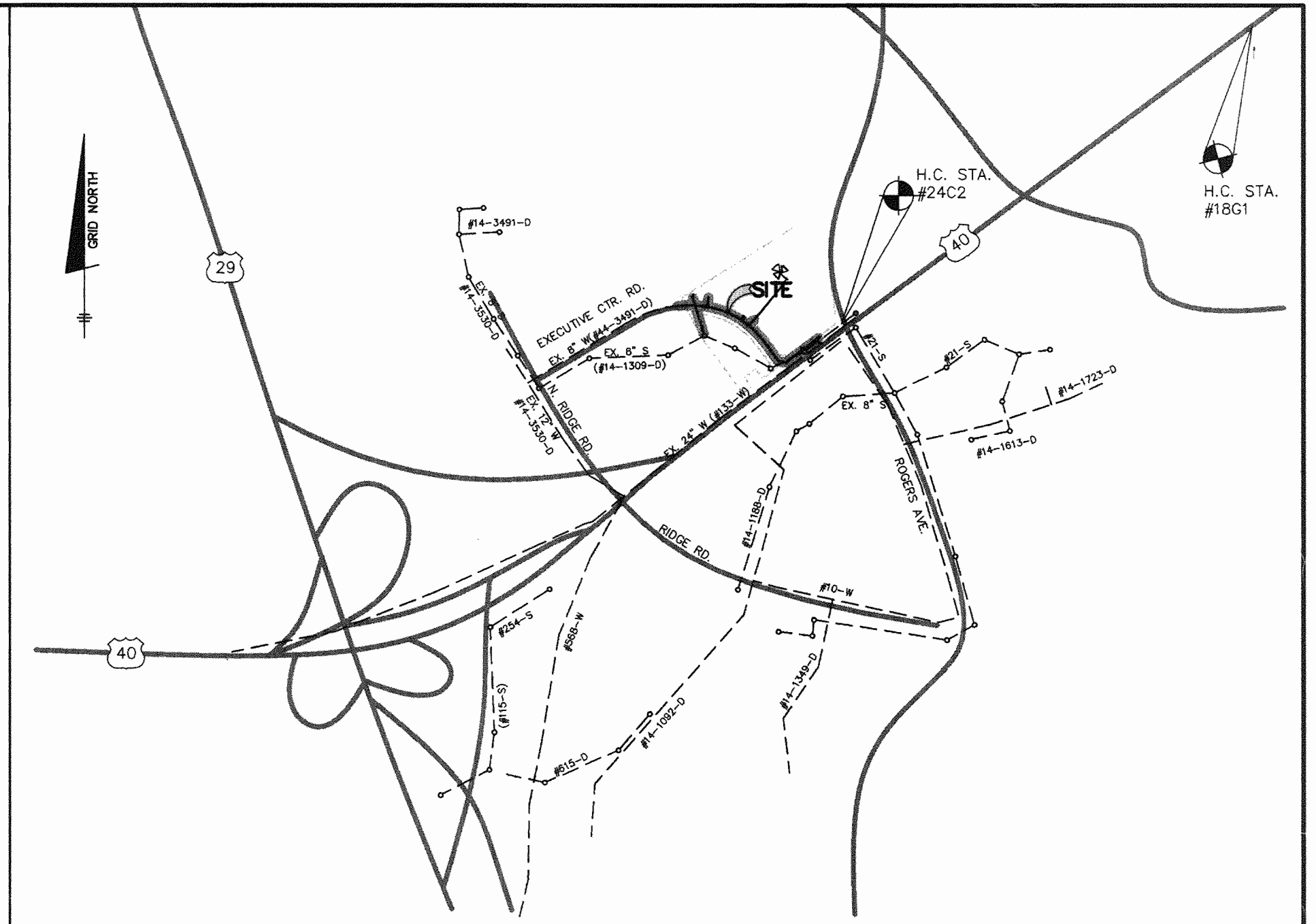


WATERLINE CRIMP RADII DATA						
W4	193.00'	108.08'	55.50'	106.67'	32°05'07"	PC=0+07.55, PT=1+15.63
CURVE	RADIUS	LENGTH	TANGENT	CHORD	DELTA	REMARKS
W1	548.01'	101.95'	51.12'	101.80'	10°39'33"	PC=0+00, PCC=1+01.95
W2	407.00'	346.51'	184.54'	336.14'	48°46'49"	PCC=1+01.95, PT=4+48.46
W3	307.00'	76.46'	36.44'	76.25'	14°16'26"	PC=0+34.37, PT=1+10.85

SEWER MANHOLE COORDINATES AND LOCATION DATA			
MANHOLE NO.	NORTHING	EASTING	REMARKS
100	588364.0907	1364712.7199	C.L. STA. 8+16.50 (EXECUTIVE CENTER RD.) 45.09' O/S LT.
	588400.0000	1364725.1506	8" SEWER STUB C.L. STA. 8+26.57 (EXECUTIVE CENTER RD.) 81.39' O/S LT.

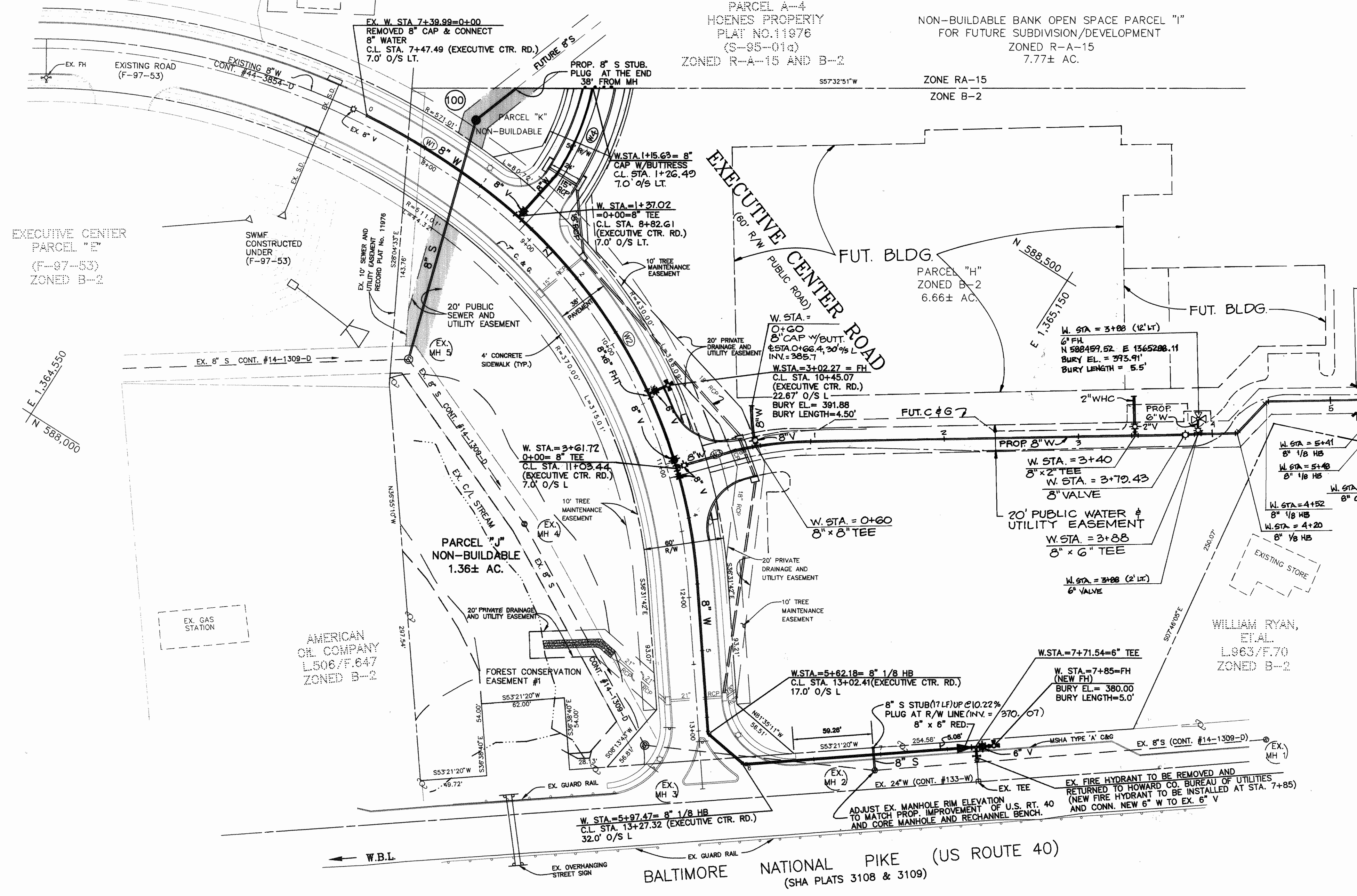
EXISTING UTILITIES SHOWN ARE TAKEN FROM RECORD DRAWINGS AND FIELD LOCATIONS. CONTRACTOR SHALL VERIFY LOCATION OF UTILITIES AND EASEMENT PRIOR TO CONSTRUCTION.



VICINITY MAP  
SCALE: 1" = 600'

TYPE OF BUILDING :	NONE	WATER CODE :	FO3
NO. OF UNITS :	NONE	SEWER CODE :	1452800
NO. OF WATER HOUSE CONNECTION :	NONE	TEST GRADIENT :	700
NO. OF SEWER HOUSE CONNECTION :	NONE		
DRAINAGE AREA :	PATAPSCO BASIN		
TREATMENT PLANT :	PATAPSCO		

ELICOTT CITY WAL-MART  
PHASE 3  
PARCEL "C"  
(SEE APPROVED S-95-01)



PLAN VIEW  
SCALE: 1" = 50'

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 SUPPLY. ANY DAMAGE INCURRED SHALL BE REPAIRED IMMEDIATELY TO THE SATISFACTION OF THE ENGINEER AT THE CONTRACTOR'S EXPENSE.
  - COORDINATES BASED ON NAD '83, MARYLAND COORDINATE SYSTEM AS PROJECTED BY HOWARD COUNTY GEODETIC CONTROL STATIONS NO. 1861 AND NO. 24C2.  
STA. NO. 1861: N 589,984,950 E 1,367,750,240  
STA. NO. 24C2: N 588,648,319 E 1,366,038,130
  - ALL VERTICAL CONTROLS ARE BASED ON U.S.G.S. DATA. ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS. CLEAR ALL UTILITIES BY A MINIMUM OF 6". CLEAR ALL POLES BY 2'-0" MINIMUM OR TUNNEL AS REQUIRED. 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 MONEY 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 DETAIL FOR CONSTRUCTION. 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 LOCATION OF THE TEST PIT. 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:  
STATE HIGHWAY ADMINISTRATION.....531-5533  
BALTIMORE GAS & ELECTRIC CO.....850-4620  
CONTRACTOR SERVICES.....787-9068  
BALTIMORE GAS & ELECTRIC CO.....1-800-257-7777  
MISS UTILITY.....795-1390  
COLONIAL PIPELINE CO.....313-4900  
BUREAU OF UTILITIES,  
HOWARD CO. DEPT. OF PUBLIC WORKS.....313-4900
  - 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.

- PART 2 - WATER
- PLACE REGULATION "MEN WORKING" AND WARNING SIGNS AS REQUIRED TO COMPLY WITH MARYLAND STATE HIGHWAY ADMINISTRATION MANUAL OF TRAFFIC CONTROL FOR HIGHWAY MAINTENANCE OPERATIONS.
  - ALL WATER MAINS TO BE D.I.P. UNLESS OTHERWISE NOTED.
  - TOP OF ALL WATER MAINS TO HAVE A MINIMUM OF 3'-6" COVER UNLESS OTHERWISE NOTED.
  - VALVES ADJACENT TO TEES SHALL BE STRAPPED TO TEES.
  - THE CONTRACTOR SHALL NOTIFY THE BUREAU OF HIGHWAYS, HOWARD COUNTY, AT (410) 313-2450 AT LEAST FIVE WORKING DAYS BEFORE ANY OPEN CUT OF ANY COUNTY ROAD OR BORING/JACKING OPERATION IN COUNTY ROADS 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 3 - SEWER
- ALL SEWER MAINS SHALL BE DIP, AND P.V.C. UNLESS OTHERWISE NOTED.
  - THE CONTRACTOR SHALL PROVIDE A JOINT IN ALL SEWER MAINS WITHIN 2'-0" OF EXTERIOR MANHOLE WALL.
  - 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 COVERS, STANDARD DETAIL 65.52, WHERE WATERTIGHT MANHOLE FRAME AND COVERS IS 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.

ITEM	QUANTITIES ESTIMATED	AS-BUILT		
		QUANTITIES	TYPE	MANUFACTURER/SUPPLIER
8" WATER	1503	1320	L.F.	
8" X 8" TEE		3	EA.	
6" X 6" TEE		1	EA.	
8" X 6" FITT		2	EA.	
8" X 6" REDUCER		1	EA.	
8" VALVE		6	EA.	
6" VALVE		3	EA.	
FIRE HYDRANT		2	EA.	
8" SEWER (PVC)		241	L.F.	
MANHOLES		1	EA.	
8" WATER		20	L.F.	
8" SEWER		18	L.F.	

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

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

*John R. Roberts* 12/9/97  
HOWARD SOIL CONSERVATION DISTRICT

REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS  
DATE: 12/9/97

SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE HOWARD COUNTY STANDARD SPECIFICATIONS AND PER F-98-12

*Cheryl Simmons* 12/9/97  
NATURAL RESOURCES CONSERVATION SERVICE

OWNER/DEVELOPER  
LEONORA K. HOENES  
8668 BALTIMORE-NATIONAL PIKE  
ELICOTT CITY, MARYLAND 21043  
(410) 465-2321

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND  
*Robert W. Bannay* 12-547  
CHIEF, BUREAU OF UTILITIES

DEPARTMENT OF PLANNING & ZONING  
HOWARD COUNTY, MARYLAND  
*Howell Williams* 1/30/98  
CHIEF, DEVELOPMENT ENGINEERING DIVISION

TSA GROUP, INC.  
planning • engineering • surveying  
8480 Baltimore National Pike • Suite 418  
Ellicott City, Maryland 21043

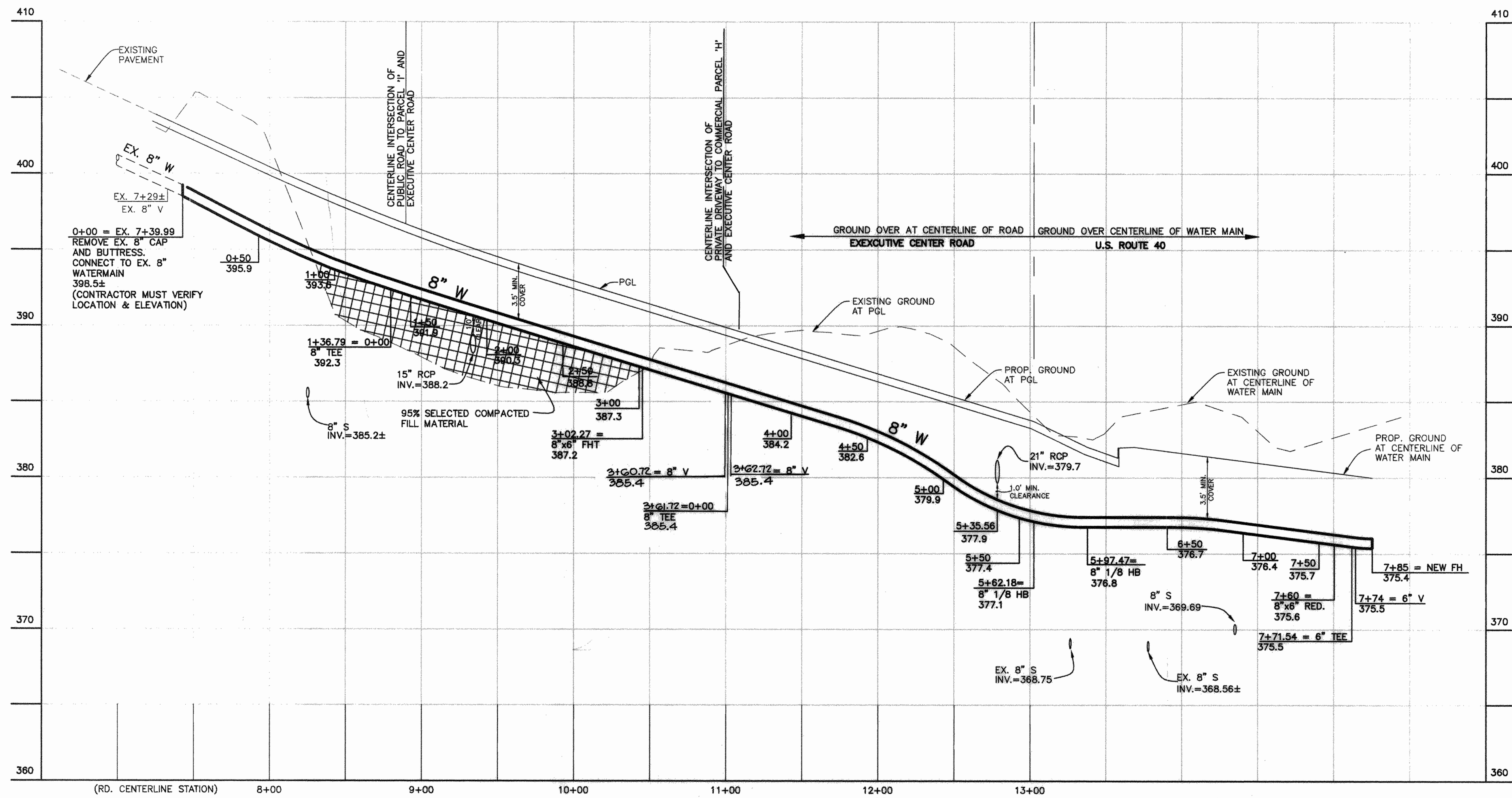


DES:	YSL		
DRN:	YSL		
CHK:	CAM		
DATE:	8/20/97		
BY NO.			
REVISIONS			
DATE:	11/28/97		
DATE:	10-1-98		

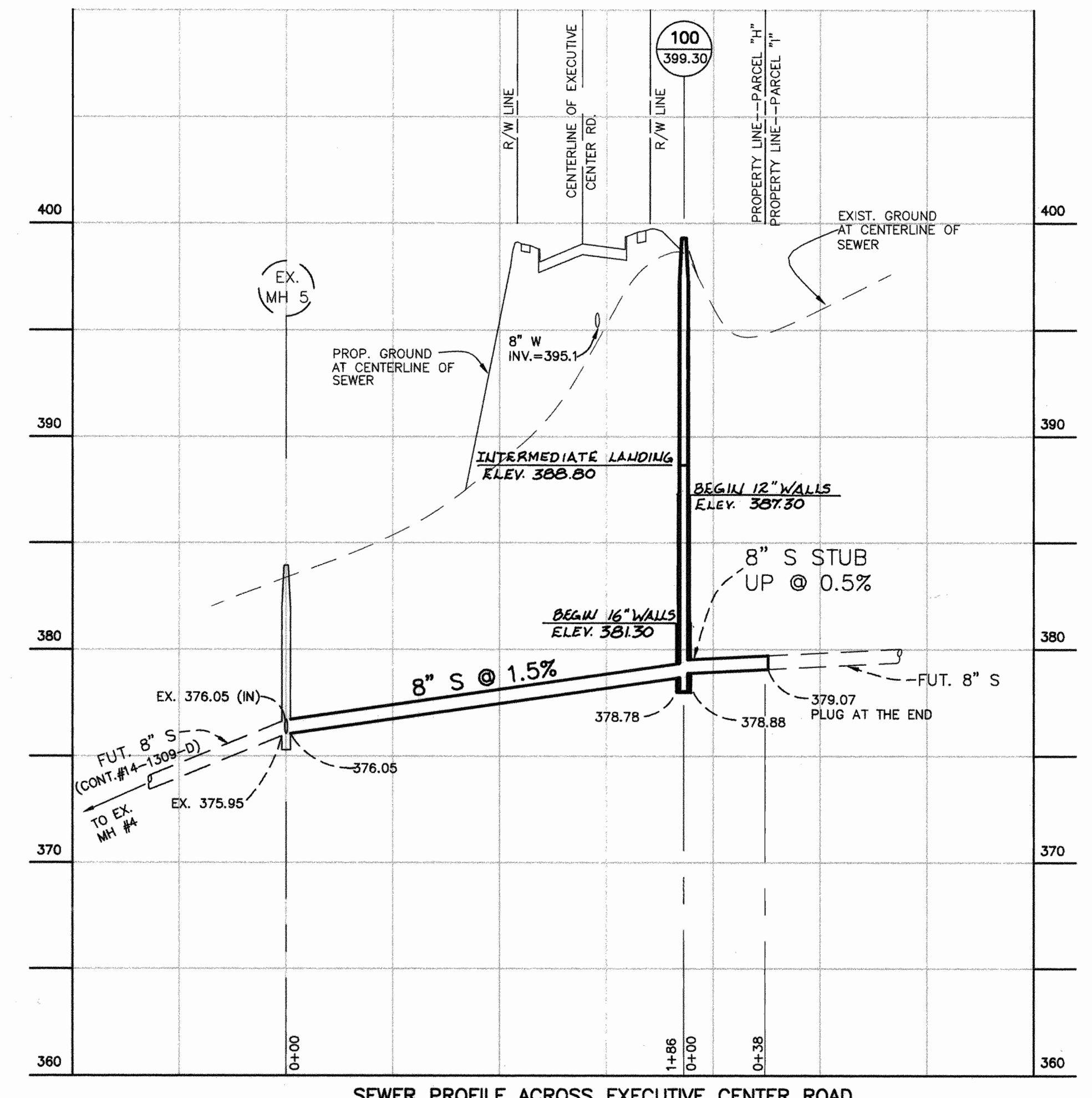
WATER & SEWER EXTENSION  
PLAN  
600 SCALE MAP NO. 24  
BLOCK "6"

HOENES PROPERTY  
A RESUBDIVISION OF  
HOENES PROPERTY, PARCEL A-4  
HOWARD COUNTY ELECTION DISTRICT NO. 2  
CONTRACT NO. 14-3622-D

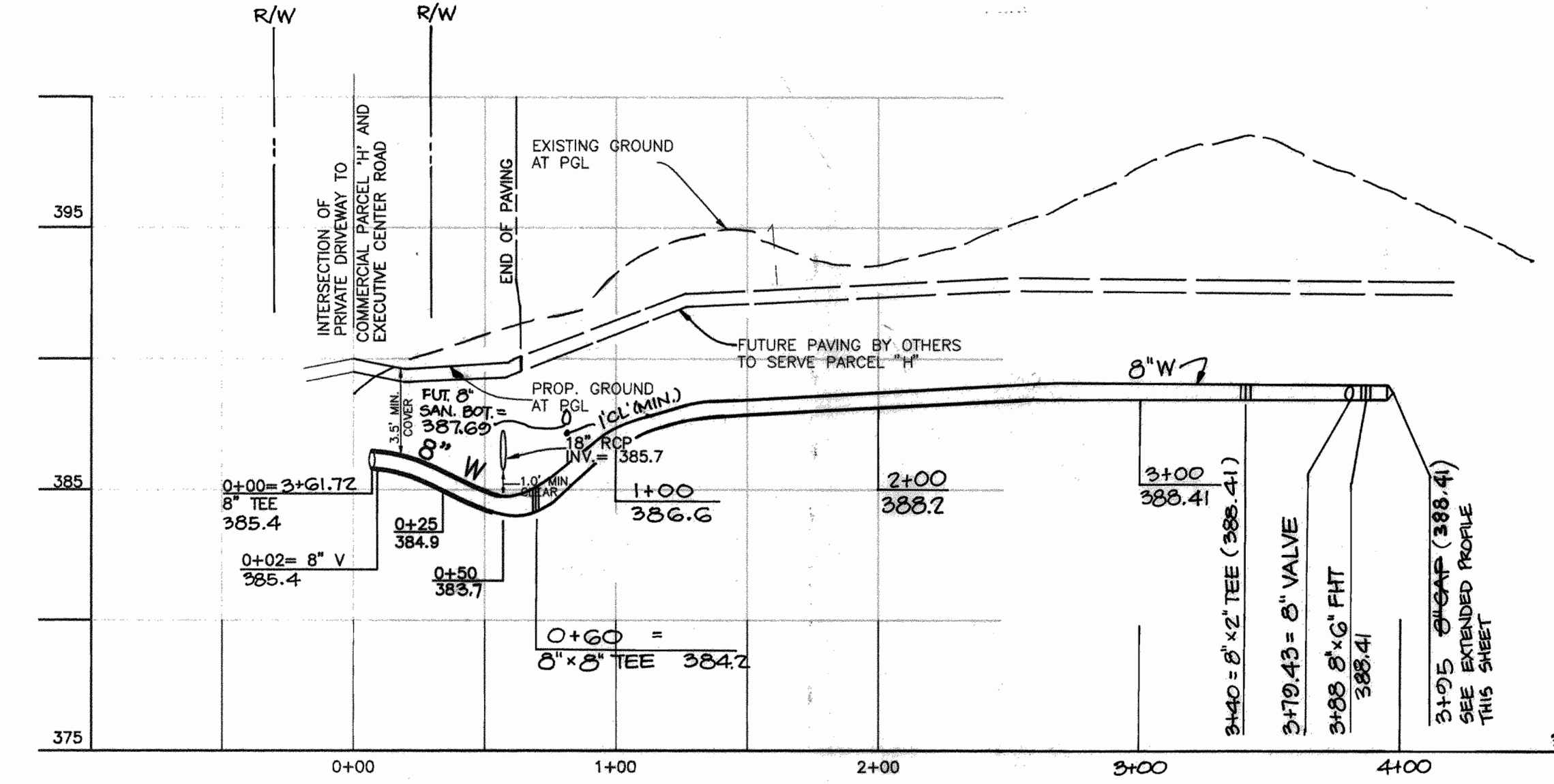
SCALE AS SHOWN  
SHEET 1 OF 2



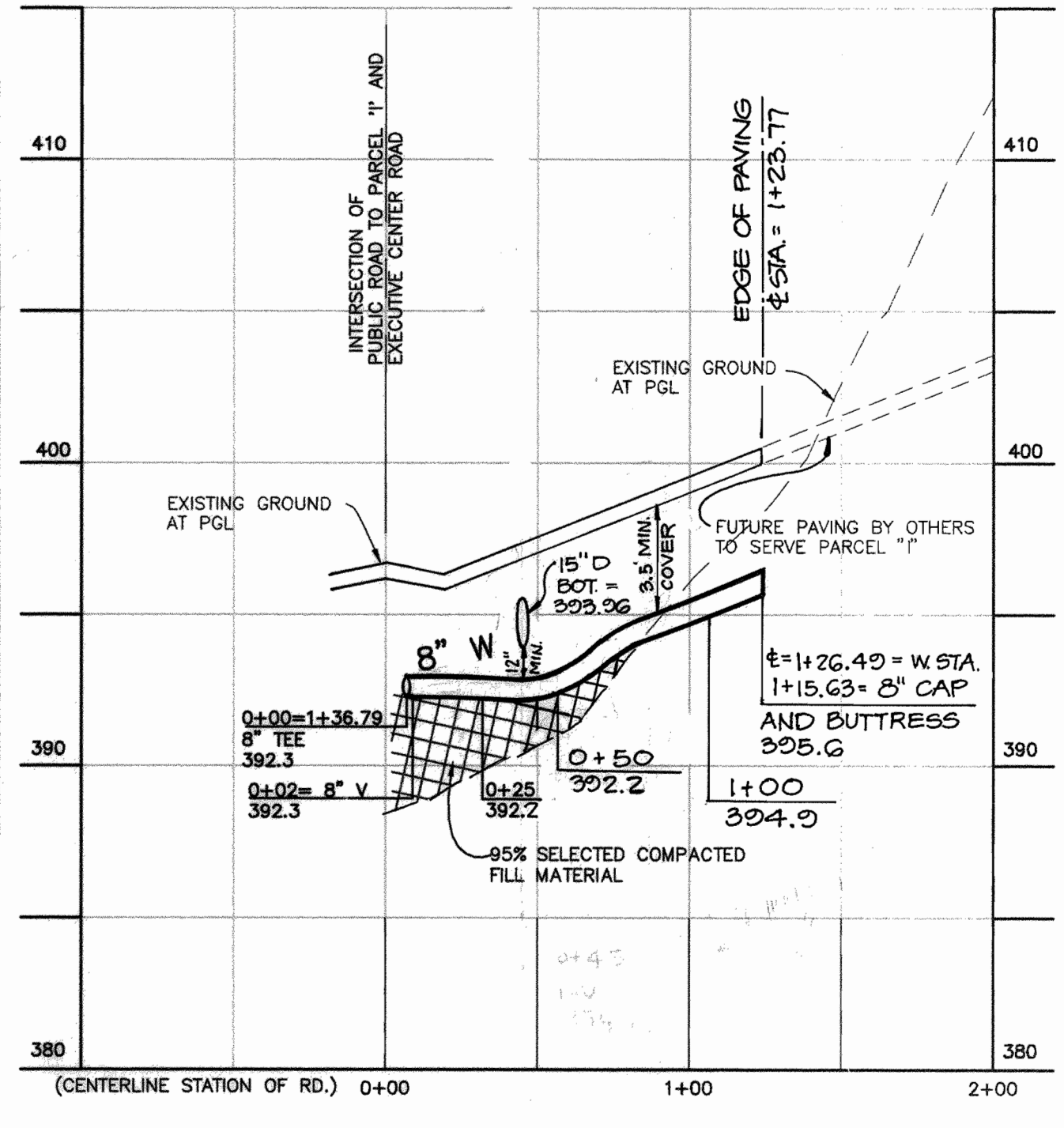
WATER MAIN PROFILE AT EXECUTIVE CENTER RD. & ALONG U.S. ROUTE 40  
 SCALE: VERT. 1" = 5'  
 HOR. 1" = 50'



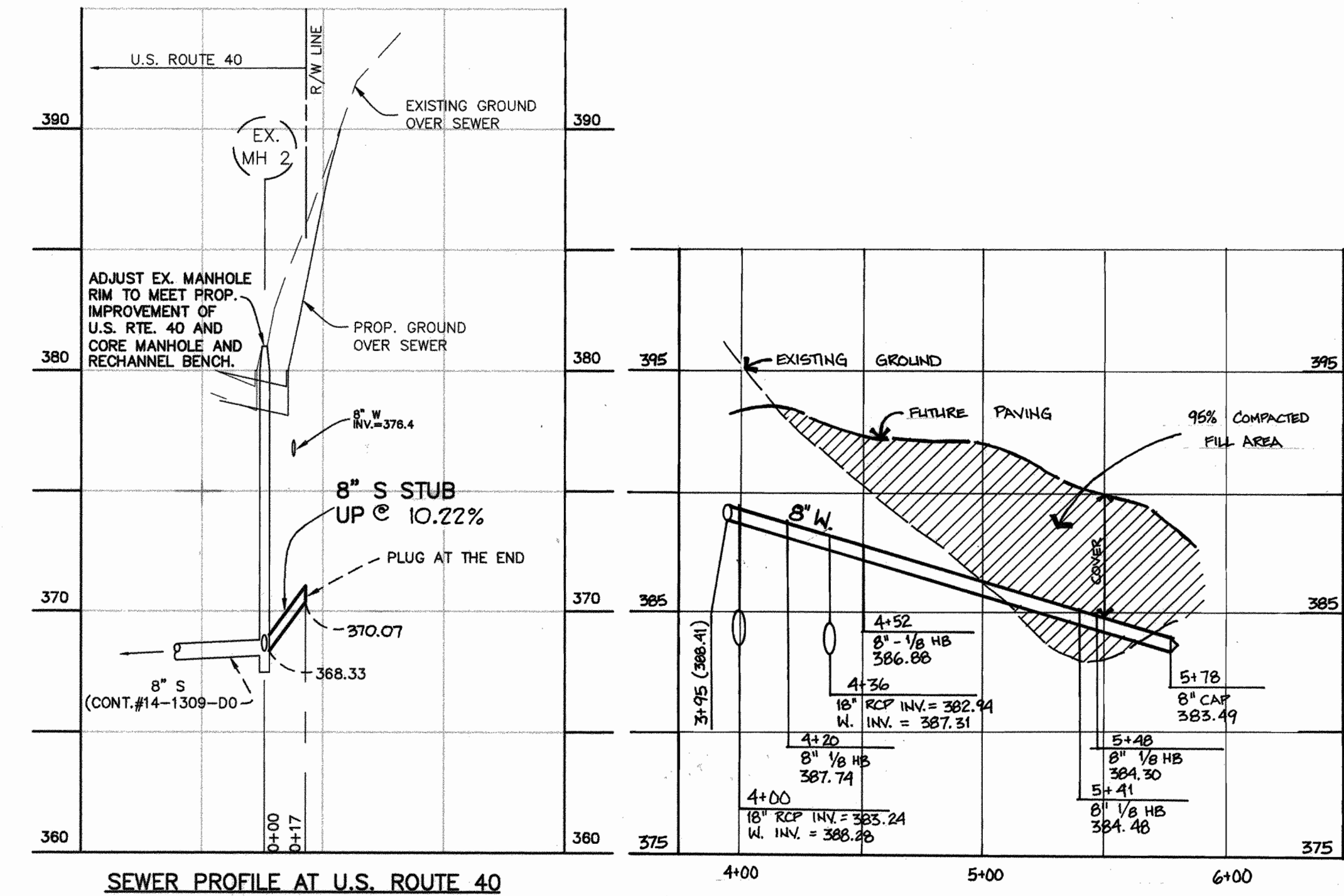
SEWER PROFILE ACROSS EXECUTIVE CENTER ROAD  
 SCALE: VERT. 1" = 5'  
 HOR. 1" = 50'



WATER LINE PROFILE @ PRIVATE ROAD TO PARCEL 'H' PROFILE  
 SCALE: VERT. 1" = 5'  
 HOR. 1" = 50'



WATER LINE PROFILE @ PUBLIC ROAD TO PARCEL 'I' PROFILE  
 SCALE: VERT. 1" = 5'  
 HOR. 1" = 50'



SEWER PROFILE AT U.S. ROUTE 40  
 SCALE: VERT. 1" = 5'  
 HOR. 1" = 50'

EXTENDED PARCEL 'H' PROFILE  
 SCALE: VERT. 1" = 5'  
 HOR. 1" = 50'

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

*John P. Robertson* 12/9/97  
 HOWARD SOIL CONSERVATION DISTRICT

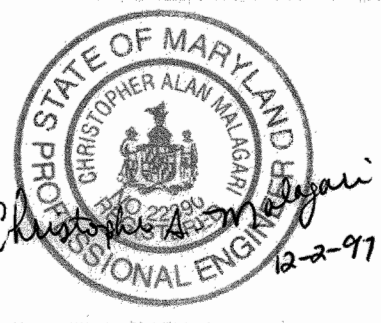
REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS  
*Cheryl Simmons* 12/9/97  
 NATURAL RESOURCES CONSERVATION SERVICE

OWNER/DEVELOPER  
 LEONORA K. HOENES  
 8688 BALTIMORE NATIONAL PIKE  
 ELLICOTT CITY, MARYLAND 21043  
 (410) 465-2321

DEPARTMENT OF PUBLIC WORKS  
 HOWARD COUNTY, MARYLAND  
*Robert Bump* 12-5-97  
 CHIEF, BUREAU OF UTILITIES

DEPARTMENT OF PLANNING & ZONING  
 HOWARD COUNTY, MARYLAND  
*Cheryl Simmons* 1/30/98  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

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DES:	YSL			
DRN:	YSL			
CHK:	CAM			
DATE:	8/20/97	CAO 2	EXTENDED WATERLINE FROM STA. 3+45 TO 5+75, REVISION QUANTITIES TO REFLECT BATHING & ADDITIONAL EXTENSION	11/28/99
		BEI 1	REV. TEE LOC. (EXEC. CTR. DR.) EXTEND KAISER DR.	10-1-98
		BY NO.	REVISIONS	DATE

WATER & SEWER EXTENSION  
 PROFILES  
 600 SCALE MAP NO. 24  
 BLOCK "6"

HOENES PROPERTY  
 A RESUBDIVISION OF  
 HOENES PROPERTY, PARCEL A-4  
 HOWARD COUNTY ELECTION DISTRICT NO. 2  
 CONTRACT NO. 14-3622-D

SCALE AS SHOWN  
 SHEET 2 OF 2