

MIDWEST CARWASH FINAL DEVELOPMENT PLAN

LOT 13, LEMONE-SMITH BUSINESS & RETAIL CENTER, PLAT 8, A SUBDIVISION IN
LEE'S SUMMIT, JACKSON COUNTY, MISSOURI

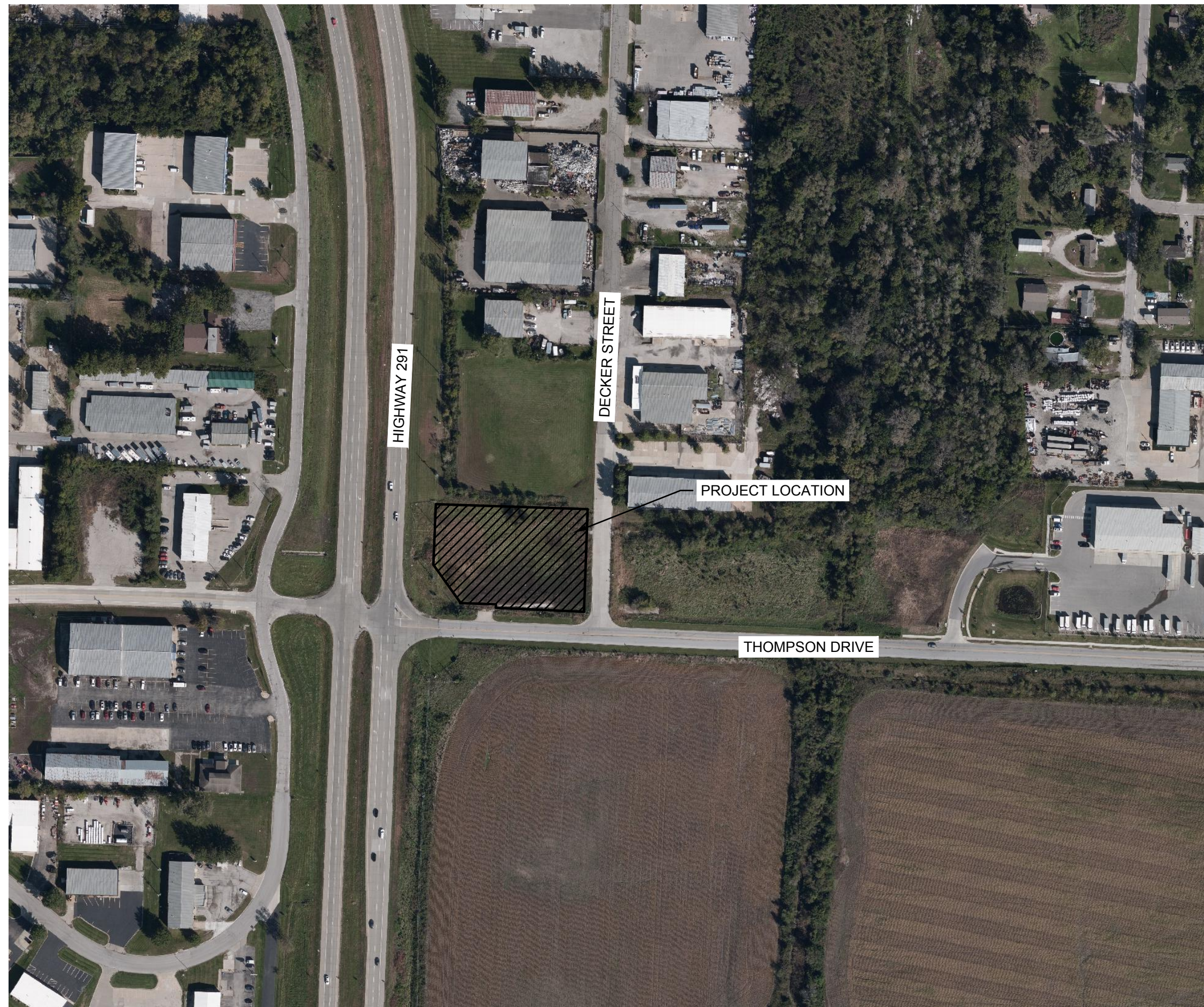
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C301	GRADING DETAILS
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BENCHMARKS

OLSSON BENCH MARK #1: SET CHISELED SQUARE
ELEVATION=1000.20'

PROPERTY DESCRIPTION

LOT 13, LEMONE-SMITH BUSINESS & RAIL CENTER, PLAT 8, A SUBDIVISION IN LEE'S SUMMIT, JACKSON COUNTY, MISSOURI. EXCEPT AND SUBJECT TO: EASEMENTS, RESTRICTIONS AND ASSESSMENTS OF RECORD, AND ALL THE TAXES AND ASSESSMENTS THAT MAY BE LEVIED, IMPOSED OR BECOME PAYABLE HEREAFTER.



NOT TO SCALE

LEGEND

	SECTION CORNER		OVERHEAD POWER LINE
	ALUMINUM MONUMENT		GAS LINE
	SET 1/2" REBAR W/LC 114 CAP IN CONCRETE		UNDERGROUND POWER LINE
	FOUND 1/2" REBAR		UNDERGROUND TELEPHONE LINE
	FIRE HYDRANT		SANITARY SEWER LINE
	WATER VALVE		STORM LINE
	WATER METER		WATER LINE
	WATER METER PIT		TELEPHONE MANHOLE
	GAS VALVE		TELEPHONE PEDESTAL
	GAS METER		TELEPHONE CABINET
	SPRINKLER BOX		TRAFFIC SIGNAL BOX
	SANITARY SEWER MANHOLE		TRAFFIC SIGNAL POLE
	STORM SEWER MANHOLE		CABLE BOX
	SANITARY SEWER CLEANOUT		FIBER OPTIC BOX
	ELECTRIC BOX		TELEVISION PEDESTAL
	BREAKER BOX		TELEPHONE BOOTH
	ELECTRIC METER		AIR CONDITIONING UNIT
	TRANSFORMER		GRATE INLET
	POWER POLE		WOOD POST
	POWER POLE/W LIGHT		BOLLARD
	GUY WIRE		STEEL POST
	LIGHT POLE		COLUMN
	YARD LIGHT		FLAG POLE
	BOREHOLE LOCATION		BUSH
			SIGN
			TREE



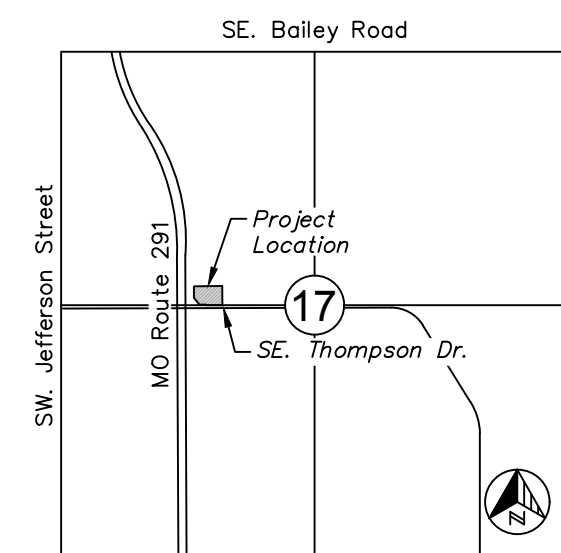
DEVELOPMENT TEAM CONTACT INFORMATION	
OWNER/DEVELOPER	
MIDWEST WASH GROUP	JASON BOHNERT MIDWEST WASH GROUP PH: 816-258-0583 JBOHNERT@MIDWESTWASHGROUP.COM
CIVIL ENGINEER	
MITCH PLEAK OLSSON	7301 W 133RD STREET SUITE 200 OVERLAND PARK, KS 66213 PH: 913-381-1170 mpleak@olsson.com
UTILITY AND GOVERNING AGENCY CONTACT INFORMATION	
CITY OF LEE'S SUMMIT, MISSOURI	220 SE GREEN LEE'S SUMMIT, MO 64063
CITY HALL	816.969.1000
BUILDING INSPECTIONS	816.969.1200
SPECIAL INSPECTIONS	816.969.1200
BUILDING PERMITS	816.969.1200
LAND DEVELOPMENT DIVISION/INSPECTIONS	816.969.1200
TRAFFIC OPERATIONS	816.969.1800
LEE'S SUMMIT WATER UTILITIES	1200 SE HAMBLEN ROAD LEE'S SUMMIT, MO 64081
LEE'S SUMMIT WATER & SERVICES	816.969.1940
LEE'S SUMMIT PUBLIC WORKS	816.969.1800
SPIRE (MGE)	314.342.0500
EVERGY	8700 EAST FRONT STREET KANSAS CITY, MO 64120 816.471.5275
TELEPHONE SERVICE	
AT&T	816.221.1781
CABLE TELEVISION SERVICE	
SPECTRUM	877.772.2253
GOOGLE FIBER	877.454.6959

I CERTIFY THAT TO THE BEST OF MY KNOWLEDGE AND ABILITY THAT ALL LAND DISTURBANCE ACTIVITY, CONSTRUCTION, AND DEVELOPMENT ASSOCIATED WITH THIS PROJECT WILL BE DONE PURSUANT TO THIS PLAN

OWNER/DEVELOPER/OPERATOR/CONTRACTOR	DATE
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CITY APPROVAL

RELEASED FOR CONSTRUCTION	DATE
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95th Street
Section 17, T47N, R31W
VICINITY MAP
Scale: 1" = 2000'

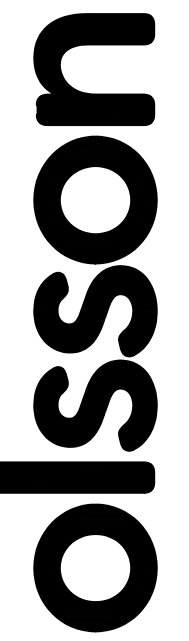
Property Owner:
Midwest Wash Group, LLC
1362 NW. Windsor Drive
Lee's Summit, MO 64086

Prepared For:
Kadean Construction
Attn: Rob Geist
1821 McGee Street
Kansas City, MO 64108

Prepared By:
Olsson, Inc.
7301 West 133rd Street, Suite 200
Overland Park, KS 66213
Phone: (913) 381-1170
Fax: (913) 381-1174



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, & OBTAINING INFORMATION FROM, UTILITY COMPANIES. STATE LAW REQUIRES 48 HOURS ADVANCE NOTICE. CALL 1-800-DIG-RITE.



Overland Park, KS 66213-4750
TEL 913.381.1170 www.olsson.com

BY

NO

NO.

TITLE SHEET

FINAL DEVELOPMENT PLAN

MIDWEST WASH
HWY 291 & THOMPSON DRIVE

LEE'S SUMMIT, MISSOURI

2022

Drawn by: _____ SG
 Checked by: _____ BP
 Approved by: _____ LM
 QA/QC by: _____ MP
 Project no.: _____ 22-04040
 Drawing no.: _____
 Date: _____ 22.05.08

SHEET
C100

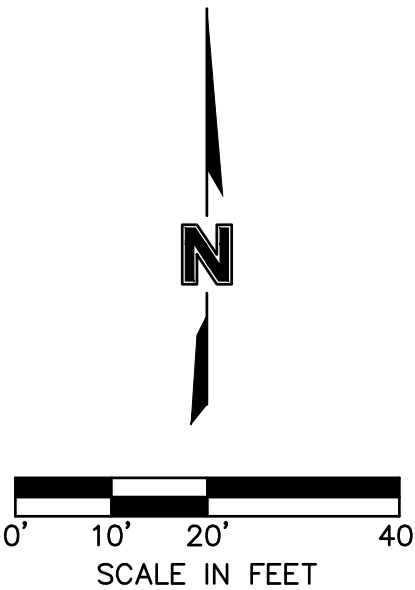


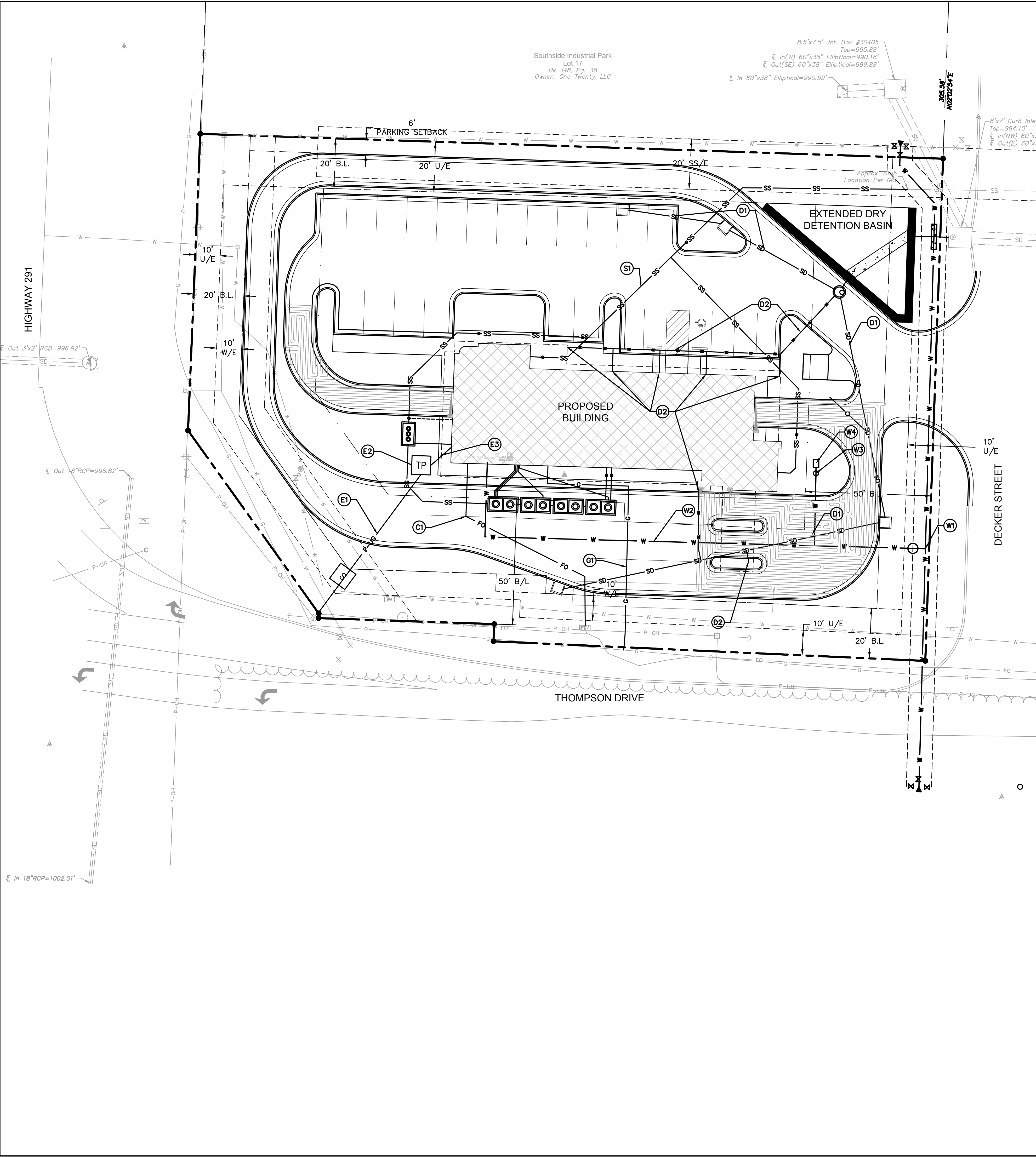
Southside Industrial Park
Lot 17
Bk. 148, Pg. 38
Owner: One Twenty, LLC

1. CONTRACTOR TO PRESERVE ALL SURVEY CONTROL.
2. CONTRACTOR TO COMPLETE DEMOLITION PER THE INTENT OF THESE PLANS AND THAT NECESSARY FOR NEW GRADING PER THESE PLANS.
3. THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING DRAWINGS. THE ENGINEER MAKES NO GUARANTEES THAT THE UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE ENGINEER HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES. THIS INCLUDES PRIVATE AND PUBLIC UTILITIES. IT IS THE CONTRACTOR'S RESPONSIBILITY TO LOCATE ALL PUBLIC AND PRIVATE UTILITIES AND RELOCATE AS NECESSARY. CONTRACTOR SHALL CONTACT KANSAS ONE CALL AT 1-800-344-7233 AND BLUE VALLEY USD #229 AT 913-239-4090 IN ADVANCE OF ANY EXCAVATION TO COORDINATE UTILITY LOCATIONS.
4. CONTRACTOR IS REQUIRED TO TAKE PRECAUTIONARY MEASURES TO PROTECT THE UTILITY LINES SHOWN AND ANY OTHER EXISTING LINES NOT OF RECORD OR SHOWN ON THESE PLANS. CONTRACTOR SHALL REPAIR ALL UTILITIES DAMAGED AT CONTRACTOR'S EXPENSE.
5. REMOVAL AND DISPOSAL OF BUSHES AND TREES SMALLER THAN 12" IN DIAMETER SHALL BE CONSIDERED SUBSIDIARY TO THE PRICE BID FOR CLEARING AND GRUBBING.
6. ALL ITEMS REMOVED SHALL BE LEGALLY DISPOSED OFF SITE BY THE CONTRACTOR.
7. DO NOT DISRUPT UTILITY SERVICE TO ADJACENT BUSINESSES OR RESIDENCES WITHOUT PRIOR WRITTEN APPROVAL BY THE ENGINEER OR OWNER.
8. DO NOT DISRUPT TRAFFIC ON ADJACENT PUBLIC STREETS WITHOUT PRIOR WRITTEN APPROVAL BY THE CITY.
9. ALL SIDEWALK AND PAVEMENT TO REMAIN SHALL BE PROTECTED IN PLACE INCLUDING PROTECTION FROM DAMAGE CAUSED BY REMOVAL OF ABUTTING PAVEMENT. CONTRACTOR SHALL SAW CUT WHERE NECESSARY.
10. CONTRACTOR SHALL GIVE NOTICE TO ALL UTILITY COMPANIES REGARDING DISCONNECTION, DEMOLITION, AND REMOVAL OF SERVICE LINES. CAP ALL LINES BEFORE PROCEEDING WITH WORK ON THIS CONTRACT.
11. CONTRACTOR SHALL COORDINATE WITH UTILITY COMPANY CONCERNING PORTIONS OF WORK WHICH MAY BE PERFORMED BY THE UTILITY COMPANIES WORK FORCE AND ANY FEES WHICH ARE TO BE PAID TO THE UTILITY COMPANY FOR THEIR SERVICES.
12. CONTRACTOR SHALL PROTECT THE PUBLIC AT ALL TIME WITH FENCING, BARRICADES, ENCLOSURES, ETC. TO THE BEST PRACTICES AND AS APPROVED BY THE ENGINEER AND THE OWNER.
13. DAMAGE TO EXISTING CURB, ASPHALT, CONCRETE PAVING OR STORM STRUCTURES AS A RESULT OF CONSTRUCTION ACTIVITIES SHALL BE REPLACED AND/OR REPAIRED AT CONTRACTOR'S EXPENSE. ALL REPLACEMENT SHALL BE JOINT TO JOINT. NO PARTIAL REPLACEMENT WILL BE ALLOWED.
14. CONTRACTOR TO FIELD VERIFY LOCATION, SIZE AND DEPTH OF EXISTING UTILITIES. CONTRACTOR SHALL NOTIFY ENGINEER OF ANY DISCREPANCIES BETWEEN FIELD CONDITIONS AND THESE PLANS.
15. SEE UTILITY PLANS FOR ADDITIONAL INFORMATION.
16. CONTRACTOR SHALL COORDINATE ALL TREE REMOVAL WITH BLUE VALLEY SCHOOL DISTRICT FACILITIES.
17. BLUE VALLEY WILL REMOVE HEADS AND VALVES OF THE EXISTING IRRIGATION SYSTEM. THE CONTRACTOR WILL REMOVE ALL OTHER IRRIGATION ITEMS THAT ARE IN THE LOCATION OF THE PROPOSED IMPROVEMENTS. CONTRACTOR SHALL NOTIFY BLUE VALLEY USD #229 FOURTY-EIGHT (48) HOURS PRIOR TO ANY DEMOLITION OR CONSTRUCTION ACTIVITIES.
18. SEE ELECTRICAL PLANS FOR EXISTING LIGHT & ELECTRICAL EQUIPMENT REMOVAL AND RELOCATION.
19. AT END OF JOB ALL CONCRETE PAVEMENT SHALL LOOK NEW. ANY CRACKS IN CONCRETE PAVEMENT WILL NOT BE ACCEPTED.
20. MAINTAIN ACCESS TO ALL EXISTING FIELDS THROUGHOUT PROJECT.
21. ALL UTILITY DEMOLITION SHALL BE COORDINATED WITH MIDAMERICA NAZERENE.

KEY NOTE LEGEND	
 ①	REMOVE EXISTING CONCRETE PAVEMENT
 ②	REMOVE CURB AND GUTTER
 ③	SAWCUT PAVEMENT
④	ABANDON WATER MAIN IN PLACE. COORDINATE WITH CITY.
⑤	WATER VALVES AND EQUIPMENT TO BE REMOVED.
 ⑥	REMOVE TREE

	PROPERTY LINE
	EXISTING CONCRETE CURB & GUTTER
SS	EXISTING SANITARY SEWER MAIN
P-UG	EXISTING UNDERGROUND POWER LINE
P-OH	EXISTING OVERHEAD POWER LINE
W	EXISTING WATER MAIN
G	EXISTING GAS MAIN
TEL	EXISTING TELEPHONE LINE
SD	EXISTING STORM SEWER
FO	EXISTING FIBER OPTIC





LEGEND	
	PROPERTY LINE
	RIGHT OF WAY LINE
	LOT LINE
	CONSTRUCT CONCRETE (Type CG-1) CURB & GUTTER
	CONSTRUCT CONCRETE (Type CG-1) Dry CURB & GUTTER
	EXISTING SANITARY SEWER
	EXISTING STORM SEWER
	EXISTING ELECTRICAL LINE
	EXISTING DOMESTIC WATER
	EXISTING GAS SERVICE
	PROPOSED SANITARY SEWER
	PROPOSED STORM SEWER
	PROPOSED ELECTRICAL LINE
	PROPOSED DOMESTIC WATER
	PROPOSED GAS SERVICE
	PROPOSED FIRE PROTECTION
	UNDERSLAB HEATING (REF. OTHERS (MANUFACTURER))

UTILITY KEYNOTES:

ELECTRICAL: (EX)

- E1. INSTALL APPROXIMATELY 76± LF OF PRIMARY ELECTRICAL SERVICE PER EVERGY/LEE'S SUMMIT DESIGN STANDARDS AND SPECIFICATIONS. VERIFY CONDUIT SIZE AND ROUTING WITH CITY AND EVERGY. THE ALIGNMENT IS APPROXIMATE. CONTRACTOR SHALL COORDINATE ELECTRICAL SERVICE ROUTE DIRECTLY WITH CITY AND EVERGY.
- E2. PROPOSED TRANSFORMER AND PAD LOCATION TO BE PROVIDED WITH THE BUILDING PACKAGE. CONTRACTOR TO INSTALL TRANSFORMER PAD PER EVERGY STANDARDS AND SPECIFICATIONS.
- E3. INSTALL APPROXIMATELY 8± LF OF SECONDARY ELECTRICAL SERVICE PER EVERGY/LEE'S SUMMIT DESIGN STANDARDS AND SPECIFICATIONS. VERIFY CONDUIT SIZE AND ROUTING WITH CITY AND EVERGY. THE ALIGNMENT IS APPROXIMATE. CONTRACTOR SHALL COORDINATE ELECTRICAL SERVICE ROUTE DIRECTLY WITH CITY AND EVERGY.

WATER: (WX)

- W1. DOMESTIC WATER SERVICE. CONNECT TO MAIN 12"X 2" TAP, AND INSTALL 5± LF OF 2" SOFT TYPE "K" COPPER PIPE TO THE PROPOSED WATER METER PROVIDED BY THE CITY. CONTRACTOR SHALL COORDINATE WITH CITY ON CONNECTION.
- W2. INSTALL 2" WATER METER, 10± LF OF 2" SOFT TYPE "K" COPPER PIPE AFTER THE METER AND THEN 190± LF OF 4" IPS HDPE DR11 TO THE BUILDING CONNECTION POINT PER CITY WATER STANDARDS AND SPECIFICATIONS.
- W3. TEE INTO 4" DOMESTIC WATER SERVICE AND INSTALL 5± LF OF 2" SOFT TYPE "K" COPPER PIPE AND CONNECT TO THE IRRIGATION SUBMETER.
- W4. INSTALL DOUBLE CHECK BACKFLOW PREVENTER, BELOW GRADE, IN APPROVED CONCRETE VAULT PER CITY REQUIREMENTS.

SANITARY SEWER: (SX)

- S1. SANITARY SERVICE LINE. SEE SHEET C600.

STORM SEWER: (DX)

- D1. PRIVATE STORM SEWER. SEE SHEET C501 TO C503 FOR DETAILS.
- D2. PRIVATE STORM SEWER 12" ROOF DRAIN/ROOF DRAIN HEADER. CONTRACTOR TO COORDINATE WITH MEP ON EXACT BUILDING ROOF DRAIN LOCATIONS. 12" ROOF DRAIN HEADER TO BE INSTALLED AT A MINIMUM SLOPE OF 1% WITH A MINIMUM COVER OF 2.5'.

GAS: (GX)

- G1. INSTALL 105 L.F. OF NEW GAS SERVICE TO EXISTING MAIN. COORDINATE WITH UTILITY COMPANY FOR EXACT LOCATION, ROUTING AND CONNECTION. COORDINATE WITH MEP PLANS FOR SPECIFICATIONS.

COMMUNICATION/FIBER: (CX)

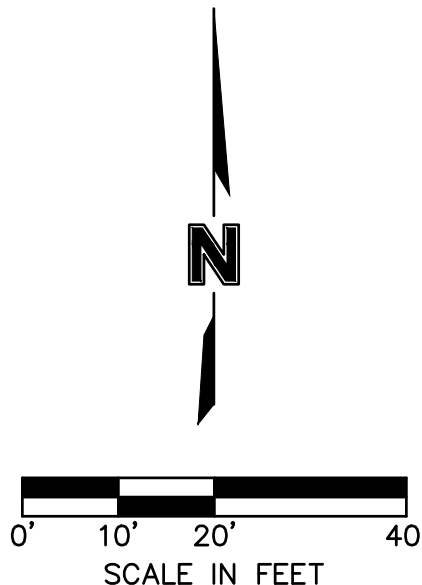
- G1. INSTALL 94 L.F. OF NEW COMMUNICATION FIBER TO EXISTING MAIN. COORDINATE WITH UTILITY COMPANY FOR EXACT LOCATION, ROUTING AND CONNECTION. COORDINATE WITH MEP PLANS FOR SPECIFICATIONS.

SUGGESTED UTILITY DEPTHS:
COORDINATE WITH UTILITY PROVIDERS AND FOLLOW UTILITY PROVIDERS STANDARDS IF CONFLICT EXISTS.

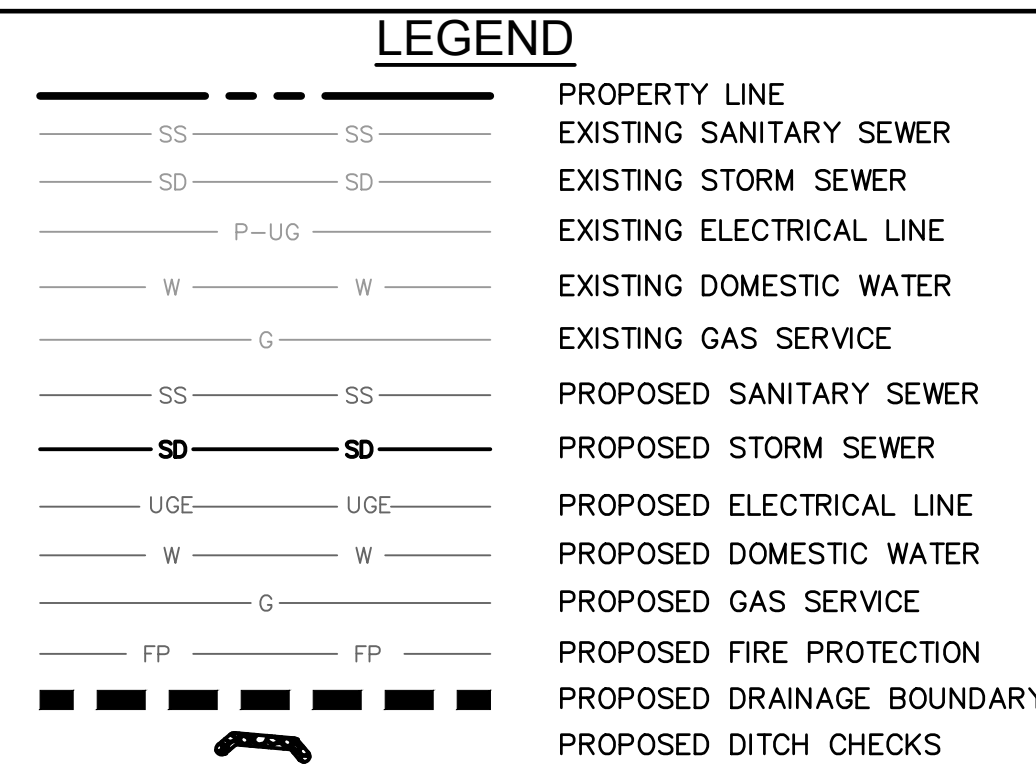
GAS 24"
PRIMARY ELECTRIC: 24"
SECONDARY ELECTRIC: 18"
DOMESTIC WATER: 48"

UTILITY NOTES:

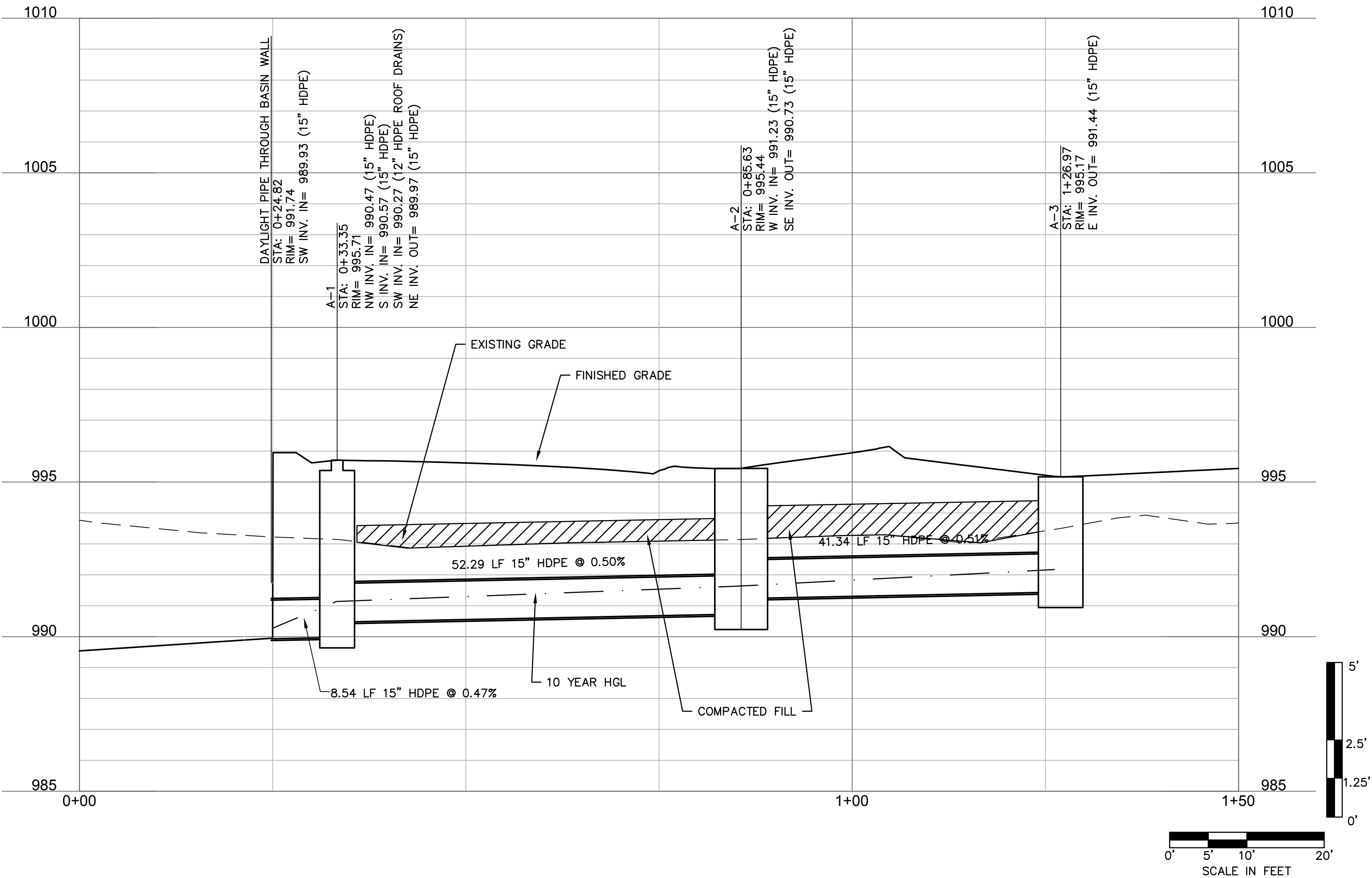
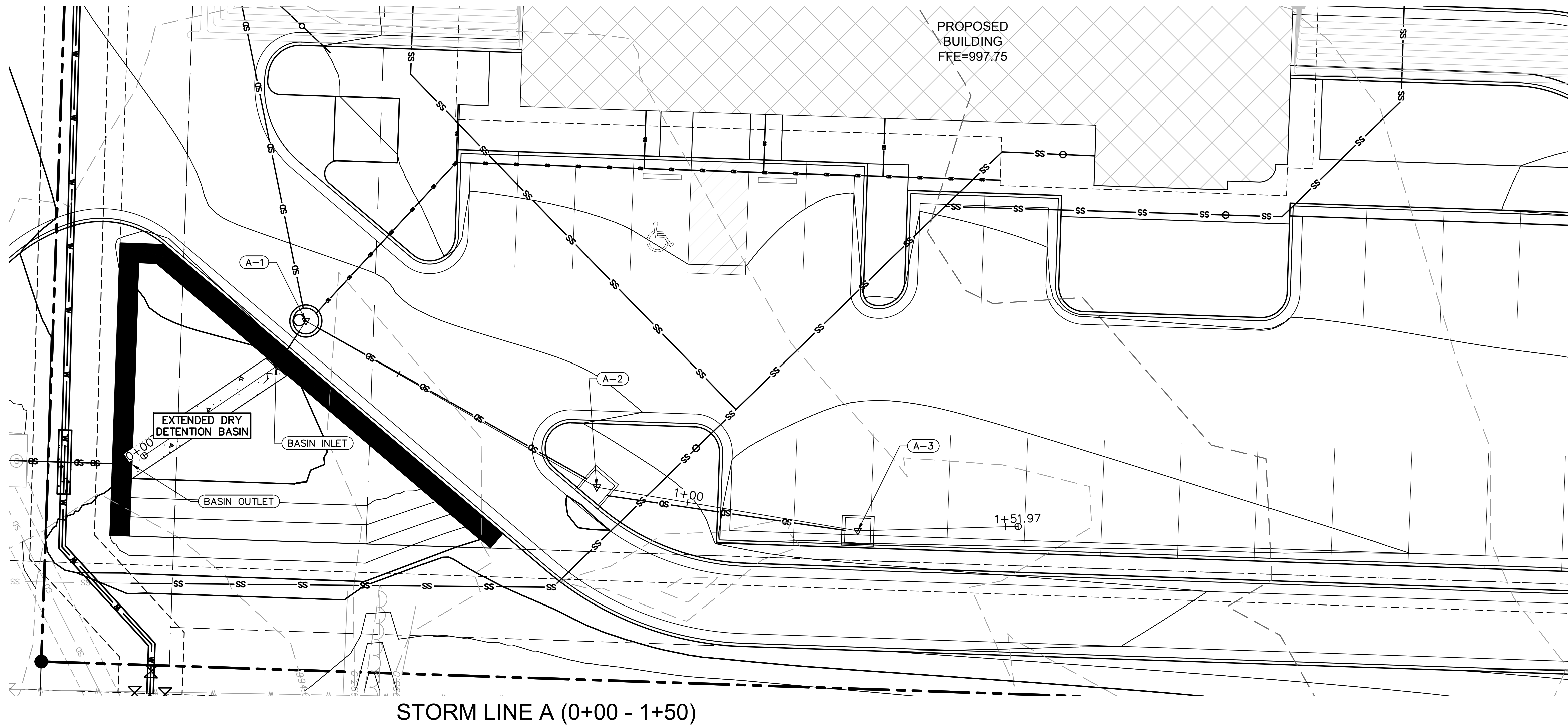
- CONTRACTOR TO SUBMIT SHOP DRAWINGS TO ENGINEER FOR APPROVAL PRIOR TO FABRICATION OF STRUCTURES AND ORDERING OF PIPE PRODUCTS.
- THE SIZE AND LOCATION OF SERVICES SHALL BE VERIFIED WITH THE ARCHITECTURAL AND MEP PLANS PRIOR TO CONSTRUCTION. IF DISCREPANCIES EXIST, THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY.
- INSTALL ALL PIPE LENGTHS, BENDS, AND FITTINGS NECESSARY FOR UTILITY CONNECTIONS.
- CONTRACTOR SHALL VERIFY ALL CROSSING ELEVATIONS AND LOCATIONS, SIZES, AND ELEVATIONS OF EXISTING UTILITIES PRIOR TO CONSTRUCTION OF STORM LINES AND ALL UTILITY SERVICE CONNECTIONS. ANY CONFLICTS SHALL BE MADE KNOWN TO THE ENGINEER AND RESOLVED PRIOR TO CONSTRUCTION.
- CONTRACTOR RESPONSIBLE FOR PAYING ALL TAP AND CONNECTION FEES AND SHALL CONTRACT AND PAY FOR ANY REQUIRED SUB CONTRACTORS BY UTILITY COMPANIES.
- CONTRACTOR TO REPAIR ALL AREA DAMAGED BY CONSTRUCTION TO EXISTING CONDITIONS OR BETTER.
- LOCATION FOR POWER SHOWN IS APPROXIMATE AND SUBJECT TO CHANGE. CONTRACTOR TO VERIFY FINAL LOCATION AND DESIGN WITH UTILITY COMPANY PRIOR TO CONSTRUCTION.
- CONTRACTOR SHALL COORDINATE CABLE/FIBER OPTIC CONDUIT AND SERVICE INSTALLATION WITH UTILITY COMPANY.
- ALL WATER SERVICE INSTALLATIONS, INCLUDING BACKFLOW DEVICES, ARE SUBJECT TO FIELD VERIFICATION AND APPROVAL BY THE WATER DEPARTMENT INSPECTOR.



		7301 West 133rd Street, Suite 200 Overland Park, KS 66213-4750 TEL 913.381.1170 www.olson.com	
		REVISIONS	
BY		REV. NO.	2022
REVISIONS DESCRIPTION		DATE	
UTILITY PLAN FINAL DEVELOPMENT PLAN		MIDWEST WASH HWY 291 & THOMPSON DRIVE	
LEE'S SUMMIT, MISSOURI		SHEET C400	
drawn by:	SG	date: 22.05.08	
checked by:	BP		
approved by:	LM		
QA/QC by:	MP		
project no.:	22-04040		
drawing no.:			



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LEGEND			
---	SS	---	PROPERTY LINE
---	SD	---	EXISTING SANITARY SEWER
---	P-UG	---	EXISTING STORM SEWER
---	W	---	EXISTING ELECTRICAL LINE
---	G	---	EXISTING DOMESTIC WATER
---	SS	---	EXISTING GAS SERVICE
---	SD	---	PROPOSED SANITARY SEWER
---	UG	---	PROPOSED STORM SEWER
---	W	---	PROPOSED ELECTRICAL LINE
---	G	---	PROPOSED DOMESTIC WATER
---	FP	---	PROPOSED GAS SERVICE
---	FP	---	PROPOSED FIRE PROTECTION

STRUCTURES	
ID	DESCRIPTION
A-1	48" I.D. MANHOLE WITH A TRAFFIC RATED GRATE LID 0+33.35, 0.00' STORM LINE A RIM= 995.71 INV IN = 990.47 (15" HDPE) INV IN = 990.57 (15" HDPE) INV IN = 990.27 (12" HDPE ROOF DRAINS) INV OUT = 989.97 (15" HDPE) N: 991405.479; E: 2825411.261
A-2	4' X 4' NONSETBACK CURB INLET 0+85.63, 0.00' STORM LINE A RIM= 995.44 INV IN = 991.23 (15" HDPE) INV OUT = 990.73 (15" HDPE) N: 991431.403; E: 2825365.852
A-3	4' X 4' NONSETBACK CURB INLET 1+26.97, 0.00' STORM LINE A RIM= 995.17 INV OUT = 991.44 (15" HDPE) N: 991438.215; E: 2825325.077

olsson

7301 West 133rd Street, Suite 200
Overland Park, KS 66213-4750
TEL 913.381.1170 www.olsson.com

STATE OF MISSOURI
MITCHELL ALAN
PEAK
NUMBER
PE-2009016764
05-8-23
PROFESSIONAL ENGINEER

BY

REV. NO.

DATE

REVISIONS DESCRIPTION

REVISIONS

STORM LINE A PLAN & PROFILE
FINAL DEVELOPMENT PLAN

MIDWEST WASH
HWY 291 & THOMPSON DRIVE

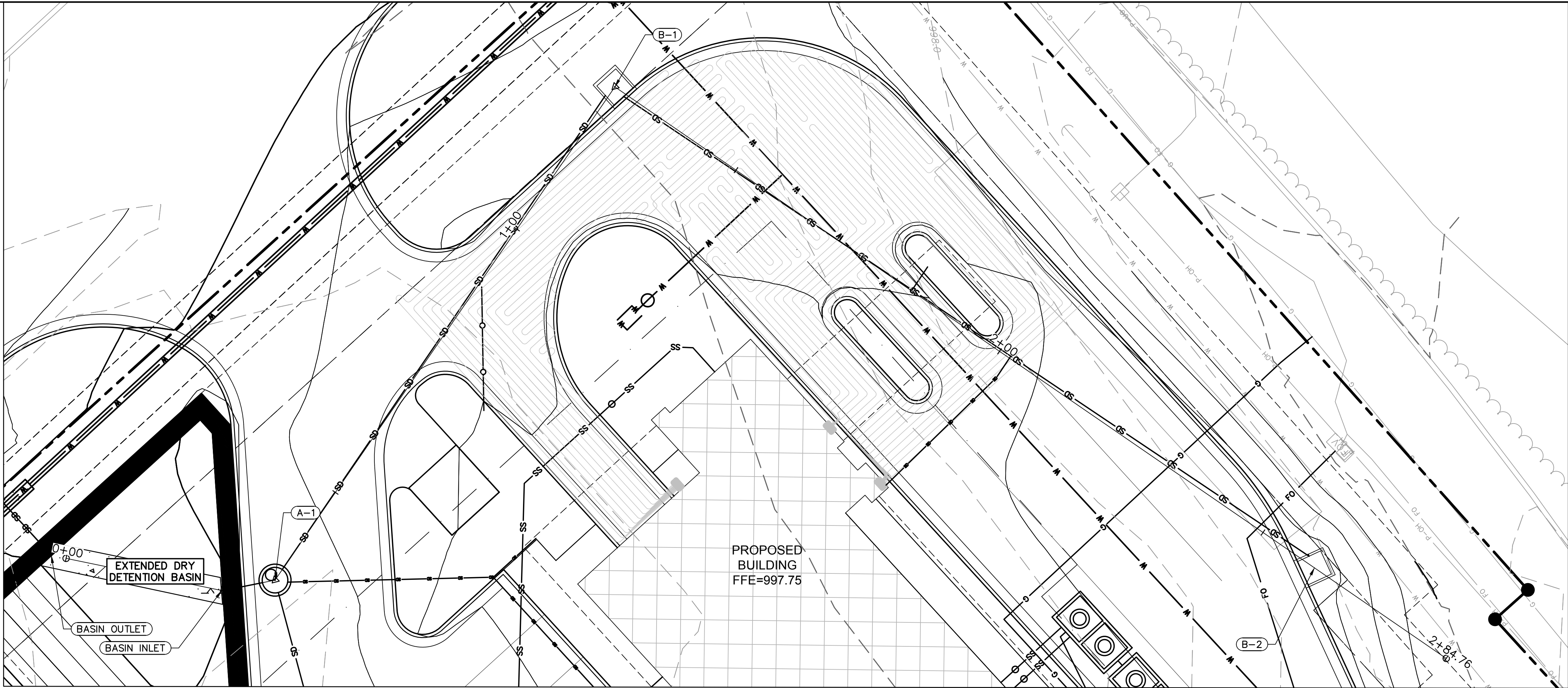
LEE'S SUMMIT, MISSOURI

2022

drawn by: SG
checked by: BP
approved by: LM
QA/QC by: MP
project no.: 22-04040
drawing no.:
date: 22.05.08

SHEET
C501

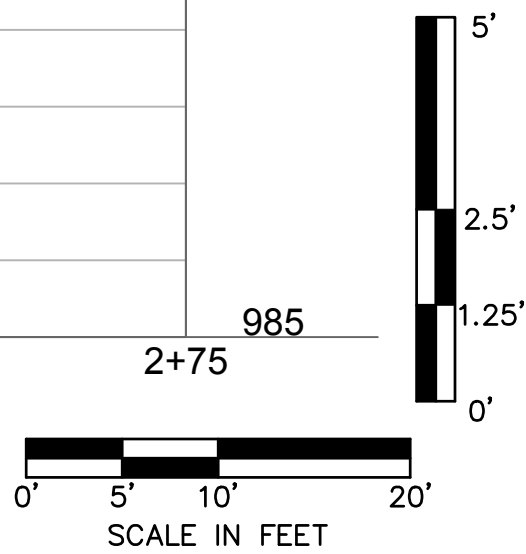
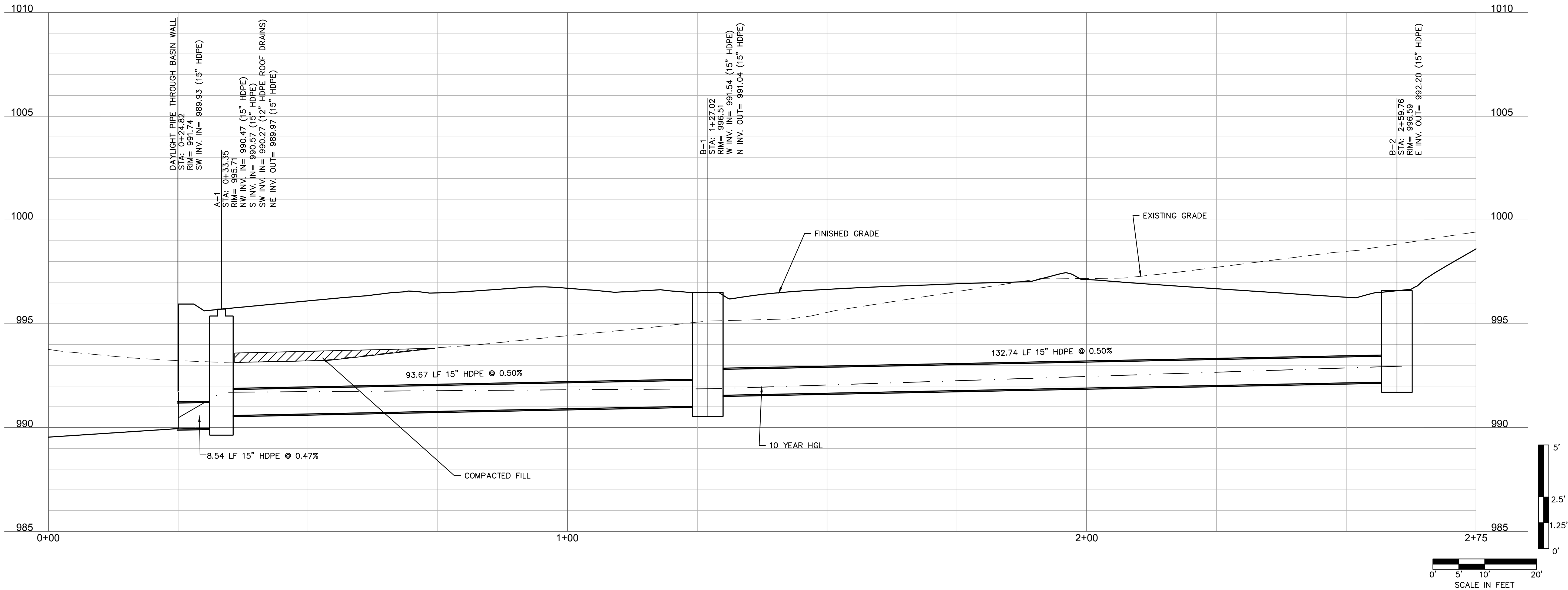
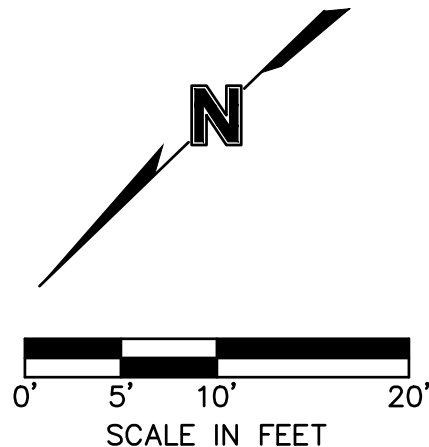
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STORM LINE B (0+00 - 2+75)

LEGEND		
---	---	PROPERTY LINE
SS	SS	EXISTING SANITARY SEWER
SD	SD	EXISTING STORM SEWER
P-UG	P-UG	EXISTING ELECTRICAL LINE
W	W	EXISTING DOMESTIC WATER
G	G	EXISTING GAS SERVICE
SS	SS	PROPOSED SANITARY SEWER
SD	SD	PROPOSED STORM SEWER
UGE	UGE	PROPOSED ELECTRICAL LINE
W	W	PROPOSED DOMESTIC WATER
G	G	PROPOSED GAS SERVICE
FP	FP	PROPOSED FIRE PROTECTION

STRUCTURES	
ID	DESCRIPTION
B-1	4' X 4' NONSETBACK CURB INLET 1+27.02, 0.00' STORM LINE B RIM= 996.51 INV IN = 991.54 (15" HDPE) INV OUT = 991.04 (15" HDPE) N: 991313.583; E: 2825429.420
B-2	4' X 4' NONSETBACK CURB INLET 2+59.76, 0.00' STORM LINE B RIM= 996.59 INV OUT = 992.20 (15" HDPE) N: 991287.758; E: 2825299.214



olsson

7301 West 133rd Street, Suite 200
Overland Park, KS 66213-4750
TEL 913.381.1170
www.olson.com

STATE OF MISSOURI
MITCHELL ALAN BEAN
PE-2009016764
05-8-23
PROFESSIONAL ENGINEER

BY

REVISIONS DESCRIPTION

DATE

REV. NO.

2022

STORM LINE B PLAN & PROFILE
FINAL DEVELOPMENT PLAN

MIDWEST WASH
HWY 291 & THOMPSON DRIVE

LEE'S SUMMIT, MISSOURI

drawn by: SG

checked by: BP

approved by: LM

QA/QC by: MP

project no.: 22-04040

drawing no.: 22.05.08

SHEET
C502

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USER: bpayne2

LEGEND

---	---	PROPERTY LINE
---	---	RIGHT OF WAY LINE
---	---	LOT LINE
SS	SS	EXISTING SANITARY SEWER
SD	SD	EXISTING STORM SEWER
P-UG	P-UG	EXISTING ELECTRICAL LINE
W	W	EXISTING DOMESTIC WATER
G	G	EXISTING GAS SERVICE
SS	SS	PROPOSED SANITARY SEWER
SD	SD	PROPOSED STORM SEWER
UGE	UGE	PROPOSED ELECTRICAL LINE
W	W	PROPOSED DOMESTIC WATER
G	G	PROPOSED GAS SERVICE
FP	FP	PROPOSED FIRE PROTECTION
		UNDERSLAB HEATING (REF. OTHERS (MANUFACTURER))

NOTES:

1. DOWNSPOUTS SHALL NOT BE CONNECTED TO SANITARY SEWER. DOWNSPOUTS CONNECT TO STORM SEWER AND SHALL NOT DISCHARGE TO SANITARY SEWER.
2. TEN FEET OF HORIZONTAL SEPARATION AND TWO FEET OF VERTICAL SEPARATION SHALL BE PROVIDED BETWEEN WATER LINES AND THE SANITARY SERVICE LINE.
3. ALL FOUNDATION DRAINS SHALL BE DISCHARGED INTO STORM SEWER SYSTEM.
4. CONTRACTOR TO VERIFY INVERT ELEVATION AT THE MAIN BEFORE ANY SANITARY SEWER IS INSTALLED OR ANY STRUCTURES ARE CONSTRUCTED. CONTRACTOR TO NOTIFY THE ENGINEER OF IN DISCREPANCIES.

SANITARY KEYNOTES:

1. SANITARY SERVICE LINE CONNECTION

- a. EXISTING MANHOLE TO ASSUMED END OF STUB LOCATION. CONTRACTOR TO VERIFY EXISTING SANITARY INFRASTRUCTURE LOCATED WITHIN THE SANITARY EASEMENT.
F/L OUT @ 8" PVC (SDR-26) SANITARY MAIN = 984.67
F/L IN @ 8" PVC (SDR-26) SANITARY MAIN = 984.77
F/L IN @ 8" PVC (SDR-26) SANITARY SERVICE LINE STUB = 984.77
ASSUMED F/L @ END OF ±71.43 LF STUB = 986.20 (2% UP FROM THE DOWNSTREAM MANHOLE.)
- b. CONNECT TO THE END OF THE STUB AND INSTALL 95± LF OF 6" PVC (SDR-26) PIPE @ 3.25% THEN INSTALL CLEANOUT.
F/L @ END OF ±71.43 LF STUB = 986.20
F/L @ 45 DEGREE BEND = 988.34
F/L @ CLEANOUT = 989.28
- c. CONNECT TO CLEANOUT AND INSTALL 10.67± LF OF 6" PVC (SDR-26) PIPE @ 3.25% THEN INSTALL TEE ORIENTATION WITH RISER DETAIL TO THE RIGHT.
F/L @ CLEANOUT = 989.28
F/L @ TEE = 989.63
- d. CONNECT TO TEE AND INSTALL 45.51± LF OF 6" PVC (SDR-26) PIPE @ 2.00% THEN INSTALL WYE CONNECTION.
F/L @ TEE = 989.63
F/L @ WYE = 990.54
- e. CONNECT TO WYE AND INSTALL 43.82± LF OF 6" PVC (SDR-26) PIPE @ 2.00% THEN INSTALL CLEANOUT.
F/L @ WYE = 990.54
F/L @ CLEANOUT = 991.41
- f. CONNECT TO CLEANOUT AND INSTALL 50.74± LF OF 6" PVC (SDR-26) PIPE @ 2.00% THEN INSTALL CLEANOUT.
F/L @ CLEANOUT = 991.41
F/L @ 45 DEGREE BEND = 991.59
F/L @ 45 DEGREE BEND = 992.11
F/L @ CLEANOUT = 992.43

- g. CONNECT TO SAMPLING PORT AND INSTALL 1.98± LF OF 6" PVC (SDR-26) PIPE @ 2.00% THEN CONNECT INTO THE OIL/SEDIMENT INTERCEPTOR (REFER TO DETAILS ON SHEET C601).
F/L @ CLEANOUT = 992.43
F/L @ OIL/SEDIMENT INTERCEPTOR = 992.47
- h. CONNECT TO OIL/SEDIMENT INTERCEPTOR (REFER TO DETAILS ON SHEET C601) AND INSTALL 51.24± LF OF 6" PVC (SDR-26) PIPE @ 2.00% THEN CONNECT TO RECLAIM TANK #4 (REF MEP PLANS).
F/L @ OIL/SEDIMENT INTERCEPTOR = 992.47
F/L @ 45 DEGREE BEND = 992.79
F/L @ 45 DEGREE BEND = 992.91
F/L @ RECLAIM TANK #4 = 993.49
- i. CONNECT TO RECLAIM TANK #1 (REF MEP PLANS) AND INSTALL 9.77± LF OF 6" PVC (SDR-26) PIPE @ 2.00% THEN INSTALL CLEANOUT.
F/L @ RECLAIM TANK #1 = 992.49
F/L @ CLEANOUT = 993.69
- j. CONNECT TO CLEANOUT AND INSTALL 3.04± LF OF 6" PVC (SDR-26) PIPE @ 2.00% THEN CONNECT TO THE BUILDING WITH FERNCO STRONGBACK RC COUPLINGS FOR DISSIMILAR PIPE CONNECTIONS.
F/L @ CLEANOUT = 993.49
F/L @ BUILDING = 993.75
FFE @ BUILDING = 997.75
- k. CONTRACTOR TO REFER TO MEP/EQUIPMENT PROVIDER'S DETAIL FOR THE MISCELLANEOUS PIPES BETWEEN THIS POINT AND THE RECLAIM TANKS.

2. SANITARY SERVICE LINE CONNECTION

- a. CONNECT TO RECLAIM TANK #1 AND INSTALL 9.77± LF OF 6" PVC (SDR-26) PIPE @ 2.00% THEN INSTALL CLEANOUT.
F/L @ RECLAIM TANK #1 = 992.49
F/L @ CLEANOUT = 993.69
- b. CONNECT TO CLEANOUT AND INSTALL 3.04± LF OF 6" PVC (SDR-26) PIPE @ 2.00% THEN CONNECT TO THE BUILDING WITH FERNCO STRONGBACK RC COUPLINGS FOR DISSIMILAR PIPE CONNECTIONS.
F/L @ CLEANOUT = 993.49
F/L @ BUILDING = 993.75
FFE @ BUILDING = 997.75

3. SANITARY SERVICE LINE CONNECTION

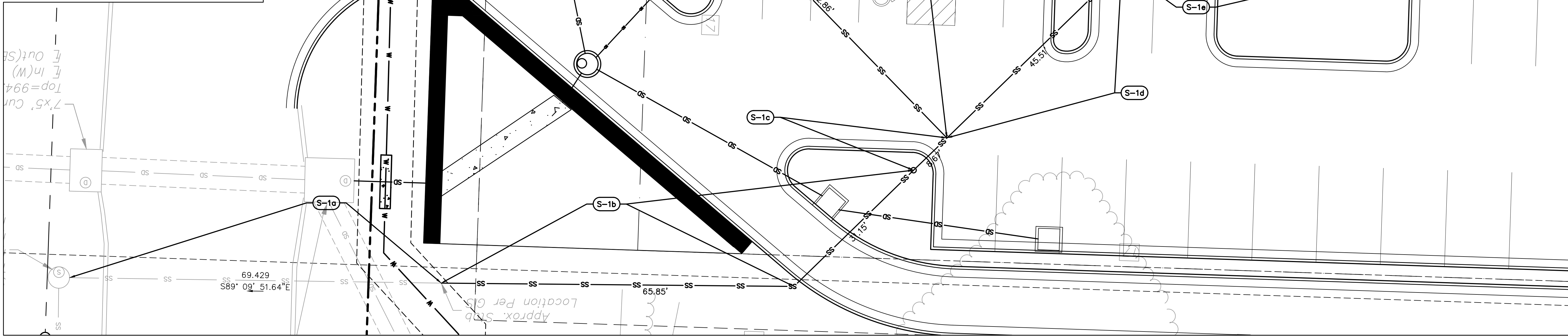
- a. CONNECT TO OIL/SEDIMENT INTERCEPTOR (REFER TO DETAILS ON SHEET C601) AND INSTALL 15± LF OF 4" PVC (SDR-26) PIPE @ 8.53% THEN CONNECT TO THE BUILDING WITH FERNCO STRONGBACK RC COUPLINGS FOR DISSIMILAR PIPE CONNECTIONS.
F/L @ OIL/SEDIMENT INTERCEPTOR = 992.47
F/L @ BUILDING = 993.75
FFE @ BUILDING = 997.75
- b. CONNECT TO SAMPLING PORT AND INSTALL 17.3± LF OF 4" PVC (SDR-26) PIPE @ 7.63% THEN CONNECT TO THE BUILDING WITH FERNCO STRONGBACK RC COUPLINGS FOR DISSIMILAR PIPE CONNECTIONS.
F/L @ CLEANOUT = 992.43
F/L @ BUILDING = 993.75
FFE @ BUILDING = 997.75

4. SANITARY SERVICE LINE CONNECTION

- a. CONNECT TO WYE CONNECTION AND INSTALL 21.99± LF OF 4" ABS SCHEDULE 40 WITH SOLVENT WELDED JOINTS @ 11.90% THEN CONNECT TO THE CLEANOUT.
F/L @ WYE = 990.54
F/L @ 45 DEGREE BEND = 992.00
F/L @ CLEANOUT = 993.15
- b. CONNECT TO CLEANOUT AND INSTALL 5.00± LF OF 4" ABS SCHEDULE 40 WITH SOLVENT WELDED JOINTS @ 11.90% THEN CONNECT TO THE BUILDING WITH FERNCO STRONGBACK RC COUPLINGS FOR DISSIMILAR PIPE CONNECTIONS.
F/L @ CLEANOUT = 993.15
F/L @ BUILDING = 993.75
FFE @ BUILDING = 997.75

5. SANITARY SERVICE LINE CONNECTION

- a. CONNECT TO TEE AND INSTALL 72.86± LF OF 4" ABS SCHEDULE 40 WITH SOLVENT WELDED JOINTS @ 4.30% THEN CONNECT TO THE 45 DEGREE BEND.
F/L @ TEE = 989.63
F/L @ 45 DEGREE BEND = 992.76
- b. CONNECT TO BEND AND INSTALL 18.46± LF OF 4" ABS SCHEDULE 40 WITH SOLVENT WELDED JOINTS @ 2.50% THEN CONNECT TO THE CLEANOUT.
F/L @ 45 DEGREE BEND = 992.76
F/L @ CLEANOUT = 993.22
- c. CONNECT TO CLEANOUT AND INSTALL 21.21± LF OF 4" ABS SCHEDULE 40 WITH SOLVENT WELDED JOINTS @ 2.50% THEN CONNECT TO THE BUILDING WITH FERNCO STRONGBACK RC COUPLINGS FOR DISSIMILAR PIPE CONNECTIONS.
F/L @ CLEANOUT = 993.22
F/L @ 45 DEGREE BEND = 993.55
F/L @ 45 DEGREE BEND = 993.62
F/L @ BUILDING = 993.75
FFE @ BUILDING = 997.75



SANITARY SEWER PLAN
FINAL DEVELOPMENT PLAN

MIDWEST WASH
HWY 291 & THOMPSON DRIVE

LEE'S SUMMIT, MISSOURI

drawn by: SG
checked by: BP
approved by: LM
QA/QC by: MP
project no.: 22-04040
drawing no.:
date: 22.05.08

SHEET
C600

REV. NO. DATE REVISIONS DESCRIPTION

BY

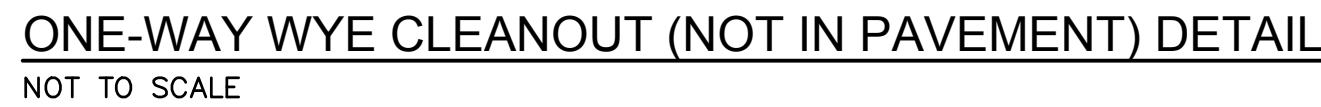
REVISIONS

2022



olsson

7301 West 133rd Street, Suite 200
Overland Park, KS 66213-4750
TEL 913.381.1170 www.olson.com



- NOTES:**
1. A MINIMUM OF 36 INCHES OF COVER SHALL BE OVER THE TOP OF THE PIPE. THIS MINIMUM OF COVER SHALL BE FROM THE TOP OF PIPE TO THE FINISHED GRADE.
 2. BEDDING AGGREGATE MATERIAL SHALL BE PER SECTION 6900 AND 2102 OF THE CITY DESIGN AND CONSTRUCTION MANUAL. BEDDING AGGREGATE SHALL BE PLACED FROM A LEVEL 6 INCHES BELOW THE BOTTOM OF THE PIPE TO A LEVEL 12 INCHES ABOVE THE TOP OF THE PIPE.
 3. BACKFILL MATERIAL AND PLACEMENT SHALL BE PER SECTION 6900 AND 2102 OF THE CITY DESIGN AND CONSTRUCTION MANUAL.
 4. TRENCHING SHALL BE IN ACCORDANCE WITH CURRENT OSHA REGULATIONS. SLOPES MUST NOT EXTEND BELOW TOP OF BEDDING.
 5. MINIMUM AND MAXIMUM TRENCH WIDTHS SHALL BE IN ACCORDANCE WITH PIPE MANUFACTURERS RECOMMENDATION AS APPROVED ON ENGINEERING PLANS.



LEE'S SUMMIT
MISSOURI

SANITARY SEWER STUB DETAIL

Date: 12/2015
Drawn By: MJF
Checked By: D

SAN-1



* 6" PIPE MAY BE SUBSTITUTED TO MATCH UPSTREAM PIPE DIAMETER.
 ** REFER TO CLEAN OUT DETAIL(S) ON STANDARD DETAIL SHEET.
 *** CLAY & BAILEY 2008 BV OR EQUAL (FROST PROOF COVERS OPTIONAL)

NOTES:

1. THREE COVERS AND RISERS SHOWN. TWO COVERS AND RISERS CENTERED OVER UPPER TWO BAFFLES ARE OPTIONAL.
2. INTERCEPTOR SIZE — 1000 GAL MIN (REVISE THE SIZE DIMENSIONS, AS NEEDED, FOR LARGER CAPACITY INTERCEPTORS)
3. ALL JOINTS AT THE FRAME & COVER, CONCRETE ADJUSTMENT RINGS AND THE LID OF THE INTERCEPTOR SHALL BE SEALED WITH A MINIMUM OF TWO (2) ROWS OF 3/4 TO 1 INCH PREFORMED BITUMASTIC JOINT SEALER AND A 6" BUTYL JOINT WRAP AROUND SLEEVE (EZ WRAP). THE ENDS OF THE 6" EZ WRAP SHALL OVERLAP BY 12". BASIN SHALL BE WATER TIGHT.
4. PIPING ON THE INTERIOR OF THE INTERCEPTOR SHALL BE ABS WITH SOLVENT-CEMENTED JOINTS
5. GREASE INTERCEPTOR SHALL BE VACUUM TESTED FOR WATER TIGHTNESS AFTER THE BACKFILL OPERATIONS HAVE BEEN COMPLETED IN ACCORDANCE WITH JCW TECHNICAL SPECIFICATIONS.

Olson



BY

REVISIONS DESCRIPTION

REV.	DATE
NO	

SANITARY SEWER DETAILS FINAL DEVELOPMENT PLAN

MIDWEST WASH
HWY 291 & THOMPSON DRIVE

LEE'S SUMMIT MISSOURI

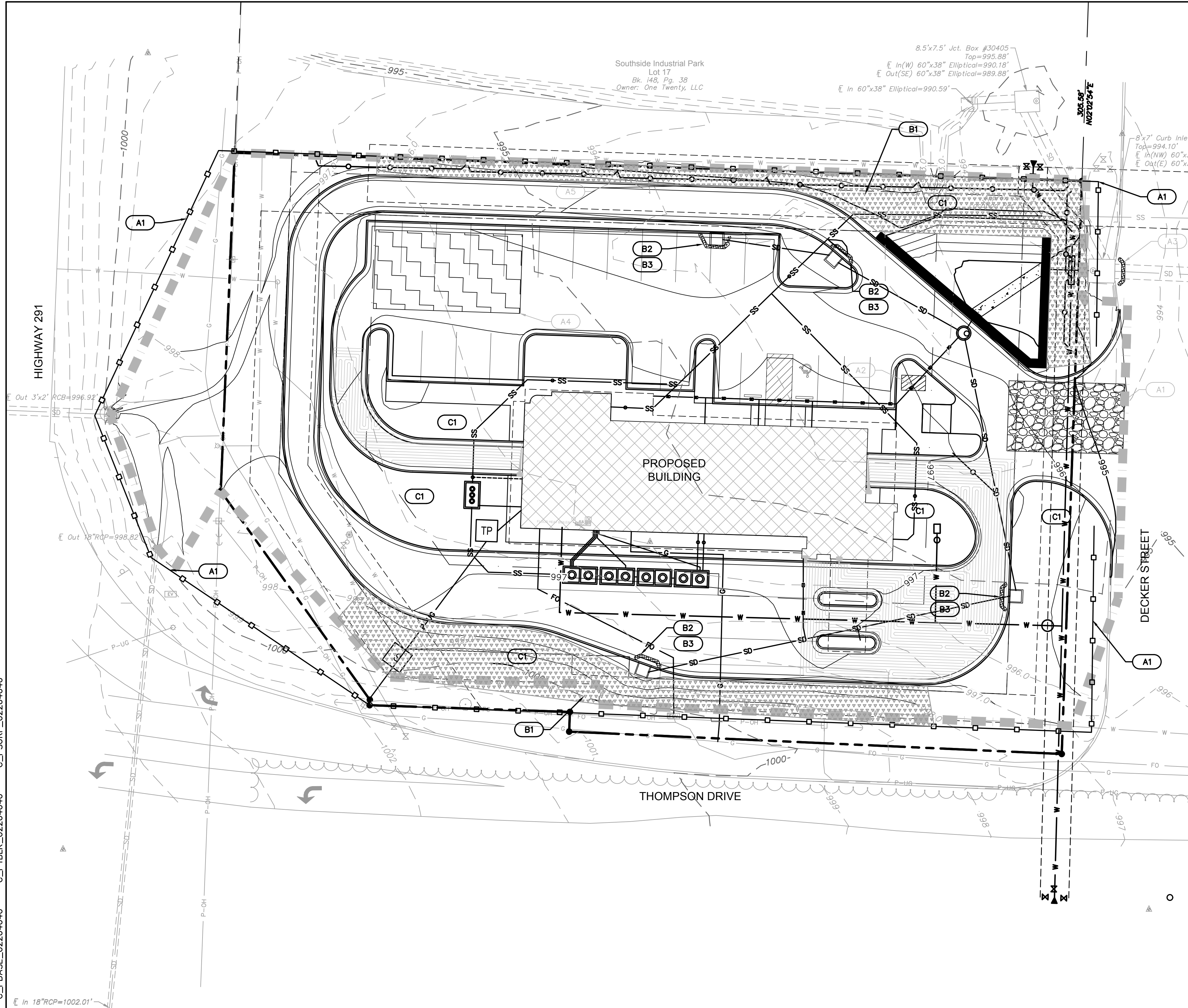
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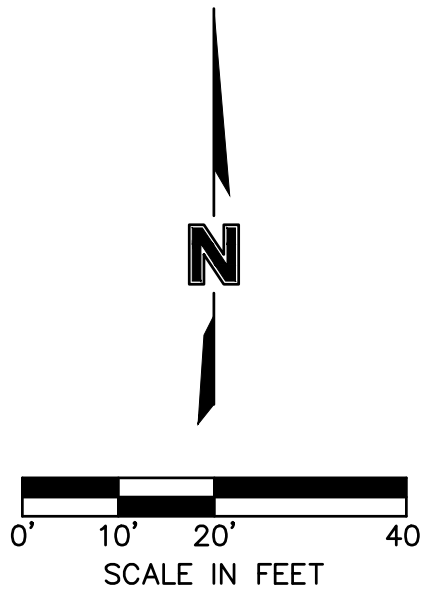
7301 West 133rd Street, Suite 200
Overland Park, KS 66213 4750
TEI 012 391 1170
www.elecon.com

drawn by:	SG
checked by:	BP
approved by:	LM
QA/QC by:	MP
project no.:	22-04040
drawing no.:	
date:	22.05.08

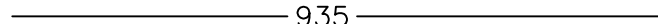
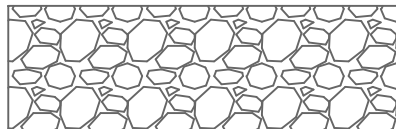
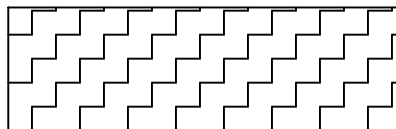
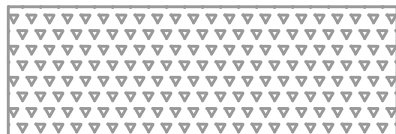
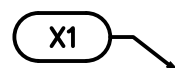
SHEET
C601



EROSION CONTROL STAGING CHART				
PROJECT STAGE	EROSION CONTROL BMP REFERENCE NO.	BMP DESCRIPTION	REMOVE AFTER STAGE	NOTES:
	A1	TEMPORARY CONSTRUCTION ENTRANCE	B	INSTALL AS INDICATED ON PLANS
	A2	CONCRETE WASHOUT	B	INSTALL AS INDICATED ON PLANS
	A3	EXISTING CURB INLET PROTECTION (CONDITION B)	C	INSTALL AS INDICATED ON PLANS
	A4	STAGING/STOCKPILE AREAS	C	INSTALL AS SHOWN — SEE DETAIL SHEET C700 — C701FOR SPECIFICS
	A5	SILT FENCE	C	INSTALL AS SHOWN — SEE DETAIL SHEET C700 — C701 FOR SPECIFICS
B — CONSTRUCTION	B1	TEMPORARY EROSION CONTROL BLANKET	N/A	INSTALL AS SHOWN—SLOPES TO BE STABILIZED ONCE FINAL GRADES HAVE BEEN OBTAINED
	B2	CURB INLET PROTECTION (CONDITION A)	C	INSTALL AS INDICATED ON PLANS
	B3	CURB INLET PROTECTION (CONDITION B)	C	INSTALL AS INDICATED ON PLANS
C — FINAL STABILIZATION	C1	SEED, AND STABILIZE ALL DISTURBED AREAS	N/A	FINAL STABILIZATION REQUIRES A UNIFORM PERENNIAL VEGETATIVE COVER WITH A DENSITY OF 70% OVER 100% OF DISTURBED AREA



LEGEND

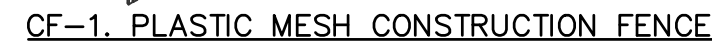
- | | |
|---|---|
|  | PROPERTY LINE |
|  | LOT LINE |
|  | PROPOSED CONTOUR |
|  | EXISTING CONTOUR |
|  | SEDIMENT FENCE |
|  | LIMITS OF DISTURBANCE (1.35 ACRES) |
|  | TEMPORARY CONSTRUCTION
ENTRANCE |
|  | CONCRETE WASHOUT |
|  | STAGING/STOCKPILE AREA |
|  | STABILIZATION. "LANDLOK (S2)" SHALL BE USED OR
APPROVED EQUAL. CONTRACTOR TO SUBMIT SHOP
DRAWINGS TO THE ENGINEER FOR APPROVAL. SEED
WITH PERENNIAL SEEDING TO MEET SWPPP
REQUIREMENTS. INSTALL PER DETAIL AND
MANUFACTURER RECOMMENDATIONS. |
|  | INLET PROTECTION |
|  | EROSION CONTROL REFERENCE NUMBER |



NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.



(DETAILS ADAPTED FROM DOUGLAS COUNTY, COLORADO)

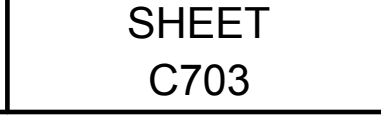
DRAINAGE FLOOD CONTROL DISTRICT
DRAINAGE CRITERIA MANUAL VOLUME 3

REVISIONS

MIDWEST WASH
HWY 291 & THOMPSON DRIVE

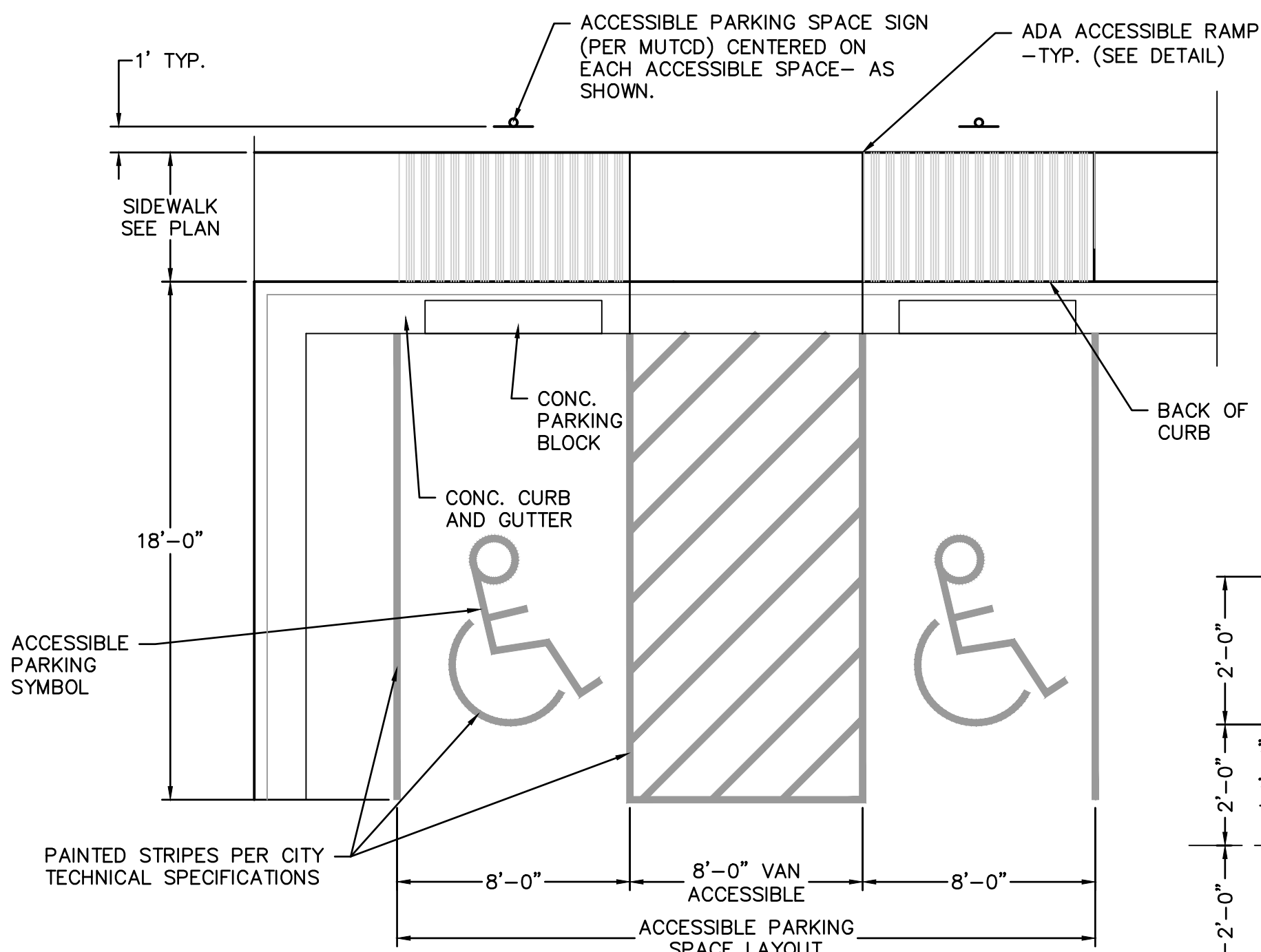
LEE'S SUMMIT, MISSOURI

SHEET
C702

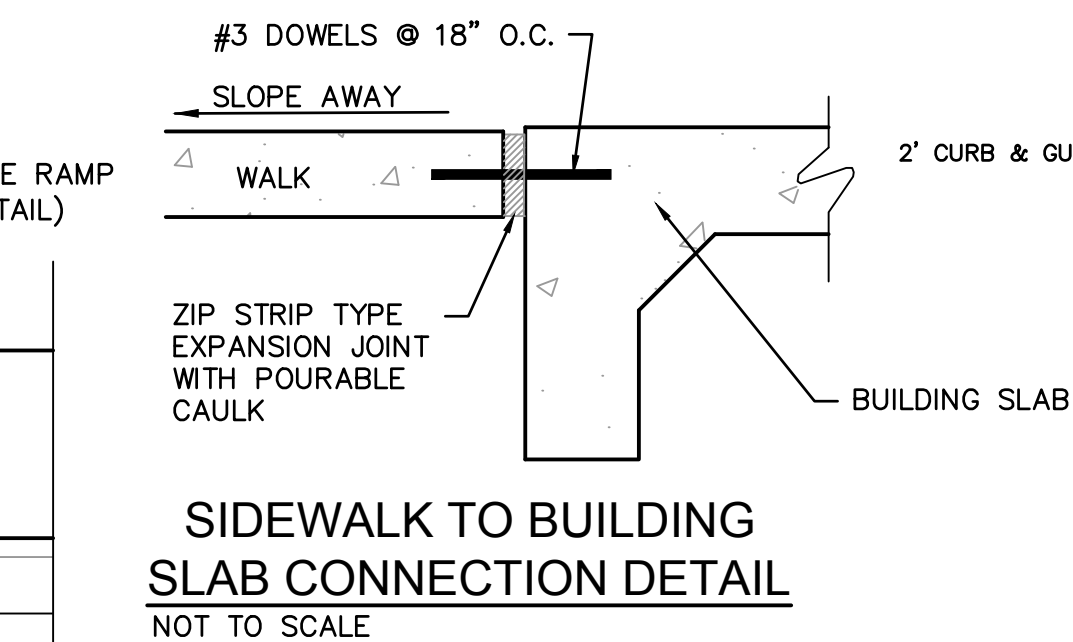


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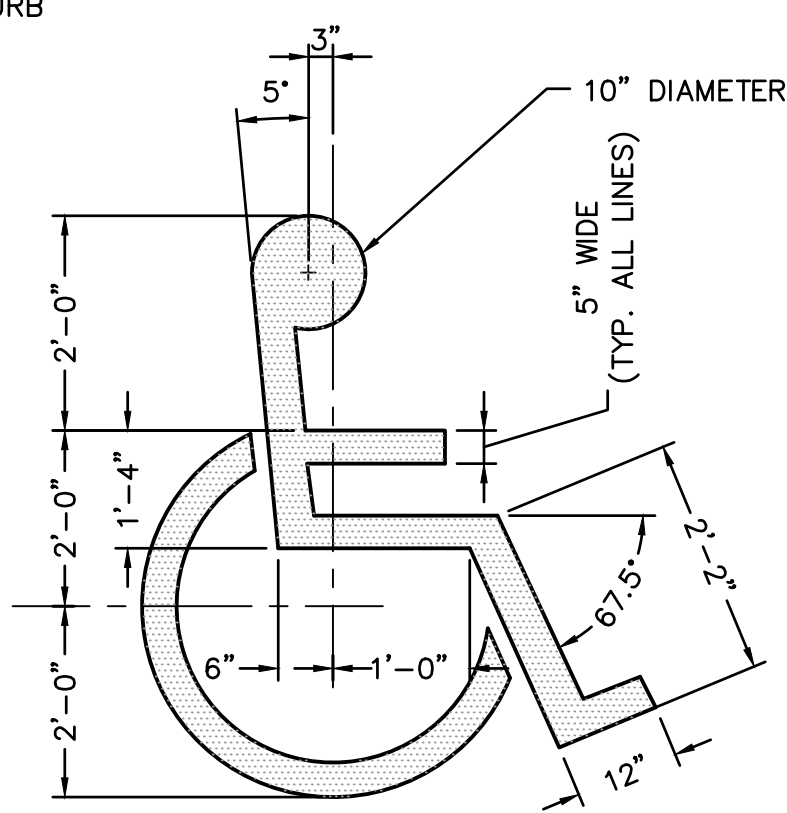
NOTE
ACCESSIBLE PARKING SYMBOL AND SIGNAGE SHALL COMPLY WITH THE APPLICABLE RECOMMENDATIONS OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).



ACCESSIBLE PARKING SPACE LAYOUT DETAIL
NOT TO SCALE

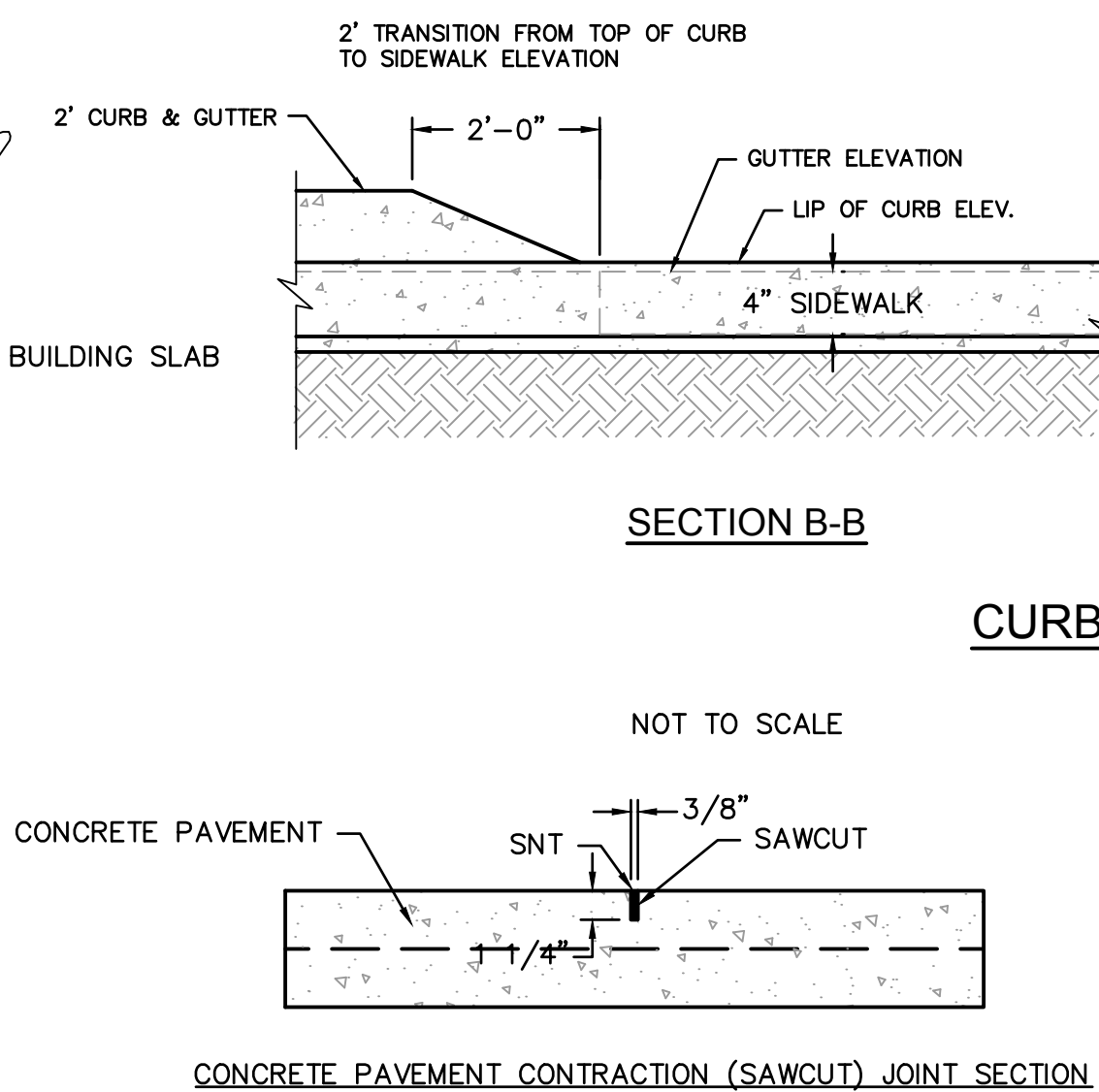


SIDEWALK TO BUILDING SLAB CONNECTION DETAIL
NOT TO SCALE



PROVIDE PAINTED SYMBOL AT EACH DESIGNATED ACCESSIBLE PARKING STALL. CENTER SYMBOL IN EACH STALL.

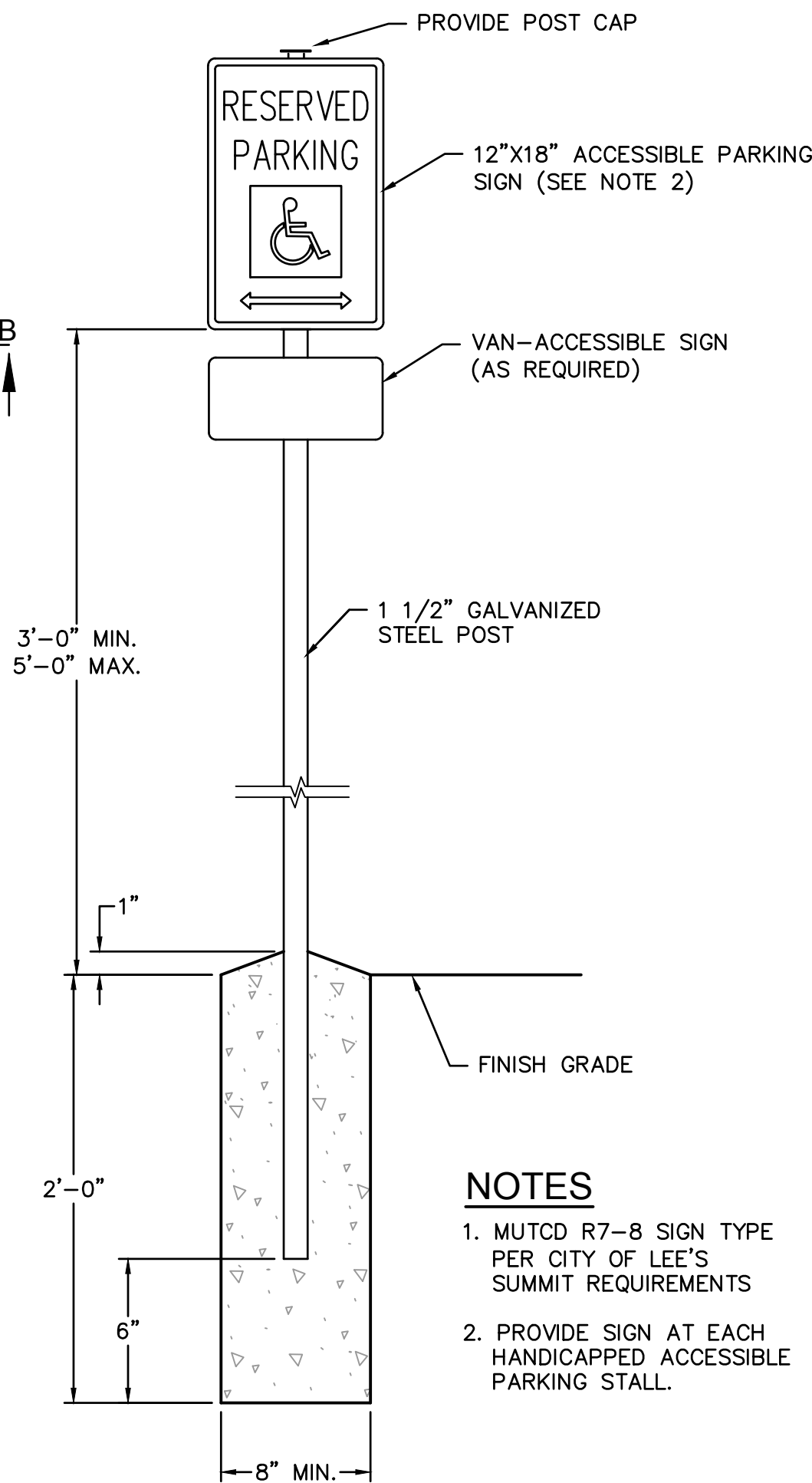
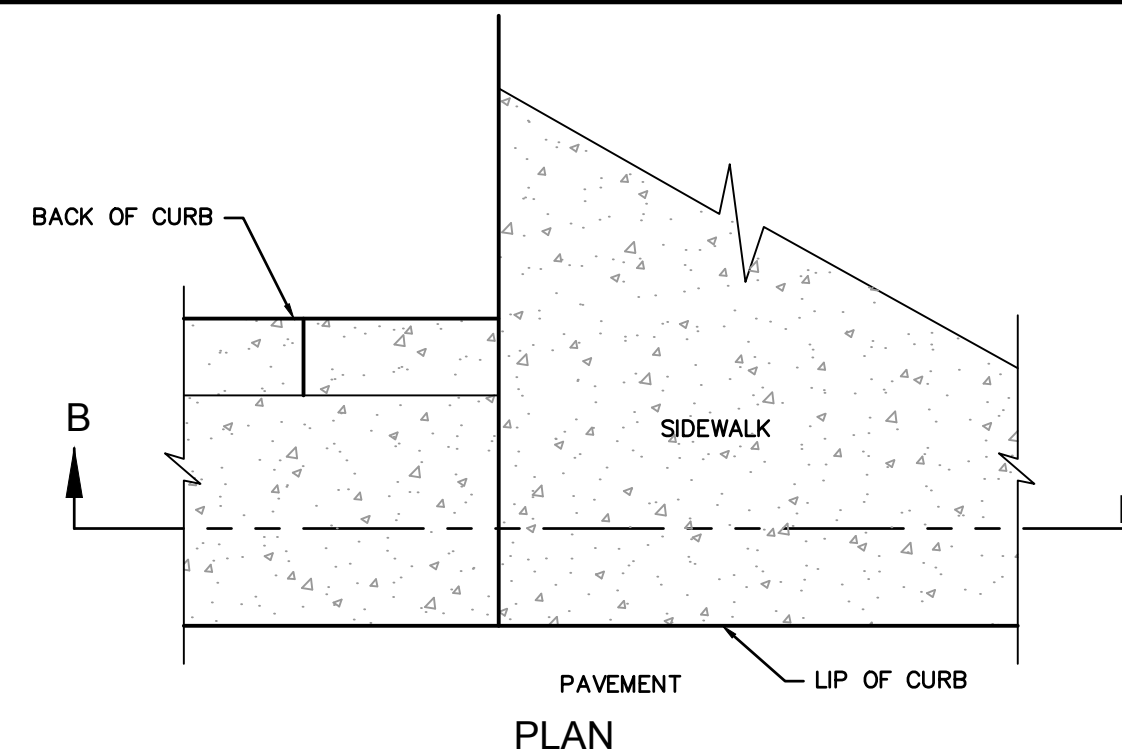
ACCESSIBLE PARKING SYMBOL
NOT TO SCALE



SECTION B-B

CURB TRANSITION DETAIL

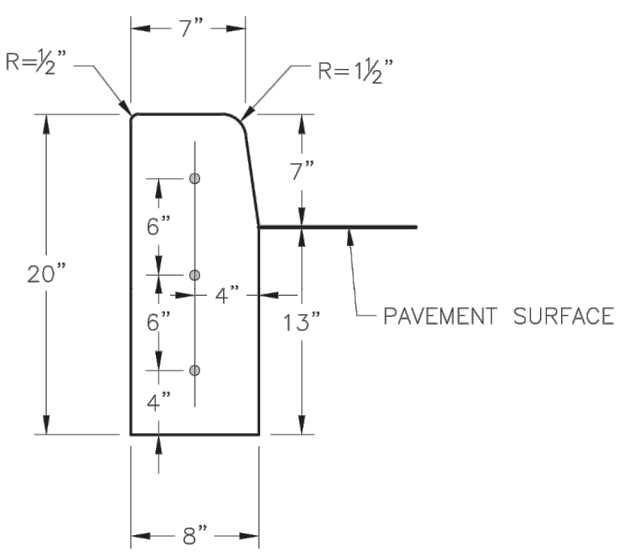
SAWCUT JOINT



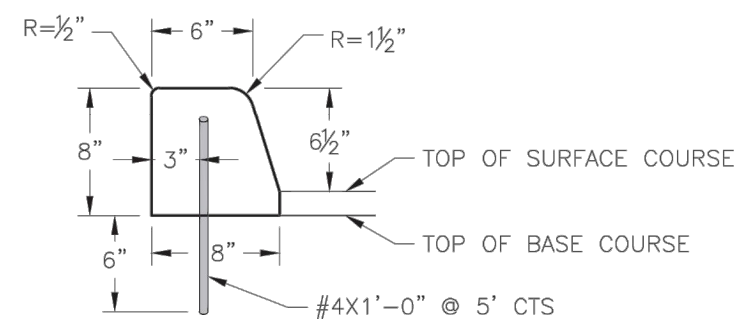
NOTES

- MUTCD R7-8 SIGN TYPE PER CITY OF LEE'S SUMMIT REQUIREMENTS
- PROVIDE SIGN AT EACH HANDICAPPED ACCESSIBLE PARKING STALL.

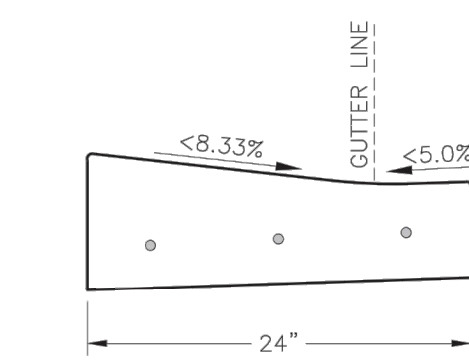
ACCESSIBLE PARKING SPACE SIGNAGE
NOT TO SCALE



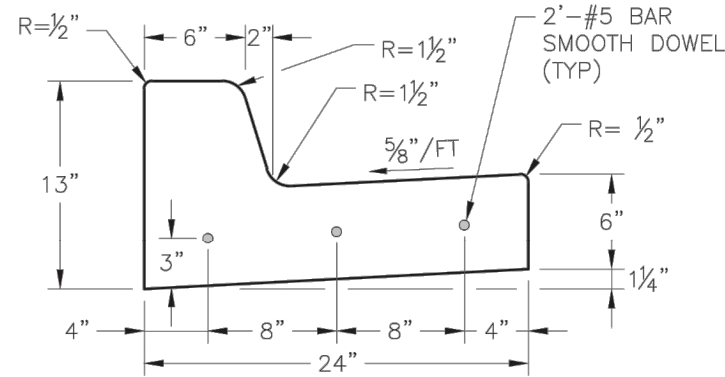
STRAIGHT CURB (TYPE C-1)



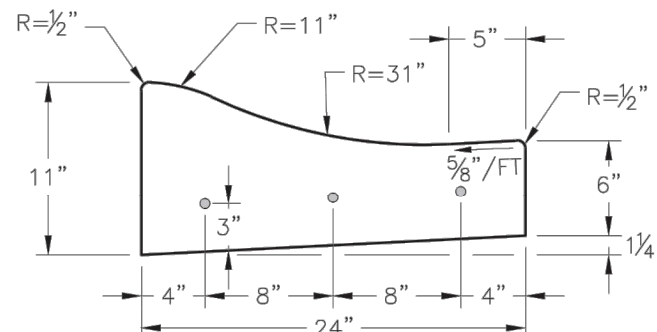
DOWELLED CURB (TYPE DC)



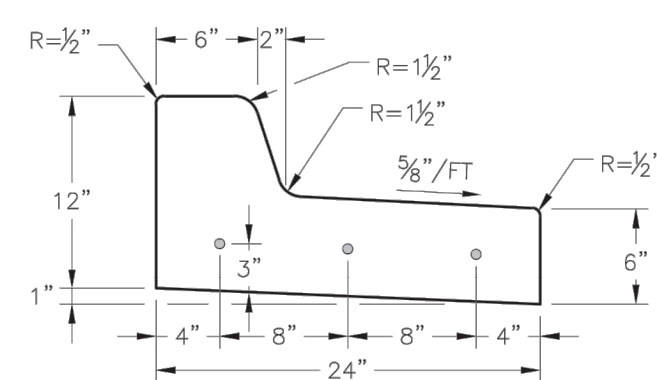
CURB & GUTTER DETAIL AT RAMP (ADA SLOPE REQUIREMENTS)



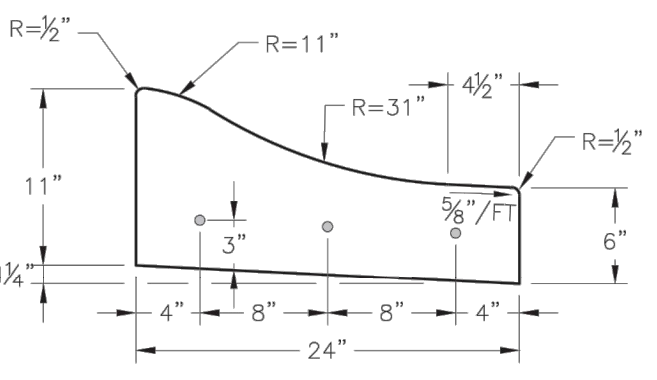
STRAIGHT BACK CURB & GUTTER (TYPE CG-1)



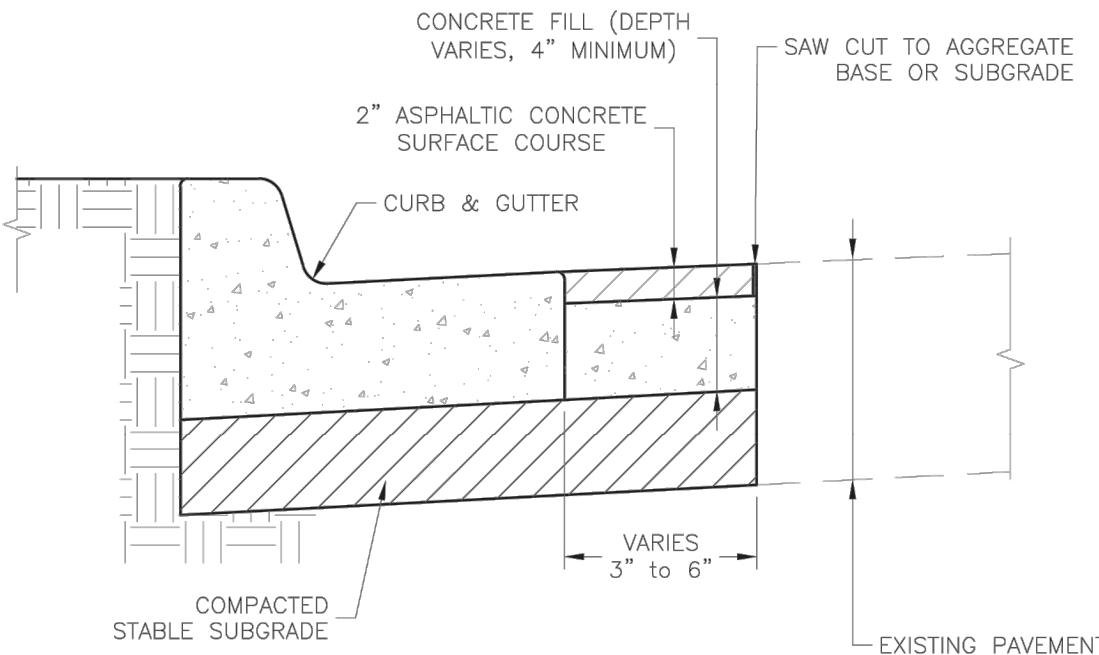
ROLL BACK CURB & GUTTER (TYPE CG-2)



STRAIGHT BACK DRY CURB & GUTTER (TYPE CG-1 DRY)



ROLL BACK DRY CURB & GUTTER (TYPE CG-2 DRY)



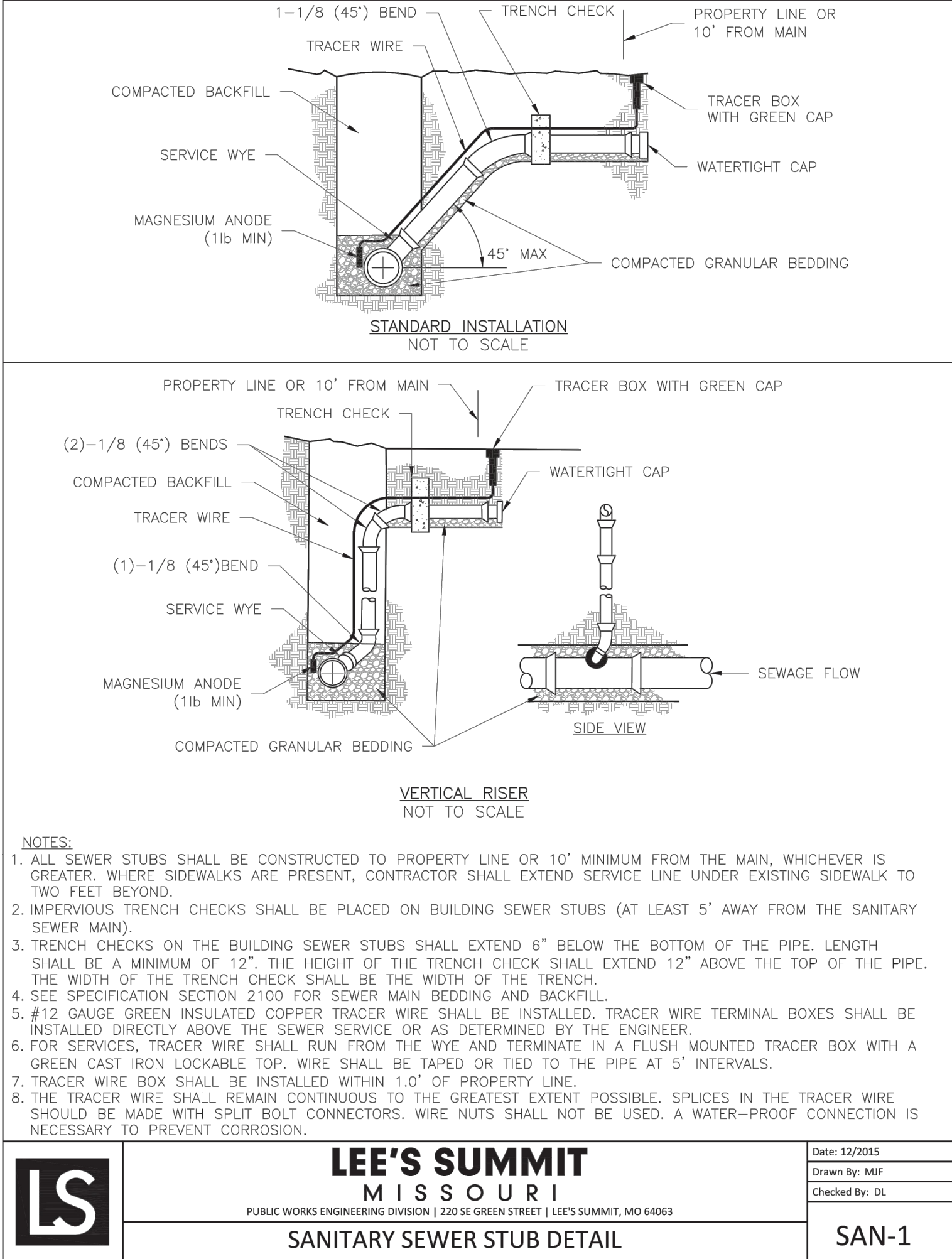
CURB REPLACEMENT DETAIL
GENERAL NOTES

- 3/4" ISOLATION JOINTS WITH 3 (2"-#5 BAR) SMOOTH DOWELS SHALL BE PLACED AT RADIUS POINTS AND AT 150' INTERVALS. THESE DOWEL BARS SHALL BE GREASED AND WRAPPED ON ONE END WITH EXPANSION TUBES.
- 3" DEEP CONTRACTION JOINTS SHALL BE INSTALLED AT APPROXIMATELY 10' INTERVALS. THESE JOINTS SHALL PASS ACROSS THE ENTIRE CURB SECTION.
- CONCRETE FILL SHALL HAVE UNIFORM AND SMOOTH FINISH
- KCMMB 4K CONCRETE SHALL BE USED FOR ALL CURB.
- ASPHALTIC CONCRETE SURFACE COURSE SHALL CONFORM TO STANDARD SPECIFICATIONS SECTION 2205.2.
- CURBS FOR NEW STREETS SHALL BE BUILT ON ASPHALT OR AGGREGATE BASE AS SHOWN IN TYPICAL SECTION DETAIL.
- WHITE CURING COMPOUND MUST BE APPLIED UNIFORMLY TO THE CONCRETE SURFACE IMMEDIATELY AFTER FINAL FINISHING.
- ALL DOWELS & TIE BARS SHALL BE EPOXY COATED.

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

STANDARD DETAILS
CITY OF LEE'S SUMMIT, MO
LEE'S SUMMIT, JACKSON COUNTY, MO
CURB & GUTTER DETAIL

GEN-4

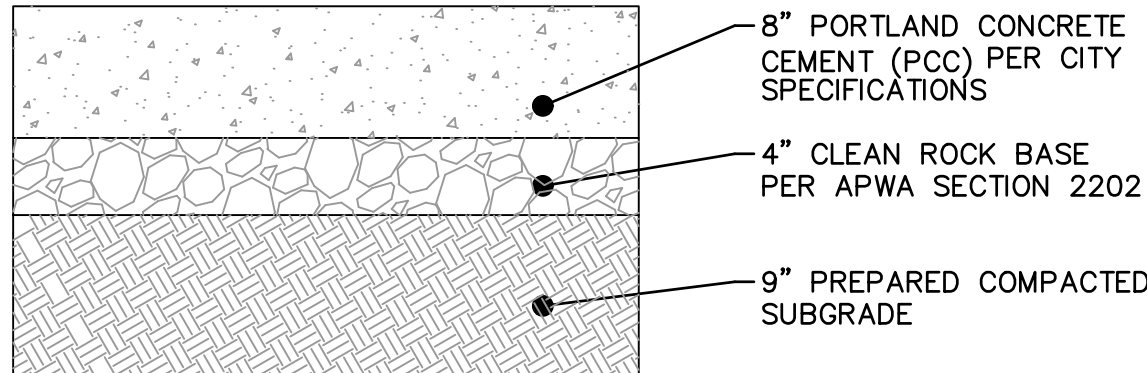


- NOTES:**
- ALL SEWER STUBS SHALL BE CONSTRUCTED TO PROPERTY LINE OR 10' MINIMUM FROM THE MAIN, WHICHEVER IS GREATER. WHERE SIDEWALKS ARE PRESENT, CONTRACTOR SHALL EXTEND SERVICE LINE UNDER EXISTING SIDEWALK TO TWO FEET BEYOND.
 - IMPERVIOUS TRENCH CHECKS SHALL BE PLACED ON BUILDING SEWER STUBS (AT LEAST 5' AWAY FROM THE SANITARY SEWER MAIN).
 - TRENCH CHECKS ON THE BUILDING SEWER STUBS SHALL EXTEND 6" BELOW THE BOTTOM OF THE PIPE. LENGTH SHALL BE A MINIMUM OF 12". THE HEIGHT OF THE TRENCH CHECK SHALL EXTEND 12" ABOVE THE TOP OF THE PIPE. THE WIDTH OF THE TRENCH CHECK SHALL BE THE WIDTH OF THE TRENCH.
 - SEE SPECIFICATION SECTION 2100 FOR SEWER MAIN BEDDING AND BACKFILL.
 - #12 GAUGE GREEN INSULATED COPPER TRACER WIRE SHALL BE INSTALLED. TRACER WIRE TERMINAL BOXES SHALL BE INSTALLED DIRECTLY ABOVE THE SEWER SERVICE OR AS DETERMINED BY THE ENGINEER.
 - FOR SERVICES, TRACER WIRE SHALL RUN FROM THE WYE AND TERMINATE IN A FLUSH MOUNTED TRACER BOX WITH A GREEN CAST IRON LOCKABLE TOP. WIRE SHALL BE TAPED OR TIED TO THE PIPE AT 5' INTERVALS.
 - TRACER WIRE BOX SHALL BE INSTALLED WITHIN 1.0' OF PROPERTY LINE.
 - THE TRACER WIRE SHALL REMAIN CONTINUOUS TO THE GREATEST EXTENT POSSIBLE. SPICES IN THE TRACER WIRE SHOULD BE MADE WITH SPLIT BOLT CONNECTORS. WIRE NUTS SHALL NOT BE USED. A WATER-PROOF CONNECTION IS NECESSARY TO PREVENT CORROSION.



LEE'S SUMMIT MISSOURI
PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64063
SANITARY SEWER STUB DETAIL

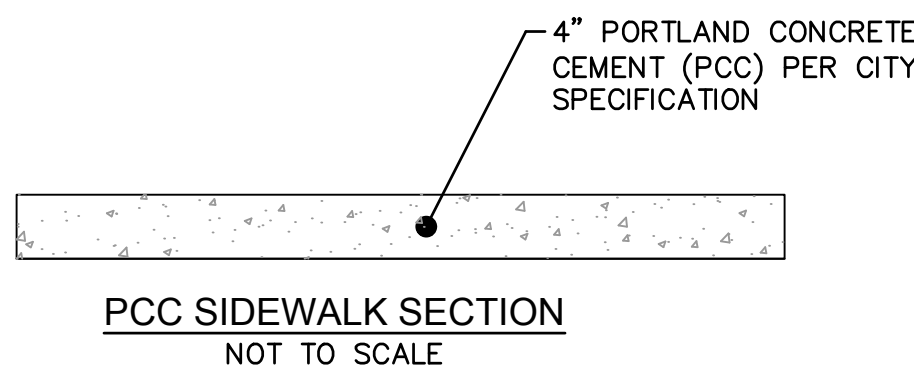
SAN-1



HEAVY CONCRETE SECTION
NOT TO SCALE

PAVEMENT SECTIONS

NOTE: CONTRACTOR TO REFERENCE SITE GEOTECHNICAL REPORT (OLSSON DATED AUGUST 15TH, 2022) AND ALL ADDENDUM FOR SUBSURFACE PREPARATIONS RECOMMENDATIONS AND FURTHER INFORMATION.



PCC SIDEWALK SECTION
NOT TO SCALE

olsson

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STATE OF MISSOURI
MITCHELL ALAN
PEAK
NUMBER
PE-2009016764
05-8-23
PROFESSIONAL ENGINEER

BY

REVISIONS DESCRIPTION

DATE

REV. NO.

2022

STANDARD DETAILS
FINAL DEVELOPMENT PLAN

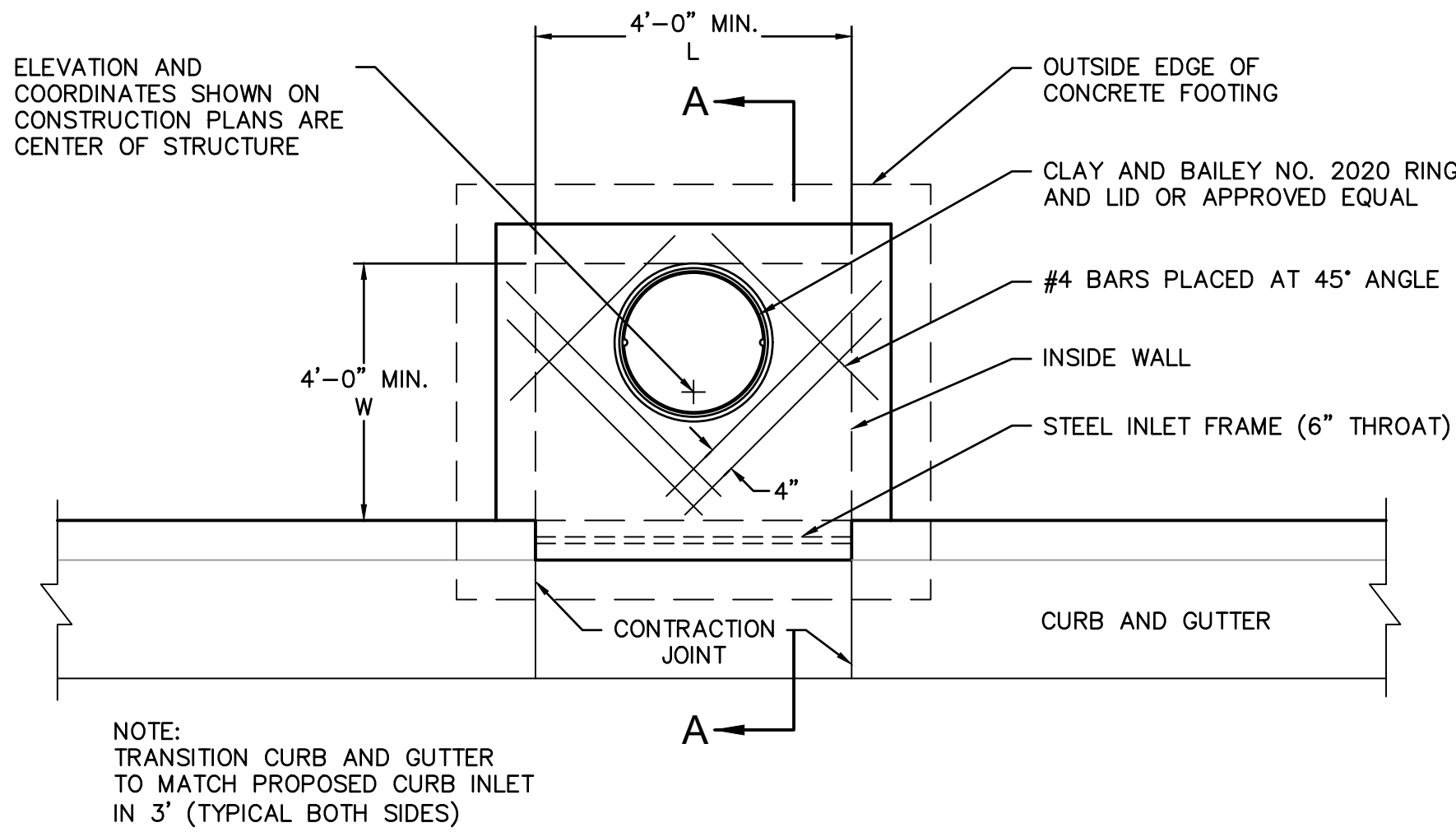
MIDWEST WASH
HWY 291 & THOMPSON DRIVE

LEE'S SUMMIT, MISSOURI

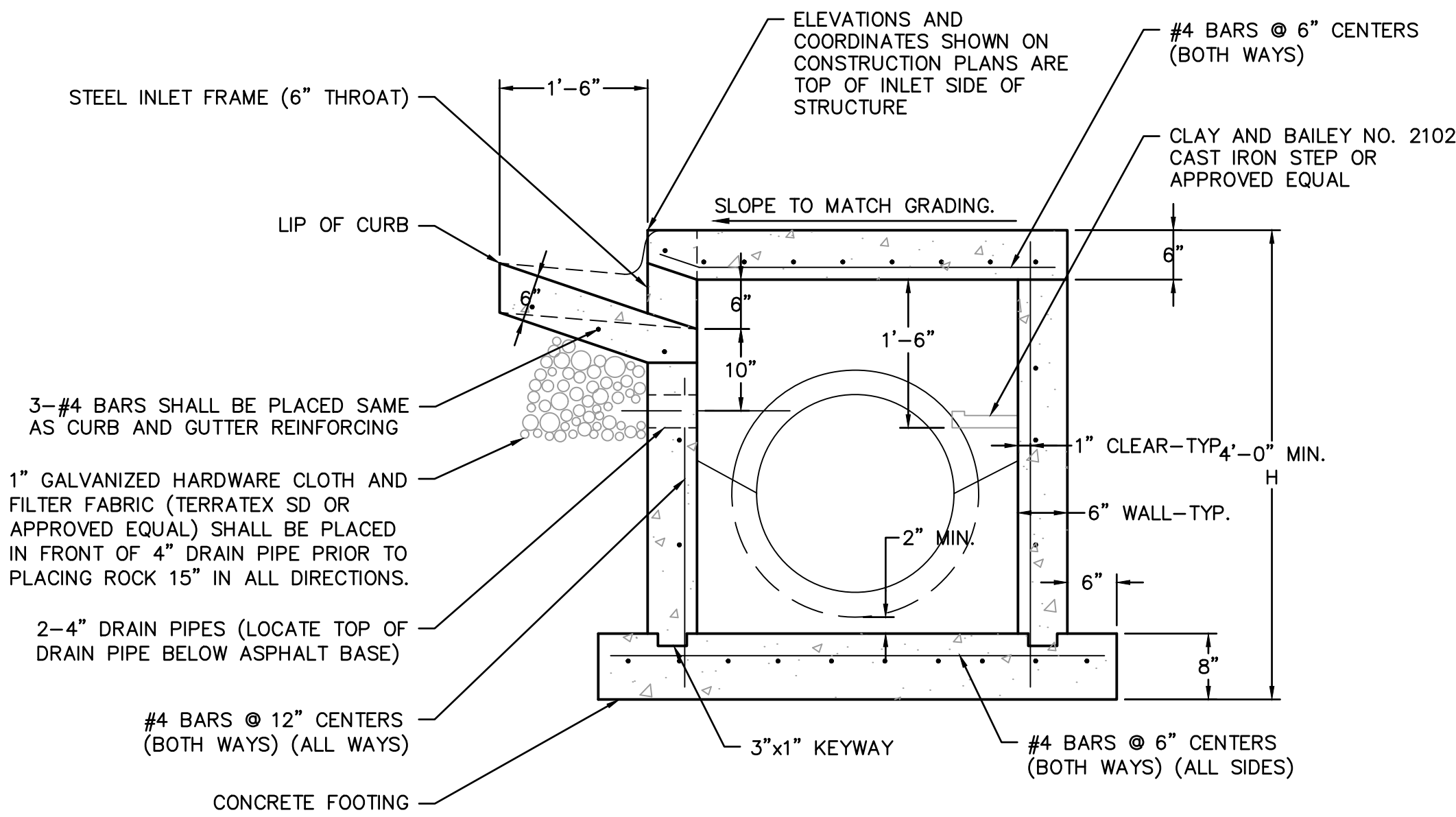
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QA/QC by: MP
project no.: 22-04040
drawing no.:
date: 22.05.08

SHEET
C800

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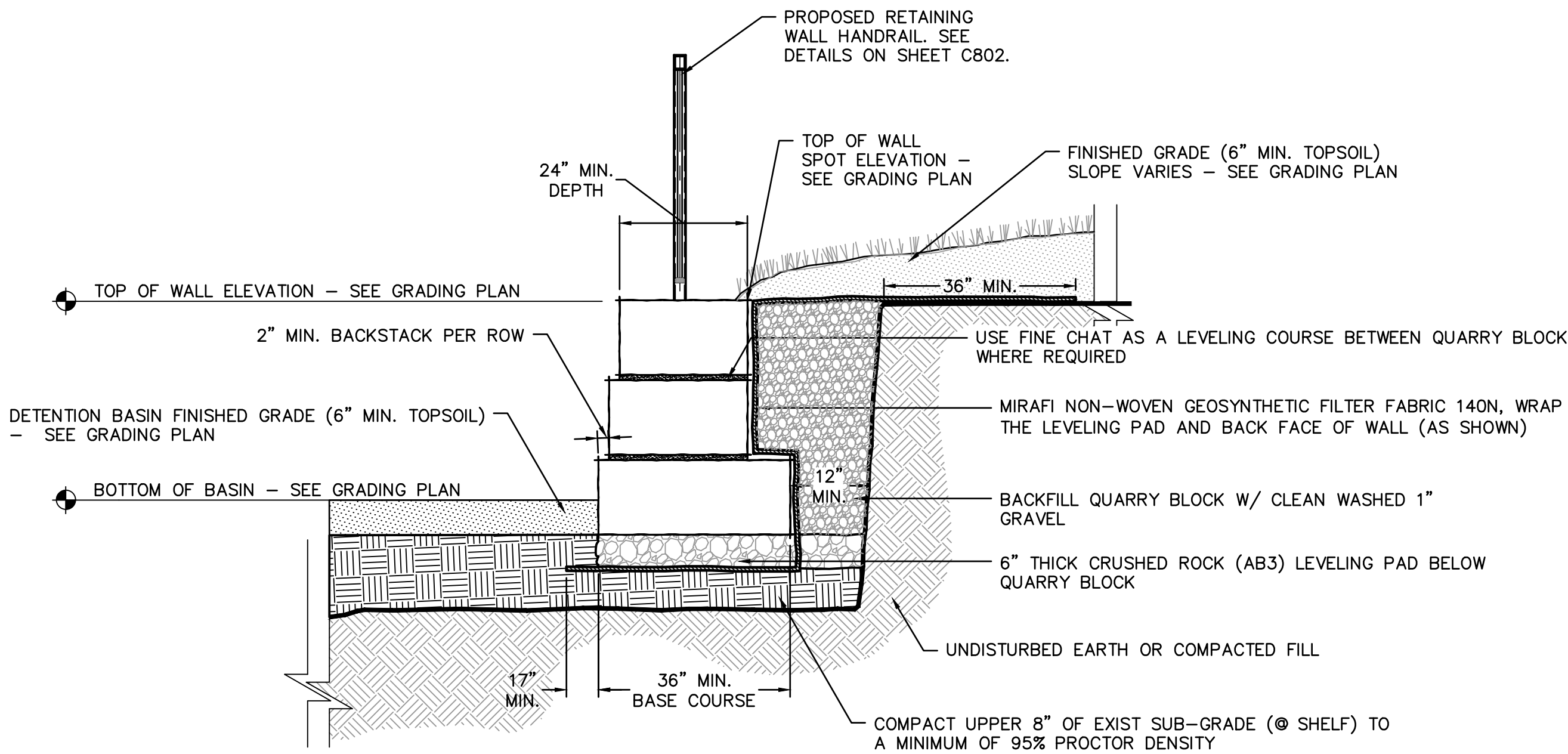
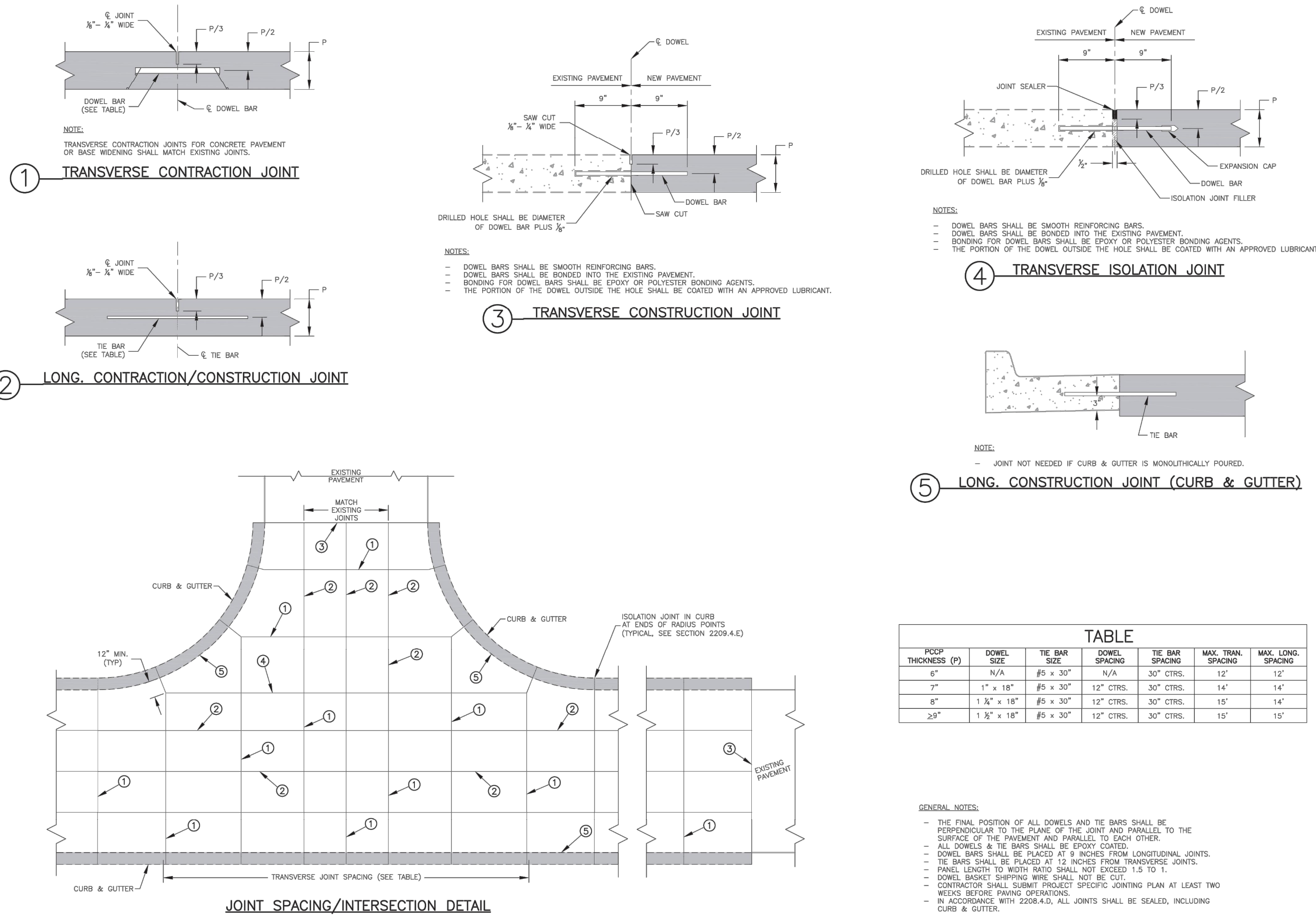
SECTION A-A

NON-SETBACK CURB INLET

NOT TO SCALE

NON-SETBACK CURB INLET NOTES

1. USE CITY APPROVED CONCRETE THROUGHOUT.
2. THE FIRST DIMENSION LISTED IN THE CONSTRUCTION NOTES IS THE "L" DIMENSION.THE SECOND DIMENSION IS THE "W" DIMENSION.
3. FLOOR OF INLET SHALL BE SHAPED TO PROVIDE SMOOTH FLOW.
4. EXPANSION JOINTS SHALL BE EITHER HOT OR COLD POURED JOINT SEALING COMPOUND, OR PREMOLDED EXPANSION JOINT FILLER.
5. STEEL INLET FRAME SPACERS SHALL BE PLACED AT EQUAL SPACINGS NOT TO EXCEED 4'-0".
6. CAST IRON STEPS TO BE CLAY & BAILEY 2102 OR APPROVED EQUAL. STEEL CORE, PLASTIC COATED STEPS MAY BE USED (M.A. IND.,INC. NO. PS1-PF, PS2-PF, OR APPROVED EQUAL). CAST IRON STEPS SHALL BE SPACED AT 1'-4" O.C. VERTICALLY.
7. BEVEL ALL EXPOSED EDGES WITH TRIANGULAR MOLDING.
8. ON-GRADE INLETS SHALL CONFORM TO THE STREET GRADE AND SUMP INLETS SHALL BE LEVEL.
9. ALL STORM SEWER STRUCTURES SHALL BE PRECAST. PRECAST SHOP DRAWINGS SHALL BE APPROVED BY THE DESIGN ENGINEER.
10. REINFORCING STEEL SHALL BE NEW BILLET, MINIMUM GRADE 40 AS PER ASTM A615, AND SHALL BE BENT COLD.
11. ALL DIMENSIONS RELATIVE TO REINFORCING STEEL ARE TO CENTERLINE OF BARS. 2" CLEARANCE SHALL BE PROVIDED THROUGHOUT UNLESS NOTED OTHERWISE. TOLERANCE OF $\pm 1/8"$ SHALL BE PERMITTED.
12. ALL LAP SPLICES NOT SHOWN SHALL BE A MINIMUM OF 40 BAR DIAMETERS IN LENGTH.
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.
14. ALL REINFORCING STEEL SHALL BE SUPPORTED ON FABRICATED STEEL BAR SUPPORTS @ 3'-0" MAXIMUM SPACING.
15. DO NOT SCALE THESE DRAWINGS FOR DIMENSIONS OR CLEARANCES. ANY QUESTIONS REGARDING DIMENSIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO CONSTRUCTION.
16. 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.
17. ALL CURB INLET TOPS ARE TO BE CONSTRUCTED AFTER FINAL CURB STRING LINE HAS BEEN APPROVED BY THE ENGINEER AND PRIOR TO CURB CONSTRUCTION, OR AS DIRECTED BY THE CITY ENGINEER.
18. RCP CONNECTIONS TO PRECAST STRUCTURE SHALL MEET ALL CITY STANDARDS.
19. BACKFILL AROUND STRUCTURES SHALL BE COMPACTED AND SHALL BE OF THE MATERIAL SPECIFIED PER CITY STANDARDS.
20. NON-SETBACK CURB INLET TO BE USED ONLY WITH THE APPROVAL OF THE CITY ENGINEER.



DRY-STACK STONE WALL DETAIL

NOT TO SCALE

RETAINING WALL NOTES

- 1) **DRY STACK QUARRY BLOCK STONE**
QUARRY - KEITH SCOTT & COMPANY, INC.
(816-224-8850)
NATURAL LEDGE - 14" TH. AVG.
AVG. LENGTH - 4' TO 6'
MIN. COMPRESSIVE STRENGTH - 10,000 PSI
- 2) **PLACEMENT**
-MINIMUM STONE OVERLAP IN WALL COURSE SHALL BE 12"
-WALL GAP BETWEEN VERTICAL JOINTS SHALL BE NO MORE THAN 1" MAX., WHERE NECESSARY FILL MATERIAL (SMALL ROCK) SHALL BE USED TO FILL GAP. THESE AREAS SHALL BE KEPT TO A MINIMUM, FIELD VERIFY W/ LANDSCAPE ARCHITECT PRIOR TO FINAL ACCEPTANCE.
- 3) **SURFACE FINISH**
EXPOSED WALL SURFACE SHALL HAVE A DRESSED STONE FINISH. A MOCKUP WALL SECTION WILL BE REQUIRED PRIOR TO COMMENCEMENT OF WORK.
- 4) **SPECIFICATION**
CONTRACTOR SHALL REQUEST THE WRITTEN SPECIFICATION PRIOR TO BIDDING THE PROJECT.
- 5) **CONSTRUCTION DOCUMENTS**
A DETAILED CONSTRUCTION DRAWING W/ DESIGN CALCULATIONS SHALL BE SUBMITTED FOR EACH RETAINING WALL APPLICATION ABOVE 4' IN HT. THE RETAINING WALL SYSTEM SHALL BE PREPARED AND STAMPED BY A PROFESSIONAL ENGINEER REGISTERED IN KANSAS.

drawn by: SG
checked by: BP
approved by: LM
QA/QC by: MP
project no.: 22-04040
drawing no.:
date: 22.05.08

SHEET
C801

STANDARD DETAILS
FINAL DEVELOPMENT PLAN

MIDWEST WASH
HWY 291 & THOMPSON DRIVE

LEE'S SUMMIT, MISSOURI

2022

REVISIONS DESCRIPTION

DATE

REV. NO.

GEN-9

STANDARD DETAILS
CITY OF LEE'S SUMMIT, MO
LEE'S SUMMIT, JACKSON COUNTY, MO
TYPICAL PAVEMENT JOINT DETAILS

DESIGNED BY: MAF
CHECKED BY: GMB
DATE: 05/03/23
PROJECT #:

PROJECT: LEE'S SUMMIT, JACKSON COUNTY, MO
SHEET NO. 12

LEE'S SUMMIT
MISSOURI
PUBLIC WORKS ENGINEERING DIVISION | 220 E. GREEN STREET | LEE'S SUMMIT, MO 64655



GEN-9

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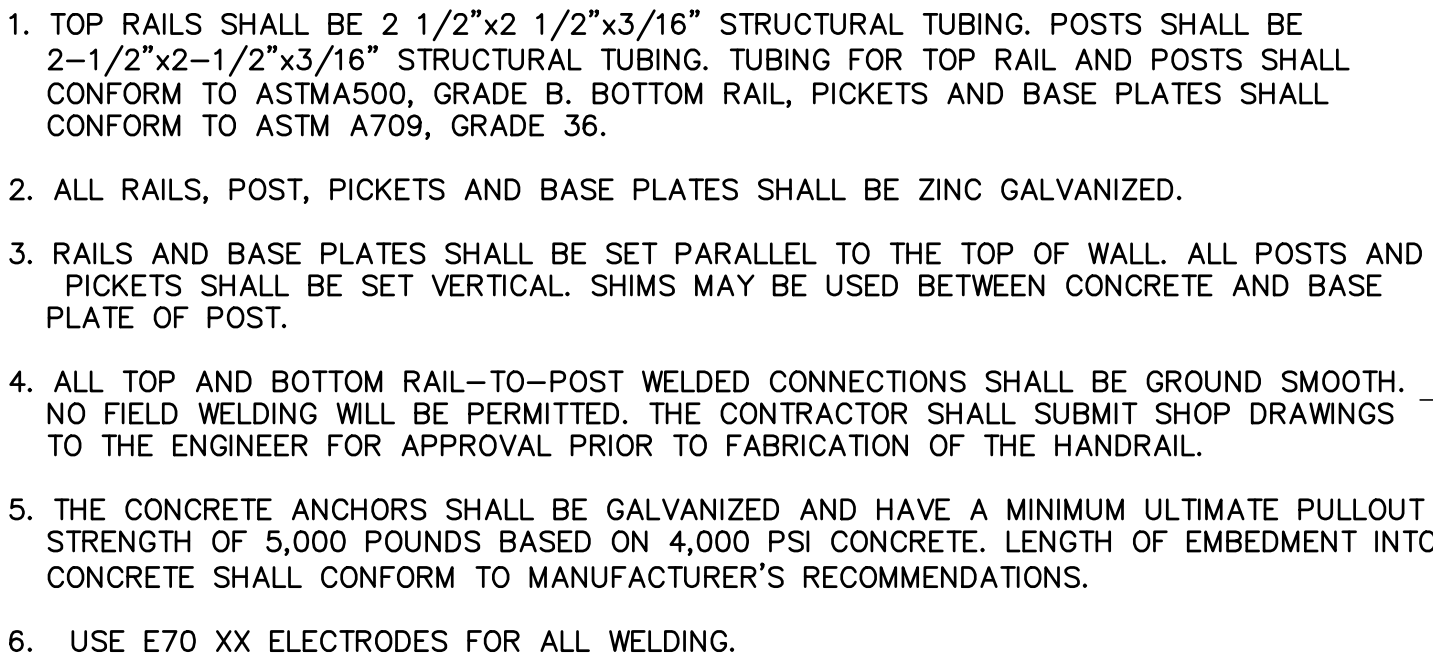
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LEE'S SUMMIT



NOTE:
AT THE CONTRACTOR'S OPTION, THE HANDRAIL POSTS MAY BE ANCHORED TO THE
WALL USING ANCHORED BASE PLATES.



RETAINING WALL HANDRAIL

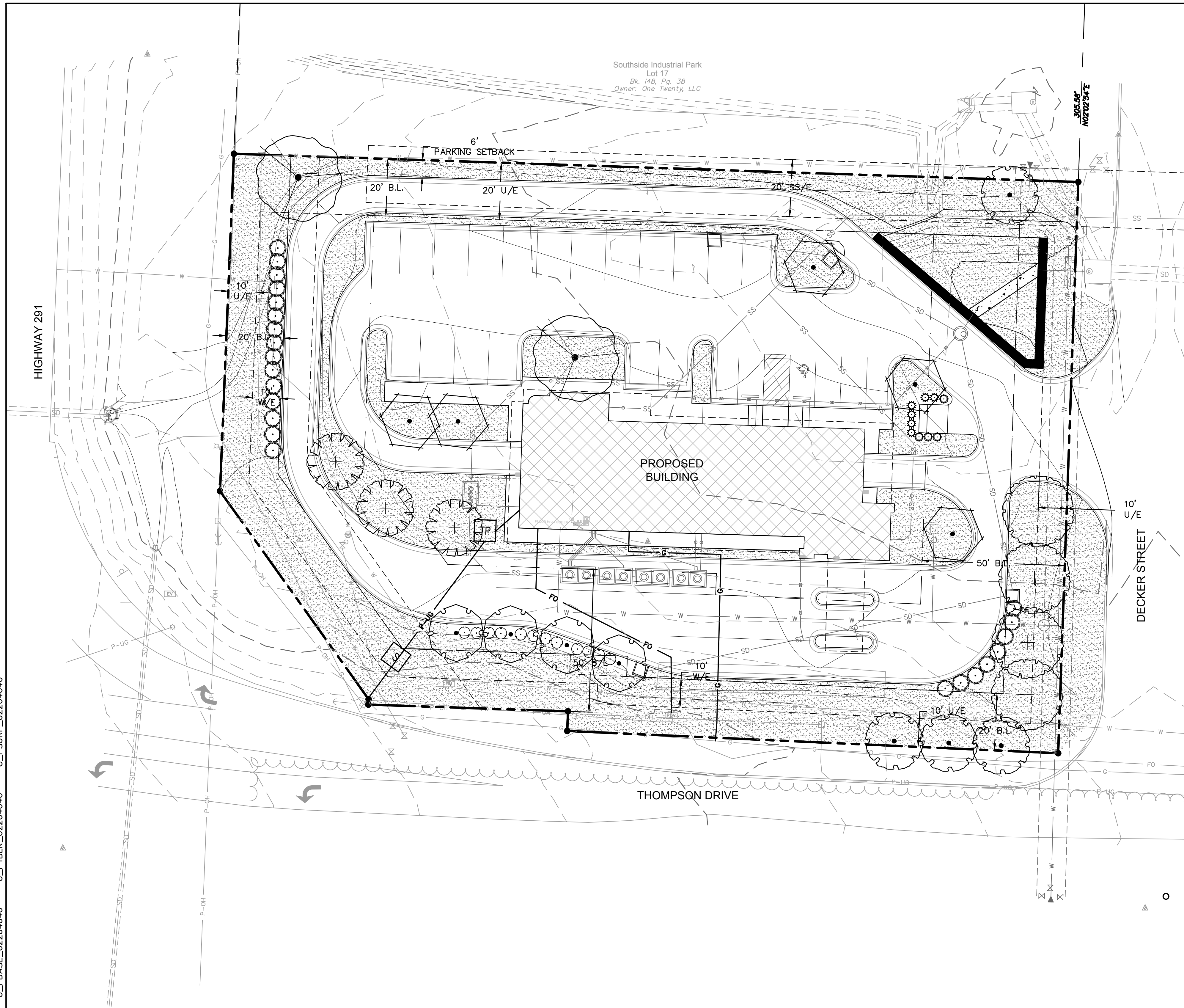
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NOTE:
CONTRACTOR SHALL PROVIDE 2-1/16" GALVANIZED
STEEL SHIMS FOR EACH POST, TO BE USED AS
REQUIRED.



POST LOCATION AT BENDS



LEGEND

- _____ - - - _____ PROPERTY LINE
 _____ - - - _____ RIGHT OF WAY LINE

LANDSCAPE CALCULATIONS

OPEN YARD AREAS

1 TREE AND 2 SHRUBS PER 5,000 SF OF TOTAL LOT AREA EXCLUDING BUILDING FOOTPRINT AREA.

56,045 SF - 6,930 SF = 49,115 SF/5,000 SF
9.82 TREES REQUIRED
10 TREES PROVIDED
19.64 SHRUBS REQUIRED
20 SHRUBS PROVIDED

PARKING LOT LANDSCAPING

5% OF PARKING LOT MUST BE LANDSCAPED (22,120 SF)

1,106 SF REQUIRED
1,440 SF PROVIDED

STREET FRONTAGE REQUIREMENT

THOMPSON DRIVE

242 LF
1 TREE / 30' OF STREET FRONTAGE
8 TREES REQUIRED
7 TREES PROVIDED (DUE TO UTILITY CONFLICTS)
1 SHRUB PER 20' OF PARKING FRONTAGE)
12 SHRUBS REQUIRED
12 SHRUBS PROVIDED

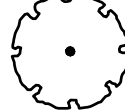
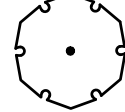
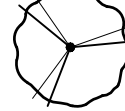
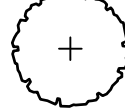
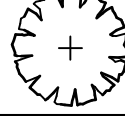
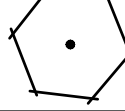
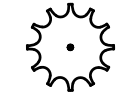
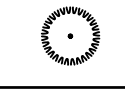
DECKER STREET
163 LF

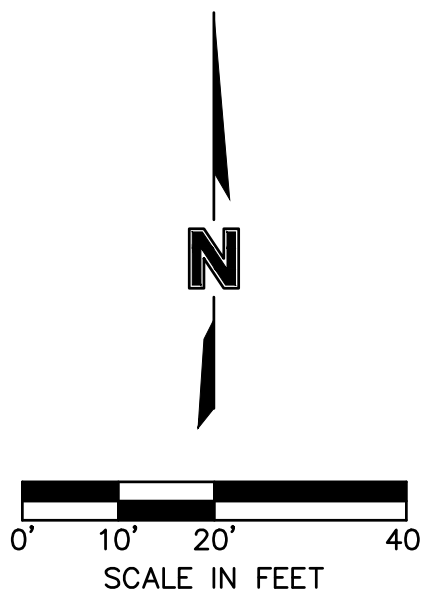
1 TREE / 30' OF STREET FRONTAGE
5 TREES REQUIRED
5 TREES PROVIDED
1 SHRUB PER 20' OF PARKING FRONTAGE
8 SHRUBS REQUIRED
8 SHRUBS PROVIDED

HWY 29

209 LF

1 TREE / 30' OF STREET FRONTAGE
7 TREES REQUIRED
**UNABLE TO PLANT TREES DUE TO INTERFERENCE WITH UTILITIES
1 SHRUB PER 20' OF PARKING FRONTAGE (LF)
10 SHRUBS REQUIRED
10 SHRUBS PROVIDED

PLANT SCHEDULE					
DECIDUOUS TREES		BOTANICAL / COMMON NAME	SIZE	CALIPER	QTY
	ACER SACCHARUM CADDO CADDO SUGAR MAPLE	B & B	3"		4
	GINKGO BILOBA 'PRINCETON SENTRY' PRINCETON SENTRY GINKGO	B & B	3"		4
	GLEDISIA TRIACANTHOS INERMIS 'SHADEMASTER' SHADEMASTER LOCUST	B & B	3"		2
	TILIA CORDATA 'GREENSPIRE' GREENSPIRE LITTLELEAF LINDEN	B & B	3"		4
	ULMUS PARVIFOLIA 'ALLEE' ALLEE LACEBARK ELM	B & B	3"		3
	ZELKOVA SERRATA 'MUSASHINO' SAWLEAF ZELKOVA	B & B	3"		5
EVERGREEN TREES		BOTANICAL / COMMON NAME	SIZE	CALIPER	QTY
	JUNIPERUS SCOPULORUM 'SKYROCKET' SKYROCKET JUNIPER	B&B, 8" HT.			10
SHRUBS		BOTANICAL / COMMON NAME	SIZE	FIELD2	QTY
	JUNIPERUS CHINENSIS 'SEA GREEN' SEA GREEN JUNIPER	5 GAL			23
	VIBURNUM NUDUM 'WINTERTHUR' WINTERTHUR VIBURNUM	5 GAL			12
GROUND COVERS		BOTANICAL / COMMON NAME	CONT		SPACING
	FESTUCA TURF TYPE TALL FESCUE BLEND	SOD			22,661 SF



BY

REV.	DATE	REVISIONS DESCRIPTION
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LANDSCAPE PLAN
FINAL DEVELOPMENT PLAN

MIDWEST WASH
HWY 291 & THOMPSON DRIVE

LEE'S SUMMIT, MISSOURI

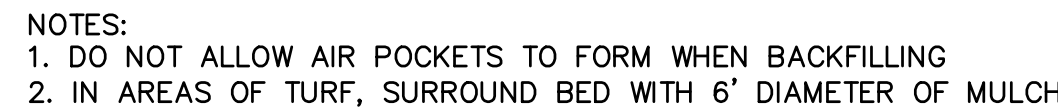
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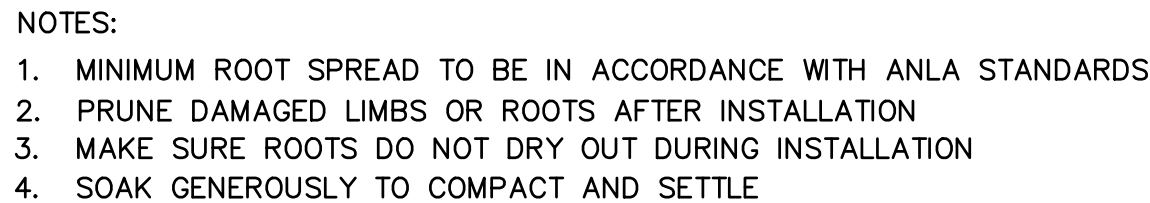
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project no.:	22-04040
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SHEET
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olsson



not to scale



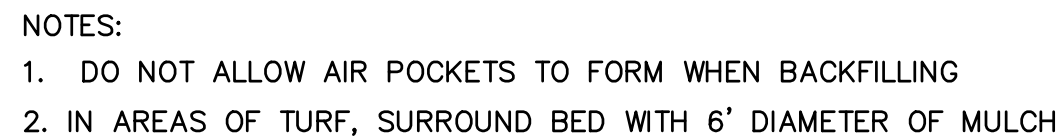
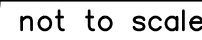
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SPACING PATTERN APPLIES
TO ALL PERENNIALS,
GROUNDCOVERS AND BULBS
UNLESS OTHERWISE
SPECIFIED.

X=
Y=

not to scale



not to scale



1. ALL AREAS DESIGNATED TO TURF SEED SHALL BE SEEDDED WITH TURF-TYPE TALL FESCUE SOD WITH A MINIMUM OF 3 CULTIVARS, PURE LIVE SEED WITH A GERMINATION RATE OF 90% OR GREATER, AT A RATE OF 90 LBS PER ACRE.
2. ALL SEEDDED AREAS SHALL RECEIVE A MINIMUM 6-INCH DEPTH OF TOPSOIL COMPACTED TO 85% MAXIMUM DENSITY AT OPTIMUM MOISTURE CONTENT.
3. THE ENTIRE SURFACE TO BE SEEDDED SHALL BE REASONABLY SMOOTH AND FREE FROM STONES, ROOTS, OR OTHER DEBRIS.
4. MOISTEN PREPARED SURFACE IMMEDIATELY PRIOR TO SEEDING. WATER THOROUGHLY AND ALLOW SURFACE TO DRY BEFORE SEEDING. FERTILIZE, HARROW OR RAKE FERTILIZER IN THE TOP 1-1/2-INCHES OF TOPSOIL, AT A UNIFORM RATE OF ONE POUND OF NITROGEN PER 1000 S.F.
5. SEED SHALL BE APPLIED WITHIN 24 HOURS FOLLOWING SEEDBED PREPARATION BY USE OF AN ACCEPTABLE SEED DRILL OR OTHER EQUIPMENT APPROVED BY LANDSCAPE ARCHITECT AT A DEPTH OF 1/4" IN A UNIFORM MANNER AT THE PRESCRIBED RATE. BROADCASTING AND HAND RAKING TO A DEPTH OF 1/4" WILL ONLY BE USED ON AREAS WHERE IT IS IMPOSSIBLE TO OPERATE A SEED DRILL.
6. FERTILIZER SHALL BE 20-10-5 COMMERCIAL FERTILIZER OF THE GRADE, TYPE, AND FORM SPECIFIED AND SHALL COMPLY WITH THE RULES OF THE STATE OF MISSOURI DEPT. OF AGRICULTURE. FERTILIZER SHALL BE IDENTIFIED ACCORDING TO THE PERCENT N, P, K, IN THAT ORDER.
7. ALL SEEDDED AREAS SHALL BE ORGANICALLY MULCHED WITHIN 24 HOURS AFTER SEEDING OPERATION AT A RATE OF 1 1/2 TO 2 TONS PER ACRE RESULTING IN A MULCH LAYER OF 1/2 TO 1 1/2 INCHES THICK.

10. CONTRACTOR SHALL PROVIDE FULL MAINTENANCE FOR SEEDED TURF GRASS FOR A PERIOD OF 30 DAYS AFTER THE DATE OF FINAL ACCEPTANCE. AT THE END OF THE MAINTENANCE PERIOD, A HEALTHY, WELL-ROOTED, EVEN-COLORED, VIABLE TURF MUST BE ESTABLISHED. THE TURF GRASS SHALL BE FREE OF WEEDS, BARE AREAS, AND SURFACE IRREGULARITIES.

1. ALL WORK SHALL BE COORDINATED WITH THE WORK OF OTHER TRADES.
2. LOCATE AND FLAG ALL UNDERGROUND UTILITIES PRIOR TO ANY CONSTRUCTION. CONTRACTOR SHALL PROTECT EXISTING OVERHEAD AND UNDERGROUND UTILITIES. ANY DAMAGE TO SUCH SHALL BE REPAIRED BY THE CONTRACTOR AT NO EXPENSE TO THE OWNER.
3. PLANTS AND OTHER MATERIALS ARE QUANTIFIED AND SUMMARIZED FOR THE CONVENIENCE OF THE CITY AND LOCAL GOVERNING BODIES. CONFIRM AND INSTALL SUFFICIENT QUANTITIES TO COMPLETE THE WORK AS DRAWN.
4. PLAN IS SUBJECT TO CHANGES BASED ON PLANT SIZE AND MATERIAL AVAILABILITY. ALL CHANGES OR SUBSTITUTIONS MUST BE APPROVED BY THE CITY OF LEE'S SUMMIT, MO AND THE LANDSCAPE ARCHITECT.
5. ALL PLANT MATERIAL SHALL BE NURSERY GROWN TO MEET MINIMUM SIZE AS SPECIFIED IN THE AMERICAN STANDARD FOR NURSERY STOCK ESTABLISHED BY THE AMERICAN NURSERY & LANDSCAPE ASSOCIATION (ANLA). THE LANDSCAPE ARCHITECT OR OWNER'S REPRESENTATIVE RESERVES THE RIGHT TO REJECT ANY PLANT MATERIAL NOT MEETING SPECIFICATIONS.
6. ALL TREES SHALL BE CALIPERED AND ANY UNDERSIZED TREES SHALL BE REJECTED. SPECIFIED CALIPER MEASUREMENT FOR TREES SHALL BE MEASURED AT 12" ABOVE THE GRADE.
7. PLANTING OF TREES, SHRUBS, SODDED AND SEEDED TURFGRASS SHALL BE COMMENCED DURING EITHER THE SPRING (MARCH 15-JUNE 15) OR FALL (SEPTEMBER 1 - OCTOBER 15) PLANTING SEASON AND WITH WATER AVAILABLE FOR IRRIGATION PURPOSES.
8. CONTRACTOR SHALL STAKE OR MARK ALL PLANT MATERIAL LOCATIONS PRIOR TO INSTALLATION. CONTRACTOR SHALL HAVE THE LANDSCAPE ARCHITECT APPROVE ALL STAKING PRIOR TO INSTALLATION. FIELD ADJUSTMENTS MAY BE NECESSARY BASED UPON FIELD CONDITIONS (I.E. ROOT BALL AND DRAIN INLET CONFLICT). ALL ADJUSTMENTS MUST BE APPROVED BY THE LANDSCAPE ARCHITECT.
9. THE LANDSCAPE CONTRACTOR SHALL REMOVE ALL CONSTRUCTION DEBRIS AND MATERIALS INJURIOUS TO PLANT GROWTH FROM PLANTING PITS AND BEDS PRIOR TO BACKFILLING WITH PLANTING MIX.
10. A PRE-EMERGENT HERBICIDE SHALL BE APPLIED TO ALL SHRUB BEDS PRIOR TO THE INSTALLATION OF ANY PLANT MATERIAL.
11. BACKFILL ALL PLANTING BEDS TO A MINIMUM 12-INCH DEPTH WITH PLANTING SOIL MIX. PLANTING SOIL MIX SHALL CONSIST OF ONE (1) PART PERLITE, ONE (1) PART PEAT MOSS, AND TWO (2) PARTS CLEAN LOAM TOPSOIL. THOROUGHLY MIX PLANTING SOIL COMPONENTS PRIOR TO PLACEMENT.
12. ALL LANDSCAPE PLANTING AREAS, EXCLUDING TURF AREAS SHALL BE MULCHED WITH A MINIMUM OF 3-4" SHREDDED HARDWOOD MULCH UNLESS OTHERWISE NOTED ON PLANS.
13. V-TRENCH LANDSCAPE EDGING IS TO BE USED ON ALL LANDSCAPE BEDS ABUTTING SODDED AREAS.
14. ALL LANDSCAPE AREAS SHALL BE IRRIGATED WITH A HIGH-EFFICIENCY, AUTOMATIC IRRIGATION SYSTEM ACHIEVING 100% EVEN COVERAGE OF ALL LANDSCAPE AREAS. IRRIGATION SYSTEM SHALL BE DESIGN-BUILD TO MEET ALL CITY REQUIREMENTS.
15. LANDSCAPE CONTRACTOR IS TO BE RESPONSIBLE FOR WATERING ALL PLANT MATERIALS UNTIL THE TIME THE PERMANENT IRRIGATION SYSTEM IS FULLY FUNCTIONAL AND ACCEPTANCE OF THE PROJECT HAS TAKEN PLACE. ANY MATERIAL WHICH DIES, OR DEGRADATES (PRIOR TO ACCEPTANCE OF THE WORK) WILL BE PROMPTLY REMOVED AND REPLACED.
16. THE CONTRACTOR WILL COMPLETELY GUARANTEE ALL WORK FOR A PERIOD OF ONE YEAR BEGINNING AT THE DATE OF ACCEPTANCE. CONTRACTOR WILL MAKE ALL REPLACEMENTS PROMPTLY (AS PER DIRECTION OF OWNER).
17. DETENTION AREA TO BE 4-6" RIPRAP TO BE APPROVED BY OWNER. ROCK TO BE PLACED 6" DEPTH WITH FILTER FABRIC UNDERNEATH.

1. ALL DISTURBED AREAS SHALL BE SODDED WITH TURF-TYPE TALL FESCUE SOD WITH A MINIMUM OF 3 CULTIVARS.
2. ALL LAWN AREAS SHALL RECEIVE A MINIMUM 6-INCH DEPTH OF TOPSOIL COMPACTED TO 85% MAXIMUM DENSITY AT OPTIMUM MOISTURE CONTENT.
3. THE ENTIRE SURFACE TO BE SODDED SHALL BE REASONABLY SMOOTH AND FREE FROM STONES, ROOTS, OR OTHER DEBRIS.
4. SOD SHALL BE MACHINE STRIPPED AT A UNIFORM SOIL THICKNESS OF APPROXIMATELY ONE INCH (PLUS OR MINUS 1/4-INCH). THE MEASUREMENT FOR THICKNESS SHALL EXCLUDE TOP GROWTH AND THATCH, AND SHALL BE DETERMINED AT THE TIME OF CUTTING IN THE FIELD. PRECAUTIONS SHALL BE TAKEN TO PREVENT DRYING AND HEATING. SOD DAMAGED BY HEAT AND DRY CONDITIONS, AND SOD CUT MORE THAN 18 HOURS BEFORE BEING INCORPORATED INTO THE WORK SHALL NOT BE USED.
5. HANDLING OF SOD SHALL BE DONE IN A MANNER THAT WILL PREVENT TEARING, BREAKING, DRYING AND OTHER DAMAGE. PROTECT EXPOSED ROOTS FROM DEHYDRATION. DO NOT DELIVER MORE SOD THAN CAN BE LAID WITHIN 24 HOURS.
6. MOISTEN PREPARED SURFACE IMMEDIATELY PRIOR TO LAYING SOD. WATER THOROUGHLY AND ALLOW SURFACE TO DRY BEFORE INSTALLING SOD. FERTILIZE, HARROW OR RAKE FERTILIZER IN THE TOP 1-1/2-INCHES OF TOPSOIL, AT A UNIFORM RATE OF ONE POUND OF NITROGEN PER 1000 S.F.
7. SOD SHALL BE CAREFULLY PLACED IN THE DIRECTION PARALLEL WITH THE SLOPE OF THE AREA TO BE SODDED. SOD STRIPS SHALL BE BUTTED TOGETHER BUT NOT OVERLAPPED WITH THE SEAMS STAGGERED ON EACH ROW.
8. FERTILIZER SHALL BE 20-10-5 COMMERCIAL FERTILIZER OF THE GRADE, TYPE, AND FORM SPECIFIED AND SHALL COMPLY WITH THE RULES OF THE STATE OF MISSOURI DEPT. OF AGRICULTURE. FERTILIZER SHALL BE IDENTIFIED ACCORDING TO THE PERCENT N, P, K, IN THAT ORDER.
9. ALL SOD ON SLOPES GREATER THAN 5:1 AND WITHIN DETENTION AREAS SHALL BE STAKED.
10. SATURATE SOD WITH FINE WATER SPRAY WITHIN TWO HOURS OF PLANTING. DURING FIRST WEEK AFTER PLANTING, WATER DAILY OR MORE FREQUENTLY AS NECESSARY TO MAINTAIN MOIST SOIL TO A MINIMUM DEPTH OF FOUR INCHES BELOW SOD.
11. CONTRACTOR SHALL PROVIDE FULL MAINTENANCE FOR SODDED TURF GRASS FOR A PERIOD OF 30 DAYS AFTER THE DATE OF FINAL ACCEPTANCE. AT THE END OF THE MAINTENANCE PERIOD, A HEALTHY, WELL-ROOTED, EVEN-COLORED, VIBLE TURF MUST BE ESTABLISHED. THE TURF GRASS SHALL BE FREE OF WEEDS, OPEN JOINTS, BARE AREAS, AND SURFACE IRREGULARITIES.

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QA/QC by:	MP
project no.:	22-04040
drawing no.:	
date:	22.05.08

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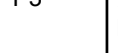
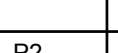
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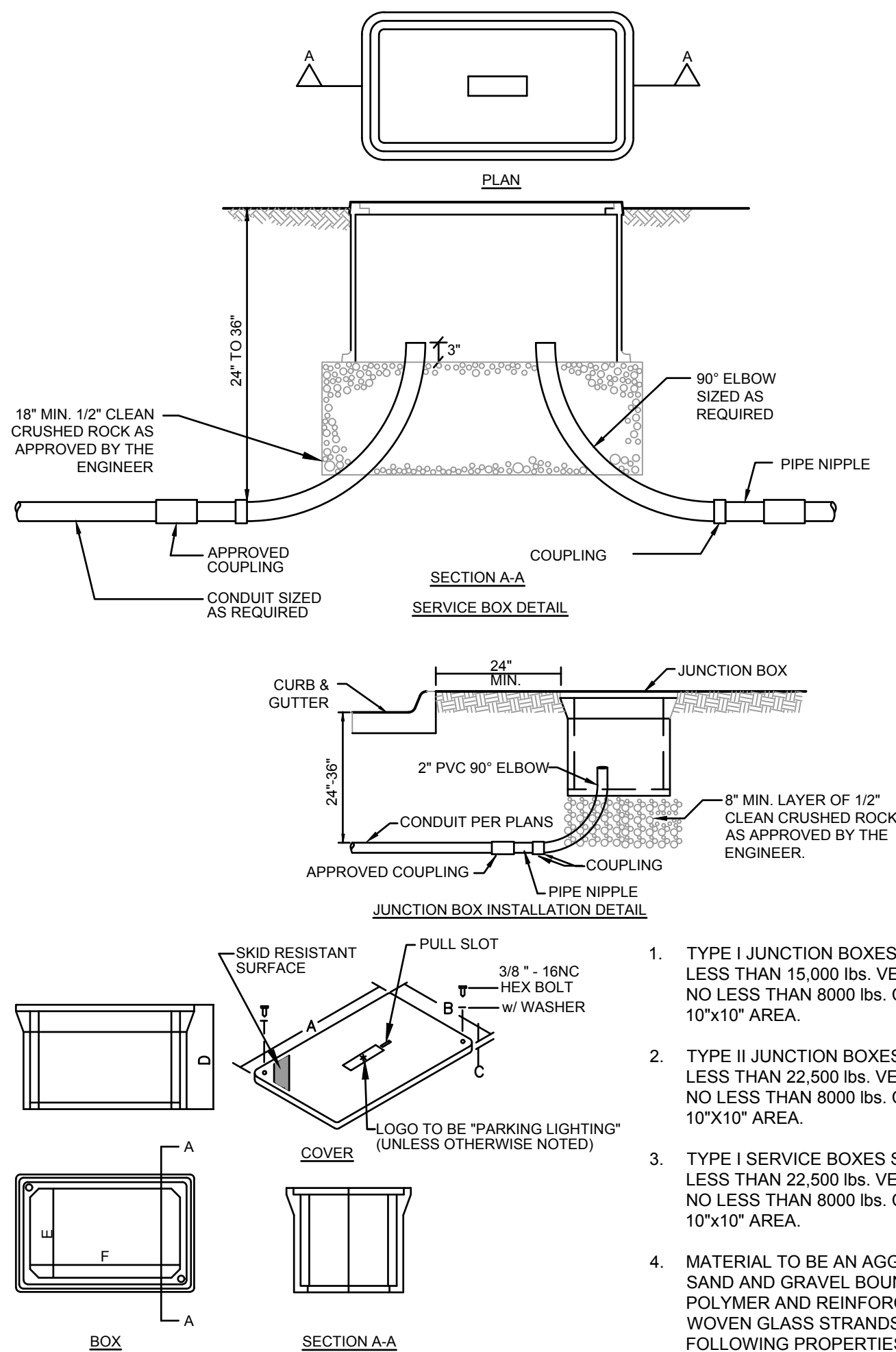
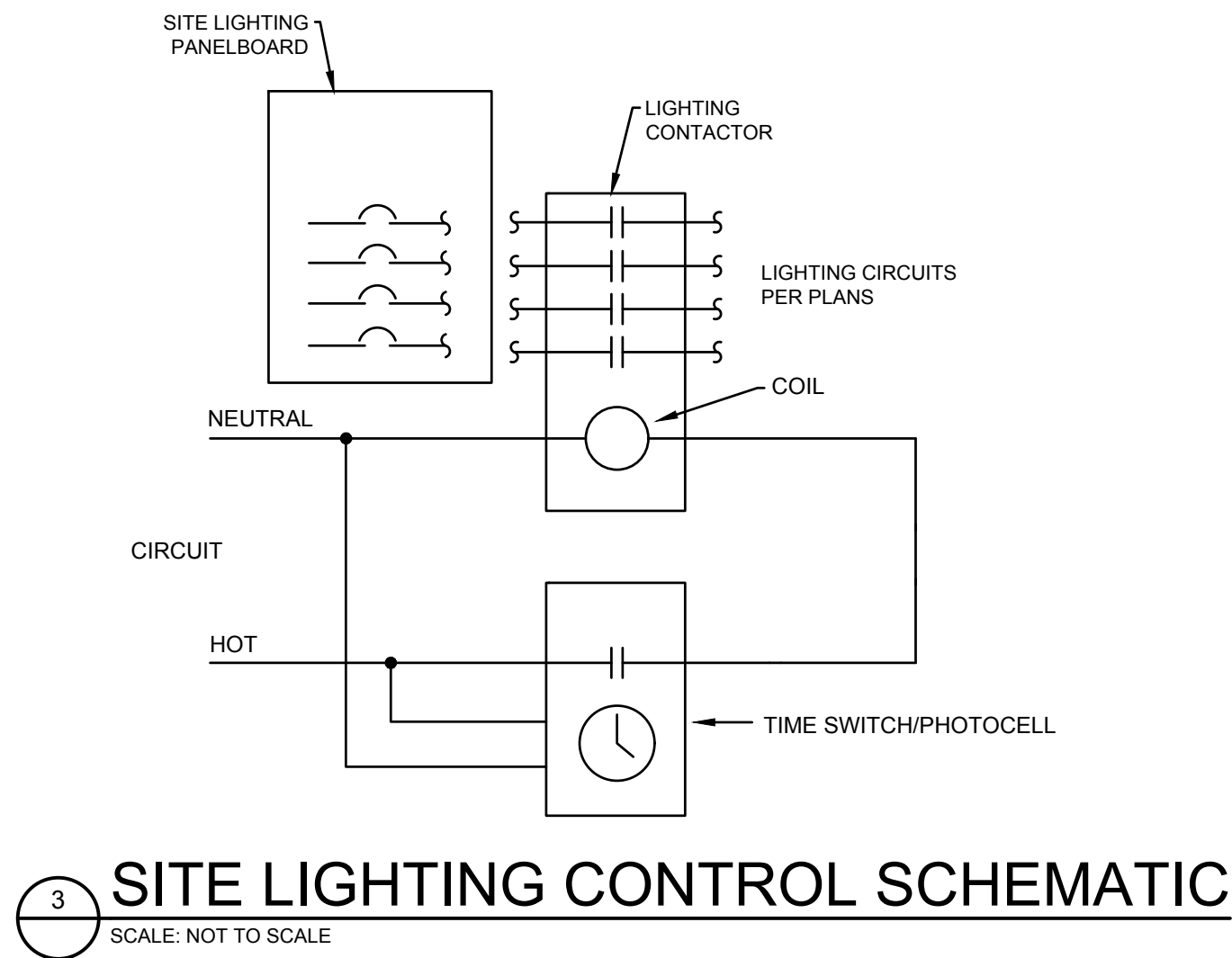
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REVISIONS

2022

LEE'S SUMMIT, MISSOURI

LIGHTING FIXTURE SCHEDULE									
SYMBOL	TYPE	DESCRIPTION	MANUFACTURER AND MODEL	LAMPS	LUMENS	COLOR TEMP / CRI	DRIVER / BALLAST	VOLTAGE / WATTAGE	LOCATION
	P3	AREA LED LIGHT FIXTURE WITH GLARE SHIELD, 18"-0 POLE AND CONCRETE BASE.	LITHONIA DSX1-LED-P3-40K-T3M-EGS-MVOLT-SPA-DBLXD POLE: SSS-18-4G-DM19AS-DBLXD	LED	9,016	4000K / 80	0-10V DIMMING	MVOLT 102W	PARKING LOT
	P2	AREA LED LIGHT FIXTURE WITH GLARE SHIELD, 18"-0 POLE AND CONCRETE BASE.	LITHONIA DSX1-LED-P3-40K-T2M-EGS-MVOLT-SPA-DBLXD POLE: SSS-18-4G-DM19AS-DBLXD	LED	11,348	4000K / 80	0-10V DIMMING	MVOLT 102W	PARKING LOT
	P4	AREA LED LIGHT FIXTURE WITH HOUSE SIDE SHIELD, 18"-0 POLE AND CONCRETE BASE.	LITHONIA DSX1-LED-P3-40K-T4M-HS-MVOLT-SPA-DBLXD POLE: SSS-18-4G-DM19AS-DBLXD	LED	12,016	4000K / 80	0-10V DIMMING	MVOLT 102W	PARKING LOT
	P5	AREA LED LIGHT FIXTURE WITH GLARE SHIELD, 18"-0 POLE AND CONCRETE BASE.	LITHONIA DSX1-LED-P3-40K-T5W-EGS-MVOLT-SPA-DBLXD POLE: SSS-18-4G-DM19AS-DBLXD	LED	9,685	4000K / 80	0-10V DIMMING	MVOLT 102W	PARKING LOT



TYPE	DIMENSION (IN.)					
	A	B	C	D	E	F
I-JUNCTION	12 7/8	12 7/8	3/4	12 3/4	9 3/4 - 10 1/4	9 1/2 - 10 1/2
II-JUNCTION	18 - 18 1/2	11 1/4 - 11 1/2	1 3/4 - 2	12	9 1/2 - 10 1/4	16 1/2 - 17 1/4
I-SERVICE	35 5/8	24	3	24	22 1/4	33 7/8
II-SERVICE	* 47 5/8	30 1/8	3	24	22 1/8	45 5/8

*NOTE: THE TYPE II SERVICE BOX SHALL HAVE A TWO-PIECE OVERLAPPING COVER.

1. TYPE I JUNCTION BOXES SHALL BE RATED FOR NO LESS THAN 15,000 lbs. VERTICAL TEST LOAD AND NO LESS THAN 8000 lbs. COVER LOAD OVER A 10"x10" AREA.
2. TYPE II JUNCTION BOXES SHALL BE RATED FOR NO LESS THAN 22,500 lbs. VERTICAL TEST LOAD AND NO LESS THAN 8000 lbs. COVER LOAD OVER A 10"x10" AREA.
3. TYPE I SERVICE BOXES SHALL BE RATED FOR NO LESS THAN 22,500 lbs. VERTICAL TEST LOAD AND NO LESS THAN 8000 lbs. COVER LOAD OVER A 10"x10" AREA.
4. MATERIAL TO BE AN AGGREGATE CONSISTING OF SAND AND GRAVEL BOUND TOGETHER WITH A POLYMER AND REINFORCED WITH CONTINUOUS WOVEN GLASS STRANDS. IT SHALL HAVE THE FOLLOWING PROPERTIES:

COMPRESSIVE STRENGTH-11,000 psi ASTM C-109

TENSILE STRENGTH-1,700 psi ASTM C-496

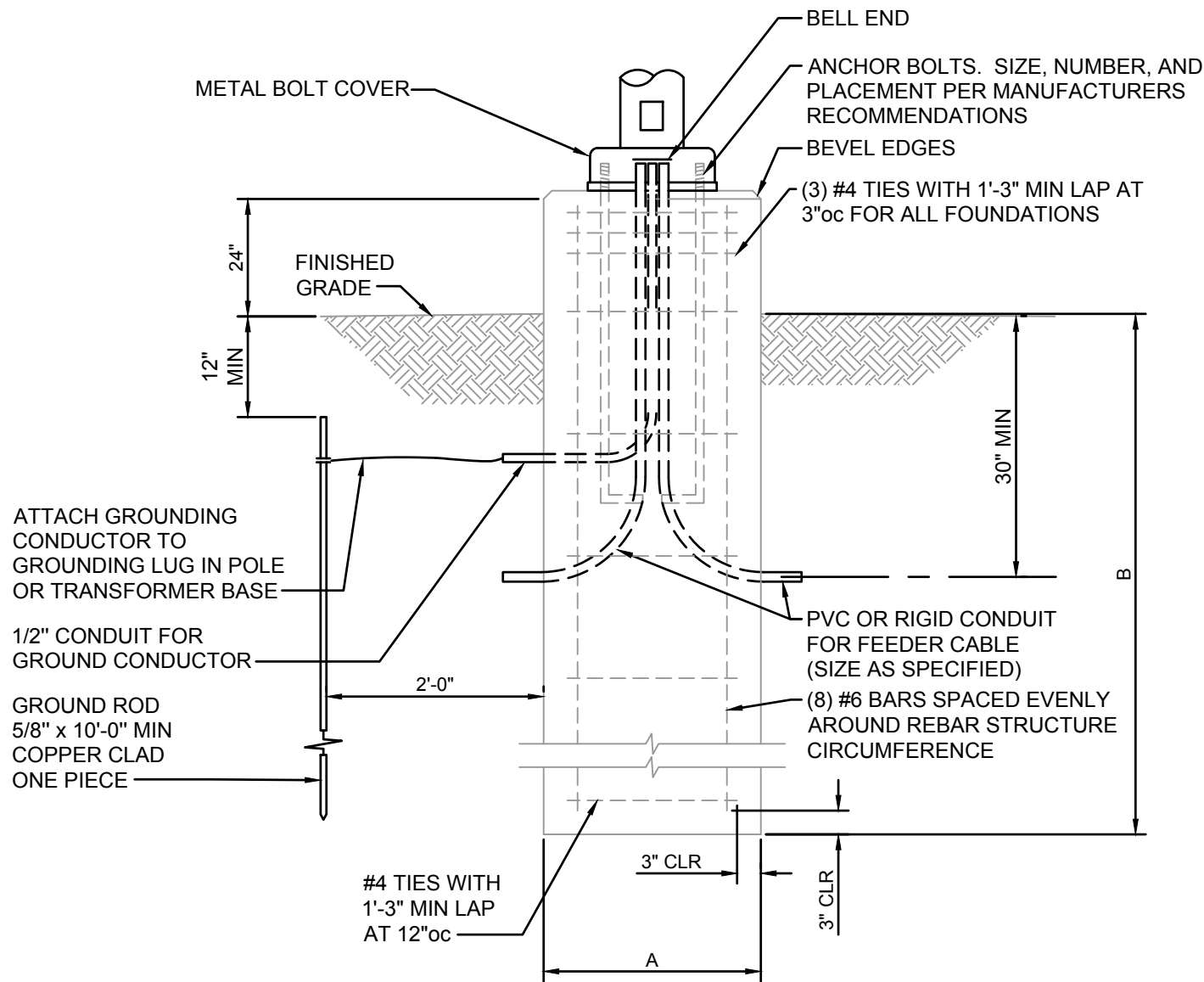
FLEXURAL STRENGTH-7,500 psi ASTM D-790.5
5. ATTACH 1c #10 THHN/THWN STRANDED COPPER SYSTEM GROUND TO 1/2" x 8-0" GROUND ROD IN SERVICE BOX. MULTIPLE #10 GROUND CABLES INTRODUCED AT SIGNAL POLES SHALL BE TERMINATED AT GROUND ROD WITH AN ADDITIONAL CLAMP.

COMPRESSIVE STRENGTH-11,000 psi ASTM C-109

TENSILE STRENGTH-1,700 psi ASTM C-496

FLEXURAL STRENGTH-7,500 psi ASTM D-790 5.

5. ATTACH 1c #10 THHN/THWN STRANDED COPPER SYSTEM GROUND TO 1/2" x 8'-0" GROUND ROD IN SERVICE BOX. MULTIPLE #10 GROUND CABLES INTRODUCED AT SIGNAL POLES SHALL BE TERMINATED AT GROUND ROD WITH AN ADDITIONAL CLAMP.



FIBERGLASS REINFORCED POLYMER CONCRETE JUNCTION BOX DETAILS

SCALE: NOT TO SCALE

CONCRETE LIGHT POLE BASE

SCALE: NOT TO SCALE

FOUNDATION DESIGN LIMITATIONS

- L1. THIS FOUNDATION WAS DESIGNED FOR A MINIMUM LATERAL SOIL DEFORMATION MODULUS OF 0.50 KSI
- L2. THIS FOUNDATION WAS DESIGNED FOR A MINIMUM LATERAL SOIL UNDRAINED SHEAR STRENGTH OF 0.50 KSF
- L3. THIS FOUNDATION WAS DESIGNED FOR A MAXIMUM ALLOWABLE LATERAL DEFLECTION OF 1/2 INCH OVERALL AT GRADE ELEVATION
- L4. THIS FOUNDATION WAS DESIGNED WITH AN ASSUMED DEPTH TO ROCK GREATER THAN TWENTY FEET FROM FINISHED GRADE
- L5. THIS FOUNDATION WAS DESIGNED WITH AN ASSUMED WATER TABLE LOCATED AT THE SOIL SURFACE.
- L6. THIS FOUNDATION WAS NOT DESIGNED TO WITHSTAND THE EFFECTS OF SCOURING.
- L7. IF CONDITIONS OTHER THAN THOSE SPECIFIED HEREIN ARE PRESENT AT THE SITE, INCLUDING NON-COHESIVE SOILS FOUND IN BORINGS, PLEASE CONTACT THE ENGINEER OF RECORD.

STRUCTURAL CONCRETE

CONCRETE WORK SHALL BE IN ACCORDANCE WITH THE LATEST EDITIONS OF:

- ACI 301 "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS"
- ACI 302 "RECOMMENDED PRACTICE FOR CONCRETE FLOOR AND SLAB CONSTRUCTION"
- ACI 304 "ACI MANUAL OF CONCRETE INSPECTION"
- ACI 308 "RECOMMENDED PRACTICE FOR MEASURING, MIXING, TRANSPORTING, AND PLACING CONCRETE"
- ACI 315 "DETAILS AND DETAILING OF CONCRETE REINFORCEMENT"
- ACI 318 "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE"
- ACI 347 "RECOMMENDED PRACTICE FOR CONCRETE FORMWORK"

ALL HOOKS SHALL BE "STANDARD" PER ACI SPECIFICATIONS

EARTHWORK

- E1. THE CONTRACTOR MUST PROVIDE SURFACE DRAINAGE AND PUMPS TO PROTECT ALL EXCAVATION FROM FLOODING. FLOODING OF ANY EXCAVATION AFTER APPROVAL OF THE SUBGRADE WILL BE CAUSE FOR RE-PREPARATION OF THE SUBGRADE.
- E2. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY MEASURES TO PREVENT ANY WATER, FROST, OR ICE FROM PENETRATING ANY FOOTING OR SLAB SUBGRADE BEFORE AND AFTER CONCRETE POURING AND UNTIL SUCH SUBGRADES ARE FULLY PROTECTED BY THE REINFORCED STRUCTURE.
- E3. REFER TO THE GEOTECH REPORT FOR SUBSURFACE CONDITIONS AND CONSTRUCTION CONSIDERATIONS.

LIGHT FOUNDATION DATA		
MOUNTING HEIGHT	A	B
UP TO 30'	2'-0"	5'-0"

CONCRETE CLASS "KCMMB 4000"

HEAVY HEX GALVANIZED NUTS: (AASHTO M291, GR A)
FLAT WASHERS GALVANIZED: (AASHTO M293)

GENERAL NOTES

- G1. CONTRACTOR TO VERIFY LOCATIONS OF EXISTING UNDERGROUND STRUCTURES AND UTILITIES BEFORE CONSTRUCTING NEW FOUNDATIONS.
- G2. THE CONTRACTOR SHALL FOLLOW WRITTEN DIMENSIONS ONLY. DO NOT SCALE DRAWINGS.
- G3. EXCAVATE SHAFTS FOR DRILLED FOUNDATIONS TO INDICATED ELEVATIONS. REMOVE LOOSE DEBRIS, MATERIALS AND/OR MUCK TO MAKE BOTTOM SURFACES LEVEL WITHIN ACI 336.1 TOLERANCES.
- G4. CONSTRUCTION TOLERANCES:
 - A. BOTTOM DIAMETER; MINUS ZERO, PLUS 6 INCHES, MEASURED IN ANY DIRECTION.
 - B. MAXIMUM VARIATION FROM PLUMB: 1/40.
 - C. MAXIMUM BOTTOM LEVEL: PLUS OR MINUS 2 INCHES.
- G5. AT NO ADDITIONAL COST, PIER SHAFTS AS NECESSARY, PROTECT EXCAVATED WALLS WITH TEMPORARY WATER-TIGHT SEAL CASINGS OF SUFFICIENT LENGTH TO PREVENT WATER INTRUSION, CAVE-INS, DISPLACEMENT OF SURROUNDING EARTH, INJURY TO PERSONNEL AND DAMAGE TO CONSTRUCTION OPERATIONS. MAINTAIN EXCAVATIONS IN ESSENTIALLY DRY CONDITION, USING PUMPS WHERE NECESSARY. REMOVE WATER TO A MAXIMUM DEPTH OF 6 INCHES FROM EXCAVATED SHAFT PRIOR TO CONCRETE PLACEMENT.
- G6. CONVEY CONCRETE FROM THE MIXER TO PLACE OF DEPOSIT BY BEST INDUSTRY METHODS THAT WILL PREVENT SEGREGATION AND LOSS OF MATERIAL. SIZE AND DESIGN THE EQUIPMENT FOR CONVEYING CONCRETE TO ENSURE UNIFORM, CONTINUOUS PLACEMENT OF CONCRETE. PLACE CONCRETE IN ACCORDANCE WITH ACI 318. PLACE CONCRETE IN A CONTINUOUS OPERATION AND WITHOUT SEGREGATION INTO DRY EXCAVATIONS WHENEVER POSSIBLE. USE ALL PRACTICABLE MEANS TO OBTAIN A DRY EXCAVATION BEFORE AND DURING CONCRETE PLACEMENT.
- G7. WHEN PULLING CASING, MAINTAIN LEVEL OF CONCRETE ABOVE BOTTOM OF CASING GREATER OR EQUAL TO LEVEL OF GROUND KEEP BOTTOM OF CASING AT LEAST 10 FEET BELOW TOP OF CONCRETE. PREVENT IN-SITU MATERIALS FROM FALLING INTO AND MIXING WITH CONCRETE. PULL CASING IN SHORT SLOW VERTICAL LIFTS (ESSENTIALLY CONTINUOUS), MAINTAINING PLUMB ALIGNMENT AND SUFFICIENT HEAD OF CONCRETE.
- G8. ALL CONCRETE SHALL BE CLASS KCMMB 4000
- G9. ALL REINFORCING SHALL BE STRUCTURAL GRADE 60 PER ASTM-A615 AND HAVE AT LEAST 3" OF CONCRETE COVER.
- G10. ANCHOR BOLTS ARE TO BE FURNISHED BY THE FOUNDATION CONTRACTOR UNLESS OTHERWISE NOTED. CONTRACTOR SHALL PLACE ALL REBAR SO AS TO NOT INTERFERE WITH ANCHOR BOLTS.
- G11. ALL ABOVE GRADE FOUNDATION SURFACES SHALL BE STEEL TROWEL FINISHED UNLESS OTHERWISE NOTED.
- G12. EACH PIER FOUNDATION SHALL BE CONSTRUCTED IN A SINGLE CONTINUOUS POUR.
- G13. NO EXCAVATION OR VIBRATION-INDUCING ACTIVITIES ARE ALLOWED WITHIN 3 PIER DIAMETERS OF A SUBJECT PIER UNTIL AT LEAST 24 HOURS HAVE ELAPSED SINCE THE TIME OF CONCRETE PLACEMENT. COVER ALL EXCAVATIONS BETWEEN OPERATIONS. REMOVE FOREIGN AND LOOSE MATERIAL FROM APPROVED EXCAVATION.
- G14. THE CONTRACTOR SHALL PROVIDE ALL MEASURES AND PRECAUTIONS NECESSARY TO PREVENT DAMAGE AND/OR SETTLEMENTS OF EXISTING OR NEW CONSTRUCTION INSIDE OR OUTSIDE OF THE PROJECT LIMITS CAUSED BY EXCAVATION AND FOUNDATION CONSTRUCTION. ANY DAMAGE TO NEW OR EXISTING CONSTRUCTION INSIDE OR OUTSIDE OF THE PROJECT LIMITS CAUSED BY CONSTRUCTION TECHNIQUES IS THE RESPONSIBILITY OF THE CONTRACTOR.

SECTION 260000 ELECTRICAL

1. GENERAL CONDITIONS:

- A.

THIS CONTRACTOR SHALL INSPECT THE SITE WHERE THIS WORK IS TO BE PERFORMED AND FULLY FAMILIARIZE HIMSELF WITH ALL CONDITIONS RELATED TO THIS PROJECT.
- B.

THIS CONTRACTOR SHALL OBTAIN AND PAY FOR ALL PERMANENT AND TEMPORARY PERMITS AND LICENSES AND SHALL MAKE ALL DEPOSITS AND PAY ALL FEES REQUIRED FOR THE PERFORMANCE OF WORK UNDER THIS SECTION OTHER THAN THOSE DEPOSITS OR FEES WHICH ARE FULLY REFUNDABLE TO THE OWNER.
- C.

DRAWINGS SHOW THE GENERAL ARRANGEMENT OF ALL SYSTEMS AND COMPONENTS COVERED UNDER THIS SECTION. WHERE LOCAL CONDITIONS NECESSITATE A REARRANGEMENT, THE CONTRACTOR SHALL PREPARE, AND SUBMIT FOR APPROVAL, DRAWINGS OF THE PROPOSED REARRANGEMENT. THIS CONTRACTOR SHALL CAREFULLY INVESTIGATE THE STRUCTURAL AND FINISH CONDITIONS AFFECTING ALL OF HIS WORK AND SHALL ARRANGE SUCH WORK ACCORDINGLY, FURNISHING SUCH FITTINGS AND ACCESSORIES AS MAY BE REQUIRED TO MEET SUCH CONDITIONS AT NO ADDITIONAL COST TO THE OWNER.
- D.

THIS CONTRACTOR SHALL VERIFY ALL DIMENSIONS. DRAWINGS SHALL NOT BE SCALED TO DETERMINE DIMENSIONS.
- E.

SPECIFICATIONS AND DRAWINGS ARE COMPLEMENTARY AND WHAT IS CALLED FOR IN ONE SHALL BE AS BINDING AS IF CALLED FOR BY BOTH.
- F.

FURNISH LABOR, MATERIALS, EQUIPMENT AND SERVICES REQUIRED AS SHOWN ON THE DRAWINGS AND SPECIFIED IN DIVISION 15.
- G.

ALL WORK SHALL BE COMPLETE AND SHALL BE LEFT IN OPERATING CONDITION.
- H.

INCLUDE ALL PARTS AND LABOR WHICH ARE INCIDENTAL AND NECESSARY FOR A COMPLETE AND OPERABLE INSTALLATION EVEN THOUGH NOT SPECIFICALLY MENTIONED IN THE CONTRACT DOCUMENTS. .
- I.

REQUEST INSPECTIONS AS REQUIRED BY REGULATING AGENCIES AND/OR REGULATIONS. PAY ALL CHARGES FOR INSPECTIONS BY REGULATING AGENCIES OF INSTALLATIONS OF PLANS SPECIFICATIONS.
- J.

PROVIDE THE OWNER WITH A CERTIFICATE OF FINAL INSPECTION AND APPROVAL BY ENFORCEMENT AUTHORITIES.
- K.

FURNISH: TO OBTAIN, COORDINATE, SUBMIT THE NECESSARY DRAWINGS, DELIVER TO THE JOB SITE IN NEW CONDITION READY FOR INSTALLATION, UNLOAD AND UNPACK, AND GUARANTEE.
- L.

INSTALL: TO RECEIVE AT THE JOB SITE, STORE, ASSEMBLE, ERECT, SET IN PLACE, ANCHOR, APPLY, FINISH, PROTECT, CLEAN, TEST, START-UP, AND MAKE READY FOR OWNER'S USE.
- M.

PROVIDE: TO FURNISH AND INSTALL.
- N.

PROVIDE NEW MATERIAL AND EQUIPMENT, UNLESS NOTED OTHERWISE. PROTECT EQUIPMENT AND MATERIAL FROM DAMAGE, DIRT AND THE WEATHER.
- O.

THE ENGINEER RESERVES THE RIGHT TO REJECT MATERIAL OR WORKMANSHIP NOT IN ACCORDANCE WITH THE CONTRACT DOCUMENTS, BEFORE OR AFTER INSTALLATION, AT NO ADDITIONAL COST TO THE OWNER.
- P.

REFINISH ALL ELECTRICAL EQUIPMENT DAMAGED DURING SHIPPING, INSTALLATION AND/OR PRIOR TO FINAL ACCEPTANCE TO ITS ORIGINAL CONDITION. REMOVE ALL RUST, PRIME, AND PAINT PER MANUFACTURER'S RECOMMENDATIONS FOR FINISH EQUAL TO ORIGINAL.
- Q.

PROTECT OPENINGS AND EQUIPMENT FROM OBSTRUCTION, BREAKAGE, MISUSE, DAMAGE OR BLEMISHES. PROTECT MATERIALS AND EQUIPMENT IMMEDIATELY UPON RECEIPT AT THE JOB SITE OR IMMEDIATELY AFTER THEY HAVE BEEN REMOVED FROM THEIR SHIPPING CONTAINERS. UNLESS NOTED OTHERWISE, KEEP THEM CLEAN AND UNDAMAGED UNTIL FINAL ACCEPTANCE OF THE ENTIRE PROJECT BY THE OWNER. WHEN A PORTION OF THE BUILDING IS OCCUPIED BY THE OWNER BEFORE SUBSTANTIAL COMPLETION OF THE ENTIRE PROJECT, MAKE ARRANGEMENTS TO TRANSFER RESPONSIBILITY FOR PROTECTION AND HOUSEKEEPING FOR THE OCCUPIED PORTION.
- R.

CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE TO ELECTRICAL EQUIPMENT, MATERIALS OR WORK UNTIL FINAL ACCEPTANCE OF THE ENTIRE PROJECT BY THE OWNER.
- S.

KEEP THE PREMISES FREE FROM ACCUMULATION OF WASTE MATERIAL OR RUBBISH, CAUSED BY HIS EMPLOYEES OR WORK, AT ALL TIMES. REMOVE RUBBISH, TOOLS, SCAFFOLDING, AND SURPLUS MATERIALS FROM AND ABOUT THE BUILDING, AND LEAVE WORK AREAS "BROOM CLEAN" OR ITS EQUIVALENT DAILY. CLEAN ELECTRICAL EQUIPMENT AND REMOVE TEMPORARY IDENTIFICATION.
- T.

OPERATE EQUIPMENT AND SYSTEMS IN ALL THEIR OPERATING MODES, TO VERIFY PROPER OPERATION, PRIOR TO FINAL FIELD OBSERVATION AND OWNER INSTRUCTIONS. PREPARE A PRE-INSPECTION REPORT AND SUBMIT TO THE ENGINEER AND OWNER FOR REVIEW.
- U.

TEST ALL INSTALLED ELECTRICAL EQUIPMENT AND CABLES REQUIRED BY CONSTRUCTION DOCUMENTS ACCORDING TO THE REQUIREMENTS OF THE MOST CURRENT EDITION OF THE INTERNATIONAL ELECTRICAL TESTING ASSOCIATION, INC. (NETA). IF ACCEPTABLE PERFORMANCE OF ANY TEST IS NOT ACHIEVED, MAKE THE NECESSARY CORRECTIONS AND THE TEST SHALL BE REPEATED UNTIL ACCEPTABLE PERFORMANCE IS ACHIEVED. PROVIDE WRITTEN REPORTS OF ALL TESTS, WITH FAILURES IDENTIFIED, TO ENGINEER.
- V.

FULLY INSTRUCT THE OWNER'S DESIGNATED PERSONNEL IN THE OPERATION OF EACH ELECTRICAL SYSTEM AT THE TIME IT IS PUT INTO SERVICE. PROVIDE INSTRUCTION USING COMPETENT INSTRUCTORS AND FACTORY TRAINED PERSONNEL.
- W.

CONTRACTOR SHALL INSTALL ALL MATERIALS AND EQUIPMENT AS PER MANUFACTURER'S WRITTEN INSTRUCTIONS AND/OR RECOMMENDATIONS.
- X.

CONTRACTOR SHALL PROVIDE SHOP DRAWINGS FOR ALL EQUIPMENT INDICATED AND/OR REQUIRED FOR A COMPLETE AND OPERATIONAL SYSTEM. A FORM INDICATING ALL SHOP DRAWINGS TO BE PROVIDED AS PART OF THE PROJECT SHALL BE SUBMITTED FOR REVIEW BY THE ENGINEER PRIOR TO ANY SHOP DRAWING SUBMITTAL REVIEW.
- Y.

THIS SPECIFICATION SHALL INCORPORATE ALL PROJECT REQUIREMENTS AND RESPONSIBILITIES INDICATED WITHIN THE FRONT-END OF THE PROJECT MANUAL.

2. LAWS, REGULATIONS, ORDINANCES, STATUTES AND CODES:

- A.

ALL WORK SHALL BE INSTALLED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE, THE NATIONAL FIRE PROTECTION ASSOCIATION CODES, THE NATIONAL ELECTRICAL SAFETY CODE, LOCAL BUILDING CODE, AND ALL APPLICABLE LOCAL LAWS, REGULATIONS, ORDINANCES, STATUTES AND CODES. SHOULD ANY WORK SHOWN ON THE DRAWINGS OR SPECIFIED HEREIN BE OF LOWER STANDARD, THE CONTRACTOR SHALL REFER THE POINTS IN QUESTION TO THE ENGINEER FOR APPROVAL.

3. SCOPE OF WORK:

- A.

WORK UNDER THIS SECTION SHALL CONSIST OF FURNISHING ALL LABOR, MATERIAL AND ASSOCIATED SERVICES REQUIRED TO COMPLETELY CONSTRUCT AND LEAVE ALL SYSTEMS OPERATIONAL AS SHOWN ON THE

DRAWINGS AND HEREIN DESCRIBED.

- B.

ALL WORK PERFORMED UNDER THIS SECTION SHALL BE DONE IN A NEAT AND WORKMANLIKE MANNER.

4. MATERIALS AND EQUIPMENT REVIEW:

- A.

AS SOON AS POSSIBLE AFTER THE AWARD OF THE CONTRACT, THIS CONTRACTOR SHALL SUBMIT FOR REVIEW SHOP DRAWINGS FOR ALL EQUIPMENT TO BE FURNISHED FOR THIS PROJECT. SUBMITTALS SHALL HIGHLIGHT THE MANUFACTURER'S NAME, MODEL NUMBER, DESCRIPTIVE ENGINEERING DATA AND ALL NECESSARY INFORMATION AS TO FINISH, MATERIAL GAUGES AND ACCESSORIES.
- B.

ALL PORTIONS OF THE SHOP DRAWINGS THAT ARE INTENDED TO BE REVIEWED SHALL BE HIGHLIGHTED. ANY PORTION NOT CALLED OUT SHALL BE ASSUMED TO BE EXCLUDED FROM THE JOB.

5. GUARANTEE:

- A.

THIS CONTRACTOR SHALL GUARANTEE COMPLETE SYSTEM OPERATION AND THAT THE APPARATUS FURNISHED AND INSTALLED WILL BE FREE FROM DEFECTS IN WORKMANSHIP AND MATERIALS AND WILL GIVE SATISFACTORY SERVICE. THE CONTRACTOR AGREES TO REPLACE, WITHOUT EXPENSE TO THE OWNER, ANY PART OF THE INSTALLATION WHICH PROVES OR BECOMES DEFECTIVE WITHIN ONE YEAR AFTER THE SYSTEM IS ACCEPTED.

6. COORDINATION:

- A.

THIS CONTRACTOR SHALL EXAMINE ALL ARCHITECTURAL, MECHANICAL, STRUCTURAL AND OTHER DRAWINGS RELATED TO THIS PROJECT, AND IT SHALL BE HIS RESPONSIBILITY TO COORDINATE THE ELECTRICAL WORK WITH OTHER TRADES.

7. AS-BUILT DRAWINGS:

- A.

THIS CONTRACTOR SHALL PREPARE COMPLETE AS-BUILT DRAWINGS OF ALL ELECTRICAL SYSTEMS AND TURN OVER TO THE ENGINEER REVISED ELECTRONIC CAD FILES.
- B.

THIS CONTRACTOR SHALL PREPARE AND SUBMIT TO THE OWNER'S REPRESENTATIVE FIVE BOUND SETS OF MANUFACTURER'S LITERATURE FOR ALL EQUIPMENT TO BE INSTALLED ON THIS PROJECT SHOWING ALL DETAILS OF EQUIPMENT, REPLACEMENT PART DATA AND MAINTENANCE INSTRUCTIONS.

8. EXCAVATION:

- A.

ALL EXCAVATION AND BACKFILL REQUIRED FOR THE INSTALLATION OF ELECTRICAL WORK SHALL BE THE COMPLETE RESPONSIBILITY OF THE CONTRACTOR.
- B.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER LAYOUT AND THE ESTABLISHMENT OF ALL LINES AND LEVELS REQUIRED FOR THE EXECUTION OF THE WORK.
- C.

WHEN SERVICES ARE TO BE RUN SIDE-BY- SIDE, A COMMON TRENCH MAY BE USED PROVIDING THE REQUIRED VERTICAL AND HORIZONTAL SEPARATION BETWEEN THE VARIOUS SERVICES ARE MAINTAINED AND PROVIDING THE METHODS OF BEDDING AND BACKFILL MEET THE APPROVAL OF THE ENGINEER. CONTRACTORS INVOLVED SHALL MAKE THEIR OWN AGREEMENT AS TO THE SHARING OF THE COST OF THE COMMON TRENCHING AND BACKFILL WORK.
- D.

LOCATE EXISTING UNDERGROUND UTILITIES IN AREAS OF EXCAVATION WORK. SHOULD UNCHARTED, OR INCORRECTLY CHARTED, PIPING OR OTHER UTILITIES BE ENCOUNTERED DURING EXCAVATION, CONSULT UTILITY ENGINEER IMMEDIATELY FOR DIRECTIONS. COOPERATE WITH OWNER AND UTILITY COMPANIES IN KEEPING RESPECTIVE SERVICES AND FACILITIES IN OPERATION. REPAIR DAMAGED UTILITIES TO SATISFACTION OF UTILITY OWNER.

9. EXTERIOR AND FOUNDATION WALLS:

- A.

ALL PIPING THROUGH EXTERIOR OR FOUNDATION WALLS SHALL PASS THROUGH SCHEDULE 40 GALVANIZED STEEL SLEEVES WHICH SHALL BE LARGE ENOUGH TO ALLOW FOR CAULKING MATERIAL. NO SLEEVES ARE PERMITTED THROUGH CONCRETE STRUCTURAL MEMBERS. ALL SLEEVES SHALL BE COORDINATED AND APPROVED BY THE STRUCTURAL ENGINEER PRIOR TO INSTALLATION.

10.FLOORS:

- A.

ALL PIPING THROUGH FLOORS SHALL BE PROVIDED WITH SCHEDULE 40 GALVANIZED STEEL PIPE SLEEVES, EXTENDING 2 INCHES ABOVE FLOOR.

11.CUTTING:

- A.

ALL CUTTING OF EXISTING CONCRETE FLOORS/SLABS ON GRADE IN THE INTERIOR OF THE BUILDING SHALL BE PERFORMED BY "SAW CUTTING".

12.PATCHING:

- A.

ON CONCRETE, PATCH THE OPENING WITH CONCRETE, FINISHED SMOOTH WITH ADJACENT SURFACES.

13.IDENTIFICATION OF SWITCHES AND APPARATUS:

- A.

ALL CABINETS, SAFETY SWITCHES, AND OTHER APPARATUS USED FOR OPERATION AND CONTROL OF CIRCUITS, APPLIANCES, AND EQUIPMENT UNDER THIS CONTRACT SHALL BE PROPERLY IDENTIFIED BY MEANS OF ENGRAVED PLASTIC PLATES BLACK WITH WHITE LETTERS.

14.GROUNDING:

- A.

ALL FEEDERS AND BRANCH CIRCUITS SHALL CONTAIN GROUND WIRES.
- B.

ALL CONDUCTORS, MOTOR FRAMES, RACEWAYS, CABINETS, ETC., THAT REQUIRE GROUNDING SHALL BE GROUNDED IN ACCORDANCE WITH THE REQUIREMENTS OF ARTICLE 250 OF THE NATIONAL ELECTRICAL CODE, THOSE OF THE SERVING UTILITY AND LOCAL AUTHORITIES HAVING JURISDICTION.

15.CONDUIT:

- A.

ALL ELECTRICAL POWER WIRING, INCLUDING LOW VOLTAGE WIRING, SHALL BE INSTALLED IN CONDUIT AS HEREIN SPECIFIED. NO CONDUIT OR TUBING OF LESS THAN 3/4 INCH NOMINAL SIZE SHALL BE USED.
- B.

UNDERGROUND CONDUIT SHALL BE SCHEDULE 40 AS MANUFACTURED BY CARLON OR APPROVED EQUAL. ALL CONDUITS SHALL BE INSTALLED WITH MINIMUM 36" INCH COVER.
- C.

CONDUIT INSTALLED ABOVE GROUND EXTERIOR SHALL BE GALVANIZED RIGID STEEL AS MANUFACTURED BY THE ALLIED TUBE AND CONDUIT CORPORATION OR APPROVED EQUAL. CONDUIT SHALL BE SHERARDIZED OR HOT-DIP GALVANIZED INSIDE AND OUTSIDE INCLUDING ENDS AND THREADS AND ENAMELED OR LACQUERED INSIDE IN ADDITION TO GALVANIZING.
- D.

WHEN PVC CONDUITS PENETRATE CONCRETE FLOOR CONSTRUCTION, CONTRACTOR SHALL USE RIGID STEEL ELBOWS AND EXTENSION. PVC CONDUIT/FITTINGS SHALL NOT BE PERMITTED TO BE EXPOSED ABOVE THE FLOOR.
- E.

THIN WALL TUBING SHALL BE REPUBLIC "ELECTRUNITE E.M.T." OR APPROVED EQUAL. SHALL BE INSTALLED INDOORS.

- F.

ALL FITTINGS SHALL BE OF THE COMPRESSION TYPE AND SHALL BE WATERTIGHT.
- G.

CONDUIT FOR INTERIOR WIRING, IN GENERAL, SHALL BE THINWALL TUBING UNLESS OTHERWISE NOTED.
- H.

RACEWAYS SHALL BE CONTINUOUS FROM OUTLET TO OUTLET AND FITTING TO FITTING. A RUN OF CONDUIT BETWEEN OUTLETS OR FITTINGS SHALL NOT CONTAIN MORE THAN THE EQUIVALENT OF FOUR QUARTER-BENDS INCLUDING THOSE BENDS LOCATED IMMEDIATELY AT THE OUTLET OR FITTING. THE RADIUS OF BENDS SHALL NEVER BE SHORTER THAN THAT OF THE CORRESPONDING TRADE ELBOW. THE SYSTEM SHALL BE COMPLETE WITH OUTLETS, DISTRIBUTION BOXES, ETC., SMOOTH INSIDE AND MECHANICALLY SECURE IN PLACE. APPROVED STRAPS, HANGERS, OR SUPPORTS SHALL BE USED TO SECURE CONDUITS IN PLACE. CONDUITS SHALL, IN GENERAL, BE SUPPORTED AT INTERVALS NOT EXCEEDING 10'-0" AND WITHIN 3'-0" OF EACH OUTLET BOX, JUNCTION BOX, CABINET OR FITTING.
- I.

CONDUITS SHALL BE PROTECTED DURING CONSTRUCTION; PLUG AND KEEP CLEAN AND DRY. CONDUIT ENDS SHALL BE BUTTED IN CENTERS OF COUPLINGS. NO CRACKS OR FLATTENED SECTIONS WILL BE PERMITTED AT BENDS OR ELSEWHERE. ALL ENDS OF CONDUIT SHALL BE REAMED TO REMOVE ROUGH EDGES. RUNNING THREADS WILL NOT BE PERMITTED.
- J.

CONDUITS SHALL BE CONCEALED WITHIN THE WALLS, CEILINGS, AND FLOORS WHERE POSSIBLE AND UNLESS OTHERWISE NOTED. EXPOSED CONDUIT SHALL BE RUN PARALLEL TO OR AT RIGHT ANGLES WITH THE BUILDING LINES.

18.WIRE AND CABLE:

- A.

WIRE AND CABLE SHALL BE AMERICAN INSULATED WIRE CORP., GENERAL CABLE CORP., SENATOR WIRE AND CABLE CORP. SOUTHWIRE OR APPROVED EQUAL, OF SIZES AS SHOWN ON THE DRAWINGS OR HEREIN SPECIFIED.
- B.

ALL CONDUCTORS SHALL BE COPPER.
- C.

NO. 10 AWG AND SMALLER CONDUCTORS SHALL BE SOLID WITH INSULATION AND NO. 8 AWG AND LARGER CONDUCTORS SHALL BE STRANDED WITH TYPE THHN/THWN INSULATION EXCEPT THAT CONDUCTORS WITHIN 3 INCHES OF LIGHT FIXTURE BALLASTS SHALL HAVE RHH, THHN, OR EQUAL INSULATION RATED FOR 90 DEGREES C. APPLICATION.

olsson

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Overland Park, KS 66213-4750
TEL 913.381.1170
www.olson.com

STATE OF MISSOURI
TIMOTHY J. DANHER
NUMBER
PE-2019031265

BY

REVISIONS DESCRIPTION

DATE

REV. NO.

SITE LIGHTING SPECIFICATIONS
FINAL DEVELOPMENT PLAN

MIDWEST WASH
HWY 291 & THOMPSON DRIVE

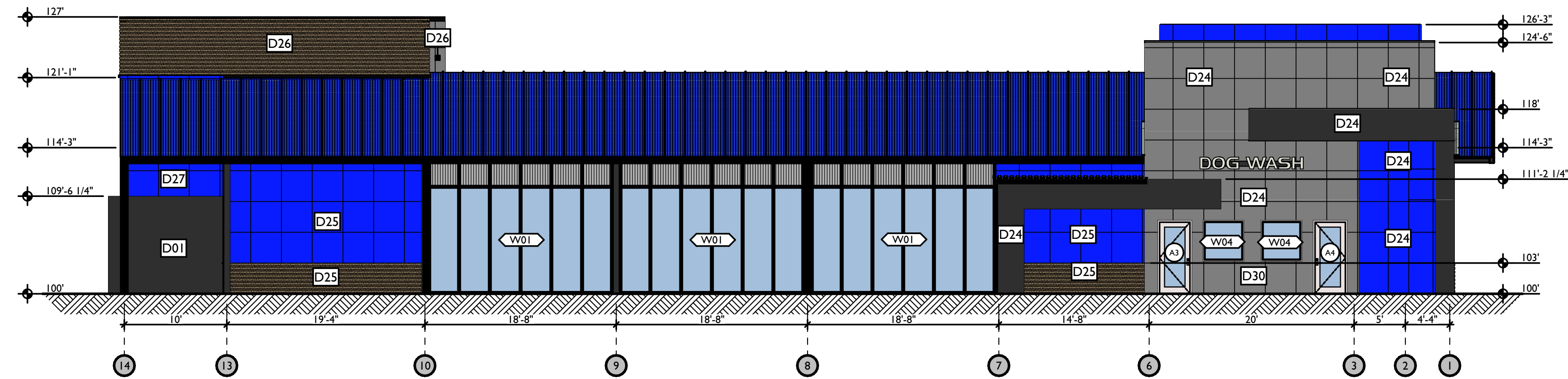
LEE'S SUMMIT, MISSOURI

2022

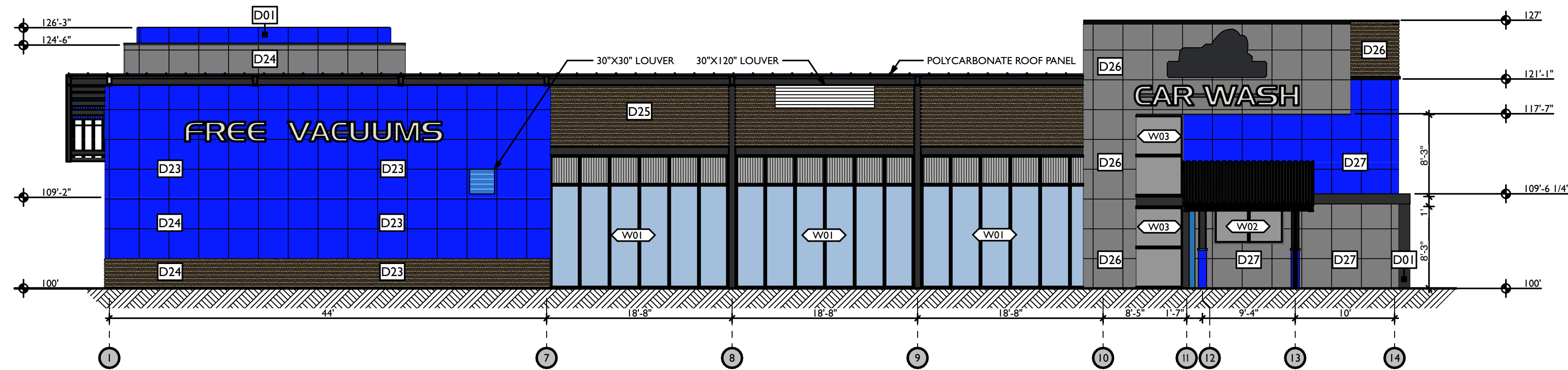
drawn by: SH
checked by: TD
approved by: TD
QA/QC by: TD
project no.: 022-04040
drawing no.:
date: 05.05.2023

SHEET
E400

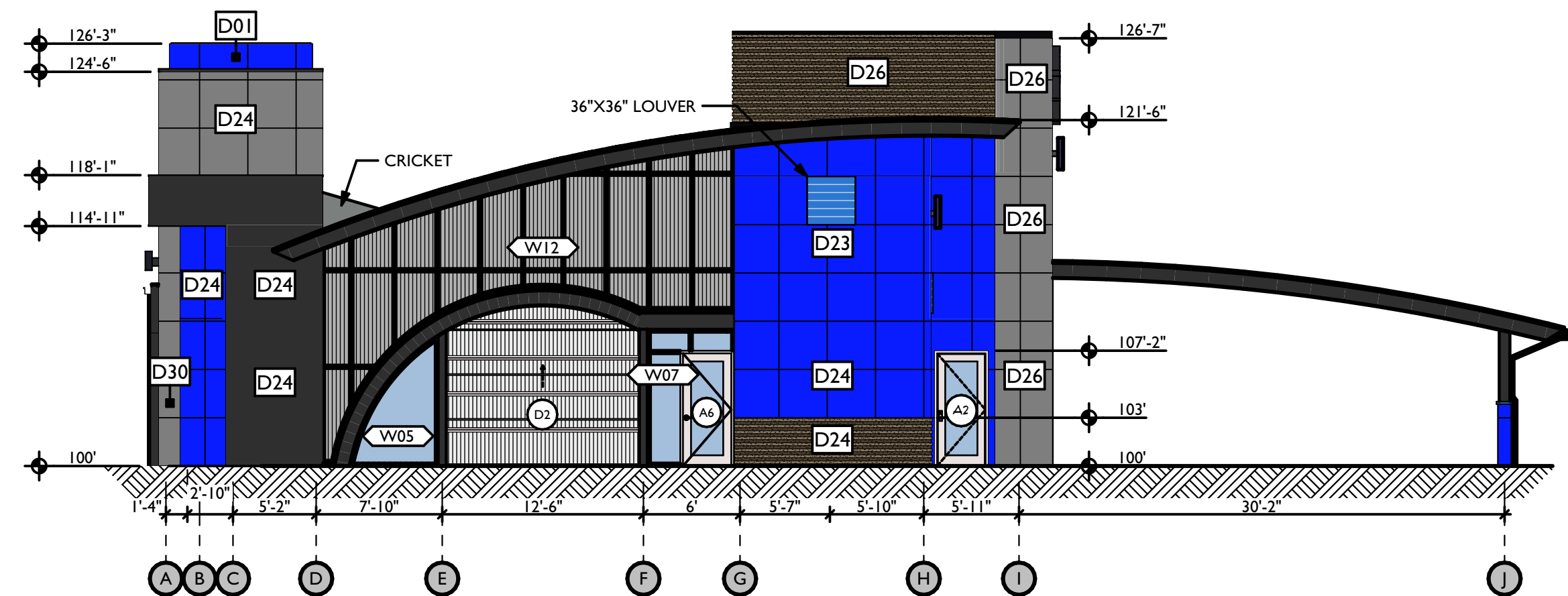
NOTE: ACM GRID SPACING IN ELEVATIONS IS GENERIC. SEE ACM LAYOUT FOR FINAL PANEL PLACEMENT & SPACING.



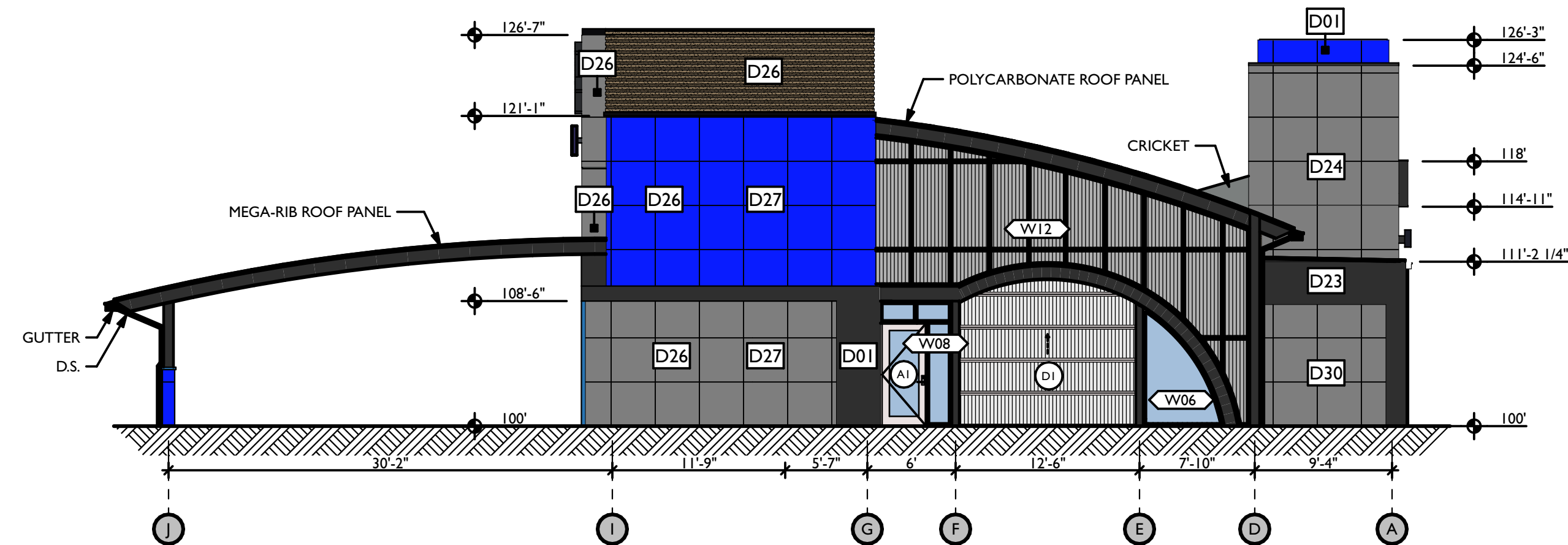
A ELEVATION - NORTH
SCALE: 1/8" = 1'-0"



G ELEVATION - SOUTH
SCALE: 1/8" = 1'-0"



K ELEVATION - WEST
SCALE: 1/8" = 1'-0"



M ELEVATION - EAST
SCALE: 1/8" = 1'-0"

REVISIONS		DESCRIPTION
ID	DATE	FOR PERMIT
0	05/03/2023	

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MODERNWASH
5220 SCOTTSVILLE ROAD
BOWLING GREEN, KY 42104

MODEL: AXIOM BETA
RETAIL TOWER
2023

15 OF 39

NEW CAR WASH FOR:

TUNNEL VISION CAR WASH

20 SE THOMPSON DR
LEE'S SUMMIT, MO 64081



USE QR CODE FOR MOST CURRENT PROJECT DRAWINGS.



PRELIMINARY
PLOT DATE: 5/3/23
DRAWN BY: EWH, CBH
CHECKED BY: #####

SHEET:

MW-4.1

ELEVATIONS