

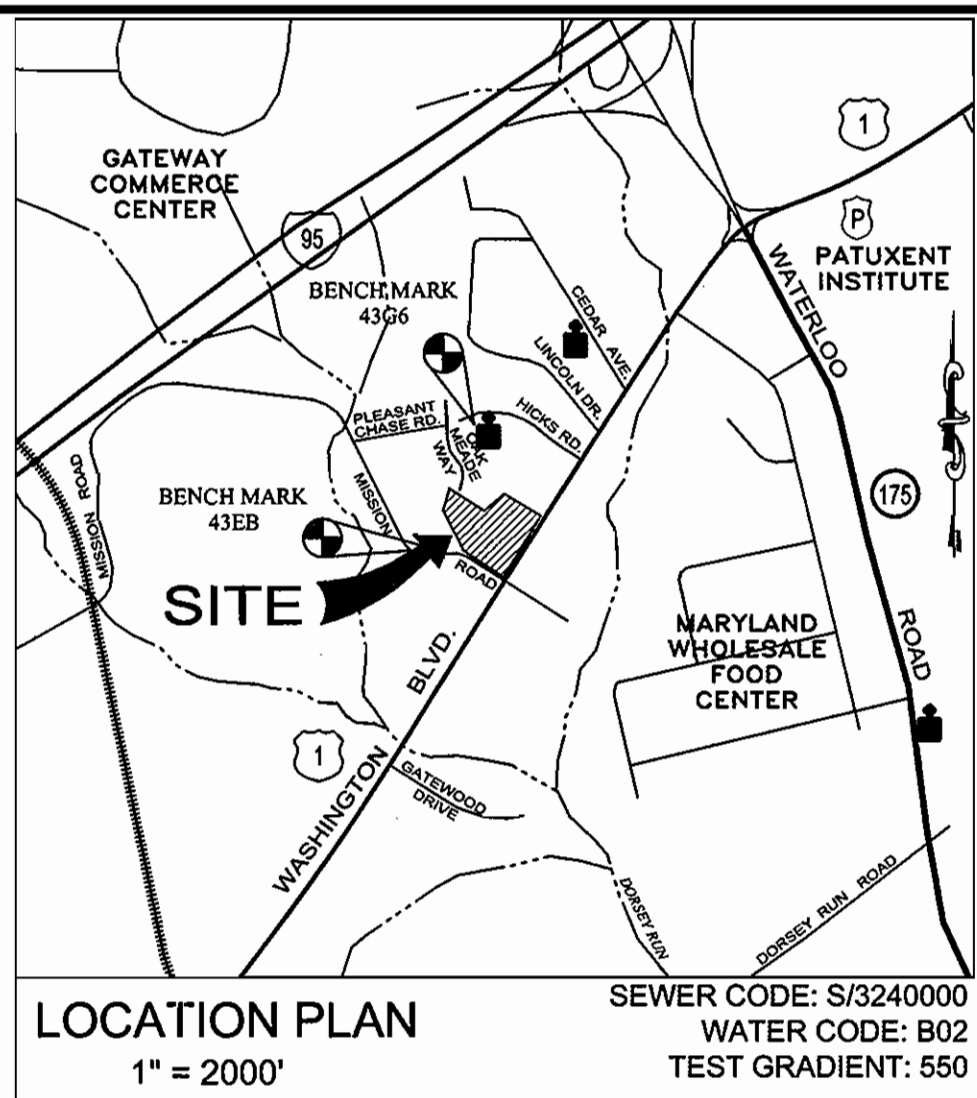
PUBLIC WATER & SEWER PLAN MISSION PLACE

6th ELECTION DISTRICT HOWARD COUNTY, MARYLAND

BENCH MARKS

CONTROL STATION 43G6
ELEVATION 220.11
N 544,117.545
E 1,370,550.825
LOCATED NEAR THE
ENTRANCE TO TRAILER
PARK, 68.8' SOUTH FROM
FIRE HYDRANT

CONTROL STATION 43EB
ELEVATION 216.99
N 545,963.658
E 1,371,573.830
LOCATED 78' NORTH OF
HICKS ROAD.



LOCATION PLAN
1" = 2000'

SEWER CODE: S/3240000
WATER CODE: B02
TEST GRADIENT: 550

ADC STREET MAP # 20, GRID G-2 & G-3

SITE DATA

- LOCATION: TAX MAP 43, GRID 14, PARCELS 214, 521, 446, 447 and 525
- 6TH ELECTION DISTRICT
- ZONING: CAC-CL1
- WATERSHED: DORSEY RUN, STREAM USE-1
- NUMBER OF DWELLING UNITS PROPOSED: 225
- DENSITY CALCULATION:
GROSS AREA OF PROJECT: 16.6255Ac
100 YEAR FLOOD PLAIN: 0.1349 Ac
NET TRACT AREA: 16.4906 Ac
ALLOWED DENSITY = (16.4906 x 250) / NET AC = 412 DU
PROPOSED DENSITY = (22.1945 DU) / NET AC = 366 DU
- THE DENSITY CALCULATION INCLUDES THE LAND AREA OF PARCEL B. NO RESIDENTIAL DEVELOPMENT WILL OCCUR ON PARCEL B.
- AREA OF PROPOSED HOWARD COUNTY PUBLIC ROAD DEDICATION: 0.1700 Ac
- AREA OF PROPOSED MSHA PUBLIC ROAD DEDICATION: 0.6818 Ac
- AREA OF PROPOSED RESIDENTIAL CONDO PARCEL 'A': 7.1860 Ac
- AREA OF PROPOSED RESIDENTIAL APARTMENT PARCEL 'C': 6.5829Ac
- AREA OF PROPOSED OFFICE/COMMERCIAL USE ON PARCEL 'C': 25,035 SQ FT
- AREA OF PROPOSED OFFICE/COMMERCIAL PARCEL 'B' (PHASE 2): 2,024Ac
- AREA OF PROPOSED OFFICE/COMMERCIAL USE ON PARCEL 'B' (PHASE 2): 64,000 SQ FT
- NO MINIMUM OPEN SPACE OR RECREATION OPEN SPACE REQUIRED IN CAC-CL1 ZONE PER ZONING ORDINANCE. THE RTE 1 MANUAL REQUIRES 10% OF THE NET SITE AREA BE PROVIDED AS PEDESTRIAN AMENITY AREAS
- ALL COMMUNITY OPEN SPACES WILL BE ACCESSIBLE TO ALL RESIDENTS OF THE COMMUNITY. SITE AMENITY AREAS ARE DESIGNED IN ACCORDANCE WITH ALL APPLICABLE ADA STANDARDS.
- SEE CALCULATION ON SHEET 6 FOR LISTING OF SITE AMENITIES.

- #### GENERAL NOTES
- ALL EXISTING UTILITIES, PAVEMENT, STRUCTURES, AND VEGETATION ON-SITE WITHIN THE PROPOSED LIMITS OF CONSTRUCTION WILL BE DEMOLISHED AND REMOVED. AN EXISTING OVERHEAD ELECTRIC LINE RUNS OVER AND IN THE VICINITY OF THE WATER & SEWER LINES ON-SITE TO BE ABANDONED, AND CARE WILL BE TAKEN TO AVOID CONFLICT DURING CONSTRUCTION.
 - ALL EXISTING WATER AND SEWER CONNECTIONS ON-SITE HAVE BEEN PREVIOUSLY ABANDONED AND REMOVED. NEW SERVICE CONNECTIONS WILL BE ADDED IN ACCORDANCE WITH THIS PLAN.

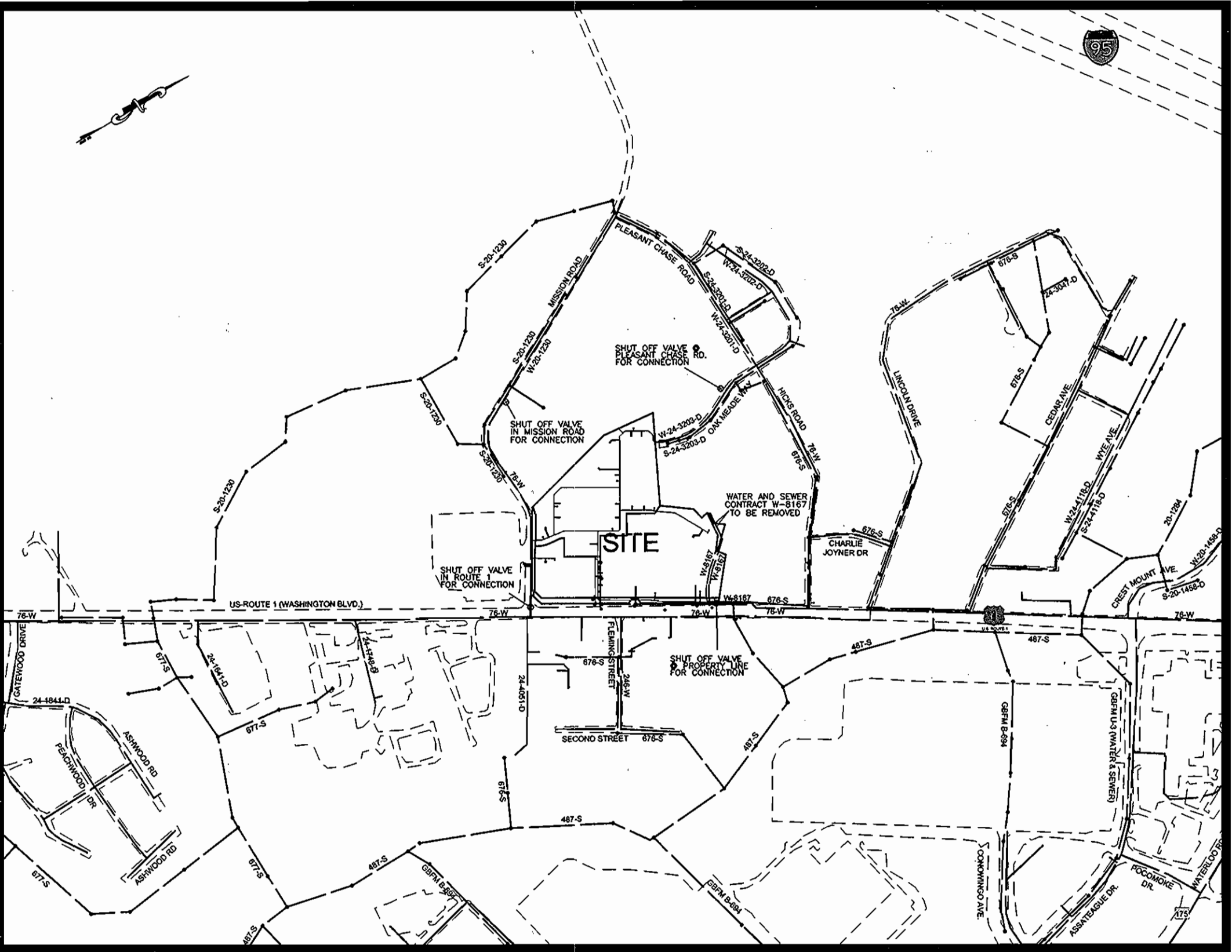
WATER DEMAND AVERAGE FLOWS

1) 104 RESIDENTIAL TOWNHOUSE CONDOMINIUMS (PARCEL 'A'):	
104 x 230 =	23,920 GPD
2) 262 RESIDENTIAL APARTMENTS (PARCEL 'C'):	
262 x 225 =	58,950 GPD
3) 64,000 SQ FT OFFICE/COMMERCIAL (PARCEL 'B'):	
64,000 x 0.134 =	8,576 GPD
4) 89,035 SQ FT RETAIL SPACE (PARCEL 'C'):	
89,035 x 0.048 =	4,274 GPD
5) SWIMMING POOL WITH SHOWER (PARCEL 'C'):	
200 MEMBERS x 6 =	1,200 GPD
TOTAL WATER DEMAND =	96,920 GPD

SHEET INDEX

- COVER SHEET
- 3- WATER AND SEWER PLAN
4. PUBLIC SEWER PROFILE
- 5-7. PUBLIC WATER PROFILES
8. DETAILS AND SPECIFICATION
- 9-11. CORROSION CONTROL LAYOUT

VICINITY MAP



SCALE: 1" = 600'
600 SCALE MAP # 2243

ADDRESS CHART

PARCEL NO.	ADDRESS
METER RM	8158 MISSION ROAD
METER RM	8122 MISSION HILL PLACE
METER RM	8157 MISSION HILL PLACE
METER RM	8107 MISSION HILL PLACE
METER RM	8208 MORRIS PLACE
METER RM	8280 MORRIS PLACE
METER RM	8263 MACINTOSH COURT
METER RM	8239 MACINTOSH COURT
METER RM	8329 STICKLEY COURT
METER RM	8328 STICKLEY COURT
METER RM	8308 STICKLEY COURT
METER RM	8008 WRIGHT PLACE
METER RM	8046 WRIGHT PLACE
PARCEL C: APARTMENTS & COMMERCIAL	
METER RM	8168
METER RM	8166

TYPE OF BUILDING	COMMERCIAL/RESIDENTIAL
No. OF LOTS/PARCELS/UNITS:	3 PARCELS/366 UNITS
No. OF WATER HOUSE CONNECTIONS	16
No. OF SEWER HOUSE CONNECTIONS:	17
AREA OF COMMERCIAL LOT/PARCEL:	2.025 Ac
SEWER SHED:	DORSEY RUN
PUMPING STATION:	LITTLE PATUXENT

PUBLIC QUANTITIES

ITEMS	QUANTITIES ESTIMATED	AS-BUILT		
		QUANTITIES	TYPE	MANUFACTURERS /SUPPLIER
8" WATER MAIN	3,301 LF	3,301 LF	DR-18 PVC	J MEAGLE/
6" WHC	45.53 LF	40 LF	DR-18 PVC	J MEAGLE/
FIRE HYDRANTS	11 EA	11 EA	FH	AMERICAN FLOW
6" F.H. CONN.	286.52 LF	260 LF	CL-54 DIP	GRIFFIN/
8" VALVES	11 EA	13 EA.	KENNEDY GATE	KENNEDY/
6" VALVES	24 EA	24 EA.	GATE VALVES	KENNEDY/
8"x8" T	6 EA	7 EA.	DIP TYLER	GRIFFIN/
8"x8" T	27 EA	27 EA.	DIP TYLER	GRIFFIN/
8"x8" TS&Vs	2	2 EA.	SS TAPPING/SLEV.	FORD/
8" 1/4 BEND	4 EA	4 EA.	DIP TYLER	GRIFFIN/
8" 1/2 BEND	9 EA	9 EA.	DIP TYLER	GRIFFIN/
8" SEWER	406.29 LF	406 LF	SDR-35 PVC	J MEAGLE/
6" SHC	363.23 LF	363 LF	SDR-35 PVC	J MEAGLE/
MANHOLES	7 EA	7 EA.	5" CONCRETE	CONTR. PREC.T. CORP.

NAME OF UTILITY CONTRACTOR: **W. GAINES**
SURVEY AND DRAFTING DIVISION AS-BUILT DATE: **APRIL 2009**

LEGEND:

EXISTING	PROPOSED
8" SAN (676-51)	8" SAN (PRIVATE)
12" WATER (76 W)	WATER LINE, METER, VALVE & HYDRANT
24" STORM	W&S CONNECTIONS
	BEND STRUCTURE
	STORM DRAIN
	LOT LINE
	TREE LINE
	FENCE
	LIMITS OF DISTURB.
	BUILDING
	CURB
	EDGE OF PAVEMENT
	SIDEWALK
	150 WATT POST-TYPE PRIVATE STREET LIGHT
	150 WATT POST-TYPE PUBLIC STREET LIGHT
	SUPER SILT FENCE
	FIRE HYDRANT

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.
 - TOPOGRAPHIC FIELD SURVEYS WERE PERFORMED ON JULY 7, 2004 BY DEWBERRY & DAVIS, LLC.
 - THE COORDINATES SHOWN ON THE DRAWINGS ARE BASED ON MARYLAND STATE REFERENCE SYSTEM NAD 83/91 AS PROJECTED BY HOWARD COUNTY GEODETIC CONTROL STATIONS NOS. 43EB & 43G6.
 - ALL VERTICAL CONTROLS ARE BASED ON NAVD 88. VERTICAL CONTROLS PROVIDED ON THE DRAWINGS ARE EXISTING FIRE HYDRANT BONNET BOLTS AS SHOWN.
 - 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 THEIR OWNER FOR BRACING OF ADDITIONAL POLES OR DAMAGES SHALL BE DEDUCTED FROM MONIES OWED BY THE CONTRACTOR. THE CONTRACTOR SHALL COORDINATE WITH THE UTILITY COMPANIES TO SCHEDULE THE BRACING OF POLES.
 - FOR DETAILS NOT SHOWN ON THE DRAWINGS, 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 SHALL BE 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.....1,800.252.1133
BGE (CONSTRUCTION SERVICES).....410.850.4620
BGE (EMERGENCY).....410.865.1400
BUREAU OF UTILITIES.....410.313.4900
COLONIAL PIPELINE COMPANY.....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 HIGHWAY, HOWARD COUNTY, AT 410.3137450 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 NOT CONSTITUTE COMPLIANCE WITH DPW REQUIREMENTS PER SECTION 18.114(a) OF THE HOWARD COUNTY CODE.

- PART II**
- ALL WATER MAINS TO BE C-900 PVC PIPE WITH CATHODIC PROTECTION AT ALL METALLIC FITTINGS 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 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 SYSTEM.
 - ALL WATER HOUSE CONNECTION SHALL BE FOR INSIDE METER SETTING UNLESS OTHERWISE NOTED ON PLANS OR IN SPECIFICATIONS.
 - FOR SPRINKLER SYSTEM FOR ALL TOWN HOMES OR MULTIFAMILY DWELLING UNITS SHOULD HAVE A MINIMUM OF 1" CONNECTION WITH A 3/4" METER.

- PART III**
- ALL SEWER MAINS SHALL BE SEWER P.V.C. SDR-35 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 18" 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 SYMBOL "C.N.S." INDICATES THAT THE CELLAR CANNOT BE SERVED.

AS BUILT
DATE: **APRIL 2009**

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. 18095
EXPIRATION DATE: 12/21/08

OWNER/DEVELOPER CONTACT:
MATTHEW BITAR
THE DOLBEN COMPANY, INC
2600 MIDWAY BRANCH DRIVE
SECOND FLOOR
ODENTON, MD 21113
301.912.3600
301.912.3400

PARCEL 214 (8170 WASHINGTON BLVD)
L. 5904 F. 584
PARCEL 521 (8142 WASHINGTON BLVD)
L. 607 F. 255
PARCEL 446 (8112 WASHINGTON BLVD)
L. 1198 F. 646
PARCEL 447 (8110 WASHINGTON BLVD)
L. 3789 F. 583
PARCEL 525 (8126 WASHINGTON BLVD)
L. 4750 F. 433

HOWARD SOIL CONSERVATION DISTRICT:
REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

U.S.D.A.-NATURAL RESOURCES CONSERVATION SERVICE

[Signature] DATE

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

[Signature] DATE

SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE HOWARD COUNTY STANDARDS AND SPECIFICATIONS AND PER ROAD CONSTRUCTION PLANS. **SDP-07-111**

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

[Signature] DATE

CHIEF, BUREAU OF UTILITIES

Dewberry

203 PERRY PARKWAY, SUITE 1
GAITHERSBURG, MARYLAND 20877
PHONE: 301.948.8300
FAX: 301.258.7807

DEVELOPER CONTACT:
MATTHEW BITAR
THE DOLBEN COMPANY, INC
2600 MIDWAY BRANCH DRIVE
SECOND FLOOR
ODENTON, MD 21113
301.912.3600
301.912.3400

DES.: SR
DRN.: SR
CHK.: JMC
DATE: 12-19-07

COVER SHEET

ZONE: CAC-CL1 TAX MAP NO. 43, GRID 14
8170 WASHINGTON BOULEVARD PARCELS 214, 521, 446, 447 & 525

NO.	REVISIONS	DATE

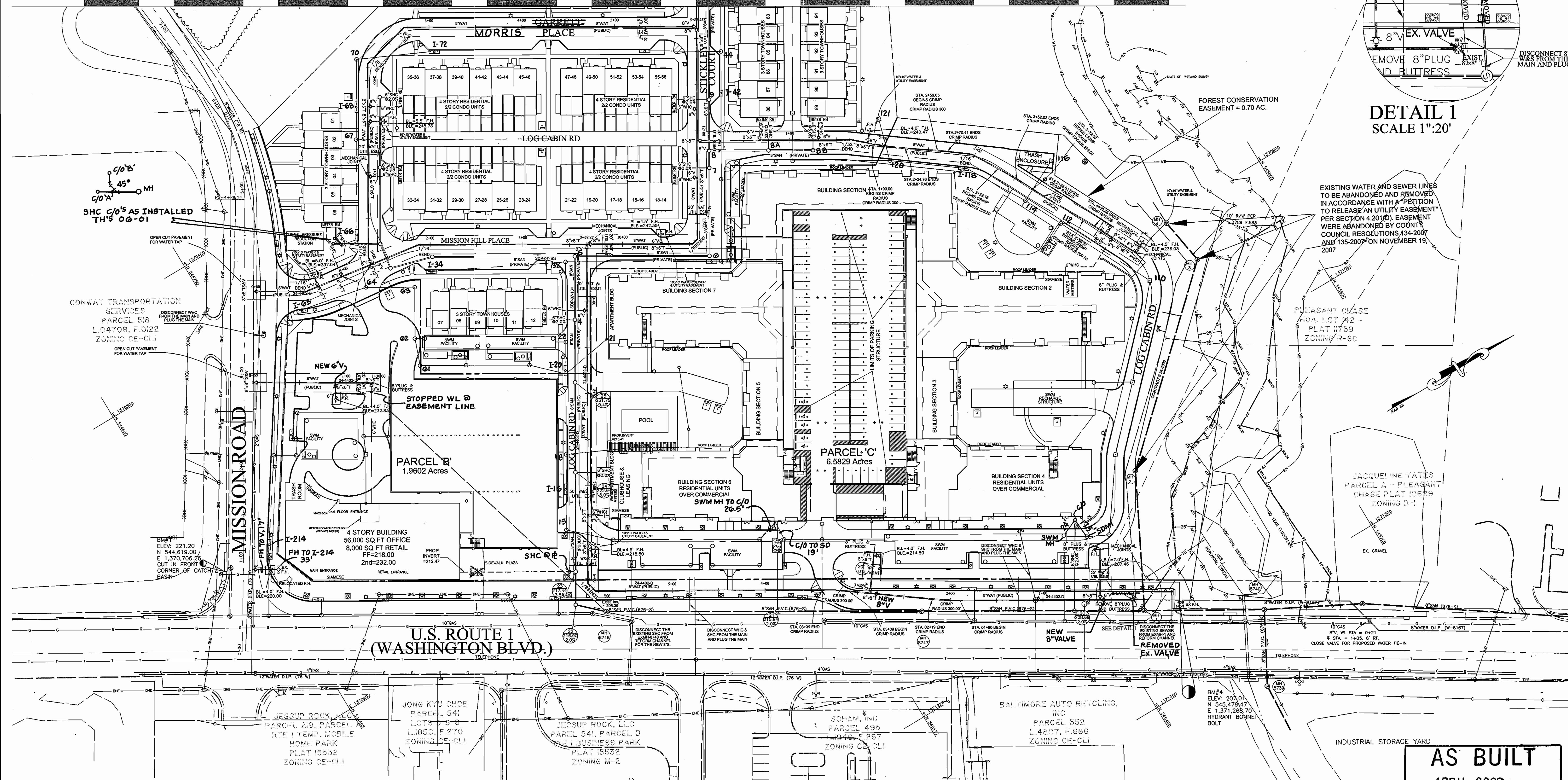
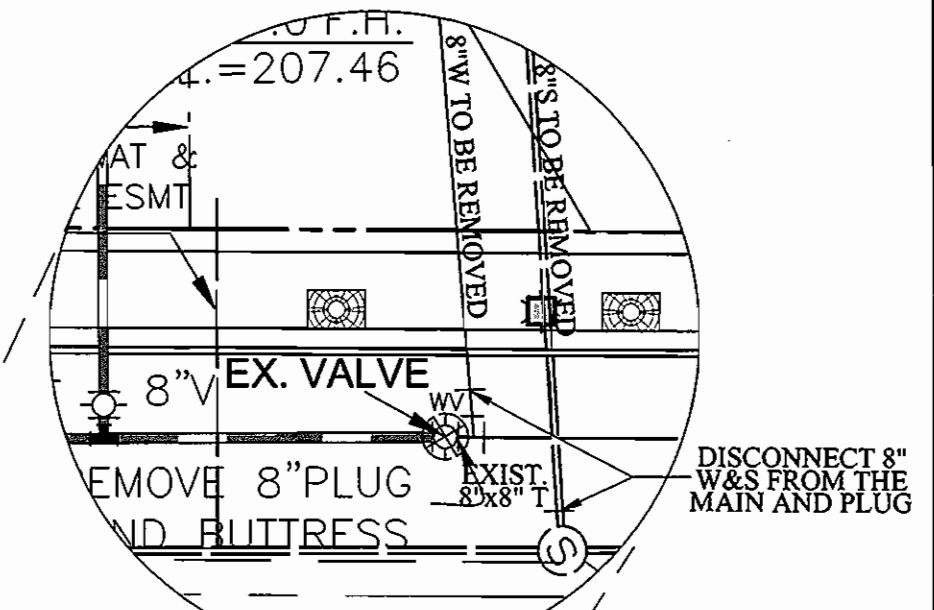
MISSION PLACE

PARCELS A, B, & C, BLOCK 1
8th ELECTION DISTRICT
HOWARD COUNTY, MD
CONTRACT NO. 24-4402-D

SCALE:
AS SHOWN
SHEET
1 of 11

MATCH LINE SHEET 3

MATCH LINE SHEET 3



EXISTING WATER AND SEWER LINES TO BE ABANDONED AND REMOVED IN ACCORDANCE WITH A PETITION TO RELEASE A UTILITY EASEMENT PER SECTION 4-20(b) EASEMENT WERE ABANDONED BY COUNTY COUNCIL RESOLUTIONS 134-2007 AND 135-2007 ON NOVEMBER 19, 2007

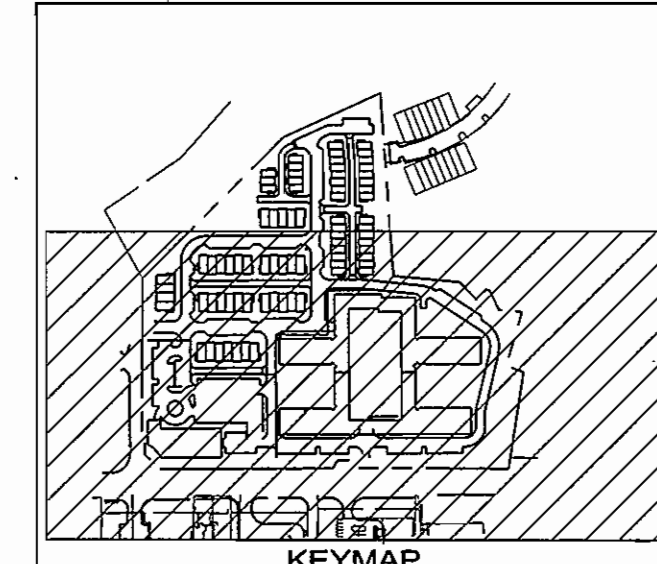
PLEASANT CHASE 40A, LOT J42 - PLAT #759 ZONING R-SC

JACQUELINE YATES PARCEL A - PLEASANT CHASE PLAT 10689 ZONING B-1

AS BUILT
DATE APRIL 2009

NOTE: C/O'S ARE 5' FROM BUILDING

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. 18095
EXPIRATION DATE: 12/21/08



NOTE
INFORMATION CONCERNING UNDERGROUND UTILITIES WAS OBTAINED FROM AVAILABLE RECORDS BUT THE CONTRACTOR MUST DETERMINE THE EXACT LOCATION AND ELEVATION OF THE MAINS BY DIGGING TEST PITS BY HAND AT ALL UTILITY CROSSINGS WELL IN ADVANCE OF THE START OF EXCAVATION. CONTACT "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO THE START OF EXCAVATION. IF CLEARANCES ARE LESS THAN SHOWN ON THIS PLAN OR TWELVE (12) INCHES, WHICHEVER IS LESS, CONTACT THE ENGINEER AND THE UTILITY BEFORE PROCEEDING WITH CONSTRUCTION.

OWNER/DEVELOPER CONTACT:
MATTHEW BITAR
THE DOLBEN COMPANY, INC
2600 MIDWAY BRANCH DRIVE
SECOND FLOOR
ODENTON, MD 21113
301.912.3600
301.912.3400

PARCEL 214 (8170 WASHINGTON BLVD)
L. 5904 F. 584
PARCEL 521 (8142 WASHINGTON BLVD)
L. 507 F. 255
PARCEL 446 (8112 WASHINGTON BLVD)
L. 1188 F. 646
PARCEL 447 (8110 WASHINGTON BLVD)
L. 3789 F. 583
PARCEL 525 (8126 WASHINGTON BLVD)
L. 4750 F. 433

HOWARD SOIL CONSERVATION DISTRICT:
REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

U.S.D.A. - NATURAL RESOURCES CONSERVATION SERVICE

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

SEDMIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE HOWARD COUNTY STANDARDS AND SPECIFICATIONS AND AS PER ROAD CONSTRUCTION PLANS.

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY, MARYLAND

Dewberry
203 PERRY PARKWAY, SUITE 1
GAITHERSBURG, MARYLAND 20877
PHONE. 301.948.8300
FAX. 301.258.7607

DATE: 12-19-07

DES.: SR	BY NO.	REVISIONS	DATE
DRN.: SR			
CHK.: JMC			
DATE: 12-19-07			

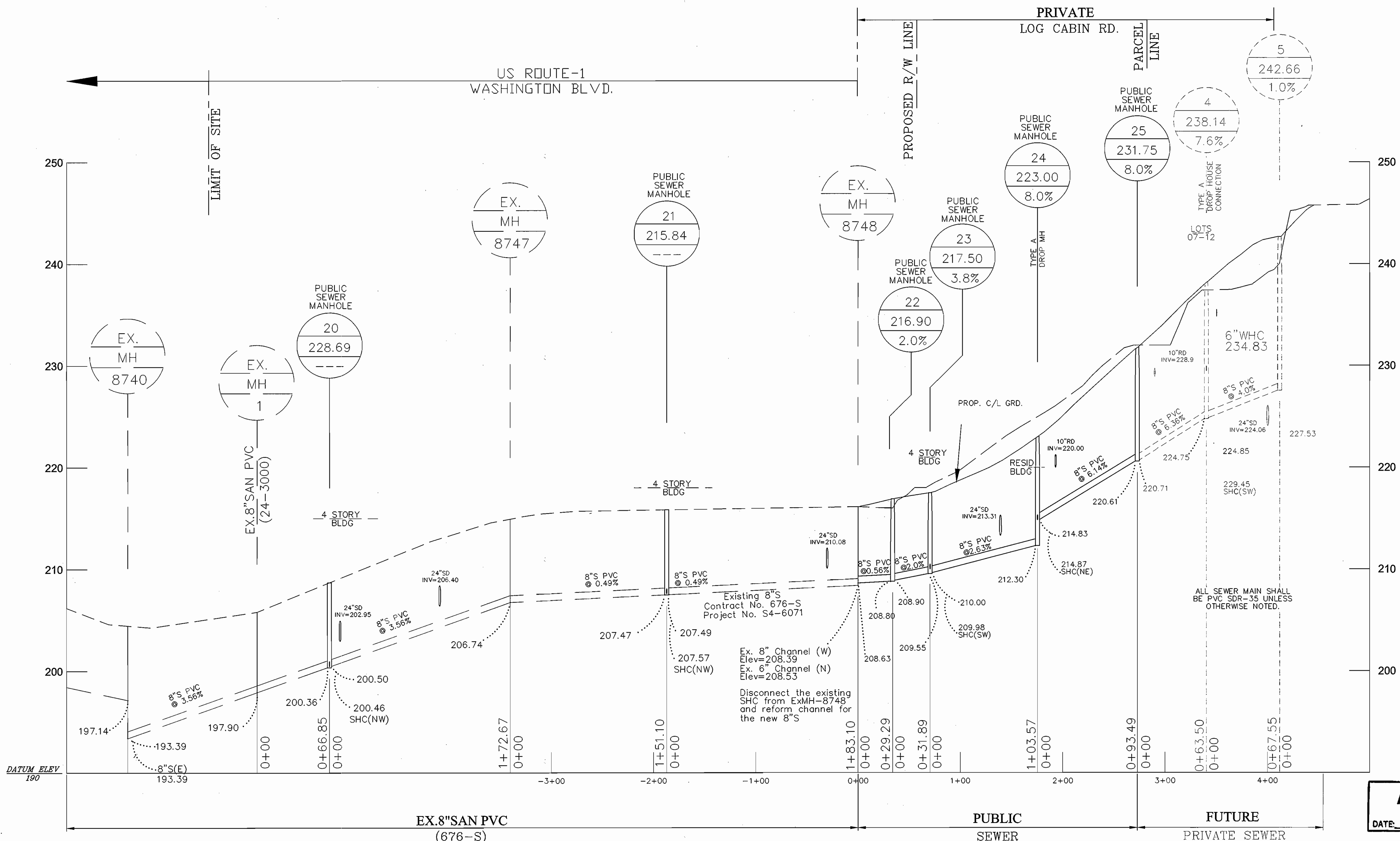
**PLAN VIEW
PUBLIC WATER & SEWER**

ZONE: CAC-CL1
TAX MAP NO. 43, GRID 14
8170 WASHINGTON BOULEVARD
PARCELS 214, 521, 446, 447 & 525

**MISSION PLACE
PARCELS A, B, & C, BLOCK 1**

8th ELECTION DISTRICT
HOWARD COUNTY, MD
CONTRACT NO. 24-4402-D

SCALE:
1"=50'
SHEET
2 of 11



AS BUILT
DATE: APRIL 2009

SANITARY SEWER AS-BUILTS

	FROM	TO	DISTANCE	REMARKS
PUBLIC SEWER	6" SHC	SMH-24	24'	SHC OUT OF BLDG. SECTION I-10
	6" SHC	SDMH-1B	38'	SMH-24
PRIVATE SEWER	6" SHC	SDMH-15	45'	
	4 STY. RETAIL OFFICE	PH WSTA 0+31 @ 6" V.WHC W 0+67	49'	WSTA'S = 6" V
PUBLIC SEWER	6" SHC	SMH-4	25'	
	TOWNHOUSES 7-12	6" V.WHC (T.H. 7-12) SDMH-22	29'	WSTA'S = 6" V
PRIVATE SEWER	6" SHC	SMH-7	29'	
	CONDO UNITS 13-14 THRU 21-22	6" V.WHC W 11+49 SMH-8	19'	WSTA'S = 6" V
PUBLIC SEWER	6" SHC	6" V.WHC W 12+23	21'	WSTA'S = 6" V
	CONDO UNITS 4T-4B THRU 55-56	SMH-9 T-42	31'	
PRIVATE SEWER	6" SHC	SMH-8	46'	

SEWER PROFILE

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

SANITARY SEWER AS-BUILTS

	FROM	TO	DISTANCE	REMARKS
PUBLIC SEWER	6" SHC	6" V.WHC W 0+07	10.5'	ON LOGCABIN
	TOWNHOUSES 89 THRU 88	SMH-8A	24'	ROAD
PRIVATE SEWER	6" SHC	SMH-8B	52'	
	6" SHC	SMH-8A	55'	ON LOGCABIN
PUBLIC SEWER	TOWNHOUSES 89 THRU 96	SMH-8B	23'	ROAD
	6" SHC	6" V.WHC W 1+30	14.5'	
PRIVATE SEWER	6" SHC	PH WSTA. 13+47	22.5'	
	TOWNHOUSES 57 THRU 02	SMH-10 6" V.WHC W 13+79	33'	
PRIVATE SEWER	6" SHC	6" V.WHC W 13+79	24'	

SANITARY SEWER AS-BUILTS

	FROM	TO	DISTANCE	REMARKS
PUBLIC SEWER	6" SHC C/O'A'	CLEANOUT 'B'	12'	
	TOWNHOUSES 03 THRU 06	SMH-12	70'	
PRIVATE SEWER	6" SHC C/O'B'	CLEANOUT 'A'	12'	
	07 THRU 12	SMH-12	72'	
PUBLIC SEWER	6" SHC	SMH-12	17'	
	TOWNHOUSES 07 THRU 12	6" V.WHC W 0+03	70'	
PRIVATE SEWER	6" SHC	6" V.WHC W 0+03	05'	WHC TO 03 THRU 06

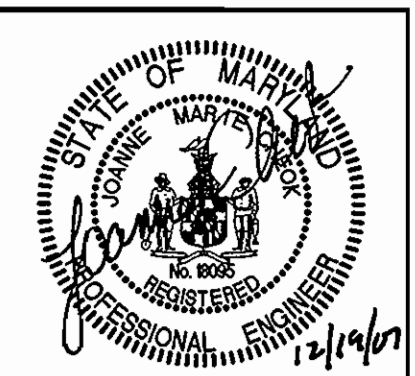
NOTE:
1. SHC'S STOP AT PROPERTY LINE.
2. TOWNHOUSES WITH 45° BENDS MUST HAVE CLEANOUTS AT EACH BEND.
3. C/O'A' IS CLEANOUT AT BEND
C/O'B' IS CLEANOUT AT PROPERTY LINE

HOWARD SOIL CONSERVATION DISTRICT:
REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND METS TECHNICAL REQUIREMENTS:
U.S.D.A.-NATURAL RESOURCES CONSERVATION SERVICE
DATE: 11/7/08

THIS PLAN IS APPROVED FOR EROSION AND SEDIMENT CONTROL BY THE HOWARD COUNTY SOIL CONSERVATION DISTRICT.
HOWARD COUNTY SOIL CONSERVATION DISTRICT
DATE: 11/7/08

SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE HOWARD COUNTY STANDARDS AND SPECIFICATIONS AND AS PER ROAD CONSTRUCTION PLANS.

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. 18095
EXPIRATION DATE: 12/21/08



SDP-07-101

OWNER/DEVELOPER CONTACT:
MATTHEW BITAR
THE DOLBEN COMPANY, INC
2800 MIDWAY BRANCH DRIVE
SECOND FLOOR
ODENTON, MD 21113
301.912.3600
301.912.3400
PARCEL 214 (8170 WASHINGTON BLVD)
L. 5904 F. 584
PARCEL 521 (8142 WASHINGTON BLVD)
L. 5071 F. 255
PARCEL 446 (8112 WASHINGTON BLVD)
L. 1188 F. 646
PARCEL 447 (8110 WASHINGTON BLVD)
L. 3789 F. 583
PARCEL 525 (8126 WASHINGTON BLVD)
L. 4750 F. 433

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
S. C. COOPER
CHIEF, BUREAU OF UTILITIES
DATE: 11/16/08

DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY, MARYLAND
C. J. BROWN
CHIEF, DEVELOPMENT ENGINEERING DIVISION
DATE: 11/16/08

Dewberry
203 PERRY PARKWAY, SUITE 1
GAITHERSBURG, MARYLAND 20877
PHONE: 301.948.8300
FAX: 301.258.7607

DEVELOPER CONTACT:
MATTHEW BITAR
THE DOLBEN COMPANY, INC
2600 MIDWAY BRANCH DRIVE
SECOND FLOOR
ODENTON, MD 21113
301.912.3600
301.912.3400

DES.:	SR
DRN.:	SR
CHK.:	JMC
DATE:	12-19-07
BY:	NO.
REVISIONS:	
DATE:	

PUBLIC SEWER PROFILE
ZONE: CAC-CLI
8170 WASHINGTON BOULEVARD
TAX MAP No. 43, GRID 14
PARCELS 214, 521, 446, 447 & 525

MISSION PLACE
PARCELS A, B, & C, BLOCK 1
8th ELECTION DISTRICT
HOWARD COUNTY, MD
CONTRACT NO. 24-4402-D
SCALE:
1"=50' H
1"=5' V
SHEET
4 OF 11

SANITARY SEWER AS-BUILTS

FROM	TO	DISTANCE	REMARKS
6" SHC	SMH-17	SHC	14'
CONDO UNITS 23-24 THRU 33-34	6" V, WHC W 0+95	SHC	26.5'
	SDMH-07	SHC	49'
CONDO UNITS 35-36 THRU 45-46	6" V, WHC W 1+71	SHC	26.5'
	FH STA. 1+55	SHC	38'
			CONDO V, 35-36 TO 45-46
6" SHC	SMH-10	SHC	53'
TOWNHOUSES I THRU 9	SMH-15	SHC	74'
	C/O B'	SHC	22'
	C/O W'	SHC	22'
	SMH-10	SHC	52'
	SMH-15	SHC	64'
6" SHC	SDMH-11	SHC	67'
TOWNHOUSES 73 THRU 80	SDMH-11A	SHC	15'
	C/O A' TO TH 597	SHC	52'
			TO 104

PARCEL 'B' AS-BUILTS

VALVES	FROM	TO	DISTANCE	REMARKS
6" SHC	C/O A' TO C/O B'	SHC	10'	
TOWNHOUSES 97 THRU 104	C/O A' TO SMH-11A	SHC	50'	
	I-120	SHC	35'	
	C/O B' TO C/O A'	SHC	10'	
	C/O B' TO SMH-11A	SHC	47'	
	I-120	SHC	40'	
VALVES				
8" V STA. 0+03	SMH-8	8" VALVE	48'	
	SMH-9	8" VALVE	12'	
	SMH-7	8" VALVE	29'	
6" WHC VALVE STA. 0+07	SMH-8	6" VALVE	56'	
	SMH-8A	6" VALVE	13'	
	SMH-8B	6" VALVE	50'	

PARCEL 'B' AS-BUILTS

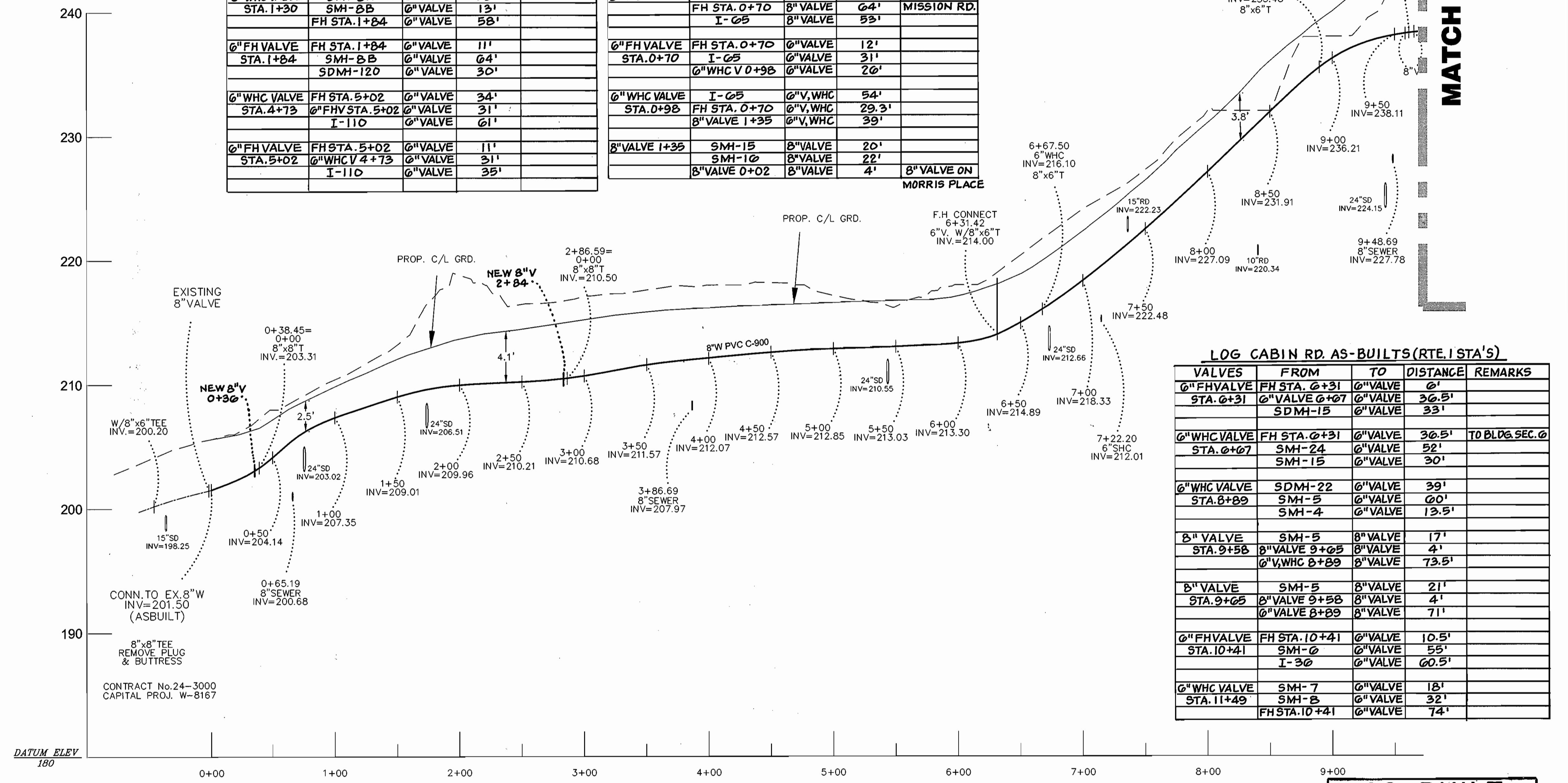
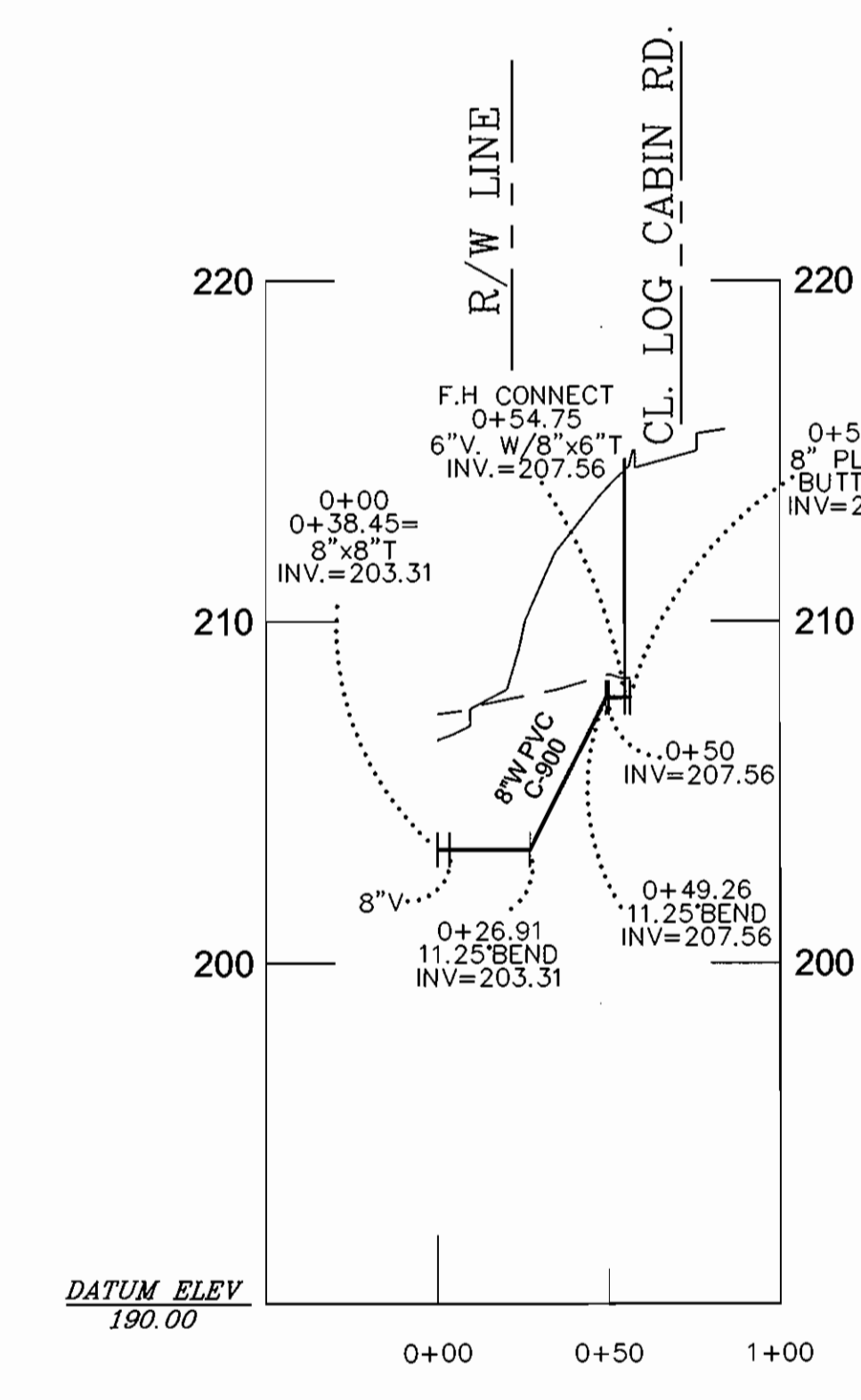
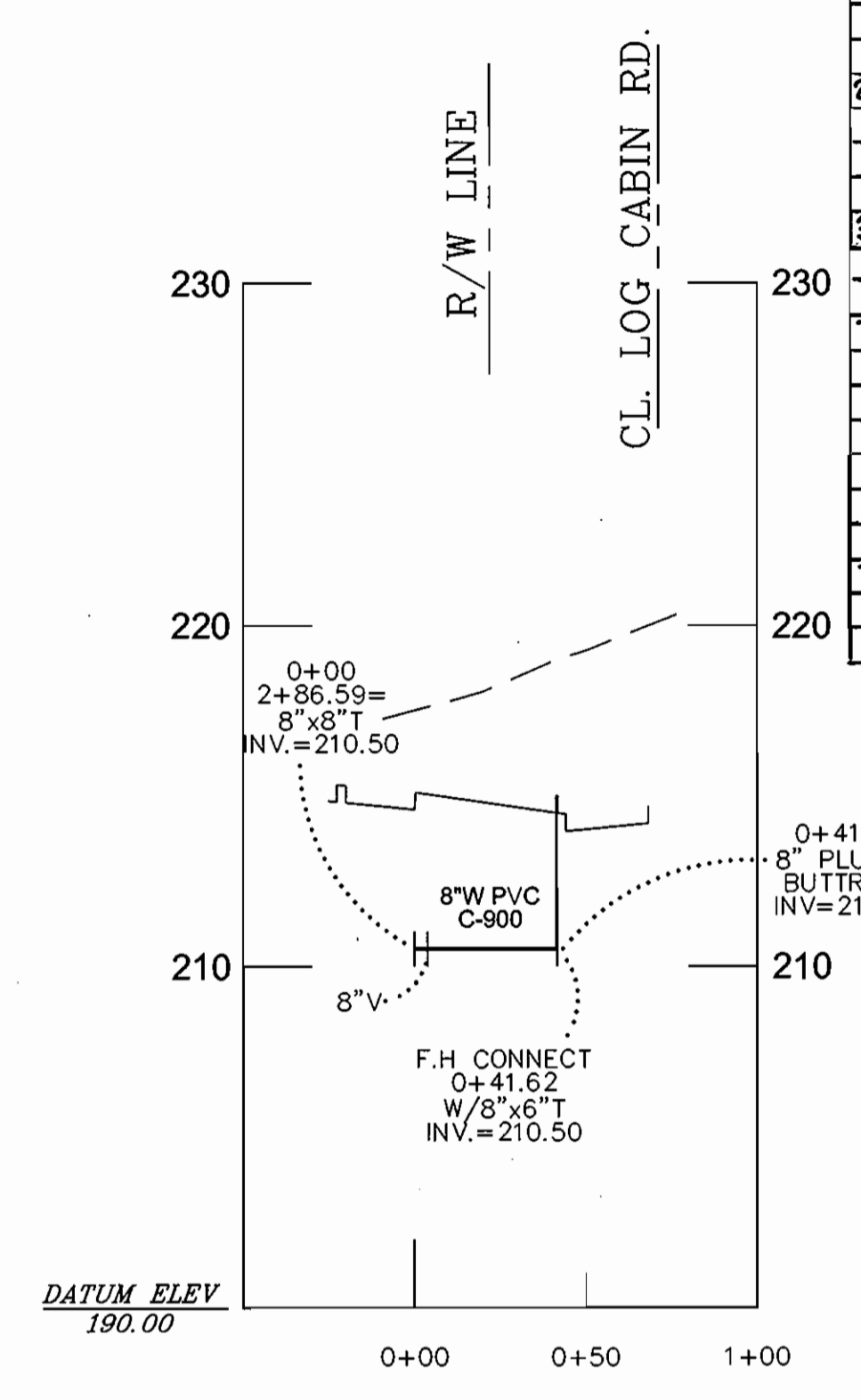
VALVES	FROM	TO	DISTANCE	REMARKS
8" T S VALVE STA. 0+03	6" FHV STA. 0+79	6" VALVE	84'	
	FH STA. 0+79	8" VALVE	87'	
6" FH VALVE STA. 0+79	FH STA. 0+79	6" VALVE	17'	
	6" WHC V 1+28	6" VALVE	38'	
6" WHC VALVE STA. 1+28	FH STA. 0+79	6" WHC V	42'	
	6" FH VALVE	6" WHC V	38'	

LOG CABIN RD. AS-BUILTS

VALVES	FROM	TO	DISTANCE	REMARKS
6" WHC VALVE STA. 1+30	SMH-8A	6" VALVE	58'	
	SMH-8B	6" VALVE	13'	
	FH STA. 1+84	6" VALVE	58'	
6" FH VALVE STA. 1+84	FH STA. 1+84	6" VALVE	11'	
	SMH-8B	6" VALVE	64'	
	SDMH-120	6" VALVE	30'	
6" WHC VALVE STA. 4+73	FH STA. 5+02	6" VALVE	34'	
	6" FHV STA. 5+02	6" VALVE	31'	
	I-110	6" VALVE	61'	
6" FH VALVE STA. 5+02	FH STA. 5+02	6" VALVE	11'	
	6" WHC V 4+73	6" VALVE	31'	
	I-110	6" VALVE	35'	

MISSION HILL PLACE AS-BUILTS

VALVES	FROM	TO	DISTANCE	REMARKS
8" V STA. 0+03	STA. 0+70	8" VALVE	67'	
	FH STA. 0+70	8" VALVE	64'	
	I-05	8" VALVE	55'	
6" FH VALVE STA. 0+70	FH STA. 0+70	6" VALVE	12'	
	I-05	6" VALVE	31'	
	6" WHC V 0+98	6" VALVE	20'	
6" WHC VALVE STA. 0+98	I-05	6" V, WHC	54'	
	FH STA. 0+70	6" V, WHC	29.3'	
	8" VALVE 1+35	6" V, WHC	39'	
8" VALVE 1+35	SMH-15	8" VALVE	20'	
	SMH-10	8" VALVE	22'	
	8" VALVE 0+02	8" VALVE	4'	



MORRIS PLACE AS-BUILTS

VALVES	FROM	TO	DISTANCE	REMARKS
8" VALVE 0+03	8" VALVE 1+35	8" VALVE	4'	
	SMH-15	8" VALVE	24'	
	SMH-10	8" VALVE	22.5'	
6" VALVE 0+95	SMH-17	6" V, WHC	14'	
WHC VALVE	SDMH-07	6" V, WHC	40'	
	FH STA. 1+55	6" V, WHC	61'	
6" FH VALVE STA. 1+55	I-08	6" VALVE	17.5'	
	SDMH-07	6" VALVE	20.5'	
	SDMH-07	6" VALVE	24.5'	
6" VALVE 1+71	SMH-18	6" V, WHC	14'	
WHC VALVE	I-08	6" V, WHC	13.5'	
	6" FHV STA. 1+55	6" V, WHC	24'	

LOG CABIN RD. AS-BUILTS (RTE. 1 STA'S)

VALVES	FROM	TO	DISTANCE	REMARKS
8" VALVE 5+85	FH 6" VALVE	8" VALVE	35.5'	
	I-45	8" VALVE	40'	
	8" VALVE 13+09	8" VALVE	4'	
			WASH. BLVD. STA.	
8" VALVE 0+30	FH STA. 0+30	8" VALVE	56.5'	
	6" FHV 0+30	8" VALVE	4.5'	
6" FHV 0+30	FH STA. 0+30	6" VALVE	53.5'	
	8" VALVE 0+30	6" VALVE	4.5'	
8" VALVE 2+84	FH STA. 2+80	8" VALVE	41'	
	6" FHV 2+80	8" VALVE	4'	
6" FHV 2+80	FH STA. 2+80	6" VALVE	38.5'	
	8" VALVE 2+84	6" VALVE	4'	

LOG CABIN RD. AS-BUILTS (RTE. 1 STA'S)

VALVES	FROM	TO	DISTANCE	REMARKS
6" FH VALVE STA. 0+31	FH STA. 0+31	6" VALVE	0'	
	6" VALVE 0+07	6" VALVE	36.5'	
	SDMH-15	6" VALVE	33'	
6" WHC VALVE STA. 0+07	FH STA. 0+31	6" VALVE	36.5'	
	SMH-24	6" VALVE	52'	
	SMH-15	6" VALVE	30'	
6" WHC VALVE STA. 8+89	SDMH-22	6" VALVE	39'	
	SMH-24	6" VALVE	60'	
	SMH-4	6" VALVE	13.5'	
8" VALVE STA. 9+58	SMH-5	8" VALVE	17'	
	8" VALVE 9+05	8" VALVE	4'	
	6" V, WHC 8+89	8" VALVE	73.5'	
8" VALVE STA. 9+05	SMH-5	8" VALVE	21'	
	6" VALVE 9+58	8" VALVE	4'	
	6" VALVE 8+89	8" VALVE	71'	
6" FH VALVE STA. 10+41	FH STA. 10+41	6" VALVE	10.5'	
	SMH-0	6" VALVE	55'	
	I-30	6" VALVE	60.5'	
6" WHC VALVE STA. 11+49	SMH-7	6" VALVE	18'	
	SMH-8	6" VALVE	32'	
	FH STA. 10+41	6" VALVE	74'	

HOWARD SOIL CONSERVATION DISTRICT:
REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS
TECHNICAL REQUIREMENTS.

U.S.D.A. - NATURAL RESOURCES CONSERVATION SERVICE

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

SEDMIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE
IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE
HOWARD COUNTY STANDARDS AND SPECIFICATIONS AND AS PER
ROAD CONSTRUCTION PLANS.

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY, MARYLAND

Dewberry
203 PERRY PARKWAY, SUITE 1
GAITHERSBURG, MARYLAND 20877
PHONE: 301.948.8300
FAX: 301.258.7607

DEVELOPER CONTACT:
MATTHEW BITAR
THE DOLBEN COMPANY, INC
2600 MIDWAY BRANCH DRIVE
SECOND FLOOR
ODENTON, MD 21113
301.912.3600
301.912.3400

DES.: SR

DRN.: SR

CHK.: JMC

DATE: 12-19-07

BY NO. REVISIONS DATE

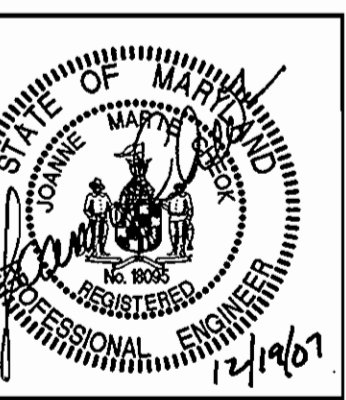
PUBLIC WATER PROFILE

ZONE: CAC-CLI

TAX MAP No. 43, GRID 14

8170 WASHINGTON BOULEVARD

PARCELS 214, 521, 446, 447 & 525



NOTE
INFORMATION CONCERNING UNDERGROUND UTILITIES WAS OBTAINED FROM
AVAILABLE RECORDS BUT THE CONTRACTOR MUST DETERMINE THE EXACT
LOCATION AND ELEVATION OF THE MAINS BY DIGGING TEST PITS BY HAND AT ALL
UTILITY CROSSINGS WELL IN ADVANCE OF THE START OF EXCAVATION. CONTACT
"MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO THE START OF
EXCAVATION. IF CLEARANCES ARE LESS THAN SHOWN ON THIS PLAN OR TWELVE
(12) INCHES, WHICHEVER IS LESS, CONTACT THE ENGINEER AND THE UTILITY
BEFORE PROCEEDING WITH CONSTRUCTION.

AS BUILT
DATE: APRIL 2009

OWNER/DEVELOPER CONTACT:
MATTHEW BITAR
THE DOLBEN COMPANY, INC
2600 MIDWAY BRANCH DRIVE
SECOND FLOOR
ODENTON, MD 21113
301.912.3600
301.912.3400

PARCEL 214 (8170 WASHINGTON BLVD)
L. 5904 F. 584
PARCEL 521 (8142 WASHINGTON BLVD)
L. 807 F. 255
PARCEL 446 (8112 WASHINGTON BLVD)
L. 1198 F. 646
PARCEL 447 (8110 WASHINGTON BLVD)
L. 3789 F. 583
PARCEL 525 (8126 WASHINGTON BLVD)
L. 4750 F. 433

MISSION PLACE
PARCELS A, B, & C, BLOCK 1

6th ELECTION DISTRICT
HOWARD COUNTY, MD

CONTRACT NO. 24-4402-D

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

SHEET
5 OF 11

STUCKLEY COURT AS-BUILTS

VALVES	FROM	TO	DISTANCE	REMARKS
6" WHC STA. 12+23	SMH-9	6" VALVE	35'	WHC TO CONDO 47-48 TO 55-56
	I-42	6" VALVE	18'	
	SMH-8	6" VALVE	40'	
8" VALVE STA. 13+09	SDMH-44	8" VALVE	37'	
	FH STA. 13+47	8" VALVE	40.5'	
	FH VALVE 13+47	8" VALVE	38'	
6" FH VALVE STA. 13+47	FH STA. 13+47	6" VALVE	13.5'	
	8" VALVE 13+09	6" VALVE	40.5'	
	SMH-10	6" VALVE	25.5'	
6" WHC VALVE STA. 13+79	SMH-10	6" VALVE	16'	
	SMH-11	6" VALVE	21'	
	FH STA. 13+47	6" VALVE	35.5'	
6" WHC VALVE STA. 14+09	SMH-11	6" VALVE	15'	
	6" WHC V 13+79	6" VALVE	30.5'	
	I-48	6" VALVE	39.5'	
6" WHC VALVE STA. 15+08	I-54	6" VALVE	28.5'	
	I-50	6" VALVE	36'	
	8" VALVE 10+12	6" VALVE	42'	FOR FUTURE USE
8" VALVE 10+12	I-50	8" VALVE	18'	FOR FUTURE USE
	6" WHC V 15+08	8" VALVE	36'	
	6" WHC V 10+03	8" VALVE	50'	
6" WHC VALVE STA. 10+03	FH STA. 10+75	6" VALVE	21'	
	6" FH VALVE 10+75	6" VALVE	13'	
	6" WHC STA. 17+19	6" VALVE	57'	
6" FH VALVE STA. 10+75	FH STA. 10+75	6" VALVE	14'	
	6" VALVE 10+03	6" VALVE	13'	
	6" WHC STA. 17+19	6" VALVE	44'	
6" WHC VALVE STA. 17+19	FH STA. 10+75	6" VALVE	47'	
	FH STA. 10+75	6" VALVE	57'	
8" VALVE 18+35	Ex. MH-04	8" VALVE	64'	
	WHC TO T.H. #8440	8" VALVE	72.5'	
	(OAK MEADE WAY)			

TEST STATIONS	FROM	TO	DISTANCE	REMARKS
T.S. @ FH STA. 0+79	FIRE HYDRANT	T.S.	2'	RT. OF FH
T.S. @ FH STA. 0+70	6" FH VALVE	T.S.	11'	RT. OF FH
T.S. @ FH STA. 1+55	FIRE HYDRANT	T.S.	2'	RT. OF FH
T.S. @ FH STA. 1+55	6" FH VALVE	T.S.	10.5'	
T.S. @ FH STA. 13+47	FIRE HYDRANT	T.S.	2'	RT. OF FH
T.S. @ FH STA. 10+75	6" FH VALVE	T.S.	13'	
	SDMH-10	T.S.	32'	
T.S. @ FH STA. 10+75	FIRE HYDRANT	T.S.	2'	LT. OF FH
T.S. @ FH STA. 10+75	6" FH VALVE	T.S.	13'	
	6" WHC 10+03	T.S.	19'	WHC TO HOUSES 73-80
T.S. @ FH STA. 1+04	FIRE HYDRANT	T.S.	2'	RT. OF FH
T.S. @ FH STA. 5+02	6" FH VALVE	T.S.	11'	
	YARD I-121	T.S.	14'	
T.S. @ FH STA. 5+02	FIRE HYDRANT	T.S.	2.5'	RT. OF FH
T.S. @ FH STA. 0+38	6" FH VALVE	T.S.	10.5'	
	I-110	T.S.	38'	
T.S. @ FH STA. 2+82	FIRE HYDRANT	T.S.	2'	LT. OF FH
T.S. @ FH STA. 2+82	6" FH VALVE	T.S.	38'	
T.S. @ FH STA. 0+31	FIRE HYDRANT	T.S.	1.5'	LT. OF FH
T.S. @ FH STA. 10+41	6" FH VALVE	T.S.	4.5'	
	FIRE HYDRANT	T.S.	2'	LT. OF FH
	6" FH VALVE	T.S.	11'	

TEST STATIONS ARE INSTALLED EITHER ON RT. OR LT. OF FIRE HYDRANTS. SEE REMARKS FOR LOCATIONS
T.S. = TEST STATION

HOWARD SOIL CONSERVATION DISTRICT:
REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

U.S.D.A. - NATURAL RESOURCES CONSERVATION SERVICE
DATE: 1/17/08

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

HOWARD COUNTY SOIL CONSERVATION DISTRICT
DATE: 1/17/08

SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE HOWARD COUNTY STANDARDS AND SPECIFICATIONS AND AS PER ROAD CONSTRUCTION PLANS.

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
DATE: 1/16/08

DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY, MARYLAND
DATE: 1/16/08

Dewberry
203 PERRY PARKWAY, SUITE 1
GAITHERSBURG, MARYLAND 20877
PHONE: 301.948.8300
FAX: 301.258.7607

DEVELOPER CONTACT:
MATTHEW BITAR
THE DOLBEN COMPANY, INC
2600 MIDWAY BRANCH DRIVE
SECOND FLOOR
ODENTON, MD 21113
301.912.3600
301.912.3400

DES.:	SR				
DRN.:	SR				
CHK.:	JMC				
DATE:	12-19-07	BY:	NO.	REVISIONS	DATE

PUBLIC WATER PROFILE

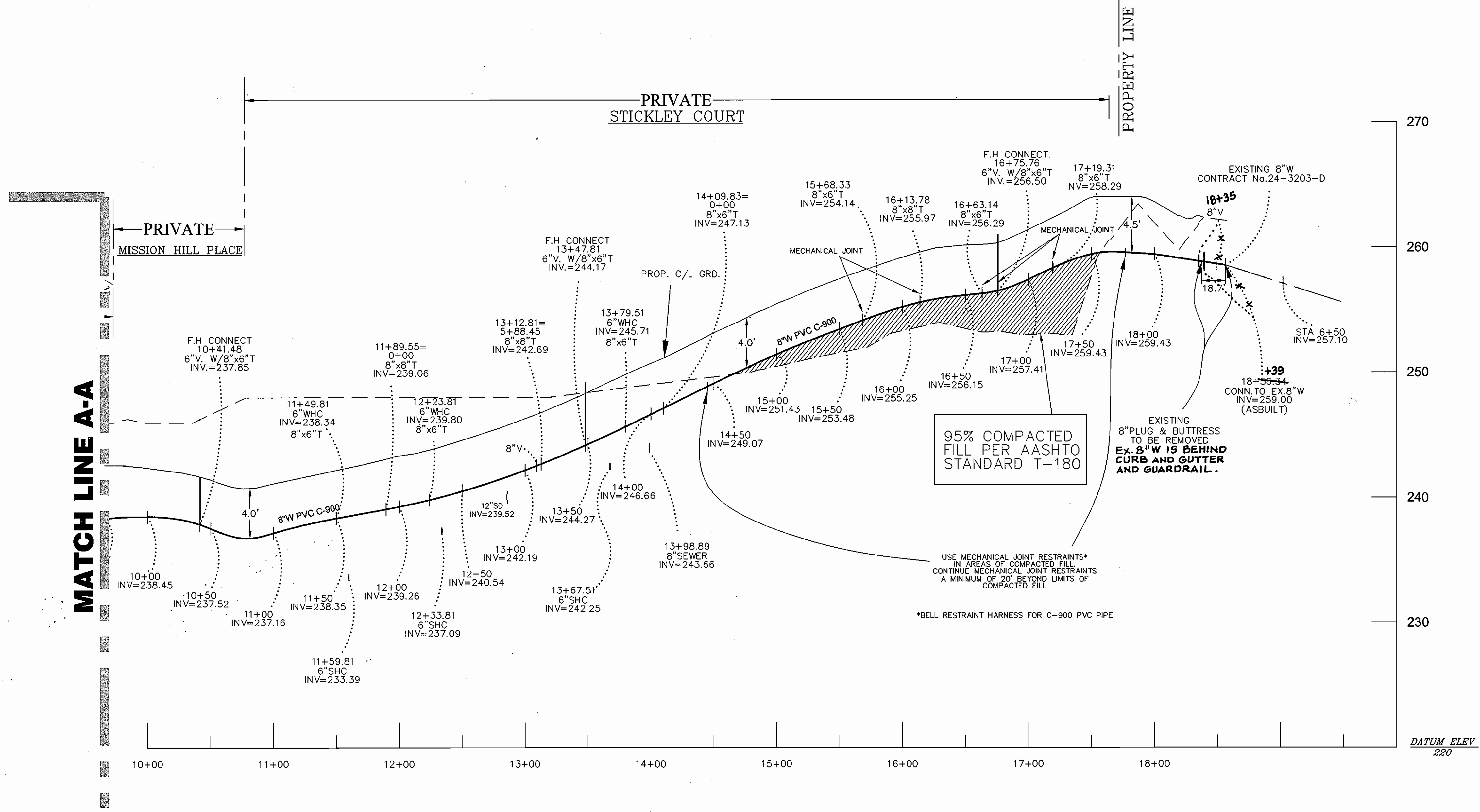
ZONE: CAC-CLI
TAX MAP No. 43, GRID 14
8170 WASHINGTON BOULEVARD
PARCELS 214, 521, 446, 447 & 525



OWNER/DEVELOPER CONTACT:
MATTHEW BITAR
THE DOLBEN COMPANY, INC
2600 MIDWAY BRANCH DRIVE
SECOND FLOOR
ODENTON, MD 21113
301.912.3600
301.912.3400

PARCEL 214 (8170 WASHINGTON BLVD)
L. 5904 F. 584
PARCEL 521 (8142 WASHINGTON BLVD)
L. 607 F. 255
PARCEL 446 (8112 WASHINGTON BLVD)
L. 1198 F. 646
PARCEL 447 (8110 WASHINGTON BLVD)
L. 3789 F. 589
PARCEL 525 (8126 WASHINGTON BLVD)
L. 4750 F. 433

AS BUILT
DATE: APRIL 2009



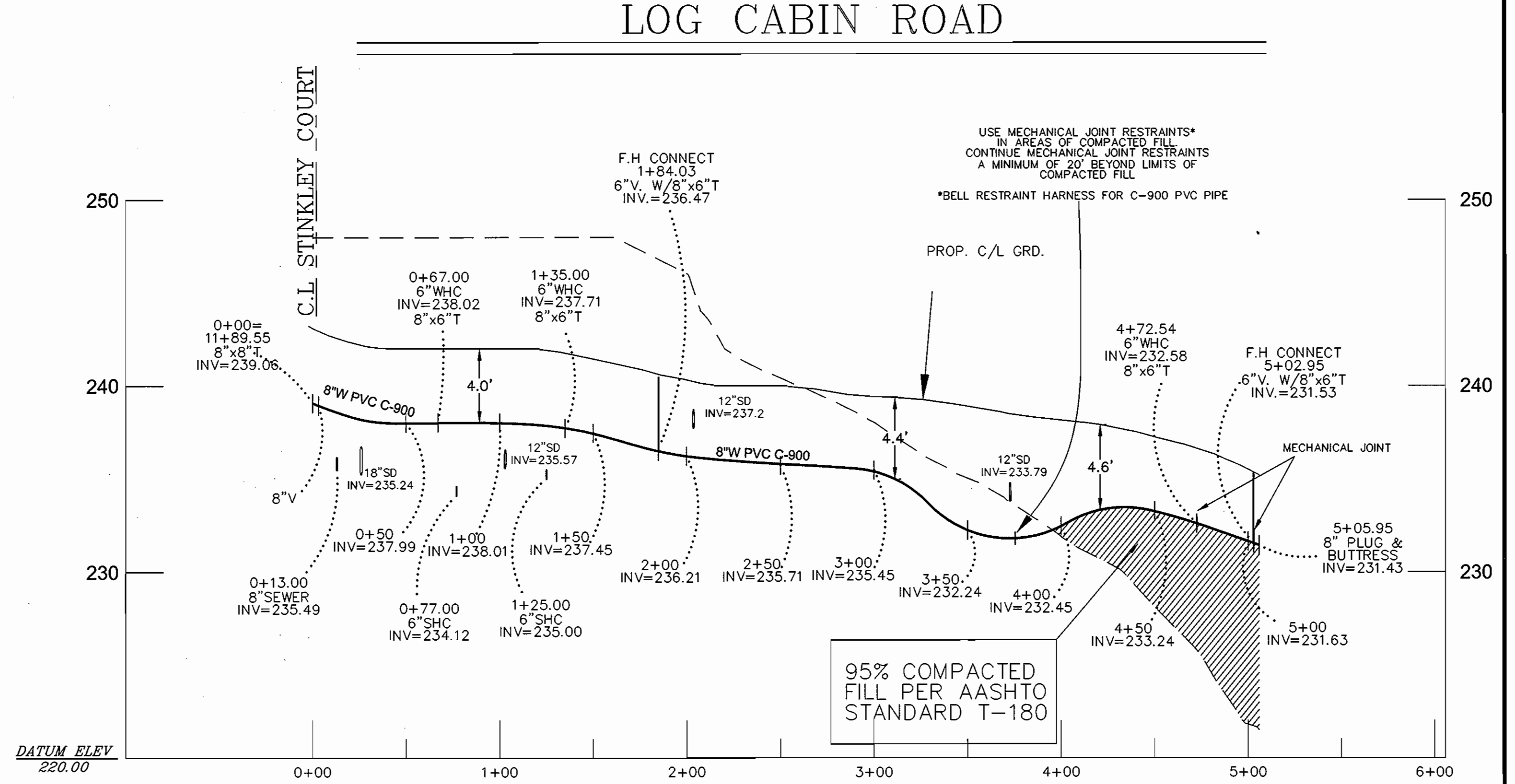
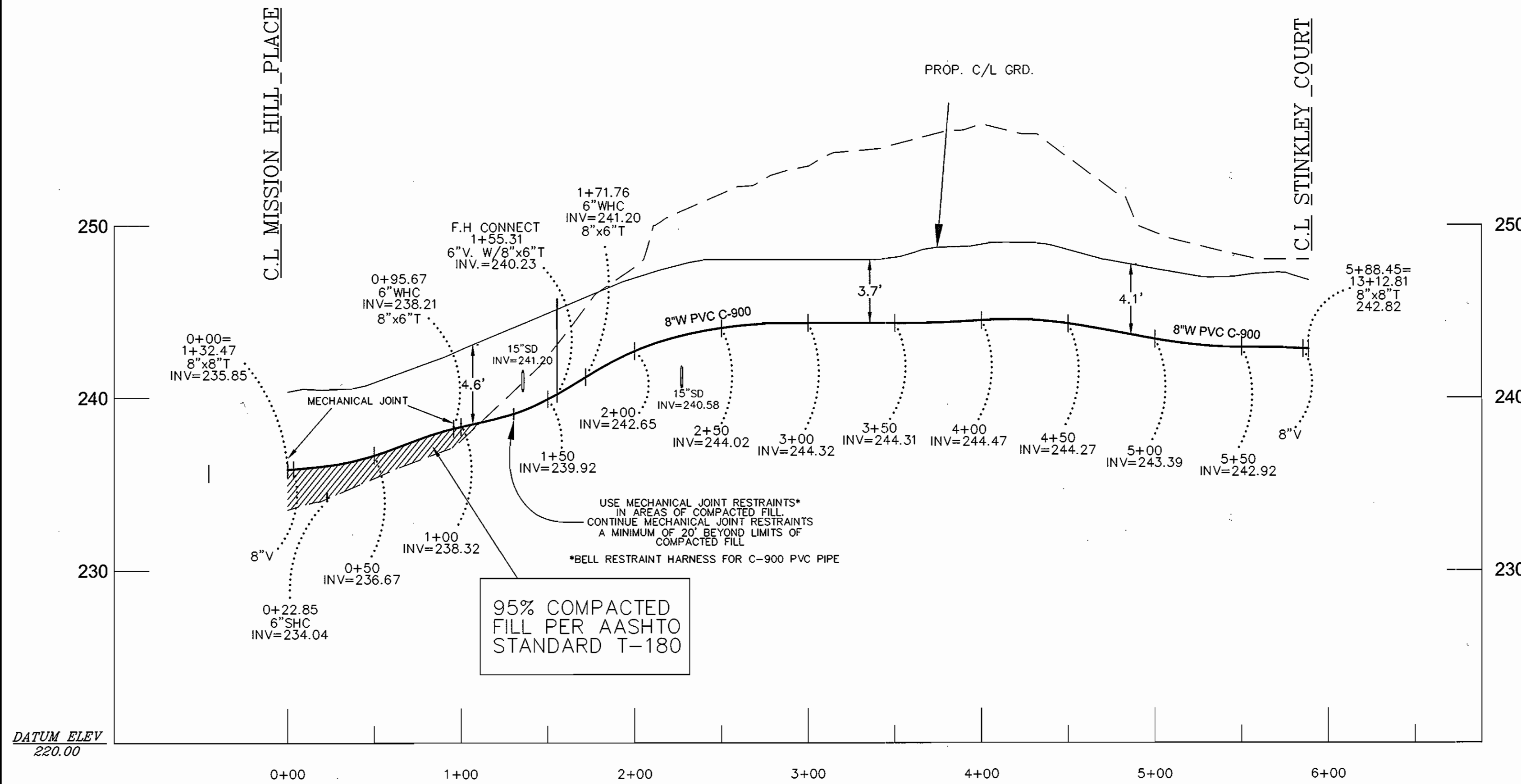
WATER PROFILE
SCALE: 1" = 50' HOR.
1" = 5' VER.

MISSION PLACE
PARCELS A, B, & C, BLOCK 1
8th ELECTION DISTRICT
HOWARD COUNTY, MD
CONTRACT NO. 24-4402-D

SCALE:
1" = 50' H
1" = 5' V
SHEET
6 OF 11

MORRIS PLACE

LOG CABIN ROAD



WATER PROFILE

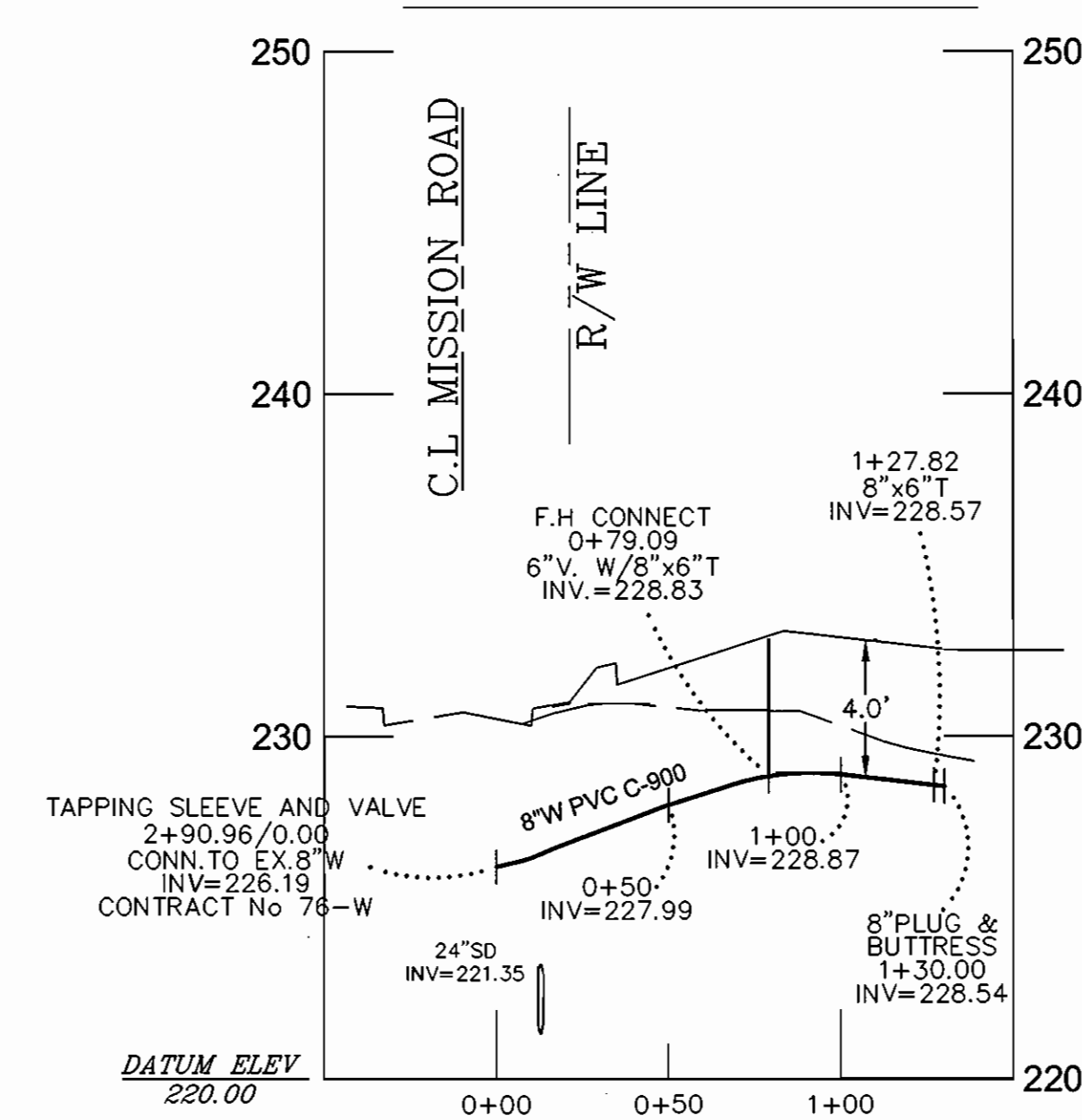
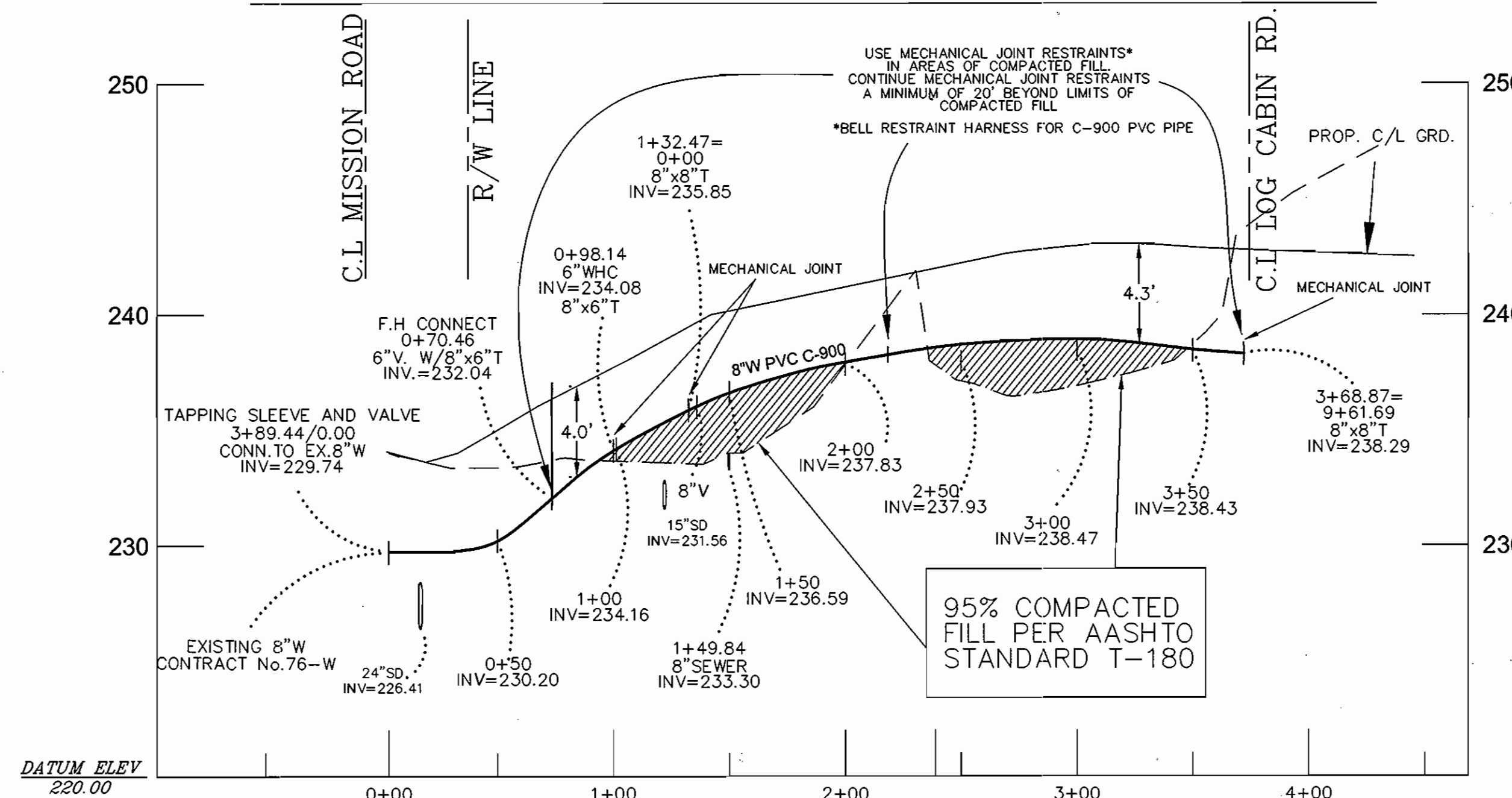
SCALE: 1"=50' HOR.
1"=5' VER.

WATER PROFILE

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

MISSION HILL PLACE

PARCEL B



WATER PROFILE

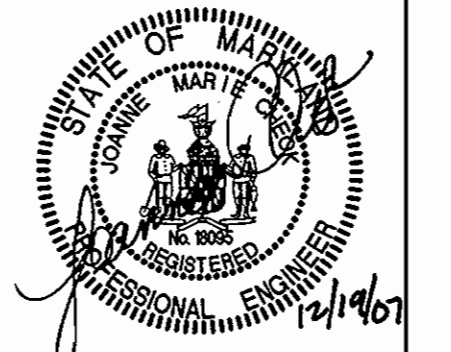
SCALE: 1"=50' HOR.
1"=5' VER.

WATER PROFILE

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

AS BUILT
DATE: APRIL 2009

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. 18095
EXPIRATION DATE: 12/21/08



OWNER/DEVELOPER CONTACT:
MATTHEW BITAR
THE DOLBEN COMPANY, INC
2600 MIDWAY BRANCH DRIVE
SECOND FLOOR
ODENTON, MD 21113
301.912.3600
301.912.3400
PARCEL 214 (8170 WASHINGTON BLVD)
L. 5904 F. 584
PARCEL 521 (8142 WASHINGTON BLVD)
L. 507 F. 255
PARCEL 446 (8112 WASHINGTON BLVD)
L. 1188 F. 646
PARCEL 447 (8110 WASHINGTON BLVD)
L. 3789 F. 563
PARCEL 525 (8126 WASHINGTON BLVD)
L. 4750 F. 433

HOWARD SOIL CONSERVATION DISTRICT:
REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND METS TECHNICAL REQUIREMENTS.

U.S.D.A.-NATURAL RESOURCES CONSERVATION SERVICE

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

SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE HOWARD COUNTY STANDARDS AND SPECIFICATIONS AND AS PER ROAD CONSTRUCTION PLANS.

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
Spike C. Cramer
CHIEF, BUREAU OF UTILITIES

DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY, MARYLAND
M. J. ...
CHIEF, DEVELOPMENT ENGINEERING DIVISION

Dewberry
203 PERRY PARKWAY, SUITE 1
GAITHERSBURG, MARYLAND 20877
PHONE. 301.948.8300
FAX. 301.258.7607

DEVELOPER CONTACT:
MATTHEW BITAR
THE DOLBEN COMPANY, INC
2600 MIDWAY BRANCH DRIVE
SECOND FLOOR
ODENTON, MD 21113
301.912.3600
301.912.3400

DES.:	SR				
DRN.:	SR				
CHK.:	JMC				
DATE:	12-19-07	BY	NO.	REVISIONS	DATE

PUBLIC WATER PROFILE
ZONE: CAC-CLI
TAX MAP NO. 43, GRID 14
8170 WASHINGTON BOULEVARD
PARCELS 214, 521, 446, 447 & 525

MISSION PLACE
PARCELS A, B, & C, BLOCK 1
8th ELECTION DISTRICT
HOWARD COUNTY, MD
CONTRACT NO. 24-4402-D

SCALE:
1"=50' H
1"=5' V
SHEET
7 of 11

AMENDMENT TO THE HOWARD COUNTY DESIGN MANUAL VOLUME IV - STANDARD SPECIFICATION AND DETAILS FOR CONSTRUCTION

Except as indicated herein, all work shall be in accordance with the pertinent sections of Howard County Design Manual Volume IV-Standard Specifications and details for Construction. Category 900, Sections 905.01 Polyvinyl Chloride (PVC) Pipe of the Howard County Standard Specifications is amended to include the following requirements.

GENERAL

- Polyvinylchloride (PVC) pipe and couplings shall be homogenous throughout and free from visible cracks, bubbles, blisters, holes, foreign inclusions, cuts, or scrapes on inside or outside surfaces, or other imperfections, which may impair the performance or life of the pipe. Each pipe shall be straight to within 1/4 inch per 20-foot length of pipe when uniformly supported along its entire length, and shall have a true circular cross-section to within ± 1/64 inch.
- PVC pipe manufactured more than six months prior to work site inspection will not be accepted.
- Loading, unloading, handling, inspection, and storage of PVC pipe and fittings shall be in accordance with AWWA C605. PVC pipe shall be stored such that it does not deform or bend.
- Submittals: The following items shall be submitted for review and approval prior to installation. Materials not approved will not be accepted.
 - PVC Pipe: Submit manufacturer's literature and certificates of compliance for PVC pipe along with the manufacturer's identification codes for normal size, dimension ratio, pressure class, production record code, and date of manufacture. Submit manufacturer's written transcript of test results, for sustained pressure, pipe dimension, burst pressure, flattening resistance, and extrusion quality test. Frequency of performing tests and the methods of selecting test specimens shall be in accordance with AWWA C900.
 - PVC Pipe Fittings: Submit manufacturer's literature and certificates of compliance for PVC pipe fittings along with the manufacturer's identification codes for normal size, pressure class, production record code, and date of manufacture. Submit manufacturer's written transcript of test results, for accelerated-regression test, burst pressure and heat-reversion test in accordance with AWWA C907.
 - Miscellaneous for PVC water pipe: Submit manufacturer's literature and certificates of compliance, for joint restraint devices, pipe couplings, wire connector splice kits, service saddles, and manufacturer's instructions for tapping pipe.

MATERIALS

The Engineer will inspect all materials before, during, and after installation to ensure compliance with the contract Documents. When specific tests of materials are called for in the referenced standards and specifications, the Engineer has the option of requiring that any or all of these tests be performed for the specified materials.

- PVC pipe and fittings:
 - PVC pipe 4 inches through 12 inches in diameter shall be manufactured in 20-foot lengths in accordance with AWWA C900 with cast/ductile iron pipe equivalent outside diameters. Pipe shall have a dimension ratio (DR) of 18, pressure class of 150 psi, and shall utilize elastomeric-gasketed push-on joints for joining pipes in accordance with AWWA C900. Pipe gaskets and gasket lubricant shall be suitable for potable water systems and shall meet NSF 61. All PVC pipe shall be factory marked on the spigot end for depth if insertion into the bell and factory tested in accordance with AWWA C900. PVC pipe shall be manufactured by one of the following:
 - Uponor ETI
 - J-M Pipe
 - Diamond Plastics Corp
 - National Pipe and Plastics, Inc.
 - Fittings for use with PVC water mains shall be ductile iron in accordance with the Standard specifications or PVC fittings. PVC fittings shall have push-on rubber gasketed joints, be injection-molded meeting AWWA C907, pressure class 150; or fabricated meeting AWWA C900, Class 200. PVC fittings shall be manufactured by the Harrington Corporation (Harco) or approved equal. Pipe joints shall be in accordance with the standards specified for the pipe fittings.
 - Pipe couplings for PVC and ductile iron water mains shall be suitable for potable water service and shall have epoxy or nylon coated ductile iron center and end rings. Pipe couplings shall be Romac Style 501, Ford FC2W or approved equal.
- Joint restraining materials for PVC pipe:
 Horizontal and vertical bends, tees, caps, and fittings shall be buttressed or anchored in accordance with the Plans, Standard Specifications, and Details for Construction, or as directed by the Engineer. Valves, when connected to PVC pipe, shall be iron body resilient seat gate valves and anchored in accordance with the detail shown on the Plans and shall have one full length of pipe on each side of the valve.
 Joints for harnessing joints shall be in accordance with the Standard Specifications and the requirements below:
 - All joint restraint devices shall be Factory Mutual approved.
 - In restrained joints, PVC pipe shall not be deflected. If deflection is required in a restrained joint, use ductile iron pipe or fittings.
 - Where a restrained joint is required between PVC pipe and fitting, the fitting shall be ductile iron mechanical joint. Joint restraint for this joint shall meet ASTM F1674 and shall be UniFlange Series 1500, EBAA Iron Series 2000PV, or approved equal.
 - Where a restrained joint is required for PVC push-on joint, joint restraint shall be Uni-B-13, ICM 620 Sur-Grp, EBBA Iron Series 1600, UniFlange Series 1390-C, or approved equal.
- Tracer Wire for Non Metallic Pipelines:
 Tracer wire shall be 6-gage, 7-strand continuous copper wire with 45-mil polyethylene insulation. The wire shall be blue, have "UL" markings and suitable for direct bury applications.
- Continuity Test Station:
 Continuity test stations shall be located adjacent to each fire hydrant within the public easement for locating PVC water mains. The test station shall be housed in a standard Howard County 18-inch diameter meter vault with an 18"x12" metal frame and cover as shown in the details on the Plans. A 1-inch diameter by 30-inch long copper grounding rod imbedded a minimum of 12 inches into the ground shall be used for the attachment of the tracer wire. The tracer wire shall be fastened to the copper rod using two copper clamps.
- Detection Tape:
 Visual Detection tape shall be 3 inches wide (minimum) metallic blue plastic tape lettered "water" in black graphics.

- Connection to PVC waterlines:
 - Connections to PVC waterlines shall be by using fittings, such as tees, indicated on the Plans.
 - Saddles may be used for 2-inch and smaller connections to PVC waterlines. Saddles with clamps shall provide full support around the circumference of the pipe and shall not distort, scratch, or damage the pipe when tightened. Only tapping saddles manufactured specifically for AWWA C900 PVC pipe shall be used. Saddle and clamps/straps shall be formed to meet the curvature of the pipe. Saddles with clamps shall be manufactured for underground service, shall be rated for a minimum service of 150 psi and shall be brass or bronze alloy meeting ASTM B62 or B584 and AWWA C800 or ductile iron saddles meeting ASTM A536 or A395 with two 18-8 stainless steel straps and shall be epoxy or nylon coated. Saddles shall have watertight gaskets of Buna-N rubber meeting ASTM D2000 or nitrile around the tap hole. Saddles shall be one of the following:
 - Ford FC-202
 - Mueller Series DR2S
 - Romac 202N
 - Smith Blair 317 Nylon Coated
 - JCM 406

EXECUTION

All construction methods and details shall be in accordance with the Howard County Design Manual Volume IV-Standard Specifications and Details for Construction and the following Criteria:

- Installation of PVC Water mains:
 - PVC pipe and fittings shall be handled in accordance with AWWA C605.
 - Bedding:
 Provide 6 inches of stone bedding under the pipe in accordance with Standard Detail G2.01 and the detail shown on the Plans for Trench or PVC Pipe using AASHTO M 43, size number 57 aggregate. The stone bedding shall be installed to grade prior to laying pipe. Excavate bell holes on bedding at each joint to assemble the joint and to insure that the entire length of each pipe barrel, fitting, and valve is supported on firm bedding.
 - Install PVC AWWA C900 pressure pipe:
 Installation shall be in accordance with the Standard Specifications and the manufacturer's installation instructions and recommendations except as modified herein. Changes in horizontal and vertical alignment and curved alignments shown on the Plans shall be made by using fittings. Deflecting PVC joints or bending PVC pipe will not be permitted.
- Whenever a pipe requires cutting, the work shall be done in a manner that leaves a smooth, square end. Cut PVC pipe ends shall have burrs removed and the end beveled to match factory bevel. To ensure the proper length of insertion of the spigot into the bell, PVC pipe cut in the field shall be leveled and marked on the spigot end to the dimensions specified by the manufacturer prior to assembly.
- Prior to making gasketed joints, both mating pipe ends and the gasket shall be cleaned of all foreign material. The rubber gasket shall then be inserted in or stretched over the clean gasket seat and lubricant applied to the gasket and mating pipe end. The method for inserting the spigot into the bell shall be as recommended by the manufacturer and approved by the County. The pipe ends shall be carefully aligned and pushed together to meet the required manufacturer's insertion depth. Insertion of the spigot end of the pipe shall be made to a point where the factory mark is even with the face of the bell.
- Tracer Wires:
 Install tracer wires with the pipe. Tape wire to the top of the pipe with minimum 2-inch wide 1/2-pipe-circumference long PVC tape every 4 feet along the pipe. The copper wire shall be continuous for the full length of the pipeline including all fire hydrant leads and shall terminate at continuity test stations. Continuity test stations shall be located adjacent to all fire hydrants. All splicing shall be done at test station, no direct bury splicing is allowed.

Connections to continuity test stations shall be in accordance with the detail shown on the Plans.

After backfilling, the Contractor shall test the tracer wire in the presence of the County to demonstrate electrical continuity between test stations through the length of the PVC pipeline installed. The Contractor shall notify the County 48 hours in advance of the tests. Any discontinuity shall be located, repaired, and retested at the Contractor's expense until continuity is achieved.

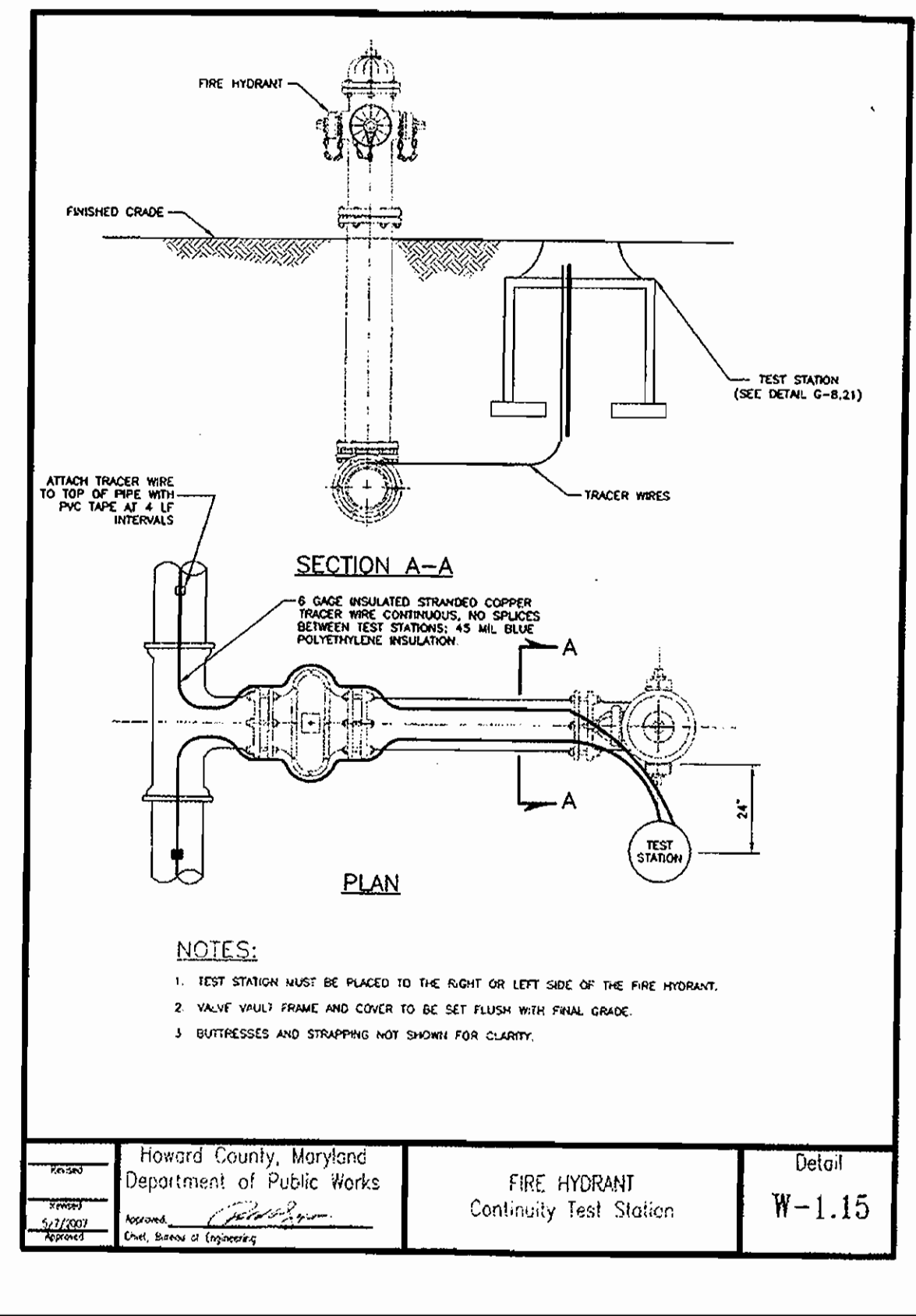
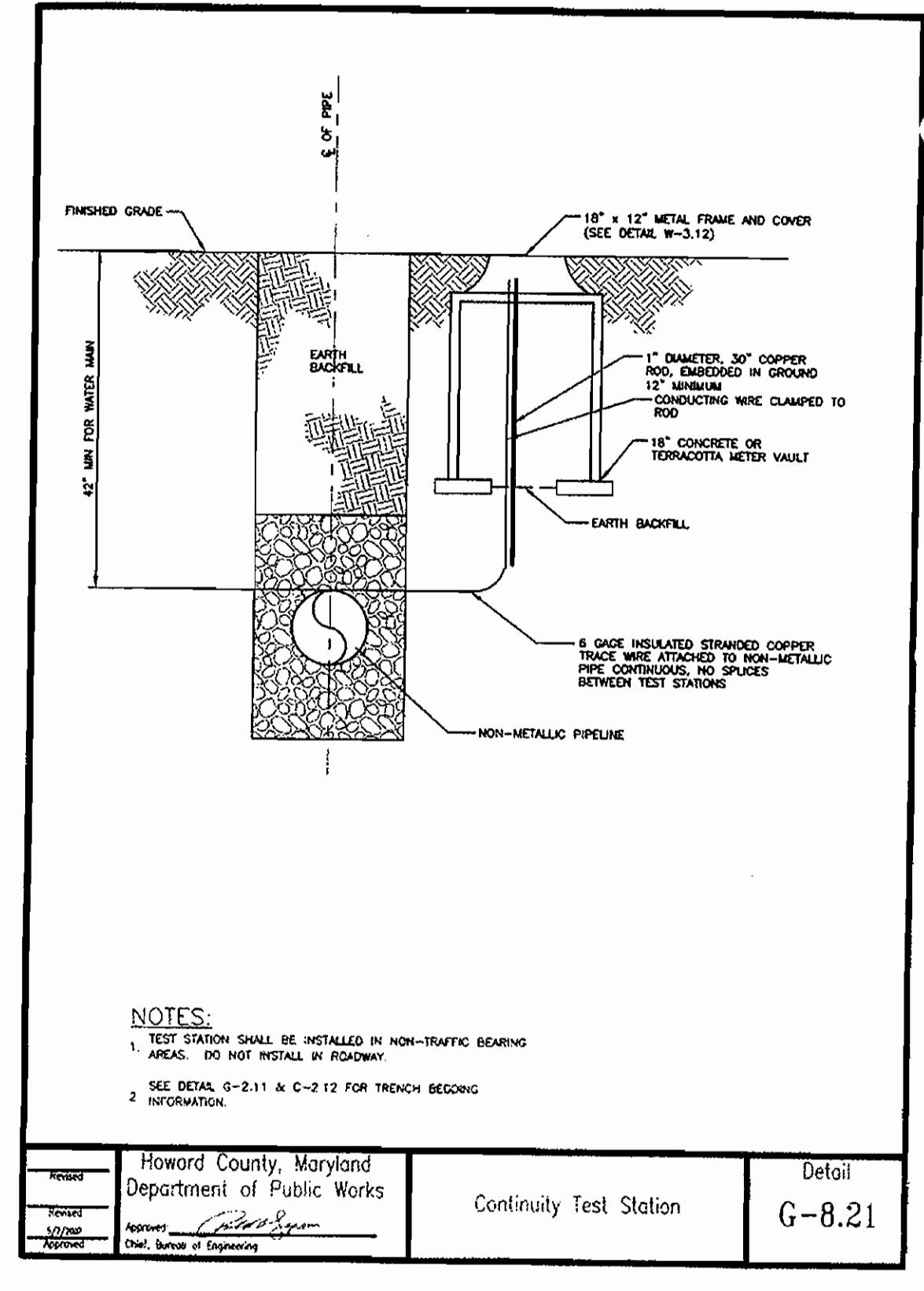
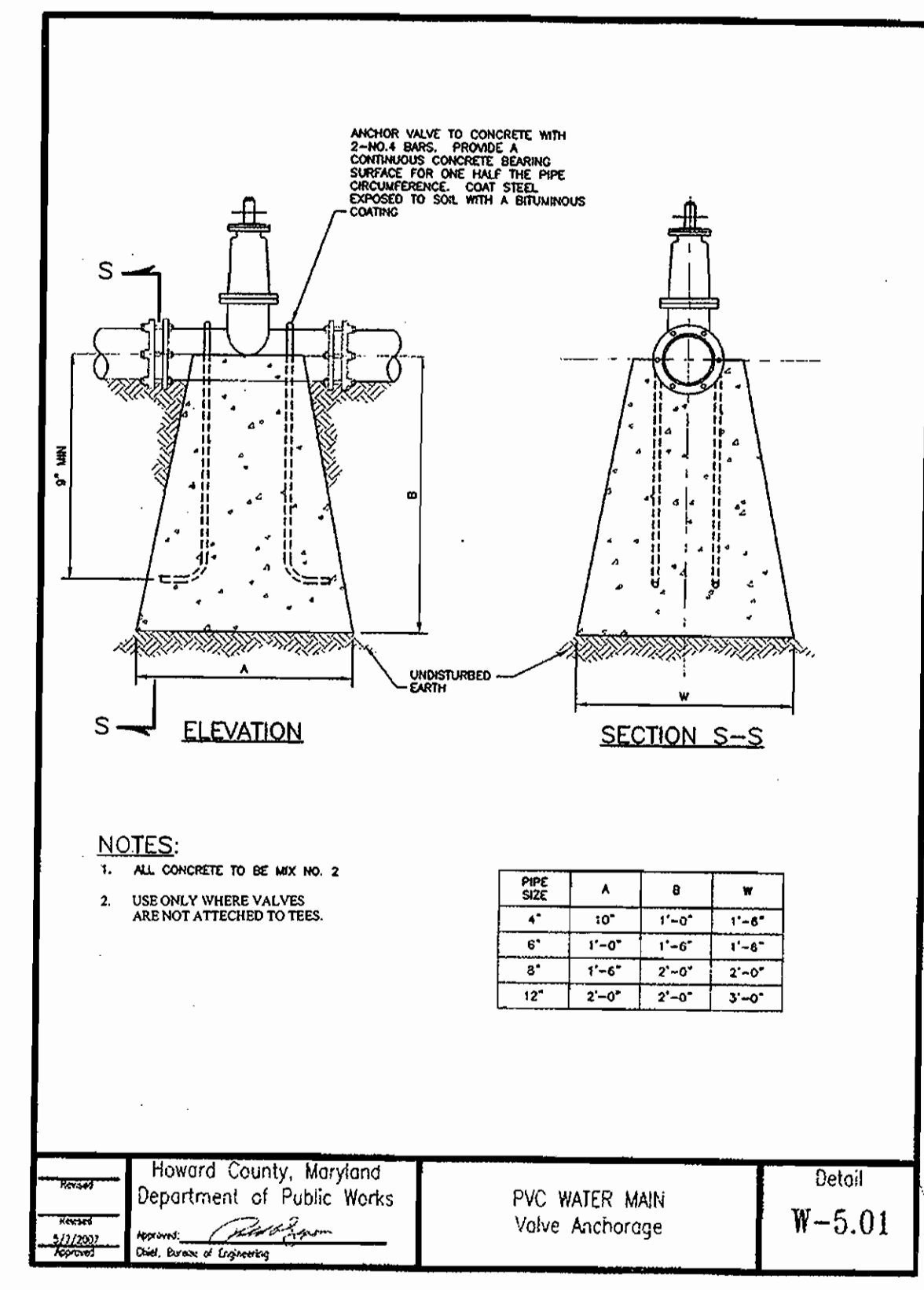
e. Backfill:
Backfill over the PVC pipe in accordance with Standard Detail G2.01 and the detail shown on the Plans for Trench or PVC Pipe using well-compacted AASHTO M 43, size number 57 aggregate to minimum of 6 inches over the crown of the pipe. Trench backfill shall proceed thereafter in 8-inch layers. Contractor shall provide full trench compaction density of 95% as determined by AASHTO T-180-A.

f. Detection tape:
Install detection tape directly over the centerline of the water mains on compacted backfill not less than 18 inches or more than 24 inches below finished surface. Tape shall be installed with minimal splices. Splices shall overlap a minimum of 6 inches.

- Joints:
 - Mechanical Joints:
 For PVC plain-end to be connected to ductile mechanical joint bell, assemble the joint in accordance with the Standard Specifications, as modified in AWWA C605, the pipe manufacturer's recommendations and as specified herein. For PVC pipe plain ends to be inserted into mechanical joint bells, cut off the bevel so the plain-end is square cut. Do not deflect PVC pipe at connection to cast or ductile iron pipe or fittings.
 - Push-on Joints:
 For PVC plain ends to be inserted in ductile iron or cast iron push-on bell, the spigot taper shall be cut to 1/4-inch long. Place an identifying mark on the pipe that is not finished with the depth mark on the plain end to show the depth of the socket and to verify that pipe is properly set in the bell. Assemble joints in accordance with AWWA C600 and C605, the manufacturer's recommendations, as specified herein.

Do not deflect PVC pipe at connection to cast or ductile iron pipe or fittings. The Contractor shall achieve change in alignment as indicated elsewhere herein. Assembly of the plain end into the bell shall be done in accordance with manufacturer's recommendations. Install push-on restrained joint in accordance with manufacturer's recommendations.

- Restrained Joint:
 In a restrained joint, PVC pipe shall not be deflected. If deflection is required in a restraint joint, use restrained ductile iron pipe.
- Where the Contractor chooses to use PVC fittings, the pressure class of the fitting shall be the same as, or greater than, the pressure class of the pipe to which it connects. If the pressure class is not available, the Contractor shall use a ductile iron fitting. Where a fitting with restrained joints is required, a ductile iron mechanical joint shall be used.
- Fire Hydrant lead, including mainline tee, shall be ductile iron only.
- Connections to PVC for Water House Connections:
 - Perform taps on PVC pipe in accordance with AWWA C605, the pipe manufacturer's recommendations, and as indicated herein.
 - Install a service saddle when tapping a PVC water main. Maintain a minimum of 24 inches between taps and PVC pipe bells.
 - For PVC water pipe, use only cutting/tapping tools and machines made specifically for cutting AWWA C900 pipe and as described in AWWA C605. The cutting/tapping machine shall be installed so that it does not distort the pipe. When tapping PVC pipe, follow the manufacturer's safety precautions and the safety precautions cited in AWWA C605.
 - Multiple taps in a single pipe shall be staggered around the pipe circumference so they are not on a common line parallel to the longitudinal axis of the pipe and be at least 18-inches apart when measured longitudinally.



HOWARD SOIL CONSERVATION DISTRICT:
REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

U.S.D.A. NATURAL RESOURCES CONSERVATION SERVICE

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

SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE HOWARD COUNTY STANDARDS AND SPECIFICATIONS AND AS PER ROAD CONSTRUCTION PLANS.

Dewberry
203 PERRY PARKWAY, SUITE 1
GAITHERSBURG, MARYLAND 20877
PHONE. 301.948.8300
FAX. 301.258.7607

DEVELOPER CONTACT: MATTHEW BITAR THE DOLBEN COMPANY, INC 2600 MIDWAY BRANCH DRIVE SECOND FLOOR ODENTON, MD 21113 301.912.3600 301.912.3400	DES.: SR				
	DRN.: SR				
	CHK.: JMC				
DATE: 12-19-07	BY	NO.	REVISIONS	DATE	

PUBLIC WATER PROFILE

ZONE: CAC-CLI
8170 WASHINGTON BOULEVARD

TAX MAP NO. 43, GRID 14
PARCELS 214, 521, 446, 447 & 525

AS BUILT
DATE: APRIL 2009

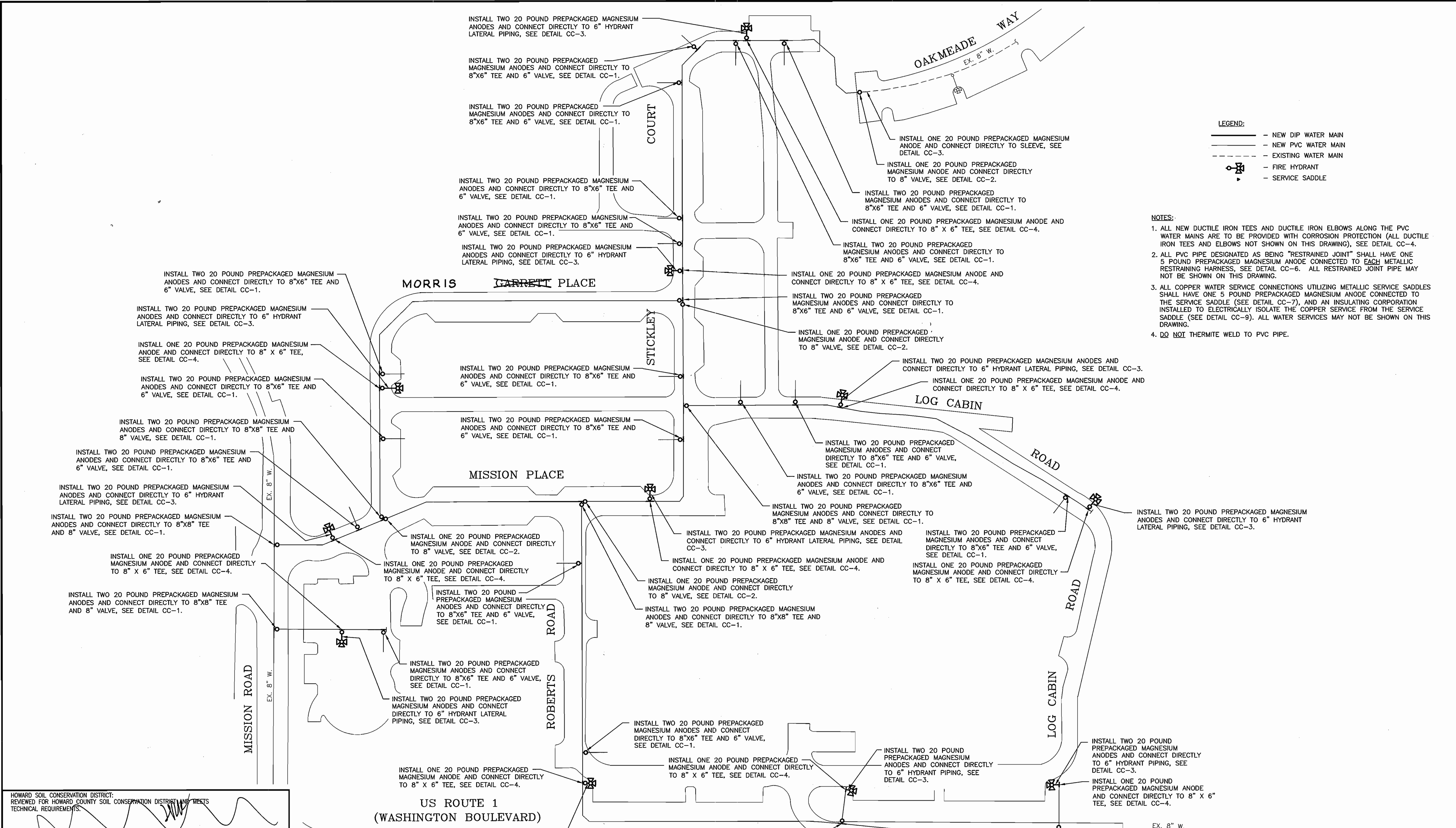
OWNER/DEVELOPER CONTACT:
MATTHEW BITAR
THE DOLBEN COMPANY, INC
2600 MIDWAY BRANCH DRIVE
SECOND FLOOR
ODENTON, MD 21113
301.912.3600
301.912.3400

PARCEL 214 (8170 WASHINGTON BLVD)
L. 5904 F. 584
PARCEL 521 (8142 WASHINGTON BLVD)
L. 507 F. 255
PARCEL 446 (8112 WASHINGTON BLVD)
L. 1198 F. 646
PARCEL 447 (8116 WASHINGTON BLVD)
L. 3759 F. 583
PARCEL 525 (8126 WASHINGTON BLVD)
L. 4750 F. 433

MISSION PLACE
PARCELS A, B, & C, BLOCK 1
8th ELECTION DISTRICT
HOWARD COUNTY, MD
CONTRACT NO. 24-4402-D

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

SHEET
8 OF 11



HOWARD SOIL CONSERVATION DISTRICT:
REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS
TECHNICAL REQUIREMENTS.

U.S.D.A.-NATURAL RESOURCES CONSERVATION SERVICE

DATE: 11/7/08

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

DATE: 11/7/08

SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE
IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE
HOWARD COUNTY STANDARDS AND SPECIFICATIONS AND AS PER
ROAD CONSTRUCTION PLANS.

THIS DRAWING IS NOT APPLICABLE FOR
USE AS STANDARD CORROSION CONTROL
PROCEDURES FOR OTHER PROJECTS
DUE TO VARIABLE CONDITIONS AT OTHER
SITES. NEITHER THIS DESIGN NOR ANY
PART THEREOF MAY BE REPRODUCED IN
ANY WAY FOR OTHER PROJECTS OR
MODIFIED IN ANY WAY FOR THIS OR
OTHER PROJECTS EXCEPT BY WRITTEN
AGREEMENT WITH RUSSELL CORROSION
CONSULTANTS, INC.

CORROSION CONTROL LAYOUT
SCALE: NONE

AS BUILT
DATE: APRIL 2009

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

DATE: 11/16/07

DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY, MARYLAND

DATE: 11/16/07

RUSSELL CORROSION CONSULTANTS, INC.
Columbia, Maryland



DES.: MJS				
DRN.: DJD				
CHK.: MJS				
DATE: 11-16-07	BY: NO.	REVISIONS	DATE	

CORROSION CONTROL LAYOUT

ZONE: CAC-CL1
1870 WASHINGTON BOULEVARD

TAX MAP No. 43, GRID 14
PARCELS 214, 521, 446, 447 & 525

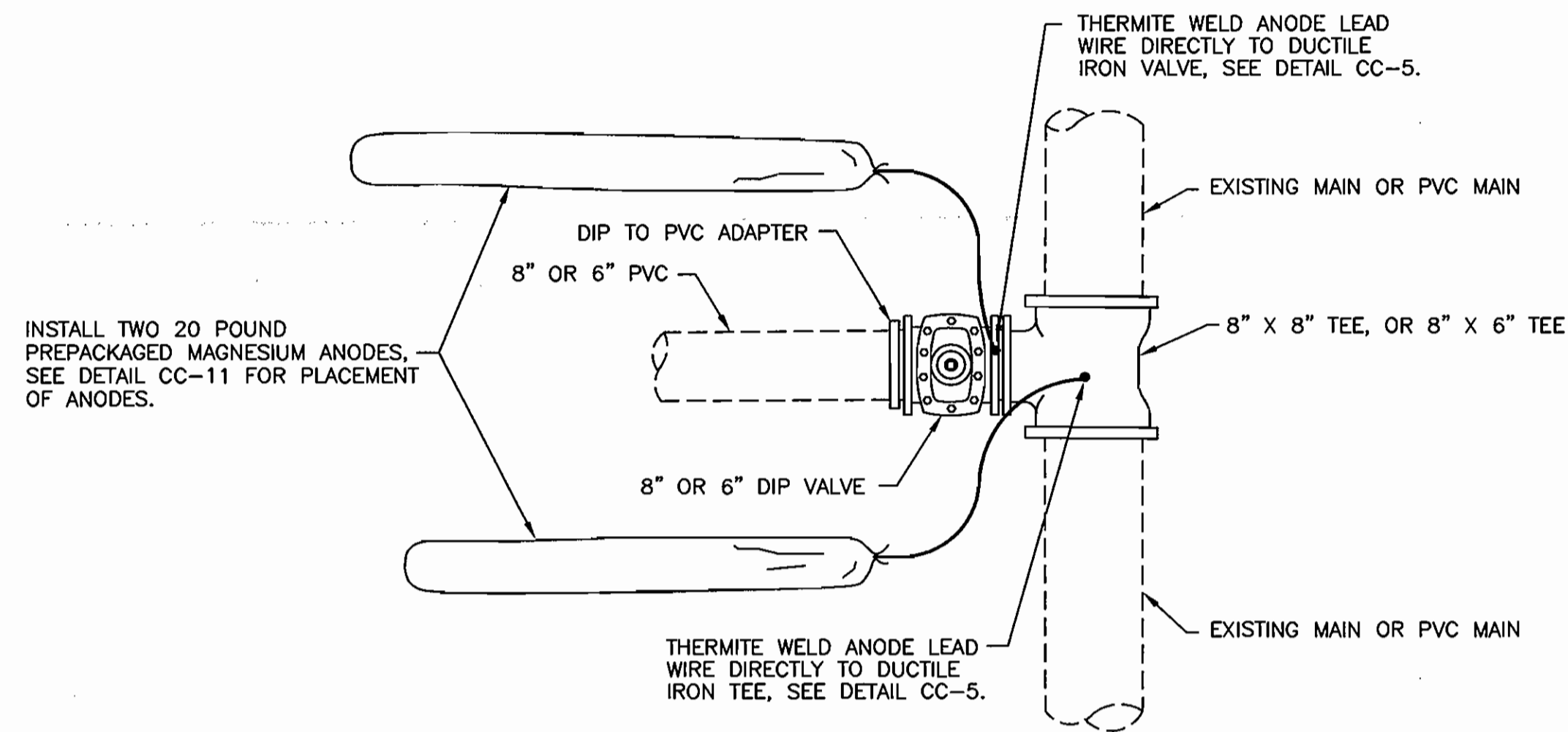
MISSION PLACE
PARCELS A, B, & C, BLOCK 1

8th ELECTION DISTRICT
HOWARD COUNTY, MD

CONTRACT NO. 24-4402-D

SDP-07-101

SCALE: NONE
SHEET 9 OF 11



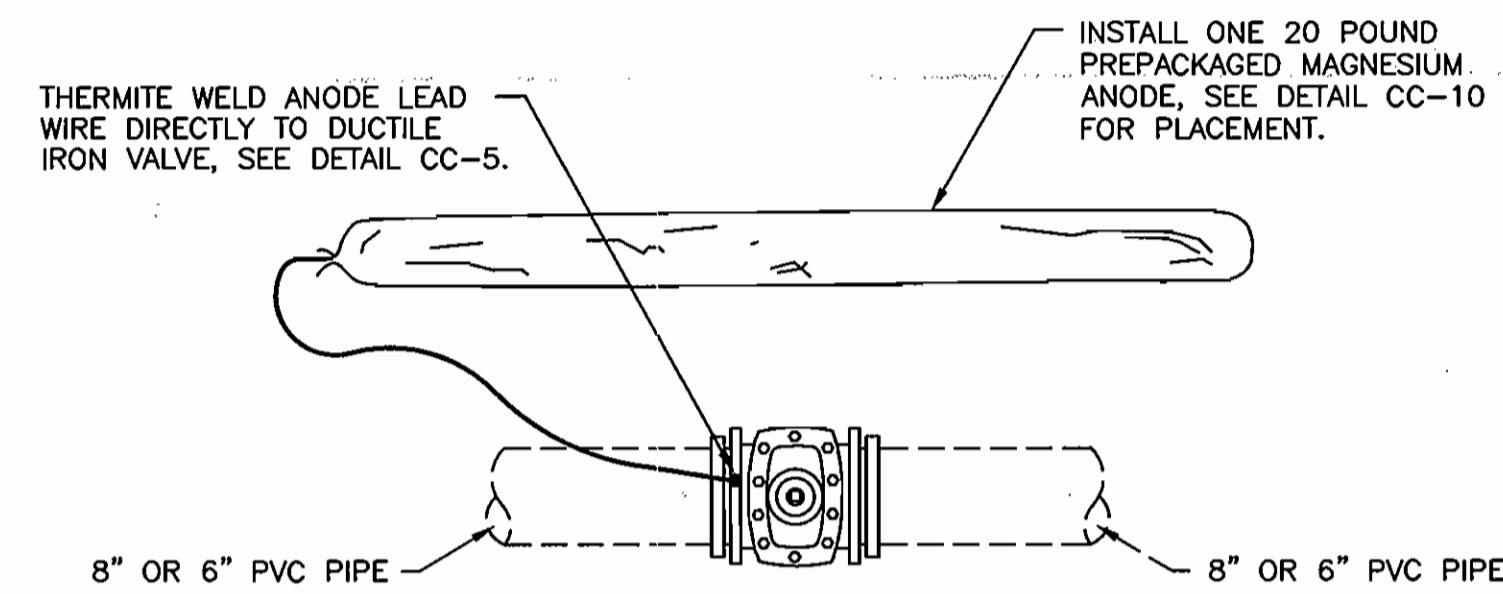
INSTALL TWO 20 POUND PREPACKAGED MAGNESIUM ANODES. SEE DETAIL CC-11 FOR PLACEMENT OF ANODES.

NOTES:

1. ANODES PLACED AT SAME DEPTH AS THE BOTTOM OF PIPE AND AT A MINIMUM OF 12" FROM EDGE OF PIPE, SEE DETAIL CC-11.
2. DO NOT THERMITE WELD TO PVC PIPE.

CC-1: CORROSION PROTECTION OF DUCTILE IRON VALVE AND TEE (8" AND 6")

SCALE: NONE

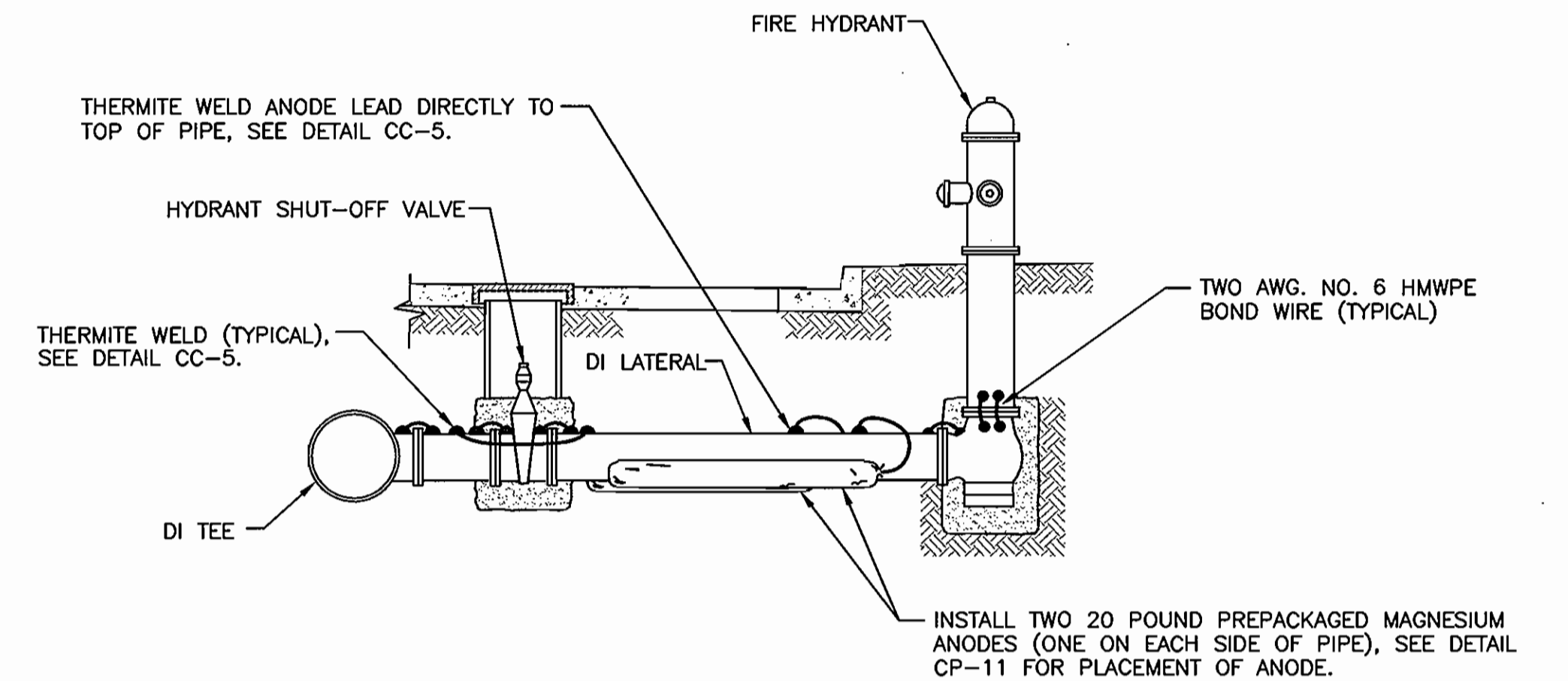


NOTES:

1. ANODES PLACED AT SAME DEPTH AS THE BOTTOM OF PIPE AND AT A MINIMUM OF 12" FROM EDGE OF PIPE, SEE DETAIL CC-10
2. DO NOT THERMITE WELD TO PVC PIPE.

CC-2: CORROSION PROTECTION OF DUCTILE IRON VALVE (8" AND 6")

SCALE: NONE

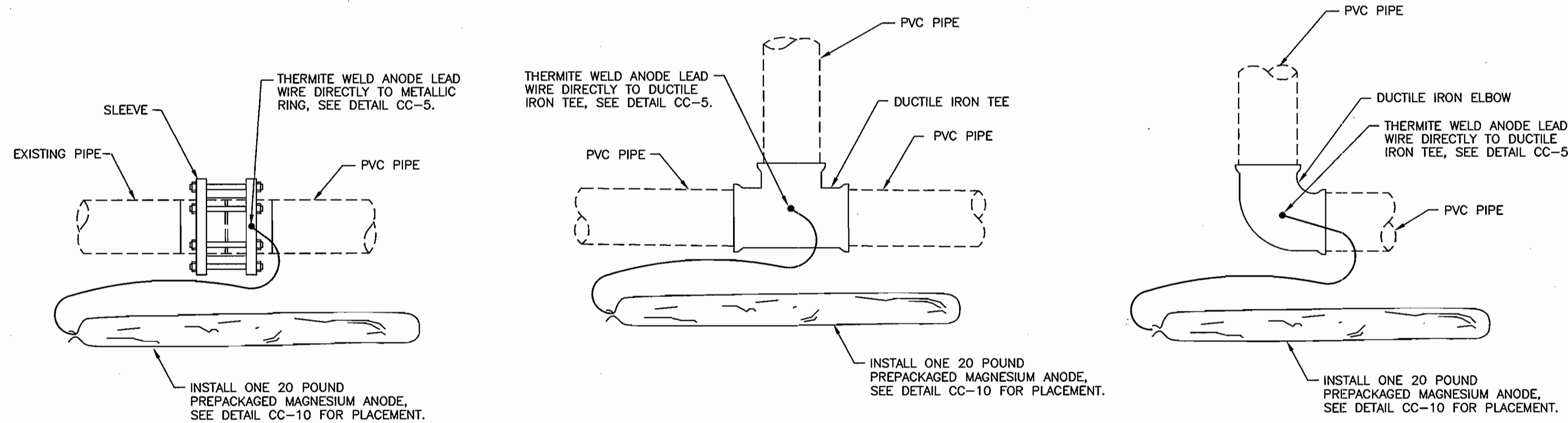


NOTES:

1. BOND ALL DUCTILE IRON COMPONENTS TOGETHER WITH AWG NO. 6 HMWPE WIRES, INSTALL A MINIMUM OF TWO BOND CABLES ACROSS EACH DUCTILE IRON PIPE JOINT.
2. INSTALL BOND WIRES ON TOP OF DUCTILE IRON PIPE OR DUCTILE IRON FITTING WHERE POSSIBLE.
3. ANODES PLACED AT SAME DEPTH AS THE BOTTOM OF PIPE AND AT A MINIMUM OF 12" FROM EDGE OF PIPE, SEE DETAIL CC-11.
4. INSTALL BOND CABLES TO HYDRANT RISER PIPE AND RISER ELBOW BEFORE INSTALLING HYDRANT.
5. DO NOT THERMITE WELD TO PVC PIPE.

CC-3: CORROSION PROTECTION OF FIRE HYDRANT AND VALVE

SCALE: NONE

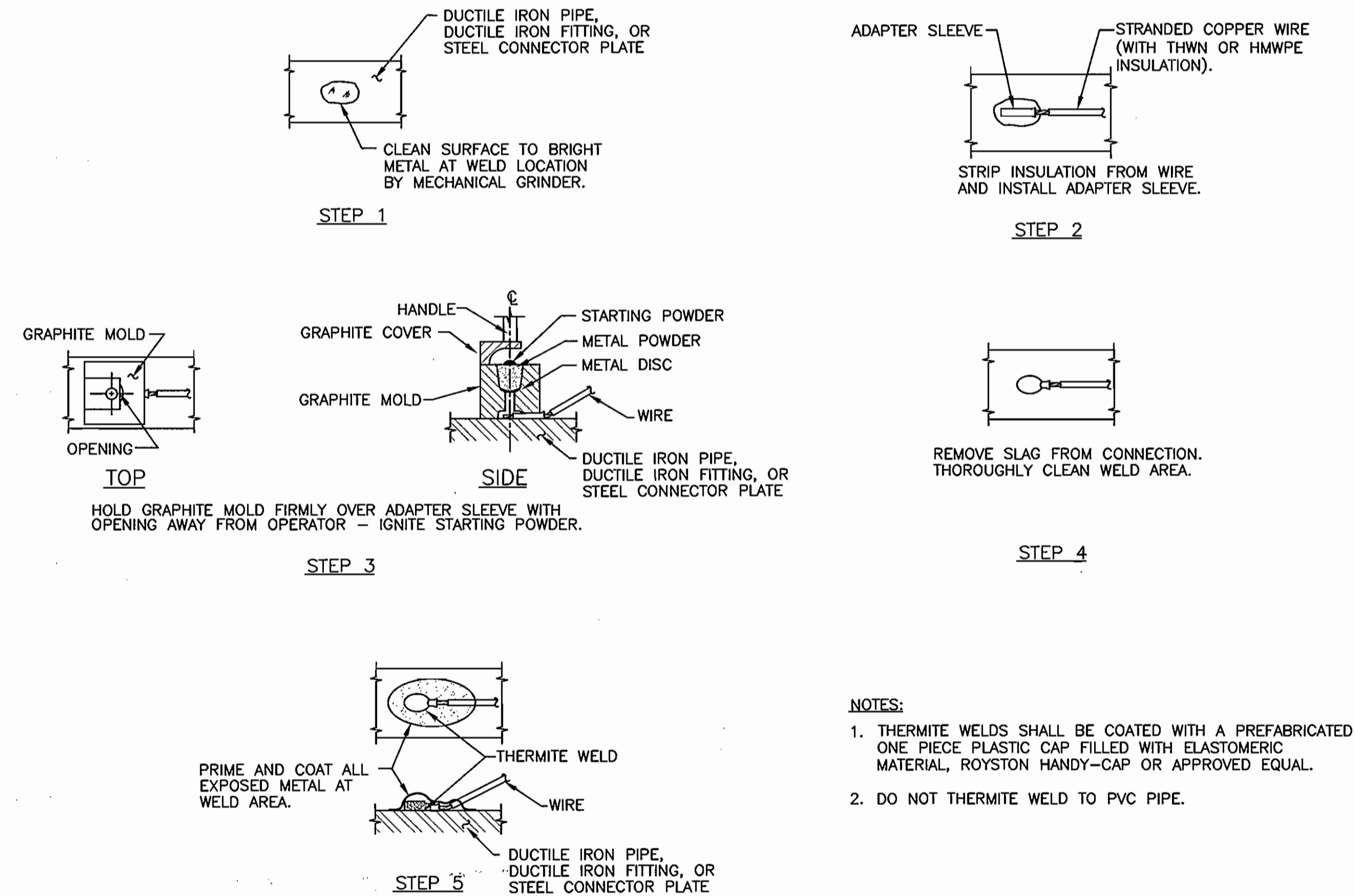


NOTES:

1. ANODES REQUIRED ONLY IF TEE, OR ELBOW IS DUCTILE IRON.
2. ANODES PLACED AT SAME DEPTH AS THE BOTTOM OF PIPE AND AT A MINIMUM OF 12" FROM EDGE OF PIPE, SEE DETAIL CC-10.
3. DO NOT THERMITE WELD TO PVC PIPE.

CC-4: CORROSION PROTECTION OF DUCTILE IRON FITTINGS

SCALE: NONE



NOTES:

1. THERMITE WELDS SHALL BE COATED WITH A PREFABRICATED ONE PIECE PLASTIC CAP FILLED WITH ELASTOMERIC MATERIAL, ROYSTON HANDY-CAP OR APPROVED EQUAL.
2. DO NOT THERMITE WELD TO PVC PIPE.

CC-5: TYPICAL THERMITE WELD

SCALE: NONE

AS BUILT
DATE: APRIL 2009

HOWARD SOIL CONSERVATION DISTRICT
REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.
U.S.D.A.-NATURAL RESOURCES CONSERVATION SERVICE
DATE: 1/27/09
HOWARD SOIL CONSERVATION DISTRICT
SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE HOWARD COUNTY STANDARDS AND SPECIFICATIONS AND AS PER ROAD CONSTRUCTION PLANS.

THIS DRAWING IS NOT APPLICABLE FOR USE AS STANDARD CORROSION CONTROL PROCEDURES FOR OTHER PROJECTS DUE TO VARIABLE CONDITIONS AT OTHER SITES. NEITHER THIS DESIGN NOR ANY PART THEREOF MAY BE DUPLICATED IN ANY WAY FOR OTHER PROJECTS OR MODIFIED IN ANY WAY FOR THIS OR OTHER PROJECTS, EXCEPT BY WRITTEN AGREEMENT WITH RUSSELL CORROSION CONSULTANTS, INC.



DES.: MJS			
DRN.: DJD			
CHK.: MJS			
DATE: 11-16-07	BY: NO.	REVISIONS	DATE

CORROSION CONTROL DETAILS 1
ZONE: CAC-CL1
8170 WASHINGTON BOULEVARD
TAX MAP No. 43, GRID 14
PARCELS 214, 521, 446, 447 & 525

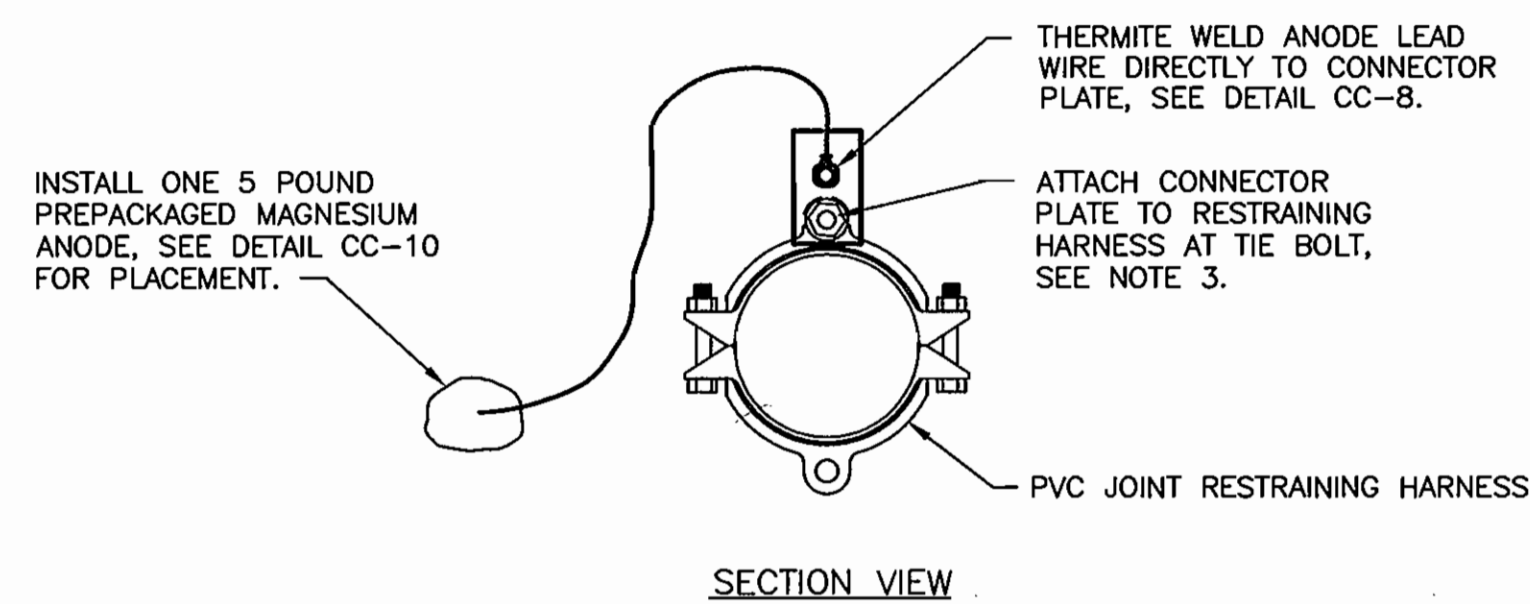
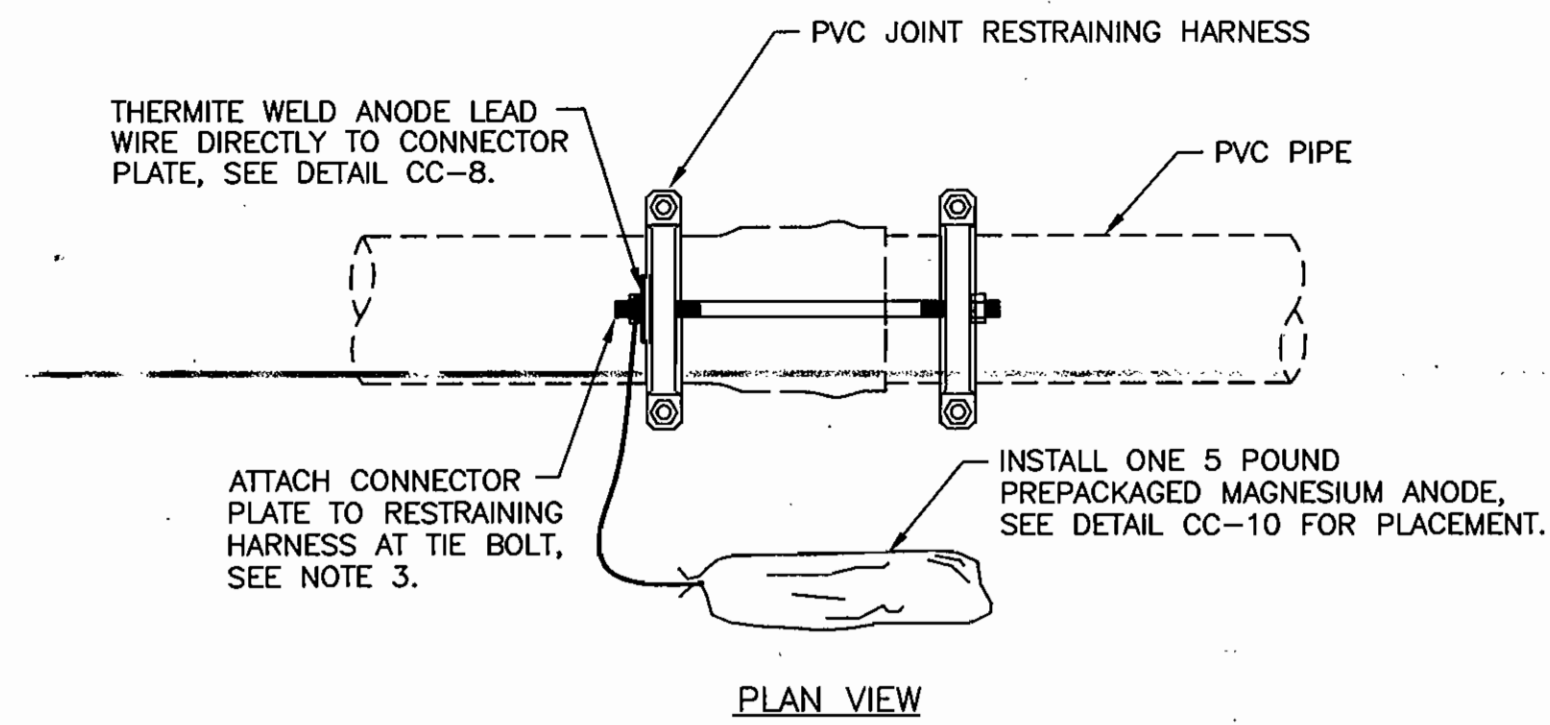
MISSION PLACE
PARCELS A, B, & C, BLOCK 1
8th ELECTION DISTRICT
HOWARD COUNTY, MD
CONTRACT NO. 24-4402-D

SDP-07-101

SCALE: NONE
SHEET 10 OF 11

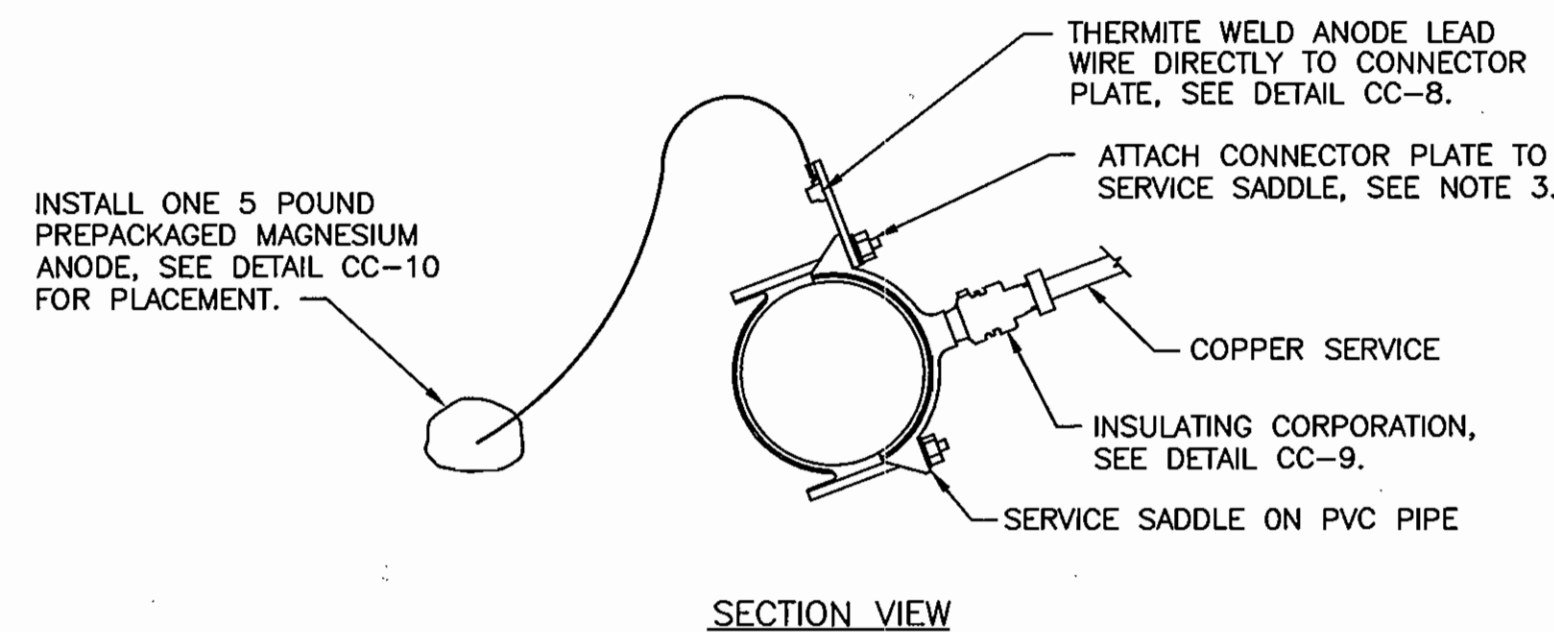
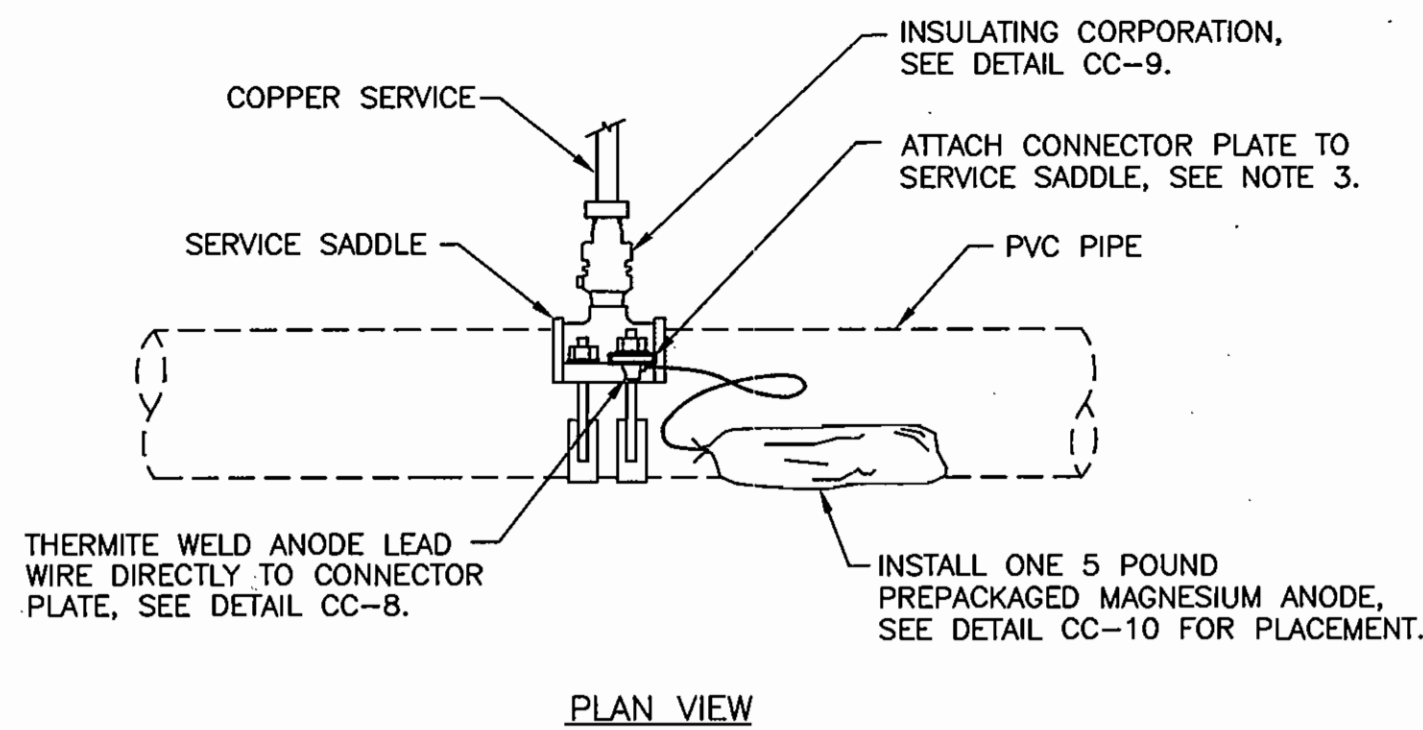
DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
Steve Clum
CHIEF, BUREAU OF UTILITIES

DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY, MARYLAND
1/26/09
DATE
CHIEF, DEVELOPMENT ENGINEERING DIVISION



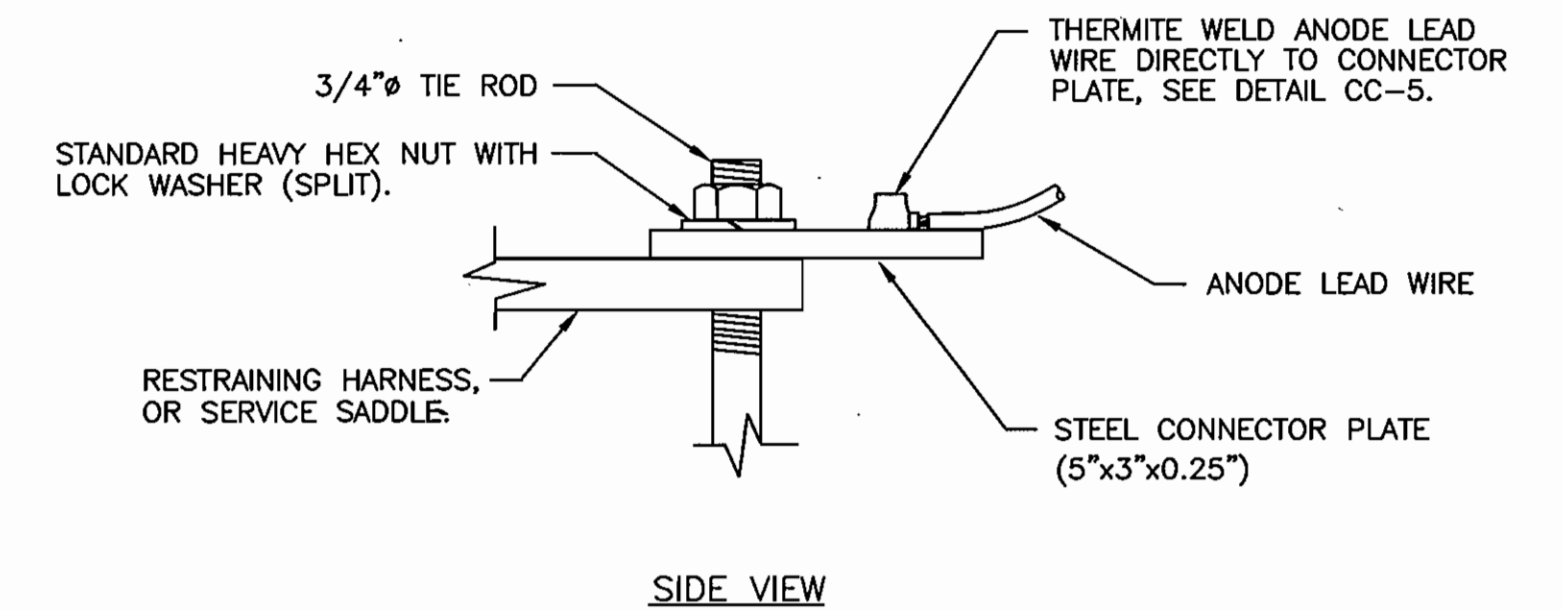
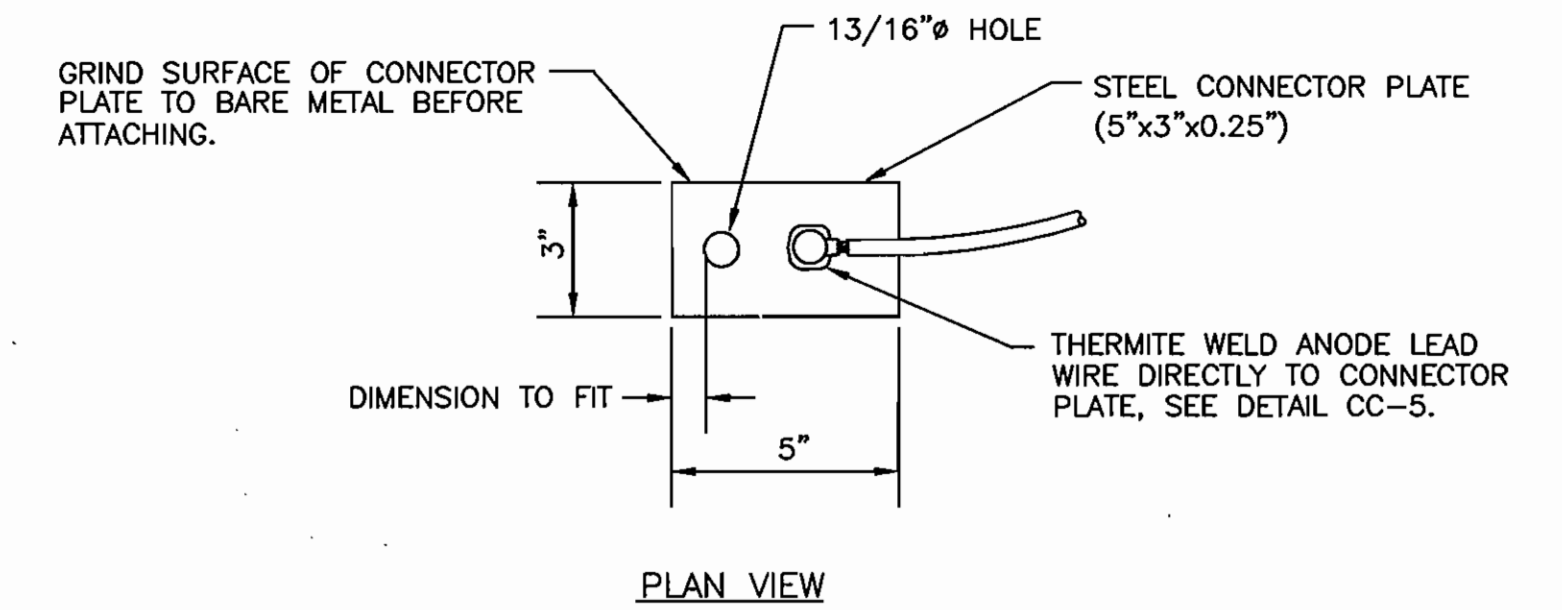
- NOTES:**
- CONNECTOR PLATE TO BE THERMITE WELDED TO ANODE LEAD WIRE PRIOR TO ATTACHING CONNECTOR PLATE TO RESTRAINING HARNESS.
 - ANODES PLACED AT SAME DEPTH AS THE BOTTOM OF PIPE AND AT A MINIMUM OF 12" FROM EDGE OF PIPE, SEE DETAIL CC-10.
 - REMOVE COATING FROM RESTRAINING HARNESS WHERE CONNECTOR PLATE IS TO BE MOUNTED. REMOVE COATING IMMEDIATELY PRIOR TO ATTACHING THE CONNECTOR PLATE.
 - DO NOT THERMITE WELD TO PVC PIPE.

CC-6: CORROSION PROTECTION OF RESTRAINING HARNESS
SCALE: NONE



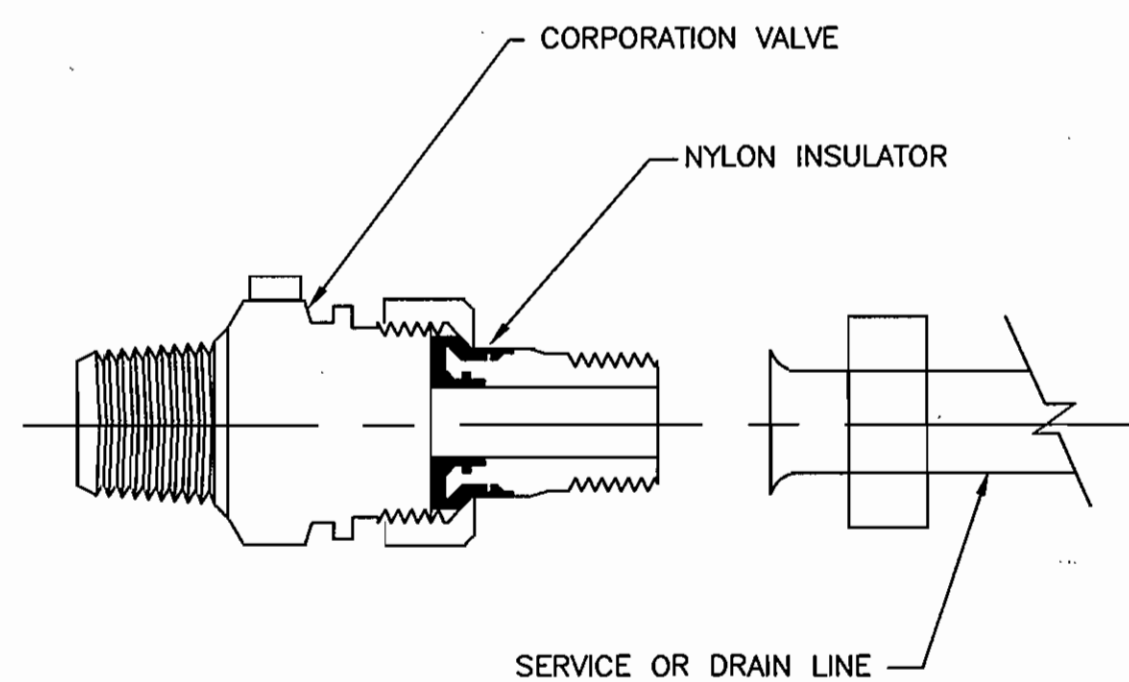
- NOTES:**
- CONNECTOR PLATE TO BE THERMITE WELDED TO ANODE LEAD WIRE PRIOR TO ATTACHING CONNECTOR PLATE TO SERVICE SADDLE.
 - ANODES PLACED AT SAME DEPTH AS THE BOTTOM OF PIPE AND AT A MINIMUM OF 12" FROM EDGE OF PIPE, SEE DETAIL CC-10.
 - REMOVE COATING FROM SERVICE SADDLE WHERE CONNECTOR PLATE IS TO BE MOUNTED. REMOVE COATING IMMEDIATELY PRIOR TO ATTACHING THE CONNECTOR PLATE.
 - DO NOT THERMITE WELD TO PVC PIPE.

CC-7: CORROSION PROTECTION OF SERVICE SADDLE
SCALE: NONE



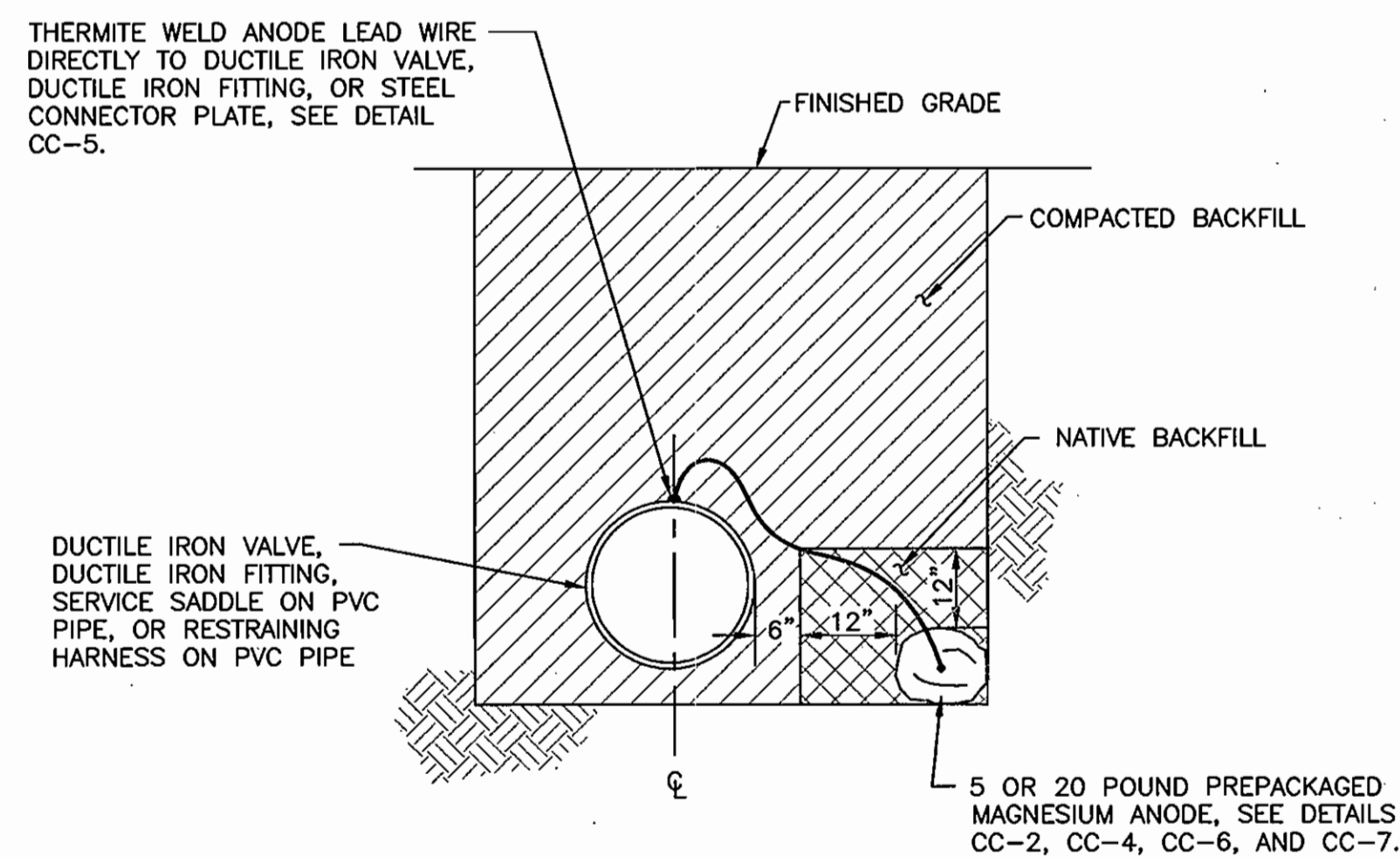
- NOTES:**
- CONNECTOR PLATE TO BE THERMITE WELDED TO ANODE LEAD WIRE PRIOR TO ATTACHING CONNECTOR PLATE TO RESTRAINING HARNESS, OR SERVICE SADDLE.
 - THERMITE WELDS SHALL BE COATED WITH A PREFABRICATED ONE PIECE PLASTIC CAP FILLED WITH ELASTOMERIC MATERIAL, ROYSTON HANDY-CAP OR APPROVED EQUAL.

CC-8: CONNECTION PLATE DETAIL
SCALE: NONE



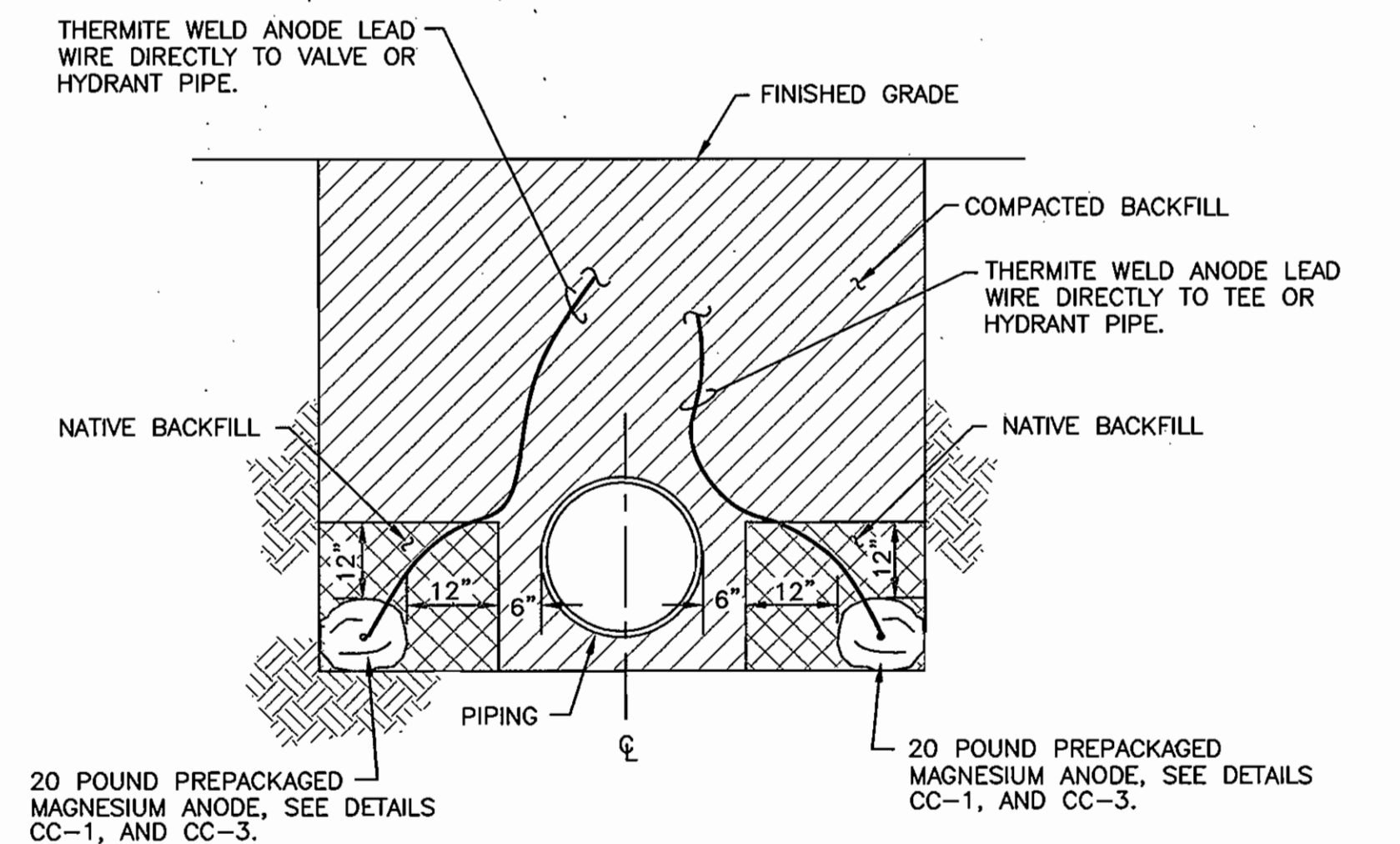
- NOTES:**
- INSTALL ELECTRICAL ISOLATION ON ALL WATER SERVICE AND DRAIN LINE CONNECTIONS TO MAIN.
 - COAT EXTERIOR OF CORPORATION VALVE, AND SERVICE PIPING AND/OR DRAIN LINE FOR A DISTANCE OF 12 INCHES WITH MASTIC COATING (ROYSTON ROSKOTE R28). MASTIC COATING TO BE MINIMUM OF 20 MILS IN THICKNESS.
 - INSULATED CORPORATION NOT REQUIRED FOR PLASTIC SERVICES.

CC-9: INSULATING CORPORATION
SCALE: NONE



- NOTES:**
- INSTALL ANODE IN NATIVE SOIL. DO NOT BACKFILL ANODE WITH SAND OR STONE.
 - DO NOT THERMITE WELD TO PVC PIPE.

CC-10: SINGLE ANODE PLACEMENT
SCALE: NONE



- NOTES:**
- INSTALL ANODES A MINIMUM OF 12 INCHES FROM PIPE.
 - BACKFILL ANODES WITH NATIVE SOIL FOR A MINIMUM OF 12 INCHES ON ALL SIDES. DO NOT BACKFILL ANODES WITH SAND OR STONE.
 - DO NOT THERMITE WELD TO PVC PIPE.

CC-11: DOUBLE ANODE PLACEMENT
SCALE: NONE

HOWARD SOIL CONSERVATION DISTRICT:
REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS
TECHNICAL REQUIREMENTS.

U.S.D.A.—NATURAL RESOURCES CONSERVATION SERVICE
DATE: 11/7/08

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

HOWARD SOIL CONSERVATION DISTRICT
DATE: 11/7/08

SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE
IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE
HOWARD COUNTY STANDARDS AND SPECIFICATIONS AND AS PER
ROAD CONSTRUCTION PLANS.

THIS DRAWING IS NOT APPLICABLE FOR
USE AS STANDARD CORROSION CONTROL
PROCEDURES FOR OTHER PROJECTS
DUE TO VARIABLE CONDITIONS AT OTHER
SITES. NEITHER THIS DESIGN NOR ANY
PART THEREOF MAY BE REPLICATED IN
ANY WAY FOR OTHER PROJECTS OR
OTHER PROJECTS EXCEPT BY WRITTEN
AGREEMENT WITH RUSSELL CORROSION
CONSULTANTS, INC.

AS BUILT
DATE: APRIL 2009