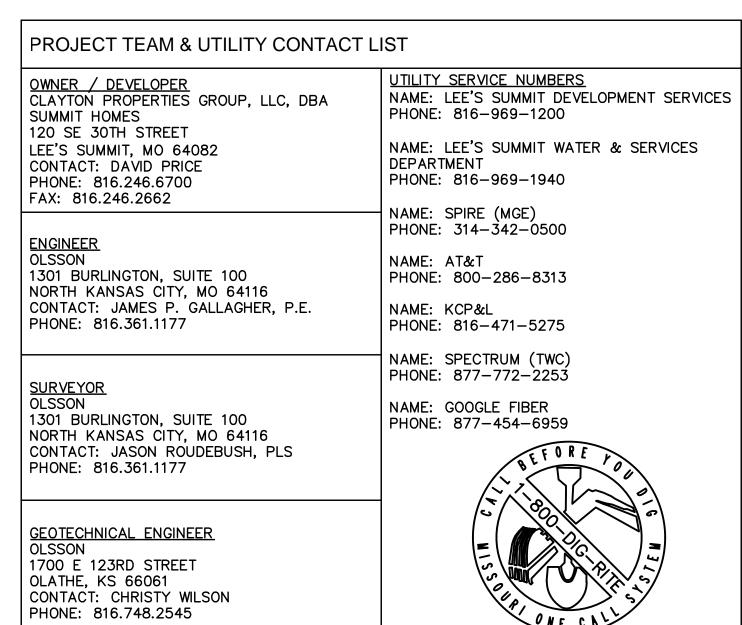
WOODSIDE RIDGE FIRST PLAT PRYOR ROAD & O'BRIEN ROAD INTERSECTION IMPROVEMENTS

SECTION 2, TOWNSHIP 47 N, RANGE 32 W IN LEE'S SUMMIT, JACKSON COUNTY, MO



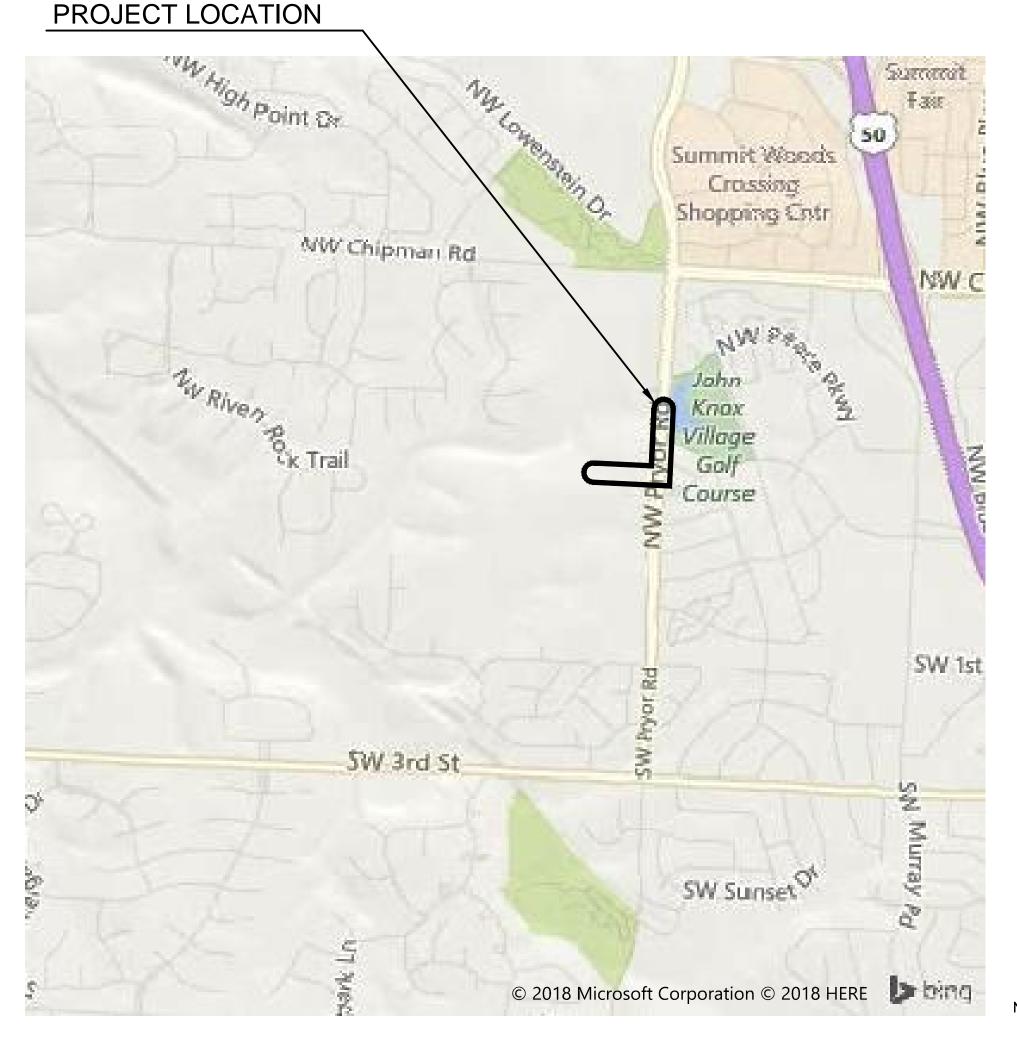
LEGEND

<u></u> CTL	SURVEY CONTROL POINT	TS	TRAFFIC SIGNAL BOX
À	SURVEY BENCHMARK	<u> </u>	TRAFFIC SIGNAL MANHOLE
<u>А</u> ТВМ	SURVEY TEMPORARY BEMCHMARK		TRAFFIC SIGNAL POLE W/ ARM
GM	GAS METER	[000]	TRAFFIC SIGNAL POLE
 ∏gar	GAS RISER	TO	TRAFFIC SIGNAL CONTROL BOX
<u> </u>	GAS MANHOLE	TS	TRAFFIC SIGNAL PEDESTAL
□GR	GAS REGULATOR	E	ELECTRIC MANHOLE
TVP	TELEVISION PEDESTAL	EM	ELECTRIC METER
F	FIBER BOX	ER	ELECTRIC RISER
©	FIBER PEDESTAL	E	ELECTRIC BOX
С	CABLE BOX	\bowtie	ELECTRIC CABINET
CV	CABLE VAULT	J	ELECTRIC JUNCTION BOX
TP	TELEPHONE PEDESTAL	○SPH	SPRINKLER HEAD
(D)	STORM MANHOLE	⊠scv	SPRINKLER CONTROL VALVE
	STORM GRATE	MP	WATER METER PIT
(S)	SANITARY MANHOLE	-6	FIRE HYDRANT
ΦYL	YARD LIGHT	WM	WATER METER
☆LTP	LIGHT POLE	⊠wv	WATER VALVE
$\overline{}$	POWER POLE	OFP	FLAG POLE
 LPPP	POWER POLE W/ LIGHT		SIGN
\leftarrow	GUY WIRE	₩	BOLLARD
₽\ BU	STUMP	\mathbb{H}	WOOD POST
⊙	BUSH	₩	STEEL POST
ZW.	EVERGREEN TREE	Ocor	COLUMN
~~			

BORE HOLE

	SECTION LINE
	PROPERTY LINE
	CENTER LINE
	PROPOSED ROW LINE
	EXISTING ROW LINE
	UTILITY EASEMENT
— 1371 — — —	EXISTING CONTOUR
— — — 1 37 1 — — —	EXISTING CONTOUR
1371 	PROPOSED MINOR CONTOUR
1371	PROPOSED MAJOR CONTOUR
TEL	EXISTING TELEPHONE LINE
SS	EXISTING SANITARY LINE
	EXISTING STORM LINE
G	EXISTING GAS LINE
W	EXISTING WATER LINE
	EXISTING CHAIN LINK FENCE
	EXISTING OVERHEAD ELECTRIC
P	EXISTING PIPE LINE
	GRADING LIMITS

DECIDUOUS TREE



LOCATION MAP

O'BRIEN ROAD

COMMERCIAL LOCAL

30 MPH (25 MPH POSTED)

PRYOR ROAD

40 MPH (35 MPH POSTED) MAJOR ARTERIAL

INDEX OF SHEETS

SHEET NO.	<u>TITLE</u>
1	TITLE SHEET
2	GENERAL LAYOUT, ALIGNMENT DATA, & SURVEY CONTROL
3	GENERAL NOTES & SUMMARY OF QUANTITIES
4	DEMOLITION PLAN
5-6	TYPICAL SECTIONS
7-8	PLAN & PROFILE
9	INTERSECTION LAYOUT
10	DRIVE LAYOUT
11	SIDEWALK RAMP LAYOUTS
12-13	CONCRETE JOINTING LAYOUT & DETAILS
14-17	STANDARD DETAILS
18-22	EROSION CONTROL PLAN & DETAILS
23-31	SIGNAL MODIFICATION PLANS & DETAILS
32-37	PAVEMENT MARKING AND SIGNING PLANS & DETAILS
38-39	TRAFFIC CONTROL PLAN & DETAILS
40-44	CROSS SECTIONS

REVIEWED BY:	
CITY OF LEE'S SUMMIT	DATE
OLSSON HAS BEEN RETAINED TO PROVIDE AS-BUILT DRAWING PROJECT.	GS FOR THIS
JAMES P. GALLAGHER, P.E. CIVIL ENGINEER	DATE

MO# 2018010499

NOT FOR CONSTRUCTION
REVIEWED FOR CONSTRUCTION

ASPHALT

CONCRETE

ABBREVIATION TABLE

EXISTING

TYPICAL

REMOVAL

TEMPORARY BENCMARK

CONTROL POINT

BACK OF CURB

EXIST.

TYP.

MATCH GRADE
PAVEMENT
TOP OF CURB
EDGE OF PAVEMENT
RIGHT—OF—WAY

2-INCH MILL & OVERLAY

TEMPORARY CONSTRUCTION EASEMENT

DESIGN DESIGNATION

DESIGN SPEED =

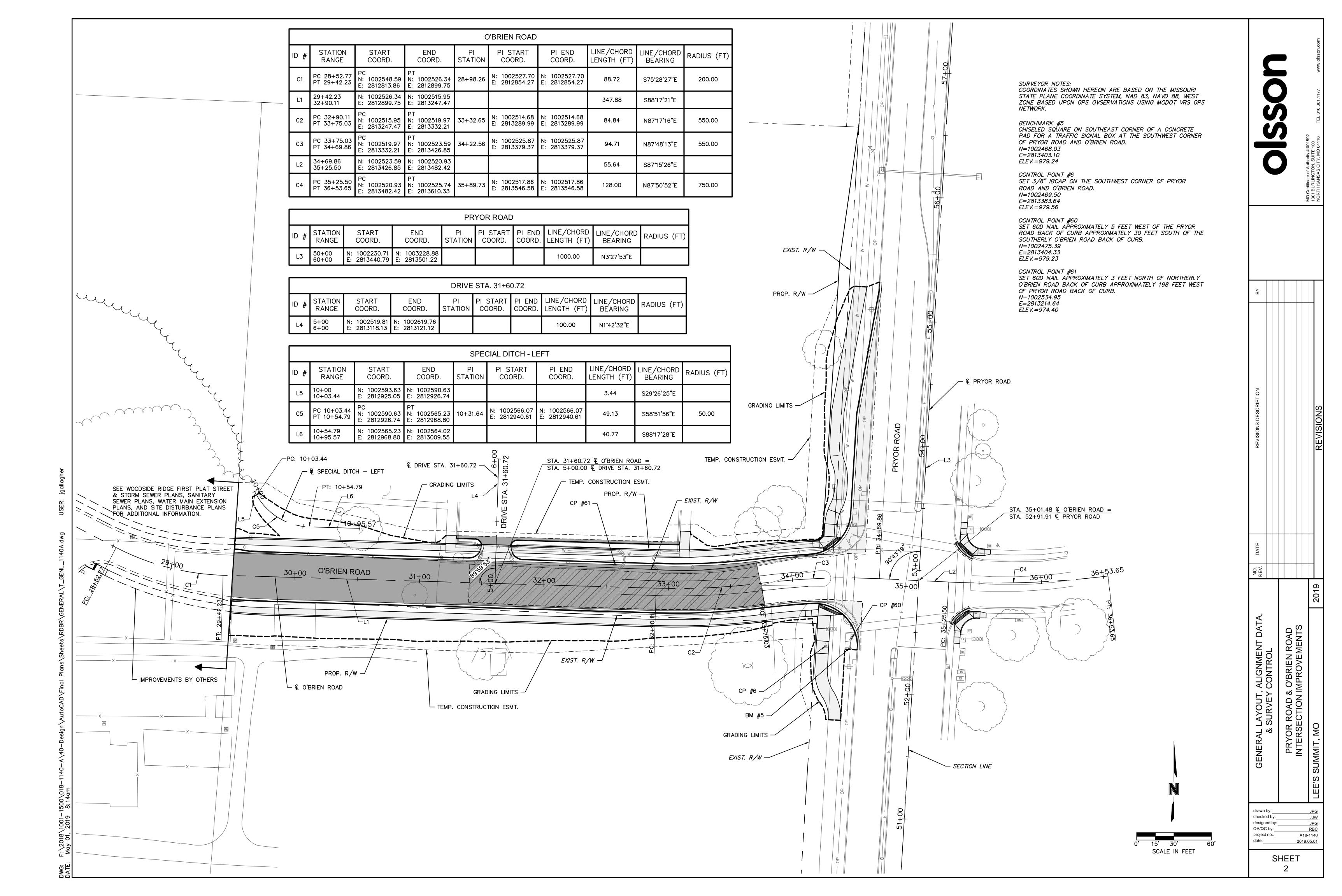
ROAD CLASSIFICATION =

WG: F:\2018\1001-1500\018-1140-

DWG: F:\2018 DATE: May 01

SHEET 1

QA/QC by:_



- SECTION 1010 OF THE GENERAL REQUIREMENTS (DIVISION 1). c) CONSTRUCTION OF THE WORK SHOWN OR IMPLIED BY THIS SET OF DRAWINGS SHALL NOT BE INITIATED UNLESS ALL PRELIMINARY CONTRACT OBLIGATIONS ARE MET. AND THE OWNER IS NOTIFIED OF THE INTENT TO START THE WORK. SEE SECTION 1020 OF DIVISION 1.
- d) ALL WORK SHALL BE CONFINED WITHIN THE CONSTRUCTION LIMITS OR AS OTHERWISE DIRECTED BY THE ENGINEER.
- e) ANY WORK PERFORMED PRIOR TO ENGINEER'S REVIEW AND APPROVAL OF THE PERTINENT SUBMITTAL WILL BE AT THE SOLE EXPENSE AND RESPONSIBILITY OF CONTRACTOR. SUBMITTAL PROCEDURES AND REQUIREMENTS CAN BE FOUND IN PARAGRAPH 6.17 OF C-700 AND SECTIONS 1115 AND 1116 OF DIVISION 1.
- f) OWNER IS DEFINED AS THE CITY OF LEE'S SUMMIT. q) DEVELOPER IS DEFINED AS SUMMIT HOMES.

2) COORDINATION AND NOTIFICATIONS:

- a) ANY TIME REFERENCES LISTED IN PARAGRAPH 2 ARE TYPICAL TIMELINES. CONSULT SECTION 1105 OF DIVISION 1 FOR PROJECT SPECIFIC TIMELINES, COORDINATION AND NOTIFICATION PROCESSES.
- b) PRIOR TO ANY STREET CLOSURES, APPROPRIATE NOTIFICATIONS WILL BE DISTRIBUTED. THE CLOSURES OF ARTERIAL AND COLLECTOR STREETS WILL TYPICALLY CAUSE THE OWNER TO GENERATE A PRESS RELEASE AND DETOUR MAP. THIS IS TYPICALLY 14 CALENDAR DAYS.
- c) THE REMOVAL OF TREES, SHEDS, FENCING OR OTHER ITEMS ON PRIVATE PROPERTY ARE NOT AUTHORIZED ON THIS PROJECT UNLESS OTHERWISE NOTED IN PLANS. CONTRACTOR SHALL NOTIFY THE OWNER IMMEDIATELY IF ANY SUCH WORK IS PROPOSED. THE OWNER REQUIRES AT LEAST 14 CALENDAR DAYS TO NOTIFY PROPERTY OWNER RESIDENT, IN ORDER TO GIVE THEM OPPORTUNITY TO SALVAGE THESE ITEMS.
- d) PRIOR TO DRIVEWAY DEMOLITION AND RECONSTRUCTION, CONTRACTOR SHALL NOTIFY AND COORDINATE WITH THE PROPERTY OWNER OR RESIDENT. THIS IS TYPICALLY 2 WORKING
- e) PRIOR TO SHUTTING DOWN A WATER MAIN, CONTRACTOR SHALL NOTIFY AND COORDINATE WITH THE PROPERTY OWNER OR RESIDENT. THIS IS TYPICALLY 2 WORKING DAYS.
- f) CONTRACTOR SHALL NOT BE ALLOWED TO WORK WEEKENDS OR HOLIDAYS WITHOUT REQUESTING PRIOR APPROVAL FROM OWNER THREE WORKING DAYS IN ADVANCE.
- g) BY ORDINANCE 17-42, WORKING HOURS WITHIN THE CITY OF LEE'S SUMMIT ARE 7:00 A.M. TO 10:00 P.M. REQUESTS TO WORK BEYOND THESE HOURS MUST BE FILED WITH THE OWNER ONE WEEK IN ADVANCE.

3) SURVEY:

- a) IN ACCORDANCE WITH PARAGRAPH 4.05 OF C-700, OWNER OR ENGINEER SHALL PROVIDE ENGINEERING SURVEYS TO ESTABLISH REFERENCE POINTS FOR CONSTRUCTION WHICH IN THEIR JUDGMENT ARE NECESSARY TO ENABLE CONTRACTOR TO PERFORM THE WORK. CONTRACTOR IS RESPONSIBLE FOR LAYING OUT THE WORK AND SHALL SET THOSE STAKES NECESSARY TO CONSTRUCT THIS PROJECT. NO DIRECT PAYMENT WILL BE MADE FOR THIS WORK, UNLESS LISTED IN THE BID TAB.
- b) IN ACCORDANCE WITH PARAGRAPH 4.05 OF C-700, CONTRACTOR SHALL RESET ANY PERMANENT REFERENCE POINTS, PROPERTY CORNERS AND PROPERTY MONUMENTS THAT ARE DISTURBED DURING CONSTRUCTION. THESE POINTS AND MONUMENTS SHALL BE RESET BY A REGISTERED LAND SURVEYOR IN ACCORDANCE WITH STATE LAW. NO DIRECT PAYMENT WILL BE MADE FOR THIS WORK.

4) UNDERGROUND FACILITIES:

- a) INFORMATION REGARDING UNDERGROUND FACILITIES IS APPROXIMATE AND WAS COMPILED USING INFORMATION PROVIDED BY THE FACILITY OWNER. CONSULT PARAGRAPH 4.04 OF C-700 FOR FURTHER INFORMATION.
- b) UNLESS BORED, ALL UNDERGROUND UTILITIES (INCLUDING THE CONTRACTOR'S WORK) THAT CROSS UNDER PROPOSED STREET PAVEMENTS SHALL BE IN PLACE PRIOR TO THE PLACEMENT OF THE NEW PAVEMENT.

5) WATER, STORM & SANITARY SEWER:

- a) WATER CAN BE PURCHASED FROM THE CITY'S WATER UTILITIES DEPARTMENT.
- b) ALL MANHOLES, VALVE LIDS, METER LIDS, FIRE HYDRANTS AND AIR RELIEF ASSEMBLIES WITHIN THE CONSTRUCTION LIMITS SHALL BE RELOCATED OR ADJUSTED TO GRADE BY THE CONTRACTOR IN ACCORDANCE WITH THE SPECIFICATIONS. ALL VALVE RISERS IN PAVEMENT (WHETHER ADJUSTED, REPLACED OR PLACED) SHALL BE CAST IRON AND CONFORM TO THE SPECIFICATIONS. NO DIRECT PAYMENT WILL BE MADE FOR THIS WORK, UNLESS LISTED IN THE BID TAB.
- c) CONTRACTOR SHALL PROVIDE BYPASS PUMPING OF SEWAGE FLOWS AROUND EACH SEGMENT OF PIPE THAT IS TO BE REPLACED OR REFURBISHED. CONTRACTOR SHALL HAVE ALL MATERIALS, EQUIPMENT AND LABOR NECESSARY TO COMPLETE WORK ON THE PIPE SEGMENT PRIOR TO ISOLATING THE SEWER SEGMENT AND BEGINNING BYPASS PUMPING OPERATIONS. NO DIRECT PAYMENT WILL BE MADE FOR THIS WORK, UNLESS LISTED IN THE BID TAB.

6) ENVIRONMENTAL & SAFETY:

- a) CONTRACTOR SHALL USE ADEQUATE DUST CONTROL MEASURES DURING ALL PHASES OF THE WORK. CONSULT SECTION 1145 IN DIVISION 1.
- b) SILTATION AND EROSION CONTROL SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING EROSION CONTROL SYSTEMS, REPLACING DAMAGED OR FAILED EROSION CONTROL DEVICES AND INSPECTING THE SITE IN ORDER TO REPAIR THE EROSION CONTROL SYSTEMS WITHIN 24 HOURS AFTER A SIGNIFICATION RAIN EVENT. GRADING ADJACENT TO PAVEMENTS SHALL BE LEFT THREE INCHES BELOW THE TOP OF PAVEMENT UNTIL IMMEDIATELY BEFORE SOD OR SEED IS PLACED. EROSION AND SEDIMENT CONTROL MUST BE IN PLACE PRIOR TO THE DISTURBANCE OF THE GROUND. FIELD ADJUSTMENTS TO EROSION AND SEDIMENT CONTROL MAY BE REQUIRED DEPENDING ON THE SITE CONDITIONS.
- c) UNLESS WAIVED IN SECTION 1010, CONTRACTOR SHALL MAINTAIN THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) ON SITE IN ACCORDANCE WITH DNR REGULATIONS.
- d) PROPERTY MAINTENANCE INFORMATION CAN BE FOUND IN SECTION 1145 OF DIVISION 1.

7) GRADING, REMOVALS & DAMAGED ITEMS:

- a) INFORMATION ON SALVAGED MATERIAL CAN BE FOUND IN SECTION 1150 OF DIVISION 1.
- b) NO BURNING IS ALLOWED ON THE SITE.
- c) DRIVEWAYS, PARKING LOTS, SIDEWALKS, FENCES, IRRIGATION SYSTEMS AND OTHER ITEMS DISTURBED OR DAMAGED BY THE CONTRACTOR SHALL BE RESTORED AT THE CONTRACTOR'S EXPENSE TO A CONDITION EQUAL TO OR BETTER THAN EXISTING BEFORE DAMAGE OCCURRED. UNLESS WAIVED BY OWNER, ALL ITEMS REQUIRING REPLACEMENT SHALL BE REPLACED WITH NEW MATERIALS, AND ALL MATERIALS ARE SUBJECT TO OWNER'S APPROVAL. NO DIRECT PAYMENT WILL BE MADE FOR THIS WORK, UNLESS LISTED IN THE BID TAB.
- d) ALL FENCE REPLACEMENT SHOULD BE RELOCATED TO THE PROPERTY LINES, UNLESS THE EXISTING FENCE WAS LOCATED INSIDE OF THE PROPERTY LINES. FENCE INSIDE OF PROPERTY LINES SHOULD BE PLACED IN ITS ORIGINAL LOCATION. GATES AND FENCE CORNERS SHALL BE RE-ESTABLISHED AT THE ORIGINAL LOCATIONS, UNLESS INDICATED BY THE DRAWINGS. REMOVALS SHALL BE AS SHOWN ON THE DRAWINGS OR AS APPROVED BY OWNER. REMOVALS NOT APPROVED BY OWNER WILL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
- e) ROOF DRAINS, UNDER DRAINS, SEPTIC LINES AND OTHER SMALL DRAINAGE LINES NOT SHOWN ON THE DRAWINGS THAT ARE UNCOVERED OR DAMAGED SHALL BE REPAIRED, AND THE POINT OF DISCHARGE SHALL BE PLACED NO CLOSER THAN FIVE FEET TO ANY ADJOINING PROPERTY LINE INCLUDING THE RIGHT-OF-WAY LINE (SECTION 16-413 OF THE CODE OF ORDINANCES). UNLESS DIRECTED BY THE CITY ENGINEER, NO DRAIN LINES SHALL BE CONNECTED TO THE STORM SEWER SYSTEM. MATERIALS AND LOCATION ARE SUBJECT TO OWNER'S APPROVAL. IF NO UNIT PRICE IS IN THE BID, THEN PAYMENT WILL BE NEGOTIATED PER THE CONTRACT
- f) MATERIALS THAT MAY BE CLASSIFIED AS UNSUITABLE OR REQUIRE UNDERGRADING SHALL BE DETERMINED BY THE OWNER OR THE FIELD ENGINEER. CONTRACTOR SHALL NOT MAKE THIS DETERMINATION.

8) TRAFFIC:

- a) UNLESS DIRECTED IN THE CONTRACT DOCUMENTS OR DRAWINGS, CONTRACTOR SHALL MAINTAIN TRAFFIC AND PEDESTRIAN ACCESS AT ALL TIMES.
- b) APPROPRIATE TRAFFIC CONTROL DEVICES, SIGNAGE AND PAVEMENT MARKINGS SHALL BE ESTABLISHED AND MAINTAINED THROUGHOUT THE PROJECT IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND THE MUTCD.

ADDITIONAL GENERAL NOTES:

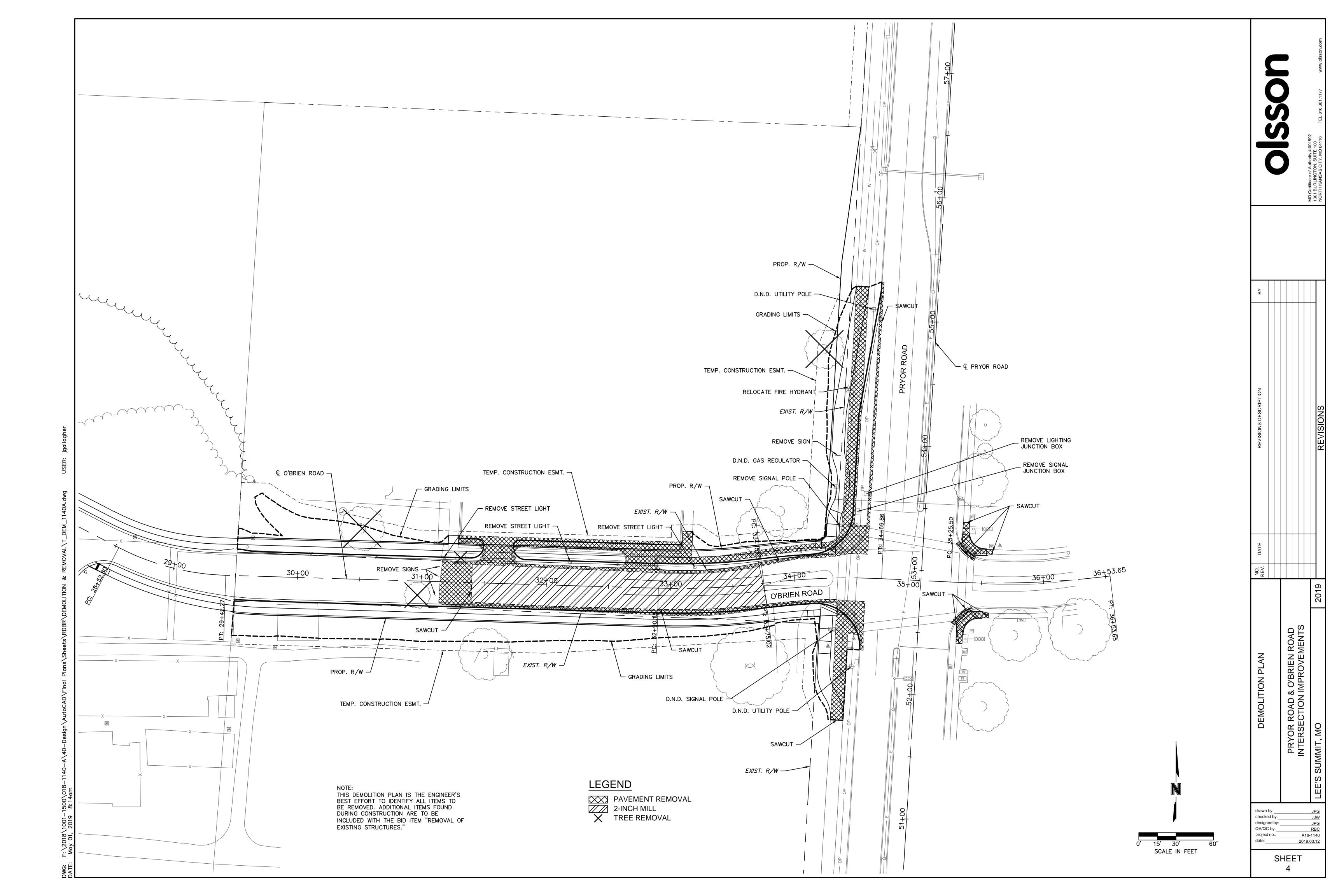
- 1) ALL TREES TO BE GRUBBED ARE MARKED THUS "X". SPARE ALL TREES THAT ARE MARKED DND (DO NOT DISTURB) OR ANY TREES NOT MARKED AT ALL. EXCEPTIONALLY GOOD TREES SHALL BE SPARED BY ADJUSTING BACKSLOPE LINES DURING CONSTRUCTION AS DIRECTED BY THE ENGINEER. ALL TREES WITHIN THE CONSTRUCTION LIMITS TO BE SAVED SHALL HAVE HEIR TRUNKS AND ROOT ZONE PHYSICALLY PROTECTED PRIOR TO CONSTRUCTION OPERATIONS BY METHODS APPROVED BY THE ENGINEER.
- 2) THE CONTRACTOR SHALL POTHOLE ALL UTILITY CROSSINGS PRIOR TO CONSTRUCTION OF ANY PORTION OF THE STORM SEWER, UNDERDRAINS, CONDUIT, AND ANY OTHER SUBSURFACE ELEMENTS OF THE PROJECT. THIS SURVEY INFORMATION SHALL BE FORWARDED TO THE ENGINEER FOR REVIEW. THE CONTRACTOR SHALL NOT BEGIN CONSTRUCTION ON ANY SUBSURFACE ELEMENT ON THE PROJECT WITHOUT THE APPROVAL OF THE ENGINEER. THIS ITEM SHALL BE SUBSIDIARY TO OTHER BID ITEMS.

SUMMARY OF QUANTITIES

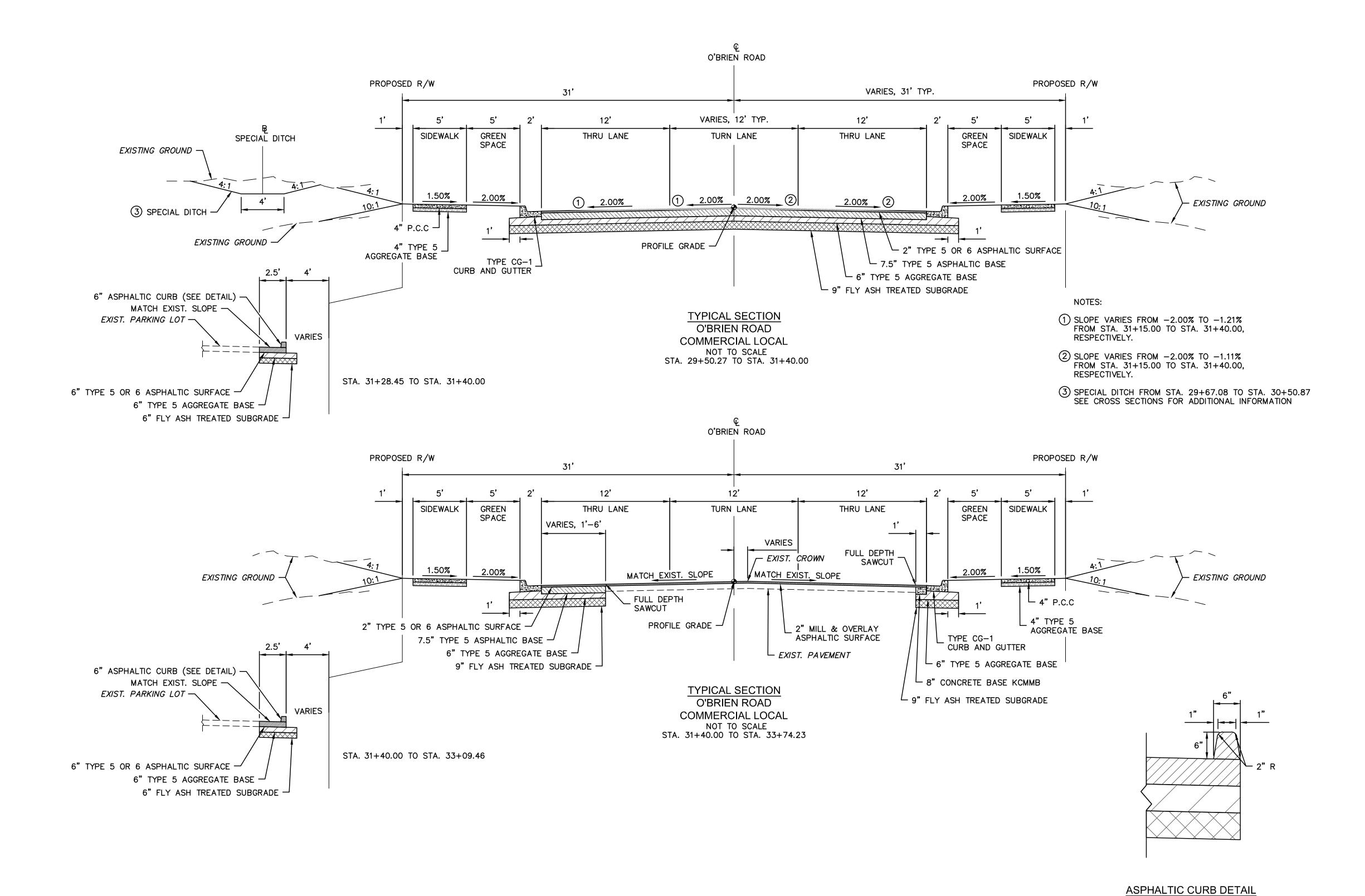
	ITEM DESCRIPTION	QUANTITY	UNIT
1	Clearing and Grubbing	3	Each
2	Demolition and Removal	1	LS
3	Unclassified Excavation	2264	СҮ
4	Silt Fence	390	LF
5	Silt Fence Ditch Check	21	LF
6	Inlet Protection	12	Each
7	Construction Entrance	118	SY
8	Fly Ash	95	Ton
9	Manipulation	1700	SY
10	Aggregate Base (Type 5) (4")	969	SY
11	Aggregate Base (Type 5) (6")	1700	SY
12	Asphaltic Concrete Surface Type 5 (2")	1695	SY
13	Asphaltic Concrete Surface Type 5 (6")	53	SY
14	Asphaltic Concrete Base Type 5 (7.5")	881	SY
15	Asphaltic Milling (2")	784	SY
16	Portland Cement Concrete Base (8")	30	SY
17	Portland Cement Concrete Pavement (10")	305	SY
18	Curb & Gutter (Type CG-1)	1252	LF
19	Concrete Sidewalk (4")	5031	SF
20	Concrete Sidewalk (6")	2904	SF
21	Concrete Sidewalk (8")	124	SF
22	Sidewalk Ramps with Detectable Warning Surface	4	Each
23	Driveways (8")	127	SF
24	Asphaltic Curb	164	LF
25	Topsoil	210	CY
26	Seeding	0	Acre
27	Sodding	813	SY
28	Temporary Seeding	0	Acre
29	Traffic Signal Modification	1	LS
30	Pavement Marking & Signing	1	LS
31	Traffic Control	1	LS

ES & SUMMARY OF QUANTITIES	NO. REV.	DATE	REVISIONS DESCRIPTION	BY	
ROAD & C'RRIEN ROAD					
ECTION IMPROVEMENTS					
) 20	2019		REVISIONS		

checked by designed by: QA/QC by:_ project no.:____ A18-1140 2019.05.01



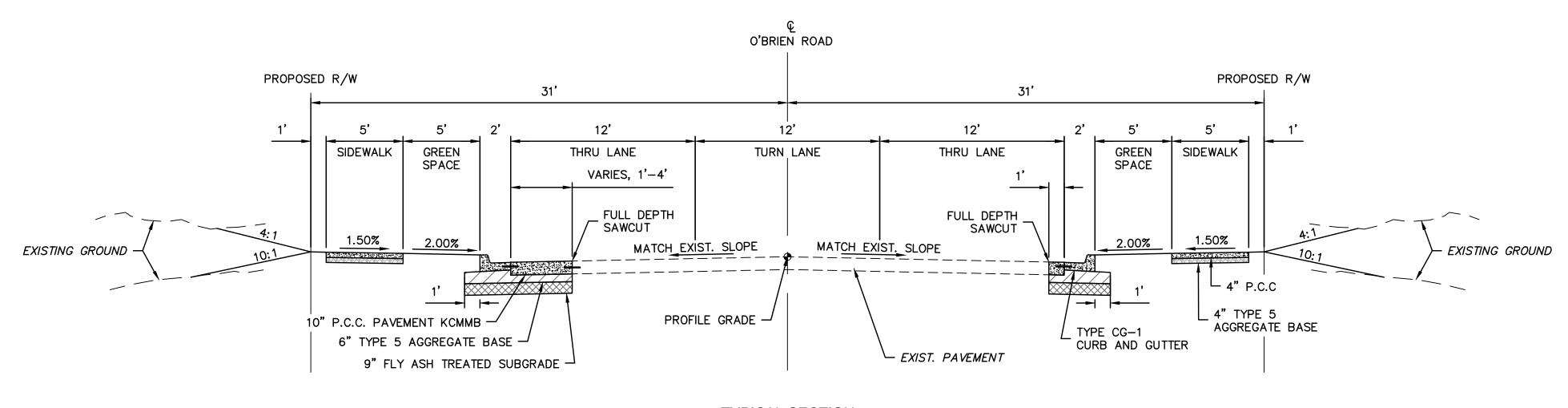
drawn by: JPG
checked by: JJW
designed by: JPG
QA/QC by: RBC
project no.: A18-1140
date: 2019.05.01



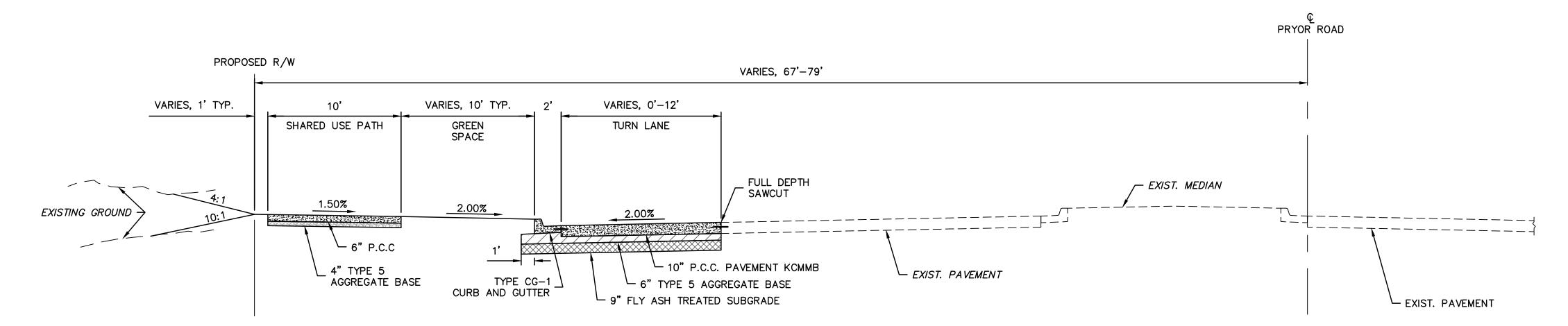
TYPICAL SECTIONS

drawn by: JPG
checked by: JJW
designed by: JPG
QA/QC by: RBC
project no.: A18-1140
date: 2019.05.01

SHEET 6



TYPICAL SECTION
O'BRIEN ROAD
COMMERCIAL LOCAL
NOT TO SCALE
STA. 33+74.23 TO 34+59.02



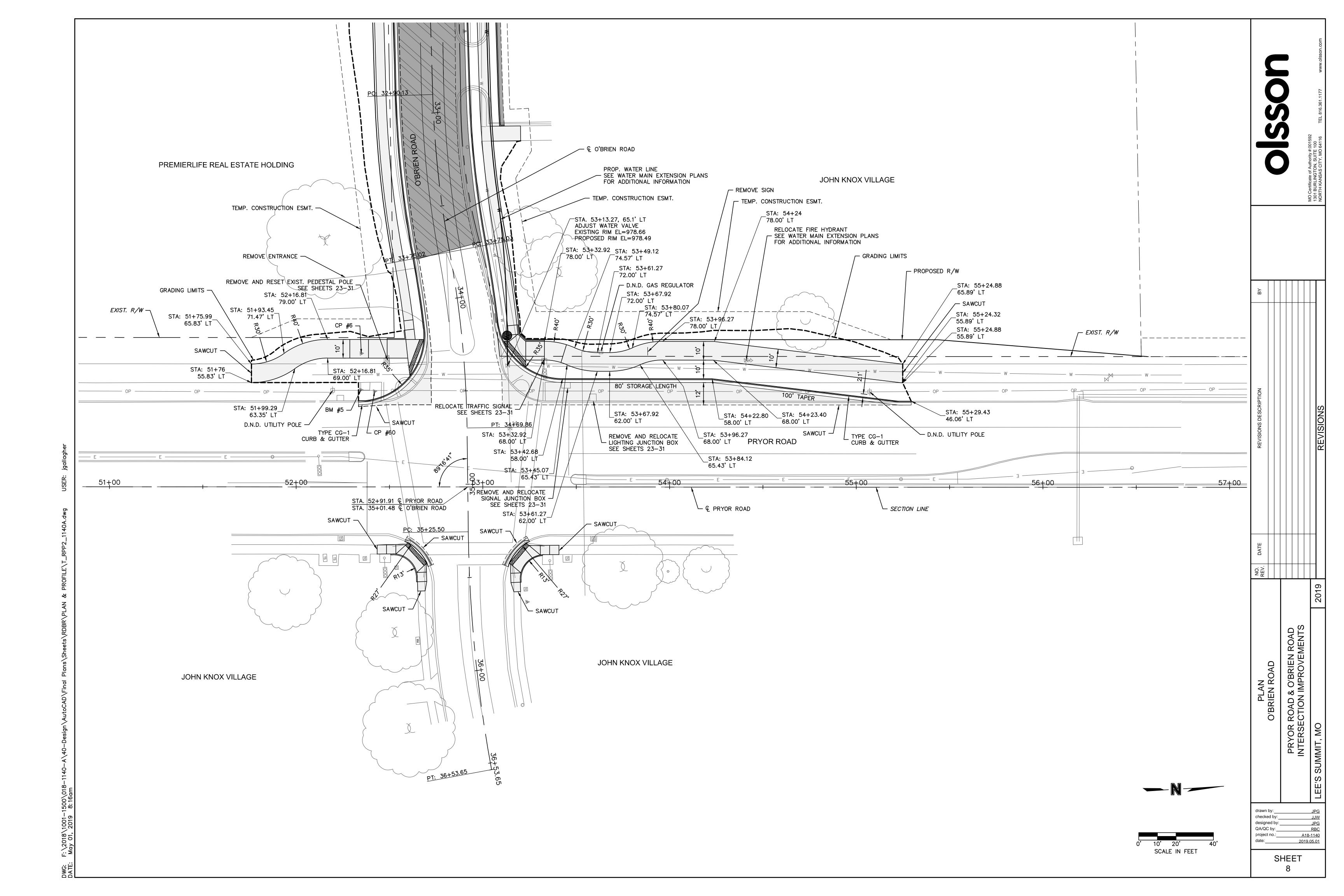
TYPICAL SECTION
PRYOR ROAD
ARTERIAL ROADWAY SECTION
NOT TO SCALE
STA. 53+42.68 TO 55+29.43

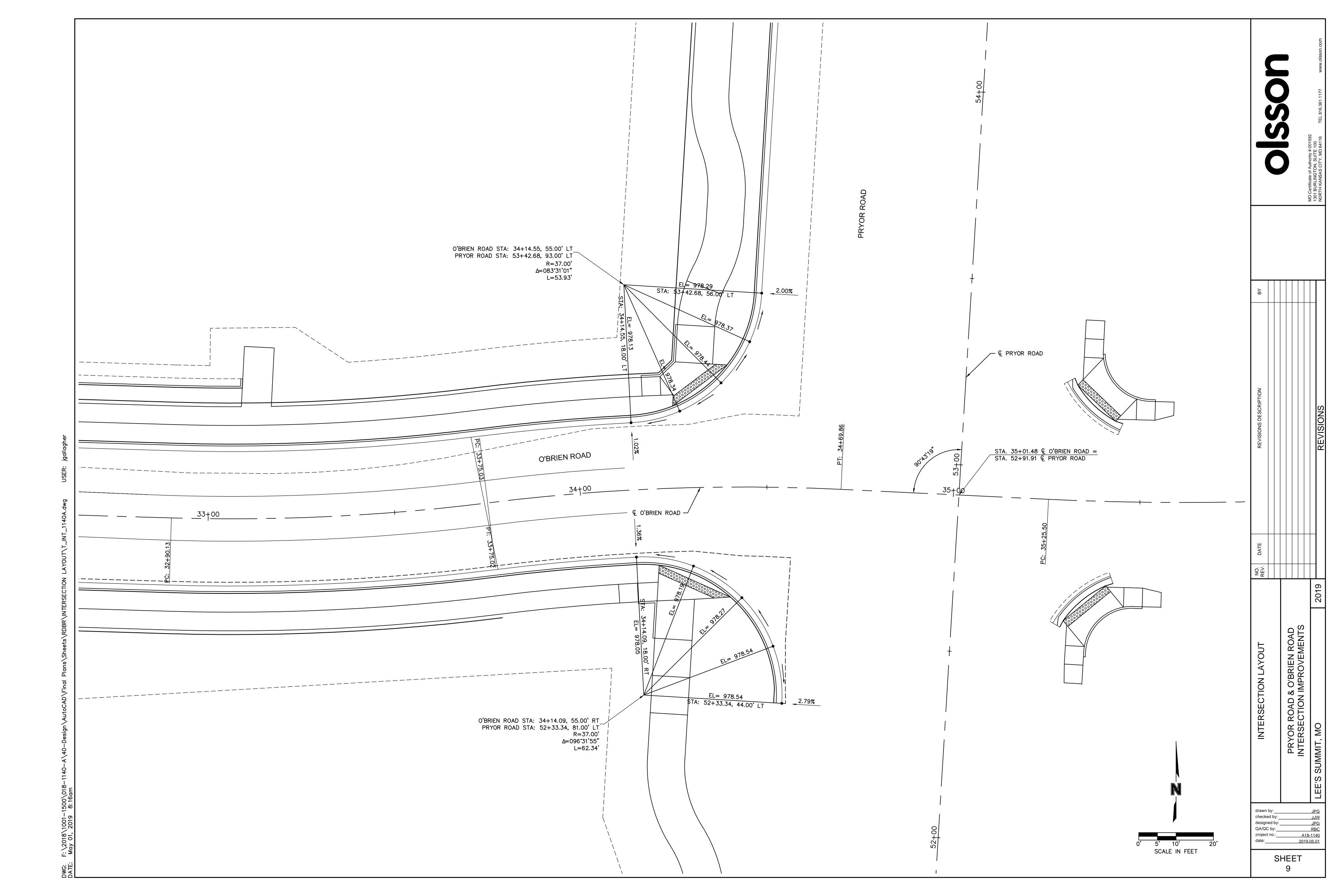
USER: jgallagher

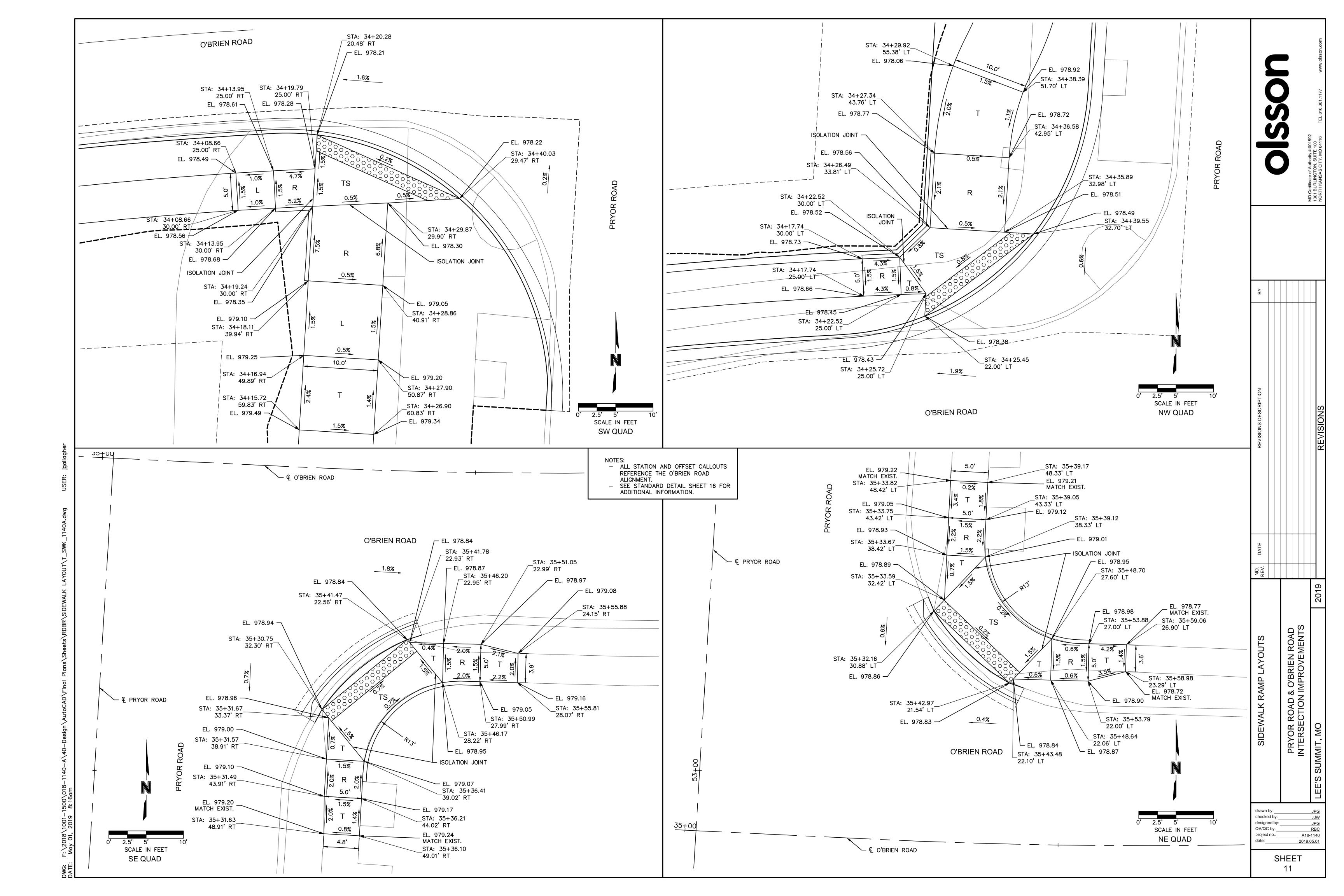
ItoCAD (Final Plans (Sneets (KDBK (GENEKAL (I_I 17P_I 140A.awg

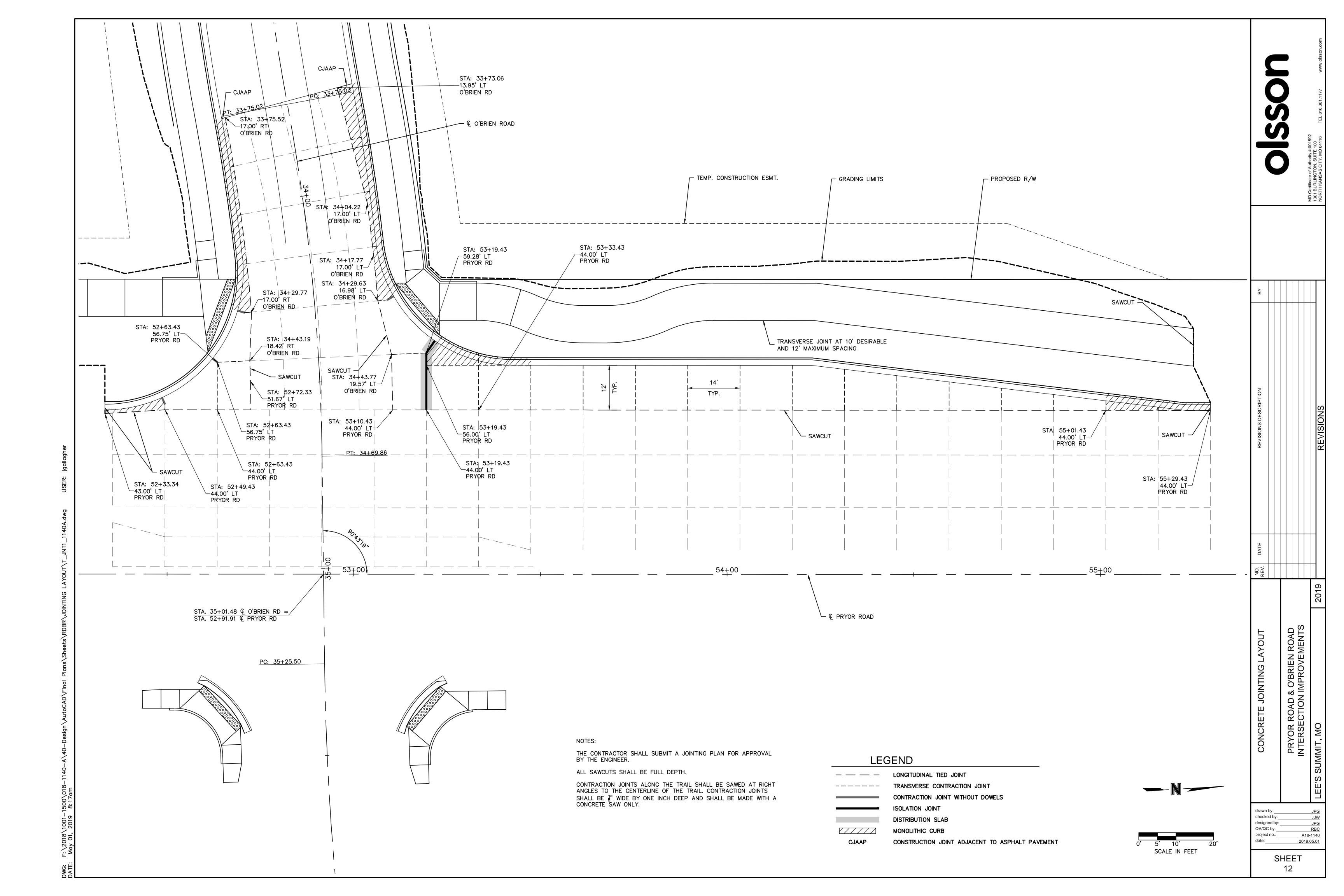
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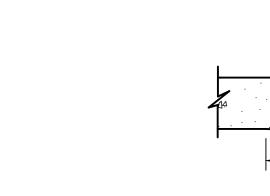


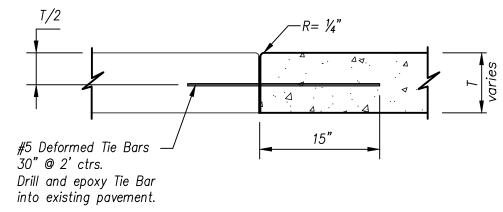




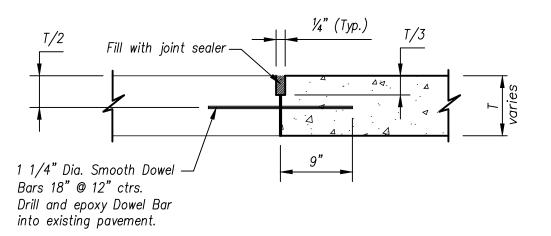
1 1/4" Dia. Smooth Dowel — Bars 18" @ 12" ctrs.



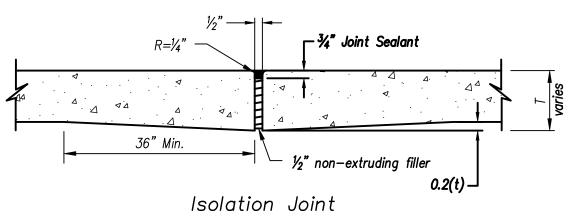


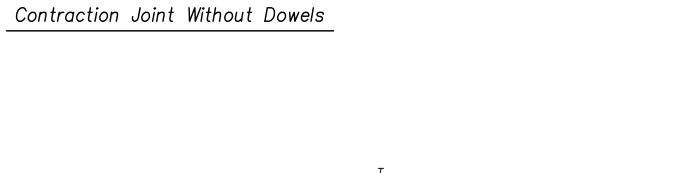


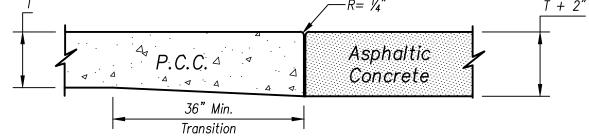
Longitudinal Construction Joint



Transverse Construction Joint

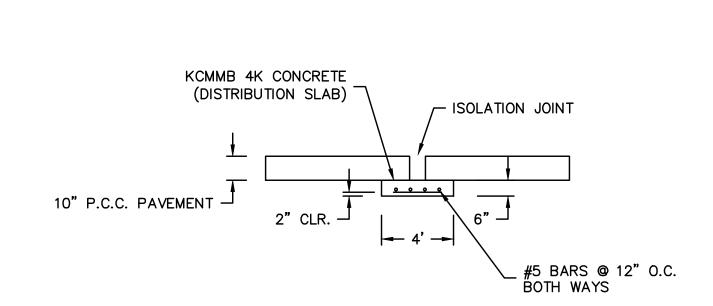






Construction Joint Adjacent to Asphalt Pavement

Note: Tie bars shall not be less than 12" from end of Dowel Bars.



CONCRETE JOINT ADJACENT

TO SIDEWALK RAMP

*APPLIES TO ALL LOCATIONS THAT A

JOINT INTERSECTS WITH A SIDEWALK RAMP

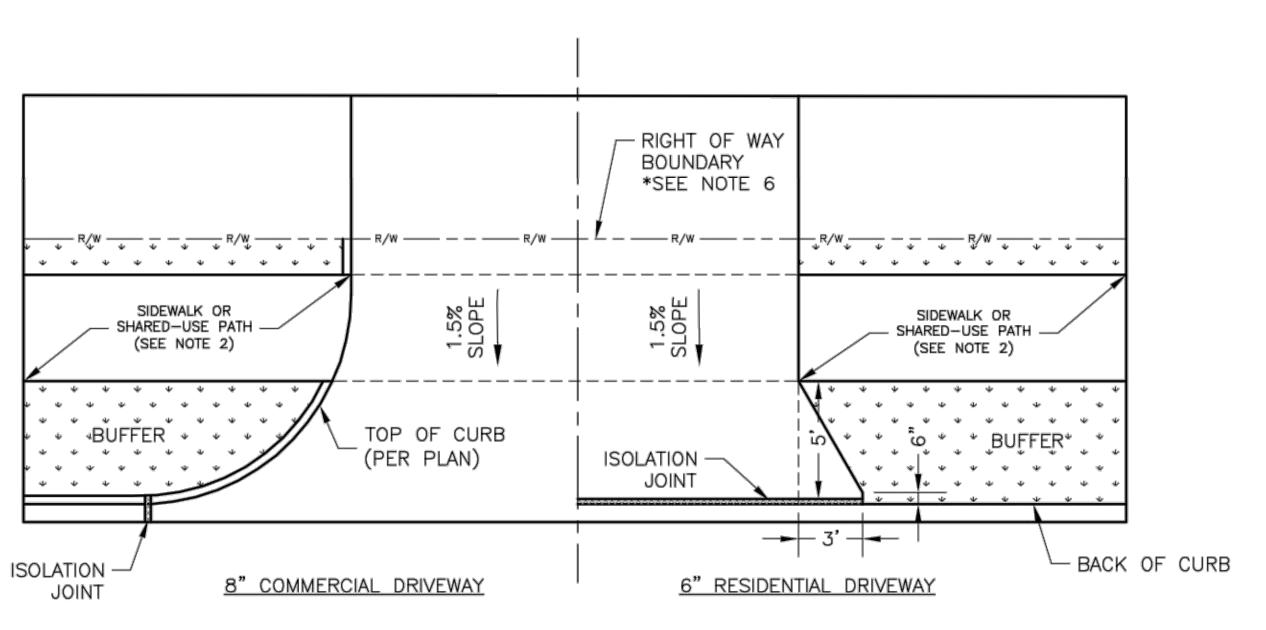
DISTRIBUTION SLAB DETAIL

/ JOINT

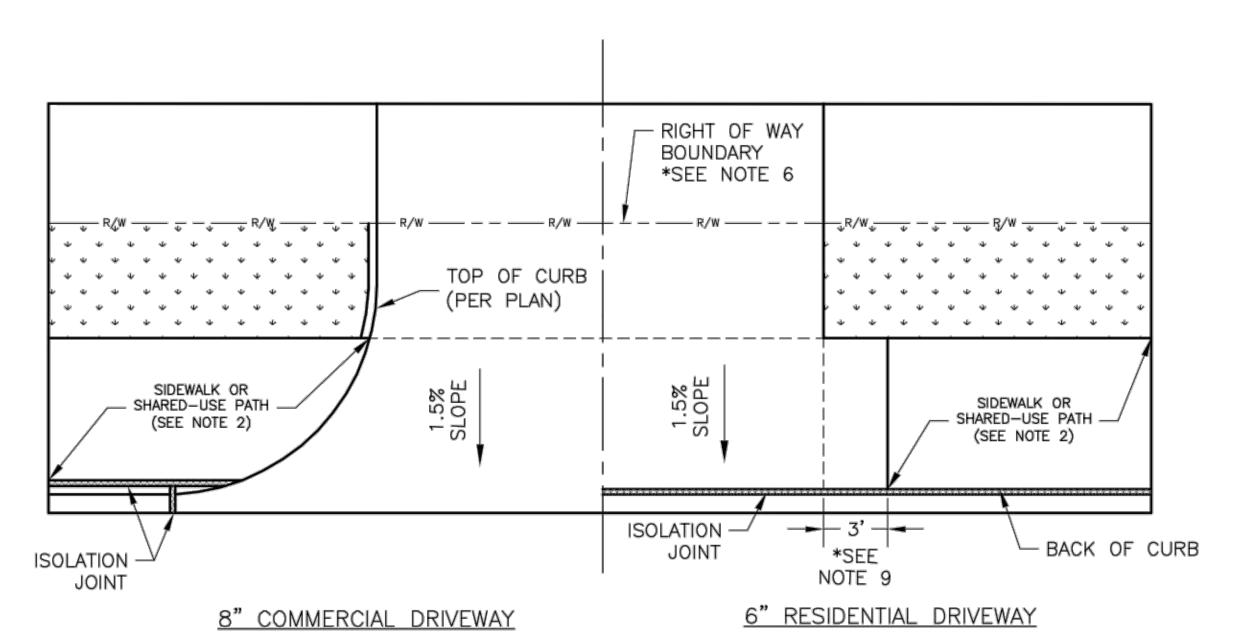
_ ISOLATION JOINT _ (SHORT SIDE, DO NOT INSTALL TIE BARS)

						REVISIONS	
					700	2019	
			OBYOR ROAD & O'RRIFN ROAD		l١	LEE'S SUMMII, MO	
n b	oy:				JP	<u>G</u>	

rawn by: JPG
necked by: JJW
esigned by: JPG
A/QC by: RBC
roject no.: A18-1140



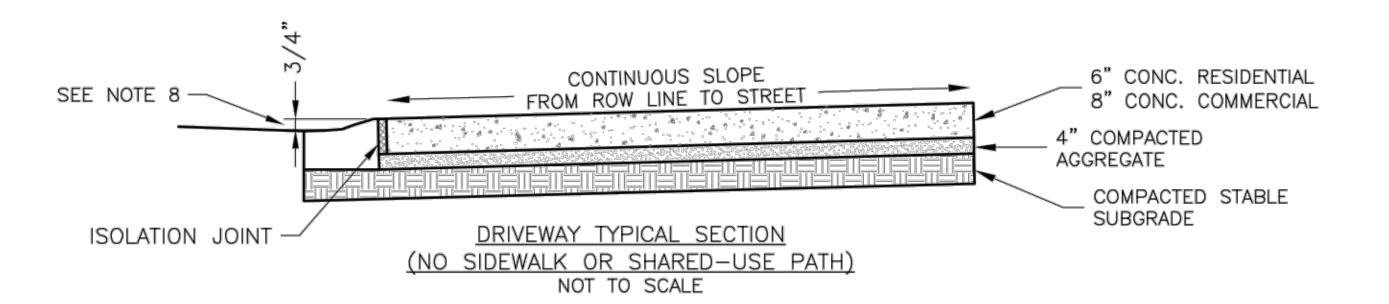


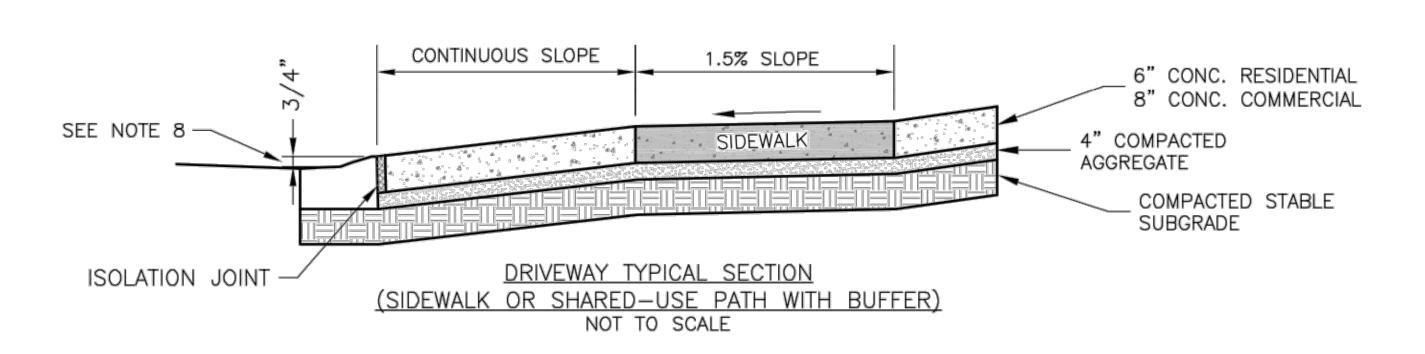


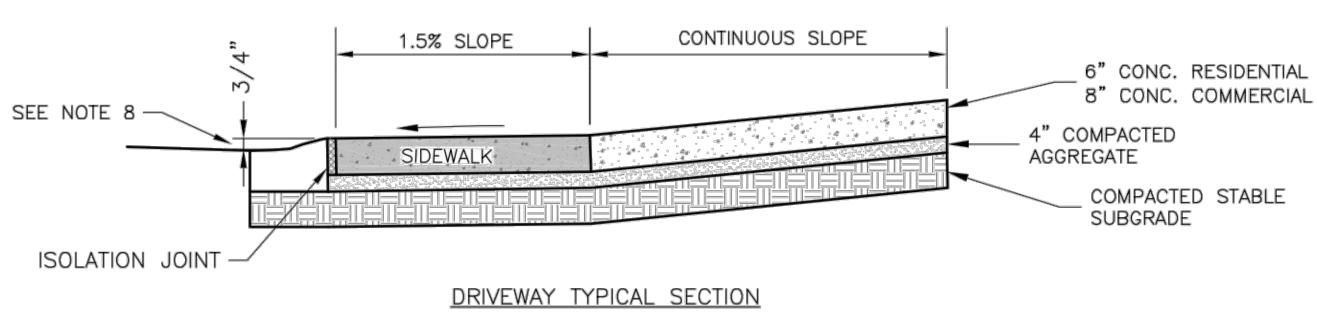
DRIVEWAY WITHOUT BUFFER NOT TO SCALE

GENERAL NOTES

- SUBGRADE SHALL BE STABLE, COMPACTED EARTH AND SHALL BE OVERLAYED WITH 4" COMPACTED DENSE GRADED AGGREGATE BASE.
- 2. ALL DRIVE APPROACHES SHALL MEET CURRENT PUBLIC RIGHT OF WAY ACCESSIBILITY GUIDELINES (PROWAG) FOR SLOPE REQUIREMENTS WHEN SIDEWALK IS REQUIRED (SEE ADA RAMP RETROFIT DETAIL).
- JOINT AT BACK OF CURB LINE SHALL BE AN ISOLATION JOINT FOR RESIDENTIAL DRIVEWAYS.
- KCMMB 4K CONCRETE MIX IS REQUIRED FOR ALL CURBS.
- COMMERCIAL DRIVEWAYS AND DRIVEWAY APPROACHES, IN THE PUBLIC RIGHT OF WAY, SHALL BE KCMMB 4K CONCRETE MIX.
- A JOINT MUST BE INSTALLED AT THE RIGHT OF WAY BOUNDARY FOR PROPERTY DELINEATION.
 WHITE CURING COMPOUND MUST BE APPLIED UNIFORMLY TO THE CONCRETE SURFACE IMMEDIATELY AFTER FINAL FINISHING.
- 34" FROM TOP OF CURB TO FLOWLINE AT DRIVEWAY (TYPE CG-1 CURB ONLY). MUST MAINTAIN ORIGINAL FLOWLINE OF CURB.
- SIDEWALK ADJOINING CURB SHALL BE 6" THICK, EXTENDING 3' FROM THE DRIVEWAY. 10. THE MAXIMUM WIDTH OF A RESIDENTIAL DRIVEWAY IS 36 FEET WITHIN THE RIGHT OF WAY.







(SIDEWALK OR SHARED-USE PATH WITHOUT BUFFER) NOT TO SCALE

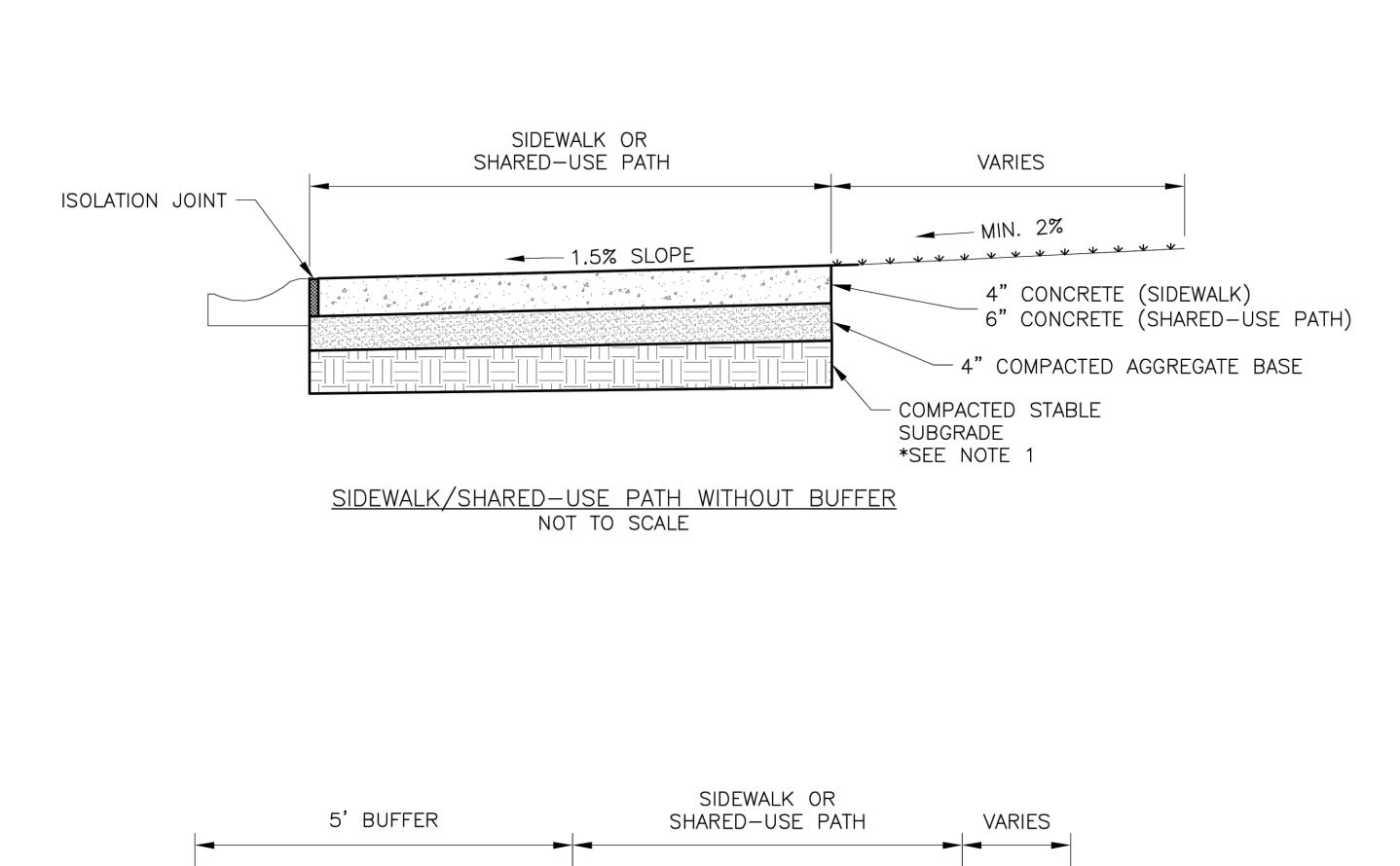
STANDARD DETAILS CITY OF LEE'S SUMMIT, MO S SUMMIT, JACKSON COUNTY, I LEE'S

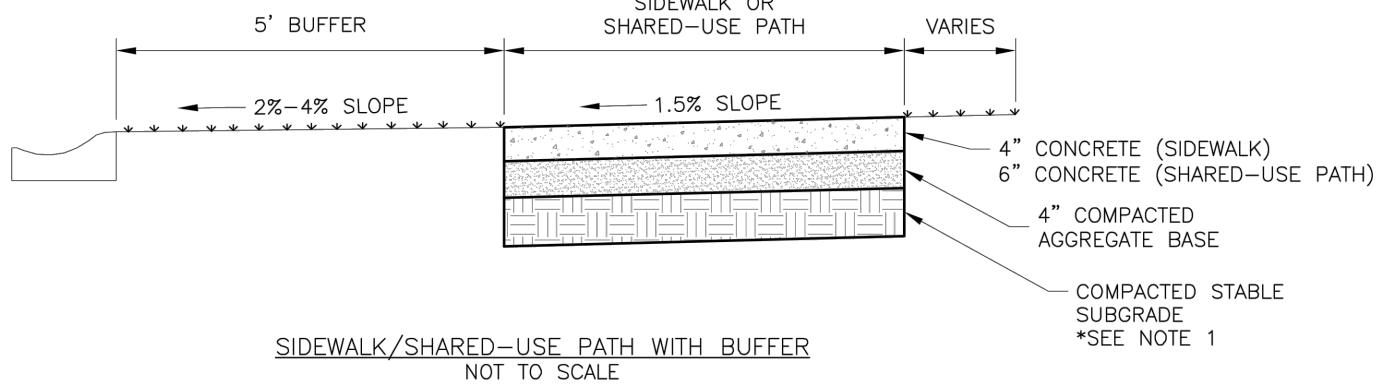
DETAIL

DRIVEWAY

Drawn By: MJF hecked By: DL Date: 04/17

> SHEET 14 GEN-1





GENERAL NOTES:

- 1. SUBGRADE MUST BE OF STABLE, COMPACTED EARTH AND SHALL BE OVERLAYED WITH 4" COMPACTED DENSE GRADED AGGREGATE BASE.
- 2. 1.5% CROSS SLOPE MUST BE MAINTAINED THROUGH DRIVEWAYS.
- 3. KCMMB 4K CONCRETE MIX SHALL BE REQUIRED FOR ALL SIDEWALKS AND SHARED-USE PATHS OR AS APPROVED BY THE CITY INSPECTOR.
- 4. ALL SIDEWALKS SHALL MEET CURRENT PUBLIC RIGHT OF WAY ACCESSIBILITY GUIDELINES (PROWAG).
- 5. AN EXPANSION JOINT SHALL BE PLACED AT A MAXIMUM OF 150 FT. CONSTRUCTION JOINTS SHALL BE PLACED THE SAME WIDTH OF SIDEWALK, BUT NO GREATER THAN 10 FT.
- 6. SHARED-USE PATH WIDTH SHALL BE 10 FT. WIDE.
- 7. SIDEWALK FINISHING (NO PICTURE FRAMING) AS DIRECTED BY CITY INSPECTOR.
- 8. WHITE CURING COMPOUND MUST BE APPLIÉD UNIFORMLY TO THE CONCRETE SURFACE IMMEDIATELY AFTER FINAL FINISHING.

SHEET 15



LEE'S SUMMIT

MISSOURI

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

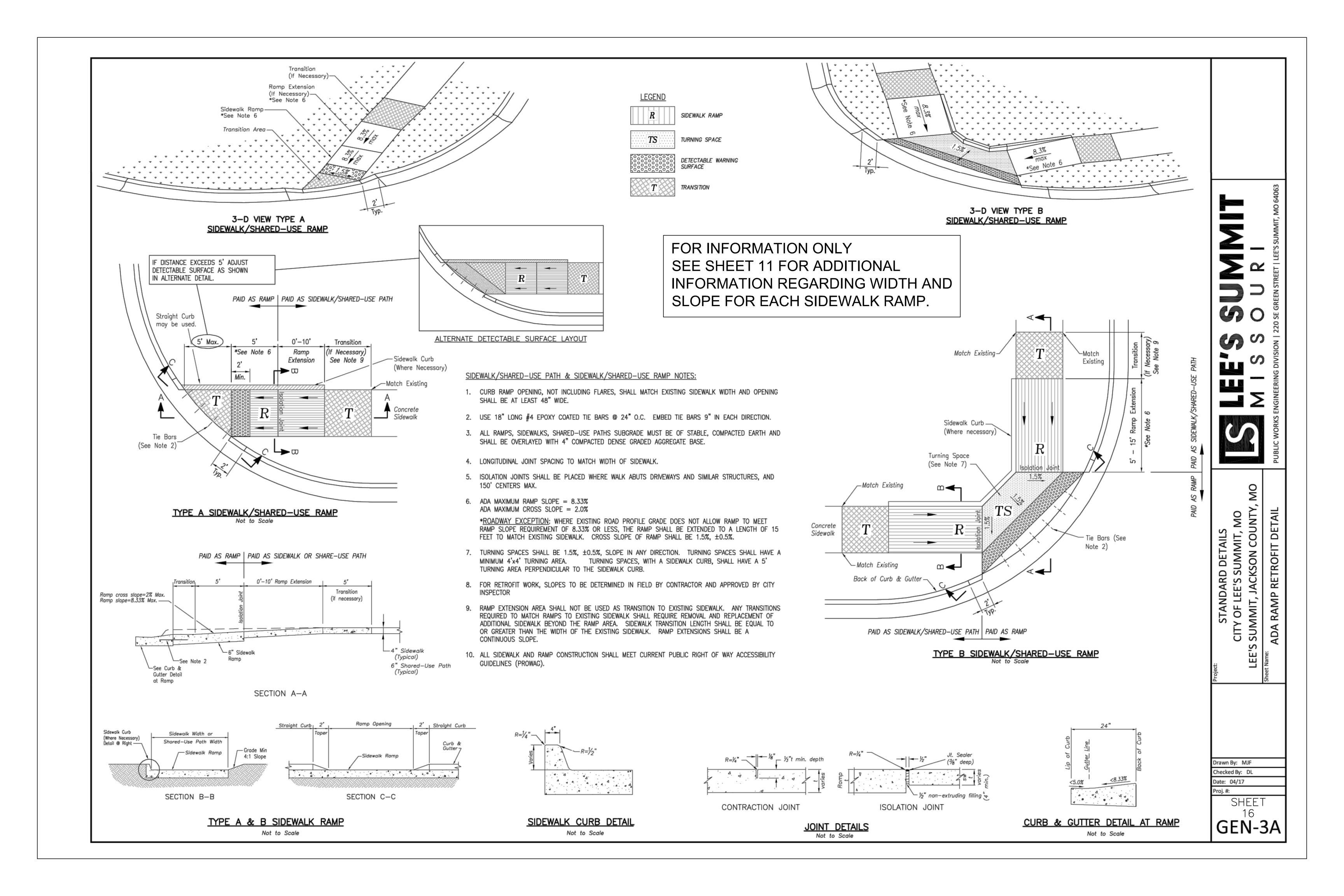
SIDEWALK/SHARED-USE PATH DETAIL

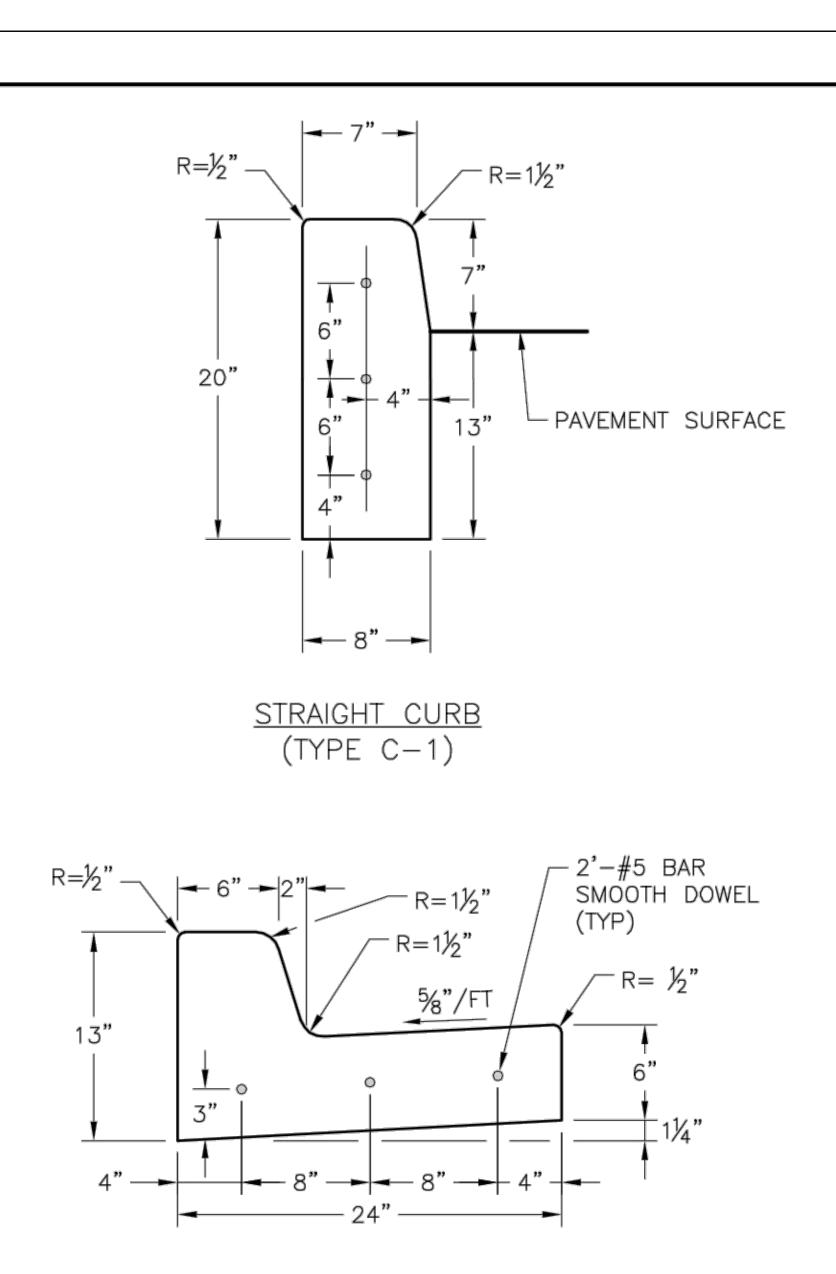
GEN-2

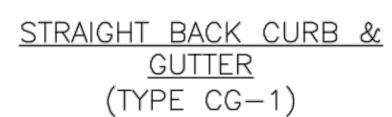
Date: 04/17

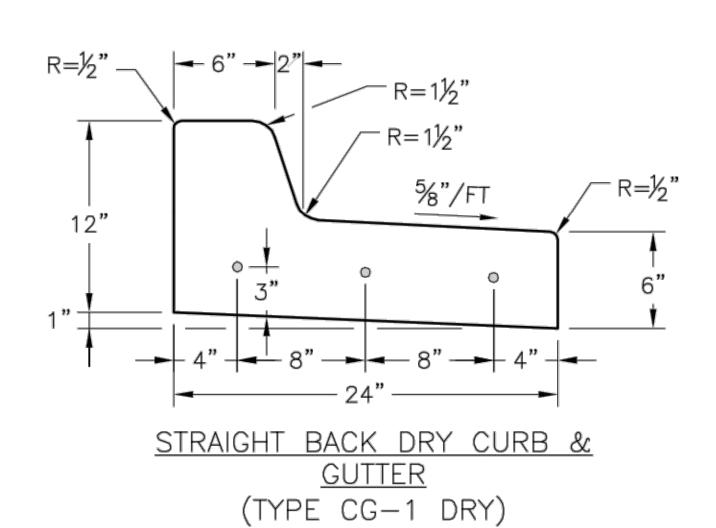
Drawn By: MJF

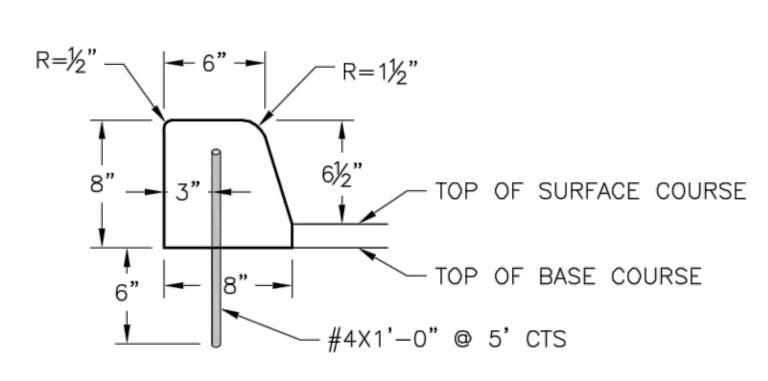
Checked By: DL



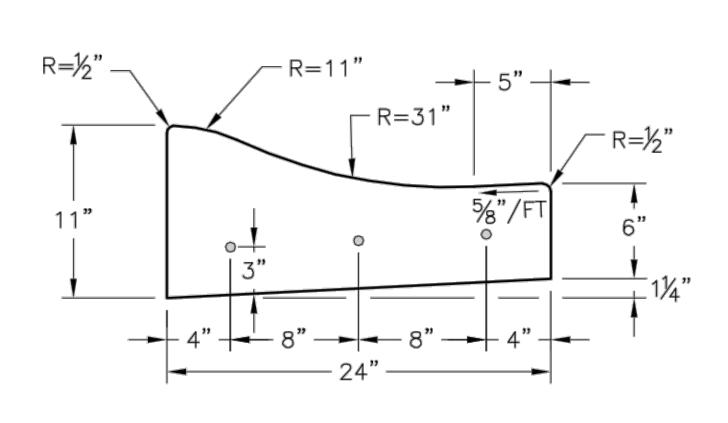




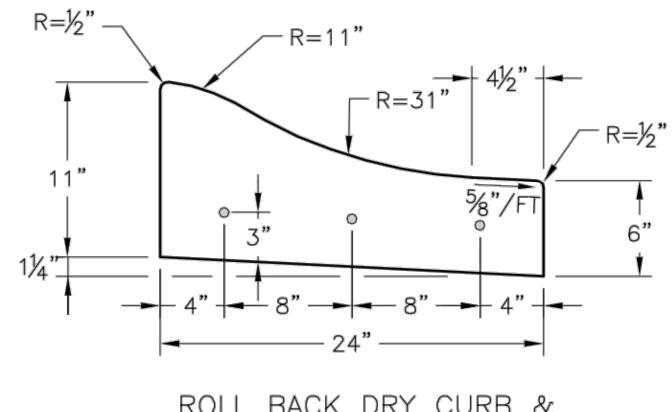




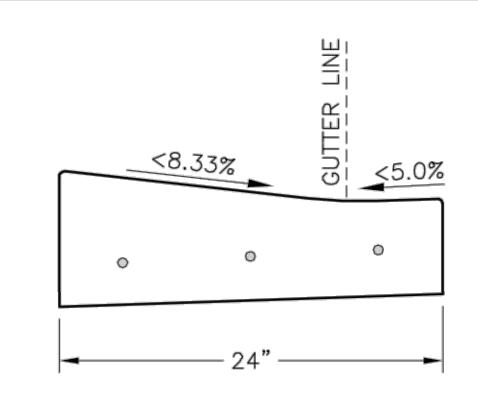
DOWELLED CURB (TYPE DC)



ROLL BACK CURB & GUTTER
(TYPE CG-2)

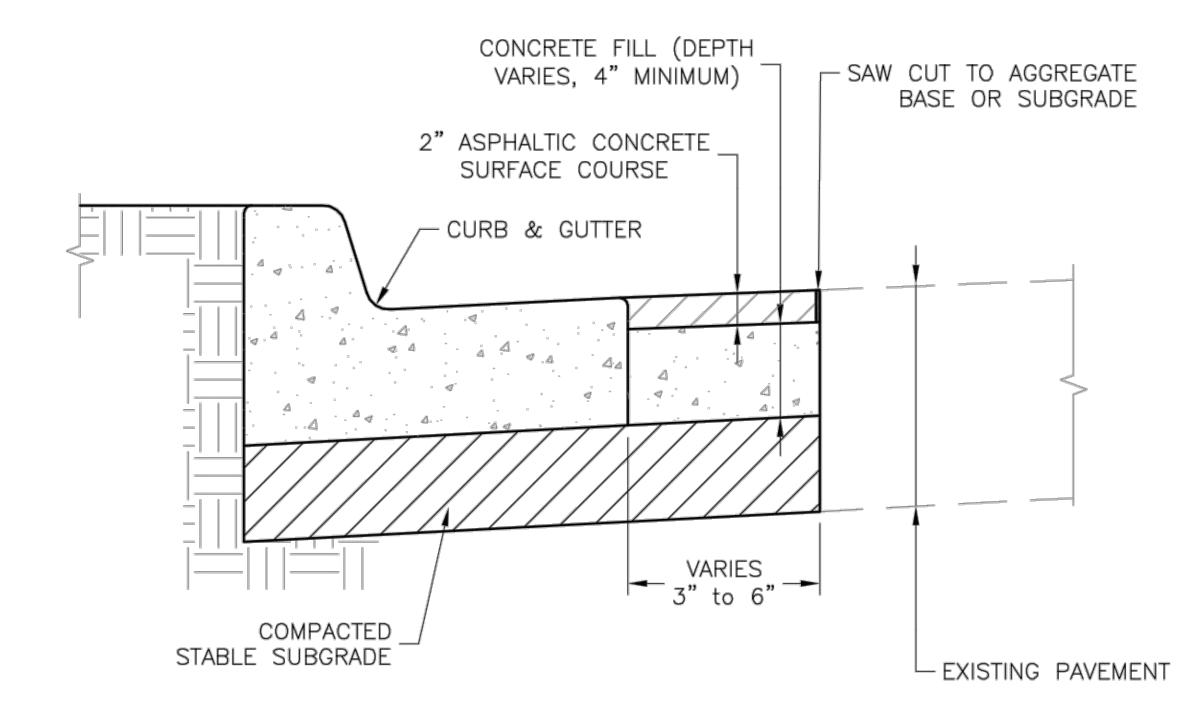


ROLL BACK DRY CURB & GUTTER (TYPE CG-2 DRY)



CURB & GUTTER DETAIL AT RAMP

(ADA SLOPE REQUIREMENTS)



CURB REPLACEMENT DETAIL

GENERAL NOTES

- 1. 34" 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.
- 2. 3" DEEP CONTRACTION JOINTS SHALL BE INSTALLED AT APROXIMATELY 10' INTERVALS. THESE JOINTS SHALL PASS ACROSS THE ENTIRE CURB SECTION.
- 3. CONCRETE FILL SHALL HAVE UNIFORM AND SMOOTH FINISH
- 4. KCMMB 4K CONCRETE SHALL BE USED FOR ALL CURB.
- 5. ASPHALTIC CONCRETE SURFACE COURSE SHALL CONFORM TO STANDARD SPECIFICATIONS SECTION 2205.2.
- 6. CURBS FOR NEW STREETS SHALL BE BUILT ON ASPHALT OR AGGREGATE BASE AS SHOWN IN TYPICAL SECTION DETAIL.
- 7. WHITE CURING COMPOUND MUST BE APPLIED UNIFORMLY TO THE CONCRETE SURFACE IMMEDIATELY AFTER FINAL FINISHING.

STAINDAND DE LAILS
CITY OF LEE'S SUMMIT, MO
SUMMIT, JACKSON COUNTY, MC
CURB & GUTTER DETAIL

CIT LEE'S SUN

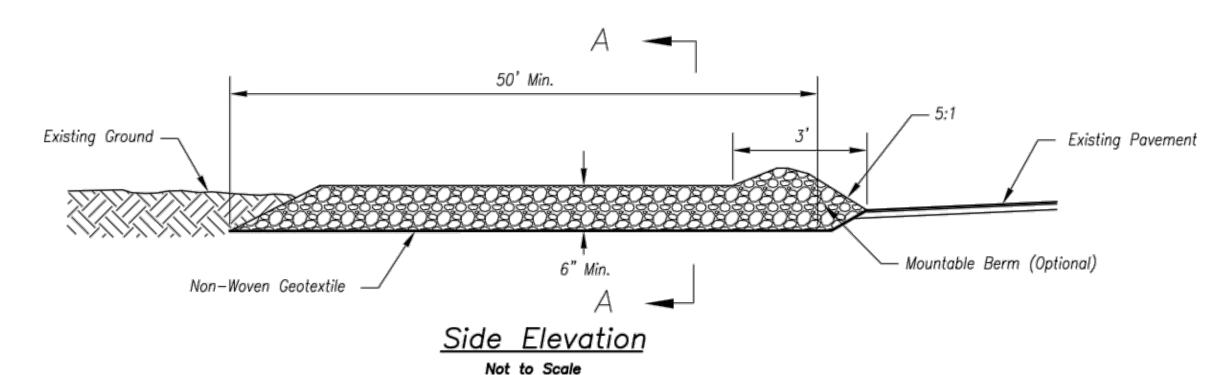
Drawn By: MJF Checked By: DL Date: 04/17

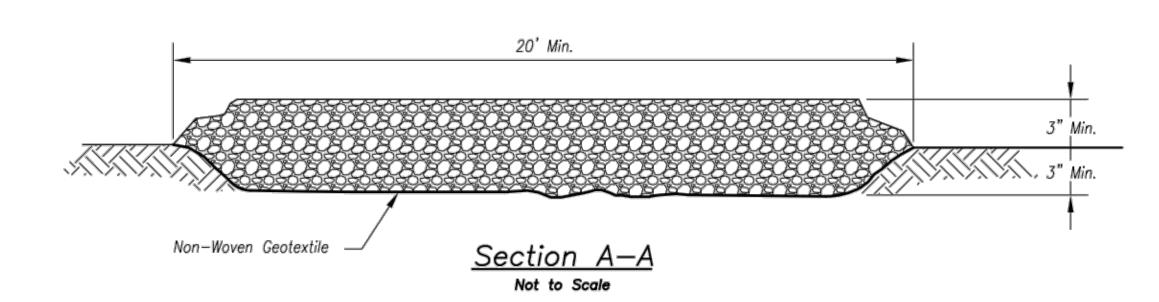
SHEET

17 **GEN-4**

EROSION CONTROL NOTES 1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE OF ALL EROSION & SEDIMENT CONTROL MEASURES AND PRACTICES THROUGHOUT THE PROJECT INCLUDING ANY AND ALL FINES ASSOCIATED WITH EROSION CONTROL VIOLATIONS. 2. EROSION CONTROL IS THE CONTRACTOR'S RESPONSIBILITY. THIS PLAN SHOULD BE USED AS A GUIDE AND REPRESENTS THE MINIMUM EROSION CONTROL DEVICES REQUIRED. 3. EROSION CONTROL MEASURES WILL BE MAINTAINED AT ALL TIMES. ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES WILL BE INSTALLED IF DEEMED NECESSARY BY ON SITE INSPECTION. 4. CONTRACTOR IS RESPONSIBLE FOR INSPECTING AND REPAIRING ALL EROSION AND SEDIMENT CONTROL DEVICES AFTER EACH RAINFALL EVENT. 5. THE CONTRACTOR SHALL PROVIDE ANY FURTHER EROSION CONTROL MEASURES IN ADDITION TO THOSE LISTED TO ENSURE THAT SILT WILL NOT LEAVE THE PROJECT CONFINES. 6. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING THE TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES AFTER COMPLETION OF CONSTRUCTION AND ONLY WHEN AREAS HAVE BEEN STABILIZED WITH A HEALTHY STAND OF PERMANENT VEGETATION. 7. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING SILT FROM SITE IF NOT REUSABLE ON-SITE AND ASSURING PLAN ALIGNMENT AND GRADE IN ALL DITCHES AT COMPLETION OF CONSTRUCTION. 8. THE CONTRACTOR SHALL ENSURE THAT ALL DRAINAGE STRUCTURES, FLUMES, PIPES, ETC. ARE CLEANED OUT AND WORKING PROPERLY AT TIME OF ACCEPTANCE. 9. THE CONTRACTOR SHALL PROVIDE ANY TEMPORARY STABILIZATION AS REQUIRED. 10. THE CONTRACTOR SHALL PROVIDE A TEMPORARY CONSTRUCTION ENTRANCE/EXIT FOR VEHICULAR TRAFFIC AT LOCATION SHOWN. 11. ALL EROSION CONTROL DEVICES SHALL CONFORM TO THE APPLICABLE SECTIONS OF THE EXIST. R/W -STANDARD SPECIFICATIONS AND DESIGN CRITERIA OF THE ENGINEERING DIVISION, DEPARTMENT OF PUBLIC WORKS, CITY OF SPRINGFIELD, MISSOURI. 12. REFERENCE DETAILS THIS SHEET FOR TYPICAL EROSION CONTROL DEVICE INSTALLATION. 13. THE CONTRACTOR WILL BE REQUIRED TO CLEAN THE STREETS OF DEPOSITED MUD AS PROP. R/W -FREQUENTLY AS NEEDED AS DETERMINED BY THE ENGINEER TO KEEP THEM USABLE AND TO CONTROL DUST. 14. PRIOR TO GRADING ACTIVITIES, CONTRACTOR MUST HAVE TEMPORARY BMP'S INSPECTED BY THE CITY. 15. AREAS STRIPPED OF VEGETATION THAT ARE LEFT EXPOSED FOR MORE THAN 14 DAYS SHALL BE TEMPORARILY SEEDED OR MULCHED TO PREVENT EROSION. IF MULCHED, CONTRACTOR SHALL CRIMP THE MULCH INTO THE EXPOSED GROUND. 16. THE CONTRACTOR SHALL PROTECT ALL STORM SEWER STRUCTURES WITH COMPOST FILTER SOCK IN LIEU OF GRAVEL FILTER BAGS UNTIL GRASS IS ESTABLISHED. TEMP. CONSTRUCTION ESMT. 17. ALL DISTURBED AREAS NOT RECEIVING OTHER PERMANENT STABILIZATION SUCH AS PAVEMENT, ROOFS, SOD, ETC., SHALL BE SODDED OR SEEDED AND MULCHED, ACCORDING TO THE STANDARD SPECIFICATIONS AND DESIGN CRITERIA OF THE ENGINEERING DIVISION, DEPARTMENT OF PUBLIC WORKS, CITY OF LEE'S SUMMIT, MISSOURI. GRADING LIMITS -18. CONTRACTOR IS RESPONSIBLE FOR PHASED INSTALLATION OF EROSION CONTROL BMP'S IN ORDER TO PREVENT SEDIMENT FROM BREACHING THE LIMITS OF DISTURBANCE. TEMP. CONSTRUCTION ESMT. -GRADING LIMITS € O'BRIEN ROAD O'BRIEN ROAD EXIST. R/W TEMP. CONSTRUCTION ESMT. PROP. R/ EROSION AND SEDIMENT CONTROL STAGING CHART EROSION CONTROL PLAN BMP REFERENCE NO. PROJECT STAGE NOTES: REMOVE AFTER STAGE BMP DESCRIPTION 1A - PRIOR TO LAND DISTURBANCE PHASE 1C SEE EROSION CONTROL NOTES FOR DETAILS CONSTRUCTION ENTRANCE AND STAGING AREA PHASE 1D INSTALL SILT FENCE AS INDICATED ON PLANS INSTALL SILT FENCE N/A 1B - CLEARING & GRUBBING STOCKPILE TOPSOIL SEED STOCKPILE AREA AS SOON AS STOCKPILING ACTIVITIES HAVE CEASED PHASE 1D TO BE INSTALLED PRIOR TO POURING CONCRETE. CONCRETE WASHOUT SEED WASHOUT AREA AS SOON AS CONCRETE CONSTRUCTION HAS CEASED. LEGEND 1C - ROAD CONSTRUCTION EROSION AND SEDIMENT CONTROL N/A PERFORM MAINTENANCE ON ALL EROSION CONTROL MEASURES FOR ALL PREVIOUS PHASES AS NECESSARY. SOD PHASE 1D INSTALL INLET PROTECTION QA/QC by:_ INSTALL INLET PROTECTION AS INDICATED ON PLANS project no.:___ BEGIN GRADING FOR ROAD IMPROVEMENTS N/A SEE ROADWAY PLAN AND PROFILES FOR DETAILS —— SILT FENCE SHOVELING, BROOMING, SWEEPING, AND/OR VACUUMING 1D - FINAL STABILIZATION N/A STREET CLEANING INLET PROTECTION TO REMOVE TRACK-OUT OF SEDIMENT FROM PAVED SCALE IN FEET PUBLIC ROADS SHEET N/A N/A SEED OR SOD ALL DISTURBED AREAS. ESTABLISH PERENNIAL VEGETATION INSTALL AS INDICATED ON PLANS.

<u>Plan View</u> Not to Scale





Notes for Construction Entrance:

- Avoid locating on steep slopes, at curves on public roads, or downhill of disturbed area.
- Remove all vegetation and other unsuitable material from the foundation area, grade, and crown for positive drainage.
- 3. If slope towards the public road exceeds 2%, construct a 6- to 8-inch high ridge with 3H:1V side slopes across the foundation approximately 15 feet from the edge of the public road to divert runoff from it.
- 4. Install pipe under the entrance if needed to maintain drainage ditches along public roads.
- 5. Place stone to dimensions and grade as shown on plans. Leave surface sloped for drainage.
- 6. Divert all surface runoff and drainage from the entrance to a sediment control device.
- 7. If conditions warrant, place geotextile fabric on the graded foundation to improve stability.

Maintenance for Construction Entrance:

as needed.

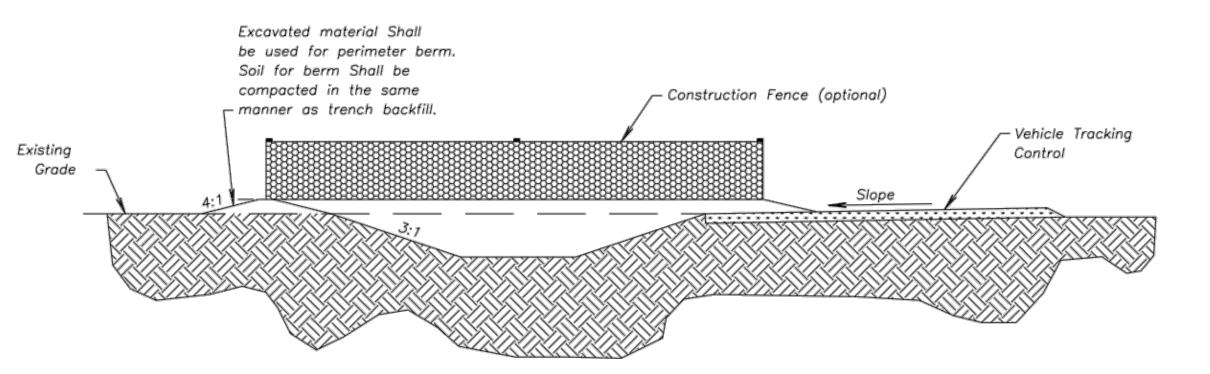
CONSTRUCTION ENTRANCE

Notes for Concrete Washout:

- 1. Concrete washout areas shall be installed prior to any concrete placement on site.
- 2. Concrete washout area shall include a flat subsurface pit sized relative to the amount of concrete to be placed on site. The slopes leading out of the subsurface pit shall be 3:1. The vehicle tracking pad shall be sloped towards the concrete washout area.
- 3. Vehicle tracking control is required at the access point to all concrete washout areas.
- 4. Signs shall be placed at the construction site entrance, washout area and elsewhere as necessary to clearly indicate the location(s) of the concrete washout area(s) to operators of concrete truck and pump rigs.
- 5. A one-piece impervious liner may be required along the bottom and sides of the subsurface pit in sandy or gravelly soils.

Maintenance for Concrete Washout:

- 1. Concrete washout materials shall be removed once the materials have filled the washout to approximately 75% full.
- 2. Concrete washout areas shall be enlarged as necessary to maintain capacity for wasted concrete.
- 3. Concrete washout water, wasted pieces of concrete and all other debris in the subsurface pit shall be transported from the job site in a water-tight container and disposed of properly.
- 4. Concrete washout areas shall remain in place until all concrete for the project is placed.
- 5. When concrete washout areas are removed, excavations shall be filled with suitable compacted backfill and topsoil, any disturbed areas associated with the installation, maintenance, and/or removal of the concrete washout areas shall be stabilized.



CONCRETE WASHOUT

Construction Entrance modified from 2015 Overland Park Standard Details

for Erosion and Sediment Control; Concrete Washout modified from 2009

City of Great Bend Standard Drawings.

AMERICAN PUBLIC WORKS ASSOCIATION



KANSAS CITY METRO CHAPTER

CONSTRUCTION ENTRANCE AND CONCRETE WASHOUT

STANDARD DRAWING NUMBER ESC-OI ADOPTED:

10/24/2016

checked by: designed by: QA/QC by:_ project no.:____ A18-1140 2019.03.12

SHEET

PRYOR ROAD & O'BRIEN ROAD INTERSECTION IMPROVEMENTS

ION CONTROL DETAILS

1. Reshape entrance as needed to maintain function and integrity of Installation. Top dress with clean aggregate

4' min length post at 4' max spacing Geotextile fabric Staples, plastic zip ties or other material — approved by the field engineer, (50 lb tensile strength) located in top 8" Tire compaction zone Direction of Flow 2' Min. Post embedment Machine slice (See Note 6.) 6" - 12" depth

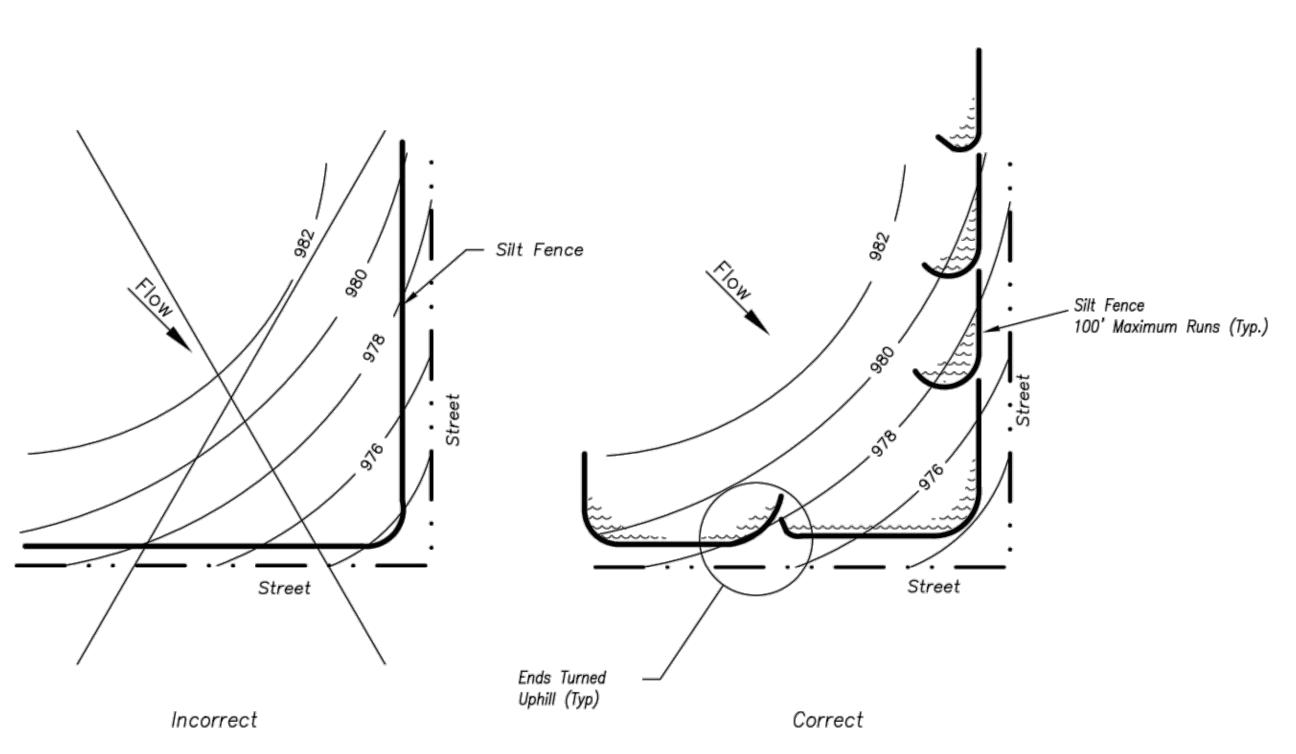
(*) <u>POSTS</u>

- MIN, LENGTH 4'
- HARDWOOD 1 ⅔6" x 1 ⅙6"
- NO.2 SOUTHERN PINE 2 %" x 2 %"
- STEEL 1.33 LB/FT

(**) – Geotextile Fabric shall meet the requirements of AASHTO M288

SILT FENCE DETAILS

Not to Scale



Install silt fence at the top of the slope to slow velocity and volume of water and 6' to 10' away from the toe to create a sediment storage area. Flow 6' - 10'

Modified from 2015 Overland Park Standard Details

for Erosion and Sediment Control.

<u>Figure A</u>

SILT FENCE LAYOUT

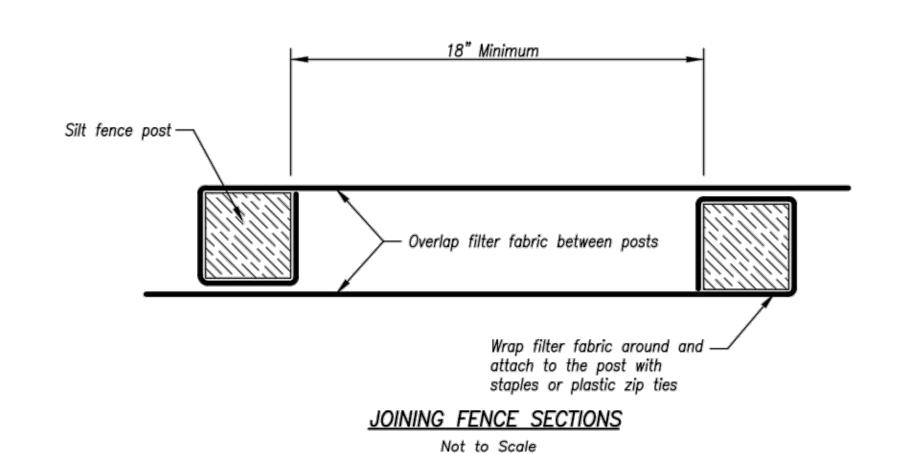
Not to Scale

Notes:

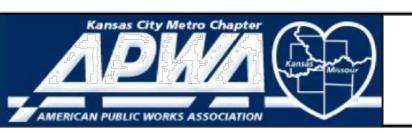
- 1. In order to contain water, the ends of the silt fence must be turned uphill (Figure A).
- 2. Long perimeter runs of silt fence must be limited to 100'. Runs should be broken up into several smaller segments to minimize water concentrations (Figure A).
- 3. Long slopes should be broken up with intermediate rows of silt fence to slow runoff velocities.
- 4. Attach fabric to upstream side of post.
- 5. Install posts a minimum of 2' into the ground.
- 6. Trenching will only be allowed for small or difficult installation, where slicing machine cannot be reasonably

<u>Maintenance:</u>

- 1. Remove and dispose of sediment deposits when the deposit approaches 1/3 the height of silt fence.
- 2. Repair as necessary to maintain function and structure.



EROSION CONTROL DETAILS AMERICAN PUBLIC WORKS ASSOCIATION



KANSAS CITY METRO CHAPTER

SILT FENCE

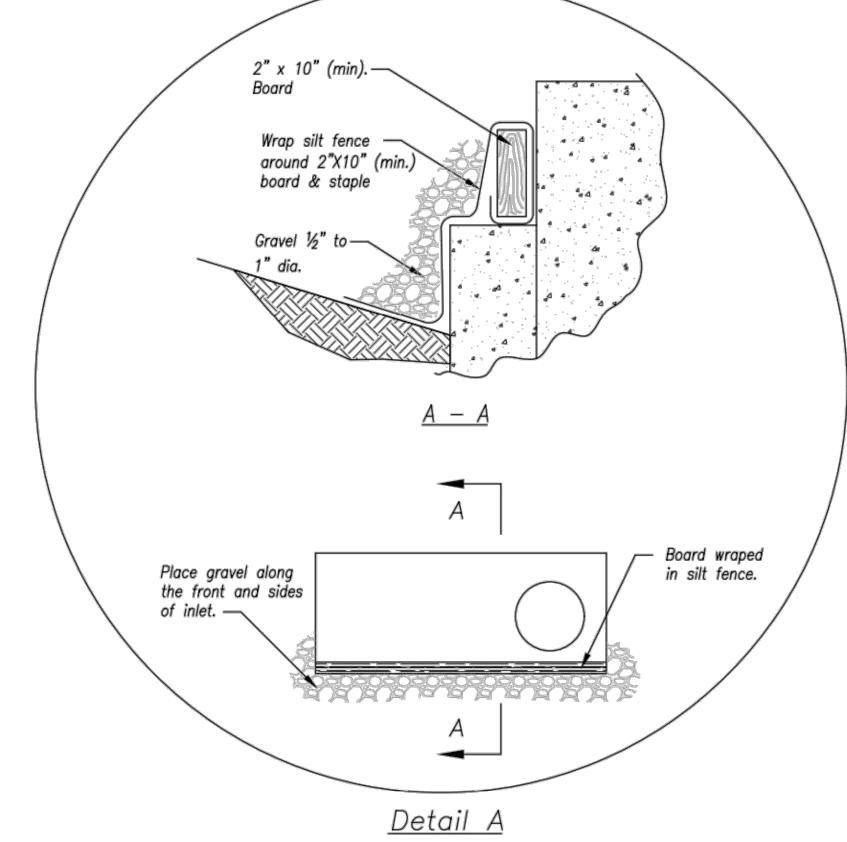
NUMBER ESC-03 ADOPTED:

STANDARD DRAWING checked by: designed by: QA/QC by:_ 10/24/2016 project no.:____

SHEET

RBC A18-1140 2019.03.12

PRYOR ROAD & O'BRIEN ROAD INTERSECTION IMPROVEMENTS



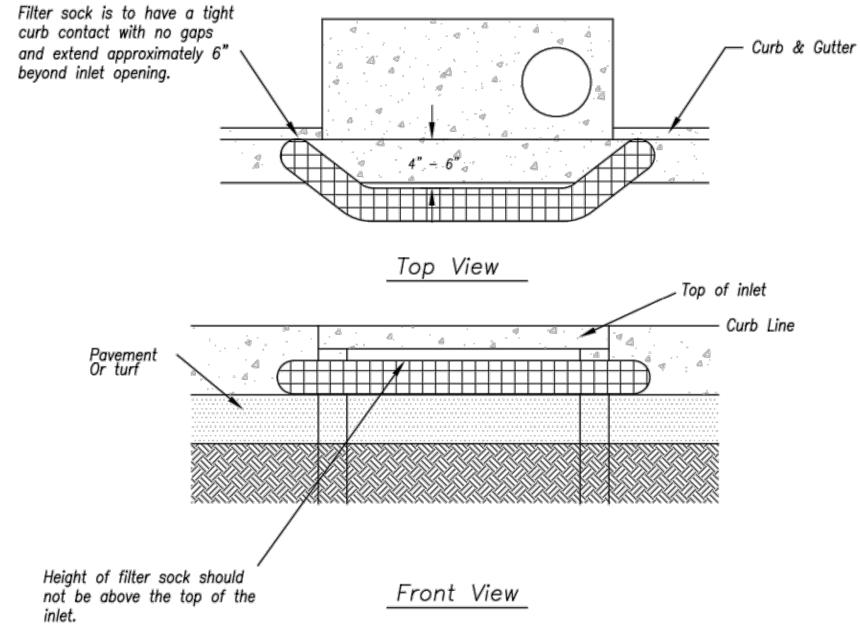
EARLY STAGE CURB INLET (Open Box and Prior to Pouring

<u>Notes:</u>

- Immediately following inlet construction and prior to construction of curb and inlet throat, protect inlet opening by installing 2" X 10" (min.) board wrapped in silt fence. Structures shall have excavated storage area on all four sides to allow settling of sediment (Early Stage Curb Inlet).
- 2. When inlet is completed and curb poured, filter socks or approved equal should be used (Late Stage Curb Inlet). Straw wattles are not approved for curb inlet use.
- Contractor to field verify ponding water shall not create a traffic hazard.

Maintenance:

- 1. Remove deposited sediment from excavated storage areas when available storage has been reduced by 20%.
- 2. Remove deposited sediment from filter socks or similar when any accumulation of sediment is visible.
- 3. Repair or replace as necessary to maintain function and integrity



Sump Inlet Sediment Filter

LATE STAGE CURB INLET (After Pouring Curb and Inlet Throat)

Modified from 2015 Overland Park Standard Details

for Erosion and Sediment Control.

AMERICAN PUBLIC WORKS ASSOCIATION KANSAS CITY

METRO CHAPTER

CURB INLET PROTECTION

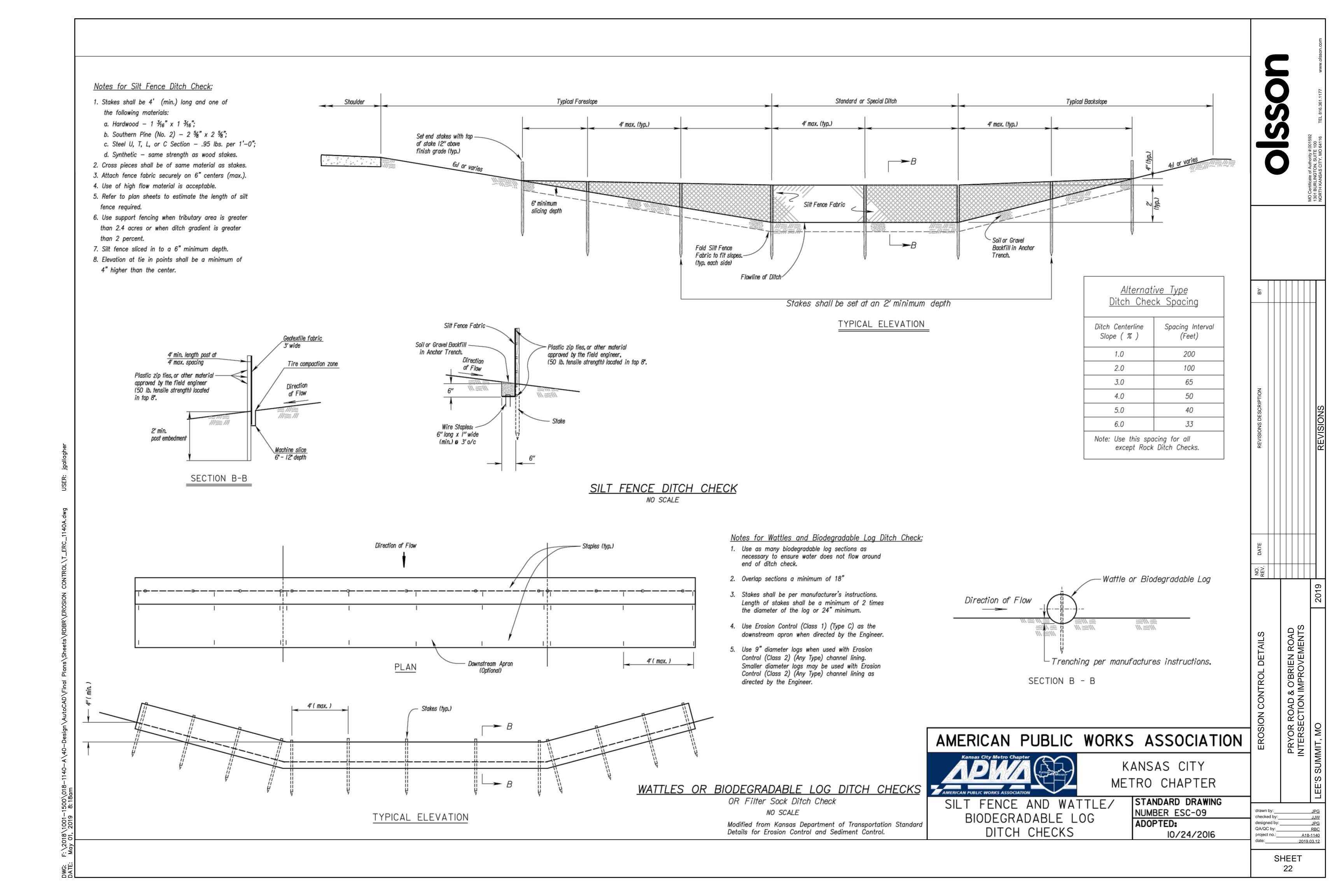
STANDARD DRAWING NUMBER ESC-06 ADOPTED: 10/24/2016

PRYOR ROAD & O'BRIEN ROAD INTERSECTION IMPROVEMENTS SUMMIT, MO checked by: designed by: QA/QC by:_

RBC A18-1140 2019.03.12 project no.:

EROSION CONTROL DETAILS

Curb and Inlet Throat)



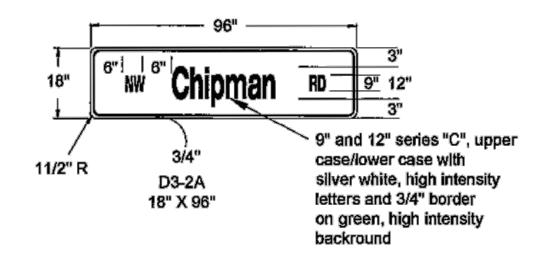
GENERAL NOTES:

- 1. The contractor shall have one (1) signed copy of the plans (approved by the City of Lee's Summit) and one (1) copy of the appropriate Design and Construction Standards and Specification at the job site at all times.
- 2. Construction of the improvements shown or implied by this set of drawings shall not be initiated or any part thereof undertaken until the Director of Public works or his agent is notified of such intent, and all required and properly executed bonds and contract agreements are received and approved by the City.
- 3. The Construction covered by these plans shall conform to all applicable standards and specifications of the Public Works Department of the City of Lee's Summit, Missouri, in current use. Specifically, but not exclusive to: Traffic Signal Specification: Section 2900.
- Traffic Signal Standard Drawings: TS-1 through TS-10.
- 4. All workmanship and materials shall be subject to the inspection and approval of the Public Works Department of the City of Lee's Summit, Missouri.
- 5. Right-Of-Way limits should be cross checked by the Contractor and approved by the field inspector before undertaking any excavations at the site,
- 6. The contractor shall stake the location of all pole bases, pull boxes, and controller cabinet base, then provide the City one week notice prior to the start of construction, and subsequent construction activities, for inspection and approval. The contractor shall provide a work schedule, contact names, and phone numbers.
- 7. All locations indicated in drawings, including conduit runs are subject to adjustment to clear obstructions and to meet site conditions, if any, by the City.
- 8. Existence and location of any underground or overhead facilities shown on these drawings or reference to any soil conditions, if made, are approximate only. It is the Contractor's responsibility to verify all site conditions and to locate all utilities, including depth, before starting construction so that any adjustments to design can be made prior to pole ordering or fabrication. In addition, the Contractor shall avoid disruption of services provided by the utilities and shall insure that proper clearances (overhead and underground) are maintained for the duration of construction. The Contractor shall be fully responsible for any and all damages caused by failure to exactly locate and preserve all utilities.
- 9. The contractor shall coordinate with the City Traffic Engineer for any necessary changes to the traffic signals resulting from existing utilities or other construction issues.
- Any equipment damaged during construction shall be replaced at the Contractor's expense.
- 11. Signal equipment shall not form an obstruction to the movement of pedestrian and wheelchair traffic and shall be ADA accessible. Where sidewalks are present, a minimum clear width of 48 inches shall be available for pedestrian and wheelchair movement. Pull boxes shall not be installed on wheelchair ramps.
- 12. Conduits to be placed outside of paved areas shall be trenched in place. If the project includes roadway improvements, the conduit shall be trenched after the roadway rough grade is established and prior to any final roadway paving, curb & gutter, median or sidewalk sections are placed. All compaction and backfill shall meet City of Lee's Summit requirements. At the option of the contractor, conduits may be bored outside paved areas, but there will be no adjustment to the unit prices for conduit installation and any change in cost would be the contractor's responsibility. Any conduit bore outside paved areas shall be done after roadway improvements are complete. Conduits to be placed within the limits of pavement shall be bored unless otherwise authorized by the City Traffic Engineer. If the project includes roadway improvements, the conduit shall be bored prior to any final roadway paving. Potholing for utilities on road bores after final paving will not be allowed.
- 13. The traffic signal controller, cabinet and related equipment, as specified for this project, shall be delivered to the City for testing prior to installation. All signal timings will be provided by the City Traffic Engineer. The Contractor shall coordinate material delivery and pick-up with the Public Works Operations Department (969-1870) at least 48 hours prior to transportation. A minimum of 2 weeks shall be permitted for testing between delivery and pick-up. The Contractor assumes all damage liability and should inspect all materials before and after transportation of equipment.
- 14. The Contractor shall coordinate all electrical power requirements and connection activities with the Utility Company, including location of the meter, circultry and connection requirements, and powering up the complete system. The Contractor shall order the meter and pay electrical bills until Final Acceptance, at which time the Contractor shall coordinate with the City for transferring the electrical billing services to the City.
- 15. All disturbed surfaces shall be made good to match existing at the Contractor expense.
- 16. Contractor shall maintain at all times access for Emergency Vehicles and residents along the entire project.
- 17. Substantial completion of the traffic signals shall be defined as all components of the traffic signal operated fully and satisfactorily with red, yellow, and green cycles. Substantial completion shall allow for testing of the signals, including a flash period, prior to signals operating with cycles. Substantial completion shall also include the completion of all interconnect, sidewalk, curb ramp and removal work.
- 18. Final acceptance of traffic signals shall be defined as final written approval and acceptance by the City, including completion or correction of all punch list items and the traffic signals fully operational for a time period of fifteen (15) days, without any problem, as noted in the specifications. As-built plans shall be submitted prior to final acceptance by the City.

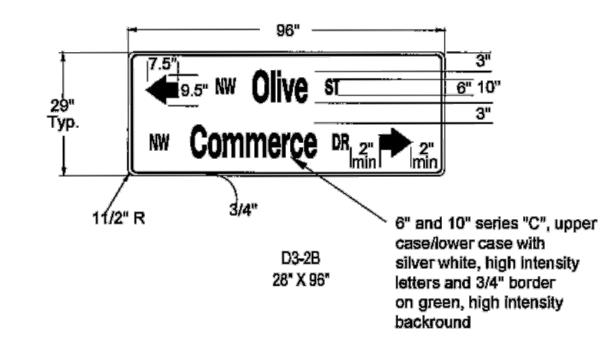
PROJECT SPECIFIC NOTES:

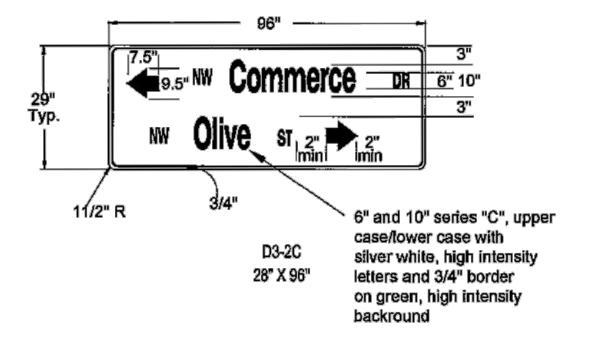
- 1. Existing signal poles and appurtenances shall be removed and become the property of the City unless otherwise noted in the plans.
- 2. Signal operation shall be maintained throughout construction. During construction existing signal cables may be spliced and extended to new heads on the new mast arm as necessary, coordinate with the City. Once all new equipment is operational temporary splices are to be removed with all existing equipment.
- 3. The traffic signal shall remain fully operational with exception of the hourly period for relocation of poles/equipment as described on the the traffic control plans.
- 4. All signal installation and relocation work must be completed prior to construction of roadway improvements due to the removals of existing signal boxes and foundations associated with roadway improvements.
- 5. Prior to any signal pole or post relocation, all new foundations or bases, conduits, pull boxes, and cabling/wiring shall be installed for an expedient relocation process that minimizes separation and reconnection time (or downtime of signal operations).

STREET NAME SIGN DETAIL

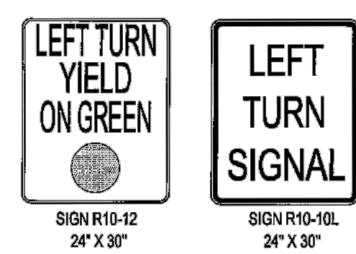


DUAL STREET NAME SIGN DETAILS





TYPICAL REGULATORY SIGN DETAIL



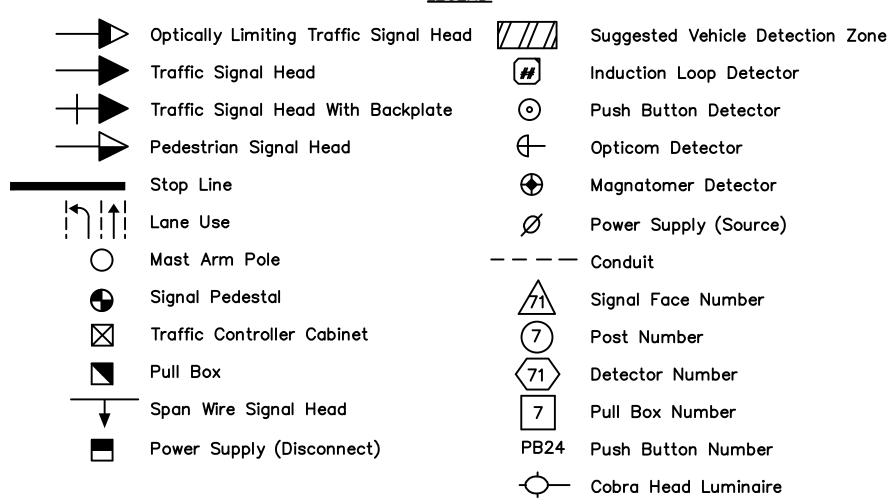


SIGN R10-3E

9" X 15"

Note: Sign R10-3E shall be provided for each push button.

LEGEND



Α	В	С	D	E	F	G	H	ì	J	K	М
RY	RY		R		(R)	(R)		R	R	(R)	15盛 Note: All
(G)											indications shall be LED.

Vehicular Detection Camera

UTILITY CONTACT NUMBERS

КСР&L	Lee's Summit Water Utilities
1300 SE Hamblen Road	220 SE Green Street
Lee's Summit, MO 64081	Lee's Summit, MO 64063
Heath Leлahan	Wes Owen
(816) 347-4317	(816) 969-1940
AT&T TELEPHONE	Time Warner Cable
215 North Spring Street	8221 W 119th Street
Independence, MO 64050	Overland Park, KS 66213
Marty Loper	Troy Prewitt
(816) 275-1550	(816) 508-7287
Missouri Department of Transportation (MoDOT)	Missouri Gas Energy
600 NE Colbern Road	3025 Clover Drive
Lee's Summit, MO 64086	Lee's Summit, MO 64082
Cedrick Owens	Becca Orr

Venzon 7411 NE 160th Terrace Smithville, MO 64089 Scott Billings (816) 729-7666

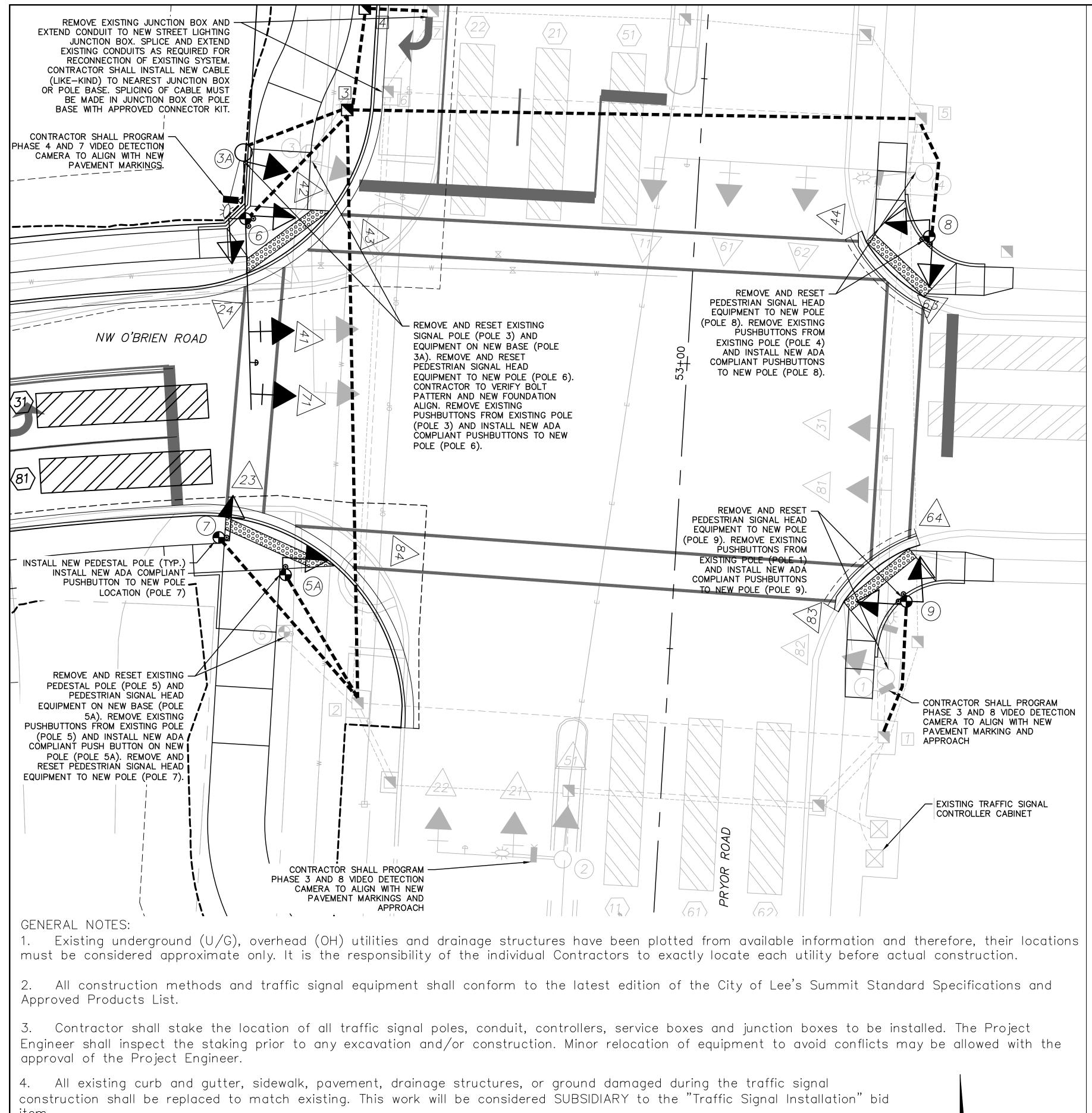
(816) 607-2178

Century Link 5454 W. 110th Street, 9th Floor Overland Park, KS 66211 Brian Cornish (913) 484-4526

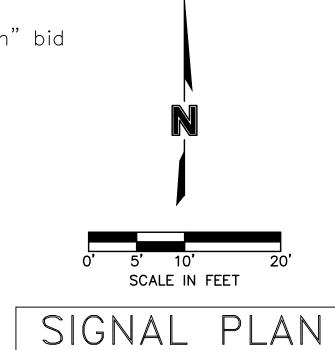
(816) 969-2230

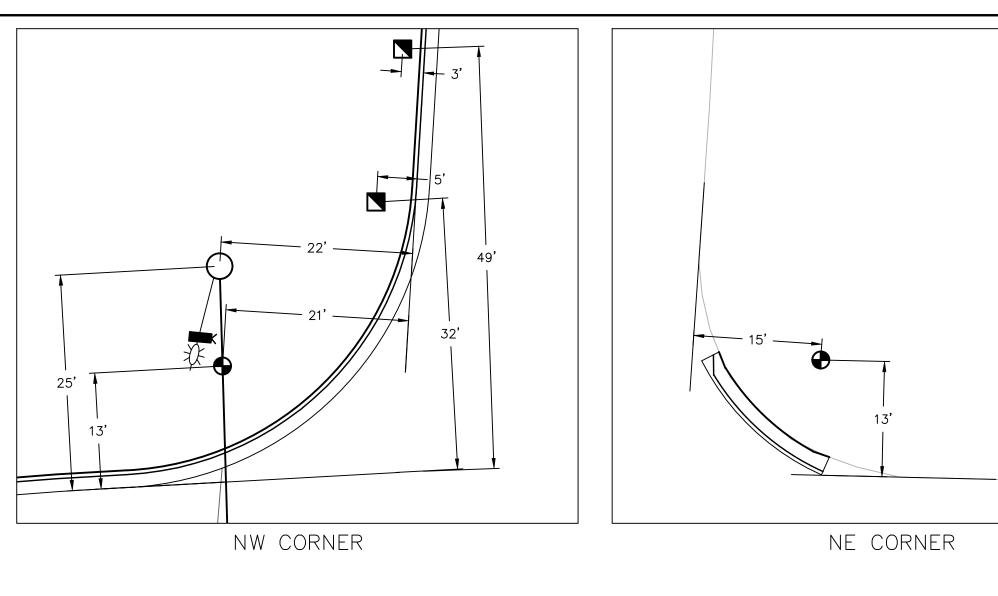
Lee's Summit Public Works 1971 SE Hamblen Road Lee's Summit, MO 64081 Scott Koch (816) 969-1879

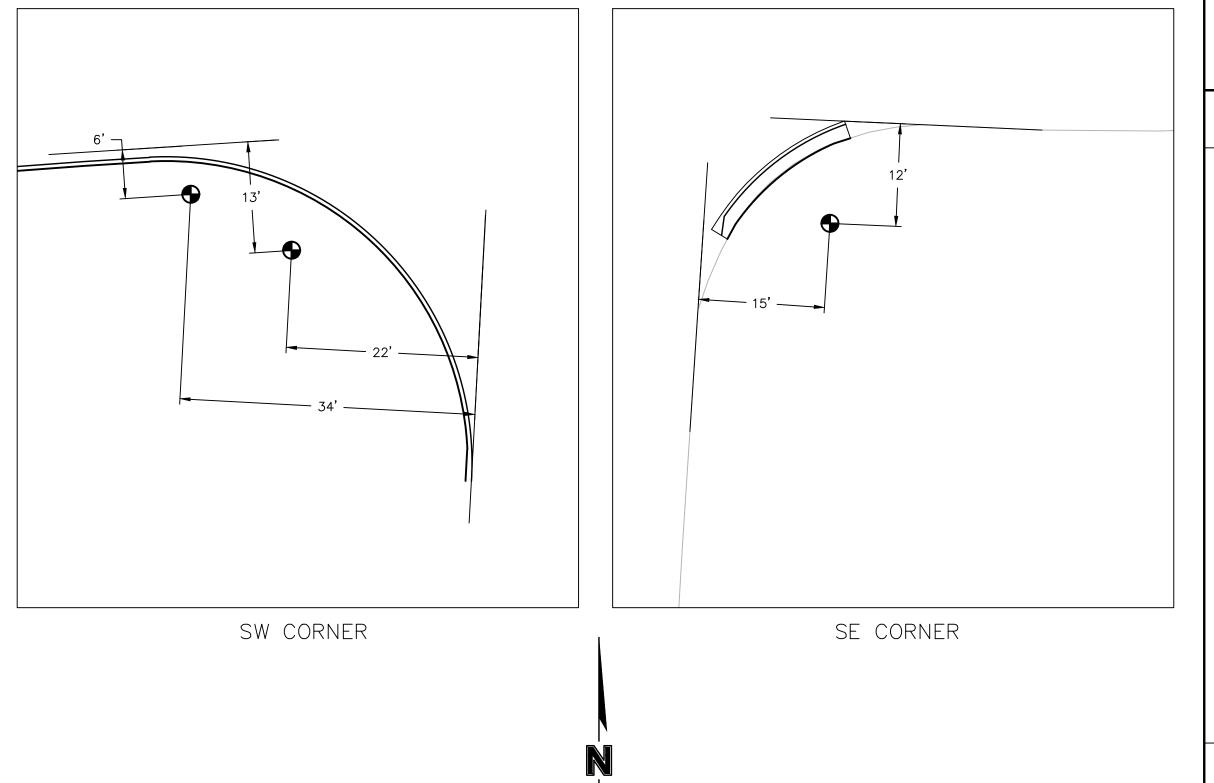
LS R-7 School District 301 NE Tudor Road Lee's Summit, MO 64086 Kinzie Doll (816) 986-1050



- item.
- Contractor shall coordinate signal turn—on with the City of Lee's Summit.
- Contractor shall plug holes in existing pole from removal of existing equipment.







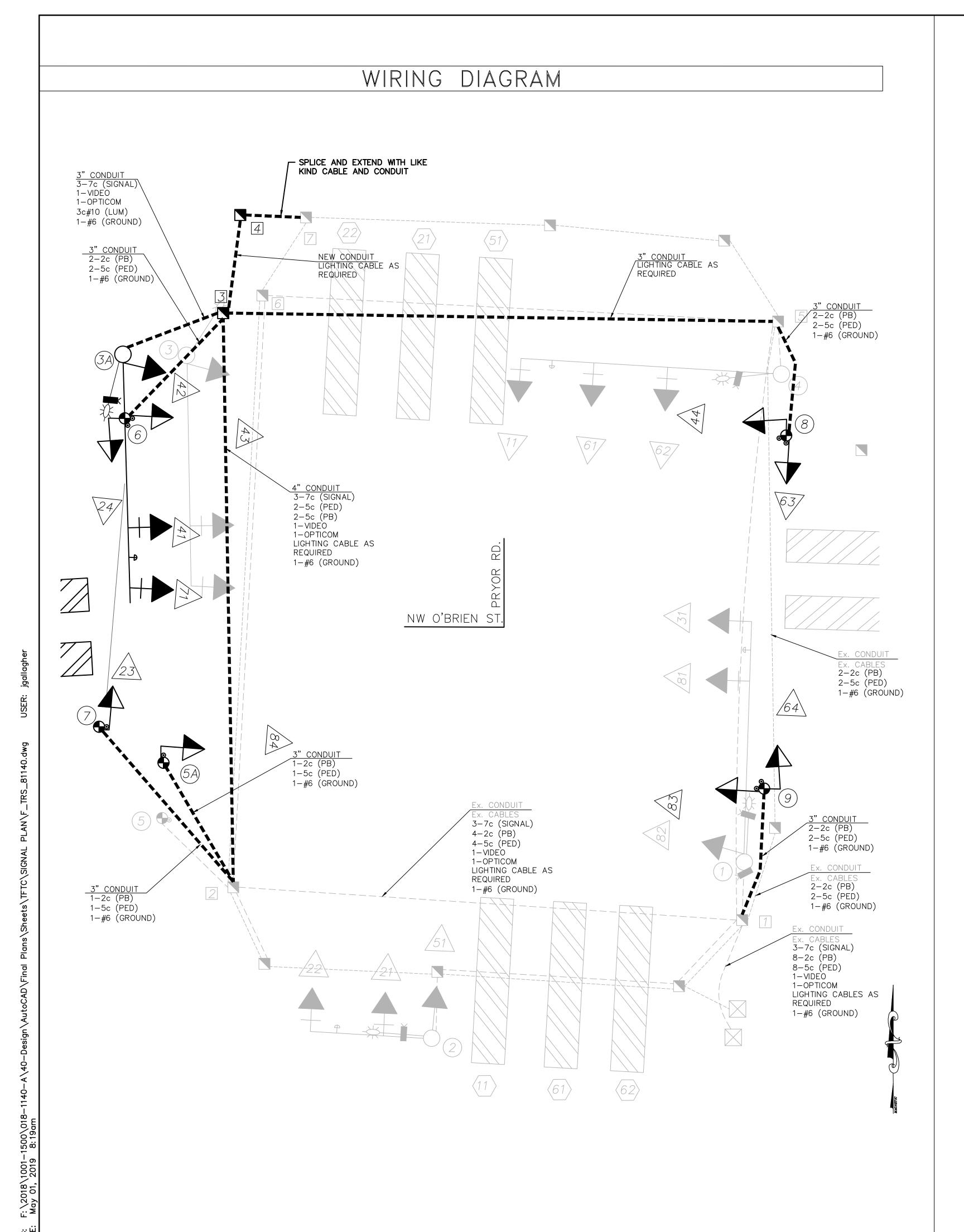
NEW EQUIPMENT TO CURB DISTANCES

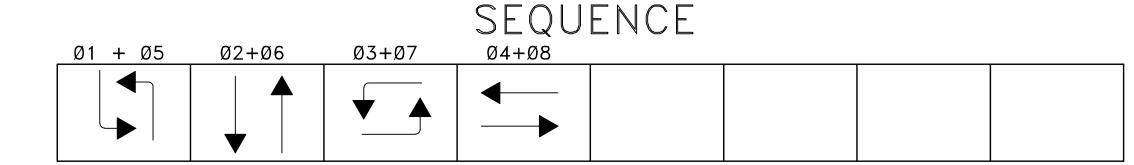
POLE, PULL BOX, AND CONTROLLER LOCATION

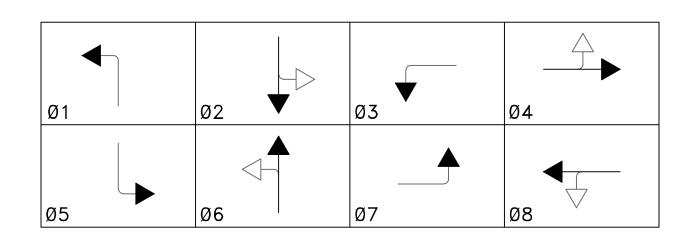
	STATION	0/S
3	53+40.77	62.1'LT.
4	53+58.67	60.1'LT.
3A)	53+32.20	79.8'LT.
6	53+20.66	78.7'LT.
(5A)	52+58.84	68.0'LT.
1	52+64.64	80.0' LT.
8	53+24.80	41.0' RT.
9	52+60.74	40.8' RT.

SIGNAL MODIFICATION PLAN PRYOR RROD & NW O'BRIEN ROAD PRYOR ROAD & O'BRIEN ROAD INTERSECTION IMPROVEMENTS

QA/QC by:_ A18-1140 2019.05.01







PHASE DIAGRAM

Wiring and Phasing General Notes

- 1. The outboard signal head (furthest on the mast arm from the pole) for each phase shall each be served by one 7c#12 cable extending from the head back to the controller. Each of the remaining same phase vehicle signal heads located on the mast arm shall be connected to like phase signal heads via a 7c#12 cable connected within the signal head terminal box. A maximum of three vehicle heads may be joined together, any additional signal heads would require a separate cable extending from the head back to the controller. All vehicular signal heads located on the pole shall each be served by one 7c#12 cable extending from the head back to the controller. No cable splices are allowed, including at the base of the pole and inside pull boxes.
- 2. A continuous 1c #6 AWG bare solid copper ground wire shall be provided in addition to ground rods. All grounding and ground rods shall be tied together using 1c #6 AWG bare solid copper wire to bond the system.
- 3. Luminaire, bracket arm, and internal conduit and wiring to be installed with signal.
- 4. All existing cabling that is no longer in use shall be removed from existing conduit system when new cabling is installed
- 5. All Street Lighting cabling (LIGHTING CABLE) is shown based on best available survey information. Contractor shall field verify conduit/cable routing and replace with like—kind cable to adjacent pull box or pole base. Splice existing cable with new cable to re—connect existing circuitry with approved connectors kits.

SSS Of Authority #:001502

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REVISIONS DESCRIPTION					REVISIONS	
DATE						
NO.						
				0,00	2019	
					_	

 drawn by:
 JRC

 checked by:
 JSS

 designed by:
 JSS

 QA/QC by:
 TAF

 project no.:
 A18-1140

 date:
 2019.05.01

SIGNAL MODIFICATION PLAN PRYOR RROD & NW O'BRIEN ROAD

PRYOR ROAD & O'BRIEN ROAD INTERSECTION IMPROVEMENTS SUMMIT, MO

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Post	Face	Opt. lir	Louvers			1	2"	LED'	S			Walk	Flash Don't Walk	W/DW	Countdown Indications	Fun.	Cut Away		1	2) -		3			4		5	
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- 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.

THE TRAFFIC SIGNAL SYSTEM SHALL BE BID AS LUMP SUM UNDER THE TRAFFIC SIGNAL MODIFICATION BID ITEM.

			В	4SE	S	AND) P	ULL	_ ВО	XES		
N	Ο.				Е		PULL BOXES					
Post	Pull	B8	B10	B13	С	EV	E		Conc. (C.Y.)		CLASS 2	CLASS 3
3A				1					3.84			
	3										1	
	4									1		
5A					1				0.44			
6					1				0.44			
7					1				0.44			
8					1				0.44			
9					1				0.44			
COI	VTR.											
ТОТ	ALS			1	5				6.04	1	1	

CONTROLLER AND EQUIPMENT	TOTALS
CABINET, PAD AND ACCESSORIES: Type P TS1 Cabinet	
VIDEO: Iteris Vantage Edge 2	
OPTICOM: NTCIP	
CONTROLLER: Type 3608 M 52 EAGLE EPAC complete per plans, including software	
MASTER CONTROLLER: Type MARC 360 complete per plans, including software	
Type 2 Power Supply w/Photocell (Utility Enclosure Pedestal)	
Ground Rods	6
BATTERY BACK-UP:	
017-201-21 FXM1100 Novus Control Unit	
017-183-24 MBP Manual Bypass	
012-306-21 Alpha Guard, battery maintainer	
180-GXL-4 Batteries	
740-628-27 Battery Harness	
033-078-25 BSM Battery Side Mount Cabinet	
Interconnect Panel	
Video Encoder	
Remove and Reset Existing Wireless Subscriber Unit	
	İ

	SIGNS			
SIGN	LEGEND	NO.	AREA (s.f.)	TOTAL (s.f.)
TOTALS	vith APS Push button assembly			

*Included with APS Push button assemb

All indications shall be LED.

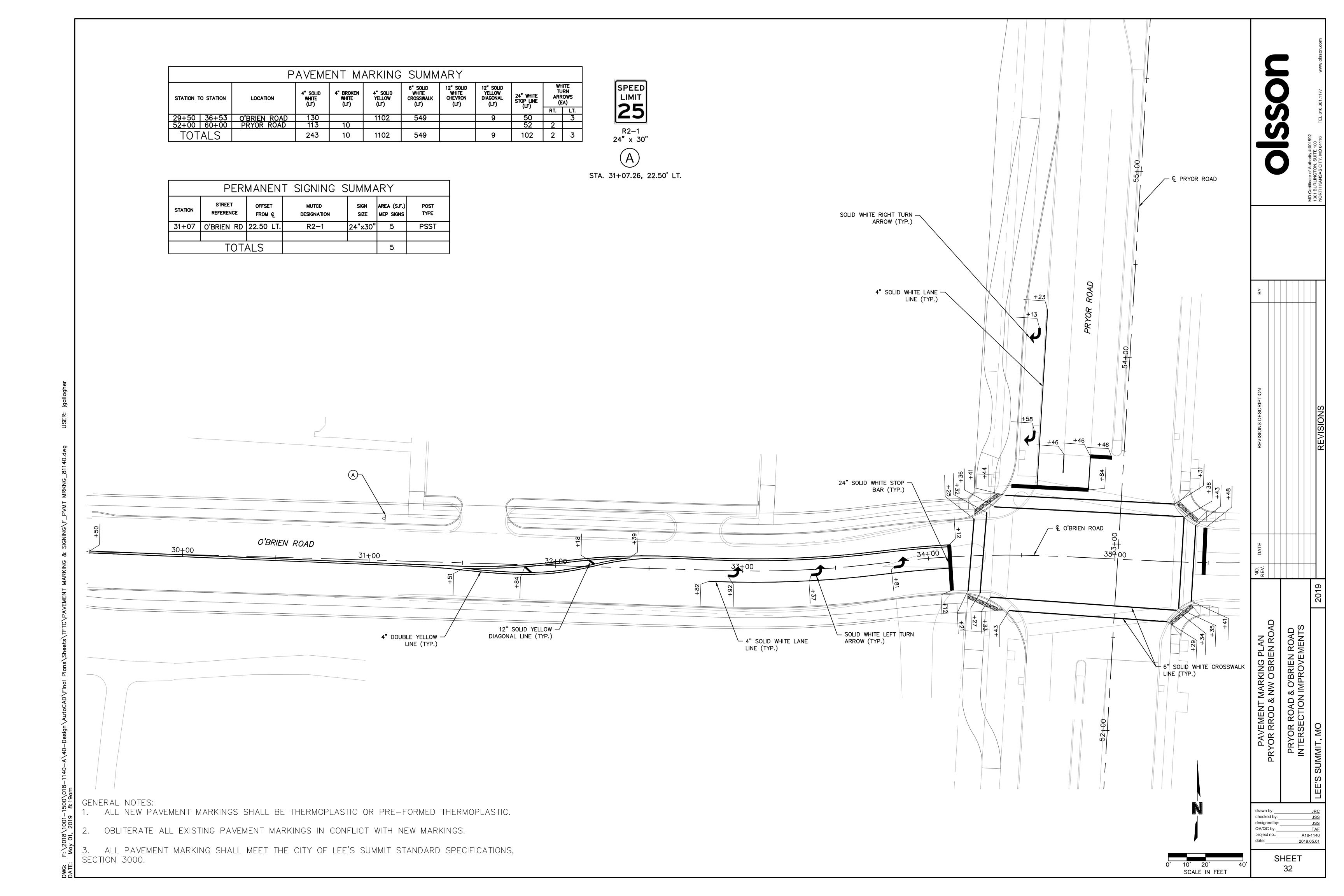
									CABLE					
FROM		GROUND	POWE	:R/LIG	SHTING		CONTROL ype 20—	- 1	LEAD-IN CABLE	INTERCONNECT COMM. CABLE	EMERGENCY PRE-EMPTION CABLE	VID CAI	EO BLE	REMARK
正		#6	3c-2	3c-8	MATCH EX.	2c-12	5c-12		4c-14	3 pr #16	m-138		Coax.	
\boxtimes	9				<u> </u>	134	142							
\boxtimes	(A)					167	171							
\boxtimes	9 6A 7					180	184							
\boxtimes	(3A) (6)							902			306	312	312	
	6					554	562							
	8					388	380							
SYS	TEM	585			486									
TOT	ALS*	615			511	1,486	1,520	948			322	328	328	

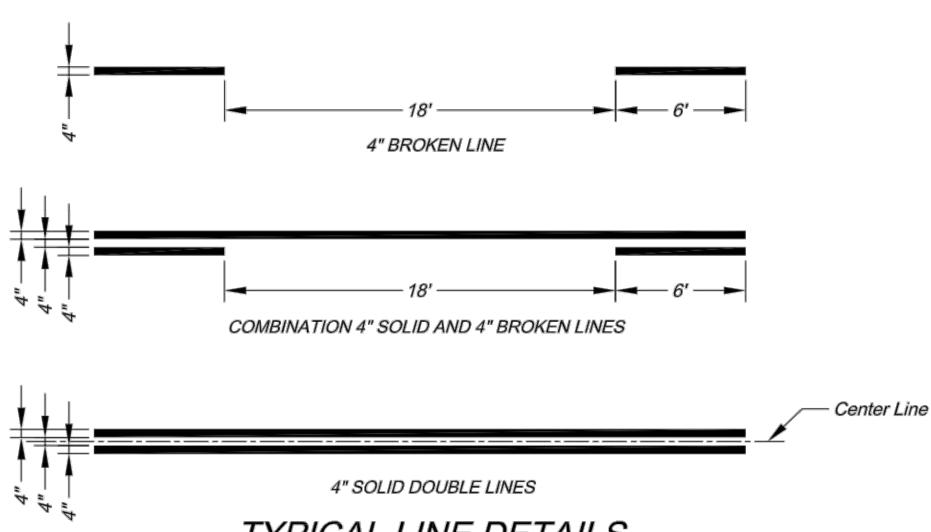
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	CONDUIT									
FROM	10	Dist.	BORED			TRENCHE	D		IN EXIST TREN	ING
H.	'		4"	3/4"	2"	2 1/2"	3"	4"	3"	4"
1 2 2 2 3	9 3 5A 7 5	25 104 25 38 104					27 27 40 102	102		
2 3 3 3 4 5	(3A) (6) (4) (7) (8)	20 25 18 12 20					22 27 18 14 22			
T	OTAL	S					299	102		

		*	DETE	СТО	RS	
DET. NO.	PHASE	PUSH BUTTON	OPTICOM NTCIP	VIDEO CAMERAS	(9X9)	LOOP (SIZE)
PB23 PB24 PB43 PB44 PB63	2	1				
PB24	2 2 4 4 6 6	1				
PB43	4	1				
PB44	4	1				
PB63	6	1				
PB64 PB83	6	1				
PB83 PB84	8	1 1				
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BY	<u> </u>						
REVISIONS DESCRIPTION						REVISIONS	
. DATE							
NO.					0,00	2019	
SIGNAL MODIFICATION PLAN PRYOR RROD & NW O'BRIEN ROAD		DRYOR ROAD & CIRRIEN ROAD	L .	INTERSECTION IMPROVEMENTS		LEE'S SUMMIT, MO	
drawn by:_ checked by designed by QA/QC by:	:				JR	<u>2C</u> 3S 3S	

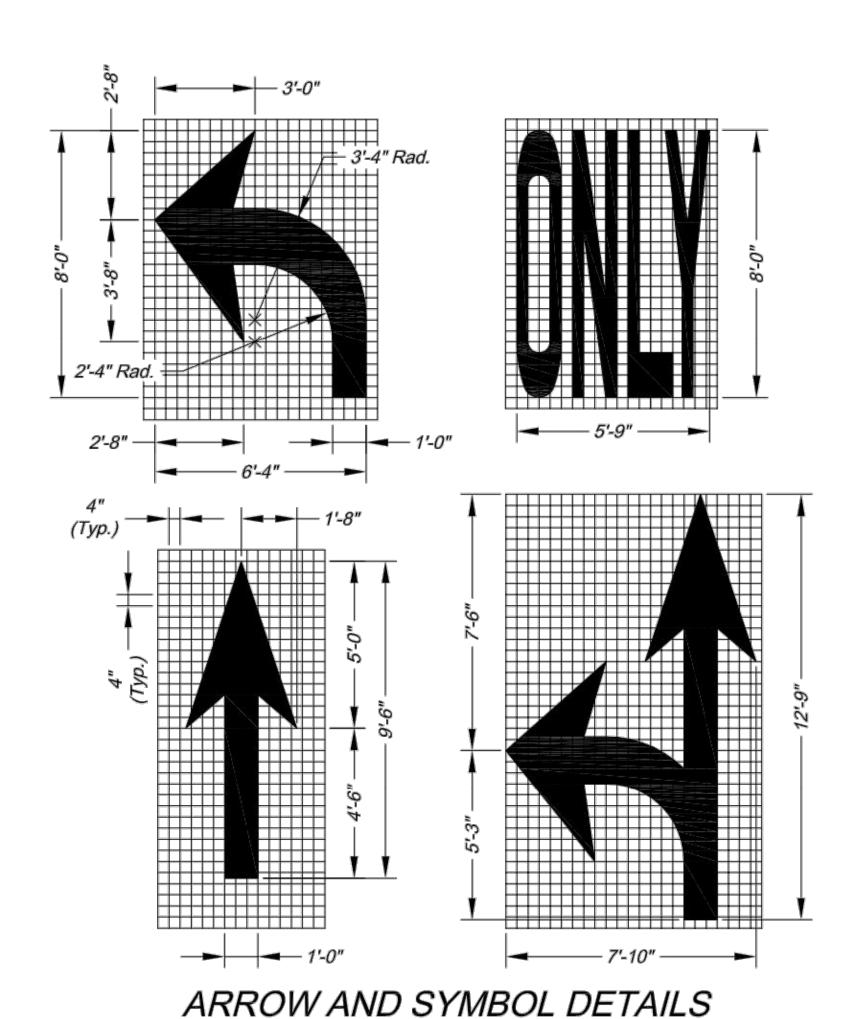




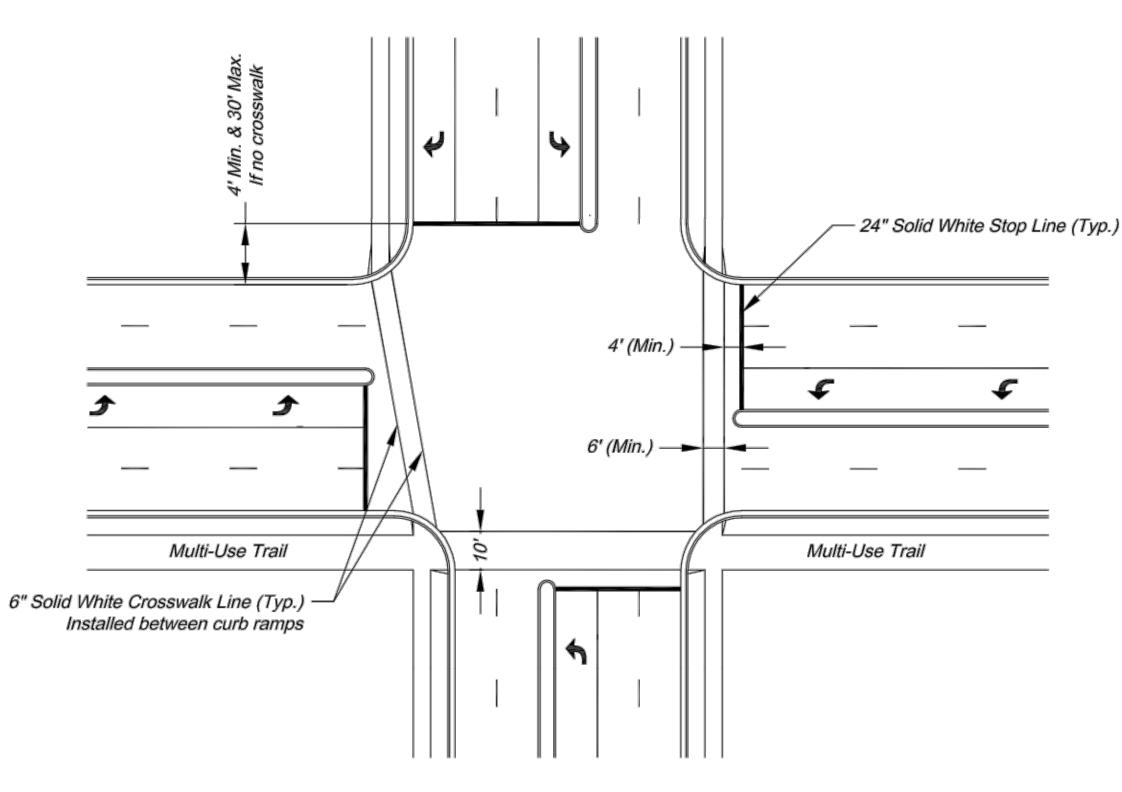
TYPICAL LINE DETAILS

NOTES

All edge line, center line, and lane line pavement markings shall be 4" wide unless otherwise noted.
 Edge lines shall be continuous solid white or yellow lines. Right side edge lines shall be solid white.
 Median or left side edge lines on divided roadways are to be solid yellow. Edge lines and center lines shall be continuous across driveways.



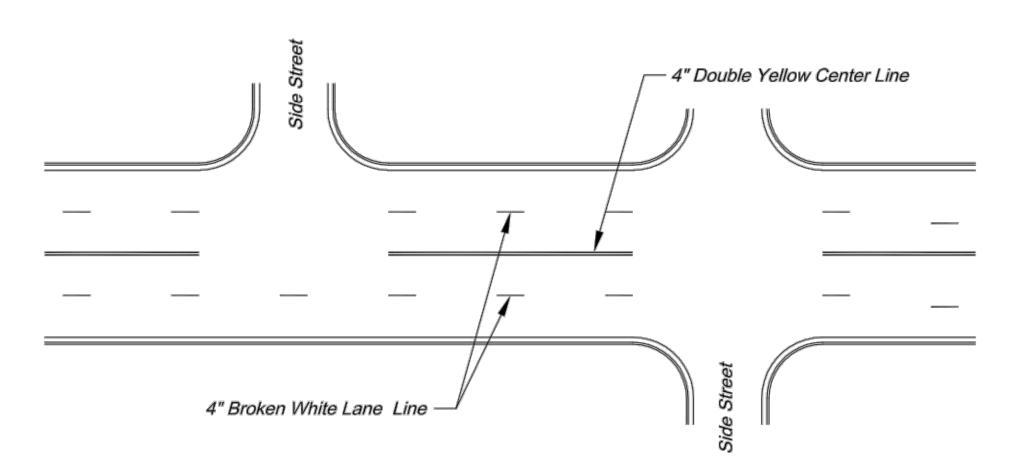
- 1. All arrow and symbol markings shall be white, and shall be centered in their respective traffic lanes.
- 2. Right-turn and combination right-turn/straight arrows are reverse of arrows shown.



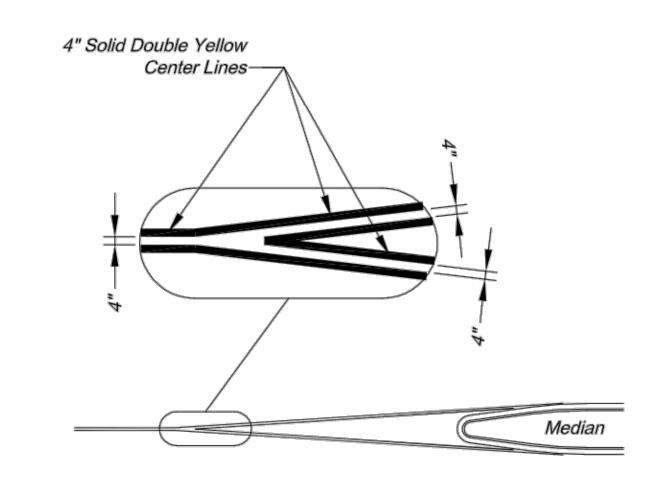
TYPICAL INTERSECTION MARKINGS

NOTES:

- 1. Transverse crosswalk lines shall be installed such that the distance between lines is at least 6 or 10 feet.
- Stop lines are required at signalized intersections, on multi-lane stop controlled approaches, or in front of crosswalks at controlled intersections.



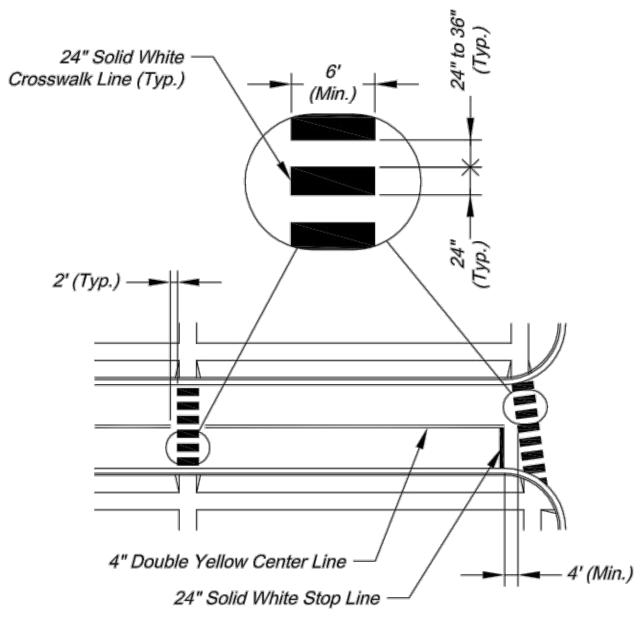
TYPICAL MARKINGS FOR FOUR-LANE UNDIVIDED ROADWAY



TYPICAL MEDIAN NOSE CENTER LINE DETAIL

PAVEMENT MARKING GENERAL NOTES:

- 1. All pavement markings shall be in accordance with the latest edition of the Manual on Uniform Traffic Control Devices (MUTCD).
- All words and symbols shall conform to the latest edition of <u>Standard Alphabets for Highway Signs and Pavement Markings</u> printed by the U.S. Department of Transportation, Federal Highway Administration.
- 3. Pavement markings, either temporary or permanent are required at all times if the roadway is open to traffic.
- 4. All pavement markings that conflict with the desired markings shall be completely removed. Removals shall not leave the road surface scarred with an image that misleads traffic. Any excess damage or scarring of pavement shall be repaired at the Contractor's expense.
- 5. The proposed permanent markings shall be laid out by the Contractor in advance of the marking installation. Markings shall not be applied until the layout has been approved by the City Traffic Engineer.
- 6. Center lines shall be marked on all undivided arterial streets, and any other undivided street with more than two lanes and/or a speed limit of 30 mph or more.
- 7. Edge lines shall be marked on all non-curbed streets.



TYPICAL MIDBLOCK OR SCHOOL CROSS WALK

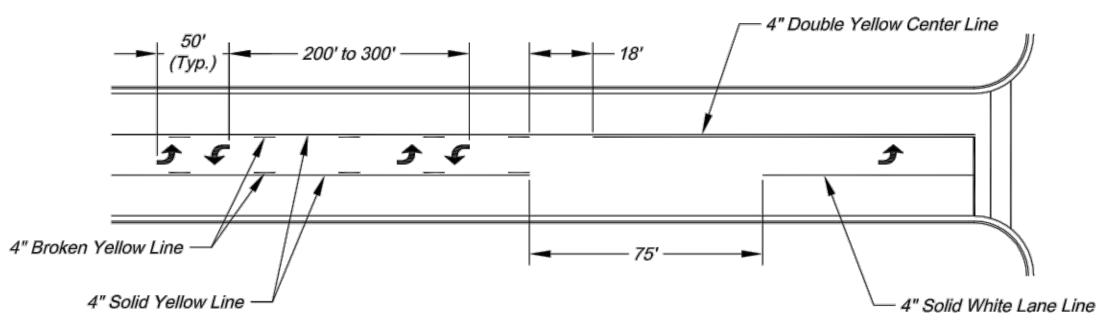
NG DETAILS

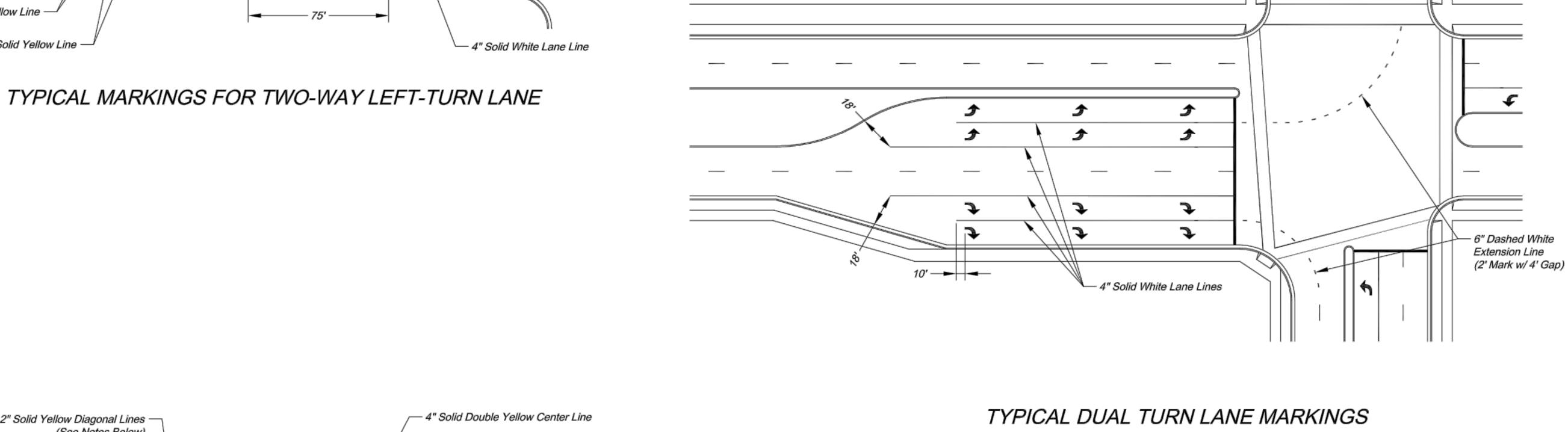
OADWAY MARKING DET

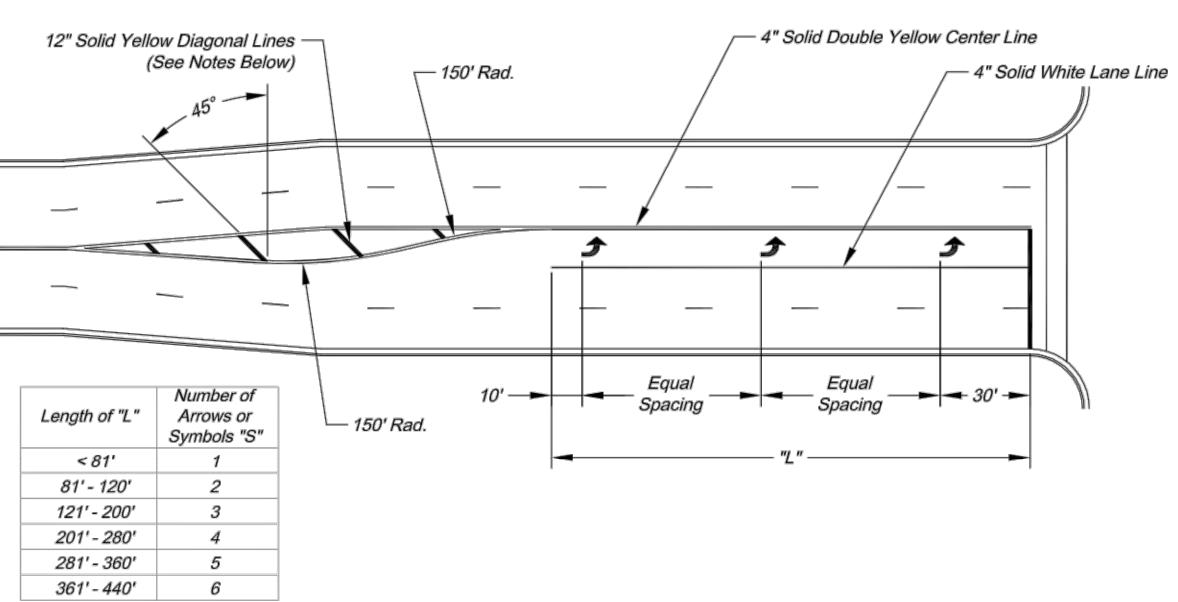
ROADV

Drawn By: AS
Checked By: JW
Date: 09/09/2009
Project#

1 OF 2





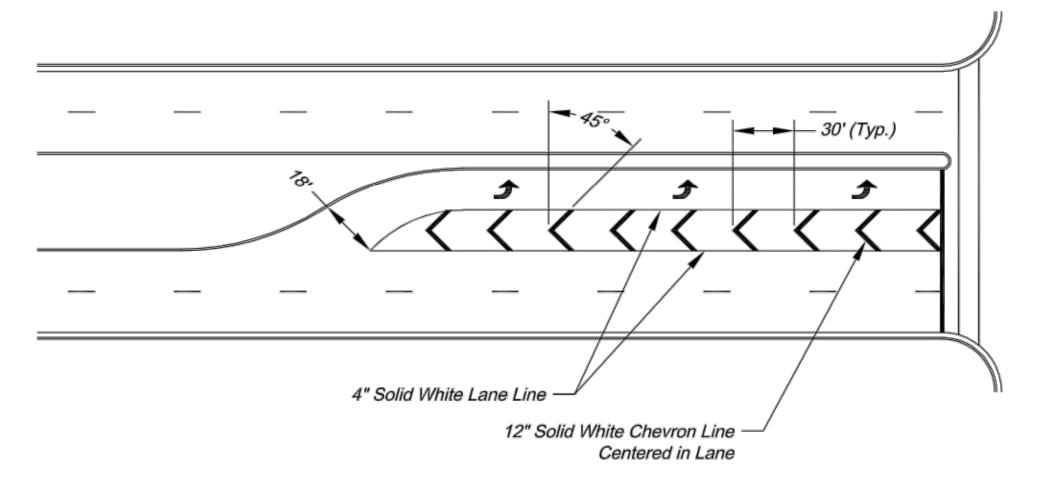


TYPICAL TURN LANE MARKINGS

NOTES:

- 1. Diagonal lines are required between centerlines if the width of the area between the center lines is
- greater than 12' and/or the length of the area between center lines is greater than 250'.
- 2. Diagonal lines should be spaced at 5' increments, equal to the posted speed limit.
- 3. Equal Spacing is calculated as (L 40) / (S 1).
- 4. When a through lane of traffic terminates as a mandatory turn lane, Arrow and "ONLY" symbols should be marked in the turn lane, in alternating order. The first and last symbols should be Arrows.

1. Dashed extension lines shall not extend through crosswalks.



TYPICAL STRIPED OUT TURN LANE MARKINGS

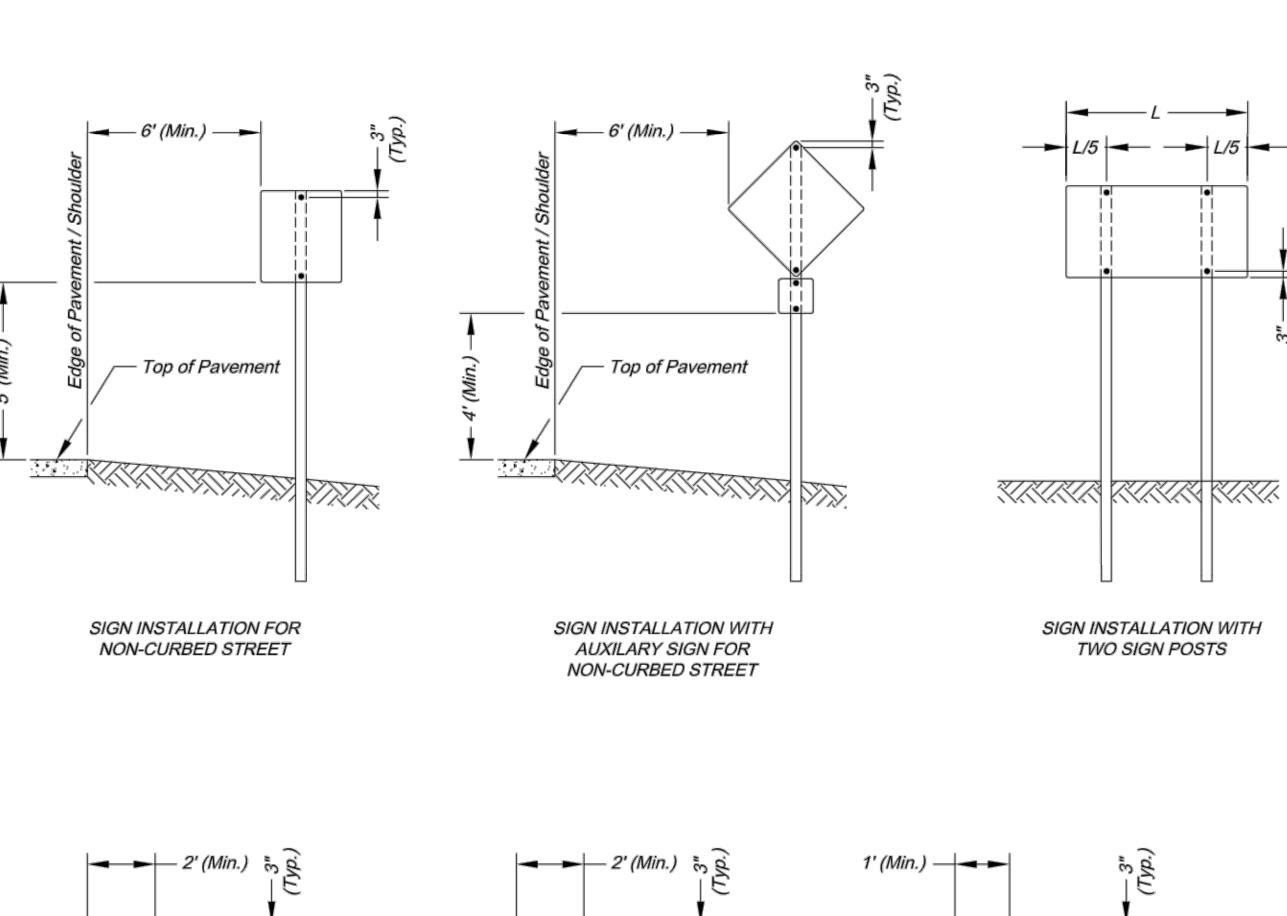


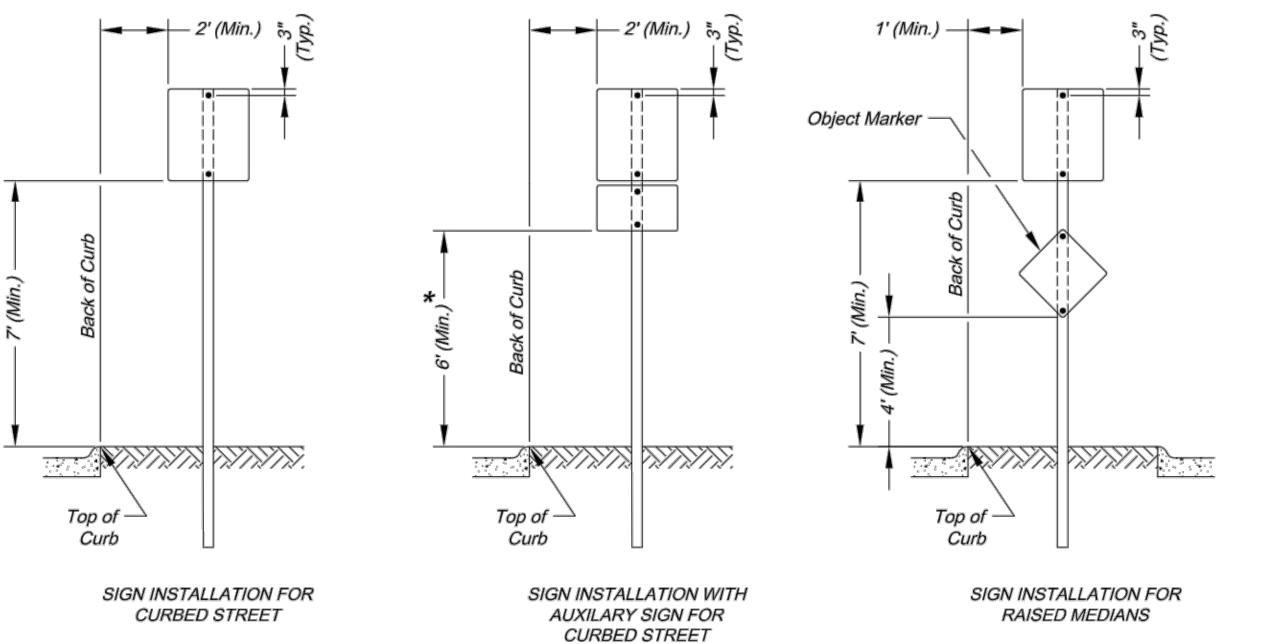
AILS MARKING CTION

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Drawn By: AS Checked By: JW Date: 09/09/2009 Project#

2 OF 2



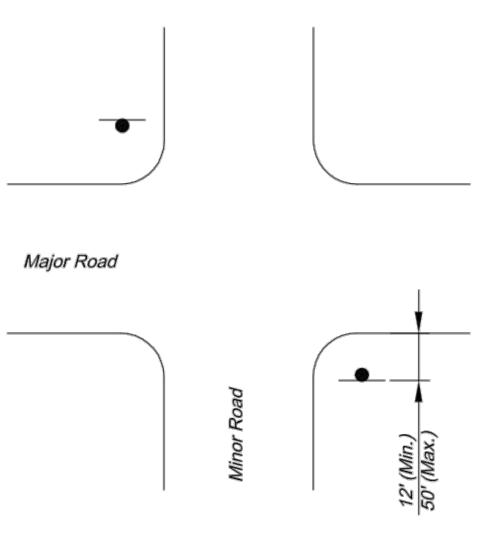


SIGN MOUNTING DETAILS

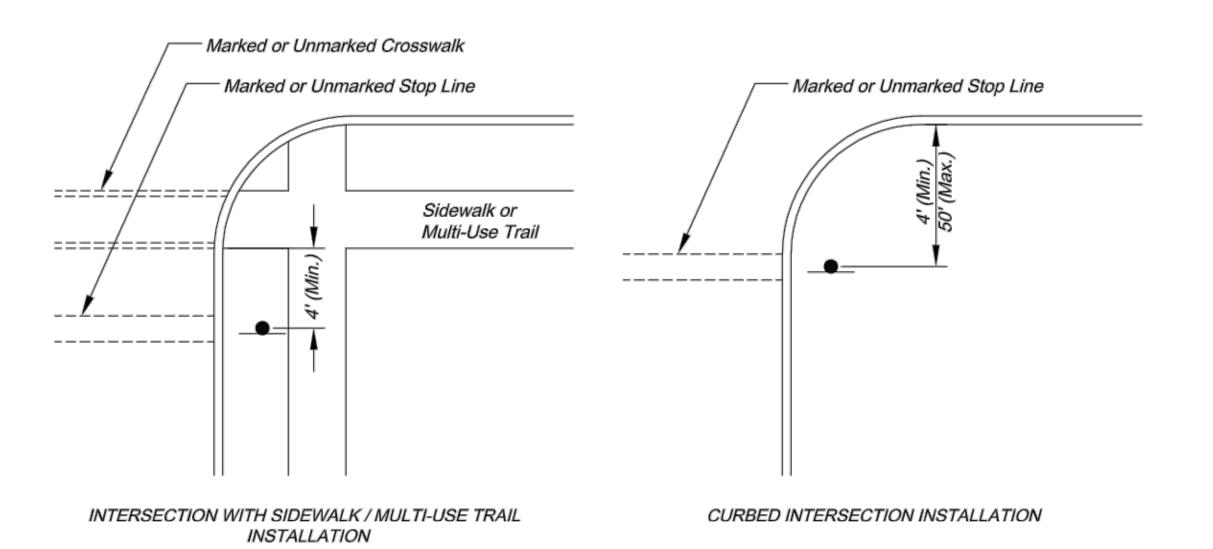
* The height to the bottom of a sign when it is located in a pedestrian walkway or extends into a walkway shall be a minimum of 80 inches above the walkway.

NOTE.

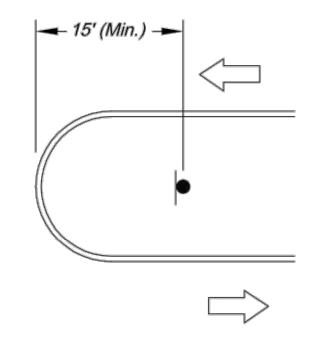
 Generally, the sign mounting height should not be more than 1' greater than the minimum mounting height.



NON-CURBED INTERSECTION INSTALLATION



CONTROL SIGN LOCATION



NOTES:

 A 4" P.V.C. sleeve shall be installed in new concrete medians at each location where a sign is to be installed.

MEDIAN SIGN LOCATION

TYPICAL MEDIAN SIGN LOCATION

2. For existing concrete medians, a 4" hole shall be cored into the concrete.

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

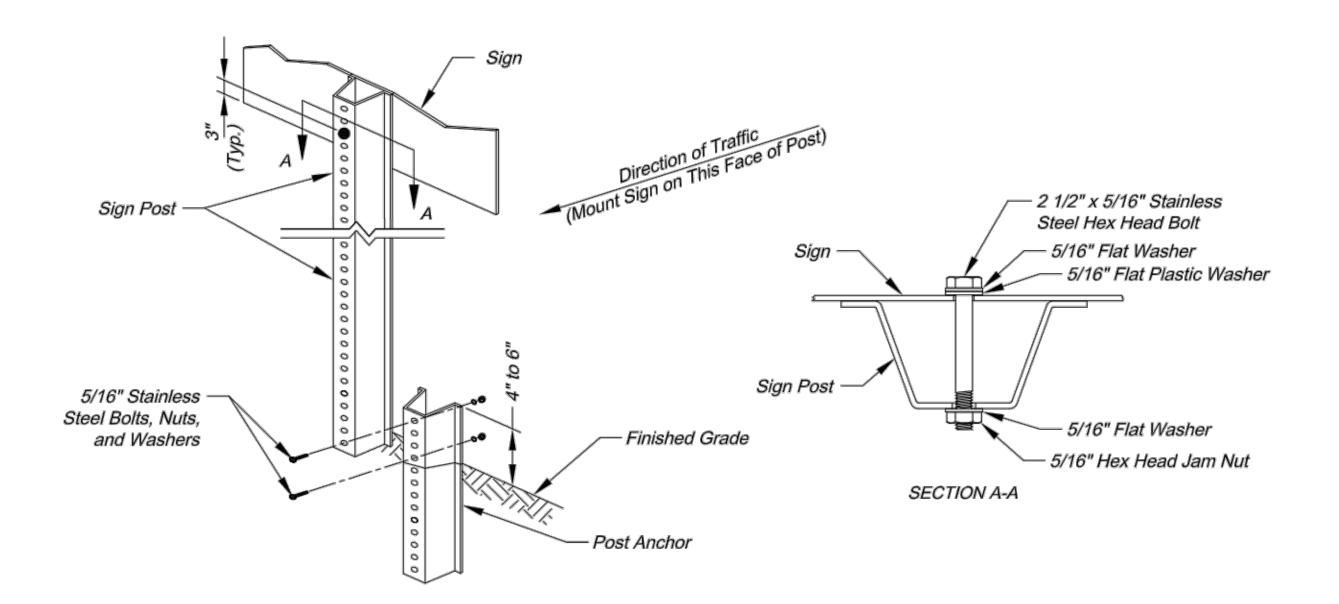


MOUNTING DETAILS

SIGN

Drawn By: AS Checked By: JW Date: 08/26/2009

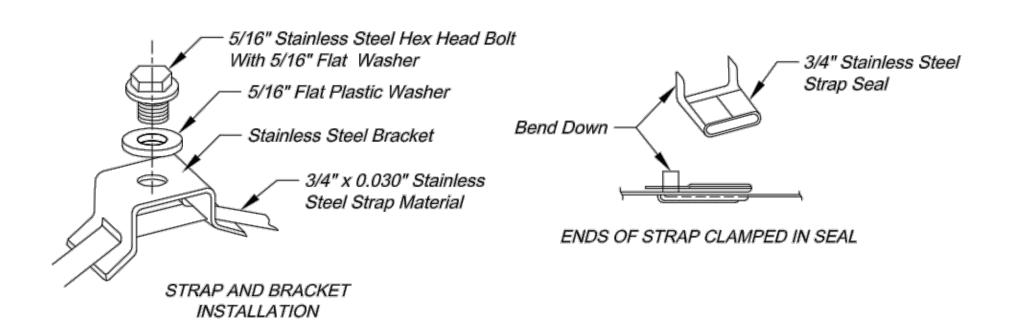
Project# 1 OF 3



U-STEEL POST DETAILS

U-STEEL POST NOTES:

- 1. Splice shall be positioned entirely between finished grade line and 18" above finished grade line. Only one splice will be allowed per post.
- 2. U-Steel post shall be 3 lb./ft., galvanized according to ASTM A123.
- 3. U-Steel post can be used for installation of signs with an area of less than 2.5 square feet.
- 4. All posts shall be embedded a minimum of 3 feet.



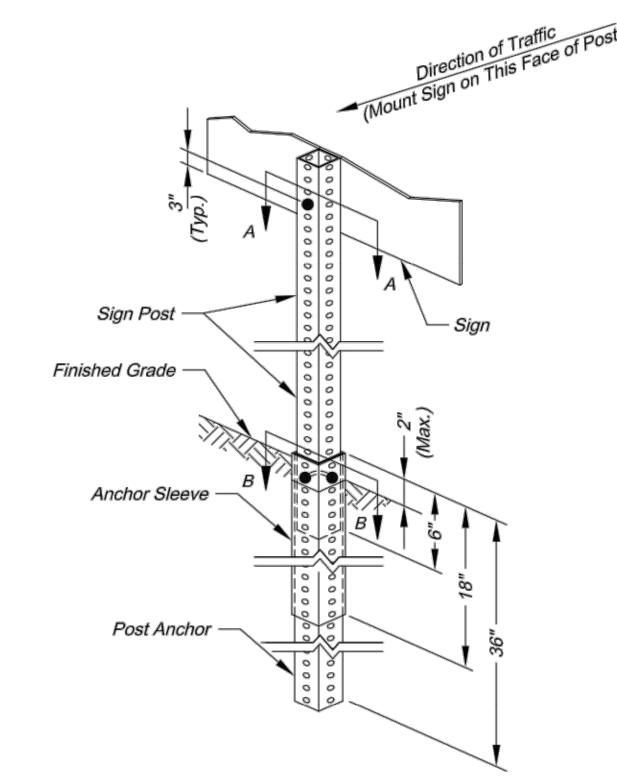
STRAP TYPE SIGN SUPPORT DETAILS

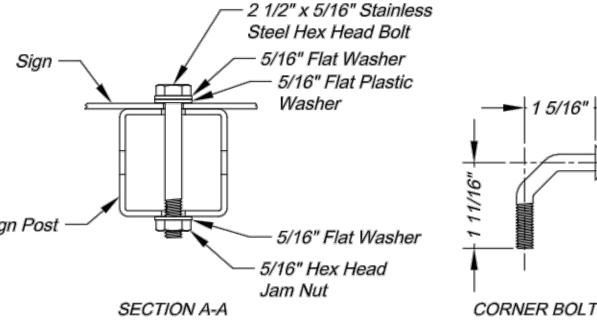
METAL POLE SIGN MOUNTING NOTES:

- 1. Signs on metal poles shall be attached with two brackets and stainless steel bands.
- 2. Holes in sign for attachment to the mounting brackets shall be offset a minimum of 2 inches from the edge of the sign.
- 3. Holes in sign shall be located such that the sign is level.
- 4. All strap, bracket, and seal materials should be Type 201 stainless steel.

PERMANENT SIGNING GENERAL NOTES:

- 1. All signing shall be in accordance with the latest edition of the Manual on Uniform Traffic Control Devices (MUTCD).
- 2. The Contractor is responsible for avoiding any and all utilities when installing sign posts, whether the utility is indicated on the plans or not.
- 3. All workmanship and materials shall be subject to the inspection and approval of the Public Works Department of the City of Lee's Summit.
- 4. The Contractor shall stake the location of all sign posts to be installed. The City Inspector shall inspect the staking prior to installation. Minor relocation to avoid conflicts may be allowed with the approval of the City Traffic Engineer or designee.
- 5. Signs shown to be installed on the side of metal poles shall be mounted with stainless steel straps or wing brackets as detailed. No signs are
- to be installed on wood poles. See Traffic Signal Standard Drawings for the installation of signs on mast arms.
- 6. All post mounted signs shall be installed with breakaway anchors according to the Standard Drawings.
- 7. All existing signs will be used in place during construction and protected from damage unless otherwise indicated in the plans. If the Contractor damages any existing sign or posts during construction, the Contractor will be required to replace the damaged materials with new signs or posts of the same type and size at the Contractor's expense. The Contractor shall be responsible for removing and storing any signs that are to be reinstalled on the project. All equipment shall be reinstalled in good condition.
- 8. Existing permanent signs and posts removed by the Contractor for construction purposes which are not to be reinstalled shall be delivered to the City's Public Works Maintenance Facility (1971 SE Hamblen Road). The Contractor shall be responsible for removing and storing equipment in good condition and is fully responsible for the equipment until it is delivered.
- 9. All Stop, Yield, or street name signs shall be maintained in a conspicuous location for the driving public. All Stop and Yield signs removed for construction purposes can be temporarily erected in reflectorized drums (no less than 7 feet above the pavement surface) until they can be reinstalled. Any temporary Stop or Yield sign installation to be left in place overnight will require prior approval from the City Inspector.





SQUARE STEEL POST INSTALLATION SEQUENCE:

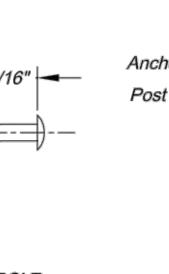
2. Anchor sleeve slipped over anchor and drive into the

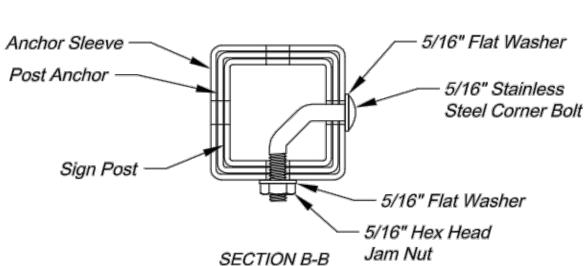
3. Insert sign post into the post anchor and bolt in place.

a drive cap with a sledge or power equipment.

ground together with the sign post anchor.

1. Sign post anchor driven partially into the ground using





SQUARE STEEL POST DETAILS

SQUARE STEEL POST NOTES:

- 1. Square steel sign posts and break-away anchor shall consist of the following materials:
 - Sign Post -14 Ga. 2" x 2" Square Steel Post
 - Post Anchor 12 Ga. 2 1/4 " x 2 1/4 " x 36" Square Steel Post
- Anchor Sleeve 12 Ga. 2 1/2 " x 2 1/2 " x 18" Square Steel Post
- 2. 14 Gauge posts must meet a certified minimum yield strength of 60,000 psi.
- 3. In all installations the first hole above the finished grade line on the sign post, anchor, and anchor sleeve must be in line for the insertion of the corner bolt.
- 4. The maximum area for one sign post is 9.0 square feet. A sign or combination of signs with an area greater than 9.0 square feet will require two posts. Also, signs with a width greater than 36" (not including 36" x 36" diamond shaped signs) will require two posts.



 \mathcal{O} \exists \mathcal{C} \bigcirc \Box SIGN

Drawn By: AS Checked By: JW Date: 08/26/2009

Project#

2 OF 3

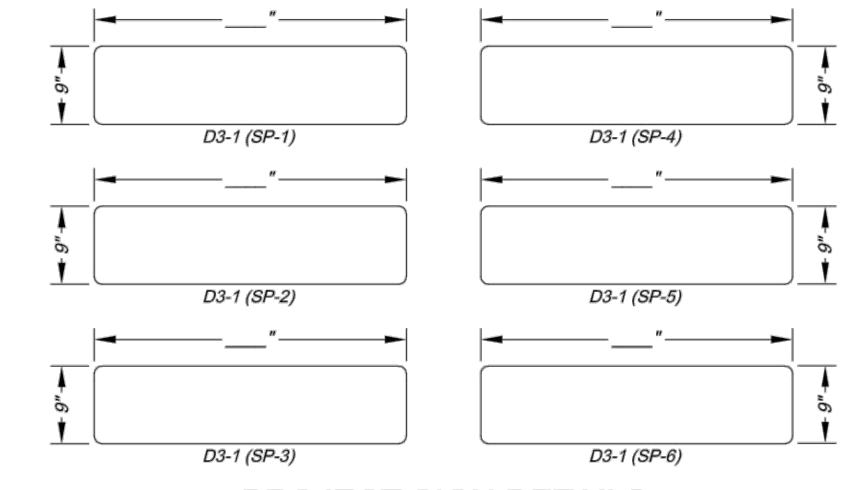
STANDARD ABBREVIATION LISTS

Named Streets							
Avenue	AVE						
Boulevard	BLVD						
Circle	CIR						
Creek	CR						
Court	СТ						
Crossing	XING						
Drive	DR						
Highway	HWY						
Lane	LN						
Parkway	PKWY						
Place	PL						
Road	RD						
Street	ST						
Terrace	TER						
Trail	TRL						
May	IMAN						

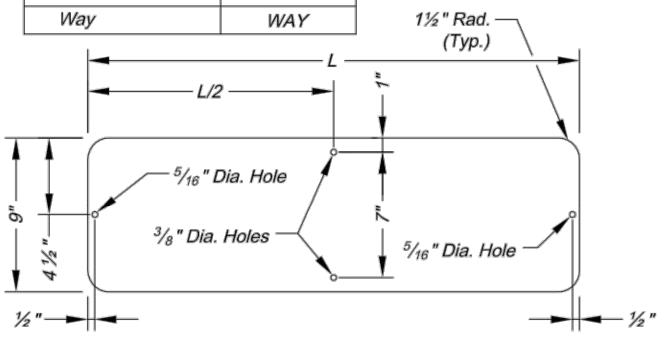
Numbered St	reets
First	ST
Second	ND
Third	RD
Fourth to Tenth	TH

STREET NAME SIGN QUANTITIES

Sign Designation	Sign Size	Sign Area (Sq. Ft.)	Number	Quantity (Sq. Ft.)
D3-1 (SP-1)	9" x	Sq. Ft.	1	1
D3-1 (SP-2)	9" x			
D3-1 (SP-3)	9" x			
D3-1 (SP-4)	9" x			
D3-1 (SP-5)	9" x			
D3-1 (SP-6)	9" x			

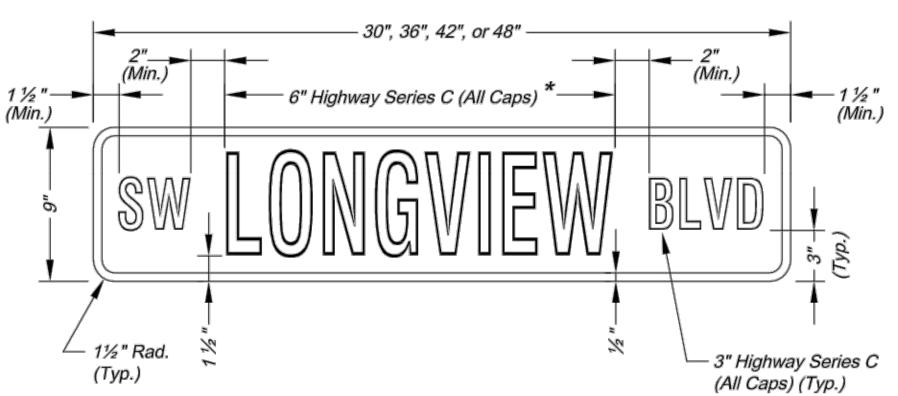


PROJECT SIGN DETAILS



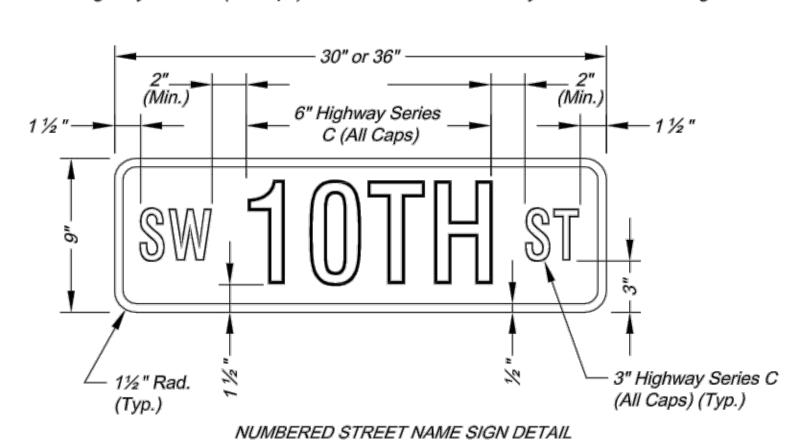
STREET NAME SIGN BLANK DETAILS

For Mounting on Square Steel Posts



NAMED STREET NAME SIGN DETAIL

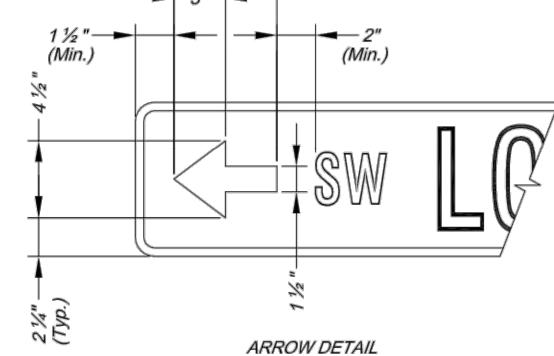
^{*} Use Highway Series B (All Caps) in lieu of series C if necesary to fit text on a 36" sign blank.

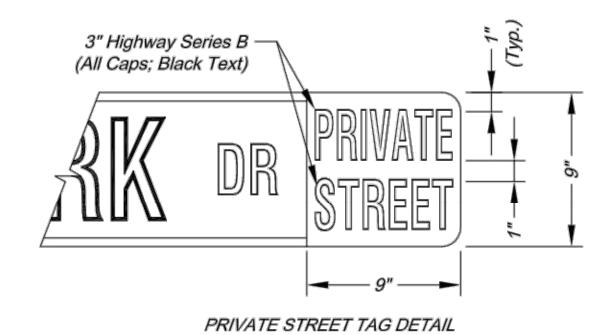


NOTES:

- 2. Arrows shall be added to street name signs where the name of a street changes at an intersection. Street name signs with arrows are to be installed on each
- 3. The "PRIVATE STREET" tag should be added to the end of street name signs to indicate where a street that is outside the right-of-way intersects a public street. The background for the "PRIVATE STREET" tag shall be yellow.

(Min.)

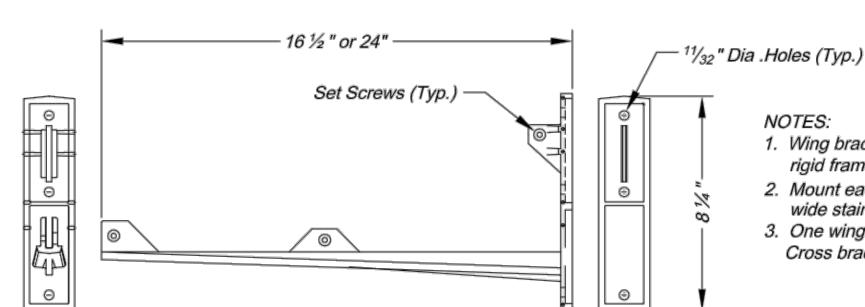




- 1. For all street name signs, the legend shall be white and the background shall
- side of the intersection to indicate the change in names. Arrows shall be white.

Street Name Signs Mounted Back to Back Street Name Signs Mounted Back to Back (Major Street Mounted Above Minor Street) (Major Street Mounted Above Minor Street) ^{−5}/₁₆" Bolts, Nuts, and Washers (Typ.) ^{– 5}/₁₆" Bolts, Nuts, and Washers (Typ.) − ½ "x ½ " Tubular − ½ "x ½ " Tubular PVC Spacer (Typ.) PVC Spacer (Typ.) ^L 5/₁₆ " Bolts, Nuts, and Washers (Typ.) ⁻⁵/₁₆" Bolts, Nuts, and Washers (Typ.) Sign Post Lowest Street Name Sign -Face Mounted Perpendicular to Other Sign Face SIGNS INSTALLED SEPARATELY 2 1/2" x 5/16" Stainless Steel Hex Head Bolt - 5/16" Flat Washer 000 Sign Post 5/16" Flat Plastic Washer Regulatory Sign Sign Post SIGNS INSTALLED WITH OTHER SIGNS 5/16" Flat Plastic Washer - 5/16" Flat Washer

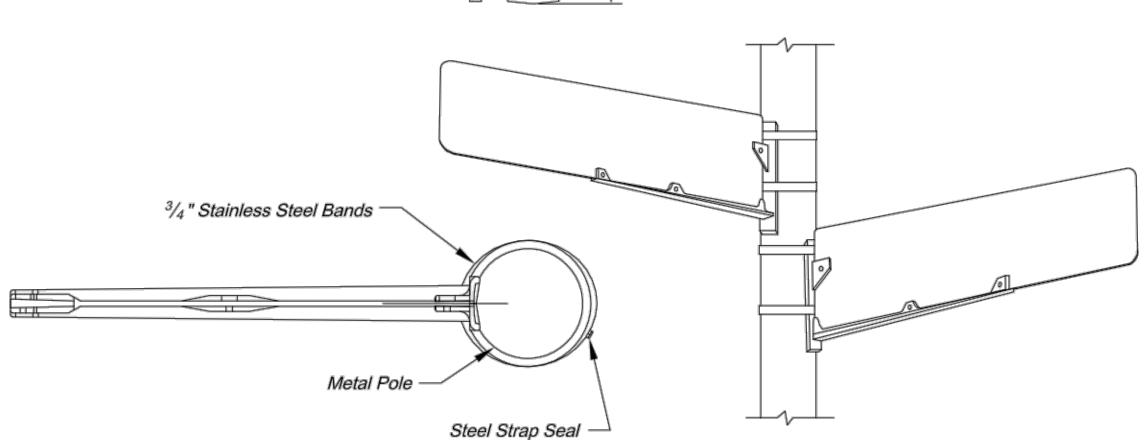
SQUARE STEEL POST MOUNTING DETAILS



- 5/16" Hex Head Jam Nut

PLAN VIEW

- 1. Wing bracket shall be an L-shaped cantilever of T-beam rigid frame 380-3 aluminum alloy construction.
- Mount each wing bracket to metal pole using two ³/₄" wide stainless steel straps.
- 3. One wing bracket shall be installed per each sign. Cross brackets are not allowed.



WING BRACKET MOUNTING DETAILS

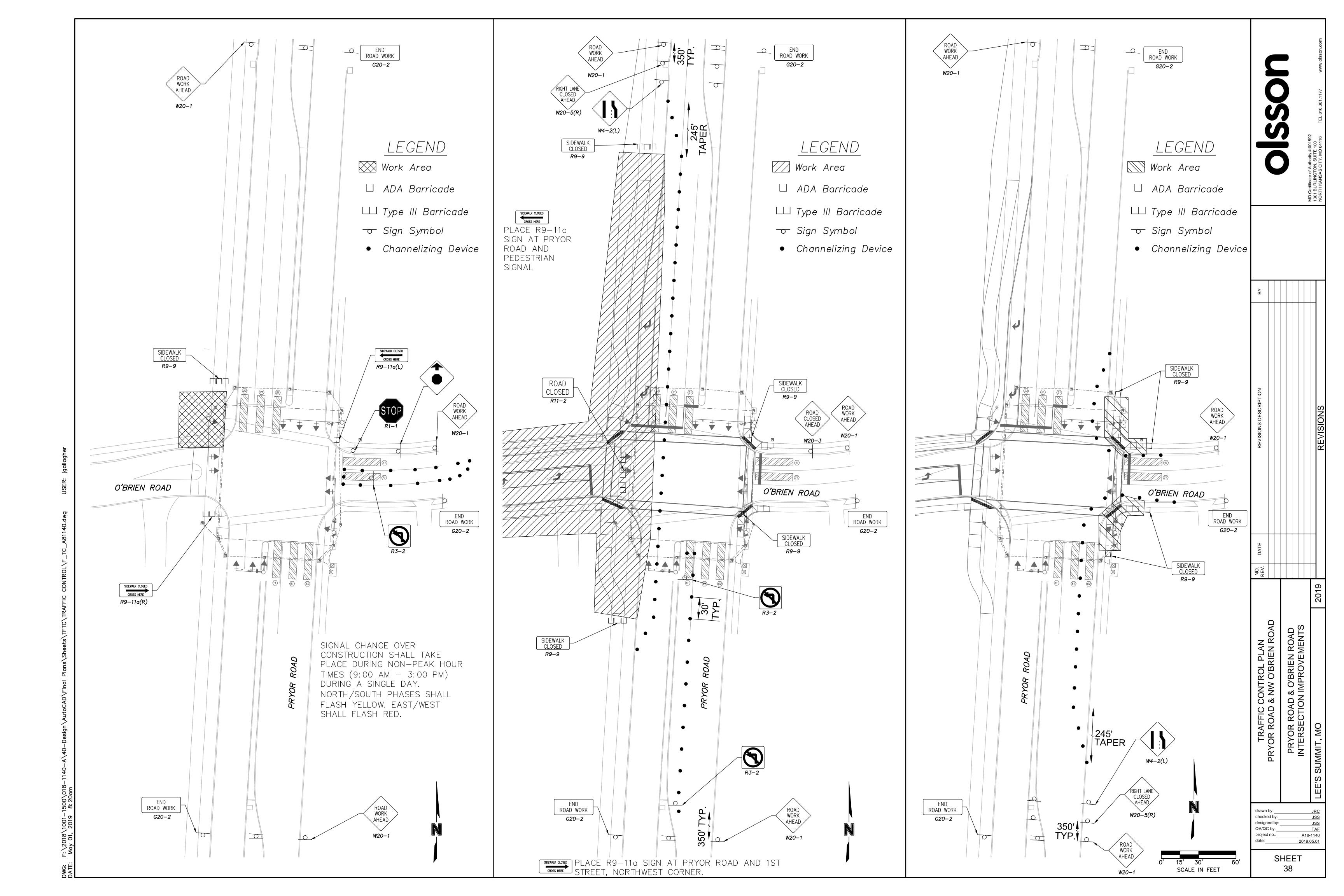
 \mathcal{O} DETAIL SIGN NAME STR

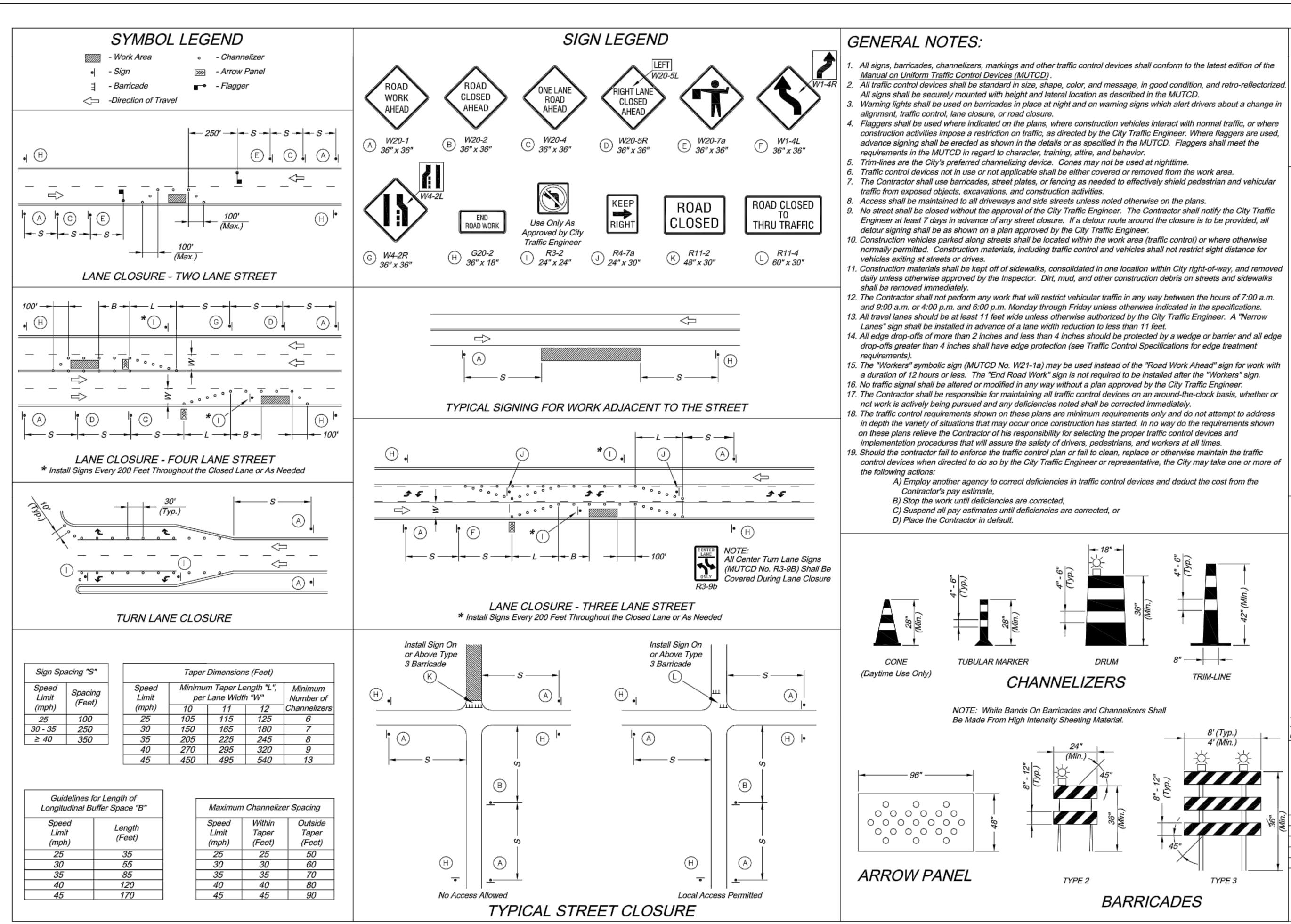
Drawn By: AS Checked By: JW Date: 08/26/2009 Project#

3 OF 3

37

STREET NAME SIGN FACE DETAILS





All signs, barricades, channelizers, markings and other traffic control devices shall conform to the latest edition of the

All signs shall be securely mounted with height and lateral location as described in the MUTCD.

Warning lights shall be used on barricades in place at night and on warning signs which alert drivers about a change in

Flaggers shall be used where indicated on the plans, where construction vehicles interact with normal traffic, or where construction activities impose a restriction on traffic, as directed by the City Traffic Engineer. Where flaggers are used, advance signing shall be erected as shown in the details or as specified in the MUTCD. Flaggers shall meet the

6. Traffic control devices not in use or not applicable shall be either covered or removed from the work area.

7. The Contractor shall use barricades, street plates, or fencing as needed to effectively shield pedestrian and vehicular

8. Access shall be maintained to all driveways and side streets unless noted otherwise on the plans.

9. No street shall be closed without the approval of the City Traffic Engineer. The Contractor shall notify the City Traffic Engineer at least 7 days in advance of any street closure. If a detour route around the closure is to be provided, all

10. Construction vehicles parked along streets shall be located within the work area (traffic control) or where otherwise normally permitted. Construction materials, including traffic control and vehicles shall not restrict sight distance for (816)

CITY OF
PUBLIC WOF
ENGINEE
220 SE
LEE'S SUMMIT
(816) 969-18

11. Construction materials shall be kept off of sidewalks, consolidated in one location within City right-of-way, and removed daily unless otherwise approved by the Inspector. Dirt, mud, and other construction debris on streets and sidewalks

12. The Contractor shall not perform any work that will restrict vehicular traffic in any way between the hours of 7:00 a.m.

13. All travel lanes should be at least 11 feet wide unless otherwise authorized by the City Traffic Engineer. A "Narrow

14. All edge drop-offs of more than 2 inches and less than 4 inches should be protected by a wedge or barrier and all edge drop-offs greater than 4 inches shall have edge protection (see Traffic Control Specifications for edge treatment

15. The "Workers" symbolic sign (MUTCD No. W21-1a) may be used instead of the "Road Work Ahead" sign for work with a duration of 12 hours or less. The "End Road Work" sign is not required to be installed after the "Workers" sign.

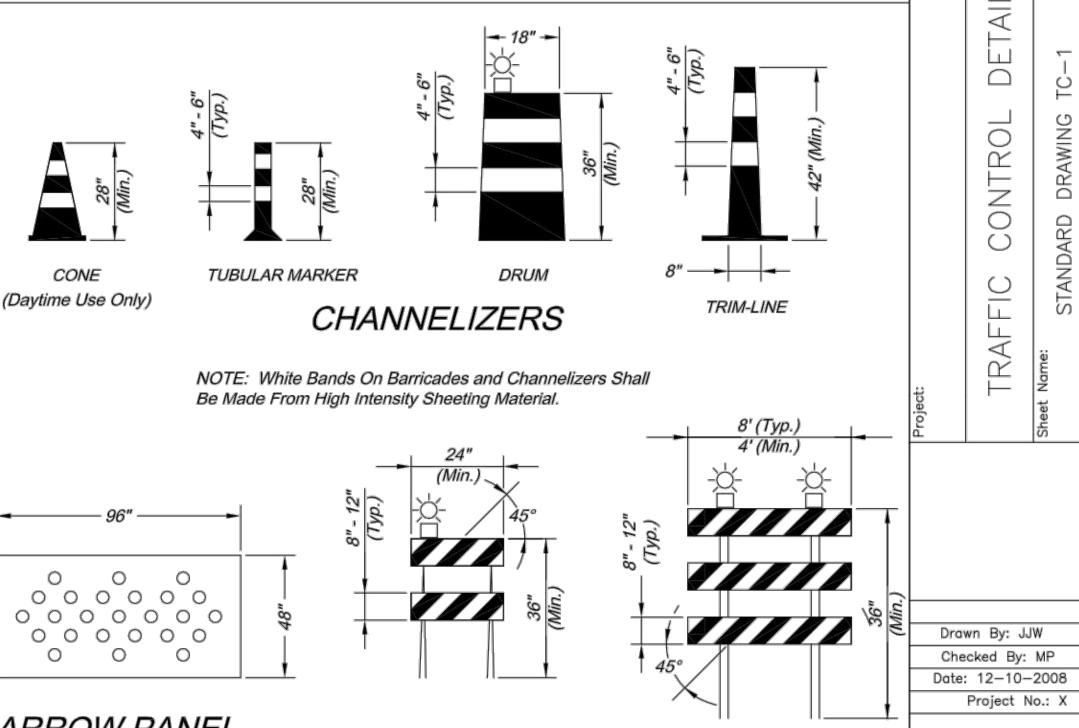
16. No traffic signal shall be altered or modified in any way without a plan approved by the City Traffic Engineer.

not work is actively being pursued and any deficiencies noted shall be corrected immediately.

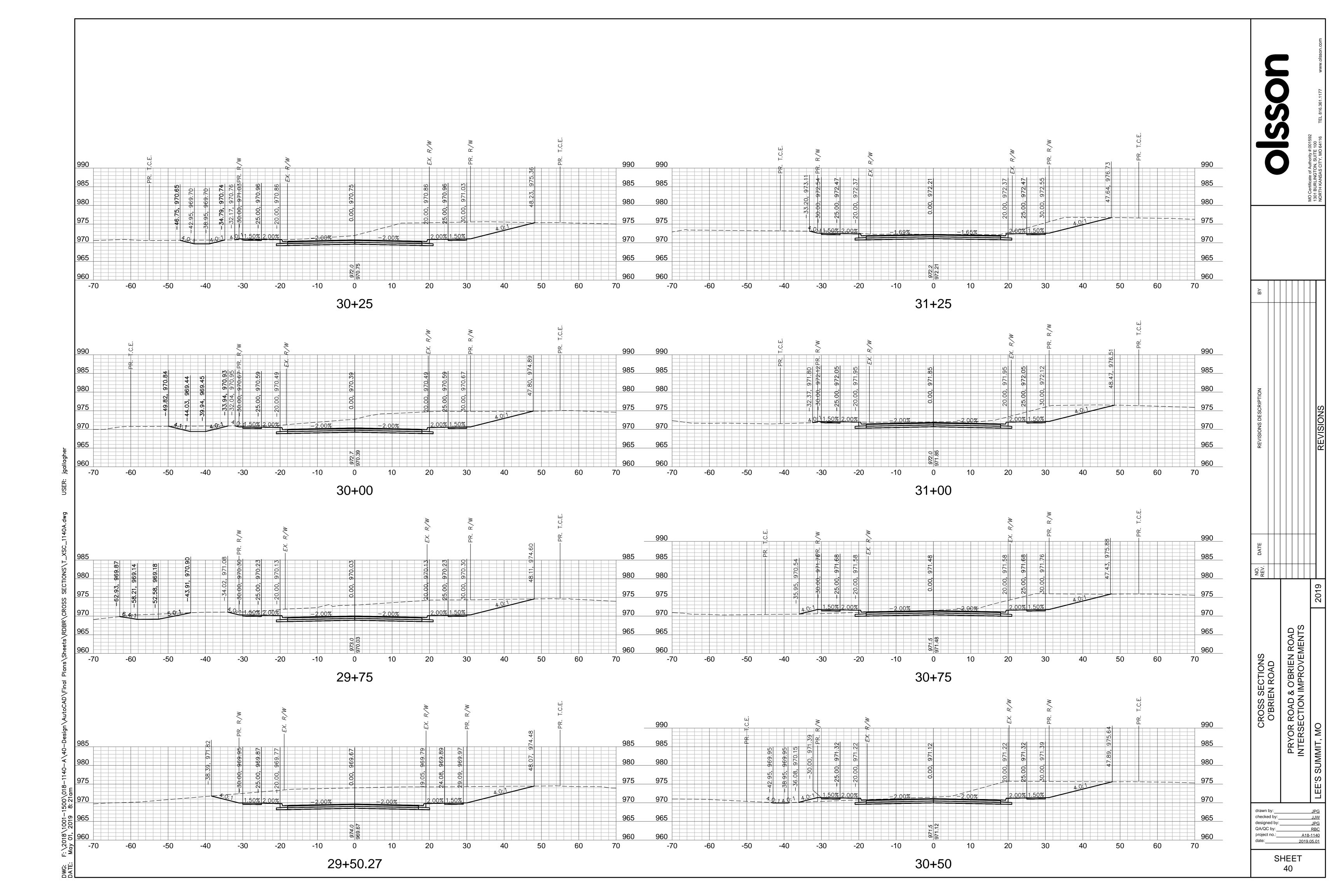
in depth the variety of situations that may occur once construction has started. In no way do the requirements shown on these plans relieve the Contractor of his responsibility for selecting the proper traffic control devices and implementation procedures that will assure the safety of drivers, pedestrians, and workers at all times.

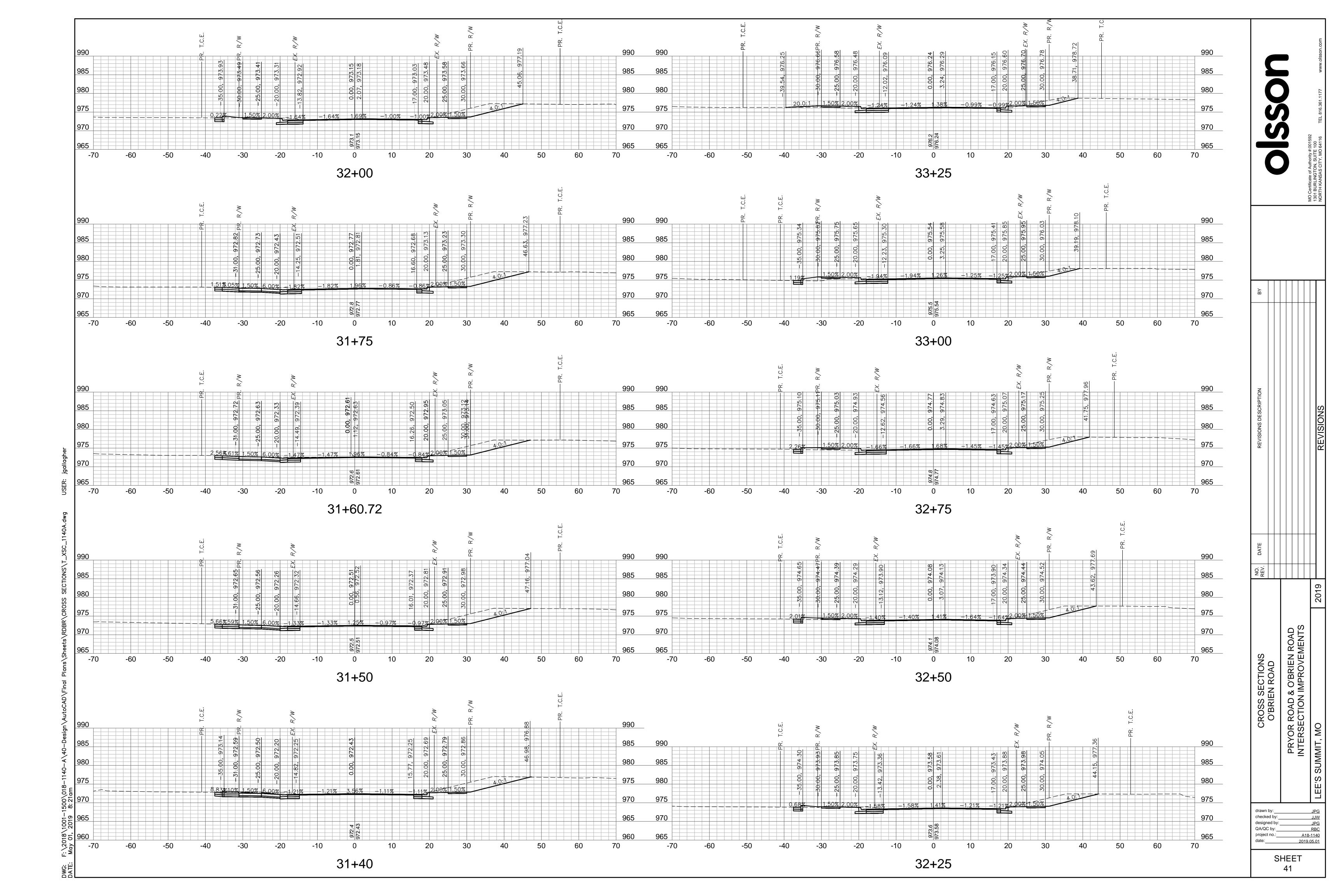
19. Should the contractor fail to enforce the traffic control plan or fail to clean, replace or otherwise maintain the traffic control devices when directed to do so by the City Traffic Engineer or representative, the City may take one or more of

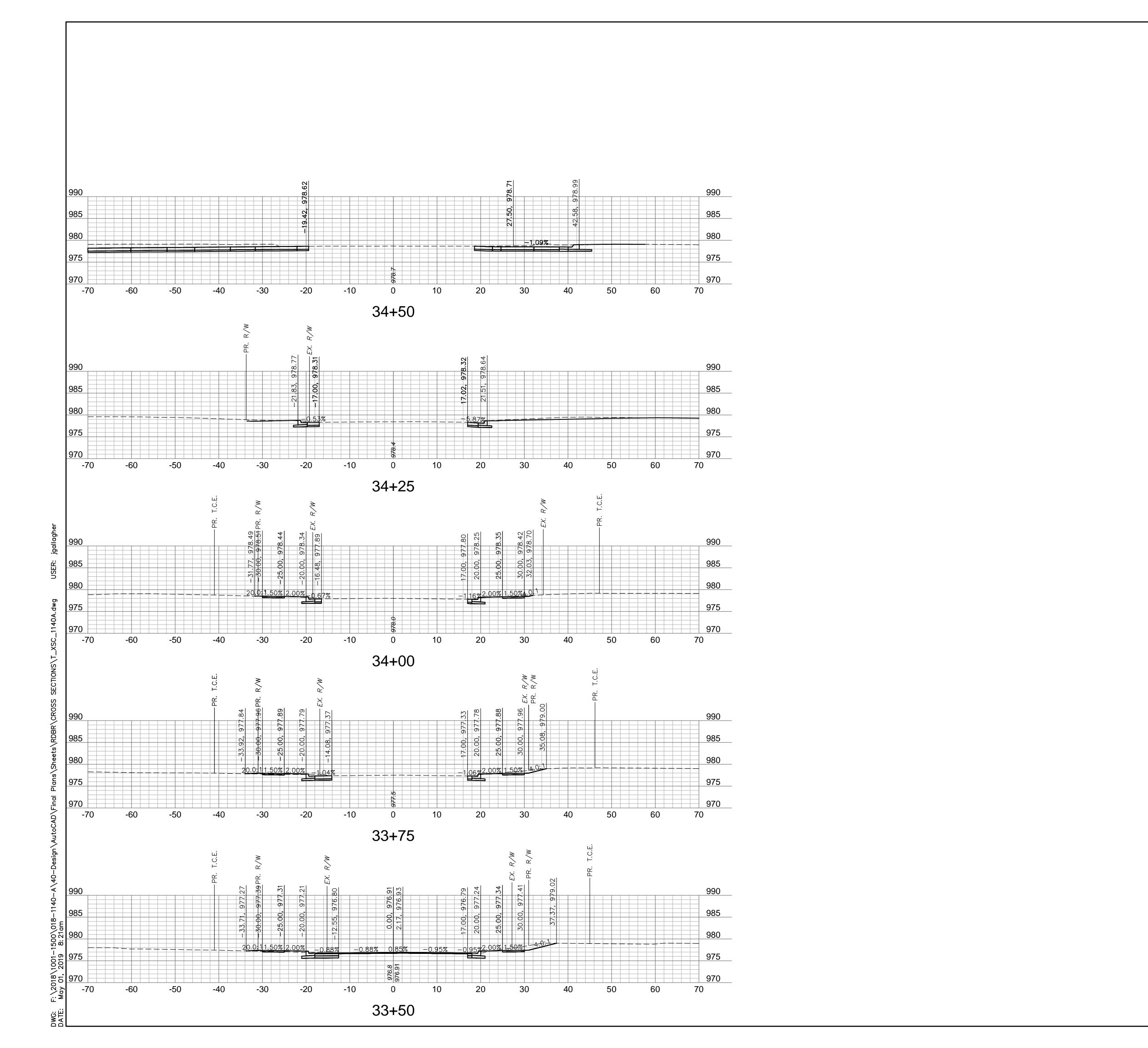
A) Employ another agency to correct deficiencies in traffic control devices and deduct the cost from the



TYPE 3



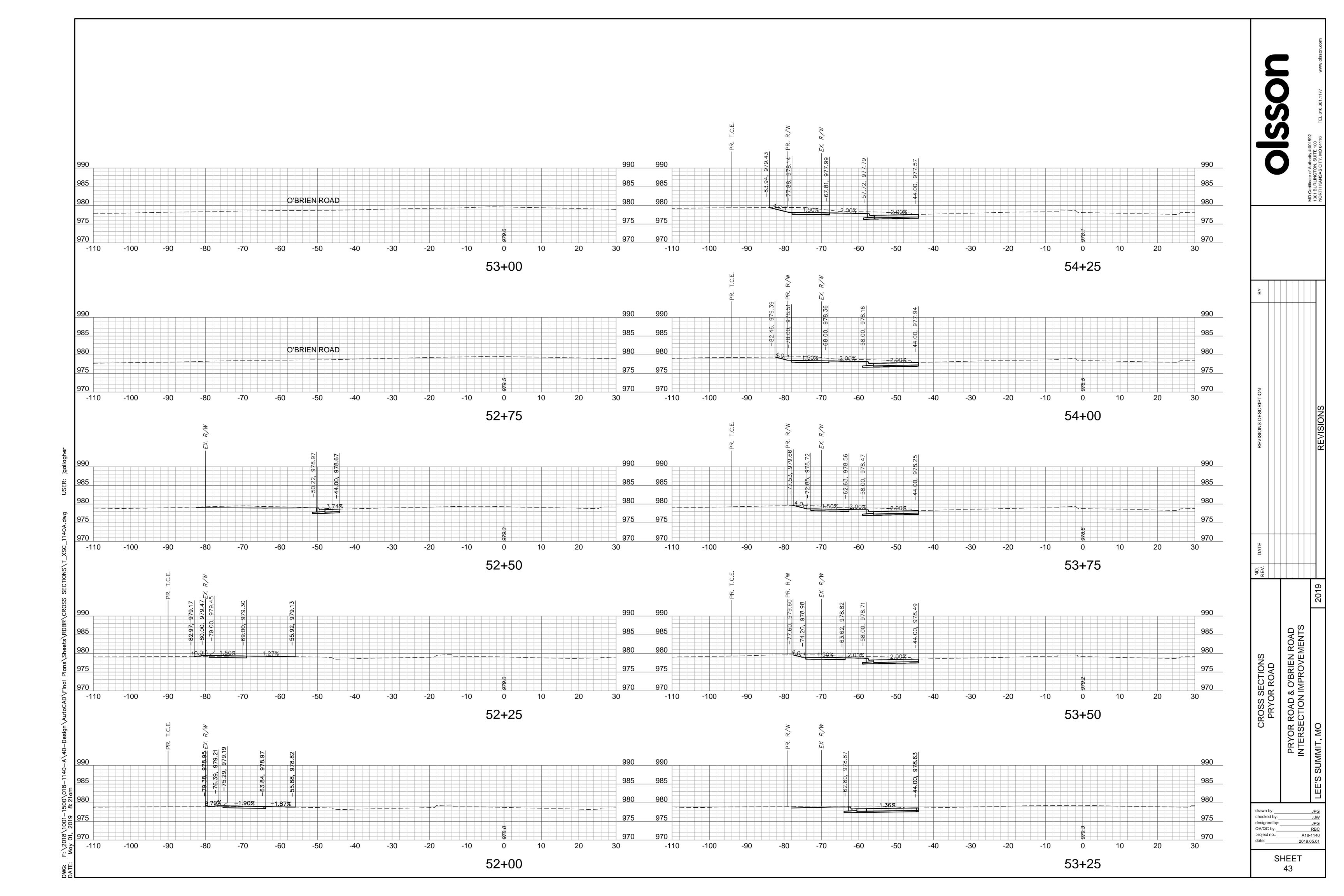


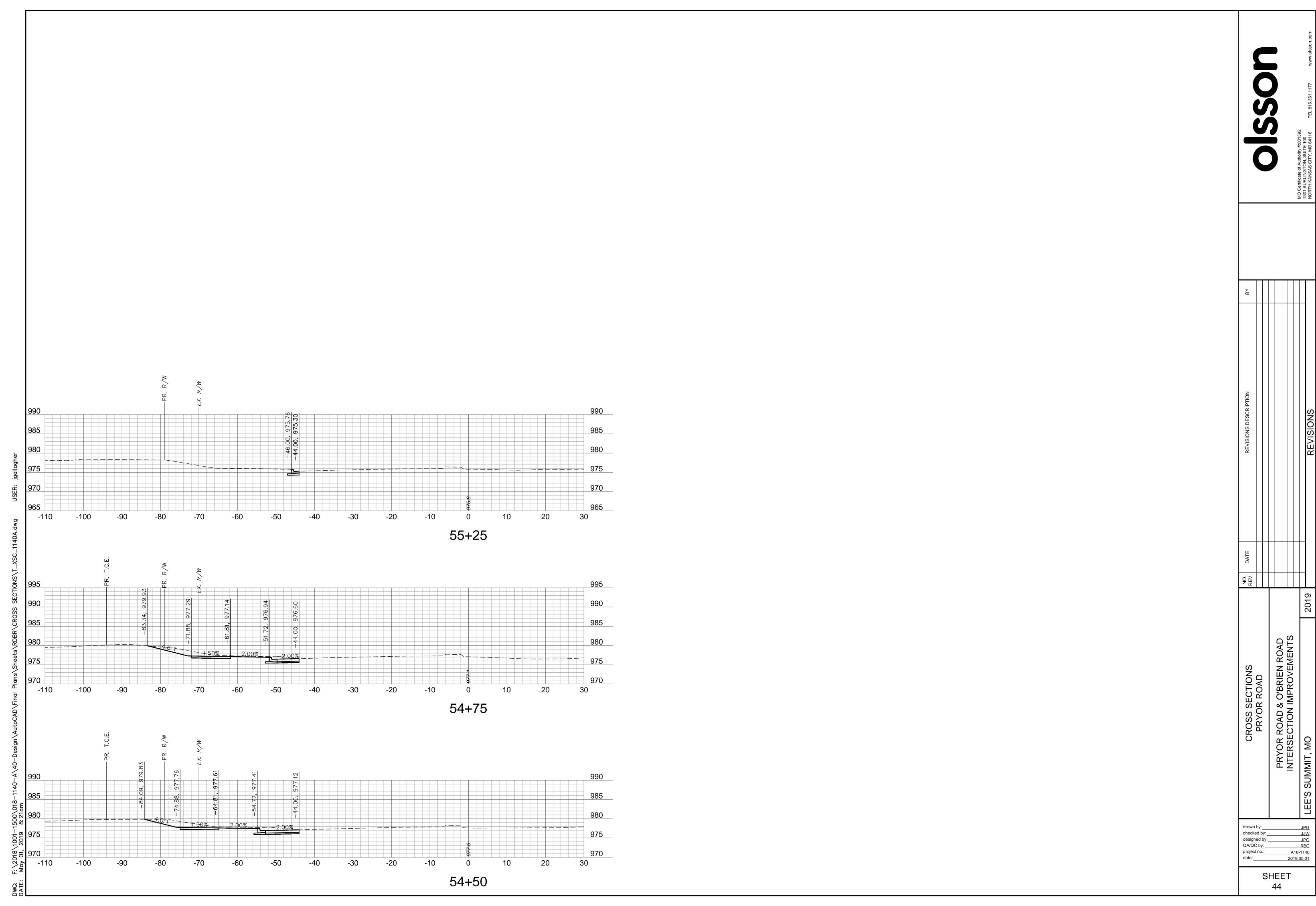


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A18-1140 2019.05.01





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