THE SITE GRADING, EXCAVATION AND PLACEMENT OF FILL SHALL BE IN ACCORDANCE WITH CURRENT REGULATIONS AND PROCEOURES FOR SUBDIVISION CONSTRUCTION IN RAFID CITY, SOUTH DAXOTA

THE CONTRACTOR SHALL SECURE ALL REQUIRED PERMITS PRIOR TO

ALL EXFSTING UTILITIES MAY NOT BE SHOWN OR THE LOCATIONS MAY WARY FROM THAT SHOWN THE CONTRACTOR IS RESPONSIBLE TO HAVE ALL UTILITIES LOCATED PRIOR TO BEGINNING WORK

PROVIDE TRAFFIC CONTROL DURING CONSTRUCTION IN ACCORDANCE WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES

ALL WORK SHALL DOMPLY WITH THE CITY OF RAPID CITY STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (THE CURRENT

PRIOR TO BEGINNING CONSTRUCTION. THE GRADING CONTRACTOR SHALL ORTAIN AND COMPLY WITH

A PENINGROW COUNTY DUST CONTROL PERMIT

A MAITIONAL POLITURAL DISCOMMENDE FLUTIONS SYSTEM (MPDES)

IN DEMERAL, THE CONSTRUCTION LIMITS FOR THE PROJECT SHALL SE
PERMIT FOR WASTER NUMBER

DEFINED AS FOLLOWS

THE CONTRACTOR SHALL CLEAR AND GRUB THE AREA TO BE GRADED TOPSOIL WITHIN THE GRADING LIWITS SHALL BE STRIPPED AND STOCKPILED AFTER THE SITE GRADING IS COMPLETE, THE CONTRACTOR SHALL SPREAD THE TOPSOIL OWER ALL GRADED AREAS EXCEPT UNGER THE

THE CONTRACTOR SHALL GRADE THE SITE TO THE LINES AND GRADES SHOWN ON THE DRAWINGS OR STANFO BY THE ENGINEER EXCAVATION SKALL INCLUDE ALL MATERIALS ENCOUNTERED OF WHATEVER NATUR

ALL AREAS. EXCEPT THOSE AREAS TO BE PAVED DISTURBED DURING THE ARREST TAKEN INSERTING TO BE THE DISTURDED DOWNING CONSTRUCTION SHALL BE FERTILIZED, SEEDER, AND MULCHED FOR EROSION CONTROL FOLLOWING COMPLETION OF THE GRADING OPERATIONS THE TOPPOIL PLACEMENT, PERTILIZITING, SEEDING, AND MULCHING SHALL BE DONE IN CONFORMANCE WITH THE CITY OF RAPID CITY, STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (THE CURRENT

ALE PROPOSED DESIGN STENENTS SHOWN ON THE PLANS AND DESCRIPTED WITHIN THE SPECIFICATIONS SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR UNLESS EXPLICITLY STATED OTHERWISE

THE INFORMATION ON THESE DRAWINGS CONCERNING THE TYPE, SIZE, AND LOCATION OF UTILITIES HAS BEEN SHOWN BASED UPON THE BEST INFORMATION AVAILABLE THE CONTRACTOR IS RESPONSIBLE FO DETERMINING THE EXACT LOCATION OF ALL UTILITIES PRIOR TO BEGINNING CONSTRUCTION THE CONTRACTOR IS RESPONSIBLE FOR PROTECTING ALL EXISTING UTILITIES IN PLACE CONTRACTOR SH COORDINATE ALL RELOCATION S WITH THE UTILITY COMPANIES

ELECTRICAL, TELEPHONE, TELEVISION, FIBER AND GAS UTILITIES WILI BE ADJUSTED AND/OR RELOCATED BY THE RESPECTIVE UTILITY COMPANIES

THE CONTRACTOR SHALL CONTACT ALL UTGLITY COMPANIES PRIOR TO SIDDING THIS PROJECT SO THAT HE IS AWARE OF THEIR RELOCATION ADJUSTMENT / OR INSTALLATION REGARDING THIS PROJECT, AND INCLUDE
ANY NECESSARY IMPACT TO THE SCHEDULE HE INTENDS TO FOLLOW ANY CONFLICTS WILL BE THE RESPONSIBILITY OF THE CONTRACTOR AND UTILITY TO RESOLVE AT NO COST IN THE TIME OR MONEY TO THE CITY ALL NEW UTILITIES INSTALLED ALONG THE PROJECT SHALL BE INSTALLED.

(SIGNAL, STREET LIGHTS) GITY OF RAPIO CITY

MONTANA-DAKOTA UTILITIES

(TELEPHONE TELEVISION) NEDCONTENENT COME

1301 OWAHA STREET SUITE 106

TRAFFIC OPPRATIONS

718 STEELE AVENUE

(605) 342 0160

(605) 888 1300

(SEWER, WATER) CITY OF RAPID CITY UTILITIES DEPARTMENT

(605) STEELE AVENUE (605) 394 4163

(605) 394 4118

UTILITIES SOUTH BAKOTA ONE CALL L BOO 781 7474

(ELECTRIC) BLACK HILLS POWER AND LIGHT COMPANY 09 DEADWOOD AVENUE (605) 721 3200

(ELECTRIC) WEST RIVER ELECTRIC 3250 E HIGHWAY 44 (605) 393 1600

(TELEPHONE TELEVISION) 809 DEADWOOD AVENUE (605) 721 2000

(TELEPHONE)
GOLDEN WEST TELECOMMUNICATIONS
415 CROWN STREET WALL. SD

(605) 279 PIRI {TELEPHONE}

OWEST (USWEST (800) 573 1311

## AIR QUALITY PERMIT

THE CONTRACTOR WILL BE REQUIRED TO OBTAIN AND ADHERE TO AN AIR GUALITY CONSTRUCTION PERMIT FROM THE CITY OF RAPID CITY GROWTH MANAGEMENT DEPARTMENT

# CONSTRUCTION STAKING

ALL STAXENS ON THE PROJECT WILL BE BY THE CONTRACTOR IN ACCORDANCE WITH THE RAPID CITY STANDARD SPECIFICATIONS

## CONSTRUCTION SCHEDULE

THE CONTRACTOR IS REQUIRED TO FRENISH A CONSENSION SCHEDULE AT THE PRE CONSTRUCTION MEETING THE CONSTRUCTION SCHEDULE MUST BE APPROVED BY THE SMETHER PRIOR TO WORK BEGINNING

### EROSION CONTROL

ALL AREAS THAT ARE DISTURBED DURING CONSTRUCTION SHALL BE FERTILIZED, SEEDED, AND MULCHED FOR PERMANENT OR TEMPORARY EROSION CONTROL FOLLOWING COMPLETION OF GRADING TOPSOIL ENDING CONTROL POLLOWING COMPLETION OF MODULING INVOICE PROJECT WAS RETILIZING, SEEDING, AND MULCHING SHALL BE IN ACCORDANCE WITH CITY STANDARDS FOR PUBLIC WORKS CONSTRUCTION SEED MIX FOR ALL AREAS SHALL BE IN ACCORDANCE WITH CITY OF RAPIC CITY STANDARD SPECIFICATIONS FOR FURLIC WORKS CONSTRUCTION (THE CURRENT ADOPTED EDITION) (ROAD DITCH MIX DESIGN)

TEMPORARY EROSION CONTROL SHALL BE THE CONTRACTOR'S RESPONSIBILITY AND SHALL CONSIST OF STRAW BALES, SILT FENCE, OR OTHER MEANS TO CONTROL EROSION AS RECEDED (OR AS SHOWN OR THE PLANS) EROSION CONTROL BE IN ACCORDANCE WITH THE CITY STANDARDS FOR PUBLIC WORKS CONSTRUCTION

MAINTENANCE SHALL BE PERFORMED ON ALL EROSION CONTROL PRACTICES AS SPECIFIED IN THE APPROVED STORM WATER POLLUTION PREVENTION

### CONSTRUCTION LIMITS

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

THE CONTRACTOR SHALL CONFINE CONSTRUCTION WORK WITHIN THE

CONSTRUCTION ACTIVITIES SHALL 8E RESTRICTED TO THE CONSTRUCTION LIMITS UNLESS PRIOR APPROVAL IS RECEIVED FROM THE ENGINEER USE OF CITY LANGE FOR STACING ABOLE. MATERIAL STORAGE, SEDILESHATION POWER, DEMNETRING ABOUTE TO FOSIL STORAFILING SHALL ONLY BE WITH PRIOR BRITTER APPROVAL FROM THE CITY AND PARAMETERS ARE APPROVAL FROM THE CITY AND PARAMETERS ARE CONTRACTORS & REPRISE

## CONTROLLED LOW STRENGTH BACKFILL MATERIAL

REFER TO SPECIFICATIONS FOR CROSSING OF EXISTING STORM SEWERS, SWATISMY SEMENS, MATES MATES, AND WATER MAIN LOWERINGS AT ALL COLORITORS WERE THE PROPOSED UTILITY IMPOVEMENT COSSESS OF IS ADJACENT TO EXISTING STOMM SEMENS, SANITARY SEMENS ON WATER MAINS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR SAFEQUARDING THE EXISTING UTILITIES TO REGIME THAT THEY ARE NOT DISTURBED DURING THE WOOK! TEMPORARY STRUCKINGS, SUPPORT HE UTILITIES MAY BE REQUISED NO SEPARATE PAYMENT SHALL BE MADE FOR CROSSED UTILITY PROTECTION. ANY REPAIR WORK NECESSARY TO A CROSSED UTILITY RESULTING FOR THE CONTRACTOR S ACTIVITY SHALL BE AT THE CONTRACTOR'S EXPENSE

UNDER SOME CIRCUMSTANCES, LOW STRENGTH BACKFILL MATERIAL MAY SE REQUIRED FOR SUPPORT AND OTHER STRUCTURAL REASONS, AND NOT FOR ENGASEMENT UNDER THESE STRUCTIONS, THE LOW STRENGTH BACKFILL MATERIAL SHALL BE PAID FOR UNDER THE BID ITEM CONTROLLED LOW STRENGTH BACKFILL MATERIAL A GUANTITY OF 100CH HAS BEEN ASSUMED FOR THE BID ITEM. THE USE OF LOW STRENGTH MATERIAL SHALL BE AUTHORIZED BY THE ENGINEER PRIOR TO ENCASEMENT

# CONSTRUCTION SIGNING AND TRAFFIC CONTROL

CONSTRUCTION SIGNING AND TRAFFIC CONTROL SHALL CONFORM TO SECTIONS SO & ST OF THE STANDARD SPECIFICATIONS AND TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCO), AS SHOWN ON THE STANDARD DETAILS AND AS DIRECTED BY THE ENGINEER PRIOR TO COMMENCING CONSTRUCTION, THE CONTRACTOR SHALL PROVIDE A DETAILED TRAFFIC CONTROL PLAN FOR THE PROJECT

THE STANDARD DETAILS INCLUDED IN THESE PLANS, ALONG WITH THE NOTES, ARE INTENDED TO SERVE AS A GUIDE FOR THE CONTRACTOR IN DEVELOPING HIS DETAILED TRAFFIC CONTROL PLAN. DEVIATIONS FROM DEVELOPING HIS GETATLED TRAFFIC CONTROL PLAN. DEVIATIONS FROM THE REQUIREMENTS PRESENTED ON THE DETAILS MAY BE APPROVED IT TECHNIQUES AND METHODS NORMS TO THE CONTRACTOR WILL RESULT IN LUPROVED PROJECT EFFICIENCY, LESS TRAFFIC DISSUPPTION, LUPROVED ACCESS TO LOCAL PROPERTIES OR REDUCED CONSTRUCTION THE DEVIATIONS FROM THE REQUIREMENTS PRESENTED ARE, MOWEVER, SUBJECT TO THE APPROVAL OF THE ENGINEER.

PEDESTRIAN TRAFFIC SHALL BE PROTECTED FROM HAZARDS ASSOCIATED WITH THE PROJECT BY THE USE OF SNOW FENCE OR AN ALTERNATIVE APPROVED BY THE ENGINEER.

PAYMENT FOR DEVELOPMENT AND EMPLEMENTATION OF THE TRAFFIC CONTROL PLAN, AND PAYMENT FOR ALL RELAYED TRAFFIC CONTROL OBLIGATIONS WITH THE EXCEPTION OF FLAGGING DURING THE PROJECT SHALL BE MADE AT THE RESPECTIVE CONTRACT LUMP SUM PRICE FOR TRAFFIC CONTROL', AND "PREPARATION OF TRAFFIC CONTROL PLAN PAYMENT FOR CERTIFIED FLAGGERS WILL BE MADE AT THE CONTRACT UNIT PRICE PER MOUR FOR "FLAGGING" APPROVAL FROM THE ENGINEER PRICE TO THE USE OF FLAGGERS WILL BE RECOURSED

EXCAVATION AND PLACEMENT OF FILL SHALL BE IN ACCORDANCE WITH THE CURRENT REGULATIONS AND PROCEDURES FOR CONSTRUCTION IN RAPID

# CO-COMPOST

PRIOR TO SEEDING, THE CONTRACTOR WILL BE REQUIRED TO BLEND IN 1 OF CO-COMPOST OVER THE DISTURBED AREA CO COMPOST IS AVAILABLE AT THE RAPID CITY LANGILL PRES OF CHARGE CO COMPOST WILL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR HAULING AND PLACING

#### EROSION CONTROL PLAN

THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE DEVELOPMENT OF PLANS FOR, PROCUMEMENT, AND IMPLEMENTATION OF A SOUTH DAKOTA DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES 'STORM WATER' PERMIT THE CONTRACTOR SHALL FURNISH THE ENGINEER A COPY OF THE POLLUTION PREVENTION CONTROL PLAN AT THE PRE-CONSTRUCTION WEETING. EROSION CONTROL AND WATER POLLUTION CONTROL SHALL BE COMPLETED IN ACCORDANCE WITH SECTION 146 OF THE STANDARD SPECIFICATIONS

THE MINIMUM LOCATIONS FOR POLLUTION CONTROL DEVICES ARE SPECIFIED ON THE PLANS, MOMEVER, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO DEFEMBLIE ANY ADDITIONAL DEVICES AND LOCATIONS NECESSARY FOR POLLUTION CONTROL IN ACCORDANCE WITH THE

THE BIDDERS PROPOSAL INCLUDES QUANTITIES OF SILT FENCE, SILT FENCE REMOVAL, AND EROSION CONTROL BALES, THAT CAN BE USED BY THE CONTRACTOR FOR TEMPORARY AND PERMANENT EROSION CONTROL AND WATER POLLUTION CONTROL. WHEN USED, THESE ITEMS WILL BE MEASURED IN THE FIELD AND PAID FOR AT THE CONTRACT UNIT PRICES

OTHER TEMPORARY WATER POLLUTION MEASURES INCLUDING, BUT NOT LIMITED TO, SERMS, SMALES, ROCK CHECK DAMS, AND SILT PONDS MAY BE USED BY THE CONTRACTOR ALL OTHER COSTS ASSOCIATED WITH THE INSTALLATION, MAINTENANCE, AND REMOVAL OF TEMPORARY OR PERMANEN EROSTON CONTROL AND WATER POLITITION CONTROL WILL SE THE RESPONSIBILITY OF THE CONTRACTOR

ACTIVITIES ON THIS PROJECT WILL BE INCIDENTAL TO THE CONTRACT LUMP SUM PRICE FOR EROSION CONTROL AND WATER POLLUTION CONTROL

THE CONTRACTOR WILL BE REQUIRED TO FURNISH A SITE (S) FOR THE DISPOSAL OF CONSTRUCTION/DEMOLITION DEBRIS GENERATED BY THIS PROJECT CONSTRUCTION/DEMOLITION DESRIS MAY NOT BE DISPOSED OF

THE WASTE DISPOSAL SITE(S) SHALL BE MANAGED AND RECLAIMED IN ACCORDANCE WITH THE FOLLOWING FROM THE GENERAL PERMIT FOR HIGHMAY, ROAD, AND RAILWAY CONSTRUCTION/DEMOLITION DEBRIS DISPOSAL IMAGE THE SOUTH DAMAYA WASTE MANAGEMENT PROCESS ISSUED DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES

THE WASTE DISPOSAL SITE (5) SHALL NOT BE LOCATED IN A WETLAND. WITHIN 200 FEET OF SUPFACE WATER, OR IN AN AREA THAT ADVERSELY AFFECTS WILDLIFE, RECREATION, AESTHETIC VALUE OF AN AREA, OR ANY THREATENED OR ENDANGERED SPECIES , AS APPROVED BY THE ENGINEER

IF THE WASTE DISPOSAL SITE(S) IS LOCATED SUCH THAT IT IS WITHIN VIEW OF ANY ROW. THE FOLLOWING ADDITIONAL REQUIREMENTS SHALL

CONSTRUCTION (DRAIN LITTON BEBRIS CONSISTING OF CONCRETE,
ASPHANT CONCRETE, OR OTHER STRUCKAN WINTERLAS SIMAL BE SOMETED IN
A TREMCH COMPLETELY SEPARATE FROM WOOD DEBRIS. THE FUAL COVER
OVER THE CONSTRUCTION DEBRIS SHALL CONSISTS THE
MINIMUM OF 1 POOT OF SOIL CAPABLE OF SUPPORTING VEGETATION
WASTE CORPORAL STRUCK PROVIDED OUTSTEED OF THE CITY OR STATE FORM SHALL BE SEEDED IN ACCORDANCE WITH NATURAL RESOURCES
CONSERVATION SERVICE RECOMMENDATIONS THE SEEDING
RECOMMENDATIONS WAS BE GETAINED THROUGH THE APPROPRIATE COUNTY NRES OFFICE THE CONTRACTOR SHALL CONTROL THE ACCESS TO WASTE DISPOSAL SITES NOT WITHIN CITY OR STATE ROW THROUGH THE USE OF FENCES, GATES AND PLACEMENT OF A SIGN AT THE ENTRANCE TO THE SITE STATING 'NO DUMPING ALLOWED

2 CONCRETE AND ASPHALT CONCRETE DEBRIS MAY BE STOCKPILED WITHIN VIEW OF THE ROW FOR A PERIOD OF TIME NOT TO EXCEED THE DURANTION OF THE PROJECT PRIOR TO PROJECT COMPLETION, THE WASTE SHALL BE REMOVED FROM VIEW OF THE ROW OR BURIED AND THE WASTE DISPOSAL SITE RECLAIMED AS NOTED ABOVE

THE REQUIREMENTS WILL NOT APPLY TO WASTE DISPOSAL SITES THAT ARE COVERED BY AN INDIVIOUAL SOLID WASTE PERMIT AS SPECIFIED IN SOCI 34A-6-58, SDCL34A-6 1 13, AND ARSO 74.27 10 06

FAILURE TO COMPLY WITH THE REQUIREMENTS STATED ABOVE MAY RESULT IN CIVIL PENALTIES IN ADCORDANCE WITH SOUTH DAKOTA SOLID WASTE LAW, SDCL 34A-6-1 31

ALL COSTS ASSOCIATED WITH FURNISHING WASTE DISPOSAL SITE(S), DISPOSING OF WASTE, MAINTAINING CONTROL OF ACCESS (FENCE, GATES, AND SIGNS), AND RECLAMATION OF THE WASTE DISPOSAL SITE(S) SHALL BE INCIDENTAL TO THE VARIOUS CONTRACT ITEMS

## TOPSCIL

THE CONTRACTOR IS REQUIRED TO SALVAGE ALL TOPSOIL FROM WITHIN THE LIMITS OF THE TRENCH EXCAVATION AND REPLACE WITHIN THE AREAS TO BE SEEDED PAYMENT FOR PLACING TOPSOIL WILL BE INCIDENTAL TO THE CONTRACT UNIT PRICE FOR PIPE INSTALLATION NO SEPARATE MEASUREMENT WILL BE MADE

THE ESTIMATED AMOUNT OF TOPSOIL TO COVER THE AREAS DESIGNATED TO RECEIVE SEED IS FOUR INCHES (4\*) TOPSOIL AVAILABILITY ON THE PROJECT IS LIMITED AND THE ENGINEER MAY ORDER CHANGES TO STRIPPING OR PLACEMENT DEPTHS DEPENDING ON THE ACTUAL QUARTITIES OF TOPSOIL AVAILABLE AT THE PROJECT CONTRACTOR FURNISHED TOPSOIL WILL NOT BE REQUIRED THE ENGINEER WILL DETERMINE THE SUITABLITY OF ALL TOPSOIL

THE ITEMS AND WORK LISTED BELOW ARE TO BE INCLUDED IN THE INCIDENTAL WORK ITEM, THE LIST IS NOT ALL INCLUSIVE AND DOES NOT LIMIT THE SCOPE TO GALLY THOSE ITEMS THE CONTRACTOR SHALL INCLUDE THOSE ITEMS THAT MAY BE SPECIFIC TO HIS CONSTRUCTION

- PROTECT OTHER UTILITIES FROM MOVEMENT DURING EXCAMATION OBTAIN DERN ANTHORIZATION TO DISCHARGE FOR TRENCH DEWATERING OBTAIN ALL, NECESSARY PERMITS
- SHOP DRAWING & SHOOLST CHEMITTAIN

#### UTILITY CONSTRUCTION NOTES

ALL WATER MAIN CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE CITY RAPID CITY UTILITY CONSTRUCTION CODE AND STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION CURRENT EDITION.

THE DESIGNED PIPE JOINT DEFLECTIONS ARE ALL WITHIN THE PIPE MANUFACTURER'S RECOMMENDATION. JOINT DEFLECTIONS EXCEEDING THE MANUFACTURER'S ALLOWARE, LIMIT WILL BE ACCOMPLISHED USING MIGN DEFLECTION COUPLINGS AND MUST BE DESIGNED BY THE PROJECT

FIRE MYDRANT ASSEMBLIES SHALL INCLUDE THE FIRE MYDRANT AND RISER 6" AUXILIARY GATE VALVE, AND 6" PVC LEAD UNLESS OTHERWISE NOTED

CONFIRM VERTICAL SEPARATION AT ALL LOCATIONS WHERE WATER MAINS CROSS SANITARY OR STORE SEWER MAINS PROVIDE ENCASEMENT IN CROSS SANITARY OR STORM SEWER MAINS PROVIDE ENCASSMENT IN ACCORDANCE WITH CITY OF ARADIC CITY UTILITY CONSTRUCTION CODE IF WATER MAIN IS LESS TWAN 18' ABOVE OR BELOW THE SEWER MAIN ENCASE THE WATER MAIN IN SIX (6) INCHES OF CONCRETE FOR AT LEAST TEN (10) FEET OUTSIDE OF SEWER PIPE SACK SIDE OF THE CROSSING

## PERMANENT SEEDING, FERTILIZING, AND MULCHING

ALL AREAS DISTURBED AND/OR GRADED DURING THE CONSTRUCTION OF THE PROJECT WILL BE PERMANENTLY SEEDED
THE PERMANENT SEED MEXTURE SHALL BE AS SPECIFIED BELOW FOR A
ROAD DITCH MIXTURE THE RATE OF APPLICATION SHALL BE 100 POUNDS

SEED SHALL BE PLACED BY DRILLING WETHODS ON ALL AREAS

A COMMERCIAL FERTILIZER SHALL BE APPLIED AS SPECIFIED IN SECTION 71 OF THE CITY STANDARD SPECIFICATIONS THE RATE OF APPLICATION SHALL BE 200 POUNDS PER ACRE

GRASS HAY OR STRAW MULCH SHALL BE APPLIED TO ALL SEEDED AREAS AS SPECIFIED IN SECTION 72 OF STANDARD SPECIFICATIONS THE RATE OF APPLICATION SHALL BE 2000 FOUNDS PER ACRE

### FIRE HYDRANTS

HYDRANTS SHALL BE SET ACCORDING TO RAPID CITY DETAIL 8-1 PAYMENT FOR FIRE HYDRANTS SHALL INCLUDE THE AUXILIARY VALVE AND BOX AS CALLED FOR IN SECTION 8 5 OF THE RAPID CITY

FIRE HYDRANT ASSEMBLIES SHALL INCLUDE THE FIRE HYDRANT AND RISER, 8° AUXILIARY GATE VALVE, AND 5° PVC LEAD UNLESS OTHERWISE NOTED

#### WATER MAIN THRUST RESTRAINTS

RESTRAINING DEVICES ARE REQUIRED PER THE STANDARD SPECIFICATIONS
RESTRAINING LENGTHS WERE GALDMATED USING THE FRAM IRON RESTRAINT LENGTH CALCULATOR RESTRAINT LENGTHS ARE SHOWN ON THE ABLE PROVIDED ON SHEET 3

PAYMENT FOR WATER MAIN THRUST RESTRAINTS AND WATER MAIN THRUST BLOCKS SHALL BE CONSIDERED INCIDENTAL TO THE FITTINGS AND WATER LINE BID ITEMS AND NO SEPARATE PAYMENT WILL BE MADE

## RECOING AND FOUNDATION WATERIAL

QUANTITIES OF TYPE 1 GRANULAR MAJERIAL AND TYPE (I FOUNCATION MATERIAL HAVE BEEN INCLUDED IN THE ESTEMATE OF QUANTITIES FOR USE WHERE UNSTABLE TRENCH BOTTOM IS ENCOUNTERED APPROVAL OF THE ENGINEER IS REQUIRED FOR PAYMENT ALL OTHER REDDING MATERIAL IS INCIDENTAL TO THE WATER OR SEWER MAIN INSTALLED PER THE RAPID CITY SPECIFICATIONS

EXCAVATION AND DISPOSAL OF UNSTABLE MATERIAL, WHERE THE CRUSHED ROCK WILL BE PLACED, REGARDLESS OF TYPE, SHALL BE INCIDENTAL TO THE CONTRACT UNIT PRICE FOR CHUSHED ROCK

TYPE B DRAINAGE FABRIC SHALL BE PLACED AS DIRECTED BY THE ENGINEER SETWENT THE CRUSHED ROCK AND GRAVEL CUSHION PAYMENT FOR THE ENGINEERING GEOGRID FABRIG DRAINAGE FABRIC USED IN THIS INSTALLATION WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE YARD FOR "ENGINEERING GEOGRID FABRIC "

## TRENCH CHECK DAM

CONTRACTOR SHALL PLACE WITHIN THE TRENCH A COMPACTED CONESIVE CLAY CHECK DAM DURING CONSTRUCTION, CHECK DAM LOCATIONS MAY BE OVER OWNERS AND SOUTH CONSTITUTIONS THE CHECK DAW SHALL EXTEND FROM THE BOTTOM OF THE EXCANATION THROUGH THE BODING MATERIAL TO THE BACKFILL AND SHALL EXTEND COMPLETELY TO EACH TRECKY SIGEMALL. THE CHECK DAM IS USED AS A MEANS TO PREVENT THE CONVEYANCE OF WATER THROUGH THE TRENCH BEDDING COMPACTED CONESIVE CLAY SHALL CONSIST OF MATERIAL THAT CONTAINS A MINIMUM OF 25% MINUS NO 200 

WATER MAIN CORROSION PROTECTION CATHODIC PROTECTION AS DESIGNED BY HKM ENGINEERING INC. AND RUSTHOT CORNOSION CONTROL SERVICES, INC SHALL SE INSTALLED FOR THE PROPOSED WATER MAIN ROUTE COSTS FOR CATHODIC PROTECTION SHALL SE INCIDENTAL TO THE WATER MAIN INSTALLATION

#12 TRACER WIRE WILL BE REQUIRED AS CALLED FOR IN CITY OF RAPID CITY STANDARD SPECIFICATIONS

# TABLE OF FIRE HYDRAKTS

STATION	OFFSET	FINISH GRADE	APPROX LEAD CROWN EL.
4+74 52	8 25 L	3236 10	3229 0
11460 24	8 25 L	3247 95	3241 35

#### PROJECT ACCEPTANCE AND WARRANTY PERIOD

FINAL ACCEPTANCE OF THE PROJECT BY THE OWNER WILL BE DOCUMENTED BY THE ISSUANCE OF AN ACCEPTANCE LETTER WHICH IS ISSUED ACCORDING TO THE FOLLOWING CRITERIA

- CONSTRUCTION MAS BEEN SUBSTANTIALLY COMPLETED AND THE FACILITIES CAN BE PUT TO THEIR INTENDED USE ALL TESTING MAS BEEN COMPLETED, AND THE REQUIRED RESULT HAVE BEEN MET

A WARRA										
AMOUNT										
COST OF										
THE CIT	סז יר	SECUR	E TH	E WA	RRAST	Y FOR	A PEI	100	0= 1	<b>#</b> 0

7.67 Day

1.0	PVC
FITTINGS	RESTRAINED LENGTHS
SENDS	
11 X	3
22 K	
445	10
# 90T	_
TEE'S	
≨16 x6	10
16"x8*	
16"×10"	_
16"x12"	
15"x14"	
16 x16	-
VALVE	73
REDUCERS/I	NCREASERS
16"x6"	
16 x8	-
16"x10"	
16 x12	
16 ×14	
VERTICAL OF	FSETS
SHT #4	
UPPER	BEND -
LOWER	
SHT #-	
UPPER	BEND 8
LOWER	

RESTRAINING REQUIREMENTS
ALL FITTINGS VALVES AND P.PE JOINTS W'THIN THE
SPECIFIED RESTRAINED LENGTHS LISTED BELOW SHALL

INSTRULATION CONDITIONS USED FOR CALCULATIONS
T SOIL TYPE A CA, ORAN FILE
1 TABLES TYPE & 5
3 TEST PRESSURE - 150 9%,
4 SAFETY FACTOR - 15 1

- DEFTH BURY 6 D FT TEE RESTRAINTS WERE CALCULATED WARESTRAINT LEMETHS OF TO IN EACH DIRECT.ON ALONG THE RUN OF TEE

MOTE CALCULAT ONS FOR RESTRAINED LENGTHS WERE DER'VED FROM EBMA IRON INC. SOFTWARE

# LEGEND

0	DECIDIOUS TREE
<del></del>	1 POLE SIGN
•	FOUND PROPERTY CORNER
۵	CONTROL POINT
~	GUY WIRE ANCHOR
ø	POWER POLE
18" RCP	STORM SEWER
— он ——	OVERHEAD LINES
	POWER LINE
	CHAINLINK FENCE
_ <del>×</del>	BARBED WIRE FENCE
<del></del>	PROPERTY LINE
	EASEMENT LINE
	RIGHT-OF-WAY LINE
100	MAJOR CONTOUR
•=••	MINOR CONTOUR
•	PROPOSED FIRE HYDRANT
H	PROPOSED GATE VALVE
-	penengen ter

PROPOSED 11 1/4" BEND

PROPOSED 22 1/2" BEND PROPOSED 45" BEND PROPOSED 16" WATER MAIN

-tcoo-

PROPOSED MAJOR CONTOUR PROPOSED MINDS CONTOUR PROPOSED EASEMENT

2 of 9

DREAM DESIGN Employee Care and the Control of the

FOR REVIEW ONLY

CITY OF RAPID CITY GROWTH MANAGEMENT DEDT

Physical Processing of the Communication of the Com mings shall be polyment prior to construction of the spored public improvements.

Engineering Revenuer

THE NO. DANS BY 2 0028.30 STOMOS ISK CONSULTING ENG. 10/2007

CABLE TV OR TELEPHONE RISER

CROSSING and LOW LEVEL and LOW L RUSHMORE ( OFFSITE HIGH an ie Hilo. Water

GENERAL NOTES