

RIGHT OF WAY LINE	
DITCH CENTERLINE	
FENCE LINE	
RETAINING WALL	
GRAVEL LINE	
GUARD RAIL LINE	
RAILROAD TRACK LINE	
ROAD CENTERLINE	
TREE LINE	
STREAM LINE	
WETLAND LINE	
EX SANITARY LINE	
PR SANITARY LINE	
AB SANITARY LINE	
EX FORCEMAIN LINE	
PR FORCEMAIN LINE	
AB FORCEMAIN LINE	
EX STORM LINE	
PR STORM LINE	
AB STORM LINE	
EX WATER LINE	
PR WATER LINE	
AB WATER LINE	
EX GAS LINE	
PR GAS LINE	
AB GAS LINE	
EX STEAM LINE	
EX STEAM LINE	
UG CABLE TV LINE	
AB CABLE TV LINE	
UG ELECTRIC LINE	
AB ELECTRIC LINE	
UG FIBEROPTIC LINE	
AB FIBEROPTIC LINE	
UG TELEPHONE LINE	
AB TELEPHONE LINE	
OH ELECTRIC LINE	
OH TELEPHONE LINE	
OH CABLE TV LINE	

EX SANITARY MANHOLE	(SAN)	
EX SANITARY CLEANOUT	(STRM)	
EX STORM MANHOLE	(W)	
EX STORM CATCHBASIN		
EX. WATER MANHOLE	(W&G)	
EX. WATER VALVE		
EX. WATER HYDRANT	(GAS)	
EX. WATER SHUTOFF	(STEAM)	
EX. WATER & GAS MH	(E)	
EX. GAS MANHOLE		
EX. GAS VALVE	(T)	
EX. GAS SHUTOFF		
EX. STEAM MANHOLE		
EX. TELEPHONE MANHOLE		
EX. ELECTRIC MANHOLE		
EX. POWERPOLE		
EX. LIGHT POLE		
EX. ELECTRIC VAULT		
EX. ANCHOR		
EX. ELECTRIC TRANSFORMER		
EX. STREET LIGHT		
EX. SIGNAL W/ STREET LIGHT		
EX. HANDHOLE	(H.H.)	
EX. HANDHOLE		
EX. TELEPHONE PEDESTAL		
EX. WELL		
BENCHMARK		
FOUND CI MONUMENT		
EX. SIGN		
CONTROL POINT		
EX DECIDUOUS TREE		
EX CONIFEROUS TREE		
EX. PARKING METER		
EX. SOIL BORING		

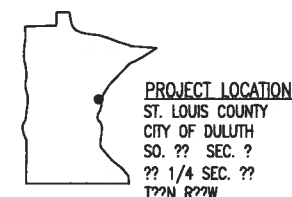
CONSTRUCTION PLANS FOR:
4TH AVE. E. (BETWEEN 4TH ST. AND 3RD ST.) &
2ND AVE. E. (BETWEEN 4TH ST. ALLEY AND 3RD ST.)

A hand-drawn map of a street grid in Los Angeles. The map shows streets from 1st to 7th running east-west and LA Ave to Superior Ave running north-south. A 'PROJECT LOCATION' is marked with a black rectangle on LA Ave between 3rd and 4th streets. Arrows indicate traffic flow: northbound on LA Ave, southbound on Superior Ave, and various directions on other streets. A circled '9' is located on Superior Ave between 4th and 5th streets. The map is titled 'PROJECT LOCATION' and includes a north arrow.

PRELIMINARY
NOT FOR CONSTRUCTION

THE SUBSURFACE UTILITY INFORMATION IN THIS PLAN IS UTILITY LEVEL D. THIS QUALITY LEVEL WAS DETERMINED ACCORDING TO THE GUIDELINES OF CI/ASCE 38-02, ENTITLED "STANDARD GUIDELINES FOR THE COLLECTION AND DEPICTION OF EXISTING SUBSURFACE UTILITY DATA".

WARNING:
LOCATION OF UNDERGROUND UTILITIES TO BE VERIFIED BY
CONTRACTOR. CALL BEFORE DIGGING. GOPHER STATE ONE
CALL 1-800-252-1166 REQUIRED BY LAW



THE 2005 EDITION OF THE MINNESOTA DEPARTMENT OF TRANSPORTATION
"STANDARD SPECIFICATIONS FOR CONSTRUCTION" SHALL GOVERN.
AVAILABLE AT: <http://www.dot.state.mn.us/pre-letting/spec/index.html>

THE 2360 PLANT MIXED ASPHALT PAVEMENT SPECIFICATION DATED 02/04/2011
SHALL APPLY.
AVAILABLE AT: <http://www.dot.state.mn.us/materials/bituminous.html>

ALL TRAFFIC CONTROL DEVICES AND SIGNING SHALL CONFORM TO THE MN MUTCD,
INCLUDING THE FIELD MANUAL DATED FEBRUARY 2011.
AVAILABLE AT: <http://www.dot.state.mn.us/trafficeng/publ/fieldmanual2011/>

THE 2011 EDITION OF THE CITY OF DULUTH PUBLIC WORKS AND UTILITIES
DEPARTMENT STANDARD CONSTRUCTION SPECIFICATIONS AND SUPPLEMENTS OR
ADDENDUMS SHALL APPLY. AVAILABLE AT:
http://www.duluthmn.gov/engineering/spec_book/

<u>SHEET NO.</u>	<u>DESCRIPTION</u>
1	TITLE SHEET
2	STATEMENT OF ESTIMATED QUANTITIES
??	??
??	??
??	??
??	??
??	??

THIS PLAN CONTAINS **4** SHEETS

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY
DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL
ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

NAME
PROJECT ENGINEER (TYPED OR PRINTED NAME)

		??
PROJECT ENGINEER	DATE	REG. NO.

CITY APPROVAL

APPROVED CHIEF ENGINEER OF TRANSPORTATION DATE

APPROVED _____ CHIEF ENGINEER OF UTILITIES _____ DATE _____

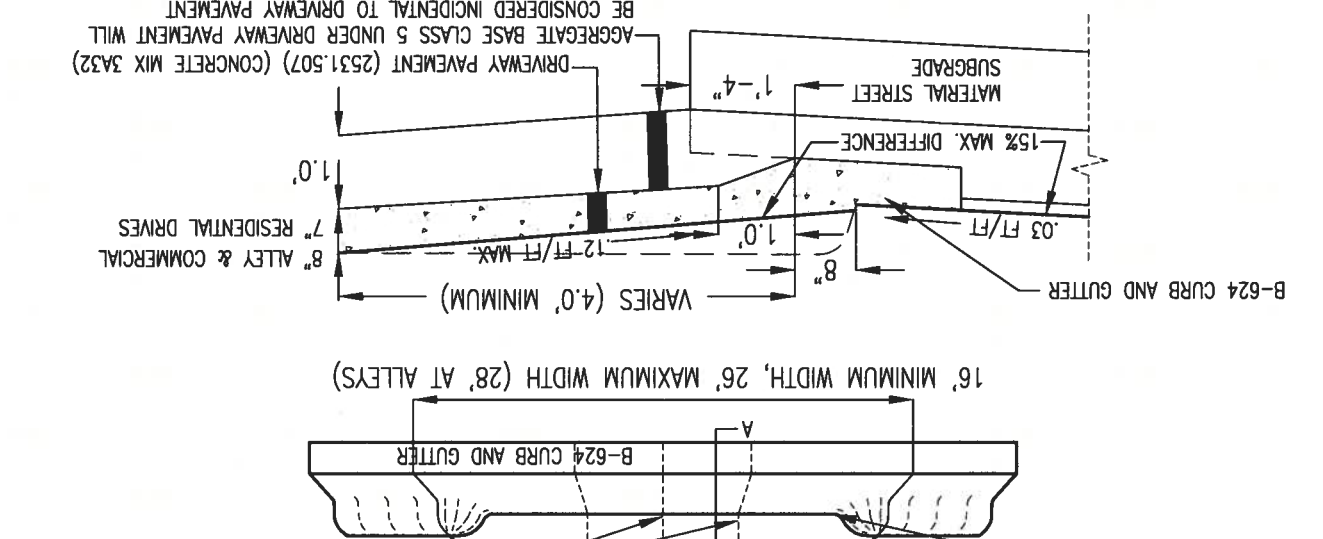
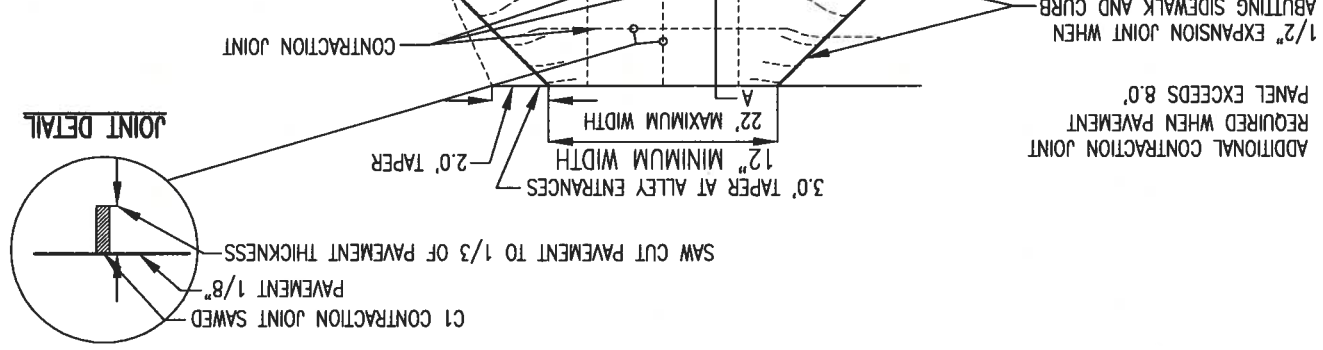
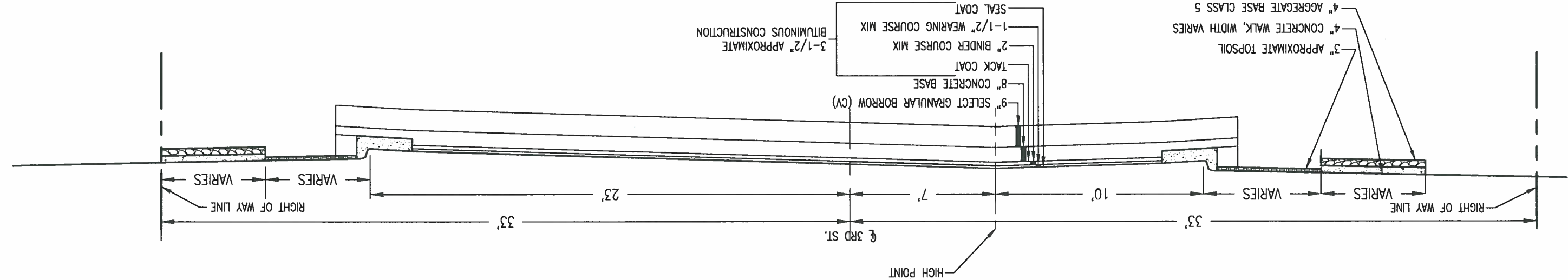
APPROVED CITY ENGINEER DATE

CITY OF DULUTH PROJECT NO. 0839GS-41

DRAWN BY: KLB

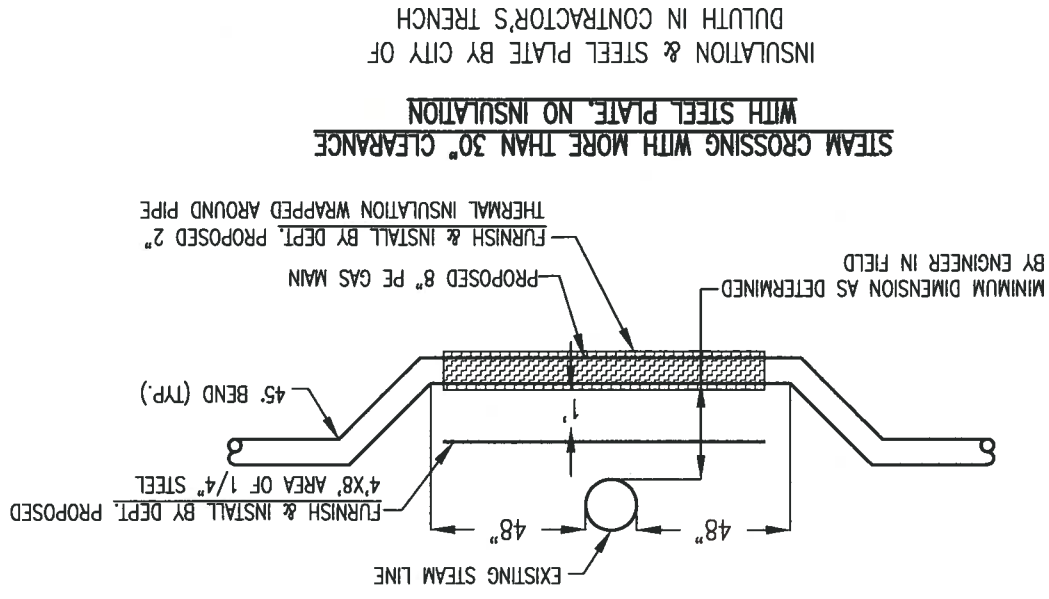
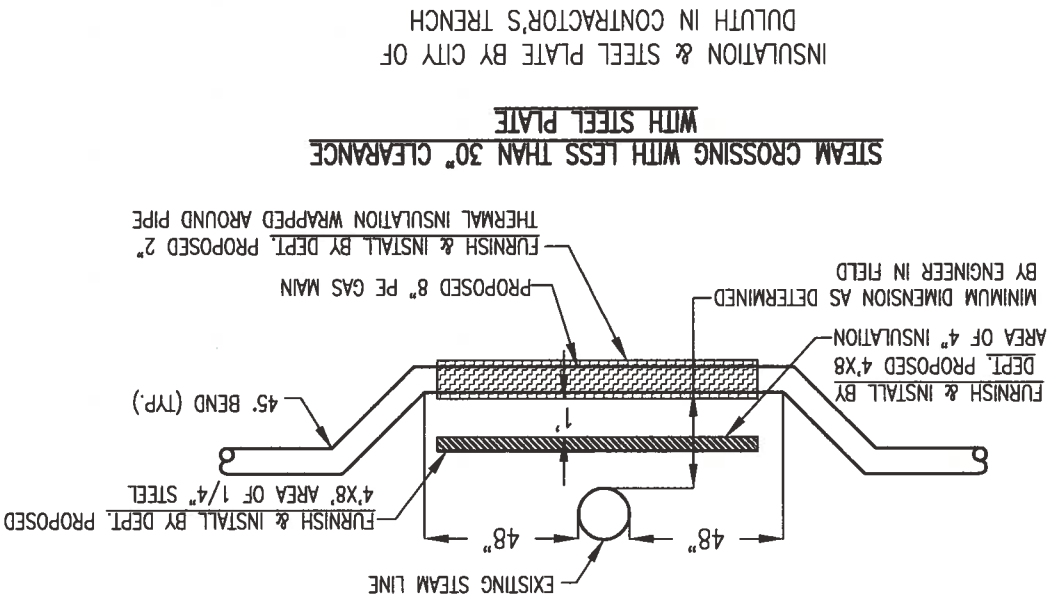
SHEET NO. 1 OF 5

ROCK BORINGS									
BORING LOCATION									
#	DISTANCE FROM CL OF STREET	AND	DISTANCE FROM CL OF STREET	AND	100' S/CL	OF	4TH STREET	8'	N
1	8' E/CL	OF	4TH AVE EAST	AND	100' S/CL	OF	4TH STREET	8'	N
2	8' E/CL	OF	4TH AVE EAST	AND	167' S/CL	OF	4TH STREET	8'	N
3	16' E/CL	OF	4TH AVE EAST	AND	235' S/CL	OF	4TH STREET	8'	N
4	16' E/CL	OF	4TH AVE EAST	AND	321' S/CL	OF	4TH STREET	5' 6"	Y
5	32' W/CL	OF	2ND AVE EAST	AND	19' S/CL	OF	4TH ST ALLEY	6' 6"	Y
6	31' W/CL	OF	2ND AVE EAST	AND	4TH AVE EAST	OF	4TH ST ALLEY	2' 11"	Y
7	33' W/CL	OF	2ND AVE EAST	AND	135' S/CL	OF	4TH ST ALLEY	8'	N



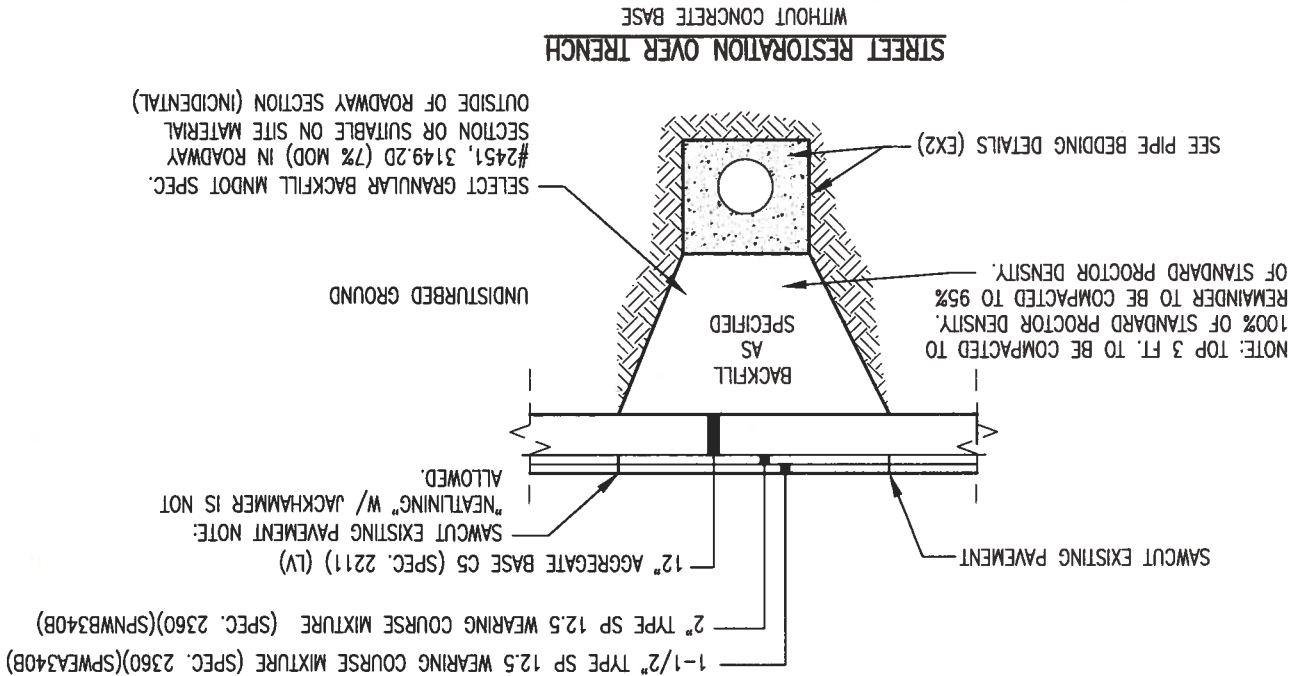
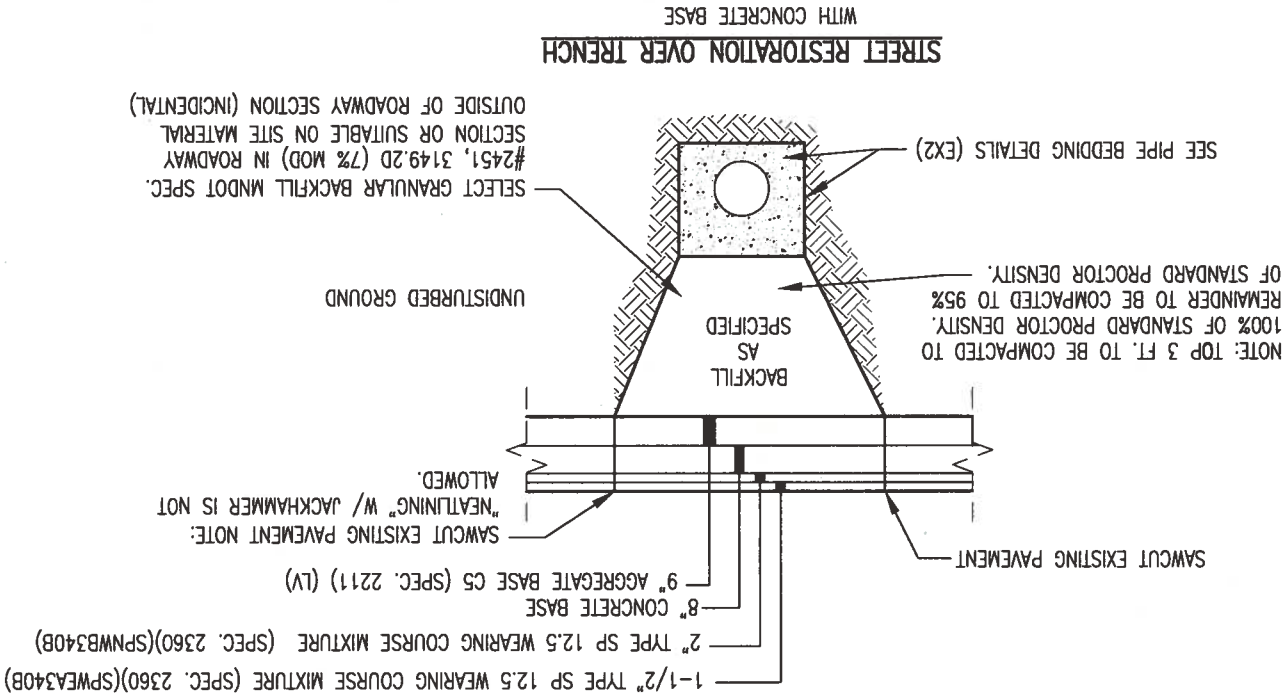
NOTE: THE CREST OF THE DRIVEWAY MUST BE AT LEAST 6" ABOVE GUTTER TO CONTAIN RUNOFF. NOTE: STATE OF MIN. STANDARD PLATE 7035L NOTE 5 SHALL NOT APPLY.

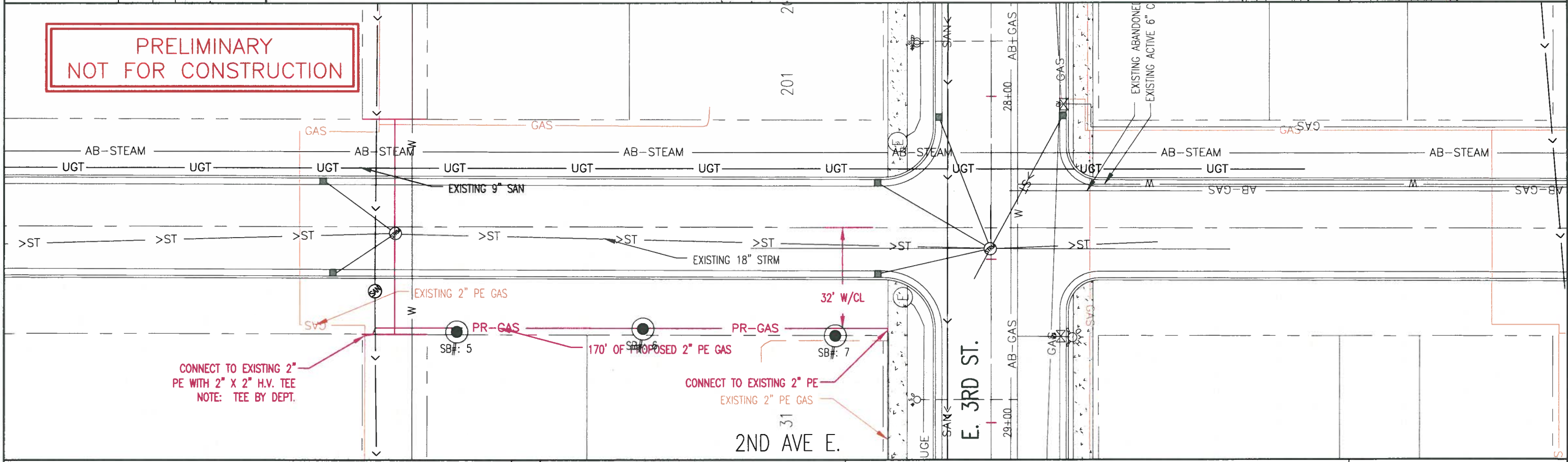
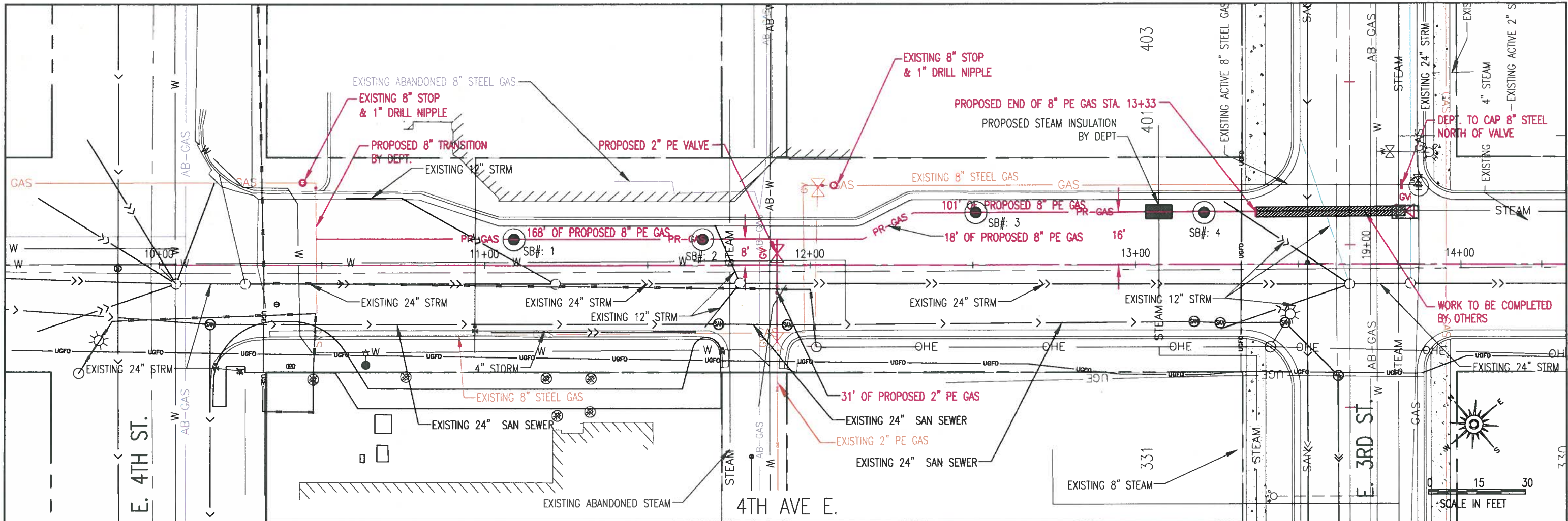
PRELIMINARY
NOT FOR CONSTRUCTION



PRELIMINARY

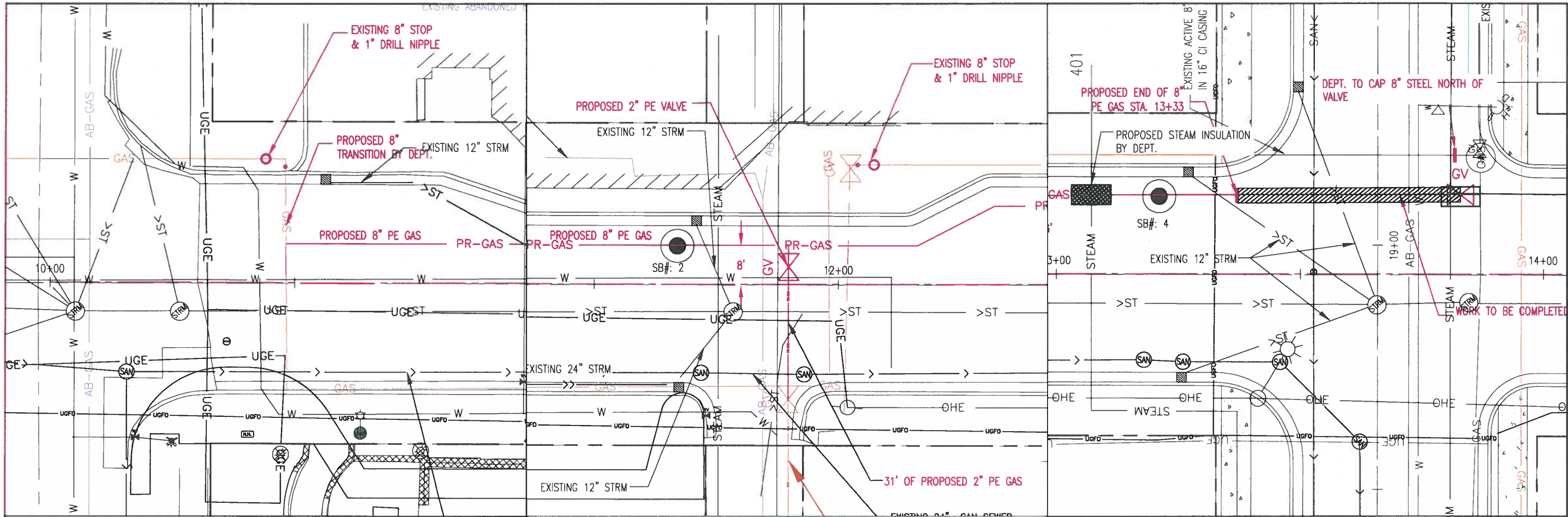
NOT FOR CONSTRUCTION





PRELIMINARY
NOT FOR CONSTRUCTION

CERTIFIED BY: X	REG. NO.: ??	REVISION	CITY OF DULUTH	DRAWN BY: KLB
SIGNATURE: _____	DATE: _____		CITY PROJECT NO.: 0904GS-41	STATE AID PROJECT NO.: _____
				SHEET NO. 4 OF 5



PRELIMINARY
NOT FOR CONSTRUCTION

DONE BY CONTRACTOR	
1	INSTALL 8" P.E. MAIN FROM STA 10+47 TO STA 13+33
2	INSTALL 8" P.E. 90° TO NORTH, 5' OF 8" P.E. AND CAP TO EAST AT STA 13+33
3	INSTALL END CAP WITH TEST HEAD ON 8" P.E. PIPE AT STA 13+33
4	TEST 8" P.E. MAIN PER STANDARD SPECS.
5	2" PURGE STACK WILL BE REQUIRED AT STA 13+33
6	INSTALL, TEST, & CONNECT 2" P.E. ON 2ND AVE EAST - 4TH ST ALLEY TO 3RD ST

TWO WAY FEED HAS BEEN CONSTRUCTED ON 2ND AVE E BEFORE NEXT STEP

DONE BY PUBLIC WORKS & UTILITIES	
1	EXCAVATE & CLOSE STOP ON 8" STEEL GAS @ STATION 10+40 , RE-USE DRILL NIPPLE
2	CLOSE VALVE # 08578 , ON 2" P.E. MAIN AT STATION 11+90
3	CLOSE VALVE # 06268 , PURGE GAS TO AIR FROM VALVE TO STOP/DRILL NIPPLE
4	CUT OFF 8" GAS & INSTALL 8" TRANSITION TO WEST AT STATION 10+47 (CAP IF NEEDED)
5	EXCAVATE, & CUT OFF 8" GAS & INSTALL 8" CAP AT STATION 13+80
6	ABANDON 8" STEEL GAS MAIN FROM 47.0 S/CL 4TH STREET TO 3RD STREET STA 13+80

DONE BY CONTRACTOR	
1	INSTALL TESTED 8" P.E. PIPE FROM BEND TO 8" P.E. TRANSITION
2	CONNECT 8"P.E. PIPE TO TRANSITION, SOAP TEST ALL CONNECTIONS AFTER PRESSURIZED

DONE BY PUBLIC WORKS & UTILITIES	
1	OPEN 8" STOP, & PURGE AIR TO GAS THROUGH 2" TEST HEAD AT STA 13+33 , THEN CAP 2"
2	REMOVE ALL STOP EQUIPMENT & SOAP TEST AFTER CONNECTIONS ARE MADE
3	INSTALL 8" x 2" HIGH VOLUME TAPPING TEE & 2" POLY VALVE TO WEST, AT STA 11+90
4	TEST, TAP, PURGE, & CAP 2" POLY VALVE. SOAP TEST CAP

DONE BY CONTRACTOR	
1	2" P. E. HAS BEEN INSTALLED, TESTED , & CONNECTED ON 2ND AVE EAST
2	SQUEEZE OFF 2" P.E. MAIN AT STA 11+90 AND 30.0' W/CL 4TH AVE E
3	CONNECT TESTED 2" P.E. MAIN FROM , NEW 2" P.E. VALVE TO SQUEEZE OFF LOCATION
4	OPEN SQUEEZE AND PURGE 2" P.E. MAIN, THROUGH GAS SERVICE AT PARKING RAMP, SOAP TEST ALL CONNECTIONS.

