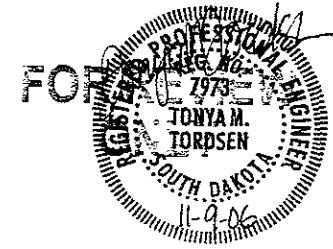


TID #54 - BUNKER DRIVE WATER MAIN EXTENSION

DDI PROJECT NO. 03-0069.1



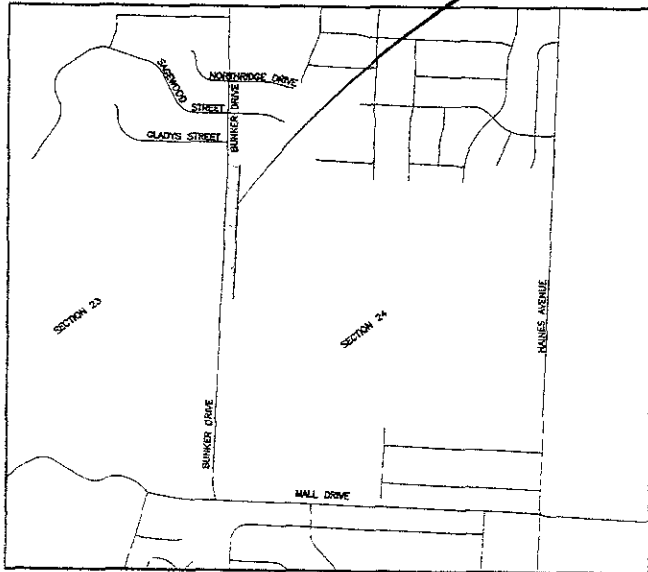
DREAM DESIGN
INTERNATIONAL, INC.
PROFESSIONAL SURVEYING & CIVIL ENGINEERING CONSULTANTS
404 W. WASHINGTON ST. SUITE 200, RAPID CITY, SD 57701
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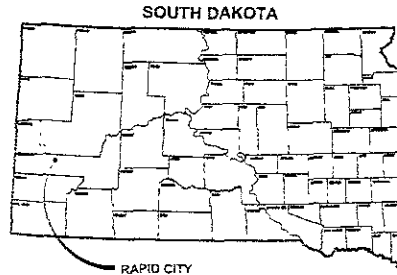
Plan Sheet Number

PROJECT LOCATION

LOCATED IN THE W 1/2 SW 1/4
OF SECTION 24, T2N, R7E
RAPID CITY SD



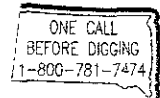
PROJECT LOCATION MAP NOT TO SCALE



INDEX OF SHEETS

- 1 COVER SHEET
- 2 GENERAL NOTES & LEGEND
- 3 EXISTING SURVEY AND EROSION CONTROL
- 4-8 WATER MAIN EXTENSION PLAN & PROFILE
- 7 STANDARD DETAILS

PROJECTED
JUN 2008



TID #54 - BUNKER DRIVE
WATER MAIN EXTENSION
DDI PROJECT NO. 03 0069 1

GENERAL NOTES

THE STATE EXAMINATION AND PRACICING OF FIELD SHALL COMPLY WITH CITY OF SAUPE CITY STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (THE CURRENT ADOPED EDITION)

THE DISTURBED DITCH SHALL BE RETURNED TO ITS EXISTING CONDITIONS UPON COMPLETION OF WORK LINE INSTALLATION

THE CONTRACTOR SHALL SECURE ALL NECESSARY PERMITS PRIOR TO BEGINNING WORK

ALL EXISTING UTILITIES MAY NOT BE SHOWN ON THE LOCATIONS MAY VARY FROM THAT SHOWN - THE CONTRACTOR IS RESPONSIBLE TO HAVE ALL UTILITIES LOCATED PRIOR TO BEGINNING WORK

PROVIDE 75% OFF CONTROL OVER ALL CONSTRUCTION IN ACCORDANCE WITH THE MANUAL OF CONTROL WATER CONTROL DEVICES

ALL WORK SHALL COMPLY WITH THE CITY OF SAUPE CITY STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION THE CURRENT ADOPED EDITION

BEFORE BEGINNING CONSTRUCTION THE CONTRACTOR SHALL OBTAIN AND COMPLY WITH

- a PERMITSION COUNTY ROAD CONTROL PERMIT
- a NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT FOR STORM WATER RUNOFF

THE CONTRACTOR SHALL FIRST CLEAR THE SITE TO MATCH EXISTING GRADE CONNECTION SHALL LOCATE ALL MATERIALS DOCUMENTED BY PLANNING AND/OR

EXISTING UTILITIES

LOCATION OF EXISTING UTILITIES SHOWN ON THESE DRAWINGS ARE APPROXIMATE AND MORE THAN FROM THE BEST AVAILABLE RECORDS PRIOR TO EXAMINATION THE CONTRACTOR SHALL FIELD VERIFY THE EXACT LOCATION OF ALL UTILITIES WHETHER OR NOT SHOWN ON THESE DRAWINGS. THE CONTRACTOR SHALL PROTECT ALL UTILITIES DURING CONSTRUCTION. THE CONTRACTOR SHALL SUPPORT ALL TRENCHES UNDER EXISTING UTILITIES BY A METHOD THAT THE EXISTING UTILITIES ARE NOT DAMAGED OR DISTURBED. UNLESS OTHERWISE NOTED ANY REPAIRS OR REPLACEMENT OF ALL OF THE UTILITIES SHALL BE INDICATED IN THE PROJECT IF REQUIRED, THE CONTRACTOR SHALL CONSULT REPRESENTATIVE OF THE UTILITY WITH THE UTILITY OWNER. ALL UTILITIES ARE TO BE LOCATED AND/OR INDICATED BY THE RESPECTIVE UTILITY COMPANIES UNLESS OTHERWISE NOTED IN THESE DRAWINGS

14" DIAM	
BONDS	RESTRICTED LENGTHS
11' X 2 1/2" X 3/4"	30'
8' X 2 1/2" X 3/4"	60'
TEE	1-0'
VALVES	71-0'
MAN DEFLECTION	10-0'
UPPER BOND	10-0'
LOWER BOND	22-0'

RESTRICTION REQUIREMENTS

ALL PIPEWORK SHALL BE TO CITY JOINTS WITHIN THE SPECIFIED RESTRICTION LENGTHS LISTED BELOW SHALL BE RESTRICTION

INSTALLATION CONDITIONS USED FOR CALCULATIONS

1. SOIL TYPE IS CL SAND FILL
2. TRENCH TIME = 5
3. TEST FREQUENCY = 100 PSI
4. SAFETY FACTOR = 1.33
5. DEF. LIMIT = 0.05 FT
6. RE RESTRICTIONS WERE CALCULATED WITH 50% MAINTENANCE LENGTHS OF 10' IN EACH DIRECTION ALONG THE RUN OF PIPE

NOTE:
CALCULATIONS FOR RESTRICTION LENGTHS WERE DERIVED FROM DATA FROM THE LOW

EROSION CONTROL

ALL AREAS THAT ARE DISTURBED DURING CONSTRUCTION SHALL BE FERTILIZED, SEEDS, AND MULCHES FOR PLANTING OF TEMPORARY EROSION CONTROL. FOLLOWING COMPLETION OF GRADING "SODDIL PLACEMENT" FERTILIZATION, SEEDING, AND MULCHING SHALL BE IN ACCORDANCE WITH CITY STANDARDS FOR PUBLIC WORKS CONSTRUCTION OR LEAST SET FOR ALL AREAS SHALL BE IN ACCORDANCE WITH CITY OF SAUPE CITY STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (THE CURRENT ADOPED EDITION) - (ROAD SECTION RULE OR OTHER)

TEMPORARY EROSION CONTROL SHALL BE THE CONTRACTOR'S RESPONSIBILITY AND SHALL CONSIST OF STRAW BALE BELL FENCES OR OTHER MEANS TO CONTROL EROSION AS NECESSARY (OR AS SHOWN ON THE PLANS). EROSION CONTROL SHALL BE IN ACCORDANCE WITH THE CITY STANDARDS FOR PUBLIC WORKS CONSTRUCTION. MAINTENANCE SHALL BE PROVIDED FOR ALL EROSION CONTROL PRACTICES AS SPECIFIED IN THE APPROVED STORM WATER POLLUTION PREVENTION PLAN

CONSTRUCTION LIMITS

IN GENERAL THE CONSTRUCTION LIMITS FOR THE PROJECT SHALL BE DEFINED AS FOLLOWS

PROPERTY LINES, RIGHT OF WAY (ROW) LINES, GRADING LIMITS, AND EXISTING UTILITY EASEMENT LINES SHALL BE THE CONSTRUCTION LIMITS UNLESS INDICATED OTHERWISE ON THE DRAWINGS

THE CONTRACTOR SHALL CONFINE CONSTRUCTION WORK WITHIN THE CONSTRUCTION LIMITS DEFINED

CONSTRUCTION ACTIVITIES SHALL BE RESTRICTED TO THE CONSTRUCTION LIMITS UNLESS PERMITTED OTHERWISE FROM THE ENGINEER. USE OF CITY LANDS FOR STORAGE AREAS, MATERIAL STORAGE, WASTE/DEMOLITION PILES, GENERATORS AND/OR TORSION STOCKPILING SHALL ONLY BE WITH PRIOR WRITTEN APPROVAL FROM THE CITY AND CARRIAGES AND RESTORATION OUTSIDE THE CONSTRUCTION LIMITS SHALL BE AT THE CONTRACTOR'S CHARGE

UTILITY CONNECTIONS

ALL WATER CONNECTIONS SHALL BE IN ACCORDANCE WITH THE CITY OF SAUPE CITY UTILITY CONSTRUCTION CODE AND STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION 2008 EDITION OR

THE DESIGNER'S PIPE JOINT SELECTIONS ARE ALL WITHIN THE PIPE MANUFACTURER'S RECOMMENDATION. JOINT SELECTIONS EXCEEDING THE MANUFACTURER'S ALLOWABLE LIMITS WILL BE DISAPPROVED UPON PERMITS DESIGNER CONTRACTS AND MUST BE DESIGNED BY THE PROJECT ENGINEER

PIPE HYDRAULIC ASSEMBLIES SHALL INCLUDE THE PIPE HYDRAULIC AIR PRESS OR AIR RELEASE VALVE, AND 8" PVC LINE UNLESS OTHERWISE NOTED. BERRY ELEVATION FROM PIPE HYDRAULICS ARE TO SET AT 10' BACK OF CURB NEARST PLUS 3" ON GRADE TO 0.00 W LINE

CONFINED VERTICAL SEPARATION AT ALL LOCATIONS BENEATH WATER MAINS CROSS SECTIONS AT STORM DRAINAGE MANHOLES PROVIDE INCREASING IN ACCORDANCE WITH CITY OF SAUPE CITY UTILITY CONSTRUCTION CODE IF WATER MAIN IS LESS THAN 18" DIAMETER BELOW THE STORM MAIN. ENSURE THE WATER MAIN IS SIZE (6" INCHES OF CONCRETE PER AT LEAST 100' FEET OUTSIDE OF STORM PIPE EACH SIDE OF THE STORM MAIN)



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LEGEND

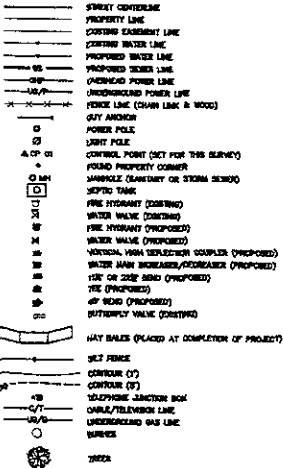
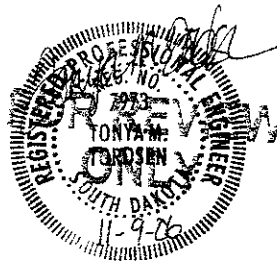


TABLE OF PIPE HYDRAULICS

PIPE	TRAFFIC	ADJUST	CUNYIN	GRADE	APPROX	FEET	LOSS
30" DIA	1-30	0.00	0.17	0.28	0.24	0.02	0.00
36" DIA	0.10	0.10	0.17	0.00	0.00	0.00	0.00



GENERAL NOTES
AND
LEGEND