MINIMUM SERVICEABLE FLOOR

REINFORCED CONCRETE PIPE

SANITARY SEWER EASEMENT

- WATER SURFACE ELEVATION

**ASPHALT PAVEMENT - EXISTING** 

**ASPHALT PAVEMENT - PROPOSED** 

CONCRETE PAVEMENT - EXISTING

ASPHALT PAVEMENT - EXISTING

CONCRETE SIDEWALK - EXISTING

CONCRETE SIDEWALK - PROPOSED

CURB & GUTTER - EXISTING

EXISTING LOT AND R/W LINES

**EXISTING PLAT LINES** 

— SANITARY SEWER MAIN

STORM SEWER - EXISTING

—— SANITARY SEWER MAIN - EXIST

FIBER OPTIC CABLE - EXISTING

---- OHP<sub>y</sub> ---- OVERHEAD POWER LINE - EXIST

----- UGE<sub>x</sub> ----- UNDERGROUND ELECTRIC - EX.

LIGHT - EXISTING

**EXISTING MANHOLE** 

EXISTING AREA INLET

**EXISTING CURB INLET** 

EXISTING GRATE INLET **EXISTING JUNCTION BOX** 

**EXISTING STORM MANHOLE** 

EXISTING SANITARY MANHOLE

PROPOSED SANITARY MANHOLE

WATERLINE EASEMENT

**ELEVATION** 

ROW or R/W - RIGHT-OF-WAY

POLYVINYL CHLORIDE

PROPERTY LINE PUBLIC EASEMENT

SERVICE LINE

- TOP ELEVATION

UTILITY EASEMENT

- SIDEWALK

CURB & GUTTER

TREELINE

—— STO—— STORM SEWER

---- CATV<sub>x</sub> ---- CABLE TV - EXISTING

Tyle="text-align: center;">——Tyle== TELEPHONE LINE - EXIST.

GAS LINE - EXISTING

——W<sub>x</sub> — WATERLINE - EXISTING

CLEANOUT

NW1/4 IVE -- WOODS CHAPEL ROAD **SECTION 9-48-31** 

**LOCATION MAP** SCALE 1" = 2000'

# **UTILITY CONTACTS**

MISSOURI DEPARTMENT OF TRANSPORTATION (MODOT) Steve Holloway

600 NE Colbern Road Lee's Summit, MO 64086 (816) 607-2186

MISSOURI GAS ENERGY (MGE) **Brent Jones** 3025 SE Clover Drive

Lee's Summit, MO 64082 (816) 399-9633 brent.jones@spireenergy.com

**EVERGY** (formerly KCP&L) Gary Jones Gary.Jones@evergy.com

CITY OF LEES SUMMIT PUBLIC WORKS Michael Park

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

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

**COMCAST CABLE** Barbara Brown 3400 W. Duncan Road Blue Springs, MO 64015

(816) 795-2255

(816) 969-1900

PUBLIC WATER SUPPLY DISTRICT Mark Schaufler 220 SE Green Street Lee's Summit, MO 64063

# **GENERAL NOTES**

**GRADING/EARTHWORK NOTES:** 

RECOMMENDED THICKNESS AND SUBGRADE TREATMENTS.

FORM TO THE OWNER AND PROJECT ENGINEER.

RECOMMENDATIONS IN GEOTECHNICAL REPORT ARE FOLLOWED.

OF THE GEOTECHNICAL ENGINEER AND THE GEOTECHNICAL REPORT.

ADDITIONAL MONEY WILL BE PAID FOR HAUL-IN OR HAUL-OFF MATERIAL.

- ALL CONSTRUCTION TO FOLLOW THE CITY OF LEE'S SUMMIT DESIGN AND CONSTRUCTION MANUAL AS
- ALL WORKMANSHIP AND MATERIALS SHALL BE SUBJECT TO THE INSPECTION AND APPROVAL OF THE
- ENGINEERING DEPARTMENT OF THE CITY OF LEE'S SUMMIT. MISSOURI LINEAL FOOT MEASUREMENTS SHOWN ON THE PLANS ARE HORIZONTAL MEASUREMENTS. NOT SLOPE
- MEASUREMENTS. ALL PAYMENTS SHALL BE MADE ON HORIZONTAL MEASUREMENTS. NO GEOLOGICAL INVESTIGATION HAS BEEN PERFORMED ON THE SITE THE UTILITY LOCATIONS SHOWN ON THESE PLANS ARE TAKEN FROM UTILITY COMPANY RECORDS AND
- THE CONTRACTOR SHALL ADHERE TO THE PROVISIONS OF THE SENATE BILL NUMBER 583, 78TH GENERAL ASSEMBLY OF THE STATE OF MISSOURI. THE BILL REQUIRES THAT ANY PERSON OR FIRM DOING EXCAVATION ON PUBLIC RIGHT OF WAY DO SO ONLY AFTER GIVING NOTICE TO, AND OBTAINING CALL SYSTEM, INC.": 1-800-DIG-RITE. THIS PHONE NUMBER IS APPLICABLE ANYWHERE WITHIN THE STATE OF

MISSOURI. PRIOR TO COMMENCEMENT OF WORK, THE CONTRACTOR SHALL NOTIFY ALL THOSE COMPANIES

- WHICH HAVE FACILITIES IN THE NEAR VICINITY OF THE CONSTRUCTION TO BE PERFORMED. PRIOR TO ORDERING PRECAST STRUCTURES, SHOP DRAWING SHALL BE SUBMITTED TO THE DESIGN
- BY THE CONTRACTOR IN STRICT ACCORDANCE WITH ALL LOCAL CODES AND ORDINANCES.
- ALL WASTE MATERIAL RESULTING FROM THE PROJECT SHALL BE DISPOSED OF OFF-SITE BY THE
- THE CONTRACTOR SHALL CONTROL THE EROSION AND SILTATION DURING ALL PHASED OF CONSTRUCTION
- AND SHALL KEEP THE STREETS CLEAN OF MUD AND DEBRIS. ALL MANHOLES. CATCH BASINS. UTILITY VALVES AND METER PITS TO BE ADJUSTED OR REBUILT TO GRADE
- SUCH OPERATIONS, A SEAL COURSE OF EITHER CONCRETE OR ROCK SHALL BE PLACED BELOW SUBGRADE TO PROVIDE A FIRM BASE FOR WORKING AND FOR PLACING THE FLOOR SLAB.
- THE CONTRACTOR SHALL CONTACT PUBLIC WORKS INSPECTIONS AT: 816-969-1800 TO OBTAIN A PUBLIC WORKS CONSTRUCTION PERMIT. A MINIMUM 48 HOUR NOTICE SHALL BE GIVEN PRIOR TO PERMIT ISSUANCE.
- 16. THE CONTRACTOR SHALL CONTACT THE CITY'S EROSION CONTROL SPECIALIST AT: 816-969-1800 PRIOR TO ANY LAND DISTURBANCE.
- 17. THE CONTRACTOR SHALL CONTACT THE RIGHT OF WAY INSPECTOR AT 816-969-1800 PRIOR TO ANY LAND DISTURBANCE ACTIVITIES WITHIN THE RIGHT OF WAY. THESE ACTIVITIES MAY REQUIRE A PERMIT. 18. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN ALL TRAFFIC HANDLING MEASURES NECESSARY TO ENSURE THAT THE GENERAL PUBLIC IS PROTECTED AT ALL TIMES. TRAFFIC CONTROL SHALL CONFORM TO
- THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD-LATEST EDITION). 19. ALL SANITARY SEWER LATERALS SHALL HAVE A TRENCH CHECK, CONSISTING OF FLOWABLE BACKFILL, INSTALLED DURING CONSTRUCTION. TRENCH CHECK SHALL EXTEND TO BOTTOM OF TRENCH, TO WIDTH OF TRENCH, TO 12 INCHES ABOVE PIPE, FOR A MINIMUM LENGTH OF 12 INCHES. TRENCH CHECK SHALL BE LOCATED AT LEAST 5 FEET FROM SANITARY MAIN.

1. REFER TO GEOTECHNICAL REPORT FOR ALL COMPACTION REQUIREMENTS AND ASPHALT AND CONCRETE

3. PRIOR TO PLACEMENT OF PAVEMENT, GEOTECHNICAL ENGINEER MUST APPROVE SUBGRADE IN WRITTEN

EXISTING TOPOGRAPHY SHOWN AS ESTABLISHED FROM AERIAL PHOTOGRAMMETRY AND FIELD, SPOT CHECKED BY SCHLAGEL AND ASSOICATES, P.A.,. CONTRACTOR TO FIELD VERIFY ELEVATIONS. NO

4. ALL UTILITY INSTALLATIONS UNDER PAVED AREAS MUST BE COMPACTED AS PER THE RECOMMENDATIONS

2. RECOMMEND A GEOTECHNICAL ENGINEER REVIEW ALL EARTHWORK ACTIVITY TO MAKE SURE

ALL CONSTRUCTION SHALL COMPLY WITH THE CITY OF LENEXA TECHNICAL SPECIFICATIONS.

# **EARTHWORK**:

FINAL DEVELOPMENT PLANS

**LAKEWOOD BUSINESS PARK - LOT 35** 

IN THE CITY OF LEE'S SUMMIT

JACKSON COUNTY, MISSOURI

- 1. IT IS RECOMMENDED THAT A GEOTECHNICAL ENGINEER OBSERVE AND DOCUMENT ALL EARTHWORK
- OF COMPLETING THE EARTHWORK REQUIRED TO BRING THE PHYSICAL GROUND ELEVATIONS OF THE EXISTING SITE TO THE FINISHED GRADE (OR SUB-GRADE) ELEVATIONS PROVIDED ON THE PLANS AS SPOT GRADES, CONTOURS OR OTHERS MEANS AS INDICATED ON THE PLANS.
- THE EXISTING SITE TOPOGRAPHY DEPICTED ON THE PLANS BY CONTOURING HAS BEEN ESTABLISHED BY AERIAL PHOTOGRAPHY AND FIELD VERIFIED BY G.P.S. OBSERVATION NEAR JULY 18TH, 2016. THE CONTOUR ELEVATIONS PROVIDED MAY NOT BE EXACT GROUND ELEVATIONS. BUT RATHER INTERPRETATIONS OF SUCH, ACCURACY SHALL BE CONSIDERED TO BE SUCH THAT NOT MORE THAN 10 PERCENT OF SPOT ELEVATION CHECKS SHALL BE IN ERROR BY MORE THAN ONE-HALF THE CONTOUR INTERVAL PROVIDED, AS DEFINED BY THE NATIONAL MAP ACCURACY STANDARDS. ANY QUANTITIES PROVIDED FOR EARTHWORK VOLUMES ARE ESTABLISHED USING THIS TOPOGRAPHY CONTOUR ACCURACY, AND THEREFORE THE INHERENT ACCURACY OF ANY EARTHWORK QUANTITY IS ASSUMED FROM THE TOPOGRAPHY ACCURACY
- UNLESS OTHERWISE NOTED, PAYMENT FOR EARTHWORK SHALL INCLUDE BACKFILLING OF THE CURB AND GUTTER, SIDEWALK AND FURTHER MANIPULATION OF UTILITY TRENCH SPOILS. THE SITE SHALL BE LEFT IN A MOWABLE CONDITION AND POSITIVE DRAINAGE MAINTAINED THROUGHOUT

- UNLESS OTHERWISE SPECIFIED IN THE GEOTECHNICAL REPORT, ALL FILLS SHALL BE PLACED IN MAXIMUM
- SUBGRADE FOR BUILDING PAD SHALL INCLUDE A MINIMUM OF 18-INCHES OF LOW VOLUME CHANGE (LVC) MATERIAL, OR AS IDENTIFIED IN THE SITE SPECIFIC GEOTECHNICAL REPORT
- FILL MATERIALS SHALL BE PER GEOTECHNICAL REPORT AND SHALL NOT INCLUDE ORGANIC MATTER, DEBRIS OR TOPSOIL. ALL FILLS PLACED ON SLOPES GREATER THAN 6:1 SHALL BE BENCHED.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR REDISTRIBUTING THE TOPSOIL OVER PROPOSED TURF AND
- 14. ALL AREAS SHALL BE GRADED FOR POSITIVE DRAINAGE. UNLESS NOTED OTHERWISE THE FOLLOWING
- B. PAVED AREAS 1.2% MINIMUM, 5% MAXIMUM
- 15. A.D.A. PARKING STALLS SHALL NOT BE SLOPED GREATER THEN 2% IN ANY DIRECTION AND CONSTRUCTED
- 16. ALL DISTURBED AREAS SHALL BE FERTILIZED, SEEDED AND MULCHED IMMEDIATELY AFTER EARTHWORK ACTIVITIES HAVE CEASED. SEEDING SHALL BE PER THE EROSION AND SEDIMENT CONTROL PLAN AND/OR LANDSCAPE PLAN. IF NOT SPECIFIED SEEDING SHALL BE PER APWA SECTION 2400, LATEST EDITION. UNLESS OTHERWISE NOTED, SEEDING SHALL BE SUBSIDIARY TO THE CONTRACT PRICE FOR EARTHWORK AND
- 18. UNDERDRAINS ARE RECOMMENDED FOR ALL PAVED AREAS ADJACENT TO IRRIGATED TURF AND
- 19. CONTRACTOR SHALL ADHERE TO THE REPORTING REQUIREMENTS OUTLINED IN THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) PREPARED FOR THIS PROJECT. EROSION AND SEDIMENT CONTROL DEVICES SHALL BE PROPERLY MAINTAINED AND KEPT CLEAN OF SILT AND DEBRIS AND IN GOOD WORKING ORDER. ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED AS REQUIRED.

# **UTILITIES**:

- PROVIDED TO THE ENGINEER. THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING THE RESPECTIVE UTILITY COMPANIES AND FIELD LOCATING UTILITIES PRIOR TO CONSTRUCTION AND IDENTIFYING ANY POTENTIAL CONFLICTS. ALL CONFLICTS SHALL IMMEDIATELY BE BROUGHT TO THE ATTENTION OF THE
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ANY REQUIRED UTILITY RELOCATIONS. UTILITIES DAMAGED THROUGH THE NEGLIGENCE OF THE CONTRACTOR SHALL BE REPAIRED AT THE
- CONTRACTOR SHALL VERIFY FLOW-LINES AND STRUCTURE TOPS PRIOR TO CONSTRUCTION, AND SHALL NOTIFY ENGINEER OF ANY DISCREPANCIES. PROVIDE SHOP DRAWINGS FOR ALL PRECAST AND MANUFACTURED UTILITY STRUCTURES FOR REVIEW BY THE ENGINEER PRIOR TO CONSTRUCTION OF THE
- UTILITY SEPARATION: WATERLINES SHALL HAVE A MINIMUM OF 10 FEET HORIZONTAL AND 2 FEET VERTICAL SEPARATION FROM ALL SANITARY AND STORM SEWER LINES. IF MINIMUM SEPARATIONS CAN NOT BE OBTAINED, CONCRETE ENCASEMENT OF THE SANITARY OR STORM SEWER LINE SHALL BE REQUIRED 10 FEET IN EACH DIRECTION OF THE CONFLICT.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING RESPECTIVE UTILITY COMPANIES 48-HOURS IN ADVANCE FOR THE INSPECTION OF ANY PROPOSED UTILITY MAIN EXTENSION OR SERVICE LINE OR SERVICE CONNECTION TO ANY EXISTING MAIN.
- TRENCH SPOILS SHALL BE NEATLY PLACED ONSITE ADJACENT TO THE TRENCH, AND COMPACTED TO PREVENT SATURATION AND EXCESS SEDIMENT RUNOFF. UNSUITABLE MATERIALS, EXCESS ROCK AND SHALE, ASPHALT, CONCRETE, TREES, BRUSH ETC. SHALL BE PROPERLY DISPOSED OF OFFSITE. MATERIALS MAY BE WASTED ONSITE AT THE DIRECTION OF THE OWNER OR HIS APPOINTED REPRESENTATIVE.

- CONTOURS HAVE BEEN SHOWN AT 1-FOOT OR 2-FOOT INTERVALS, AS INDICATED. GRADING SHALL CONSIST
- UNLESS OTHERWISE NOTED, ALL EARTHWORK IS CONSIDERED UNCLASSIFIED. NO ADDITIONAL

- LANDSCAPED AREAS TO A MINIMUM DEPTH OF 6-INCHES BELOW FINAL GRADE
- **GRADES SHALL APPLY:**
- A. TURF AREAS 2.5% MINIMUM, 4H:1V MAXIMUM
- PER A.D.A. REQUIREMENTS.
- 17. ALL DISTURBED AREAS IN THE RIGHT-OF-WAY SHALL BE SODDED.

- EXISTING UTILITIES HAVE BEEN SHOWN TO THE GREATEST EXTENT POSSIBLE BASED UPON INFORMATION
- PAYMENT FOR TRENCHING, BACKFILLING, PIPE EMBEDMENT, FLOWABLE FILL, BACKFILL MATERIALS, CLEAN UP, SEEDING, SODDING AND ANY OTHER ITEMS NECESSARY FOR THE CONSTRUCTION OF THE UTILITY LINE SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE UTILITY INSTALLATION.

- TRENCH CHECKS TO BE INSTALL ON ALL SANITARY SEWER SERVICE LINES IN ACCORDANCE WITH CITY OF LEE'S SUMMIT STANDARDS.
- 2. THERE ARE NO OIL OR GAS WELLS LOCATED WITHIN THIS PROJECT SITE.

# PRCOM20214832

	Sheet List Table
Sheet Number	Sheet Title
C0.0	COVER SHEET
C1.0	SITE PLAN
C2.0	GRADING PLAN
C2.1	INTERSECTION DTAILS
C3.0	EROSION CONTROL PLAN
C3.1	EROSION CONTOL DETAILS
C4.0	STORM SEWER PLAN & PROFILE
C5.0	DETENTION BASIN PLAN & PROFILE
C6.0	UTILITY PLAN
C7.0	SITE DETAILS
C7.1	SITE DETAILS
C7.2	SITE DETAILS
C7.3	SITE DETAILS
L1.0	LANDSCAPE PLAN
L2.0	LANDSCAPE DETAILS
L2.1	LANDSCAPE DETAILS



SCHLAGEL & ASSOCIATES, P.A

APPROVED BY

CITY ENGINEER APPROVED FOR ONE YEAR FROM THIS DATE

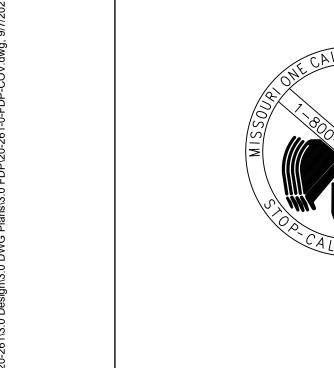
# OWNER/DEVELOPER

- LAKEWOOD SELF-STORAGE, LLC JUSTIN BEAL OR MICHAEL VANBURSKIRK 1220 WASHINGTON, SUITE 300 KANSAS CITY, MO 64105 P: (816) 268-4241
- E: JBEAL@NGZIMMER.COM

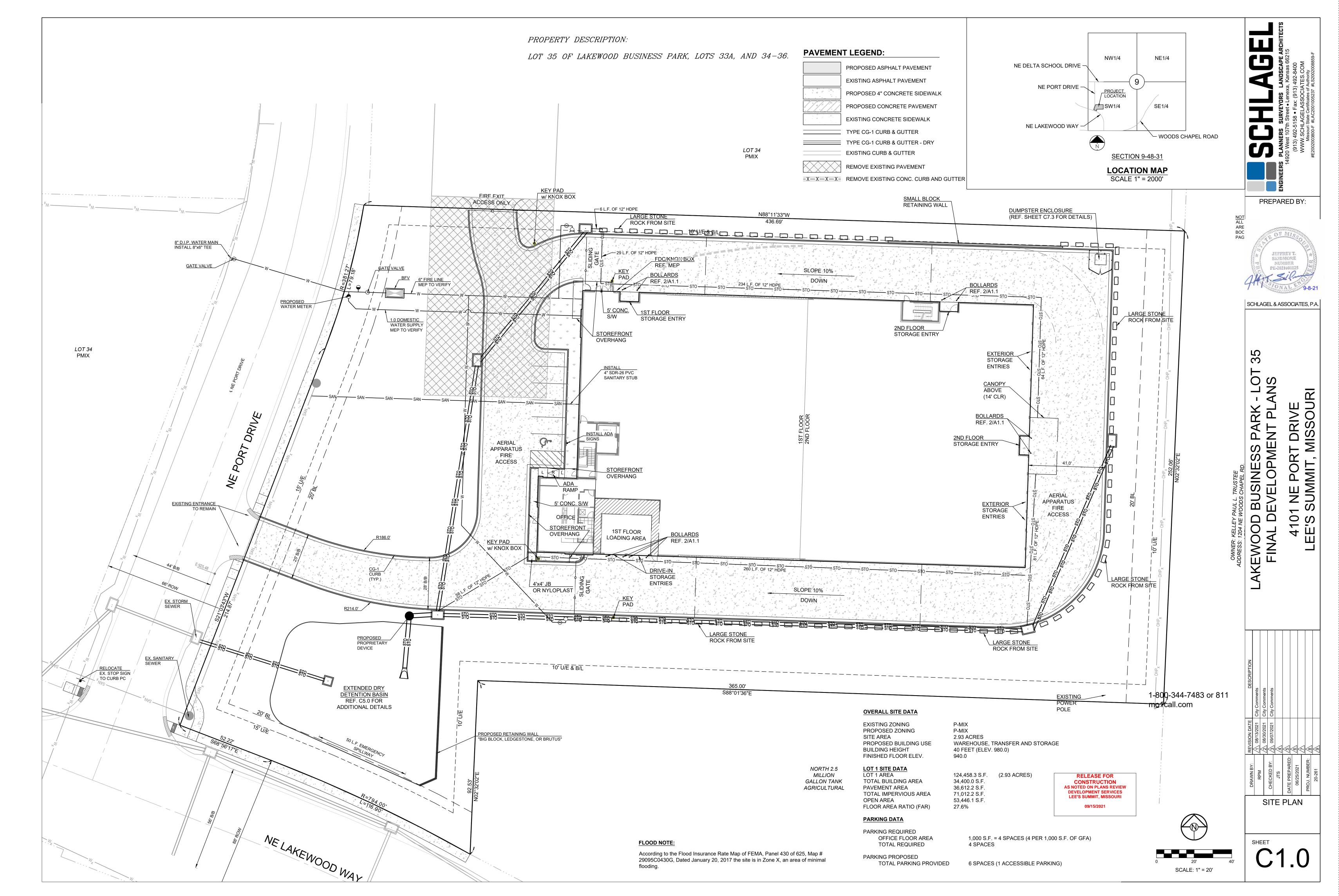
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**COVER SHEET** 

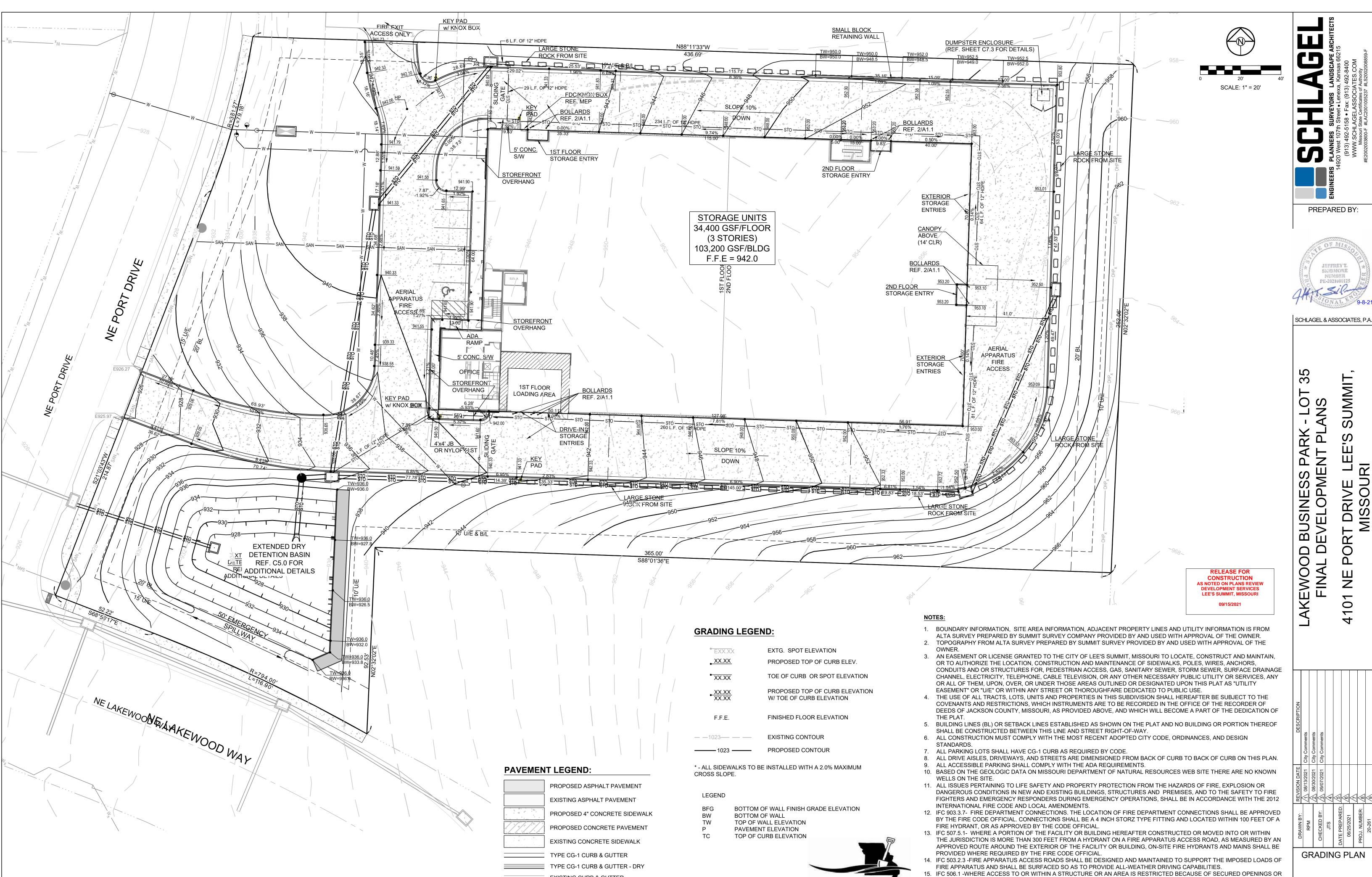
RELEASE FOR CONSTRUCTION LEE'S SUMMIT, MISSOURI 09/15/2021







I:\PROJECTS\2020\20-261\3.0 Design\3.0 DWG Plans\3.0 FDP\20-261-1-FDP-SITE.dwg, 9/7



**EXISTING CURB & GUTTER** 

REMOVE EXISTING PAVEMENT

-X-X-X-X- REMOVE EXISTING CONC. CURB AND GUTTER

0

WHERE IMMEDIATE ACCESS IS NECESSARY FOR LIFE-SAVING OR FIRE-FIGHTING PURPOSES, THE FIRE CODE OFFICIAL IS AUTHORIZED TO REQUIRE A KEY BOX TO BE INSTALLED IN AN APPROVED LOCATION. THE KEY BOX SHALL BE OF AN

LOCKS.AN APPROVED LOCK SHALL BE INSTALLED ON GATES OR SIMILAR BARRIERS WHEN REQUIRED BY THE FIRE CODE

16. 1037, AND SHALL CONTAIN KEYS TO GAIN NECESSARY ACCESS AS REQUIRED BY THE FIRE CODE OFFICIAL.506.1.1

17. PLEASE NOTE THAT PARKING LOT DESIGN MUST MEET THE UDO ARTICLE 12 REQUIREMENTS AND THE PRIVATE DRIVE MUST MEET PUBLIC STREET DESIGN STANDARDS PER THE DESIGN AND CONSTRUCTION MANUAL SECTION 5200.

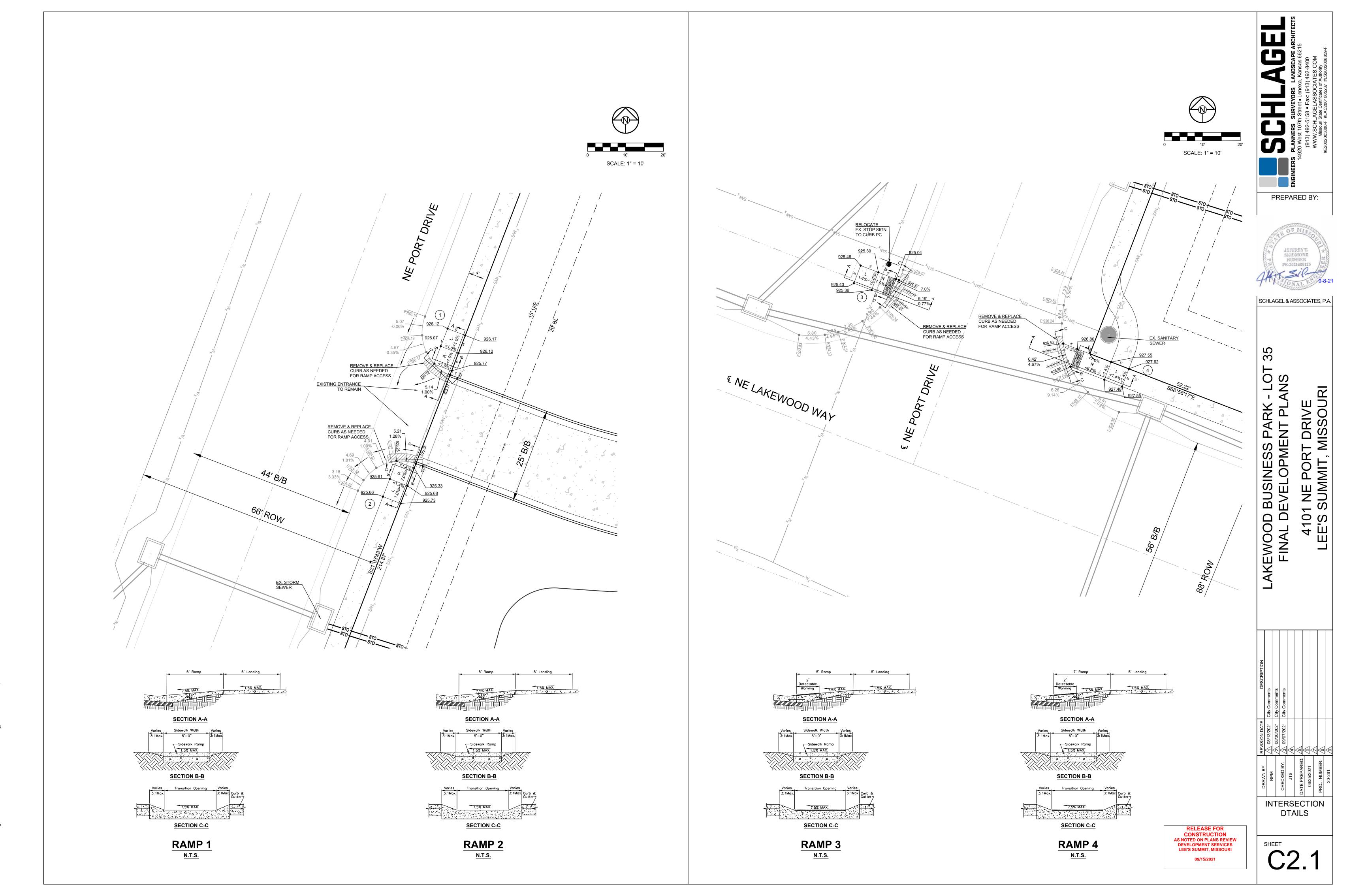
18. SANITARY SEWER MAIN AND EASEMENTS FOR LOT 35 WILL BE PROVIDED IN THE FUTURE WHEN THE LOT IS DEVELOPED.

OFFICIAL. A KNOX PADLOCK WILL BE PROVIDED ON THE GATE AND A KNOX BOX ON THE BUILDING.

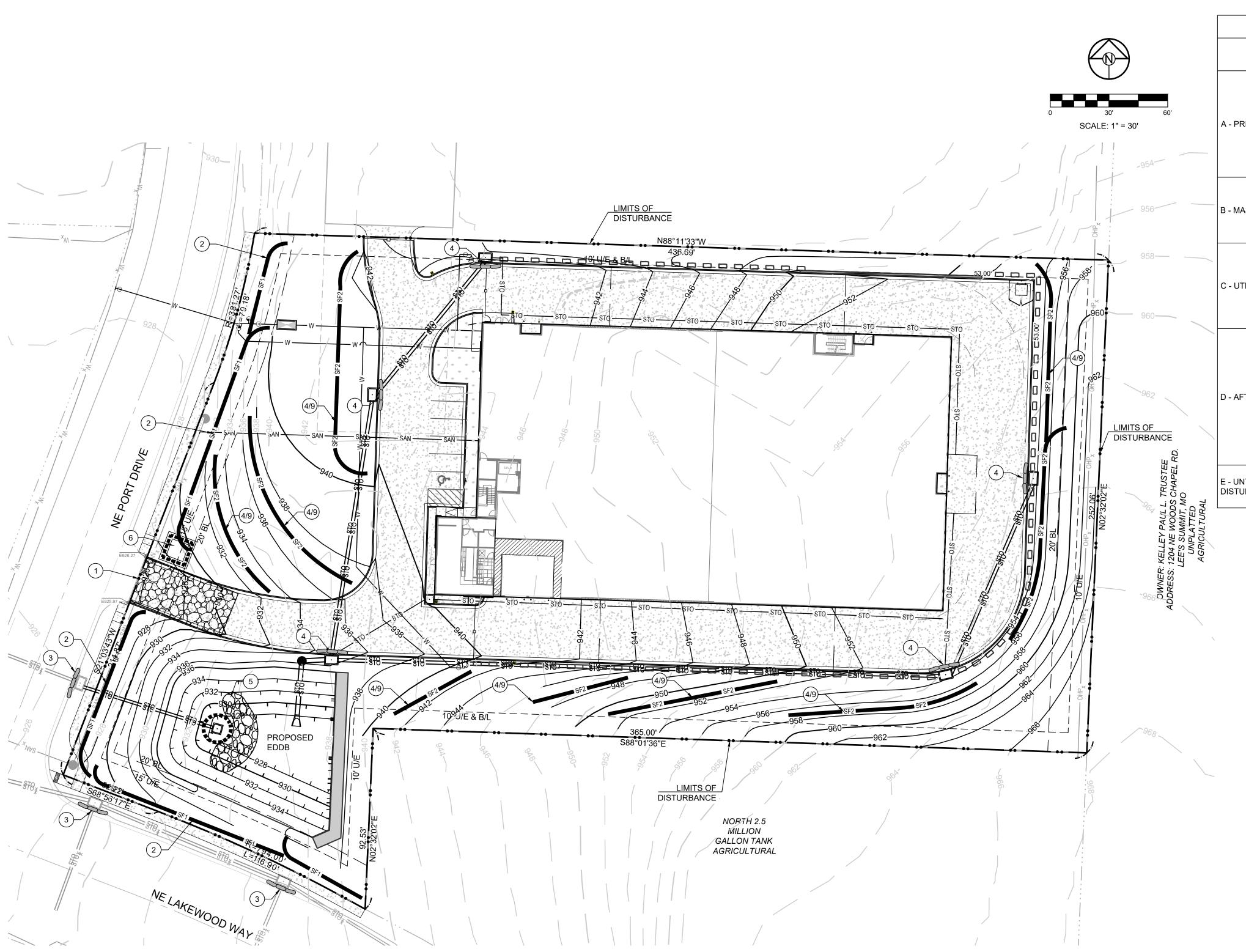
APPROVED TYPE LISTED IN ACCORDANCE WITH UL

1-800-344-7483 or 811

mo1call.com



1:\PROJECTS\2020\20-261\3.0 Design\3.0 DWG Plans\3.0 FDP\20-261-1-FDP-SITE.dwg. 9/7/2021 3:58:02 PM.



	EROSIC	ON AND SEDIMENT CONT	ROL ST	AGING CHART
PROJECT STAGE	BMP PLAN REF. NO	BMP DESCRIPTION	REMOVE AFTER STAGE	NOTES:
	1	CONSTRUCTION ENTRANCE & STAGING AREA	D	MAINTAIN, REPAIR, OR REPLACE AS NECESSARY
A - PRIOR TO LAND DISTURBANCE	2	SILT FENCE (PRIOR TO LAND DISTURBANCE)	E	PLACE WHERE INDICATED, REPAIR OR REPLACE AS NECESSARY AND REMOVE ONLY WHEN GRADED AREAS HAVE SUFFICIENT GROUND COVER ESTABLISHED
	3	EXISTING INLET PROTECTION (GRAVEL CURB INLET SEDIMENT TRAP)	Е	PLACE WHERE INDICATED, REPAIR OR REPLACE AS NECESSARY AND REMOVE ONLY WHEN GRADED AREAS HAVE SUFFICIENT GROUND COVER ESTABLISHED
B - MASS GRADING	4	SILT FENCE (DURING CONSTRUCTION)	Е	PLACE WHERE INDICATED, REPAIR OR REPLACE AS NECESSARY AND REMOVE ONLY WHEN GRADED AREAS HAVE SUFFICIENT GROUND COVER ESTABLISHED
B - MAGS GRADING	5	TEMP. SEDIMENT TRAP (REF. DETAIL ON SHEET C3.1)	E	TO BE INSTALLED PRIOR TO DISTURBING ENTIRE SITE.
	6	CONCRETE WASHOUT AREA	E	MAINTAIN, REPAIR, OR REPLACE AS NECESSARY
C - UTILITY CONSTRUCTION	7	INLET PROTECTION (SILT FENCE)	D/E	PLACE SILT FENCE AROUND ALL STORM SEWER STRUCTURES / YARD AREA STORM STRUCTURES PRIOR TO TOPS BEING PLACED SILT FENCE REMOVED & REPLACE WITH #7 BELOW WITH PLACEMENT OF TOPS AND/OR STABLIZATION OF DRAINAGE AREAS.
	8	INLET PROTECTION (GRAVEL FILTER BAGS)	E	BOARDS SHALL BE PLACED IN FRONT OF INLET OPENING FROM THE TIME SILT FENCE IS REMOVED UNTIL SUCH TIME THAT THE CURB / THROAT IS POURED. PLACE GRAVEL FILTER BAGS AT THE OPENING OF ALL CURB INLETS IMMEDIATELY AFTER THE INLET THROATS ARE POURED
D - AFTER PAVING OPERATIONS	9	SILT FENCE (AFTER CURB CONSTRUCTION)	E	PLACE WHERE INDICATED, REPAIR OR REPLACE AS NECESSARY AND REMOVE ONLY WHEN GRADED AREAS HAVE SUFFICIENT GROUND COVER ESTABLISHED
	10	SEEDING AND MULCHING	E	ALL DISTURBED AREAS AFTER 14 DAYS OF CONSTRUCTION INACTIVITY
E - UNTIL CLOSURE OF LAND DISTURBANCE PERMIT	11			ADDITIONAL SEDIMENT AND EROSION CONTROL MEASURES MAY BE REQUIRED ANY TIME CURRENT MEASURES ARE FOUND TO BE INEFFECTIVE.

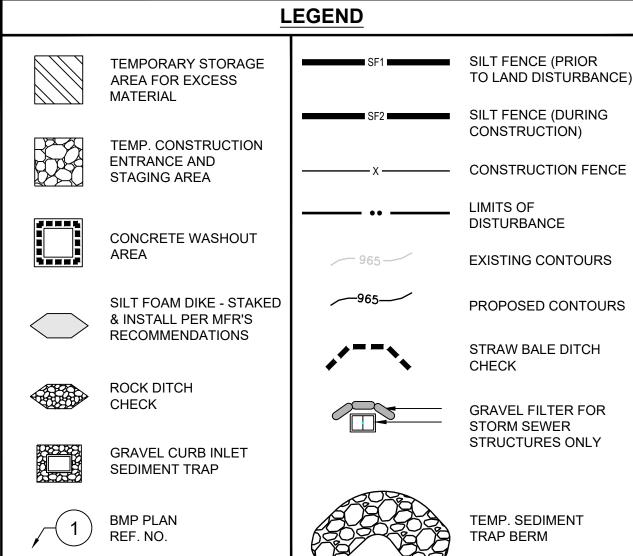
# **DISTURBED AREA = 2.93 A.C.**

## **SITE SPECIFIC NOTES:**

- 1. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL EXISTING UTILITY LOCATIONS PRIOR TO EXCAVATION.
- 2. THERE ARE NO WETLANDS, NATURAL OR ARTIFICIAL WATER STORAGE DETENTION AREAS IN THE PROJECT
- NO PART OF THE PROJECT LIES WITHIN THE 100 YEAR FLOOD PLAIN PER FEMA FLOOD INSURANCE RATE MAP NUMBER 29095C0414G DATED JANUARY 20, 2017.
- 4. ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE IMPLEMENTED ACCORDING TO THE BMP STAGING CHART.
- ADDITIONAL EROSION CONTROL MAY BE REQUIRED BY THE CITY ENGINEER AT ANY TIME EXISTING MEASURES ARE FOUND TO BE INEFFECTIVE OR PROBLEMATIC AREAS ARE NOTED IN THE FIELD.
- STABILIZATION OF DISTURBED AREAS MUST, AT A MINIMUM, BE INITIATED IMMEDIATELY WHENEVER ANY CLEARING, GRADING, EXCAVATING, OR OTHER SOIL DISTURBING ACTIVITIES HAVE PERMANENTLY CEASED ON ANY PORTION OF THE SITE, OR TEMPORARILY CEASED ON ANY PORTION OF THE SITE AND WILL NOT RESUME FOR A PERIOD EXCEEDING 14 CALENDAR DAYS. THE DISTURBED AREAS SHALL BE PROTECTED FROM EROSION BY STABILIZING THE AREA WITH MULCH OR OTHER SIMILARLY EFFECTIVE SOIL STABILIZING BMPS. INITIAL STABILIZATION ACTIVITIES MUST BE COMPLETED WITHIN 14 DAYS AFTER SOIL DISTURBING
- ALL PERIMETER SILT FENCE, EARTH DIKES, SEDIMENT BASINS, AND ROCK CONSTRUCTION ENTRANCES WILL BE INSTALLED BEFORE GRADING OPERATIONS BEGIN.

ACTIVITIES CEASE.

- SILT FENCE AND EARTH DIKES THAT ARE PLACED BEFORE CONTRACTOR.
- AREAS WITHIN PUBLIC RIGHT-OF-WAY SHALL BE SODDED IMMEDIATELY AFTER CONSTRUCTION IS COMPLETE.



**RELEASE FOR** 

CONSTRUCTION AS NOTED ON PLANS REVIEW DEVELOPMENT SERVICES

LEE'S SUMMIT, MISSOURI

09/15/2021



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

# PROJECT BENCHMARK:

MONUMENT FOUND CHISELED "SQUARE" ON STORM CURB INLET #30 AT NORTHWEST INTERSECTION OF SW. TOWER

NORTHING: 998893.4148 EASTING: 2803318.5413

ELEV. 1004.09

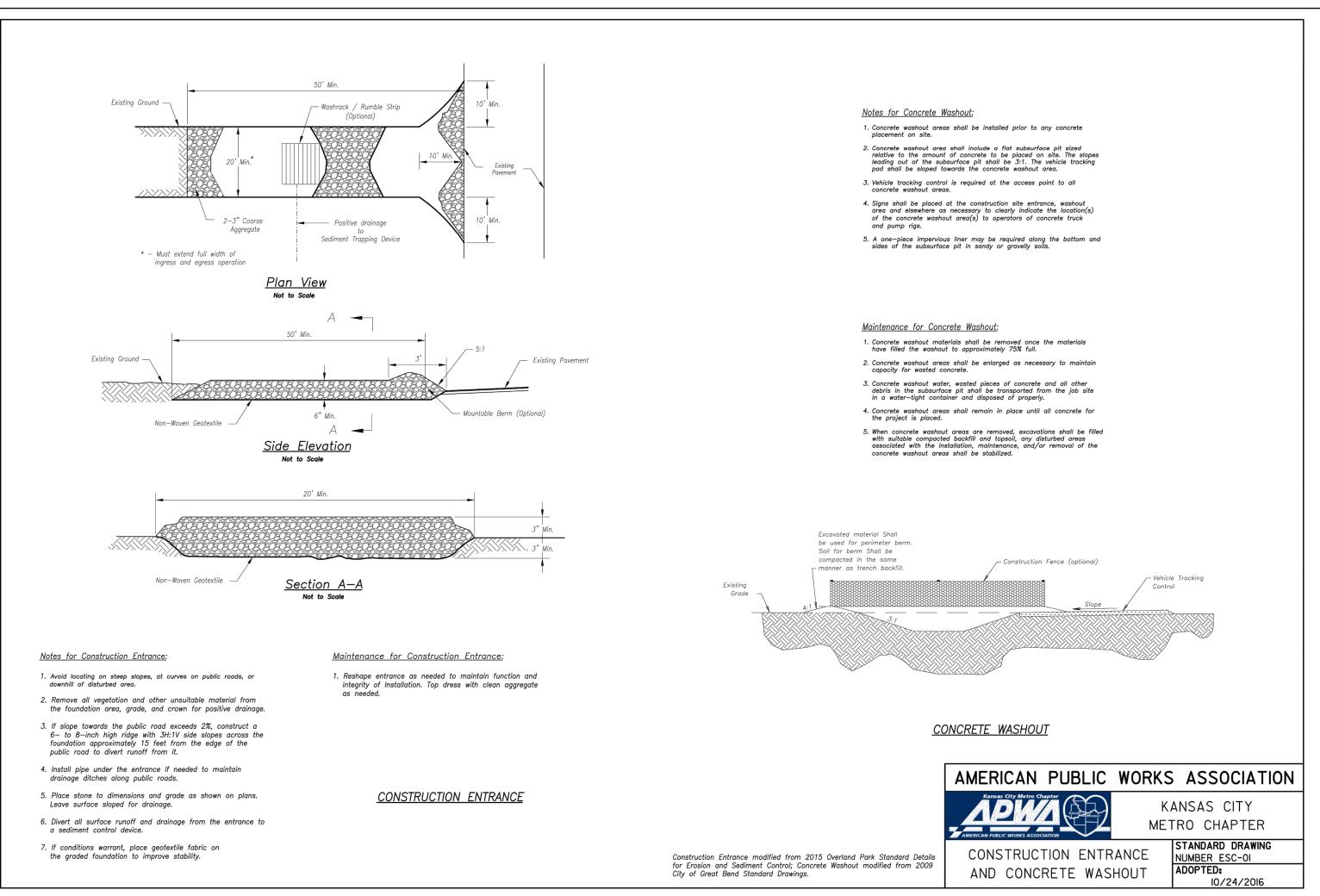
PARK DRIVE AND SW. LONGVIEW BOULEVARD.

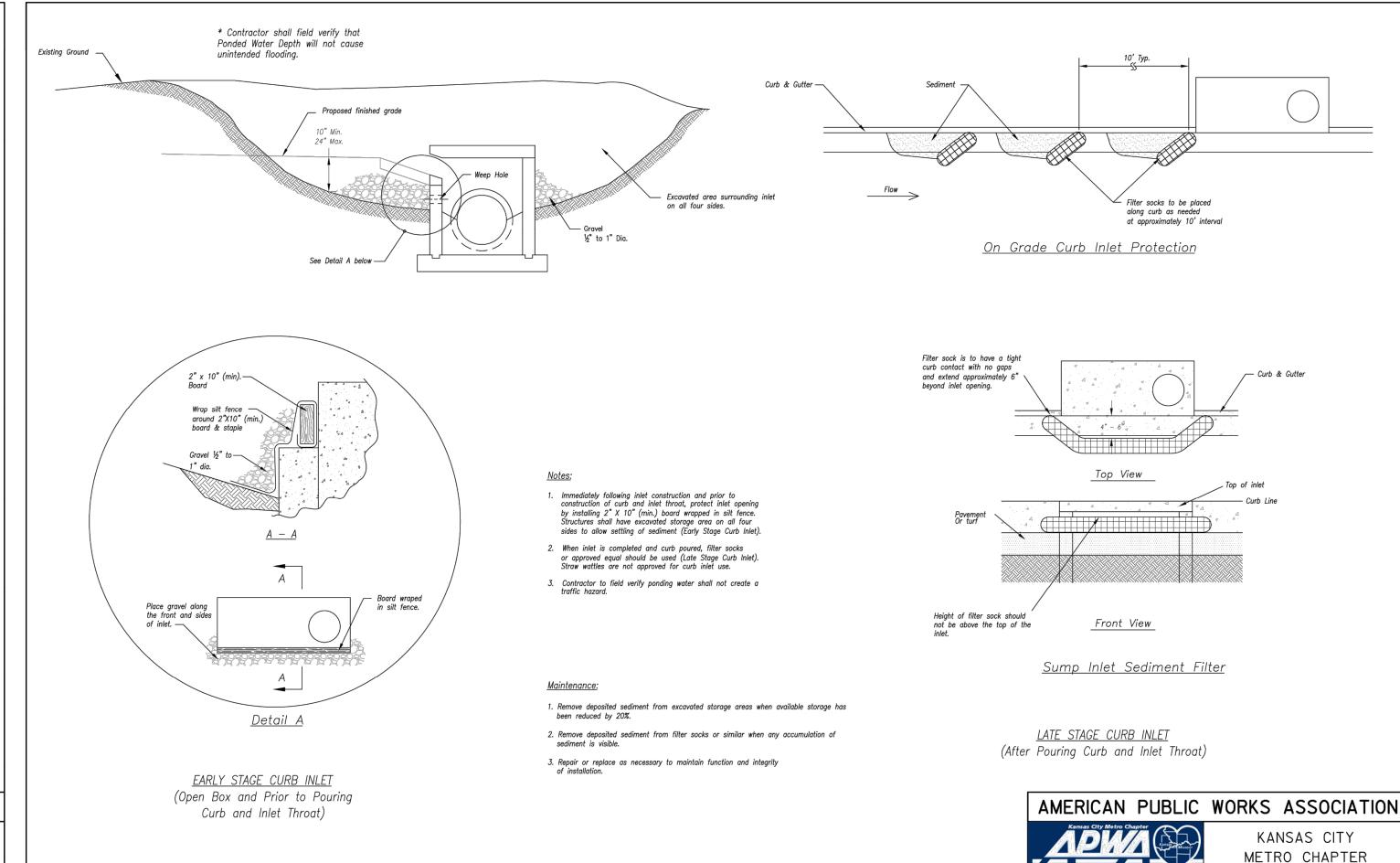
**EROSION CONTROL PLAN** 

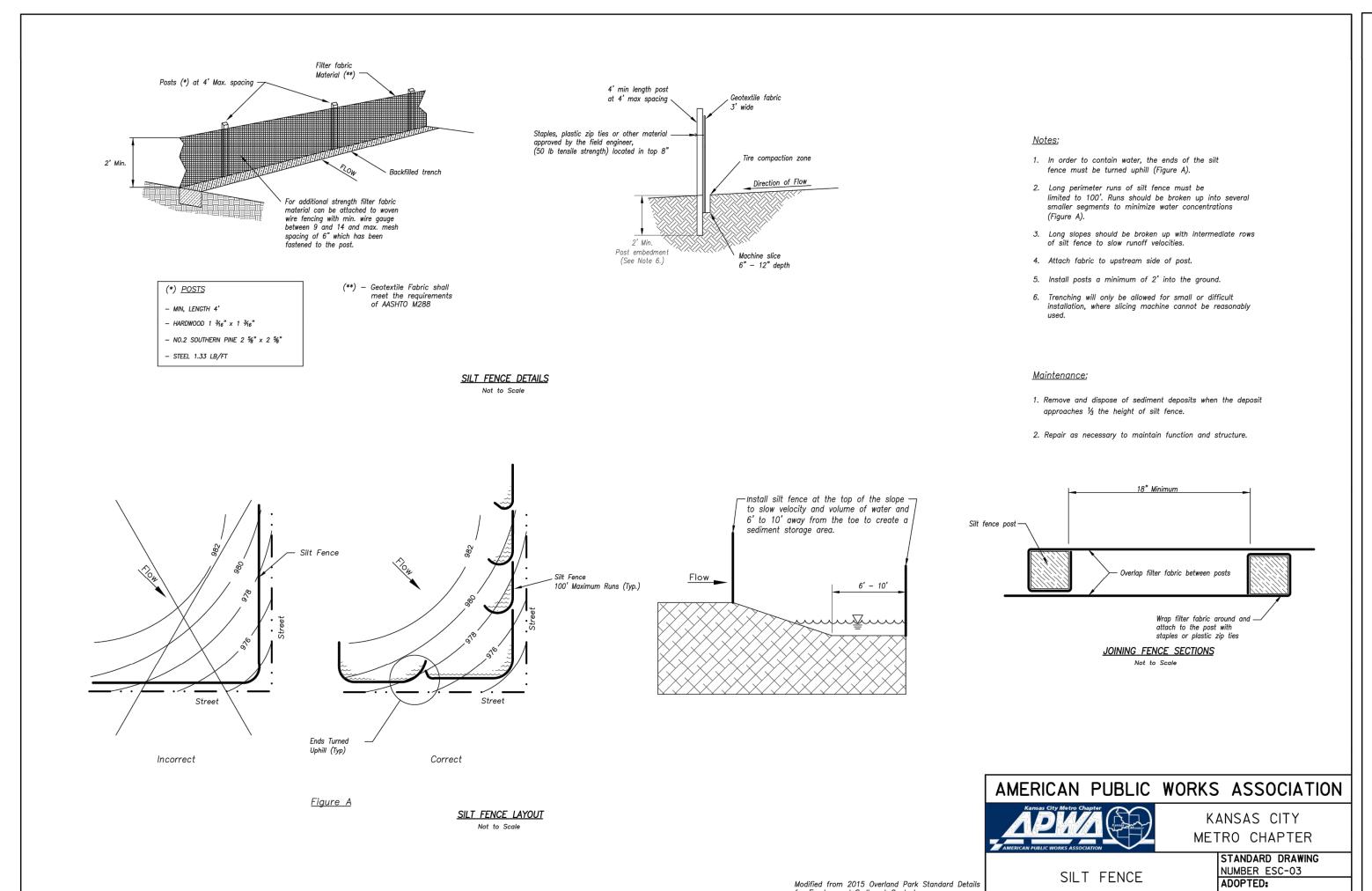
AKEWOOD BUSINE FINAL DEVELO 10

PREPARED BY:

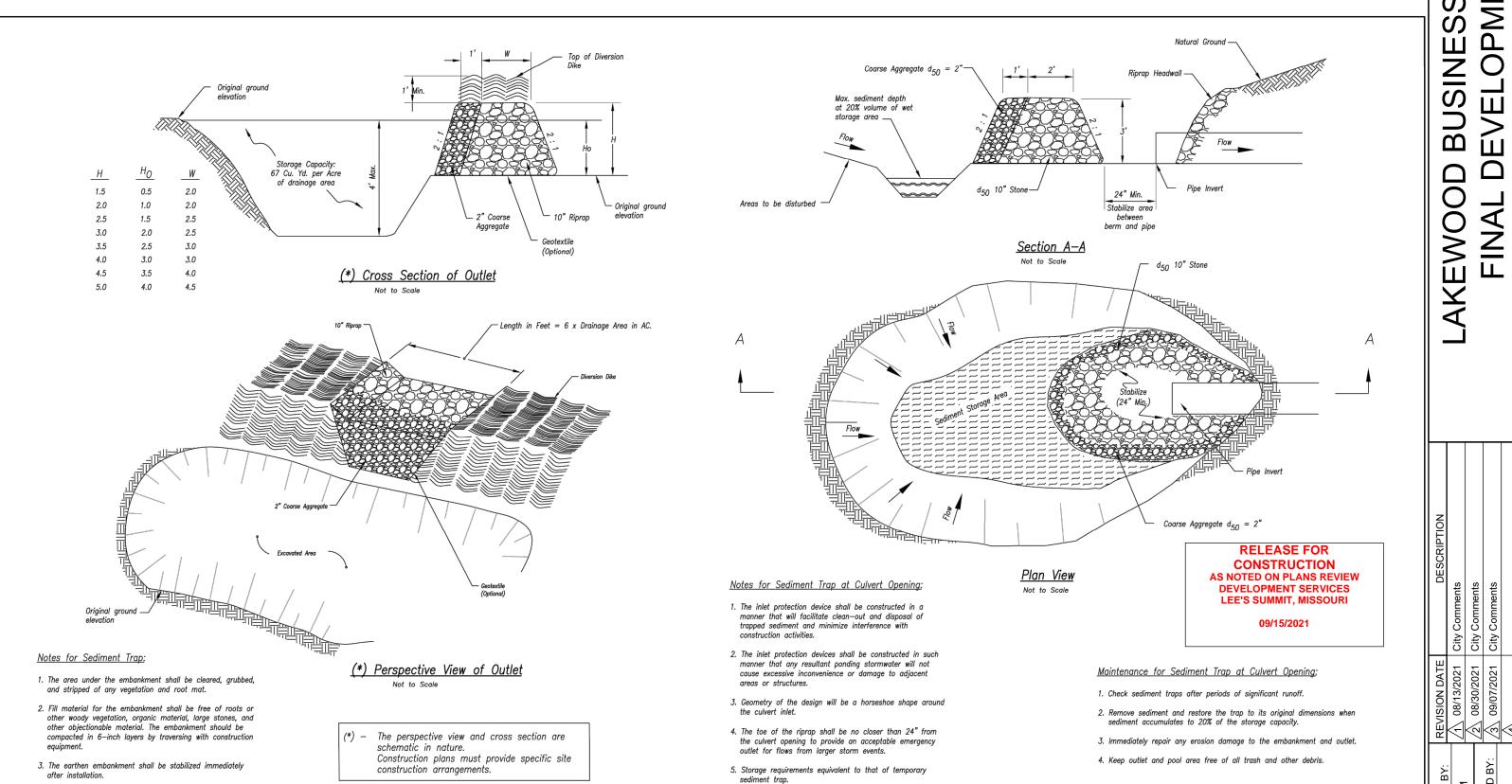
SCHLAGEL & ASSOCIATES, P.A.







for Erosion and Sediment Control.



6. 67 C.Y./Acre wet storage below base of stone.

7. 67 C.Y./Acre dry storage from base of stone to top of

SEDIMENT TRAP AT CULVERT OPENING

Modified from 2015 Overland Park Standard Detai for Erosion and Sediment Control.

4. Construction operations shall be carried out to minimize

5. The structure shall be removed and the area stabilized when the upslope drainage area has been stabilized.

6. All cut and fill slopes shall be 2H : 1V or flatter, except

for excavated, wet storage areas which may be at a maximum 1H : 1V grade.

Maintenance for Sediment Trap:

SEDIMENT TRAP 4. Keep outlet and pool area free of all trash and other debris.

1. Check sediment traps after periods of significant runoff.

sediment accumulates to 20% of the storage capacity.

2. Remove sediment and restore the trap to its original dimensions when

3. Immediately repair any erosion damage to the embankment and outlet.

erosion and water pollution.

10/24/2016

METRO CHAPTER

SEDIMENT TRAPS

AMERICAN PUBLIC WORKS ASSOCIATION KANSAS CITY

STANDARD DRAWING

10/24/2016

NUMBER ESC-08

STANDARD DRAWING

10/24/2016

NUMBER ESC-06

CURB INLET PROTECTION

Modified from 2015 Overland Park Standard Detail

for Erosion and Sediment Control.

**EROSION CONTOL DETAILS** 

PREPARED BY:

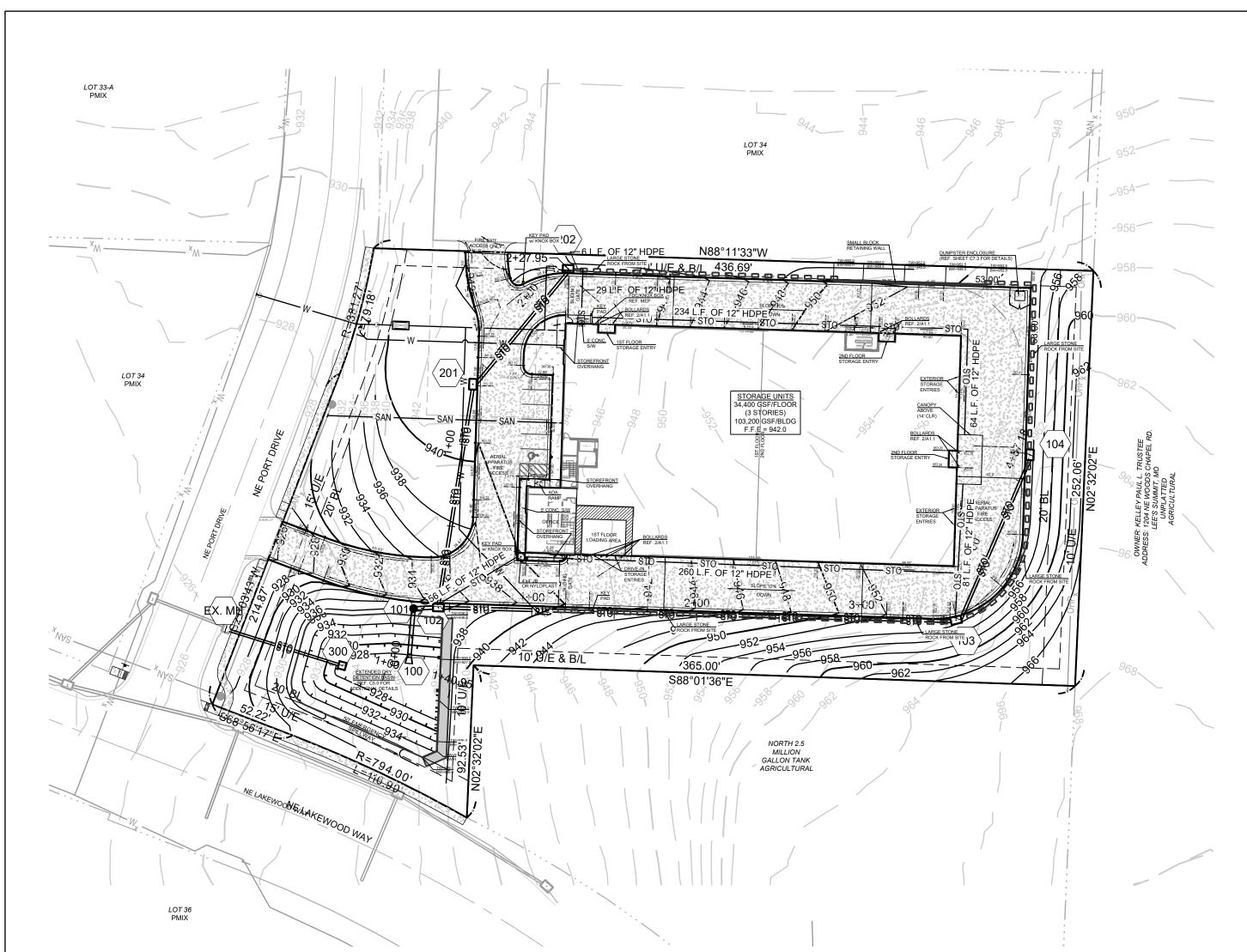
JEFFREY T

SKIDMORE

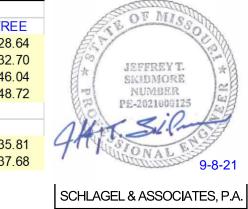
SCHLAGEL & ASSOCIATES, P.A.

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SHEET



Proje	ct Name:			OOD BI	JSINE	SS PARK				Cı	ırb Type:															
	Project #:		18-222								City:	LEE'S S	UMMIT													
	Time:		6/22/202	21 11:14																						
Desi	n Storm:		10																							
	K" Value:		1.00																							
	· vaido.		1.00																							
unoff (	Calculatio	ns													Pipe Pi	roperties										
			Cumul.				Runoff				Up	Up	Up									Drop				
Inlet	Area	"C"	Area	Cumul.			То	Cumul.	Pipe	Pipe	Piped	Piped	Area	Up	Up	Down	Pipe	"n"	Pipe		Slope	ln .			Inlet	HGL
#	(acres)	Value	(acres)	CxA	Tc	Intensity	Inlet	Runoff	Сар.	Vel.	Inlet 1	Inlet 2	(acres)	CxA	Inlet	Inlet	Type	Value	Size	Length	%	Inlet	FL Up	FL Down	Тор	Elev.
INE 10	0																								DS TAILWATER @ STR #100	FREE
101	0.00	0.70	2.83	1.98	5.6	7.18	0.00	14.24	25.70	8.18			0.00	0.00	101	100	PEP	0.012	24	28.19	1.10	3.01	926.31	926.00	935.12	927.9
102	1.95	0.70	2.83	1.98	5.6	7.18	9.82	14.24	64.84	20.64	201		0.32	0.22	102	101	PEP	0.012	24	15.10	7.00	0.50	930.38	929.32	935.50	932.0
103	0.28	0.70	0.56	0.39	5.2	7.30	1.44	2.87	24.13	13.65			0.00	0.00	103	102	PEP	0.012	18	314.03	4.50	0.50	945.00	930.88	953.21	945.7
104	0.28	0.70	0.28	0.20	5.0	7.35	1.44	1.44	17.18	9.72			0.00	0.00	104	103	PEP	0.012	18	109.83		0.50	948.00	945.50	953.33	948.5
INE 20	0																			Drop in Inl	et 102	0.50				
201	0.09	0.70	0.32	0.22	5.2	7.29	0.45	1.62	12.12	9.88			0.00	0.00	201	102	PEP	0.012		137.13		0.50	934.99	930.88	941.28	935.5
202	0.23	0.70	0.23	0.16	5.0	7.35	1.19	1.19	8.99	7.33			0.00	0.00	202	201	PEP	0.012	15	90.81	1.65	0.50	936.99	935.49	942.42	937.4
Desi	gn Storm	:	100																							
	K" Value		1.25																							
Runoff	Calculatio	ons													Pipe P	roperties										
			Cumul.				Runoff				Up	Up	Up		<b>'</b>	1						Drop				
Inlet	Area	"C"	Area	Cumul			То	Cumul.	Pipe	Pipe	Piped	Piped	Area	Up	Up	Down	Pipe	"n"	Pipe		Slope	ln .			Inlet	HGI
#	(acres)	Value	(acres)	CxA	Tc	Intensity	Inlet	Runoff	Cap.	Vel.	Inlet 1	Inlet 2	(acres)	CxA	Inlet	Inlet	Туре	Value	Size	Length	%	Inlet	FL Up	FL Down	Тор	Elev
INE 1	00																								DS TAILWATER @ STR #100	FRE
	0.00	0.70	2.83	1.98	5.6	10.09	0.00	25.01	25.70	8.18			0.00	0.00	101	100	PEP	0.012	24	28.19	1.10	3.01	926.31	926.00	935.12	928.
		0.70	2.83	1.98	5.6		17.24	25.02	64.84	20.64	201		0.32	0.22	102	101	PEP	0.012	24	15.10	7.00	0.50	930.38	929.32	935.50	932.
101	1.90	. 1	0.56	0.39	5.2		2.53	5.04	24.13	13.65			0.00	0.00	103	102	PEP	0.012	18	314.03		0.50	945.00	930.88	953.21	946.
101 102	1.95 0.28	0.70	0.00												104	103	PEP	0.012	18	109.83		0.50	948.00	945.50	953.33	948.
101	0.28 0.28	0.70 0.70	0.36	0.20	5.0	10.32	2.53	2.53	17.18	9.72			0.00	0.00	104	103	i Li	0.0.2		100.00		0.00	340.00	343.30	900.00	940.
101 102 103 104	0.28 0.28				5.0	10.32	2.53	2.53	17.18	9.72			0.00	0.00	104	103	1 21						340.00	943.30	900.00	940.
101 102 103	0.28 0.28				5.0		0.79	2.53	17.18	9.72			0.00	0.00	201	102	PEP	0.012		Drop in In	let 102	0.50 0.50 0.50	934.99	930.88	941.28	935.



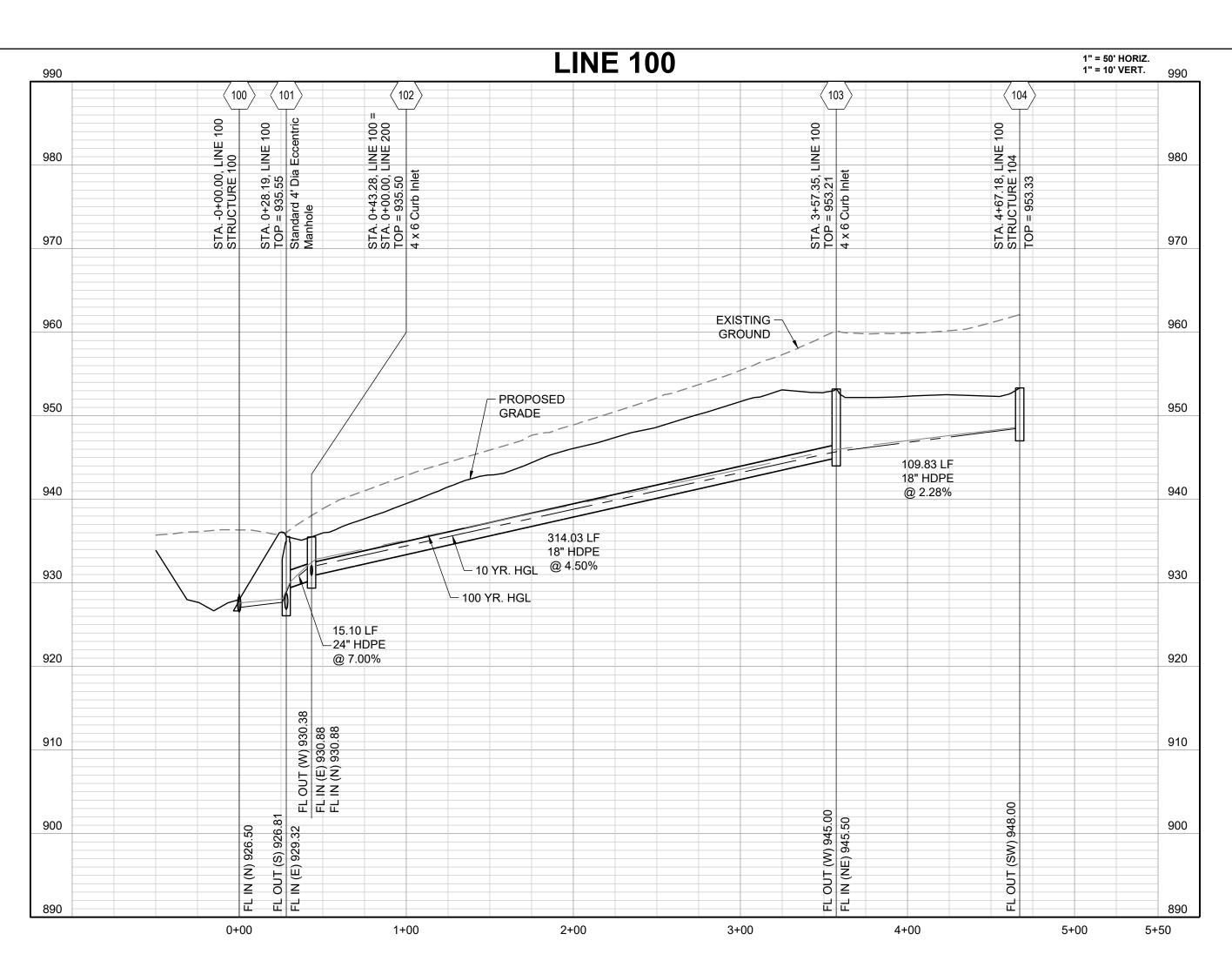
LAKEWOOD BUSINESS PARK FINAL DEVELOPMENT PL

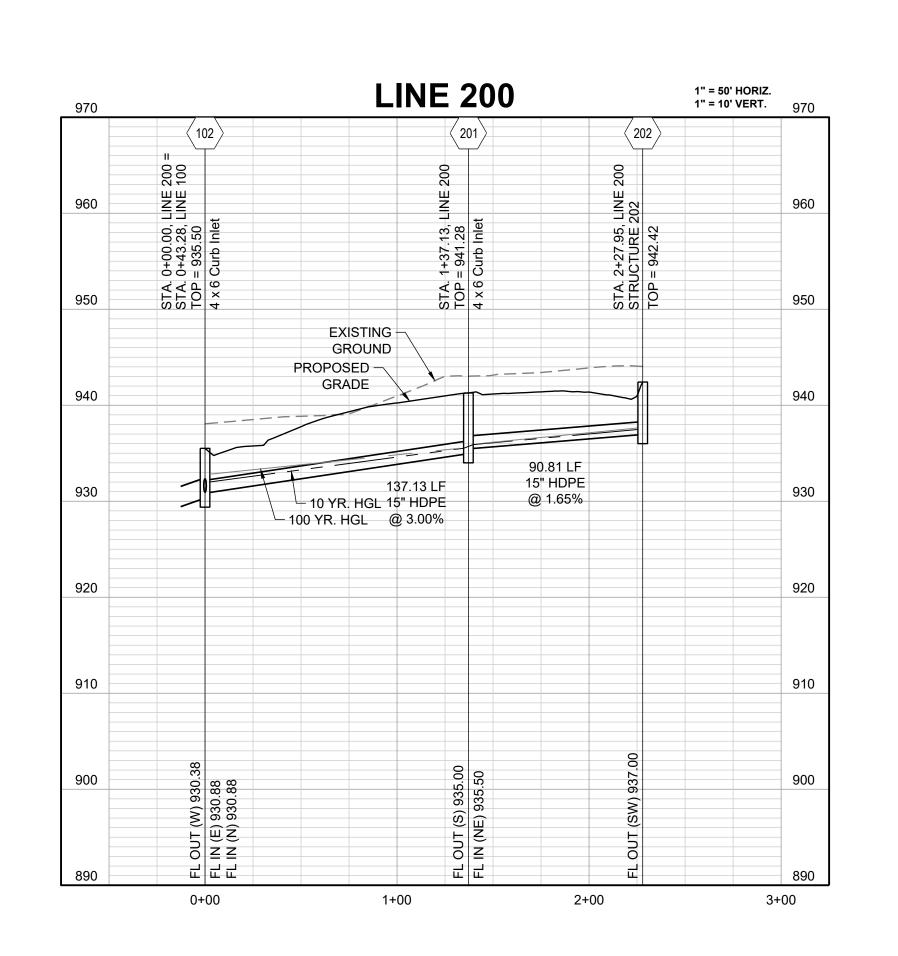
4101 NE PO LEE'S SUMMIT

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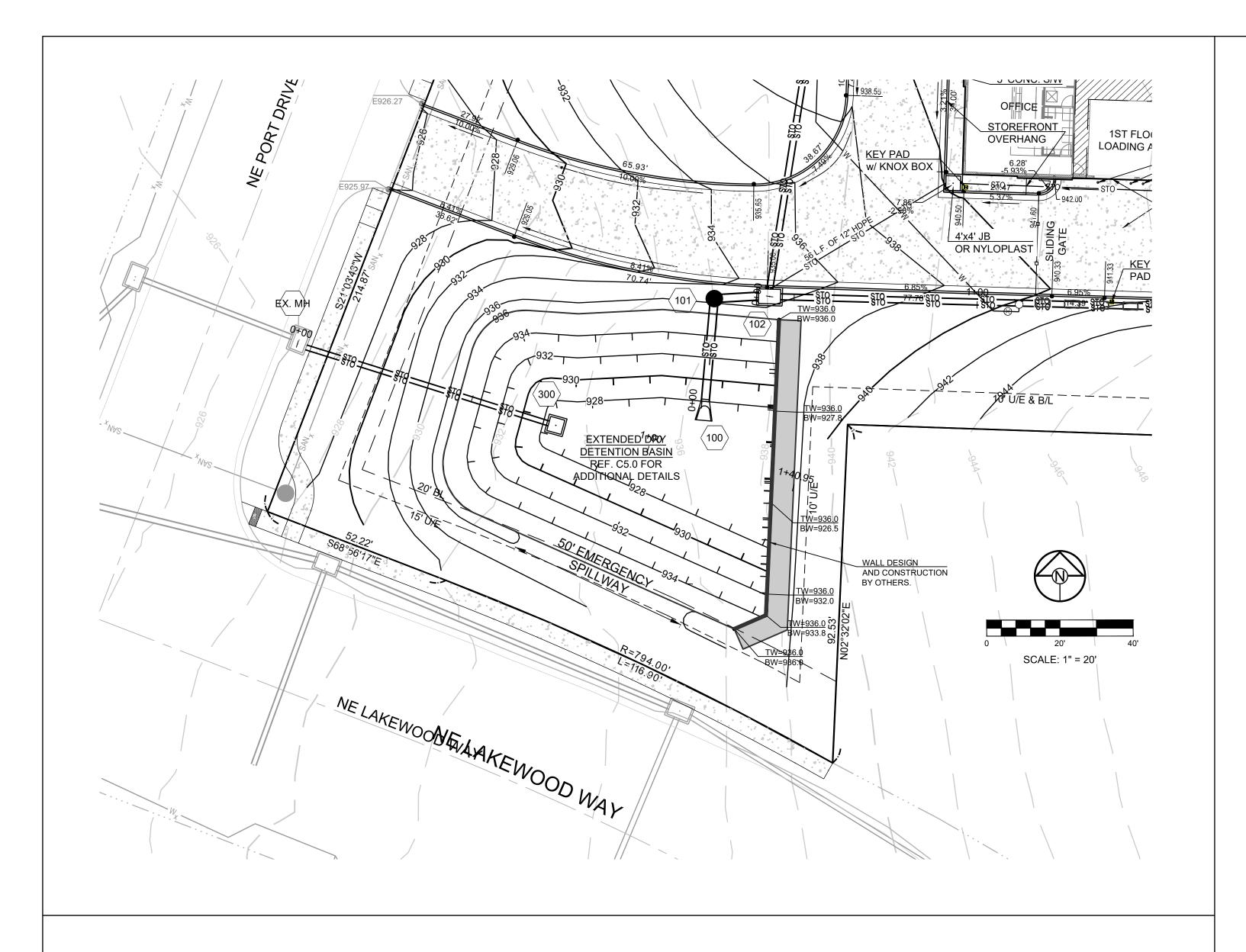


	Storm Sewer Construction Notes
Structure	Notes
100	STA -0+00.00, LINE 100 INSTALL 24 INCH RCP F.E.S. 264°58'18" N 1026415.6767 E 2830785.4381
101	STA 0+28.19, LINE 100 INSTALL STANDARD 4' DIA ECCENTRIC MANHOLE 84°58'17" N 1026443.7542 E 2830787.9087
102	STA 0+43.28, LINE 100 INSTALL 4 X 6 CURB INLET 88°11'33" N 1026444.3471 E 2830802.9959
103	STA 3+57.35, LINE 100 INSTALL 4 X 6 CURB INLET 102°35'10" N 1026436.7618 E 2831116.9328
104	STA 4+67.18, LINE 100 INSTALL 4 X 6 CURB INLET 178°11'33" N 1026537.0354 E 2831161.7330
201	STA 1+37.13, LINE 200 INSTALL 4 X 6 CURB INLET 358°11'08" N 1026579.8758 E 2830823.9201

RELEASE FOR
CONSTRUCTION
<b>AS NOTED ON PLANS REVIEW</b>
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
09/15/2021

DRAWN BY:	REVISION DATE	DESCRIPTION
Maa	1202/21/30	City Comments
	1202/38/30/2021	City Comments
CHECKED BY:	/3\ 09/07/2021	City Comments
JTS	1	
NATE PREPARED:	\$	
06/25/2024	<b>9</b>	
1 202/02/02	$\forall$	
PROJ. NUMBER:	[8	
20-261		

STORM SEWER PLAN & PROFILE

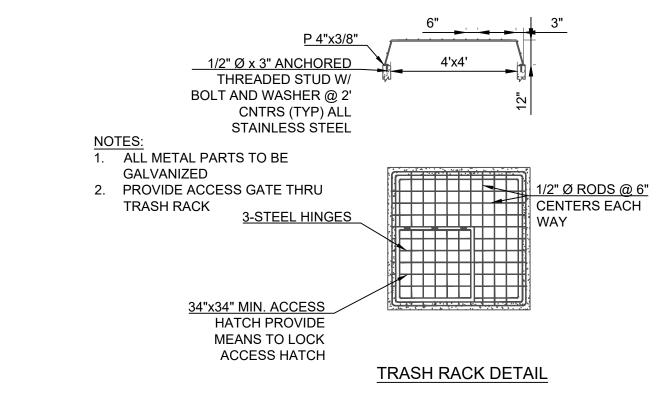


## PROFILE VIEW EMERGENCY SPILLWAY N.T.S. SECTION VIEW OF DAM OUTLET STRUCTURE TOP OF DAM Q<sub>100</sub>(Clogged)=18.50 CFS 100-Yr. (Clogged) EL:936.2 **LINE 300** 1" = 50' HORIZ. 1" = 10' VERT. 970 SPILLWAY EL:934.8 — STORAGE=27,012 CU.YDS. H=0.2 FT 1' FREEBOARD (MIN.) L=50 FT <u>▼ 100 Yr. WSE:933.8</u> ■ STORAGE=20,472 CU.YDS. 960 **OVERFLOW CALCULATIONS**: $Q = C * L * H^{(\frac{3}{2})}$ Q = Q<sub>100</sub> C = 3.33 - 100 YR. (CLOGGED) EL.=935.0 - 100 YR. EL.=933.8 L = BASE WIDTH H = HEIGHT \_\_ 10 YR. EL.=932.5 \_ 2 YR. EL.=930.7 940 EXISTING LARGE BLOCK WALL SEE GROUND STRUCTURAL PLANS FOR DETAILS (SEPARATE PLAN SET) 930 - LINE 100 71.47 LF 920 920 24" HDPE 15" HDPE FL=926.5 @ 4.52% Storm Sewer Construction Notes 910 910 Structure STA 0+73.96, LINE 300 INSTALL 4 X 4 OUTLET CONTROL STRUCTURE 344°39'59" N 1026409.1464 E 2830744.6401 900 900

2+00

0+00

# **OUTLET STRUCTURE 300**

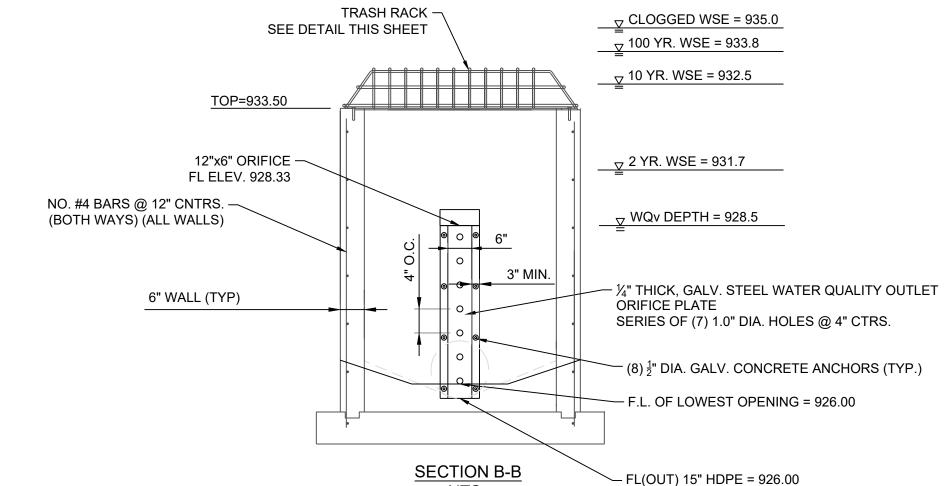


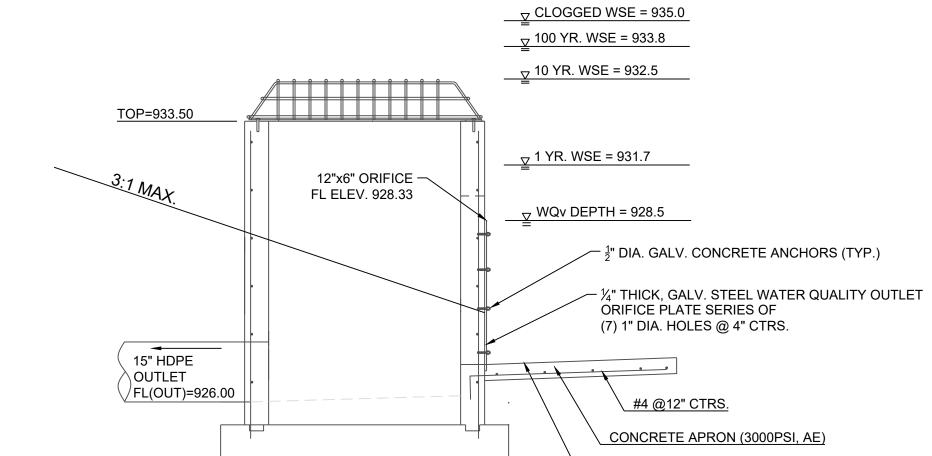
LOCATIONS SHOWN ON CONSTRUCTION PLANS ARE CENTER OF STRUCTURE 4.00'

15" HDPE OUTLET FL(OUT)=926.00 INSIDE WALL  $\square$ CONCRETE APRON OUTSIDE EDGE OF CONCRETE FOOTING



└─ FINISHED GROUND ELEVATION





SECTION A-A

NTS

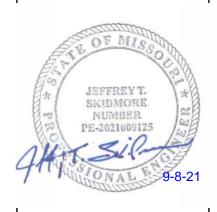
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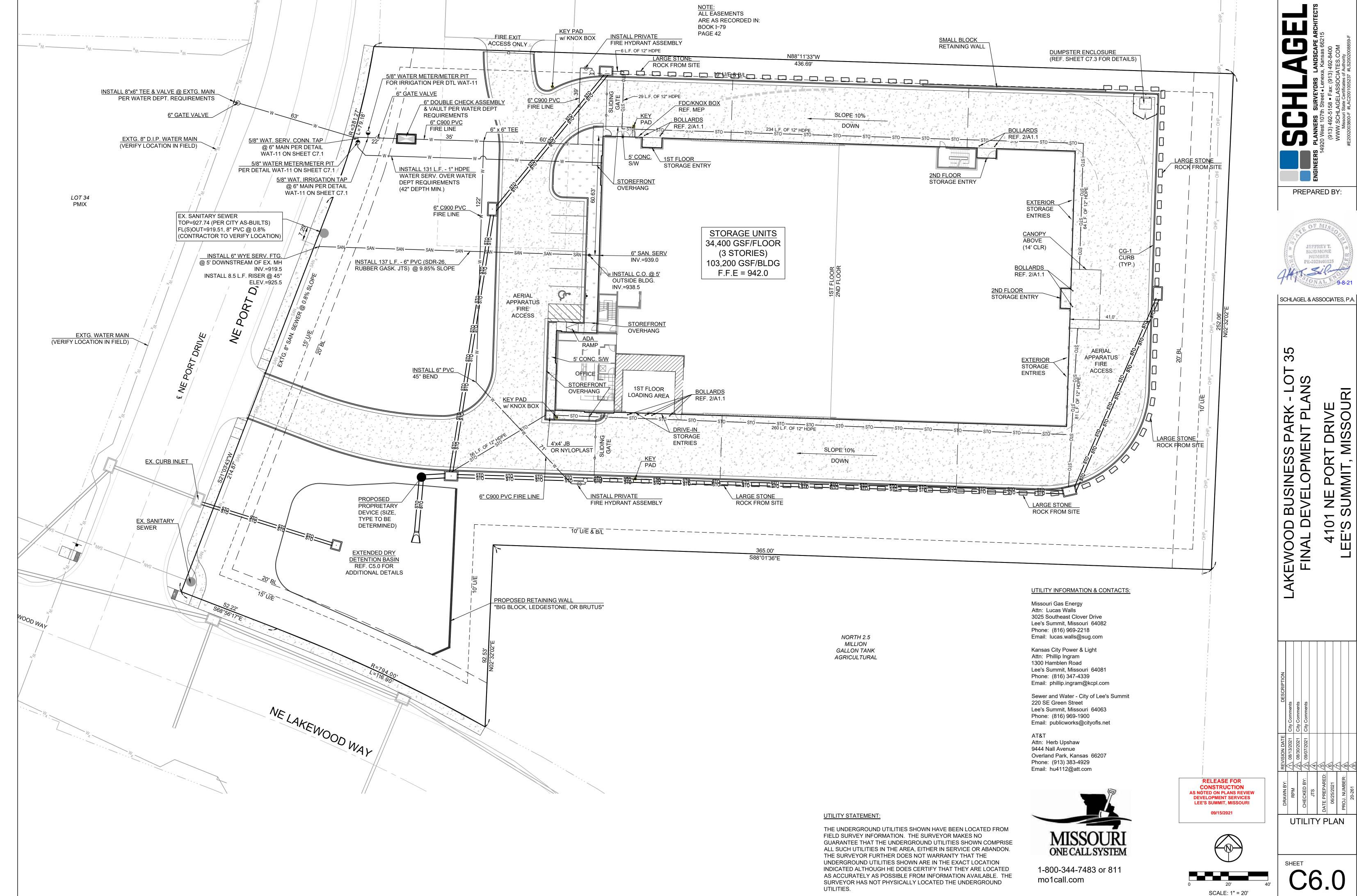


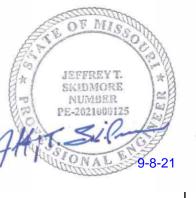
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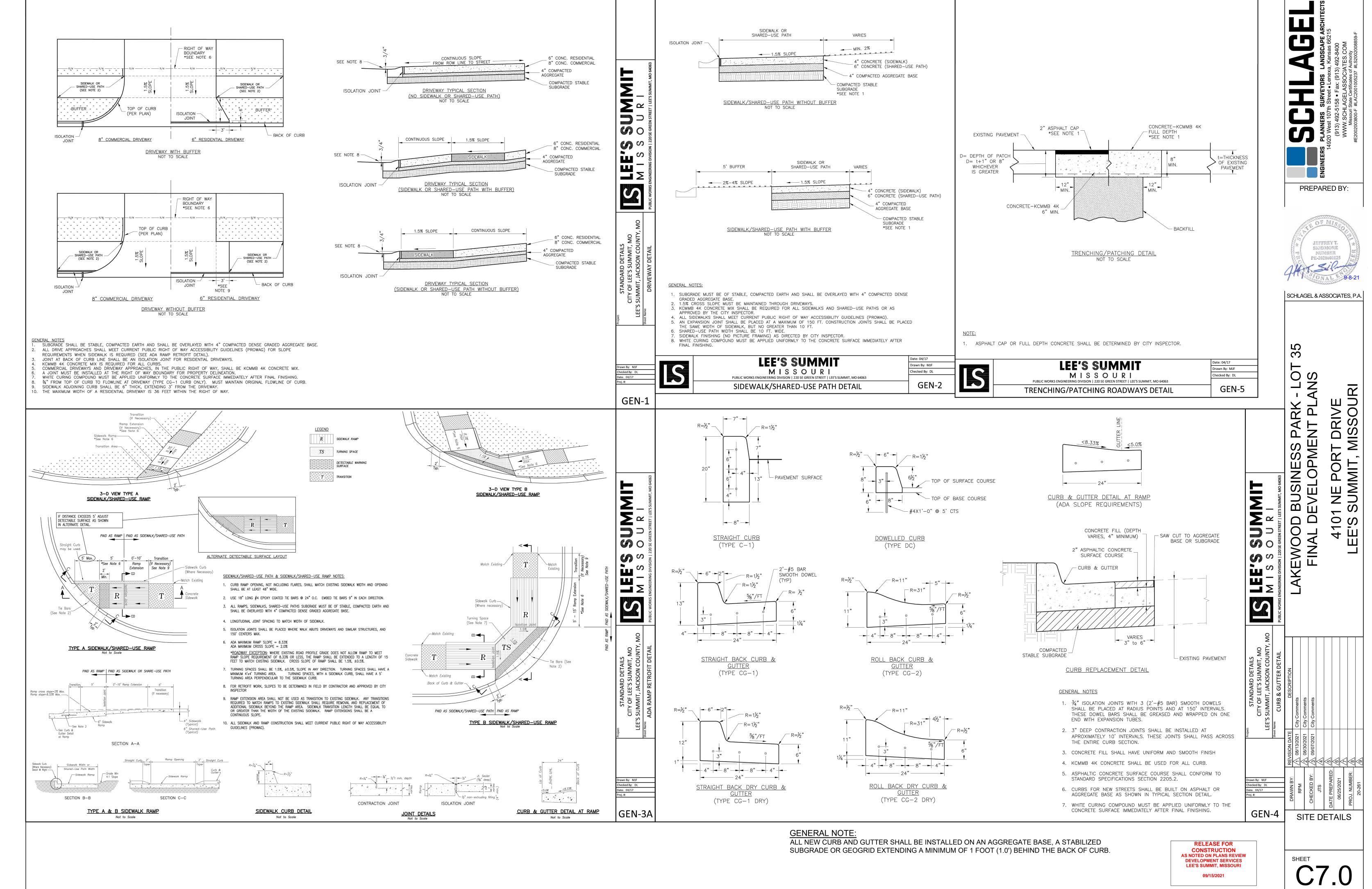
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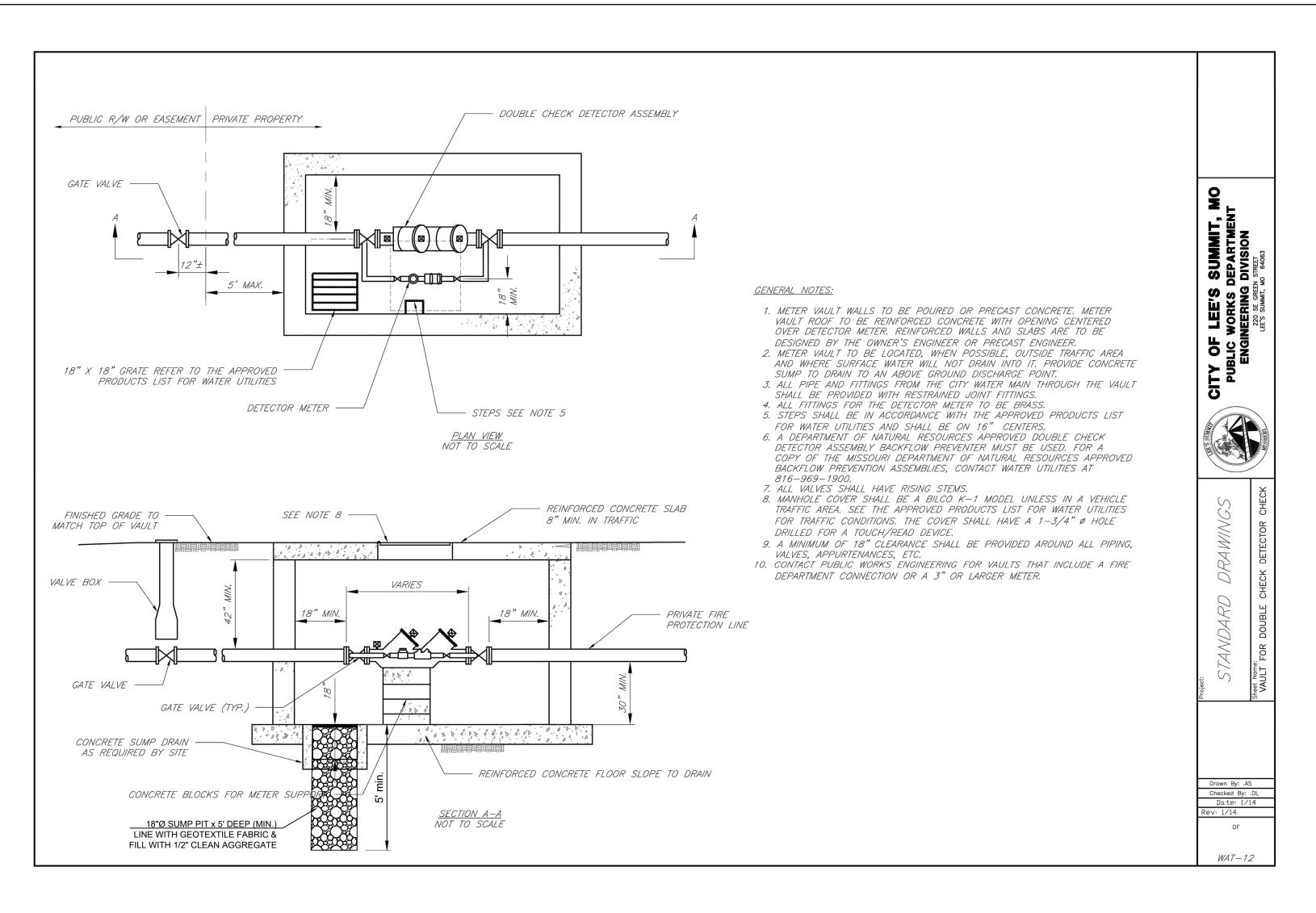
DETENTION BASIN PLAN & PROFILE

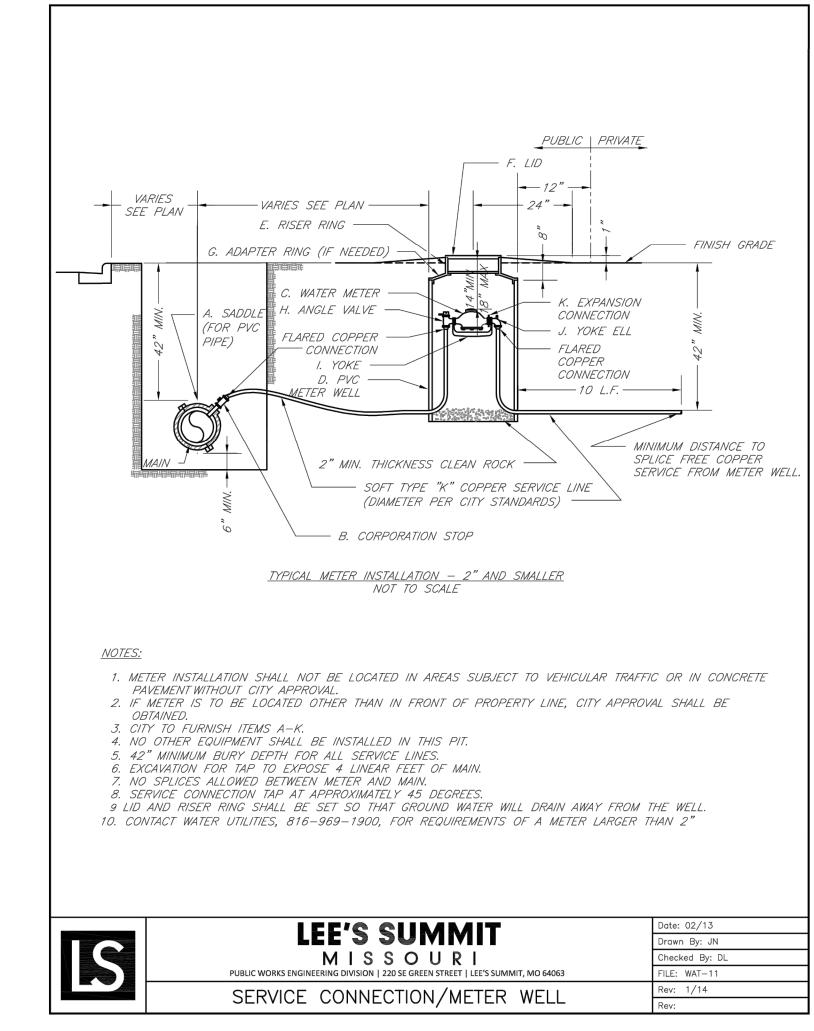
SHEET

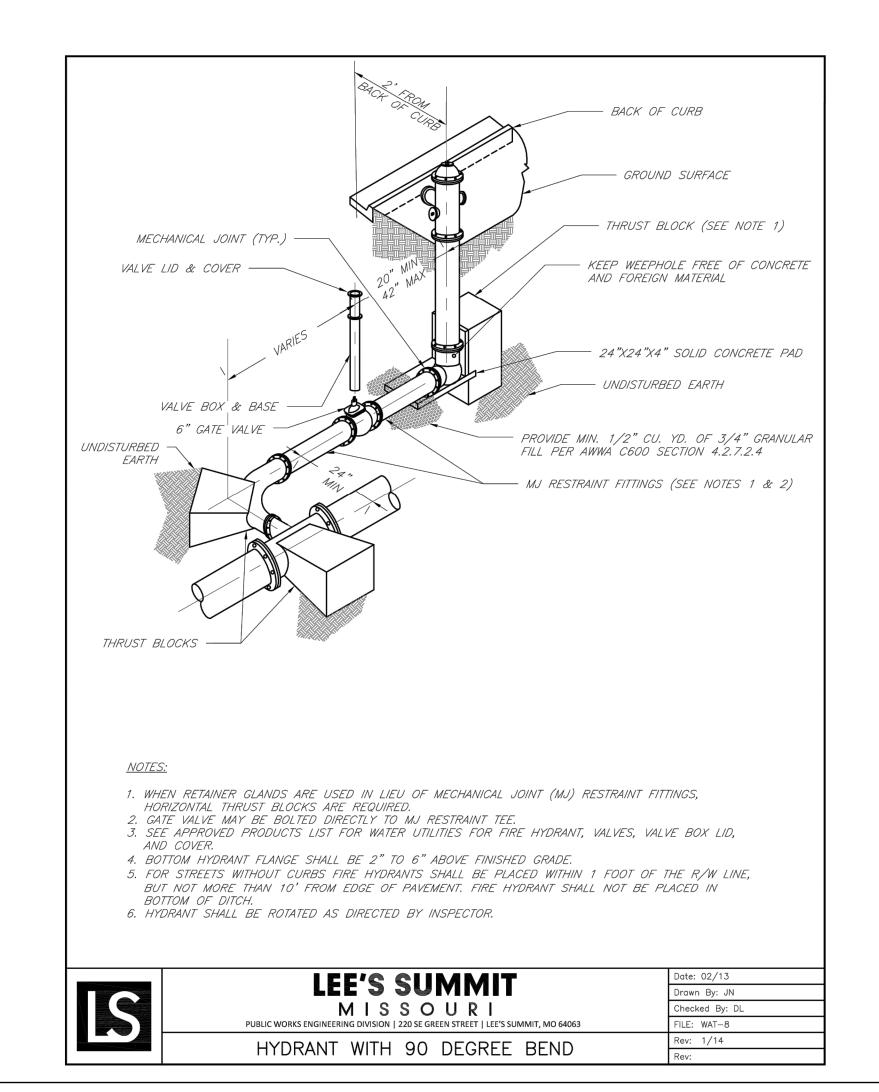


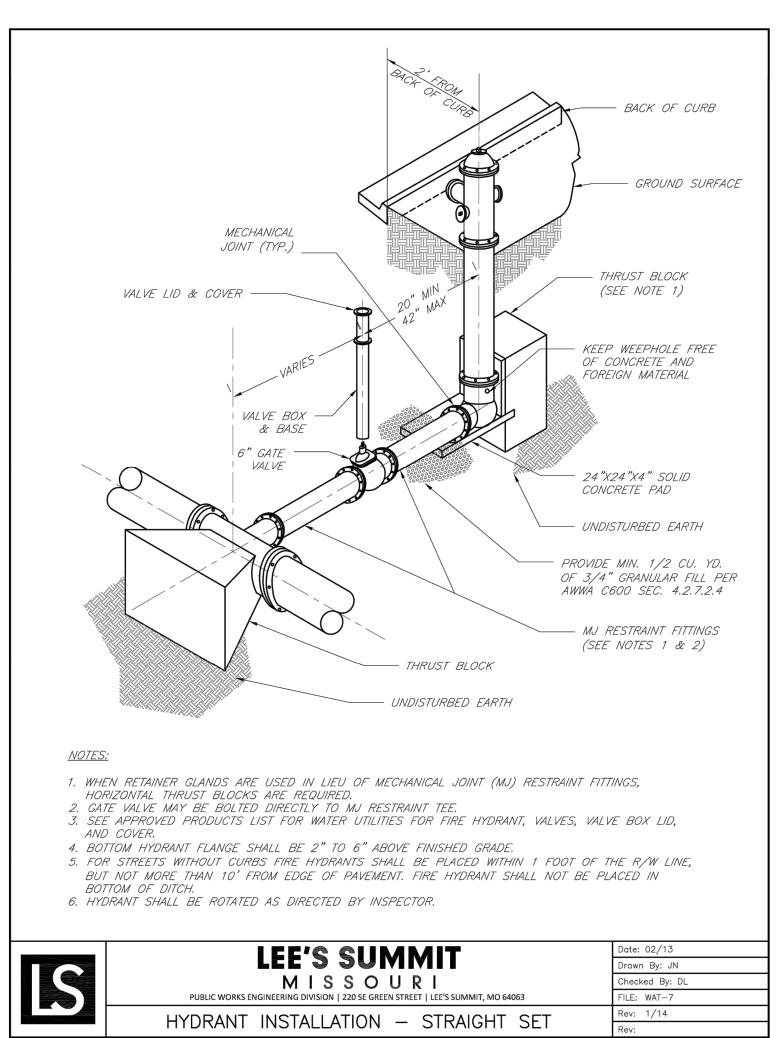


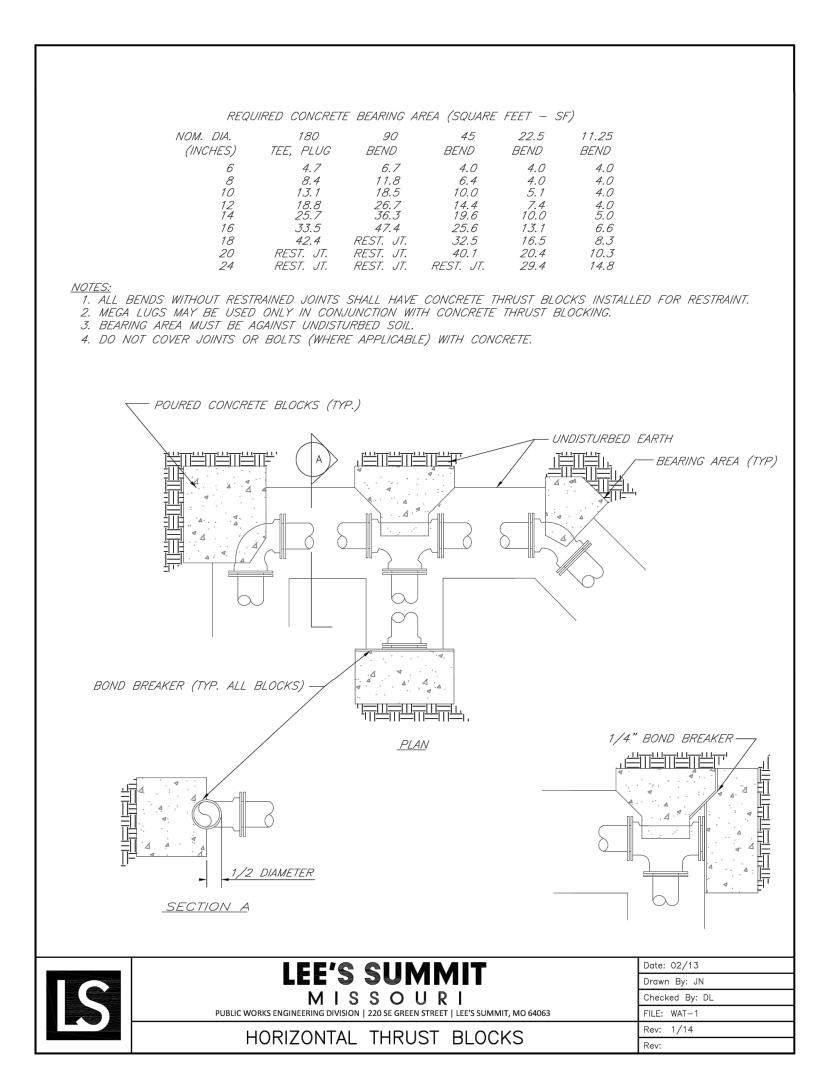


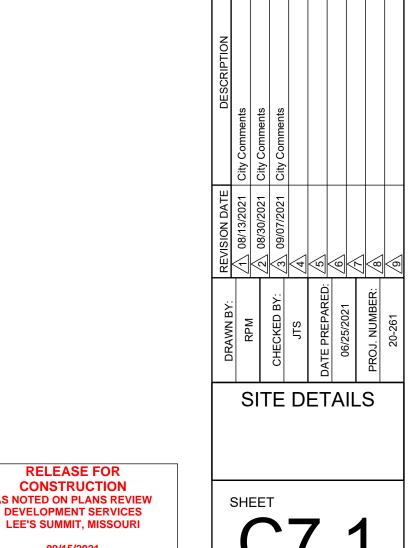












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DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
09/15/2021

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NON-SETBACK CURB INLET (6" Throat)

# NOTES:

- 1. All storm sewer structures shall be pre-cast or poured in place. If pre-cast structures are used for publicly financed, maintained or administered construction, the tops shall be poured in place and the wall steel shall be left exposed to a height 2" below the finish top elevation, or as directed by the city Engineer.
- 2. Pre-cast shop drawings are to be approved by the city Engineer Prior
- 3. Do not scale these drawings for dimensions or clearances. Any questions regarding dimensions shall be brought to the attention of the city Engineer prior to construction.
- 4. The first dimension listed in the construction notes is the "L" dimension. The second dimension is the "W" dimension. The concrete thickness and reinforcement shown is for boxes with ("L"+"H") and ("W"+"H") less then or equal to 20. For boxes with either of these calculations greater than 20, a special design is required.

# Concrete

- 5. Concrete used in this work shall be KCMMB4K, as approved by the Kansas City Metropolitan Materials Board, unless noted otherwise.
- 6. Concrete construction shall meet the applicable requirements of Standard Specifications for State Road and Bridge Construction, Kansas Department of Transportation, latest edition, unless noted otherwise.
- 7. Inlet floors shall be shaped with non-reinforced concrete inverts to provide smooth flow.
- 8. Bevel all exposed edges with 3/4" triangular molding.

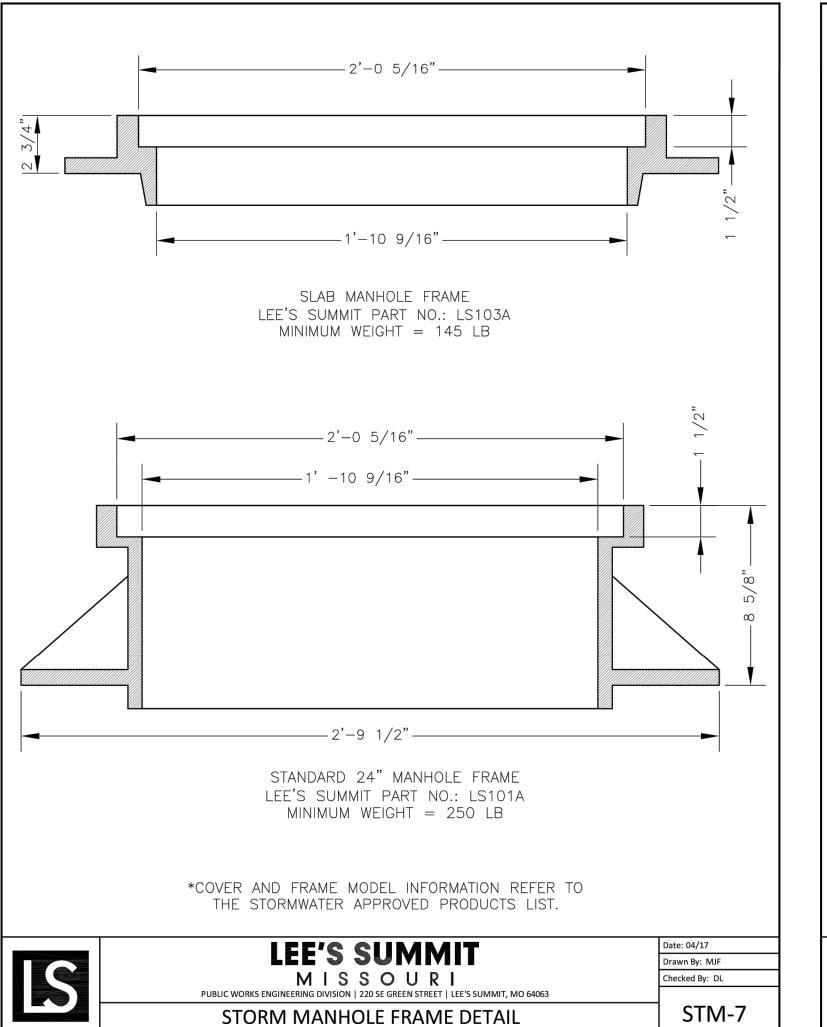
# Reinforcing Steel

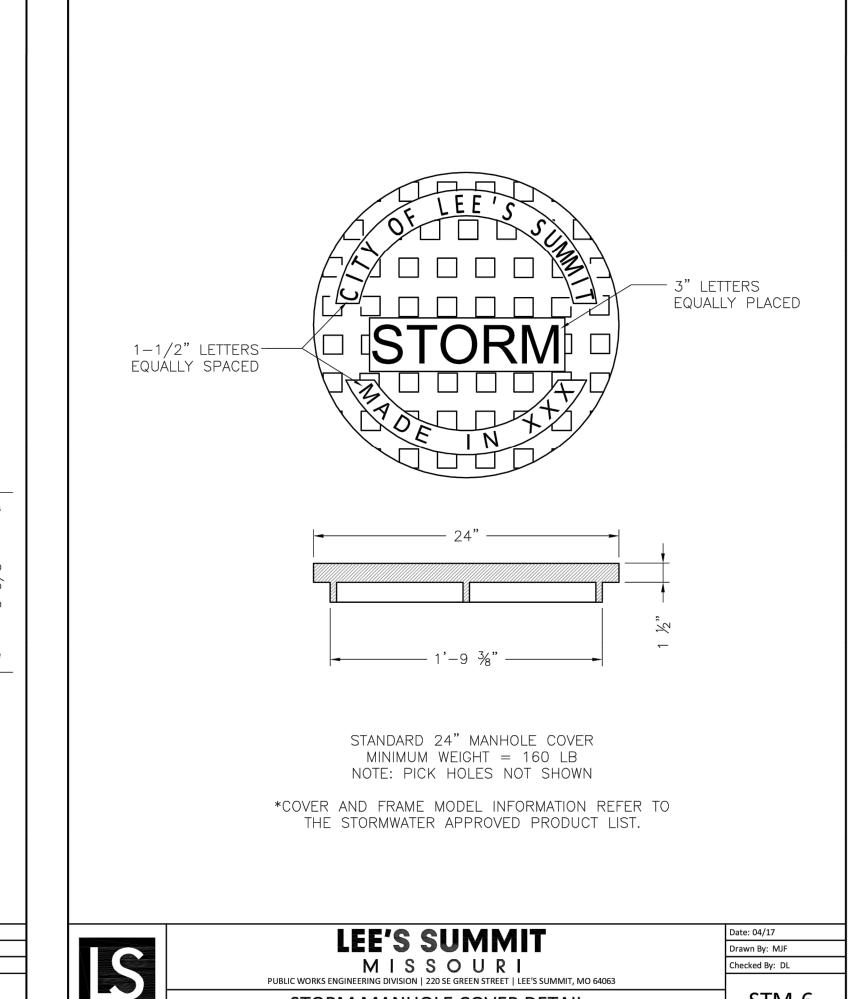
- Reinforcing steel shall be new billet, minimum Grade 40 as per ASTM A615, and shall be bent cold.
- 10. All dimensions relative to reinforcing steel are to centerline of bars. 2" clearance shall be provided throughout unless noted otherwise. Tolerance of +/- 1/8" shall be permitted.
- 11. All lap splices not shown shall be a minimum of 40 bar diameters in
- 12. All reinforcing steel shall be supported on fabricated steel bar supports @ 3'-0" maximum spacing.
- 13. All dowels shall be accurately placed and securely tied in place prior to placement of bottom slab concrete. Sticking of dowels into fresh or partially hardened concrete will not be acceptable.

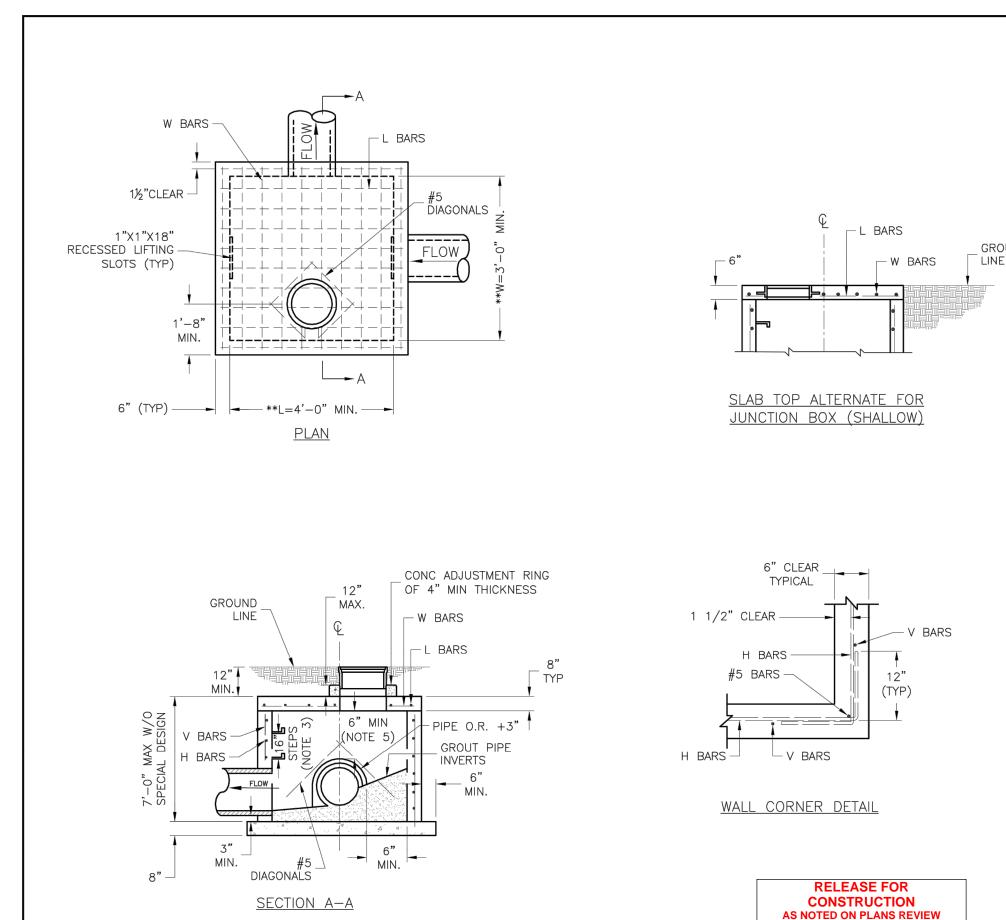
# Construction

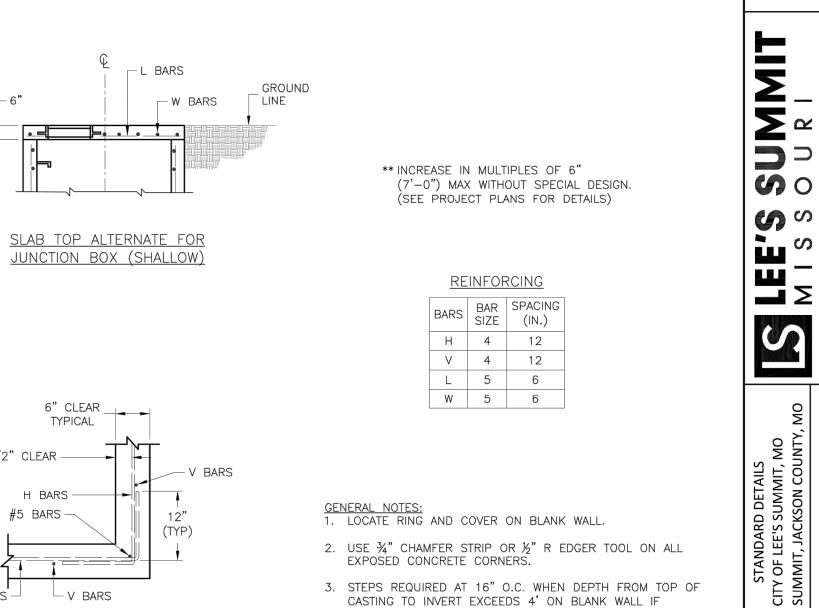
- 14. The bottom slab shall be at least 24 hours old before placing sidewall concrete. All sidewall forms shall remain in place a minimum of 24 hours after sidewalls are poured before removal, and after removal shall be immediately treated with membrane curing compound.
- 15. Pipe connections to pre-cast structures shall have a minimum of 6" of concrete around the entire pipe within 2' of the structure.
- 16. Material selection and compaction requirements for backfill around structures shall be as specified in the project manual.

# NON-SETBACK CURB INLET









4. BOXOUTS WILL NOT BE ALLOWED TO PROJECT THROUGH THE CORNERS OF THE STRUCTURE AND THE MINIMUM

5. THE MINIMUM REINFORCING SHALL BE 1 H-BAR OVER A CAST-IN-PLACE PIPE AND 2 H-BARS OVER A PRECAST

NON-SHRINKABLE GROUT AND REMOVABLE FOR FUTURE

9. REINFORCING OF COVERS IN STREETS REQUIRE SPECIAL

10. FOR RING AND COVER SEE THE STORMWATER APPROVED PRODUCT LIST.

8. PRECAST LIDS SHALL BE PINNED, SEALED WITH

DISTANCE BETWEEN BOXOUTS IS 6".

DEVELOPMENT SERVICES LEE'S SUMMIT, MISSOURI

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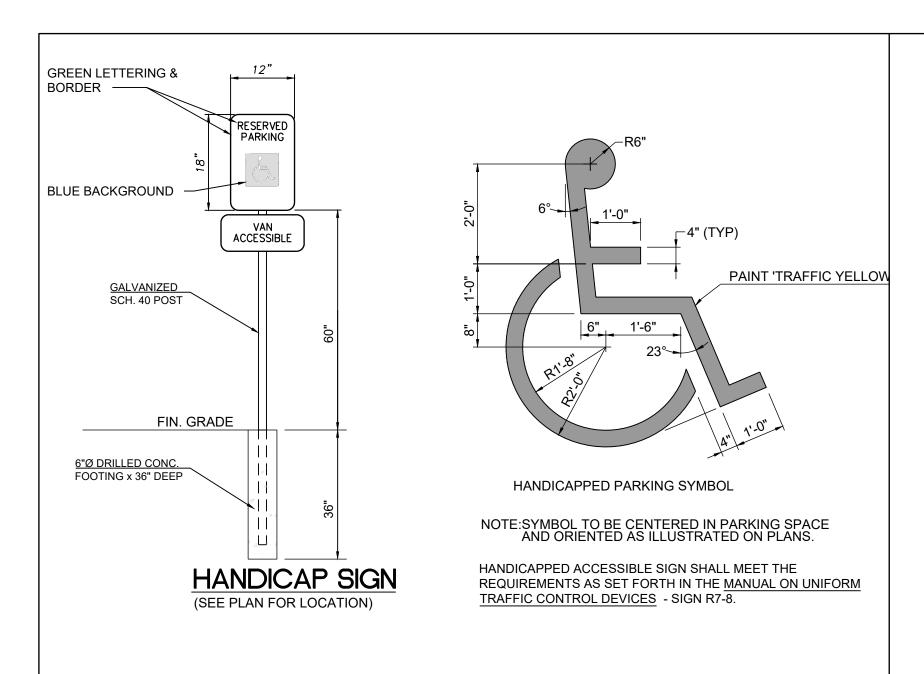
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STM-6 STORM MANHOLE COVER DETAIL

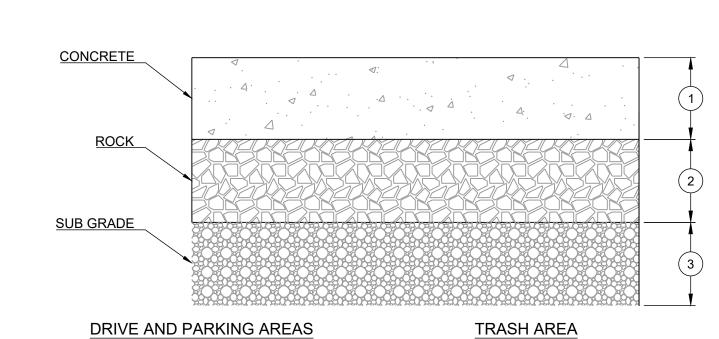
PARK INT PL ESS PME BUSINE 0 AKEWOOI FINAL

SITE DETAILS

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# TYPICAL HANDICAPPED PARKING DETAILS

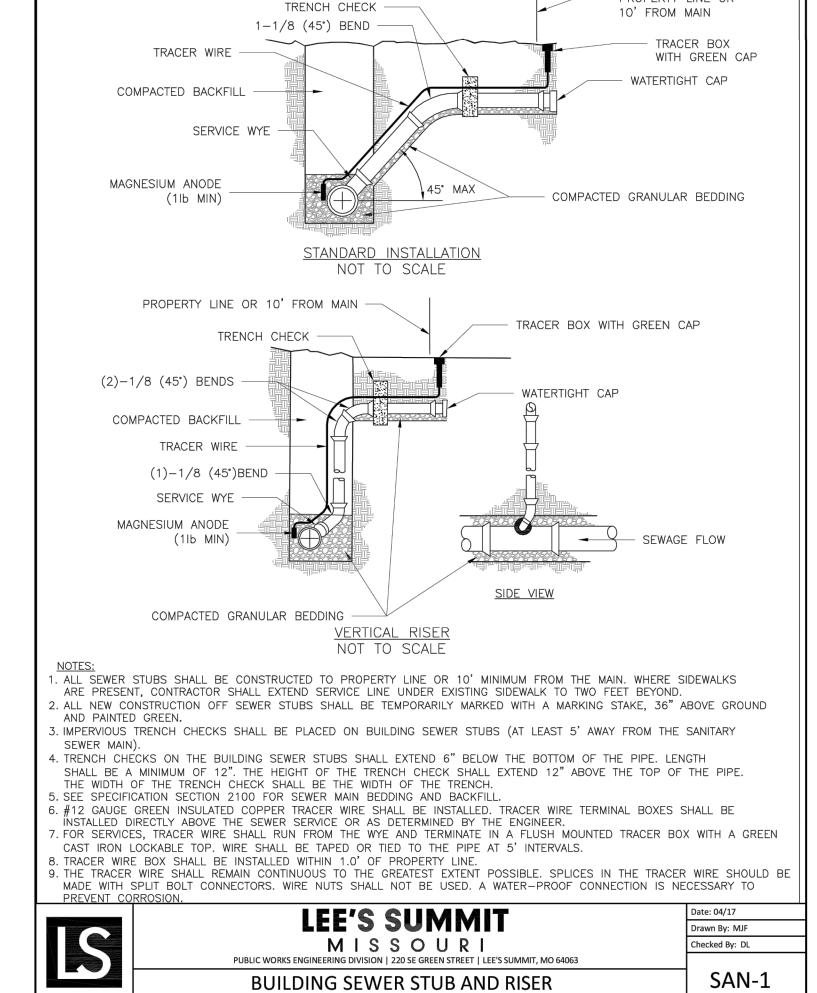


- 8" 4000 PSI PCC PAVEMENT
- 4" 3/4" CLEAN ROCK
- 9" STABILIZED SUBGRADE
- 4" 3/4" CLEAN ROCK

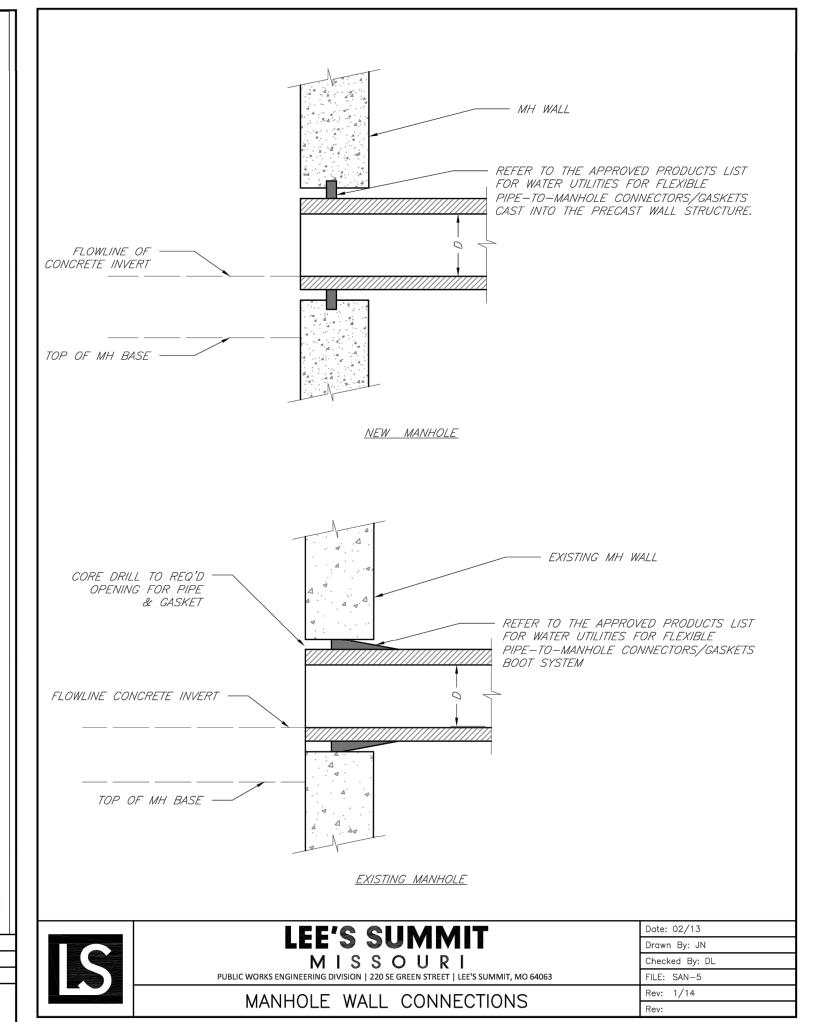
(1) 8" - 4000 PSI PCC PAVEMENT

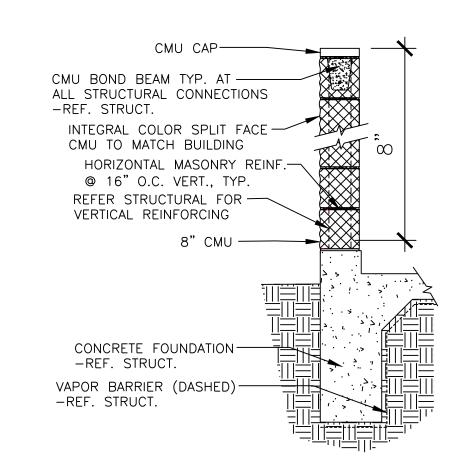
9" STABILIZED SUBGRADE

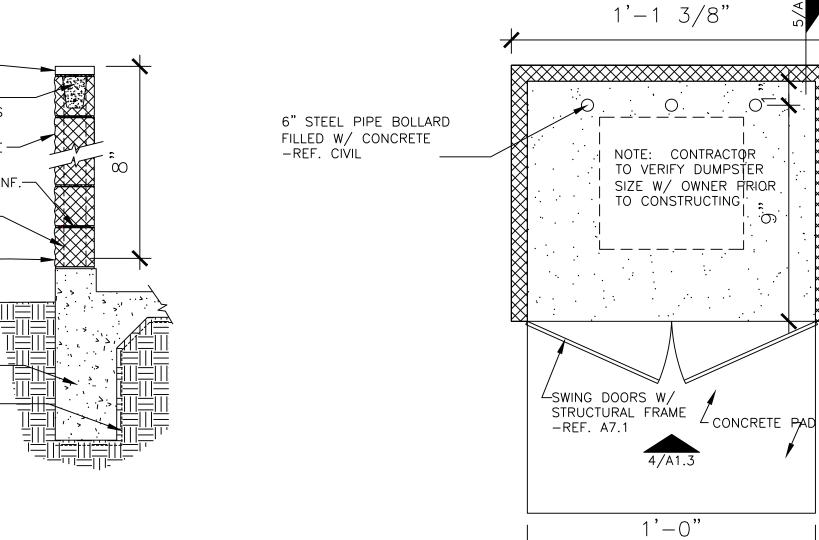
# TYPICAL CONCRETE PAVEMENT SECTION



PROPERTY LINE OR

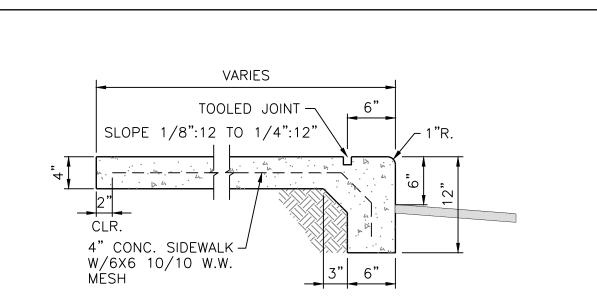




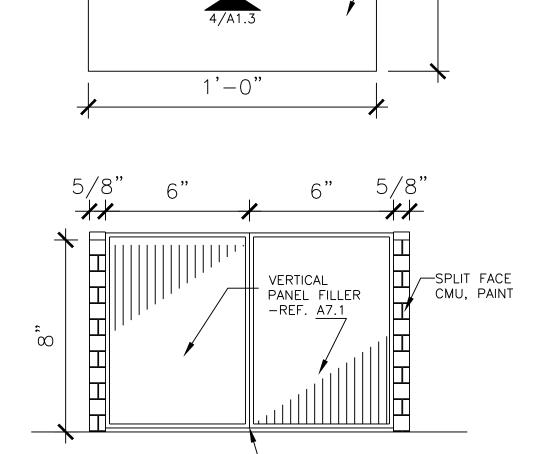


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09/15/2021



INTEGRAL CURB/SIDEWALK DETAIL



HOLD DOWN PINS
TO KEEP GATES CLOSED

PREPARED BY:



SCHLAGEL & ASSOCIATES, P.A.

AKEWOOD BUSINI FINAL DEVELO 410 EE'S

SITE DETAILS

TYPICAL CONCRETE PAVEMENT - JOINT DETAILS

JOINT SEALANT 1/8" — JOINT SEALANT #5 SMOOTH DOWELS -**GREASE & WRAP** TYPE 1 ONE END

NOTES:

1. TYPE 1 JOINTS MAY BE CONSTRUCTED WITH A GROOVING TOOL OR WITH A CONCRETE SAW AFTER THE CONCRETE IS SET.

2. TYPE 1 JOINTS SHALL BE SPACE TO EQUAL THE WIDTH OF THE SIDEWALK.

NOTES:

1. TYPE 2 JOINTS SHALL BE PLACED @ ALL P.C.'s, P.T.'s AND TRANSITIONS, AND WHERE NEW WALK TIES INTO EXISTING WALK.

TYPE 2

2. SMOOTH BARS SHALL BE 24" LONG.

NOTE:

1/2" PRE-MOLDED

NON-EXTRUDING FILLER

ENGINEER.

1/2"

TYPE 3

1. TYPE 3 JOINTS SHALL BE PLACED WHERE

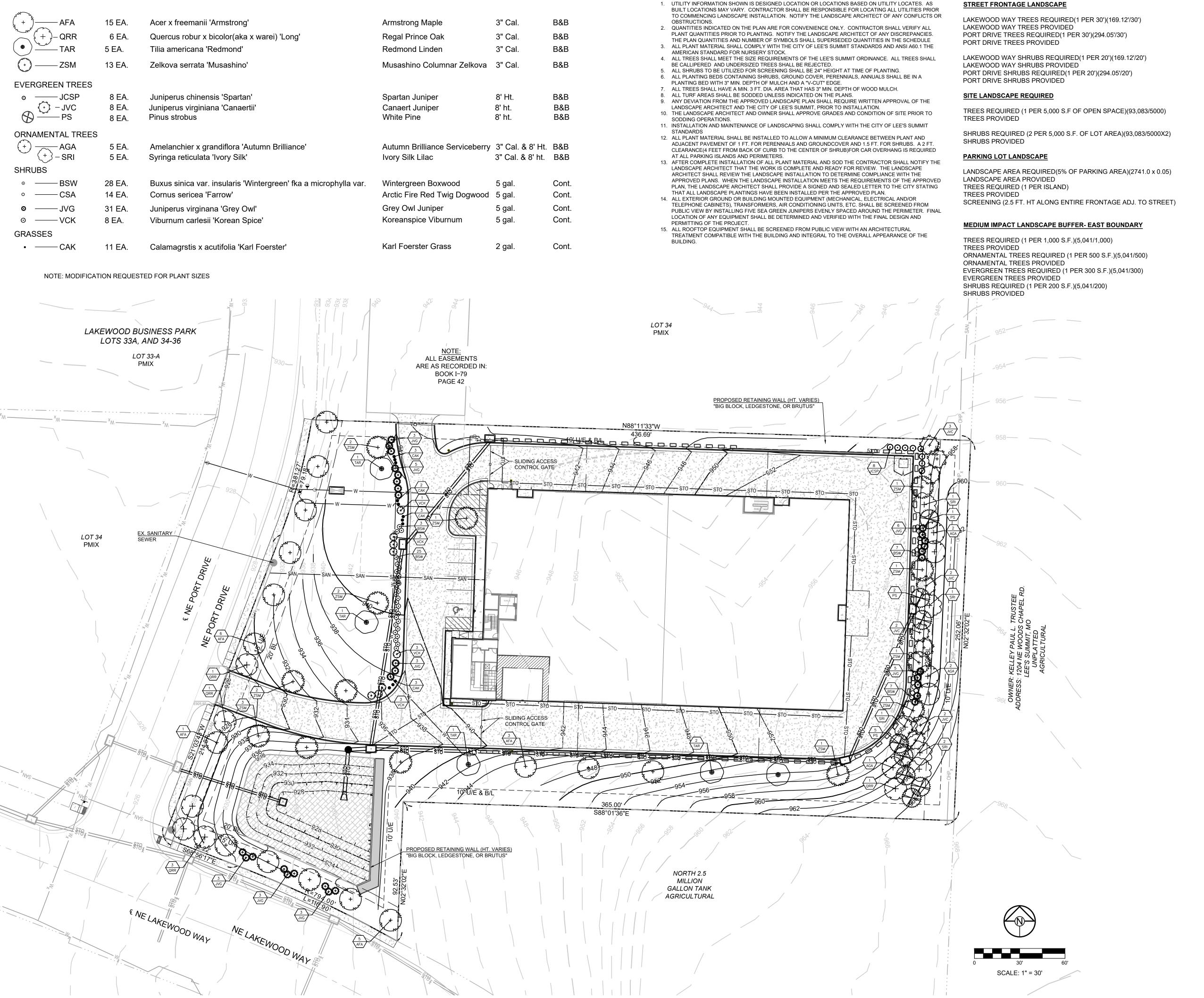
NEW CONCRETE ABUTS EXISTING

BARS ARE NOT REQUIRED BY THE

CONCRETE AND IN AREAS WHERE DOWEL

JOINT SEALANT

1/2" PREMOLDED NONEXTRUDING FILLER



NOTES:

LANDSCAPE DATA LOT 1 ONLY

10 TREES 10 TREES 17 TREES

17 TREES 25 SHRUBS

5 TREES

6 TREES

10 TREES

9 SHRUBS

9 SHRUBS

19 TREES

37 SHRUBS

138 S.F.

738.0 S.F.

1 TREE

1 TREE

15 SHRUBS

15 SHRUBS (IN PARKING LOT SCREEN)

37 SHRUBS (25 IN BUFFER, 12 IN FRONT)

58 SHRUBS (12 FROM OPEN SPACE,

15 FROM LAKEWOOD WAY)

19 TREES (3 IN BUFFER SCREEN)

**6 NEW TREES** 

11 NEW TREES

25 SHRUBS (25 FROM OPEN SPACE)

5 TREES (3 FROM OPEN SPACE)

PARKING LOT LANDSCAPING BED

**BIORETENTION** PONDING AREA

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PREPARED BY:

SCHLAGEL & ASSOCIATES, P.A.

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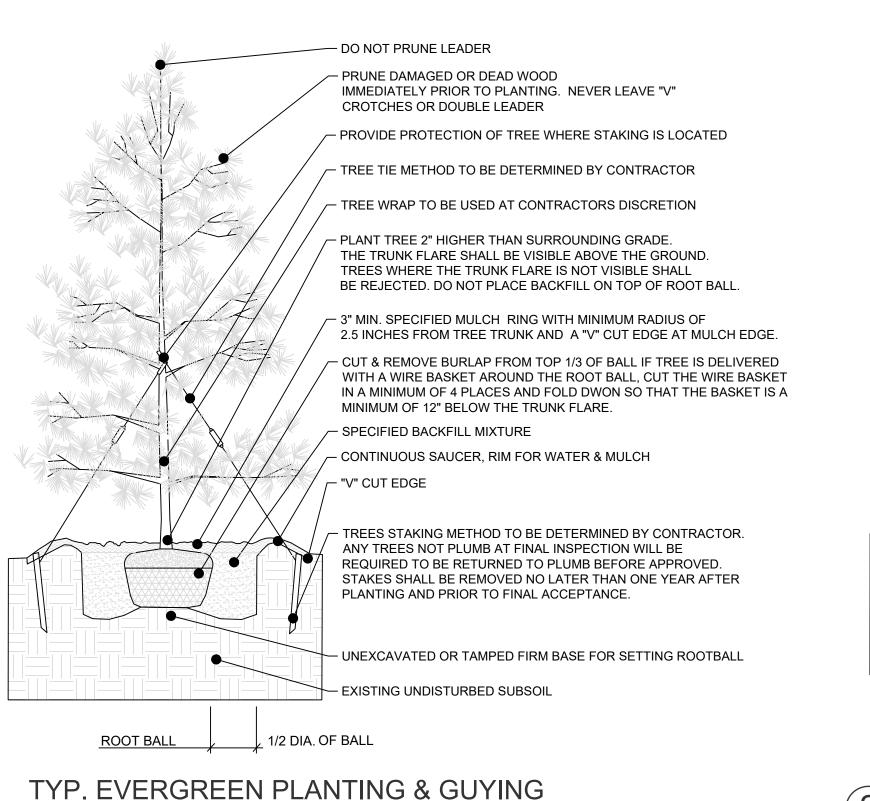
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LANDSCAPE PLAN

SHEET

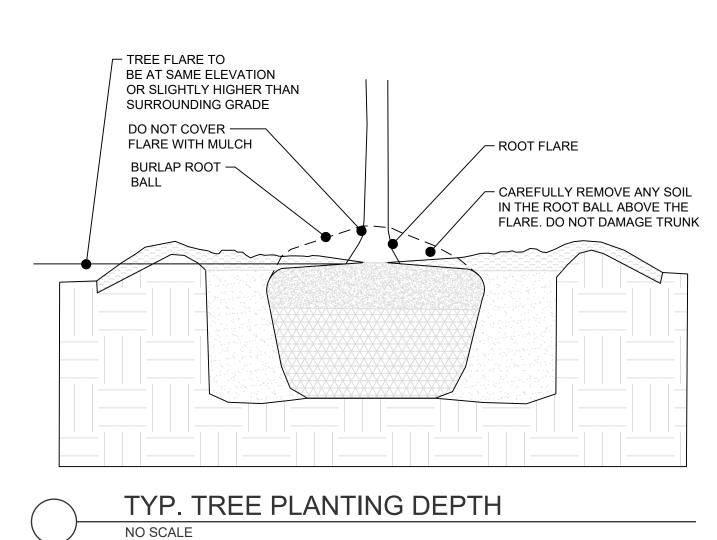
AS NOTED ON PLANS REVIEW **DEVELOPMENT SERVICES** LEE'S SUMMIT, MISSOURI 09/15/2021

**CONSTRUCTION** 



- DO NOT PRUNE LEADER PRUNE DAMAGED OR DEAD WOOD IMMEDIATELY PRIOR TO PLANTING. NEVER LEAVE "V" CROTCHES OR DOUBLE LEADER - PROVIDE PROTECTION OF TREE TRUNK WHERE TREE TIES CONNECT - TREE TIE METHOD TO BE DETERMINED BY CONTRACTOR TREE WRAP TO BE USED AT CONTRACTORS DISCRETION PLANT TREE 2" HIGHER THAN SURROUNDING GRADE. THE TRUNK FLARE SHALL BE VISIBLE ABOVE THE GROUND. TREES WHERE THE TRUNK FLARE IS NOT VISIBLE SHALL BE REJECTED. DO NOT PLACE BACKFILL ON TOP OF ROOT BALL. - 3" MIN. SPECIFIED MULCH RING WITH MINIMUM RADIUS OF 2.5 INCHES FROM TREE TRUNK AND A "V" CUT EDGE AT MULCH EDGE. - CUT & REMOVE BURLAP FROM TOP 1/3 OF BALL IF TREE IS DELIVERED WITH A WIRE BASKET AROUND THE ROOT BALL, CUT THE WIRE BASKET IN A MINIMUM OF 4 PLACES AND FOLD DWON SO THAT THE BASKET IS A MINIMUM OF 12" BELOW THE TRUNK FLARE. - SPECIFIED BACKFILL MIXTURE - CONTINUOUS SAUCER, RIM FOR WATER & MULCH ← "V" CUT EDGE TREES STAKING METHOD TO BE DETERMINED BY CONTRACTOR. ANY TREES NOT PLUMB AT FINAL INSPECTION WILL BE REQUIRED TO BE RETURNED TO PLUMB BEFORE APPROVED. STAKES SHALL BE REMOVED NO LATER THAN ONE YEAR AFTER PLANTING AND PRIOR TO FINAL ACCEPTANCE. UNEXCAVATED OR TAMPED FIRM BASE FOR SETTING ROOTBALL - EXISTING UNDISTURBED SUBSOIL ROOT BALL 1/2 DIA. OF BALL

TYP. DECIDUOUS PLANTING & GUYING NO SCALE



NO SCALE

 INSTALL TREE PER TYP. DECIDUOUS TREE AND GUYING DETAIL CENTER IN ISLAND - PLANT TREE 2" HIGHER THAN THE HIGHEST CURB ELEVATION. THE TRUNK FLARE SHALL BE VISIBLE ABOVE THE GROUND. TREES WHERE THE TRUNK FLARE IS NOT VISIBLE SHALL BE REJECTED. DO NOT PLACE BACKFILL ON TOP OF ROOT BALL. /- CUT & REMOVE BURLAP FROM TOP 1/3 OF BALL IF TREE IS DELIVERED WITH A WIRE BASKET AROUND THE ROOT BALL, CUT THE WIRE BASKET IN A MINIMUM OF 4 PLACES AND FOLD DWON SO THAT THE BASKET IS A MINIMUM OF 12" BELOW THE TRUNK FLARE. TREES STAKING METHOD TO BE DETERMINED BY CONTRACTOR. ANY TREES NOT PLUMB AT FINAL INSPECTION WILL BE REQUIRED TO BE RETURNED TO PLUMB BEFORE APPROVED. STAKES SHALL BE REMOVED NO LATER THAN ONE YEAR AFTER PLANTING AND PRIOR TO FINAL ACCEPTANCE. - UNEXCAVATED OR TAMPED FIRM BASE FOR SETTING ROOTBALL - 3" MIN. SPECIFIED MULCH. DO NOT PLACE MULCH AGAINST TREE TRUNK SPECIFIED BACKFILL MIXTURE FOR FULL DEPTH OF ROOTBALL FROM CURB TO CURB - 12 INCHES MIN. SPECIFIED BACKFILL MIXTURE TO BE PLACED IN THE ENTIRE ISLAND CROWN GRADE IN CENTER. SLOPE TO DRAIN TOWARD CURB CONTRACTOR TO REMOVE ALL DEBRIS, CONCRETE SLAG/WASTE, CLAY WITHIN ENTIRE ISLAND AREA **EXISTING UNDISTURBED SUBSOIL** 

TYP. PARKING LOT ISLAND PLANTING

NO SCALE

RELEASE FOR CONSTRUCTION AS NOTED ON PLANS REVIEW DEVELOPMENT SERVICES LEE'S SUMMIT, MISSOURI



2. Provide healthy stock, grown in a nursery and reasonably free of die-back, disease, insects, eggs, bores, and larvae. At the time of planting all plants shall have a root system, stem, and branch form that will not restrict normal growth, stability and health for the expected life of the plant.

1. All trees shall comply with State and Federal regulations. Trees should be obtained from local sources but must meet the quaility quidelines herein. Trees transported from out of the region shall

3. All trees shall be nursery-grown.

4. Plants shall be healthy with the color, shape, size and distribution of trunk, stems, branches, buds and leaves normal to the plant type specified. Tree quality above the soil line shall comply with

5. Crown: The form and density of the crown shall be typical for a young specimen of the species or cultivar pruned to a central and dominant leader. 6. Crown specifications do not apply to plants that have been specifically trained in the nursery as topiary, espalier, multi-stem, clump, or unique selections such as contorted or weeping cultivars.

7. Leaves: The size, color, and appearance of leaves shall be typical for the time of year and stage of growth of the species or cultivar. Trees shall not show signs of prolonged moisture stress or over watering as indicated by wilted, shriveled, or dead leaves. 8. Branches: Shoot growth (length and diameter) throughout the crown should be appropriate for the age and size of the species or cultivar. Trees shall not have dead, diseased, broken, distorted,

or otherwise injured branches. a.) Main branches shall be distributed along the central leader not clustered together. Potential main branches shall be evenly spaced and have appropriate space between them. They

shall form a balanced crown appropriate for the cultivar/species. b.) Branch diameter shall be no larger than two-thirds (one-half is preferred) the diameter of the central leader measured 1 inch above the branch union.

The attachment of the largest branches (scaffold branches) shall be free of included bark.

meet all State and Federal regulations and be certified to be disease and insect free.

d.) Branches shall be distributed radially around and vertically along the trunk, forming a generally symmetrical crown typical for the species. e.) The attachment of scaffold branches shall be free of included bark.

9. Branch structure: The better quality, large-maturing shade trees (lower extreme left) have all branches less than about two-thirds the trunk diameter. Poor quality shade trees (lower left center) have larger upright branches. Trees such as crape myrtle and other small-maturing trees can have several trunks. Trees with extensive defects in branches such as cracks and included bark (lower right) represent lesser quality than trees free of these potential problems. Included bark can be seen between the two arrows below. Branches with bark inclusions are weakly attached to

10. Evergreen branch structure: The branch pattern should dense, symmetrical and the branch stems should be evenly spaced completely around the trunk. The branches shall extend to within 12 inches of the ground and be along the full length of the trunk. Trees which are not symmetrical or that have an "open area" will be rejected. For structural integrity on evergreen trees, all side branches should be less than half the diameter of the adjacent trunk (less than one-third is preferred).

11. Trunk: The tree trunk shall be relatively straight, vertical, and free of wounds that penetrate to the wood (properly made pruning cuts, closed or not, are acceptable and are not considered wounds), sunburned areas, conks (fungal fruiting bodies), wood cracks, sap leakage, signs of boring insects, galls, cankers, girdling ties, or lesions (mechanical injury).

and are not considered wounds), sunburned areas, conks (fungal fruiting bodies), wood cracks, sap leakage, signs of boring insects, galls, cankers, girdling ties, or lesions (mechanical injury). Codominant trunks (trunks of similar size) will not be accepted. 13. Temporary branches, unless otherwise specified, can be present along the lower trunk below the lowest main (scaffold) branch, particularly for trees less than 1 inch in caliper. These branches

should be no greater than 3/8-inch diameter. Clear trunk should be no more than 40% of the total height of the tree. 14. Central Leader: Trees shall have a single(one), relatively straight central leader and tapered trunk, free of co-dominant stems and vigorous, upright branches that compete with the central

12. Evergreen tree trunk: Evergreen trees shall have a single trunck that isstraight, vertical, and free of wounds that penetrate to the wood (properly made pruning cuts, closed or not, are acceptable

leader. Preferably, the central leader should not have been headed. However, in cases where the original leader has been removed, an upright branch at least ½ (one-half) the diameter of the original leader just below the pruning point shall be present. All trees are assumed to have one central leader trees unless a different form is specified in the plant list or drawings. If the central leader is broken or damaged during delivery or installation the tree shall be rejected and removed from the site. If the central leader dies wihin the warranty period the tree shall be replaced at the end of the warranty period.

15. All graft unions, where applicable, shall be completely closed without visible sign of graft rejection. All grafts shall be visible above the soil line. 16. Trunk caliper and taper shall be sufficient so that the lower five feet of the trunk remains vertical without a stake. Auxiliary stake may be used to maintain a straight leader in the upper half of the

17. Plant roots shall be normal to the plant type specified. Root observations shall take place without impacting tree health. Root quality at or below the soil line shall comply with the project Root Acceptance details and the following:

18. The roots shall be reasonably free of scrapes, broken or split wood.

19. The root system shall be reasonably free of injury from biotic (e.g., insects and pathogens) and abiotic (e.g., herbicide toxicity and salt injury) agents. Wounds resulting from root pruning used to produce a high quality root system are not considered injuries.

20. A minimum of three structural roots reasonably distributed around the trunk (not clustered on one side) shall be found in each plant. Root distribution shall be uniform throughout the root ball, and growth shall be appropriate for the species.

21.Plants with structural roots on only one side of the trunk (J roots) shall be rejected.

22. The root collar shall be within the upper 1 inch of the substrate/soil. Two structural roots shall reach the side of the root ball near the top surface of the root ball. The grower may request a modification to this requirement for species with roots that rapidly descend, provided that the grower removes all stem girdling roots above the structural roots across the top of the root ball. Any excess soil shall be removed from the root ball so that the root flare is visible as indicated in the "Planting Depth Detail". The root collar shall be visible above the mulch layer. 23. The root system shall be free of stem girdling roots over the root collar or kinked roots from nursery production practices.

24.Plant Grower Certification: The final plant grower shall be responsible to have determined that the plants have been root pruned at each step in the plant production process to remove stem girdling roots and kinked roots, or that the previous production system used practices that produce a root system throughout the root ball that meets these specifications. Regardless of the work of previous growers, the plant's root system shall be modified at the final production stage, if needed, to produce the required plant root quality. The final grower shall certify in writing that all

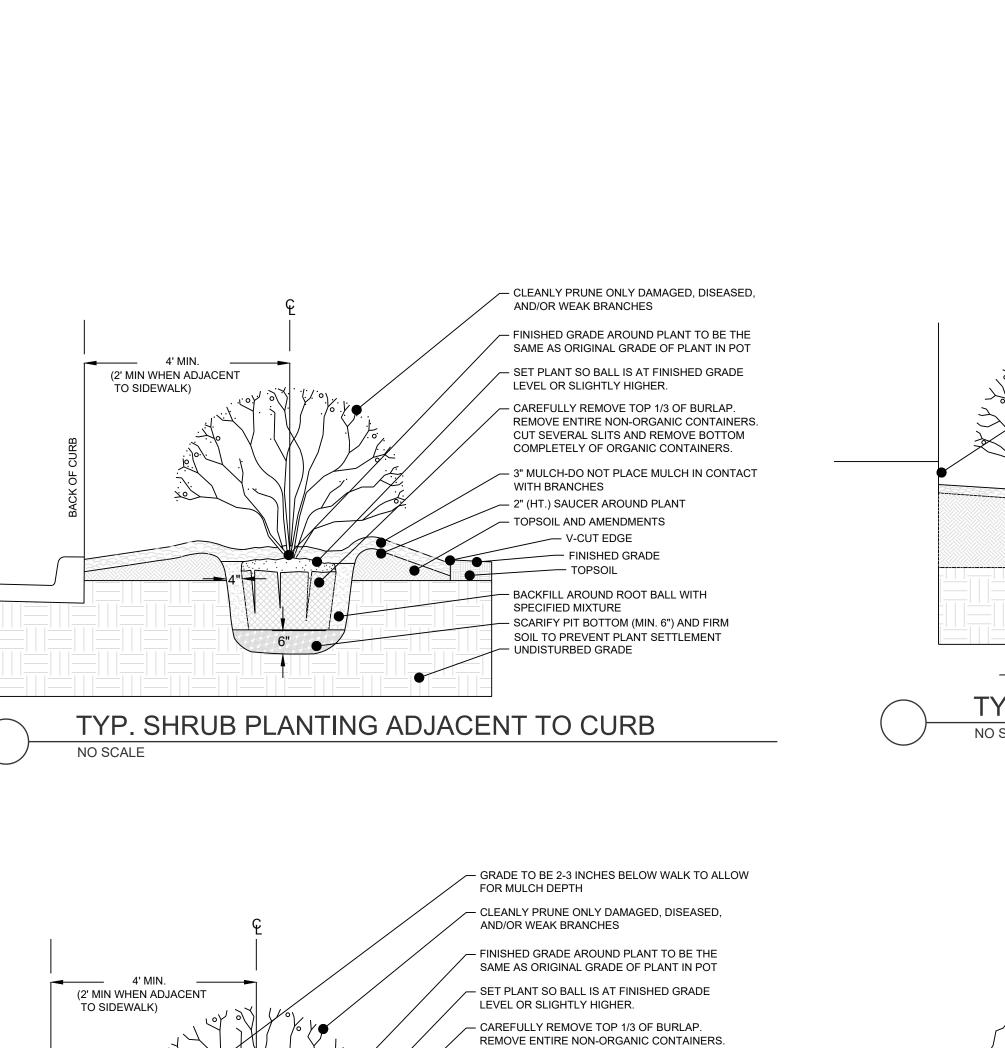
plants are reasonably free of stem girdling and kinked roots as defined in this specification, and that the tree has been grown and harvested to produce a plant that meets these specifications. 25.At time of observations and delivery, the root ball shall be moist throughout. Roots shall not show signs of excess soil moisture conditions as indicated by stunted, discolored, distorted, or dead PREPARED BY:

SCHLAGEL & ASSOCIATES, P.A

 $\mathcal{C}$ JSINE BU 0 AKEWOOI FINAL I  $\Box$  $\overline{\phantom{a}}$ 

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LANDSCAPE DETAILS



CUT SEVERAL SLITS AND REMOVE BOTTOM COMPLETELY OF ORGANIC CONTAINERS. — 3" MULCH-DO NOT PLACE MULCH IN CONTACT WITH BRANCHES \_\_\_ 2" (HT.) SAUCER AROUND PLANT TOPSOIL AND AMENDMENTS \_\_ STEEL EDGE(OR V CUT EDGE) \_\_\_\_\_ FINISHED GRADE TOPSOIL — BACKFILL AROUND ROOT BALL WITH SPECIFIED MIXTURE - SCARIFY PIT BOTTOM (MIN. 6") AND FIRM SOIL TO PREVENT PLANT SETTLEMENT UNDISTURBED GRADE 6" MIN. ROOT BALL TYP. SHRUB PLANTING ADJACENT TO WALK

NO SCALE

- CLEANLY PRUNE ONLY DAMAGED, DISEASED,

- FIRM SOIL AROUND EACH PLANT ROOT MASS

— SET PLANT SO THE TOP OF THE BASE IS LEVEL

- 3" MULCH-DO NOT PLACE MULCH IN CONTACT

- CAREFULLY REMOVE ENTIRE CONTAINER.

GENTLY LOOSEN ANY TANGLE ROOTS

WITH THE FINISHED GRADE OR SLIGHTLY HIGHER.

AND/OR WEAK BRANCHES

WITH BRANCHES

- UNDISTURBED GRADE

EDGING

TOPSOIL

FINISH GRADE

- TOPSOIL AND AMENDMENTS

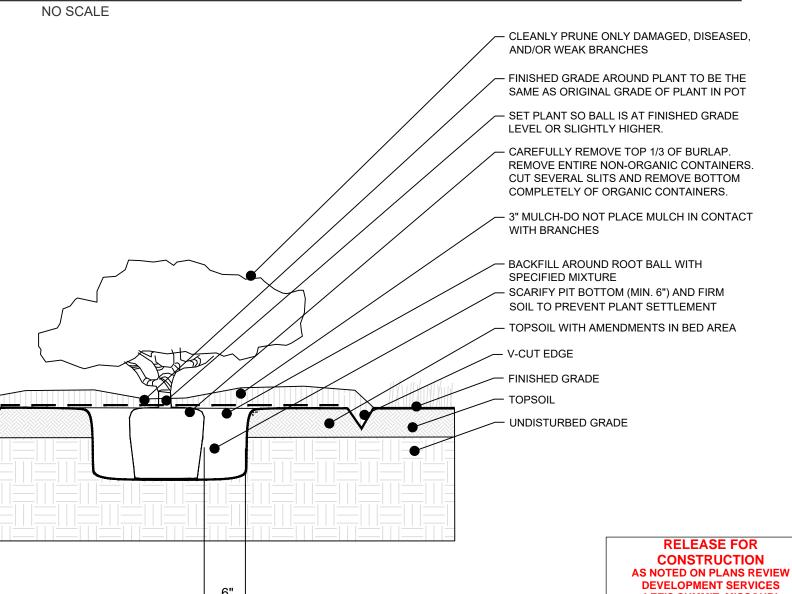
TYP. SHRUB BED IN LAWN DETAIL NO SCALE

ROOT BALL MIN.

- FINISHED GRADE TO MIN. 9 INCHES BELOW FLOOR ELEVATION TO ALLOW FOR 3 INCHES OF MULCH AND 4 INCHES SEPARATION FROM BOTTOM OF SIDING TO MULCH - CLEANLY PRUNE ONLY DAMAGED, DISEASED, AND/OR WEAK BRANCHES FINISHED GRADE AROUND PLANT TO BE THE SAME AS ORIGINAL GRADE OF PLANT IN POT - SLOPE SOIL TO PROVIDE POSITIVE DRAINAGE AWAY FROM BUILDING - SET PLANT SO BALL IS AT FINISHED GRADE LEVEL OR SLIGHTLY HIGHER. — CAREFULLY REMOVE TOP 1/3 OF BURLAP. REMOVE ENTIRE NON-ORGANIC CONTAINERS. COMPLETELY OF ORGANIC CONTAINERS. - 3" MULCH-DO NOT PLACE MULCH IN CONTACT WITH BRANCHES - TOPSOIL AND AMENDMENTS FINISHED GRADE GRADE TO BE 2-3 INCHES BELOW WALK TO ALLOW FOR MULCH DEPTH SIDEWALK TOPSOIL BACKFILL AROUND ROOT BALL WITH SPECIFIED MIXTURE - SCARIFY PIT BOTTOM (MIN. 6") AND FIRM SOIL TO PREVENT PLANT SETTLEMENT

— UNDISTURBED GRADE 6" MIN. ROOT BALL

TYP. SHRUB PLANTING ADJACENT TO BUILDING



LEE'S SUMMIT, MISSOURI 09/15/2021

SHEET

LANDSCAPE

PREPARED BY:

SCHLAGEL & ASSOCIATES, P.A.

3

BUSINESS PAF DEVELOPMENT I

 $\Box$ 

T DRIV

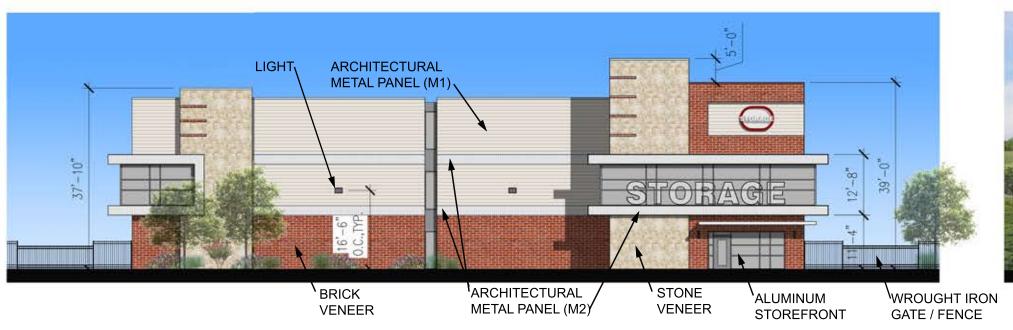
OR

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SPACING AS SHOWN
ON CHART

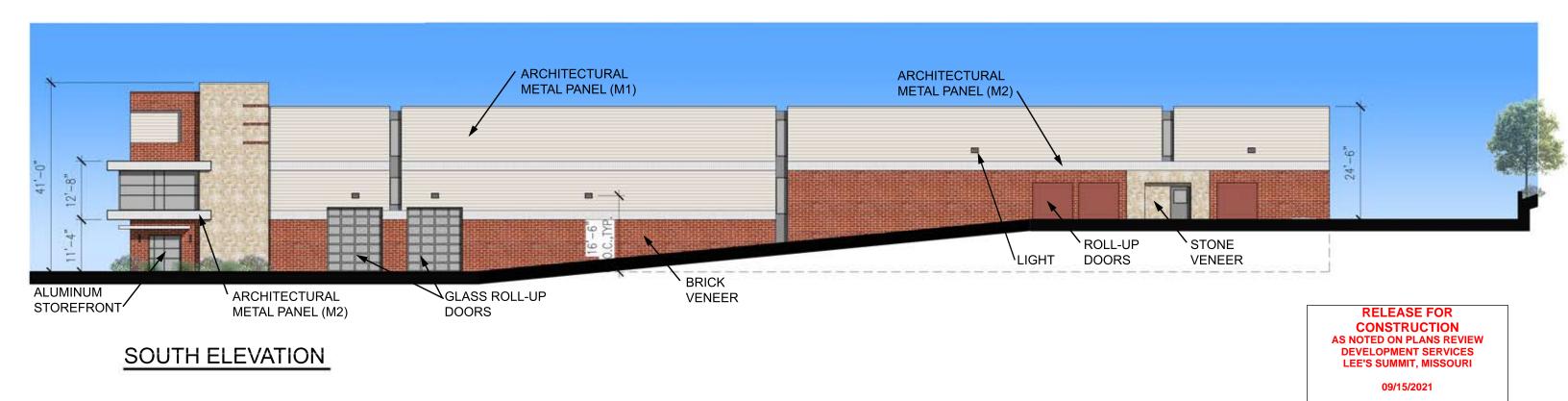
TYP. ANNUAL/PERENNIAL PLANTING

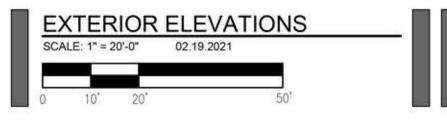
DETAILS





# **WEST ELEVATION**





# LAKEWOOD STORAGE LEE SUMMIT, MISSOURI

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CONCEPTUAL SITE PLAN HAS BEEN DEVELOPED WITHOUT SURVEY, SETBACK, EASEMENT, OR CIVIL ENGINEERING INFORMATION.

DALLENBACH-COLE

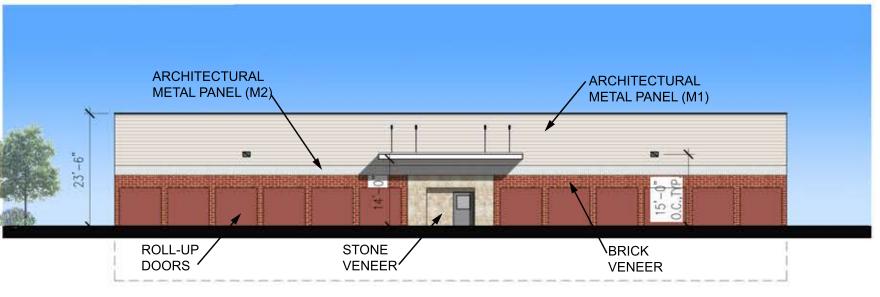
ARCHITECTURE

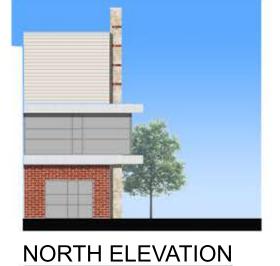
12035 COLWICK

SAN ANTONIO, TX 78216

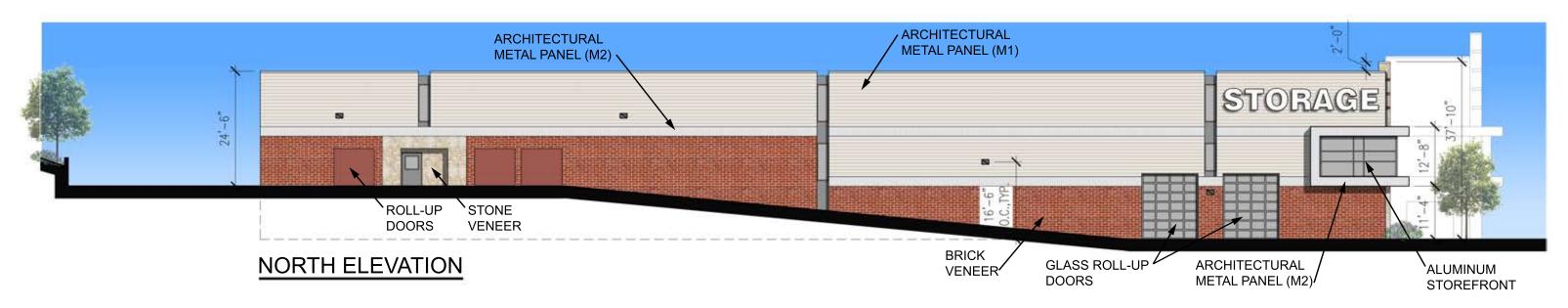
WWW.DALLENBACHCOLE.COM





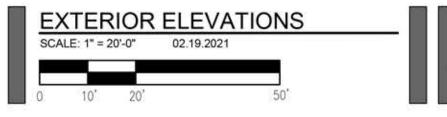


# **EAST ELEVATION**



# **RELEASE FOR CONSTRUCTION AS NOTED ON PLANS REVIEW** DEVELOPMENT SERVICES LEE'S SUMMIT, MISSOURI

09/15/2021



LAKEWOOD STORAGE LEE SUMMIT, MISSOURI

THIS DOCUMENT IS NOT FOR REGULATORY JEFFREY S. DALLENBACH, AIA MO REGISTRATION NO: A-2020036988

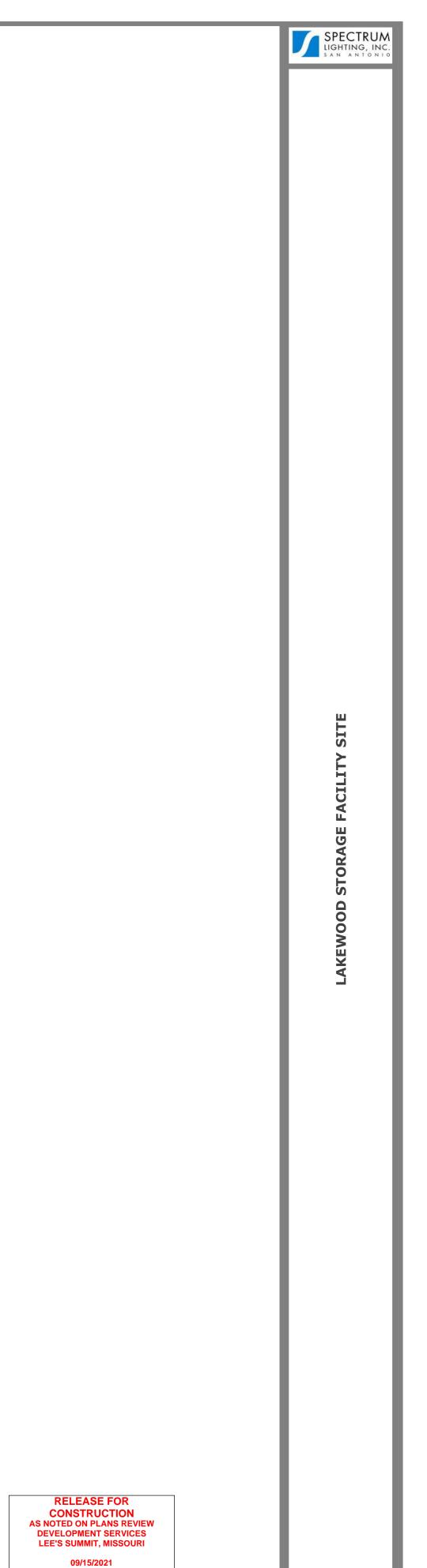
CONCEPTUAL SITE PLAN HAS BEEN DEVELOPED WITHOUT SURVEY, SETBACK, EASEMENT, OR CIVIL ENGINEERING

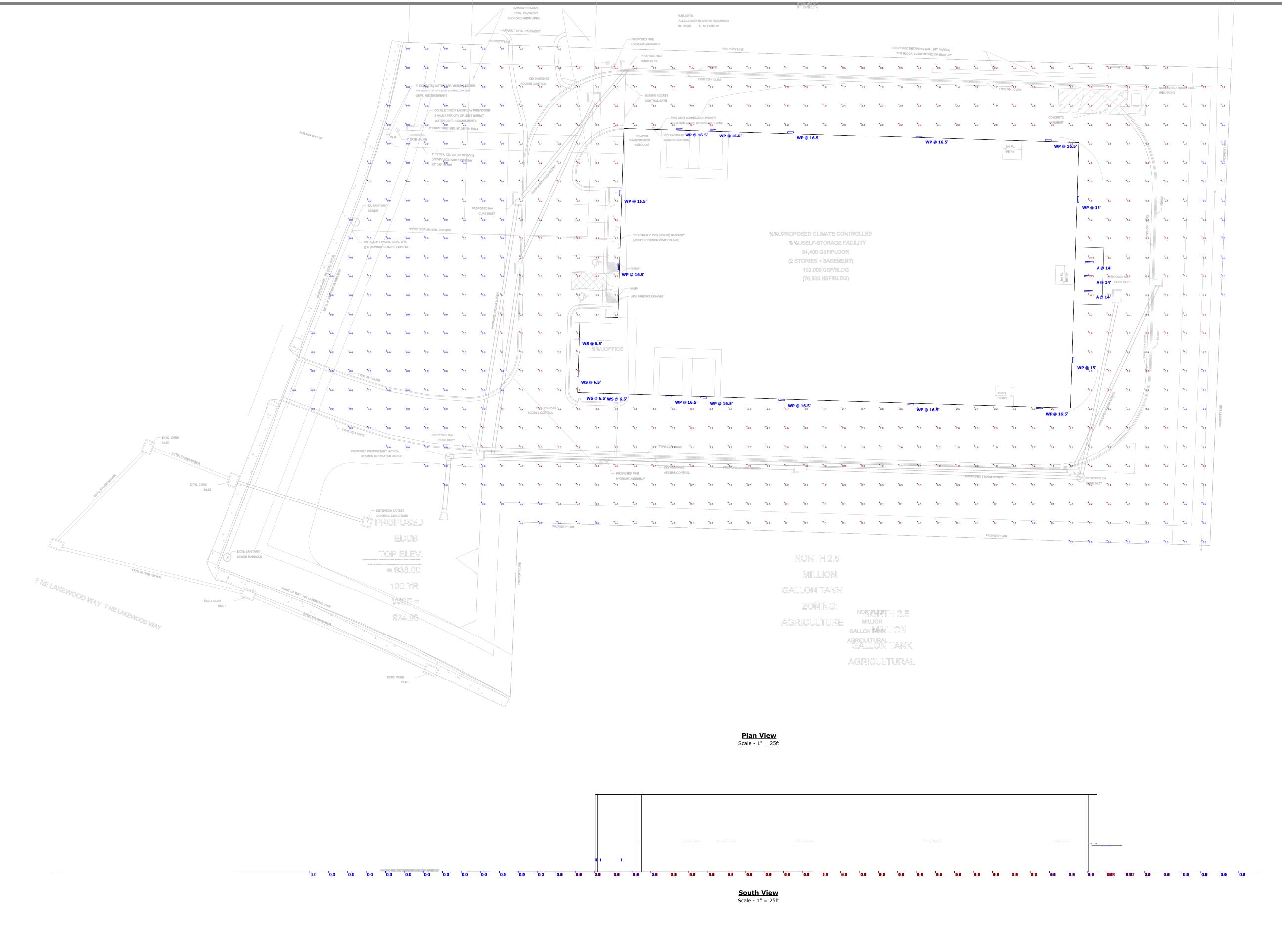












Symbol	Label	QTY	Manufacturer	Catalog Number	Description	Lamp	Number Lamps	Filename	Lumens per Lamp	LLF	Wattage	Distribu ion
	WP	14	Lithonia Lighting	DSXW1 LED 20C 1000 40K T2M MVOLT	DSXW1 LED WITH (2) 10 LED LIGHT ENGINES, TYPE T2M OPTIC, 4000K, @ 1000mA.	LED	1	DSXW1_LED_2 0C_1000_40K_ T2M_MVOLT.ies	7373	0.95	73.2	TYPE III MEDIUM BUG RATING: B2 - U0 G2
	WS	4	VISA LIGHTING	OW5524	VANITY HORIZONTAL MOUNT 19"	LED 3500K -H	1	OW5524-L35K- H.ies	981	0.95	10.4	
	A	3	Lithonia Lighting	VAP 6000LM FST MD 40K 80CRI	VAP LED with BLT Gen 2 Boards		1	VAP_6000LM_F ST_MD_40K_80 CRI.ies	5442	0.95	49.31	DIRECT, SC- 0=1.18, SC- 90=1.19

Statistics						
Description	Symbol	Avg	Max	Min	Max/Min	Avg/Mir
Calc Zone #1	+	1.1 fc	23.1 fc	0.0 fc	N/A	N/A

1. ALL EXTERIOR CALCULATIONS ARE ASSUMED ON EVEN OR FLAT TERRAIN.

2. ALL EXTERIOR CALCULATIONS ARE TAKEN AT 0'-0" AFG.

3. VALUE NEXT TO LUMINAIRE LABEL DRAWING REPRESENTS OVERALL MOUNTING HEIGHT.

This document was prepared to convey a concept and not detail a working system. Spectrum Lighting, Inc. makes no representation, express or implied, with respect to the use of the information conveyed in this document, regardless of its format or the means of its distribution. Any specific information regarding the installation must be provided by the manufacturer of the equipment. There is no gurantee or representation to the user as to the accuracy, currency, suitability or reliability of this document for any purpose. The fixture schedule above does not contain the complete fixture nomenclature required for construction or bidding purposes. The fixture nomenclature listed is the photometric file of the base fixture. Please contact Spectrum Lighting Inc., San Antonio for a complete fixture schedule.

Designer
Matt Stohlmann
Date
03/15/2021
Scale
Not to Scale
Drawing No.
REV 2
Summary

## Location: Underside of Large Canopies

#### **OUTDOOR PHOTOMETRIC REPORT**

Test #:

ISF36812P29

Test Lab: SCALED PHOTOMETRY

CATALOG: VAP 6000LM FST MD 40K 80CRI

VAP 6000LM FST MD 40K 80CRI Catalog: Description: VAP LED with BLT Gen 2 Boards

Series: VAP LED

Lamp Output: Total luminaire Lumens: 5442.5, absolute

photometry \*

Input Wattage: 49.31

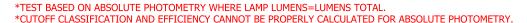
Luminous Opening: Rectangle w/Luminous Sides (L: 1.39M, W: 0.2M, H:

0.01M)

Max Cd: 1,942.6 at Horizontal: 270°, Vertical: 2.5°

Roadway Class: Type VS

Zonal	Lumen 9	Summary	one					
Zone	Lumens	% Luminaire	Zone	Lumens	% Total	Zone	Lumens	% 1
0-30	1,458.8	26.8%	0-10	182.7	3.4%	90-100	65.2	1
0-40	2,347.3	43.1%	10-20	515.3	9.5%	100-110	50.7	0
0-60	4,014.7	73.8%	20-30	760.8	14.0%	110-120	49.5	0
60-90	1,120.1	20.6%	30-40	888.6	16.3%	120-130	45.1	0
70-100	597.6	11%	40-50	889.6	16.3%	130-140	38.3	0
90-120	165.4	3%	50-60	777.7	14.3%	140-150	29.2	0
0-90	5,134.8	94.3%	60-70	587.7	10.8%	150-160	18.1	0
90-180	307.7	5.7%	70-80	365.0	6.7%	160-170	9.0	0
0-180	5,442.5	100%	80-90	167.4	3.1%	170-180	2.6	



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PUBLISH PAGE 1 OF 3

**RELEASE FOR** CONSTRUCTION **AS NOTED ON PLANS REVIEW DEVELOPMENT SERVICES** LEE'S SUMMIT, MISSOURI



# **OUTDOOR PHOTOMETRIC REPORT**CATALOG: VAP 6000LM FST MD 40K 80CRI



**Roadway Summary** Distribution: Type VS Max Cd, 90 Deg Vert: 172.9 Max Cd, 80 to <90 Deg: 340.1 Lumens % Lamp Downward Street Side: 2,548.6 46.8% Downward House Side: 2,586.7 47.5% Downward Total: 5,135.3 94.4% Upward Street Side: 153.4 2.8% Upward House Side: 154.2 2.8% Upward Total: 307.7 5.7% Total Lumens: 5,443.0 100%

LCS Table		
BUG Rating	B2 -	U3 - G1
Forward Light	Lumens	Lumens %
Low(0-30):	727.1	13.4%
Medium(30-60):	1,268.8	23.3%
High(60-80):	470.5	8.6%
Very High(80-90):	82.1	1.5%
Back Light		
Low(0-30):	731.9	13.4%
Medium(30-60):	1,287.4	23.7%
High(60-80):	482.2	8.9%
Very High(80-90):	85.2	1.6%
Uplight		
Low(90-100):	65.2	1.2%
High(100-180):	242.5	4.5%
Trapped Light:	0.000	0%



PUBLISH PAGE 2 OF 3

RELEASE FOR
CONSTRUCTION
AS NOTED ON PLANS REVIEW
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LEE'S SUMMIT, MISSOURI

## OUTDOOR PHOTOMETRIC REPORT



VISUAL PHOTOME rric 43PAGE-3 OF 3 127.5 132.5 RELEASE FOR ONSTRUCTION 137.5 

6 AS NOTED ON PLANS REVIEW 61 DEVELOPMENT SERVICES LEE'S SUMMIT, MISSOURI 

142.5

145	29	29	37	52	61	61	49	36	29	33	43	58	66	66	59	39	29
147.5	29	29	35	49	62	59	46	35	29	32	40	56	68	66	56	37	29
150	29	29	32	43	59	55	43	33	29	32	37	52	68	65	52	37	29
152.5	29	29	30	39	53	50	42	33	29	32	36	48	65	62	49	36	29
155	29	29	29	33	48	46	39	33	29	30	33	42	59	58	46	36	29
157.5	30	29	27	30	42	43	37	33	30	30	32	36	53	52	43	35	30
160	30	29	27	27	39	39	37	32	30	30	30	32	46	46	40	35	30
162.5	30	29	27	24	35	36	36	32	30	30	29	29	42	42	39	33	30
165	30	29	26	23	32	35	33	32	30	30	29	26	37	39	36	33	30
167.5	30	29	26	22	29	32	32	30	30	30	29	23	35	36	35	32	30
170	30	29	26	20	26	30	30	30	30	30	27	22	30	33	32	30	30
172.5	30	29	26	20	22	27	29	30	30	30	27	20	26	30	30	30	30
175	30	30	27	20	14	24	27	30	30	30	27	20	19	27	29	30	30
177.5	30	30	27	22	10	23	27	30	30	30	27	20	12	24	27	30	30
180	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24

RELEASE FOR
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AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI

#### OW5524 – SHINE™



Type: Project: <u>VisaLighting.com/products/Shine</u>

Fill in shaded boxes using information listed below

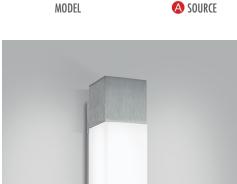
MVOLT

VOLTAGE

**B** FINISH

OPTION(S)

See page 2 for color chart



#### A SOURCE (Select one) and VOLTAGE

MVOLT fixture accepts 120 through 277 input voltage Dimmable 0-10V to 1%

80CRI, within 3-step MacAdam

	Sources	ССТ	Delivered Lumens	Power (Watts)	Voltage
•	L30K	3000K			
	L35K	3500K	1000	11	MVOLT
•	L40K	4000K			

#### B FINISHES (Select one)

Powder Coat Painted Finishes (Standard)

AG7038 Agate Grey CVBL Cove Blue GW9002 Grey White PB1035 Pearl Beige **BMAT** Bronze Matte CW9001 Cream White HTHR Heather RUST Rust BRNZ GLIM Jet Black SUNG Glimmer JB9005 Bronze Sungold **BSIL** Blade Silver **GSIL** Graphite Silver OBRZ Old Bronze TW9016 Traffic White



#### OPTIONS (Multiple Selections Allowed)

▲ Option availability may be interdependent with Voltage, Source or Other Options

JBC Junction box cover [4-1/2" square) for use with an existing 4" octagonal junction box. Painted to match finish.

Adds 1/4" to Depth (D dimension)

XPS Express 10 day shipping. Items marked with a bullet (•) are not available with XPS

Shine is an ideal outdoor fixture with versatile features including horizontal or vertical mounting, LED sources, 4 size options, and end accents that can be painted in one of 16 standard colors to accent any facade.

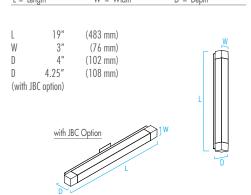
#### **DIMENSIONS**

Order

Code:

OW5524

Depth is measured from wall to front of fixture L = Length W = Width D = Depth



RELEASE FOR
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DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI

09/15/2021







LFD



**ETL Listed** 

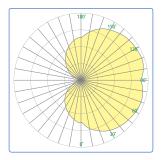


800-788-VISA VisaLighting.com Page 1

#### OW5524 - SHINE



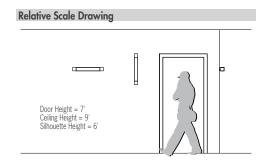
#### **Photometrics**



#### **Technical Information**

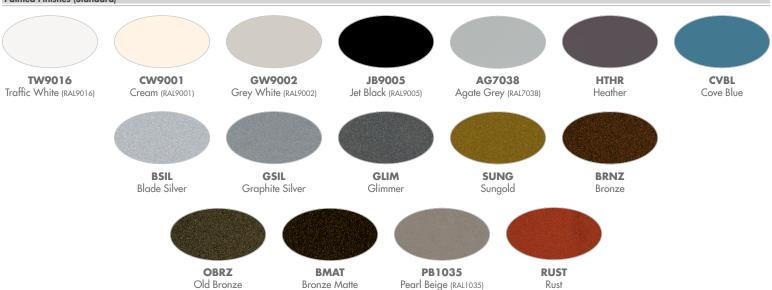
- Integral high power factor electronic power supply
- Modular design for replacement of LED source and power supply

- Vertical or horizontal mounting
   Surface mount to 2x4 junction box. Optional junction box cover (JBC option) available for 4" junction box
- Tamper resistant fasteners
- Cast and extruded aluminum construction
- Frosted 1/8" high impact grade acrylic
- No VOC powder coat paint finishETL listed for wet location



Specify color code when ordering. For accurate color matching, individual paint and finish samples are available upon request For additional information see VisaLighting.com/materials-finishes

#### Painted Finishes (Standard)



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**RELEASE FOR AS NOTED ON PLANS REVIEW DEVELOPMENT SERVICES** LEE'S SUMMIT, MISSOURlige 2



Location: Wall Packs on Exterior Elevations



#### d"series

## Specifications

#### Luminaire

Width: 13-3/4" Weight: 12 lbs (5.4 kg)

**Depth:** 10" (25.4 cm)

Height: 6-3/8" (16.2 cm)





#### Back Box (BBW, ELCW)

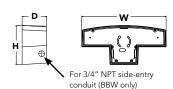
**D-Series Size 1** 

LED Wall Luminaire

 Width:
 13-3/4" (34.9 cm)
 BBW Weight:
 5 lbs (2.3 kg)

 Depth:
 4" ELCW (10.2 cm)
 10 lbs (4.5 kg)

Height: 6-3/8" (16.2 cm)



#### Catalog Number

Notes

Туре

Hit the Tab key or mouse over the page to see all interactive elements.

#### Introduction

The D-Series Wall luminaire is a stylish, fully integrated LED solution for building-mount applications. It features a sleek, modern design and is carefully engineered to provide long-lasting, energy-efficient lighting with a variety of optical and control options for customized performance.

With an expected service life of over 20 years of nighttime use and up to 74% in energy savings over comparable 250W metal halide luminaires, the D-Series Wall is a reliable, low-maintenance lighting solution that produces sites that are exceptionally illuminated.

## **Ordering Information**

#### **EXAMPLE:** DSXW1 LED 20C 1000 40K T3M MVOLT DDBTXD

DSXW1 LED										
Series	LEDs	Drive Current	Color temperature	Distribution	Voltage	Mounting	Control Options			
DSXW1 LED	10C 10 LEDs (one engine) 20C 20 LEDs (two engines) 1	350 350 mA 530 530 mA 700 700 mA 1000 1000 mA (1 A) <sup>1</sup>	30K 3000 K 40K 4000 K 50K 5000 K AMBPC Amber phosphor converted	T2S Type II Short T2M Type II Medium T3S Type III Short T3M Type III Medium T4M Type IV Medium TFTM Forward Throw Medium	MVOLT <sup>2</sup> 120 <sup>3</sup> 208 <sup>3</sup> 240 <sup>3</sup> 277 <sup>3</sup> 347 <sup>3,4</sup> 480 <sup>3,4</sup>	Shipped included (blank) Surface mounting bracket  BBW Surface- mounted back box (for conduit entry) 5	PE Photoelectric cell, button type <sup>6</sup> DMG 0-10v dimming wires pulled outside fixture (for use with an external control, ordered separately) PIR 180° motion/ambient light sensor, <15′ mtg ht <sup>1,7</sup> PIRH 180° motion/ambient light sensor, 15-30′ mtg ht <sup>1,7</sup> PIRHFC3V Motion/ambient sensor, 8–15′ mounting height, ambient sensor enabled at 1fc <sup>1,7</sup> PIRH1FC3V Emergency battery backup (includes external component enclosure), CATitle 20 Noncompliant <sup>8,9</sup>			

Other Options				Finish (reg	Finish (required)							
Shipp SF DF HS SPD	Single fuse (120, 277 or 347V) 3.10 Double fuse (208, 240 or 480V) 3.10 House-side shield 11 Separate surge protection 12	Shipp BSW VG DDL	<b>ed separately</b> <sup>11</sup> Bird-deterrent spikes Vandal guard Diffused drop lens	DDBXD DBLXD DNAXD DWHXD	Dark bronze Black Natural aluminum White	DSSXD DDBTXD DBLBXD DNATXD	Sandstone Textured dark bronze Textured black Textured natural aluminum	DWHGXD DSSTXD	Textured white Textured sandstone			

#### **Accessories**

Ordered and shipped separately

DSXWHS U House-side shield (one per light engine)

DSXWBSW U Bird-deterrent spikes
DSXW1VG U Vandal guard accessory

#### NOTES

- 1 20C 1000 is not available with PIR, PIRH, PIR1FC3V or PIRH1FC3V.
- $2\,$  MVOLT driver operates on any line voltage from 120-277V (50/60 Hz).
- 3 Single fuse (SF) requires 120, 277 or 347 voltage option. Double fuse (DF) requires 208, 240 or 480 voltage option.
- 4 Only available with 20C, 700mA or 1000mA. Not available with PIR or PIRH.
- $5\quad \text{Back box ships installed on fixture. Cannot be field installed. Cannot be ordered as an accessory.}$
- 6 Photocontrol (PE) requires 120, 208, 240, 277 or 347 voltage option. Not available with motion/ambient light sensors (PIR or PIRH).
- 7 Reference Motion Sensor table on page 3.
- 8 Cold weather (-20C) rated. Not compatible with conduit entry applications. Not available with BBW mounting option. Not available with fusing. Not available with 347 or 480 voltage options. Emergency components located in back box housing. Emergency mode IES files located on product page at <a href="https://www.lithonia.com">www.lithonia.com</a>
- 9 Not available with SPD.
- 10 Not available with ELCW.
- 11 Also available as a separate accessory; see Accessories information.
- 12 Not available with ELCW.

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## **Performance Data**

#### **Lumen Output**

Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Contact factory for performance data on any configurations not shown here.

	Drive	System	Dist.	3	OK (30	00 K, 7	OCRI)		41	OK (40	00 K, 7	ocri)			50K (50	000 K, 70	CRI)		AMBP	C (Amber	Phospho	r Converte	ed)
LEDs	Current (mA)	Watts	Туре	Lumens	В	U	G	LPW	Lumens	В	U	G	LPW	Lumens	В	U	G	LPW	Lumens	В	U	G	LPW
			T2S	1,415	0	0	1	109	1,520	0	0	1	117	1,530	0	0	1	118	894	0	0	1	69
			T2M	1,349	0	0	1	104	1,448	0	0	1	111	1,458	0	0	1	112	852	0	0	1	66
	2504	1214	T3S	1,399	0	0	1	108	1,503	0	0	1	116	1,512	0	0	1	116	884	0	0	1	68
	350mA	13W	T3M	1,385	0	0	1	107	1,488	0	0	1	114	1,497	0	0	1	115	876	0	0	1	67
			T4M	1,357	0	0	1	104	1,458	0	0	1	112	1,467	0	0	1	113	858	0	0	1	66
			TFTM	1,411	0	0	1	109	1,515	0	0	1	117	1,525	0	0	1	117	892	0	0	1	69
			T2S	2,053	1	0	1	108	2,205	1	0	1	116	2,220	1	0	1	117	1,264	0	0	1	67
			T2M	1,957	1	0	1	103	2,102	1	0	1	111	2,115	1	0	1	111	1,205	0	0	1	63
	530 mA	19W	T3S	2,031	1	0	1	107	2,181	1	0	1	115	2,194	1	0	1	115	1,250	0	0	1	66
	330 11111	'''	T3M	2,010	1	0	1	106	2,159	1	0	1	114	2,172	1	0	1	114	1,237	0	0	1	65
100			T4M	1,970	1	0	1	104	2,115	1	0	1	111	2,129	1	0	1	112	1,212	0	0	1	64
10C			TFTM	2,047	0	0	1	108	2,198	1	0	1	116	2,212	1	0	1	116	1,260	0	0	1	66
(10 LEDs)			T2S	2,623	1	0	1	101	2,816	1	0	1	108	2,834	1	0	1	109	1,544	0	0	1	59
			T2M	2,499	1	0	1	96	2,684	1	0	1	103	2,701	1	0	1	104	1,472	0	0	1	57
	700 mA	26W	T3S	2,593	1	0	1	100	2,785	1	0	1	107	2,802	1	0	1	108	1,527	0	0	1	59
			T3M T4M	2,567	1	0	1	99	2,757	1	0	1	106 104	2,774	1	0	1	107	1,512	0	0	1	58 57
			TFTM	2,515 2,614	1	0	1	101	2,701 2,808	1	0	1	104	2,718 2,825	1	0	1 1	105	1,481 1,539	0	0	1	59
			T2S	3.685	1	0	1	94	3,957	1	0	1	100	3,982	1	0	1	109	2,235	1	0	1	57
			T2M	3,512	1	0	1	90	3,771	1	0	1	97	3,794	1	0	1	97	2,130	1	0	1	55
			T3S	3,644	1	0	1	93	3,913	1	0	1	100	3,938	1	0	1	101	2,130	1	0	1	57
	1000 mA	00 mA   39W	T3M	3,607	1	0	1	92	3,873	1	0	1	99	3,898	1	0	1	100	2,187	1	0	1	56
			T4M	3,534	1	0	2	91	3,796	1	0	2	97	3,819	1	0	2	98	2,143	1	0	1	55
			TFTM	3,673	1	0	1	94	3,945	1	0	1	101	3,969	1	0	1	102	2,228	1	0	1	57
			T2S	2,820	1	0	1	123	3,028	1	0	1	132	3,047	1	0	1	132	1,777	1	0	1	77
		mA 23W	T2M	2,688	1	0	1	117	2,886	1	0	1	125	2,904	1	0	1	126	1,693	1	0	1	74
	350mA		T3S	2,789	1	0	1	121	2,994	1	0	1	130	3,014	1	0	1	131	1.757	0	0	1	76
			T3M	2,760	1	0	1	120	2,965	1	0	1	129	2,983	1	0	1	130	1,739	1	0	1	76
			T4M	2,704	1	0	1	118	2,905	1	0	1	126	2,922	1	0	1	127	1,704	1	0	1	74
			TFTM	2,811	1	0	1	122	3,019	1	0	1	131	3,038	1	0	1	132	1,771	0	0	1	77
			T2S	4,079	1	0	1	117	4,380	1	0	1	125	4,407	1	0	1	126	2,504	1	0	1	72
			T2M	3,887	1	0	1	111	4,174	1	0	1	119	4,201	1	0	1	120	2,387	1	0	1	68
	530 mA	35W	T3S	4,033	1	0	1	115	4,331	1	0	1	124	4,359	1	0	1	125	2,477	1	0	1	71
	330 11111	3511	T3M	3,993	1	0	2	114	4,288	1	0	2	123	4,315	1	0	2	123	2,451	1	0	1	70
200			T4M	3,912	1	0	2	112	4,201	1	0	2	120	4,227	1	0	2	121	2,402	1	0	1	69
20C			TFTM	4,066	1	0	2	116	4,366	1	0	2	125	4,394	1	0	2	126	2,496	1	0	1	71
(20 LEDs)			T2S	5,188	1	0	1	113	5,572	1	0	1	121	5,607	1	0	1	122	3,065	1	0	1	67
			T2M	4,945	1	0	2	108	5,309	1	0	2	115	5,343	1	0	2	116	2,921	1	0	1	64
	700 mA	46W	T3S	5,131	1	0	2	112	5,510	1	0	2	120	5,544	1	0	2	121	3,031	1	0	1	66
			T3M	5,078	1	0	2	110	5,454	1	0	2	119	5,487	1	0	2	119	3,000	1	0	1	65
			T4M TFTM	4,975	1	0	2	108	5,343	1	0	2	116	5,376	1	0	2	117 122	2,939	1	0	1	64
			T2S	5,172	1	0	2	99	5,554 7,736	2	0	2	121 106	5,589 7,784	2	0	2	107	3,055 4,429	1	0	1	66
			T2M	7,204 6,865	1	0	2	99	7,736	2	0	2	100	7,784	2	0	2	107	4,429	1	0	1	58
			T3S	7,125	1	0	2	98	7,373	1	0	2	105	7,419	1	0	2	102	4,221	1	0	1	60
	1000 mA	73W	T3M	7,123	1	0	2	97	7,573	2	0	2	103	7,620	2	0	2	103	4,335	1	0	2	59
			T4M	6,909	1	0	2	95	7,420	1	0	2	104	7,466	1	0	2	104	4,248	1	0	2	58
			TFTM	7,182	1	0	2	98	7,420	1	0	2	102	7,761	1	0	2	102	4,415	1	0	2	60
			11 1100	7,102	, ,			, ,,,	1,112				100	7,701				100	עוד,ר				

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#### **Lumen Ambient Temperature (LAT) Multipliers**

Use these factors to determine relative lumen output for average ambient temperatures from 0-40°C (32-104°F).

Amb	Lumen Multiplier					
0°C	32°F	1.02				
10°C	50°F	1.01				
20°C	68°F	1.00				
25°C	77°F	1.00				
30°C	86°F	1.00				
40°C	104°F	0.98				

#### Projected LED Lumen Maintenance

Data references the extrapolated performance projections for the **DSXW1 LED 20C 1000** platform in a **25°C ambient**, based on 10,000 hours of LED testing (tested per IESNA LM-80-08 and projected per IESNA TM-21-11).

To calculate LLF, use the lumen maintenance factor that corresponds to the desired number of operating hours below. For other lumen maintenance values, contact factory.

Operating Hours	0	25,000	50,000	100,000
Lumen Maintenance Factor	1.0	0.95	0.93	0.88

#### **Electrical Load**

					Curre	nt (A)		
LEDs	Drive Current (mA)	System Watts	120V	208V	240V	277V	347V	480V
	350	14 W	0.13	0.07	0.06	0.06	-	-
10C	530	20 W	0.19	0.11	0.09	0.08	-	-
100	700	27 W	0.25	0.14	0.13	0.11	-	-
	1000	40 W	0.37	0.21	0.19	0.16	-	-
	350	24 W	0.23	0.13	0.12	0.10	-	-
20C	530	36 W	0.33	0.19	0.17	0.14	-	-
200	700	47 W	0.44	0.25	0.22	0.19	0.15	0.11
	1000	74 W	0.69	0.40	0.35	0.30	0.23	0.17

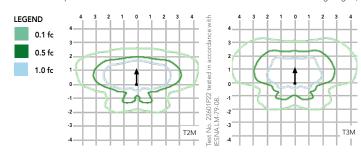
Motion Sensor Default Settings											
Option	Dimmed State	High Level (when triggered)	Photocell Operation	Dwell Time	Ramp-up Time	Ramp-down Time					
*PIR or PIRH	3V (37%) Output	10V (100%) Output	Enabled @ 5FC	5 min	3 sec	5 min					
PIR1FC3V or PIRH1FC3V	3V (37%) Output	10V (100%) Output	Enabled @ 1FC	5 min	3 sec	5 min					

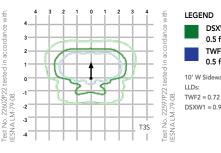
<sup>\*</sup>for use with site wide Dusk to Dawn control

## **Photometric Diagrams**

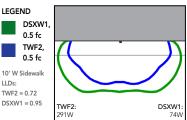
To see complete photometric reports or download .ies files for this product, visit Lithonia Lighting's D-Series Wall Size 1 homepage.

Isofootcandle plots for the DSXW1 LED 20C 1000 40K. Distances are in units of mounting height (15').





Distribution overlay comparison to 250W metal halide.



DSXW1 LED 20C 40K 1000 T3M, TWF2 250M Pulse, 15' Mounting Ht

### **Options and Accessories**





**HS** - House-side shields







BSW - Bird-deterrent spikes

VG - Vandal guard

DDL - Diffused drop lens

### **FEATURES & SPECIFICATIONS**

T3M (left)

#### INTENDED USE

The energy savings, long life and easy-to-install design of the D-Series Wall Size 1 make it the smart choice for building-mounted doorway and pathway illumination for nearly any facility.

#### CONSTRUCTION

Two-piece die-cast aluminum housing has integral heat sink fins to optimize thermal management through conductive and convective cooling. Modular design allows for ease of maintenance. The LED driver is mounted to the door to thermally isolate it from the light engines for low operating temperature and long life. Housing is completely sealed against moisture and environmental contaminants (IP65).

#### FINISH

Exterior parts are protected by a zinc-infused Super Durable TGIC thermoset powder coat finish that provides superior resistance to corrosion and weathering. A tightly controlled multi-stage process ensures a minimum 3 mils thickness for a finish that can withstand extreme climate changes without cracking or peeling. Available in textured and non-textured finishes.

#### OPTICS

Precision-molded proprietary acrylic lenses provide multiple photometric distributions tailored specifically to building mounted applications. Light engines are available in 3000 K (70 min. CRI), 4000 K (70 min. CRI) or 5000 K (70 min. CRI) configurations.

#### ELECTRICAL

Light engine(s) consist of 10 high-efficacy LEDs mounted to a metal-core circuit board to maximize heat dissipation and promote long life (L88/100,000 hrs at 25°C). Class 1 electronic drivers have a power factor >90%, THD <20%, and a minimum 2.5KV surge rating. When ordering the SPD option, a separate surge protection device is installed within the luminaire which meets a minimum Category C Low (per ANSI/IEEE C62.41.2).

#### INSTALLATION

Included universal mounting bracket attaches securely to any 4" round or square outlet box for quick and easy installation. Luminaire has a slotted gasket wireway and attaches to the mounting bracket via corrosion-resistant screws.

#### LISTINGS

CSA certified to U.S. and Canadian standards. Rated for -40°C minimum ambient.

DesignLights Consortium® (DLC) qualified product. Not all versions of this product may be DLC qualified. Please check the DLC Qualified Products List at <a href="https://www.designlights.org/QPL">www.designlights.org/QPL</a> to confirm which versions are qualified.

#### WARRANTY

Five-year limited warranty. Complete warranty terms located at: www.acuitybrands.com/support/warranty/terms-and-conditions

Note: Actual performance may differ as a re<u>sult of end-user environment and application.</u>
All values are design or typical values, measured under labor RELEGIASET FOR
Specifications subject to change without notice.

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