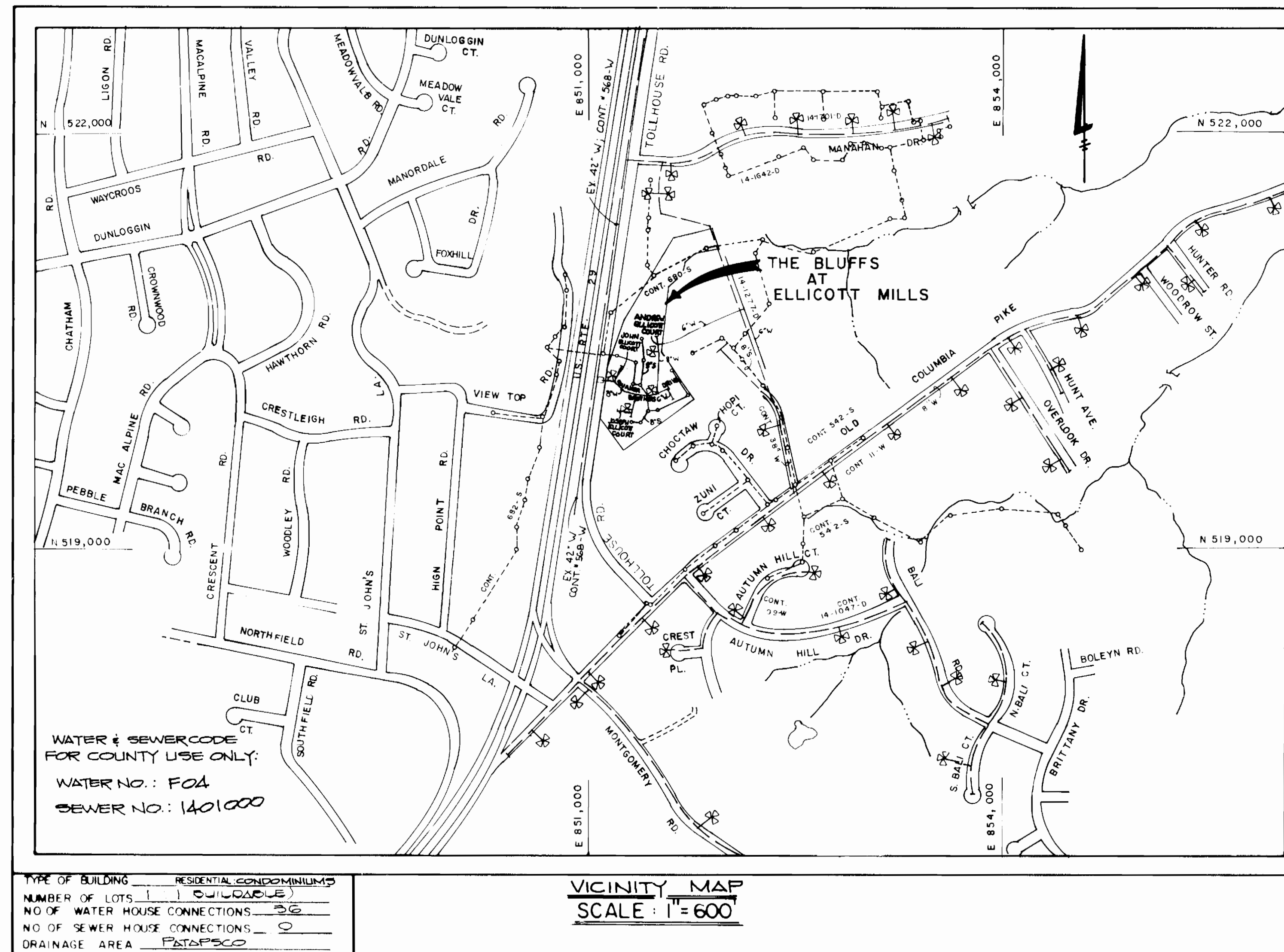


QUANTITIES			
ITEM	EST'D	AS-BUILT	SUPPLIER
6" WATER	888 L.F.	979 L.F.	ATLANTIC STATES
6" WATER	1237 L.F.	1,248 L.F.	ATLANTIC STATES
FIRE HYDRANTS	4 EACH	4 EACH	WATTS REGULATOR
6" VALVES	3 EACH	3 EACH	AMER. DARLING
6" VALVES	2 EACH	7 EACH	AMER. DARLING
42" P.C.P. TAPPING SLEEVE & VALVE	1 EACH	1 EACH	LOCK JOINT G.S.A.
6" SEWER	10 L.F.	1720 L.F.	CHARLOTTE PIPE
MANHOLES	1 EACH	15 EACH	ATLANTIC CONC.
6" SEWER D.I.P. CL. 52	41 L.F.	41 L.F.	ATLANTIC STATES
1" W.I.C.	270 L.F.	420 L.F.	VINCENT BRASS HOLSTEAD
3/4" W.I.C.	225 L.F.	240 L.F.	VINCENT BRASS HOLSTEAD
AIR RELEASE VALVE & M.I.	1 EACH	1 EACH	ATLANTIC CONC.
6" P.C.P. TAPPING SLEEVE & VALVE	1 EACH	1 EACH	AMER. DARLING

\* SEE SECTION 5.12 OF THE SPECIAL PROVISIONS FOR THE SPECIFICATIONS REGARDING THE PRESSURE TAP OF THE EX. 42" P.C.P. WM.



# CONTRACT NO. 14-1955-D

# THE BLUFFS AT ELLICOTT MILLS

## LOTS 1, 2 AND 3

## WATER AND SEWER MAIN EXTENSIONS

# HOWARD COUNTY, MARYLAND

## DEPARTMENT OF PUBLIC WORKS

### GENERAL NOTES

- 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.
- ALL HORIZONTAL CONTROLS ARE BASED ON MARYLAND STATE COORDINATES.
- ALL VERTICAL CONTROLS ARE BASED ON U.S.G.S. DATUM.
- ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS.
- CLEAR ALL UTILITIES BY A MINIMUM OF 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, AMENDED 11-10-85. 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 MADE SHALL BE VERIFIED BY THE CONTRACTOR TO HIS OWN SATISFACTION. ANY DAMAGE TO EXISTING FACILITIES DUE TO THE CONTRACTOR'S NEGLIGENCE SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
- CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITIES OR AGENCIES AT LEAST FIVE WORKING DAYS BEFORE STARTING WORK SHOWN ON THESE PLANS:  
 STATE HIGHWAY ADMINISTRATION: 531-5533  
 BALTIMORE GAS & ELECTRIC CO. - CONTRACTOR SERVICES: 850-4620  
 BALTIMORE GAS & ELECTRIC CO. UNDERGROUND DAMAGE CONTROL: 859-9004  
 BALTIMORE GAS & ELECTRIC CO. TROUBLE SHOOTING: 298-9001  
 MISS UTILITY: 1-559-0100  
 COLONIAL PIPELINE COMPANY: 795-1390  
 BUREAU OF UTILITIES, HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS: 992-2366  
 C.B.P. TELEPHONE COMPANY: 1-800-257-7777
- 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.
- ALL WATER MAINS TO BE D.I.P. CLASS 52 UNLESS OTHERWISE NOTED.
- TOPS OF ALL WATER MAINS TO HAVE A MINIMUM OF 3'-1/2' 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 STRAPPED AND BUTTRESSED WITH CONCRETE IN ACCORDANCE WITH STANDARD DETAILS. 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 SETTING, UNLESS OTHERWISE NOTED ON THE PLANS OR IN THE SPECIFICATIONS. (STD. DETAIL W.3.21).
- WATER MAINS AND WATER HOUSE CONNECTION LINES MUST BE PLACED SO AS TO HAVE AT LEAST ONE (1) FOOT SEPARATION FROM THE SEWER MAIN OR SEWER HOUSE CONNECTION AS THEY PASS ABOUT IT.
- MANHOLES DESIGNATED W.T. IN PLAN AND PROFILE SHALL HAVE WATER-TIGHT FRAME AND COVERS STANDARD DETAIL G5.52 WHERE WATER-TIGHT MANHOLE FRAME AND COVER IS USED, SET TOP OF FRAME 1'-6" ABOVE FINISHED GRADE UNLESS OTHERWISE NOTED ON THE DRAWINGS.
- ALL SEWER MAINS SHALL BE C.S.P.X., R.C.S.P., V.C.P.X. OR 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.
- MANHOLES SHOWN WITH 12" AND 16" WALLS ARE FOR BRICK MANHOLES ONLY.
- MANHOLES LOCATED WITHIN PROPOSED ROADWAY SHALL HAVE STANDARD HEAVY TRAFFIC MANHOLE FRAME AND COVER, STANDARD DETAIL G5.51.
- ALL D.I.P. FITTINGS SHALL BE IN ACCORDANCE WITH AWWA SPECIFICATION C-153: DUCTILE IRON COMPACT FITTINGS, 3-INCH THROUGH 12-INCH FOR WATER & OTHER LIQUIDS.
- THE CONTRACTOR SHALL REFERENCE SECTION 5.12 OF THE SPECIAL PROVISIONS FOR SPECIFICATIONS REGARDING THE PRESSURE TAP OF THE EXISTING 42" PRESTRESSED CONCRETE CYLINDER PIPE WATER MAIN.
- THE BALL VALVE CURB STOPS FOR THE WATER HOUSE CONNECTIONS SHALL BE SET AT THE EDGE OF THE WATER UTILITY EASEMENT AS SHOWN ON THE PLAN VIEW, SHEET 2 OF 4.

SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE HOWARD COUNTY DESIGN MANUAL AND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL IN DEVELOPING AREAS AND ALSO AS SHOWN ON THE GRADING AND SEDIMENT CONTROL PLAN F 89-158 B SDP 89-237

REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS

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

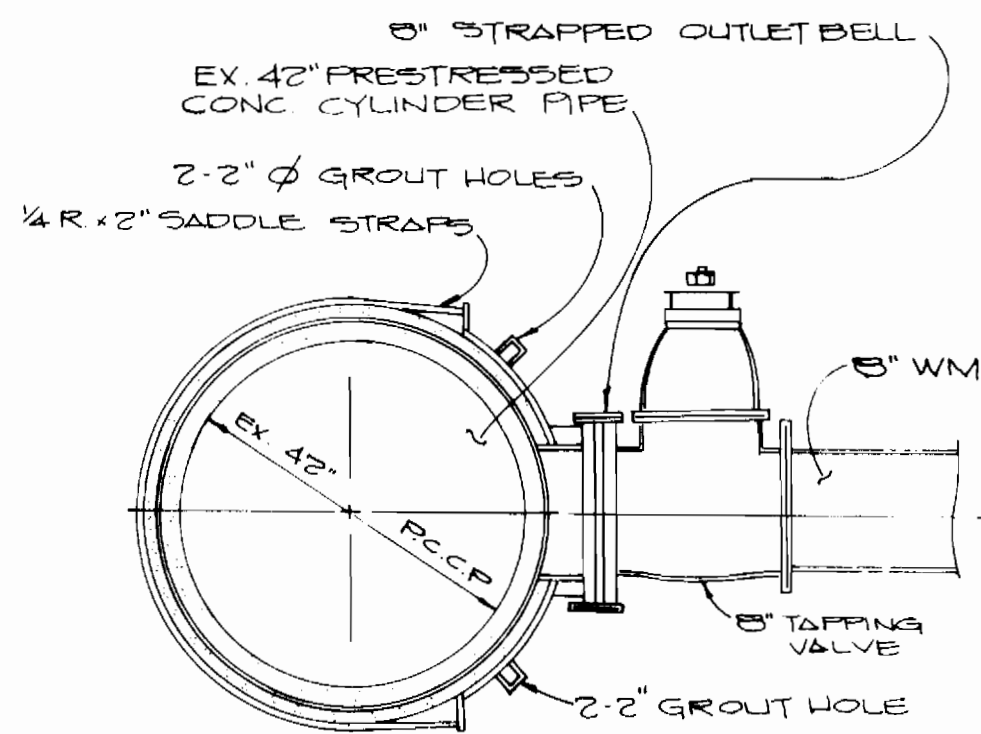
APPROVED

*John E. Fisher* 6/30/89  
 HOWARD SOIL CONSERVATION DISTRICT DATE

*Terrell A. Fisher* 6/30/89  
 AS SOIL CONSERVATION SERVICE DATE

PLAN REFERENCE NUMBERS  
 F 89-158  
 SDP 89-237

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND <i>Ruth B. Jones</i> 7-5-89 DIRECTOR OF PUBLIC WORKS DATE <i>Michael A. Williams</i> 6-30-89 CHIEF, BUREAU OF ENGINEERING DATE	FISHER, COLLINS AND CARTER, INC. #9757 CONSULTING ENGINEERS AND LAND SURVEYORS 8388 COURT AVENUE ELLICOTT CITY, MARYLAND 21043 <i>Terrell A. Fisher</i> TERRELL A. FISHER	DES. M.M. DRN. MM/DH CHK. PWK DATE 6-19-89 BY NO. REVISION DATE	TITLE SHEET 600 SCALE MAP NO. 24 BLOCK NO.	<b>THE BLUFFS AT ELLICOTT MILLS</b> LOTS 1, 2 AND 3 CONTRACT NO. 14-1955-D SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND	SCALE AS SHOWN SHEET 1 OF 4
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DETAIL: CONNECTION TO EX. 42" W  
NO SCALE

- NOTES:**
1. SEE PLAN VIEW THIS SHEET FOR LOCATION OF CONNECTION.
  2. SEE GENERAL NOTE \*2G
  3. REFERENCE SECTION 5.12 OF THE SPECIAL PROVISIONS FOR SPECIFICATIONS REGARDING THE PRESSURE TAP OF THE EX. 42" PCCP

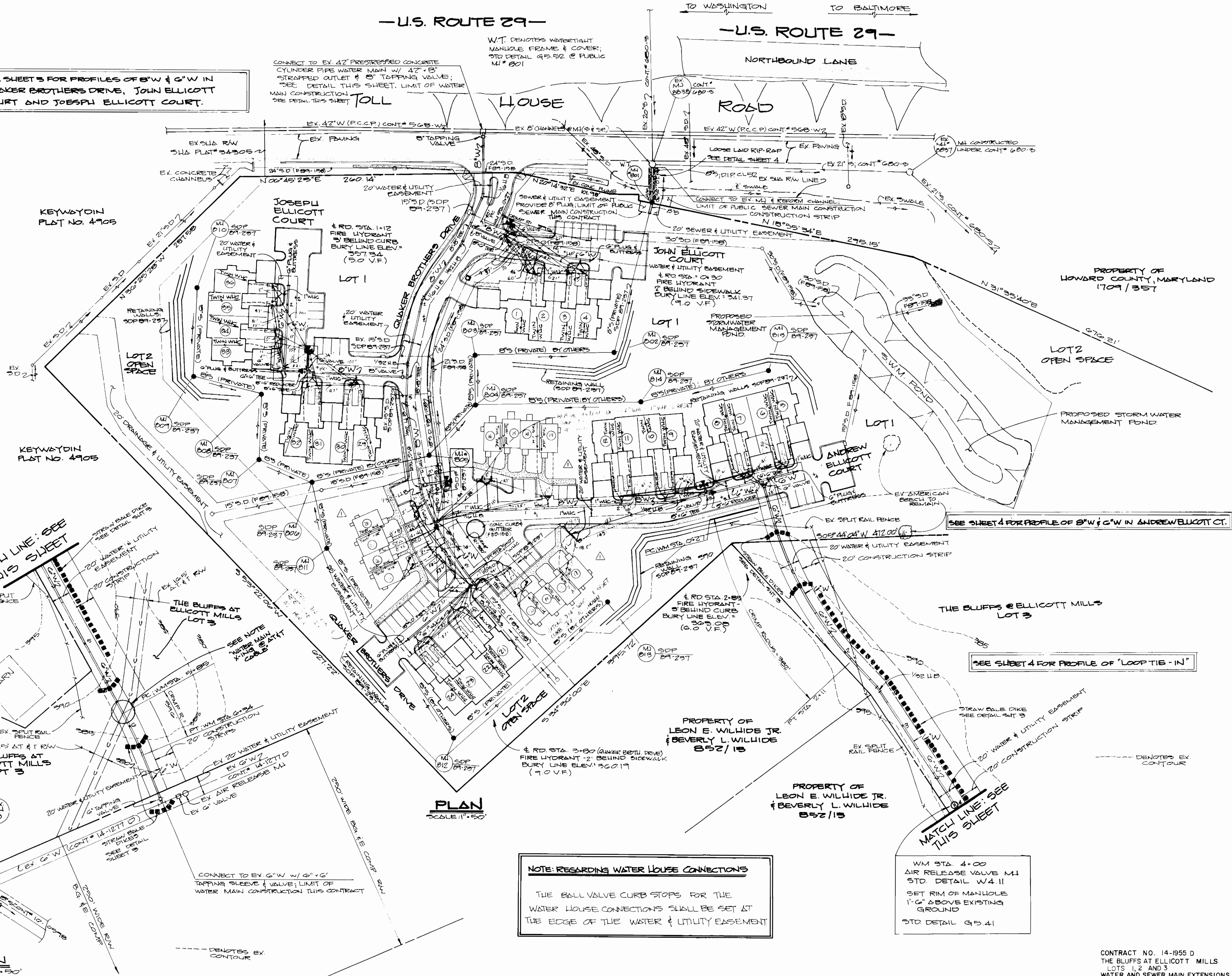
**NOTE: "WATER MAIN @ AT&T CABLE"**

1. PRIOR TO ANY CONSTRUCTION WITHIN EX. 16.5' AT&T R/W, THE CONTRACTOR SHALL CONTACT A REPRESENTATIVE OF THE AT&T COMPANY.
2. THE CONTRACTOR SHALL HAND EXCAVATE & LOCATE EX. AT&T CABLE.
3. THE CONTRACTOR SHALL NOT INSTALL PROPOSED 6" WATER MAIN WITHIN 150 FEET OF EXISTING AT&T CABLE TO INSURE ADEQUATE WATER MAIN DESIGN CLEARANCE.

SEE SHEET 5 FOR PROFILES OF 8" W & 6" W IN QUAKER BROTHERS DRIVE, JOHN ELLICOTT COURT AND JOSEPH ELLICOTT COURT.

CONNECT TO EX. 42" PRESTRESSED CONCRETE CYLINDER PIPE WATER MAIN W/ 42" 8" STRAPPED OUTLET & 8" TAPPING VALVE; SEE DETAIL THIS SHEET. LIMIT OF WATER MAIN CONSTRUCTION THIS CONTRACT. SEE DETAIL THIS SHEET.

W.T. DENOTES WATERTIGHT MANHOLE FRAME & COVER; STD DETAIL 9.5.12 @ PUBLIC MI# 801



PLAN  
SCALE: 1"=50'

**NOTE: REGARDING WATER HOUSE CONNECTIONS**

THE BALL VALVE CURB STOPS FOR THE WATER HOUSE CONNECTIONS SHALL BE SET AT THE EDGE OF THE WATER & UTILITY EASEMENT

WM STA. 4+00  
AIR RELEASE VALVE MI  
STD. DETAIL W4.11  
SET RIM OF MANHOLE  
1'-6" ABOVE EXISTING  
GROUND  
STD DETAIL 9.5.41

SEE SHEET 4 FOR PROFILE OF 6" W

SEE SHEET 4 FOR PROFILE OF 8" W & 6" W IN ANDREW ELLICOTT CT.

SEE SHEET 4 FOR PROFILE OF "LOOP TIE-IN"

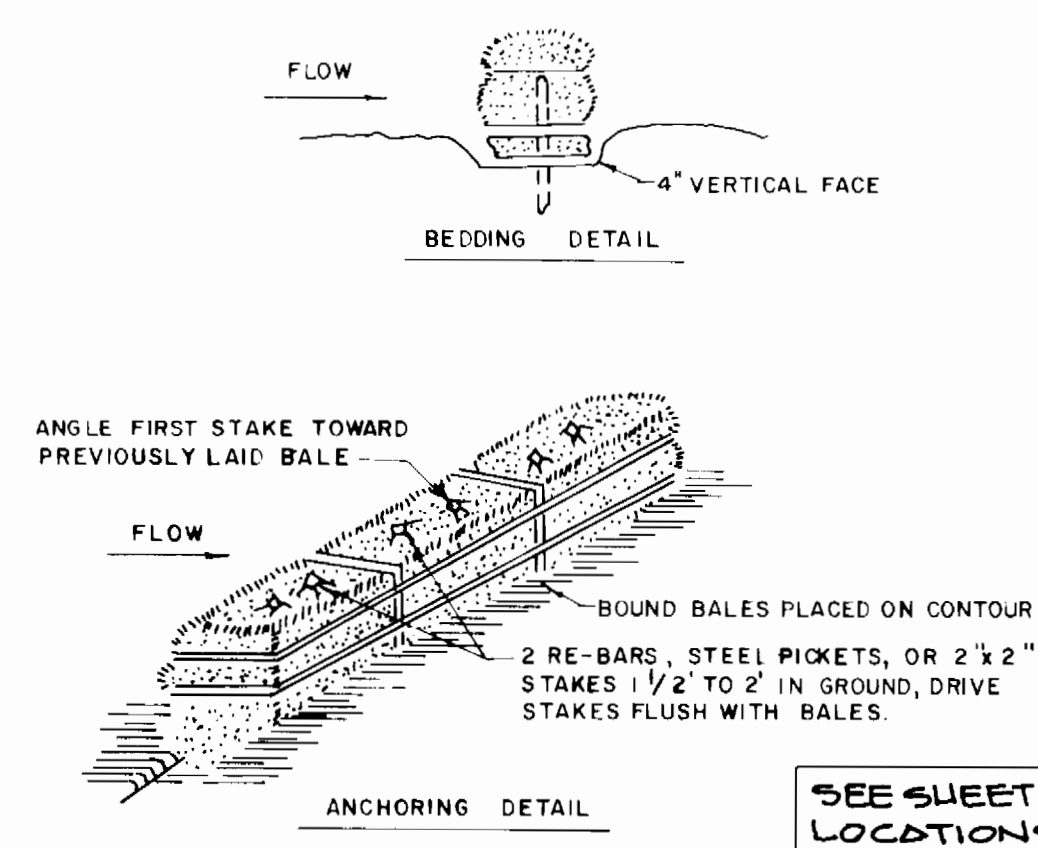
PROPERTY OF LEON E. WILLIAMS JR. & BEVERLY L. WILLIAMS 852/15

PROPERTY OF LEON E. WILLIAMS JR. & BEVERLY L. WILLIAMS 852/15

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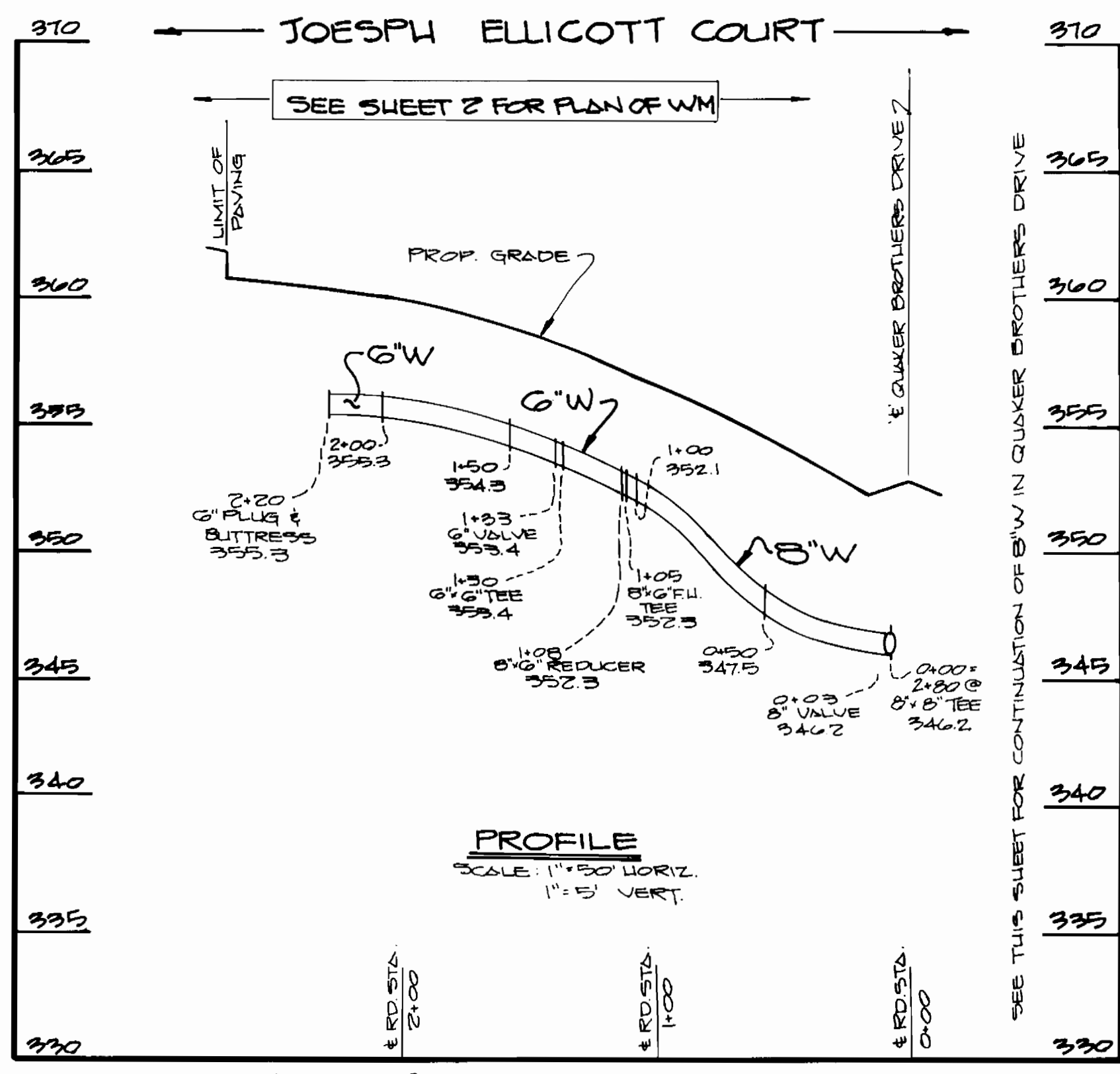
CONTRACT NO. 14-1955 D  
THE BLUFFS AT ELLICOTT MILLS  
LOTS 1, 2 AND 3  
WATER AND SEWER MAIN EXTENSIONS  
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND Director of Public Works: <i>Robert W. Blum</i> 7-5-89 Chief, Bureau of Engineering: <i>Michael A. Stinson</i> 6-30-89 Chief, Bureau of Utilities: <i>DMG</i>		FISHER, COLLINS, AND CARTER, INC. CONSULTING ENGINEERS AND LAND SURVEYORS 8388 COURT AVENUE ELLICOTT CITY, MARYLAND 21043 Chief, Land Development Division: <i>Terrell A. Fisher</i> 4/30/89		#9757 DES: MM DRN: MM CHK: PWK DATE: 6-19-89 BY: NO.		PLAN WATER AND SEWER MAINS DATE: 6-19-89 REVISION:		THE BLUFFS AT ELLICOTT MILLS LOTS 1, 2 AND 3 CONTRACT NO. 14-1955 D SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND SCALE AS SHOWN SHEET 2 OF 4	
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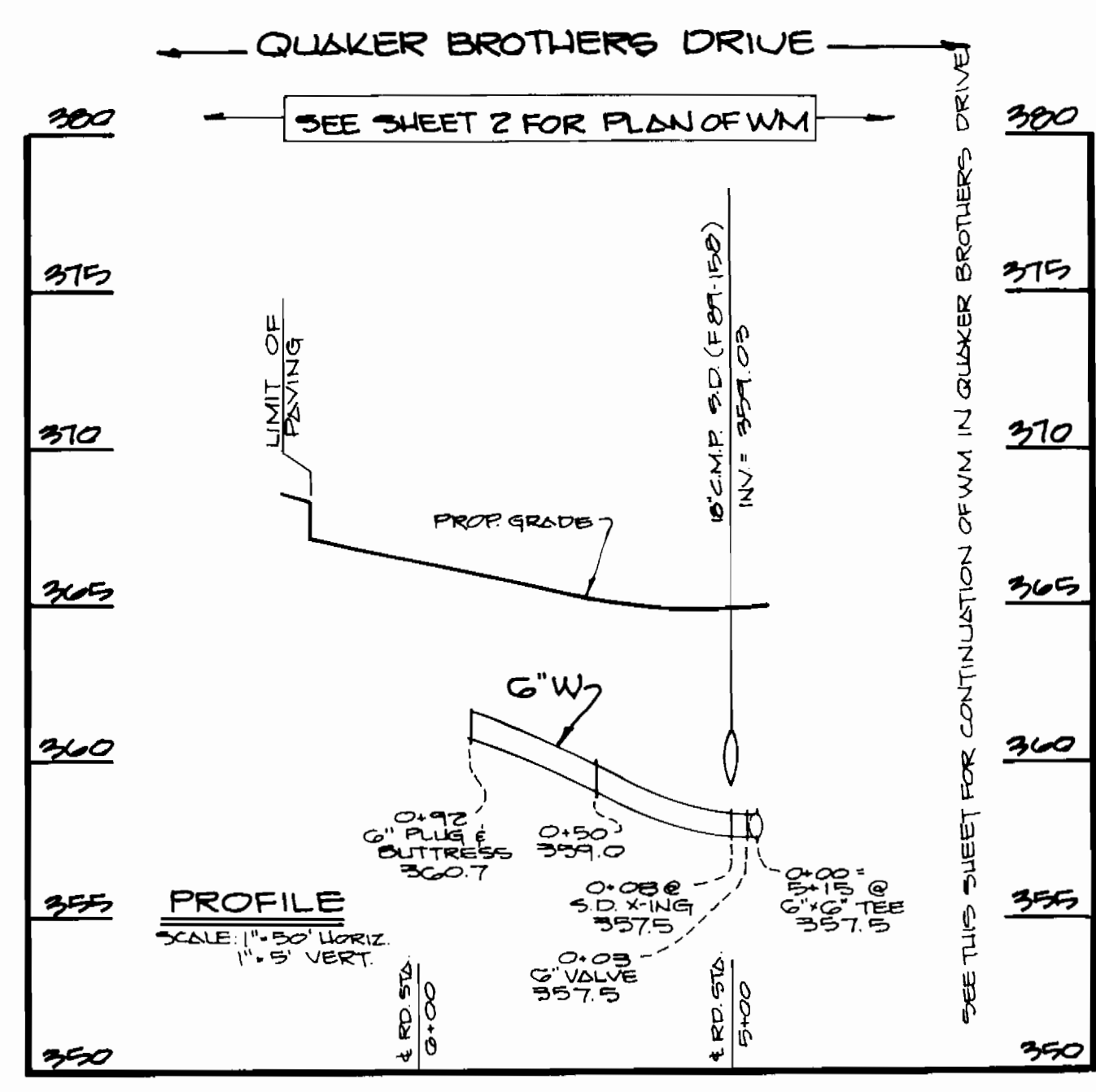


**STRAW BALE DIKE**

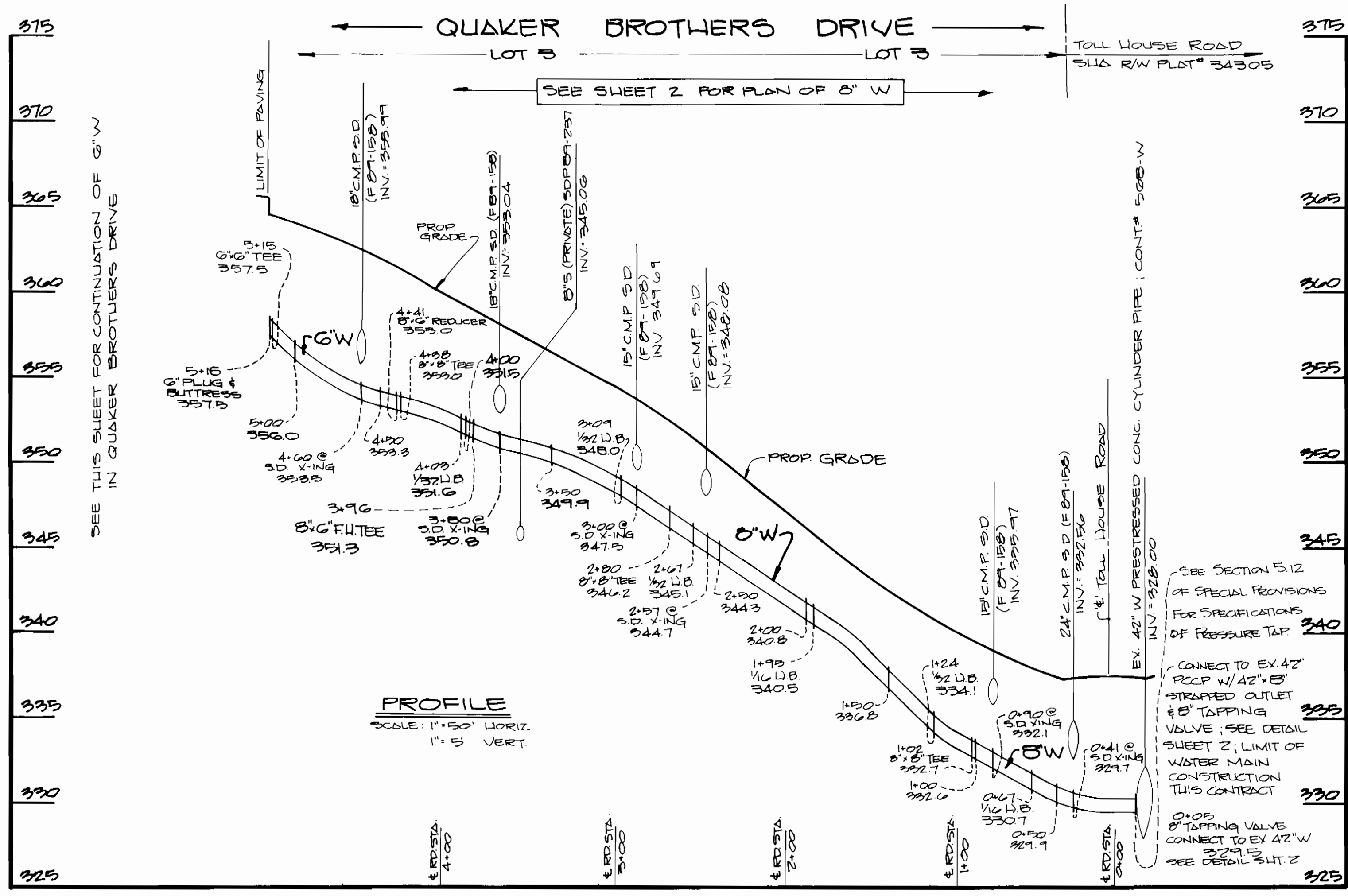
- BALES SHALL BE PLACED AT THE TOE OF A SLOPE OR ON THE CONTOUR AND IN A ROW WITH ENDS TIGHTLY ABUTTING THE ADJACENT BALES.
- EACH BALE SHALL BE EMBEDDED IN THE SOIL A MINIMUM OF 4 INCHES, AND PLACED SO THE BINDINGS ARE HORIZONTAL.
- BALES SHALL BE SECURELY ANCHORED IN PLACE BY EITHER TWO STAKES OR RE-BARS DRIVEN THROUGH THE BALE. THE FIRST STAKE IN EACH BALE SHALL BE DRIVEN TOWARD THE PREVIOUSLY LAID BALE AT AN ANGLE TO FORCE THE BALES TOGETHER. STAKES SHALL BE DRIVEN FLUSH WITH THE BALE.
- INSPECTION SHALL BE FREQUENT AND REPAIR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.
- BALES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFULNESS SO-AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.



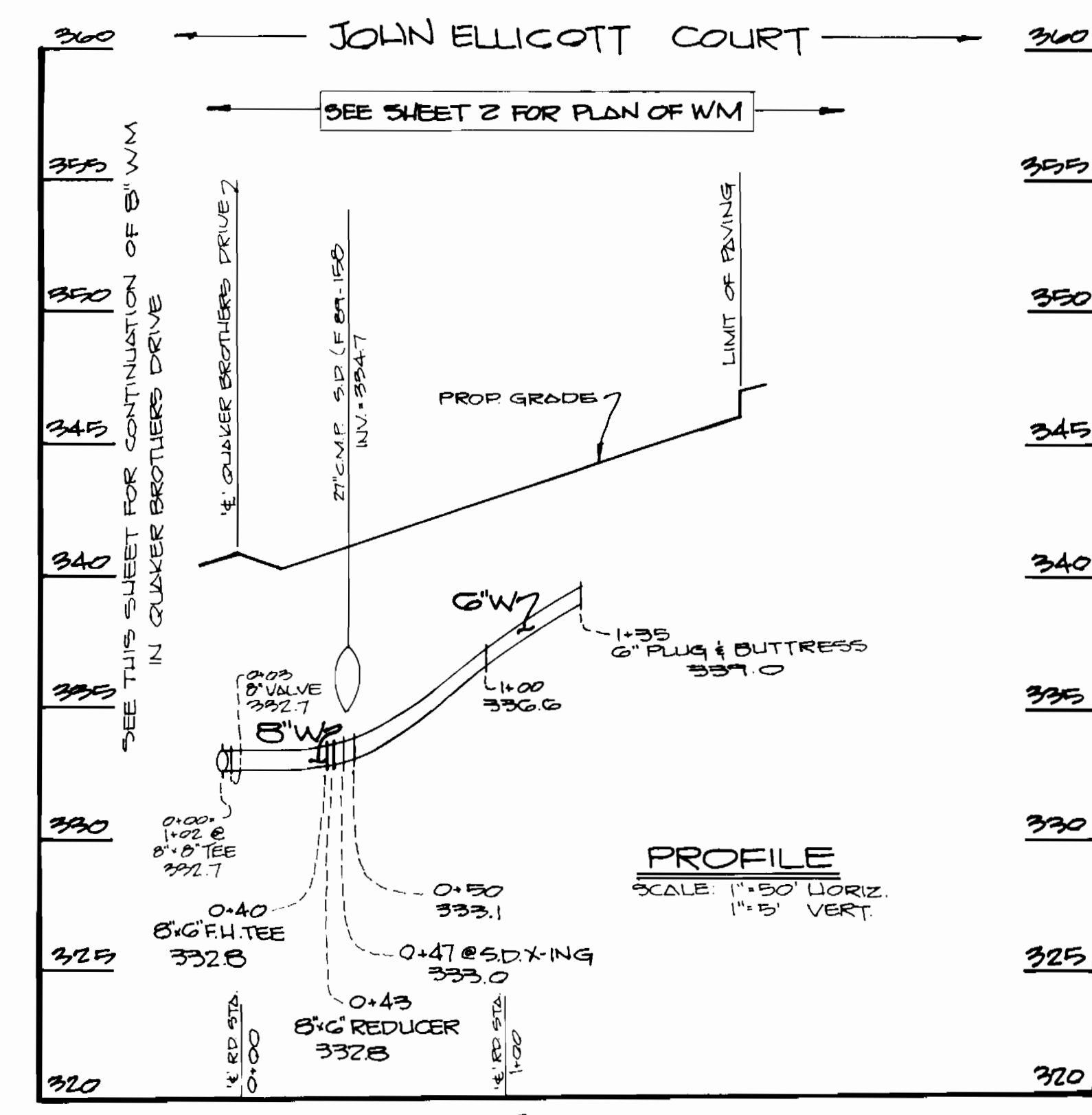
**8" & 6" W: JOSEPH ELICOTT COURT**



**6" W: QUAKER BROTHERS DRIVE**



**8" & 6" W: QUAKER BROTHERS DRIVE**



**8" & 6" W: JOHN ELICOTT COURT**

CONTRACT NO. 14-1955-D  
 THE BLUFFS AT ELICOTT MILLS  
 LOTS 1, 2 AND 3  
 WATER AND SEWER MAIN EXTENSIONS  
 HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS  
 HOWARD COUNTY, MARYLAND  
 Director of Public Works: *[Signature]* 7-5-89  
 Chief, Bureau of Engineering: *[Signature]* 6/30/89  
 Chief, Bureau of Utilities: *[Signature]*

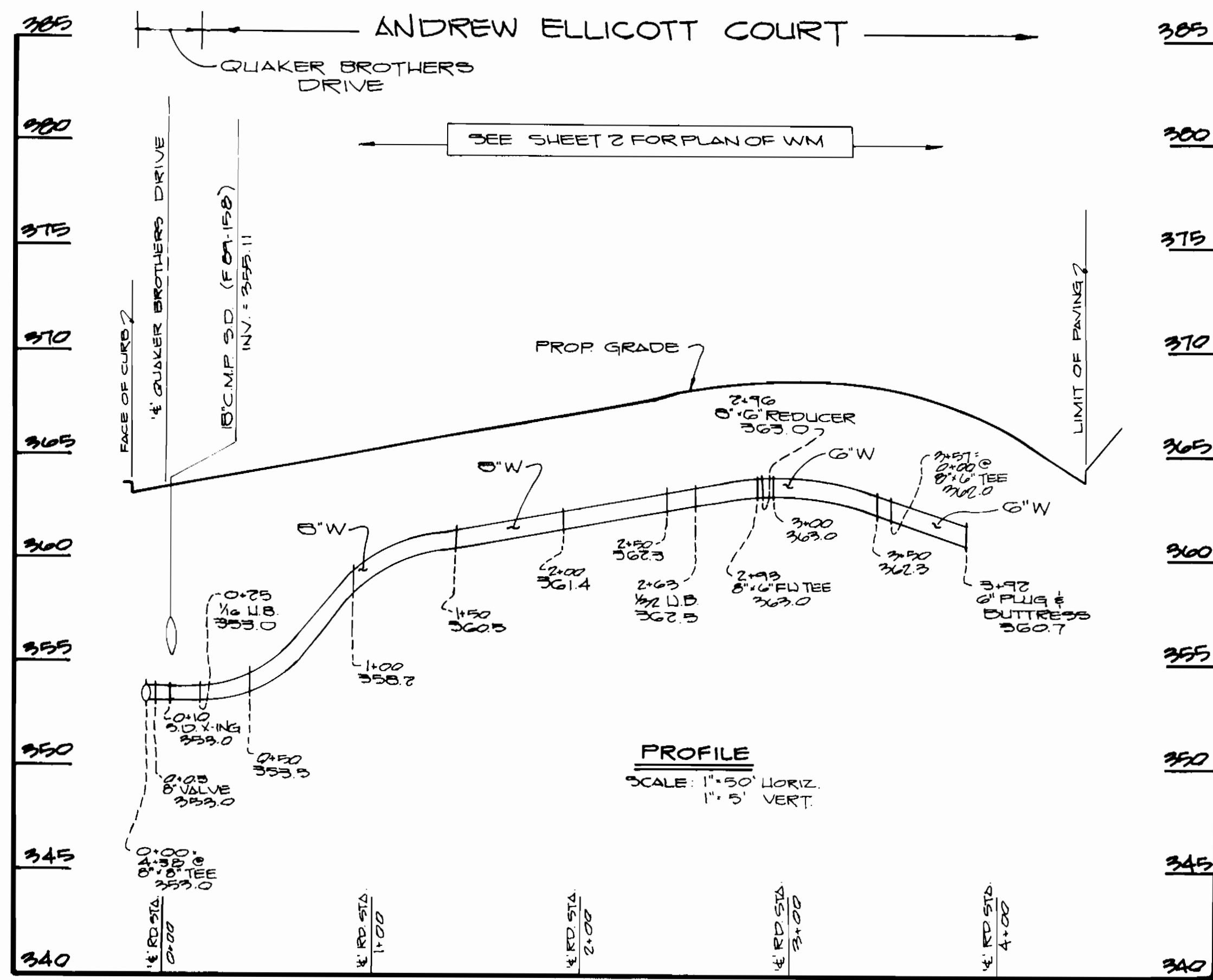
FISHER, COLLINS, AND CARTER, INC.  
 CONSULTING ENGINEERS AND LAND SURVEYORS  
 8388 COURT AVENUE  
 ELICOTT CITY, MARYLAND 21043  
 # 9757  
*[Signature]*  
 TERRELL A. FISHER

DES: M.M.				
DRN: M.M.				
CHK: P.W.K.				
DATE: 6-19-89	BY NO.	REVISION	DATE	600' SCALE MAP NO. 24 BLOCK NO.

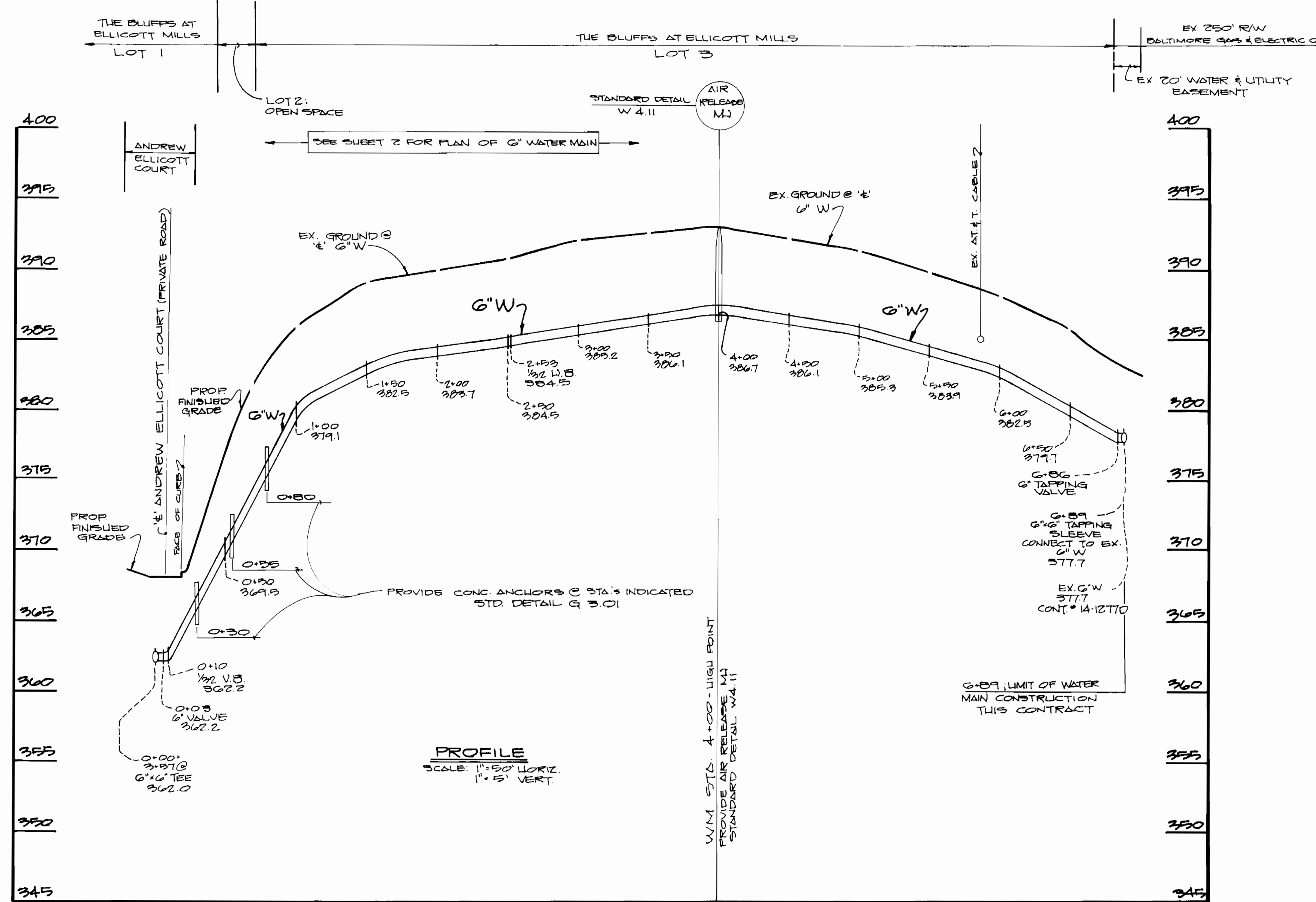
**PROFILES  
 WATER MAINS**

**THE BLUFFS AT ELICOTT MILLS**  
 LOTS 1, 2 AND 3  
 CONTRACT NO. 14-1955-D  
 SECOND ELECTION DISTRICT  
 HOWARD COUNTY, MARYLAND

SCALE AS SHOWN  
 SHEET 3 OF 4

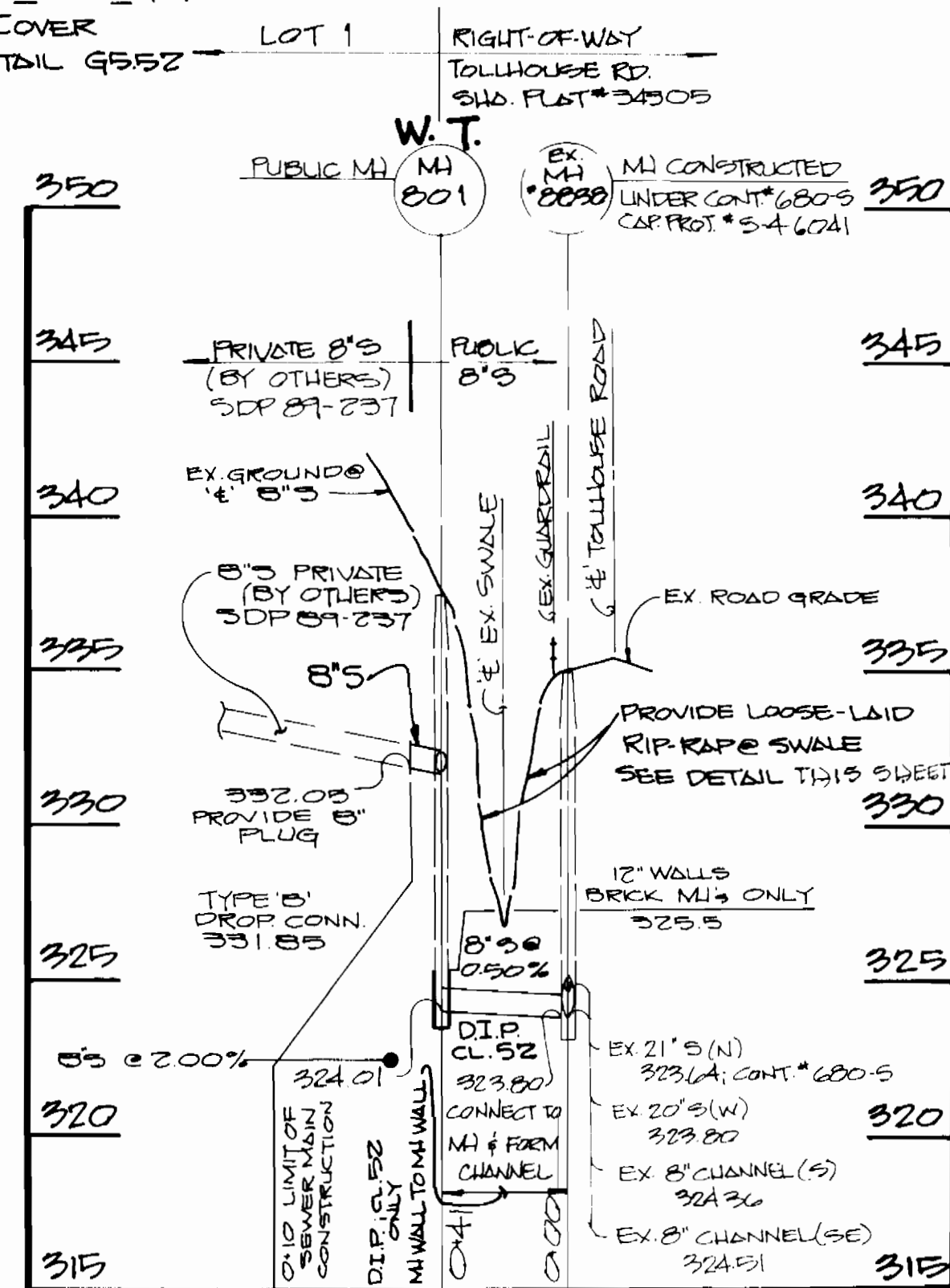


8" W: ANDREW ELICOTT COURT



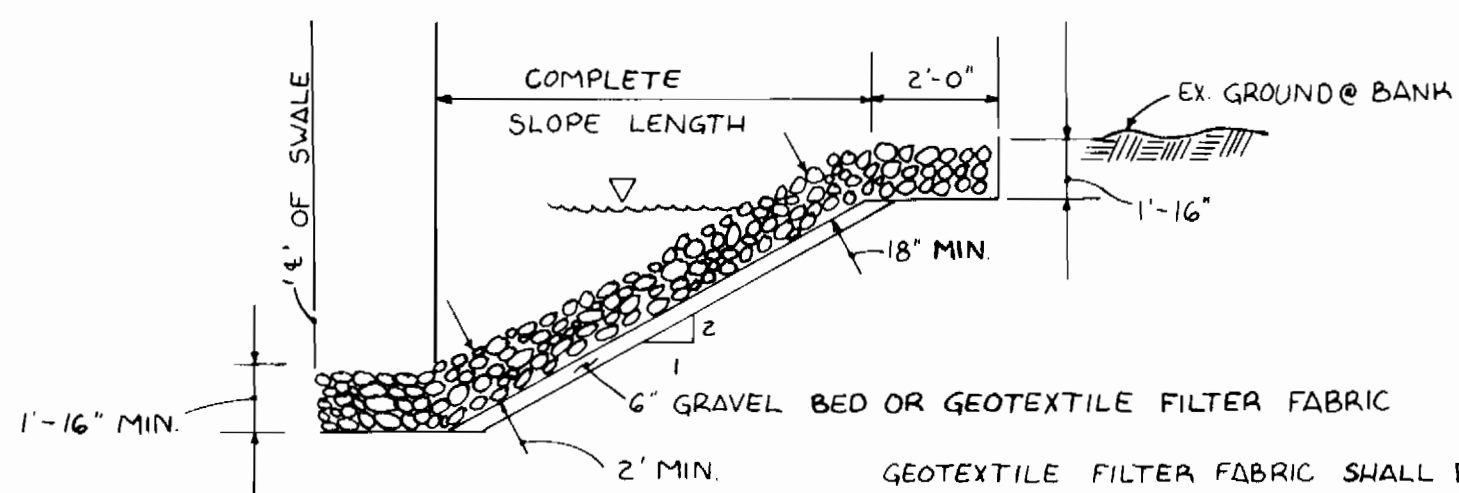
6" WATER MAIN: LOOP TIE-IN

W.T. DENOTES WATER TIGHT MI FRAME & COVER  
STANDARD DETAIL G55Z



8" SEWER MAIN

RIP RAP TO CONSIST OF DENSE ROCKS OF RANDOM SHAPE AND SIZES RESISTANT TO THE ACTION OF AIR (WATER) AND SUITABLE FOR BANK PROTECTION. ALL RIP RAP SHALL MEET THE GRADATION REQUIREMENTS FOR CLASS 1 RIP RAP.



LOOSE-LAID RIP RAP DETAIL

NO SCALE

CONTRACT NO. 14-1955 D  
THE BLUFFS AT ELICOTT MILLS  
LOTS 1, 2 AND 3  
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HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

FISHER, COLLINS, AND CARTER, INC.  
CONSULTING ENGINEERS AND LAND SURVEYORS

# 9757

DES:MM/PWK

DRN:MM

CHK:PWK

DATE 6-19-89

BY NO.

REVISION

DATE

600' SCALE MAP NO. 24 BLOCK NO.

PROFILES  
WATER AND SEWER MAINS

THE BLUFFS AT ELICOTT MILLS  
LOTS 1, 2 AND 3

CONTRACT NO. 14-1955 D  
SECOND ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

SCALE  
AS  
SHOWN

SHEET  
4 OF 4

Director of Public Works  
DATE 7-5-89

Chief, Bureau of Engineering  
DATE 6-30-89

8388 COURT AVENUE  
ELICOTT CITY, MARYLAND 21043

TERRELL A. FISHER