


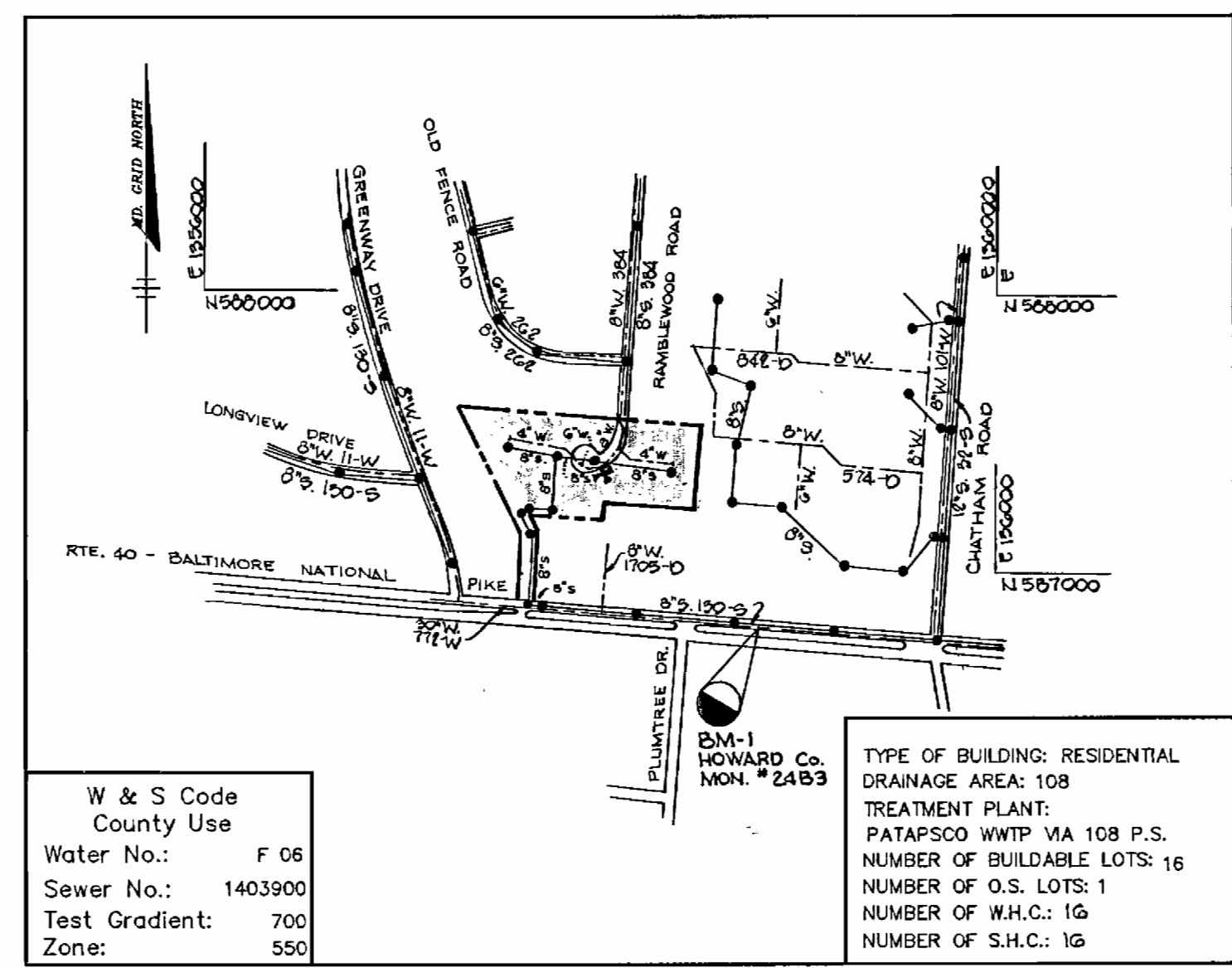
# WATER AND SEWER EXTENSION CHATHAM MEWS CONTRACT NO. 14-3337-D 2nd ELECTION DISTRICT HOWARD COUNTY, MARYLAND

### GENERAL NOTES

1. 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.
2. All horizontal controls are based on Maryland State Coordinates.
3. All vertical controls are based on U.S.G.S. data.
4. All pipe elevations shown are invert elevations.
5. 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 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.
6. 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, (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 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.
8. 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. Contractor Services	850-4620
Baltimore Gas & Electric Co. Underground Damage Control	787-9688
Miss Utility	1-800-257-7777
Colonial Pipeline Co.	795-1390
Bureau of Utilities, Howard County Department of Public Works	313-4900
9. 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.
10. 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.
11. All water mains to be D.I.P. Class 52 unless otherwise noted.
12. Tops of all water mains to have a minimum of 3'-1/2' cover unless otherwise noted.
13. Valves adjacent to tees shall be strapped to tees.
14. All fittings shall be buttressed or anchored with concrete in accordance with the Standard Details unless otherwise provided for on the drawings.
15. 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 Standard Details. Soil around the fire hydrant shall be compacted in accordance with Section 1000 and 1005 of the Standard Specifications.
16. The contractor shall not operate any water main valves on the existing water system.
17. All water house connections shall be for inside meter setting unless otherwise noted on plans or in specifications.
18. All sewer mains shall be DIP, RCP, VCPX, CSPX, RCCP and P.V.C. unless otherwise noted.
19. All manholes shall be 4'-0" inside diameter unless otherwise noted.
20. Force mains shall be D.I.P. only.
21. Manholes shown with 12" and 18" walls are for brick manholes only. Contractor shall have on option to provide pre-cast manholes in accordance with Design Vol. IV.
22. Manholes designated W.T. in plan and profile shall have watertight frame and covers, Standard Detail 65.52; Where watertight manhole frame and cover is used, set top of frame 1'-0" above finished grade unless otherwise noted on the drawings.
23. House(s) with the symbol "C.N.S." indicates that cellar cannot be served.
24. Manholes can be either brick or precast concrete structures.
25. Contractor is Solely Responsible For Construction Means, Methods, Techniques, Sequences, Procedures And Safety Precautions And Programs.
26. Fire Hydrants Will Be Located 3' FROM BACK OF CURB UNLESS OTHERWISE NOTED.

QUANTITIES				
ITEMS	QUANTITIES ESTIMATED	AS-BUILT		
		QUANTITIES	TYPE	MANUFACTURER / SUPPLIER
8" WATER	200 LF	175 LF	CL 52 DIP	ATLANTIC STATES
6" WATER	125 LF	108 LF	CL 52 DIP	ATLANTIC STATES
3/4" WHC	375 LF	420 LF	TYPE "K"	CAMBRIDGE-LEE
8" SEWER	995 LF	920 LF	SDR 35 PVC	J-M MFG.
8" D.I.P.	285 LF	268 LF	CL 52 DIP	ATLANTIC STATES
4" SHC	375 LF	397 LF	SDR 35 PVC	J-M MFG.
FIRE HYDRANTS	1 EA.	1 EA.	884B	AMER. DARLING
AIR RELEASE MANHOLES	1 EA.	1 EA.	MODEL # 1436-1	APCO MFG.
6" VALVES	1 EA.	1 EA.	MT RES-GATE	AMERICAN FLOW CONTROL
SEWER MANHOLES	9 EA.	9 EA.	PRECAST	ATLANTIC CON.
1 1/2" DRAINS	2 EA.	2 EA.	H-15425	MUELLER CO.
4" WATER	500 LF	500 LF	CL 52 DIP	ATLANTIC STATES
8" VALVE	1 EA.	1 EA.	MT-RES.	AMERICAN FLOW CONTROL
4" VALVE	2 EA.	2 EA.	MT-RES.	MUELLER CO.



**VICINITY MAP**  
SCALE: 1"=600'

### BENCHMARKS

**B.M. # 1(NAD 83 HORIZ. DATUM)**  
N. 586661.201, E. 1359226.385 ELEV.= 385.295  
CONCRETE MONUMENT 18"± SOUTH OF SOUTH EDGE OF ROUTE 40 EAST (TRAFFIC LANE) 150' EAST OF EAST END OF SUNOCO STATION OPPOSITE DOCTORS BUILDING 1.5' BELOW SURFACE.

**B.M. # 2(NAD 27 HORIZ. DATUM)**  
N. 525789.095, E. 849475.765 ELEV.= 400.780  
CONCRETE MONUMENT AT SURFACE 1"± NORTH OF EDGE OF MACADAM SHOULDER OF ROUTE 40 WEST (TRAFFIC LANE) 150' EAST OF ST. JOHNS LANE.

NOTE: HORIZONTAL CONTROL WAS ESTABLISHED ON THE NAD 83 (B.M. #1) MONUMENT. THE BACKSIGHT BEARING TO THE NAD 27(B.M.#2) MONUMENT IS 0.7 SECONDS OFF FROM THE NAD 83 DATUM AND IS ASSUMED NEGLIGIBLE.

MANHOLE SCHEDULE		
NO.	NORTHING	EASTING
1	586,869.41	1,358,307.31
2	587,044.35	1,358,309.08
3	587,193.99	1,358,236.15
4	587,204.16	1,358,257.03
5	587,198.09	1,358,320.90
6	587,401.73	1,358,358.17
7	587,379.76	1,358,560.63
8	587,359.16	1,358,807.29
9	587,432.25	1,358,191.40

AIR RELEASE @ STA. 0+42, 7' L.

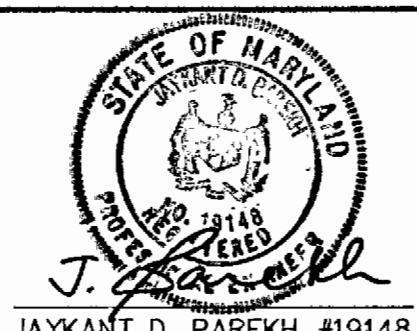
Sediment control measures for this contract will be implemented in accordance with Section 219 of the Specifications and as shown on F-95-92.

Review for Howard Soil Conservation District and meets technical requirements.  
*Patricia Engle* 3/9/95  
U.S. SOIL CONSERVATION SERVICE

This plan is approved for soil erosion and sediment control by the Howard Soil Conservation District.  
*John P. Blanton* 3/9/95  
HOWARD SOIL CONSERVATION DISTRICT

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND	
<i>James J. Lewis</i> 3/10/95 DIRECTOR OF PUBLIC WORKS	<i>Rudolf J. Rosen</i> 3/10/95 CHIEF, BUREAU OF ENGINEERING
<i>Robert W. Berman</i> 3-7-95 CHIEF, BUREAU OF UTILITIES	<i>[Signature]</i> 3/10/95 CHIEF, LAND DEVELOPMENT

**RIFEMER MUEGGE & ASSOCIATES, INC.**  
Planners • Engineers • Surveyors  
8818 Centre Park Drive Suite 200 Columbia, MD  
410-997-8900 FAX: 410-997-9282



DES: J.T.D.	
DRN: J.T.D.	
CHK: D.R.F.	
DATE: 2/27/95	
DFI BY NO.	AS-BUILTS SHEET 3 OF 3
REVISION	

**TITLE SHEET**

600' SCALE MAP NO. 24 BLOCK NO. 4

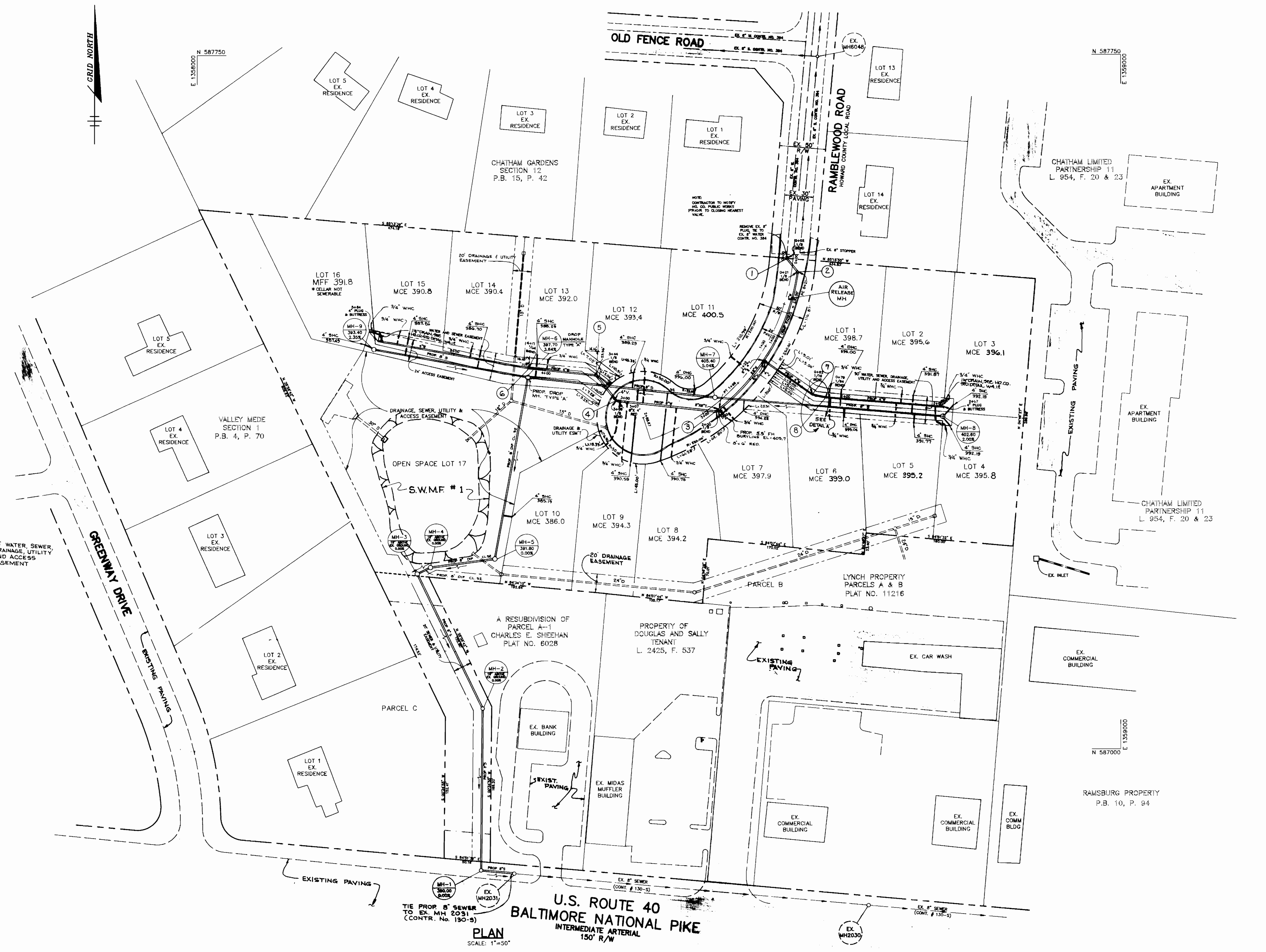
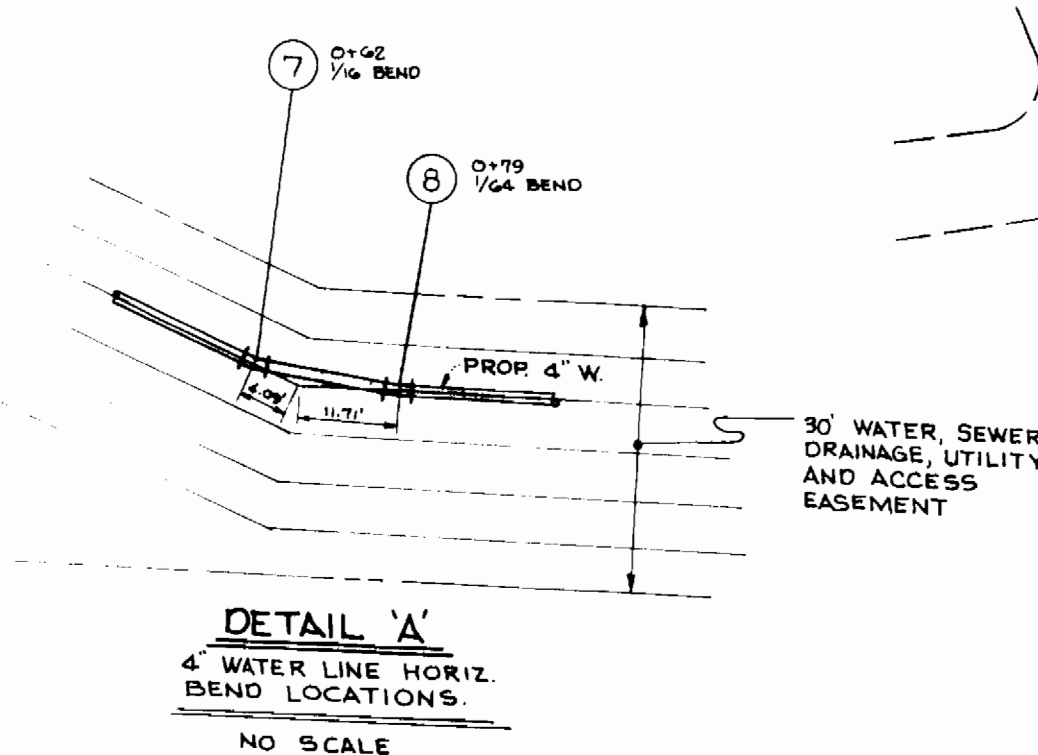
**CHATHAM MEWS**  
LOTS 1-17, PARCEL B & LOT 1  
TAX MAP 24 PARCELS 979 & 1137  
2nd ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND  
CONTRACT NO. 14-3337-D

SCALE AS SHOWN  
SHEET 1 OF 3

AS-BUILT 11-1-95

3337 WS/1 Chatham Mews

W.L. BEND SCHEDULE			
WATER LINE BEND No.	W.L. STA.	± STA.	OFFSET
1	0+00	0+00	7' Lt.
2	0+21	0+13	7' Lt.
3	2+00	1+87	7' Lt.
4	3+09	1+89 LP	6' Rt.
5	3+44	SEE PLAN	
6	4+17	SEE PLAN	
7	0+62	SEE PLAN	
8	0+79	SEE PLAN	



3/9/95  
 Sediment control measures for this contract will be implemented in accordance with Section 219 of the Specifications and as shown on F-1.  
 John R. Robertson 3/9/95  
 HOWARD SOIL CONSERVATION DISTRICT

Review for Howard Soil Conservation District and meet technical requirements.  
 Patricia Engstrom 3/9/95  
 U.S. SOIL CONSERVATION SERVICE

This plan is approved for soil erosion and sediment control by the Howard Soil Conservation District.  
 John R. Robertson 3/9/95  
 HOWARD SOIL CONSERVATION DISTRICT

DEPARTMENT OF PUBLIC WORKS  
 HOWARD COUNTY, MARYLAND

Director of Public Works: 3/10/95  
 Chief, Bureau of Engineering: 3/10/95  
 Chief, Bureau of Utilities: 3-7-95  
 Chief, Land Development: 3/10/95

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 8818 Centre Park Drive Suite 200 Columbia, MD  
 410-997-8900 FAX: 410-997-9282

J. Smith  
 JAYKANT D. PAREKH # 19148  
 DATE 2/27/95

DES: J.T.D.			
DRN: J.T.D./RC			
CHK: D.R.F.			
DATE 2/27/95	BY NO.	REVISION	DATE

U.S. ROUTE 40  
 BALTIMORE NATIONAL PIKE  
 INTERMEDIATE ARTERIAL  
 150' R/W

PLAN  
 SCALE: 1"=50'

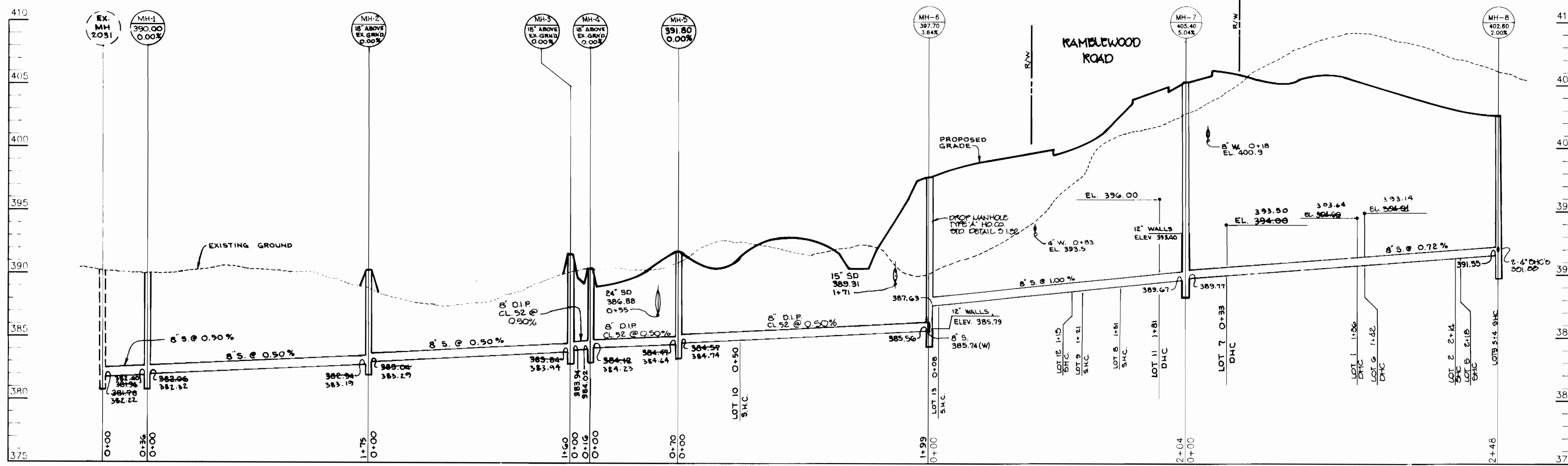
WATER AND SEWER PLAN

CHATHAM MEWS  
 LOTS 1-17, PARCEL B & LOT 1  
 TAX MAP 24 PARCELS 979 & 1137  
 2nd ELECTION DISTRICT  
 HOWARD COUNTY, MARYLAND  
 CONTRACT NO. 14-3337-D

SCALE AS SHOWN  
 SHEET 2 OF 3

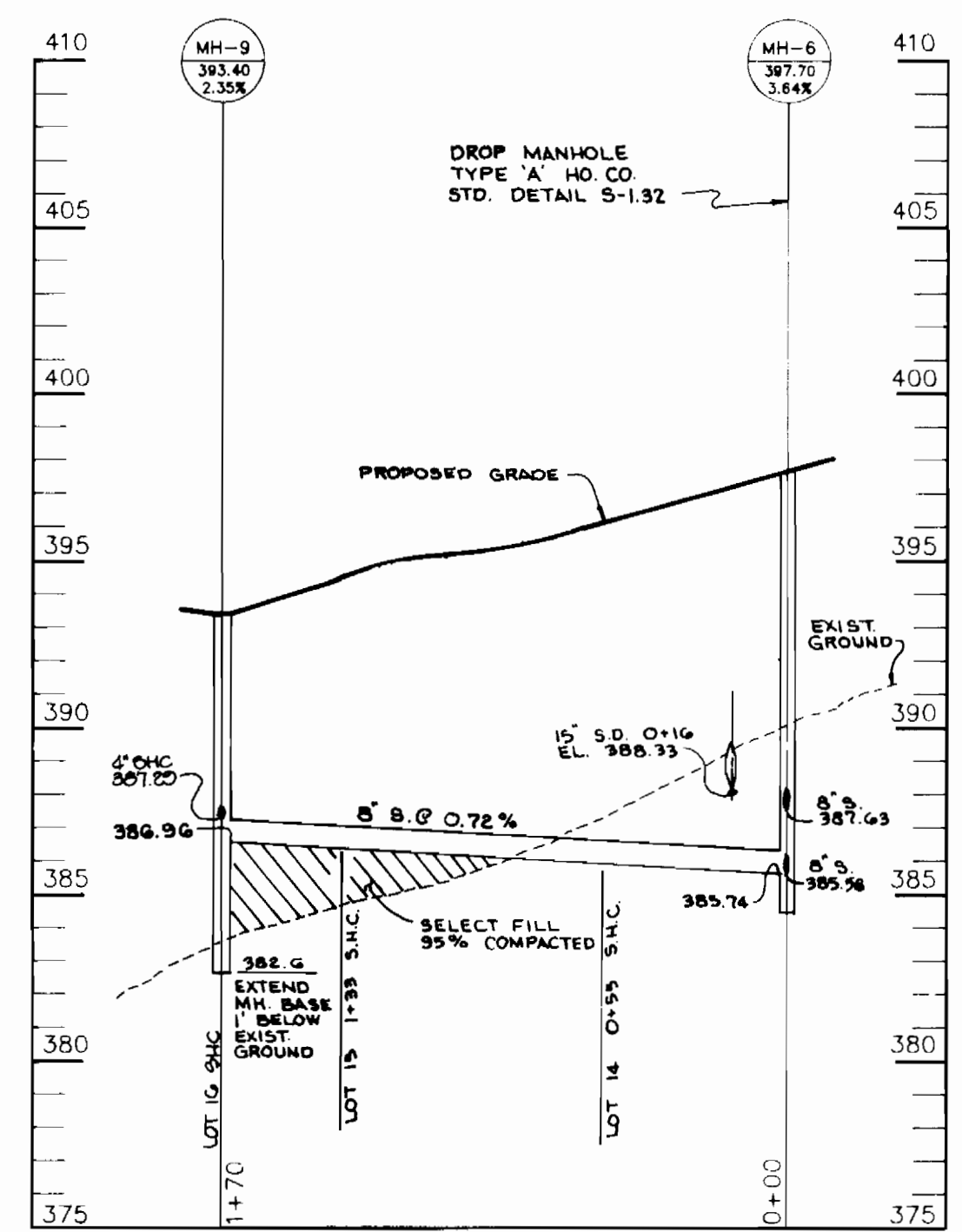
3337 WS/2 Chatham Mews

3337 WS/3 Chatham News



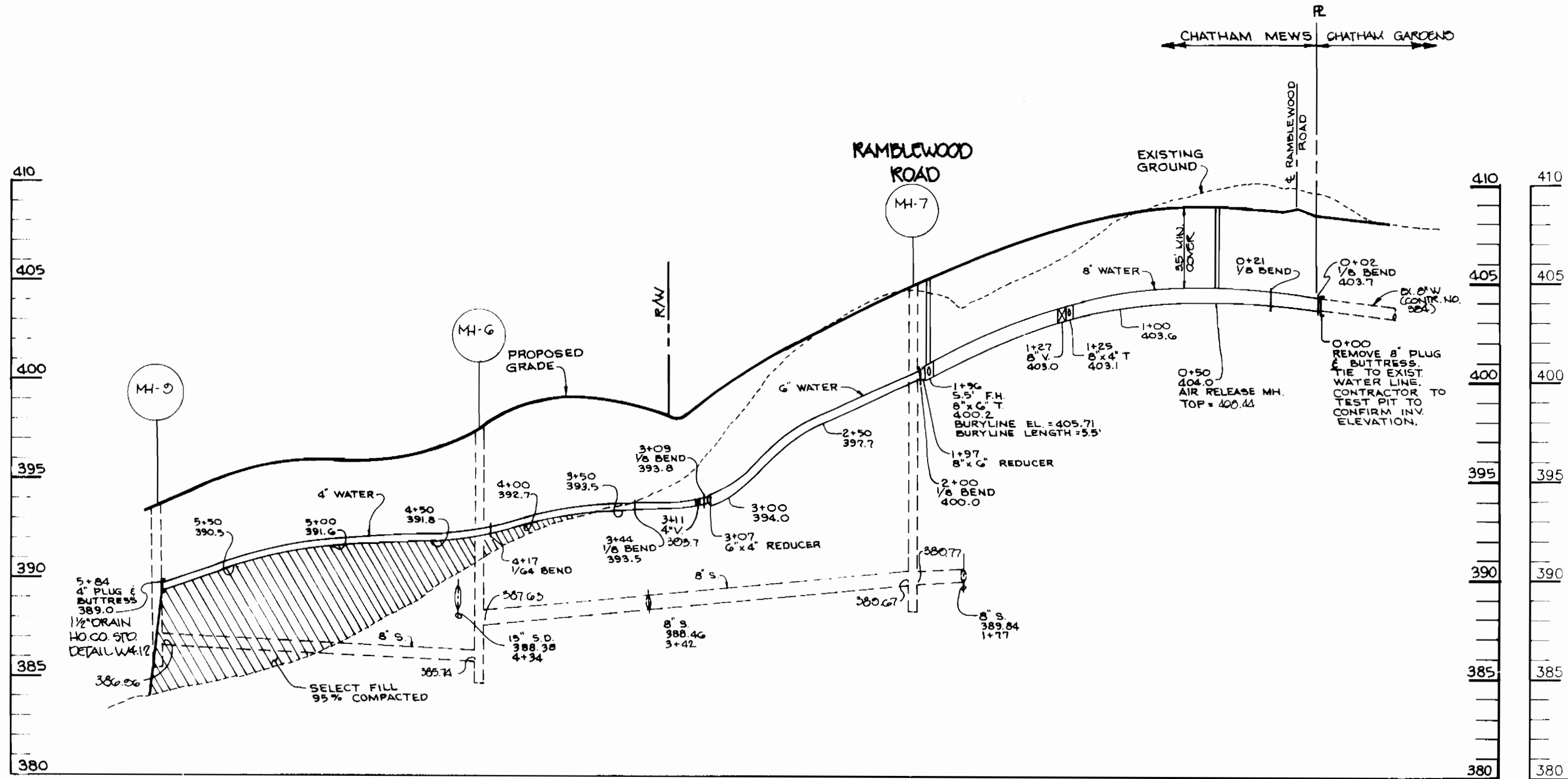
**SEWER PROFILE**

SCALE  
HOR. - 1"=50'  
VERT. - 1"=5'



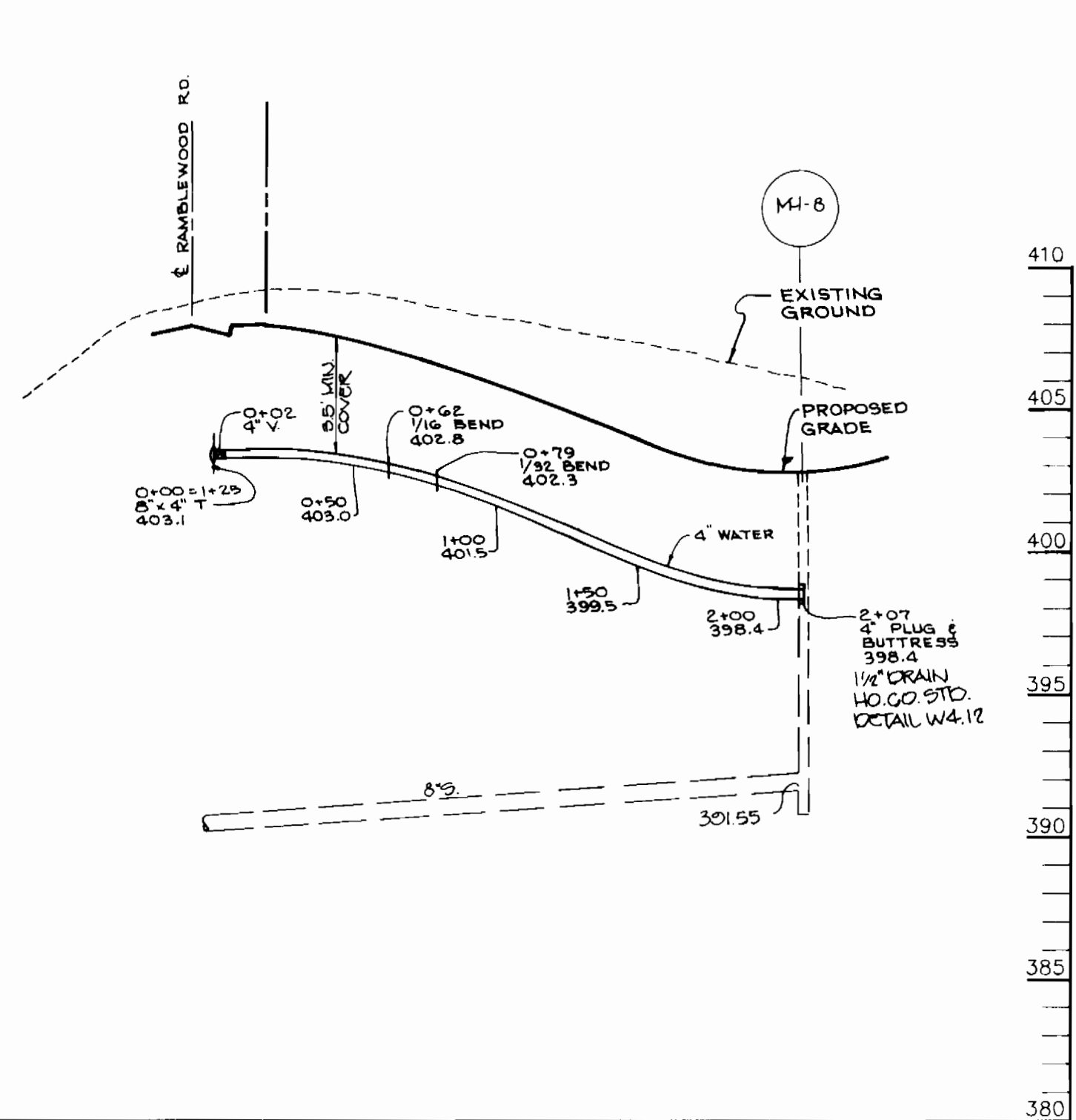
**SEWER PROFILE**

SCALE  
HOR. - 1"=50'  
VERT. - 1"=5'



**WATER PROFILE**

SCALE  
HOR. - 1"=50'  
VERT. - 1"=5'



**WATER PROFILE**

SCALE  
HOR. - 1"=50'  
VERT. - 1"=5'

**W/C'S**

LOT 1	76.0' TO 8" VALVE
	77.0' TO W/C LOT 2
LOT 2	81.2' TO MH 8
	81.6' TO W/C LOT 3
LOT 3	11.0' TO MH 8
	51.6' TO W/C LOT 2
LOT 4	10.0' TO MH 8
	52.3' TO W/C LOT 5
LOT 5	51.4' TO MH 8
	52.3' TO W/C LOT 4
LOT 6	90.0' TO 8" VALVE
	77.0' TO W/C LOT 5
LOT 7	11.0' TO MH 7
	77.6' TO MH 7
LOT 8	77.6' TO MH 7
	53.0' TO W/C LOT 9
LOT 9	70.6' TO FIRE HYDRANT
	53.0' TO W/C LOT 8
LOT 10	23.0' TO W/C LOT 10
	25.0' TO W/C LOT 9
LOT 11	17.0' TO INLET S.W. CORNER
	42.6' TO 8" VALVE
	46.0' TO MH 7
LOT 12	44.0' TO 4" VALVE
	12.2' TO S/C LOT 12
LOT 13	29.8' TO MH 4
	51.2' TO MH 5
	82.6' TO W/C LOT 14
LOT 14	68.6' TO MH 6
	82.6' TO W/C LOT 13
LOT 15	32.0' TO MH 9
	19.1' TO 1/2" DRAIN
LOT 16	20.2' TO MH 9
	9.1' TO 1/2" DRAIN

**S/C'S**

LOT 1	81.6' TO 8" VALVE
	74.4' TO S/C LOT 2
LOT 2	41.0' TO MH 8
	74.4' TO S/C LOT 1
LOT 3	15.3' TO 1/2" DRAIN
	17.2' TO MH 8
LOT 4	16.6' TO MH 8
	34.0' TO 1/2" DRAIN
LOT 5	31.0' TO MH 8
	40.2' TO 1/2" DRAIN
LOT 6	100.2' TO 8" VALVE
	76.2' TO S/C LOT 5
LOT 7	36.2' TO MH 7
	58.0' TO 8" VALVE
LOT 8	98.0' TO FIRE HYDRANT
	31.6' TO S/C LOT 10
LOT 9	115.0' TO FIRE HYDRANT
	31.6' TO S/C LOT 8
LOT 10	51.2' TO MH 5
	46.0' TO S.D. MH
LOT 11	24.4' TO MH 7
	69.0' TO S/C LOT 12
LOT 12	93.4' TO MH 7
	69.0' TO S/C LOT 11
LOT 13	22.6' TO MH 4
	62.2' TO S/C LOT 14
LOT 14	62.2' TO S/C LOT 13
	59.0' TO MH 6
LOT 15	43.2' TO MH 9
	76.0' TO S/C LOT 14
LOT 16	18.0' TO 1/2" DRAIN
	14.0' TO MH 9

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

*Randy Shaw* 3/10/95  
DIRECTOR OF PUBLIC WORKS DATE

*Robert J. Ryan* 3/10/95  
CHIEF, BUREAU OF ENGINEERING DATE

*Robert J. Ryan* 3-7-95  
CHIEF, BUREAU OF UTILITIES DATE

*Chad Vanaman* 3/10/95  
CHIEF, LAND DEVELOPMENT DATE

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*J. Larell*  
JAYKANT D. PAREKH # 19148

DES: J.T.D.	
DRN: R.J.C.	
CHK: D.R.F.	
DATE: 2/27/95	
BY: _____	NO. _____
REVISION	
DATE	

**WATER AND SEWER PROFILES**

600' SCALE MAP NO. 24 BLOCK NO. 4

**CHATHAM MEWS**  
LOTS 1-17, PARCEL B & LOT 1  
TAX MAP 24 PARCELS 979 & 1137  
2nd ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND  
CONTRACT NO. 14-3337-0

SCALE: AS SHOWN  
SHEET 3 OF 3