

LEGEND OF LABELS:

- (A) LIMITS OF DISTURBANCE.
- (B) INSTALL 3" CRUSHED STONE FOR CONSTRUCTION EXIT (6" THICK x 12'W x 50'L). ALL CONSTRUCTION TRAFFIC SHALL LEAVE THE SITE VIA THIS EXIT. NO TRACKING OF MUD ONTO PUBLIC STREETS IS ALLOWED.
- (C) INSTALL SILT FENCE AS SHOWN. PORTIONS OF SILT FENCE WILL BE INSTALLED PER INITIAL EROSION CONTROL PLAN. IN LIEU OF SILT FENCE CONTRACTOR MAY INSTALL WATTLES AND BIODEGRADABLE LOGS.
- (D) TOP SOIL STORAGE. CONTRACTOR TO ACQUIRE WRITTEN PERMISSION FROM ADJACENT PROPERTY OWNER FOR STORAGE OF TOP SOIL OR FIND ALTERNATE OFFSITE LOCATION.
- (E) INSTALL INLET PROTECTION. SILT FENCE WRAPPED AROUND THROAT OF INLET.
- (F) STAKED STRAW BALE DITCH CHECK.
- (G) 20' X 30' X 3' MIN CONCRETE WASHOUT FACILITY. THE WASHOUT FACILITY IS TO BE LINED WITH A PLASTIC LINING MATERIAL (10 MIL POLYETHYLENE SHEETING MIN.) FREE OF HOLES, TEARS, OR OTHER DEFECTS THAT COULD COMPROMISE THE IMPERMEABILITY OF THE MATERIAL. WASHOUT FACILITIES MUST BE CLEANED, OR NEW FACILITIES MUST BE CONSTRUCTED AND READY FOR USE ONCE THE WASHOUT IS 75% FULL. A SIGN SHALL BE INSTALLED ADJACENT TO FACILITY TO INFORM CONCRETE EQUIPMENT OPERATORS TO UTILIZE THE PROPER FACILITIES.
- (H) INSTALL GUTTERBUDDY OR APPROVED EQUAL.
- (I) PROPOSED DETENTION FACILITY AREA TO BE USED AS A TEMPORARY SEDIMENT TRAP UNTIL AREAS DRAINING TO HAS VEGETATION ESTABLISHED.
- (J) TYPE II ROCK DITCH CHECK. REFER TO DETAIL SHEET CE 13.
- (K) INSTALL NORTH AMERICAN GREEN VMAX S350 EROSION CONTROL MAT. CONTRACTOR TO INSTALL PER MANUFACTURES SPECIFICATIONS.

SEQUENCE OF CONSTRUCTION:

- OBTAIN MODOT, STATE AND CITY OF LEE'S SUMMIT COUNTY LAND DISTURBANCE PERMITS PRIOR TO ANY LAND DISTURBANCE ACTIVITIES.
- INSTALL BMP'S NEEDED FOR LAND DISTURBANCE SUCH AS SILT FENCE, ROCK DITCH CHECK AND STAKED STRAW BALES AS SHOWN ON THE PLAN.
- BEGIN SITE DEMOLITION AND GRADING OPERATIONS. EXISTING PAVEMENT MAY BE USED AS CONSTRUCTION ENTRANCE UNTIL DEMOLITION OF PAVEMENT IN AREA OF THE ENTRANCE HAS STARTED. ONCE DEMOLITION OF PAVEMENT IS COMPLETED A TEMPORARY CONSTRUCTION ENTRANCE SHALL BE INSTALLED.
- CONSTRUCT DETENTION FACILITY. DETENTION FACILITY TO BE UTILIZED AS TEMPORARY SEDIMENT TRAP. PAVED AREAS TO BE BROUGHT UP TO SUBGRADE. ALL NON-PAVED AREAS TO BE BROUGHT UP TO FINAL GRADE AND SEEDED AND MULCHED AS SOON AS POSSIBLE.
- INSTALL INLET PROTECTION IMMEDIATELY AFTER PLACEMENT OF INLETS.
- INSTALL FINAL LANDSCAPING.
- AFTER ALL SURFACE AREAS AS STABILIZED, SILT FENCE AND INLET BARRIERS MAY BE REMOVED.

GENERAL NOTES:

EROSION AND SEDIMENT CONTROL SHALL CONFORM TO SECTION 5100 EROSION AND SEDIMENT CONTROL OF THE KANSAS CITY METROPOLITAN CHAPTER OF THE AMERICAN PUBLIC WORKS ASSOCIATION (APWA), CURRENT EDITION.

DRY DETENTION BASIN MAINTENANCE SCHEDULE:

ACTIVITY	FREQUENCY
ESTABLISHMENT	
WATERING PLANTS (SEEDED AREAS UP TO 8 WEEKS, PLUGS IN DROUGHT)	1" PER WEEK AS NEEDED
WEED CONTROL (FLAIL MOW, STRING-TRIM, SELECTIVE/PREEMERG HERBICIDES)	MONTHLY
REMOVE LITTER AND DEBRIS (TRASH, LEAVES, SAND, MOWER DISCHARGE)	MONTHLY
MONITOR & REPAIR EROSION (STABILIZE SOIL, REPLACE PLANTS, SECURE EDGING)	MONTHLY
CHECK FOR STANDING WATER (LONGER THAN DESIGN, ANY PUDDLES, SATURATE SOIL)	MONTHLY
ADD MULCH (MOISTURE & WEED CONTROL WITH PLUGS/CONTAINERS, 3" OR LESS)	ANNUALLY
INSPECT DRAINAGE AREA (PARKING LOT SWEEPING, TRASH PICKUP, ETC.)	ANNUALLY
REPLACE DEAD PLANTS (USE DESIGN SPECIES/SIZE; OVERSEED, INSTALL DEEP CELL PLUGS)	ANNUALLY, AS NEEDED
MAINTENANCE	
VEGETATION CLEANUP (SPOT TREAT, PRESCRIBED BURN, PRUNE)	ANNUALLY, SPRING OR FALL
EVALUATE PLAN COMPOSITION (WOODY INVASION, GRASS/FLOWER RATION, "RIGHT PLANT RIGHT PLACE")	ANNUALLY
SEDIMENT REMOVAL, EROSION CONTROL (REMOVE SEDIMENT WHEN 25% OF STORAGE HAS BEEN LOST)	ANNUALLY
ADDRESS ANIMAL DAMAGE (BEAVER DAMS, MUSKRAT BURROWS, DEER RUBS)	ANNUALLY
VERIFY STRUCTURAL COMPONENT FUNCTION (ORIFICES AND OUTLET PROTECTION)	ANNUALLY
EXTENDED DRY DETENTION BASIN	
STRING TRIM VEGETATION TO MINIMIZE DISTURBANCE	ANNUALLY
INSPECTION FOR EROSION IN FLOW LINES AND SLOPES	ANNUALLY

REVISIONS:

NO.	DATE
ORIGINAL	08/26/2019
1	09/27/2019

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY

**CROCKETT**  
ENGINEERING CONSULTANTS  
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**CROCKETT**  
SITE/CIVIL ENGINEER

**OWNER:**

NEW TKG-STORAGE MART  
PARTNERS PORTFOLIO  
2615 STADIUM BLVD., SUITE 2207  
COLUMBIA, MO 65203

**STORAGE MART 156**

3920 S. STATE ROUTE 291  
SECTION 3, TOWNSHIP 47 NORTH, RANGE 31 WEST  
LEE'S SUMMIT, JACKSON COUNTY, MISSOURI

DRAWING INCLUDES:

EROSION  
CONTROL PLAN

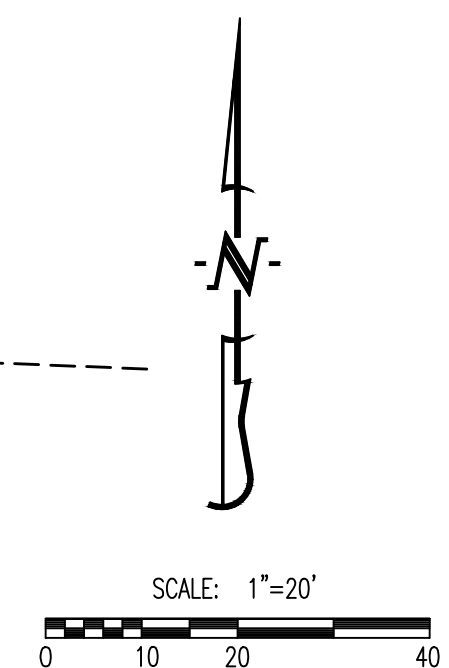
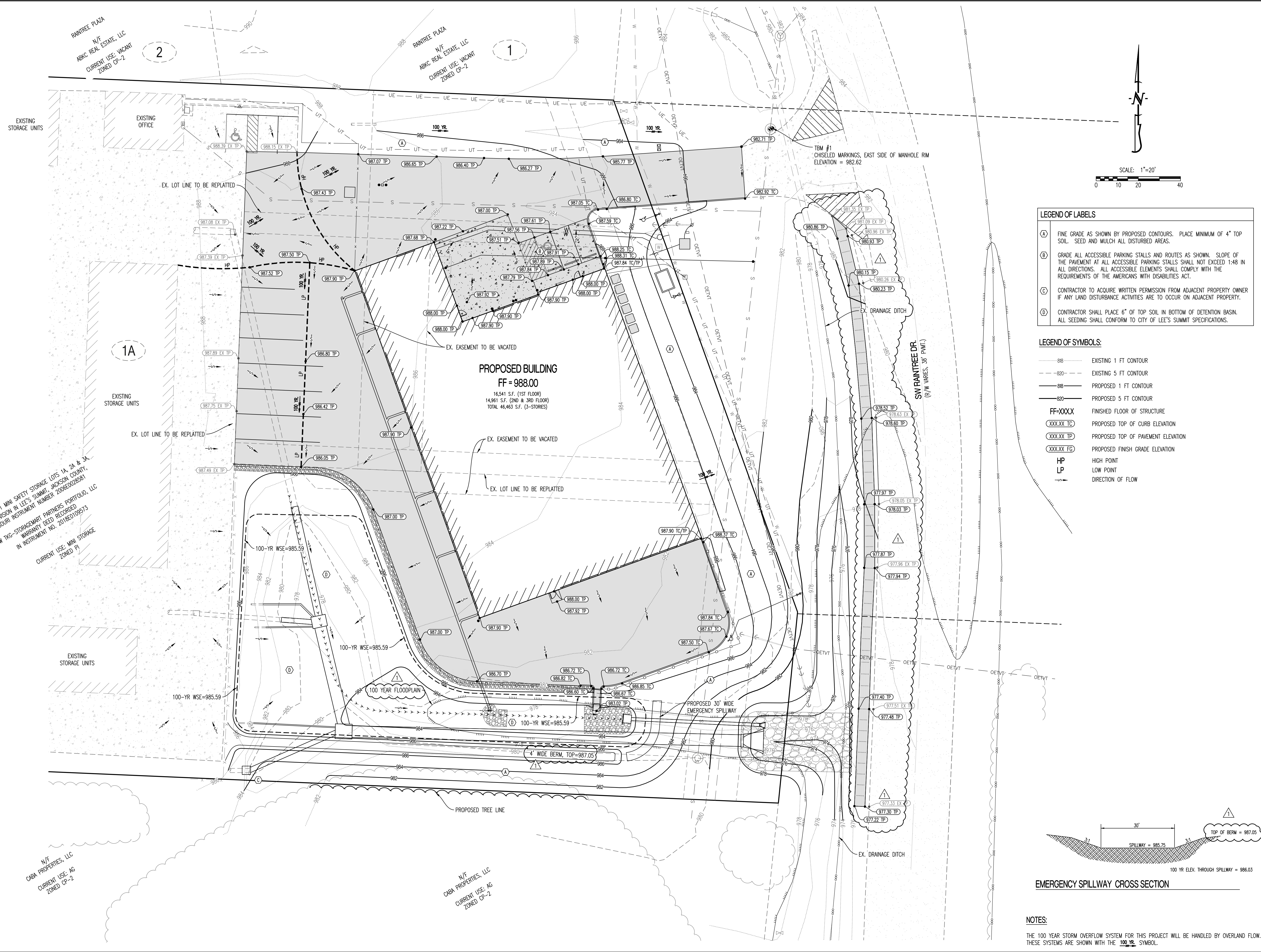
DESIGNED: TDC

DRAWN: JEE

PROJECT NO: 170504

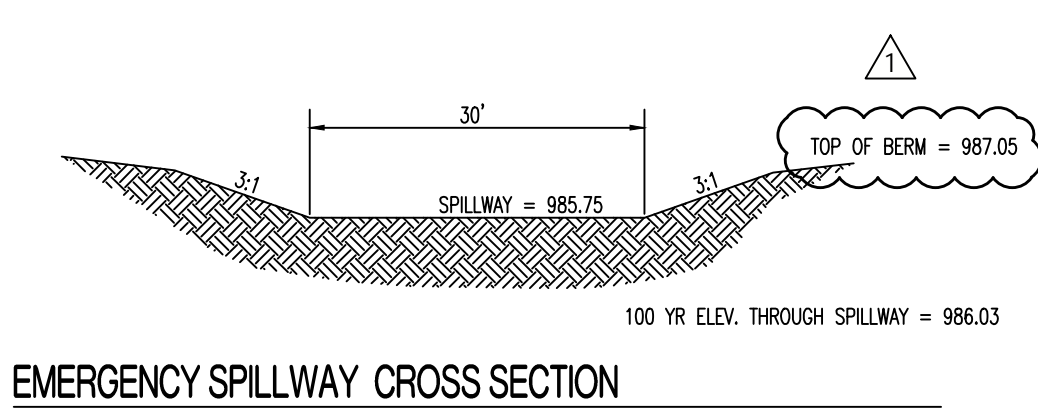
SHEET:  
CE 2





- LEGEND OF LABELS**
- (A) FINE GRADE AS SHOWN BY PROPOSED CONTOURS. PLACE MINIMUM OF 4" TOP SOIL. SEED AND MULCH ALL DISTURBED AREAS.
  - (B) GRADE ALL ACCESSIBLE PARKING STALLS AND ROUTES AS SHOWN. SLOPE OF THE PAVEMENT AT ALL ACCESSIBLE PARKING STALLS SHALL NOT EXCEED 1:48 IN ALL DIRECTIONS. ALL ACCESSIBLE ELEMENTS SHALL COMPLY WITH THE REQUIREMENTS OF THE AMERICANS WITH DISABILITIES ACT.
  - (C) CONTRACTOR TO ACQUIRE WRITTEN PERMISSION FROM ADJACENT PROPERTY OWNER IF ANY LAND DISTURBANCE ACTIVITIES ARE TO OCCUR ON ADJACENT PROPERTY.
  - (D) CONTRACTOR SHALL PLACE 6" OF TOP SOIL IN BOTTOM OF DETENTION BASIN. ALL SEEDING SHALL CONFORM TO CITY OF LEE'S SUMMIT SPECIFICATIONS.

- LEGEND OF SYMBOLS:**
- 88 --- EXISTING 1 FT CONTOUR
  - 820 --- EXISTING 5 FT CONTOUR
  - 88 --- PROPOSED 1 FT CONTOUR
  - 820 --- PROPOSED 5 FT CONTOUR
  - FF=XXXX FINISHED FLOOR OF STRUCTURE
  - XXXX.XX TC PROPOSED TOP OF CURB ELEVATION
  - XXXX.XX TP PROPOSED TOP OF PAVEMENT ELEVATION
  - XXXX.XX FO PROPOSED FINISH GRADE ELEVATION
  - HP HIGH POINT
  - LP LOW POINT
  - > DIRECTION OF FLOW



**NOTES:**

THE 100 YEAR STORM OVERFLOW SYSTEM FOR THIS PROJECT WILL BE HANDLED BY OVERLAND FLOW. THESE SYSTEMS ARE SHOWN WITH THE 100 YR SYMBOL.

REVISIONS:

NO.	DATE
1	03/26/2019
2	03/27/2019

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY

TIMOTHY D. CROCKETT  
LICENSE: 2004000775

**CROCKETT**  
ENGINEERING CONSULTANTS  
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**OWNER:**

NEW TKG-STORAGEMART PARTNERS FORTELLC  
2615 STADIUM BLVD. SUITE 207  
COLUMBIA, MO 65203

**STORAGE MART 156**

3920 S. STATE ROUTE 291  
SECTION 3, TOWNSHIP 47 NORTH, RANGE 31 WEST  
LEE'S SUMMIT, JACKSON COUNTY, MISSOURI

**DRAWING INCLUDES:**

GRADING PLAN

**DESIGNED:** TDC

**DRAWN:** JEE

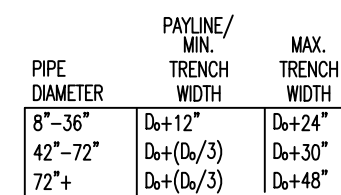
**PROJECT NO.:** 170504

**SHEET:** CE 3









### PIPE EMBEDMENT (Out of the Right of Way)

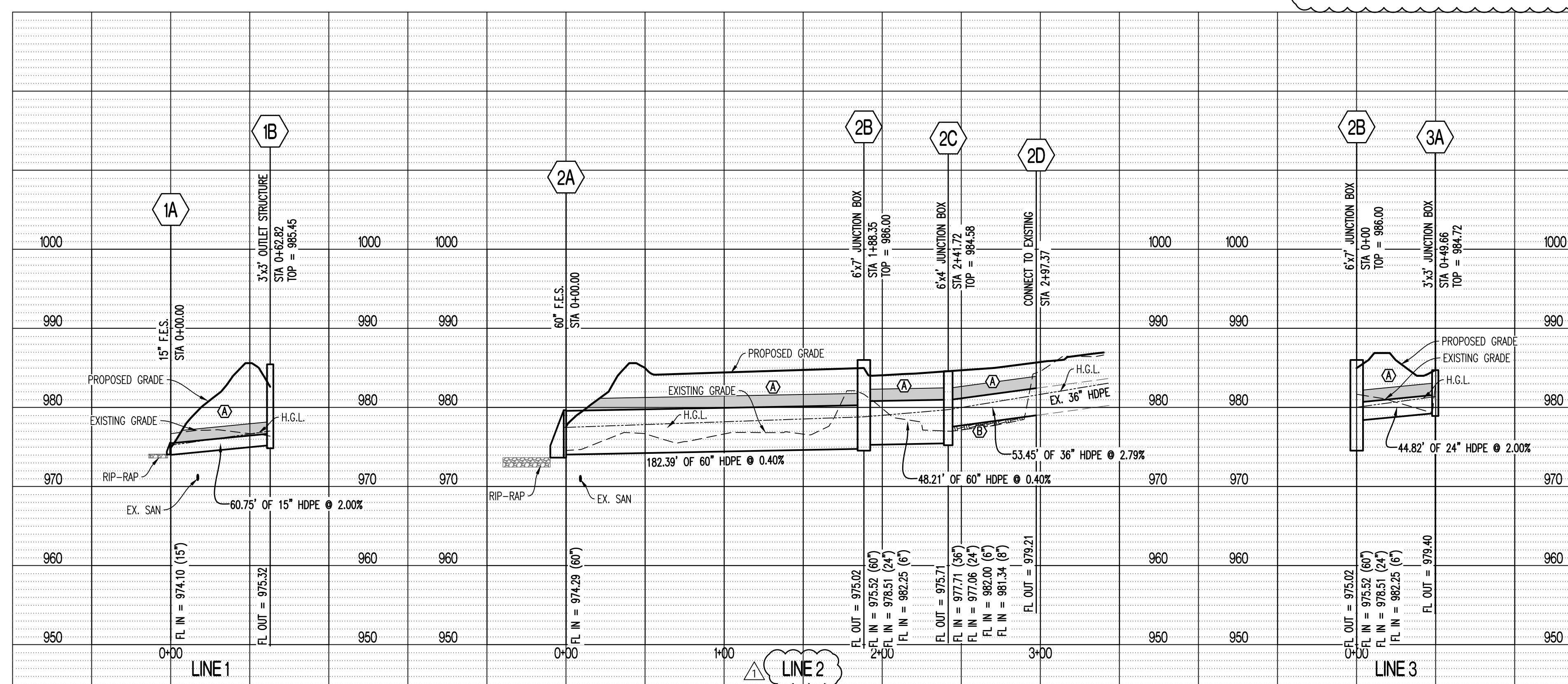
STORM DRAIN PIPE SIZE													
DESCRIPTION		STORM DRAIN HYDRAULICS										NOTES	
AREA NO.	UPSTREAM STRUCTURE LABEL	TIME OF CONCENTRATION	CA			RAINFALL INTENSITY	RUNOFF	STORM DRAIN SLOPE	STORM DRAIN DIAMETER	STORM DRAIN MATERIAL	CAPACITY PER FEET FULL	VELOCITY PER FEET FULL	
			ADDED	EQUAL	TOTAL								
		min	acres	acres	in/hr	cfs	ft/ft	in		RCP, CMP, OR HDPE	cfs	fps	
DS													
1	DS	.5		0.39	8.30	3.20	0.010	12	HDPE		3.86	4.91	
Line 2													
EX	EX	.5			8.30	120.00	0.028	36	HDPE		120.85	11.08	EX 36" HDPE CAPACITY = 120 CFS
EX	2D	.5			8.30	120.00	0.028	36	HDPE		120.85	11.08	
EX	2C	.5			8.30	155.00	0.004	60	HDPE		252.23	12.85	EX 24" HDPE CAPACITY = 35 CFS
EX	2B	.5			8.30	217.00	0.004	60	HDPE		252.23	12.85	EX PVC CAPACITY = 62 CFS
Line 3													
FX	3A	.5			8.30	62.00	0.020	24	HDPE		34.64	11.03	EX 24" PVC CAPACITY = 62 CFS

NOTES:  
1) STORM SEWER PIPE LENGTHS SHOWN ON THIS SHEET ARE FROM EDGE OF  
STRUCTURE TO EDGE OF STRUCTURE.

SCALE:  
HORIZ 1" = 50'  
VERT 1" = 10'

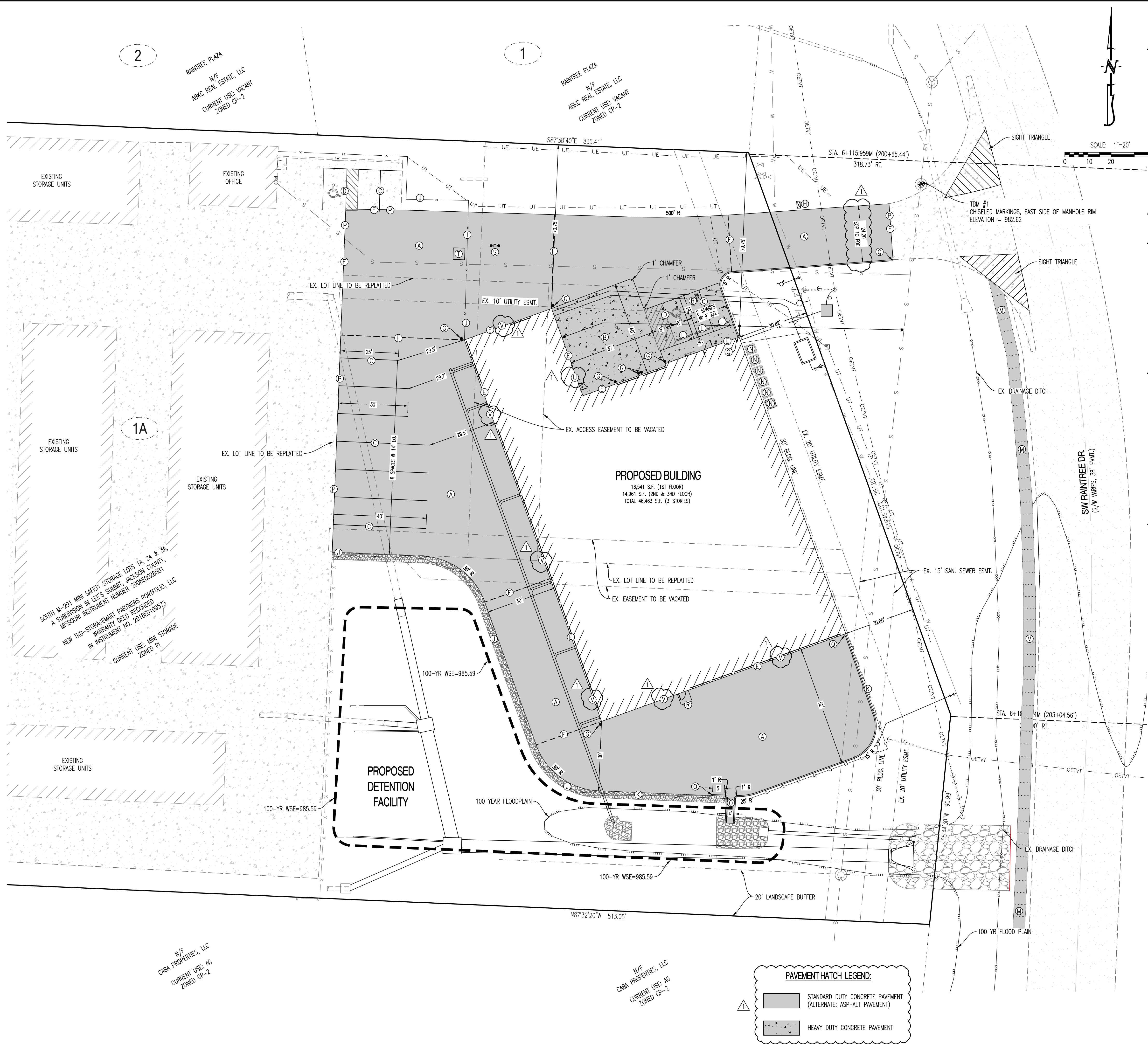
LEGEND OF LABELS:

**A** REFER TO PIPE EMBEDMENT DETAIL THIS SHEET  
COMPACTED FILL SHALL BE PLACED TO A MINIMUM  
ABOVE THE TOP OF PIPE PRIOR TO INSTALLATION



REVISONS:	
NO.	DATE
ORIGINAL	08/26/2019
1	09/27/2019
THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY	
	
TIMOTHY D. CROCKETT MO LICENSE - 2004000775	
<b>PREPARED BY:</b>  Crockett Engineering Consultants, LLC Columbia, Missouri 65203 (314) 447-0992 www.crockettingeering.com Crockett Engineering Consultants, LLC Missouri Certificate of Authority #200031301	
<b>OWNER:</b>	NEW TKG-STORAGEWART PARTNERS-PORTELIC 215 1ST AUM BLVD, SUITE #207 COLUMBIA, MO 65203
<b>STORAGE MART 156</b> 3920 S. STATE ROUTE 291 SECTION 3, TOWNSHIP 47 NORTH, RANGE 31 WEST LEE'S SUMMIT, JACKSON COUNTY, MISSOURI	
<b>DRAWING INCLUDES:</b>  STORM SEWER PROFILE LINES 1, 2, 3 & 4 STORM SEWER DETAILS	
<b>DESIGNED:</b>	TDC
<b>DRAWN:</b>	JEE
<b>PROJECT NO.:</b>	170504
<b>SHEET:</b>	CE 5





- LEGEND OF LABELS**
- (A) CONSTRUCT STANDARD DUTY CONCRETE PAVEMENT W/ INTEGRAL CURB AS SHOWN. REFER TO PAVEMENT CROSS SECTION ON CE 7. ALTERNATE: ASPHALT PAVEMENT WITH CURB & GUTTER. REFER TO PAVEMENT CROSS SECTION ON CE 7.
  - (B) CONSTRUCT HEAVY DUTY CONCRETE PAVEMENT. REFER TO DETAIL ON CE 7.
  - (C) PAINT 4" PARKING STALL STRIPES AS SHOWN, COLOR WHITE. TYPICAL ALL STALLS EXCEPT HANDICAP STALLS. REFER TO PLAN FOR WIDTH AND DEPTH OF STALLS.
  - (D) CONSTRUCT HANDICAP PARKING AREA WITH SIGNAGE MOUNTED TO BUILDING AND ADA RAMP. PAINT 4" STRIPE AND HANDICAP SYMBOL, COLOR BLUE. PAINT HATCH AREA AS SHOWN, COLOR BLUE. SLOPE OF THE PAVEMENT AT ALL HANDICAP STALL SHALL NOT EXCEED 1:50. REFER TO DETAILS ON CE 8.
  - (E) INSTALL EXPANSION JOINT BETWEEN BUILDING AND SITE PAVING. REFER TO STRUCTURAL PLANS.
  - (F) INSTALL 1" EXPANSION JOINT OR TYPE A ALTERNATE EXPANSION JOINT IN PAVING. REFER TO DETAIL ON CE 7.
  - (G) INSTALL 6" BOLLARDS AS SHOWN. REFER TO DETAIL ON CE 7.
  - (H) PROPOSED LOCATION OF MAILBOX. CONTRACTOR TO COORDINATE LOCATION WITH US POSTAL SERVICE.
  - (I) PROPOSED SECURITY GATE WITH KNOX BOX MEETING FIRE DEPARTMENT REQUIREMENTS.
  - (J) PROPOSED SECURITY FENCE. REFER TO DETAIL CE 8.
  - (K) PROPOSED 6' TALL VINYL PRIVACY FENCE. COLOR TO DARK WOOD OR WHITE (MATCH EXISTING FACILITY).
  - (L) PROPOSED PRECAST WHEEL STOP. REFER TO DETAIL CE 7.
  - (M) 5' WIDE, 4" THICK PCC SIDEWALK PER CITY OF LEE'S SUMMIT SPECIFICATIONS. MAXIMUM CROSS SLOPE AT 1.5%. REFER TO DETAIL SHEET CE 8.
  - (N) CONCRETE PAD FOR CONDENSING UNITS. CONTRACTOR TO COORDINATE WITH MEP PLANS FOR EXACT NUMBER AND SIZE OF PAD.
  - (O) CONCRETE FLUME. REFER TO DETAIL SHEET CE 5.
  - (P) SAWCUT TO PROVIDE A SMOOTH JOINT.
  - (Q) TAPER CURB FROM 6" TO 0".
  - (R) 5'x5' CONCRETE DOOR STOOP
  - (S) KEYPAD WITH BOLLARD PROTECTION. CONTRACTOR TO COORDINATE LOCATION WITH OWNER.
  - (T) SECURITY GATE MOTOR. CONTRACTOR TO COORDINATE LOCATION WITH OWNER.
  - (U) CONTRACTOR TO INSTALL KNOX BOX FOR BUILDING ENTRY. CONTRACTOR TO COORDINATE WITH OWNER & FIRE DEPARTMENT FOR LOCATION.
  - (V) "NO PARKING - FIRE LANE" SIGNS TO BE INSTALLED ON BUILDING. SPACING BETWEEN SIGNS SHALL NOT TO EXCEED 50'.

- NOTES:**
- THIS DEVELOPMENT WILL UTILIZED THE EXISTING TRASH COLLECTION SERVICE FROM THE ADJACENT STORAGE MART FACILITY.
  - THESE PLANS ARE SUBJECT TO FIRE DEPARTMENT APPROVAL PRIOR TO FINAL PERMITTING.
  - ALL SIGNS SHALL COMPLY WITH ARTICLE 9 - SIGNS, OF THE UNIFIED DEVELOPMENT ORDINANCE. A SIGN PERMIT SHALL BE SUBMITTED FOR REVIEW TO THE DEVELOPMENT SERVICE DEPARTMENT PRIOR TO INSTALLATION.
  - ALL ACCESSIBLE PARKING SHALL COMPLY WITH THE REQUIREMENTS OF THE FEDERAL AMERICANS WITH DISABILITIES ACT.
  - ALL LIGHTING SHALL CONFORM TO ARTICLE 8, SUBDIVISION 5 - LIGHTING STANDARDS OF CITY OF LEE'S SUMMIT UDO. ANY LIGHTS USED TO ILLUMINATE THE PARKING AREA SHALL BE ARRANGED, LOCATED OR SCREENED SO THAT LIGHT IS DIRECTED AWAY FROM AND NO LIGHT SOURCE IS VISIBLE FROM A PUBLIC STREET, A RESIDENTIALLY-ZONED AREA, OR A RESIDENTIAL USE.
  - THE PAVEMENT JOINTS SHOWN ARE A GRAPHICAL REPRESENTATION OF A POSSIBLE JOINT. CONTRACTOR TO PROVIDE SHOP DRAWINGS WITH JOINT LAYOUT FOR APPROVAL BY ENGINEER PRIOR TO POURING OF PAVEMENT.
  - ALL MECHANICAL UNITS SHALL BE SCREENED PER UDO ARTICLE 8.

CALCULATIONS:		
<b>LAND AREA:</b>		
TOTAL LAND AREA:		1.27 AC
<b>BUILDING DETAILS:</b>		
1ST FLOOR:	16,541 SQ.FT.	
2ND FLOOR:	14,961 SQ.FT.	
3RD FLOOR:	14,961 SQ.FT.	
TOTAL S.F. (3-STORIES)	46,463 SQ.FT.	
<b>PARKING SUMMARY:</b>		
<b>SPACES REQUIRED:</b>		
MINI-WAREHOUSE STORAGE FACILITY		
- 2 FOR FACILITY		
- 1 PER EMPLOYEE MAX. SHIFT		
<b>STANDARD SPACES REQUIRED (2 EMPLOYEES, MAX SHIFT):</b>		4 SPACES
<b>HANDICAP SPACES REQUIRED:</b>		1 SPACE
<b>SPACES PROVIDED:</b>		
STANDARD SPACES PROVIDED:		4 SPACES
HANDICAP SPACES PROVIDED:		2 SPACES
TOTAL SPACES PROVIDED:		6 SPACES
<b>LOT COVERAGES:</b>		
NET LAND AREA:	55,449 SQ.FT.	100%
TOTAL IMPERVIOUS SURFACE AREA:	36,782 SQ.FT.	66%
TOTAL OPEN SPACE:	18,667 SQ.FT.	34%
FLOOR AREA RATIO:		84%

**PAVEMENT HATCH LEGEND:**

- STANDARD DUTY CONCRETE PAVEMENT (ALTERNATE: ASPHALT PAVEMENT)
- HEAVY DUTY CONCRETE PAVEMENT

REVISIONS:

NO.	DATE
ORIGINAL	08/26/2019
1	09/27/2019

THIS SHEET HAS BEEN SIGNED SEALED AND DATED ELECTRONICALLY

STATE OF MISSOURI

CROCKETT

PROFESSIONAL ENGINEER

NUMBER

0000000775

TIMOTHY D. CROCKETT

MO LICENSE - 2004000775

SITE/CIVIL ENGINEER

CROCKETT

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Crockett Engineering Consultants, LLC

Missouri License of Authority

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OWNER:

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PARTNERS FORTE LLC

2610 N. STADIUM BLVD. SUITE 207

COLUMBIA, MO 65203

STORAGE MART 156

3920 S. STATE ROUTE 291

SECTION 3, TOWNSHIP 47 NORTH, RANGE 31 WEST

LEE'S SUMMIT, JACKSON COUNTY, MISSOURI

DRAWING INCLUDES:

SITE PLAN

DESIGNED:

TDC

DRAWN:

JEE

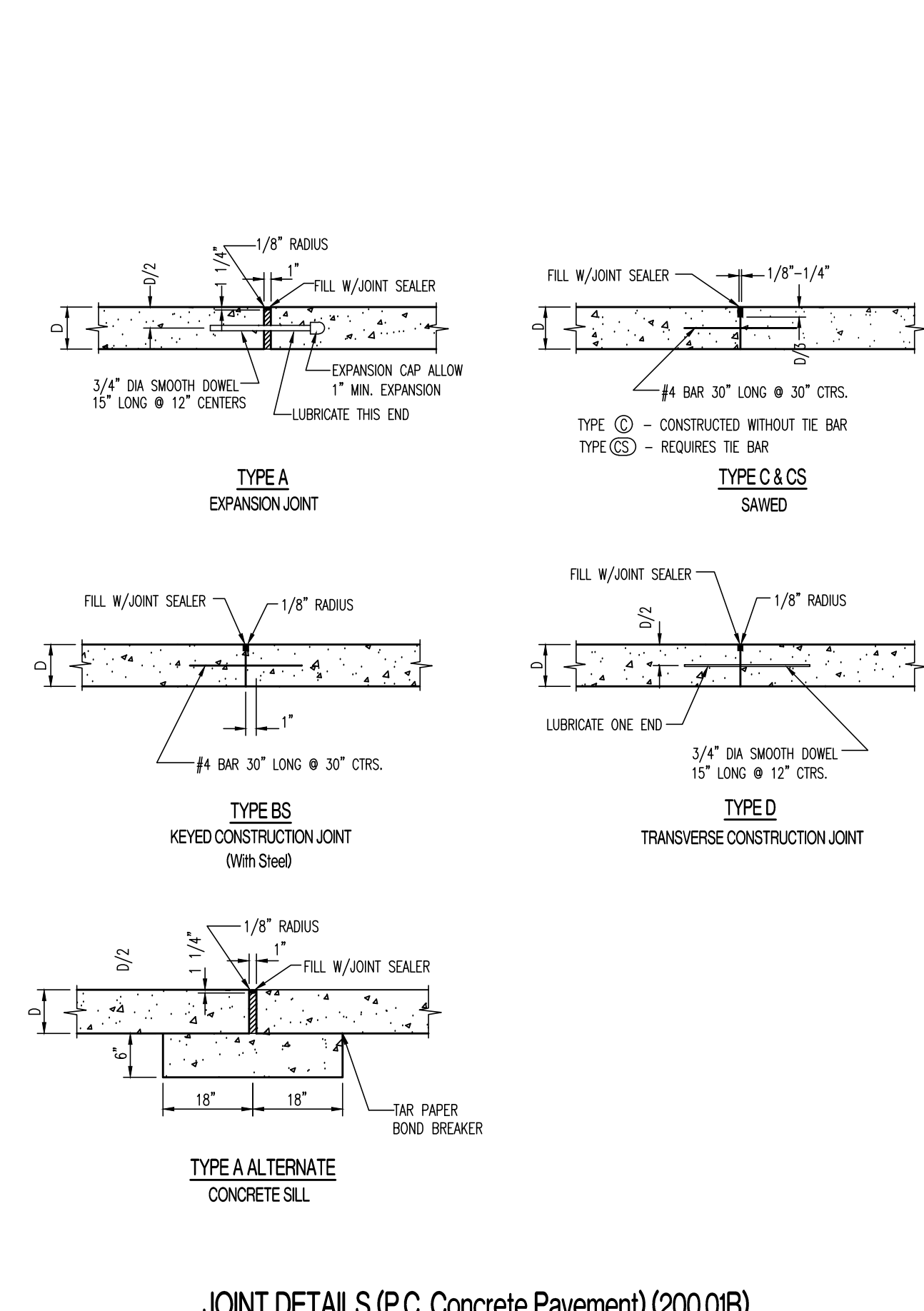
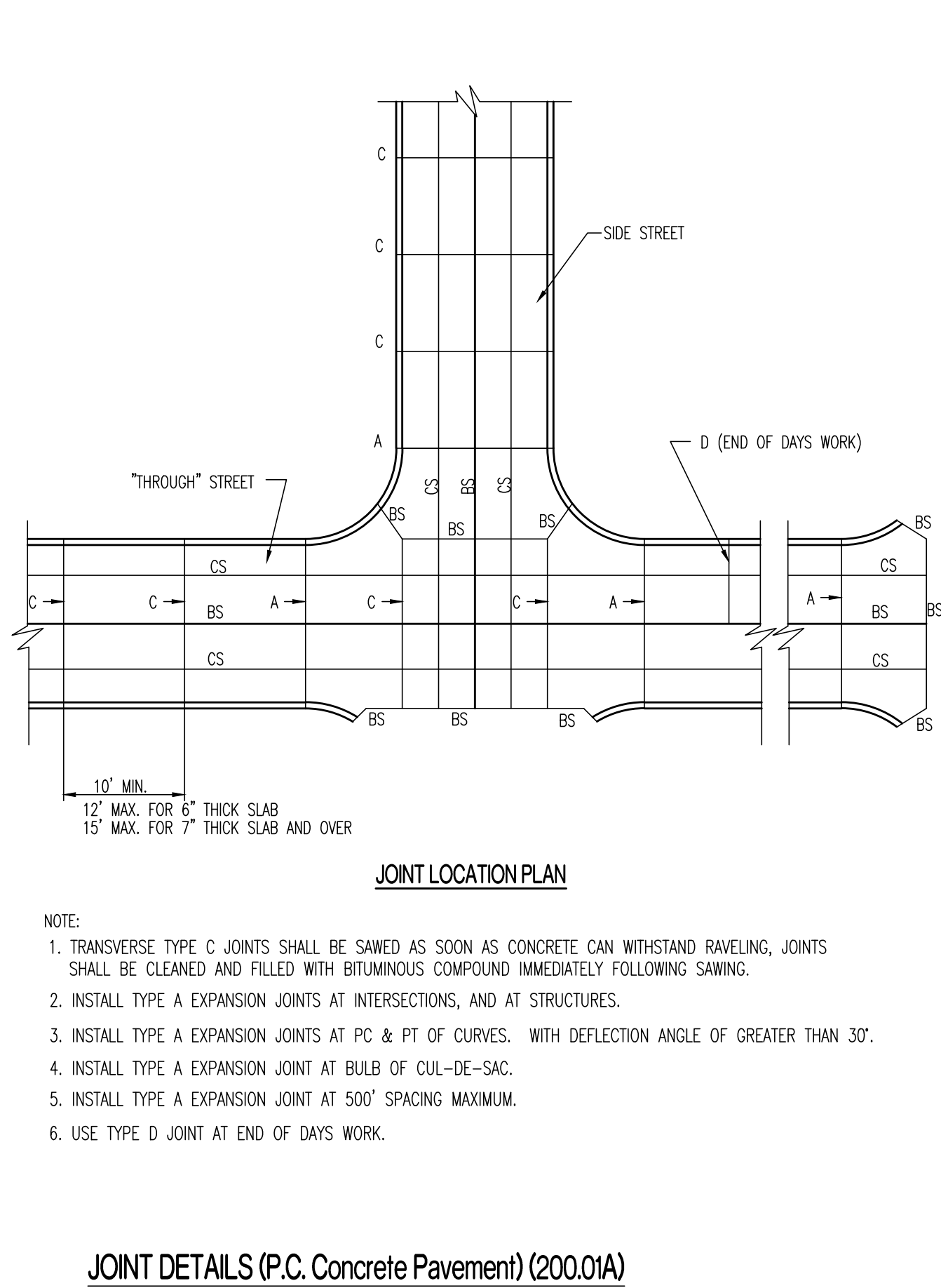
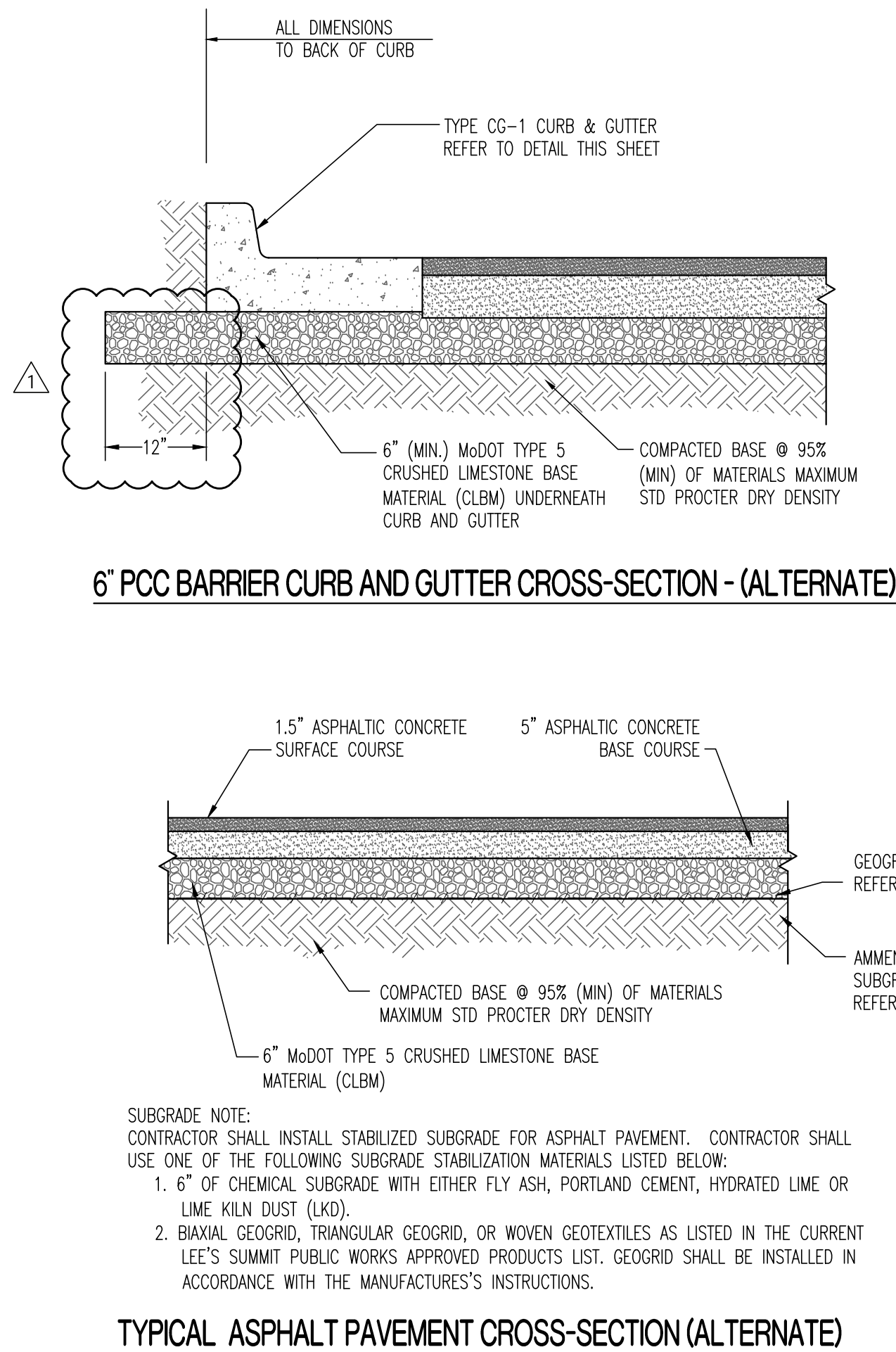
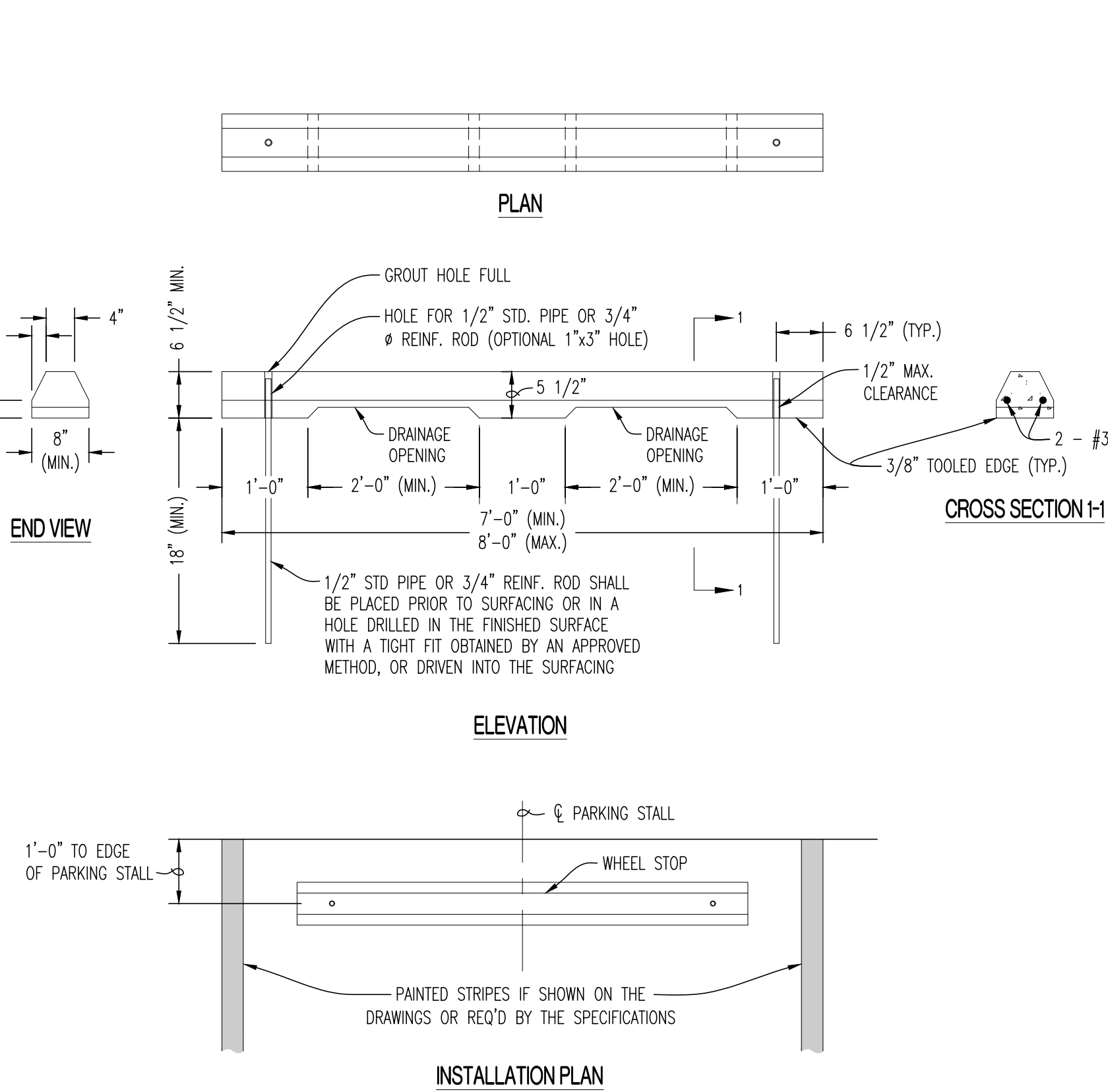
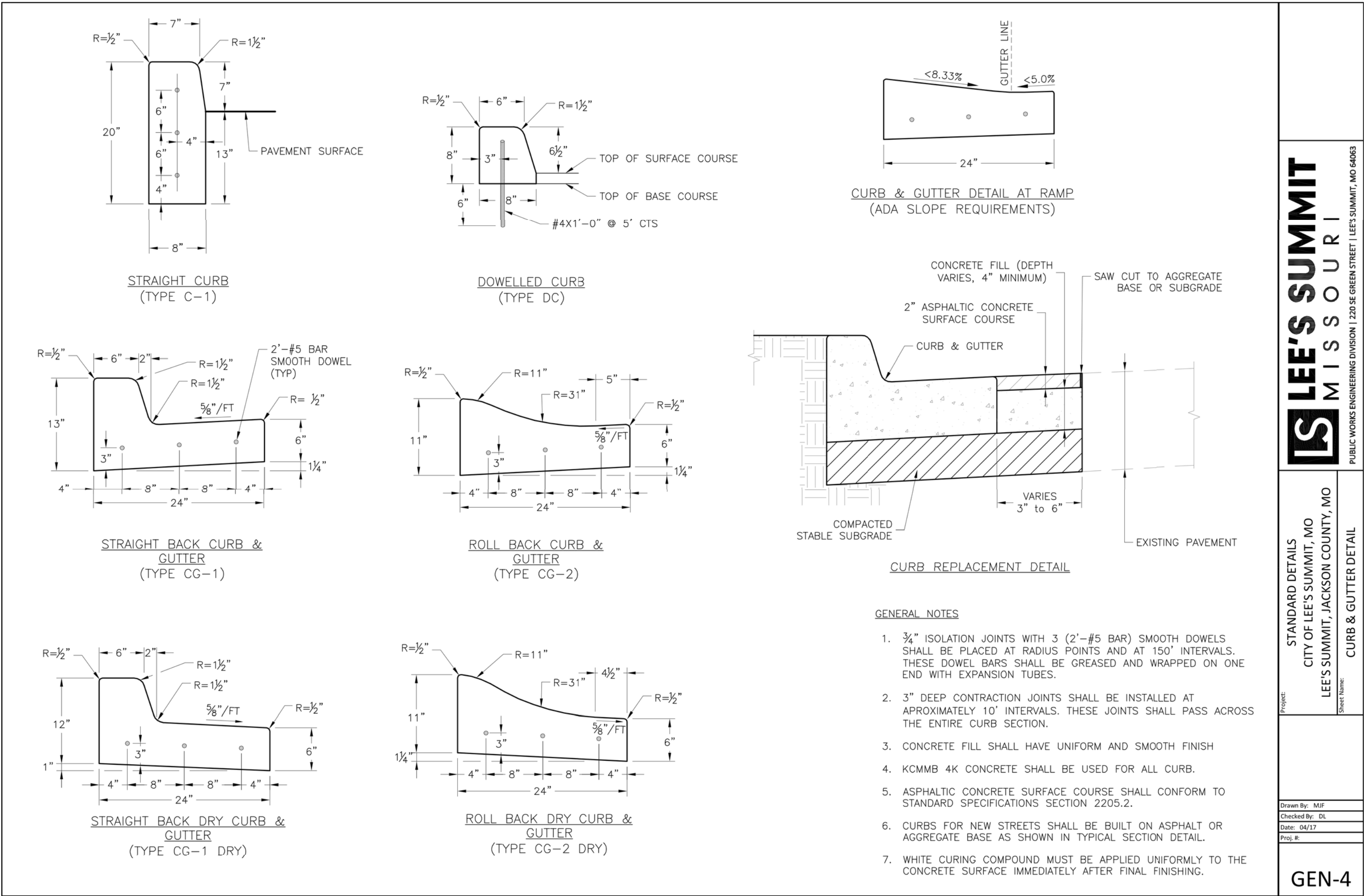
PROJECT NO.:

170604

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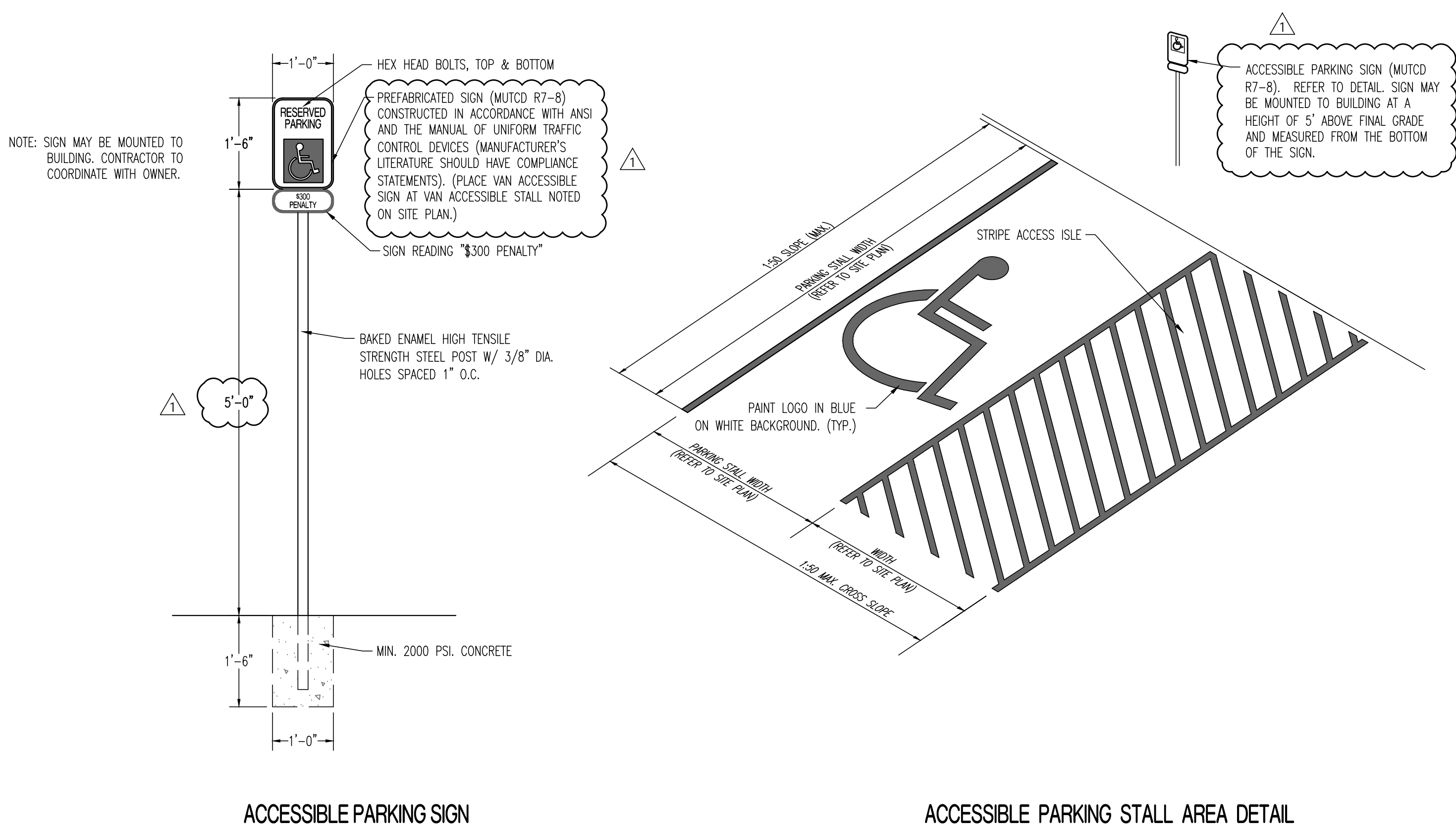
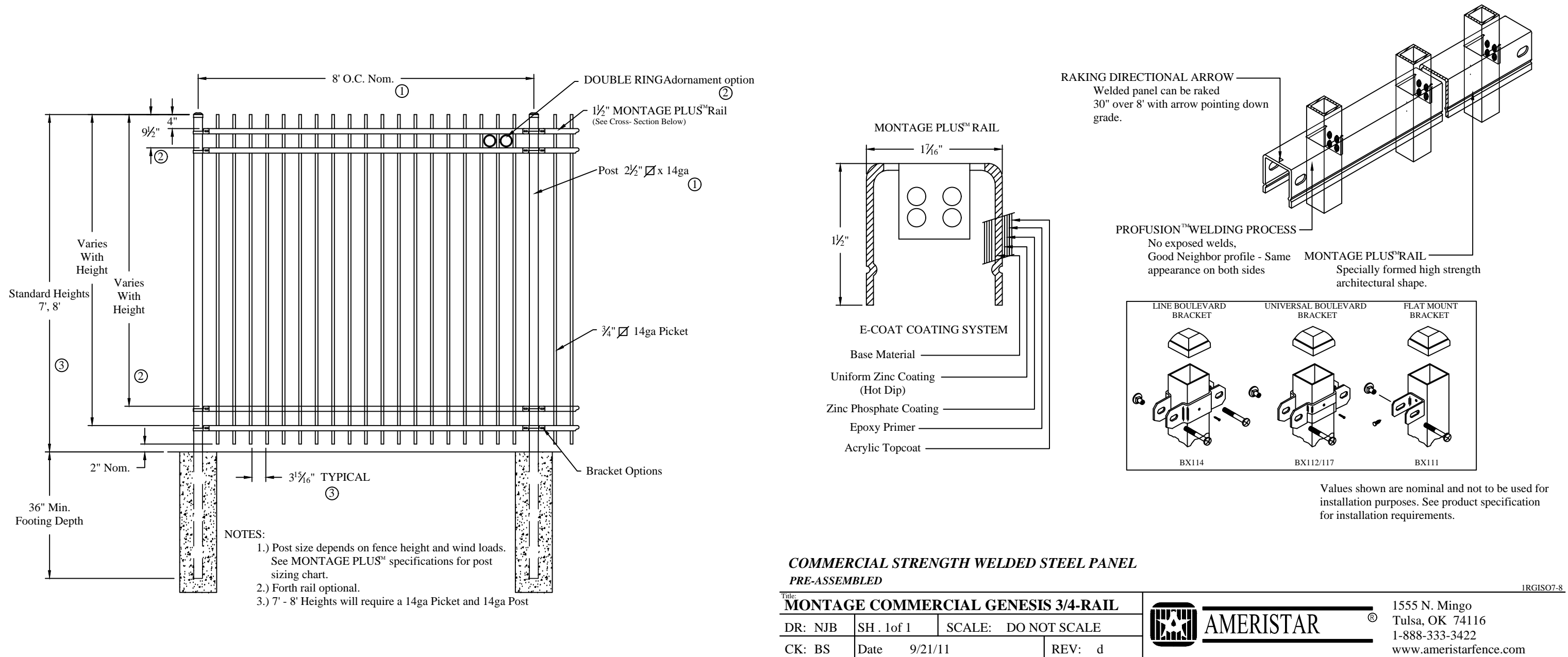
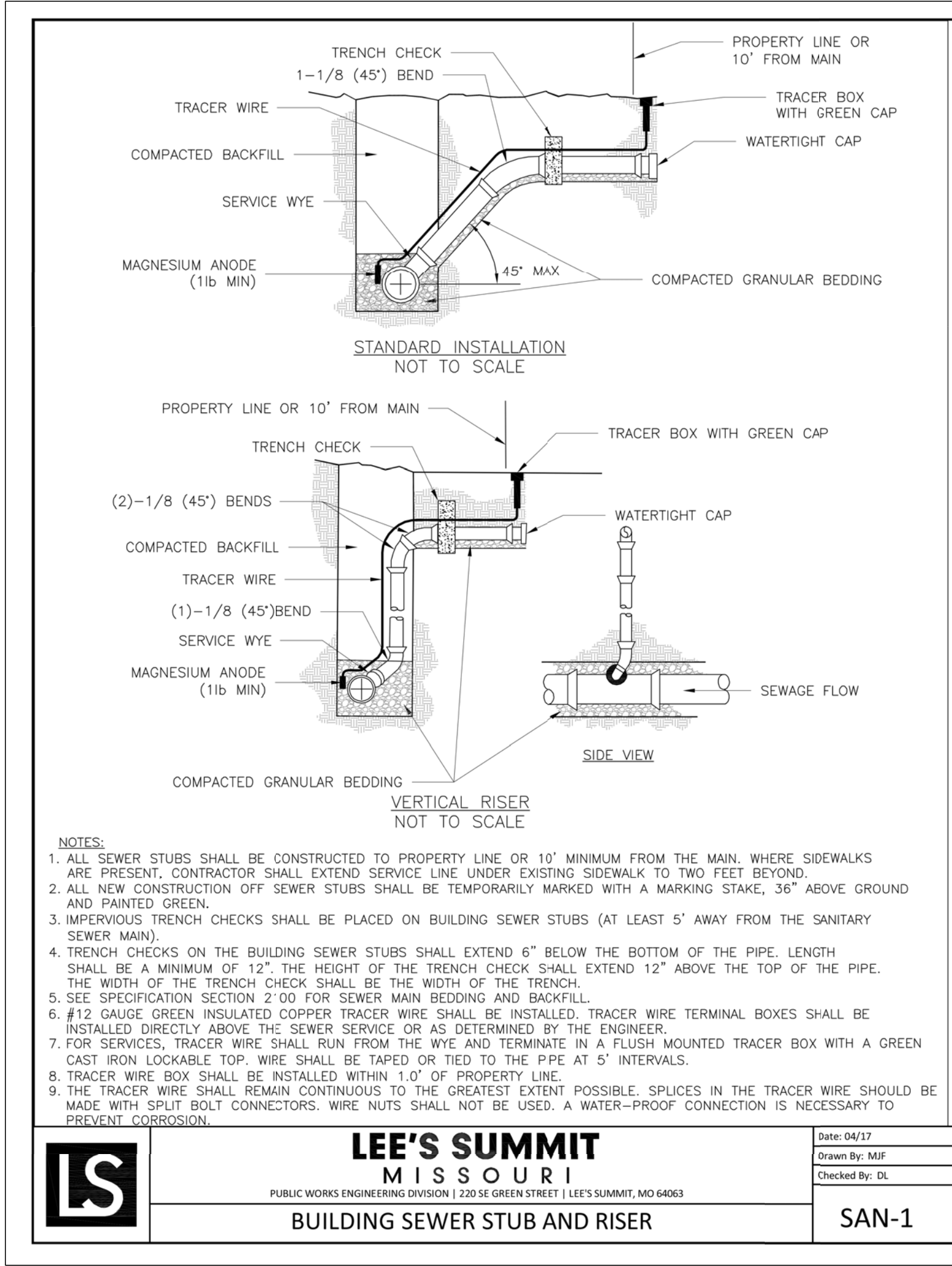
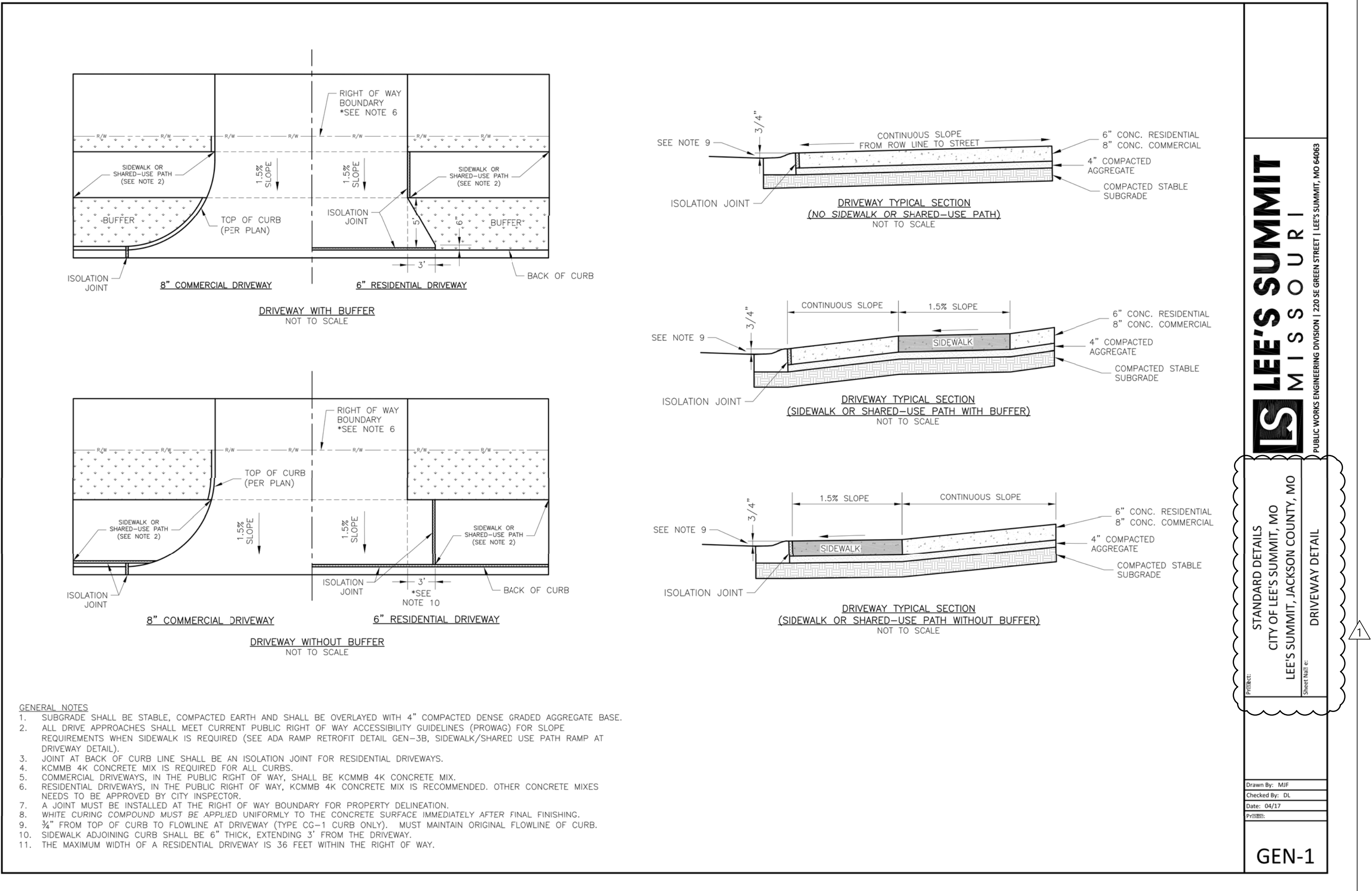
CE 6





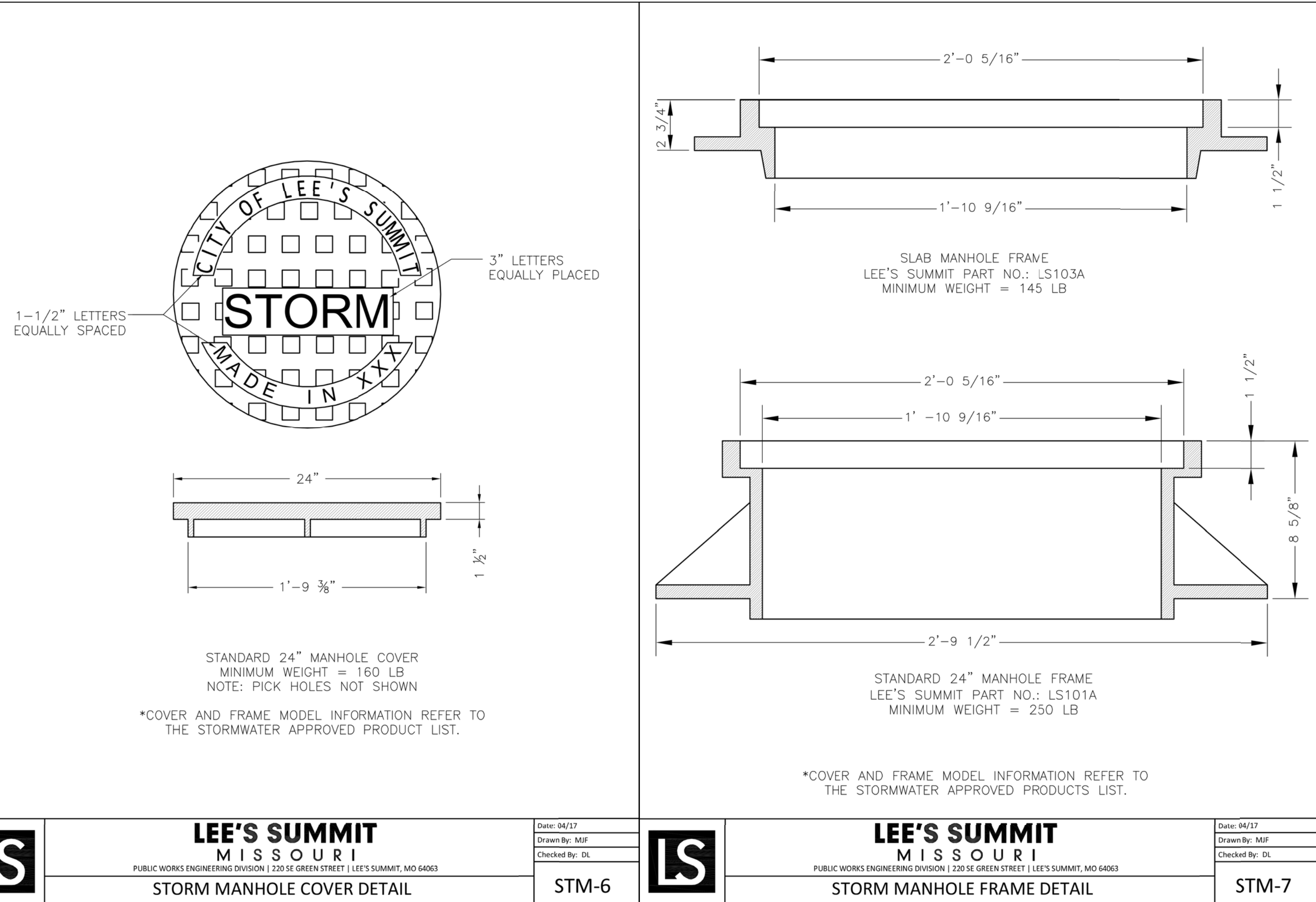
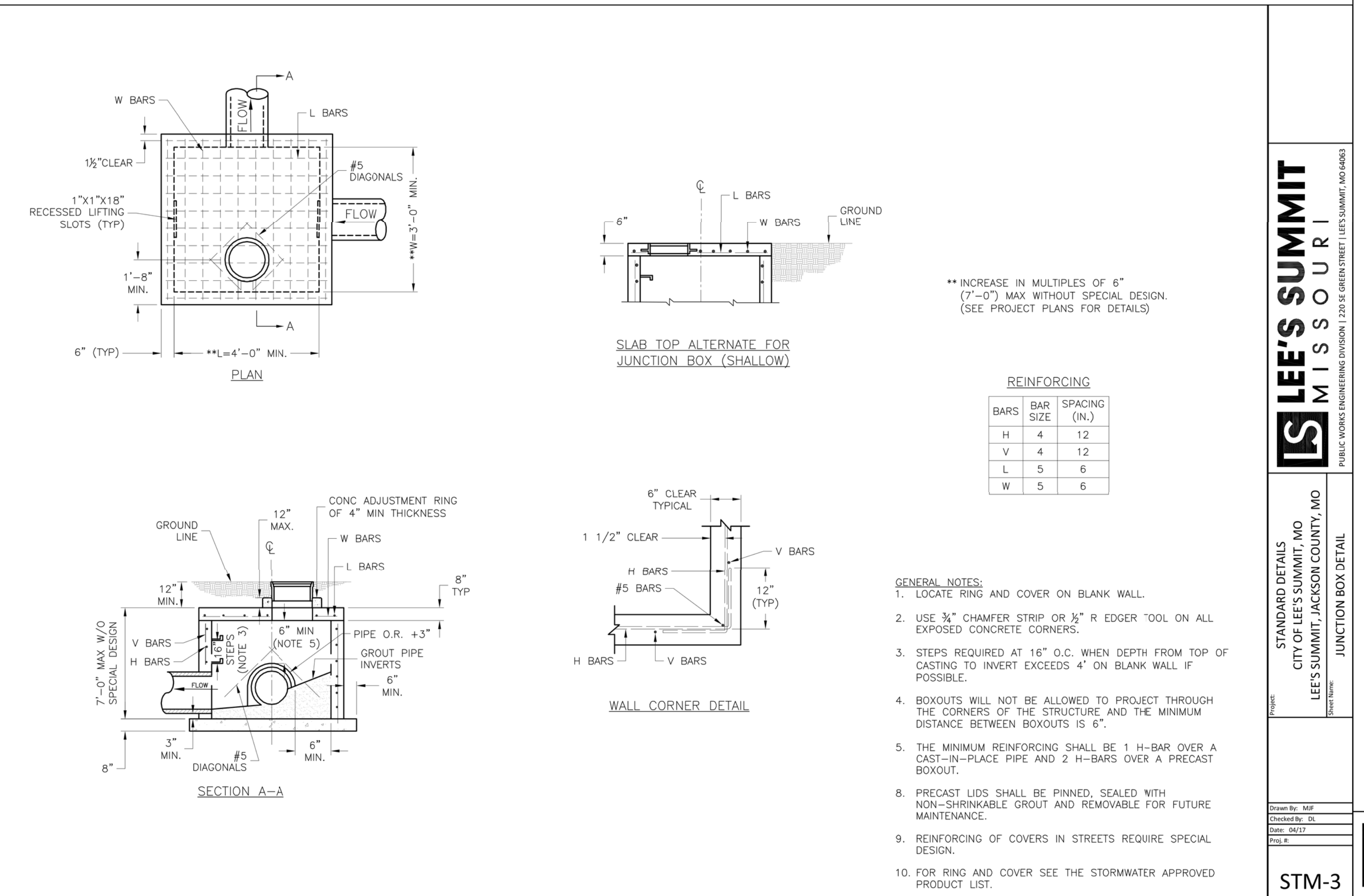
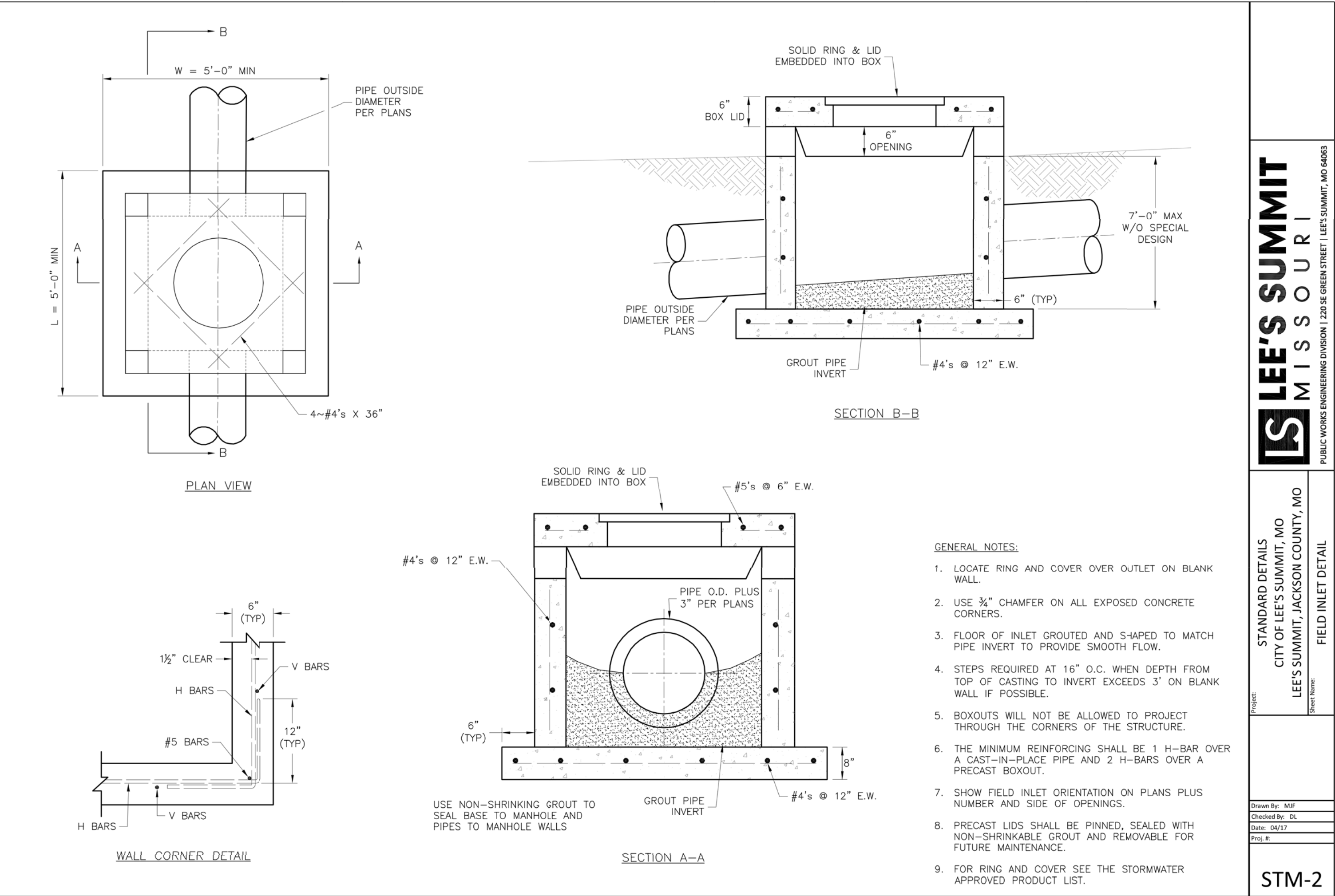
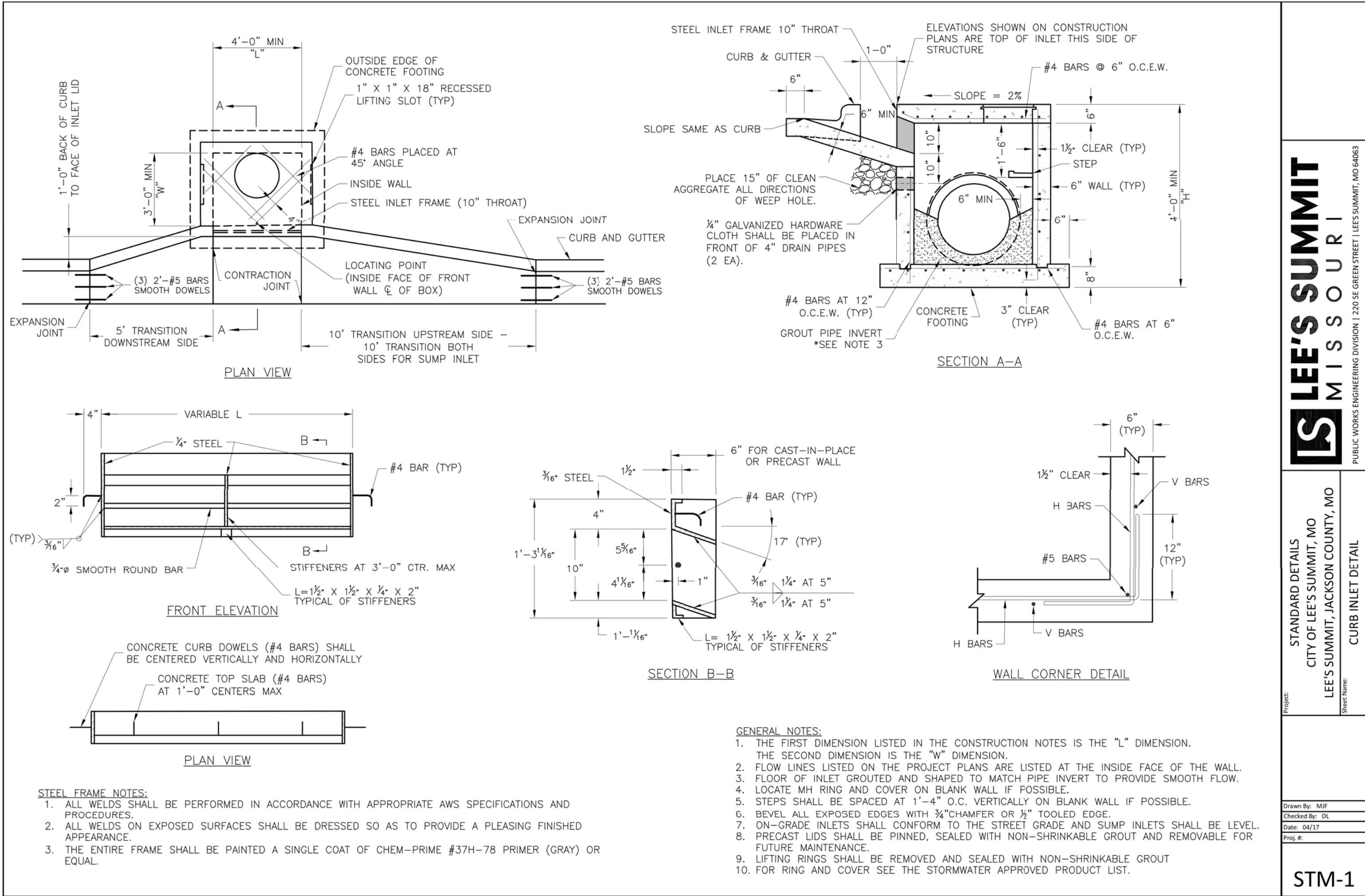
REVISIONS:	
NO.	DATE
ORIGINAL	08/26/2019
1	09/27/2019
THIS SHEET HAS BEEN SIGNED SEALED AND DATED ELECTRONICALLY	
TIMOTHY D. CROCKETT PROFESSIONAL ENGINEER MISSOURI LICENSE - 2004000775	
PREPARED BY:  CROCKETT ENGINEERING 2610 N. W. 10th Street Columbia, MO 65203 (314) 447-0292 www.crockettengineering.com Crockett Engineering Consultants, LLC Missouri License of Authority 2005000101	
OWNER: NEW TIG-STORAGE MART PARTNERS PORT LLC 261 STADIUM BLVD, SUITE 207 COLUMBIA, MO 65203	
DRAWING INCLUDES:  SITE CONSTRUCTION DETAILS	
DESIGNED:	TDC
DRAWN:	JEE
PROJECT NO.:	170604
SHEET:	CE 7





REVISIONS:	
NO.	DATE
ORIGINAL	08/26/2019
1	09/27/2019
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TIMOTHY D. CROCKETT MISSOURI LICENSE - 2004000775	
PREPARED BY:  CROCKETT ENGINEERING CONSULTANTS 2610 N. W. Highway 100 Columbia, MO 65203 (314) 447-0292 www.crockettengineering.com Crockett Engineering Consultants, LLC Missouri License of Authority 000000001	
OWNER: NEW TIG-STORCEMART PARTNERS PORTFOLIO 2610 N. W. Highway 100, SUITE 207 COLUMBIA, MO 65203	
DRAWING INCLUDES: ACCESSIBLE PARKING, SANITARY SEWER & SECURITY FENCE DETAILS	
DESIGNED: TDC	
DRAWN: JEE	
PROJECT NO.: 170604	
SHEET: CE 8	





REVISIONS:

NO.	DATE
ORIGINAL	08/26/2019

THIS SHEET HAS BEEN SIGNED SEALED AND DATE/ELECTRONICALLY

STATE OF MISSOURI  
TIMOTHY D. CROCKETT  
PROFESSIONAL ENGINEER  
NUMBER 252004000775  
MISSOURI LICENSE - 2004000775

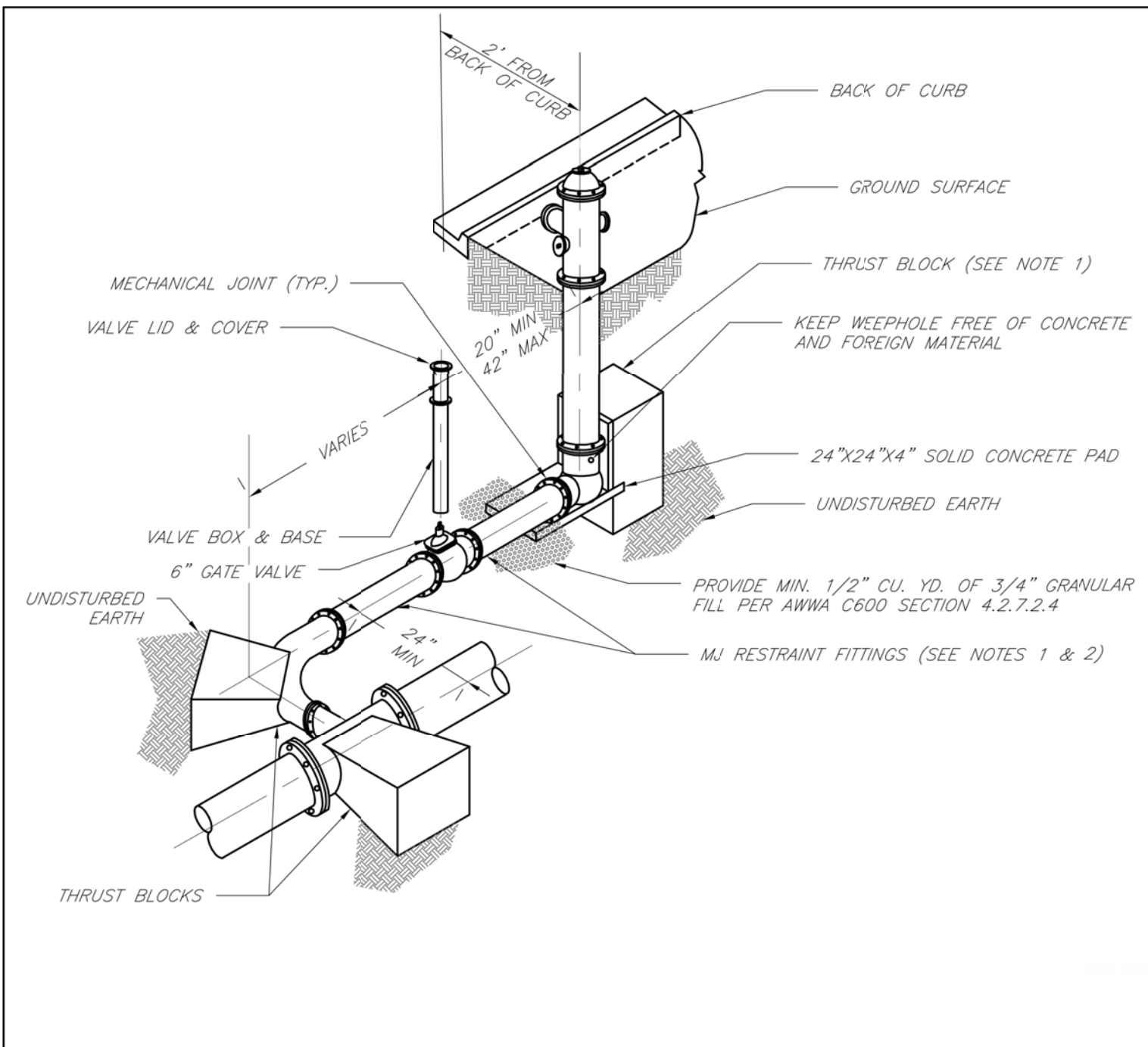
PREPARED BY:  
CROCKETT  
ENGINEERING CONSULTANTS  
265 STADIUM BLVD., SUITE 207  
COLUMBIA, MO 65203  
www.crockettingineering.com  
Crockett Engineering Consultants, LLC  
Missouri License of Authority 0000000001

OWNER:  
NEW TUG-STOREMART  
PARTNERS PORTELC  
265 STADIUM BLVD., SUITE 207  
COLUMBIA, MO 65203

DRAWING INCLUDES:  
STORM SEWER DETAILS

DESIGNED: TDC  
DRAWN: JEE  
PROJECT NO.: 170604  
SHEET: CE 9





- 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 WITH 90 DEGREE BEND

Date: 02/13

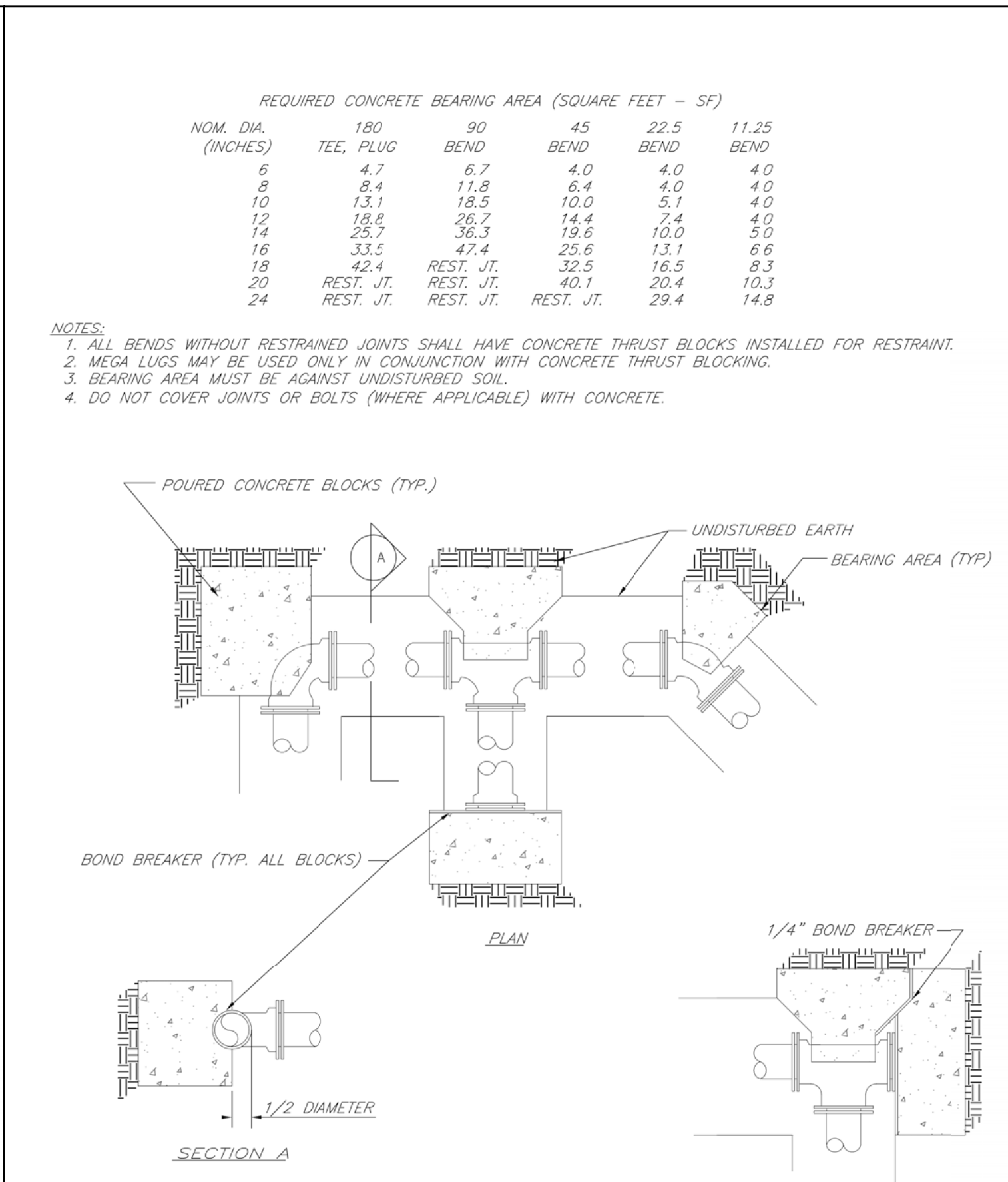
Drawn By: JN

Checked By: DL

FILE: WAT-6

Rev: 1/14

Rev:



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HORIZONTAL THRUST BLOCKS

Date: 02/13

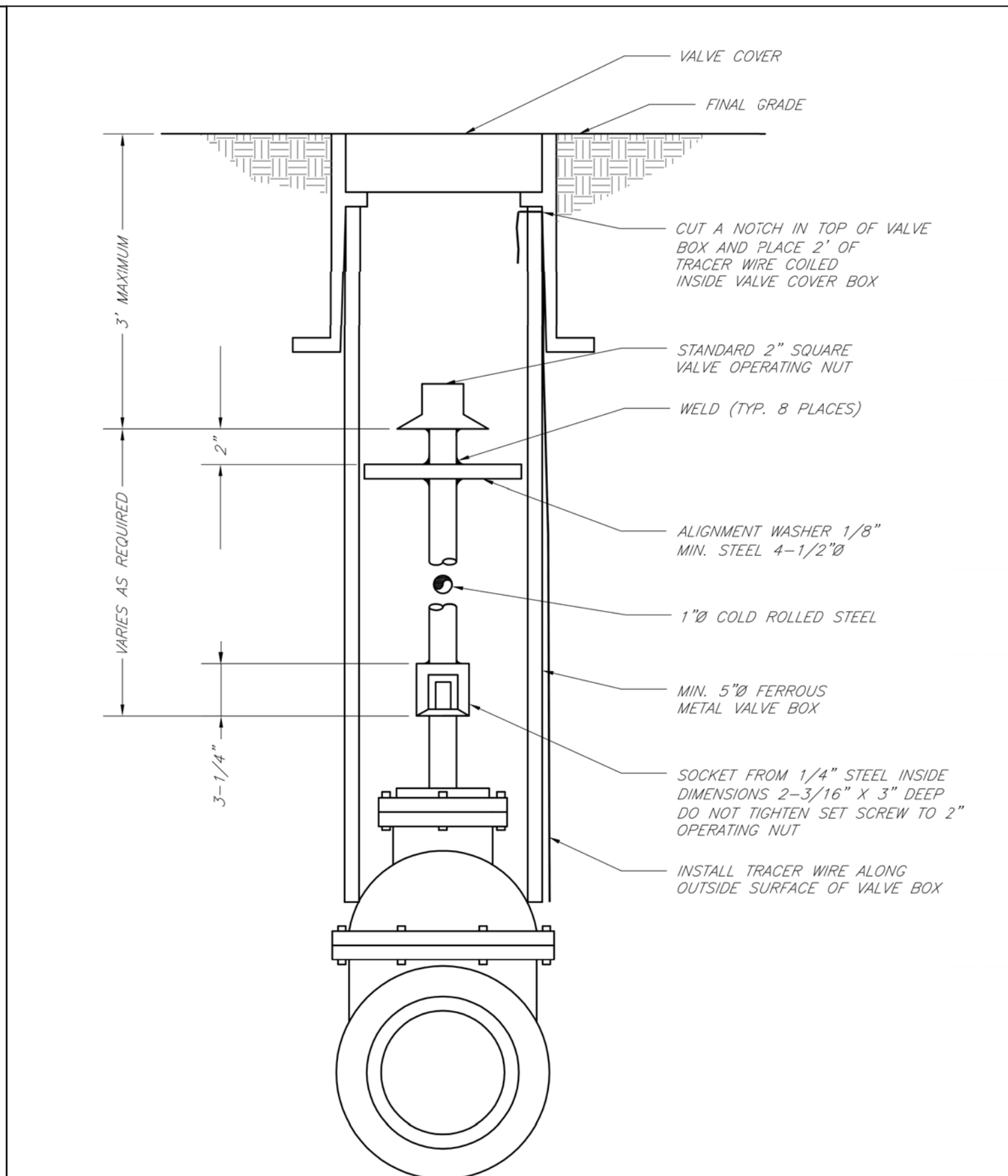
Drawn By: JN

Checked By: DL

FILE: WAT-1

Rev: 1/14

Rev:



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VALVE STEM EXTENSION AND VALVE BOX

Date: 02/13

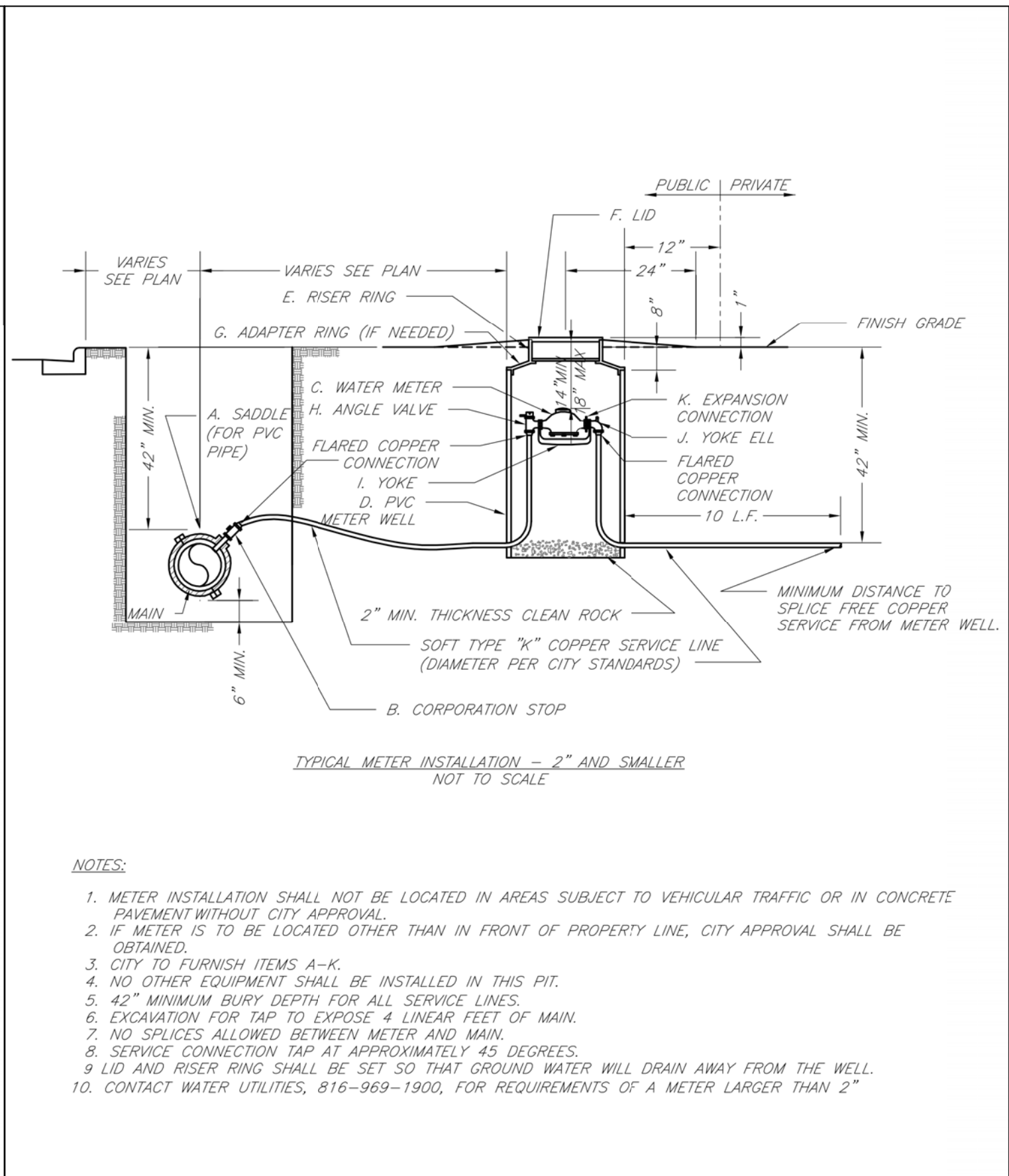
Drawn By: JN

Checked By: DL

FILE: WAT-9

Rev: 1/14

Rev:



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SERVICE CONNECTION/METER WELL

Date: 02/13

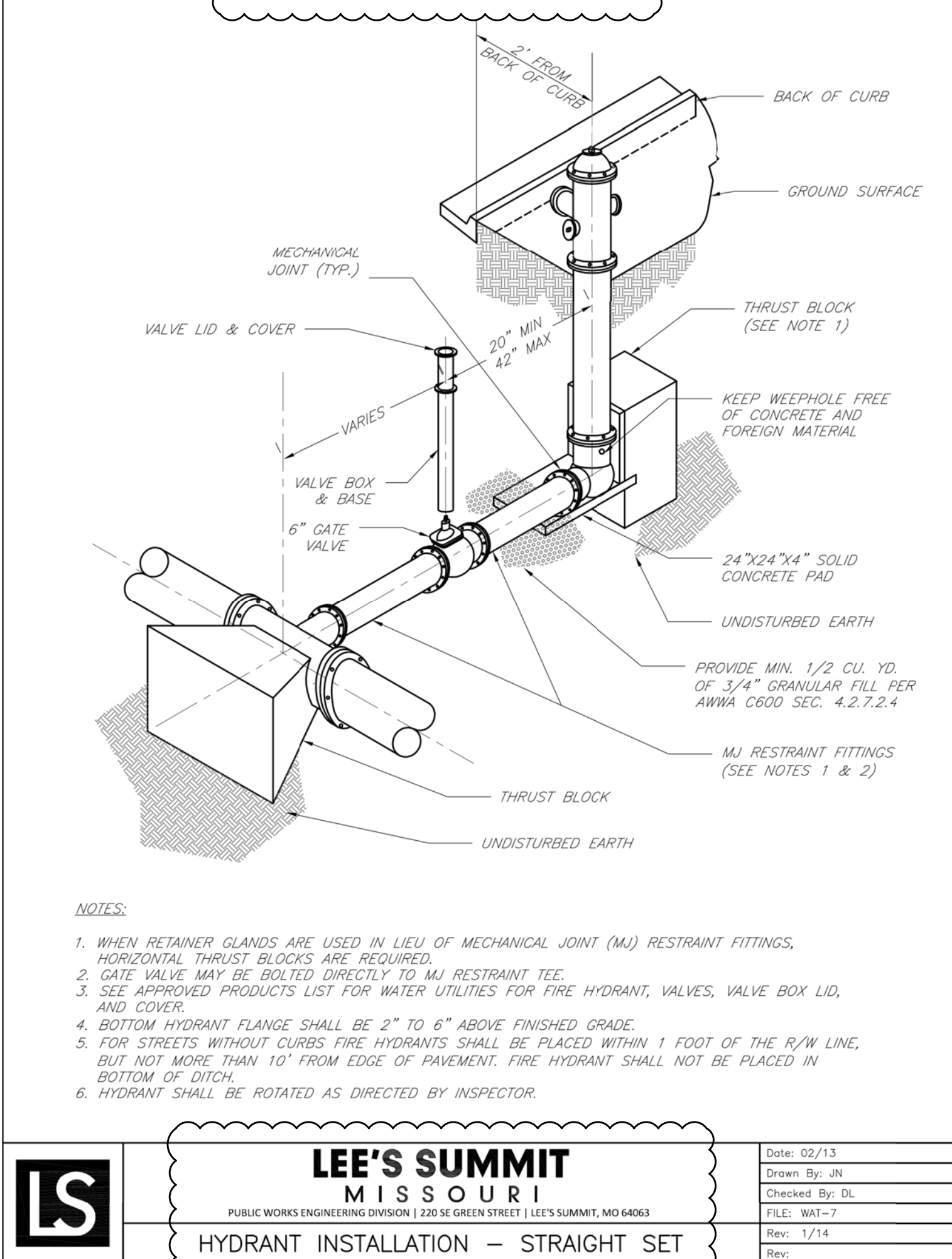
Drawn By: JN

Checked By: DL

FILE: WAT-11

Rev: 1/14

Rev:



- 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.

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HYDRANT INSTALLATION - STRAIGHT SET

Date: 02/13

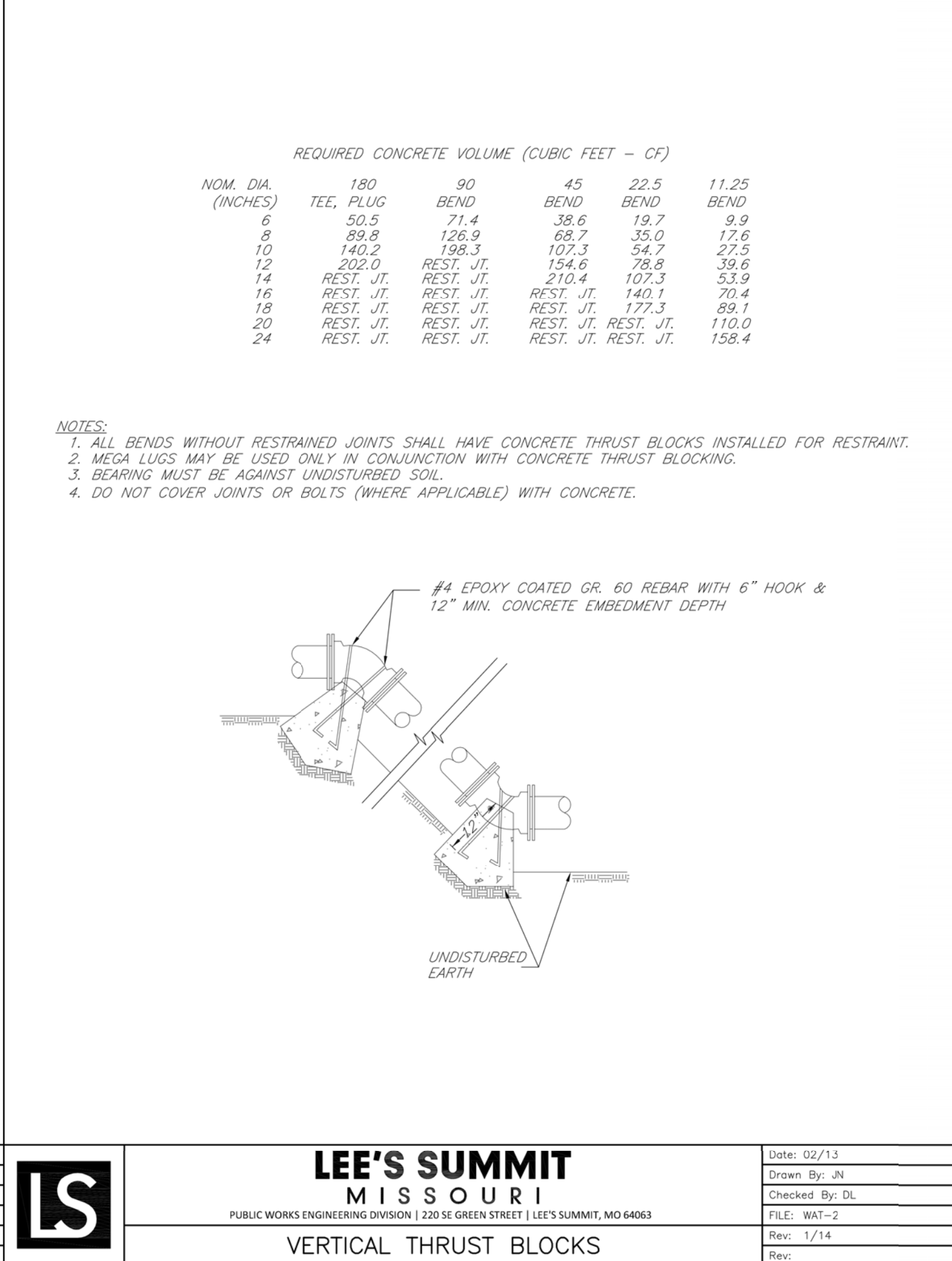
Drawn By: JN

Checked By: DL

FILE: WAT-7

Rev: 1/14

Rev:



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VERTICAL THRUST BLOCKS

Date: 02/13

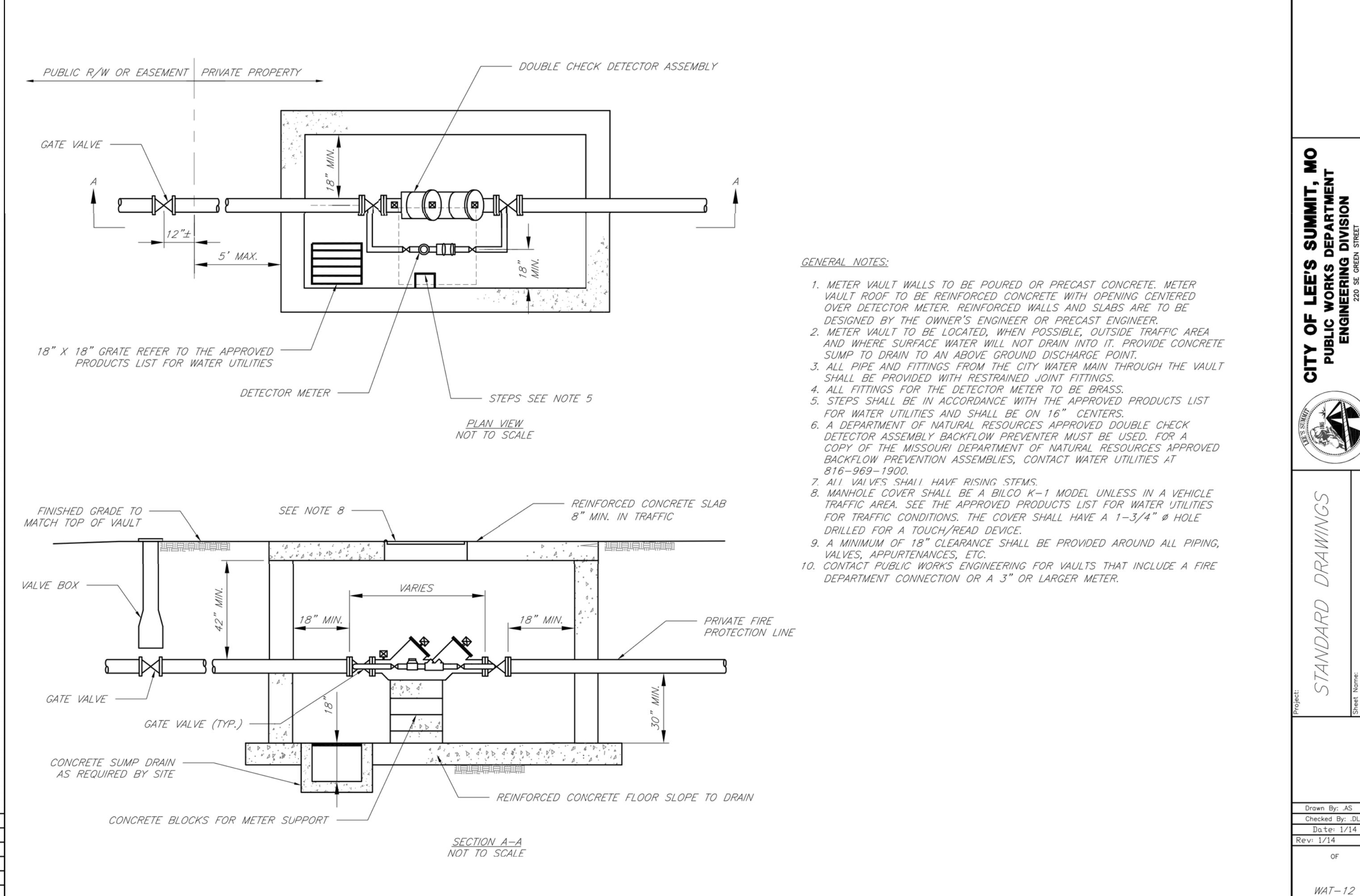
Drawn By: JN

Checked By: DL

FILE: WAT-2

Rev: 1/14

Rev:



- GENERAL NOTES:
1. 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.
  2. 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.
  3. ALL PIPE AND FITTINGS FROM THE CITY WATER MAIN THROUGH THE VAULT SHALL BE PROVIDED WITH RESTRAINED JOINT FITTINGS.
  4. ALL FITTINGS FOR THE DETECTOR METER TO BE BRASS.
  5. STEPS SHALL BE IN ACCORDANCE WITH THE APPROVED PRODUCTS LIST FOR WATER UTILITIES AND SHALL BE ON 16" CENTERS.
  6. 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 PREVENTER ASSEMBLIES, CONTACT WATER UTILITIES AT 816-969-1900.
  7. ALL VALVES SHALL HAVE RISING STEMS.
  8. MANHOLE COVER SHALL BE A BILCO 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.
  9. A MINIMUM OF 18" CLEARANCE SHALL BE PROVIDED AROUND ALL PIPING, VALVES, APPURTENANCES, ETC.
  10. CONTACT PUBLIC WORKS ENGINEERING FOR VAULTS THAT INCLUDE A FIRE DEPARTMENT CONNECTION OR A 3" OR LARGER METER.

LS

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MISSOURI

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

STANDARD DRAWINGS

Date: 02/13

Drawn By: JN

Checked By: DL

FILE: WAT-12

Rev: 1/14

Rev:

REVISIONS:

NO.	DATE
ORIGINAL	08/26/2019
1	09/27/2019

THIS SHEET HAS BEEN SIGNED SEALED AND  
DATE/ELECTRONICALLY

STATE OF MISSOURI

PROFESSIONAL ENGINEER

NUMBER 25004000775

TIMOTHY D. CROCKETT

MO LICENSE - 2004000775

PREPARED BY:

CROCKETT

ENGINEERING CONSULTANTS, LLC

2610 N. W. MISSOURI

COLUMBIA, MO 65203

www.crockettingineering.com

314.447.0292

Missouri Engineer of Authority

OWNER:

NEW TIG-STORCART

PARTNERS PORTFOLIO

261 STADIUM BLVD. SUITE 207

COLUMBIA, MO 65203

DRAWING INCLUDES:

WATER DETAILS

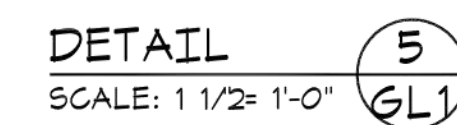
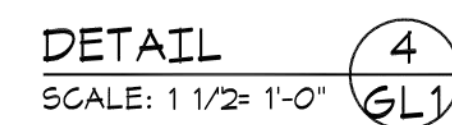
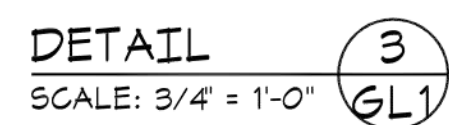
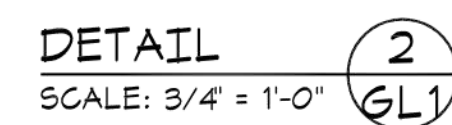
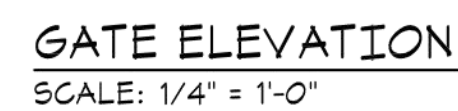
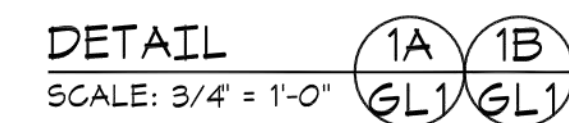
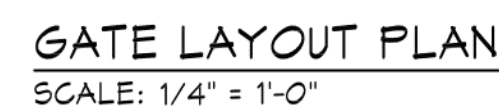
DESIGNED: TDC

DRAWN: JEE

PROJECT NO.: 170504

SHEET: CE 10





**STORAGE MART 156**  
3920 S. STATE ROUTE 291  
SECTION 3, TOWNSHIP 47 NORTH, RANGE 31 WEST  
LEE'S SUMMIT, JACKSON COUNTY, MISSOURI

DRAWING INCLUDES:

SECURITY GATE  
DETAILS

DESIGNED:	TDC
DRAWN:	JEE
PROJECT NO.:	170504
SHEET:	CE 11