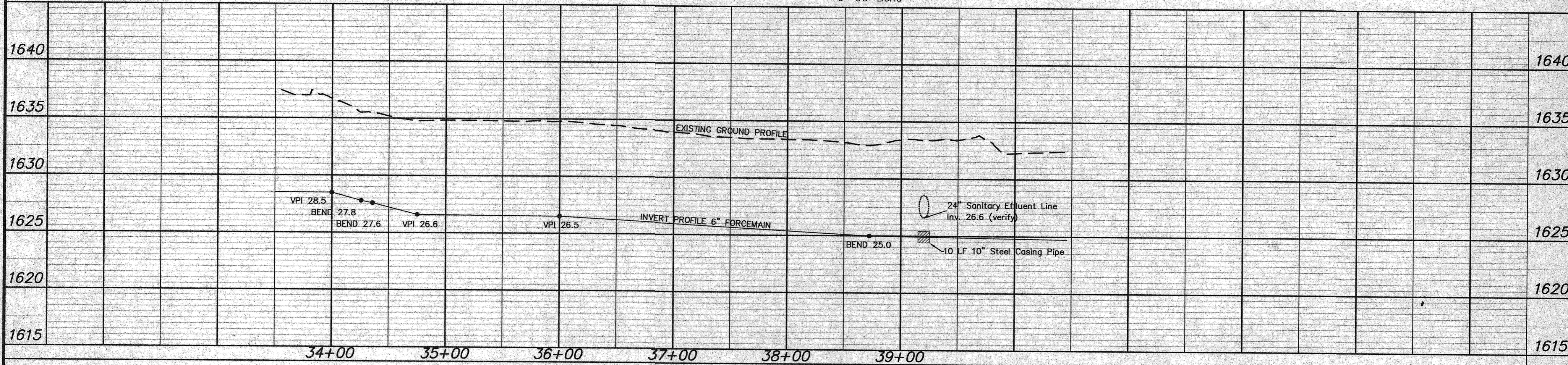
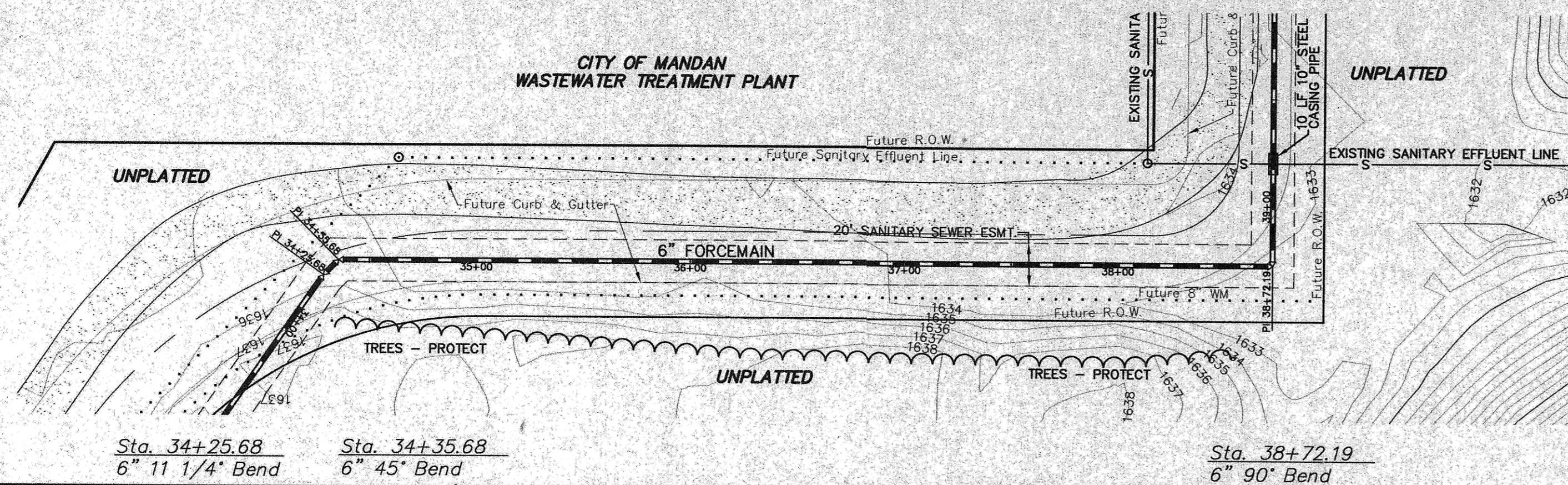


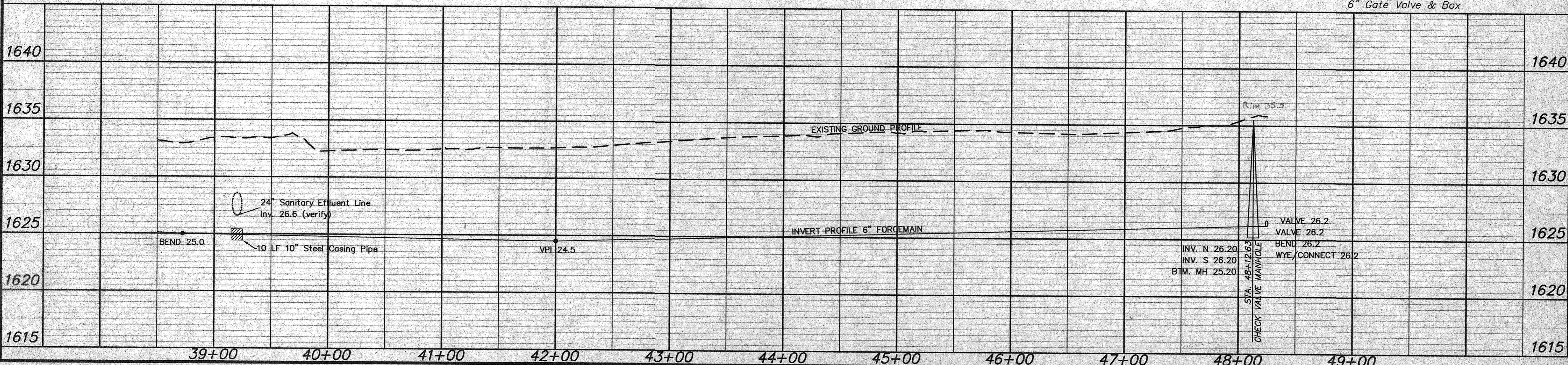
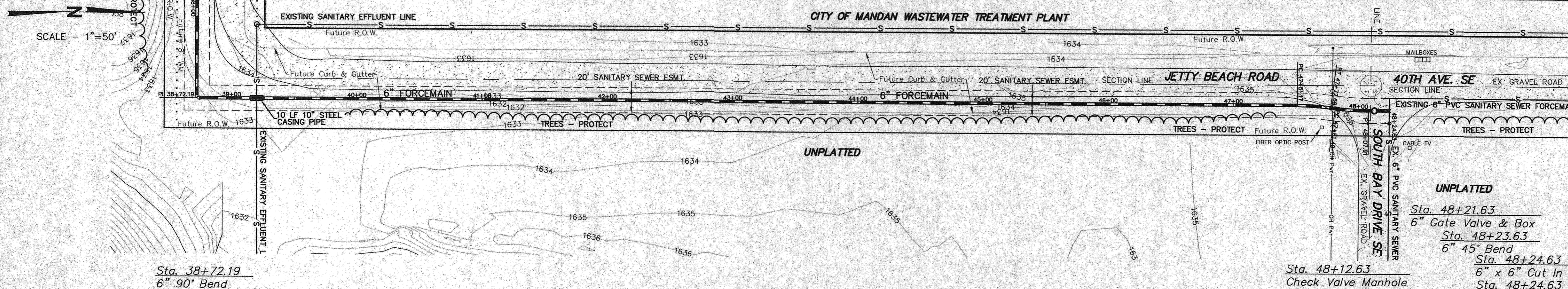
CITY OF MANDAN
WASTEWATER TREATMENT PLANT

SCALE - 1"=50'



CONSTRUCTION NOTES (THIS SHEET)

- BACKFILL SHALL BE CLASS "B".
- THE CONTRACTOR SHALL VERIFY THE ELEVATION OF THE GROUND WATER AT THE TIME OF CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY AND ALL DEWATERING OR SOIL STABILIZATION (OTHER THAN USING SUBCUT GRAVEL) OF THE CONSTRUCTION SITE AS REQUIRED TO INSTALL THE PROPOSED UTILITIES.
- PROTECT ALL SURVEY MONUMENTS. MONUMENTS DISTURBED OR DESTROYED SHALL BE REPLACED BY THE OWNER'S REPRESENTATIVE AT THE CONTRACTOR'S EXPENSE.
- MAINTAIN A MINIMUM OF 7.5' OF COVER OVER THE TOP OF THE FORCEMAIN.
- THE EXISTING SOILS WILL BE ACCEPTABLE FOR BEDDING MATERIAL (PITRUN GRAVEL).
- THE CONTRACTOR SHALL EXPOSE THE 24" RCP EFFLUENT LINE AT THE CROSSING WITH THE 6" FORCEMAIN IN ORDER TO VERIFY THE LOCATION AND ELEVATION OF THE 24" EFFLUENT LINE. THE CONTRACTOR SHALL EXPOSE THE PIPE AT THE BEGINNING OF THE PROJECT AND ALLOW THE ENGINEER A MINIMUM OF 48 HOURS TO MAKE CHANGES TO THE PLANS IF REQUIRED.
- THE CONTRACTOR SHALL MAINTAIN ACCESS ON 40TH AVENUE SE AND JETTY BEACH ROAD AT ALL TIMES. SOUTH BAY DRIVE SE MAY BE TEMPORARILY CLOSED IN ORDER TO MAKE THE CONNECTION TO THE EXISTING 6" FORCEMAIN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING SIGNAGE, TRAFFIC CONTROL AND NOTIFY APPROPRIATE AGENCIES. SAID WORK SHALL BE CONSIDERED INCIDENTAL TO THE "6" PVC FORCEMAIN" BID ITEM.
- THE CONTRACTOR SHALL SALVAGE, STOCKPILE AND RESPRED GRAVEL AS REQUIRED TO CROSS SOUTH BAY DRIVE. SAID WORK SHALL BE CONSIDERED INCIDENTAL TO THE "6" PVC FORCEMAIN" BID ITEM.
- THE CONTRACTOR SHALL SALVAGE, STOCKPILE AND RESPRED ANY TOPSOIL ALONG JETTY BEACH ROAD AND 40TH AVENUE SE THAT WILL BE DISTURBED DUE TO CONSTRUCTION OF THE FORCEMAIN. SAID WORK SHALL BE CONSIDERED INCIDENTAL TO THE "6" PVC FORCEMAIN" BID ITEM.
- THE CONTRACTOR SHALL CUT A 6" x 6" WYE INTO THE EXISTING 6" FORCEMAIN, INSTALL A 6" 45° BEND AND 6" GATE VALVE & BOX AT STA. 48+24.63. THE WYE, BEND AND GATE VALVE SHALL BE TIED TOGETHER IN ORDER TO MINIMIZE THE TIME THAT THE MARINA BAY LIFT STATION AT THE INTERSECTION OF 40TH AVENUE SE AND SOUTH BAY DRIVE SE IS SHUT DOWN. A 6" GATE VALVE AND BOX SHALL BE CUT IN ON THE EXISTING 6" FORCEMAIN AT 10 FEET EAST OF THE WYE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE TEMPORARY SHUT DOWN OF THE EXISTING FORCEMAIN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PUMPING OUT THE MARINA BAY LIFT STATION IF IT IS SHUT DOWN TOO LONG AND BEGINS TO BACK UP SEWAGE INTO THE GRAVITY SEWER LINE THAT DRAINS INTO THE LIFT STATION. NO COMPENSATION IN ADDITION TO THE ORIGINAL CONTRACTOR'S PROPOSAL WILL BE ALLOWED FOR SAID WORK.
- PROTECT ALL TREES. A TRENCH BOX MAY BE REQUIRED IN ORDER TO MINIMIZE CUTTING TREE ROOTS FROM STA. 39+00 TO STA. 47+75.
- THERE ARE A NUMBER OF UTILITIES IN THE INTERSECTION OF 40TH AVENUE SE AND SOUTH BAY DRIVE SE. PROVIDE ADDITIONAL CAUTION.



APPROXIMATE QUANTITIES

Construction Items	Quantity
6" PVC Forcemain	6,700 PVC
6" Gate Valve & Box	1,389 LF
Check Valve Manhole	2 EA
10" Steel Casing Pipe	1 LS
Ductile Iron Fittings	10 LF
Class II Seeding and Mulching	Incidental
	4,680 SY



SWENSON, HAGEN & CO. P.C.
PLANNING CIVIL ENGINEERING SURVEYING
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300 BASIN AVE. P.O. BOX 1135 (701) 223-2800
BISMARCK, N.D. 58504 FAX (701) 223-2808
E-mail: sheng@swensonhagen.com

FORCEMAIN
FROM STA. 34+35.68 TO STA. 48+24.63
SEWER IMPROVEMENT DISTRICT NO. 27
PROJECT NO. 2003-09 SHEET NO. C3 OF 4
MANDAN, ND JUNE 25, 2003

Record Drawing