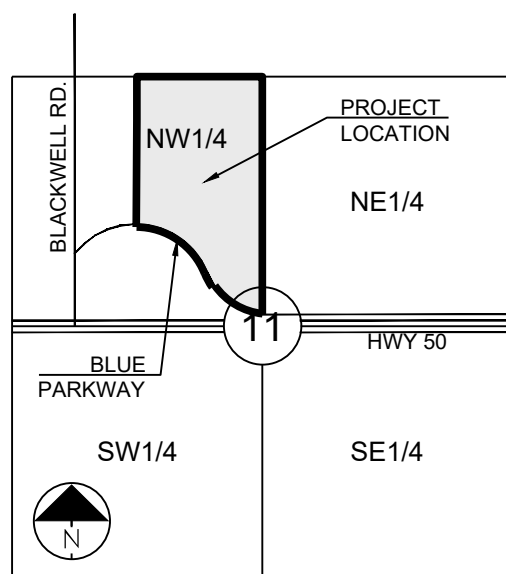


- AC - ACCESS EASEMENT
- B/E - BACK OF CURB
- B/B - BACK TO BACK
- BM - BENCHMARK
- BL or B.L. - BUILDING LINE
- CO - CLEANOUT
- TJB - TELEPHONE JUNCTION BOX
- C&G - CURB AND GUTTER
- D/E - DRAINAGE EASEMENT
- E/E - ELECTRICAL EASEMENT
- EL - ELEVATION
- FL - FLOW LINE
- G/E - GAS LINE EASEMENT
- HDPE - HIGH-DENSITY POLYETHYLENE
- L/E - LANDSCAPE EASEMENT
- MSFE - MINIMUM SERVICEABLE FLOOR ELEVATION
- PVC - POLYVINYL CHLORIDE
- P/L - PROPERTY LINE
- PUB/E - PUBLIC EASEMENT
- PCP - REINFORCED CONCRETE PIPE
- ROW or R/W - RIGHT-OF-WAY
- S/E - SANITARY SEWER EASEMENT
- SL - SERVICE LINE
- S/W - SIDEWALK
- TE - TOP ELEVATION
- U/E - UTILITY EASEMENT
- WSE - WATER SURFACE ELEVATION
- W/E - WATERLINE EASEMENT



LOCATION MAP
SCALE 1" = 2000'

MISSOURI DEPARTMENT OF
TRANSPORTATION (MODOT)

SPIRE
Brent Jones
3025 SE Clover Drive
Lee's Summit, MO 64082
(816) 399-0663 brent.jones@spireenergy.com

Philip Ingram
1300 SE Hamblin Road
Lee's Summit, MO 64081
Office: (816) 347-347-4339
philip.ingram@evergy.com

Dena Mezger
220 SE Green Street
Lee's Summit, MO 64063
(816) 969-1800

Mark Manion or Marty Loper
500 E. 8th Street, Room 370
Kansas City, MO 64106
(816) 275-2341 or (816) 275-1550

John Meadows
4700 Little Blue Parkway
Independence, MO 64057
(816) 795-2257

Mark Schaufler
1200 SE Hamblen Road
Lee's Summit, MO 64081
(816) 969-1900



811 or
1-800-344-7483
mo1call.com

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Development Services Department
Lee's Summit, Missouri

10/18/2023

| Sheet List Table | |
|------------------|-----------------------|
| Sheet Number | Sheet Title |
| 1 | COVER SHEET |
| 2 | GENERAL LAYOUT |
| 3 | WATER LINE A - PUBLIC |
| 4 | WATER LINE A - PUBLIC |
| 5 | WATER LINE B - PUBLIC |
| 7 | DETAILS |
| 8 | DETAILS |

SCHLAGEL & ASSOCIATES, P.A.

RESIDENCES AT BLACKWELL
PUBLIC WATER MAIN PLANS

CITY ENGINEER
APPROVED FOR ONE YEAR FROM THIS DATE

GRIFFIN RILEY PROPERTY GROUP
 JAKE LOVELESS, VICE PRESIDENT
 21 SE 29TH STREET
 LEE'S SUMMIT
 p 816-366-7900
 JAKE@GRIFFINRILEY.COM

STATION NAME - JA-90

KC METRO ALUMINUM GRS DISK SET IN CONCRETE STAMPED "JA-90, 1988"
LOCATED NEAR THE INTERSECTION OF LANGSFORD ROAD AND OLD
LANGSFORD ROAD, 43 FEET SOUTHEAST OF THE CENTER OF LANGSFORD
ROAD AND 32 FEET NORTH OF THE CENTER OF OLD LANGSFORD ROAD.
N:1001052.8503, E:2845604.8272

ELEV. 997.045

"SQUARE" CUT IN TOP OF CONCRETE STORM MANHOLE
STORM MANHOLE IS LOCATED APPROX. 130 FEET EAST OF THE
INTERSECTION OF SE JOEL AVE & BLUE PARKWAY AND 26 FEET SOUTH
OF THE CENTERLINE OF BLUE PARKWAY.
N:996874.9690, E:2840937.1365

ELEV. 1005.719

NO PART OF THE PROJECT LIES WITHIN THE 100 YEAR FLOOD
PLAIN PER FEMA FLOOD INSURANCE RATE MAP NUMBERS
29095C0441G, 29095C0445G, 29095C0437G AND 29095C0439G
DATED JANUARY 20TH, 2017.

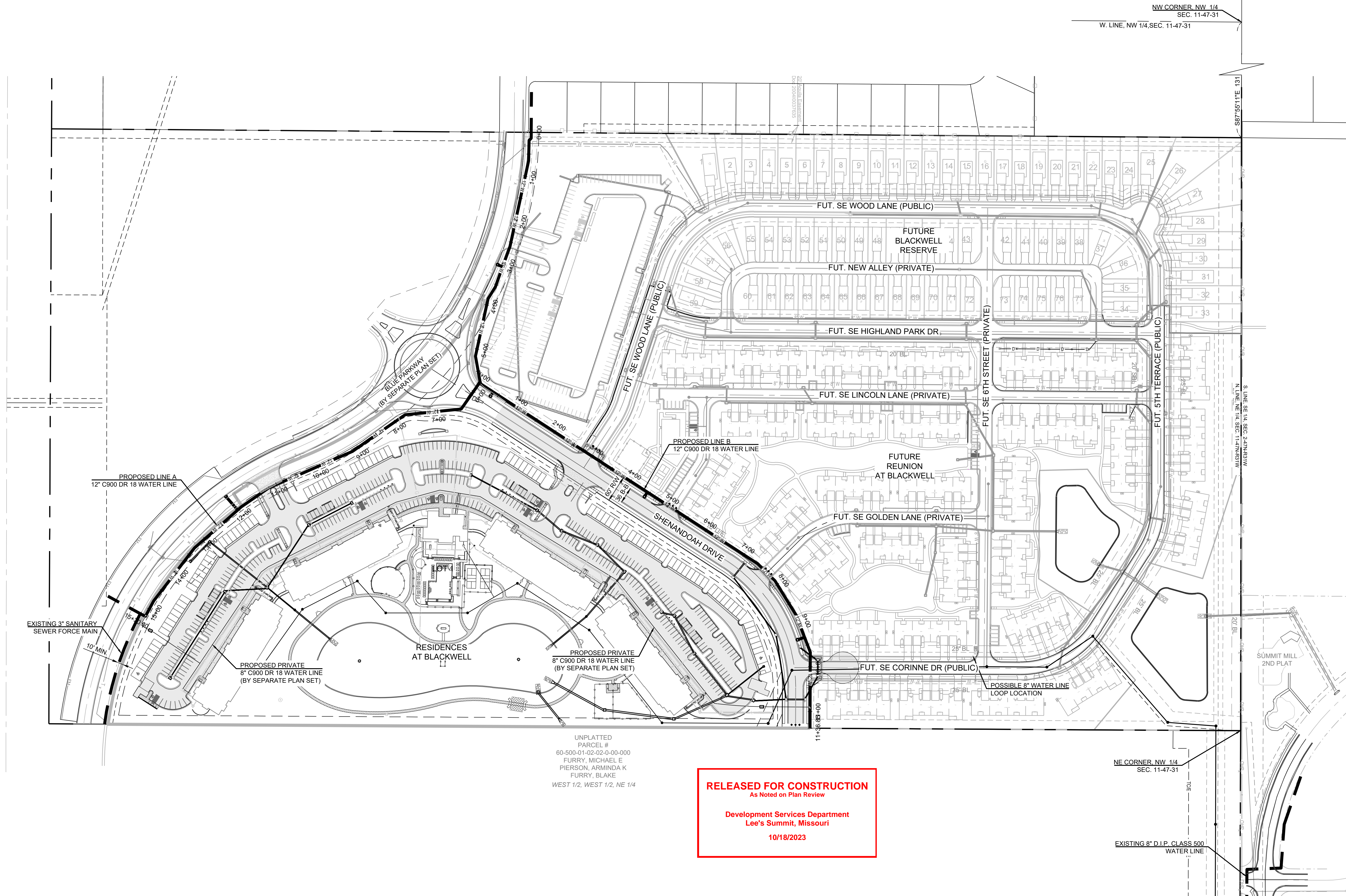
THERE ARE NOT OIL/GAS WELLS PRESENT ON THE PROJECT PER MISSOURI DEPARTMENT OF NATURAL RESOURCES - MISSOURI GEOLOGICAL SURVEY GeoSTRAT MAPPING.

| SUMMARY OF QUANTITIES | | | |
|-----------------------|--------------------------------|----------|-------|
| | ITEM | QUANTITY | UNITS |
| 1 | CONNECT TO EXISTING WATER MAIN | 2 | EA |
| 2 | 12" C900 DR18 WATER MAIN | 2668 | LF |
| 3 | 12" X 12" TEE W/THRUST BLOCK | 2 | LF |
| 4 | 12" X 8" TEE W/THRUST BLOCK | 4 | EA |
| 5 | 12" X 6" TEE W/THRUST BLOCK | 5 | EA |
| 6 | 12" GATE VALVE | 11 | EA |
| 7 | 8" GATE VALVE | 5 | EA |
| 8 | 8" PLUG | 5 | EA |
| 9 | 12" 45° BEND W/THRUST BLOCK | 4 | EA |
| 10 | 12" 22.5° BEND W/THRUST BLOCK | 4 | EA |
| 11 | 12" 11.25° BEND W/THRUST BLOCK | 10 | EA |
| 12 | 16" X 12" REDUCER | 1 | EA |
| 13 | 12" X 8" REDUCER | 1 | EA |
| 14 | 12" X 6" REDUCER | 1 | EA |
| 15 | 12" AIR RELEASE ASSEMBLY | 1 | EA |
| 16 | 5-1/4" FIRE HYDRANT ASSEMBLY | 5 | EA |
| 17 | TEMP. FIRE HYDRANT | 1 | EA |
| 18 | STRADDLE BLOCK | 3 | EA |
| 19 | PERMIT FEE | 1 | LS |
| 20 | BOND | 1 | LS |

RESIDENCES AT BLACKWELL
PUBLIC WATER MAIN PLANS
HERITAGE STREET LEE'S SUMMIT, MO

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| 8 12/14/2023 | PER CITY COMMENTS |

GENERAL
LAYOUT



UNPLATTED
PARCEL #
60-500-01-02-02-0-00-000
FURRY, MICHAEL E
PIERSON, ARMINDA K
FURRY, BLAKE
WEST 1/2, WEST 1/2, NE 1/4

RELEASED FOR CONSTRUCTION
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Development Services Department
Lee's Summit, Missouri
10/18/2023

MO GRS BENCHMARK:

STATION NAME - JA-90

KC METRO ALUMINUM GRS DISK SET IN CONCRETE STAMPED "JA-90, 1988"
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N:1001052.8503, E:2845604.8272

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PROJECT BENCHMARK:

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STORM MANHOLE IS LOCATED APPROX. 130 FEET EAST OF THE
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OF THE CENTERLINE OF BLUE PARKWAY.
N:996874.9690, E:2840937.1365

ELEV. 1005.719

STA. 5+77.59, WATER LINE A - PUBLIC
INSTALL 1 - 12" X 12" TEE
W/THRUST BLOCK
INSTALL 3 - 12" GATE VALVES (NW, SW & NE)
N: 996802.8710 E: 2841492.8828

STA. 6+48.04, WATER LINE A - PUBLIC
INSTALL 1 - 12" 45° BEND
W/THRUST BLOCK
N: 996760.4233 E: 2841549.1088

STA. 7+73.04, WATER LINE A - PUBLIC
INSTALL 1 - 12" 22.5° BEND
W/THRUST BLOCK
N: 996635.6914 E: 2841557.2224

STA. 9+15.58, WATER LINE A - PUBLIC
INSTALL 1 - 12" 11.25° BEND
W/THRUST BLOCK
N: 996515.9233 E: 2841634.5113

STA. 10+38.79, WATER LINE A - PUBLIC
INSTALL 1 - 12" AIR RELEASE VALVE ASSEMBLY
N: 996401.3573 E: 2841679.8364

STA. 15+00.00, WATER LINE A - PUBLIC
INSTALL STRADDLE BLOCK
N: 996052.6183 E: 2841968.9960

STA. 15+18.06, WATER LINE A - PUBLIC
INSTALL 1 - 12" X 12" X 12" TEE
W/THRUST BLOCK
INSTALL 2 - 12" GATE VALVES (NW & S)
INSTALL 1 - 16" X 12" REDUCER (S)
INSTALL 1 - 12" X 8" REDUCER (E)
INSTALL 1 - 8" GATE VALVE (E)
INSTALL 1 - 8" PLUG (E)
N: 996043.7035 E: 2841984.5828

STA. 11+92.12, WATER LINE A - PUBLIC
INSTALL 1 - 12" 11.25° BEND
W/THRUST BLOCK
N: 996265.3474 E: 2841749.0319

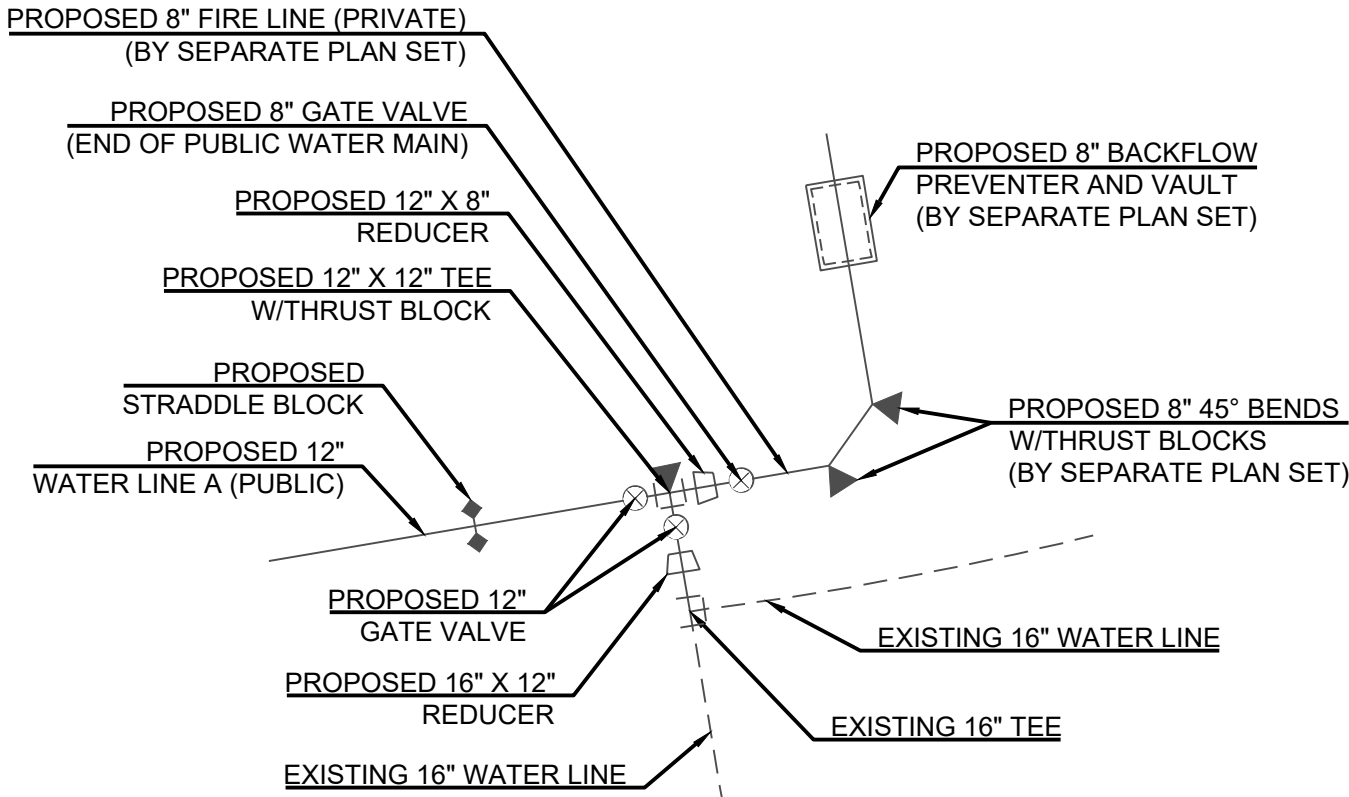
STA. 11+18.79, WATER LINE A - PUBLIC
INSTALL 1 - 12" 11.25° BEND
W/THRUST BLOCK
N: 996326.9690 E: 2841709.2662

STA. 12+02.89, WATER LINE A - PUBLIC
INSTALL 1 - 12"X6" TEE
W/THRUST BLOCK AND
5-1/4" HYDRANT ASSEMBLY
N: 996257.0049 E: 2841755.8301

STA. 13+30.61, WATER LINE A - PUBLIC
INSTALL 1 - 12" 11.25° BEND
W/THRUST BLOCK
N: 996157.9941 E: 2841836.5127

STA. 14+79.29, WATER LINE A - PUBLIC
INSTALL 1 - 12" 11.25° BEND
W/THRUST BLOCK
N: 996063.2742 E: 2841951.1159

STA. 15+30.60, WATER LINE A - PUBLIC
CONNECT TO EXISTING 16" TEE
END CONSTRUCTION WATER LINE A - PUBLIC
N: 996032.8727 E: 2841978.2492



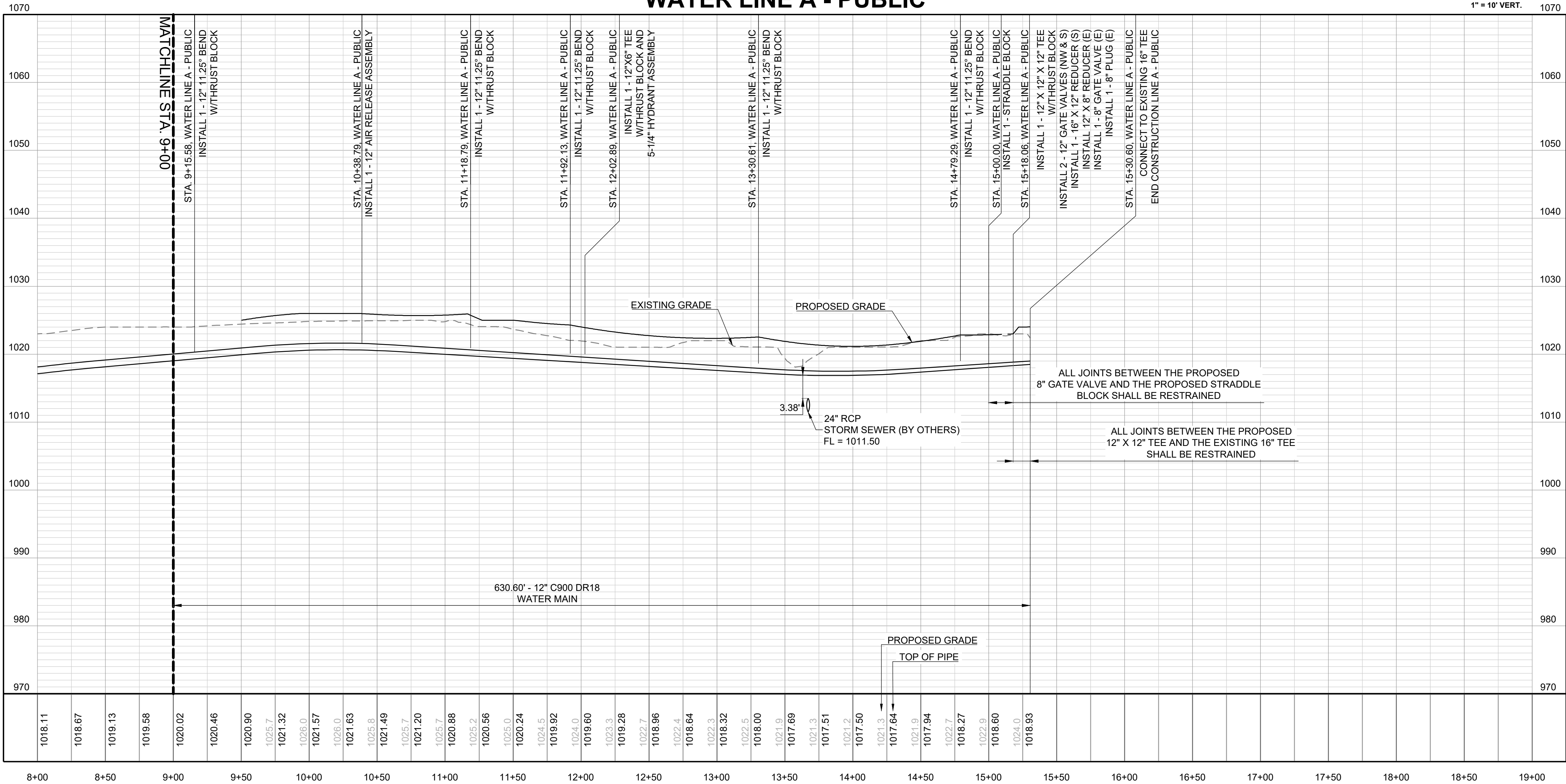
- RESTRAINED JOINT NOTES:
- ALL JOINTS BETWEEN THE PROPOSED 8" GATE VALVE AND THE PROPOSED STRADDLE BLOCK SHALL BE RESTRAINED.
 - ALL JOINTS BETWEEN THE PROPOSED 12" X 12" TEE AND THE EXISTING 16" TEE SHALL BE RESTRAINED.

CONNECTION DETAIL
EXISTING 16" WATER LINE AND 8" PRIVATE FIRE LINE
N.T.S.

- NOTES:
- ALL CONSTRUCTION ON THIS PROJECT SHALL CONFORM TO THE CITY OF LEE'S SUMMIT TECHNICAL SPECIFICATIONS.
 - THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL EXISTING UTILITY LOCATIONS PRIOR TO EXCAVATION.



WATER LINE A - PUBLIC



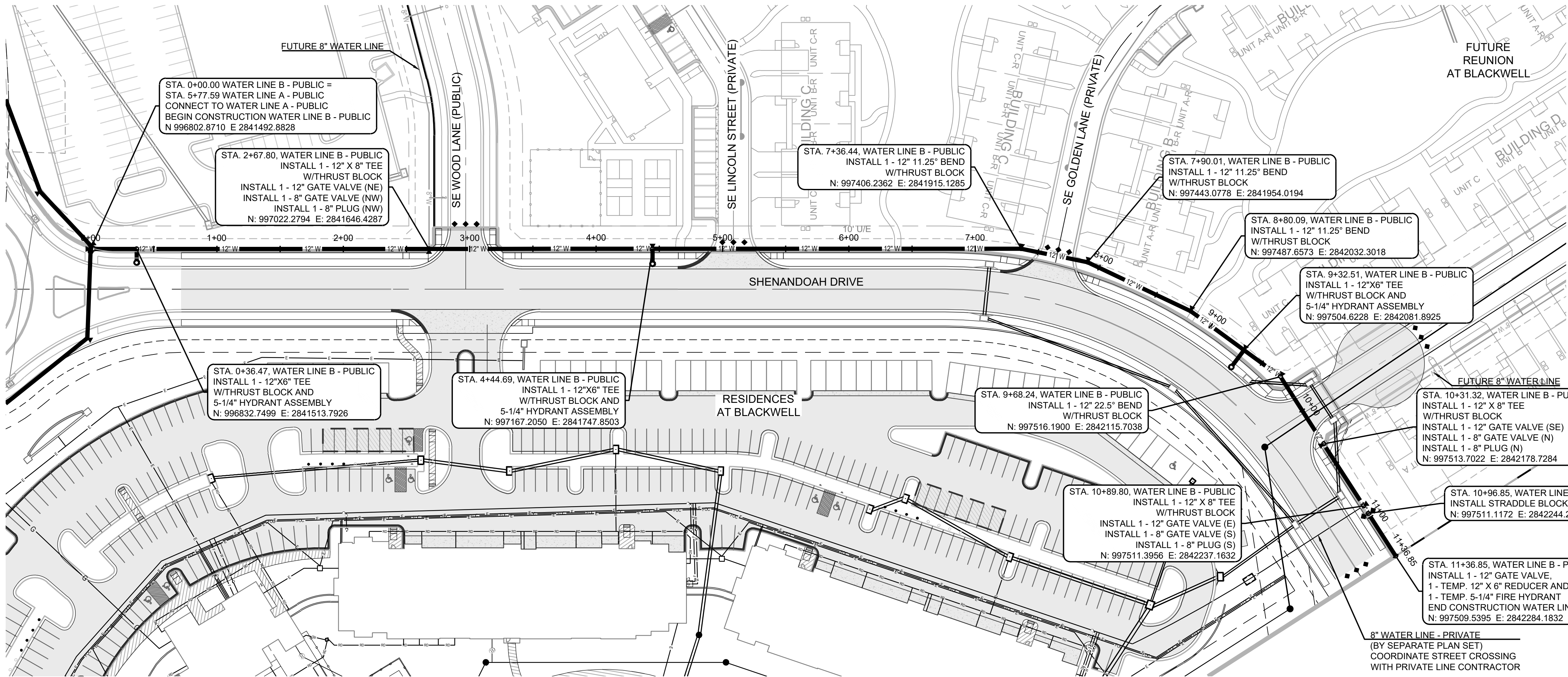
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| | |
|----------------|------------|
| DRAWN BY: | TRC |
| CHECKED BY: | MAB |
| DATE PREPARED: | 11/30/2022 |
| PROJ. NUMBER: | 22-102 |

WATER LINE A - PUBLIC



MO GRS BENCHMARK:

STATION NAME - JA-90
KC METRO ALUMINUM GRS DISK SET IN CONCRETE STAMPED "JA-90, 1988"
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N:1001052.8503, E:2845604.8272
ELEV. 997.045

PROJECT BENCHMARK:

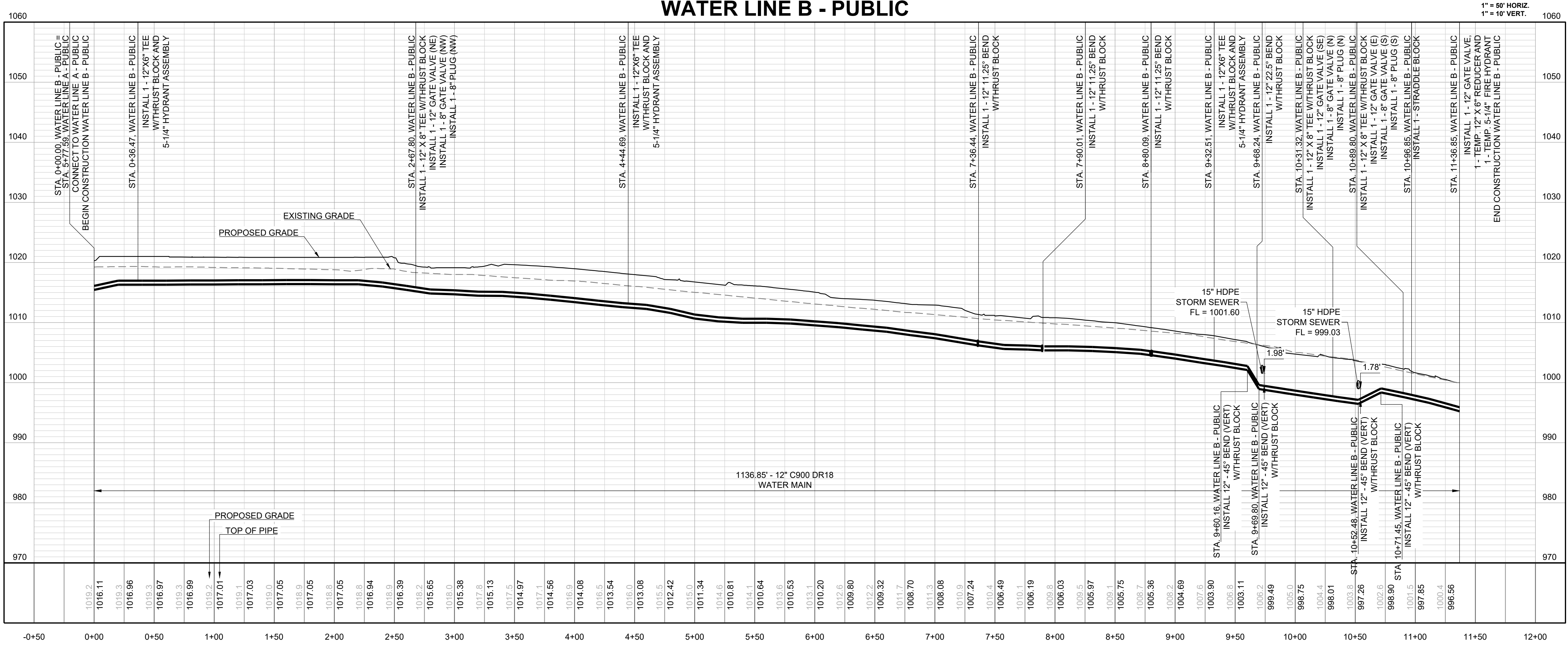
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NOTES:

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WATER LINE B - PUBLIC



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Lee's Summit, Missouri
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SCHLAGEL
ENGINEERS PLANNERS SURVEYORS LANDSCAPE ARCHITECTS
14920 West 107th Street • Lenexa, Kansas 66215
(913) 492-5158 • Fax: (913) 492-8400
WWW.SCHLAGELASSOCIATES.COM
Missouri State Certificates of Authority
#E200200360F #LAC2001003237 #LS200200859F

PREPARED BY:

07.24.2023

SCHLAGEL & ASSOCIATES, P.A.

RESIDENCES AT BLACKWELL
PUBLIC WATER MAIN PLANS

HERITAGE STREET LEE'S SUMMIT, MO

| DRAWN BY: | REVISION DATE | DESCRIPTION |
|-----------|---------------|-------------------|
| TRC | 01/23/2023 | PER CITY COMMENTS |
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| | 07/07/2023 | PER CITY COMMENTS |
| | 07/14/2023 | PER CITY COMMENTS |
| | 11/30/2022 | PROJ. NUMBER: |
| | 22-102 | |

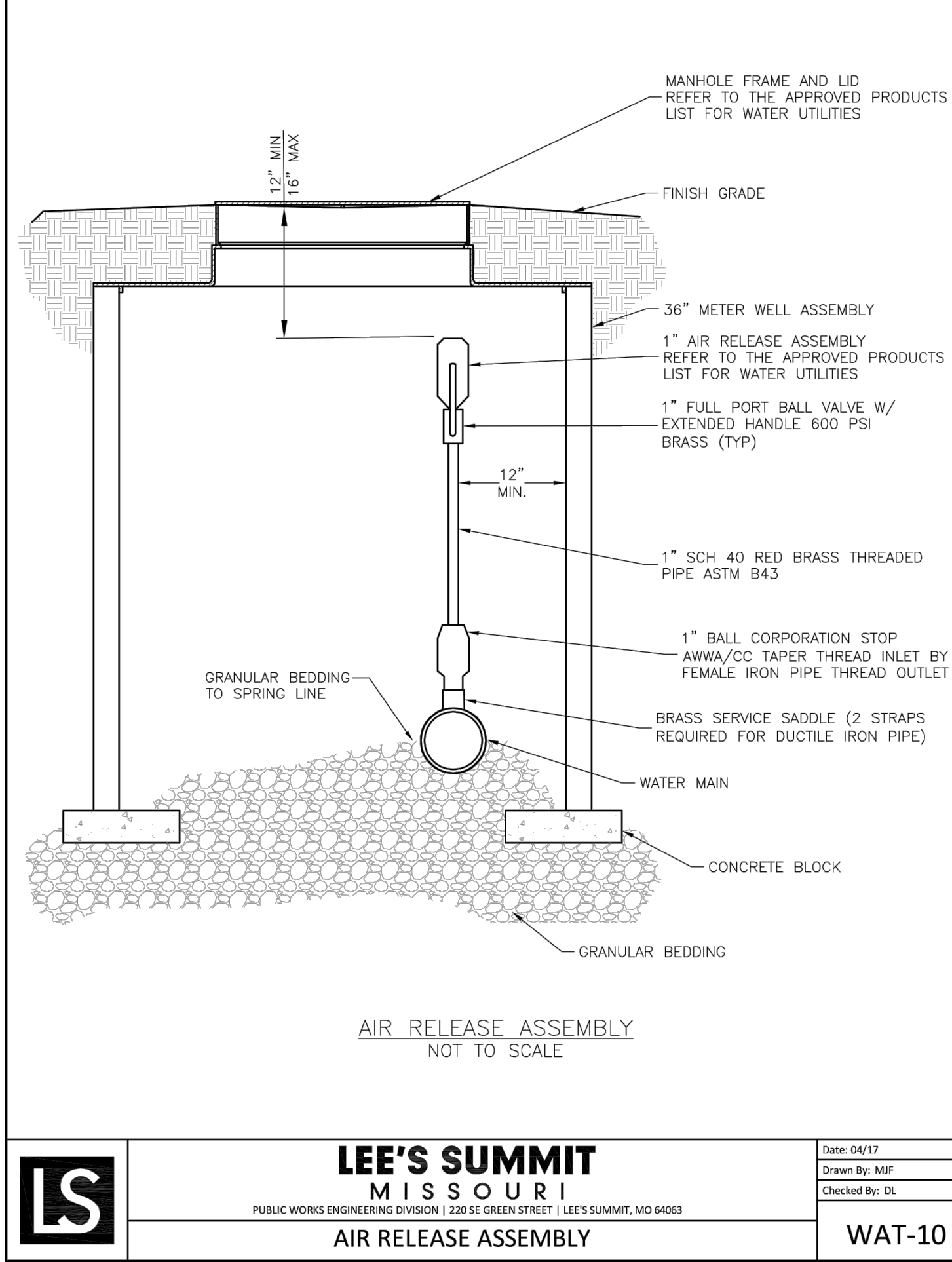
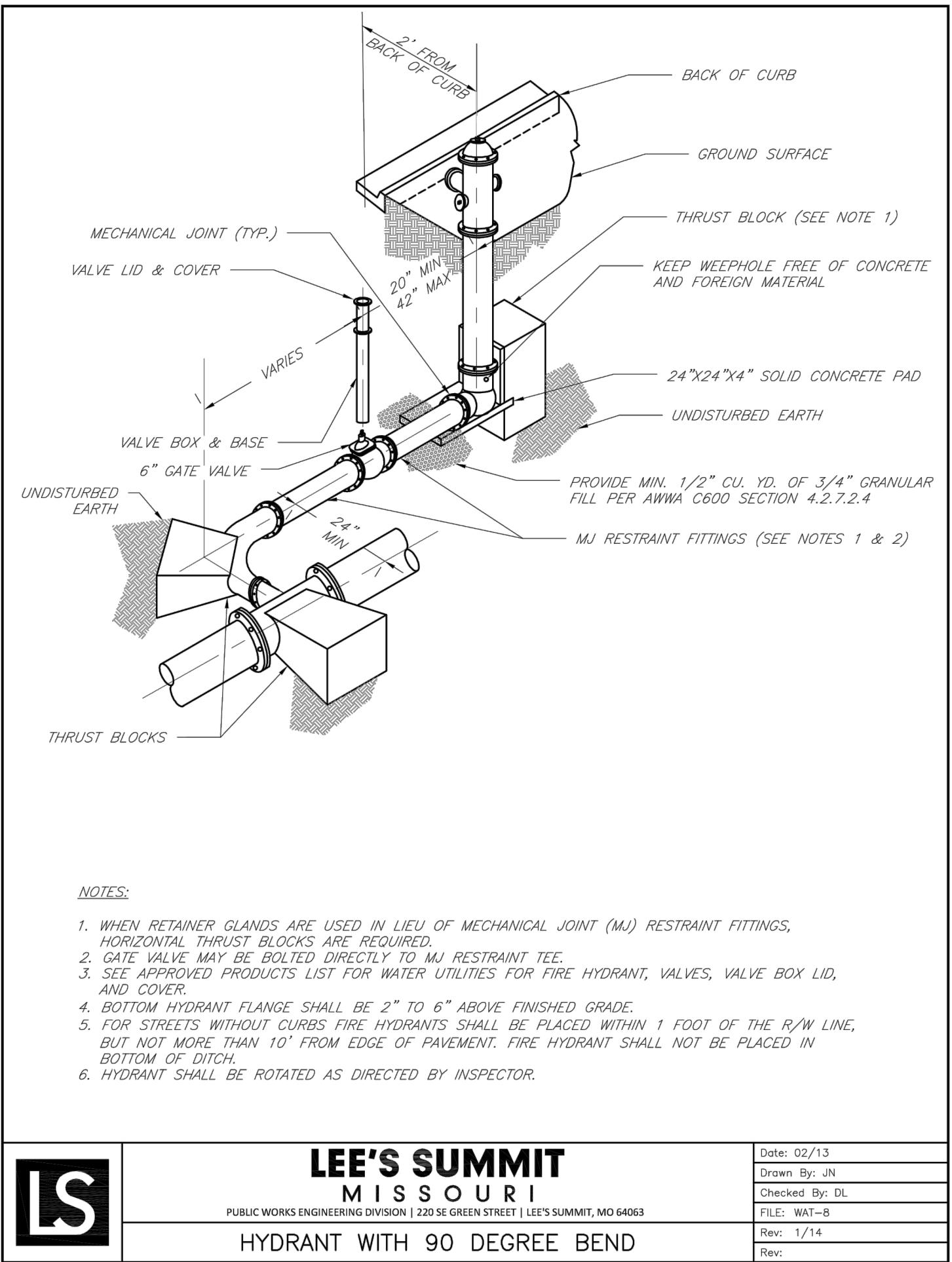
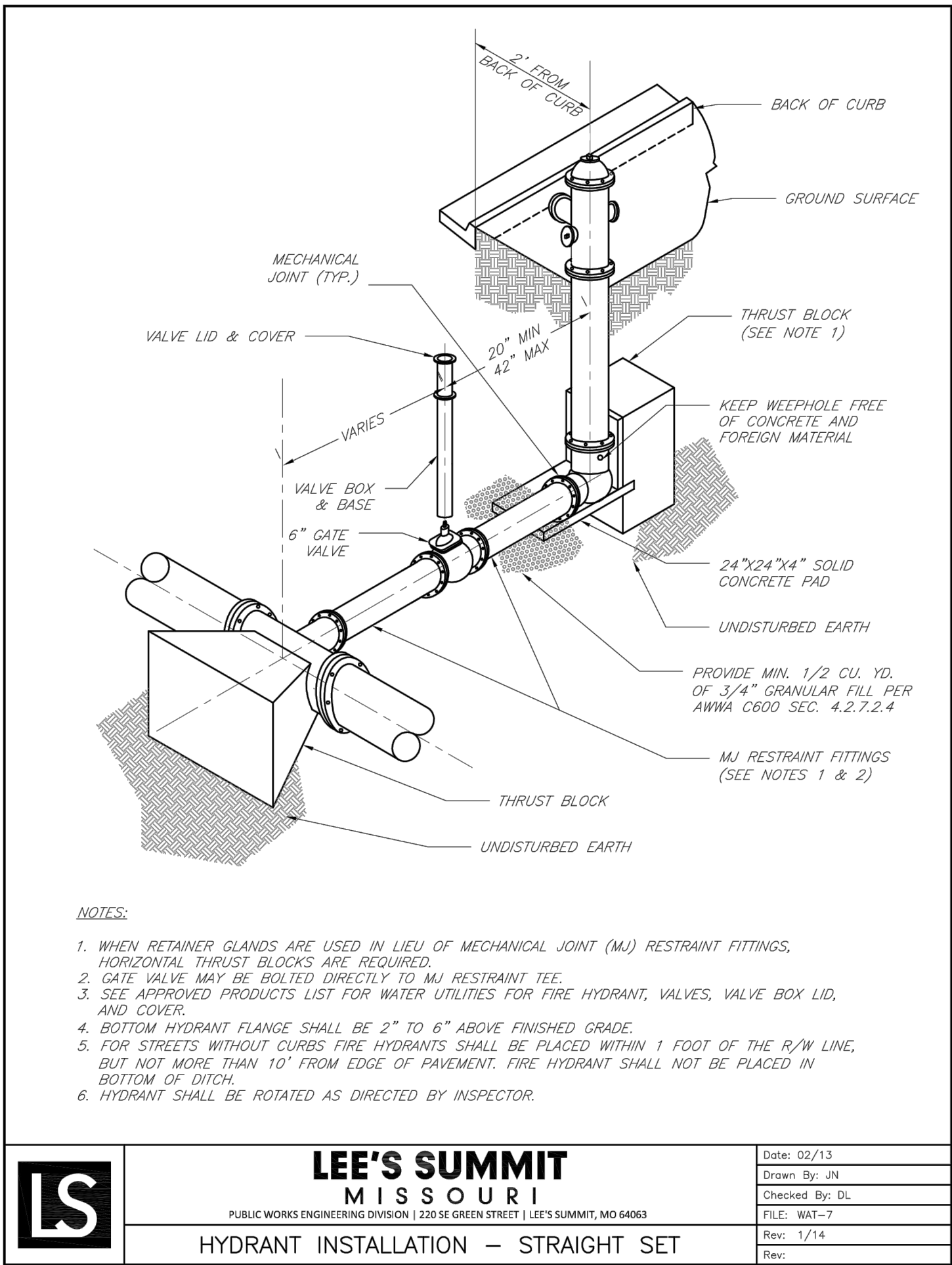
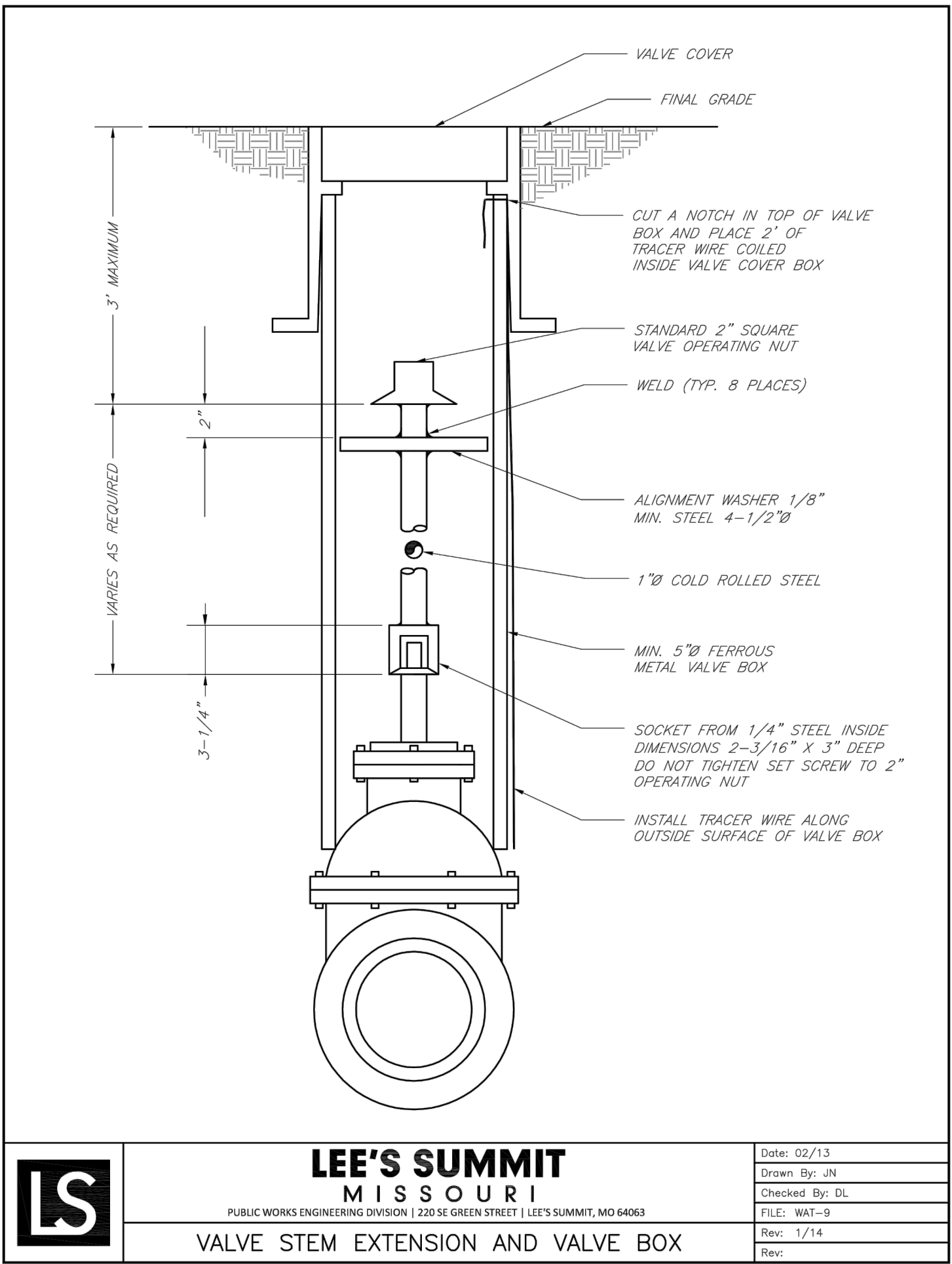
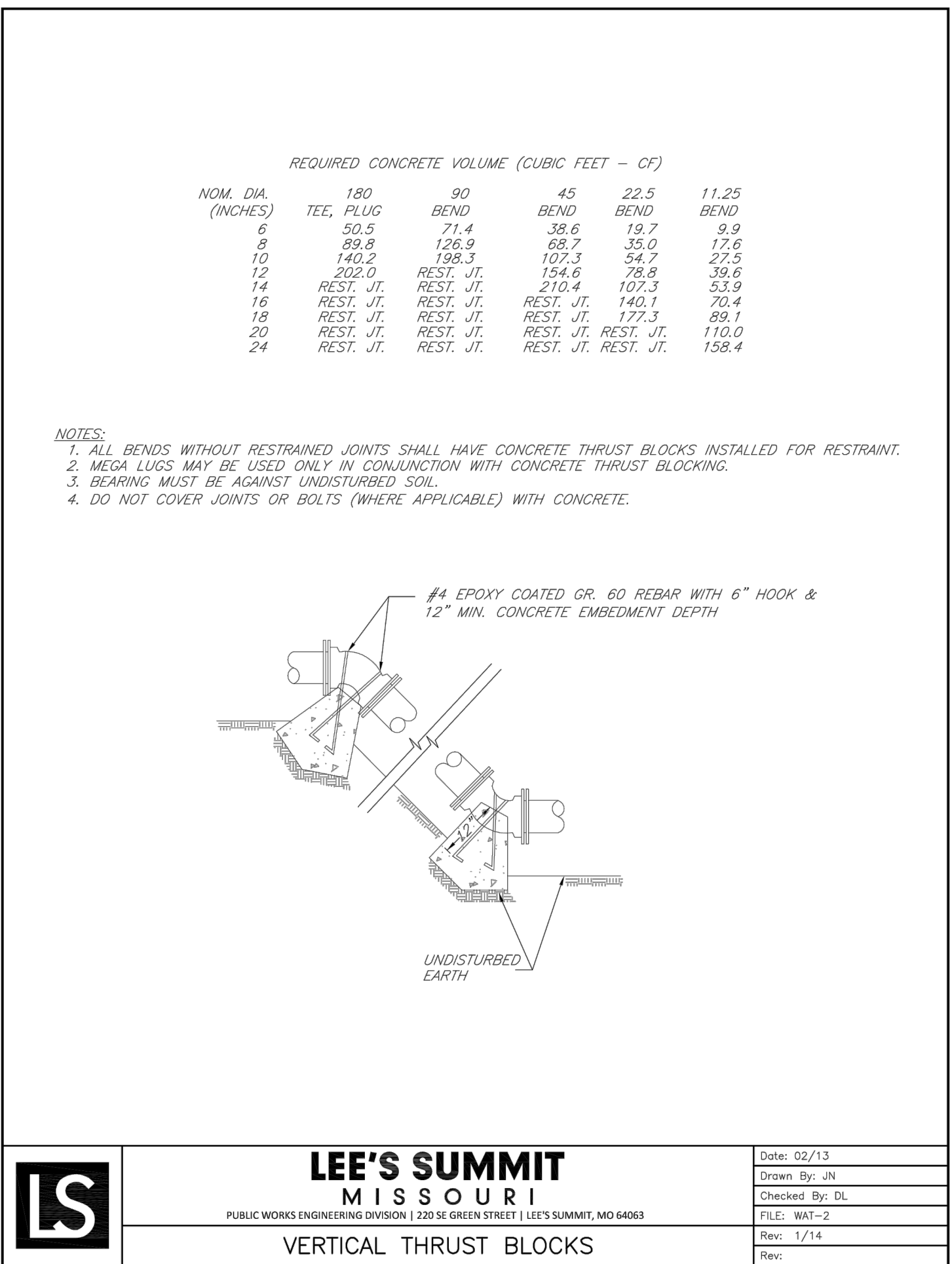
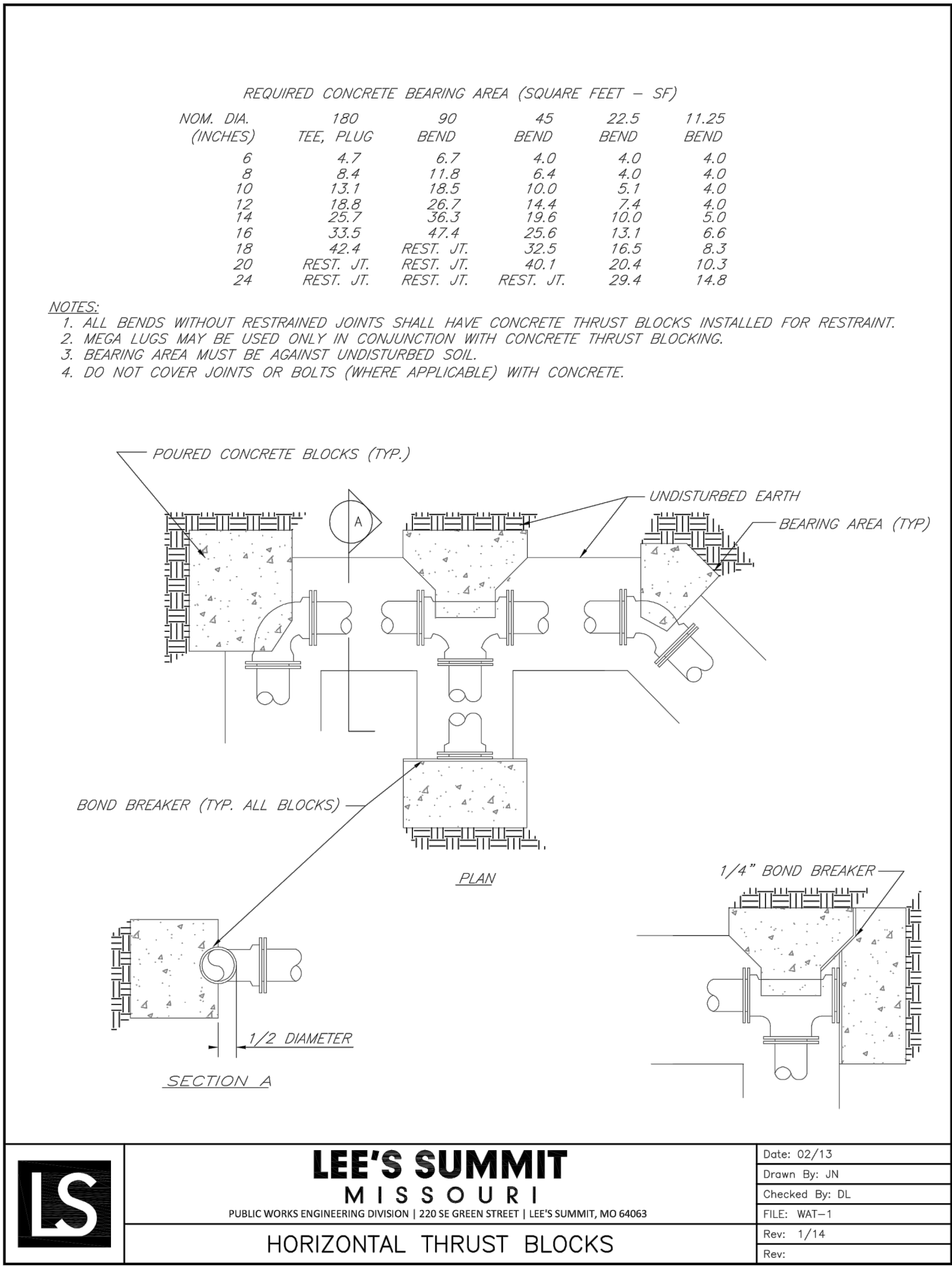
WATER LINE B - PUBLIC

SHEET

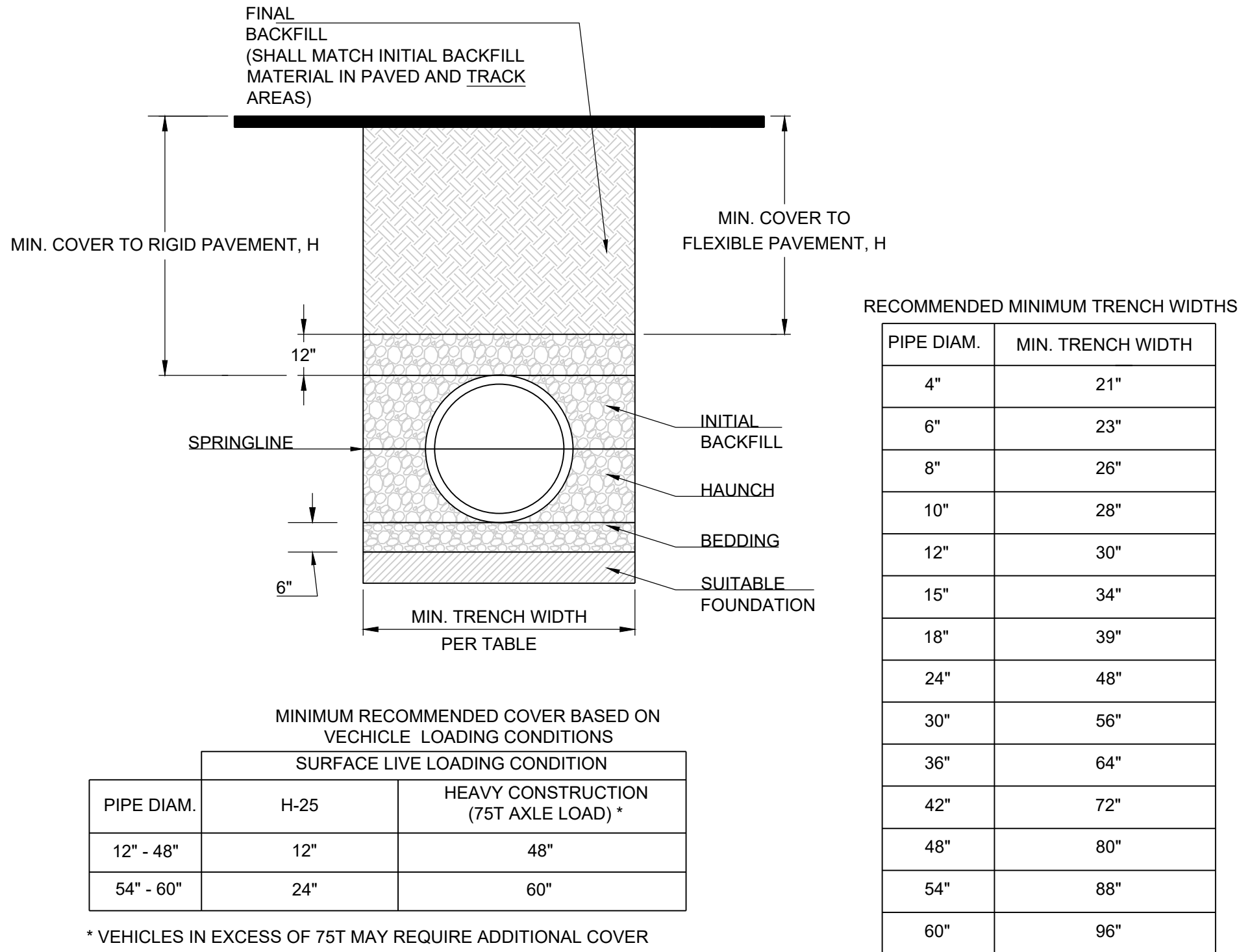
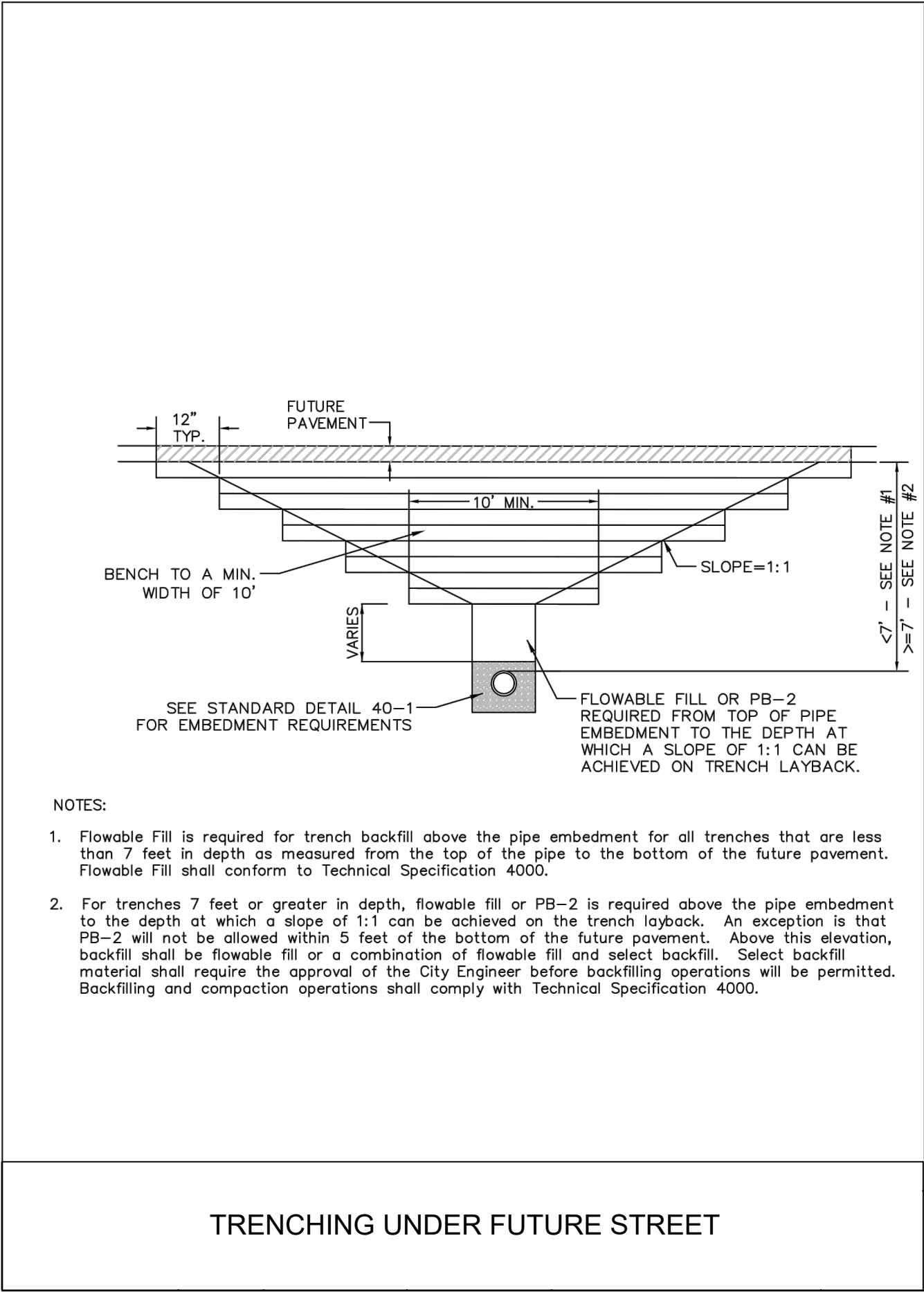
5

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| 8 | 22-102 | |



- NOTES:**
- ALL PIPE SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH ASTM D2321, "STANDARD PRACTICE FOR UNDERGROUND INSTALLATION OF THERMOPLASTIC PIPE FOR SEWERS AND OTHER GRAVITY FLOW APPLICATIONS", LATEST EDITION
 - MEASURES SHOULD BE TAKEN TO PREVENT MIGRATION OF NATIVE FINES INTO BACKFILL MATERIAL, WHEN REQUIRED.
 - FOUNDATION:** WHERE THE TRENCH BOTTOM IS UNSTABLE, THE CONTRACTOR SHALL EXCAVATE TO A DEPTH REQUIRED BY THE ENGINEER AND REPLACE WITH SUITABLE MATERIAL AS SPECIFIED BY THE ENGINEER. AS AN ALTERNATIVE AND AT THE DISCRETION OF THE DESIGN ENGINEER, THE TRENCH BOTTOM MAY BE STABILIZED USING A GEOTEXTILE MATERIAL.
 - BEDDING:** SUITABLE MATERIAL SHALL BE CLASS I, II OR III. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. UNLESS OTHERWISE NOTED BY THE ENGINEER, MINIMUM BEDDING THICKNESS SHALL BE 6" (100mm) .
 - INITIAL BACKFILL:** SUITABLE MATERIAL SHALL BE CLASS I, II OR III IN THE PIPE ZONE EXTENDING NOT LESS THAN 6" ABOVE CROWN OF PIPE. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. MATERIAL SHALL BE INSTALLED AS REQUIRED IN ASTM D2321, LATEST EDITION.
 - MINIMUM COVER:** MINIMUM COVER, H, IN NON-TRAFFIC APPLICATIONS (GRASS OR LANDSCAPE AREAS) IS 12" FROM THE TOP OF PIPE TO GROUND SURFACE. ADDITIONAL COVER MAY BE REQUIRED TO PREVENT FLOATATION. FOR TRAFFIC APPLICATIONS, MINIMUM COVER, H, IS 12" UP TO 48" DIAMETER PIPE AND 24" OF COVER FOR 54"-60" DIAMETER PIPE. MEASURED FROM TOP OF PIPE TO BOTTOM OF FLEXIBLE PAVEMENT OR TO TOP OF RIGID PAVEMENT.

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