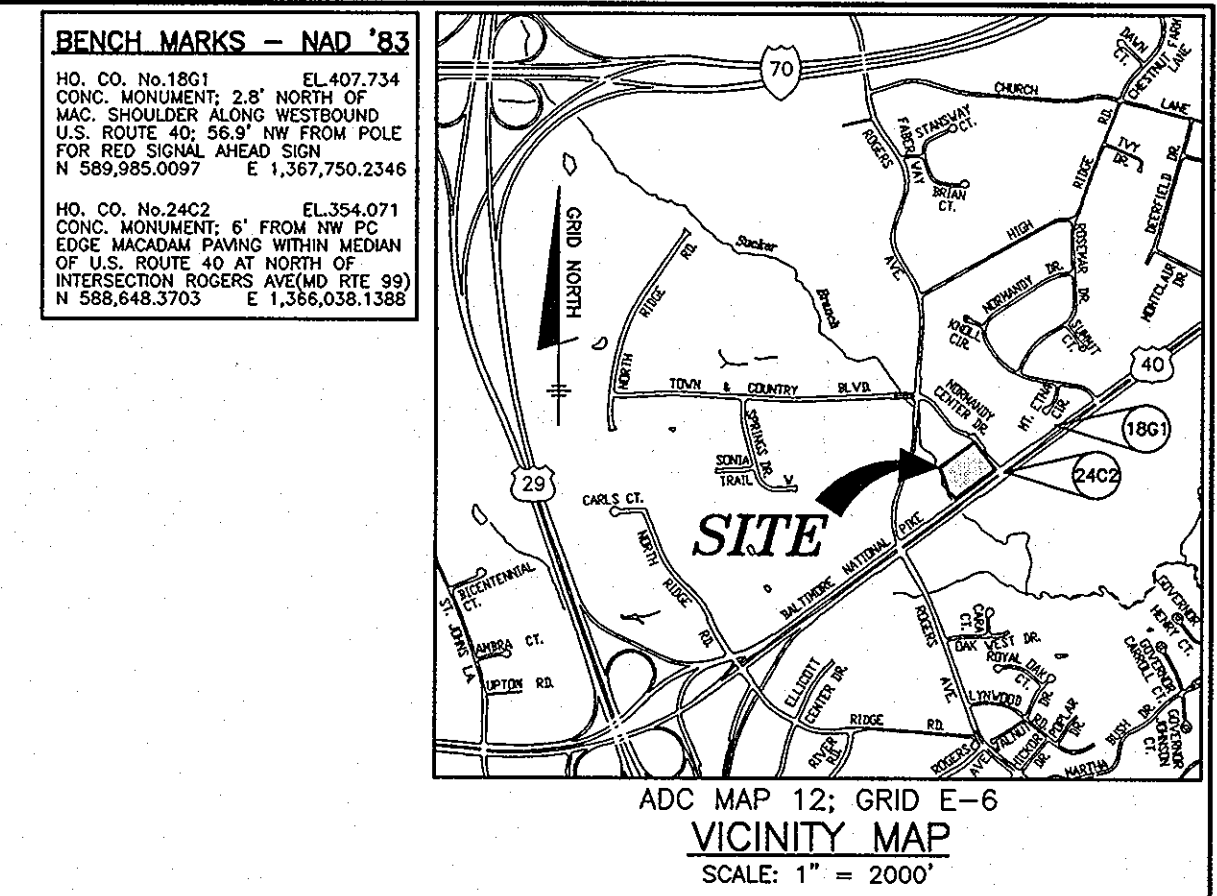


QUANTITIES				
ITEMS	ESTIMATED QUANTITIES	AS-BUILT		
		QUANTITIES	TYPE	MANUF./SUPPLIER
8" WATER	732.3 L.F.			
6" WATER	46.0 L.F.			
4" WHC	30.0 L.F.			
4" WATER VALVES	3 EACH			
8" 1/8HB	6 EACH			
FIRE HYDRANT	2 EACH			
FH TEE & VALVE	2 EACH			
8"x6" TSV (REV)	1 EACH			
8" WATER VALVES	2 EACH			
8" SEWER	121.8 L.F.			
MH (G-5.11)	1 EACH			
NAME OF UTILITY CONTRACTOR:				
SURVEY AND DRAFTING DIVISION AS-BUILT DATE:				

PUBLIC WATER AND SEWER CONSTRUCTION PLANS

MILLER FORD PROPERTY RETAIL/COMMERCIAL CENTER LOT 1

2nd ELECTION DISTRICT HOWARD COUNTY, MARYLAND CONTRACT No.14-4659-D



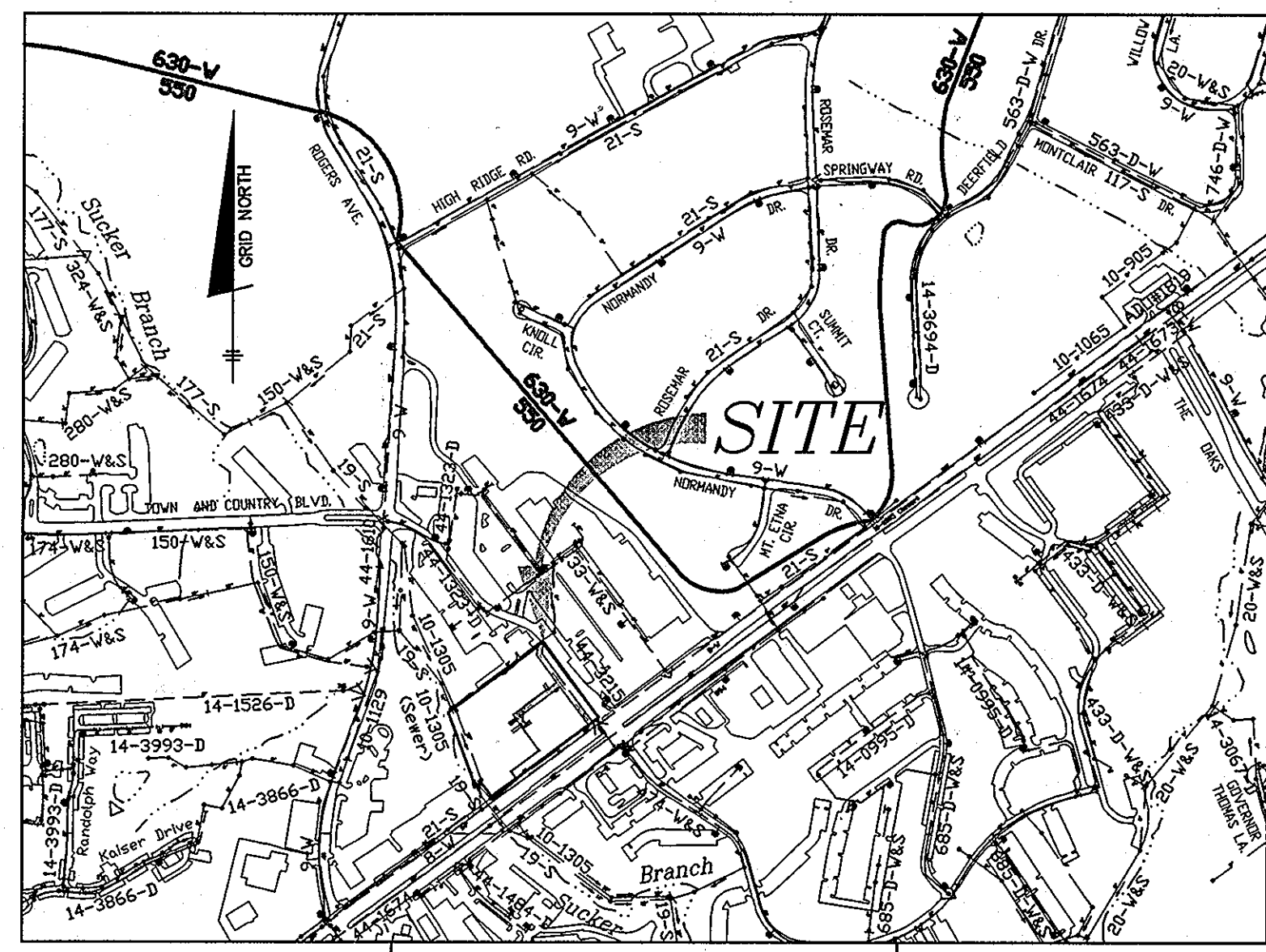
GENERAL NOTES

- PART 1 - GENERAL**
- APPROXIMATE LOCATION 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 OR ABOUT JULY, 2009 BY BENCHMARK ENGINEERING, INC., AND ARE SHOWN AT 2' INTERVALS.
 - THE COORDINATES SHOWN ON THE DRAWINGS ARE BASED ON MARYLAND STATE REFERENCE SYSTEM, NAD 83/91 AS PROJECTED BY HOWARD COUNTY GEODETIC CONTROL STATIONS 2402 AND 1801. ALL VERTICAL CONTROLS ARE BASED ON NAVD 88.
 - ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS UNLESS OTHERWISE NOTED ON PLANS.
 - CLEAR ALL UTILITIES BY A MINIMUM OF 12". 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 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 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 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.
 - 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
B&E (CONSTRUCTION SERVICES)	410-850-4620
B&E (EMERGENCY)	410-685-1400
HO. CO. DPW - 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 MAXIMUM EXTENT. TREES AND SHRUBS LOCATED WITHIN THE CONSTRUCTION STRIP ARE NOT TO BE REMOVED OR DAMAGED BY THE CONTRACTOR.
 - 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 WORKING DAYS BEFORE OPEN CUTTING OR BORING/JACKING OF ANY COUNTY ROAD FOR LAYING WATER/SEWER MAINS OR HOUSE CONNECTIONS. THE APPROVAL OF THESE DRAWINGS WILL CONSTITUTE COMPLIANCE WITH DPW REQUIREMENTS PER SECTION 18.114(a) OF THE HOWARD COUNTY CODE.

WATER SERVICE AS-BUILT LOCATION TABLE			
BUILDING	ADDRESS	LOCATION DIMENSION #1	LOCATION DIMENSION #2
#1	- BALTIMORE NATIONAL PIKE		
#2	- BALTIMORE NATIONAL PIKE		
#3	- BALTIMORE NATIONAL PIKE		

SEWER SERVICE AS-BUILT LOCATION TABLE			
BUILDING	ADDRESS	LOCATION DIMENSION #1	LOCATION DIMENSION #2
#1	- BALTIMORE NATIONAL PIKE		
#2	- BALTIMORE NATIONAL PIKE		
#3	- BALTIMORE NATIONAL PIKE		



TYPE OF BUILDING:	RETAIL
NUMBER OF PARCELS:	1
NUMBER OF SHC'S:	1
NUMBER OF WHC'S:	3
DRAINAGE AREA:	PATAPSCO
TREATMENT PLANT:	PATAPSCO WASTEWATER TREATMENT PLANT
WATER ZONE:	550
TEST GRADIENT:	700

- PART 2 - WATER**
- ALL WATER MAINS TO BE D.I.P. CLASS 54 UNLESS OTHERWISE NOTED.
 - TOPS OF ALL WATER MAINS TO HAVE A MINIMUM OF 3'-6" 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 THE 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 1005 OF THE STANDARD SPECIFICATIONS.
 - THE CONTRACTOR SHALL NOT OPERATE ANY WATER MAIN VALVES ON THE EXISTING WATER SYSTEM.
 - ALL WATER HOUSE CONNECTIONS SHALL BE FOR INSIDE METER SETTINGS UNLESS OTHERWISE NOTED ON THE PLANS OR IN SPECIFICATIONS.
- PART 3 - 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 G-5.52, 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.

LEGEND

EXIST. WATER MAIN	
EXIST. SEWER MAIN	
EXIST. SEWER MANHOLE	
EXIST. STORM DRAIN	
PROP. WATER MAIN	
PROP. SEWER MAIN	
PROP. STORM DRAIN (BY OTHERS)	
PROP. SEWER MANHOLE	
PROP. TERMINAL MANHOLE	
PROP. SEWER HOUSE CONNECTION	
PROP. DROP SEWER HOUSE CONN. (SEE PLAN VIEW FOR TYPE)	
PROP. WATER HOUSE CONNECTION	
PROP. FIRE HYDRANT	
PROP. VALVE	
PROP. PLUG & BUTTRESS	

SHEET INDEX	
NO.	DESCRIPTION
1	TITLE SHEET AND DETAILS
2	WATER & SEWER MAIN PLAN AND PROFILES

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

John R. Robertson 8/26/10
 HOWARD SOIL CONSERVATION DISTRICT DATE

SEDDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 308 OF THE HOWARD COUNTY STANDARD SPECIFICATIONS AND AS PER SDP-10-061

DEVELOPER/CONTRACT PURCHASER:
 MILLER BROTHER PROPERTIES, L.L.C.
 8528 BALTIMORE NATIONAL PIKE
 ELLICOTT CITY, MD 21043-4203
 PHONE: 410-465-1301

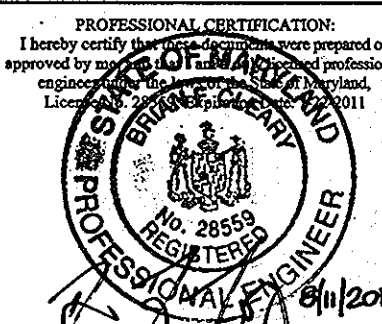
DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND

Stacy C. Chen 8/10/10
 CHIEF, BUREAU OF UTILITIES DATE

DEPARTMENT OF PLANNING AND ZONING
 HOWARD COUNTY, MARYLAND

William J. ... 8/10/10
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

BENCHMARK
 ENGINEERS & LAND SURVEYORS & PLANNERS
ENGINEERING, INC.
 8450 BALTIMORE NATIONAL PIKE & SUITE 418
 ELLICOTT CITY, MARYLAND 21043
 PHONE: 410-465-6105 FAX: 410-465-6844



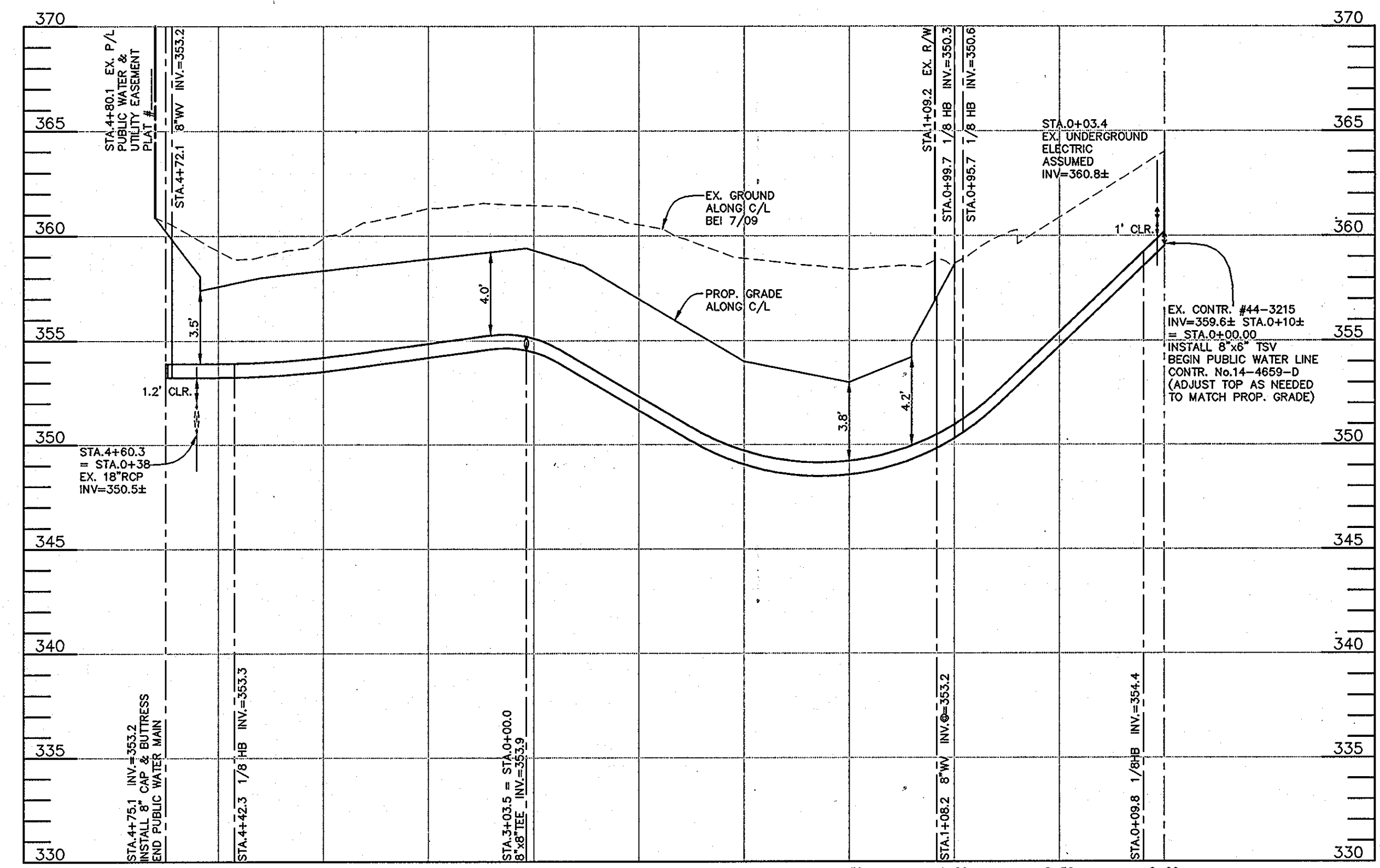
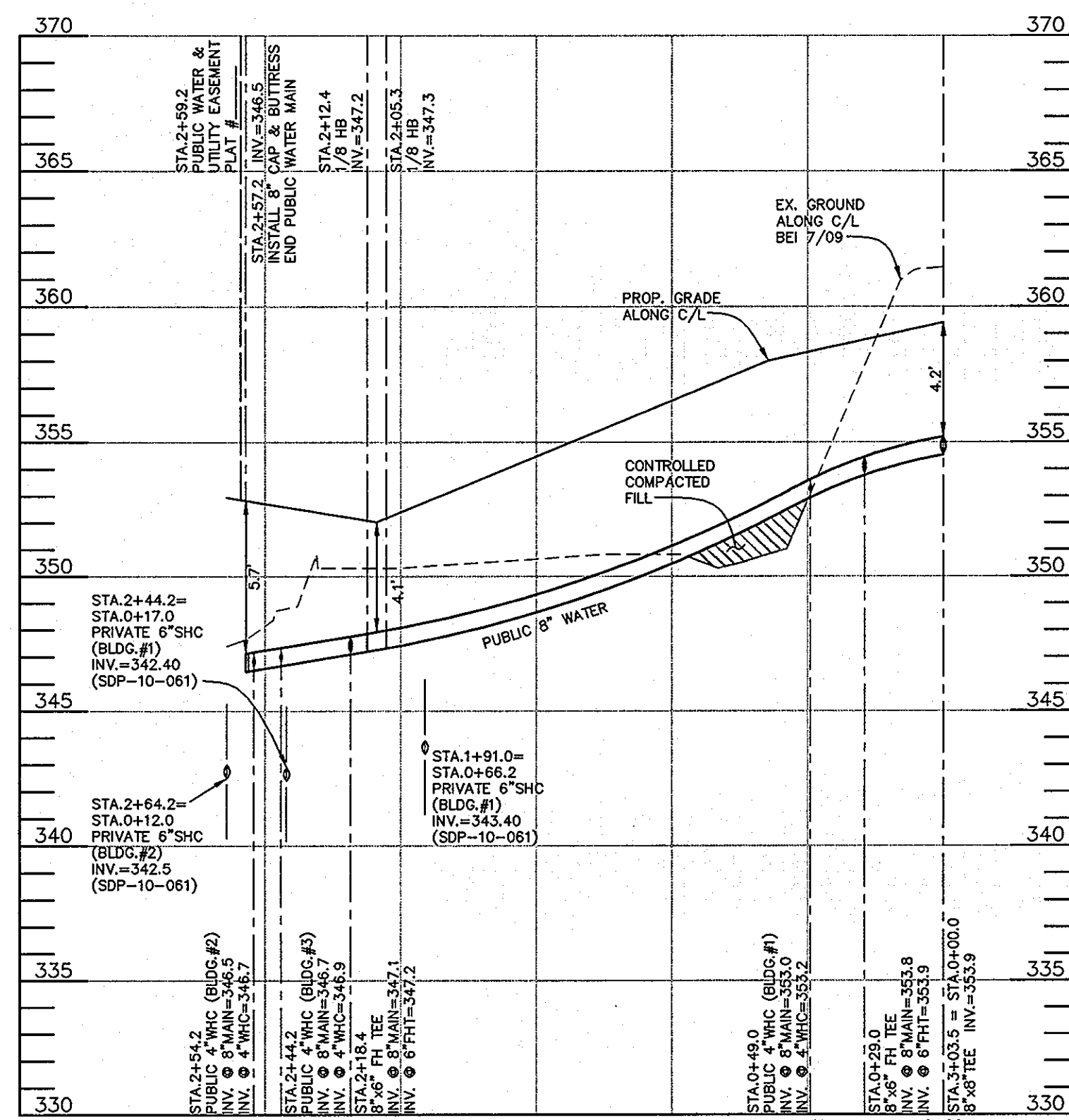
DES:	MCR				
DRN:	MCR				
CHK:	BFC				
DATE:	8/11/10	BY	NO.	REVISIONS	DATE

PUBLIC WATER AND SEWER
 TITLE SHEET AND DETAILS

600 SCALE MAPS: _____ BLOCKS: _____

**MILLER FORD PROPERTY
 RETAIL/COMMERCIAL CENTER
 LOT 1**
 TAX MAP 18 - GRID 19 - PARCELS 158/276
 ELECTION DISTRICT NO. 2
CONTRACT No.14-4659-D

SCALE: AS SHOWN
 SHEET NO. 1 OF 2

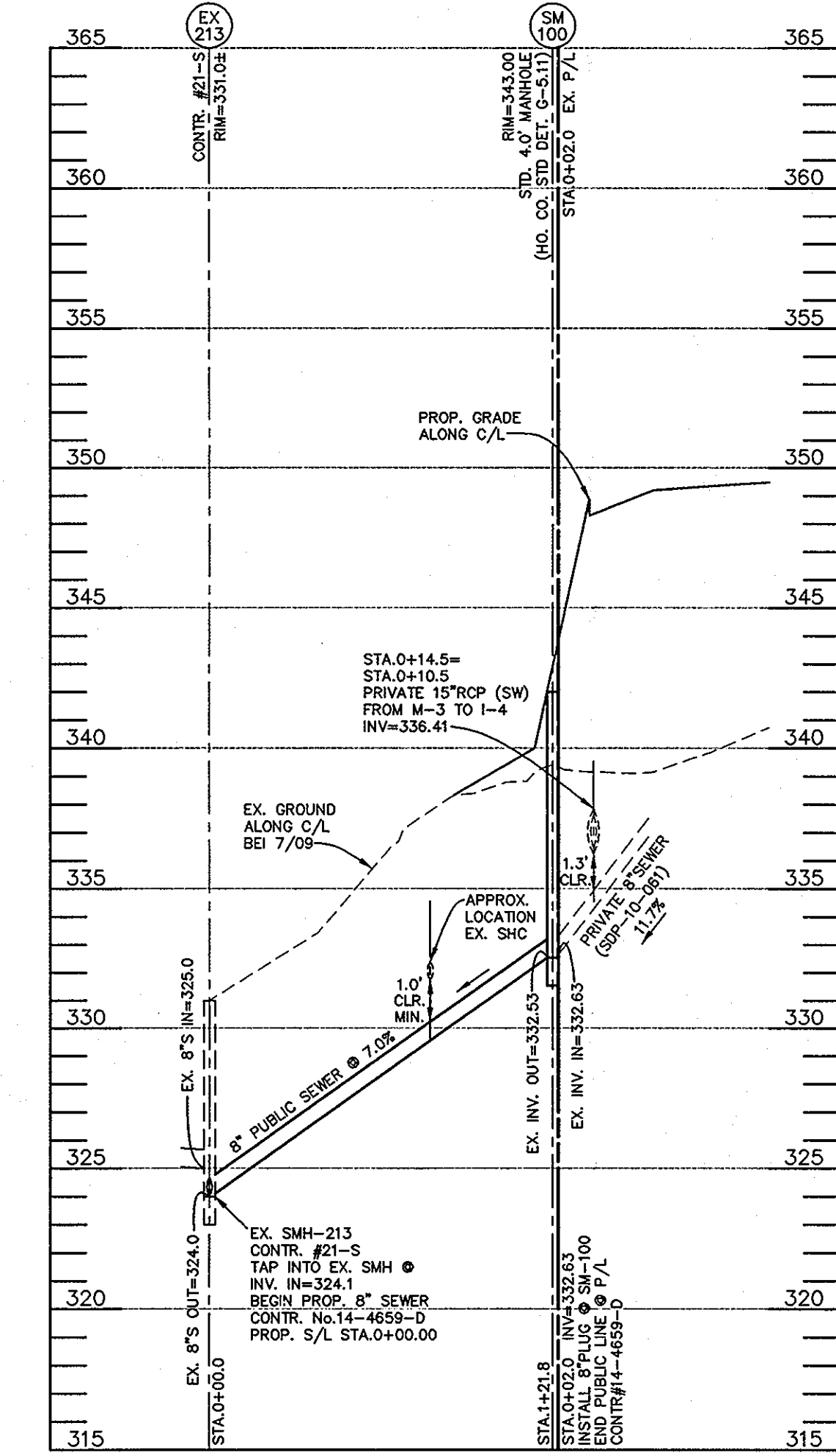


SEWER MANHOLE - STRUCTURE SCHEDULE									
NO.	TYPE	LOCATION	INVERT IN	SHC INV.	INVERT OUT	TOP ELEV.	HO. CO. STD.	REMARKS	
SM-100	STD. 4.0' PRE-CAST	N 589,213.51 E 1,366,681.86	332.63	-	332.53	343.00	G-5.11	PUBLIC	
SM-101	STD. 4.0' PRE-CAST	N 589,242.41 E 1,366,660.40	336.93	-	336.83	349.20	G-5.11	PRIVATE (SDP-10-061)	
SM-102	STD. 4.0' PRE-CAST	N 589,290.47 E 1,366,791.87	339.71	-	339.61	350.10	G-5.11	PRIVATE (SDP-10-061)	
SM-103	STD. 4.0' PRE-CAST	N 589,413.54 E 1,366,700.45	341.98	342.08	342.08	352.42	G-5.11	PRIVATE (SDP-10-061)	

NOTES:
1. STRUCTURE LOCATION FOR MANHOLES IS AT THE CENTER OF THE STRUCTURE.

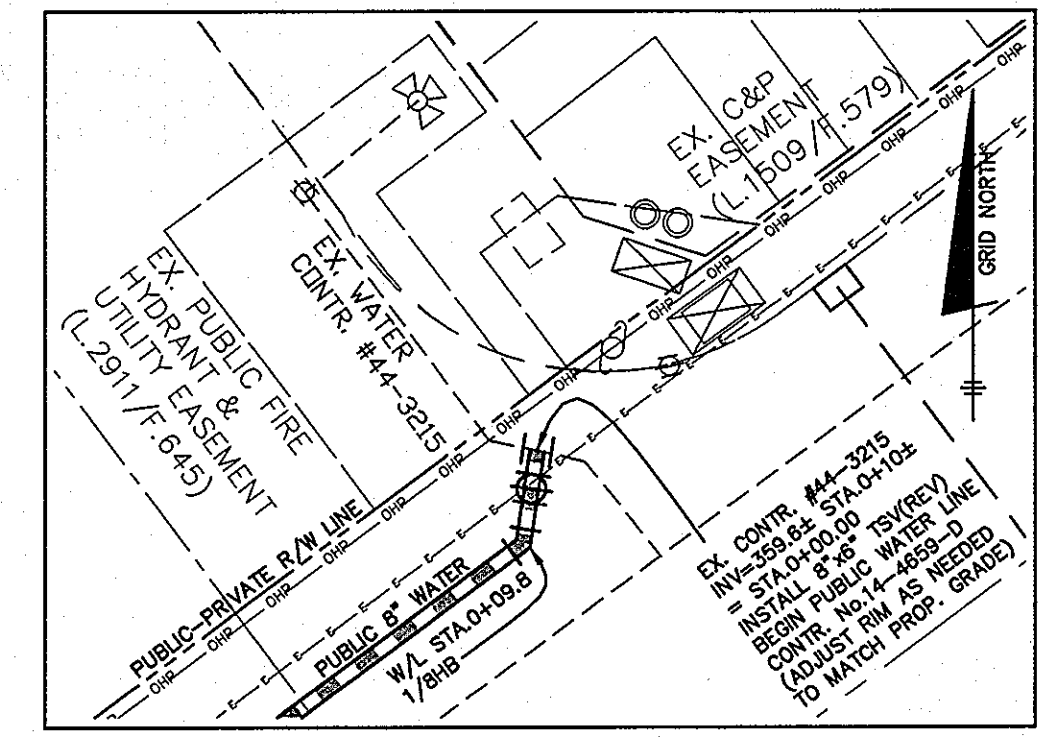
SEWER HOUSE CONNECTION LOCATION AND ELEVATION DATA						
BLDG.	PRVT. STA.	INV. @ MAIN	INV. @ CONN.	MCE	REMARKS	
#2 CVS	1+37.5	341.78	341.86	353.38	SHC @ 5.0%	
#3 BANK	1+47.5	341.98	342.08	348.12	SM-103	
#1 RETAIL	1+47.5	341.98	342.08	350.45	SM-103	

WATER MAIN PROFILES
HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1" = 5'



SEWER MAIN PROFILE
HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1" = 5'

WATER LINE DATA COORDINATE CHART				
APPURTENANCE	WATERLINE STATION	OFFSET	NORTHING	EASTING
POB = 8"x8" TSV	0+00.0	-	589,480.5	1,367,046.9
1/8" HB	0+09.8	-	589,470.8	1,367,045.4
1/8" HB	0+95.7	-	589,419.5	1,366,976.5
1/8" HB	0+99.7	-	589,420.1	1,366,972.5
8" WV	1+08.2	-	589,428.9	1,366,967.5
PI = 8"x8" TEE	3+03.5=0+00.0	-	589,583.7	1,366,851.0
1/8" HB	4+42.3	-	589,695.2	1,366,768.2
8" WV	4+72.1	-	589,724.6	1,366,772.6
8" CAP & BUTTRESS	4+75.1	-	589,724.6	1,366,772.6
END @ P/L = PUE	4+80.1	-	589,732.5	1,366,773.7
END = PUE	2+57.2	-	589,416.7	1,366,713.1
8" CAP & BUTTRESS	2+57.2	-	589,418.3	1,366,711.9
8"x4" WHC (BLDG.#2)	2+54.2	-	589,420.7	1,366,710.1
8"x4" WHC (BLDG.#3)	2+44.2	-	589,428.7	1,366,704.1
8"x6" FH TEE	2+18.4	-	589,449.5	1,366,688.7
FIRE HYDRANT	2+18.4	35.0 LT	589,428.6	1,366,680.6
1/8" HB	2+12.4	-	589,454.3	1,366,685.1
1/8" HB	2+05.3	-	589,461.3	1,366,686.2
8"x4" WHC (BLDG.#1)	0+49.0	-	589,554.5	1,366,811.7
8"x6" FH TEE	0+29.0	-	589,566.4	1,366,827.7
FIRE HYDRANT	0+29.0	11.0 RT	589,557.6	1,366,834.3
PI = 8"x8" TEE	0+00.0=3+03.5	-	589,583.7	1,366,851.0

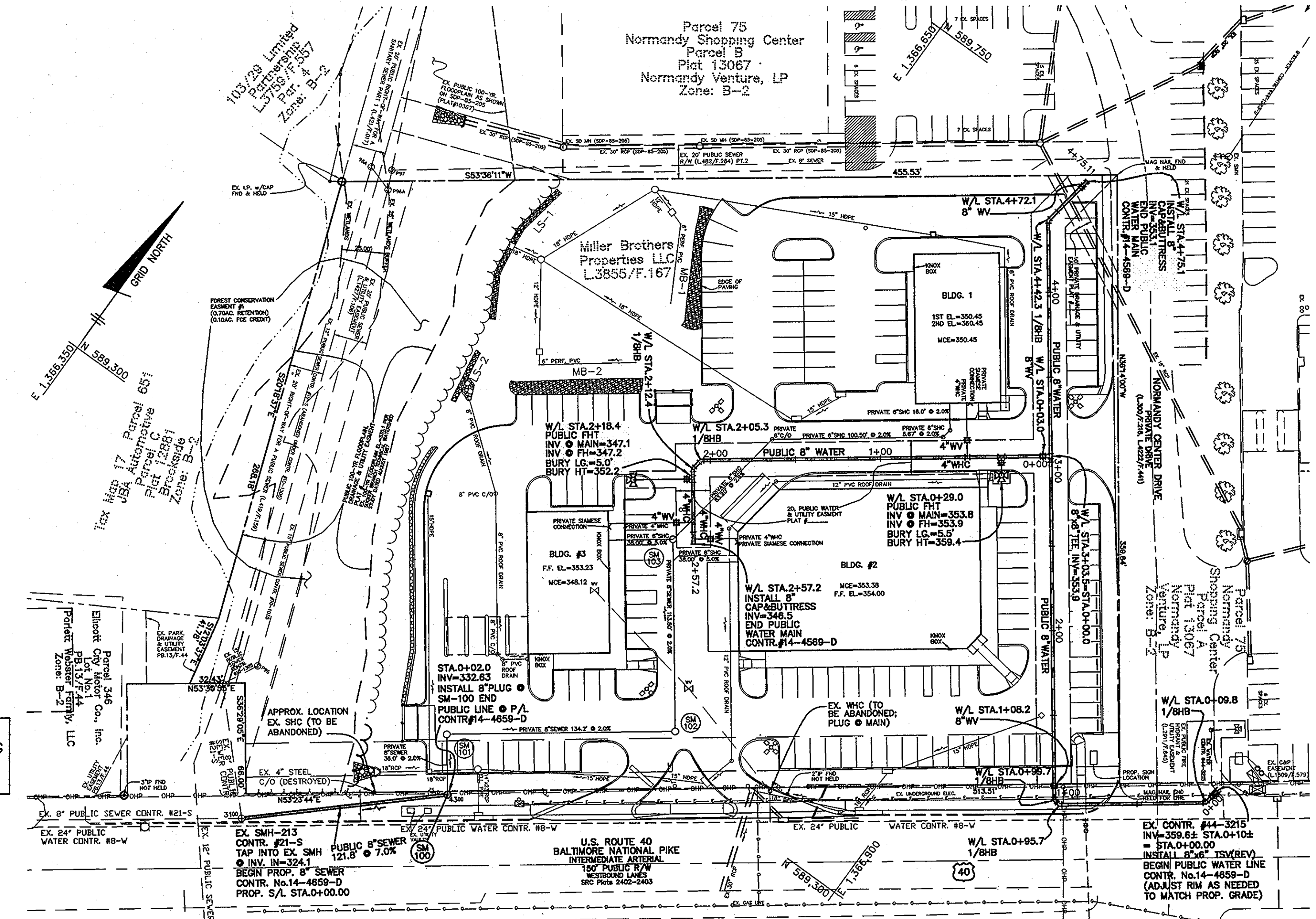


WATER SERVICE CONNECTION
SCALE: 1" = 20'

WATER HOUSE CONNECTION LOCATION AND ELEVATION DATA					
BLDG.	W.M. C/L STA.	INV. @ MAIN	INV. @ CONN.	INV. @ PUE	REMARKS
#2 (CVS)	2+54.2	346.5	346.7	346.7	-
#3 (BANK)	2+44.2	346.7	346.9	346.9	-
#1 (RETAIL)	0+49.0	353.0	353.2	353.2	-

EX. GAS LINE CONNECTION SERVICING EXISTING BUILDING SHALL BE PROPERLY ABANDONED AND REMOVED

DEVELOPER/CONTRACT PURCHASER:
MILLER BROTHER PROPERTIES, L.L.C.
8528 BALTIMORE NATIONAL PIKE
ELLCOTT CITY, MD 21043-4203
PHONE: 410-465-1301



WATER AND SEWER PLAN
SCALE: 1" = 50'

ANY PUBLIC UTILITY CONNECTIONS SERVICING FORMER PARCEL 276/8504 BALTIMORE NATIONAL PIKE DISCOVERED DURING CONSTRUCTION SHALL BE PROPERLY ABANDONED AND REMOVED AS APPLICABLE

NOTE: ALL JOINTS AND CONNECTIONS LOCATED WITHIN STRUCTURAL FILL AREAS SHALL BE MECHANICALLY RESTRAINED IN ACCORDANCE WITH HOWARD COUNTY DESIGN MANUAL, VOLUME IV, STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION (LATEST EDITION)

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
[Signature]
CHIEF, BUREAU OF UTILITIES

DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY, MARYLAND
[Signature]
CHIEF, DEVELOPMENT ENGINEERING DIVISION

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DES:	MCR	DATE:	8/11/10
DRN:	MCR	BY:	NO.
CHK:	BFC	NO.	
DATE:	8/11/10	BY:	NO.

PUBLIC WATER AND SEWER PLAN AND PROFILES
600 SCALE MAPS: [] BLOCKS: []

MILLER FORD PROPERTY
RETAIL/COMMERCIAL CENTER
LOT 1
TAX MAP 18 - GRID 19 - PARCELS 158/276
ELECTION DISTRICT NO. 2
CONTRACT No.14-4659-D

SCALE:
AS SHOWN
SHEET NO.
2 OF 2