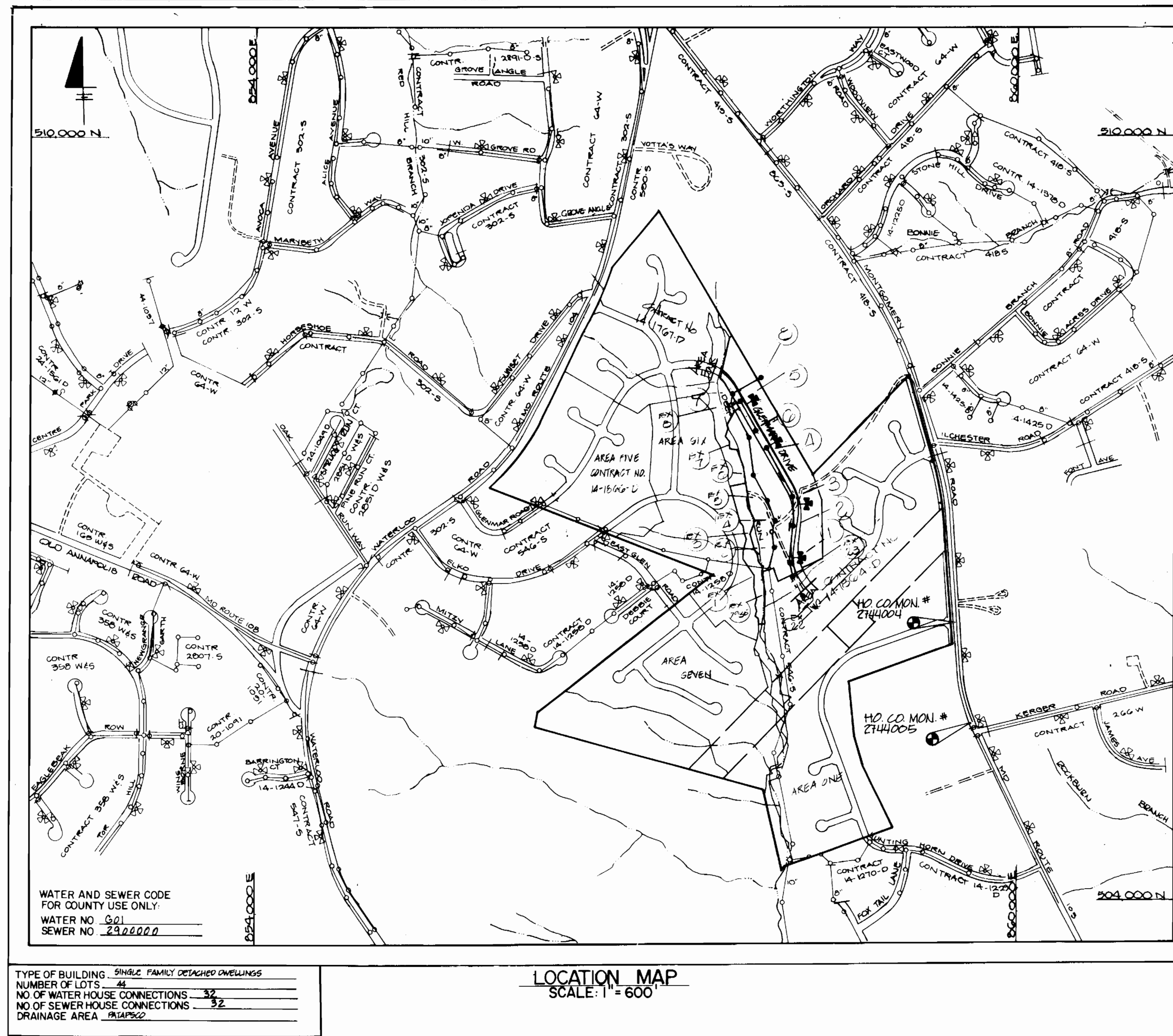


QUANTITIES			
ITEM	EST'D	AS BUILT	SUPPLIER
8" WATER	1,090 L.F.	1242	FRANK MORA CONTRACTORS
6" WATER	60 L.F.	61	FRANK MORA CONTRACTORS
3/4" W.H.C.	1523 L.F.	1523	DELMAR PIPE COMPANY
1" W.H.C.			DELMAR PIPE COMPANY
FIRE HYDRANTS	4	4	FRANK MORA CONTRACTORS
8" SEWER	2,100 L.F.	2100	FRANK MORA CONTRACTORS
8" SEWER (D.I.P.)			FRANK MORA CONTRACTORS
MANHOLES	8	8	ALL WHITE CONCRETE
4" SHC	1,092 L.F.	1092	FRANK MORA CONTRACTORS
8" VALVES	1	1	FRANK MORA CONTRACTORS
6" VALVES (EXCLUDING F.H.)	4	4	FRANK MORA CONTRACTORS
6" F.H. VALVES	4	4	DELMAR PIPE COMPANY



- ### 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". CLEAR ALL POLES BY 2'-0" MINIMUM OR TUNNEL AS REQUIRED. ANY COST INCURRED TO THE CONTRACTOR FOR TUNNELING OR BRACING AT POLES SHALL BE INCLUDED IN UNIT PRICES BID FOR CONSTRUCTION OF THE MAIN.
  - FOR DETAILS NOT SHOWN ON THE DRAWINGS USE HOWARD COUNTY STANDARD DETAILS.
  - FOR MATERIALS AND CONSTRUCTION METHODS USE HOWARD COUNTY STANDARD SPECIFICATIONS.
  - CONTRACTOR SHALL LOCATE EXISTING UTILITIES A MINIMUM OF TWO (2) WEEKS IN ADVANCE OF CONSTRUCTION OPERATIONS IN THE VICINITY OF PROPOSED UTILITIES AT HIS OWN EXPENSE.
  - CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITIES OR AGENCIES AT LEAST FIVE (5) WORKING DAYS BEFORE STARTING WORK SHOWN ON THESE PLANS.
    - STATE HIGHWAY ADMINISTRATION 531-5533
    - BALTIMORE GAS AND ELECTRIC COMPANY - UNDERGROUND ELECTRIC DISTRIBUTION CUSTOMER SERVICE 685-0123
    - BALTIMORE GAS AND ELECTRIC COMPANY - UNDERGROUND GAS DISTRIBUTION CUSTOMER SERVICE 685-0123
    - ENGINEERING - "DAMAGE CONTROL" 234-5611
    - "MISS UTILITY" 1-559-0100
    - CHESAPEAKE & POTOMAC (C&P) TELEPHONE COMPANY 725-9976
    - AMERICAN TELEPHONE AND TELEGRAPH - CABLE LOCATION DIVISION 393-3533
    - COLONIAL PIPELINE COMPANY 795-1390
    - BUREAU OF UTILITIES HOWARD COUNTY 992-2366
  - TREES ARE TO BE PROTECTED FROM DAMAGE TO MAXIMUM EXTENT. TREES 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 AS DIRECTED BY THE ENGINEER. PAYMENT FOR SUCH REMOVAL SHALL BE INCLUDED IN THE UNIT PRICE BID FOR CONSTRUCTION OF THE MAIN.
  - PLACE REGULATION "MEN WORKING" AND WARNING SIGNS AS REQUIRED TO COMPLY WITH MARYLAND STATE HIGHWAY ADMINISTRATION MANUAL OF TRAFFIC CONTROL FOR HIGHWAY CONSTRUCTION AND MAINTENANCE.
  - ALL WATER MAINS TO BE D.I.P. CLASS 52 ONLY.
  - TOP 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.
  - BLOCK ALL FITTINGS WITH CONCRETE.
  - BURY LINE ELEVATIONS IN ALL FIRE HYDRANTS SHALL BE SET TO THE 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 TO BE COMPACTED IN ACCORDANCE WITH SECTIONS 10.00 AND 10.19 OF THE STANDARD SPECIFICATIONS.
  - ALL WATER HOUSE CONNECTIONS SHALL BE FOR INSIDE METER SETTING UNLESS OTHERWISE SHOWN.
  - THE CONTRACTOR SHALL NOT OPERATE ANY WATER MAIN VALVES ON THE EXISTING SYSTEM.
  - ALL SEWER MAINS SHALL BE C.S.P.X., F.C.S.P., V.C.P.X., A.C.P. CLASS 2400 OR PVC UNLESS OTHERWISE NOTED.
  - THE CONTRACTOR SHALL PROVIDE A JOINT IN ALL SEWER MAINS WITH 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 DESIGNATED W.T. IN PLAN AND PROFILE SHALL HAVE WATERTIGHT FRAME AND COVERS, STANDARD DETAIL G 5 52. WHERE WATERTIGHT MANHOLE FRAME AND COVER IS USED, SET TOP OF FRAME 1'-6" ABOVE FINISHED GRADE, STANDARD DETAIL G 5 41. HOUSE(S) WITH THE SYMBOL "C.N.S." INDICATES THAT CELLAR CAN NOT BE SERVED.
  - ALL D.I.P. FITTINGS SHALL BE IN ACCORDANCE WITH AWWA SPECIFICATION C-153 DUCTILE IRON COMPACT FITTINGS, 3-INCH THROUGH 12-INCH WIDTH AND OTHER LIQUIDS.
  - ALL S.H.C.s ARE AT 2% SLOPE, UNLESS OTHERWISE NOTED.
  - ALL CONSTRUCTION TO BE DONE AS PER THIS PLAN AND HOWARD COUNTY DESIGN MANUAL VOL. IV.

### BENCHMARKS

HOWARD CO. MON. # 214004 ELEV. 415.907  
 3/4" REBAR 0.5' BELOW SURFACE, 1'-2" (W) OF ROUTE 109 AND 140' ± (S) OF INTER. WITH WILHELM ROAD.  
 HOWARD CO. MON. # 214005 ELEV. 419.615  
 3/4" REBAR 0.6' BELOW SURFACE, 10'-2" (W) EDGE OF ROUTE 109 AND 80'-4" (N) OF 6" KERBER ROAD.

# CONTRACT NO. 14-1865-D

# MONTGOMERY MEADOWS

## SECTION ONE - AREA THREE

## WATER AND SEWER MAIN EXTENSIONS

## HOWARD COUNTY, MARYLAND

## DEPARTMENT OF PUBLIC WORKS

SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH ARTICLE 15 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-28-243.

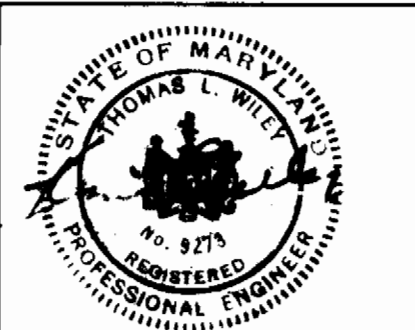
THIS DEVELOPMENT PLAN IS APPROVED FOR EROSION AND SEDIMENT CONTROL BY HOWARD SOIL CONSERVATION DISTRICT

REVIEW FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS  
 U.S. SOIL CONSERVATION SERVICE DATE 3/18/89

APPROVED:  
 Stephen L. Rubin 3/18/89  
 HOWARD SOIL CONSERVATION DISTRICT DATE

DEPARTMENT OF PUBLIC WORKS  
 HOWARD COUNTY, MARYLAND  
 James R. ... 3/9/89  
 DIRECTOR OF PUBLIC WORKS DATE  
 Robert ... 3-6-89  
 CHIEF, BUREAU OF UTILITIES DATE  
 ... 3/18/89  
 CHIEF, LAND DEVELOPMENT DIVISION DATE

DEWBERRY & DAVIS  
 ARCHITECTS ENGINEERS PLANNERS SURVEYORS  
 3300 N. RIDGE ROAD  
 SUITE 100  
 ELLICOTT CITY, MD. 21043  
 (301) 461-7478

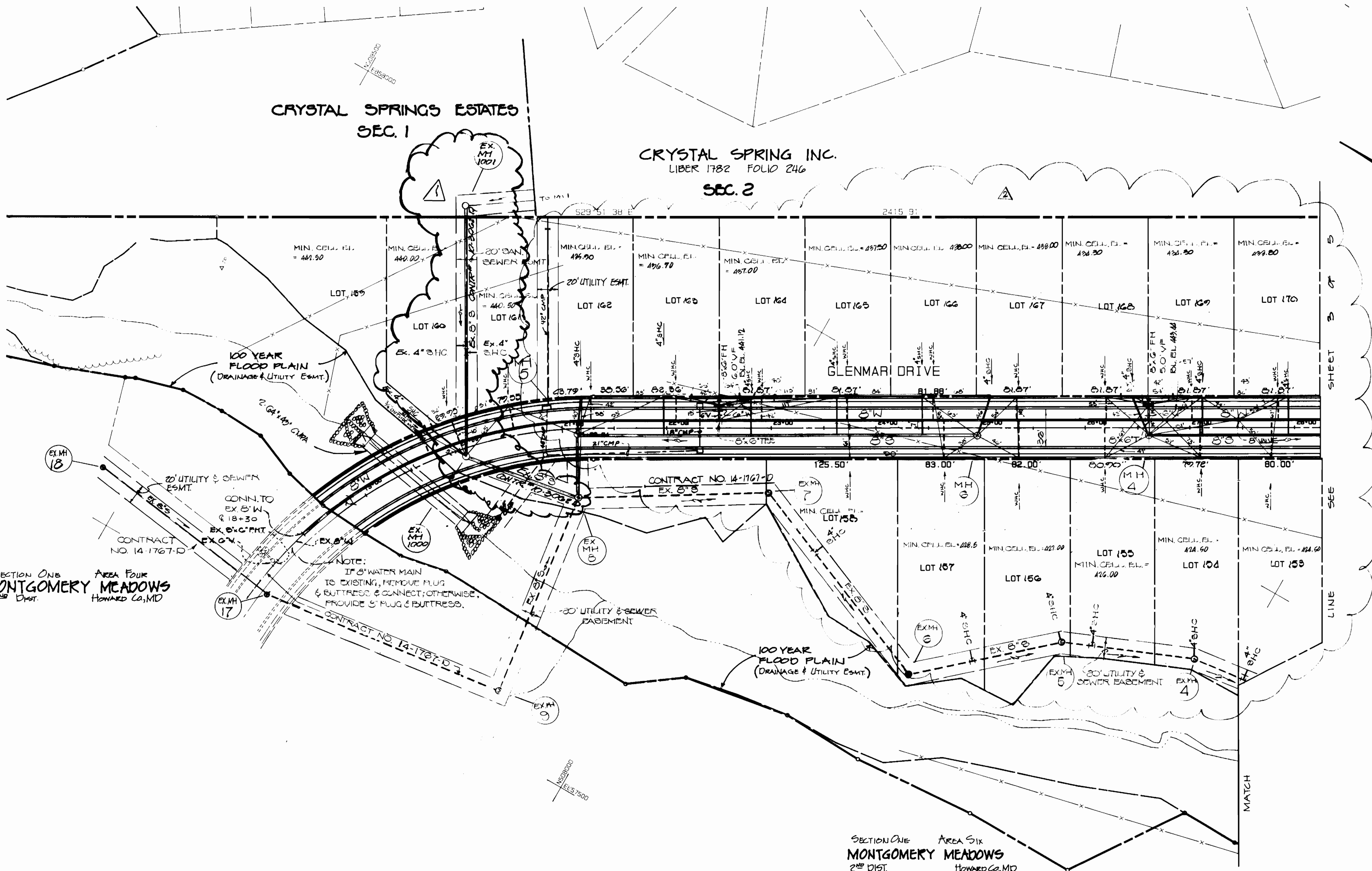


DES: D17A					
DRN: D17A	GAH	Δ	Revised Quantities Block	12/21/87	
	WZO		REVISED AS PER COMMENTS DATED SEP. 1989	9/29/89	
CHK: D17E	CRG		REVISED AS PER COMMENTS	8/10/89	
	KMG		REVISED AS PER COMMENTS DATED DECEMBER 12, 1989	1/20/89	
DATE: 4/88	BY: NO.		REVISION	DATE	

TITLE SHEET  
 600' SCALE MAP NO. 21 BLOCK NO. 14

WATER & SEWER PLANS  
 MONTGOMERY MEADOWS  
 SECTION ONE AREA THREE  
 CONTRACT NO. 14-1865-D  
 2nd ELECTION DISTRICT  
 HOWARD COUNTY, MARYLAND

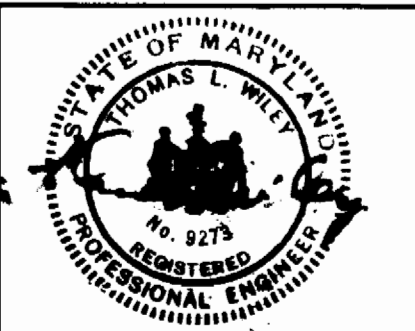
SCALE AS SHOWN  
 SHEET 1 OF 5



**PLAN**  
SCALE: 1" = 50'

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND  
3/9/89  
3-6-89

**DEWBERRY & DAVIS**  
ARCHITECTS-ENGINEERS-PLANNERS-SURVEYORS  
3300 N. RIDGE ROAD  
SUITE 100  
ELLCOTT CITY, MD. 21043  
(301) 461-7478

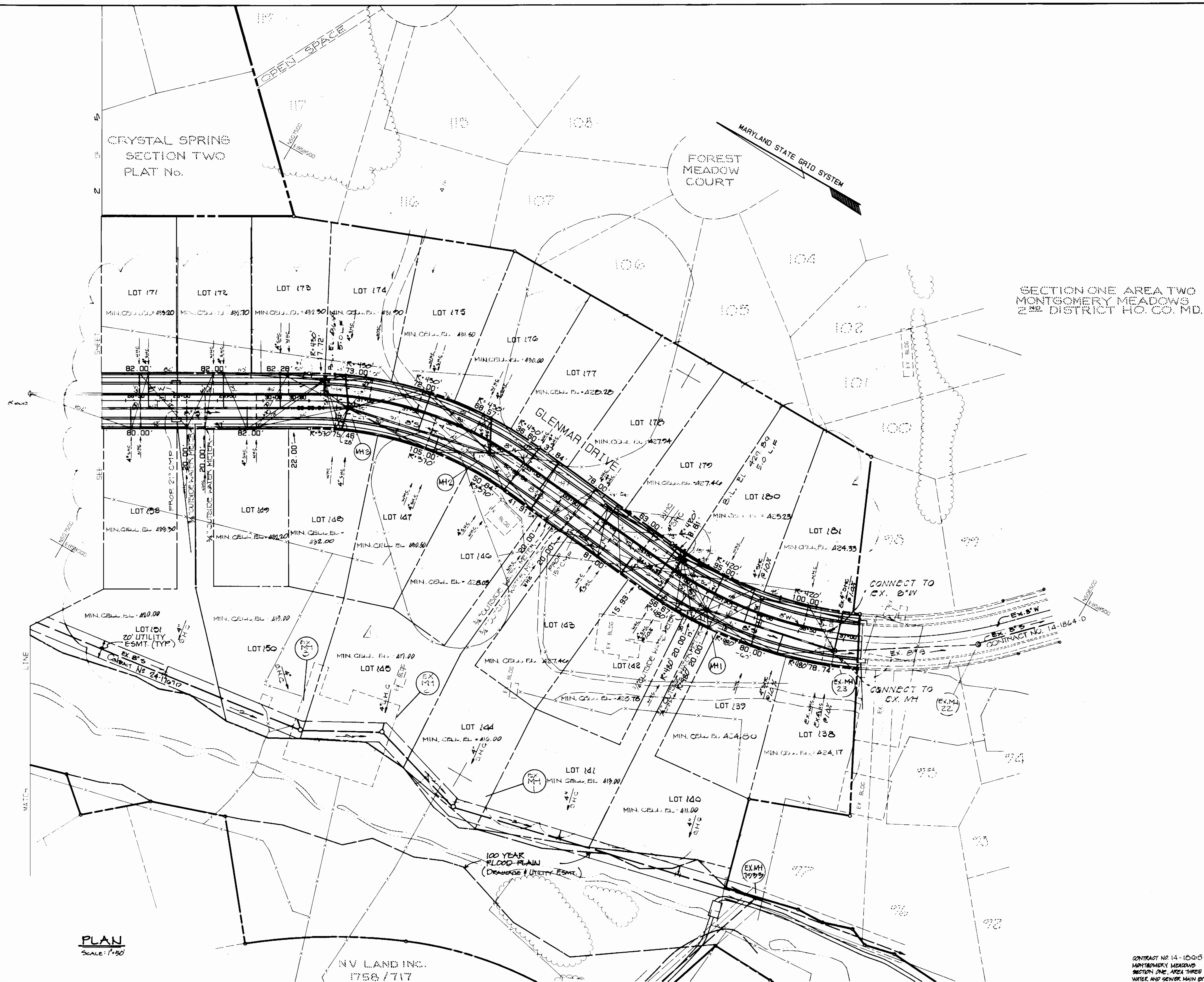


DES: D.A.O.A			
DRN: D.A.O.A	GAH	Revised MCE'S 4 SHC SIZES	8/21/89
CHK: D.A.O.A	WED	REVISED PROPOSE SEWER TO EXISTING	2/20/91
	WAB	REVISED AS PER COMMENTS DATED SEPT 5, 1989	7/29/89
DATE: 4/88	KMG	REVISED AS PER COMMENTS DATED DECEMBER 12, 1988	11/22/88
BY NO.		REVISION	DATE

**WATER & SEWER PLAN**

**WATER & SEWER PLAN**  
**MONTGOMERY MEADOWS**  
SECTION ONE AREA THREE  
CONTRACT NO. 14-1865-D  
2nd ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN  
SHEET 2 OF 3



PLAN  
SCALE: 1"=50'

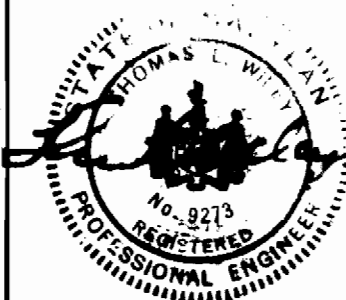
NV LAND INC.  
1758/717

CONTRACT NO. 14-1005-D  
MONTGOMERY MEADOWS  
SECTION ONE, AREA THREE  
WATER AND SEWER MAIN EXTENSION

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

DEWBERRY & DAVIS  
ARCHITECTS-ENGINEERS-PLANNERS-SURVEYORS

3300 N. RIDGE ROAD  
SUITE 100  
ELLCOTT CITY, MD 21043  
(301) 461-7478



DES: DVA					
DRN: WG					
CHK: DVE	GAH	Revised for Section 1 Area 2 Phase 2 Redlines	9/6/92		
	WED	REVISED AS PER COMMENTS DATED SEP 6, 1989	9/28/89		
DATE: 4/88	KMG	REVISED AS PER COMMENTS DATED DECEMBER 18, 1988	11/21/88		
BY NO.		REVISION			

WATER & SEWER PLAN

WATER & SEWER PLAN  
MONTGOMERY MEADOWS

SECTION ONE, AREA THREE  
CONTRACT NO. 14-1865-D  
2nd ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

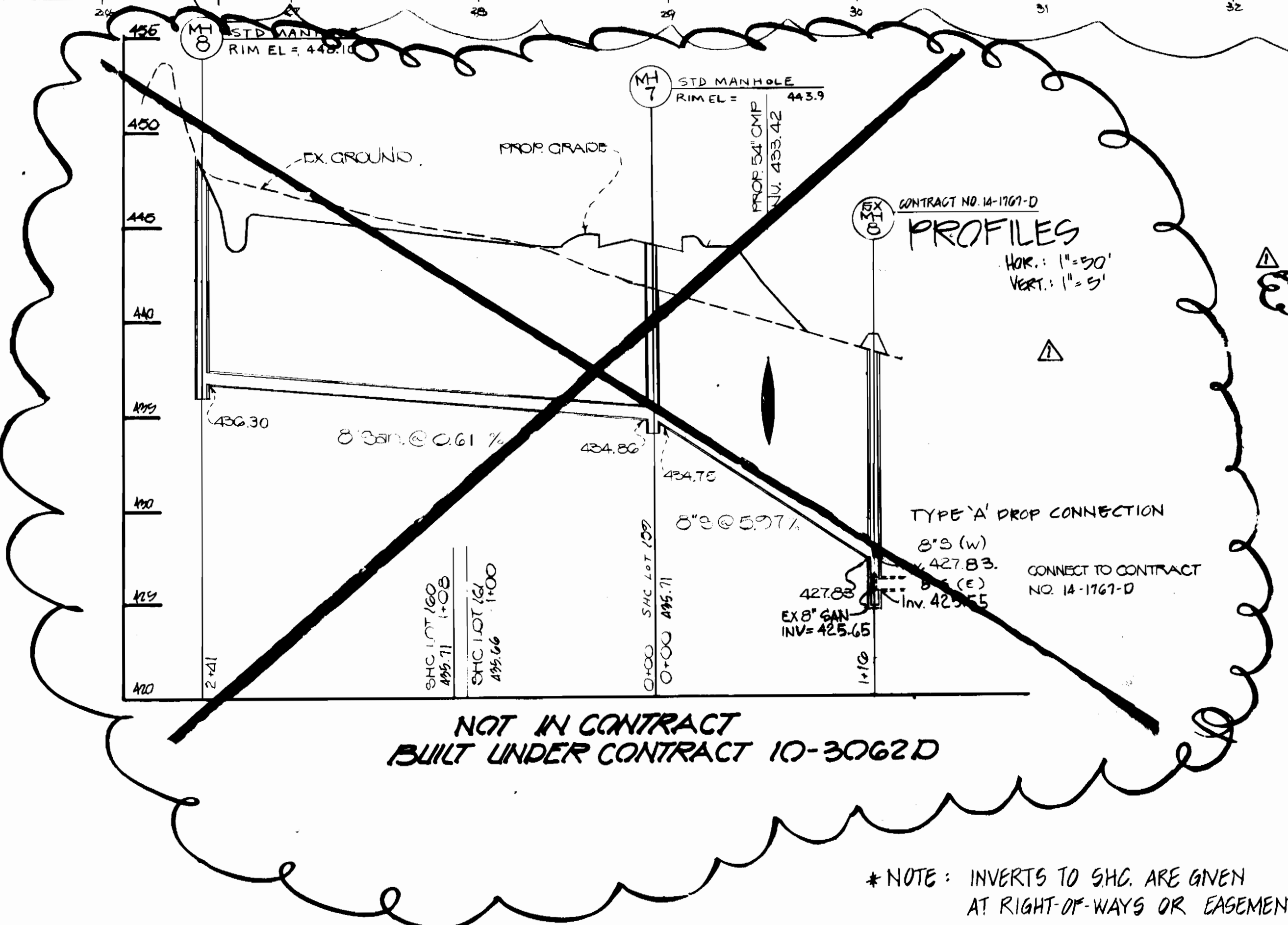
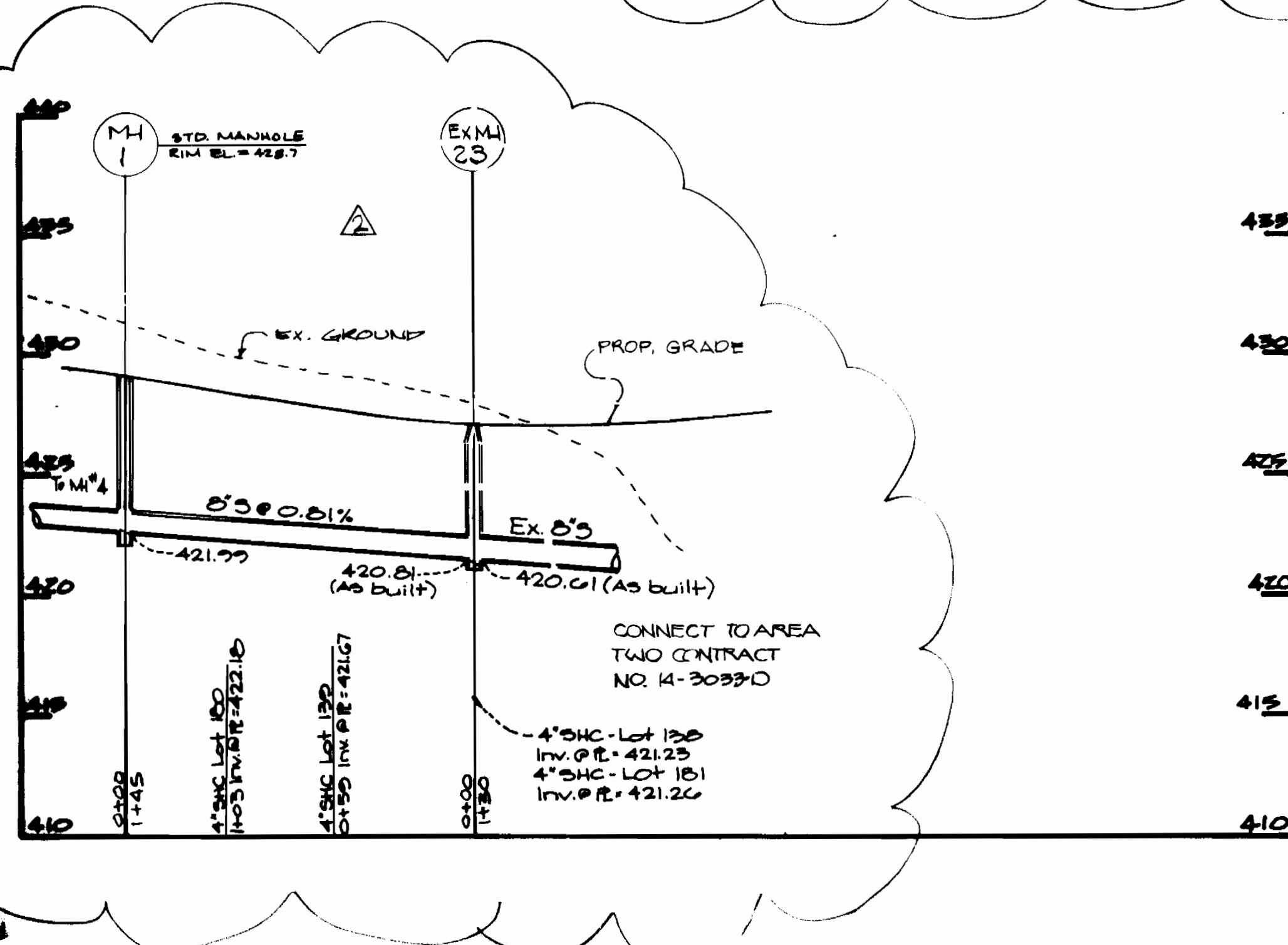
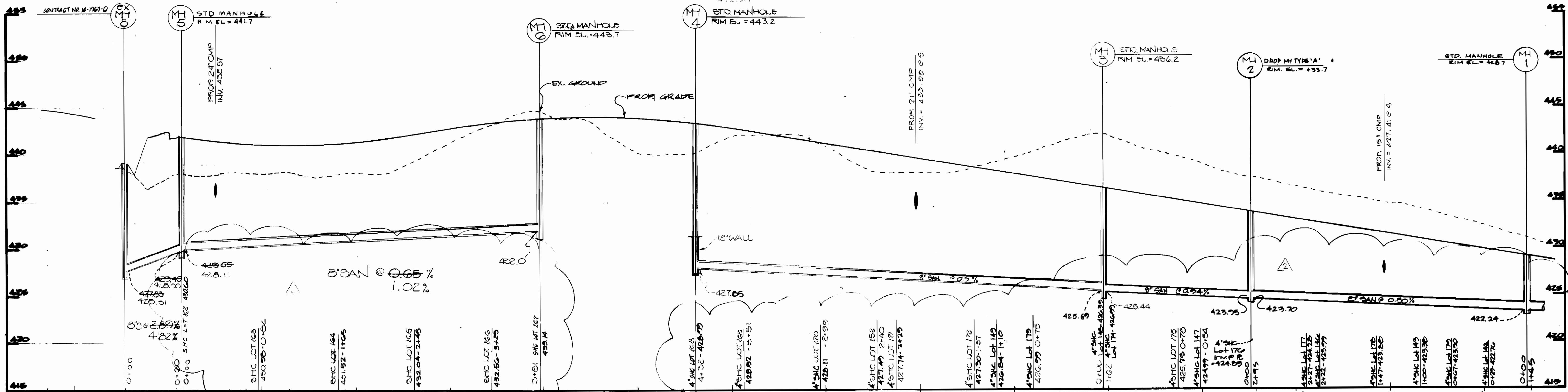
SCALE  
AS  
SHOWN

SHEET  
3 OF 5

AS-BUILT 8-11-93 W3004 EC

BRUNING 44-132 69150

Director of Public Works: *[Signature]* 3/9/89  
 Chief, Bureau of Engineering: *[Signature]* 3/9/89  
 Chief, Bureau of Utilities: *[Signature]* 3-6-89  
 Chief, Land Development Division: *[Signature]* 3/8/89



MANHOLE NUMBER	LOCATION	INV. IN	INV. OUT	RIM ELEV.	TYPE	REMARKS	PERCENT (SLOPE)
EX M8		427.83					
M5	R21+14.7 FT	428.55	428.45	441.7	STD.	G5.13	
M6	R24+07.7 FT	-	432.0	443.7	STD.	G5.13	0.8%
M4	R28+00.7 FT	-	427.85	445.2	STD.	G5.13	0.8%
M3	R30+00.4 FT	428.69	428.44	432.2	STD.	G5.13	1.62%
M2	R32+50.4 FT	423.99	423.70	433.7	DROP MH TYPE 'A'	G5.13	1.62%
M1	R35+50.12 FT	422.24	421.99	428.7	STD.	G5.13	1.62%
M8	R38+04.7 FT	424.36	424.1	440.1	STD.	G5.13	
EX M19		421.45					

\* NOTE: INVERTS TO SHC ARE GIVEN AT RIGHT-OF-WAYS OR EASEMENTS.

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND  
3/2/89  
3-6-89

DEWBERRY & DAVIS  
ARCHITECTS - ENGINEERS - PLANNERS - SURVEYORS  
3300 N. RIDGE ROAD  
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ELLCOTT CITY, MD 21043  
(301) 461-7478



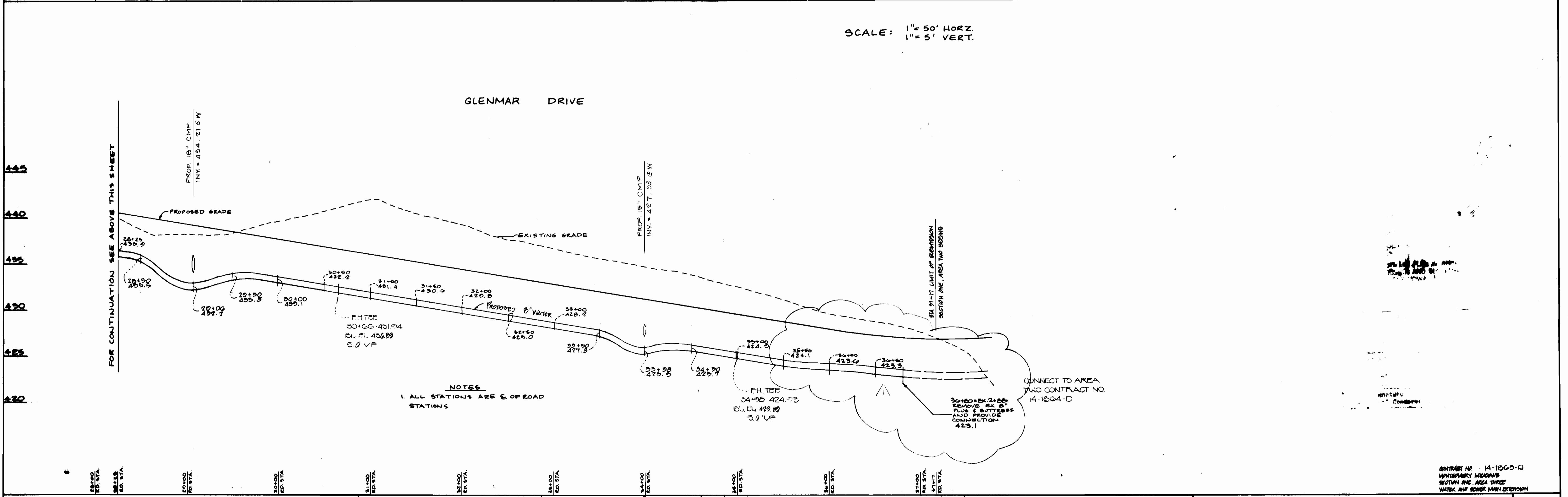
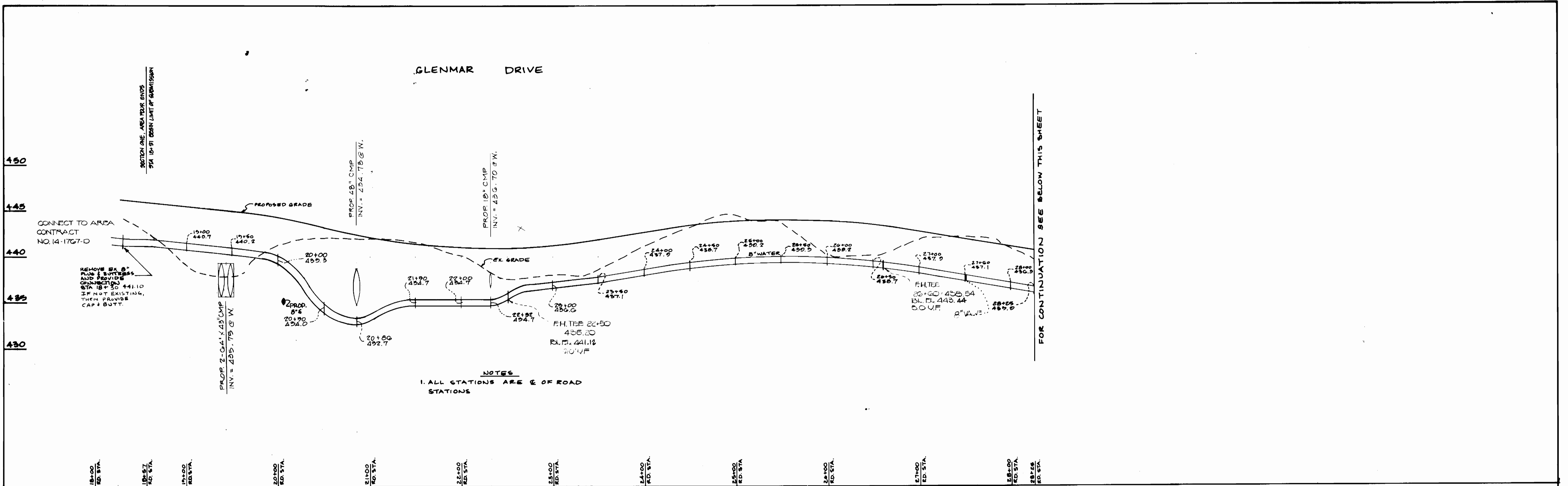
DESIGNER	DATE	REVISION	DATE
GAH	4/88	REVISED PER SECTION 1 - AREA 2 - PHASE 2 REVISIONS	4/88
WAD	1/88	REVISED PER SECTION 1 - AREA 2 - PHASE 2 REVISIONS	1/88
WEL	1/88	REVISED AS PER COMMENTS DATED JAN 26, 1988	2-21-88
CRG	1/88	REVISED AS PER COMMENTS	8/10/88
KMG	1/88	REVISED AS PER COMMENTS DATED DECEMBER 18, 1988	1/20/89

SEWER PROFILE  
600' SCALE MAP NO. 21 BLOCK NO. M

SEWER PROFILE  
MONTGOMERY MEADOWS  
SECTION ONE AREA THREE  
CONTRACT NO. 14-1865-D  
2nd ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND  
SCALE AS SHOWN  
SHEET 4 OF 8

CONTRACT NO. 14-1865-D  
MONTGOMERY MEADOWS  
SECTION ONE AREA THREE  
WATER AND SEWER MAIN EXTENSION

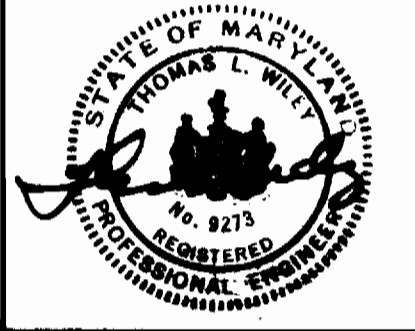
AS-BUILT 8-11-93



**DEPARTMENT OF PUBLIC WORKS**  
HOWARD COUNTY, MARYLAND

Director of Public Works: *[Signature]* 3/9/89  
 Chief, Bureau of Engineering: *[Signature]* 3/9/89  
 Chief, Bureau of Utilities: *[Signature]* 3/4/89  
 Chief Land Development Division: *[Signature]* 3/8/89

**DEWBERRY & DAVIS**  
ARCHITECTS-ENGINEERS-PLANNERS-SURVEYORS  
3300 N. RIDGE ROAD  
SUITE 100  
ELLCOTT CITY, MD 21043  
(301) 461-7478



DES: DND, A			
DRN: DND, A	GAH	Revised per Section 1, Area 2 - Phase 2	4/21/89
CHK: DND, E	WFO	REVISED AS PER COMMENTS DATED SEP 8, 1989	7/20/89
	LRG	REVISED AS PER COMMENTS	8/10/89
	KMG	REVISED AS PER COMMENTS DATED DECEMBER 15, 1988	11/20/89
DATE:	BY NO.	REVISION	DATE

**WATER PROFILE**

600' SCALE MAP NO. 31 BLOCK NO. 11

**MONTGOMERY MEADOWS**  
SECTION ONE, AREA THREE  
CONTRACT NO. 14-1865-D  
2nd ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

CONTRACT NO. 14-1865-D  
MONTGOMERY MEADOWS  
SECTION ONE, AREA THREE  
WATER AND SEWER MAIN EXTENSION

SCALE AS SHOWN  
SHEET 9 OF 9

AS-BUILT 8-11-89