

QUANTITY TABLE				
ITEMS	QUANTITIES ESTIMATED	QUANTITIES	TYPE	MANUFACTURER/SUPPLIER
STANDARD MH	8 EACH			
8" (PVC) SEWER MAIN	768 L.F.			
8" (DIP) SEWER MAIN	0 L.F.			
4" SHC	337 L.F.			
# 4" SEWER HOUSE CONNECTION	15 EACH			
8" (DIP) WATER MAIN	728 L.F.			
1 1/2" WATER HOUSE CONNECTION	310 L.F.			
# 1 1/2" WHC	3 EACH			
TWIN WHC	6 EACH			
1/16 H.B. (8")	1 EACH			
1/8 H.B. (8")	5 EACH			
6"x6" T. S. & V	2 EACH			
8"x6" F.H.T. & V.	2 EACH			
6"x8"REDUCER	1 EACH			
FIRE HYDRANT	2 EACH			
8" CAP & BUTTRESS	1 EACH			
NAME OF UTILITY CONTRACTOR:				
SURVEY AND DRAFTING DIVISION AS-BUILT DATE				

GUILFORD OVERLOOK

LOTS 1 - 15 & OPEN SPACE LOTS 16 - 19

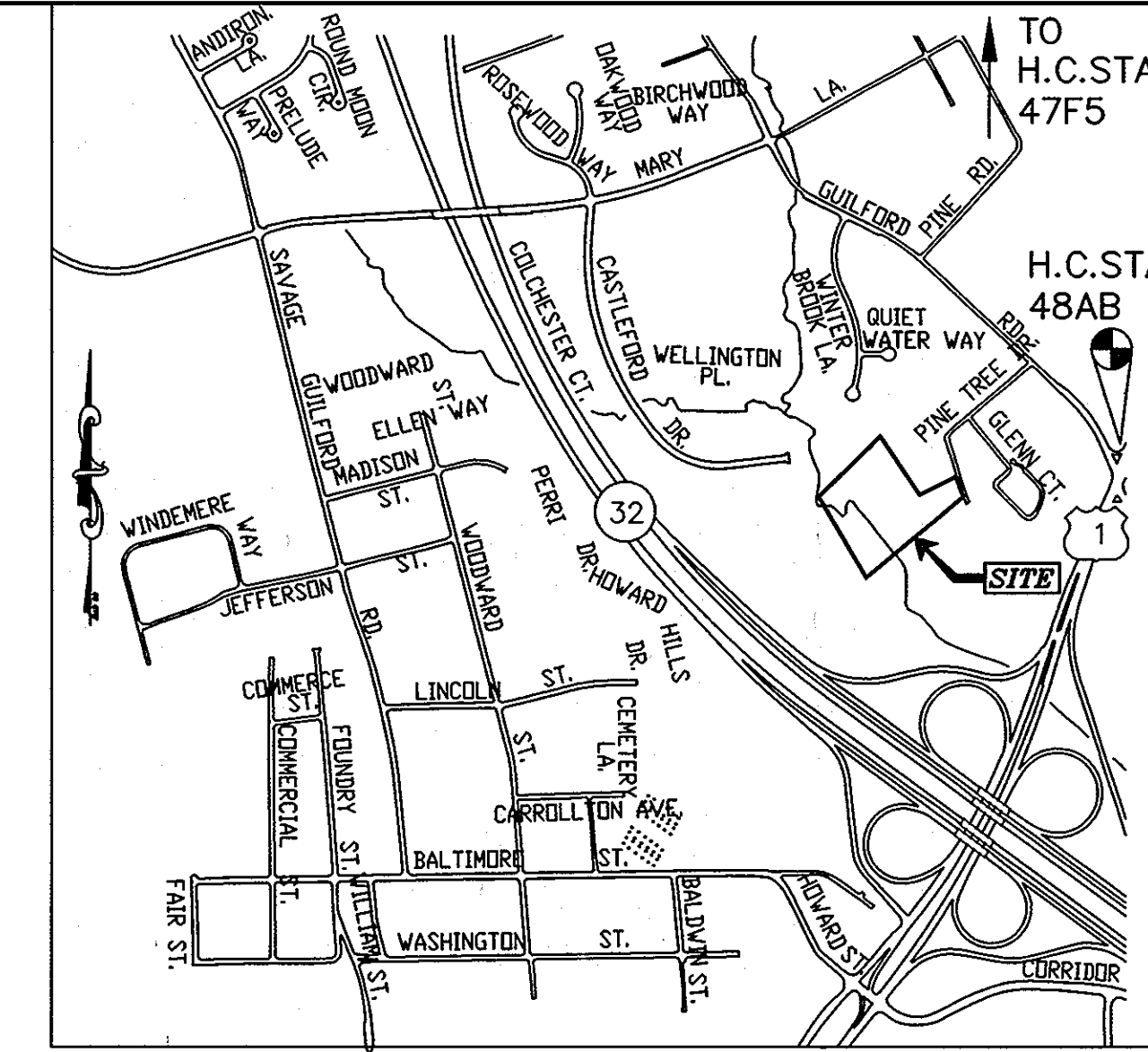
FINAL

WATER & SEWER CONSTRUCTION PLANS

HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS

CONTRACT NO.: 24-4667-D



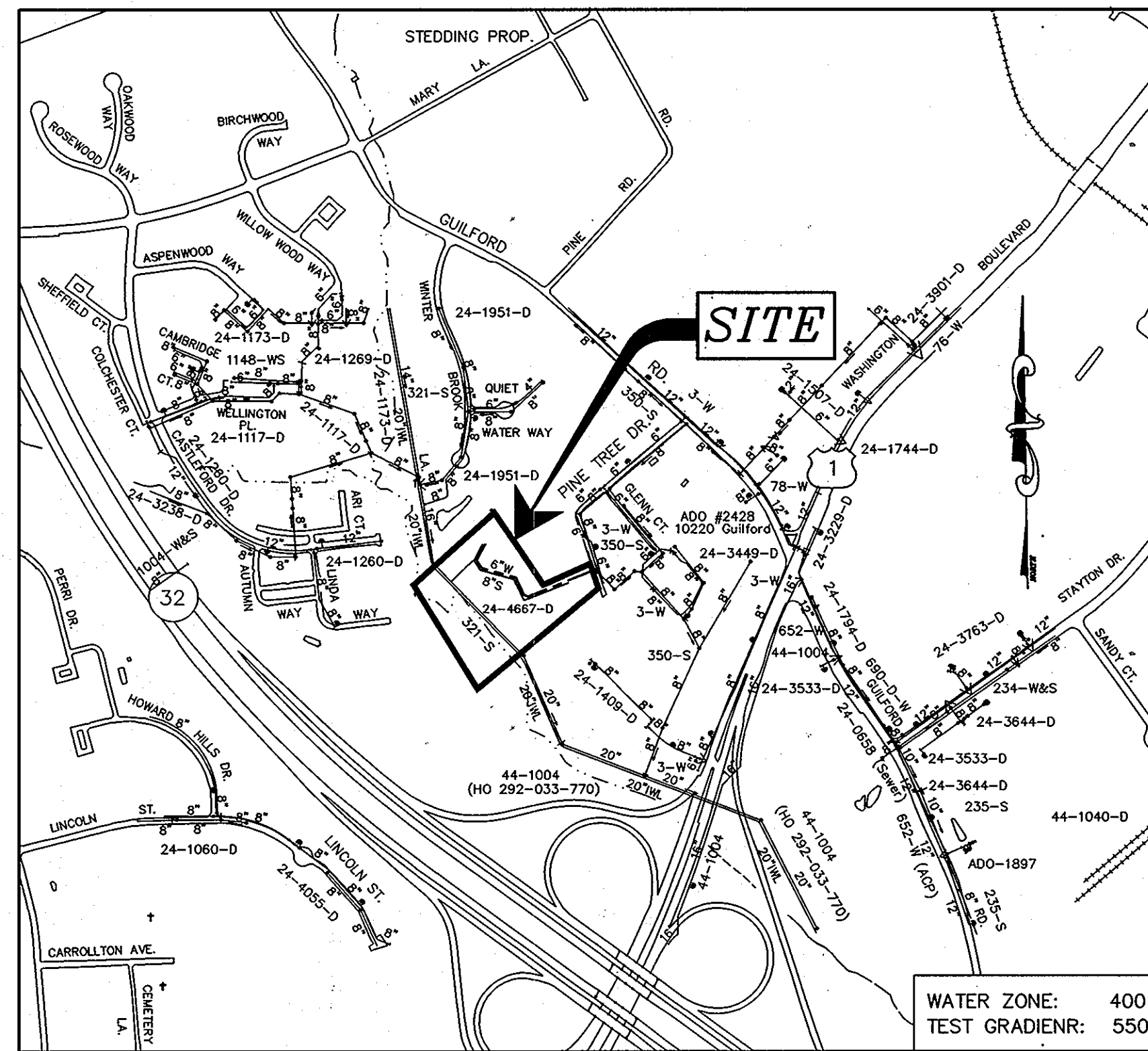
VICINITY MAP
SCALE: 1"=1000' (5053/8-K)

GENERAL NOTES

- 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.
 - TOPOGRAPHIC FIELD SURVEYS WERE PERFORMED ON JUNE 2008 BY WINGS AERIAL MAPPING, SUPPLEMENTED BY TOPOGRAPHIC SURVEY PERFORMED BY MILDENBERG BOENDER & ASSOCIATES IN JUNE 2008.
 - 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. 3104 AND NO. 310A. ALL VERTICAL CONTROLS ARE BASED ON NAVD 83. VERTICAL CONTROLS PROVIDED ON THE DRAWINGS ARE HO.CO. GEODETIC CONTROL STA. 48AB & 47F5.
STA. No. 48AB N 538,384.4474 E 1,366,415.7904 ELEV. 225.653
STA. No. 47F5 N 535,985.0412 E 1,365,653.4555 ELEV. 234.996
 - 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 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&T1-800-252-1133
BOE(CONSTRUCTION SERVICES).....410-850-4620
BOE(EMERGENCY).....410-685-1400
BUREAU OF UTILITIES.....410-313-4900
COLONIAL PIPELINE CO.....410-795-1390
MISS UTILITY.....1-800-257-7777
STATE HIGHWAY ADMINISTRATION.....410-531-5533
VERIZON.....1-800-743-0033/410-224-9210
 - 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(c) OF THE HOWARD COUNTY CODE.
 - MODE TRACKING NUMBER 201261183
- WATER**
- ALL WATER MAINS SHALL BE D.I.P. CLASS 54 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.
 - ALL SINGLE WATER HOUSE CONNECTIONS ARE TO BE 1 1/2" WITH 1" OUTSIDE METER SETTINGS.
- SEWER**
- ALL SEWER MAINS SHALL BE D.I.P. OR P.V.C. UNLESS OTHERWISE NOTED.
 - MANHOLES SHALL BE 6" OR 12" INSIDE DIAMETER UNLESS OTHERWISE NOTED.
 - MANHOLES SHOWN WITH 12" AND 16" WALLS ARE FOR BRICK MANHOLES ONLY. MANHOLES DESIGNATED W.T. IN PLAN AND PROFILE SHALL HAVE WATER TIGHT FRAME AND COVER, STANDARD DETAIL G5.52. WHERE WATER TIGHT 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.

OWNER/DEVELOPER

PLOGGER LLC
6800 DEERPATH RD. SUITE 100
ELKRIDGE, MARYLAND 21075
410-579-2442



LOCATION MAP

SCALE: 1" = 600'
ADC MAP: 5053 8-K

TYPE OF BUILDING	RESIDENTIAL
No. OF UNITS	15
No. OF WATER HOUSE CONNECTION	3
No. OF TWIN WATER HOUSE CONNECTION	6
No. OF SEWER HOUSE CONNECTIONS	15
No. OF TWIN SEWER HOUSE CONNECTIONS	0
DRAINAGE AREA	LITTLE PATUXENT
TREATMENT PLANT	LITTLE PATUXENT

LEGEND

- 8"- EXISTING SEWER MAIN AND MANHOLE
- 6"- EXISTING WATER MAIN AND VALVE
- EXISTING FIRE HYDRANT
- PROPOSED FIRE HYDRANT
- SHE- PROPOSED SEWER MAIN
- SHE- PROPOSED SEWER HOUSE CONNECTION
- PROPOSED SEWER MANHOLE
- WHC- PROPOSED WATER MAIN
- WHC- PROPOSED SEWER HOUSE CONNECTION
- TWIN WHC- PROPOSED TWIN SEWER HOUSE CONNECTION
- EX. WHC EXISTING WATER HOUSE CONNECTION
- EX. SHE EXISTING SEWER HOUSE CONNECTION

INDEX OF DRAWINGS

NO.	DESCRIPTION
1	TITLE SHEET
2	FINAL WATER AND SEWER PLAN
3	FINAL WATER AND SEWER PROFILES

EROSION AND SEDIMENT CONTROL FOR THIS CONTRACT IS PROVIDED UNDER : F-11-059

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

DEVELOPER'S SIGNATURE: DATE: 8/12/12

DEVELOPER'S NAME: Mark C. Lem

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

ENGINEER'S SIGNATURE: DATE: 8/8/12

ENGINEER'S NAME: R. JACOB HICKMAN, 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.: 17942, EXPIRATION DATE: 9/3/12

PLAN REFERENCE NUMBERS:
SP-09-002, WP-10-105
F-11-059

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE SOIL CONSERVATION DISTRICT.

WARD SC: DATE: 8/27/12

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PLANNING & ZONING
HOWARD COUNTY, MARYLAND

MILDENBERG, BOENDER & ASSOC., INC.
Engineers Planners Surveyors

8800 Deerpath Rd., Suite 150, Elkridge, Maryland 21075
(410) 997-0296 Ball. (410) 997-0298 Fax.



engineering	MMM	illustration	MMM	approval	RJH	project	2008-002	date	AUG. 2012	BY	NO.	REVISION	DATE	600' SCALE MAP NO. 47	BLOCK NO. 6

TITLE SHEET

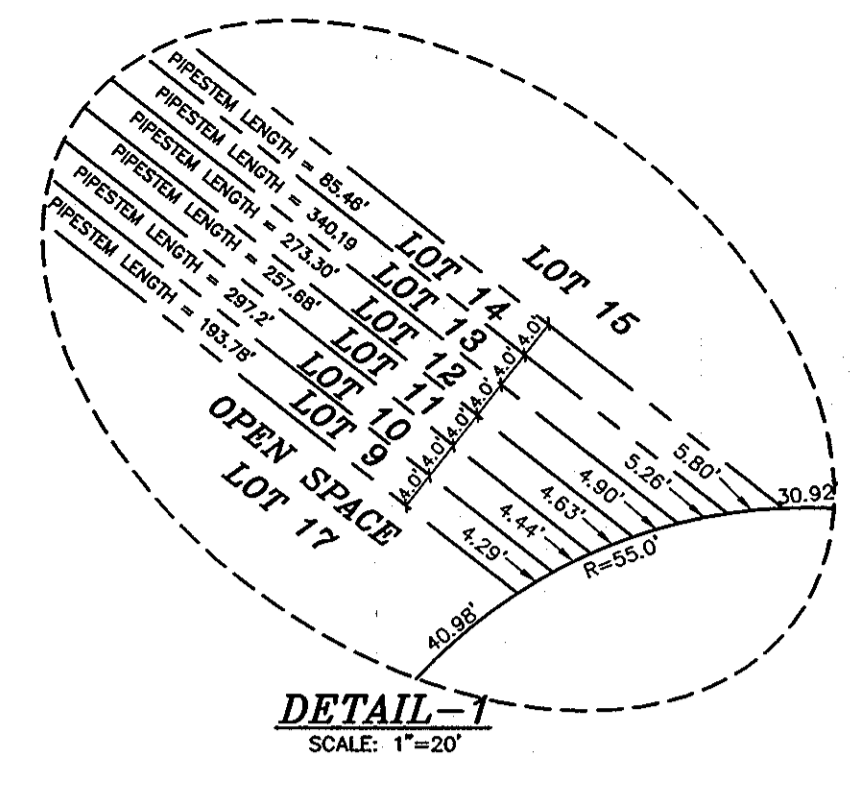
GUILFORD OVERLOOK

LOTS 1 - 15 & OPEN SPACE LOTS 16 - 9

CONTRACT NO. 24-4667-D
TAX MAP 47 PARCEL 499
SIXTH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

scale AS SHOWN

1 of 3



SEWER HOUSE CONNECTION AS-BUILT LOCATION TABLE

LOT	ADDRESS	LOCATION DIMENSION 1	LOCATION DIMENSION 2
1	8803 RED SPRUCE WAY		
2	8807 RED SPRUCE WAY		
3	8811 RED SPRUCE WAY		
4	8815 RED SPRUCE WAY		
5	8819 RED SPRUCE WAY		
6	8823 RED SPRUCE WAY		
7	8827 RED SPRUCE WAY		
8	8827 RED SPRUCE WAY		
9	8715 PINE SAP LANE		
10	8719 PINE SAP LANE		
11	8723 PINE SAP LANE		
12	8722 PINE SAP LANE		
13	8718 PINE SAP LANE		
14	8714 PINE SAP LANE		
15	8812 RED SPRUCE WAY		

WATER HOUSE CONNECTION AS-BUILT LOCATION TABLE

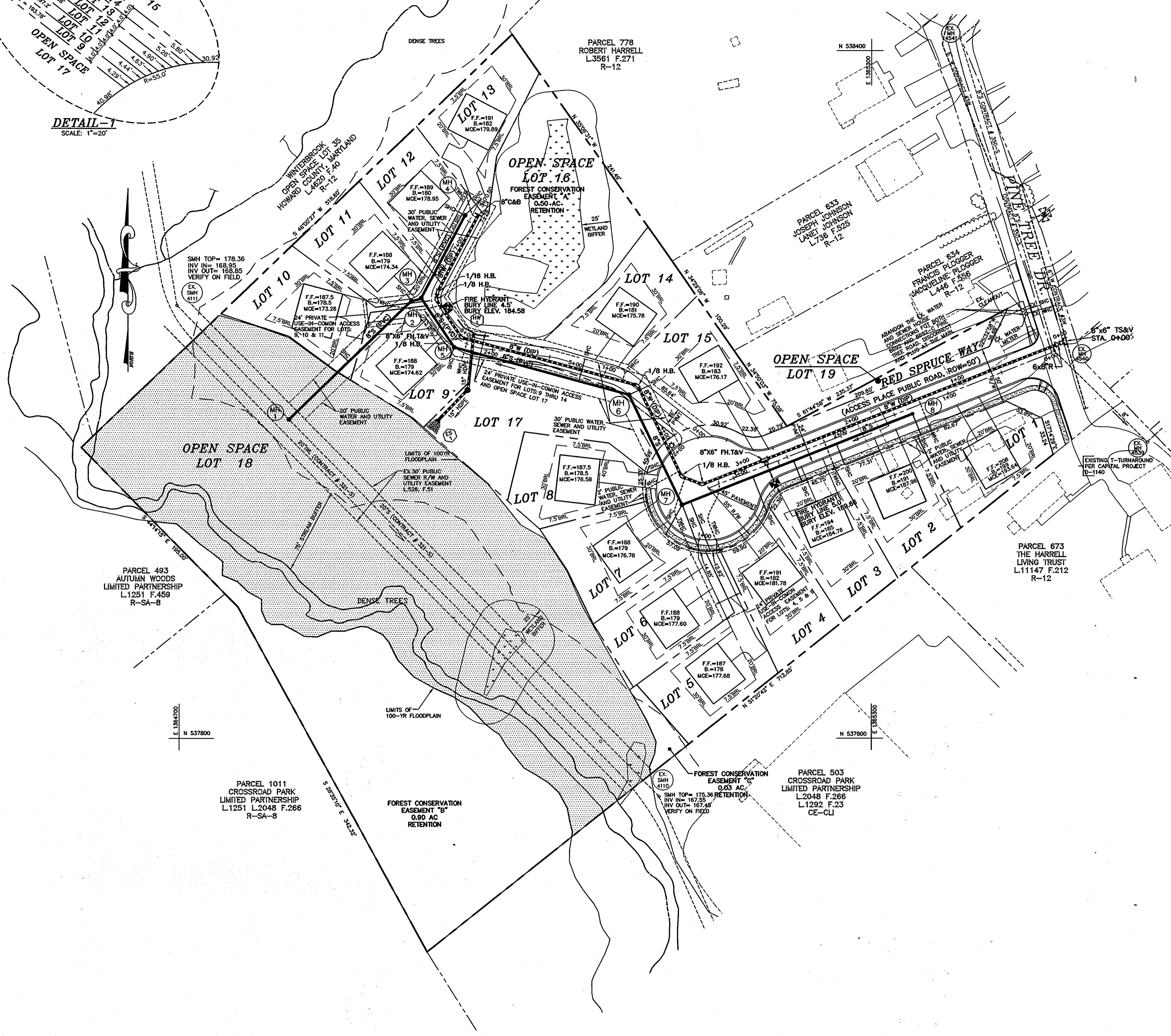
LOT	ADDRESS	LOCATION DIMENSION 1	LOCATION DIMENSION 2
1	8803 RED SPRUCE WAY		
2	8807 RED SPRUCE WAY		
3	8811 RED SPRUCE WAY		
4	8815 RED SPRUCE WAY		
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11	8723 PINE SAP LANE		
12	8722 PINE SAP LANE		
13	8718 PINE SAP LANE		
14	8714 PINE SAP LANE		
15	8812 RED SPRUCE WAY		

MANHOLE LOCATION CHART

MH #	LOCATION OR NORTHING & EASTING	OFFSET
MH 1	N 538,078.343 E 1,364,795.014	
MH 2	USE-IN-COMMON DRIVEWAY STA: 2+73.71	17.26 L
MH 3	USE-IN-COMMON DRIVEWAY STA: 2+74.62	9.40 L
MH 4	USE-IN-COMMON DRIVEWAY STA: 3+53.07	5.40 L
MH 5	USE-IN-COMMON DRIVEWAY STA: 2+30.30	8.01 L
MH 6	USE-IN-COMMON DRIVEWAY STA: 0+70.71	8.15 L
MH 7	L.P. STA: 1+37.74	17.96 R
MH 8	RED SPRUCE WAY STA: 1+35.07	5.00 L

8" WATER MAIN TABULATION CHART

APPURTENANCE	LOCATION OR NORTHING & EASTING	OFFSET
6"x6" TS & V	PINE TREE DR. N 538,146.742 E 1,365,468.948	
6"x8" R	PINE TREE DR. N 538,114.379 E 1,365,463.114	
8"x6" FH TS & V	ROAD A STA: 2+69	5.00 R
1/8 H.B.	L.P. STA: 1+87.78	38.74 R
1/8 H.B.	L.P. STA: 1+81.64	19.65 R
1/8 H.B.	USE-IN-COMMON DRIVEWAY STA: 0+69.91	2.94 R
1/8 H.B.	USE-IN-COMMON DRIVEWAY STA: 2+29.93	2.62 R
8"x6" FH TS & V	USE-IN-COMMON DRIVEWAY STA: 2+59.33	6.55 R
1/8 H.B.	USE-IN-COMMON DRIVEWAY STA: 2+73.61	4.06 R
1/16 H.B.	USE-IN-COMMON DRIVEWAY STA: 2+82.21	4.33 R
8" CAP AND BUTTRESS	USE-IN-COMMON DRIVEWAY STA: 3+58.92	4.64 R



PLAN VIEW
SCALE: 1"=50'

OWNER/DEVELOPER

PLOGGER LLC
6800 DEERPATH RD, SUITE 100
ELKRIDGE, MARYLAND 21075
410-579-2442

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
S. C. Chen
CHIEF, BUREAU OF UTILITIES
DATE: 8/23/12

DEPARTMENT OF PLANNING & ZONING
HOWARD COUNTY, MARYLAND
W. D. ...
CHIEF, DEVELOPMENT ENGINEERING DIVISION
DATE: 9/4/12

MILDENBERG, BOENDER & ASSOC., INC.
Engineers Planners Surveyors
8800 Deeppath Rd., Suite 150, ElkrIDGE, Maryland 21075
(410) 997-0296 Bait. (410) 997-0298 Fax



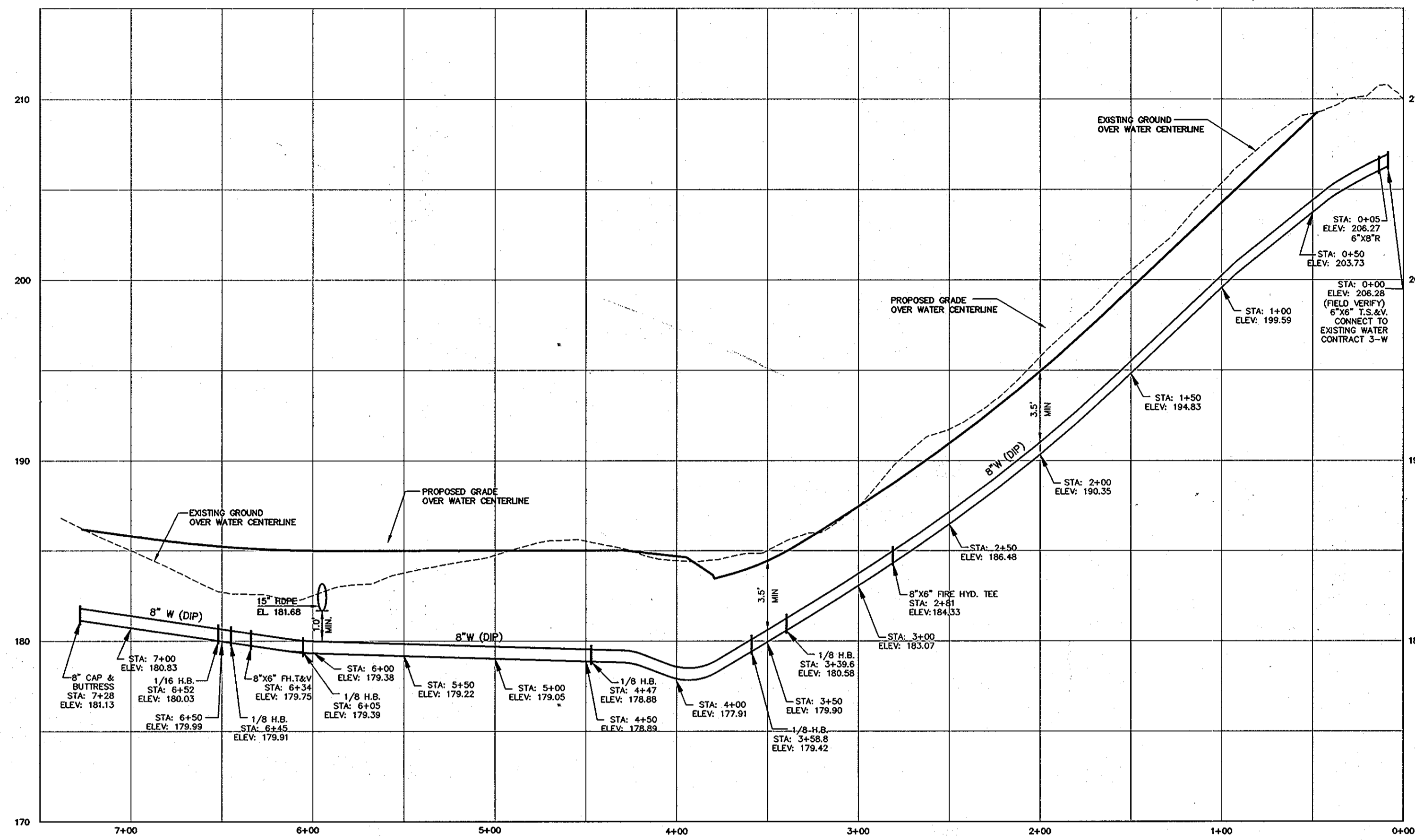
engineering	MMM				
illustration	MMM				
approval	RJH				
project	2008-002				
date	AUG. 2012	BY	NO.	REVISION	DATE

FINAL WATER AND SEWER PLAN
600' SCALE MAP NO. 47 BLOCK NO. 6

GUILFORD OVERLOOK
LOTS 1 - 15 & OPEN SPACE LOTS 16 - 9
CONTRACT NO. 24-4667-D
TAX MAP 47 PARCEL 499
SECOND ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

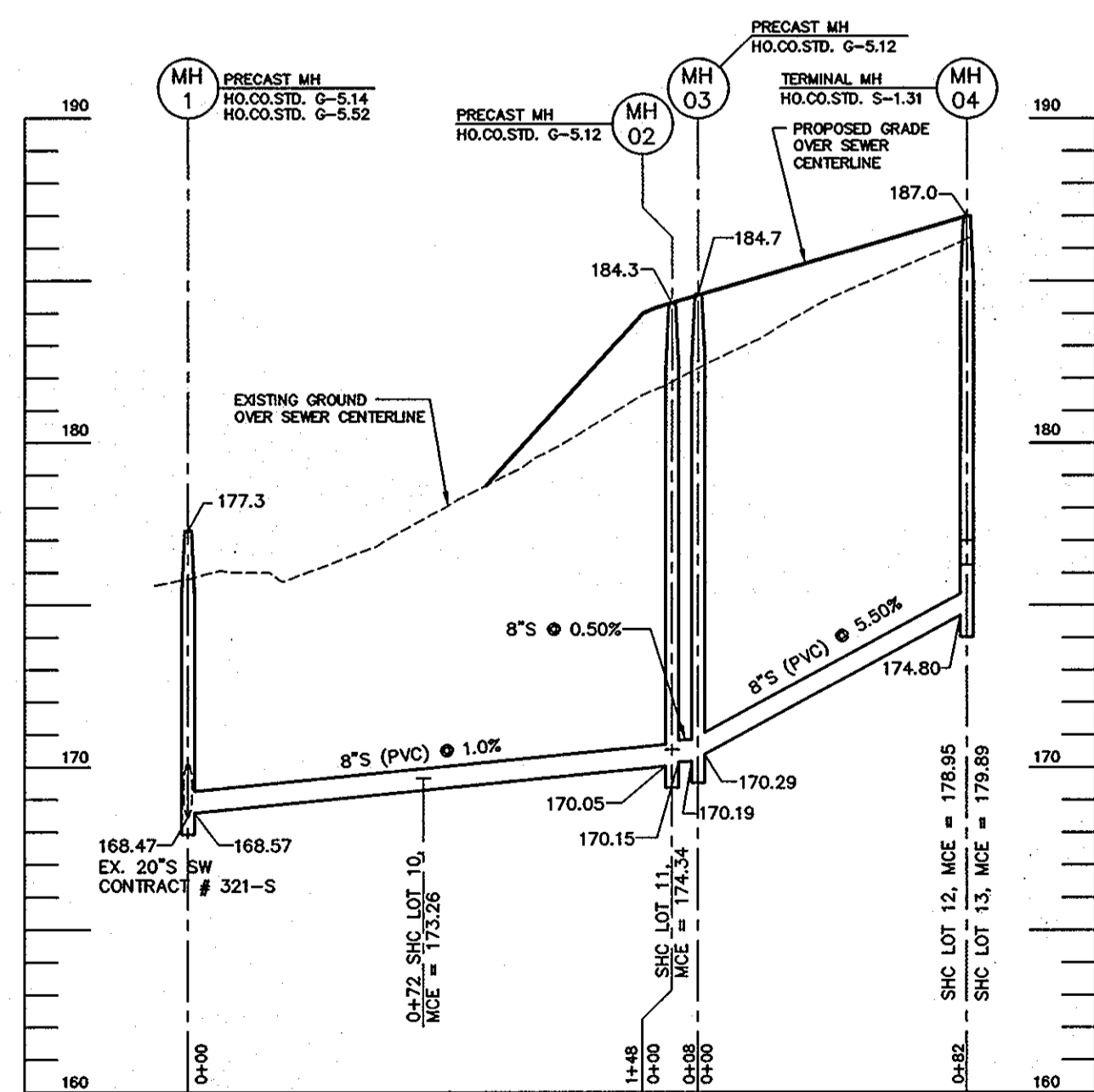
scale AS SHOWN
2 of 3

H:\08-002 PINE TREE RD.DWG\FINAL\W-5-FINAL.dwg



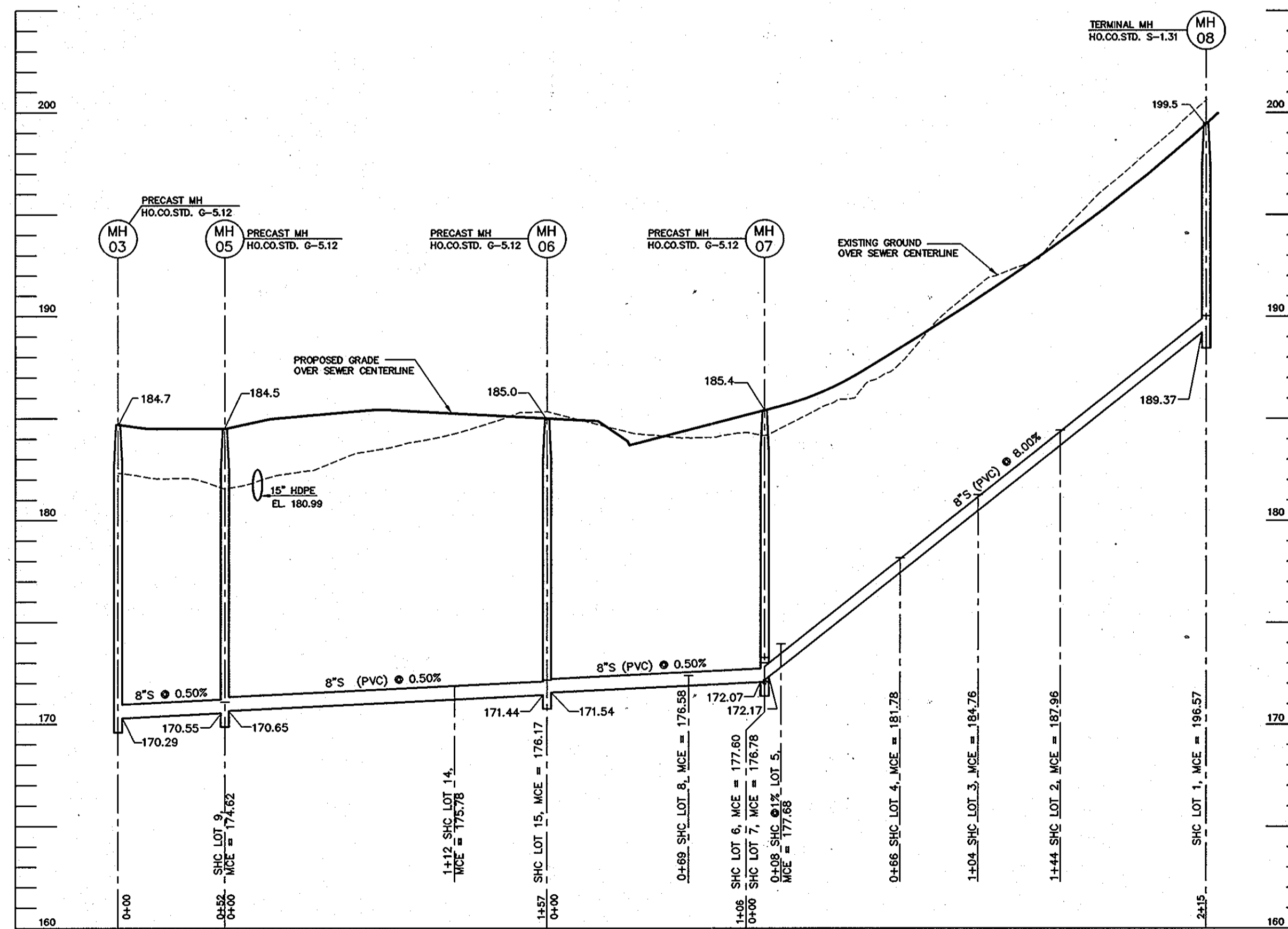
WATER PROFILE

SCALE: HOR. 1"=50'
VER. 1"=5'



SEWER PROFILE MH-1 TO MH-4

SCALE: HOR. 1"=50'
VER. 1"=5'



SEWER PROFILE MH-3 TO MH-8

SCALE: HOR. 1"=50'
VER. 1"=5'

SEWER HOUSE CONNECTION TABLE			
LOT #	% SLOPE	INV. @ R.O.W.	MIN. CELLAR ELEV.
1	2	189.94	193.64
2	2	184.26	187.96
3	2	181.06	184.76
4	1	178.28	181.78
5	1	173.98	177.68
6	2	173.30	177.60
7	2	173.02	176.78
8	2	172.38	176.58
9	2	171.08	174.62
10	2	169.66	173.26
11	2	170.54	174.34
12	2	175.33	178.95
13	2	175.53	179.89
14	2	171.86	175.78
15	2	172.17	176.17

OWNER/DEVELOPER

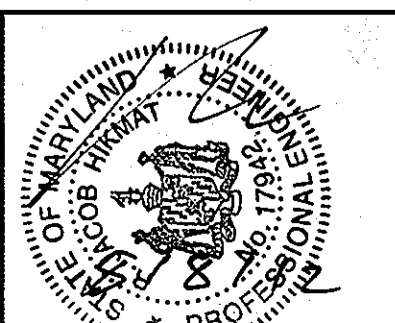
PLOGGER LLC
6800 DEERPATH RD. SUITE 100
ELKRIDGE, MARYLAND 21075
410-579-2442

H:\08-002 PINE TREE RD\DWG\FINAL W-S-FINAL.dwg

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
Steve C. Green
CHIEF, BUREAU OF UTILITIES

DEPARTMENT OF PLANNING & ZONING
HOWARD COUNTY, MARYLAND
John P. ...
CHIEF, DEVELOPMENT ENGINEERING DIVISION

MILDENBERG, BOENDER & ASSOC., INC.
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FINAL WATER AND SEWER PROFILES
600' SCALE MAP NO. 47 BLOCK NO. 6

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3 of 3