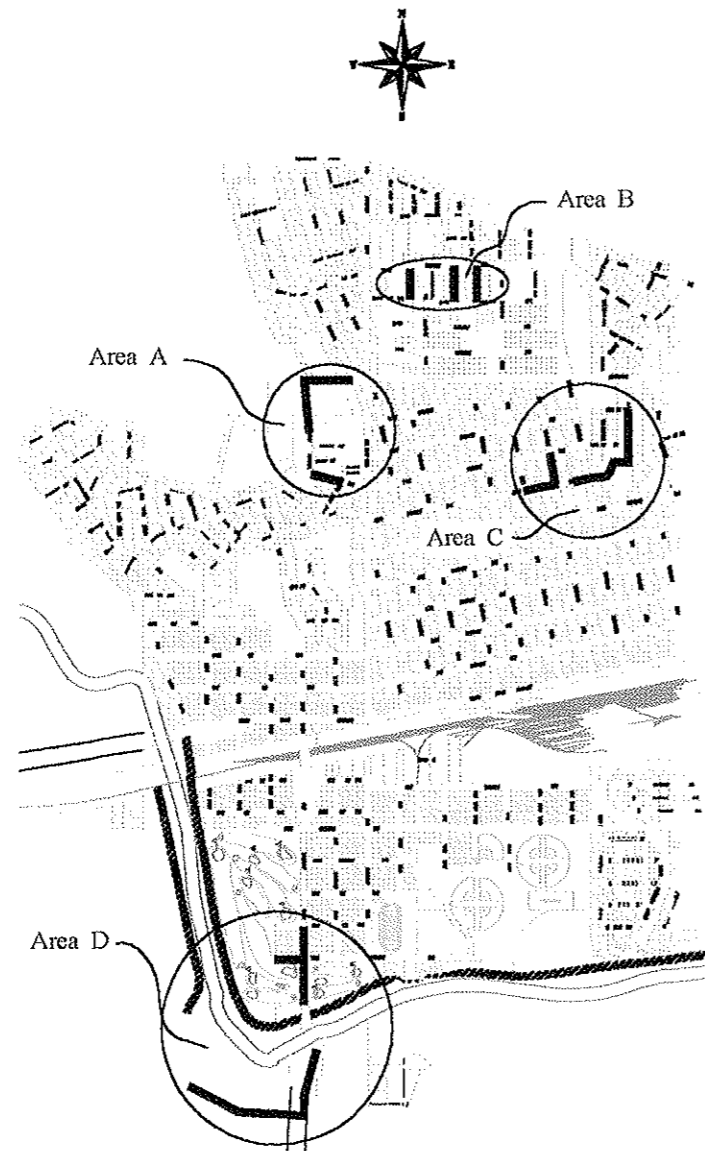


PROJECT LOCATION MAP

NOT TO SCALE



PROJECT SHEET INDEX

AREA A

- SHEET 1A - Division Street NW - from Sunset Drive to Parking Lot Entrance
- SHEET 2A - Division Street NW - from Parking Lot Entrance to West Terminus
- SHEET 3A - Community Center Parking Lot - from Division St NW to 9th St NW
- SHEET 4A - 7th Street NW - from 9th Avenue NW to West Terminus

AREA C

- SHEET 1C - 6th Street NW - from 2nd Avenue NW to 1st Avenue NW
- SHEET 2C - 6th Street NW - from 1st Avenue NW to Collins Avenue
- SHEET 3C - 1st Avenue NW - from 6th Street NW to 7th Street NW
- SHEET 4C - 6th Street NE - from Collins Avenue to Alley
- SHEET 5C - 6th Street NW - from Alley to 1st Avenue NE
- SHEET 6C - 1st Avenue NE - from 6th Street NE to 7th Street NE
- SHEET 7C - 1st Avenue NE - from 7th Street NE to 8th Street NE

AREA B

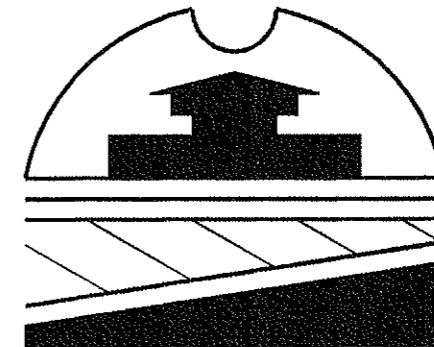
- SHEET 1B - 3RD AVE NW - BETWEEN 14TH AND 19TH STREET NW
- SHEET 2B - CENTRAL AVE NW - BETWEEN 14TH AND 19TH STREET NW
- SHEET 3B - 5TH AVE NW - BETWEEN 14TH AND 19TH STREET NW

AREA D

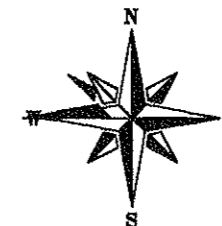
- SHEET 1D - 10th Avenue SW - from 6th Street SW to 7th Street SW
- SHEET 2D - 10th Avenue SW - from 7th Street SW to Legion Park
- SHEET 3D - 7th Street SW - from 10th Avenue SW to vacated 11th Avenue SW
- SHEET 4D - 10th Avenue SW - from Legion Park to Heart River
- SHEET 5D - 10th Avenue SW - from Heart River south to end of Highway 6 bridge
- SHEET 6D - Highway 6 - from end of bridge south to GPRC approach
- SHEET 7D - GPRC approach - from Highway 6 west to wye in road
- SHEET 8D - GPRC approach - from wye in road west to watermain vault
- SHEET 9D - Legion Park - from 10th Avenue SW west approximately 400 feet

CITY OF
MANDAN

MANDAN CITY HALL - 205 2nd Avenue NW
MANDAN, NORTH DAKOTA 58554



CONSTRUCTION PLANS
FOR
WATER IMPROVEMENT
MANDAN, NORTH DAKOTA
PROJECT # 98-7

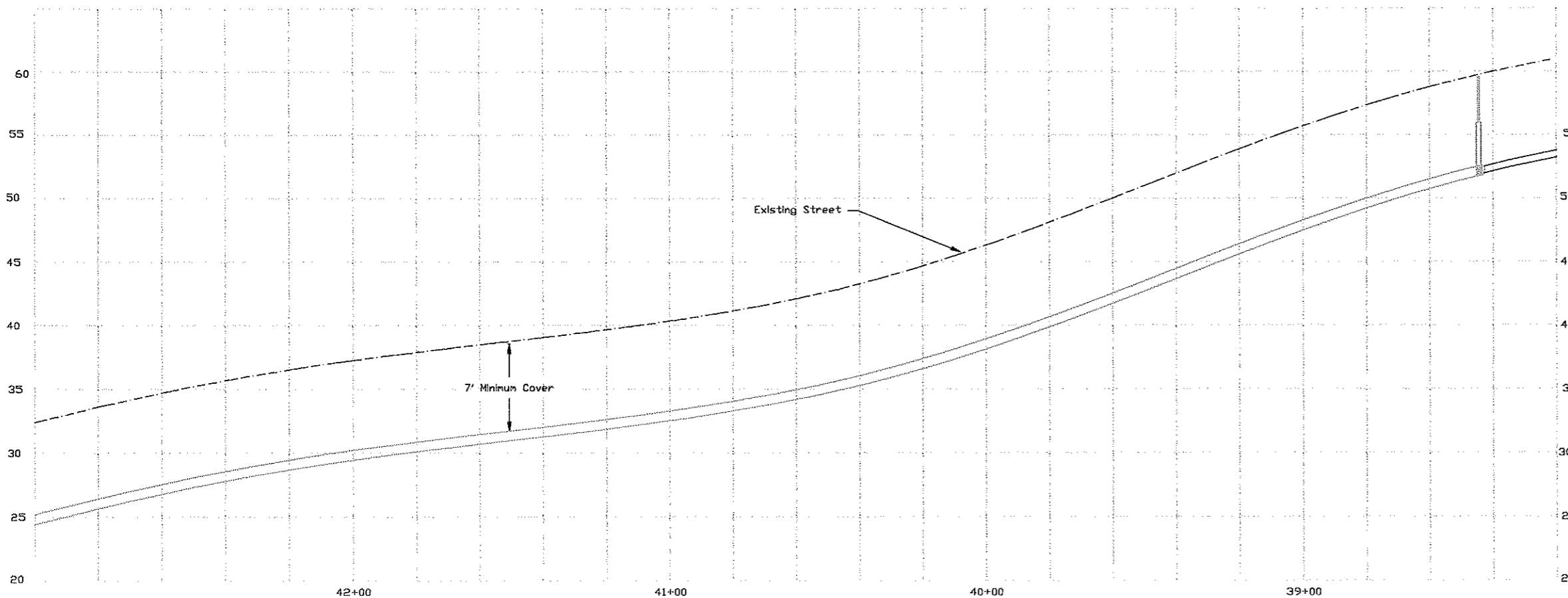
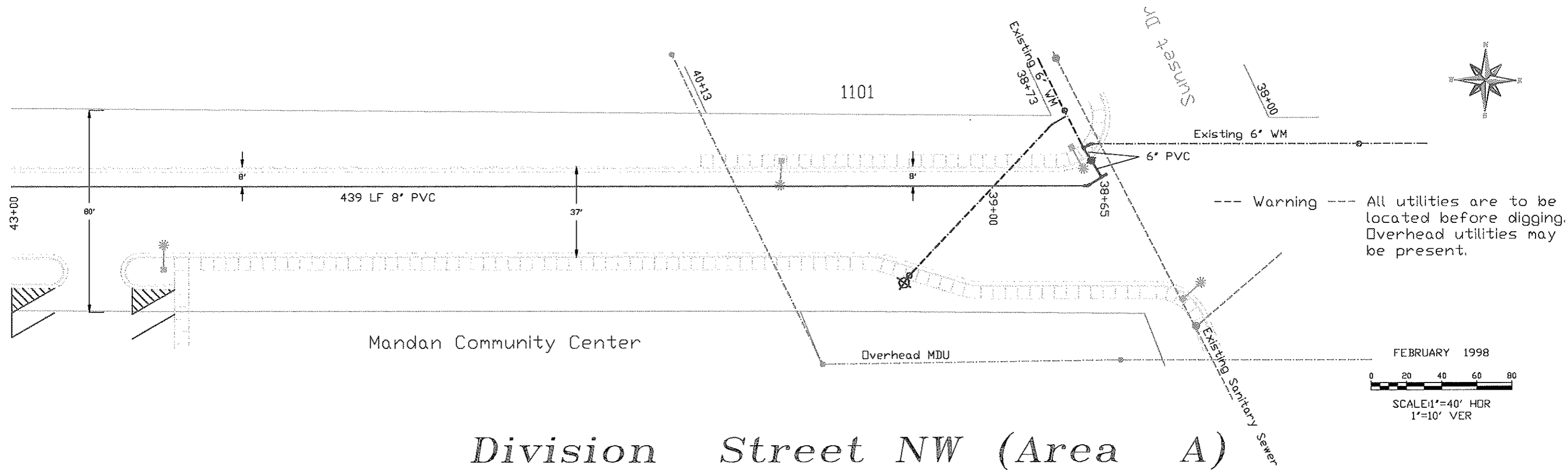


ENGINEER'S CERTIFICATE

I, THOMAS R. LITTLE, BEING A REGISTERED PROFESSIONAL ENGINEER HEREBY CERTIFY THAT THE ATTACHED PLANS WERE PREPARED UNDER MY SUPERVISION AND ARE COMPLETE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

THOMAS R. LITTLE
CITY ENGINEER

88

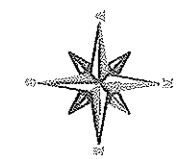
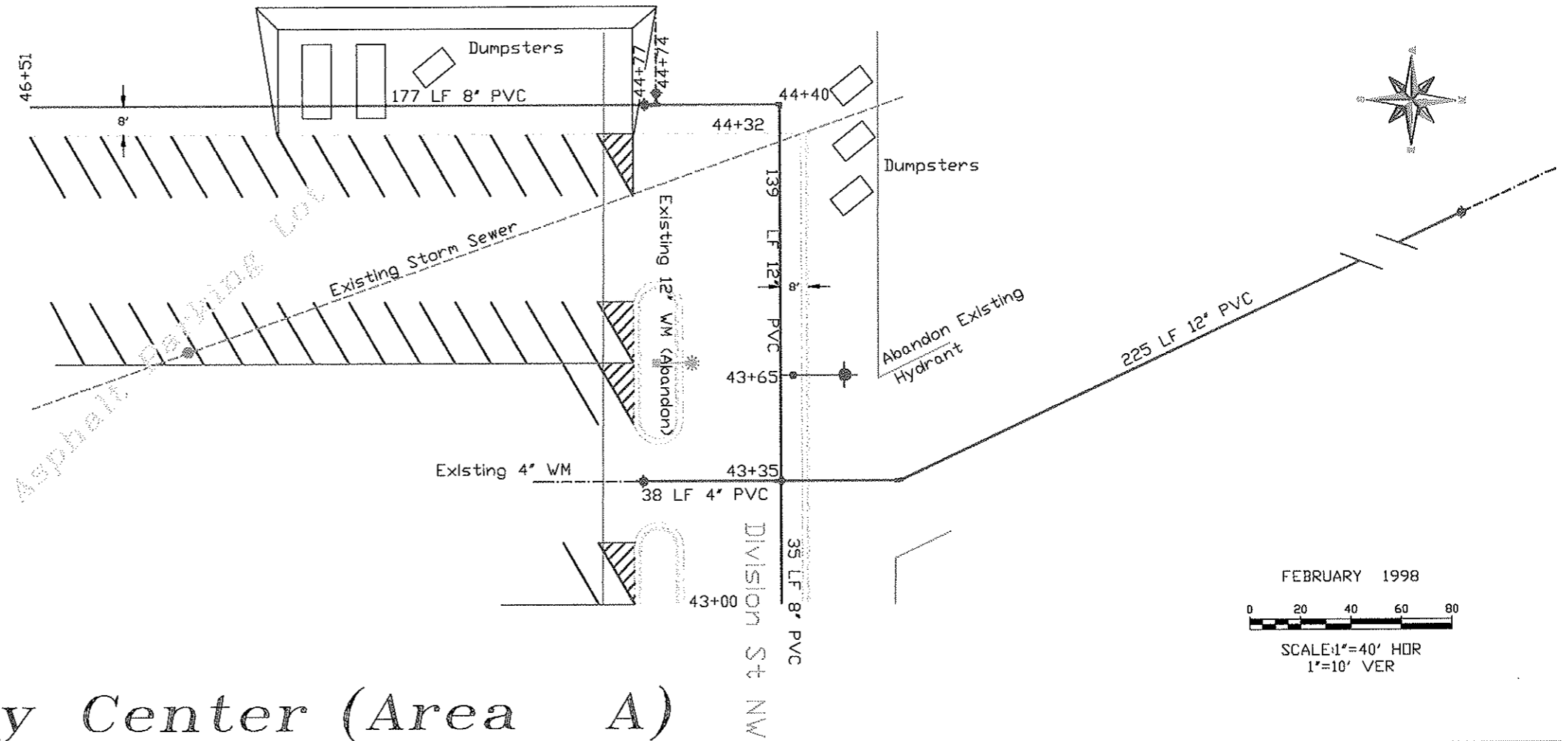


Construction Notes:

Service lines to be located in the field by the Engineer. Curb Stops will be marked with blue paint and arrows placed on the sidewalk. All service lines will be traced from each home to determine the best location of each tie to the water main.

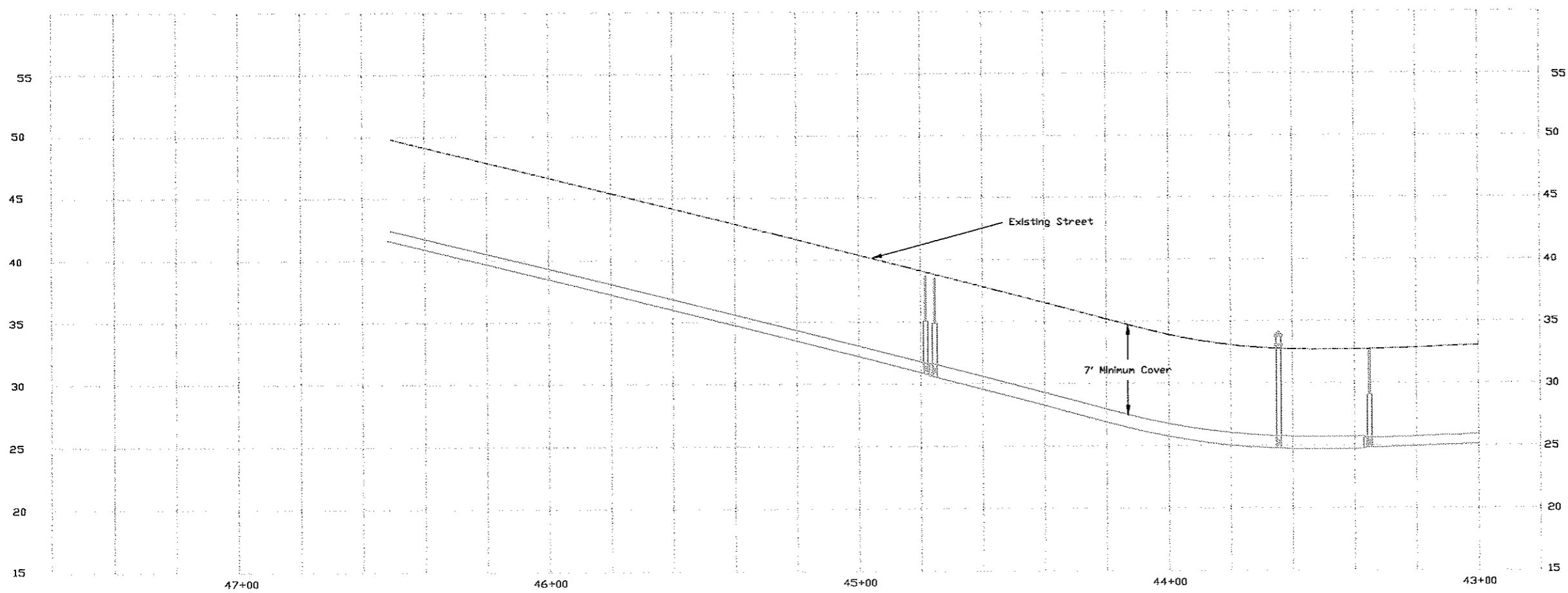
DATE	REV. BY	APPR. BY	DESCRIPTION
12/2000	J.W.		ASBUILT
CITY OF MANDAN, NORTH DAKOTA ENGINEERING DEPARTMENT			
WATER IMPROVEMENT PROJECT #98-7 Division Street NW			
CITY ENST. I.	DRAWN BY	J.W.	SCALE AS SHOWN
APPR. BY	CHECKED BY		DATE
PROJECT NO. 98-7	DISTRICT NO.	N/A	SHEET 1A OF 4A

--- Warning --- All utilities are to be located before digging.
 Overhead utilities may be present.



FEBRUARY 1998
 0 20 40 60 80
 SCALE: 1"=40' HOR
 1"=10' VER

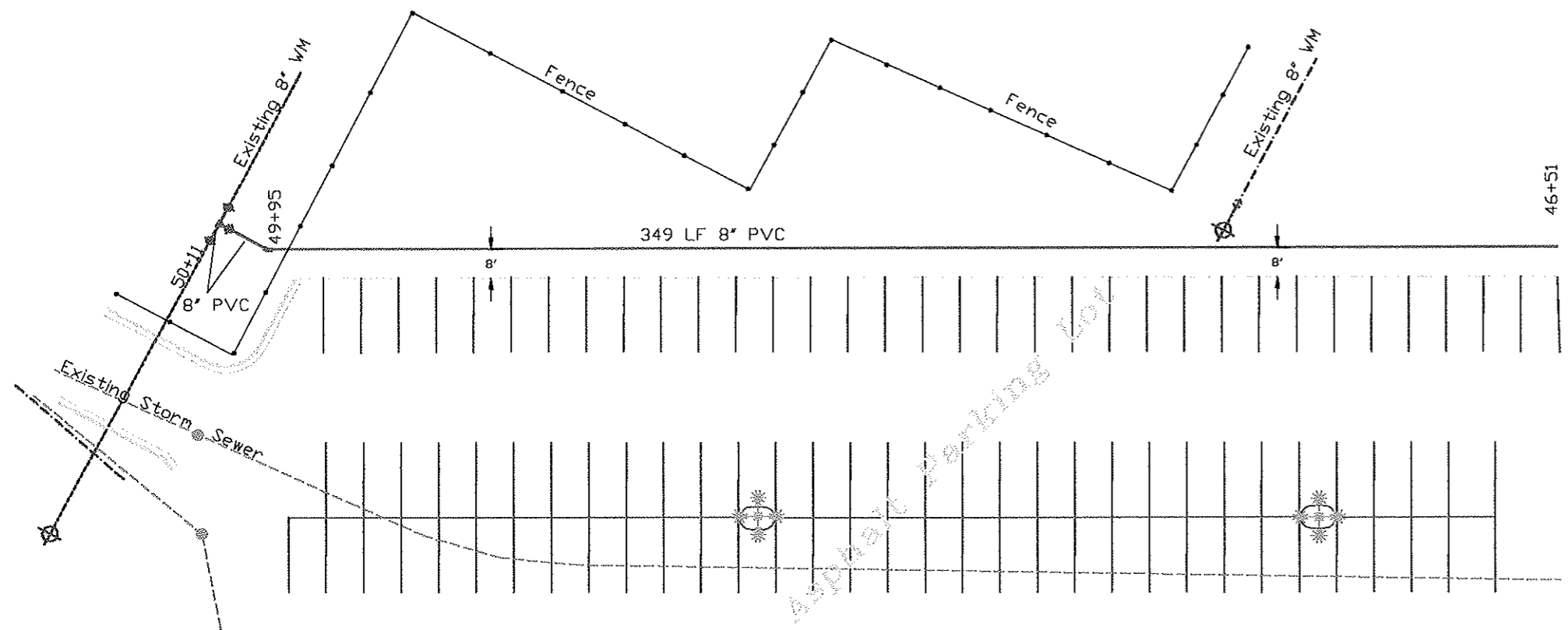
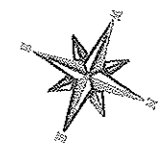
Community Center (Area A)



Construction Notes:

Service lines to be located in the field by the Engineer. Curb Stops will be marked with blue paint and arrows placed on the sidewalk. All service lines will be traced from each home to determine the best location of each tie to the water main.

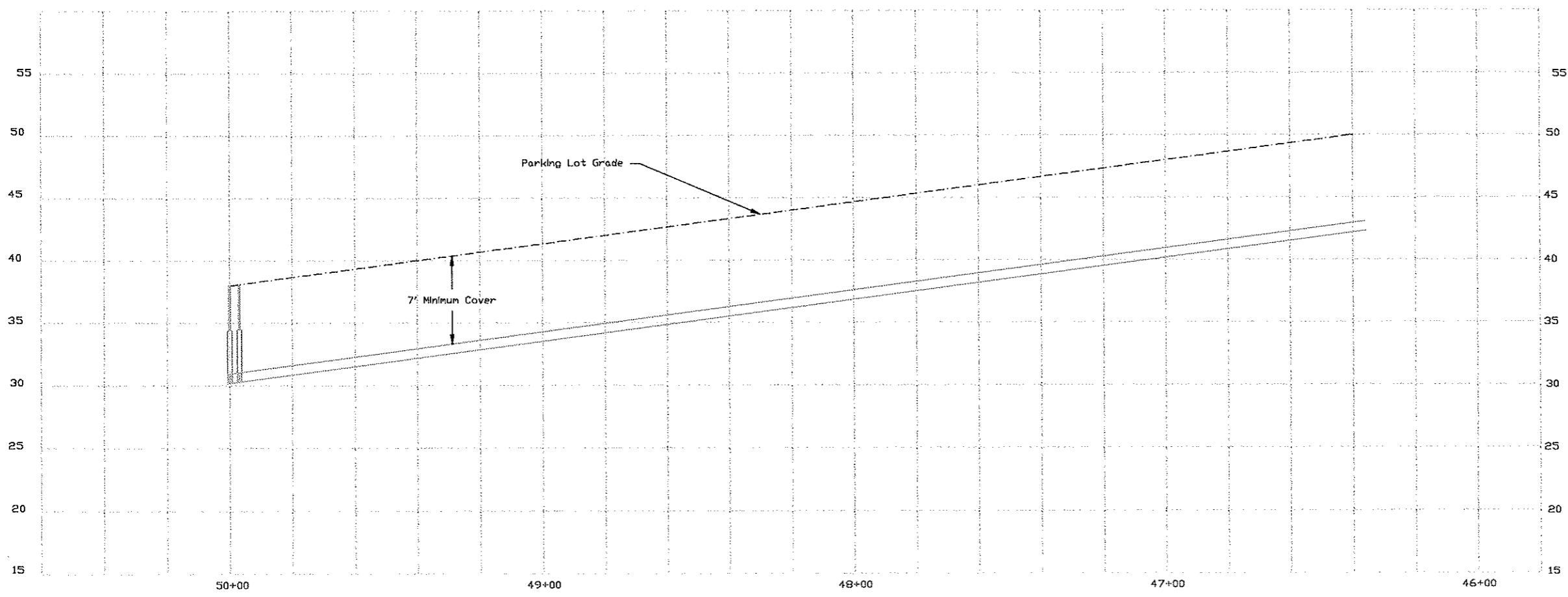
12/2000	J.W.	ASBUILT			
DATE	REV. BY	DESCRIPTION			
CITY OF MANDAN, NORTH DAKOTA ENGINEERING DEPARTMENT					
WATER IMPROVEMENT PROJECT #98-7 Community Center Parking Lot					
CITY ENG.	T.L.	DRAWN BY	J.W.	SCALE	AS SHOWN
APPR. BY		CHECKED BY		DATE	
PROJECT NO.	98-7	DISTRICT NO.	N/A	SHEET	2A OF 4A



--- Warning --- All utilities are to be located before digging. Overhead utilities may be present.

FEBRUARY 1998
 0 20 40 60 80
 SCALE: 1"=40' HOR
 1"=10' VER

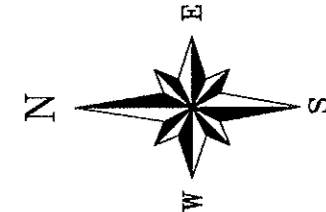
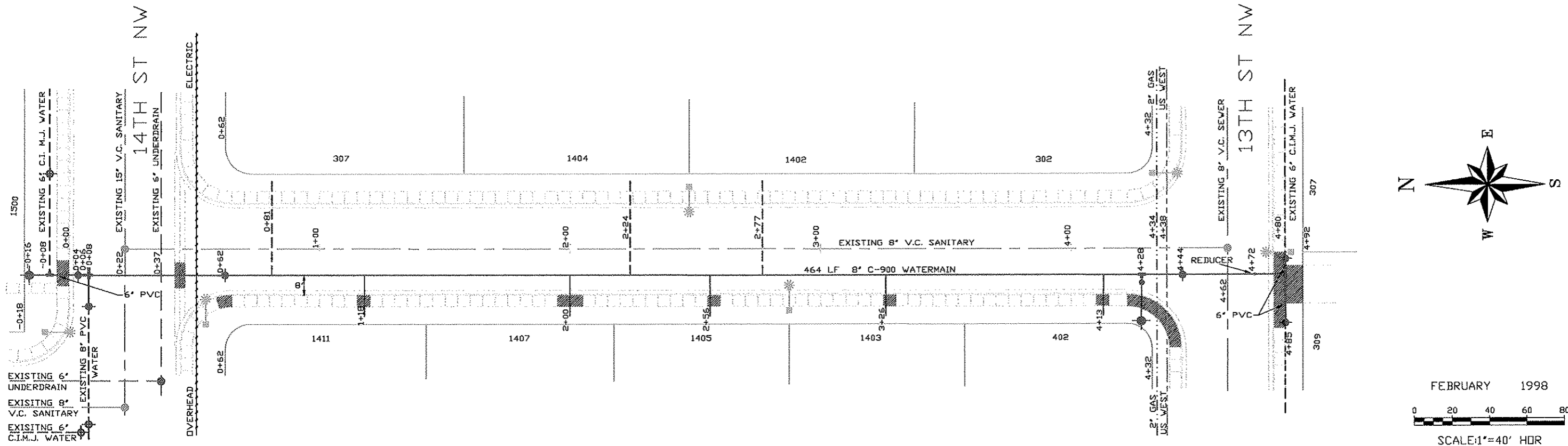
Community Center Parking Lot (Area A)



Construction Notes:

Service lines to be located in the field by the Engineer. Curb Stops will be marked with blue paint and arrows placed on the sidewalk. All service lines will be traced from each home to determine the best location of each tie to the water main.

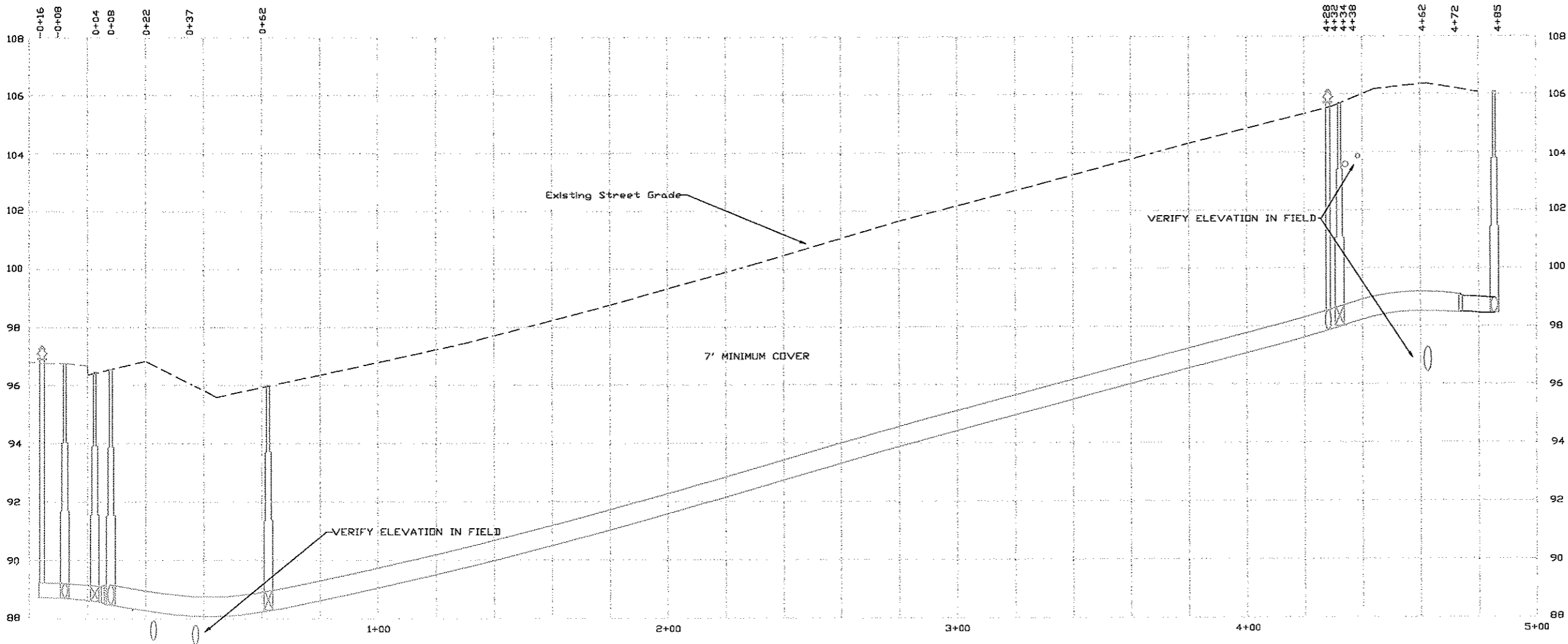
DATE	REV. BY	APPR. BY	DESCRIPTION
12/2000	J.W.		ASBUILT
CITY OF MANDAN, NORTH DAKOTA ENGINEERING DEPARTMENT			
WATER IMPROVEMENT PROJECT #98-7 Community Center Parking Lot			
CITY ENR	T.L.	DRAWN BY	J.W.
APPR. BY		CHECKED BY	
PROJECT NO.	98-7	DISTRICT NO.	N/A
		SCALE:	AS SHOWN
		SHEET	3A OF 4A



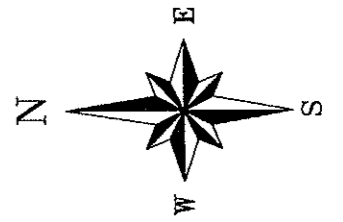
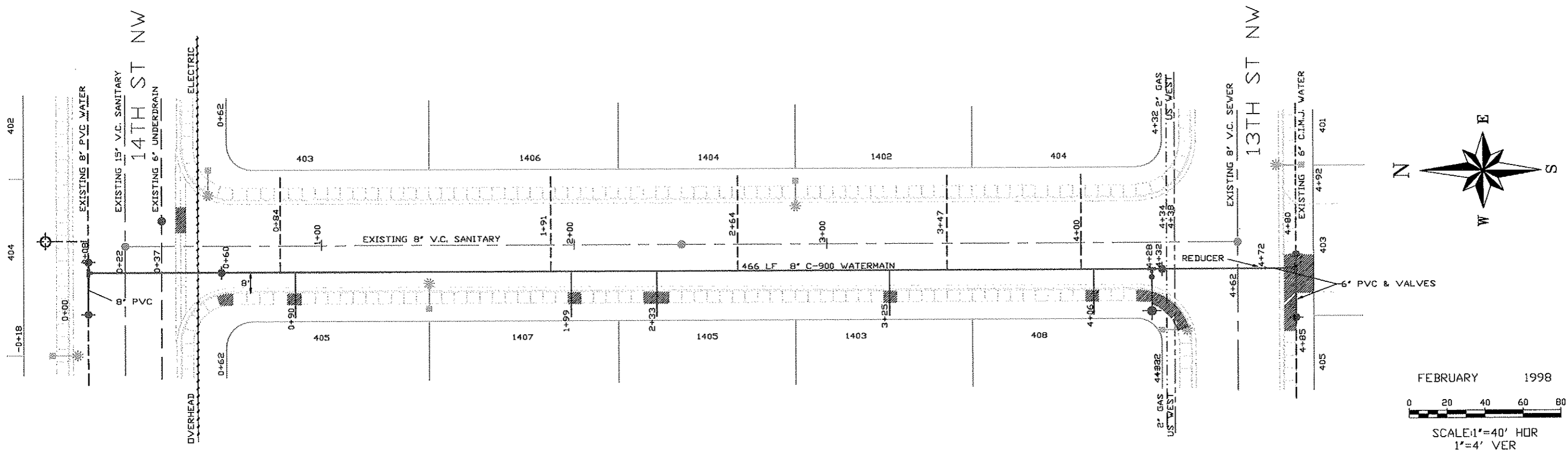
FEBRUARY 1998

SCALE: 1"=40' HOR
1"=4' VER

3RD AVENUE NW (AREA B)



12/2000	J.W.		ASBUILT
DATE	REV. BY	APPR. BY	DESCRIPTION
CITY OF MANDAN, NORTH DAKOTA ENGINEERING DEPARTMENT			
WATER IMPROVEMENT PROJECT #98-7 3RD AVENUE NW			
CITY ENG.	T.L.	DRAWN BY	J.W. SCALE: AS SHOWN
APPR. BY		CHECKED BY	DATE
PROJECT NO.	98-7	DISTRICT NO.	N/A SHEET 1B OF 3B

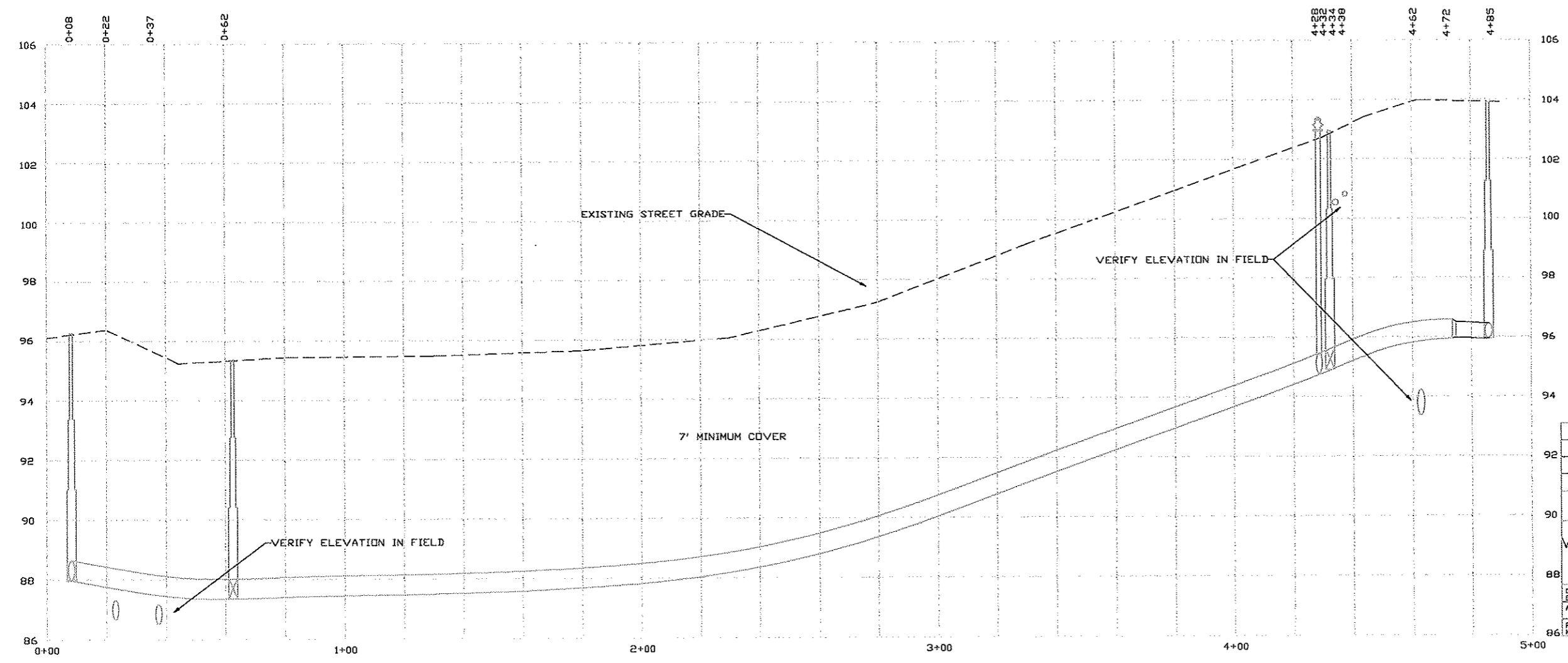


FEBRUARY 1998

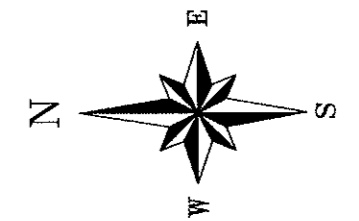
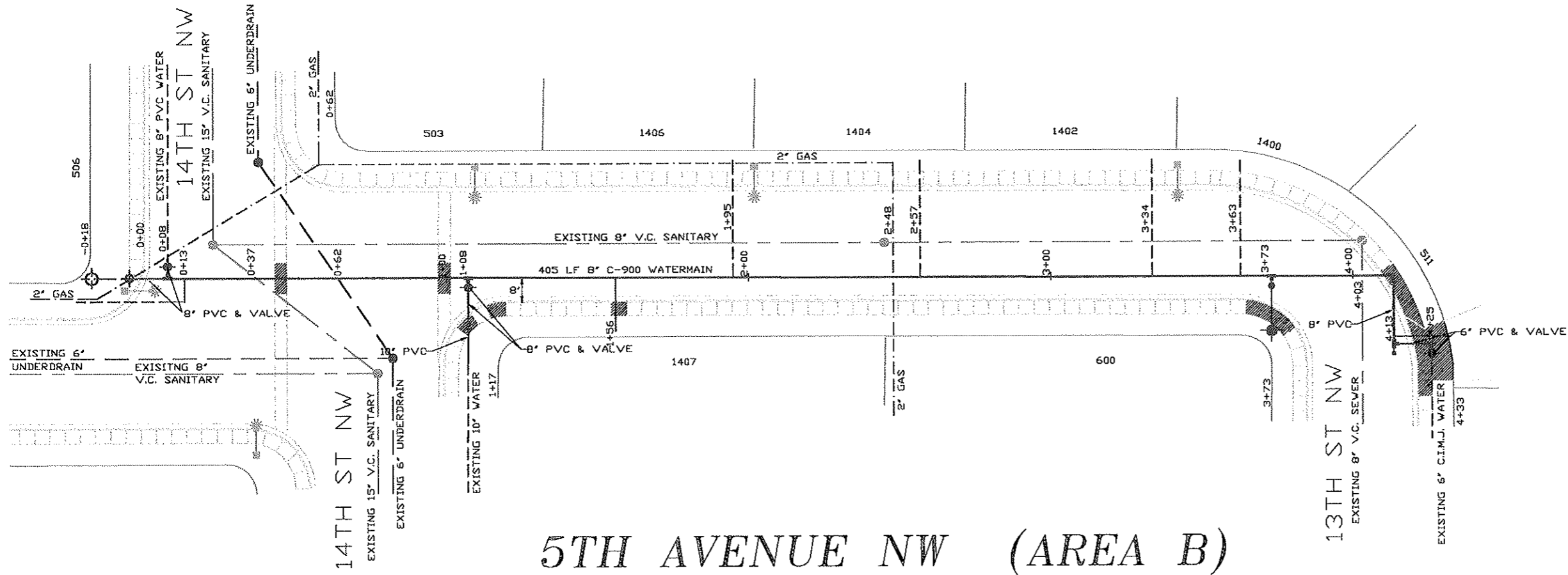
0 20 40 60 80

SCALE: 1" = 40' HOR
1" = 4' VER

CENTRAL AVENUE NW (AREA B)



DATE	REV. BY	APPR. BY	DESCRIPTION
12/2000	J.W.		ASBUILT
CITY OF MANDAN, NORTH DAKOTA ENGINEERING DEPARTMENT			
WATER IMPROVEMENT PROJECT #98-7 CENTRAL AVENUE NW			
CITY ENG.	T.L.	DRAWN BY	J.W. SCALE AS SHOWN
APPR. BY		CHECKED BY	DATE:
PROJECT	98-7	DISTRICT NO.	N/A SHEET 2B OF 3B

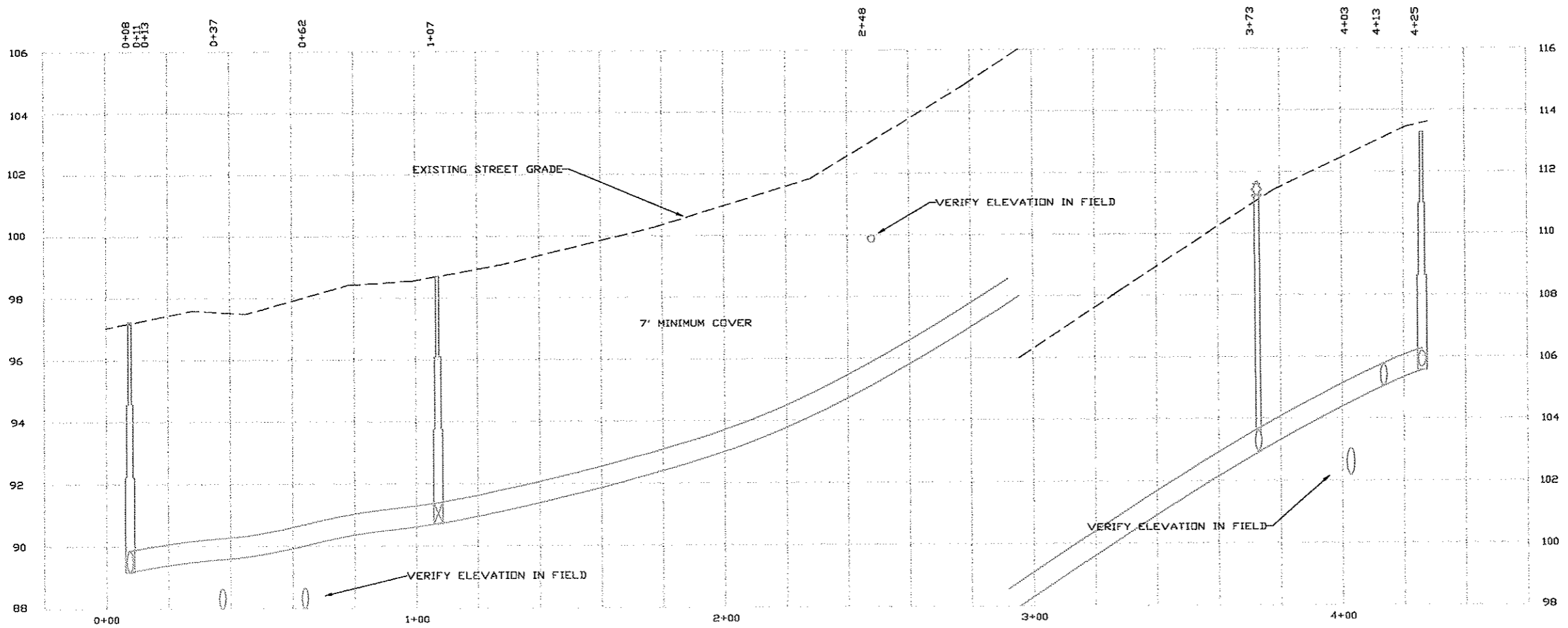


FEBRUARY 1998

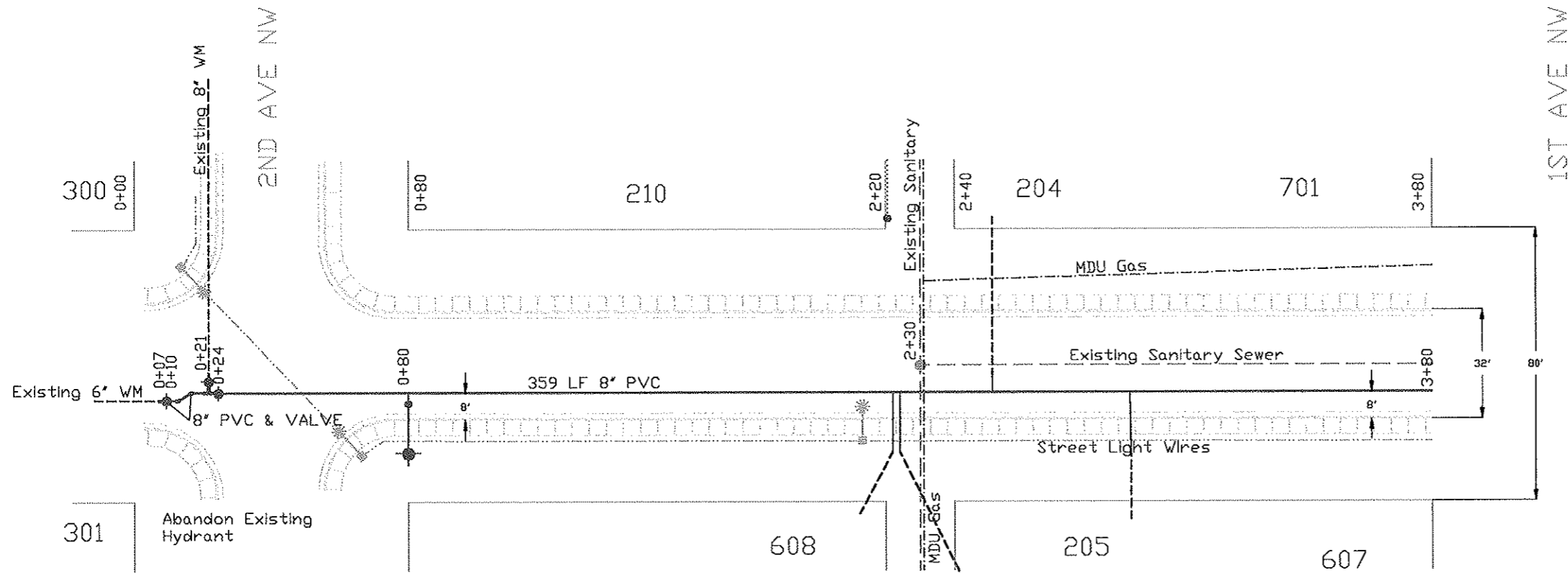
0 20 40 60 80

SCALE: 1"=40' HOR
1"=4' VER

5TH AVENUE NW (AREA B)



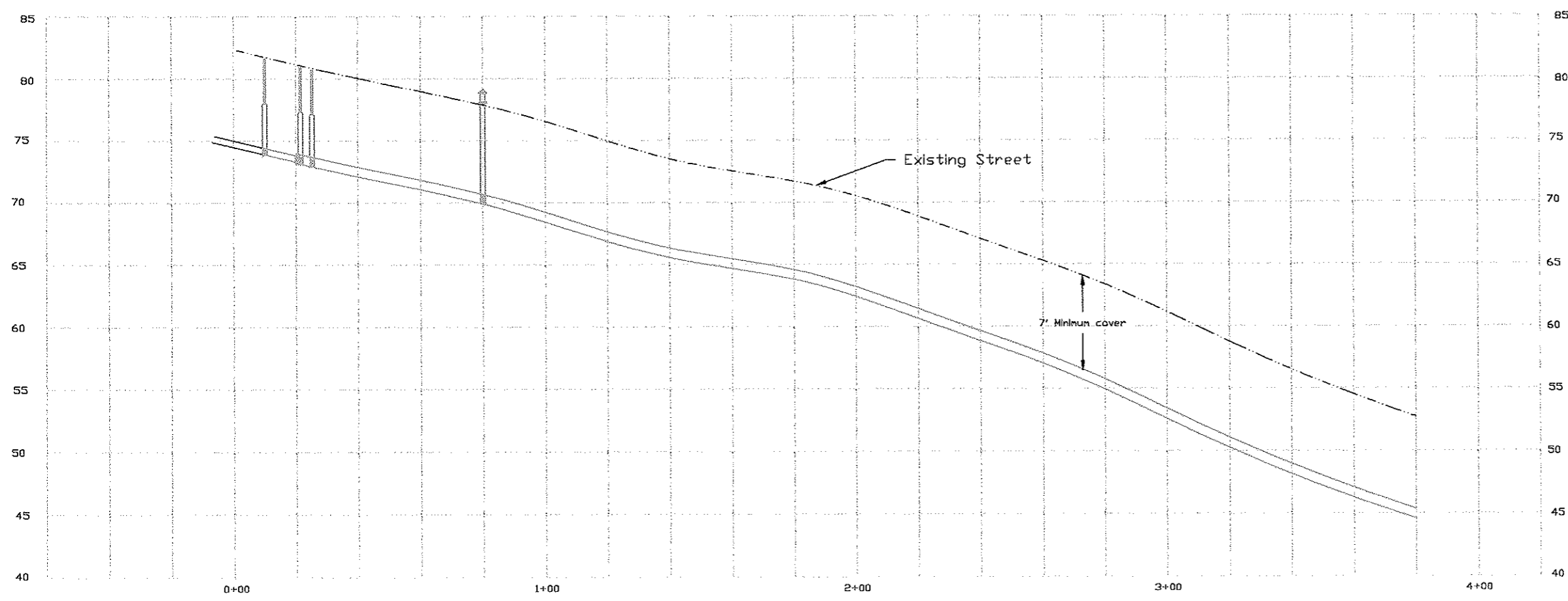
12/2000	J.W.		ASBUILT
DATE	REV. BY	APPR. BY	DESCRIPTION
CITY OF MANDAN, NORTH DAKOTA			
ENGINEERING DEPARTMENT			
WATER IMPROVEMENT PROJECT #98-7			
5TH AVENUE NW			
CITY ENG.	T.L.	DRAWN BY	J.W. SCALE: AS SHOWN
APPR. BY		CHECKED BY	DATE:
PROJECT NO.	98-7	DISTRICT NO.	N/A SHEET 3B OF 3B



--- Warning --- All utilities are to be located before digging. Overhead utilities may be present.

FEBRUARY 1998
 0 20 40 60 80
 SCALE 1"=40' HOR
 1"=10' VER

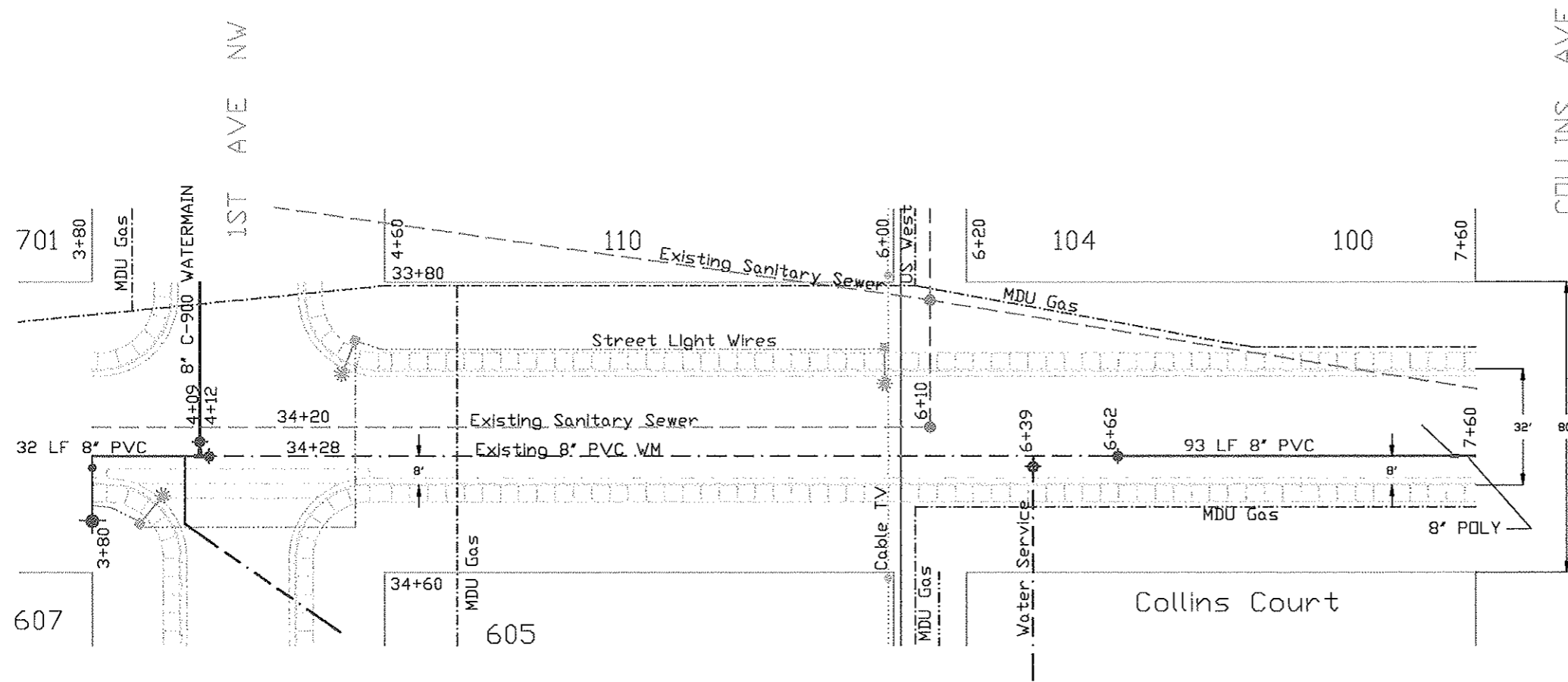
6th Street NW (Area C)



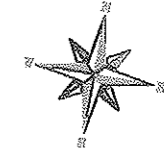
Construction Notes:

Service lines to be located in the field by the Engineer. Curb Stops will be marked with blue paint and arrows placed on the sidewalk. All service lines will be traced from each home to determine the best location of each tie to the water main.

DATE	REV. BY	APPR. BY	DESCRIPTION
12/2000	J.W.		ASBUILT
CITY OF MANDAN, NORTH DAKOTA ENGINEERING DEPARTMENT			
WATER IMPROVEMENT PROJECT #98-7 6TH STREET NW			
CITY ENG.	T.L.	DRAWN BY	J.W.
APPR. BY		CHECKED BY	
PROJECT NO.	98-7	DISTRICT NO.	N/A
SCALE	AS SHOWN		DATE
SHEET	1C	OF	7C

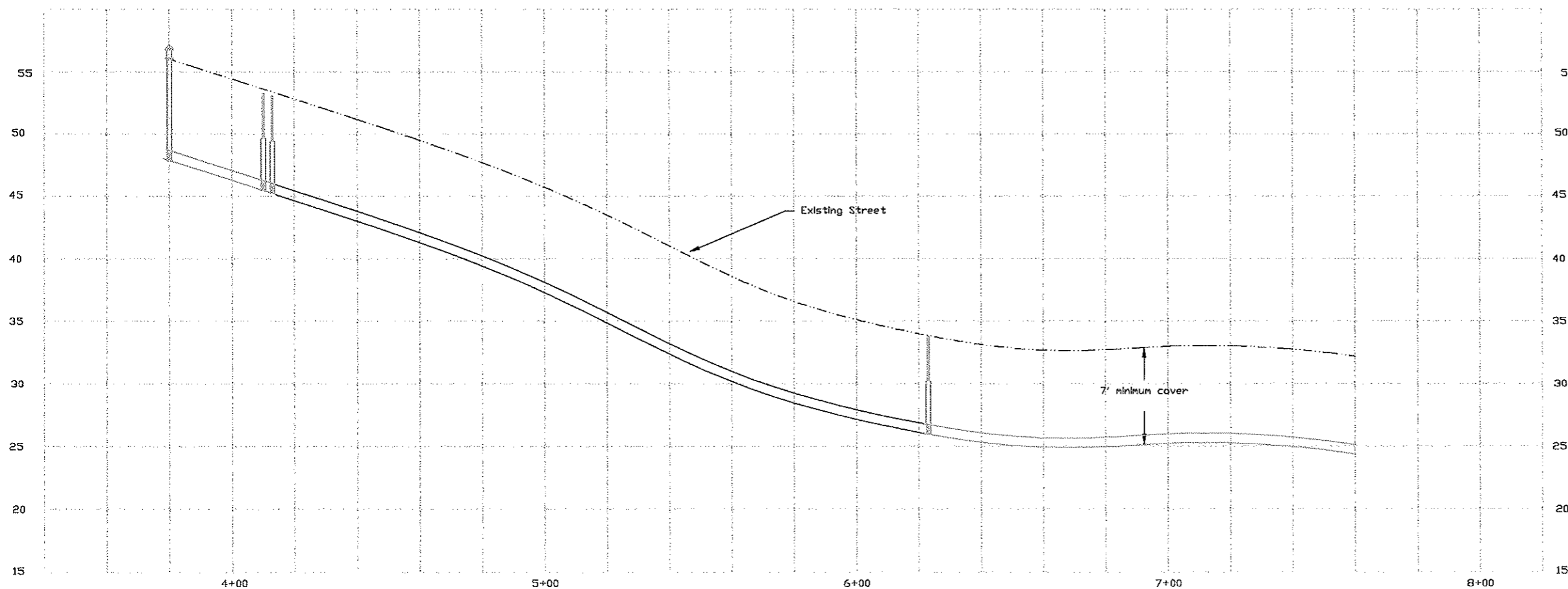


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FEBRUARY 1998
 0 20 40 60 80
 SCALE: 1"=40' HOR
 1"=10' VER

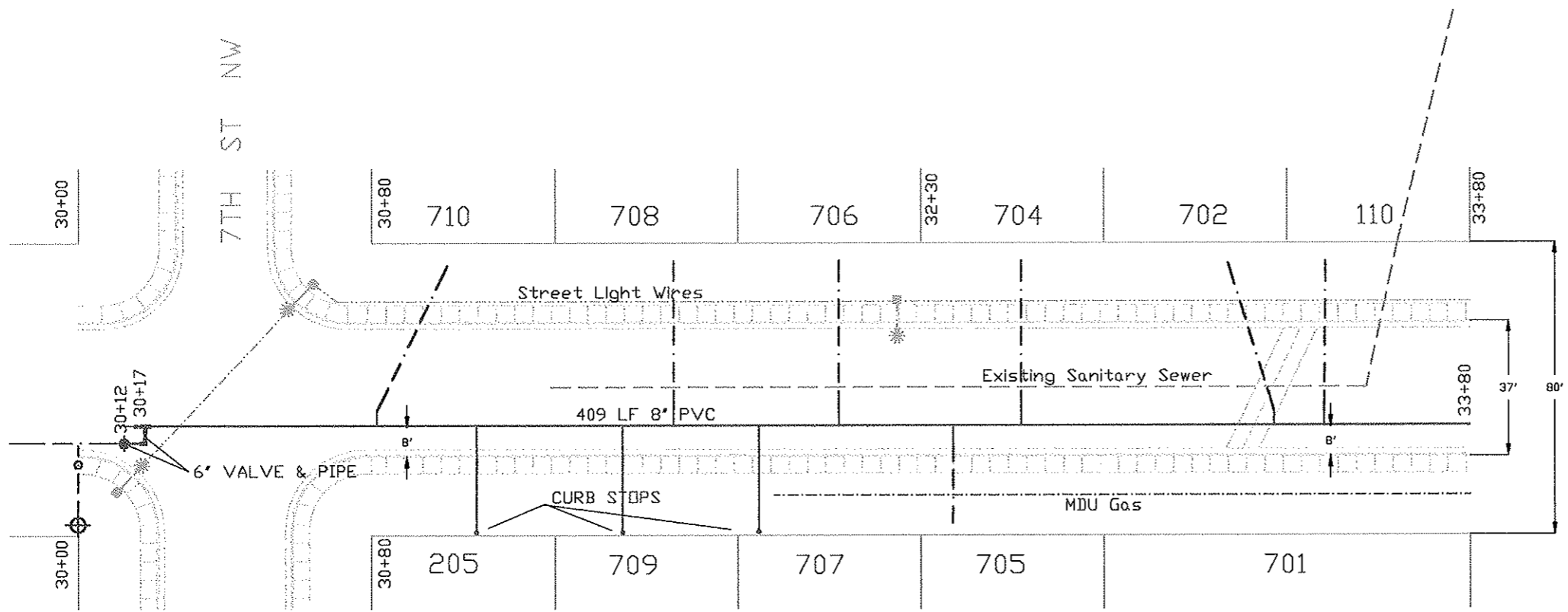
6th Street NW (Area C)



Construction Notes:

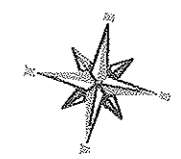
Service lines to be located in the field by the Engineer. Curb Stops will be marked with blue paint and arrows placed on the sidewalk. All service lines will be traced from each home to determine the best location of each tie to the water main.

12/2000	J.W.		ASBUILT
DATE	REV. BY	APPR. BY	DESCRIPTION
CITY OF MANDAN, NORTH DAKOTA ENGINEERING DEPARTMENT			
WATER IMPROVEMENT PROJECT #98-7 6TH STREET NW			
CITY ENG.	T.L.	DRAWN BY	J.W.
APPR. BY		CHECKED BY	
PROJECT NO.	98-7	DISTRICT NO.	N/A
		SCALE:	AS SHOWN
		DATE:	
		SHEET	2C OF 7C

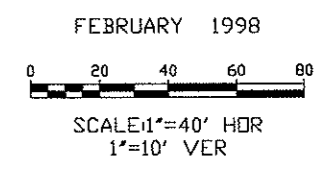


6TH ST NW

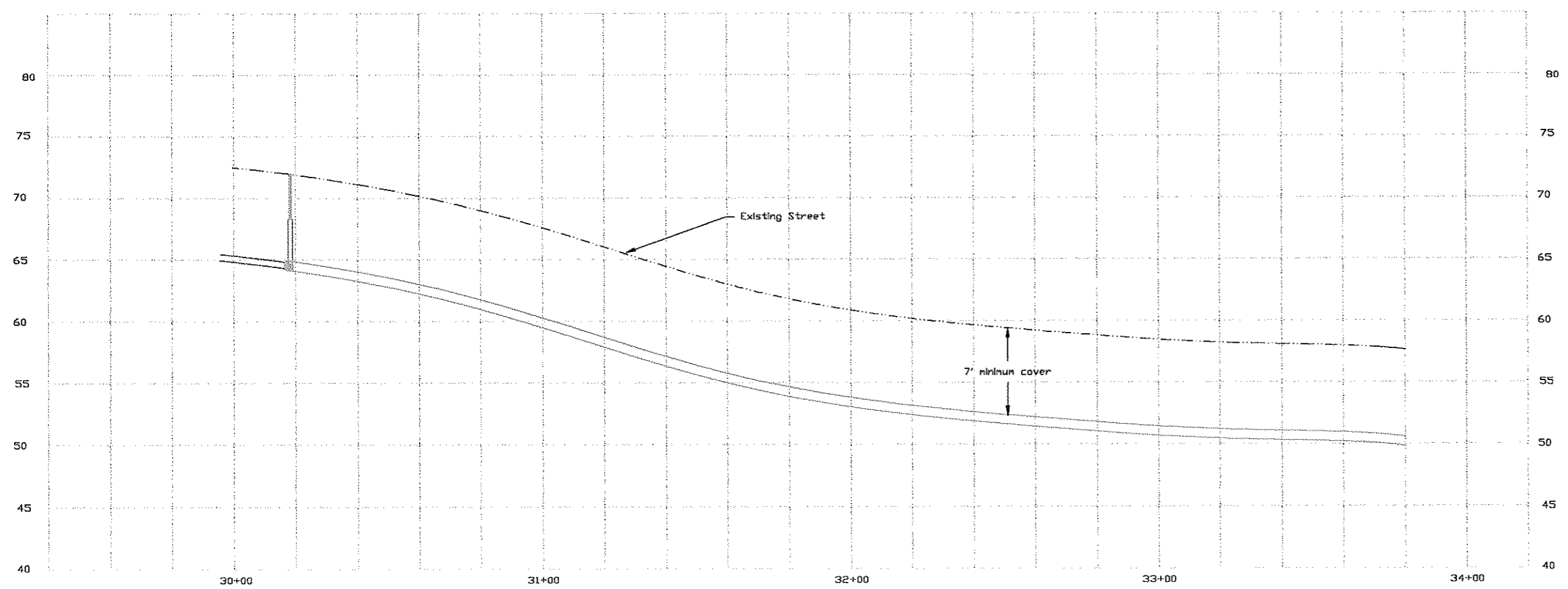
7TH ST NW



--- Warning --- All utilities are to be located before digging. Overhead utilities may be present.



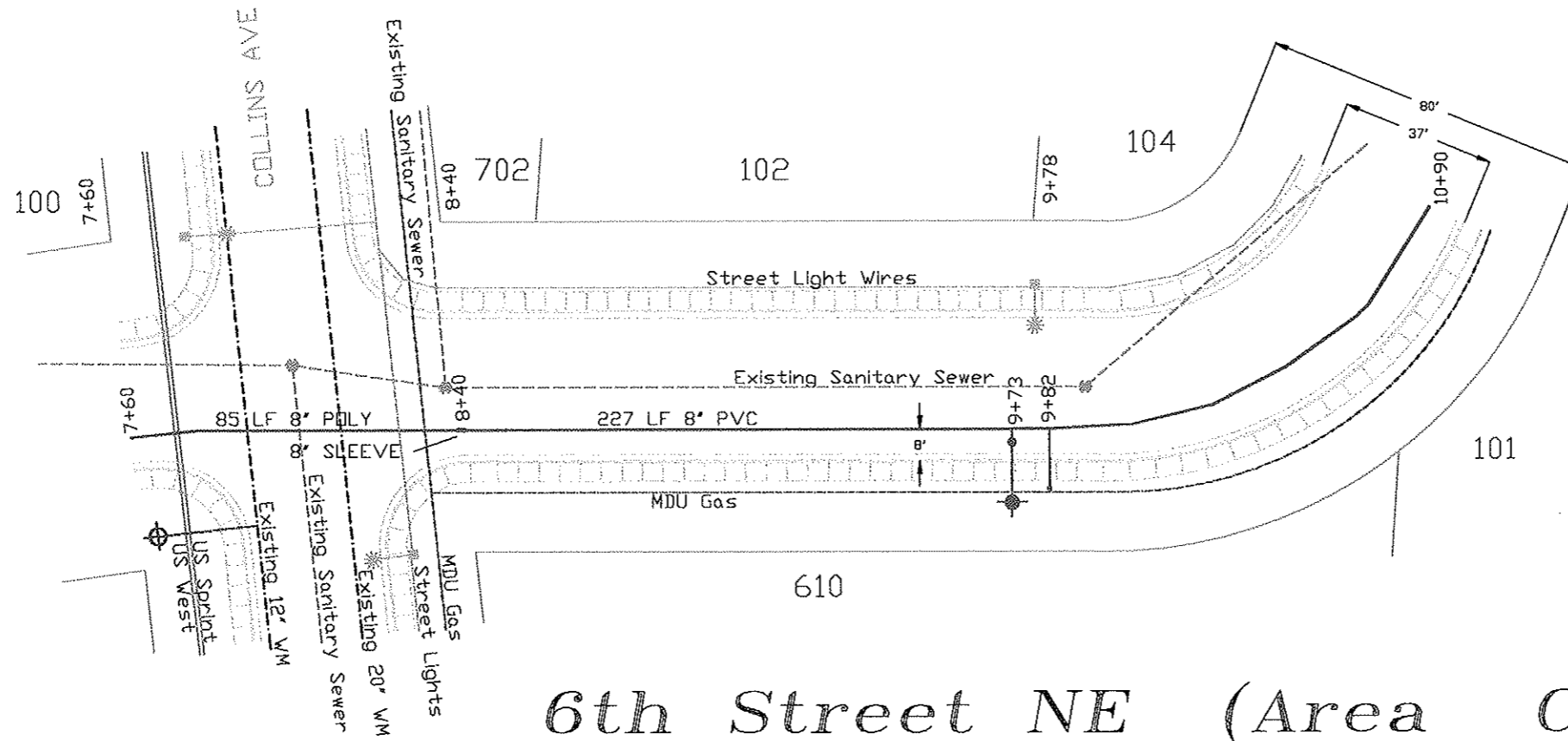
1st Avenue NW (Area C)



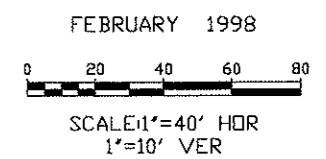
Construction Notes:

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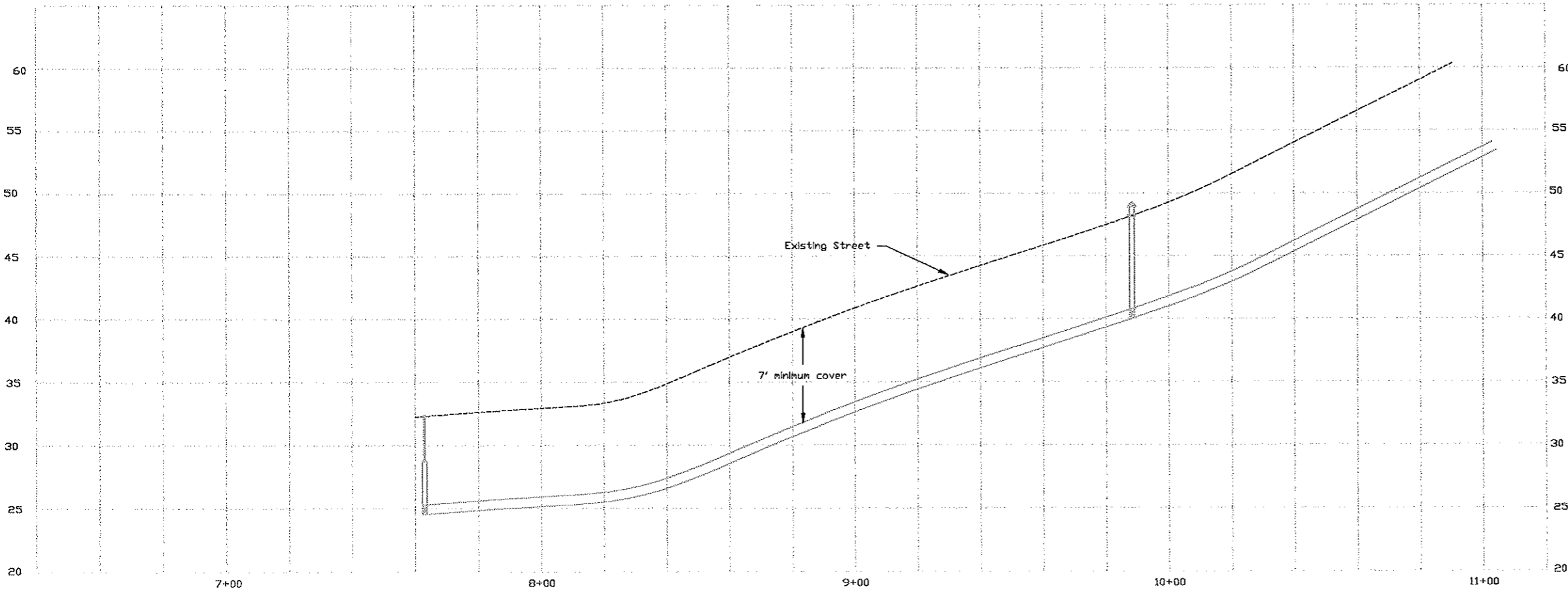
DATE	REV. BY	APPR. BY	DESCRIPTION
12/2000	J.W.		ASBUILT
CITY OF MANDAN, NORTH DAKOTA ENGINEERING DEPARTMENT			
WATER IMPROVEMENT PROJECT #98-7 1ST AVENUE NW			
CITY ENG. BY	T.L.	DRAWN BY	J.W.
APPR. BY		CHECKED BY	
PROJECT NO.	98-7	DISTRICT NO.	N/A
		SCALE:	AS SHOWN
		DATE:	
		SHEET	3C OF 7C



--- Warning --- All utilities are to be located before digging. Overhead utilities may be present.



6th Street NE (Area C)



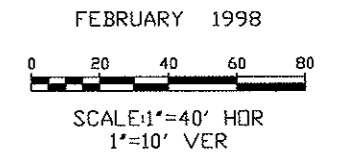
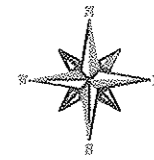
Construction Notes:

Service lines to be located in the field by the Engineer. Curb Stops will be marked with blue paint and arrows placed on the sidewalk. All service lines will be traced from each home to determine the best location of each tie to the water main.

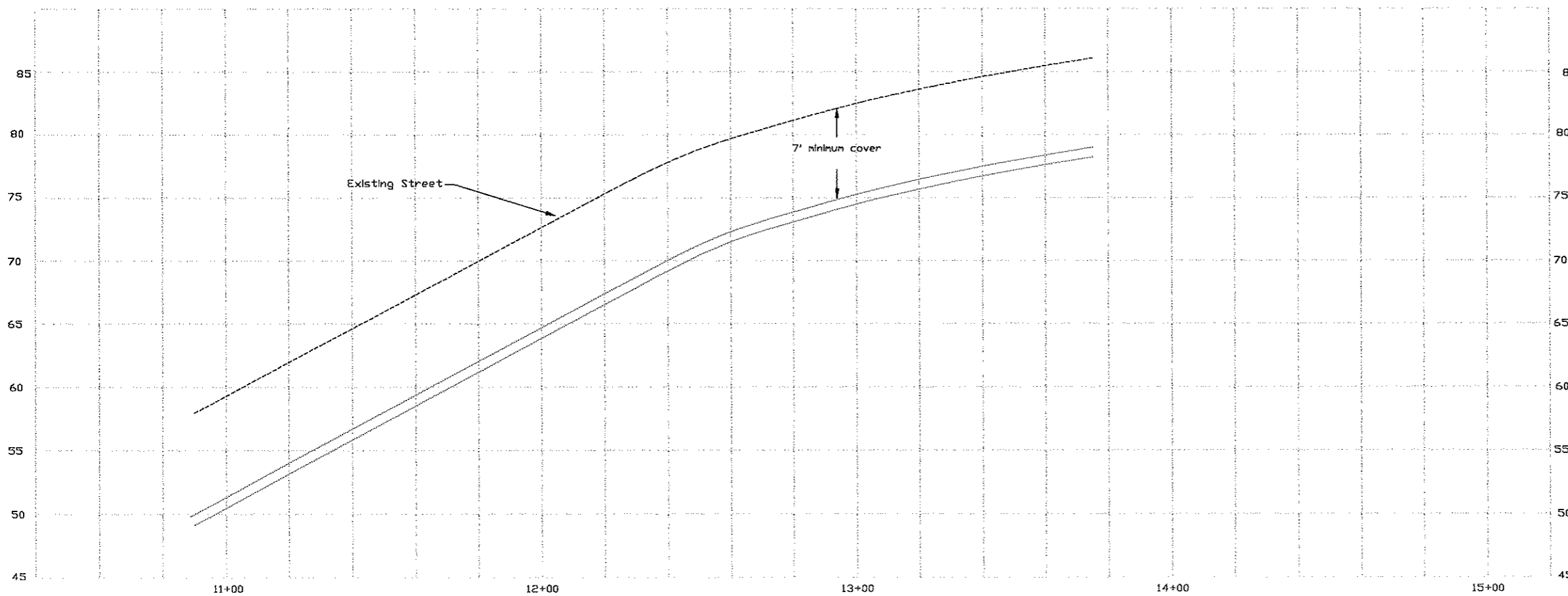
DATE	REV. BY	APPR. BY	DESCRIPTION
1E/2000	J.W.		ASBUILT
CITY OF MANDAN, NORTH DAKOTA ENGINEERING DEPARTMENT			
WATER IMPROVEMENT PROJECT #98-7 6TH STREET NE			
CITY ENG.	T.L.	DRAWN BY	J.W.
APPR. BY		CHECKED BY	
PROJECT NO.	98-7	DISTRICT NO.	N/A
		SCALE:	AS SHOWN
		DATE:	
		SHEET	40 OF 70



--- Warning --- All utilities are to be located before digging.
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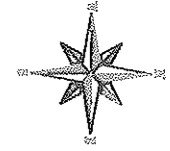
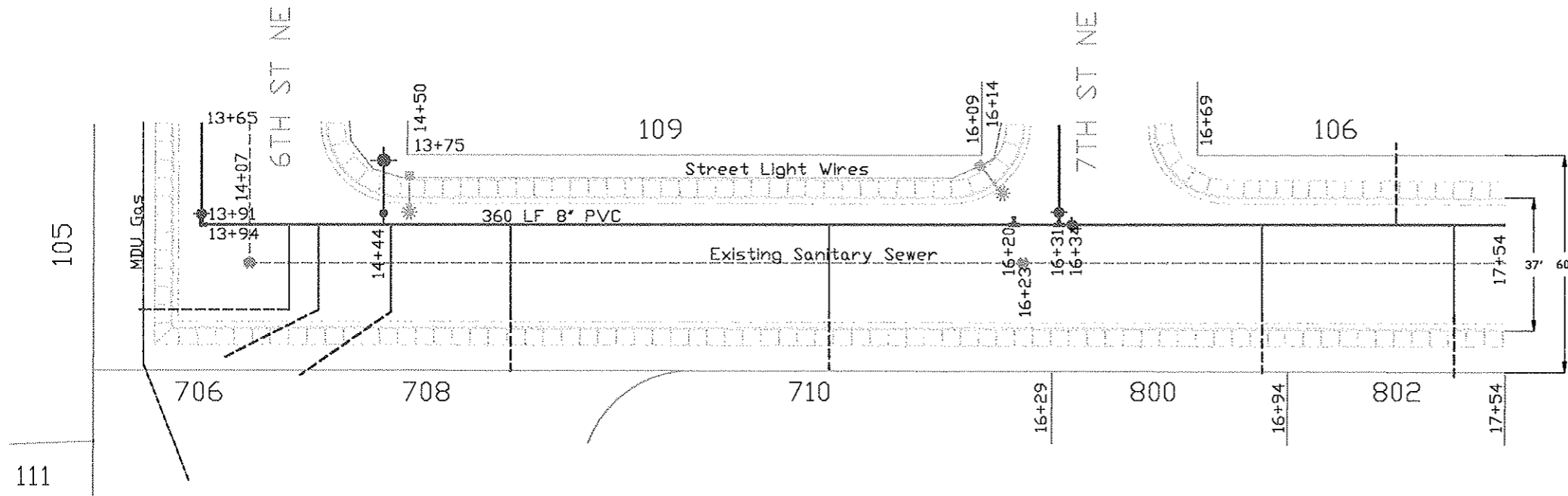
6th Street NE (Area C)



Construction Notes:

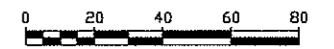
Service lines to be located in the field by the Engineer. Curb Stops will be marked with blue paint and arrows placed on the sidewalk. All service lines will be traced from each home to determine the best location of each tie to the water main.

12/2000	J.W.		ASBUILT
DATE	REV. BY	APPR. BY	DESCRIPTION
CITY OF MANDAN, NORTH DAKOTA ENGINEERING DEPARTMENT			
WATER IMPROVEMENT PROJECT #98-7 6TH STREET NE			
CITY ENG.	T.L.	DRAWN BY	J.W.
APPR. BY		CHECKED BY	
PROJECT NO.	98-7	DISTRICT NO.	N/A
SCALE	AS SHOWN	DATE	
SHEET	5C	OF	7C



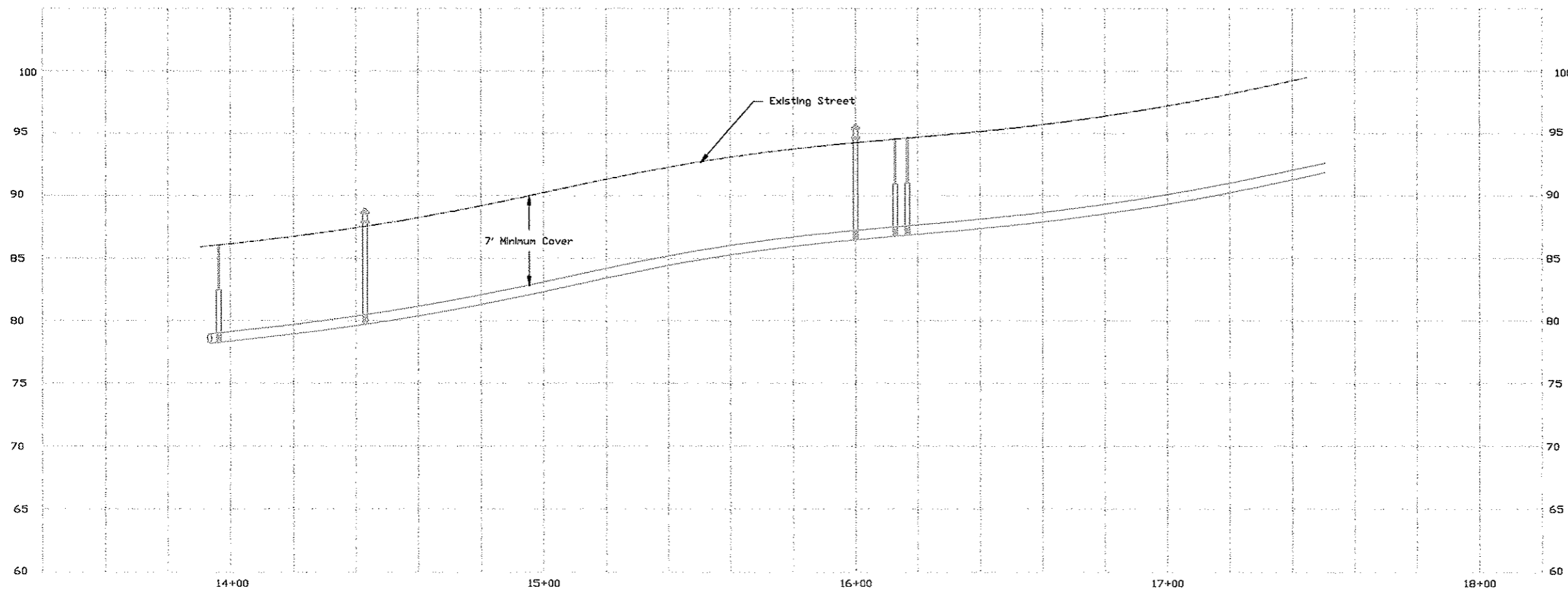
--- Warning --- All utilities are to be located before digging. Overhead utilities may be present.

FEBRUARY 1998



SCALE: 1"=40' HOR
1"=10' VER

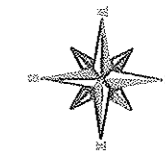
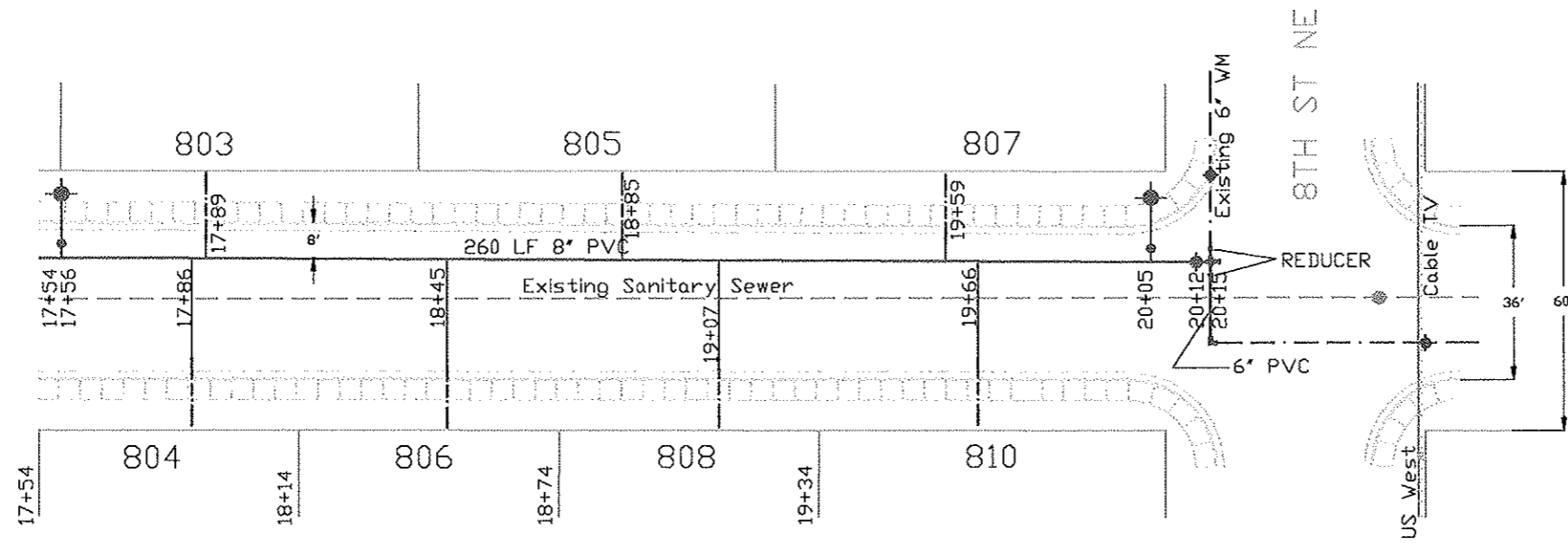
1st Avenue NE (Area C)



Construction Notes:

Service lines to be located in the field by the Engineer. Curb Stops will be marked with blue paint and arrows placed on the sidewalk. All service lines will be traced from each home to determine the best location of each tie to the water main.

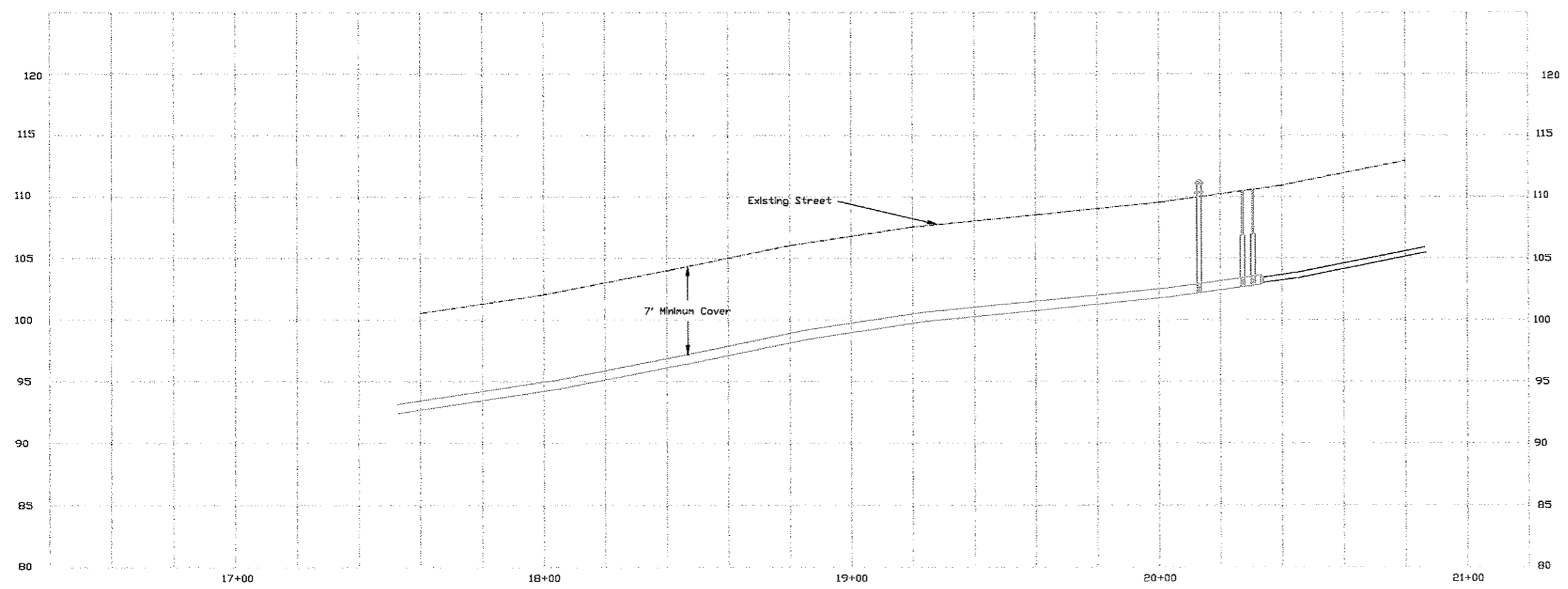
12/2000	J.W.		ASBUILT
DATE	REV. BY	APPR. BY	DESCRIPTION
CITY OF MANDAN, NORTH DAKOTA ENGINEERING DEPARTMENT			
WATER IMPROVEMENT PROJECT #98-7 1ST AVE NE			
CITY ENG.	T.L.	DRAWN BY	J.W.
APPR. BY		CHECKED BY	
PROJECT NO.	98-7	DISTRICT NO.	N/A
		SCALE:	AS SHOWN
		DATE:	
		SHEET	6C OF 7C



--- Warning --- All utilities are to be located before digging. Overhead utilities may be present.

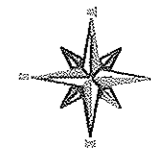
FEBRUARY 1998
 0 20 40 60 80
 SCALE: 1"=40' HOR
 1"=10' VER

1st Avenue NE (Area C)



Construction Notes:
 Service lines to be located in the field by the Engineer. Curb Stops will be marked with blue paint and arrows placed on the sidewalk. All service lines will be traced from each location to determine the best location of each tie to the water main.

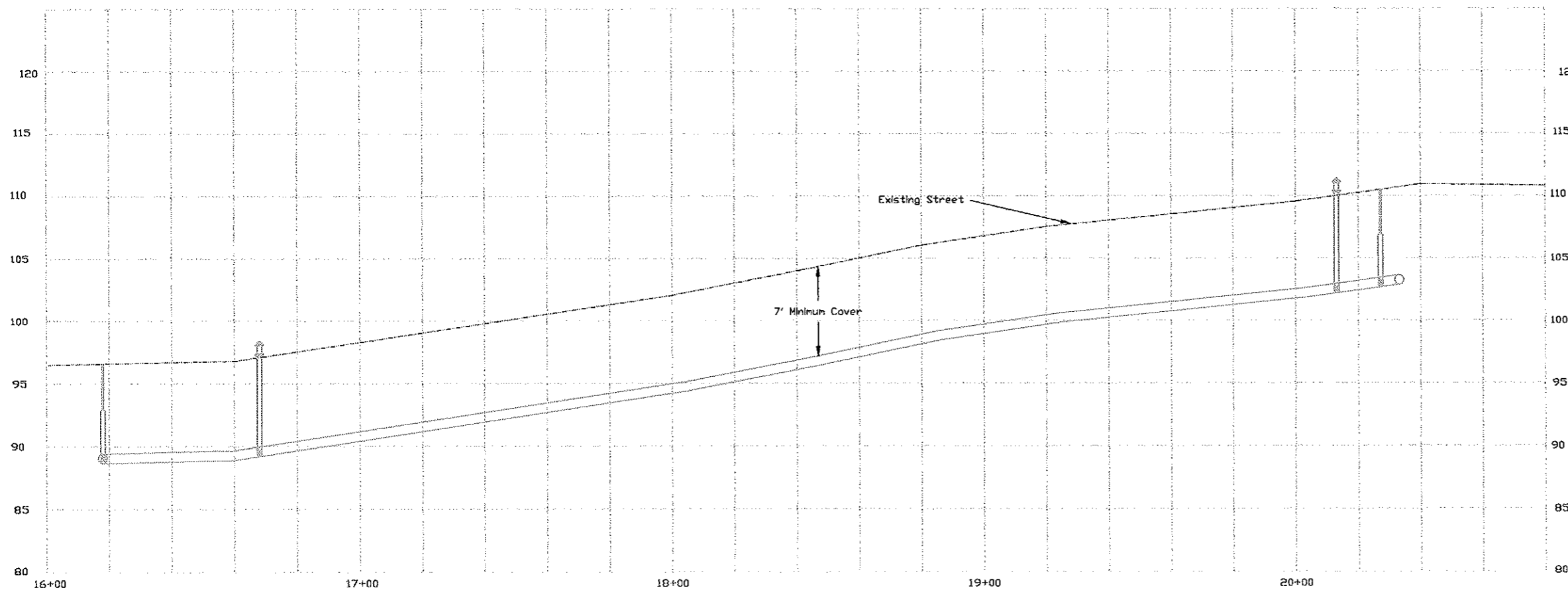
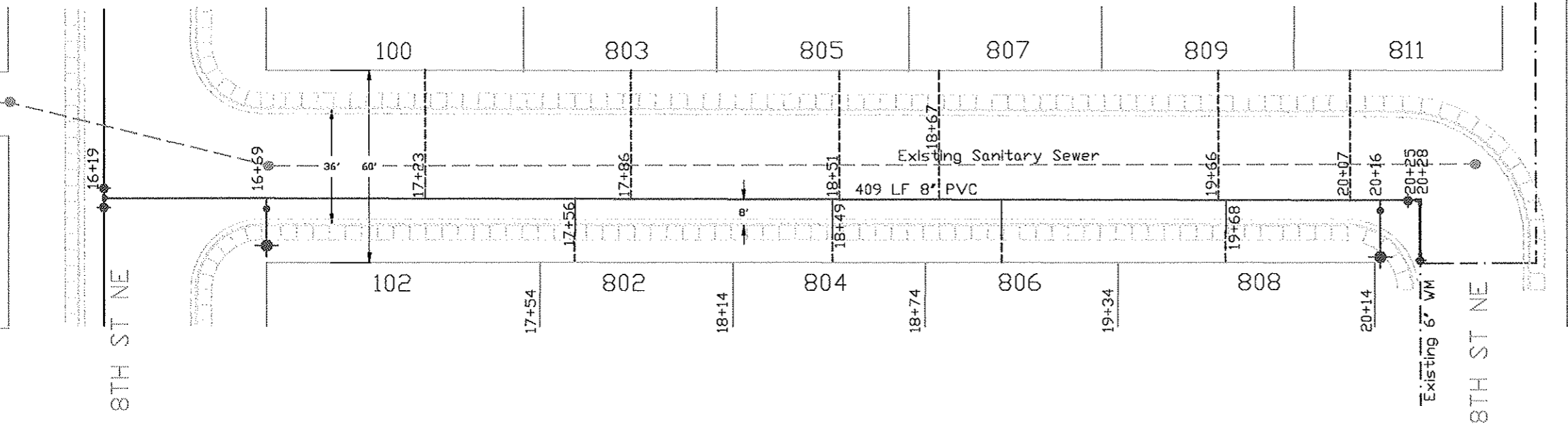
12/2000	J.W.	ASBUILT
DATE	REV. BY	DESCRIPTION
CITY OF MANDAN, NORTH DAKOTA ENGINEERING DEPARTMENT		
WATER IMPROVEMENT PROJECT #98-7 1ST AVE NE		
CITY ENG. T.L.	DRAWN BY J.W.	SCALE: AS SHOWN
APPR. BY	CHECKED BY	DATE
PROJECT NO. 98-7	DISTRICT NO. N/A	SHEET 7C OF 7C



--- Warning --- All utilities are to be located before digging. Overhead utilities may be present.

FEBRUARY 1998
 0 20 40 60 80
 SCALE: 1"=40' HDR
 1"=10' VER

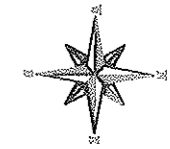
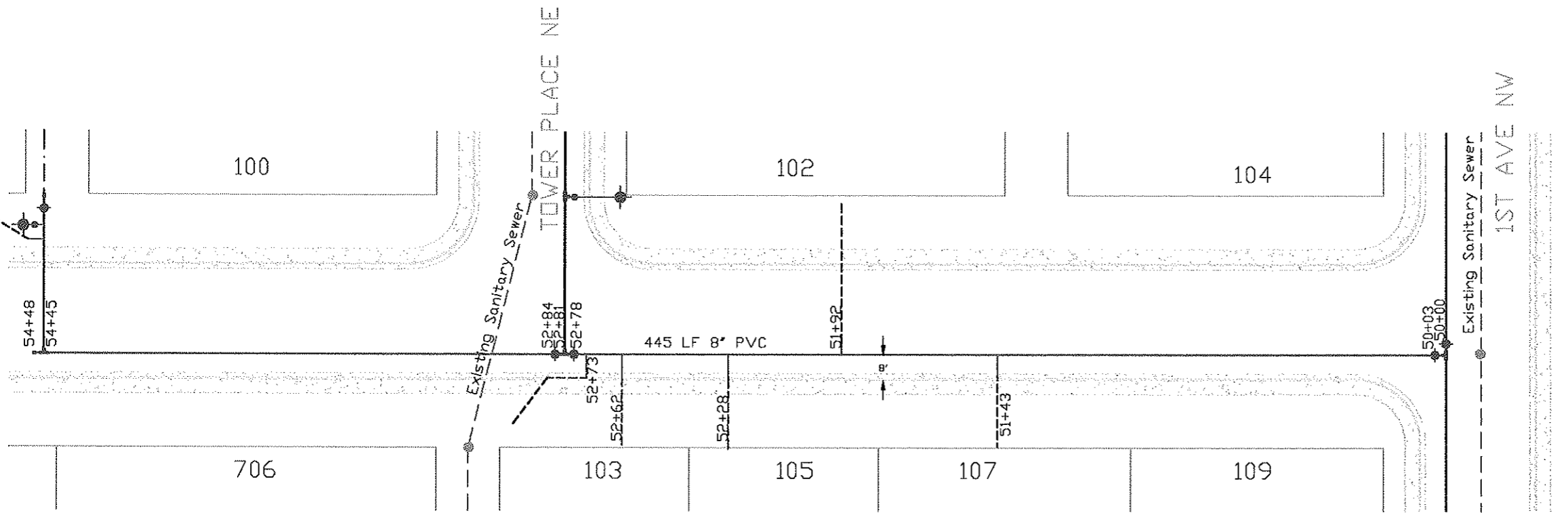
TOWER PLACE NE (Area C)



Construction Notes:

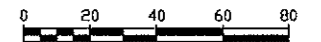
Service lines to be located in the field by the Engineer. Curb Stops will be marked with blue paint and arrows placed on the sidewalk. All service lines will be traced from each home to determine the best location of each tie to the water main.

DATE	REV. BY	APPR. BY	DESCRIPTION
12/2000	J.W.		ASBUILT
CITY OF MANDAN, NORTH DAKOTA ENGINEERING DEPARTMENT			
WATER IMPROVEMENT PROJECT #98-7 TOWER PLACE NE			
CITY ENG.	T.L.	DRAWN BY	J.W.
APPR. BY		CHECKED BY	
PROJECT NO.	98-7	DISTRICT NO.	N/A
		SCALE	AS SHOWN
		DATE	
		SHEET	8C OF 9C



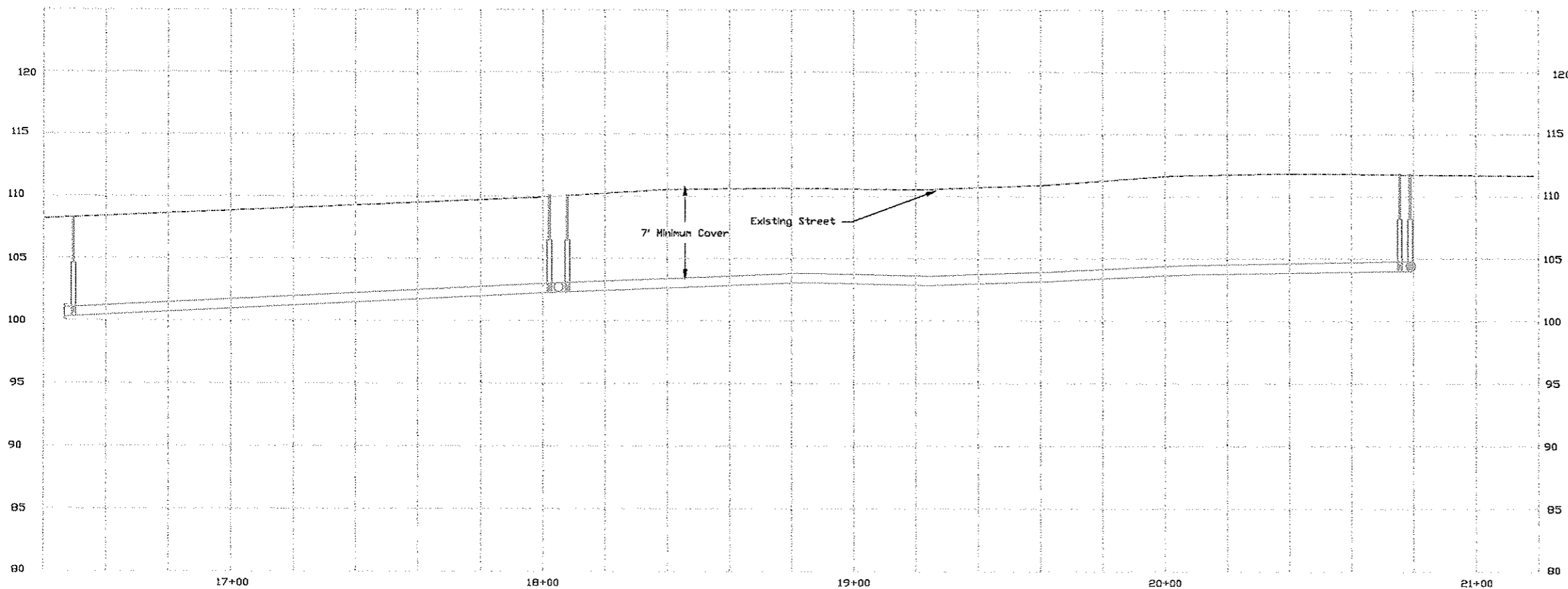
--- Warning --- All utilities are to be located before digging.
 □ Overhead utilities may be present.

FEBRUARY 1999



SCALE: 1"=40' HDR
 1"=10' VER

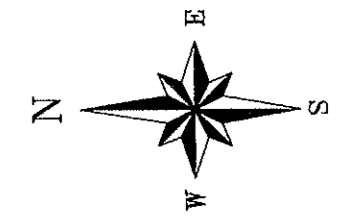
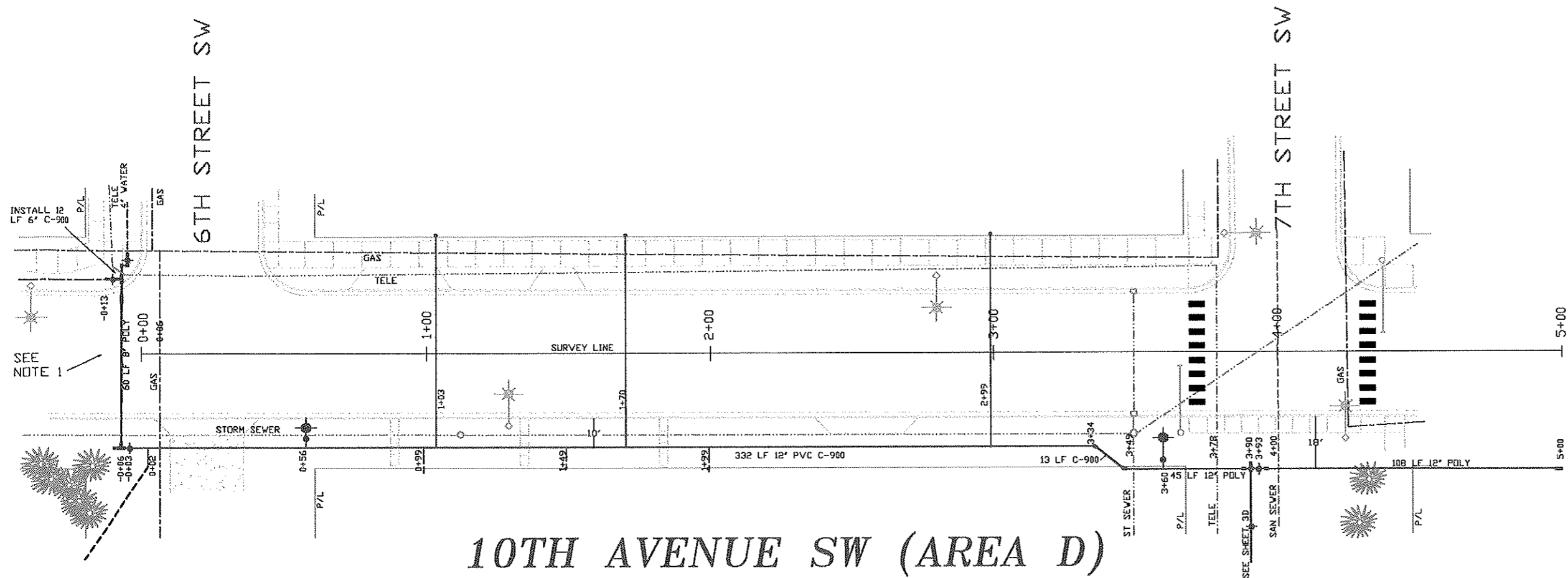
7TH STREET NE (Area C)



Construction Notes:

Service lines to be located in the field by the Engineer. Curb Stops will be marked with blue paint and arrows placed on the sidewalk. All service lines will be traced from each home to determine the best location of each tie to the water main.

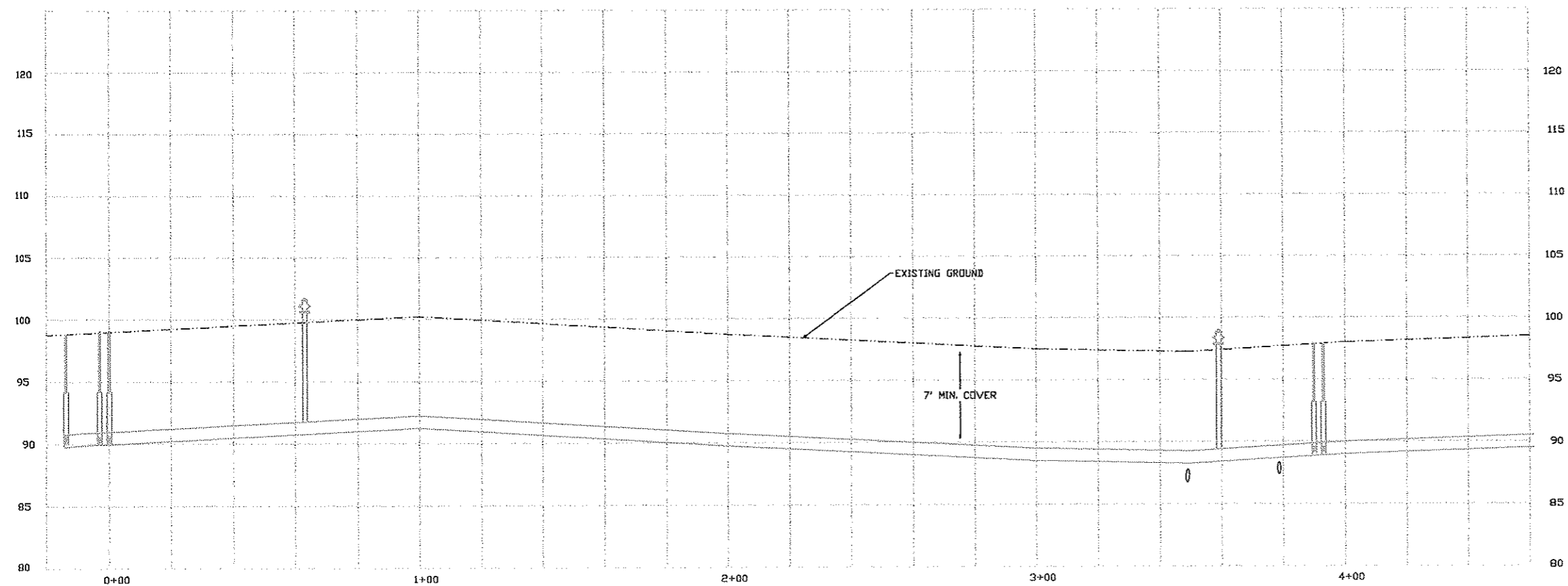
DATE	12/2000	REV. BY	J.W.	APPR. BY		DESCRIPTION	ASBUILT
CITY OF MANDAN, NORTH DAKOTA ENGINEERING DEPARTMENT							
WATER IMPROVEMENT PROJECT #98-7 7TH STREET NE							
CITY ENG.	T.L.	DRAWN BY	J.W.	SCALE	AS SHOWN		
APPR. BY		CHECKED BY		DATE			
PROJECT NO.	98-7	DISTRICT NO.	N/A	SHEET	9C	OF	9C



FEBRUARY 1998
 0 20 40 60 80
 SCALE: 1"=40' HOR
 1"=10' VER

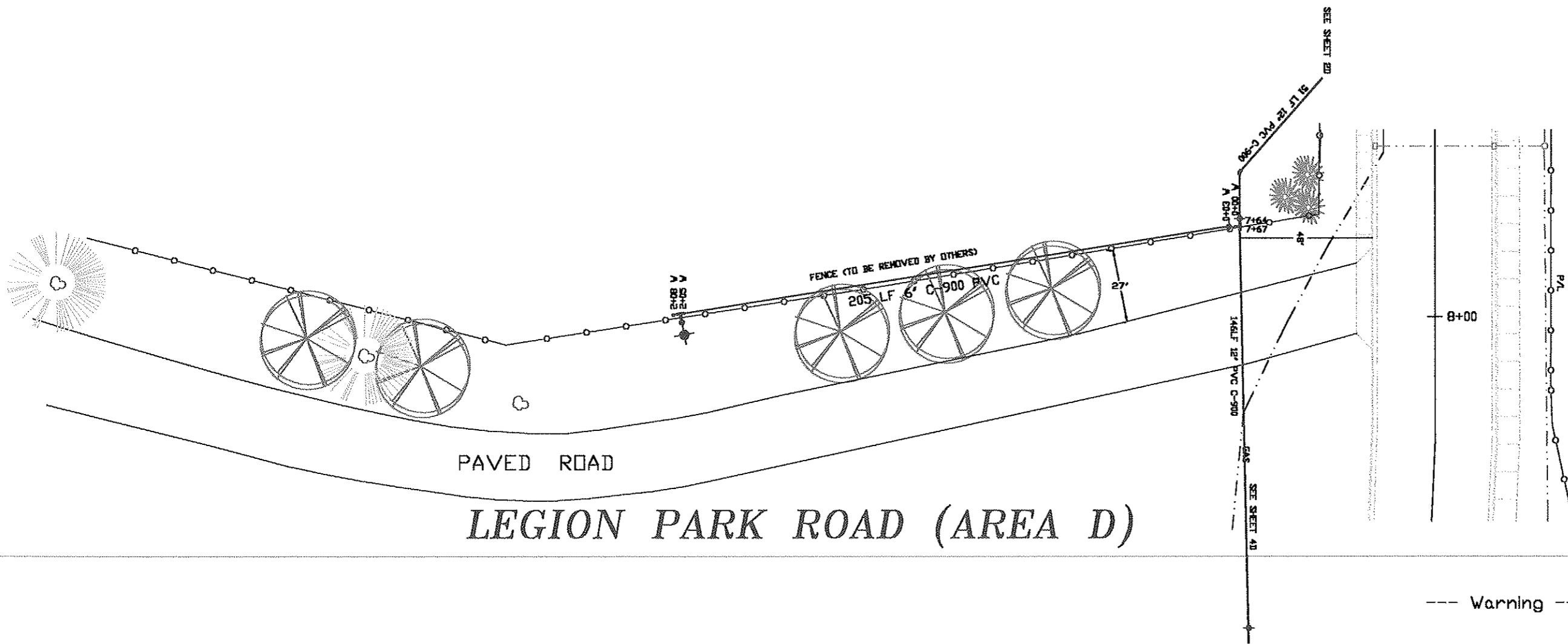
10TH AVENUE SW (AREA D)

--- Warning --- All utilities are to be located before digging. Overhead utilities may be present.



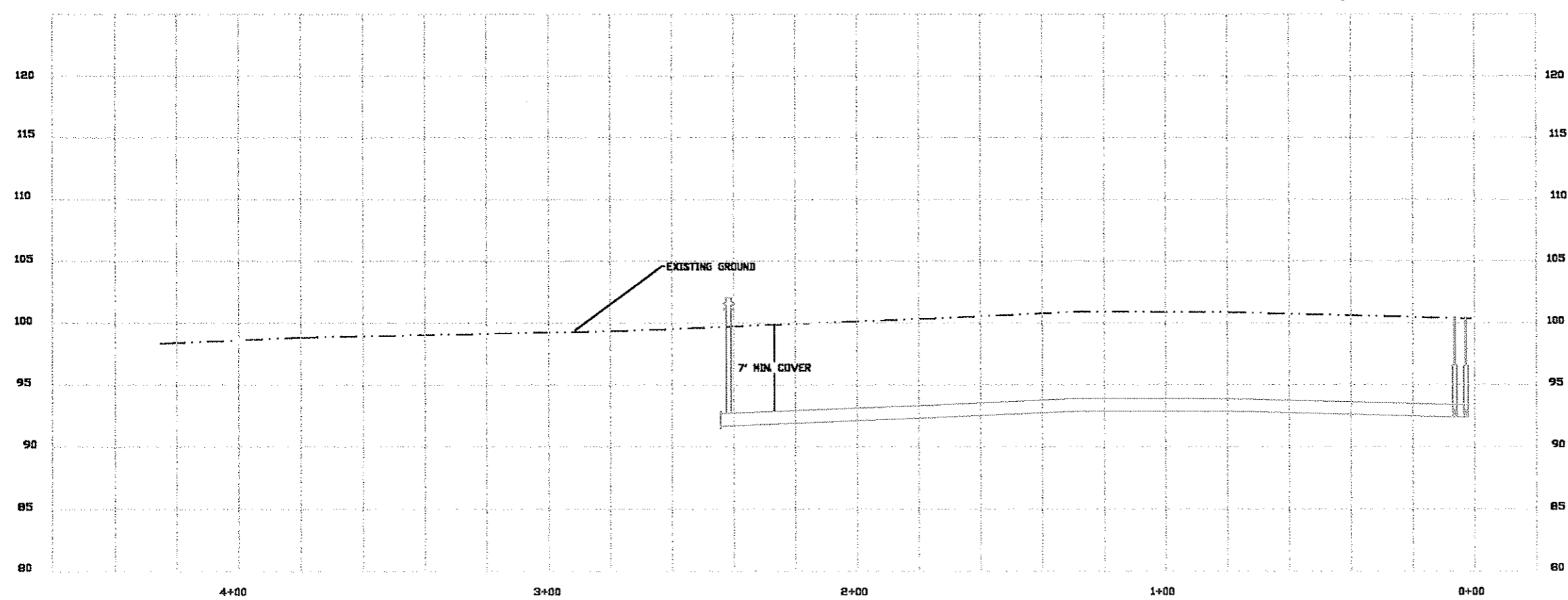
NOTE 1:
 DIRECTIONAL BORE OF THE 12" POLY AS DIRECTED BY THE ENGINEER. PIPE IS TO BE SDR9 - 200 PSI.

1E/2000	J.W.		ASBUILT
DATE	REV. BY	APPR. BY	DESCRIPTION
CITY OF MANDAN, NORTH DAKOTA ENGINEERING DEPARTMENT			
WATER IMPROVEMENT PROJECT #98-7 10TH AVENUE SW			
CITY ENG.	T.L.	DRAWN BY	J.W.
APPR. BY		CHECKED BY	
PROJECT NO.	98-7	DISTRICT NO.	N/A
		SCALE:	AS SHOWN
		DATE:	
		SHEET	1D OF 8D



LEGION PARK ROAD (AREA D)

--- Warning --- All utilities are to be located before digging. Overhead utilities may be present.



DATE	REV. BY	APPR BY	DESCRIPTION
12/2000	J.W.		ASBUILT
CITY OF MANDAN, NORTH DAKOTA ENGINEERING DEPARTMENT			
WATER IMPROVEMENT PROJECT #98-7 LEGION PARK ROAD			
CITY DESIGNED BY	T.L.	DRAWN BY	J.W.
APPR BY		CHECKED BY	
PROJECT NO.	98-7	DISTRICT NO.	N/A
SCALE	AS SHOWN	DATE	
SHEET	90 OF 90		