

VILLAGE of LONGREACH

SECTION 3 - AREA 3

WATER AND SEWER MAINS

CONTRACT NO. 24-1805-D

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 THE 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 SPECIFICATIONS.
- FOR MATERIALS AND CONSTRUCTION METHODS USE HOWARD COUNTY STANDARD SPECIFICATIONS.
- CONTRACTOR SHALL LOCATE EXISTING 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" - 234-5621
 "MISS UTILITY" - 1-559-0100
 CHESAPEAKE AND POTOMAC (C&P) TELEPHONE COMPANY - 725-9976
 AMERICAN TELEPHONE AND TELEGRAPH - CABLE LOCATION DIVISION - 393-3553
 COLONIAL PIPELINE COMPANY - 781-4681
 BUREAU OF UTILITIES HOWARD COUNTY - 992-2366.

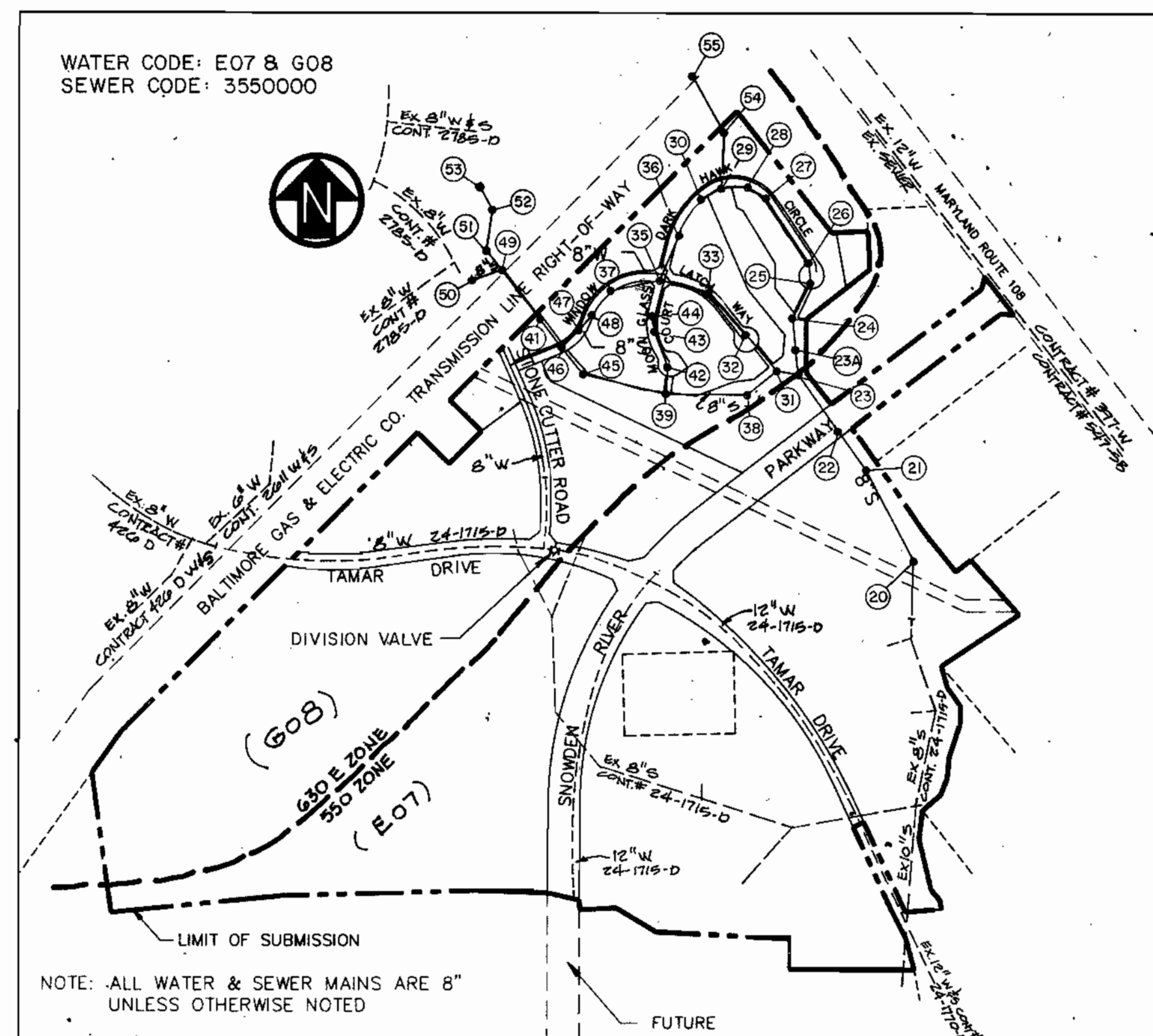
- TREES ARE TO BE PROTECTED FROM DAMAGE TO MAXIMUM EXTENT. TREES LOCATED WITHIN THE CONSTRUCTION STRIP ARE NOT TO BE REMOVED OR DAMAGED BY THE CONTRACTOR.
- CONTRACTOR SHALL REMOVE TREES, STUMPS AND ROOTS ALONG LINE OF EXCAVATION AS DIRECTED BY THE ENGINEER. PAYMENT FOR SUCH REMOVAL SHALL BE INCLUDED 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 OPERATIONS.
- ALL WATER MAINS SHALL BE D.I.P., CLASS 52 UNLESS OTHERWISE NOTED.
- TOP OF ALL WATER MAINS SHALL HAVE 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 ON 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 37.01 AND 37.05 OF THE STANDARD SPECIFICATIONS.
- ALL WATER HOUSE CONNECTIONS SHALL BE FOR AN INSIDE METER SETTING.
- THE CONTRACTOR SHALL NOT OPERATE ANY WATER MAIN VALVES ON THE EXISTING SYSTEM.
- ALL SEWER MAINS SHALL BE C.S.P.X., R.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 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. FRAME AND COVERS, STANDARD DETAIL G-5-2.
- ALL MANHOLE FRAME AND COVERS SHALL BE SET 0.5' ABOVE EXISTING GRADE WHERE SHOWN IN PROFILE.
- ORIGINAL GROUND OVER WATER AND SEWER WAS TAKEN FROM AERIAL PHOTOGRAPHY PREPARED BY MAPS INC., AND BY FIELD SURVEY IN AUGUST, 1987 BY PURDUM & JESCHKE.
- 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 AND OTHER LIQUIDS.

CONSTRUCTION SEQUENCE SEDIMENT CONTROL PROCEDURES

- OBTAIN SEDIMENT CONTROL PERMIT (ARTICLE 15.05-3).
- CONSTRUCT DIKE AND SILT FENCE STRUCTURES.
- CLEAR, GRUB AND STRIP AS REQUIRED FOR SEWER CONSTRUCTION --- PROTECT STREAMS FROM EROSION OF STORED TOPSOIL.

- CONSTRUCT SEWER PIPE LINES.
- RESTORE EROSION CONTROL STRUCTURES DISTURBED BY SEWER CONSTRUCTION.
- STABILIZE DISTURBED AREAS AS CONSTRUCTION PROGRESSES WITH TEMPORARY SEEDING AND MULCHING (OR PERMANENT RESTORATION).
- COMPLETE PERMANENT RESTORATION.
- REMOVE SEDIMENT CONTROL STRUCTURES WHEN DIRECTED BY SCD INSPECTOR.

NOTE: SEDIMENT CONTROL MEASURES TO BE IMPLEMENTED IN ACCORDANCE WITH VOLUME 4, SECTION 219 OF THE HOWARD COUNTY DESIGN MANUAL AND THIS PLAN, A-28-211



SITE PLAN
SCALE: 1 = 600'

NUMBER OF WHC 84
 NUMBER OF SHC 92
 NUMBER OF LOTS - 88
 TYPE OF BUILDING - SINGLE FAMILY
 DRAINAGE AREA - DORSEY RUN
 TREATMENT PLANT - L.P.W.Q.M. CENTER SAVOE
 WATER CODE G08, E07
 SEWER CODE 3550000

INDEX OF SHEETS

SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	WATER PLAN AND PROFILE -- STONECUTTER RD. STA.0+46 TO 8+77
3	WATER AND SEWER PLAN WINDOW LATCH WAY STA.0+00 TO 14+20 MOON GLASS COURT STA.0+00 TO 4+50 DARK HAWK CIRCLE STA.0+00 TO 12+75
4	WATER PROFILES WINDOW LATCH WAY STA.0+00 TO 14+20
5	WATER PROFILES MOON GLASS COURT STA.0+00 TO 4+50 WATER PROFILES DARK HAWK CIRCLE STA.0+00 TO 12+75
6	SEWER PLAN AND PROFILE -- MANHOLES # 18, 20
7	SEWER PLAN AND PROFILE -- MANHOLES # 21,22,23,23A,24
8	SEWER PLAN AND PROFILE -- MANHOLES # 31,32,38,39,42
9	SEWER PLAN AND PROFILE -- MANHOLES # 39,45,46,41,49,50
10	SEWER PROFILES WINDOW LATCH WAY MANHOLES # 32,33,35,37,47,48 MOON GLASS COURT MANHOLES # 42,43,44 DARK HAWK CIRCLE MANHOLES # 24,25,26,27,28,29,30,35,36
11	SEWER PLAN AND PROFILE -- MANHOLES # 29,54,55
12	SEWER PLAN AND PROFILE -- MANHOLES # 49,51,52,53

QUANTITIES

ITEM	UNIT	AREA 3	AS BUILT	MATERIAL/SUPPLIER
8" D.I.P. WATER LINE	L.F.	3757	3757	Griffin Pipe Products
6" D.I.P. WATER LINE	L.F.	336	487	"
8" X 8" TEE	EA.	1	1	"
FIRE HYDRANT	EA.	8	8	U.S. PIPE & Foundry
8" X 8" CROSS	EA.	1	1	Griffin Pipe Products
8" X 6" TEE	EA.	8	8	"
8" VALVE	EA.	6	6	U.S. PIPE & Foundry
6" VALVE	EA.	8	8	"
8" SEWER PIPE PVC	L.F.	5182	5708	NATIONAL PIPE
8" D.I.P. SEWER PIPE	L.F.	1980	1774	Griffin Pipe Products
4' TYPE 'A' DROP MH	EA.	5	7	ATLANTIC CONCRETE PRODUCTS
4' TYPE 'B' DROP MH	EA.	5	3	"
4' STANDARD MH	EA.	18	18	"
4' WATERTIGHT MH (STD)	EA.	7	7	"
3" BLOWOFF 1/2" DRAIN VALVE	EA.	1	1	HAYES
8" X 6" REDUCER	EA.	3	3	Griffin Pipe Products
4" X 3" REDUCER	EA.	1	0	"
1" Water H.C.	L.F.	1132	966	WOLVERINE
3/4" "	L.F.	415	863	"
6" Sewer "	L.F.	1630	1962	NATIONAL PIPE

Reviewed for Howard Soil Conservation District and meets technical requirements.
 James M. Nelson 10/6/88
 U.S. Soil Conservation Service Date
 This Development Plan is approved for soil erosion and sediment control by the Howard Soil Conservation District.
 Stephen L. Nelson 10/5/88
 Howard Soil Conservation District Date

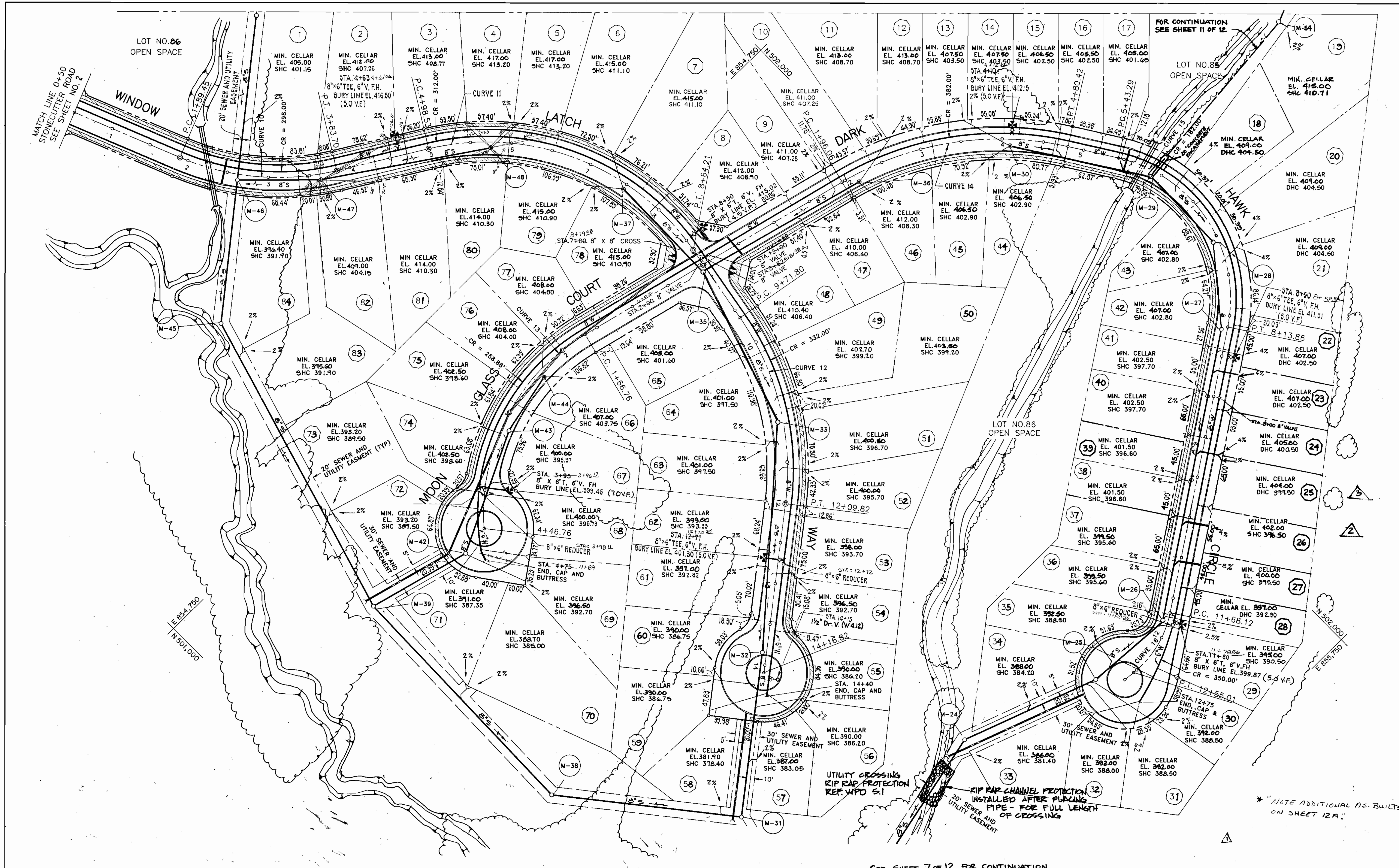
PURDUM & JESCHKE
 CONSULTING ENGINEERS AND
 LAND SURVEYORS
 1029 North Calvert Street
 Baltimore, Maryland 21202 (301)837-0194

OWNER/DEVELOPER
 THE HOWARD RESEARCH &
 DEVELOPMENT LAND COMPANY
 THE ROUSE BUILDING
 10275 LITTLE PATUXENT PARKWAY
 COLUMBIA, MD. 21044

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND
 DIRECTOR OF PUBLIC WORKS DATE 10-18-88
 R. M. ...
 CHIEF, BUREAU OF UTILITIES DATE
 CHIEF, BUREAU OF ENGINEERING DATE 10-20-88
 ...
 CHIEF, LAND DEVELOPMENT DIV. DATE 10/20/88

NO.	DATE	DESCRIPTION
1	10/20/88	QUANTITY CHANGES
2		
3		
4		
5		
6		
7		
8		
9		
10		

CONTRACT NO. 24-1805-D
VILLAGE OF LONGREACH
 SECTION 3 AREA 3 - WATER AND SEWER MAINS
TITLE SHEET
 PARCELS: 27, 50, 229, 242, 254, 255 & 448
 REFERENCE: S87-46
 SIXTH ELECTION DISTRICT HOWARD COUNTY, MD.
 DATE: 3/1/88 SCALE: NOTED
 DES: GDT
 DRAWN: JMJ
 CHK: RHB



SEE SHEET 7 OF 12 FOR CONTINUATION

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND

Robert M. Bainger 10-18-88
 DIRECTOR OF PUBLIC WORKS DATE

Smith & Johnson 10/20/88
 CHIEF, BUREAU OF ENGINEERING DATE

Smith & Johnson 10/20/88
 CHIEF, LAND DEVELOPMENT DIV. DATE

PURDUM & JESCHKE
 CONSULTING ENGINEERS
 AND LAND SURVEYORS

1029 N. CALVERT ST.
 BALTIMORE, MD. 21202

DES: GDT			
DRN: ARW			
CHK: RHB			
DATE:			
BY:	NO.	REVISION	DATE
		CHANGE WATER & SEWER TIE-INS	10/18/88
		ADJUST LOT LINES / FRONTAGES	10/18/88
		ELEVATION CHANGES	10/18/88

WATER AND SEWER
 PLAN AND PROFILES

SCALE MAP NO. BLOCK NO.

CONTRACT NO. 24-1805-D
 LONGREACH - SECTION 3, AREA 3

PARCELS 27, 50, 229, 254, 255, 492, 498
 TAX MAP 36 & 37
 SIXTH ELECTION DISTRICT

REFERENCE: S87-46
 HOWARD COUNTY, MD.

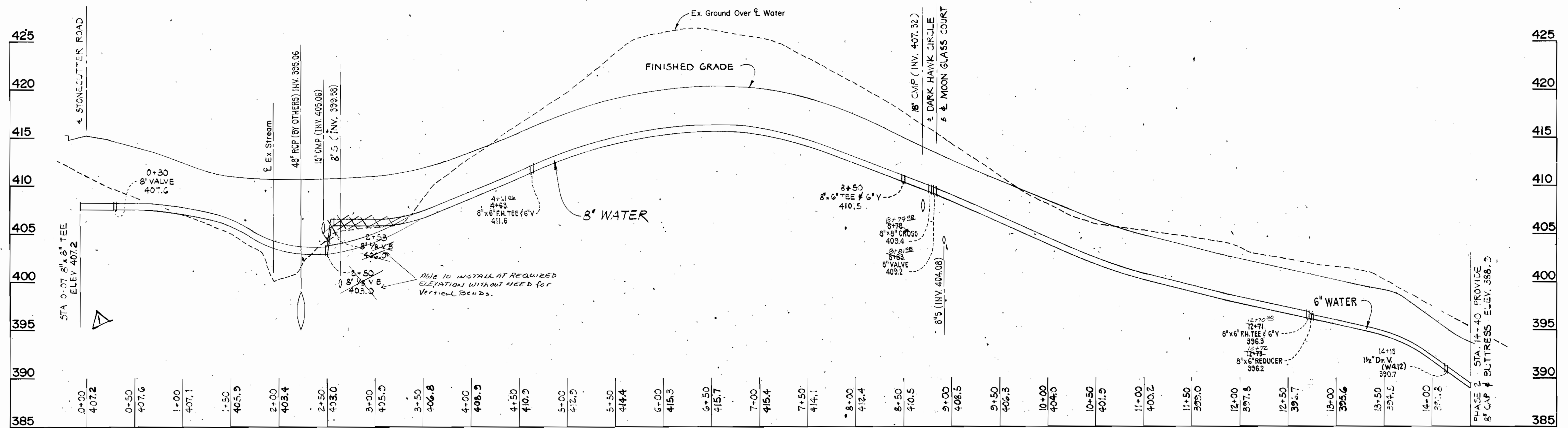
DATE: 3/1/88

SCALE HOR: 1"=50'
 VERT: 1"=5'

SHEET
 3 OF 12

AS-BUILT 5-4-89

WINDOW LATCH WAY



DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND

James M. White
 DIRECTOR OF PUBLIC WORKS
 DATE: 10-18-88

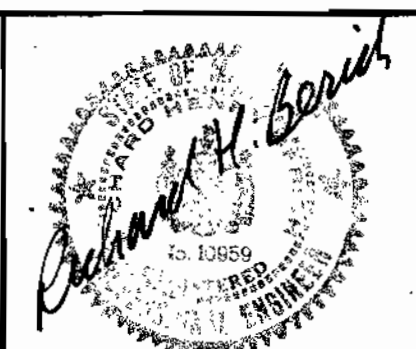
Robert M. Bevinger
 CHIEF, BUREAU OF UTILITIES

Richard E. Ryan
 CHIEF, BUREAU OF ENGINEERING
 DATE: 10-20-88

Donald E. Sporn
 CHIEF, LAND DEVELOPMENT DIV.
 DATE: 10/20/88

PURDUM & JESCHKE
 CONSULTING ENGINEERS
 AND LAND SURVEYORS

1029 N. CALVERT ST.
 BALTIMORE, MD. 21202



DES: GDT	
DRN: ARW	
CHK: RHB	
DATE:	
BY: <i>GO</i>	<i>△</i>
NO.:	ELEVATION CHANGES
REVISION:	
DATE:	

WATER AND SEWER
 PLAN AND PROFILES

SCALE: MAP NO. BLOCK NO.

CONTRACT NO 24-1805-D
 LONGREACH - SECTION 3, AREA 3

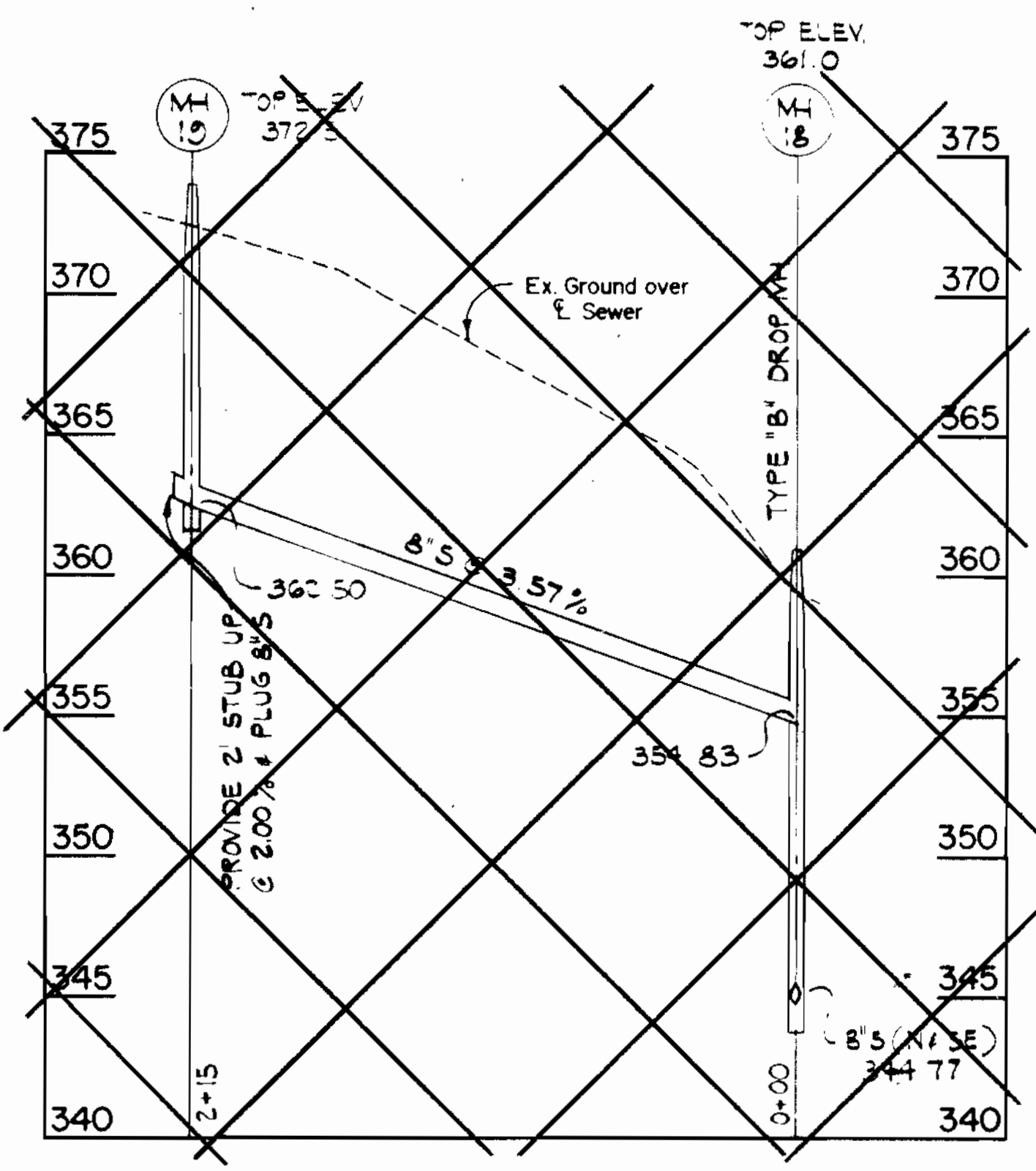
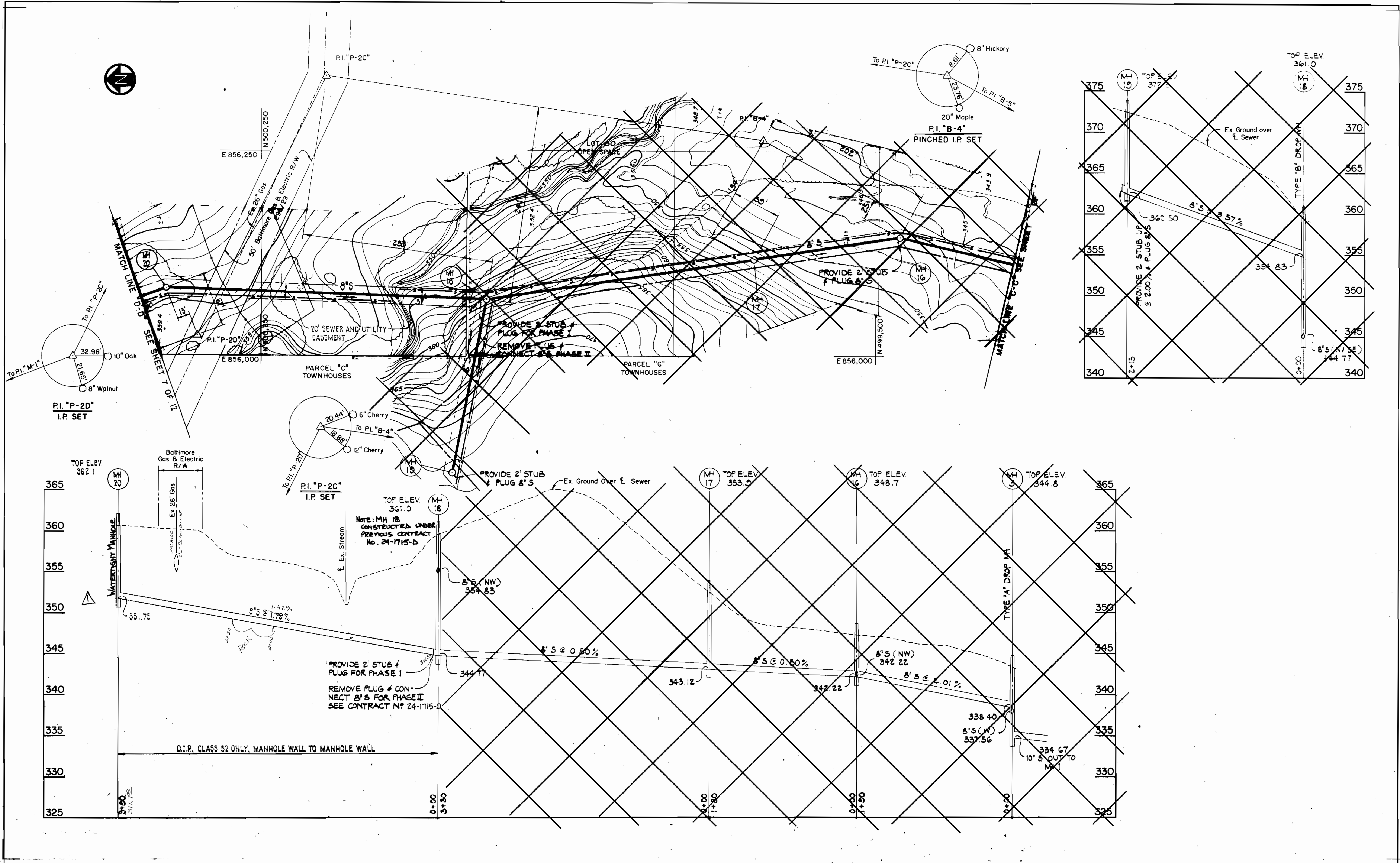
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 SIXTH ELECTION DISTRICT

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SCALE
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SHEET
 4 OF 12



DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND

Robert M. Bunniger 10-18-88
 CHIEF, BUREAU OF UTILITIES

10/18/88
 CHIEF, LAND DEVELOPMENT DIV.

PURDUM & JESCHKE
 CONSULTING ENGINEERS
 AND LAND SURVEYORS

1029 N. CALVERT ST.
 BALTIMORE, MD. 21202

DES: GDT			
DRN: ARW			
CHK: RHB	AS	ADD NOTE	12/12/88
DATE:	AS	CHNG. TO WATERTIGHT MH	12/12/88
BY:	NO.	REVISION	DATE

WATER AND SEWER
 PLAN AND PROFILES

SCALE MAP NO. BLOCK NO.

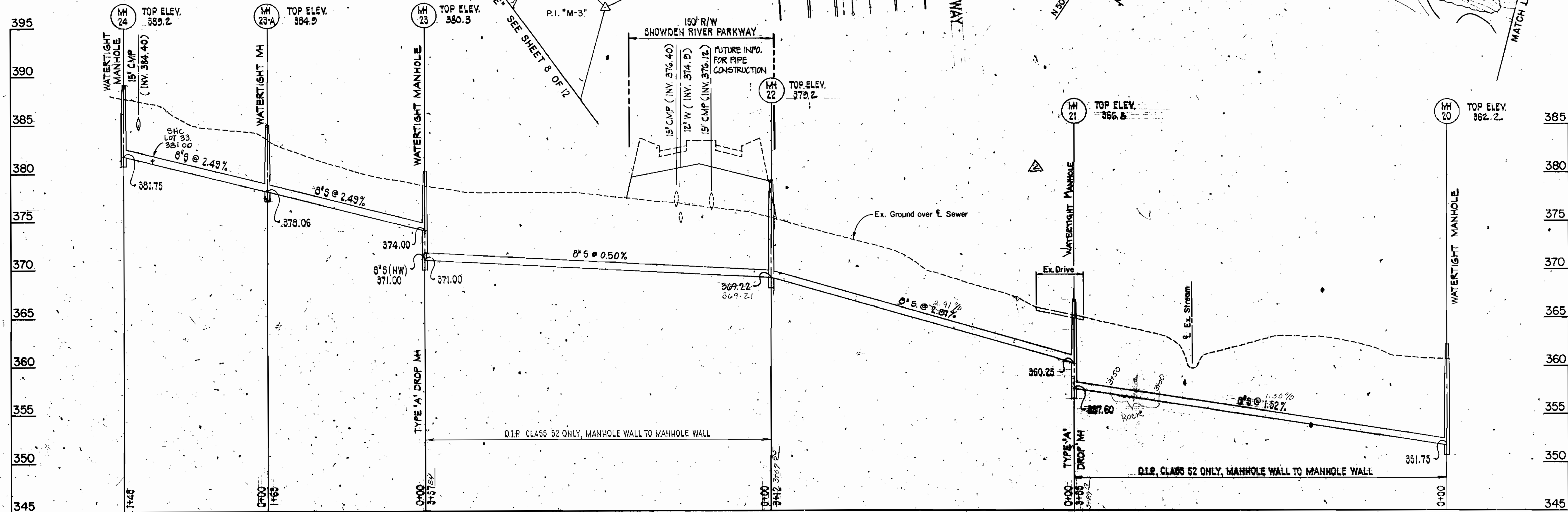
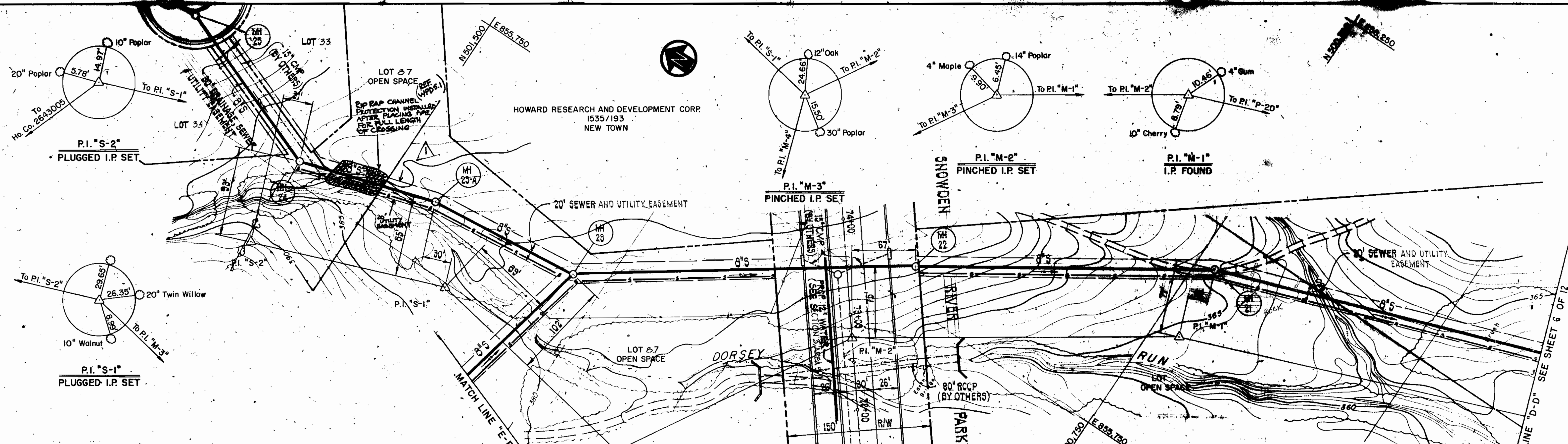
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 SIXTH ELECTION DISTRICT
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 HOWARD COUNTY, MD.

SCALE
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 VERT: 1"=5'

SHEET
 6 OF 12

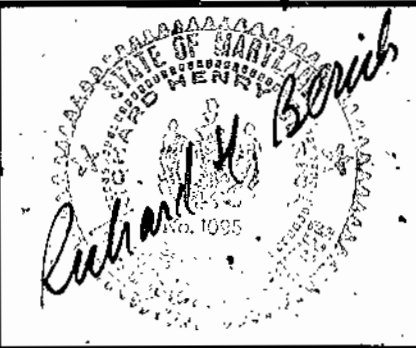


DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND

Director of Public Works: *Robert J. ...*
 Chief, Bureau of Engineering: *Franklin ...*
 Chief, Bureau of Utilities: *...*
 Chief, Land Development Div.: *...*

DATE: 10-18-88

PURDUM & JESCHKE
 CONSULTING ENGINEERS
 AND LAND SURVEYORS
 1029 N. CALVERT ST.
 BALTIMORE, MD. 21202



DES:	GDT		
DRN:	ARW		
CHK:	RHB	CHANGE TO WATERTIGHT MH	
		ADD RIP RAP	
DATE:			
BY:	NO.	REVISION	DATE

**WATER AND SEWER
 PLAN AND PROFILES**

SCALE: 1"=50'
 1"=50'

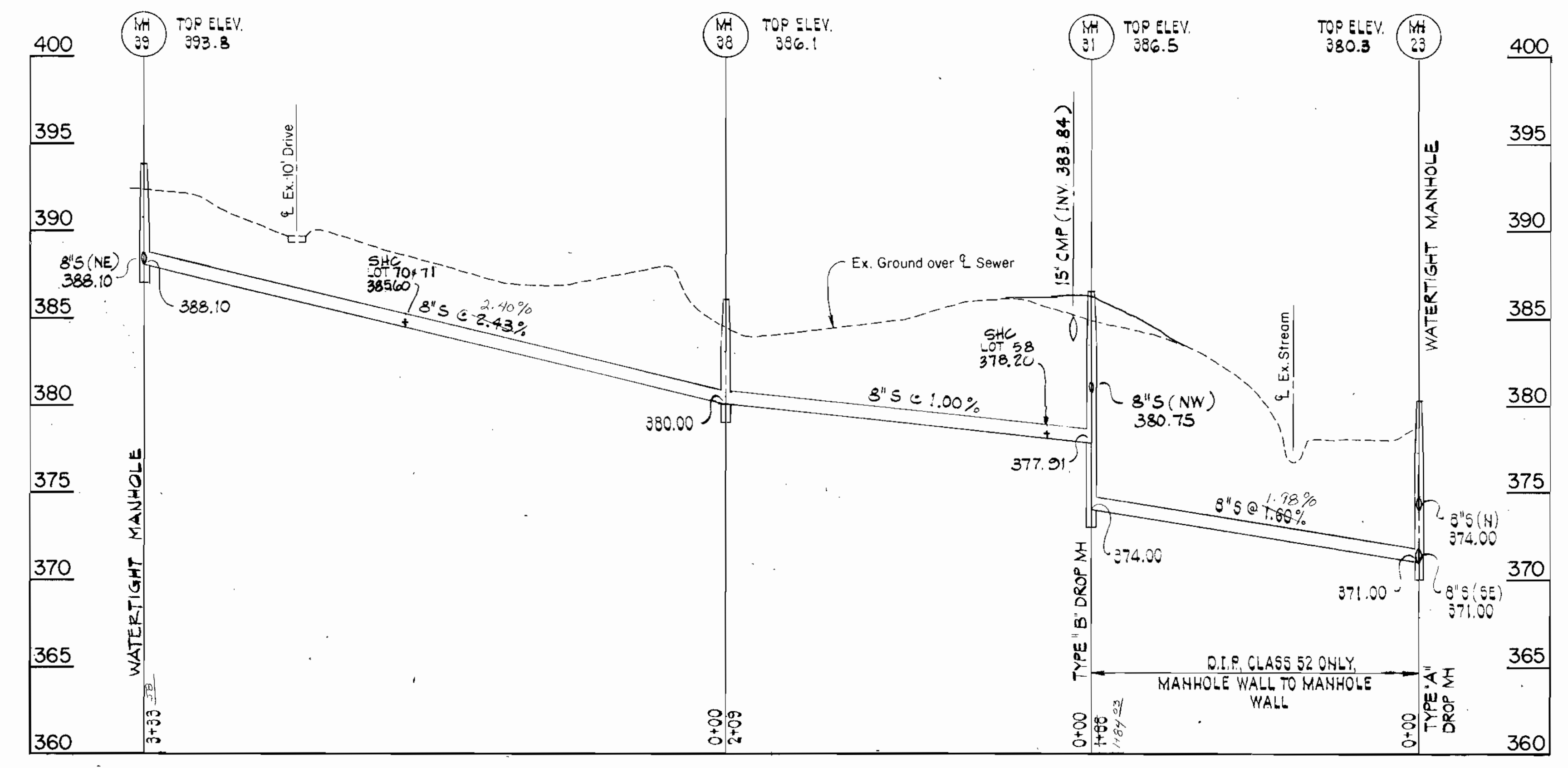
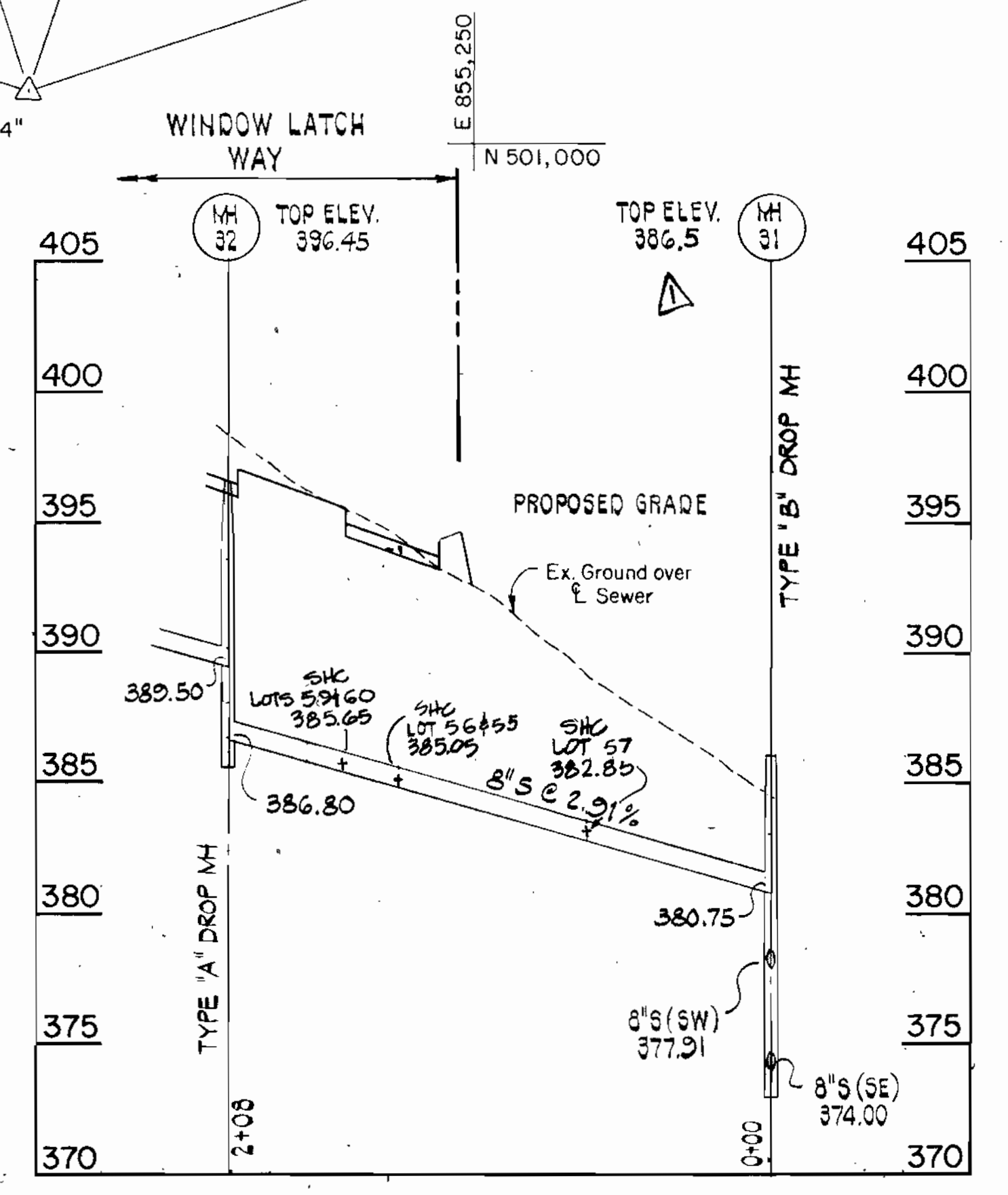
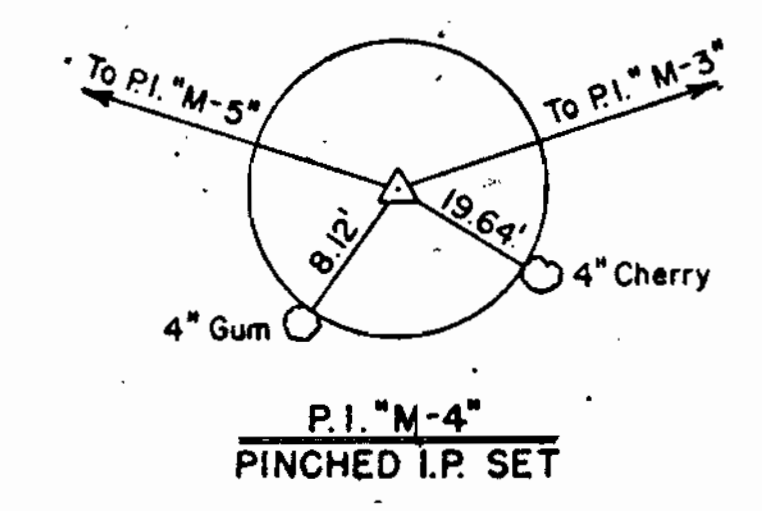
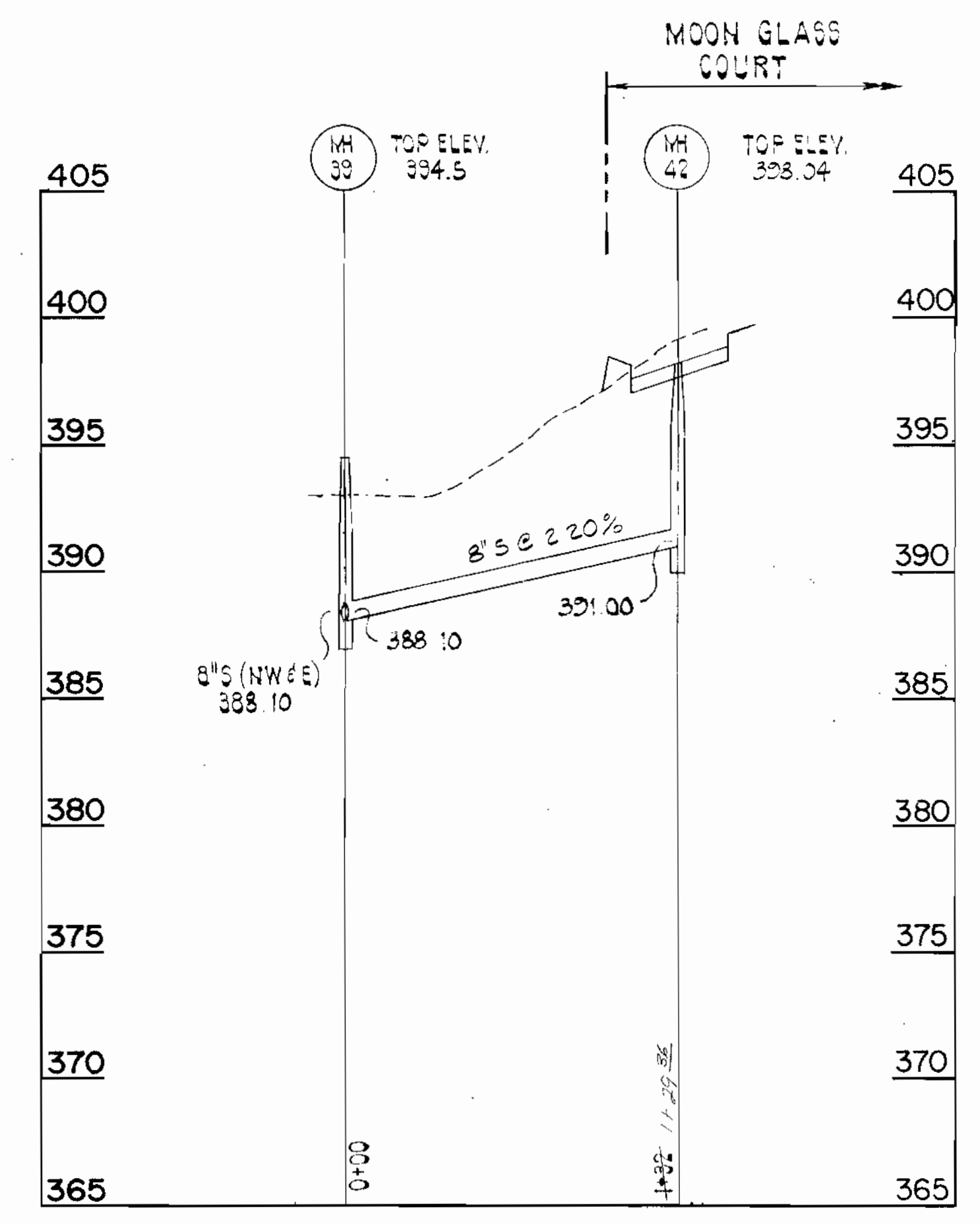
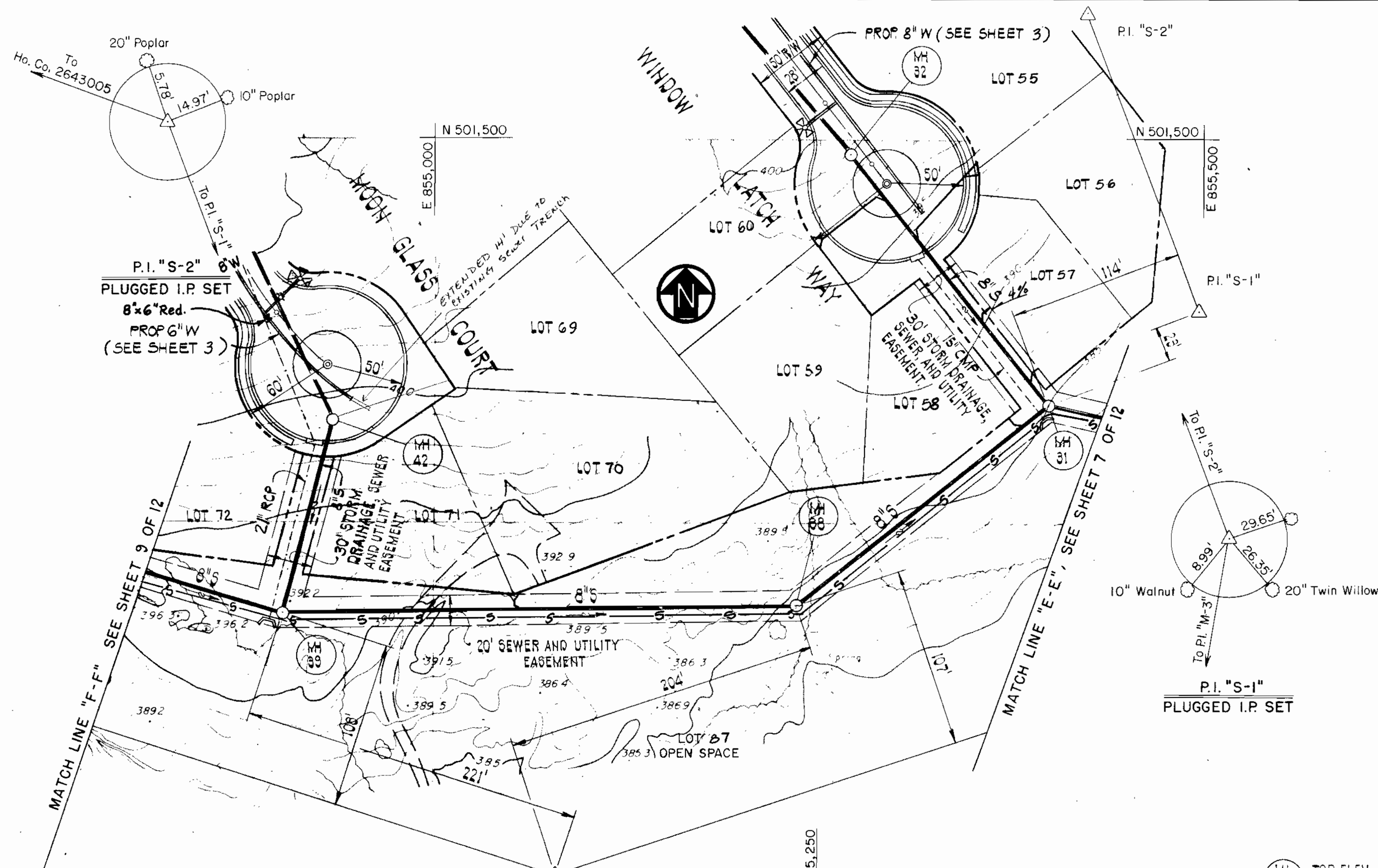
CONTRACT NO. 24-1805-D
LONGREACH - SECTION 3, AREA 3

PARCELS 27, 50, 229, 254, 255, 492, 498
 TOWN MAP 36 & 37
 SINGLE SECTION DISTRICT
 04/28/11/88

REFERENCE: S87-46
 HOWARD COUNTY, MD.

SCALE: 1"=50'
 VERT: 1"=5'
 SHEET: 7 OF 12

ASB
 5-4-89



DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND

DIRECTOR OF PUBLIC WORKS
 Robert H. Baugher
 DATE: 10-18-88

CHIEF, BUREAU OF ENGINEERING
 DATE: 10/20/88

CHIEF, LAND DEVELOPMENT DIV.
 DATE: 10/20/88

PURDUM & JESCHKE
 CONSULTING ENGINEERS
 AND LAND SURVEYORS

1029 N. CALVERT ST.
 BALTIMORE, MD. 21202



DES:	GDT		
DRN:	ARW		
CHK:	RHB		
DATE:			

**WATER AND SEWER
 PLAN AND PROFILES**

SCALE MAP NO. BLOCK NO.

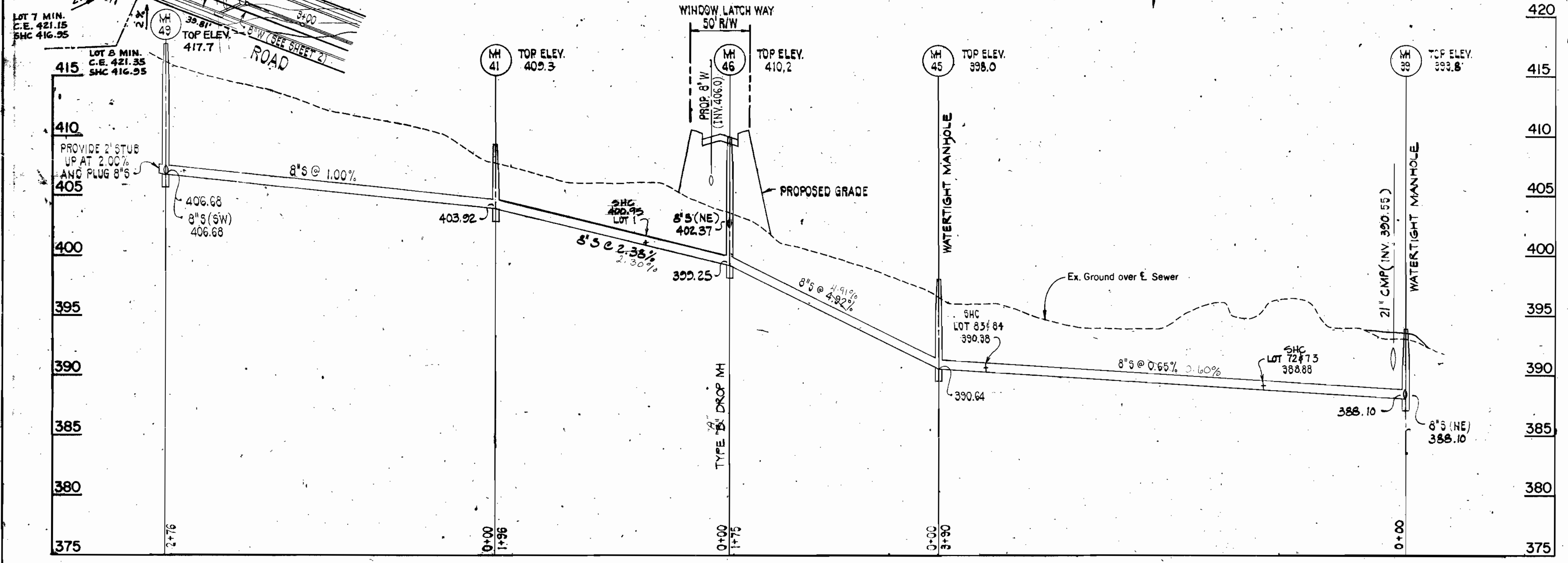
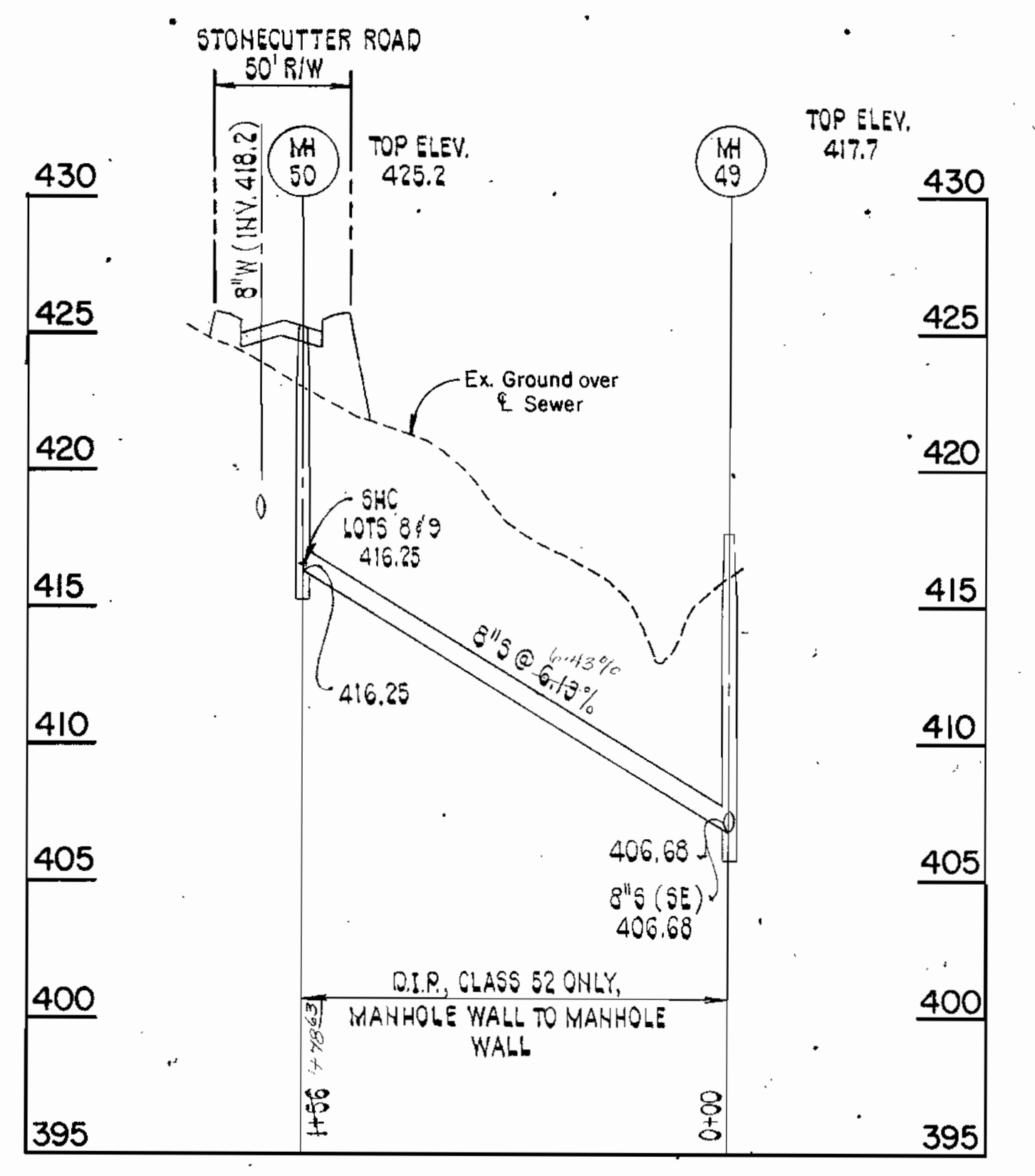
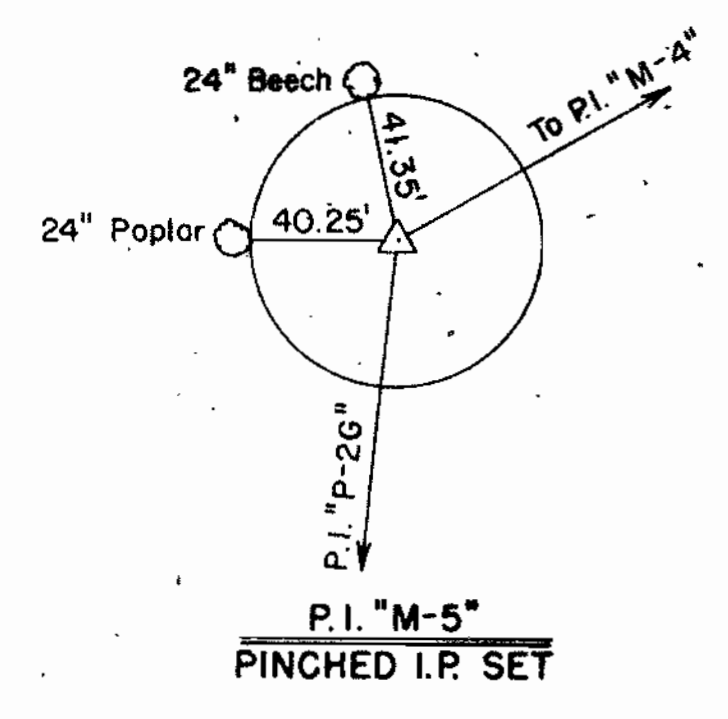
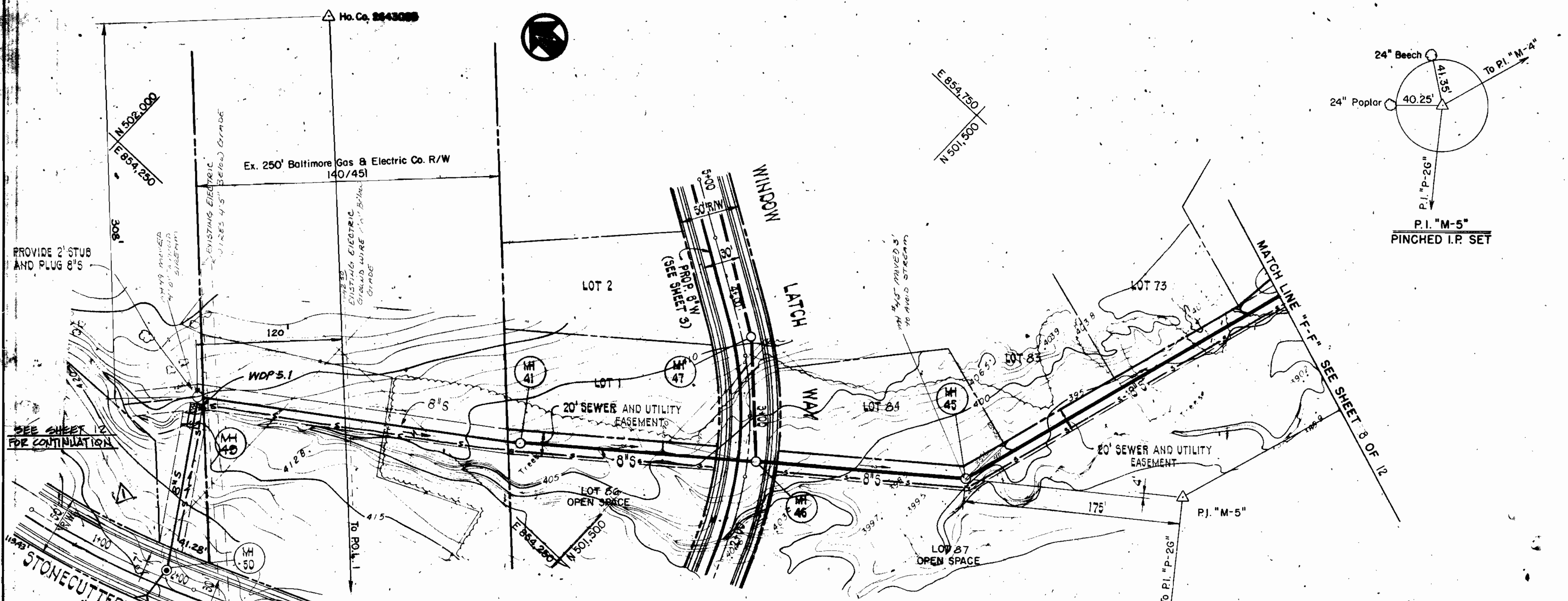
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LONGREACH - SECTION 3, AREA 3

PARCELS 27, 50, 229, 254, 255, 492, 498
 TAX MAP 36 & 37
 SIXTH ELECTION DISTRICT
 DATE: 3/1/88

REFERENCE: S87-46
 HOWARD COUNTY, MD

SCALE
 HOR: 1"=50'
 VERT: 1"=5'

SHEET
 8 OF 12



DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

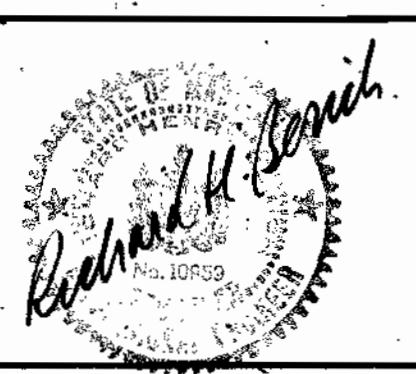
Director of Public Works: *James W. ...*
Date: 10/21/88

Chief, Bureau of Engineering: *...*
Date: 10/20/88

Chief, Land Development Div.: *...*
Date: 10/20/88

PURDUM & JESCHKE
CONSULTING ENGINEERS
AND LAND SURVEYORS

1029 N. CALVERT ST.
BALTIMORE, MD. 21202



DES: GDT			
DRN: ARW			
CHK: RHB			
DATE:	BY: NO.	REVISION	DATE
		TAKE OUT F.H. @ 1400	12/28

WATER AND SEWER
PLAN AND PROFILES

SCALE MAP NO. BLOCK NO.

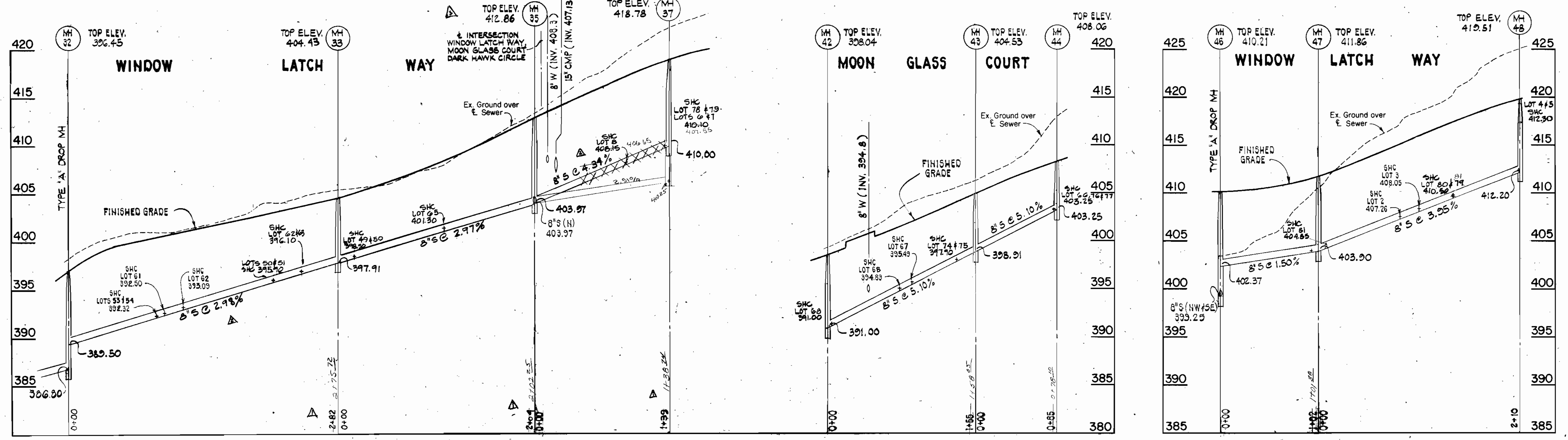
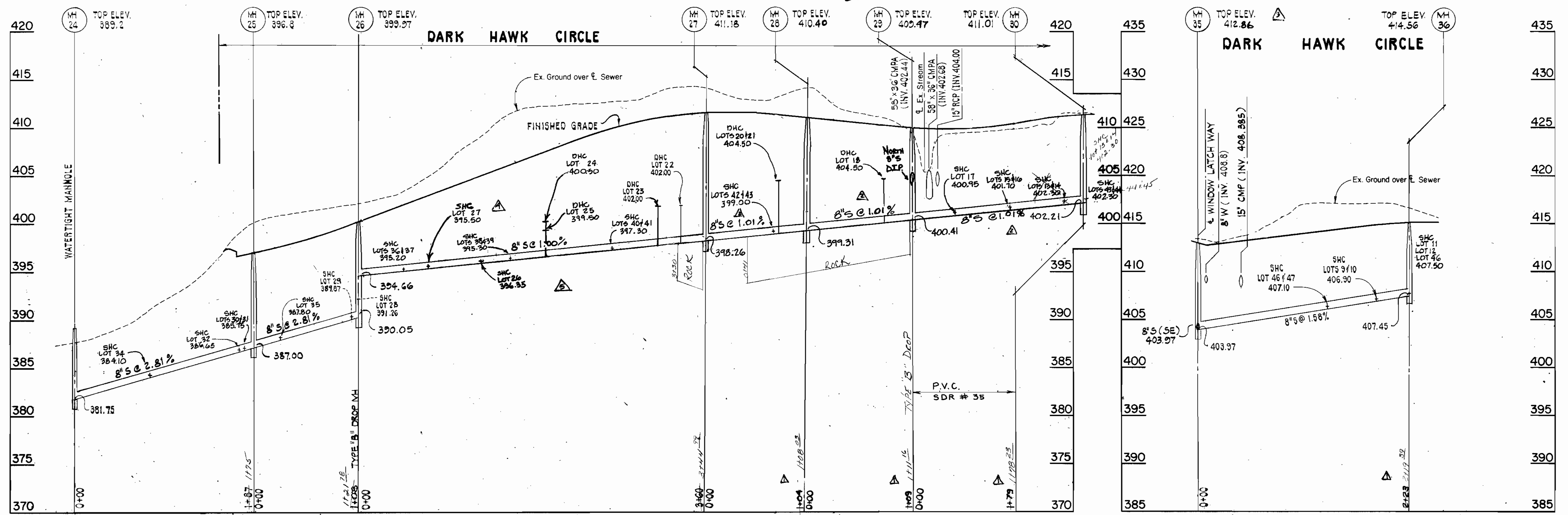
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LONGREACH - SECTION 3, AREA 3

PARCELS 27, 50, 229, 254, 255, 492, 498
TAX MAP 36 & 37
SIXTH ELECTION DISTRICT
DATE: 3/1/88

REFERENCE: S87-46
HOWARD COUNTY, MD.

SCALE HOR: 1"=50'
VERT: 1"=5'

SHEET 9 OF 12



DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND

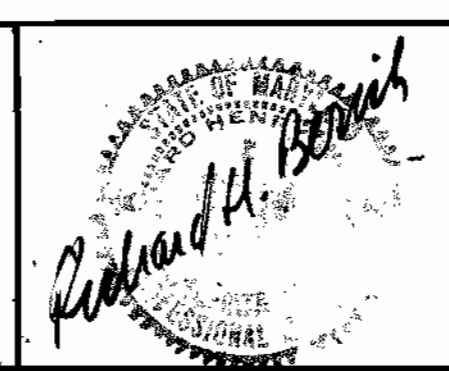
10/18/88
 10-18-88

10-20-88
 10/20/88

10-20-88
 10/20/88

PURDUM & JESCHKE
 CONSULTING ENGINEERS
 AND LAND SURVEYORS

1029 N. CALVERT ST.
 BALTIMORE, MD. 21202



DES: GDT	BG	CHANGE PIPE TO PVC BETWEEN MH24-MH30 6/24/87	
DRN: ARW	GW	CHANGE DHC/SHC	11/18/87
CHK: RHB	GW	CHG. TO SHC	12/12/87
	GW	ELEV. CHANGES	12/12/87
	GW	GRADE CHANGES	12/12/87
	GW	STATION CHANGES	12/12/87
DATE:	BY NO.	REVISION	DATE

**WATER AND SEWER
 PLAN AND PROFILES**

SCALE MAP NO. BLOCK NO.

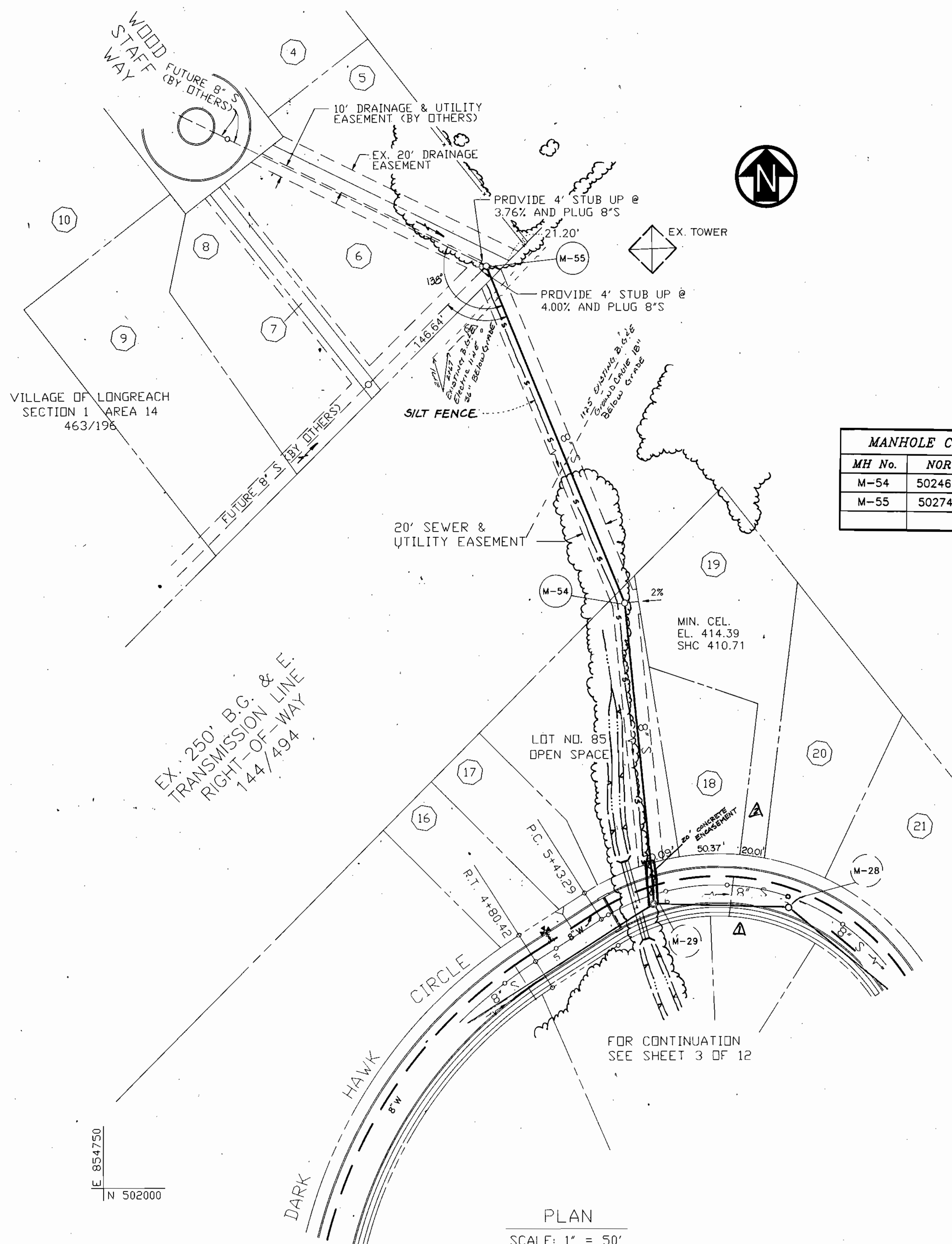
CONTRACT NO. 24-1805-D
LONGREACH - SECTION 3, AREA 3

PARCELS 27, 50, 229, 254, 255, 492, 498
 TAX MAP 36 & 37
 SIXTH ELECTION DISTRICT
 DATE: 3/1/88

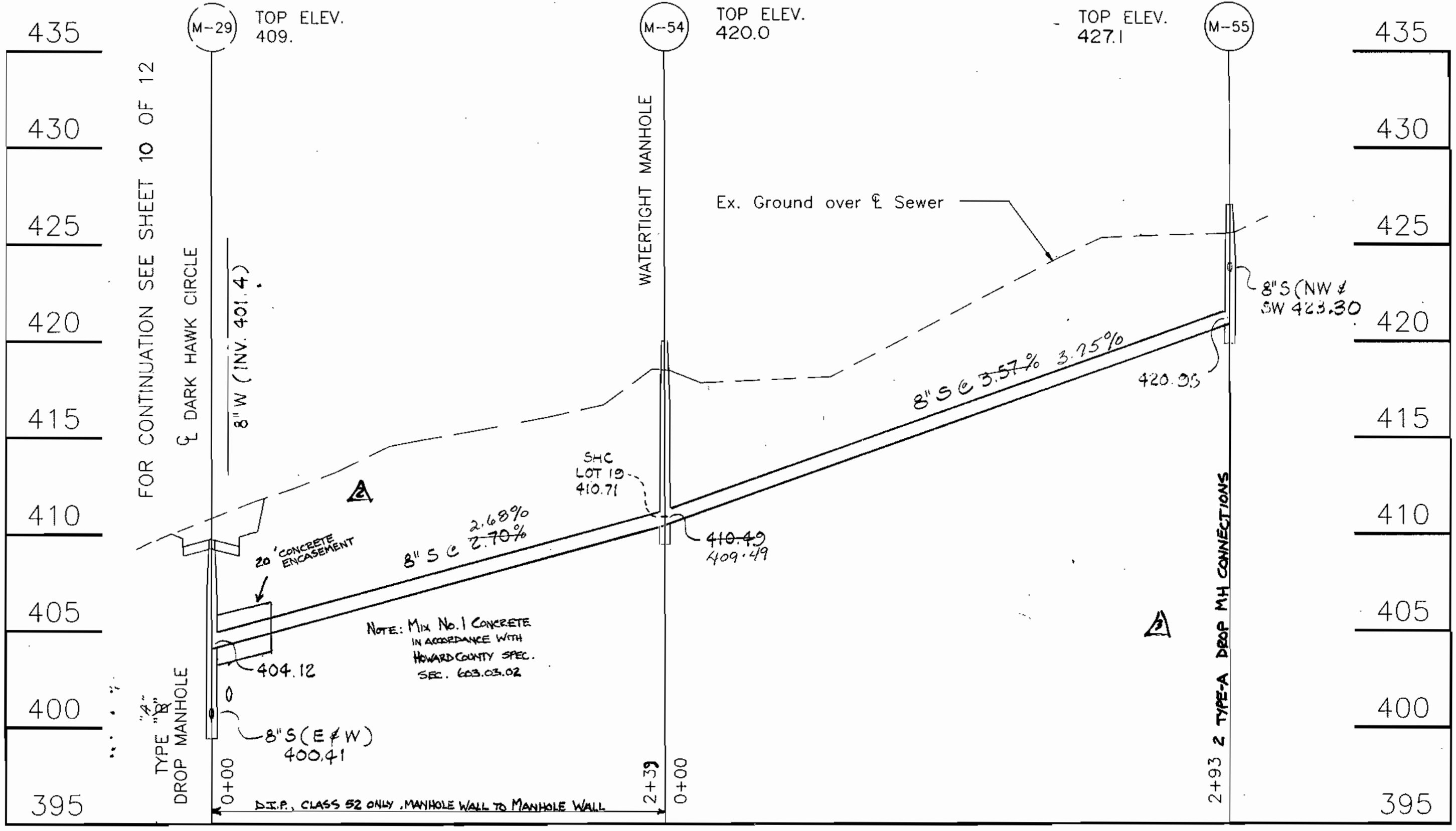
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SHEET
 10 OF 12

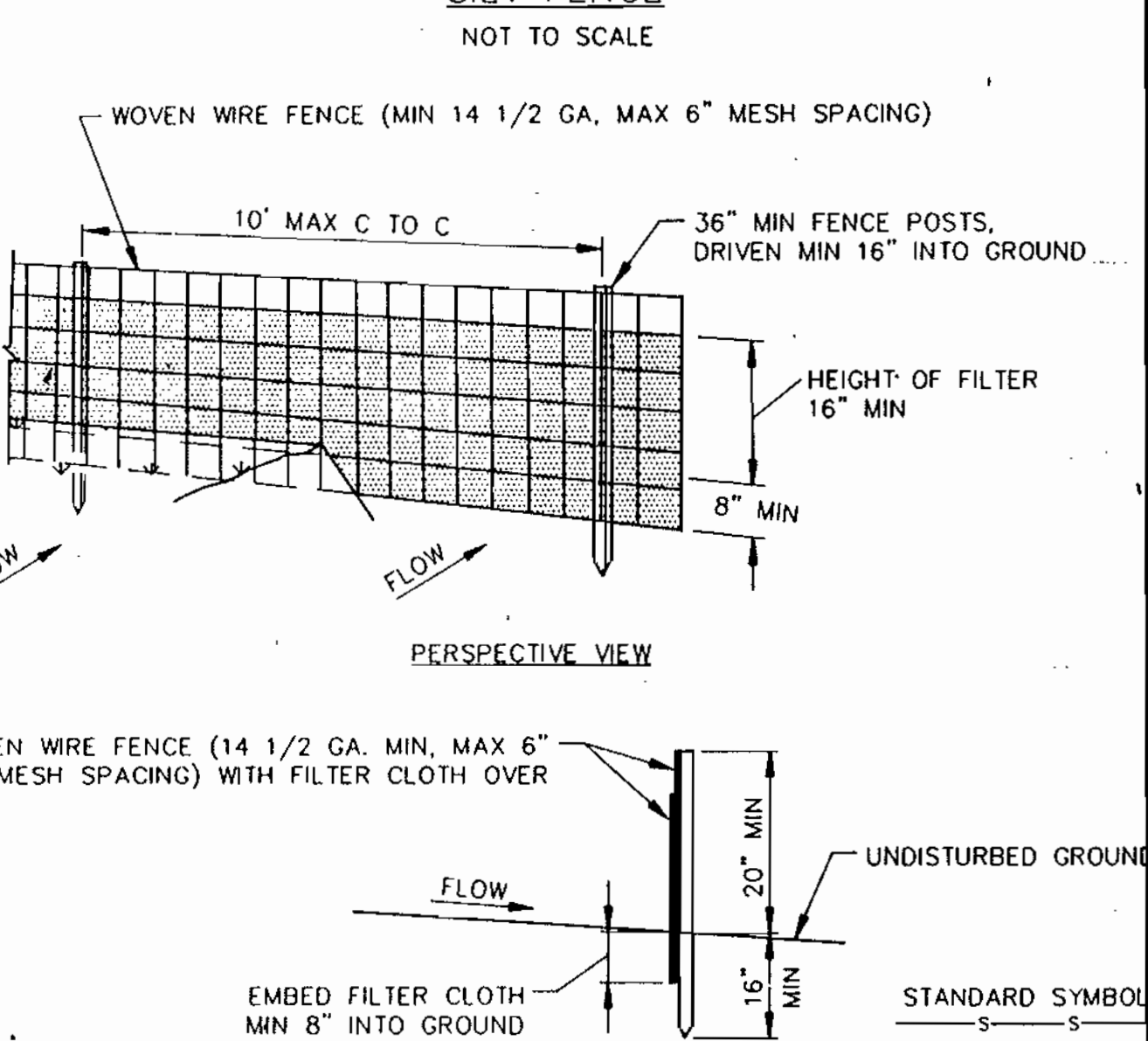


MANHOLE COORDINATES		
MH No.	NORTH	EAST
M-54	502469.83	855171.32
M-55	502740.85	855059.82



PERMANENT SEEDING NOTES
 Apply to graded or cleared areas not subject to immediate further disturbance where a permanent, long-lived vegetative cover is needed.
Seeded Preparation: Loosen upper 3 inches of soil by raking, discing, or other acceptable means before seeding.
Soil Amendments: Use on the the following schedules:
 1) Preferred - Apply 2 tons per acre dolomitic limestone (92 lbs./1000 sq.ft.) and 600 lbs. per acre 10-10-10 fertilizer (14 lbs./1000 sq.ft.) before seeding. Harrow or disc into upper three inches of soil. At time of seeding, apply 400 lbs. per acre 30-0-0 ureaform fertilizer (9 lbs./1000 sq.ft.)
 2) Acceptable - Apply 2 tons per acre dolomitic limestone (92 lbs./1000 sq.ft.) and 1000 lbs. per acre 10-10-10 fertilizer (23 lbs./1000 sq.ft.) before seeding. Harrow or disc into upper three inches of soil.
Seeding: For the periods March 1 thru April 30 and August 1 thru October 15, seed with 60 lbs. per acre (1.4 lbs./1000 sq.ft.) of Kentucky 31 Tall Fescue. For the period May 1 thru July 31, seed with 60 lbs. of Kentucky 31 Tall Fescue per acre and 2 lbs per acre (.05 lbs./1000 sq.ft.) of weeping lovegrass. During the period of October 16 thru February 28, protect site by: Option 1 - 2 tons per acre of well-anchored straw mulch, and seed as soon as possible in the spring. Option 2 - Use sod. Option 3 - Seed with 60 lbs. per acre Kentucky 31 Tall Fescue, and mulch with 2 tons per acre well-anchored straw.
Mulching: Apply 1 1/2 to 2 tons per acre (70 to 90 lbs./1000 sq.ft.) of unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gallons per acre (5 gal./1000 sq.ft.) of emulsified asphalt on flat areas. On slopes 8 feet or higher, use 348 gallons per acre (8 gal./1000 sq.ft.) for anchoring.
Maintenance: Inspect all seeded areas, and make needed repairs, replacements, and reseedings.

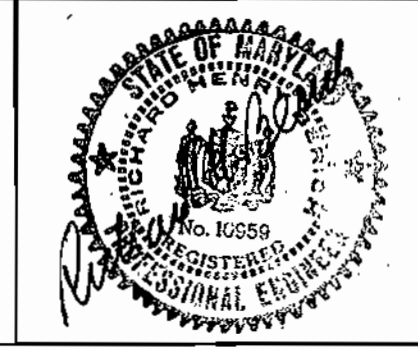
TEMPORARY SEEDING NOTES
 Apply to graded or cleared areas likely to be redisturbed where a short-term vegetative cover is needed.
Seeded Preparation: Loosen upper three inches of soil by raking, discing, or other acceptable means before seeding.
Soil Amendments: Apply 600 lbs. per acre 10-10-10 fertilizer (14 lbs./1000 sq.ft.)
Seeding: For periods March 1 thru April 30 and from August 15 thru November 15, seed with 23 bushels per area of annual rye (3.2 lbs./1000 sq.ft.). For the period May 1 thru August 14, seed with 3 lbs. per acre of weeping lovegrass (.07 lbs./1000 sq.ft.). For the period November 16 thru February 28, protect site by applying 2 tons per acre of well-anchored straw mulch, and seed as soon as possible in the spring, or use sod.
Mulching: Apply 1 1/2 to 2 tons per acre (70 to 90 lbs./1000 sq.ft.) of unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gal per acre (5 gal./1000 sq.ft.) of emulsified asphalt on flat areas. On slopes 8 feet or higher, use 348 gal. per acre (8 gal./1000 sq.ft.) for anchoring.
 Refer to the 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for rate and methods not covered.



CONSTRUCTION NOTES FOR FABRICATED SILT FENCE
 WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES.
 FILTER CLOTH TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION.
 WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED BY SIX INCHES AND FOLDED.
 MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE.
 PREFABRICATED UNIT: GEOFAB, ENVIROFENCE, OR APPROVED EQUAL
 POSTS: STEEL EITHER T OR U TYPE OR 2" HARDWOOD
 FENCE: WOVEN WIRE, 14 GA. 6" MAX MESH OPENING
 FILTER CLOTH: FILTER X, MIRAFI 100X, STABILINKA T140N OR APPROVED EQUAL

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND
 James H. Lee, Director of Public Works
 Robert A. Brainerd, Chief, Bureau of Utilities

PURDUM & JESCHKE
 CONSULTING ENGINEERS AND LAND SURVEYORS
 1029 N. CALVERT ST. BALTIMORE, MD. 21202



DES. REC. GDT	DRN. REC	CHK. RHB	DATE	BY NO.	REVISION	DATE
				SW	CHNG. TO TYPE-A MH	10/20/88
				SW	CONCR. ENCASEMENT	10/20/88
				SW	MH LOCATION CHNG.	10/20/88

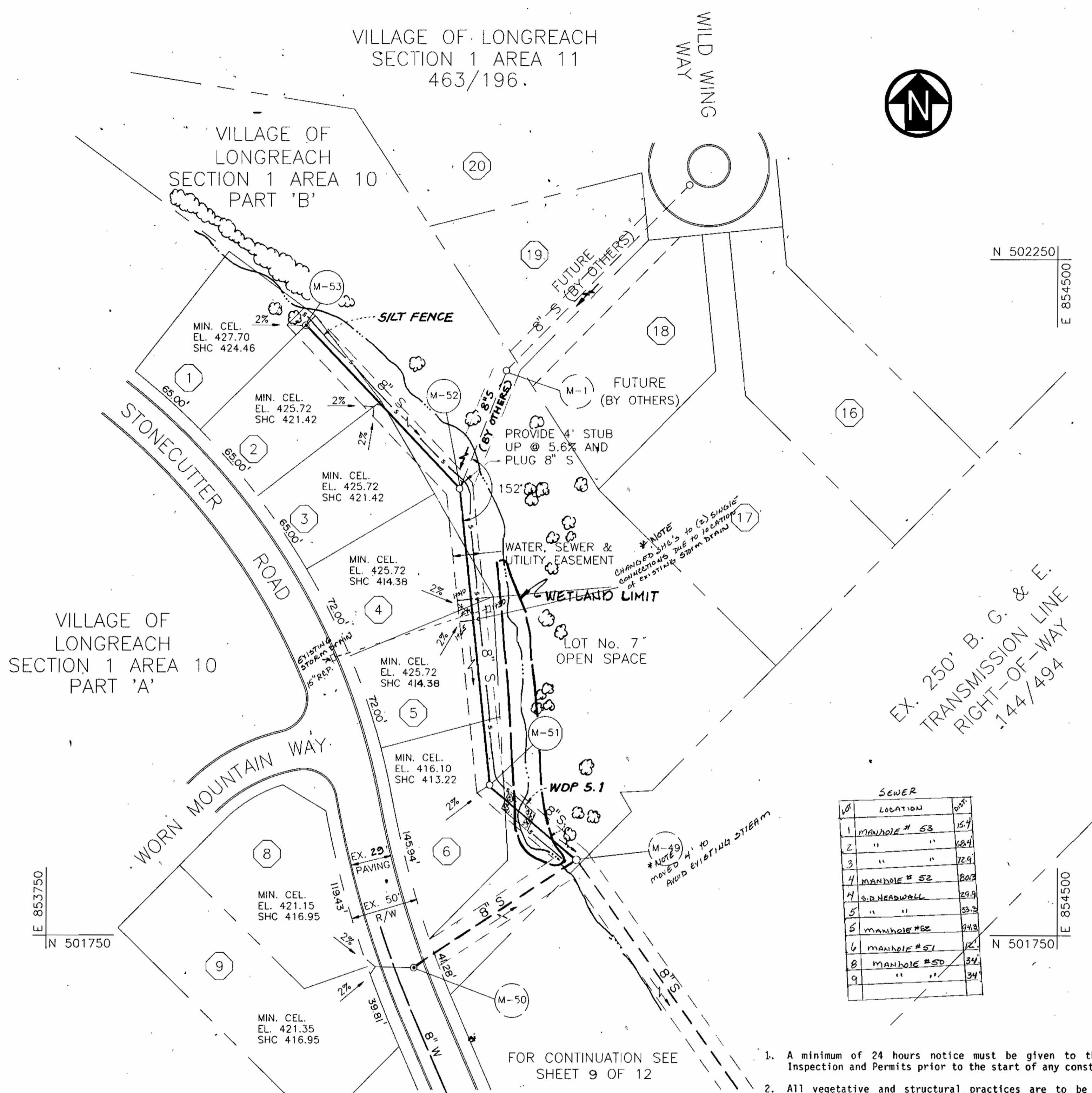
SEWER MAIN PLAN AND PROFILE
 SCALE MAP NO. BLOCK NO.

CONTRACT NO. 24-1805-D
 LONGREACH - SECTION 3, AREA 3
 PARCELS 27, 50, 229, 254, 255, 492 & 498
 TAX MAP 36 & 37
 DATE: 3/1/88
 REFERENCE: S87-46 HOWARD COUNTY, MD
 SHEET 11 OF 12

VILLAGE OF LONGREACH
SECTION 1 AREA 11
463/196.

VILLAGE OF LONGREACH
SECTION 1 AREA 10
PART 'B'

VILLAGE OF LONGREACH
SECTION 1 AREA 10
PART 'A'



FOR CONTINUATION SEE SHEET 9 OF 12

PLAN
SCALE: 1" = 50'

NO.	LOCATION	NO.
1	MANHOLE # 53	154
2	"	154
3	"	154
4	MANHOLE # 52	154
5	"	154
6	MANHOLE # 51	154
7	"	154
8	MANHOLE # 50	154
9	"	154

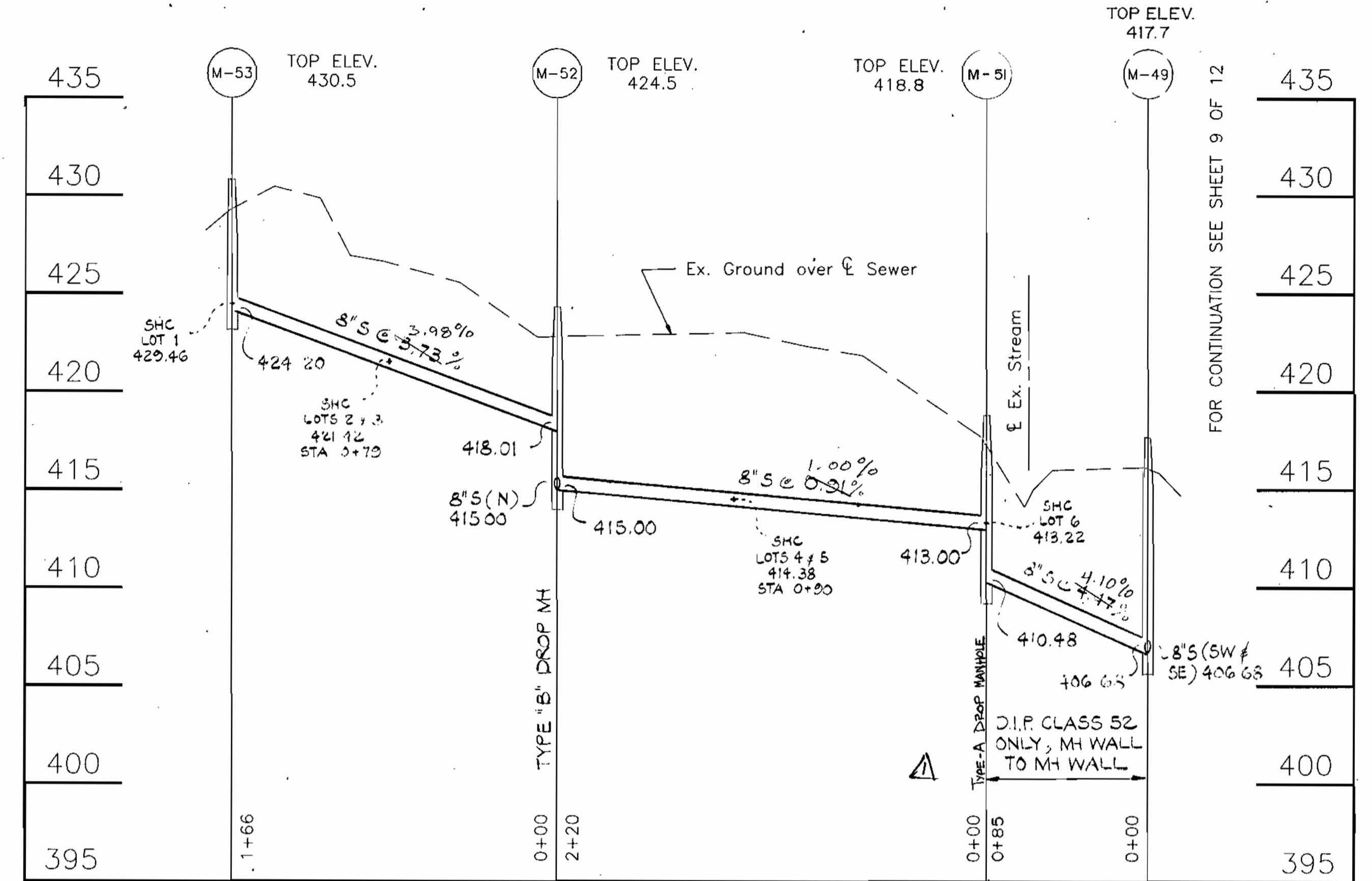
MANHOLE COORDINATES		
MH No.	NORTH	EAST
M-51	501861.31	854078.81
M-52	502080.23	854056.23
M-53	502201.00	853942.30

SEDIMENT CONTROL NOTES

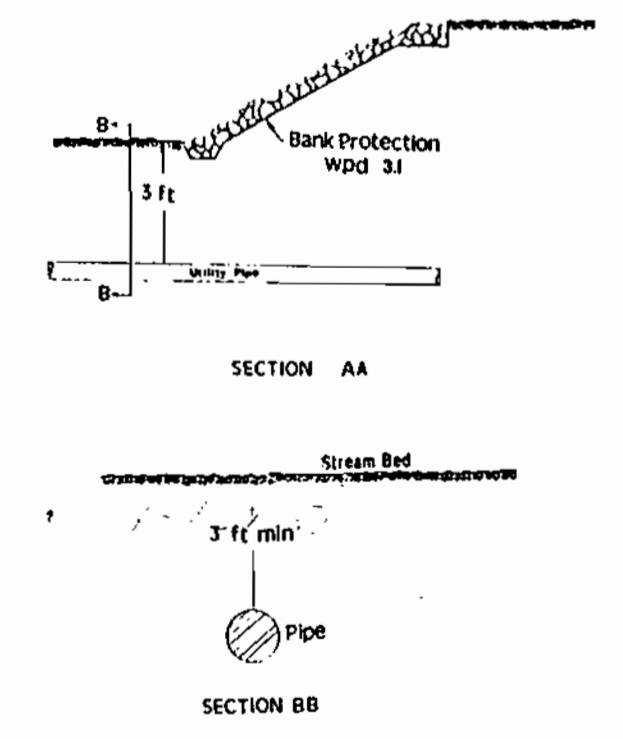
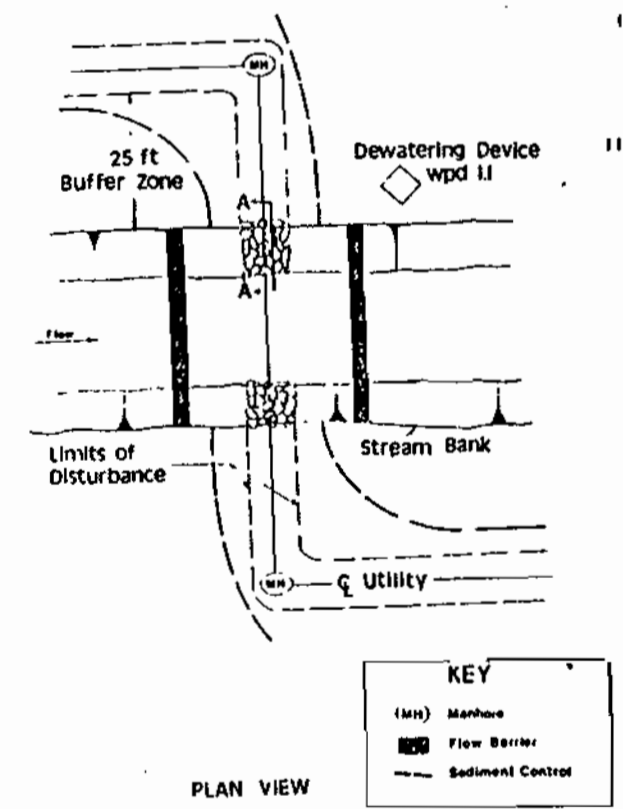
- A minimum of 24 hours notice must be given to the Howard County Office of Inspection and Permits prior to the start of any construction (992-2437).
- All vegetative and structural practices are to be installed according to the provisions of this plan and are to be in conformance with the 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL.
- Following initial soil disturbance or redistribution, permanent or temporary stabilization shall be completed within: (a) 7 calendar days for all perimeter sediment control structures, dikes, perimeter slopes, and all slopes greater than 3:1, (b) 14 days as to all other disturbed or graded areas on the project site.
- All sediment traps/basins shown must be fenced and warning signs posted around their perimeter in accordance with Vol. 1, Chapter 12, Storm Drainage, of the HOWARD COUNTY DESIGN MANUAL.
- All disturbed areas must be stabilized within the time period specified above in accordance with the 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for permanent seeding (Sec. 51), sod (Sec. 54), temporary seeding (Sec. 50), and mulching (Sec. 52). Temporary stabilization with mulch along can only be done when recommended seeding dates do not allow proper germination and establishment of grasses.
- All sediment control structures are to remain in place and are to be maintained in operative condition until permission for their removal has been obtained from the Howard County Sediment Control Inspector.
- Site Analysis:

Total area of site	230 acres
Area disturbed	0.94 acres
Area to be roofed or paved	0 acres
Area to be vegetatively stabilized	0.94 acres
Total cut	cu.yds.
Total fill	cu.yds.
Office waste/borrow area location	N/A
- Any sediment control practice which is disturbed by grading activity for placement of utilities must be repaired on the same day of disturbance.
- Additional sediment controls must be provided, if deemed necessary by the Howard County DPW Sediment Control Inspector.
- On all sites with disturbed areas in excess of 2 acres, approval of the inspection agency shall be requested upon completion of installation of perimeter erosion and sediment controls, but before proceeding with any other earth disturbance or grading. Other building or grading inspection approvals may not be authorized until this initial approval by the inspection agency is made.

NOTE: ALL MANHOLES ARE WATERTIGHT

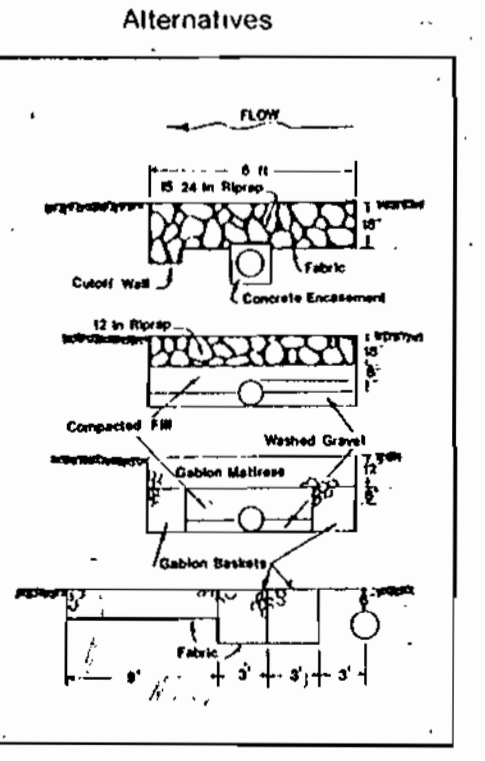


PROFILE
SCALE: HORIZ. 1" = 50'
VERT. 1" = 5'



UTILITY CROSSING - WDP 5.1

- Description**
This work shall consist of installing erosion control devices in and adjacent to temporary stream construction such as utility crossings.
- Construction Requirements**
 - All erosion and sediment control devices shall be installed as the first order of work.
 - The contractor shall insure that a continuous perimeter control barrier is in place so as to minimize pollutants entering the water.
 - Excavated topsoil and subsoil shall be kept separate and replaced in their natural order.
 - All excavated materials shall be placed on the upland side of the excavation.
 - All construction shall take place during stream low flows. The length of construction time shall be limited to a maximum of 5 days for each crossing.
 - All utility crossings shall be placed at least three feet beneath the stream bed unless an alternative section is specifically approved by the Administration.
 - The contractor may elect to construct the utility crossing in two stages. In this case, a WBA approved flow barrier may be constructed to keep the construction area dry.
 - Sediment control devices are to remain in place until all disturbed areas are stabilized in accordance with an approved sediment and erosion control plan and the inspection authority approves their removal.



DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

James M. Lee 10/18/88
DIRECTOR OF PUBLIC WORKS DATE

Robert M. Bringer 10-18-88
CHIEF, BUREAU OF UTILITIES DATE

William E. R. Roy 10-20-88
CHIEF, BUREAU OF ENGINEERING DATE

Small 10/20/88
CHIEF, LAND DEVELOPMENT DIV. DATE

PURDUM & JESCHKE
CONSULTING ENGINEERS
AND LAND SURVEYORS

1029 N. CALVERT ST.
BALTIMORE, MD. 21202



DES: REC, GDT	
DRN: REC	
CHK: RHB	
DATE: 10/20/88	
BY: SWA	CHG. TO TYPE A M.H.
NO.	
REVISION	
DATE	

SEWER MAIN
PLAN AND PROFILE

SCALE MAP NO. BLOCK NO.

CONTRACT NO. 24-1805-D
LONGREACH - SECTION 3, AREA 3

PARCELS 27, 50, 229, 254, 255, 492 & 498
TAX MAP 36 & 37
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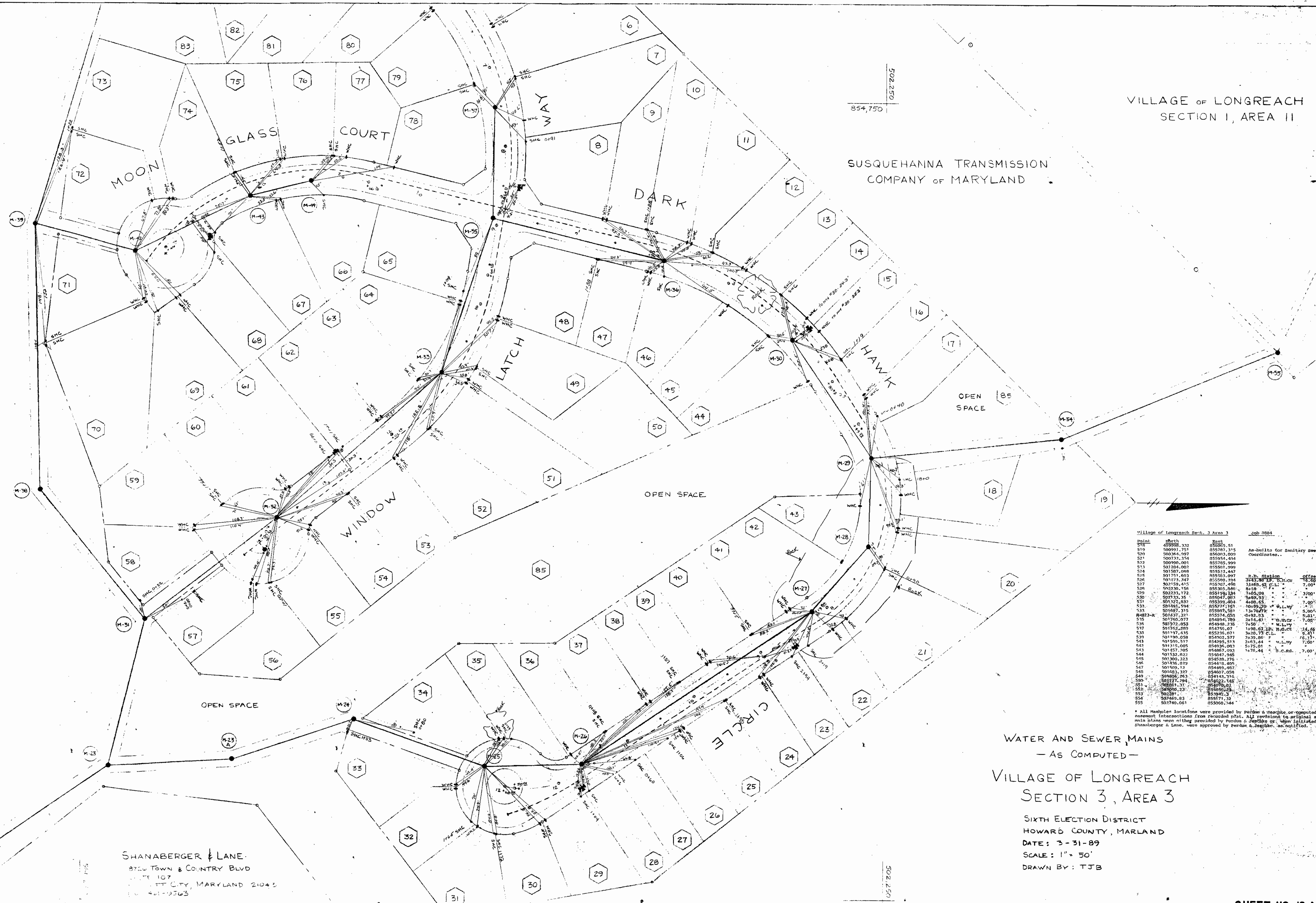
REFERENCE: S87-46
HOWARD COUNTY, MD

SCALE
HOR: 1" = 50'
VERT: 1" = 5'

SHEET
12 OF 12

VILLAGE OF LONGREACH
SECTION I, AREA II

SUSQUEHANNA TRANSMISSION
COMPANY OF MARYLAND



502,250
854,750

855,750
057,205

Village of Longreach Sect. 3 Area 3 Job 8884

Point	Elev	Point	Elev	Notes
518	49998.332	85605.51		
519	50091.721	85787.315		
520	50084.997	85603.009		
521	50073.354	85684.404		
522	50090.001	85785.999		
523	50104.000	85501.999		
524	50187.000	85521.447		
525	50171.603	85503.097		
526	50173.947	85596.194		
527	50159.415	85507.490		
528	50200.156	85505.080		
529	50223.172	85519.134		
530	50213.36	85507.003		
531	50121.033	85539.404		
532	50161.594	85577.161		
533	50169.315	85509.591		
534	50143.321	85574.053		
535	50150.079	85484.789		
536	50192.053	85494.256		
537	50176.200	85475.07		
538	50197.435	85536.07		
539	50190.058	85492.577		
540	50199.517	85495.518		
541	50131.005	85496.003		
542	50147.205	85487.093		
543	50132.022	85487.945		
544	50130.323	85420.276		
545	50136.029	85419.405		
546	50159.12	85449.497		
547	50163.329	85407.059		
548	50180.263	85414.316		
549	50177.284	85402.146		
550	50209.31	85479.01		
551	50200.23	85485.25		
552	50249.83	85517.32		
553	50240.061	85500.144		

* All Manhole Elevations were provided by Purdon & Neagle or computed at network intersections from provided data. All elevations to original ground main plans were either provided by Purdon & Neagle or when indicated at Shanabarger & Lane, were approved by Purdon & Neagle, as notified.

WATER AND SEWER MAINS
- AS COMPUTED -

VILLAGE OF LONGREACH
SECTION 3, AREA 3

SIXTH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
DATE: 3-31-89
SCALE: 1" = 50'
DRAWN BY: TJB

SHANABERGER & LANE
8726 TOWN & COUNTRY BLVD
SUITE 107
BETHESDA CITY, MARYLAND 20814
TEL: 421-9363