

CITY OF LEE'S SUMMIT
PUBLIC WORKS DEPARTMENT
DEVELOPMENT ENGINEERING GROUP

STREETS: Approved By: _____ Date: _____
TRAFFIC: Approved By: _____ Date: _____
WASST: Approved By: _____ Date: _____

Approval by the City Engineer or designee does not release the applicant from responsibility to comply with all City of Lee's Summit Ordinances and some engineering construction practices.

PW Records _____ PW Insp _____
_____ Day File _____

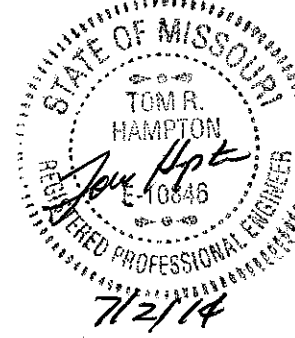
EXISTING 24,000 sq. ft. WAREHOUSE

Adjust to Grade
EAW
7/10/14

GENERAL NOTES

1. ALL PIPING SHALL BE INSTALLED PER AWWA C900 AND PER SECTION 1000 - WATER MAINS FOR CITY OF LEE'S SUMMIT DESIGN CRITERIA.
2. PIPING TO BE CLASS 92 CEMENT LINED DUCTILE IRON WITH IRONLESS FITTINGS.
3. TRENCH BACKFILL SHALL BE INSTALLED PER THE DETAILS ON THIS SHEET AND PER CITY OF LEE'S SUMMIT DESIGN CRITERIA.
4. ALL CONSTRUCTION SHALL FOLLOW THE CITY OF LEE'S SUMMIT DESIGN AND CONSTRUCTION MANUAL AS ADOPTED BY ORDINANCE 2013.

Adjust to Grade
EAW
7/10/14



FLOW TEST INFORMATION	
LOCATION:	JOB SITE
DATE/TIME:	JULY 2013
BY:	CITY OF LEE'S SUMMIT
SIZE OF CITY MAIN:	8"
STATUS: INSURING	92 PSI
RESIDUAL PRESSURE:	92 PSI
FLOW @ RESIDUAL:	1,500 GPM

NO.	DATE	BY	REVISION DESCRIPTION
1	7/10/14	EAW	ISSUED FOR CONSTRUCTION

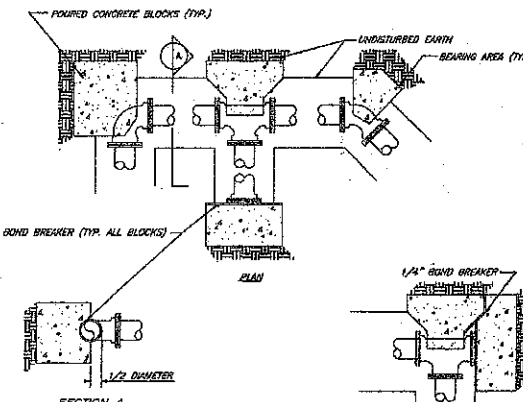
NO.	DATE	BY	REVISION DESCRIPTION
1	7/10/14	EAW	ISSUED FOR CONSTRUCTION



JOB NAME:
UNLAWER WAREHOUSE
UNDERGROUND PIPING PLAN
221 NW CHIPMAN ROAD
LEE'S SUMMIT, MO 64063
CONTRACT NO: 44250
TOTAL HEADS: 0
HEADS THIS SHEET: 0
SCALE: 1/16"=1'-0"
DESIGNED BY: A. GOETZ
CHECKED BY: K. STACY
DRAWING DATE: 06-30-14
PLOT DATE: 08-30-14
DRAWING NO: 1 of 1

REQUIRED CONCRETE BEARING AREA (SQUARE FEET - SF)	
NOM. DIA. (INCHES)	REQ. PLUG BEND
6	6.7
8	8.4
10	11.1
12	15.5
14	20.7
16	26.7
18	33.5
20	40.4
24	62.4

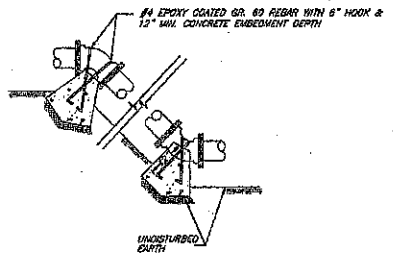
- NOTES:
1. ALL BENDS WITHOUT RESTRAINED JOINTS SHALL HAVE CONCRETE THRUST BLOCKS INSTALLED FOR RESTRAINT.
 2. RECA LIDS MAY BE USED ONLY IN CONJUNCTION WITH CONCRETE THRUST BLOCKING.
 3. BEARING AREA MUST BE AGAINST UNDISTURBED SOIL.
 4. DO NOT COVER JOINTS OR BOLTS (WHERE APPLICABLE) WITH CONCRETE.



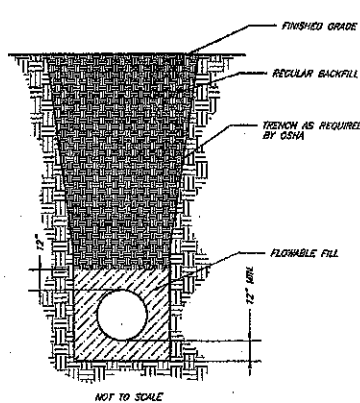
LEE'S SUMMIT MISSOURI
HORIZONTAL THRUST BLOCKS
Date: 07/13
Drawn By: JN
Checked By: JN
Title: 1/14
Rev: 1/14

REQUIRED CONCRETE VOLUME (CUBIC FEET - CF)	
NOM. DIA. (INCHES)	REQ. PLUG BEND
6	0.5
8	0.9
10	1.4
12	2.0
14	2.7
16	3.5
18	4.4
20	5.4
24	10.4

- NOTES:
1. ALL BENDS WITHOUT RESTRAINED JOINTS SHALL HAVE CONCRETE THRUST BLOCKS INSTALLED FOR RESTRAINT.
 2. RECA LIDS MAY BE USED ONLY IN CONJUNCTION WITH CONCRETE THRUST BLOCKING.
 3. BEARING MUST BE AGAINST UNDISTURBED SOIL.
 4. DO NOT COVER JOINTS OR BOLTS (WHERE APPLICABLE) WITH CONCRETE.



LEE'S SUMMIT MISSOURI
VERTICAL THRUST BLOCKS
Date: 07/13
Drawn By: JN
Checked By: JN
Title: 1/14
Rev: 1/14



- NOTES:
1. FLOWABLE FILL SHALL MEET THE REQUIREMENTS OF THE CITY OF LEE'S SUMMIT DESIGN AND CONSTRUCTION MANUAL.
 2. REGULAR BACKFILL ABOVE THE TRENCH CHECK SHALL BE FREE OF DEBRIS, ORGANIC MATTER, AND STONES > 8" IN ANY DIMENSION.
 3. TOP OF FLOWABLE BACKFILL SHALL EXTEND 12" ABOVE THE TOP OF THE PIPE.
 4. LENGTH OF TRENCH CHECK SHALL BE A MINIMUM OF 12'.

LEE'S SUMMIT MISSOURI
TRENCH CHECK
Date: 07/13
Drawn By: JN
Checked By: JN
Title: 1/14
Rev: 1/14

