ROW or R/W - RIGHT-OF-WAY

W/E

SERVICE LINE

- TOP ELEVATION

UTILITY EASEMENT

- SIDEWALK

CURB & GUTTER

TREELINE

-----P/L----- PROPERTY LINES

—— STO—— STORM SEWER

---- CATV_x ---- CABLE TV - EXISTING

——Ty—— TELEPHONE LINE - EXIST.

GAS LINE - EXISTING

——W_x — WATERLINE - EXISTING

CLEANOUT

ELECTRIC LINE - EXISTING

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.

----- FOC_x ----- FIBER OPTIC CABLE - EXISTING

---- OHP_y ---- OVERHEAD POWER LINE - EXIST

—— UGE, —— 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

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

- ALL CONSTRUCTION TO FOLLOW THE CITY OF LEE'S SUMMIT DESIGN AND CONSTRUCTION MANUAL AS ADOPTED BY ORDINANCE 5813.
- 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 APPARENT FIELD LOCATIONS. THE CONTRACTOR SHALL VERIFY THE LOCATION AND DEPTH OF ALL UTILITIES
- 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 INFORMATION FROM, UTILITY COMPANIES. STATE LAW REQUIRES 48 HOURS ADVANCE NOTICE. THE CONTRACTOR MAY ALSO UTILIZE THE FOLLOWING TOLL FREE PHONE NUMBER PROVIDED BY "MISSOURI ONE 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
- THE CONTRACTOR SHALL PROTECT ALL MAJOR TREES FROM DAMAGE. NO TREE SHALL BE REMOVED WITHOUT PERMISSION OF THE OWNER, UNLESS SHOWN OTHERWISE
- CLEARING AND GRUBBING OPERATIONS AND DISPOSAL OF ALL DEBRIS THEREFROM SHALL BE PERFORMED 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 CONTRACTOR, OR AS DIRECTED BY THE OWNER.
- ALL EXCAVATIONS SHALL BE UNCLASSIFIED. NO SEPARATE PAYMENT WILL BE MADE FOR ROCK
- 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
- SUBGRADE SOIL FOR ALL CONCRETE STRUCTURES, REGARDLESS OF THE TYPE OR LOCATION, SHALL BE AND SHALL BE SUFFICIENTLY STABLE TO REMAIN FIRM AND INTACT UNDER THE FEET OF THE WORKMEN OR MACHINERY ENGAGED IN SUBGRADE SURFACING, LAYING REINFORCING STEEL, AND DEPOSITING CONCRETE THEREON. IN ALL CASES WHERE SUBSOIL IS MUCKY OR WORKS INTO MUD OR MUCK DURING 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

- 1. REFER TO GEOTECHNICAL REPORT FOR ALL COMPACTION REQUIREMENTS AND ASPHALT AND CONCRETE
- RECOMMENDED THICKNESS AND SUBGRADE TREATMENTS. 2. RECOMMEND A GEOTECHNICAL ENGINEER REVIEW ALL EARTHWORK ACTIVITY TO MAKE SURE RECOMMENDATIONS IN GEOTECHNICAL REPORT ARE FOLLOWED

LOCATED AT LEAST 5 FEET FROM SANITARY MAIN.

GRADING/EARTHWORK NOTES:

- 3. PRIOR TO PLACEMENT OF PAVEMENT, GEOTECHNICAL ENGINEER MUST APPROVE SUBGRADE IN WRITTEN
- FORM TO THE OWNER AND PROJECT ENGINEER. 4. ALL UTILITY INSTALLATIONS UNDER PAVED AREAS MUST BE COMPACTED AS PER THE RECOMMENDATIONS
- ALL CONSTRUCTION SHALL COMPLY WITH THE CITY OF LENEXA TECHNICAL SPECIFICATIONS.

OF THE GEOTECHNICAL ENGINEER AND THE GEOTECHNICAL REPORT.

EXISTING TOPOGRAPHY SHOWN AS ESTABLISHED FROM AERIAL PHOTOGRAMMETRY AND FIELD, SPOT CHECKED BY SCHLAGEL AND ASSOICATES, P.A.,. CONTRACTOR TO FIELD VERIFY ELEVATIONS. NO ADDITIONAL MONEY WILL BE PAID FOR HAUL-IN OR HAUL-OFF MATERIAL.

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
- CONTOURS HAVE BEEN SHOWN AT 1-FOOT OR 2-FOOT INTERVALS. AS INDICATED. GRADING SHALL CONSIST 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
- PROPOSED CONTOURS ARE TO APPROXIMATE FINISHED GRADE 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 NOTED, ALL EARTHWORK IS CONSIDERED UNCLASSIFIED. NO ADDITIONAL COMPENSATION WILL BE PROVIDED FOR ROCK OR SHALE EXCAVATION, UNLESS SPECIFICALLY STATED
- PRIOR TO EARTHWORK ACTIVITIES, PRE-DISTURBANCE EROSION AND SEDIMENT CONTROL DEVICES SHALI
- BE IN PLACE PER THE STORM WATER POLLUTION PREVENTION PLAN AND/OR THE EROSION AND SEDIMEN'
- ALL TOPSOIL SHALL BE STRIPPED FROM ALL AREAS TO BE GRADED AND STOCKPILED ADJACENT TO THE
- UNLESS OTHERWISE SPECIFIED IN THE GEOTECHNICAL REPORT, ALL FILLS SHALL BE PLACED IN MAXIMUM
- RESULTS ARE ACHIEVED AND FINAL APPROVAL HAS BEEN OBTAINED FROM THE GEOTECHNICAL ENGINEER. 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
- 12. 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
- LANDSCAPED AREAS TO A MINIMUM DEPTH OF 6-INCHES BELOW FINAL GRADE 14. ALL AREAS SHALL BE GRADED FOR POSITIVE DRAINAGE. UNLESS NOTED OTHERWISE THE FOLLOWING
- GRADES SHALL APPLY: A. TURF AREAS – 2.5% MINIMUM, 4H:1V MAXIMUM
- 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 PER A.D.A. REQUIREMENTS.
- 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
- 17. ALL DISTURBED AREAS IN THE RIGHT-OF-WAY SHALL BE SODDED.
- 18. UNDERDRAINS ARE RECOMMENDED FOR ALL PAVED AREAS ADJACENT TO IRRIGATED TURF AND LANDSCAPED BEDS.
- 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:

- EXISTING UTILITIES HAVE BEEN SHOWN TO THE GREATEST EXTENT POSSIBLE BASED UPON INFORMATION 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.
- 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.
- 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.

- 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.

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** UTILITY PLAN SITE DETAILS C7.0 SITE DETAILS C7.2 SITE DETAILS SITE DETAILS L1.0 LANDSCAPE PLAN L2.0 LANDSCAPE DETAILS L2.1 LANDSCAPE DETAILS

Sheet List Table





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

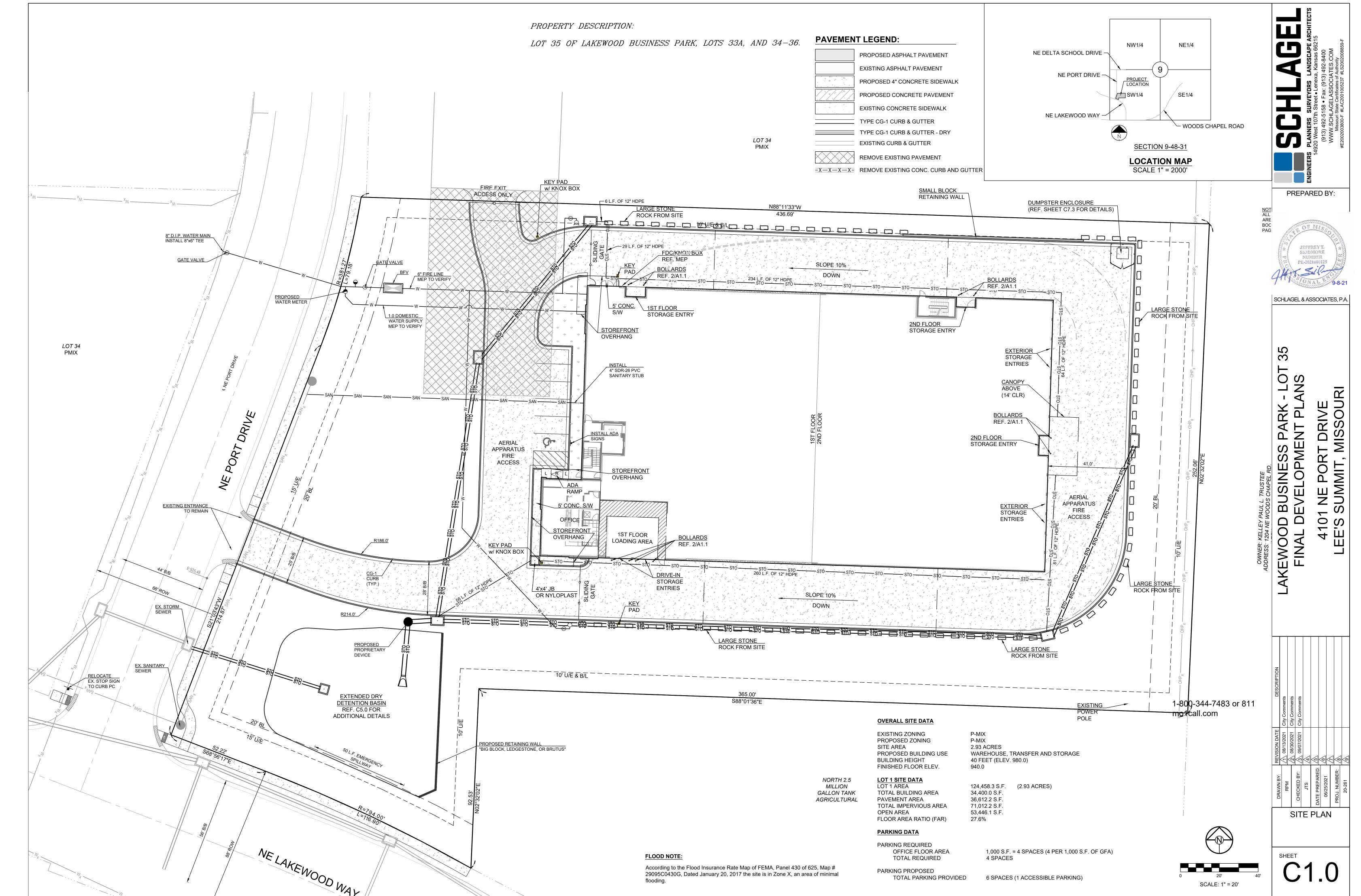
SCHLAGEL & ASSOCIATES, P.A

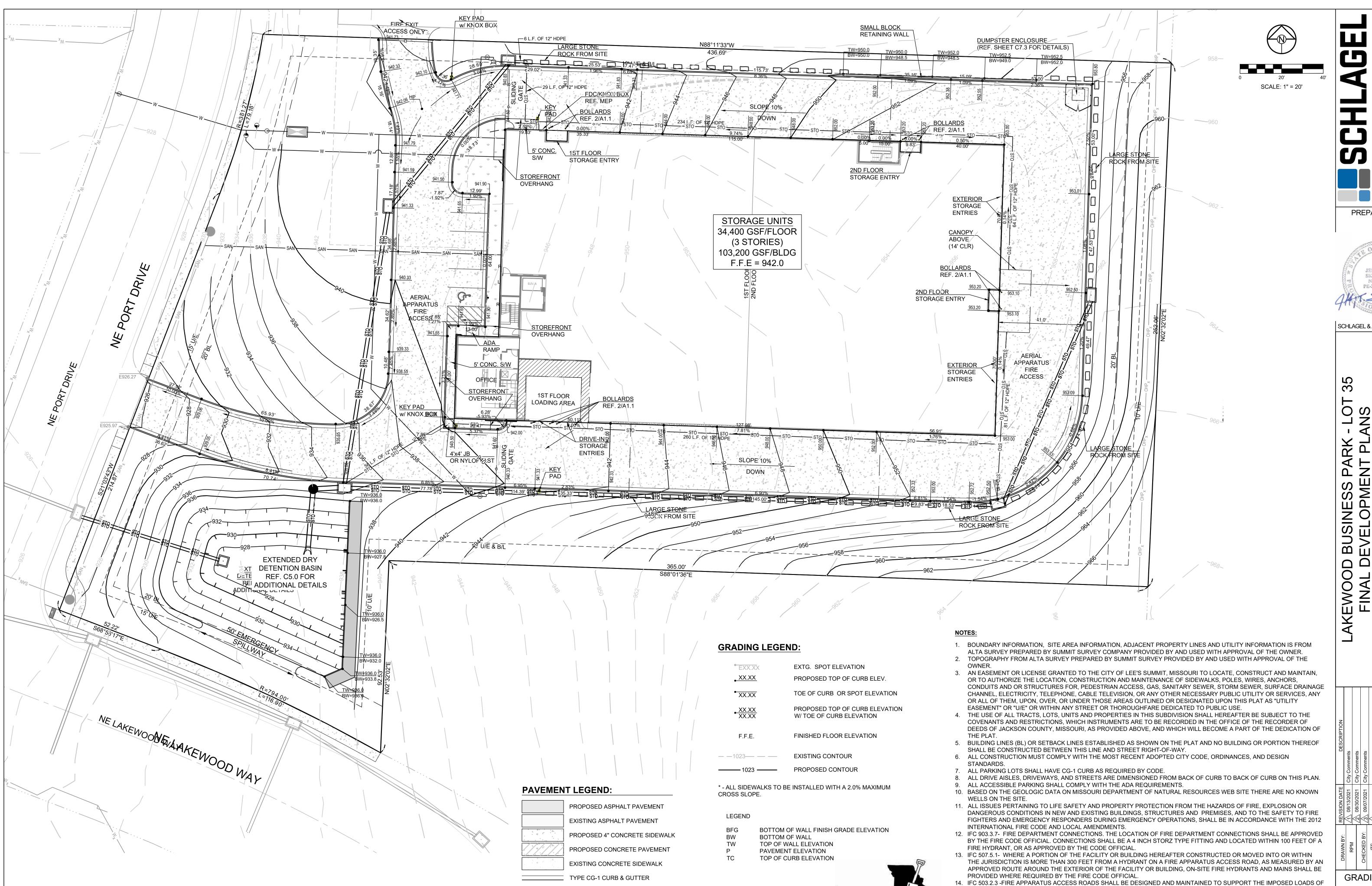
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COVER SHEET









TYPE CG-1 CURB & GUTTER - DRY

REMOVE EXISTING PAVEMENT

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

EXISTING CURB & GUTTER

PREPARED BY:

SCHLAGEL & ASSOCIATES, P.A.

BUSINE 0

GRADING PLAN

FIRE APPARATUS AND SHALL BE SURFACED SO AS TO PROVIDE ALL-WEATHER DRIVING CAPABILITIES.

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

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.

APPROVED TYPE LISTED IN ACCORDANCE WITH UL

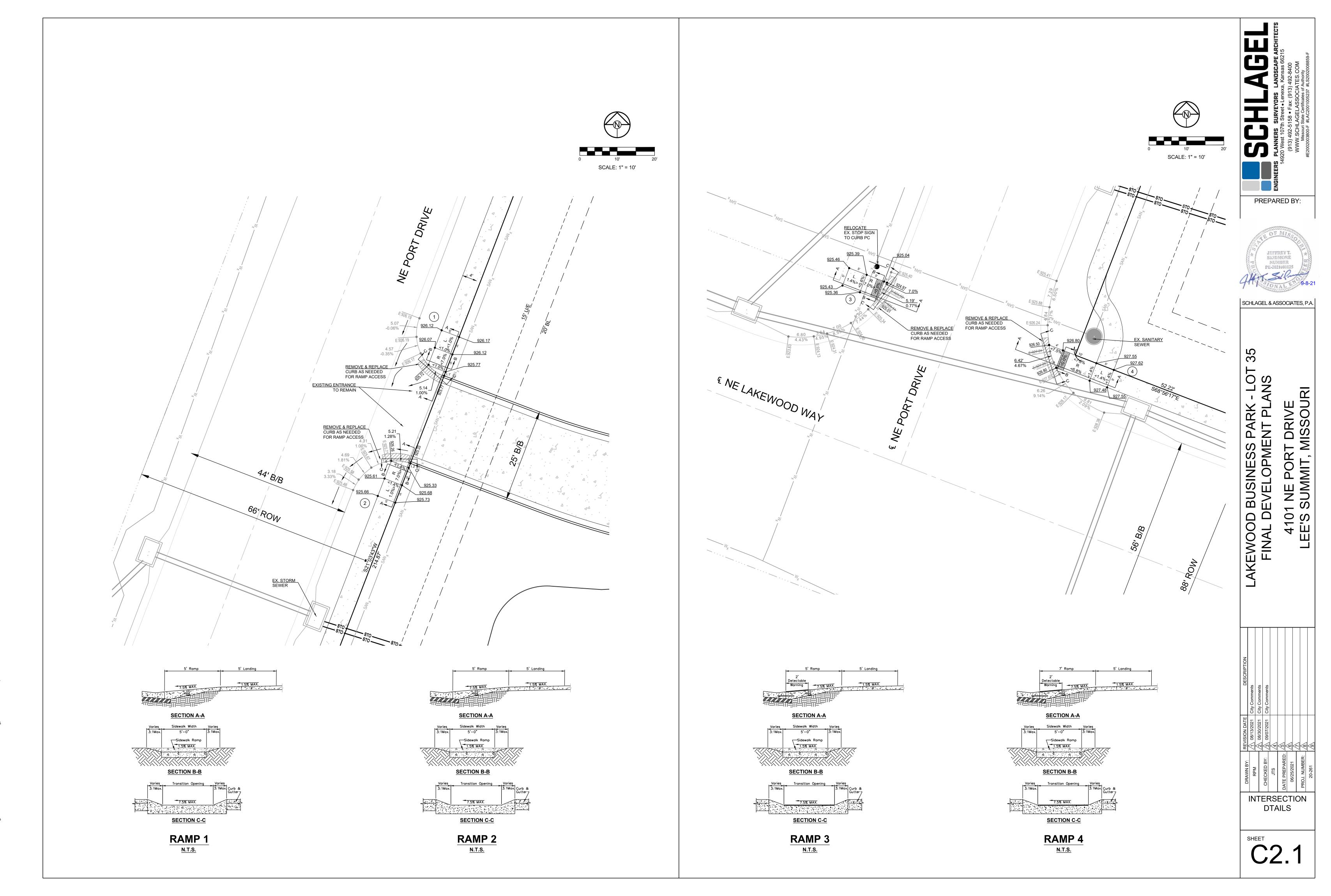
1-800-344-7483 or 811

mo1call.com

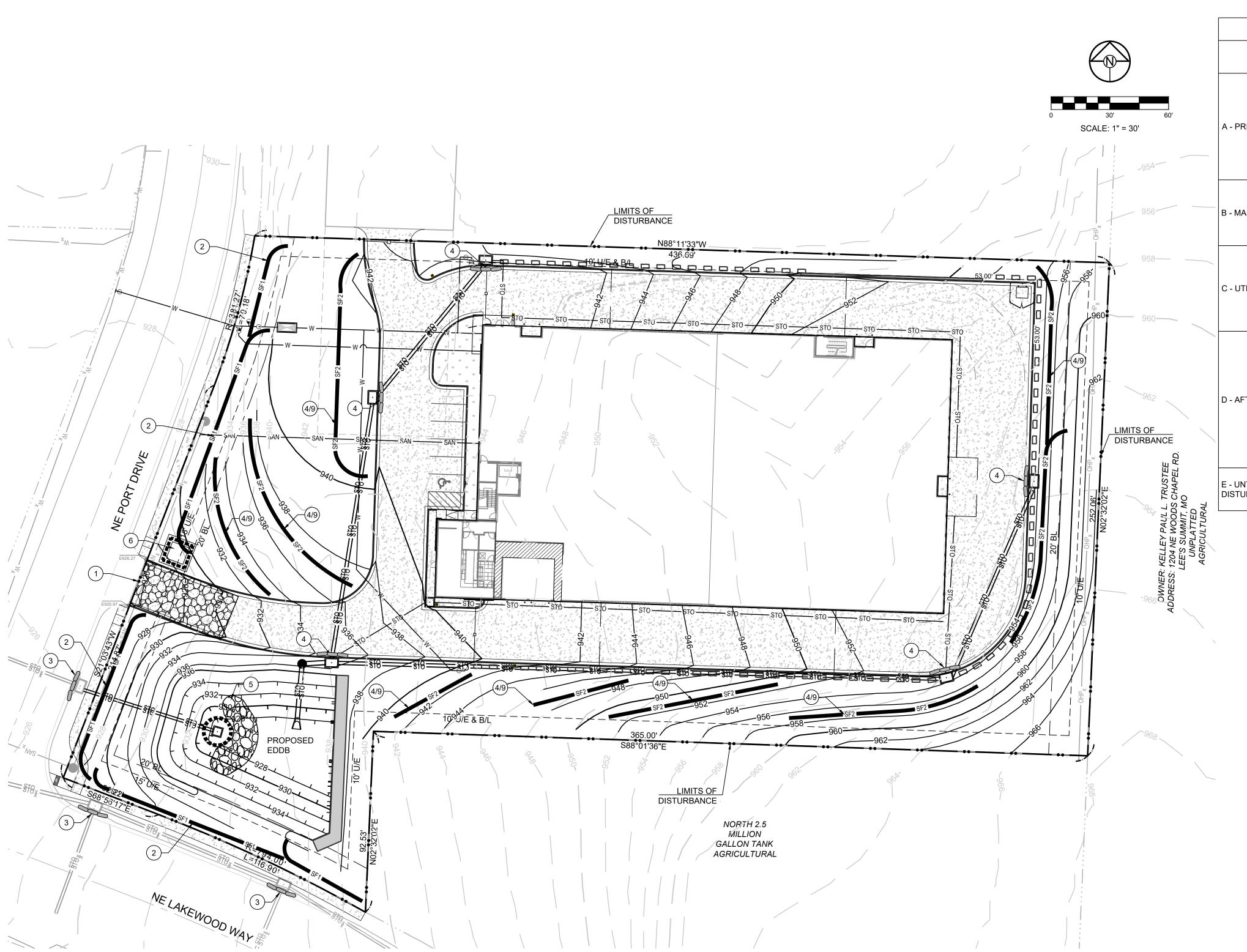
15. IFC 506.1 -WHERE ACCESS TO OR WITHIN A STRUCTURE OR AN AREA IS RESTRICTED BECAUSE OF SECURED OPENINGS OR

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



PBOJECTS/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.



	ERUSIC	ON AND SEDIMENT CONT	ROL ST	AGING CHAR I
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
	EXISTING INLET PROTECTION (GRAVEL CURB INLET SEDIM TRAP)		E	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)	E	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	10 SEEDING AND MULCHING		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.

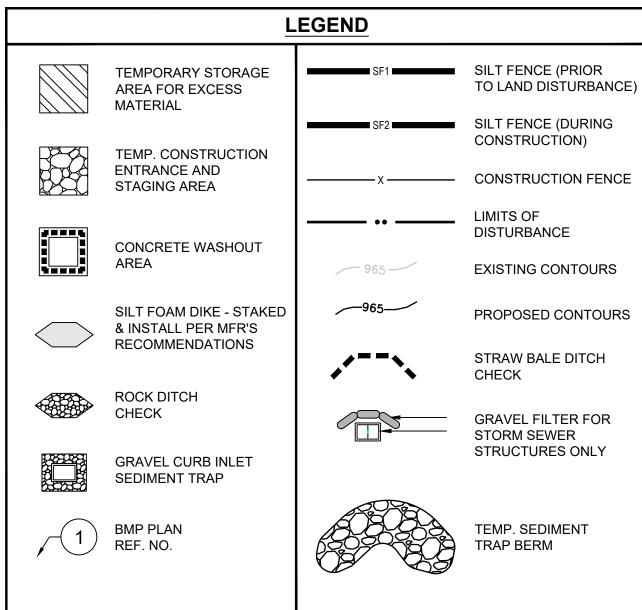
DISTURBED AREA = 2.93 A.C.

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

ACTIVITIES CEASE.

- ALL PERIMETER SILT FENCE, EARTH DIKES, SEDIMENT BASINS, AND ROCK CONSTRUCTION ENTRANCES WILL BE INSTALLED BEFORE GRADING OPERATIONS BEGIN.
- SILT FENCE AND EARTH DIKES THAT ARE PLACED BEFORE CONTRACTOR.
- AREAS WITHIN PUBLIC RIGHT-OF-WAY SHALL BE SODDED IMMEDIATELY AFTER CONSTRUCTION IS COMPLETE.



PROJECT BENCHMARK:

MONUMENT FOUND CHISELED "SQUARE" ON STORM CURB INLET #30 AT NORTHWEST INTERSECTION OF SW. TOWER PARK DRIVE AND SW. LONGVIEW BOULEVARD.

NORTHING: 998893.4148 EASTING: 2803318.5413

ELEV. 1004.09

AKEWOOD BUSINE FINAL DEVELO

10

PREPARED BY:

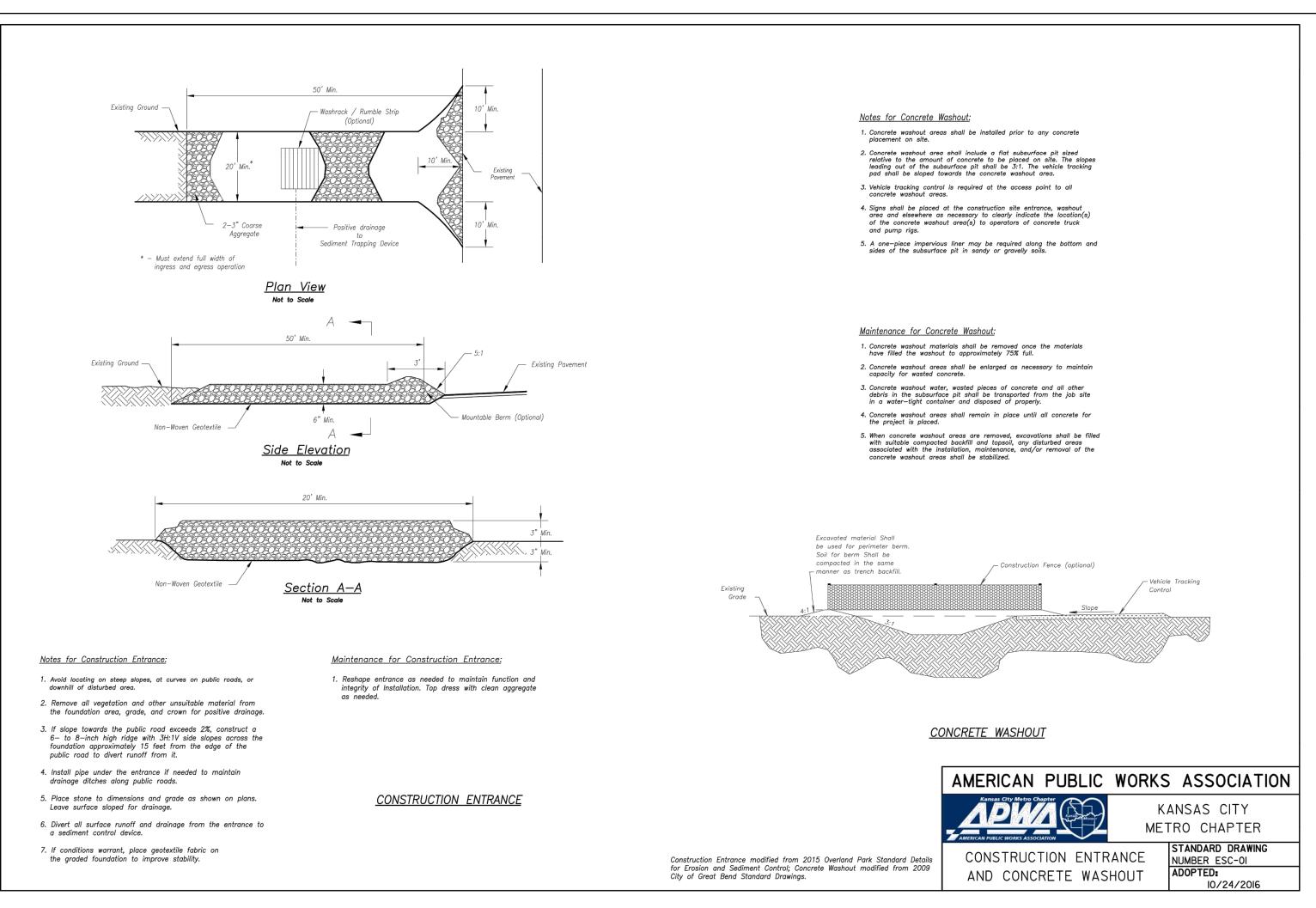
SCHLAGEL & ASSOCIATES, P.A.

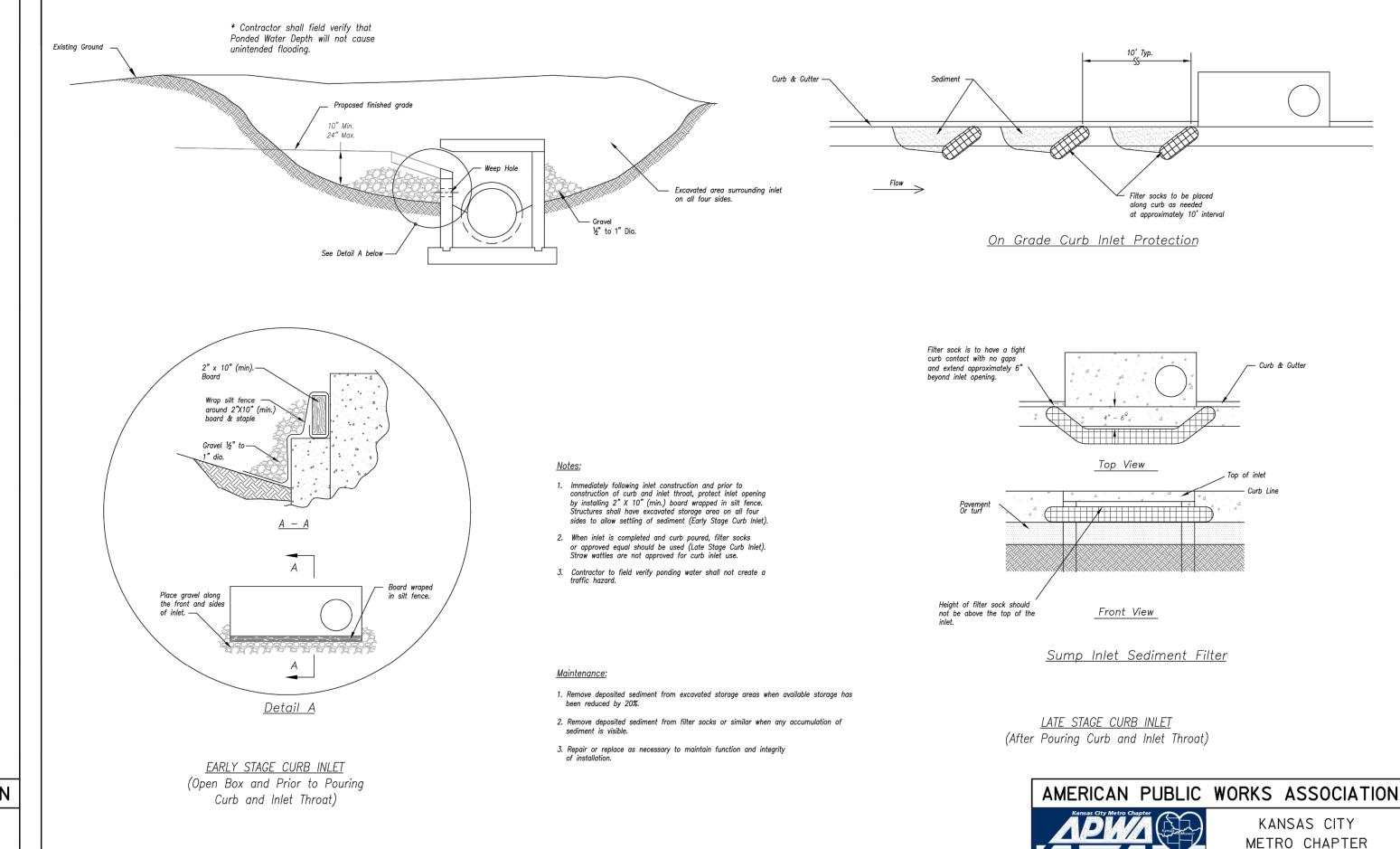
EROSION CONTROL PLAN

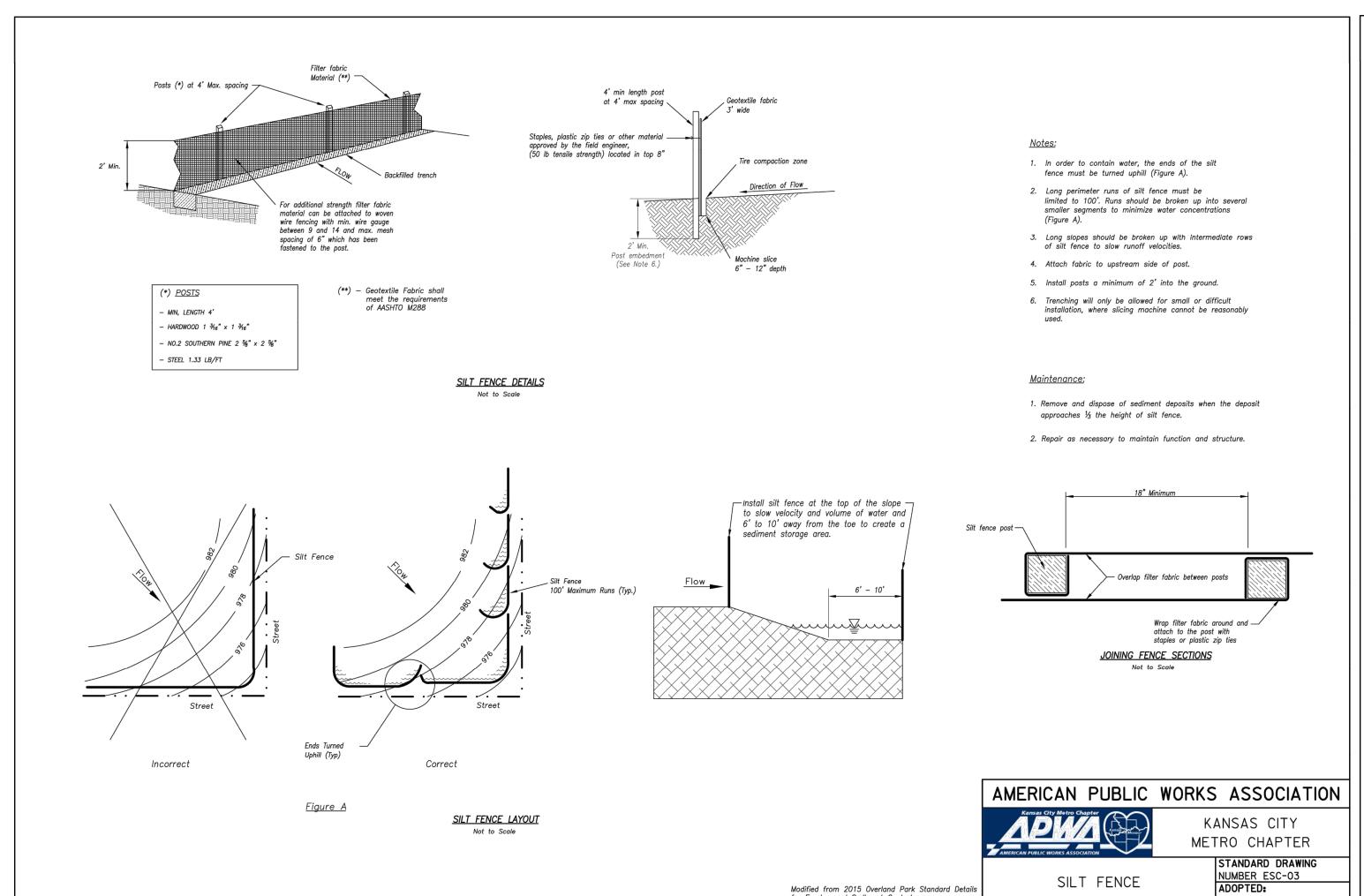


1-800-344-7483 or 811

mo1call.com

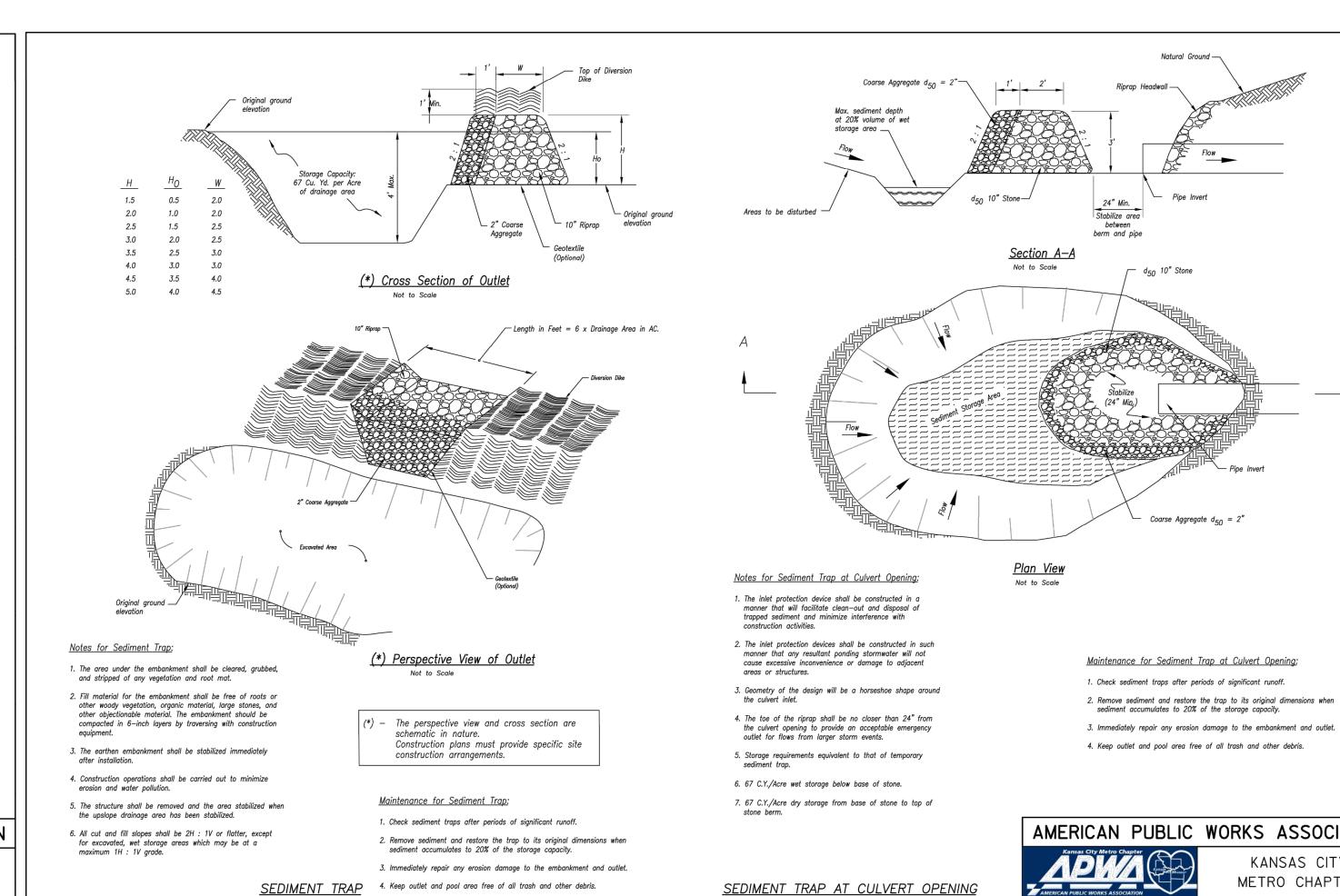


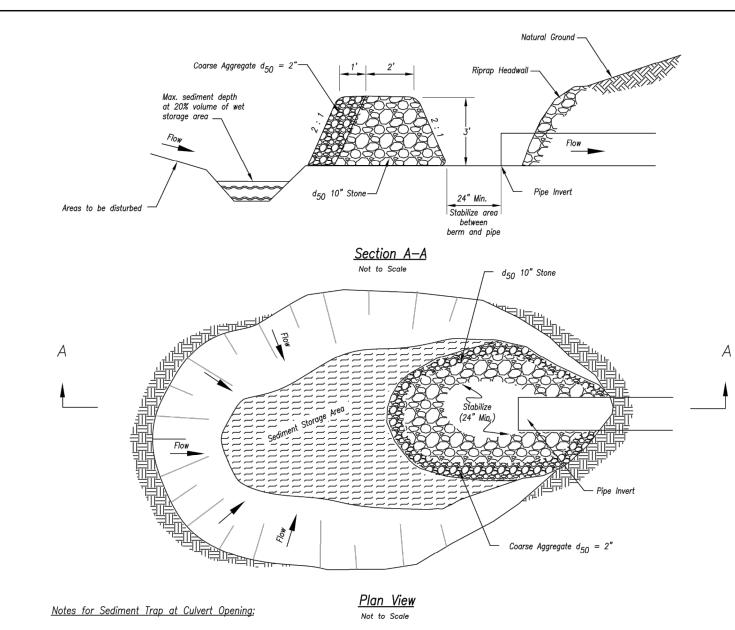




for Erosion and Sediment Control.

10/24/2016





Modified from 2015 Overland Park Standard Detail

for Erosion and Sediment Control.

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

AMERICAN PUBLIC WORKS ASSOCIATION

STANDARD DRAWING NUMBER ESC-08 SEDIMENT TRAPS

KANSAS CITY METRO CHAPTER

10/24/2016

111 BUSINE \Box **AKEWOO**

STANDARD DRAWING

10/24/2016

NUMBER ESC-06

CURB INLET PROTECTION

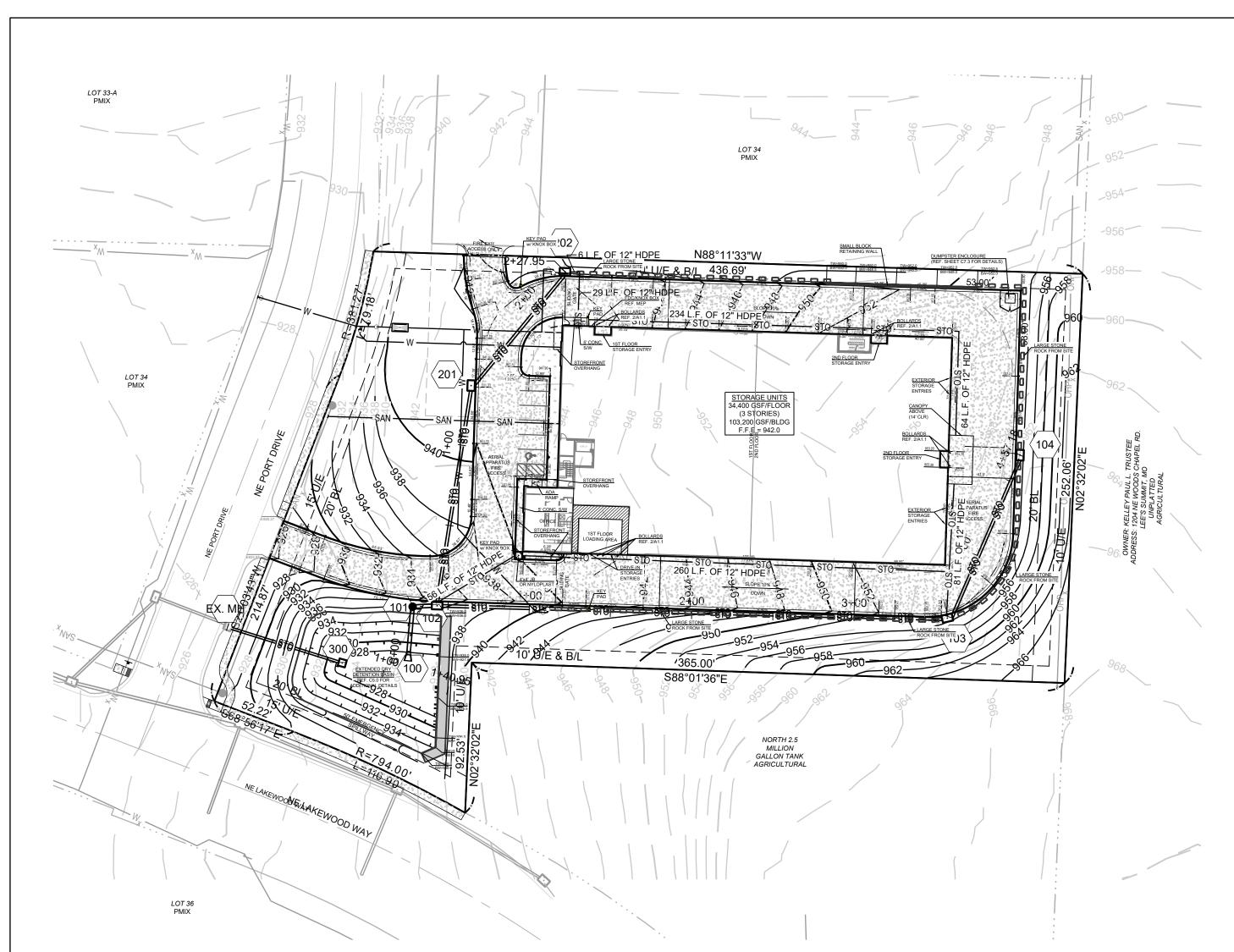
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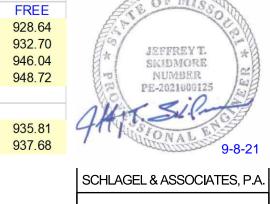
SKIDMORE

SCHLAGEL & ASSOCIATES, P.A.

EROSION CONTOL DETAILS



Proje	ct Name:		LAKEV	OOD B	USINE	SS PARK				Cu	ırb Type:	Α														
	Project #:		18-222								City:	LEE'S S	UMMIT													
	Time:		6/22/20	21 11:14	1																					
Desi	gn Storm:		10																							
	K" Value:		1.00																							
	r value.	1	1.00																							
unoff (Calculatio	ns													Pipe Pr	roperties										
			Cumul.				Runoff				Up	Up	Up			1						Drop				
Inlet	Area	"C"		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)	СхА	Inlet	Inlet	Туре	Value		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	2.28	0.50	948.00	945.50	953.33	948.5
INE 20	10																		Г	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	15		3.00	0.50	934.99	930.88	941.28	935.5
202	0.23	0.70	0.32	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
					-,-			,,,,,						2.00												
	gn Storm		100																							
	K" Value	Σ.	1.25																							
Runoff	 Calculatio	ons													Pipe P	roperties										
			Cumul				Runoff				Up	Up	Up		i i	1						Drop				
Inlet	Area	"C"	Area	Cumu			То	Cumul.	Pipe	Pipe	Piped	Piped	Area	Up	Up	Down	Pipe	"n"	Pipe		Slope	In			Inlet	HG
#	(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 1	20				-																				DS TAILWATER @ STR #100	FRE
101	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.
102	1.95	0.70	2.83	1.98			17.24	25.02	64.84	20.64	201		0.00	0.00	101	101	PEP	0.012	24	15.10	7.00	0.50	930.38	929.32	935.50	932.
102		0.70				10.09	2.53	5.04	24.13	13.65	201		0.00	0.00	102			0.012				0.50	945.00	930.88	953.21	946
103						10.24	2.53	2.53	17.18	9.72			0.00	0.00	103					109.83		0.50	948.00	945.50	953.33	948
104	0.20	0.70	0.20	0.20	0.0	10.02	2.00	2.00	17.10	0.12			0.00	0.00	104	100		0.012	10	100.00	2.20	0.00	0 70.00	0 10.00	555.55	010.
INE 2	00																			Drop in In	let 102	0.50				
201		0.70	0.32	0.22	5.2	10.24	0.79	2.85	12.12	9.88			0.00	0.00	201	102	PEP	0.012		137.13		0.50	934.99	930.88	941.28	935.
201																										



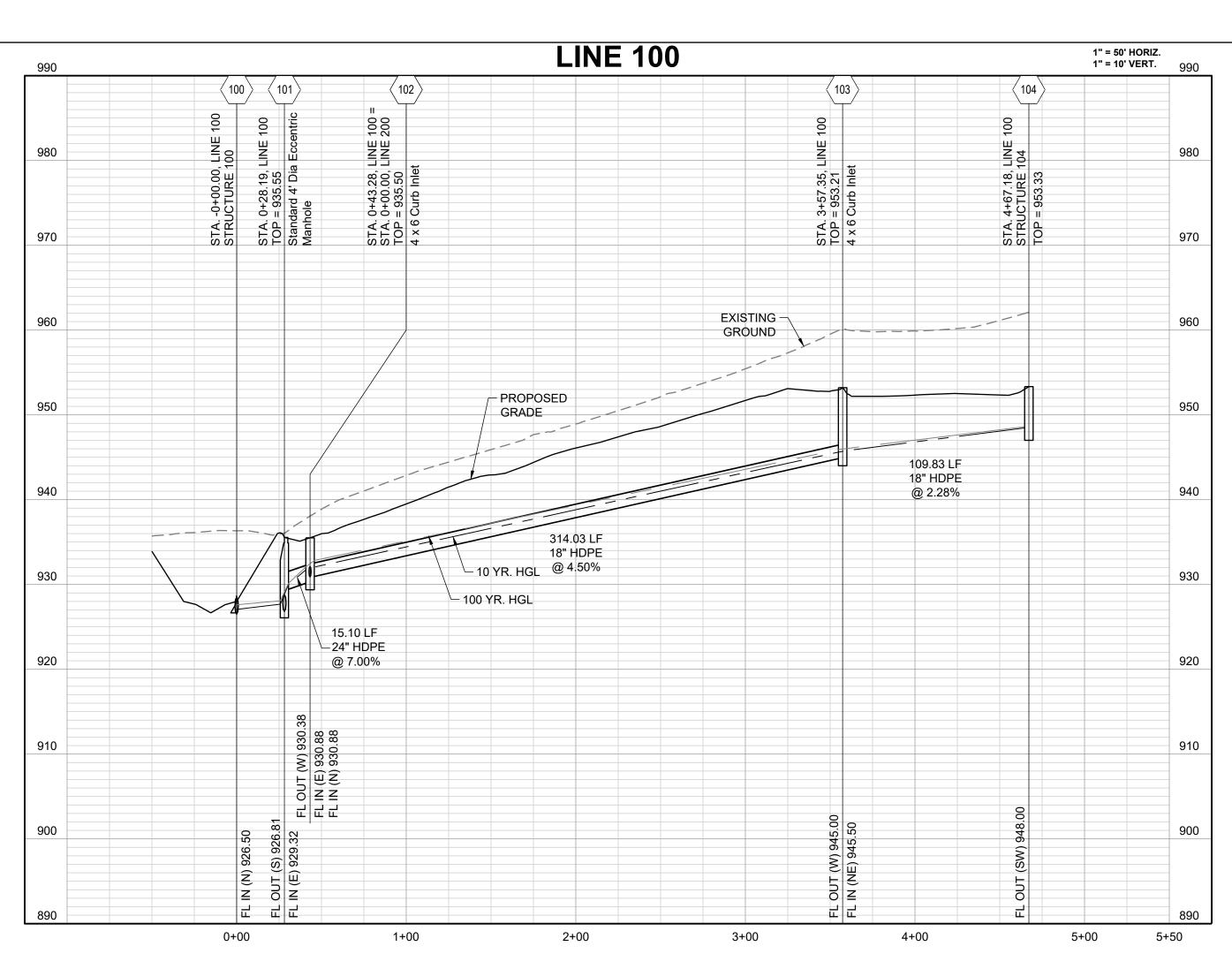
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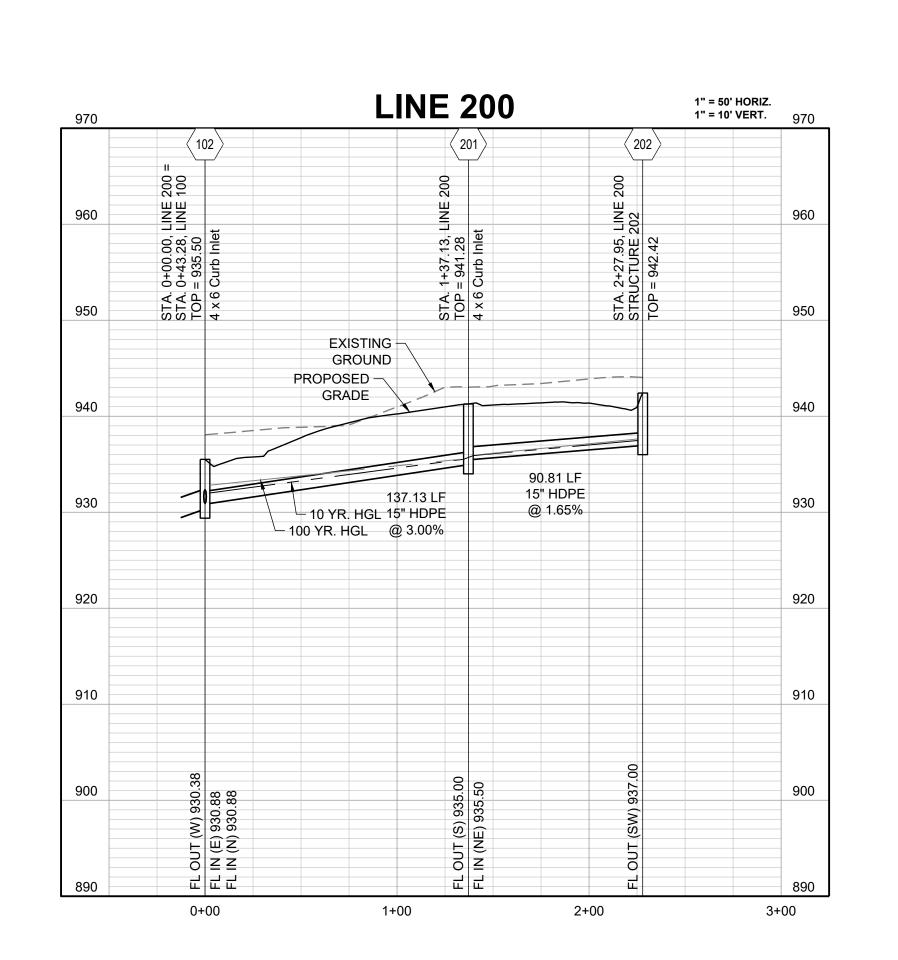
LAKEWOOD BUSINESS PARK FINAL DEVELOPMENT PL

4101 NE PO LEE'S SUMMIT

MISSOURI ONE CALL SYSTEM

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





	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									

 DRAWN BY:
 REVISION DATE
 DESCRIPTION

 RPM
 1 08/13/2021
 City Comments

 CHECKED BY:
 3 09/07/2021
 City Comments

 JTS
 4
 City Comments

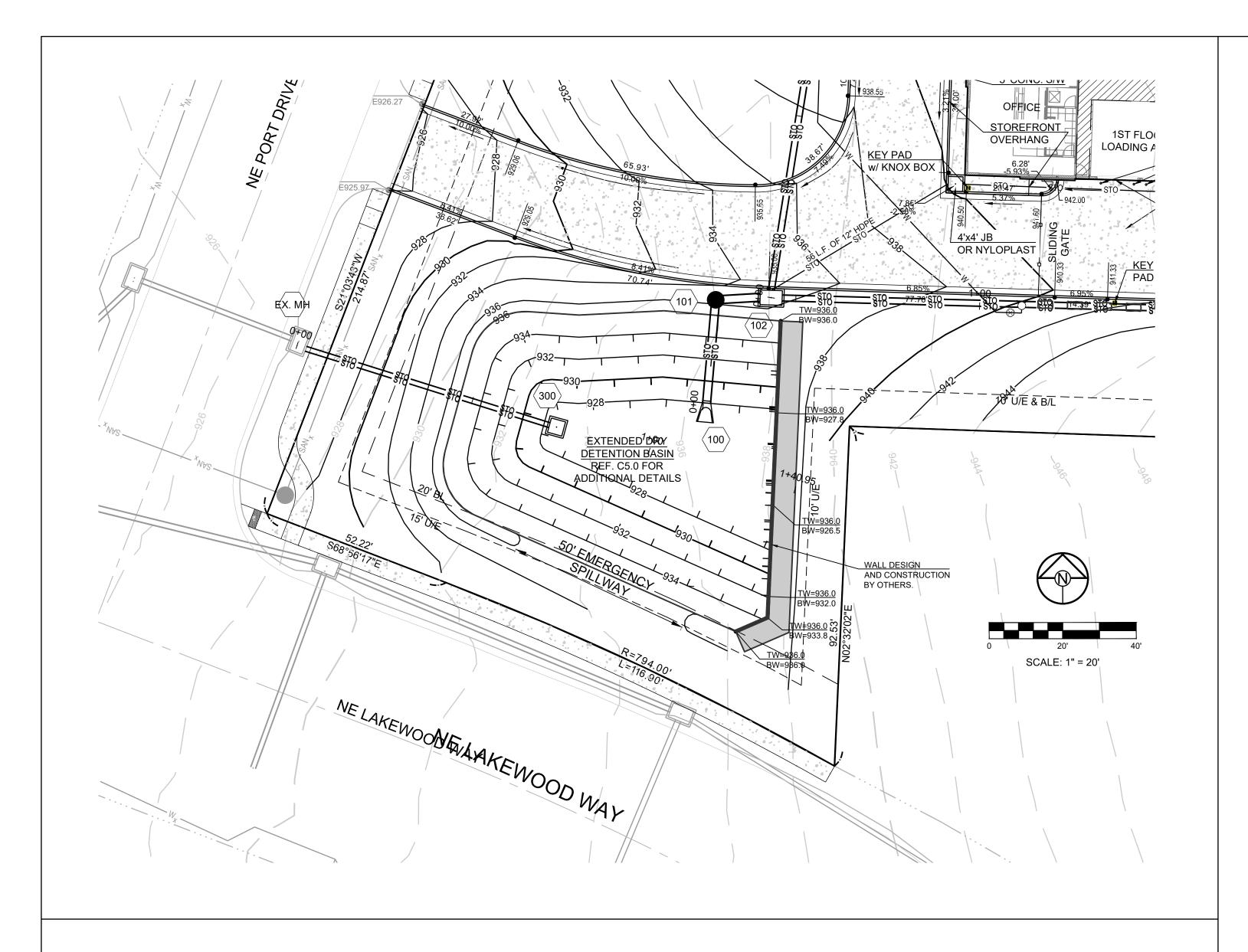
 JATE PREPARED:
 5
 City Comments

 06/25/2021
 6
 City Comments

 PROJ. NUMBER:
 6
 City Comments

STORM SEWER PLAN & PROFILE

C4.0

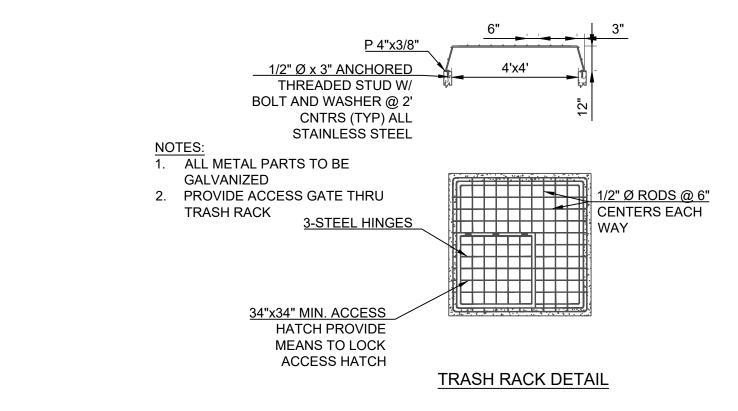


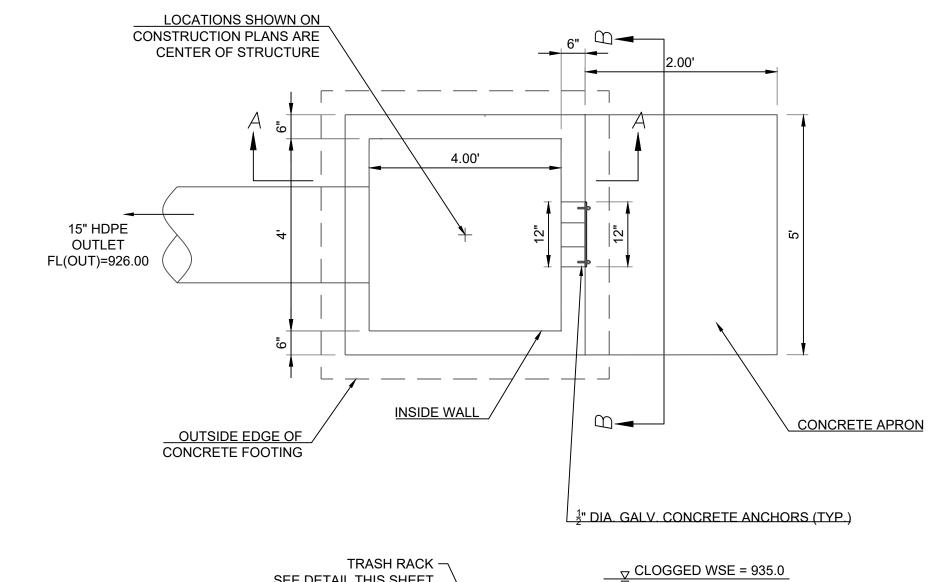
PROFILE VIEW EMERGENCY SPILLWAY N.T.S. SECTION VIEW OF DAM OUTLET STRUCTURE TOP OF DAM Q₁₀₀(Clogged)=18.50 CFS 100-Yr. (Clogged) EL:936.2 **LINE 300** 1" = 50' HORIZ. 1" = 10' VERT. 970 SPILLWAY EL:934.8 — STORAGE=27,012 CU.YDS. H=0.2 FT 1' FREEBOARD L=50 FT <u>▼ 100 Yr. WSE:933.8</u> ■ STORAGE=20,472 CU.YDS. **OVERFLOW CALCULATIONS**: $Q = C * L * H^{(\frac{3}{2})}$ Q = Q₁₀₀ C = 3.33 - 100 YR. (CLOGGED) EL.=935.0 • L = BASE WIDTH - 100 YR. EL.=933.8 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

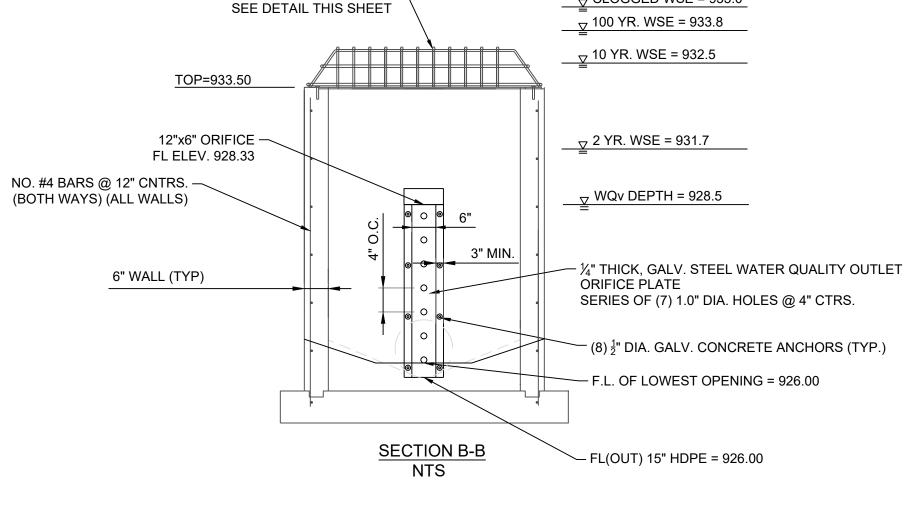
OUTLET STRUCTURE 300

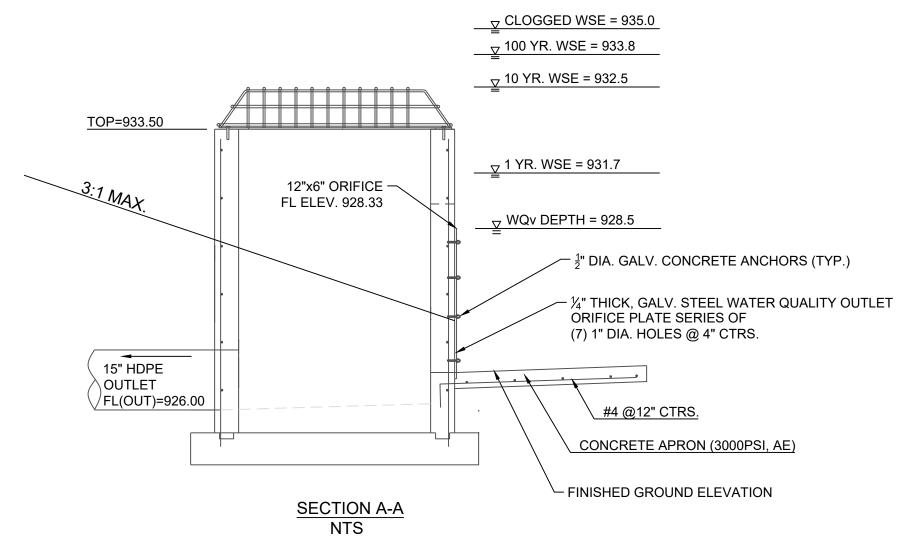






mo1call.com





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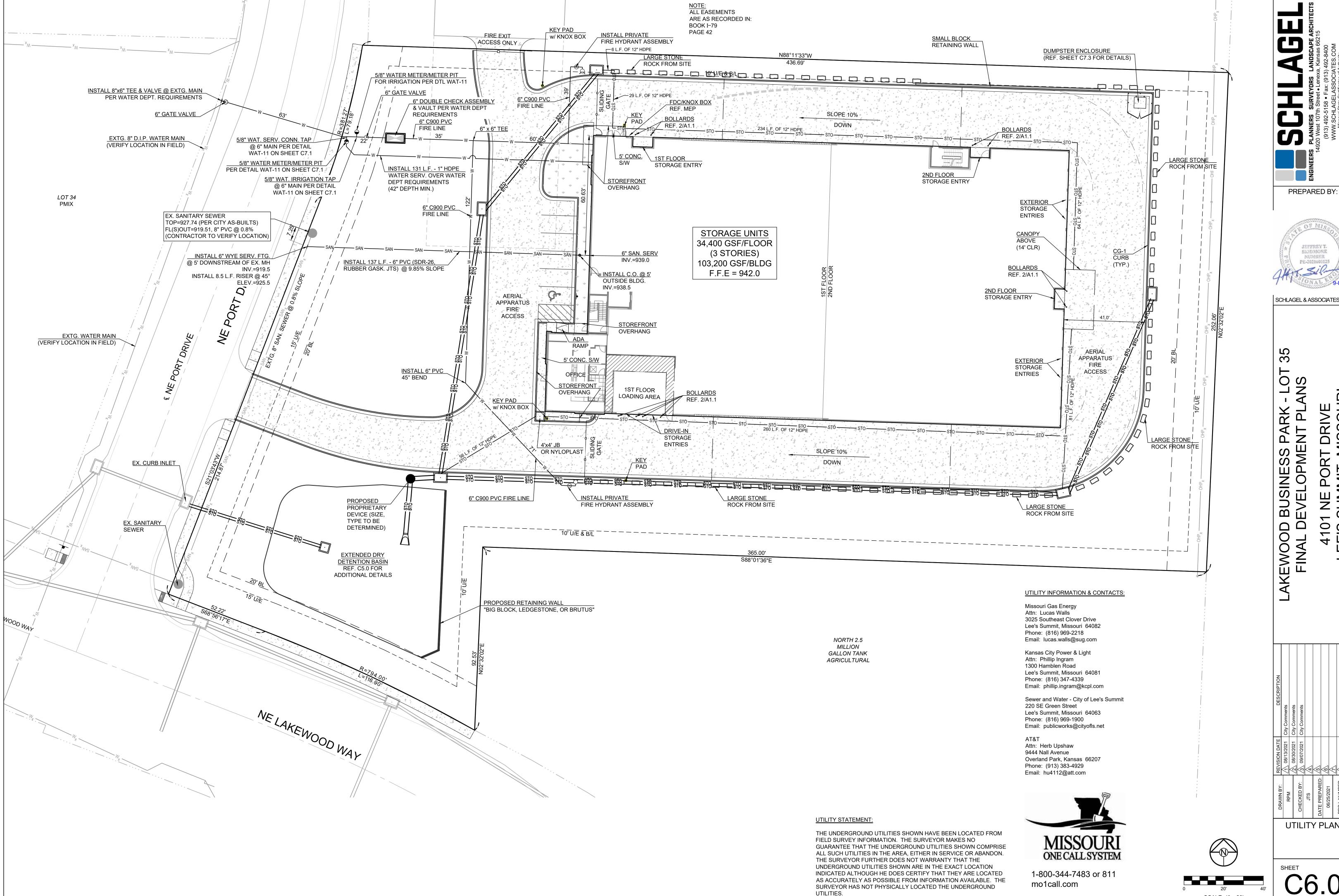
PREPARED BY:

SCHLAGEL & ASSOCIATES, P.A.

DESCRIPTION	ıts	nts	ıts						
	City Commer	City Commer	City Comments						
REVISION DATE	A 08/13/2021 City Comments	2 08/30/2021 City Comments	/3\ 09/07/2021	4	<u>/5</u>	∀	$\overline{\forall}$	8	<u>\@</u>
DRAWN BY:	BPM	2	CHECKED BY:	JTS	DATE PREPARED:	06/25/2021	17070700	PROJ. NUMBER:	20-261

DETENTION BASIN PLAN & PROFILE

SHEET



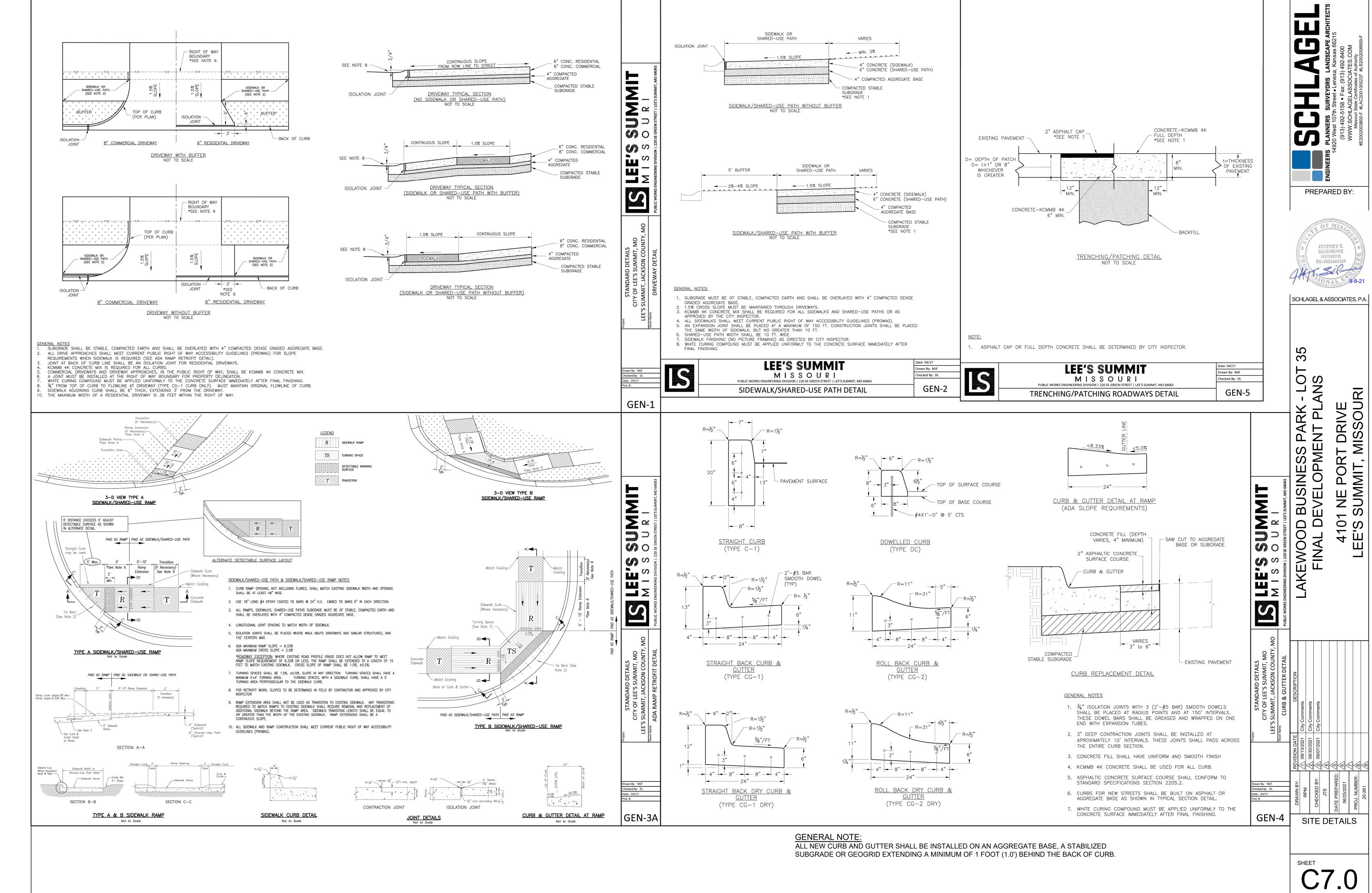
SCHLAGEL & ASSOCIATES, P.A.

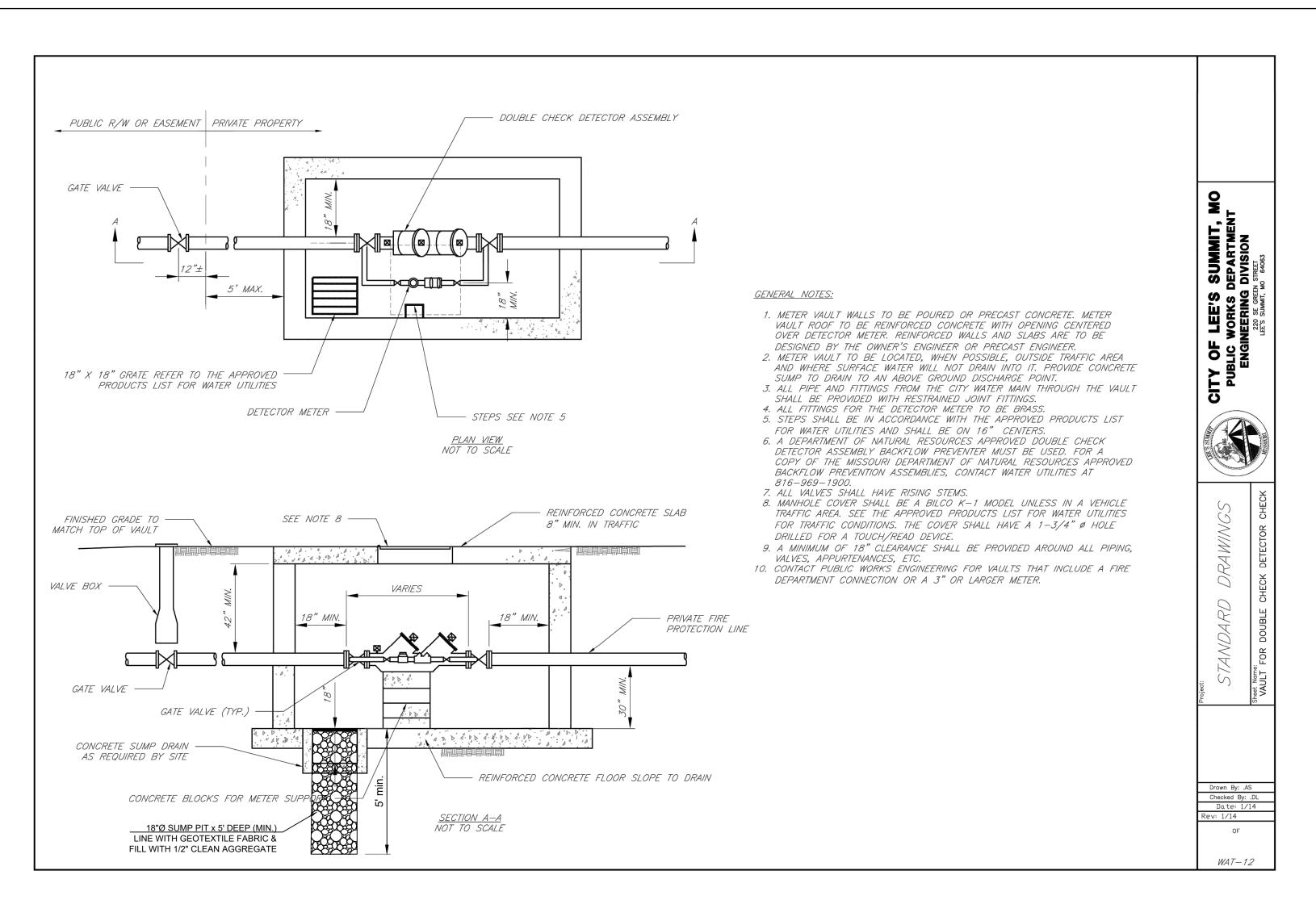
ESS | PME| BUSINE

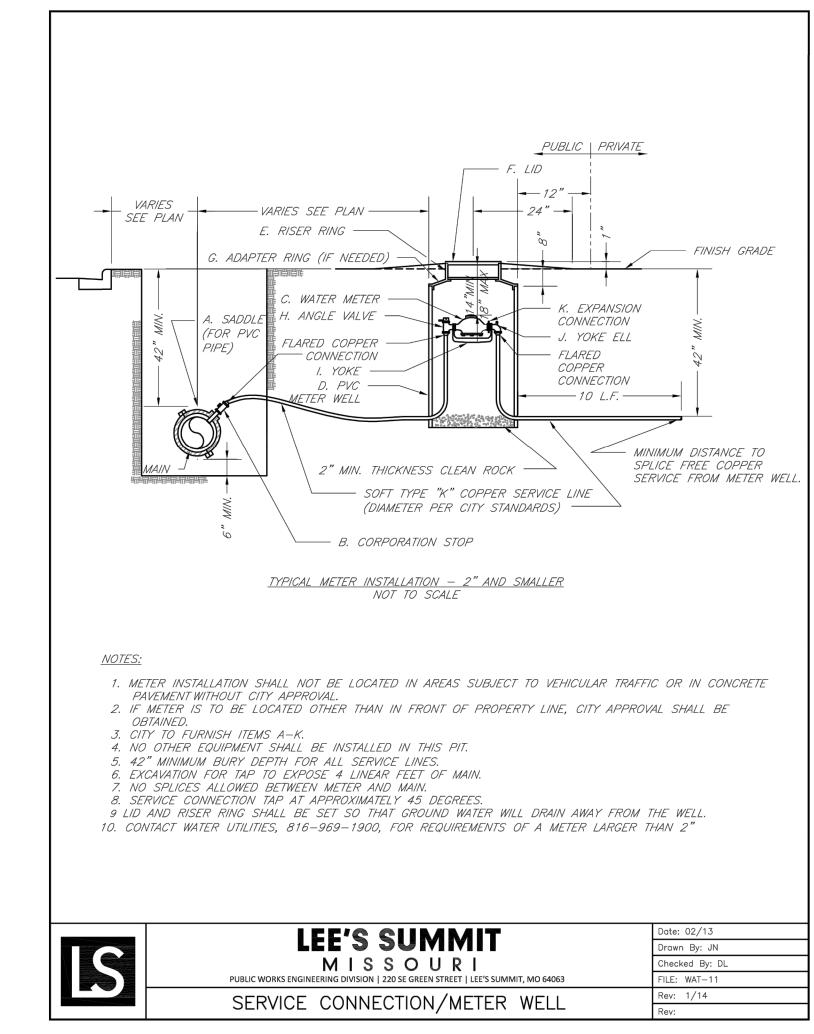
 \Box 0 AKEWOOI FINAL I

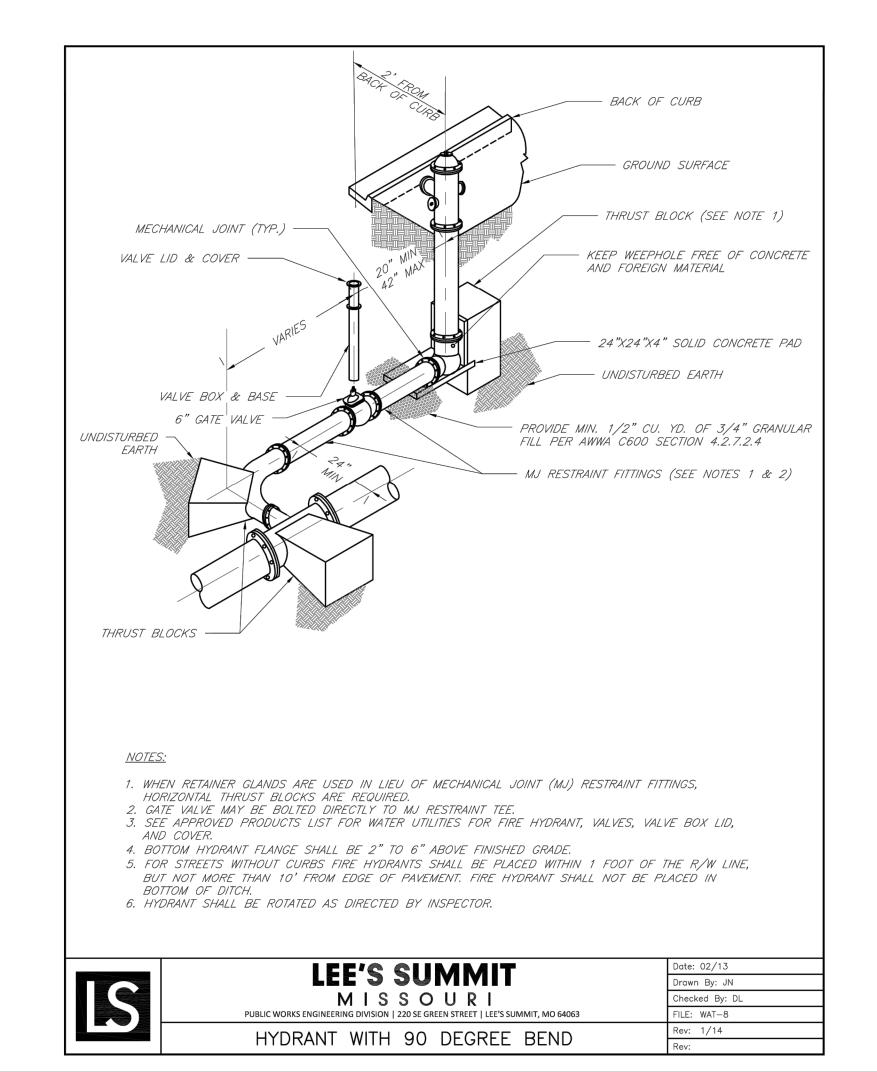
UTILITY PLAN

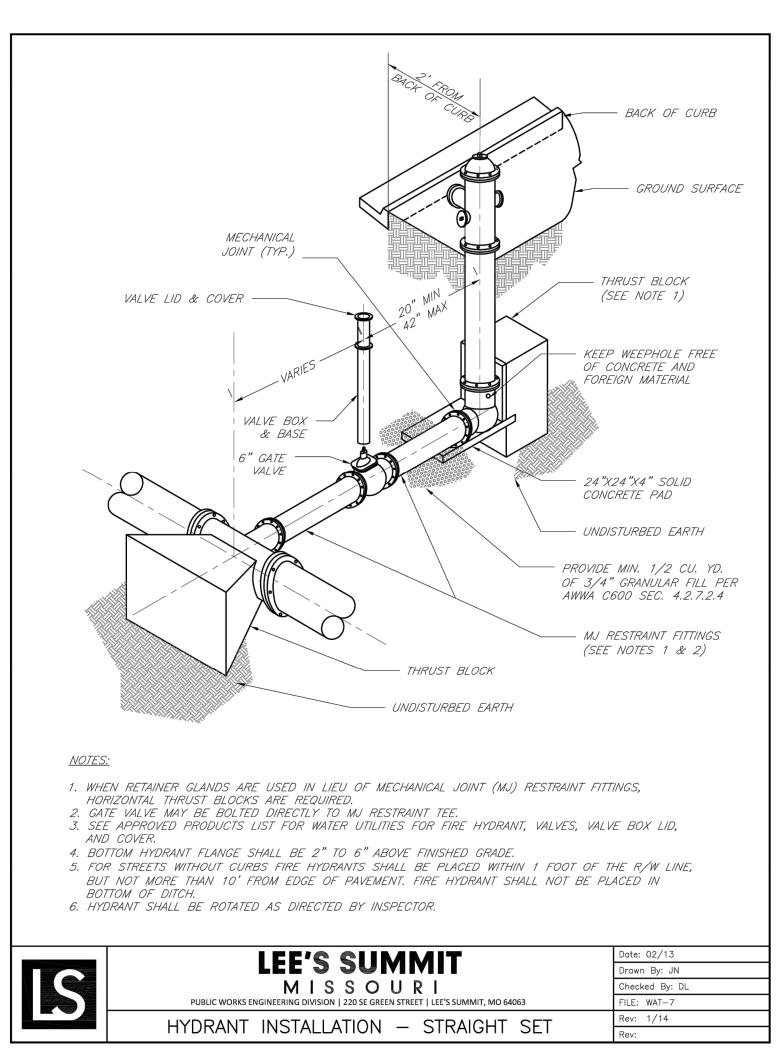
SCALE: 1" = 20'

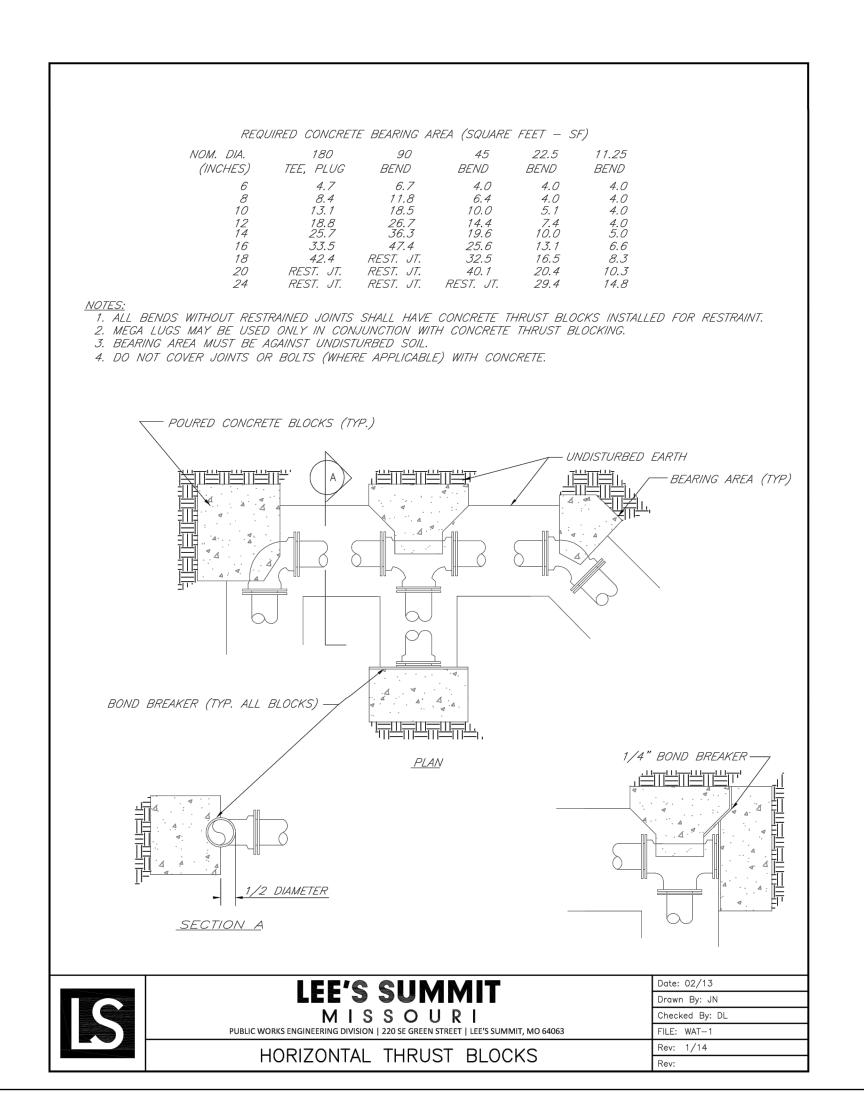














SCHLAGEL & ASSOCIATES, P.A.

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SITE DETAILS

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 to casting.
- 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.

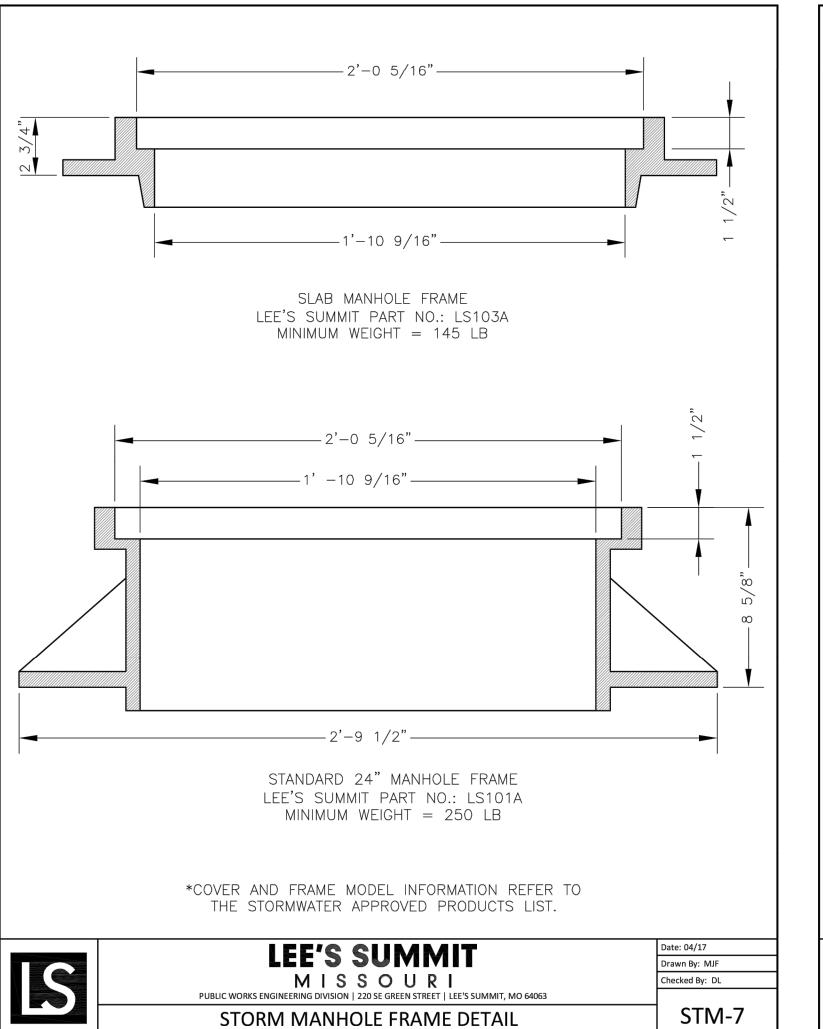
Reinforcing Steel

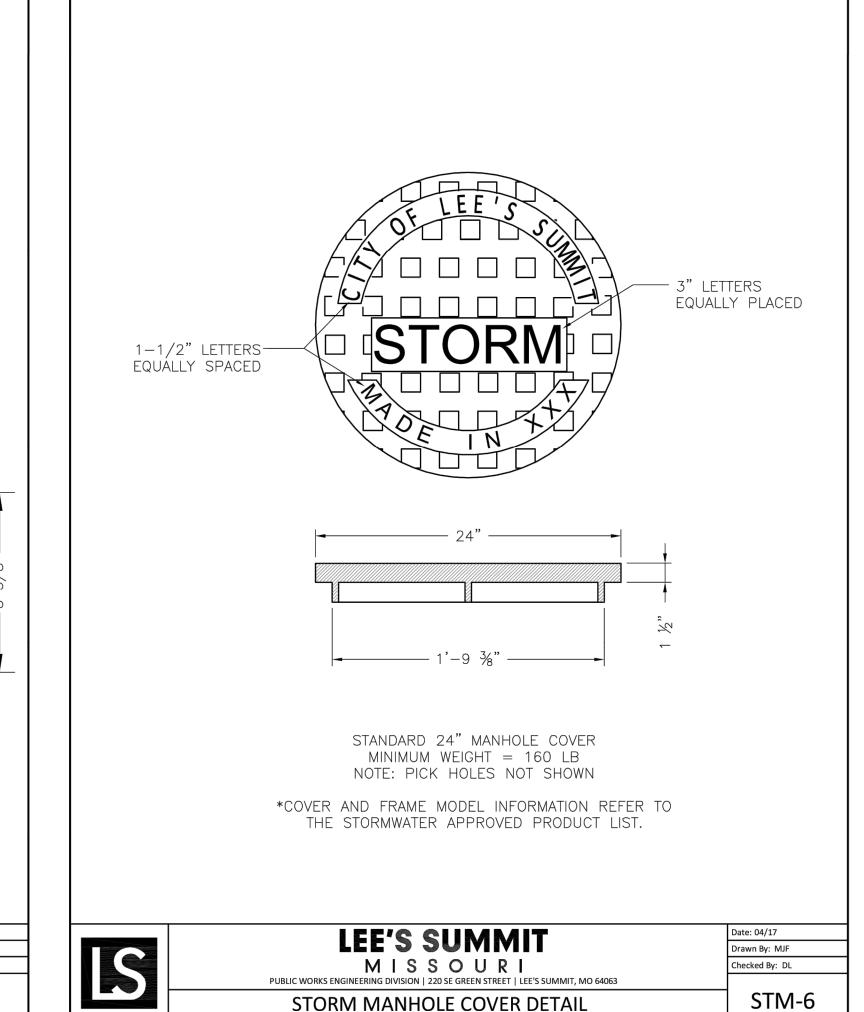
- Reinforcing steel shall be new billet, minimum Grade 40 as per ASTM A615, and shall be bent cold.
- 10. All dimensions relative to reinforcing steel are to centerline of bars. 2" clearance shall be provided throughout unless noted otherwise. Tolerance of +/- 1/8" shall be permitted.
- 11. All lap splices 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.

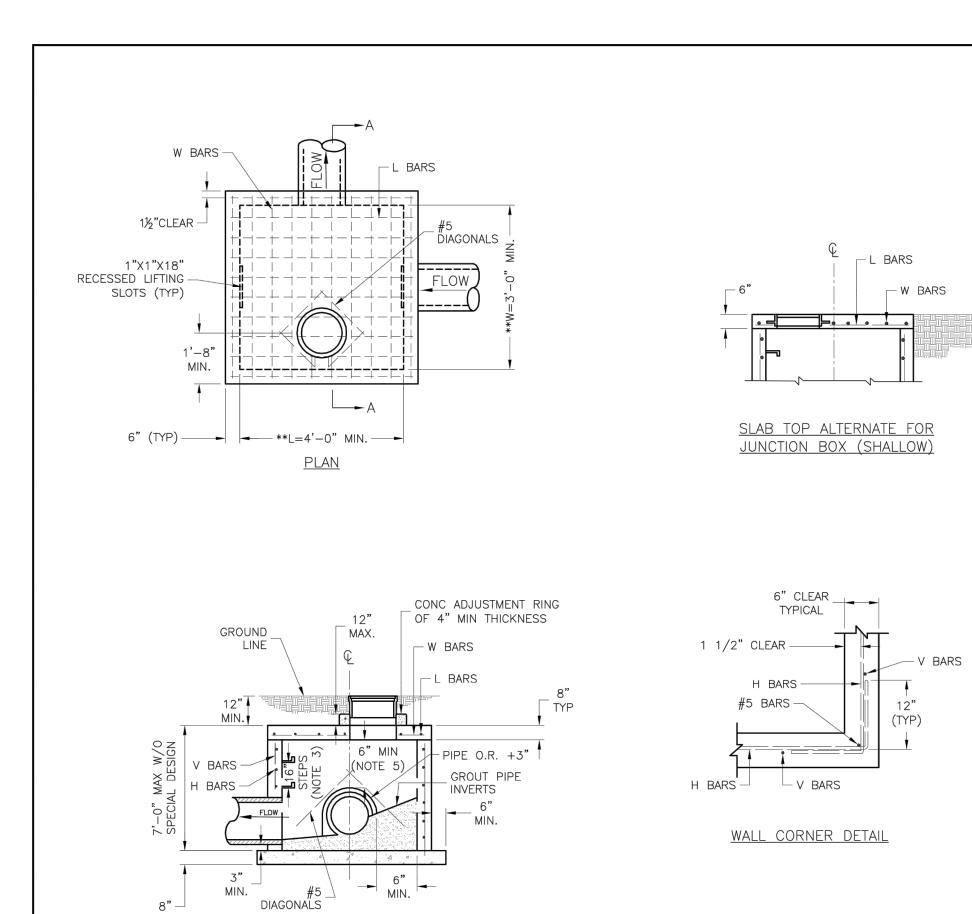
Construction

- 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.

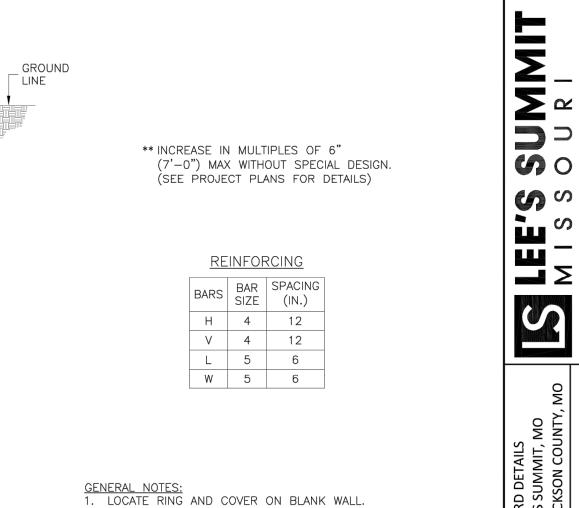
NON-SETBACK CURB INLET







SECTION A-A



2. USE ¾" CHAMFER STRIP OR ½" R EDGER TOOL ON ALL EXPOSED CONCRETE CORNERS.

3. STEPS REQUIRED AT 16" O.C. WHEN DEPTH FROM TOP OF

CASTING TO INVERT EXCEEDS 4' ON BLANK WALL IF

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

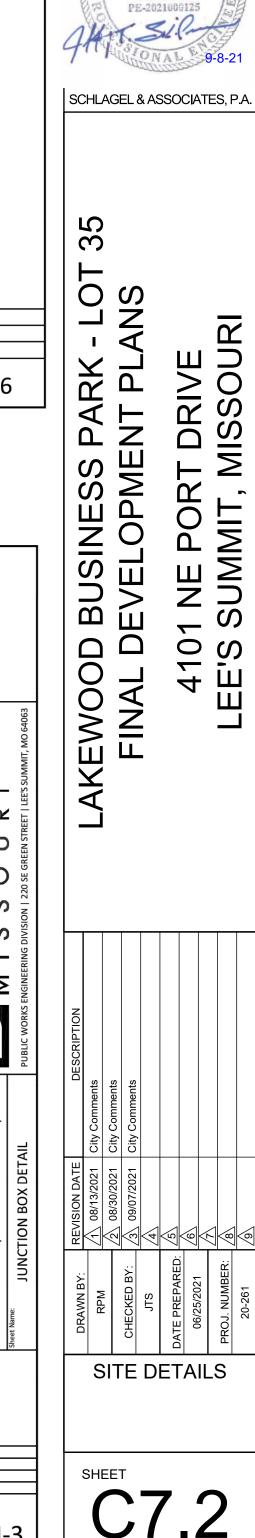
NON-SHRINKABLE GROUT AND REMOVABLE FOR FUTURE

9. REINFORCING OF COVERS IN STREETS REQUIRE SPECIAL

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

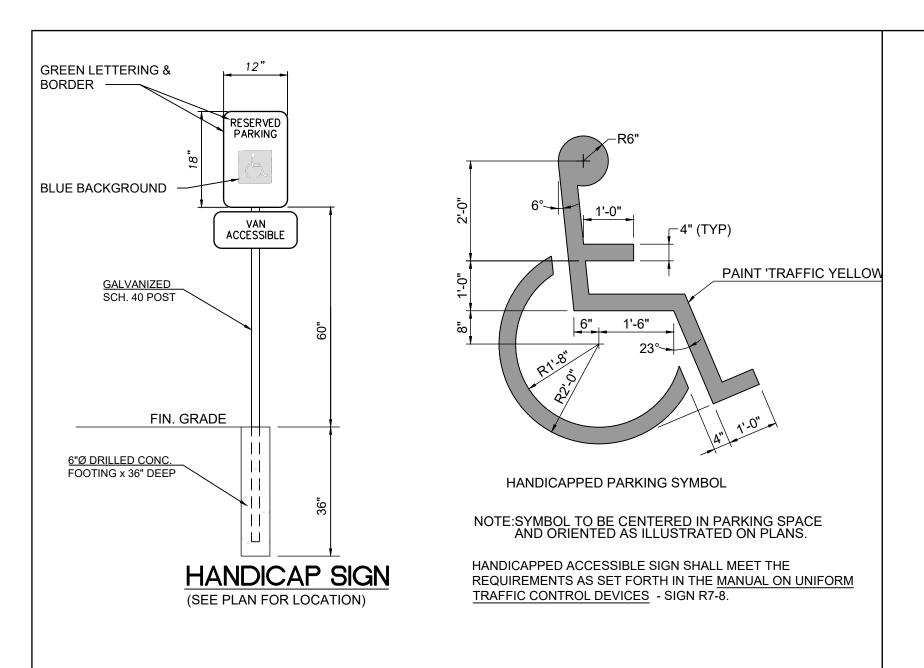
8. PRECAST LIDS SHALL BE PINNED, SEALED WITH

DISTANCE BETWEEN BOXOUTS IS 6".

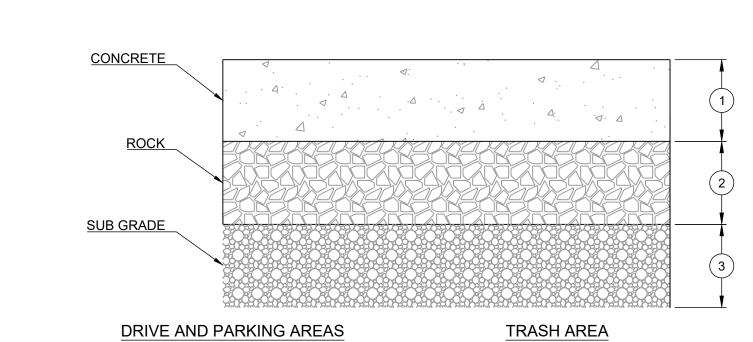


PREPARED BY:

SITE DETAILS



TYPICAL HANDICAPPED PARKING DETAILS



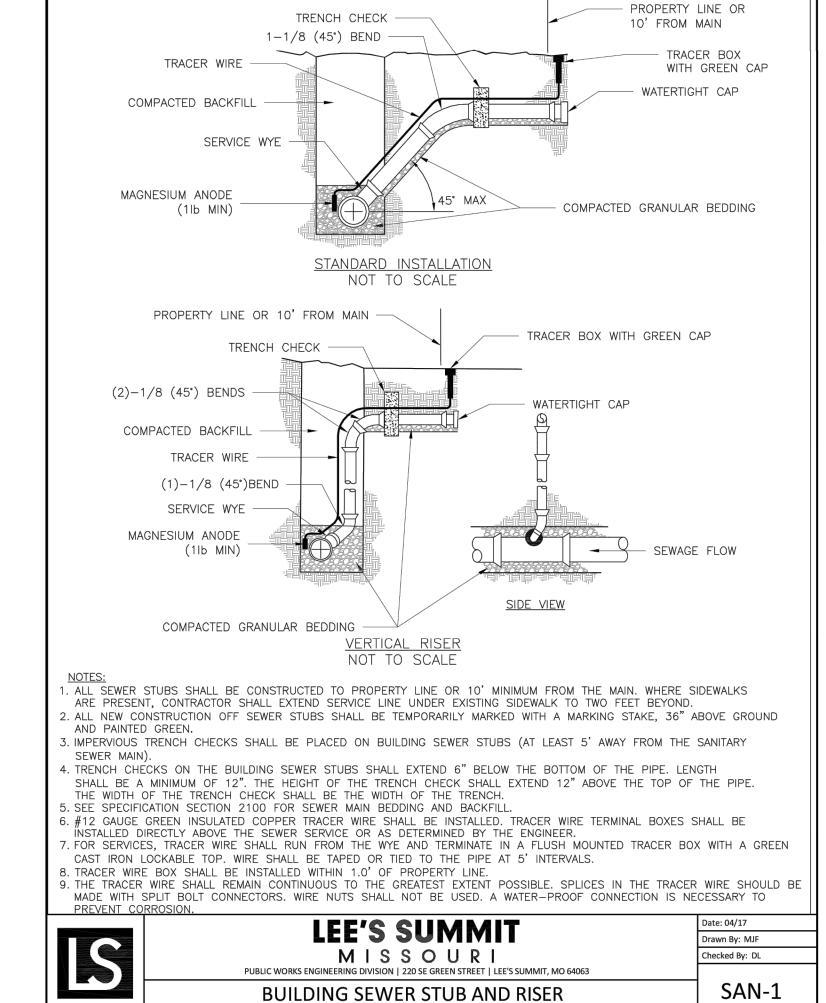
- 8" 4000 PSI PCC PAVEMENT
- 4" 3/4" CLEAN ROCK
- 9" STABILIZED SUBGRADE

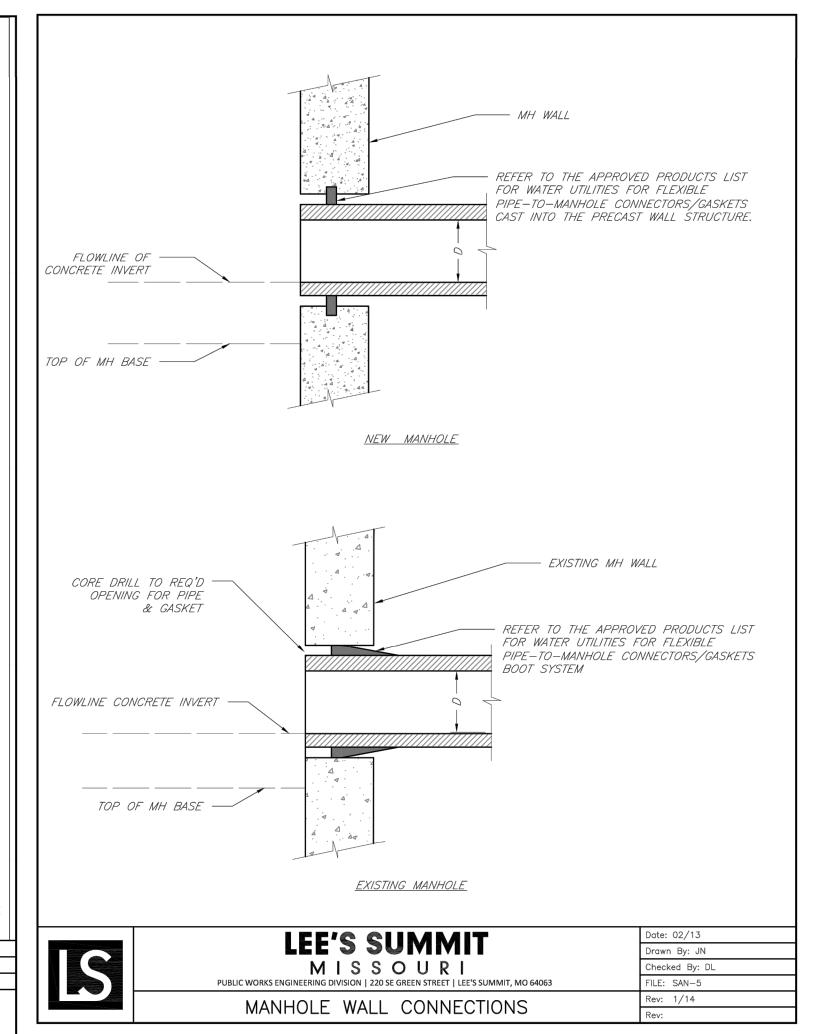
1/8" — JOINT SEALANT

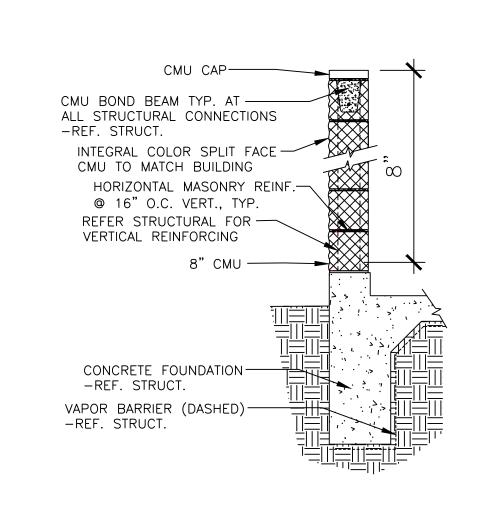
- 4" 3/4" CLEAN ROCK
- 9" STABILIZED SUBGRADE

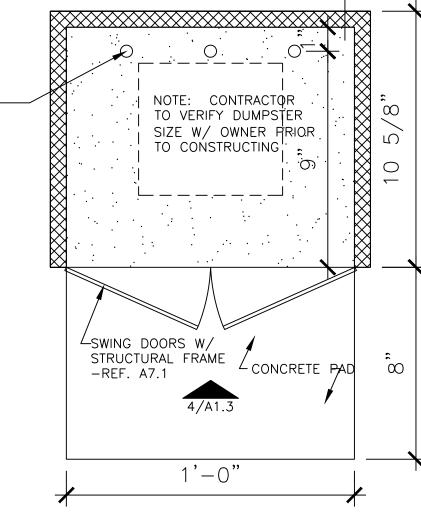
(1) 8" - 4000 PSI PCC PAVEMENT

TYPICAL CONCRETE PAVEMENT SECTION



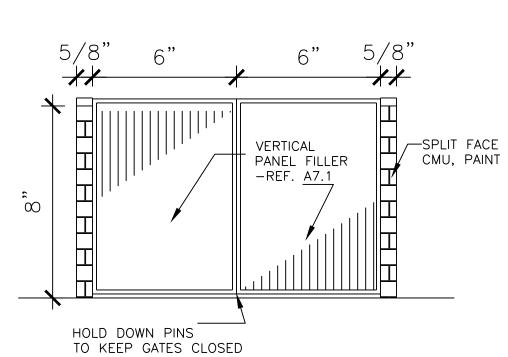


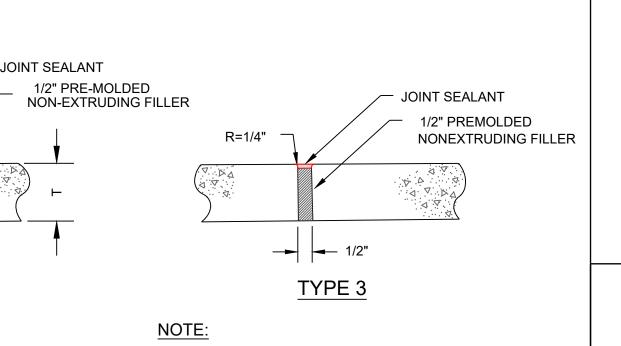




1'-1 3/8"

6" STEEL PIPE BOLLARD FILLED W/ CONCRETE -REF. CIVIL





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

TYPE 1

NOTES:

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

NOTES:

#5 SMOOTH 'DOWELS_

GREASE & WRAP

ONE END

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.

1. TYPE 3 JOINTS SHALL BE PLACED WHERE NEW CONCRETE ABUTS EXISTING CONCRETE AND IN AREAS WHERE DOWEL

BARS ARE NOT REQUIRED BY THE

ENGINEER.

4" CONC. SIDEWALK — W/6X6 10/10 W.W. MESH

TYPICAL CONCRETE PAVEMENT - JOINT DETAILS

INTEGRAL CURB/SIDEWALK DETAIL

VARIES

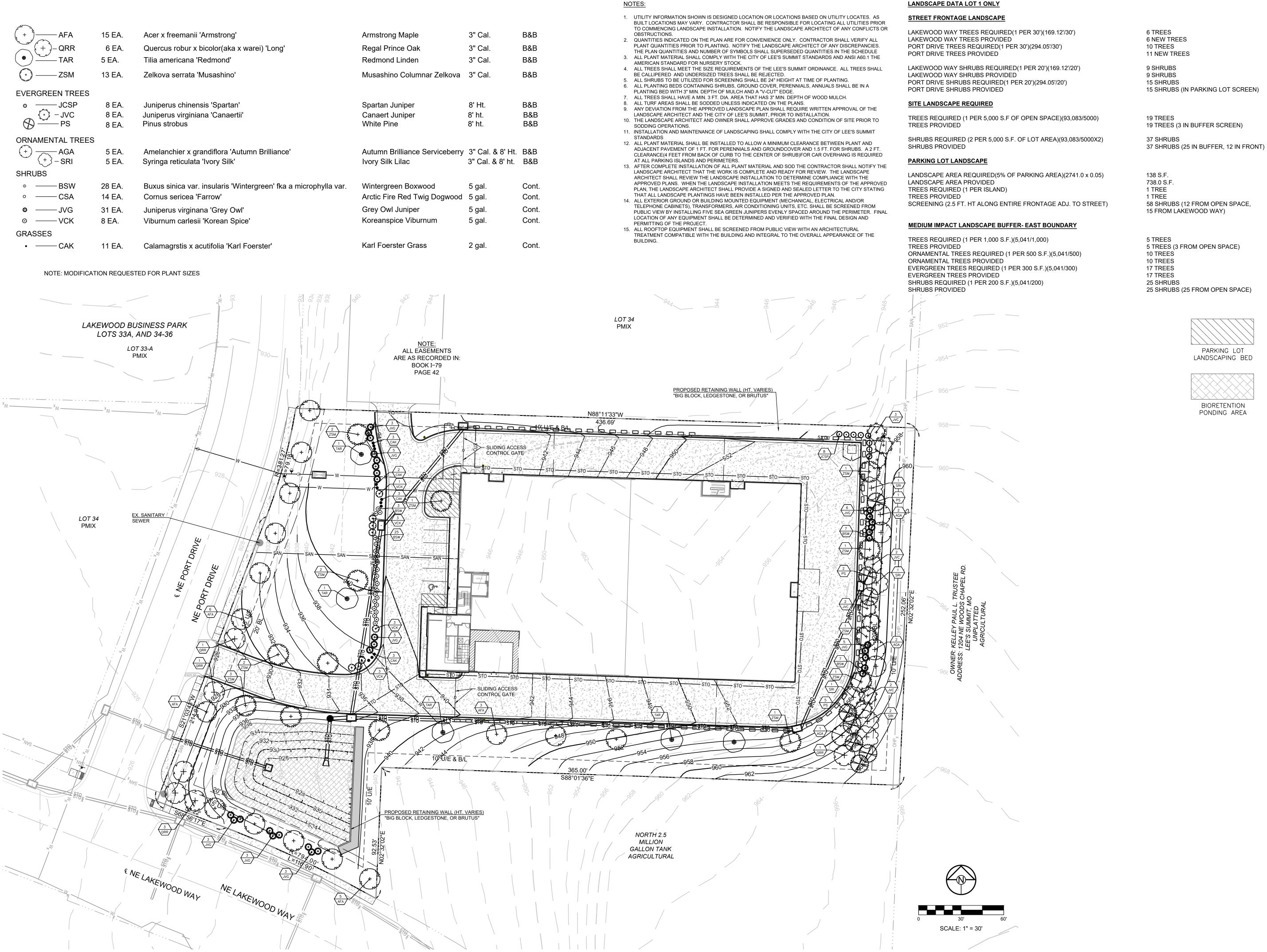
TOOLED JOINT

SLOPE 1/8":12 TO 1/4":12'

PREPARED BY: SCHLAGEL & ASSOCIATES, P.A.

AKEWOOD BUSINI FINAL DEVELO 410 EE'S

SITE DETAILS



LANDSCAPE DATA LOT 1 ONLY

5 TREES 5 TREES (3 FROM OPEN SPACE) 10 TREES 10 TREES

17 TREES

17 TREES 25 SHRUBS

25 SHRUBS (25 FROM OPEN SPACE)

PARKING LOT LANDSCAPING BED

BIORETENTION PONDING AREA

PREPARED BY:

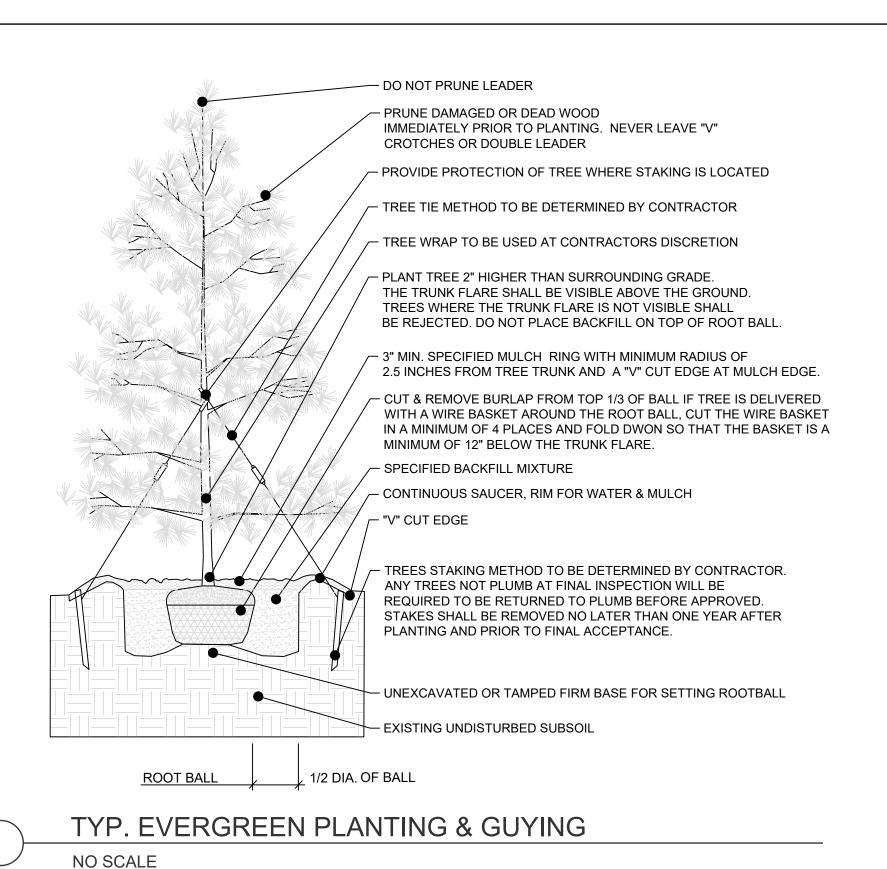
SCHLAGEL & ASSOCIATES, P.A.

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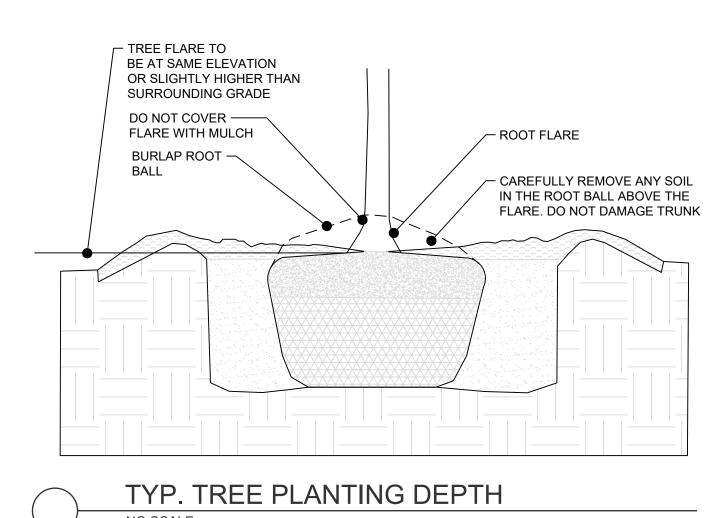
10

LANDSCAPE PLAN



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

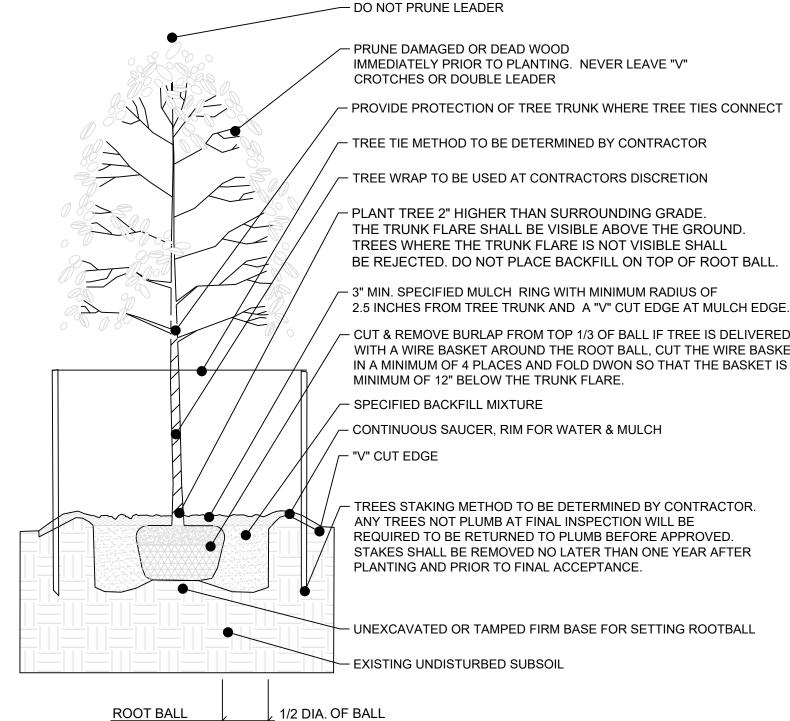
TYP. DECIDUOUS PLANTING & GUYING NO SCALE



 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



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

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.

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.

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).

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 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 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

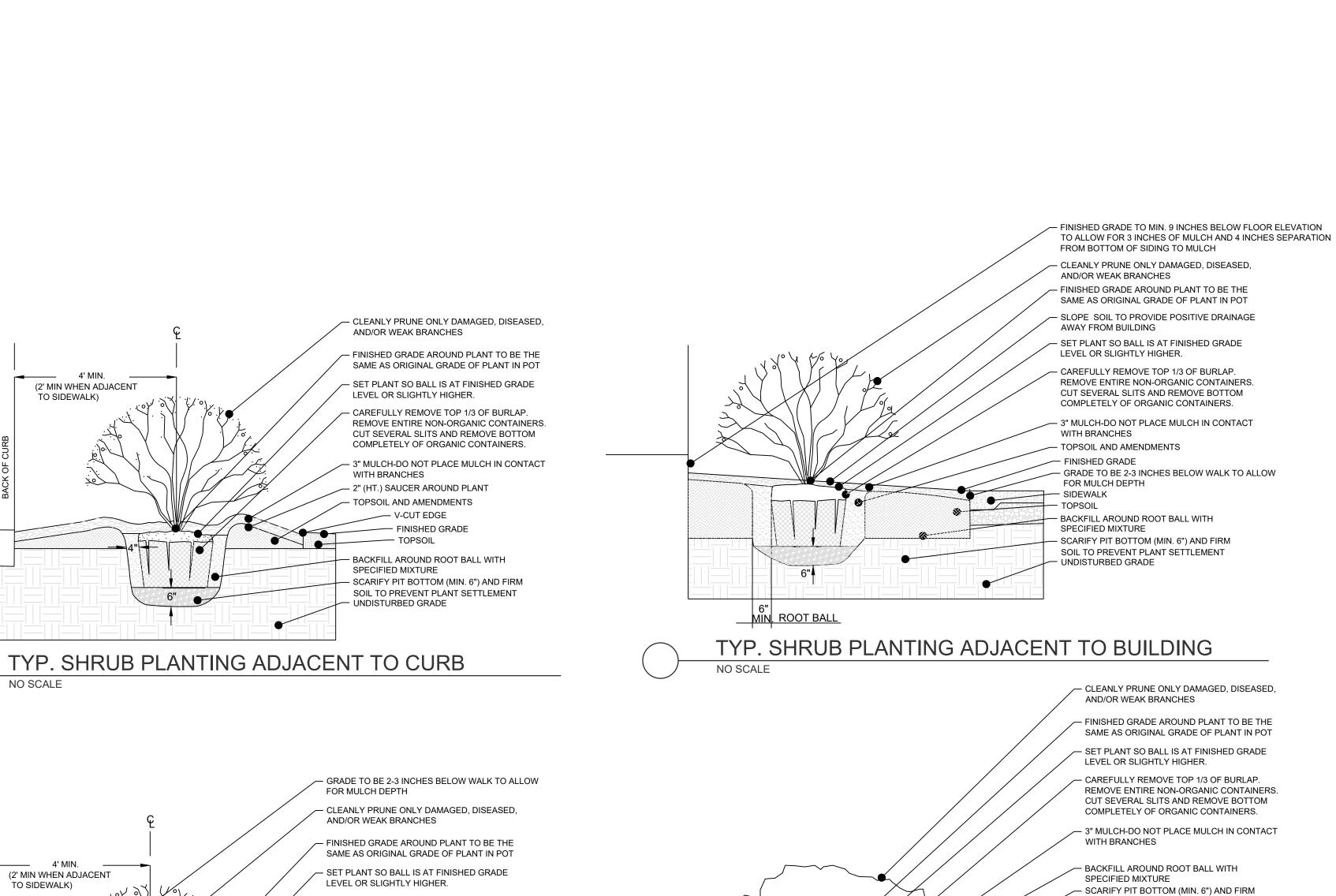
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LANDSCAPE DETAILS



- CLEANLY PRUNE ONLY DAMAGED, DISEASED, AND/OR WEAK BRANCHES - FIRM SOIL AROUND EACH PLANT ROOT MASS SPACING AS SHOWN
ON CHART — SET PLANT SO THE TOP OF THE BASE IS LEVEL WITH THE FINISHED GRADE OR SLIGHTLY HIGHER. - CAREFULLY REMOVE ENTIRE CONTAINER. GENTLY LOOSEN ANY TANGLE ROOTS - 3" MULCH-DO NOT PLACE MULCH IN CONTACT WITH BRANCHES - TOPSOIL AND AMENDMENTS EDGING FINISH GRADE TOPSOIL - UNDISTURBED GRADE TYP. ANNUAL/PERENNIAL PLANTING

TO SIDEWALK) - CAREFULLY REMOVE TOP 1/3 OF BURLAP. REMOVE ENTIRE NON-ORGANIC CONTAINERS. 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 MIN. ROOT BALL

TYP. SHRUB PLANTING ADJACENT TO WALK NO SCALE

TYP. SHRUB BED IN LAWN DETAIL NO SCALE

ROOT BALL MIN.

3 BUSINESS PARK EVELOPMENT PL T DRIV OR 0

PREPARED BY:

SCHLAGEL & ASSOCIATES, P.A.

SOIL TO PREVENT PLANT SETTLEMENT

✓ V-CUT EDGE

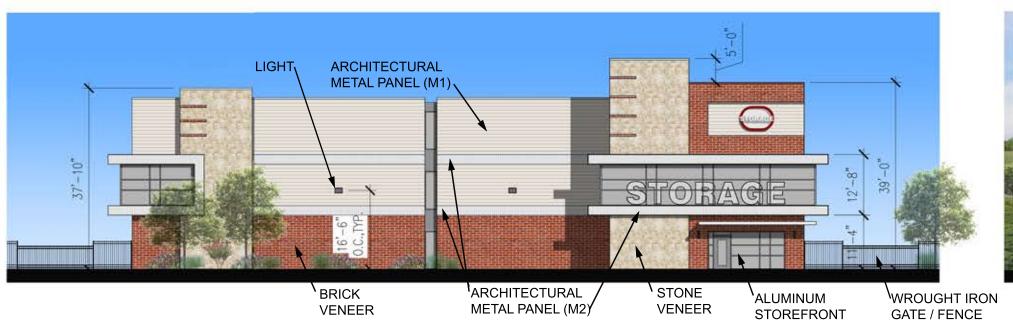
FINISHED GRADE

- UNDISTURBED GRADE

— TOPSOIL WITH AMENDMENTS IN BED AREA

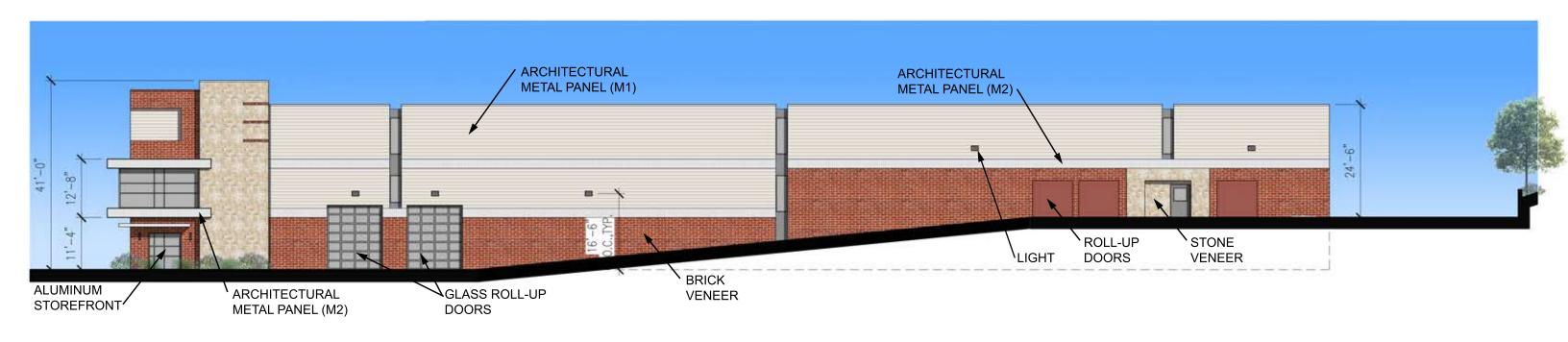
LANDSCAPE DETAILS

SHEET

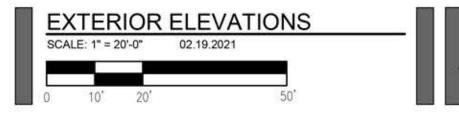




WEST ELEVATION



SOUTH ELEVATION



LAKEWOOD STORAGE LEE SUMMIT, MISSOURI

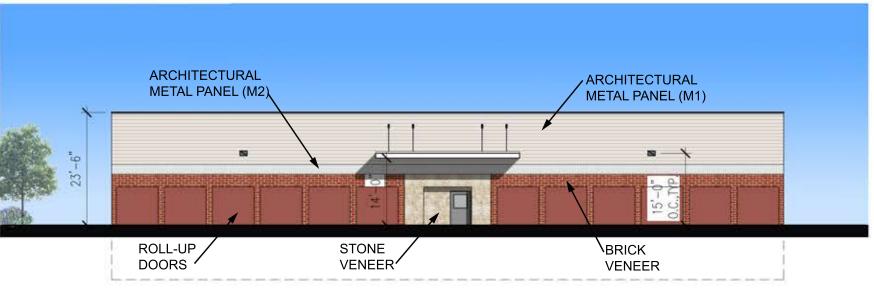
THIS DOCUMENT IS NOT FOR REGULATORY

JEFFREY S. DALLENBACH, AIA MO REGISTRATION NO. A-2020036988

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



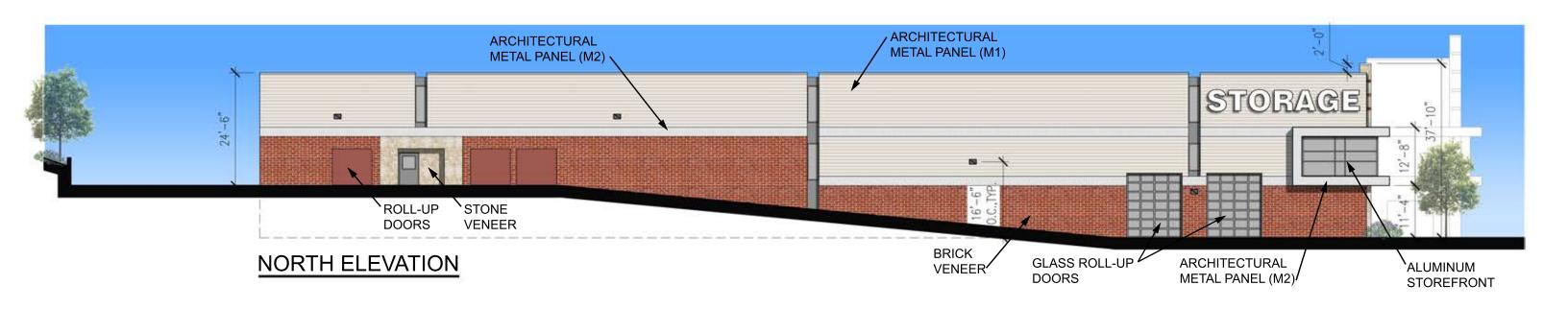


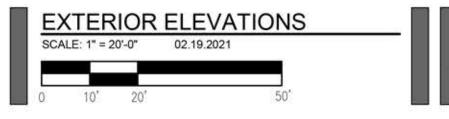




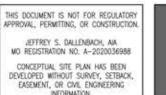
NORTH ELEVATION

EAST ELEVATION





LAKEWOOD STORAGE LEE SUMMIT, MISSOURI

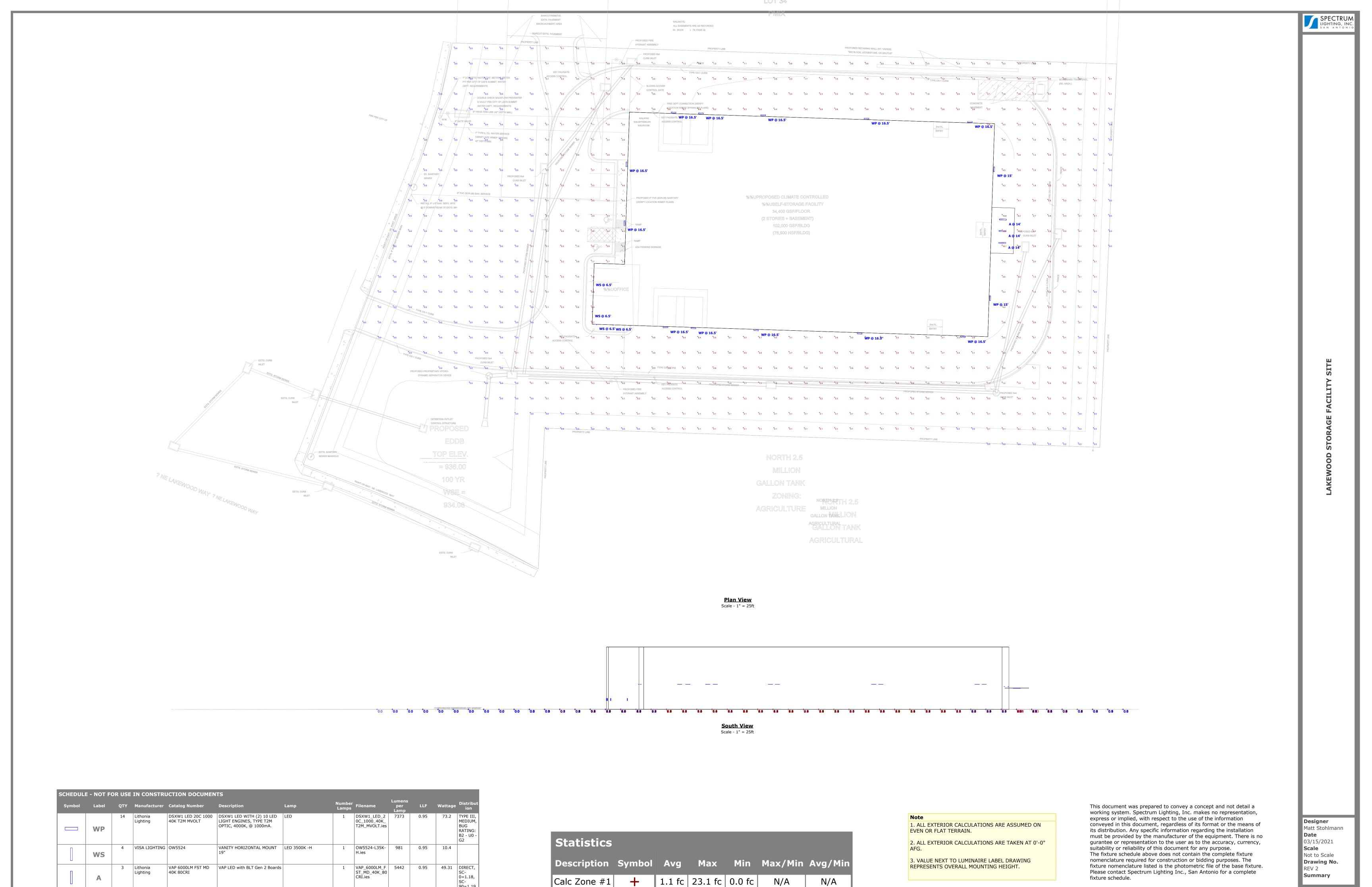












Calc Zone #1 +

1 of 1

OUTDOOR PHOTOMETRIC REPORT

CATALOG: VAP 6000LM FST MD 40K 80CRI

Test #: ISF36812P29

Test Lab: SCALED PHOTOMETRY

Catalog: VAP 6000LM FST MD 40K 80CRI
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	Lum	Lumens Per Zone									
Zone Lumens	% Luminaire	Zone	Lumens	% Total	Zone	Lumens	%				
0-30 1,458.8	26.8%	0-10	182.7	3.4%	90-100	65.2					
0-40 2,347.3	43.1%	10-20	515.3	9.5%	100-110	50.7					
0-60 4,014.7	73.8%	20-30	760.8	14.0%	110-120	49.5					
60-90 1,120.1	20.6%	30-40	888.6	16.3%	120-130	45.1					
70-100 597.6	11%	40-50	889.6	16.3%	130-140	38.3					
90-120 165.4	3%	50-60	777.7	14.3%	140-150	29.2					
0-90 5,134.8	94.3%	60-70	587.7	10.8%	150-160	18.1					
90-180 [°] 307.7	5.7%	70-80	365.0	6.7%	160-170	9.0					
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



1/4



OUTDOOR PHOTOMETRIC REPORTCATALOG: 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% 100% Total Lumens: 5,443.0

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%						



OUTDOOR PHOTOMETRIC REPORTCATALOG: VAP 6000LM FST MD 40K 80CRI



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Cande	la Tat	ole - T	ype C	:													
	0	22.5	45	67.5	90	112.5	135	157.5	180	202.5	225	247.5	270	292.5	315	337.5	360
0		1937		1937	1937	1937		1937		1937	1937	1937	1937		1937	1937	
2.5			1931	_	1938	1935		1938	_	1938		1935			1935	1935	_
5			1920				1927	1930			1930	1930	1935		1930	1928	
7.5		1907	1899		1901	1904			1914		1918		1922		1915		1908
10		1884			1875		1886		1895		1901	1898	1902		1897		1886
12.5			1843		1840		1856	1871	_	1881	1875	1873	1878		1871		1860
15	1827		1807	1796			1823	1839			1848	1842	1848		1840		1827
17.5	1791	1783	1764		1760	1761			1810		1811	1810	1813	1807		1803	1791
20	1747	1737	1719				1739		1768	1774		1770	1777		1765		1747
22.5		1685			1659		1689	1711	_		1731	1728	1735		1719		1703
25			1611		1610		1634		1673	1679		1685	1693		1673	1663	1650
27.5			1559	_	1554		1582	1604	_		1630	1634	1646		1621		1592
30		1515			1494		1522	1542		1572		1582	1594		1564		1536
32.5		_	1435	_			1458	1483	1497	1510	1520	1532	1545	1526	1509	1494	1470
35	1402	1388	1375	1365	1375	1383	1399	1415	1431	1444	1460	1474	1486	1467	1447	1427	1402
37.5	1337	1317	1307	1306	1316		1330	1345	1360		1402	1418	1425	1411	1388		1337
40			1238		1248	1249	1262	1280	1294	_	1336	1353	1368		1320	1293	1265
42.5	1196	1179	1175	1173	1177	1186	1196	1206	1219	1245	1274	1287	1298	1284	1252	1221	1196
45	1121	1105	1102	1104	1114	1115	1126	1138	1150	1173	1203	1225	1231	1216	1189	1149	1121
47.5	1046	1039	1035	1033	1042	1051	1053	1064	1075	1100	1130	1154	1164	1146	1117	1082	1046
50	977	966	961	961	968	977	987	989	999	1033	1062	1082	1091	1079	1045	1009	977
52.5	902	898	888	895	902	905	915	921	930	958	990	1016	1025	1006	979	934	902
55	827	824	823	823	830	839	843	847	853	882	915	942	951	934	906	866	827
57.5	758	751	749	757	767	767	777	775	778	814	846	869	881	866	833	793	758
60	685	680	677	687	698	696	705	709	709	741	771	798	810	794	767	726	685
62.5	611	615	615	620	631	634	634	636	636	673	700	734	748	725	693	654	611
65	546	545	546	561	568	569	569	563	562	601	636	667	680	664	623	582	546
67.5	474	476	484	499	513	506	500	499	496	529	565	607	615	597	558	517	474
70	405	414	421	441	455	453	435	429	425	465	499	543	559	535	491	448	405
72.5	342	346	360	389	405	396	378	363	355	395	440	481	499	478	432	380	342
75	275	281	303	336	352	343	318	303	293	327	378	428	440	421	372	320	275
77.5	213	226	255	287	303	297	269	239	228	269	321	372	391	366	314	258	213
80	160	169	208	245	264	251	219	182	167	209	272	320	340	318	261	199	160
82.5	107	124	164	205	223	210	174	134	117	156	223	277	293	271	216	147	107
85	62	84	130	167	186	173	138	91	69	114	179	232	254	232	173	107	62
87.5	30	53	95	134	153	140	104	59	35	78	143	192	212	190	137	71	30
90	19	33	69	105	121	108	73	36	19	49	107	157	173	153	102	45	19
92.5	17	26	53	82	97	85	56	26	17	35	79	125	143	124	76	32	17
95	19	24	43	69	81	71	45	24	19	30	63	101	117	101	61	27	19
97.5	22	26	40	59	69	59	40	24	20	30	53	85	98	84		29	22
100	23	27	42	56	63	56	40	26	23	32	52	75	86	75	50	29	23
102.5	23	29	42	56	62	56	40	27	24		53	73	81	72	50	30	23
105	24	30	43	58	63	56	42	29	24		53	72	79	72	52	32	24
107.5	24	32	43	58	63	56	42	30	26	36	53	72	79	72	52	35	24
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112.5	26	35	45	58	62	58	45	35	26		55	72	79	71	53	37	26
115	26	35	46	58	62	56	45	36	26	40	56	72	78	71	55	39	26
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120	27	36	48	56	61	56	48	37	27	42	56	69	75	69	55	42	27
F368\$ 2		36	48	56	61	56	49	39	27	42	55	69	73	68		43	
SUAL	HO <u>7</u> 91	METŘÍC	торі	56	61	56	49	39	29	42	55	68	72	68		47	AGE73
127.5	29	36	48	56	59	58	50	39	29	42	53	66	72	68	56	43	29
130	29	35	48	56	59	58	52	39	30	42	53	65	71	66	56	45	
	29	35	48		59		52		30	42	53					45	
132.5				55		58		39				65	69	66			
135	29	33	46	55	59	58	53	39	30	39	52	63	69	65	59	45	29
137.5	29	32	45	55	59	58	55	39	29	37	50	61	68	65	61	43	29
140	29	32	43	55	59	59	55	37	29	36	49	59	66	65	61	43	29
142.5	29	30	40	53	61	61	52	36	29	35	48	59	65	65	61	40	29

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
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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
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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

OW5524 - SHINE™



Type: Project: VisaLighting.com/products/Shine

Fill in shaded boxes using information listed below

MVOLT

VOLTAGE

B FINISH

OPTION(S)

See page 2 for color chart

Order Code: OW5524 MODEL A SOURCE



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

L W D D (with JB)	19" 3" 4" 4.25" C option)	(483 mm) (76 mm) (102 mm) (108 mm)	×(
	with JB	C Option	Jw
			D

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







LED



ETL Listed

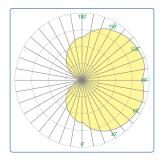


800-788-VISA VisaLighting.com Page 1

OW5524 - SHINE



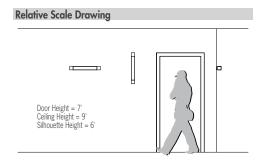
Photometrics



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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Location: Wall Packs on **Exterior Elevations**

D-Series Size 1 LED Wall Luminaire





d"series

Specifications

Luminaire

13-3/4" 12 lbs Width: Weight: (34.9 cm)

10" Depth: (25.4 cm)

6-3/8" Height:

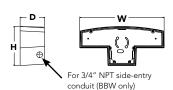




Back Box (BBW, ELCW)

BBW 13-3/4" 5 lbs Width: Weight: (34.9 cm) (2.3 kg)**ELCW** 4" 10 lbs Depth: (10.2 cm) Weight: (4.5 kg)

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



Catalog Numbe

Notes

Туре

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) ¹	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 ² 120 ³ 208 ³ 240 ³ 277 ³ 347 ^{3,4} 480 ^{3,4}	Shipped included (blank) Surface mounting bracket BBW Surface- mounted back box (for conduit entry) 5	PE Photoelectric cell, button type ⁶ 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 ^{1,7} PIRH 180° motion/ambient light sensor, 15-30′ mtg ht ^{1,7} PIRHFC3V Motion/ambient sensor, 8-15′ mounting height, ambient sensor enabled at 1fc ^{1,7} PIRH1FC3V Emergency battery backup (includes external component enclosure), CA Title 20 Noncompliant ^{8,9}

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	ed separately ¹¹ 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

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

DSXWBSW U Bird-deterrent spikes DSXW1VG U Vandal guard accessory

NOTES

- 20C 1000 is not available with PIR, PIRH, PIR1FC3V or PIRH1FC3V.
- MVOLT driver operates on any line voltage from 120-277V (50/60 Hz).
- Single fuse (SF) requires 120, 277 or 347 voltage option. Double fuse (DF) requires 208, 240 or 480 voltage option.
- Only available with 20C, 700mA or 1000mA. Not available with PIR or PIRH.
- Back box ships installed on fixture. Cannot be field installed. Cannot be ordered as an accessory.
- Photocontrol (PE) requires 120, 208, 240, 277 or 347 voltage option. Not available with motion/ambient light sensors (PIR or PIRH).
- Reference Motion Sensor table on page 3.
- 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 www.lithonia.com
- Not available with SPD.
- 10 Not available with ELCW.
- 11 Also available as a separate accessory; see Accessories information.
- 12 Not available with ELCW.



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	30K (3000 K, 70CRI)			41	OK (40	00 K, 7	OCRI)			50K (50	000 K, 70	CRI)		AMBPC (Amber Phosphor Converted)					
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	8 8894 12 12 13 14 15 15 15 15 15 15 15	0	0	1	66
	350mA	13W	T3S	1,399	0	0	1	108	1,503	0	0	1	116	1,512	0	0	1	116	884	0	0	1	68
	SOUTH	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	112	1	66			
			TFTM	1,411	0	0	1	109	1,515	0	0	1	117	1,525	0	0	1	-				1	69
			T2S	2,053	1	0	1	108	2,205	1	0	1	116	2,220	1	0	1	-				1	67
			T2M	1,957	1	0	1	103	2,102	1	0	1	111	2,115	1	0	1				-	1	63
	530 mA	19W	T3S	2,031	1	0	1	107	2,181	1	0	1	115	2,194	1	0	1					1	66
	330 11111	'''	T3M	2,010	1	0	1	106	2,159	1	0	1	114	2,172	1	0	1	_		_		1	65
100			T4M	1,970	1	0	1	104	2,115	1	0	1	111	2,129	1	0	1					1	64
10C			TFTM	2,047	0	0	1	108	2,198	1	0	1	116	2,212	1	0	1					1	66
(10 LEDs)			T2S	2,623	1	0	1	101	2,816	1	0	1	108	2,834	1	0	1	-		_		1	59
			T2M	2,499	1	0	1	96	2,684	1	0	1	103	2,701	1	0	1					1	57
	700 mA	26W	T3S	2,593	1	0	1	100	2,785	1	0	1	107	2,802	1	0	1		PW Lumens Res Re			1	59
			T3M	2,567	1	0	1	99	2,757	1	0	1	106	2,774	1	0	1	-		_	-	1	58
			T4M	2,515	1	0	1	97	2,701	1	0	1	104	2,718	1	0	1					1	57
			TFTM T2S	2,614 3,685	1	0	1	101 94	2,808 3,957	1	0	1	108 101	2,825 3,982	1	0	1		894 0 852 0 884 0 876 0 858 0 892 0 1,264 0 1,205 0 1,250 0 1,250 0 1,212 0 1,212 0 1,227 0 1,527 0 1,527 0 1,512 0 1,527 0 1,512 0 1,527 1 1,481 0 1,527 0 1,512 0 1,512 0 1,527 0 1,777 1 1,693 1 2,143 1 2,228 1 1,777 1 1,693 1 1,777 0 1,739 1 1,777 0 1,739 1 1,771 0 2,387 1 2,404 1 2,387 1 2,447 1 2,496 1 3,065 1 2,921 1 3,000 1 2,939 1 3,005 1 4,429 1 4,221 1 4,380 1		1	59	
			T2M		-	_	1	90		-	_	1	97		1	0	1		884 876 858 892 1,264 1,205 1,250 1,250 1,237 1,212 1,260 1,544 1,472 1,512 1,512 1,481 1,539 2,235 2,210 2,187 2,143 2,228 1,777 1,693 1,757 1,739 1,751 2,402 2,496 3,065 2,921 3,031 3,000			1	55
			T3S	3,512 3,644	1	0	1	93	3,771 3,913	1	0	1	100	3,794 3,938	1	0	1	 				1	57
	1000 mA	39W	T3M	3,607	1	0	1	92	3,873	1	0	1	99	3,898	1	0	1					1	56
			T4M	3,534	1	0	2	91	3,796	1	0	2	97	3,819	1	0	2	-	1,260	1	55		
			TFTM	3,673	1	0	1	94	3,945	1	0	1	101	3,969	1	0	1					1	57
			T2S	2,820	1	0	1	123	3,028	1	0	1	132	3,909	1	0	1					1	77
			T2M	2,688	1	0	1	117	2,886	1	0	1	125	2,904	1	0	1	_				1	74
			T3S	2,789	1	0	1	121	2,994	1	0	1	130	3,014	1	0	1					1	76
	350mA	23W	T3M	2,760	1	0	1	120	2,965	1	0	1	129	2,983	1	0	1					1	76
			T4M	2,704	1	0	1	118	2,905	1	0	1	126	2,922	1	0	1	-				1	74
			TFTM	2,811	1	0	1	122	3,019	1	0	1	131	3,038	1	0	1	•			-	1	77
			T2S	4,079	1	0	1	117	4,380	1	0	1	125	4,407	1	0	1					1	72
			T2M	3,887	1	0	1	111	4,174	1	0	1	119	4,201	1	0	1	120		1	0	1	68
		25111	T3S	4,033	1	0	1	115	4,331	1	0	1	124	4,359	1	0	1		LPW Lumens B	1	0	1	71
	530 mA	35W	T3M	3,993	1	0	2	114	4,288	1	0	2	123	4,315	1	0	2	123		1	70		
			T4M	3,912	1	0	2	112	4,201	1	0	2	120	4,227	1	0	2	121		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
	700 IIIA	4000	T3M	5,078	1	0	2	110	5,454	1	0	2	119	5,487	1	0	2	119	894	1	65		
			T4M	4,975	1	0	2	108	5,343	1	0	2	116	5,376	1	0	2	117	2,939	1	0	1	64
			TFTM	5,172	1	0	2	112	5,554	1	0	2	121	5,589	1	0	2					1	66
			T2S	7,204	1	0	2	99	7,736	2	0	2	106	7,784	2	0	2	-				1	61
			T2M	6,865	1	0	2	94	7,373	2	0	2	101	7,419	2	0	2					1	58
	1000 mA	73W	T3S	7,125	1	0	2	98	7,651	1	0	2	105	7,698	1	0	2					1	60
		/5	T3M	7,052	1	0	2	97	7,573	2	0	2	104	7,620	2	0	2					2	59
			T4M	6,909	1	0	2	95	7,420	1	0	2	102	7,466	1	0	2					2	58
			TFTM	7,182	1	0	2	98	7,712	1	0	2	106	7,761	1	0	2	106	4,415	1	0	2	60



Performance Data

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

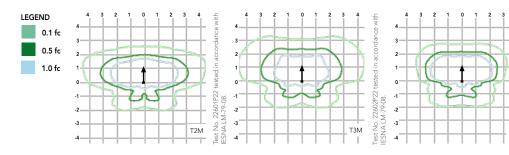
Motion Sensor Default Settings											
Option	Dimmed State	High Level (when triggered)	Photocell Operation	Dwell Time	Ramp-up Time	Ramp-down Time					
*PIR or PIRH	3V (37%) Output	10V (100%) Output	Enabled @ 5FC	5 min	3 sec	5 min					
PIR1FC3V or PIRH1FC3V	3V (37%) Output	10V (100%) Output	Enabled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

^{*}for use with site wide Dusk to Dawn control

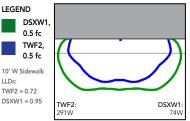
Photometric Diagrams

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







LLDs: TWF2 = 0.72



T3M (left) **HS** - House-side shields

BSW - Bird-deterrent spikes

VG - Vandal guard

DDL - Diffused drop lens

FEATURES & SPECIFICATIONS

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.

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).

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.

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.

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 www.designlights.org/QPL to confirm which versions are qualified.

WARRANTY

Five-year limited warranty. Complete warranty terms located at:

Note: Actual performance may differ as a result of end-user environment and application. All values are design or typical values, measured under laboratory conditions at 25 °C. Specifications subject to change without notice.

