

Lee's Summit High School

400 SE Blue Pkwy
Lee's Summit, MO 64063

owner:
Lee's Summit R-7 School District
301 NE Tudor Road
Lee's Summit, MO 64086

architect:
Gould Evans
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Kansas City, MO 64111
816.931.6655 voice
www.goulddevans.com

structural engineer:
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4338 Bellevue
Kansas City, MO 64111
816.531.4144

civil engineer:
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Lenexa, KS 66215
913.485.0318

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1801 Main St
Kansas City, MO 64108
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AFFIXED, THIS DOCUMENT IS PRELIMINARY AND IS NOT INTENDED FOR
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Missouri Certificate of Authority: 000842
David Wood Date: 12/29/2020
Engineer License No. PE-2011037427

REVISIONS

Number	DESCRIPTION	DATE
1	ADDENDUM #1	11-19-2020
2	PER CITY COMMENTS AND COORDINATION WITH PACKAGE 2	12-15-2020
3	PER CITY COMMENTS	12-29-2020

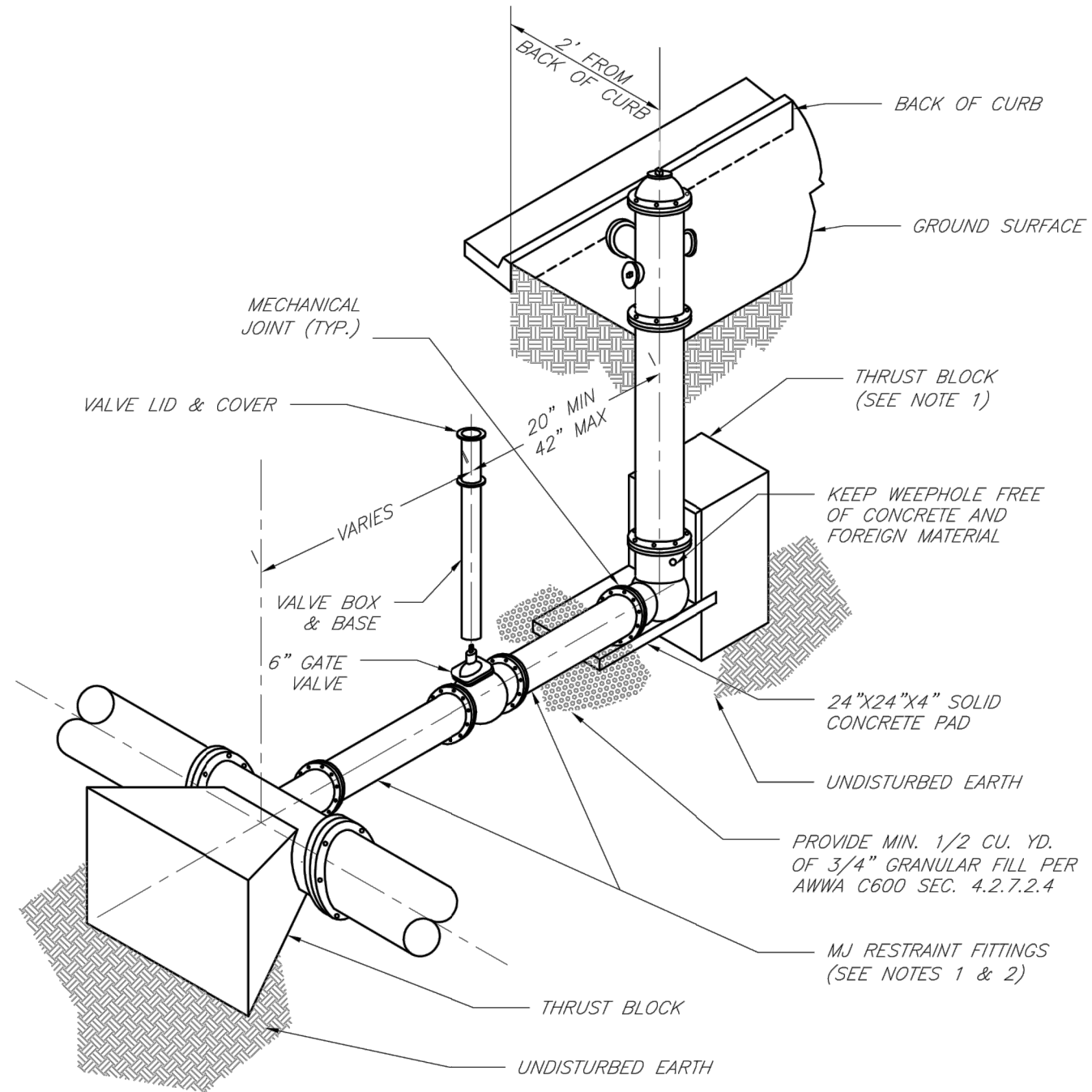
PROJECT NO: 0119-0100
DATE: December 29, 2020

Package 2

WATER DETAILS

C540

Issued for Construction



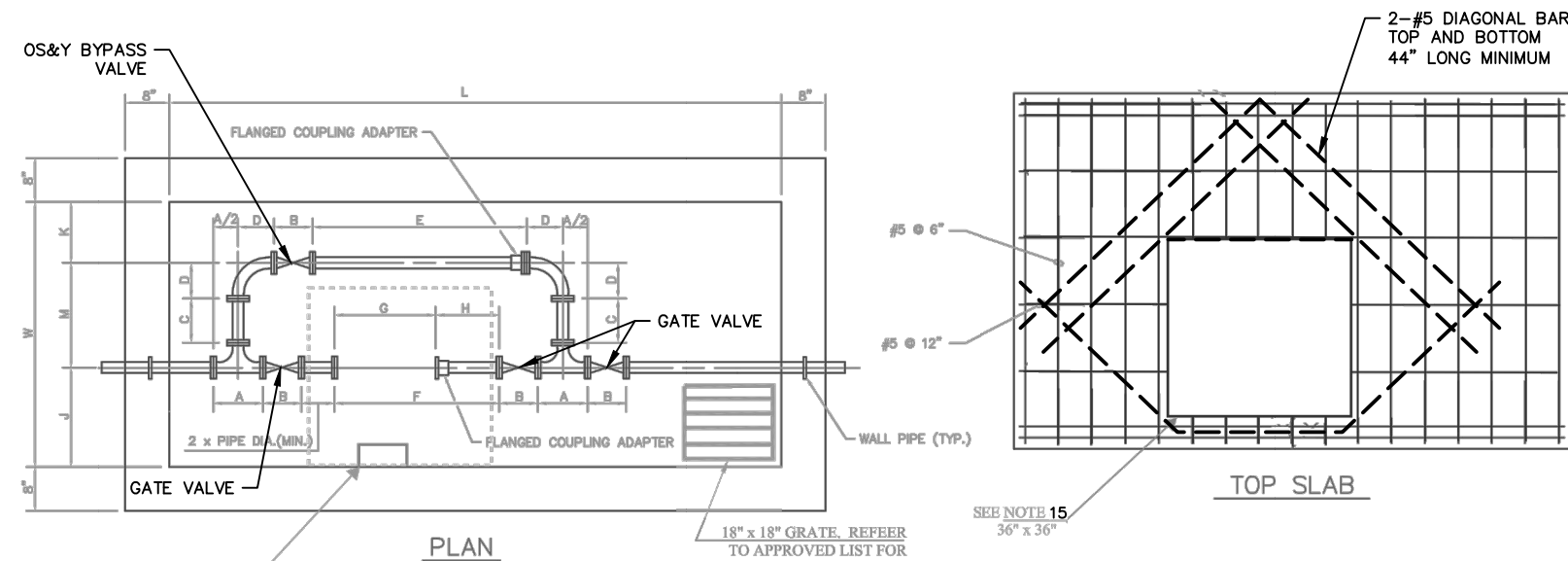
- NOTES:
- WHEN RETAINER GLANDS ARE USED IN LIEU OF MECHANICAL JOINT (MJ) RESTRAINT FITTINGS, HORIZONTAL THRUST BLOCKS ARE REQUIRED.
 - GATE VALVE MAY BE BOLTED DIRECTLY TO MJ RESTRAINT TEE.
 - SEE APPROVED PRODUCTS LIST FOR WATER UTILITIES FOR FIRE HYDRANT, VALVES, VALVE BOX LID, AND COVER.
 - BOTTOM HYDRANT FLANGE SHALL BE 3" TO 6" ABOVE FINISHED GRADE.
 - FOR STREETS WITHOUT CURBS FIRE HYDRANTS SHALL BE PLACED WITHIN 1 FOOT OF THE R/W LINE, BUT NOT MORE THAN 10' FROM EDGE OF PAVEMENT. FIRE HYDRANT SHALL NOT BE PLACED IN BOTTOM OF DITCH.
 - HYDRANT SHALL BE ROTATED AS DIRECTED BY INSPECTOR.



**LEE'S SUMMIT
MISSOURI**
PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64086

Date: 02/13
Drawn By: JN
Checked By: DL
FILE: WAT-7
Rev: 1/14
Rev:

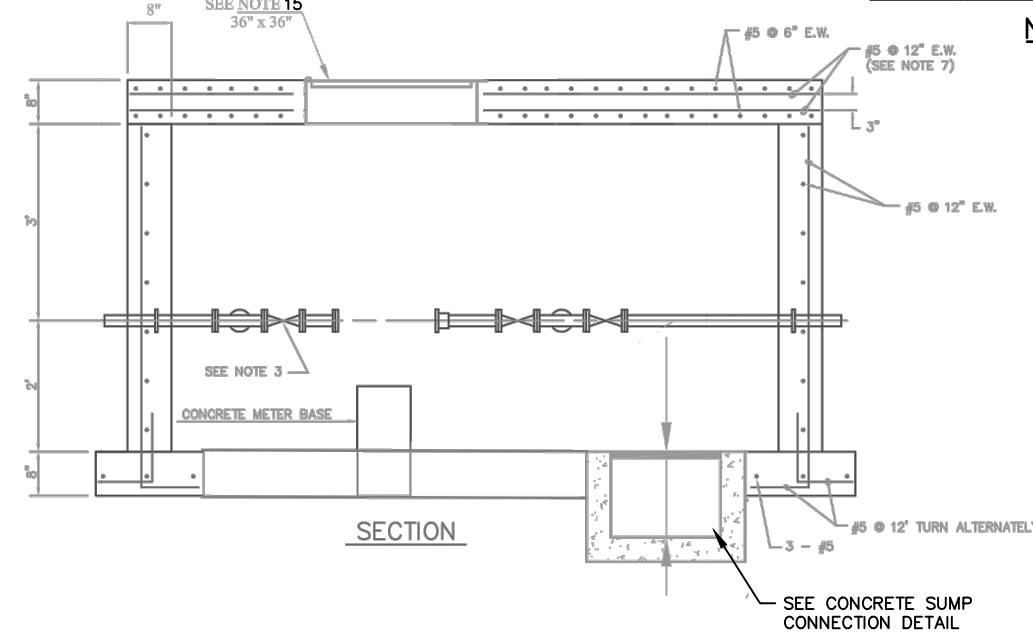
HYDRANT INSTALLATION - STRAIGHT SET



* VARIES BY MANUFACTURER

METER SIZE	L	W	A	B	C	D	E	F	G	H	J	K	M
2"	122	48	9	7	8	4.5	39	30	*	*	18	11	19
3"	150	72	11	8	12	4.5	52	42	*	*	24	23	26
4"	171	72	13	9	12	4.5	52	42	*	*	24	21	28
6"	202	72	16	10.5	9	8	61	51	*	*	24	20	29

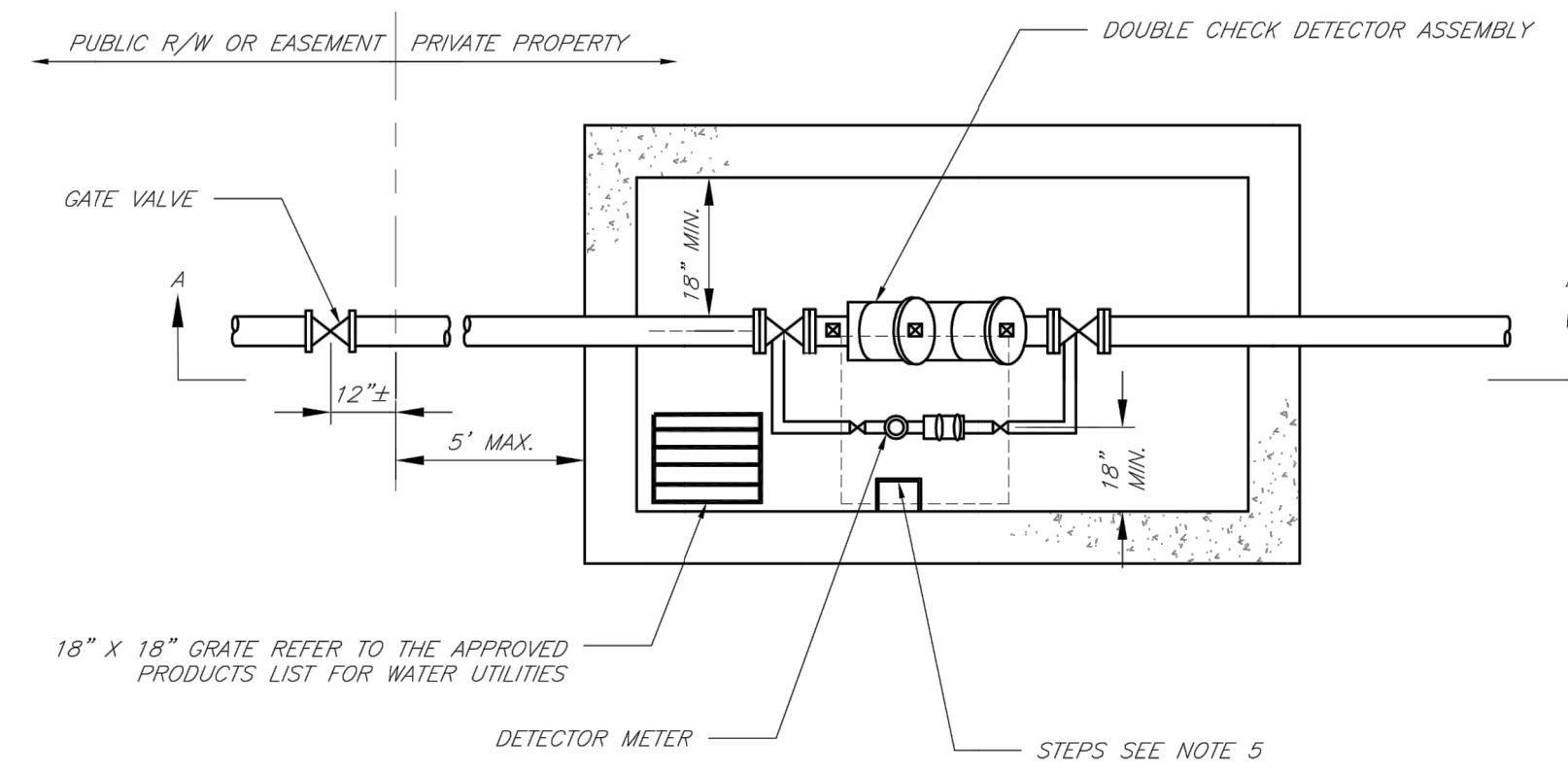
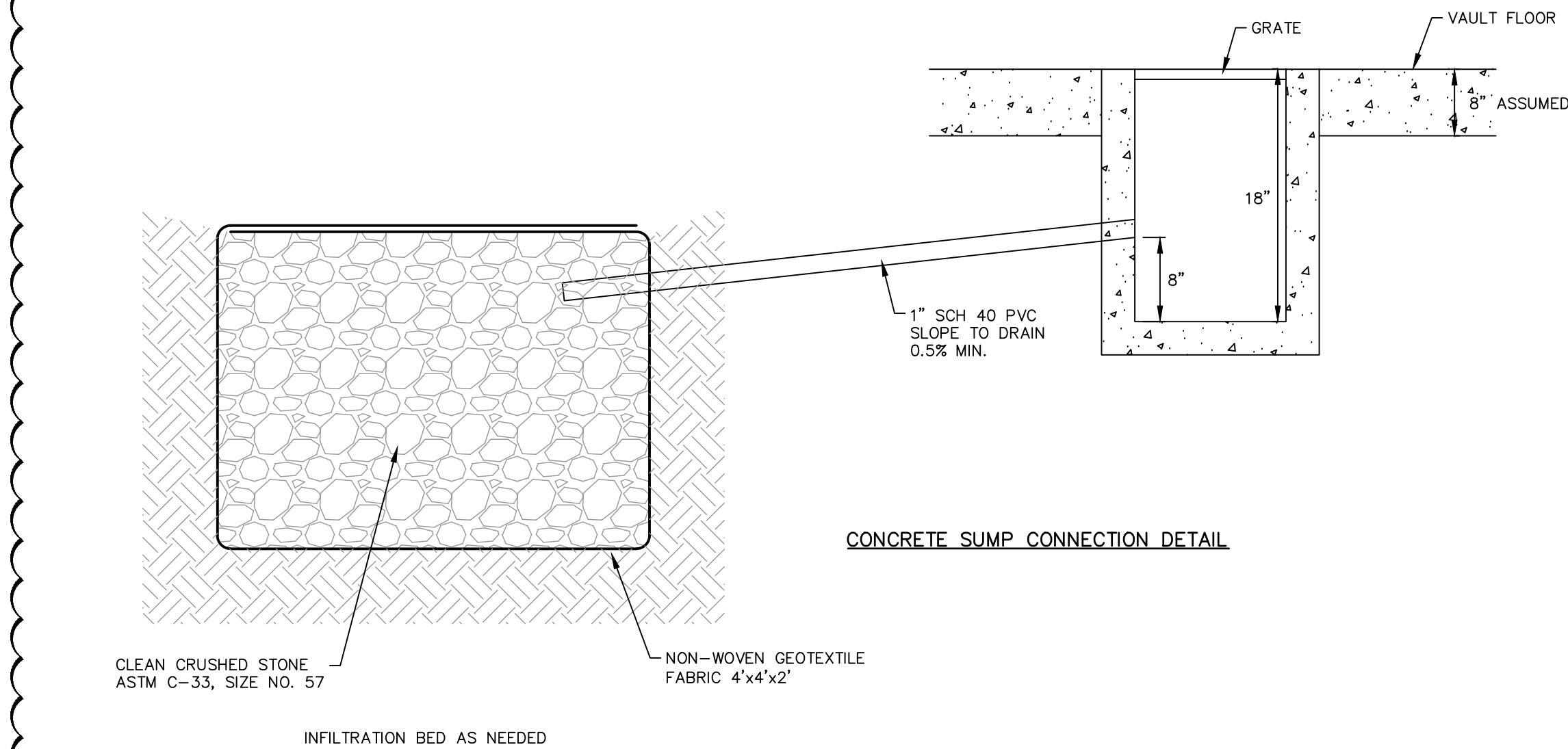
NOMINAL DIMENSIONS FOR SINGLE METER PITS
ALL DIMENSIONS ARE IN INCHES



METERING PIT & SETTING W/BYPASS
FOR SINGLE 2" THRU 6" METERS

NOTES:

- POUR FOOTING ON FIRM UNDISTURBED EARTH.
- ALL PIPING IN METER PIT SHALL BE D.I.P. OR C.I.P.
- VALVES SHALL BE GATE TYPE. BYPASS VALVE SHALL BE O.S. & Y.
- WALLS TO BE DOUBLE FORMED.
- ALL RE-BARS TO HAVE 3/4" COVER.
- CONCRETE SHALL BE MOBS MAX #W4855-3/4-2-0.410.
- TOP LAYER OF SLAB REINFORCEMENT MAY BE ELIMINATED IN CURBED NON-TRAFFIC AREAS.
- 3" OR GREATER SIZE METER SHALL HAVE AN UPSTREAM STRAINER.
- METER VAULT WALLS TO BE POURED OR PRECAST CONCRETE. METER VAULT ROOF TO BE REINFORCED CONCRETE WITH OPENING CENTERED OVER METER. REINFORCED WALLS AND SLABS ARE TO BE DESIGNED BY THE OWNER'S ENGINEER OR PRECAST ENGINEER.
- METER VAULT TO BE LOCATED, WHEN POSSIBLE, OUTSIDE TRAFFIC AREA AND WHERE SURFACE WATER WILL NOT DRAIN INTO IT. PROVIDE CONCRETE SUMP TO DRAIN TO AN ABOVE GROUND DISCHARGE POINT.
- ALL PIPE AND FITTINGS FROM THE CITY WATER MAIN THROUGH THE VAULT SHALL BE PROVIDED WITH RESTRAINED JOINT FITTINGS.
- STEPS SHALL BE IN ACCORDANCE WITH THE APPROVED PRODUCTS LIST FOR WATER UTILITIES AND SHALL BE ON 16" CENTERS.
- PROVIDE CITY APPROVED METER. CONTACT WATER UTILITIES AT 816-969-1900.
- ALL VALVES SHALL HAVE RISING STEMS.
- MANHOLE COVER SHALL BE A BULO K-1 MODEL UNLESS IN A VEHICLE TRAFFIC AREA. SEE THE APPROVED PRODUCTS LIST FOR WATER UTILITIES FOR A TOUCH/READ DEVICE.
- A MINIMUM OF 18" CLEARANCE SHALL BE PROVIDED AROUND ALL PIPING, VALVES, APPURTENANCES, ETC.



GENERAL NOTES:

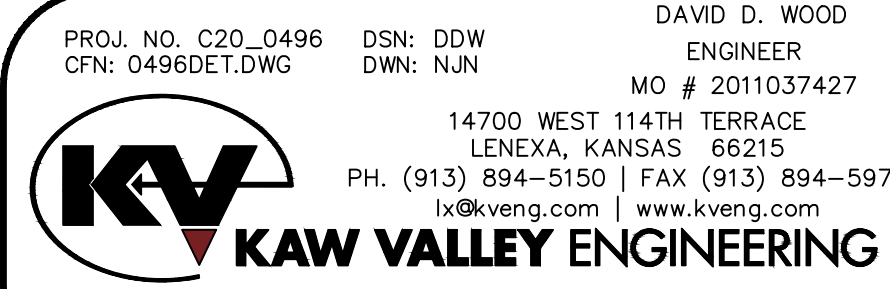
- METER VAULT WALLS TO BE POURED OR PRECAST CONCRETE. METER VAULT ROOF TO BE REINFORCED CONCRETE WITH OPENING CENTERED OVER DETECTOR METER. REINFORCED WALLS AND SLABS ARE TO BE DESIGNED BY THE OWNER'S ENGINEER OR PRECAST ENGINEER.
- METER VAULT TO BE LOCATED, WHEN POSSIBLE, OUTSIDE TRAFFIC AREA AND WHERE SURFACE WATER WILL NOT DRAIN INTO IT. PROVIDE CONCRETE SUMP TO DRAIN TO AN ABOVE GROUND DISCHARGE POINT.
- ALL PIPE AND FITTINGS FROM THE CITY WATER MAIN THROUGH THE VAULT SHALL BE PROVIDED WITH RESTRAINED JOINT FITTINGS.
- ALL FITTINGS FOR THE DETECTOR METER TO BE BRASS.
- STEPS SHALL BE IN ACCORDANCE WITH THE APPROVED PRODUCTS LIST FOR WATER UTILITIES AND SHALL BE ON 16" CENTERS.
- A DEPARTMENT OF NATURAL RESOURCES APPROVED DOUBLE CHECK DETECTOR ASSEMBLY BACKFLOW PREVENTER MUST BE USED. FOR A COPY OF THE MISSOURI DEPARTMENT OF NATURAL RESOURCES APPROVED BACKFLOW PREVENTION ASSEMBLIES, CONTACT WATER UTILITIES AT 816-969-1900.
- ALL VALVES SHALL HAVE RISING STEMS.
- MANHOLE COVER SHALL BE A BULO K-1 MODEL UNLESS IN A VEHICLE TRAFFIC AREA. SEE THE APPROVED PRODUCTS LIST FOR WATER UTILITIES FOR TRAFFIC CONDITIONS. THE COVER SHALL HAVE A 1-3/4" HOLE DRILLED FOR A TOUCH/READ DEVICE.
- A MINIMUM OF 18" CLEARANCE SHALL BE PROVIDED AROUND ALL PIPING, VALVES, APPURTENANCES, ETC.
- CONTACT PUBLIC WORKS ENGINEERING FOR VAULTS THAT INCLUDE A FIRE DEPARTMENT CONNECTION OR A 3" OR LARGER METER.



CITY OF LEE'S SUMMIT, MO
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION
LEE'S SUMMIT, MO 64086

Drawn By: AS
Checked By: JN
Date: 1/14
Rev: 1/14
Rev:

WAT-12



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