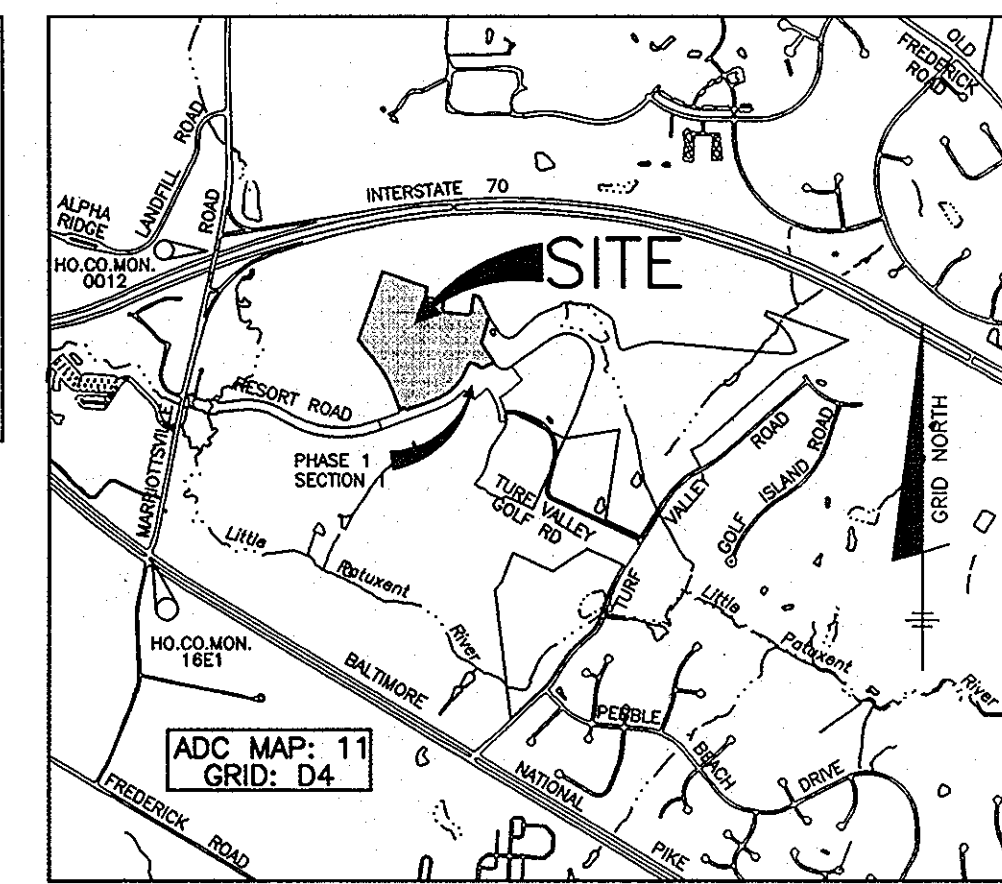


# VILLAGES AT TURF VALLEY

## PHASE 1 SECTION 2

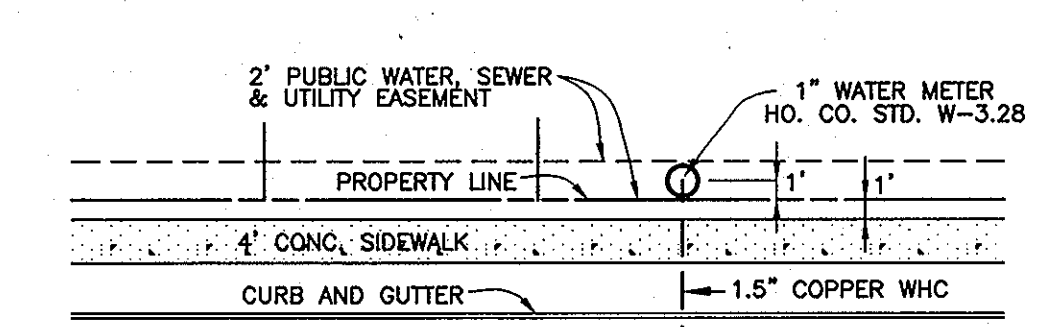
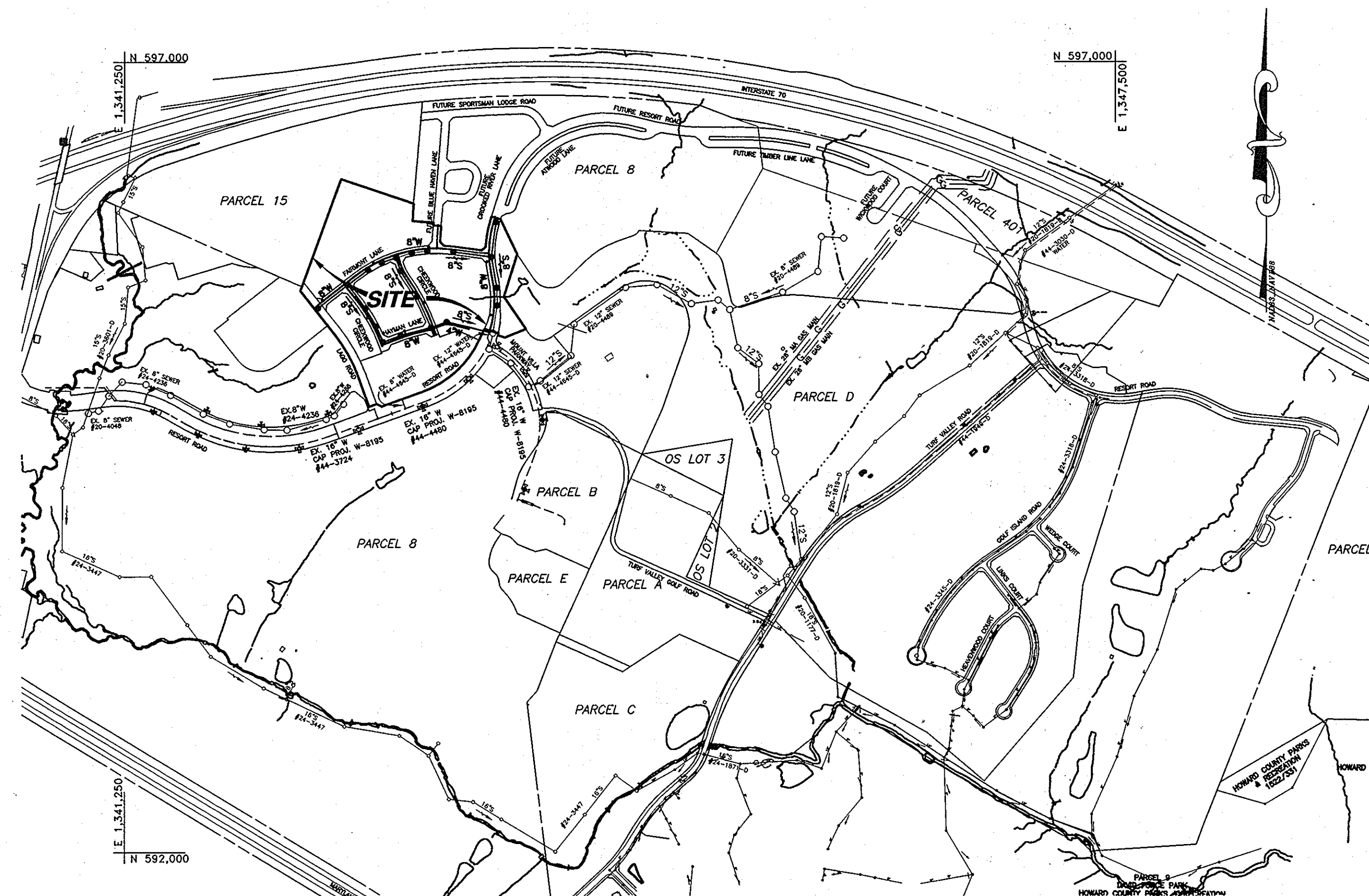
### CONTRACT NO. 24-4522-D

**BENCHMARKS NAD'83 HORIZONTAL**  
 HO. CO. #16E1 (AKA: 3438001)  
 STAMPED BRASS DISK SET ON TOP OF A 3' DEEP COLUMN OF CONCRETE.  
 N 593250.960' E 1340192.70'  
 ELEVATION: 463.981'  
 HO. CO. #0012 (AKA: 3439001)  
 STAMPED BRASS DISK SET ON TOP OF A 3' DEEP COLUMN OF CONCRETE.  
 N 596502.760' E 1340864.37'  
 ELEVATION: 486.298'



ITEMS	QUANTITIES ESTIMATED	AS-BUILT		
		QUANTITIES	TYPE	MANUF./SUPPLIER
12" PVC C900 WATER	722 LF	783 LF	RESTRAINED	NORTH AMERICAN PIPE CO.
8" PVC C900 WATER	3003 LF	3014 LF	RESTRAINED	NORTH AMERICAN PIPE CO.
4" PVC C900 WATER	144 LF	142 LF	C-900	NORTH AMERICAN PIPE CO.
FIRE HYDRANTS (INCLUDES 8"x6" TEE & 6" VALVE)	10 EA.	10 EA.	D.I.P.	MUELLER COMPANY
8"x8" CROSS	1 EA.	1 EA.	D.I.P.	TYLER/UNION FOUNDRY
8"x8" TEE	5 EA.	5 EA.	D.I.P.	TYLER/UNION FOUNDRY
8"x4" REDUCER	1 EA.	1 EA.	C-900	MULTI FITTING
8" VALVE	17 EA.	17 EA.	D.I.P.	AMERICAN FLOW CONTROL
12" PLUG AND BUTTRESS	1 EA.	1 EA.	D.I.P.	TYLER/UNION FOUNDRY
8" PLUG AND BUTTRESS	4 EA.	4 EA.	C-900	HARRINGTON CORP.
4" PLUG AND BUTTRESS	1 EA.	1 EA.	C-900	HARRINGTON CORP.
1.5" WHC	1670 LF.	1718 LF.	COPPER	MUELLER COMPANY
12"x8" TEE	1 EA.	1 EA.	D.I.P.	TYLER/UNION FOUNDRY
8" PVC SDR35 SEWER	1230 LF	1224 LF	P.V.C.	NORTH AMERICAN PIPE CO.
8" PVC C900 SEWER	2093 LF	2124 LF	P.V.C.	NORTH AMERICAN PIPE CO.
12" VALVE	2 EA.	2 EA.	D.I.P.	AMERICAN FLOW CONTROL
MANHOLES	20 EA.	20 EA.	CONCRETE	
VERT FEET OF MANHOLES	310 V.F.			
4" SHC	2212 LF	2126 LF	P.V.C.	NORTH AMERICAN PIPE CO.

NAME OF UTILITY CONTRACTOR: CCS  
 SURVEY AND DRAFTING DIVISION AS-BUILT DATE:



(FOR COUNTY USE ONLY)	TYPE OF BUILDING: _____ SFD
WATER AND SEWER COUNTY CODE: _____	NO. OF LOTS/PARCELS/UNITS: _____ 62
WATER ZONE: _____ 630W	NUMBER OF SHC'S: _____ 71
TEST GRADIENT: _____ 780	NUMBER OF WHC'S: _____ 71
	AREA OF COMMERCIAL LOT/PARCEL: _____ N/A
	SEWER SHED: _____ LITTLE PATUXENT WRP
	PUMPING STATION: _____ ROUTE 108 PS

LOCATION MAP  
 SCALE: 1" = 600'

NOTE:  
 ALL WATER-HOUSE CONNECTIONS ARE TO BE 1.5" WITH A 1" METER (OUTSIDE SETTING).

SHEET INDEX	
NO.	DESCRIPTION
1	TITLE SHEET PUBLIC WATER & SEWER MAINS
2	PLAN VIEW OF PUBLIC WATER & SEWER MAINS
3	PLAN VIEW OF PUBLIC WATER & SEWER MAINS
4	PROFILES OF PUBLIC WATER & SEWER MAINS
5	PROFILES OF PUBLIC WATER & SEWER MAINS

#### GENERAL NOTES

- PART I - GENERAL**
- 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 IN FEBRUARY, 2003 BY BENCHMARK ENGINEERING, INC.
  - THE COORDINATES SHOWN ON THE DRAWINGS ARE BASED ON MARYLAND STATE REFERENCE SYSTEM '83/91 AS PROJECTED BY HOWARD COUNTY GEODETIC CONTROL STATIONS NO. 0012 AND NO. 16E1.
  - ALL VERTICAL CONTROLS ARE BASED ON NAVD '88. VERTICAL CONTROLS PROVIDED ON THE DRAWINGS ARE 0012 AND 16E1.
  - 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 'X' 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 (5) WORKING DAYS BEFORE STARTING WORK SHOWN ON THESE PLANS:  
 AT&T.....1-800-262-1133  
 BGE (CONSTRUCTION SERVICES).....410-856-4820  
 BGE (EMERGENCY).....410-885-1400  
 BUREAU OF UTILITIES.....410-315-4900  
 COLONIAL PIPELINE CO.....410-788-1350  
 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 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 (5) 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(G) OF THE HOWARD COUNTY CODE.

- PART II - 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 RESTRAINED AND BUTTRESSED WITH CONCRETE IN ACCORDANCE WITH THE 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 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.
  - UNLESS OTHERWISE NOTED ON THE PLANS OR IN THE SPECIFICATIONS, SEVENTEEN (17) POUND 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. MAGNESIUM ANODES SHALL BE INSTALLED ON ALL VALVES AND DUCTILE IRON FITTINGS INCLUDING RESTRAINTS AND HARNESSSES. 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.

- 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 05.52. 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 CELLAR CANNOT BE SERVED.

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

*John R. Robertson* 7/10/12  
 HOWARD SOIL CONSERVATION DISTRICT DATE

SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE HOWARD COUNTY STANDARD SPECIFICATIONS AND AS PER F-08-060.

OWNER/DEVELOPER:  
 MANGIONE ENTERPRISES OF TURF VALLEY, LP  
 1205 YORK ROAD, PENTHOUSE  
 LUTHERVILLE, MARYLAND 21093  
 410-825-8400

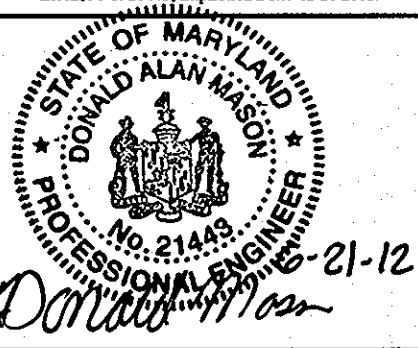
Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland. License No. 21443, Expiration Date: 12-31-2012.

DEPARTMENT OF PUBLIC WORKS  
 HOWARD COUNTY, MARYLAND

DEPARTMENT OF PLANNING AND ZONING  
 HOWARD COUNTY, MARYLAND

*John R. Robertson* 7/10/12  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

**BENCHMARK**  
 ENGINEERS & LAND SURVEYORS & PLANNERS  
**ENGINEERING, INC.**  
 8400 BALTIMORE NATIONAL PIKE SUITE 418 & ELLICOTT CITY, MARYLAND 21043  
 (P) 410-485-6105 (F) 410-485-6844  
 60 THOMAS JOHNSON DRIVE & FREDERICK, MARYLAND 21702  
 (P) 301-371-3505 (F) 301-371-3506  
 WWW.BE-CIVILENGINEERING.COM



DESIGN: DBT			
DRAFT: DBT			
CHK: DAM			
DATE: 10/2009	BEI 1	REVISE WATER AND SEWER TO BE PVC, REVISE LOT LAYOUT	8-21-2012
	BY NO.	REVISIONS	DATE

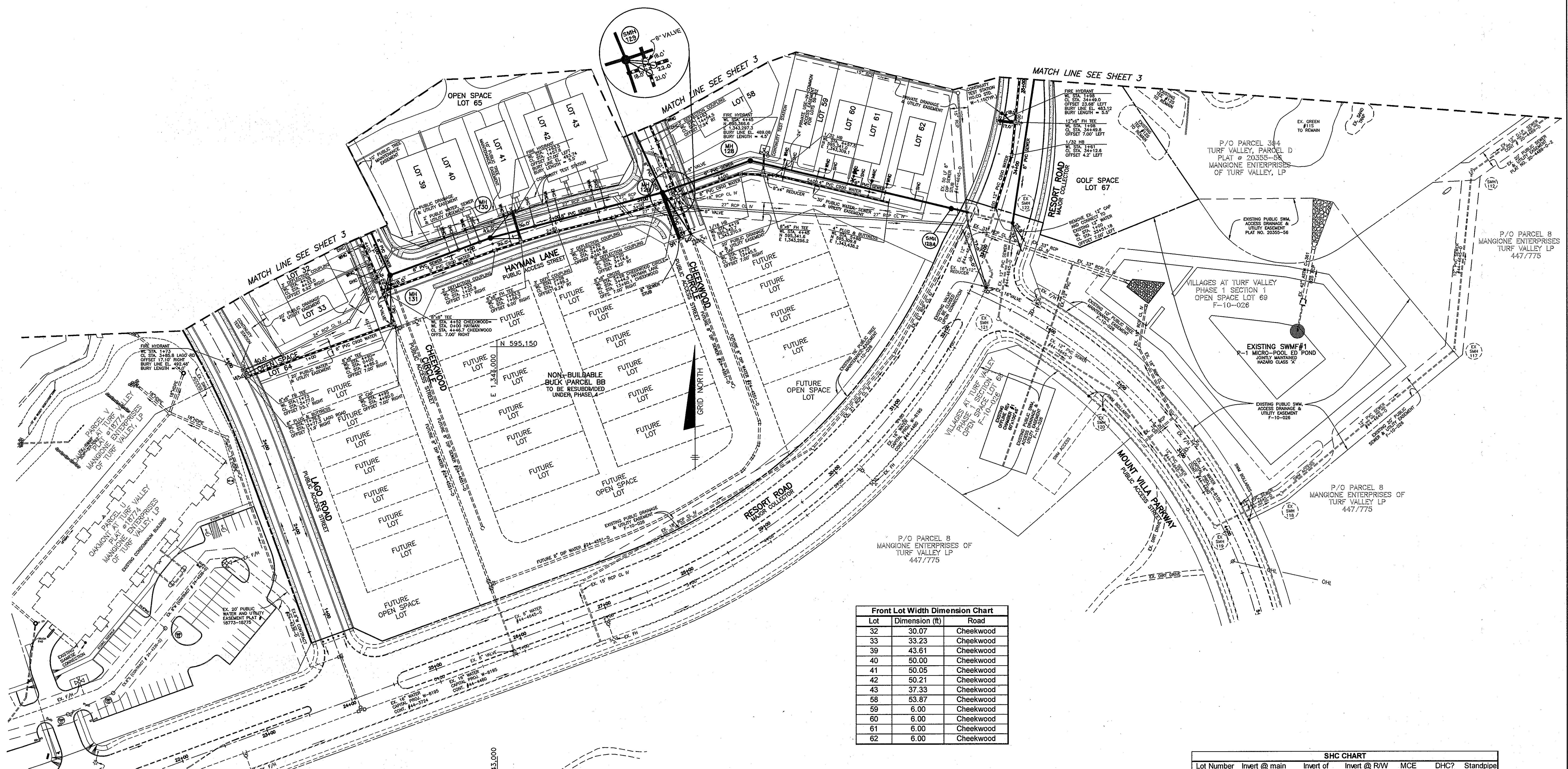
TITLE SHEET  
 PUBLIC WATER & SEWER MAINS

600 SCALE MAP NO. 16 BLOCK: 11 200 SCALE MAP NO. 146

VILLAGES AT TURF VALLEY  
 PHASE 1 SECTION 2  
 LOTS 1 thru 62, OPEN SPACE LOTS 63 thru 66  
 GOLF SPACE LOT 67, NON-BUILDABLE BULK PARCELS AA & BB  
 TAX MAP: 16 - BLOCK: 17 - PARCEL: P/O 8 - ZONED: PGCC - ELECTION DISTRICT: 3  
**CONTRACT NO. 24-4522-D**

SCALE:  
 AS SHOWN

SHEET NO.  
 1 OF 5

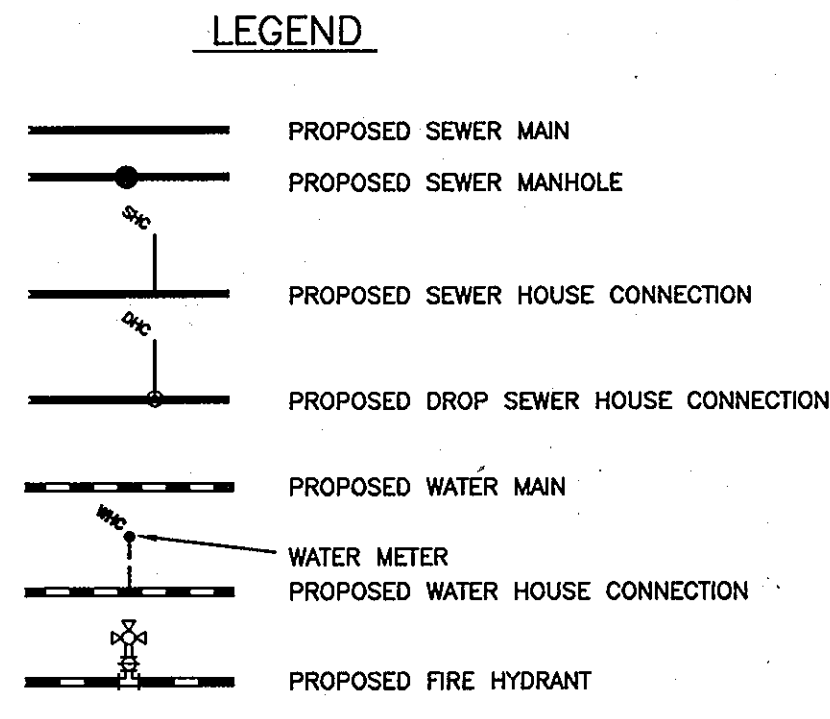


**Front Lot Width Dimension Chart**

Lot	Dimension (ft)	Road
32	30.07	Cheekwood
33	33.23	Cheekwood
39	43.61	Cheekwood
40	50.00	Cheekwood
41	50.05	Cheekwood
42	50.21	Cheekwood
43	37.33	Cheekwood
58	53.87	Cheekwood
59	6.00	Cheekwood
60	6.00	Cheekwood
61	6.00	Cheekwood
62	6.00	Cheekwood

**SEWER MANHOLE SCHEDULE**

MANHOLE	LOCATION
128	N 595357.38 E 1343281.94
129	CREEKWOOD ROAD CL STA. 14+00.14 OFFSET 7.00' LEFT
130	HAYMAN LANE CL STA. 1+25.97 OFFSET 7.00' LEFT
131	CREEKWOOD ROAD CL STA. 4+32.73 OFFSET 7.00' LEFT



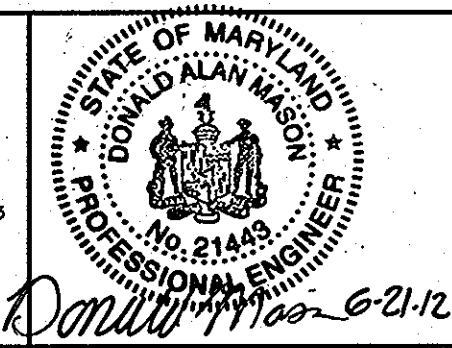
**SHC CHART**

Lot Number	Invert @ main	Invert of standpipe @ main	Invert @ R/W or esmt	MCE	DHC?	Standpipe Length
32	474.71	479.21	479.87	484.77	Yes	4.50
33	474.47	479.47	480.15	485.05	Yes	5.00
39	473.90	477.90	478.30	483.20	Yes	4.00
40	473.78	477.78	478.18	483.08	Yes	4.00
41	473.15	477.65	478.11	483.01	Yes	4.50
42	472.88	477.88	478.38	483.28	Yes	5.00
43	472.43	477.93	478.41	483.31	Yes	5.50
58	472.15	477.65	478.41	483.31	Yes	5.50
59	470.89	N/A	471.09	475.99	No	N/A
60	470.65	N/A	470.85	475.75	No	N/A
61	470.49	N/A	470.69	475.59	No	N/A
62	470.18	N/A	470.38	475.28	No	N/A

**OWNER/DEVELOPER:**  
 MANGIONE ENTERPRISES OF TURF VALLEY, LP  
 1205 YORK ROAD, PENTHOUSE  
 LUTHERVILLE, MARYLAND 21093  
 410-825-8400

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. 21443, Expiration Date: 12-31-2012.

**BENCHMARK ENGINEERING, INC.**  
 ENGINEERS • LAND SURVEYORS • PLANNERS  
 8480 BALTIMORE NATIONAL PIKE SUITE 418 & ELLEOTT CITY, MARYLAND 21043  
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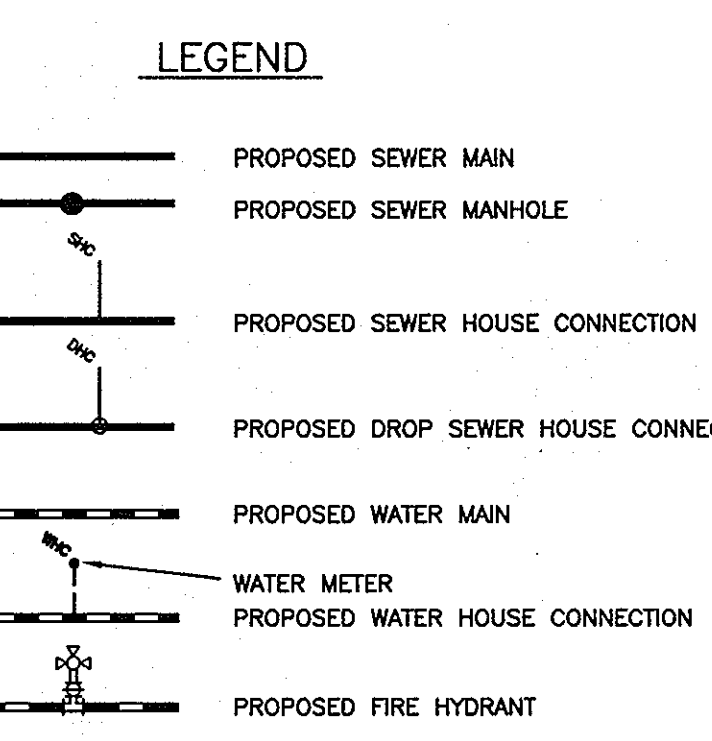
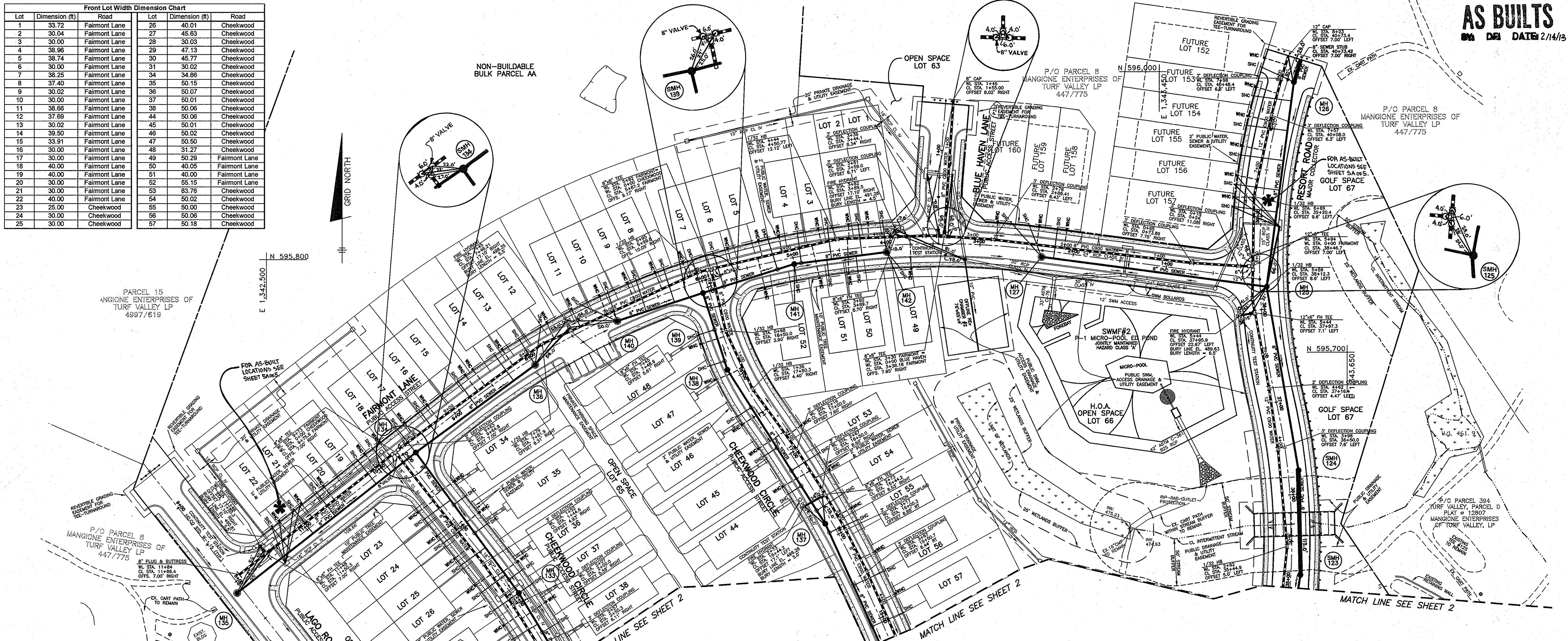
DESIGN: DBT	
DRAFT: DBT	
CHK: DAM	
DATE: 10/2009	
BEI NO. 1	REVISE WATER AND SEWER TO BE PVC. REVISE LOT LAYOUT. ADJUST SHC'S BASED ON REVISED LOT LAYOUT
BY NO.	

**PLAN VIEW PUBLIC WATER & SEWER MAINS**  
 600 SCALE MAP NO. 16 BLOCK: 11 200 SCALE MAP NO. 146

**VILLAGES AT TURF VALLEY**  
 PHASE 1 SECTION 2  
 LOTS 1 THRU 62, OPEN SPACE LOTS 63 THRU 66  
 GOLF SPACE LOT 67, NON-BUILDABLE BULK PARCELS AA & BB  
 TAX MAP: 16 - BLOCK: 17 - PARCEL: P/O 8 - ZONED: PGCC - ELECTION DISTRICT: 3  
**CONTRACT NO. 24-4522-D**

**AS BUILTS**  
 BY: DFI DATE: 2/14/13  
 SCALE: AS SHOWN  
 SHEET NO. 2 OF 5

Lot	Dimension (ft)	Road	Lot	Dimension (ft)	Road
1	33.72	Fairmont Lane	26	40.01	Cheekwood
2	30.04	Fairmont Lane	27	45.63	Cheekwood
3	30.00	Fairmont Lane	28	30.03	Cheekwood
4	38.96	Fairmont Lane	29	47.13	Cheekwood
5	38.74	Fairmont Lane	30	45.77	Cheekwood
6	30.00	Fairmont Lane	31	30.02	Cheekwood
7	38.25	Fairmont Lane	34	34.86	Cheekwood
8	37.40	Fairmont Lane	35	50.15	Cheekwood
9	30.02	Fairmont Lane	36	50.07	Cheekwood
10	30.00	Fairmont Lane	37	50.01	Cheekwood
11	38.66	Fairmont Lane	38	50.06	Cheekwood
12	37.69	Fairmont Lane	44	50.06	Cheekwood
13	30.02	Fairmont Lane	45	50.01	Cheekwood
14	39.50	Fairmont Lane	46	50.02	Cheekwood
15	33.91	Fairmont Lane	47	50.50	Cheekwood
16	30.00	Fairmont Lane	48	31.27	Cheekwood
17	30.00	Fairmont Lane	49	50.29	Fairmont Lane
18	40.00	Fairmont Lane	50	40.05	Fairmont Lane
19	40.00	Fairmont Lane	51	40.00	Fairmont Lane
20	30.00	Fairmont Lane	52	55.15	Fairmont Lane
21	30.00	Fairmont Lane	53	83.76	Cheekwood
22	40.00	Fairmont Lane	54	50.02	Cheekwood
23	25.00	Cheekwood	55	50.00	Cheekwood
24	30.00	Cheekwood	56	50.06	Cheekwood
25	30.00	Cheekwood	57	50.18	Cheekwood



OWNER/DEVELOPER:  
MANGIONE ENTERPRISES OF TURF VALLEY, LP  
1205 YORK ROAD, PENTHOUSE  
LUTHERVILLE, MARYLAND 21093  
410-825-8400

MANHOLE	LOCATION
123	CL STA. 35+15.00 RESORT ROAD OFFSET 10.00' RIGHT
124	CL STA. 36+25.00 RESORT ROAD OFFSET 11.30' RIGHT
125	CL STA. 38+24.35 RESORT ROAD OFFSET 7.00' RIGHT
126	CL STA. 40+48.42 RESORT ROAD OFFSET 7.00' RIGHT
127	CL STA. 24+33.19 FAIRMONT LANE OFFSET 7.00' LEFT
132	CL STA. 3+25.00 CREEKWOOD ROAD OFFSET 7.00' LEFT
133	CL STA. 1+92.38 CREEKWOOD ROAD OFFSET 7.00' LEFT
134	CL STA. 9+58.56 FAIRMONT LANE OFFSET 7.00' LEFT
135	CL STA. 7+89.68 LAGO ROAD OFFSET 7.00' LEFT
136	CL STA. 8+00.00 FAIRMONT LANE OFFSET 7.00' LEFT
137	CL STA. 16+16.71 CREEKWOOD ROAD OFFSET 7.00' LEFT
138	CL STA. 18+10.70 CREEKWOOD ROAD OFFSET 9.86' LEFT
139	CL STA. 6+02.99 FAIRMONT LANE OFFSET 12.49' LEFT
140	CL STA. 7+00.00 FAIRMONT LANE OFFSET 7.00' LEFT
141	CL STA. 5+00.00 FAIRMONT LANE OFFSET 7.00' LEFT
142	CL STA. 4+00.00 FAIRMONT LANE OFFSET 7.00' LEFT

Lot Number	Invert @ main	Invert of standpipe @ main	Invert @ R/W or esmt	MCE	DHC?	Standpipe Length
1	476.39	N/A	477.05	481.95	No	N/A
2	475.97	N/A	476.67	481.57	No	N/A
3	475.64	N/A	476.36	481.28	Yes	N/A
4	475.32	478.32	479.02	483.92	Yes	3.00
5	475.05	479.05	479.77	484.67	Yes	4.00
6	474.75	480.75	481.55	486.45	Yes	6.00
7	480.76	N/A	481.58	486.46	No	N/A
8	481.89	N/A	482.67	487.57	No	N/A
9	482.82	N/A	483.56	488.46	No	N/A
10	483.97	N/A	484.65	489.55	No	N/A
11	483.97	N/A	484.87	489.77	No	N/A
12	482.69	N/A	483.55	488.45	No	N/A
13	482.59	N/A	483.27	488.17	No	N/A
14	482.14	N/A	482.86	487.76	No	N/A
15	481.66	N/A	482.40	487.30	No	N/A
16	481.15	N/A	481.85	486.75	No	N/A
17	476.68	N/A	477.34	482.24	No	N/A
18	477.12	N/A	477.80	482.70	No	N/A
19	477.28	N/A	477.96	482.86	No	N/A
20	477.40	N/A	478.08	482.98	No	N/A
21	477.55	N/A	478.23	483.13	No	N/A
22	477.70	N/A	478.38	483.28	No	N/A
23	476.44	N/A	477.18	482.08	No	N/A
24	476.28	N/A	477.00	481.90	No	N/A
25	476.12	N/A	476.80	481.70	No	N/A
26	475.94	N/A	476.62	481.52	No	N/A
27	475.65	N/A	476.33	481.23	No	N/A
28	475.52	N/A	476.16	481.06	No	N/A
29	475.38	N/A	476.02	480.92	No	N/A
30	474.88	N/A	475.56	480.46	No	N/A

Lot Number	Invert @ main	Invert of standpipe @ main	Invert @ R/W or esmt	MCE	DHC?	Standpipe Length
31	474.73	479.23	479.89	484.79	Yes	4.50
34	476.40	481.90	482.26	487.16	Yes	5.50
35	476.22	482.22	482.60	487.50	Yes	6.00
36	475.91	480.41	480.81	485.71	Yes	4.50
37	475.65	N/A	476.05	480.95	No	N/A
38	475.48	N/A	475.92	480.82	No	N/A
44	473.26	480.76	481.12	486.02	Yes	7.50
45	473.50	481.00	481.36	486.26	Yes	7.50
46	473.76	481.26	481.66	486.56	Yes	7.50
47	474.15	482.65	483.03	487.93	Yes	8.50
48	474.33	481.83	482.23	487.13	Yes	7.50
49	476.39	N/A	476.89	481.79	No	N/A
50	475.90	N/A	476.27	481.17	No	N/A
51	475.59	N/A	475.96	480.86	No	N/A
52	475.40	N/A	475.80	480.70	No	N/A
53	473.36	480.36	481.08	485.98	Yes	7.00
54	473.11	480.61	481.31	486.21	Yes	7.50
55	472.87	480.87	481.57	486.47	Yes	8.00
56	472.56	479.06	479.82	484.72	Yes	6.50
57	472.31	478.31	479.08	483.98	Yes	6.00
127	483.19	N/A	483.58	487.28	No	N/A
153	482.82	N/A	483.24	486.94	No	N/A
154	482.66	N/A	483.11	486.81	No	N/A
155	482.50	N/A	482.97	486.67	No	N/A
156	482.34	N/A	482.82	486.52	No	N/A
157	482.22	N/A	482.69	486.39	No	N/A
158	482.07	N/A	482.50	486.20	No	N/A
159	481.91	N/A	482.30	486.00	No	N/A
160	481.75	N/A	482.10	485.80	No	N/A

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PLANNING AND ZONING  
HOWARD COUNTY, MARYLAND

**BENCHMARK**  
ENGINEERS & LAND SURVEYORS & PLANNERS  
**ENGINEERING, INC.**  
8480 BALTIMORE NATIONAL PIKE & SUITE 418 & ELLICOTT CITY, MARYLAND 21043  
(P) 410-485-8105 (F) 410-485-8844  
60 THOMAS JOHNSON DRIVE & FREDERICK, MARYLAND 21702  
(P) 301-371-3005 (F) 301-371-3008  
WWW.BE-COMENGINEERING.COM

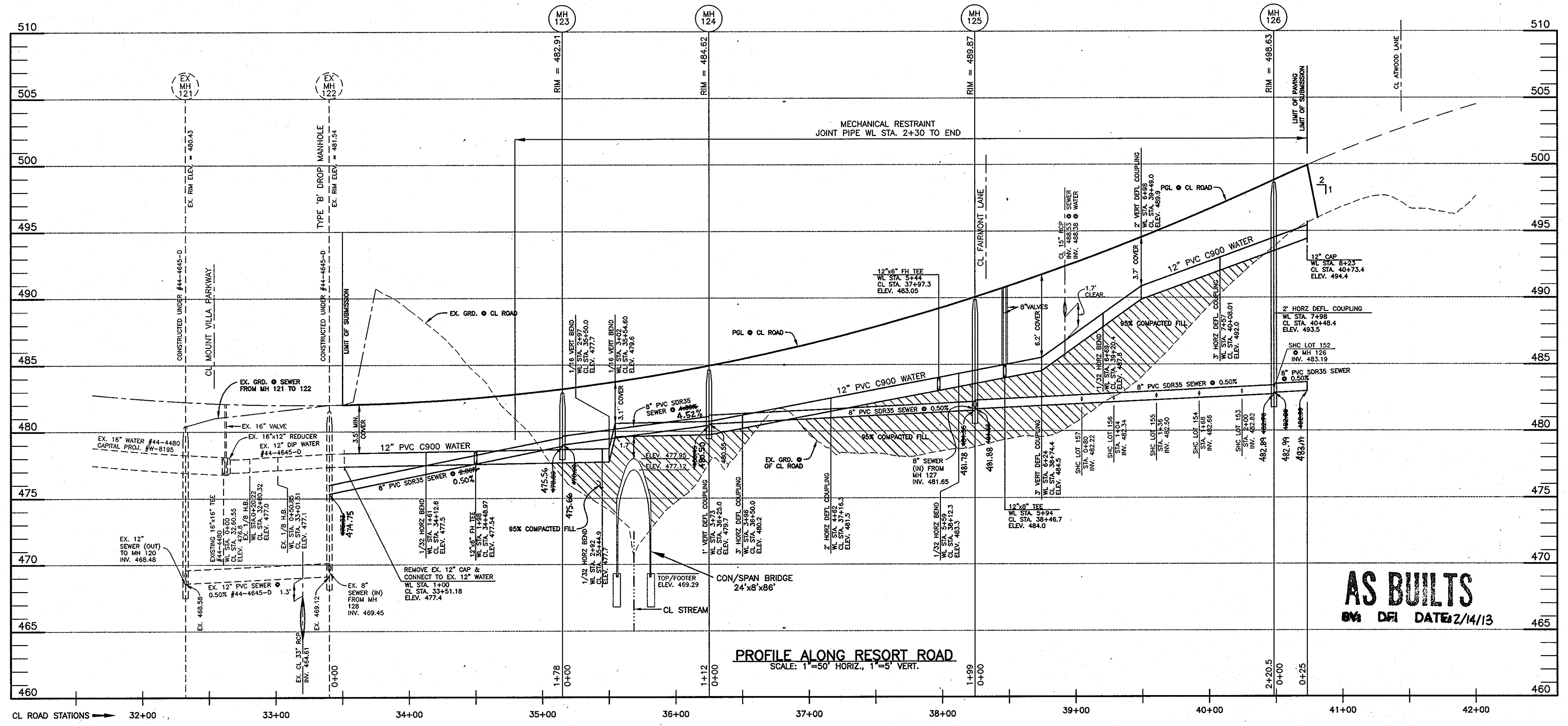
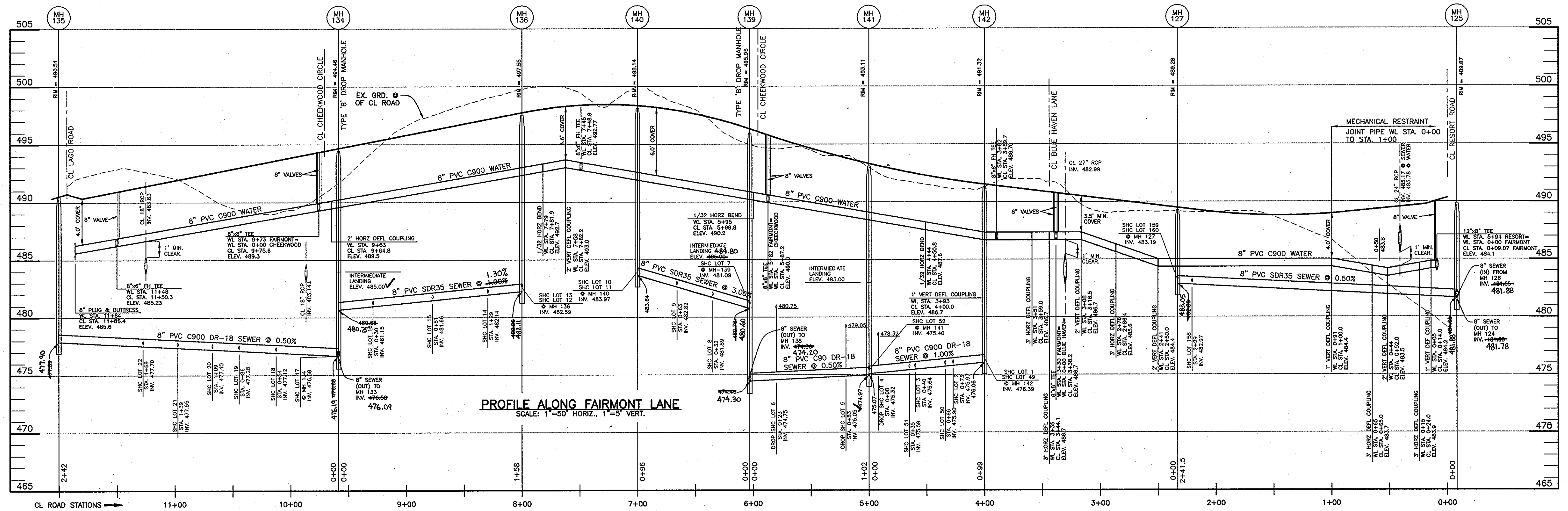


DESIGN:	DBT
DRAFT:	DBT
CHK:	DAM
DATE:	10/2009
BY:	NO.
REVISIONS:	
DATE:	6-21-2012

PROFILE VIEW  
PUBLIC WATER & SEWER MAINS  
600 SCALE MAP NO. 16 BLOCK: 11 200 SCALE MAP NO. 146

VILLAGES AT TURF VALLEY  
PHASE 1 SECTION 2  
LOTS 1 thru 62, OPEN SPACE LOTS 63 thru 66  
GOLF SPACE LOT 67, NON-BUILDABLE BULK PARCELS AA & BB  
TAX MAP: 16 - BLOCK: 17 - PARCEL: P/O 8 - ZONED: PGCC - ELECTION DISTRICT: 3  
**CONTRACT NO. 24-4522-D**

SCALE:  
1" = 50'  
SHEET NO.  
3 OF 5



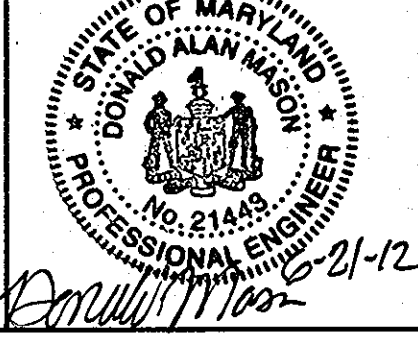
**AS BUILT**  
DATE 2/14/13

OWNER/DEVELOPER:  
MANGIONE ENTERPRISES OF TURF VALLEY, LP  
1205 YORK ROAD, PENTHOUSE  
LUTHERVILLE, MARYLAND 21093  
410-825-8400

DEPARTMENT OF PLANNING AND ZONING  
HOWARD COUNTY, MARYLAND

*[Signature]* 7/1/12  
CHIEF, DEVELOPMENT ENGINEERING DIVISION

**BENCHMARK**  
ENGINEERS & LAND SURVEYORS & PLANNERS  
ENGINEERING, INC.  
8490 BALTIMORE NATIONAL PIKE SUITE 418 & ELLICOTT CITY, MARYLAND 21043  
(P) 410-465-8105 (F) 410-465-8644  
60 THOMAS JOHNSON DRIVE & FREDERICK, MARYLAND 21702  
(P) 301-371-3005 (F) 301-371-3009  
WWW.BEI-CIVLENGINEERING.COM

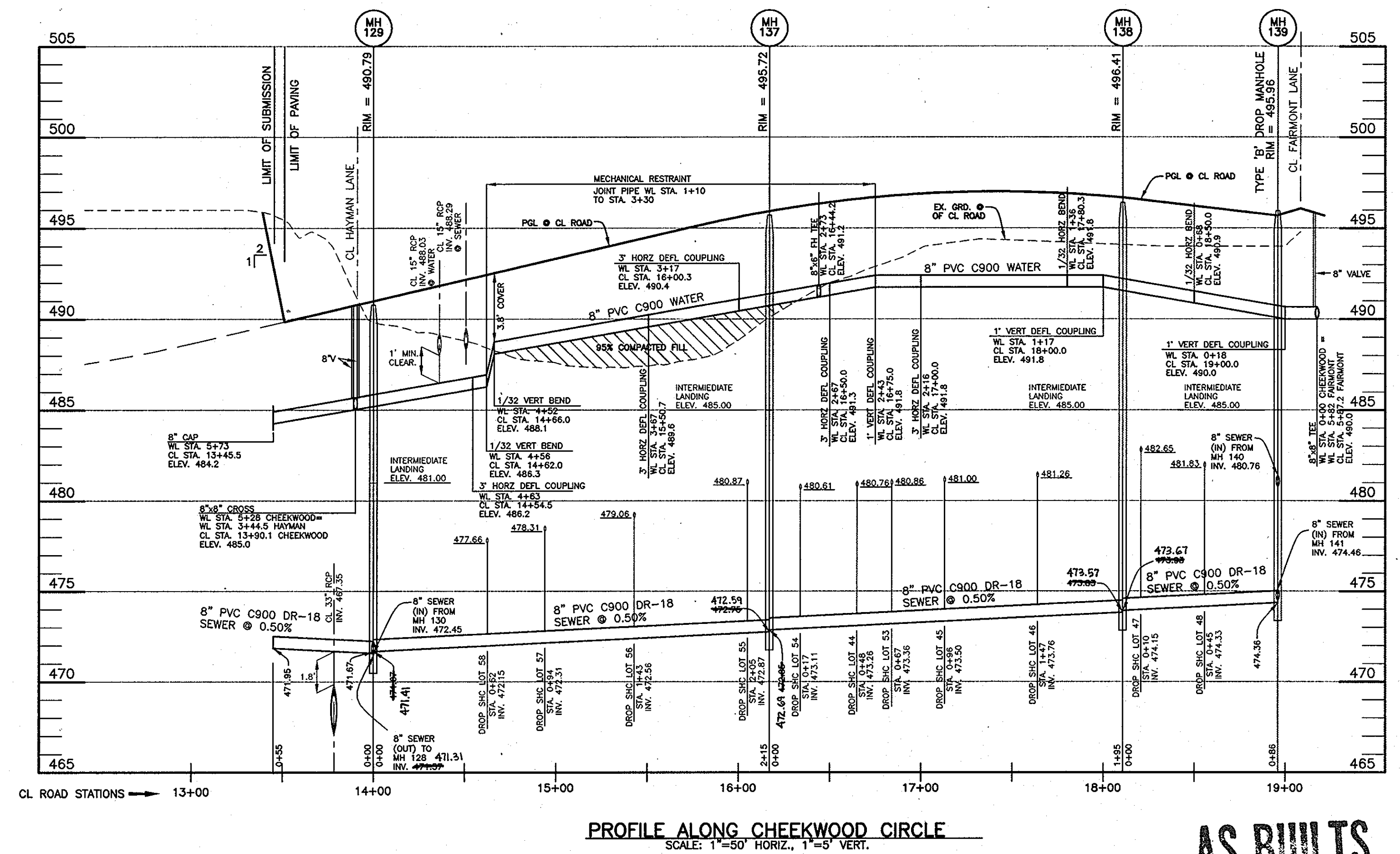
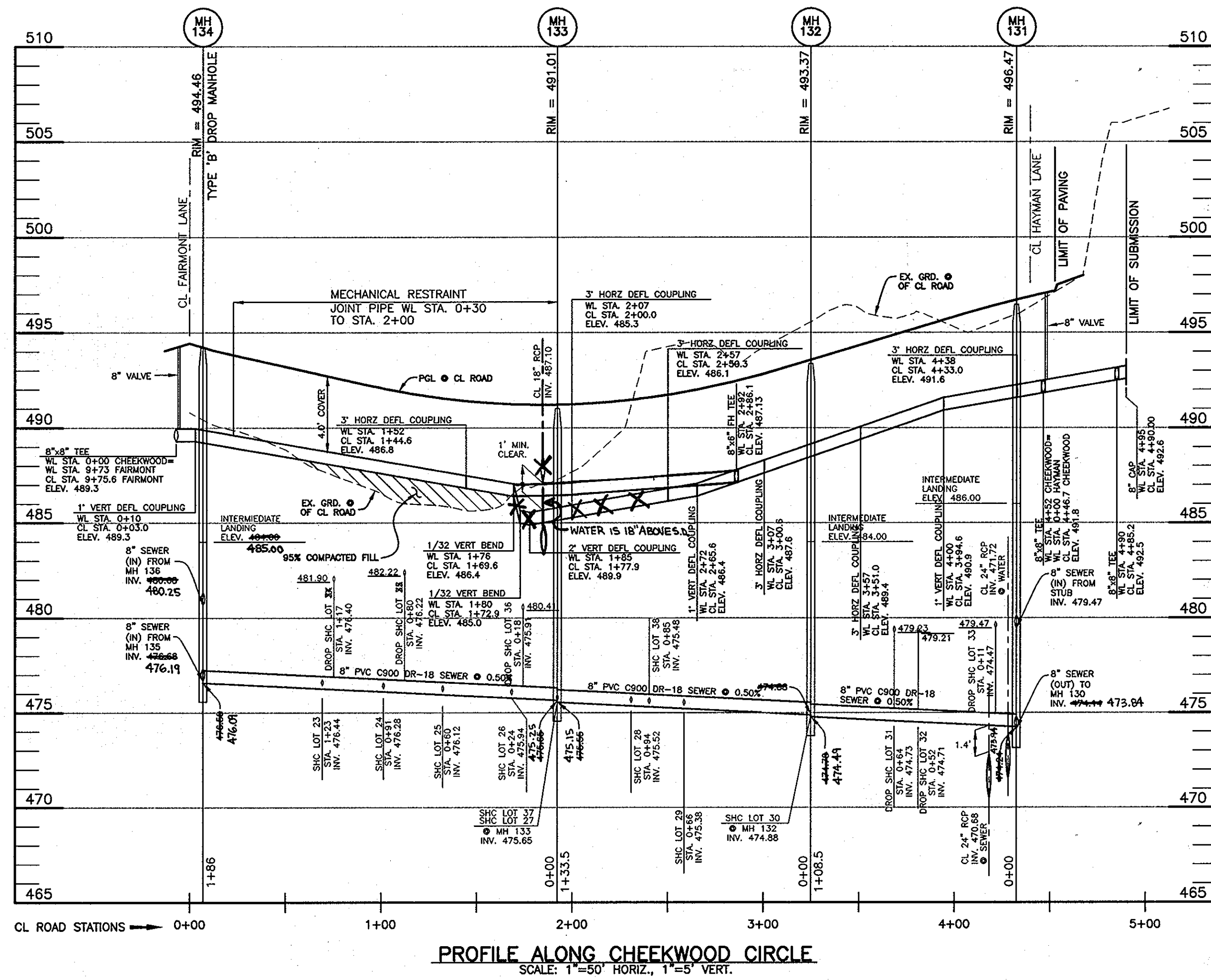
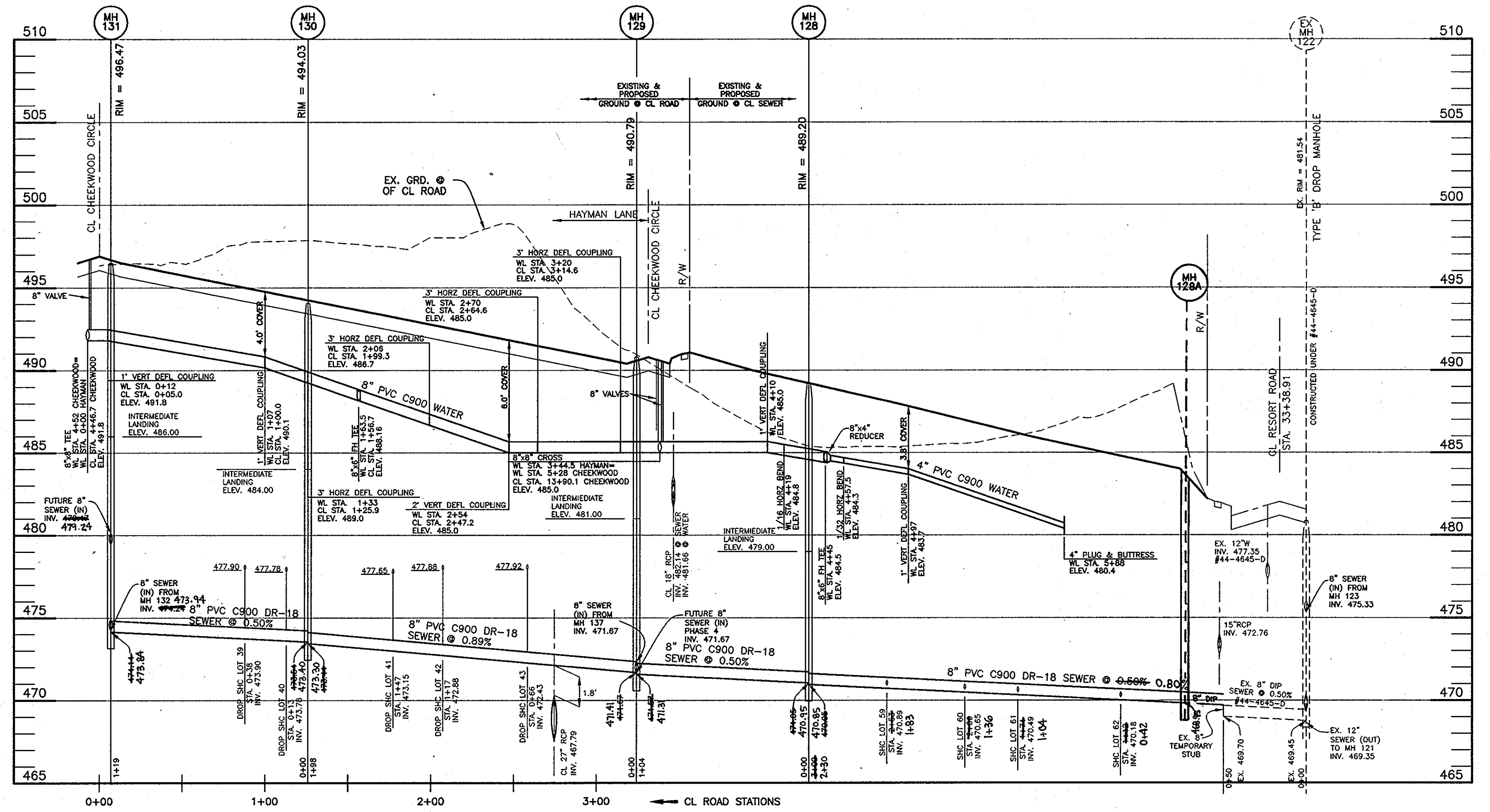
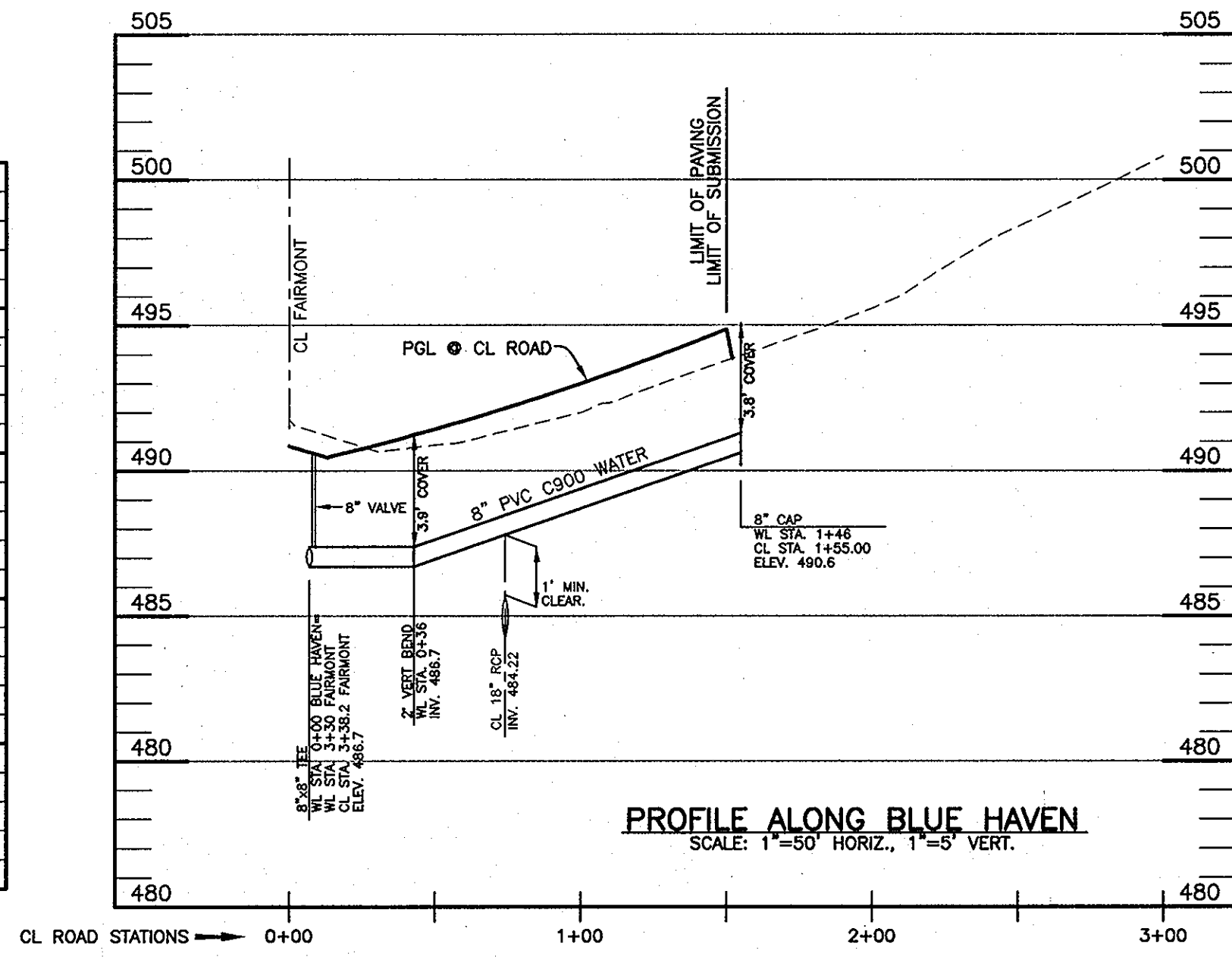
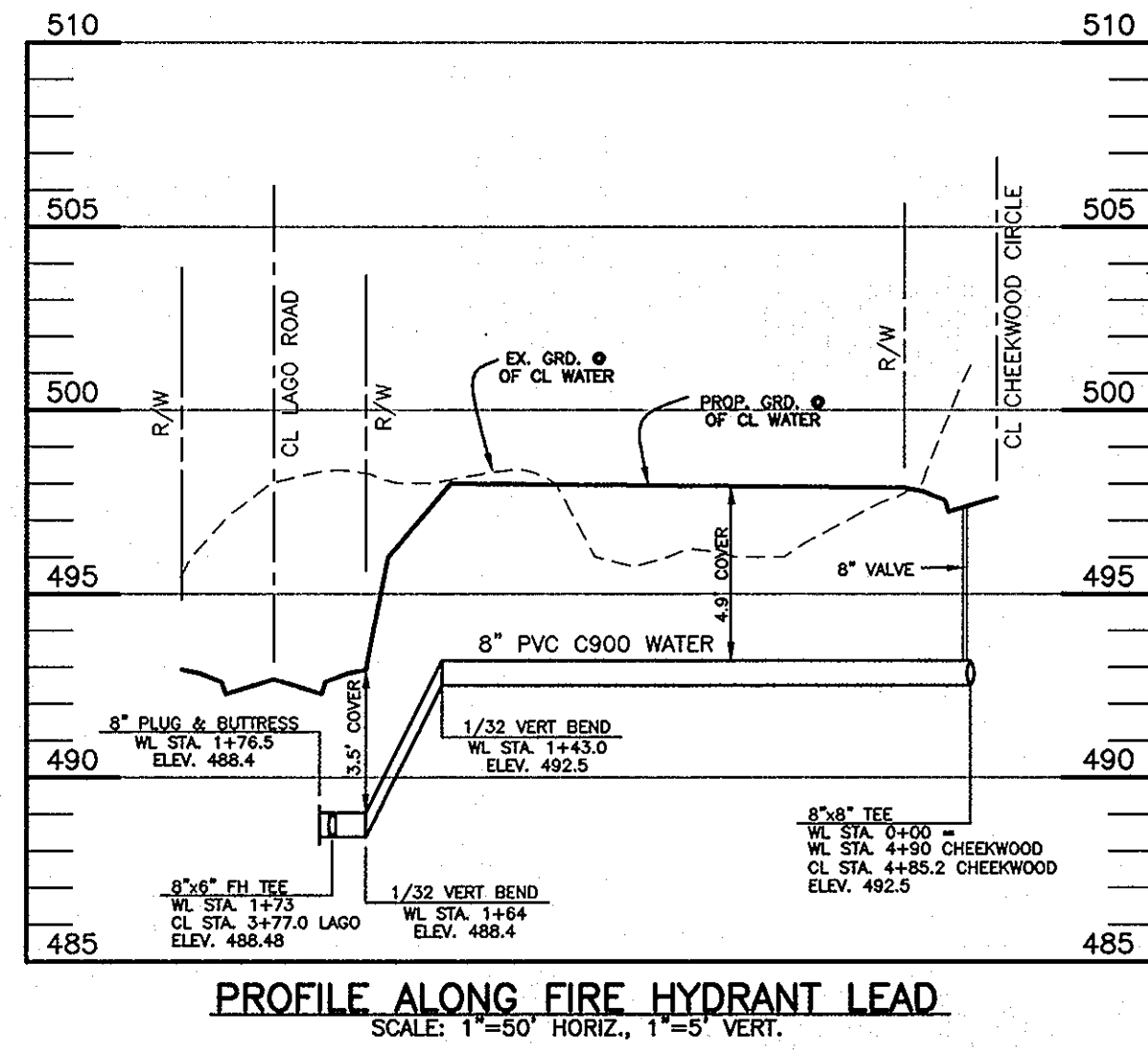


DESIGN: DBT	
DRAFT: DBT	
CHK: DAM	
DATE: 10/2009	
BY: BEI 1	REVISIONS
NO.	DATE
	6-21-2012
	REVISE WATER AND SEWER TO BE PVC. ADJUST SHC'S BASED ON REVISED LOT LAYOUT

600 SCALE MAP NO. 16 BLOCK: 11 200 SCALE MAP NO. 146

**VILLAGES AT TURF VALLEY**  
PHASE 1 SECTION 2  
LOTS 1 thru 62, OPEN SPACE LOTS 63 thru 66  
GOLF SPACE LOT 67, NON-BUILDABLE BULK PARCELS AA & BB  
TAX MAP: 16 - BLOCK: 17 - PARCEL: P/O 8 - ZONED: PGCC - ELECTION DISTRICT: 3  
**CONTRACT NO. 24-4522-D**

SCALE:  
AS SHOWN  
SHEET NO.  
4 OF 5



OWNER/DEVELOPER:  
MANGIONE ENTERPRISES OF TURF VALLEY, LP  
1205 YORK ROAD, PENTHOUSE  
LUTHERVILLE, MARYLAND 21093  
410-825-8400

PROFILE ALONG CHEEKWOOD CIRCLE  
SCALE: 1"=50' HORIZ., 1"=5' VERT.

PROFILE ALONG CHEEKWOOD CIRCLE  
SCALE: 1"=50' HORIZ., 1"=5' VERT.

**AS BUILT**  
BY: DFI DATE: 2/14/13

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PLANNING AND ZONING  
HOWARD COUNTY, MARYLAND

**BENCHMARK**  
ENGINEERS & LAND SURVEYORS & PLANNERS  
**ENGINEERING, INC.**

8400 BALTIMORE NATIONAL PIKE & SUITE 418 • ELLOTT CITY, MARYLAND 21043  
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60 THOMAS JOHNSON DRIVE • FREDERICK, MARYLAND 21702  
(F) 301-371-3505 (F) 301-371-3506  
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DESIGN: DBT  
DRAFT: DBT  
CHK: DAM  
DATE: 10/2009

BY	NO.	REVISIONS	DATE
BEI	1	REVISE WATER AND SEWER TO BE PVC. ADJUST SHC'S BASED ON REVISED LOT LAYOUT	6-21-2012

PROFILE VIEW  
PUBLIC WATER & SEWER MAINS

VILLAGES AT TURF VALLEY  
PHASE 1 SECTION 2  
LOTS 1 THRU 62, OPEN SPACE LOTS 63 THRU 66  
GOLF SPACE LOT 67, NON-BUILDABLE BULK PARCELS AA & BB  
TAX MAP: 16 - BLOCK: 17 - PARCEL: P/O 8 - ZONED: PGCC - ELECTION DISTRICT: 3  
**CONTRACT NO. 24-4522-D**

SCALE:  
AS SHOWN  
SHEET NO.  
5 OF 5

ASBUILT UTILITY LOCATION CHART - WHC				
LOTS	FROM	TO	DISTANCE	REMARKS
1	WHC	MH 142	39.00'	
	WHC	MH 142	53.00'	
3	WHC	MH 141	46.00'	
4	WHC	MH 141	36.00'	
5	WHC	MH 141	49.00'	
6	WHC	MH 139	56.00'	
7	WHC	MH 139	44.00'	
8	WHC	MH 139	66.00'	
9	WHC	MH 139	92.00'	
10	WHC	MH 140	38.00'	
11	WHC	MH 140	65.00'	
12	WHC	MH 136	54.00'	
13	WHC	MH 136	42.00'	
14	WHC	MH 136	68.00'	
15	WHC	MH 136	77.00'	
16	WHC	MH 134	56.00'	
17	WHC	MH 134	38.00'	
18	WHC	MH 134	43.00'	
19	WHC	MH 134	66.00'	
20	WHC	MH 134	107.00'	
21	WHC	SD INLET 6'X3'	66.00'	
22	WHC	SD INLET 6'X3'	46.00'	
23	WHC	MH 134	58.00'	
24	WHC	MH 134	83.00'	
25	WHC	MH 133	89.00'	
26	WHC	MH 133	61.00'	
27	WHC	MH 133	38.00'	
28	WHC	MH 133	62.00'	
29	WHC	MH 132	44.00'	
30	WHC	MH 132	36.00'	
31	WHC	MH 132	45.00'	
32	WHC	MH 131	52.00'	
33	WHC	MH 131	39.00'	
34	WHC	MH 134	50.00'	
35	WHC	MH 134	92.00'	
36	WHC	MH 133	38.00'	
37	WHC	MH 133	31.00'	
38	WHC	MH 133	53.00'	
39	WHC	MH 130	51.00'	
40	WHC	MH 130	31.00'	
41	WHC	MH 130	34.00'	
42	WHC	MH 130	78.00'	
43	WHC	MH 129	81.00'	
44	WHC	MH 137	59.00'	
45	WHC	MH 137	106.00'	
46	WHC	MH 138	59.00'	
47	WHC	MH 138	20.00'	
48	WHC	MH 138	44.00'	
49	WHC	MH 142	35.00'	
50	WHC	MH 142	44.00'	
51	WHC	MH 141	27.00'	
52	WHC	MH 141	41.00'	
53	WHC	MH 137	106.00'	
54	WHC	MH 137	57.00'	
55	WHC	MH 137	35.00'	
56	WHC	MH 137	65.00'	
57	WHC	MH 137	110.00'	
58	WHC	MH 129	81.00'	
59	WHC	MH 128	24.00'	
60	WHC	MH 128	74.00'	
61	WHC	MH 128 A	86.00'	
62	WHC	MH 128 A	77.00'	
152	WHC	MH 126	42.00'	
153	WHC	MH 126	42.00'	
154	WHC	MH 126	61.00'	
155	WHC	MH 126	87.00'	
156	WHC	SD INLET	75.00'	
157	WHC	SD INLET	61.00'	
158	WHC	MH 127	43.00'	
159	WHC	MH 127	37.00'	
160	WHC	MH 127	62.00'	

ASBUILT UTILITY LOCATION CHART - SHC				
LOTS	FROM	TO	DISTANCE	REMARKS
1	SHC	MH 142	32.00'	
2	SHC	MH 142	47.00'	
3	SHC	MH 141	54.00'	
4	SHC	MH 141	37.00'	
5	SHC	MH 141	40.00'	
6	SHC	MH 139	45.00'	
7	SHC	MH 139	43.00'	
8	SHC	MH 139	52.00'	
9	SHC	MH 139	76.00'	
10	SHC	MH 140	37.00'	
11	SHC	MH 140	47.00'	
12	SHC	MH 136	48.00'	
13	SHC	MH 136	36.00'	
14	SHC	MH 136	46.00'	
15	SHC	MH 136	86.00'	
16	SHC	MH 134	50.00'	
17	SHC	MH 134	37.00'	
18	SHC	MH 134	51.00'	
19	SHC	MH 134	84.00'	
20	SHC	MH 134	117.00'	
21	SHC	SD INLET 6'X3'	60.00'	
22	SHC	SD INLET 6'X3'	47.00'	
23	SHC	MH 134	73.00'	
24	SHC	MH 134	101.00'	
25	SHC	MH 133	72.00'	
26	SHC	MH 133	41.00'	
27	SHC	MH 133	34.00'	
28	SHC	MH 133	49.00'	
29	SHC	MH 132	73.00'	
30	SHC	MH 132	34.00'	
31	SHC	MH 132	58.00'	
32	SHC	MH 131	62.00'	
33	SHC	MH 131	34.00'	
34	SHC	MH 134	70.00'	
35	SHC	MH 134	107.00'	
36	SHC	MH 133	32.00'	
37	SHC	MH 133	22.00'	
38	SHC	MH 133	84.00'	
39	SHC	MH 130	41.00'	
40	SHC	MH 130	26.00'	
41	SHC	MH 130	60.00'	
42	SHC	MH 130	87.00'	
43	SHC	MH 129	70.00'	
44	SHC	MH 137	51.00'	
45	SHC	MH 137	95.00'	
46	SHC	MH 138	49.00'	
47	SHC	MH 138	23.00'	
48	SHC	MH 138	53.00'	
49	SHC	MH 142	28.00'	
50	SHC	MH 142	28.00'	
51	SHC	MH 141	41.00'	
52	SHC	MH 141	23.00'	
53	SHC	MH 137	75.00'	
54	SHC	MH 137	41.00'	
55	SHC	MH 137	37.00'	
56	SHC	MH 137	85.00'	
57	SHC	MH 137	129.00'	
58	SHC	MH 129	74.00'	
59	SHC	MH 128	46.00'	
60	SHC	MH 128	92.00'	
61	SHC	MH 128 A	104.00'	
62	SHC	MH 128 A	46.00'	
152	SHC	MH 126	41.00'	
153	SHC	MH 126	46.00'	
154	SHC	MH 126	70.00'	
155	SHC	MH 126	98.00'	
156	SHC	SD INLET	69.00'	
157	SHC	SD INLET	56.00'	
158	SHC	MH 127	41.00'	
159	SHC	MH 127	41.00'	
160	SHC	MH 127	55.00'	

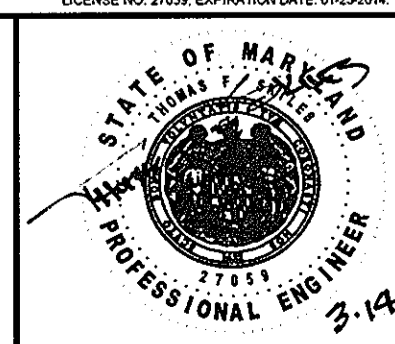
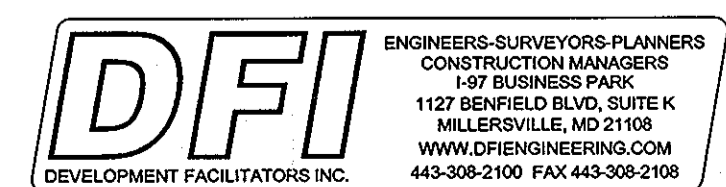
\*NOTE: THIS SHEET HAS BEEN ADDED FOR ASBUILT PURPOSES ONLY. IT IS NOT PART OF THE ORIGINAL PLAN SET.

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MD

DEPARTMENT OF PLANNING AND ZONING  
HOWARD COUNTY, MD

CHIEF, BUREAU OF UTILITIES DATE

CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE



DESIGN:					
DRAFT:					
CHK:					
DATE:					
BY:					
NO.					
REVISIONS					
DATE					
600 SCALE MAP NO. 16	BLOCK: 11	200 SCALE MAP NO. 146			

AS-BUILT UTILITY LOCATIONS

VILLAGES AT TURF VALLEY  
PHASE 1 SECTION 2  
LOTS 1 thru 62, OPEN SPACE LOTS 63 thru 66  
GOLF SPACE LOT 67, NON-BUILDABLE BULK PARCELS AA & BB  
TAX MAP: 16 - BLOCK: 17 - PARCEL: P/O 8 - ZONED: PGCC - ELECTION DISTRICT: 3  
**CONTRACT NO. 24-4522-D**

SCALE:  
AS SHOWN

SHEET NO.  
5A OF 5