

## GENERAL NOTES

## UTILITY CONTACTS

LOCATES: MISSOURI ONE CALL SYSTEM	811/800-DIG-RITE
WATER & SEWER: CITY OF LEE'S SUMMIT	816-969-1940
ELECTRIC: KANSAS CITY POWER & LIGHT	816-471-5275
GAS: SPIRE	816-969-2298
CABLE TV: COMCAST CABLEVISION	816-795-1100
TIME WARNER	816-358-8833
TELEPHONE: SBC/AT&T	800-464-7928

## SITE LOCATION MAP

## SHEET INDEX:

C001	COVER
C051	TRAFFIC CONTROL PLAN
C101	INTERSECTION IMPROVEMENTS
C501-502	CIVIL DETAILS
TC101	SIGNAL PLAN
TC102	WIRING PLAN
TC103	SIGNAL QUANTITIES
TC501-503	SIGNAL DETAILS

## DEVELOPER

**Townsend Summit, LLC**  
11311 McCormick Road, Suite 470  
Hunt Valley, Maryland 21031  
PH (816) 251-4100  
CONTACT: Steve Rich

FEMA INFORMATION:

This tract is located in an  
"Area of Minimal Flood Hazard",  
as shown on FEMA FIRM Panel  
#29095C0417G, dated  
1-20-17.

ALL CONSTRUCTION SHALL CONFORM TO THE CITY OF LEE'S SUMMIT DESIGN AND CONSTRUCTION MANUAL, ORDINANCE NO. 5813. PORTIONS OF THE KANSAS CITY APWA SPECIFICATIONS HAVE BEEN INCORPORATED INTO THE LEE'S SUMMIT DESIGN AND CONSTRUCTION MANUAL. THE CITY OF LEE'S SUMMIT DESIGN AND CONSTRUCTION MANUAL IS THE FINAL AUTHORITY.

PREPARED & SUBMITTED BY:

**ANDERSON ENGINEERING, INC.**  
**COLUMBIA, MISSOURI**

Thomas P. Wooten, P.E.  
Missouri: P.E. No E-2000150081

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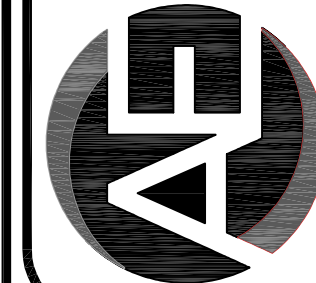
**EMERY SAPP & SONS**

## SHIPMAN & DONOVAN INTERSECTION TRAFFIC SIGNAL IMPROVEMENTS

COVER

LEE'S SUMMIT, MISSOURI

SHEET NUMBER  
**C001**  
1 OF 11



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EMPLOYEE OWNED

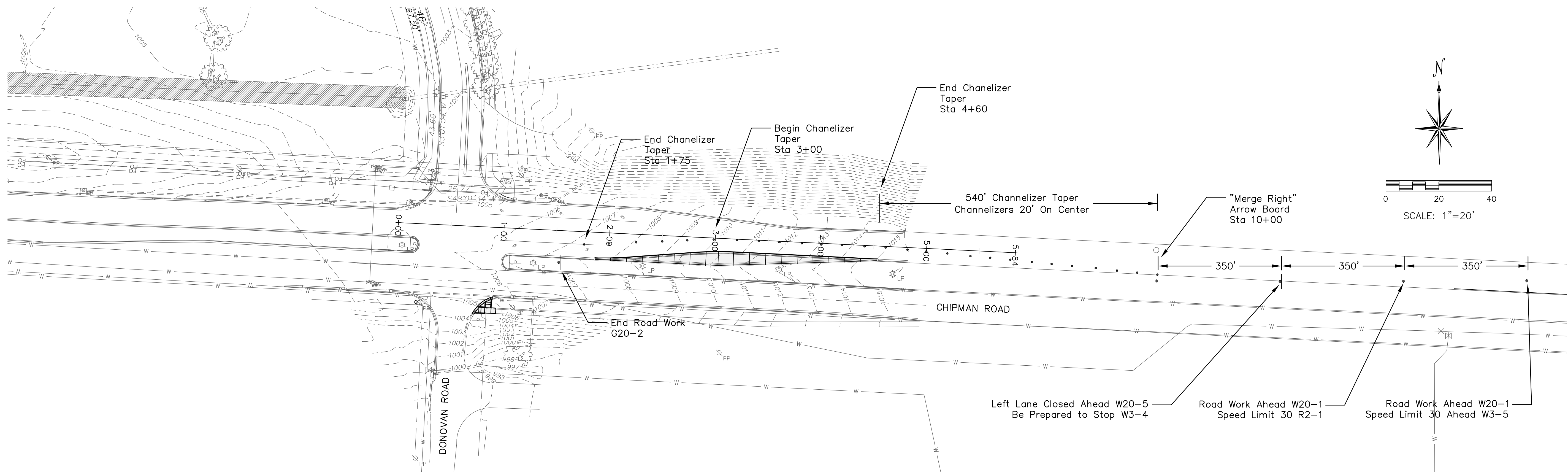
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A LICENSED MISSOURI ENGINEERING & SURVEYING CORPORATION  
MISSOURI CERTIFICATE OF AUTHORITY #0000062 EXPIRES 12/31/2019

REVISIONS			DRAWING INFO.	
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				LICENSE NO. E-2000150081
				DATE: 6-21-2019
				FIELD BOOK:
				JOB NUMBER: 19CO 10003

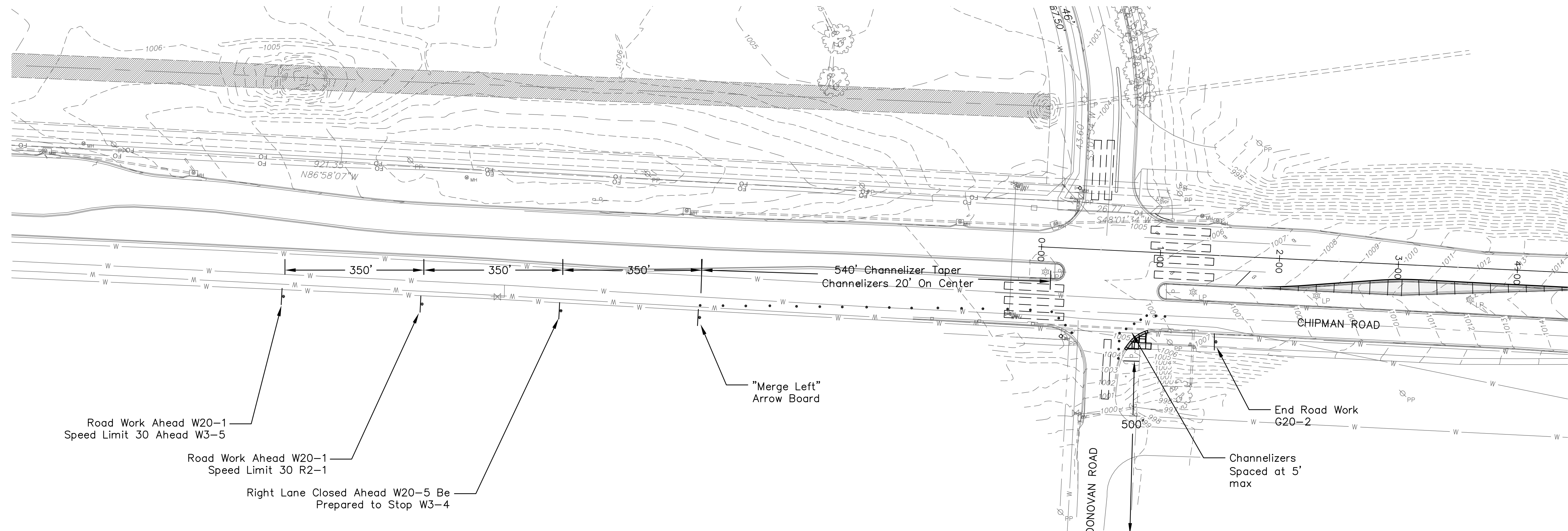
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Jul 25, 2019 - 10:21am Plotted By: CO Eng2 G:\AE-COL\1-Projects\190010003 - ESS Chipman and Donovan Signal\Draw\190010003 Plans.dwg Layout: C051

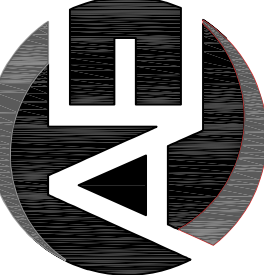


**TURN LANE WIDENING**



**SIDEWALK/RAMP CONSTRUCTION AT  
SOUTHEAST CORNER OF INTERSECTION**

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NO.	DESCRIPTION

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CHIPMAN & DONOVAN INTERSECTION  
TRAFFIC SIGNAL IMPROVEMENTS

THOMAS  
P. WOOTEN  
NUMBER  
E-2000150081  
7-25-19  
REGISTERED PROFESSIONAL ENGINEER

SHEET NUMBER  
**C051**  
2 OF 11

Traffic Control Plan  
LEE'S SUMMIT, MISSOURI





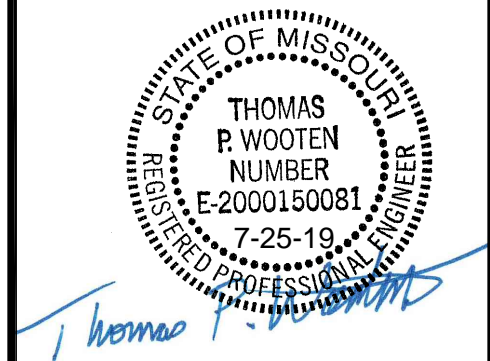
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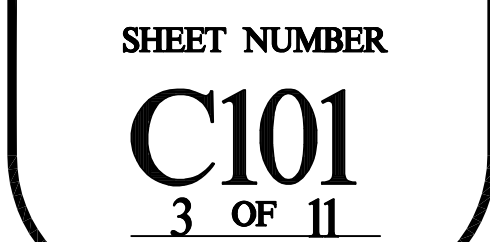
EMERY SAPP & SONS  
CHIPMAN & DONOVAN INTERSECTION  
TRAFFIC SIGNAL IMPROVEMENTS

**Intersection Improvements**

LEE'S SUMMIT, MISSOURI

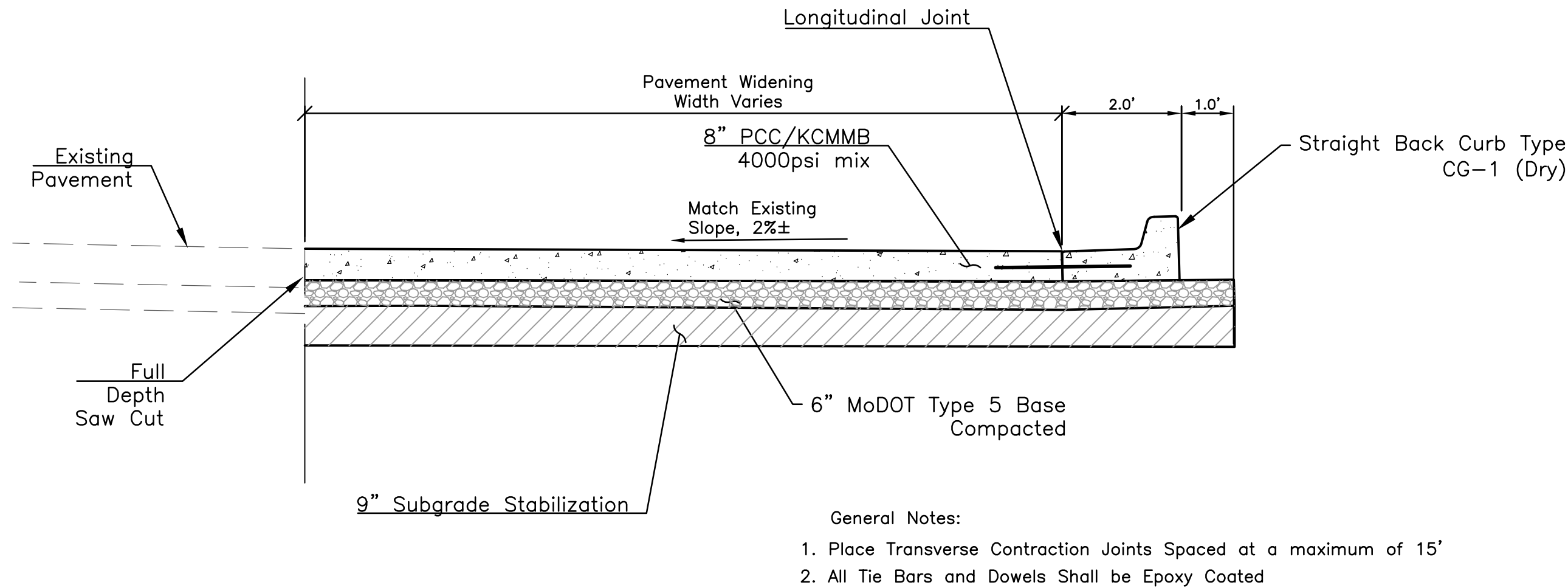


**SHEET NUMBER**  
**C101**  
3 OF 11

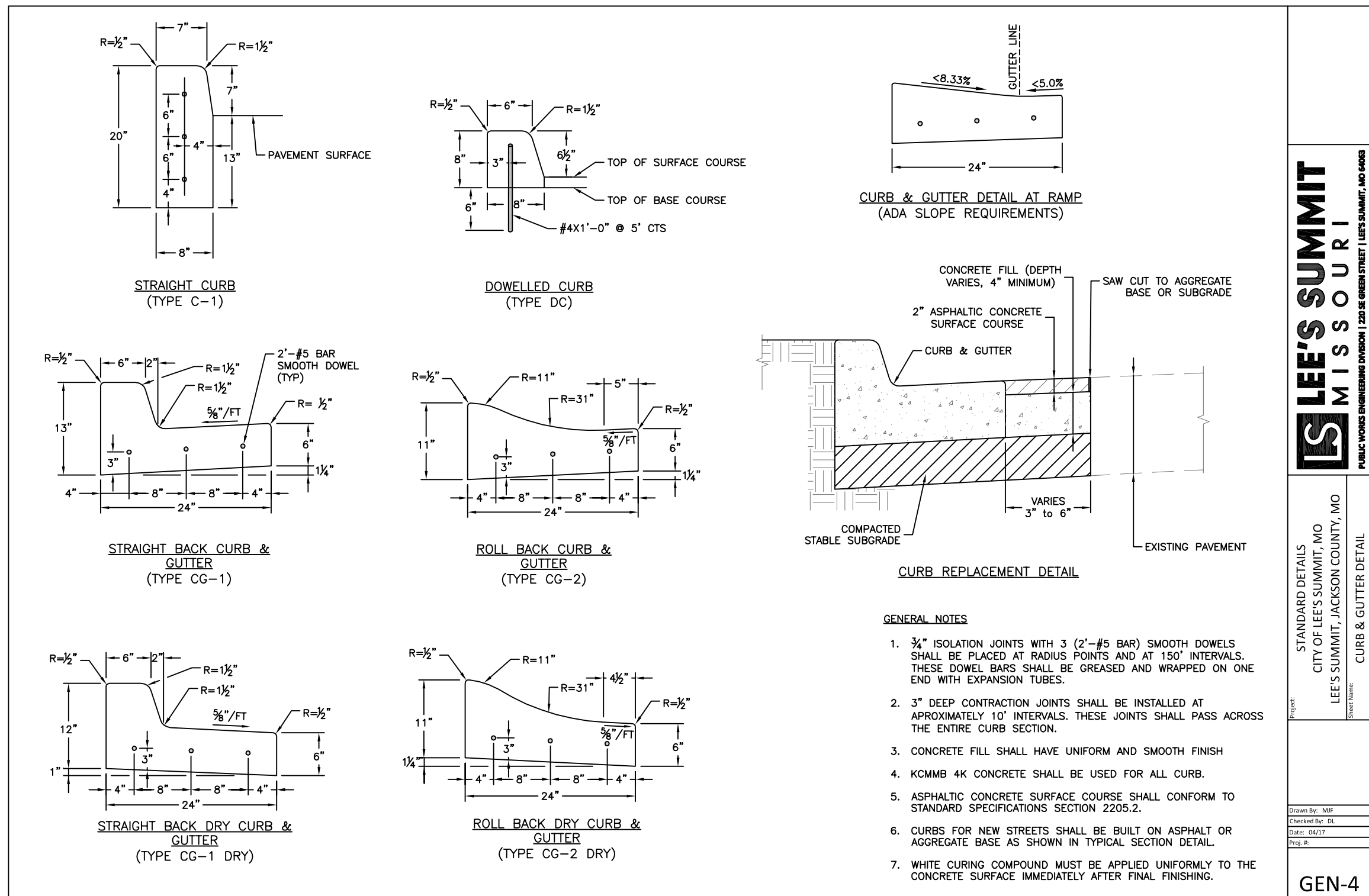


## DEMOLITION PLAN





1 PAVEMENT WIDENING  
C501 N.T.S.



2 CURB & GUTTER DETAIL  
C501 N.T.S.

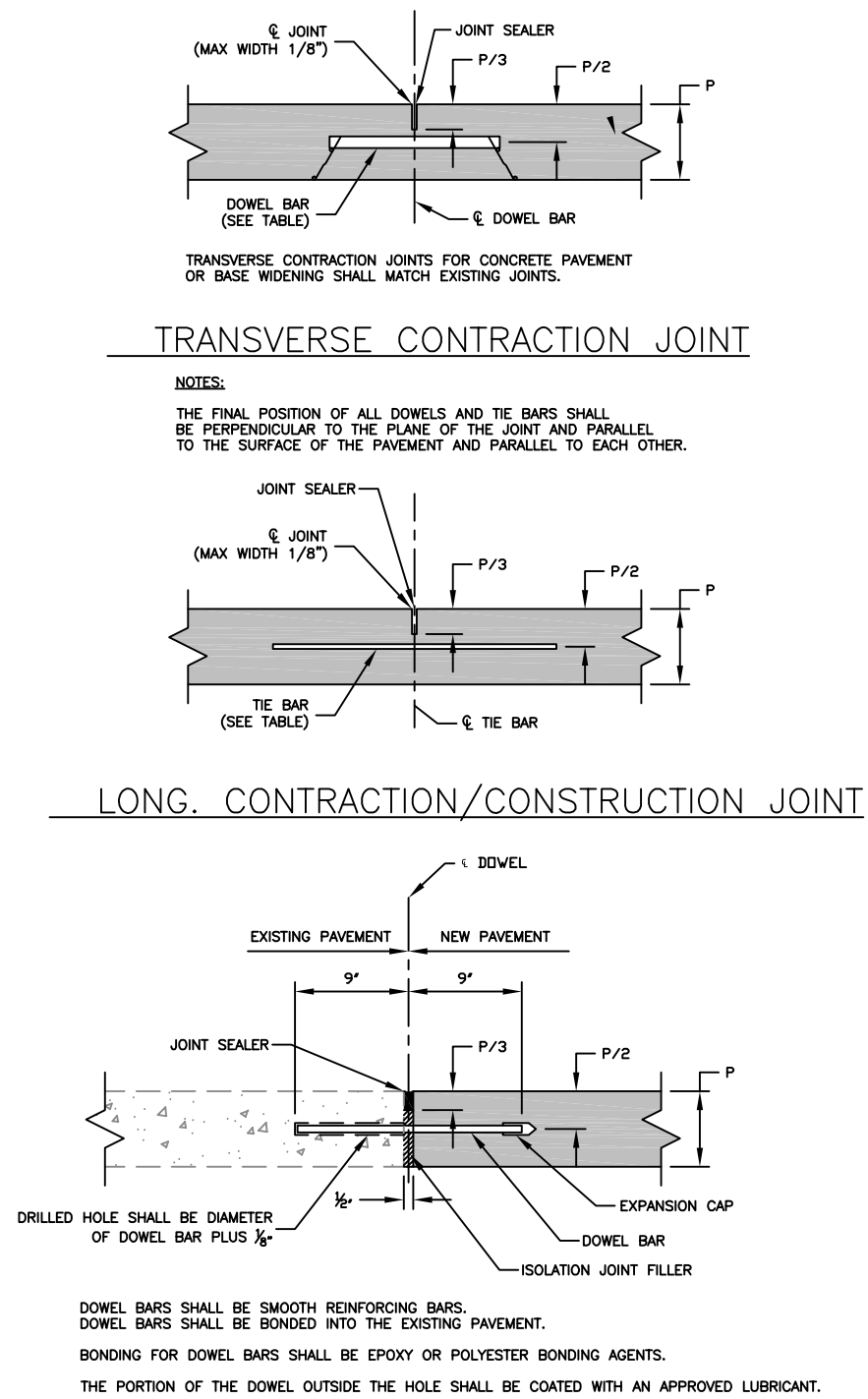
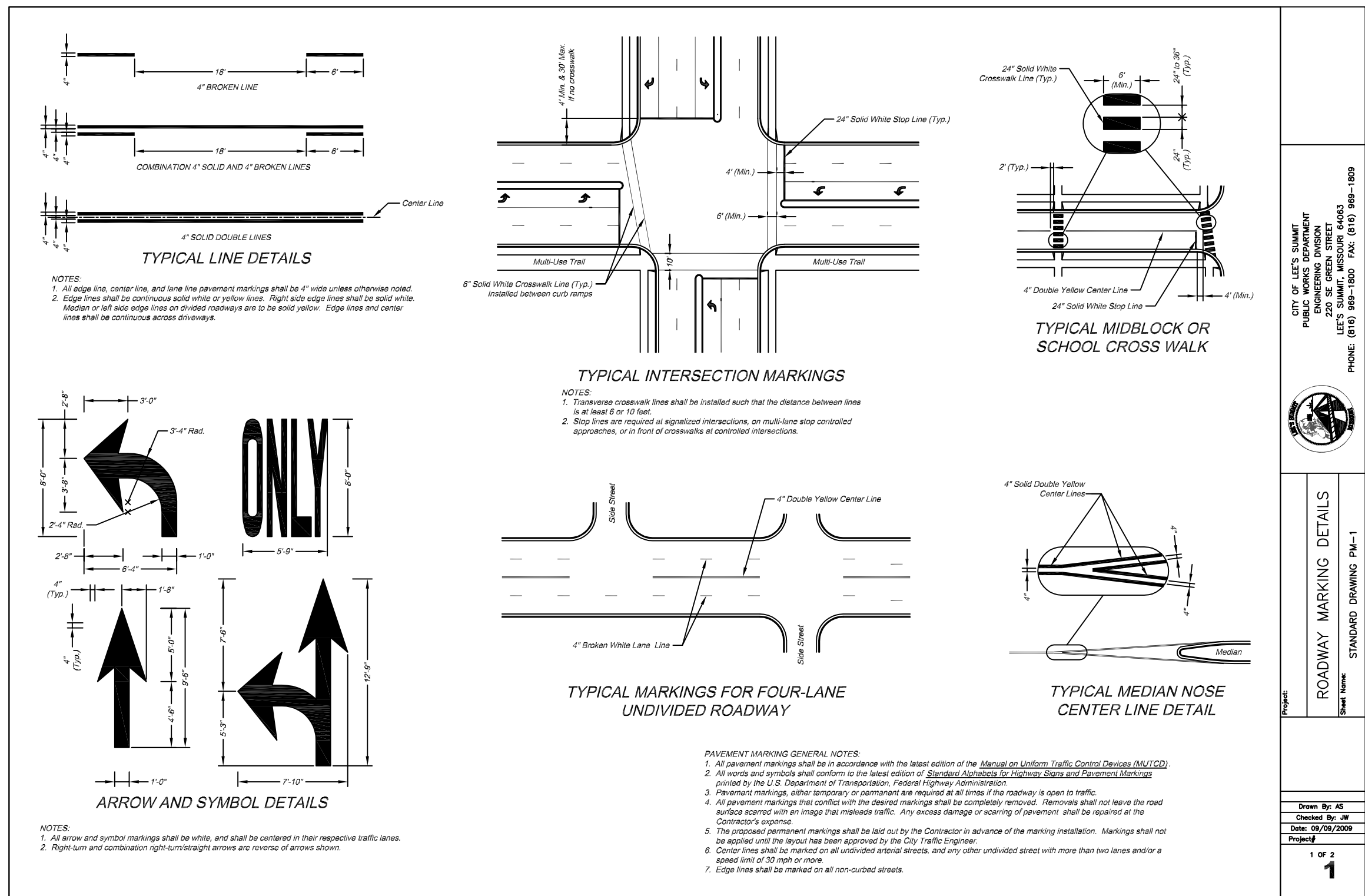


TABLE				
POOP THICKNESS (P)	DOWEL SIZE	TIE BAR SIZE	DOWEL SPACING	TIE BAR SPACING
8"	1 1/2" x 18"	#5 x 30"	12" CTRS.	30" CTRS.
6"	N/A	#5 x 30"	N/A	30" CTRS.

GENERAL NOTES:

THE FINAL POSITION OF ALL DOWELS AND TIE BARS SHALL BE PERPENDICULAR TO THE PLANE OF THE JOINT AND PARALLEL TO THE SURFACE OF THE PAVEMENT AND PARALLEL TO EACH OTHER.



3 ROADWAY MARKING DETAILS  
C501 N.T.S.

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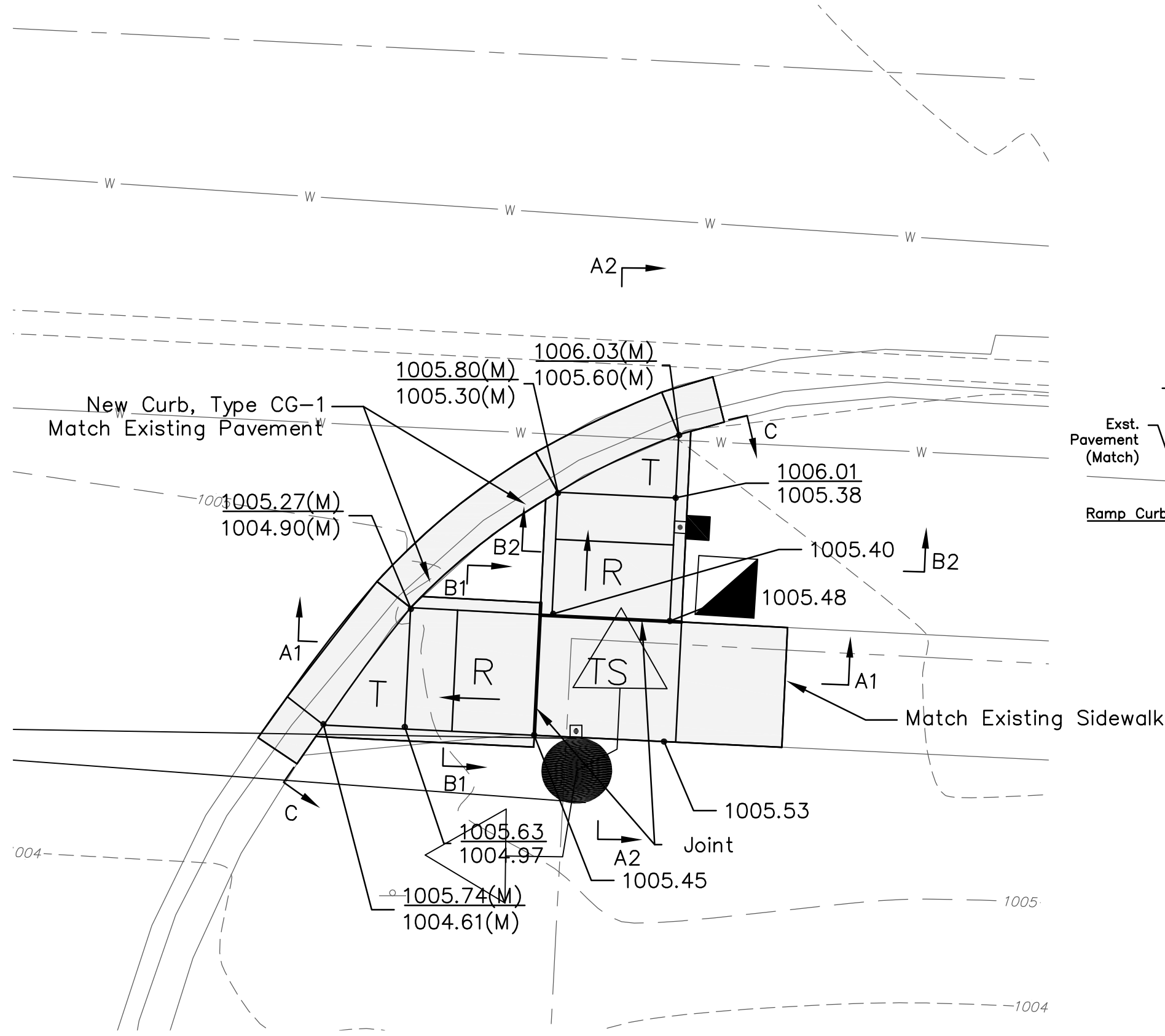
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CHIPMAN & DONOVAN INTERSECTION  
TRAFFIC SIGNAL IMPROVEMENTS  
ROAD WIDENING  
CIVIL DETAILS  
LEE'S SUMMIT, MISSOURI

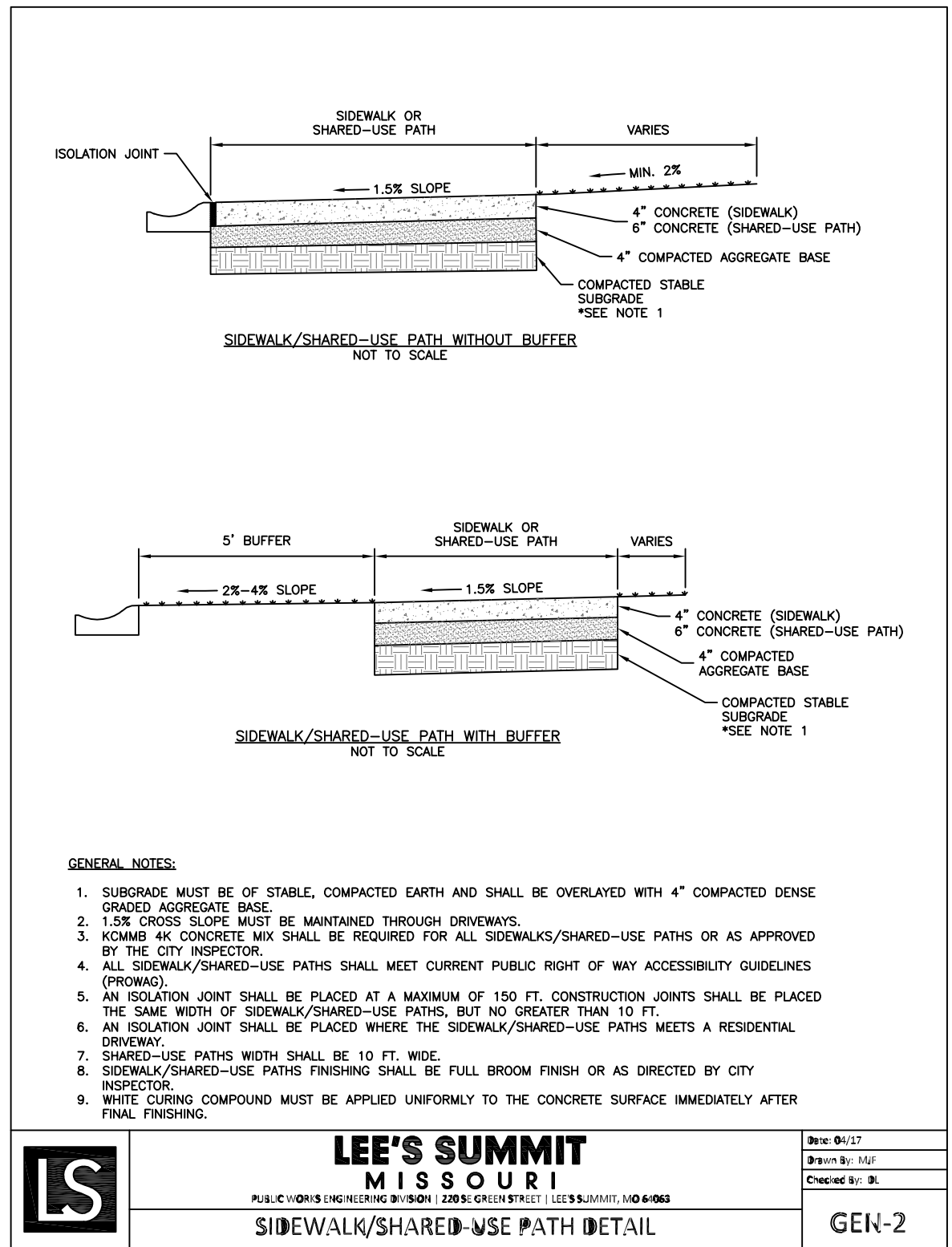
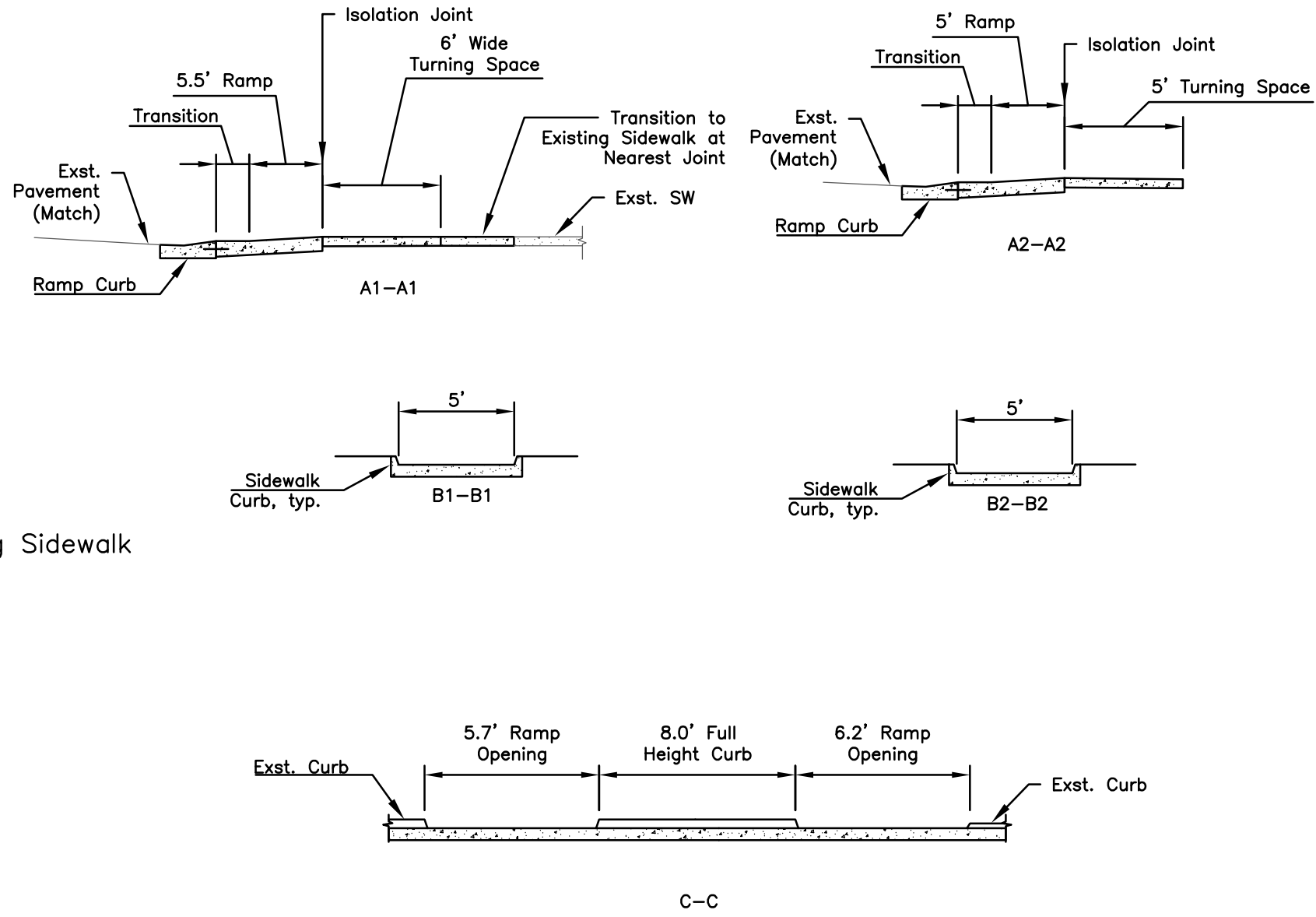
STATE OF MISSOURI  
THOMAS P. WOOTEN  
NUMBER  
E-2000150081  
7-25-19  
REGISTERED PROFESSIONAL ENGINEER

SHEET NUMBER  
**C501**  
4 OF 11

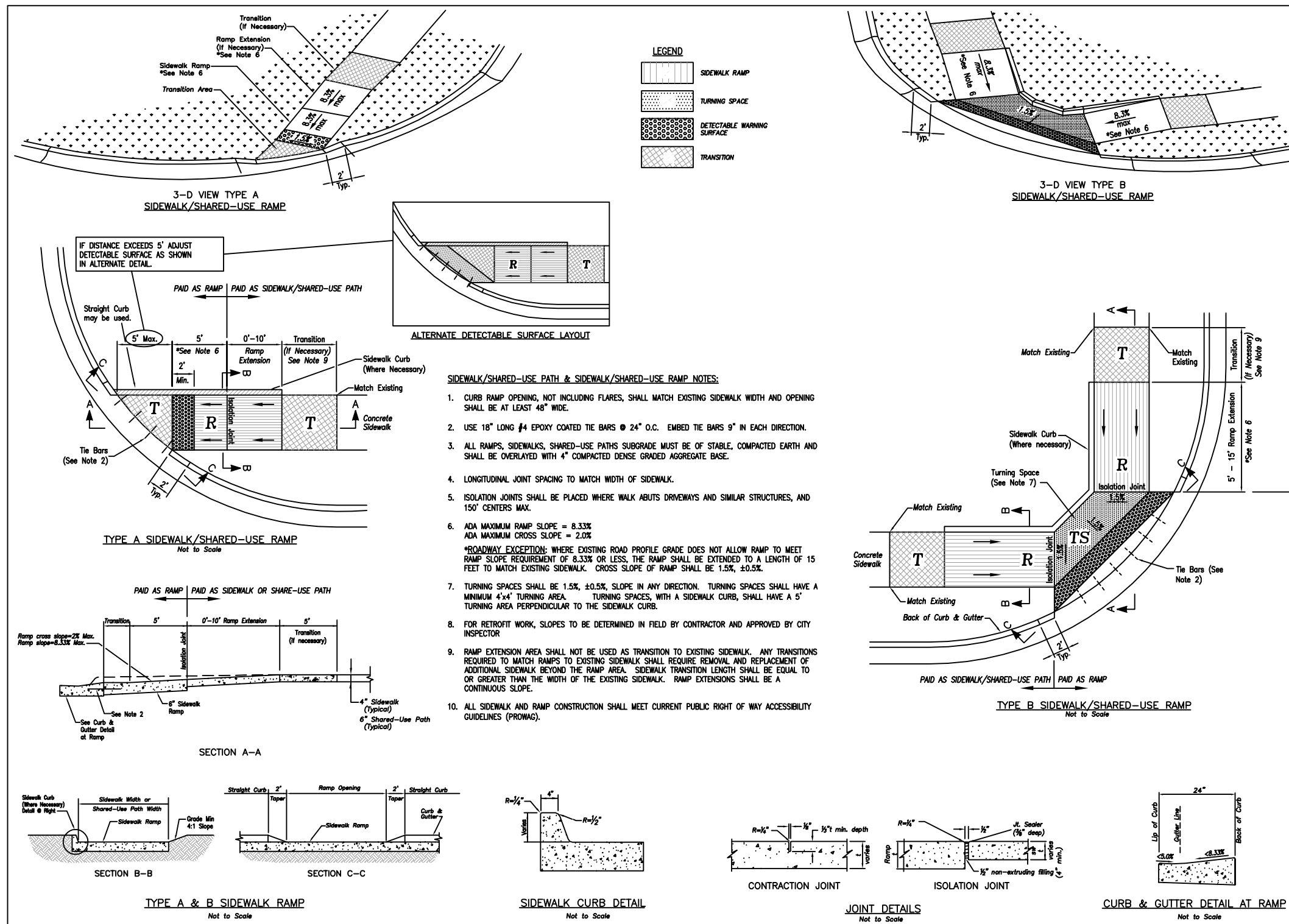




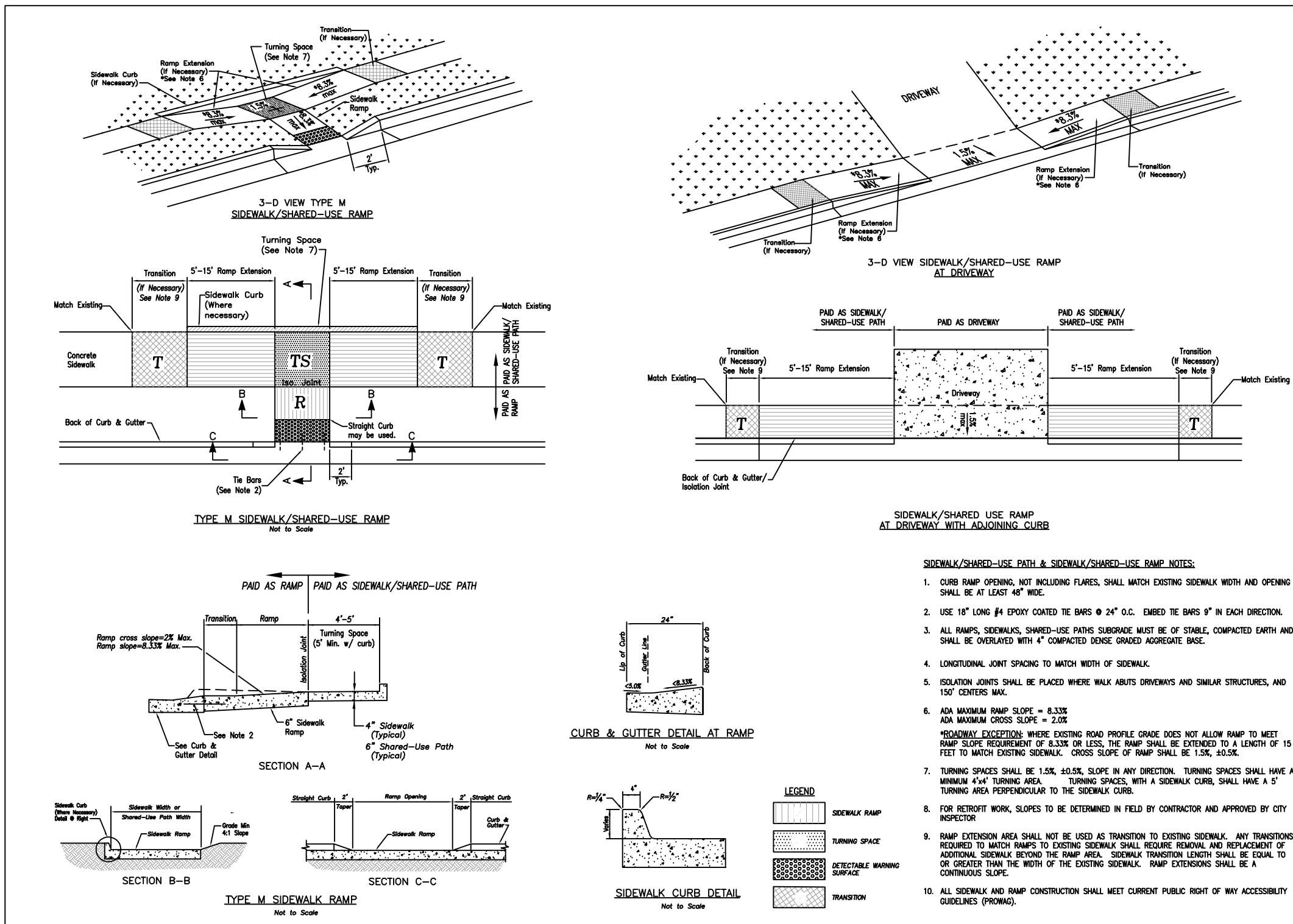
1 ENLARGED PLAN - NEW SIDEWALK AND RAMPS  
C502 1"=5'



2 SIDEWALK DETAIL  
C502 N.T.S.

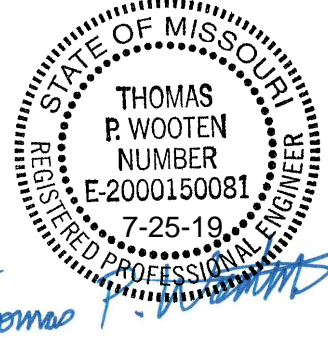


3 ADA RAMP  
C502 RETROFIT DETAIL  
N.T.S.



4 ADA RAMP RETROFIT DETAIL  
C502 RETROFIT DETAIL  
N.T.S.

EMERY SAPP & SONS  
CHIPMAN & DONOVAN INTERSECTION  
TRAFFIC SIGNAL IMPROVEMENTS  
ROAD WIDENING  
CIVIL DETAILS  
LEE'S SUMMIT, MISSOURI



SHEET NUMBER  
C502  
5 OF 11

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EMPLOYEE OWNED

**AF**

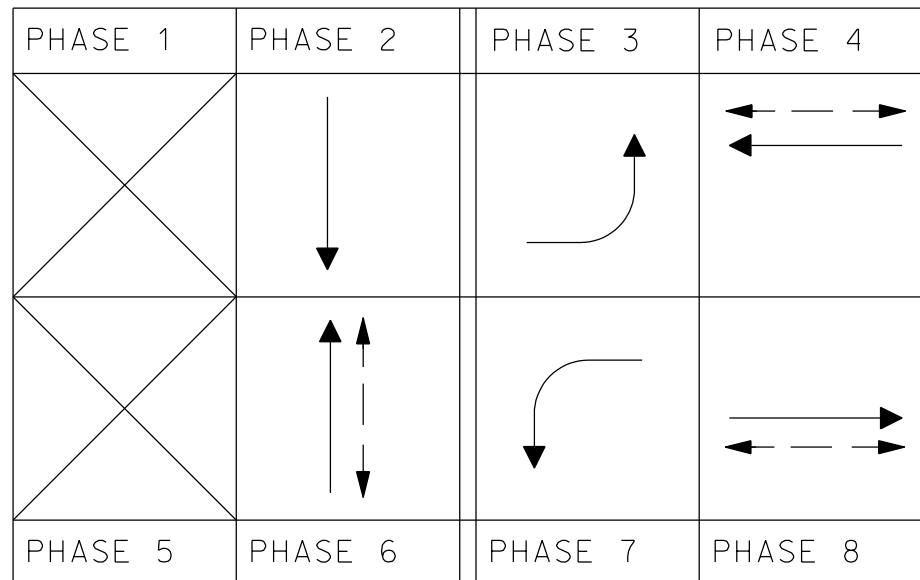
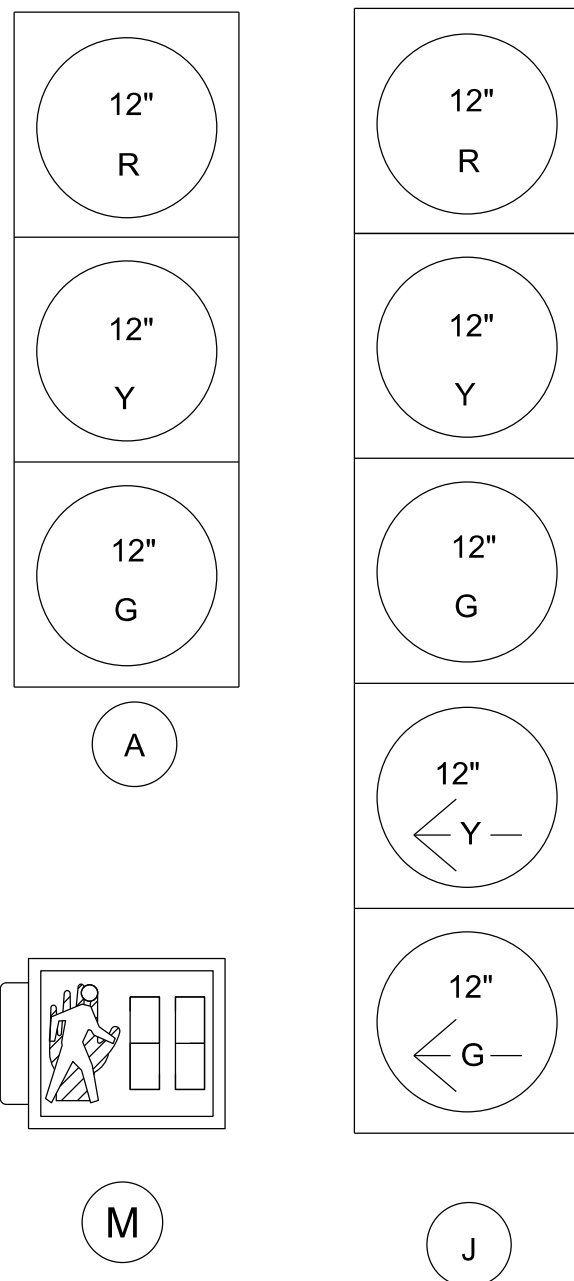
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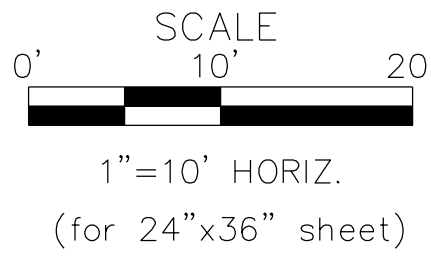
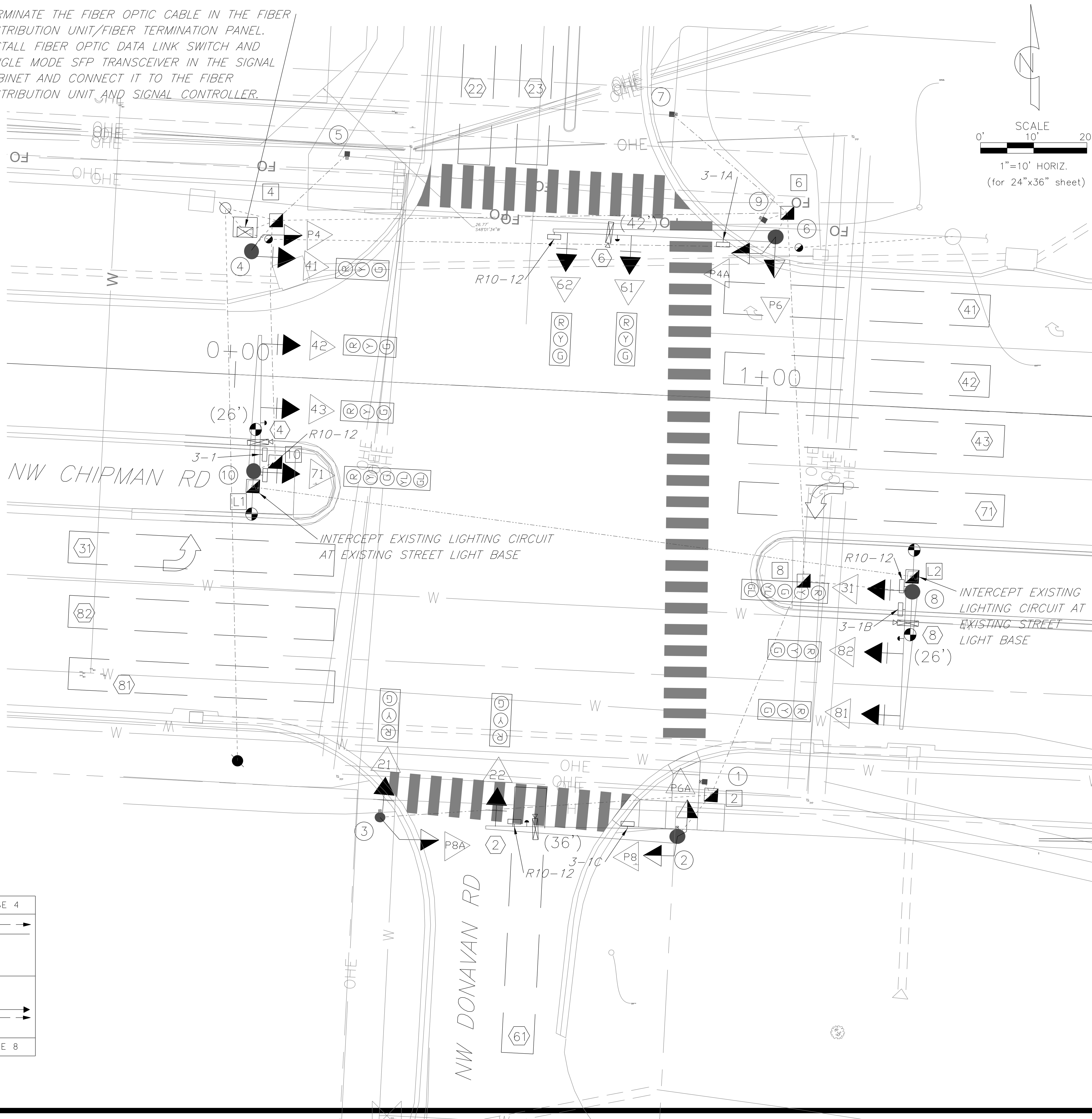


# POLE AND PULL BOX LOCATIONS

NO.		STATION	OFFSET
Pole	Pull Box		
1		0+91.96	72.2' RT
2		0+87.29	82.7' RT
3		0+31.28	82.1' RT
4		0+01.95	23.5' LT
5		0+19.01	42.4' LT
6		1+00.24	30.8' LT
7		0+79.62	52.9' LT
8		1+29.18	34.5' RT
9		0+97.92	33.9' LT
10		0+04.38	18.0' RT
2		0+93.25	74.6' RT
4		0+06.30	29.3' LT
6		1+02.23	35.4' LT
8		1+08.67	33.5' RT
10		0+08.36	16.0' RT
F1		0+05.70	25.7' LT
F2		1+04.71	29.0' LT
L1		0+04.39	20.8' RT
L2		1+29.03	31.7' RT
CONTROLLER		0+00.56	26.8' LT



TERMINATE THE FIBER OPTIC CABLE IN THE FIBER DISTRIBUTION UNIT/FIBER TERMINATION PANEL. INSTALL FIBER OPTIC DATA LINK SWITCH AND SINGLE MODE SFP TRANSCEIVER IN THE SIGNAL CABINET AND CONNECT IT TO THE FIBER DISTRIBUTION UNIT AND SIGNAL CONTROLLER.



NOTES:  
 1. ALL MATERIALS AND CONSTRUCTION METHODS FOR THE TRAFFIC SIGNAL INSTALLATION SHALL CONFORM TO THE CURRENT CITY OF LEE'S SUMMIT TRAFFIC SIGNAL SPECIFICATION: SECTION 2900 (AVAILABLE ON-LINE) AND TO THE TRAFFIC SIGNAL STANDARD DRAWINGS TS-1 THROUGH TS-9 AS CONTAINED IN THESE CONSTRUCTION DOCUMENTS. THE MATERIALS AND WORKMANSHIP SHALL BE SUBJECT TO THE INSPECTION AND APPROVAL OF THE CITY OF LEE'S SUMMIT PUBLIC WORKS DEPARTMENT.

2. THE CONTRACTOR SHALL STAKE THE LOCATION OF ALL POLE BASES, PULL BOXES, AND THE CONTROLLER CABINET FOR REVIEW AND APPROVAL BY THE CITY OF LEE'S SUMMIT PUBLIC WORKS DEPARTMENT PRIOR TO PROCEEDING WITH CONSTRUCTION.

3. EXISTENCE AND LOCATIONS OF ALL UTILITIES ARE TAKEN FROM AVAILABLE SOURCES, BUT SHOULD BE CONSIDERED APPROXIMATE ONLY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL SITE CONDITIONS, INCLUDING LOCATIONS AND DEPTHS OF UTILITIES, AND TAKE CAUTION SO AS TO NOT DAMAGE UTILITIES AND TO MAINTAIN REQUIRED CLEARANCES (OVERHEAD AND UNDERGROUND) THROUGHOUT CONSTRUCTION.

4. THE CONTRACTOR SHALL COORDINATE ALL ELECTRICAL POWER AND CONNECTION REQUIREMENTS DIRECTLY WITH THE UTILITY COMPANY.

5. CONTRACTOR SHALL COORDINATE AND SCHEDULE TURN-ON WITH THE CITY OF LEE'S SUMMIT.

6. ALL DISTURBED AREAS SHALL BE RESTORED, AT THE CONTRACTOR'S EXPENSE, TO MATCH ADJACENT UNDISTURBED AREAS.

## LEGEND

- PULL BOX
- FIBER PULL BOX
- PULL BOX LABEL
- POST LABEL
- POST WITH MAST ARM AND LUMINAIRE
- 15' PEDISTAL POLE
- 4' POLE WITH PUSH BUTTON
- PUSHBUTTON DETECTION
- DETECTION LABEL
- SIGNAL HEAD WITH LABEL
- PEDESTRIAN SIGNAL HEAD WITH LABEL
- SIGNAL CONTROLLER
- POWER SUPPLY
- POWER SOURCE
- SIGNAL HEAD INDICATION
- TRENCHED CONDUIT
- PUSHED CONDUIT
- EXISTING LIGHTING CONDUIT

NO.	BY	CD	DATE	REVISION
1	KLS	JUS	9-4-2019	REVISED PER CITY COMMENT
2	KLS	JUS	7-22-2019	SUBMITTED FOR REVIEW

**Priority ENGINEERS**  
 PO Box 563  
 Garden City, MO 64747  
 816.738.4400



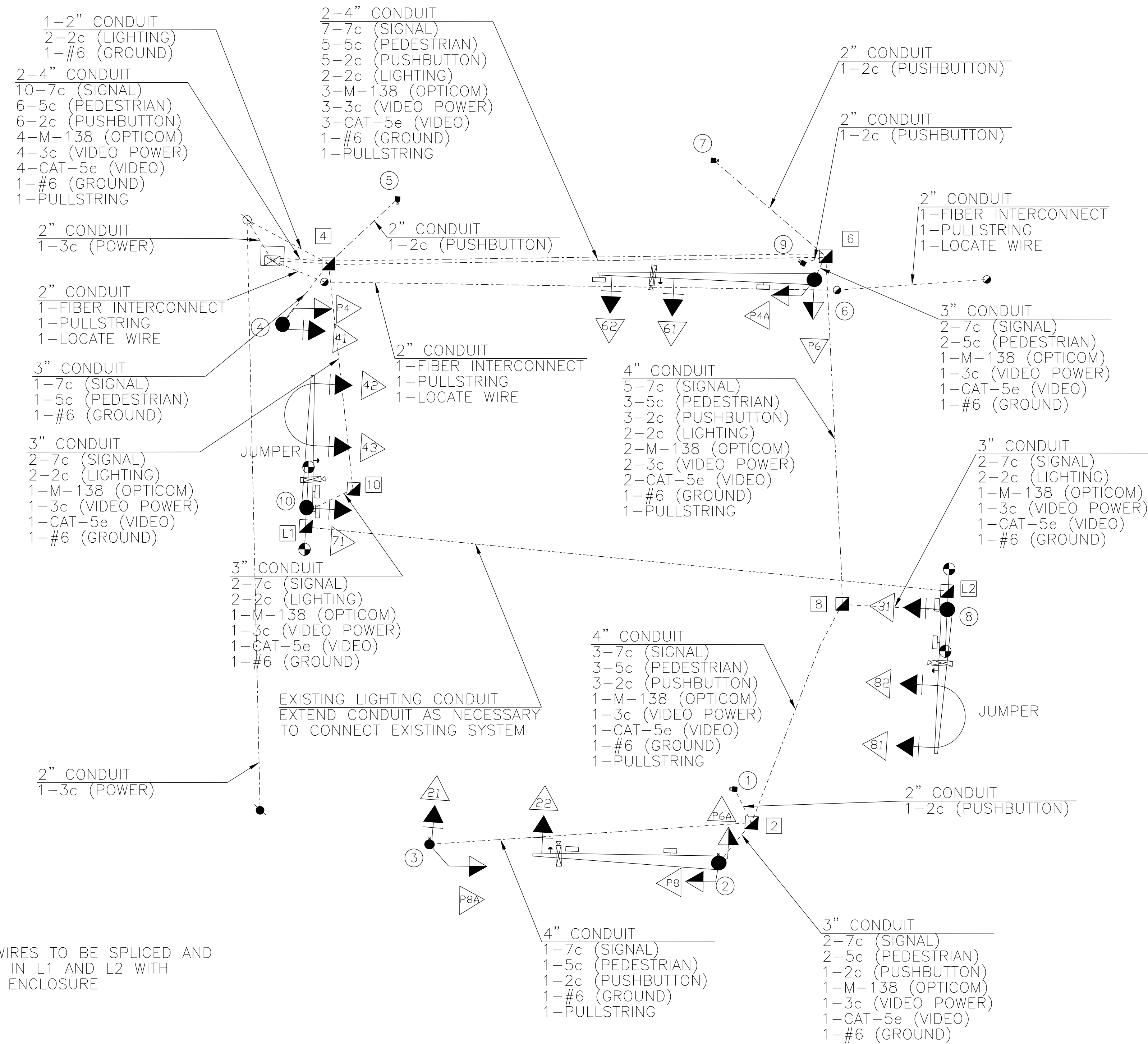


NO.	BY	DATE	REVISION
1	KLS	9-4-2019	REVISED PER CITY COMMENT
2	KLS	7-22-2019	SUBMITTED FOR REVIEW

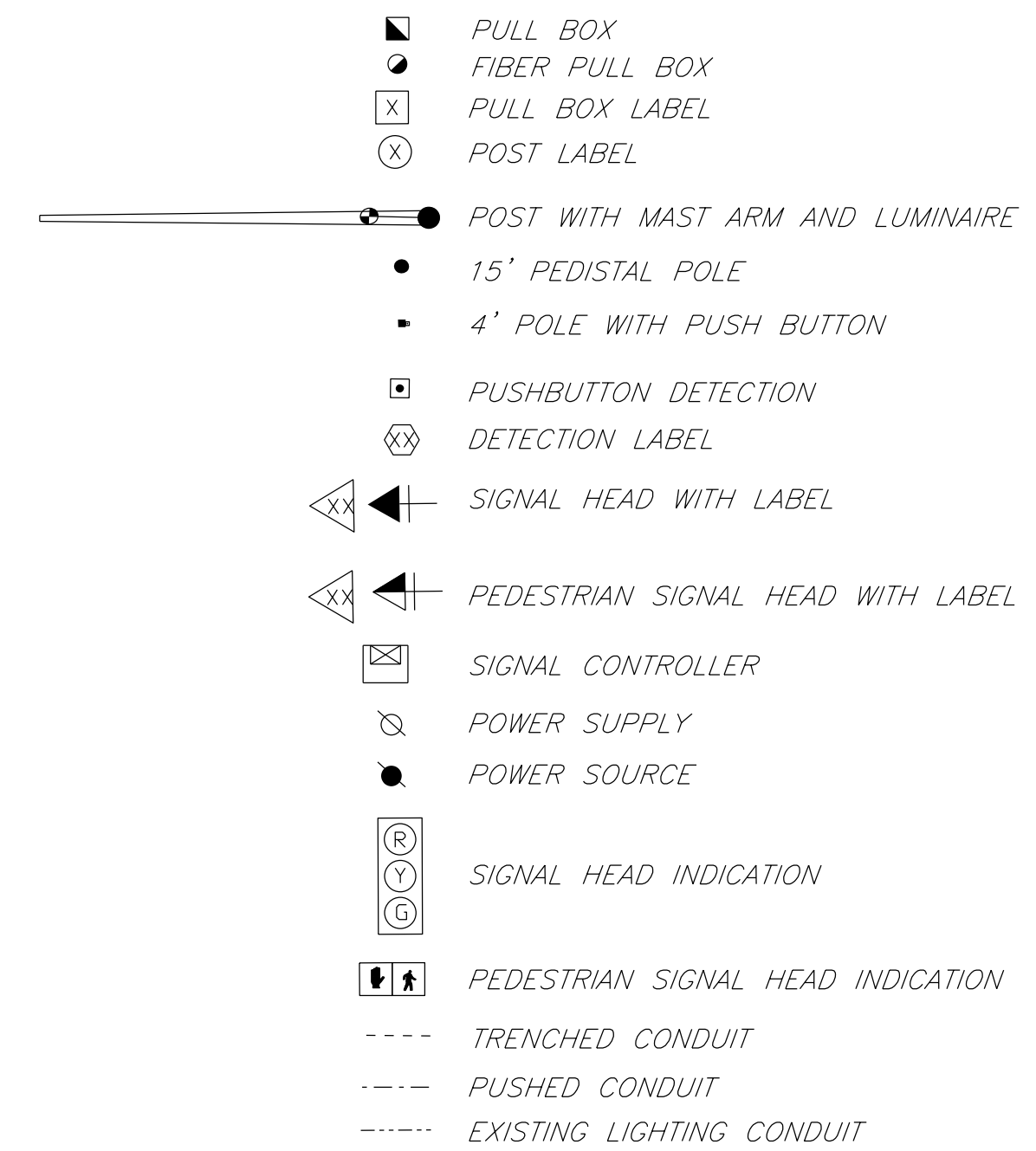
Priority  
ENGINEERS  
PO Box 563  
Garden City, MO 64747  
816.738.4400



## WIRING DIAGRAM



## LEGEND





[illegible]

9-4-19

\*NOTE: Signal head spacing (feet) may be adjusted to site conditions as approved by the project inspector.

P – Pole Mounted Signal Head  
M – Mast Arm Mounted Signal Head  
S – Span Wire Mounted Signal Head

NOTE :  
THE TRAFFIC SIGNAL SYSTEM SHALL BE COMPLETE AND THE CONTRACTOR SHALL FURNISH AND INSTALL ALL EQUIPMENT AND MATERIALS NECESSARY FOR THE SATISFACTORY OPERATION OF ELECTRICAL APPARATUS AND FOR COMPLETE OPERATION OF THE TRAFFIC SIGNAL SYSTEM WHETHER SPECIFICALLY MENTIONED OR NOT.

CONTROLLER AND EQUIPMENT	TOTALS
CABINET AND ACCESSORIES: NEMA Type P TS1 Cabinet	1
CONTROLLER: Type 3608 M 52 EAGLE EPAC NCTIP Firmware 4.57 complete per plans, including software	1
EMERGENCY VEHICLE DETECTION SYSTEM (COMPLETE): GTT	1
VIDEO DETECTION SYSTEM (COMPLETE): InSync Adaptive Traffic Control System	1
FIBER DISTRIBUTION UNIT:	1
FIBER OPTIC DATA LINK SWITCH: Kyland SICOM 3170 or Equal	1
2-Circuit Power Supply (Utility Enclosure Pedestal)	1
Ground Rods	11
Pushbutton Detectors	6

\*\* Cable included in lump sum price for the system.

\* Tracer wire shall be subsidiary to fiber cable line item.

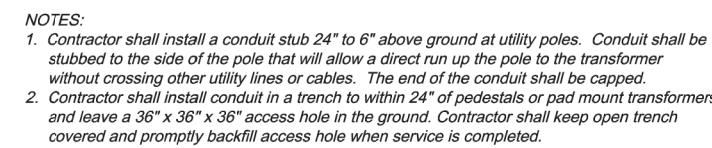












(A) Service pails shall be gaged when span of overhead wire exceeds 50'.

(B) Increase 1 foot for each 5 feet above 50 feet.

(C) Service disconnected boxes and meter boxes shall be aluminum or brass. All other boxes, meter boxes, etc., shall be stainless steel. Meter socket and other equipment shall be for L.L. approved, and shall be determined by the equipment manufacturer.

(D) Schematic diagram shall be mounted on inside of door.

(E) Utility company shall decide if lightning arresters are to be connected on the load or the side of the meter. The utility company shall also decide if the lightning arrester is terminated in the meter or disconnected and terminated in the disconnected cabinet, it shall be installed on the connect cabinet.

(F) If lightning is sufficient, install lightning control on power supply.

(G) Breakers shall conform to the standard specifications.

(H) If subsurface conditions exist which prohibit the placement of the ground rod in vertical position, the rod may be driven at an oblique angle not to exceed 45 degrees from vertical or buried in a trench at least 36 inches. Connect rod to ground rod. Rod shall be clamp type as detailed on standard drawing TS-2.

*All materials required excluding reference items as shown on drawing shall be included in price bid for power supply assembly.*

1