

GENERAL NOTES

PART I

- 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.
- TOPOGRAPHY SHOWN HEREON FOR THE DEEP RUN PROPERTY MANAGEMENT LLC PARCEL IS BASED ON A FIELD RUN TOPOGRAPHIC SURVEY PERFORMED BY MORRIS & RITCHE ASSOCIATES, INC. IN DECEMBER 2007.
- TOPOGRAPHY SHOWN HEREON FOR THE HORSE FARM LLC PARCEL WAS ACQUIRED FROM A.B. CONSULTANTS, INC. AND IS BASED ON A FIELD RUN TOPOGRAPHIC SURVEY PERFORMED IN OCTOBER 2007.
- 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. 3784 AND NO. 3782. ALL VERTICAL CONTROLS ARE BASED ON NAVD 88. VERTICAL CONTROLS PROVIDED ON THE DRAWINGS ARE CONCRETE MONUMENTS WITH BRASS DISK TOPS.
- 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 TO 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 MADE 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
MSS 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/STACKING OF ANY COUNTY ROADS FOR LAYING WATER/SEWER MAINS OR HOUSE CONNECTIONS. THE APPROVAL OF THESE DRAWINGS WILL CONSTITUTE COMPLIANCE WITH DWP REQUIREMENTS PER SECTION 18.114(A) OF THE HOWARD COUNTY CODE.
- BOUNDARY NOTE**
--- BOUNDARY INFORMATION SHOWN HEREON FOR THE DEEP RUN PROPERTY MANAGEMENT LLC PARCEL IS BASED ON A FIELD RUN SURVEY PERFORMED BY MORRIS & RITCHE ASSOC., INC. IN DECEMBER 2007.
--- BOUNDARY INFORMATION SHOWN HEREON FOR THE HORSE FARM LLC PARCEL IS BASED ON SHA PLAT NO. 56632.
- WETLANDS AND WATERS OF THE U.S. SHOWN HEREON WERE DELINEATED AND GPS LOCATED BY GEO-TECHNOLOGY ASSOCIATES, INC. ON DECEMBER 17, 2007 AND RECONFIRMED ON AUGUST 24, 2011.
- FLOOD PLAIN NOTE**
PORTIONS OF THIS SITE LIE WITHIN A 100 YEAR FLOOD PLAIN AS SHOWN ON SHA PLAT NO. 54587 DATED MARCH 13, 2007.
- PERPETUAL EASEMENTS**
PERPETUAL EASEMENTS, FOR THE BENEFIT OF PARCEL 748, WERE PROVIDED BY THE STATE HIGHWAY ADMINISTRATION ON SHA PLAT 56632. THESE INCLUDE: PERPETUAL EASEMENTS FOR PUBLIC SANITARY SEWER LINE AND DRAINAGE RIGHT TO DISCHARGES.

PART II - WATER

- ALL WATER MAINS SHALL BE PVC DR-18 OR DIP CL54 UNLESS OTHERWISE NOTED.
- TOPS OF ALL WATER MAINS SHALL HAVE A MINIMUM OF 3'-6" OF COVER UNLESS OTHERWISE NOTED.
- VALVES ADJACENT TO TEES SHALL BE STRAPPED TO TEES.
- ALL FITTINGS SHALL BE BUTTRESSED OR ANCHORED WITH CONCRETE IN ACCORDANCE WITH STANDARD DETAILS UNLESS OTHERWISE PROVIDED FOR ON THE DRAWINGS.
- 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.
- THE CONTRACTOR SHALL NOT OPERATE ANY WATER MAIN VALVES ON THE EXISTING WATER SYSTEM.
- TRACER WIRE AND CONTINUITY TEST STATIONS SHALL BE INSTALLED ON ALL DIP AND PVC WATER MAINS IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL.
- FOR PVC WATER MAINS, ALL RECORDS FOR THE QUALITY CONTROL AND QUALIFICATIONS TEST REQUIREMENTS NOTED IN SECTION 5.1 OF THE ANWA STANDARD C900 FOR PVC PRESSURE PIPES 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.
- 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. 17 POUND MAGNESIUM ANODES SHALL BE INSTALLED ON ALL VALVES AND DUCTILE IRON FITTINGS INCLUDING RESTRAINTS AND HARNESSSES. 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.
- 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 THE PVC PIPE.
- 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 DEFLECTION COUPLINGS OR 5-DEGREE SWEEPS ARE PERMITTED, THE CONTRACTOR SHALL PROVIDE A 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 DEFLECTION COUPLING OR 5-DEGREE SWEEP, TAKING CARE NOT TO USE COMPACTOR EQUIPMENT DIRECTLY OVER THE FITTING.
PVC HIGH DEFLECTION COUPLINGS SHALL BE LIMITED TO A TOTAL DEFLECTION OF 3-DEGREES (1 1/2-DEGREE ON EITHER END OF THE COUPLING). SHALL BE RATED FOR A MINIMUM 200 PSI MEETING THE REQUIREMENTS OF ANWA C900. SHALL HAVE A MINIMUM LAY LENGTH OF 9-INCHES AND SHALL HAVE CENTER STOPS. PVC HIGH DEFLECTION COUPLINGS SHALL BE CERTAINTED PVC HIGH DEFLECTION (HD) STOP COUPLINGS OR EQUAL.
FIVE DEGREE SWEEPS SHALL BE BELL BY SPIGOT, RATED FOR A MINIMUM 225 PSI, DR 18 MEETING THE REQUIREMENTS OF ANWA C900 AND SHALL BE MULTI FITTINGS (PEX) BLUE BRUTE DR18 OR EQUAL.
- WHEN PVC HIGH DEFLECTION COUPLINGS OR PVC 5- DEGREE SWEEPS ARE USED TO FACILITATE CHANGES IN HORIZONTAL OR VERTICAL ALIGNMENTS OF ANWA C-900 PVC PIPELINES, THE CONTRACTOR SHALL INSTALL DEVICES FOR THE PREVENTION OF OVER-INSERTION OF THE PVC PIPE SPIGOTS OR PLAN ENDS INTO THE PUSH ON BELL JOINT ON BOTH SIDES OF THE HIGH DEFLECTION 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 INCORPORATES 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 APPROVAL EQUAL.
- ALL WATER HOUSE CONNECTIONS TO BE 1/2" WITH 1" OUTSIDE METER SETTINGS.

PART III - SEWER

- 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 QS.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 THE CELLAR CANNOT BE SERVED.
- COMPACTED SPECIFICATIONS FOR UTILITIES IN FILL.
WHERE UTILITY PIPES ARE TO BE PLACED ON COMPACTED FILL, THE FOLLOWING APPLIES:
A. PRIOR TO PLACEMENT OF COMPACTED FILL, ANY SOFT OR OTHERWISE UNSUITABLE SOILS ENCOUNTERED AT THE EXISTING RAVIDE BOTTOM OR SLOPE, SHALL BE UNDERCUT AND REMOVED FROM THE CONSTRUCTION AREA.
B. ACCEPTABLE COMPACTED FILL SHALL BE PLACED IN SIX INCH THICK LOOSE LIFTS AND COMPACTED TO AT LEAST 95 PERCENT OF THE MAXIMUM DENSITY AS DETERMINED BY ASTM D-1557.
C. THE COMPACTED FILL SHALL BE BENCHED INTO THE EXISTING VIRGIN SLOPES WITH EACH LIFT PLACED TO A SMOOTH TRANSITION FROM VIRGIN TO FILL SOILS.
D. FOR SEWER HOUSE CONNECTION LOCATED IN DRIVEWAYS, USE HOWARD COUNTY DETAIL 5-2-23 FOR CLEANOUT LAMPHOLE.

SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 308 OF THE SPECIFICATIONS AND AS SHOWN ON F-17-027 THIS PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.

John R. Robertson 12/19/17
HOWARD SOIL CONSERVATION DISTRICT DATE

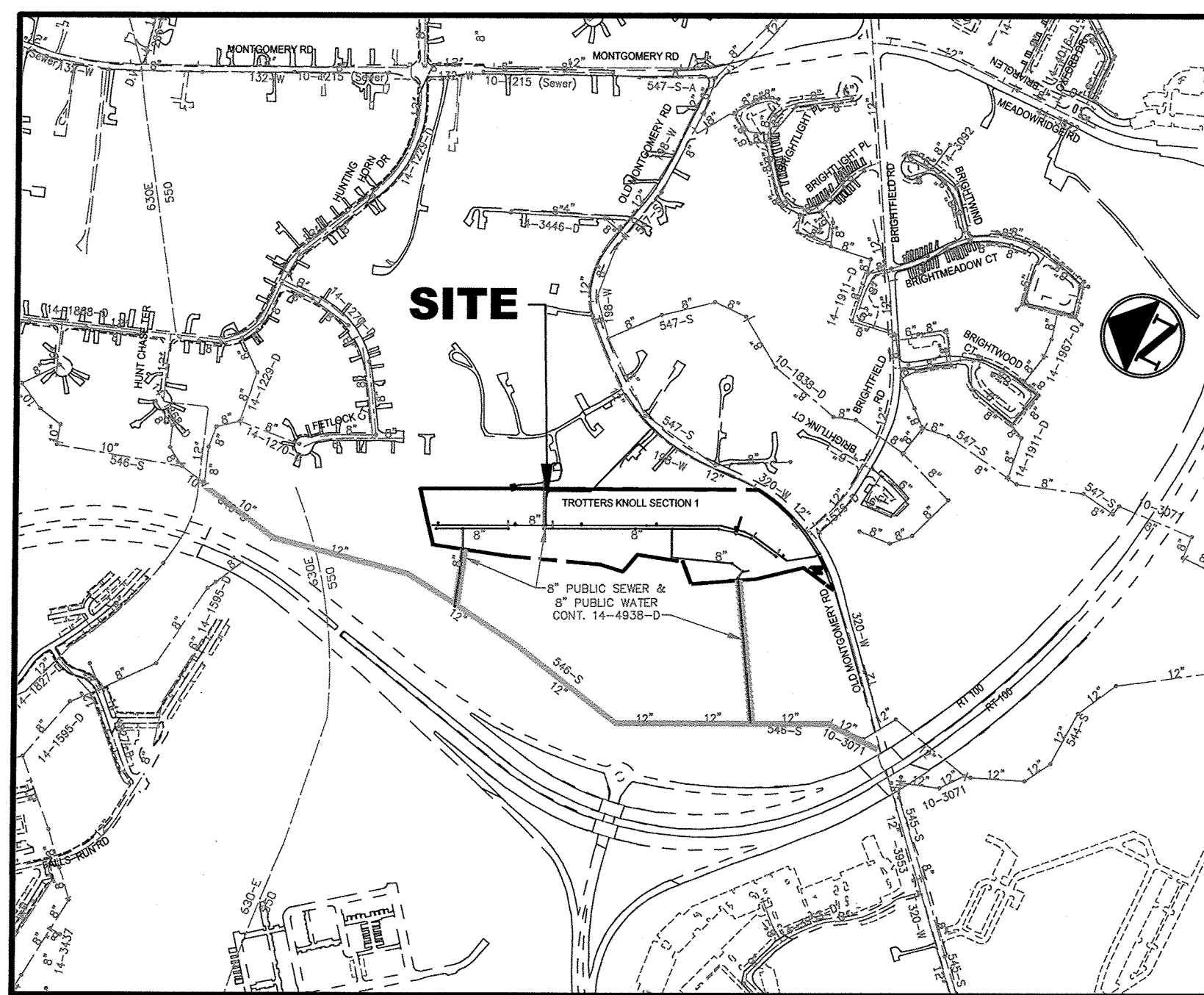
FINAL WATER AND SEWER PLAN

TROTTER'S KNOLL - SECTION I

LOTS 1-78, OPEN SPACE 79-84

SUBDIVISION OF PARCEL 748

CONTRACT 14-4938-D

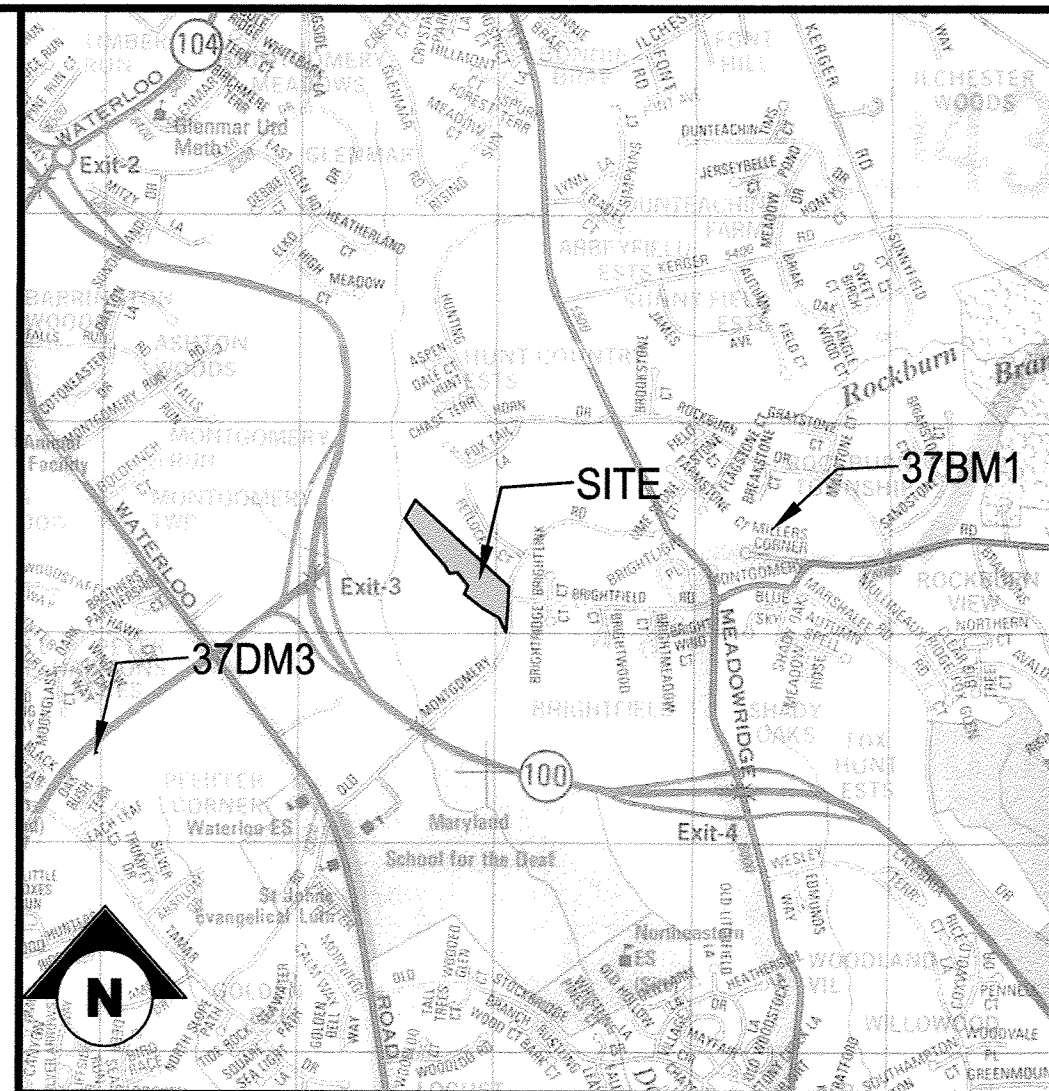


Scale 1" = 600'

QUANTITIES						
NAME OF UTILITY CONTRACTOR:						
SURVEY AND DRAFTING DIVISION AS-BUILT DATE:						
QUANTITIES ESTIMATED	SIZE	DESCRIPTION	QUANTITIES	TYPE	AS-BUILT	MANUFACTURER/SUPPLIER
PUBLIC WATER						
55 LF	6"	WATER MAIN - PVC C900 DR 18				
2,224 LF	8"	WATER MAIN - PVC C900 DR 18				
6	6"	VALVE & ROADWAY BOX				
6	8"	VALVE & ROADWAY BOX				
4	8"	1/32 HORIZONTAL BEND				
4	8"	1/8 HORIZONTAL BEND				
1	8"	1/16 HORIZONTAL BEND				
6	5.25"	FIRE HYDRANT				
6	8"x8"	TEE				
1	8"x8"	TEE				
2	12"x8"	TAPPING SLEEVE AND VALVE				
99 LF	1.5"	1 1/2" COPPER WATER HOUSE CONNECTION				
7	EA	METER VAULT 1 1/2" SERVICE, 1" METER SETTING (SINGLE)				
36	EA	METER VAULT 1 1/2" SERVICE, 1" METER SETTING (DOUBLE)				
PUBLIC SANITARY SEWER						
1,490 LF	8"	PVC SDR-35 GRAVITY SEWER MAIN				
2,188 LF	4"	PVC SDR-35 HOUSE CONNECTION				
1,413 LF	8"	CLASS 52 DIP GRAVITY SEWER SEWER MAIN				
16	48"	STANDARD PRECAST MANHOLE				
3	48"	TYPE "B" DROP MANHOLE				
10 LF	3/4"	3/4" COPPER WATER HOUSE CONNECTION				
1	EA.	METER VAULT 3/4" SERVICE, 1" METER SETTING				

BENCH MARKS

- 37BM1
N 563,400.0583 E 1,374,319.8700
NAD 83 (Adj 07)
NAVD 88
- 37DM3
N 561,077.4764 E 1,367,289.7870
NAD 83 (Adj 07)
NAVD 88



SCALE: 1" = 2,000'

LEGEND

- - - - - EX. PROPERTY LINE
- EX. ADJACENT PROPERTY LINE
- EX. RIGHT OF WAY
- EX. EASEMENT
- EX. ELECTRIC CONDUIT
- EX. LIGHT POLES
- EX. GAS LINE
- EX. STORM DRAIN
- EX. CONDUIT
- EX. FIBER OPTIC
- EX. TV LINE
- EX. ELECTRIC MANHOLE
- EX. TELEPHONE MANHOLE
- PR. 8" SANITARY PIPE
- PR. 8" WATER PIPE
- PR. WATER HOUSE CONNECTION
- PR. SEWER HOUSE CONNECTION
- BLE BURY LINE ELEVATION
- BE BURY LENGTH

SHEET INDEX

1	COVER SHEET
2-3	LAYOUT PLAN
4-5	SEWER PROFILES
6-7	WATER PROFILES
8	HOUSE CONNECTION AS-BUILT LOCATION TABLES

ADDRESS CHART	
LOT/PARCEL #	STREET ADDRESS
748	8090 OLD MONTGOMERY ROAD, ELLICOTT CITY MD

OWNER/DEVELOPER: TAX MAP 37, PARCEL 748 (HORSE FARM PROPERTY)
HORSE FARM LLC
C/O LOVELL AMERICA
9200 RUMSEY ROAD
SUITE 200
COLUMBIA, MD 21045
CONTACT: RICHARD HAYWARD
410-997-7222

WATER ZONE: 550
TEST GRADIENT: 700

TYPE OF BUILDINGS: FEE SIMPLE TOWNHOUSES
DRAINAGE AREA: DEEP RUN, PATAPSCO
TREATMENT PLANT: PATAPSCO WATERTREATMENT TREATMENT PLANT
NUMBER OF UNITS: 78
NUMBER OF NON-BUILDABLE LOTS: 6
NUMBER OF W.H.C.: 43 (36-1" TWIN METERS & 7-1" SINGLE METERS)
NUMBER OF S.H.C.: 79 (INCLUDES SHC TO PARCEL 7, LOT 6)

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

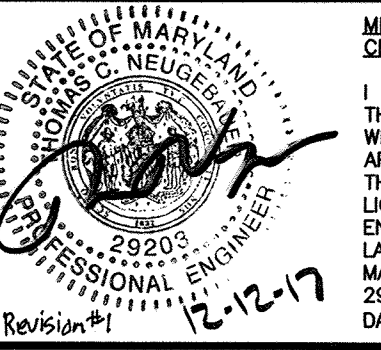
John R. Robertson
CHIEF, BUREAU OF UTILITIES
DATE 1-11-18

DEPARTMENT OF PLANNING & ZONING
HOWARD COUNTY, MARYLAND

Chad Edmiston
CHIEF, DEVELOPMENT ENGINEERING DIVISION
DATE 1-29-18

MRA MORRIS & RITCHE ASSOCIATES, INC.
ENGINEERS, PLANNERS, SURVEYORS AND LANDSCAPE ARCHITECTS

14280 PARK CENTER DRIVE, SUITE A
LAUREL, MARYLAND 20707
(410) 792-9792 or (301) 776-1690
FAX (410) 792-7395



MD 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. 29203, EXPIRATION DATE: 6/16/19.

DES: ATS
DRN: MZR
CHK: TCN
DATE: 12/08/17

BY NO.	REVISIONS	DATE
MRA	ADDED IRRIGATION PHC	8/25/18

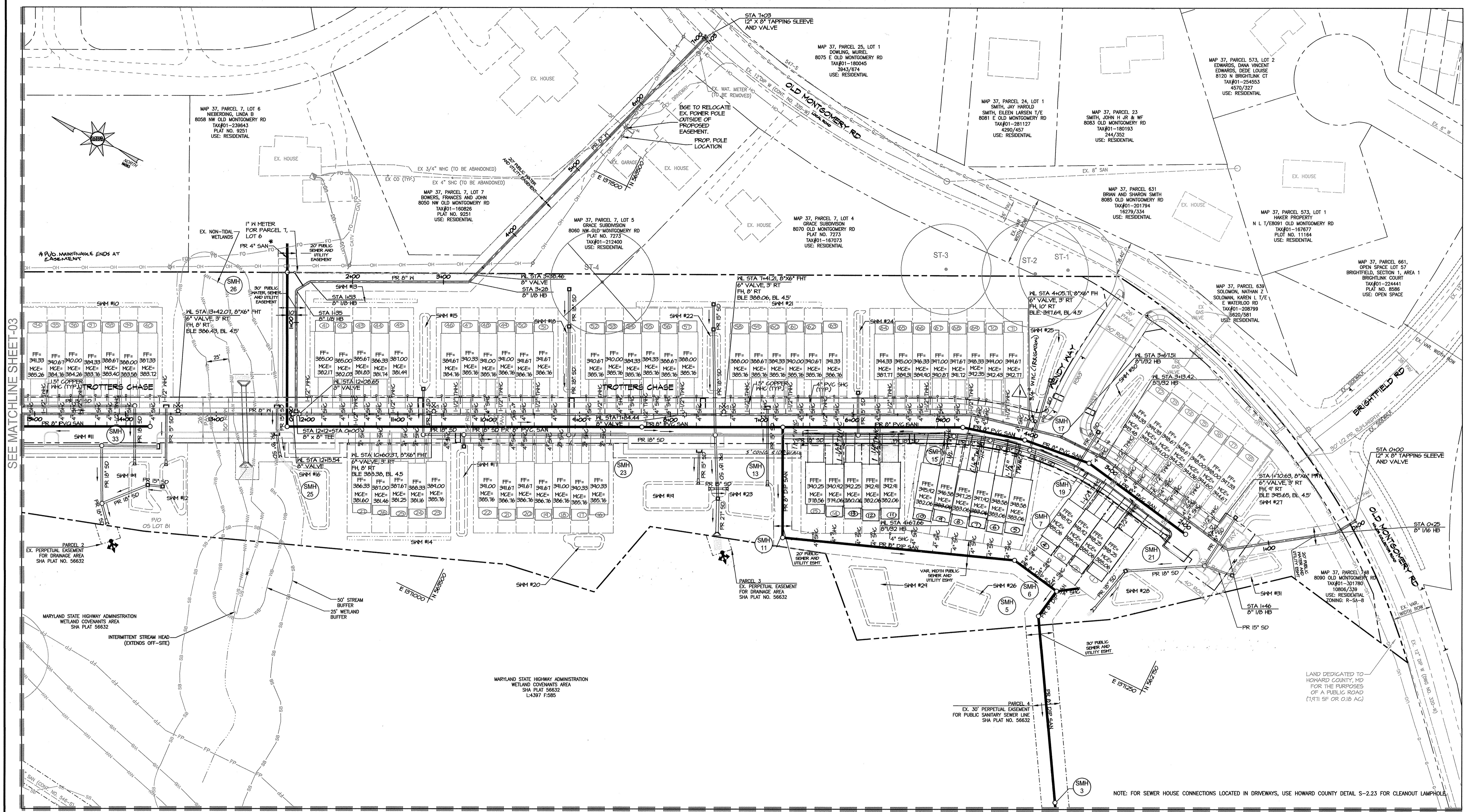
FINAL WATER & SEWER PLAN
COVER SHEET

BLOCK NO. 3

TROTTER'S KNOLL - SECTION I
LOTS 1-78, OPEN SPACE 79-84
A SUBDIVISION OF PARCEL 748
CONTRACT NO. 14-4938-D

JOB NO.: 15368x02
SCALE: AS SHOWN
SHEET 1 OF 8

LIBER: 10806 ~ FOLIO: 339
ZONED: R-SA-9 ~ TAX MAP: 37 ~ GRID: 2 ~ PARCEL: 748
1ST ELECTION DISTRICT ~ HOWARD COUNTY, MARYLAND



SEE MATCHLINE SHEET-03

SEE MATCHLINE SHEET-03

LAYOUT PLAN

SCALE: 1"=50'



Scale 1" = 50'

NOTE: FOR SEWER HOUSE CONNECTIONS LOCATED IN DRIVEWAYS, USE HOWARD COUNTY DETAIL S-2.23 FOR CLEANOUT LAMPPOLE.

PUBLIC WATER FITTING TABLE 8" WATERLINE - TROTTERS CHASE			
STA	FITTING	NORTHING	EASTING
0+00	12" x 8" TSV	562,618.71	1,371,518.96
0+25	8" x 1/16 HB	562,632.50	1,371,497.83
1+48	8" x 1/8 HB	562,732.21	1,371,429.54
1+71	8" x 6" TEE	562,756.31	1,371,434.05
3+13	8" x 1/32 HB	562,896.66	1,371,460.35
3+68	8" x 1/32 HB	562,950.74	1,371,460.94
4+06	8" x 6" TEE	562,988.59	1,371,453.06

PUBLIC WATER FITTING TABLE 8" WATERLINE - TROTTERS CHASE			
STA	FITTING	NORTHING	EASTING
4+88	8" x 1/32 HB	563,048.78	1,371,440.49
7+41	8" x 6" TEE	563,295.23	1,371,321.78
10+60	8" x 6" TEE	563,582.85	1,371,183.44
12+12	8" x 8" TEE	563,719.56	1,371,117.68
13+42	8" x 6" TEE	563,836.71	1,371,061.32
16+70	8" x 6" TEE	564,131.83	1,370,919.35

PUBLIC WATER FITTING TABLE 8" WATERLINE - TO OLD MONTGOMERY ROAD			
STA	FITTING	NORTHING	EASTING
1+35	8" x 1/8 HB	563,778.09	1,371,239.37
1+53	8" x 1/8 HB	563,768.69	1,371,254.80
3+28	8" x 1/8 HB	563,610.94	1,371,330.34
7+03	12" x 8" TSV	563,492.39	1,371,685.67

PUBLIC WATER APPURTENANCE TABLE 8" WATERLINE - TROTTERS CHASE			
STA	APPURTENANCE	NORTHING	EASTING
1+71	6" VALVE	562,755.98	1,371,437.04
1+71	6" FH	562,755.21	1,371,443.00
4+06	6" FH	562,990.08	1,371,462.44
7+41	6" VALVE	563,296.52	1,371,324.48
7+41	6" FH	563,298.66	1,371,328.99
7+84	8" VALVE	563,334.19	1,371,303.06
10+60	6" VALVE	563,584.19	1,371,186.13
10+60	6" FH	563,586.32	1,371,190.60
12+09	8" VALVE	563,716.48	1,371,119.17

PUBLIC WATER APPURTENANCE TABLE 8" WATERLINE - TROTTERS CHASE			
STA	APPURTENANCE	NORTHING	EASTING
12+16	8" VALVE	563,722.68	1,371,116.18
13+42	6" VALVE	563,838.24	1,371,064.50
13+42	6" FH	563,840.25	1,371,068.67
16+69	6" VALVE	564,133.18	1,370,922.45
16+69	6" FH	564,136.04	1,370,928.49
16+73	8" VALVE	564,134.74	1,370,917.97

PUBLIC WATER APPURTENANCE TABLE 8" WATERLINE - TO OLD MONTGOMERY ROAD			
STA	APPURTENANCE	NORTHING	EASTING
0+03	8" VALVE	563,838.24	1,371,120.76
3+38	8" VALVE	563,607.64	1,371,340.25

OWNER/DEVELOPER: TAX MAP 37, PARCEL 748 (HORSE FARM PROPERTY)
HORSE FARM LLC
C/O LOVELL AMERICA
9200 RUMSEY ROAD
SUITE 200
COLUMBIA, MD 21045

CONTACT: RICHARD HAYWARD
410-997-7222

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
[Signature]
CHIEF, BUREAU OF UTILITIES
DATE: 1-11-19

DEPARTMENT OF PLANNING & ZONING
HOWARD COUNTY, MARYLAND
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CHIEF, DEVELOPMENT ENGINEERING DIVISION
DATE: 1-29-18

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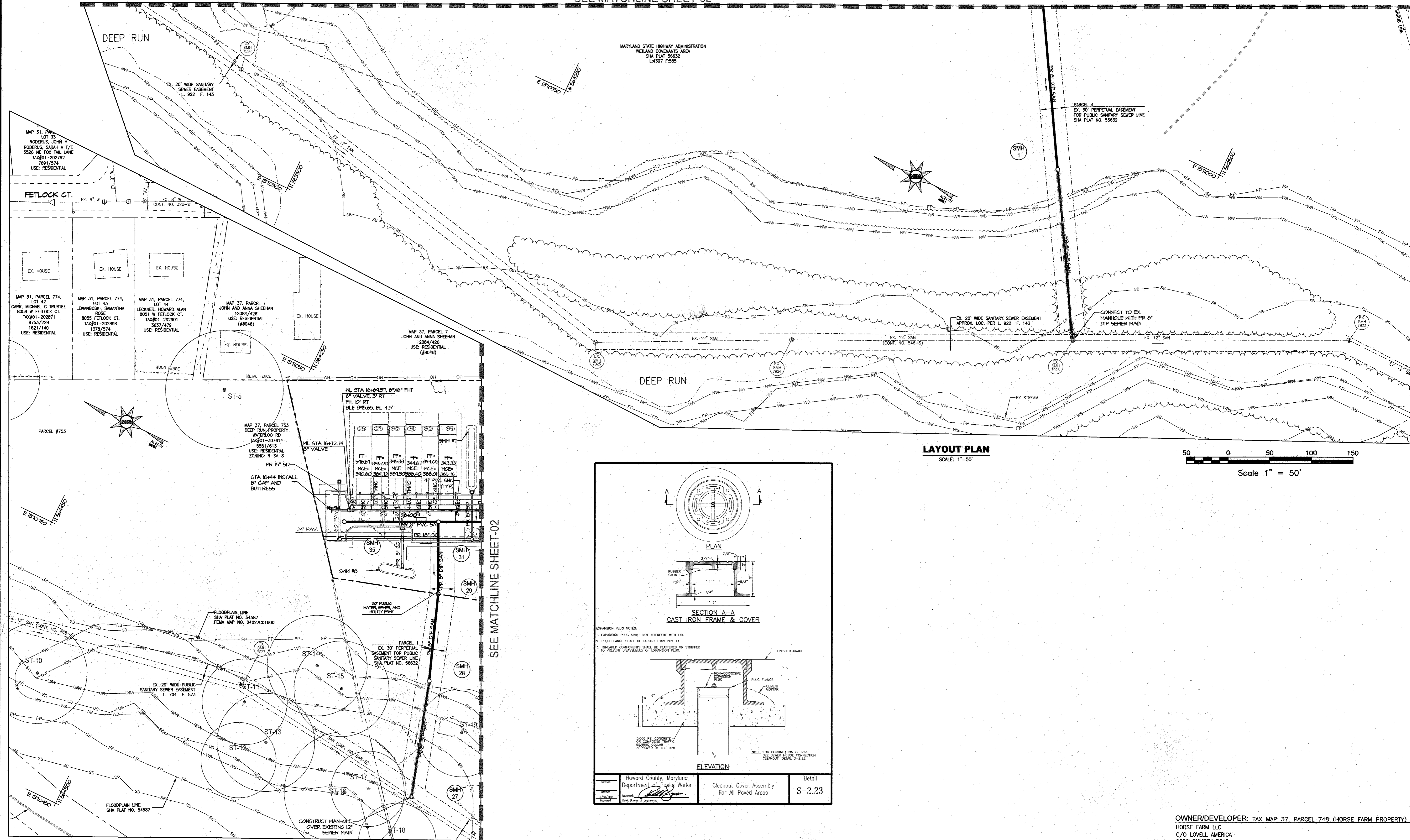
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[Signature]
DATE: 12/08/17

DES: ATS
BY NO. MRA/1
DRN: MZR
CHK: TCN
DATE: 12/08/17

REVISIONS	DATE
ADDED IRRIGATION WHO	8/28/18

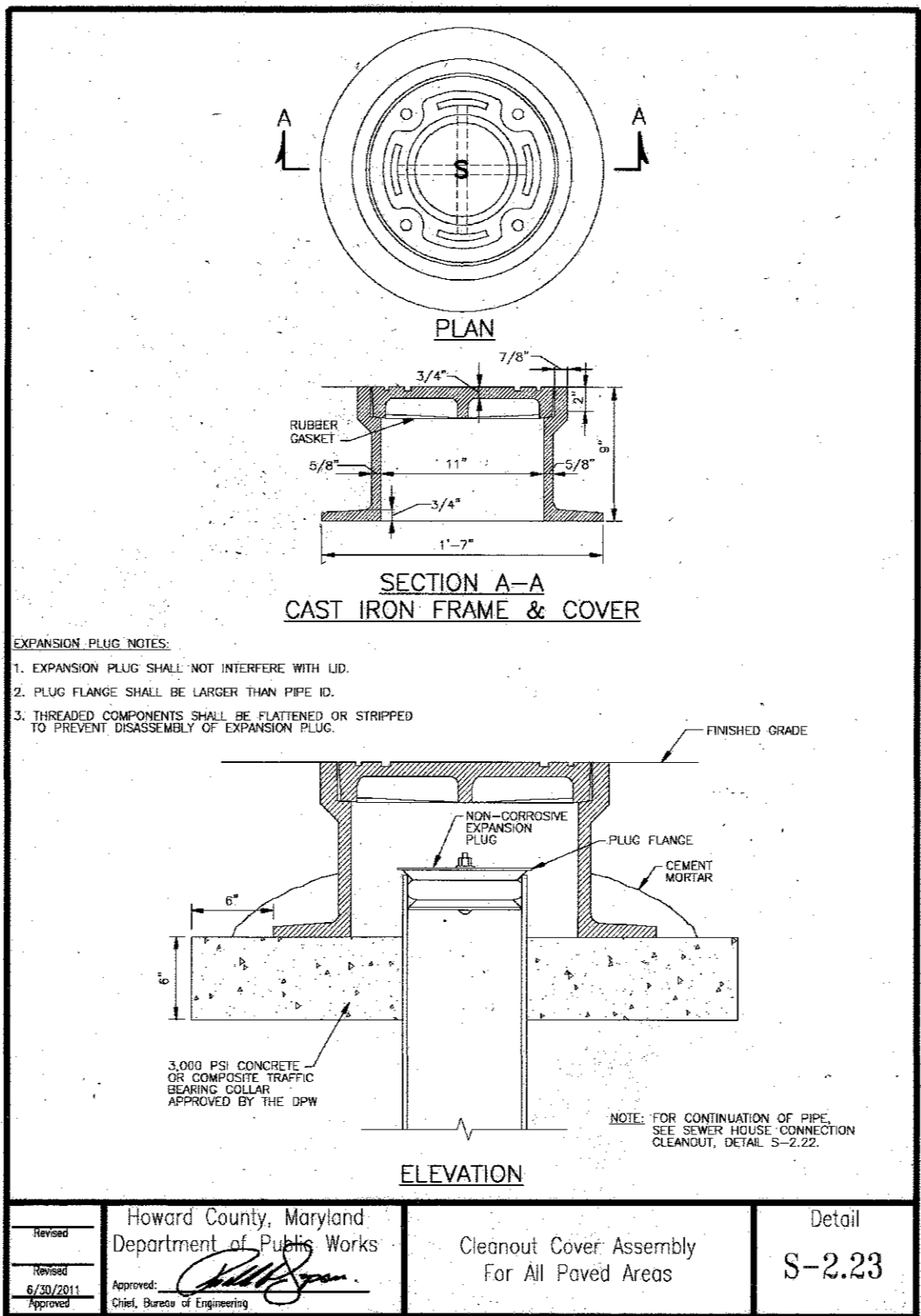
FINAL WATER & SEWER PLAN LAYOUT PLAN
BLOCK NO. 3

**TROTTERS KNOLL - SECTION 1
LOTS 1-78, OPEN SPACE 79-84
A SUBDIVISION OF PARCEL 748
CONTRACT NO. 14-4938-D**
LIBER: 10806 ~ FOLIO: 339
ZONED: R-SA-8 ~ TAX MAP: 37 ~ GRID: 2 ~ PARCEL: 748
1ST ELECTION DISTRICT ~ HOWARD COUNTY, MARYLAND
JOB NO.: 15368-02
SCALE: AS SHOWN
SHEET 2 OF 8



LAYOUT PLAN
SCALE: 1"=50'

Scale 1" = 50'



NOTE: FOR SEWER HOUSE CONNECTIONS LOCATED IN DRIVEWAYS, USE HOWARD COUNTY DETAIL S-2.23 FOR CLEANOUT LAMPHOLE.

LAYOUT PLAN
SCALE: 1"=50'

Scale 1" = 50'

OWNER/DEVELOPER: TAX MAP 37, PARCEL 748 (HORSE FARM PROPERTY)
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CONTACT: RICHARD HAYWARD
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DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
Richard Hayward
CHIEF, BUREAU OF UTILITIES
DATE: 1-11-19

DEPARTMENT OF PLANNING & ZONING
HOWARD COUNTY, MARYLAND
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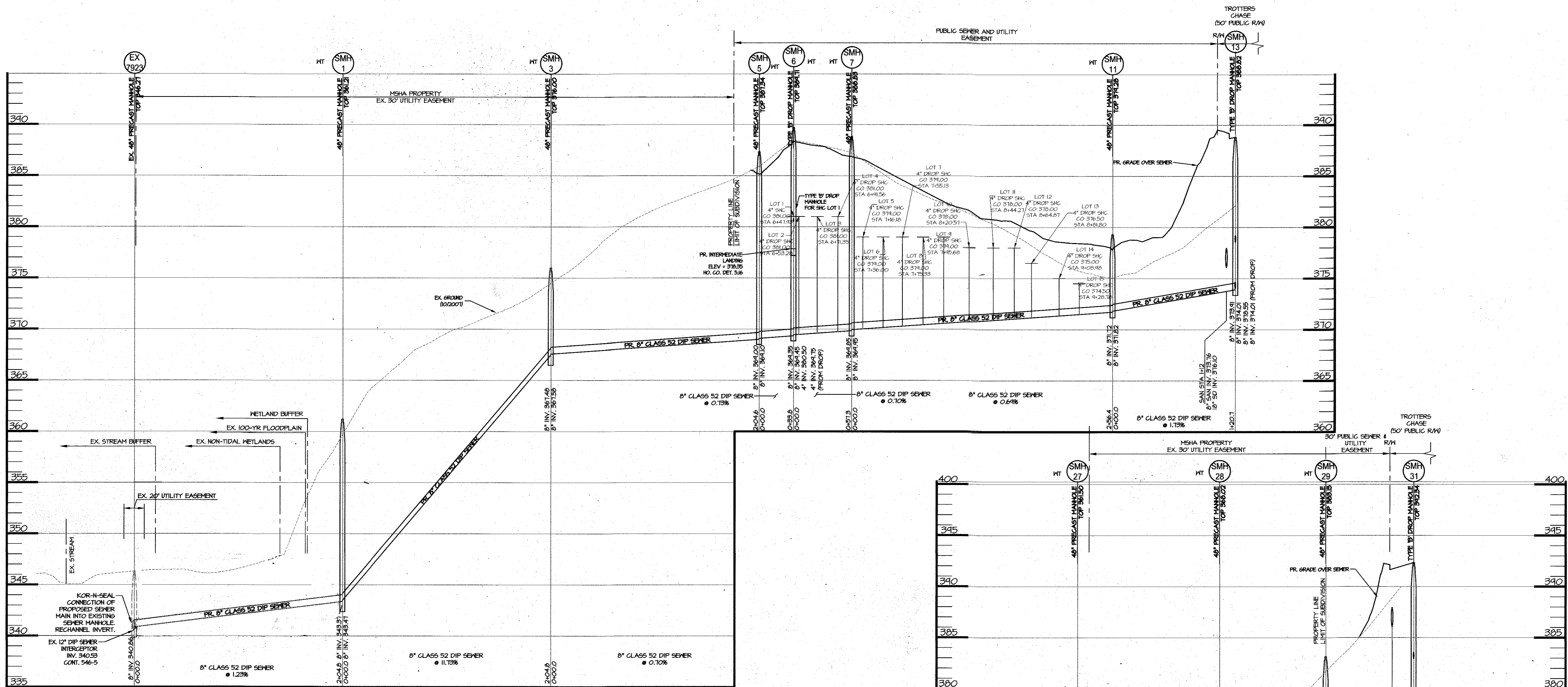
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FAX (410) 792-7395

MD PROFESSIONAL ENGINEERING
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. 28203, EXPIRATION DATE: 6/16/19.
Richard Hayward
12-12-17

DES:	BY	NO.	REVISIONS	DATE
ATS				
MZR				
TCN				
DATE:	12/08/17			

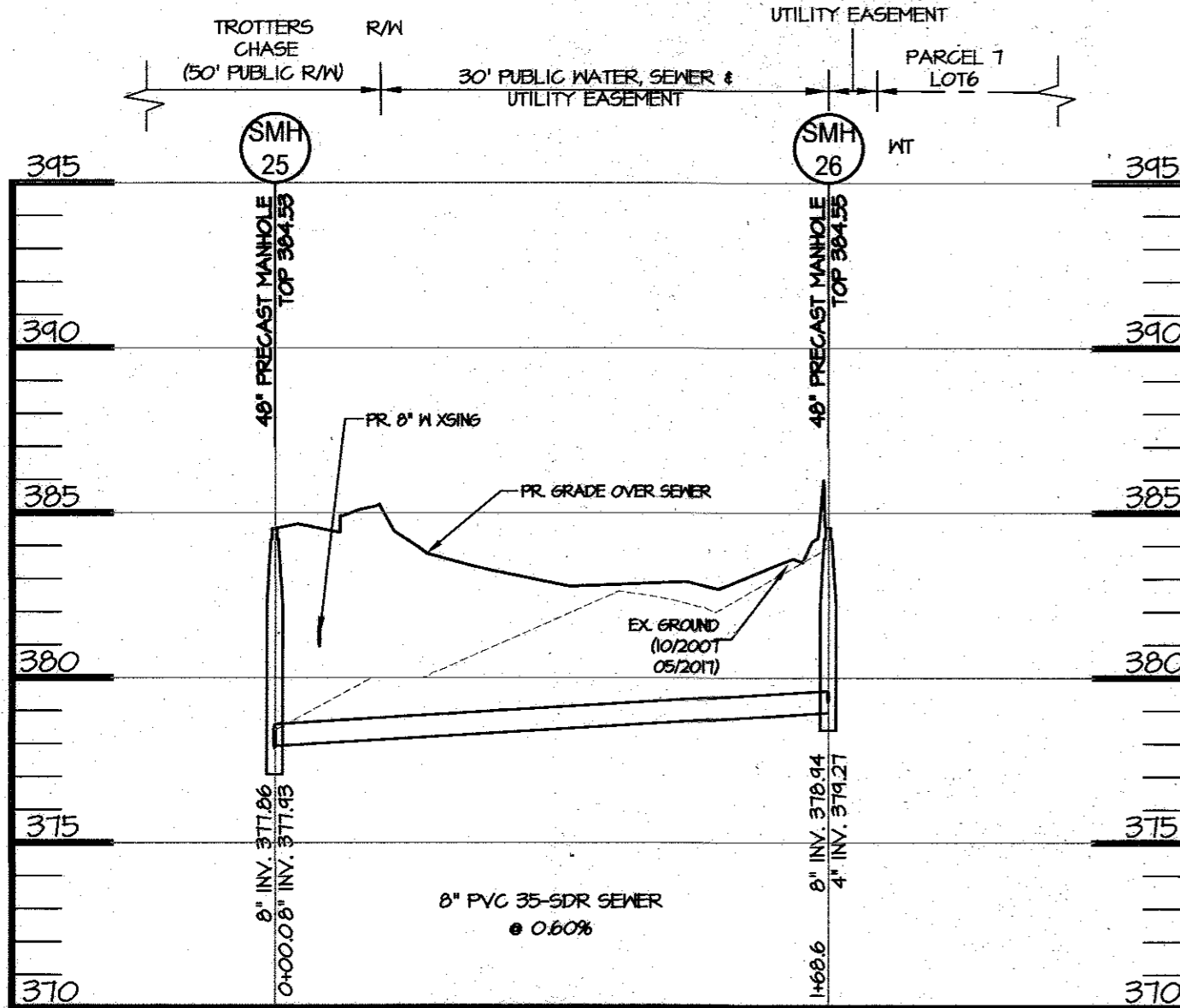
FINAL WATER & SEWER PLAN
LAYOUT PLAN
BLOCK NO. 3

TROTTERS KNOLL - SECTION 1
LOTS 1-78, OPEN SPACE 79-84
A SUBDIVISION OF PARCEL 748
CONTRACT NO. 14-4938-D
LIBER: 10806 ~ FOLIO: 339
ZONED: R-SA-8 ~ TAX MAP: 37 ~ GRID: 2 ~ PARCEL: 748
1ST ELECTION DISTRICT ~ HOWARD COUNTY, MARYLAND
JOB NO.: 15368x02
SCALE: AS SHOWN
SHEET 3 OF 8



8" PUBLIC SEWER PROFILE - TO EX. MH 7923

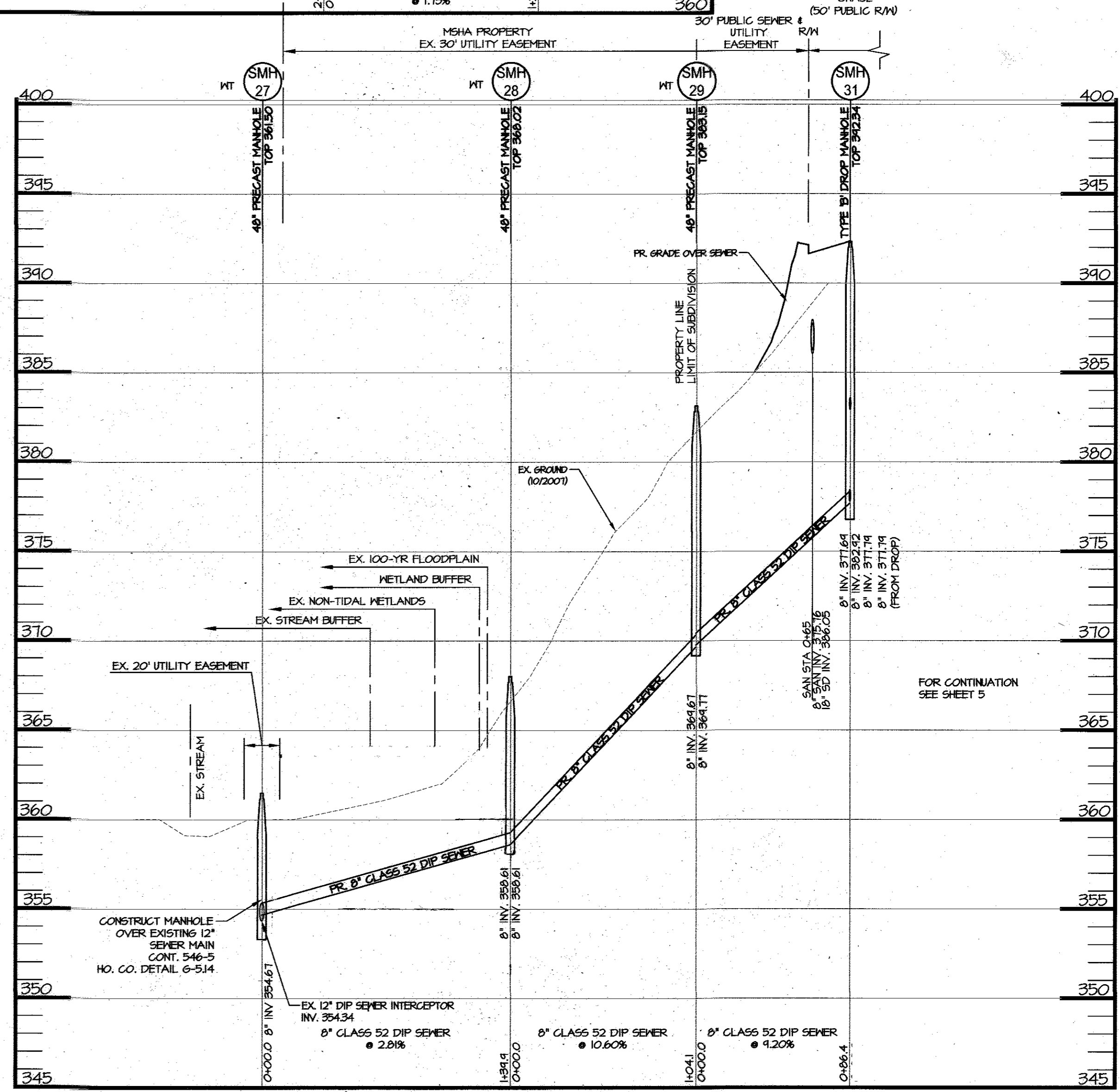
SCALE: H: 1"=50'
V: 1"=5'



8" PUBLIC SEWER PROFILE - TO PARCEL 7 LOT 6

SCALE: H: 1"=50'
V: 1"=5'

OWNER/DEVELOPER:
HORSE FARM LLC
C/O LOVELL AMERICA
9200 RUNSEY ROAD
SUITE 200
COLUMBIA, MD 21045
CONTACT: RICHARD HAYWARD
410-997-7222



8" PUBLIC SEWER PROFILE - TO MH 27

SCALE: H: 1"=50'
V: 1"=5'

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
[Signature]
1-11-18
CHIEF, BUREAU OF UTILITIES

DEPARTMENT OF PLANNING & ZONING
HOWARD COUNTY, MARYLAND
[Signature]
1-29-18
CHIEF, DEVELOPMENT ENGINEERING DIVISION

MRA
MORRIS & FITCHE ASSOCIATES, INC.
ENGINEERS, PLANNERS, SURVEYORS AND LANDSCAPE ARCHITECTS
14280 PARK CENTER DRIVE, SUITE A
LAUREL, MARYLAND 20707
(410) 792-8792 or (301) 776-1690
FAX (410) 792-7395

MD 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. 29203, EXPIRATION DATE: 6/16/19.

DES:	BY:	NO.:	REVISIONS	DATE
ATS	MZR			
TCN				
DATE:	12/08/17			

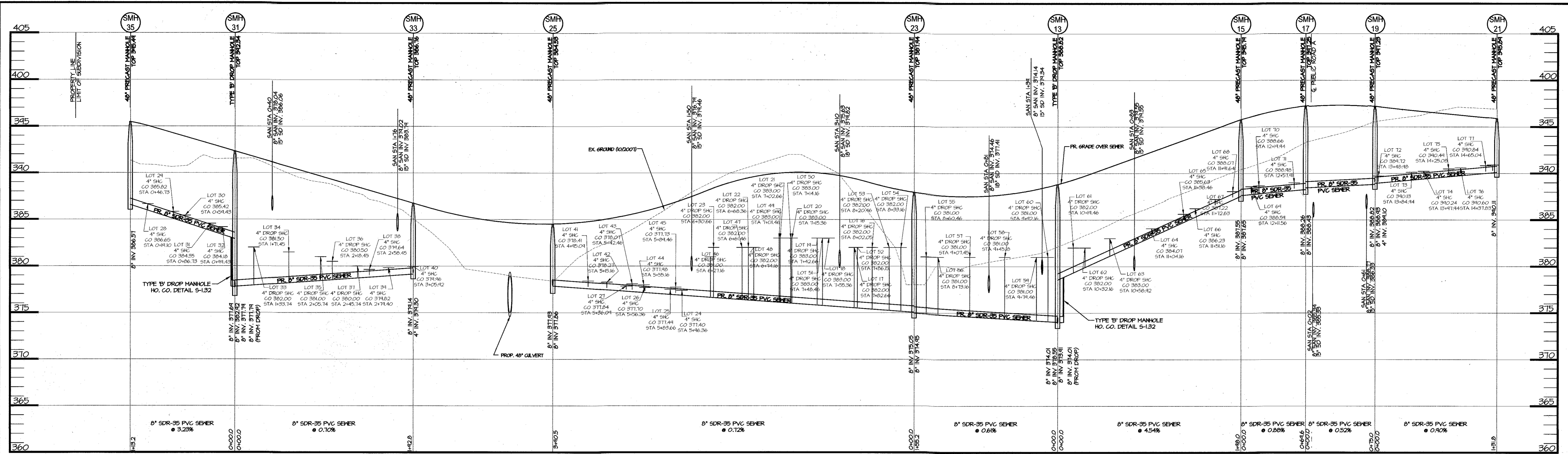
**FINAL WATER & SEWER PLAN
SEWER PROFILES**

BLOCK NO. 3

**TROTTERS KNOLL - SECTION 1
LOTS 1-78, OPEN SPACE 79-84
A SUBDIVISION OF PARCEL 748
CONTRACT NO. 14-4938-D**

LIBER: 10806 ~ FOLIO: 339
ZONED: R-SA-8 ~ TAX MAP: 37 ~ GRID: 2 ~ PARCEL: 748
1ST ELECTION DISTRICT ~ HOWARD COUNTY, MARYLAND

JOB NO.: 15368x02
SCALE: AS SHOWN
SHEET 4 OF 8



8\"/>

Unit #	4\"/> <th>Slope</th> <th>Design 4\"/> <th>Min. Cellar Elevation (M.C.E.)</th> <th>Actual Lowest Floor Elevation</th> <th>Drop Length</th> </th>	Slope	Design 4\"/> <th>Min. Cellar Elevation (M.C.E.)</th> <th>Actual Lowest Floor Elevation</th> <th>Drop Length</th>	Min. Cellar Elevation (M.C.E.)	Actual Lowest Floor Elevation	Drop Length
SMH 6 TO SMH 7						
1	380.50	2.00%	381.00	385.06	391.00	
2	369.67	2.00%	381.00	385.06	391.00	
3	369.79	2.00%	381.00	385.06	391.67	
4	369.94	2.00%	381.00	385.06	391.67	
SMH 7 TO SMH 11						
5	370.20	2.00%	379.00	383.06	391.33	
6	370.33	2.00%	379.00	383.06	391.33	
7	370.47	2.00%	379.00	383.06	390.67	
8	370.60	2.00%	379.00	383.06	390.00	
9	370.75	2.00%	379.00	383.06	389.33	
10	370.92	2.00%	378.00	382.06	388.67	
11	371.08	2.00%	378.00	382.06	388.00	
12	371.21	2.00%	378.00	382.06	387.33	
13	371.33	2.00%	376.50	380.56	386.67	
14	371.52	2.00%	375.00	379.06	386.00	
15	371.66	2.00%	374.50	378.56	385.33	
SMH 13 TO SMH 23						
16	374.24	2.00%	382.00	385.76	389.33	
17	374.32	2.00%	382.00	385.76	389.33	
18	374.53	2.00%	382.00	385.76	388.67	
19	374.76	2.00%	382.00	385.76	388.00	
20	374.97	2.00%	382.00	385.76	387.33	
21	375.05	2.00%	382.00	385.76	386.67	
SMH 23 TO SMH 25						
22	375.32	2.00%	382.00	385.76	389.33	
23	375.41	2.00%	382.00	385.76	390.00	
24	375.54	2.00%	382.00	385.76	390.67	
25	375.66	2.00%	382.00	385.76	391.33	
26	375.69	2.00%	382.00	385.76	392.00	
27	375.88	2.00%	383.00	386.76	393.00	
28	375.93	2.00%	383.00	386.76	394.00	
29	375.97	2.00%	383.00	386.76	394.67	
30	376.17	2.00%	383.00	386.76	395.33	
31	376.18	2.00%	383.00	386.76	396.00	
32	376.26	2.00%	383.00	386.76	396.67	
33	376.27	2.00%	383.00	386.76	397.33	
34	376.47	2.00%	382.00	385.76	398.00	
35	376.50	2.00%	382.00	385.76	398.67	
36	376.55	2.00%	382.00	385.76	399.33	
37	376.78	2.00%	381.00	384.76	399.67	
38	376.80	2.00%	381.00	384.76	400.00	
39	377.02	2.00%	377.40	381.16	400.00	
40	377.07	2.00%	377.73	381.49	397.67	
41	377.11	2.00%	377.49	381.25	398.33	
42	377.32	2.00%	377.70	381.46	397.67	
43	377.32	2.00%	377.98	381.74	397.00	
44	377.41	2.00%	378.07	381.83	396.33	
45	377.46	2.00%	377.84	381.60	395.67	
46	377.61	2.00%	378.27	382.03	395.00	
47	377.75	2.00%	378.41	382.17	394.33	
* DROP CONNECTION AT CLEANOUT						

Unit #	4\"/> <th>Slope of main</th> <th>Design 4\"/> <th>Min. Cellar Elevation (M.C.E.)</th> <th>Actual Lowest Floor Elevation</th> <th>Drop Length</th> </th>	Slope of main	Design 4\"/> <th>Min. Cellar Elevation (M.C.E.)</th> <th>Actual Lowest Floor Elevation</th> <th>Drop Length</th>	Min. Cellar Elevation (M.C.E.)	Actual Lowest Floor Elevation	Drop Length
SMH 13 TO SMH 15						
61	379.49	5.00%	382.00	388.40	390.00	
62	380.08	5.00%	382.00	388.40	390.67	
63	381.31	5.00%	383.00	389.40	391.33	
64	383.35	2.00%	384.01	387.77	394.33	
65	384.89	2.00%	385.55	389.31	395.00	
66	385.48	2.00%	386.14	389.90	396.33	
67	386.46	2.00%	387.11	390.87	397.00	
68	387.30	2.00%	387.96	391.72	397.67	
SMH 15 TO SMH 17						
69	387.93	2.00%	388.59	392.35	398.33	
70	387.99	2.00%	388.67	392.43	399.00	
71	388.33	2.00%	389.01	392.77	399.67	
SMH 19 TO SMH 21						
72	389.10	2.00%	389.72	393.48	399.33	
73	389.47	2.00%	390.13	393.89	399.33	
74	389.58	2.00%	390.24	394.00	398.67	
75	389.83	2.00%	390.49	394.25	398.67	
76	389.94	2.00%	390.60	394.36	398.00	
77	390.18	2.00%	390.84	394.60	398.00	
78	390.27	2.00%	390.99	394.75	397.33	
SMH 31 TO SMH 35						
32	383.59	2.00%	384.25	388.01	396.00	
31	383.98	2.00%	384.64	388.40	395.33	
30	384.88	2.00%	385.54	389.30	394.67	
29	385.30	2.00%	385.96	389.72	394.00	
28	386.18	2.00%	386.84	390.60	393.33	
SMH 31 TO SMH 33						
33	378.11	9.00%	382.00	391.82	392.67	
34	378.36	6.00%	381.50	390.54	392.00	
35	378.61	7.24%	381.00	389.37	391.33	
36	378.70	5.47%	380.50	387.31	390.67	
37	378.88	3.39%	380.00	384.99	390.00	
38	378.98	2.00%	379.64	383.40	389.33	
39	379.16	2.00%	379.82	383.58	388.67	
40	379.30	2.00%	379.96	383.72	388.00	
SMH 31 TO SMH 61						
Parcel 7, Lot 6	380.00	2.00%	380.20	384.40	392.00	

NOTE: SHCS FROM LOTS 72, 78, AND 40 OUTFALL INTO SMH 19, 21, AND 40, RESPECTIVELY.

8\"/>

SCALE: H: 1\"/>

V: 1\"/>

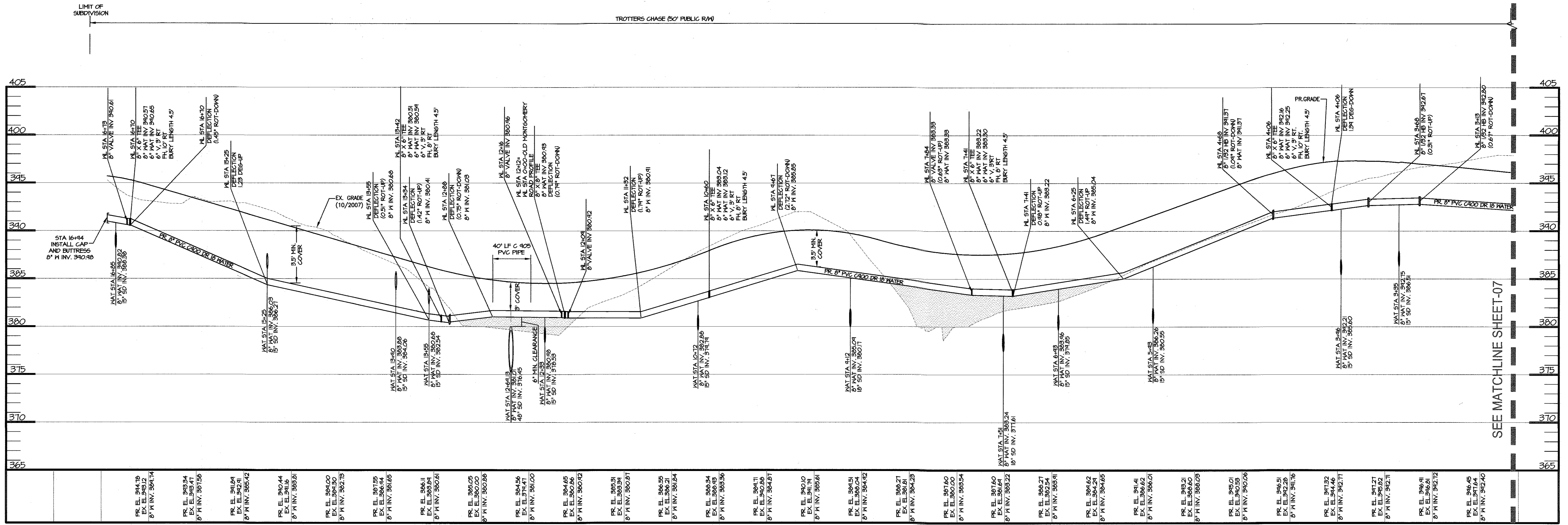
OWNER/DEVELOPER: TAX MAP 37, PARCEL 748 (HORSE FARM PROPERTY)
 HORSE FARM LLC
 C/O LOVELL AMERICA
 9200 RUMSEY ROAD
 SUITE 200
 COLUMBIA, MD 21045

CONTACT: RICHARD HAYWARD
 410-997-7222

STR NO.	TOP ELEV	INV IN	INV OUT	TYPE	REMARKS	NORTHING	EASTING
EX 7923	346.27	340.86		EX. 48\"/> <td>WT</td> <td>562,572.55</td> <td>1,370,746.55</td>	WT	562,572.55	1,370,746.55
SMH 1	361.21	343.47	343.37	48\"/> <td>WT</td> <td>562,677.61</td> <td>1,370,922.25</td>	WT	562,677.61	1,370,922.25
SMH 3	376.00	367.58	367.48	48\"/> <td>WT</td> <td>562,782.66</td> <td>1,371,097.96</td>	WT	562,782.66	1,371,097.96
SMH 5	387.34	369.10	369.00	48\"/> <td>WT</td> <td>562,887.72</td> <td>1,371,273.66</td>	WT	562,887.72	1,371,273.66
SMH 6	369.71	369.45	369.35	TYPE \"B\" DROP MANHOLE, HOWARD CO. STD. DETAIL S-1.32	WT	562,881.60	1,371,306.88
SMH 7	388.83	369.95	369.85	48\"/> <td>WT</td> <td>562,937.93</td> <td>1,371,317.25</td>	WT	562,937.93	1,371,317.25
SMH 11	379.28	371.82	371.72	48\"/> <td>WT</td> <td>563,178.61</td> <td>1,371,228.82</td>	WT	563,178.61	1,371,228.82
SMH 13	388.82	374.01	373.91	TYPE \"B\" DROP MANHOLE, HOWARD CO. STD. DETAIL S-1.32	WT	563,230.92	1,371,337.57
SMH 15	395.79	387.65	387.55	48\"/> <td>WT</td> <td>563,052.50</td> <td>1,371,423.39</td>	WT	563,052.50	1,371,423.39
SMH 17	397.25	388.43	388.26	48\"/> <td>WT</td> <td>562,985.02</td> <td>1,371,440.56</td>	WT	562,985.02	1,371,440.56

STR NO.	TOP ELEV	INV IN	INV OUT	TYPE	REMARKS	NORTHING	EASTING
SMH 19	397.23	388.93	388.82	48\"/> <td>WT</td> <td>562,910.31</td> <td>1,371,448.50</td>	WT	562,910.31	1,371,448.50
SMH 21	395.89		390.11	48\"/> <td>WT</td> <td>562,780.73</td> <td>1,371,424.65</td>	WT	562,780.73	1,371,424.65
SMH 23	387.94	375.05	374.95	48\"/> <td>WT</td> <td>563,370.77</td> <td>1,371,270.29</td>	WT	563,370.77	1,371,270.29
SMH 25	384.53	377.93	377.86	48\"/> <td>WT</td> <td>563,722.64</td> <td>1,371,101.03</td>	WT	563,722.64	1,371,101.03
SMH 26	384.55	379.27	378.94	48\"/> <td>WT</td> <td>563,795.73</td> <td>1,371,252.95</td>	WT	563,795.73	1,371,252.95
SMH 27	361.50	354.67		48\"/> <td>WT</td> <td>563,918.69</td> <td>1,370,842.59</td>	WT	563,918.69	1,370,842.59
SMH 28	368.02	358.61	358.61	48\"/> <td>WT</td> <td>563,959.66</td> <td>1,370,776.33</td>	WT	563,959.66	1,370,776.33
SMH 29	383.15	369.77	369.67	48\"/> <td>WT</td> <td>563,995.02</td> <td>1,370,874.47</td>	WT	563,995.02	1,370,874.47
SMH 31	392.34	382.92	377.69	TYPE \"B\" DROP MANHOLE, HOWARD CO. STD. DETAIL S-1.32	WT	564,032.34	1,370,952.05
SMH 33	386.78	378.30	379.14	48\"/> <td>WT</td> <td>563,858.62</td> <td>1,371,035.62</td>	WT	563,858.62	1,371,035.62

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND CHIEF, BUREAU OF UTILITIES	DEPARTMENT OF PLANNING & ZONING HOWARD COUNTY, MARYLAND CHIEF, DEVELOPMENT ENGINEERING DIVISION	 MORRIS & FITCHE ASSOCIATES, INC. ENGINEERS, PLANNERS, SURVEYORS AND LANDSCAPE ARCHITECTS 14280 PARK CENTER DRIVE, SUITE A LAUREL, MARYLAND 20707 (410) 792-9792 or (301) 778-1800 FAX (410) 792-7395	 PROFESSIONAL ENGINEER 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. 28033. EXPIRATION DATE: 6/16/19.	DES: ATS DRN: MZR CHK: TCN DATE: 12/08/17	REVISIONS DATE	FINAL WATER & SEWER PLAN SEWER PROFILES BLOCK NO. 3	TROTTERS KNOLL - SECTION 1 LOTS 1-78, OPEN SPACE 79-84 A SUBDIVISION OF PARCEL 748 CONTRACT NO. 14-4938-D	JOB NO.: 15368x02
								SCALE: AS SHOWN
								SHEET 5 OF 8
								LIBER: 10806 ~ FOLIO: 339 ZONED: R-SA-8 ~ TAX MAP: 37 ~ GRID: 2 ~ PARCEL: 748 1ST ELECTION DISTRICT ~ HOWARD COUNTY, MARYLAND



SEE MATCHLINE SHEET-07

CONTROLLED AND COMPACTED FILL PER ASTM D-1557 TO BE CERTIFIED BY AN APPROVED ON-SITE GEOTECHNICAL ENGINEER

- COMPACTED SPECIFICATIONS FOR UTILITIES IN FILL**
- WHERE UTILITY PIPES ARE TO BE PLACED ON COMPACTED FILL, THE FOLLOWING APPLIES:
- A. PRIOR TO PLACEMENT OF COMPACTED FILL, ANY SOFT OR OTHERWISE UNSUITABLE SOILS ENCOUNTERED AT THE EXISTING RAINE BOTTOM OR SLOPE, SHALL BE UNDERCUT AND REMOVED FROM THE CONSTRUCTION AREA.
 - B. ACCEPTABLE COMPACTED FILL SHALL BE PLACED IN SIX INCH THICK LOOSE LIFTS AND COMPACTED TO AT LEAST 95 PERCENT OF THE MAXIMUM DENSITY AS DETERMINED BY ASTM D-1557.
 - C. THE COMPACTED FILL SHALL BE BENCHED INTO THE EXISTING VIRGIN SLOPES WITH EACH LIFT PLACED TO A SMOOTH TRANSITION FROM VIRGIN TO FILL SOILS.

8" WATERLINE - TROTTERS CHASE
SCALE: H: 1"=50'
V: 1"=5'

OWNER/DEVELOPER: TAX MAP 37, PARCEL 748 (HORSE FARM PROPERTY)
HORSE FARM LLC
C/O LOVELL AMERICA
9200 RUMSEY ROAD
SUITE 200
COLUMBIA, MD 21045
CONTACT: RICHARD HAYWARD
410-997-7222

<p>DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND</p> <p><i>[Signature]</i> 1-11-18 CHIEF, BUREAU OF UTILITIES</p>	<p>DEPARTMENT OF PLANNING & ZONING HOWARD COUNTY, MARYLAND</p> <p><i>[Signature]</i> 12-9-18 CHIEF, DEVELOPMENT ENGINEERING DIVISION</p>
--	--

MRA
MORRIS & FITCHE ASSOCIATES, INC.
ENGINEERS, PLANNERS, SURVEYORS AND LANDSCAPE ARCHITECTS
14280 PARK CENTER DRIVE, SUITE A
LAUREL, MARYLAND 20707
(410) 792-8792 or (301) 778-1690
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MD PROFESSIONAL CERTIFICATION
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[Signature]
12-12-17

DES:	BY:	NO.:	REVISIONS	DATE
ATS				
MZR				
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DATE:	12/08/17			

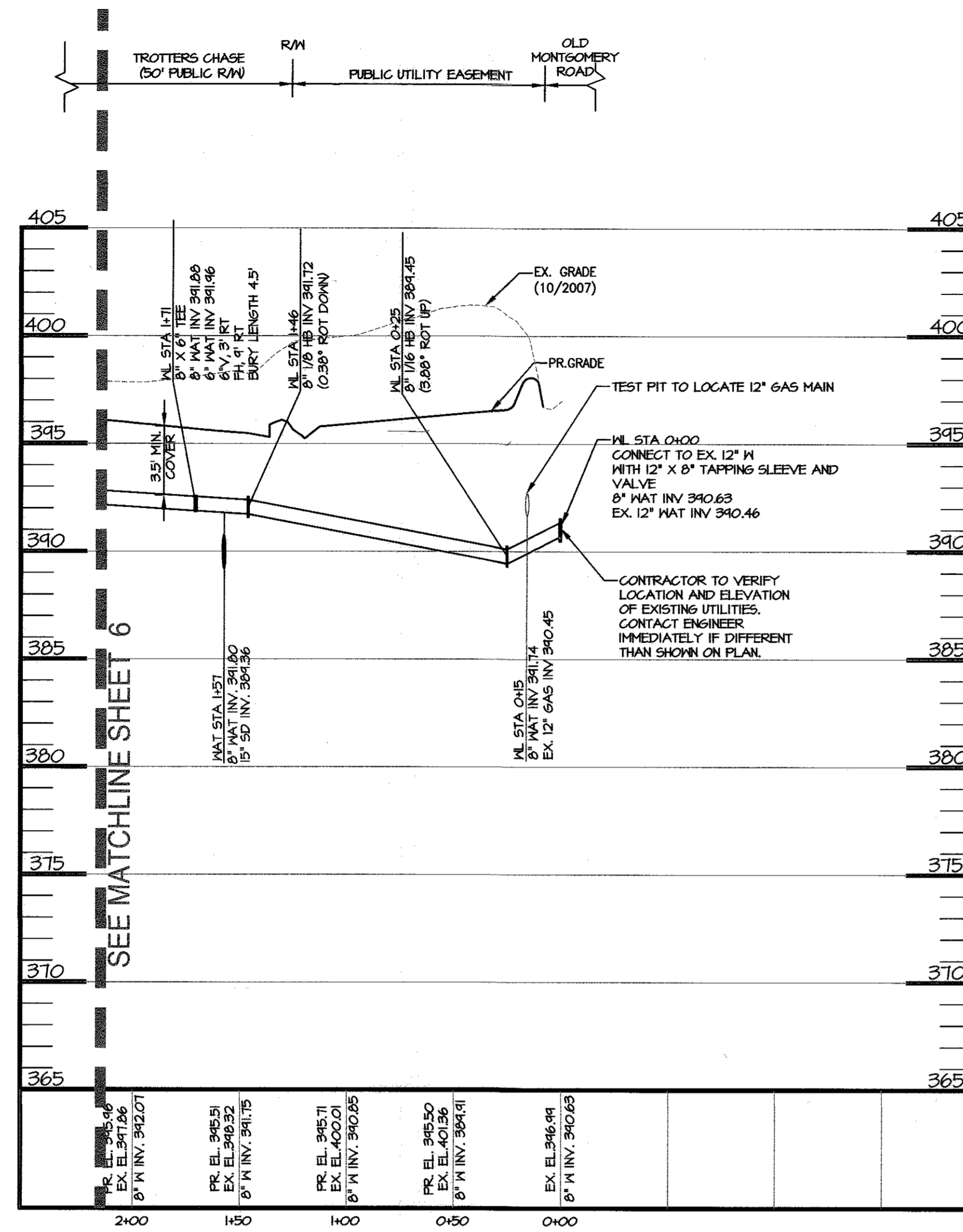
**FINAL WATER & SEWER PLAN
WATER PROFILES**

BLOCK NO. 3

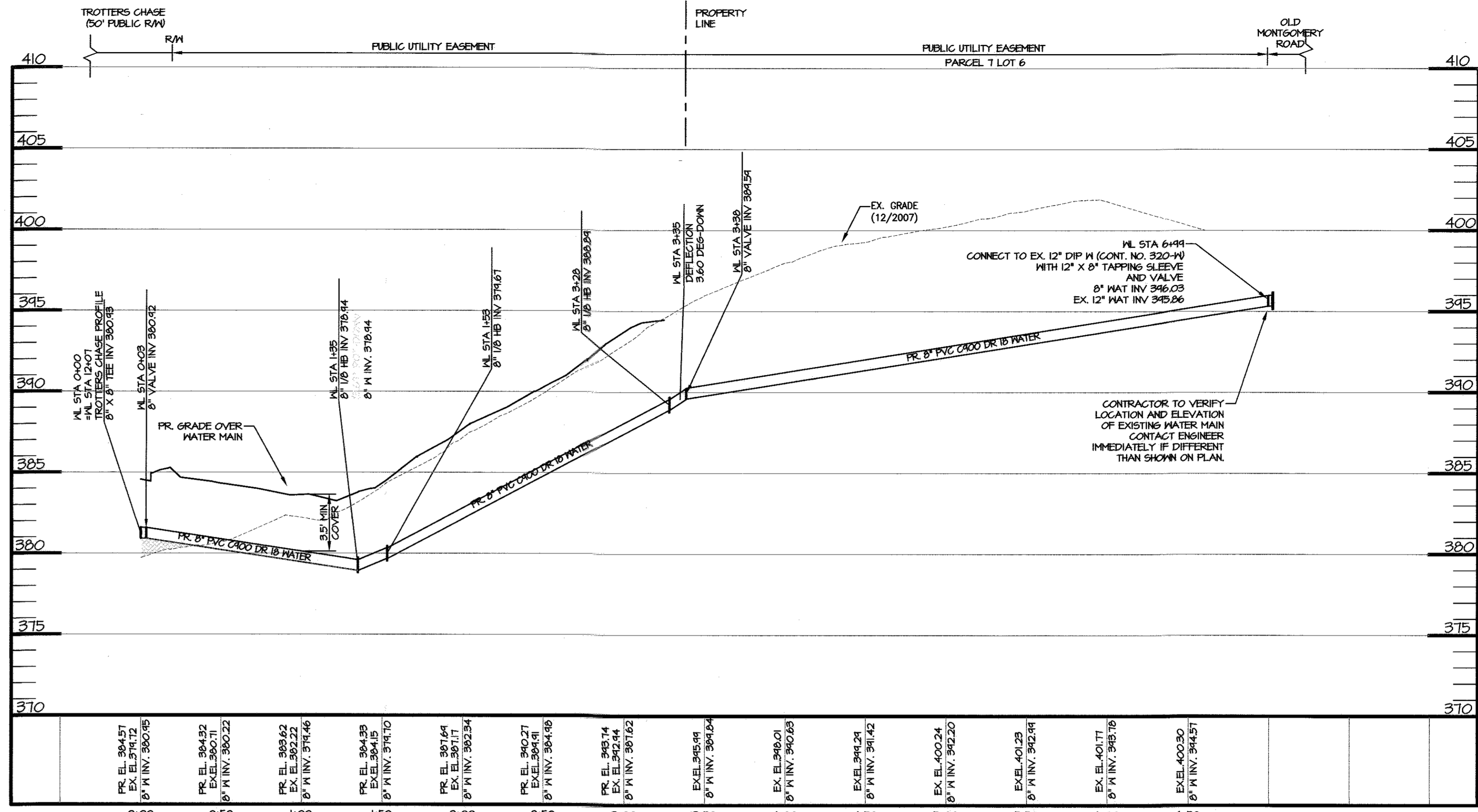
**TROTTERS KNOLL - SECTION 1
LOTS 1-78, OPEN SPACE 79-84
A SUBDIVISION OF PARCEL 748
CONTRACT NO. 14-4938-D**

LIBER: 10806 ~ FOLIO: 339
ZONED: R-SA-8 ~ TAX MAP: 37 ~ GRID: 2 ~ PARCEL: 748
1ST ELECTION DISTRICT ~ HOWARD COUNTY, MARYLAND

JOB NO.: 15368x02
SCALE: AS SHOWN
SHEET 6 OF 8



8" WATERLINE - TROTTERS CHASE
SCALE: H: 1"=50'
V: 1"=5'



8" WATERLINE - TO OLD MONTGOMERY ROAD PROFILE
SCALE: H: 1"=50'
V: 1"=5'

CONTROLLED AND COMPACTED FILL PER ASTM D-1557 TO BE CERTIFIED BY AN APPROVED ON-SITE GEOTECHNICAL ENGINEER

- COMPACTED SPECIFICATIONS FOR UTILITIES IN FILL
- WHERE UTILITY PIPES ARE TO BE PLACED ON COMPACTED FILL, THE FOLLOWING APPLIES:
- A. PRIOR TO PLACEMENT OF COMPACTED FILL ANY SOFT OR OTHERWISE UNSUITABLE SOILS ENCOUNTERED AT THE EXISTING RAINE BOTTOM OR SLOPE, SHALL BE UNDERCUT AND REMOVED FROM THE CONSTRUCTION AREA.
 - B. ACCEPTABLE COMPACTED FILL SHALL BE PLACED IN SIX INCH THICK LOOSE LIFTS AND COMPACTED TO AT LEAST 95 PERCENT OF THE MAXIMUM DENSITY AS DETERMINED BY ASTM D-1557.
 - C. THE COMPACTED FILL SHALL BE BENCHED INTO THE EXISTING VIRGIN SLOPES WITH EACH LIFT PLACED TO A SMOOTH TRANSITION FROM VIRGIN TO FILL SOILS.


OWNER/DEVELOPER: TAX MAP 37, PARCEL 748 (HORSE FARM PROPERTY)
HORSE FARM LLC
C/O LOVELL AMERICA
9200 RUMSEY ROAD
SUITE 200
COLUMBIA, MD 21045
CONTACT: RICHARD HAYWARD
410-987-7222

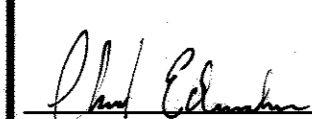
<p>DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND</p> <p><i>[Signature]</i> 1-11-19 CHIEF, BUREAU OF UTILITIES</p>	<p>DEPARTMENT OF PLANNING & ZONING HOWARD COUNTY, MARYLAND</p> <p><i>[Signature]</i> 1-29-18 CHIEF, DEVELOPMENT ENGINEERING DIVISION</p>	<p>MRA MORRIS & FITCHE ASSOCIATES, INC. ENGINEERS, PLANNERS, SURVEYORS AND LANDSCAPE ARCHITECTS 14280 PARK CENTER DRIVE, SUITE A LAUREL, MARYLAND 20707 (410) 792-9792 or (301) 778-1690 FAX (410) 792-7395</p>	<p>MD 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. 29203, EXPIRATION DATE: 6/16/19.</p> <p>12-17-17</p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>DES: AT5</td> <td>BY NO.</td> <td>REVISIONS</td> <td>DATE</td> </tr> <tr> <td>DRN: MZR</td> <td></td> <td></td> <td></td> </tr> <tr> <td>CHK: TCN</td> <td></td> <td></td> <td></td> </tr> <tr> <td>DATE: 12/08/17</td> <td></td> <td></td> <td></td> </tr> </table>	DES: AT5	BY NO.	REVISIONS	DATE	DRN: MZR				CHK: TCN				DATE: 12/08/17				<p>FINAL WATER & SEWER PLAN WATER PROFILES</p>	<p>TROTTERS KNOLL - SECTION 1 LOTS 1-78, OPEN SPACE 79-84 A SUBDIVISION OF PARCEL 748 CONTRACT NO. 14-4938-D</p> <p>LIBER: 10806 ~ FOLIO: 339 ZONED: R-SA-8 ~ TAX MAP: 37 ~ GRID: 2 ~ PARCEL: 748 1ST ELECTION DISTRICT ~ HOWARD COUNTY, MARYLAND</p>	<p>JOB NO.: 15368x02</p> <p>SCALE: AS SHOWN</p> <p>SHEET 7 OF 8</p>
DES: AT5	BY NO.	REVISIONS	DATE																				
DRN: MZR																							
CHK: TCN																							
DATE: 12/08/17																							
BLOCK NO. 3																							

WATER HOUSE CONNECTION AS-BUILT LOCATION TABLE			
LOT NUMBER	ADDRESS	LOCATION DIMENSION 1	LOCATION DIMENSION 2
LOT 1			
LOT 2			
LOT 3			
LOT 4			
LOT 5			
LOT 6			
LOT 7			
LOT 8			
LOT 9			
LOT 10			
LOT 11			
LOT 12			
LOT 13			
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LOT 16			
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PARCEL7,LOT6			

SEWER HOUSE CONNECTION AS-BUILT LOCATION TABLE			
LOT NUMBER	ADDRESS	LOCATION DIMENSION 1	LOCATION DIMENSION 2
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LOT 76			
LOT 77			
LOT 78			
PARCEL7,LOT6			

OWNER/DEVELOPER: TAX MAP 37, PARCEL 748 (HORSE FARM PROPERTY)
 HORSE FARM LLC
 C/O LOVELL AMERICA
 9200 RUMSEY ROAD
 SUITE 200
 COLUMBIA, MD 21045
 CONTACT: RICHARD HAYWARD
 410-997-7222

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND

 1-11-19
 CHIEF, BUREAU OF UTILITIES

DEPARTMENT OF PLANNING & ZONING
 HOWARD COUNTY, MARYLAND

 1-29-19
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

MRA
 MORRIS & RITCHE ASSOCIATES, INC.
 ENGINEERS, PLANNERS, SURVEYORS AND LANDSCAPE ARCHITECTS
 14280 PARK CENTER DRIVE, SUITE A
 LAUREL, MARYLAND 20707
 (410) 792-9792 or (301) 776-1680
 FAX (410) 792-7395



MD 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.
 29203, EXPIRATION
 DATE: 6/16/19.

DES:	BY:	NO.	REVISIONS	DATE
DES: ATS				
DRN: MZR				
CHK: TCN				
DATE: 12/08/17				

**FINAL WATER & SEWER PLAN
 AS-BUILT LOCATION TABLES**
 BLOCK NO. 3

TROTTERS KNOLL - SECTION 1
 LOTS 1-78, OPEN SPACE 79-84
 A SUBDIVISION OF PARCEL 748
 CONTRACT NO. 14-4938-D
 LIBER: 10806 ~ FOLIO: 339
 ZONED: R-SA-8 ~ TAX MAP: 37 ~ GRID: 2 ~ PARCEL: 748
 1ST ELECTION DISTRICT ~ HOWARD COUNTY, MARYLAND

JOB NO.:
 15368x02
 SCALE:
 NONE
 SHEET
 8 OF 8