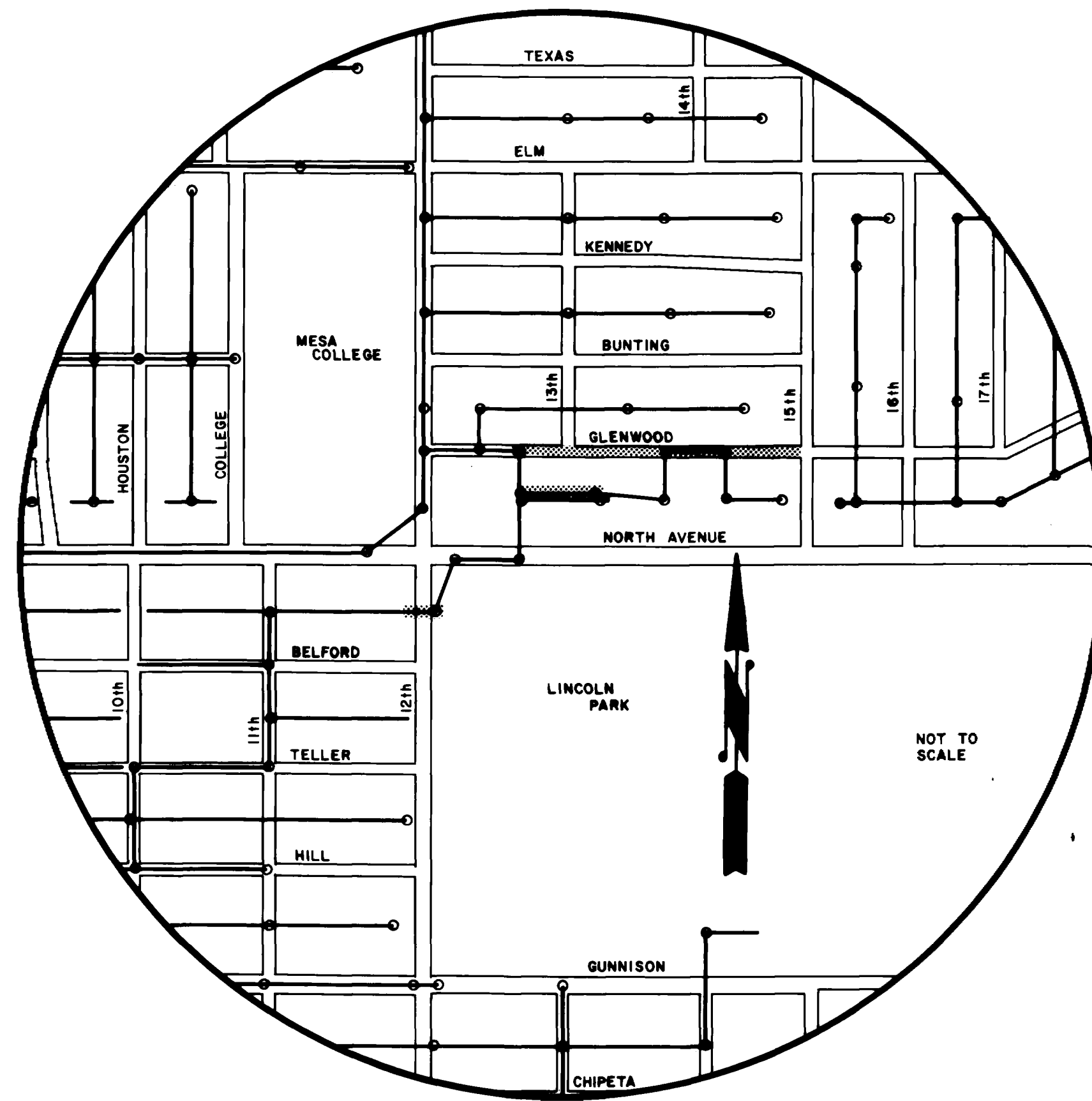
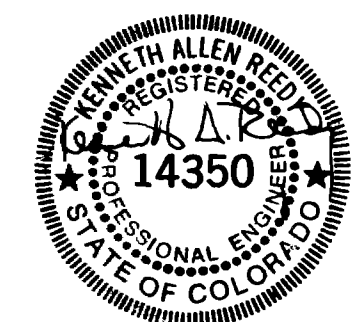


1984

SANITARY SEWER REPLACEMENTS



1. COVER SHEET
2. DRAFTING STANDARDS & ABBREVIATIONS
3. SUMMARY OF APPROXIMATE QUANTITIES
- 4-6. GLENWOOD AVE. 12th ST. to 15th ST.
7. ALLEY SOUTH OF GLENWOOD AVE., EAST OF 12th ST.
8. 12th STREET CROSSING, SOUTH OF NORTH AVE.
9. STANDARD SANITARY SEWER DETAILS (SS-1)
10. STANDARD PAVEMENT DETAILS (ST-1)
- 11-14. TRAFFIC CONTROL FOR HIGHWAY CONSTRUCTION
C.D.O.H. STD. S-614-50
15. BARRICADES, DRUMS, CONCRETE BARRIERS (TEMP.)
& VERTICAL PANELS, C.D.O.H. STD. S-614-51



CITY OF GRAND JUNCTION
DEPARTMENT OF PUBLIC WORKS AND UTILITIES
ENGINEERING DIVISION

BID TABULATION SHEET

SANITARY SEWER REPLACEMENT

COMMERCIAL SERVICES
CONSTRUCTION CO. INC.

JOHN H. YOUNG
BUILDING CONTRACTOR

PARKERSON
CONSTRUCTION, INC.

G.R. CONSTRUCTION
INC.

FRANKLIN
CONSTRUCTION CO.

PIONEER
CONSTRUCTION CO.

R. L. ATKINS
CONSTRUCTION, INC.

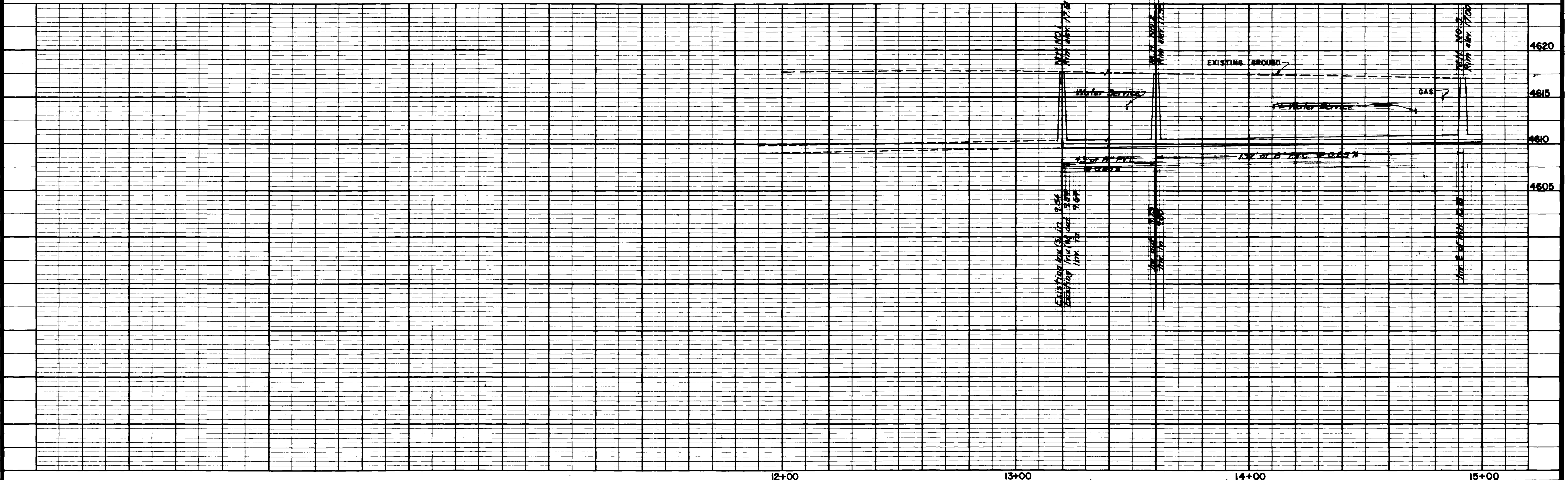
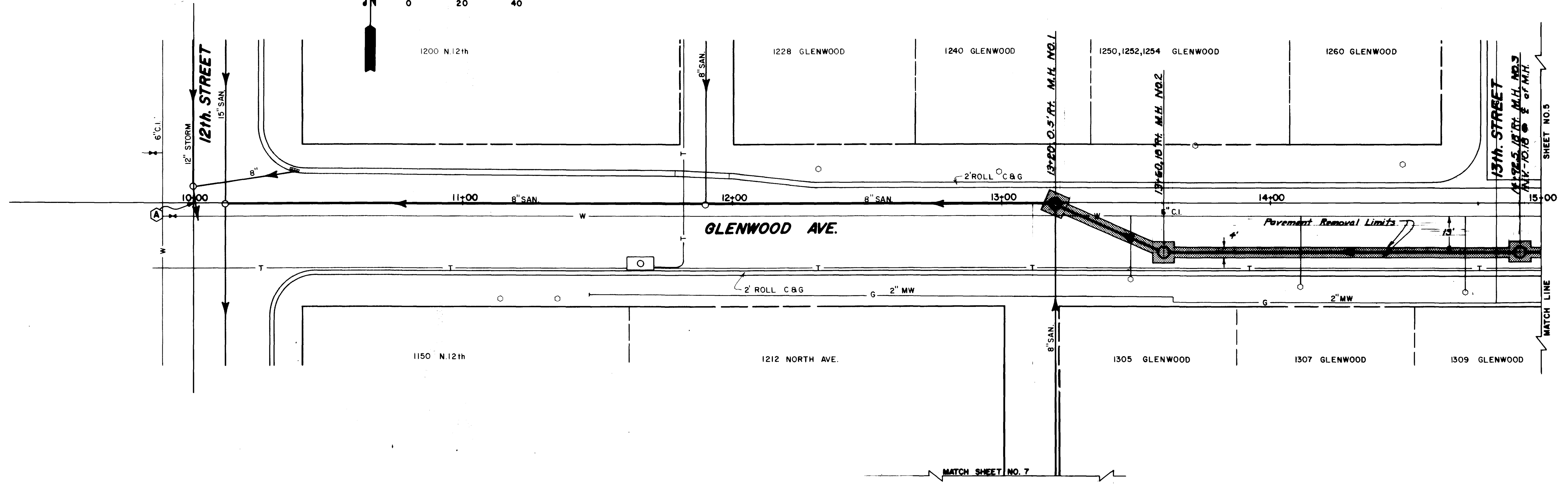
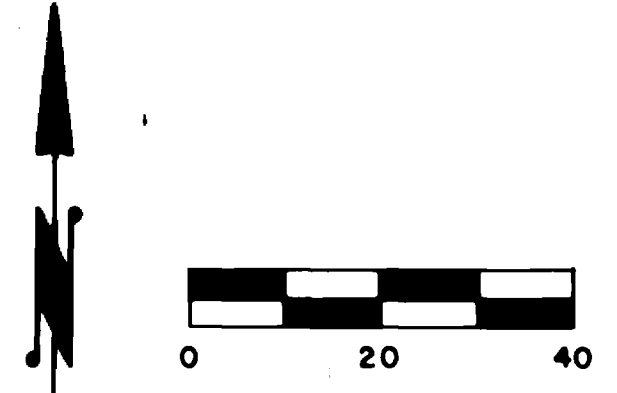
ENGINEER'S
ESTIMATE

ITEM NO.	REF. NO.	CONTRACT ITEM	UNITS	QUANTITY	COMMERCIAL SERVICES CONSTRUCTION CO. INC.		JOHN H. YOUNG BUILDING CONTRACTOR		PARKERSON CONSTRUCTION, INC.		G.R. CONSTRUCTION INC.		FRANKLIN CONSTRUCTION CO.		PIONEER CONSTRUCTION CO.		R. L. ATKINS CONSTRUCTION, INC.		ENGINEER'S ESTIMATE		
					UNIT PRICE	TOTAL PRICE	UNIT PRICE	TOTAL PRICE	UNIT PRICE	TOTAL PRICE	UNIT PRICE	TOTAL PRICE	UNIT PRICE	TOTAL PRICE	UNIT PRICE	TOTAL PRICE	UNIT PRICE	TOTAL PRICE	UNIT PRICE	TOTAL PRICE	UNIT PRICE
		Exploratory Excavation to Verify Locations and Elevations of Existing Underground Installations	L.S.	L.S.	340.00	340.00	420.00	420.00	1300.00	1,300.00	500.00	500.00	1320.00	1,320.00	1000.00	1,000.00	4200.00	4,200.00	1000.00	1,000.00	
2.		Furnish and Install 8" PVC Sewer Pipe (ASTM D3034 SDR35)	L.F.	944	16.00	15,104.00	11.00	10,384.00	14.00	13,216.00	7.70	7,268.80	28.00	26,432.00	27.10	25,582.40	34.00	32,096.00	25.00	23,600.00	
3.		Furnish and Install 4" Sewer Tap	Each	3	20.00	60.00	195.00	585.00	85.00	255.00	50.00	150.00	100.00	300.00	69.00	207.00	150.00	450.00	40.00	120.00	
4.		Furnish and Install 4" PVC Sewer Service Pipe (ASTM D3034 SDR35)	L.F.	15	17.00	255.00	39.33	589.95	17.00	255.00	5.00	75.00	20.00	300.00	26.00	390.00	20.00	300.00	20.00	300.00	
5.		Furnish and Install Standard Manhole (4' Dia.) with Cast Iron Ring and Cover (>5' deep invert to rim)	Each	6	750.00	4,500.00	836.70	5,020.20	1100.00	6,600.00	900.00	5,400.00	1000.00	6,000.00	1000.00	5,000.00	920.00	5,520.00	900.00	5,400.00	
6.		Cut and Remove Pavement (Based on areas shown on plans)	S.Y.	647	2.00	1,294.00	1.34	866.98	2.50	1,617.50	8.00	5,176.00	1.00	647.00	1.75	1,132.25	9.55	6,178.85	3.00	1,941.00	
7.		Granular Stabilization Material (Pit Run)(Haul)	Ton	924	5.20	4,804.80	5.15	4,758.60	1.00	924.00	13.00	12,012.00	5.50	5,082.00	5.50	5,082.00	8.75	8,085.00	6.50	6,006.00	
8.		Aggregate Base Course (Class 6)(Haul, Water & Compact)	Ton	409	5.20	2,126.80	8.60	3,517.40	9.50	3,885.50	21.50	8,793.50	6.60	2,699.40	8.00	3,272.00	10.00	4,090.00	8.00	3,272.00	
9.		Asphalt Pavement Replacement (3" thick) Grading F	S.Y.	647	11.00	7,117.00	9.60	6,211.10	10.00	6,470.00	10.04	6,495.88	10.00	6,470.00	10.00	6,470.00	27.45	17,760.15	12.50	8,087.50	
10.		Unclassified Excavation Where Authorized	C.Y.	50	6.25	312.50	7.88	394.00	5.00	250.00	10.00	500.00	2.00	100.00	12.00	600.00	40.00	2,000.00	4.00	200.00	
12th Street Crossing																					
11.		Exploratory Excavation to Verify Locations and Elevations of Existing underground Installations	L.S.	L.S.	300.00	300.00	210.00	210.00	1200.00	1,200.00	500.00	500.00	200.00	200.00	1000.00	1,000.00	5000.00	5,000.00	500.00	500.00	
12.		Furnish and Install 8" PVC Sewer Pipe (ASTM D3034 SDR35)	L.F.	153	30.00	4,590.00	29.66	4,384.96	38.00	5,814.00	24.00	3,672.00	40.00	6,120.00	51.60	7,894.80	63.75	9,753.75	25.00	3,825.00	
13.		Furnish and Install 4" PVC Sewer Pipe (ASTM D 3034 SDR35)	L.F.	3	18.00	54.00	141.00	423.00	28.00	84.00	5.00	15.00	25.00	75.00	100.00	300.00	25.00	75.00	20.00	60.00	
14.		Furnish and Install 6" PVC Sewer Pipe (ASTM D3034 SDR35)	L.F.	12	21.00	252.00	42.70	512.40	35.00	420.00	6.00	72.00	30.00	360.00	50.00	600.00	50.00	600.00	25.00	300.00	
15.		Furnish and Install Standard Manhole (4' Dia.) with Cast Iron Ring & Cover (0-5' deep invert to rim)	Each	1	940.00	940.00	1480.00	1,480.00	1100.00	1,100.00	900.00	900.00	1000.00	1,000.00	2000.00	2,000.00	625.00	625.00	1000.00	1,000.00	
16.		Furnish and Install Standard Manhole (4' Dia.) with Cast Iron Ring & Cover (>5' deep invert to rim)	Each	1	940.00	940.00	1466.00	1,466.00	1100.00	1,100.00	900.00	900.00	1100.00	1,100.00	1000.00	1,000.00	920.00	920.00	900.00	900.00	
17.		Cut and Remove Pavement (Based on 44" max. pay width)	S.Y.	63	1.00	63.00	6.66	419.58	4.00	252.00	12.00	756.00	2.00	126.00	2.00	126.00	9.55	601.65	3.00	189.00	
18.		Saw Cut and Remove Concrete Curb & Gutter (1.5' wide)	L.F.	20	2.00	40.00	13.13	262.60	10.00	200.00	10.00	200.00	3.00	60.00	10.00	200.00	20.00	400.00	12.00	240.00	
19.		Saw Cut and Remove Concrete Alley Pan (6.5' wide)	L.F.	15	2.00	30.00	17.50	262.50	15.00	225.00	8.25	123.75	4.00	60.00	20.00	300.00	20.00	300.00	12.00	180.00	
20.		Saw Cut and Remove Concrete Curb, Gutter and Sidewalk (7.5' wide)	L.F.	10	2.00	20.00	26.25	262.50	15.00	150.00	15.00	150.00	4.00	40.00	30.00	300.00	20.00	200.00	15.00	150.00	
21.		Granular Stabilization Material (Pit Run)(Haul)	Ton	100	5.20	520.00	5.15	515.00	1.50	150.00	13.00	1,300.00	5.50	550.00	5.50	550.00	8.75	875.00	6.50	650.00	
22.		Aggregate Base Course (Class 6)(Haul, Water & Compact)	Ton	45	5.20	234.00	17.90	805.50	11.50	517.50	21.50	967.50	6.60	297.00	8.00	360.00	16.50	742.50	8.00	360.00	
23.		Asphalt Pavement Replacement (4" thick) Grading E	S.Y.	63	20.75	1,307.25	11.13	701.19	14.00	882.00	18.52	1,166.76	12.99	756.00	18.00	1,134.00	31.80	2,003.40	15.00	945.00	
24.		Construct Concrete Curb & Gutter (1.5' wide)	L.F.	20	11.20	224.00	24.68	493.60	6.00	120.00	7.50	150.00	11.00	220.00	15.00	300.00	20.00	400.00	15.00	300.00	
25.		Construct Concrete Alley Pan (6.5' wide)	L.F.	15	30.00	450.00	37.10	556.50	12.00	180.00	12.00	180.00	20.00	300.00	20.00	300.00	20.50	307.50	25.00	375.00	
26.		Construct Concrete Curb, Gutter & Sidewalk (7.5' wide)	L.F.	10	30.00	300.00	49.35	493.50	12.00	120.00	15.00	150.00	14.00	140.00	22.00	220.00	21.00	210.00	30.00	300.00	
27.		Unclassified Excavation where authorized	C.Y.	50	6.25	312.50	7.88	394.00	5.00	250.00	10.00	500.00	2.00	100.00	12.00	600.00	40.00	2,000.00	4.00	200.00	
Alley Between Glenwood Ave. and North Ave.																					
26.		Exploratory Excavation to Verify Locations and Elevations of existing underground Installations	L.S.	L.S.	300.00	300.00	105.00	105.00	2200.00	2,200.00	500.00	500.00	375.00	375.00	1000.00	1,000.00	2000.00	2,000.00	500.00	500.00	
29.		Furnish and Install 8" PVC Sewer Pipe (ASTM D 3034 SDR35)	L.F.	255	14.65	3,735.75	17.95	4,577.25	16.00	4,080.00	7.95	2,027.25	30.00	7,650.00	27.10	6,910.50	32.15	8,198.25	20.00	5,100.00	
30.		Furnish and Install 4" PVC Sewer Pipe (ASTM D3034 SDR35)	L.F.	20	17.00	340.00	34.39	687.80	18.00	360.00	5.00	100.00	20.00	400.00	26.00	520.00	25.00	500.00	20.00	400.00	
31.		Furnish and Install 4" Sewer Tap	Each	4	20.00	80.00	124.69	498.76	75.00	300.00	50.00	200.00	100.00	400.00	69.00	276.00	150.00	600.00	40.00	160.00	
32.		Furnish and Install Standard Manhole (4' Dia.) with Cast Iron Ring and Cover (>5' deep invert to rim)	Each	2	740.00	1,480.00	896.00	1,792.00	1200.00	2,400.00	900.00	1,800.00	1000.00	2,000.00	1000.00	2,000.00	920.00	1,840.00	900.00	1,800.00	
33.		Cut and Remove Pavement (Based on 44' max. pavement width)	S.Y.	124	1.00	124.00	3.20	396.80	4.00	496.00	9.00	1,116.00	2.00	248.00	2.00	248.00	9.55	1,184.20	3.00	372.00	
34.		Granular Stabilization Material (Pit Run)(Haul)	Ton	197	5.20	1,024.40	5.15	1,014.55	1.00	197.00	13.00	2,561.00	5.50	1,083.50	5.50	1,083.50	8.75	1,723.75	6.50	1,280.50	
35.		Aggregate Base Course (Class 6)(Haul, Water & Compact)	Ton	78	5.20	405.60	15.69	1,223.04	9.80	764.40	21.50	1,677.00	6.60	514.80	8.00	624.00	16.50	1,227.00	8.00	624.00	
36.		Asphalt Pavement Replacement (3" thick) Grading E	S.Y.	124	13.55	1,680.20	11.14	1,381.36	10.00	1,240.00	12.10	1,500.40	10.00	1,240.00	13.50	1,674.00	24.45	3,031.80	12.50	1,550.00	
37.		Unclassified Excavation where authorized	C.Y.	50	6.25	312.40	7.88	394.00	5.00	250.00	10.00	500.00	2.00	100.00	12.00	600.00	40.00	2,000.00	4.00	200.00	
TOTAL BID						55,973.30		58,460.74		59,824.90		70,055.84		74,865.70		81,856.45		128,058.80		72,387.00	

SUMMARY OF APPROXIMATE QUANTITIES

REF. NO.	CONTRACT ITEM SANITARY SEWER REPLACEMENT	UNIT	QUANTITY																	
1.	GLENWOOD AVENUE Exploratory Excavation to Verify Locations and Elevations of Existing underground installations	Lump Sum	Lump Sum																	
2.	Furnish and Install 8" PVC Sewer Pipe (ASTM D 3034 SDR35)	L.F.	944																	
3.	Furnish and Install 4" Sewer Tap	Each	3																	
4.	Furnish and Install 4" PVC Sewer Service Pipe (ASTM D3034 SDR35)	L.F.	15																	
5.	Furnish and Install Standard Manhole (4' Dia.) with Cast Iron Ring and Cover (>5' deep invert to rim)	Each	6																	
4 6.	Cut and Remove Pavement (Based on areas shown on plans)	S.Y.	647																	
7.	Granular Stabilization Material (Pit Run)(Haul)	Ton	924																	
8.	Aggregate Base Course (Class 6)(Haul, Water & Compact)	Ton	409																	
9.	Asphalt Pavement Replacement (3" thick)Grading E	S.Y.	647																	
10.	Unclassified Excavation where authorized	C.Y.	50																	
11.	12TH STREET CROSSING Exploratory Excavation to verify locations and elevations of existing underground installations	Lump Sum	Lump Sum																	
12.	Furnish and Install 8" PVC Sewer Pipe (ASTM D3034 SDR35)	L.F.	153																	
13.	Furnish and Install 4" PVC Sewer Pipe (ASTM D3034 SDR35)	L.F.	3																	
14.	Furnish and Install 6" PVC Sewer Pipe (ASTM D3034 SDR35)	L.F.	12																	
15.	Furnish and Install Standard Manhole (4' Dia.) with Cast Iron Ring & Cover (0-5' deep invert to rim)	Each	1																	
16.	Furnish and Install Standard Manhole (4' Dia.) with Cast Iron Ring & Cover (>5' deep invert to rim)	Each	1																	
17.	Cut and Remove Pavement (Based on 44" max. pay width)	S.Y.	63																	
18.	Saw Cut and Remove Concrete Curb & Gutter (1.5' wide)	L.F.	20																	
19.	Saw Cut and Remove Concrete Alley Pan (6.5' wide)	L.F.	15																	
20.	Saw Cut and Remove Concrete Curb, Gutter and Sidewalk (7.5' wide)	L.F.	10																	
21.	Granular Stabilization Material (Pit Run)(Haul)	Ton	100																	
22.	Aggregate Base Course (Class 6)(Haul, Water & Compact)	Ton	45																	
23.	Asphalt Pavement Replacement (4" thick) Grading E	S.Y.	63																	
24.	Construct Concrete Curb & Gutter (1.5' wide)	L.F.	20																	
25.	Construct Concrete Alley Pan (6.5' wide)	L.F.	15																	
26.	Construct Concrete Curb, Gutter & Sidewalk (7.5' wide)	L.F.	10																	
27.	Unclassified Excavation where authorized	C.Y.	50																	
28.	ALLEY BETWEEN GLENWOOD AVE. AND NORTH AVE. Exploratory Excavation to verify locations and elevations of existing underground installations	Lump Sum	Lump Sum																	
29.	Furnish and Install 8" PVC Sewer Pipe (ASTM D 3034 SDR35)	L.F.	255																	
30.	Furnish and Install 4" PVC Sewer Pipe (ASTM D3034 SDR35)	L.F.	20																	
31.	Furnish and Install 4" Sewer Tap	Each	4																	
32.	Furnish and Install Standard Manhole (4' Dia.) with Cast Iron Ring and Cover (>5') deep invert to rim)	Each	2																	
33.	Cut and Remove Pavement (Based on 44" max. pavement width)	S.Y.	124																	
34.	Granular Stabilization Material (Pit Run)(Haul)	Ton	197																	
35.	Aggregate Base Course (Class 6)(Haul, Water & Compact)	Ton	78																	
36.	Asphalt Pavement Replacement (3" thick) Grading E	S.Y.	124																	
37.	Unclassified Excavation where authorized	C.Y.	50																	

BENCH MARK
 (A) MONUMENT, 12th & GLENWOOD
 4617.38

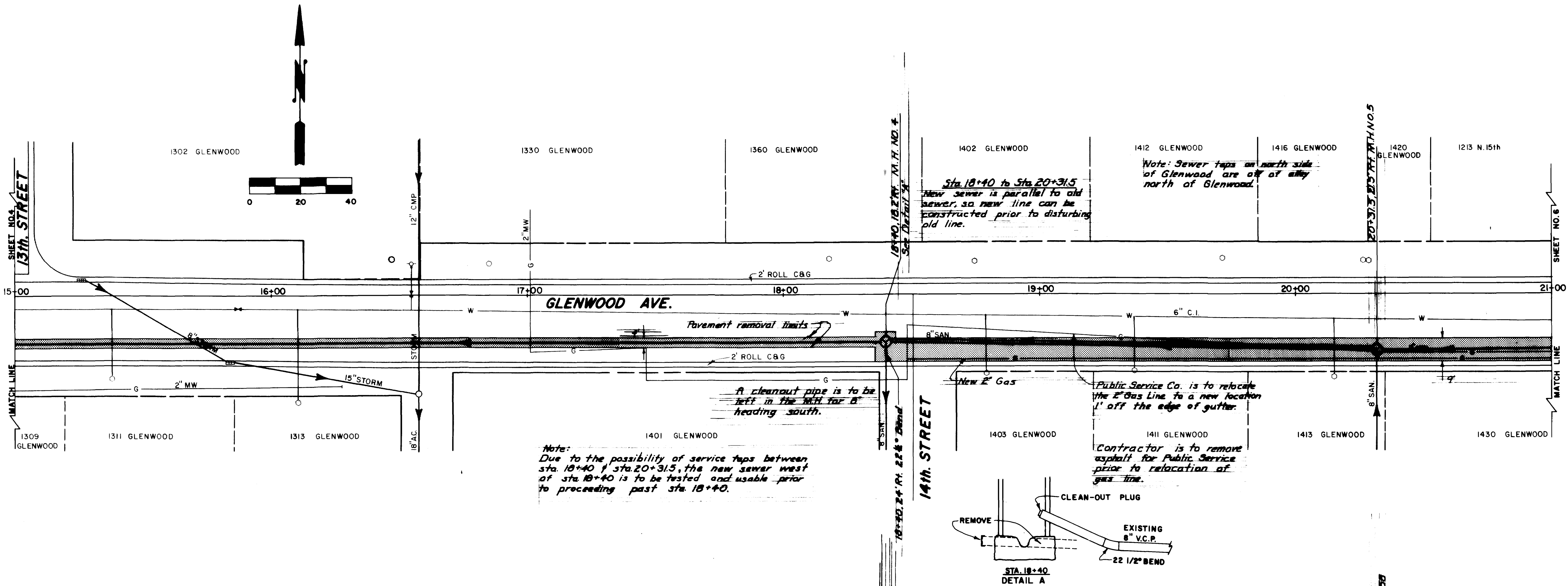


DESCRIPTION	DATE	DRAWN BY PSF	DATE 11/23/83	SCALE
REVISION Δ		CHECKED BY TAB	DATE 1/11/84	PLAN
REVISION Δ		APPROVED BY JJB	DATE 1/13/84	HORIZ. 1"=20'
REVISION Δ		FIELD BOOK NO. 11-11	PAGE 202-212	PROFILE
				HORIZ. 1"=20'
				VERT. 1"=5'

DEPARTMENT OF PUBLIC WORKS AND UTILITIES
ENGINEERING DIVISION
CITY OF GRAND JUNCTION, COLORADO

SANITARY SEWER REPLACEMENTS
GLENWOOD AVE.
CONSTRUCTION PLAN & PROFILE

SHEET NO. 4
 OF 15
 FILE NO.



Note:
Due to the possibility of service taps between sta. 18+40 & sta. 20+31.5, the new sewer west of sta. 18+40 is to be tested and usable prior to proceeding past sta. 18+40.

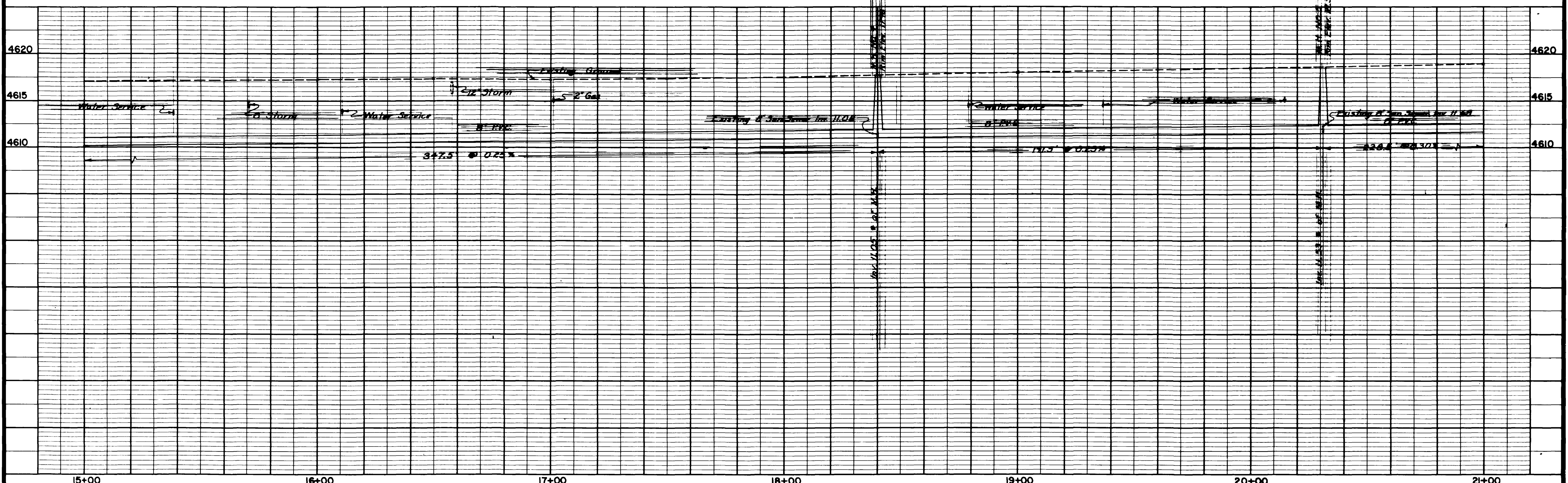
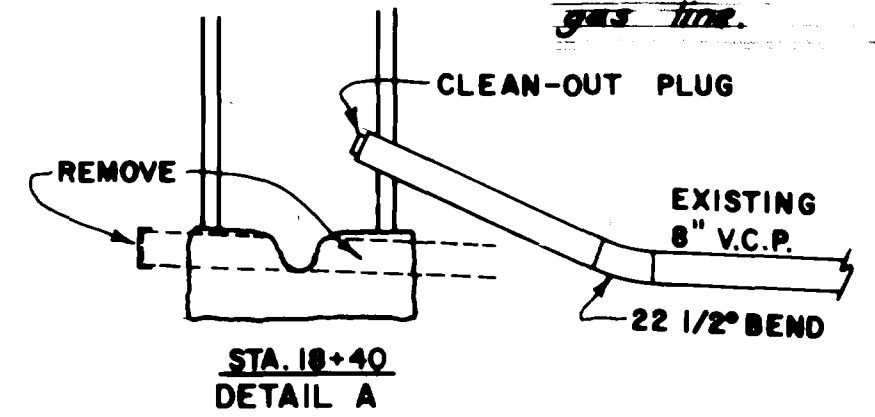
Sta. 18+40 to Sta. 20+31.5
New sewer is parallel to old sewer, so new line can be constructed prior to disturbing old line.

Note: Sewer taps on north side of Glenwood are off of alley north of Glenwood.

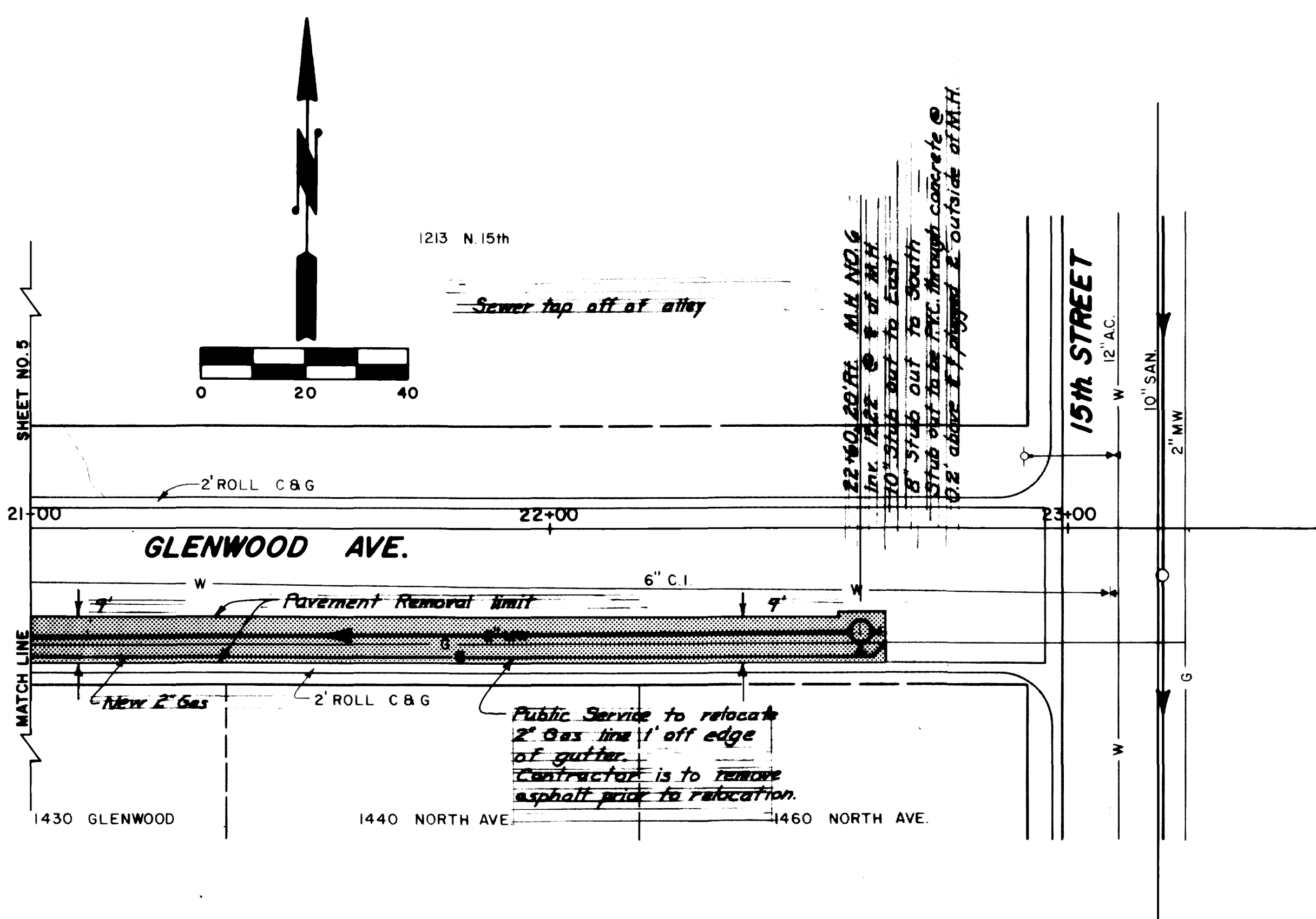
A cleanout pipe is to be left in the "M" for "B" heading south.

Public Service Co. is to relocate the 2" Gas Line to a new location 1' off the edge of gutter.

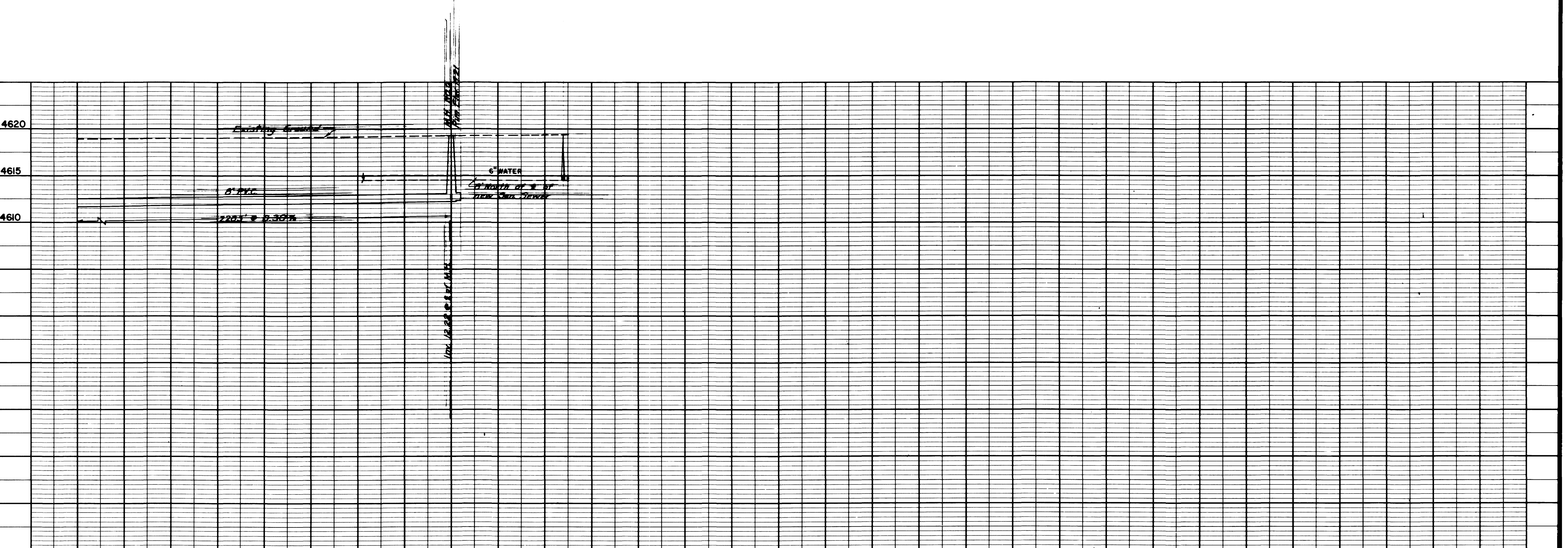
Contractor is to remove asphalt for Public Service prior to relocation of gas line.



REVISION Δ REVISION Δ REVISION Δ REVISION Δ	DESCRIPTION DATE DRAWN BY PSF CHECKED BY TAB APPROVED BY JJB FIELD BOOK NO. 11-11	DATE 11/29/83 DATE 11/11/84 DATE 11/13/84 PAGE 202-212	SCALE PLAN HORIZ. 1"=20' PROFILE HORIZ. 1"=20' VERT. 1"=5'	DEPARTMENT OF PUBLIC WORKS AND UTILITIES ENGINEERING DIVISION CITY OF GRAND JUNCTION, COLORADO	SANITARY SEWER REPLACEMENTS GLENWOOD AVE. CONSTRUCTION PLAN & PROFILE	SHEET NO. 5 OF 15 FILE NO.
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- General Notes:**
- Concrete work done in the public Right-of-way shall be by a contractor licensed with the City of Grand Junction to perform such work.
 - It shall be the contractor's responsibility to locate & verify all information about existing utilities prior to construction.
 - Contractor is to repair any damaged water, sewer and gas mains or services. This shall be considered incidental to sewer line construction.
 - If any asphalt is removed unnecessarily in the opinion of the Engineer, it shall be replaced at the contractor's expense.
 - All ends of abandoned lines shall be plugged with concrete or compression style plugs.
 - Shading designates concrete removal area.
 - The trench shall be backfilled daily, a 10 foot section will be allowed at the end of the line under construction at night. This shall be barricaded and fenced off daily at the contractor's expense. The trench crossing 12th Street shall be backfilled and paved the same day.
 - P.V.C. service lines shall be laid at 2% grade.
 - 4" services which connect at manholes shall be set 0.2' above flowline of manhole invert.
 - P.V.C. pipe shall be ASTM D 3034 SDR 35.
 - Mainline shub-outs shall be made with pipe 2' larger in diameter.
 - Manhole rings elevations shall be field adjusted to match existing surface.

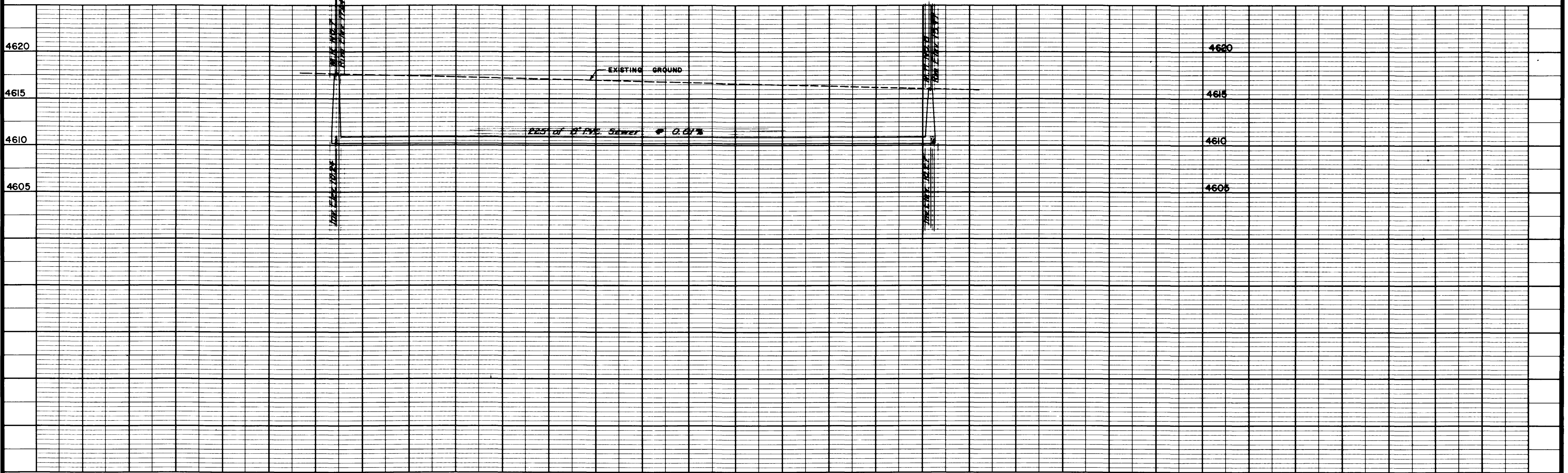
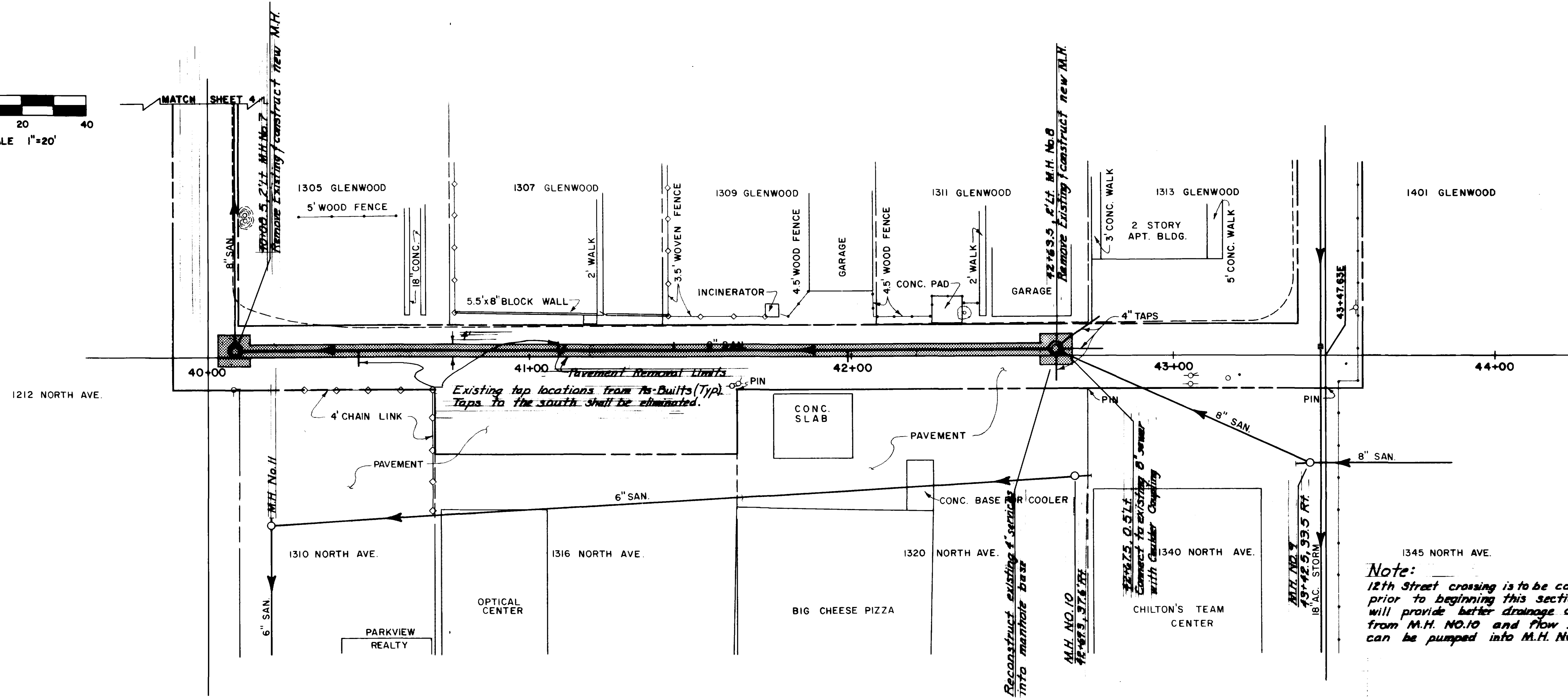
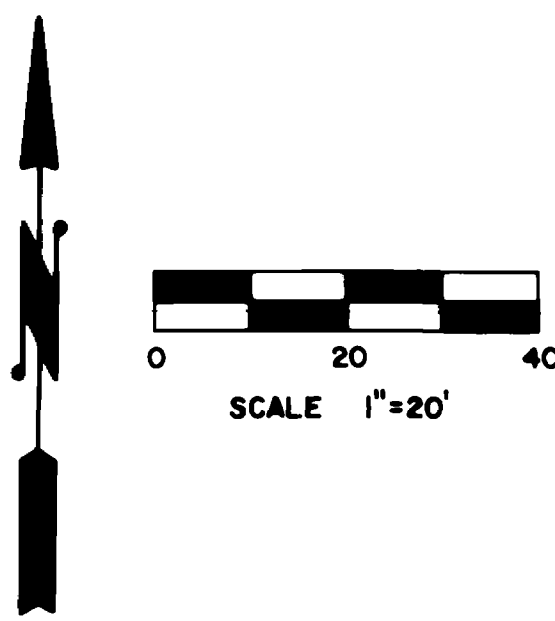


REVISION Δ	DESCRIPTION	DATE	DRAWN BY PSF	DATE 11/30/83	SCALE PLAN PROFILE HORIZ. 1"=20' HORIZ. 1"=20' VERT. 1"=5'
REVISION Δ			CHECKED BY TAB	DATE 1/11/84	
REVISION Δ			APPROVED BY JJB	DATE 1/13/84	
REVISION Δ			FIELD BOOK NO. 11	PAGE 202-212	

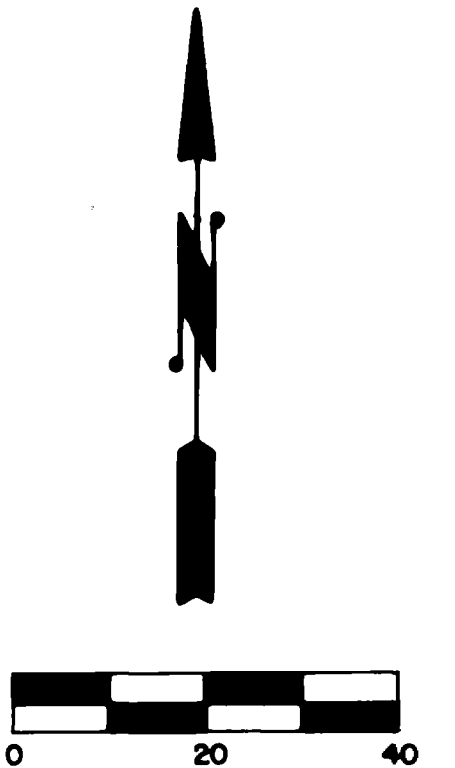
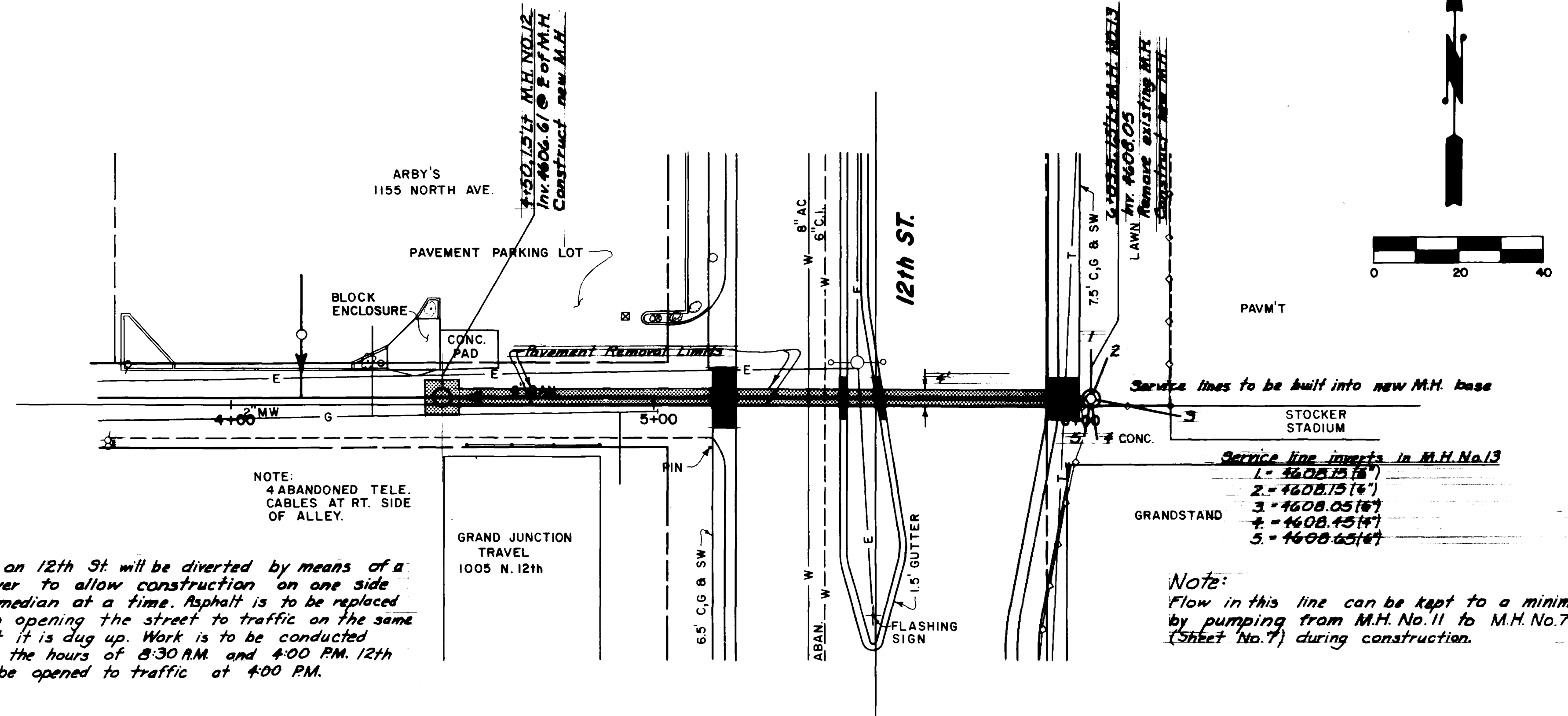
DEPARTMENT OF PUBLIC WORKS AND UTILITIES
ENGINEERING DIVISION
CITY OF GRAND JUNCTION, COLORADO

SANITARY SEWER REPLACEMENTS
GLENWOOD AVE.
CONSTRUCTION PLAN & PROFILE

SHEET NO. 6
OF 15
FILE NO.



REVISION Δ	DESCRIPTION	DATE	DRAWN BY PSF	DATE 12/19/83	SCALE PLAN PROFILE HORIZ. 1"=20' HORIZ. 1"=20' VERT. 1"=5'	DEPARTMENT OF PUBLIC WORKS AND UTILITIES ENGINEERING DIVISION CITY OF GRAND JUNCTION, COLORADO	SANITARY SEWER REPLACEMENTS ALLEY-13th TO 14th ST. BTWN NORTH AVE. & GLENWOOD CONSTRUCTION PLAN & PROFILE	SHEET NO. 7
REVISION Δ			CHECKED BY TAB	DATE 1/11/84				OF 15
REVISION Δ			APPROVED BY JJB	DATE 1/13/84				FILE NO.
REVISION Δ			FIELD BOOK NO. 11 * 11	PAGE 202-212				



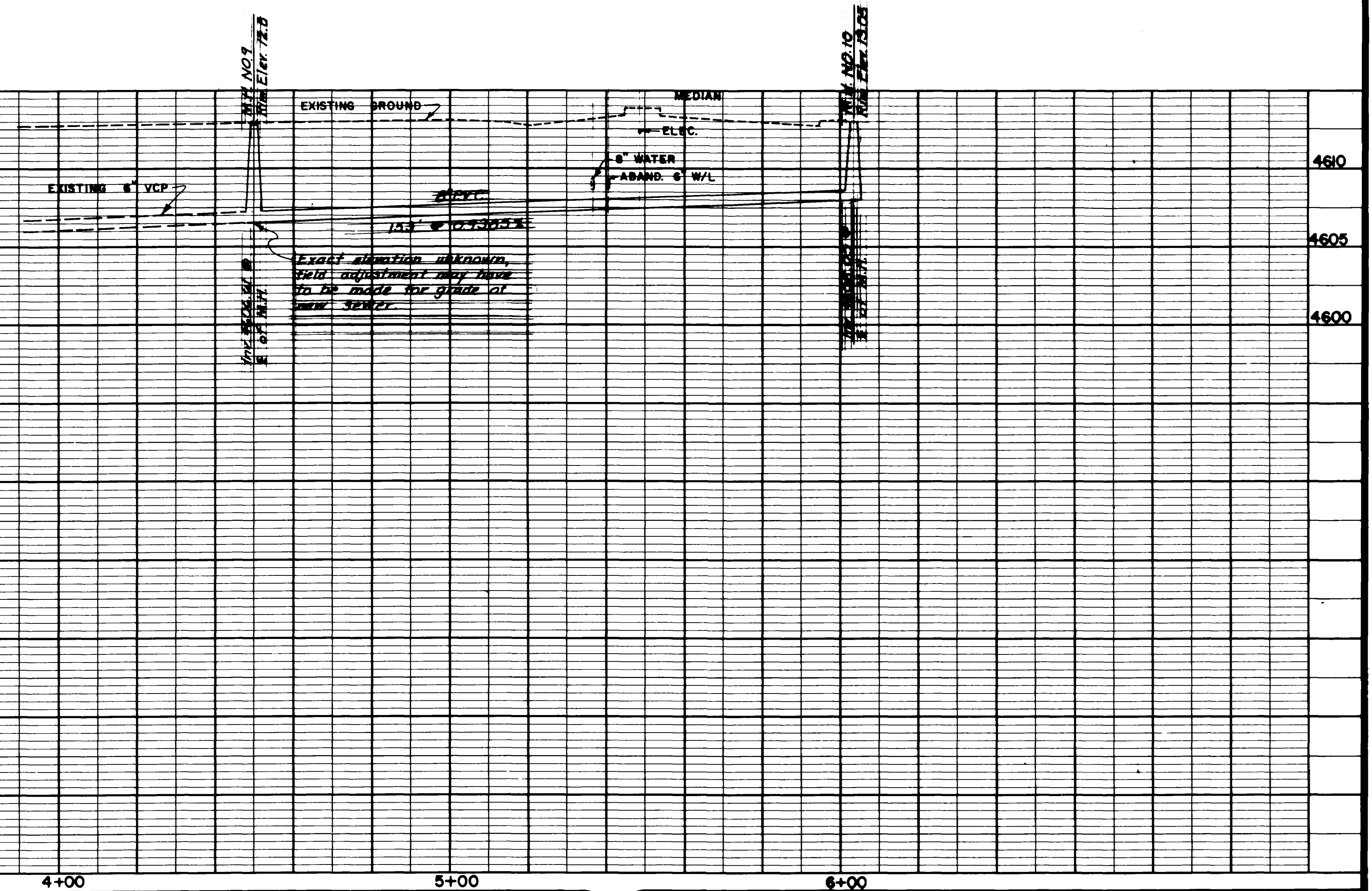
Note:
 Traffic on 12th St will be diverted by means of a cross-over to allow construction on one side of the median at a time. Asphalt is to be replaced prior to opening the street to traffic on the same day that it is dug up. Work is to be conducted between the hours of 8:30 AM and 4:00 PM. 12th ST will be opened to traffic at 4:00 PM.

Service lines to be built into new M.H. base

Service line inverts in M.H. No. 13

1 - 4608.15 (6')
2 - 4608.15 (6')
3 - 4608.05 (6')
4 - 4608.45 (6')
5 - 4608.05 (6')

Note:
 Flow in this line can be kept to a minimum by pumping from M.H. No. 11 to M.H. No. 7 (Sheet No. 7) during construction.



REVISION Δ	DESCRIPTION	DATE	DRAWN BY <i>RJF</i>	DATE <i>12/14/83</i>	SCALE PLAN: HORIZ. 1"=20' PROFILE: HORIZ. 1"=20' VERT. 1"=5'
REVISION Δ			CHECKED BY <i>TAB</i>	DATE <i>1/11/84</i>	
REVISION Δ			APPROVED BY <i>WLB</i>	DATE <i>1/13/84</i>	
REVISION Δ			FIELD BOOK NO. <i>LL #12</i>	PAGE <i>306-307</i>	

DEPARTMENT OF PUBLIC WORKS AND UTILITIES
ENGINEERING DIVISION
CITY OF GRAND JUNCTION, COLORADO

SANITARY SEWER REPLACEMENT
ALLEY-11th TO 12th ST BTWN NORTH & BELFORD AVE.
CONSTRUCTION PLAN & PROFILE

SHEET NO. 8
 OF 15
 FILE NO.