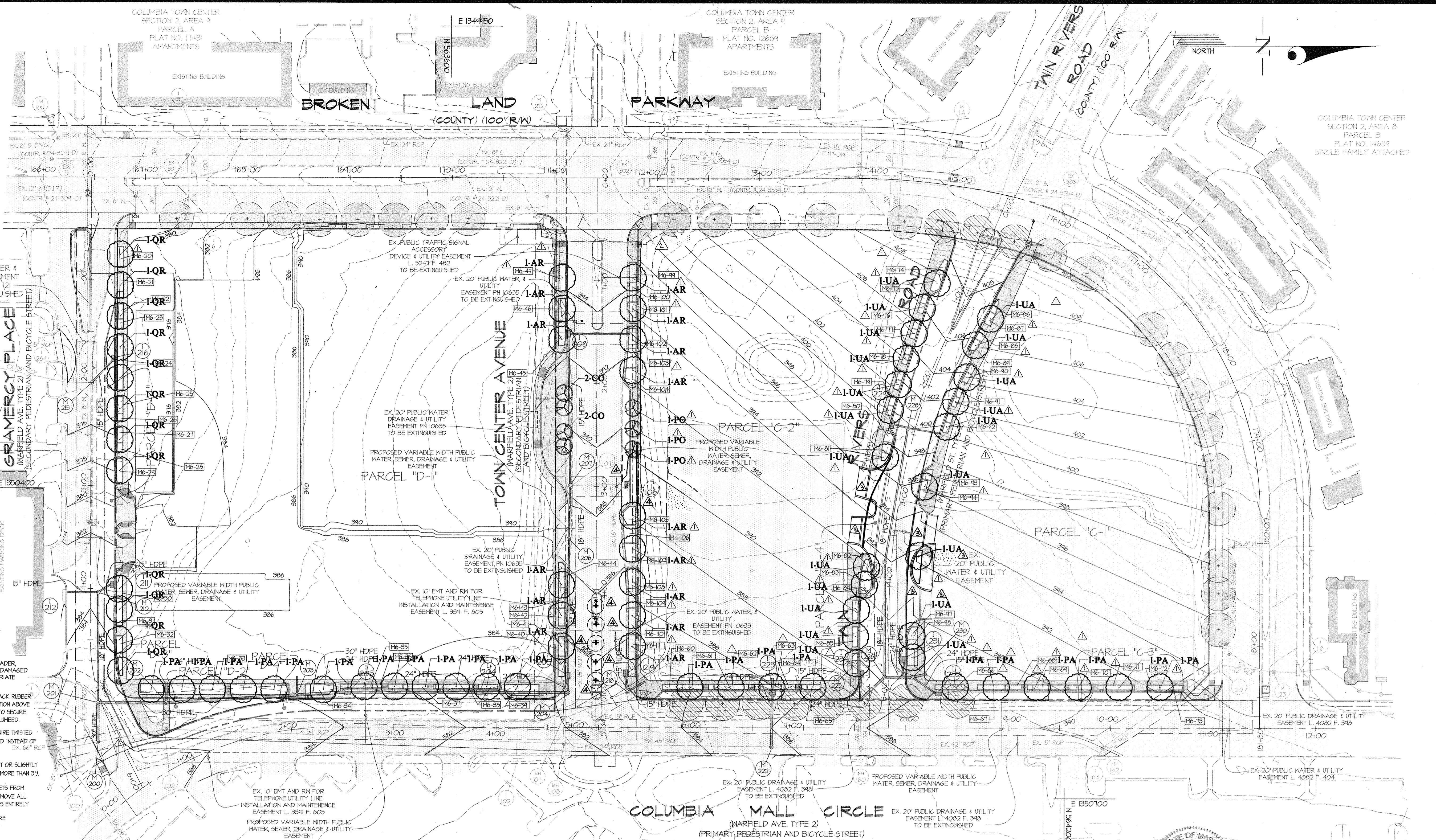


STREET TREE PLAN

DOWNTOWN COLUMBIA
 WARFIELD NEIGHBORHOOD
 PARCELS C-1 THRU C-4 & PARCELS D-1 THRU D-4
 COLUMBIA TOWN CENTER
 LOTS 40 & 47 SECTION 2 AREA 1 & PARCEL E, SECTION 2 AREA 8
 FDP-DC-WARFIELD-1

HOWARD COUNTY, MARYLAND

SCALE	ZONING	G. L. W. FILE NO.
1"=50'	NT	11053
DATE	TAX MAP - GRID	SHEET
FEB., 2015	36 - 01	17 OF 22



SYMBOL	QTY.	TYPE	NAMES (BOTANICAL / SCIENTIFIC)	SIZE/COMMENTS
SHADE TREES				
(Symbol)	16	AR	ACER RUBRUM 'OCTOBER GLORY' / OCTOBER GLORY RED MAPLE	4" CAL. B4B
(Symbol)	25	PA	PLANTANUS ACERIFOLIA 'BLOODWOOD' / LONDON PLANE TREE	5" CAL. B4B
(Symbol)	12	QR	QUERCUS RUBRA / RED OAK	3" CAL. B4B
(Symbol)	12	UA	ULMUS AMERICANA 'PRINCETON' / AMERICAN ELM	3" CAL. B4B
ORNAMENTAL TREES				
(Symbol)	4	CO	CERCIS CANADENSIS/RED BUD	8' HT. B4B
(Symbol)	3	PO	PRUNUS 'OKAME' / OKAME CHERRY	12' HT. B4B

COLUMBIA TOWN CENTER SECTION 2, AREA 1 LOT 47 PLAT NO. 18607 COMMERCIAL

DEVELOPER'S/OWNER'S LANDSCAPE CERTIFICATION:

I/WE CERTIFY THAT THE LANDSCAPING SHOWN ON THIS PLAN WILL BE DONE IN ACCORDANCE TO THE PLAN, SECTION 16.124 OF THE HOWARD COUNTY CODE, THE LANDSCAPE MANUAL FOR NEW TOWN ALTERNATIVE COMPLIANCE AND THE WARFIELD NEIGHBORHOOD DESIGN GUIDELINES. I/WE FURTHER CERTIFY THAT UPON COMPLETION A LETTER OF LANDSCAPE INSTALLATION, ACCOMPANIED BY AN EXECUTED ONE YEAR GUARANTEE OF PLANT MATERIALS, WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.

Robert A. Jankovic
 DEVELOPER'S/OWNER'S NAME

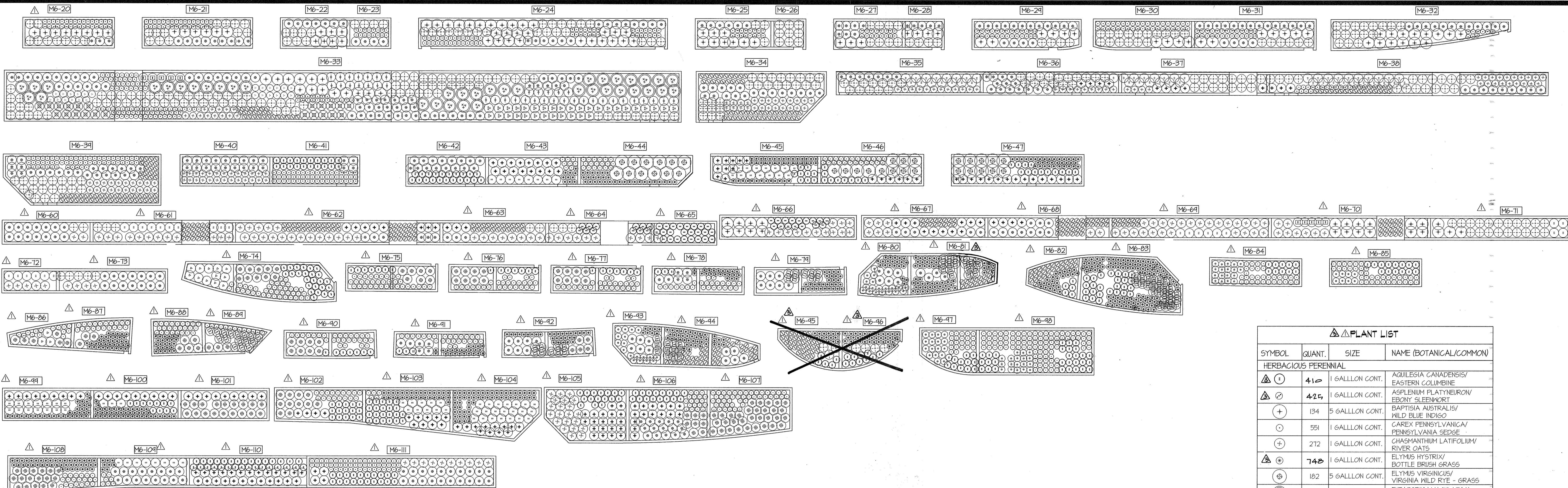
STREET TREE AND LANDSCAPE PLANS HAVE BEEN PREPARED BY A REGISTERED LANDSCAPE ARCHITECT AND ARE CERTIFIED TO CONFORM WITH THE WARFIELD NEIGHBORHOOD DESIGN GUIDELINES RECORDED IN THE LAND RECORDS OF HOWARD COUNTY IN LIBER 14166, FOLIO 1 THRU 250

REVISED

NOTE: THERE IS NO AS-BUILT INFORMATION PROVIDED ON THIS PLAN.

LEGEND

- (Symbol) EXISTING STREET TREE (TO BE REMOVED)
- (Symbol) EXISTING STREET TREE (TO REMAIN)
- (Symbol) PROPOSED STREET TREE WITHIN MICRO BIO-RETENTION
- (Symbol) PROPOSED STREET TREE
- (Symbol) EXISTING STREET TREES REPLACEMENT FOR TREES UNABLE TO BE PLANTED



MICRO BIO-RETENTION PLANTER DETAILS
SCALE: 1"=10'

SPECIFICATIONS: PLANT MATERIALS AND PLANTING METHODS

LANDSCAPING NOTES

- 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.
- Field verify underground utility locations and existing conditions before starting planting work. Contact engineer / landscape architect if any relocations are required.
- 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.
- 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.
- No substitution shall be made without written consent of the owner or his representative.
- All areas disturbed by construction activities but not otherwise planted, paved, or mulched shall be seeded or sodded in accordance with the project specifications.
- 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.
- All exposed earth within limits of planting beds shall be mulched with shredded hardwood mulch per Planting Details.
- 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.

A. PLANT MATERIALS

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

- PLANT NAMES**
PLANT NAMES USED IN THE PLANT SCHEDULE SHALL CONFORM WITH "STANDARDIZED PLANT NAMES," LATEST EDITION.
- PLANT STANDARDS**
ALL PLANT MATERIAL SHALL BE EQUAL TO OR BETTER THAN THE REQUIREMENTS OF THE "USA STANDARD FOR NURSERY STOCK," LATEST EDITION AS PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMEN (HERE-AFTER REFERRED TO AS 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 HEEL-OR-IN PLANTS NOR PLANTS FROM COLD STORAGE WILL BE ACCEPTED.
- PLANT MEASUREMENTS**
ALL PLANTS SHALL CONFORM TO THE MEASUREMENTS SPECIFIED IN THE PLANT SCHEDULE AS APPROVED BY THE DESIGN REVIEW COMMITTEE (DRC).
 - CALIPER MEASUREMENTS SHALL BE TAKEN SIX INCHES (6") ABOVE GRADE FOR TREES FOUR-INCH (4") CALIPER AND TWELVE (12") ABOVE GRADE FOR TREES FOUR INCHES (4") IN CALIPER AND OVER.
 - MINIMUM BRANCHING HEIGHT FOR ALL SHADE TREES SHALL BE SIX FEET (6'), MAXIMUM EIGHT FEET (8').
 - 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 MEDIUM FOR THE SIZE RANGES INDICATED ABOVE AS INDICATED IN THE "AAN STANDARDS".

- PLANTING METHODS**

PLANT LIST			
SYMBOL	QUANT.	SIZE	NAME (BOTANICAL/COMMON)
HERBACIOUS PERENNIAL			
⊙	410	1 GALLON CONT.	AQUILEGIA CANADENSIS/ EASTERN COLUMBINE
⊕	425	1 GALLON CONT.	ASPLENIUM PLATyneuron/ EBONY SLEENWORT
+	134	5 GALLON CONT.	BAPTISMA AUSTRALIS/ WILD BLUE INDIGO
○	551	1 GALLON CONT.	CAREX PENNSYLVANICA/ PENNSYLVANIA SEDGE
+	272	1 GALLON CONT.	CHASMANTHUM LATIFOLIUM/ RIVER OATS
⊕	748	1 GALLON CONT.	ELYMUS HYSTRIX/ BOTTLE BRUSH GRASS
⊕	182	5 GALLON CONT.	ELYMUS VIRGINICUS/ VIRGINIA WILD RYE - GRASS
⊕	34	5 GALLON CONT.	EUPATORIUM MACULATUM/ SPOTTED JOE - FYE WEED
○	626	1 GALLON CONT.	HEUCHERA AMERICANA/ ALUM ROOT
⊕	102	1 GALLON CONT.	GERANIUM MACULATUM/ WILD GERANIUM
⊕	252	1 GALLON CONT.	JUNCUS EFFRUSUS/ SOFT RUSH
○	24	1 GALLON CONT.	LIATRIS SPICATA/ BLAZING STAR
+	201	1 GALLON CONT.	LOBELIA CARDINALIS/ CARDINAL FLOWER
⊕	221	1 GALLON CONT.	LOBELIA SIPHILITICA/ GREAT BLUE LOBELIA
⊕	153	1 GALLON CONT.	MONARDA DIDYMA/ SCARLET BEEBALM
⊕	424	1 GALLON CONT.	PANICUM VIRGATUM/ SWITCHGRASS
⊕	33	1 GALLON CONT.	RUBICEKIA LACINIATA/ GREENHEADED CONE FLOWER
⊕	34	1 GALLON CONT.	VERBENA HASTATA/ BLUE VERVAIN
⊕	48	1 GALLON CONT.	RUBICEKIA FULGIDA/ BLACK EYED SUSAN
⊕	15	1 GALLON CONT.	VERONICA SPICATA/ PINK SPIKED SPEEDWELL

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
PRIVATE ROADS, SD AND STORMWATER
Chief, Bureau of Highways _____ Date _____

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
Chief, Division of Land Development _____ Date 12-21-15
Chief, Development Engineering Division _____ Date 3-25-15

GLWGUTSCHICK LITTLE & WEBER, P.A.
CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK
BURTONSVILLE, MARYLAND 20866
TEL: 301-421-4024 FAX: 301-989-2524 FAX: 301-421-4186

DATE	REVISION	BY	APP'R.
12/14/15	Revise M6-81 and eliminate M6-95 & 96	g	
2/16/15	REVISE PLANTER DETAILS	BTS	

PREPARED FOR:
THE HOWARD HUGHES CORPORATION
10275 LITTLE PATUXENT PARKWAY
COLUMBIA, MARYLAND 21044
ATTN: BOB JENKINS
410-964-5443

PROFESSIONAL CERTIFICATION
I HEREBY CERTIFY THAT THESE PLANS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 14831
EXPIRATION DATE: MAY 21, 2016

REVISED
LANDSCAPE PLANT LIST, NOTES & SCHEDULES
DOWNTOWN COLUMBIA
WARFIELD NEIGHBORHOOD
PARCELS C-1 THRU C-4 & PARCELS D-1 THRU D-4
COLUMBIA TOWN CENTER
LOTS 40 & 47 SECTION 2 AREA 1 & PARCEL E, SECTION 2 AREA 8
FDP-DC-WARFIELD-1

SCALE	ZONING	G. L. W. FILE NO.
AS SHOWN	NT	11053
DATE	TAX MAP - GRID	SHEET
FEB, 2015	36 - 01	18 OF 22

DEVELOPER'S/OWNER'S LANDSCAPE CERTIFICATION:
I/WE CERTIFY THAT THE LANDSCAPING SHOWN ON THIS PLAN WILL BE DONE IN ACCORDING TO THE PLAN, SECTION 16.124 OF THE HOWARD COUNTY CODE, THE LANDSCAPE MANUAL FOR NEW TOWN ALTERNATIVE COMPLIANCE AND THE WARFIELD NEIGHBORHOOD DESIGN GUIDELINES. I/WE FURTHER CERTIFY THAT UPON COMPLETION A LETTER OF LANDSCAPE INSTALLATION, ACCOMPANIED BY AN EXECUTED ONE YEAR GUARANTEE OF PLANT MATERIALS, WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.

NOTE: THERE IS NO AS-BUILT INFORMATION PROVIDED ON THESE PLANS.

20
AS-BUILT DATE: 7/27/2018

DEVELOPER'S/OWNER'S NAME: Robert A. Jenkins

OWNERS:

PARCELS C-1 THRU C-4 (OLD PARCEL C)
PARCEL C BUSINESS TRUST
c/o THE HOWARD HUGHES CORPORATION
10275 LITTLE PATUXENT PARKWAY
COLUMBIA, MD 21044

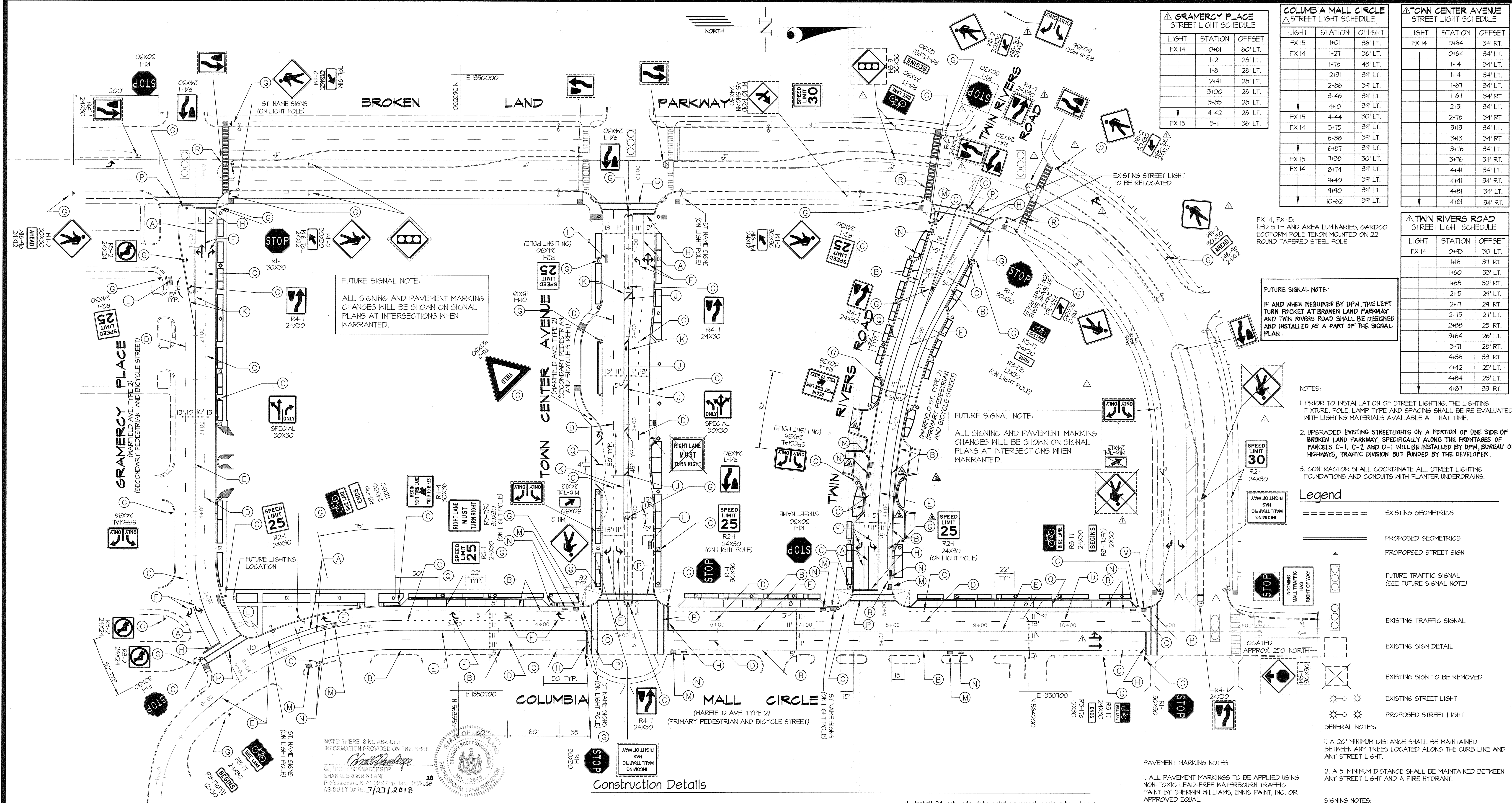
LOT 40
MALL ENTRANCES BUSINESS TRUST
PO BOX 617905
CHICAGO, IL 60661

PARCELS D-1 THRU D-4 (OLD PARCEL D)
PARCEL D PROPERTY LLC
c/o KETTLER
1751 NUNACLE DRIVE
SUITE 700
MCLEAN, VA 22101

LOT 47
MALL IN COLUMBIA BUSINESS TRUST
PO BOX 617905
CHICAGO, IL 60661

PARCEL E
CMI CORPORATE PARKING BUSINESS TRUST
PO BOX 833
COLUMBIA, MD 21044

L:\CAD\DRAWINGS\11053\PLANS BY GUYTONA\S11053-F-18.dwg
PLOTTED: 2/19/2015 6:41 AM, LAST SAVE: 2/19/2015 6:40 AM, PLOTTED BY: Mike Troppan



GRAMERCY PLACE STREET LIGHT SCHEDULE

LIGHT	STATION	OFFSET
FX 14	0+61	60' LT.
	1+21	28' LT.
	1+81	28' LT.
	2+41	28' LT.
	3+00	28' LT.
	3+85	28' LT.
	4+42	28' LT.
FX 15	5+11	36' LT.

COLUMBIA MALL CIRCLE STREET LIGHT SCHEDULE

LIGHT	STATION	OFFSET
FX 15	1+01	36' LT.
FX 14	1+27	36' LT.
	1+76	43' LT.
	2+31	34' LT.
	2+86	34' LT.
	3+46	34' LT.
	4+10	34' LT.
FX 15	4+44	30' LT.
FX 14	5+75	34' LT.
	6+38	34' LT.
	6+87	34' LT.
FX 15	7+38	30' LT.
FX 14	8+74	34' LT.
	9+40	34' LT.
	10+00	34' LT.
	10+62	34' LT.

TOWN CENTER AVENUE STREET LIGHT SCHEDULE

LIGHT	STATION	OFFSET
FX 14	0+64	34' LT.
	1+14	34' LT.
	1+14	34' LT.
	1+67	34' LT.
	2+31	34' LT.
	2+76	34' LT.
	3+13	34' LT.
	3+13	34' RT.
	3+76	34' LT.
	3+76	34' RT.
	4+41	34' LT.
	4+41	34' RT.
	4+81	34' LT.
	4+81	34' RT.

TWIN RIVERS ROAD STREET LIGHT SCHEDULE

LIGHT	STATION	OFFSET
FX 14	0+43	30' LT.
	1+16	31' RT.
	1+60	33' LT.
	1+68	32' RT.
	2+15	24' LT.
	2+17	24' RT.
	2+75	27' LT.
	2+88	25' RT.
	3+64	26' LT.
	3+71	28' RT.
	4+36	33' RT.
	4+42	25' LT.
	4+84	23' LT.
	4+87	33' RT.

FUTURE SIGNAL NOTE:
ALL SIGNING AND PAVEMENT MARKING CHANGES WILL BE SHOWN ON SIGNAL PLANS AT INTERSECTIONS WHEN WARRANTED.

FUTURE SIGNAL NOTE:
ALL SIGNING AND PAVEMENT MARKING CHANGES WILL BE SHOWN ON SIGNAL PLANS AT INTERSECTIONS WHEN WARRANTED.

FUTURE SIGNAL NOTE:
IF AND WHEN REQUIRED BY DPW, THE LEFT TURN POCKET AT BROKEN LAND PARKWAY AND TWIN RIVERS ROAD SHALL BE DESIGNED AND INSTALLED AS A PART OF THE SIGNAL PLAN.

- NOTES:**
- PRIOR TO INSTALLATION OF STREET LIGHTING, THE LIGHTING FIXTURE, POLE, LAMP TYPE AND SPACING SHALL BE RE-EVALUATED WITH LIGHTING MATERIALS AVAILABLE AT THAT TIME.
 - UPGRADED EXISTING STREETLIGHTS ON A PORTION OF ONE SIDE OF BROKEN LAND PARKWAY, SPECIFICALLY ALONG THE FRONTS OF PARCELS C-1, C-2 AND D-1 WILL BE INSTALLED BY DPW, BUREAU OF HIGHWAYS, TRAFFIC DIVISION BUT FUNDED BY THE DEVELOPER.
 - CONTRACTOR SHALL COORDINATE ALL STREET LIGHTING FOUNDATIONS AND CONDUITS WITH PLANTER UNDERDRAINS.

Legend

- EXISTING GEOMETRICS
- PROPOSED GEOMETRICS
- PROPOSED STREET SIGN
- FUTURE TRAFFIC SIGNAL (SEE FUTURE SIGNAL NOTE)
- EXISTING TRAFFIC SIGNAL
- EXISTING SIGN DETAIL
- EXISTING SIGN TO BE REMOVED
- EXISTING STREET LIGHT
- PROPOSED STREET LIGHT

GENERAL NOTES:

- A 20' MINIMUM DISTANCE SHALL BE MAINTAINED BETWEEN ANY TREES LOCATED ALONG THE CURB LINE AND ANY STREET LIGHT.
- A 5' MINIMUM DISTANCE SHALL BE MAINTAINED BETWEEN ANY STREET LIGHT AND A FIRE HYDRANT.

Construction Details

- Install 5 inch wide white solid pavement marking for lane line.
- Install 5 inch wide white solid pavement marking for edge line.
- Install 5 inch wide white broken pavement marking (2 foot segment - 6 foot gap) for lane line.
- Install 5 inch wide white broken pavement marking (10 foot segment - 30 foot gap) for lane line.
- Install 5 inch wide double yellow pavement parking for centerline.
- Install white pavement marking symbol as shown.
- Install ground mounted sign.
- Install 24 inch wide white solid pavement marking for stop line.
- Install 16 inch wide white solid pavement marking for median.
- Install 5 inch wide yellow solid pavement marking for island.
- Install white pavement marking sharrow symbol.
- Install white bike lane pavement marking bike symbol.
- Install white bike lane pavement marking arrow symbol.
- Install crosswalk pavement marking.
- Install 5 inch wide white solid pavement marking for parking space.
- Install white crosswalk pavement marking.

PAVEMENT MARKING NOTES

- ALL PAVEMENT MARKINGS TO BE APPLIED USING NON-TOXIC LEAD-FREE WATERBORNE TRAFFIC PAINT BY SHERWIN WILLIAMS, ENNIS PAINT, INC. OR APPROVED EQUAL.
- ALL PAVEMENT MARKINGS ARE TO BE EITHER LOCATED OR APPROVED BY THE TRAFFIC DIVISION PRIOR TO THE PLACEMENT OF ANY MARKINGS.
- ANY EXISTING PAVEMENT MARKINGS IN CONFLICT WITH THESE PLANS SHALL BE REMOVED BY GRINDING.

- SIGNING NOTES:**
- SIGN ERECTED AT THE SIDE OF THE ROAD SHALL BE MOUNTED AT A HEIGHT OF AT LEAST 7 FEET MEASURED FROM THE BOTTOM OF THE SIGN TO THE NEAR EDGE OF THE PAVING.
 - ALL SIGN POSTS USED FOR TRAFFIC CONTROL SIGNS SHALL BE MOUNTED ON A 2" GALVANIZED STEEL, PERFORATED, SQUARE TUBE POST (14 GAUGE/QUICKPUNCH) INSERTED INTO A 2-1/2" GALVANIZED STEEL, PERFORATED, SQUARE TUBE SLEEVE (12 GAUGE) - 3' LONG UNLESS NOTED OTHERWISE. A GALVANIZED STEEL POLE CAP SHALL BE MOUNTED ON TOP OF EACH POST.
 - SIGNS SHALL BE 12" TO 18" FROM EDGE OF SIGN TO CURBLINE. ALL SIGNS SHALL BE AS DIRECTED BY HOWARD COUNTY TRAFFIC DIVISION.

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
PRIVATE ROADS, SD AND STORMWATER
 Chief, Bureau of Highways

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
 Chief, Division of Land Development

APPROVED: HOWARD COUNTY DEPARTMENT OF ENGINEERING
 Chief, Development Engineering Division

OWNERS:

PARCELS C-1 THRU C-4 (OLD PARCEL C)
 PARCEL C BUSINESS TRUST
 c/o THE HOWARD HUGHES CORPORATION
 10275 LITTLE PATUXENT PARKWAY
 COLUMBIA, MD 21044

LOT 40
 MALL ENTRANCES BUSINESS TRUST
 PO BOX 617905
 CHICAGO, IL 60661

LOT 47
 MALL IN COLUMBIA BUSINESS TRUST
 PO BOX 617905
 CHICAGO, IL 60661

PARCEL E
 CMI CORPORATE PARKING BUSINESS TRUST
 PO BOX 833
 COLUMBIA, MD 21044

PREPARED FOR:
 THE HOWARD HUGHES CORPORATION
 10275 LITTLE PATUXENT PARKWAY
 COLUMBIA, MARYLAND 21044
 ATTN: BOB JENKINS
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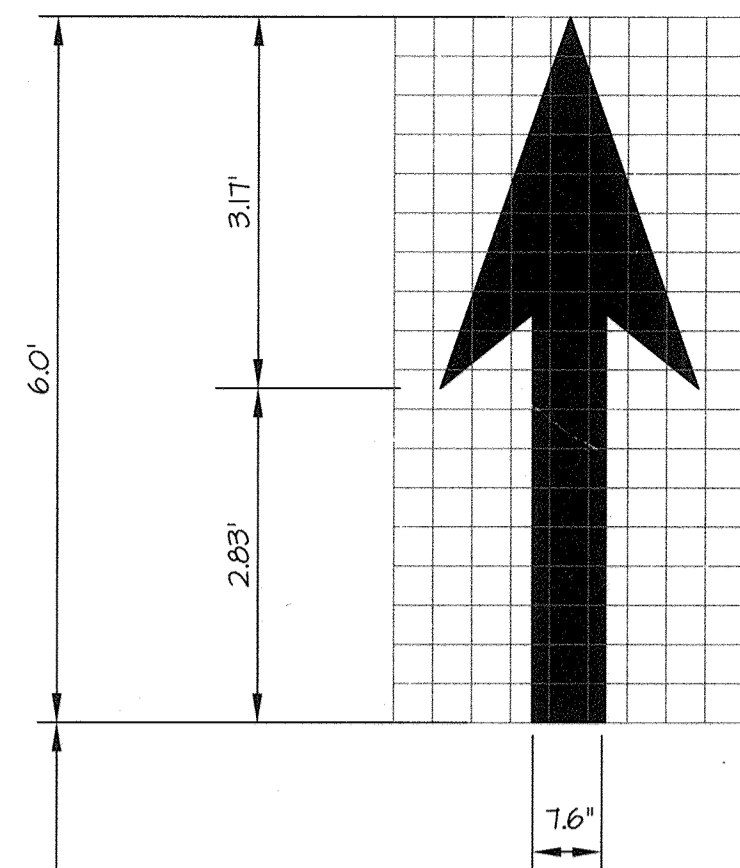
EXPIRATION DATE: MAY 21, 2016

SIGNING, PAVEMENT MARKING AND LIGHTING PLAN

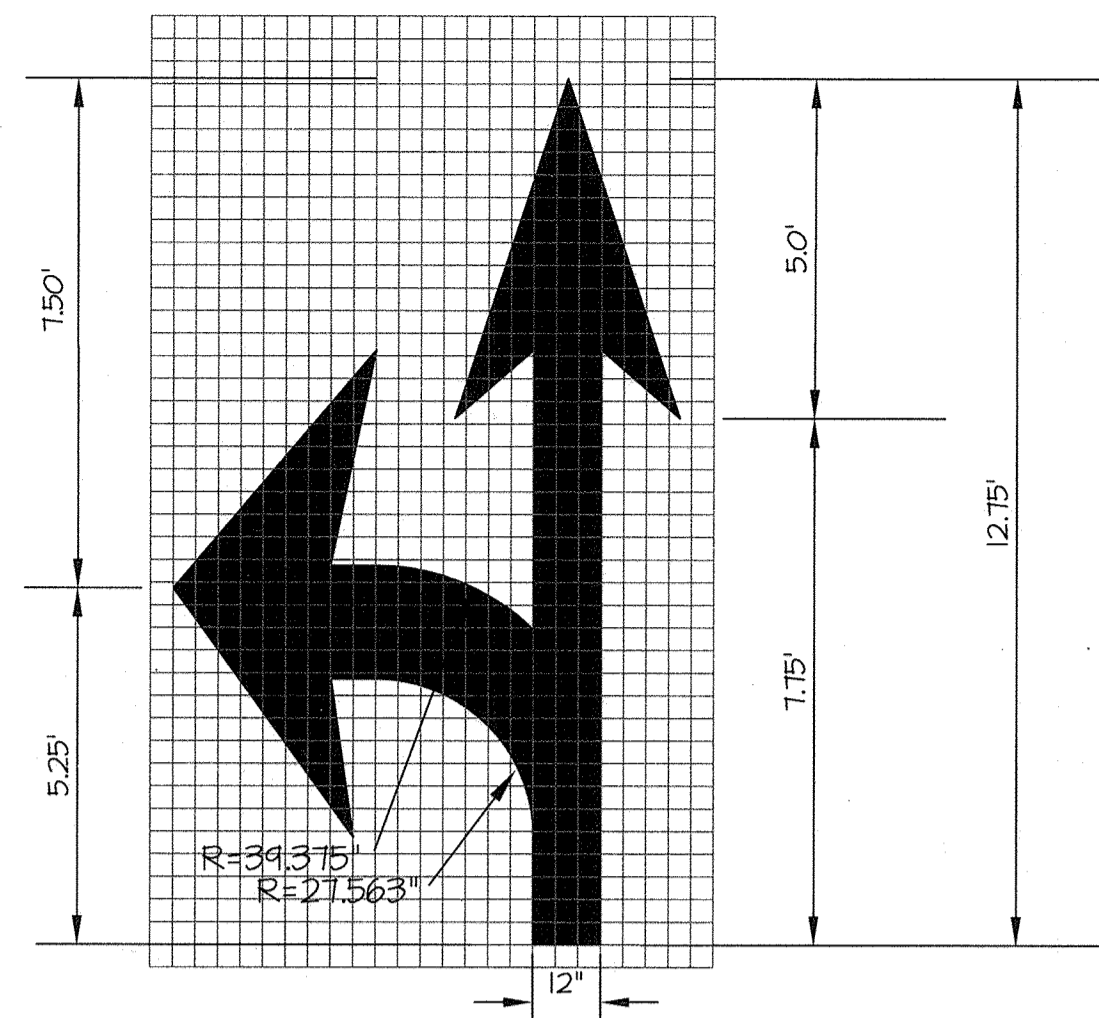
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WARFIELD NEIGHBORHOOD
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COLUMBIA TOWN CENTER
 LOTS 40 & 47 SECTION 2 AREA 1 & PARCEL E, SECTION 2 AREA 8
 FDP-DC-WARFIELD-1

ELECTION DISTRICT No. 5

SCALE	ZONING	G. L. W. FILE NO.
1" = 50'	NT	11053
DATE	TAX MAP - GRID	SHEET
FEB., 2015	36 - 01	19 OF 22



**BIKE LANE ARROW
PAVEMENT MARKING SYMBOL**

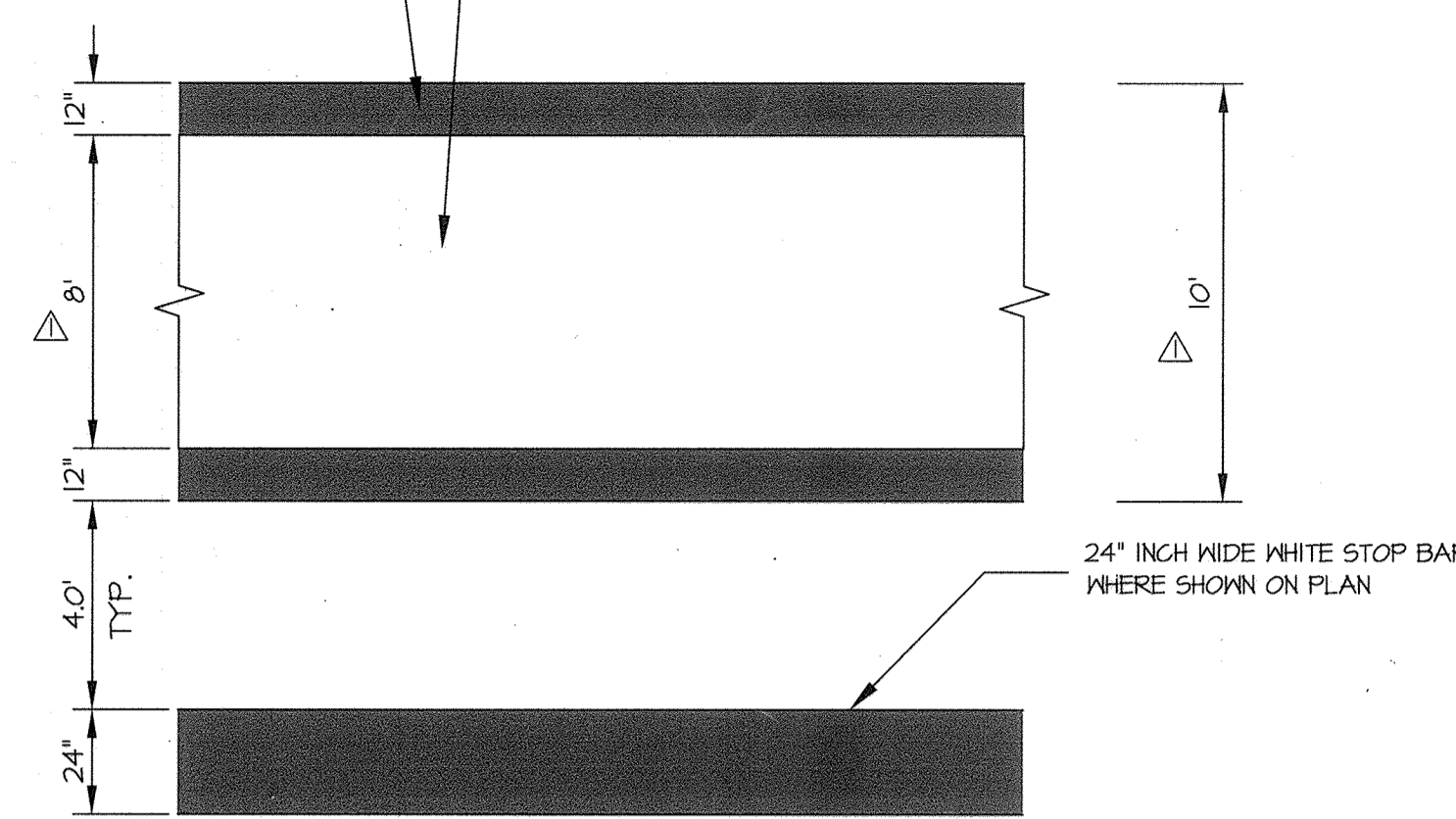


PAVEMENT MARKING ARROW

NOT TO SCALE

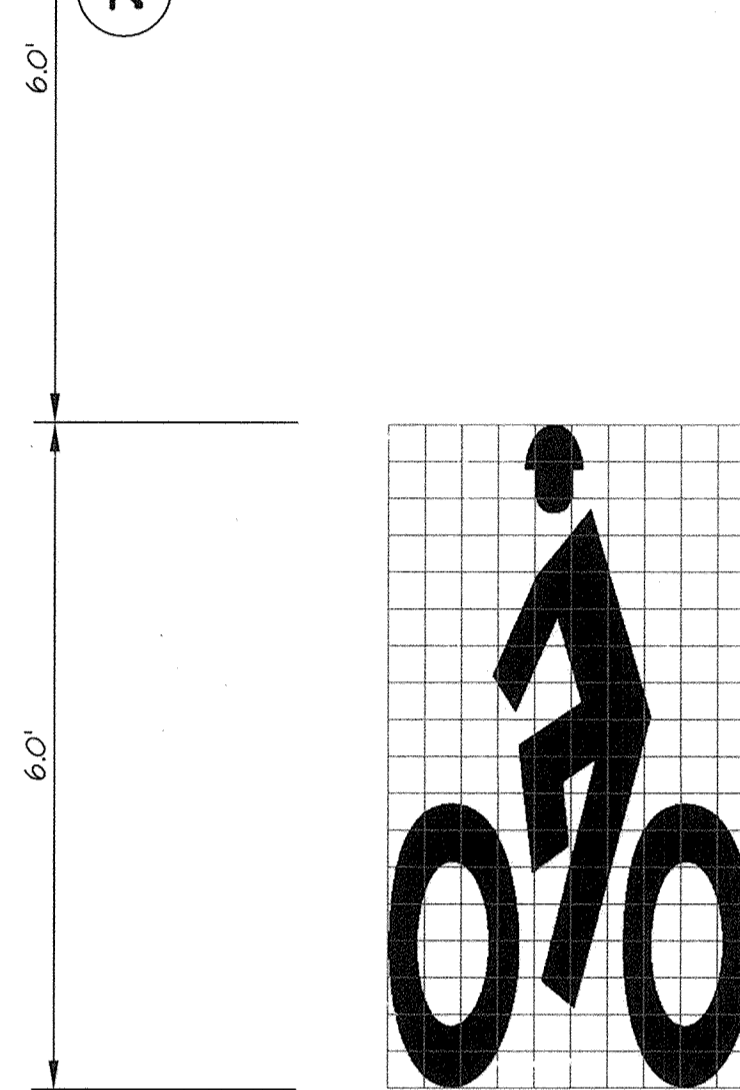
CONTRASTING FIELD COLOR AND/OR TEXTURE CROSSWALK.
IMPRINTED AGGREGATE REINFORCED PREFORMED
THERMOPLASTIC PAVEMENT MARKING SYSTEM.
TrafficPatternsXD by ENNIS-FLINT (ennisflint.com) OR
StreetPrintXD by ALTERNATIVE PAVING CONCEPTS
(alternative-paving.com). COLOR AND PATTERN TO BE
DETERMINED BY DEVELOPER IF NO DOWNTOWN COLUMBIA
OR NEIGHBORHOOD STANDARD HAS BEEN ESTABLISHED.

12" INCH WIDE WHITE CROSSWALK EDGE BAR
(TYPICAL)



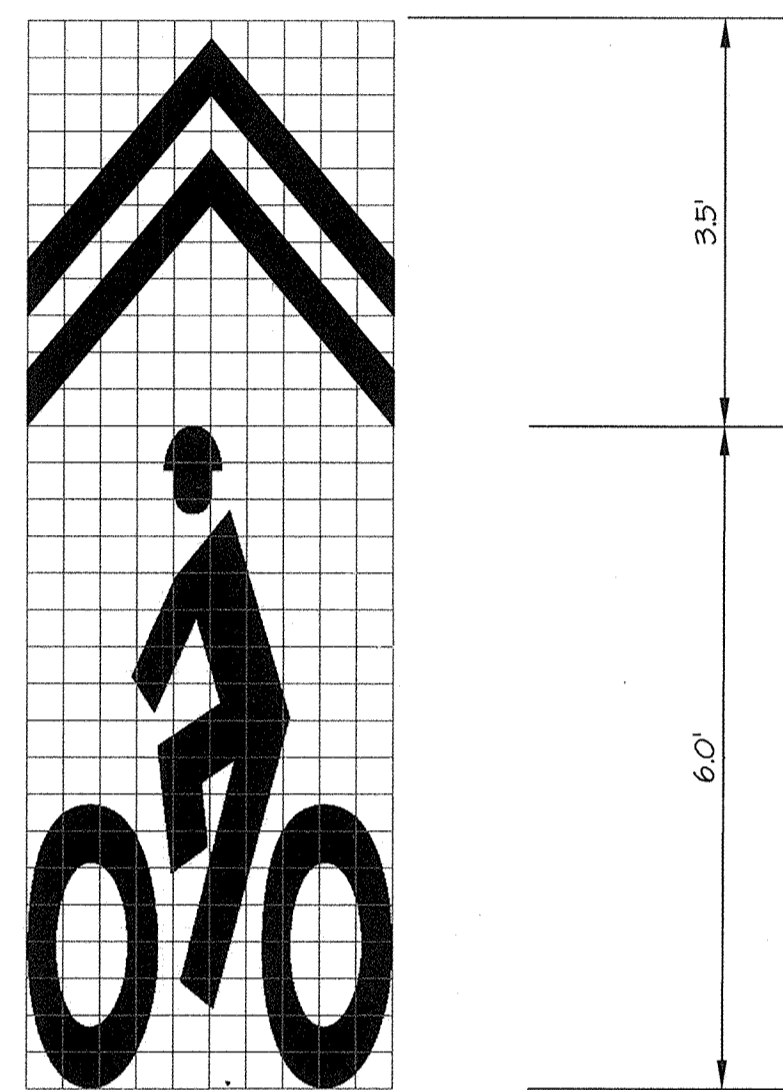
**P CROSSWALK DETAIL
NOT TO SCALE**

NOTE:
THE LENGTH OF THE CROSSWALK VARIES
BASED ON THE INTERSECTION.



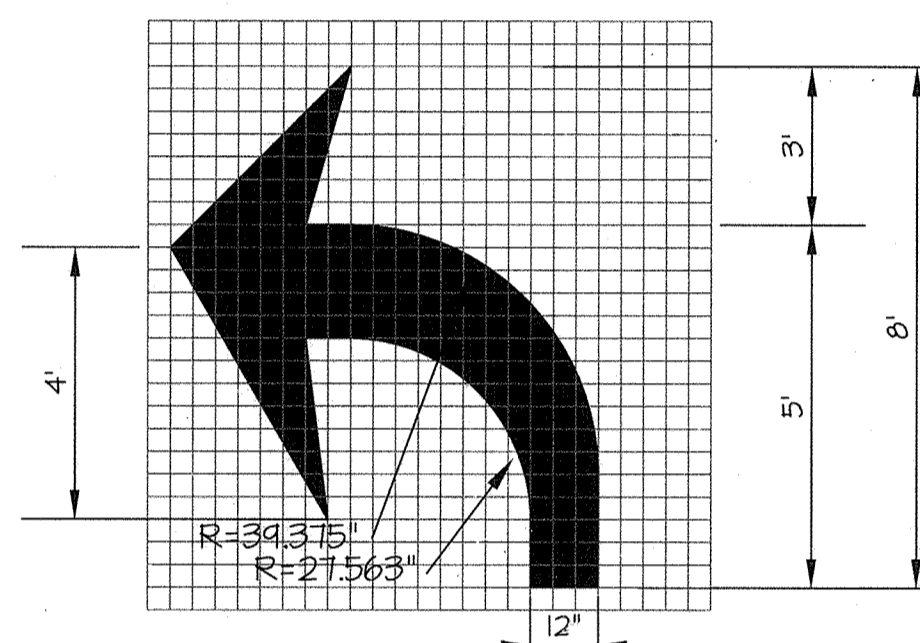
**BIKE LANE
PAVEMENT MARKING SYMBOL**

NOT TO SCALE



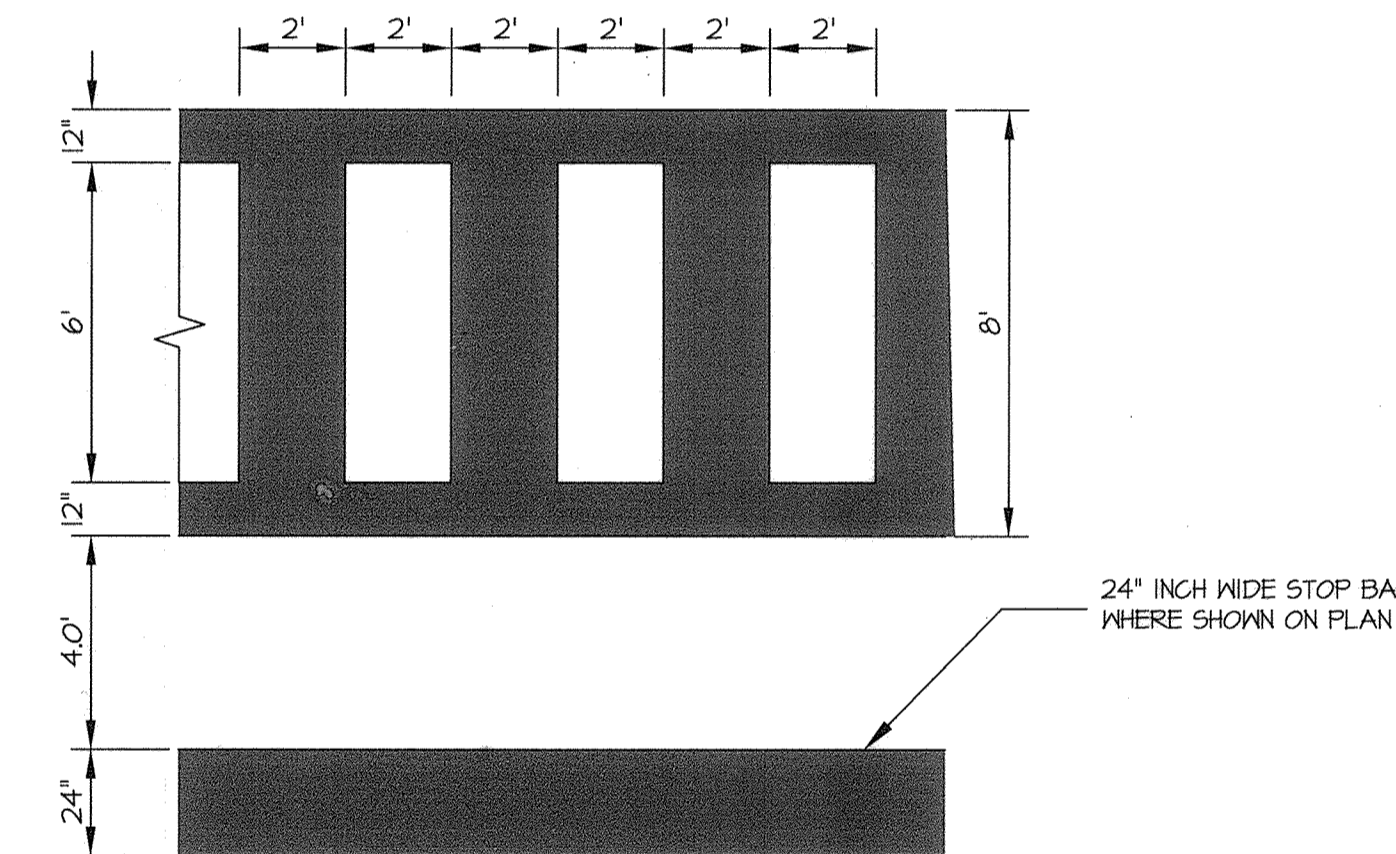
**SHARROW
PAVEMENT MARKING SYMBOL**

NOT TO SCALE



PAVEMENT MARKING ARROW

NOT TO SCALE



**R CROSSWALK DETAIL
NOT TO SCALE**

NOTE:
THE LENGTH OF THE CROSSWALK VARIES
BASED ON THE INTERSECTION.

OWNERS:

PARCELS C-1 THRU C-4 (OLD PARCEL C) PARCEL C BUSINESS TRUST c/o THE HOWARD HUGHES CORPORATION 10275 LITTLE PATUXENT PARKWAY COLUMBIA, MD 21044	LOT 40 MALL ENTRANCES BUSINESS TRUST PO BOX 617905 CHICAGO, IL 60661
PARCELS D-1 THRU D-4 (OLD PARCEL D) PARCEL D PROPERTY LLC c/o KETTLER 1751 PINNACLE DRIVE SUITE 700 MCLEAN, VA 22101	LOT 47 MALL IN COLUMBIA BUSINESS TRUST PO BOX 617905 CHICAGO, IL 60661
	PARCEL E CMI CORPORATE PARKING BUSINESS TRUST PO BOX 833 COLUMBIA, MD 21044

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
PRIVATE ROADS, SD AND STORMWATER
Chief, Bureau of Highways Date

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
Keith L. Lewis 12.21.15
Chief, Division of Land Development Date
Chris Clarke 2-25-15
Chief, Development Engineering Division Date

GLWGUTSCHICK LITTLE & WEBER, P.A.
CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK
BURTONSVILLE, MARYLAND 20866
TEL: 301-421-4024 BAL: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186

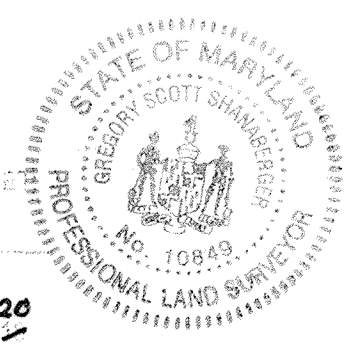
2/18/15	REVISE CROSSWALK DIMENSIONS/Δ	BTS
DATE	REVISION	BY
		APPR

PREPARED FOR:
THE HOWARD HUGHES CORPORATION
10275 LITTLE PATUXENT PARKWAY
COLUMBIA, MARYLAND 21044
ATTN: BOB JENKINS
410-964-5443

PROFESSIONAL CERTIFICATION
I HEREBY CERTIFY THAT THESE PLANS
WERE PREPARED OR APPROVED BY
ME, AND THAT I AM A DULY LICENSED
PROFESSIONAL ENGINEER UNDER THE
LAWS OF THE STATE OF MARYLAND,
LICENSE NO. 3693
EXPIRATION DATE: MAY 21, 2016



REVISED
SIGNAGE AND STRIPING DETAILS
DOWNTOWN COLUMBIA
WARFIELD NEIGHBORHOOD
PARCELS C-1 THRU C-4 & PARCELS D-1 THRU D-4
COLUMBIA TOWN CENTER
LOTS 40 & 47 SECTION 2 AREA 1 & PARCEL E, SECTION 2 AREA 8
FDP-DC-WARFIELD-1
HOWARD COUNTY, MARYLAND



NOTE: THERE IS NO AS-BUILT
INFORMATION PROVIDED ON THIS SHEET.
G. Scott Shanaberger
G. SCOTT SHANABERGER
SHANABERGER & LANE
Professional L.S. 21548 Exp. Date: 4/22/20
AS-BUILT DATE: 7/27/2018

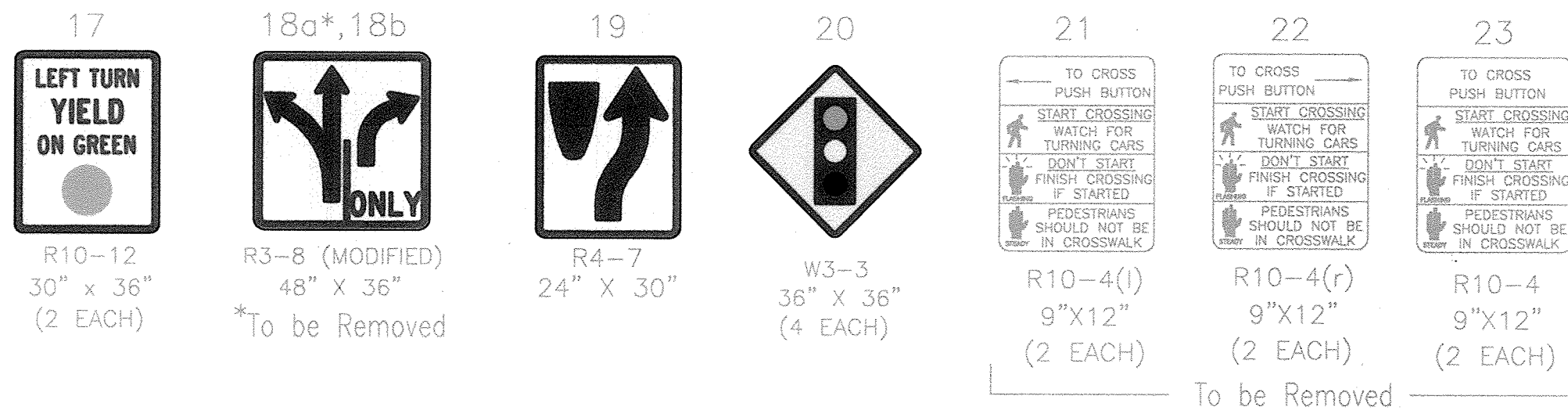
SCALE	ZONING	G. L. W. FILE No.
AS SHOWN	NT	11053
DATE	TAX MAP - GRID	SHEET
FEB., 2015	36 - 01	20 OF 22

L:\CADD\DRAWINGS\11053\PLANS BY G\W\FINALS\11053-F-20.dwg PLOTTED: 2/18/2015 8:54 AM, LAST SAVED: 2/18/2015 8:28 AM, PLOTTED BY: Mike Troppan

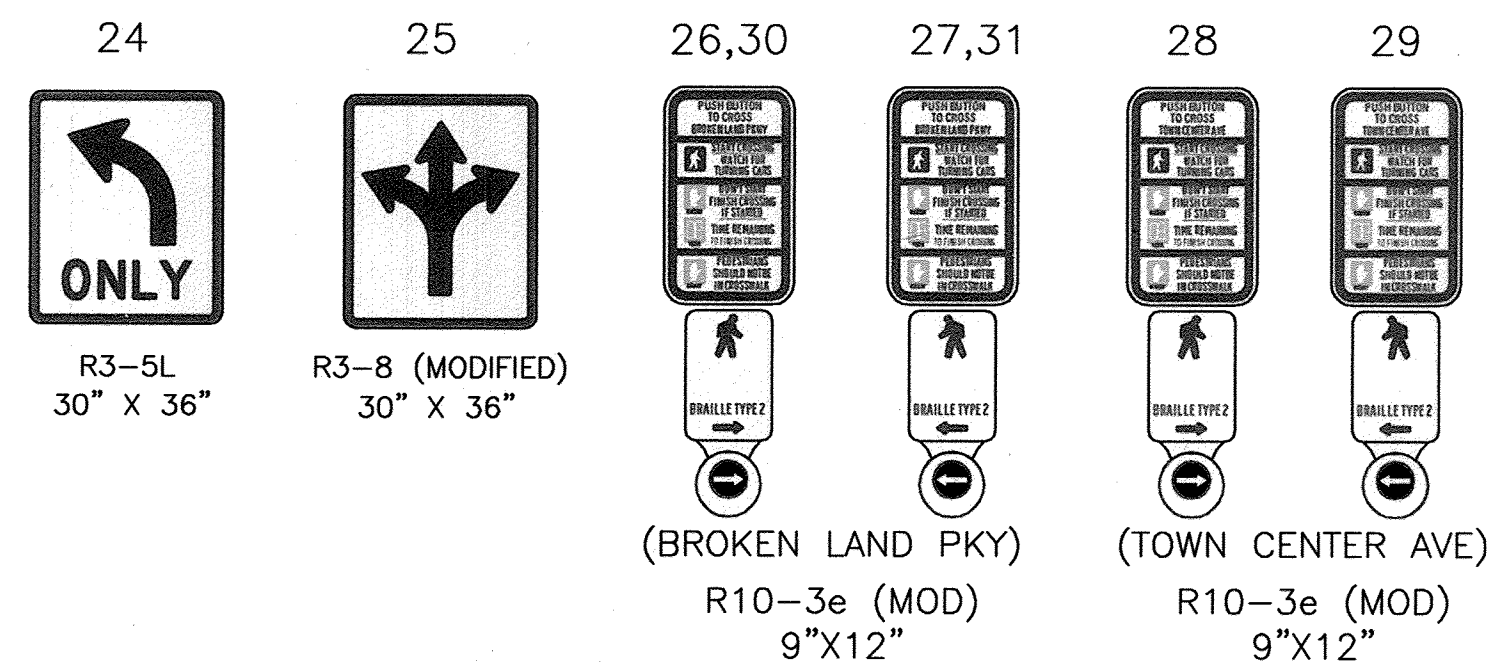


BROKEN LAND PARKWAY IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION.

EXISTING SIGNS



PROPOSED SIGNS

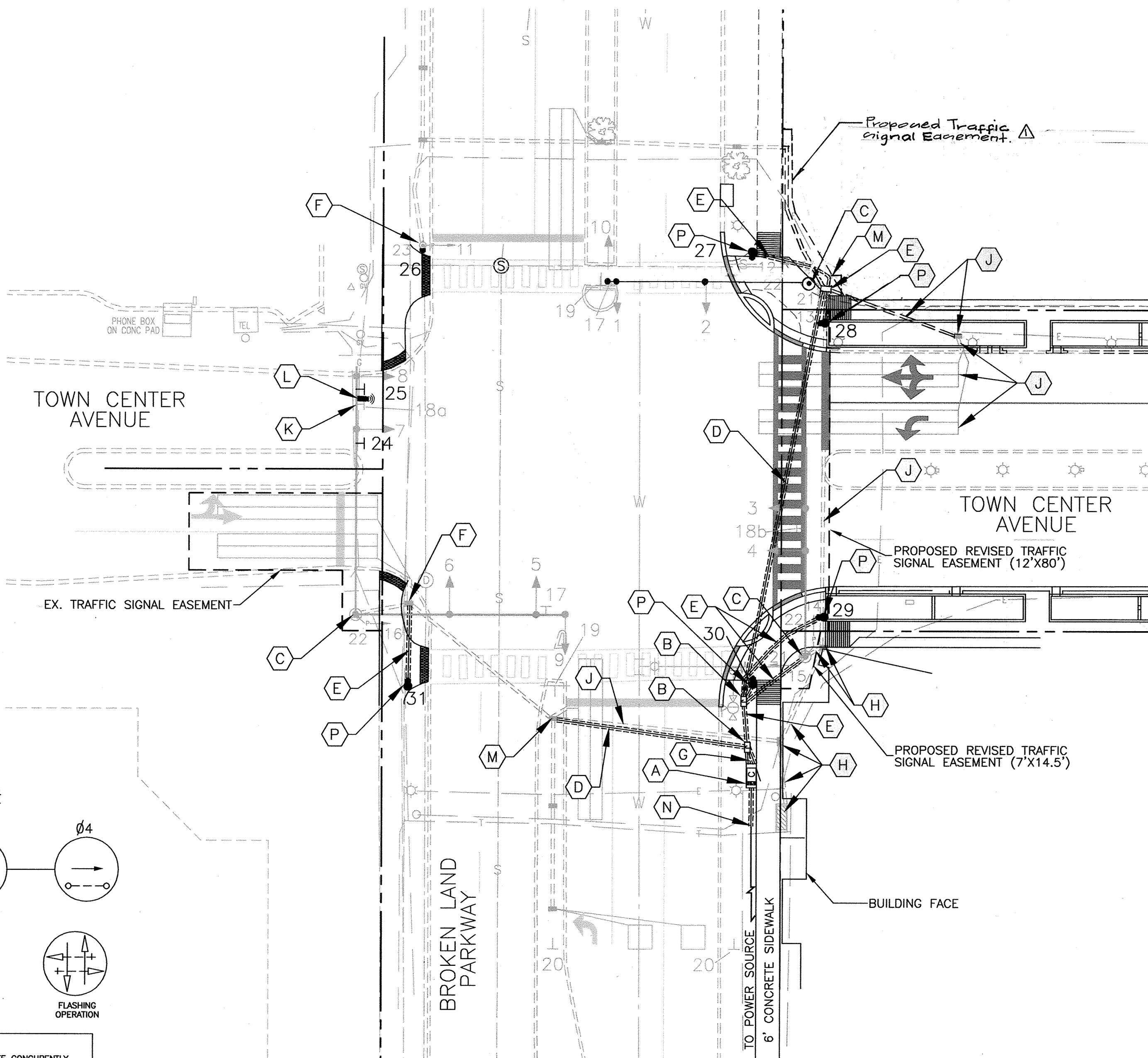


CONSTRUCTION DETAILS

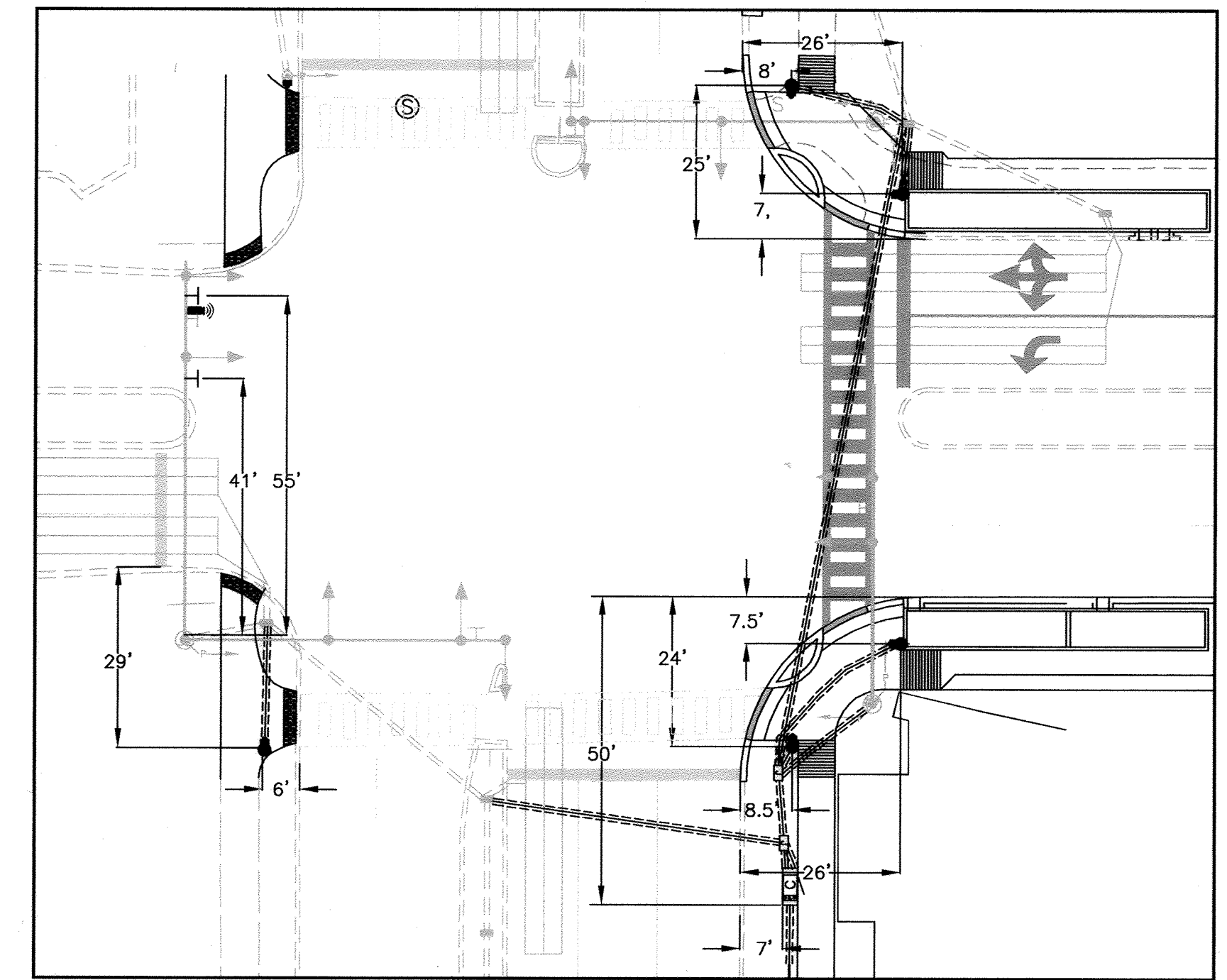
- A. INSTALL BASE MOUNTED CABINET AND CONTROLLER, CONCRETE FOUNDATION, GROUND RODS, AND ALL NECESSARY EQUIPMENT FOR AN ELECTRICAL SERVICE, ONE 30 AMP DISCONNECT SWITCH. (NOTE: TWO 4-INCH P.V.C. AND TWO 2-INCH P.V.C. SCHEDULE 80 CONDUIT BENDS).
- B. INSTALL HANDBOX.
- C. REMOVE PUSHBUTTON(S) AND PEDESTRIAN SIGN(S).
- D. INSTALL 3-INCH P.V.C. (SCHEDULE 80) ELECTRICAL CONDUIT (BORED).
- E. INSTALL 3-INCH P.V.C. (SCHEDULE 80) ELECTRICAL CONDUIT (TRENCHED).
- F. REMOVE PUSHBUTTON AND PEDESTRIAN SIGN. INSTALL APS BUTTON AND SIGN ON PEDESTAL POLE.
- G. INSTALL TWO (2) 4-INCH P.V.C. (SCHEDULE 80) ELECTRICAL CONDUITS (TRENCHED).
- H. REMOVE EXISTING EQUIPMENT.
- J. ABANDON EXISTING EQUIPMENT.
- K. REMOVE EXISTING SIGN & INSTALL SIGNS AS SHOWN.
- L. INSTALL VIDEO DETECTION CAMERA.
- M. INTERCEPT PROPOSED CONDUIT WITH EXISTING HANDBOX. PULL WIRE BACK TO HANDBOX. REWIRE THROUGH NEW CONDUIT TO NEW CABINET.
- N. INSTALL 4-INCH P.V.C. (SCHEDULE 80) ELECTRICAL CONDUIT (TRENCHED) AND PULL STRING TO POTENTIAL BGE POWER SOURCE (TO BE DETERMINED).
- P. INSTALL ALUMINUM POLE, APS BUTTON AND SIGN.

NOTES:

1. CONTRACTOR SHALL VERIFY LOCATION OF ALL UTILITIES BEFORE STARTING CONSTRUCTION AND HAND EXCAVATE OR TEST PIT ALL UTILITY CROSSINGS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING ALL UTILITY COMPANIES PRIOR TO CONSTRUCTION SO THAT ALL UTILITIES ARE MARKED. IF THERE ARE ANY PERCEIVED CONFLICTS BETWEEN EXISTING UTILITIES AND PROPOSED TRAFFIC SIGNAL EQUIPMENT, THE CONTRACTOR SHALL NOTIFY THE APPROPRIATE PROJECT ENGINEER IMMEDIATELY.
2. CONTRACTOR MUST VERIFY ALL PROPOSED TRAFFIC SIGNAL EQUIPMENT LOCATIONS WITH THE HOWARD COUNTY'S TRAFFIC SIGNAL ENGINEER PRIOR INSTALLATION. CONTRACTOR SHALL CONTACT MR. KRIS JAGARAPU AT (410) 313-5753 TO SET UP A PRE-CONSTRUCTION MEETING IN THE FIELD.
3. ALL PAVEMENT MARKINGS INCLUDING CROSSWALKS, STOP BARS AND ARROWS TO BE INSTALLED BY THE DEVELOPER'S GENERAL/PAVING CONTRACTOR.
4. VIDEO CAMERA LOCATION/ALIGNMENT SHALL BE COORDINATED WITH HOWARD COUNTY'S TRAFFIC SIGNAL ENGINEER.
5. ALL ABANDONED CONDUITS/CABLE SHALL BE PROPERLY TERMINATED AND REMOVED BY CONTRACTOR.
6. EXISTING TRAFFIC SIGNAL CABINET AND UPS CABINET MUST BE RETURNED TO HOWARD COUNTY.
7. THE CONTRACTOR IS RESPONSIBLE TO MAKE PRIOR ARRANGEMENT WITH HOWARD COUNTY POLICE DEPARTMENT TO DIRECT TRAFFIC ON THE DAY OF THE TRAFFIC SIGNAL TURN-ON WHEN THE EXISTING TRAFFIC SIGNAL WILL BE DARK.



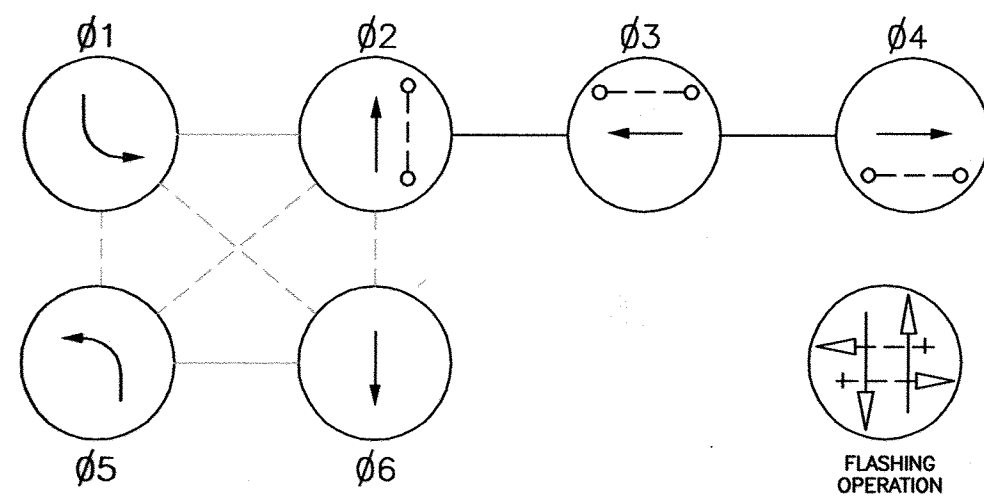
SIGNAL AND SIGN DIMENSIONS



LEGEND

- VIDEO DETECTION CAMERA
- MAST ARM
- TRAFFIC SIGNAL HEAD
- EXISTING HANDBOX
- PROPOSED HANDBOX
- SIGN
- ALUMINUM PEDESTAL POLE
- APS BUTTON
- PROPOSED CONDUIT
- EXISTING CONDUIT
- LOOP DETECTORS
- STREET LIGHT ON SIGNAL POLE
- CONTROLLER WITH PAD & UPS
- PED POLE

NEMA PHASING



PHASING NOTES:

1. PHASES ASSOCIATED BY A LINE WILL NOT OPERATE CONCURRENTLY.
2. PHASES ASSOCIATED BY A DASHED LINE WILL OPERATE CONCURRENTLY.

UTILITY LEGEND

- G - G - GAS MAIN
- W - W - WATER MAIN
- S - S - SEWER MAIN
- D - D - STORM DRAIN
- E - E - ELECTRIC CABLES
- T - T - TELEPHONE CABLES

Approved: Howard County Department of Public Works

Private Roads, Sid and Stormwater
Chief, Bureau of Highways

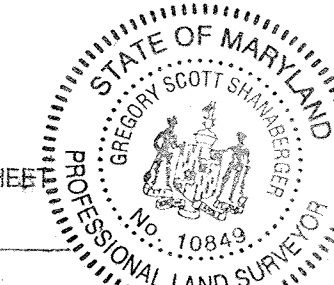
Approved: Howard County Department of Planning & Zoning

Chief, Division of Land Development

Chief, Development Engineering Division

NOTE: THERE IS NO AS-BUILT INFORMATION PROVIDED ON THIS SHEET

G SCOTT SHANBERGER
SHANBERGER & LANE
Professional L.S. #10849 Exp. Date 4/2/2022
AS-BUILT DATE: 7/27/2018



APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
Director of Public Works

Chief, Traffic Engineering Division

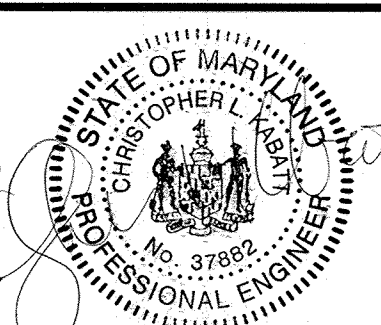
Chief, Bureau of Highways

WELLS + ASSOCIATES, INC
1420 Spring Hill Road, Suite 600, McLean, Virginia 22102
Phone: 703/917-6820 Fax: 703/917-0739

DATE	REVISION	BY	APP'R.
2/10/13	Revise Traffic Signal Easement NE Quadrant	ah	
2-8-13			

PREPARED FOR:
HOWARD HUGHES CORPORATIONS
10275 LITTLE PATUXENT PARKWAY
COLUMBIA, MARYLAND 21044
ATTN: BOB JENKINS
410-964-5443

PROFESSIONAL CERTIFICATION
I HEREBY CERTIFY THAT THESE PLANS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.
LICENSE NO. 10849
EXPIRATION DATE: 4/2/2022



TRAFFIC SIGNAL MODIFICATION PLAN - BROKEN LAND PARKWAY @ TOWN CENTER AVENUE
DOWNTOWN COLUMBIA
WARFIELD NEIGHBORHOOD
PARCELS C-1 THRU C-4 & PARCELS D-1 THRU D-4
COLUMBIA TOWN CENTER
LOTS 40 & 47 SECTION 2 AREA 1 & PARCEL E, SECTION 2 AREA 8
ELECTION DISTRICT No. 5
HOWARD COUNTY, MARYLAND

SCALE	ZONING	G. L. W. FILE No.
1" = 20'	NT	11053
DATE	TAX MAP - GRID	SHEET
FEB, 2013	36 - 01	21 OF 22

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

MEMBER
MISS UTILITY
SERVICE PROTECTION CENTER

CALL TOLL FREE
1-800-257-7777

CALL "MISS UTILITY" AT 1-800-257-7777, 48 HOURS PRIOR TO THE START OF WORK. THE EXCAVATOR MUST NOTIFY ALL PUBLIC UTILITY COMPANIES WITH UNDER GROUND FACILITIES IN THE AREA OF PROPOSED EXCAVATION AND HAVE THOSE FACILITIES LOCATED BY THE UTILITY COMPANIES PRIOR TO COMMENCING EXCAVATION.

PROJECT DESCRIPTION

- I. GENERAL
THIS PROJECT INVOLVES THE MODIFICATION OF AN EXISTING TRAFFIC SIGNAL AT THE INTERSECTION OF BROKEN LAND PARKWAY AND COLUMBIA MALL ENTRANCE IN HOWARD COUNTY, MARYLAND, IN CONJUNCTION WITH A NEW DEVELOPMENT ON THE EAST SIDE OF BROKEN LAND PARKWAY. THE TRAFFIC SIGNAL MODIFICATION WILL INCLUDE A NEW CONTROLLER, APS PUSHBUTTONS, SIGNS AND PAVEMENT MARKINGS.
- II. INTERSECTION OPERATION
THE INTERSECTION WILL OPERATE IN NEMA, FOUR PHASE FULLY ACTUATED MODE. THE NORTHBOUND AND SOUTHBOUND MOVEMENTS WILL OPERATE CONCURRENTLY AND THE EASTBOUND AND WESTBOUND MOVEMENTS WILL OPERATE SPLIT PHASED. APS PUSHBUTTONS WILL BE INSTALLED TO SERVE THE NORTH, SOUTH AND EAST PEDESTRIAN CROSSINGS.
- III. SPECIAL NOTES
1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR TERMINATING ALL SIGNAL CABLES, TO THE APPROPRIATE TERMINALS AND SHALL PROPERLY LABEL EACH CABLE.
2. CONTACT MR. KRIS JAGARAPU AT (410) 313-5753 TO SET UP A PRE-CONSTRUCTION MEETING IN THE FIELD.
3. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY (1-800-257-7777) PRIOR TO CONSTRUCTION SO THAT ALL UTILITIES MAY BE LOCATED IN THE FIELD. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN THE UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER IMMEDIATELY SO THAT THE CONFLICT MAY BE RESOLVED.

BROKEN LAND PARKWAY IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION.

EQUIPMENT LIST A

EQUIPMENT TO BE PROVIDED BY THE COUNTY WHEN REIMBURSED BY THE DEVELOPER AND INSTALLED BY THE TRAFFIC SIGNAL CONTRACTOR

DESCRIPTION	UNITS	QUANTITY
EAGLE EIGHT-PHASE, FULL-TRAFFIC ACTUATED CONTROLLER HOUSED IN A NEMA SIZE "6" BASE MOUNTED CABINET PER HOWARD COUNTY SPECIFICATIONS	EA	1
UPS SYSTEM BATTERY BACK-UP SYSTEM	EA	1
2 WIRE CENTRAL CONTROL UNIT	EA	1
VIDEO DETECTION CAMERA & INTERFACE BOARD	EA	2
VIDEO DETECTION CAMERA CABLE	FT	300
APS PUSHBUTTON AND SIGN	EA	6

Approved: Howard County Department of Public Works
Private Roads, SD and Stormwater
Chief, Bureau of Highways
Date

Approved: Howard County Department of Planning & Zoning
Karl Slesbrook
Chief, Division of Land Development
Date 3/28/13

Approved: Howard County Department of Planning & Zoning
Chief, Development Engineering Division
Date 3/27/13

LEGEND

- VIDEO DETECTION CAMERA
- MAST ARM
- TRAFFIC SIGNAL HEAD
- EXISTING HANDBOX
- PROPOSED HANDBOX
- SIGN
- ALUMINUM PEDESTAL POLE
- APS BUTTON
- PROPOSED CONDUIT
- EXISTING CONDUIT
- LOOP DETECTORS
- STREET LIGHT ON SIGNAL POLE
- CONTROLLER WITH PAD & UPS
- PED POLE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
Director of Public Works
Date 2/11/13

Chief, Traffic Engineering Division
Date 2/8/13

Chief, Bureau of Highways
Date 2-08-13

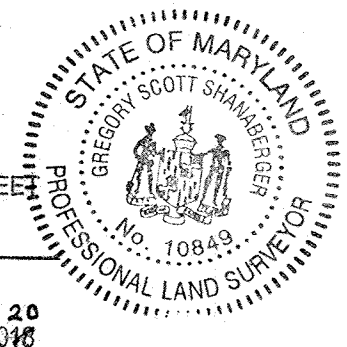
EQUIPMENT LIST B

FURNISHED AND INSTALLED BY THE CONTRACTOR

DESCRIPTION	UNITS	QUANTITY
MAINTENANCE OF TRAFFIC	LS	1
MOBILIZATION	LS	1
TEST PIT EXCAVATION	CY	2
ALUMINUM PEDESTAL POLE, SQUARE BASE, POLE CAP, ANCHOR BOLTS & HARDWARE	EA	5
CONCRETE FOR SIGNAL FOUNDATION	CY	3
SHEET ALUMINUM SIGN	SF	15
NO. 6 AWG STRANDED BARE COPPER GROUND WIRE	LF	110
3" SCHEDULE 80 PVC RIGID CONDUIT - TRENCHED	LF	150
3" SCHEDULE 80 RIGID PVC CONDUIT - BORED	LF	160
4" SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED	LF	20
ELECTRICAL UTILITY SERVICE EQUIPMENT 120/240 VOLTS 60 AMPS	LS	1
FURNISH AND INSTALL HANDHOLE	EA	2
GROUND ROD - 3/4" DIAMETER x 10' LENGTH	EA	3
ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 AWG)	LF	800

NOTE: THERE IS NO AS-BUILT INFORMATION PROVIDED ON THIS SHEET

G. SCOTT SHANABERGER
PROFESSIONAL ENGINEER
Professional L.S. #10649 Exp. Date 4/2/2018
AS-BUILT DATE: 7/27/2018

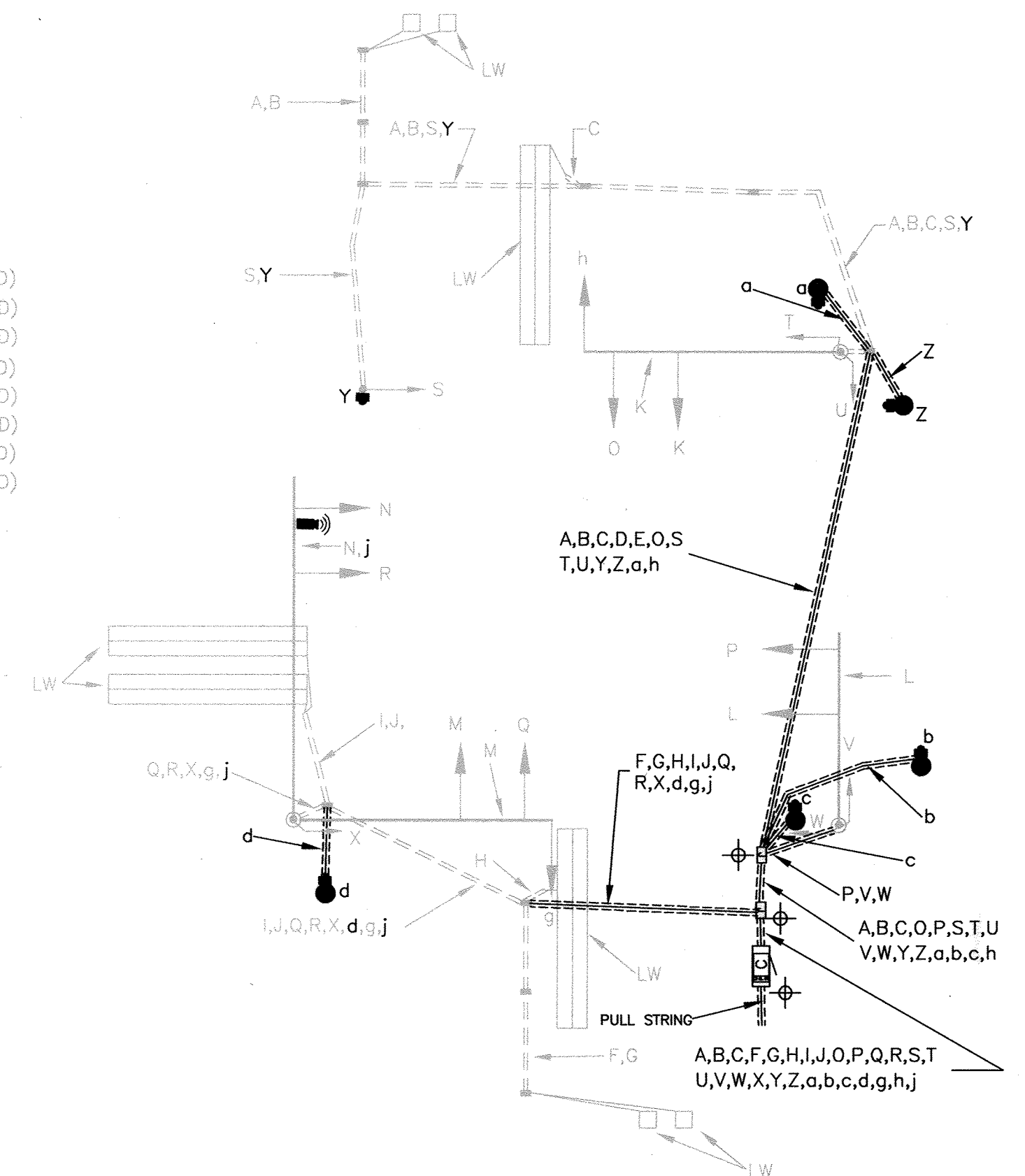


PHASE AND SEQUENCE DIAGRAM	SIGNAL HEADS															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
PHASE 1+5	G	R	R	R	G	R	R	R	G	G	Hand	Hand	Hand	Hand	Hand	Hand
PHASE 1+5 CHANGE	Y	R	R	R	Y	R	R	R	Y	Y	Hand	Hand	Hand	Hand	Hand	Hand
PHASE 1+6	R	R	R	R	G	G	R	R	R	G	Hand	Hand	Hand	Hand	Hand	Hand
PHASE 1+6 CHANGE	R	R	R	R	Y	R	R	R	Y	Y	Hand	Hand	Hand	Hand	Hand	Hand
PHASE 2+5	G	G	R	R	R	R	R	R	G	R	Hand	Hand	Hand	Hand	Hand	Hand
PHASE 2+5 CHANGE	G	G	R	R	R	R	R	R	Y	Y	Hand	Hand	Hand	Hand	Hand	Hand
PHASE 2+6	G	G	R	R	G	G	R	R	G	G	Hand	Hand	Hand	Hand	Hand	Hand
PHASE 2+6 CHANGE	G	G	R	R	R	R	R	R	Y	Y	Hand	Hand	Hand	Hand	Hand	Hand
PED CLEAR	G	G	R	R	G	G	R	R	G	G	Hand	Hand	Hand	Hand	Hand	Hand
PHASE 3	R	R	R	R	R	R	G	G	R	R	Hand	Hand	Hand	Hand	Hand	Hand
PHASE 3 CHANGE	R	R	R	R	R	R	Y	Y	R	R	Hand	Hand	Hand	Hand	Hand	Hand
PED CLEAR	R	R	R	R	R	R	G	G	R	R	Hand	Hand	Hand	Hand	Hand	Hand
PHASE 4	R	R	G	G	R	R	Y	Y	R	R	Hand	Hand	Hand	Hand	Hand	Hand
PHASE 4 CHANGE	R	R	Y	Y	R	R	R	R	R	R	Hand	Hand	Hand	Hand	Hand	Hand
FLASH OPER.	FL Y	FL Y	FL R	FL R	FL Y	FL Y	FL R	FL R	FL Y	FL Y	DARK	DARK	DARK	DARK	DARK	DARK

WIRING LEGEND

- A = 2 CONDUCTOR CABLE (ALUMINUM SHIELDED)
- B = 2 CONDUCTOR CABLE (ALUMINUM SHIELDED)
- C = 2 CONDUCTOR CABLE (ALUMINUM SHIELDED)
- F = 2 CONDUCTOR CABLE (ALUMINUM SHIELDED)
- G = 2 CONDUCTOR CABLE (ALUMINUM SHIELDED)
- H = 2 CONDUCTOR CABLE (ALUMINUM SHIELDED)
- I = 2 CONDUCTOR CABLE (ALUMINUM SHIELDED)
- J = 2 CONDUCTOR CABLE (ALUMINUM SHIELDED)
- K = 5 CONDUCTOR CABLE (NO. 14 A.W.G.)
- L = 5 CONDUCTOR CABLE (NO. 14 A.W.G.)
- M = 5 CONDUCTOR CABLE (NO. 14 A.W.G.)
- N = 5 CONDUCTOR CABLE (NO. 14 A.W.G.)
- O = 7 CONDUCTOR CABLE (NO. 14 A.W.G.)
- P = 7 CONDUCTOR CABLE (NO. 14 A.W.G.)
- Q = 7 CONDUCTOR CABLE (NO. 14 A.W.G.)
- R = 7 CONDUCTOR CABLE (NO. 14 A.W.G.)
- S = 3 CONDUCTOR CABLE (NO. 14 A.W.G.)
- T = 3 CONDUCTOR CABLE (NO. 14 A.W.G.)
- U = 3 CONDUCTOR CABLE (NO. 14 A.W.G.)
- V = 3 CONDUCTOR CABLE (NO. 14 A.W.G.)
- W = 3 CONDUCTOR CABLE (NO. 14 A.W.G.)
- X = 3 CONDUCTOR CABLE (NO. 14 A.W.G.)
- Y = 2 CONDUCTOR CABLE (NO. 14 A.W.G.)
- Z = 2 CONDUCTOR CABLE (NO. 14 A.W.G.)
- a = 2 CONDUCTOR CABLE (NO. 14 A.W.G.)
- b = 2 CONDUCTOR CABLE (NO. 14 A.W.G.)
- c = 2 CONDUCTOR CABLE (NO. 14 A.W.G.)
- d = 2 CONDUCTOR CABLE (NO. 14 A.W.G.)
- g = 7 CONDUCTOR CABLE (NO. 14 A.W.G.)
- h = 7 CONDUCTOR CABLE (NO. 14 A.W.G.)
- j = VIDEO DETECTION CAMERA CABLE
- LW = LOOP WIRE
- GR = GROUND ROD
- DARK = NEW/RELOCATED WIRING
- LIGHT = EXISTING WIRING

WIRING DIAGRAM



WELLS + ASSOCIATES, INC.
1420 Spring Hill Road, Suite 600, McLean, Virginia 22102
Phone: 703/917-6620 Fax: 703/917-0739

DES. RAR DRN. RAR CHK. LBS

DATE	REVISION	BY	APP'R.

PREPARED FOR:
HOWARD HUGHES CORPORATIONS
10275 LITTLE PATUXENT PARKWAY
COLUMBIA, MARYLAND 21044
ATTN: BOB JENKINS
410-964-5443

PROFESSIONAL CERTIFICATION
I HEREBY CERTIFY THAT THESE PLANS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.
LICENSE NO. 37882
EXPIRATION DATE: 4/2/2018

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PARCELS C-1 THRU C-4 & PARCELS D-1 THRU D-4
COLUMBIA TOWN CENTER
LOTS 40 & 47 SECTION 2 AREA 1 & PARCEL E, SECTION 2 AREA 8
HOWARD COUNTY, MARYLAND
ELECTION DISTRICT No. 5

SCALE	ZONING	G. L. W. FILE NO.
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