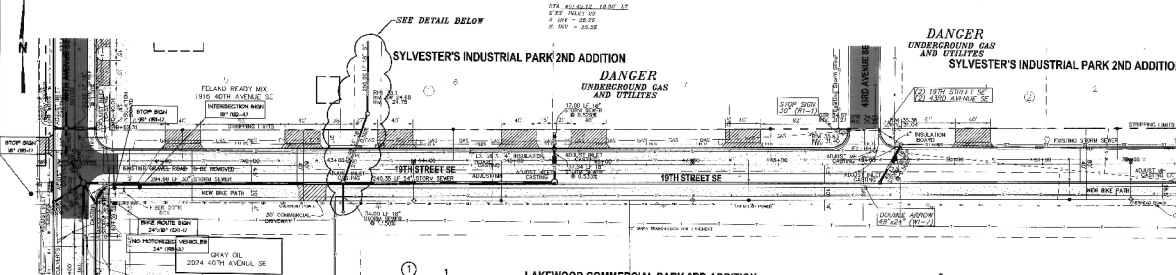


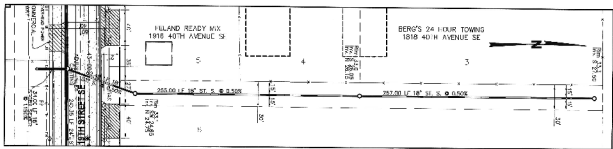
SCALE - 1"=50'



- CONSTRUCTION NOTES (THIS SHEET)**
- THE SHORT SPREAD FENCE LOCATED ON THE NORTH SIDE OF GRAY CO. SHALL BE REMOVED AND SET AT THE NORTH PROPERTY LINE OF GRAY CO. A SMALL PORTION HAS BEEN REMOVED AND STOCKPAILED ALREADY. THE CONTRACTOR FOR THIS PROJECT SHALL RESET THE REMAINING PORTION AND TOP SECTION OF THE FENCE AFTER CONSTRUCTION IS COMPLETED IN THIS AREA. WORK SHALL BE COMPLETED IN A WORKMAN LIKE MANNER AND SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO OTHER SIDE DRIVE.
 - THE EXISTING SANITARY SEWER MANHOLE AT STA. 44+85 REQUIRES AN ADDITIONAL 18" MANHOLE SECTION. THE FILLER SECTION SHALL BE 18" DIAMETER. THE CONTRACTOR SHALL REMOVE THE EXISTING SECTION OF THE MANHOLE, PLACE THE FILLER SECTION AND THEN RESET THE COVER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO OTHER SIDE DRIVE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO OTHER SIDE DRIVE.
 - AT STA. 49+10 REMOVE THE EXISTING ADJUSTING RINGS AND GROUT AS NECESSARY TO ADJUST THE MANHOLE CASTING DOWN TO THE PROPOSED STREET GRADE. SAID WORK SHALL BE CONSIDERED INCIDENTAL TO THE UNIT PRICE FOR "LAKED MANHOLE CASING".
 - REMOVE THE AREA AROUND AREA INLET NO. 2 AND NO. 3 AS INDICATED TO PROVIDE POSITIVE DRAINAGE TO THE INLET.
 - LOCATE LINE OF WATERMAIN AT APPROXIMATELY STA. 48+25 WHEN CONSTRUCTED TO THE STORM SEWER. CENTER A 7" X 4" X 8' ROSTER WATER MAIN BOARD 6" ABOVE THE TOP OF THE WATERMAIN.
 - REMOVE THE REMAINING TREES NOT REMOVED BY THE WATER MAINER CONTRACTOR WITHIN THE 19TH STREET RIGHT OF WAY. REMOVE HILLS A NUMBER OF 2" DIAMETER OF EXISTING GRADE OR PROPOSED FINISHED GRADE, WHICHEVER IS DEEPER.
 - REMOVE AND DISPOSE OF 2" DIAMETER EXISTING CURB CORNER AT THE END OF THE CURB ON 46TH AVENUE. CONSTRUCT 2 EACH 4" X 4" X 8" SMOOTH DOMES IN THE END OF EACH CURB. SAID WORK SHALL BE CONSIDERED INCIDENTAL TO THE UNIT PRICE FOR "STANDARD CURB AND CUTTER".
 - REMOVE THE EXISTING ASPHALT PAVEMENT AT THE END OF THE CURB AND CUTTER SECTION ON THE SOUTH SIDE OF 46TH AVENUE. TO PROVIDE A CLEAN VERTICAL CURB. REMOVE THE REMAINING ASPHALT PAVEMENT TO THE LINE OF 46TH AVENUE. SAID WORK SHALL BE CONSIDERED INCIDENTAL TO THE UNIT PRICE FOR "STANDARD CURB AND CUTTER".
 - LOCATE THE EXISTING 2" WATER SERVICE LINE AT APPROXIMATELY STA. 48+25. PROVIDE POSITIVE DRAINAGE WITH CONNECTION WITH THE STORM SEWER. CENTER A 2" X 4" X 8' INSULATION DOORS BETWEEN THE SERVICE LINE AND THE STORM SEWER AND ALSO PLACE A 2" X 4" X 8' INSULATION BOARD 6" ABOVE THE SERVICE LINE.
 - THE LOCATION OF DRIVEWAYS WHICH WILL REQUIRE "STOP" CURB IS 10 FT WIDED AT THE 19TH STREET RIGHT OF WAY.
 - FINISHESSES THAT HAVE THEIR DRIVEWAYS DISTURBED AS PART OF THIS PROJECT SHALL BE REPAIRED/PREPAID WITH THE SAME MATERIAL THAT WAS ORIGINALLY THERE (i.e. DRIVE REPAIRED WITH GRASS AND ASPHALT REPAIRED WITH ASPHALT). ALL WORK IS REQUIRED TO BE APPROVED BY THE ENGINEER. SAID WORK SHALL BE PAID FOR AT THE UNIT PRICE FOR ASPHALT OR CLASS V GRAVIL APPROXIMATELY

STORM SEWER MANHOLE AND INLET SCHEDULE

MANHOLE NO.	MANHOLE SIZE	CASTING TYPE	MANHOLE DEPTH	TOP OF CONCRETE	INVERT (G)	INVERT (A)
1	60"	CONCRETE	48'	33.67	24.12	24.02
2	72"	CONCRETE	54'	33.68	24.90	24.80
3	2' X 3'	CONCRETE	30'	34.31	25.25	25.15
4	30"	CONCRETE	30'	34.01	25.00	24.94
5	48"	CONCRETE	30'	34.01	25.00	24.94



Sta. 40+41.00 RL & LL
Begin Curb & Gutter, Asphalt
Sta. 40+09.60 RL & LL
Begin Storm Sewer Quantities

Sta. 50+00.00 RL & LL
End Curb & Gutter, Asphalt
Sta. 49+14.98 RL & LL
End Storm Sewer Quantities

APPROXIMATE QUANTITIES

ITEM	QUANTITY
REMOVES AND STOCKPILE	
Remove and Stockpile Topsoil	2600 CY
Remove and Stockpile Gravel	46 CY
Remove and Stockpile Concrete	300 CY
Remove and Stockpile Asphalt	6000 SF
Remove and Stockpile Curbs	3000 LF
ASPHALT ITEMS	
1" AC Base Course (Class II)	6000 SF
1" AC Surface Course (Class R)	6000 SF
2" Recycled Asphalt Base	1800 SF
Aggregate Sub Base	400 SF
Aggregate Sub Course	400 SF
Asphalt Manhole Casting	4 CY
CONCRETE ITEMS	
Standard Curb & Gutter	2200 LF
Adjustable Curb	4 LF
6" Concrete Emergency	1,900 SF
SEWER	
24" Storm Sewer	85 LF
30" Storm Sewer	535 LF
30" Area Inlet	1 LF
30" Area Inlet	1 LF
30" Manhole Inlet	1 LF
ACCESSORIES	
18" Manhole Cover	1 EA
48" Manhole Cover	1 EA
Adjustable Inlet	1 EA



19TH STREET SE
FROM 40TH AVENUE SE
TO 800' WEST OF 46TH AVENUE SE
STREET IMPROVEMENT DISTRICT NO. 133
SHEET C7 OF 19 PROJECT 2005-16
MANDAN, ND JULY 22, 2005 REVISED 10-3-05
Record Drawing COPYRIGHT 2005 SWENSON, HAGEN & CO.



Professional Engineer License No. 115286 (11/13/01) (M. Eng.) Copyright 2005 Swenson, Hagen & Company P.C. All rights reserved. Reproduction of this drawing may be made or published in any form by any person without the written permission of Swenson, Hagen & Company P.C.