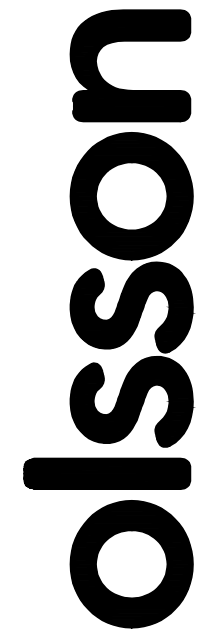


GENERAL NOTES

3. CONTRACTOR SHALL CALL 1-800-DIG-RITE PRIOR TO ANY PROJECT EXCAVATION.
2. THE UTILITY INFORMATION SHOWN HEREIN IS BASED ON THE BEST INFORMATION AVAILABLE TO THE ENGINEER; HOWEVER, ALL UTILITIES ACTUALLY EXISTING MAY NOT BE SHOWN. THE CONTRACTOR SHALL VERIFY ALL UTILITY DEPTHS AND LOCATIONS PRIOR TO CONSTRUCTION, AND COORDINATE ANY NECESSARY RELOCATIONS. UTILITIES DAMAGED THROUGH THE NEGLIGENCE OF THE CONTRACTOR TO OBTAIN THE LOCATION OF SAME SHALL BE REPAIRED AND REPLACED BY THE CONTRACTOR AT NO ADDITIONAL EXPENSE TO THE PROJECT.
3. THE CONTRACTOR SHALL INSTALL THE PROPOSED WATERLINES WITHOUT DISRUPTION OF WATER SERVICE TO CUSTOMERS UNTIL CONNECTIONS TO THE PROPOSED WATERLINES ARE READY TO BE MADE. ONCE SERVICE TO CUSTOMERS HAS BEEN INTERRUPTED, THE CONTRACTOR SHALL WORK CONTINUOUSLY UNTIL SERVICE IS RESTORED.
4. UTILITIES EXPOSED DURING CONSTRUCTION SHALL BE ADEQUATELY SUPPORTED BY THE CONTRACTOR TO PREVENT THE CONDUITS/LINES FROM SAGGING AND PUTTING STRESS ON ANY JOINTS.
5. THE CONTRACTOR SHALL FURNISH AND INSTALL ALL FITTINGS REQUIRED TO PROVIDE PROPER HORIZONTAL AND VERTICAL ALIGNMENT FOR NEW WATER MAINS, CONNECTIONS TO EXISTING WATER MAINS AND INSTALLATION OF FIRE HYDRANTS AT THE PROPER LOCATION AND ELEVATION, WHETHER OR NOT THE PROPER FITTINGS, LOCATION OR ELEVATIONS ARE CALLED OUT ON THESE DRAWINGS, INCLUDING MODIFICATIONS OF EXISTING INFRASTRUCTURE REQUIRED TO MAKE ALL OF THE WORK CONFORM TO CURRENT STANDARDS.
6. THE CONTRACTOR SHALL FURNISH AND INSTALL ALL TEMPORARY BLOW-OFF ASSEMBLIES, FITTINGS, THRUST BLOCKING, AND RESTRAINING DEVICES REQUIRED FOR TEMPORARY CONNECTIONS FOR FLUSHING, PRESSURE TESTING, CHLORINATION, AND DE-CHLORINATION OF THE NEW WATER MAINS, PRIOR TO PLACING NEW MAINS IN SERVICE THE CONTRACTOR SHALL REMOVE ANY CORPORATION STOPS USED FOR TESTING OR CHLORINATION AND REPLACE WITH TAPERED BRASS PLUGS.
7. SCHEDULING OF WATER MAIN SHUT OFFS AND CONNECTION TO EXISTING MAINS SHALL BE AT THE DISCRETION OF THE LEE'S SUMMIT WATER DEPARTMENT.
8. VALVES SHALL NOT BE PLACED IN CURBS, WHEEL PATHS, OR ADA RAMPS.
9. CONTRACTOR SHALL FURNISH & INSTALL NEW WATER METER PITS WHERE NEW SERVICE LINES ARE REPLACED TO THE EXIST. WATER METER.

ESTIMATE OF QUANTITIES			
ITEM NO.	ITEM DESCRIPTION	UNIT	QUANTITY
1	Mobilization	L.S.	1
2	Clearing and Grubbing	L.S.	1
3	Sidewalk	S.Y.	50
4	Water Line Pipe (12" PVC C900)	L.F.	1,800
5	Casing (24" Steel ASTM A139)	L.F.	100
6	Water Line Valve (8" Gate)	EA.	4
7	Water Line Valve (12" Butterfly)	EA.	7
8	Water Line Valve (2" Air Release)	EA.	1
9	Water Line Fitting (12" 45-deg Bend)	EA.	5
10	Water Line Fitting (12" 22.5-deg Bend)	EA.	1
11	Water Line Fitting (8" MJ Plug)	EA.	4
12	Water Line Fitting (12" MJ Plug)	EA.	2
13	Water Line Fitting (12" Tee w/ Backing Block)	EA.	1
14	Water Line Fitting (12"x8" Tee w/ Backing Block)	EA.	4
15	Water Line Fitting (12"x6" Tee w/ Backing Block)	EA.	4
16	Water Line Fitting (12" Solid Sleeve)	EA.	3
17	Water Line Fitting (Straddle Block)	EA.	5
18	Fire Hydrant Assembly	EA.	1
19	Temporary Flushing Assembly	EA.	4

SUMMARY OF QUANTITIES AS INDICATED ABOVE AND ANY QUANTITIES AS SHOWN WITHIN THE PLANS HAVE BEEN PROVIDED FOR PERMITTING PURPOSES ONLY AND ARE NOT INTENDED FOR USE IN PREPARATION OF CONTRACT DOCUMENTS. QUANTITIES INTENDED FOR, BUT NOT LIMITED TO, THE PREPARATION OF PROPOSALS AND BID DOCUMENTS SHALL BE INDEPENDENTLY EVALUATED BY THE ESTIMATING PARTY BASED UPON THE CONTENTS OF THESE PLANS.



Olsson - Civil Engineering
Missouri Certificate of Authority #
1301 Burlington Street
North Kansas City, MO 64116

TEL 816.361.1177

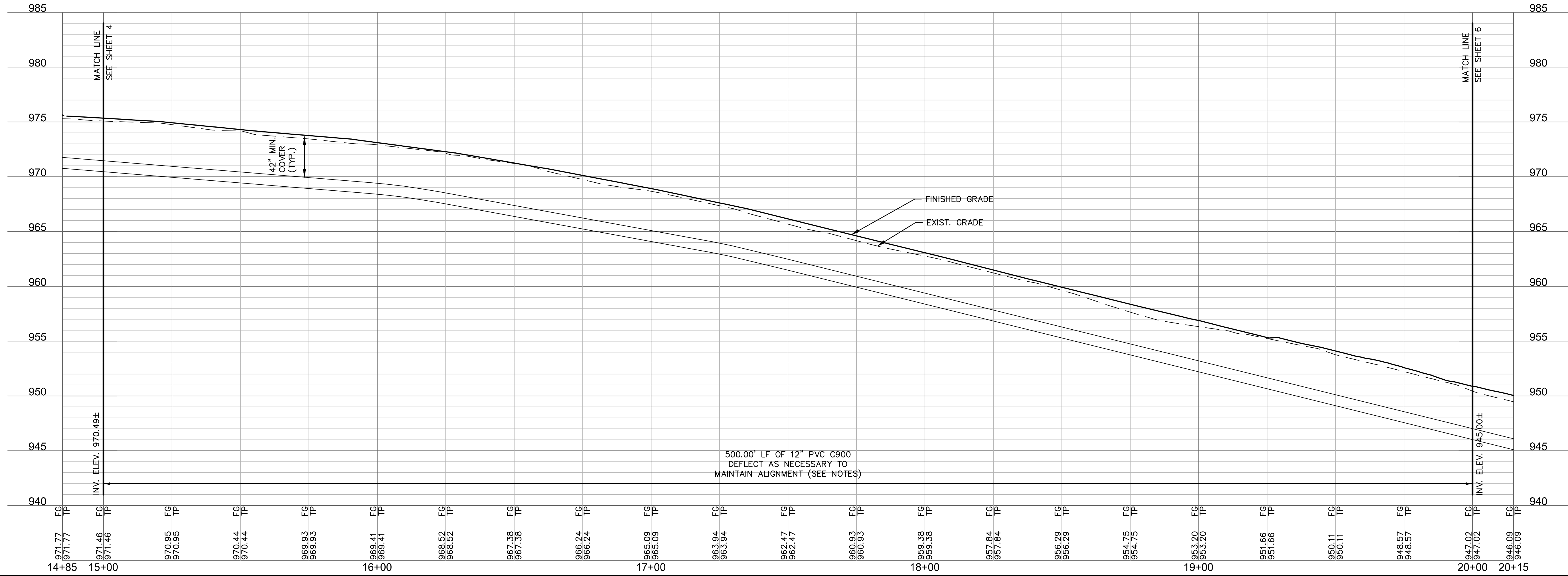
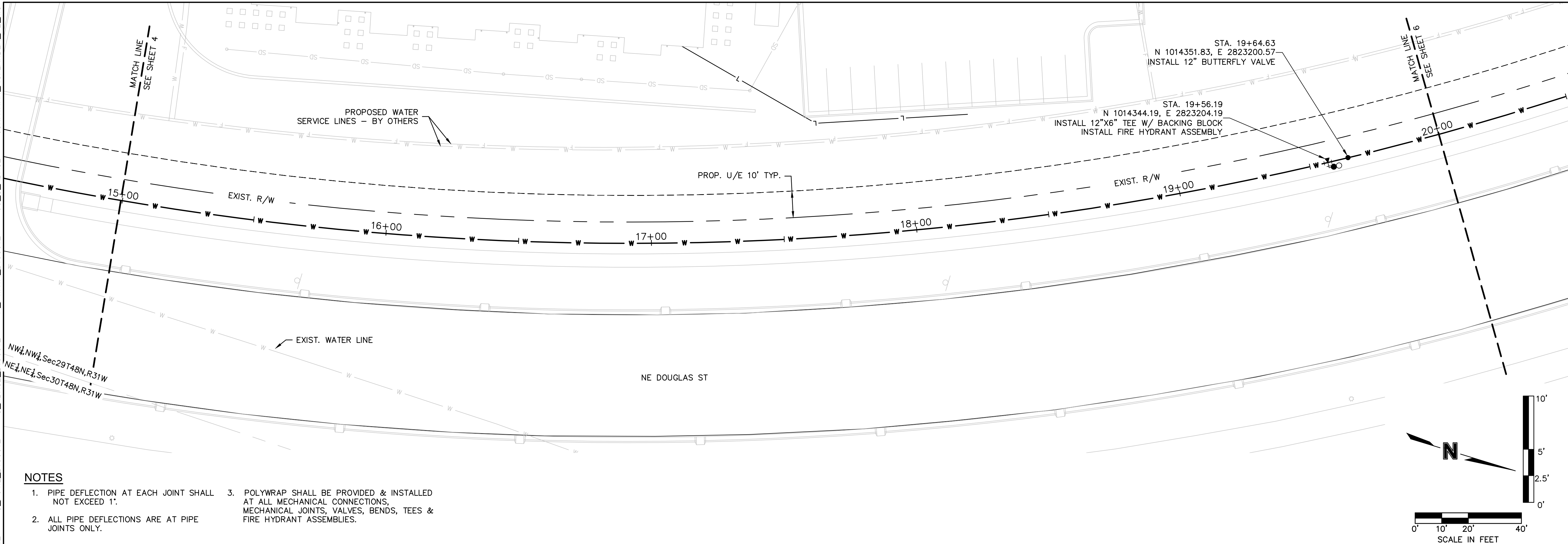
	REV. NO.	DATE	REVISIONS DESCRIPTION	BY
	1.27.19			
2019	REVISIONS			

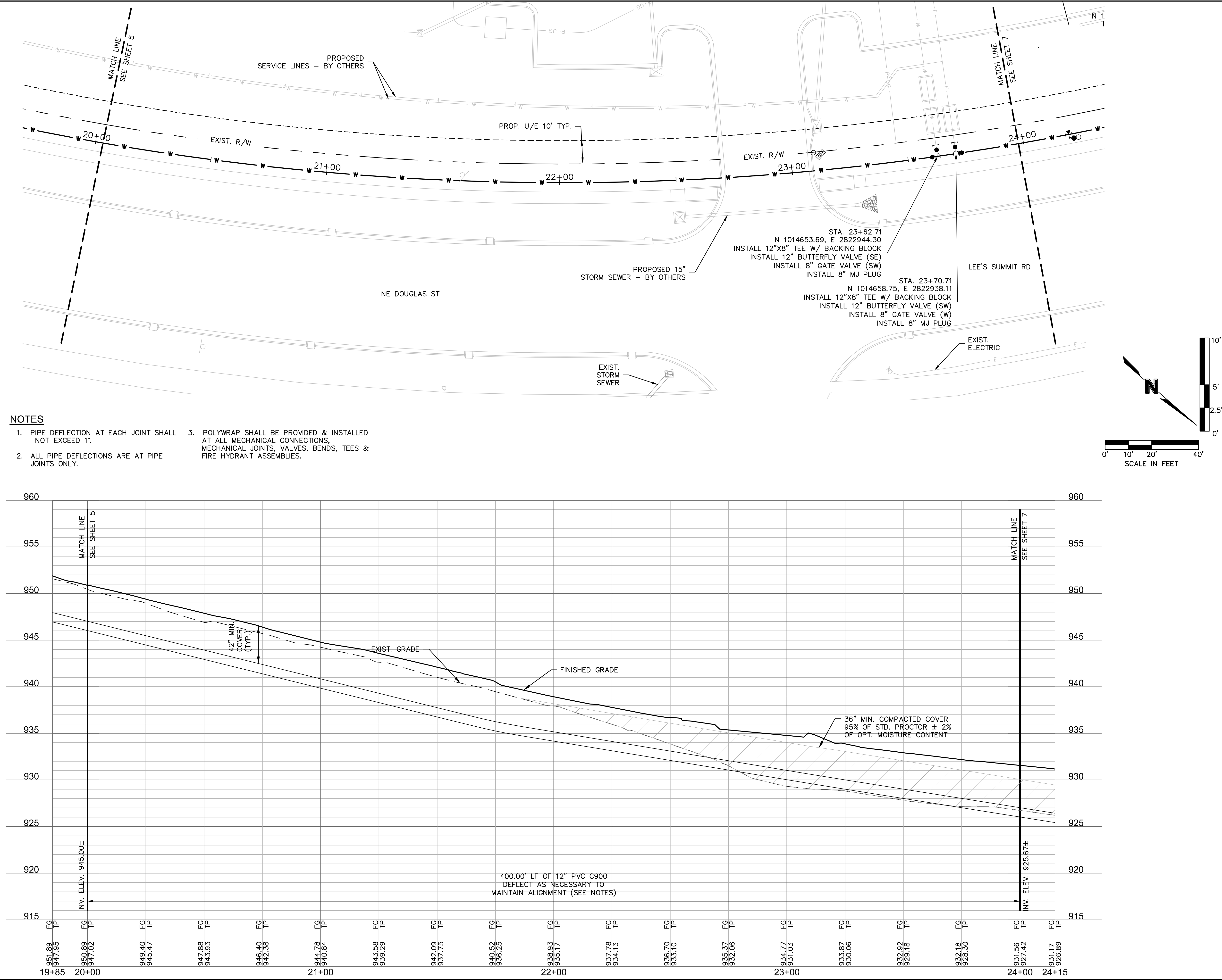
QUANTITIES

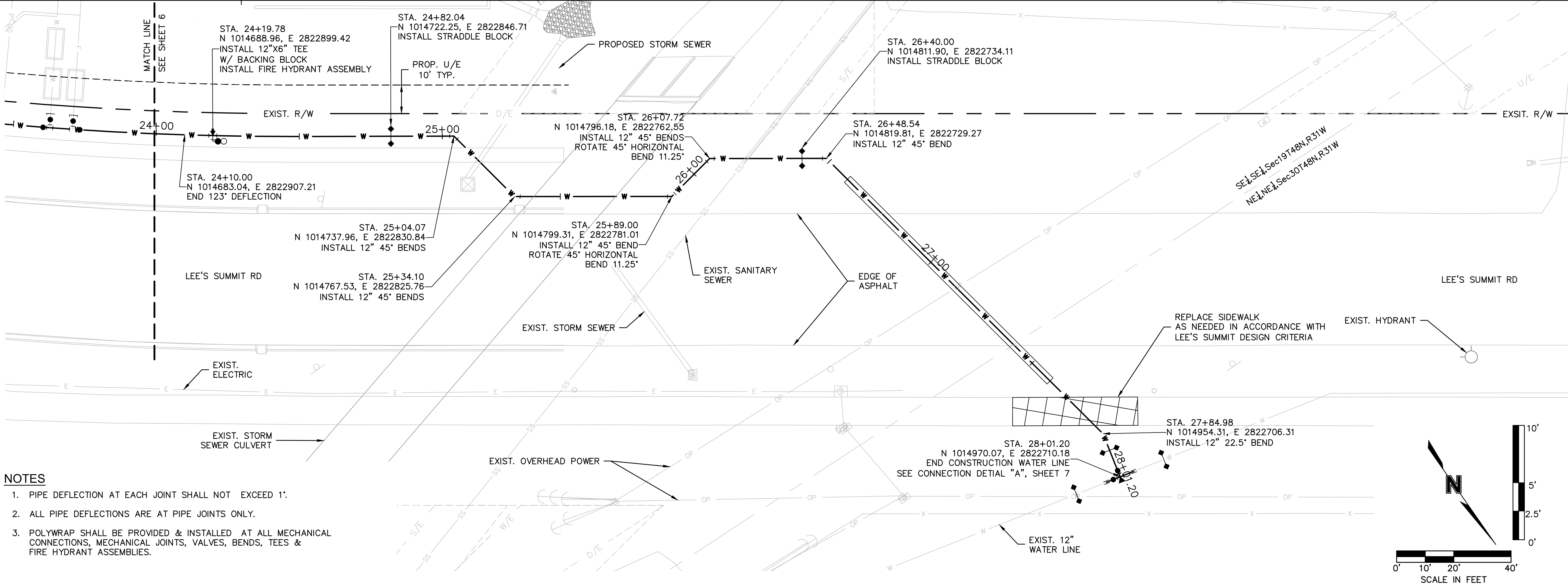
ARIA APARTMENTS FIRST PHASE

LEE'S SUMMIT. MO

drawn by: _____ MGK
checked by: _____ TRJ
approved by: _____
QA/QC by: _____
project no.: _____ B19-0012
drawing no.: _____
date: _____ 7.17.2020

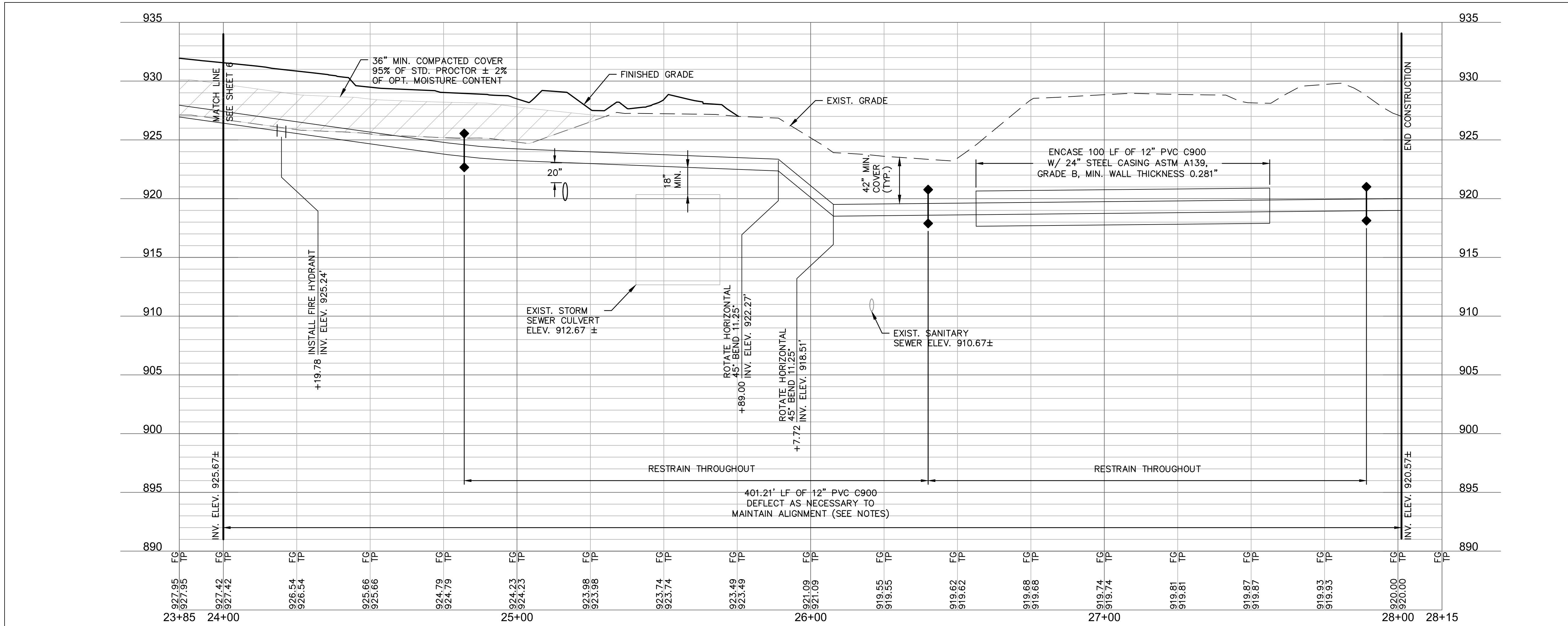






NOTES

1. PIPE DEFLECTION AT EACH JOINT SHALL NOT EXCEED 1'.
2. ALL PIPE DEFLECTIONS ARE AT PIPE JOINTS ONLY.
3. POLYWRAP SHALL BE PROVIDED & INSTALLED AT ALL MECHANICAL CONNECTIONS, MECHANICAL JOINTS, VALVES, BENDS, TEES & FIRE HYDRANT ASSEMBLIES.



olsson

Olsson - Civil Engineering
Missouri Certificate of Authority #
1301 Burlington Street
North Kansas City MO 64116
TEL 816.361.1177
www.olson.com

STATE OF MISSOURI
JONATHAN P. HOFLANDER
PROFESSIONAL ENGINEER
NUMBER
PE-3011013751

BY

DATE

REV. NO.

REVISIONS DESCRIPTION

REVISIONS

2019

LEE'S SUMMIT, MO

WATER LINE PLAN & PROFILE

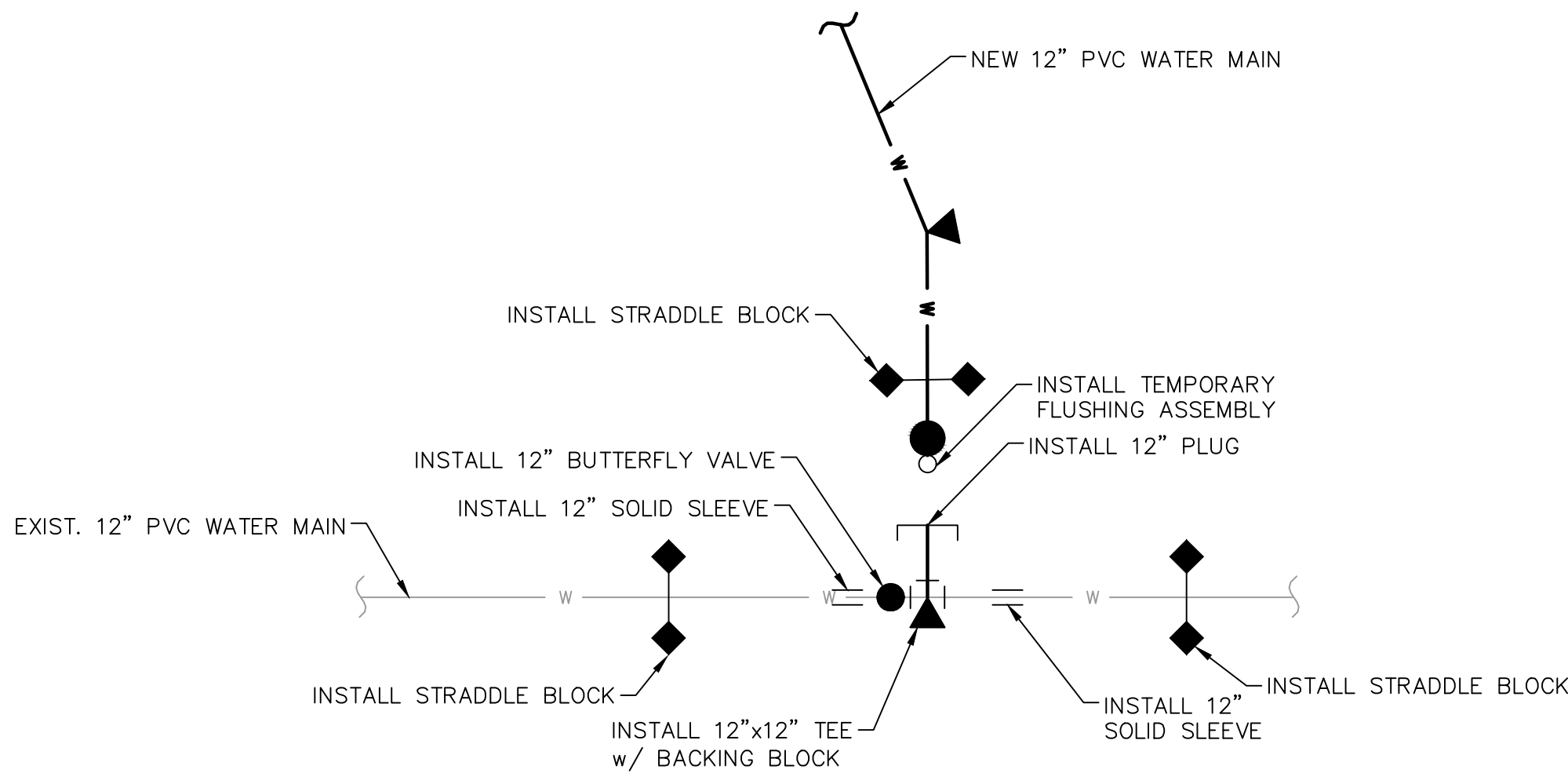
ARIA APARTMENTS
FIRST PHASE

drawn by: MGK
checked by: JPH
approved by: JPH
QA/QC by:
project no.: B19-0012
drawing no.:
date: 7.17.2020

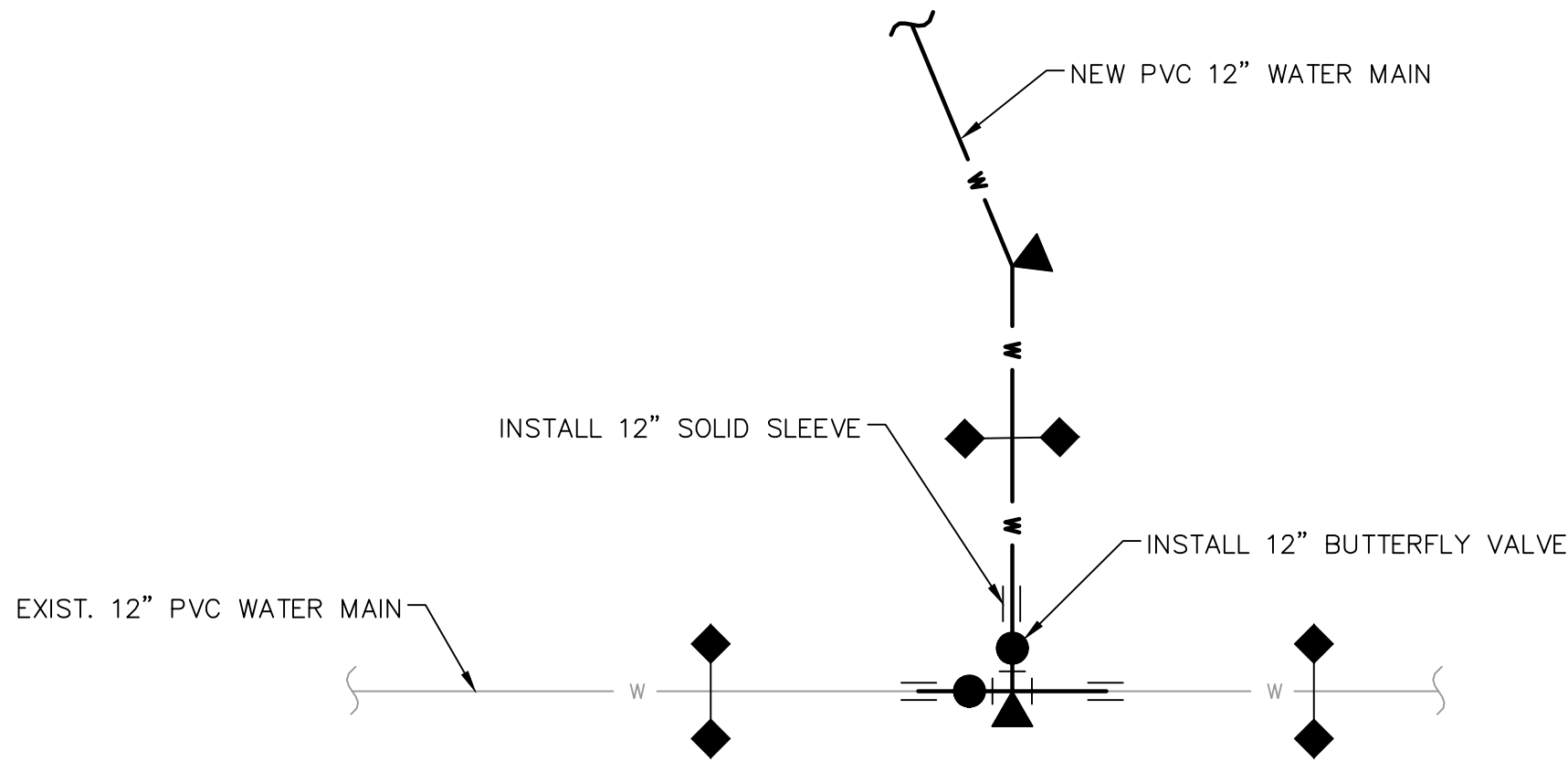
SHEET

7 of 9

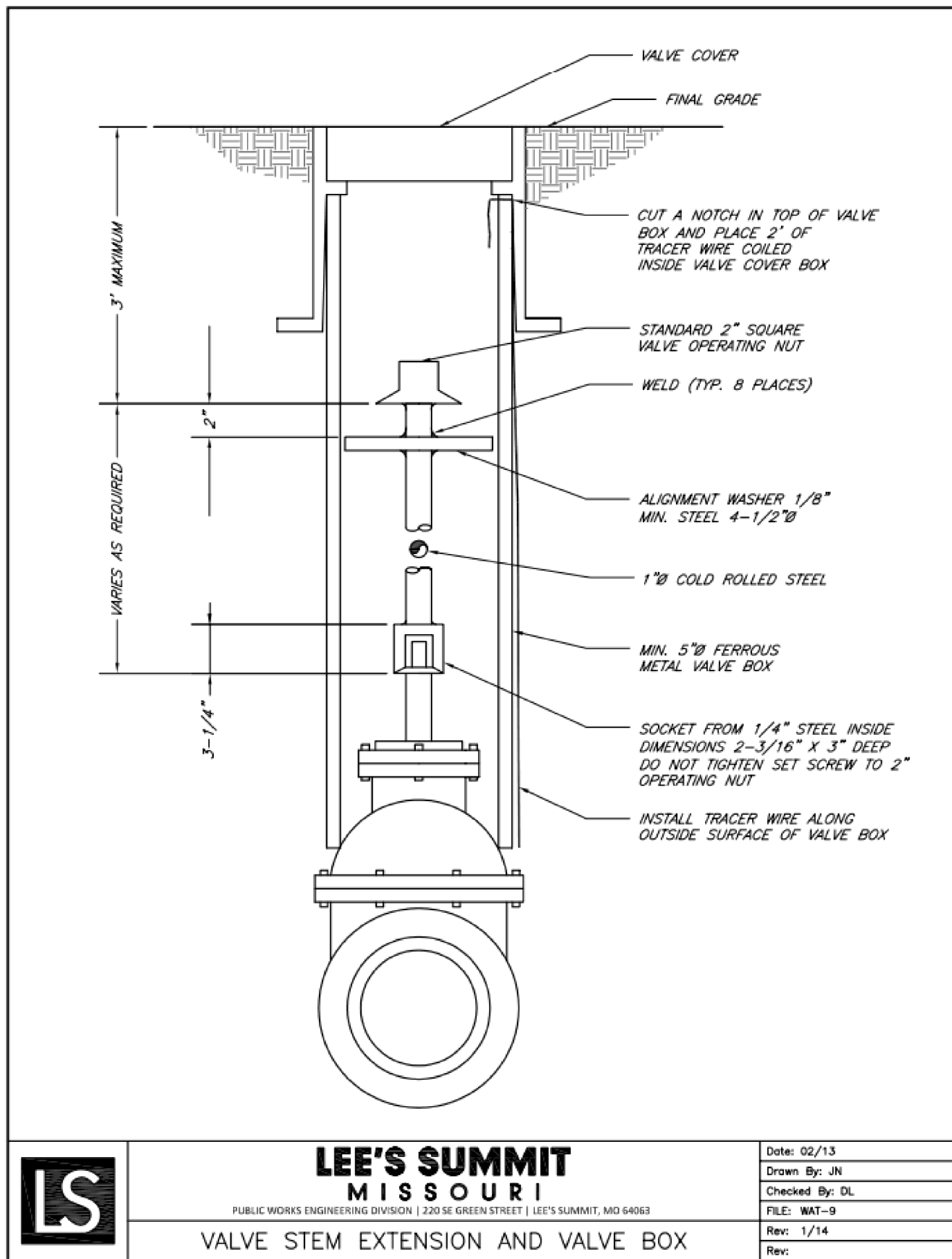
DWG: F:\2019\0001-0500\019-00012-BV40-Design\AutoCAD\Final Plans\Sheets\WTWP_DP_L01_B190012.dwg
DATE: Jul 17, 2020 9:33am
XREFS: W_PTBK_B190012 JONATHAN_HOFLANDER_PE_MO
USER: mking



TEMPORARY CONNECTION DETAIL A
RESTRAIN THROUGHOUT
NOT TO SCALE



PERMANENT CONNECTION DETAIL A
RESTRAIN THROUGHOUT
NOT TO SCALE



LS

LEE'S SUMMIT

MISSOURI

PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64063

VALVE STEM EXTENSION AND VALVE BOX

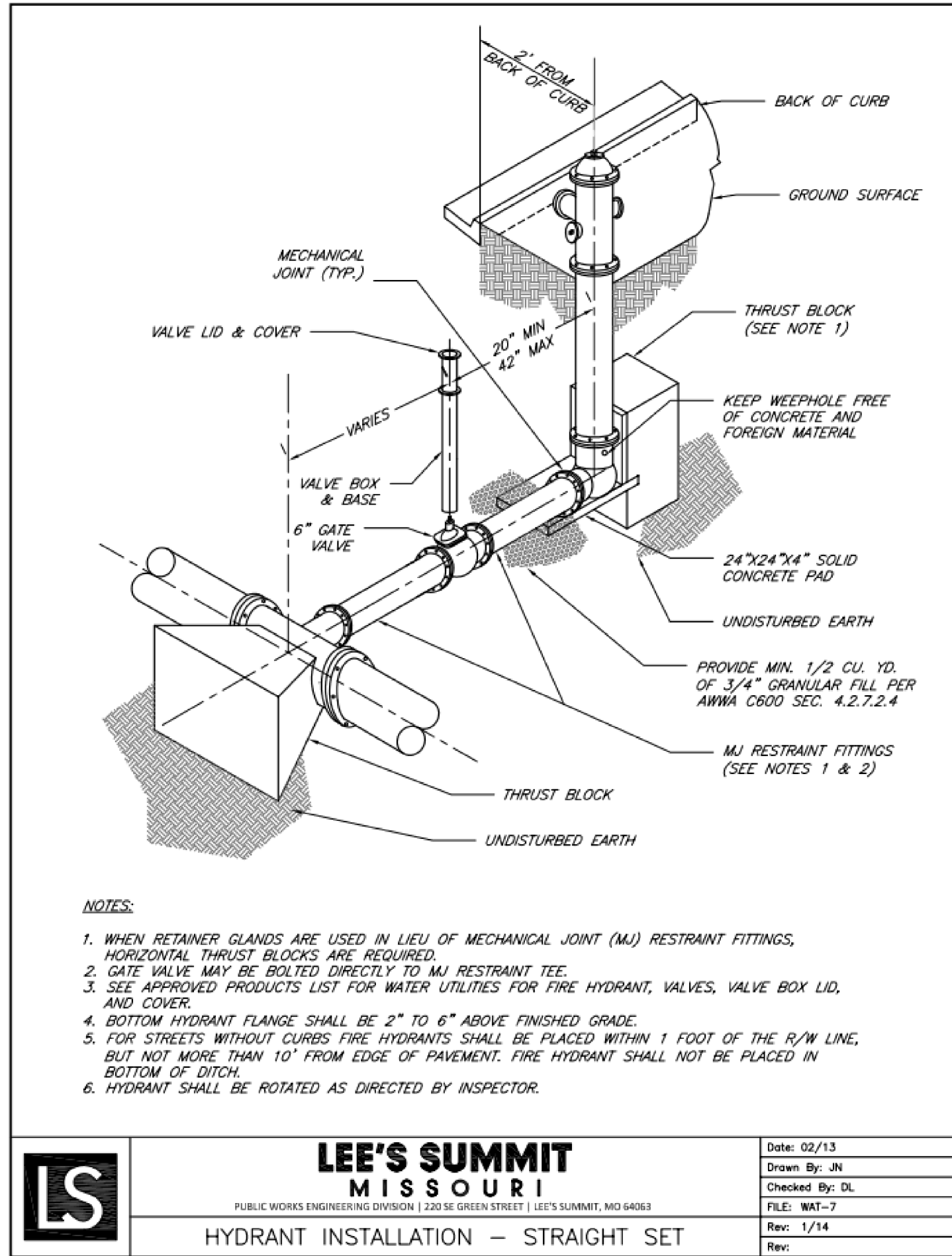
Date: 02/13

Drawn By: JN

Checked By: DL

FILE: WAT-9

Rev: 1/14



- NOTES:
1. WHEN RETAINER GLANDS ARE USED IN LIEU OF MECHANICAL JOINT (MJ) RESTRAINT FITTINGS, HORIZONTAL THRUST BLOCKS ARE REQUIRED.
 2. GATE VALVE MAY BE BOLTED DIRECTLY TO MJ RESTRAINT TEE.
 3. SEE APPROVED PRODUCTS LIST FOR WATER UTILITIES FOR FIRE HYDRANT, VALVES, VALVE BOX LID, AND COVER.
 4. BOTTOM HYDRANT FLANGE SHALL BE 2" TO 6" ABOVE FINISHED GRADE.
 5. 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.
 6. HYDRANT SHALL BE ROTATED AS DIRECTED BY INSPECTOR.

LS

LEE'S SUMMIT

MISSOURI

PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64063

HYDRANT INSTALLATION - STRAIGHT SET

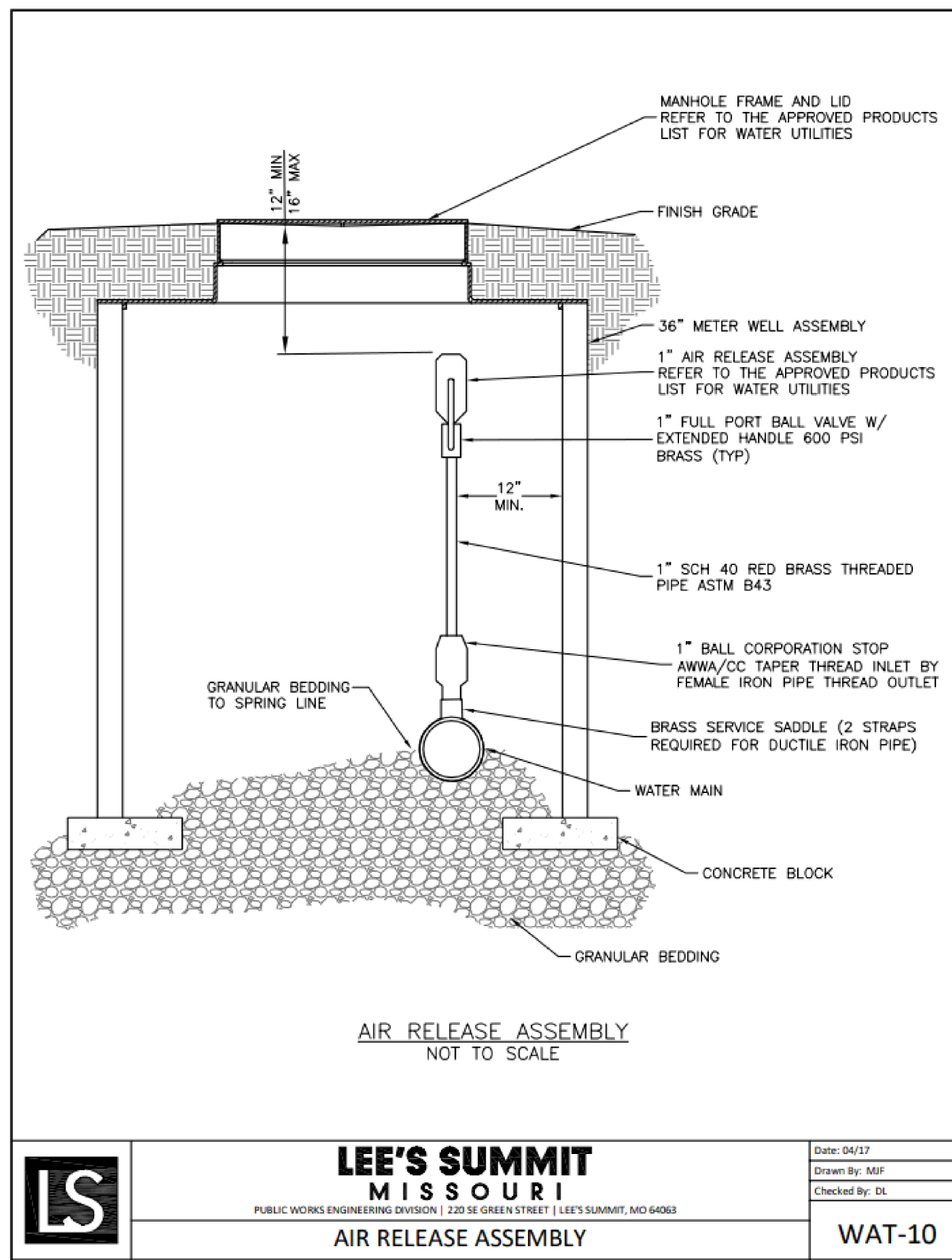
Date: 02/13

Drawn By: JN

Checked By: DL

FILE: WAT-7

Rev: 1/14



LS

LEE'S SUMMIT

MISSOURI

PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64063

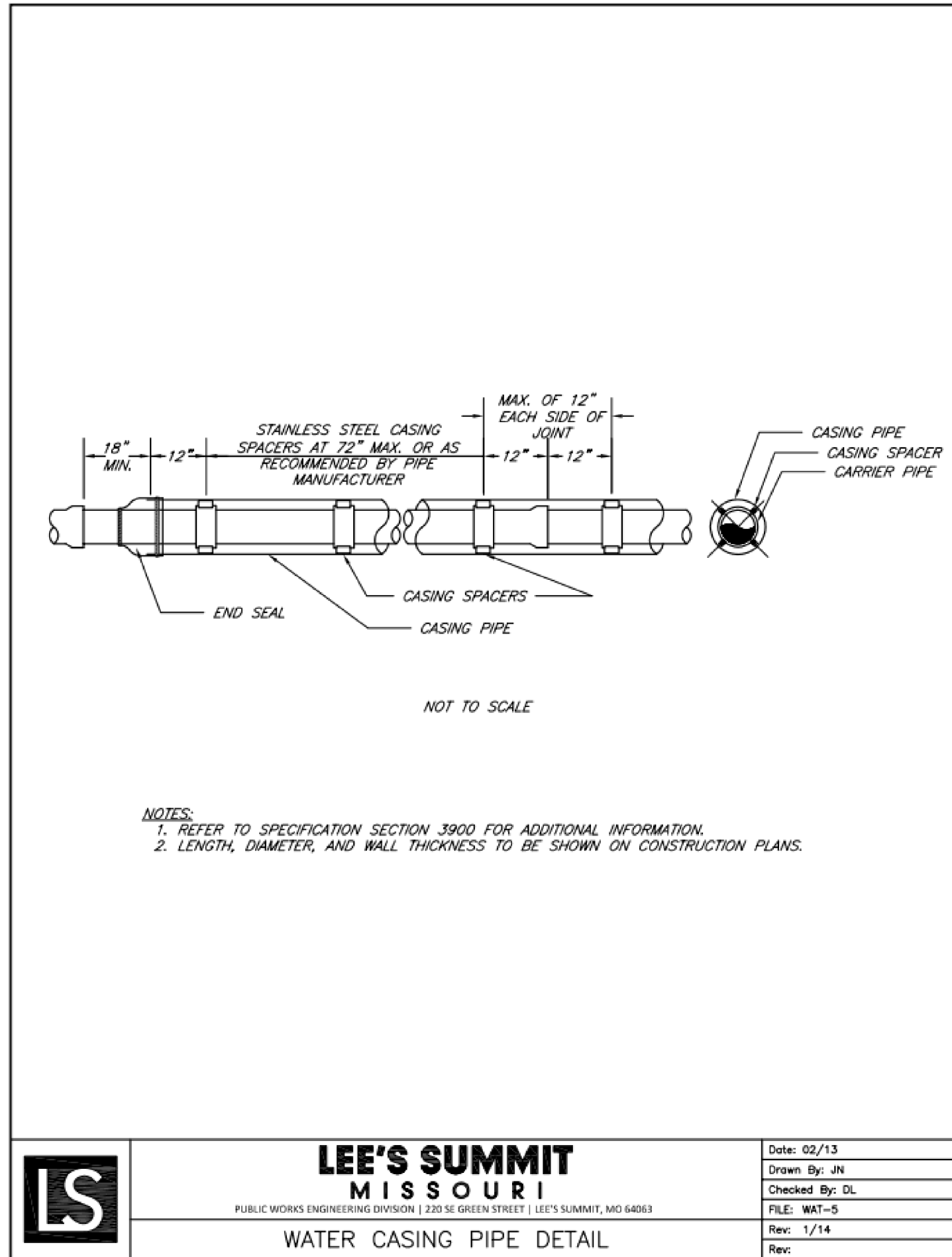
AIR RELEASE ASSEMBLY

Date: 04/17

Drawn By: MJF

Checked By: DL

FILE: WAT-10



- NOTES:
1. REFER TO SPECIFICATION SECTION 3900 FOR ADDITIONAL INFORMATION.
 2. LENGTH, DIAMETER, AND WALL THICKNESS TO BE SHOWN ON CONSTRUCTION PLANS.

LS

LEE'S SUMMIT

MISSOURI

PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64063

WATER CASING PIPE DETAIL

Date: 02/13

Drawn By: JN

Checked By: DL

FILE: WAT-5

Rev: 1/14

olsson

Olsson - Civil Engineering
Missouri Certificate of Authority #
1301 Burlington Street
North Kansas City MO 64116
TEL 816.361.1177
www.olson.com

STATE OF MISSOURI
JONATHAN P. HOFLANDER
NUMBER
PE-2011015751
2010
PROFESSIONAL ENGINEER

BY

REV. NO.

DATE

REVISIONS DESCRIPTION

2019

LEE'S SUMMIT, MO

ARIA APARTMENTS
FIRST PHASE

WATER LINE DETAILS

drawn by: MGK
checked by: JPH
approved by: JPH
QA/QC by:
project no.: B19-0012
drawing no.:
date: 7/17/2020

SHEET
8 of 9

