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.
- 2. THE EXISTING TOPOGRAPHY SHOWN HEREON IS TAKEN FROM AN AERIAL TOPOGRAPHIC SURVEY PREPARED BY ROBERT H. VOGEL ENGINEERING INC; DATED OCTOBER, 2014
- 3. THE COORDINATES SHOWN ON THE DRAWINGS ARE BASED ON MARYLAND STATE REFERENCE SYSTEM NAD '83/'91 AS PROJECTED BY HOWARD COUNTY GEODETIC CONTROL STATIONS 43EB AND 43HB.

 ALL VERTICAL CONTROLS ARE BASED ON NAVD' 88. VERTICAL CONTROLS PROVIDED ON DRAWINGS ARE:
- GEODETIC SURVEY CONTROL 43EB N 545963.6476 E 1371573.8400)
 BRASS DISC SET ON TOP OF A CONCRETE MONUMENT.
 GEODETIC SURVEY CONTROL 43HB (N 453166.729 E 1374425.0243)
- BRASS DISC SET ON TOP OF A CONCRETE MONUMENT.

 4. ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS UNLESS OTHERWISE NOTED.
- 5. 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 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.
- 6. 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.
- 7. 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 OPERATION AT HIS OWN EXPENSE.
- 8. 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 (CONTRUCTION SERVICES)	410-637-8713
BGE (EMERGENCY)	410-685-0123
BUREAU OF UTILITIES	
COLONIAL PIPELINE CO	
MISS UTILITY.	1-800-257-7777
STATE HIGHWAY ADMINISTRATION	410-531-5533
VERIZON	1-800-743-0033

- TREES AND SHRUBS ARE TO BE PROTECTED FROM DAMAGE TO THE MAXIMUM EXTENT.
 TREES AND SHRUBS LOCATED WITHIN THE CONSTRUCTION STRIP ARE NOT TO BE
 REMOVED OR DAMAGED BY THE CONTRACTOR.
- 10. 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 THE CONSTRUCTION OF THE MAIN.
- 11. 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.

PART II - WATER

- 1. ALL WATER MAINS TO BE PVC C-900 UNLESS OTHERWISE NOTED.
- TOPS OF ALL WATER MAINS TO HAVE A MINIMUM OF 3'-6" COVER UNLESS OTHERWISE NOTED.
- 3. VALVES ADJACENT TO TEES SHALL BE STRAPPED TO TEES.
- 4. ALL FITTINGS SHALL BE BUTTRESSED OR ANCHORED WITH CONCRETE IN ACCORDANCE WITH THE STANDARD DETAILS UNLESS OTHERWISE PROVIDED FOR ON THE DRAWINGS.
- 5. 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 DETAIL. THE SOIL AROUND THE FIRE HYDRANT SHALL BE COMPACTED IN ACCORDANCE WITH SECTION 1000 AND 1005 OF THE STANDARD SPECIFICATIONS.
- 6. THE CONTRACTOR SHALL NOT OPERATE ANY WATER MAIN VALVES ON THE EXISTING WATER
- 7. 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 REST RECORDS RECEIVED.
- 8. 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 HARNESSES. 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

- 1. ALL SEWER MAINS SHALL BE D.I.P. OR P.V.C UNLESS OTHERWISE NOTED.
- 2. ALL MANHOLES SHALL BE 4'-0" INSIDE DIAMETER UNLESS OTHERWISE NOTED.
- 3. FORCE MAINS SHALL BE D.I.P. ONLY.
- 4. 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 COVERS, STANDARD DETAIL G5.52. WHERE WATERTIGHT FRAME AND COVER IS USED, SET TOP OF FRAME 1'-6" ABOVE FINISHED GRADE UNLESS OTHERWISE NOTED ON THE DRAWINGS.
- 6. HOUSE(S) WITH THE SYMBOL "C.N.S." INDICATES THAT CELLAR CANNOT BE SERVED.

SEDIMENT CONTROL MEASURES WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 308 OF THE SPECIFICATIONS AND WITH SITE DEVELOPMENT PLAN SDP-16-012.

THIS DEVELOPMENT IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL

BY THE HOWARD SOIL CONSERVATION DISTRICT.

JULIAN

SOIL CONSERVATION DISTRICT

3/19/16

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PLANNING & ZONING HOWARD COUNTY, MARYLAND

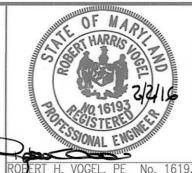
State Com 3/1/16

JEF BURFAU OF UTILITIES 3/1/16



3.18.16





Minimummin	PROFESSIONAL CERTIFICATE 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. 16193 EXPIRATION DATE: 09-27-2016			D				FINAL WAT CONSTR CONTRAC
5	DRN:	KG	DES: RHV	RH√	2	REVISE WATERLINE 'A' PROFILE TO AVOID 60"SD	08-17-16	
	CHK:	RHV		RHY	1	REVISE SEWER LOCATION	6/14/10	
6193	DATE:	FEBRU 2016	JARY	BY	NO.	REVISION	DATE	600' SCALE MAP NO43

FINAL WATER AND SEWER
CONSTRUCTION PLAN
CONTRACT 24-4941-D

BLOCK NO. 15

MARYLAND FOOD CENTER AUTHORITY — P/O PARCEL 'J PROPOSED WAREHOUSE 7540 ASSATEAGUE DRIVE ZONED: M-2

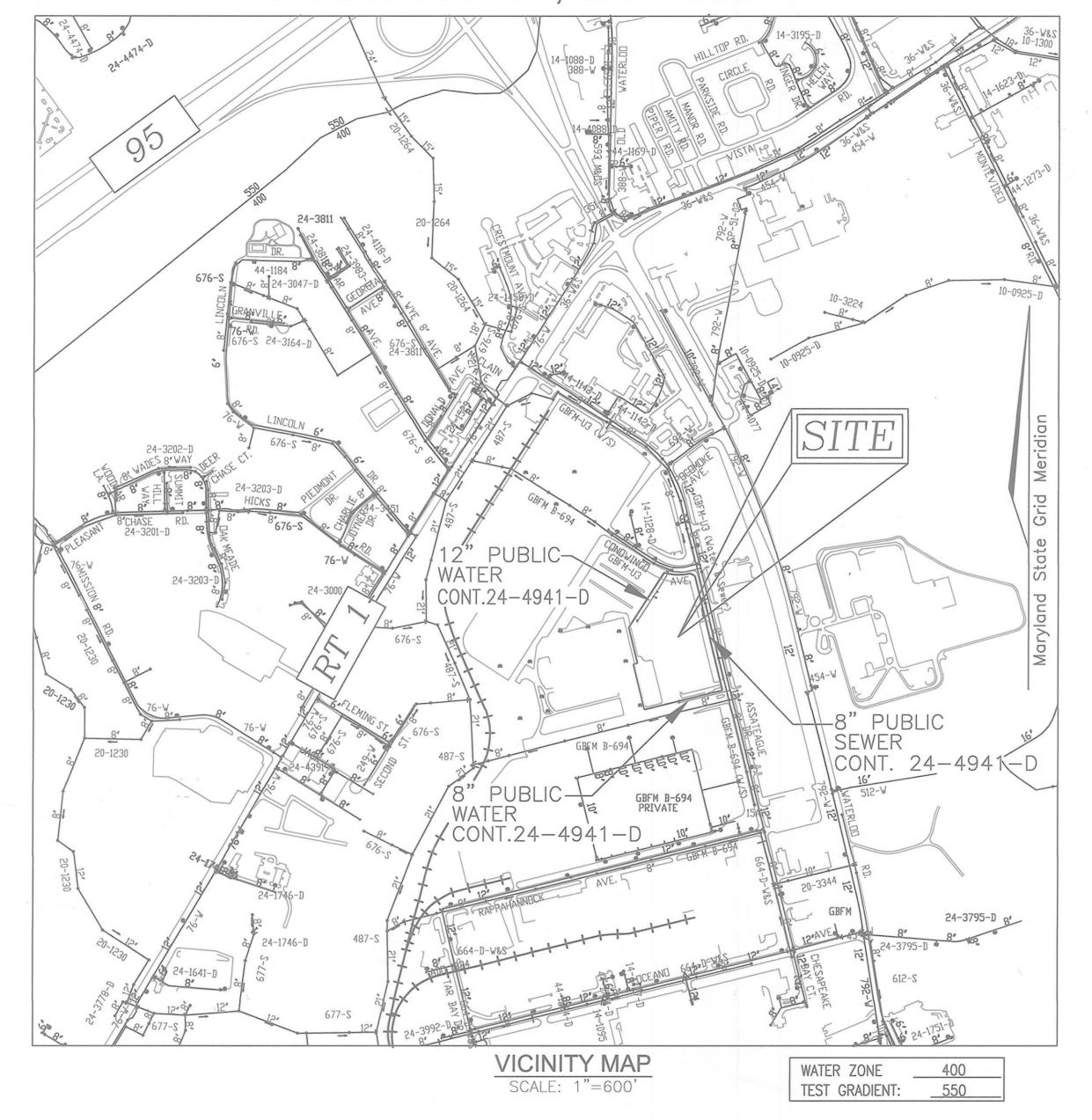
ZONED: M-2
L.16203/F.246 - PLAT 19144

TAX MAP 43 GRID 15
6TH ELECTION DISTRICT HOWARD COUNT

PARCEL 'J'
EHOUSE
E DRIVE
-2
LAT 19144
PARCEL 2, PARCEL J
HOWARD COUNTY, MARYLAND

FINAL WATER AND SEWER CONSTRUCTION PLAN MARYLAND FOOD CENTER AUTHORITY

P/O PARCEL 'J'
PROPOSED WAREHOUSE
CONTRACT 24-4941-D
HOWARD COUNTY, MARYLAND



Type of Building :	WAREHOUSE
No. of Lots/Parcels :	1
No. of single Water House Connections :	1
No. of Sewer House Connections :	1
Sewer Shed :	LITTLE PATUXENT RIVER
Treatment Plant :	LITTLE PATUXENT RIVER

BENCHMARKS

HOWARD COUNTY BENCHMARK 43EB
N 545963.6476 E 1371573.8400 ELEV.: 216.327'
HOWARD COUNTY BENCHMARK 43HB
N 453166.729 E 1374425.0243 ELEV.: 251.622'

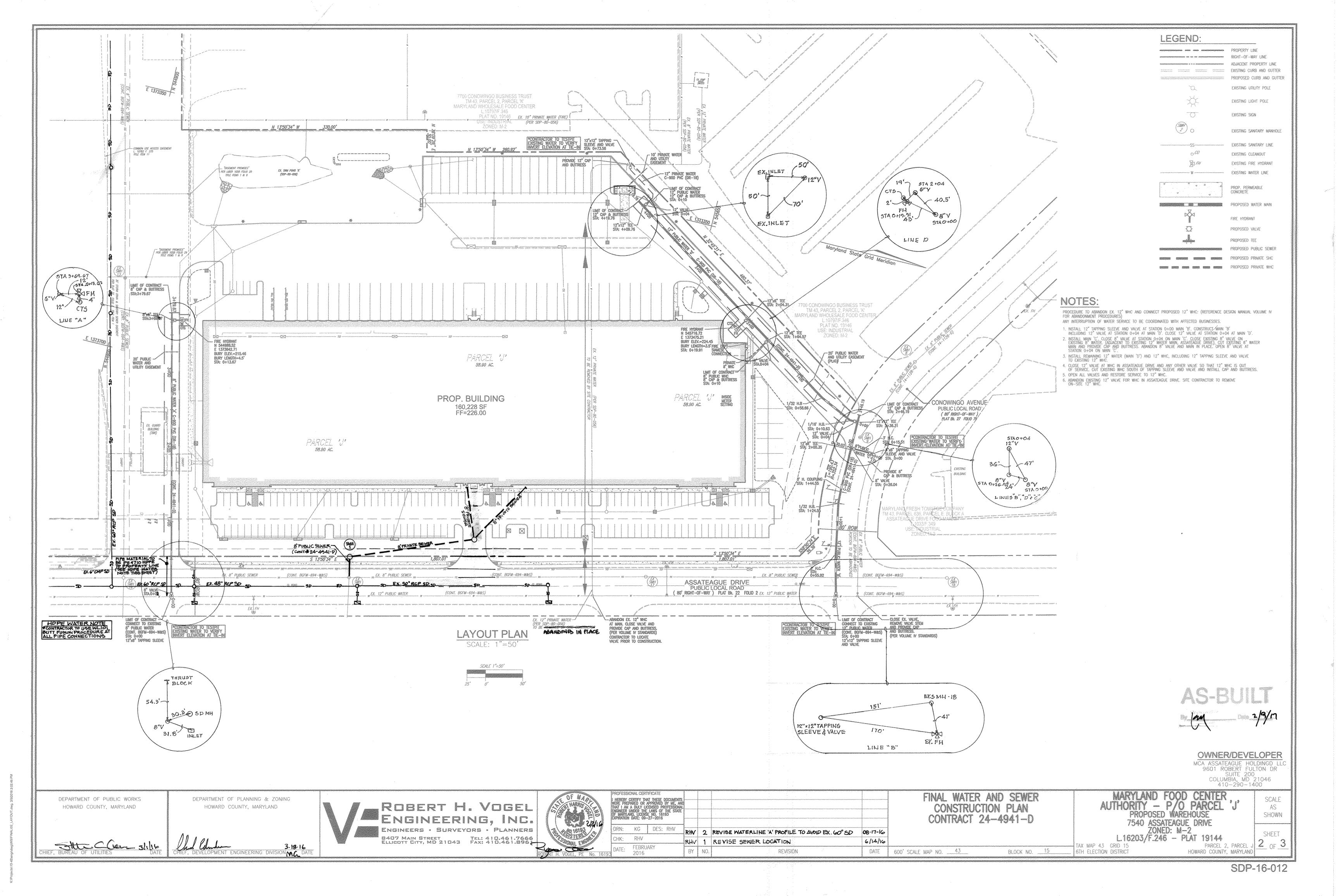
VICINITY MAP

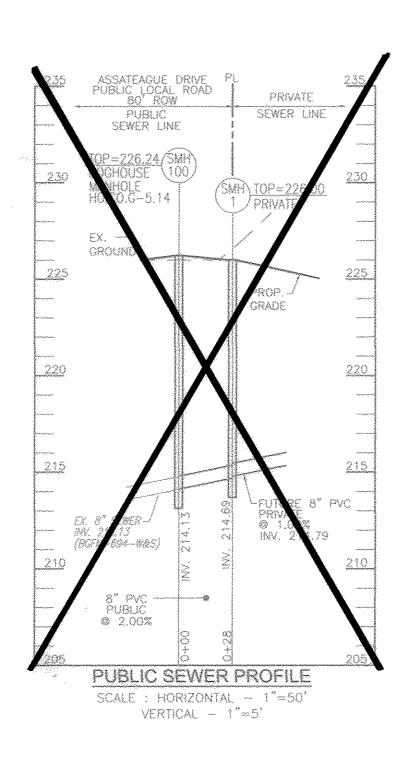
SCALE: 1"=2000'

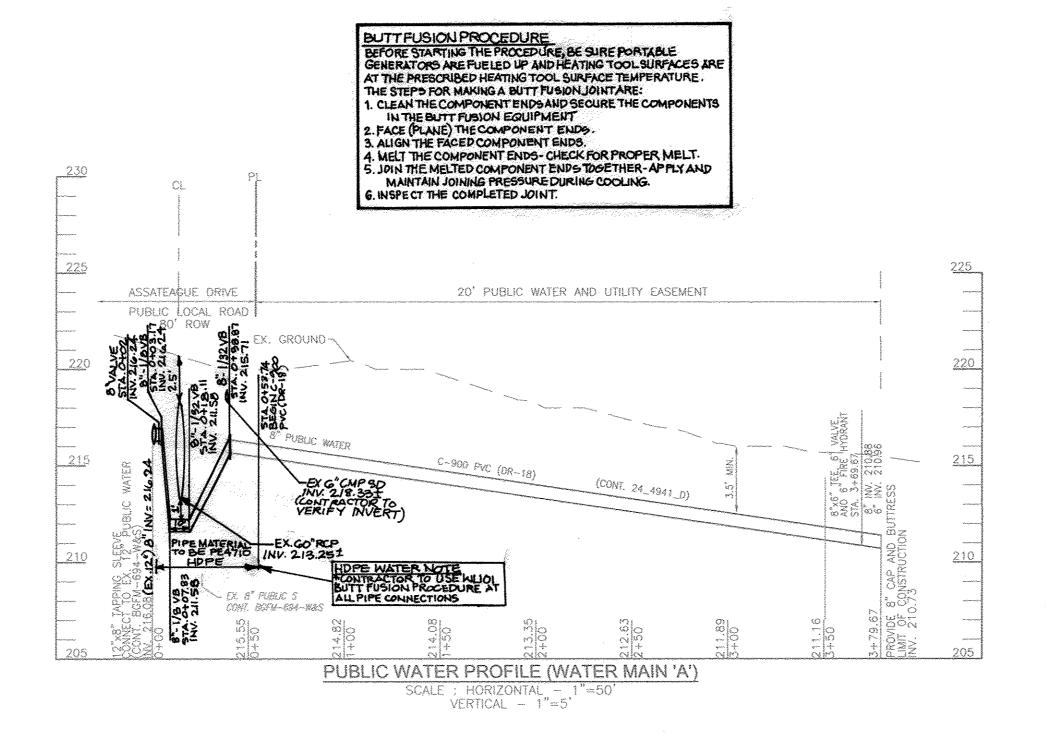
ADC MAP COORDINATES: 20 J3

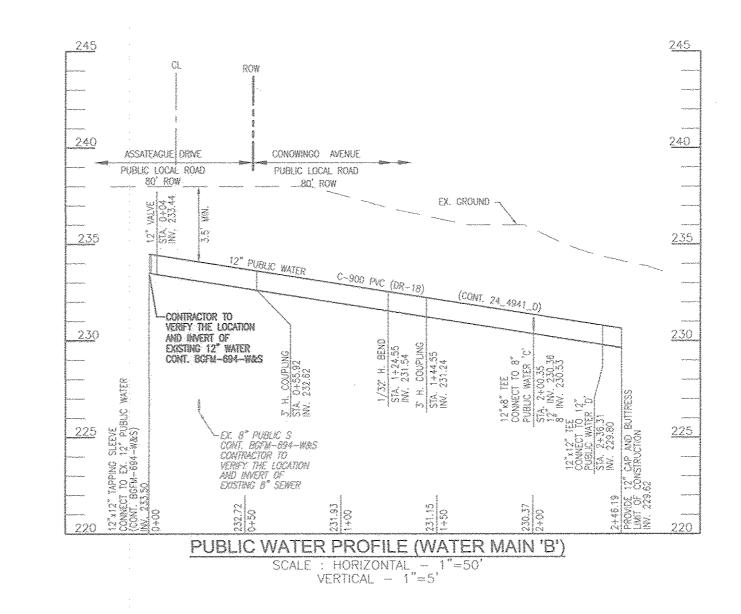
LEGEND	
EXISTING WATER MAIN	
PROPOSED WATER MAIN	
FIRE HYDRANT	
PROPOSED VALVE	
PROPOSED TEE	
PROPOSED STORM DRAIN	0
EXISTING STORM DRAIN	———SD———
EXISTING SEWER	SS
SEWER MANHOLE	\bigcirc
PRIVATE WATER HOUSE CONNECTION	
PRIVATE SEWER HOUSE CONNECTION	
PROPOSED SIGN	•
PROPOSED LIGHT	``
PUBLIC SEWER MAIN	

		QUAN'	TITIES	
NAME OF UTILITY CONTRAC	TOR :			
SURVEY AND DRAFTING DIV	ISION AS-BUILT DAT	TE:		
	QUANTITIES		AS-	BUILT
ITEMS	ESTIMATED	QUANTITIES	TYPE	MANUFACTURER/SUPPLIER
Tham's	Lommites	WATER		
WATER (C-900 - DR-18)	676 LF		C900 PRIS	J M EAGLE
"WATER (C-900 # DR-18)	366 LF			
"WATER (C-900 - DR-18)			7	4
12" X 12" TEE	2 EA	2.	FUSION BONDED	TYLER UNION
12" X 8" TEE	2 EA	2	EPOXY COATED	
8" X 6" TEE	1 EA	ľ	MJ	*
12" VALVE	3 EA	3	SERIES 2500	AMERICAN FLOW CONTROL
8" VALVE	4 EA	4	RW GATE	100
6" VALVE	2 EA	2	VALVES	
6" FIRE HYDRANT	2 EA	2	7 . 70.3	
12" CAP	3 EA	3	FUSION BONDED	TYLER UNION
8" CAP	3 EA	,	EPOXY MJ	
1/16 HORIZONTAL BEND	1 EA		Fusion Bonder	
1/32 HORIZONTAL BEND	2 EA		EPOXY MJ	*
12"-3" HORIZONTAL COUPLING	2 EA		HIGH	MORTH AMERICAN SPECIALTY
8"-3" HORIZONTAL COUPLING	1 EA		DEFLECTION	
12"-1.5" VERTICAL COUPLING	1 EA		COUPLINGS	V
8"WATER (HOPE PE4710)	54 LF	The same of the sa		
	7 - 1	SEWER	SEWER	
8" SEWER	28 LF		50R 35	J M EAGLE



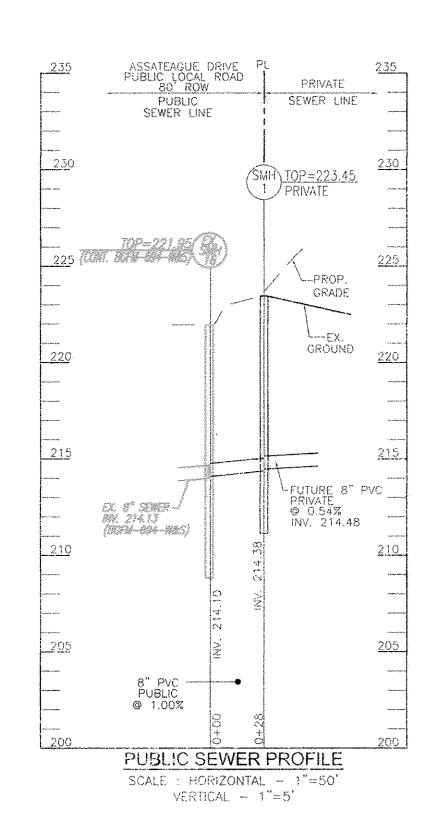




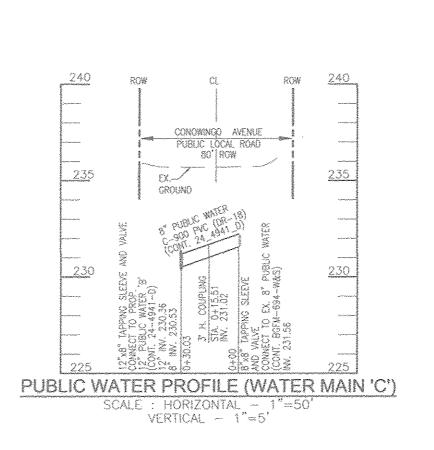


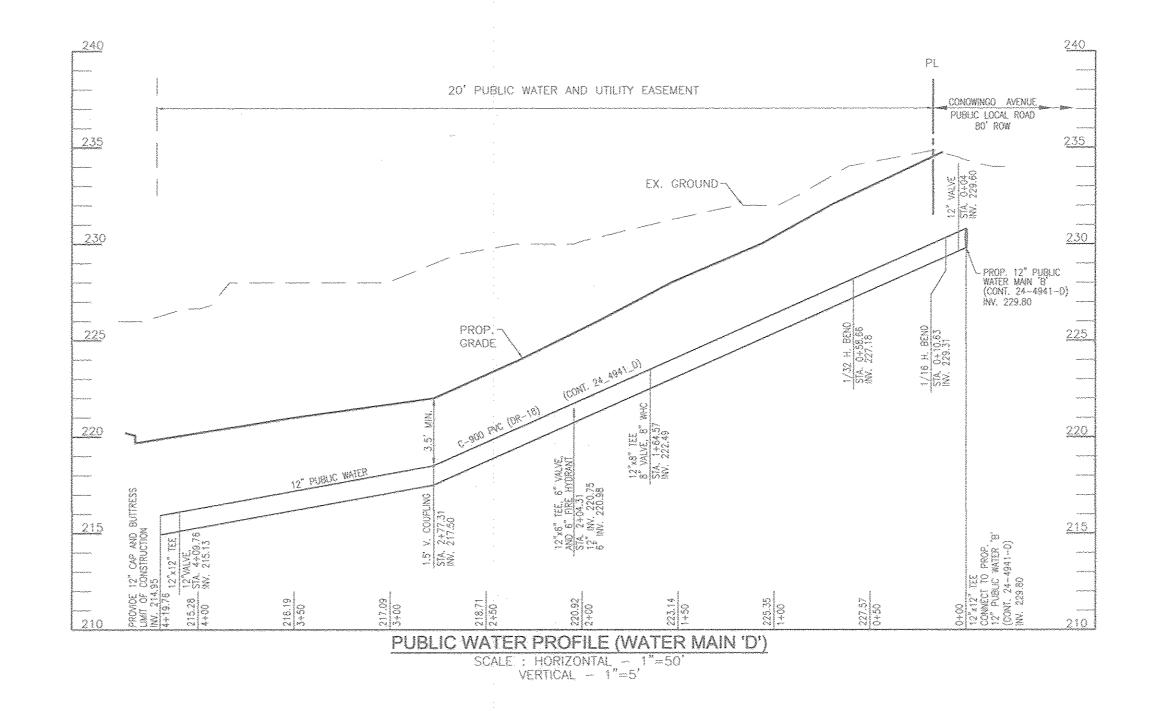
WATER MAIN LOCATION CHART				
WATER MAIN 'A'				
WL STA.	APPURTENANCE			
WL STA. 0+00.00	COMMECT TO EX. 12" WATER (12"x8" TAPPING SLEEVE)			
WL STA. 0+04.00	8" VALVE			
WL STA 3+69.67	8" x 6" TEE (6" VALVE AND FIRE HYDRANT)			
WL STA. 3+79.67	8" CAP AND BUTTRESS			
	WATER MAIN 'B'			
WL STA.	APPURTENANCE			
WL STA. 0+00,00	CONNECT TO EX. 12" WATER (12"X12" TAPPING SLEEVE)			
WL STA. 0+04.00	12" VALYE			
WE STA. 0+55.92	3" HORIZONTAL COUPUNG			
WL STA. 1+24.55	1/52, 15/3/2007 A. BEND			
NL STA. 1+44.55 3" HORIZONTAL COUPLING				
WL STA 2+00.35				
WL STA 2+36.31	12*x12" TEE			
WL STA, 2+46,19				
	WATER MAIN 'C'			
WL STA. 0+00.00	CONNECT TO EX: 8" WATER (8"x8" TAPPING SLEEVE)			
WL STA, 0+04.00	8" VALVE			
WL STA, 0+15.51	3" HORIZONTAL COUPLING			
WL STA. 0+26.04	8° VALVE			
WL STA, 0+30.03	12" × 8" TEE			
	WATER MAIN 'D'			
WL STA. 0+00,00	12°×12° TEE			
WL STA, 0+04,00	12" VALVE			
WL STA 0+10.63	1/16 HORZONTAL SEND			
WL STA. 0+58.66				
WL STA. 1+64.57	12"x8" TEE,AND 8" VALVE,10LF 8" WHC.8" CAP & BUTTRESS			
WL STA. 2+04.31	12" x 6" TEE (6" VALVE AND FIRE HYDRANT)			
WL STA, 2+77.31 1.5 VERTICAL COUPLING				
WL STA, 4+09.76 12"x12" TEE				
WL STA. 4+19.76 12" CAP AND BUTTRESS				

· ·	MANHO	LELO	CATION	CHART	÷	
MH No.	TYPE		LOCATION	TOP ELEV.	I INV. IN	INV. QUI
22 A72		A STATE OF THE PARTY OF THE PAR				



*CONTRACTOR TO TESTPIT EXISTING WATER TO VERIFY INVERT ELEVATION AT TIE-IN





SCALE 1"=50"

OWNER/DEVELOPER
MCA ASSATEAGUE HOLDINGD LLC
9601 ROBERT FULTON DR
SUITE 200
COLUMBIA, MD 21046
410-290-1400

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND

DEPARTMENT OF PLANNING & ZONING HOWARD COUNTY, MARYLAND

EVELOPMENT ENGINEERING DIVISION MG, DATE

ROBERT H. VOGEL ENGINEERING, INC. ENGINEERS · SURVEYORS · PLANIN-B407 Main Street Tel: 410.461.7666 ELLICOTT CITY, MD 21043 FAX: 410.461.8961



3 '		Onal Certificate Certify that these documents ared or approved by ME, and a they licensed professional				Special Conference on Conferen	FINAL WAT
ioi Of Ex	GNEER MARTIA PIRATION	A DOL'T LECENSED PROFESSIONS. UNDER THE LAWS OF THE STATE NO, UCENSE NO. 18793 DATE 09-27-2016	11 December 2015	Total Control of Contr			CONTRAC
Contractor to the state of the	RN:		rhv	2	REVISE WATERLINE 'A' PROFILE TO AVOID 60" GD	08-17-16	
	HK:	RHV	RHV	1	REVISE SEWER LOCATION	6/14/16	
	ATE:	FEBRUARY 2016	BY	NO.	REVISION	DATE	600' SCALE MAP NO. 43

FINAL WATER AND SEWER CONSTRUCTION PLAN CONTRACT 24-4941-D

MARYLAND FOOD CENTER SCALE
AUTHORITY - PO PARCEL J AS
PROPOSED WAREHOUSE SHOWN
7540 ASSATEAGUE DRIVE
ZONED: W-2
L16203/F.246 - PLAT 19144
SHEET
3 OF 3
FOTHORI DISTRICT HOWARD COUNTY MARYLAND

BLOCK NO. 15 TAX MAP 43 GRID 15 6TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND