

### **LEGAL DESCRIPTION**

(FINAL PLAT PENDING) LOT 1, OF A MAJOR SUBDIVISION IN THE EAST  $\frac{1}{2}$  OF SECTION 2, TOWNSHIP 47 NORTH, RANGE 32 WEST, IN THE CITY OF LEE'S SUMMIT, JACKSON COUNTY, MISSOURI

### **GENERAL NOTES**

- 1. ZONING: PMIX (FINAL PLAT PENDING)
- 2. CURRENT USE: VACANT LOT.
- 3. PROPOSED USE: FIRE STATION
- 4. TOPOGRAPHIC INFORMATION TAKEN FROM FIELD SURVEY PREPARED BY THE CITY OF LEE'S SUMMIT,
- 5. THIS SITE PLAN HAS BEEN DESIGNED TO COMPLY WITH THE PROVISIONS OF THE AMERICAN WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES (ADAAG) FOR BUILDING AND FACILITIES. APPENDIX A TO 28 CFR PART 26.
- 6. ALL TRAFFIC CONTROL SIGNS PLACED ON PRIVATE PROPERTY OPEN TO THE GENERAL PUBLIC SHALL COMPLY WITH THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" AND "STANDARD HIGHWAY SIGNS." PUBLISHED BY THE FEDERAL HIGHWAY ADMINISTRATION, WITH RESPECT TO SIZE, SHAPE, COLOR, RETROREFLECTIVITY, AND POSITION.
- 7. THE CITY OF LEE'S SUMMIT, MO SHALL NOT BE RESPONSIBLE FOR DAMAGE TO PAVEMENT DUE TO THE WEIGHT OF REFUSE VEHICLES.
- 8. ALL NEWLY INSTALLED MECHANICAL EQUIPMENT SHALL BE SCREENED PER CITY CODES.

### NOTE:

NO OIL AND/OR GAS WELLS WITHIN THE SUBJECT PROPERTY.
SOURCE OF INFORMATION: MISSOURI DEPARTMENT OF NATURAL RESOURCES, OIL &
GAS WELLS (UPDATED 02/02/2018)

### **DEMOLITION NOTES:**

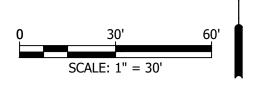
- 1. ALL UTILITY INFORMATION SHOWN HEREIN IS BASED ON THE TOPOGRAPHIC INFORMATION GIVEN TO BARTLETT & WEST, INC. AT THE TIME OF DESIGN. CONTRACTOR SHALL VERIFY ALL UTILITY DEPTHS AND LOCATIONS PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING ALL UTILITY COMPANIES TO FIELD LOCATE AND/OR ADJUST THEIR UTILITY AS REQUIRED FOR CONSTRUCTION. ALL UTILITY LOCATIONS SHOWN ON THE PLANS ARE APPROXIMATE AND THE DESIGN PROFESSIONAL ASSUMES NO LIABILITY FOR SAME.
- 2. CONTRACTOR SHALL MAINTAIN POSITIVE DRAINAGE DURING DEMOLITION AND IS RESPONSIBLE FOR ALL DEWATERING NECESSARY FOR CONSTRUCTION.
- 3. CARE SHALL BE EXERCISED BY THE CONTRACTOR TO PRESERVE AND/OR PROTECT ANY EXISTING VEGETATION OUTSIDE OF AREAS TO BE GRADED. THE PERSON(S) WHO DAMAGES ANY OF THESE AREAS SHALL BE HELD RESPONSIBLE FOR ALL COSTS OF REPLACEMENT MATERIALS AND LABOR.
- 4. ALL WASTE EXCAVATION, CONSTRUCTION MATERIALS, DEMOLISHED STRUCTURES AND DEBRIS REMOVED FROM THE SITE SHALL COMPLY WITH THE CITY OF LEE'S SUMMIT, MISSOURI DESIGN CODES
- ALL EXCAVATED OR OTHERWISE DISTURBED AREAS SHALL BE RETURNED TO THEIR ORIGINAL CONDITION AS NEARLY AS IS PRACTICAL. THE REPLACEMENT MATERIALS SHALL BE COMPACTED SO AS TO PREVENT SETTLEMENT. ANY PARKING OR DRIVE SURFACING, SIDEWALK OR ESTABLISHED TURF AREAS SHALL BE REPLACED IN KIND OR AS SHOWN HEREIN.
- 6. ALL DEMOLITION SHALL COMPLY WITH THE CITY OF LEE'S SUMMIT, MISSOURI DESIGN CODES.
- THE CONTRACTOR IS RESPONSIBLE FOR ALL BARRICADES REQUIRED FOR SAFETY IN AND AROUND THE CONSTRUCTION SITE. CONTINUOUS MAINTENANCE OF TRAFFIC CONTROL DEVICES DURING THE TERM OF THIS PROJECT IS THE CONTRACTOR'S RESPONSIBILITY. ALL TRAFFIC CONTROL DEVICES SHALL MEET THE REQUIREMENTS OF THE LATEST VERSION OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS."
- 8. ALL EXISTING STRUCTURES WITHIN THE CONSTRUCTION LIMITS SHALL BE PROTECTED BY MEANS OF FENCING AND OTHER DEVICES. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROTECT THESE STRUCTURES AND CLEAN UP ALL DEBRIS NEAR, ON, OR AROUND THESE STRUCTURES AT COMPLETION OF WORK.
- 9. THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING AND COORDINATING REMOVAL AND REPLACEMENT OF ALL UTILITIES ON THIS SITE WITH THE OWNER, AND THE APPROPRIATE UTILITY PROVIDER, ALL UTILITIES INCLUDE, BUT ARE NOT LIMITED TO STORM, SANITARY, GAS, ELECTRIC, WATER, TELEPHONE, AND CABLE.
- 10. THE CONTRACTOR SHALL VERIFY ANY DEMOLITION DIMENSIONS SHOWN PRIOR TO COMMENCING DEMOLITION.
- 11. THE CONTRACTOR SHALL ESTABLISH STAGING, STORAGE AND PARKING AREAS PER APPROVAL OF THE OWNER, THE AREAS SHALL BE FENCED WITH TEMPORARY FENCING AS APPROVED BY THE OWNER
- 12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING AND PROTECTING ALL SURVEY STAKES (CONTROL POINTS, REFERENCE POINTS, BENCH MARKS, PROPERTY AND OFFSET CORNERS, AND ALL OTHER ESSENTIAL HORIZONTAL AND VERTICAL SURVEY CONTROL POINTS) UNTIL CONSTRUCTION ACTIVITY IS COMPLETED. THE CONTRACTOR SHALL PAY FOR RE-STAKING ANY SURVEY STAKES THAT ARE DESTROYED.
- 13. CONTRACTOR TO EXERCISE EXTREME CAUTION WHEN MOVING UTILITIES.
- 14. SAWCUTS ALONG SIDEWALKS AND PAVEMENT SHALL BE REMOVED AT THE NEAREST EXISTING JOINT.

# CONTROL POINTS:

POINT #	NORTHING	EASTING	ELEV.	DESCRIPTION
1000	1000928.741	2813320.617	959.80	CUT "+" ON AREA INLET
1002	1001444.329	2813339.244	982.76	CUT "+" ON SIDEWALK
2001	1001071.266	2812952.628	949.75	$\frac{1}{2}$ " STEEL ROD WITH "CP" CA
2002	1000922.434	2813410.915	960.02	CUT "+" ON SIDEWALK
2003	1001382.883	2813434.436	981.17	CUT "+" ON SIDEWALK

# SURVEY NOTE

THE ABOVE COORDINATES ARE BASED UPON GROUND VALUES. THEY HAVE BEEN SCALED FROM JACKSON COUNTY MONUMENT JA-148, NORTH: 999842.966, EAST: 2807771.783 (COORDINATES IN FEET) USING ITS COMBINED GRID FACTOR OF 0.9999020, 2003 ADJUSTMENT.



JOB NUMBER

- 17016

ISSUE DATE

- 06/14/2018

REVISIONS

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E'S SUMMIT STATION OR ROAD S SUMMIT, MO 64081

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#2003011262

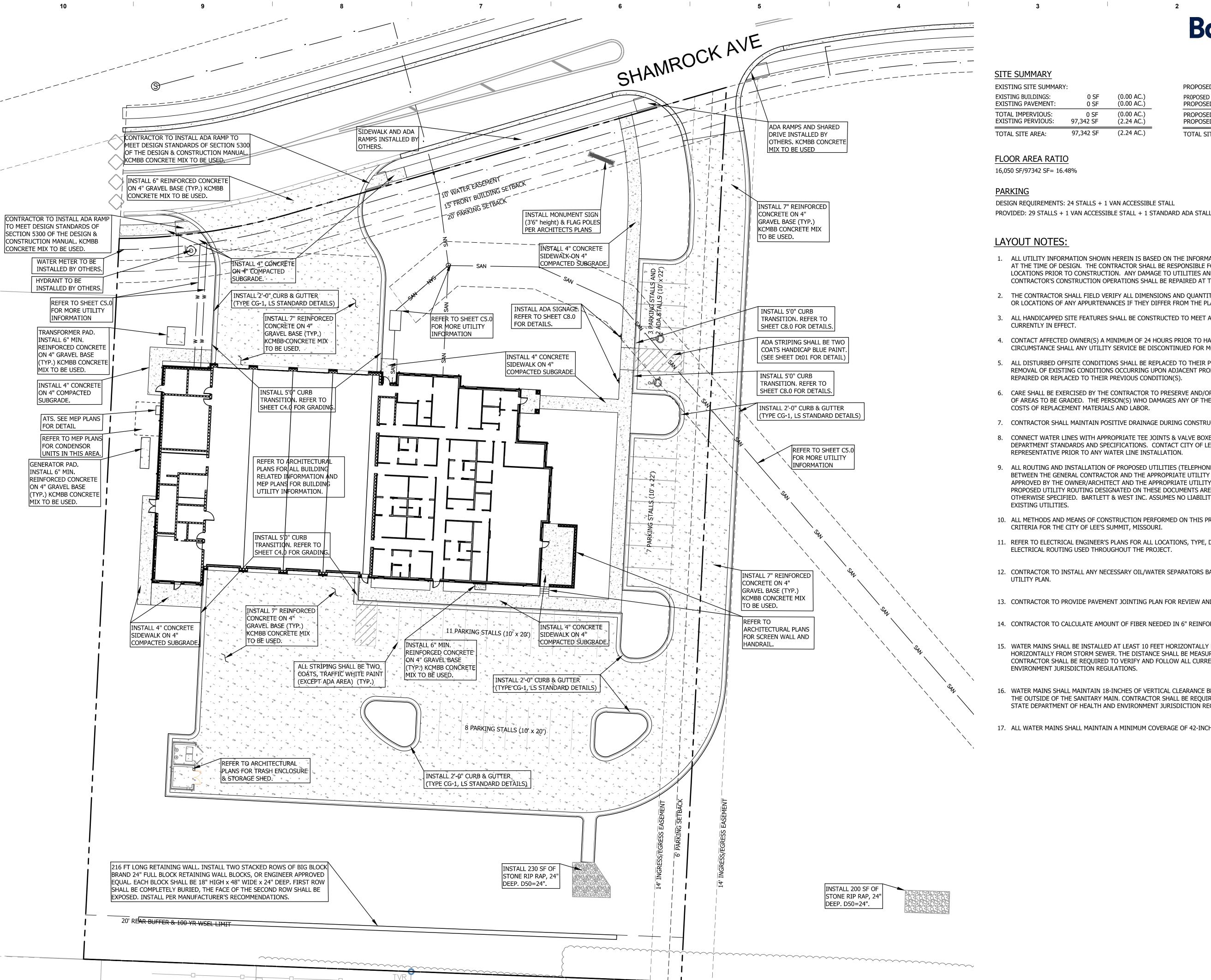
EXISTING

CONDITIONS

Missouri Certificate of Authority

C1.0

& DEMOLITION



TRANSFORMER —



SITE SUMMARY

**EXISTING SITE SUMMARY: EXISTING BUILDINGS: EXISTING PAVEMENT:** 0 SF TOTAL IMPERVIOUS: 0 SF **EXISTING PERVIOUS:** 97,342 SF

97,342 SF

PROPOSED SITE SUMMARY:

(0.00 AC.)	PROPOSED BUILDINGS: PROPOSED PAVEMENT:	16,050 SF	(0.37 AC.	
(0.00 AC.)		40,571 SF	(0.94 AC.	
(0.00 AC.)	PROPOSED IMPERVIOUS: PROPOSED PERVIOUS:	56,771 SF	(1.31 AC.	
(2.24 AC.)		40,571 SF	(0.93 AC.	
(2.24 AC.)	TOTAL SITE AREA:	97,342 SF	(2.24 AC.	

FLOOR AREA RATIO

16,050 SF/97342 SF= 16.48%

### **PARKING**

DESIGN REQUIREMENTS: 24 STALLS + 1 VAN ACCESSIBLE STALL

### **LAYOUT NOTES:**

- 1. ALL UTILITY INFORMATION SHOWN HEREIN IS BASED ON THE INFORMATION AVAILABLE TO THE DESIGN PROFESSIONAL AT THE TIME OF DESIGN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ALL UTILITY DEPTHS AND LOCATIONS PRIOR TO CONSTRUCTION. ANY DAMAGE TO UTILITIES AND INCIDENTAL DAMAGE CAUSED BY THE CONTRACTOR'S CONSTRUCTION OPERATIONS SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
- 2. THE CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS AND QUANTITIES AND SHALL RECORD "AS-BUILT" DIMENSIONS OR LOCATIONS OF ANY APPURTENANCES IF THEY DIFFER FROM THE PLANS.
- 3. ALL HANDICAPPED SITE FEATURES SHALL BE CONSTRUCTED TO MEET ALL STATE, LOCAL, AND ADA SPECIFICATIONS AS CURRENTLY IN EFFECT.
- 4. CONTACT AFFECTED OWNER(S) A MINIMUM OF 24 HOURS PRIOR TO HALTING OF UTILITY SERVICES. UNDER NO CIRCUMSTANCE SHALL ANY UTILITY SERVICE BE DISCONTINUED FOR MORE THAN ONE (1) 12-HOUR PERIOD.
- 5. ALL DISTURBED OFFSITE CONDITIONS SHALL BE REPLACED TO THEIR PREVIOUS CONDITION(S). ANY DAMAGE TO OR REMOVAL OF EXISTING CONDITIONS OCCURRING UPON ADJACENT PROPERTY DURING CONSTRUCTION SHALL BE REPAIRED OR REPLACED TO THEIR PREVIOUS CONDITION(S).
- 6. CARE SHALL BE EXERCISED BY THE CONTRACTOR TO PRESERVE AND/OR PROTECT ANY EXISTING VEGETATION OUTSIDE OF AREAS TO BE GRADED. THE PERSON(S) WHO DAMAGES ANY OF THESE AREAS SHALL BE HELD RESPONSIBLE FOR ALL COSTS OF REPLACEMENT MATERIALS AND LABOR.
- 7. CONTRACTOR SHALL MAINTAIN POSITIVE DRAINAGE DURING CONSTRUCTION.
- 8. CONNECT WATER LINES WITH APPROPRIATE TEE JOINTS & VALVE BOXES PER CITY OF LEE'S SUMMIT UTILITY DEPARTMENT STANDARDS AND SPECIFICATIONS. CONTACT CITY OF LEE'S SUMMIT UTILITY DEPARTMENT REPRESENTATIVE PRIOR TO ANY WATER LINE INSTALLATION.
- ALL ROUTING AND INSTALLATION OF PROPOSED UTILITIES (TELEPHONE, GAS, WATER, ETC.) SHALL BE COORDINATED BETWEEN THE GENERAL CONTRACTOR AND THE APPROPRIATE UTILITY PROVIDER. ALL UTILITY ROUTING SHALL BE APPROVED BY THE OWNER/ARCHITECT AND THE APPROPRIATE UTILITY PROVIDER PRIOR TO INSTALLATION. ANY PROPOSED UTILITY ROUTING DESIGNATED ON THESE DOCUMENTS ARE FOR GENERAL GUIDELINES ONLY UNLESS OTHERWISE SPECIFIED. BARTLETT & WEST INC. ASSUMES NO LIABILITY FOR IMPROPER ROUTING OR CONNECTIONS TO EXISTING UTILITIES.
- 10. ALL METHODS AND MEANS OF CONSTRUCTION PERFORMED ON THIS PROJECT SHALL CONFORM TO THE DESIGN CRITERIA FOR THE CITY OF LEE'S SUMMIT, MISSOURI
- 11. REFER TO ELECTRICAL ENGINEER'S PLANS FOR ALL LOCATIONS, TYPE, DESIGN AND DETAILS OF SITE LIGHTING AND ALL ELECTRICAL ROUTING USED THROUGHOUT THE PROJECT.
- 12. CONTRACTOR TO INSTALL ANY NECESSARY OIL/WATER SEPARATORS BASED ON BUILDING USE. COORDINATE WITH
- 13. CONTRACTOR TO PROVIDE PAVEMENT JOINTING PLAN FOR REVIEW AND APPROVAL BEFORE CONSTRUCTION.
- 14. CONTRACTOR TO CALCULATE AMOUNT OF FIBER NEEDED IN 6" REINFORCED CONCRETE.
- 15. WATER MAINS SHALL BE INSTALLED AT LEAST 10 FEET HORIZONTALLY FROM SANITARY MAINS AND AT LEAST 5 FEET HORIZONTALLY FROM STORM SEWER. THE DISTANCE SHALL BE MEASURED EDGE OF PIPE TO EDGE OF PIPE. CONTRACTOR SHALL BE REQUIRED TO VERIFY AND FOLLOW ALL CURRENT STATE DEPARTMENT OF HEALTH AND ENVIRONMENT JURISDICTION REGULATIONS.
- 16. WATER MAINS SHALL MAINTAIN 18-INCHES OF VERTICAL CLEARANCE BETWEEN THE OUTSIDE OF THE WATER MAIN TO THE OUTSIDE OF THE SANITARY MAIN. CONTRACTOR SHALL BE REQUIRED TO VERFITY AND FOLLOW ALL CURRENT STATE DEPARTMENT OF HEALTH AND ENVIRONMENT JURISDICTION REGULATIONS.
- 17. ALL WATER MAINS SHALL MAINTAIN A MINIMUM COVERAGE OF 42-INCHES.

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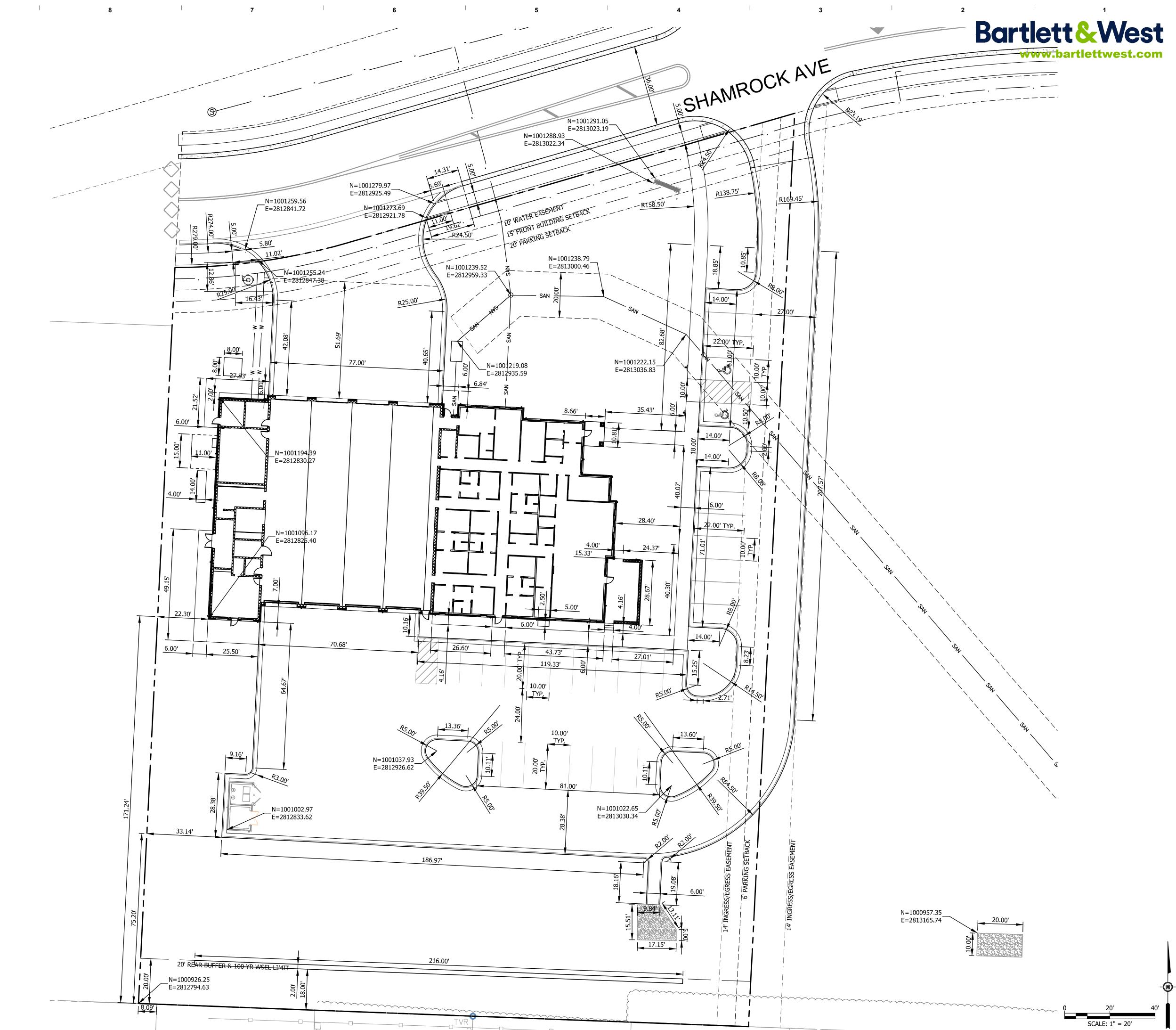


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SITE LAYOUT



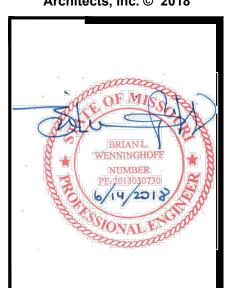
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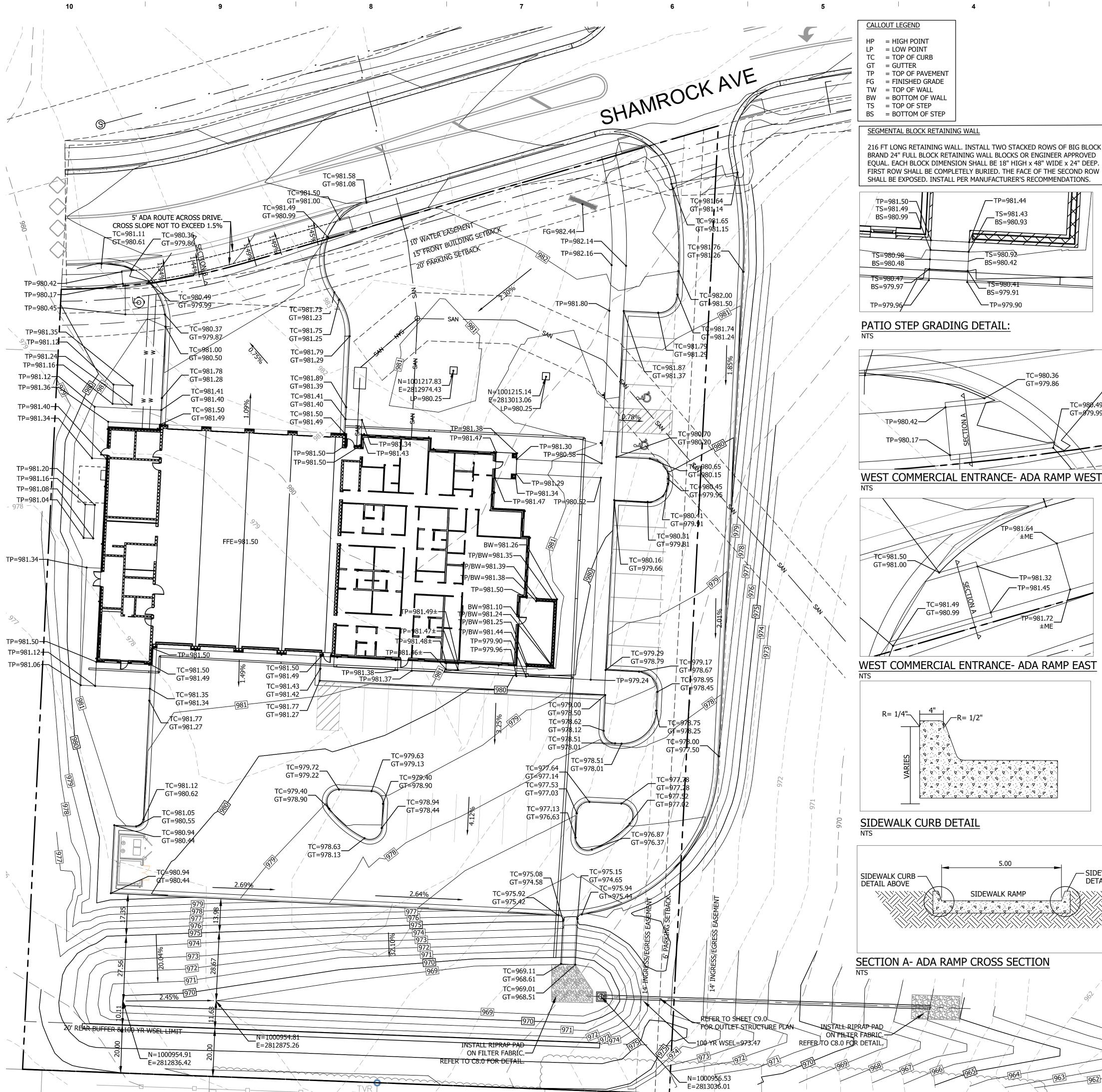
LEE'S SUMMIT, MO 64081

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Freshnock
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#2003011262 DIMENSION

DIMENSION PLAN

C3.0

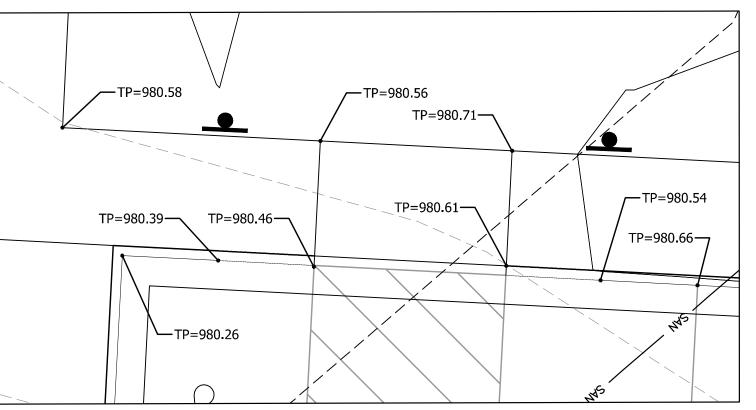


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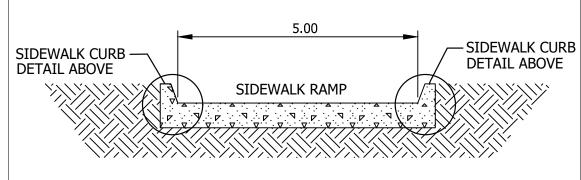
# Bartlett & West www.bartlettwest.com

### **GRADING NOTES:**

- 1. ALL QUANTITIES SHALL BE CALCULATED BY THE CONTRACTOR AND INCLUDE ALL SUBSIDIARY ITEMS NECESSARY TO COMPLETE THE WORK.
- 2. THE CONTRACTOR SHALL ASSUME NO ROCK EXCAVATION AS PART OF MASS GRADING OR UTILITY CONSTRUCTION. CONTRACTOR SHALL PROVIDE A UNIT PRICE ESTIMATE FOR ROCK EXCAVATION AS NECESSARY
- THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS REQUIRED FOR THE SITE GRADING.
- THE CONTRACTOR SHALL OBTAIN A COPY OF THE GEOTECHNICAL REPORT (IF APPLICABLE) AND SHALL BECOME FAMILIAR WITH ALL SOIL CONDITIONS AND RECOMMENDATIONS.
- ALL AREAS DISTURBED DURING THE PROGRESS OF THIS PROJECT SHALL BE FINISHED WITH 6" (MIN.) OF TOPSOIL AND GRADED/RESTORED TO EXISTING CONDITIONS PRIOR TO DISTURBANCE
- ALL AREAS SHALL SLOPE AWAY FROM PROPOSED BUILDING.
- 7. ALL GROUND SURFACES SHALL VARY UNIFORMLY BETWEEN INDICATED ELEVATIONS
- 8. GRADING PLAN REFLECTS TOP OF TURF OR PAVEMENT ELEVATION UNLESS OTHERWISE NOTED.
- CONTRACTOR SHALL PROVIDE AND MAINTAIN POSITIVE DRAINAGE DURING ALL PHASES OF CONSTRUCTION.
- 10. EXISTING UTILITIES AS SHOWN ARE APPROXIMATE LOCATIONS ONLY. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE LOCATIONS OF ALL EXISTING UTILITIES PRIOR TO THE START OF CONSTRUCTION WORK. ANY DAMAGE TO EXISTING STRUCTURES, UTILITIES, FENCES, AND/OR INCIDENTALS NOT DESIGNATED FOR REMOVAL SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
- 11. ALL PROPOSED SIDEWALKS SHALL HAVE A MINIMUM OF 1% CROSS SLOPE AND A MAXIMUM CROSS SLOPE OF 1.5%.
- 12. THE CONTRACTOR IS RESPONSIBLE FOR THE PROVISION OF ALL MATERIALS, TOOLS, EQUIPMENT AND LABOR NECESSARY TO CONTROL EROSION, SILTATION AND DISCHARGES OF FILL MATERIAL (SEDIMENT) INTO DOWNSTREAM SYSTEMS OR RECEIVING CHANNELS. THIS SHALL BE REQUIRED DURING ALL PHASES OF CONSTRUCTION AND UNTIL SUITABLE GROUND COVER IS ESTABLISHED FOR ALL DISTURBED AREAS. IF ANY METHOD OF CONTROL FAILS, THE CONTRACTOR SHALL NOTIFY THE OWNER IMMEDIATELY, SO THAT THE OWNER OR HIS AGENT CAN REVIEW THE CONTRACTOR'S PROPOSED METHOD OF REPAIR. REFER TO EROSION CONTROL SHEET FOR MORE NOTES AND INFORMATION.
- 3.  $\,$  ALL DISTURBED AREAS SHALL BE SEEDED, FERTILIZED AND MULCHED, OR SODDED, IN ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS ADOPTED BY THE REVIEWING GOVERNING AGENCY. THIS SHALL BE COMPLETED WITHIN SEVEN (7) DAYS AFTER COMPLETING THE WORK, IN ANY AREA. IF THIS IS OUTSIDE THE SEASONAL SEEDING PERIOD, SILT FENCES SHALL BE INSTALLED AS REQUIRED UNTIL SUCH TIME THAT THE AREA(S) CAN BE SEEDED.
- 14. SILT FENCES REQUIRE MAINTENANCE TO PRESERVE THEIR EFFECTIVENESS. ALL SILT FENCES SHALL BE INSPECTED IMMEDIATELY AFTER EACH HEAVY RAINSTORM AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY. WHEN SEDIMENT DEPOSITS REACH APPROXIMATELY ONE-HALF THE HEIGHT OF THE SILT FENCE, THE SEDIMENT SHALL BE REMOVED OR A SECOND SILT FENCE SHALL BE INSTALLED. ALL COSTS ASSOCIATED WITH THIS WORK, INCLUDING RELATED INCIDENTALS, WILL BE THE CONTRACTOR'S RESPONSIBILITY AND SHALL BE INCLUDED IN THE CONTRACTOR'S BID FOR THE PROPOSED
- 15. THE CONTRACTOR SHALL NOT PERFORM FINAL GRADING OR SEEDING UNTIL ALL UTILITY INSTALLATIONS ARE COMPLETE.
- 16. AT ALL BUILDING EXITS ENSURE MINIMUM OF 5' LANDING DEPTH (IN DIRECTION OF TRAVEL) AT 2% MAXIMUM SLOPE. NO SIDEWALK IS TO EXCEED 5% SLOPE UNLESS IT IS AN ADA COMPLIANT RAMP.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING AND PROTECTING ALL SURVEY STAKES (CONSTRUCTION STAKES, CONTROL POINTS, REFERENCE POINTS, BENCH MARKS, PROPERTY AND OFFSET CORNERS, AND ALL OTHER ESSENTIAL HORIZONTAL AND VERTICAL SURVEY CONTROL POINTS) UNTIL CONSTRUCTION ACTIVITY IS COMPLETED. THE CONTRACTOR SHALL PAY FOR RE-STAKING ANY SURVEY STAKES THAT ARE DESTROYED.



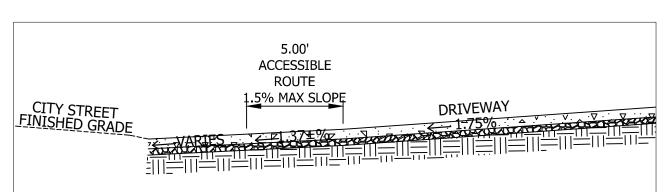
ADA PARKING AND RAMP GRADING DETAIL:



TC=980.36

GT=979.86

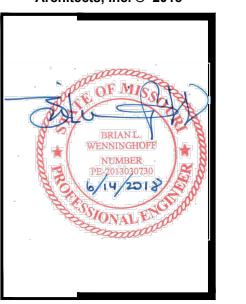
SECTION A- ADA RAMP CROSS SECTION



SECTION B- SECTION OF ACCESSIBLE PATH ON DRIVEWAY

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6408 E'S SUMMIT, MO M O M

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**GRADING PLAN** 

SCALE: 1'' = 20'



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<sup>--</sup> 17016

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ALL ROUTING AND INSTALLATION OF PROPOSED UTILITIES (TELEPHONE, GAS, WATER, CABLE, ELECTRICAL, ETC.) SHALL BE COORDINATED BETWEEN THE CONTRACTOR AND THE APPROPRIATE UTILITY PROVIDER. ALL UTILITY ROUTING SHALL BE APPROVED BY THE OWNER AND THE APPROPRIATE UTILITY PROVIDER PRIOR TO INSTALLATION. ANY PROPOSED UTILITY ROUTING DESIGNATED ON THESE DOCUMENTS ARE FOR GENERAL GUIDELINES ONLY UNLESS OTHERWISE SPECIFIED. BARTLETT & WEST, INC. ASSUMES NO LIABILITY FOR

ALL INSTALLATION AND MATERIALS TO BE IN COMPLIANCE WITH CITY OF LEE'S SUMMIT, MISSOURI CODES AND SPECIFICATIONS. CONTRACTOR SHALL VERIFY ALL CODES AND

ALL ROUTING OF UNDERGROUND ELECTRIC LINE TO BE VERIFIED WITH APPROPRIATE PROVIDER PRIOR TO INSTALLATION. ANY AND ALL PAVEMENT, TURF, ETC. REMOVED FOR

4. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TRAFFIC CONTROL METHODS NEEDED DURING THE INSTALLATION OR CONSTRUCTION OF ANY UTILITIES OR RELATED ITEMS. AT NO TIME SHALL A DRIVE LANE BE CLOSED TO THRU TRAFFIC. CONTRACTOR SHALL MAINTAIN AT LEAST 15 FEET OF MINIMUM DRIVE WIDTH TO ACCOMMODATE TRAFFIC FLOW.

5. CONTACT AFFECTED OWNER(S) A MINIMUM OF 24 HOURS PRIOR TO HALTING OF UTILITY SERVICES. UNDER NO CIRCUMSTANCE SHALL ANY UTILITY SERVICE BE DISCONTINUED FOR

7. THE CONTRACTOR SHALL DISPOSE OF ANY ROCK EXCAVATED FROM TRENCHES AND STRUCTURES OFFSITE UNLESS OTHERWISE DIRECTED BY THE ENGINEER. TRENCH WIDTH USED IN COMPUTING ROCK EXCAVATION SHALL BE THE OUTSIDE DIAMETER OF PIPE PLUS 12-INCHES.

8. THE PRICE BID FOR SANITARY SERVICE LINE, IN PLACE, SHALL INCLUDE TRENCHING, LAYING PIPE AND FITTINGS, BEDDING MATERIALS, BACKFILL, MARKING AND COMPACTION.

9. CONNECT WATER LINES WITH APPROPRIATE TEE JOINTS & VALVE BOXES PER CITY OF LEE'S SUMMIT STANDARDS. CONTRACTOR SHALL OBTAIN ALL CITY STANDARDS AND SPECIFICATIONS FOR USE ON THIS PROJECT. CONTACT THE CITY OF LEE'S SUMMIT WATER DEPARTMENT REPRESENTATIVE PRIOR TO ANY WATER LINE INSTALLATION.

10. WATER MAINS SHALL BE INSTALLED AT LEAST 10 FEET HORIZONTALLY FROM SANITARY SEWER MAINS AND AT LEAST 10 FEET HORIZONTALLY FROM STORM SEWER. THE DISTANCE SHALL BE MEASURED EDGE OF PIPE TO EDGE OF PIPE. CONTRACTOR SHALL BE REQUIRED TO VERIFY AND FOLLOW ALL CURRENT STATE DEPARTMENT OF HEALTH AND ENVIRONMENT

11. WATER MAINS SHALL MAINTAIN 24-INCHES OF VERTICAL CLEARANCE BETWEEN THE OUTSIDE OF THE WATER MAIN TO THE OUTSIDE OF THE SANITARY MAIN. CONTRACTOR SHALL BE REQUIRED TO VERIFY AND FOLLOW ALL CURRENT STATE DEPARTMENT OF HEALTH AND ENVIRONMENT JURISDICTION REGULATIONS.

13. CONNECT SANITARY LINES PER CITY OF LEE'S SUMMIT STANDARDS. CONTRACTOR SHALL OBTAIN ALL CITY STANDARDS AND SPECIFICATIONS FOR USE ON THIS PROJECT. ALL SANITARY SEWER MAINS AND SERVICE LINES SHALL MAINTAIN A MINIMUM COVER OF 30-INCHES.

14. CONTRACTOR SHALL COORDINATE ROUTING OF EXISTING AND PROPOSED ELECTRICAL, GAS, CABLE AND TELEPHONE LINES WITH THE APPROPRIATE SERVICE PROVIDER, OWNER, SUB-CONTRACTOR AND ELECTRICAL/MECHANICAL ENGINEERS PLANS TO ENSURE THESE SERVICES ARE NOT INTERRUPTED AT SURROUNDING BUILDINGS.

> SPECTRUM CABLE 8221 W. 119TH STREET OVERLAND PARK, KS 66213

215 N. SPRING ST INDEPENDENCE, MO 64050 JOHN CORNICK 816-325-5615

CITY OF LEE'S SUMMIT WATER UTILITIES DEPARTMENT 616 N.E. DOUGLAS LEE'S SUMMIT, MO. 64063 816-969-1940

CITY OF LEE'S SUMMIT STREET/STORM WATER DEPARTMENT 220 SE GREEN ST. LEE'S SUMMIT, MO. 64063 PUBLIC WORKS OPERATIONS 816-969-1870

LEE'S SUMMIT FIRE DEPT. 969-1300 LEE'S SUMMIT PUBLIC WORKS INSPECTOR 969-1817

**EMERGENCY PHONE NUMBERS:** 

LEE'S SUMMIT POLICE 969-1700

PIPE C7: BEGINNING FL ELEV = 978.50± INSTALL 23 LF OF 6" HDPE CONNECT TO C8 WITH 6"x6" TEE AND CLEANOUT. ENDING FL ELEV = 977.94± PIPE C8: BEGINNING FL ELEV = 978.50± INSTALL 23 LF OF 6" HDPE CONNECT TO A3 WITH 6"x12" TEE AND CLEANOUT. ENDING FL ELEV =  $973.52 \pm$ PIPE C9: BEGINNING FL ELEV = 978.50± INSTALL 20 LF OF 6" HDPE CONNECT TO A3 WITH 6"x12" TEE AND CLEANOUT. PIPE D1: BEGINNING FL ELEV = 978.0± ENDING FL ELEV = 973.31PIPE C10: BEGINNING FL ELEV = 978.50±

INSTALL 20 LF OF 6" HDPE CONNECT TO A3 WITH 6"x12" TEE AND CLEANOUT. ENDING FL ELEV =  $972.85 \pm$ PIPE C11: BEGINNING FL ELEV =  $978.50 \pm$ 

INSTALL 26 LF OF 6" HDPE CONNECT TO C10 WITH 6"x6" TEE AND CLEANOUT ENDING FL ELEV = 978.02± PIPE C12: BEGINNING FL ELEV = 974.50± INSTALL 4 LF OF 6" HDPE

ENDING FL ELEV = 972.38± PIPE C13: BEGINNING FL ELEV = 978.50± INSTALL 3 LF OF 6" HDPE CONNECT TO B3 WITH 6"x10" TEE AND CLEANOUT. ENDING FL ELEV =  $972.74 \pm$ 

CONNECT TO B3 WITH 6"x10" TEE AND CLEANOUT

PIPE C14: BEGINNING FL ELEV = 978.50± INSTALL 3 LF OF 6" HDPE CONNECT TO B3 WITH 6"x10" TEE AND CLEANOUT. ENDING FL ELEV = 973.11± PIPE C15: BEGINNING FL ELEV = 978.50±

INSTALL 3 LF OF 6" HDPE CONNECT TO B3 WITH 6"x10" TEE AND CLEANOUT. ENDING FL ELEV = 973.46± PIPE C16: BEGINNING FL ELEV = 978.50±

CONNECT TO B2 WITH 6"x8" TEE AND CLEANOUT. ENDING FL ELEV = 973.89± PIPE C17: BEGINNING FL ELEV = 978.50± INSTALL 3 LF OF 6" HDPE CONNECT TO B2 WITH 6"x8" TEE AND CLEANOUT.

INSTALL 3 LF OF 6" HDPE

ENDING FL ELEV = 974.28±

PIPE C18: BEGINNING FL ELEV = 978.50± INSTALL 3 LF OF 6" HDPE CONNECT TO B2 WITH 6"x8" TEE AND CLEANOUT. ENDING FL ELEV = 974.89±

PIPE C19: BEGINNING FL ELEV = 978.50± INSTALL 3 LF OF 6" HDPE CONNECT TO B2 WITH 6"x8" TEE AND CLEANOUT. ENDING FL ELEV = 975.08± PIPE C20: BEGINNING FL ELEV = 978.50±

INSTALL 3 LF OF 6" HDPE

CONNECT TO B1 WITH 6"x6" TEE AND CLEANOUT. ENDING FL ELEV =  $975.83 \pm$ PIPE C21: BEGINNING FL ELEV = 978.50± INSTALL 3 LF OF 6" HDPE

CONNECT TO B1 WITH 6"x6" TEE AND CLEANOUT. ENDING FL ELEV = 976.15± PIPE C22: BEGINNING FL ELEV = 978.50± INSTALL 3 LF OF 6" HDPE CONNECT TO B1 WITH 6"x6" TEE AND CLEANOUT.

ENDING FL ELEV = 976.47± PIPE C23: BEGINNING FL ELEV = 978.50± INSTALL 3 LF OF 6" HDPE

CONNECT TO B1 WITH 6"x6" TEE AND CLEANOUT. ENDING FL ELEV = 976.79±

PIPE C24: BEGINNING FL ELEV = 978.50± INSTALL 3 LF OF 6" HDPE CONNECT TO B1 WITH 6"x6" TEE AND CLEANOUT. ENDING FL ELEV = 977.11± PIPE C25: BEGINNING FL ELEV = 978.50±

INSTALL 3 LF OF 6" HDPE CONNECT TO B1 WITH 6"x6" TEE AND CLEANOUT. ENDING FL ELEV = 977.50±

INSTALL 24 LF OF 6" HDPE

CONNECT TO A2 WITH 6"x10" TEE AND CLEANOUT. ENDING FL ELEV = 975.20± PIPE D2: BEGINNING FL ELEV = 978.0±

INSTALL 24 LF OF 6" HDPE CONNECT TO A2 WITH 6"x10" TEE AND CLEANOUT. ENDING FL ELEV =  $974.47 \pm$ 

# STORM STRUCTURES

AREA INLET 1: 3'x3' AREA INLET SURFACE ELEV = 980.25 FL OUT (S) = 978.00

AREA INLET 2: 3'x3' AREA INLET SURFACE ELEV = 980.25 FL OUT (S) = 978.00

AREA INLET 3: 6"X6" AREA INLET SURFACE ELEV = 981.25 FL OUT (S) = 978.50

PIPE A END SECTION: 12" HDPE END SECTION ELEV = 970.00

**DETENTION POND: OUTLET STRUCTURE** REFER TO C9.0 FOR DETAILS SURFACE ELEV = 973.60 FL OUT (SE) = 967.00

DETENTION POND: 15" CMP END SECTION FL OUT (E)=966.00

NOTE: REFER TO SHEET C8.0 FOR DOWNSPOUT BOOT CONNECTION DETAIL



Williams

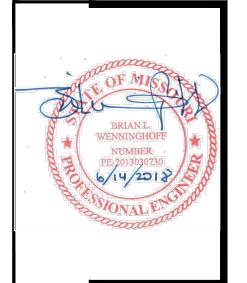
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JOB NUMBER - 17016 -ISSUE DATE **- 06/14/2018 -**REVISIONS

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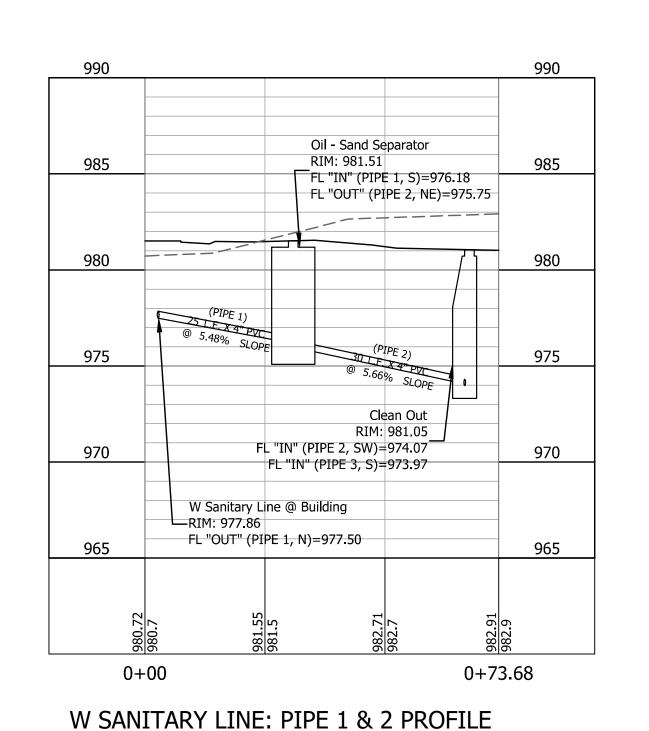
PIPE

**PROFILES** 

A1-C5 TEE A1-C2 TEE RIM: 976.04 985 RIM: 976.62 FL "IN" (P- A1.4, W)=975.32 FL "IN" (P- A1.1, W)=975.90 FL "OUT" (P- A1.5, E)=975.32 FL "OUT" (P- A1.2, E)=975.90 RIM: 975.37 A3-C9 TEE (P- A1.5) RIM: 974.41 \_\_\_\_FL "IN" (P- A2.2, W)=974.47 7 L.F. X 8" PVC FL "IN" (P- A3.2, N)=973.31 FL "OUT" (P- A2.3, E)=974.47 ( @ 1.78% SLOPE FL "OUT" (P- A3.3, S)=973.31 980 (P- A1.2) A1-A2-D1 TEE \_\_\_2 L.F. X 8" PVC ----RIM: 976.10 \_\_\_\_\_ @ 1.91% SLOPE (P- A2.3) FL "IN" (P- A1.5, W)=975.20 A3-C10 TEE −18 L.F. X 10" PVC FL "OUT" (P- A2.1, E)=975.20 RIM: 973.95 @ 1.92% SLOPE (P- A2.1) 19 L.F. X 10" PVC © 1.89% SLOPE FL "IN" (P- A3.3, N)=972.85 (P- A3.1) FL "OUT" (P- A3.4, S)=972.85 32 L.F. X 12" HDPE 25 L.F. X 12" HDPE @ 1.89% SLOPE (P-A14) 33 L.F. X 12" HDPE @ 0.89% SLOPE A2-A3 90 DEGREE BEND (P- A3.2) 118 L.F. X 12" HDPE @ 2.75% SLOPE A1-C4 TEE RIM: 975.24 11 L.F. X 12" HDPE RIM: 976.06 A3-B3 TEE 970 FL "IN" (P- A2.3, W)=974.14 @ 1.95% SLOPE RIM: 973.32 FL "IN" (P- A1.3, W)=975.34 FL "OUT" (P- A3.1, S)=974.14 A3-C8 TEE RIM: 976.59 FL "OUT" (P- A1.4, E)=975.34 FL "IN" (P- 43.4, N)=972.22 (P- A2.2) RIM: 974.62 FL "IN" (PIPE (46), W)=972.22 FL "IN" (P- A1.2, W)=975.87 ─21 L F. X 10" PVC FL "IN" (P- A3.1, N)=973.52 FL "OUT" (P- A3.5, S)=972.22 FL "OUT" (P- A1.3, E)=975.87 @ 1.89% SLOPE FL "OUT" (P- A3.2, \$)=973.52 (P- A1.1) A2-C6 TEE 965 PIPE A: END SECTION RIM: 975.75 RIM: 970.00 @ 2.02% SLOPE \_\_\_FL "IN" (P- A2.1, W)=974.85 FL "OUT" (P- A2.2, E)=974.85 A1-C1 TEE ∟RIM: 976.75 FL "OUT" (P- A1 1, E)=976.03 1+00 0+00 2+00 3+00 3+26.94

STORM SEWER: PIPE A2-A4 PROFILE

7 6 5

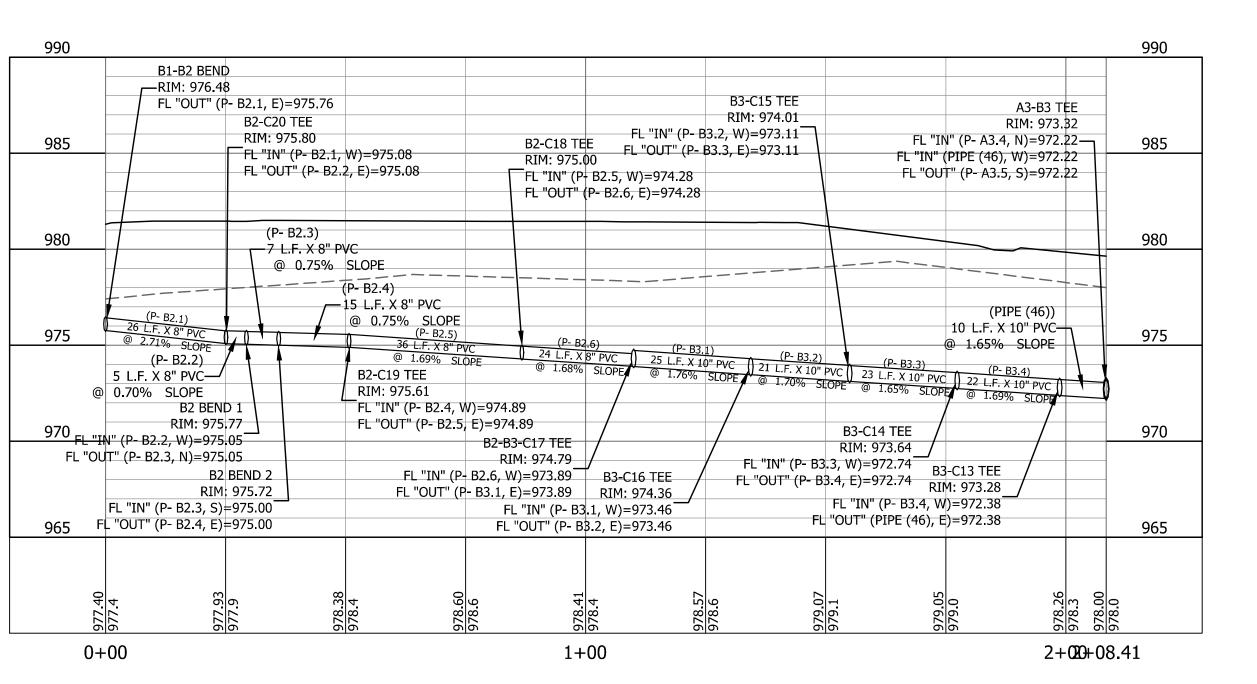


NTS

12/1/2017 2:17:26 PM M:\2017\17016 - Lee's Summit Fire Station 3\1 - Drawings\17016 preliminary design plan.rvt

990 985 985 980 975 975 E Sanitary Line @ Building **└**RIM: 978.04 FL "OUT" (PIPE 3, N)=977.67 970 Clean Out RIM: 981.05 FL "IN" (PIPE 2, SW)=974.07 FL "IN" (PIPE 3, S)=973.97 965 965 0+00 0+62.43 E SANITARY LINE: PIPE 3 PROFILE

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STORM SEWER: PIPE B2-B3 PROFILE

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TRANSFORMER -



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THE CONTRACTOR SHALL KEEP A WRITTEN LOG OF WHEN CONSTRUCTION ACTIVITIES BEGIN, EROSION AND SEDIMENT CONTROLS ARE INSTALLED, INSPECTED AND REPAIRED.

- THE CONTRACTOR SHALL MONITOR EROSION AND SEDIMENT CONTROL MEASURES THROUGHOUT THE PROJECT. THIS PLAN MAY BE UPDATED AS CONSTRUCTION PROGRESSES
- 4. TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES INSTALLED AS PART OF THIS PLAN SHALL NOT BE REMOVED FOLLOWING CONSTRUCTION UNTIL SLOPES ARE
- IMMEDIATELY AFTER MOBILIZATION AND PRIOR TO STARTING ANY SOIL DISTURBING ACTIVITIES, THE CONTRACTOR SHALL INSTALL ANY PERIMETER EROSION AND SEDIMENT CONTROL MEASURES, GRAVEL CONSTRUCTION ENTRANCE(S) AND ANY TEMPORARY SEDIMENT BASIN(S). IT IS RECOGNIZED THAT SOME SITE CLEARING AND PREPARATION MAY BY
- 6. THE RECOMMENDED SEQUENCE OF CONSTRUCTION ACTIVITIES AND OF THE INSTALLATION AND REMOVAL OF EROSION AND SEDIMENT CONTROL MEASURES IS AS FOLLOWS: ANY PERIMETER CONTROL MEASURES (SILT FENCE) INCLUDING AREAS DRAINING TO A DRAINAGE WAY SUCH AS A STREAM, GRAVEL CONSTRUCTION ENTRANCE(S), CONSTRUCTION OF SANITARY SEWERS, STORM SEWERS, INLET PROTECTION AND DITCH CHECKS, STREETS, FINAL GRADING, SEEDING, FERTILIZING AND MULCHING ON ALL SLOPES AND DISTURBED AREAS, INDIVIDUAL SITE CONTROL MEASURES, REMOVAL OF TEMPORARY PRACTICES, REMOVAL OF PERIMETER CONTROLS AND SITE CLEANUP.
- PERIMETER SILT FENCE, BALE DITCH CHECKS AND CONSTRUCTION ENTRANCE(S) SHALL BE CONSTRUCTED IN ACCORDANCE WITH THESE PLANS OR THE CITY REQUIREMENTS INSTALL SILT FENCE WHERE REPRESENTED ON PLAN AS DITCH CHECKS AND SLOPE CONTROL, AROUND INLETS, ALONG ROADWAYS, AREAS DRAINING TO DRAINAGE WAYS SUCH AS A STREAM AND OTHER LOCATIONS AS NEEDED TO PREVENT SEDIMENT FROM LEAVING THE SITE. MEASURES WILL BE KEPT IN PLACE UNTIL GRASS IS ESTABLISHED TO 70%
- CONSTRUCTION ENTRANCES SHALL BE MAINTAINED BY THE GENERAL CONTRACTOR IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAYS AND PAVED STREETS. THIS MAY INCLUDE PERIODIC TOP DRESSING WITH ADDITIONAL CRUSHED STONE AS CONDITIONS WARRANT. REPAIR OF ENTRANCES. CLEANING ON A DAILY BASIS OF RIGHT-OF-WAYS AND PAVED STREETS THAT HAVE BEEN SOILED BY CONSTRUCTION ACTIVITIES SHALL BE THE GENERAL CONTRACTOR'S
- 10. THE CONTRACTOR SHALL NOTIFY EACH SUB-CONTRACTOR OR ENTITY (INCLUDING UTILITY CREWS AND CITY EMPLOYEES OR THEIR AGENTS) THAT WILL BE PERFORMING WORK AT THE SITE OF THE EROSION CONTROL PLAN AND WHAT ACTIONS OR PRECAUTIONS SHALL BE TAKEN TO MINIMIZE THE POTENTIAL FOR SOIL EROSION.
- 11. DURING ALL SOIL DISTURBING ACTIVITIES, THE GENERAL CONTRACTOR WILL TAKE APPROPRIATE STEPS USING ACCEPTED CONSTRUCTION METHODS TO MINIMIZE THE TIME OF

- 14. WHENEVER SOIL, ROCK, VEGETATION OR OTHER MATERIALS ARE EXPORTED FOR PLACEMENT IN AREAS OFF OF THE CONSTRUCTION SITE COVERED IN THIS PLAN, THE GENERAL CONTRACTOR IS RESPONSIBLE FOR DETERMINING THAT EPA STORM WATER PERMITTING REQUIREMENTS ARE MET. PRIOR TO THE REMOVAL OF ANY MATERIALS FROM THE SITE THE GENERAL CONTRACTOR WILL FURNISH THE ENGINEER WITH WRITTEN AGREEMENT, SIGNED BY EACH LANDOWNER WHO WILL RECEIVE EXPORTED MATERIALS, STATING THAT
- THIS PLAN OUTLINES STORM WATER MANAGEMENT AND SEDIMENT AND EROSION CONTROL PRACTICES TO BE FOLLOWED BY THE CONTRACTOR DURING ALL PHASES OF CONSTRUCTION OF THE PROJECT. THE CONTRACTOR WILL BE RESPONSIBLE TO PREVENT SOIL OR SEDIMENT LOSS FROM THE CONSTRUCTION SITE AND CANNOT LEAVE THE SITE UNTIL ALL PERMANENT EROSION CONTROL, SEDIMENT CONTROL AND STORM WATER MANAGEMENT PRACTICES ARE IN PLACE, INSPECTED AND HAVE BEEN FOUND TO BE
- THIS PROJECT HAS BEEN DESIGNED TO PROVIDE POSITIVE POST-CONSTRUCTION CONTROL OF EXCESS STORM WATER GENERATED ON THE SITE THROUGH THE USE OF CURBS, GUTTERS, PIPING, STORM WATER BASINS. DURING THE COURSE OF CONSTRUCTION, THE CONTRACTOR SHALL INSTALL AND MAINTAIN STORM WATER MANAGEMENT STRUCTURES
- THIS PROJECT IS DESIGNED TO MINIMIZE OFF-SITE EFFECT OF SOIL EROSION AND RESULTING SEDIMENT LOSS THROUGH THE USE OF PROPER CONSTRUCTION TECHNIQUES, INCLUDING INSTALLING BOTH TEMPORARY AND PERMANENT MANAGEMENT PRACTICES. ALL SOIL DISTURBING ACTIVITIES PERFORMED BY THE CONTRACTOR SHALL BE ACCOMPLISHED IN SUCH A MANNER AS TO PREVENT THE LOSS OF SEDIMENT IN STORM WATER AND TRACKING OF SOIL FROM VEHICLE TRAFFIC FROM THE CONSTRUCTION SITE.
- 4. PROPOSED DETENTION BASINS TO ACT ALSO AS SEDIMENT CONTROL BASINS, REFER TO SHEET C5.2 FOR POND SIZING, NO OUTLET STRUCTURE IS PROPOSED DUE TO HIGH PECULATION RATES OF SANDY SOILS. BASIN IS DESIGNED TO CONTAIN 100 YEAR RAINFALL EVENT WITH A MINIMUM OF 2.00 FEET OF FREEBOARD.
- WOOD POSTS WHICH SUPPORT THE SILT FENCE SHALL BE INSTALLED ON A SLIGHT ANGLE TOWARD THE ANTICIPATED RUNOFF SOURCE.
- 2. SILT FENCE SHALL BE TRENCHED IN WITH A MECHANICAL TRENCHER SO THAT THE DOWNSLOPE FACE OF THE TRENCH IS FLAT AND PERPENDICULAR TO THE LINE OF FLOW.
- 3. THE TRENCH SHOULD BE A MINIMUM OF 6" DEEP AND 6" WIDE TO ALLOW FOR THE SILT FENCE TO BE LAID IN THE GROUND AND BACKFILLED.
- SILT FENCE SHOULD BE SECURELY FASTENED TO EACH WOOD, SUPPORT POST OR TO WOVEN WIRE WHICH IS IN TURN ATTACHED TO THE WOOD FENCE POSTS.
- 6. SILT FENCE SHALL BE REMOVED WHEN IT HAS SERVED ITS USEFULNESS SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.
- 8. THE EROSION CONTROL SHOWN SHALL BE SILT FENCE. ADDITIONAL EROSION CONTROL PROVIDED BY CONTRACTOR MAY BE STRAW BALE DIKE.
- 1. CONSTRUCT CONSTRUCTION ENTRANCE. REFER TO UG 1400-A OF THE WYANDOTTE COUNTY UNIFIED GOVERNMENT STANDARD DETAILS.
- 2. ALL STRUCTURAL BMP'S MUST BE IN PLACE BEFORE GENERAL CLEARING AND DEMOLITION OPERATIONS BEGIN. CLEARING NECESSARY TO PLACE STRUCTURAL BMP'S SHALL BE THE MINIMUM REQUIRED FOR INSTALLATION. COORDINATE CLEARING NECESSARY TO PLACE STRUCTURAL BMP'S WITH LOCAL WEATHER FORECAST SO THAT CLEARING AND PLACEMENT MAY BE COMPLETED WITHIN A FORECAST DRY PERIOD. STABILIZE ALL DIVERSION DIKES, SEDIMENT BASINS AND SEDIMENT TRAPS WITHIN 5 DAYS AFTER
- 4. PLAN MODIFICATION: THE CONTRACTOR MUST MODIFY THE PLAN IF THE PLAN FAILS TO SUBSTANTIALLY CONTROL EROSION AND OFFSITE SEDIMENTATION. PLAN MODIFICATIONS DUE TO INEFFECTIVENESS MAY BE TAKEN WITHOUT PRIOR APPROVAL OF THE REVIEW AGENCY, BUT MUST BE FULLY DOCUMENTED AND APPROVAL SECURED SITE CONDITIONS OR CONTRACTOR METHODS. ANY SUCH MODIFICATION SHALL CONTROL EROSION AND OFFSITE SEDIMENTATION TO THE MAXIMUM EXTENT PRACTICABLE.

**EROSION CONTROL LEGEND** 



**EROSION** CONTROL PLAN

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6/14/2018

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THE CONTRACTOR SHALL KEEP A WRITTEN LOG OF WHEN CONSTRUCTION ACTIVITIES BEGIN, EROSION AND SEDIMENT CONTROLS ARE INSTALLED, INSPECTED AND REPAIRED. COPIES OF LOG SHALL BE FURNISHED TO THE ENGINEER.

THE CONTRACTOR SHALL MONITOR EROSION AND SEDIMENT CONTROL MEASURES THROUGHOUT THE PROJECT. THIS PLAN MAY BE UPDATED AS CONSTRUCTION

3. THE CONTRACTOR SHALL COMPLY WITH THE SOIL EROSION CODE FOR THE CITY OF LEE'S SUMMIT, MISSOURI.

4. TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES INSTALLED AS PART OF THIS PLAN SHALL NOT BE REMOVED FOLLOWING CONSTRUCTION UNTIL SLOPES ARE STABILIZED TO A NON-EROSIVE STATE WITH ESTABLISHED GRASS OR AS DIRECTED BY THE ENGINEER.

IMMEDIATELY AFTER MOBILIZATION AND PRIOR TO STARTING ANY SOIL DISTURBING ACTIVITIES, THE CONTRACTOR SHALL INSTALL ANY PERIMETER EROSION AND SEDIMENT CONTROL MEASURES, GRAVEL CONSTRUCTION ENTRANCE(S) AND ANY TEMPORARY SEDIMENT BASIN(S). IT IS RECOGNIZED THAT SOME SITE CLEARING AND PREPARATION MAY BY REQUIRED TO PROPERLY INSTALL SUCH MEASURES.

THE RECOMMENDED SEQUENCE OF CONSTRUCTION ACTIVITIES AND OF THE INSTALLATION AND REMOVAL OF EROSION AND SEDIMENT CONTROL MEASURES IS AS FOLLOWS: ANY PERIMETER CONTROL MEASURES (SILT FENCE) INCLUDING AREAS DRAINING TO A DRAINAGE WAY SUCH AS A STREAM, GRAVEL CONSTRUCTION ENTRANCE(S), CONSTRUCTION OF SANITARY SEWERS, STORM SEWERS, INLET PROTECTION AND DITCH CHECKS, STREETS, FINAL GRADING, SEEDING, FERTILIZING AND MULCHING ON ALL SLOPES AND DISTURBED AREAS, INDIVIDUAL SITE CONTROL MEASURES, REMOVAL OF TEMPORARY PRACTICES, REMOVAL OF PERIMETER CONTROLS AND SITE CLEANUP.

INSTALL SILT FENCE WHERE REPRESENTED ON PLAN AS DITCH CHECKS AND SLOPE CONTROL, AROUND INLETS, ALONG ROADWAYS, AREAS DRAINING TO DRAINAGE WAYS SUCH AS A STREAM AND OTHER LOCATIONS AS NEEDED TO PREVENT SEDIMENT FROM LEAVING THE SITE, MEASURES WILL BE KEPT IN PLACE UNTIL GRASS IS ESTABLISHED

8. ALL EROSION CONTROL MEASURES SHALL BE INSPECTED AND MAINTAINED BY THE GENERAL CONTRACTOR NOT LESS THAN WEEKLY OR WITHIN 24 HOURS AFTER A RAINFALL EVENT OF 0.5 INCHES OR MORE. MAINTENANCE SHALL INCLUDE BUT NOT LIMITED TO SEDIMENT REMOVAL. SILT FENCE AND HAY BALE BARRIER REPAIR AND/OR

CONSTRUCTION ENTRANCES SHALL BE MAINTAINED BY THE GENERAL CONTRACTOR IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAYS AND PAVED STREETS. THIS MAY INCLUDE PERIODIC TOP DRESSING WITH ADDITIONAL CRUSHED STONE AS CONDITIONS WARRANT. REPAIR OF ENTRANCES, CLEANING ON A DAILY BASIS OF RIGHT-OF-WAYS AND PAVED STREETS THAT HAVE BEEN SOILED BY CONSTRUCTION ACTIVITIES SHALL BE THE GENERAL

10. THE CONTRACTOR SHALL NOTIFY EACH SUB-CONTRACTOR OR ENTITY (INCLUDING UTILITY CREWS AND CITY EMPLOYEES OR THEIR AGENTS) THAT WILL BE PERFORMING WORK AT THE SITE OF THE EROSION CONTROL PLAN AND WHAT ACTIONS OR PRECAUTIONS SHALL BE TAKEN TO MINIMIZE THE POTENTIAL FOR SOIL EROSION.

11. DURING ALL SOIL DISTURBING ACTIVITIES, THE GENERAL CONTRACTOR WILL TAKE APPROPRIATE STEPS USING ACCEPTED CONSTRUCTION METHODS TO MINIMIZE THE TIME OF EXPOSURE OF UNPROTECTED SOIL AND OTHER CONSTRUCTION MATERIALS TO RAINFALL

12. NO GROUND SHALL BE LEFT OPEN FOR MORE THAN 7 DAYS OF NON-ACTIVITY WITHOUT BEING MULCHED AND/OR SEEDED.

13. SOIL STOCKPILED FOR MORE THAN 7 DAYS SHALL HAVE SILT FENCE PLACED ON THE DOWNHILL SLOPES TO TRAP SEDIMENT

14. WHENEVER SOIL, ROCK, VEGETATION OR OTHER MATERIALS ARE EXPORTED FOR PLACEMENT IN AREAS OFF OF THE CONSTRUCTION SITE COVERED IN THIS PLAN, THE GENERAL CONTRACTOR IS RESPONSIBLE FOR DETERMINING THAT EPA STORM WATER PERMITTING REQUIREMENTS ARE MET. PRIOR TO THE REMOVAL OF ANY MATERIALS FROM THE SITE THE GENERAL CONTRACTOR WILL FURNISH THE ENGINEER WITH WRITTEN AGREEMENT, SIGNED BY EACH LANDOWNER WHO WILL RECEIVE EXPORTED MATERIALS, STATING THAT THEY ACCEPT THE MATERIAL AND THAT RECEIVING SITE IS PROPERLY PERMITTED, WHEN REQUIRED.

### STORM WATER MANAGEMENT - Sediment Control

THIS PLAN OUTLINES STORM WATER MANAGEMENT AND SEDIMENT AND EROSION CONTROL PRACTICES TO BE FOLLOWED BY THE CONTRACTOR DURING ALL PHASES OF CONSTRUCTION OF THE PROJECT. THE CONTRACTOR WILL BE RESPONSIBLE TO PREVENT SOIL OR SEDIMENT LOSS FROM THE CONSTRUCTION SITE AND CANNOT LEAVE THE SITE UNTIL ALL PERMANENT EROSION CONTROL, SEDIMENT CONTROL AND STORM WATER MANAGEMENT PRACTICES ARE IN PLACE, INSPECTED AND HAVE BEEN FOUND TO BE SATISFACTORY, AND UNTIL ALL TEMPORARY PRACTICES HAVE BEEN PROPERLY REMOVED.

THIS PROJECT HAS BEEN DESIGNED TO PROVIDE POSITIVE POST-CONSTRUCTION CONTROL OF EXCESS STORM WATER GENERATED ON THE SITE THROUGH THE USE OF CURBS, GUTTERS, PIPING, STORM WATER BASINS. DURING THE COURSE OF CONSTRUCTION, THE CONTRACTOR SHALL INSTALL AND MAINTAIN STORM WATER MANAGEMENT STRUCTURES IN A MANNER TO MAXIMIZE STORM WATER CONTROL.

INCLUDING INSTALLING BOTH TEMPORARY AND PERMANENT MANAGEMENT PRACTICES. ALL SOIL DISTURBING ACTIVITIES PERFORMED BY THE CONTRACTOR SHALL BE ACCOMPLISHED IN SUCH A MANNER AS TO PREVENT THE LOSS OF SEDIMENT IN STORM WATER AND TRACKING OF SOIL FROM VEHICLE TRAFFIC FROM THE CONSTRUCTION

PROPOSED DETENTION BASINS TO ACT ALSO AS SEDIMENT CONTROL BASINS. REFER TO SHEET C5.2 FOR POND SIZING. NO OUTLET STRUCTURE IS PROPOSED DUE TO HIGH PECULATION RATES OF SANDY SOILS. BASIN IS DESIGNED TO CONTAIN 100 YEAR RAINFALL EVENT WITH A MINIMUM OF 2.00 FEET OF FREEBOARD.

WOOD POSTS WHICH SUPPORT THE SILT FENCE SHALL BE INSTALLED ON A SLIGHT ANGLE TOWARD THE ANTICIPATED RUNOFF SOURCE

2. SILT FENCE SHALL BE TRENCHED IN WITH A MECHANICAL TRENCHER SO THAT THE DOWNSLOPE FACE OF THE TRENCH IS FLAT AND PERPENDICULAR TO THE LINE OF FLOW.

3. THE TRENCH SHOULD BE A MINIMUM OF 6" DEEP AND 6" WIDE TO ALLOW FOR THE SILT FENCE TO BE LAID IN THE GROUND AND BACKFILLED.

4. SILT FENCE SHOULD BE SECURELY FASTENED TO EACH WOOD, SUPPORT POST OR TO WOVEN WIRE WHICH IS IN TURN ATTACHED TO THE WOOD FENCE POSTS.

5. INSPECTION SHALL BE FREQUENT AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED

SILT FENCE SHALL BE REMOVED WHEN IT HAS SERVED ITS USEFULNESS SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.

7. SEDIMENT TRAPPED BY THIS PRACTICE SHALL BE UNIFORMLY DISTRIBUTED ON THE SOURCE AREA PRIOR TO TOPSOILING.

8. THE EROSION CONTROL SHOWN SHALL BE SILT FENCE. ADDITIONAL EROSION CONTROL PROVIDED BY CONTRACTOR MAY BE STRAW BALE DIKE.

### FINAL RESTORATION PLAN CONSTRUCTION SEQUENCE:

.. REMOVE ANY BMP'S THAT WERE CONSTRUCTED WITH THE PRE-CLEARING PLAN THAT ARE NOT SHOWN ON THIS SHEET.

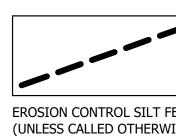
2. IMPLEMENT FINAL STABILIZATION: COORDINATE REMOVAL OF CONSTRUCTION PHASE BMPS NECESSARY TO PLACE FINAL STABILIZATION WITH LOCAL WEATHER FORECAST SO THAT REMOVAL AND PLACEMENT MAY BE COMPLETED WITHIN A FORECAST DRY PERIOD. DOWN-SLOPE PERIMETER CONTROLS SHALL NOT BE REMOVED UNTIL FINAL STABILIZATION IS PLACED AND VEGETATIVE COVER IS ESTABLISHED OVER THE REMAINDER OF THE SITE.

3. ESTABLISHMENT AND FINAL CONSTRUCTION: ONCE THE REMAINDER OF THE SITE IS STABILIZED INCLUDING ESTABLISHMENT OF SEEDED COVER TYPES, CONSTRUCT PERMANENT WATER QUALITY BMPS AND REMOVE THE SEDIMENT CONTROLS AND THE REMAINING ACCESS CONTROLS. RESTORE AREA DISTURBED BY REMOVAL OF SEDIMENT

4. PLAN MODIFICATION: THE CONTRACTOR MUST MODIFY THE PLAN IF THE PLAN FAILS TO SUBSTANTIALLY CONTROL EROSION AND OFFSITE SEDIMENTATION. PLAN MODIFICATIONS DUE TO INEFFECTIVENESS MAY BE TAKEN WITHOUT PRIOR APPROVAL OF THE REVIEW AGENCY, BUT MUST BE FULLY DOCUMENTED AND APPROVAL SECURED FROM THE PERMITTING AUTHORITY AS SOON AS PRACTICABLE. THE CONTRACTOR MAY MODIFY THE PLAN OR CONSTRUCTION SEQUENCE IF IMPLEMENTATION IS INFEASIBLE FOR SITE CONDITIONS OR CONTRACTOR METHODS. ANY SUCH MODIFICATION SHALL CONTROL EROSION AND OFFSITE SEDIMENTATION TO THE MAXIMUM EXTENT PRACTICABLE. ANY SUCH MODIFICATION SHALL REQUIRE THE PRIOR APPROVAL OF THE PERMITTING AUTHORITY.

THE RETENTION OF ACCESS CONTROLS AND SEDIMENT CONTROLS FOR AREAS WHERE SEED HAS NOT ESTABLISHED 70% COVER.

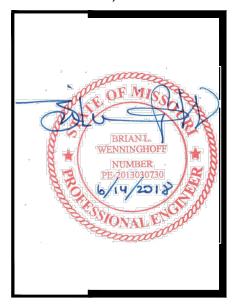
EROSION CONTROL LEGEND



**EROSION CONTROL SILT FENCE** (UNLESS CALLED OTHERWISE)

JOB NUMBER - 17016  $^{-}$ **ISSUE DATE** - 06/14/2018  $^-$ REVISIONS

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**FINAL** RESTORATION

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TRANSFORMER —

**DEU NIK** 

7 - 2 gal

INSTALL SODDED TURF, TALL FESCUE OR APPROVED EQUAL (TYP.)

CAL KAR

29 - 2 gal

ACE AR6 1-B&B

> CAL KAR 4 - 2 gal

**DEU NIK** 

7 - 2 gal

PROVIDE 2" KANSAS RIVER ROCK MULCH,

**CER OKL** 

8-B&B

TAX DIS

8-B&B

TRANSFORMER —

OR EQUAL APPROVED BY OWNER (TYP.)

OR APPROVED EQUAL (TYP.

JUN BUR

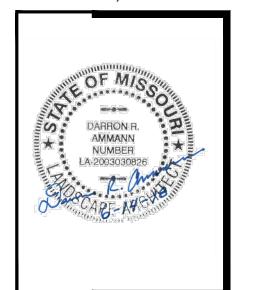
8 - Ht.

LANDSCAPE ZONES **PLANT SCHEDULE** QTY LANDSCAPE STRIP OPEN YARD AREAS BOTANICAL NAME / COMMON NAME B & B |3"Cal ACE TRU | Acer truncatum / Shantung Maple ACE AR6 | Acer x freemanii 'Armstrong' / Armstrong Freeman Maple B & B | 3"Cal CER OKL | Cercis canadensis 'Oklahoma' / Oklahoma Redbud B & B | 3"Cal |Juniperus scopulorum 'Medora' / Medora Juniper Min. 8' Tall Juniperus virginiana 'Burkii' / Burk Red Cedar Min. 8' Tall B & B 3"Cal Taxodium distichum / Bald Cypress

SHRUBS	BOTANICAL NAME / COMMON NAME	SIZE	FIELD2	FIELD3	QTY	LANDSCAPE STRIP	OPEN YARD AREAS
BER AT3	Berberis thunbergii 'Atropurpurea Nana' / Dwarf Redleaf Japanses Barberry	2 gal			33		33
CAL KAR	Calamagrostis x acutiflora 'Karl Foerster' / Feather Reed Grass	2 gal			90	10	80
DEU NIK	Deutzia gracilis 'Nikko' / Slender Deutzia	2 gal			35		35
LIR VAR	Liriope muscari 'Variegata' / Variegated Lily Turf	4"pot			9	9	
PEN BUN	Pennisetum alopecuroides 'Little Bunny' / Little Bunny Fountain Grass	2 gal			18		18

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> #2003011262 LANDSCAPE

PLAN

1/2" EXPANSION JOINT FILLER

4" LEVELING COURSE

OF CLEAN CRUSHED ROCK

08 

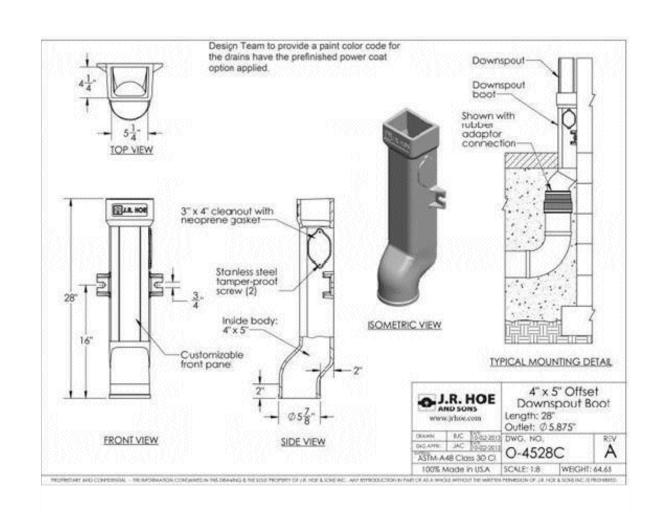
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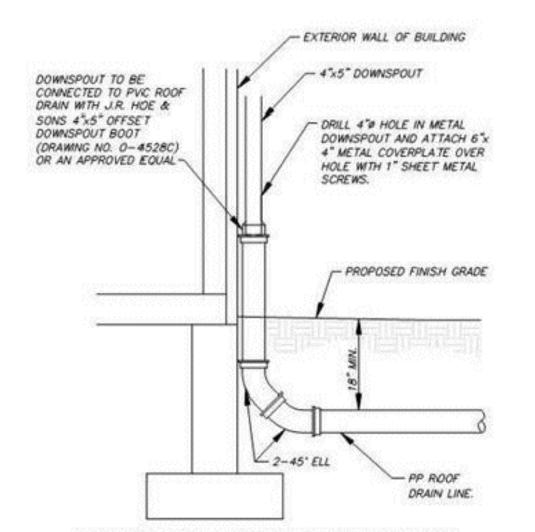
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SITE DETAILS

24" STONE RIPRAP. D50=24" FILTER FABRIC SUBGRADE

## RIPRAP PAD WITH FILTER FABRIC DETAIL

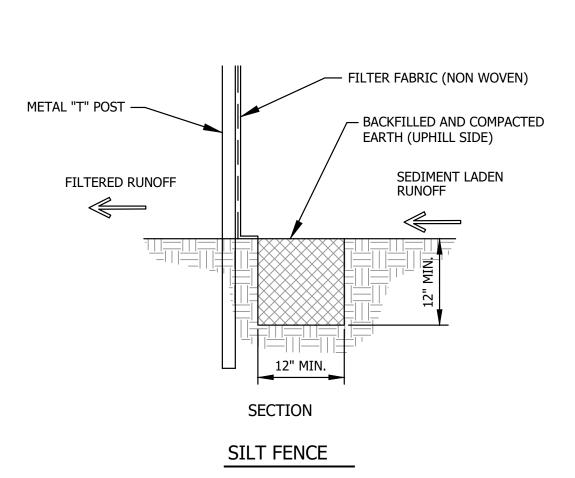




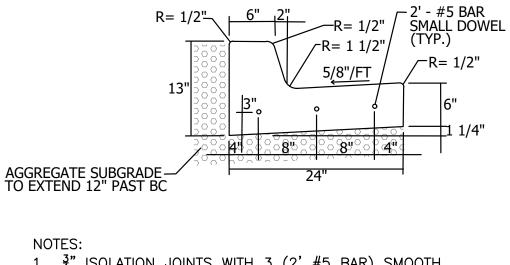
**DOWNSPOUT CONNECTION & DETAIL** 

NTS

NTS



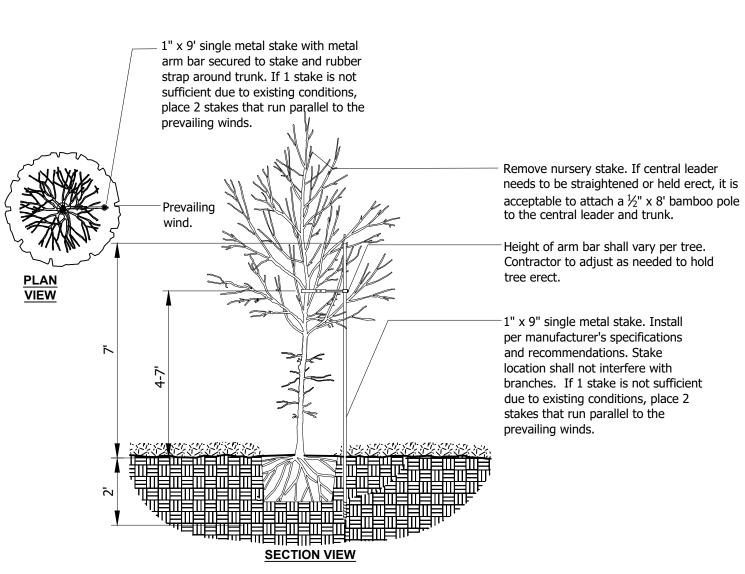
**EROSION CONTROL DETAILS** 



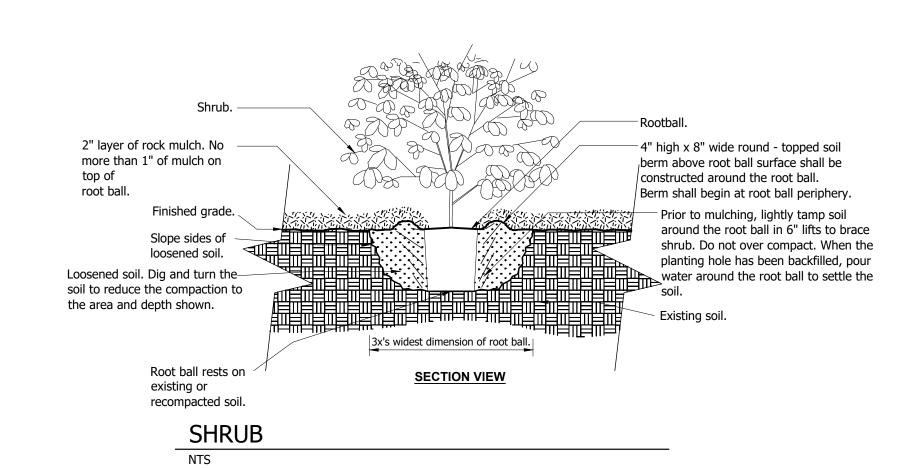
### 1. 3" ISOLATION JOINTS WITH 3 (2' #5 BAR) SMOOTH DOWELS SHALL BE PLACED AT RADIUS POINTS AND AT 150' INTERVALS. THESE DOWEL BARS SHALL BE GREASED AND WRAPPED ON ONE END WITH EXPANSION

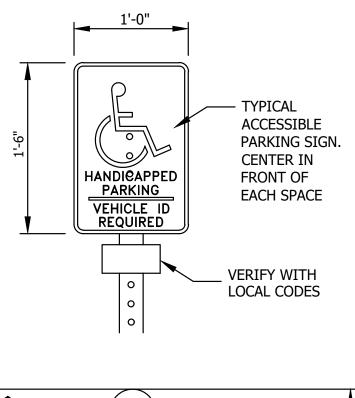
- 2. 3" DEEP CONTRACTION JOINTS SHALL BE INSTALLED AT APPROXIMATELY 10' INTERVALS. THESE JOINTS SHALL PASS ACROSS THE ENTIRE CURB SECTION. 3. CONCRETE FILL SHALL HAVE UNIFORM AND SMOOTH
- 4. KCMMB 4K CONCRETE SHALL BE USED FOR ALL CURB. 5. CURBS FOR NEW STREETS SHALL BE BUILT ON ASPHALT OR AGGREGATE BASE AS SHOWN IN TYPICAL
- SECTION DETAIL. 6. WHITE CURBING COMPOUND MUST BE APPLIED UNIFORMLY TO THE CONCRETE SURFACE IMMEDIATELY AFTER FINAL FINISHING.

### STRAIGHT BACK CURB & GUTTER- TYPE C-1 NTS

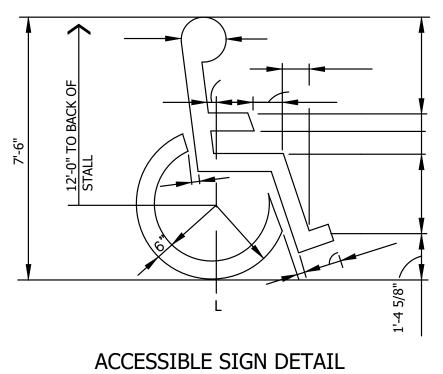


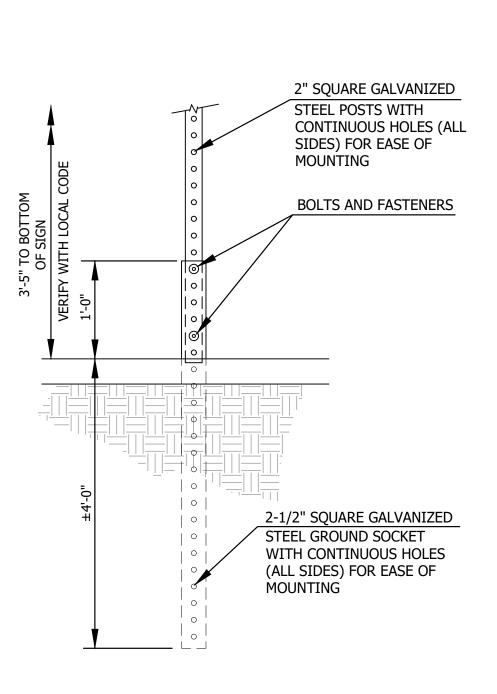
TREE STAKING - SINGLE METAL STAKE





6





SIGN POST SLEEVE SUPPORT

PROVIDE ROCKER ROD SEALANT TO ± 3/8" BELOW SURFACE 1/2" EXPANSION JOINT FILLER TOOL JOINT 1/4" DEPTH OF CONCRETE 4" CONCRETE PAVEMENT X 1/4" WIDE WITHIN 24 HOURS OF POUR. FILL WITH SEALANT. COMPACTED SUBGRADE 4" SUBGRADE COMPACTION EARTH: 95% STANDARD PROCTOR DENSITY WITH OPTIMAL MOISTURE (+0% TO +4%) NOTE: CONTRACTOR TO PROVIDE PAVEMENT JOINTING PLAN FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION. PLACE EXPANSION JOINT BETWEEN ALL NEW SIDEWALKS AND

NOTE: CONTRACTOR TO OBTAIN COPY OF GEOTECHNICAL REPORT COMPLETED BY

TERRACON PROJECT NUMBER: 02185145

PAVEMENT AND BUILDING DETAILS.

PROVIDE ROCKER ROD SEALANT TO

± 3/8" BELOW SURFACE

TOOL JOINT 1/4" DEPTH OF CONCRETE

6" SUBGRADE COMPACTION EARTH:

X 1/4" WIDE WITHIN 24 HOURS OF

POUR. FILL WITH SEALANT.

TERRACON ON JUNE 4, 2018 BEFORE. REFER

TO GEOTECHNICAL RECOMMENDATIONS FOR

COMPACTED SUBGRADE

98% STANDARD PROCTOR DENSITY #4 REBAR @ 18" O.C.

WITH OPTIMAL MOISTURE (+0% TO OR FIBER REINFORCED

NOTE: CONTRACTOR TO CALCULATE AMOUNT

7" REINFORCED CONCRETE

OF FIBER FOR 7" REINFORCED CONCRETE.

\* SLOPE 1/4" PER FT.

4" MIN. CLASS "A"

CONCRETE SIDEWALK SECTION

SO DIRECTED BY THE ENGINEER

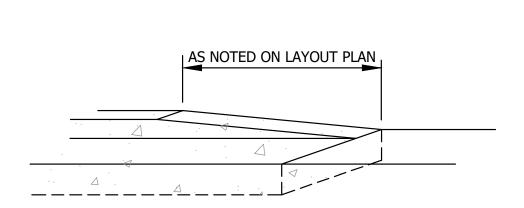
AIR-ENTRAINED CONCRETE

\* SLOPE DOWNWARD FROM THE CURB WITH THE SAME MIN. & MAX. SLOPE LIMITS AT LOCATIONS SHOWN ON PLANS OR WHERE

EXISTING PAVEMENT, SIDEWALK, CURB AND GUTTER OR BUILDING FACE. ALL JOINTS SHALL HAVE 4" (2" EACH SIDE JOINT) "WINDOW PANE" STRIP SMOOTH

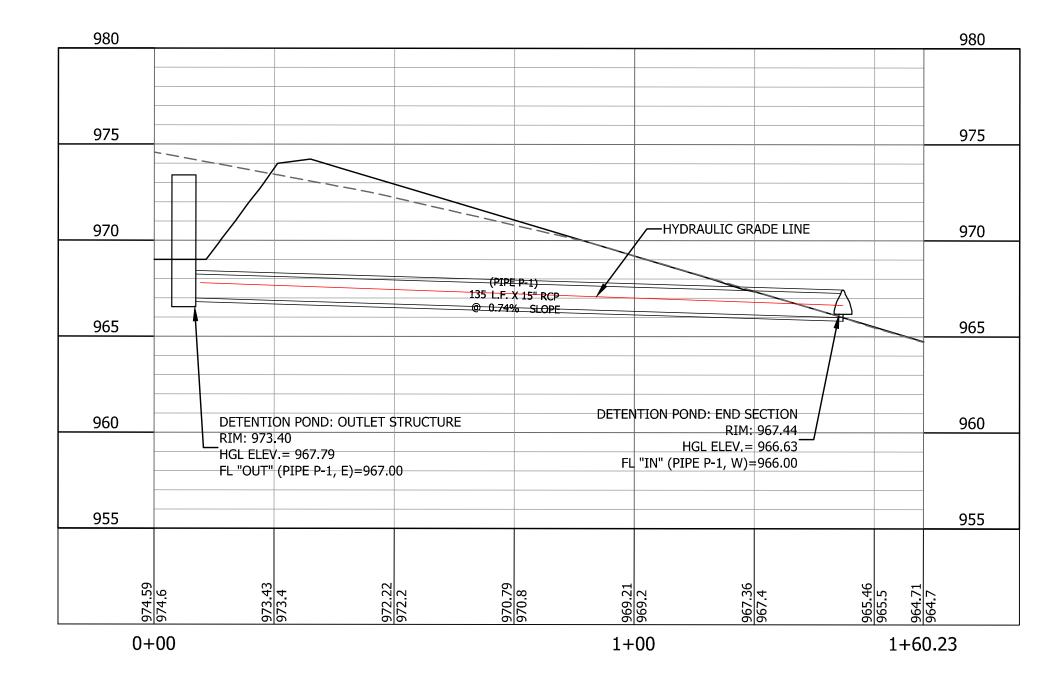
FINISH WITH BROOM FINISH ON REMAINING CONCRETE, EXCEPT WHERE NOTED OTHEWISE.

4" CONCRETE SIDEWALK

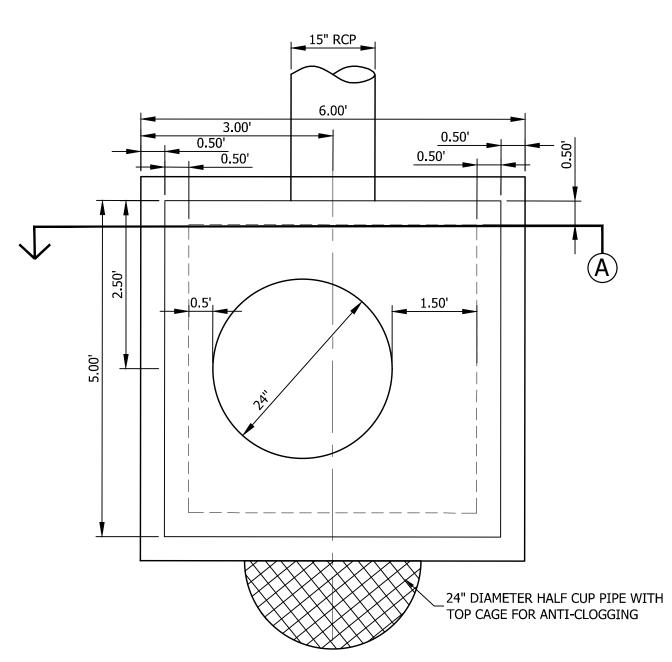


**CURB TRANSITION** 

### DETENTION POND: PIPE P-1 PLAN VIEW



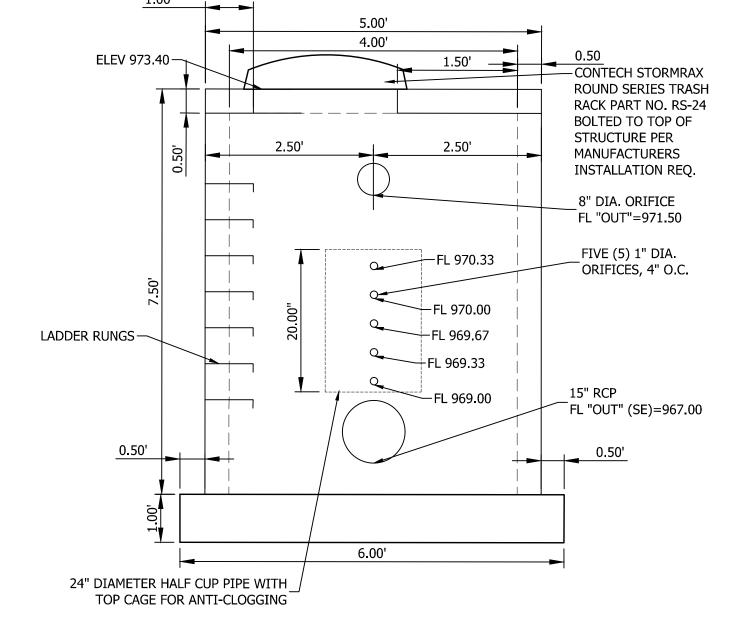
## DETENTION POND: PIPE P-1 PROFILE



DETENTION POND: OUTLET STRUCTURE PLAN VIEW

12/1/2017 2:17:26 PM M:\2017\17016 - Lee's Summit Fire Station 3\1 - Drawings\1701( preliminary design plan.rvt

NTS



## DETENTION POND: OUTLET STRUCTURE SECTION VIEW



- 1. ANY PIPE LENGTHS SHOWN ON PLAN WILL BE FROM CENTER POINT OF STRUCTURE TO CENTER POINT OF STRUCTURE.
- 2. CONTRACTOR SHALL BE RESPONSIBLE FOR RECORDING AS-BUILT LOCATIONS AND ELEVATIONS OF ALL SERVICES. RECORD DRAWINGS SHALL BE MAINTAINED BY CONTRACTOR AND KEPT UP TO DATE AS CONSTRUCTION PROGRESSES. ORIGINAL RECORD DRAWINGS SHALL BE PROVIDED TO ENGINEER UPON COMPLETION OF CONSTRUCTION.
- 3. INTAKE GRATES SHALL BE SET TO FINISHED PAVEMENT OR GROUND ELEVATIONS.
- 4. ALL STORM SEWER PIPE AND DRAINAGE STRUCTURE WORK SHALL BE DONE IN ACCORDANCE WITH ALL PERTAINING CITY AND STATE CODES, STANDARDS, ORDINANCES, & REQUIREMENTS IN PLACE AT TIME OF PLAN APPROVAL.
- 5. STORM SEWER MANHOLES STANDARD PRECAST CONCRETE 48" DIA. MANHOLES AS APPROVED BY THE CITY ENGINEERING SERVICES DEPARTMENT. PROVIDE STANDARD FRAME AND LID PER CITY.
- 6. CURB INTAKES ARE STANDARD CURB INTAKES AT A LOW POINT AS APPROVED BY THE CITY ENGINEERING SERVICES DEPARTMENT. RISER TO BE 48" DIA,
- 7. PROVIDE 15 TONS OF 8"-12" RIP RAP, 15" THICK OVER GEOGRID, CHANNELED IN PLACE AT STORM SEWER OUTLET PIPES INTO DETENTION BASIN
- 8. PROVIDE FOOTING AT DISCHARGE POINT OF FES 12"x36"xWIDTH OF FES WITH 2-#\$ TOP AND BOTTOM.

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# LEE'S SUMMIT, MO 64

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#2003011262 OUTLET STRUCTURE

DETENTION POND OUTLET STRUCTURE -TRASH RACK

ROUND SERIES TRASH RACKS

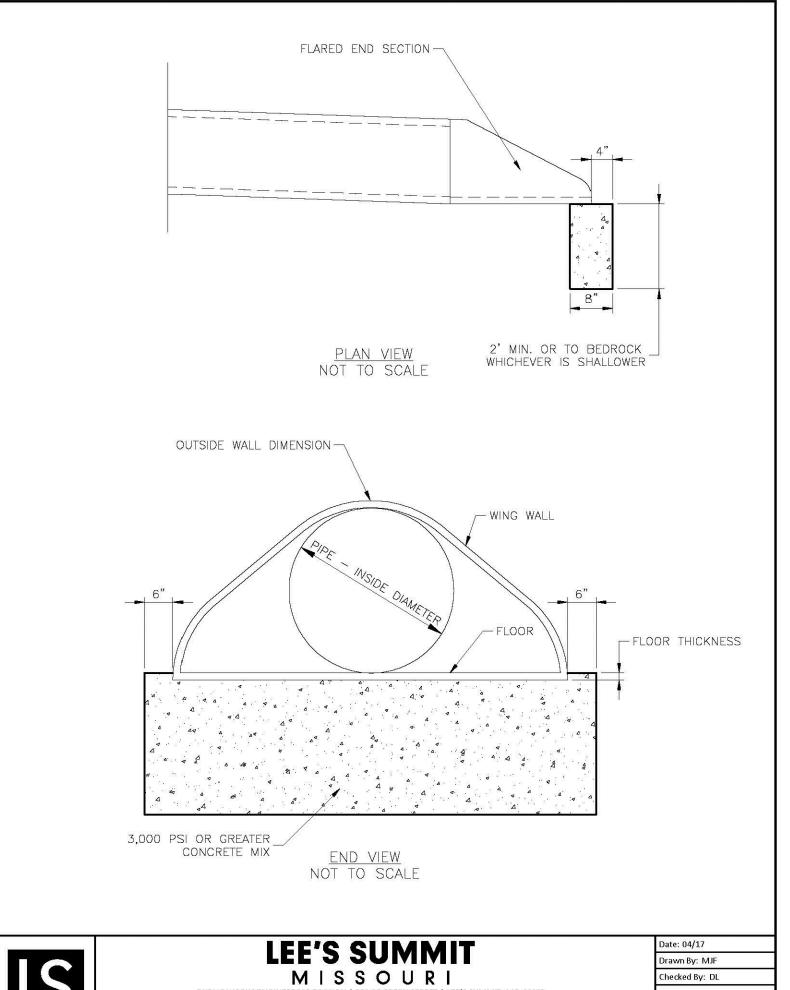
12"ø-18"ø | 17 1/3" | 13 1/3" | 7 3/4" | 6 1/4" | 6 1/4" | 27 1/2" | 6 1/4" | 7 1/2"

PLAN VIEW

RISER CONCRETE INSIDE | CMP OR HDPE

NTS

PART NO.



— 2'-0 5/16"-

—1'-10 9/16" —

SLAB MANHOLE FRAME LEE'S SUMMIT PART NO.: LS103A MINIMUM WEIGHT = 145 LB

— 2'-0 5/16"-

-1' -10 9/16"*-*

— 2'-9 1/2"-

STANDARD 24" MANHOLE FRAME

LEE'S SUMMIT PART NO.: LS101A

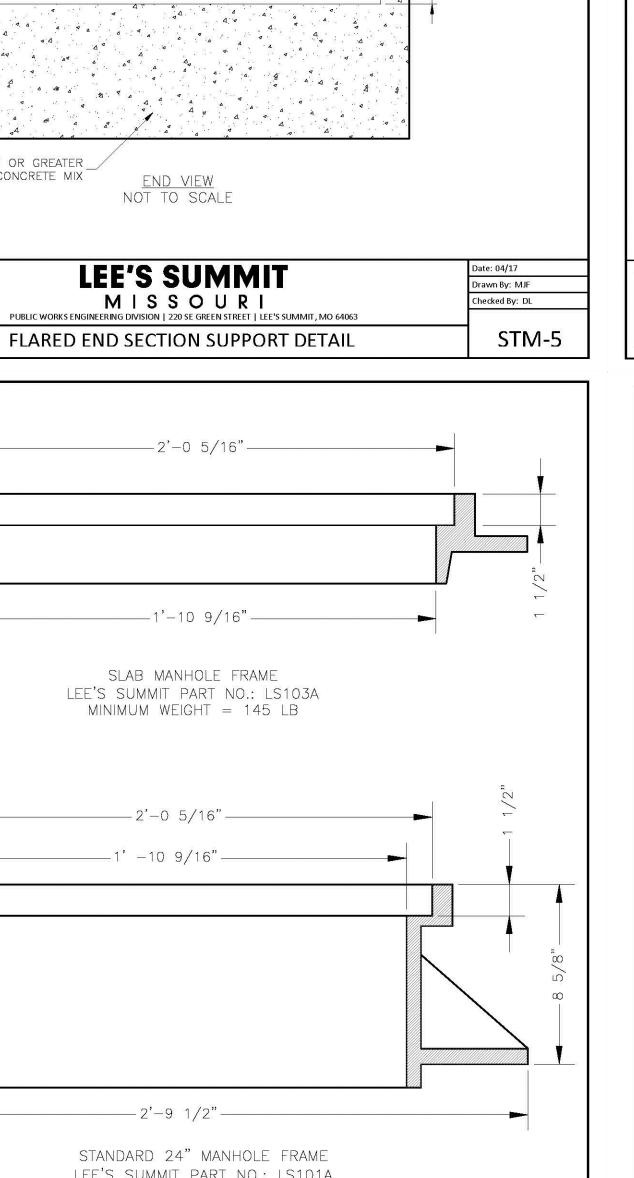
MINIMUM WEIGHT = 250 LB

\*COVER AND FRAME MODEL INFORMATION REFER TO THE STORMWATER APPROVED PRODUCTS LIST.

**LEE'S SUMMIT** 

MISSOURI

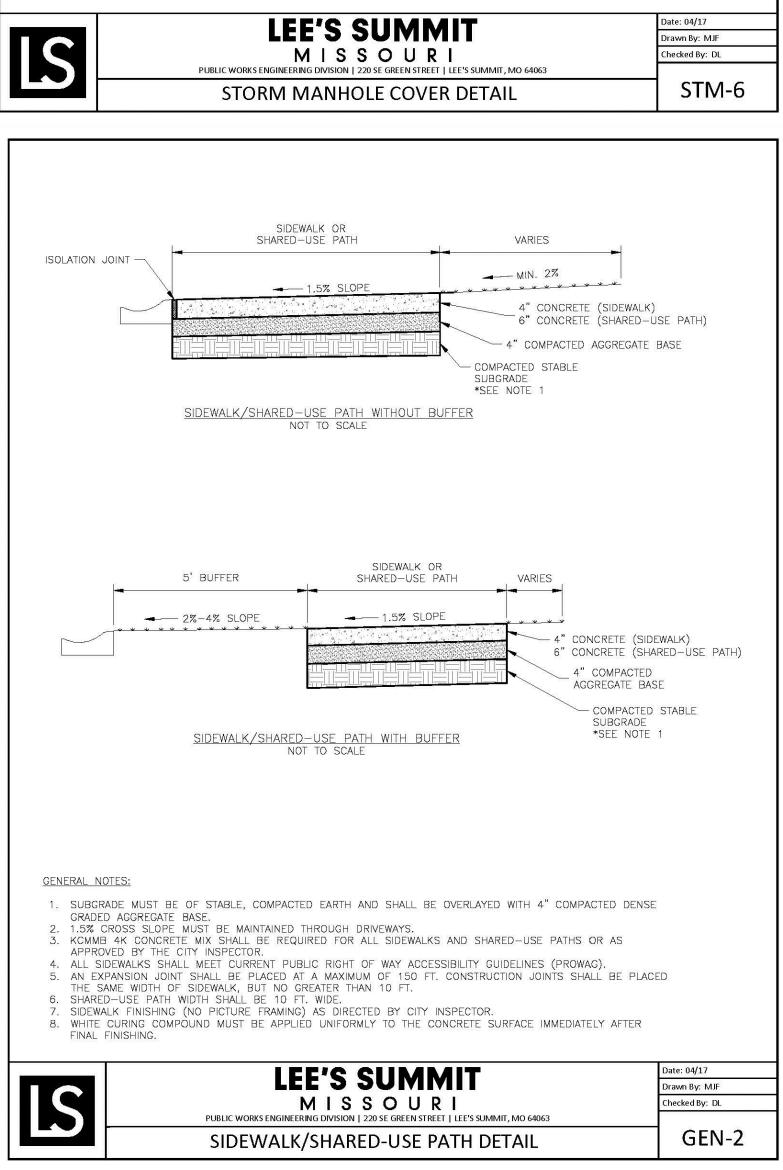
STORM MANHOLE FRAME DETAIL



Drawn By: MJF

ecked By: DL

STM-7



STANDARD 24" MANHOLE COVER MINIMUM WEIGHT = 160 LB NOTE: PICK HOLES NOT SHOWN

\*COVER AND FRAME MODEL INFORMATION REFER TO THE STORMWATER APPROVED PRODUCT LIST.

8 7

1-1/2" LETTERS— EQUÁLLY SPACED

- 3" LETTERS

EQUALLY PLACED



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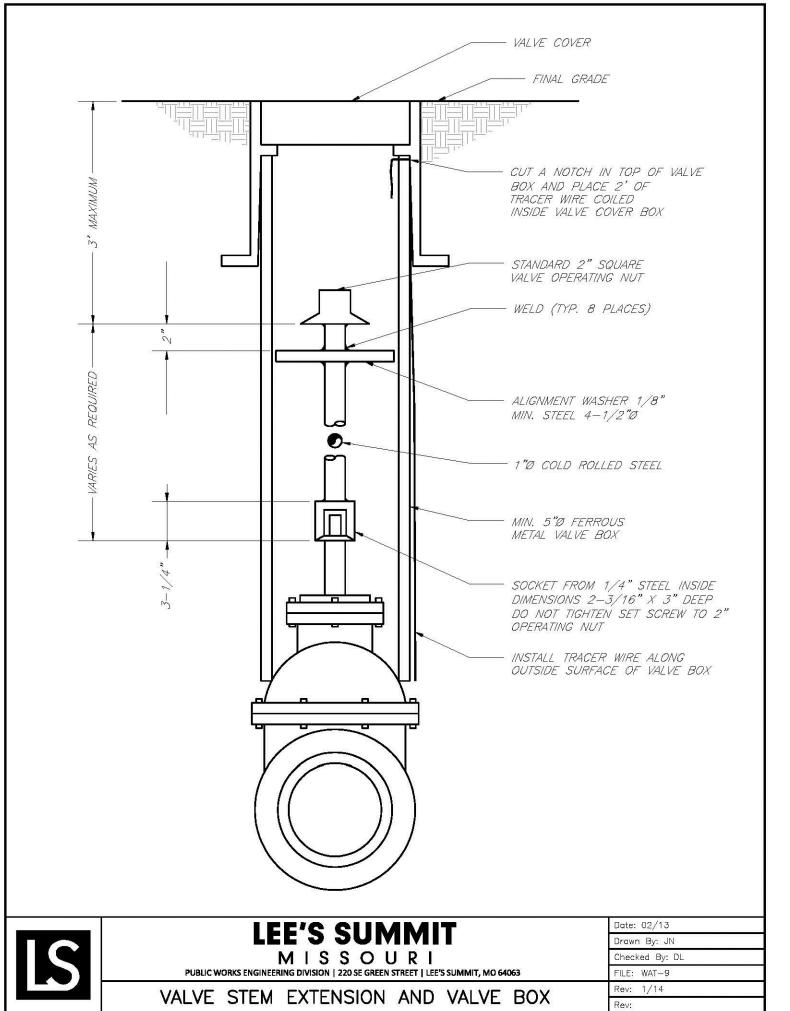
08 S SUMMIT, MO 6 Williams

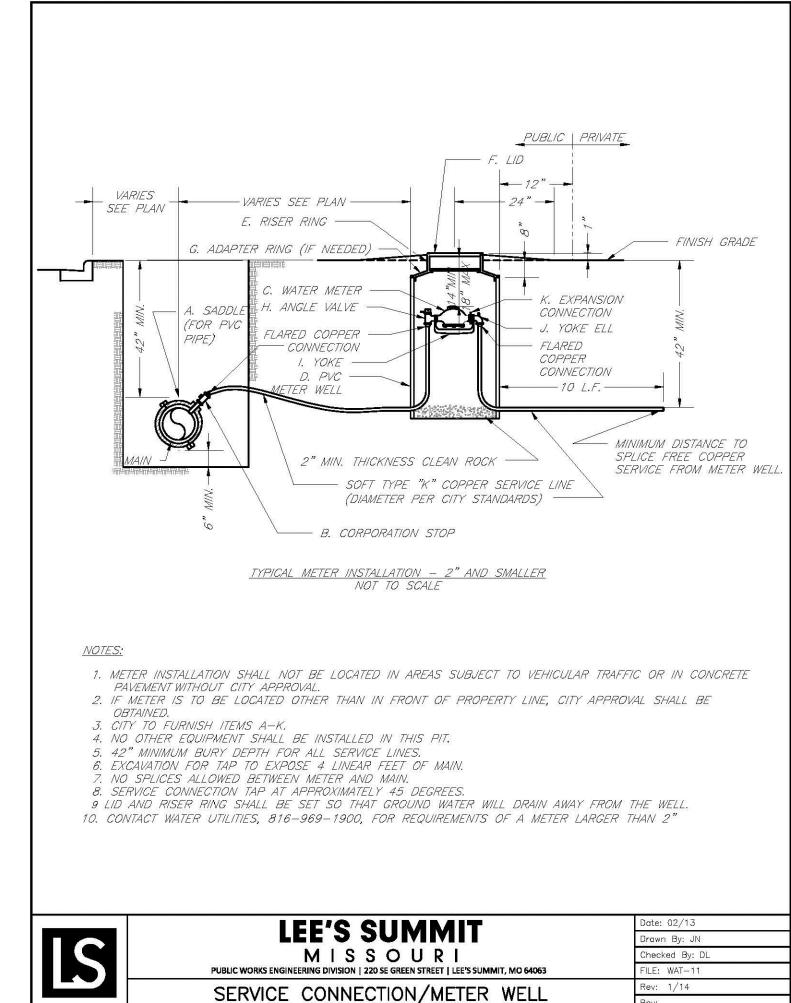
#2003011262 CITY STANDARD **DETAILS** 

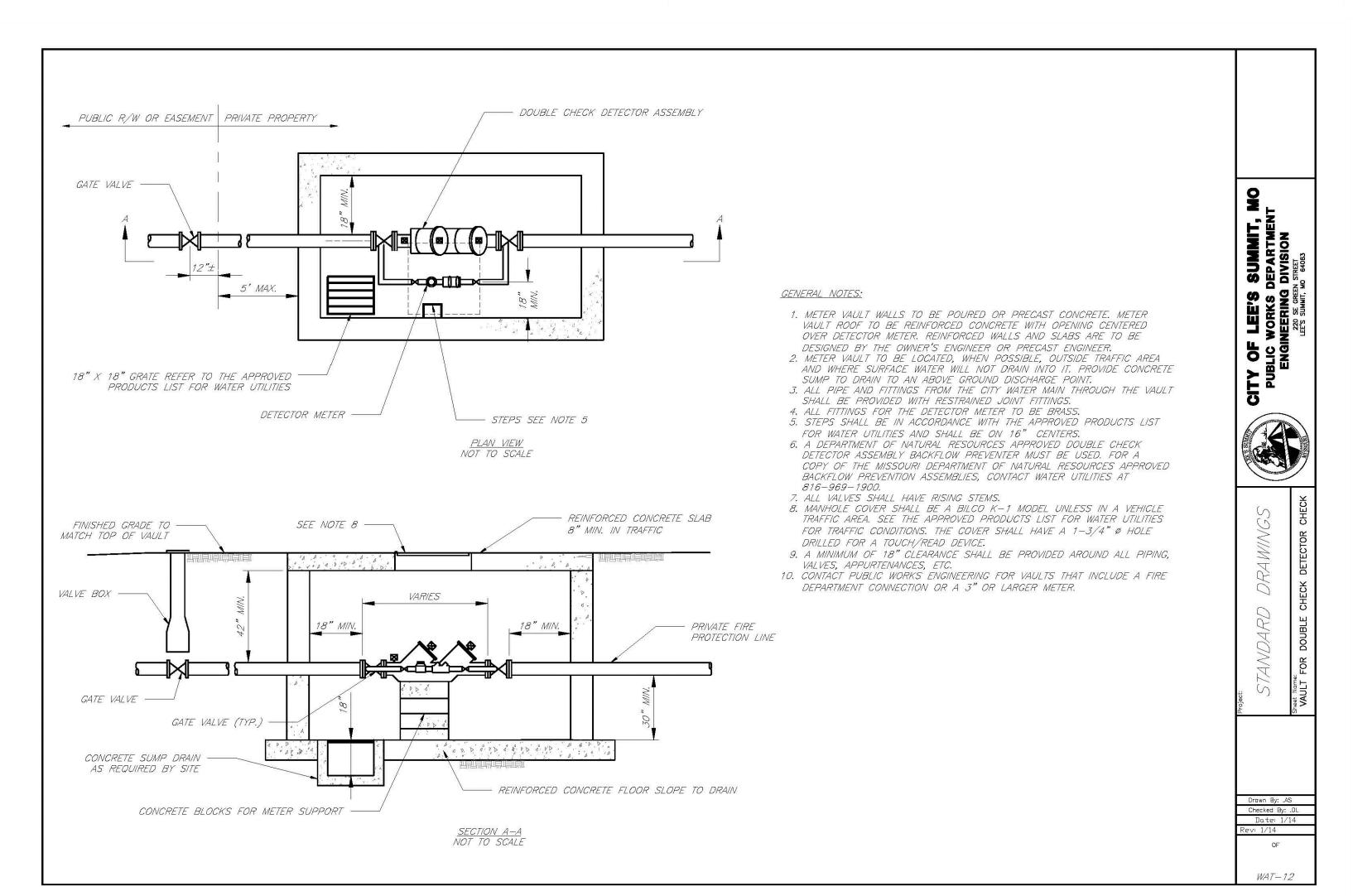
Architects, Inc.

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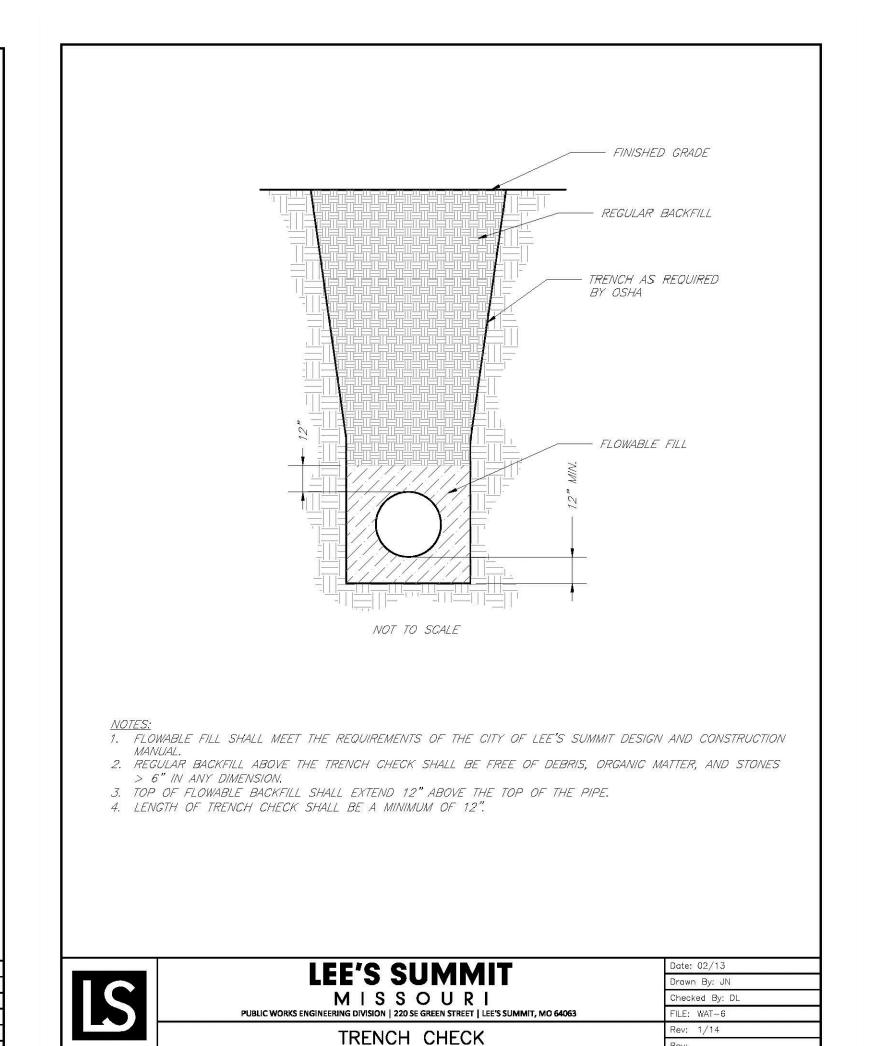
Spurgeon

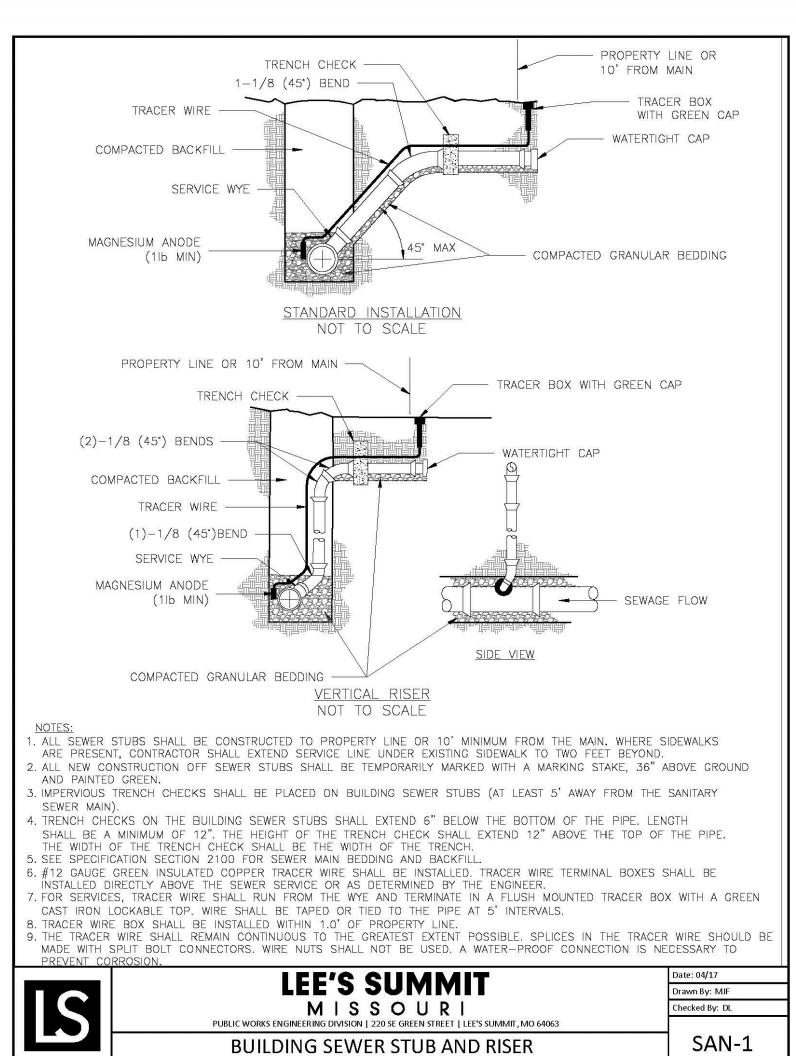






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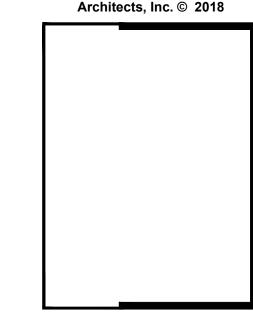






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- 17016 ISSUE DATE
- 06/14/2018 REVISIONS

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LEE'S SUMMIT, MO 64081

Freshnock

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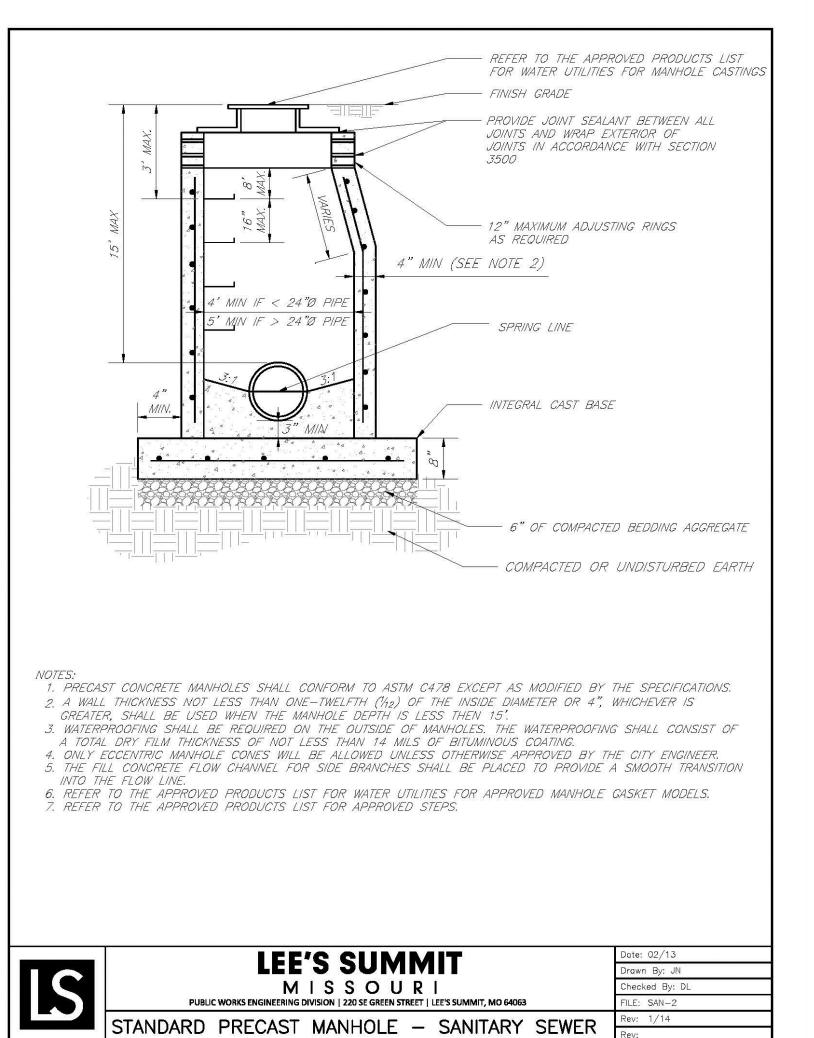
#2003011262

Williams

Spurgeon

CITY STANDARD
DETAILS

C10.1



NEW MANHOLE

EXISTING MANHOLE

**LEE'S SUMMIT** 

MISSOURI

MANHOLE WALL CONNECTIONS

REFER TO THE APPROVED PRODUCTS LIST FOR WATER UTILITIES FOR FLEXIBLE PIPE-TO-MANHOLE CONNECTORS/GASKETS

CAST INTO THE PRECAST WALL STRUCTURE.

- EXISTING MH WALL

BOOT SYSTEM

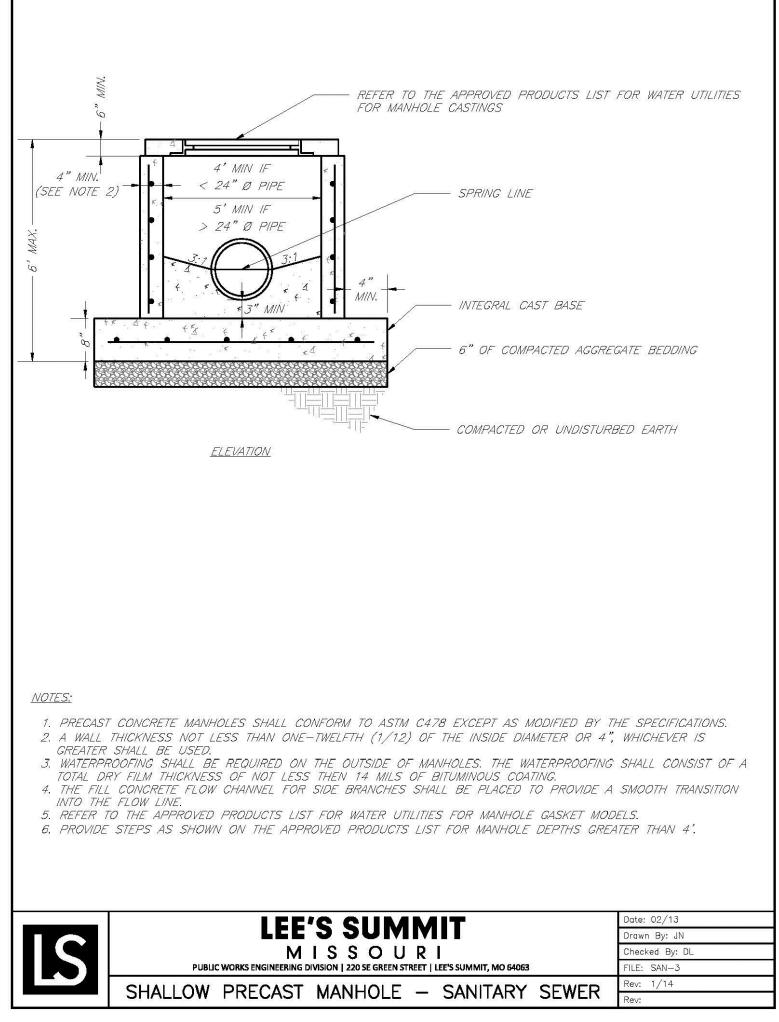
REFER TO THE APPROVED PRODUCTS LIST FOR WATER UTILITIES FOR FLEXIBLE

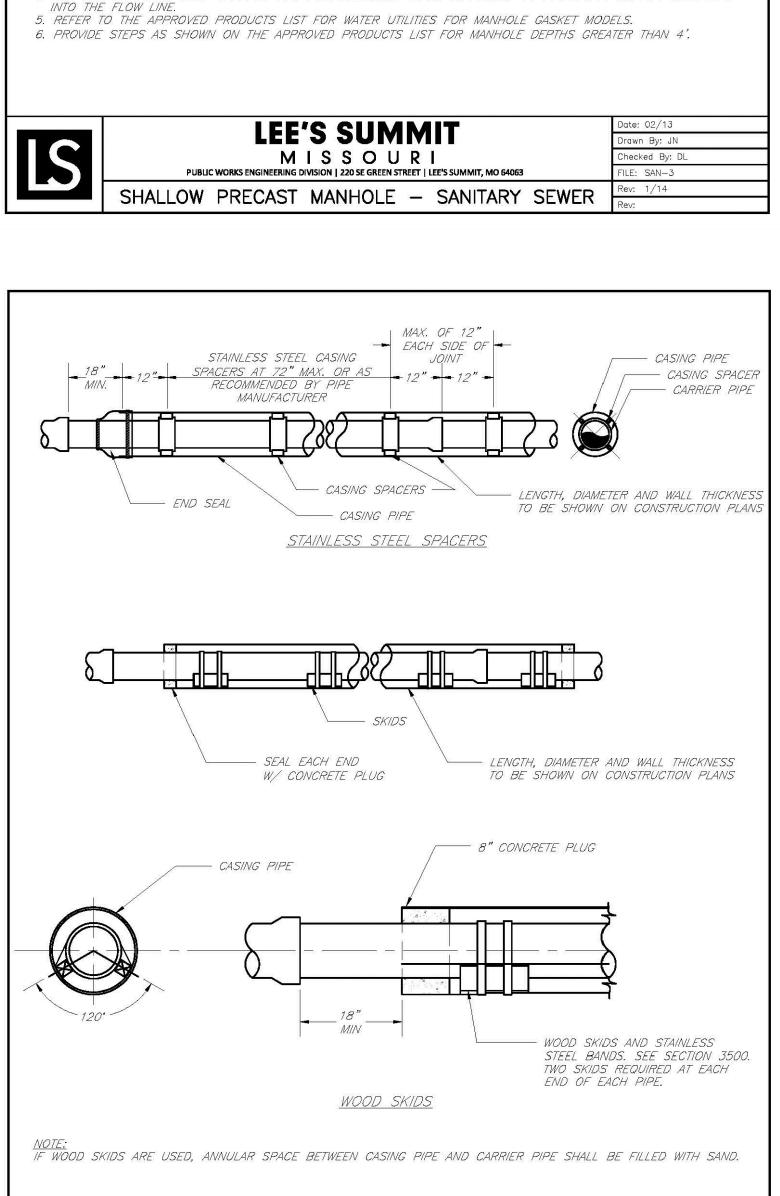
PIPE-TO-MANHOLE CONNECTORS/GASKETS

Drawn By: JN

Checked By: DL

ILE: SAN-5





**LEE'S SUMMIT** 

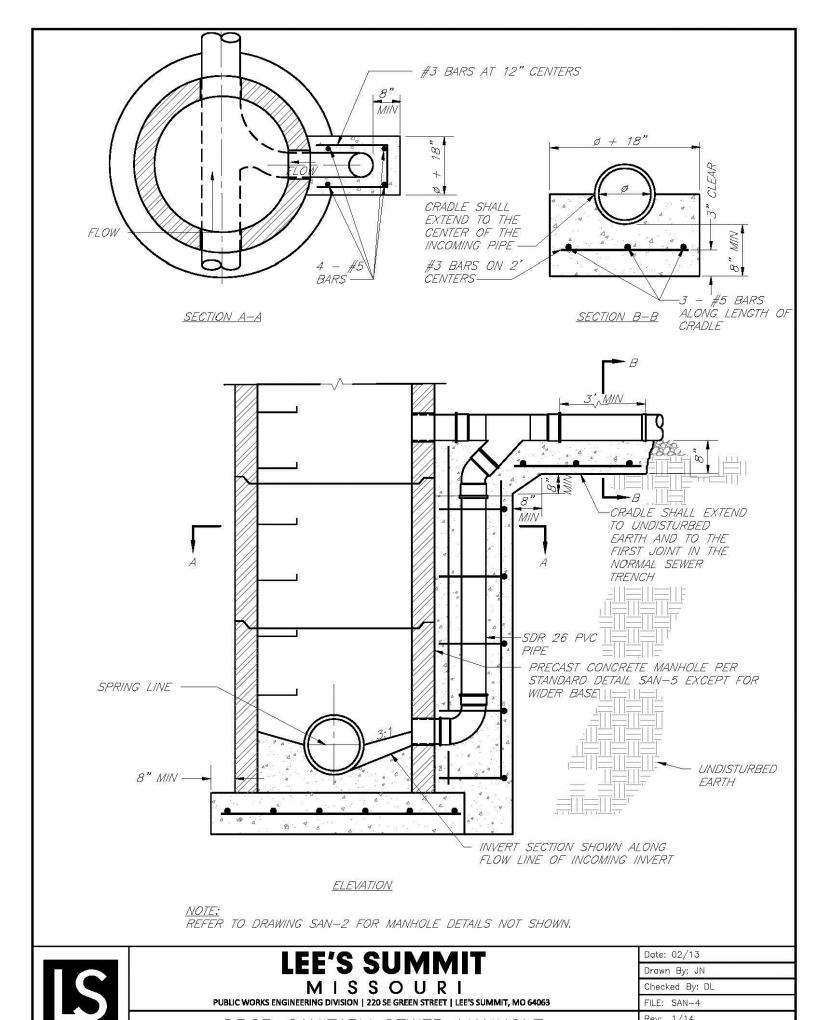
M I S S O U R I
PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64063

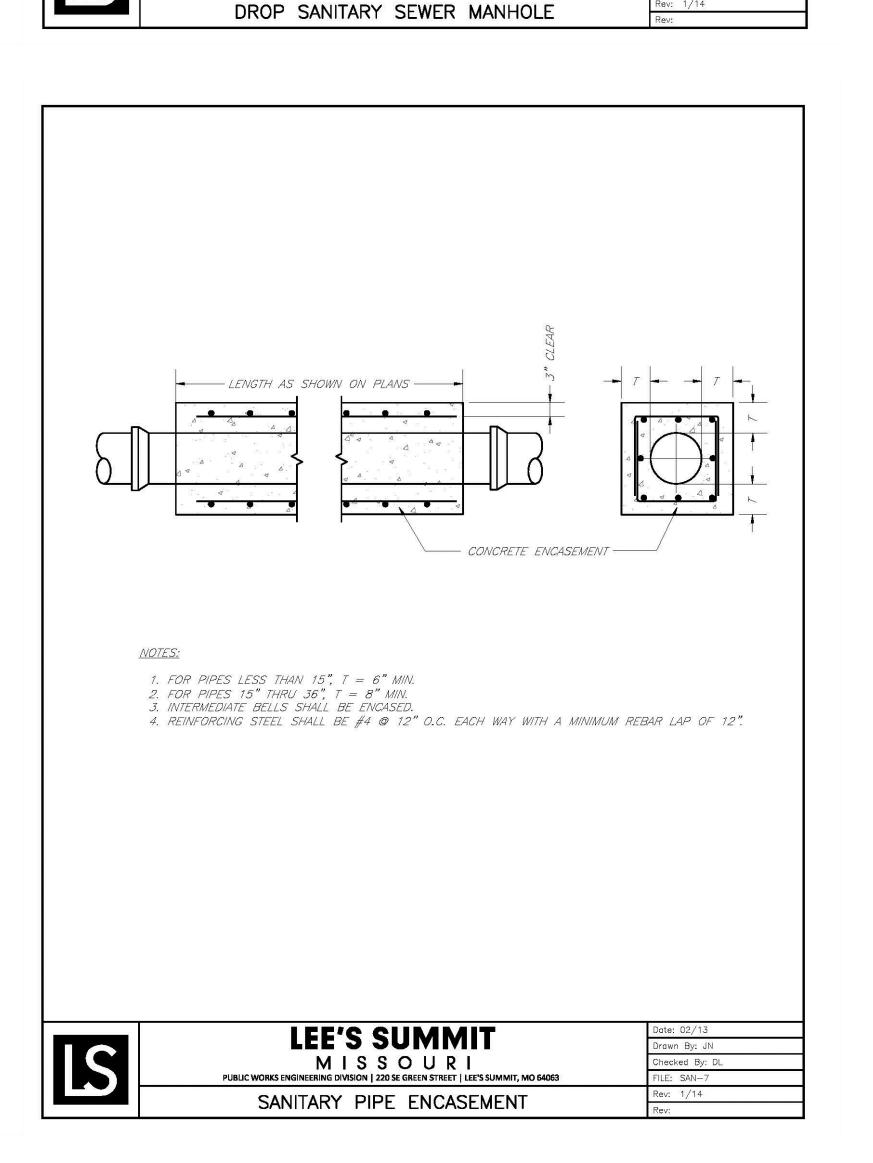
CASING PIPE DETAIL

ecked By: DL

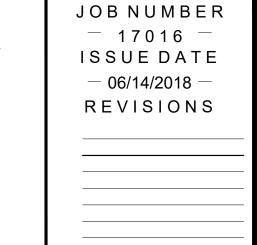
: SAN-6

ev: 1/14

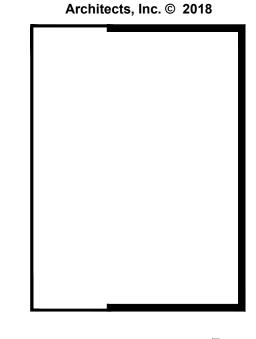








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CITY STANDARD DETAILS

C10.2

FLOWLINE OF -

TOP OF MH BASE ---

CORE DRILL TO REQ'D -

OPENING FOR PIPE & GASKET

FLOWLINE CONCRETE INVERT ---

TOP OF MH BASE -

CONCRETE INVERT