

HOWARD COUNTY

Capital Project #W8602
Contract No. 10-5113

Woodcrest Drive Principal Spillway Replacement and Water Quality Retrofit Project Water and Sewer Plans

GENERAL NOTES

- APPROXIMATE LOCATIONS OF EXISTING MAINS ARE SHOWN. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT EXISTING MAINS AND SERVICES AND MAINTAINS UNINTERRUPTED SERVICE. ANY DAMAGE INCURRED SHALL BE REPAIRED IMMEDIATELY TO THE SATISFACTION OF THE ENGINEER AT THE CONTRACTOR'S EXPENSE.
- TOPOGRAPHIC FIELD SURVEYS WERE PERFORMED IN SEPTEMBER 2017 BY AB CONSULTANTS
- HORIZONTAL AND VERTICAL SURVEY CONTROLS:
THE COORDINATES SHOWN ON THE DRAWINGS ARE BASED ON MARYLAND STATE REFERENCE SYSTEM NAD '83/91. ALL VERTICAL CONTROLS ARE BASED ON NAVD '88. BOTH HORIZONTAL AND VERTICAL CONTROLS WERE ESTABLISHED USING RTK GPS OBSERVATIONS COMBINED WITH A VRS NETWORK SERVICE. NO HOWARD COUNTY CONTROL POINTS OR MONUMENTS WERE USED IN SURVEY.
- ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS UNLESS OTHERWISE NOTED ON THE PLANS
- 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.
- 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 (LATEST EDITION). THE CONTRACTOR SHALL HAVE A COPY OF VOLUME IV ON THE JOB.
- 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 NOTES 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.
- THE CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITY COMPANIES OR AGENCIES AT LEAST FIVE WORKING DAYS BEFORE STARTING WORK SHOWN ON THESE PLANS:

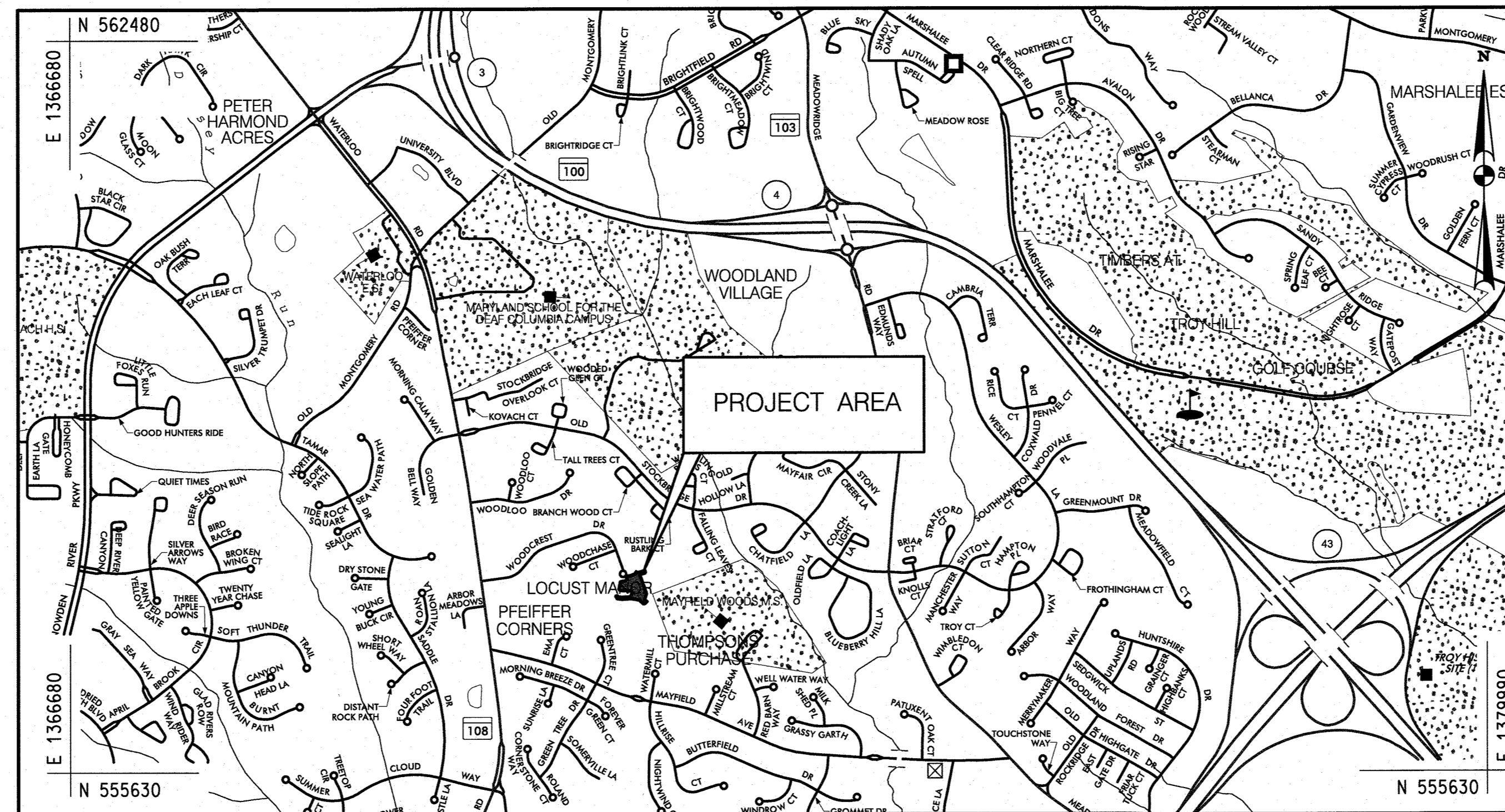
AT&T	800-252-1133
BGE (CONTRACTOR SERVICES)	410-637-8713
BGE (EMERGENCY)	410-685-0123
BUREAU OF UTILITIES	410-313-4900
COLONIAL PIPELINE CO.	410-795-1390
MISS UTILITY	800-257-7777
STATE HIGHWAY ADMINISTRATION	410-531-5533
VERIZON	800-743-0033
- TREES AND SHRUBS ARE TO BE PROTECTED FROM DAMAGE TO THE MAXIMUM EXTENT. TREES AND SHRUBS LOCATED WITHIN THE CONSTRUCTION STRIP ARE NOT TO BE REMOVED OR DAMAGED BY THE CONTRACTOR
- 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
- THE CONTRACTOR SHALL NOTIFY THE BUREAU OF HIGHWAYS, HOWARD COUNTY, AT (410) 313-7450 AT LEAST FIVE WORKING DAYS BEFORE OPEN CUTTING OR BORING/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.

SEWER NOTES

- ALL SEWER MAINS SHALL BE D.I.P. OR P.V.C. UNLESS OTHERWISE NOTED
- ALL MANHOLES SHALL BE 4'-0" INSIDE DIAMETER UNLESS OTHERWISE NOTED
- FORCE MAINS SHALL BE D.I.P. ONLY
- MANHOLES SHOWN WITH 12" AND 16" WALLS ARE FOR BRICK MANHOLES ONLY
- 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 DRAWINGS
- HOUSE(S) WITH THE SYMBOL "C.N.S." INDICATES THAT THE CELLAR CANNOT BE SERVED

INDEX OF WATER AND SEWER SHEETS

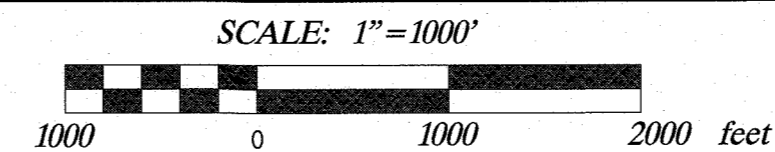
SHEET NO.	TITLE
UT-1	SEWER RELOCATION TITLE SHEET
UT-2	SEWER RELOCATION PLAN
UT-3	SEWER RELOCATION PROFILES AND DETAILS



HORIZONTAL DATUM NAD 83/91
VERTICAL DATUM NAVD 88

LEGEND

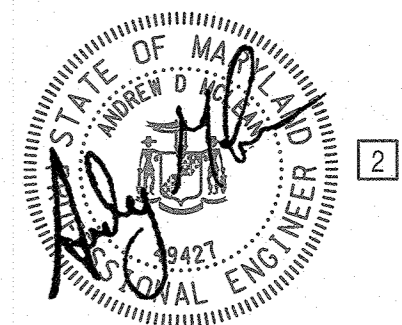
PROPOSED MEDIAN BARRIER	-----	PROPOSED MINOR CONTOUR	-----	181
ELECTRICAL HAND BOX - SIGNALS	H B X	LIMIT OF DISTURBANCE	-----	LOD
FLOW LINE	-----	EXISTING MAJOR CONTOURS	-----	190
STATE, COUNTY OR CITY LINES	-----	EXISTING MINOR CONTOURS	-----	191
EXISTING TRAFFIC BARRIER	-----	EXISTING PIPE/CULVERT	-----	
PROPOSED FENCE LINE	-X-X-	EXISTING DROP INLET	-----	
EXISTING FENCE LINE	-X-X-	WETLAND	-----	
PROPERTY LINE	-----	WATERS OF THE US	-----	WUS
EASEMENT LINE	-----	HEDGE / TREE LINE	-----	
EXISTING ROADWAY	-----	BUSH / TREE	-----	
BASE OR SURVEY LINE	-----	LIGHT POLE	-----	
TRAVERSE POINT	-----	SANITARY LINE	-----	SAN
APPROXIMATE LIMITS OF CUT AND/OR FILL	-----	BUSH / TREE TO BE REMOVED	-----	
PROPOSED MAJOR CONTOUR	-----			180



AS-BUILT CERTIFICATION

I HEREBY CERTIFY THAT THE FACILITY SHOWN ON THIS PLAN WAS CONSTRUCTED AS SHOWN ON THE "AS-BUILT" PLANS AND MEETS THE APPROVED PLANS AND SPECIFICATIONS.

AS-BUILT
8-18-21



PURPOSE STATEMENT

THE PURPOSE OF THIS PROJECT IS TO RELOCATE THE EXISTING 8" SEWER LINE AND INSTALL A PROPOSED SEWER MANHOLE, CAPITAL PROJECT #W8602, IN COORDINATION WITH THE PRINCIPAL SPILLWAY REPLACEMENT AND WATER QUALITY RETROFIT PROJECT, CAPITAL PROJECT NO. D-1178.

PROFESSIONAL CERTIFICATION

I HEREBY CERTIFY THAT THESE DOCUMENTS 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. 32013. EXPIRATION DATE: 7/5/2021

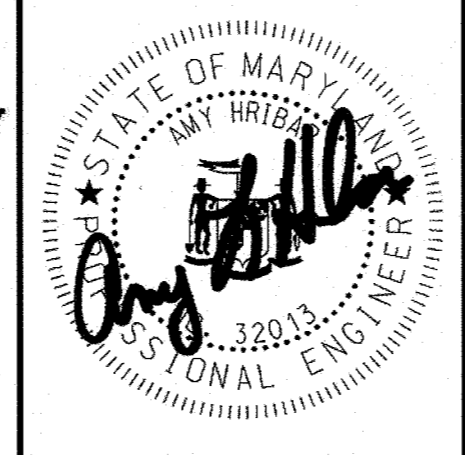
*REVISION 1 APPLIES TO THE SWM FACILITY CONTRACT D-1178 AND NOT SHOWN ON THIS CONTRACT.

UT-1 OF 3

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
 Director of Public Works: *Janet D. Zlotu* 1-23-20
 Chief, Bureau of Engineering: *James S. Suttler* 1-23-20
 Chief, Bureau of Utilities: *[Signature]* 1-23-20
 Chief, Utility Design Division: *[Signature]* 1-23-20
 SRK

McCORMICK TAYLOR
509 South Exeter Street
4th Floor
Baltimore, Maryland 21202
(410) 662-7400

Howard County
MARYLAND
Bureau of Engineering
7125 Riverwood Drive, Suite B
Columbia, Maryland 21046
(410) 313-2040

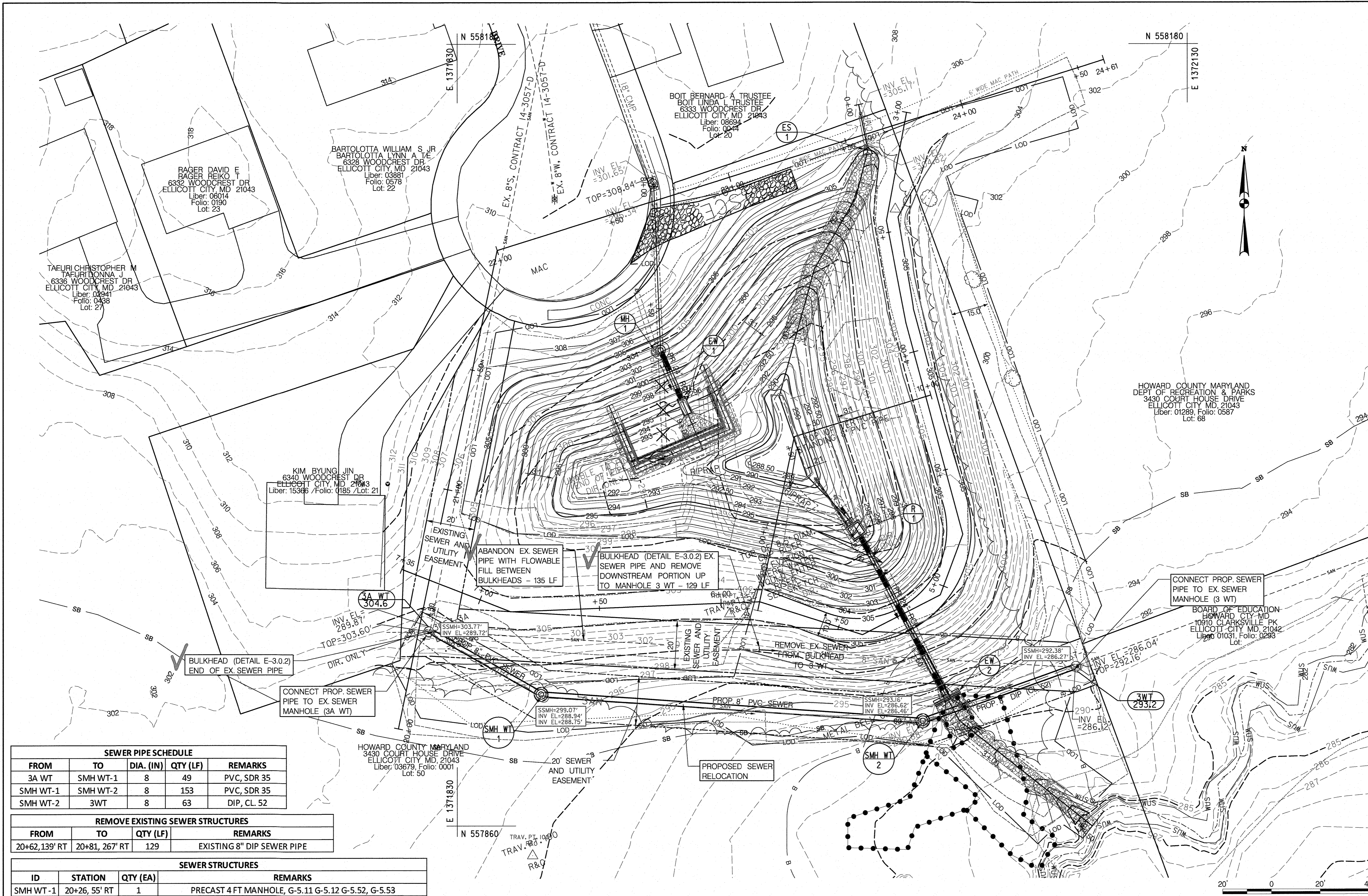


DES: HBH			
DRN: MER			
CHK: ADM			
DATE: 11/26/19			
ASS: [2]	AS-BUILT SURVEY	7/23/21	
BY: NO.	REVISION	DATE	

WOODCREST DRIVE PRINCIPAL SPILLWAY REPLACEMENT AND WATER QUALITY RETROFIT PROJECT
CAPITAL PROJECT #D-1178/#W8602
HOWARD COUNTY
HSCD #: EP-18-020
CONTRACT NUMBER 10-5113
SEWER RELOCATION TITLE SHEET

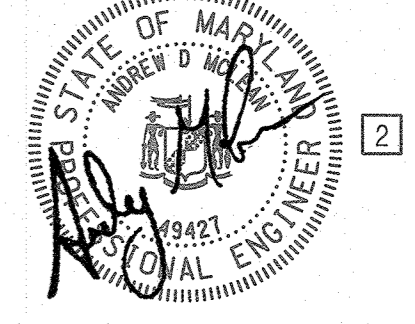
ELECTION DISTRICT 1

SCALE AS SHOWN
SHEET 15 OF 17



- NOTES:
- AFTER INSTALLATION OF SEWER, ALL EXCAVATED AREAS ARE TO BE RETURNED TO ORIGINAL CONDITIONS
 - PLACE TRENCH SPOILS ON UPHILL SIDE OF TRENCH
 - ALL SEWER MAINS SHALL BE D.I.P. OR P.V.C. UNLESS OTHERWISE NOTED
 - ALL MANHOLES SHALL BE 4'-0" INSIDE DIAMETER UNLESS OTHERWISE NOTED
 - FORCE MAINS SHALL BE D.I.P. ONLY
 - MANHOLES SHOWN WITH 12" AND 16" WALLS ARE FOR BRICK MANHOLES ONLY
 - MANHOLES DESIGNATED W.T. IN PLAN IN PROFILE SHALL HAVE WATERTIGHT FRAME AND COVER STANDARD DETAIL G5.52 WHERE WATERTIGHT MANHOLE FRAMES AND COVERS ARE USED, SET TOP OF FRAME 1'-8" ABOVE FINISHED GRADE UNLESS OTHERWISE NOTED ON THE DRAWINGS.
 - REFER TO EROSION AND SEDIMENT CONTROL PLAN (SHEET 10) AND LANDSCAPE PLAN (SHEET 14) FOR RESTORATION SCHEDULE.

AS-BUILT
8-18-21



LEGEND

- PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- PROPOSED SUB MINOR CONTOUR
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- WOODS
- PROPERTY LINE
- EXISTING EASEMENT BOUNDARY
- PROPOSED EASEMENT BOUNDARY
- WUS - WATERS OF THE US
- EMBANKMENT TOE
- EXISTING SANITARY SEWER
- PROPOSED SANITARY SEWER
- 15' NO WOODY VEGETATION ZONE
- LIMIT OF DISTURBANCE
- WATERS OF THE STATE
- WETLAND BOUNDARY
- WETLAND BUFFER
- 75' STREAM BUFFER
- FEMA 100 YR FLOODPLAIN
- PROPOSED SEWER MANHOLE
- STABILIZED CONSTRUCTION ENTRANCE

SEWER PIPE SCHEDULE

FROM	TO	DIA. (IN)	QTY (LF)	REMARKS
3A WT	SMH WT-1	8	49	PVC, SDR 35
SMH WT-1	SMH WT-2	8	153	PVC, SDR 35
SMH WT-2	3WT	8	63	DIP, CL. 52

REMOVE EXISTING SEWER STRUCTURES

FROM	TO	QTY (LF)	REMARKS
20+62, 139' RT	20+81, 267' RT	129	EXISTING 8" DIP SEWER PIPE

SEWER STRUCTURES

ID	STATION	QTY (EA)	REMARKS
SMH WT-1	20+26, 55' RT	1	PRECAST 4 FT MANHOLE, G-5.11 G-5.12 G-5.52, G-5.53
SMH WT-2	22+47, 210' RT	1	PRECAST 4 FT MANHOLE, G-5.11 G-5.12 G-5.52, G-5.53

*REVISION 1 APPLIES TO THE SWM FACILITY CONTRACT D-1178 AND NOT SHOWN ON THIS CONTRACT.

SCALE: 1" = 20'

UT-2 OF 3

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

Jan 7, 2021
DIRECTOR OF PUBLIC WORKS

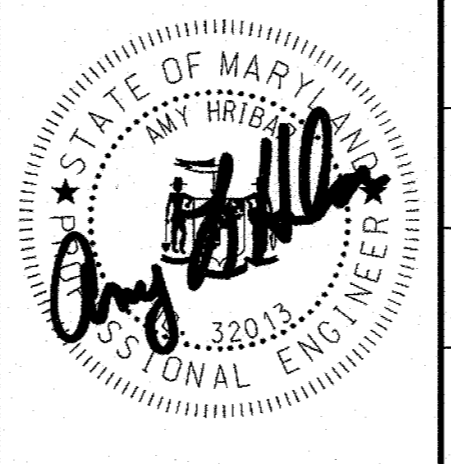
James S. Smith 1-23-20
CHIEF, BUREAU OF ENGINEERING

1-23-2020
CHIEF, BUREAU OF UTILITIES

SRK
CHIEF, UTILITY DESIGN DIVISION

McCORMICK TAYLOR
509 South Exeter Street
4th Floor
Baltimore, Maryland 21202
(410) 662-7400

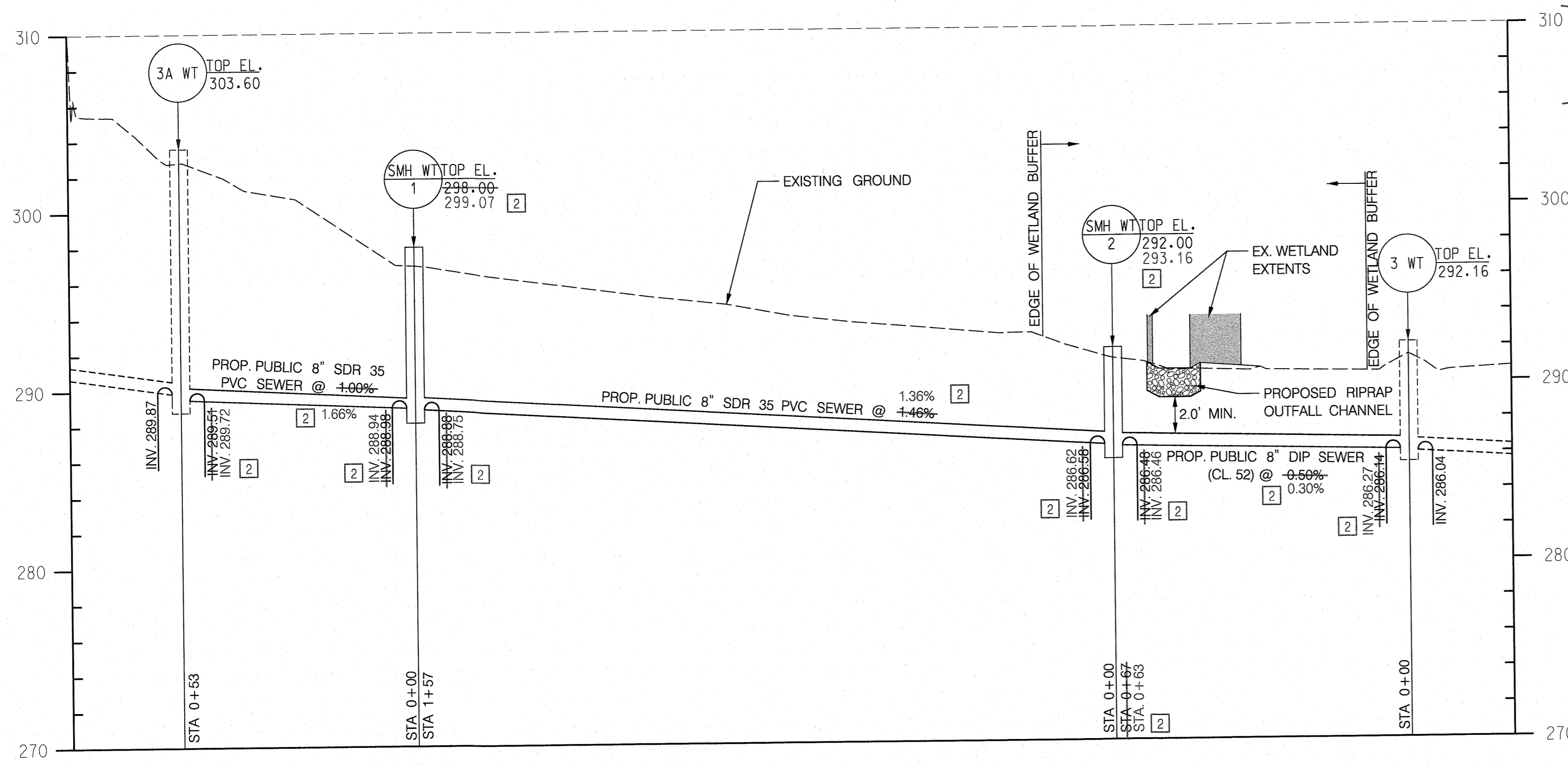
Howard County MARYLAND
Bureau of Engineering
7125 Riverwood Drive, Suite B
Columbia, Maryland 21046
(410) 313-2040



DES: HBH			
DRN: MER			
CHK: ADM			
DATE: 11/26/19	ASS [2]	AS-BUILT SURVEY	7/23/21
	BY NO.	REVISION	DATE

WOODCREST DRIVE PRINCIPAL SPILLWAY REPLACEMENT AND WATER QUALITY RETROFIT PROJECT
CAPITAL PROJECT #D-1178/#W8602
HOWARD COUNTY
HSCD #: EP-18-020
CONTRACT NUMBER 10-5113
SEWER RELOCATION PLAN
ELECTION DISTRICT 1

SCALE
1" = 20'
SHEET
16 OF 17

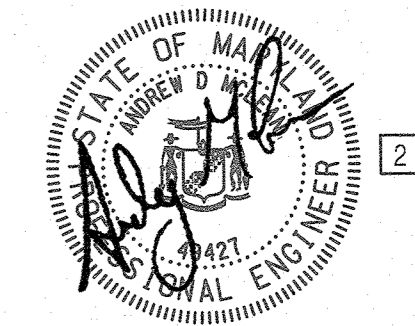


SEWER MANHOLES						
ID	NORTHING	EASTING	TOP ELEV.	INV. IN	INV. OUT	TYPE
SMH WT-1	557,913.92	1,371,864.40	298	288.98	288.88	STANDARD
SMH WT-2	557,902.83	1,372,021.30	292	286.58	286.48	STANDARD

SEWER MANHOLES						
ID	NORTHING	EASTING	TOP ELEV.	INV. IN	INV. OUT	TYPE
SMH WT-1	557,913.92	1,371,864.40	299.07	288.94	288.75	STANDARD
SMH WT-2	557,902.83	1,372,021.30	293.16	286.62	286.46	STANDARD

SEWER LINE RELOCATION PROFILE
 HORIZONTAL SCALE: 1" = 20'
 VERTICAL SCALE: 1" = 5'

AS-BUILT
8-18-21



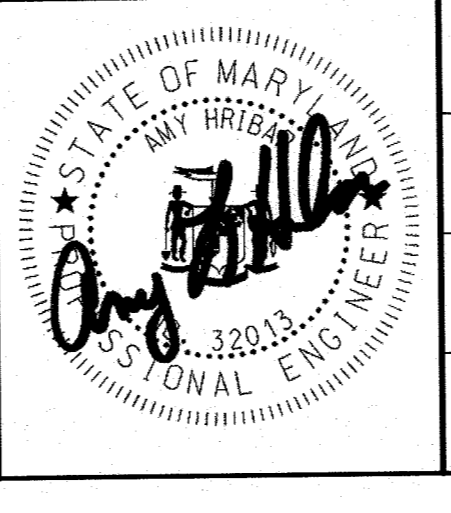
UT-3 OF 3

*REVISION 1 APPLIES TO THE SWM FACILITY CONTRACT D-1178 AND NOT SHOWN ON THIS CONTRACT.

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
 Director of Public Works: [Signature] 2/18/21
 Chief, Bureau of Engineering: [Signature] 1-23-20
 Chief, Bureau of Utilities: [Signature] 1-23-20
 Chief, Utility Design Division: [Signature] 1/23/20

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Howard County
 MARYLAND
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 7125 Riverwood Drive, Suite B
 Columbia, Maryland 21046
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DES: HBH			
DRN: MER			
CHK: ADM			
DATE: 11/26/19			
ASS	2*	AS-BUILT SURVEY	7/23/21
BY	NO.	REVISION	DATE

WOODCREST DRIVE PRINCIPAL SPILLWAY REPLACEMENT AND WATER QUALITY RETROFIT PROJECT
 CAPITAL PROJECT #D-1178/#W8602
 HOWARD COUNTY
 HSCD #: EP-18-020
 CONTRACT NUMBER 10-5113
SEWER RELOCATION DETAILS AND PROFILE
 ELECTION DISTRICT 1

SCALE
AS SHOWN
SHEET
17 OF 17