·	QUANTITIES ESTIMATED	NTITIES AS-BUILT		
ITEMS		QUANTITIES	TYPE	MANUFACTURER/ SUPPLIER
6" WATER MAIN (DIP) (FH LEAD)	21 L.F.			
8" WATER MAIN (C900 DRI8 PVC)	566 L.F.			
8"x 8" T.S.\$V.	I EA.			
8"× 8" T.	I EA.		-	
8" ∨.	3 EA.			
8" % H.B.	3 EA.			
8" 5° SWEEP	l EA.			
N.				
01.2.00.1106	2 - 1			
8" 3.0° HDC	3 EA.			
8" CAP	2 EA.			
8"x 6" F.H.T.	I EA.			
FIRE HYDRANT	LEA.			i
CONTINUITY TEST STATION	I EA.			
8" SEWER MAIN (DIP)	8 L.F.			
6" SEWER MAIN (PVC)	II L.F.			
4' MANHOLE	I EA.			
	1 E/, Va			
		· · · · · · · · · · · · · · · · · · ·		
		appendix of the control of the contr		
.~				
NAME OF UTILITY CONT	RACTOR:			
				

THE AS-BUILT FOR THIS CONTRACT CAN NOT BE SUBMITTED TO HOWARD COUNTY UNTIL THE PLAT CREATING A PUBLIC RIGHT-OF-WAY FOR SYMPHONY WOODS ROAD (F-16-114) HAS BEEN RECORDED

THIS CONTRACT SHOWS THE PROPOSED IMPROVEMENTS ON F-16-114 AND CONTRACT 24-5008-D AS EXISTING. CONTRACT 24-5008-D MUST BE IN SERVICE PRIOR TO MAKING ANY CONNECTIONS TO CONTRACT 24-5008-D AND THE GRADING NECESSARY TO PROVIDE MINIMUM COVER OVER WATERLINE B MUST BE COMPLETE PRIOR TO CONSTRUCTION OF WATERLINE B.

(C900 PVC) -WATER LINE (PUBLIC) EXISTING STORM DRAIN _____ EXISTING SEMER LINE EXISTING STORM DRAIN W EXISTING WATER LINE - T - EXISTING TELEPHONE LINE — ε ── EXISTING ELECTRIC LINE

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SHEET INDEX

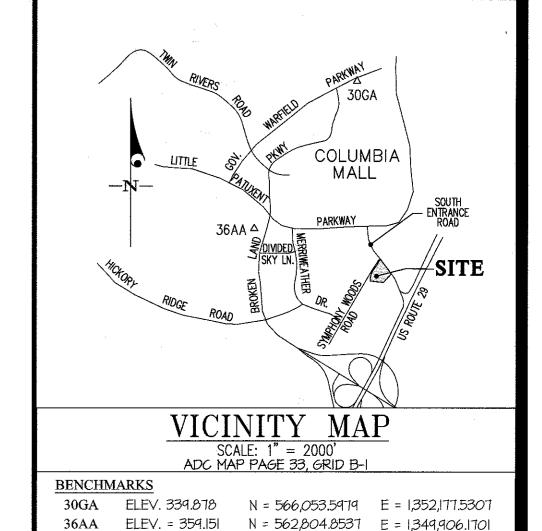
- I COVER SHEET 2 - WATER & SEWER EXTENSION PLAN 3 - WATER & SEWER PROFILES
- 5 ULTIMATE CONSTRUCTION PLAN
- 4 WATER & SEWER REMOVAL PLAN

DOWNTOWN COLUMBIA CONTRACT No. 24-5011-D DEPARTMENT OF PUBLIC WORKS

SECTION I, AREA 3 USE: LIBRARY -COLUMBIA TOWN CENTER (CONTR #172-W&S) EX. 8"W. (CONTR #24-4868-D) (CONTR. -#24-1376-D) MERRIWEATHER, COLUMBIA TOWN CENTI SECTION 5, AREA : EX. 12"W. COMMERCIAL (CONTR #44-1364-D) (CONTR #286 W&S) WATER ZONE: 550 TEST GRADIENT: 700 SCALE: I" = 600'

THE NEW CULTURAL CENTER CRESCENT NEIGHBORHOOD, PHASE 2, PARCELS R-1 & S A RESUBDIVISION OF LOT 1 (PLAT No. 15 Pg. 48) AND PARCELS G, H, & R (PN: 24003) HOWARD COUNTY, MARYLAND

NUMBER OF S.H.C.'s NUMBER OF W.H.C.'s AREA OF COMMERCIAL LOT/PARCEL 2.855 Ac. MIDDLE PATUXENT LITTLE PATUXENT RECLAMATION PLANT



GENERAL NOTES

1. Approximate locations of existing mains are shown. The contractor shall take all necessary precautions to protect existing mains and services and maintain uninterrupted service. Any damage incurred shall be repaired immediately to the

satisfaction of the Engineer at the contractor's expense. 2. Topographic aerial survey was performed on April, 2015 by McKenzie Snyder and supplemented by topographic field survey in December, 2016 by Gutschick, Little & Weber.

Horizontal and Vertical Survey Controls: The coordinates shown on the drawings are based on Maryland State Reference System NAD '83/'91 as projected by

Howard County Geodetic Control Stations No. 36AA and No. 30GA. All vertical controls are based on NAVD '88.

4. All pipe elevations shown are invert elevations unless otherwise noted on the plans.

5. Clear all utilities by a minimum of 12 inches. Clear all poles by 5'-0" minimum or tunnel as required unless otherwise noted. The owner has contacted the utility companies and has made arrangements for bracing of poles as shown on the drawings. In the event the contractor's work requires the bracing of additional poles, any cost incurred by the owner for the bracing of additional poles or damages shall be deducted from monies owed the contractor. The contractor shall coordinate with the utility companies to schedule the bracing of the poles.

6. For details not shown on the drawing, and for materials and construction methods, use Howard County Design Manual, Volume IV, Standard Specifications and Details for Construction (2014). The contractor shall have a copy of Volume

7. Where test pits have been made on existing utilities, they are noted by the symbol � at the locations of the test pits. A note or note's containing the results of the test pit or pits is included on the drawings. Existing utilities in the vicinity of the proposed work for which test pits have not been dug shall be located by the contractor two weeks in advance of construction operations at his own expense.

8. The contractor shall notify the following utility companies or agencies at least five working days before starting work shown on these plans:

'	
AT&T	
BGE (Construction Services)	410-637-8713
BGE (Emergency)	410-685-0123
Bureau of Útilitiés	410-313-4900
Colonial Pipeline Co	410-795-1390
Miss Utility.'	
State Highway Administration Verizon	410-531-5533
Verizon	1-800-743-0033

9. Trees and shrubs are to be protected from damage to the maximum extent. Trees and shrubs located within the

construction strip are not to be removed or damaged by the contractor. 10. The contractor shall remove trees, stumps and roots along the line of excavation. Payment for such removal shall be included in the unit price bid for construction of the main.

11. The contractor shall notify the Bureau of Highways, Howard County, at (410)-313-7450 at least five working days before open cutting or oring/jacking of any County road for laying water/sewer mains or house connections. The approval of these drawings will constitute compliance with DPW requirements per Section 18.114(a) of the Howard County Code.

Part II WATER

I. All water mains shall be P.V.C. unless otherwise noted.

2. Tops of all water mains shall have a minimum of 3'-6" of cover unless otherwise noted. 3. Valves adjacent to tees shall be strapped to tees.

4. All fittings shall be buttressed or anchored with concrete in accordance with Standard Details unless otherwise

5. Fire hydrants shall be set to the bury line elevations shown on the drawings. All fire hydrants shall be installed in accordance with Standard Details. The soil around the fire hydrant shall be compacted in accordance with Section 1000 and Section 1005 of the Standard Specifications.

6. The contractor shall not operate any water main valves on the existing water system. 7. Tracer wires and continuity test stations shall be installed on all DIP and PVC water mains in accordance with the

Howard County Design Manual. 8. For PVC water mains, all records for the Quality Control and Qualification Test Requirements noted in Section 5.1 of the AWWA Standard C900 for PVC pressure pipe shall be submitted with the pipe material certifications or shop drawings prior to approval of the material for use. The test records shall be for the pipe to be installed under this contract. All

PVC pipe shall contain markings to allow cross referencing of the pipe supplied to the test records received. 9. Unless otherwise noted on the plans or in the specifications sacrificial anodes shall be installed on all valves and metallic fittings used with PVC water mains in accordance with Volume IV, Standard Specifications and Details for Construction. Seventeen (17) pound Magnesium anodes shall be installed on all valves and ductile iron fittings including restraints and harnesses. Twelve (12) pound Zinc anodes shall be installed on all stainless steel fittings and saddles used with PVC mains. All tees used with PVC mains shall be ductile iron. 10. Proper Assembly of Gasketed PVC Pipe Joints: The manufacturer's insertion line of gasketed PVC pipe joints indicates

the maximum depth of insertion of the spigot into the bell. After assembly of the joint, the insertion line shall remain visible. Dual insertion lines on gasketed PVC pipe indicate the maximum and minimum depth of insertion of the spigot into the bell. The contractor shall not over insert or over home the spigot into the bell of PVC pipe. 11. All changes in horizontal or vertical direction of PVC water pipe shall be made with standard bends, 5-degree sweeps

or high deflection (HD) couplings. No bending of the pipe or deflecting of PVC pipe joints is permitted. Where high defection couplings or 5-degree sweeps are permitted, the contractor shall provide one full pipe length (20-foot long) on either side of the high deflection coupling or 5-degree sweep. The contractor shall use a vibratory plate compactor or other approved means to thoroughly compact the #57 stone on both sides of the high defection coupling or 5-degree sweep, taking care not to use compaction equipment directly over the fitting.

PVC high deflection couplings shall be limited to a total defection of 3-degrees (11/2-degree on either end of the coupling), shall be rated for a minimum 200 psi meeting the requirements of AWWA C900, shall have a minimum lay length of 9-inches and shall have center stops. PVC High deflection couplings shall be CertainTeed PVC High Deflection (HD) Stop Couplings

Five degree sweeps shall be bell by spigot, rated for a minimum 225 psi, DRIB meeting the requirements of AWWA C900 and shall be Multi Fittings (Ipex) Blue Brute DR18 or equal.

12. When PVC high defection couplings or PVC 5-degree sweeps are used to facilitate changes in horizontal or vertical alignments of AVWA C-900 PVC pipelines, the contractor shall install devices for the prevention of over-insertion of the PVC pipe spigots or plain ends into the push on bell joint on both sides of the high defection couplings and 5 degree sweeps. Bell stops shall be placed at the proper insertion line for the fitting. The bell stop shall be manufactured of ductile iron and incorporate an expansion retention spring to allow for pipe expansion and contraction. The bell stops shall be Series 5000 Mega-Stop, as manufactured by EBAA Iron, Inc. or approved equal.

Part III SEWER

I. All sewer mains shall be D.I.P. or P.V.C. unless otherwise noted.

2. All manholes shall be 4'-0" inside diameter unless otherwise noted. 3. Force mains shall be D.I.P. only.

4. Manholes shown with 12" and 16" walls are for brick manholes only. 5. Manholes designated W.T. in plan and profile shall have watertight frame and cover, Standard Detail G5.52. Where watertight manhole frames and covers are used, set top of frame 1'-6" above finished grade unless otherwise noted on the

6. House(s) with the symbol C.N.S. indicates that the cellar cannot be served.

PREPARED FOR:

TOBY'S GENERAL PARTNERSHIP 10709 VISTA ROAD COLUMBIA, MARYLAND 21044-422: ATTN: SCOTT ARMIGER PH:410-964-2334

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND

SEDIMENT CONTROL MEASURES WILL BE IMPLEMENTED IN

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL

EROSION AND SEDIMENT CONTROL BY THE HOWARD

308 OF THE SPECIFICATIONS

ACCORDANCE WITH SDP-17-043, & VOLUME IV SECTION

DEPARTMENT OF PLANNING AND ZONING HOWARD COUNTY, MARYLAND

5.8.18 CHIEF, DEVELOPMENT ENGINEERING DIVISION M & DATE

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

:\CADD\DRAWNGS\15107\PLANS BY GLW\WAT-SEW\FINAL\15107 \ST-CS.dwg

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

DES. WsJ DRN. WsJ CHK. DDS

DATE

PROFESSIONAL CERTIFICATION 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,

BY NO

DATE 600' SCALE MAP NO. 36 REVISION

COVER SHEET

BLOCK NO. 8

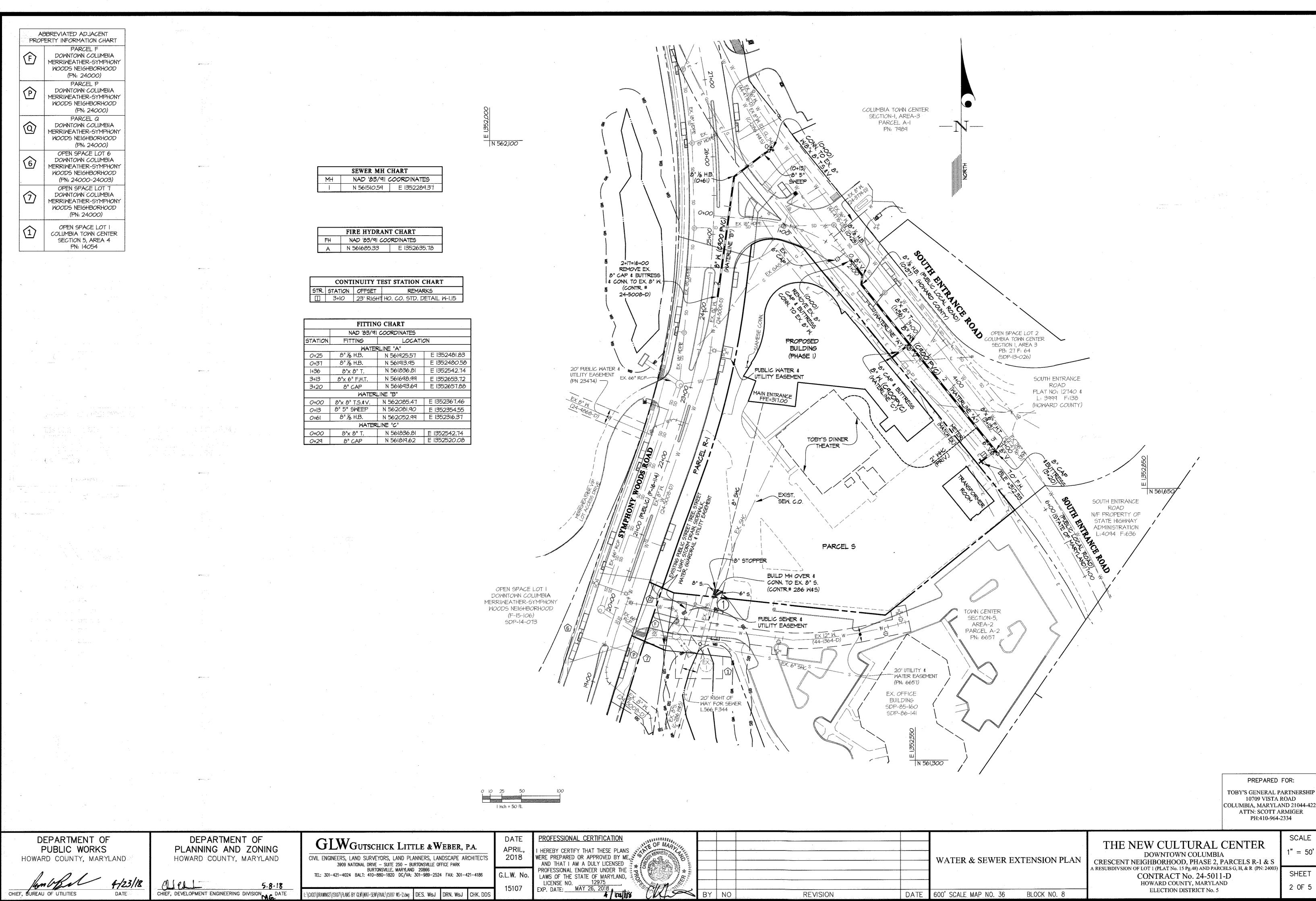
THE NEW CULTURAL CENTER DOWNTOWN COLUMBIA

CRESCENT NEIGHBORHOOD, PHASE 2, PARCELS R-1 & S A RESUBDIVSION OF LOT 1 (PLAT No. 15 Pg.48) AND PARCELS G, H, & R (PN: 24003) CONTRACT No. 24-5011-D HOWARD COUNTY, MARYLAND ELECTION DISTRICT No. 5

SHEET 1 OF 5

SCALE

AS SHOWN



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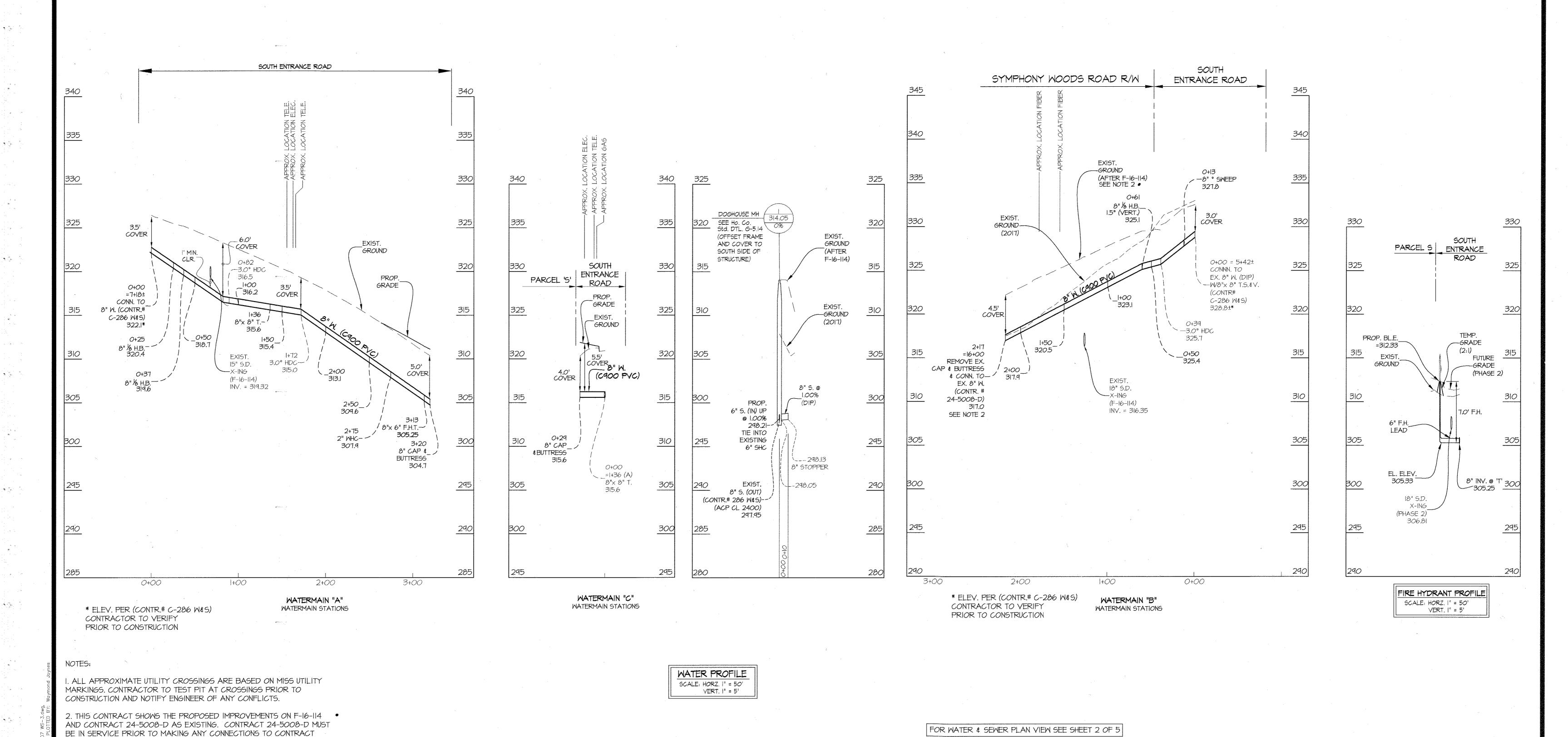
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PROFESSIONAL CERTIFICATION

HEREBY CERTIFY THAT THESE PLANS

AND THAT I AM A DULY LICENSED

PROFESSIONAL ENGINEER UNDER THE

LAWS OF THE STATE OF MARYLAND, LICENSE NO. 12975
EXP. DATE: MAY 26, 2018

A 12/18

WERE PREPARED OR APPROVED BY ME,

APRIL,

DRN. WsJ CHK. DDS

PREPARED FOR:

TOBY'S GENERAL PARTNERSHIP 10709 VISTA ROAD COLUMBIA, MARYLAND 21044-422: ATTN: SCOTT ARMIGER PH:410-964-2334

THE NEW CULTURAL CENTER

DOWNTOWN COLUMBIA

CRESCENT NEIGHBORHOOD, PHASE 2, PARCELS R-1 & S

A RESUBDIVSION OF LOT 1 (PLAT No. 15 Pg.48) AND PARCELS G, H, & R (PN: 24003)

CONTRACT No. 24-5011-D

HOWARD COUNTY, MARYLAND

ELECTION DISTRICT No. 5

WATER & SEWER PROFILES

BLOCK NO. 8

DATE 600' SCALE MAP NO. 36

REVISION

SCALE

SHEET

3 OF 5

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WATERLINE B.

CHIEF, BUREAU OF UTILITIES

DEPARTMENT OF

PUBLIC WORKS

HOWARD COUNTY, MARYLAND

24-5008-D AND THE GRADING NECESSARY TO PROVIDE MINIMUM COVER OVER WATERLINE B MUST BE COMPLETE PRIOR TO CONSTRUCTION OF

DEPARTMENT OF

PLANNING AND ZONING

HOWARD COUNTY, MARYLAND

CHIEF, DEVELOPMENT ENGINEERING DIVISION M.G.

5.8.18

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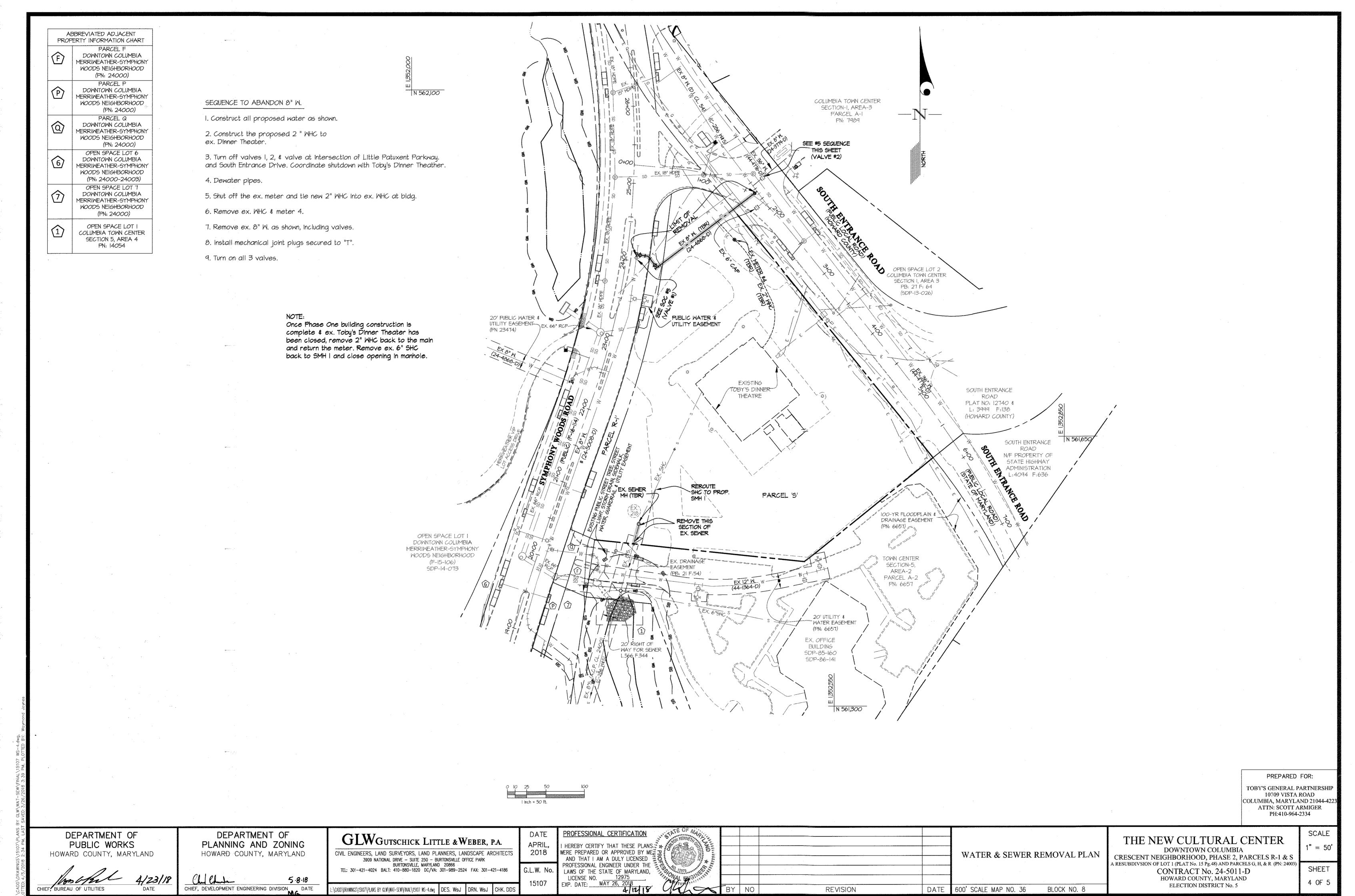
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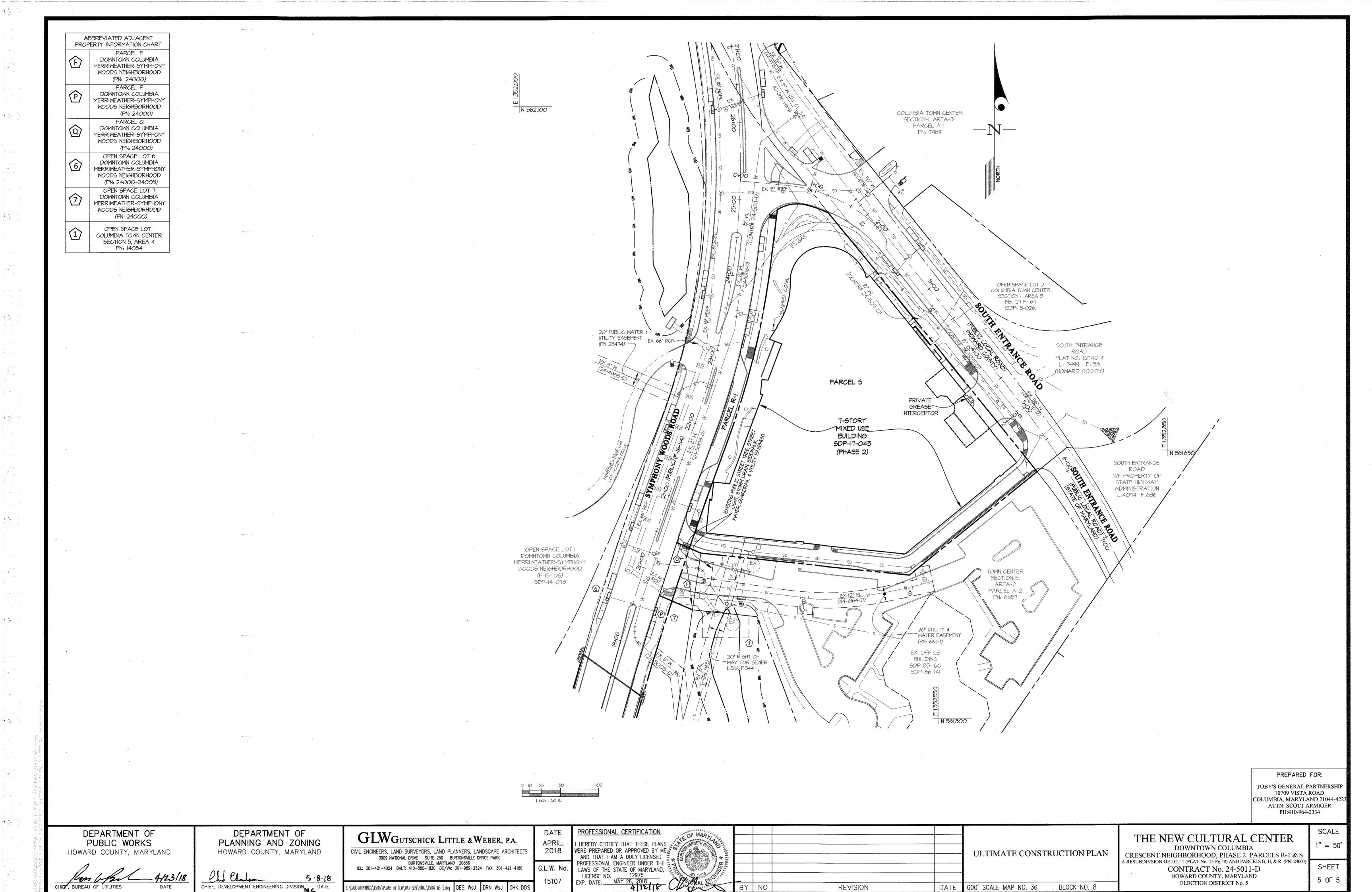
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