PUBLIC STREET PLANS FOR
32ND STREET WIDENING
CENTRAL CITY RD. TO SCHIFFERDECKER AVE.
SECTIONS 17, 18, 19 & 20, TOWNSHIP 27N, RANGE 33W
CITY OF JOPLIN, MISSOURI
JASPER & NEWTON COUNTIES, MISSOURI

LEGEND

CTL	SURVEY CONTROL POINT		TRAFFIC SIGNAL BOX
	SURVEY BENCHMARK		TRAFFIC SIGNAL MANHOLE
TBM	SURVEY TEMPORARY BENCHMARK		TRAFFIC SIGNAL POLE W/ ARM
GM	GAS METER		TRAFFIC SIGNAL POLE
GAR	GAS RISER		TRAFFIC SIGNAL CONTROL BOX
	GAS MANHOLE	TS	TRAFFIC SIGNAL PEDESTAL
GR	GAS REGULATOR		ELECTRIC MANHOLE
TVP	TELEVISION PEDESTAL	EM	ELECTRIC METER
	FIBER BOX	ER	ELECTRIC RISER
	FIBER PEDESTAL		ELECTRIC BOX
	CABLE BOX		ELECTRIC CABINET
CV	CABLE VAULT		ELECTRIC JUNCTION BOX
TP	TELEPHONE PEDESTAL	SPH	SPRINKLER HEAD
	STORM MANHOLE	SCV	SPRINKLER CONTROL VALVE
	STORM GRATE		WATER METER PIT
	SANITARY MANHOLE		FIRE HYDRANT
YL	YARD LIGHT	WM	WATER METER
LTP	LIGHT POLE	WV	WATER VALVE
	POWER POLE	FP	FLAG POLE
LPPP	POWER POLE W/ LIGHT		SIGN
	GUY WIRE		BOLLARD
	STUMP		WOOD POST
BU	BUSH		STEEL POST
	EVERGREEN TREE	COL	COLUMN
	DECIDUOUS TREE		BORE HOLE

- SECTION LINE
- PROPERTY LINE
- CENTER LINE
- PROPOSED ROW LINE
- EXISTING ROW LINE
- UTILITY EASEMENT
- 1370 EXISTING MAJOR CONTOUR
- 1371 EXISTING MINOR CONTOUR
- 1370 PROPOSED MAJOR CONTOUR
- 1371 PROPOSED MINOR CONTOUR
- TEL EXISTING TELEPHONE LINE
- SS EXISTING SANITARY LINE
- EXISTING STORM LINE
- GAS EXISTING GAS LINE
- W EXISTING WATER LINE
- EXISTING CHAIN LINK FENCE
- P-OH EXISTING OVERHEAD ELECTRIC
- FO EXISTING FIBER OPTIC CABLE
- P EXISTING PIPE LINE
- GRADING LIMITS
- TEMPORARY CONSTRUCTION EASEMENT
- PROPOSED PERMANENT EASEMENT
- PROPOSED CHAIN LINK FENCE
- PROPOSED WOOD PRIVACY FENCE
- EXISTING TREELINE
- CONSTRUCTION LIMITS
- UNDERDRAIN

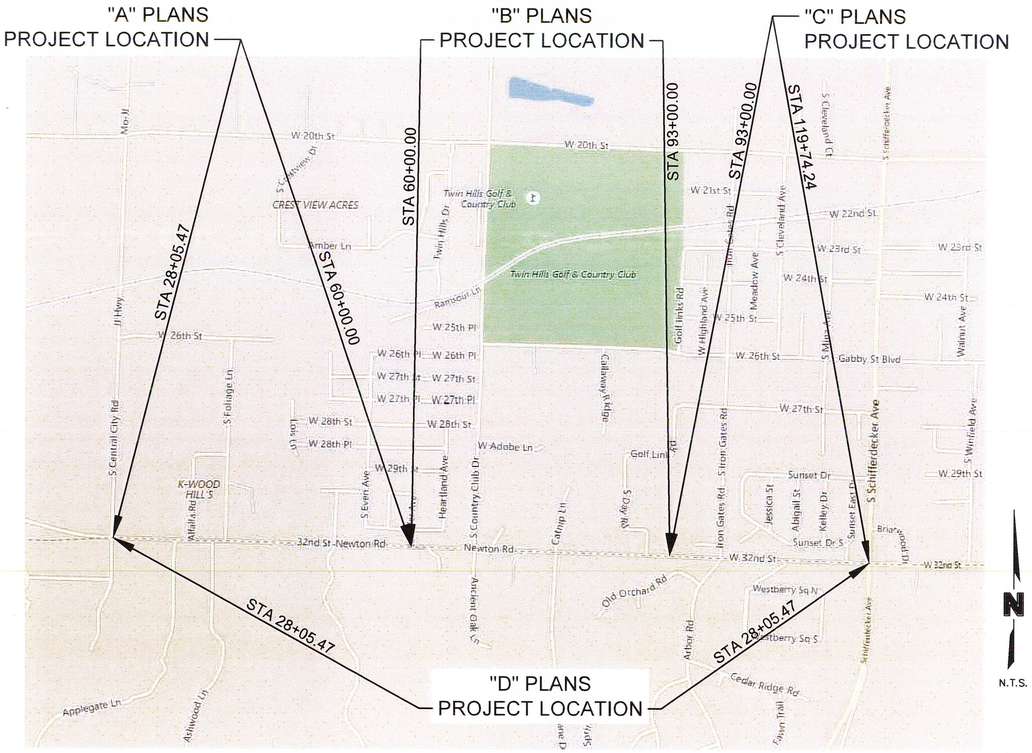
- ASPHALT PAVEMENT
- CONCRETE SIDEWALK
- CONCRETE DRIVE
- AGGREGATE SURFACE
- ASPHALT OVERLAY
- STAMPED CONCRETE PAVEMENT
- DETECTABLE WARNING SURFACE
- CURB RAMP
- ROCK BLANKET

ABBREVIATION TABLE

M.G.	MATCH GRADE
TP	PAVEMENT
TC	TOP OF CURB
BC	BACK OF CURB
EP	EDGE OF PAVEMENT
R/W	RIGHT-OF-WAY
TCE	TEMPORARY CONSTRUCTION EASEMENT
PROP.	PROPOSED
EXIST.	EXISTING
TYP.	TYPICAL
(R)	REMOVAL
CONST.	CONSTRUCT
TBM	TEMPORARY BENCHMARK
C.P.	CONTROL POINT
D.N.D.	DO NOT DISTURB
U.I.P.	USE IN PLACE
ADJ.	ADJUST
EL.	ELEVATION
ESMT.	EASEMENT
B-B	BACK OF CURB TO BACK OF CURB DIMENSION
℄	CENTERLINE

MISSOURI ONE CALL SYSTEM
1-800-DIG-RITE = 811
www.mo1call.com

THE EXISTING UTILITY LOCATIONS SHOWN ON THE PLANS ARE APPROXIMATE AND MAY NOT INCLUDE ALL LINES PRESENT. THE CONTRACTOR SHALL BE RESPONSIBLE TO CALL "1-800-DIG-RITE", AND COORDINATE FIELD LOCATION OF EXISTING UNDERGROUND UTILITIES PRIOR TO BEGINNING GRADING ACTIVITIES. !!STOP!! CALL BEFORE YOU DIG!!

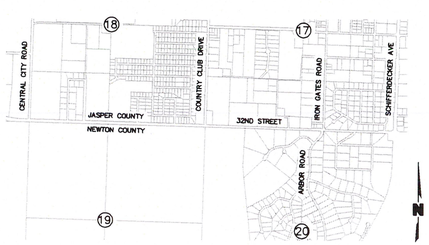


DESIGN DESIGNATION

MAJOR ARTERIAL
DESIGN SPEED: 40 MPH
POSTED SPEED: 40 MPH
CLEAR ZONE = 16'

LOCATION MAP

NOT TO SCALE



SECTION 17,18, 19 & 20, T-27-N, R-33-W
JASPER & NEWTON COUNTIES, MISSOURI

VICINITY MAP

SCALE: 1" = 2000'

UTILITIES INFORMATION

ELECTRIC – LIBERTY UTILITIES
ATTN: JIMMY TURNER
3400 S. KODIAK ROAD
JOPLIN, MO 64804
(417) 626-6842

NATURAL GAS – SPIRE
ATTN: KEN STEGALL
520 E. 5TH STREET
JOPLIN, MO 64801
(417) 626-4831

WATER – MISSOURI-AMERICAN WATER CO.
ATTN: DEREC BASS
2650 E. 32ND ST. – SUITE 121
JOPLIN, MO 64804
(417) 623-0676 EXT. 1009

TELEPHONE – AT&T
ATTN: KENNETH KENWORTHY
321 W. 8TH STREET
JOPLIN, MO 64801
(417) 625-8092

CABLE TELEVISION – CABLE ONE DIGITAL
ATTN: RANDY KENNEDY
2600 DAVIS BLVD.
JOPLIN, MO 64804
(417) 206-5399

FIBER OPTIC – LIBERTY CONNECT
ATTN: BRAD MYERS
720 SCHIFFERDECKER AVE
JOPLIN, MO 64801
(417) 625-5179

INDEX OF SHEETS

SHEET NO.	TITLE
1	TITLE SHEET
2	GENERAL LAYOUT PLAN
3–6	SURVEY CONTROL AND ALIGNMENT DATA
7	GENERAL NOTES
8	OVERALL SUMMARY OF QUANTITIES
9	EARTHWORK SUMMARY
10–11	SPECIAL EARTHWORK PLAN & SETTLEMENT PLATE DETAILS
12–16	GEOTECHNICAL BORE LOCATIONS AND BORE LOGS
17	FENCING DETAILS
18–20	CONSTRUCTION SEQUENCING
21–31	TRAFFIC CONTROL PLAN & DETAILS
32–38	FIBER OPTIC CONDUIT PLAN & DETAILS
39–43	SANITARY SEWER EXTENSION PLAN & DETAILS
44–46	STANDARD DETAILS/PAVING DETAILS
47–56	STORM DRAIN DETAILS
57–58	EROSION CONTROL DETAILS
59	PAVEMENT MARKING & SIGNING DETAILS

"A" PLANS - CENTRAL CITY RD. TO JENNIFER AVE

A1	TITLE SHEET
A2	SUMMARY OF QUANTITIES
A3–A9	RIGHT-OF-WAY AND EASEMENT PLANS
A10–A16	DEMOLITION AND REMOVAL PLANS
A17–A20	FENCING PLAN
A21–A24	TYPICAL SECTIONS
A25–A38	ROADWAY PLAN AND PROFILES
A39–A41	SIDE STREET PLAN AND PROFILES
A42–A45	INTERSECTION LAYOUTS
A46–A47	DRIVE LAYOUTS
A48–A49	SIDEWALK RAMP LAYOUTS
A50–A51	DRAINAGE AREA MAP AND CALCULATIONS
A52–A56	STORM DRAIN PROFILES
A57–A70	EROSION CONTROL/SEEDING & SODDING PLAN
A71–A78	PAVEMENT MARKING & SIGNING PLAN
A79–A122	CROSS SECTIONS

"B" PLANS - JENNIFER AVE. TO E. OF DAY RD.

B01	TITLE SHEET
B02	SUMMARY OF QUANTITIES
B03–B12	RIGHT-OF-WAY AND EASEMENT PLANS
B13–B21	DEMOLITION AND REMOVAL PLANS
B22–B24	TYPICAL SECTIONS
B25–B38	ROADWAY PLAN AND PROFILES
B39–B46	SIDE STREET PLAN AND PROFILES
B47–B49	INTERSECTION LAYOUTS
B50–B54	DRIVE LAYOUTS
B55–B57	SIDEWALK RAMP LAYOUTS
B58–B60	DRAINAGE AREA MAP AND CALCULATIONS
B61–B70	STORM DRAIN PROFILES
B71–B77	STORM DRAIN DETAILS
B78–B79	RETAINING WALL PLAN AND PROFILES
B80–B82	RETAINING WALL DETAILS
B83–B91	EROSION CONTROL
B92–B100	SEEDING & SODDING PLAN
B101–B108	PAVEMENT MARKING & SIGNING PLAN
B109	SOUTHERN TRAILS SIGN DETAILS
B110–B150	CROSS SECTIONS

"C" PLANS - E. OF DAY RD. TO SCHIFFERDECKER

C1	TITLE SHEET
C2	SUMMARY OF QUANTITIES
C3–C7	RIGHT-OF-WAY AND EASEMENT PLANS
C8–C13	DEMOLITION AND REMOVAL PLANS
C14–C16	FENCING PLAN
C17–C19	TYPICAL SECTIONS
C20–C30	ROADWAY PLAN AND PROFILES
C31–C32	SIDE STREET PLAN AND PROFILES
C33–C34	INTERSECTION LAYOUTS
C35–C37	DRIVE LAYOUTS
C38–C39	SIDEWALK RAMP LAYOUTS
C40–C41	DRAINAGE AREA MAP AND CALCULATIONS
C42–C45	STORM DRAIN PROFILES
C46–C55	EROSION CONTROL/SEEDING & SODDING PLAN
C56–C61	PAVEMENT MARKING & SIGNING PLAN
C62	SIGNAL PLAN & DETAILS
C63–C91	CROSS SECTIONS

"D" PLANS - 32ND ST. WATERLINE RELOCATION

D1	TITLE SHEET
D2	SUMMARY OF QUANTITIES
D3–D9	PHASE 1 WATERLINE RELOCATION PLANS & PROFILES
D10–*	PHASE 2 WATERLINE RELOCATION PLANS TO BE PROVIDED AT A LATER DATE

PREPARED & SUBMITTED BY:

OLSSON
702 S. MAIN STREET
JOPLIN, MISSOURI 64801

Brian Coomes — 04/23/2021
BRIAN COOMES P.E. — DATE

I CERTIFY THESE PLANS WERE PREPARED BY ME OR UNDER MY IMMEDIATE PERSONAL SUPERVISION.

APPROVED BY:

CITY OF JOPLIN, MISSOURI

David K Hertzberg — 4/23/2021
CITY ENGINEER — DATE

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Missouri Certificate of Authority #001592
702 S. Main Street
Joplin, MO 64801
TEL 417.781.0643
www.olsson.com

STATE OF MISSOURI
BRIAN COOMES
Brian Coomes
04/23/2021
NUMBER PE-2015029306
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

OVERALL TITLE SHEET
32ND STREET WIDENING
CITY OF JOPLIN
JOPLIN, MISSOURI
2021

drawn by:	SMK/JKL
checked by:	PM/LB/RF
approved by:	BMC
QA/QC by:	PM/LB/RF
project no.:	015-2768
drawing no.:	G_TTL_52768
date:	04/23/2021

SHEET 1 of 59

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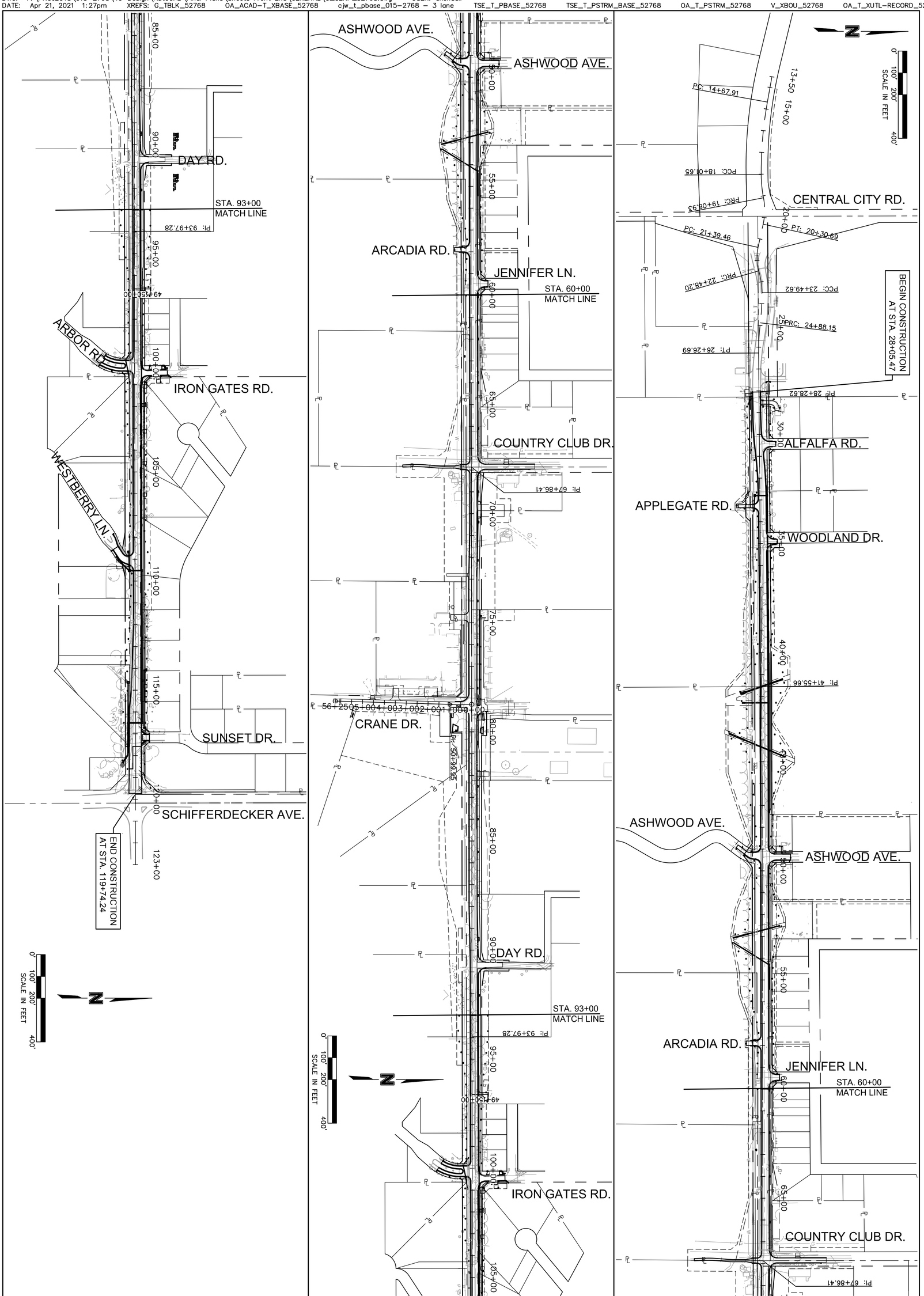

GENERAL LAYOUT PLAN

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI 2021

SHEET 2 of 59

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

drawn by: SMK/JKL
checked by: PMU/BJRE
approved by: BMC
QC/QA by: PMU/BJRE
project no.: 015-2768
drawing no.: G_GENP_52768
date: 04/23/2021

STATE OF MISSOURI
BRIAN COOMES
NUMBER PE-2010029396
PROFESSIONAL ENGINEER

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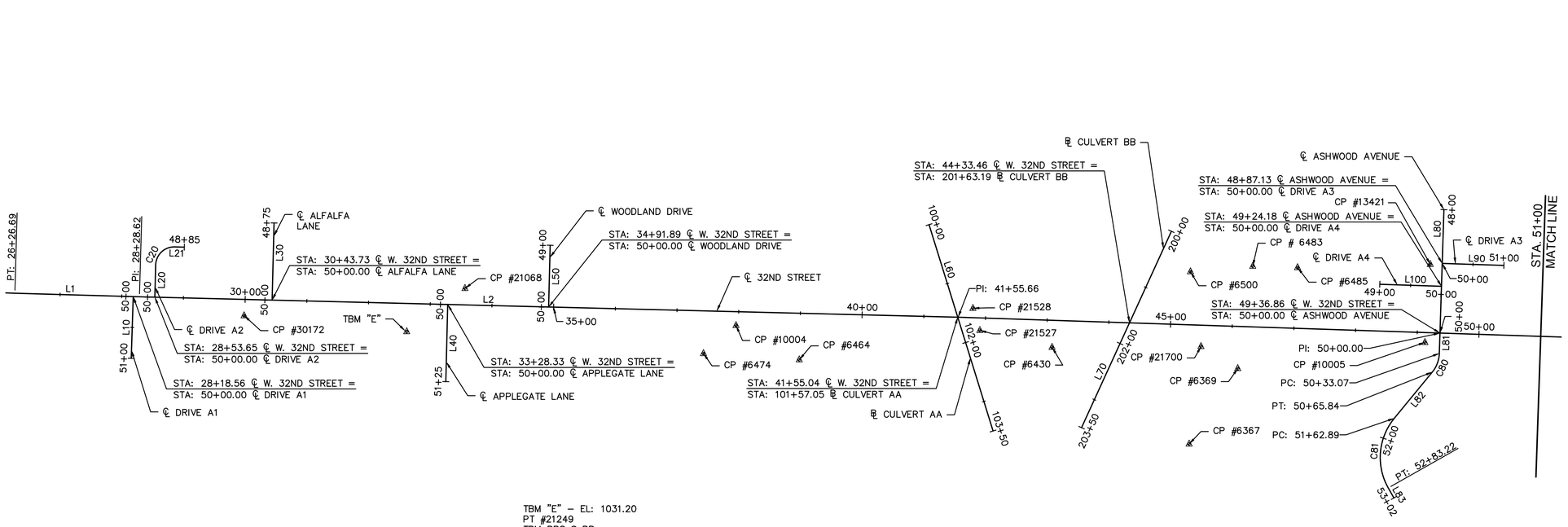
Missouri Certificate of Authority #001592
702 S. Main Street
Joplin, MO 64801 TEL 417.781.0643 www.olsson.com



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Joplin, MO 64801
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STATE OF MISSOURI
BRIAN COOMES
Brian Coomes
04/23/2021
NUMBER PE-2015029306
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

SURVEY CONTROL AND ALIGNMENT DATA

32ND STREET WIDENING
CITY OF JOPLIN

2021

JOPLIN, MISSOURI

drawn by:	SMK/JKL
checked by:	PM/LB/RF
approved by:	BMC
QA/QC by:	PM/LB/RF
project no.:	015-2768
drawing no.:	G_ALI_52768
date:	04/23/2021

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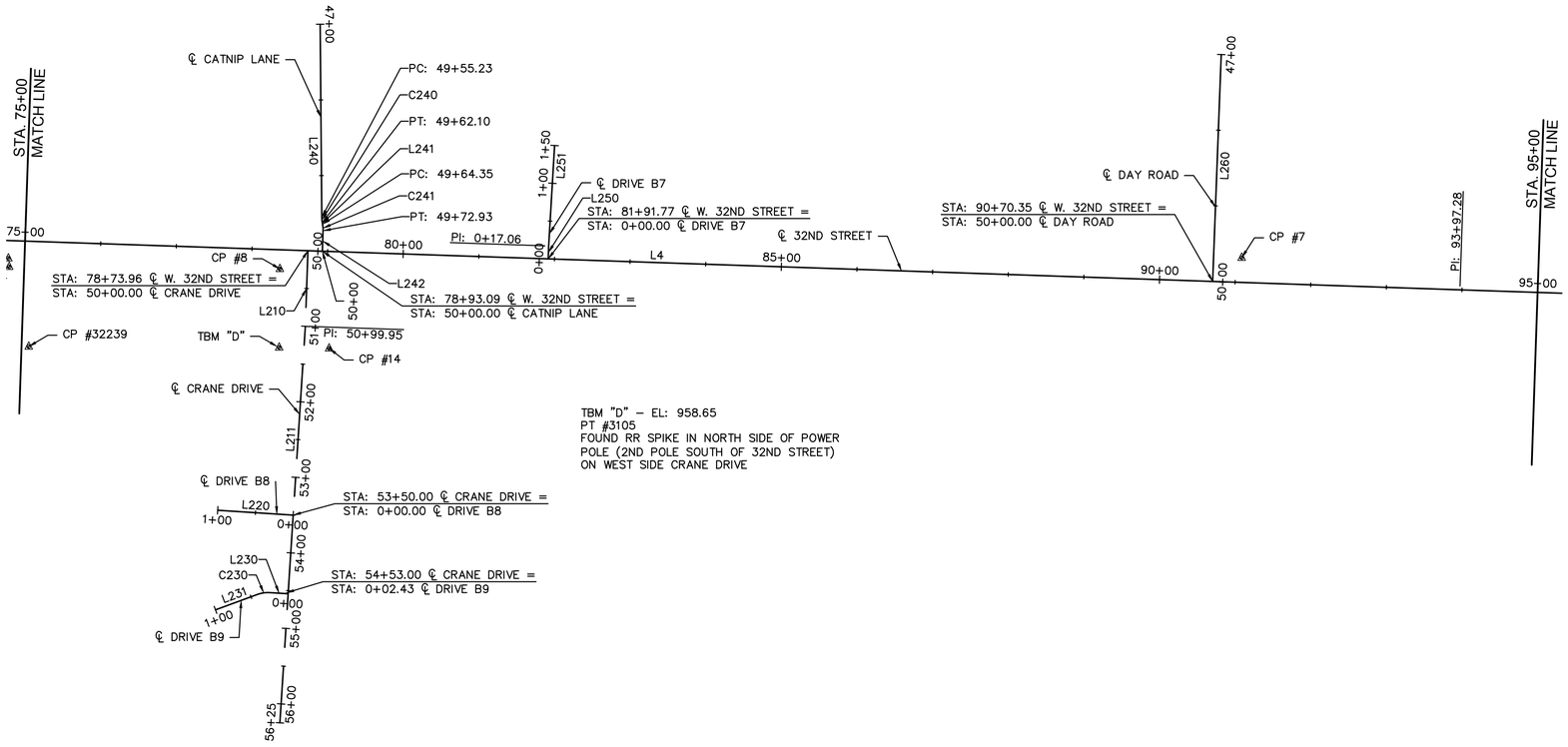

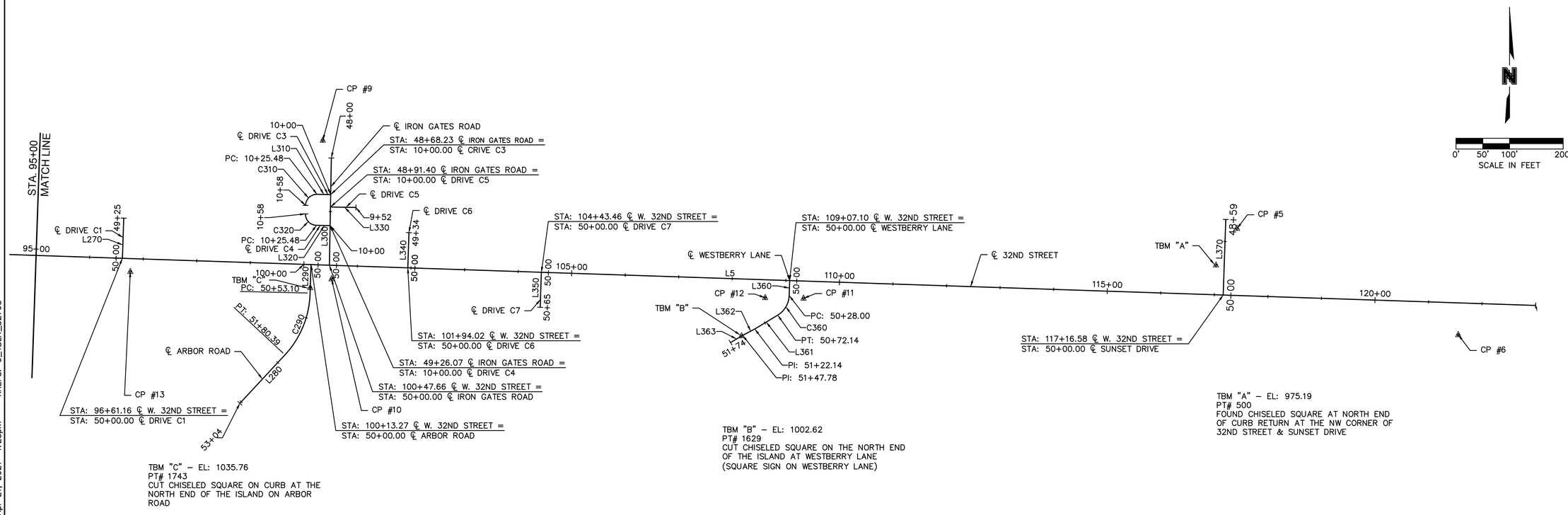

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STATE OF MISSOURI
BRIAN COOMES
Brian Coomes
04/23/2021
NUMBER PE-2015029306
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY
		REVISIONS	

SURVEY CONTROL AND ALIGNMENT DATA

32ND STREET WIDENING
CITY OF JOPLIN

2021

JOPLIN, MISSOURI

drawn by:	SMK/JKL
checked by:	PM/LB/RF
approved by:	BMC
QA/QC by:	PM/LB/RF
project no.:	015-2768
drawing no.:	G ALI 52768
date:	04/23/2021

SHEET
4 of 59

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CENTERLINE OF 32ND STREET								
NO.	STATION	NORTHING	EASTING	LENGTH	LINE/CHORD BEARING	DELTA	TANGENT	RADIUS
L1	26+26.69 28+28.62	323869.7081 323863.9740	2764674.4871 2764876.3400	201.93'	S88°22'22"E			
L2	28+28.62 41+55.66	323863.9740 323830.8190	2764876.3400 2766202.9630	1327.04'	S88°34'06"E			
L3	41+55.66 67+86.41	323830.8190 323744.4673	2766202.9630 2768832.2921	2630.75'	S88°07'08"E			
L4	67+86.41 93+97.28	323744.4673 323655.8411	2768832.2921 2771441.6580	2610.87'	S88°03'17"E			
L5	93+97.28 123+00.00	323655.8411 323559.1258	2771441.6580 2774342.7705	2902.72'	S88°05'26"E			

CENTERLINE OF ALFALFA LANE								
NO.	STATION	NORTHING	EASTING	LENGTH	LINE/CHORD BEARING	DELTA	TANGENT	RADIUS
L30	48+75.00 50+00.00	323983.5606 323858.5996	2765094.5057 2765091.3826	125.00'	S1°25'54"W			

CENTERLINE OF APPLEGATE LANE								
NO.	STATION	NORTHING	EASTING	LENGTH	LINE/CHORD BEARING	DELTA	TANGENT	RADIUS
L40	50+00.00 51+25.00	323851.4891 323726.5281	2765375.8942 2765372.7712	125.00'	S1°25'54"W			

CENTERLINE OF WOODLAND DRIVE								
NO.	STATION	NORTHING	EASTING	LENGTH	LINE/CHORD BEARING	DELTA	TANGENT	RADIUS
L50	49+00.00 50+00.00	323947.3714 323847.4026	2765541.9047 2765539.4063	100.00'	S1°25'54"W			

CENTERLINE OF ASHWOOD AVENUE									
NO.		STATION	NORTHING	EASTING	LENGTH	LINE/CHORD BEARING	DELTA	TANGENT	RADIUS
L80		48+00.00 50+00.00	324005.0751 323805.1770	2766990.1251 2766983.7398	200.00'	S1°49'46"W			
L81		50+00.00 50+33.07	323805.1770 323772.1284	2766983.7398 2766982.6544	33.07'	S1°52'52"W			
C80	PC= PI= PT=	50+33.07 50+50.07 50+65.84	323772.1284 323755.1367 323742.0070	2766982.6544 2766982.0964 2766971.2966	32.78'	S20°39'36"W	37°33'28"	17.00'	50.00'
L82		50+65.84 51+62.89	323742.0070 323667.0563	2766971.2966 2766909.6466	97.05'	S39°26'19"W			
C81	PC= PI= PT=	51+62.89 52+31.54 52+83.22	323667.0563 323614.0354 323554.2846	2766909.6466 2766866.0347 2766899.8439	120.33'	S4°58'05"W	68°56'29"	68.65'	100.00'
L83		52+83.22 53+01.84	323554.2846 323538.0753	2766899.8439 2766909.0157	18.62'	S29°30'10"E			

CENTERLINE OF ARCADIA LANE								
NO.	STATION	NORTHING	EASTING	LENGTH	LINE/CHORD BEARING	DELTA	TANGENT	RADIUS
L120	50+00.00 51+00.00	323777.1827 323677.2365	2767836.1406 2767832.8582	100.00'	S1°52'52"W			

CENTERLINE OF JENNIFER AVENUE								
NO.	STATION	NORTHING	EASTING	LENGTH	LINE/CHORD BEARING	DELTA	TANGENT	RADIUS
L130	49+00.00 50+00.00	323871.9778 323772.0317	2767996.2654 2767992.9830	100.00'	S1°52'52"W			

CENTERLINE OF DRIVE A1								
NO.	STATION	NORTHING	EASTING	LENGTH	LINE/CHORD BEARING	DELTA	TANGENT	RADIUS
L10	50+00.00 51+00.00	323864.2598 323764.3117	2764866.2783 2764863.0568	100.00'	S1°50'46"W			

CENTERLINE OF DRIVE A2									
NO.		STATION	NORTHING	EASTING	LENGTH	LINE/CHORD BEARING	DELTA	TANGENT	RADIUS
L21		48+85.00 49+00.65	323944.3757 323944.7788	2764949.0681 2764933.4247	15.65'	N88°31'26"W			
C20	PC= PI= PT=	49+00.65 49+30.67 49+47.79	323944.7788 323945.5522 323915.5383	2764933.4247 2764903.4114 2764902.6613	47.15'	S46°27'14"W	90°02'40"	30.02'	30.00'
L20		49+47.79 50+00.00	323915.5383 323863.3488	2764902.6613 2764901.3569	52.21'	S1°25'54"W			

CENTERLINE OF DRIVE A3								
NO.	STATION	NORTHING	EASTING	LENGTH	LINE/CHORD BEARING	DELTA	TANGENT	RADIUS
L90	50+00.00 51+00.00	323917.9888 323914.7962	2766987.3433 2767087.2924	100.00'	S88°10'14"E			

CENTERLINE OF DRIVE A4								
NO.	STATION	NORTHING	EASTING	LENGTH	LINE/CHORD BEARING	DELTA	TANGENT	RADIUS
L100	49+00.00 50+00.00	323884.1527 323880.9601	2766886.2115 2766986.1605	100.00'	S88°10'14"E			

BASELINE CULVERT AA								
NO.	STATION	NORTHING	EASTING	LENGTH	LINE/CHORD BEARING	DELTA	TANGENT	RADIUS
L60	100+00.00 103+50.00	323980.8265 323646.5458	2766155.8056 2766259.5187	350.00'	S17°14'13"E			

BASELINE CULVERT BB								
NO.	STATION	NORTHING	EASTING	LENGTH	LINE/CHORD BEARING	DELTA	TANGENT	RADIUS
L70	200+00.00 203+50.00	323970.0969 323651.8338	2766548.5195 2766402.8876	350.00'	S24°35'17"W			

BASELINE CULVERT CC								
NO.	STATION	NORTHING	EASTING	LENGTH	LINE/CHORD BEARING	DELTA	TANGENT	RADIUS
L110	300+00.00 303+00.00	323917.6750 323625.0088	2767290.9770 2767356.9046	300.00'	S12°41'41"E			

CENTERLINE OF S. COUNTRY CLUB DRIVE								
NO.	STATION	NORTHING	EASTING	LENGTH	LINE/CHORD BEARING	DELTA	TANGENT	RADIUS
L160	47+00.00 50+59.50	324144.2826 323784.9950	2768844.4735 2768832.1702	359.50'	S1°57'41"W			
L161	50+59.50 51+00.00	323784.9950 323744.5170	2768832.1702 2768830.7840	40.50'	S1°57'41"W			

CENTERLINE OF CRANE DRIVE								
NO.	STATION	NORTHING	EASTING	LENGTH	LINE/CHORD BEARING	DELTA	TANGENT	RADIUS
L210	50+00.00 50+99.95	323707.5503 323607.6535	2769919.2209 2769915.8279	99.95'	S1°56'43"W			
L211	50+99.95 56+25.00	323607.6535 323083.6880	2769915.8279 2769882.1665	525.05'	S3°40'33"W			

CENTERLINE OF CATNIP LANE									
NO.		STATION	NORTHING	EASTING	LENGTH	LINE/CHORD BEARING	DELTA	TANGENT	RADIUS
L240		47+00.00 49+55.23	324006.7610 323751.5450	2769935.3872 2769937.5774	255.23'	S0°29'30"E			
C240	PC= PI= PT=	49+55.23 49+58.67 49+62.10	323751.5450 323748.0995 323744.7099	2769937.5774 2769937.6070 2769938.2254	6.87'	S5°24'54"E	9°50'47"	3.45'	40.00'
L241		49+62.10 49+64.35	323744.7099 323742.4963	2769938.2254 2769938.6292	2.25'	S10°20'18"E			
C241	PC= PI= PT=	49+64.35 49+68.65 49+72.93	323742.4963 323738.2619 323733.9601	2769938.6292 2769939.4016 2769939.2555	8.58'	S4°11'47"E	12°17'01"	4.30'	40.00'
L242		49+72.93 50+00.00	323733.9601 323706.9010	2769939.2555 2769938.3364	27.07'	S1°56'43"W			

CENTERLINE OF DAY ROAD								
NO.	STATION	NORTHING	EASTING	LENGTH	LINE/CHORD BEARING	DELTA	TANGENT	RADIUS
L260	47+00.00 50+00.00	323966.7263 323666.9385	2771126.2037 2771114.9243	300.00'	S2°09'17"W			

CENTERLINE OF DRIVE B1								
NO.	STATION	NORTHING	EASTING	LENGTH	LINE/CHORD BEARING	DELTA	TANGENT	RADIUS
L140	0+00.00 0+75.00	323766.8435 323691.8839	2768150.9614 2768148.4996	75.00'	S1°52'52"W			

CENTERLINE OF DRIVE B2								
NO.	STATION	NORTHING	EASTING	LENGTH	LINE/CHORD BEARING	DELTA	TANGENT	RADIUS
L150	0+00.00 0+75.00	323761.5844 323686.6248	2768311.0976 2768308.6358	75.00'	S1°52'52"W			

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STATE OF MISSOURI
BRIAN COOMES
Brian Coomes
04/23/2021
NUMBER PE-2015029306
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

SURVEY CONTROL AND ALIGNMENT DATA

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by: SMK/JKL
checked by: PM/LB/RF
approved by: BMC
QA/QC by: PM/LB/RF
project no.: 015-2768
drawing no.: G_ALI_52768
date: 04/23/2021

SHEET
5 of 59

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CENTERLINE OF DRIVE B3									
NO.		STATION	NORTHING	EASTING	LENGTH	LINE/CHORD BEARING	DELTA	TANGENT	RADIUS
L170		0+00.00 1+29.48	323744.4777 323615.0688	2768831.9796 2768827.5843	129.48'	S1°56'43"W			
C170	PC= PI= PT=	1+29.48 1+50.00 1+70.49	323615.0688 323594.5641 323574.1855	2768827.5843 2768826.8878 2768824.5138	41.01'	S4°17'42"W	4°41'58"	20.52'	500.00'
L171		1+70.49 2+10.62	323574.1855 323534.3293	2768824.5138 2768819.8708	40.13'	S6°38'41"W			
C171	PC= PI= PT=	2+10.62 2+39.60 2+68.51	323534.3293 323505.5440 323476.5640	2768819.8708 2768816.5175 2768816.5122	57.90'	S3°19'39"W	6°38'03"	28.98'	500.00'
L172		2+68.51 3+31.29	323476.5640 323413.7881	2768816.5122 2768816.5009	62.78'	S0°00'37"W			

CENTERLINE OF DRIVE B4									
NO.		STATION	NORTHING	EASTING	LENGTH	LINE/CHORD BEARING	DELTA	TANGENT	RADIUS
L180		0+00.00 2+00.00	323737.6890 323937.5461	2769031.8653 2769039.4254	200.00'	N2°09'59"E			

CENTERLINE OF DRIVE B5									
NO.		STATION	NORTHING	EASTING	LENGTH	LINE/CHORD BEARING	DELTA	TANGENT	RADIUS
L190		0+00.00 1+25.00	323727.6879 323602.7599	2769326.3229 2769322.0798	125.00'	S1°56'43"W			

CENTERLINE OF DRIVE B6									
NO.		STATION	NORTHING	EASTING	LENGTH	LINE/CHORD BEARING	DELTA	TANGENT	RADIUS
L200		0+00.00 1+50.00	323721.1053 323571.1917	2769520.1289 2769515.0371	150.00'	S1°56'43"W			

CENTERLINE OF DRIVE B7									
NO.		STATION	NORTHING	EASTING	LENGTH	LINE/CHORD BEARING	DELTA	TANGENT	RADIUS
L250		0+00.00 0+17.06	323696.7620 323713.8162	2770236.8490 2770237.4282	17.06'	N1°56'43"E			
L251		0+17.06 1+50.00	323713.8162 323846.5226	2770237.4282 2770245.2375	132.94'	N3°22'04"E			

CENTERLINE OF DRIVE B8									
NO.		STATION	NORTHING	EASTING	LENGTH	LINE/CHORD BEARING	DELTA	TANGENT	RADIUS
L220		0+00.00 1+00.00	323358.1223 323364.5334	2769899.7971 2769800.0029	100.00'	N86°19'27"W			

CENTERLINE OF DRIVE B9									
NO.		STATION	NORTHING	EASTING	LENGTH	LINE/CHORD BEARING	DELTA	TANGENT	RADIUS
L230		0+00.00 0+24.09	323254.1998 323255.7444	2769893.1208 2769869.0770	24.09'	N86°19'27"W			
C230	PC= PI= PT=	0+24.09 0+32.55 0+40.75	323255.7444 323256.2864 323253.3690	2769869.0770 2769860.6413 2769852.7076	16.66'	S81°44'36"W	23°51'55"	8.45'	40.00'
L231		0+40.75 1+00.00	323253.3690 323232.9219	2769852.7076 2769797.1022	59.25'	S69°48'38"W			

CENTERLINE OF ARBOR ROAD									
NO.		STATION	NORTHING	EASTING	LENGTH	LINE/CHORD BEARING	DELTA	TANGENT	RADIUS
L290		50+00.00 50+53.10	323635.3167 323582.2414	2772057.3141 2772055.6505	53.10'	S1°47'43"W			
C290	PC= PI= PT=	50+53.10 51+19.71 51+80.39	323582.2414 323515.6503 323466.9119	2772055.6505 2772054.1465 2772008.7462	127.29'	S22°07'53"W	41°40'31"	66.61'	175.00'
L280		51+80.39 53+03.87	323466.9119 323376.5574	2772008.7462 2771924.5899	123.48'	S42°57'57"W			

CENTERLINE OF IRON GATES ROAD									
NO.		STATION	NORTHING	EASTING	LENGTH	LINE/CHORD BEARING	DELTA	TANGENT	RADIUS
L300		48+00.00 50+00.00	323834.1378 323634.1710	2772095.3295 2772091.6817	200.00'	S1°02'42"W			

CENTERLINE OF WESTBERRY LANE									
NO.		STATION	NORTHING	EASTING	LENGTH	LINE/CHORD BEARING	DELTA	TANGENT	RADIUS
L360		50+00.00 50+28.00	323605.5354 323577.5534	2772950.6473 2772949.7145	28.00'	S1°54'34"W			
C360	PC= PI= PT=	50+28.00 50+52.08 50+72.14	323577.5534 323553.4808 323541.0157	2772949.7145 2772948.9115 2772928.3018	44.14'	S30°22'20"W	56°55'24"	24.09'	44.43'
L361		50+72.14 51+22.14	323541.0157 323515.1397	2772928.3018 2772885.5182	50.00'	S58°50'02"W			
L362		51+22.14 51+47.78	323515.1397 323503.2367	2772885.5182 2772862.8149	25.63'	S62°19'58"W			
L363		51+47.78 51+73.94	323503.2367 323489.8603	2772862.8149 2772840.3250	26.17'	S59°15'25"W			

CENTERLINE OF SUNSET DRIVE									
NO.		STATION	NORTHING	EASTING	LENGTH	LINE/CHORD BEARING	DELTA	TANGENT	RADIUS
L370		48+59.00 50+00.00	323719.4832 323578.5647	2773764.4441 2773759.6718	141.00'	S1°56'23"W			

CENTERLINE OF DRIVE C1									
NO.		STATION	NORTHING	EASTING	LENGTH	LINE/CHORD BEARING	DELTA	TANGENT	RADIUS
L270		49+25.00 50+00.00	323722.0071 323647.0488	2771707.8922 2771705.3933	75.00'	S1°54'34"W			

CENTERLINE OF DRIVE C2									
NO.		STATION	NORTHING	EASTING	LENGTH	LINE/CHORD BEARING	DELTA	TANGENT	RADIUS

CENTERLINE OF DRIVE C3									
NO.		STATION	NORTHING	EASTING	LENGTH	LINE/CHORD BEARING	DELTA	TANGENT	RADIUS
L310		10+00.00 10+25.48	323765.9216 323766.3863	2772094.0851 2772068.6111	25.48'	N88°57'18"W			
C310	PC= PI= PT=	10+25.48 10+46.48 10+58.46	323766.3863 323766.7693 323745.7728	2772068.6111 2772047.6146 2772047.2315	32.99'	S46°02'42"W	90°00'00"	21.00'	21.00'

CENTERLINE OF DRIVE C4									
NO.		STATION	NORTHING	EASTING	LENGTH	LINE/CHORD BEARING	DELTA	TANGENT	RADIUS
L320		10+00.00 10+25.48	323708.0883 323708.5530	2772093.0301 2772067.5561	25.48'	N88°57'18"W			
C320	PC= PI= PT=	10+25.48 10+46.48 10+58.46	323708.5530 323708.9360 323729.9325	2772067.5561 2772046.5596 2772046.9426	32.99'	N43°57'18"W	90°00'00"	21.00'	21.00'

CENTERLINE OF DRIVE C5									
NO.		STATION	NORTHING	EASTING	LENGTH	LINE/CHORD BEARING	DELTA	TANGENT	RADIUS
L330		9+52.42 10+00.00	323741.8865 323742.7543	2772141.2347 2772093.6625	47.58'	N88°57'18"W			

CENTERLINE OF DRIVE C6									
NO.		STATION	NORTHING	EASTING	LENGTH	LINE/CHORD BEARING	DELTA	TANGENT	RADIUS
L340		49+34.37 50+00.00	323694.8881 323629.2944	2772240.1487 2772237.9620	65.63'	S1°54'34"W			

CENTERLINE OF DRIVE C7									
NO.		STATION	NORTHING	EASTING	LENGTH	LINE/CHORD BEARING	DELTA	TANGENT	RADIUS
L350		50+00.00 50+65.40	323620.9833 323555.6203	2772487.2654 2772485.0864	65.40'	S1°54'34"W			

CONTROL POINTS				
POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION
1	324455.04	2768877.87	995.16	CP1
2	323937.39	2763904.66	1017.15	CP2
3	324498.03	2766756.19	1042.52	CP3
4	323848.84	2768775.73	1029.86	CP4
5	323702.61	2773785.52	974.56	CP5
6	323504.37	2774198.34	981.51	CP6
7	323698.34	2771153.40	1015.04	CP7
8	323683.48	2769882.22	963.90	CP8
9	323867.04	2772079.34	1020.09	CP9
10	323608.52	2772095.78	1035.03	CP10
11	323572.37	2772976.54	1000.63	CPT
12	323573.44	2772904.96	1000.94	CPT
13	323622.19	2771720.21	1041.22	CPT
14	323578.52	2769947.34	957.44	CPT
15	323697.42	2769523.47	995.13	CPT
500	323634.24	2773746.26	975.19	TBM
1629	323502.18	2772860.90	1002.63	TBM
1743	323592.00	2772056.03	1035.76	TBM
3105	323579.66	2769881.31	958.65	TBM
6208	323647.09	2768832.44	1019.12	CPT
6333	323716.66	2767330.70	1022.45	CPT
6335	323725.31	2767195.90	1032.06	CPT
6367	323625.53	2766577.38	1004.63	CPT
6369	323747.82	2766656.13	1018.13	CPT
6430	323782.19	2766355.19	1000.74	CPT
6464	323761.92	2765945.58	1029.91	CPT
6474	323772.11	2765790.38	1031.49	CPT
6483	323913.49	2766680.41	1023.91	CPT
6485	323911.27	2766753.03	1031.40	CPT
6500	323904.72	2766579.56	1007.90	CPT
6743	323863.80	2763722.99	1015.80	TBM
10004	323817.60	2765843.12	1028.05	CPT
10005	323790.08	2766959.41	1048.27	CPT
10006	323804.00	2767949.51	1048.72	CPT
10007	323782.94	2768796.40	1026.87	CPT
13302	323775.10	2767447.12	1037.08	CPT 60D
13421	323916.58	2766968.00	1049.49	CPT 60D
21068	323877.58	2765403.93	1027.77	CPT 60D
21249	323807.60	2765309.55	1031.20	TBM RRS S PP
21527	323809.54	2766238.21	996.60	CPT 60D
21528	323845.38	2766227.05	997.65	CPT 60D
21700	323783.52	2766596.53	1013.21	CPT 60D
22062	323845.48	2767368.70	1038.13	CPT 60D
22682	323753.89	2768255.17	1044.56	CPT 60D
30172	323833.38	2765046.06	1029.04	CPT 60D
30523	323868.09	2764498.13	1023.59	CPT 60D
31409	324027.18	2769169.14	1025.60	CPT 60D
31441	323858.21	2769111.54	1031.20	CPT 60D
31604	323992.52	2768797.64	1025.76	CPT 60D
32238	323686.30	2769524.56	994.44	CPT 60D
32239	323580.94	2769550.40	986.02	CPT 60D
32240	323732.87	2768760.79	1023.81	CPT 60D
200913	323774.94	2769203.78	1029.98	CPT PIN

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STATE OF MISSOURI
BRIAN COOMES
Brian Coomes
04/23/2021
NUMBER PE-2015029306
PROFESSIONAL ENGINEER

REVISIONS			
REV. NO.	DATE	REVISIONS DESCRIPTION	BY

SURVEY CONTROL AND ALIGNMENT DATA

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by:	SMK/JKL
checked by:	PM/LB/RF
approved by:	BMC
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project no.:	015-2768
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DWG: F:\PROJECTS\015-2768\40-Design\AutoCAD\Final Plans\Sheets Front End\GENERAL\G_ALI_52768.dwg USER: skendall
DATE: Apr 21, 2021 1:28pm XREFS: G_TBLK_52768

GENERAL NOTES:

1. ALL WORK PRESENTED, IMPLIED, AND/OR COMPLETED AS A PART OF THIS PLAN SET SHALL CONFORM TO THE LATEST EDITION OF THE STANDARD SPECIFICATIONS OF THE CITY OF JOPLIN UNLESS SPECIFICALLY STATED OTHERWISE. ALL ITEMS AND WORK REFERENCING MODOT STANDARD DETAILS SHALL CONFORM TO THE LATEST EDITION OF THE MISSOURI STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION. THE CONTRACTOR SHALL HAVE ONE (1) SIGNED COPY OF THE CONTRACT DOCUMENTS INCLUDING PLANS (APPROVED BY CITY OF JOPLIN) AND ONE (1) COPY OF ALL APPROPRIATE DESIGN AND CONSTRUCTION STANDARDS AND SPECIFICATIONS ON THE SITE AT ALL TIMES.

2. THE CONTRACTOR SHALL NOT CHANGE OR DEVIATE FROM THE PLANS WITHOUT FIRST OBTAINING WRITTEN APPROVAL FROM THE OWNER AND ENGINEER.

3. THE CONTRACTOR SHALL BE RESPONSIBLE TO OBTAIN ALL PERMITS AND PAY ALL FEES AS REQUIRED BY THE CONSTRUCTION COVERED IN THESE PLANS. THIS ITEM IS SUBSIDIARY TO OTHER BID ITEMS.

4. ALL WORK AND MATERIALS SHALL BE SUBJECT TO INSPECTION AND APPROVAL BY THE OWNER OR THE OWNER'S REPRESENTATIVE.

5. ALL SIDEWALKS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE 2010 ADA STANDARDS FOR ACCESSIBLE DESIGN AND THE 2011 PROPOSED ACCESSIBILITY GUIDELINES FOR PEDESTRIAN FACILITIES IN THE PUBLIC RIGHT-OF-WAY.

6. THE CONTRACTOR SHALL PROVIDE ADEQUATE TRAFFIC CONTROL IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (LATEST VERSION) THROUGHOUT THE PROJECT IN HIGHWAYS, SIDEWALKS, STREETS AND INTERSECTIONS.

7. ALL ELEVATIONS ARE TO NORTH AMERICAN VERTICAL DATUM (N.A.V.D. 1988).

8. PRIOR TO MOVING OFF THE JOB THE CONTRACTOR SHALL NOTIFY THE ENGINEER TO DO A FINAL WALK-THROUGH OF THE CONSTRUCTION SITE.

9. THE CONTRACTOR SHALL SUBMIT WRITTEN REQUEST TO THE ENGINEER FOR APPROVAL OF ALL AREAS TO BE USED FOR STAGING, MOBILIZATION, EQUIPMENT AND MATERIAL STORAGE AND GENERAL PROJECT CONSTRUCTION MANAGEMENT. REQUEST SHALL BE SUBMITTED TO THE ENGINEER WITHIN 5 DAYS OF THE NOTICE TO PROCEED.

10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING GENERAL SAFETY AT AND ADJACENT TO THE PROJECT AREA, INCLUDING THE PERSONAL SAFETY OF THE CONSTRUCTION CREW AND THE GENERAL PUBLIC AND THE SAFETY OF PUBLIC AND PRIVATE PROPERTY. THIS ITEM IS SUBSIDIARY TO OTHER BID ITEMS.

11. NO EQUIPMENT OR MATERIAL SHALL BE DEPOSITED ON PRIVATE PROPERTY WITHOUT WRITTEN PERMISSION. THE CONTRACTOR IS RESPONSIBLE FOR ALL DAMAGES RESULTING FROM SUCH ACTS AND SHALL REMOVE THE MATERIAL AND RESTORE THE PROPERTY AT THE EXPENSE OF THE CONTRACTOR.

12. CONSTRUCTION ACTIVITIES SHALL BE LIMITED TO THE HOURS OF 7:00 AM TO 7:00 PM UNLESS APPROVED OR DIRECTED BY THE ENGINEER.

13. THE CITY OF JOPLIN SHALL HAVE FIRST RIGHT OF REFUSAL ON ALL DEMOLITION AND REMOVAL ITEMS SUCH AS SIGNAGE, POLES, SIGNAL EQUIPMENT, ETC. THE CONTRACTOR SHALL COORDINATE WITH PUBLIC WORKS FOR A TIME AND LOCATION TO DELIVER THOSE ITEMS TO THE CITY. CONSTRUCTION DEBRIS SUCH AS BROKEN CONCRETE, EXCESS FILL, ETC. SHALL BECOME THE PROPERTY OF THE CONTRACTOR. MATERIAL SHALL BE COMPLETELY REMOVED FROM THE SITE PRIOR TO ACCEPTANCE OF THE PROJECT. ALL MATERIAL SHALL BE DISPOSED OF IN A MANNER THAT IS IN COMPLIANCE WITH ALL LOCAL, STATE, AND FEDERAL REGULATIONS. THIS ITEM IS SUBSIDIARY TO OTHER BID ITEMS.

14. ALL ITEMS REMOVED SHALL BE DISPOSED OFF SITE BY THE CONTRACTOR AS PER CITY OF JOPLIN REQUIREMENTS.

15. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADJUSTING ALL STORM AND SANITARY MANHOLE RIMS TO MATCH THE PROPOSED FINISHED GRADE. THIS ITEM SHALL BE PAID FOR AS EXISTING MANHOLE RIM ADJUSTMENTS (SANITARY & STORM) EACH.

16. UNLESS SPECIFICALLY STATED OTHERWISE, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADJUSTING ALL EXISTING METERS, VALVES, VALVE BOXES, BUILDING DRAIN LINES, ETC. TO MATCH FINISHED GRADE. THIS ITEM IS SUBSIDIARY TO OTHER BID ITEMS.

17. RIGHT-OF-WAY AND EASEMENTS SHOWN ARE APPROXIMATE, AND DO NOT DEPICT A LEGAL SURVEY. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING EXACT LOCATION OF RIGHT-OF-WAY, PROPERTY LINES, AND EASEMENTS AND CONTAINING ACTIVITIES WITHIN THOSE LIMITS.

18. THE CONTRACTOR SHALL PROTECT EXISTING RIGHT-OF-WAY AND SURVEY MONUMENTS. ANY MONUMENTS DISTURBED DURING CONSTRUCTION SHALL BE RESET AT THE CONTRACTOR'S EXPENSE BY A PROFESSIONAL LAND SURVEYOR LICENSED IN THE STATE OF MISSOURI.

19. THE CONTRACTOR SHALL PROVIDE THE ENGINEER WITH A SCHEDULE OF OPERATIONS AT THE BEGINNING OF EACH WEEK. THIS ITEM IS SUBSIDIARY TO OTHER BID ITEMS.

20. THE CONTOUR LINES & SPOT ELEVATIONS SHOWN ARE TO FINISH GRADE FOR SURFACE OF PAVEMENT, TOP OF SIDEWALKS AND CURBS, TOP OF FLOOR SLABS, ETC. REFER TO TYPICAL SECTIONS FOR PAVING, SLAB AND AGGREGATE BASE THICKNESS TO DEDUCT FOR GRADING LINE ELEVATIONS.

21. THE CONTRACTOR SHALL BE RESPONSIBLE FOR KEEPING THE PUBLIC STREETS IN THE VICINITY OF THE JOB SITE CLEAN AND FREE OF ROCKS, SOIL AND DEBRIS. CLEAN STREETS OF CONSTRUCTION DEBRIS DAILY. THIS ITEM IS SUBSIDIARY TO OTHER BID ITEMS.

22. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTROL OF SURFACE EROSION DURING CONSTRUCTIONS AND UNTIL THE OWNER ACCEPTS THE WORK AS COMPLETE. THE CONTRACTOR SHALL UTILIZE AND COMPLY WITH ALL REQUIREMENTS OF THE CITY OF JOPLIN'S LAND DISTURBANCE STORM WATER POLLUTION PREVENTION PLAN (SWPPP). ALL EROSION AND SEDIMENT CONTROL PLANS SHALL BE INCORPORATED INTO THE SWPPP. CONTRACTOR SHALL MAINTAIN THE SWPPP THROUGHOUT THE PROJECT AND COMPLETE THE REQUIRED DOCUMENTATION UNTIL THE SITE IS STABILIZED AND ACCEPTED BY THE ENGINEER. THIS ITEM IS SUBSIDIARY TO EROSION CONTROL.

23. CONSTRUCTION ACCESS TO THE SITE SHALL BE LIMITED TO THE APPROVED TEMPORARY CONSTRUCTION ENTRANCE(S). TEMPORARY CONSTRUCTION ENTRANCE SHALL HAVE SHOT ROCK FOR ITS SURFACE. THIS ITEM IS SUBSIDIARY TO EROSION CONTROL.

24. EROSION CONTROL DEVICES SHALL BE MAINTAINED DURING THE ENTIRE CONSTRUCTION PERIOD BY THE CONTRACTOR. THIS ITEM IS SUBSIDIARY TO EROSION CONTROL.

25. CONTRACTOR TO PROTECT ANY STORM INLETS FROM SEDIMENT THAT TAKE STORM WATER FROM THE AREA OF CONSTRUCTION. THIS ITEM IS SUBSIDIARY TO EROSION CONTROL.

26. THE DETENTION BASINS, WATER QUALITY BASIN AND STORM WATER CHANNELS (PIPES), IF SHOWN, SHALL BE FUNCTIONING BEFORE ANY OTHER WORK MAY BEGIN.

27. ALL DISTURBED AREAS SHALL BE STABILIZED IN ACCORDANCE WITH THE APPROVED SEDIMENT AND EROSION CONTROL PLAN (SECP). THIS ITEM IS SUBSIDIARY TO EROSION CONTROL.

28. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING BERMS, SILT FENCES, OR OTHER MEANS TO PREVENT ERODED MATERIALS FROM REACHING THE PUBLIC RIGHT-OF-WAY AND ADJACENT PROPERTIES. IN THE EVENT THE PREVENTION MEASURES ARE NOT EFFECTIVE, THE CONTRACTOR SHALL REMOVE ANY DEBRIS, SILT, OR MUD AND RESTORE THE RIGHT-OF-WAY TO ORIGINAL OR BETTER CONDITION. THIS ITEM IS SUBSIDIARY TO EROSION CONTROL.

29. THE CONTRACTOR SHALL BE RESPONSIBLE TO CONTROL DOWNSTREAM EROSION AND SILTATION DURING ALL PHASES OF CONSTRUCTION. EROSION CONTROL PROCEDURES SHALL BE IN PLACE PRIOR TO BEGINNING GRADING ACTIVITIES. THIS ITEM IS SUBSIDIARY TO EROSION CONTROL.

30. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF THE SEDIMENT CONTROL BARRIERS DURING CONSTRUCTION OR UNTIL THEY ARE RELEASED FROM THIS RESPONSIBILITY BY THE ENGINEER. THIS ITEM IS SUBSIDIARY TO EROSION CONTROL.

31. THE CONTRACTOR SHALL CLEAN OUT ALL EXISTING AND PROPOSED INLETS, PIPES AND MANHOLES OF DEBRIS AND SEDIMENTATION AT COMPLETION OF SITE WORK. THIS WORK SHALL BE DONE TO THE SATISFACTION OF THE OWNER & ENGINEER. THIS ITEM IS SUBSIDIARY TO EROSION CONTROL.

32. THE CONTRACTOR IS RESPONSIBLE FOR ATTENDING TO AND CORRECTING UNSUITABLE SOIL CONDITIONS RELATED TO PLOW ZONES, WET SOILS, AND OTHER CONDITIONS. THE UNSUITABLE CONDITIONS MUST BE CORRECTED PER THE GEOTECHNICAL ENGINEER'S REPORT, WHERE REQUIRED, TO MEET PROJECT NEEDS.

33. THE SUBGRADE SOILS BENEATH THE PAVEMENT SECTION SHALL BE OVER EXCAVATED SUFFICIENTLY TO INSTALL THE NEW PAVEMENT SECTION.

34. IF THE CONTRACTOR'S OPERATIONS CAUSE AN UNSATISFACTORY SUBGRADE, THE CONTRACTOR SHALL RESTORE THE SUBGRADE TO A SATISFACTORY CONDITION AT THE CONTRACTOR'S EXPENSE.

35. STRIPPINGS ARE TO BE STOCKPILED. FOLLOWING THE COMPLETION OF THE GRADING, THIS TOPSOIL SHALL BE USED AS FILL MATERIAL ON ALL LANDSCAPED AREAS. IF STOCKPILE IS INACTIVE FOR MORE THAN 14 DAYS, STABILIZE OR PROTECT THE PERIMETER AS PER CITY OF JOPLIN "EROSION AND SEDIMENT CONTROL GUIDELINES". THIS ITEM IS SUBSIDIARY TO EROSION CONTROL.

36. ALL HERBACEOUS VEGETATION SHALL BE REMOVED FROM WITHIN THE LIMITS OF THE GRADING AND REDISTRIBUTED WITH THE TOPSOIL. THIS ITEM IS SUBSIDIARY TO OTHER BID ITEMS.

37. THE CONTRACTOR SHALL FINISH GRADE SLOPES AS SHOWN IN THE PLANS, NO STEEPER THAN 1 FOOT VERTICAL IN 3 FEET HORIZONTAL OR 1 FOOT VERTICAL IN 2 FEET HORIZONTAL IN GUARDRAIL AREAS. THIS ITEM IS SUBSIDIARY TO OTHER BID ITEMS.

38. ALL BACK FILL SHALL BE TAMPED. BACK FILL WITHIN THE RIGHT-OF-WAY SHALL BE COMPACTED TO 95% MAX. DENSITY AS PER ASTM-D698 (STANDARD PROCTOR COMPACTION). THIS ITEM IS SUBSIDIARY TO OTHER BID ITEMS.

39. THE EXISTING UTILITY LOCATIONS SHOWN ON THE PLANS ARE APPROXIMATE AND MAY NOT INCLUDE ALL LINES PRESENT. THE CONTRACTOR SHALL BE RESPONSIBLE TO CALL "1-800-DIG-RITE", AND COORDINATE FIELD LOCATION OF EXISTING UNDERGROUND UTILITIES PRIOR TO BEGINNING GRADING ACTIVITIES. THIS ITEM IS SUBSIDIARY TO OTHER BID ITEMS.

40. THE CONTRACTOR SHALL MAKE EXPLORATION EXCAVATIONS AND LOCATE EXISTING UNDERGROUND UTILITIES SUFFICIENTLY AHEAD OF CONSTRUCTION TO PERMIT REVISIONS TO PLANS IF REVISIONS ARE NECESSARY DUE TO ACTUAL LOCATION OF EXISTING FACILITIES. THIS ITEM IS SUBSIDIARY TO OTHER BID ITEMS.

41. THE CONTRACTOR IS REQUIRED TO TAKE PRECAUTIONARY MEASURES TO PROTECT THE UTILITY LINES SHOWN AND ANY OTHER EXISTING LINES NOT OF RECORD OR NOT SHOWN WITHIN THESE PLANS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIRS OF SUCH STRUCTURES WHEN BROKEN OR OTHERWISE DAMAGED BY CONSTRUCTION ACTIVITIES. THIS ITEM IS SUBSIDIARY TO OTHER BID ITEMS.

42. ALL TRENCHING SHALL BE IN ACCORDANCE WITH SECTION 1700 OF THE JOPLIN STANDARD SPECIFICATIONS. NO SEPARATE MEASUREMENTS AND PAYMENT WILL BE MADE FOR TRENCH EXCAVATION AND BACKFILL REQUIRED FOR STORM SEWER CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL AND DISPOSAL OF MATERIAL FROM STORM SEWER TRENCHING. THIS ITEM IS SUBSIDIARY TO OTHER BID ITEMS.

43. CONTRACTOR SHALL MAINTAIN ALL EXISTING DRAINAGE CONVEYANCE DURING CONSTRUCTION. NO PIPES OR RCB'S SHALL BE ABANDONED OR FILLED WITH FLOWABLE FILL UNTIL THE NEW STORM SEWER PIPE IS CONSTRUCTED AND CONNECTIONS ARE COMPLETE.

44. ALL ACTIVE DRAIN LINES (PUBLIC OR PRIVATE) THAT ARE CONNECTED TO THE EXISTING STORM SEWER SYSTEM TO BE REMOVED SHALL BE EXTENDED AND CONNECTED TO THE PROPOSED STORM SEWER SYSTEM. IT IS ANTICIPATED THAT PRIVATE ROOF DRAINS AND/OR FOUNDATION DRAINS MAY NEED TO BE EXTENDED TO CONTINUE TO FUNCTION PROPERLY. ALL CONNECTIONS TO PROPOSED STORM SYSTEM THAT ARE NOT EXPLICITLY SHOWN AND IDENTIFIED ON THE BID FORM WILL BE CONSIDERED SUBSIDIARY TO THE PROPOSED STORM SEWER PIPE.

45. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR ALL PRECAST CONCRETE STRUCTURES AND PIPE FOR REVIEW AND APPROVAL BY THE PROJECT ENGINEER. THE SHOP DRAWINGS MUST BE SIGNED AND SEALED BY A REGISTERED PROFESSIONAL ENGINEER LICENSED IN THE STATE OF MISSOURI. THE CONTRACTOR MUST RECEIVE APPROVAL OF THE SUBMITTED SHOP DRAWINGS PRIOR TO FABRICATION. FAILURE TO DO SO SHALL BE CAUSE FOR REJECTION.

46. DESIGN PROFESSIONAL SHALL REVIEW SHOP DRAWINGS OR SAMPLES FOR GENERAL CONFORMANCE WITH THE DESIGN CONCEPTS ON THE PROJECT AND FOR COMPLIANCE WITH THE INFORMATION GIVEN IN THE CONTRACT DOCUMENTS, AND SHALL NOT EXTEND TO MEANS OR METHODS OF CONSTRUCTION. THE DESIGN PROFESSIONAL'S REVIEW SHALL NOT RELIEVE CONTRACTOR FROM RESPONSIBILITY FOR ANY VARIATION FROM THE REQUIREMENTS OF THE CONTRACT DOCUMENTS UNLESS CONTRACTOR HAS IN WRITING CALLED DESIGN PROFESSIONAL'S ATTENTION TO EACH SUCH VARIATION AT THE TIME OF SUBMISSION, AND DESIGN PROFESSIONAL HAS GIVEN WRITTEN APPROVAL OF EACH SUCH VARIATION BY SPECIFIC WRITTEN NOTATION THEREOF INCORPORATED INTO OR ACCOMPANYING THE SHOP DRAWING OR SAMPLE; NOR WILL ANY APPROVAL BY THE DESIGN PROFESSIONAL RELIEVE CONTRACTOR FROM RESPONSIBILITY FOR ERRORS OR OMISSIONS IN SHOP DRAWINGS WITH CONFORMANCE TO CONTRACT DOCUMENTS.

BEFORE SUBMITTING EACH SHOP DRAWING OR SAMPLE, CONTRACTOR SHALL HAVE DETERMINED AND VERIFIED:

A. ALL FIELD MEASUREMENTS, QUANTITIES, DIMENSIONS, SPECIFIED PERFORMANCE CRITERIA, INSTALLATION REQUIREMENTS, MATERIALS, CATALOG NUMBERS AND SIMILAR INFORMATION WITH RESPECT THERETO;
B. ALL MATERIALS WITH RESPECT TO INTENDED USE, FABRICATION, SHIPPING, HANDLING, STORAGE, ASSEMBLY AND INSTALLATION PERTAINING TO THE PERFORMANCE OF THE WORK;
C. ALL INFORMATION RELATIVE TO MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES OF CONSTRUCTION AND SAFETY PRECAUTIONS AND PROGRAMS INCIDENT THERETO;
D. CONTRACTOR SHALL ALSO HAVE REVIEWED AND COORDINATED EACH SHOP DRAWING OR SAMPLE WITH OTHER SHOP DRAWINGS AND SAMPLES, AND WITH THE REQUIREMENTS OF THE WORK AND THE CONTRACT DOCUMENTS.

ALL SUBMITTED SHOP DRAWINGS SHALL BEAR A STAMP OR SPECIFIC WRITTEN INDICATION AND SIGNATURE THAT CONTRACTOR HAS FULLY REVIEWED THE SUBMISSION AND CHECKED ALL DATA AND DETAILS. BY CONTRACTOR SIGNATURE, CONTRACTOR CERTIFIES SHOP DRAWING CONFORMANCE AND ACCURACY TO THE CONTRACT DOCUMENTS.

49. THE CONTRACTOR SHALL MAINTAIN AND COORDINATE OWNER, TENANT, DELIVERY AND EMERGENCY VEHICULAR AND/OR PEDESTRIAN ACCESS TO ALL RESIDENCES AT ALL TIMES IN ACCORDANCE WITH THE CITY OF JOPLIN, ADA, PROWAG, AND MUTCD REQUIREMENTS, INCLUDING TEMPORARY ACCESS AND SAFETY REQUIREMENTS TO COMPLY WITH ALL LOCAL, STATE, AND FEDERAL REGULATIONS. THIS ITEM IS SUBSIDIARY TO OTHER BID ITEMS.

50. THE CONTRACTOR SHALL REMOVE AND DISPOSE OF CONTAMINATED MATERIAL IN ACCORDANCE WITH ALL CITY, STATE AND FEDERAL REQUIREMENTS AND AS DETAILED IN CITY OF JOPLIN SPECIFICATION 1800.

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STATE OF MISSOURI
BRIAN COOMES
Brian Coomes
04/23/2021
NUMBER PE-2015029306
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

GENERAL NOTES

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by: SMK/JKL
checked by: PM/LB/RF
approved by: BMC
QA/QC by: PM/LB/RF
project no.: 015-2768
drawing no.: G GENN 52768
date: 04/23/2021

SHEET
7 of 59

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DATE: Apr 21, 2021 1:28pm XREFS: G_TBLK_52768 MO One Call

RECAPITULATION OF QUANTITIES - BASE BID

ITEM NO.	DESCRIPTION	UNIT	ESTIMATED QUANTITY	GOVERNING TECHNICAL SPECIFICATION
1	Mobilization	LS	1	JSP-0400-04
2	Contractor Furnished Construction Staking and Surveying	LS	1	JSP-0400-05
3	Clearing & Grubbing / Tree & Brush Removal	LS	1	JSP-1100-01
4	Demolition & Removal	LS	1	JSP-1100-02
5	Temporary Seeding, Fertilizing, and Mulching	ACRE	5	JSP-1000-01
6	Erosion Control Blanket (MoDOT Type 2.D)	SY	17,867	JSP-1000-01
7	8" Biodegradable Log	LF	30,030	JSP-1000-01
8	12" Biodegradable Log	LF	2,766	JSP-1000-01
9	Curb Inlet/Area Inlet Protection	EA	63	JSP-1000-01
10	Culvert Inlet Protection	EA	20	JSP-1000-01
11	Permanent Seeding, Fertilizing and Mulching (Hydroseed Cellulose Mulch)	ACRE	9	City 5100
12	Modify & Repair Exisitng Irrigation Systems	LS	1	JSP-5100-01
13	Kentucky Bluegrass Sodding	SY	8,986	City 5200
14	Turf Type Tall Fescue Sodding	SY	1,000	City 5200
15	Bermuda Sodding	SY	1,000	City 5200
16	Zoysia Sodding	SY	1,000	City 5200
17	Unclassified Excavation*	CY	84,873	City 1200
18	Embankment*	CY	29,180	JSP-1200-01
19	Embankment (Special)(Minimum 40% Chert)*	CY	52,776	JSP-1200-01
20	Imported Fill*	CY	17,850	City 1200
21	Removal of Unsuitable Material	CY	8,487	City 1200
22	Backfill of Unsuitable Material	CY	8,487	City 1200
23	Removal, Transportation & Disposal of Contaminated Soils	CY	8,487	City 1800
24	Milling	SY	1,158	JSP-2300-01
25	Asphaltic Concrete Surface (2") (MoDOT BP-1)	TONS	4,356	City 2200
26	Asphaltic Concrete Surface (4") (MoDOT BP-1)	TONS	51	City 2200
27	Asphaltic Concrete Base (8") (MoDOT Bituminous Base)	TONS	17,424	City 2200
28	8" MoDOT Type 5 Aggregate Base	SY	43,652	JSP-1400-01
29	6" MoDOT Type 1 Aggregate Surface	SY	1,254	JSP-1400-02
30	Temporary Surfacing Material (Aggregate)(MoDOT Type 1)	TONS	300	JSP-1400-02
31	Temporary Surfacing Material (HMA MoDOT BP-1)	TONS	754	City 2200
32	8" Concrete Pavement (Gutter Crossing incl. Intergral Curb)	SY	166	JSP-3100-01
33	8" Concrete Pavement (Roadway)	SY	946	City 3100
34	2'-6" Curb & Gutter, Combined (All Types)	LF	19,505	JSP-3200-01
35	Curb Flume (3' wide)	LF	14	JSP-3100-02
36	Concrete Flume (6' wide)	LF	111	JSP-3100-02
37	4" Sidewalk Construction (Incl. 2" MoDOT Type 5 Agg. Base)	SY	8,417	JSP-3300-01
38	Curb Ramp (Incl. 2" MoDOT Type 5 Agg. Base)	SY	352	JSP-3300-01
39	Residential Driveway Construction (6" Concrete)(Inc. 4" MoDOT Type 5 Agg. Base)	SY	569	JSP-3400-01
40	Commercial Driveway Construction (8" Concrete) (Incl. 4" MoDOT Type 5 Agg. Base)	SY	1,032	JSP-3400-01
41	Cast-in-Place Concrete Wall (Sidewalk)	SF	88	JSP-3300-02
42	Cast-in-Place Concrete Wall (Sidewalk)(Special)	SF	505	Plan Sheet B80
43	Soldier Pile Retaining Wall	SF	1,804	Plan Sheet B81-B82
44	Type D Barrier w/ Integral Reinforced Slab	LF	380	Plan Sheet B81-B82
45	Relocate Existing Vinyl Fence	LF	135	City 2307
46	Relocate or Replace Existing Vinyl Fence (Southern Trails)	LF	560	City 2307
47	Temporary Fencing (Chain Link)	LF	1,465	City 2307
48	Temporary Gate	EA	2	City 2307
49	Relocate Existing Power Service for Gate	LS	1	JSP-2307-01
50	Type A Catch Basin 3'x3' I.D.	EA	4	City 4400
51	Type C Inlet 4'x7' I.D.	EA	2	City 4400
52	Type C Inlet 6'x3' I.D.	EA	9	City 4400
53	Type C Inlet 6'x4' I.D.	EA	2	City 4400
54	Type C Inlet 6'x5' I.D.	EA	1	City 4400
55	Type C Inlet 6'x6' I.D.	EA	1	City 4400
56	Type C Inlet 8'x3' I.D.	EA	1	City 4400
57	Type C Inlet 8'x4' I.D.	EA	5	City 4400
58	Type D Inlet 3'x7' I.D.	EA	7	City 4400
59	Type D Inlet 4'x7' I.D.	EA	9	City 4400
60	Type D Inlet 6'x3' I.D.	EA	1	City 4400
61	Type D Inlet 6'x4' I.D.	EA	2	City 4400
62	Type D Inlet 8'x3' I.D.	EA	2	City 4400
63	Type D Inlet 8'x4' I.D.	EA	1	City 4400
64	Area Inlet 3'x3' I.D.	EA	2	City 4400
65	Area Inlet 4'x3' I.D.	EA	1	City 4400
66	Area Inlet 4'x4' I.D.	EA	2	City 4400
67	Area Inlet 5'x4' I.D.	EA	1	City 4400
68	Area Inlet 8'x4' I.D.	EA	1	City 4400

RECAPITULATION OF QUANTITIES - BASE BID

ITEM NO.	DESCRIPTION	UNIT	ESTIMATED QUANTITY	GOVERNING TECHNICAL SPECIFICATION
69	Junction Box 3'x3' I.D.	EA	1	City 4400
70	Junction Box 4'x4' I.D.	EA	3	City 4400
71	4' Diameter Manhole - Storm Sewer	EA	1	City 4400
72	Precast Drop Inlet (MoDOT Type S-1)	EA	1	JSP-4400-01
73	12" Class III RCP (including trenching, bedding, backfill, gaskets, and concrete collars)	LF	67	City 4200
74	15" Class III RCP (including trenching, bedding, backfill, gaskets, and concrete collars)	LF	2,192	City 4200
75	18" Class III RCP (including trenching, bedding, backfill, gaskets, and concrete collars)	LF	1,139	City 4200
76	24" Class III RCP (including trenching, bedding, backfill, gaskets, and concrete collars)	LF	2,807	City 4200
77	24" Class V RCP (including trenching, bedding, backfill, gaskets, and concrete collars)	LF	252	City 4200
78	30" Class III RCP (including trenching, bedding, backfill, gaskets, and concrete collars)	LF	1,445	City 4200
79	30" Class V RCP (including trenching, bedding, backfill, gaskets, and concrete collars)	LF	192	City 4200
80	36" Class III RCP (including trenching, bedding, backfill, gaskets, and concrete collars)	LF	142	City 4200
81	42" Class III RCP (including trenching, bedding, backfill, gaskets, and concrete collars)	LF	47	City 4200
82	48" Class V RCP (including trenching, bedding, backfill, gaskets, and concrete collars)	LF	168	City 4200
83	44"x27" Class III RCPA (including trenching, bedding, backfill, gaskets, and concrete collars)	LF	65	City 4200
84	19"x30" HE RCP (including trenching, bedding, backfill, gaskets, and concrete collars)	LF	35	City 4200
85	15" RCP FES (including trenching, bedding, backfill, gaskets, and concrete collars)	EA	6	City 4200
86	18" RCP FES (including trenching, bedding, backfill, gaskets, and concrete collars)	EA	10	City 4200
87	24" RCP FES (including trenching, bedding, backfill, gaskets, and concrete collars)	EA	6	City 4200
88	30" RCP FES (including trenching, bedding, backfill, gaskets, and concrete collars)	EA	2	City 4200
89	42" RCP FES (including trenching, bedding, backfill, gaskets, and concrete collars)	EA	1	City 4200
90	48" RCP FES (including trenching, bedding, backfill, gaskets, and concrete collars)	EA	2	City 4200
91	19"X30" HE RCP FES (including trenching, bedding, backfill, gaskets, and concrete collars)	EA	2	City 4200
92	24" RCP PRE-CAST TEE	EA	1	City 4200
93	108"x48" Reinforced Concrete Box Culvert (RCBC)	LF	204	JSP-4200-01
94	108"x48" RCBC Inlet/Outlet Structures	EA	2	JSP-4200-01
95	15" Nyloplast Drain Basin	EA	4	JSP-4400-02
96	10" HDPE (including trenching, bedding, backfill, gasket, and collars)	LF	111	City 4200
97	12" HDPE (including trenching, bedding, backfill, gasket, and collars)	LF	286	City 4200
98	MoDOT Rock Lining for Culvert Outlet	SY	318	JSP-2303-01
99	Flexamat 10NW UV-T	SY	100	JSP-2303-02
100	Rip-Rap Splash Pad	SY	970	JSP-2303-03
101	Southern Trails Monument Signage	LS	1	JSP-2300-02
102	Remove & Relocate Existing Signs	LS	1	JSP-2300-03
103	Permanent Signage-Flat Sheet	SF	173	JSP-2300-03
104	Steel Sign Support (2 Inch Round) (Type P)	LF	86	JSP-2300-03
105	Steel Sign Support (2-1/2 Inch Round NP-40) (Type P1)	LF	42	JSP-2300-03
106	Steel Sign Support (2-1/2 Inch Round SCH 40) (Type P2)	LF	66	JSP-2300-03
107	Sign Post Foundation, Combined (Including Socket & Concrete) (All Types)	EA	19	JSP-2300-03
108	Pavement Marking Removal	LF	1,050	City 2306
109	4" White Pavement Marking	LF	118	City 2306
110	4" Yellow Pavement Marking	LF	23,576	City 2306
111	6" White Pavement Marking	LF	2,473	City 2306
112	12" White Pavement Marking	LF	120	City 2306
113	12" Yellow Pavement Marking	LF	208	City 2306
114	24" White Pavement Marking	LF	274	City 2306
115	Left/Right Turn Arrow White Pavement Marking Symbol	EA	65	City 2306
116	"Only" White Pavement Marking Symbol	EA	1	City 2306
117	Traffic Signal Modifications	LS	1	JSP-9000-01
118	3" Schedule 40 HDPE Conduit w/ Pull String (incl. Boring or Trenching) (Fiber Optic)	LF	18,680	JSP-9000-02
119	Type II Fiber Optic Pull Box	EA	14	JSP-9000-02
120	1-1c 10 Tracer Wire	LF	9,440	JSP-9000-02
121	Traffic Control Signs (Total Area)	SF	896	JSP-6700-01
122	Type III Movable Barricade	EA	66	JSP-6700-01
123	Channelizer	EA	44	JSP-6700-01
124	Adjust Sanitary Sewer Manhole	EA	1	JSP-2300-04
125	12" PVC Sewer Main	LF	1,050	City 4100
126	Trenching (6' to 8') - Sanitary Sewer	LF	431	City 1700
127	Trenching (8' to 10') - Sanitary Sewer	LF	76	City 1700
128	Trenching (10' to 12') - Sanitary Sewer	LF	103	City 1700
129	Trenching (12' to 14') - Sanitary Sewer	LF	466	City 1700
130	24" Steel Schedule 40 Pipe Casing including Boring and Jacking (Unclassified)	LF	170	City 1600
131	12" Restrained Joint Ductile Iron Sewer Main (Installed in Casing)	LF	180	City 4100
132	4' Standard Manhole - Sanitary Sewer	EA	6	City 4300
133	4' Manhole Extra Depth - Sanitary Sewer	LF	24	City 4300
134	Sanitary Sewer Testing	LS	1	City 4100
135	Bypass Pumping	LS	1	City 4100
136	Lift Station Decommission	LS	1	JSP-4100-01

NOTE: SEE PART D PLANS FOR WATERLINE QUANTITIES

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STATE OF MISSOURI
BRIAN COOMES
Brian Coomes
04/23/2021
NUMBER PE-2015029306
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

OVERALL SUMMARY OF QUANTITIES

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by: SMK/JKL
checked by: PM/LB/RF
approved by: BMC
QA/QC by: PM/LB/RF
project no.: 015-2768
drawing no.: G_QTY_52768
date: 04/23/2021

SHEET
8 of 59

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DATE: Apr 21, 2021 4:05pm XREFS: G_TBLK_52768 MO One Call

EARTHWORK							
PHASE	STATION TO STATION	LOCATION	UNCLASSIFIED EXCAVATION		EMBANKMENT	EMBANKMENT (SPECIAL) (MIN 40% CHERT)	IMPORTED FILL
			CU. YD.	VMF DIRT			
1.1	108+50 TO 119+75	32ND STREET, WESTBERRY LN, SUNSET DR	3568	0.80	2312		0
1.2	79+80 TO 81+76	32ND STREET	704	0.80	1533		534
1.3	81+76 TO 96+80	32ND STREET, DAY RD	28758	0.80	3093		0
1.4	96+80 TO 108+50	32ND STREET, ARBOR RD, IRON GATES RD	5660	0.80	678		0
2.1	78+00 TO 79+80	32ND STREET, CATNIP LN, CRANE DR	541	0.80	5241		0
2.3	32+35 TO 78+00	32ND STREET, APPLEGATE RD, WOODLAND DR, ASHWOOD LN, ARCADIA LN, JENNIFER AVE	44913	0.80	15787	52776	17097
2.4	28+05.47 TO 32+35	32ND STREET, ALFALFA ROAD	421	0.80	512		219
2.5	48+10 TO 50+75	S. COUNTRY CLUB DR	308	0.80	24		0
		TOTAL	84873		29180	52776	17850
*NOTE: EXISTING PAVEMENT REMOVAL VOLUMES ARE NOT INCLUDED IN EARTHWORK CALCULATIONS							

EARTHWORK BALANCE CALCULATIONS (CU. YD.)

PHASE 1	
PHASE 1.1	108+50 TO 119+75
2312	EMBANKMENT
÷ 0.8	VMF
2890	FILL REQUIRED
- 3568	EXCAVATION
0	IMPORTED FILL
678	RUNNING STOCKPILE

PHASE 1.2	79+80 TO 81+76
1533	EMBANKMENT
÷ 0.8	VMF
1916	EMBANKMENT NEEDED
- 704	EXCAVATION
534	IMPORTED FILL
0	RUNNING STOCKPILE

PHASE 1.3	81+76 TO 96+80
3093	EMBANKMENT
÷ 0.8	VMF
3866	EMBANKMENT NEEDED
- 28758	EXCAVATION
0	IMPORTED FILL
24892	RUNNING STOCKPILE

PHASE 1.4	96+80 TO 108+50
678	EMBANKMENT
÷ 0.8	VMF
848	EMBANKMENT NEEDED
- 5660	EXCAVATION
0	IMPORTED FILL
29704	RUNNING STOCKPILE

PHASE 2	
PHASE 2.1	78+00 TO 79+80
5241	EMBANKMENT
÷ 0.8	VMF
6551	EMBANKMENT NEEDED
- 541	EXCAVATION
0	IMPORTED FILL
23694	RUNNING STOCKPILE

PHASE 2.3	32+35 TO 78+00
15787	EMBANKMENT
52776	EMBANKMENT (SPECIAL) (MIN 40% CHERT)
÷ 0.8	VMF
85704	EMBANKMENT NEEDED
- 44913	EXCAVATION
17097	IMPORTED FILL
0	RUNNING STOCKPILE

PHASE 2.4	28+05.47 TO 32+35
512	EMBANKMENT
÷ 0.8	VMF
640	EMBANKMENT NEEDED
- 421	EXCAVATION
219	IMPORTED FILL
0	RUNNING STOCKPILE

PHASE 2.5	48+10 TO 50+75
24	EMBANKMENT
÷ 0.8	VMF
30	EMBANKMENT NEEDED
- 308	EXCAVATION
0	IMPORTED FILL
278	RUNNING STOCKPILE

EARTHWORK NOTES

1. MEASUREMENT FOR FINAL IN-PLACE "EMBANKMENT" AND "EMBANKMENT (SPECIAL)(MINIMUM 40% CHERT)" WILL BE MADE ON THE BASIS OF FINAL PLACEMENT, COMPACTED AND ACCEPTED IN PLACE. MEASUREMENT WILL NOT BE MADE ON A "LOOSE MATERIAL" BASIS.

2. MEASUREMENT FOR FINAL IN-PLACE "EMBANKMENT" AND "EMBANKMENT (SPECIAL)(MINIMUM 40% CHERT)" WILL NOT BE MADE UNTIL AFTER SETTLEMENT / CONDOLIDATION HAS OCCURRED. EXCESS MATERIAL TO BE USED TO COMPENSATE FOR SETTLEMENT / CONSOLIDATION HAS NOT BEEN CALCULATED INTO THE QUANTITY FOR EMBANKMENT. ADDITIONAL MATERIAL REQUIRED TO COMPENSATE FOR SETTLEMENT / CONSOLIDATION WILL BE CONSIDERED "SUBSIDIARY" TO RESPECTIVE EMBANKMENT ITEM. NO SEPARATE MEASUREMENT WILL BE MADE FOR ADDITIONAL MATERIAL THAT MUST BE DOUBLE-HANDLED, TRIMMED, AND/OR REMOVED FROM THE SITE TO CORRECT FOR SETTLEMENT / CONSOLIDATION.

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BRIAN COOMES
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EARTHWORK SUMMARY

32ND STREET WIDENING
CITY OF JOPLIN

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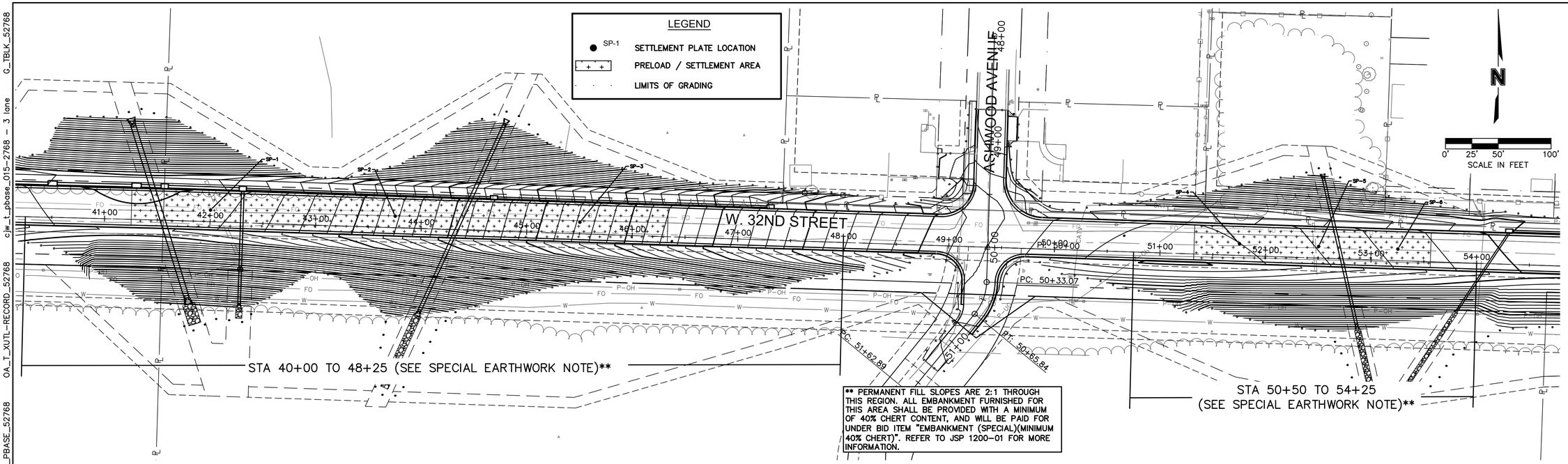
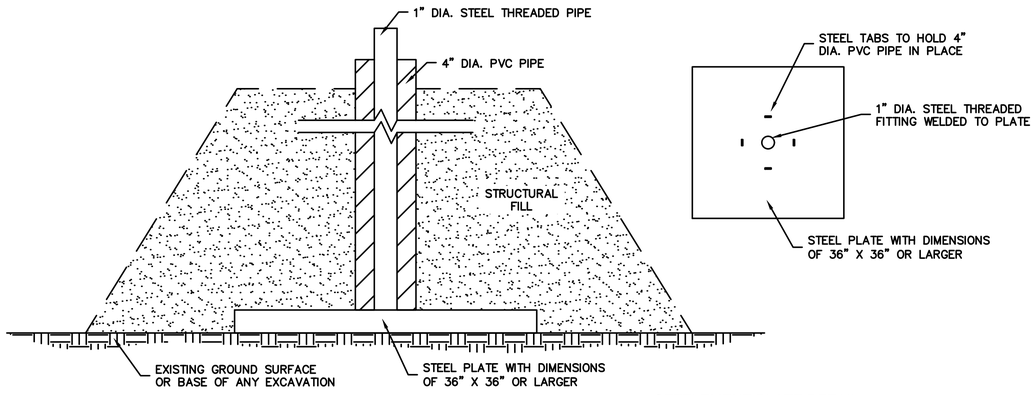
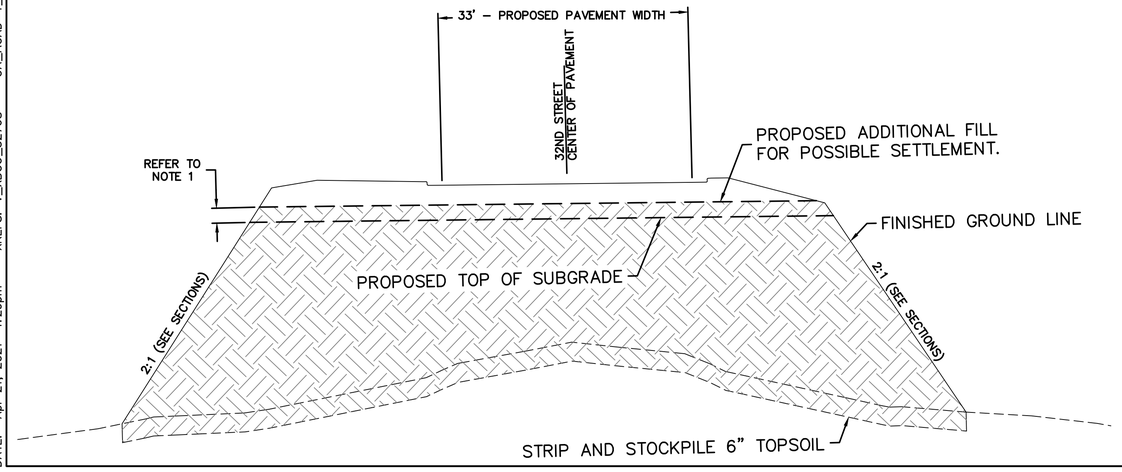
DATE: Apr 21, 2021 1:28pm XREFS: G_TBLK_52768 MO One Call



** PERMANENT FILL SLOPES ARE 2:1 THROUGH THIS REGION. ALL EMBANKMENT FURNISHED FOR THIS AREA SHALL BE PROVIDED WITH A MINIMUM OF 40% CHERT CONTENT, AND WILL BE PAID FOR UNDER BID ITEM "EMBANKMENT (SPECIAL)(MINIMUM 40% CHERT)". REFER TO JSP 1200-01 FOR MORE INFORMATION.



SETTLEMENT PLATE DETAIL
NO SCALE



SETTLEMENT PLATE LOCATION TABLE				
NO.	STATION	OFFSET	NORTHING	EASTING
SP-1	42+00	11.00' LT	323840.36	2766247.63
SP-2	43+75	11.00' LT	323834.61	2766422.55
SP-3	45+50	11.00' LT	323828.87	2766597.45
SP-4	51+75	11.00' LT	323808.35	2767222.11
SP-5	52+50	11.00' LT	323805.89	2767297.08
SP-6	53+25	11.00' LT	323803.43	2767372.04
SP-7	65+73	11.00' LT	323762.46	2768619.41
SP-8	66+09	11.00' LT	323761.29	2768655.12
SP-9	66+44	11.00' LT	323760.13	2768690.6

SETTLEMENT PLATE PLAN

1. ENGINEER WILL PROVIDE AND INSTALL SETTLEMENT PLATES AT THE EXCAVATED GROUND SURFACE ELEVATION AFTER TOPSOIL, PAVEMENT AND BASE COURSE HAS BEEN REMOVED.
2. CONTRACTOR SHALL ALLOW ENGINEER TO RECORD BASE PLATE ELEVATION PRIOR TO LOADING AREA.
3. CONTRACTOR SHALL PROTECT THE SETTLEMENT PLATES WITH LATHE AND FLAG MARKINGS.
4. ELEVATIONS OF THE SETTLEMENT PLATES SHALL BE MONITORED AND SURVEYED BY OLSSON INC. TO THE NEAREST 100TH OF A FOOT AT LEAST ONCE A WEEK.
5. MONITORING WILL BE CONDUCTED FOR 60 DAYS AFTER EMBANKMENT COMPLETION OR UNTIL THE ENGINEER DEEMS SETTLEMENT HAS STOPPED.
6. THE ANTICIPATED PRIMARY CONSOLIDATION SHOULD BE COMPLETED IN APPROXIMATELY 45 TO 60 DAYS AFTER ADDITIONAL FILL IS PLACED.
7. CONTRACTOR SHALL CUT FLUSH WITH SUBGRADE AND FILL WITH CLSM PRIOR TO PLACING BASE COURSE.

GRADING NOTES

1. AN ADDITIONAL 8-INCHES OF MATERIAL SHALL BE PLACED ABOVE THE PROPOSED SUBGRADE ELEVATION TO ACCOUNT FOR POSSIBLE SETTLEMENT. THIS MATERIAL SHALL BE REMOVED AND RECOMPACTED TO THE SUBGRADE ELEVATION PRIOR TO ANY PAVING OPERATIONS. REFER TO GEOTECHNICAL REPORT FOR FURTHER DETAILS.
2. ALL STRUCTURAL FILL MATERIAL SHALL BE PLACED IN LOOSE LIFTS OF 9 INCHES OR LESS. FILL SHALL BE COMPACTED TO A MINIMUM OF 95% OF THE STANDARD PROCTOR'S MAXIMUM DENSITY.
3. FILL PLACED GREATER THAN 10 FEET BELOW FINAL GRADE SHALL BE COMPACTED TO A MINIMUM OF 98% OF THE STANDARD PROCTOR'S MAXIMUM DENSITY.
4. AT THE ENGINEER'S DISCRETION, ADDITIONAL SETTLEMENT PLATES MAY BE ADDED AT THE MID-DEPTH OF FILLS TO MONITOR CONSOLIDATION OF THE PROPOSED FILL.

olsson
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Missouri Certificate of Authority #001592
702 S. Main Street
Joplin, MO 64801
TEL 417.781.0643 www.olsson.com

STATE OF MISSOURI
BRIAN COOMES
Brian Coomes
04/23/2021
NUMBER PE-2015029306
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

SPECIAL EARTHWORK PLAN & SETTLEMENT PLATE DETAILS

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by: SMK/JKL
checked by: PM/LB/RF
approved by: BMC
QA/QC by: PM/LB/RF
project no.: 015-2768
drawing no.: OA_T_GEN_SETL_52758
date: 04/23/2021

SHEET
10 of 59

DWG: F:\PROJECTS\015-2768\40-Design\AutoCAD\Final Plans\Sheets\TRNS\GENERAL\OA_T_GEN_SETL_52758.dwg USER: skendall
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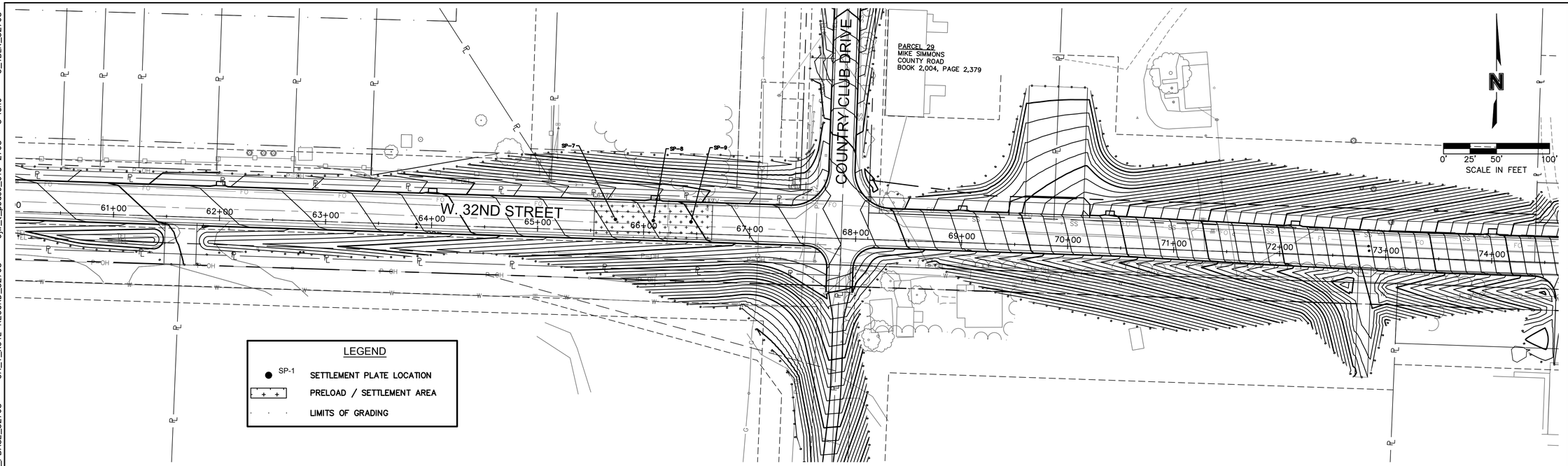
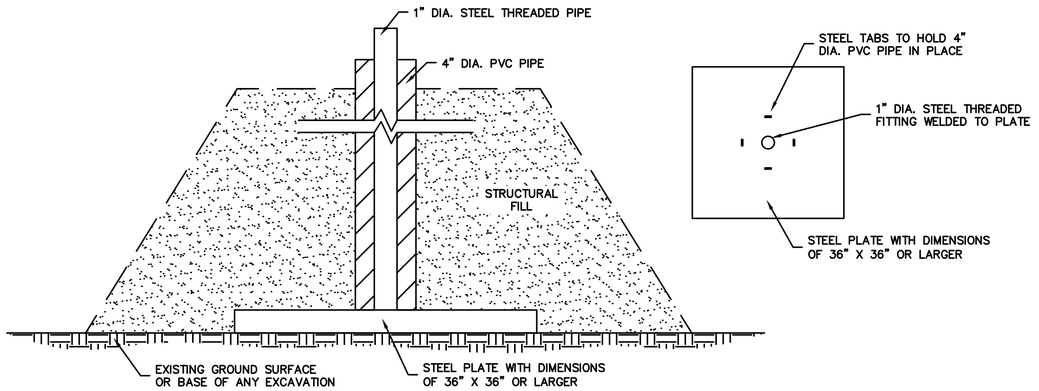
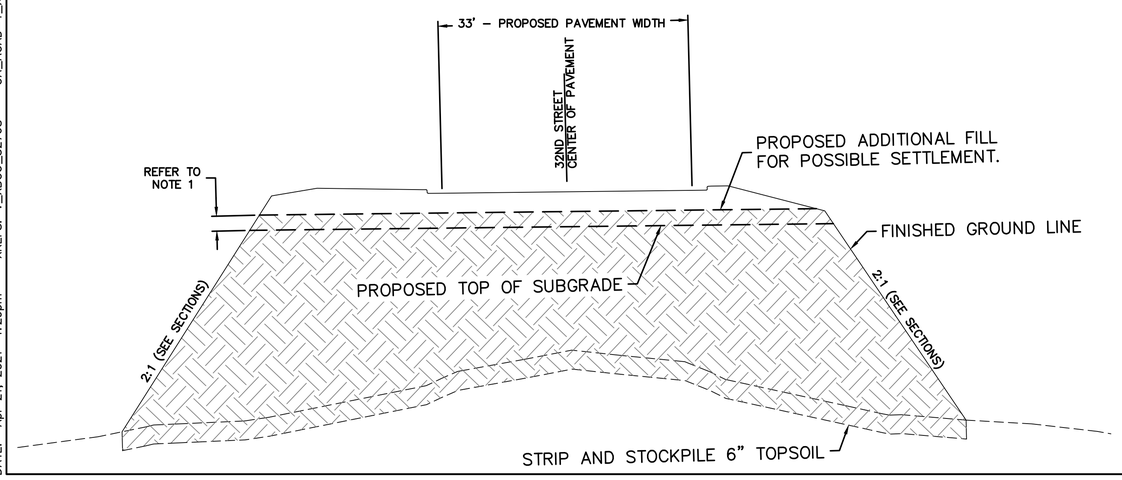




SETTLEMENT PLATE DETAIL
NO SCALE



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BRIAN COOMES
Brian Coomes
04/23/2021
NUMBER PE-2015029306
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

SPECIAL EARTHWORK PLAN & SETTLEMENT PLATE DETAILS

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by: SMK/JKL
checked by: PM/LB/RF
approved by: BMC
OA/QC by: PM/LB/RF
project no.: 015-2768
drawing no.: OA_T_GEN_SETL_52758
date: 04/23/2021

DWG: F:\PROJECTS\015-2768\40-Design\AutoCAD\Final Plans\Sheets\TRNS\GENERAL\OA_T_GEN_SETL_52758.dwg USER: skendall
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OA_T_PBASE_52768 OA_T_XUTL-RECORD_52768 cjw_t_pbase_015-2768 - 3 lane G_TBLK_52768

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STATE OF MISSOURI
BRIAN COOMES
Brian Coomes
04/23/2021
NUMBER PE-2015029306
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

GEOTECHNICAL BORE LOCATIONS AND BORE LOGS

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by: SMK/JKL
checked by: PM/LB/RF
approved by: BMC
QA/QC by: PM/LB/RF
project no.: 015-2768
drawing no.: G_GTC_52768
date: 04/23/2021

SHEET
12 of 59

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BOREHOLE REPORT NO. B-1 — Sheet 1 of 1

PROJECT NAME: Joplin 32nd Street Widening | CLIENT: City of Joplin, MO
PROJECT NUMBER: 015-2768 | LOCATION: Joplin, Missouri

Shelby Tube

ELEVATION (ft)	MATERIAL DESCRIPTION	GRAPHIC LOG	DEPTH (ft)	SAMPLE TYPE NUMBER	CLASSIFICATION (USCS)	BLOWS/ft" N-VALUE	UNC. STR. (tsf)	MOISTURE (%)	DRY DENSITY (pcf)	LL/PI (%)	ADDITIONAL DATA/ REMARKS
	APPROX. SURFACE ELEV. (ft)982.5		0								
	6.25" ASPHALTIC CONCRETE 0.5'										
	LEAN TO FAT CLAY										
980	*Very stiff to stiff, moist, yellowish brown with red and gray, trace sand*			U 1				16.3			PP = 3.5
	5.0'		5	U 2				13.1			PP = 1.5

BASE OF BORING AT 5.0 FEET

WATER LEVEL OBSERVATIONS	
WD	Not Performed
IAD	Not Performed
AD	Not Performed

OLSSON, INC.
302 E. MILLSAP ROAD
FAYETTEVILLE, ARKANSAS 72703

STARTED:	12/8/15	FINISHED:	12/8/15
DRILL CO.:	OLSSON	DRILL RIG:	CME 45
DRILLER:	JOSH	LOGGED BY:	CURT
METHOD: CONTINUOUS FLIGHT AUGER			

BOREHOLE REPORT NO. B-2 — Sheet 1 of 1

PROJECT NAME: Joplin 32nd Street Widening | CLIENT: City of Joplin, MO
PROJECT NUMBER: 015-2768 | LOCATION: Joplin, Missouri

Split Spoon

ELEVATION (ft)	MATERIAL DESCRIPTION	GRAPHIC LOG	DEPTH (ft)	SAMPLE TYPE NUMBER	CLASSIFICATION (USCS)	BLOWS/ft" N-VALUE	UNC. STR. (tsf)	MOISTURE (%)	DRY DENSITY (pcf)	LL/PI (%)	ADDITIONAL DATA/ REMARKS
1000	**APPROX. SURFACE ELEV. (ft)**1000.0		0								
	3.75" ASPHALTIC CONCRETE 0.3'										
	LEAN TO FAT CLAY										
	Stiff, moist, brown with yellow and dark brown, trace sand			SS 1		8-7-6 N=13		12.8			
	3.5'										
	Stiff, moist, reddish brown with yellow and brown, trace sand			SS 2		11-14-12 N=26		8.9			
995	5.0'		5								

BASE OF BORING AT 5.0 FEET

WATER LEVEL OBSERVATIONS	
WD	Not Performed
IAD	Not Performed
AD	Not Performed

OLSSON, INC.
302 E. MILLSAP ROAD
FAYETTEVILLE, ARKANSAS 72703

STARTED:	12/8/15	FINISHED:	12/8/15
DRILL CO.:	OLSSON	DRILL RIG:	CME 45
DRILLER:	JOSH	LOGGED BY:	CURT
METHOD: CONTINUOUS FLIGHT AUGER			

BOREHOLE REPORT NO. B-3 — Sheet 1 of 1

PROJECT NAME: Joplin 32nd Street Widening | CLIENT: City of Joplin, MO
PROJECT NUMBER: 015-2768 | LOCATION: Joplin, Missouri

Split Spoon

ELEVATION (ft)	MATERIAL DESCRIPTION	GRAPHIC LOG	DEPTH (ft)	SAMPLE TYPE NUMBER	CLASSIFICATION (USCS)	BLOWS/ft" N-VALUE	UNC. STR. (tsf)	MOISTURE (%)	DRY DENSITY (pcf)	LL/PI (%)	ADDITIONAL DATA/ REMARKS
	APPROX. SURFACE ELEV. (ft)1028.0		0								
	3.75" ASPHALTIC CONCRETE 0.3'										
	LEAN TO FAT CLAY										
	Hard, dry to moist, brown to reddish brown, sandy, with chert			SS 1		26-50/3"		11.1			
1025											
			5	SS 2		23-36-25 N=61		5.2			
	5.0'										

BASE OF BORING AT 5.0 FEET

WATER LEVEL OBSERVATIONS	
WD	Not Performed
IAD	Not Performed
AD	Not Performed

OLSSON, INC.
302 E. MILLSAP ROAD
FAYETTEVILLE, ARKANSAS 72703

STARTED:	12/8/15	FINISHED:	12/8/15
DRILL CO.:	OLSSON	DRILL RIG:	CME 45
DRILLER:	JOSH	LOGGED BY:	CURT
METHOD: CONTINUOUS FLIGHT AUGER			

BOREHOLE REPORT NO. B-4 — Sheet 1 of 1

PROJECT NAME: Joplin 32nd Street Widening | CLIENT: City of Joplin, MO
PROJECT NUMBER: 015-2768 | LOCATION: Joplin, Missouri

Split Spoon

ELEVATION (ft)	MATERIAL DESCRIPTION	GRAPHIC LOG	DEPTH (ft)	SAMPLE TYPE NUMBER	CLASSIFICATION (USCS)	BLOWS/ft" N-VALUE	UNC. STR. (tsf)	MOISTURE (%)	DRY DENSITY (pcf)	LL/PI (%)	ADDITIONAL DATA/ REMARKS
	APPROX. SURFACE ELEV. (ft)1040.9		0								
1040	***4.5" ASPHALTIC CONCRETE*** 0.4'										
	LEAN TO FAT CLAY										
	Hard to stiff, dry, brown to reddish brown, sandy,			SS 1		20-23-25 N=48		2.3			
	5.0'		5	SS 2		6-5-4 N=9		8.6			

BASE OF BORING AT 5.0 FEET

WATER LEVEL OBSERVATIONS	
WD	Not Performed
IAD	Not Performed
AD	Not Performed

OLSSON, INC.
302 E. MILLSAP ROAD
FAYETTEVILLE, ARKANSAS 72703

STARTED:	12/8/15	FINISHED:	12/8/15
DRILL CO.:	OLSSON	DRILL RIG:	CME 45
DRILLER:	JOSH	LOGGED BY:	CURT
METHOD: CONTINUOUS FLIGHT AUGER			

BOREHOLE REPORT NO. B-5 — Sheet 1 of 1

PROJECT NAME: Joplin 32nd Street Widening | CLIENT: City of Joplin, MO
PROJECT NUMBER: 015-2768 | LOCATION: Joplin, Missouri

Split Spoon

ELEVATION (ft)	MATERIAL DESCRIPTION	GRAPHIC LOG	DEPTH (ft)	SAMPLE TYPE NUMBER	CLASSIFICATION (USCS)	BLOWS/ft" N-VALUE	UNC. STR. (tsf)	MOISTURE (%)	DRY DENSITY (pcf)	LL/PI (%)	ADDITIONAL DATA/ REMARKS
	APPROX. SURFACE ELEV. (ft)1030.8		0								
1030	***6.5" ASPHALTIC CONCRETE*** 0.5'										
	LEAN TO FAT CLAY										
	Stiff to hard, moist, brown, with sand and chert			SS 1		8-8-5 N=13		20.3			
	5.0'		5	SS 2		12-15-30 N=45		18.7			

BASE OF BORING AT 5.0 FEET

WATER LEVEL OBSERVATIONS	
WD	Not Performed
IAD	Not Performed
AD	Not Performed

OLSSON, INC.
302 E. MILLSAP ROAD
FAYETTEVILLE, ARKANSAS 72703

STARTED:	12/8/15	FINISHED:	12/8/15
DRILL CO.:	OLSSON	DRILL RIG:	CME 45
DRILLER:	JOSH	LOGGED BY:	CURT
METHOD: CONTINUOUS FLIGHT AUGER			

BOREHOLE REPORT NO. B-6 — Sheet 1 of 1

PROJECT NAME: Joplin 32nd Street Widening | CLIENT: City of Joplin, MO
PROJECT NUMBER: 015-2768 | LOCATION: Joplin, Missouri

Split Spoon

ELEVATION (ft)	MATERIAL DESCRIPTION	GRAPHIC LOG	DEPTH (ft)	SAMPLE TYPE NUMBER	CLASSIFICATION (USCS)	BLOWS/ft" N-VALUE	UNC. STR. (tsf)	MOISTURE (%)	DRY DENSITY (pcf)	LL/PI (%)	ADDITIONAL DATA/ REMARKS
	APPROX. SURFACE ELEV. (ft)991.7		0								
	5.75" ASPHALTIC CONCRETE 0.5'										
990	***FAT CLAY***										
	Stiff to hard, moist, brown with red and yellow, with sand			SS 1		5-5-8 N=13		13.8			
	5.0'		5	SS 2		8-12-23 N=35		14.9			

BASE OF BORING AT 5.0 FEET

WATER LEVEL OBSERVATIONS	
WD	Not Performed
IAD	Not Performed
AD	Not Performed

OLSSON, INC.
302 E. MILLSAP ROAD
FAYETTEVILLE, ARKANSAS 72703

STARTED:	12/8/15	FINISHED:	12/8/15
DRILL CO.:	OLSSON	DRILL RIG:	CME 45
DRILLER:	JOSH	LOGGED BY:	CURT
METHOD: CONTINUOUS FLIGHT AUGER			

BOREHOLE REPORT NO. B-7 — Sheet 1 of 1

PROJECT NAME: Joplin 32nd Street Widening | CLIENT: City of Joplin, MO
PROJECT NUMBER: 015-2768 | LOCATION: Joplin, Missouri

Split Spoon

ELEVATION (ft)	MATERIAL DESCRIPTION	GRAPHIC LOG	DEPTH (ft)	SAMPLE TYPE NUMBER	CLASSIFICATION (USCS)	BLOWS/ft" N-VALUE	UNC. STR. (tsf)	MOISTURE (%)	DRY DENSITY (pcf)	LL/PI (%)	ADDITIONAL DATA/ REMARKS
	APPROX. SURFACE ELEV. (ft)970.1		0								
970	***5.25" ASPHALTIC CONCRETE*** 0.4'										
	LEAN TO FAT CLAY										
	Very stiff to stiff, dry to moist, brown, with sand and chert			SS 1		5-9-7 N=16		17.4			
965			5	SS 2		7-7-6 N=13		9.7			
	6.0'										
	CHERT										
	With sand and lean clay										
	10.0'		10	SS 3		4-25-34 N=59		11.4		36/18	P-200 = 34.5%

BASE OF BORING AT 10.0 FEET

WATER LEVEL OBSERVATIONS	
WD	Not Performed
IAD	Not Performed
AD	Not Performed

OLSSON, INC.
302 E. MILLSAP ROAD
FAYETTEVILLE, ARKANSAS 72703

STARTED:	12/8/15	FINISHED:	12/8/15
DRILL CO.:	OLSSON	DRILL RIG:	CME 45
DRILLER:	JOSH	LOGGED BY:	CURT
METHOD: CONTINUOUS FLIGHT AUGER			

BOREHOLE REPORT NO. B-8 — Sheet 1 of 1

PROJECT NAME: Joplin 32nd Street Widening | CLIENT: City of Joplin, MO
PROJECT NUMBER: 015-2768 | LOCATION: Joplin, Missouri

Split Spoon

ELEVATION (ft)	MATERIAL DESCRIPTION	GRAPHIC LOG	DEPTH (ft)	SAMPLE TYPE NUMBER	CLASSIFICATION (USCS)	BLOWS/ft" N-VALUE	UNC. STR. (tsf)	MOISTURE (%)	DRY DENSITY (pcf)	LL/PI (%)	ADDITIONAL DATA/ REMARKS
	APPROX. SURFACE ELEV. (ft)1014.9		0								
	4.75" ASPHALTIC CONCRETE 0.4'										
	LEAN TO FAT CLAY										
	Hard to very stiff, dry, brown, trace reddish brown, cherty, sandy			SS 1		40-50/3"		7.6			
1010											
			5	SS 2		12-14-13 N=27		4.5			
	8.5'										
	Hard to very stiff, dry to moist, reddish brown, with chert and sand			SS 3		19-25-29 N=54		13.5			
1005			10								
				SS 4		8-10-14 N=24		15.6			
1000			15								
				SS 5		42-26-18 N=44		13.1			
995	20.0'		20								

BASE OF BORING AT 20.0 FEET

WATER LEVEL OBSERVATIONS	
WD	Not Performed
IAD	Not Performed
AD	Not Performed

OLSSON, INC.
302 E. MILLSAP ROAD
FAYETTEVILLE, ARKANSAS 72703

STARTED:	12/9/15	FINISHED:	12/9/15
DRILL CO.:	OLSSON	DRILL RIG:	CME 45
DRILLER:	JOSH	LOGGED BY:	CURT
METHOD: CONTINUOUS FLIGHT AUGER			

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BRIAN COOMES
Brian Coomes
04/23/2021
NUMBER PE-2015029306
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

GEOTECHNICAL BORE LOCATIONS AND BORE LOGS

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by: SMK/JKL
checked by: PM/LB/RF
approved by: BMC
QA/QC by: PM/LB/RF
project no.: 015-2768
drawing no.: G_GTC_52768
date: 04/23/2021

SHEET
13 of 59

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V_SOIL BORING_52768

BOREHOLE REPORT NO. B-9 — Sheet 1 of 1

PROJECT NAME: Joplin 32nd Street Widening | CLIENT: City of Joplin, MO
PROJECT NUMBER: 015-2768 | LOCATION: Joplin, Missouri

Split Spoon

ELEVATION (ft)	MATERIAL DESCRIPTION	DEPTH (ft)	SAMPLE TYPE NUMBER	CLASSIFICATION (USCS)	BLOWS/6" N-VALUE	UNC. STR. (tsf)	MOISTURE (%)	DRY DENSITY (pcf)	LL/PI (%)	ADDITIONAL DATA/ REMARKS
	APPROX. SURFACE ELEV. (ft):1039.8									
	0.3" 3.75" ASPHALTIC CONCRETE	0								
	LEAN TO FAT CLAY		SS 1		8-6-6 N=12		10.9			
	Stiff to hard, dry to moist, brown to red, with sand and chert									
1035	5.0'	5	SS 2		9-12-24 N=36		16.6			
	BASE OF BORING AT 5.0 FEET									

WATER LEVEL OBSERVATIONS		
WD	▽	Not Performed
IAD	▼	Not Performed
AD	▽	Not Performed

OLSSON, INC.
302 E. MILLSAP ROAD
FAYETTEVILLE, ARKANSAS 72703

STARTED:	12/9/15	FINISHED:	12/9/15
DRILL CO.:	OLSSON	DRILL RIG:	CME 45
DRILLER:	JOSH	LOGGED BY:	CURT
METHOD: CONTINUOUS FLIGHT AUGER			

BOREHOLE REPORT NO. B-10 — Sheet 1 of 1

PROJECT NAME: Joplin 32nd Street Widening | CLIENT: City of Joplin, MO
PROJECT NUMBER: 015-2768 | LOCATION: Joplin, Missouri

Split Spoon

ELEVATION (ft)	MATERIAL DESCRIPTION	DEPTH (ft)	SAMPLE TYPE NUMBER	CLASSIFICATION (USCS)	BLOWS/6" N-VALUE	UNC. STR. (tsf)	MOISTURE (%)	DRY DENSITY (pcf)	LL/PI (%)	ADDITIONAL DATA/ REMARKS
1050	APPROX. SURFACE ELEV. (ft):1050.0									
	0.1' 1.75" ASPHALTIC CONCRETE	0								
	LEAN TO FAT CLAY		SS 1		14-13-9 N=22		4.0			
	Very stiff, dry, brown to reddish brown, with sand and chert									
	3.5'									
1045	Very stiff, moist, reddish brown, sandy, with chert	5	SS 2		3-6-14 N=20		14.2			
	8.5' WEATHERED SHALE									
	9.2' Light gray with yellow and reddish brown, with clay		SS 3		28-50/2.5"		7.6			
	BASE OF BORING AT 9.2 FEET									

WATER LEVEL OBSERVATIONS		
WD	▽	Not Performed
IAD	▼	Not Performed
AD	▽	Not Performed

OLSSON, INC.
302 E. MILLSAP ROAD
FAYETTEVILLE, ARKANSAS 72703

STARTED:	12/9/15	FINISHED:	12/9/15
DRILL CO.:	OLSSON	DRILL RIG:	CME 45
DRILLER:	JOSH	LOGGED BY:	CURT
METHOD: CONTINUOUS FLIGHT AUGER			

BOREHOLE REPORT NO. B-11 — Sheet 1 of 1

PROJECT NAME: Joplin 32nd Street Widening | CLIENT: City of Joplin, MO
PROJECT NUMBER: 015-2768 | LOCATION: Joplin, Missouri

Shelby Tube

ELEVATION (ft)	MATERIAL DESCRIPTION	DEPTH (ft)	SAMPLE TYPE NUMBER	CLASSIFICATION (USCS)	BLOWS/6" N-VALUE	UNC. STR. (tsf)	MOISTURE (%)	DRY DENSITY (pcf)	LL/PI (%)	ADDITIONAL DATA/ REMARKS
	APPROX. SURFACE ELEV. (ft):1044.6									
	0.3" 3.5" ASPHALTIC CONCRETE	0								
	FAT CLAY		U 1				28.5			PP = 3.5
	Very stiff to hard, moist, brown to red with gray and yellow, with sand									
1040		5	U 2				26.3	101.4		PP = 4.5+
1035	10.0'	10	U 3				19.9	112.4	67/37	PP = 4.5+
	BASE OF BORING AT 10.0 FEET									

WATER LEVEL OBSERVATIONS		
WD	▽	Not Performed
IAD	▼	Not Performed
AD	▽	Not Performed

OLSSON, INC.
302 E. MILLSAP ROAD
FAYETTEVILLE, ARKANSAS 72703

STARTED:	12/9/15	FINISHED:	12/9/15
DRILL CO.:	OLSSON	DRILL RIG:	CME 45
DRILLER:	JOSH	LOGGED BY:	CURT
METHOD: CONTINUOUS FLIGHT AUGER			

BOREHOLE REPORT NO. B-12 — Sheet 1 of 1

PROJECT NAME: Joplin 32nd Street Widening | CLIENT: City of Joplin, MO
PROJECT NUMBER: 015-2768 | LOCATION: Joplin, Missouri

Split Spoon

ELEVATION (ft)	MATERIAL DESCRIPTION	DEPTH (ft)	SAMPLE TYPE NUMBER	CLASSIFICATION (USCS)	BLOWS/6" N-VALUE	UNC. STR. (tsf)	MOISTURE (%)	DRY DENSITY (pcf)	LL/PI (%)	ADDITIONAL DATA/ REMARKS
	APPROX. SURFACE ELEV. (ft):1022.7									
	0.5" 6.25" ASPHALTIC CONCRETE	0								
	LEAN TO FAT CLAY		SS 1		25-46-29 N=75		13.8			
	Hard, moist, reddish brown, with sand and chert									
1020	5.0'	5	SS 2		12-14-22 N=36		14.9			
	BASE OF BORING AT 5.0 FEET									

WATER LEVEL OBSERVATIONS		
WD	▽	Not Performed
IAD	▼	Not Performed
AD	▽	Not Performed

OLSSON, INC.
302 E. MILLSAP ROAD
FAYETTEVILLE, ARKANSAS 72703

STARTED:	12/9/15	FINISHED:	12/9/15
DRILL CO.:	OLSSON	DRILL RIG:	CME 45
DRILLER:	JOSH	LOGGED BY:	CURT
METHOD: CONTINUOUS FLIGHT AUGER			

BOREHOLE REPORT NO. B-13 — Sheet 1 of 1

PROJECT NAME: Joplin 32nd Street Widening | CLIENT: City of Joplin, MO
PROJECT NUMBER: 015-2768 | LOCATION: Joplin, Missouri

Split Spoon

ELEVATION (ft)	MATERIAL DESCRIPTION	DEPTH (ft)	SAMPLE TYPE NUMBER	CLASSIFICATION (USCS)	BLOWS/6" N-VALUE	UNC. STR. (tsf)	MOISTURE (%)	DRY DENSITY (pcf)	LL/PI (%)	ADDITIONAL DATA/ REMARKS
	APPROX. SURFACE ELEV. (ft):1027.6									
	0.4' 4.5" ASPHALTIC CONCRETE	0								
	LEAN TO FAT CLAY		SS 1		11-10-7 N=17		15.0			
1025	Very stiff to hard, moist, reddish brown, with sand and chert									
		5	SS 2		10-12-20 N=32		19.3			
1020	8.5'									
	Hard, moist, reddish brown, cherty, with sand	10	SS 3		12-20-50 N=70		29.5			
	10.0' BASE OF BORING AT 10.0 FEET									

WATER LEVEL OBSERVATIONS		
WD	▽	Not Performed
IAD	▼	Not Performed
AD	▽	Not Performed

OLSSON, INC.
302 E. MILLSAP ROAD
FAYETTEVILLE, ARKANSAS 72703

STARTED:	12/9/15	FINISHED:	12/9/15
DRILL CO.:	OLSSON	DRILL RIG:	CME 45
DRILLER:	JOSH	LOGGED BY:	CURT
METHOD: CONTINUOUS FLIGHT AUGER			

BOREHOLE REPORT NO. B-14 — Sheet 1 of 1

PROJECT NAME: Joplin 32nd Street Widening | CLIENT: City of Joplin, MO
PROJECT NUMBER: 015-2768 | LOCATION: Joplin, Missouri

Split Spoon

ELEVATION (ft)	MATERIAL DESCRIPTION	DEPTH (ft)	SAMPLE TYPE NUMBER	CLASSIFICATION (USCS)	BLOWS/6" N-VALUE	UNC. STR. (tsf)	MOISTURE (%)	DRY DENSITY (pcf)	LL/PI (%)	ADDITIONAL DATA/ REMARKS
	APPROX. SURFACE ELEV. (ft):1029.7									
	0.4' 5.25" ASPHALTIC CONCRETE	0								
	LEAN TO FAT CLAY		SS 1		2-3-5 N=8		18.8			
	Firm to very stiff, moist, reddish brown, with sand and chert									
1025	5.0'	5	SS 2		6-9-10 N=19		11.9			
	BASE OF BORING AT 5.0 FEET									

WATER LEVEL OBSERVATIONS		
WD	▽	Not Performed
IAD	▼	Not Performed
AD	▽	Not Performed

OLSSON, INC.
302 E. MILLSAP ROAD
FAYETTEVILLE, ARKANSAS 72703

STARTED:	12/9/15	FINISHED:	12/9/15
DRILL CO.:	OLSSON	DRILL RIG:	CME 45
DRILLER:	JOSH	LOGGED BY:	CURT
METHOD: CONTINUOUS FLIGHT AUGER			

BOREHOLE REPORT NO. B-15 — Sheet 1 of 1

PROJECT NAME: Joplin 32nd Street Widening | CLIENT: City of Joplin, MO
PROJECT NUMBER: 015-2768 | LOCATION: Joplin, Missouri

Split Spoon

ELEVATION (ft)	MATERIAL DESCRIPTION	DEPTH (ft)	SAMPLE TYPE NUMBER	CLASSIFICATION (USCS)	BLOWS/6" N-VALUE	UNC. STR. (tsf)	MOISTURE (%)	DRY DENSITY (pcf)	LL/PI (%)	ADDITIONAL DATA/ REMARKS
	APPROX. SURFACE ELEV. (ft):1029.2									
	0.5' 5.5" ASPHALTIC CONCRETE	0								
	LEAN TO FAT CLAY		SS 1		5-4-4 N=8		8.5			
1025	Firm to stiff, dry to moist, brown with red, with sand and chert									
	5.0'	5	SS 2		3-4-5 N=9		20.6			
	BASE OF BORING AT 5.0 FEET									

WATER LEVEL OBSERVATIONS		
WD	▽	Not Performed
IAD	▼	Not Performed
AD	▽	Not Performed

OLSSON, INC.
302 E. MILLSAP ROAD
FAYETTEVILLE, ARKANSAS 72703

STARTED:	12/9/15	FINISHED:	12/9/15
DRILL CO.:	OLSSON	DRILL RIG:	CME 45
DRILLER:	JOSH	LOGGED BY:	CURT
METHOD: CONTINUOUS FLIGHT AUGER			

BOREHOLE REPORT NO. B-16 — Sheet 1 of 1

PROJECT NAME: Joplin 32nd Street Widening | CLIENT: City of Joplin, MO
PROJECT NUMBER: 015-2768 | LOCATION: Joplin, Missouri

Shelby Tube

ELEVATION (ft)	MATERIAL DESCRIPTION	DEPTH (ft)	SAMPLE TYPE NUMBER	CLASSIFICATION (USCS)	BLOWS/6" N-VALUE	UNC. STR. (tsf)	MOISTURE (%)	DRY DENSITY (pcf)	LL/PI (%)	ADDITIONAL DATA/ REMARKS
	APPROX. SURFACE ELEV. (ft):1022.8									
	0.6' 6.75" ASPHALTIC CONCRETE	0								
	FAT CLAY		U 1				25.7	97.2		PP = 3.0
1020	Very stiff, moist, red with brown, with sand, trace chert									
	5.0'	5	U 2				24.0	96.7		PP = 2.5
	BASE OF BORING AT 5.0 FEET									

WATER LEVEL OBSERVATIONS		
WD	▽	Not Performed
IAD	▼	Not Performed
AD	▽	Not Performed

OLSSON, INC.
302 E. MILLSAP ROAD
FAYETTEVILLE, ARKANSAS 72703

STARTED:	12/9/15	FINISHED:	12/9/15
DRILL CO.:	OLSSON	DRILL RIG:	CME 45
DRILLER:	JOSH	LOGGED BY:	CURT
METHOD: CONTINUOUS FLIGHT AUGER			

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STATE OF MISSOURI
BRIAN COOMES
Brian Coomes
04/23/2021
NUMBER PE-2015029306
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

GEOTECHNICAL BORE LOCATIONS AND BORE LOGS

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by: SMK/JKL
checked by: PM/LB/RF
approved by: BMC
QA/QC by: PM/LB/RF
project no.: 015-2768
drawing no.: G_GTC_52768
date: 04/23/2021

SHEET
14 of 59

DWG: F:\PROJECTS\015-2768\40-Design\AutoCAD\Final Plans\Sheets Front End\GEOTECHNICAL\G_GTC_52768.dwg USER: skendall
DATE: Apr 21, 2021 1:30pm XREFS: G_TBLK_52768 OA_ACAD-T_XBASE_52768 V_XBOU_52768 OA_T_XUTIL-RECORD_52768
V_SOIL BORING_52768

BOREHOLE REPORT NO. B-101 — Sheet 1 of 1

PROJECT NAME: Joplin 32nd Street Widening | CLIENT: City of Joplin, MO
PROJECT NUMBER: 015-2768 | LOCATION: Joplin, Missouri

APPROX. SURFACE ELEV. (ft):1029.7

ELEVATION (ft)	MATERIAL DESCRIPTION	DEPTH (ft)	SAMPLE TYPE NUMBER	CLASSIFICATION (USCS)	BLOWS/ft" N-VALUE	UNC. STR. (tsf)	MOISTURE (%)	DRY DENSITY (pcf)	LL/PI (%)	ADDITIONAL DATA/ REMARKS
	9.75" ASPHALTIC CONCRETE 0.8'	0								
	LEAN CLAY		SS 1		3-8-4 N=12		16.4			
	Stiff, dry to moist, brown, with silt									
1025	4.0'									
	Very stiff to hard, dry to moist, reddish brown, with chert and sand	5	SS 2		4-17-18 N=35		17.5			
1020	10.0'	10	SS 3		5-11-17 N=28		29.1		39/22	
	FAT CLAY									
	Very stiff, moist, red, with chert and weathered shale									
1015	15.0'	15	SS 4		16-14-15 N=29		21.6			

BASE OF BORING AT 15.0 FEET

WATER LEVEL OBSERVATIONS		OLSSON, INC. 302 E. MILLSAP ROAD FAYETTEVILLE, ARKANSAS 72703	STARTED: 11/13/19	FINISHED: 11/13/19
WD	Not Encountered		DRILL CO.: OLSSON	DRILL RIG: CME 45B
IAD	Not Encountered		DRILLER: K. KEMPTON	LOGGED BY: D Martin
AD	Not Performed		METHOD: CONTINUOUS FLIGHT AUGER	

BOREHOLE REPORT NO. B-102 — Sheet 1 of 1

PROJECT NAME: Joplin 32nd Street Widening | CLIENT: City of Joplin, MO
PROJECT NUMBER: 015-2768 | LOCATION: Joplin, Missouri

APPROX. SURFACE ELEV. (ft):1030.9

ELEVATION (ft)	MATERIAL DESCRIPTION	DEPTH (ft)	SAMPLE TYPE NUMBER	CLASSIFICATION (USCS)	BLOWS/ft" N-VALUE	UNC. STR. (tsf)	MOISTURE (%)	DRY DENSITY (pcf)	LL/PI (%)	ADDITIONAL DATA/ REMARKS
1030	9.25" ASPHALTIC CONCRETE 0.8'	0								
	LEAN CLAY		SS 1		6-3-4 N=7		16.4			
	Firm, dry to moist, brown, with chert and sand									
	4.0'									
	FAT CLAY	5	SS 2		6-12-20 N=32		32.1			
1025	Hard to very stiff, moist, red and yellow, with chert, sand, and weathered shale									
		10	SS 3		12-14-12 N=26		33.2			
1020										
	14.0'	15	SS 4		13-25-50/3"		12.3			
	Hard, dry to moist, red, cherty 14.8'									

BASE OF BORING AT 14.8 FEET

WATER LEVEL OBSERVATIONS		OLSSON, INC. 302 E. MILLSAP ROAD FAYETTEVILLE, ARKANSAS 72703	STARTED: 11/13/19	FINISHED: 11/13/19
WD	Not Encountered		DRILL CO.: OLSSON	DRILL RIG: CME 45B
IAD	Not Encountered		DRILLER: K. KEMPTON	LOGGED BY: D Martin
AD	Not Performed		METHOD: CONTINUOUS FLIGHT AUGER	

BOREHOLE REPORT NO. B-103 — Sheet 1 of 1

PROJECT NAME: Joplin 32nd Street Widening | CLIENT: City of Joplin, MO
PROJECT NUMBER: 015-2768 | LOCATION: Joplin, Missouri

APPROX. SURFACE ELEV. (ft):1000.3

ELEVATION (ft)	MATERIAL DESCRIPTION	DEPTH (ft)	SAMPLE TYPE NUMBER	CLASSIFICATION (USCS)	BLOWS/ft" N-VALUE	UNC. STR. (tsf)	MOISTURE (%)	DRY DENSITY (pcf)	LL/PI (%)	ADDITIONAL DATA/ REMARKS
1000	7.25" ASPHALTIC CONCRETE 0.6'	0								
	LEAN CLAY		SS 1		8-7-8 N=15		14.6			
	Stiff to very stiff, dry to moist, reddish brown, with chert									
		5	SS 2		5-8-11 N=19		30.9		39/19	
995	7.0'									
	FAT CLAY	10	SS 3		23-27-32 N=59		11.3			
	Hard, dry, red with gray, shaley, with chert 10.0'									

BASE OF BORING AT 10.0 FEET

WATER LEVEL OBSERVATIONS		OLSSON, INC. 302 E. MILLSAP ROAD FAYETTEVILLE, ARKANSAS 72703	STARTED: 11/13/19	FINISHED: 11/13/19
WD	Not Encountered		DRILL CO.: OLSSON	DRILL RIG: CME 45B
IAD	Not Encountered		DRILLER: K. KEMPTON	LOGGED BY: D Martin
AD	Not Performed		METHOD: CONTINUOUS FLIGHT AUGER	

BOREHOLE REPORT NO. B-104 — Sheet 1 of 1

PROJECT NAME: Joplin 32nd Street Widening | CLIENT: City of Joplin, MO
PROJECT NUMBER: 015-2768 | LOCATION: Joplin, Missouri

APPROX. SURFACE ELEV. (ft):1025.2

ELEVATION (ft)	MATERIAL DESCRIPTION	DEPTH (ft)	SAMPLE TYPE NUMBER	CLASSIFICATION (USCS)	BLOWS/ft" N-VALUE	UNC. STR. (tsf)	MOISTURE (%)	DRY DENSITY (pcf)	LL/PI (%)	ADDITIONAL DATA/ REMARKS
1025	8.5" ASPHALTIC CONCRETE 0.7'	0								
	LEAN TO FAT CLAY		SS 1		19-10-9 N=19		10.8			
	Very stiff to firm, dry to moist, brown, with chert									
	5.0'	5	SS 2		6-4-3 N=7		14.2			

BASE OF BORING AT 5.0 FEET

WATER LEVEL OBSERVATIONS		OLSSON, INC. 302 E. MILLSAP ROAD FAYETTEVILLE, ARKANSAS 72703	STARTED: 11/13/19	FINISHED: 11/13/19
WD	Not Encountered		DRILL CO.: OLSSON	DRILL RIG: CME 45B
IAD	Not Encountered		DRILLER: K. KEMPTON	LOGGED BY: D Martin
AD	Not Performed		METHOD: CONTINUOUS FLIGHT AUGER	

BOREHOLE REPORT NO. B-105 — Sheet 1 of 2

PROJECT NAME: Joplin 32nd Street Widening | CLIENT: City of Joplin, MO
PROJECT NUMBER: 015-2768 | LOCATION: Joplin, Missouri

APPROX. SURFACE ELEV. (ft):1030.9

ELEVATION (ft)	MATERIAL DESCRIPTION	DEPTH (ft)	SAMPLE TYPE NUMBER	CLASSIFICATION (USCS)	BLOWS/ft" N-VALUE	UNC. STR. (tsf)	MOISTURE (%)	DRY DENSITY (pcf)	LL/PI (%)	ADDITIONAL DATA/ REMARKS
1030	11.25" ASPHALTIC CONCRETE 0.9'	0								
	FAT CLAY		SS 1		11-9-15 N=24		22.6		56/34	
	Very stiff to hard, moist, reddish brown, with chert									
		5	SS 2		36-21-14 N=35		17.9			
1025	5.8'									
	CHERT									
	With reddish brown clay									
	9.0'		SS 3		25-50/0"		9.2			
	FAT CLAY	10								
1020	Hard, moist, red, cherty, with weathered shale									
			SS 4		20-50/3"		12.5			
		15								
1015										
			SS 5		39-50/2"		17.7			
		20								

CONTINUED NEXT PAGE

WATER LEVEL OBSERVATIONS		OLSSON, INC. 302 E. MILLSAP ROAD FAYETTEVILLE, ARKANSAS 72703	STARTED: 11/12/19	FINISHED: 11/12/19
WD	Not Encountered		DRILL CO.: OLSSON	DRILL RIG: CME 45B
IAD	Not Encountered		DRILLER: K. KEMPTON	LOGGED BY: D Martin
AD	Not Performed		METHOD: CONTINUOUS FLIGHT AUGER	

BOREHOLE REPORT NO. B-105 — Sheet 2 of 2

PROJECT NAME: Joplin 32nd Street Widening | CLIENT: City of Joplin, MO
PROJECT NUMBER: 015-2768 | LOCATION: Joplin, Missouri

ELEVATION (ft)	MATERIAL DESCRIPTION	DEPTH (ft)	SAMPLE TYPE NUMBER	CLASSIFICATION (USCS)	BLOWS/ft" N-VALUE	UNC. STR. (tsf)	MOISTURE (%)	DRY DENSITY (pcf)	LL/PI (%)	ADDITIONAL DATA/ REMARKS
	FAT CLAY	20								
1010	Hard, moist, red, cherty, with weathered shale (continued)									
	23.9'		SS 6		50/5"		12.5			

BASE OF BORING AT 23.9 FEET

WATER LEVEL OBSERVATIONS		OLSSON, INC. 302 E. MILLSAP ROAD FAYETTEVILLE, ARKANSAS 72703	STARTED: 11/12/19	FINISHED: 11/12/19
WD	Not Encountered		DRILL CO.: OLSSON	DRILL RIG: CME 45B
IAD	Not Encountered		DRILLER: K. KEMPTON	LOGGED BY: D Martin
AD	Not Performed		METHOD: CONTINUOUS FLIGHT AUGER	

BOREHOLE REPORT NO. B-106 — Sheet 1 of 1

PROJECT NAME: Joplin 32nd Street Widening | CLIENT: City of Joplin, MO
PROJECT NUMBER: 015-2768 | LOCATION: Joplin, Missouri

APPROX. SURFACE ELEV. (ft):1040.6

ELEVATION (ft)	MATERIAL DESCRIPTION	DEPTH (ft)	SAMPLE TYPE NUMBER	CLASSIFICATION (USCS)	BLOWS/ft" N-VALUE	UNC. STR. (tsf)	MOISTURE (%)	DRY DENSITY (pcf)	LL/PI (%)	ADDITIONAL DATA/ REMARKS
1040	7.5" ASPHALTIC CONCRETE 0.6'	0								
	LEAN TO FAT CLAY		SS 1		10-7-4 N=11		10.5			
	Stiff, dry to moist, brown with yellow, with weathered shale									
		5	SS 2		3-4-5 N=9		29.8			
1035	8.0'									
	Very stiff to hard, brown to gray, with chert and weathered shale	10	SS 3		4-13-10 N=23		21.3			
1030										
		15	SS 4		6-27-17 N=44		20.6			
1025										
	19.0'		SS 5		20-50/0"					

BASE OF BORING AT 19.0 FEET

WATER LEVEL OBSERVATIONS		OLSSON, INC. 302 E. MILLSAP ROAD FAYETTEVILLE, ARKANSAS 72703	STARTED: 11/12/19	FINISHED: 11/12/19
WD	Not Encountered		DRILL CO.: OLSSON	DRILL RIG: CME 45B
IAD	Not Encountered		DRILLER: K. KEMPTON	LOGGED BY: D Martin
AD	Not Performed		METHOD: CONTINUOUS FLIGHT AUGER	

BOREHOLE REPORT NO. B-107 — Sheet 1 of 2

PROJECT NAME: Joplin 32nd Street Widening | CLIENT: City of Joplin, MO
PROJECT NUMBER: 015-2768 | LOCATION: Joplin, Missouri

APPROX. SURFACE ELEV. (ft):988.3

ELEVATION (ft)	MATERIAL DESCRIPTION	DEPTH (ft)	SAMPLE TYPE NUMBER	CLASSIFICATION (USCS)	BLOWS/ft" N-VALUE	UNC. STR. (tsf)	MOISTURE (%)	DRY DENSITY (pcf)	LL/PI (%)	ADDITIONAL DATA/ REMARKS
	8.5" ASPHALTIC CONCRETE 0.7'	0								
	FAT CLAY		SS 1		10-11-17 N=28		7.3			
	Very stiff to hard, dry to moist, reddish brown, with chert and sand									
985		5	SS 2		11-31-50/6"		11.4			
	9.5'									
980	Hard, dry to moist, yellowish brown, sandy, with chert and weathered shale	10	SS 3		28-50/5"		7.9			
975		15	SS 4		35-50/5"		11.0			
970		20	SS 5		43-50/5"		10.9			

CONTINUED NEXT PAGE

WATER LEVEL OBSERVATIONS		OLSSON, INC. 302 E. MILLSAP ROAD FAYETTEVILLE, ARKANSAS 72703	STARTED: 11/12/19	FINISHED: 11/12/19
WD	Not Encountered		DRILL CO.: OLSSON	DRILL RIG: CME 45B
IAD	Not Encountered		DRILLER: K. KEMPTON	LOGGED BY: D Martin
AD	Not Performed		METHOD: CONTINUOUS FLIGHT AUGER	

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STATE OF MISSOURI
BRIAN COOMES
Brian Coomes
04/23/2021
NUMBER PE-2015029306
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

GEOTECHNICAL BORE LOCATIONS AND BORE LOGS

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by: SMK/JKL
checked by: PM/LB/RF
approved by: BMC
QA/QC by: PM/LB/RF
project no.: 015-2768
drawing no.: G_GTC_52768
date: 04/23/2021

SHEET
15 of 59

DWG: F:\PROJECTS\015-2768\40-Design\AutoCAD\Final Plans\Sheets Front End\GEOTECHNICAL\G_GTC_52768.dwg USER: skendall
DATE: Apr 21, 2021 1:30pm XREFS: G_TBLK_52768 OA_ACAD-T_XBASE_52768 V_XBOU_52768 OA_T_XUTL-RECORD_52768
V_SOIL BORING_52768

BOREHOLE REPORT NO. B-107 — Sheet 2 of 2

PROJECT NAME: Joplin 32nd Street Widening | CLIENT: City of Joplin, MO
PROJECT NUMBER: 015-2768 | LOCATION: Joplin, Missouri

ELEVATION (ft)	MATERIAL DESCRIPTION	GRAPHIC LOG	DEPTH (ft)	SAMPLE TYPE NUMBER	CLASSIFICATION (USCS)	BLOWS/6" N-VALUE	UNC. STR. (tsf)	MOISTURE (%)	DRY DENSITY (pcf)	LL/PI (%)	ADDITIONAL DATA/ REMARKS
	Hard, dry to moist, yellowish brown, sandy, with chert and weathered shale (continued)		20								
965	***CHERT***			SS 6		50/4"		6.1			
	With clay and weathered shale (Possible Weathered Limestone)		25								
960				SS 7		50/3"		10.9			

BASE OF BORING AT 28.8 FEET — 23.0' — 28.8'

WATER LEVEL OBSERVATIONS	
WD	Not Encountered
IAD	Not Encountered
AD	Not Performed

OLSSON, INC.
302 E. MILLSAP ROAD
FAYETTEVILLE, ARKANSAS 72703

STARTED:	11/12/19	FINISHED:	11/12/19
DRILL CO.:	OLSSON	DRILL RIG:	CME 45B
DRILLER:	K. KEMPTON	LOGGED BY:	D Martin
METHOD:	CONTINUOUS FLIGHT AUGER		

BOREHOLE REPORT NO. B-108 — Sheet 1 of 2

PROJECT NAME: Joplin 32nd Street Widening | CLIENT: City of Joplin, MO
PROJECT NUMBER: 015-2768 | LOCATION: Joplin, Missouri

ELEVATION (ft)	MATERIAL DESCRIPTION	GRAPHIC LOG	DEPTH (ft)	SAMPLE TYPE NUMBER	CLASSIFICATION (USCS)	BLOWS/6" N-VALUE	UNC. STR. (tsf)	MOISTURE (%)	DRY DENSITY (pcf)	LL/PI (%)	ADDITIONAL DATA/ REMARKS
	APPROX. SURFACE ELEV. (ft) 977.0		0								
	9.75" ASPHALTIC CONCRETE — 0.4'										
975	***LEAN CLAY*** *Stiff to very stiff, dry to moist, brown, with chert*			SS 1		9-9-9 N=18		8.7			
			5	SS 2		6-6-4 N=10		9.2			
970											
			10	SS 3		5-8-9 N=17		12.7		27/9	
	FAT CLAY — 11.0'										
965	*Hard, dry to moist, red with yellowish brown, cherty, with weathered shale*										
			15	SS 4		5-12-19 N=31		12.5			
960											
			20	SS 5		38-50/5"		17.6			

CONTINUED NEXT PAGE

WATER LEVEL OBSERVATIONS	
WD	23.5 ft
IAD	Not Encountered
AD	Not Performed

OLSSON, INC.
302 E. MILLSAP ROAD
FAYETTEVILLE, ARKANSAS 72703

STARTED:	11/12/19	FINISHED:	11/12/19
DRILL CO.:	OLSSON	DRILL RIG:	CME 45B
DRILLER:	K. KEMPTON	LOGGED BY:	D Martin
METHOD:	CONTINUOUS FLIGHT AUGER		

BOREHOLE REPORT NO. B-108 — Sheet 2 of 2

PROJECT NAME: Joplin 32nd Street Widening | CLIENT: City of Joplin, MO
PROJECT NUMBER: 015-2768 | LOCATION: Joplin, Missouri

ELEVATION (ft)	MATERIAL DESCRIPTION	GRAPHIC LOG	DEPTH (ft)	SAMPLE TYPE NUMBER	CLASSIFICATION (USCS)	BLOWS/6" N-VALUE	UNC. STR. (tsf)	MOISTURE (%)	DRY DENSITY (pcf)	LL/PI (%)	ADDITIONAL DATA/ REMARKS
	FAT CLAY		20								
955	*Hard, dry to moist, red with yellowish brown, cherty, with weathered shale (continued)*			SS 6		50/4"		21.5			
	▽		25								
950				SS 7		43-36-28 N=64		16.0			

BASE OF BORING AT 30.0 FEET — 30.0'

WATER LEVEL OBSERVATIONS	
WD	23.5 ft
IAD	Not Encountered
AD	Not Performed

OLSSON, INC.
302 E. MILLSAP ROAD
FAYETTEVILLE, ARKANSAS 72703

STARTED:	11/12/19	FINISHED:	11/12/19
DRILL CO.:	OLSSON	DRILL RIG:	CME 45B
DRILLER:	K. KEMPTON	LOGGED BY:	D Martin
METHOD:	CONTINUOUS FLIGHT AUGER		

BOREHOLE REPORT NO. B-109 — Sheet 1 of 1

PROJECT NAME: Joplin 32nd Street Widening | CLIENT: City of Joplin, MO
PROJECT NUMBER: 015-2768 | LOCATION: Joplin, Missouri

ELEVATION (ft)	MATERIAL DESCRIPTION	GRAPHIC LOG	DEPTH (ft)	SAMPLE TYPE NUMBER	CLASSIFICATION (USCS)	BLOWS/6" N-VALUE	UNC. STR. (tsf)	MOISTURE (%)	DRY DENSITY (pcf)	LL/PI (%)	ADDITIONAL DATA/ REMARKS
	APPROX. SURFACE ELEV. (ft) 984.5		0								
	8.25" ASPHALTIC CONCRETE — 0.7'			SS 1		20-13-6 N=19		1.8			
	FAT CLAY *Very stiff, dry to moist, dark brown to brown, with chert*										
980	— 4.5'		5	SS 2		5-6-9 N=15		12.9			
	Hard, dry, red to reddish brown, sandy, cherty										
975			10	SS 3		16-50/3"		9.3			
				SS 4		32-50/4"		5.2			

BASE OF BORING AT 14.3 FEET — 14.3'

WATER LEVEL OBSERVATIONS	
WD	Not Encountered
IAD	Not Encountered
AD	Not Performed

OLSSON, INC.
302 E. MILLSAP ROAD
FAYETTEVILLE, ARKANSAS 72703

STARTED:	11/13/19	FINISHED:	11/13/19
DRILL CO.:	OLSSON	DRILL RIG:	CME 45B
DRILLER:	K. KEMPTON	LOGGED BY:	D Martin
METHOD:	CONTINUOUS FLIGHT AUGER		

BOREHOLE REPORT NO. B-110 — Sheet 1 of 1

PROJECT NAME: Joplin 32nd Street Widening | CLIENT: City of Joplin, MO
PROJECT NUMBER: 015-2768 | LOCATION: Joplin, Missouri

ELEVATION (ft)	MATERIAL DESCRIPTION	GRAPHIC LOG	DEPTH (ft)	SAMPLE TYPE NUMBER	CLASSIFICATION (USCS)	BLOWS/6" N-VALUE	UNC. STR. (tsf)	MOISTURE (%)	DRY DENSITY (pcf)	LL/PI (%)	ADDITIONAL DATA/ REMARKS
	APPROX. SURFACE ELEV. (ft) 974.2		0								
	11.5" ASPHALTIC CONCRETE — 1.0'										
	LEAN CLAY *Stiff to hard, dry to moist, brown, cherty*			SS 1		15-15-18 N=33		6.2			
970	— 4.5'		5	SS 2		5-6-4 N=10		10.2			
	FAT CLAY *Firm, dry to moist, reddish brown, with chert*										
965			10	SS 3		4-4-4 N=8		13.6			
	— 13.0'										
960	*Hard, dry, red with brown, sandy, with chert*										
	— 15.0'		15	SS 4		20-40-36 N=76		7.5			

BASE OF BORING AT 15.0 FEET

WATER LEVEL OBSERVATIONS	
WD	Not Encountered
IAD	Not Encountered
AD	Not Performed

OLSSON, INC.
302 E. MILLSAP ROAD
FAYETTEVILLE, ARKANSAS 72703

STARTED:	11/13/19	FINISHED:	11/13/19
DRILL CO.:	OLSSON	DRILL RIG:	CME 45B
DRILLER:	K. KEMPTON	LOGGED BY:	D Martin
METHOD:	CONTINUOUS FLIGHT AUGER		

BOREHOLE REPORT NO. B-111 — Sheet 1 of 1

PROJECT NAME: Joplin 32nd Street Widening | CLIENT: City of Joplin, MO
PROJECT NUMBER: 015-2768 | LOCATION: Joplin, Missouri

ELEVATION (ft)	MATERIAL DESCRIPTION	GRAPHIC LOG	DEPTH (ft)	SAMPLE TYPE NUMBER	CLASSIFICATION (USCS)	BLOWS/6" N-VALUE	UNC. STR. (tsf)	MOISTURE (%)	DRY DENSITY (pcf)	LL/PI (%)	ADDITIONAL DATA/ REMARKS
	APPROX. SURFACE ELEV. (ft) 967.7		0								
	9" ASPHALTIC CONCRETE — 0.8'			SS 1		10-7-6 N=13		17.1			
965	***LEAN TO FAT CLAY*** *Stiff to very stiff, dry to moist, red, with chert*										
			5	SS 2		4-6-12 N=18		11.8			
960	— 8.0'										
	LEAN CLAY *Stiff, moist, brown, trace chert*		10	SS 3		2-2-7 N=9		22.2		30/12	
	— 11.0'										
955	***FAT CLAY*** *Dry to moist, reddish brown, with chert*										
	— 14.4'		15	SS 4		8-50/5"		12.0			

BASE OF BORING AT 14.4 FEET

WATER LEVEL OBSERVATIONS	
WD	Not Encountered
IAD	Not Encountered
AD	Not Performed

OLSSON, INC.
302 E. MILLSAP ROAD
FAYETTEVILLE, ARKANSAS 72703

STARTED:	11/13/19	FINISHED:	11/13/19
DRILL CO.:	OLSSON	DRILL RIG:	CME 45B
DRILLER:	K. KEMPTON	LOGGED BY:	D Martin
METHOD:	CONTINUOUS FLIGHT AUGER		

BOREHOLE REPORT NO. B-112 — Sheet 1 of 1

PROJECT NAME: Joplin 32nd Street Widening | CLIENT: City of Joplin, MO
PROJECT NUMBER: 015-2768 | LOCATION: Joplin, Missouri

ELEVATION (ft)	MATERIAL DESCRIPTION	GRAPHIC LOG	DEPTH (ft)	SAMPLE TYPE NUMBER	CLASSIFICATION (USCS)	BLOWS/6" N-VALUE	UNC. STR. (tsf)	MOISTURE (%)	DRY DENSITY (pcf)	LL/PI (%)	ADDITIONAL DATA/ REMARKS
1000	**APPROX. SURFACE ELEV. (ft)** 1000.3		0								
	7" ASPHALTIC CONCRETE — 0.6'			SS 1		50/6"		10.3			
	FAT CLAY *Hard to stiff, moist, red, with chert*										
995			5	SS 2		10-4-8 N=12		31.4			
	— 6.5'										
	CHERT — 7.2'										
	FAT CLAY *Hard, dry to moist, red, with chert*		10	SS 3		10-25-28 N=53		13.5			
990	— 11.0'										
	CHERT — 12.0'										
	FAT CLAY *Very stiff, dry to moist, red, with chert*		15	SS 4		10-12-13 N=25		15.6			

BASE OF BORING AT 15.0 FEET — 15.0'

WATER LEVEL OBSERVATIONS	
WD	Not Encountered
IAD	Not Encountered
AD	Not Performed

OLSSON, INC.
302 E. MILLSAP ROAD
FAYETTEVILLE, ARKANSAS 72703

STARTED:	11/12/19	FINISHED:	11/12/19
DRILL CO.:	OLSSON	DRILL RIG:	CME 45B
DRILLER:	K. KEMPTON	LOGGED BY:	D Martin
METHOD:	CONTINUOUS FLIGHT AUGER		

BOREHOLE REPORT NO. B-113 — Sheet 1 of 1

PROJECT NAME: Joplin 32nd Street Widening | CLIENT: City of Joplin, MO
PROJECT NUMBER: 015-2768 | LOCATION: Joplin, Missouri

ELEVATION (ft)	MATERIAL DESCRIPTION	GRAPHIC LOG	DEPTH (ft)	SAMPLE TYPE NUMBER	CLASSIFICATION (USCS)	BLOWS/6" N-VALUE	UNC. STR. (tsf)	MOISTURE (%)	DRY DENSITY (pcf)	LL/PI (%)	ADDITIONAL DATA/ REMARKS
	APPROX. SURFACE ELEV. (ft) 990.6		0								
990	***9.75" ASPHALTIC CONCRETE*** — 0.6'			SS 1		10-12-8 N=20		19.1		48/24	
	FAT CLAY *Very stiff to hard, moist, dark brown with red, with weathered shale*										
985	— 5.7'		5	SS 2		11-21-19 N=40		19.6			
	CHERT — 6.5'										
	FAT CLAY *Very stiff, moist, red with gray and yellow, with weathered shale*		10	SS 3		5-9-11 N=20		22.7			
980	— 13.0'										
	CHERT — 13.5'										
	FAT CLAY *Very stiff, moist, red with yellow, with weathered shale and chert*		15	SS 4		6-17-12 N=29		27.6			

BASE OF BORING AT 15.0 FEET — 15.0'

WATER LEVEL OBSERVATIONS	
WD	Not Encountered
IAD	Not Encountered
AD	Not Performed

OLSSON, INC.
302 E. MILLSAP ROAD
FAYETTEVILLE, ARKANSAS 72703

STARTED:	11/12/19	FINISHED:	11/12/19
DRILL CO.:	OLSSON	DRILL RIG:	CME 45B
DRILLER:	K. KEMPTON	LOGGED BY:	D Martin
METHOD:	CONTINUOUS FLIGHT AUGER		

olsson
Olsson - Civil Engineering
Missouri Certificate of Authority #001592
702 S. Main Street
Joplin, MO 64801
TEL 417.781.0643 www.olsson.com

STATE OF MISSOURI
BRIAN COOMES
Brian Coomes
04/23/2021
NUMBER PE-2015029306
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

GEOTECHNICAL BORE LOCATIONS AND BORE LOGS

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by: SMK/JKL
checked by: PM/LB/RF
approved by: BMC
QA/QC by: PM/LB/RF
project no.: 015-2768
drawing no.: G_GTC_52768
date: 04/23/2021

SHEET
16 of 59

DWG: F:\PROJECTS\015-2768\40-Design\AutoCAD\Final Plans\Sheets Front End\GEOTECHNICAL\G_GTC_52768.dwg USER: skendall
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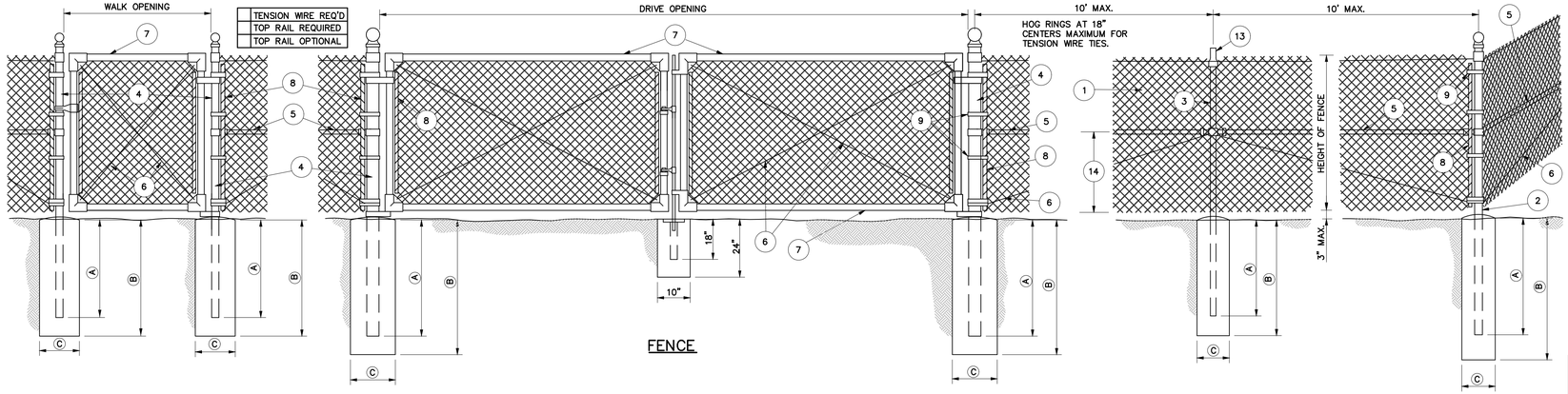
V_SOIL BORING_52768



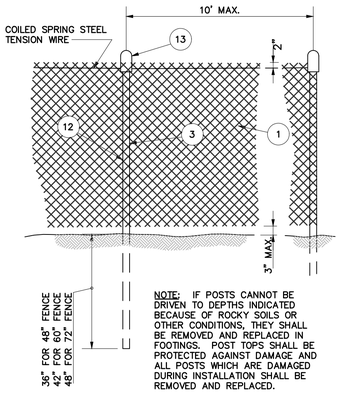
FENCE

LEGEND

1. FABRIC
2. END, CORNER OR PULL POST
3. LINE POST
4. GATE POST
5. BRACE
6. TRUSS ROD
7. GATE FRAME
8. STRETCHER BAR 1/4 " x 3/4 " PLATE
9. STRETCHER BAR BAND
10. END OR CORNER CLAMP
11. POST TOPS (OTHER THAN LINE POSTS)
12. FABRIC TIES
13. LINE POST TOPS WITH OR WITHOUT TOP RAILS
14. ONE-HALF FABRIC HEIGHT OR AS RECOMMENDED BY MANUFACTURER

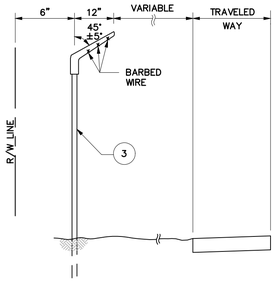
WIRE SIZE AND HEIGHT OF FABRIC

SPECIFIED DIAMETER		MESH (INCHES)	HEIGHT OF FABRIC (INCHES)
INCHES	GAGE		
0.120	11	2	36, 42
0.148	9	2	48, 60
0.192	6	2	72, 84

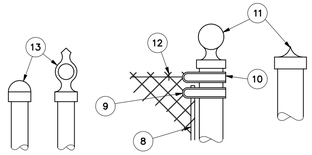


NOTE: IF POSTS CANNOT BE DRIVEN TO DEPTHS INDICATED BECAUSE OF ROCKY SOILS OR OTHER CONDITIONS, THEY SHALL BE REMOVED AND REPLACED IN FOOTINGS. POST TOPS SHALL BE PROTECTED AGAINST DAMAGE AND ALL POSTS WHICH ARE DAMAGED DURING INSTALLATION SHALL BE REMOVED AND REPLACED.

ALTERNATE LINE POST ANCHORAGE (DRIVEN)

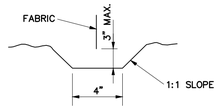


BARBED WIRE EXTENSION BRACKET



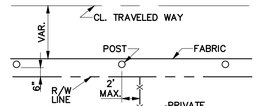
POST TOPS TO BE PRESSURE FITTED OR SCREWED. POST TOPS MAY BE ELIMINATED FOR ALL POSTS EXCEPT PIPE POSTS. IF POST TOPS ARE ELIMINATED, POST LENGTH SHALL BE INCREASED 3".

POST TOPS



TYPICAL TRENCH DETAILS

CHAIN-LINK FENCE DETAILS



TYPICAL CHAIN-LINK FENCE LOCATION

MINIMUM SIZE FOR FENCE HARDWARE

	WIDTH	SIZE (IN.)	LBS/FT.
(2) END CORNER OR PULL POST	N/A	2 1/2 DIA.	5.79
(3) LINE POST	N/A	2 DIA.	3.65
(4) GATE POST (SINGLE GATE OR 1 LEAF OF DOUBLE)	6'	2 1/2 DIA.	5.79
	10'	3 1/2 DIA.	9.10
	14'	6 DIA.	18.97
	18'	8 DIA.	24.70
(5) BRACE		1 1/4 DIA.	2.27
(6) TRUSS ROD		3/8	–
(7) GATE FRAME		1 1/2 DIA.	2.72

MINIMUM DEPTH FOR SETTING POSTS

DESCRIPTION		HEIGHT OF FENCE 48" SIZE (IN.)	60" SIZE (IN.)	72" SIZE (IN.)
(2) END CORNER & PULLPOST	(A)	30"	36"	36"
	(B)	36"	42"	42"
	(C)	10"	12"	12"
(3) LINE POST	(A)	24"	27"	36"
	(B)	30"	36"	42"
	(C)	10"	12"	12"
(4) GATE POST	(A)	30"	36"	36"
	(B)	36"	42"	42"
	(C)	10"	12"	12"

CHAIN-LINK FENCE GENERAL NOTES:

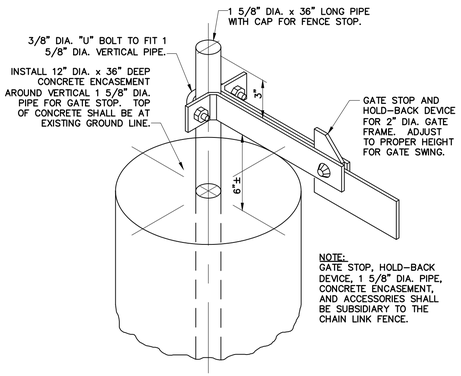
WEIGHTS OF MATERIALS SHOWN IN TABLE ARE FOR ASTM F 1043, GROUP IA, SIZES SHOWN ARE FOR STEEL AND ALUMINUM. EQUIVALENT ASTM F 1043 ALTERNATIVES MAY BE USED.

PULL POSTS SHALL BE USED AT SHARP BREAKS IN VERTICAL GRADE OR AT APPROXIMATE 500' CENTERS ON STRAIGHT RUNS OR AS DIRECTED BY THE ENGINEER.

DRILLED HOLES (C) IN SOLID ROCK SHALL PROVIDE A DIAMETER OF NOT LESS THAN 2" GREATER THAN THE MAXIMUM TRANSVERSE DIMENSION OF THE POST SECTION.

ALL POSTS SHOWN HAVE PROVISIONS TO SECURELY HOLD THE TOP TENSION WIRE IN POSITION AND ALLOW FOR REMOVAL AND REPLACEMENT OF A POST WITHOUT DAMAGING THE TOP TENSION WIRE.

THE MESH SIZE SHALL BE 2 INCHES ±1/8 IN. MEASURED IN EITHER DIRECTION AS THE MINIMUM CLEAR DISTANCE BETWEEN THE WIRES FORMING THE PARALLEL SIDES OF MESH.



NOTE:
GATE STOP, HOLD-BACK DEVICE, 1 5/8" DIA. PIPE, CONCRETE ENCASEMENT, AND ACCESSORIES SHALL BE SUBSIDIARY TO THE CHAIN LINK FENCE.

GATE STOP AND HOLD-BACK DETAIL

N.T.S.

olsson
Olsson - Civil Engineering
Missouri Certificate of Authority #001592
702 S. Main Street
Joplin, MO 64801
TEL 417.781.0643
www.olsson.com

STATE OF MISSOURI
BRIAN COOMES
Brian Coomes
04/23/2021
NUMBER PE-2015029306
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

FENCE DETAIL

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by: SMK/JKL
checked by: PM/LB/RF
approved by: BMC
QA/QC by: PM/LB/RF
project no.: 015-2768
drawing no.: TSE_T_DTL-FENCE_52768
date: 04/23/2021

SHEET 17 of 59

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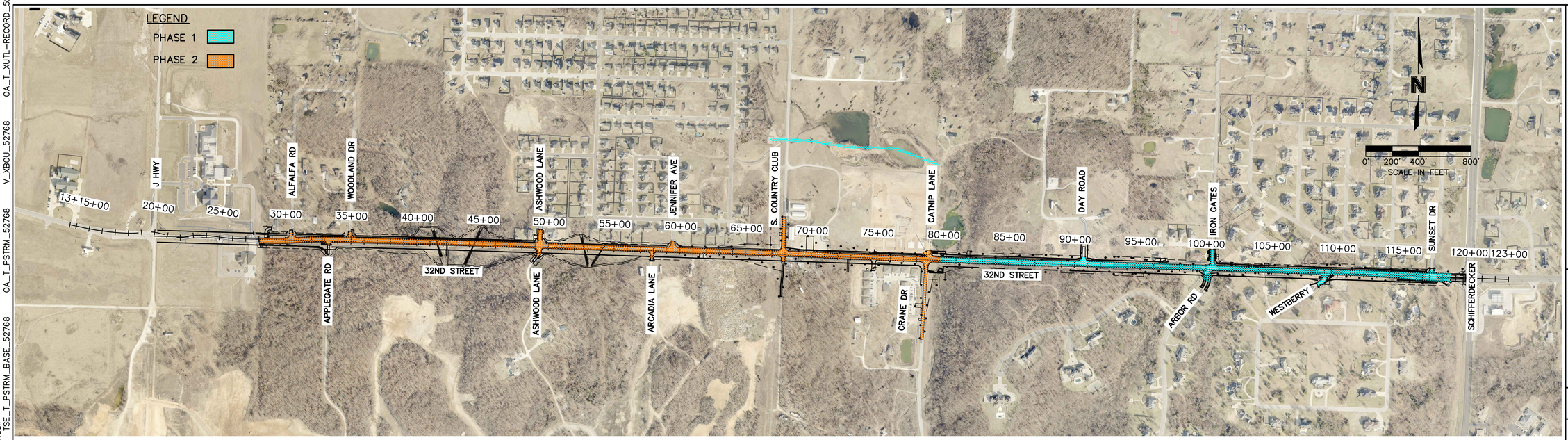

PHASE	CONSTRUCTION SEQUENCE
1	Sta 79+25 to Sta. 118+60.74
1.1	Sta 108+50 to 118+60.74
	1. Construct gravity sanitary sewer main. Remove existing lift station and force main.
	2. Stake Phase 1.1 Construction limits/TCE limits. Install Phase 1.1 pre-construction erosion control Construct Westberry Lane shoofly west side of Westberry Lane.
	3. Complete Phase 1.1 Demolition. Construct storm sewer Line A from Structure A3 to Structure A9, Line B, Line C, Line D and Line E. Construct necessary waterline.
	4. Strip and stockpile topsoil and complete dirtwork. Construct aggregate base, curb & gutter, asphalt base, sidewalks, driveways, side streets at Westberry Lane and Sunset Drive, and other incidental work from Sta 108+50 to 118+60.74.
1.2	Sta 79+25 to 81+76
	1. Stake Phase 1.2 Construction Limits/TCE Limits. Install Phase 1.2 pre-construction erosion control.
	2. Complete Phase 1.1 Demolition. Construct 2 - 108"x48" RCBC at Sta. 79+83.11, 87.36' RT to Sta. 79+94.52, 53.38' Lt. Construct Phase 1 Storm Sewer east of Sta. 80+00 (Line 3, Line 3B and Line A from A0 to Structure A3. Construct Phase 1 Storm Sewer Line 2 west of Sta. 80+00 to Sta. 79+30. Install temporary plug at Sta. 79+30 Construct necessary waterline.
	3. Strip and stockpile topsoil and complete dirtwork. Construct aggregate base from Sta 79+80 to 81+76.
	4. Construct temporary transition from Sta 79+25 to Sta.79+80.
1.3	Sta 79+80 to 96+80
	1. Stake Phase 1.3 Construction limits/TCE limits. Install Phase 1.3 pre-construction erosion control
	2. Complete Phase 1.3 Demolition. Construct temporary access to Drive B7. Construct necessary waterline.
	3. Strip and stockpile topsoil and complete dirtwork. Construct aggregate base from Sta 81+76 tp 96+80 Construct curb & gutter, asphalt base, sidewalks, driveways, side street at Day Road and other incidental work from Sta. 79+80 to 96+80.
1.4	Sta 96+80 to Sta 108+50
	1. Stake Phase 1.4 Construction limits/TCE limits. Install Phase 1.4 pre-construction erosion control
	2. Complete Phase 1.4 Demolition. Construct storm sewer Line F. Construct necessary waterline.
	3. Strip and stockpile topsoil and complete dirtwork. Construct aggregate base, curb and gutter, asphalt base, sidewalks, driveways, side streets at Arbor Road and Iron Gates Road, and other incidental work from Sta 96+80 to Sta 108+50.
1.5	Sta 79+80 to 118+60.74
	1. Construct surface asphalt, permanent striping, and permanent signing on 32nd Street and side streets from Sta 79+80 to 118+60.74.
	2. Complete all remaining work within Phase 1.
	3. Construct temporary asphalt entrance for north and south access to Parcel 31 and Parcel 36 at Sta 75+00

PHASE	CONSTRUCTION SEQUENCE
2	Sta 28+05.47 to Sta 79+80
2.1	Sta 78+00 to 79+80 32nd Street, Catnip Lane, Crane Drive
	1. Stake Phase 2.1 Construction limits/TCE limits. Install Phase 2.1 pre-construction erosion control
	2. Complete Phase 2.1 Demolition. Construct storm sewer line 2 from Sta 79+30 to Structure 2-02. Construct necessary waterline.
	3. Strip and stockpile topsoil and complete dirtwork. Construct aggregate base, curb and gutter, asphalt base, sidewalks, driveways, side streets at Crane Drive and Catnip Lane, and other incidental work from Sta 78+00 to Sta 79+80
	4. Construct surface asphalt, permanent striping, and permanent signing on 32nd Street, Catnip Lane and Crane Drive from Sta 78+00 to 79+80.
2.2	Sta 41+00 to 53+00
	1. Construct Culvert AA, Culvert BB, and Culvert CC
	2. Construct temporary aggregate access to Parcel 29 from S. Country Club Drive north of north 32nd Street sidewalk.
2.3	Sta 32+35 to 78+00 32nd Street, Applegate Lane, Woodland Drive, Ashwood Lane, Ashwood Avenue, Arcadia Lane, and Jennifer Avenue
	1. Stake Phase 2.3 Construction limits/TCE limits. Install Phase 2.3 pre-construction erosion control Complete Phase 2.3 Demolition Strip and Stockpile topsoil and complete dirtwork Construct Storm Sewer and retaining walls from Sta 32+25 to Sta 78+00. Construct aggregate base, curb and gutter, asphalt base, sidewalks, driveways, side streets at Applegate Lane, Woodland Drive, Ashwood Lane, Ashwood Avenue, Arcadia Lane, Jennifer Avenue, and other incidental work from Sta 32+25 to Sta 78+00. Construct necessary waterline.
2.4	Sta 28+05.47 to Sta 32+35
	1. Stake Phase 2.4 Construction limits/TCE limits. Install Phase 2.4 pre-construction erosion control Complete demolition. Strip and Stockpile topsoil and complete dirtwork. Construct Storm Sewer from Sta 28+05.47 to Sta 32+35 Construct aggregate base, curb and gutter, asphalt base, sidewalks, driveways, side street at Alfalfa Lane, and other incidental work from Sta 28+05.47 to Sta 32+35 Construct necessary waterline.
2.5	S. Country Club Dr. Sta 48+10 to 32nd Street
	1. Stake Phase 2.5 Construction Limits/TCE limits. Install Phase 2.5 pre-construction erosion control Complete demolition Strip and Stockpile topsoil and complete dirtwork Construct aggregate base, curb and gutter, asphalt base, Drive B10, and other incidental work from S. Country Club Dr. Sta 48+10 to 32nd Street. Construct necessary waterline.
2.6	Sta 28+05.47 to 78+00
	1. Construct surface asphalt, permanent striping, and permanent signing on 32nd Street and side streets from Sta 28+05.47 to 78+00.
	2. Complete all remaining work within Phase 2.

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STATE OF MISSOURI
BRIAN COOMES
Brian Coomes
04/23/2021
NUMBER PE-2015029306
PROFESSIONAL ENGINEER

REVISIONS

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

CONSTRUCTION SEQUENCE OVERALL

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by: SMK/JKL
checked by: PM/LB/RF
approved by: BMC
QA/QC by: PM/LB/RF
project no.: 015-2768
drawing no.: CONSEQ_OVERALL_52768
date: 04/23/2021

SHEET
18 of 59

DWG: F:\PROJECTS\015-2768\40-Design\AutoCAD\Final Plans\Sheets Front End\CONSTRUCTION SEQUENCING\T_CON-SEQ_OVERALL_52768.dwg USER: skendall
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PHASE	CONSTRUCTION SEQUENCE
1	Sta 79+25 to Sta. 118+60.74
1.1	Sta 108+50 to 118+60.74
	1. Construct gravity sanitary sewer main. Remove existing lift station and force main.
	2. Stake Phase 1.1 Construction limits/TCE limits. Install Phase 1.1 pre-construction erosion control Construct Westberry Lane shoofly west side of Westberry Lane.
	3. Complete Phase 1.1 Demolition. Construct storm sewer Line A from Structure A3 to Structure A9, Line B, Line C, Line D and Line E. Construct necessary waterline.
	4. Strip and stockpile topsoil and complete dirtwork. Construct aggregate base, curb & gutter, asphalt base, sidewalks, driveways, side streets at Westberry Lane and Sunset Drive, and other incidental work from Sta 108+50 to 118+60.74.
1.2	Sta 79+25 to 81+76
	1. Stake Phase 1.2 Construction Limits/TCE Limits. Install Phase 1.2 pre-construction erosion control.
	2. Complete Phase 1.1 Demolition. Construct 2 - 108"x48" RCBC at Sta. 79+83.11, 87.36' RT to Sta. 79+94.52, 53.38' Lt. Construct Phase 1 Storm Sewer east of Sta. 80+00 (Line 3, Line 3B and Line A from A0 to Structure A3. Construct Phase 1 Storm Sewer Line 2 west of Sta. 80+00 to Sta. 79+30. Install temporary plug at Sta. 79+30 Construct necessary waterline.
	3. Strip and stockpile topsoil and complete dirtwork. Construct aggregate base from Sta 79+80 to 81+76.
	4. Construct temporary transition from Sta 79+25 to Sta.79+80.
1.3	Sta 79+80 to 96+80
	1. Stake Phase 1.3 Construction limits/TCE limits. Install Phase 1.3 pre-construction erosion control
	2. Complete Phase 1.3 Demolition. Construct temporary access to Drive B7. Construct necessary waterline.
	3. Strip and stockpile topsoil and complete dirtwork. Construct aggregate base from Sta 81+76 tp 96+80 Construct curb & gutter, asphalt base, sidewalks, driveways, side street at Day Road and other incidental work from Sta. 79+80 to 96+80.
1.4	Sta 96+80 to Sta 108+50
	1. Stake Phase 1.4 Construction limits/TCE limits. Install Phase 1.4 pre-construction erosion control
	2. Complete Phase 1.4 Demolition. Construct storm sewer Line F. Construct necessary waterline.
	3. Strip and stockpile topsoil and complete dirtwork. Construct aggregate base, curb and gutter, asphalt base, sidewalks, driveways, side streets at Arbor Road and Iron Gates Road, and other incidental work from Sta 96+80 to Sta 108+50.
1.5	Sta 79+80 to 118+60.74
	1. Construct surface asphalt, permanent striping, and permanent signing on 32nd Street and side streets from Sta 79+80 to 118+60.74.
	2. Complete all remaining work within Phase 1.
	3. Construct temporary asphalt entrance for north and south access to Parcel 31 and Parcel 36 at Sta 75+00

LEGEND

PHASE 1.1

PHASE 1.2

PHASE 1.3

PHASE 1.4

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BRIAN COOMES
Brian Coomes
04/23/2021
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PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

CONSTRUCTION SEQUENCE
PHASE 1

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by: SMK/JKL
checked by: PM/LB/RF
approved by: BMC
QA/QC by: PM/LB/RF
project no.: 015-2768
drawing no.: T_CON-SEQ_52768
date: 04/23/2021

SHEET
19 of 59

DWG: F:\PROJECTS\015-2768\40-Design\AutoCAD\Final Plans\Sheets Front End\CONSTRUCTION SEQUENCING\T_CON-SEQ_52768.dwg USER: skendall
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V_XBOU_52768 OA_T_PSTRM_52768 TSE_T_PSTRM_BASE_52768 TSE_T_PBASE_52768 OA



PHASE	CONSTRUCTION SEQUENCE
2	Sta 28+05.47 to Sta 79+80
2.1	Sta 78+00 to 79+80 32nd Street, Catnip Lane, Crane Drive
	1. Stake Phase 2.1 Construction limits/TCE limits. Install Phase 2.1 pre-construction erosion control
	2. Complete Phase 2.1 Demolition. Construct storm sewer line 2 from Sta 79+30 to Structure 2-02. Construct necessary waterline.
	3. Strip and stockpile topsoil and complete dirtwork. Construct aggregate base, curb and gutter, asphalt base, sidewalks, driveways, side streets at Crane Drive and Catnip Lane, and other incidental work from Sta 78+00 to Sta 79+80
	4. Construct surface asphalt, permanent striping, and permanent signing on 32nd Street, Catnip Lane and Crane Drive from Sta 78+00 to 79+80.
2.2	Sta 41+00 to 53+00
	1. Construct Culvert AA, Culvert BB, and Culvert CC
	2. Construct temporary aggregate access to Parcel 29 from S. Country Club Drive north of north 32nd Street sidewalk.
2.3	Sta 32+35 to 78+00 32nd Street, Applegate Lane, Woodland Drive, Ashwood Lane, Ashwood Avenue, Arcadia Lane, and Jennifer Avenue
	1. Stake Phase 2.3 Construction limits/TCE limits. Install Phase 2.3 pre-construction erosion control Complete Phase 2.3 Demolition Strip and Stockpile topsoil and complete dirtwork Construct Storm Sewer and retaining walls from Sta 32+25 to Sta 78+00. Construct aggregate base, curb and gutter, asphalt base, sidewalks, driveways, side streets at Applegate Lane, Woodland Drive, Ashwood Lane, Ashwood Avenue, Arcadia Lane, Jennifer Avenue, and other incidental work from Sta 32+25 to Sta 78+00. Construct necessary waterline.
2.4	Sta 28+05.47 to Sta 32+35
	1. Stake Phase 2.4 Construction limits/TCE limits. Install Phase 2.4 pre-construction erosion control Complete demolition. Strip and Stockpile topsoil and complete dirtwork. Construct Storm Sewer from Sta 28+05.47 to Sta 32+35 Construct aggregate base, curb and gutter, asphalt base, sidewalks, driveways, side street at Alfalfa Lane, and other incidental work from Sta 28+05.47 to Sta 32+35 Construct necessary waterline.
2.5	S. Country Club Dr. Sta 48+10 to 32nd Street
	1. Stake Phase 2.5 Construction Limits/TCE limits. Install Phase 2.5 pre-construction erosion control Complete demolition Strip and Stockpile topsoil and complete dirtwork Construct aggregate base, curb and gutter, asphalt base, Drive B10, and other incidental work from S. Country Club Dr. Sta 48+10 to 32nd Street. Construct necessary waterline.
2.6	Sta 28+05.47 to 78+00
	1. Construct surface asphalt, permanent striping, and permanent signing on 32nd Street and side streets from Sta 28+05.47 to 78+00.
	2. Complete all remaining work within Phase 2.

LEGEND

- PHASE 2.1
- PHASE 2.2
- PHASE 2.3
- PHASE 2.4
- PHASE 2.5

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REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

CONSTRUCTION SEQUENCE
PHASE 2

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by: SMK/JKL
checked by: PM/LB/RF
approved by: BMC
QA/QC by: PM/LB/RF
project no.: 015-2768
drawing no.: T_CON-SEQ_52768
date: 04/23/2021

SHEET
20 of 59

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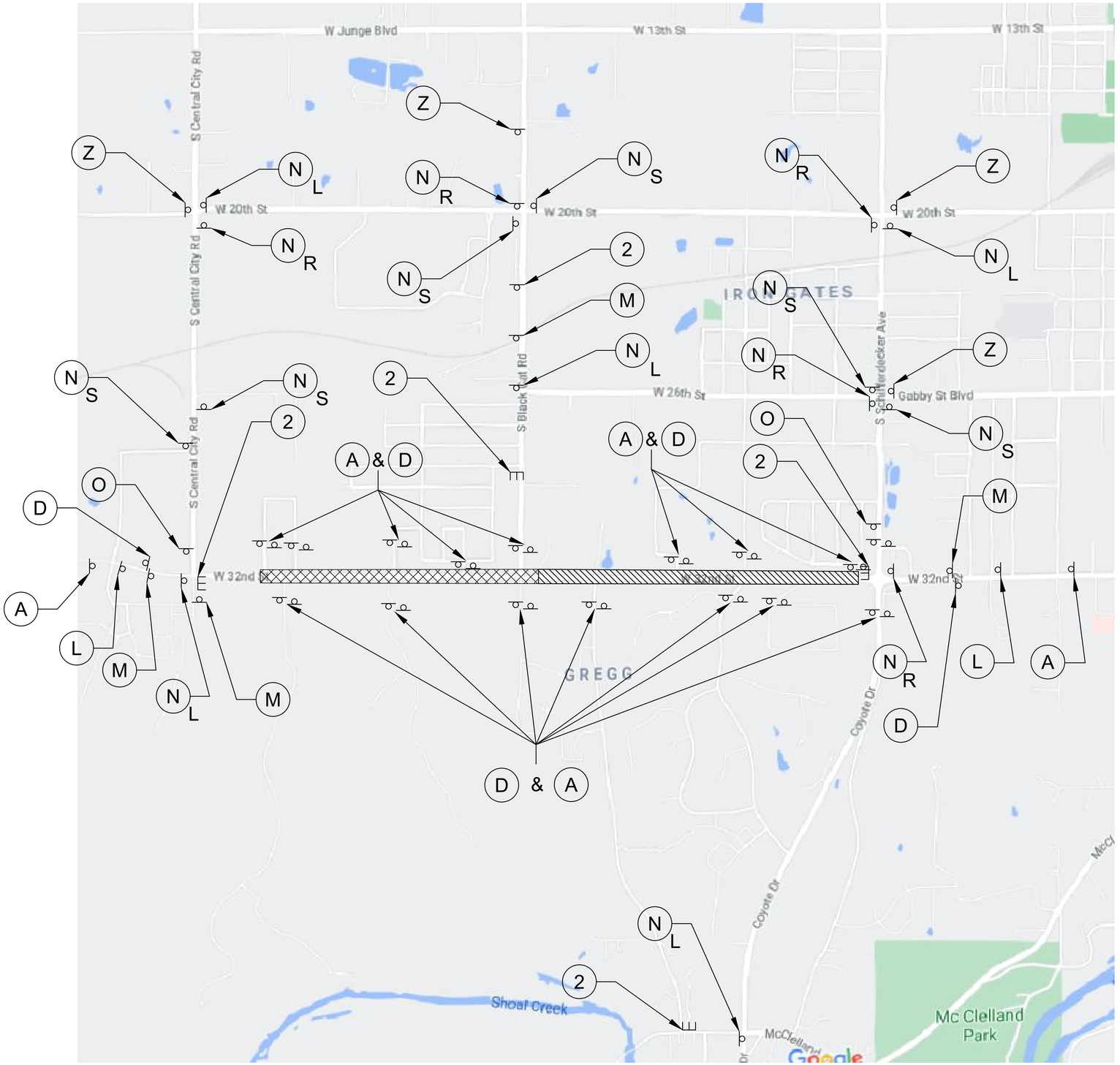

SIGN LEGEND

32ND STREET CLOSED W. OF SCHIFFERDECKER
(Z) SP-1

ROAD CLOSED AHEAD (36" × 36")
(L) W20-3

DETOUR AHEAD (36" × 36")
(M) W20-2

ROAD CLOSED TO THRU TRAFFIC (30" × 60")
(2) R11-4

DETOUR (24" × 30")
(N)L M4-9(L)
(N)R M4-9(R)
(N)S M4-9(S)

END DETOUR (18" × 24")
(O) M4-8a

ROAD WORK AHEAD
(A) W20-1

END ROAD WORK
(D) G20-2

TRAFFIC CONTROL GENERAL NOTES:

LEGEND

Phase 1 Work Zone

Phase 2 Work Zone

N

0' 15' 30' 60'
SCALE IN FEET

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STATE OF MISSOURI
JEREMY SCOTT STREET
NUMBER PE-2017023856
PROFESSIONAL ENGINEER
4/23/2021

REV. NO.	DATE	REVISIONS DESCRIPTION	BY
		REVISIONS	

TRAFFIC CONTROL PLAN
DETOUR & ADVANCED SIGNING PLAN

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by: JRC
checked by: JSS
approved by: JSS
QA/QC by: JSS
project no.: 015-2768
drawing no.: F-TRFC CNTRL PLN 52768
date: 04/23/2021

SHEET 21 of 59

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USER: skendall T_PSTRM_52768-900 F_PBASE_LTG_52768-900 T_PBASE_52768-900 TSE_T_PBASE_52768

MATCHLINE A

IRON GATES RD

ROAD CLOSED AHEAD
W20-3

ROAD CLOSED 500 FT
G20-2

ROAD CLOSED
R11-2

32ND STREET

100+00 101+00 102+00 103+00 104+00 105+00 106+00 107+00 108+00 109+00 110+00

500' 500'

ARBOR RD

ROAD CLOSED TO THRU TRAFFIC
R11-4

WESTBERRY LN

ROAD CLOSED
R11-2

MATCHLINE A

ROAD CLOSED
R11-2

SUNSET DR

R3-1

SEE DETOUR PLAN FOR SIGNING IN ADVANCE OF INTERSECTION

111+00 112+00 113+00 114+00 115+00 116+00 117+00 118+00 119+00 120+00 121+00

25' SPACING (TYP.)

10' SPACING (TYP.)

32ND STREET

R3-2

ROAD CLOSED
R11-2

SCHIFFERDECKER AVE

10' SPACING (TYP.)

LEGEND

- Phase 1–1 Work Zone
- Type III Barricade
- Gravel Shoe–Fly
- Sign Symbol
- Channelizing Device
- Direction of Traffic

PHASE 1 – STA. 79+25 TO STA. 118+60.74

PHASE 1–1 – 108+50 TO STA. 118+60.74

PHASE 1–2 – 79+25 TO STA. 81+76

PHASE 1–3 – 79+80 TO STA. 96+80

PHASE 1–4 – 96+80 TO STA. 108+50

PHASE 1–1 NOTES:

1. STAKE PHASE 1–3 CONSTRUCTION LIMITS/TCE LIMITS. INSTALL PHASE 1–3 PRE–CONSTRUCTION ROSION CONTROL. CONSTRUCT WESTBERRY LANE SHOOFLY WEST SIDE OF WESTBERRY LANE.
2. COMPLETE PHASE 1.3 DEMOLITION. CONSTRUCT STORM SEWER LINE A FROM STRUCTURE A3 TO STRUCTURE A0, LINE B, LINE C, LINE D, AND LINE E.
3. STRIP AND STOCKPILE TOPSOIL AND COMPLETE DIRTWORK. CONSTRUCT AGGREGATE BASE, SIDEWALKS, DRIVEWAYS, SIDE STREETS AT WESTBERRY LANE AND SUNSET DRIVE, AND OTHER INCIDENTAL WORK FROM STA. 108+50 TO 118+74.

N

0' 20' 40' 80'
SCALE IN FEET

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JEREMY SCOTT STREET
NUMBER PE-2017023856
PROFESSIONAL ENGINEER
4/23/2021

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

TRAFFIC CONTROL PLANS
PHASE 1-1

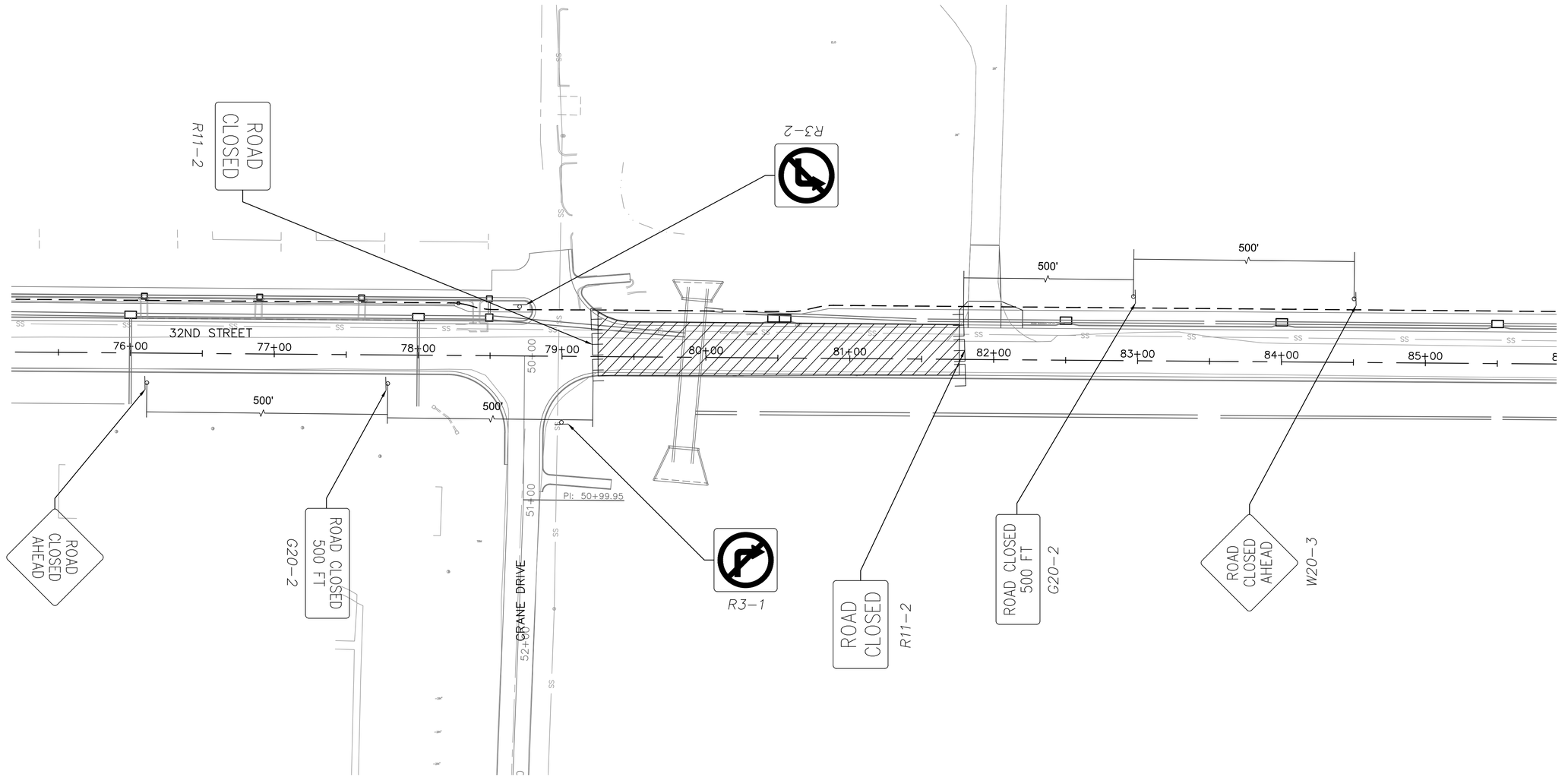
32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by: JRC
checked by: JSS
approved by: JSS
QA/QC by: JSS
project no.: 015-2768
drawing no.: F TRFC CNTRL PLN 52768
date: 04/23/2021

SHEET
22 of 59



LEGEND

- Phase 1–2 Work Zone
- Type III Barricade
- Gravel Shoe–Fly
- Sign Symbol
- Channelizing Device
- Direction of Traffic

PHASE 1 – STA. 79+25 TO STA. 118+60.74

PHASE 1–1 – 108+50 TO STA. 118+60.74

PHASE 1–2 – 79+25 TO STA. 81+76

PHASE 1–3 – 79+80 TO STA. 96+80

PHASE 1–4 – 96+80 TO STA. 108+50

PHASE 1–2 NOTES:

1. STAKE PHASE 1–1 CONSTRUCTION LIMITS/TCE LIMITS. INSTALL PHASE 1–1 PRE–CONSTRUCTION EROSION CONTROL.
2. COMPLETE PHASE 1–1 DEMOLITION. CONSTRUCT 2 – 108"x48" RCBC AT STA. 79+83.11, 87.36' RT TO STA. 79+94.52, 53.38' LT. CONSTRUCT PHASE 1 STORM SEWER EAST OF STA. 80+00 (LINE 3, LINE 3B AND LINE A FROM RCB TO STRUCTURE A–3. CONSTRUCT PHASE 1 STORM SEEWER LINE 2 WEST OF STA. 80+00 TO STA. 79+30. INSTALL TEMPORARY PLUG AT STA. 79+30.
3. STRIP AND STOCKPILE TOPSIOL AND COMPLETE DIRTWORK. CONSTRUCT AGGREGATE BASE FROM STA 79+80 TO 81+76.
4. CONSTRUCT TEMPORARY TRANSITION FROM STA. 79+25 TO 79+80.

N

0' 20' 40' 80'
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TRAFFIC CONTROL PLANS
PHASE 1-2

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by:	JRC
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project no.:	015-2768
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23 of 59

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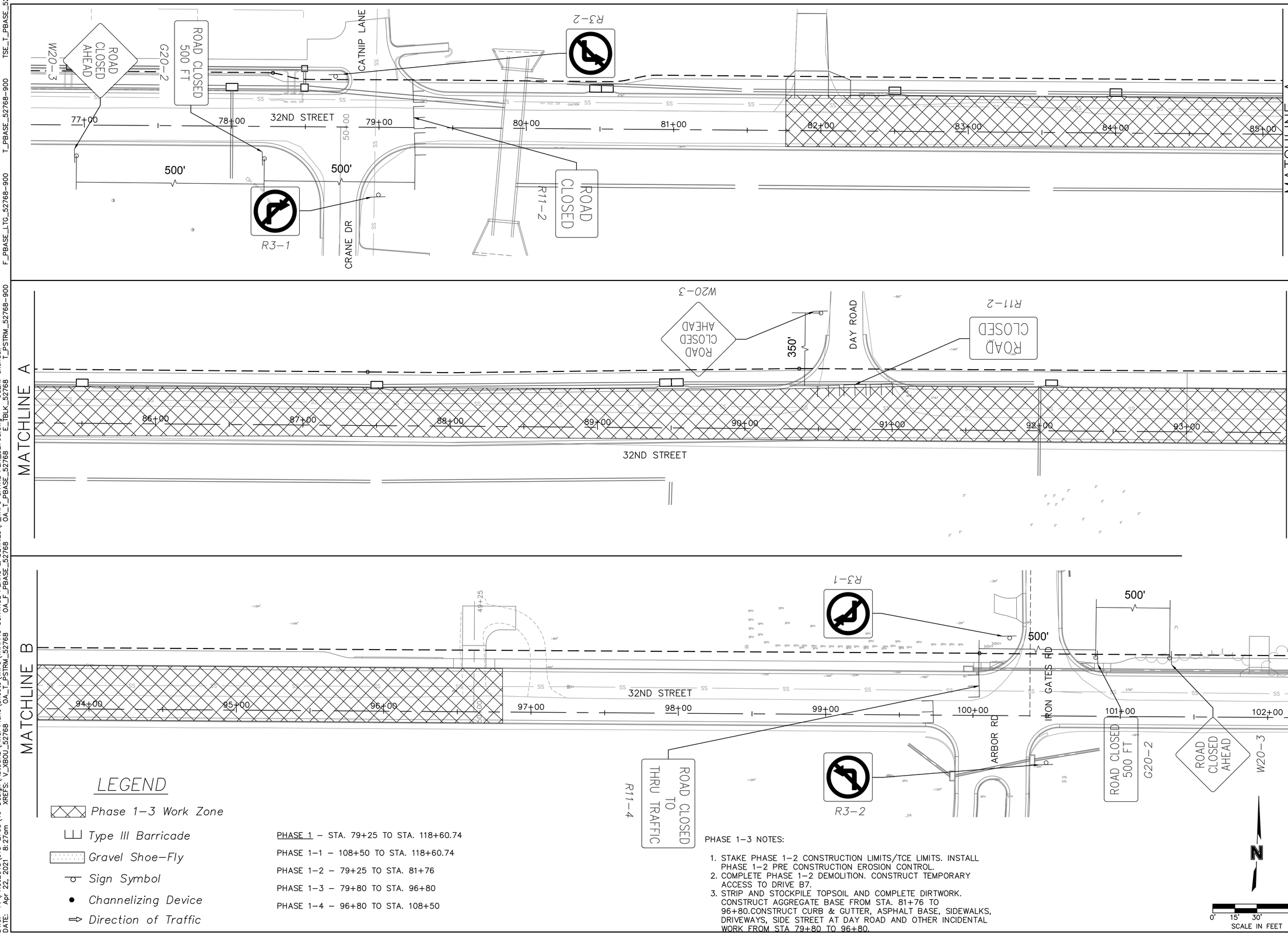

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JEREMY SCOTT STREET
NUMBER PE-2017023856
PROFESSIONAL ENGINEER
4/23/2021

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

TRAFFIC CONTROL PLANS
PHASE 1-3

32ND STREET WIDENING
CITY OF JOPLIN

2021

JOPLIN, MISSOURI

drawn by: JRC
checked by: JSS
approved by: JSS
QA/QC by: JSS
project no.: 015-2768
drawing no.: F TRFC CNTRL PLN 52768
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24 of 59

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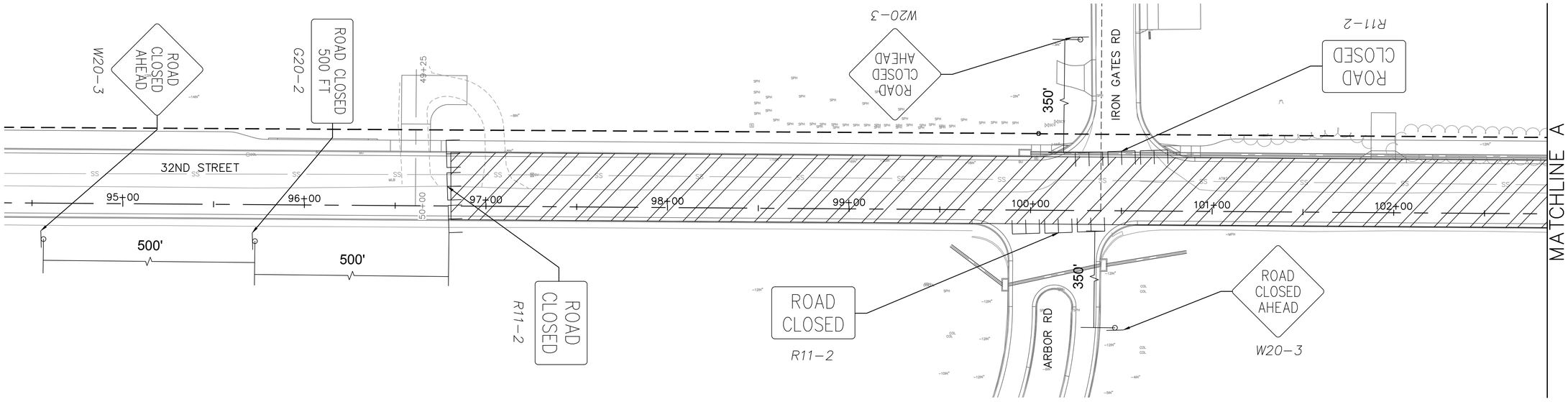

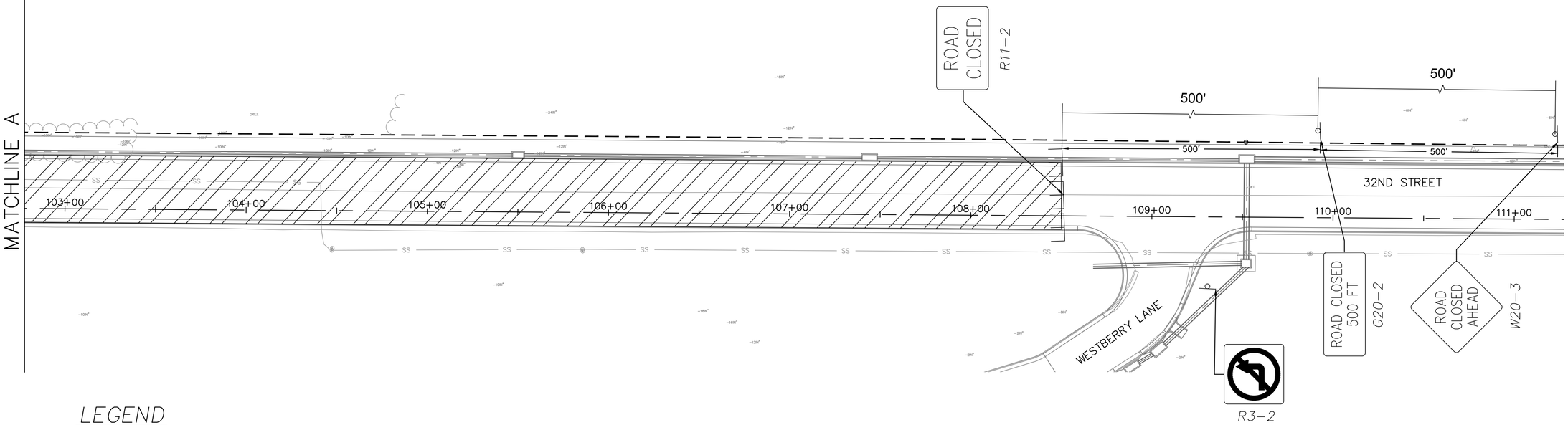

LEGEND

- Phase 1–4 Work Zone
- Type III Barricade
- Gravel Shoe–Fly
- Sign Symbol
- Channelizing Device
- Direction of Traffic

PHASE 1 – STA. 79+25 TO STA. 118+60.74

PHASE 1–1 – 79+25 TO STA. 81+76

PHASE 1–2 – 79+80 TO STA. 96+80

PHASE 1–3 – 108+50 TO STA. 118+60.74

PHASE 1–4 – 96+80 TO STA. 108+50

PHASE 1–4 NOTES:

1. STAKE PHASE 1–4 CONSTRUCTION LIMITS/TCE LIMITS. INSTALL PHASE 1–4 PRE–CONSTRUCTION EROSION CONTROL.
2. COMPLETE PHASE 1–4 DEMOLITION. CONSTRUCT STORM SEWER LINE F.
3. STRIP AND STOCKPILE TOPSOIL AND COMPLETE DIRTWORK. CONSTRUCT AGGREGATE BASE, CURB AND GUTTER, ASPHALT BASE, SIDEWALKS, DRIVEWAYS, SIDE STREETS AT ARBOR ROAD AND IRON GATES ROAD, AND OTHER INCIDENTAL WORK FROM STA. 96+80 TO 108+50.

PHASE 1–5 NOTES: (NOT DEPICTED)

1. CONSTRUCT SURFACE ASPHALT, PERMANENT STRIPING, AND PERMANENT SIGNING ON 32ND STREET AND SIDE STREETS FROM STA. 79+80 TO 118+60.74.
2. COMPLETE ALL REMAINING WORK WITHIN PHASE 1.

N

0' 15' 30' 60'
SCALE IN FEET

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STATE OF MISSOURI
4/23/2021

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

TRAFFIC CONTROL PLANS
PHASE 1-4

32ND STREET WIDENING
CITY OF JOPLIN

2021

JOPLIN, MISSOURI

drawn by: JRC
checked by: JSS
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QA/QC by: JSS
project no.: 015-2768
drawing no.: F TRFC CNTRL PLN 52768
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25 of 59

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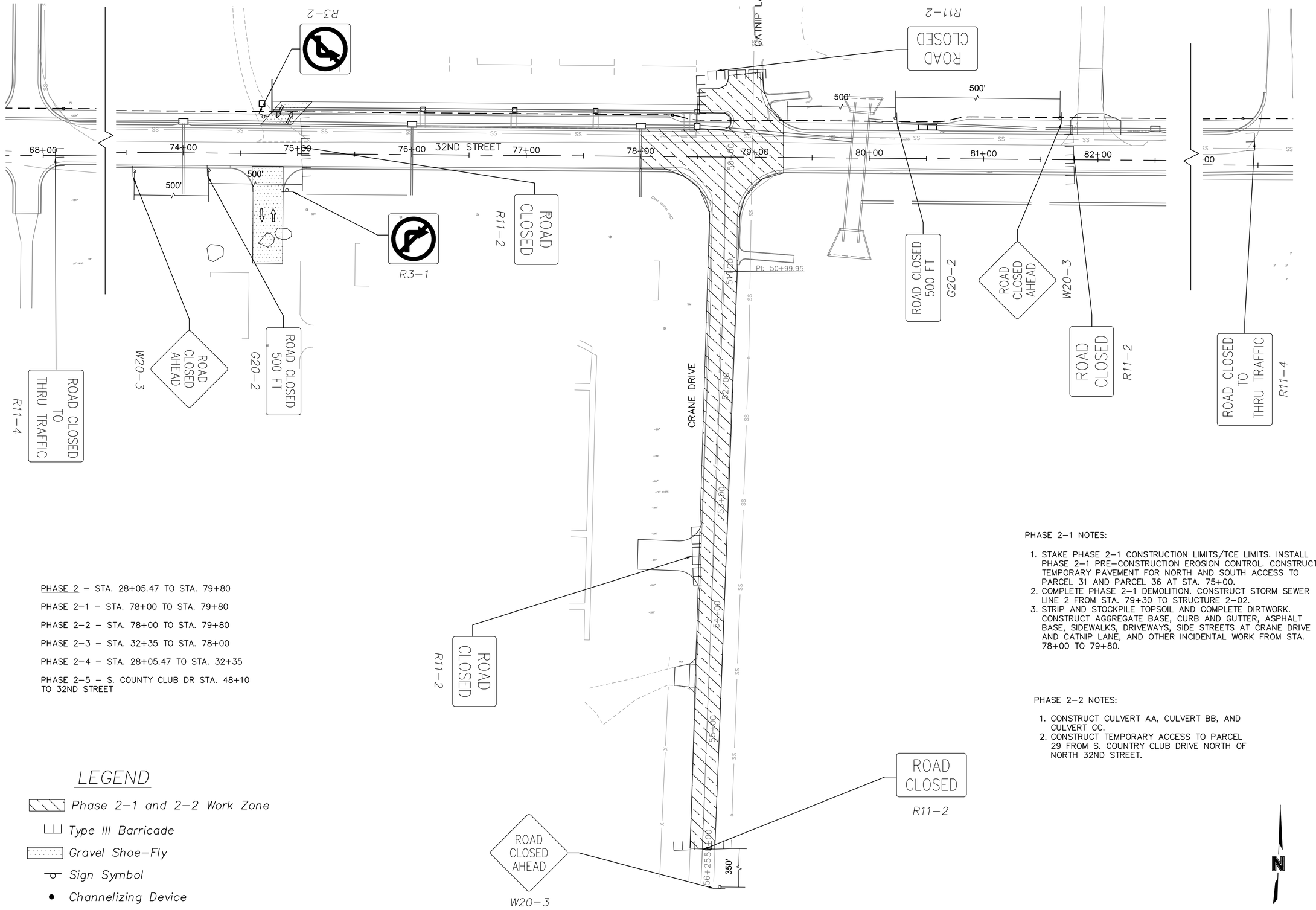

PHASE 2 – STA. 28+05.47 TO STA. 79+80

PHASE 2–1 – STA. 78+00 TO STA. 79+80

PHASE 2–2 – STA. 78+00 TO STA. 79+80

PHASE 2–3 – STA. 32+35 TO STA. 78+00

PHASE 2–4 – STA. 28+05.47 TO STA. 32+35

PHASE 2–5 – S. COUNTY CLUB DR STA. 48+10 TO 32ND STREET

LEGEND

- Phase 2–1 and 2–2 Work Zone
- Type III Barricade
- Gravel Shoe–Fly
- Sign Symbol
- Channelizing Device
- Direction of Traffic

PHASE 2–1 NOTES:

1. STAKE PHASE 2–1 CONSTRUCTION LIMITS/TCE LIMITS. INSTALL PHASE 2–1 PRE–CONSTRUCTION EROSION CONTROL. CONSTRUCT TEMPORARY PAVEMENT FOR NORTH AND SOUTH ACCESS TO PARCEL 31 AND PARCEL 36 AT STA. 75+00.
2. COMPLETE PHASE 2–1 DEMOLITION. CONSTRUCT STORM SEWER LINE 2 FROM STA. 79+30 TO STRUCTURE 2–02.
3. STRIP AND STOCKPILE TOPSOIL AND COMPLETE DIRTWORK. CONSTRUCT AGGREGATE BASE, CURB AND GUTTER, ASPHALT BASE, SIDEWALKS, DRIVEWAYS, SIDE STREETS AT CRANE DRIVE AND CATNIP LANE, AND OTHER INCIDENTAL WORK FROM STA. 78+00 TO 79+80.

PHASE 2–2 NOTES:

1. CONSTRUCT CULVERT AA, CULVERT BB, AND CULVERT CC.
2. CONSTRUCT TEMPORARY ACCESS TO PARCEL 29 FROM S. COUNTRY CLUB DRIVE NORTH OF NORTH 32ND STREET.

N

0' 20' 40' 80'
SCALE IN FEET

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STATE OF MISSOURI
JEREMY SCOTT STREET
NUMBER PE-2017023856
PROFESSIONAL ENGINEER
4/23/2021

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

TRAFFIC CONTROL PLANS
PHASES 2-1 & 2-2

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by: JRC
checked by: JSS
approved by: JSS
QA/QC by: JSS
project no.: 015-2768
drawing no.: F TRFC CNTRL PLN 52768
date: 04/23/2021

SHEET
26 of 59

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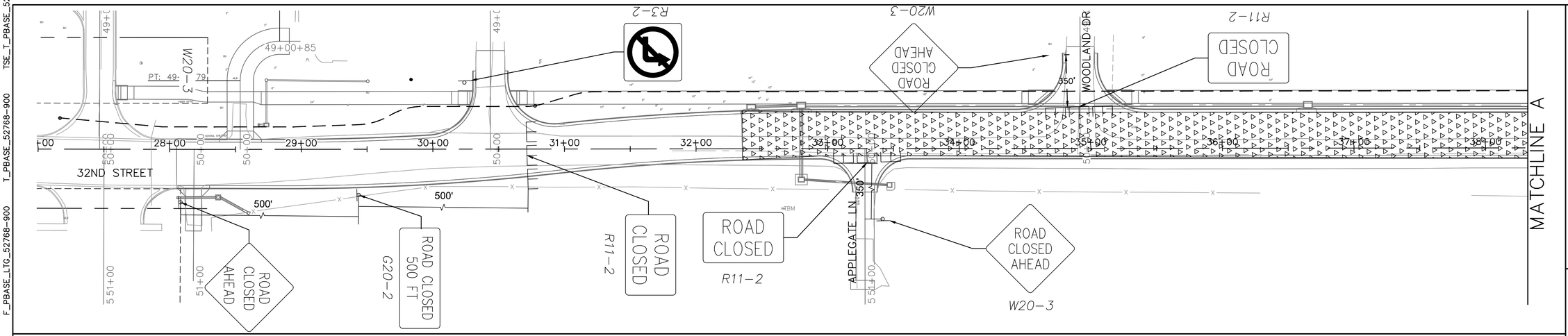

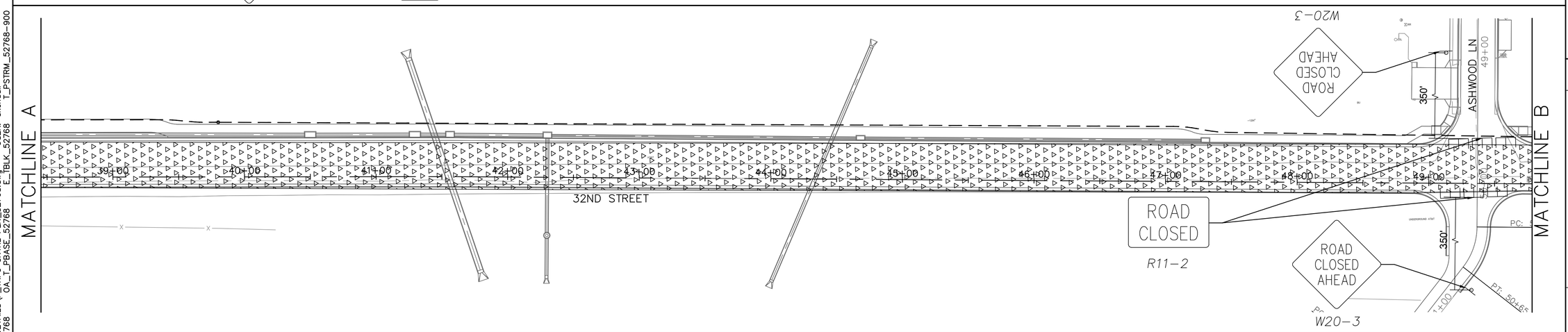

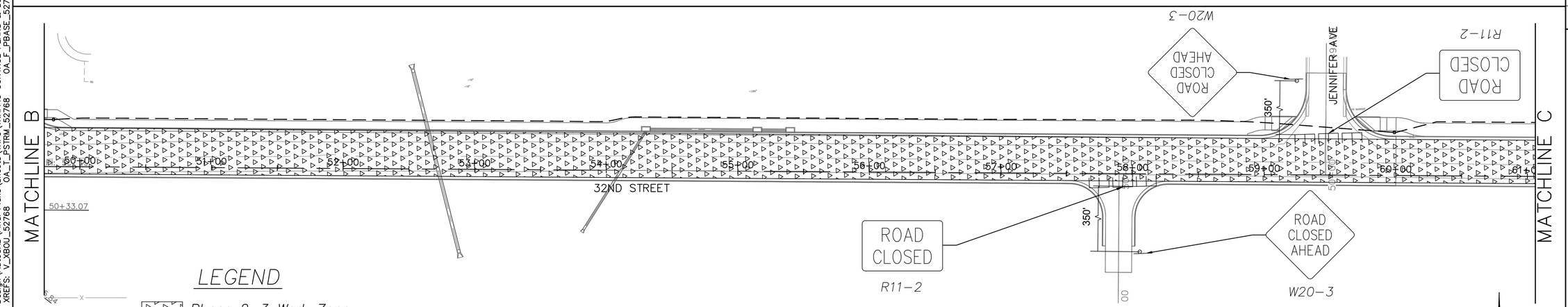

LEGEND

- Phase 2–3 Work Zone
- Type III Barricade
- Gravel Shoe–Fly
- Sign Symbol
- Channelizing Device
- Direction of Traffic

PHASE 2 – STA. 28+05.47 TO STA. 79+80

PHASE 2–1 – STA. 78+00 TO STA. 79+80

PHASE 2–2 – STA. 78+00 TO STA. 79+80

PHASE 2–3 – STA. 32+35 TO STA. 78+00

PHASE 2–4 – STA. 28+05.47 TO STA. 32+35

PHASE 2–5 – S. COUNTY CLUB DR STA. 48+10 TO 32ND STREET

PHASE 2–3 NOTES:

1. STAKE PHASE 2–3 CONSTRUCTION LIMITS/TCE LIMITS. INSTALL PHASE 2–3 PRE–CONSTRUCTION EROSION CONTROL. COMPLETE PHASE 2–3 DEMOLITION. STRIP AND STOCKPILE TOPSOIL AND COMPLETE DIRTWORK. CONSTRUCT STORM SEWER AND RETAINING WALLS FROM STA. 32+25 TO 78+00. CONSTRUCT AGGREGATE BASE, SIDEWALKS, DRIVEWAYS, SIDE STREETS AT APPLEGATE LANE, WOODLAND DRIVE, ASHWOOD LANE, ASHWOOD AVENUE, ARCADIA LANE, JENNIFER AVENUE, AND OTHER INCIDENTAL WORK FROM STA. 32+25 TO 78+00.

N

0' 20' 40' 80'
SCALE IN FEET

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JEREMY SCOTT STREET
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PROFESSIONAL ENGINEER
4/23/2021

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

TRAFFIC CONTROL PLANS
PHASE 2-3A

32ND STREET WIDENING
CITY OF JOPLIN

2021

JOPLIN, MISSOURI

drawn by: JRC
checked by: JSS
approved by: JSS
QA/QC by: JSS
project no.: 015-2768
drawing no.: F TRFC CNTRL PLN 52768
date: 04/23/2021

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27 of 59

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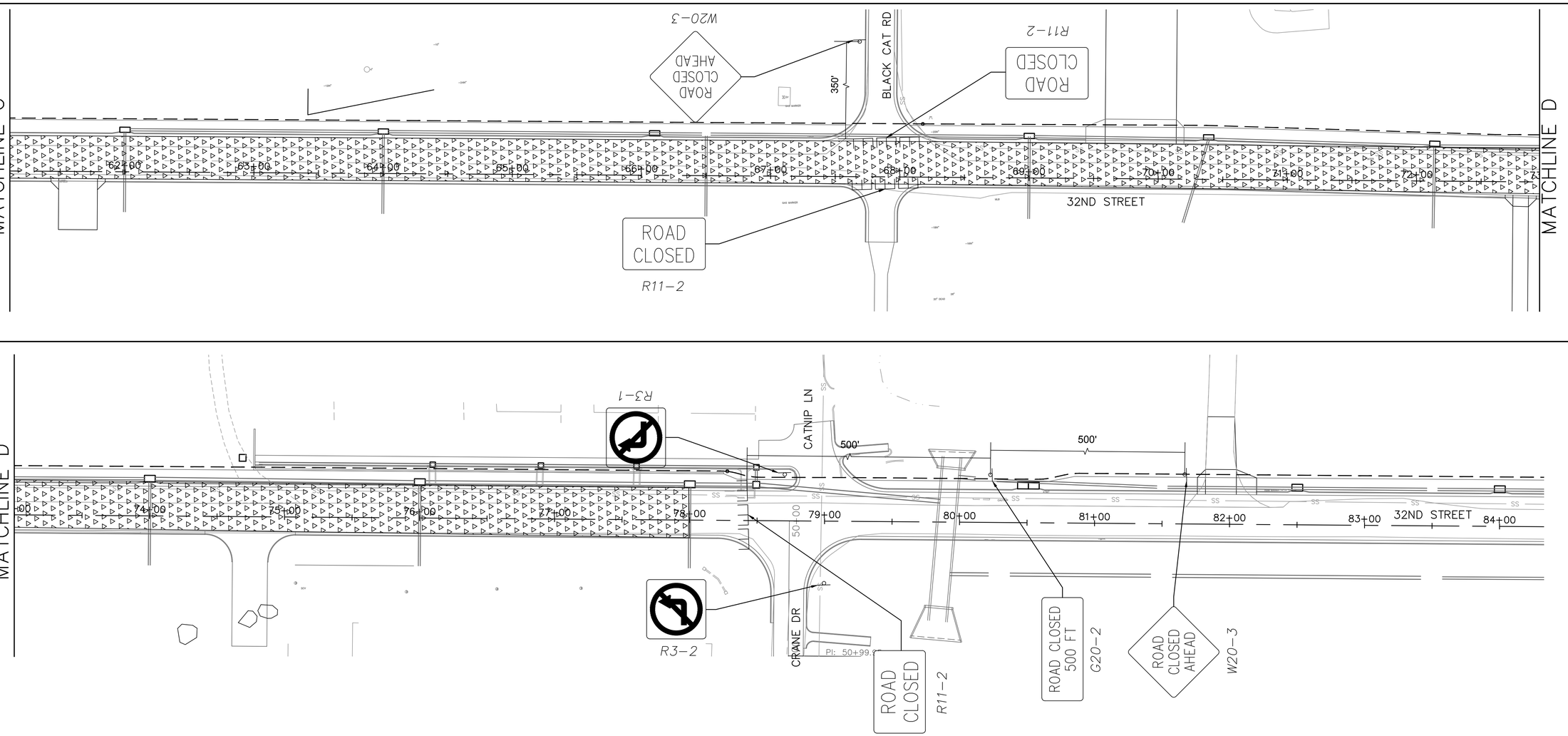

LEGEND

- Phase 2–3 Work Zone
- Type III Barricade
- Gravel Shoe–Fly
- Sign Symbol
- Channelizing Device
- Direction of Traffic

PHASE 2 – STA. 28+05.47 TO STA. 79+80

PHASE 2–1 – STA. 78+00 TO STA. 79+80

PHASE 2–2 – STA. 78+00 TO STA. 79+80

PHASE 2–3 – STA. 32+35 TO STA. 78+00

PHASE 2–4 – STA. 28+05.47 TO STA. 32+35

PHASE 2–5 – S. COUNTY CLUB DR STA. 48+10 TO 32ND STREET

PHASE 2–3 NOTES:

1. STAKE PHASE 2–3 CONSTRUCTION LIMITS/TCE LIMITS. INSTALL PHASE 2–3 PRE–CONSTRUCTION EROSION CONTROL. COMPLETE PHASE 2–3 DEMOLITION. STRIP AND STOCKPILE TOPSOIL AND COMPLETE DIRTWORK. CONSTRUCT STORM SEWER AND RETAINING WALLS FROM STA. 32+25 TO 78+00. CONSTRUCT AGGREGATE BASE, SIDEWALKS, DRIVEWAYS, SIDE STREETS AT APPLEGATE LANE, WOODLAND DRIVE, ASHWOOD LANE, ASHWOOD AVENUE, ARCADIA LANE, JENNIFER AVENUE, AND OTHER INCIDENTAL WORK FROM STA. 32+25 TO 78+00.

N

0' 20' 40' 80'
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JEREMY SCOTT STREET
NUMBER PE-2017023856
PROFESSIONAL ENGINEER
4/23/2021

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

TRAFFIC CONTROL PLANS
PHASE 2-3B

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by: JRC
checked by: JSS
approved by: JSS
QA/QC by: JSS
project no.: 015-2768
drawing no.: F TRFC CNTRL PLN 52768
date: 04/23/2021

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28 of 59

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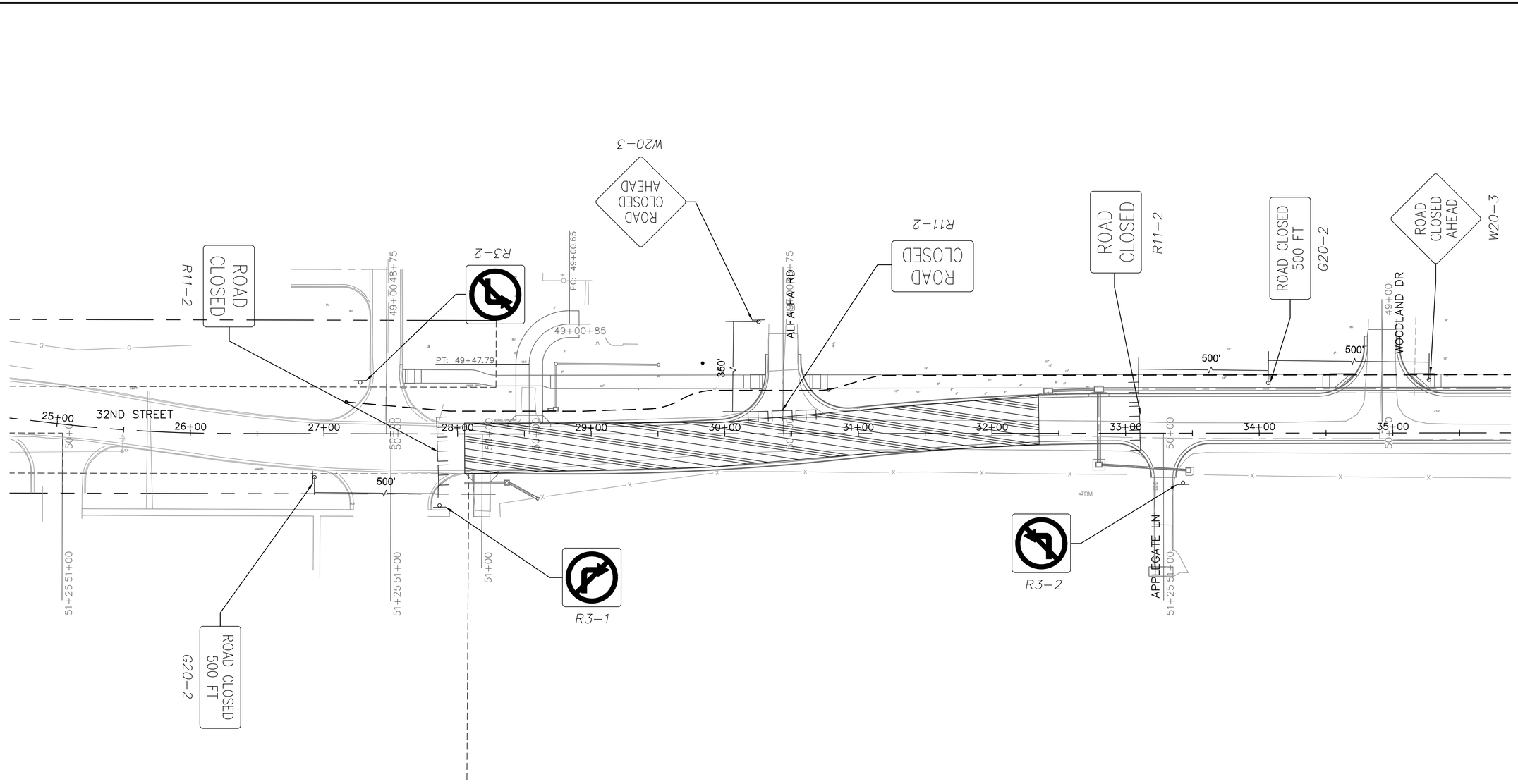

LEGEND

- Phase 2–4 Work Zone
- Type III Barricade
- Gravel Shoe–Fly
- Sign Symbol
- Channelizing Device
- Direction of Traffic

PHASE 2 – STA. 28+05.47 TO STA. 79+80

PHASE 2–1 – STA. 78+00 TO STA. 79+80

PHASE 2–2 – STA. 78+00 TO STA. 79+80

PHASE 2–3 – STA. 32+35 TO STA. 78+00

PHASE 2–4 – STA. 28+05.47 TO STA. 32+35

PHASE 2–5 – S. COUNTY CLUB DR STA. 48+10 TO 32ND STREET

PHASE 2–4 NOTES:

1. STAKE PHASE 2–4 CONSTRUCTION LIMITS/TCE LIMITS. INSTALL PHASE 2–4 PRE–CONSTRUCTION EROSION CONTROL. COMPLETE DEMOLITION. STRIP AND STOCKPILE TOPSOIL AND COMPLETE DIRTWORK. CONSTRUCT STORM SEWER FROM STA. 28+05.47 TO 32+35. CONSTRUCT AGGREGATE BASE, CURB AND GUTTER, ASPHALT BASE, SIDEWALKS, DRIVEWAYS, SIDE STREET AT ALFALFA LANE, AND OTHER INCIDENTAL WORK FROM STA. 28+05.47 TO 32+35.

N

0' 20' 40' 80'
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TRAFFIC CONTROL PLANS
PHASE 2-4

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by: JRC
checked by: JSS
approved by: JSS
QA/QC by: JSS
project no.: 015-2768
drawing no.: F TRFC CNTRL PLN 52768
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29 of 59

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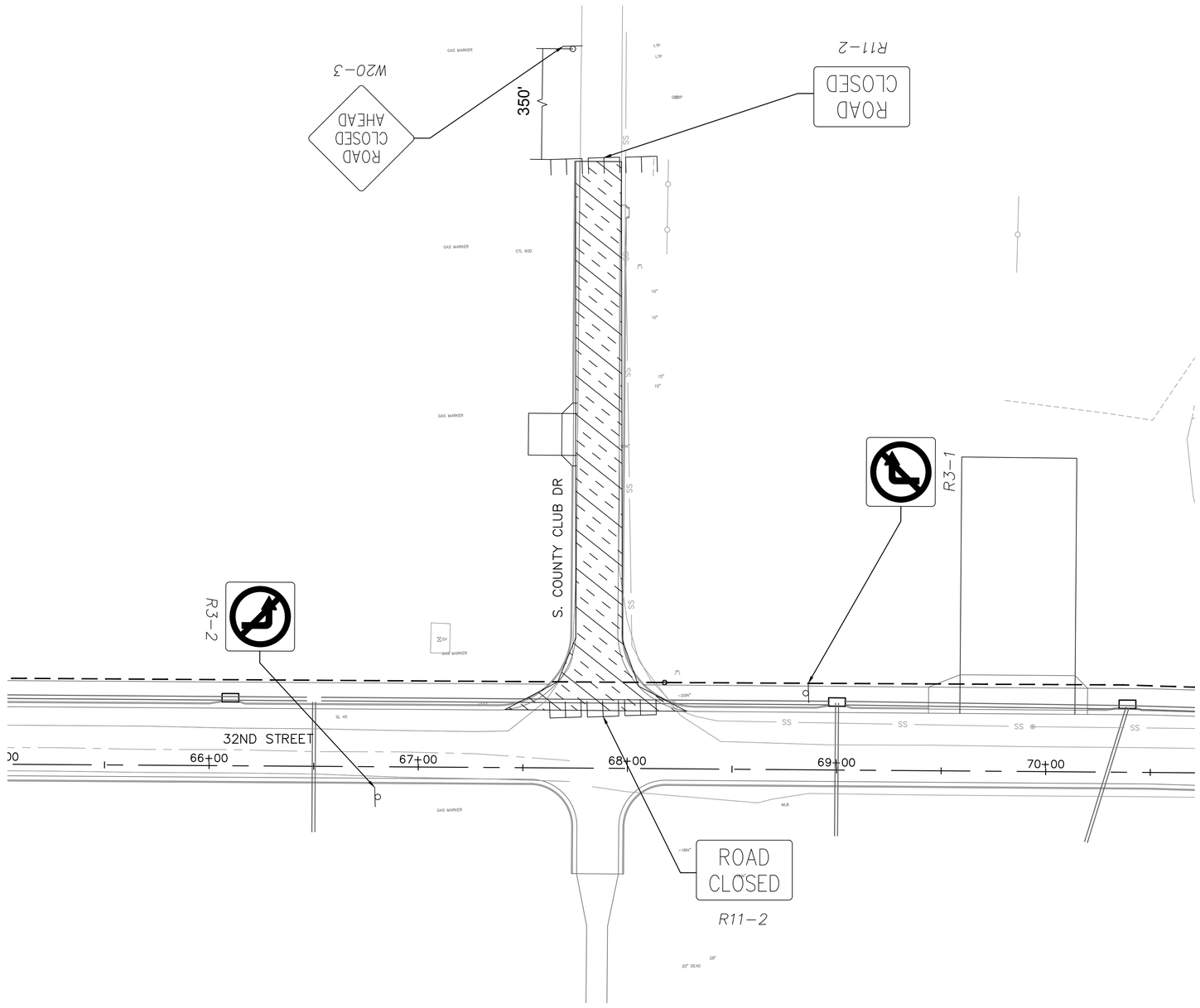

LEGEND

- Phase 2–5 Work Zone
- Type III Barricade
- Gravel Shoe–Fly
- Sign Symbol
- Channelizing Device
- Direction of Traffic

PHASE 2 – STA. 28+05.47 TO STA. 79+80

PHASE 2–1 – STA. 78+00 TO STA. 79+80

PHASE 2–2 – STA. 78+00 TO STA. 79+80

PHASE 2–3 – STA. 32+35 TO STA. 78+00

PHASE 2–4 – STA. 28+05.47 TO STA. 32+35

PHASE 2–5 – S. COUNTY CLUB DR STA. 48+10 TO 32ND STREET

PHASE 2–5 NOTES:

1. STAKE PHASE 2–5 CONSTRUCTION LIMITS/TCE LIMITS. INSTALL PHASE 2–5 PRE–CONSTRUCTION EROSION CONTROL. COMPLETE DEMOLITION, STRIP AND STOCKPILE TOPSOIL AND COMPLETE DIRTWORK. CONSTRUCT AGGREGATE BASE, CURB AND GUTTER, ASPHALT BASE, DRIVE B10, AND OTHER INCIDENTAL WORK FROM S. COUNTRY CLUB DR. STA. 48+10 TO 32ND STREET.

PHASE 2–6 NOTES: (NOT DEPICTED)

1. CONSTRUCT SURFACE ASPHALT, PERMANENT STRIPING, AND PERMANENT SIGNING ON 32ND STREET AND SIDE STREETS FROM STA. 28+05.47 TO 79+80.
2. COMPLETE ALL REMAINING WORK WITHIN PHASE 2.

N

0' 15' 30' 60'
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JEREMY SCOTT STREET
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PROFESSIONAL ENGINEER
4/23/2021

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TRAFFIC CONTROL PLANS
PHASE 2-5

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by: JRC
checked by: JSS
approved by: JSS
QA/QC by: JSS
project no.: 015-2768
drawing no.: F TRFC CNTRL PLN 52768
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30 of 59

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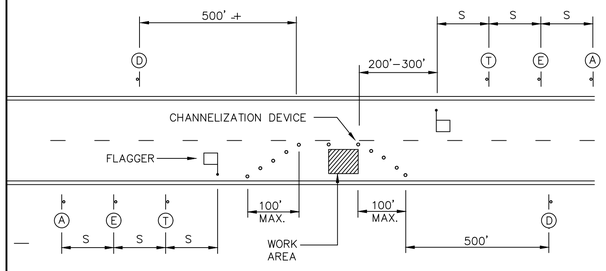
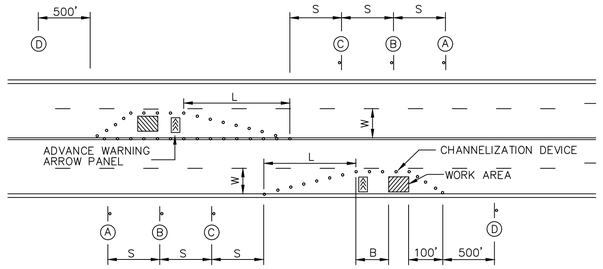
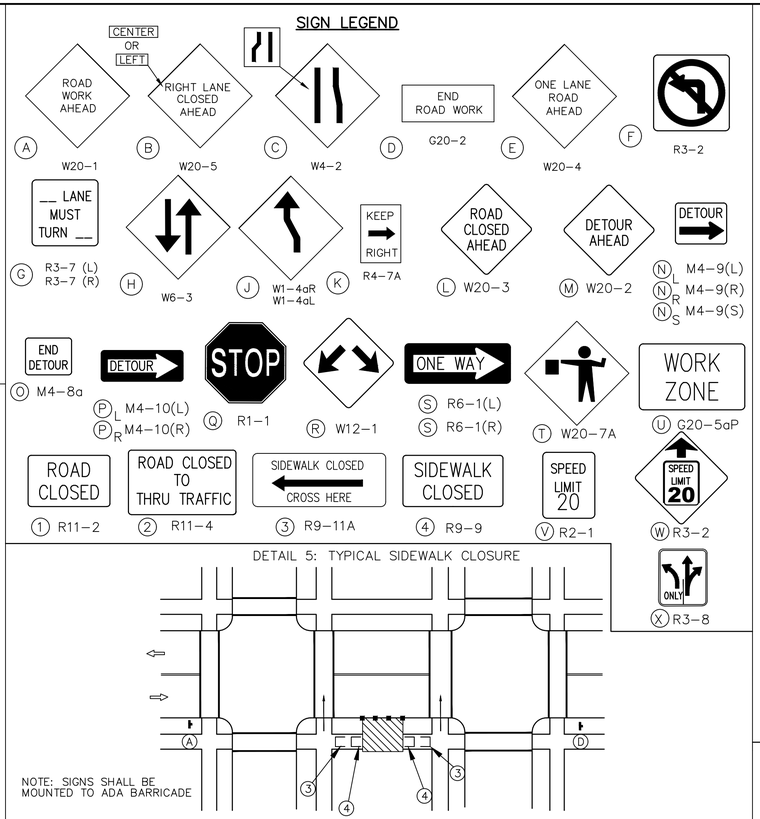


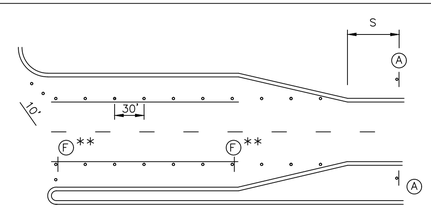
DETAIL 1: TYPICAL CLOSURE – TWO–LANE STREET



DETAIL 2: TYPICAL LANE CLOSURE – FOUR–LANE STREET



DETAIL 5: TYPICAL SIDEWALK CLOSURE



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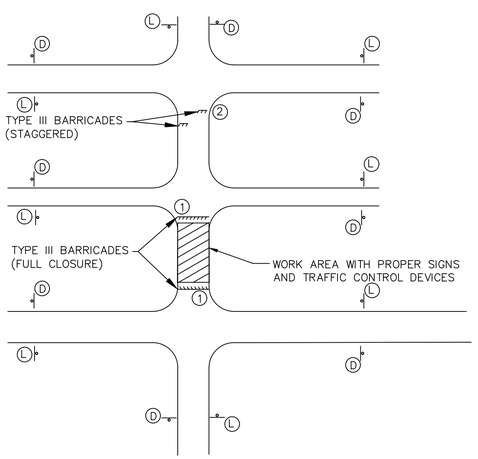
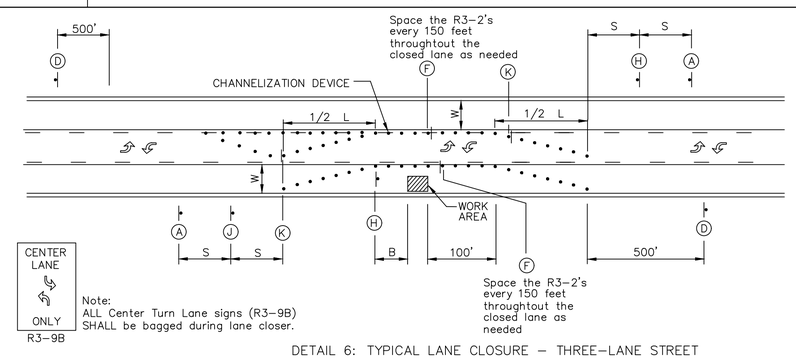
CITY TRAFFIC ENGINEER

DETAIL 3: TYPICAL RIGHT–TURN LANE AND LEFT–TURN LANE CLOSURES



DETAIL 4: TYPICAL SIDE ROAD SIGNING FOR ROAD CLOSURE



Note:
ALL Center Turn Lane signs (R3–9B)
SHALL be bagged during lane closer.

DETAIL 6: TYPICAL LANE CLOSURE – THREE–LANE STREET

Guidelines for length of longitudinal buffer space (B)	
Speed* (mph)	Length (Feet)
20	35
25	55
30	85
35	120
40	170
45	220
50	300

*Posted speed

SIGN SPACING(S)	
Speed Limit M.P.H.	Spacing (Feet)
≤ 30	100
35 – 45	350
≥ 55	500

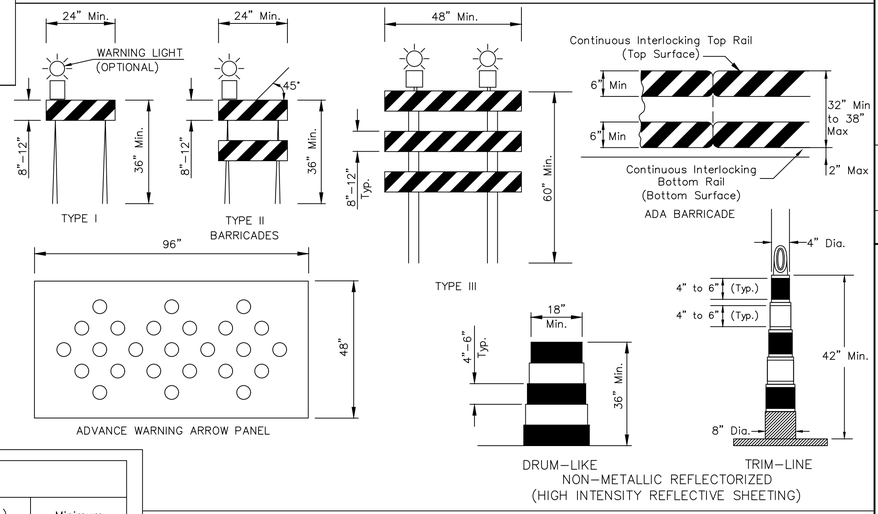
MAXIMUM CHANNELIZATION SPACING IN FEET *		
Speed Limit M.P.H.	Along Taper	After Taper
20	20	40
25	25	50
30	30	60
35	35	70
40	40	80
45	45	90
50	50	100
55	55	100

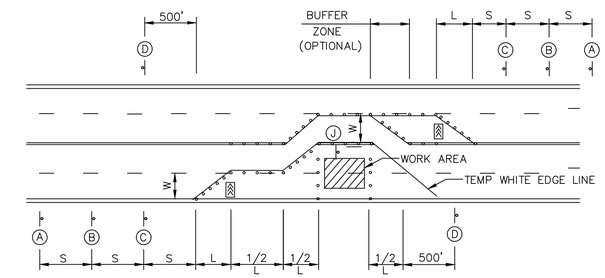
TAPER DETAIL				
Speed Limit M.P.H.	Minimum Taper Length (L) Lane Width (W) 10	11	12	Minimum Number of Channelizing Devices for Taper
20	70	75	80	5
25	105	115	125	6
30	150	165	180	7
35	205	225	245	8
40	270	295	320	9
45	450	495	540	13
50	500	550	600	13
55	550	605	660	13

* The maximum distance in feet between devices in a taper should not exceed 1.0 times the speed limit in MPH.

GENERAL NOTES:

1. All signs, barricades, drums, markings and other traffic control devices shall conform to the Manual on Uniform Traffic Control Devices (M.U.T.C.D.), most current edition.
2. All traffic control devices shall be standard in size, shape, color and message, in good condition, and reflectorized. All signs and barricades in place at night shall be reflectorized with high intensity sheeting. All signs shall be securely mounted with height and lateral location as described in the M.U.T.C.D.
3. Warning lights should be used on all channelization devices and warning signs per M.U.T.C.D. Type A Low–Intensity Flashing Warning lights should be mounted on warning signs as well as barricades where used singley to warn users of potentially hazardous areas during nighttime hours. Type B High–Intensity Flashing warning lights should be used during day and nighttime operations to increase awareness of potentially hazardous areas. Type C Steady–Burn lights should be mounted on barricades where used in series to delineate the edge of the travel way.
4. Advance Warning Arrow Panels shall be used for all lane closures on multi–lane streets but should not be used in lieu of proper traffic control signs, barricades and channelization devices.
5. 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 Engineer in charge of construction. Where flaggers are used, advance signing shall be erected as shown above or as specified in the M.U.T.C.D. Flaggers shall meet the requirements in the M.U.T.C.D. in regard to character, training, attire and behavior.
6. Channelization devices used in the street shall be either drums, cones or Trimline channelizers.
7. Traffic control devices not in use or not applicable shall be either covered or removed from the work area.
8. The Contractor shall place as many barricades as needed to effectively shield pedestrians and traffic from exposed objects, excavations and construction activities. ADA Pedestrian Barricades shall be installed around all excavations left open during non–construction times or as directed by the Engineer in charge of construction.
9. Access shall be maintained to all driveways and side streets unless noted otherwise on the plans.
10. 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 Engineer in charge of construction.
11. Dirt, mud and other construction debris on streets and sidewalks shall be removed immediately.
12. The Contractor shall not perform any work that will restrict traffic in any way between the hours of 7:00 a.m. and 8:30 a.m. or 4:30 p.m. and 6:00 p.m. unless prior approval has been given.
13. The Contractor shall be responsible for maintaining all traffic control devices on an around–the–clock basis, whether or not work is actively being pursued and any deficiencies noted shall be corrected immediately.
14. The traffic control requirements shown on these plans are minimum requirements only and do not attempt to address 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 motorist, pedestrians, and workers at all times. Any additional quantities of traffic control devices necessary to complete the contract or as ordered by the Engineer shall be considered subsidiary to the contract bid price.
15. Construction vehicles parked along streets and construction signs shall not restrict sight distance for vehicles exiting at streets or any drives.
16. 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 Engineer or representative, the City/Controlling Jurisdiction may take one or more of the following actions:
    - A) Employ another agency to correct deficiencies in signing or warning devices and deduct the cost from the contractor's pay estimate
    - B) Suspend all pay Estimates until deficiencies are corrected.
    - C) Stop the work until deficiencies are corrected.
    - D) Place the contractor in default.
17. The Contractor shall keep roadway closures due to construction activities to a minimum and provide advanced notice to affected users.
18. The Contractor shall notify enforcement and emergency agencies before the start of construction to request their cooperation and to provide coordination of services when emergencies arise during the construction at the project site. When the contractor completes this notification with enforcement and emergency agencies, a report shall be furnished to the engineer on the status of incident management.
19. The Contractor may, if need arises or at the request of the Engineer, place reduced speed limit signing and work zone speed limit signing in advance of all active work zone areas. Work zone speed limit reduction shall not be greater than 10 mph throughout construction areas without advanced signing in place. Contractor shall cover or replace all speed limit signs in conflict with the work zone speed limit throughout the construction area.





DETAIL 7: TYPICAL LANE CLOSURE – FOUR–LANE STREET

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STATE OF MISSOURI
JEREMY SCOTT STREET
NUMBER PE-2017023856
PROFESSIONAL ENGINEER
4/23/2021

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

TRAFFIC CONTROL DETAILS
32ND STREET WIDENING
CITY OF JOPLIN
JOPLIN, MISSOURI
2021

drawn by: JRC
checked by: JSS
approved by: JSS
QA/QC by: JSS
project no.: 015-2768
drawing no.: F TCDETAILS
date: 04/23/2021

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31 of 59

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DATE: Apr 22, 2021 8:28am XREFS: E_TBLK_52768

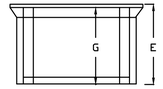
GENERAL NOTES

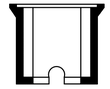
1. All work shall conform to The City of Joplin Standard Specifications as applicable.
2. All traffic control in conjunction with the fiber optic construction shall be in conformance with the Manual on Uniform Traffic Control Devices and the Overland Park Traffic Control Handbook for Street Maintenance and Construction Operations, latest revisions.
3. The Contractor shall stake the locations for all service boxes to be installed. The stations and offsets provided are to the center of the fiber optic equipment. The contractor shall provide elevations. If obstructions are encountered during installation, the contractor will re-stake those locations affected by the obstruction. The inspector shall inspect the staking prior to any excavation/construction.
4. The locations of existing underground utilities, if shown, are an approximate only and have not been independently verified. The Contractor shall be responsible for contacting all utility companies for locations of all underground lines prior to excavation and be fully responsible for any and all damages, which might occur as a result of the Contractor's failure to exactly locate and preserve any and all underground utilities.
6. Rock and shale may be encountered and thus the bid items shall reflect the extra work necessary to accomplish the installation. No additional payments ("extras") will be made for excavation of rock or shale and suitable backfill materials. All conduit trenches within rock/shale shall be backfilled with suitable material and properly compacted in accordance with the specifications.
7. Conduit shall be bored (by approved methods) in those areas outside of the street improvement limits. Multiple conduits cannot be pulled back through the same bore unless otherwise approved.
8. Continuous Conduit (Orange, sized per plan) shall be installed between all service boxes prior to paving within the limits of the street improvements. Conduit splices between appurtenances shall not be allowed unless fusion couplings or other fusion methods are used.
9. The conduit placement shall be coordinated with the paving operation, when applicable. Conduit installation and conduit connections shall be inspected and approved by the City inspector. The contractor shall pay any and all extra costs of installing conduits by alternate construction methods after pavement has been placed or for any damages to pavement that may occur during conduit installation. All trenches for conduit under proposed paved surfaces (drives, streets and sidewalks) shall be backfilled with flowable fill unless otherwise directed, to below the proposed pavement surface.
10. Where applicable, the conduit shall be installed under underdrain pipe crossings and under the underdrain blankets. Refer to the street plans for underdrain pipe and blanket locations and appropriate details, if applicable.
11. All unpaved areas disturbed or damaged during construction shall be restored to the original condition. Unless otherwise directed, grassy areas shall be re-sodded.
12. Contractor shall use a polymer lubricating agent to facilitate conduit bores under paved streets. Failure to do so will result in a denial to retrieve bore head, in the case of loss, under any paved street by excavation methods.
13. A 1c#10 AWG THHN/THWN stranded copper locating cable (red) shall be installed in all conduits.
14. The ends of all conduit in service boxes shall be plugged with a high density spray foam.

SUMMARY OF FIBER OPTIC QUANTITIES*

ITEM	UNIT	QUANTITY
3" FIBER OPTIC CABLE CONDUIT WITH PULL STRING	LF	18,680
TYPE II FIBER OPTIC PULL BOX	EA	14
1-1c #10 TRACER WIRE	LF	9,440

* THESE QUANTITIES WERE PREPARED FOR THE CONTRACTORS CONVENIENCE AND ARE NOT INTENDED FOR USE IN PREPARATION OF CONTRACT DOCUMENTS. QUANTITIES INTENDED FOR, BUT NOT LIMITED TO, THE PREPARATION OF PROPOSALS AND BID DOCUMENTS SHALL BE INDEPENDENTLY EVALUATED BY THE ESTIMATING PARTY BASED ON THE CONTENTS OF THESE PLANS.

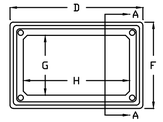




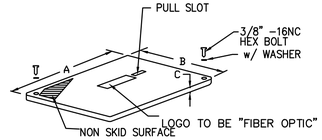
GENERAL NOTE: JUNCTION BOX SHALL MEET ANSI/SCTE77-2002, TIER 8

MATERIAL TO BE USED: PRECAST POLYMER CONCRETE

SECTION A-A



BOX

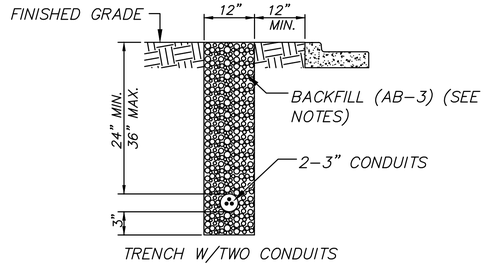


COVER

TYPE	DIMENSIONS (IN.)							
	A	B	C	D	E	F	G	H
II FIBER*	35 5/8	24	3	36	36	24	22 1/4	33 7/8

*BOXES MAY BE STACKABLE TO ACHIEVE DIMENSIONS SHOWN

PULL BOX



TRENCH W/TWO CONDUITS

TRENCHING NOTES:
1. ALL TRENCHES FOR CONDUIT UNDER ROADWAYS SHALL BE BACKFILLED WITH FLOWABLE FILL.
2. CONDUITS SHALL BE PITCHED TO DRAIN.

TRENCHING DETAILS

LEGEND

FO — FIBER OPTIC TYPE II PULL BOX

— — — FIBER OPTIC CONDUIT(S)

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STATE OF MISSOURI
JEREMY SCOTT STREET
NUMBER PE-2017023856
PROFESSIONAL ENGINEER
4/23/2021

REVISIONS

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

FIBER OPTIC GENERAL NOTES AND DETAILS

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by: JRC
checked by: JSS
approved by: JSS
QA/QC by: JSS
project no.: 015-2768
drawing no.: F FIBER 52768
date: 04/23/2021

SHEET
32 of 59

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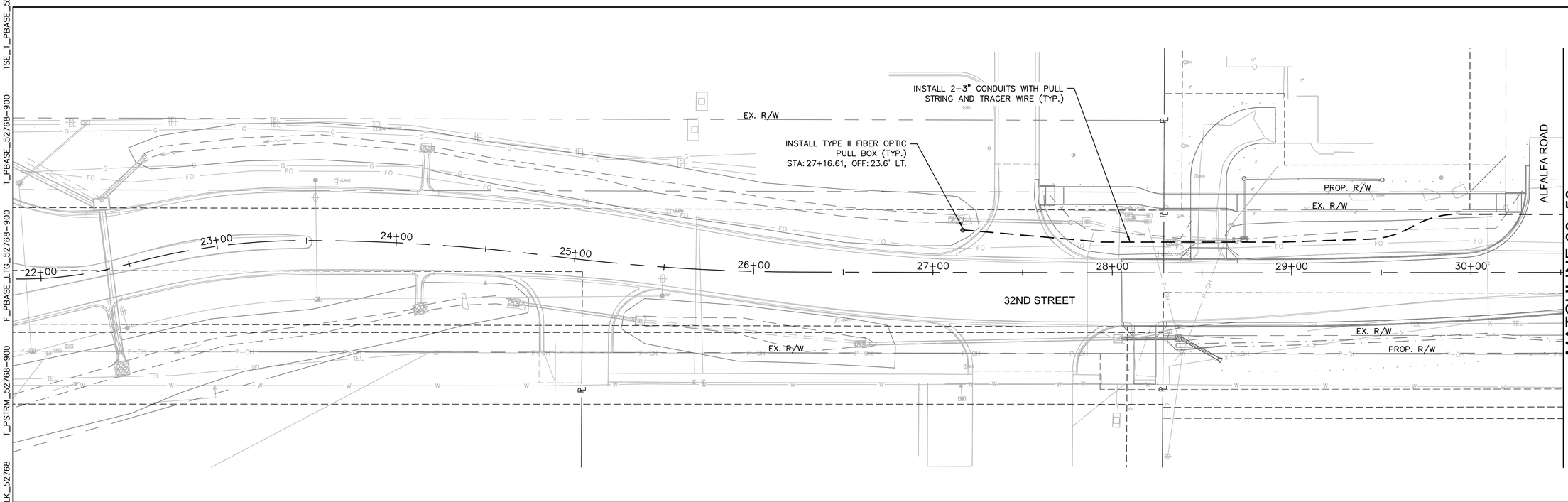

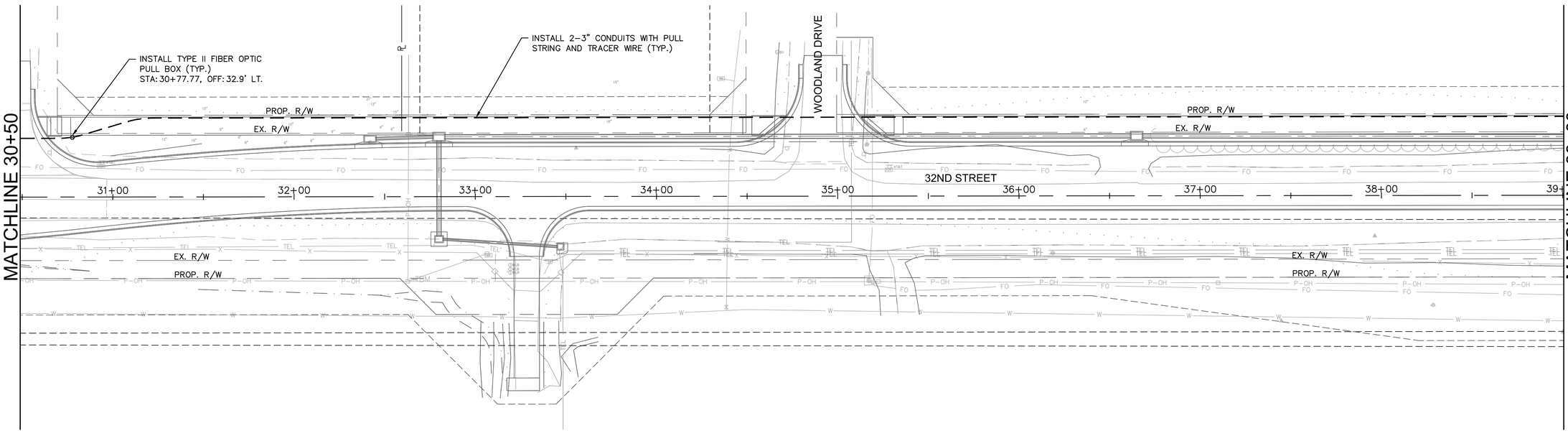

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STATE OF MISSOURI
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4/23/2021

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JOPLIN, MISSOURI

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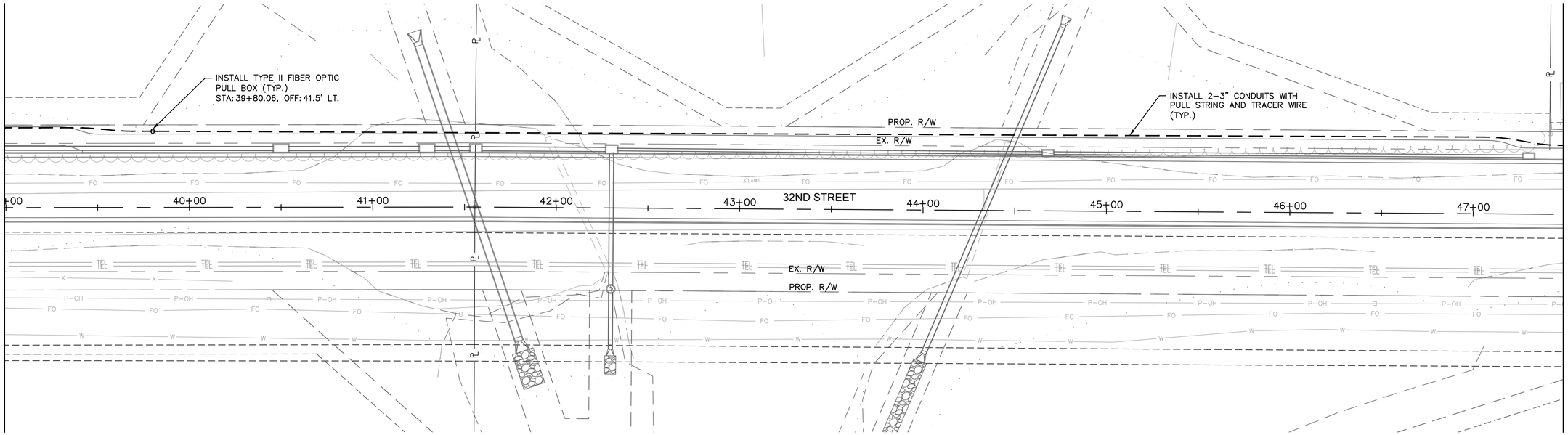

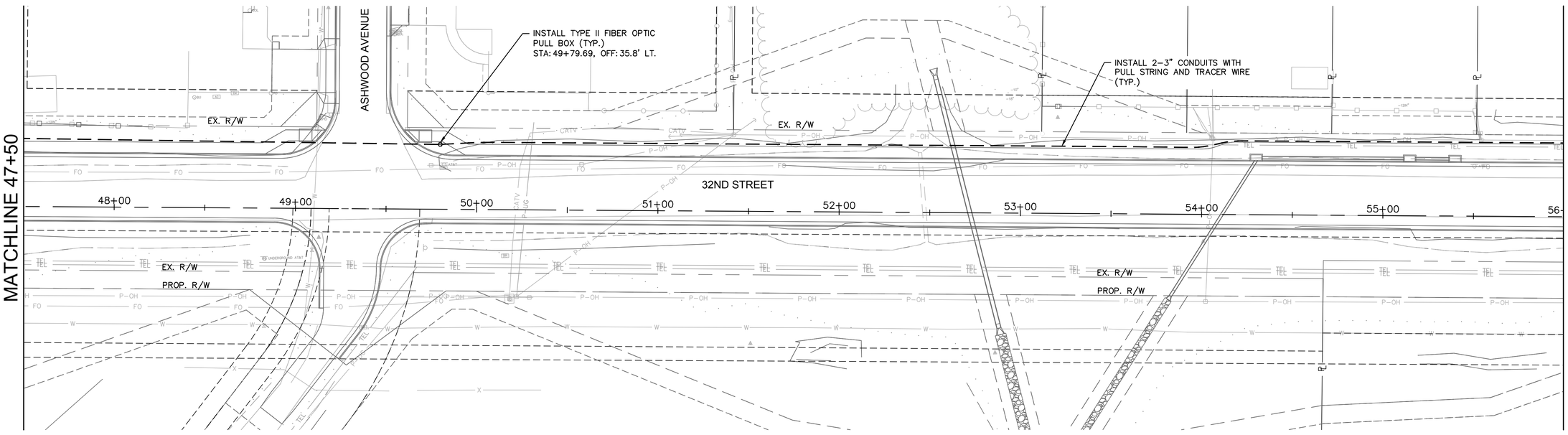

0' 15' 30' 60'
SCALE IN FEET

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STATE OF MISSOURI
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34 of 59

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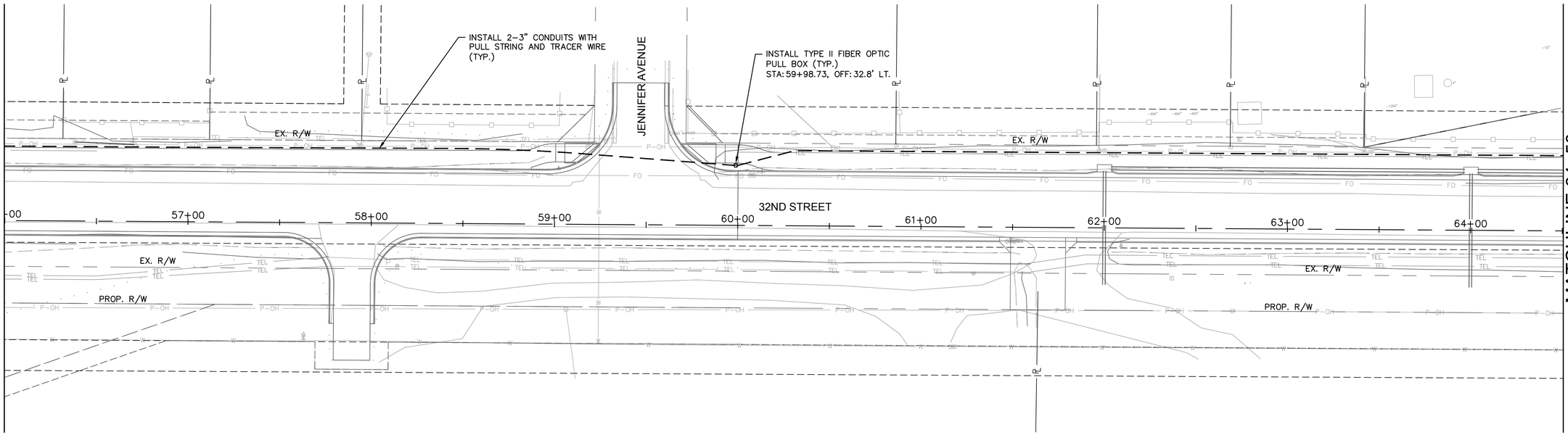

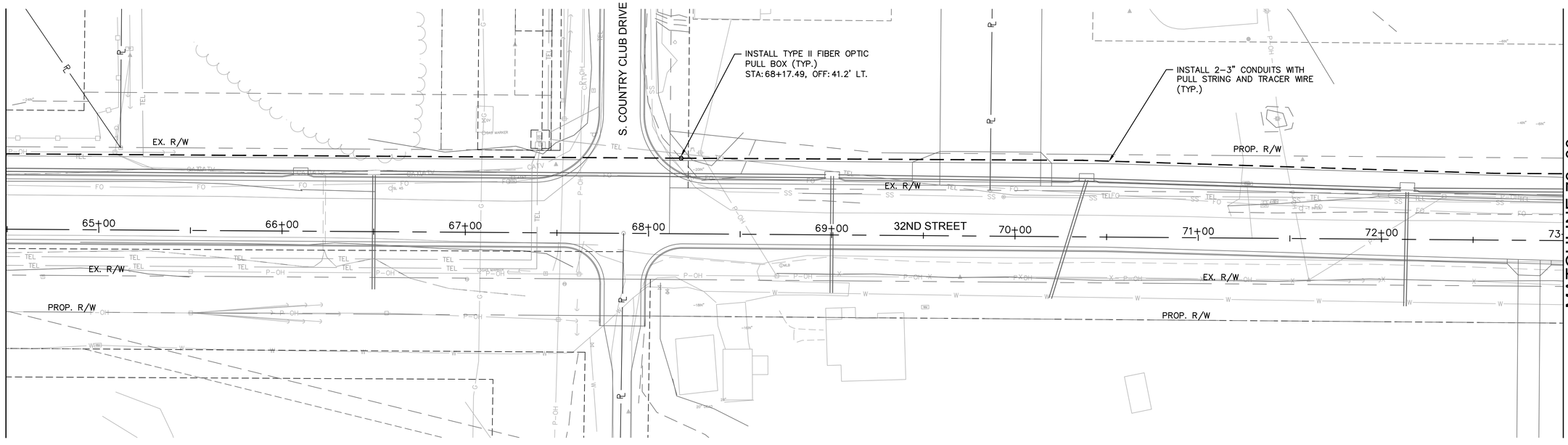

N

0' 15' 30' 60'
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35 of 59

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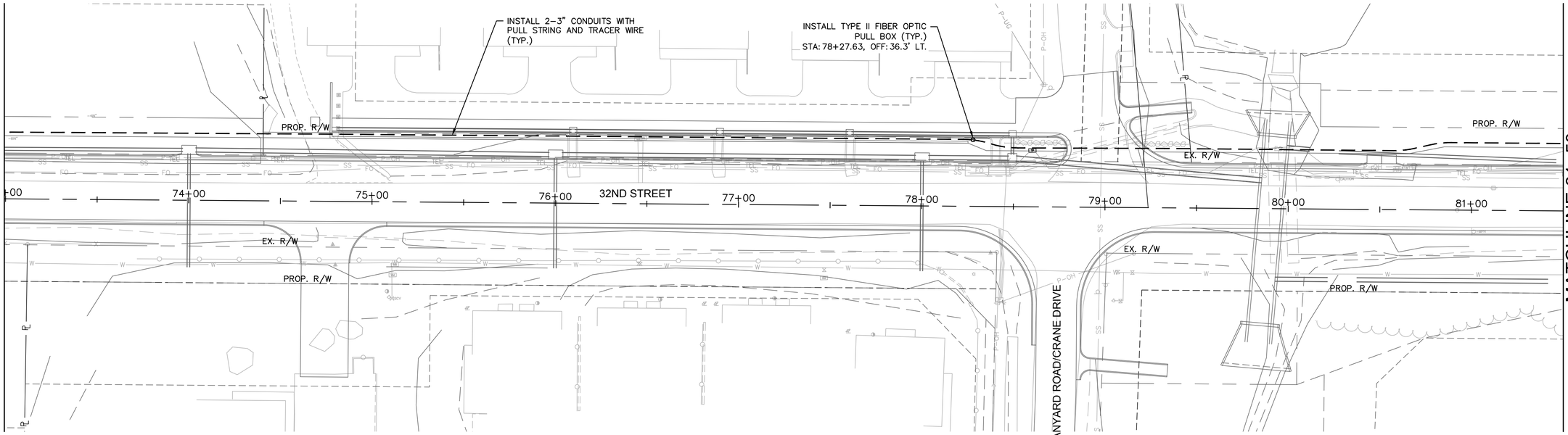

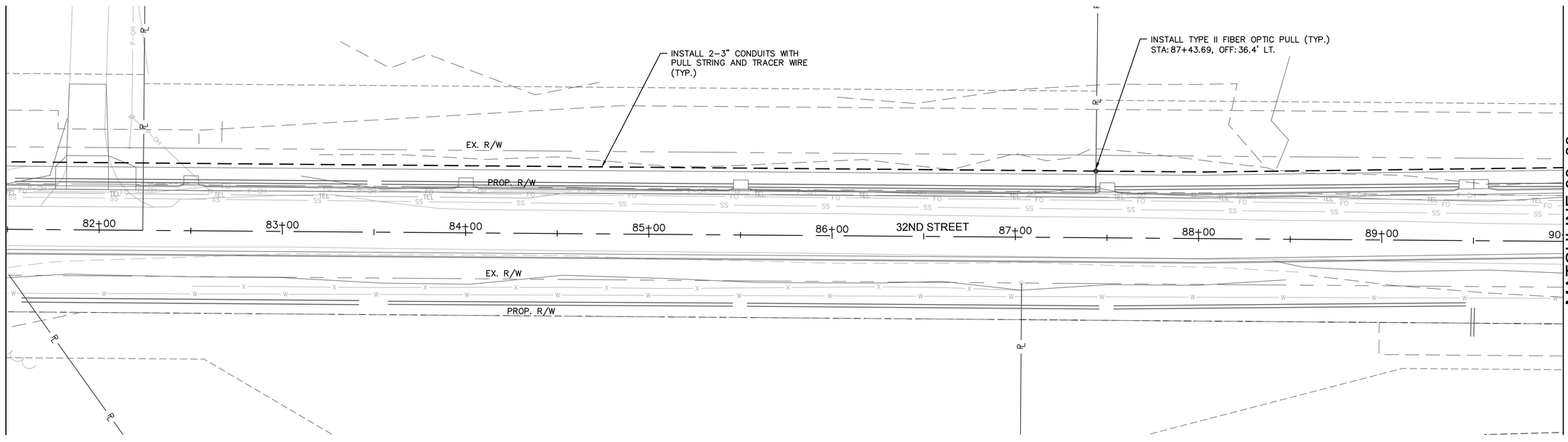

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36 of 59

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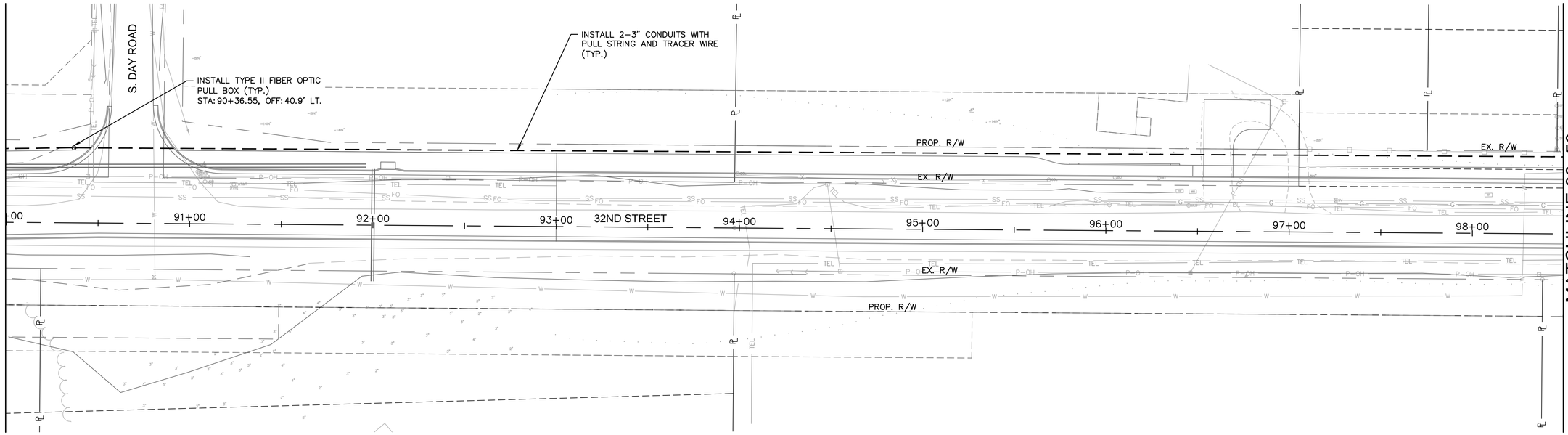

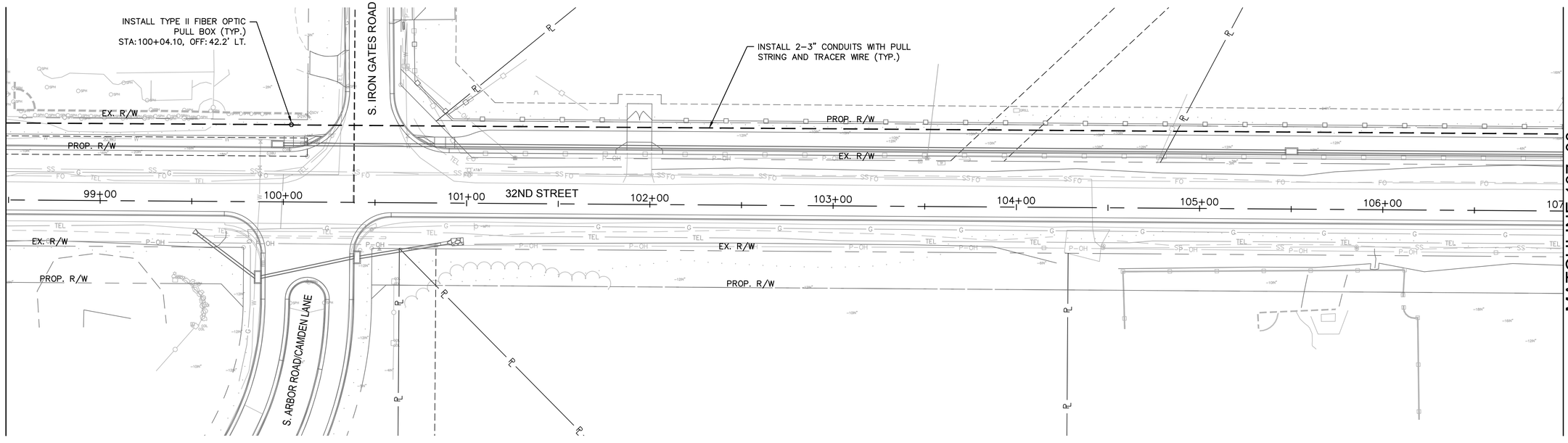

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CITY OF JOPLIN

JOPLIN, MISSOURI

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SHEET
37 of 59

N

0' 15' 30' 60'
SCALE IN FEET

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MATCHLINE 107+00

MATCHLINE 115+50

INSTALL 2-3" CONDUITS WITH PULL STRING AND TRACER WIRE (TYP.)

INSTALL TYPE II FIBER OPTIC PULL BOX (TYP.)
STA: 109+51.63, OFF: 41.5' LT.

PROP. R/W

EX. R/W

+00 108+00 109+00 110+00 32ND STREET 111+00 112+00 113+00 114+00 115+00

WESTBERRY LANE

EX. R/W

PROP. R/W

MATCHLINE 1115+50

S. SUNSET EAST DRIVE

INSTALL TYPE II FIBER OPTIC PULL BOX (TYP.)
STA: 119+24.66, OFF: 55.7' LT.

INSTALL 2-3" CONDUITS WITH PULL STRING AND TRACER WIRE (TYP.)

EX. R/W EX. R/W

116+00 117+00 118+00 32ND STREET 119+00 120+00 121+00

INSTALL 1-3" CONDUIT WITH PULL STRING AND TRACER WIRE (TYP.)

EX. R/W

PROP. R/W EX. R/W

SCHIFFERDECKER AVENUE

INSTALL TYPE II FIBER OPTIC PULL BOX (TYP.)
STA: 119+33.39, OFF: 53.3' RT.

INSTALL TYPE II FIBER OPTIC PULL BOX (TYP.)
STA: 120+67.47, OFF: 82.1' RT.

N

0' 15' 30' 60'
SCALE IN FEET

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SHEET
38 of 59

MH-2
48" MH
N: 324622.277
E: 2768770.264

END 24" CASING
0+37.08

ENCASE 12" RESTRAINED JOINT DUCTILE IRON PIPE WITH 24" STEEL CASING. SEE DETAIL SHEET 40 FOR ENCASEMENT & CROSSING SPEC AND DETAIL

24" STEEL SCH 40 PIPE CASING. WALL THICKNESS MIN. 0.688 INCHES. SEE DETAIL SHEET 40.

Country Club Drive

48" RCP
FL 985.98

12" RESTRAINED JOINT DIP

24" RCP
FL 985.46

BEGIN 24" CASING
2+07.08

TELECOM LINE FIELD VERIFY DEPTH
STA: 1+36.81

12" STUB PVC PIPE SOUTH

MH-3
48" MH
N: 324611.859
E: 2769033.938

PI: 2+93.60

SILT SOCK

MH-4
48" MH
N: 324564.373
E: 2769328.138

PI: 5+91.61

20.00'

PROPOSED UTILITY EASEMENT A

PROPOSED UTILITY EASEMENT B

SILT SOCK

MH-5
48" MH
N: 324551.751
E: 2769689.918

PI: 9+53.61

SILT SOCK

PROPOSED SEWER TAP

73.0'

48" CMP
FL 966.47

48" CMP
FL 966.54

SILT SOCK

48" CMP
FL 966.16

48" CMP
FL 966.34

MH-6
48" MH
N: 324446.298
E: 2769974.344

MH-1
48" MH
N: 324622.858
E: 2768755.554

HIGH PRESSURE GAS LINE
STA: 0+48.12

TRENCHING AREA WITHIN EXISTING AGGREGATE DRIVEWAY MUST BE BACKFILLED WITH ¾" CLEAN STONE

PROPOSED SEWER TAP

PROPOSED UTILITY EASEMENT B

PROPOSED SEWER TAP

PROPOSED SEWER TAP

PROPOSED SEWER TAP

SEWER EASEMENT
B 2080, P 39

EXISTING UTILITY EASEMENT

NOTE:

1. 24" STEEL SCH 40 PIPE CASING. MINIMUM WALL THICKNESS 0.688 INCHES. 3' MAXIMUM SPACER SPACING. RESTRAINED JOINT, OR EQUAL. SEE BORING/ENCASEMENT DETAIL AND ENCASEMENT MATERIAL SPEC ON DETAILS SHEET 40.
2. THE CITY OF JOPLIN WILL SALVAGE ALL LIFT STATION EQUIPMENT ONCE THE LIFT STATION HAS BEEN DECOMMISSIONED. THE CONTRACTOR SHALL CALL CHAD COPHER WITH THE CITY OF JOPLIN TO COORDINATE THIS PICKUP. CHAD COPHER CAN BE REACHED AT (417)317-1270.

SCALE IN FEET
0' 25' 50' 100'

⚠ SANITARY SEWER EXTENSION MUST BE COMPLETED PRIOR TO ANY CONSTRUCTION ACTIVITIES THAT WOULD IMPACT THE EXISTING PRESSURE SEWER BETWEEN COUNTRY CLUB DRIVE AND 500' EAST OF IRON GATES ROAD.

⚠ HIGH PRESSURE GAS LINE
TOP OF PIPE ELEV. 987.24
STA: 0+48.54

32ND STREET SANITARY LINE EXTENSION

P-1
12.77 LF 12" PVC @ 1.32%

EX. 48" RCP STORM PIPE
STA: 0+76.79

APPROX. 3'

APPROX. 3.6'

P-2
180.43 LF 12" DIP RESTRAINED JOINT
@ 2.45%

P-2A
79.57 LF 12" PVC @ 2.45%

EXISTING GRADE

CONCRETE COLLAR

24" STEEL SCHEDULE 40 PIPE CASING. MIN. WALL THICKNESS 0.688 INCHES.

12" STUB PIPE SOUTH

P-3
293.75 LF 12" PVC @ 1.49%

P-4
357.76 LF 12" PVC @ 1.86%

P-5
299.49 LF 12" PVC @ 0.40%

TELECOM LINE FIELD VERIFY DEPTH
STA: 1+36.81

MH-1
STA: 0+15
RIM= 995.12
S INV. IN= 985.49 (8" PVC)
W INV. IN= 985.49 (10" PVC)
N INV. IN= 985.49 (10" PVC)
E INV. OUT= 985.39 (12" PVC)

MH-2
STA: 0+29.72
RIM= 994.54
W INV. IN= 985.22 (12" PVC)
E INV. OUT= 981.50 (12" DIP)

MH-3
STA: 2+93.60
RIM= 984.92
W INV. IN= 975.13 (12" PVC)
S INV. IN= 975.08 (12" PVC)
E INV. OUT= 974.95 (12" PVC)

MH-4
STA: 5+91.61
RIM= 982.15
W INV. IN= 970.57 (12" PVC)
E INV. OUT= 970.40 (12" PVC)

MH-5
STA: 9+53.61
RIM= 970.96
W INV. IN= 963.76 (12" PVC)
E INV. OUT= 963.62 (12" PVC)

MH-6
STA: 12+56.95
RIM= 968.44
W INV. IN= 962.42 (12" PVC)
N INV. IN= 960.86 (12" PVC)
S INV. OUT= 960.76 (12" PVC)

SCALE IN FEET
0' 25' 50' 100'

20' 10' 5' 0'

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STATE OF MISSOURI
CLAYTON LEE CRISTY
NUMBER E-28604
PROFESSIONAL ENGINEER
04/23/2021
CLAYTON LEE CRISTY
PROFESSIONAL ENGINEER
MO# E-28604

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REVISIONS

SANITARY SEWER EXTENSION
32ND STREET WIDENING
CITY OF JOPLIN
2021
JOPLIN, MISSOURI

drawn by: ARF
checked by: BMC
approved by: BMC
QA/QC by: BMC
project no.: 015-2768
drawing no.: C_SSWR_152768
date: 04/23/2021

SHEET
39 of 59

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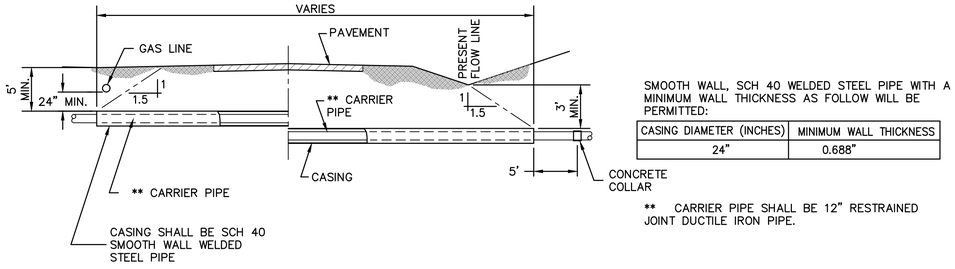
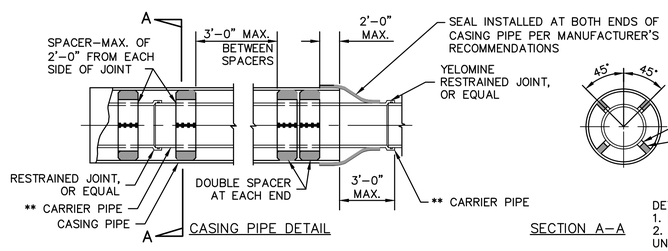
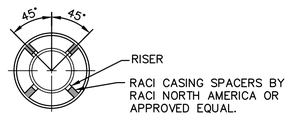


SMOOTH WALL, SCH 40 WELDED STEEL PIPE WITH A MINIMUM WALL THICKNESS AS FOLLOW WILL BE PERMITTED:

CASING DIAMETER (INCHES)	MINIMUM WALL THICKNESS
24"	0.688"

** CARRIER PIPE SHALL BE 12" RESTRAINED JOINT DUCTILE IRON PIPE.





SECTION A–A

DETAIL NOTES:
1. DEPTH OF BORING PIT SHALL BE AS REQUIRED.
2. THE DRILLED HOLE FOR THE CASING PIPE SHALL BE SLIGHTLY UNDERSIZED AND THE PIPE JACKED THROUGH TO ELIMINATE VOIDS BETWEEN PIPE AND HOLE.
3. RESTRAINED JOINTS, OR EQUAL.

BORE/ENCASEMENT DETAIL

Not To Scale

ENCASEMENT OR CARRIER PIPE MATERIALS SPEC

A. SMOOTH SCHEDULE 40 STEEL SMOOTH WALL CASING CONDUIT PIPE SHALL BE OF WELDED STEEL CONSTRUCTION AND SHALL BE NEW MATERIAL WITH A MINIMUM YIELD OF 35,000 PSI. SMOOTH WALL CASING PIPE SHALL HAVE A WALL THICKNESS OF AT LEAST 0.688 INCH.

B. A MINIMUM OF 24 INCHES SEPARATION WILL BE REQUIRED BETWEEN SOUTHERN STAR GAS LINE AND PROPOSED SANITARY CROSSING.

C. CARRIER PIPE SPACERS: CARRIER PIPE SPACERS SHALL BE CLAMP–ON OR BOLT–ON STYLE STAINLESS STEEL CASING SPACERS WITH U.H.M.W. POLYMER PLASTIC RUNNERS AND NEOPRENE LINERS.

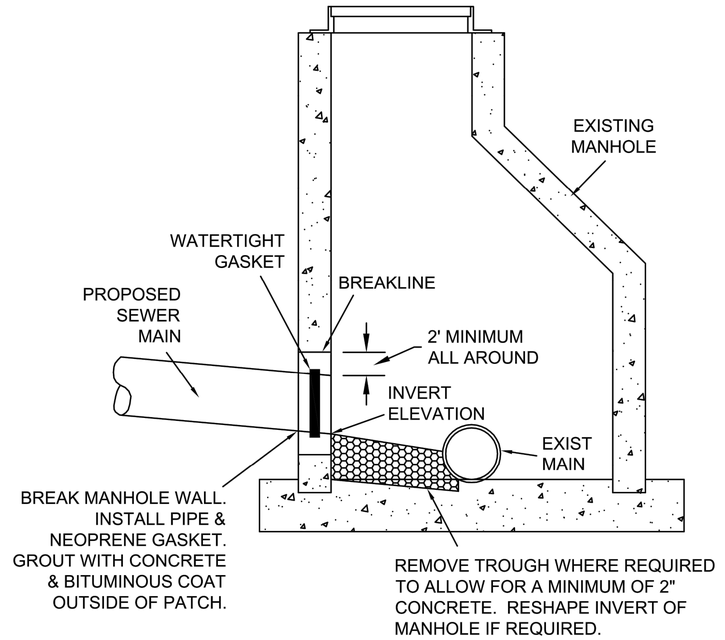
D. ROAD CROSSINGS

1. WHERE DESIGNATED ON THE APPROVED DESIGN DRAWINGS, ROAD CROSSINGS SHALL BE INSTALLED. SUCH INSTALLATIONS SHALL BE ACCOMPLISHED BY TUNNELING, BORING, OR JACKING METHODS. EACH METHOD SHALL PROVIDE FOR REMOVAL OF EARTH AND ROCK ENCOUNTERED DURING INSTALLATION OR THE CARRIER AND CASING PIPES.

1.1. THE CONTRACTOR SHALL INSURE THAT TRAFFIC INTERRUPTIONS ARE MINIMIZED DURING THE UNDERGROUND EXCAVATION OPERATIONS. AFTER THE OPERATION IS COMPLETED, THE CONTRACTOR SHALL SLIDE THE SEWER PIPE IN PLACE. AFTER THE PIPE IS IN PLACE, THE ANNUAL SPACE BETWEEN THE CASING AND CARRIER PIPE SHALL BE STABILIZED BY SPACERS APPROVED FOR USE IN BRACING THE CARRIER PIPE AGAINST UPLIFT. ONCE THE CARRIER PIPE HAS BEEN FIXED, THE ANNUAL SPACE AT EACH END OF THE CASING PIPE SHALL BE SEALED BY APPROVED CASING SEALS.

1.2. THE CONTRACTOR SHALL TAKE PRECAUTIONS TO ENSURE THAT THE SEWER PIPE IS ONLINE AND GRADE FOLLOWING THE INSTALLATION OPERATION.

1.3. ANY ROAD CLOSURES MUST BE PRE–APPROVED AND A MINIMUM OF 48 HOURS SHALL BE ALLOWED FOR PUBLIC NOTICE. THE UTILITY COMPANY OR UTILITY PERMIT APPLICANT SHALL BE REQUIRED TO NOTIFY EMERGENCY 911 BEFORE CLOSING ROADS.



EXISTING MANHOLE TAP

NTS

SAN-06

CITY OF Joplin	CITY OF JOPLIN, MO	CKD BY: JOHNSON	PROJECT: EXISTING MANHOLE TAP
	PUBLIC WORKS DEPT	DATE: 2/2019	
	ENGINEERING DIVISION	ENGINEER: HERTZBERG	
	602 S MAIN ST 64801	FILE: MHTAP	

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MO# E-28604

REVISIONS

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

SANITARY SEWER EXTENSION
ENCASMENT/BORE DETAIL & SPEC

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

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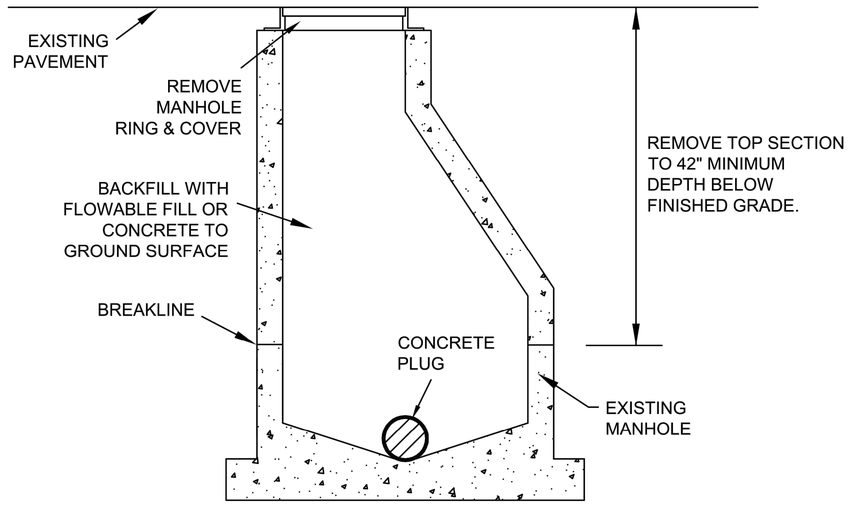
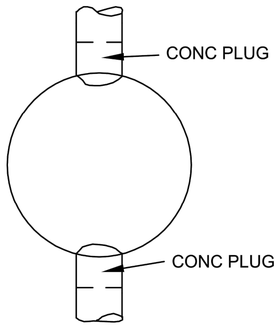


BACKFILL UNDER STREET PAVEMENT OR PARKING AREAS WITH FLOWABLE FILL TO SUBGRADE.

BACKFILL UNDER GRASS AREAS WITH SOIL COMPACTED TO 85% MAXIMUM DRY DENSITY & COVER WITH 4" TOP SOIL.

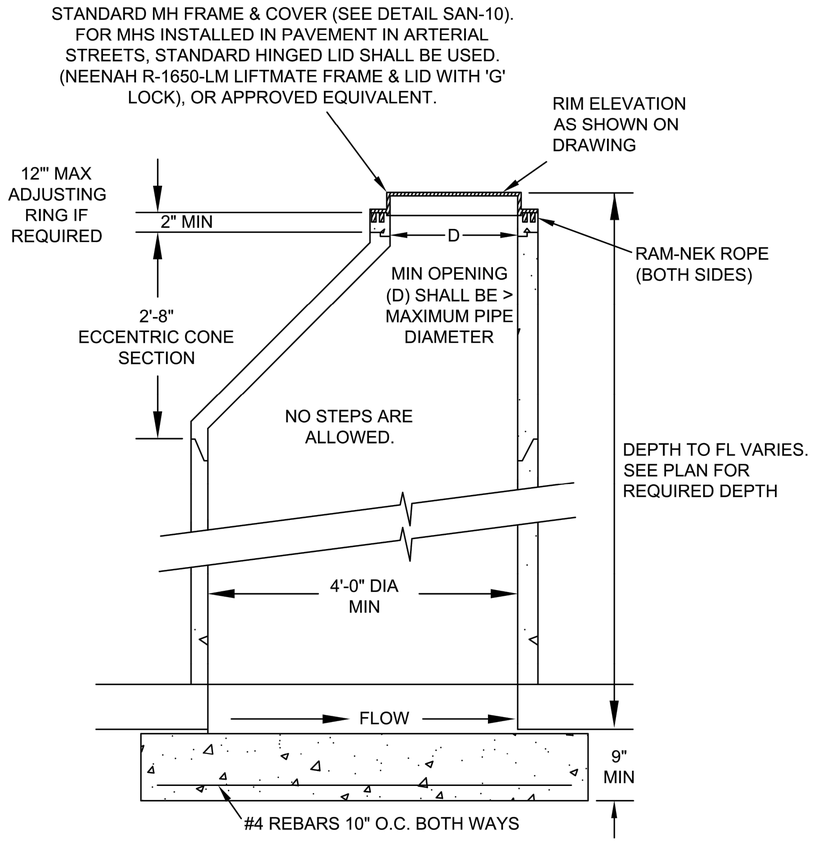


MANHOLE ABANDONMENT

N.T.S.

SAN-07

CITY OF JOPLIN, MO	CKD BY: JOHNSON	PROJECT
PUBLIC WORKS DEPT	DATE: 2/2019	MANHOLE ABANDONMENT
ENGINEERING DIVISION	ENGINEER: HERTZBERG	
602 S MAIN ST 64801	FILE: MHABANDN	



PRECAST MANHOLE DETAIL

N.T.S.

SAN-09

CITY OF JOPLIN, MO	CKD BY: JOHNSON	PROJECT
PUBLIC WORKS DEPT	DATE: 2/2019	PRECAST MH DETAIL
ENGINEERING DIVISION	ENGINEER: HERTZBERG	
602 S MAIN ST 64801	FILE: MHPRECAST	

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SANITARY SEWER STANDARD DETAILS

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

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41 of 59

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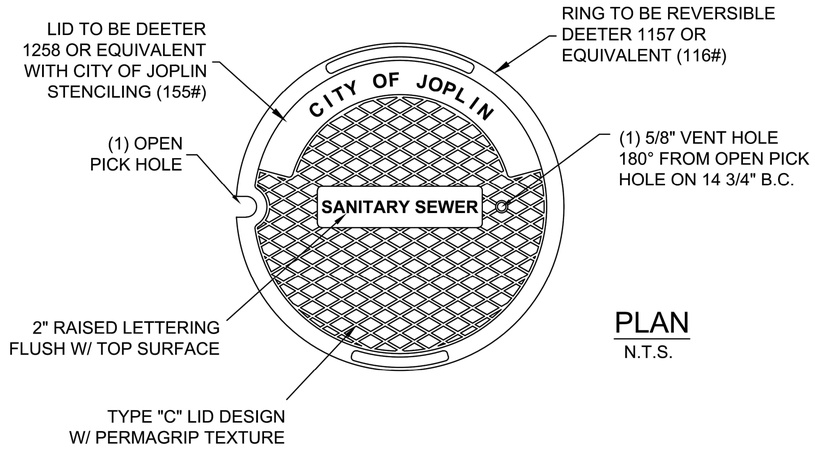
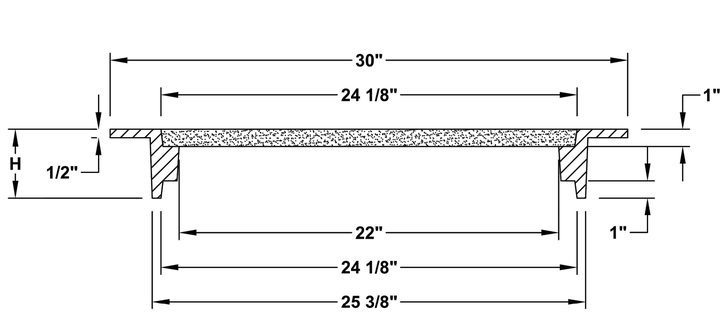


PLAN
N.T.S.



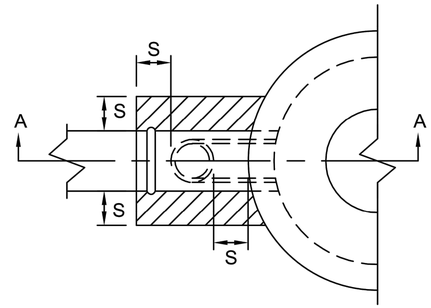
SECTION
N.T.S.

NOTES:
1. FURNISHED WITH MACHINED HORIZONTAL BEARING SURFACE.
2. RING IS REVERSIBLE AND CAN BE INSTALLED WITH FLANGE UP OR DOWN.
3. AVAILABLE HEIGHTS (H) ARE 4", 7.5", & 8".

MATERIAL: CAST GRAY IRON ASTM A-48, CLASS 35B FINISH: NO PAINT

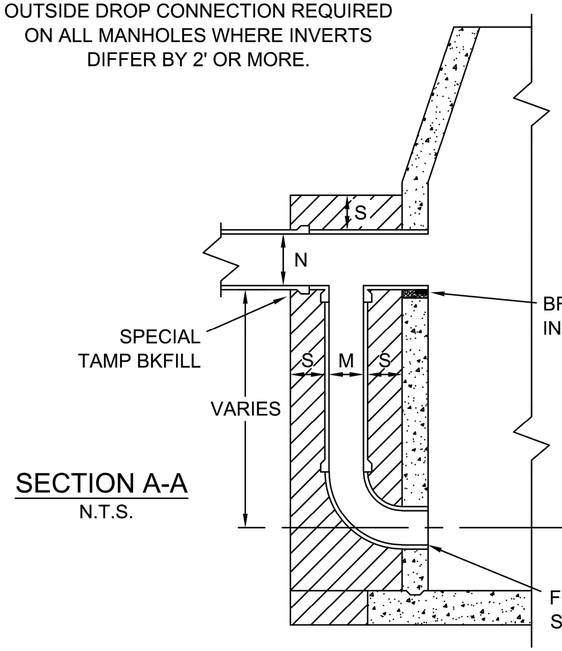
SAN-10

CITY OF Joplin	CITY OF JOPLIN, MO	CKD BY: JOHNSON	PROJECT
	PUBLIC WORKS DEPT	DATE: 2/2019	STANDARD SAN SEWER MH RING & COVER
	ENGINEERING DIVISION	ENGINEER: HERTZBERG	
	602 S MAIN ST 64801	FILE: MHLID	



TOP VIEW
N.T.S.

OUTSIDE DROP CONNECTION REQUIRED ON ALL MANHOLES WHERE INVERTS DIFFER BY 2' OR MORE.



SECTION A-A
N.T.S.

OUTSIDE DROP MH CONNECTION
N.T.S.

SAN-14

CITY OF Joplin	CITY OF JOPLIN, MO	CKD BY: JOHNSON	PROJECT
	PUBLIC WORKS DEPT	DATE: 2/2019	OUTSIDE DROP MH CONNECTION
	ENGINEERING DIVISION	ENGINEER: HERTZBERG	
	602 S MAIN ST 64801	FILE: OUTSIDE DROP MH	

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JOPLIN, MISSOURI

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42 of 59

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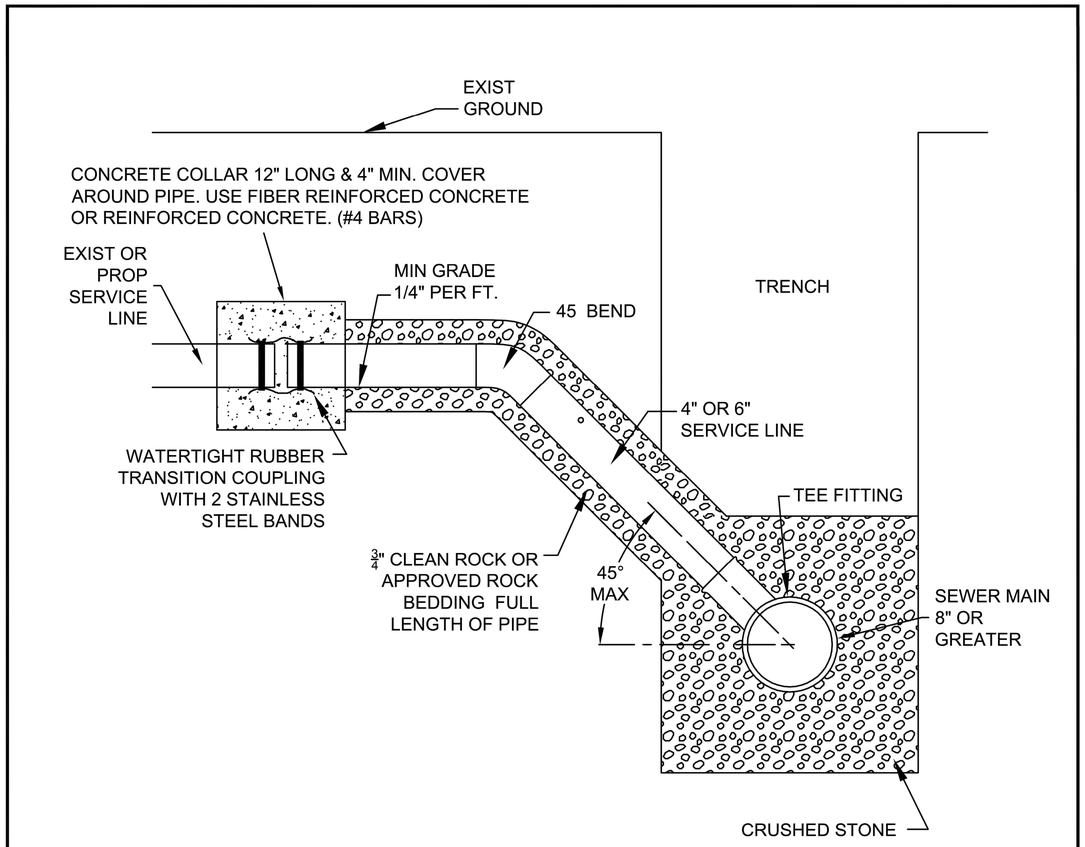

NOTES:

- TRACER WIRE (NOT SHOWN) MAY BE REQUIRED. SEE STANDARD DETAILS.
- RUBBER SADDLES ARE NOT ALLOWED.
- NO HOLES FOR NEW CONNECTIONS SHALL BE MADE BY HAMMERING, REGARDLESS OF THE EXISTING SEWER MAIN PIPE MATERIAL.
- ALL HOLES FOR NEW CONNECTIONS TO EXISTING PIPE SHALL BE MADE BY CORING IN THE PRESENCE OF THE CITY'S INSPECTOR. ALTERNATIVELY, A PREFABRICATED PVC WYE OR TEE CAN BE INSTALLED, IN WHICH CASE, THE NEW FITTING SHALL BE AFFIXED TO THE EXISTING SEWER MAIN BY MEANS OF A WATERTIGHT RUBBER COUPLING WITH 2 STAINLESS STEEL BANDS, ALL OF WHICH SHALL BE CONCRETE ENCASED PER THE REQUIREMENTS SHOWN ON THE DETAIL ABOVE.

SERVICE CONNECTION

N.T.S.

SAN-15

CITY OF Joplin	CITY OF JOPLIN, MO	CKD BY: JOHNSON	PROJECT
	PUBLIC WORKS DEPT	DATE: 4/2019	SEWER
	ENGINEERING DIVISION	ENGINEER: HERTZBERG	SERVICE CONNECTION
	602 S MAIN ST 64801	FILE: SERVCONN	

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43 of 59

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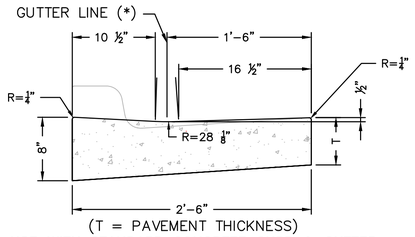
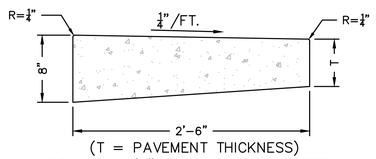
* – 0.5% MINIMUM POSITIVE SLOPE IN GUTTER LINE SHALL BE MAINTAINED THROUGH TRANSITION FROM STANDARD CURB TO RAMP CURB



(T = PAVEMENT THICKNESS)

USE WITH STANDARD CONCRETE CURB & GUTTER

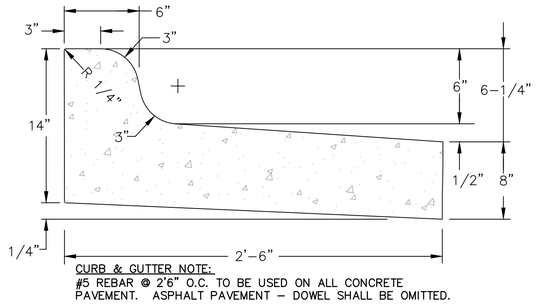


(T = PAVEMENT THICKNESS)

USE WITH 1/4" SPILL CURB & GUTTER

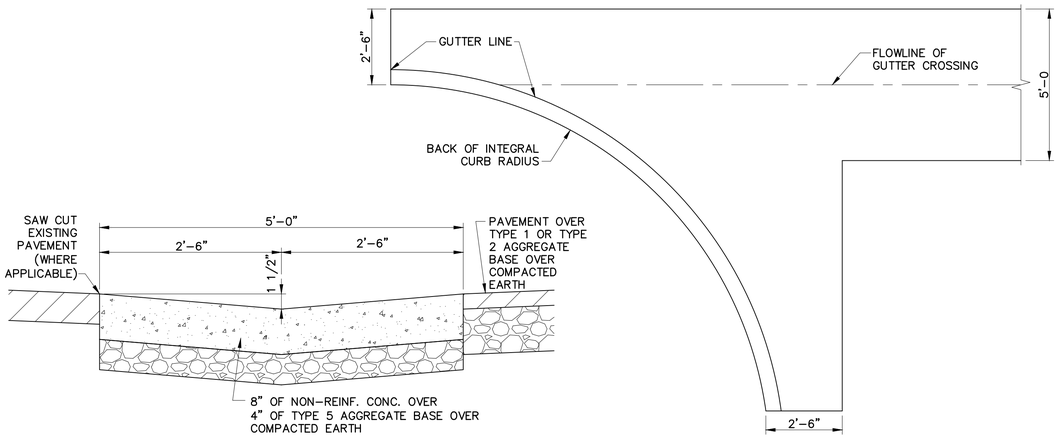
NOTE:
SEE STANDARD CURB DETAIL FOR ADDITIONAL REQUIREMENTS

STREET CURB DETAIL AT RAMP
NTS



CURB & GUTTER NOTE:
#5 REBAR @ 2'6" O.C. TO BE USED ON ALL CONCRETE PAVEMENT. ASPHALT PAVEMENT – DOWEL SHALL BE OMITTED.

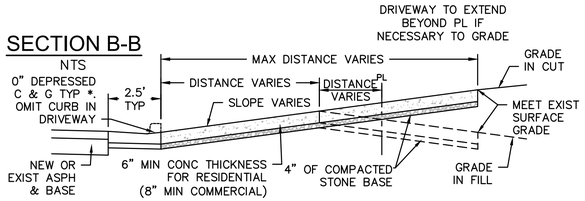
1/4" SPILL CURB & GUTTER DETAIL
NTS



5'-0" GUTTER CROSSING DETAIL
N.T.S.

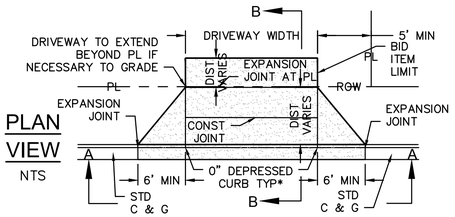
5'-0" GUTTER CROSSING HALF PLAN
N.T.S.

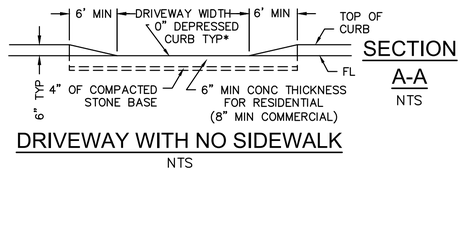
SECTION B-B
NTS



NOTES:
1. ALL POURED CONCRETE SHALL BE CLASS 'B1'.
2. STEEL REINFORCEMENT IS NOT ALLOWED.
3. ALL GUTTER CONST IN FRONT OF DRIVEWAY & ALL C & G IN DRIVEWAY TRANSITIONS SHALL BE INCLUDED IN THE BID PRICE OF THE CURB & GUTTER.
4. BID PRICE FOR ALL DRIVEWAYS SHALL INCLUDE ALL EXCAVATION, LABOR, & MATERIALS REQUIRED TO CONSTRUCT DRIVEWAY.
5. * = 1.5" DEPRESSED CURB ALLOWED WHEN NEEDED FOR DRAINAGE OR SIDEWALK GRADE.
6. 5' INCREMENTS FOR GRADE CHANGES IN DRIVEWAY ARE ALLOWED TO MEET EXIST GRADE.
7. ALGEBRAIC DIFFERENCE AT GRADE CHANGES ARE NOT TO EXCEED 13%.
8. EXPANSION JOINTS SHALL BE CONSTRUCTED NEAR PROPERTY LINE & THROUGH C & G ADJACENT TO DRIVEWAY.
9. OPTIONAL CONSTRUCTION JOINTS MAY BE USED AT GRADE CHANGES IN DRIVEWAY.

PLAN VIEW
NTS

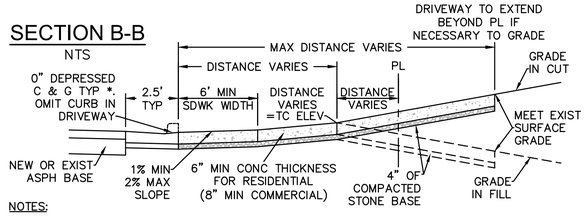




SECTION A-A
NTS

DRIVEWAY WITH NO SIDEWALK
NTS

SECTION B-B
NTS



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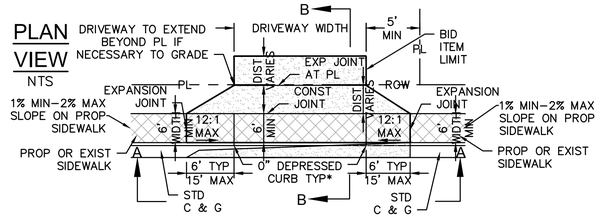
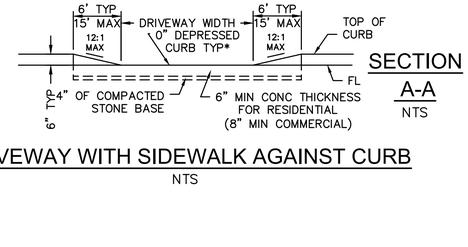
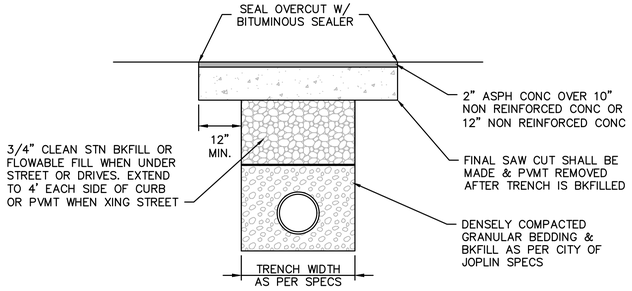
PLAN VIEW
NTS



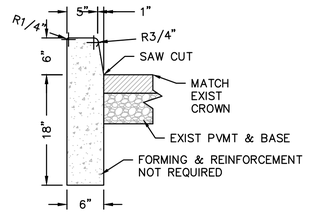


SECTION A-A
NTS

DRIVEWAY WITH SIDEWALK AGAINST CURB
NTS



CONC. PVMT. REPAIR
N.T.S.



NOTES:
1. ALL POURED CONCRETE SHALL BE REINFORCED CLASS "B".
2. STEEL REINFORCEMENT IN PAVEMENT SLAB IS OPTIONAL.
3. BID PRICE FOR ALL CURB & PAVEMENT SHALL INCLUDE ALL EXCAVATION, LABOR, & MATERIALS REQUIRED TO CONSTRUCT CURB & PAVEMENT.

TYPE S CONCRETE CURB
N.T.S.

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BRIAN COOMES
Brian Coomes
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NUMBER PE-2015029306
PROFESSIONAL ENGINEER

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STANDARD DETAILS

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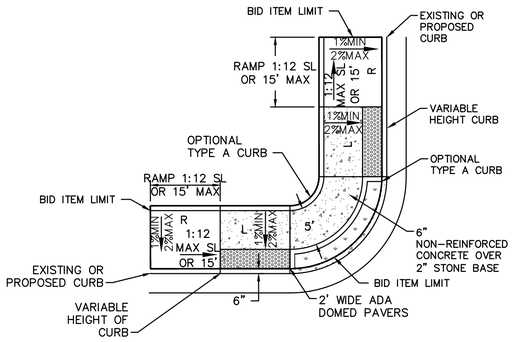
44 of 59

DWG: F:\PROJECTS\015-2768\40-Design\AutoCAD\Final Plans\Sheets Front End\STANDARD DETAILS\G_DTL_52768.dwg USER: skendall
DATE: Apr 21, 2021 1:38pm XREFS: G_TBLK_52768

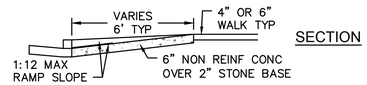


NOTES:

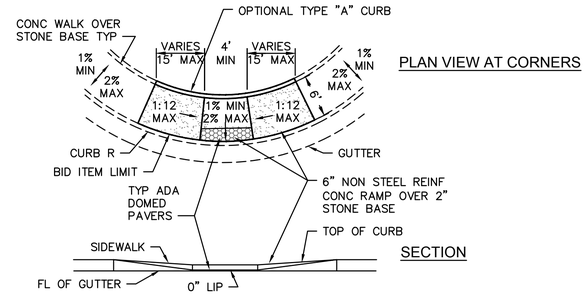
1. ALL GUTTER CONSTRUCTED IN FRONT OF RAMP & ALL CURB & GUTTER IN RAMP TRANSITIONS SHALL BE INCLUDED IN THE BID PRICE OF THE CURB & GUTTER.
2. BID PRICE FOR ALL RAMPS SHALL INCLUDE ALL EXCAVATION, LABOR & MATERIALS REQUIRED TO CONSTRUCTED RAMP.
3. ALL POURED CONCRETE SHALL BE FIBER REINFORCED CLASS "B".
4. RAMP WIDTH MAY BE REDUCED TO 4' WITH APPROVAL OF THE ENGINEER.
5. TYPE A CURB & ADA DOMED PAVERS SHALL BE INCLUDED IN PRICE OF RAMP.
6. CROSS SLOPE OF LANDING AREAS DO NOT EXCEED 2% IN ANY DIRECTION.

TYPE "A" ADA RAMP

N.T.S.

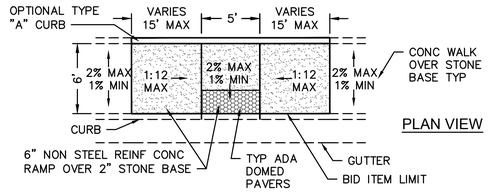


SECTION



PLAN VIEW AT CORNERS

SECTION



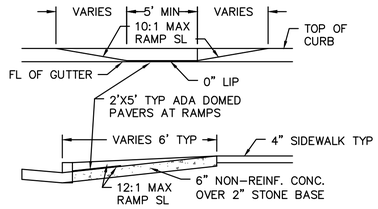
PLAN VIEW

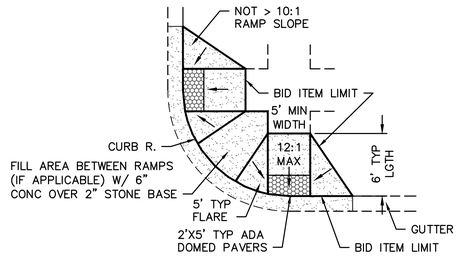
NOTES:

1. ALL GUTTER CONST IN FRONT OF RAMP & ALL C&G IN RAMP TRANSITIONS SHALL BE INCL IN THE BID PRICE OF THE C&G.
2. BID PRICE FOR ALL RAMPS SHALL INCL ALL EXCAVATION, LABOR, & MATERIALS REQUIRED TO CONST RAMP.
3. ALL POURED CONCRETE SHALL BE CLASS 'B' FIBER REINFORCED.

TYPE 'B' ADA RAMPS

N.T.S.





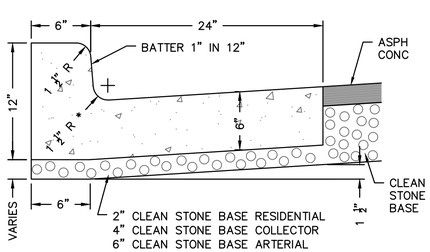
NOTES:

1. ALL GUTTER CONST IN FRONT OF RAMP & ALL C&G IN RAMP TRANSITIONS SHALL BE INCL IN THE BID PRICE OF THE C&G.
2. BID PRICE FOR ALL RAMPS SHALL INCL ALL EXCAVATION, LABOR, & MATERIALS REQUIRED TO CONST RAMP.
3. ALL POURED CONC SHALL BE CLASS 'B' FIBER REINFORCED.

TYPE 'C' ADA RAMP

N.T.S.

* = OPTIONAL WITH APPROVAL BY CITY ENGINEER.

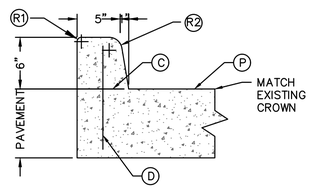


NOTES:

1. JOINT MATERIAL TO EXTEND THRU C & G, FRONT TO BACK, & NEATLY TRIMMED TO MATCH CONC SURFACE.
2. FLOAT GROUT TO SURFACE ON EXPOSED SURFACES.
3. ALL POURED CONCRETE SHALL BE CLASS 'B'.

STANDARD UPRIGHT CURB & GUTTER

N.T.S.



LEGEND:

Ⓒ PERMISSIBLE CONSTRUCTION JOINT. IF CONSTRUCTED IN THIS MANNER TIE BARS MUST BE USED.

Ⓓ #4 TIE BAR AT 24" CENTERS. LENGTH OF THE TIE BARS EQUALS THICKNESS OF PAVEMENT PLUS HEIGHT OF CURB, LESS 3".

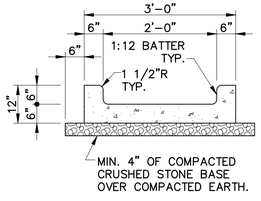
Ⓟ TOP OF PAVEMENT OR CONCRETE BASE.

Ⓡ1 ROUND TO 1/2" RADIUS. (EXCEPT FOR SAWED JOINTS)

Ⓡ2 ROUND TO 1 1/2" RADIUS.

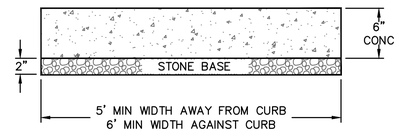
TYPE A INTEGRAL CURB

N.T.S.

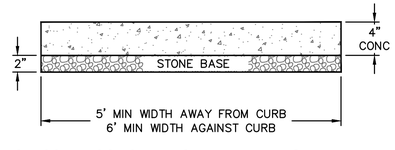


CURB FLUME (3' WIDE)

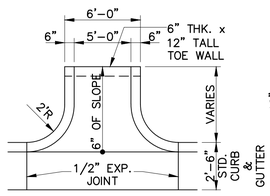
N.T.S.



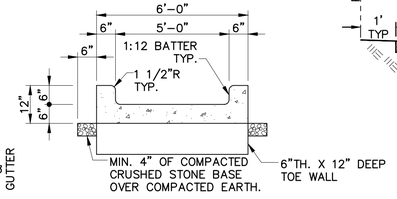
CLASS 'A' CONCRETE SIDEWALK (BUSINESS)



CLASS 'B' CONCRETE SIDEWALK (RESIDENTIAL)



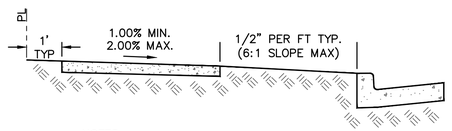
PLAN



SECTION

CONCRETE FLUME (6' WIDE)

N.T.S.



NOTES:

1. CONSTRUCT EXPANSION JOINTS EVERY 50' MAX. & CONTRACTION JOINTS EVERY 10' MAX.
2. USE CLASS 'B' CONCRETE.
3. REINFORCEMENT IS OPTIONAL.
4. CROSS SLOPE OF WALK & DIRT BACKSLOPE CAN SLOPE AWAY FROM CURB IN FILL.

CONCRETE SIDEWALK DETAILS

N.T.S.

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Olsson - Civil Engineering
Missouri Certificate of Authority #001592
702 S. Main Street
Joplin, MO 64801
TEL 417.781.0643
www.olsson.com

STATE OF MISSOURI
BRIAN COOMES
Brian Coomes
04/23/2021
NUMBER PE-2015029306
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

STANDARD DETAILS

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by:	SMK/JKL
checked by:	PM/LB/RF
approved by:	BMC
QA/QC by:	PM/LB/RF
project no.:	015-2768
drawing no.:	G_DTL_52768
date:	04/23/2021

SHEET
45 of 59

DWG: F:\PROJECTS\015-2768\40-Design\AutoCAD\Final Plans\Sheets Front End\STANDARD DETAILS\G_DTL_52768.dwg USER: skendall
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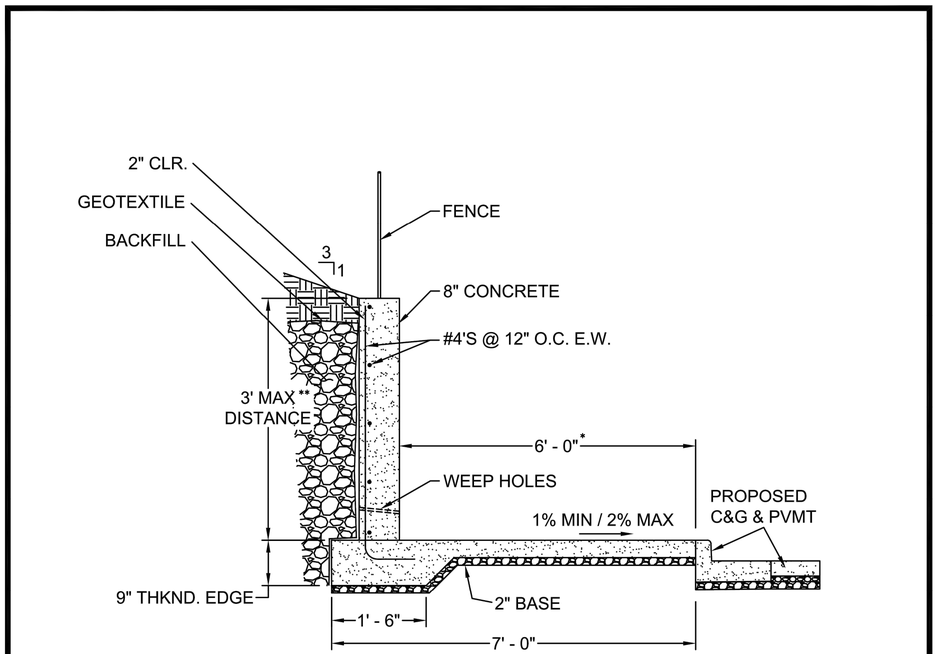

POURED CONCRETE SIDEWALK WALL

NTS

* TO BE PAID FOR AS 4" SIDEWALK CONSTRUCTION.
** TO BE PAID FOR AS CAST-IN-PLACE CONCRETE WALL. CONCRETE WIDENING AND REINFORCING TO BE CONSIDERED SUBSIDIARY TO CAST-IN-PLACE CONCRETE WALL PAY ITEM.

NOTES

- CONST 1/2" EXPANSION JOINTS IN WALL & SIDEWALK EVERY 50'. JOINTS TO MATCH.
- BACKFILL TO BE PER MISSOURI STANDARD SPECIFICATION FOR HIGHWAY CONSTRUCTION SECTION 1010.
- ANY WALL GREATER THAN 3' MUST BE DESIGNED AND SEALED BY A LICENSED ENGINEER.
- INSTALL 4' TALL FENCE ON TOP FOR WALL GREATER THAN 2'-6" TALL. TYPE TO BE DETERMINED IN THE FIELD.
- CONSTRUCT ½" EXPANSION JOINTS IN WALL & SIDEWALK EVERY 50'. JOINTS TO MATCH.
- WEEP HOLES @ 10' O.C. 1" DIA. MIN. 6" FROM BASE OF WALL.
- 4" SIDEWALK FOR RESIDENTIAL - 6" FOR COMMERCIAL.
- MIN. 2" CLR. FOR ALL REINFORCING

ST-13

CITY OF Joplin	CITY OF JOPLIN, MO	CKD BY: JOHNSON	PROJECT
	PUBLIC WORKS DEPT	DATE: 10/2020	**POURED CONCRETE SIDEWALK WALL**
	ENGINEERING DIVISION	ENGINEER: HERTZBERG	
	602 S MAIN ST 64801	FILE: SIDEWALKWALL	

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TEL 417.781.0643
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STATE OF MISSOURI
BRIAN COOMES
Brian Coomes
04/23/2021
NUMBER PE-2015029306
PROFESSIONAL ENGINEER

REVISIONS

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

STANDARD DETAILS

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by: SMK/JKL
checked by: PM/LB/RF
approved by: BMC
QA/QC by: PM/LB/RF
project no.: 015-2768
drawing no.: G_DTL_52768
date: 04/23/2021

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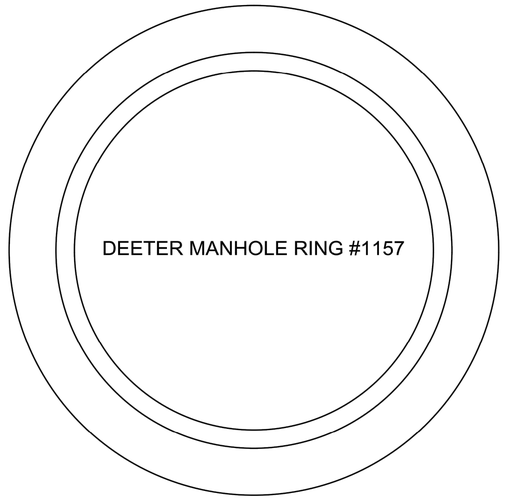
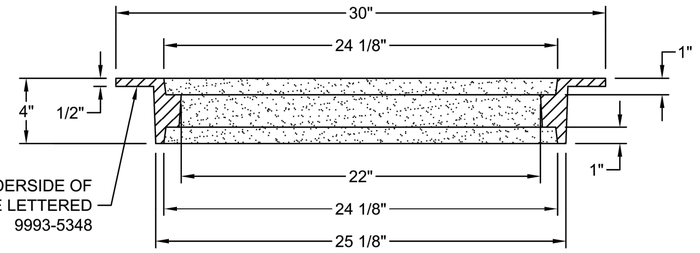




NOTE:
1. FURNISHED WITH MACHINED HORIZONTAL BEARING SURFACE.
2. RING IS REVERSIBLE AND CAN BE INSTALLED WITH FLANGE UP OR DOWN.

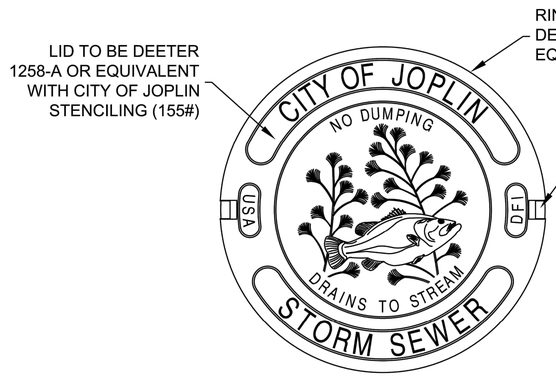
MATERIAL: CAST GRAY IRON ASTM A-48, CLASS 35B
FINISH: NO PAINT
WEIGHT: 115 LBS.

DEETER FOUNDRY, INC.

5945 NORTH 70TH STREET
LINCOLN, NEBRASKA 68529

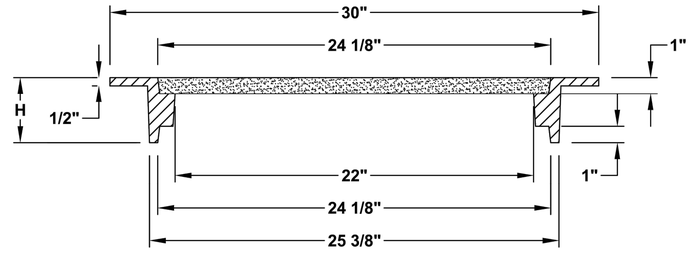
#1157 MANHOLE RING

CITY OF Joplin	CITY OF JOPLIN, MO	CKD BY: JOHNSON	PROJECT
	PUBLIC WORKS DEPT	DATE: 10/2017	DEEP MH
	ENGINEERING DIVISION	ENGINEER: HERTZBERG	RING & COVER
	602 S MAIN ST 64801	FILE: DEEP MH R & C	



PLAN
N.T.S.

NOTE:
THIS LID IS FOR INSTALLATIONS BEHIND STREET CURBS.
FOR INSTALLATIONS SUBJECT TO TRAFFIC LOADS IN
PUBLIC ROADS, USE STANDARD SANITARY SEWER MH LID.



NOTES:
1. FURNISHED WITH MACHINED HORIZONTAL BEARING SURFACE.
2. RING IS REVERSIBLE AND CAN BE INSTALLED WITH FLANGE UP OR DOWN.
3. AVAILABLE HEIGHTS (H) ARE 4", 7.5", & 8".

MATERIAL: CAST GRAY IRON ASTM A-48,
CLASS 35B FINISH: NO PAINT

SECTION
N.T.S.

STM-06

CITY OF Joplin	CITY OF JOPLIN, MO	CKD BY: JOHNSON	PROJECT
	PUBLIC WORKS DEPT	DATE: 2/2019	STANDARD STORM
	ENGINEERING DIVISION	ENGINEER: HERTZBERG	SEWER RING & COVER
	602 S MAIN ST 64801	FILE: STM LID	

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STATE OF MISSOURI
BRIAN COOMES
Brian Coomes
04/23/2021
NUMBER PE-2015029306
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

STORM DRAIN DETAILS

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by: SMK/JKL
checked by: PM/LB/RF
approved by: BMC
QA/QC by: PM/LB/RF
project no.: 015-2768
drawing no.: G_STMDTL_52768
date: 04/23/2021

SHEET
47 of 59

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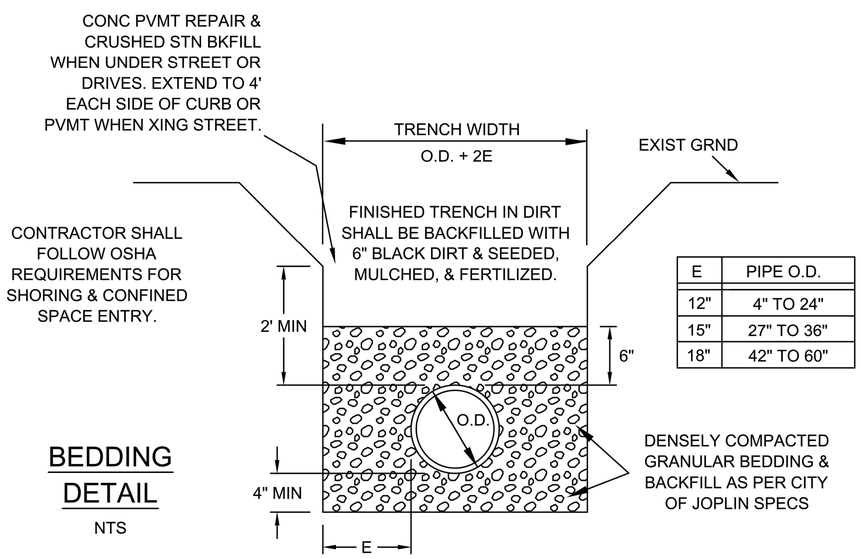
DATE: Apr 21, 2021 1:38pm XREFS: G_TBLK_52768

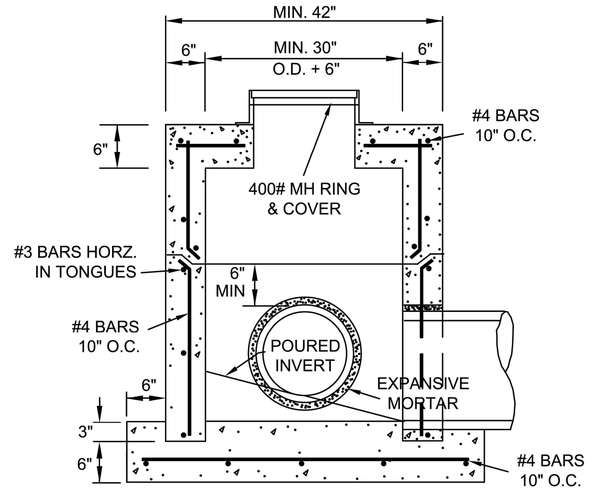


E	PIPE O.D.
12"	4" TO 24"
15"	27" TO 36"
18"	42" TO 60"

BEDDING DETAIL

NTS

CITY OF JOPLIN	CITY OF JOPLIN, MO	CKD BY: JOHNSON	PROJECT
	PUBLIC WORKS DEPT	DATE: 10/2017	PIPE BEDDING DETAIL
	ENGINEERING DIVISION	ENGINEER: HERTZBERG	
	602 S MAIN ST 64801	FILE: BEDDET	



CONC JNCT BOX W/ MH RING & COVER

N.T.S.

STM-05

CITY OF JOPLIN	CITY OF JOPLIN, MO	CKD BY: JOHNSON	PROJECT
	PUBLIC WORKS DEPT	DATE: 2/2019	CONC JUNCTION BOX W/ MH RING & COVER
	ENGINEERING DIVISION	ENGINEER: HERTZBERG	
	602 S MAIN ST 64801	FILE: MHBOX	

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REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

STORM DRAIN DETAILS

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by: SMK/JKL
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drawing no.: G_STMDTL_52768
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48 of 59

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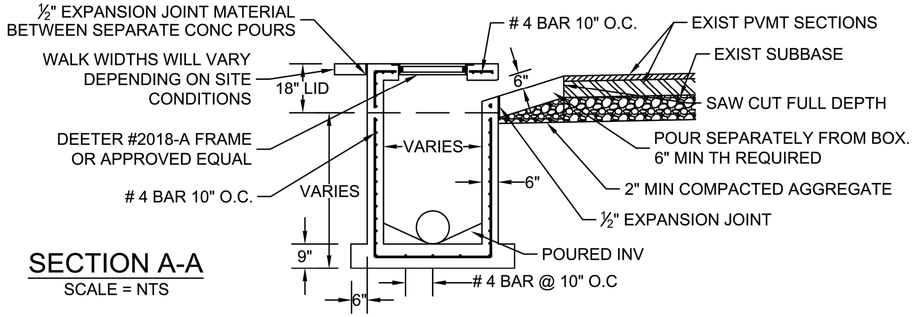
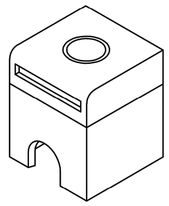
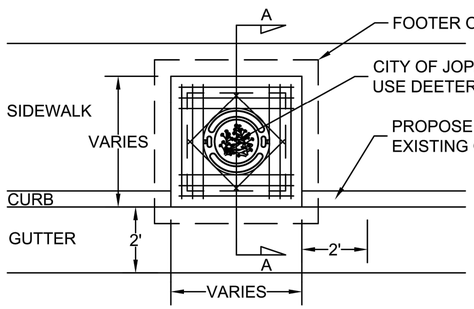


SECTION A-A
SCALE = NTS

TYPE 'C' CURB INLET
N.T.S.



INLET NOTES:
1. BOTTOM OF INLET SHALL BE 9" TH WITH #4 REBAR SPACED 10" OC BOTH WAYS.
2. FLOOR OF INLET SHALL BE SHAPED WITH INVERT TO PROVIDE SMOOTH FLOW.
3. STEPS ARE NOT ALLOWED.
4. BEVEL ALL EXPOSED EDGES WITH 3/4" CHAMFER OR 1/2" TOOLED EDGE.
5. THE SUM OF "L" & "W" SHALL NOT EXCEED 14' WITHOUT SPECIAL DESIGN.
6. ALL GUTTER CONSTRUCTED IN FRONT OF INLET, ALL C&G IN CURB REPAIRS OR REPLACEMENTS & ALL SIDEWALK CONST AROUND INLET SHALL BE INCLUDED IN THE BID PRICE OF THE INLET.
7. SAW CUT & REPL AN EXTRA 2' OF CURB ON BOTH SIDES WHEN CONST IN EXIST CURB.
8. ALL POURED CONCRETE SHALL BE CLASS 'B'.
9. EDGE OF BOX SHALL BE A MINIMUM OF 15' FROM CURB RADIUS PC.

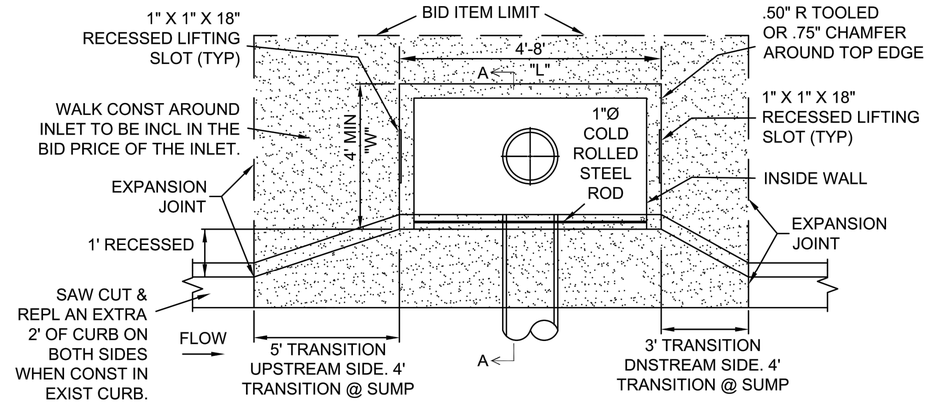


PLAN VIEW
SCALE = NTS

NOTES:
1. BID ITEM LIMIT TO INCLUDE THE C & G, SIDEWALK, & ANY SEED & MULCH NEEDED WITHIN 2' OF BOX FACES.
2. BOX CAN BE CAST-IN-PLACE OR PRECAST.

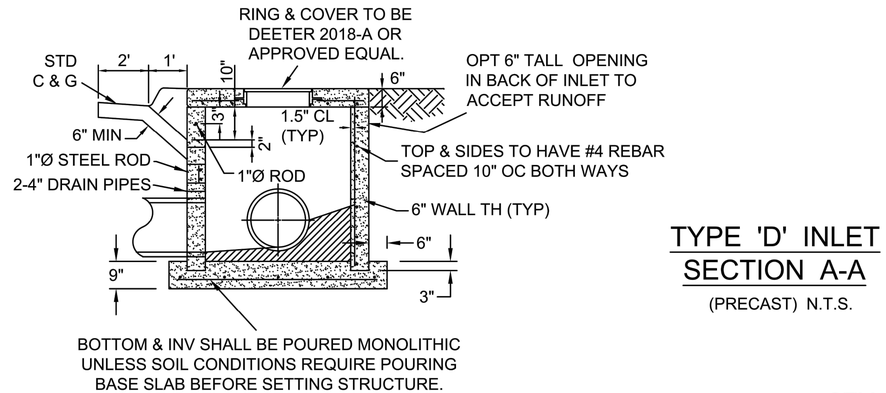
STM-03

CITY OF JOPLIN	CITY OF JOPLIN, MO	CKD BY: JOHNSON	PROJECT
	PUBLIC WORKS DEPT	DATE: 2/2019	TYPE 'C' CURB INLET
	ENGINEERING DIVISION	ENGINEER: HERTZBERG	
	602 S MAIN ST 64801	FILE: TYPECCB	



PLAN SINGLE CURB INLET - TYPE 'D'
N.T.S.

NOTES:
1. BOTTOM OF INLET SHALL BE 9" THICK W/ #4 REBAR SPACED 10" OC BOTH WAYS.
2. FLOOR OF INLET SHALL BE SHAPED W/ INVERT TO PROVIDE SMOOTH FLOW.
3. NO STEPS ARE ALLOWED.
4. BEVEL ALL EXPOSED EDGES W/ 3/4" CHAMFER OR 1/2" TOOLED EDGE.
5. THE SUM OF "L" & "W" SHALL NOT EXCEED 14' WITHOUT SPECIAL DESIGN.
6. ALL GUTTER CONST IN FRONT OF INLET, ALL C & G IN CURB TRANSITIONS, & ALL SIDEWALK CONST AROUND INLET SHALL BE INCL IN THE BID PRICE OF THE INLET.
7. ALL POURED CONC SHALL BE CLASS 'B'.
8. EDGE OF BOX SHALL BE A MINIMUM OF 15' FROM CURB RADIUS PC.



TYPE 'D' INLET SECTION A-A
(PRECAST) N.T.S.

STM-04

CITY OF JOPLIN	CITY OF JOPLIN, MO	CKD BY: JOHNSON	PROJECT
	PUBLIC WORKS DEPT	DATE: 2/2019	TYPE 'D' CATCH BASIN
	ENGINEERING DIVISION	ENGINEER: HERTZBERG	
	602 S MAIN ST 64801	FILE: TYPEDCB	

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Brian Coomes
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PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

STORM DRAIN DETAILS

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

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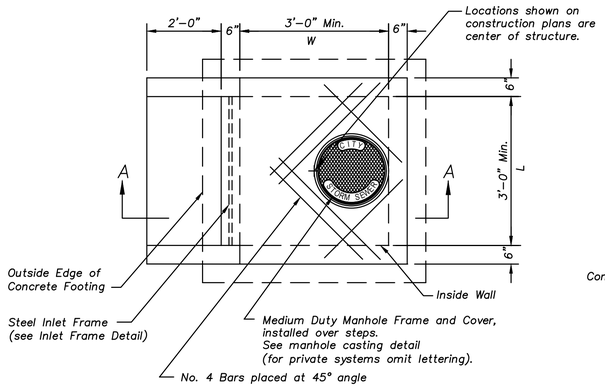
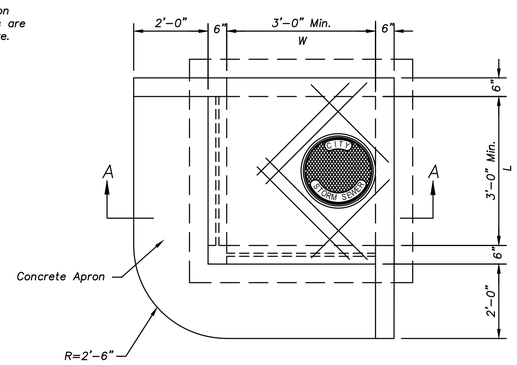
SHEET
49 of 59

DWG: F:\PROJECTS\015-2768\40-Design\AutoCAD\Final Plans\Sheets Front End\STORM DRAIN DETAILS\G_STMDTL_52768.dwg
DATE: Apr 21, 2021 1:38pm XREFS: G_TBLK_52768 USER: skendall



Plan

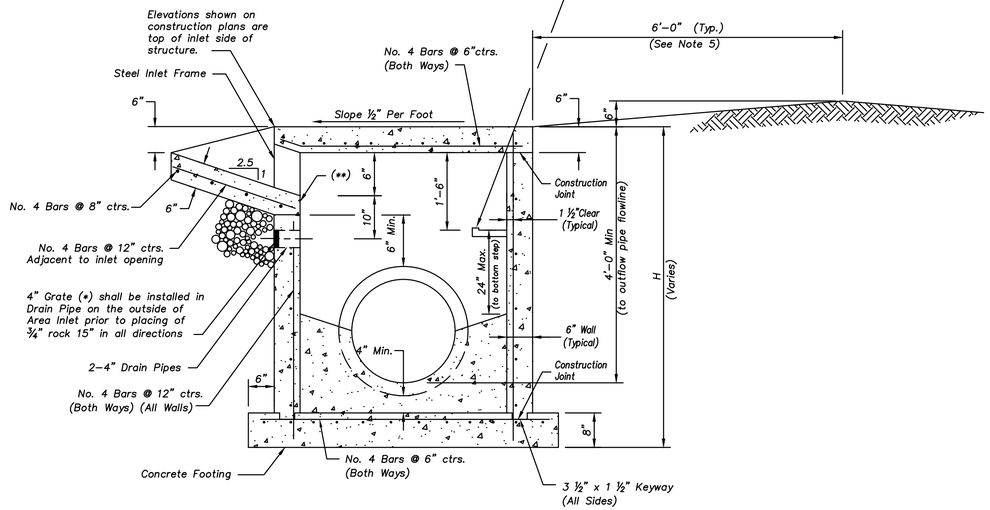
Not to Scale



Plan

(w/ 2 Adjacent Openings)

Not to Scale



(*) – the material of the grate shall match the material of the pipe and shall be as follows:

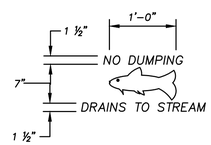
a) PVC: Pipe – 4" Schedule 40 PVC meeting ASTM D–1785'
Grate – 4" PVC Snap–in Drain – meets ASTM D–2665, with Stainless Steel (Type 304) Cover, mounted with two 18–8 Stainless Steel Screws;
Maximum opening size ¼".

b) HDPE: Pipe – 4"HDPE meeting AASHTO M252, Type S;
Grate – 4"HDPE – meets ASTM D–3350;
Maximum opening size ¼".

(**) – grout all voids;

Section A–A

Not to Scale



Note:

Imprint to be ¼" in depth stamped into inlet top when poured.

ENVIRONMENTAL STAMP DETAIL

Area Inlet Notes

General

1. City of Joplin Standard Specifications Manual is incorporated, except as otherwise noted.
2. All storm sewer structures shall be pre–cast or poured in place. If pre–cast structures are used, the tops shall be poured in place and the wall steel shall be left exposed to a height 2" below the finish top elevation, or as directed by the City Engineer.
3. Pre–cast shop drawings are to be approved by the City Engineer for publicly financed or administered projects. Pre–cast shop drawings for privately financed projects are to be submitted to the Engineering Services Division of the Planning and Development Services Department.
4. Do not scale these drawings for dimensions or clearances. Any questions regarding dimensions shall be brought to the attention of the City Engineer prior to construction.
5. Berm location and elevation may vary. See grading plan for exact location.
6. The first dimension listed in the construction notes is the "L" dimension. The second dimension is the "W" dimension. The concrete thickness and reinforcement shown is for boxes with ("L"+"H") and ("W"+"H") less than or equal to 20. For boxes with either of these calculations greater than 20, a special design is required.

Concrete

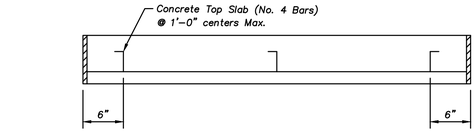
7. Concrete used in this work shall be Joplin Class B, as approved by the City of Joplin, and shall meet the requirements of the City of Joplin Standard Specifications.
8. Inlet floors shall be shaped with non–reinforced concrete inverts to provide smooth flow.
9. Bevel all exposed edges with ¾" triangular molding.

Reinforcing Steel

10. Reinforcing steel shall be new billet, minimum Grade 40 as per ASTM A615, and shall be bent cold.
11. All dimensions relative to reinforcing steel are to centerline of bars. 2" clearance shall be provided throughout unless noted otherwise. Tolerance of +/– ⅛" shall be permitted.
12. All lap splices not shown shall be a minimum of 40 bar diameters in length.
13. All reinforcing steel shall be supported on fabricated steel bar supports @ 3'–0" maximum spacing.
14. All dowels shall be accurately placed and securely tied in place prior to placement of bottom slab concrete. Sticking of dowels into fresh or partially hardened concrete will not be acceptable.

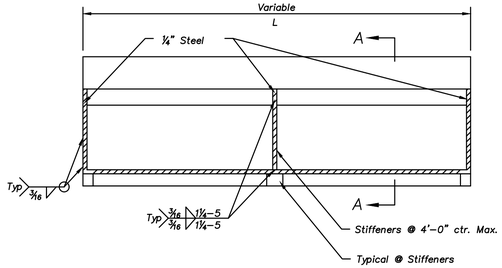
Construction

15. The bottom slab shall be at least 24 hours old before placing sidewall concrete. All sidewall forms shall remain in place a minimum of 24 hours after sidewalls are poured before removal, and after removal shall be immediately treated with membrane curing compound.
16. Pipe connections to pre–cast structures shall have a minimum of 6" of concrete around the entire pipe within 2' of the outside wall of structure. A minimum of 2" – maximum of 6" clearance is required between the outside pipe wall and the edge of blackout.
17. Tamped backfill shall be used around structures, except under paved areas. Tamped backfill shall be finely divided job excavated material free from debris, organic material and stones, compacted to 95% maximum density as determined by AASHTO STANDARD, Method T–99.
Removable Flowable Fill is required under any portion of paved right of way, including the area within existing or future public street pavement and under existing or future curb and gutter, median, asphalt path, concrete sidewalk.



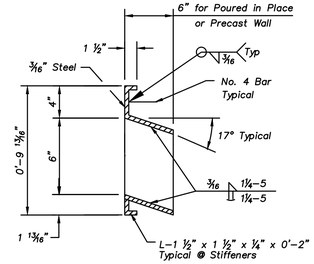
Top View

Not to Scale



Front View

Not to Scale



Section A–A

Not to Scale

Area Inlet Frame Notes

1. All welds shall be performed in accordance with appropriate AWS Specifications and Procedures.
2. All welds on exposed surfaces shall be dressed so as to provide a pleasing finished appearance.
3. All flat steel shall be 7 Gage or 3/16" thick.
4. The entire frame shall be hot dip zinc coated in accordance with ASTM A–123.

10" STEEL INLET FRAME

AREA INLET DETAIL

olsson
Olsson - Civil Engineering
Missouri Certificate of Authority #001592
702 S. Main Street
Joplin, MO 64801
TEL 417.781.0643
www.olsson.com

STATE OF MISSOURI
BRIAN COOMES
Brian Coomes
04/23/2021
NUMBER PE-2015029306
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

STORM DRAIN DETAILS

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by: SMK/JKL
checked by: PM/LB/RF
approved by: BMC
QA/QC by: PM/LB/RF
project no.: 015-2768
drawing no.: G_STMDTL_52768
date: 04/23/2021

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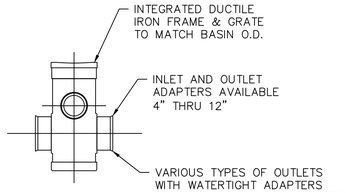
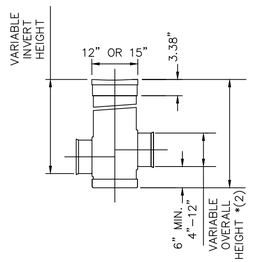
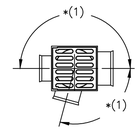




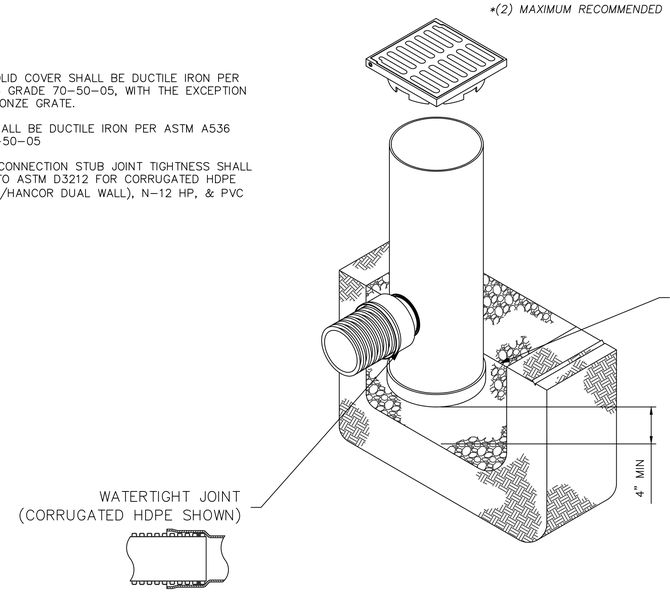


*(1) ADAPTERS CAN BE MOUNTED ON ANY ANGLE 0° TO 359°.

*(2) MAXIMUM RECOMMENDED OVERALL HEIGHT 10'

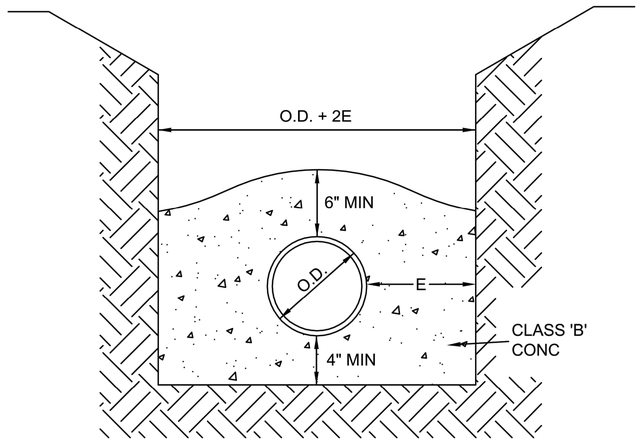
NOTES:

1. GRATES/SOLID COVER SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70–50–05, WITH THE EXCEPTION OF THE BRONZE GRATE.
2. FRAMES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70–50–05
3. DRAINAGE CONNECTION STUB JOINT TIGHTNESS SHALL CONFORM TO ASTM D3212 FOR CORRUGATED HDPE (ADS N–12/HANCOR DUAL WALL), N–12 HP, & PVC SEWER.



15" DRAIN BASIN

NOT TO SCALE



E	PIPE O.D.
12"	4" TO 24"
15"	27" TO 36"
18"	42" TO 60"

CONC ENCASEMENT

N.T.S.

SAN-24

CITY OF JOPLIN	CITY OF JOPLIN, MO	CKD BY: JOHNSON	PROJECT
	PUBLIC WORKS DEPT	DATE: 2/2019	SEWER PIPE
	ENGINEERING DIVISION	ENGINEER: HERTZBERG	CONC ENCASEMENT
	602 S MAIN ST 64801	FILE: ENCASE	

olsson
Olsson - Civil Engineering
Missouri Certificate of Authority #001592
702 S. Main Street
Joplin, MO 64801
TEL 417.781.0643 www.olsson.com

STATE OF MISSOURI
BRIAN COOMES
Brian Coomes
04/23/2021
NUMBER PE-2015029306
PROFESSIONAL ENGINEER

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STORM DRAIN DETAILS

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

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project no.: 015-2768
drawing no.: G_STMDTL_52768
date: 04/23/2021

SHEET
51 of 59

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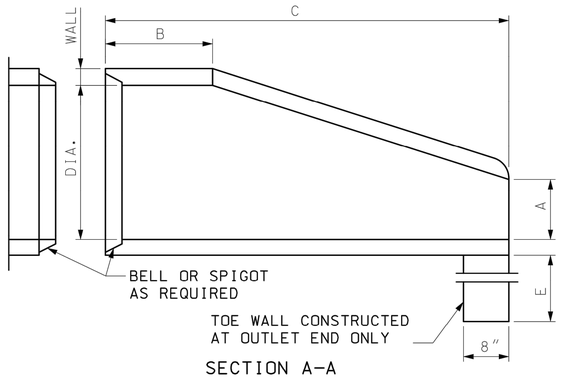
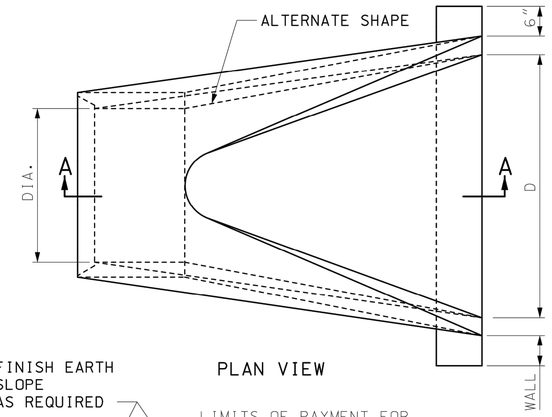
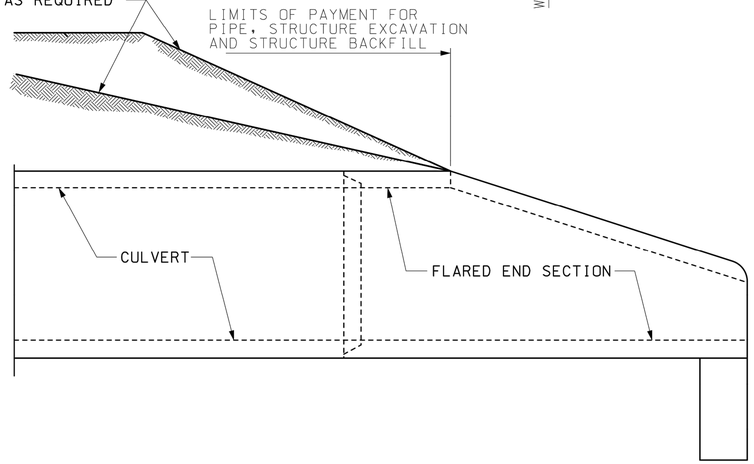


SECTION A–A



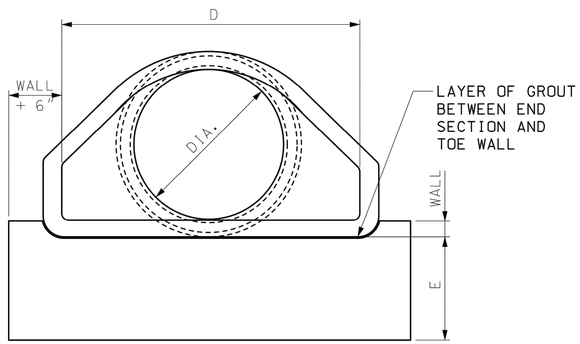
PLAN VIEW



INSTALLATION DETAILS

DIMENSIONS						
DIA.	WALL	A	B MIN.	C MIN.	D	E
12″	2″	4″	4′–0″	6′	2′–0″	18″
15″	2 1/4″	6″	3′–10″	6′	2′–6″	18″
18″	2 1/2″	9″	3′–10″	6′	3′–0″	18″
21″	2 3/4″	9″	3′–2″	6′	3′–6″	18″
24″	3″	9 1/2″	2′–6″	6′	4′–0″	24″
27″	3 1/4″	10 1/2″	2′–1″	6′	4′–6″	24″
30″	3 1/2″	1′–0″	1′–7″	6′	5′–0″	24″
33″	3 3/4″	1′–2″	1′–7″	6′	5′–6″	24″
36″	4″	1′–3″	2′–10″	8′	6′–0″	24″
42″	4 1/2″	1′–9″	2′–11″	8′	6′–6″	24″
48″	5″	2′–0″	2′–2″	8′	7′–0″	24″
54″	5 1/2″	2′–3″	2′–11″	8′	7′–6″	36″
60″	6″	2′–6″	3′–3″	8′	8′–0″	36″
66″	6 1/2″	2′–0″	1′–9″	8′	8′–6″	36″
72″	7″	2′–0″	2′–9″	10′	9′–0″	36″
78″	7 1/2″	2′–3″	2′–3″	10′	9′–6″	36″
84″	8″	2′–6″	2′–0″	10′	10′–0″	36″

REINFORCEMENT					
ADJOINING PIPE DIA.	BARREL SECTION REINFORCEMENT			FLARE SECTION REINFORCEMENT (ONE LAYER ONLY IN CENTER OF WALL)	
	CIRCULAR		ELLIPTICAL		
	INNER CAGE SQ. IN./ LIN. FT.	OUTER CAGE SQ. IN./ LIN. FT.	SQ. IN./ LIN. FT.	AREA OF LONGITUDINAL SQ. IN./ LIN. FT.	AREA OF TRANSVERSE SQ. IN./ LIN. FT.
12″	0.07			0.048	0.048
15″	0.07			0.054	0.054
18″	0.07		0.07	0.060	0.060
21″	0.07		0.07	0.066	0.066
24″	0.07		0.07	0.072	0.072
27″	0.13		0.11	0.078	0.078
30″	0.14		0.12	0.084	0.084
33″	0.15		0.13	0.090	0.090
36″	0.12	0.09	0.13	0.096	0.096
42″	0.15	0.12	0.17	0.108	0.108
48″	0.18	0.14	0.20	0.120	0.120
54″	0.22	0.16	0.24	0.132	0.132
60″	0.25	0.19	0.28	0.144	0.144
66″	0.31	0.23	0.34	0.156	0.156
72″	0.35	0.21	0.39	0.170	0.170
78″	0.40	0.24	0.44	0.185	0.185
84″	0.46	0.28	0.51	0.205	0.205



END VIEW

GENERAL NOTES:

SLIGHT VARIATIONS IN BOTH SHAPE AND DIMENSIONS FROM THOSE SHOWN MAY BE ACCEPTED IF APPROVED BY THE ENGINEER.

NOT MORE THAN THREE LIFT HOLES MAY BE DRILLED OR CAST IN THE END SECTION FOR HANDLING AND LAYING.

LIFT LUGS OR BARS WILL BE PERMITTED IN PRECAST TOE WALLS.

TOE WALLS MAY BE CAST-IN-PLACE OR PRECAST.

STEEL FIBERS MAY BE USED IN LIEU OF REBAR OR COLD DRAWN STEEL WIRE AS PER SECTION 1032.3.4.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

STATE OF MISSOURI
ERIC E. SCHROETER
NUMBER PE-28411
PROFESSIONAL ENGINEER
THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

FLARED END SECTION

PRECAST CONCRETE

DATE EFFECTIVE: 04/01/2016
DATE PREPARED: 2/11/2016

732.00S

SHEET NO. 1 OF 3

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

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Olsson - Civil Engineering
Missouri Certificate of Authority #001592
702 S. Main Street
Joplin, MO 64801
TEL 417.781.0643
www.olsson.com

STATE OF MISSOURI
BRIAN COOMES
Brian Coomes
04/23/2021
NUMBER PE-2015029306
PROFESSIONAL ENGINEER

REVISIONS

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

STORM DRAIN DETAILS

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by: SMK/JKL
checked by: PM/LB/RF
approved by: BMC
QA/QC by: PM/LB/RF
project no.: 015-2768
drawing no.: G_STMDTL1_52768
date: 04/23/2021

SHEET 52 of 59

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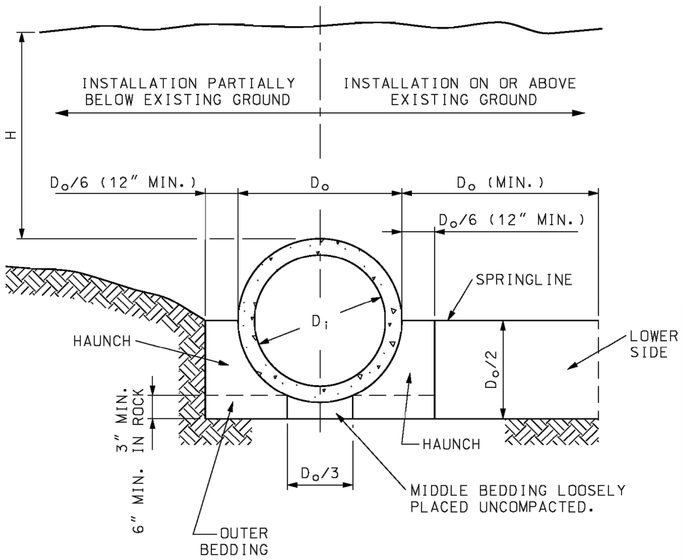


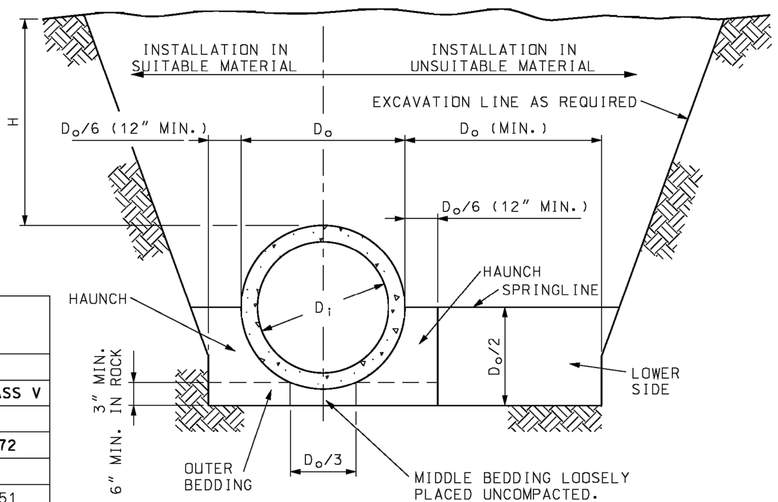
EMBANKMENT INSTALLATIONS

CONSTRUCTION SEQUENCE
1. PLACE BEDDING MATERIAL TO GRADE. DO NOT COMPACT.
2. INSTALL PIPE TO GRADE.
3. COMPACT BEDDING OUTSIDE THE MIDDLE THIRD OF THE PIPE.
4. PLACE AND COMPACT THE HAUNCH AREA UP TO THE SPRINGLINE.
5. COMPLETE BACKFILL ACCORDING TO SPECIFICATIONS.

MAXIMUM DIAMETER AND MAXIMUM FILL HEIGHT

INSTALLATION TYPE	CLASS OF PIPE				
	CLASS I	CLASS II	CLASS III	CLASS IV	CLASS V
	MAXIMUM DIAMETER (INCHES)				
	108	108	108	84	72
	MAXIMUM FILL HEIGHT IN (FEET)				
TYPE 1	12	15	21	33	51
TYPE 2	9	12	17	26	39
TYPE 3	7	9	13	20	30
TYPE 4	4	6	9	13	20

IF FILL HEIGHT EXCEEDS 51 FEET AND PIPE DIAMETER IS 36 INCHES OR LESS A SPECIAL PIPE DESIGN AND INSTALLATION PROCEDURE SHALL BE REQUIRED. IF FILL HEIGHT EXCEEDS 51 FEET AND PIPE DIAMETER IS GREATER THAN 36 INCHES A SPECIAL DESIGN PIPE IS NOT ALLOWED.

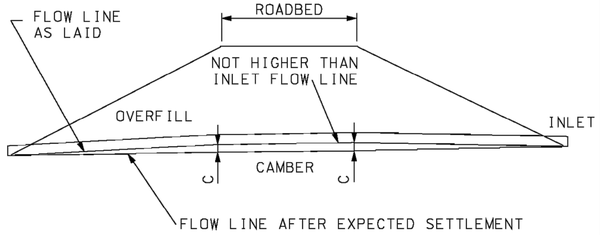


TRENCH INSTALLATION

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

- LEGEND -

D_i = NORMAL INSIDE DIAMETER OF PIPE.
D_o = OUTSIDE DIAMETER OF PIPE.
H = FILL COVER HEIGHT OVER PIPE (FEET)
MIN. = MINIMUM
= UNDISTURBED SOIL



NOTE:
ON YIELDING SOIL, PIPE CULVERTS SHALL BE PLACED ON A CAMBERED FLOW LINE. THE AMOUNT OF CAMBER WILL VARY WITH SOIL CONDITION AND SHALL BE SPECIFIED ON THE DESIGN PLANS.

TYPICAL CAMBERED FLOW LINE

BEDDING AND COMPACTION REQUIREMENTS

INSTALLATION TYPE	BEDDING THICKNESS	COMPACTION REQUIREMENTS (MIN. STANDARD PROCTOR %)					
		HAUNCH AND OUTER BEDDING			LOWER SIDE BEDDING		
		CATEGORY 1 SOIL (A)	CATEGORY 2 SOIL (B)	CATEGORY 3 SOIL (C)	CATEGORY 1 SOIL (A)	CATEGORY 2 SOIL (B)	CATEGORY 3 SOIL (C)
1	D_o/24 MINIMUM, NOT LESS THAN 3". IF ROCK FOUNDATION, USE D_o/12 MIMIMUM, NOT LESS THAN 6".	95	N/A	N/A	90	95	100
2	D_o/24 MINIMUM, NOT LESS THAN 3". IF ROCK FOUNDATION, USE D_o/12 MIMIMUM, NOT LESS THAN 6".	90	95	N/A	85	90	95
3	D_o/24 MINIMUM, NOT LESS THAN 3". IF ROCK FOUNDATION, USE D_o/12 MIMIMUM, NOT LESS THAN 6".	85	90	95	85	90	95
4	D_o/24 MINIMUM, NOT LESS THAN 3". IF ROCK FOUNDATION, USE D_o/12 MIMIMUM, NOT LESS THAN 6".	NO COMPACTION REQUIRED	NO COMPACTION REQUIRED	85	NO COMPACTION REQUIRED	NO COMPACTION REQUIRED	85

(A) GRAVELLY SAND
(B) SANDY-SILT
(C) SILTY CLAY

GENERAL NOTES:

MULTIPLE PIPE CULVERTS SHALL BE INSTALLED WITH A MINIMUM CLEARANCE BETWEEN PIPES OF ½ D_o OR 12", WHICHEVER IS GREATER, BUT NOT TO EXCEED 36".

CLASS I AND CLASS II REINFORCED CONCRETE PIPE SHALL ONLY BE USED FOR SEWERS IN TRENCHES OUTSIDE ROADBED AND STREET LIMITS.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

STATE OF MISSOURI — ERIC E SCHROETER — NUMBER PE-28411 — PROFESSIONAL ENGINEER
THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

RIGID CULVERT INSTALLATION METHODS
REINFORCED CONCRETE PIPE CULVERTS

DATE EFFECTIVE: 04/01/2015
DATE PREPARED: 2/20/2015

726.30J

SHEET NO. 1 OF 2

olsson
Olsson - Civil Engineering
Missouri Certificate of Authority #001592
702 S. Main Street
Joplin, MO 64801
TEL 417.781.0643 www.olsson.com

STATE OF MISSOURI — BRIAN COOMES — Brian Coomes 04/23/2021 — NUMBER PE-2015029306 — PROFESSIONAL ENGINEER

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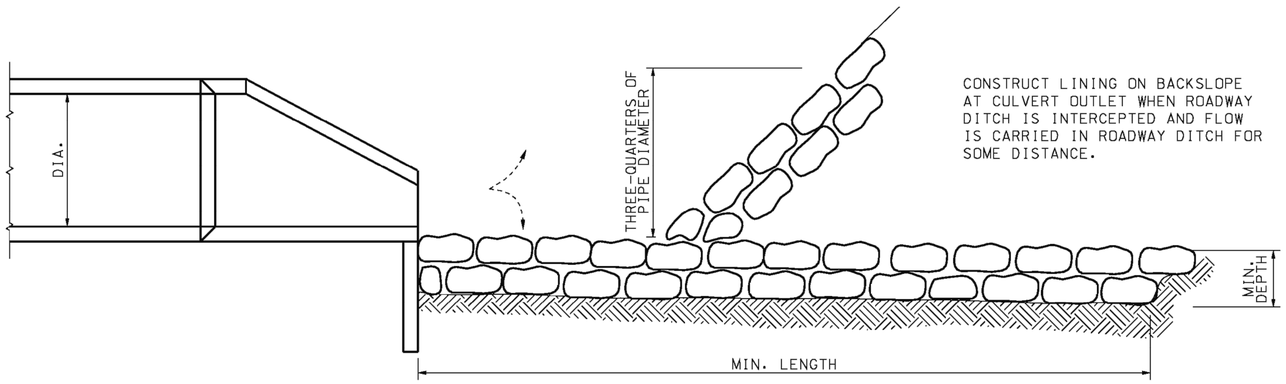
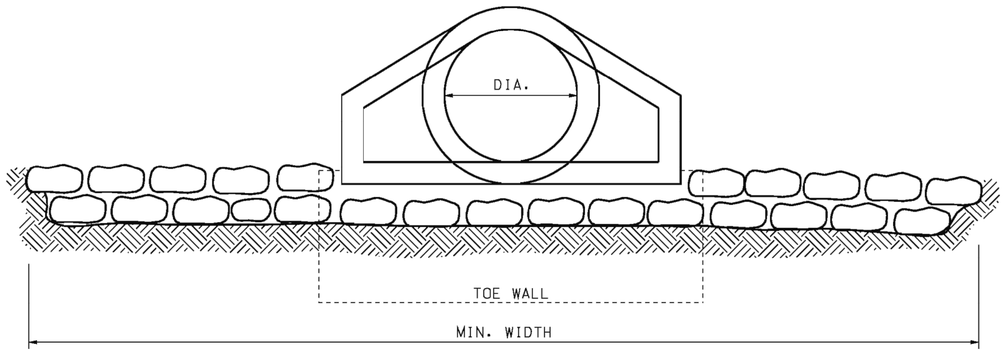
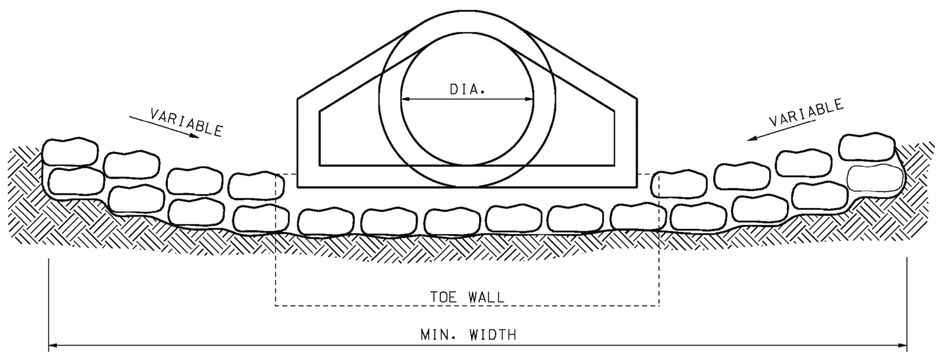


CONSTRUCT LINING ON BACKSLOPE AT CULVERT OUTLET WHEN ROADWAY DITCH IS INTERCEPTED AND FLOW IS CARRIED IN ROADWAY DITCH FOR SOME DISTANCE.

SIDE VIEW



END VIEW



END VIEW
(ALTERNATE METHOD)

ROCK LINING FOR CULVERT OUTLETS

CULVERT SIZE, DIA (IN.)	MINIMUN DEPTH AND WIDTH (FT.)	MINIMUM LENGHT (FT.)	ROCK LINING (CU.YD.)	EQUIVALENT PIPE ARCH CULVERT (APPROX.)	EQUIVALENT CONCRETE BOX CULVERT (APPROX.)
18	1 X 4	12	2		
24	1 X 6	14	3		2′ X 1½′
30	1 X 7	16	4	B-5	2′ X 2′
36	1.5 X 9	18	9	B-6	3′ X 2′
42	2 X 10	20	15	B-7	3′ X 3′
48	2 X 12	20	18	B-8	4′ X 3′
54	2 X 13.5	22	22	B-9	4′ X 4′
60	2 X 15	25	28	B-10	5′ X 4′
66	2 X 18	25	33	B-11	5′ X 5′
72	2 X 20	30	44	B-12	5′ X 6′
84	2.5 X 25	35	81		6′ X 6′
96	2.5 X 30	40	111		7′ X 7′
108	3 X 32	40	142		8′ X 8′

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

GENERAL NOTES:

THE DIMENSIONS SHOWN IN THE TABLE CAN BE APPLIED TO BOX OR ARCH CULVERTS OF EQUIVALENT WATERWAY AREA.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
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JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

STATE OF MISSOURI
KATHRYN PHILLIPS HARVEY
NUMBER PE-2576T
PROFESSIONAL ENGINEER
THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

ROCK LINING FOR CULVERT OUTLET

DATE EFFECTIVE: 10/01/1981
DATE PREPARED: 8/21/2009

609.70C

SHEET NO. 1 OF 1

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STATE OF MISSOURI
BRIAN COOMES
04/23/2021
NUMBER PE-2015029306
PROFESSIONAL ENGINEER

REVISIONS

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

STORM DRAIN DETAILS

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI 2021

drawn by: SMK/JKL
checked by: PM/LB/RF
approved by: BMC
QA/QC by: PM/LB/RF
project no.: 015-2768
drawing no.: G_STMDTL1_52768
date: 04/23/2021

SHEET 54 of 59

DWG: F:\PROJECTS\015-2768\40-Design\AutoCAD\Final Plans\Sheets Front End\STORM DRAIN DETAILS\G_STMDTL1_52768.dwg USER: skendall
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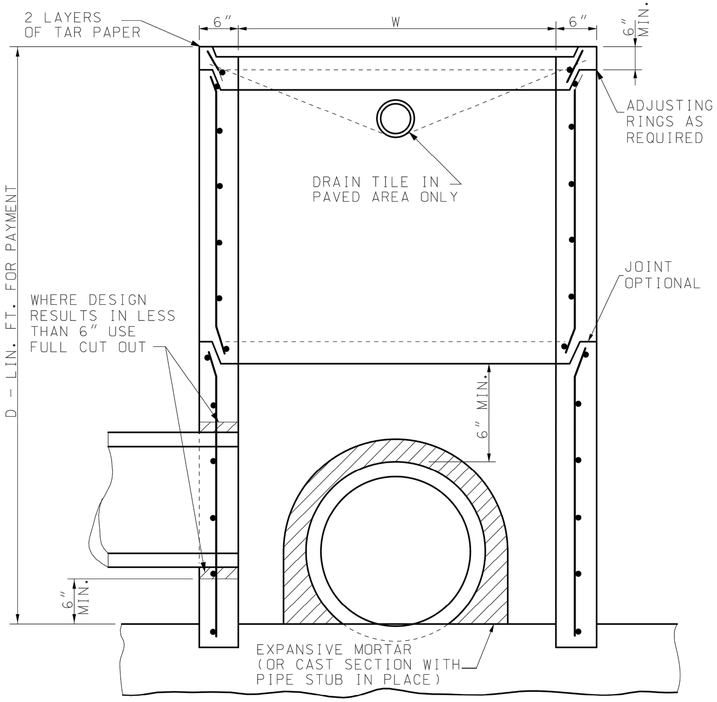
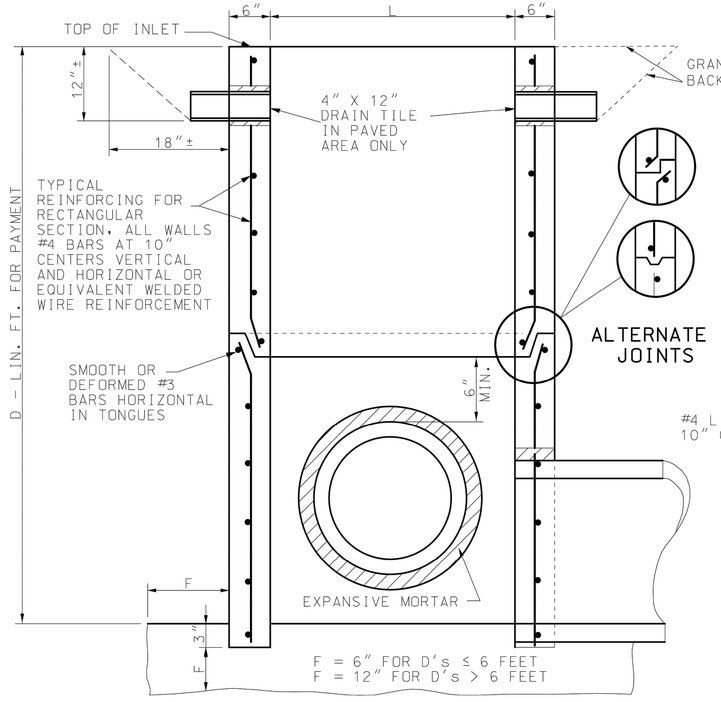


SECTION A–A



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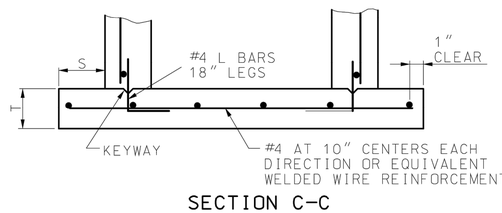
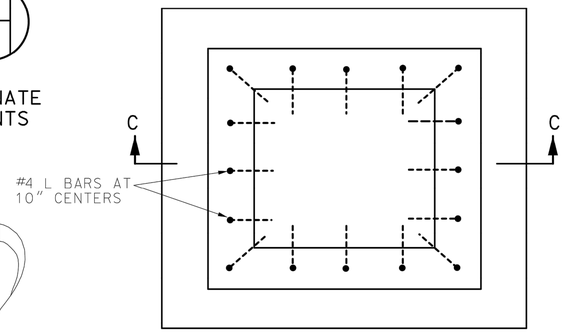


SECTION C–C

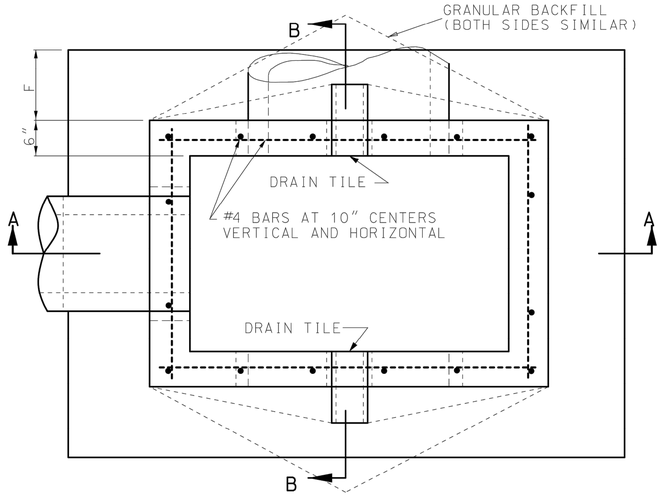


S = 0 FOR D ≤ 6 FEET AND 9″ FOR D > 6 FEET

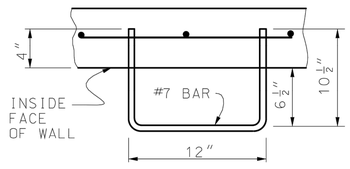
T = 6″ FOR D ≤ 6 FEET AND 9″ FOR D > 6 FEET

FOUNDATION SLAB AND BASE SECTION MAY BE POURED MONOLITHIC OR SEPARATELY WITH A KEYWAY.

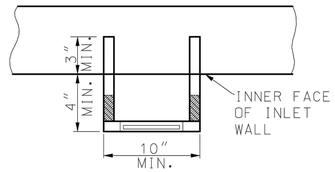
PRECAST FOUNDATION SLAB



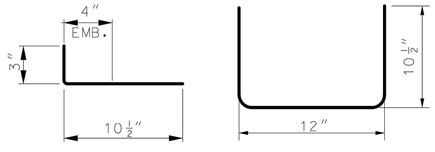
INLET PLAN



STEPS



STEP INSTALLATION (OTHER THAN STEEL BAR)



S – BARS

BENDING DIAGRAM STEEL STEP BAR

GENERAL NOTES:

STEPS SHALL BE PLACED AT VERTICAL INTERVALS OF 16″ MAXIMUM IN ALL INLETS HAVING A DEPTH OF MORE THAN 4 FEET. STEPS SHALL BEGIN AT AN ELEVATION 6″ ABOVE THE TOP OF THE OUTLET PIPE.

STEPS SHALL BE SET LEVEL AND IN VERTICAL ALIGNMENT AND NOT NEARER THAT 3″ TO A JOINT.

NO DIRECT PAYMENT WILL BE MADE FOR INLET STEPS.

STEPS ARE NOT REQUIRED FOR TYPE D INLETS.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
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JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

STATE OF MISSOURI
ERIC E. SCHROETER
NUMBER PE-28411
PROFESSIONAL ENGINEER
THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

PRECAST DROP INLET

DATE EFFECTIVE: 07/01/2016
DATE PREPARED: 5/13/2016

731.10S

SHEET NO. 1 OF 8

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

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STATE OF MISSOURI
BRIAN COOMES
Brian Coomes
04/23/2021
NUMBER PE-2015029306
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

STORM DRAIN DETAILS

32ND STREET WIDENING
CITY OF JOPLIN

2021

JOPLIN, MISSOURI

drawn by: SMK/JKL
checked by: PM/LB/RF
approved by: BMC
QA/QC by: PM/LB/RF
project no.: D15-2768
drawing no.: G_STMDTL1_52768
date: 04/23/2021

SHEET 55 of 59

DWG: F:\PROJECTS\015-2768\40-Design\AutoCAD\Final Plans\Sheets Front End\STORM DRAIN DETAILS\G_STMDTL1_52768.dwg
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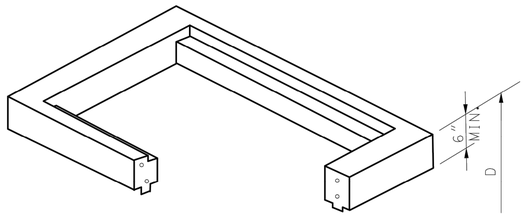
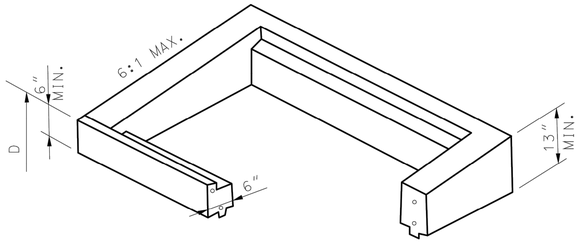
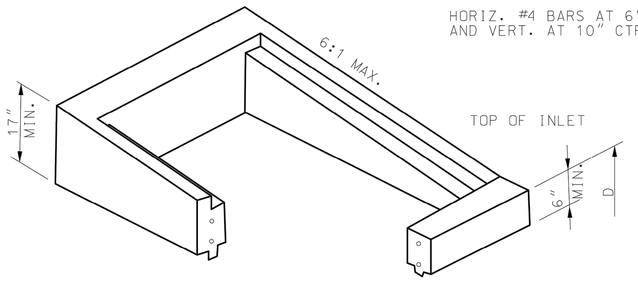


TYPE S-1



TYPE S-2

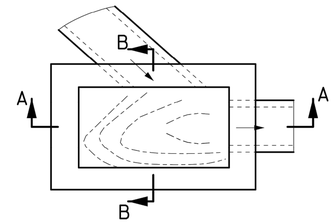
HORIZ. #4 BARS AT 6" CTRS.
AND VERT. AT 10" CTRS.



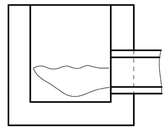
TYPE S-3

SEE STANDARD PLAN 614.10 FOR GRATES AND BEARING PLATES. TYPICAL LOCATION DETAILS ARE INDICATED ON SHEETS 7 AND 8 OF 8. TOP SECTIONS MAY BE CAST MONOLITHIC WITH BASE SECTION.

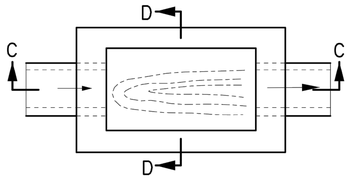
DROP INLET		
WIDTH FT.	LENGTH FT.	TYPE
2	2	A,B,C
4	2	
2	2	D
3	2	E,S-1 S-2,S-3
3	3	
5	2	
5	3	

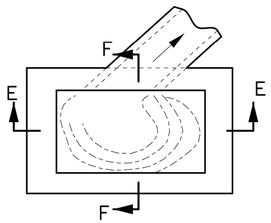


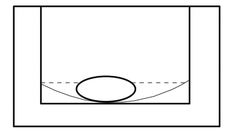
SECTION A-A



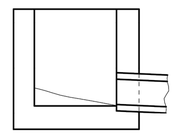
SECTION B-B



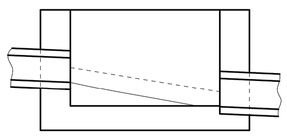




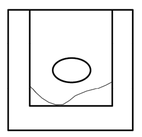
SECTION E-E



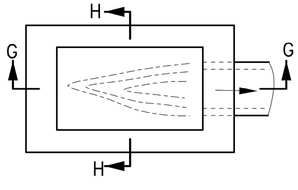
SECTION F-F

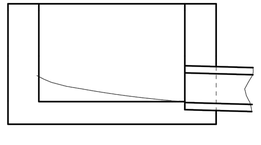


SECTION C-C

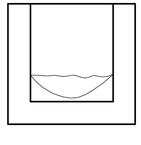


SECTION D-D





SECTION G-G



SECTION H-H

TYPICAL INVERTS

GENERAL NOTES:

THE CONCRETE FOR INVERTS SHALL BE PLACED AFTER COMPLETION OF THE DROP INLET BOX. NO DIRECT PAYMENT WILL BE MADE FOR FURNISHING OR PLACING INVERT CONCRETE.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

STATE OF MISSOURI
ERIC E. SCHROETER
NUMBER PE-28411
PROFESSIONAL ENGINEER
THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

PRECAST DROP INLET

DATE EFFECTIVE: 07/01/2016
DATE PREPARED: 5/13/2016

731.10S

SHEET NO.
2 OF 8

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

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STATE OF MISSOURI
BRIAN COOMES
Brian Coomes
04/23/2021
NUMBER PE-2015029306
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

STORM DRAIN DETAILS

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by: SMK/JKL
checked by: PM/LB/RF
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project no.: 015-2768
drawing no.: G_STMDTL1_52768
date: 04/23/2021

SHEET
56 of 59

DWG: F:\PROJECTS\015-2768\40-Design\AutoCAD\Final Plans\Sheets Front End\STORM DRAIN DETAILS\G_STMDTL1_52768.dwg USER: skendall
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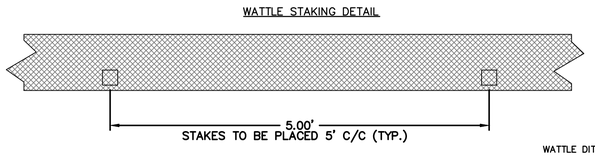
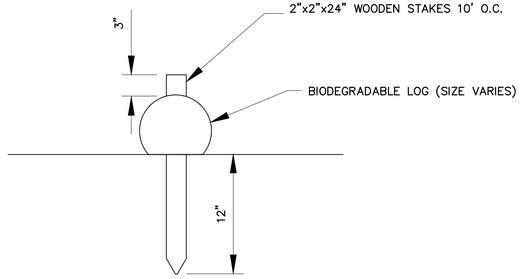


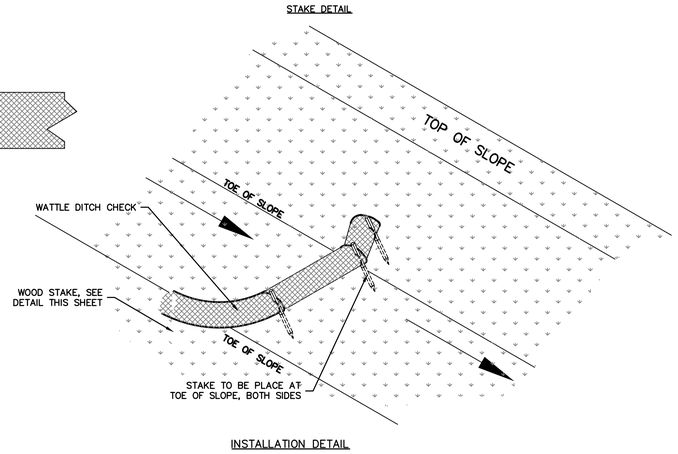


BIODEGRADABLE LOG

N.T.S.

NOTE:

8" BIODEGRADABLE LOG LOCATED ALONG THE PROJECT BOUNDARIES SHALL BE INSTALLED PRIOR TO GRADING OPERATIONS.



NOTES:

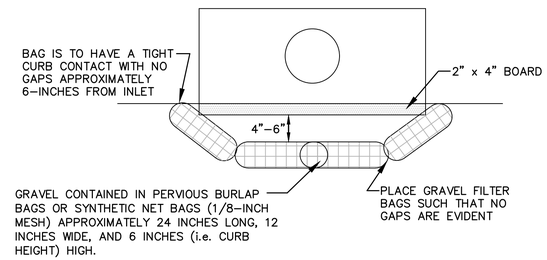
1. **WATTLE BARRIER SHALL BE MAINTAINED UNTIL ADJACENT VEGETATION IS ESTABLISHED, OR AS DIRECTED BY ENGINEER.**
2. **12" BIODEGRADABLE LOGS WILL BE USED FOR DITCH CHECKS.**
3. **WATTLE BARRIER SHALL BE INSPECTED AND REPAIRED, WEEKLY, IF NECESSARY, OR AS REQUIRED BY NPDES PERMIT.**
4. **WATTLE BARRIER REMOVALS WILL BE THE CONTRACTORS RESPONSIBILITY.**
5. **WATTLE BARRIER ARE TO BE INSTALLED AT LOCATION SHOWN ON PLANS.**
6. **2" X 2" X 48" WOODEN STAKES ARE REQUIRED FOR WATTLES.**
7. **ALL MATERIAL SHALL BE ON LOCAL STATE APPROVED PRODUCT LIST.**

WATTLE BARRIER DETAIL

NO SCALE

EROSION CONTROL NOTES

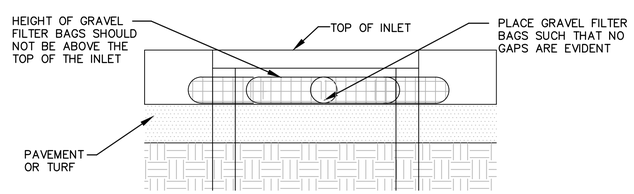
1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE OF ALL EROSION & SEDIMENT CONTROL MEASURES AND PRACTICES THROUGHOUT THE PROJECT. ANY AND ALL FINES ASSOCIATED WITH EROSION CONTROL VIOLATIONS WILL BE THE CONTRACTOR'S RESPONSIBILITY.
2. EROSION CONTROL IS THE CONTRACTOR'S RESPONSIBILITY. THIS PLAN 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 & SEDIMENT CONTROL MEASURES WILL BE INSTALLED IF DEEMED NECESSARY BY ON-SITE INSPECTION.
4. CONTRACTOR IS RESPONSIBLE FOR REPAIRING ALL EROSION & 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 & 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. ALL EROSION CONTROL DEVICES SHALL CONFORM TO THE APPLICABLE SECTIONS OF THE STANDARD SPECIFICATIONS AND DESIGN CRITERIA OF THE ENGINEERING DIVISION, DEPARTMENT OF PUBLIC WORKS, CITY OF JOPLIN, MISSOURI.
11. THE CONTRACTOR WILL BE REQUIRED TO CLEAN THE STREETS OF DEPOSITED MUD AS FREQUENTLY AS NEEDED AS DETERMINED BY THE ENGINEER IN ORDER TO KEEP THEM USABLE AND TO CONTROL DUST.
12. CONTRACTOR IS RESPONSIBLE FOR PHASED INSTALLATION OF EROSION CONTROL BMP'S IN ORDER TO PREVENT SEDIMENT FROM BREACHING THE LIMITS OF DISTURBANCE.
13. WATER HAUL ROUTES AND GRADING AREAS AS REQUIRED TO CONTROL DUST. ALL REQUESTS FOR WATER SHALL BE COMPLETED IMMEDIATELY. ALL WORK, MATERIALS, AND EQUIPMENT REQUIRED IS CONSIDERED SUBSIDIARY TO EROSION CONTROL.
14. ALL SEEDING AND MULCHING ASSOCIATED WITH THE CONTRACTOR'S STAGING AREA AND HAUL ROUTES IS CONSIDERED SUBSIDIARY TO MOBILIZATION.
15. SEE GENERAL NOTES ON SHEET 2 FOR ADDITIONAL REQUIREMENTS.



TOP VIEW

* 5/8" CRUSHED LIMESTONE

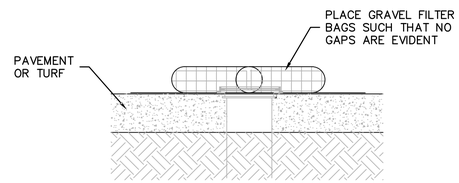
BAGS SHALL BE INSPECTED AND REPLACED AS NEEDED.



FRONT VIEW

GRAVEL FILTER BAG AT CURB INLET DETAIL

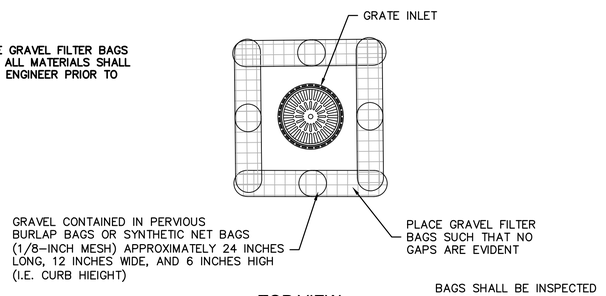
NOT TO SCALE



FRONT VIEW

NOTE:

CONTRACTOR MAY USE GRAVEL FILTER BAGS OR APPROVED EQUAL. ALL MATERIALS SHALL BE APPROVED BY THE ENGINEER PRIOR TO WORK BEGINNING.



TOP VIEW

* 5/8 - 1 1/2" CRUSHED LIMESTONE

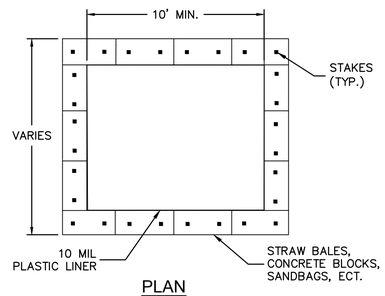
BAGS SHALL BE INSPECTED AND REPLACED AS NEEDED.

GRAVEL FILTER BAGS AROUND GRATE DETAIL

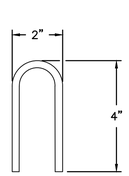
NOT TO SCALE

NOTES:

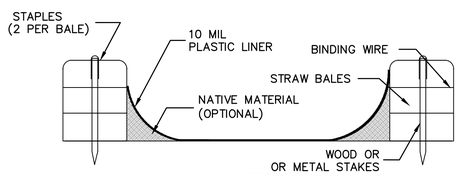
1. ACTUAL LAYOUT LOCATIONS & NUMBER OF WASHOUTS TO BE DETERMINED BY CONTRACTOR IN FIELD.
2. THE CONCRETE WASHOUT SIGN SHALL BE INSTALLED WITHIN 30 FT. OF THE TEMPORARY CONCRETE WASHOUT FACILITY.
3. WASHOUTS SHALL BE LOCATED A MINIMUM OF 50 FT. FROM STORM DRAINS, OPEN DRAINAGE FACILITIES AND WATER COURSES. AVOID MIXING EXCESS AMOUNTS OF FRESH CONCRETE.
4. INSTALL BEFORE THE START OF ANY CONCRETE ACTIVITIES OR DELIVERIES.
5. INSPECT AND REPAIR, WEEKLY, IF NECESSARY OR AS REQUIRED BY NPDES PERMIT. REMOVE AND DISPOSE OF HARDENED CONCRETE AND RETURN THE FACILITY TO A FUNCTIONAL CONDITION. WASHOUT FACILITIES MUST BE CLEANED, OR NEW FACILITIES MUST BE CONSTRUCTED AND READY FOR USE ONCE THE WASHOUT IS 75% FULL.
6. WHEN TEMPORARY CONCRETE WASHOUT FACILITIES ARE NO LONGER REQUIRED FOR THE WORK, THE HARDENED CONCRETE SHOULD BE REMOVED AND DISPOSED. MATERIALS USED TO CONSTRUCT TEMPORARY CONCRETE WASHOUT FACILITIES SHALL BE REMOVED FROM THE SITE AND DISPOSED. HOLES, DEPRESSIONS OR OTHER GROUND DISTURBANCE CAUSED BY THE REMOVAL OF THE WASHOUT SHALL BE BACKFILLED AND REPAIRED.



PLAN



STAPLE



SECTION

CONCRETE WASHOUT DETAIL

NOT TO SCALE

olsson
Olsson - Civil Engineering
Missouri Certificate of Authority #001592
702 S. Main Street
Joplin, MO 64801
TEL 417.781.0643
www.olsson.com

STATE OF MISSOURI
BRIAN COOMES
Brian Coomes
04/23/2021
NUMBER PE-2015029306
PROFESSIONAL ENGINEER

REVISIONS

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

EROSION CONTROL DETAILS

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

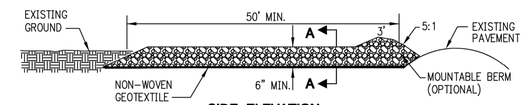
2021

drawn by: SMK/JKL
checked by: PM/LB/RF
approved by: BMC
QA/QC by: PM/LB/RF
project no.: 015-2768
drawing no.: G_ERCDTL_52768
date: 04/23/2021

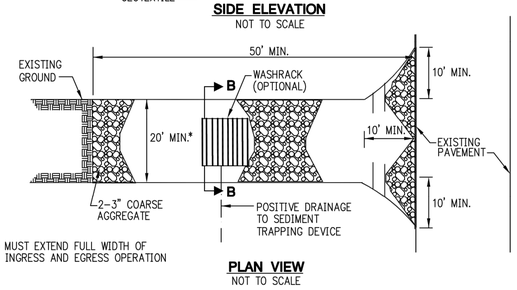
SHEET
57 of 59

DWG: F:\PROJECTS\015-2768\40-Design\AutoCAD\Final Plans\Sheets Front End\EROSION DETAILS\G_ERCDTL_52768.dwg USER: skendall
DATE: Apr 21, 2021 1:39pm XREFS: G_TBLK_52768

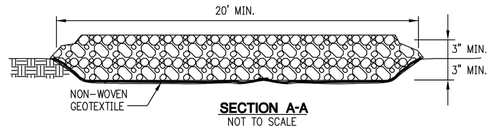
TEMPORARY CONSTRUCTION ENTRANCE



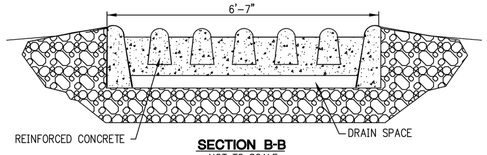
SIDE ELEVATION
NOT TO SCALE



PLAN VIEW
NOT TO SCALE



SECTION A-A
NOT TO SCALE



SECTION B-B
NOT TO SCALE

TEMPORARY CONSTRUCTION ENTRANCE PAD NOTES:

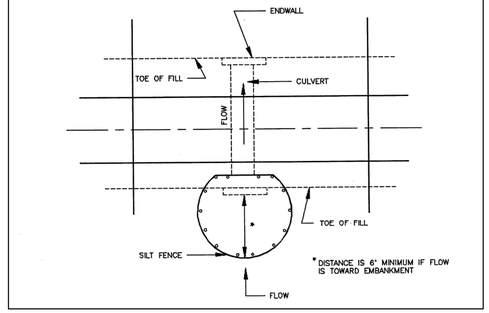
A. INSTALLATION
1. AVOID LOCATING ON STEEP SLOPES OR AT CURVES ON PUBLIC ROADS. IF POSSIBLE, LOCATE WHERE PERMANENT ROADS WILL EVENTUALLY BE CONSTRUCTED.
2. REMOVE ALL VEGETATION AND OTHER UNSUITABLE MATERIAL FROM THE FOUNDATION AREA, GRADE, AND CROWN FOR POSITIVE DRAINAGE.
3. IF SLOPE TOWARDS THE PUBLIC ROAD EXCEEDS 2% CONSTRUCT A 6-TO 8-INCH HIGH RIDE WITH 3H:1V SIDE SLOPES ACROSS THE FOUNDATION APPROXIMATELY 15 FEET FROM THE EDGE OF THE PUBLIC ROAD TO DIVERT RUNOFF AWAY 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 SMOOTH AND SLOPED FOR DRAINAGE.
6. DIVERT ALL SURFACE RUNOFF AND DRAINAGE FROM THE ENTRANCE TO A SEDIMENT CONTROL DEVICE.
7. IF WET CONDITION ARE ANTICIPATED, PLACE GEOTEXTILE FABRIC ON THE GRADED FOUNDATION TO IMPROVE STABILITY.

B. TROUBLESHOOTING
1. CONSULT WITH A QUALIFIED DESIGN PROFESSIONAL IF ANY OF THE FOLLOWING OCCUR:
   a. INADEQUATE RUNOFF CONTROL TO THE EXTENT THAT SEDIMENT WASHES ONTO PUBLIC ROAD – INSTALL DIVERSIONS OR OTHER RUNOFF CONTROL MEASURE.
   b. SMALL STONE, THIN PAD, OR ABSENCE OF GEOTEXTILE FABRIC RESULTS IN RUTS AND MUDDY CONDITIONS AS STONE IS PRESSED INTO SOIL – INCREASE STONE SIZE OR PAD THICKNESS OR ASS GEOTEXTILE FABRIC.
   c. PAD TOO SHORT FOR HEAVY CONSTRUCTION TRAFFIC – EXTEND PAD BEYOND THE MINIMUM 50-FOOT LENGTH AS NECESSARY.

C. INSPECTION AND MAINTENANCE
1. INSPECT AND REPAIR STONE PAD AND SEDIMENT DISPOSAL AREA WEEKLY, IF NECESSARY, OR AS REQUIRED BY MDNR.
2. RESHAPE PAD AS NEEDED FOR PROPER DRAINAGE AND RUNOFF CONTROL.
3. TOPDRESS WITH CLEAN 2-AND 3-INCH STONE AS NEEDED.
4. AS SOON AS PRACTICABLE REMOVE MUD OR SEDIMENT TRACKED OR WASHED ONTO PUBLIC ROAD. REPAIR ANY BROKE ROAD PAVEMENT AS SOON AS PRACTICABLE.
5. REMOVE ALL TEMPORARY ROAD MATERIALS FROM AREAS WHERE PERMANENT VEGETATION WILL BE ESTABLISHED.

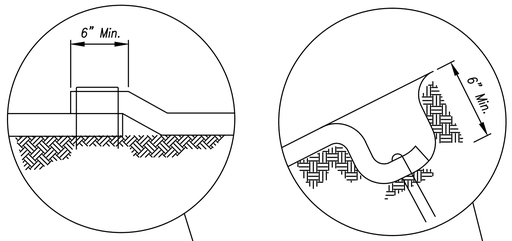
TEMPORARY CONSTRUCTION ENTRANCE
NOT TO SCALE

SILT FENCE CULVERT INLET PROTECTION



CULVERT INLET PROTECTION
NOT TO SCALE

Longitudinal Seam *Anchor Slot*

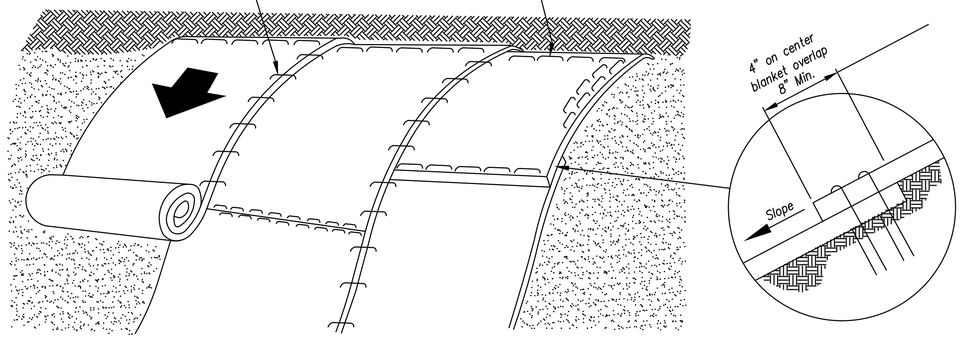


General Notes:

1. *APWA Specifications 2150 and Design Guidance 5100 shall be referenced to select type of blanket or mat to be used.*
2. *Typical anchors and pattern/spacing shall be installed according to the manufacturers instructions.*
3. *LONGITUDINAL SEAMS: The edges of the blanket or mat should overlap each other a minimum of 6 inches, with anchors catching the edges of both blankets.*

Maintenance:

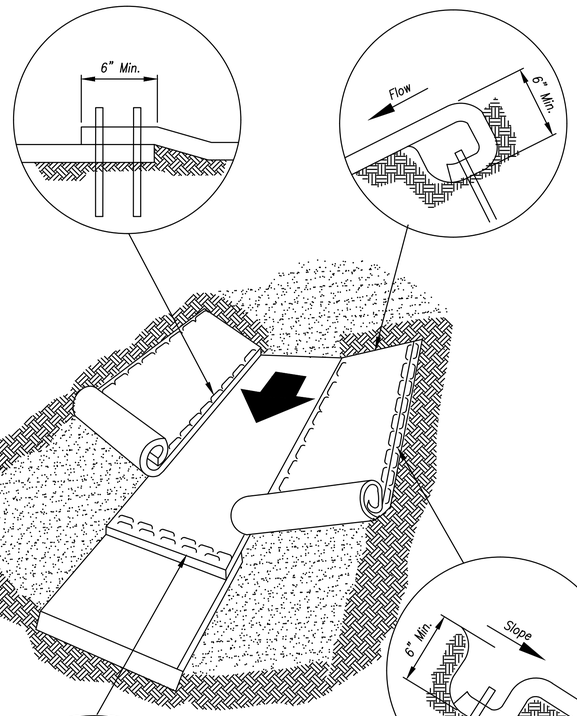
1. *Torn or degraded product shall be repaired or replaced, unless such degradation is within the functional longevity specified by the manufacturer.*
2. *Edges or seams that are loose or frayed shall be secured.*



Installation on Slopes

Splice Seam

Longitudinal Seam *Anchor Fold*



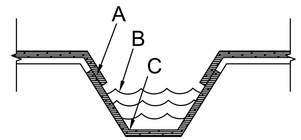
Splice Seam *Edge Anchor*

Notes for Installation in Channels:

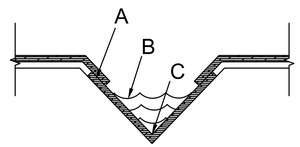
1. *Erosion Control Blankets and TRMs shall be laid in the direction of the flow, with the first course at the centerline of channel, where applicable. In order for the mat to be in contact with the soil, lay the mat loosely, avoiding stretching.*
2. *ANCHOR FOLD: The top of the mat should be folded under, buried and secured with wood or other approved anchors placed 6 inches apart. The top edge of the mat should be buried in a slot 6 inches wide x 6 inches deep, anchored in the bottom of the slot, backfilled, and the mat folded over the top as shown in detail.*
3. *SPLICE SEAM: When splices are necessary, overlap end a minimum of 12 inches in direction of water flow. Stagger splice seams.*
4. *CHECK SLOTS: Establish check slots transverse to slope every 30 feet. The slots should be 6 inches wide x 6 inches deep. The mat shall be cut to a length 12 inches beyond the slot. The top of the downstream mat shall be slotted in, secured and buried similar to the edge anchor fold. The upstream mat shall then cover the slot and be anchored as shown.*
5. *EDGE ANCHORS: Lay outside edge of mat into trench at top of the slope and anchor.*
6. *TERMINUS: The bottom edge of the mat shall be anchored.*

Critical Points:

A – *Overlaps and seams;*
B – *Projected water line;*
C – *Channel bottom / side slope vertices;*



Trapezoidal Channel



V Channel

Installation in Channels

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STATE OF MISSOURI
BRIAN COOMES
Brian Coomes
04/23/2021
NUMBER PE-2015029306
PROFESSIONAL ENGINEER

REVISIONS

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

EROSION CONTROL DETAILS

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by: SMK/JKL
checked by: PM/LB/RF
approved by: BMC
QA/QC by: PM/LB/RF
project no.: 015-2768
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DWG: F:\PROJECTS\015-2768\40-Design\AutoCAD\Final Plans\Sheets Front End\EROSION DETAILS\G_ERCDTL_52768.dwg
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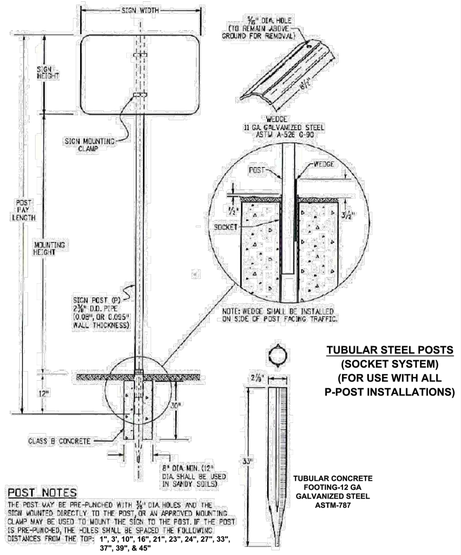


TUBULAR STEEL POSTS
(SOCKET SYSTEM)
(FOR USE WITH ALL P-POST INSTALLATIONS)

POST NOTES

THE POST MAY BE PRE-PUNCHED WITH ¾" DIA HOLES AND THE SIGN MOUNTED DIRECTLY TO THE POST, OR AN APPROVED MOUNTING CLAMP MAY BE USED TO MOUNT THE SIGN TO THE POST. IF THE POST IS PRE-PUNCHED, THE HOLES SHALL BE SPACED THE FOLLOWING DISTANCES FROM THE TOP: **1", 3", 10", 16", 21", 23", 24", 27", 33", 37", 39", & 45"**

POST SPECIFICATIONS

POST SIZE	OUTSIDE Ø	WALL TH	MATERIAL	** COATING	MAX ALLOW MOMENT	PAID FOR AS:
P	2.375"	.080"	ASTM-513	ASTM A-653 G-210 WITH 3.0 MIL POLYMER COATING PER ASTM A123 CLEAR COATING	1.47 KIP FT	STEEL SIGN SUPPORT (2 INCH ROUND)
P1	2.875"	.160"	ASTM-513		4.02 KIP FT	STEEL SIGN SUPPORT (2 1/2 INCH ROUND NP-40)
P2	2.875"	.276"	ASTM-500	GC HOT DIPPED PER ASTM-123	5.13 KIP FT	STEEL SIGN SUPPORT (2 1/2 INCH ROUND SCH 80)

** COLOR POWDER COATING MAY BE ADDED ACCORDING TO MANUFACTURER SPECIFICATIONS FOR SPECIAL LOCATIONS WHEN SHOWN ON PLANS.

SHEET 1 **ST-18**

CITY OF Joplin	CITY OF JOPLIN, MO	CKD BY: JOHNSON	PROJECT
	PUBLIC WORKS DEPT	DATE: 03/2019	**SIGN SUPPORT & INSTALLATION DETAILS**
	ENGINEERING DIVISION	ENGINEER: HERTZBERG	
	602 S MAIN ST 64801	FILE: SIGN POST 1	

CHART NOTES:
1. TYPICAL POST MOUNTING HEIGHTS FROM GROUND TO BOTTOM OF SIGN PANEL ARE 7', 8', OR 9'. OTHER HEIGHTS MAY BE REQUIRED WHEN SIGNS ARE MOUNTED ON STEEPER FILL OR CUT SLOPES.
2. FOR SIGNS MOUNTED ON TWO POSTS, THE MINIMUM DISTANCE BETWEEN POSTS SHALL BE 2' & THE MAXIMUM DISTANCE SHALL BE 8'. DISTANCE FROM POST TO EDGE OF SIGN PANELS SHALL 0" TO 4". WHEN BACKING ZEES ARE USED, POSTS SHALL BE INSTALLED WITH A MINIMUM OF 2" TO THE EDGE OF THE BACKING ZEE.
3. ALL SIDE PANELS GREATER THAN 60" IN WIDTH MUST BE MOUNTED ON 2 POSTS TO PREVENT TURNING.
4. THE POST SIZES SHOWN ARE THE MINIMUM SIZES REQUIRED. TWO P1 POSTS MAY SUBSTITUTED WHEN ONE P2 POST IS INDICATED. P2 POSTS MAY BE SUBSTITUTED FOR P1 POSTS WHEN DIRECTED BY THE ENGINEER.

SIGN POST SELECTION GUIDE
(90 MPH WIND LOAD DESIGN)
(FOR SOCKET SYSTEM & SLIPBASE INSTALLATIONS USING P, P1, OR P2 POSTS)

7' MOUNTING HEIGHT

SIGN HEIGHT (FT) \ SIGN WIDTH (FT)	1	2	2.5	3	4	5	6	7	8	9
1	P	P	P	P	P	P1	SIZES NOT USED			
2	P	P	P	P	P	P1				
2.5	P	P	P	P	P1	P1				
3	P	P	P	P1	P1	P1	TWO P1'S			
4	P	P1	P1	P1	P1	P1				
5			P1	P1	P1	P1	SIZE NOT USED → TWO P2'S			
6	SIZES NOT USED		P1	P1	P1	*P2				
7			P1	P1	*P2	TWO P1'S	TWO P2'S			

* SEE CHART NOTE 4

8' MOUNTING HEIGHT

SIGN HEIGHT (FT) \ SIGN WIDTH (FT)	1	2	2.5	3	4	5	6	7	8	9
1	P	P	P	P	P	P1	SIZES NOT USED			
2	P	P	P	P	P	P1				
2.5	P	P	P	P	P1	P1				
3	P	P	P	P1	P1	P1	TWO P1'S			
4	P	P1	P1	P1	P1	P1				
5			P1	P1	P1	P1	SIZES NOT USED → TWO P2'S			
6	SIZES NOT USED		P1	P1	P1	*P2				
7			P1	P1	TWO P1'S	TWO P1'S	TWO P2'S			

* SEE CHART NOTE 4

9' MOUNTING HEIGHT

SIGN HEIGHT (FT) \ SIGN WIDTH (FT)	1	2	2.5	3	4	5	6	7	8	9
1	P	P	P	P	P	P1	SIZES NOT USED			
2	P	P	P	P	P	P1				
2.5	P	P	P	P1	P1	P1				
3	P	P1	P1	P1	P1	P1	TWO P1'S			
4	P	P1	P1	P1	P1	P1				
5			P1	P1	P1	P1	SIZES NOT USED → TWO P2'S			
6	SIZES NOT USED		P1	P1	*P2	TWO P1'S				
7			P1	P2	TWO P1'S	TWO P1'S	TWO P2'S			

* SEE CHART NOTE 4

GENERAL NOTES:
1. SIGNS BETWEEN 37" & 60" WIDTH WITH ONE POST INSTALLATION REQUIRE A 'T' OR 'U' SIGN SUPPORT BRACKET IN ADDITION TO THE BACKING ZEE REQUIREMENTS. WHEN DIRECTED BY THE ENGINEER, SIGN PANELS LESS THAN 48" MAY BE ATTACHED DIRECTLY TO 'T' OR 'U' BRACKETS WITHOUT ZEES.
2. U-BRACKETS MAY BE USED FOR MULTIPLE SIGN INSTALLATIONS.

SHEET 2 **ST-19**

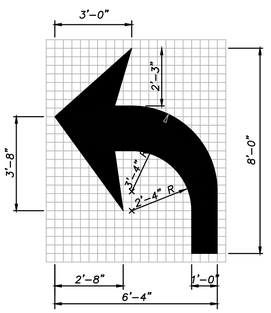
CITY OF Joplin	CITY OF JOPLIN, MO	CKD BY: JOHNSON	PROJECT
	PUBLIC WORKS DEPT	DATE: 03/2019	**SIGN SUPPORT & INSTALLATION DETAILS**
	ENGINEERING DIVISION	ENGINEER: HERTZBERG	
	602 S MAIN ST 64801	FILE: SIGN POST 2	

Permanent Signing General Notes

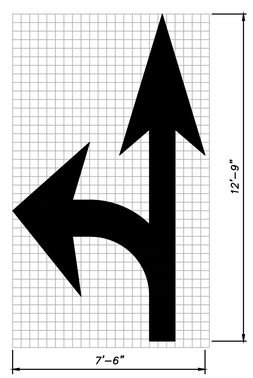
1. All permanent signing shall be provided and installed by the contractor as indicated in the plans and specifications.
2. All letter, number and symbol sizes, spacing and sign colors shall conform to the current Manual on Uniform Traffic Control Devices (MUTCD).
3. The contractor is responsible for avoiding any and all utilities when setting sign posts and will be required to coordinate his activities with all utility companies, for street light, traffic signal and fiber optic facilities whether their facility is indicated on the plans or not.
4. All new signs shall be located within public right-of-way.
5. All retro-reflective micro-encapsulated prismatic sheeting shall be ASTM Type XI. All signs shall be made from a combination retro-reflective sheeting background with electronic cuttable film applied to the surface. (Unless otherwise indicated in the plans or specifications). Process color inks or silk screening signs are not allowed.
6. All sign blank material shall be made of 0.08" aluminum except all overhead street name signs shall be made of 0.125" aluminum.
7. Existing street name signs in the way of construction:
   The street name signs shall be relocated out of the way of construction but in a conspicuous location for the driving public and emergency providers. The street name signs shall be reinstalled in their proper location as soon as possible unless otherwise indicated. The removal and re-installation of existing signs will be considered subsidiary to other bid items.
8. Signs shown to be installed on the side of poles shall be mounted by stainless steel mounting bands as detailed in the plans. All R10 series signs installed on a traffic signal mast arm shall be mounted with Astro-Brackets as specified.
9. All signs and posts shown in the plans shall be new unless otherwise indicated in the plans or by the Traffic Service Inspector.
10. All existing regulatory signs, warning signs, and street name 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, he shall be required to reinstall new signs and posts of the same type to replace the damaged equipment.
11. Any existing permanent signs shown to be removed by the contractor for construction purposes other than stop signs, yield signs or street name signs shall be stockpiled in one location and delivered to the City's public works facility. At least 24-hour advance notice shall be provided. The contractor shall be responsible for removing and stockpiling equipment in good condition and is fully responsible for the equipment until they are delivered to the maintenance facility.
12. All stop, yield, warning signs, and 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 (no less than 7 feet vertical from grade) until they can be permanently re-installed. Any temporary stop or yield sign installation to be left in place overnight will require prior approval from the Traffic Services Inspector.
13. All existing signs, other than stop, yield, warning signs, or street name signs, shown to be used in place shall be protected from damage by the contractor. The contractor may temporarily remove the sign and post to prevent damage at the approval of the inspector. Storage of the signs & posts is the responsibility of the contractor.

Pavement Marking General Notes

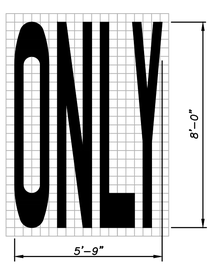
1. All permanent pavement markings shall be provided and installed by the contractor as indicated in the plans or as directed by the City Inspector.
2. Pavement markings on concrete shall be per the Standard Specifications, Section 2306 unless otherwise indicated on the plans or directed by the City Inspector. See the Pavement Marking Material Matrix.
   2.1. All longitudinal lines shall be epoxy material, or inlaid patterned cold plastic as indicated in the plans.
   2.2. All transverse lines and symbol markings shall be inlaid patterned cold plastic.
   2.3. All patterned cold plastic pavement marking material, including symbols and words, installed on concrete surfaces shall have a black contrasting edge.
3. Pavement markings on asphalt shall be per the Standard Specifications, Section 2306 unless otherwise indicated on the plans or directed by the City Inspector. See the Pavement Marking Material Matrix.
   3.1. All longitudinal lines shall be hot applied thermoplastic material.
   3.2. All transverse lines and symbol markings shall be pre-formed thermoplastic material unless otherwise stipulated below.
4. Liquid pavement marking material may be used for transverse lines under the following stipulations:
   4.1. Shall be applied by a push cart.
   4.2. Only one pass with the thermoplastic pavement marking equipment shall be allowed in order to provide the required line width according to the plans. Multiple passes of narrower lines with overlaps to provide the required width shall not be allowed.
   4.3. Liquid pavement marking material shall not be used for word or symbol markings, unless applied with appropriate templates as indicated in the plans.
5. Crosswalk lines shall be installed such that the minimum distance between the inside edge of the line to the inside edge of line is 6 feet.
6. Stop lines shall be installed such that the minimum distance between the outside edge of the back crosswalk line and the trailing edge of the stop line is 4 feet.
7. Skip lines shall not extend past the stop bar or into the crosswalk.
8. White broken lane lines shall be carried through intersections with private streets unless there is a left turn bay into the private street. Then a gap should be left in the broken white lane lines for the left turn movement to pass through.
9. 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 and conditions of the surface have been approved by the City Inspector.

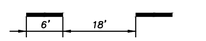


Turn Arrow Marking

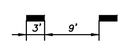


Word and Symbol Details





6" BROKEN WHITE LANE LINE



8" DOTTED WHITE LANE LINE



12" WHITE EXTENSION LINE

Notes:
1) Word & symbol markings shall be white.
2) Right Turn and Combination Right Turn/Straight arrows are reverse of arrows shown.

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STATE OF MISSOURI
BRIAN COOMES
Brian Coomes
04/23/2021
NUMBER PE-2015029306
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

SIGNING AND MARKING
32ND STREET WIDENING
CITY OF JOPLIN
JOPLIN, MISSOURI
2021

drawn by: SMK/JKL
checked by: PM/LB/RF
approved by: BMC
QA/QC by: PM/LB/RF
project no.: 015-2768
drawing no.: OA_F_PVMT_52768
date: 04/23/2021

SHEET 59 of 59

DWG: F:\PROJECTS\015-2768\40-Design\AutoCAD\Final Plans\Sheets\TRFC\SIGNING AND STRIPING PLANS & DETAILS\OA_F_PVMT_52768.dwg
DATE: Apr 21, 2021 1:40pm
USER: skendall
XREFS: G_TBLK_52768

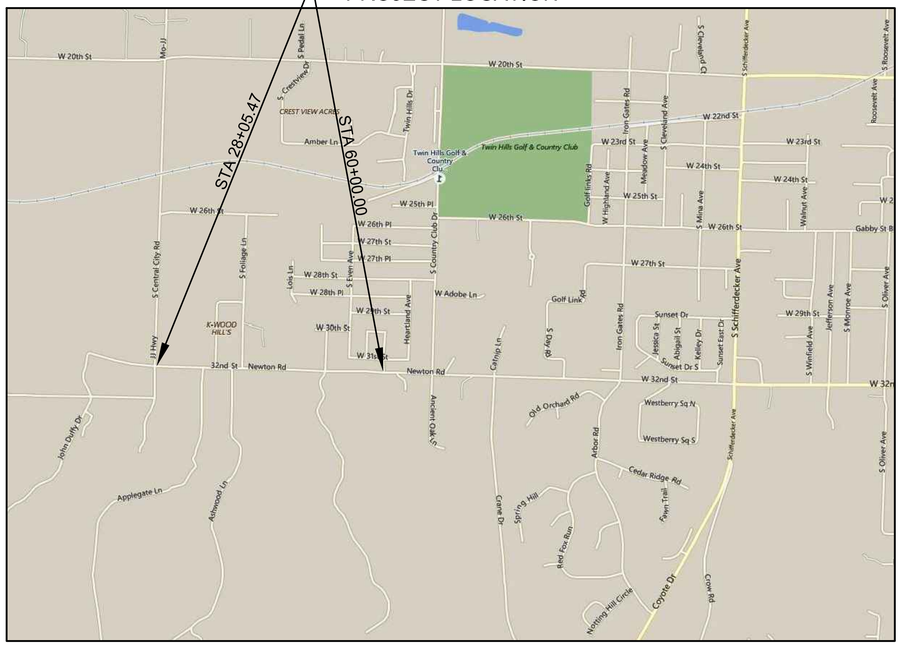
PUBLIC STREET IMPROVEMENTS FOR
32ND STREET
CENTRAL CITY ROAD TO JENNIFER AVENUE
SECTIONS 18 & 19, TOWNSHIP 27N, RANGE 33W
CITY OF JOPLIN, MISSOURI
JASPER & NEWTON COUNTIES, MISSOURI

LEGEND

CTL	SURVEY CONTROL POINT	TS	TRAFFIC SIGNAL BOX
	SURVEY BENCHMARK	TSMH	TRAFFIC SIGNAL MANHOLE
TBM	SURVEY TEMPORARY BENCHMARK		TRAFFIC SIGNAL POLE W/ ARM
GM	GAS METER		TRAFFIC SIGNAL POLE
GAR	GAS RISER	TSCB	TRAFFIC SIGNAL CONTROL BOX
	GAS MANHOLE	TS	TRAFFIC SIGNAL PEDESTAL
GR	GAS REGULATOR		ELECTRIC MANHOLE
TVP	TELEVISION PEDESTAL	EM	ELECTRIC METER
	FIBER BOX	ER	ELECTRIC RISER
	FIBER PEDESTAL	E	ELECTRIC BOX
C	CABLE BOX		ELECTRIC CABINET
CV	CABLE VAULT	J	ELECTRIC JUNCTION BOX
TP	TELEPHONE PEDESTAL	SPH	SPRINKLER HEAD
	STORM MANHOLE	SCV	SPRINKLER CONTROL VALVE
	STORM GRATE		WATER METER PIT
	SANITARY MANHOLE		FIRE HYDRANT
YL	YARD LIGHT	WM	WATER METER
LTP	LIGHT POLE	WV	WATER VALVE
	POWER POLE	FP	FLAG POLE
LPPP	POWER POLE W/ LIGHT		SIGN
	GUY WIRE		BOLLARD
BU	STUMP		WOOD POST
	BUSH		STEEL POST
	EVERGREEN TREE	COL	COLUMN
	DECIDUOUS TREE		BORE HOLE

- SECTION LINE
- PROPERTY LINE
- CENTER LINE
- PROPOSED ROW LINE
- EXISTING ROW LINE
- UTILITY EASEMENT
- EXISTING MINOR CONTOUR
- EXISTING MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- PROPOSED MAJOR CONTOUR
- EXISTING TELEPHONE LINE
- EXISTING SANITARY LINE
- EXISTING STORM LINE
- EXISTING GAS LINE
- EXISTING WATER LINE
- EXISTING CHAIN LINK FENCE
- EXISTING OVERHEAD ELECTRIC
- EXISTING FIBER OPTIC CABLE
- EXISTING PIPE LINE
- GRADING LIMITS
- TEMPORARY CONSTRUCTION EASEMENT
- PROPOSED CHAIN LINK FENCE
- PROPOSED WOOD PRIVACY FENCE
- EXISTING TREELINE
- CONSTRUCTION LIMITS
- UNDERDRAIN

SECTION A
PROJECT LOCATION



N

N.T.S.

LOCATION MAP
NOT TO SCALE

INDEX OF SHEETS

SHEET NO.	TITLE
A1	SECTION A – TITLE SHEET
A2	SUMMARY OF QUANTITIES
A3–A9	RIGHT–OF–WAY & EASEMENT PLANS
A10–A16	DEMOLITION & REMOVAL PLANS
A17–A20	FENCING PLAN
A21–A24	TYPICAL SECTIONS
A25–A38	ROADWAY PLAN AND PROFILES
A39–A41	SIDE STREET PLAN & PROFILES
A42–A45	INTERSECTION LAYOUTS
A46–A47	DRIVE LAYOUTS
A48–A49	SIDEWALK RAMP LAYOUTS
A50–A51	DRAINAGE AREA MAP AND CALCULATIONS
A52–A56	STORM SEWER PROFILES
A57–A70	EROSION CONTROL/SEEDING & SODDING PLAN
A71–A78	PAVEMENT MARKING & SIGNING PLAN
A79–A122	CROSS SECTIONS – 32ND STREET

ABBREVIATION TABLE

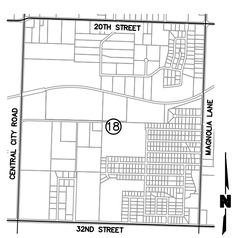
M.G.	MATCH GRADE
TP	TOP OF PAVEMENT
TC	TOP OF CURB
BC	BACK OF CURB
EP	EDGE OF PAVEMENT
R/W	RIGHT–OF–WAY
TCE	TEMPORARY CONSTRUCTION EASEMENT
PROP.	PROPOSED
EXIST.	EXISTING
TYP.	TYPICAL
(R)	REMOVAL
CONST.	CONSTRUCT
TBM	TEMPORARY BENCMARK
C.P.	CONTROL POINT
D.N.D.	DO NOT DISTURB
U.I.P.	USE IN PLACE
ADJ.	ADJUST
EL.	ELEVATION
ESMT.	EASEMENT
B–B	BACK OF CURB TO BACK OF CURB DIMENSION
℄	CENTERLINE
℞	BASE LINE

MISSOURI ONE CALL SYSTEM
1-800-DIG-RITE or 811
www.mo1call.com

THE EXISTING UTILITY LOCATIONS SHOWN ON THE PLANS ARE APPROXIMATE AND MAY NOT INCLUDE ALL LINES PRESENT. THE CONTRACTOR SHALL BE RESPONSIBLE TO CALL "1–800–DIG–RITE", AND COORDINATE FIELD LOCATION OF EXISTING UNDERGROUND UTILITIES PRIOR TO BEGINNING GRADING ACTIVITIES. !!STOP!! CALL BEFORE YOU DIG!!

DESIGN DESIGNATION

MAJOR ARTERIAL
DESIGN SPEED: 40 MPH
POSTED SPEED: 40 MPH



SECTION 18, T–27–N, R–33–W
JASPER COUNTY, MISSOURI

VICINITY MAP
SCALE: 1" = 2000'

UTILITIES INFORMATION

ELECTRIC – LIBERTY UTILITIES
ATTN: JIMMY TURNER
3400 S. KODIAK ROAD
JOPLIN, MO 64804
(417) 626–6842

NATURAL GAS – SPIRE
ATTN: KEN STEGALL
520 E. 5TH STREET
JOPLIN, MO 64801
(417) 626–4831

WATER – MISSOURI–AMERICAN WATER CO.
ATTN: DEREC BASS
2650 E. 32ND ST. – SUITE 121
JOPLIN, MO 64804
(417) 623–0676 EXT. 1009

TELEPHONE – AT&T
ATTN: KENNETH KENWORTHY
321 W. 8TH STREET
JOPLIN, MO 64801
(417) 625–8092

CABLE TELEVISION – CABLE ONE DIGITAL
ATTN: RANDY KENNEDY
2600 DAVIS BLVD.
JOPLIN, MO 64804
(417) 206–5399

FIBER OPTIC – LIBERTY CONNECT
ATTN: BRAD MYERS
720 SCHIFFERDECKER AVE
JOPLIN, MO 64801
(417) 625–5179

PREPARED & SUBMITTED BY:

OLSSON
702 S. MAIN STREET
JOPLIN, MISSOURI 64801

Brian Coomes — 04/23/2021

BRIAN COOMES P.E. — DATE

I CERTIFY THESE PLANS WERE PREPARED BY ME OR UNDER MY IMMEDIATE PERSONAL SUPERVISION.

olsson
Olsson - Civil Engineering
Missouri Certificate of Authority #001592
702 S. Main Street
Joplin, MO 64801
TEL 417.781.0643
www.olsson.com

STATE OF MISSOURI
BRIAN COOMES
Brian Coomes
04/23/2021
NUMBER PE-2015029306
PROFESSIONAL ENGINEER

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REVISIONS

TITLE SHEET
CENTRAL CITY ROAD TO JENNIFER AVENUE

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by:	JKL & NJJ
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project no.:	015-2768
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SHEET
A1 of A122

DWG: F:\PROJECTS\015-2768\40-Design\AutoCAD\Final Plans\Sheets\TRNS\GENERAL\OA_T_TTL_52768.dwg USER: skendall
DATE: Apr 21, 2021 9:58am XREFS: OA_T_PTBLK_52768

RECAPITULATION OF QUANTITIES - BASE BID - SECTION A				
ITEM NO.	DESCRIPTION	UNIT	ESTIMATED QUANTITY	GOVERNING TECHNICAL SPECIFICATION
1	Mobilization	LS		JSP-0400-04
2	Contractor Furnished Construction Staking and Surveying	LS		JSP-0400-05
3	Clearing & Grubbing / Tree & Brush Removal	LS		JSP-1100-01
4	Demolition & Removal	LS		JSP-1100-02
5	Temporary Seeding, Fertilizing, and Mulching	ACRE		JSP-1000-01
6	Erosion Control Blanket (MoDOT Type 2.D)	SY	8,875	JSP-1000-01
7	8" Biodegradable Log	LF	15,300	JSP-1000-01
8	12" Biodegradable Log	LF	16	JSP-1000-01
9	Curb Inlet/Area Inlet Protection	EA	20	JSP-1000-01
10	Culvert Inlet Protection	EA	8	JSP-1000-01
11	Permanent Seeding, Fertilizing and Mulching (Hydroseed Cellulose Mulch)	ACRE	3	City 5100
12	Modify & Repair Exisitng Irrigation Systems	LS		JSP-5100-01
13	Kentucky Bluegrass Sodding	SY	2,980	City 5200
14	Turf Type Tall Fescue Sodding	SY		City 5200
15	Bermuda Sodding	SY		City 5200
16	Zoysia Sodding	SY		City 5200
17	Unclassified Excavation*	CY		City 1200
18	Embankment*	CY		JSP-1200-01
19	Embankment (Special)(Minimum 40% Chert)*	CY		JSP-1200-01
20	Imported Fill*	CY		City 1200
21	Removal of Unsuitable Material	CY		City 1200
22	Backfill of Unsuitable Material	CY		City 1200
23	Removal, Transportation & Disposal of Contaminated Soils	CY		City 1800
24	Milling	SY		JSP-2300-01
25	Asphaltic Concrete Surface (2") (MoDOT BP-1)	TONS	1,508	City 2200
26	Asphaltic Concrete Surface (4") (MoDOT BP-1)	TONS		City 2200
27	Asphaltic Concrete Base (8") (MoDOT Bituminous Base)	TONS	6,031	City 2200
28	8" MoDOT Type 5 Aggregate Base	SY	16,114	JSP-1400-01
29	6" MoDOT Type 1 Aggregate Surface	SY	162	JSP-1400-02
30	Temporary Surfacing Material (Aggregate)(MoDOT Type 1)	TONS		JSP-1400-02
31	Temporary Surfacing Material (HMA MoDOT BP-1)	TONS		City 2200
32	8" Concrete Pavement (Gutter Crossing incl. Intergral Curb)	SY		JSP-3100-01
33	8" Concrete Pavement (Roadway)	SY		City 3100
34	2'-6" Curb & Gutter, Combined (All Types)	LF	6,767	JSP-3200-01
35	Curb Flume (3' wide)	LF		JSP-3100-02
36	Concrete Flume (6' wide)	LF		JSP-3100-02
37	4" Sidewalk Construction (Incl. 2" MoDOT Type 5 Agg. Base)	SY	2,960	JSP-3300-01
38	Curb Ramp (Incl. 2" MoDOT Type 5 Agg. Base)	SY	129	JSP-3300-01
39	Residential Driveway Construction (6" Concrete)(Inc. 4" MoDOT Type 5 Agg. Base)	SY	256	JSP-3400-01
40	Commercial Driveway Construction (8" Concrete) (Incl. 4" MoDOT Type 5 Agg. Base)	SY		JSP-3400-01
41	Cast-in-Place Concrete Wall (Sidewalk)	SF		JSP-3300-02
42	Cast-in-Place Concrete Wall (Sidewalk)(Special)	SF		Plan Sheet B80
43	Soldier Pile Retaining Wall	SF		Plan Sheet B81-B82
44	Type D Barrier w/ Integral Reinforced Slab	LF		Plan Sheet B81-B82
45	Relocate Existing Vinyl Fence	LF		City 2307
46	Relocate or Replace Existing Vinyl Fence (Southern Trails)	LF		City 2307
47	Temporary Fencing (Chain Link)	LF	292	City 2307
48	Temporary Gate	EA		City 2307
49	Relocate Existing Power Service for Gate	LS	1	JSP-2307-01
50	Type A Catch Basin 3'x3' I.D.	EA		City 4400
51	Type C Inlet 4'x7' I.D.	EA		City 4400
52	Type C Inlet 6'x3' I.D.	EA	5	City 4400
53	Type C Inlet 6'x4' I.D.	EA	2	City 4400
54	Type C Inlet 6'x5' I.D.	EA		City 4400
55	Type C Inlet 6'x6' I.D.	EA		City 4400
56	Type C Inlet 8'x3' I.D.	EA		City 4400
57	Type C Inlet 8'x4' I.D.	EA	1	City 4400
58	Type D Inlet 3'x7' I.D.	EA		City 4400
59	Type D Inlet 4'x7' I.D.	EA		City 4400
60	Type D Inlet 6'x3' I.D.	EA	1	City 4400
61	Type D Inlet 6'x4' I.D.	EA	2	City 4400
62	Type D Inlet 8'x3' I.D.	EA		City 4400
63	Type D Inlet 8'x4' I.D.	EA	1	City 4400
64	Area Inlet 3'x3' I.D.	EA	1	City 4400
65	Area Inlet 4'x3' I.D.	EA	1	City 4400
66	Area Inlet 4'x4' I.D.	EA		City 4400
67	Area Inlet 5'x4' I.D.	EA		City 4400
68	Area Inlet 8'x4' I.D.	EA		City 4400
69	Junction Box 3'x3' I.D.	EA	1	City 4400

RECAPITULATION OF QUANTITIES - BASE BID - SECTION A				
ITEM NO.	DESCRIPTION	UNIT	ESTIMATED QUANTITY	GOVERNING TECHNICAL SPECIFICATION
70	Junction Box 4'x4' I.D.	EA		City 4400
71	4' Diameter Manhole - Storm Sewer	EA	1	City 4400
72	Precast Drop Inlet (MoDOT Type S-1)	EA	1	JSP-4400-01
73	12" Class III RCP (including trenching, bedding, backfill, gaskets, and concrete collars)	LF	67	City 4200
74	15" Class III RCP (including trenching, bedding, backfill, gaskets, and concrete collars)	LF	798	City 4200
75	18" Class III RCP (including trenching, bedding, backfill, gaskets, and concrete collars)	LF		City 4200
76	24" Class III RCP (including trenching, bedding, backfill, gaskets, and concrete collars)	LF	1,007	City 4200
77	24" Class V RCP (including trenching, bedding, backfill, gaskets, and concrete collars)	LF	252	City 4200
78	30" Class III RCP (including trenching, bedding, backfill, gaskets, and concrete collars)	LF		City 4200
79	30" Class V RCP (including trenching, bedding, backfill, gaskets, and concrete collars)	LF	192	City 4200
80	36" Class III RCP (including trenching, bedding, backfill, gaskets, and concrete collars)	LF		City 4200
81	42" Class III RCP (including trenching, bedding, backfill, gaskets, and concrete collars)	LF		City 4200
82	48" Class V RCP (including trenching, bedding, backfill, gaskets, and concrete collars)	LF	168	City 4200
83	44"x27" Class III RCPA (including trenching, bedding, backfill, gaskets, and concrete collars)	LF		City 4200
84	19"x30" HE RCP (including trenching, bedding, backfill, gaskets, and concrete collars)	LF		City 4200
85	15" RCP FES (including trenching, bedding, backfill, gaskets, and concrete collars)	EA	2	City 4200
86	18" RCP FES (including trenching, bedding, backfill, gaskets, and concrete collars)	EA		City 4200
87	24" RCP FES (including trenching, bedding, backfill, gaskets, and concrete collars)	EA	3	City 4200
88	30" RCP FES (including trenching, bedding, backfill, gaskets, and concrete collars)	EA	2	City 4200
89	42" RCP FES (including trenching, bedding, backfill, gaskets, and concrete collars)	EA		City 4200
90	48" RCP FES (including trenching, bedding, backfill, gaskets, and concrete collars)	EA	2	City 4200
91	19"X30" HE RCP FES (including trenching, bedding, backfill, gaskets, and concrete collars)	EA		City 4200
92	24" RCP PRE-CAST TEE	EA		City 4200
93	108"x48" Reinforced Concrete Box Culvert (RCBC)	LF		JSP-4200-01
94	108"x48" RCBC Inlet/Outlet Structures	EA		JSP-4200-01
95	15" Nyloplast Drain Basin	EA	2	JSP-4400-02
96	10" HDPE (including trenching, bedding, backfill, gasket, and collars)	LF	111	City 4200
97	12" HDPE (including trenching, bedding, backfill, gasket, and collars)	LF		City 4200
98	MoDOT Rock Lining for Culvert Outlet	SY	187	JSP-2303-01
99	Flexamat 10NW UV-T	SY		JSP-2303-02
100	Rip-Rap Splash Pad	SY		JSP-2303-03
101	Southern Trails Monument Signage	LS		JSP-2300-02
102	Remove & Relocate Existing Signs	LS	0	JSP-2300-03
103	Permanent Signage-Flat Sheet	SF	44	JSP-2300-03
104	Steel Sign Support (2 Inch Round) (Type P)	LF		JSP-2300-03
105	Steel Sign Support (2-1/2 Inch Round NP-40) (Type P1)	LF		JSP-2300-03
106	Steel Sign Support (2-1/2 Inch Round SCH 40) (Type P2)	LF	33	JSP-2300-03
107	Sign Post Foundation, Combined (Including Socket & Concrete) (All Types)	EA	3	JSP-2300-03
108	Pavement Marking Removal	LF		City 2306
109	4" White Pavement Marking	LF	59	City 2306
110	4" Yellow Pavement Marking	LF	6,963	City 2306
111	6" White Pavement Marking	LF	1,039	City 2306
112	12" White Pavement Marking	LF	60	City 2306
113	12" Yellow Pavement Marking	LF	104	City 2306
114	24" White Pavement Marking	LF	104	City 2306
115	Left/Right Turn Arrow White Pavement Marking Symbol	EA	23	City 2306
116	"Only" White Pavement Marking Symbol	EA		City 2306
117	Traffic Signal Modifications	LS		JSP-9000-01
118	3" Schedule 40 HDPE Conduit w/ Pull String (incl. Boring or Trenching) (Fiber Optic)	LF		JSP-9000-02
119	Type II Fiber Optic Pull Box	EA		JSP-9000-02
120	1-1c 10 Tracer Wire	LF		JSP-9000-02
121	Traffic Control Signs (Total Area)	SF	448	JSP-6700-01
122	Type III Movable Barricade	EA	33	JSP-6700-01
123	Channelizer	EA	22	JSP-6700-01
124	Adjust Sanitary Sewer Manhole	EA		JSP-2300-04
125	12" PVC Sewer Main	LF		City 4100
126	Trenching (6' to 8') - Sanitary Sewer	LF		City 1700
127	Trenching (8' to 10') - Sanitary Sewer	LF		City 1700
128	Trenching (10' to 12') - Sanitary Sewer	LF		City 1700
129	Trenching (12' to 14') - Sanitary Sewer	LF		City 1700
130	24" Steel Schedule 40 Pipe Casing including Boring and Jacking (Unclassified)	LF		City 1600
131	12" Restrained Joint Ductile Iron Sewer Main (Installed in Casing)	LF		City 4100
132	4' Standard Manhole - Sanitary Sewer	EA		City 4300
133	4' Manhole Extra Depth - Sanitary Sewer	LF		City 4300
134	Sanitary Sewer Testing	LS		City 4100
135	Bypass Pumping	LS		City 4100
136	Lift Station Decommission	LS		JSP-4100-01

* See sheet 9 for overall earthworks summary.

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Missouri Certificate of Authority #001592
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Joplin, MO 64801
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STATE OF MISSOURI
BRIAN COOMES
Brian Coomes
04/23/2021
NUMBER PE-2015029306
PROFESSIONAL ENGINEER

REVISIONS

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

SUMMARY OF QUANTITIES
CENTRAL CITY ROAD TO JENNIFER AVENUE

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by: JKL & NJJ
checked by: BMC & JKL
approved by: BMC
QA/QC by: PM
project no.: 015-2768
drawing no.: OA_T_QTY_52768
date: 04/23/2021

SHEET
A2 of A122

DWG: F:\PROJECTS\015-2768\40-Design\AutoCAD\Final Plans\Sheets\TRNS\GENERAL\OA_T_QTY_52768.dwg USER: skendall
DATE: Apr 21, 2021 4:00pm XREFS: OA_T_PTBLK_52768

LEGEND

- PROPOSED RIGHT-OF-WAY
- TEMPORARY CONSTRUCTION EASEMENT LINE
- PERMANENT SLOPE EASEMENT LINE
- PERMANENT ACCESS EASEMENT LINE
- PERMANENT DRAINAGE EASEMENT LINE
- LIMITS OF DISTURBANCE
- TEMPORARY CONSTRUCTION EASEMENT
- EXCEPTION TO TEMPORARY CONSTRUCTION EASEMENT
- PROPOSED RIGHT-OF-WAY
- PERMANENT SLOPE EASEMENT
- PERMANENT ACCESS EASEMENT
- PERMANENT DRAINAGE EASEMENT

PARCEL 1
ROMAN CATHOLIC DIOCESE
W 32ND STREET & S CENTRAL CITY RD
BOOK 2236, PAGE 2143
EXISTING = 23.57 ACRES
R/W ACQUISITION = NONE
TEMP. CONST. ESMT. = NONE

PARCEL 2
ROBERT MEDLEY
3158 S ALFALFA ROAD
BOOK 1224, PAGE 418
EXISTING = 1.31 ACRES
R/W ACQUISITION = 2106 SQ. FT.
TEMP. CONST. ESMT. = 5353 SQ. FT.

PARCEL 18
WILDWOOD RANCH LLC
1032 ANTELOPE ROAD
BOOK 354, PAGE 12950
EXISTING = 3.82 ACRES
R/W ACQUISITION = NONE
TEMP. CONST. ESMT. = NONE

PARCEL 19
CITY OF JOPLIN
602 S MAIN
BOOK 359, PAGE 6441
EXISTING = 4.17 ACRES
R/W ACQUISITION = NONE
TEMP. CONST. ESMT. = 700 SQ. FT.

PARCEL 20
WILLIAM D. & VICKI ANN COOK TRUST
1630 APPLEGATE LANE
BOOK 363, PAGE 2437
EXISTING = 162.2 ACRES
R/W ACQUISITION = 15672 SQ. FT.
PERM. SLOPE ESMT. = 5400 SQ FT.
TEMP. CONST. ESMT. = 29113 SQ. FT.

EXISTING RIGHT-OF-WAY
PROPOSED TEMPORARY CONSTRUCTION EASEMENT
PROPOSED RIGHT-OF-WAY
LIMITS OF DISTURBANCE
SECTION LINE
℄ 32ND STREET
W. 32ND STREET
℄ DRIVE A2
DRIVE A2
℄ DRIVE A1
DRIVE A1
MATCHLINE 29+50.00
20' WIDE INGRESS & EGRESS ESMT. B 224, P 495
EXIST. UTILITY ESMT.
PRC: 24+88.15
PT: 26+26.69
PC: 49+00.65
PT: 49+47.79
0' 10' 20' 40'
SCALE IN FEET

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BRIAN COOMES
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REVISIONS

RIGHT-OF-WAY & EASEMENT PLANS

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by: JKL & NJJ
checked by: BMC & JKL
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date: 04/23/2021

SHEET
A3 of A122

DWG: F:\PROJECTS\015-2768\40-Design\AutoCAD\Final Plans\Sheets\TRNS\R.O.W AND EASEMENT PLANS\OA_T_RWP02_52768.dwg
DATE: Apr 21, 2021 9:59am XREFS: OA_T_PTBLK_52768 OA_ACAD-1_XBASE_52768 V_XBOU_52768 OA_T_PBASE_52768 OA_T_PHTCH-ROW_52768
USER: skendall

LEGEND

- PROPOSED RIGHT–OF–WAY
- TEMPORARY CONSTRUCTION EASEMENT LINE
- PERMANENT SLOPE EASEMENT LINE
- PERMANENT ACCESS EASEMENT LINE
- PERMANENT DRAINAGE EASEMENT LINE
- LIMITS OF DISTURBANCE
- TEMPORARY CONSTRUCTION EASEMENT
- EXCEPTION TO TEMPORARY CONSTRUCTION EASEMENT
- PROPOSED RIGHT–OF–WAY
- PERMANENT SLOPE EASEMENT
- PERMANENT ACCESS EASEMENT
- PERMANENT DRAINAGE EASEMENT

PARCEL 2
ROBERT MEDLEY
3158 S ALFALFA ROAD
BOOK 1224, PAGE 418
EXISTING = 1.31 ACRES
R/W ACQUISITION = 2106 SQ. FT.
TEMP. CONST. ESMT. = 3362 SQ. FT.

PARCEL 3
LARRY & ROSE BELLAMY
3089 ALFALFA AVE
BOOK 1440, PAGE 58
BOOK 1322, PAGE 563
EXISTING = 1.31 ACRES
R/W ACQUISITION = 2100 SQ. FT.
TEMP. CONST. ESMT. = 1750 SQ. FT.

PARCEL 4
DAVID M. WOOD
3154 WOODLAND RD
BOOK 2386, PAGE 99
EXISTING = 0.65 ACRES
R/W ACQUISITION = 2100 SQ. FT.
TEMP. CONST. ESMT. = 1750 SQ. FT.

PARCEL 20
WILLIAM D. & VICKI ANN COOK TRUST
1630 APPLEGATE LANE
BOOK 363, PAGE 2437
EXISTING = 162.2 ACRES
R/W ACQUISITION = 15672 SQ. FT.
PERM. SLOPE ESMT. = 5400 SQ FT.
TEMP. CONST. ESMT. = 29113 SQ. FT.

ALFALFA LANE
℄ ALFALFA LANE
MATCHLINE 29+50.00
49+75
49+00
+99.45 45.00' LT.
+14.47 60.00' LT.
+19.48 65.00' LT.
+69.48 65.00' LT.
+79.47 55.00' LT.
+89.45 45.00' LT.
LIMITS OF DISTURBANCE
+59.47 55.00' LT.
+59.45 45.00' LT.
PROPOSED TEMPORARY CONSTRUCTION EASEMENT
PROPOSED RIGHT–OF–WAY
EXISTING RIGHT–OF–WAY
+29.45 45.00' LT.
+39.47 55.00' LT.
+49.48 65.00' LT.
MATCHLINE 49+75.00
WOODLAND DRIVE
49+00
30+00
31+00
50+00
W. 32ND STREET
32+00
℄ 32ND STREET
33+00
SECTION LINE
34+00
35+00
B 222 P 606 35' R/W
EXISTING RIGHT–OF–WAY
PROPOSED RIGHT–OF–WAY
70'
90'
35'
45'
10'
20'
30'
EXISTING RIGHT–OF–WAY
PROPOSED RIGHT–OF–WAY
PROPOSED TEMPORARY CONSTRUCTION EASEMENT
B 352, P 13125 WATER ESMT
45.00' RT. +58.33
65.00' RT. +62.78
65.00' RT. +78.33
49.41'
51+00
APPLEGATE LANE
℄ APPLEGATE LANE
114.41' RT. +12.19
114.41' RT. +44.47
55.00' RT. +03.89
45.00' RT. +98.33
65.00' RT. +78.33
LIMITS OF DISTURBANCE
N
0' 10' 20' 40'
SCALE IN FEET

DWG: F:\PROJECTS\015-2768\40-Design\AutoCAD\Final Plans\Sheets\TRNS\R.O.W AND EASEMENT PLANS\OA_T_RWP03_52768.dwg USER: skendall
DATE: Apr 21, 2021 10:08am XREFS: OA_T_PTBLK_52768 OA_ACAD-T_XBASE_52768 V_XBOU_52768 OA_T_PBASE_52768 OA_T_PHTCH-ROW_52768 OA_T_XUTL-RECORD_52768

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Joplin, MO 64801
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STATE OF MISSOURI
BRIAN COOMES
Brian Coomes
04/23/2021
NUMBER PE-2015029306
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

RIGHT-OF-WAY & EASEMENT PLANS

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by: JKL & NJJ
checked by: BMC & JKL
approved by: BMC
QA/QC by: PM
project no.: 015-2768
drawing no.: OA_T_RWP03_52768
date: 04/23/2021

SHEET
A4 of A122

LEGEND

- PROPOSED RIGHT–OF–WAY
- TEMPORARY CONSTRUCTION EASEMENT LINE
- PERMANENT SLOPE EASEMENT LINE
- PERMANENT ACCESS EASEMENT LINE
- PERMANENT DRAINAGE EASEMENT LINE
- LIMITS OF DISTURBANCE
- TEMPORARY CONSTRUCTION EASEMENT
- EXCEPTION TO TEMPORARY CONSTRUCTION EASEMENT
- PROPOSED RIGHT–OF–WAY
- PERMANENT SLOPE EASEMENT
- PERMANENT ACCESS EASEMENT
- PERMANENT DRAINAGE EASEMENT

PARCEL 5
DAVID & BERNICE COOKE
2991 S WOODLAND DRIVE
BOOK 1232, PAGE 2362
BOOK 1291, PAGE 2178
EXISTING = 18.29 ACRES
R/W ACQUISITION = 7615 SQ. FT.
PERM. DRAINAGE ESMT. = 1789 SQ FT.
PERM. SLOPE ESMT. = 10129 SQ FT.
TEMP. CONST. ESMT. = 8635 SQ. FT.

℄ WOODLAND DRIVE
WOODLAND DRIVE
MATCHLINE 34+75.00
49+00
+99.51 87.49' LT.
+19.51 87.46' LT.
+19.48 65.00' LT.
+24.47 60.00' LT.
+39.45 45.00' LT.
PROPOSED TEMPORARY CONSTRUCTION EASEMENT
PROPOSED RIGHT–OF–WAY
EXISTING RIGHT–OF–WAY
LIMITS OF DISTURBANCE
+75.00 45.00' LT.
+72.98 60.00' LT.
MATCHLINE 40+00.00
W. 32ND STREET
B 906 P 642 35' R/W
15'
10'
45'
35'
50+00
35+00
36+00
℄ 32ND STREET
37+00
38+00
39+00
40+00
SECTION LINE
70' EXISTING RIGHT–OF–WAY
90' PROPOSED RIGHT–OF–WAY
55.00' RT. +39.82
80.00' RT. +20.83
EXISTING RIGHT–OF–WAY
PROPOSED RIGHT–OF–WAY
PROPOSED TEMPORARY CONSTRUCTION EASEMENT
LIMITS OF DISTURBANCE
UTILITY EASEMENT EMPIRE DISTRICT ELECTRIC B 349, P 2776
APPROXIMATE LOCATION 35' EACH SIDE OF THE LINE

PARCEL 20
WILLIAM D. & VICKI ANN COOK TRUST
1630 APPLEGATE LANE
BOOK 363, PAGE 2437
EXISTING = 162.2 ACRES
R/W ACQUISITION = 15672 SQ. FT.
PERM. SLOPE ESMT. = 5400 SQ FT.
TEMP. CONST. ESMT. = 29113 SQ. FT.

N
0' 10' 20' 40'
SCALE IN FEET

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www.olsson.com

STATE OF MISSOURI
BRIAN COOMES
Brian Coomes
04/23/2021
NUMBER PE-2015029306
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY
		REVISIONS	

RIGHT-OF-WAY & EASEMENT PLANS

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by: JKL & NJJ
checked by: BMC & JKL
approved by: BMC
QA/QC by: PM
project no.: 015-2768
drawing no.: OA_T_RWP04_52768
date: 04/23/2021

SHEET
A5 of A122

DWG: F:\PROJECTS\015-2768\40-Design\AutoCAD\Final Plans\Sheets\TRNS\R.O.W AND EASEMENT PLANS\OA_T_RWP04_52768.dwg
DATE: Apr 21, 2021 10:01am XREFS: OA_T_PTBLK_52768 OA_ACAD-1_XBASE_52768 V_XBOU_52768 OA_T_PBASE_52768 OA_T_PHTCH-ROW_52768 OA_T_XUTL-RECORD_52768
USER: skendall

PARCEL 5
DAVID & BERNICE COOKE
2991 S WOODLAND DRIVE
BOOK 1232, PAGE 2362
BOOK 1291, PAGE 2178
EXISTING = 18.29 ACRES
R/W ACQUISITION = 7615 SQ. FT.
PERM. DRAINAGE ESMT. = 1789 SQ. FT.
PERM. SLOPE ESMT. = 10129 SQ FT.
TEMP. CONST. ESMT. = 8635 SQ. FT.

PARCEL 6
R. S. ANDERSON, INC
ALL OF SE ¼ OF SEC. 18
BOOK 1505, PAGE 151
EXISTING = 19.55 ACRES
R/W ACQUISITION = 5858 SQ. FT.
PERM. DRAINAGE ESMT. = 2049 SQ. FT.
PERM. SLOPE ESMT. = 19094 SQ FT.
TEMP. CONST. ESMT. = 6434 SQ. FT.

PARCEL 20
WILLIAM D. & VICKI ANN COOK TRUST
1630 APPLEGATE LANE
BOOK 363, PAGE 2437
EXISTING = 162.2 ACRES
R/W ACQUISITION = 15672 SQ. FT.
PERM. SLOPE ESMT. = 5400 SQ FT.
TEMP. CONST. ESMT. = 29113 SQ. FT.

PARCEL 21
R. S. ANDERSON
PT E½ NE¼ 19-27-33
BOOK 345, PAGE 5285
EXISTING = 234.21 ACRES
R/W ACQUISITION = 15351 SQ. FT.
PERM. DRAINAGE ESMT. = 11493 SQ. FT.
PERM. SLOPE ESMT. = 79833 SQ. FT.
TEMP. CONST. ESMT. = 15915 SQ. FT.

MATCHLINE 40+00.00
MATCHLINE 45+50.00
SECTION LINE
PI: 41+58.66
W. 32ND STREET
℄ 32ND STREET
B 906 P 640 35' R/W
B 222 P 607 35' R/W
EXISTING RIGHT-OF-WAY
PROPOSED RIGHT-OF-WAY
PROPOSED PERMANENT DRAINAGE EASEMENT
LIMITS OF DISTURBANCE
PROPOSED TEMPORARY CONSTRUCTION EASEMENT
PROPOSED PERMANENT SLOPE EASEMENT
PROPOSED TEMPORARY CONSTRUCTION EASEMENT
WATER
B 352, P 13195

LEGEND
- PROPOSED RIGHT-OF-WAY
- TEMPORARY CONSTRUCTION EASEMENT LINE
- PERMANENT SLOPE EASEMENT LINE
- PERMANENT ACCESS EASEMENT LINE
- PERMANENT DRAINAGE EASEMENT LINE
- LIMITS OF DISTURBANCE
- TEMPORARY CONSTRUCTION EASEMENT
- EXCEPTION TO TEMPORARY CONSTRUCTION EASEMENT
- PROPOSED RIGHT-OF-WAY
- PERMANENT SLOPE EASEMENT
- PERMANENT ACCESS EASEMENT
- PERMANENT DRAINAGE EASEMENT

SCALE IN FEET 0' 10' 20' 40'

DWG: F:\PROJECTS\015-2768\40-Design\AutoCAD\Final Plans\Sheets\TRNSR-O.W AND EASEMENT PLANS\OA_T_RWP05_52768.dwg USER: skendall
DATE: Apr 21, 2021 10:01am XREFS: OA_T_PTBLK_52768 OA_ACAD-T_XBASE_52768 V_XBOU_52768 OA_T_PBASE_52768 OA_T_PHTCH-ROW_52768 OA_T_XUTL-RECORD_52768

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STATE OF MISSOURI
BRIAN COOMES
Brian Coomes
04/23/2021
NUMBER PE-2015029306
PROFESSIONAL ENGINEER

REVISIONS

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

RIGHT-OF-WAY & EASEMENT PLANS
32ND STREET WIDENING
CITY OF JOPLIN
JOPLIN, MISSOURI
2021

drawn by: JKL & NJJ
checked by: BMC & JKL
approved by: BMC
QA/QC by: PM
project no.: 015-2768
drawing no.: OA_T_RWP05_52768
date: 04/23/2021

SHEET
A6 of A122

LEGEND

- PROPOSED RIGHT-OF-WAY
- TEMPORARY CONSTRUCTION EASEMENT LINE
- PERMANENT SLOPE EASEMENT LINE
- PERMANENT ACCESS EASEMENT LINE
- PERMANENT DRAINAGE EASEMENT LINE
- LIMITS OF DISTURBANCE
- TEMPORARY CONSTRUCTION EASEMENT
- EXCEPTION TO TEMPORARY CONSTRUCTION EASEMENT
- PROPOSED RIGHT-OF-WAY
- PERMANENT SLOPE EASEMENT
- PERMANENT ACCESS EASEMENT
- PERMANENT DRAINAGE EASEMENT

PARCEL 6
R. S. ANDERSON, INC
ALL OF SE ¼ OF SEC. 18
BOOK 1505, PAGE 151
EXISTING = 19.55 ACRES
R/W ACQUISITION = 5858 SQ. FT.
PERM. DRAINAGE ESMT. = 2049 SQ. FT.
PERM. SLOPE ESMT. = 19094 SQ FT.
TEMP. CONST. ESMT. = 6434 SQ. FT.

PARCEL 7
MELISSA K & STEPHEN JOHNSTON
3110 ASHWOOD AVENUE
BOOK 2415, PAGE 21
EXISTING = 0.36 ACRES
R/W ACQUISITION = 200 SQ. FT.
TEMP. CONST. ESMT. = 1999 SQ. FT.

PARCEL 8
MATTHEW & JANIE WOLF
3111 ASHWOOD AVENUE
BOOK 2555, PAGE 67
EXISTING = 0.38 ACRES
R/W ACQUISITION = 200 SQ. FT.
PERM. SLOPE ESMT. = 811 SQ FT.
TEMP. CONST. ESMT. = 2579 SQ. FT.

PARCEL 21
R. S. ANDERSON
PT E½ NE¼ 19-27-33
BOOK 345, PAGE 5285
EXISTING = 234.21 ACRES
R/W ACQUISITION = 15351 SQ. FT.
PERM. DRAINAGE ESMT. = 11493 SQ. FT.
PERM. SLOPE ESMT. = 79833 SQ. FT.
TEMP. CONST. ESMT. = 15915 SQ. FT.

W. 32ND STREET
ASHWOOD AVENUE
ASHWOOD LANE
DRIVE A3
DRIVE A4
B 927, P 358 10' R/W
EXISTING RIGHT-OF-WAY
PROPOSED RIGHT-OF-WAY
PROPOSED PERMANENT SLOPE EASEMENT
PROPOSED TEMPORARY CONSTRUCTION EASEMENT
LIMITS OF DISTURBANCE
SECTION LINE
℄ 32ND STREET
℄ DRIVE A3
℄ DRIVE A4
℄ ASHWOOD LANE
UTILITY EASEMENT EMPIRE DISTRICT ELECTRIC B 349, P 277
APPROXIMATE LOCATION 35' EACH SIDE OF THE LINE
MATCHLINE 45+50.00
MATCHLINE 51+00.00
PI: 50+00.00
PC: 50+33.07
PT: 50+65.84
PC: 51+62.89
PT: 52+00.00

SCALE IN FEET: 0' 10' 20' 40'

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STATE OF MISSOURI
BRIAN COOMES
Brian Coomes
04/23/2021
NUMBER PE-2015029306
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY
		REVISIONS	

RIGHT-OF-WAY & EASEMENT PLANS
32ND STREET WIDENING
CITY OF JOPLIN
JOPLIN, MISSOURI
2021

drawn by: JKL & NJJ
checked by: BMC & JKL
approved by: BMC
QA/QC by: PM
project no.: 015-2768
drawing no.: OA_T_RWP06_52768
date: 04/23/2021

SHEET
A7 of A122

DWG: F:\PROJECTS\015-2768\40-Design\AutoCAD\Final Plans\Sheets\TRNS\R.O.W AND EASEMENT PLANS\OA_T_RWP06_52768.dwg USER: skendall
DATE: Apr 21, 2021 10:02am XREFS: OA_T_PTBLK_52768 OA_ACAD-T_XBASE_52768 V_XBOU_52768 OA_T_PBASE_52768 OA_T_PHTCH-ROW_52768 OA_T_XUTL-RECORD_52768

LEGEND

- PROPOSED RIGHT–OF–WAY
- TEMPORARY CONSTRUCTION EASEMENT LINE
- PERMANENT SLOPE EASEMENT LINE
- PERMANENT ACCESS EASEMENT LINE
- PERMANENT DRAINAGE EASEMENT LINE
- LIMITS OF DISTURBANCE
- TEMPORARY CONSTRUCTION EASEMENT
- EXCEPTION TO TEMPORARY CONSTRUCTION EASEMENT
- PROPOSED RIGHT–OF–WAY
- PERMANENT SLOPE EASEMENT
- PERMANENT ACCESS EASEMENT
- PERMANENT DRAINAGE EASEMENT

PARCEL 8
MATTHEW & JANIE WOLF
3111 ASHWOOD AVENUE
BOOK 1973, PAGE 288
EXISTING = 0.38 ACRES
R/W ACQUISITION = 200 SQ. FT.
PERM. SLOPE ESMT. = 811 SQ FT.
TEMP. CONST. ESMT. = 2579 SQ. FT.

PARCEL 9
CITY OF JOPLIN, MO
LOT 13 CEDAR RIDGE SUB–DVISION PLAT NO. 5
BOOK 20, PAGE 33
EXISTING = 0.72 ACRES
R/W ACQUISITION = NONE
PERM. DRAINAGE ESMT. = 1071 SQ. FT.
PERM. SLOPE ESMT. = 6290 SQ FT.
TEMP. CONST. ESMT. = 1604 SQ. FT.

PARCEL 10
ALI KALAR
4514 W 31ST STREET
BOOK 2338, PAGE 43
EXISTING = 0.3049 ACRES
R/W ACQUISITION = NONE
PERM. SLOPE ESMT. = 1391 SQ. FT.
TEMP. CONST. ESMT. = 852 SQ. FT.

PARCEL 11
TIMOTHY & MALINDA DAVIDS
4506 W 31ST STREET LOT 81
BOOK 1999, PAGE 541
EXISTING = 0.3067 ACRES
R/W ACQUISITION = NONE
PERM. SLOPE ESMT. = 13 SQ FT.
TEMP. CONST. ESMT. = 1187 SQ. FT.

PARCEL 12
WARREN & PAMELA BLACK
4502 W 31ST STREET
BOOK 2149, PAGE 599
EXISTING = 0.3067 ACRES
R/W ACQUISITION = NONE
TEMP. CONST. ESMT. = 800 SQ. FT.

PARCEL 13
KELLY BENNETT
4408 W 31ST STREET
BOOK 2422, PAGE 229
EXISTING = 13438 SQ. FT.
R/W ACQUISITION = NONE
TEMP. CONST. ESMT. = 800 SQ. FT.

PARCEL 21
R. S. ANDERSON
PT E½ NE¼ 19–27–33
BOOK 345, PAGE 5285
EXISTING = 234.21 ACRES
R/W ACQUISITION = 15351 SQ. FT.
PERM. DRAINAGE ESMT. = 11493 SQ. FT.
PERM. SLOPE ESMT. = 79833 SQ. FT.
TEMP. CONST. ESMT. = 15915 SQ. FT.

PARCEL 22
MONKEY HILL MINING COMPANY, LLC
PT E½ NE¼ 19–27–33
BOOK 367, PAGE 4745
EXISTING = 63.44 ACRES
R/W ACQUISITION = 26376 SQ. FT.
PERM. SLOPE ESMT. = 22977 SQ FT.
TEMP. CONST. ESMT. = 32738 SQ. FT.

W. 32ND STREET

℄ 32ND STREET

SECTION LINE

MATCHLINE 51+00.00

MATCHLINE 56+25.00

B 906 P 640 35' R/W

EXISTING RIGHT–OF–WAY

PROPOSED RIGHT–OF–WAY

PROPOSED PERMANENT DRAINAGE EASEMENT

PROPOSED TEMPORARY CONSTRUCTION EASEMENT

PROPOSED PERMANENT SLOPE EASEMENT

LIMITS OF DISTURBANCE

PROPOSED PERMANENT SLOPE EASEMENT

PROPOSED TEMPORARY CONSTRUCTION EASEMENT

PROPOSED PERMANENT DRAINAGE EASEMENT

DEED FROM COUNTY TO PROPERTY OWNER B 227, P 255

SCALE IN FEET: 0' 10' 20' 40'

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STATE OF MISSOURI
BRIAN COOMES
Brian Coomes
04/23/2021
NUMBER PE-2015029306
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

RIGHT–OF–WAY & EASEMENT PLANS

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by: JKL & NJJ
checked by: BMC & JKL
approved by: BMC
QA/QC by: PM
project no.: 015-2768
drawing no.: OA_T_RWP07_52768
date: 04/23/2021

SHEET
A8 of A122

DWG: F:\PROJECTS\015-2768\40-Design\AutoCAD\Final Plans\Sheets\TRNS\R.O.W AND EASEMENT PLANS\OA_T_RWP07_52768.dwg USER: skendall
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DATE: Apr 21, 2021 10:03am XREFS: OA_T_PTBLK_52768 OA_ACAD-1_XBASE_52768 V_XBOU_52768 OA_T_PBASE_52768 OA_T_PHTCH-ROW_52768 qjw_1_pbase_015-2768 - 3 lane OA_T_XUTL-RECORD_52768

LEGEND

- PROPOSED RIGHT-OF-WAY
- TEMPORARY CONSTRUCTION EASEMENT LINE
- PERMANENT SLOPE EASEMENT LINE
- PERMANENT ACCESS EASEMENT LINE
- PERMANENT DRAINAGE EASEMENT LINE
- LIMITS OF DISTURBANCE
- TEMPORARY CONSTRUCTION EASEMENT
- EXCEPTION TO TEMPORARY CONSTRUCTION EASEMENT
- PROPOSED RIGHT-OF-WAY
- PERMANENT SLOPE EASEMENT
- PERMANENT ACCESS EASEMENT
- PERMANENT DRAINAGE EASEMENT

PARCEL 14
TERRI BENFORD
4406 W 31ST STREET
BOOK 2240, PAGE 400
EXISTING = 0.3085 ACRES
R/W ACQUISITION = NONE
TEMP. CONST. ESMT. = 800 SQ. FT.

PARCEL 15
TREVOR R. SIEGERT
4404 W 31ST STREET
BOOK 2399, PAGE 124
EXISTING = 0.3201 ACRES
R/W ACQUISITION = NONE
TEMP. CONST. ESMT. = 1245 SQ. FT.

PARCEL 16
THERESA GRESHAM
4402 W 31ST STREET
BOOK 2486, PAGE 232
EXISTING = 0.4956 ACRES
R/W ACQUISITION = 200 SQ. FT.
TEMP. CONST. ESMT. = 1717 SQ. FT.

PARCEL 17
ETHAN & HANNAH NEW
4322 W 31ST STREET
BOOK 2536, PAGE 0168
EXISTING = 0.4449 ACRES
R/W ACQUISITION = 200 SQ. FT.
TEMP. CONST. ESMT. = 485 SQ. FT.

PARCEL 22
MONKEY HILL MINING COMPANY, LLC
PT E½ NE¼ 19-27-33
BOOK 367, PAGE 4745
EXISTING = 63.44 ACRES
R/W ACQUISITION = 26376 SQ. FT.
PERM. SLOPE ESMT. = 22977 SQ FT.
TEMP. CONST. ESMT. = 32738 SQ. FT.

MATCHLINE 56+25.00

W. 32ND STREET

℄ 32ND STREET

℄ JENNIFER AVENUE

JENNIFER AVENUE

ARCADIA LANE

℄ ARCADIA LANE

LIMITS OF DISTURBANCE

PROPOSED TEMPORARY CONSTRUCTION EASEMENT

EXISTING RIGHT-OF-WAY

EXISTING RIGHT-OF-WAY 70'

PROPOSED RIGHT-OF-WAY 90'

B 222 P 609 35' R/W

DEED FROM COUNTY TO PROPERTY OWNER B 227, P 255

PROPOSED RIGHT-OF-WAY

PROPOSED TEMPORARY CONSTRUCTION EASEMENT

UTILITY EASEMENT EMPIRE DISTRICT ELECTRIC B 349, P 277
APPROXIMATE LOCATION 35' EACH SIDE OF THE LINE

WATER
B 352, P 13720

PROPERTY OWNER

SECTION LINE

+31.50 55.00' LT.
+31.48 45.00' LT.
+11.50 55.00' LT.
+11.51 60.00' LT.
+94.47 45.00' LT.
+94.50 60.00' LT.
+01.47 45.00' LT.
+16.50 60.00' LT.
+21.51 65.00' LT.
+71.51 65.00' LT.
+86.48 50.00' LT.
+91.47 45.00' LT.
+49.47 45.00' LT.
+49.48 50.00' LT.
+85.97 45.00' LT.
+85.98 50.00' LT.

65.00' RT. +86.54
45.00' RT. +15.00
65.00' RT. +69.72
80.00' RT. +69.72
80.00' RT. +09.72
65.00' RT. +09.72
65.00' RT. +63.80
45.00' RT. +63.98

57+00 58+00 50+00 59+00 50+00 60+00 61+00 62+00 51+00

10' 20' 35' 45' 45' 35' 10'

0' 10' 20' 40'
SCALE IN FEET

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STATE OF MISSOURI
BRIAN COOMES
Brian Coomes 04/23/2021
NUMBER PE-2015029306
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

RIGHT-OF-WAY & EASEMENT PLANS

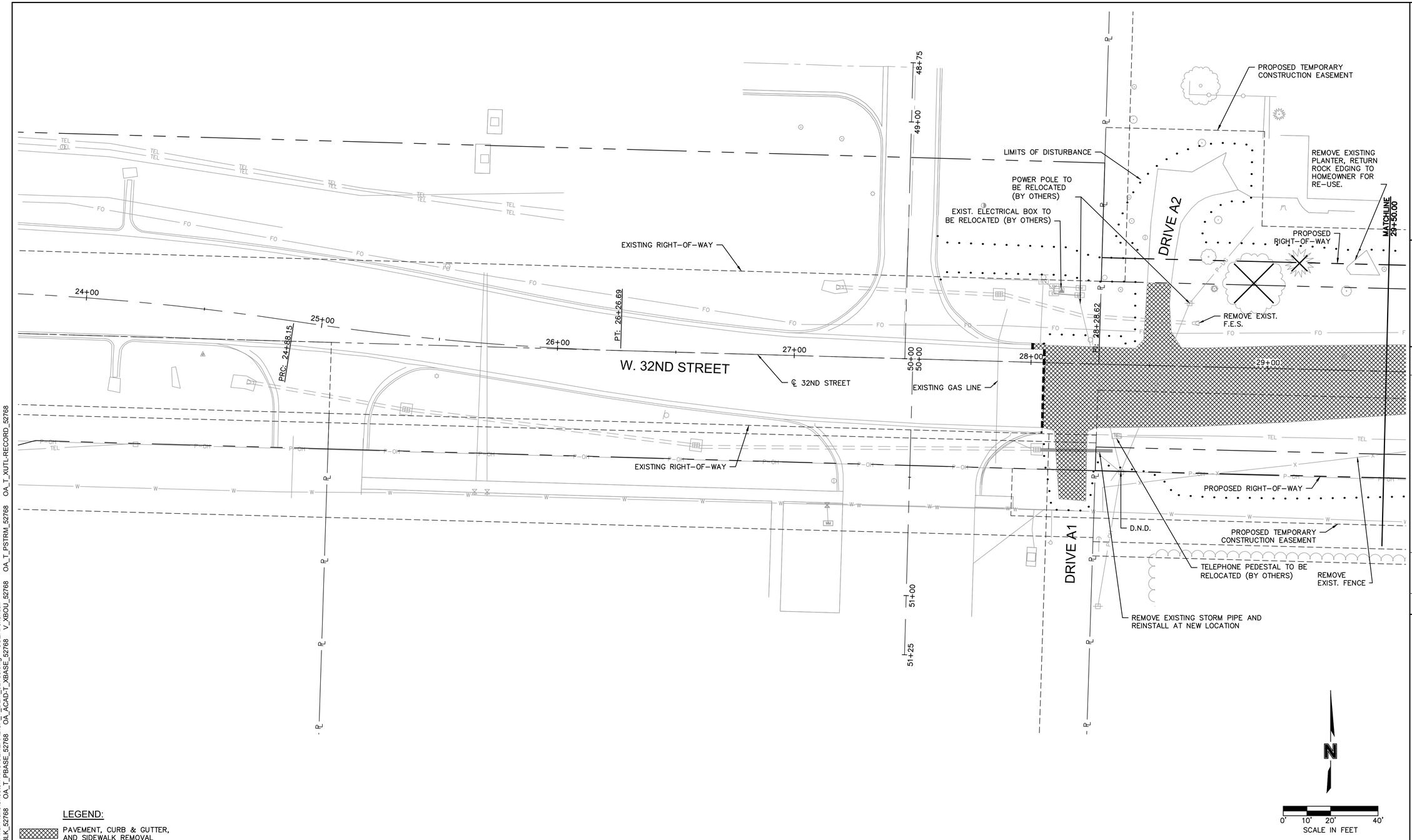
32ND STREET WIDENING
CITY OF JOPLIN

2021

JOPLIN, MISSOURI

drawn by: JKL & NJJ
checked by: BMC & JKL
approved by: BMC
QA/QC by: PM
project no.: 015-2768
drawing no.: OA_T_RWP08_52768
date: 04/23/2021

SHEET
A9 of A122



LEGEND:

- PAVEMENT, CURB & GUTTER, AND SIDEWALK REMOVAL
- SURFACE MILL
- STORM SEWER REMOVAL
- TREE REMOVAL (AREA)
- TREE REMOVAL (INDIVIDUAL)
- SAWCUT

NOTE:
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STATE OF MISSOURI
BRIAN COOMES
Brian Coomes
04/23/2021
NUMBER PE-2015029306
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

DEMOLITION & REMOVAL PLANS

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by: JKL & NJJ
checked by: BMC & JKL
approved by: BMC
QA/QC by: PM
project no.: 015-2768
drawing no.: OA_T_DEM_52768
date: 04/23/2021

SHEET
A10 of A122

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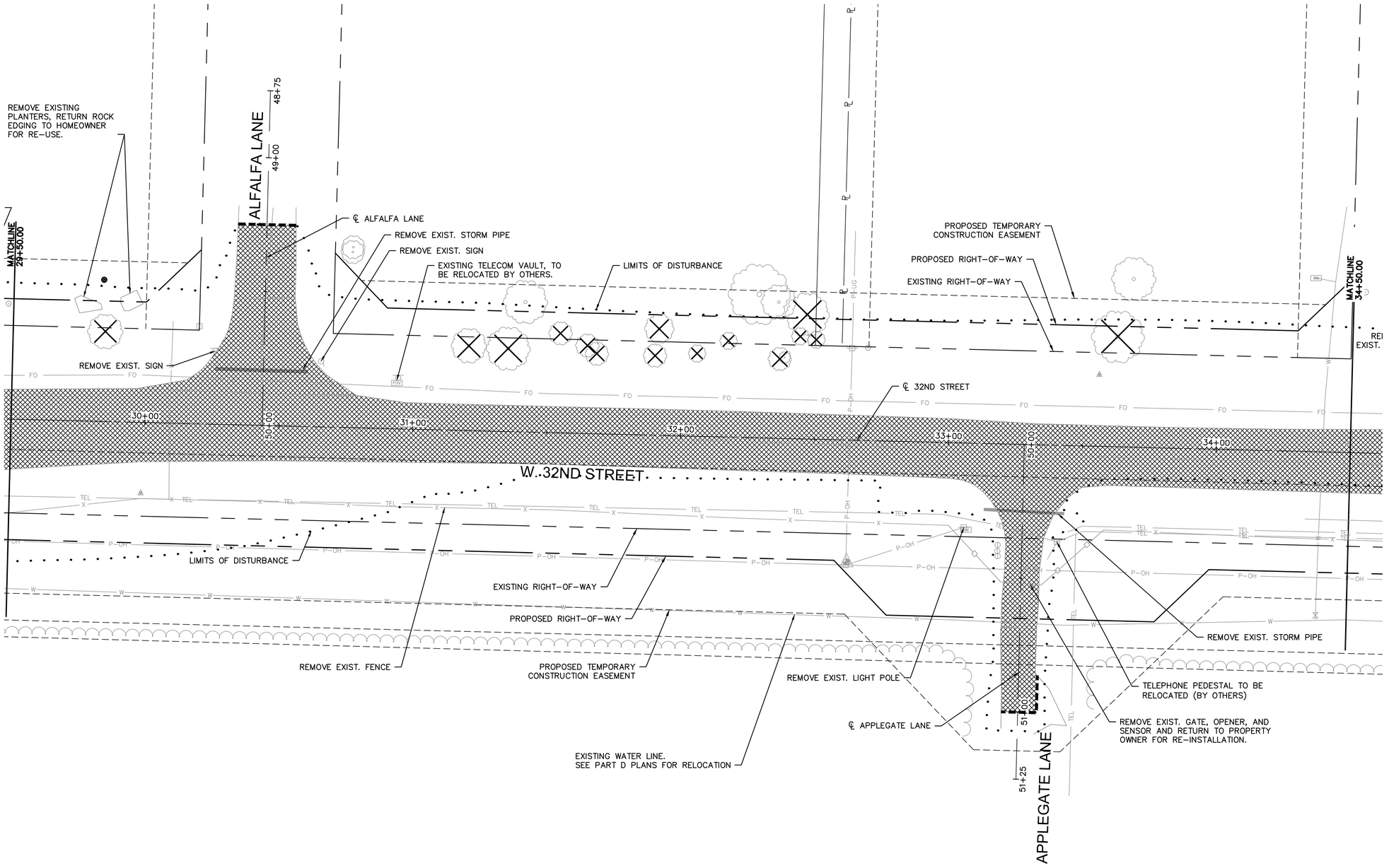

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N

0' 10' 20' 40'
SCALE IN FEET

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CITY OF JOPLIN

JOPLIN, MISSOURI

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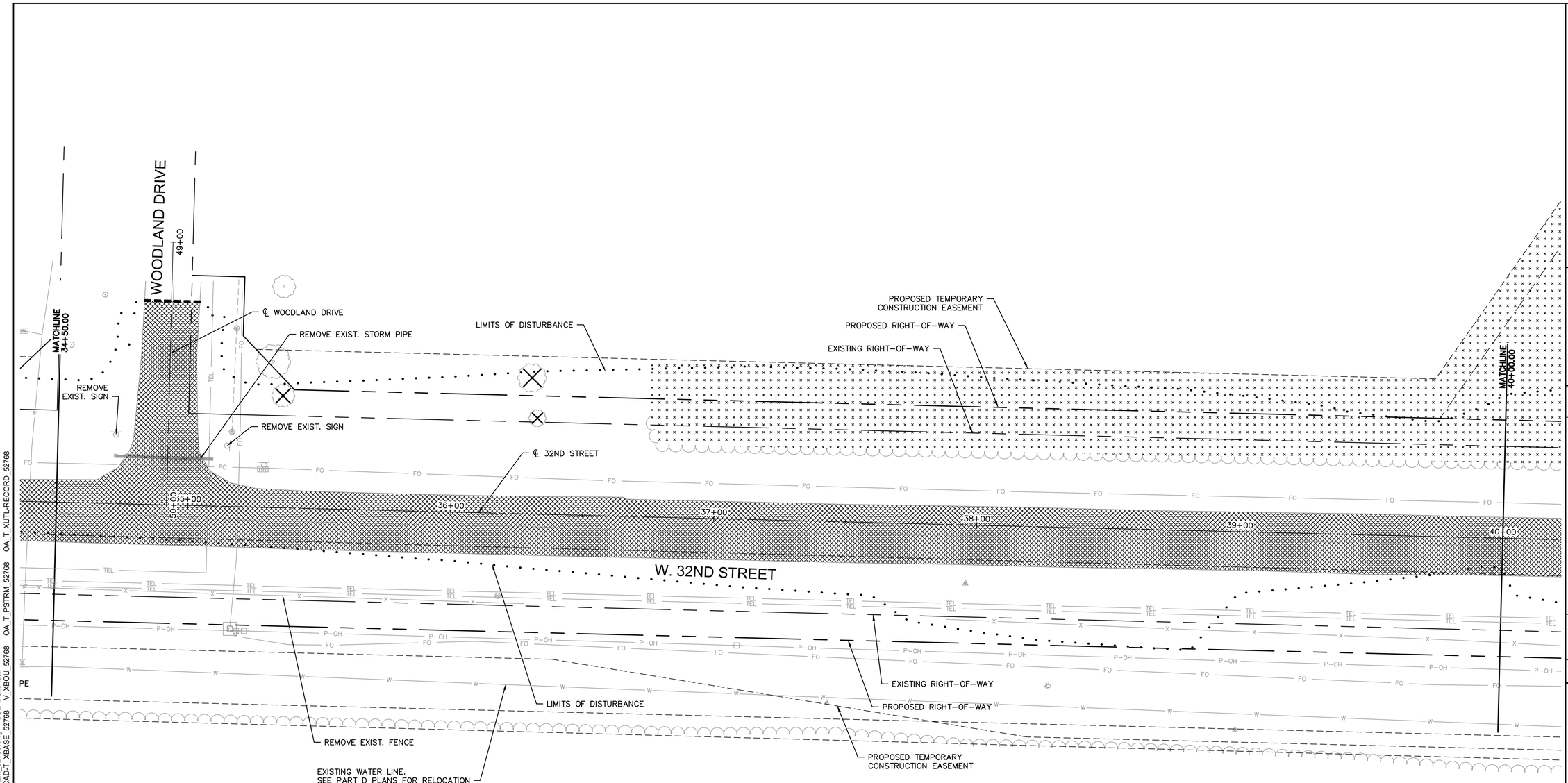
SHEET
A11 of A122



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JOPLIN, MISSOURI

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SHEET
A12 of A122

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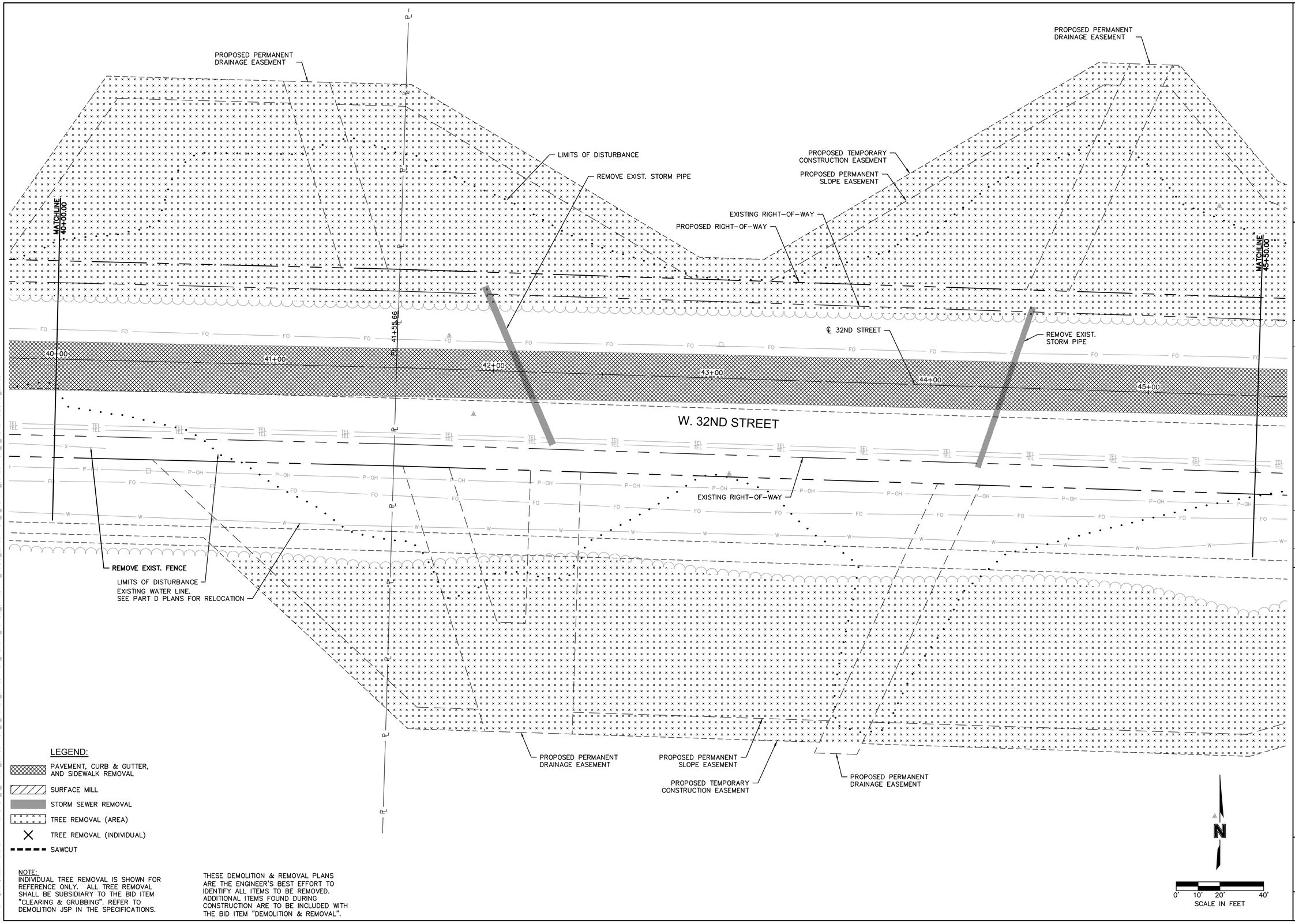

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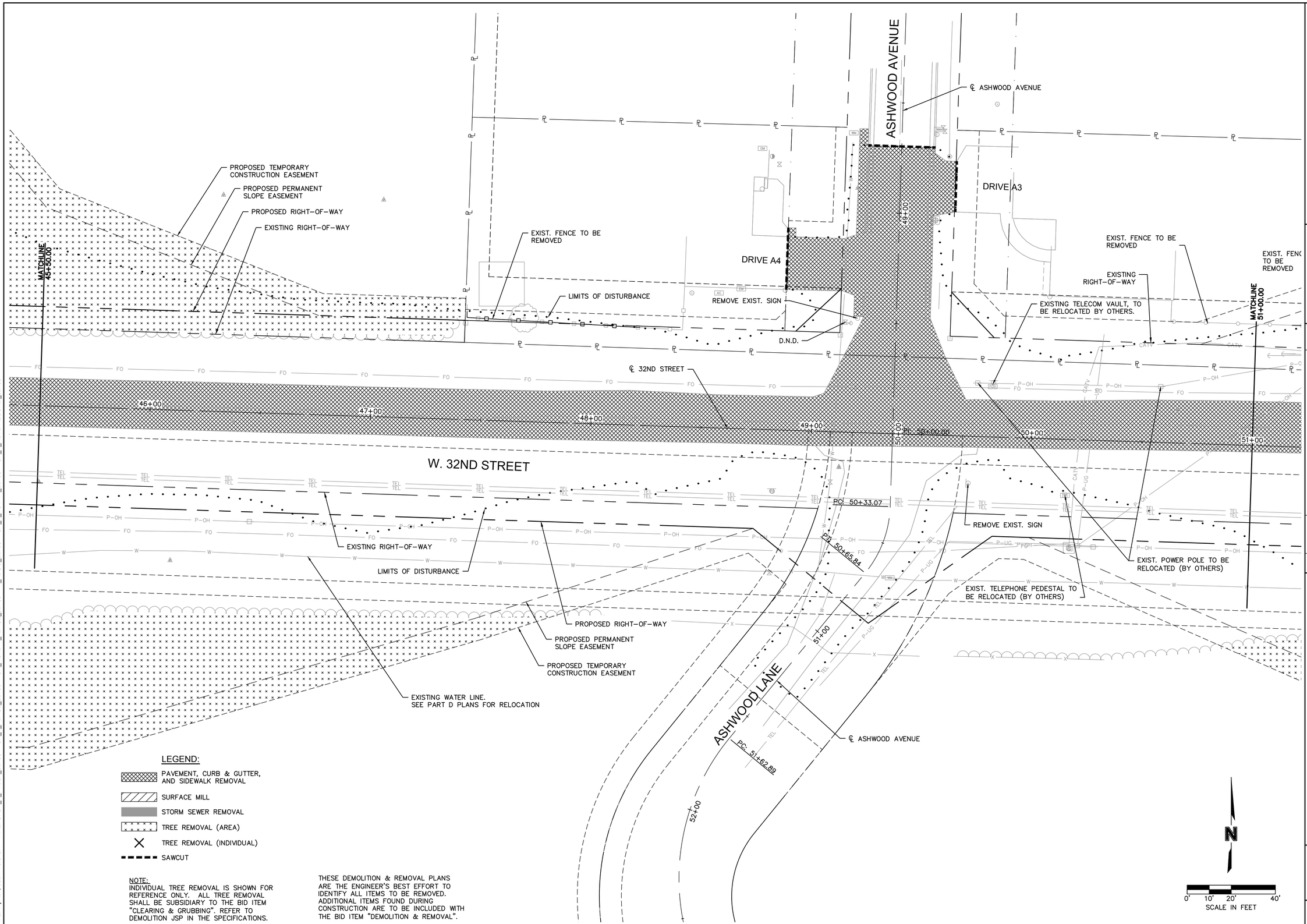

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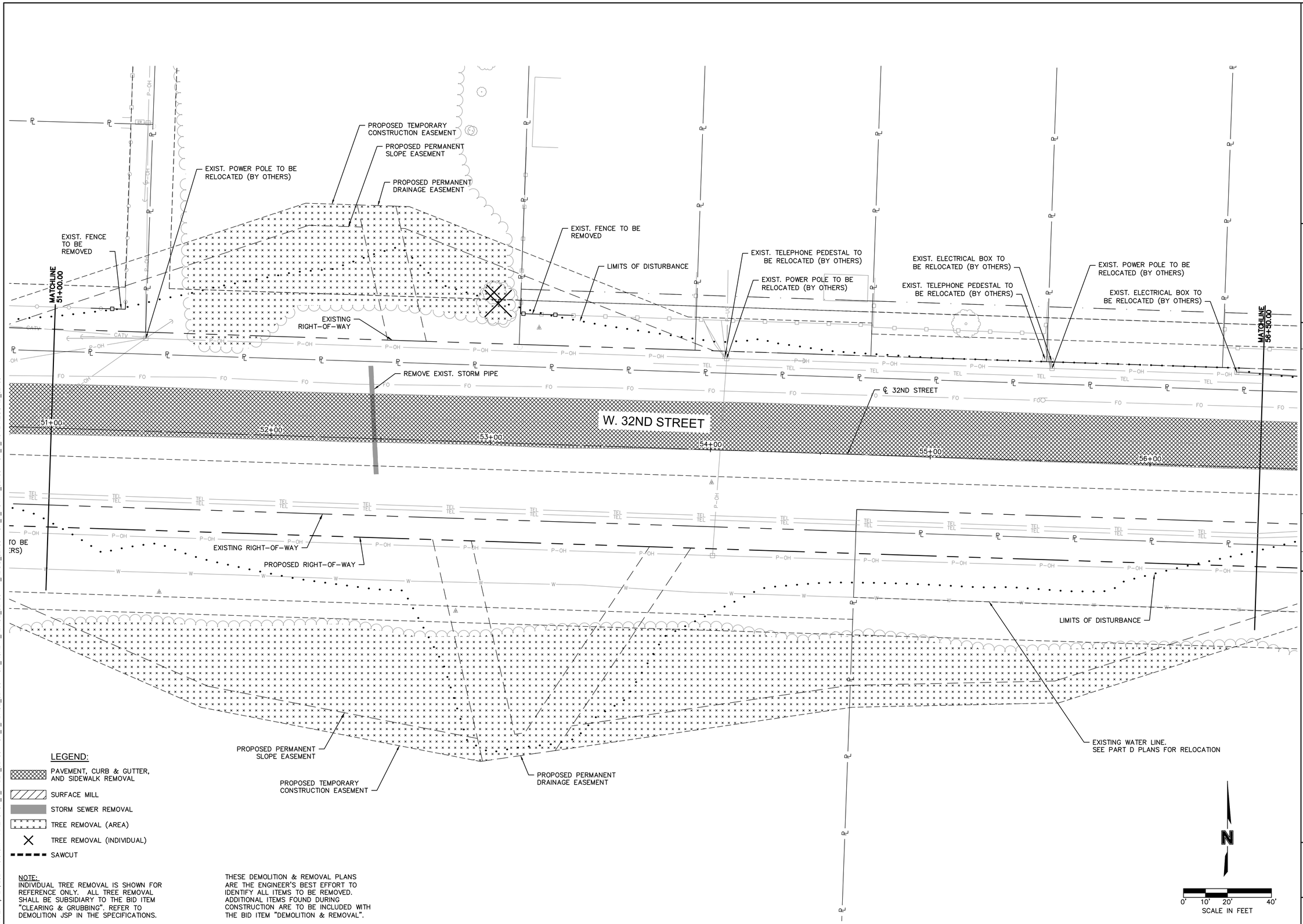
SHEET
A14 of A122



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SHEET
A15 of A122

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EXIST. TELEPHONE PEDESTAL TO BE RELOCATED (BY OTHERS)

EXIST. POWER POLE TO BE RELOCATED (BY OTHERS)

EXIST. TELEPHONE PEDESTAL TO BE RELOCATED (BY OTHERS)

EXIST. POWER POLE TO BE RELOCATED (BY OTHERS)

PROPOSED TEMPORARY CONSTRUCTION EASEMENT

EXISTING RIGHT-OF-WAY

LIMITS OF DISTURBANCE

REMOVE EXIST. SIGN

EXIST. POWER POLE TO BE RELOCATED (BY OTHERS)

JENNIFER AVENUE

49+00

MATCHLINE 56+50.00

℄ JENNIFER AVENUE

EXISTING RIGHT-OF-WAY

W. 32ND STREET

57+00

50+00

58+00

59+00

50+00

60+00

61+00

62+00

℄ 32ND STREET

LIMITS OF DISTURBANCE

REMOVE EXIST. SIGN

EXISTING RIGHT-OF-WAY

PROPOSED RIGHT-OF-WAY

PROPOSED TEMPORARY CONSTRUCTION EASEMENT

ARCADIA LANE

℄ ARCADIA LANE

51+00

CATION

LEGEND:

- PAVEMENT, CURB & GUTTER, AND SIDEWALK REMOVAL
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32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

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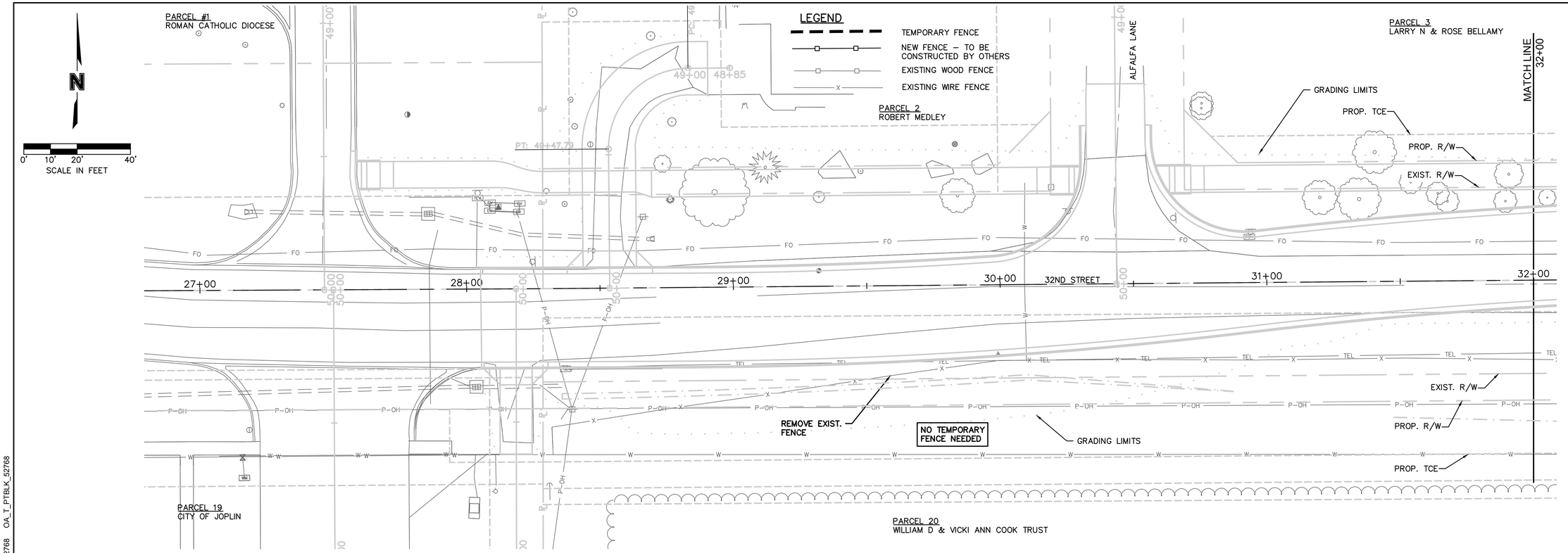
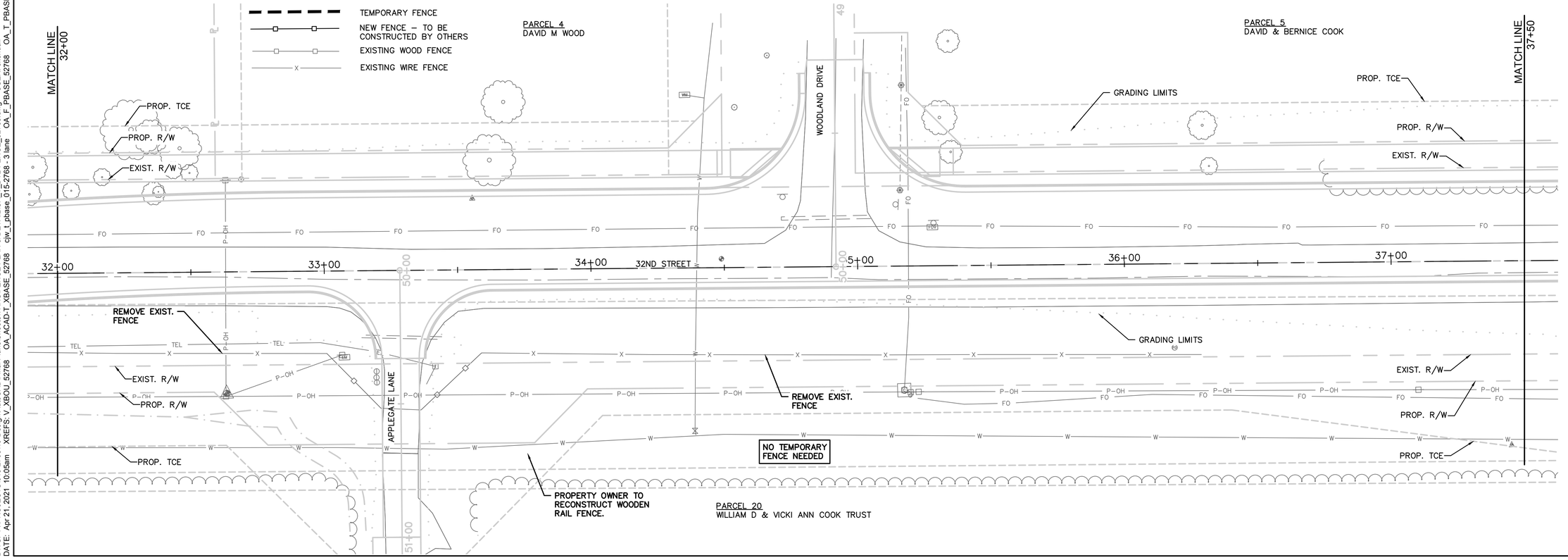
SHEET
A16 of A122





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FENCE PLAN

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by:	JKL & NJJ
checked by:	BMC & JKL
approved by:	BMC
QA/QC by:	PM
project no.:	015-2768
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SHEET
A17 of A122

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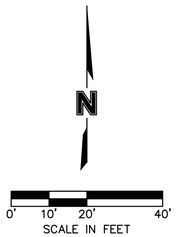

LEGEND

- TEMPORARY FENCE
- NEW FENCE – TO BE CONSTRUCTED BY OTHERS
- EXISTING WOOD FENCE
- EXISTING WIRE FENCE

MATCH LINE 37+50

PROP. TCE

PROP. R/W

EXIST. R/W

PARCEL 5
DAVID & BERNICE COOK

PARCEL 6
R. S. ANDERSON INC

MATCH LINE 42+50

GRADING LIMITS

38+00 39+00 32ND STREET 40+00 41+00 42+00

REMOVE EXIST. FENCE

NO TEMPORARY FENCE NEEDED

PARCEL 20
WILLIAM D. & VICKI ANN COOK TRUST

PARCEL 6
R. S. ANDERSON, INC

MATCH LINE 42+50

MATCH LINE 48+00

PARCEL 7
MELISSA K & STEPHEN JOHNSTON

BEGIN TEMPORARY FENCE PARCEL 7

STA 47+42.19
OFF 49.00' LT

43+00 44+00 32ND STREET 45+00 46+00 47+00 48+00

PARCEL 21
R. S. ANDERSON

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CITY OF JOPLIN

JOPLIN, MISSOURI

2021

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SHEET
A18 of A122

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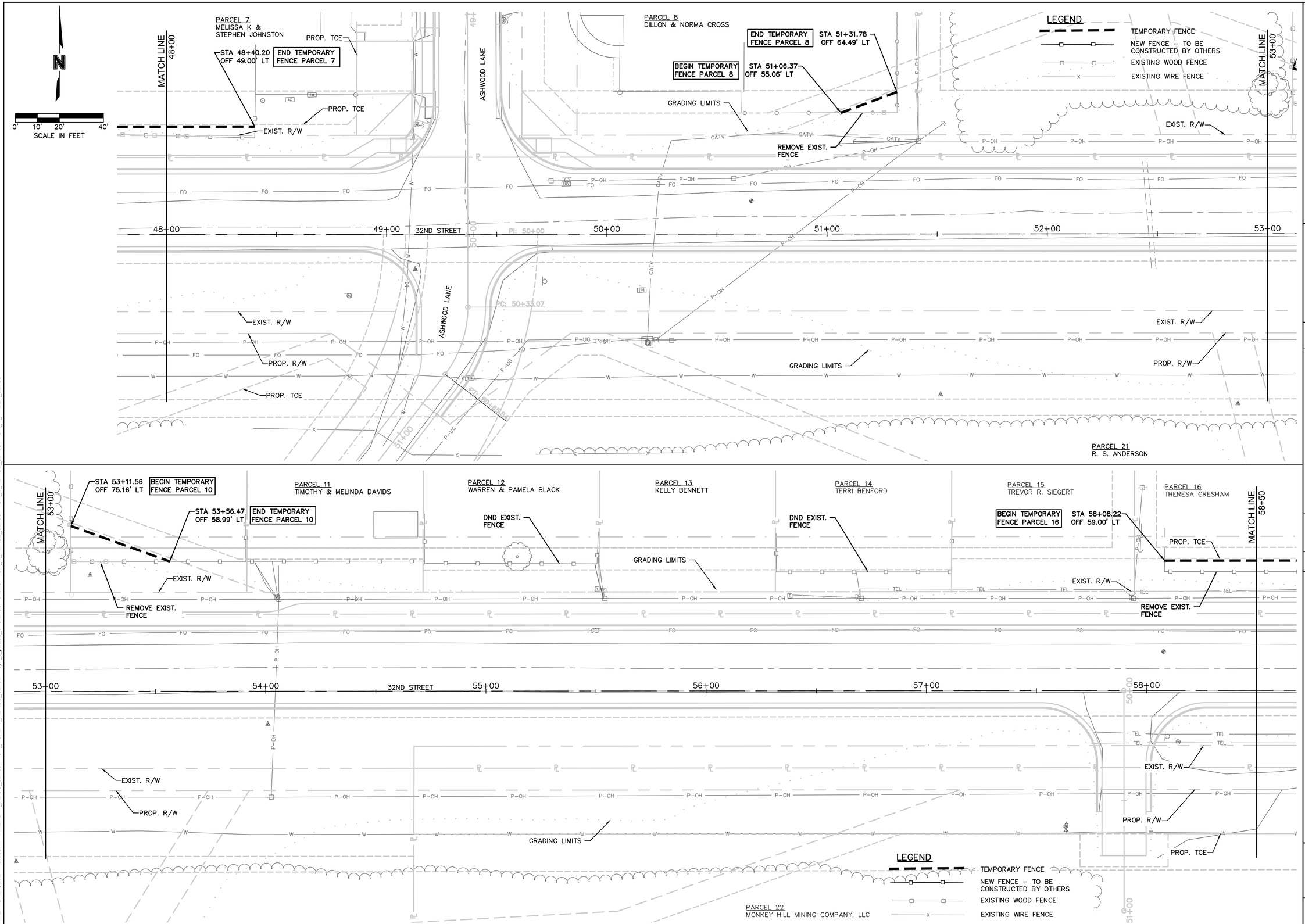
OA_T_PTBLK_52768



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SHEET
A19 of A122

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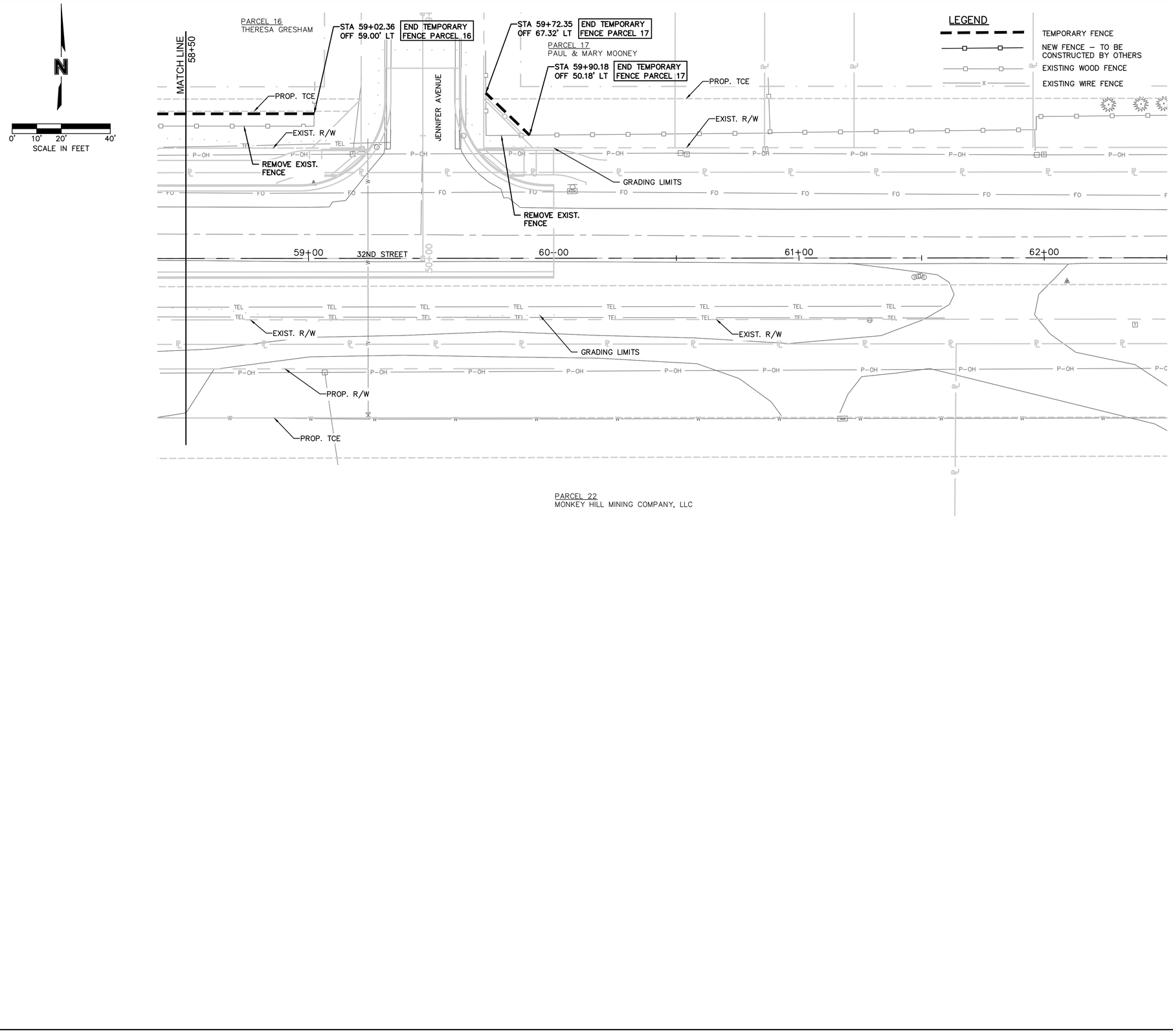

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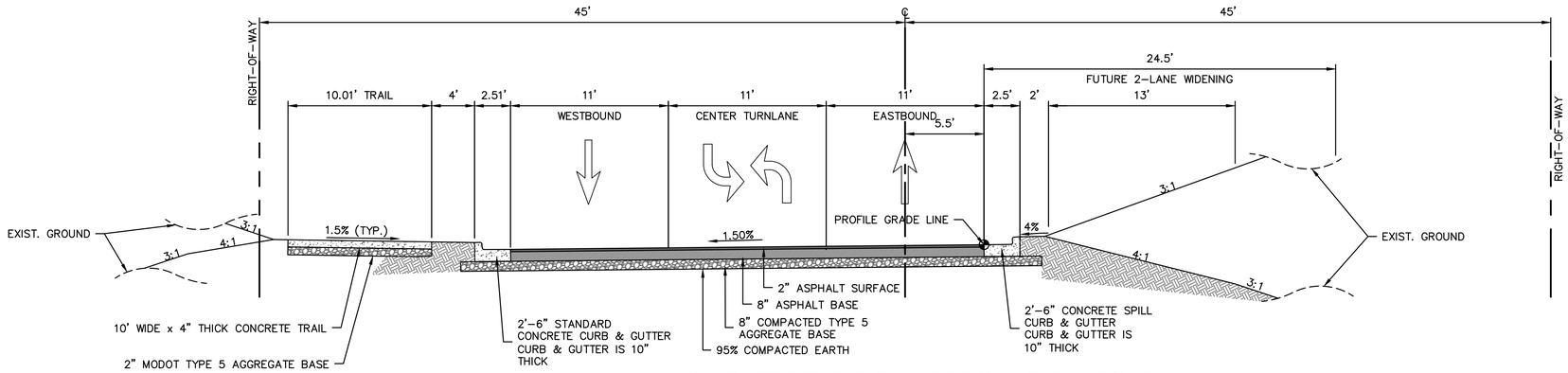


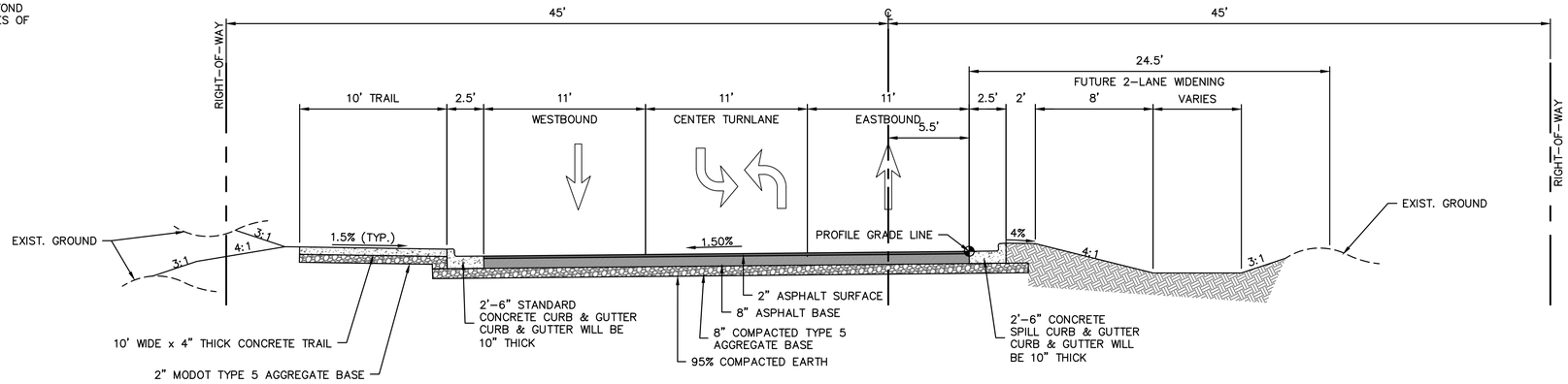
W. 32ND STREET TYPICAL SECTION - CLEAR ZONE

NOT TO SCALE

STA. 28+05.47 TO STA. 28+75.00
STA. 31+25.00 TO STA 58+25.00

NOTES:
LOCATION OF TRAIL AND FILL SLOPES WILL VARY. (SEE PLANS & CROSS SECTIONS FOR PARTICULAR LOCATIONS).

AGGREGATE AREA SHALL BE CONSIDERED AS EXTENDING 1' BEYOND THE BACK OF CURB FOR PURPOSES OF PAY LIMITS.



W. 32ND STREET TYPICAL SECTION - CUT DITCH SECTION

NOT TO SCALE

STA. 28+75.00 TO STA. 31+25.00
STA. 58+25.00 TO STA 60+00.00

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STATE OF MISSOURI
BRIAN COOMES
Brian Coomes
04/23/2021
NUMBER PE-2015029306
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY
		REVISIONS	

TYPICAL SECTIONS

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

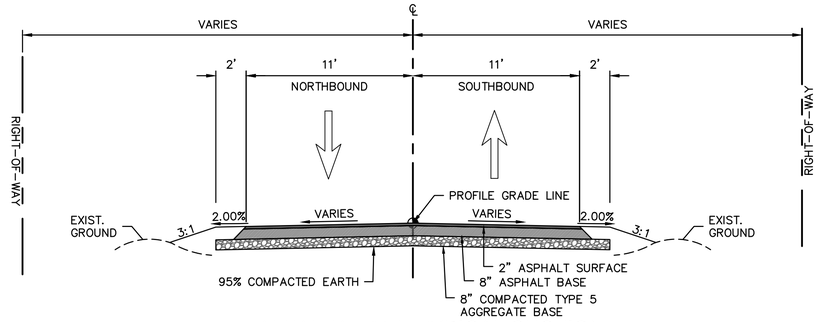
drawn by: JKL & NJJ
checked by: BMC & JKL
approved by: BMC
QA/QC by: PM
project no.: 015-2768
drawing no.: OA_T_TYP_52768
date: 04/23/2021

SHEET
A21 of A122

DWG: F:\PROJECTS\015-2768\40-Design\AutoCAD\Final Plans\Sheets\TRNS\GENERAL\OA_T_TYP_52768.dwg USER: skendall
DATE: Apr 21, 2021 10:08am XREFS: OA_T_PTBLK_52768 OA_T_PBASE_52768 V_XBOU_52768

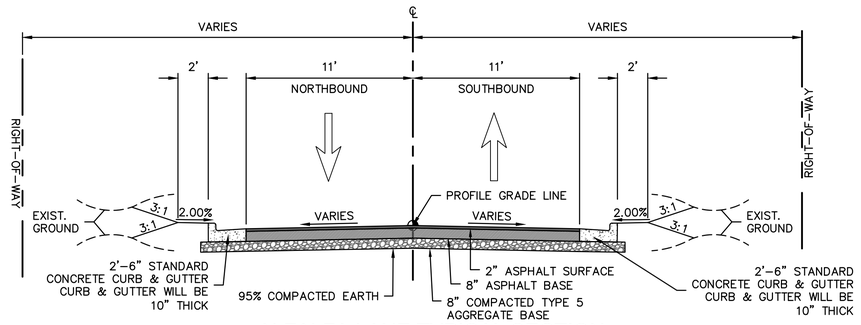
NOTES:
AGGREGATE AREA SHALL BE CONSIDERED AS EXTENDING 1' BEYOND THE BACK OF CURB FOR PURPOSES OF PAY LIMITS.

AGGREGATE AREA SHALL BE CONSIDERED AS EXTENDING 2' BEYOND THE EOP ON STREETS WITHOUT CURB FOR PURPOSES OF PAY LIMITS.



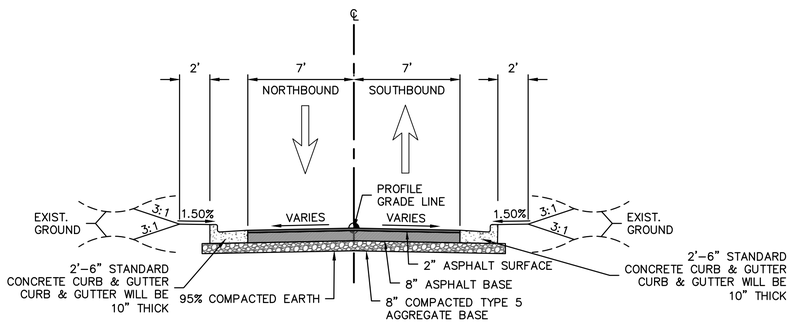
ALFALFA LANE TYPICAL SECTION

STA: 49+25.00 - 49+50.50
NOT TO SCALE



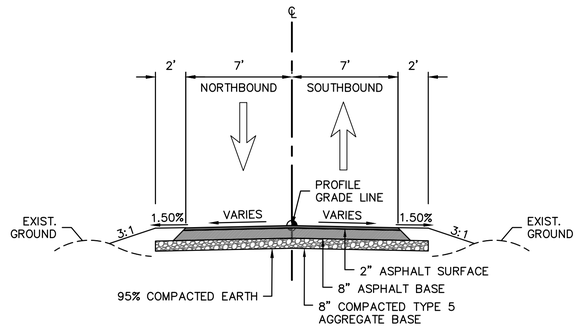
ALFALFA LANE TYPICAL SECTION

STA: 49+50.50 - 49+94.50
NOT TO SCALE



APPLEGATE LANE TYPICAL SECTION

STA: 50+27.50 - 50+55.00
NOT TO SCALE



APPLEGATE LANE TYPICAL SECTION

STA: 50+55.00 - 51+00.00
NOT TO SCALE

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CITY OF JOPLIN

JOPLIN, MISSOURI

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SHEET
A22 of A122

DWG: F:\PROJECTS\015-2768\40-Design\AutoCAD\Final Plans\Sheets\TRNS\GENERAL\OA_T_TYP_52768.dwg USER: skendall
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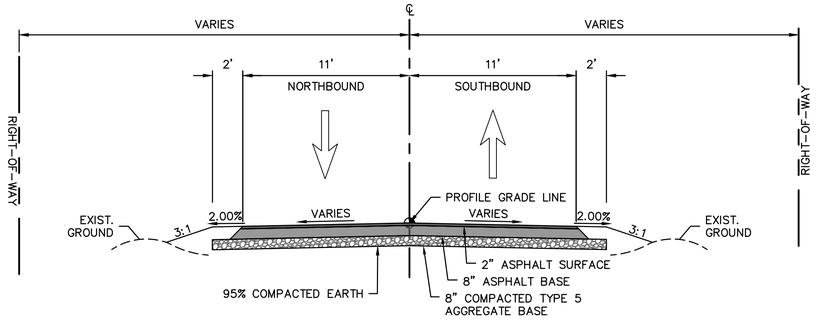
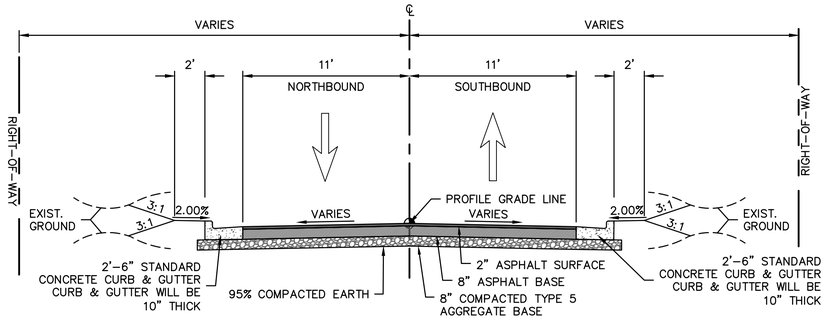


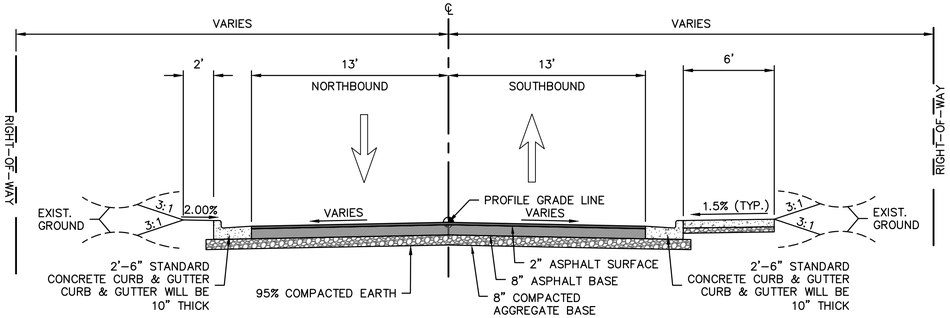
WOODLAND DRIVE TYPICAL SECTION

STA: 49+22.50 - 49+50.50
NOT TO SCALE



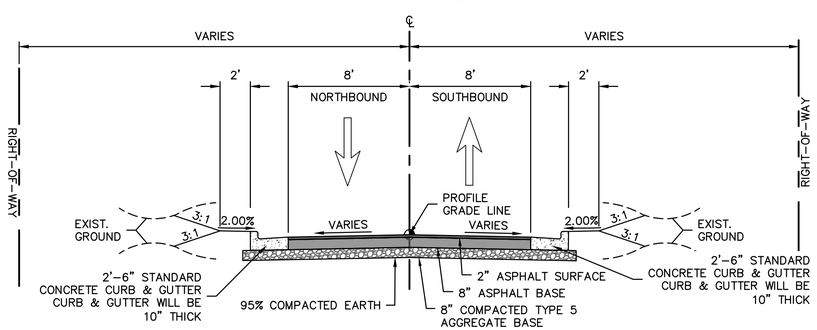
WOODLAND DRIVE TYPICAL SECTION

STA: 49+50.50 - 49+94.50
NOT TO SCALE



ASHWOOD AVENUE TYPICAL SECTION

STA: 48+69.72 - 49+94.50
NOT TO SCALE



ASHWOOD LANE TYPICAL SECTION

STA: 50+27.50 - 50+82.36
NOT TO SCALE

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CITY OF JOPLIN

JOPLIN, MISSOURI

2021

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SHEET
A23 of A122

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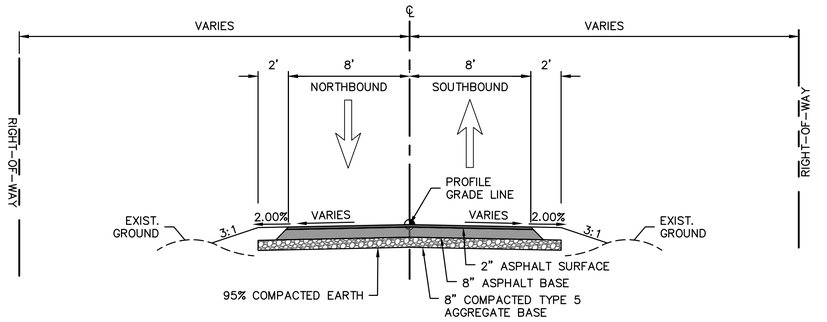
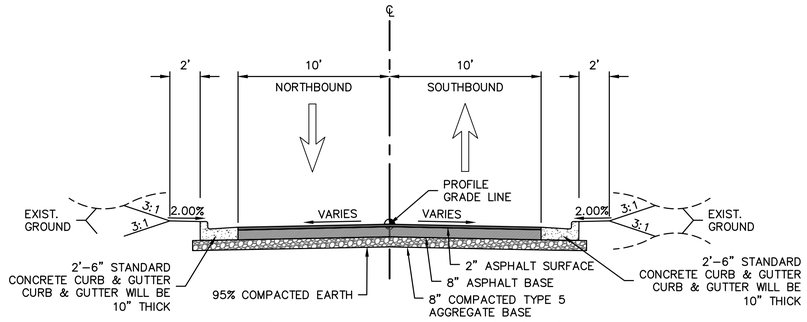


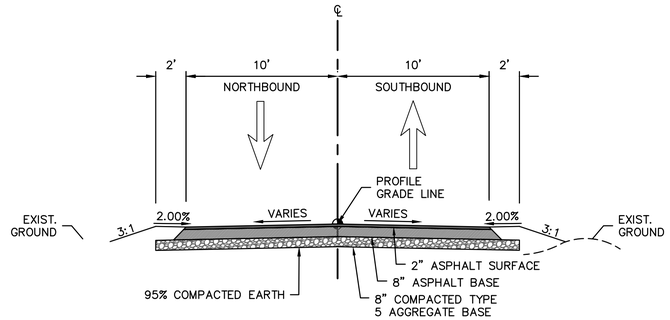
ASHWOOD LANE TYPICAL SECTION

STA: 50+82.36 - 51+30.00
NOT TO SCALE



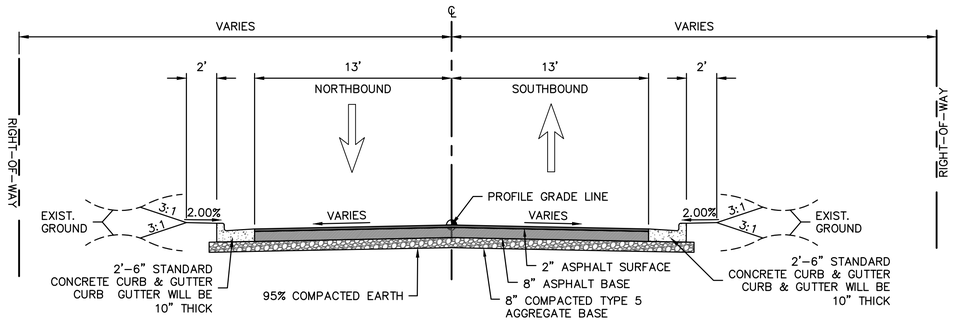
ARCADIA LANE TYPICAL SECTION

STA: 50+27.50 - 50+55.00
NOT TO SCALE



ARCADIA LANE TYPICAL SECTION

STA: 50+55.00 - 50+75.00
NOT TO SCALE



JENNIFER AVENUE TYPICAL SECTION

STA: 49+22.50 - 49+94.50
NOT TO SCALE

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CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by: JKL & NJJ
checked by: BMC & JKL
approved by: BMC
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project no.: 015-2768
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SHEET
A24 of A122

DWG: F:\PROJECTS\015-2768\40-Design\AutoCAD\Final Plans\Sheets\TRNS\GENERAL\OA_T_TYP_52768.dwg USER: skendall
DATE: Apr 21, 2021 10:07am XREFS: OA_T_PTBLK_52768 OA_T_PBASE_52768 V_XBOU_52768

LEGEND

- ASPHALT PAVEMENT
- CONCRETE SIDEWALK
- CONCRETE DRIVE
- AGGREGATE SURFACE
- ASPHALT OVERLAY
- STAMPED CONCRETE PAVEMENT
- DETECTABLE WARNING SURFACE
- CURB RAMP
- ROCK BLANKET

NOTE:
REFER TO SHEETS A52–A56 FOR STORM SEWER PLAN & PROFILES

F1
STA. 28+73.55, 52.58' LT.
CONST. 15" DRAIN BASIN

F0
STA. 28+73.55, 18.58' LT.
CONST. 3'x2' TYPE S–1 INLET

PARCEL #1
ROMAN CATHOLIC DIOCESE
W 32ND STREET & S CENTRAL CITY RD
BOOK 2236, PAGE 2143

PARCEL 2
ROBERT MEDLEY
3158 S ALFALFA ROAD
BOOK 1224, PAGE 418

EXISTING RIGHT–OF–WAY
EXIST. GAS LINE
REPLACE CURB AND GUTTER 4' ON EACH SIDE OF SIDEWALK
15" RCP
CAUTION!! EXISTING FIBER OPTIC LINE
CONSTRUCT 6" TYPE 1 AGGREGATE SURFACE
GRADING LIMIT
PROPOSED TEMPORARY CONSTRUCTION EASEMENT
CONSTRUCT 6" THICK CONCRETE RESIDENTIAL DRIVE, SEE DETAIL ON SHEET 44.
GRADE TO DRAIN TO GRATE INLET
PROPOSED RIGHT–OF–WAY
10' WIDE CONC. SIDEWALK TRAIL
2'–6" CONCRETE SPILL CURB & GUTTER (TYP. NORTH SIDE OF ROAD)
℄ DRIVE A2
PC: 49+00.65
BP: 48+85.00
48+85
49+00
MATCHLINE 29+00.00
PT: 49+47.79
CONSTRUCT PIPE COLLAR
STA: 28+67.66
OFF: 18.26' L
DRIVE A2
+05.21
8.16' LT.
PI: 28+28.62
90°00'00"
50+00
EP: 50+00.00
5.5
27.5'
38' B–B
90°13'8"
BP: 50+00.00
℄ 32ND STREET
STA: 28+18.56 ℄ 32ND STREET =
STA: 50+00.00 ℄ DRIVE A1
PROFILE GRADE & FUT. CROWN OFFSET 5.50' NORTH
STA: 28+05.47, BEGIN CONSTRUCTION
EXISTING EDGE OF PAVEMENT
STA: 28+53.65 ℄ 32ND STREET =
STA: 50+00.00 ℄ DRIVE A2
+05.47
29.85' RT.
PROPOSED RIGHT–OF–WAY
PROPOSED TEMPORARY CONSTRUCTION EASEMENT
DRIVE A1
℄ DRIVE A1
51+00
EP: 51+00.00
2'–6" STANDARD CONCRETE CURB & GUTTER (TYP. SOUTH SIDE OF ROAD)
70'
EXIST. UTILITY ESMT.
W. 32ND STREET
SECTION LINE
PRC: 24+38.15
25+00
26+00
PT: 26+26.69
27+00
28+00
29+00
15" RCP
40'
EXIST. WATER ESMT.
EXIST. WATER LINE
EXISTING RIGHT–OF–WAY
15" RCP
CAUTION!! EXISTING OVERHEAD POWER TRANSMISSION LINE

PARCEL 18
WILDWOOD RANCH LLC
1032 ANTELOPE ROAD
BOOK 354, PAGE 12950

PARCEL 19
CITY OF JOPLIN
602 S MAIN
BOOK 359, PAGE 6441

PARCEL 20
WILLIAM D & VICKI ANN COOK TRUST
1630 APPLEGATE LANE
BOOK 363, PAGE 2437

E1
STA. 28+36.82, 36.47' RT.
CONST. 3'x3' JUNCTION BOX

E2
STA. 28+60.69, 48.87' RT.
CONST. 15" Concrete Flared End Section

NOTE:
FOR STORM DRAIN PROFILES SEE SHEETS: A52 – A56

N

0' 10' 20' 40'
SCALE IN FEET

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ROADWAY PLAN AND PROFILES

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by: JKL & NJJ
checked by: BMC & JKL
approved by: BMC
QA/QC by: PM
project no.: 015-2768
drawing no.: OA_T_RPP02_52758
date: 04/23/2021

SHEET
A25 of A122

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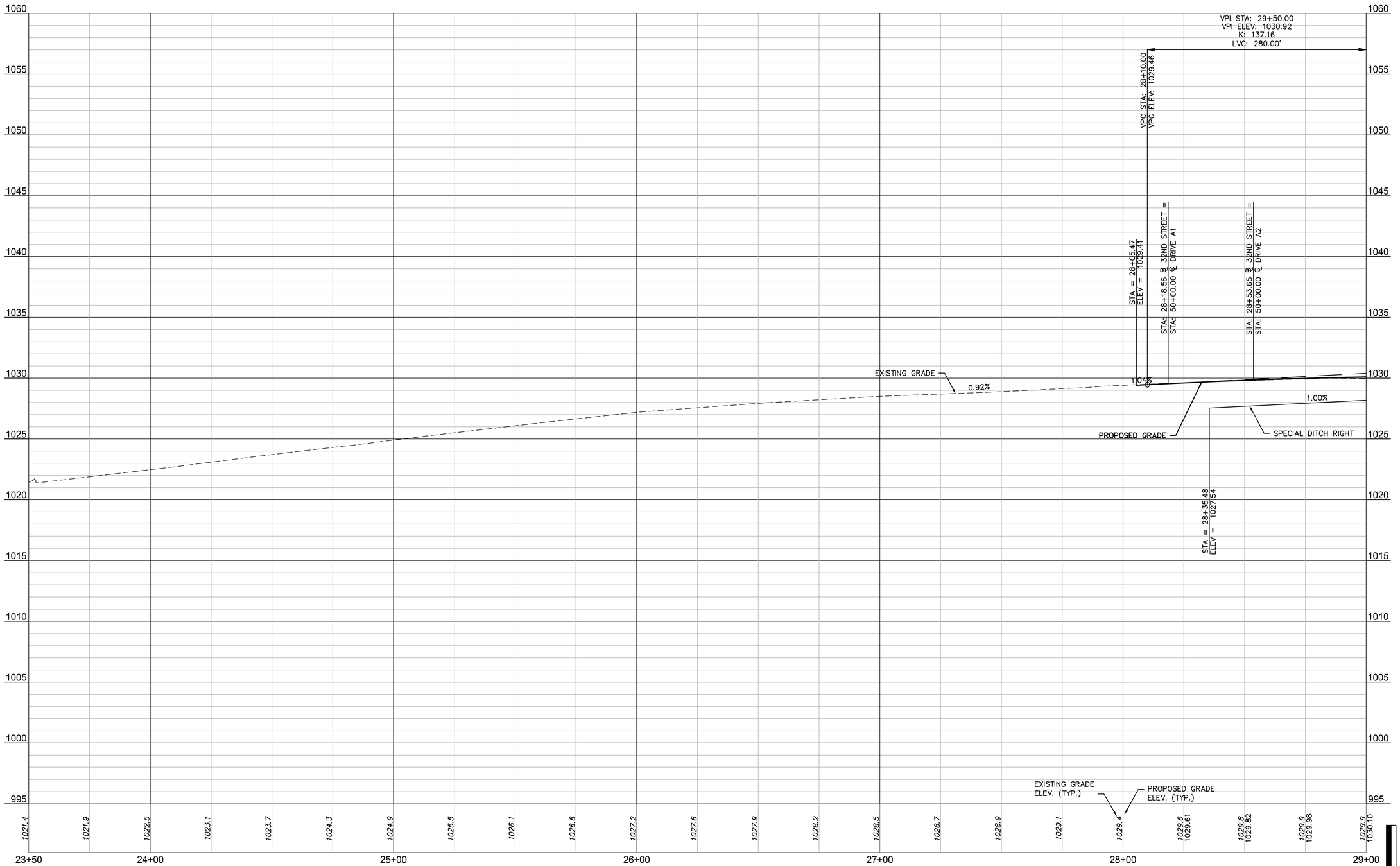
W. 32ND STREET



ALIGNMENT AND PROFILE NOTE:

ALTHOUGH EXISTING GRADE SHOWN IS NEAR THE EXISTING CENTERLINE OF 32ND STREET, THE FINISH GRADE PROFILE AND ULTIMATE CROWN IS NOT AT THE CENTERLINE OF 32ND STREET, BUT IS OFFSET 5.50 FT. SOUTH OF THE PROPOSED ULTIMATE CENTERLINE.

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32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

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SHEET
A26 of A122

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LEGEND

- ASPHALT PAVEMENT
- CONCRETE SIDEWALK
- CONCRETE DRIVE
- AGGREGATE SURFACE
- ASPHALT OVERLAY
- STAMPED CONCRETE PAVEMENT
- DETECTABLE WARNING SURFACE
- CURB RAMP
- ROCK BLANKET

F2
STA. 29+50.54, 51.71' LT.
CONST. 15" DRAIN BASIN

A8
STA. 32+42.00, 31.85' LT.
CONST. 6'x3' TYPE D CURB INLET

A7
STA. 32+80.00, 32.97' LT.
CONST. 6'x4' TYPE D CURB INLET

NOTE:
REFER TO SHEETS A52–A56 FOR STORM SEWER PLAN & PROFILES

PARCEL 2
ROBERT MEDLEY
3158 S ALFALFA ROAD
BOOK 1224, PAGE 418

PARCEL 3
LARRY N & ROSE BELLAMY
3089 ALFALFA AVE
BOOK 1440, PAGE 58
BOOK 1322, PAGE 563

PARCEL 4
DAVID M WOOD
3154 WOODLAND RD
BOOK 2386, PAGE 99

ALFALFA LANE
℄ ALFALFA ROAD
MATCHLINE 29+00.00
MATCHLINE 34+50.00
48+75
49+00
+25.00 10.77' RT.
+25.00 10.82' LT.
WELL – PLUG AND CAP
+54.05 13.47' RT.
+45.58 13.53' LT.
+97.34 11.01' LT.
+93.99 19.62' LT.
+43.39 30.00' LT.
R35'
R15'
10' WIDE CONC. SIDEWALK TRAIL
PROPOSED TEMPORARY CONSTRUCTION EASEMENT
PROPOSED RIGHT–OF–WAY
EXISTING RIGHT–OF–WAY
CAUTION!! EXISTING FIBER OPTIC LINE
B–15
B–14
10'
25.31'
6.19'
26.79'
38' B–B
90°0'0"
29+00
30+00
31+00
32+00
33+00
50+00
STA: 30+43.73 ℄ W. 32ND STREET =
STA: 50+00.00 ℄ ALFALFA ROAD
STA: 33+28.33 ℄ W. 32ND STREET =
STA: 50+00.00 ℄ APPLEGATE ROAD
℄ 32ND STREET = SECTION LINE
W. 32ND STREET
EXISTING EDGE OF PAVEMENT
2'–6" CONCRETE SPILL CURB & GUTTER (TYP. NORTH SIDE OF ROAD)
+93.84 8.00' RT.
+33.00 9.50' RT.
+33.00 9.50' LT.
2'–6" STANDARD CONCRETE CURB & GUTTER (TYP. SOUTH SIDE OF ROAD)
EXISTING WATER LINE. SEE PART D PLANS FOR RELOCATION
EXISTING RIGHT–OF–WAY
PROPOSED RIGHT–OF–WAY
PROPOSED TEMPORARY CONSTRUCTION EASEMENT
CAUTION!! EXISTING OVERHEAD POWER TRANSMISSION LINE
70' EXIST. ELECTRICAL ESMT.
40' EXIST. WATER ESMT.
PARCEL 20
WILLIAM D & VICKI ANN COOK TRUST
1630 APPLEGATE LANE
BOOK 363, PAGE 2437
GRADE SWALE TO MATCH EXISTING DITCH TO PROPOSED AREA INLET
+00.00 7.00' RT.
+00.00 7.00' LT.
50+00
51+00
51+25
APPLEGATE LANE
℄ APPLEGATE ROAD
CONSTRUCT 18'X7'X6" CONCRETE PAD W/ 6" TYPE 5 AGGREGATE BASE. WORK WILL BE MEASURE AND PAID UNDER BID ITEM "RESIDENTIAL DRIVEWAY CONSTRUCTION (6" CONCRETE)(INC. 4" MODOT TYPE 5 AGG. BASE)". COORDINATE FINAL PAD LOCATION AND ELEVATION WITH OWNER. OWNER WILL INSTALL NEW GATE AND OPENER ON CONCRETE PAD. CONTRACTOR SHALL CONSTRUCT CONCRETE PAD A MINIMUM OF 60 CALENDAR DAYS PRIOR TO REMOVAL OF EXISTING GATE.

C1
STA. 32+80.00, 23.45' RT.
CONST. 4'x3' AREA INLET
OPEN E & W

C2
STA. 33+46.98, 27.62' RT.
CONST. 3'x3' AREA INLET
OPEN E & S

NOTE:
FOR STORM DRAIN PROFILES SEE SHEETS: A52 – A56

N

0' 10' 20' 40'
SCALE IN FEET

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SHEET
A27 of A122

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OA_T_PBASE_52768 OA_T_XUTL-RECORD_52768

W. 32ND STREET

HIGH PT. STA: 29+52.84
HIGH PT. ELEV: 1030.20
VPI STA: 29+50.00
VPI ELEV: 1030.92
K: 137.16
LVC: 280.00'

LOW PT. STA: 32+80.00
LOW PT. ELEV: 1027.87
VPI STA: 32+80.00
VPI ELEV: 1027.62
K: 50.00
LVC: 100.00'

HIGH PT. STA: 34+20.89
HIGH PT. ELEV: 1028.61
VPI STA: 35+50.00
VPI ELEV: 1030.32
K: 83.39
LVC: 425.00'

VPT STA: 30+90.00
VPT ELEV: 1029.52

VPC STA: 32+30.00
VPC ELEV: 1028.12

VPT STA: 33+30.00
VPT ELEV: 1028.12
VPC STA: 33+37.50
VPC ELEV: 1028.19

STA: 30+43.73 @ 32ND STREET =
STA: 50+00.00 @ ALFALFA ROAD

STA: 33+28.33 @ W. 32ND STREET =
STA: 50+00.00 @ APPLEGATE ROAD

EXISTING GRADE

1.04%

1.00%

SPECIAL DITCH RIGHT

BORING NO. 15
STA. 29+32.10, 5.86' LT.

0.84%

-1.00%

PROPOSED GRADE

1.00%

BORING NO. 14
STA. 34+48.95, 3.30' LT.

STA = 30+10.00
ELEV = 1029.29

STA = 31+42.43
ELEV = 1028.17

EXISTING GRADE ELEV. (TYP.)

PROPOSED GRADE ELEV. (TYP.)

29+00	30+00	31+00	32+00	33+00	34+00	34+50
1029.9 / 1030.10	1030.0 / 1030.18	1030.1 / 1030.20	1030.2 / 1030.19	1030.2 / 1030.12	1030.2 / 1030.01	1030.4 / 1029.86
1030.4 / 1029.66	1030.4 / 1029.42	1030.4 / 1029.17	1030.4 / 1028.92	1030.3 / 1028.67	1030.2 / 1028.42	1030.1 / 1028.17
1030.0 / 1027.96	1029.8 / 1027.87	1029.7 / 1027.91	1029.6 / 1028.07	1029.5 / 1028.31	1029.5 / 1028.48	1029.6 / 1028.58
1029.8 / 1028.61	1029.8 / 1028.56					

BORING LOG LEGEND
- ASPHALTIC CONCRETE
- CLAYEY GRAVEL
- CLAY WITH FINE SAND
- LEAN CLAY
- LEAN TO FAT CLAY
- FAT CLAY
- HIGHLY WEATHERED SHALE

8'
4'
2'
0'

0' 10' 20' 40'
SCALE IN FEET

ALIGNMENT AND PROFILE NOTE:

ALTHOUGH EXISTING GRADE SHOWN IS NEAR THE EXISTING CENTERLINE OF 32ND STREET, THE FINISH GRADE PROFILE AND ULTIMATE CROWN IS NOT AT THE CENTERLINE OF 32ND STREET, BUT IS OFFSET 5.50 FT. SOUTH OF THE PROPOSED ULTIMATE CENTERLINE.

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Joplin, MO 64801
TEL 417.781.0643
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STATE OF MISSOURI
BRIAN COOMES
Brian Coomes
04/23/2021
NUMBER PE-2015029306
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

ROADWAY PLAN AND PROFILES

32ND STREET WIDENING
CITY OF JOPLIN

2021

JOPLIN, MISSOURI

drawn by: JKL & NJJ
checked by: BMC & JKL
approved by: BMC
QA/QC by: PM
project no.: 015-2768
drawing no.: OA_T_RPP03_52758
date: 04/23/2021

SHEET
A28 of A122

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LEGEND

- ASPHALT PAVEMENT
- CONCRETE SIDEWALK
- CONCRETE DRIVE
- AGGREGATE SURFACE
- ASPHALT OVERLAY
- STAMPED CONCRETE PAVEMENT
- DETECTABLE WARNING SURFACE
- CURB RAMP
- ROCK BLANKET

A6
STA. 36+65.00, 33.00' LT.
CONST. 6'x4' TYPE D CURB INLET

PARCEL 5
DAVID & BERNICE COOK
2991 S WOODLAND DRIVE
BOOK 1232, PAGE 2362
BOOK 1291, PAGE 2178

WOODLAND DRIVE
49+00
+22.50
10.27' RT.
+22.50
10.78' LT.
+35.00
3.50' RT.
+35.00
13.50' LT.
℄ WOODLAND DRIVE
MATCHLINE
34+50.00
R35'
R35'
PROPOSED TEMPORARY CONSTRUCTION EASEMENT
PROPOSED RIGHT-OF-WAY
EXISTING RIGHT-OF-WAY
10' SIDE CONC. SIDEWALK TRAIL
CAUTION!! EXISTING FIBER OPTIC LINE
+28.48
34.00' LT.
+28.48
44.00' LT.
+37.46
32.33' LT.
+41.05
41.67' LT.
+41.72
31.00' LT.
+50.02
40.00' LT.
R35'
R25'
R25'
R35'
MATCHLINE
40+00.00
10'
6.5'
+40.39
8.00' LT.
27.5'
38' B-B
℄ 32ND STREET
= SECTION LINE
A6
W. 32ND STREET
PROFILE GRADE & FUT.
CROWN OFFSET 5.50' RIGHT
90°0'0"
50+00
35+00
36+00
37+00
38+00
39+00
40+00
8'
EXISTING EDGE OF PAVEMENT
B-13
CAUTION!! EXISTING OVERHEAD POWER TRANSMISSION LINE
EXISTING RIGHT-OF-WAY
PROPOSED RIGHT-OF-WAY
PROPOSED TEMPORARY CONSTRUCTION EASEMENT
2'-6" STANDARD CONCRETE CURB & GUTTER (TYP. SOUTH SIDE OF ROAD)
70'
EXIST. UTILITY ESMT.
CAUTION!! EXISTING FIBER OPTIC LINE
40'
EXIST. WATER ESMT.
EXISTING WATER LINE. SEE PART D PLANS FOR RELOCATION
2'-6" SPILL CONCRETE CURB & GUTTER (TYP. SOUTH SIDE OF ROAD)
STA: 34+91.89 ℄ W. 32ND STREET =
STA: 50+00.00 ℄ WOODLAND DRIVE

PARCEL 20
WILLIAM D & VICKI ANN COOK TRUST
1630 APPLEGATE LANE
BOOK 363, PAGE 2437

NOTE:
FOR STORM DRAIN PROFILES SEE SHEETS: A52 – A56

N

0' 10' 20' 40'
SCALE IN FEET

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Brian Coomes
04/23/2021
NUMBER PE-2015029306
PROFESSIONAL ENGINEER

REVISIONS

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ROADWAY PLAN AND PROFILES

32ND STREET WIDENING
CITY OF JOPLIN

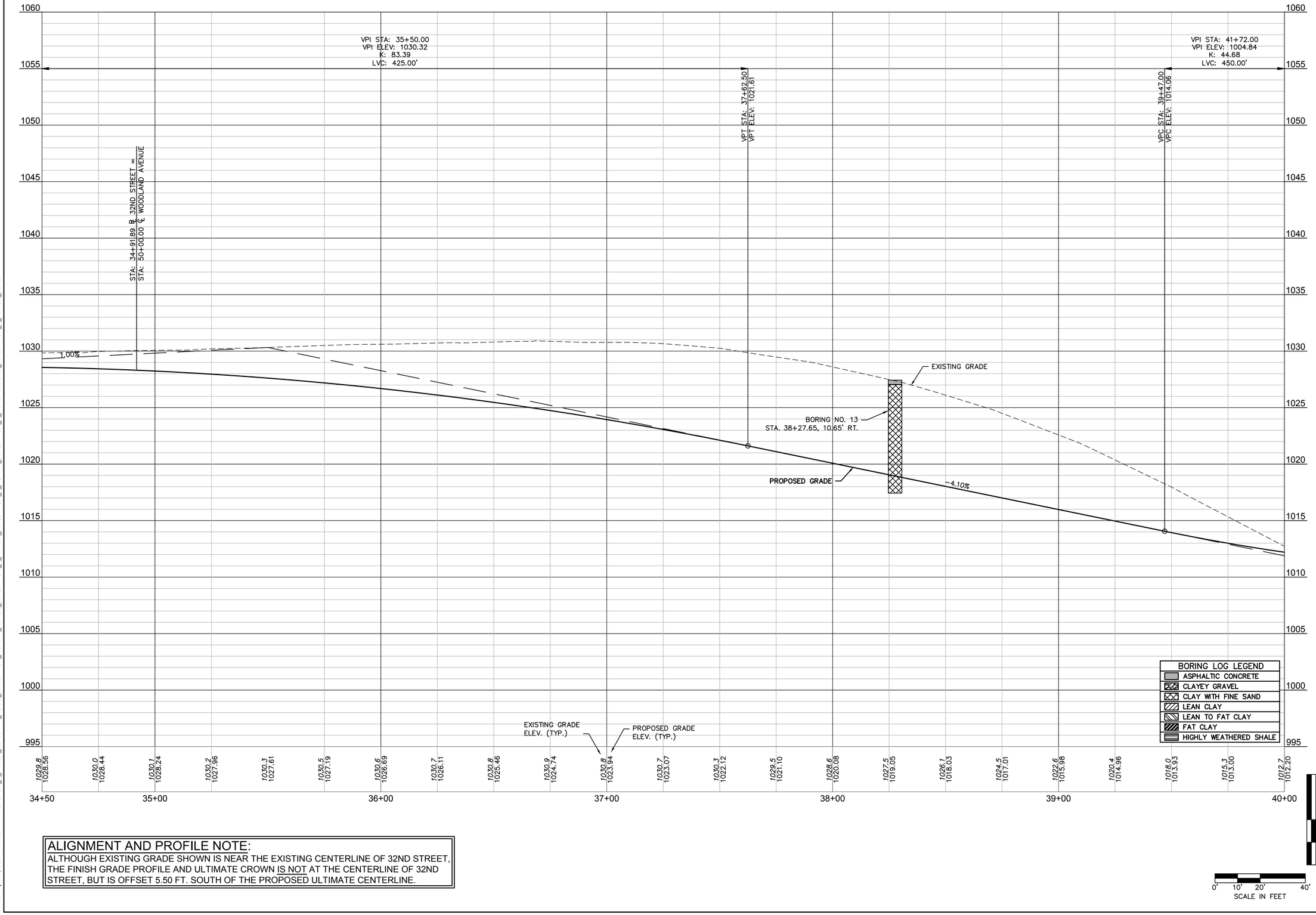
JOPLIN, MISSOURI

2021

drawn by: JKL & NJJ
checked by: BMC & JKL
approved by: BMC
QA/QC by: PM
project no.: 015-2768
drawing no.: OA_T_RPP04_52758
date: 04/23/2021

SHEET
A29 of A122

W. 32ND STREET



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32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

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SHEET
A30 of A122

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LEGEND

- ASPHALT PAVEMENT
- CONCRETE SIDEWALK
- CONCRETE DRIVE
- AGGREGATE SURFACE
- ASPHALT OVERLAY
- STAMPED CONCRETE PAVEMENT
- DETECTABLE WARNING SURFACE
- CURB RAMP
- ROCK BLANKET

PARCEL 5
DAVID & BERNICE COOK
2991 S WOODLAND DRIVE
BOOK 1232, PAGE 2362
BOOK 1291, PAGE 2178

PROPOSED PERMANENT DRAINAGE EASEMENT

℄ CULVERT AA

100+00

A5
STA. 40+50.00, 32.00' LT.
CONST. 8'x4' TYPE D CURB INLET

A4
STA. 41+29.55, 32.00' LT.
CONST. 8'x4' TYPE C CURB INLET

A3
STA. 41+55.98, 32.00' LT.
CONST. 6'x4' TYPE C CURB INLET

A2
STA. 42+30.00, 32.01' LT.
CONST. 6'x4' TYPE C CURB INLET

B1
STA. 44+68.00, 31.50' LT.
CONST. 6'x3' TYPE C CURB INLET

AA1
STA. 100+56.10, 0.00'
CONST. 48" Concrete Flared End Section

BB1
STA. 200+48.65, 0.00'
CONST. 30" Concrete Flared End Section

PARCEL 6
R. S. ANDERSON, INC
ALL OF SE ¼ OF SEC. 18
BOOK 1505, PAGE 151

PROPOSED PERMANENT DRAINAGE EASEMENT

200+00

PROPOSED TEMPORARY CONSTRUCTION EASEMENT

PROPOSED PERMANENT SLOPE EASEMENT

10' WIDE CONC. SIDEWALK TRAIL

2'-6" STANDARD CONCRETE CURB & GUTTER (TYP. NORTH SIDE OF ROAD)

MATCHLINE 40+00.00

36" RCP

EXISTING RIGHT-OF-WAY

CAUTION!! EXISTING FIBER OPTIC LINE

PROPOSED RIGHT-OF-WAY

MATCHLINE 45+00.00

10'

38' B-B

EXISTING EDGE OF PAVEMENT

PROFILE GRADE & FUT. CROWN OFFSET 5.50' RIGHT

W. 32ND STREET

℄ 32ND STREET ≡ SECTION LINE

40+00 41+00 PI: 41+55.66 42+00 43+00 44+00 45+00

101+00 102+00 103+00 103+50

201+00 202+00 203+00 203+50

EXISTING WATER LINE. SEE PART D PLANS FOR RELOCATION

CAUTION!! EXISTING FIBER OPTIC LINE

70' EXIST. UTILITY ESMT.

40' EXIST. WATER ESMT.

2'-6" CONCRETE SPILL CURB & GUTTER (TYP. SOUTH SIDE OF ROAD)

EXISTING RIGHT-OF-WAY

PROPOSED RIGHT-OF-WAY

30" RCP

CAUTION!! EXISTING OVERHEAD POWER TRANSMISSION LINE

PARCEL 20
WILLIAM D. & VICKI ANN COOK TRUST
1630 APPLEGATE LANE
BOOK 363, PAGE 2437

INSTALL 27 S.Y. OF MODOT ROCK LINING FOR CULVERT OUTLET 20' x 12' x 2'

INSTALL 7 S.Y. OF MODOT ROCK LINING FOR CULVERT OUTLET 10' x 6' x 2'

INSTALL 63 S.Y. OF MODOT ROCK LINING FOR CULVERT OUTLET 75' x 7.5' x 2'

℄ CULVERT BB

PROPOSED PERMANENT SLOPE EASEMENT

PROPOSED TEMPORARY CONSTRUCTION EASEMENT

PROPOSED PERMANENT DRAINAGE EASEMENT

PROPOSED PERMANENT DRAINAGE EASEMENT

PARCEL 21
R. S. ANDERSON
PT E½ NE¼ 19-27-33
BOOK 345, PAGE 5285

A0
STA. 42+30.00, 80.58' RT.
CONST. 24" Concrete Flared End Section

A1
STA. 42+30.00, 44.20' RT.
CONST. 4' MANHOLE

AA0
STA. 102+40.07, 0.00'
CONST. 48" Concrete Flared End Section

BB0
STA. 202+52.60, 0.00'
CONST. 30" Concrete Flared End Section

NOTE:
FOR STORM DRAIN PROFILES SEE SHEETS: A52 – A56

N

0' 10' 20' 40'
SCALE IN FEET

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STATE OF MISSOURI
BRIAN COOMES
Brian Coomes
04/23/2021
NUMBER PE-2015029306
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

ROADWAY PLAN AND PROFILES

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by: JKL & NJJ
checked by: BMC & JKL
approved by: BMC
QA/QC by: PM
project no.: 015-2768
drawing no.: OA_T_RPP05_52758
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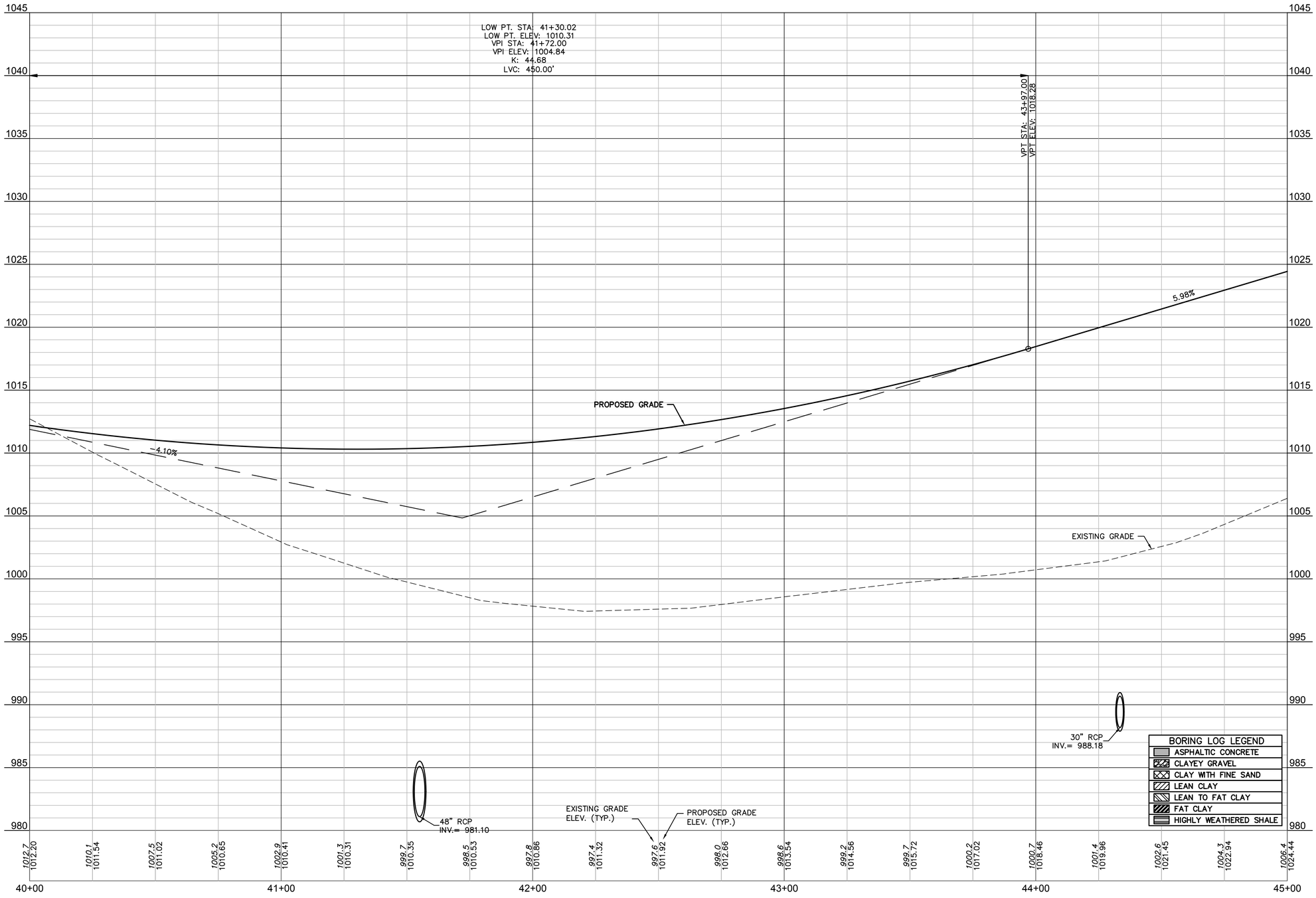
SHEET
A31 of A122

W. 32ND STREET



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32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

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SHEET
A32 of A122

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LEGEND

- ASPHALT PAVEMENT
- CONCRETE SIDEWALK
- CONCRETE DRIVE
- AGGREGATE SURFACE
- ASPHALT OVERLAY
- STAMPED CONCRETE PAVEMENT
- DETECTABLE WARNING SURFACE
- CURB RAMP
- ROCK BLANKET

PARCEL 6
R. S. ANDERSON, INC
ALL OF SE ¼ OF SEC. 18
BOOK 1505, PAGE 151

B2
STA. 47+30.00, 31.50' LT.
CONST. 6'x3' TYPE C CURB INLET

PARCEL 7
MELISSA K & STEPHEN JOHNSTON
3110 ASHWOOD AVENUE
BOOK 2415, PAGE 21

PARCEL 8
MATTHEW & JANIE WOLF
3111 ASHWOOD AVENUE
BOOK 2555, PAGE 67

PARCEL 21
R. S. ANDERSON
PT E½ NE¼ 19-27-33
BOOK 345, PAGE 5285

ASHWOOD AVENUE
W. 32ND STREET
ASHWOOD LANE
DRIVE A3
DRIVE A4

MATCHLINE 45+00.00
MATCHLINE 50+00.00

STA: 48+87.13 ℄ ASHWOOD AVENUE =
STA: 50+00.00 ℄ DRIVE A3

STA: 49+24.18 ℄ ASHWOOD AVENUE =
STA: 50+00.00 ℄ DRIVE A4

STA: 49+36.86 ℄ W. 32ND STREET =
STA: 50+00.00 ℄ ASHWOOD AVENUE

PROPOSED TEMPORARY CONSTRUCTION EASEMENT
PROPOSED PERMANENT SLOPE EASEMENT
PROPOSED RIGHT-OF-WAY
EXISTING RIGHT-OF-WAY
CONSTRUCT TRAIL WIDTH TRANSITION FROM STA. +07.71 TO STA. +29.25
10' WIDE CONC. SIDEWALK TRAIL
2'-6" STANDARD CONCRETE CURB & GUTTER (TYP. NORTH SIDE OF ROAD)
CAUTION!! EXISTING FIBER OPTIC LINE
REMOVE FENCE
6' WIDE CONC. SIDEWALK TRAIL
EXISTING ROW
EXISTING EDGE OF PAVEMENT
PROFILE GRADE & FUT. CROWN OFFSET 5.50' RIGHT
℄ 32ND STREET = SECTION LINE
2'-6" CONCRETE SPILL CURB & GUTTER (TYP. SOUTH SIDE OF ROAD)
EXIST. UTILITY ESMT.
EXIST. WATER ESMT.
EXISTING WATER LINE. SEE PART D PLANS FOR RELOCATION
CAUTION!! EXISTING OVERHEAD POWER TRANSMISSION LINE
PROPOSED RIGHT-OF-WAY
PROPOSED PERMANENT SLOPE EASEMENT
PROPOSED TEMPORARY CONSTRUCTION EASEMENT
℄ ASHWOOD LANE

+62.15 21.50' RT.
+69.71 15.28' LT.
+07.71 40.00' LT.
+20.28 37.67' LT.
+29.25 36.00' LT.
+91.30 30.00' LT.
+42.02 15.57' RT.
+35.05 15.50' LT.
+87.30 30.00' LT.
+88.28 8.00' RT.
+72.36 8.00' RT.
+67.19 15.88' RT.
+46.04 10.50' LT.
+20.00 8.00' RT.
+30.00 7.49' RT.
+20.00 8.00' LT.
+30.00 7.49' LT.
+32.36 10.50' LT.

PI: 50+00.00
PC: 50+33.07
PT: 50+85.84
PC: 51+62.89

89°56'55"
90°03'5"
90°00'0"

R35'
R25'
R60.5'

45+00
46+00
47+00
48+00
49+00
50+00
51+00
52+00

30'
38' B-B
10'
8'

B-12

NOTE:
FOR STORM DRAIN PROFILES SEE SHEETS: A52 – A56

0' 10' 20' 40'
SCALE IN FEET

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32ND STREET WIDENING
CITY OF JOPLIN
JOPLIN, MISSOURI
2021

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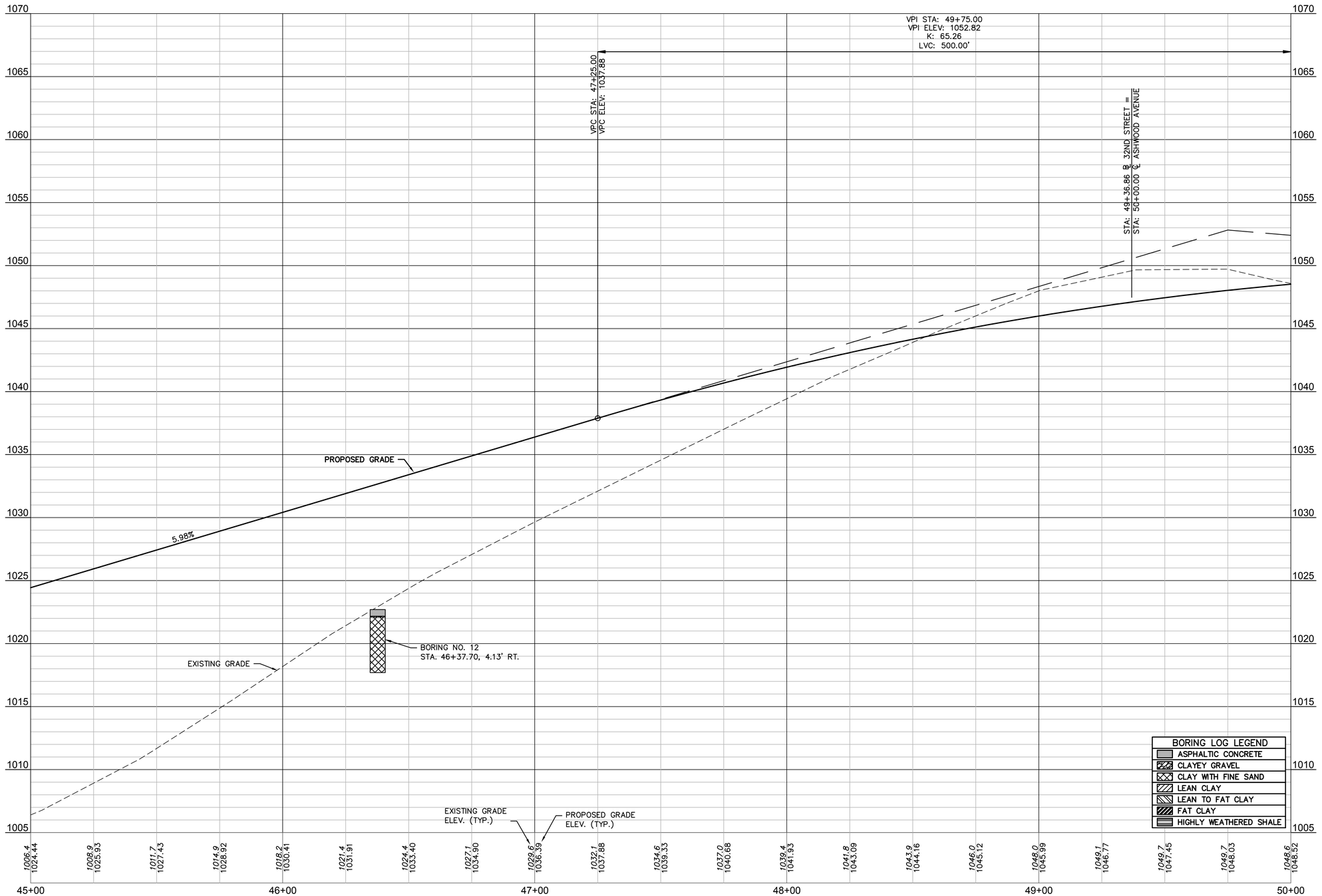
SHEET
A33 of A122

W. 32ND STREET



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32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

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SHEET
A34 of A122

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LEGEND

- ASPHALT PAVEMENT
- CONCRETE SIDEWALK
- CONCRETE DRIVE
- AGGREGATE SURFACE
- ASPHALT OVERLAY
- STAMPED CONCRETE PAVEMENT
- DETECTABLE WARNING SURFACE
- CURB RAMP
- ROCK BLANKET

PARCEL 8
DILLON & NORMA CROSS
3111 ASHWOOD AVENUE
BOOK 1973, PAGE 288

PARCEL 9
CITY OF JOPLIN, MO
LOT 13 CEDAR RIDGE SUB-DVISION PLAT NO. 5
BOOK 20, PAGE 33

PARCEL 10
ALI KALAR
4514 W 31ST STREET
BOOK 2338, PAGE 43

PARCEL 11
TIMOTHY & MELINDA DAVIDS
4506 W 31ST STREET LOT 81
BOOK 1999, PAGE 541

PARCEL 12
WARREN & PAMELA BLACK
4502 W 31ST STREET
BOOK 2149, PAGE 599

2'-6" STANDARD CONCRETE CURB & GUTTER (TYP. NORTH SIDE OF ROAD)

6' WIDE CONC. TRAIL

EXIST. FENCE TO BE REMOVED

PROPOSED PERMANENT DRAINAGE EASEMENT

PROPOSED TEMPORARY CONSTRUCTION EASEMENT

PROPOSED PERMANENT SLOPE EASEMENT

EXISTING RIGHT-OF-WAY

24" RCP

MATCHLINE 50+00.00

MATCHLINE 55+00.00

W. 32ND STREET

B-11

CC1

CCO

D1

DO

CONSTRUCT TRAIL WIDTH TRANSITION FROM STA. +99.60 TO STA. +31.54

+99.60 36.00' LT.

+18.31 31.00' LT.

+22.57 32.33' LT.

+31.54 44.00' LT.

+31.54 34.00' LT.

R35'

R25'

DND EXIST. FENCE

CAUTION!! EXISTING FIBER OPTIC LINE

PROFILE GRADE & FUT. CROWN OFFSET 5.50' RIGHT

℄ 32ND STREET = SECTION LINE

2'-6" CONCRETE SPILL CURB & GUTTER (TYP. SOUTH SIDE OF ROAD)

EXISTING RIGHT-OF-WAY

PROPOSED RIGHT-OF-WAY

EXIST. UTILITY ESMT.

EXIST. WATER ESMT.

CAUTION!! EXISTING OVERHEAD POWER TRANSMISSION LINE

EXISTING WATER LINE. SEE PART D PLANS FOR RELOCATION

INSTALL 47 S.Y. OF MODOT ROCK LINING FOR CULVERT OUTLET 70' x 6' x 2'

INSTALL 42 S.Y. OF MODOT ROCK LINING FOR CULVERT OUTLET 100' x 4' x 2'

PROPOSED PERMANENT SLOPE EASEMENT

PROPOSED TEMPORARY CONSTRUCTION EASEMENT

PROPOSED PERMANENT DRAINAGE EASEMENT

PARCEL 21
R. S. ANDERSON
PT E½ NE¼ 19-27-33
BOOK 345, PAGE 5285

PARCEL 22
MONKEY HILL MINING COMPANY, LLC
PT E½ NE¼ 19-27-33
BOOK 367, PAGE 4745

CCO	CC1	DO	D1
STA. 301+95.81, 0.00'	STA. 300+44.79, 0.00'	STA. 53+81.82, 47.09' RT.	STA. 54+29.93, 31.50' LT.
CONST. 24" Concrete Flared End Section	CONST. 24" Concrete Flared End Section	CONST. 18" Concrete Flared End Section	CONST. 6'x3' TYPE C CURB INLET

NOTE:
FOR STORM DRAIN PROFILES SEE SHEETS: A52 – A56

0' 10' 20' 40'
SCALE IN FEET

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STATE OF MISSOURI
BRIAN COOMES
Brian Coomes
04/23/2021
NUMBER PE-2015029306
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

ROADWAY PLAN AND PROFILES

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by: JKL & NJJ
checked by: BMC & JKL
approved by: BMC
QA/QC by: PM
project no.: 015-2768
drawing no.: OA_T_RPP07_52758
date: 04/23/2021

SHEET
A35 of A122

DWG: F:\PROJECTS\015-2768\40-Design\AutoCAD\Final Plans\Sheets\TRNSPLAN & PROFILES\OA_T_RPP07_52758.dwg USER: skendall
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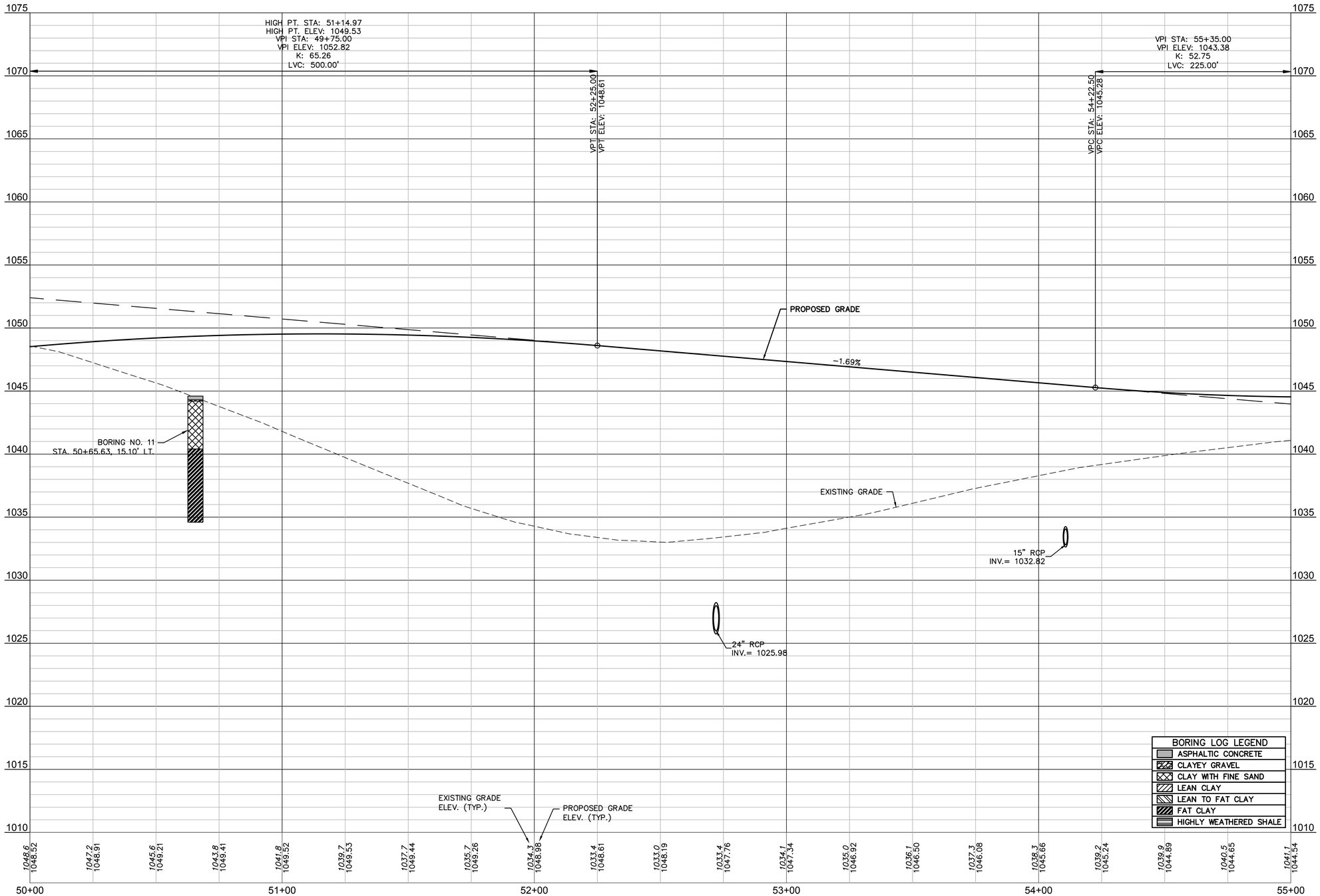
W. 32ND STREET



ALIGNMENT AND PROFILE NOTE:

ALTHOUGH EXISTING GRADE SHOWN IS NEAR THE EXISTING CENTERLINE OF 32ND STREET, THE FINISH GRADE PROFILE AND ULTIMATE CROWN IS NOT AT THE CENTERLINE OF 32ND STREET, BUT IS OFFSET 5.50 FT. SOUTH OF THE PROPOSED ULTIMATE CENTERLINE.

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32ND STREET WIDENING
CITY OF JOPLIN

2021

JOPLIN, MISSOURI

drawn by: JKL & NJJ
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project no.: 015-2768
drawing no.: OA_T_RPP07_52758
date: 04/23/2021

SHEET
A36 of A122

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LEGEND

- ASPHALT PAVEMENT
- CONCRETE SIDEWALK
- CONCRETE DRIVE
- AGGREGATE SURFACE
- ASPHALT OVERLAY
- STAMPED CONCRETE PAVEMENT
- DETECTABLE WARNING SURFACE
- CURB RAMP
- ROCK BLANKET

PARCEL 12
WARREN & PAMELA BLACK
4502 W 31ST STREET
BOOK 2149, PAGE 599

PARCEL 13
KELLY BENNETT
4408 W 31ST STREET
BOOK 2422, PAGE 229

PARCEL 14
TERRI BENFORD
4406 W 31ST STREET
BOOK 2240, PAGE 400.

PARCEL 15
TREVOR R. SIEGERT
4404 W 31ST STREET
BOOK 2399, PAGE 124

PARCEL 16
THERESA GRESHAM
4402 W 31ST STREET
BOOK 2486, PAGE 232

PARCEL 17
PAUL & MARY MOONEY
4322 W 31ST STREET
BOOK 2178, PAGE 1619

JENNIFER AVENUE

49+00

MATCHLINE 55+00.00

DND EXIST. FENCE

2'-6" STANDARD CONCRETE CURB & GUTTER (TYP. NORTH SIDE OF ROAD)

PROPOSED TEMPORARY CONSTRUCTION EASEMENT

EXISTING RIGHT-OF-WAY

REMOVE & REPLACE EXISTING FENCE

+35.00 15.50' RT.

+22.50 15.50' RT.

+96.14 30.00' LT.

℄ JENNIFER AVENUE

+35.00 15.50' LT.

+22.50 15.50' LT.

FENCE TO BE RELOCATED BY OWNER PRIOR TO CONSTRUCTION

DND NEW OR EXISTING FENCE

+97.14 30.00' LT.

D2

D3

CAUTION!! EXISTING FIBER OPTIC LINE

℄ 32ND STREET = SECTION LINE

W. 32ND STREET

10'

30'

38' B-B

8"

55+00

56+00

57+00

B-10

STA: 57+89.72 ℄ W. 32ND STREET =
STA: 50+00.00 ℄ ARCADIA ROAD

50+00

58+00

STA: 59+46.64 ℄ W. 32ND STREET =
STA: 50+00.00 ℄ JENNIFER ROAD

90°0"

PROFILE GRADE & FUT.
CROWN OFFSET 5.50' RIGHT

59+00

50+00

60+00

2'-6" CONCRETE SPILL CURB & GUTTER (TYP. SOUTH SIDE OF ROAD)

R25'

+52.22 8.00' RT.

+27.22 8.00' RT.

ARCADIA LANE

+77.22 33.00' RT.

+55.00 12.50' RT.

+55.00 12.50' LT.

+02.22 33.00' RT.

EXISTING RIGHT-OF-WAY

CAUTION!! EXISTING OVERHEAD POWER TRANSMISSION LINE

+75.00 10.00' RT.

+75.00 10.00' LT.

PROPOSED RIGHT-OF-WAY

PROPOSED TEMPORARY CONSTRUCTION EASEMENT

EXISTING WATER LINE.
SEE PART D PLANS FOR RELOCATION

70' EXIST. UTILITY ESMT.

40' EXIST. WATER ESMT.

℄ ARCADIA LANE

51+00

STA. 60+00.00
REFER TO B PLANS
FOR CONTINUATION

PARCEL 22
MONKEY HILL MINING COMPANY, LLC
PT E½ NE¼ 19-27-33
BOOK 367, PAGE 4745

D2	D3
STA. 55+14.61, 31.50' LT.	STA. 55+39.61, 31.50' LT.
CONST. 6'x3' TYPE C CURB INLET	CONST. 6'x3' TYPE C CURB INLET

NOTE:
FOR STORM DRAIN PROFILES SEE SHEETS: A52 – A56

N

0' 10' 20' 40'
SCALE IN FEET

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STATE OF MISSOURI
BRIAN COOMES
Brian Coomes
04/23/2021
NUMBER PE-2015029306
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

ROADWAY PLAN AND PROFILES

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by: JKL & NJJ
checked by: BMC & JKL
approved by: BMC
QA/QC by: PM
project no.: 015-2768
drawing no.: OA_T_RPP08_52758
date: 04/23/2021

SHEET
A37 of A122

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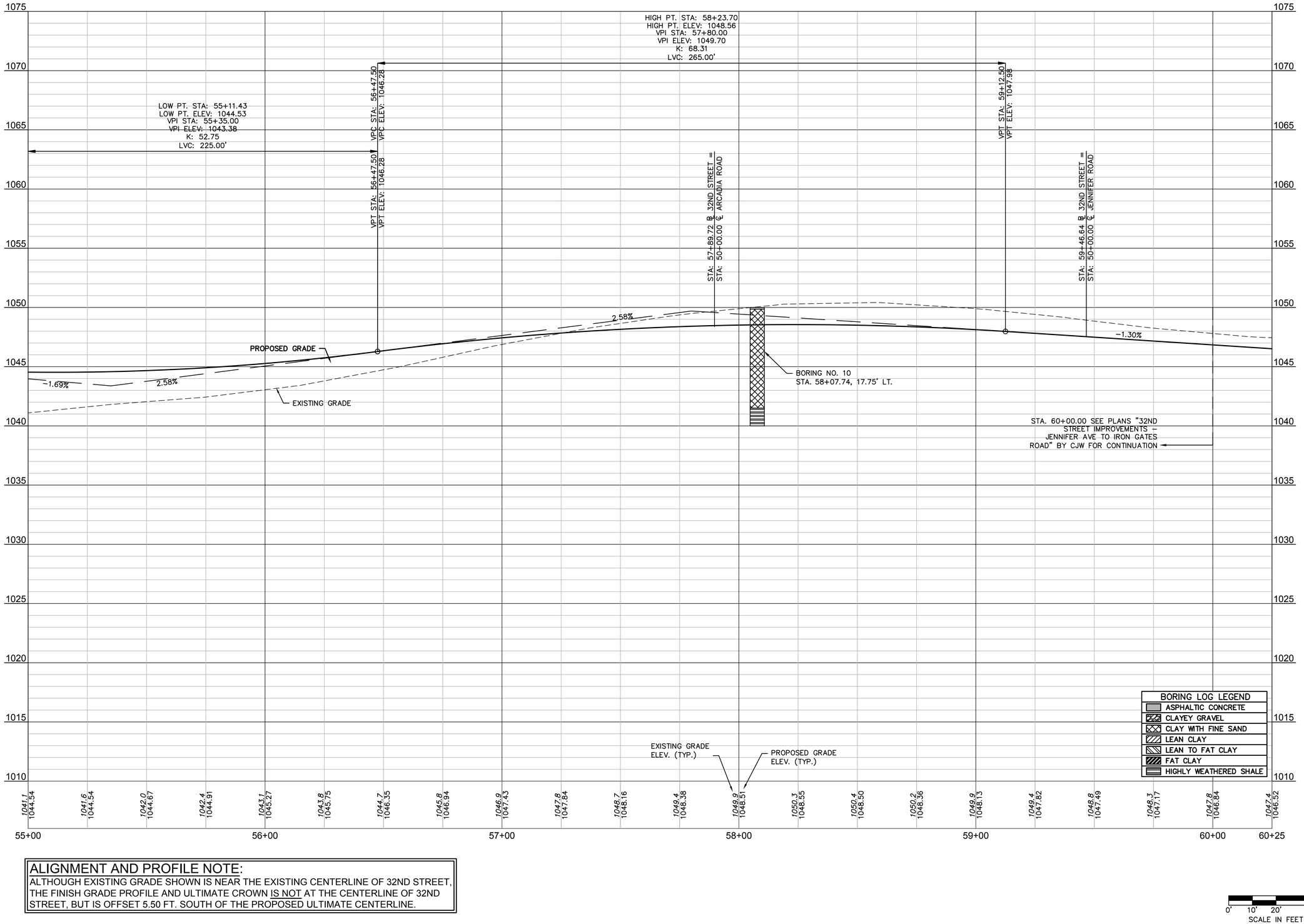
W. 32ND STREET



ALIGNMENT AND PROFILE NOTE:

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STATE OF MISSOURI
BRIAN COMES
Brian Comes
04/23/2021
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REV. NO.	DATE	REVISIONS DESCRIPTION	BY
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ROADWAY PLAN AND PROFILES

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by: JKL & NJJ
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SHEET
A38 of A122

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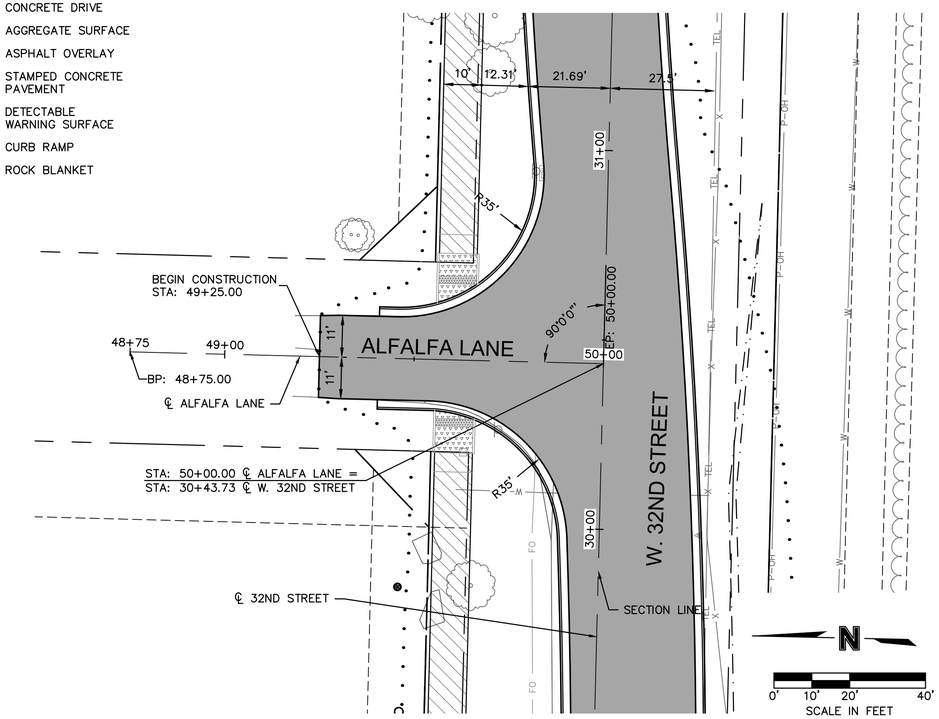
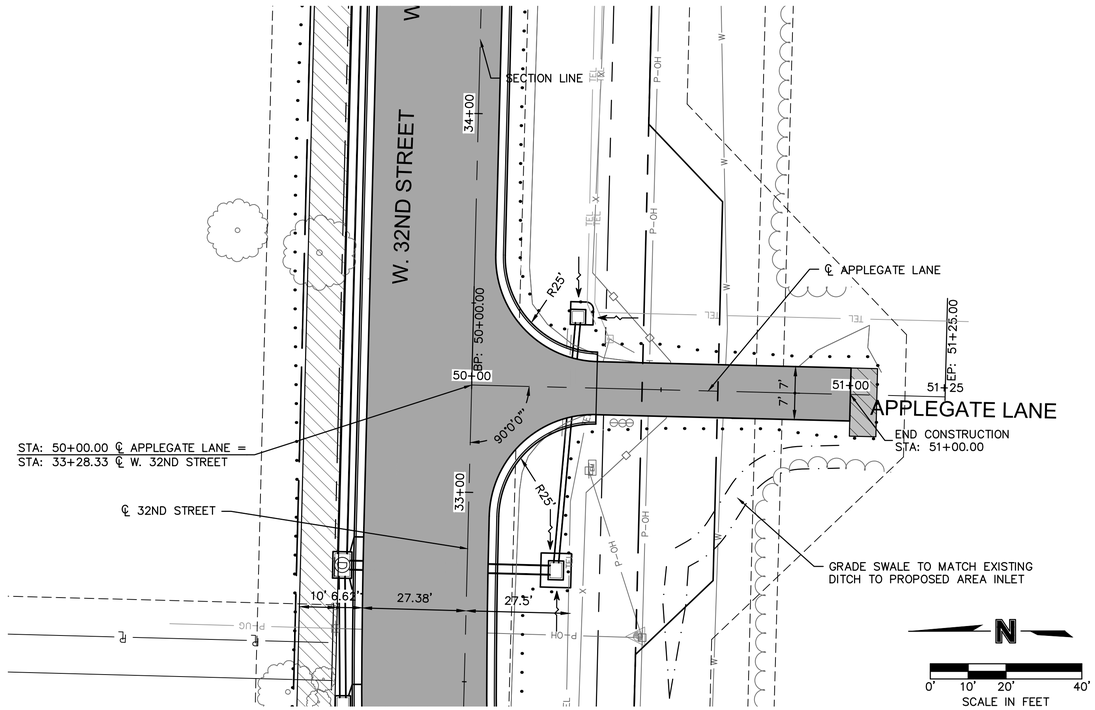
LEGEND

- ASPHALT PAVEMENT
- CONCRETE SIDEWALK
- CONCRETE DRIVE
- AGGREGATE SURFACE
- ASPHALT OVERLAY
- STAMPED CONCRETE PAVEMENT
- DETECTABLE WARNING SURFACE
- CURB RAMP
- ROCK BLANKET

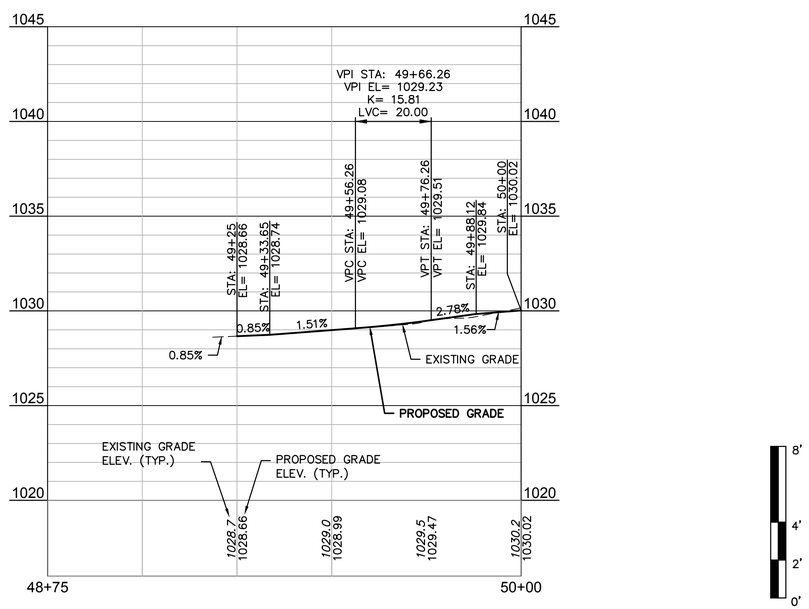


NOTE:
FOR STORM DRAIN PROFILES SEE SHEETS: A52 – A56

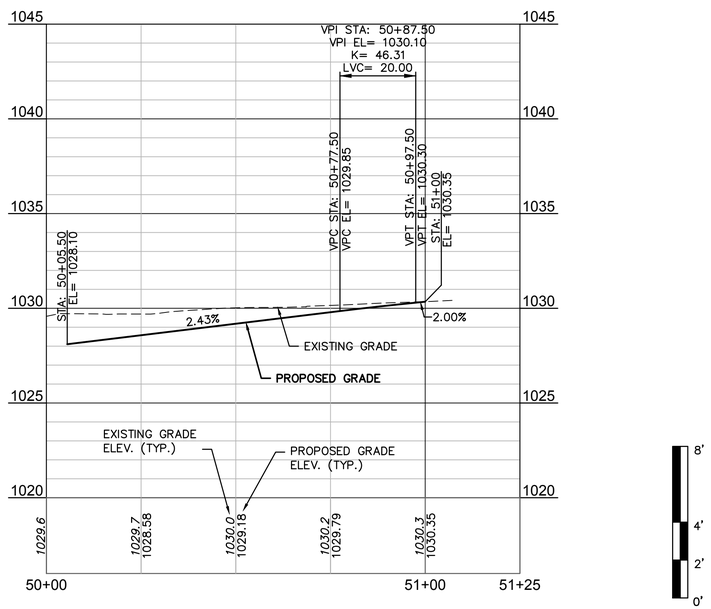


NOTE:
FOR STORM DRAIN PROFILES SEE SHEETS: A52 – A56

ALFALFA LANE



APPLEGATE LANE



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STATE OF MISSOURI
BRIAN COOMES
Brian Coomes
04/23/2021
NUMBER PE-2015029306
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY
		REVISIONS	

SIDE STREET PLAN & PROFILES

32ND STREET WIDENING
CITY OF JOPLIN

2021

JOPLIN, MISSOURI

drawn by: JKL & NJJ
checked by: BMC & JKL
approved by: BMC
QA/QC by: PM
project no.: 015-2768
drawing no.: OA_T_RPP09_52758
date: 04/23/2021

SHEET
A39 of A122

DWG: F:\PROJECTS\015-276840-Design\AutoCAD\Final Plans\Sheets\TRNS\PLAN & PROFILES\OA_T_RPP09_52758.dwg USER: skendall
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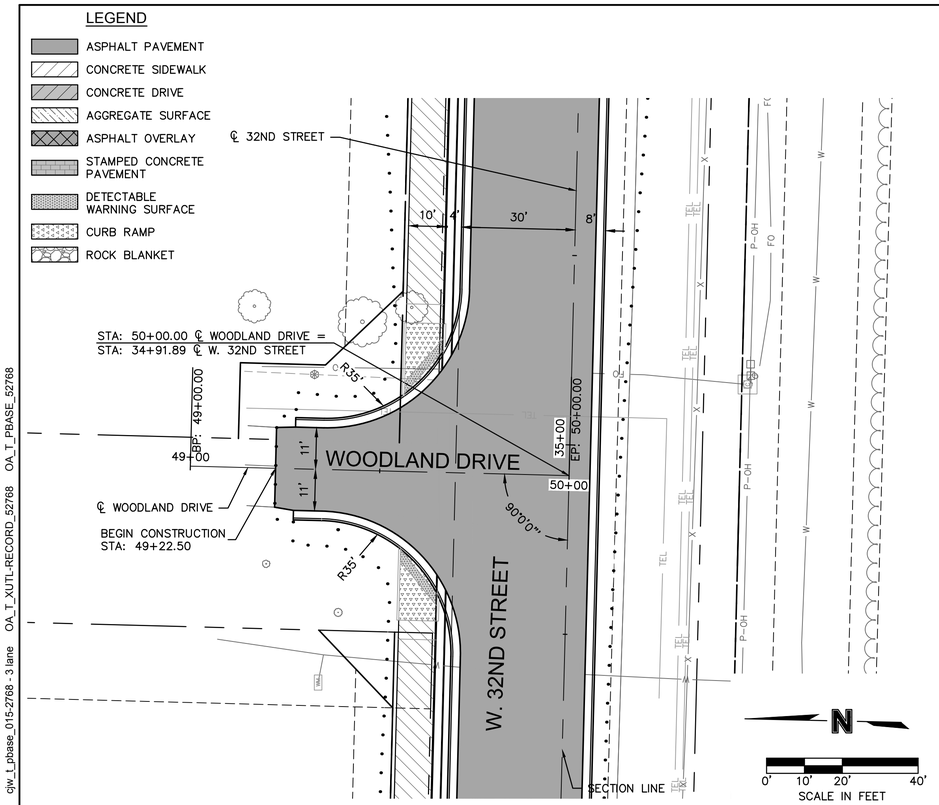
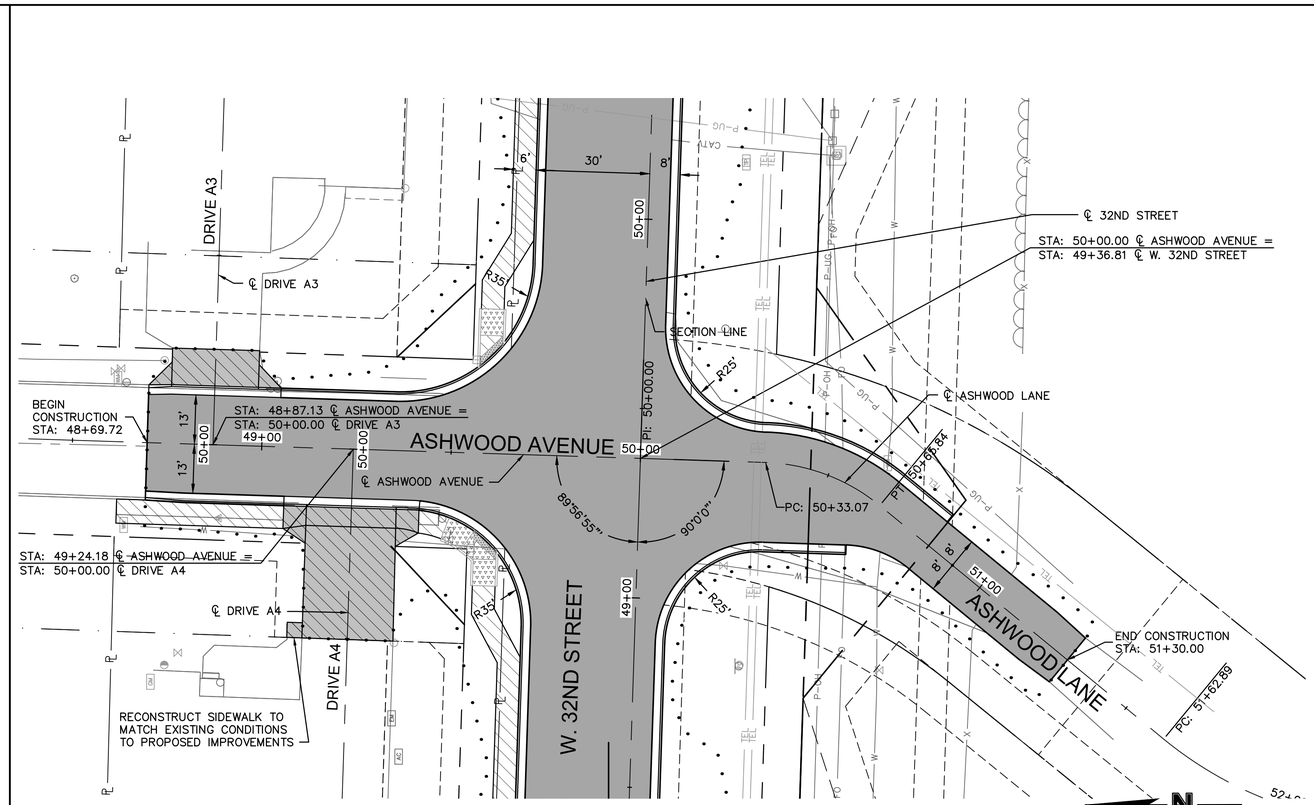
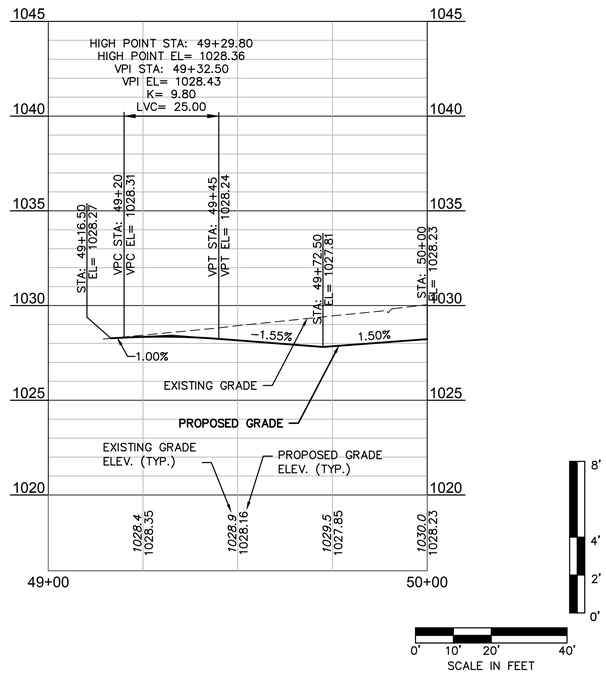


NOTE:
FOR STORM DRAIN PROFILES SEE SHEETS: A52 – A56

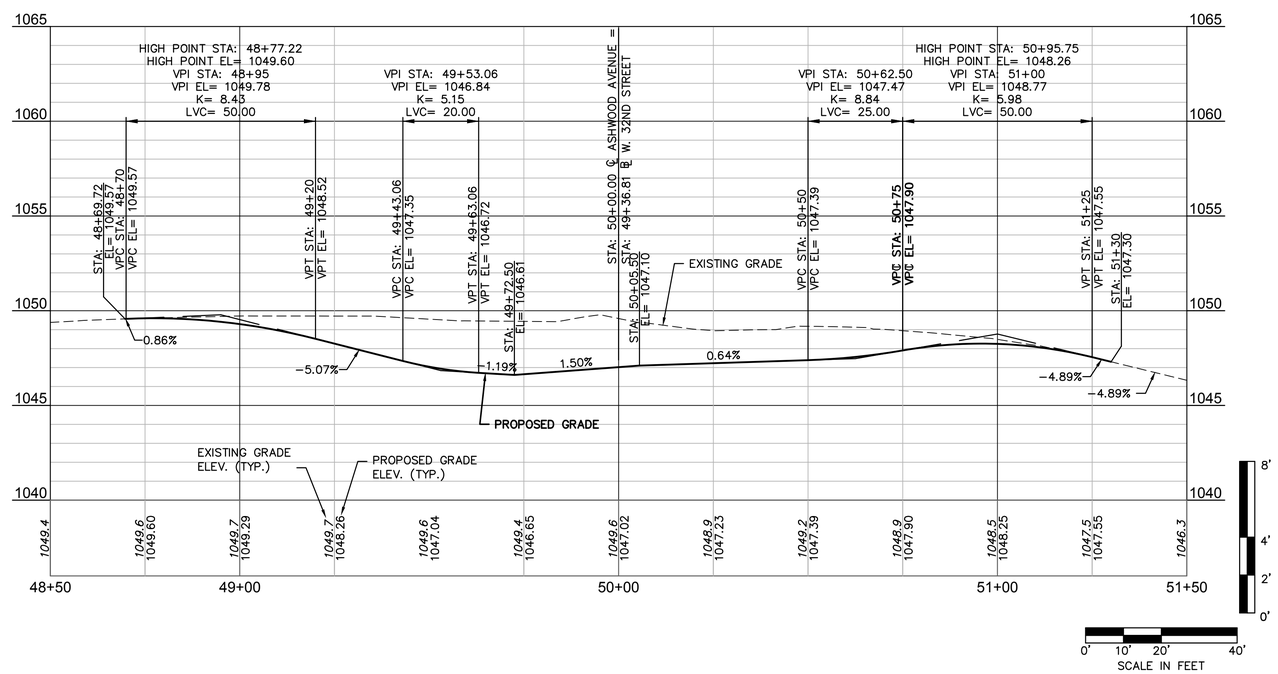


NOTE:
FOR STORM DRAIN PROFILES SEE SHEETS: A52 – A56

WOODLAND DRIVE



ASHWOOD AVENUE



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STATE OF MISSOURI
BRIAN COOMES
Brian Coomes
04/23/2021
NUMBER PE-2015029306
PROFESSIONAL ENGINEER

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REVISIONS

SIDE STREET PLAN & PROFILES

32ND STREET WIDENING
CITY OF JOPLIN

2021

JOPLIN, MISSOURI

drawn by: JKL & NJJ
checked by: BMC & JKL
approved by: BMC
QA/QC by: PM
project no.: 015-2768
drawing no.: OA_T_RPP09_52758
date: 04/23/2021

SHEET
A40 of A122

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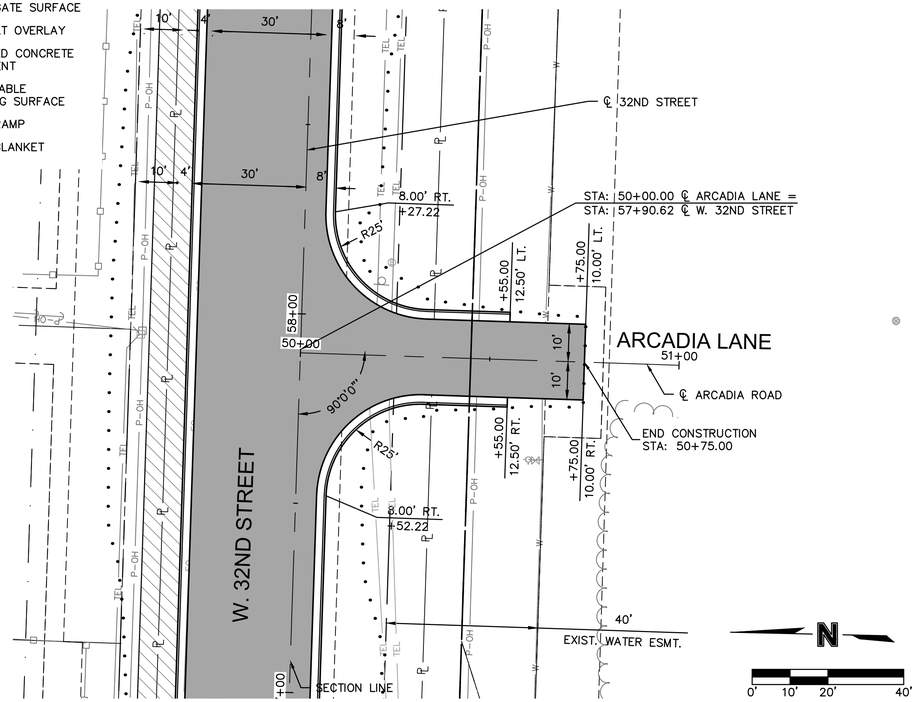
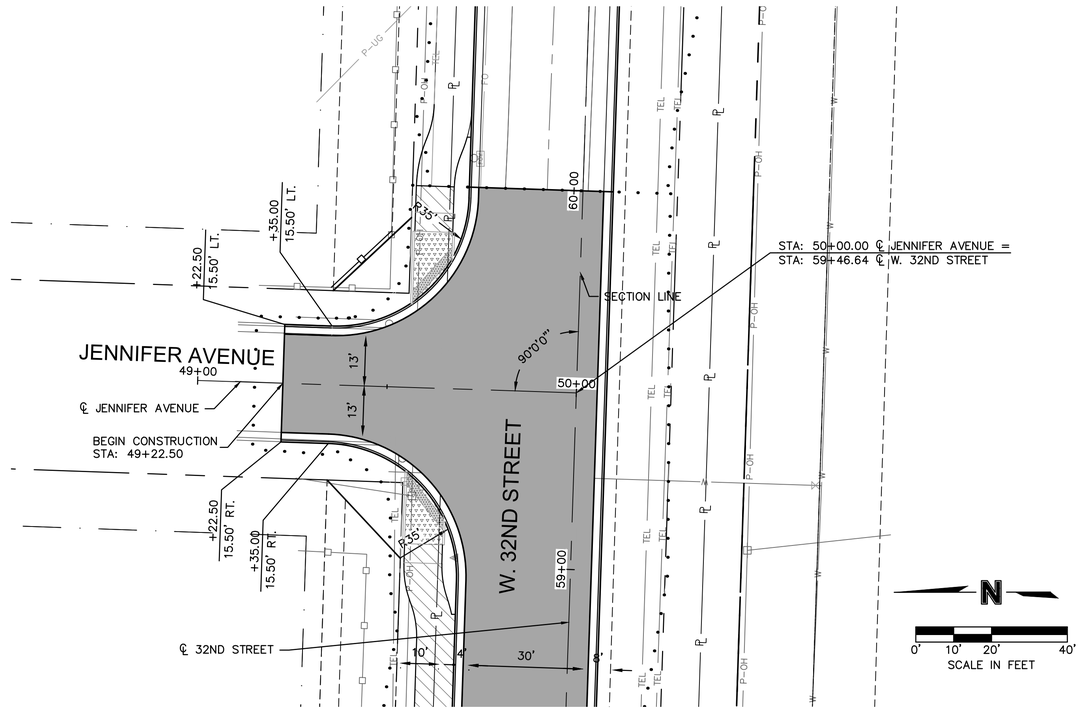
LEGEND

- ASPHALT PAVEMENT
- CONCRETE SIDEWALK
- CONCRETE DRIVE
- AGGREGATE SURFACE
- ASPHALT OVERLAY
- STAMPED CONCRETE PAVEMENT
- DETECTABLE WARNING SURFACE
- CURB RAMP
- ROCK BLANKET

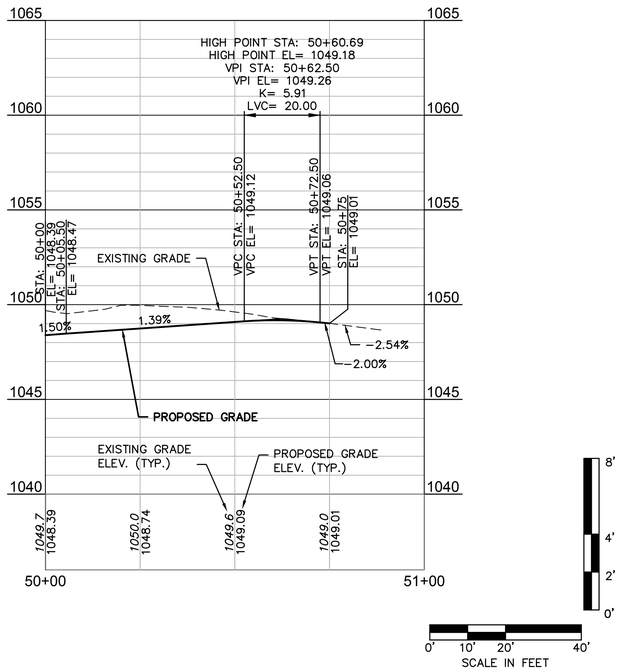


NOTE:
FOR STORM DRAIN PROFILES SEE SHEETS: A52 – A56

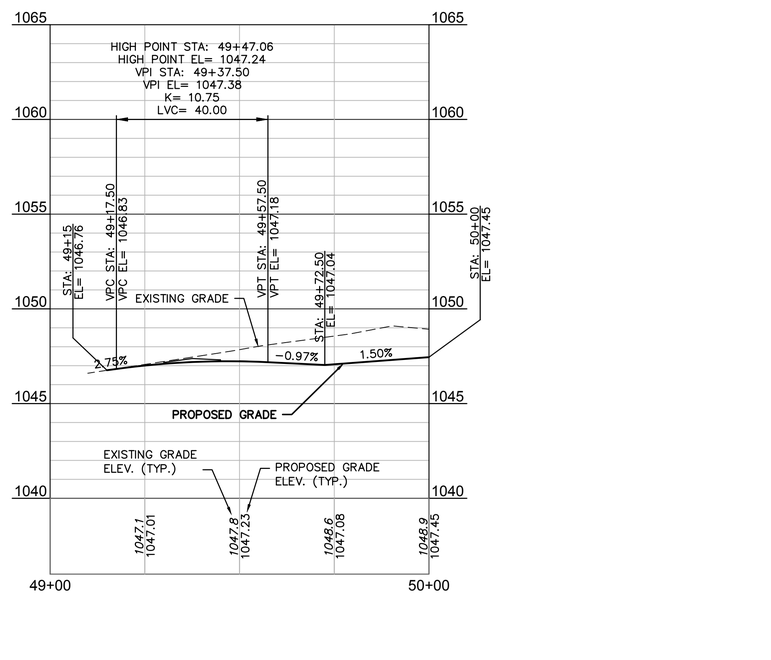


NOTE:
FOR STORM DRAIN PROFILES SEE SHEETS: A52 – A56

ARCADIA LANE



JENNIFER AVENUE



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STATE OF MISSOURI
BRIAN COOMES
Brian Coomes
04/23/2021
NUMBER PE-2015029306
PROFESSIONAL ENGINEER

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SIDE STREET PLAN & PROFILES

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by: JKL & NJJ
checked by: BMC & JKL
approved by: BMC
QA/QC by: PM
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drawing no.: OA_T_RPP09_52758
date: 04/23/2021

SHEET
A41 of A122

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LEGEND

SPILL CURB & GUTTER

FLOW ARROW

N

0' 5' 10' 20'

SCALE IN FEET

STA: 30+96.26, 54.64' LT. ℄ 32ND STREET =
STA: 49+45.36, 52.53' LT. ℄ ALFALFA LANE

R=37.50'
Δ=96°07'23"
L=62.91'

STA: 30+96.26, 17.14' LT.
EP EL. 1029.29

EP EL. 1029.38

EP EL. 1029.31

EP EL. 1029.07

EP EL. 1028.80

STA: 30+54.76, 54.34' LT.

TRANSITION CURB HEIGHT
FROM 0" TO 6" IN 2'

℄ ALFALFA LANE

19.16'

13.82'

31+00

℄ 32ND STREET

32ND STREET

0.95%

2.06%

11'

1.17%

ALFALFA LANE

90°0'0"

49+00

50+00

STA: 30+43.73 ℄ 32ND STREET =
STA: 50+00.00 ℄ ALFALFA LANE

3.89%

11'

0.64%

0.76%

STA: 30+32.76, 45.95' LT.

EP EL. 1029.12

TRANSITION CURB HEIGHT
FROM 0" TO 6" IN 2'

EP EL. 1029.39

EP EL. 1029.73

EP EL. 1030.02

STA: 29+97.72, 8.53' LT.
EP EL. 1030.12

30+00

STA: 29+95.26, 45.95' LT. ℄ 32ND STREET =
STA: 49+54.05, 48.47' RT. ℄ ALFALFA LANE

R=37.50'
Δ=86°14'01"
L=56.44'

10.25'

27.76'

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Brian Coomes
04/23/2021
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REVISIONS

INTERSECTION LAYOUTS

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by: JKL & NJJ
checked by: BMC & JKL
approved by: BMC
QA/QC by: PM
project no.: 015-2768
drawing no.: OA_T_INT01_52768
date: 04/23/2021

SHEET
A42 of A122

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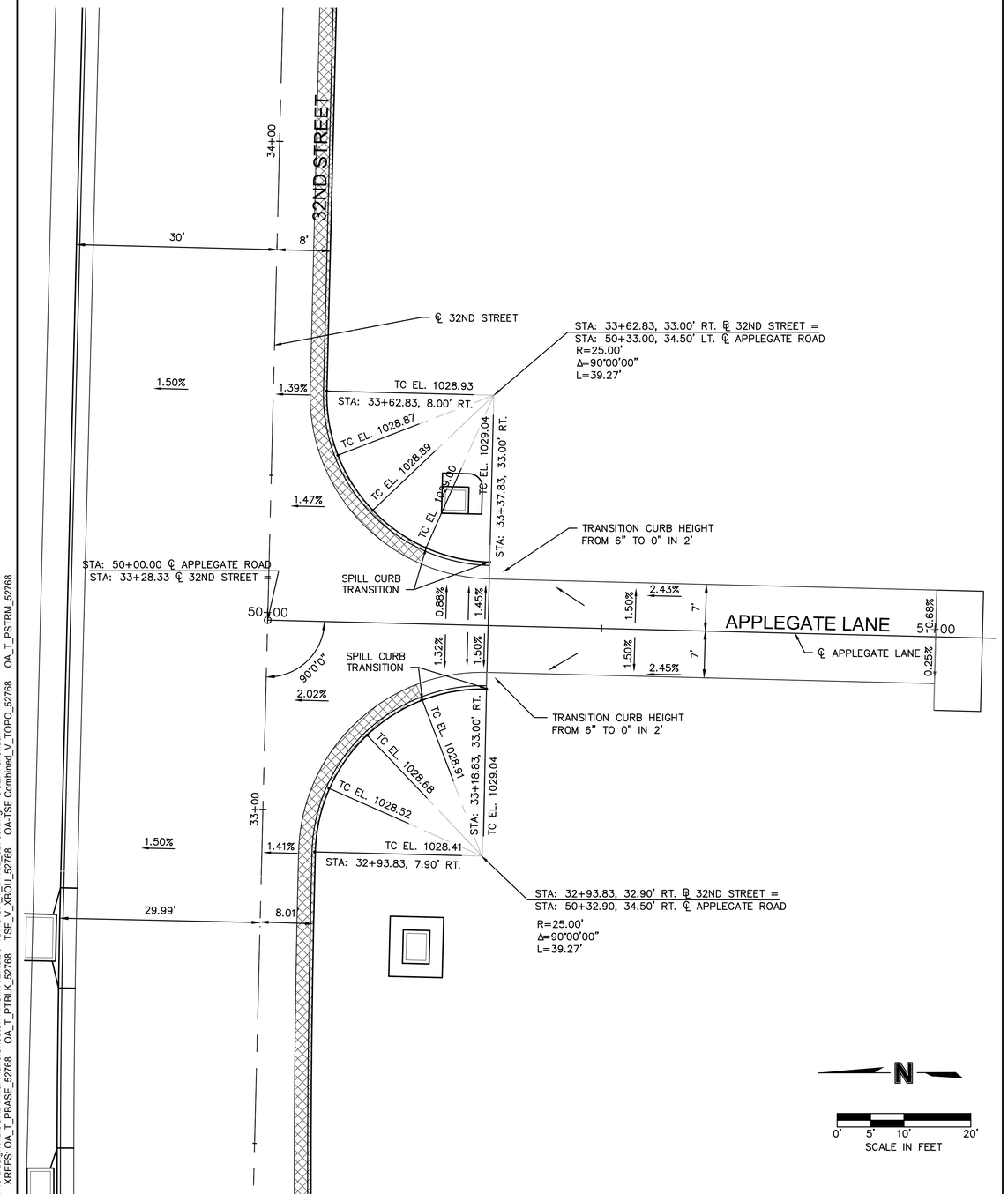
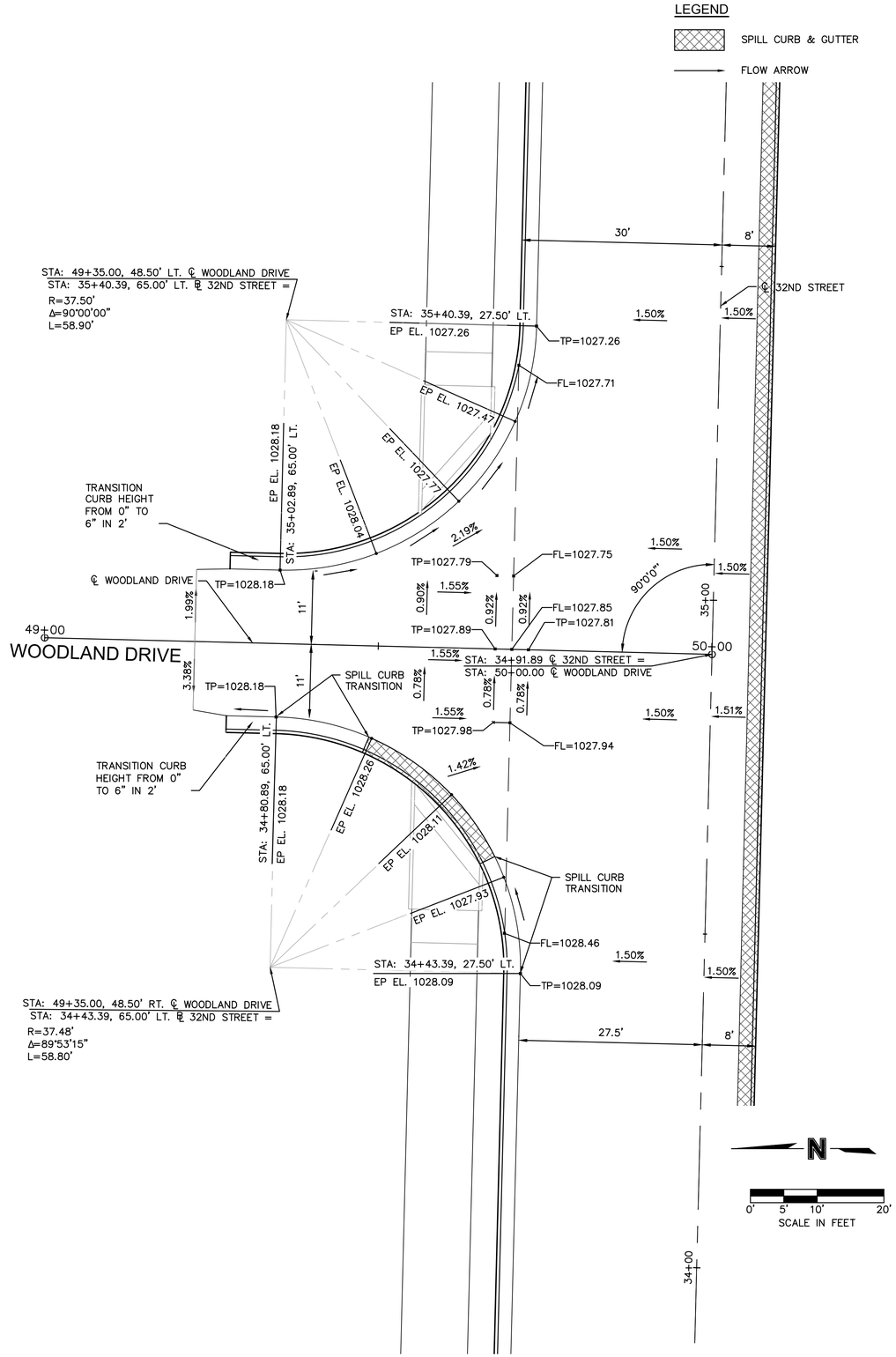
DATE: Apr 21, 2021 10:18am XREFS: OA_T_PBASE_52768 OA_T_PTBLK_52768 TSE_V_XBOU_52768 OA-TSE Combined_V_TOPO_52768 OA_T_PSTRM_52768





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32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

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QA/QC by:	PM
project no.:	015-2768
drawing no.:	OA_T_INT02_52768
date:	04/23/2021

SHEET
A43 of A122

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LEGEND

SPILL CURB & GUTTER

FLOW ARROW

N

0' 5' 10' 20'

SCALE IN FEET

℄ DRIVE A3

DRIVE A3

STA: 49+87.30, 65.00' LT. ℄ 32ND STREET =
STA: 49+35.05, 50.50' LT. ℄ ASHWOOD AVENUE
R=37.50'
Δ=89°56'55"
L=58.87'

SPILL CURB TRANSITION

STA: 49+87.30, 27.50' LT.
EP EL. 1047.79

EP EL. 1047.94
STA: 49+49.80, 64.97' LT.

EP EL. 1047.50

EP EL. 1047.27

EP EL. 1047.40

SPILL CURB TRANSITION

℄ ASHWOOD AVENUE

ASHWOOD AVENUE

49+00

50'-00"

50'-00"

30'

8'

℄ 32ND STREET

50+00

32ND STREET

1.50%

1.49%

0.47%

0.84%

1.65%

13'

2.02%

1.50%

PI: 50+00

2.66%

90°3'5"

90°0'0"

50'-00"

89°56'55"

90°0'0"

2.62%

1.19%

4.30%

3.70%

13'

2.98%

0.89%

1.47%

1.89%

1.50%

0.26%

1.82%

1.50%

PC: 50+33.07

R58'

STA: 49+36.86 ℄ 32ND STREET =
STA: 50+00.00 ℄ ASHWOOD AVENUE

TC EL. 1047.98

STA: 49+72.36, 30.50' RT. ℄ 32ND STREET =
STA: 50+30.50, 35.50' LT. ℄ ASHWOOD LANE
R=27.50'
Δ=90°02'40"
L=43.22'

STA: 49+72.36, 5.50' RT.

TC EL. 1047.68

TC EL. 1047.46

TC EL. 1047.37

TC EL. 1047.40

STA: 49+44.86, 32.99' RT.

PI: 50+65.84

1.50%

1.47%

1.50%

1.50%

1.50%

8'

8'

51+00 ASHWOOD LANE

2.23%

3.13%

TRANSITION CURB HEIGHT
FROM 6" TO 0" IN 2'

STA: 49+23.73, 57.80' LT.
EP EL. 1046.97

EP EL. 1046.48

EP EL. 1046.11

EP EL. 1045.67

℄ DRIVE A4

STA: 48+91.30, 27.50' LT.
EP EL. 1045.21

STA: 48+91.30, 57.77' LT. ℄ 32ND STREET =
STA: 49+42.19, 45.50' RT. ℄ ASHWOOD AVENUE

R=32.50'
Δ=86°06'38"
L=48.84'

DRIVE A4

30'

8'

SPILL CURB TRANSITION

1.38%

TC EL. 1046.33

TC EL. 1046.66

TC EL. 1045.98

STA: 49+15.78, 33.00' RT.

TC EL. 1046.96

STANDARD CURB

49+00

1.44%

1.50%

TC EL. 1045.60

STA: 48+88.28, 5.50' RT.

TRANSITION CURB HEIGHT
FROM 6"
TO 0" IN 2'

STA: 48+88.28, 33.00' RT. ℄ 32ND STREET =
STA: 50+33.00, 48.57' RT. ℄ ASHWOOD LANE

R=27.50'
Δ=90°00'00"
L=43.20'

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STATE OF MISSOURI
BRIAN COOMES
Brian Coomes
04/23/2021
NUMBER PE-2015029306
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

INTERSECTION LAYOUTS

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by: JKL & NJJ
checked by: BMC & JKL
approved by: BMC
QA/QC by: PM
project no.: 015-2768
drawing no.: OA_T_INT03_52768
date: 04/23/2021

SHEET
A44 of A122

DWG: F:\PROJECTS\015-276840-Design\AutoCAD\Final Plans\Sheets\TRNS\INTERSECTIONS\OA_T_INT03_52768.dwg USER: skendall
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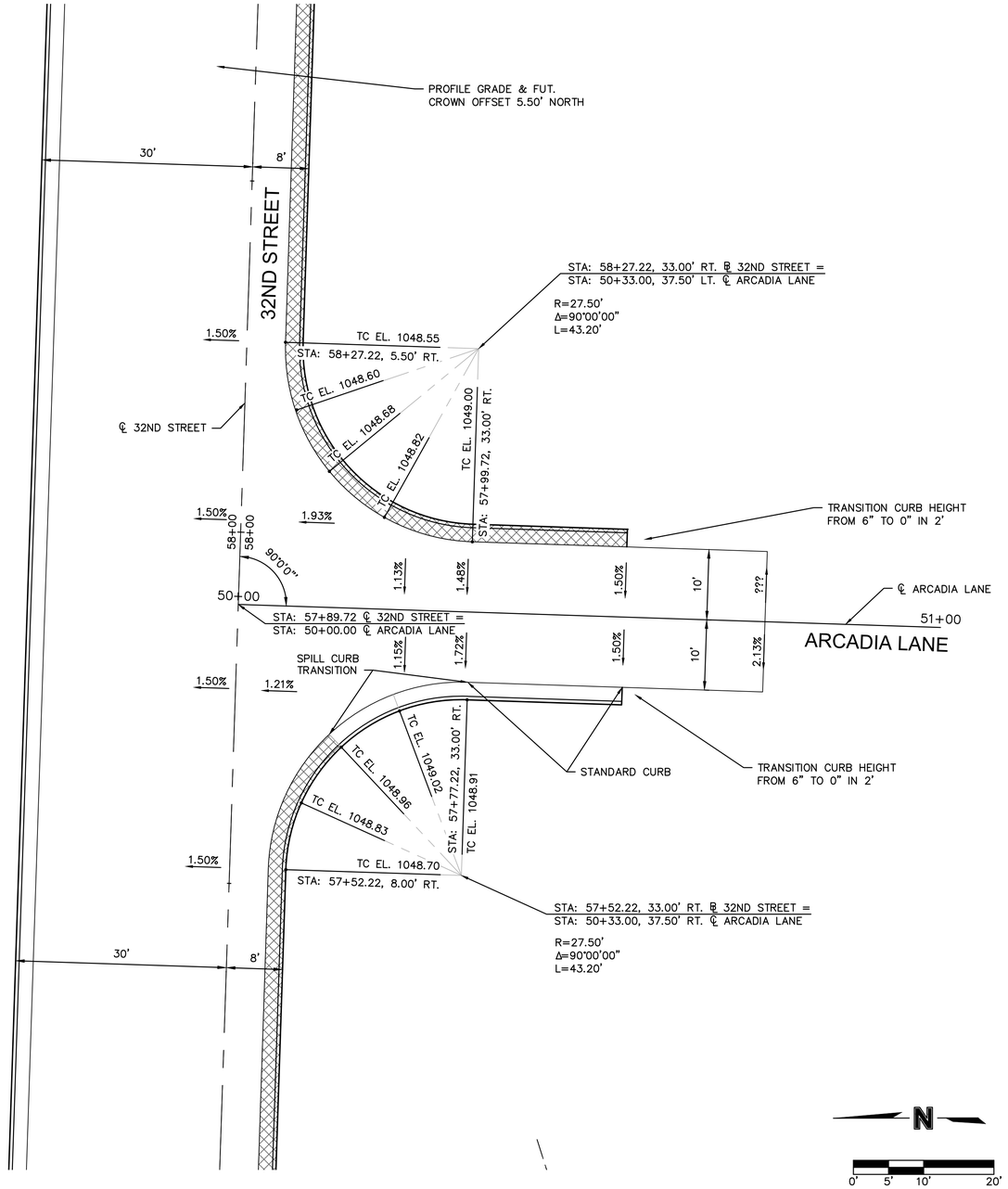

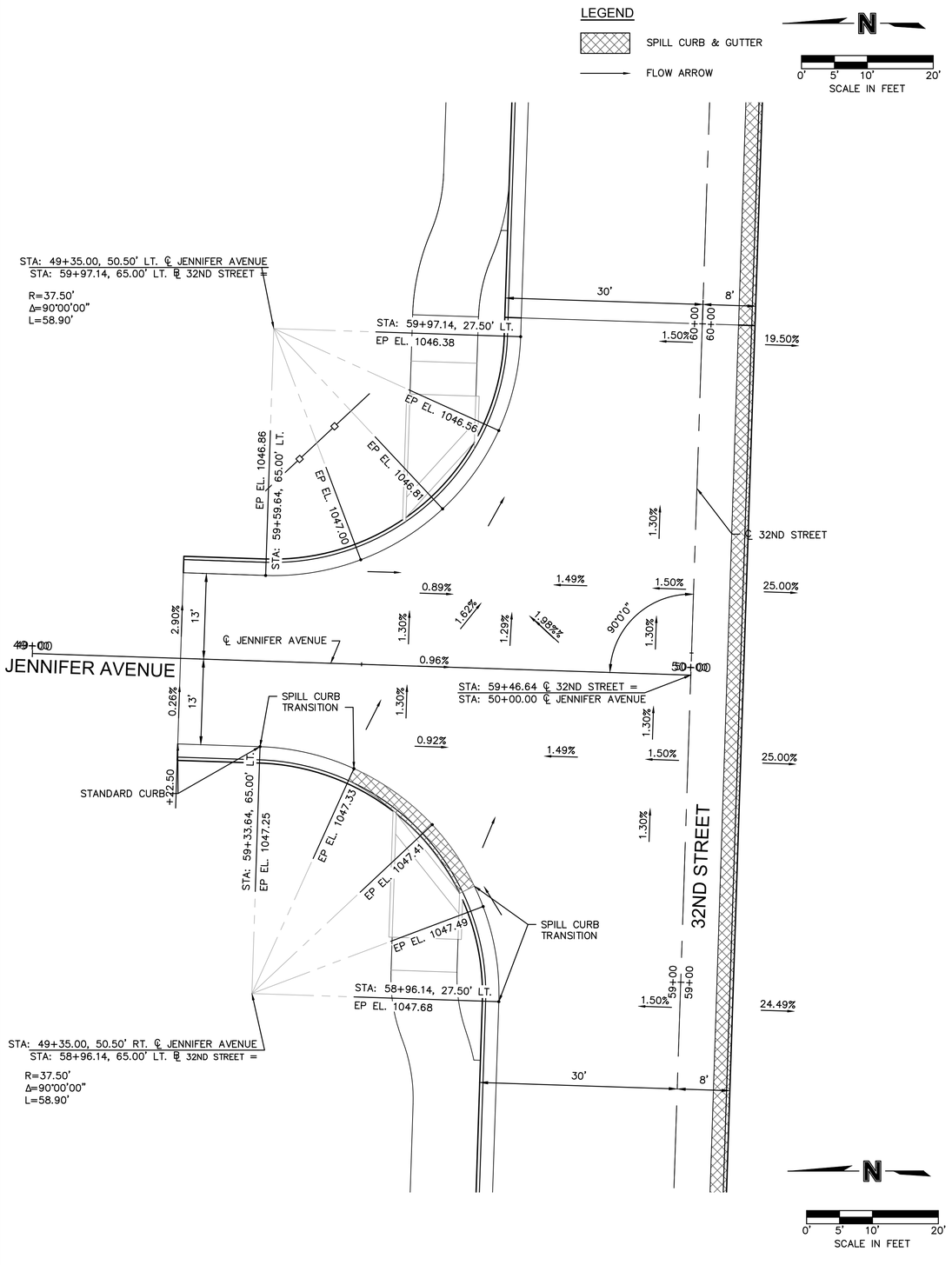

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STATE OF MISSOURI
BRIAN COOMES
Brian Coomes
04/23/2021
NUMBER PE-2015029306
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY
		REVISIONS	

INTERSECTION LAYOUTS

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by: JKL & NJJ
checked by: BMC & JKL
approved by: BMC
QA/QC by: PM
project no.: 015-2768
drawing no.: OA_T_INT04_52768
date: 04/23/2021

SHEET
A45 of A122

DWG: F:\PROJECTS\015-2768\40-Design\AutoCAD\Final Plans\Sheets\TRNSINTERSECTIONS\OA_T_INT04_52768.dwg USER: skendall
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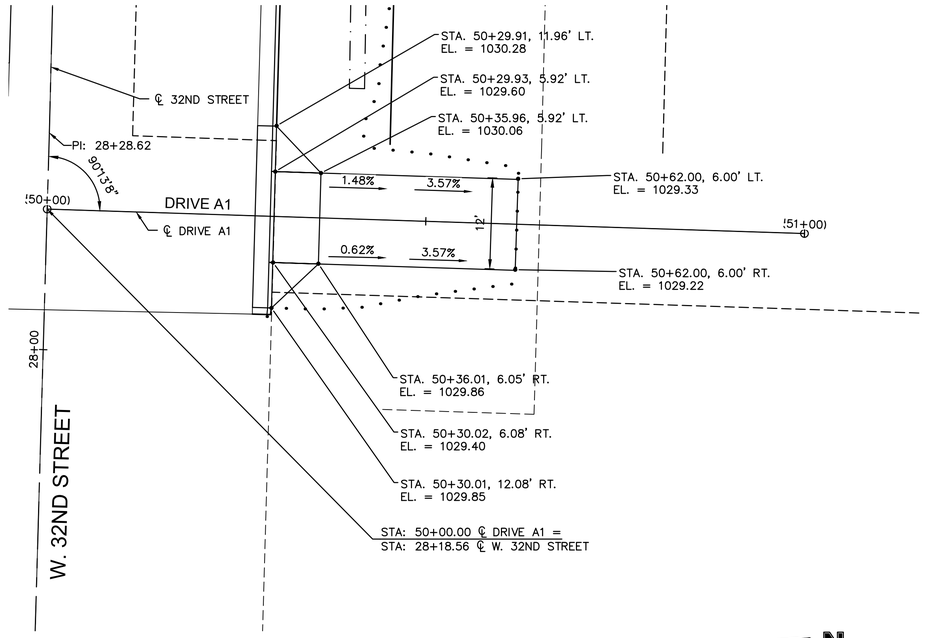

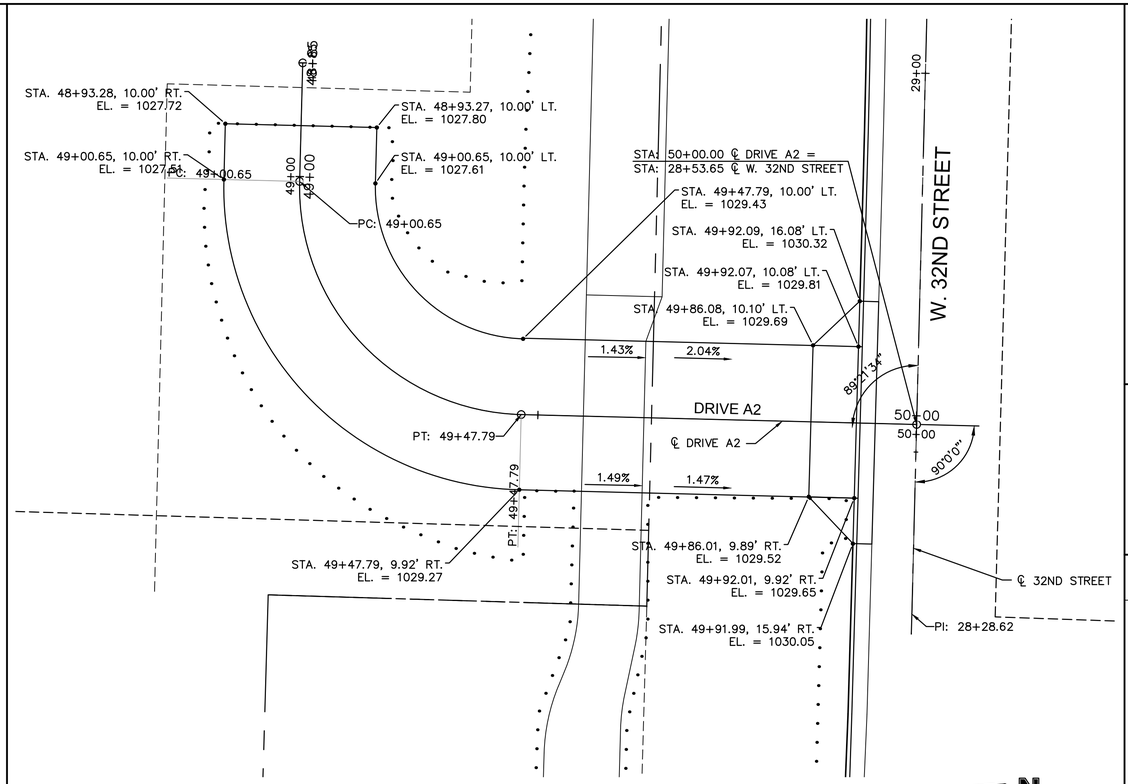

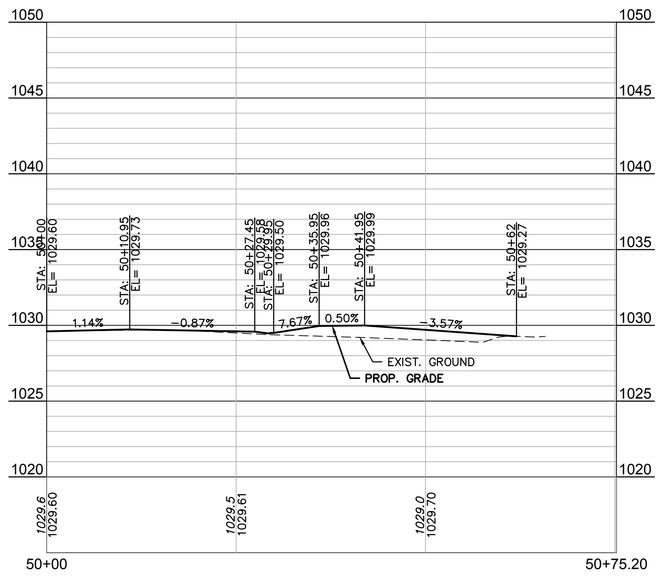

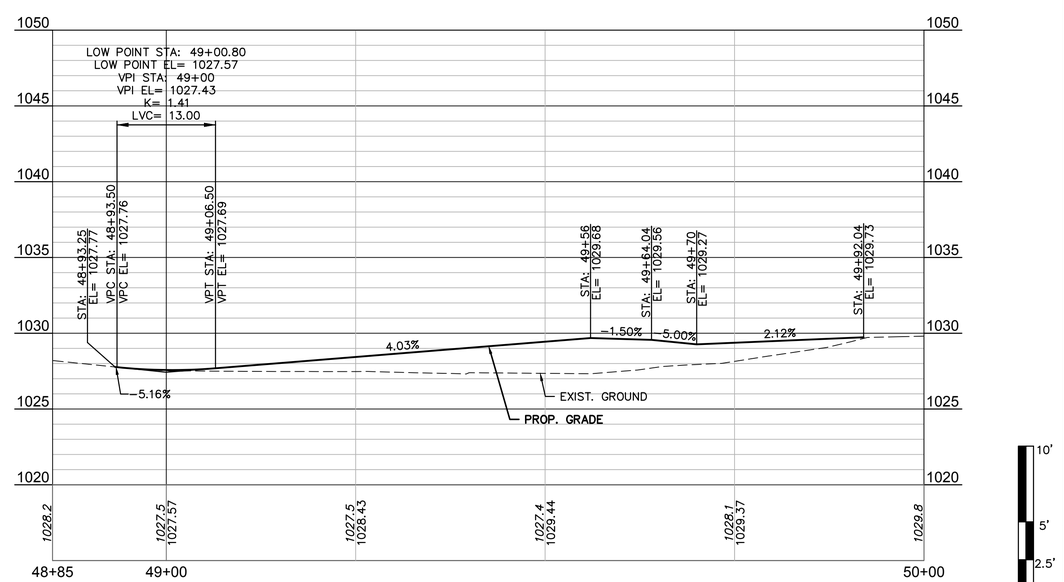

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REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

DRIVE LAYOUTS

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by: JKL & NJJ
checked by: BMC & JKL
approved by: BMC
QA/QC by: PM
project no.: 015-2768
drawing no.: OA_T_DRV02_52768
date: 04/23/2021

SHEET
A46 of A122

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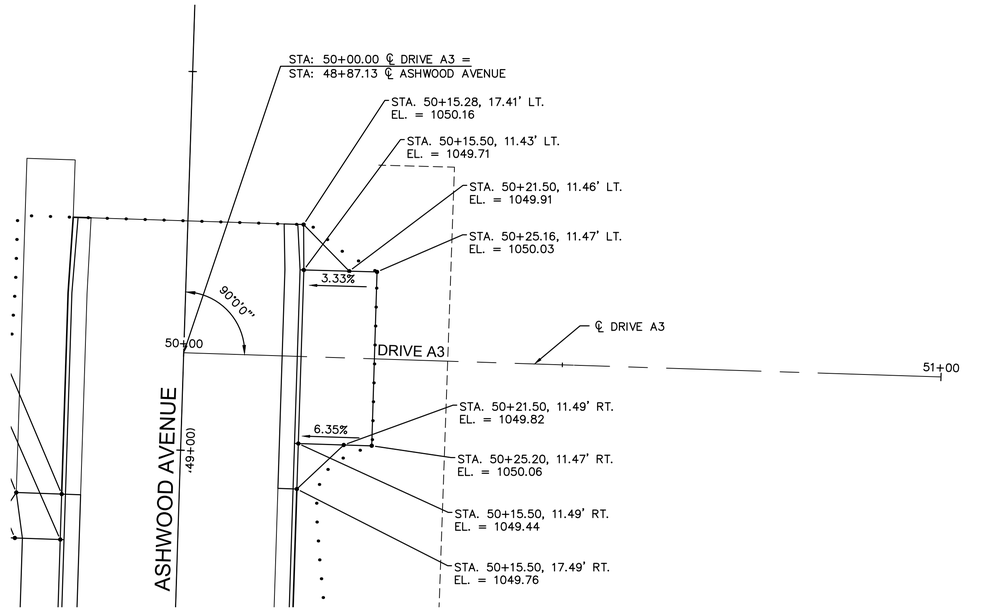

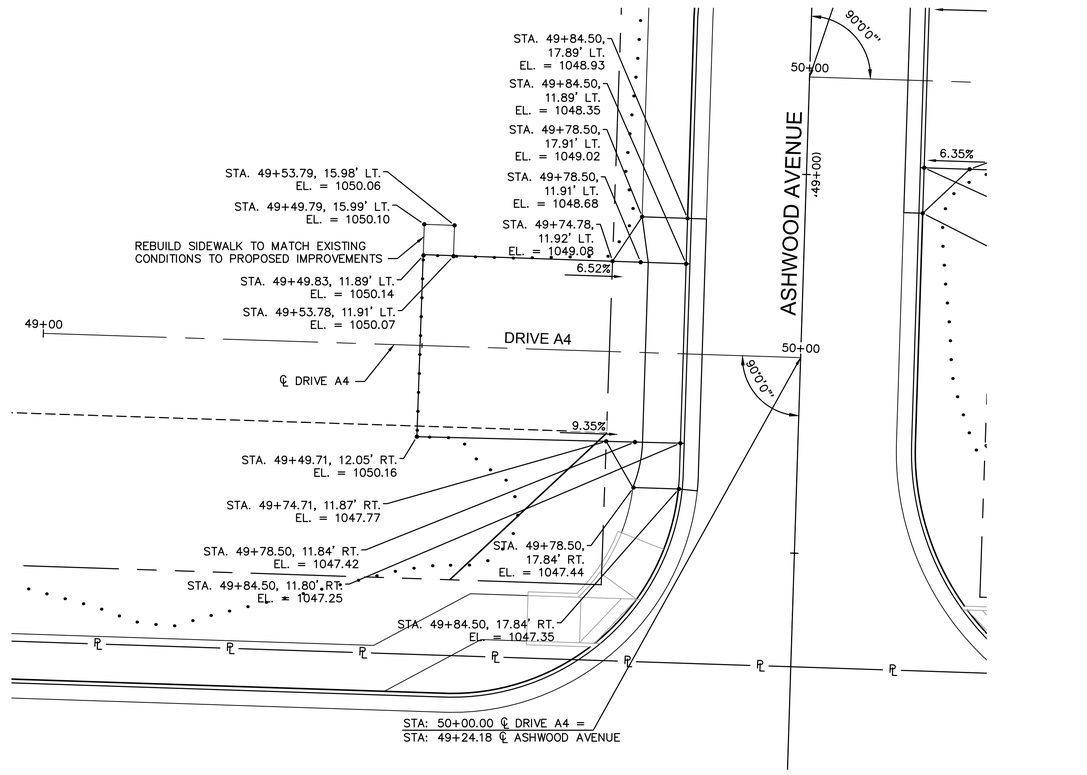

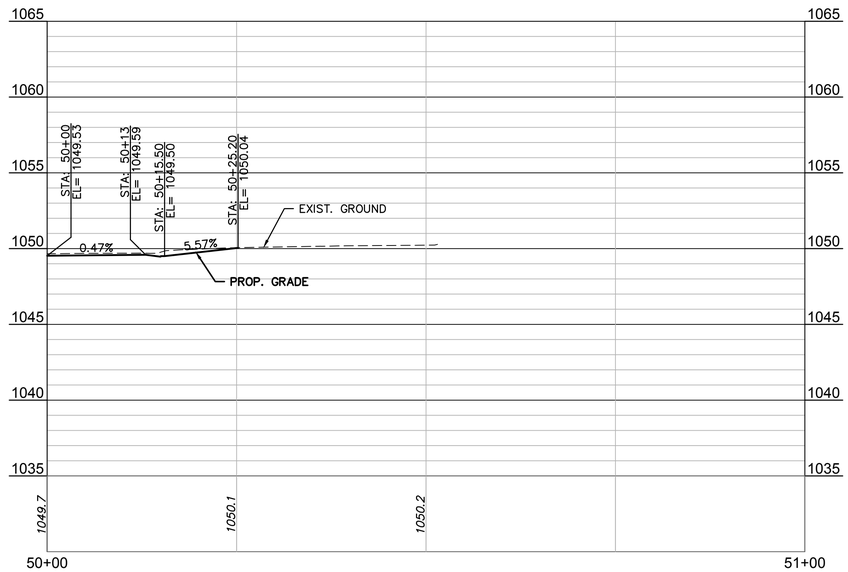

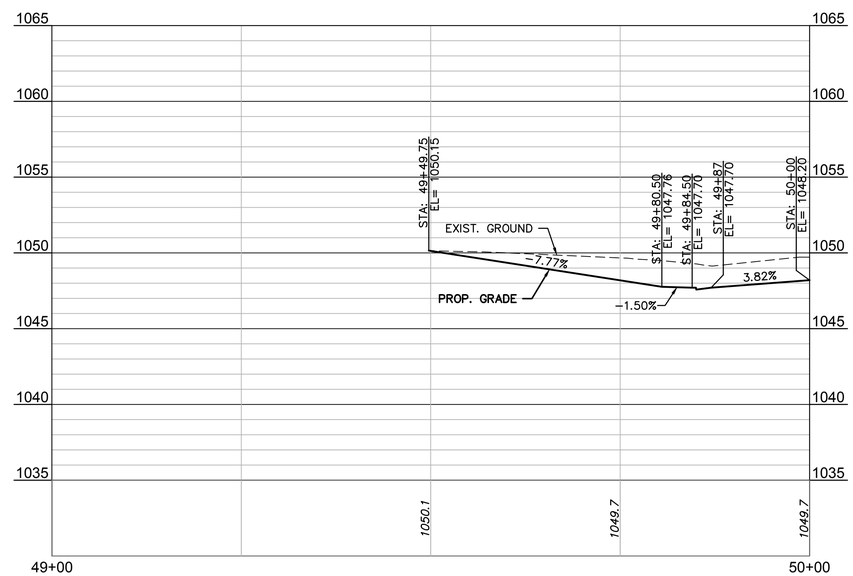

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REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

DRIVE LAYOUTS

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by: JKL & NJJ
checked by: BMC & JKL
approved by: BMC
QA/QC by: PM
project no.: 015-2768
drawing no.: OA_T_DRV02_52768
date: 04/23/2021

SHEET
A47 of A122

DWG: F:\PROJECTS\015-2768\40-Design\AutoCAD\Final Plans\Sheets\TRNS\DRIVES\OA_T_DRV02_52768.dwg USER: skendall
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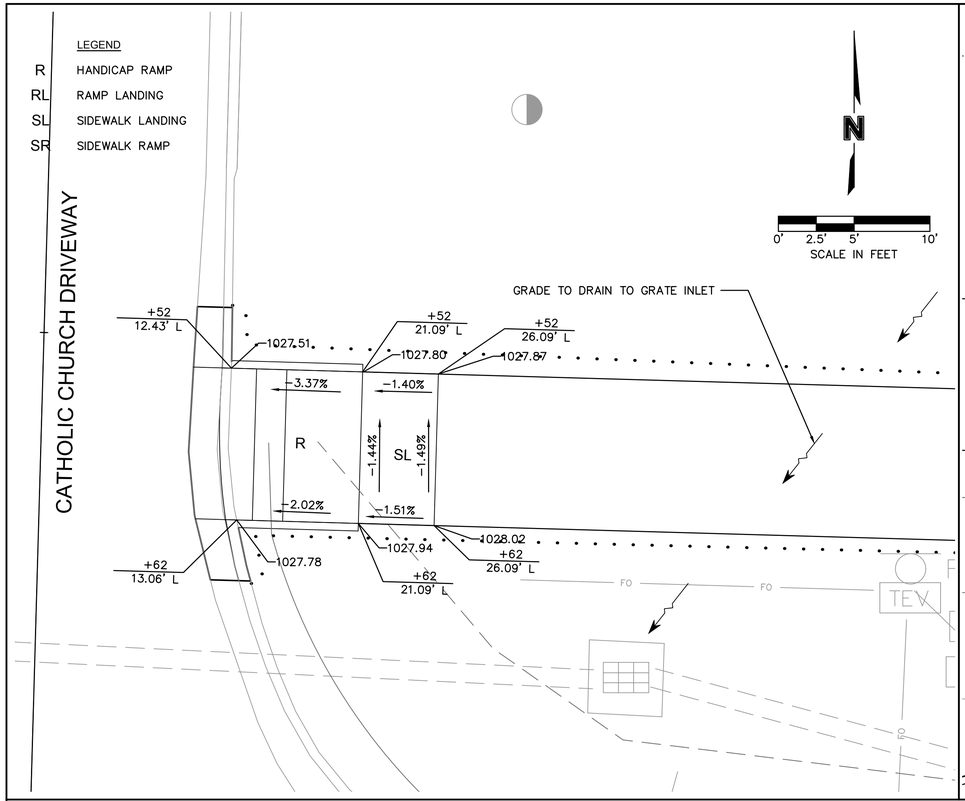
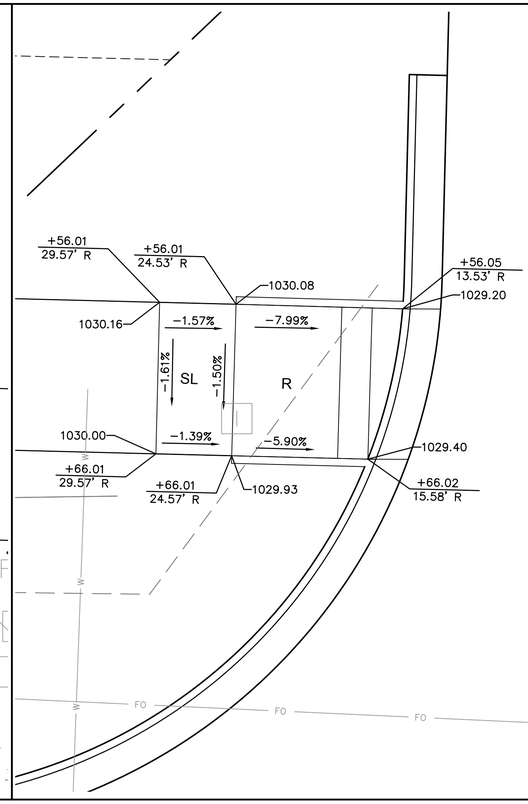
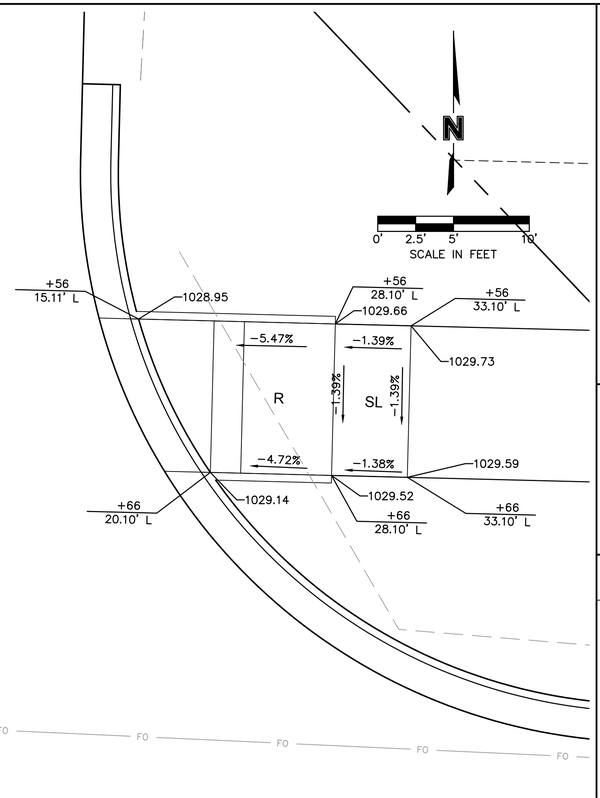
LEGEND

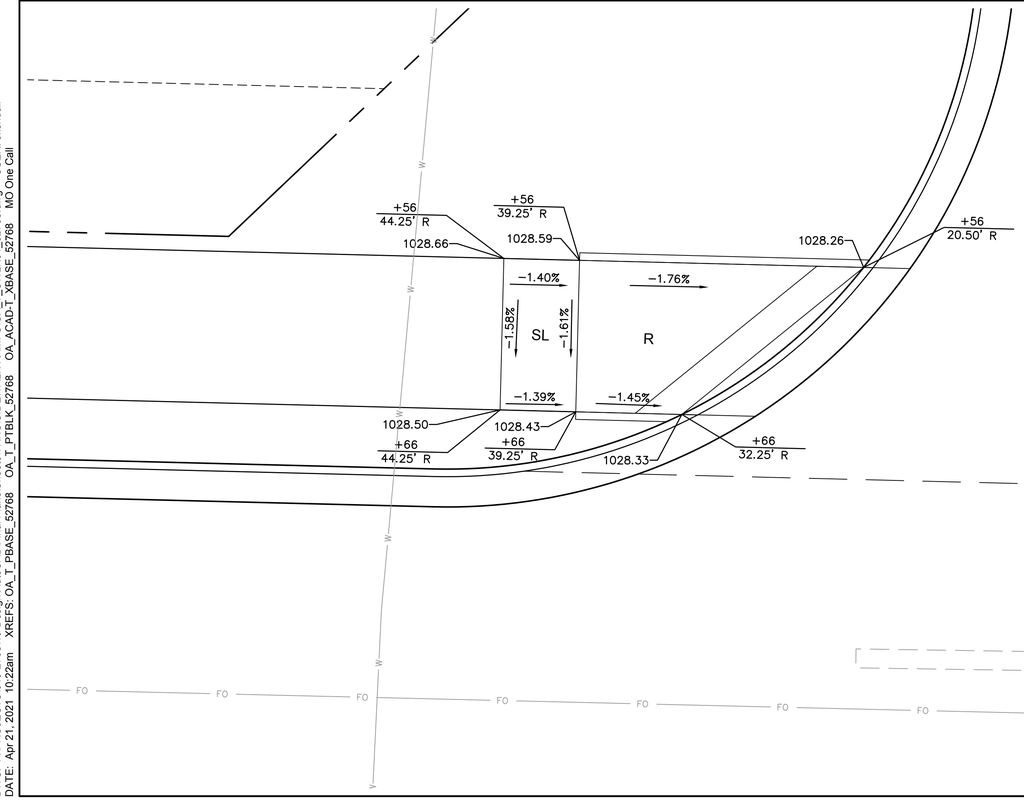
R	HANDICAP RAMP
RL	RAMP LANDING
SL	SIDEWALK LANDING
SR	SIDEWALK RAMP

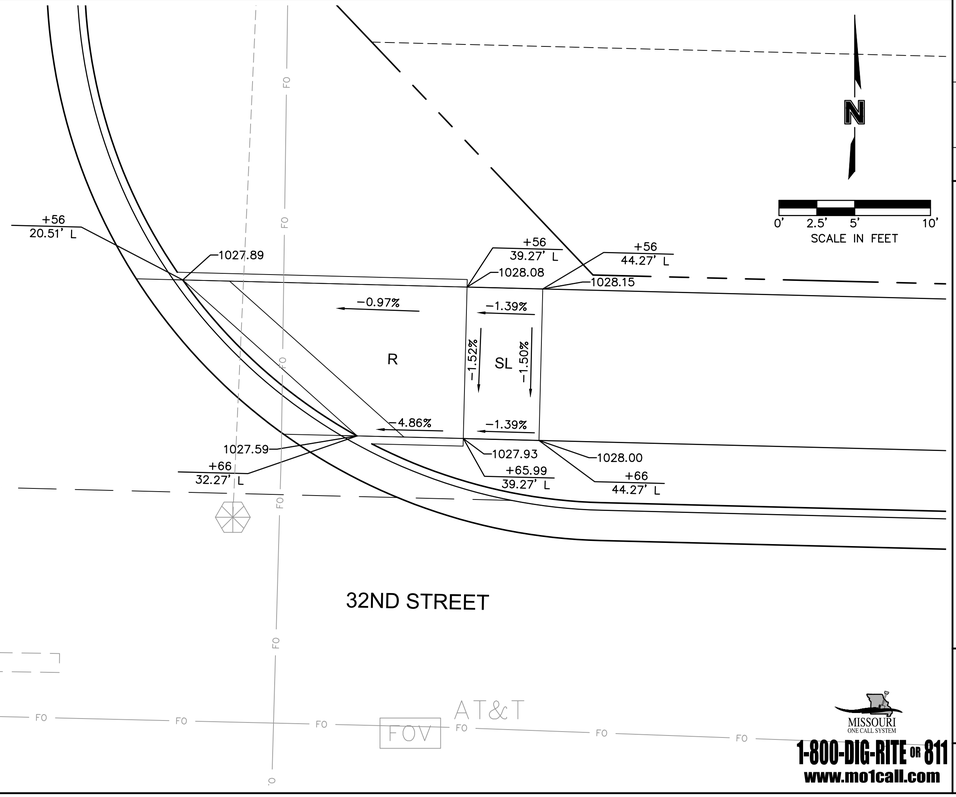




ALFALFA ROAD







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STATE OF MISSOURI
BRIAN COOMES
Brian Coomes
04/23/2021
NUMBER PE-2015029306
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REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

SIDEWALK RAMP LAYOUT

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by:	JKL & NJJ
checked by:	BMC & JKL
approved by:	BMC
QA/QC by:	PM
project no.:	015-2768
drawing no.	OA_T_SWLK01_52768
date:	04/23/2021

SHEET
A48 of A122

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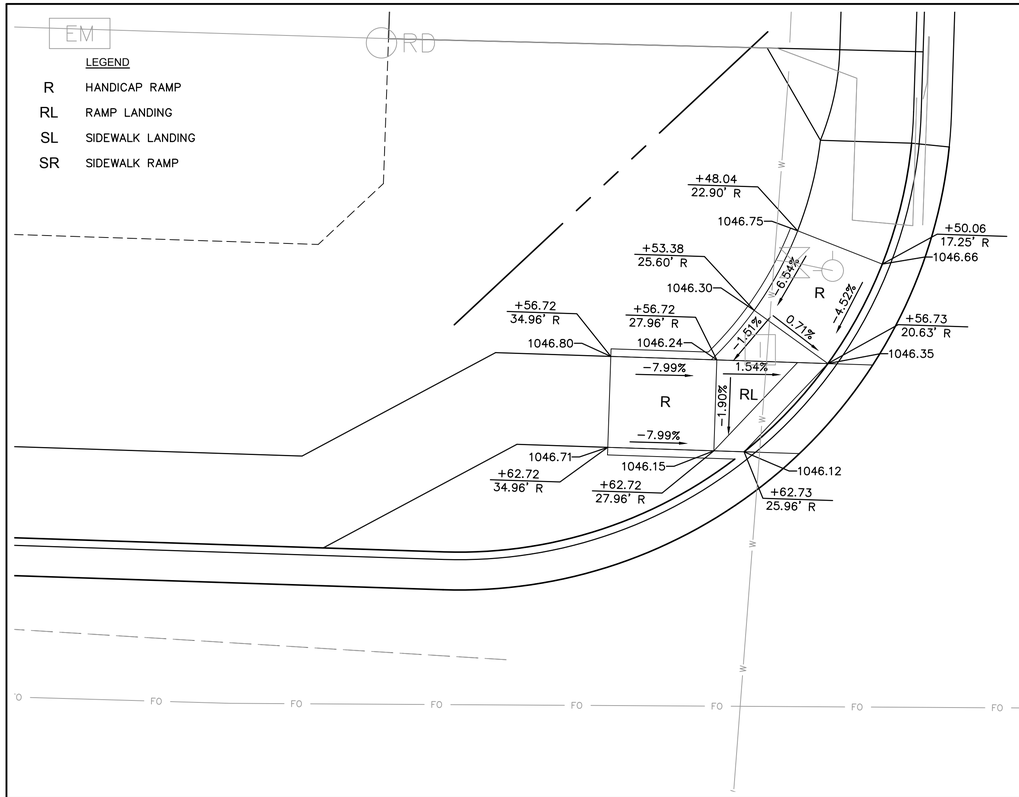
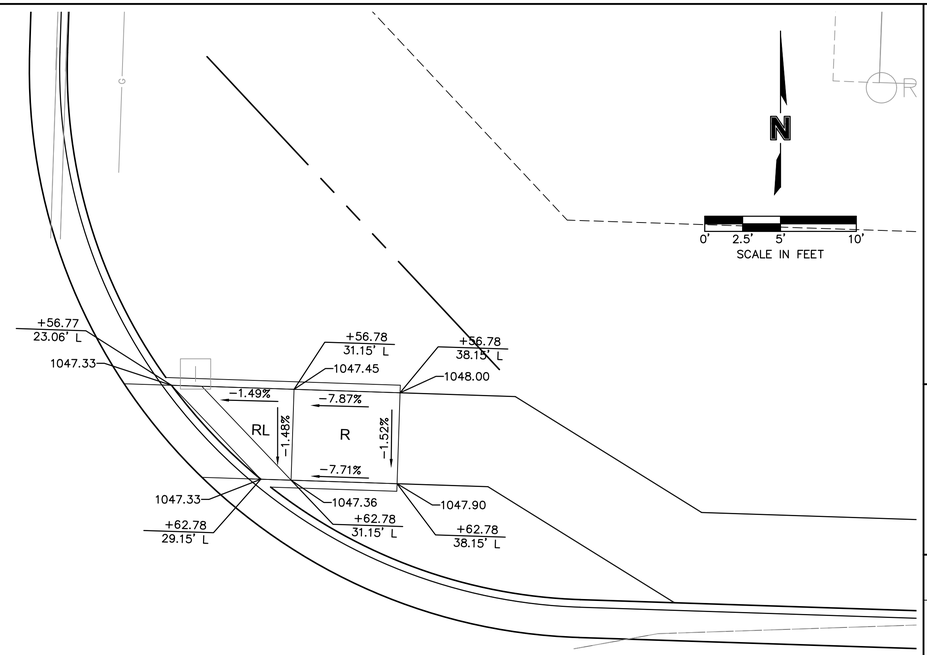
DWG: F:\PROJECTS\015-2768\40-Design\AutoCAD\Final Plans\Sheets\TRNS\SIDEWALK RAMPS\OA_T_SWLK01_52768.dwg USER: skendall
DATE: Apr 21, 2021 10:22am XREFS: OA_T_PBASE_52768 OA_T_PTBLK_52768 OA_ACAD-T_XBASE_52768 MO One Call

LEGEND

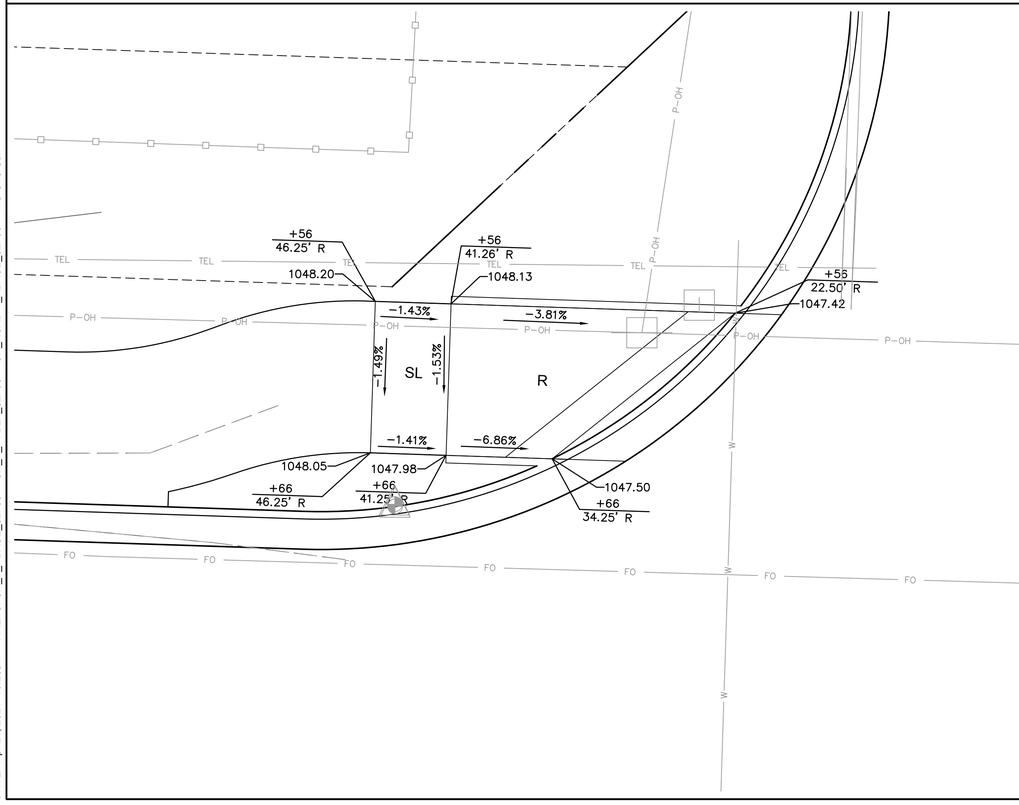
R	HANDICAP RAMP
RL	RAMP LANDING
SL	SIDEWALK LANDING
SR	SIDEWALK RAMP

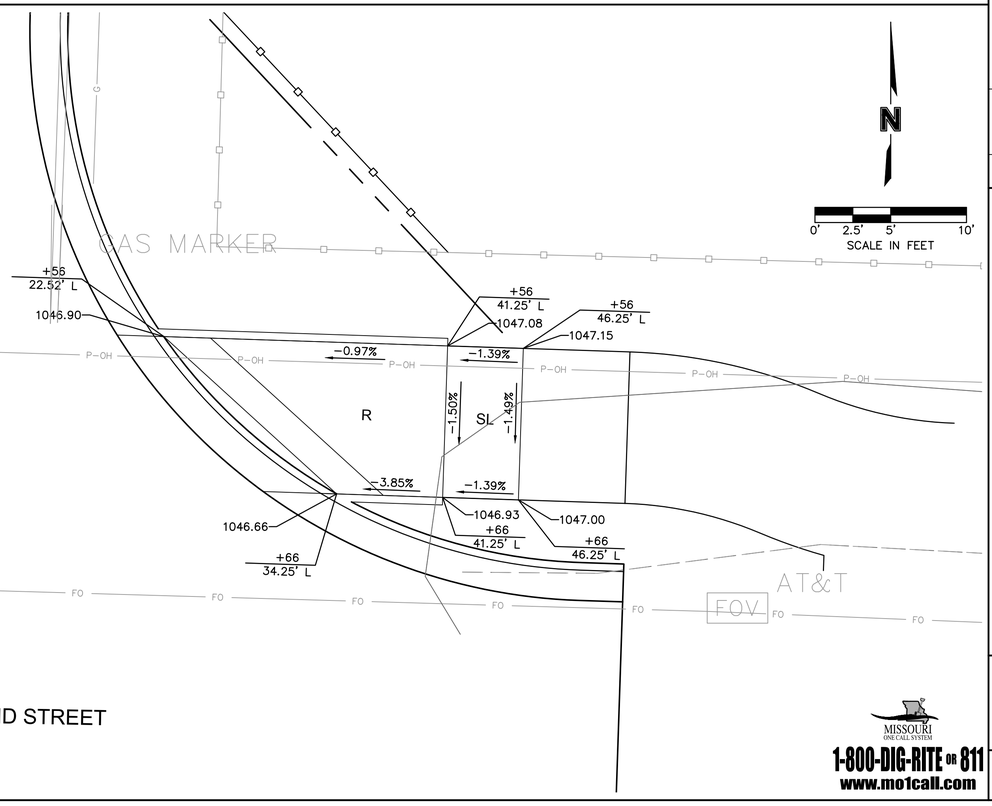




ASHWOOD LANE

32ND STREET





JENNIFER AVENUE

32ND STREET

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BRIAN COOMES
Brian Coomes
04/23/2021
NUMBER PE-2015029306
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REV. NO.	DATE	REVISIONS DESCRIPTION	BY
		REVISIONS	

SIDEWALK RAMP LAYOUT

32ND STREET WIDENING
CITY OF JOPLIN

2021

JOPLIN, MISSOURI

drawn by: JKL & NJJ
checked by: BMC & JKL
approved by: BMC
QA/QC by: PM
project no.: 015-2768
drawing no. OA_T_SWLK01_52768
date: 04/23/2021

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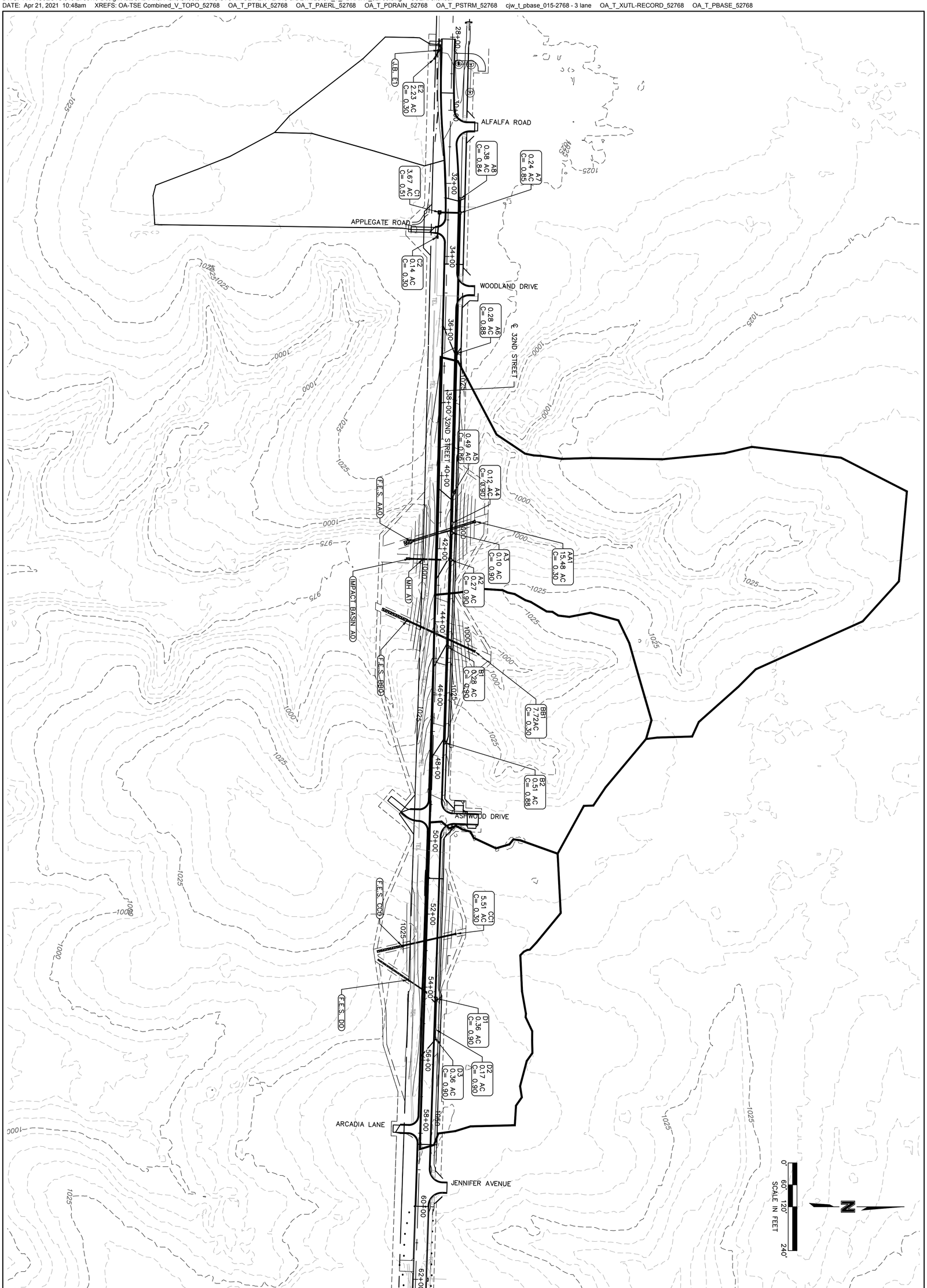
SHEET
A49 of A122

DWG: F:\PROJECTS\015-2768\40-Design\AutoCAD\Final Plans\Sheets\TRNS\STORM SEWER PLANS & DETAILS\OA_T_PDRAIN1_52768.dwg USER: skendall
DATE: Apr 21, 2021 10:48am XREFS: OA-TSE Combined_V_TOPO_52768 OA_T_PTBLK_52768 OA_T_PAERL_52768 OA_T_PDRAIN_52768 OA_T_PSTRM_52768 cjw_t_pbase_015-2768 - 3 lane OA_T_XUTL-RECORD_52768 OA_T_PBASE_52768



SHEET A50 of A122	drawn by: JKL & NJ checked by: BMC & JKL approved by: BMC project no.: 015-2768 drawing no.: A_T_PDRAIN1_52768 date: 04/23/2021	DRAINAGE MAP 32ND STREET WIDENING CITY OF JOPLIN JOPLIN, MISSOURI 2021	REV. NO. / DATE / REVISIONS DESCRIPTION / BY	STATE OF MISSOURI PROFESSIONAL ENGINEER BRIAN COOMES NUMBER PE-2010029396 04/23/2021	olsson Olsson - Civil Engineering Missouri Certificate of Authority #001592 702 S. Main Street Joplin, MO 64801 TEL 417.781.0643 www.olsson.com

10 YEAR STORM DESIGN STRUCTURES

Label	Inlet	Inlet Location	Elevation (Rim) (ft)	Elevation (Invert) (ft)	Inlet C	Inlet Drainage Area (acres)	Total Inlet Tc (min)	Local Intensity (in/h)	System Intensity (in/h)	Curb Opening Length (ft)	Flow (Captured) (cfs)	Flow (Total Bypassed) (cfs)	Capture Efficiency (Calculated) (%)	Bypass Target	Longitudinal Slope (Inlet) (%)	Road Cross Slope (%)	Spread / Top Width (ft)	Depth (Gutter) (in)	Notes
A2	TYPE C NON-SETBACK INLET	On Grade	1,011.31	993.33	0.90	0.27	5.00	7.25	5.47	6.00	2.10	1.18	64.00	A3	2.29	1.50	9.60	2.90	
A3	TYPE C NON-SETBACK INLET	On Grade	1,010.26	1,000.40	0.90	0.10	5.00	7.25	5.48	6.00	1.77	0.07	96.30	A4	0.50	1.50	10.40	3.00	
A4	TYPE C NON-SETBACK INLET	In Sag	1,010.19	1,004.70	0.90	0.12	5.00	7.25	5.49	6.40	1.46	(N/A)	100.00	(N/A)	(N/A)	1.50	10.60	3.00	
A5	TYPE C NON-SETBACK INLET	On Grade	1,010.90	1,006.00	0.86	0.49	5.00	7.25	5.52	8.00	2.66	0.60	81.60	A4	1.79	1.50	10.10	3.00	
A6	TYPE D INLET	On Grade	1,024.92	1,018.50	0.88	0.28	5.00	7.25	5.61	6.00	1.62	0.17	90.40	A5	2.92	1.50	6.60	2.30	
A7	TYPE D INLET	In Sag	1,027.74	1,022.67	0.85	0.24	5.00	7.25	5.78	4.80	1.64	(N/A)	100.00	(N/A)	(N/A)	1.50	12.00	3.30	
A8	TYPE D INLET	On Grade	1,027.81	1,023.81	0.84	0.38	5.00	7.25	7.25	6.00	2.18	0.15	93.80	A7	0.88	1.50	10.20	3.00	
B1	TYPE C NON-SETBACK INLET	On Grade	1,022.41	1,017.41	0.90	0.28	5.00	7.25	7.13	6.00	1.81	1.51	54.60	A2	6.00	1.50	7.60	2.50	
B2	TYPE C NON-SETBACK INLET	On Grade	1,038.06	1,034.06	0.88	0.51	5.00	7.25	7.25	6.00	1.81	1.48	55.00	B1	5.90	1.50	7.60	2.50	
C1	AREA INLET	In Sag	1,028.43	1,023.73	0.51	3.67	11.28	5.80	5.80	6.00	10.95	(N/A)	100.00	(N/A)	(N/A)	1.50	(N/A)	(N/A)	
C2	AREA INLET	In Sag	1,028.00	1,025.40	0.30	0.14	5.00	7.25	7.25	6.00	0.31	(N/A)	100.00	(N/A)	(N/A)	1.50	(N/A)	(N/A)	
D1	TYPE D INLET	On Grade	1,045.04	1,033.50	0.90	0.36	5.00	7.25	7.18	6.00	2.08	0.29	87.70	D2	1.65	1.50	8.90	2.70	
D2	TYPE D INLET	In Sag	1044.41	1,039.75	0.90	0.17	5.00	7.25	7.23	4.80	1.53	(N/A)	100.00	(N/A)	(N/A)	1.50	11.50	3.20	
D3	TYPE D INLET	On Grade	1,044.48	1,040.48	0.90	0.36	5.00	7.25	7.25	6.00	2.24	0.12	94.80	D2	0.73	1.50	10.70	3.10	
E2	FES	In Sag	1,030.00	1,026.87	0.30	2.23	9.78	6.11	6.11	2.50	4.12	(N/A)	100.00	(N/A)	(N/A)	1.50	(N/A)	(N/A)	

10 YEAR STORM DESIGN PIPES

Label	Upstream Structure	Downstream Structure	Upstream Inlet Area (acres)	Upstream Inlet C	Upstream Inlet Tc (min)	System CA (acres)	Time (Pipe Flow) (min)	System Flow Time (min)	System Rational Flow (cfs)	Invert (Start) (ft)	Invert (Stop) (ft)	Slope (Calculated) (%)	Material	Diameter (in)	Length (Scaled) (ft)	Flow (cfs)	Velocity (ft/s)	Capacity (Full Flow) (cfs)	Flow / Capacity (Design) (%)	Hydraulic Grade Line (In) (ft)	Hydraulic Grade Line (Out) (ft)	Notes
A1	A1	A0	(N/A)	(N/A)	0.00	4.25	0.05	13.23	23.34	980.89	979.97	2.53	Concrete	24	36.40	23.34	12.18	35.97	64.90	982.61	981.27	
A2	A2	A1	0.27	0.90	5.00	4.25	0.09	13.14	23.41	993.33	990.08	4.27	Concrete	24	76.20	23.41	14.87	46.72	50.10	995.05	991.14	
A3	A3	A2	0.10	0.90	5.00	3.47	0.11	13.04	19.15	1000.40	998.58	2.46	Concrete	24	74.00	19.15	11.51	35.47	54.00	1001.97	999.67	
A4	A4	A3	0.12	0.90	5.00	3.22	0.05	12.98	17.84	1004.70	1004.40	1.12	Concrete	24	26.70	17.84	8.37	23.99	74.40	1006.22	1005.74	
A5	A5	A4	0.49	0.86	5.00	3.02	0.17	12.81	16.82	1006.00	1005.20	1.01	Concrete	24	79.50	16.82	7.91	22.69	74.20	1007.48	1006.48	
A6	A6	A5	0.28	0.88	5.00	2.66	0.54	12.27	15.05	1018.50	1006.50	3.12	Concrete	24	385.00	15.05	11.82	39.94	37.70	1019.90	1007.35	
A7	A7	A6	0.24	0.85	5.00	2.44	0.86	11.41	14.19	1022.67	1019.00	0.95	Concrete	24	385.00	14.19	7.46	22.09	64.20	1024.03	1020.17	
A8	A8	A7	0.38	0.84	5.00	0.30	0.13	5.00	2.18	1023.81	1023.42	1.03	Concrete	15	38.00	2.18	4.80	6.54	33.40	1024.40	1024.21	
B1	B1	A2	0.28	0.90	5.00	0.50	0.35	5.50	3.56	1017.41	999.33	7.60	Concrete	15	238.00	3.56	11.33	17.80	20.00	1018.17	999.71	
B2	B2	B1	0.51	0.88	5.00	0.25	0.50	5.00	1.81	1034.06	1017.91	6.17	Concrete	15	262.00	1.81	8.66	16.04	11.30	1034.60	1018.19	
C1	C1	A7	3.67	0.51	11.28	1.91	0.13	11.28	11.20	1023.73	1023.17	0.99	Concrete	24	56.40	11.20	7.16	22.54	49.70	1024.93	1024.18	
C2	C2	C1	0.14	0.30	5.00	0.04	0.40	5.00	0.31	1025.40	1024.73	1.00	Concrete	12	67.10	0.31	2.77	3.56	8.60	1025.63	1025.03	
D1	D1	D0	0.36	0.90	5.00	0.80	0.20	5.31	5.79	1033.50	1031.80	1.85	Concrete	15	92.10	5.79	7.64	8.77	66.00	1034.47	1032.54	
D2	D2	D1	0.17	0.90	5.00	0.52	0.22	5.09	3.77	1039.75	1038.50	1.48	Concrete	15	84.70	3.77	6.33	7.85	48.00	1040.53	1039.11	
D3	D3	D2	0.36	0.90	5.00	0.31	0.09	5.00	2.24	1040.48	1040.25	0.92	Concrete	15	25.00	2.24	4.65	6.20	36.20	1041.08	1040.77	
E1	E1	EX E1	(N/A)	(N/A)	0.00	0.67	0.10	9.83	4.11	1025.14	1024.83	0.98	Concrete	15.00	31.50	4.11	5.54	6.41	64.20	1025.96	1025.56	
E2	E2	E1	2.23	0.30	9.78	0.67	0.05	9.78	4.12	1026.87	1025.64	4.57	Concrete	15.00	26.90	4.12	9.82	13.81	29.80	1027.69	1026.14	

100 YEAR STORM DESIGN STRUCTURES

Label	Inlet	Inlet Location	Elevation (Rim) (ft)	Elevation (Invert) (ft)	Inlet C	Inlet Drainage Area (acres)	Total Inlet Tc (min)	Local Intensity (in/h)	System Intensity (in/h)	Curb Opening Length (ft)	Flow (Captured) (cfs)	Flow (Total Bypassed) (cfs)	Capture Efficiency (Calculated) (%)	Bypass Target	Longitudinal Slope (Inlet) (%)	Road Cross Slope (%)	Spread / Top Width (ft)	Depth (Gutter) (in)	Notes
A2	TYPE C NON-SETBACK INLET	On Grade	1011.31	993.33	0.90	0.27	5.00	12.75	9.64	6.00	3.08	4.21	42.20	A3	2.29	1.50	13.60	3.60	
A3	TYPE C NON-SETBACK INLET	On Grade	1010.26	1000.40	0.90	0.10	5.00	12.75	9.67	6.00	3.41	1.96	63.50	A4	0.50	1.50	16.40	4.10	
A4	TYPE C NON-SETBACK INLET	In Sag	1010.19	1004.70	0.90	0.12	5.00	12.75	9.68	6.40	5.84	(N/A)	100.00	(N/A)	(N/A)	1.50	26.70	5.90	
A5	TYPE C NON-SETBACK INLET	On Grade	1010.90	1006.00	0.86	0.49	5.00	12.75	9.73	8.00	3.81	2.49	60.50	A4	1.79	1.50	13.50	3.60	
A6	TYPE D INLET	On Grade	1024.92	1018.50	0.88	0.28	5.00	12.75	9.89	6.00	2.30	0.86	72.70	A5	2.92	1.50	8.90	2.70	
A7	TYPE D INLET	In Sag	1027.74	1022.67	0.85	0.24	5.00	12.75	10.16	4.80	3.60	(N/A)	100.00	(N/A)	(N/A)	1.50	20.30	4.80	
A8	TYPE D INLET	On Grade	1027.81	1023.81	0.84	0.38	5.00	12.75	12.75	6.00	3.12	0.98	76.10	A7	0.88	1.50	13.10	3.50	
B1	TYPE C NON-SETBACK INLET	On Grade	1022.41	1017.41	0.90	0.28	5.00	12.75	12.53	6.00	2.50	4.17	37.50	A2	6.00	1.50	10.60	3.10	
B2	TYPE C NON-SETBACK INLET	On Grade	1038.06	1034.06	0.88	0.51	5.00	12.75	12.75	6.00	2.36	3.43	40.70	B1	5.90	1.50	10.00	2.90	
C1	AREA INLET	In Sag	1028.43	1023.73	0.51	3.67	11.28	10.21	10.21	6.00	19.25	(N/A)	100.00	(N/A)	(N/A)	1.50	(N/A)	(N/A)	
C2	AREA INLET	In Sag	1028.00	1025.40	0.30	0.14	5.00	12.75	12.75	6.00	0.54	(N/A)	100.00	(N/A)	(N/A)	1.50	(N/A)	(N/A)	
D1	TYPE D INLET	On Grade	1045.04	1033.50	0.90	0.36	5.00	12.75	12.62	6.00	2.89	1.28	69.30	D2	1.65	1.50	11.50	3.20	
D2	TYPE D INLET	In Sag	1044.41	1039.75	0.90	0.17	5.00	12.75	12.71	4.80	4.18	(N/A)	100.00	(N/A)	(N/A)	1.50	22.50	5.20	
D3	TYPE D INLET	On Grade	1,044.48	1,040.48	0.90	0.36	5.00	12.75	12.75	6.00	3.22	0.94	77.40	D2	0.73	1.50	13.70	3.60	
E2	FES	In Sag	1,030.00	1,026.87	0.30	2.23	9.78	10.75	10.75	2.50	7.25	(N/A)	100.00	(N/A)	(N/A)	1.50	(N/A)	(N/A)	

100 YEAR STORM DESIGN PIPES

Label	Upstream Structure	Downstream Structure	Upstream Inlet Area (acres)	Upstream Inlet C	Upstream Inlet Tc (min)	System CA (acres)	Time (Pipe Flow) (min)	System Flow Time (min)	System Rational Flow (cfs)	Invert (Start) (ft)	Invert (Stop) (ft)	Slope (Calculated) (%)	Material	Diameter (in)	Length (Scaled) (ft)	Flow (cfs)	Velocity (ft/s)	Capacity (Full Flow) (cfs)	Flow / Capacity (Design) (%)	Hydraulic Grade Line (In) (ft)	Hydraulic Grade Line (Out) (ft)	Notes
A1	A1	A0	(N/A)	(N/A)	0.00	4.25	0.05	13.07	41.18	980.89	979.97	2.53	Concrete	24	36.40	41.18	13.11	35.97	114.50	983.16	981.93	
A2	A2	A1	0.27	0.90	5.00	4.25	0.08	13.00	41.28	993.33	990.08	4.27	Concrete	24	76.20	41.28	16.79	46.72	88.40	995.29	991.64	
A3	A3	A2	0.10	0.90	5.00	3.63	0.10	12.90	35.39	1000.40	998.58	2.46	Concrete	24	74.00	35.39	12.87	35.47	99.80	1002.32	1000.27	
A4	A4	A3	0.12	0.90	5.00	3.37	0.04	12.86	32.85	1004.70	1004.40	1.12	Concrete	24	26.70	32.85	10.46	23.99	136.90	1006.92	1006.30	
A5	A5	A4	0.49	0.86	5.00	2.91	0.15	12.71	28.56	1006.00	1005.20	1.01	Concrete	24	79.50	28.56	9.09	22.69	125.90	1008.40	1007.09	
A6	A6	A5	0.28	0.88	5.00	2.62	0.47	12.24	26.06	1018.50	1006.50	3.12	Concrete	24	385.00	26.06	13.54	39.94	65.20	1020.29	1008.53	
A7	A7	A6	0.24	0.85	5.00	2.44	0.81	11.43	24.94	1022.67	1019.00	0.95	Concrete	24	385.00	24.94	7.94	22.09	112.90	1025.49	1020.76	
A8	A8	A7	0.38	0.84	5.00	0.24	0.12	5.00	3.12	1023.81	1023.42	1.03	Concrete	15	38.00	3.12	2.54	6.54	47.60	1025.88	1025.79	
B1	B1	A2	0.28	0.90	5.00	0.38	0.32	5.47	4.78	1017.41	999.33	7.60	Concrete	15	238.00	4.78	12.30	17.80	26.80	1018.30	999.77	
B2	B2	B1	0.51	0.88	5.00	0.18	0.47	5.00	2.36	1034.06	1017.91	6.17	Concrete	15	262.00	2.36	9.35	16.04	14.70	1034.68	1018.23	
C1	C1	A7	3.67	0.51	11.28	1.91	0.13	11.28	19.69	1023.73	1023.17	0.99	Concrete	24	56.40	19.69	6.27	22.54	87.30	1026.22	1025.79	
C2	C2	C1	0.14	0.30	5.00	0.04	0.34	5.00	0.54	1025.40	1024.73	1.00	Concrete	12	67.10	0.54	3.27	3.56	15.20	1026.35	1026.34	
D1	D1	D0	0.36	0.90	5.00	0.80	0.19	5.28	10.19	1033.50	1031.80	1.85	Concrete	15	92.10	10.19	8.30	8.77	116.10	1035.31	1032.99	
D2	D2	D1	0.17	0.90	5.00	0.58	0.19	5.08	7.39	1039.75	1038.50	1.48	Concrete	15	84.70	7.39	7.27	7.85	94.10	1040.83	1039.46	
D3	D3	D2	0.36	0.90	5.00	0.25	0.08	5.00	3.22	1040.48	1040.25	0.92	Concrete	15	25.00	3.22	5.10	6.20	52.00	1041.20	1040.89	
E1	E1	EX E1	(N/A)	(N/A)	0.00	0.67	0.09	9.82	7.24	1025.14	1024.83	0.98	Concrete	15.00	31.50	7.24	5.90	6.41	112.90	1026.38	1026.01	
E2	E2	E1	2.23	0.30	9.78	0.67	0.04	9.78	7.25	1026.87	1025.64	4.57	Concrete	15.00	26.90	7.25	11.39	13.81	52.50	1027.94	1026.35	

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STATE OF MISSOURI
BRIAN COOMES
Brian Coomes 04/23/2021
NUMBER PE-2015029306
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

DRAINAGE CALCULATIONS

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by: JKL & NJJ
checked by: BMC & JKL
approved by: BMC
QA/QC by: PM
project no.: 015-2768
drawing no. A_T_PCALCS1_52768
date: 04/23/2021

SHEET
A51 of A122

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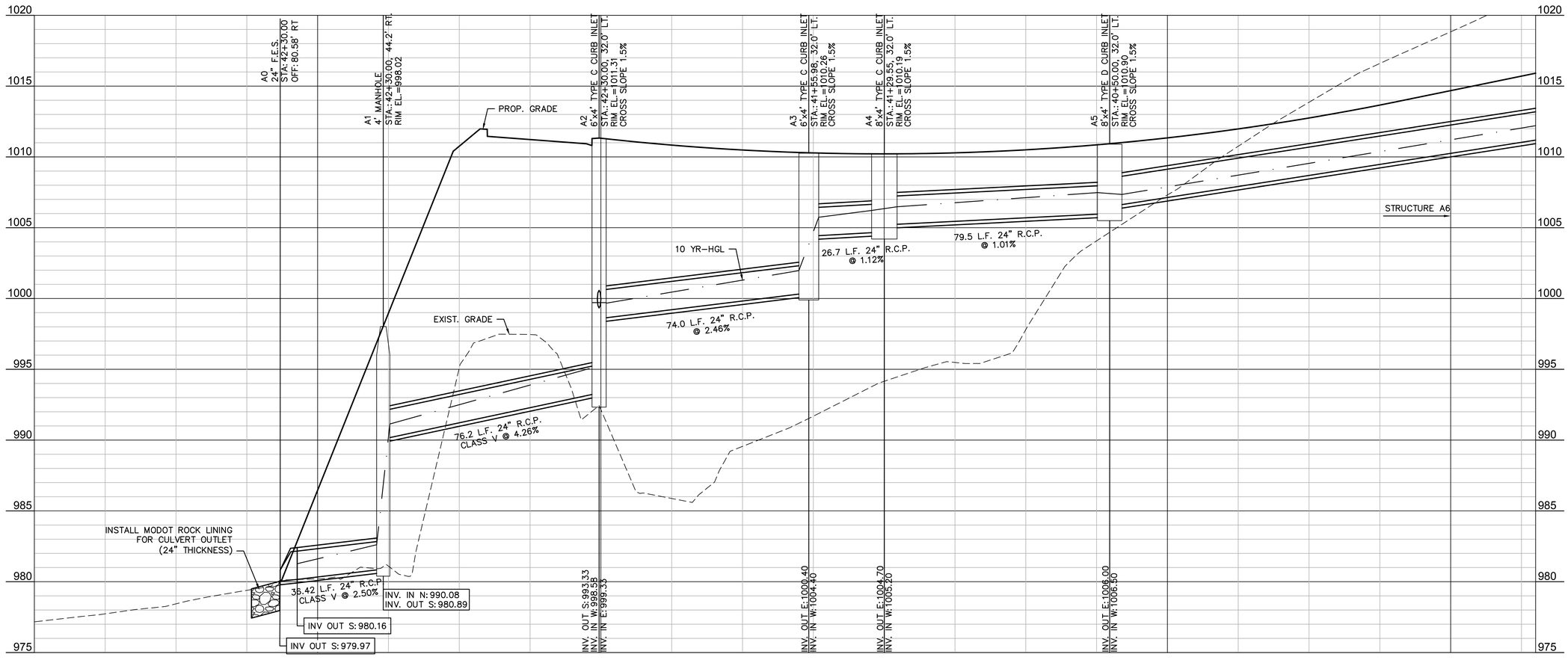
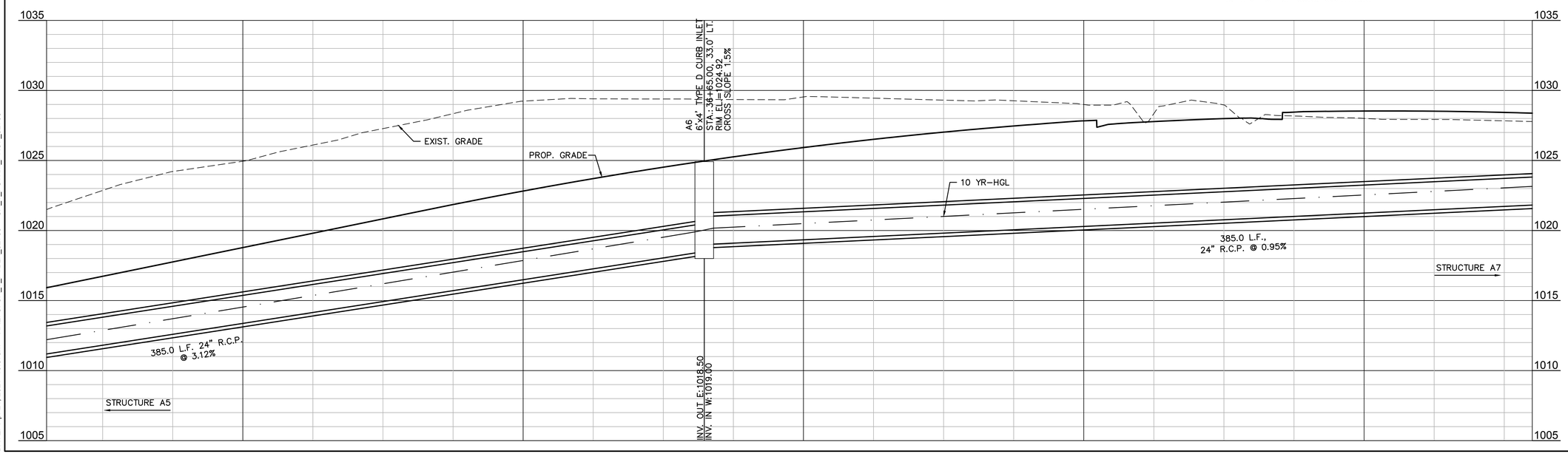


NOTE:
THE RIM ELEVATION SHOWN FOR ALL CURB INLETS IS THE TOP OF CURB ELEVATION.

STORM LINE A



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Brian Coomes
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REVISIONS

STORM SEWER PROFILES

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by: JKL & NJJ
checked by: BMC & JKL
approved by: BMC
QA/QC by: PM
project no.: 015-2768
drawing no.: OA_T_PSTRM_PROF1_52768
date: 04/23/2021

SHEET
A52 of A122

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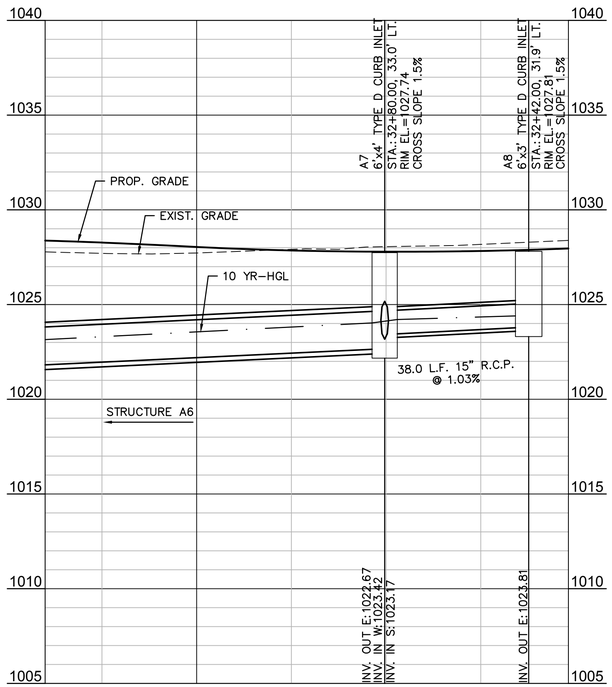

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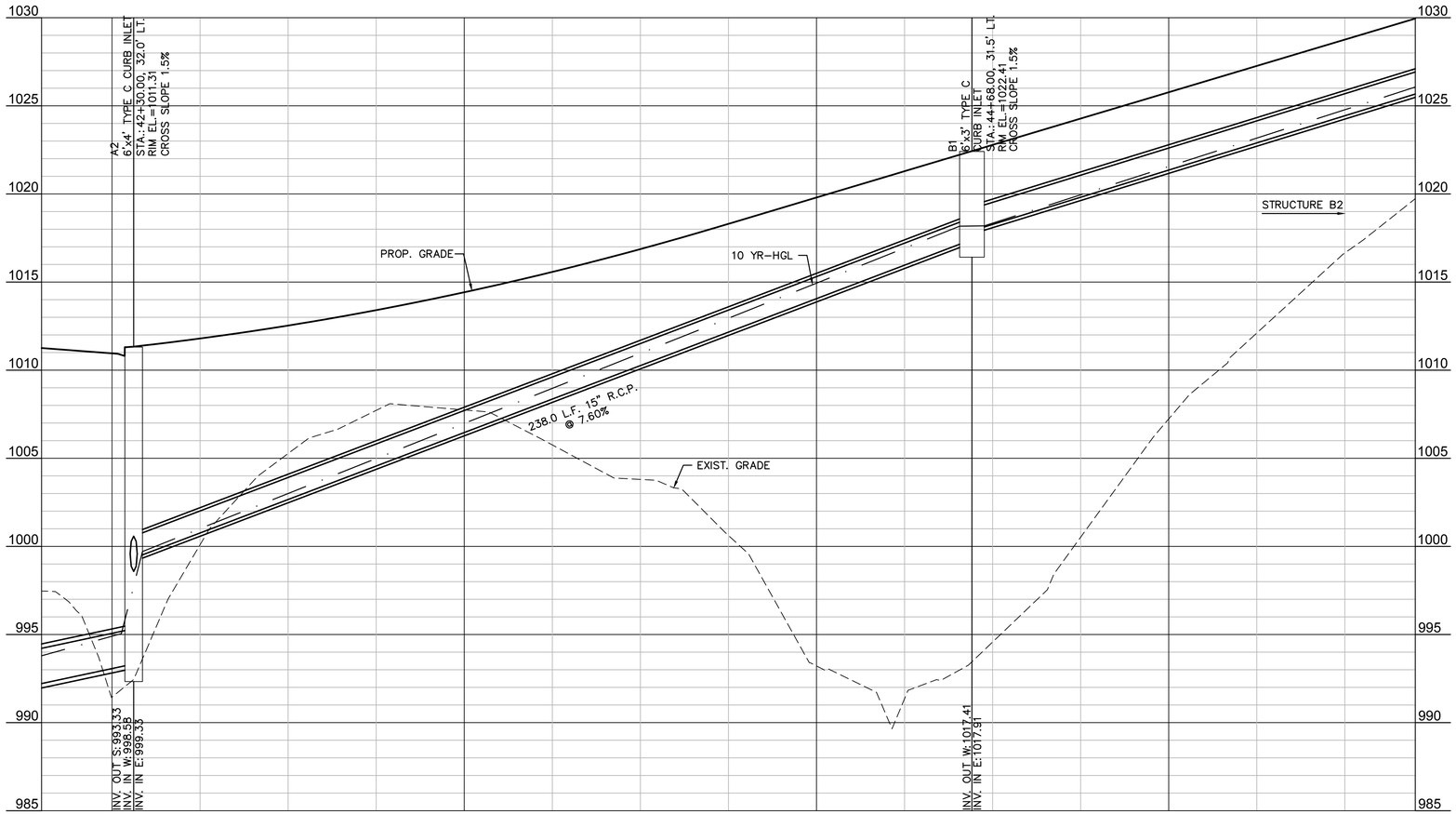

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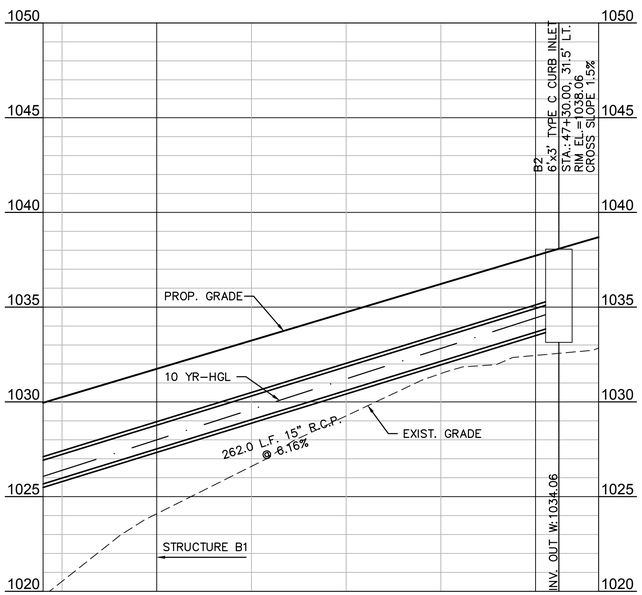

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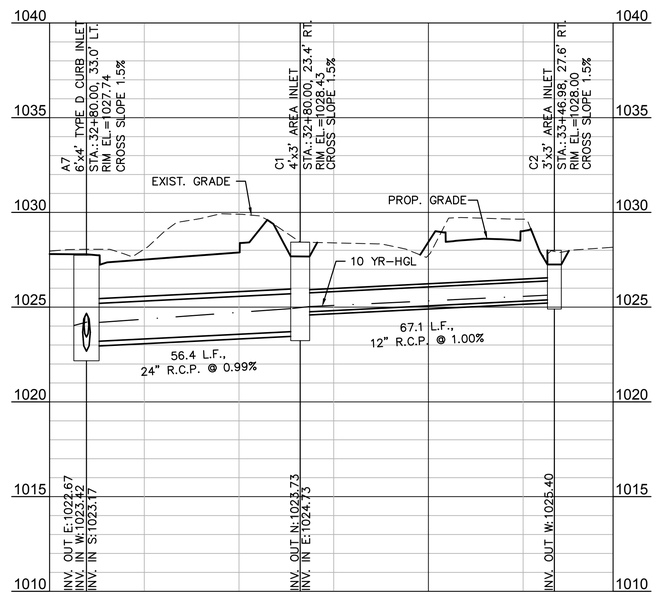

NOTE:
THE RIM ELEVATION SHOWN FOR ALL CURB INLETS IS THE TOP OF CURB ELEVATION.

8'
4'
2'
0'
0' 10' 20' 40'
SCALE IN FEET

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REVISIONS

STORM SEWER PROFILES

32ND STREET WIDENING
CITY OF JOPLIN

2021

JOPLIN, MISSOURI

drawn by: JKL & NJJ
checked by: BMC & JKL
approved by: BMC
QA/QC by: PM
project no.: 015-2768
drawing no.: OA_T_PSTRM_PROF1_52768
date: 04/23/2021

SHEET
A53 of A122

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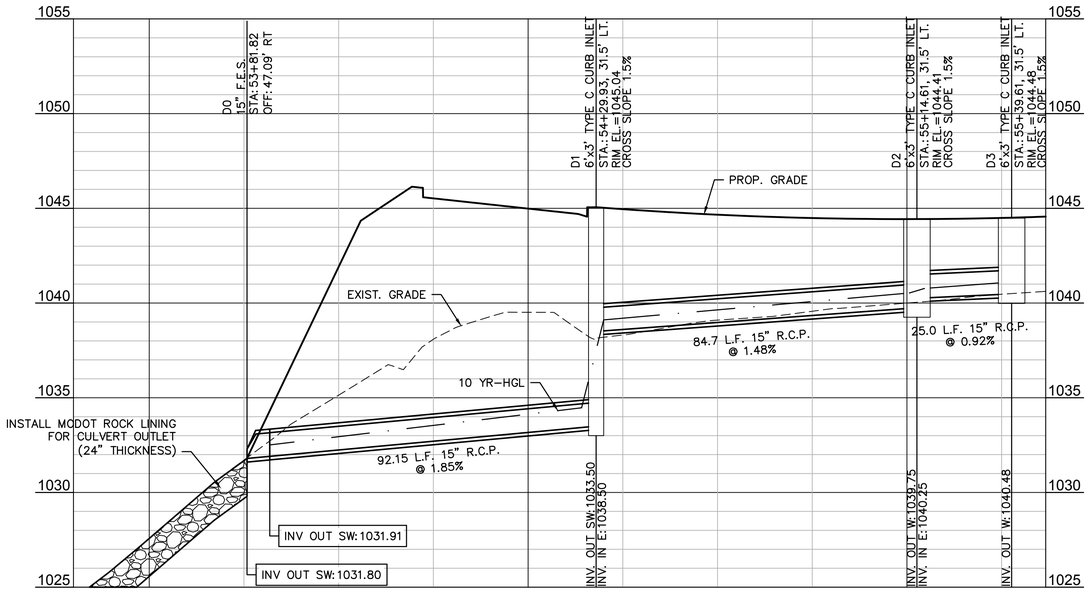

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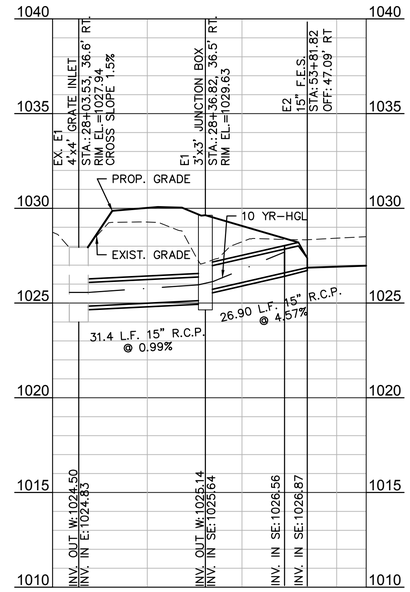
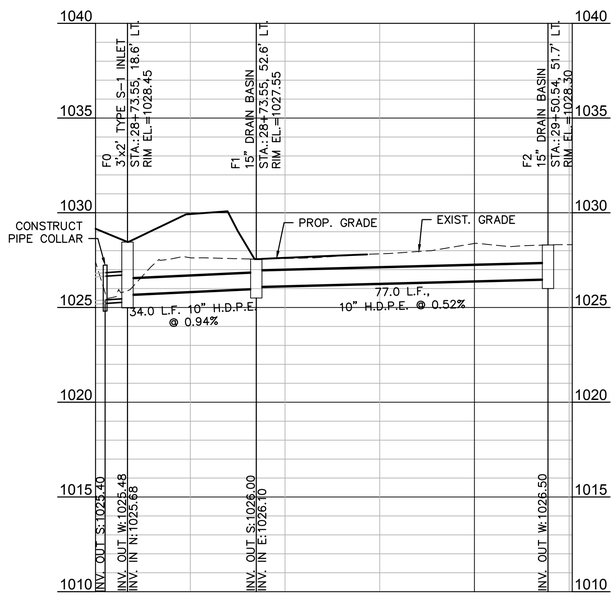
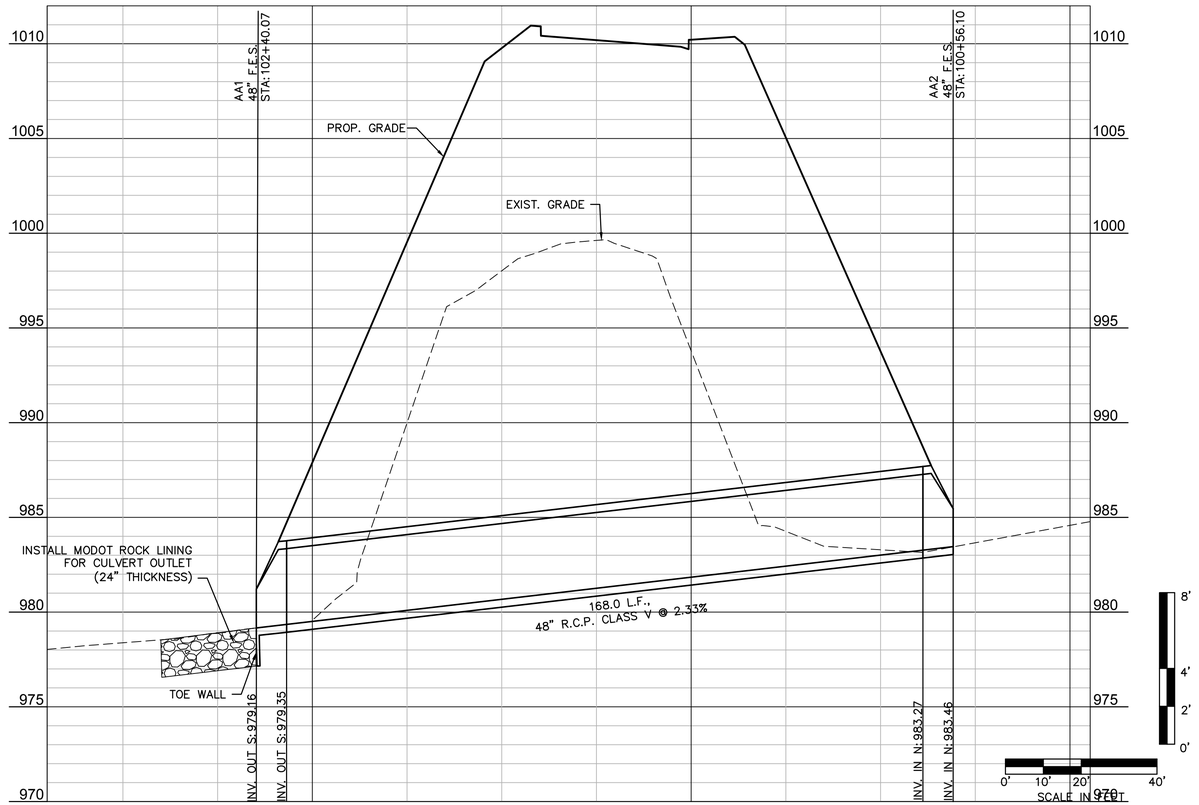


NOTE:
THE RIM ELEVATION SHOWN FOR ALL CURB INLETS IS THE TOP OF CURB ELEVATION.

STORM LINE F



CULVERT AA



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04/23/2021
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REV. NO.	DATE	REVISIONS DESCRIPTION	BY
		REVISIONS	

STORM SEWER PROFILES

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by: JKL & NJJ
checked by: BMC & JKL
approved by: BMC
QA/QC by: PM
project no.: 015-2768
drawing no.: OA_T_PSTRM_PROF1_52768
date: 04/23/2021

SHEET
A54 of A122

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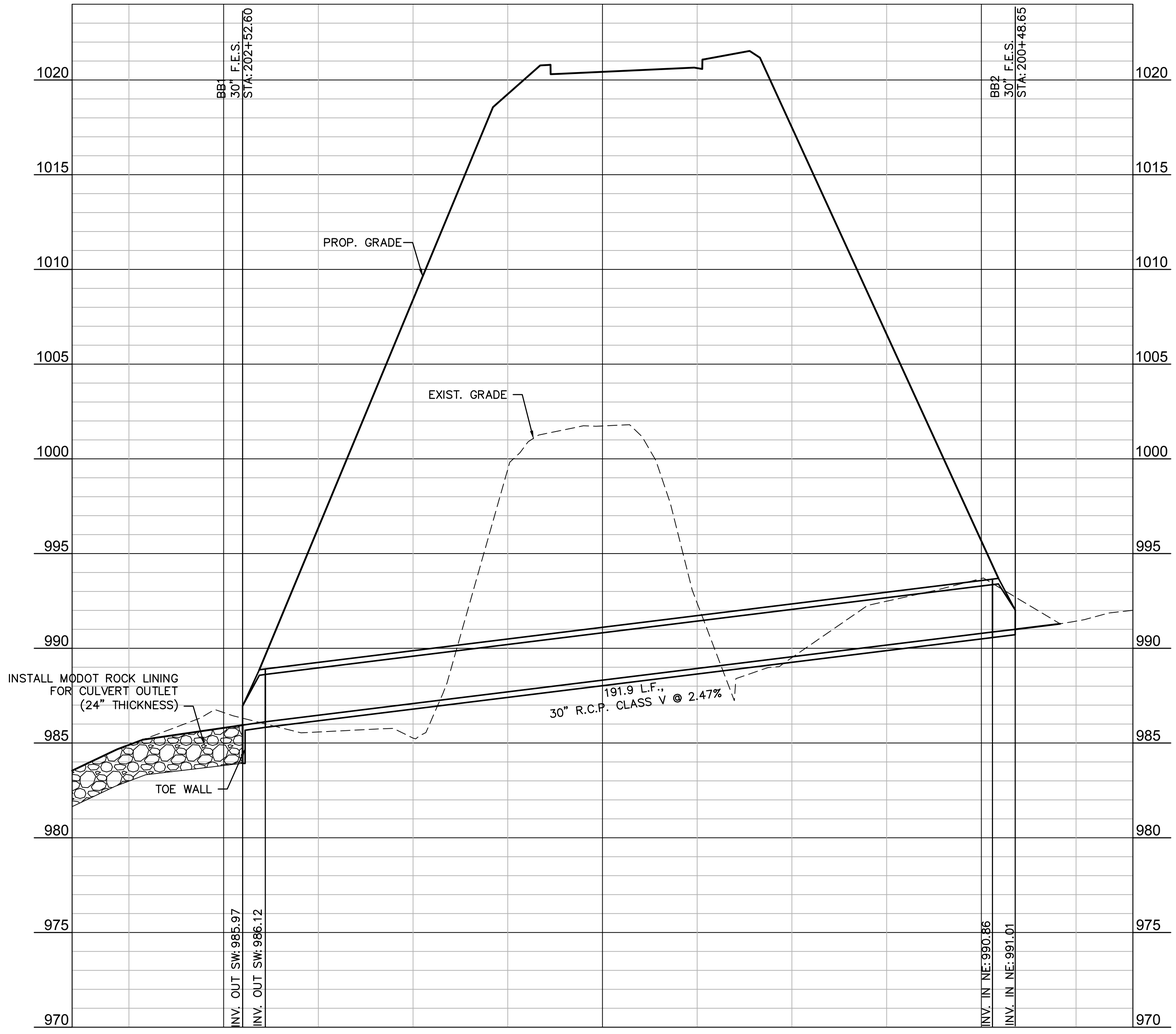
CULVERT BB



0' 10' 20' 40'
SCALE IN FEET

8'
4'
2'
0'

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32ND STREET WIDENING
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SHEET
A55 of A122

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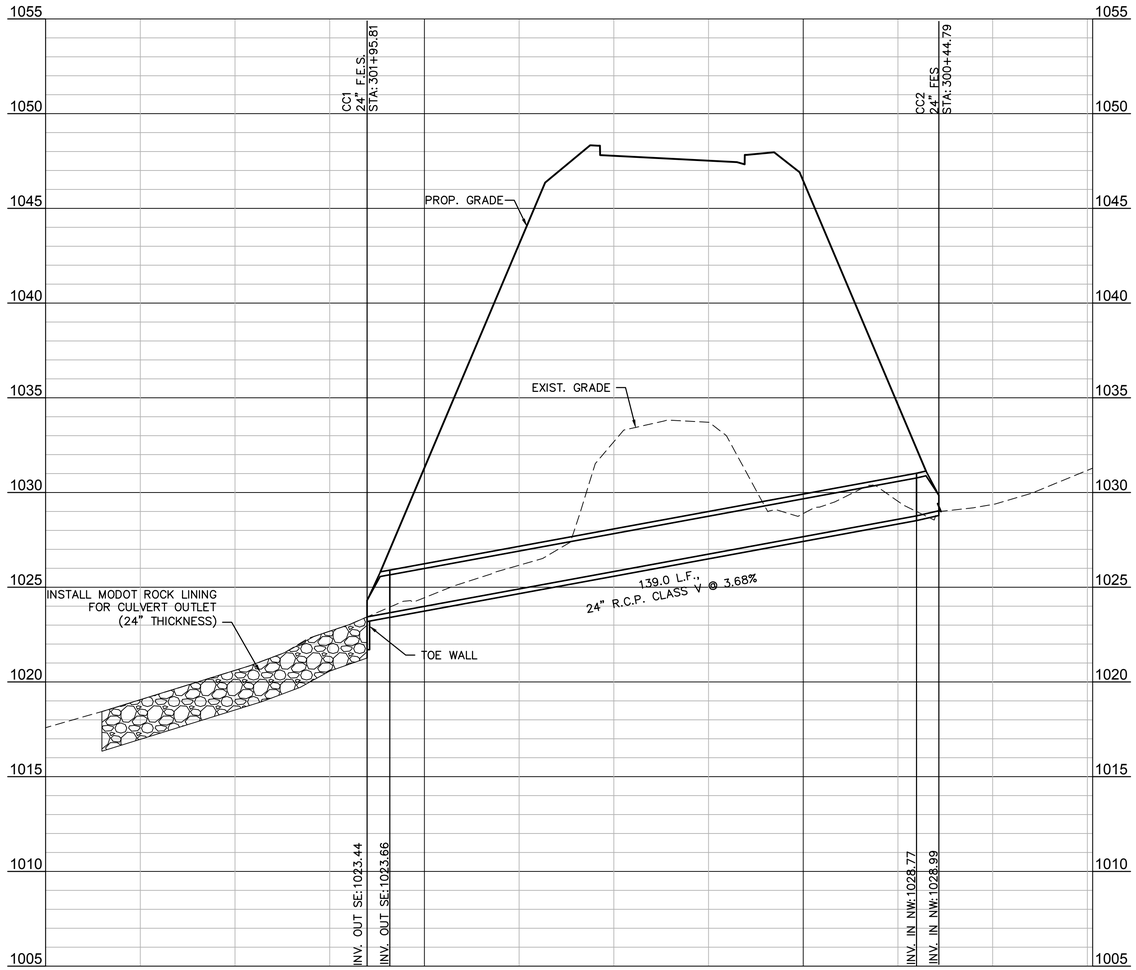
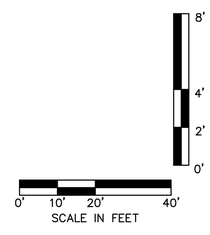
CULVERT CC





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BRIAN COOMES
Brian Coomes
04/23/2021
NUMBER PE-2015029306
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

STORM SEWER PROFILES

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by: JKL & NJJ
checked by: BMC & JKL
approved by: BMC
QA/QC by: PM
project no.: 015-2768
drawing no.: PSTRM_PROF1_52768
date: 04/23/2021

SHEET
A56 of A122

DWG: F:\PROJECTS\015-2768\40-Design\AutoCAD\Final Plans\Sheets\TRNS\STORM SEWER PLANS & DETAILS\OA_T_PSTRM_PROF1_52768.dwg USER: skendall
DATE: Apr 21, 2021 10:57am XREFS: OA_T_PTBLK_52768 OA_T_PSTRM_PROF_52768

LEGEND

- 12" BIODEGRADABLE LOG DITCH CHECK
- CURB/AREA INLET PROTECTION
- 8" BIODEGRADABLE LOG
- EROSION CONTROL BLANKET (MODOT TYPE 2.D)
- CULVERT INLET PROTECTION

N

0' 10' 20' 40'
SCALE IN FEET

W. 32ND STREET

GRADING LIMITS

15" RCP

PRC: 24+38.15

PT: 26+26.69

BP: 48+85.00

PC: 49+00.65

PT: 49+47.79

MATCHLINE 29+00.00

PI: 28+28.62

BP: 50+00.00

EP: 50+00.00

EP: 51+00.00

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BRIAN COOMES
Brian Coomes
04/23/2021
NUMBER PE-2015029306
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

EROSION CONTROL

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by: JKL & NJJ
checked by: BMC & JKL
approved by: BMC
QA/QC by: PM
project no.: 015-2768
drawing no.: OA_T_ERC_52758
date: 04/23/2021

SHEET
A57 of A122

DWG: F:\PROJECTS\015-2768\40-Design\AutoCAD\Final Plans\Sheets\TRNS\EROSION CONTROL PLANS & DETAILS\OA_T_ERC_52758.dwg USER: skendall
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LEGEND

- 12" BIODEGRADABLE LOG DITCH CHECK
- CURB/AREA INLET PROTECTION
- 8" BIODEGRADABLE LOG
- EROSION CONTROL BLANKET (MODOT TYPE 2.D)
- CULVERT INLET PROTECTION

NOTE:
REFER TO SHEETS A52–A56 FOR STORM SEWER PLAN & PROFILES

N

0' 10' 20' 40'
SCALE IN FEET

PARCEL 2
ROBERT MEDLEY
3158 S ALFALFA ROAD
BOOK 1224, PAGE 418

PARCEL 3
LARRY N & ROSE BELLAMY
3089 ALFALFA AVE
BOOK 1440, PAGE 58
BOOK 1322, PAGE 563

PARCEL 4
DAVID M WOOD
3154 WOODLAND RD
BOOK 2386, PAGE 99

BP: 48+85.00
48+85
PC: 49+00.65

MATCHLINE 29+00.00

MATCHLINE 34+50.00

ALFALFA ROAD

W. 32ND STREET

APPLEGATE ROAD

GRADING LIMITS

29+00 30+00 31+00 32+00 33+00 34+00

1030

PARCEL 20
WILLIAM D & VICKI ANN COOK TRUST
1630 APPLEGATE LANE
BOOK 363, PAGE 2437

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EROSION CONTROL

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

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approved by: BMC
QA/QC by: PM
project no.: 015-2768
drawing no.: OA_T_ERC_52758
date: 04/23/2021

SHEET
A58 of A122

DWG: F:\PROJECTS\015-2768\40-Design\AutoCAD\Final Plans\Sheets\TRNS\EROSION CONTROL PLANS & DETAILS\OA_T_ERC_52758.dwg USER: skendall
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LEGEND

- 12" BIODEGRADABLE LOG DITCH CHECK
- CURB/AREA INLET PROTECTION
- 8" BIODEGRADABLE LOG
- EROSION CONTROL BLANKET (MODOT TYPE 2.D)
- CULVERT INLET PROTECTION

N

0' 10' 20' 40'
SCALE IN FEET

PARCEL 5
DAVID & BERNICE COOK
2991 S WOODLAND DRIVE
BOOK 1232, PAGE 2362
BOOK 1291, PAGE 2178

WOODLANDS DRIVE

GRADING LIMITS

MATCHLINE 34+50.00

MATCHLINE 40+00.00

W. 32ND STREET

35+00 36+00 37+00 38+00 39+00 40+00

1025 1030

PARCEL 20
WILLIAM D & VICKI ANN COOK TRUST
1630 APPLEGATE LANE
BOOK 363, PAGE 2437

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EROSION CONTROL

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

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project no.: 015.2768
drawing no.: OA_T_ERC_52758
date: 04/23/2021

SHEET
A59 of A122

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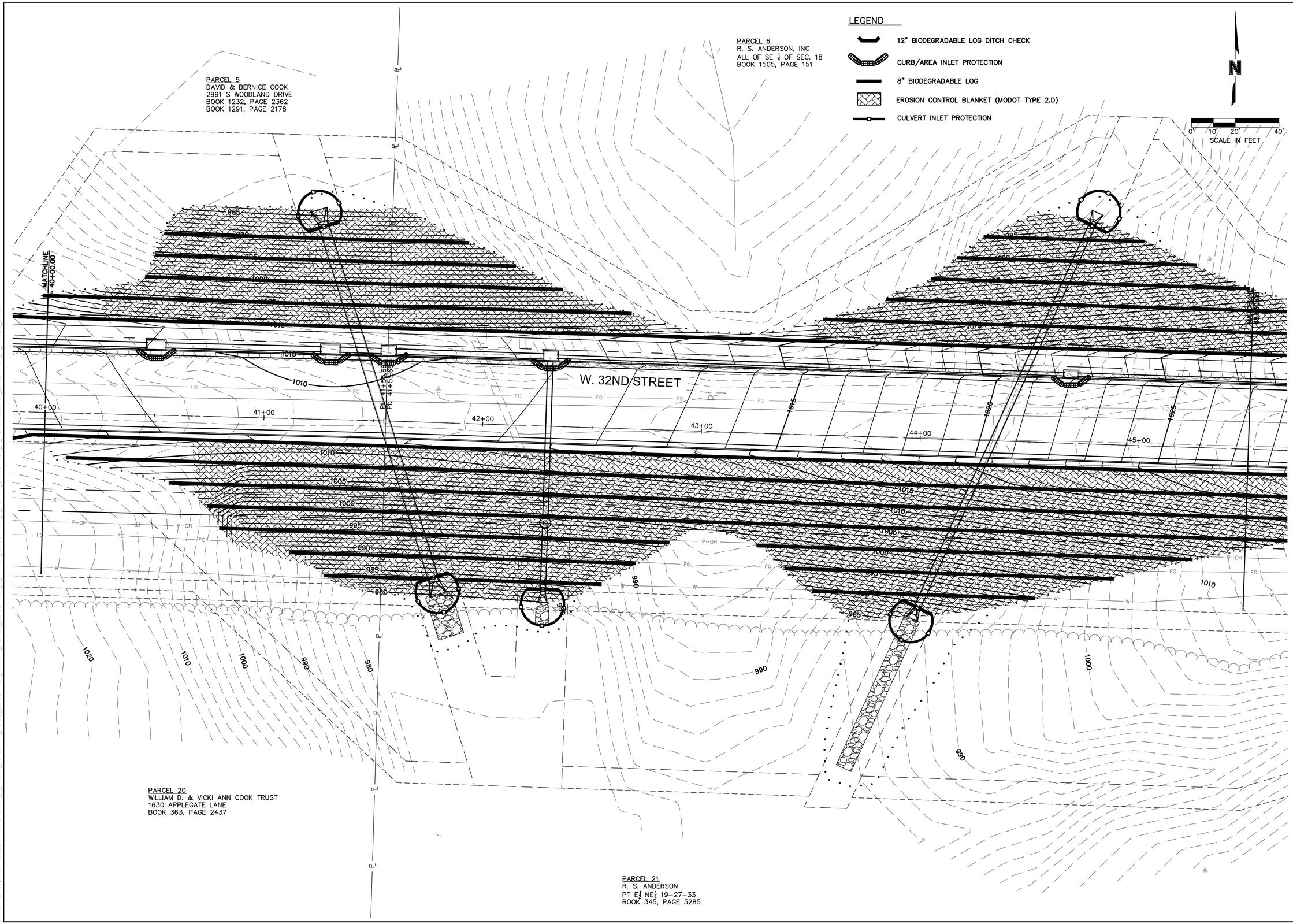

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32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

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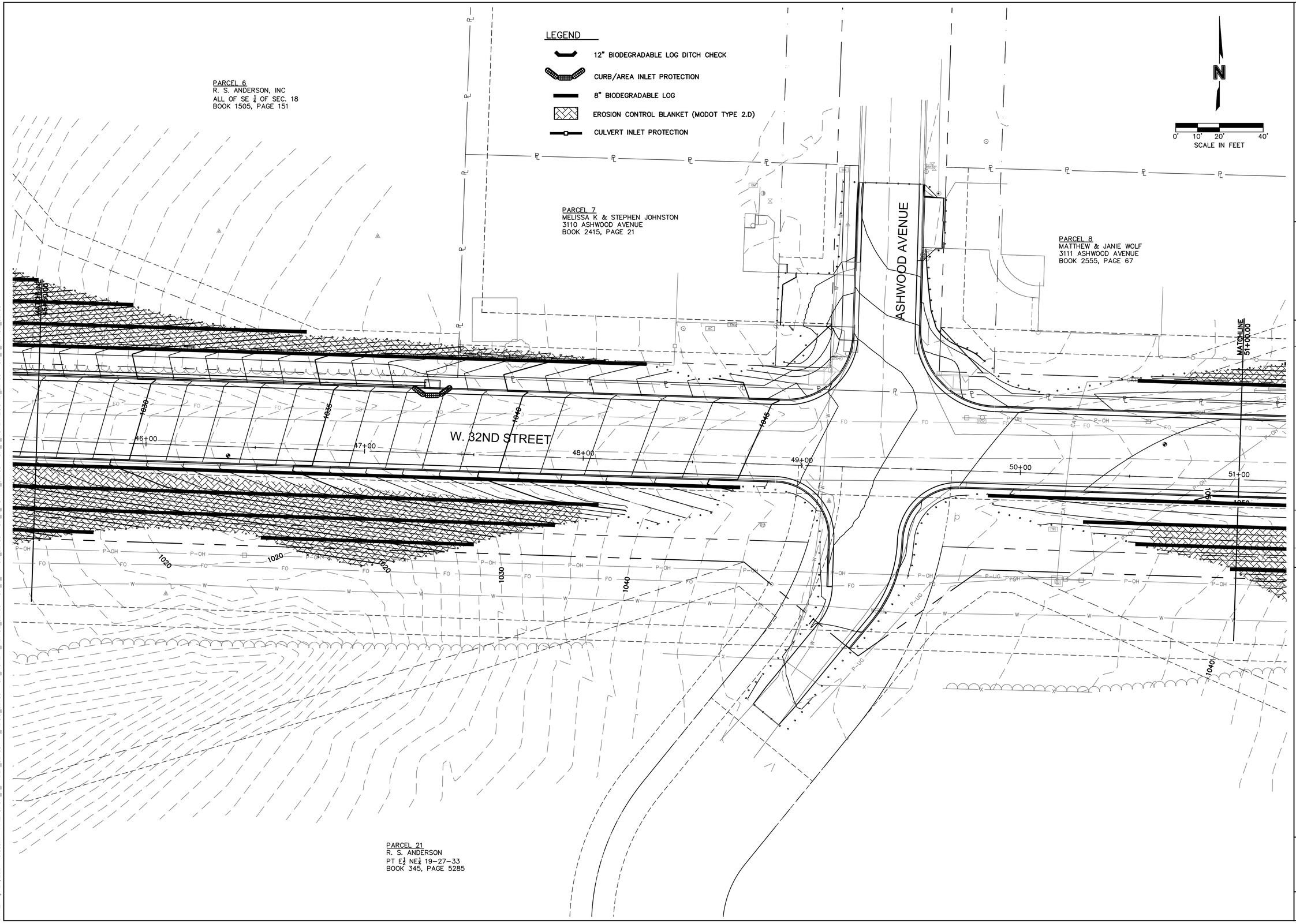
project no.: 015-2768
drawing no.: OA_T_ERC_52758
date: 04/23/2021

SHEET
A60 of A122



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JOPLIN, MISSOURI

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drawing no.: OA_T_ERC_52758
date: 04/23/2021

SHEET
A61 of A122

DWG: F:\PROJECTS\015-2768\40-Design\AutoCAD\Final Plans\Sheets\TRNS\EROSION CONTROL PLANS & DETAILS\OA_T_ERC_52758.dwg USER: skendall
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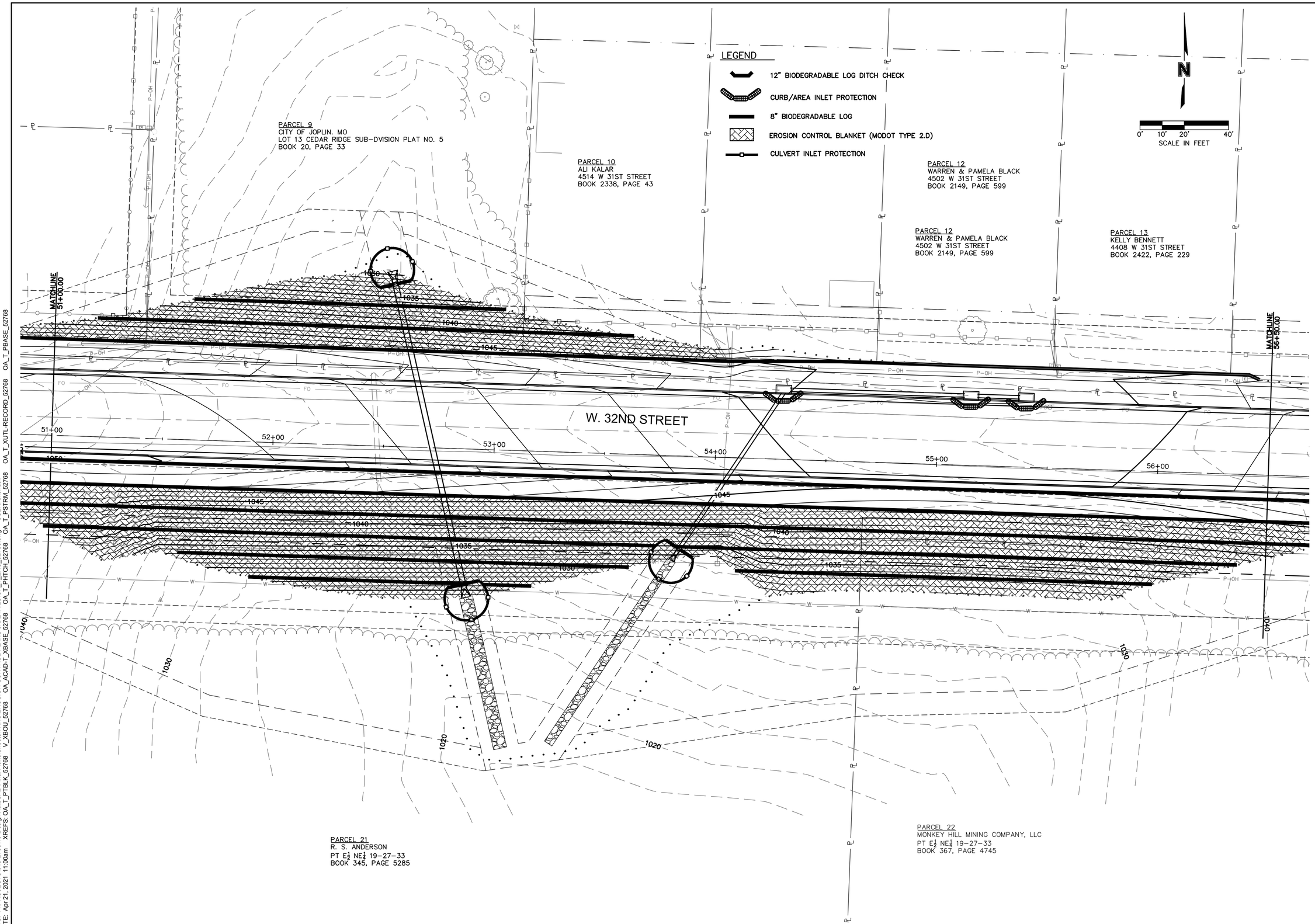

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Brian Coomes
04/23/2021
NUMBER PE-2015029306
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REVISIONS

EROSION CONTROL

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

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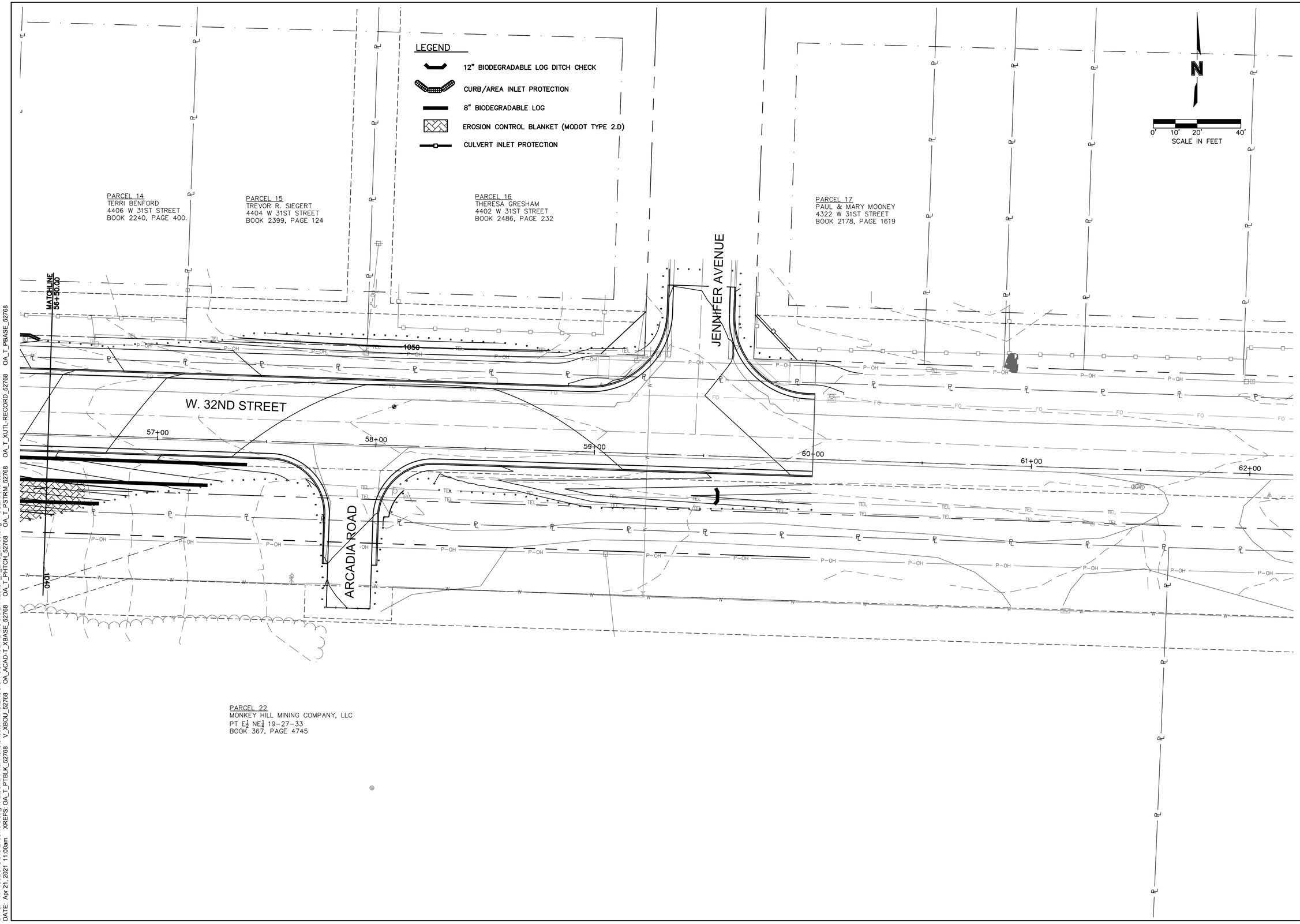
checked by: BMC & JKL
approved by: BMC
QA/QC by: PM
project no.: 015-2768
drawing no.: OA_T_ERC_52758
date: 04/23/2021

SHEET
A62 of A122



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32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

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approved by: BMC
QA/QC by: PM
project no.: 015-2768
drawing no.: OA_T_ERC_52758
date: 04/23/2021

SHEET
A63 of A122

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LEGEND

SODDED AREA

SEEDED AREA

PARCEL #1
ROMAN CATHOLIC DIOCESE
W 32ND STREET & S CENTRAL CITY RD
BOOK 2236, PAGE 2143

PARCEL 2
ROBERT MEDLEY
3158 S ALFALFA ROAD
BOOK 1224, PAGE 418

N

0' 10' 20' 40'
SCALE IN FEET

15" RCP

PRC: 24+88.15

25+00

26+00

PT: 26+26.69

27+00

W. 32ND STREET

15" RCP

15" RCP

PT: 49+47.79

PI: 28+28.62

BP: 48+85.00

48+85

49+00

PC: 49+00.65

MATCHLINE 29+00.00

28+00

50+00

90°0'0"

50+00

EP: 50+00.00

29+00

BP: 50+00.00

90°13'8"

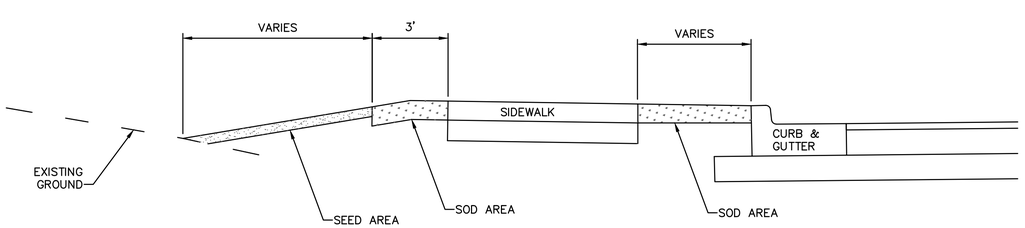
51+00

EP: 51+00.00

PARCEL 18
WILDWOOD RANCH LLC
1032 ANTELOPE ROAD
BOOK 354, PAGE 12950

PARCEL 19
CITY OF JOPLIN
602 S MAIN
BOOK 359, PAGE 6441

PARCEL 20
WILLIAM D & VICKI ANN COOK TRUST
1630 APPLEGATE LANE
BOOK 363, PAGE 2437



SEEDING & SODDING – TYPICAL SECTION
N.T.S.

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DATE: Apr 21, 2021 11:01am XREFS: OA_T_PTBLK_52768 V_XBOU_52768 OA_ACAD-T_XBASE_52768 OA_T_PHTCH_52768 OA_T_PSTRM_52768 OA_T_XUTL-RECORD_52768 OA_T_PBASE_52768

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BRIAN COOMES
Brian Coomes
04/23/2021
NUMBER PE-2015029306
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

SEEDING & SODDING PLAN

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by: JKL & NJJ
checked by: BMC & JKL
approved by: BMC
QA/QC by: PM
project no.: 015-2768
drawing no.: OA_T_SOD_52758
date: 04/23/2021

SHEET
A64 of A122

LEGEND

SODDED AREA

SEEDED AREA

NOTE:
REFER TO SHEETS A52–A56 FOR STORM SEWER PLAN & PROFILES

N

0' 10' 20' 40'
SCALE IN FEET

PARCEL 2
ROBERT MEDLEY
3158 S ALFALFA ROAD
BOOK 1224, PAGE 418

PARCEL 3
LARRY N & ROSE BELLAMY
3089 ALFALFA AVE
BOOK 1440, PAGE 58
BOOK 1322, PAGE 563

PARCEL 4
DAVID M WOOD
3154 WOODLAND RD
BOOK 2386, PAGE 99

BP: 48+85.00
48+85
RC: 49+00.65
MATCHLINE 29+00.00
MATCHLINE 34+50.00
ALFALFA ROAD
W. 32ND STREET
APPLEGATE ROAD
29+00
30+00
31+00
32+00
33+00
34+00

PARCEL 20
WILLIAM D & VICKI ANN COOK TRUST
1630 APPLEGATE LANE
BOOK 363, PAGE 2437

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SEEDING & SODDING

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

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drawing no.: OA_T_SOD_52758
date: 04/23/2021

SHEET
A65 of A122

DWG: F:\PROJECTS\015-2768\40-Design\AutoCAD\Final Plans\Sheets\TRNS\EROSION CONTROL PLANS & DETAILS\OA_T_SOD_52758.dwg USER: skendall
DATE: Apr 21, 2021 11:01am XREFS: OA_T_PTBLK_52768 V_XBOU_52768 OA_ACAD-T_XBASE_52768 OA_T_PHTCH_52768 OA_T_PSTRM_52768 OA_T_XUTL-RECORD_52768 OA_T_PBASE_52768

LEGEND

SODDED AREA

SEEDED AREA

N

0' 10' 20' 40'

SCALE IN FEET

PARCEL 5
DAVID & BERNICE COOK
2991 S WOODLAND DRIVE
BOOK 1232, PAGE 2362
BOOK 1291, PAGE 2178

WOODLANDS DRIVE

MATCHLINE 34+50.00

MATCHLINE 40+00.00

W. 32ND STREET

35+00 36+00 37+00 38+00 39+00 40+00

PARCEL 20
WILLIAM D & VICKI ANN COOK TRUST
1630 APPLEGATE LANE
BOOK 363, PAGE 2437

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CITY OF JOPLIN

JOPLIN, MISSOURI

2021

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SHEET
A66 of A122

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LEGEND

SODDED AREA

SEEDED AREA

PARCEL 5
DAVID & BERNICE COOK
2991 S WOODLAND DRIVE
BOOK 1232, PAGE 2362
BOOK 1291, PAGE 2178

PARCEL 6
R. S. ANDERSON, INC
ALL OF SE ¼ OF SEC. 18
BOOK 1505, PAGE 151

N

0' 10' 20' 40'
SCALE IN FEET

MATCHLINE 40+00.00

MATCHLINE 45+50.00

W. 32ND STREET

PI: 41+55.66

40+00 41+00 42+00 43+00 44+00 45+00

PARCEL 20
WILLIAM D. & VICKI ANN COOK TRUST
1630 APPLEGATE LANE
BOOK 363, PAGE 2437

PARCEL 21
R. S. ANDERSON
PT E½ NE¼ 19-27-33
BOOK 345, PAGE 5285

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32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

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SHEET
A67 of A122

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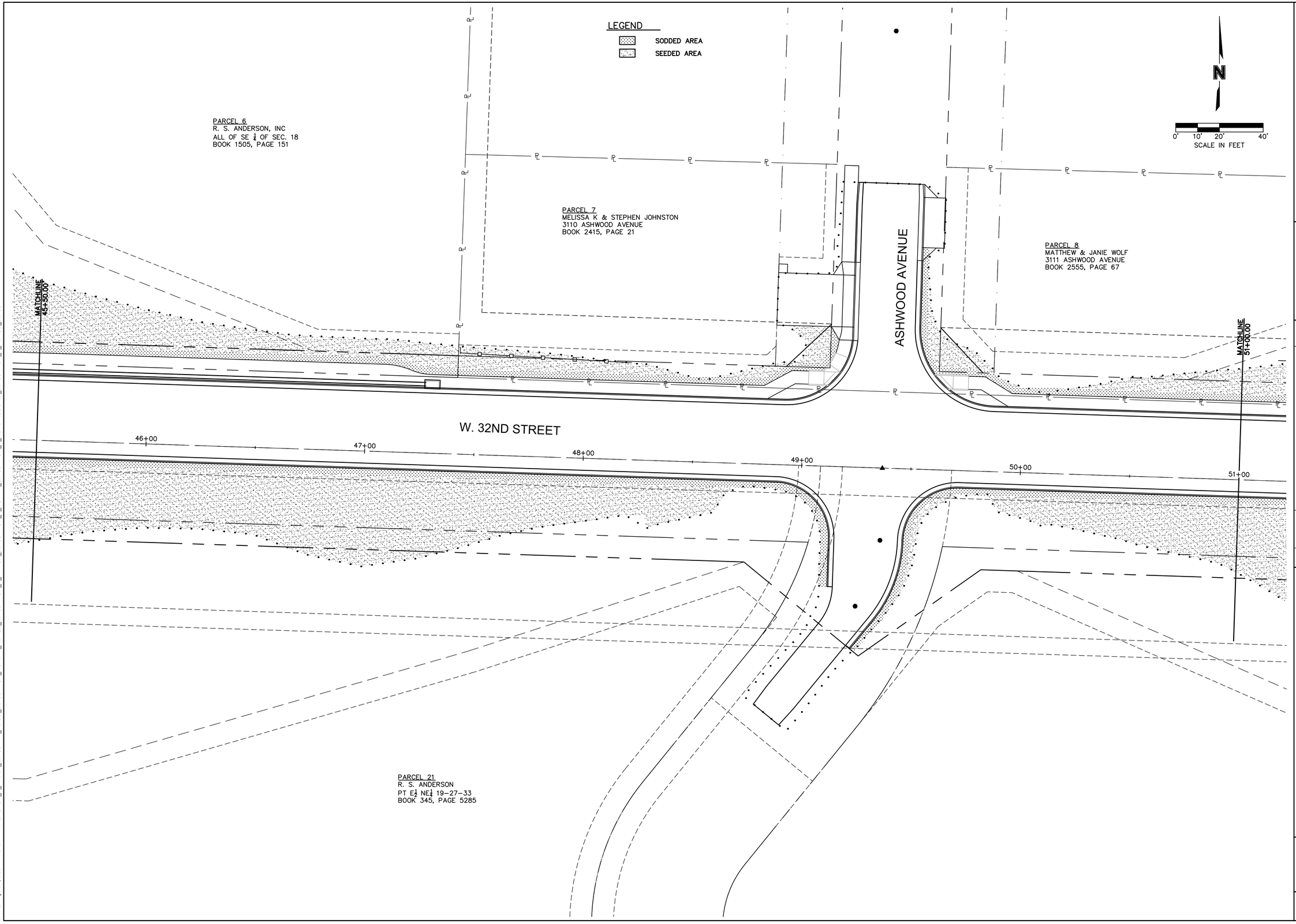

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CITY OF JOPLIN

JOPLIN, MISSOURI

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SHEET
A68 of A122

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LEGEND

SODDED AREA

SEEDED AREA

N

0' 10' 20' 40'

SCALE IN FEET

PARCEL 9
CITY OF JOPLIN. MO
LOT 13 CEDAR RIDGE SUB-DVISION PLAT NO. 5
BOOK 20, PAGE 33

PARCEL 10
ALI KALAR
4514 W 31ST STREET
BOOK 2338, PAGE 43

PARCEL 12
WARREN & PAMELA BLACK
4502 W 31ST STREET
BOOK 2149, PAGE 599

PARCEL 12
WARREN & PAMELA BLACK
4502 W 31ST STREET
BOOK 2149, PAGE 599

PARCEL 13
KELLY BENNETT
4408 W 31ST STREET
BOOK 2422, PAGE 229

MATCHLINE 51+00.00

MATCHLINE 56+50.00

W. 32ND STREET

51+00 52+00 53+00 54+00 55+00 56+00

PARCEL 21
R. S. ANDERSON
PT E½ NE¼ 19-27-33
BOOK 345, PAGE 5285

PARCEL 22
MONKEY HILL MINING COMPANY, LLC
PT E½ NE¼ 19-27-33
BOOK 367, PAGE 4745

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STATE OF MISSOURI
BRIAN COOMES
Brian Coomes
04/23/2021
NUMBER PE-2015029306
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

SEEDING & SODDING

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by: JKL & NJJ
checked by: BMC & JKL
approved by: BMC
QA/QC by: PM
project no.: 015-2768
drawing no.: OA_T_SOD_52758
date: 04/23/2021

SHEET
A69 of A122

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LEGEND

SODDED AREA

SEEDED AREA

N

0' 10' 20' 40'

SCALE IN FEET

PARCEL 14
TERRI BENFORD
4406 W 31ST STREET
BOOK 2240, PAGE 400.

PARCEL 15
TREVOR R. SIEGERT
4404 W 31ST STREET
BOOK 2399, PAGE 124

PARCEL 16
THERESA GRESHAM
4402 W 31ST STREET
BOOK 2486, PAGE 232

PARCEL 17
PAUL & MARY MOONEY
4322 W 31ST STREET
BOOK 2178, PAGE 1619

MATCHLINE 56+90.00

JENNIFER AVENUE

W. 32ND STREET

57+00 58+00 59+00 60+00 61+00 62+00

ARCADIA ROAD

PARCEL 22
MONKEY HILL MINING COMPANY, LLC
PT E½ NE¼ 19-27-33
BOOK 367, PAGE 4745

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SHEET
A70 of A122

S. CENTRAL CITY ROAD

PT: 56+88.56

PT: 56+88.56

57+00

PRC: 19+08.93

19+00

20+00

PT: 20+30.69

21+00

58+00

PC: 21+39.46

℄ W. 32ND STREET

22+00

PRC: 22+48.20

EXISTING STRIPING TO REMAIN

MATCH EXISTING STRIPING

EXISTING SIGN TO REMAIN

6" DOTTED WHITE LINE

MATCHLINE 24+50.00

W. 32ND STREET

4" SOLID YELLOW DOUBLE LINE

23+00

25'

24+00

PCC: 23+49.52

EXISTING SIGN TO REMAIN

4" SOLID YELLOW SINGLE LINE

4" SOLID YELLOW DOUBLE LINE

12" SOLID YELLOW LINE

REMOVE STRIPING FROM 23+00 TO 27+11
REPLACE WITH PROPOSED STRIPING SHOWN

PC: 58+87.05

PC: 58+87.05

59+00

PT: 59+30.19

PT: 59+30.19

ANTELOPE ROAD

N

0' 10' 20' 40'
SCALE IN FEET

DWG: F:\PROJECTS\015-2768\40-Design\AutoCAD\Final Plans\Sheets\TRNS\SIGNING AND STRIPING PLANS & DETAILS\OA_T_SAS01_52768.dwg USER: skendall
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STATE OF MISSOURI
JEREMY SCOTT STREET
NUMBER PE-2017023856
PROFESSIONAL ENGINEER
4/23/2021

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

PAVEMENT MARKING & SINGING PLANS

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

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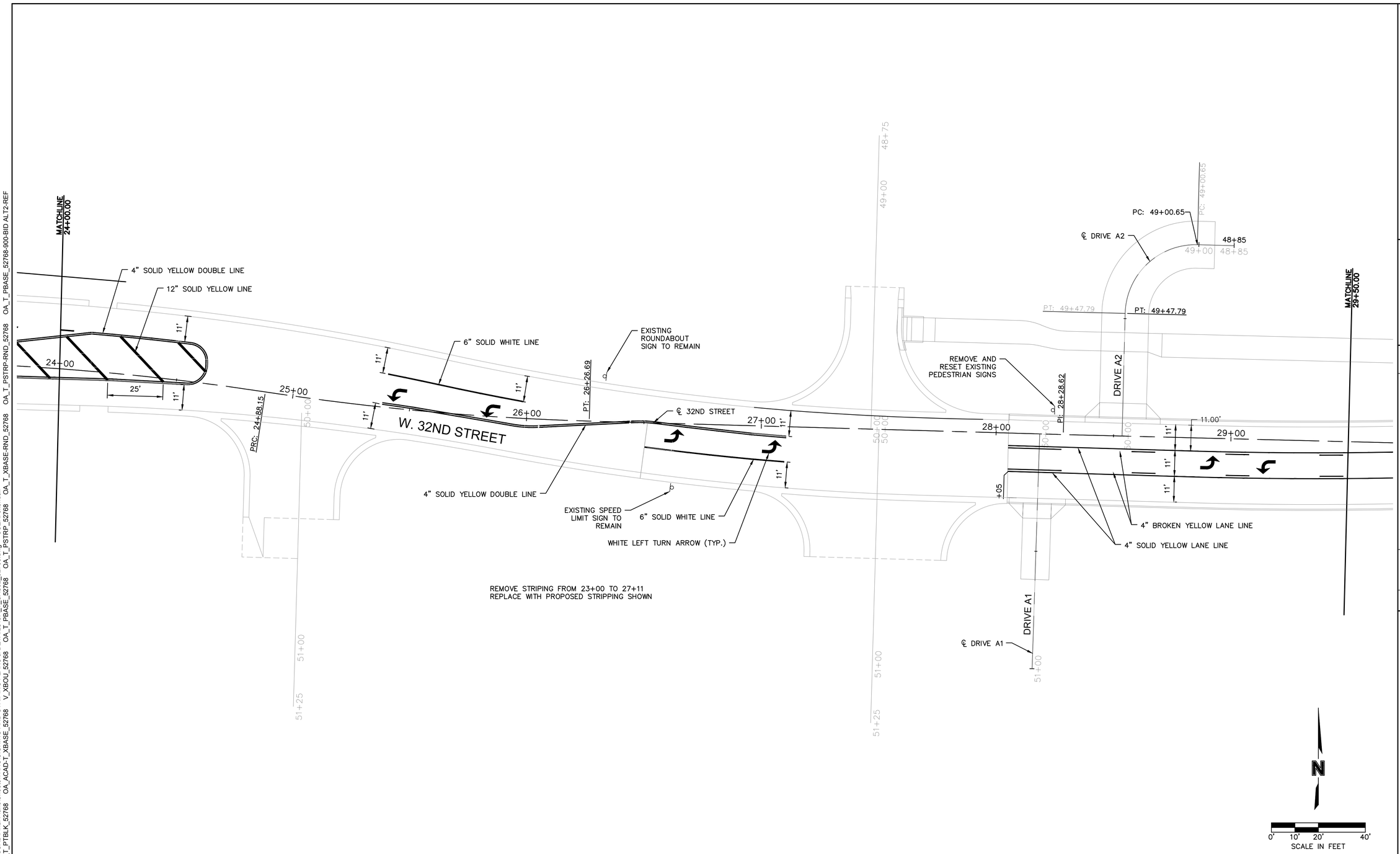
project no.: 015-2768
drawing no.: OA_T_SAS01_52768
date: 04/23/2021

SHEET
A71 of A122



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OA_T_PSTRP_52768 V_XBOU_52768 OA_T_PBASE_52768 OA_T_PSTRP_52768

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32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

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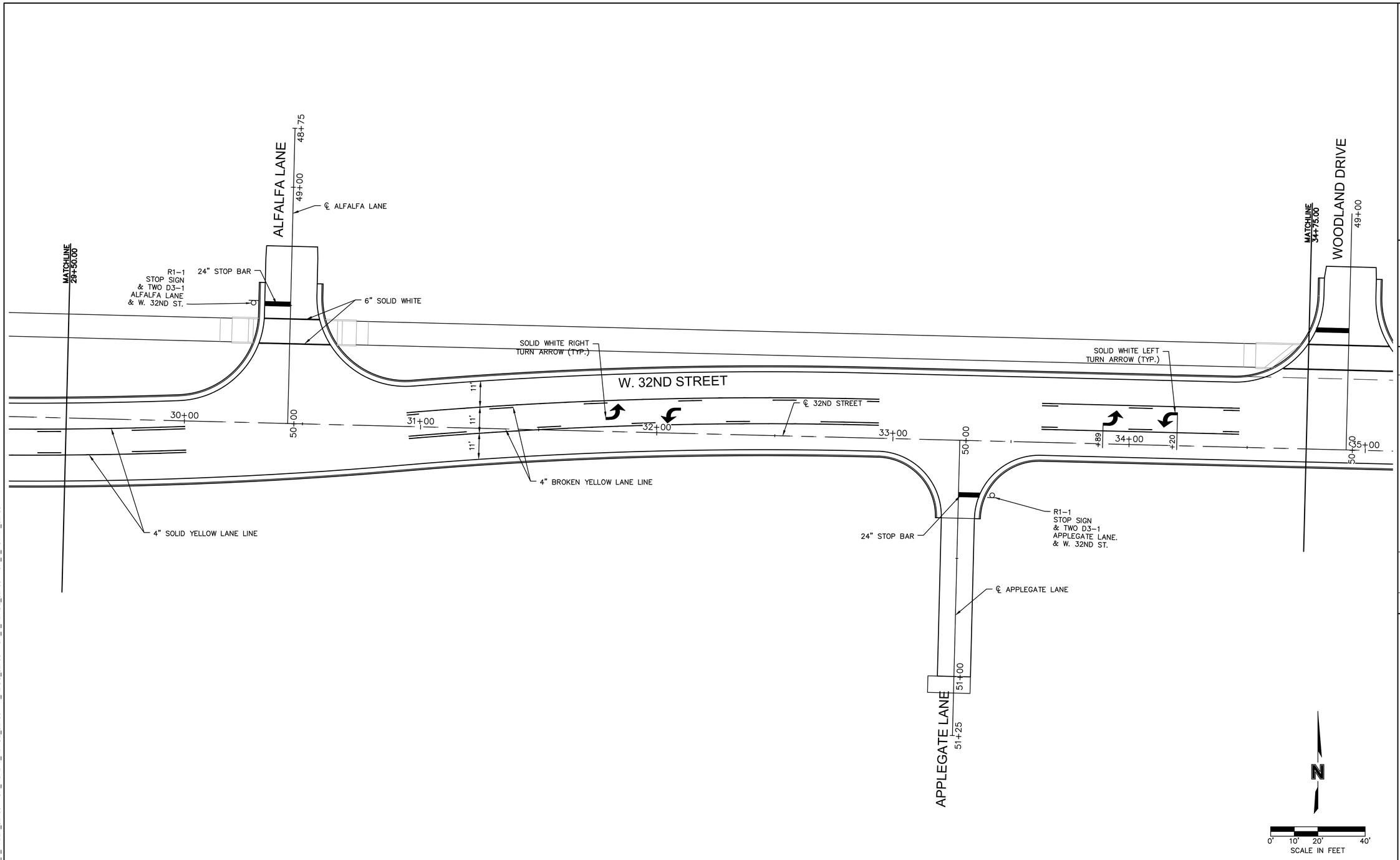
project no.: 015-2768
drawing no.: OA_T_SAS02_52768
date: 04/23/2021

SHEET
A72 of A122



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CITY OF JOPLIN

JOPLIN, MISSOURI

2021

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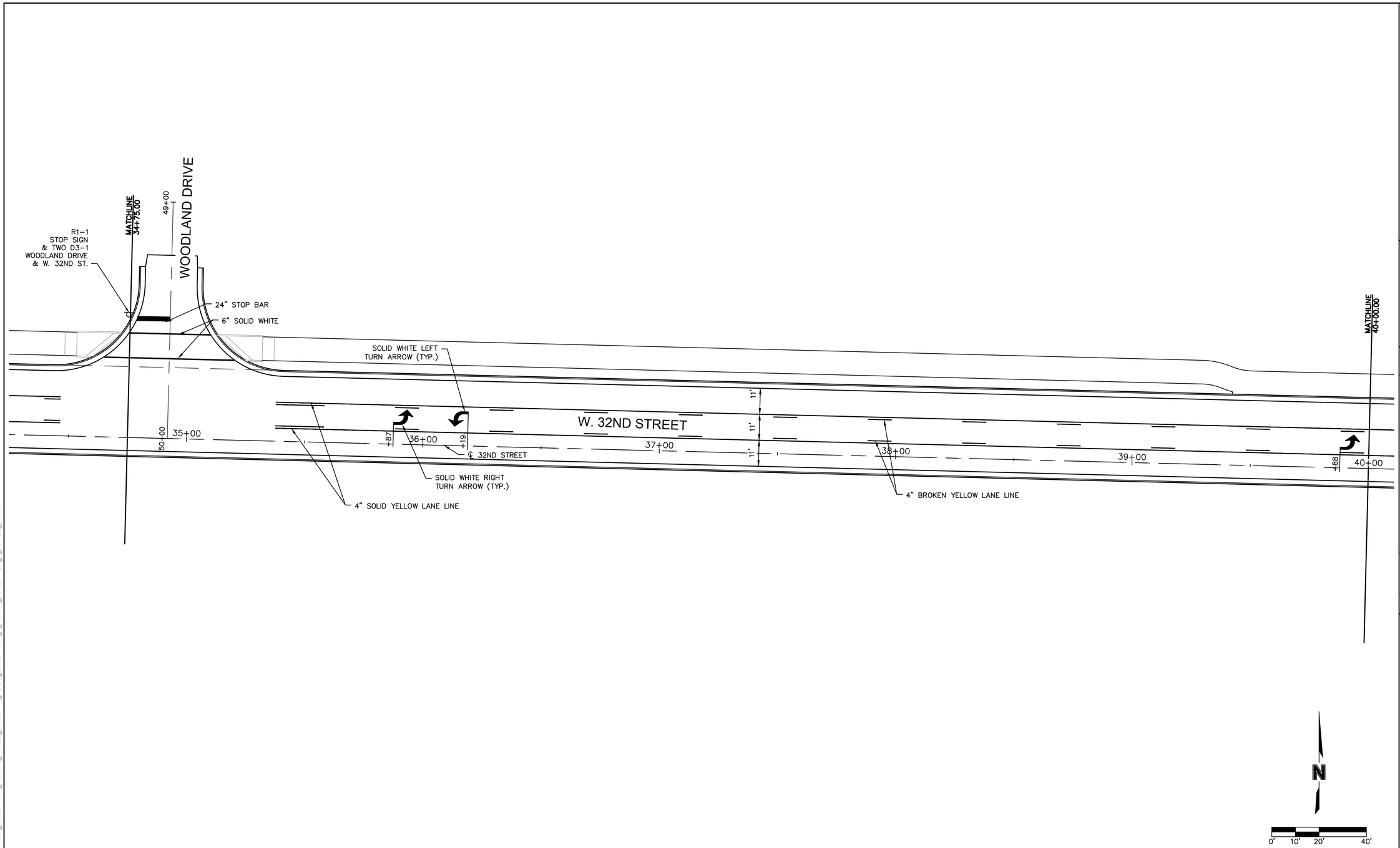
A73 of A122



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32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

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project no.: 015-2768
drawing no.: OA_T_SAS04_52768
date: 04/23/2021

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A74 of A122

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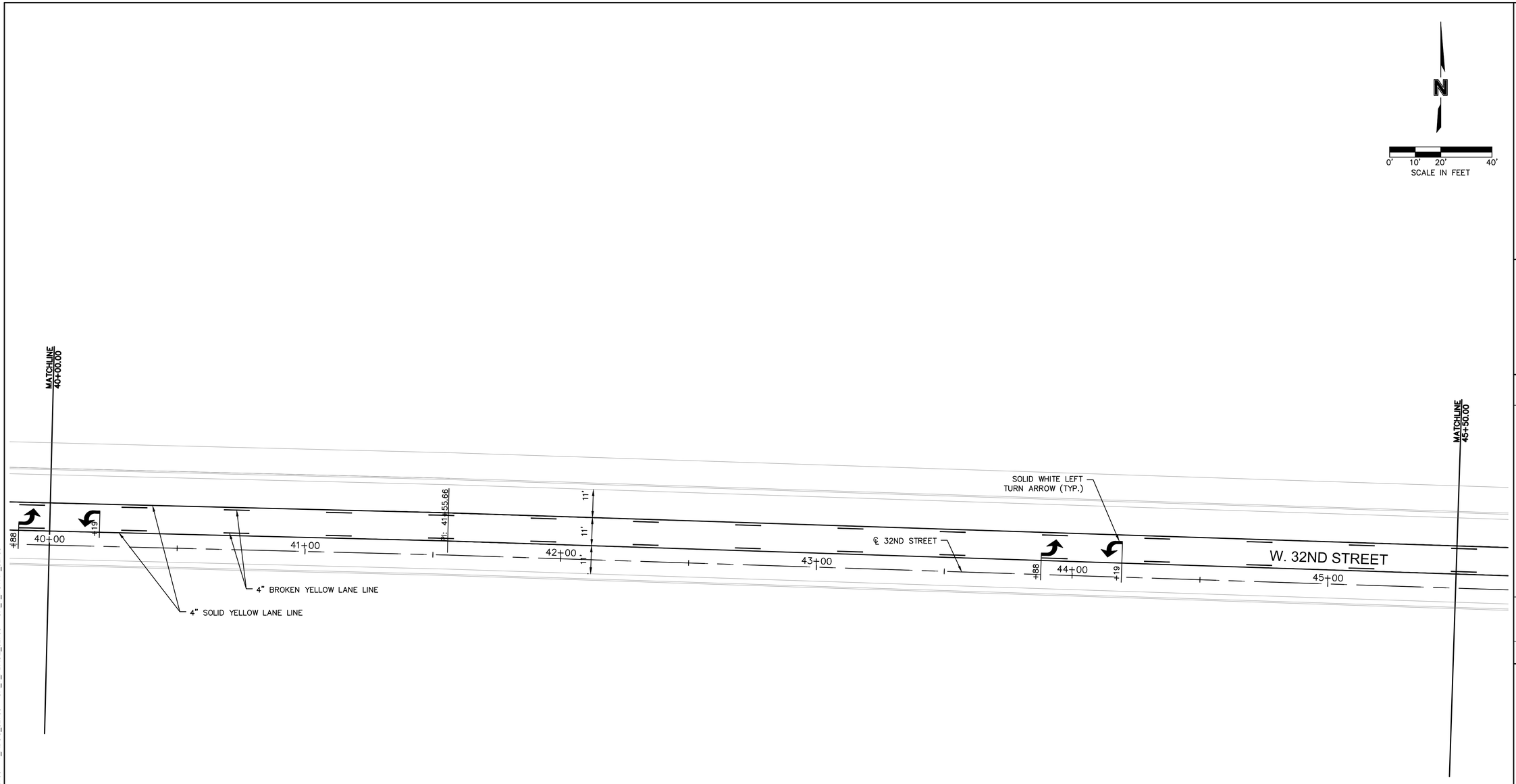

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drawing no.: OA_T_SAS05_52768
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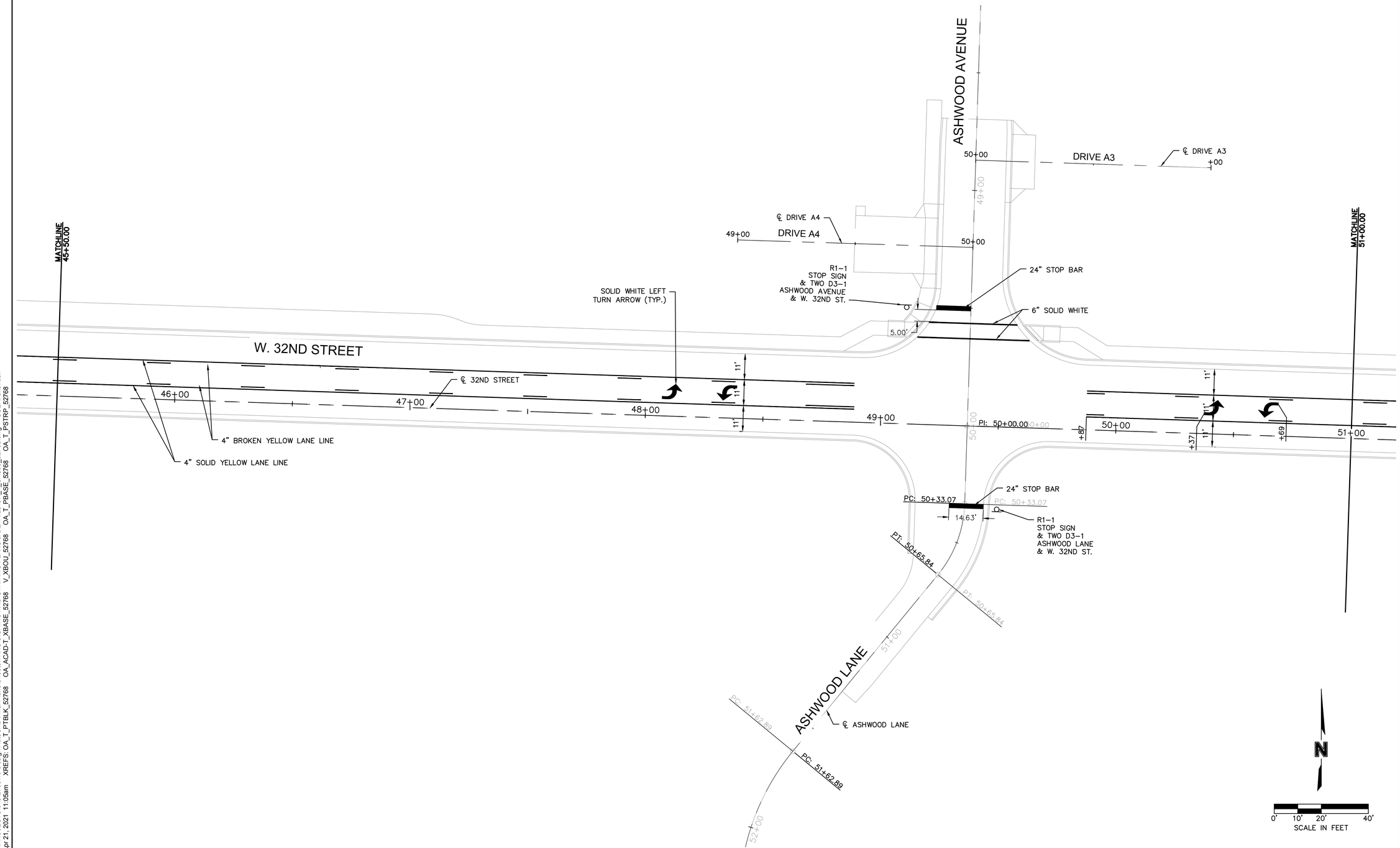

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4/23/2021

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CITY OF JOPLIN

JOPLIN, MISSOURI

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project no.: 015-2768
drawing no.: OA_T_SAS06_52768
date: 04/23/2021

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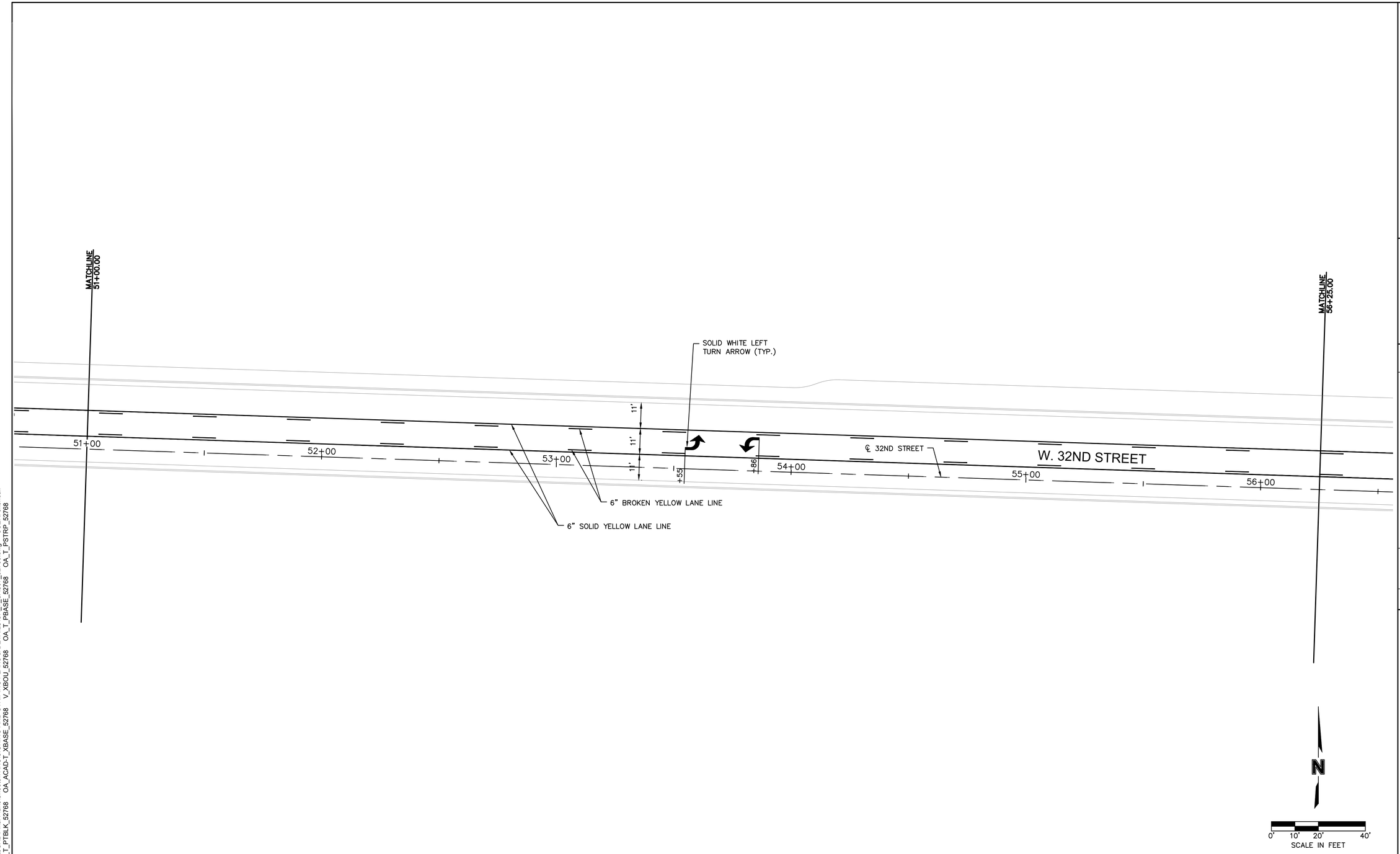
A76 of A122



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32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

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project no.: 015-2768
drawing no.: OA_T_SAS07_52768
date: 04/23/2021

SHEET
A77 of A122

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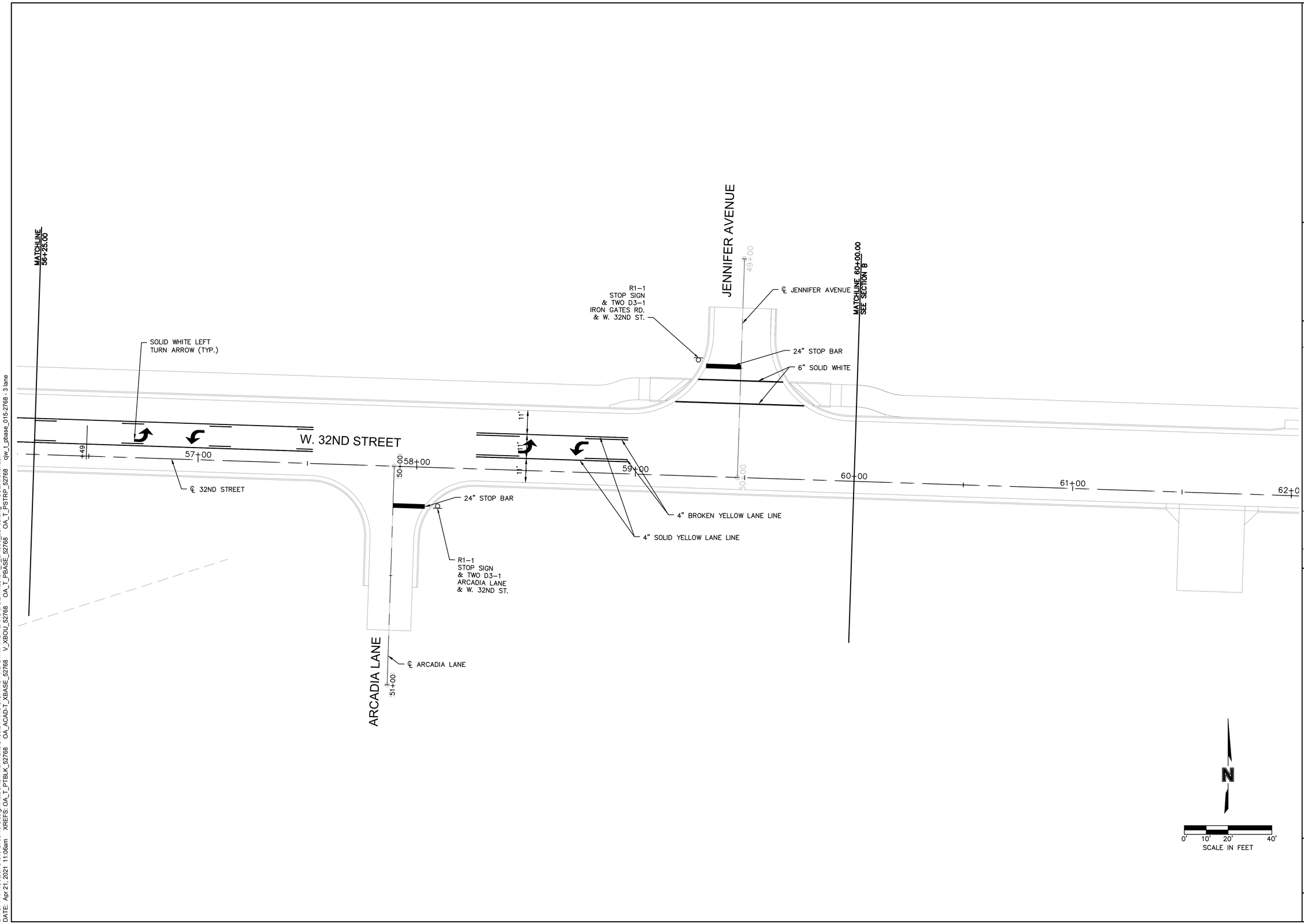

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4/23/2021

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CITY OF JOPLIN

JOPLIN, MISSOURI

2021

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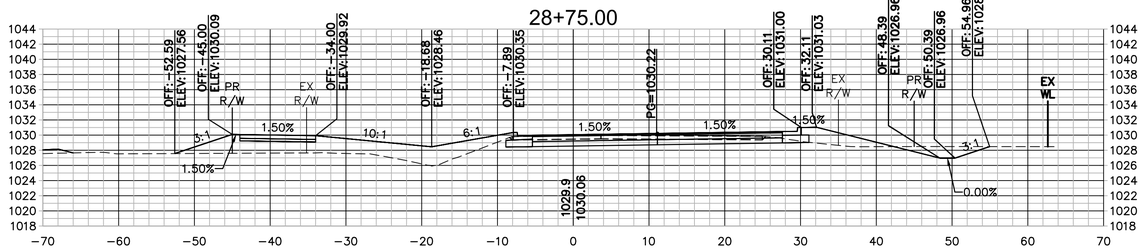
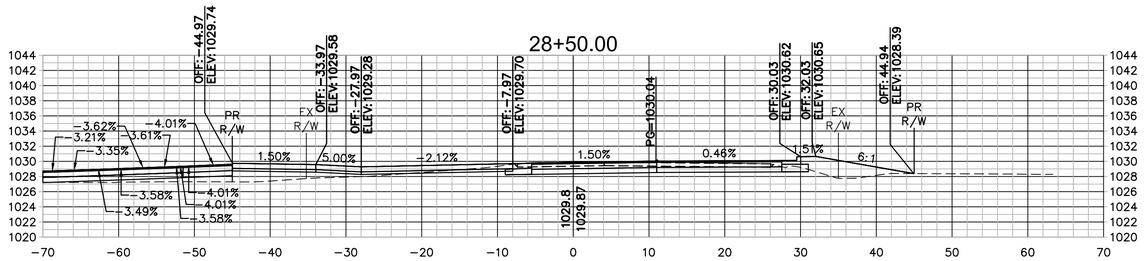
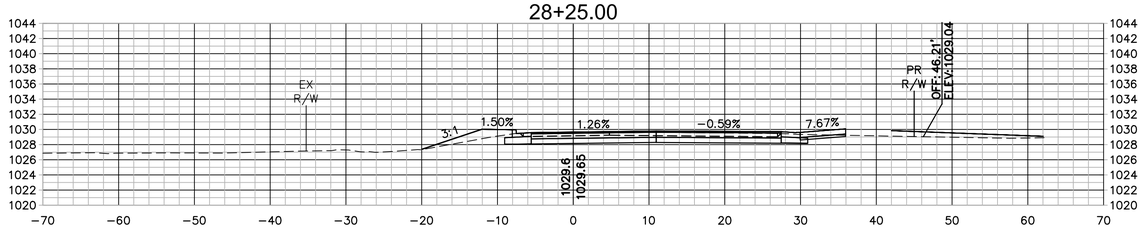
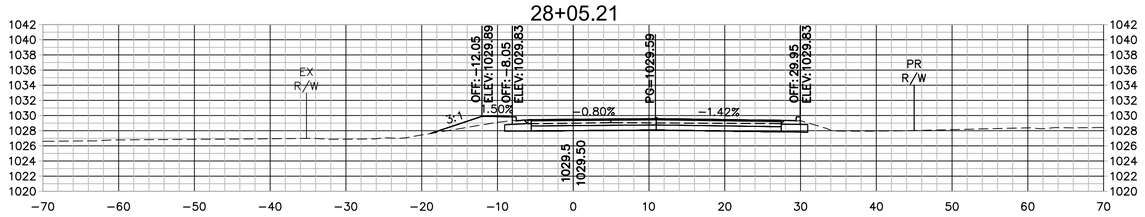
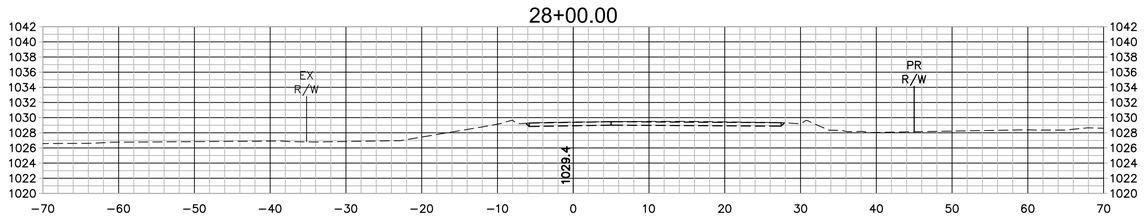
SHEET
A78 of A122

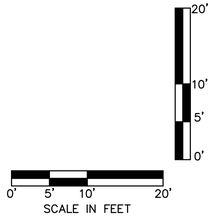












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STATE OF MISSOURI
BRIAN COOMES
Brian Coomes
04/23/2021
NUMBER PE-2015029306
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REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

CROSS SECTIONS - 32ND STREET

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by: JKL & NJJ
checked by: BMC & JKL
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QA/QC by: PM
project no.: 015-2768
drawing no.: OA_T_XSC_52768
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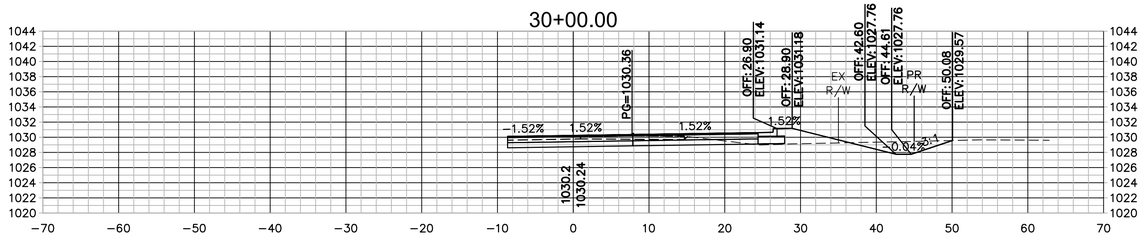
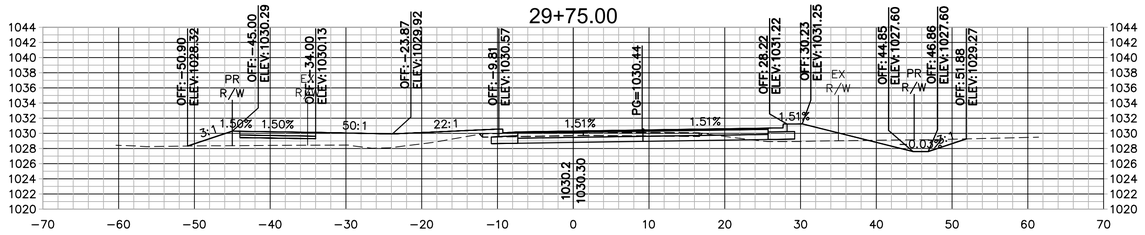
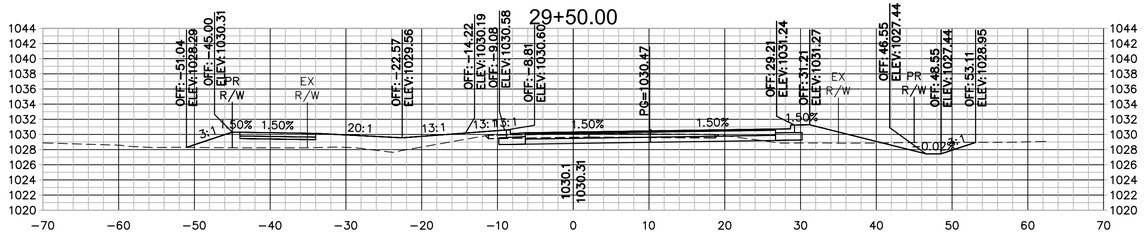
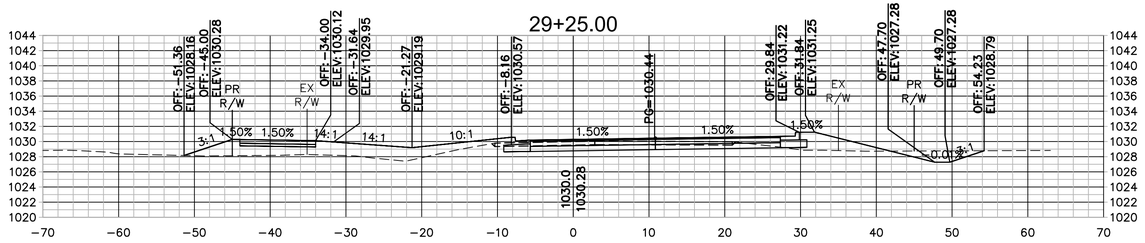
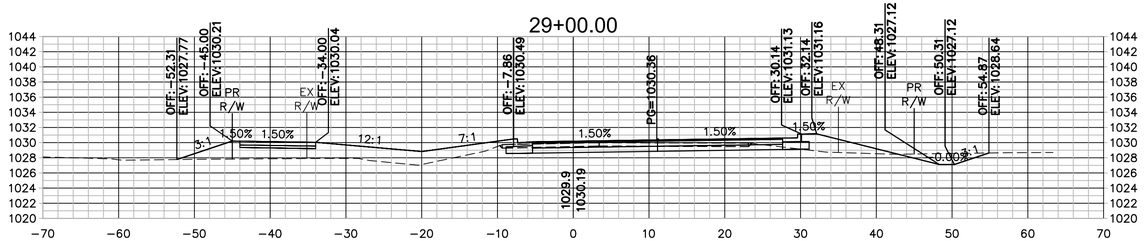
SHEET
A79 of A122

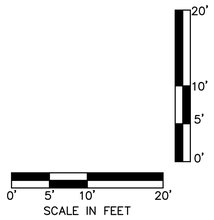












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CROSS SECTIONS - 32ND STREET

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

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SHEET
A80 of A122

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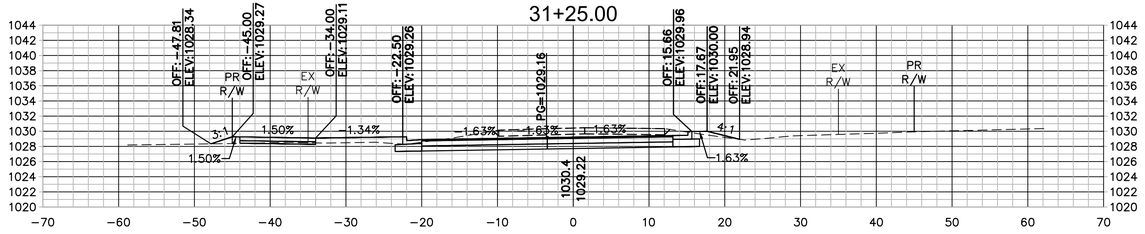

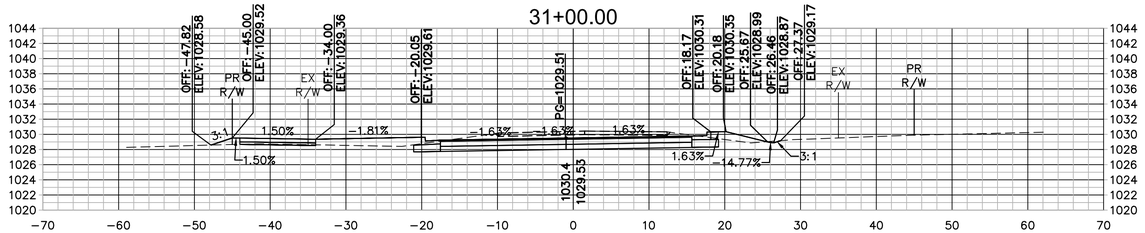

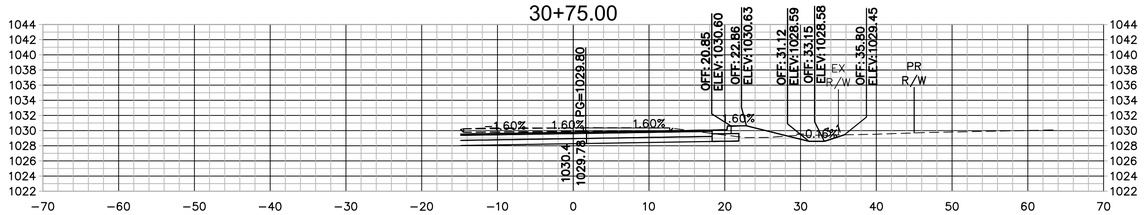

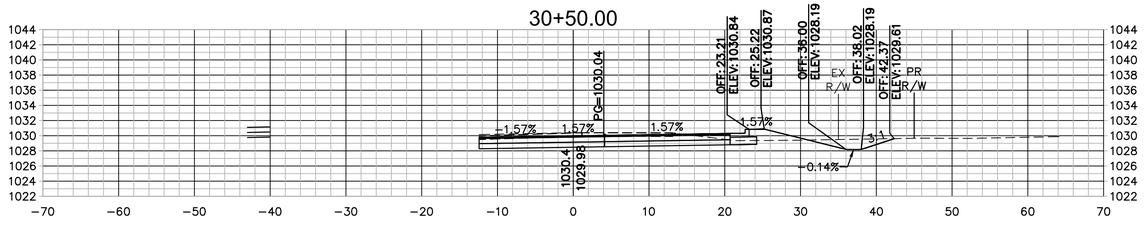

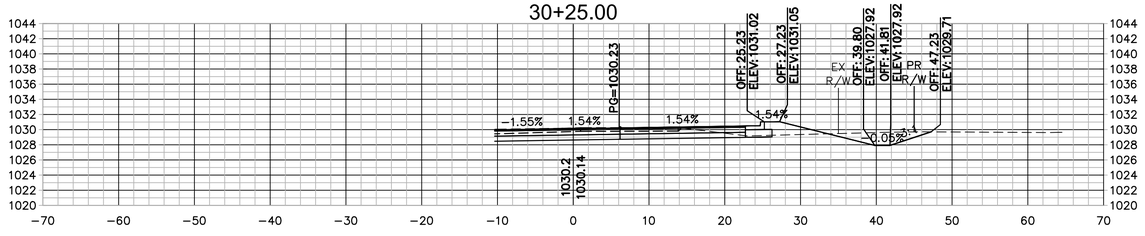

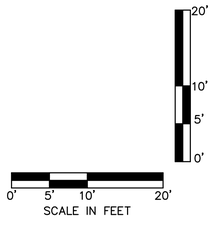

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BRIAN COOMES
Brian Coomes
04/23/2021
NUMBER PE-2015029306
PROFESSIONAL ENGINEER

REVISIONS

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

CROSS SECTIONS - 32ND STREET

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by:	JKL & NJJ
checked by:	BMC & JKL
approved by:	BMC
QA/QC by:	PM
project no.:	015-2768
drawing no.:	OA_T_XSC_52768
date:	04/23/2021

SHEET
A81 of A122

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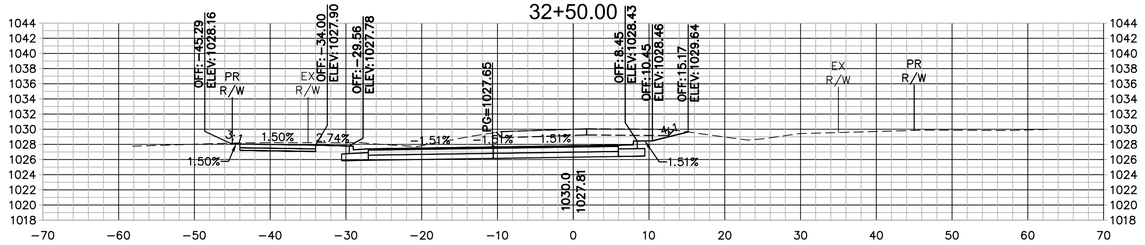

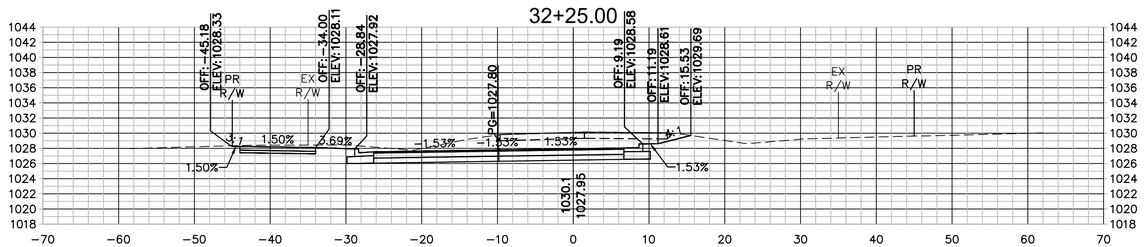

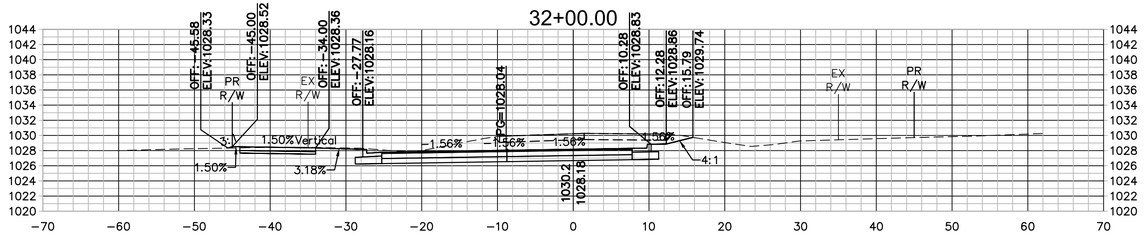

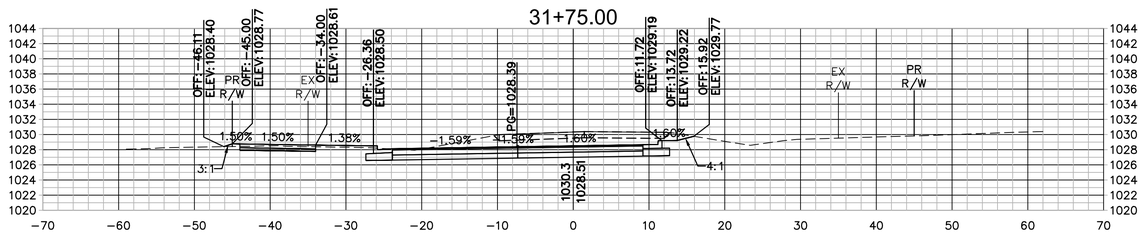

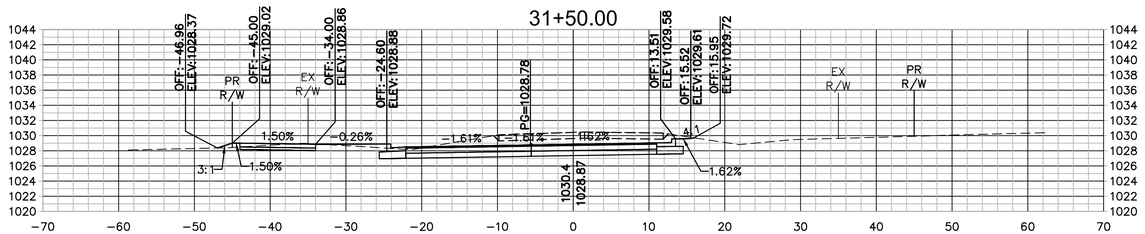

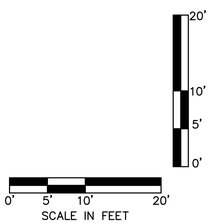

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CROSS SECTIONS - 32ND STREET

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by:	JKL & NJJ
checked by:	BMC & JKL
approved by:	BMC
QA/QC by:	PM
project no.:	015-2768
drawing no.:	OA_T_XSC_52768
date:	04/23/2021

SHEET
A82 of A122

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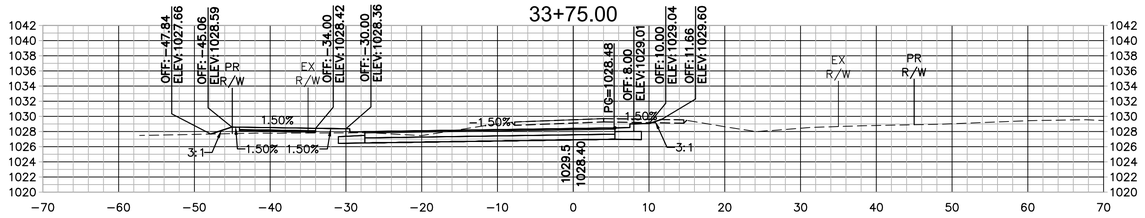

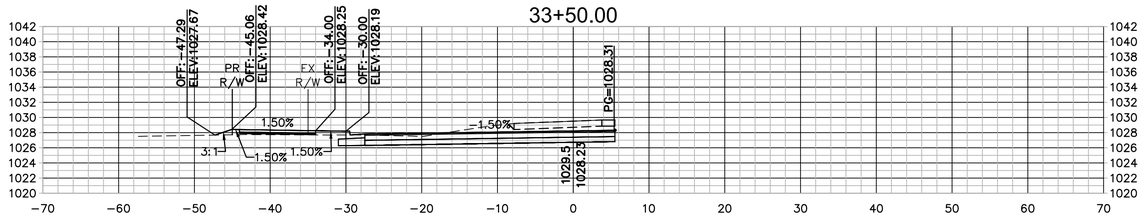

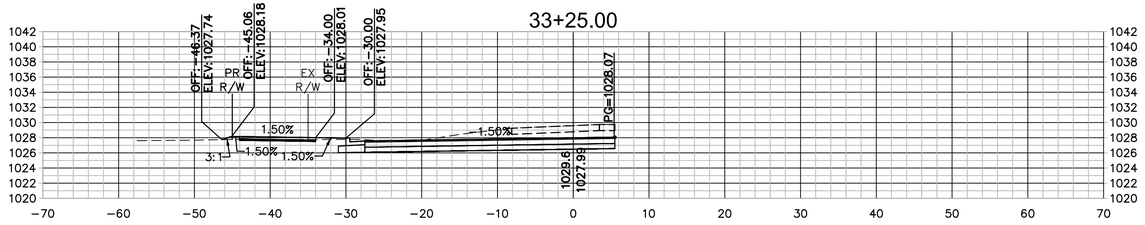

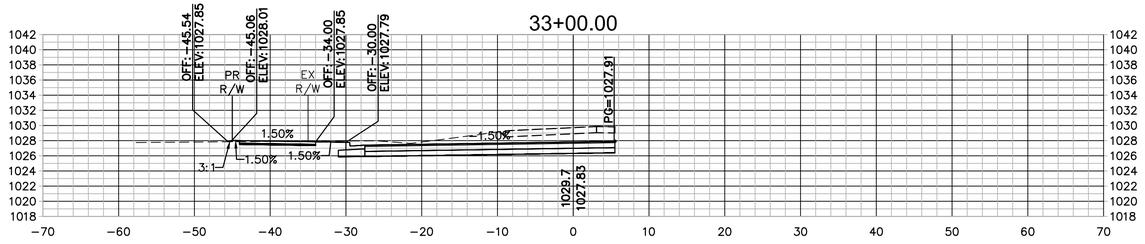

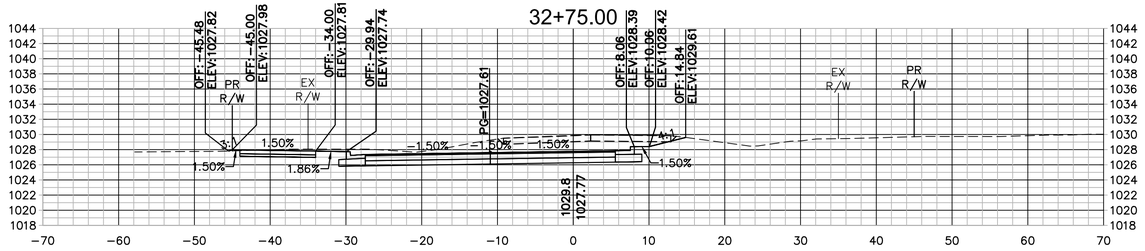

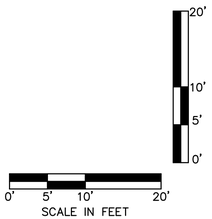

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32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by: JKL & NJJ
checked by: BMC & JKL
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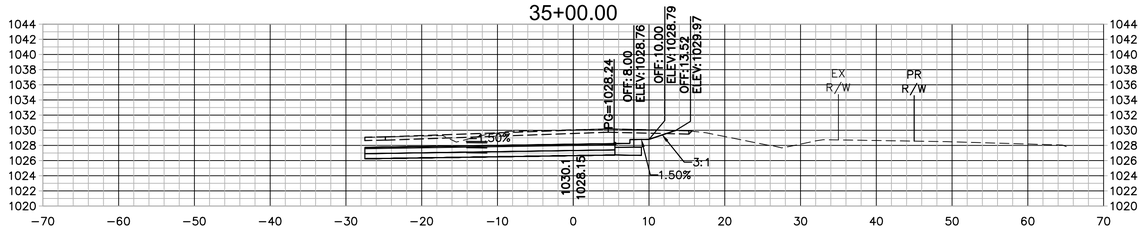
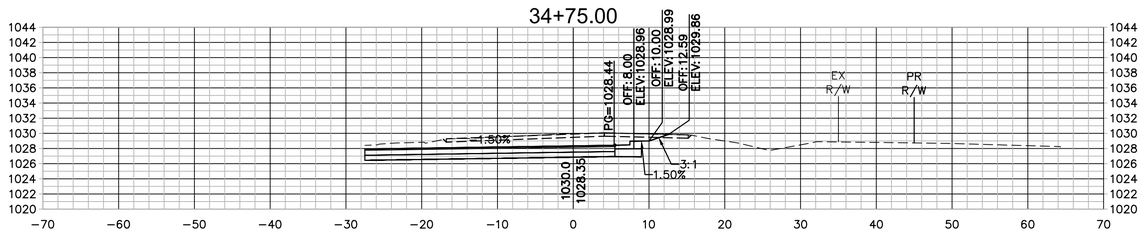
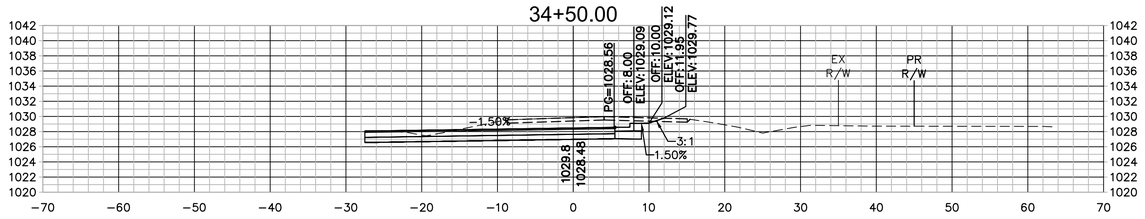
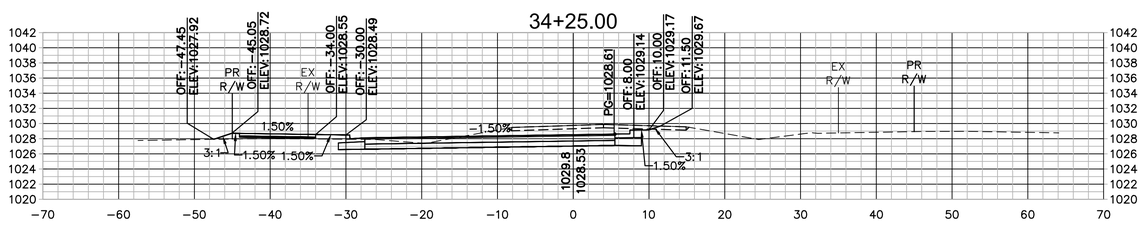
QA/QC by: PM
project no.: 015-2768
drawing no.: OA_T_XSC_52768
date: 04/23/2021

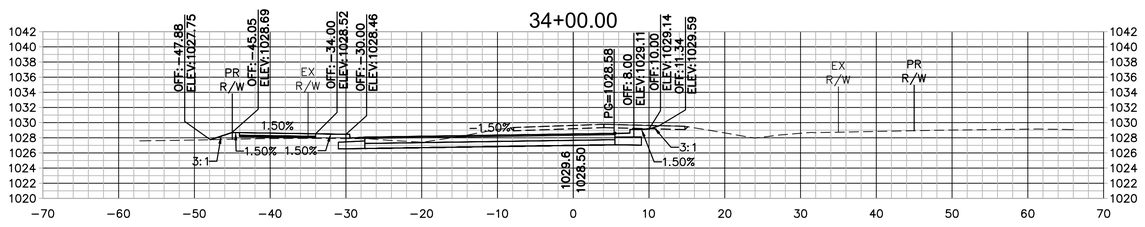
SHEET
A83 of A122

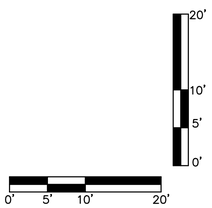












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REVISIONS

CROSS SECTIONS - 32ND STREET

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by: JKL & NJJ
checked by: BMC & JKL
approved by: BMC
QA/QC by: PM
project no.: 015-2768
drawing no.: OA_T_XSC_52768
date: 04/23/2021

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A84 of A122

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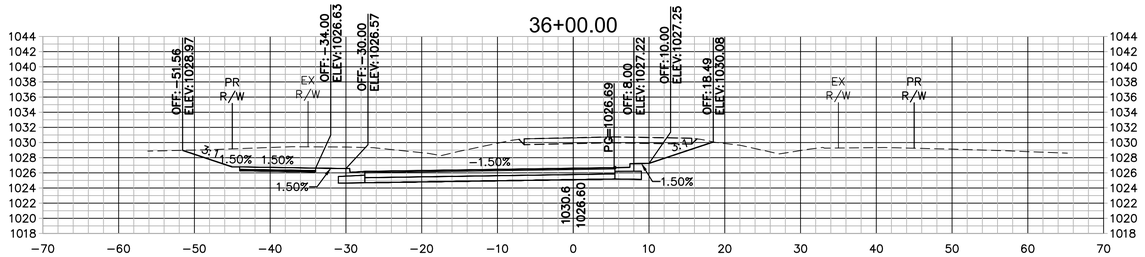

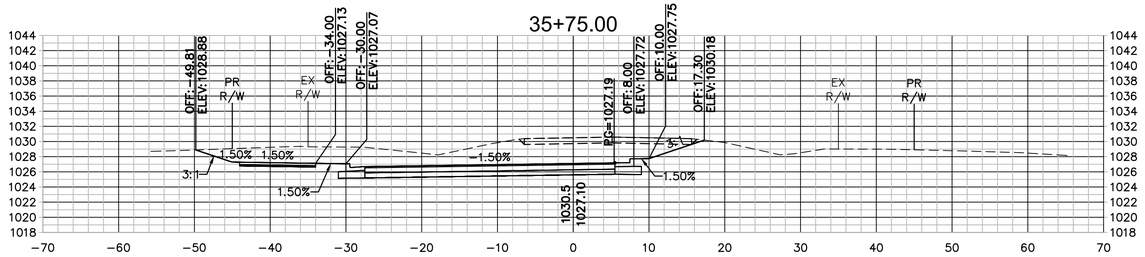

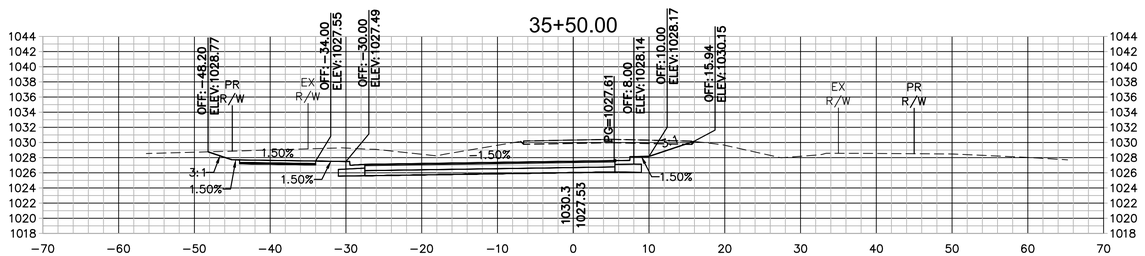

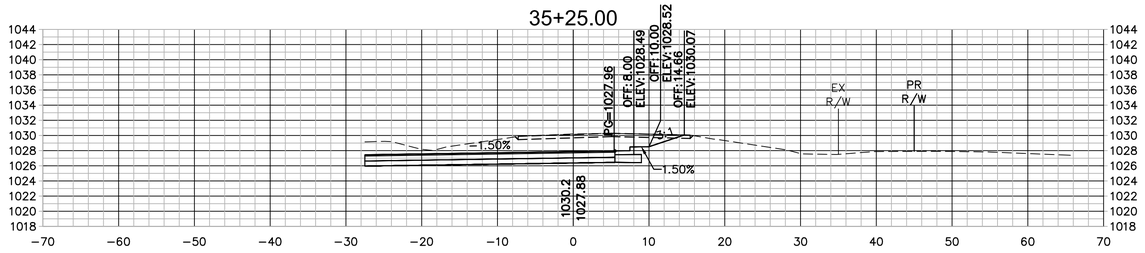

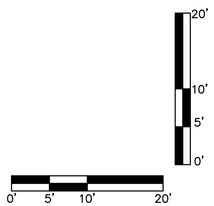

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REVISIONS

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CROSS SECTIONS - 32ND STREET

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by: JKL & NJJ
checked by: BMC & JKL
approved by: BMC
QA/QC by: PM
project no.: 015-2768
drawing no.: OA_T_XSC_52768
date: 04/23/2021

SHEET
A85 of A122

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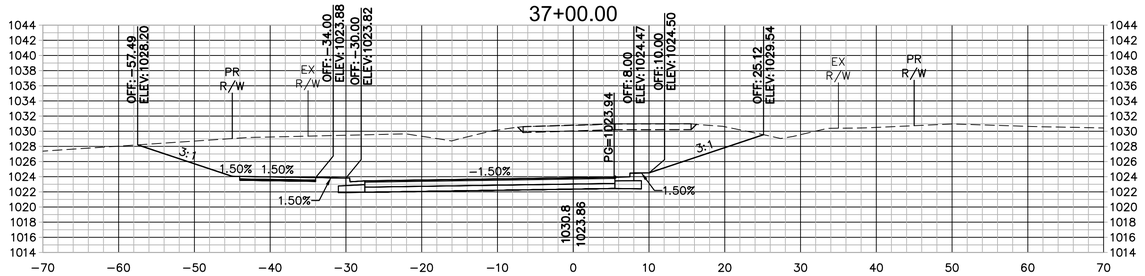

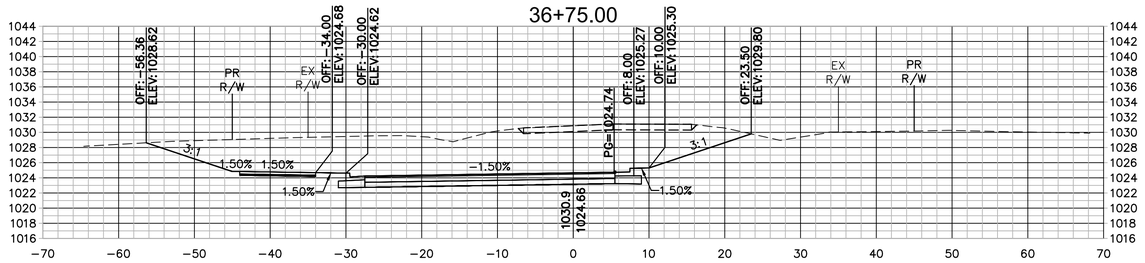

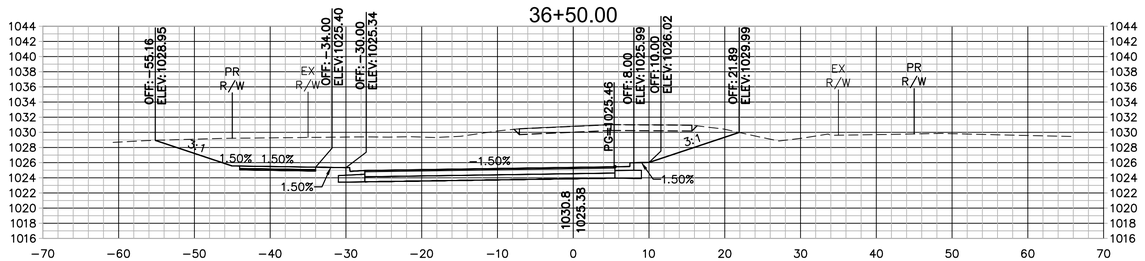

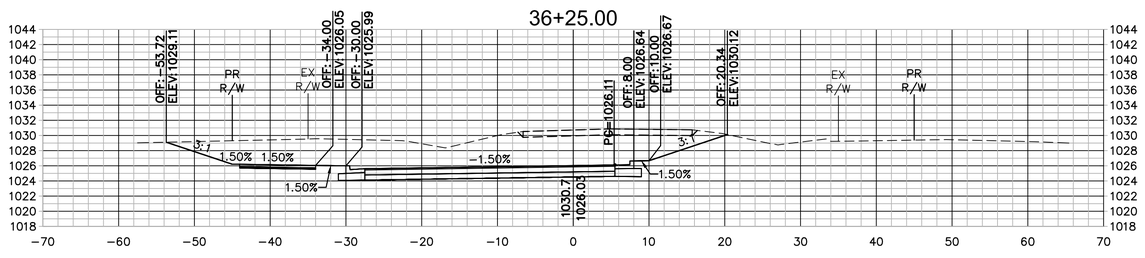

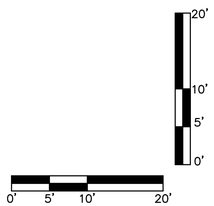

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REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

CROSS SECTIONS - 32ND STREET

32ND STREET WIDENING
CITY OF JOPLIN

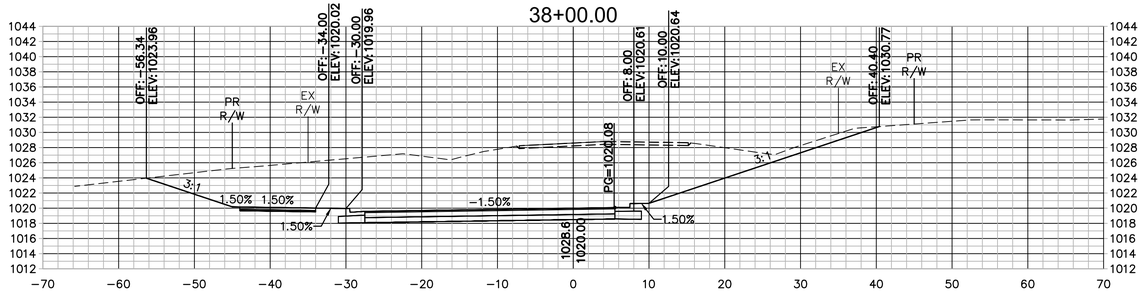
JOPLIN, MISSOURI

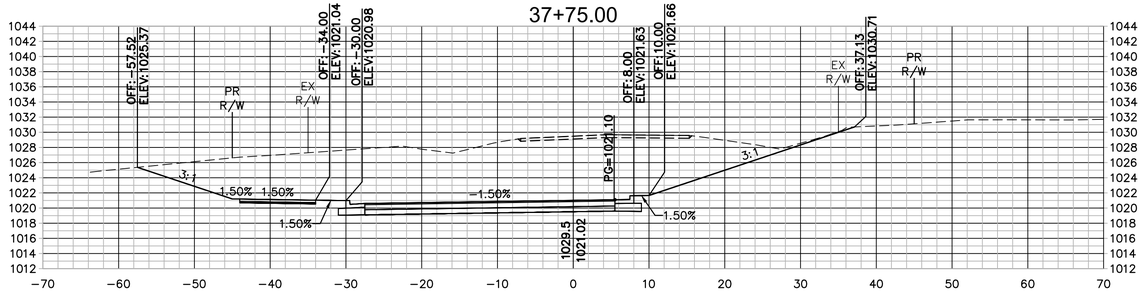
2021

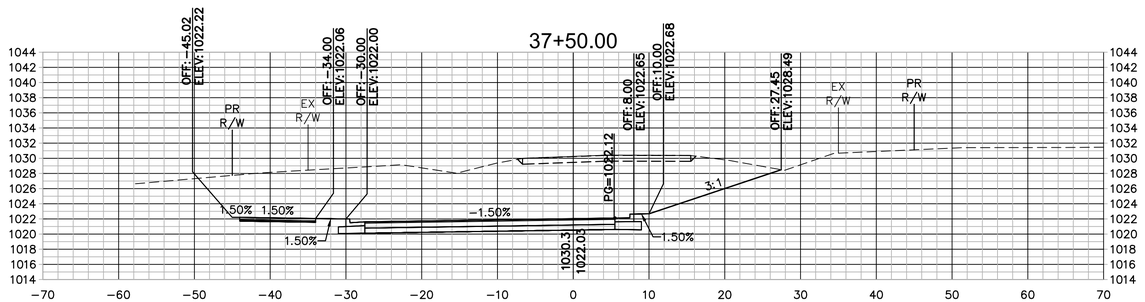
drawn by:	JKL & NJJ
checked by:	BMC & JKL
approved by:	BMC
QA/QC by:	PM
project no.:	015-2768
drawing no.:	OA_T_XSC_52768
date:	04/23/2021

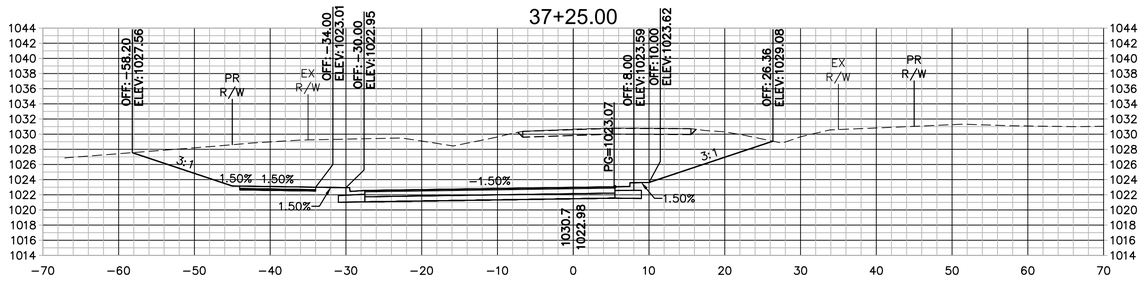
SHEET
A86 of A122

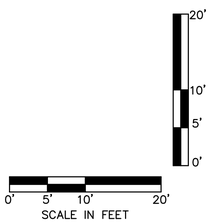
DWG: F:\PROJECTS\015-2768\40-Design\AutoCAD\Final Plans\Sheets\TRNS\CROSS SECTIONS\OA_T_XSC_52768.dwg USER: skendall
DATE: Apr 21, 2021 11:10am XREFS: OA_T_PTBLK_52768











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REVISIONS

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CROSS SECTIONS - 32ND STREET

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by:	JKL & NJJ
checked by:	BMC & JKL
approved by:	BMC
QA/QC by:	PM
project no.:	015-2768
drawing no.:	OA_T_XSC_52768
date:	04/23/2021

SHEET
A87 of A122

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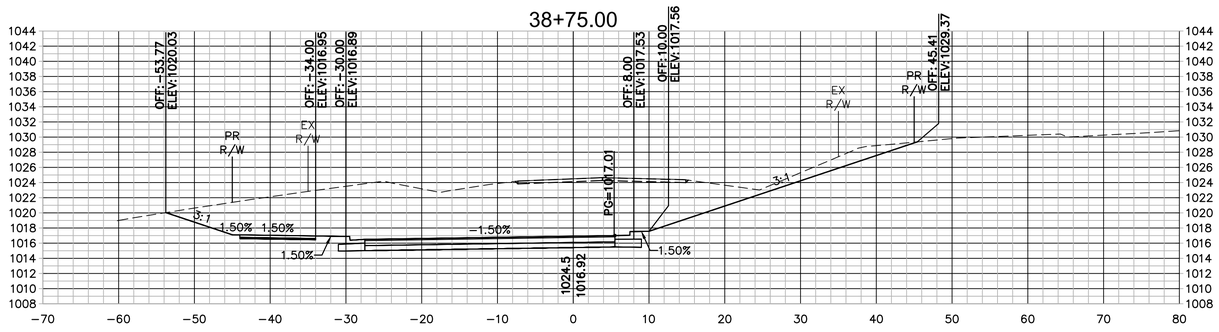

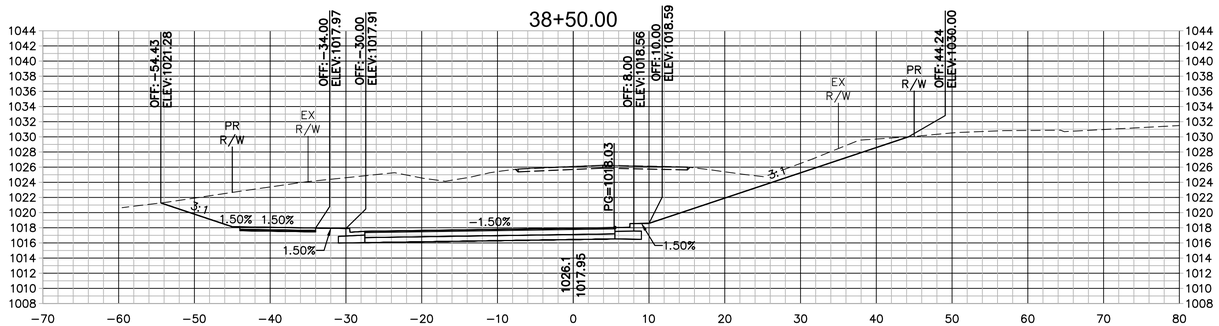

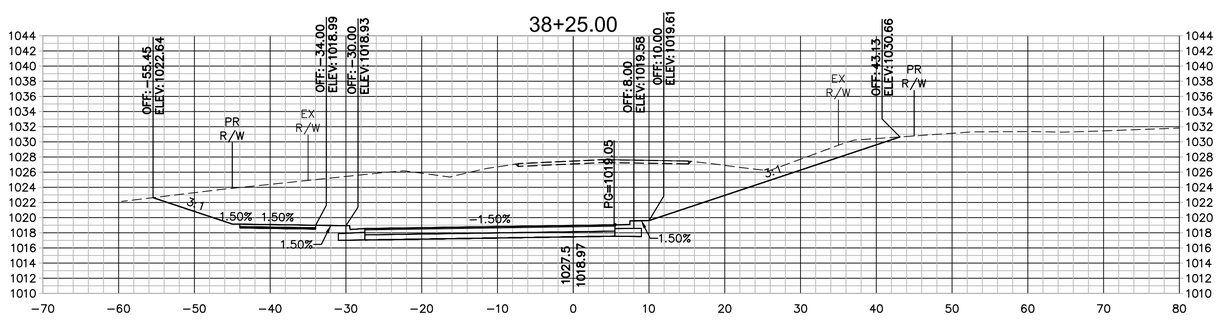

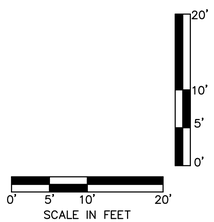

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32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by:	JKL & NJJ
checked by:	BMC & JKL
approved by:	BMC
QA/QC by:	PM
project no.:	015-2768
drawing no.:	OA_T_XSC_52768
date:	04/23/2021

SHEET
A88 of A122

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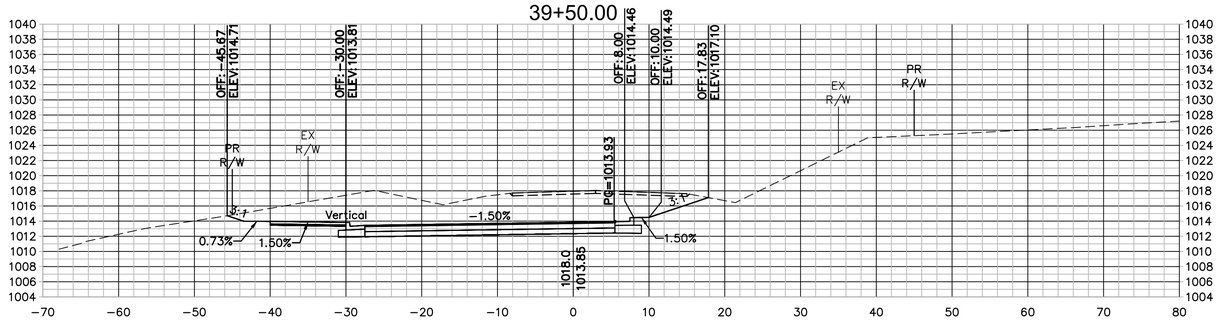

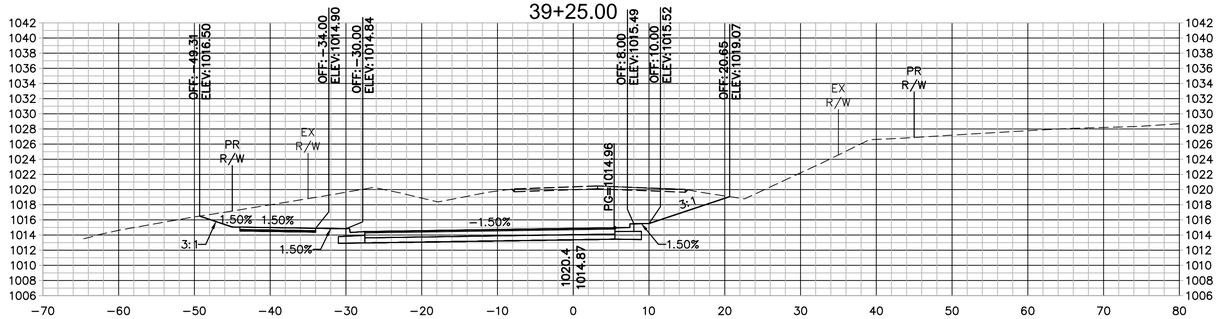

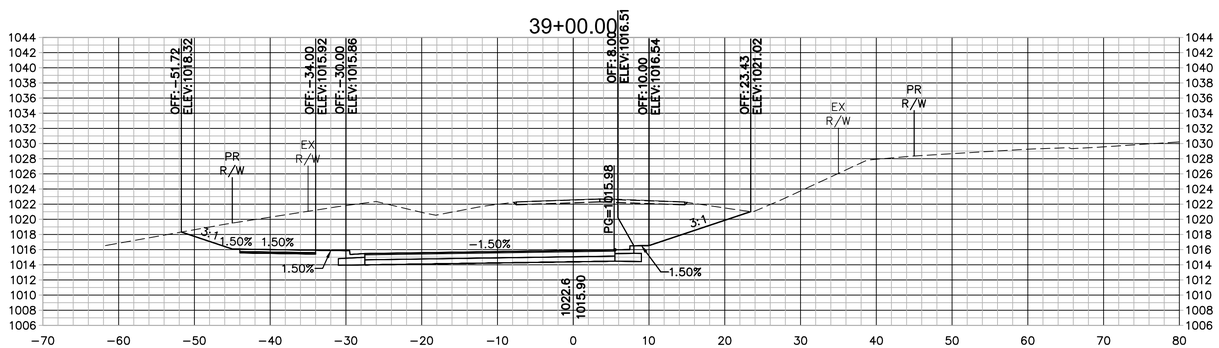

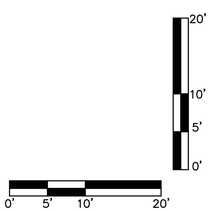

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CITY OF JOPLIN

JOPLIN, MISSOURI

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SHEET
A89 of A122

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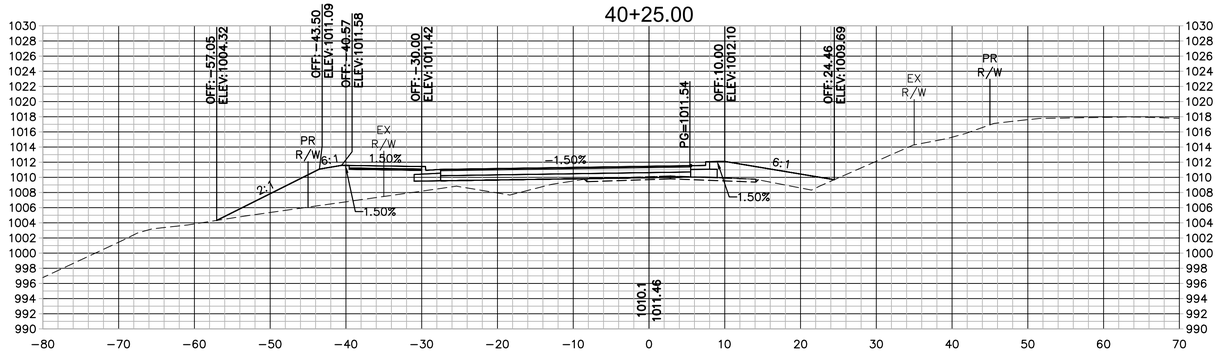

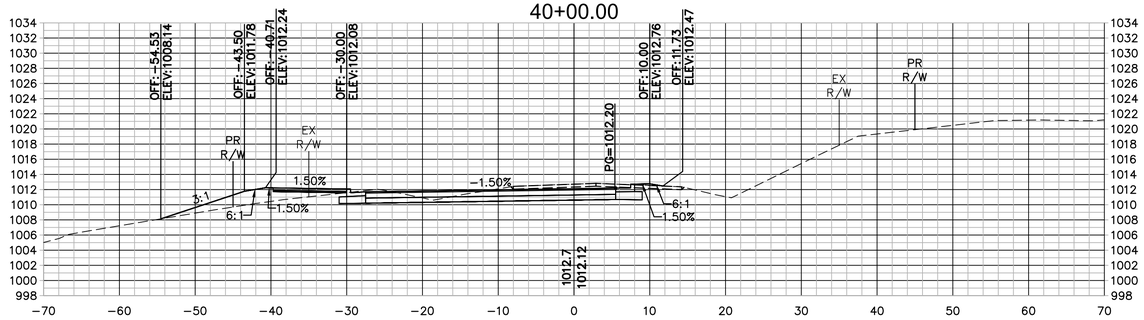

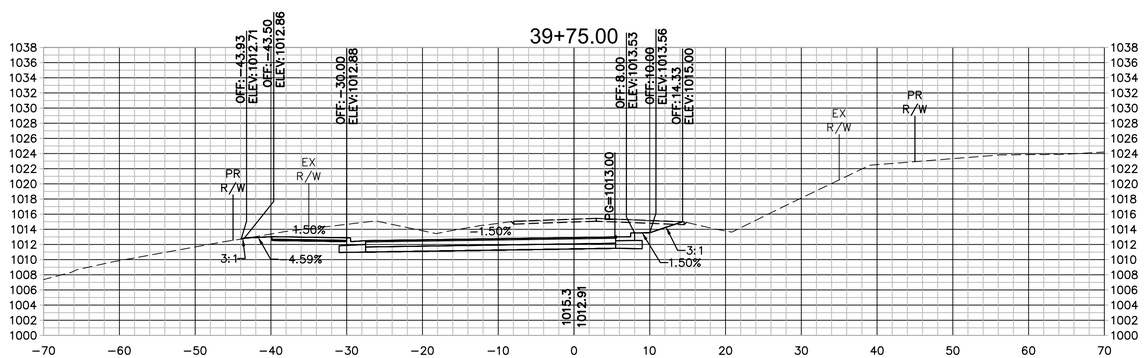

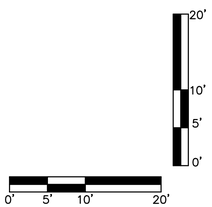

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SHEET
A90 of A122

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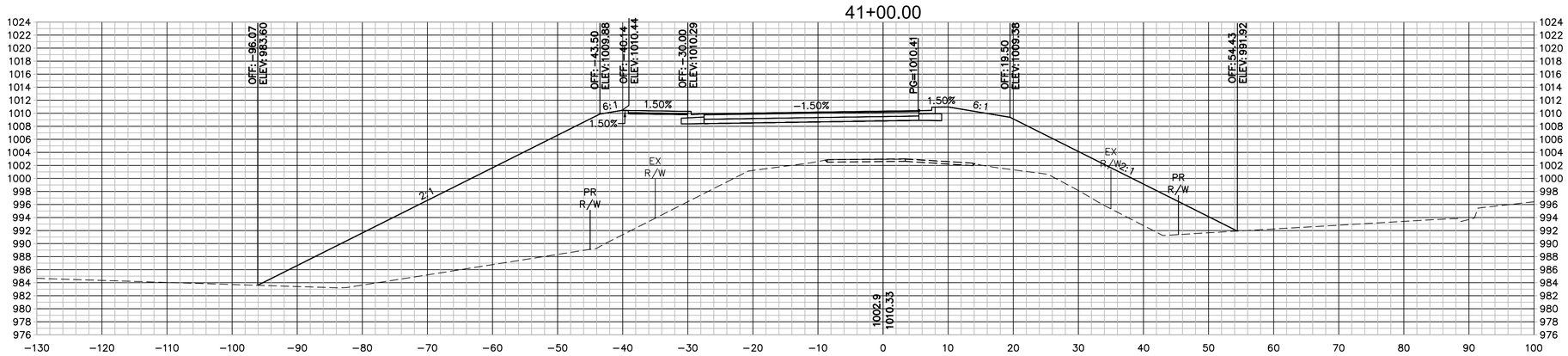

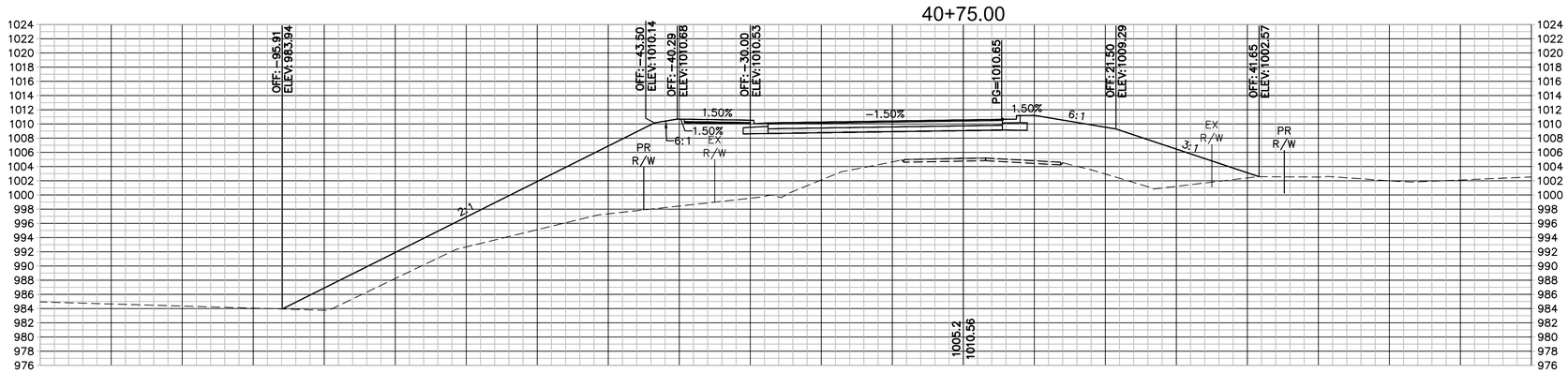

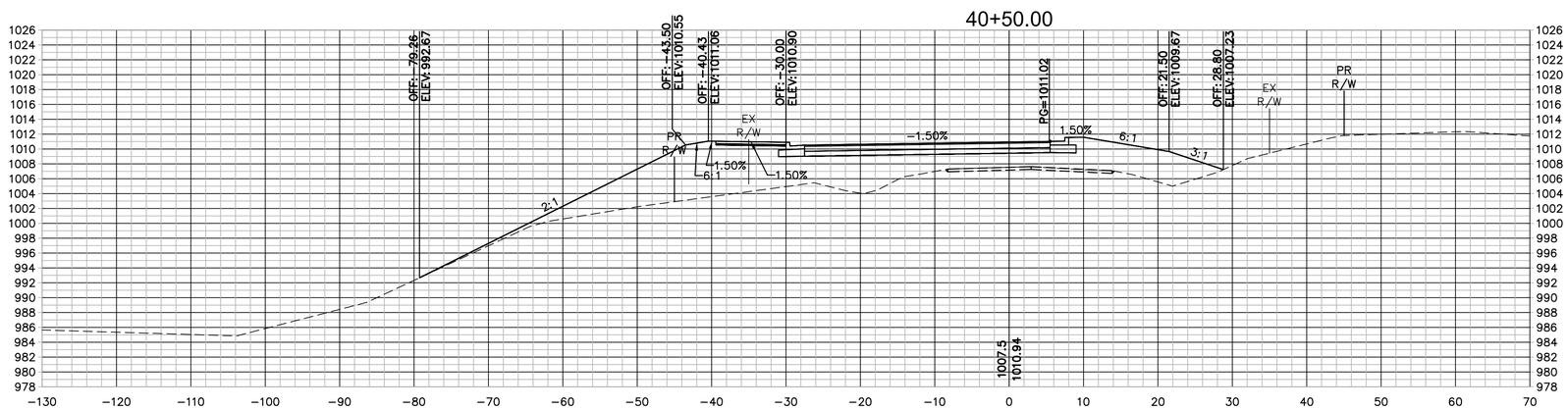

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0' 5' 10' 20'
0' 5' 10' 20'

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SHEET
A91 of A122

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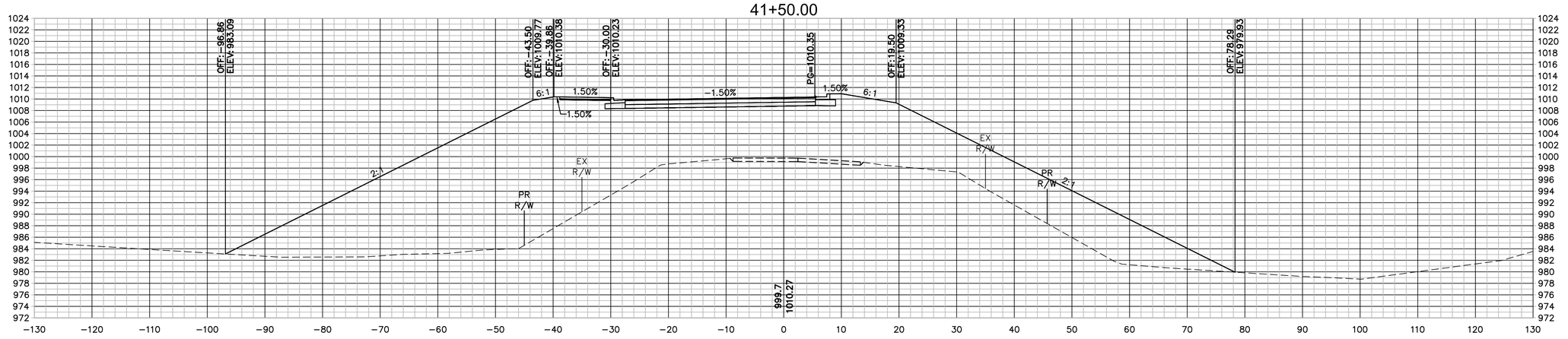

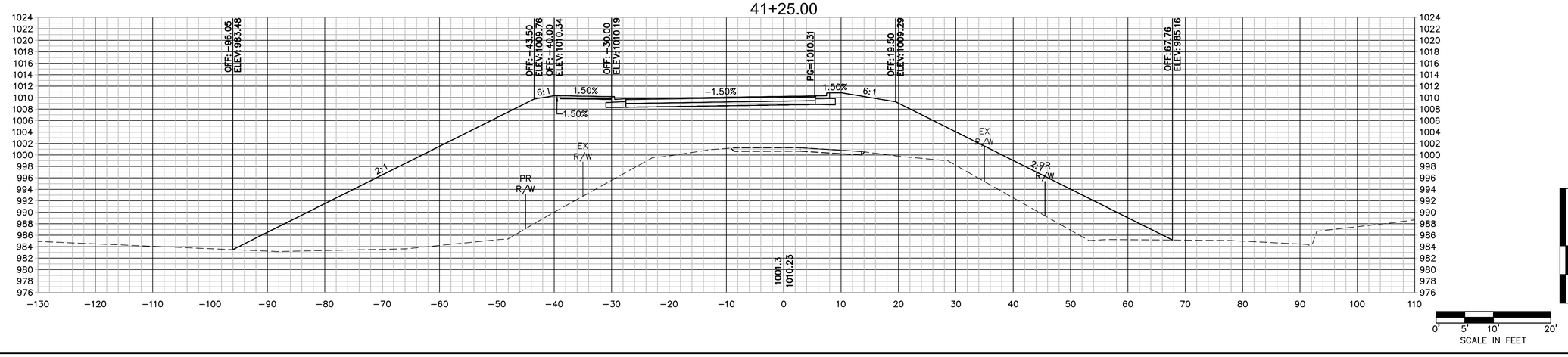

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A92 of A122

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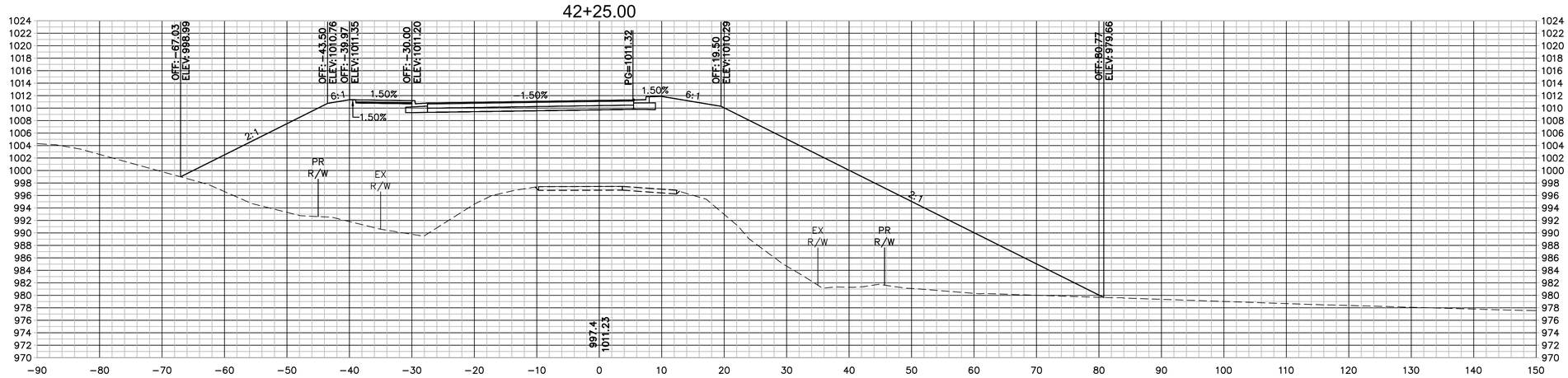

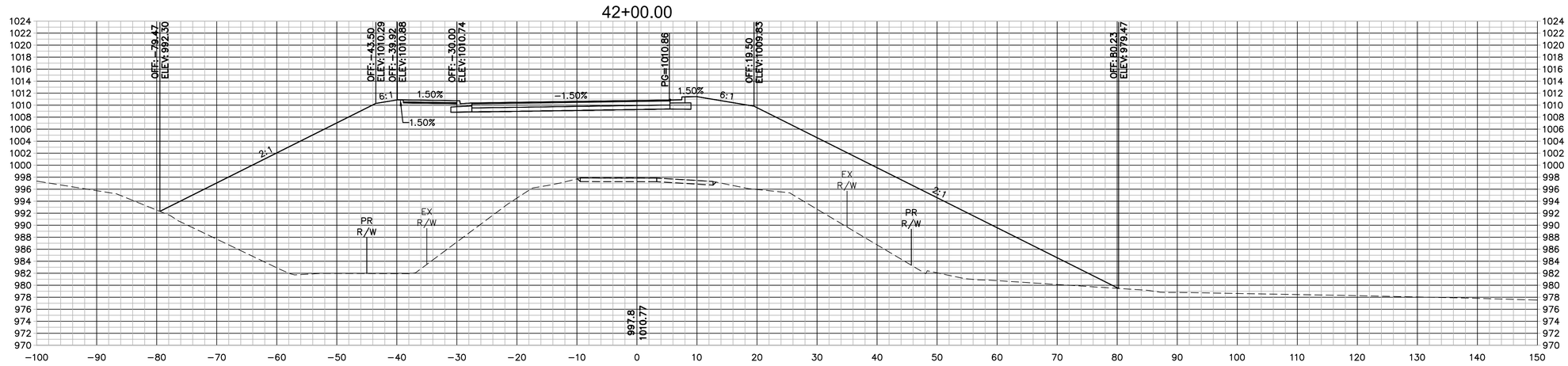

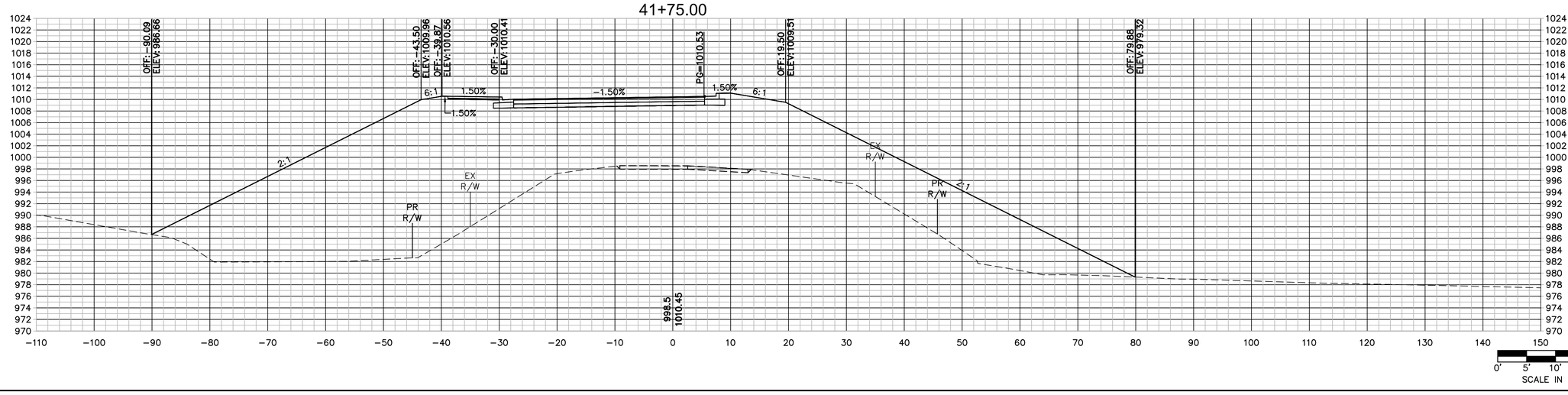

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A93 of A122

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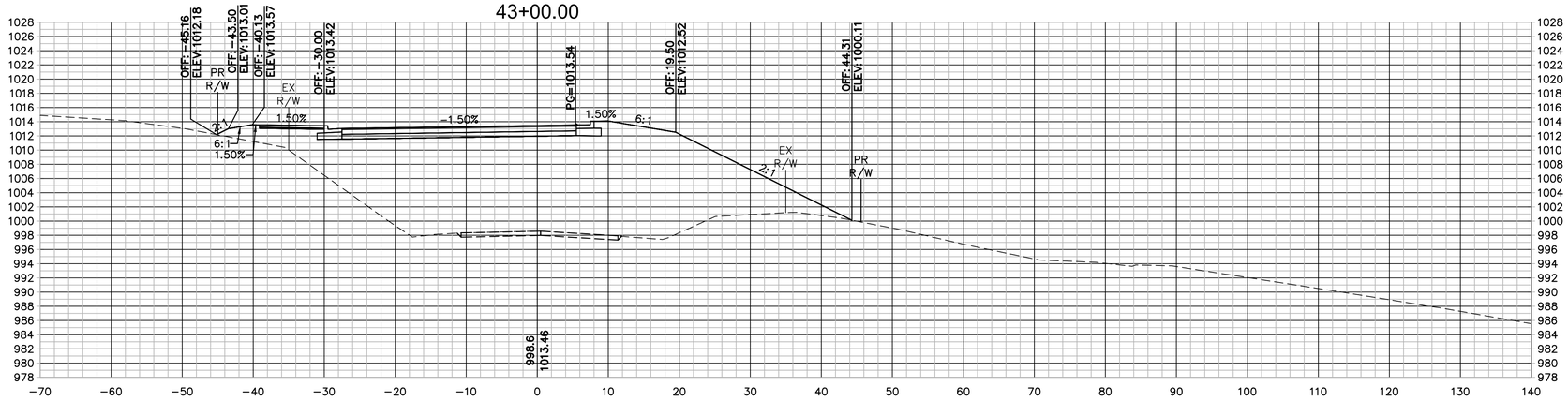

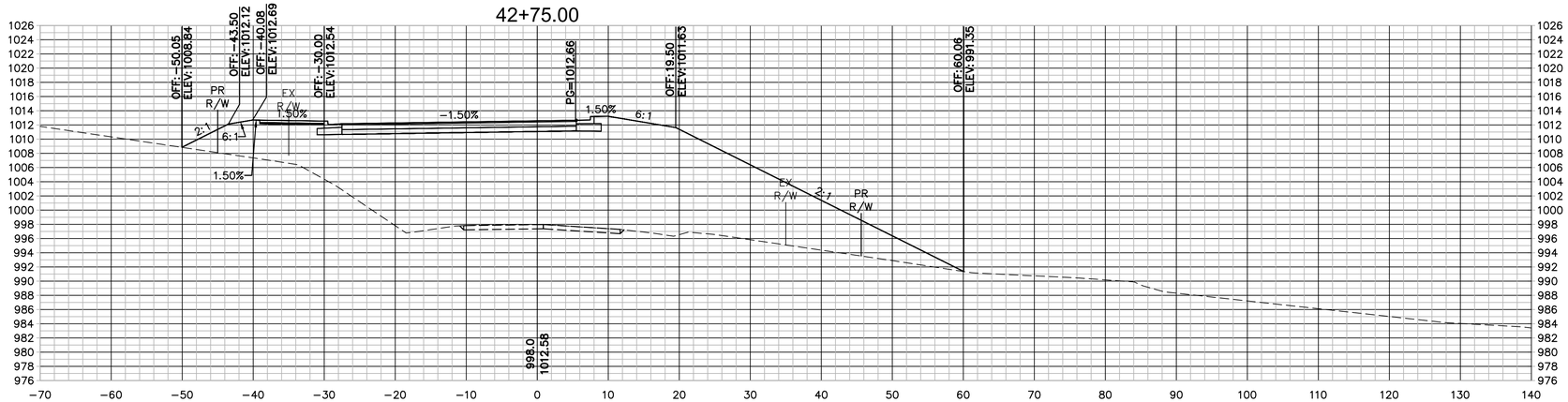

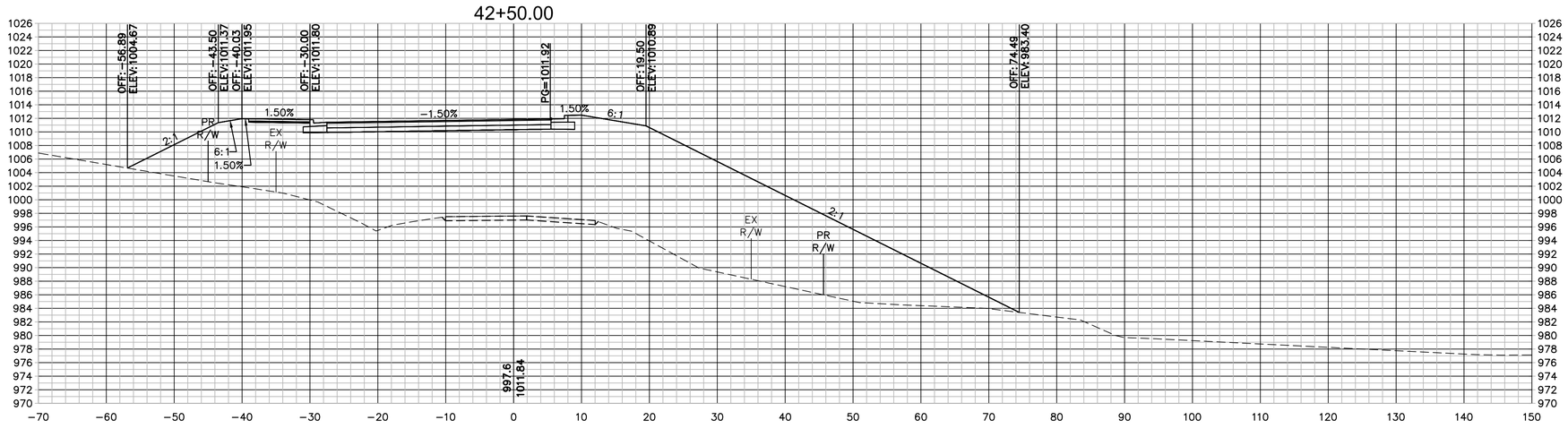

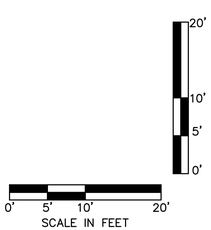

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A94 of A122

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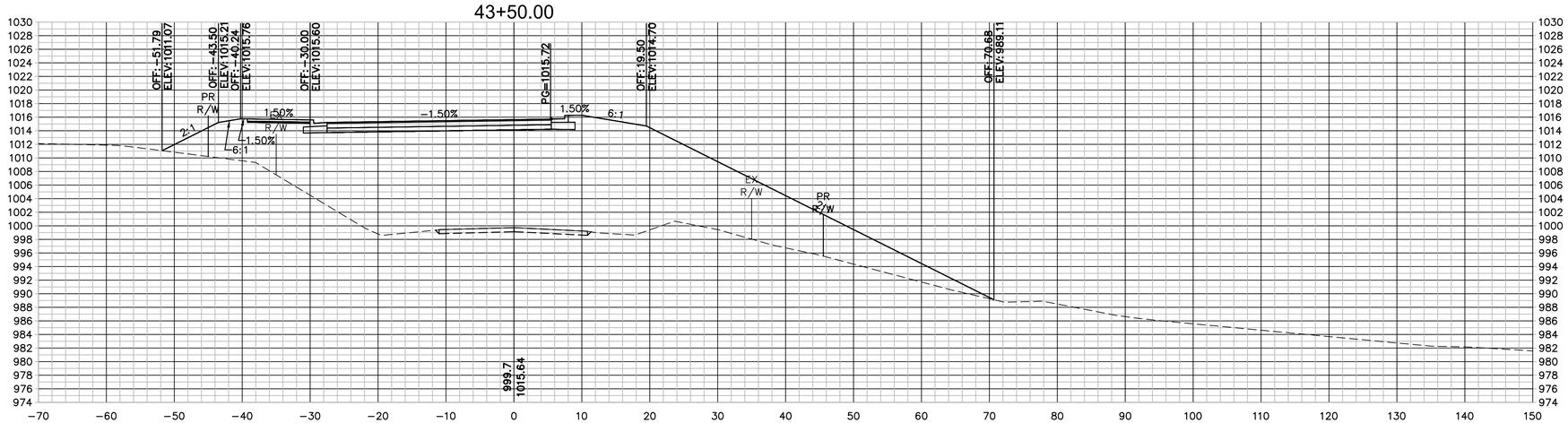

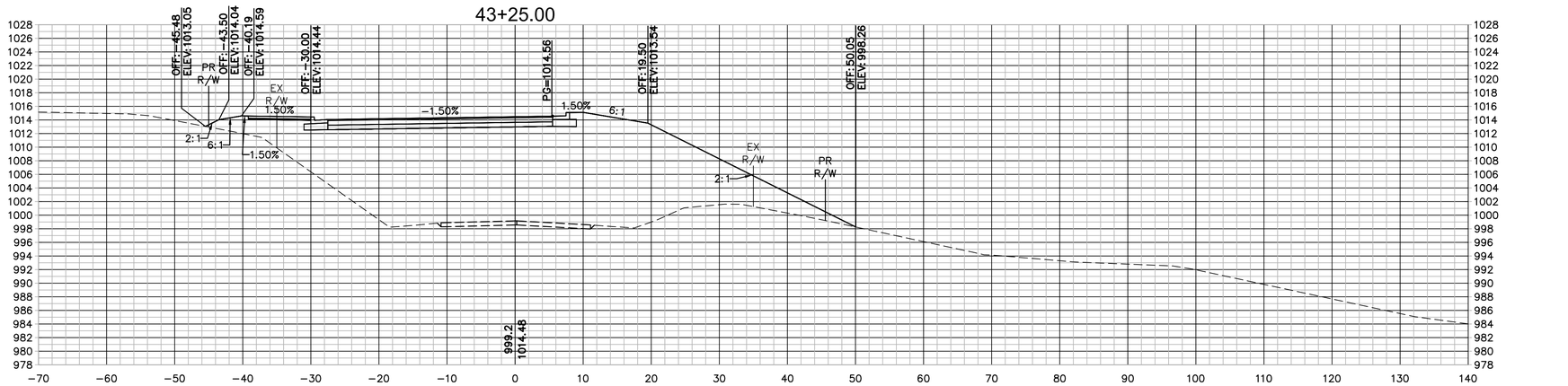

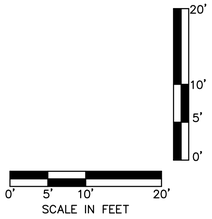

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A95 of A122

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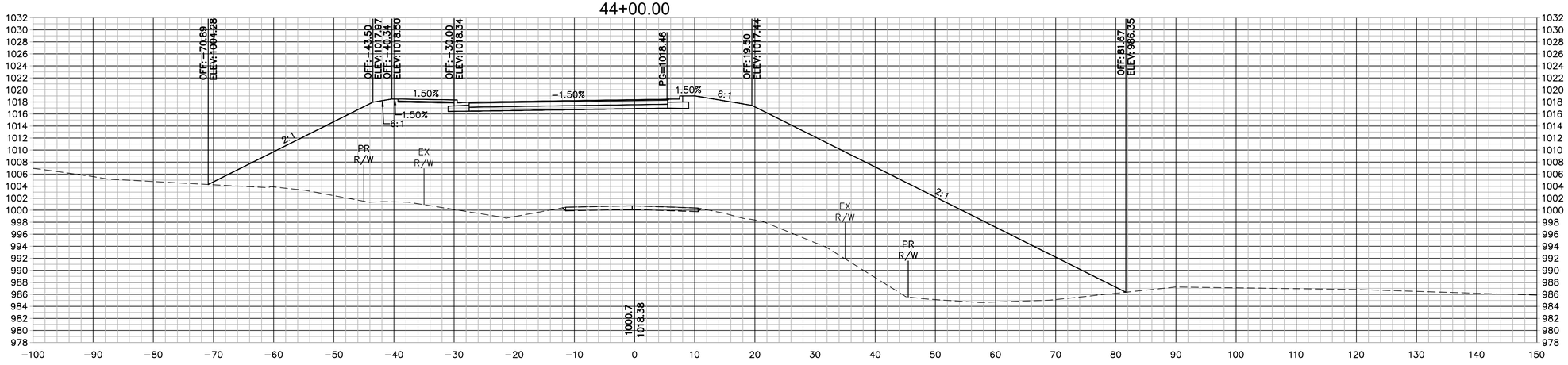

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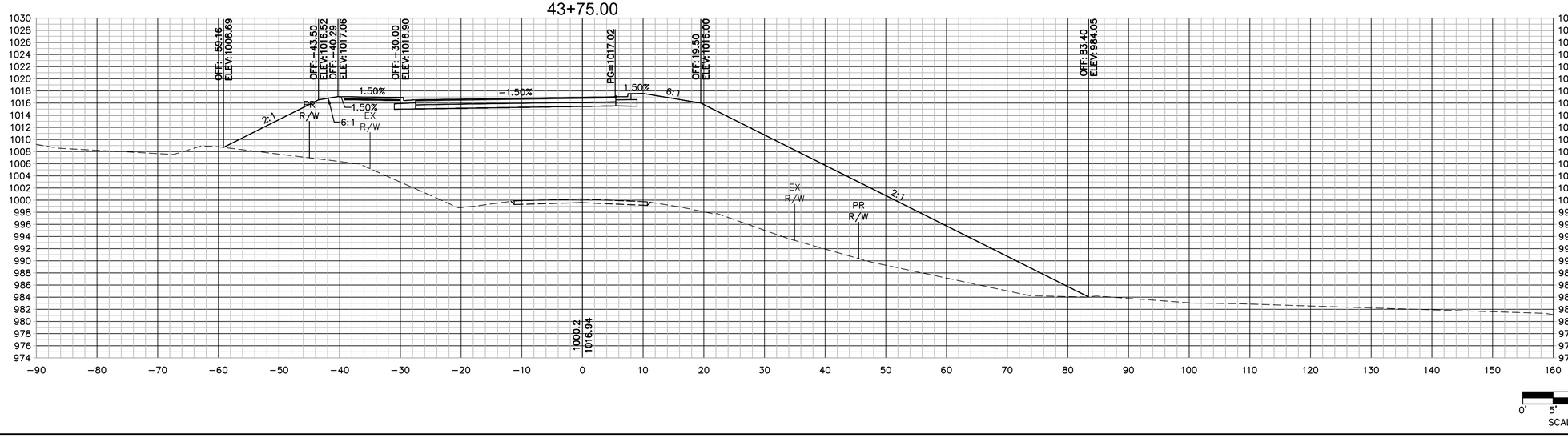

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SHEET
A96 of A122

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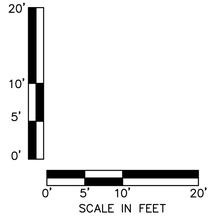

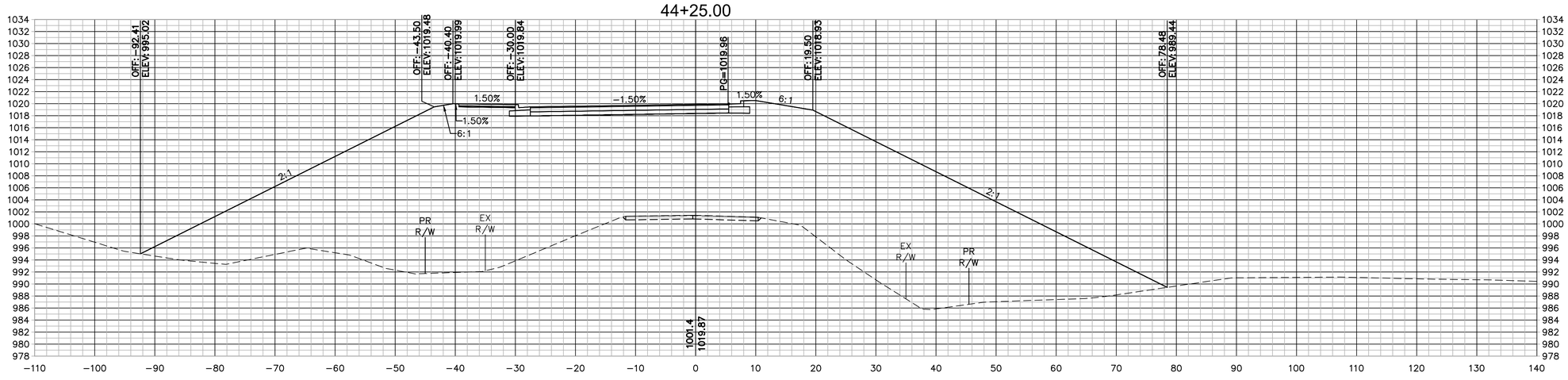

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SHEET
A97 of A122

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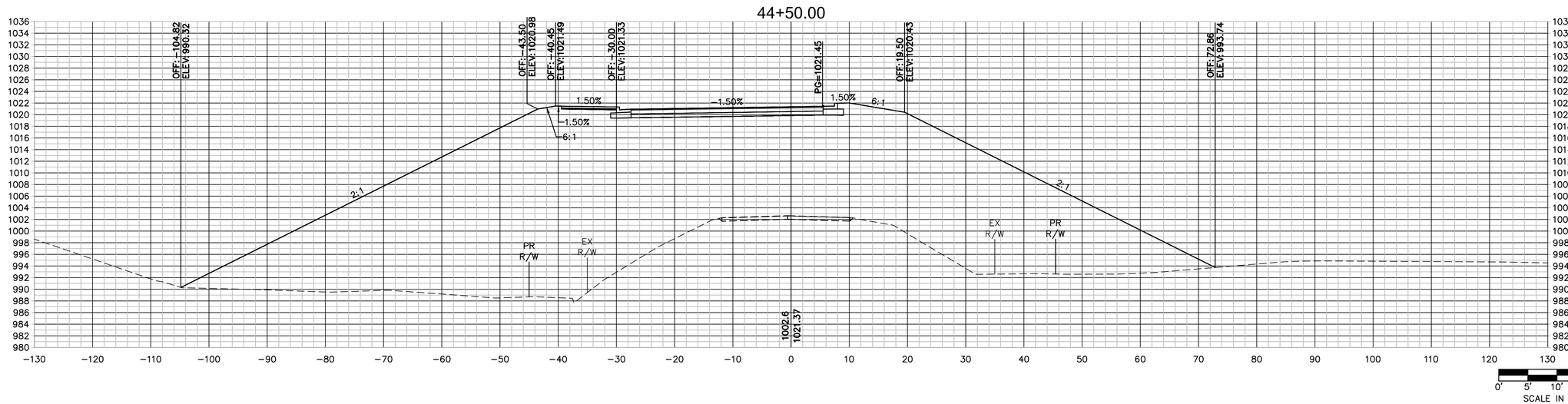

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A98 of A122

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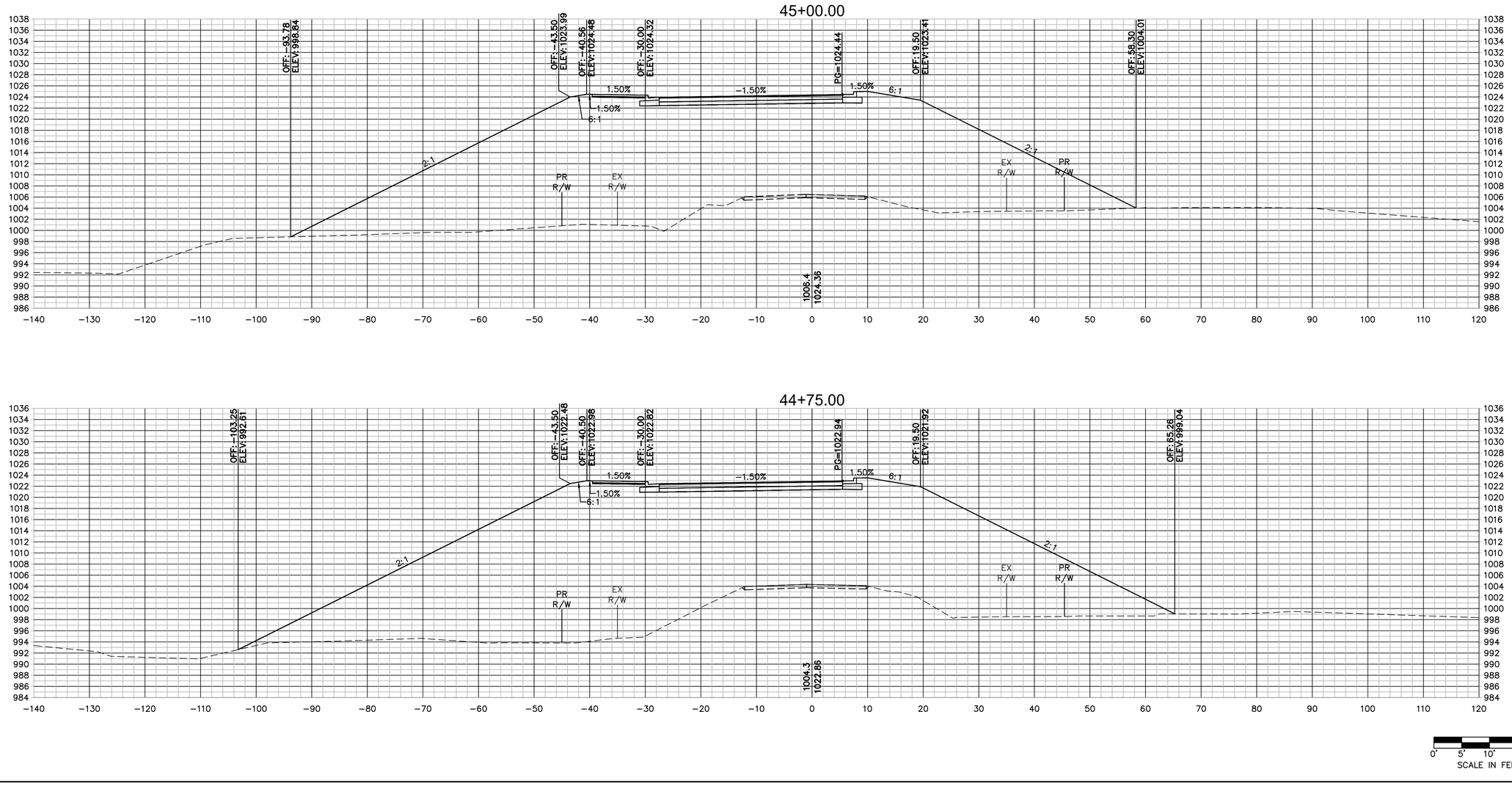

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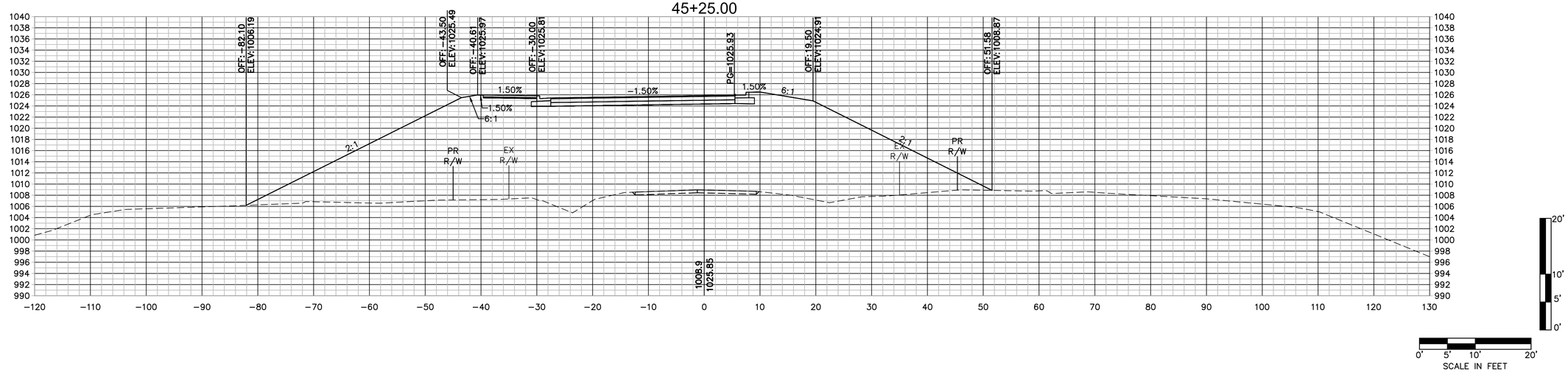
SHEET
A99 of A122



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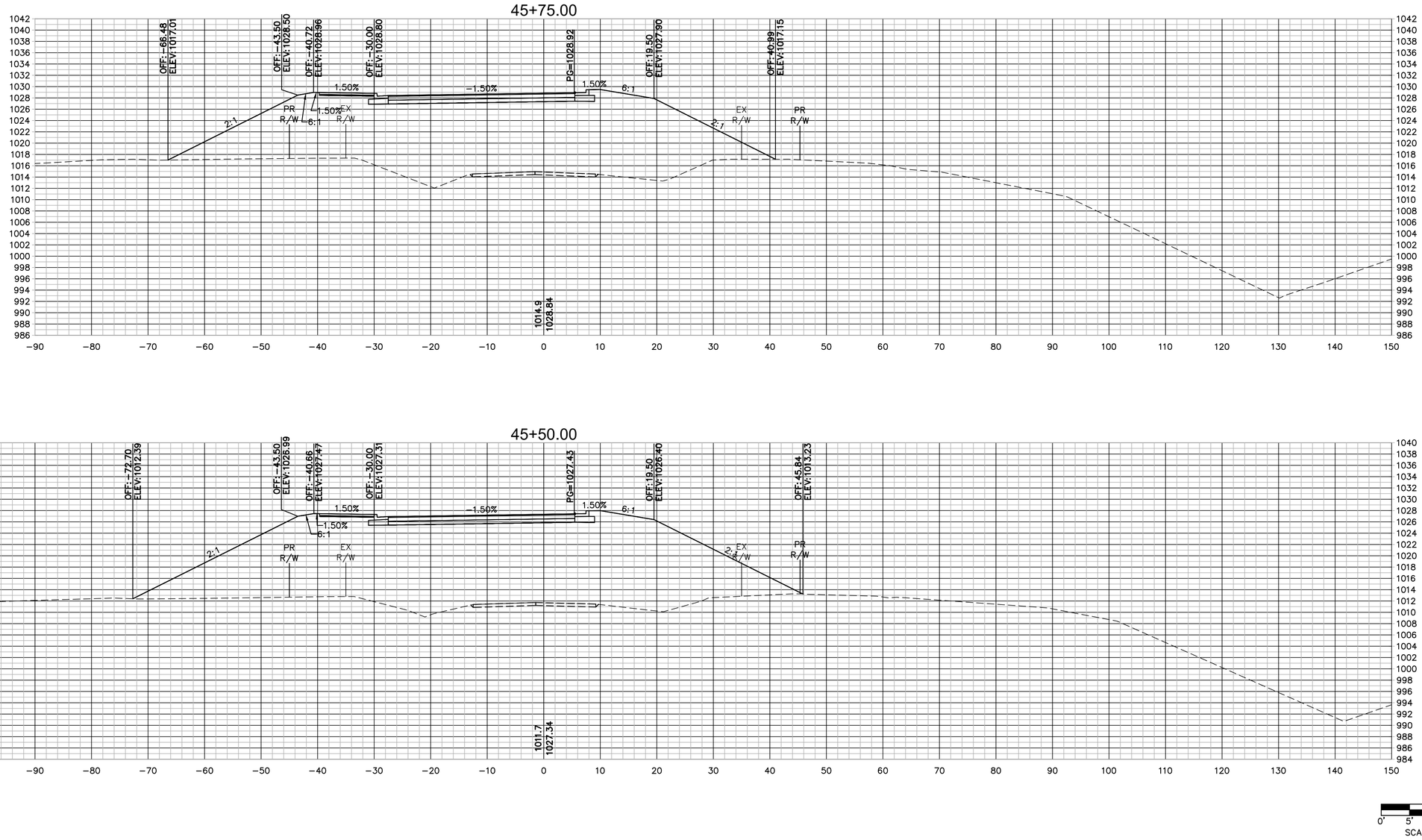

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Brian Coomes
04/23/2021
NUMBER PE-2015029306
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		REVISIONS	

CROSS SECTIONS - 32ND STREET

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by: JKL & NJJ
checked by: BMC & JKL
approved by: BMC
QA/QC by: PM
project no.: 015-2768
drawing no.: OA_T_XSC_52768
date: 04/23/2021

SHEET
A101 of A122

DWG: F:\PROJECTS\015-2768\40-Design\AutoCAD\Final Plans\Sheets\TRNS\CROSS SECTIONS\OA_T_XSC_52768.dwg USER: skendall
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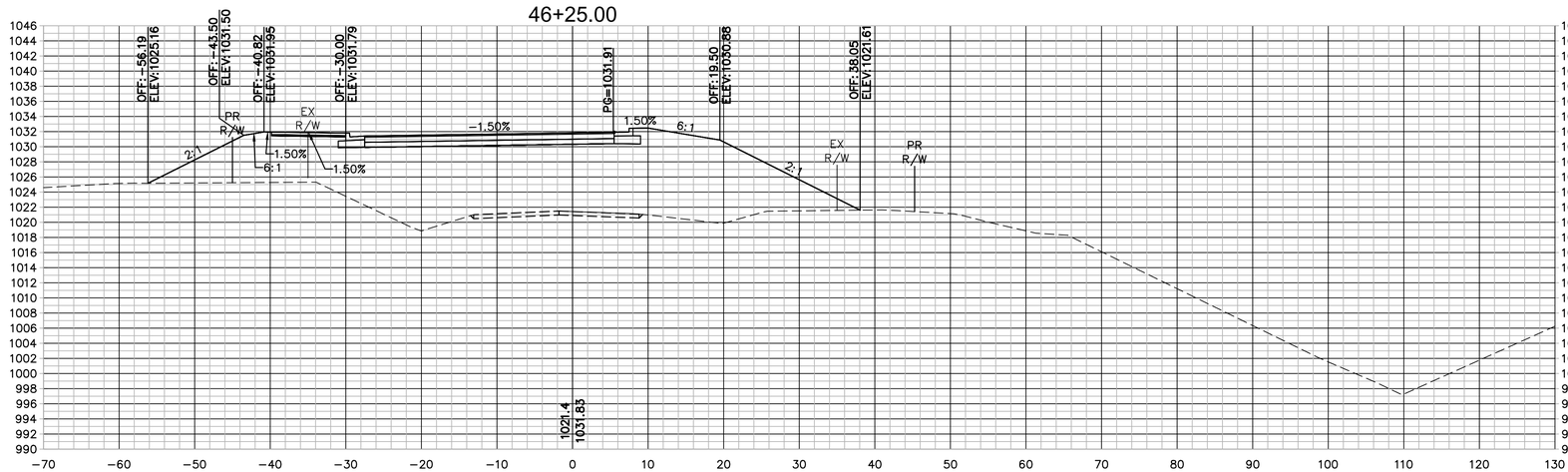

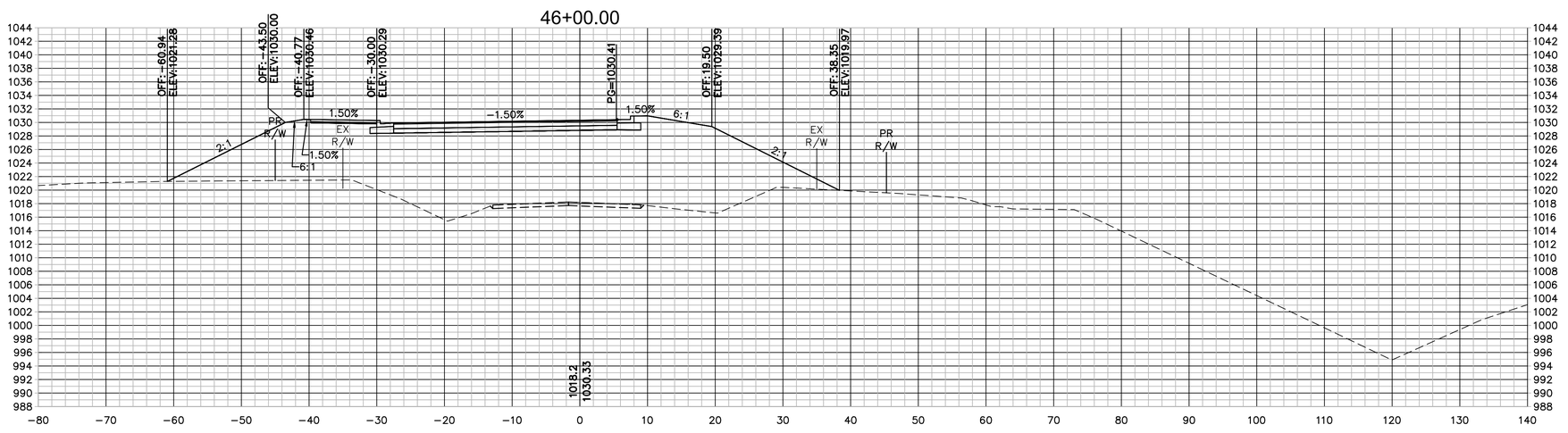

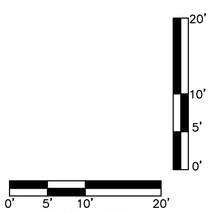

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QA/QC by:	PM
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drawing no.:	OA_T_XSC_52768
date:	04/23/2021

SHEET
A102 of A122

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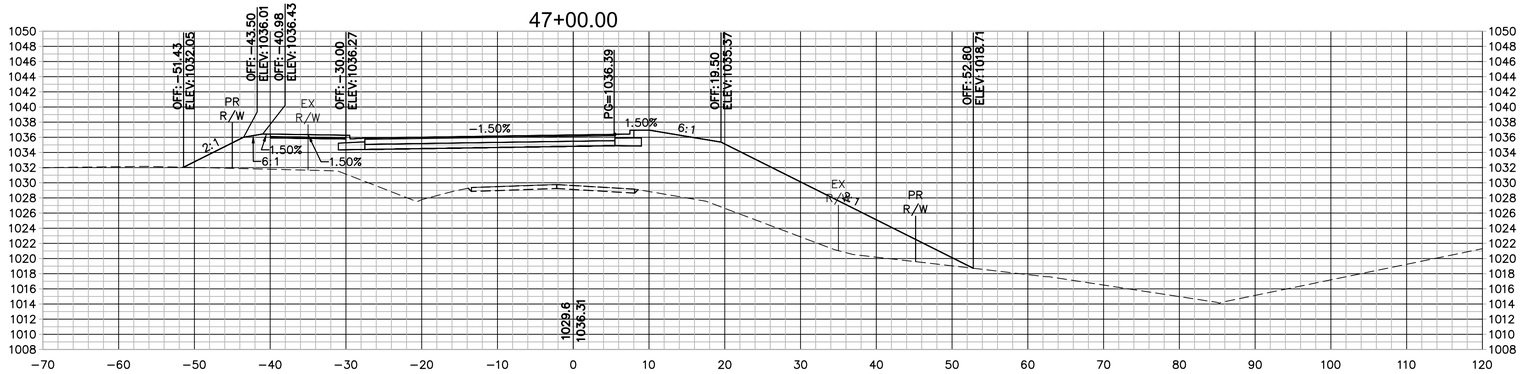

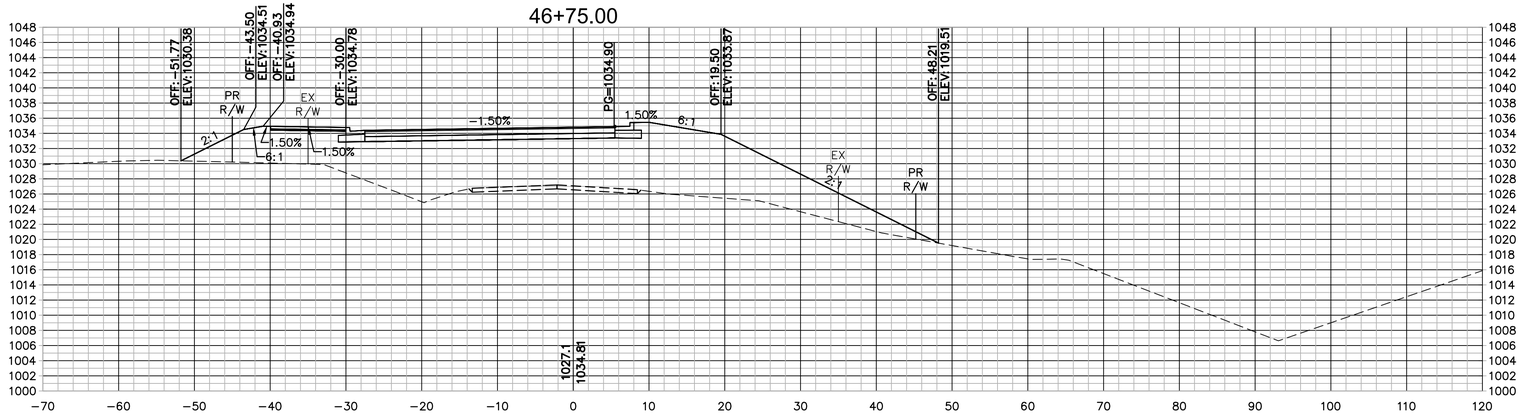

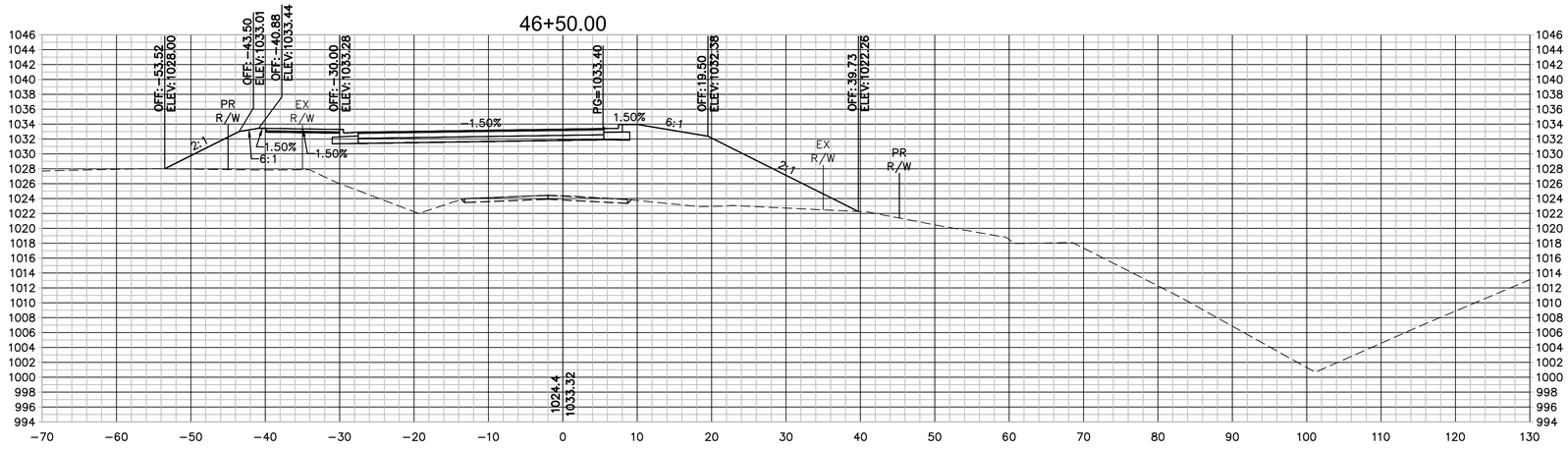

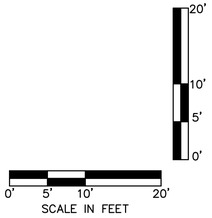

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SHEET
A103 of A122

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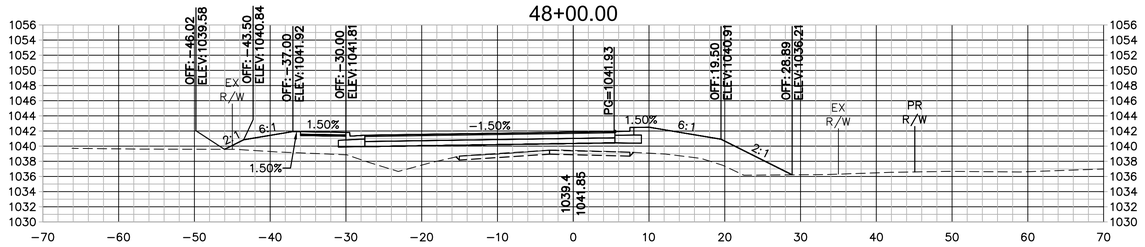

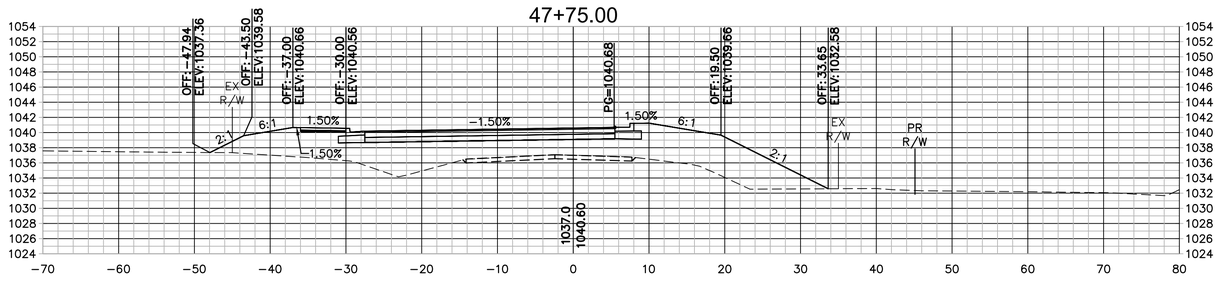



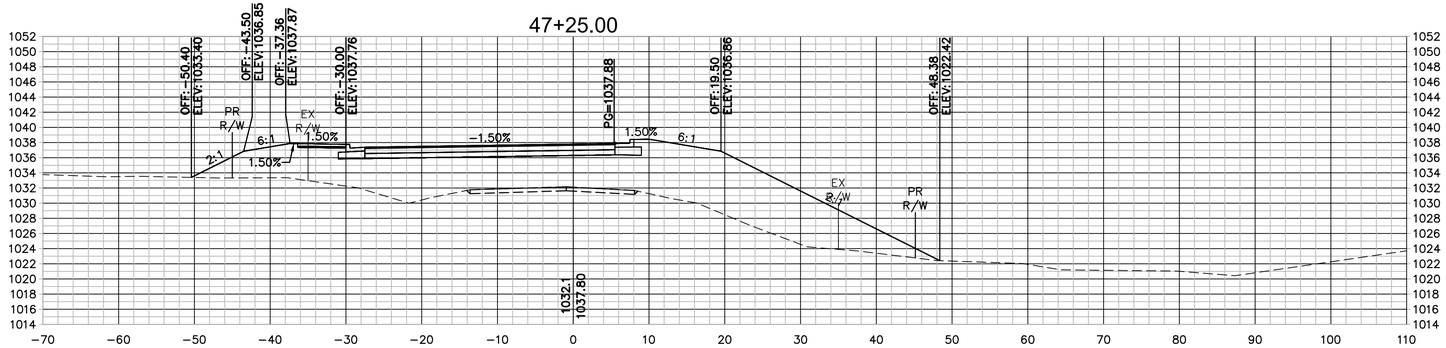

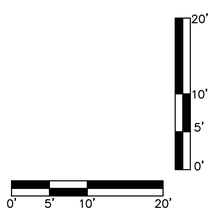

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SHEET
A104 of A122

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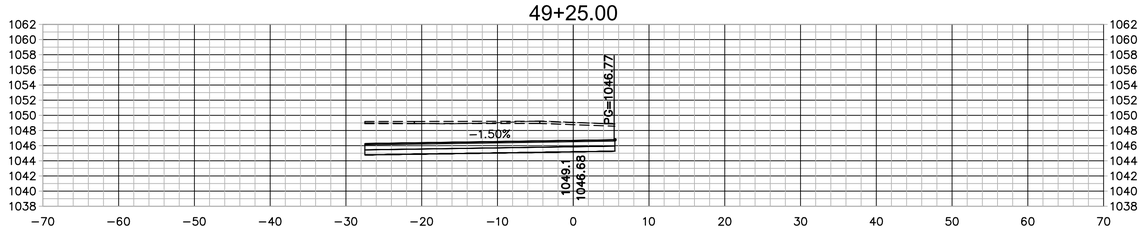

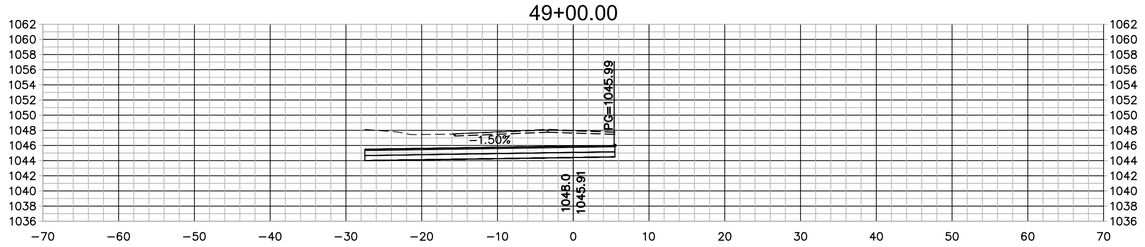

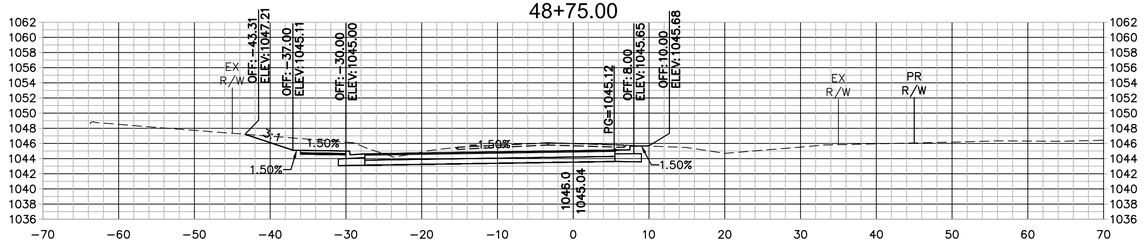

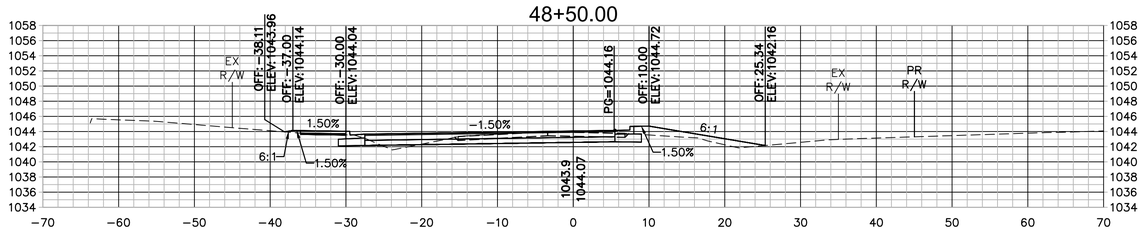

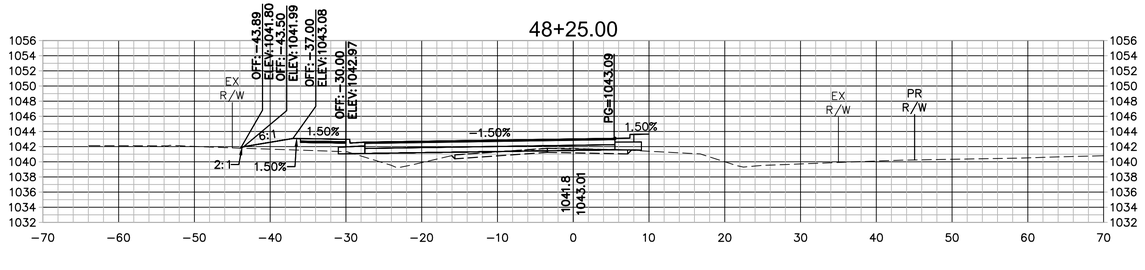

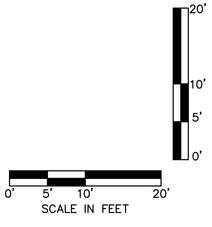

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SHEET
A105 of A122

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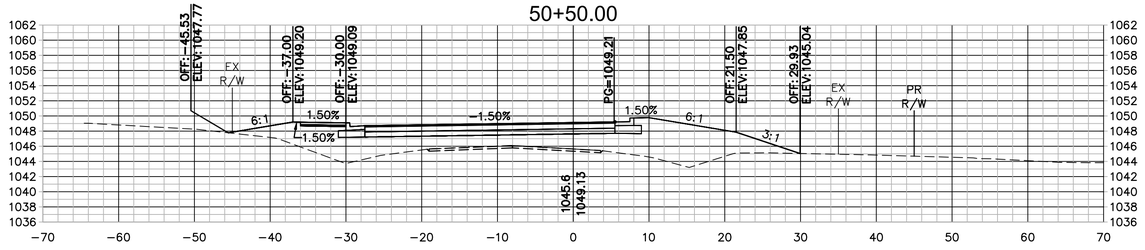

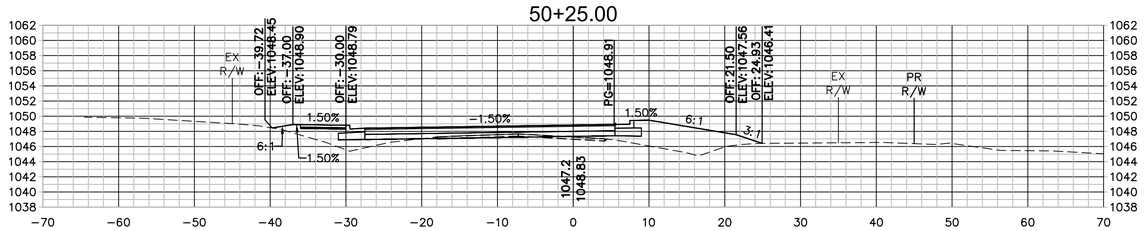

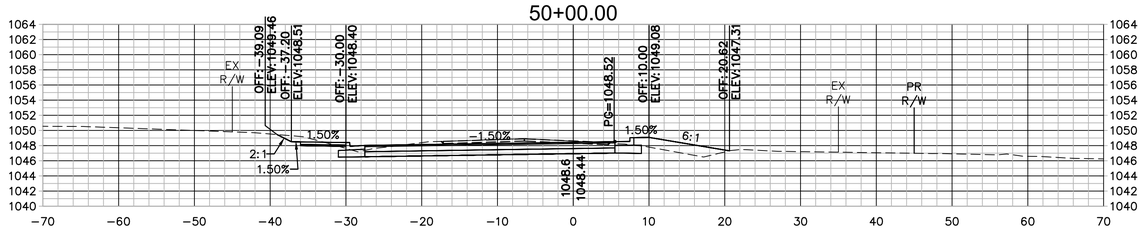

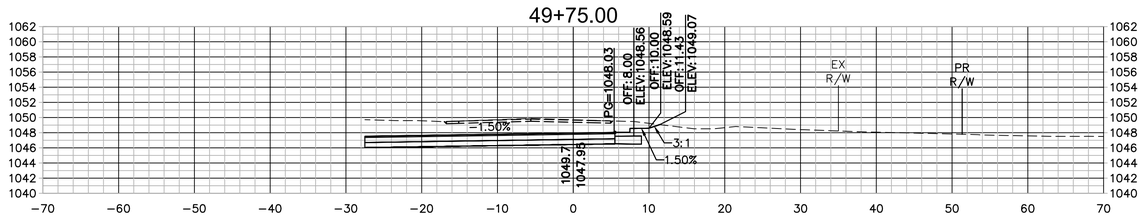

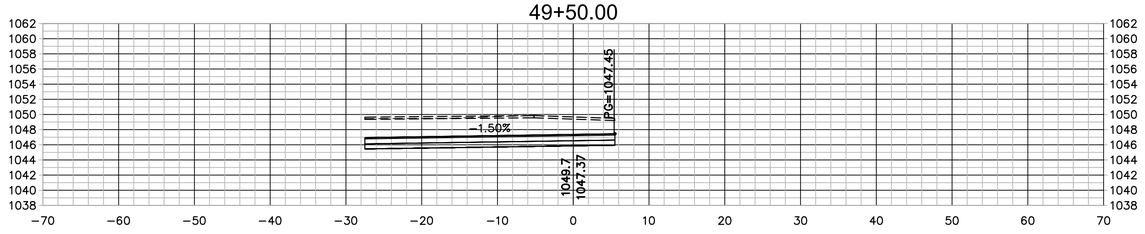

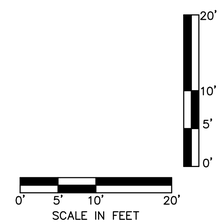

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CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by:	JKL & NJJ
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project no.:	015-2768
drawing no.:	OA_T_XSC_52768
date:	04/23/2021

SHEET
A106 of A122

DWG: F:\PROJECTS\015-2768\40-Design\AutoCAD\Final Plans\Sheets\TRNS\CROSS SECTIONS\OA_T_XSC_52768.dwg USER: skendall
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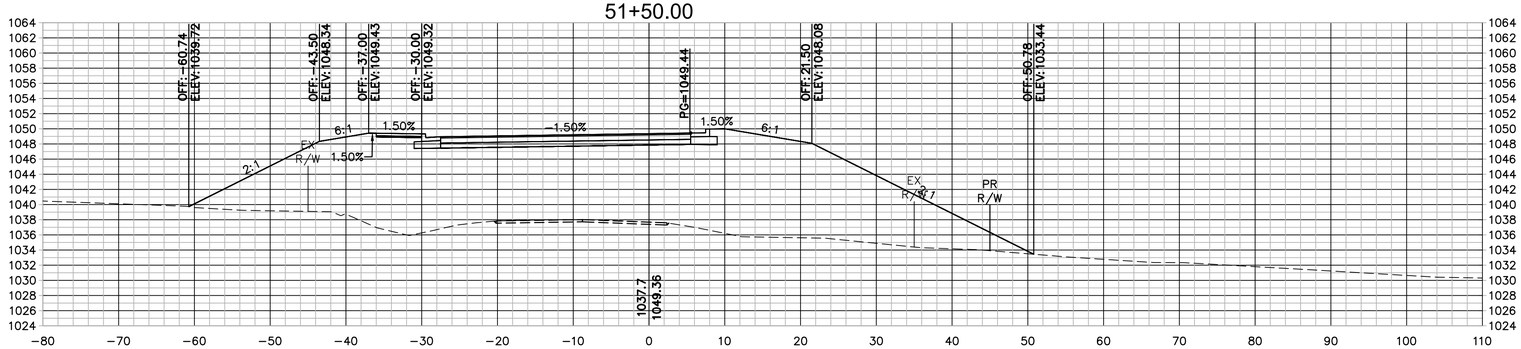

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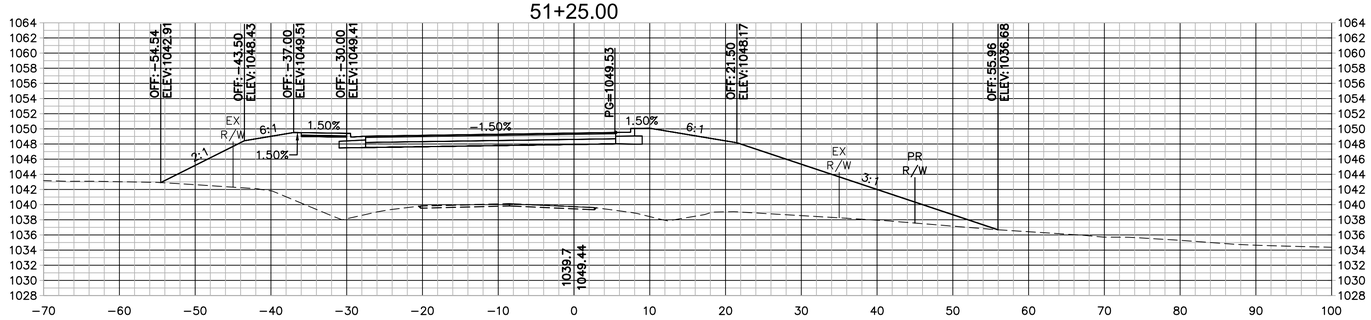

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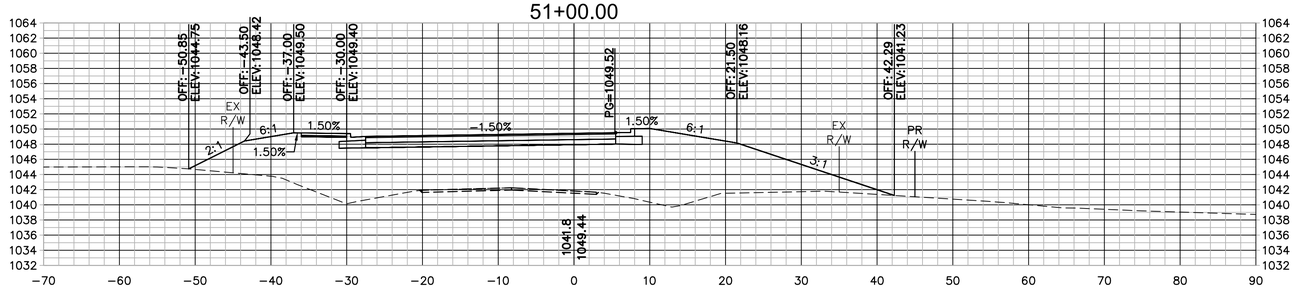

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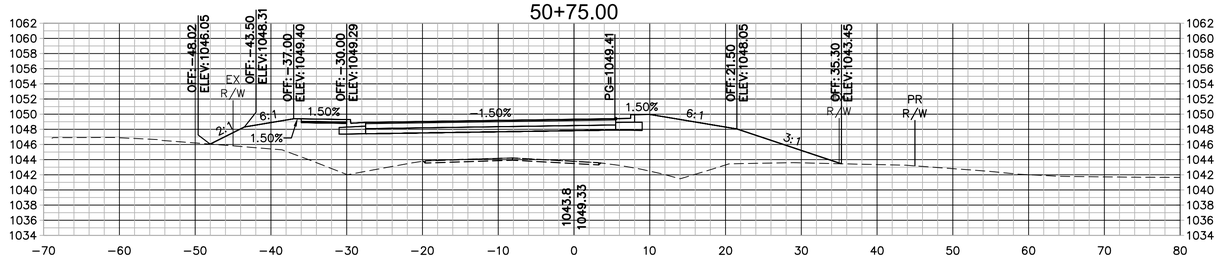

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SHEET
A107 of A122

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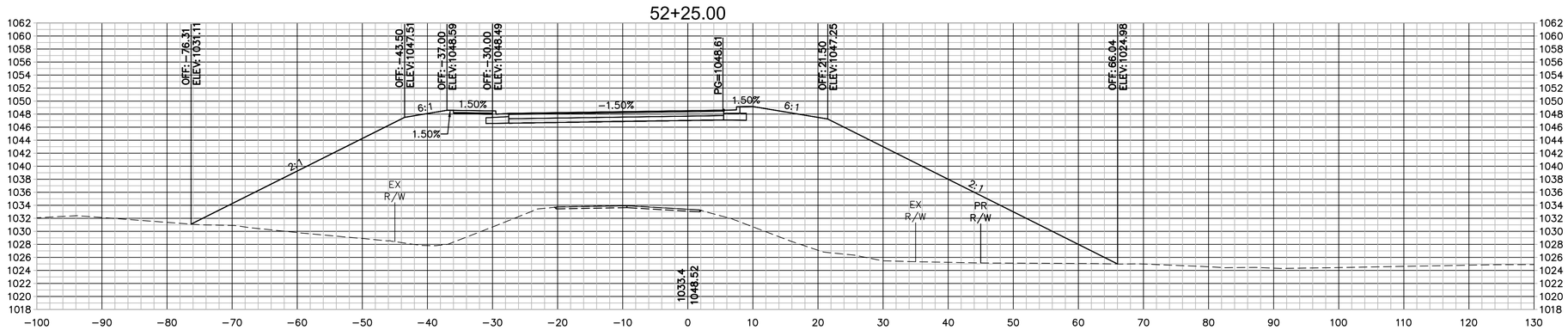

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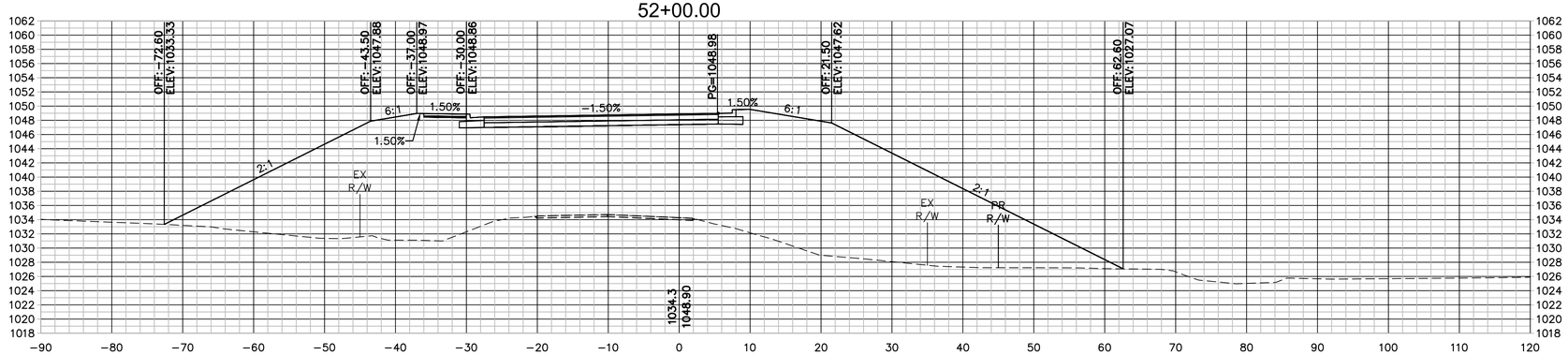

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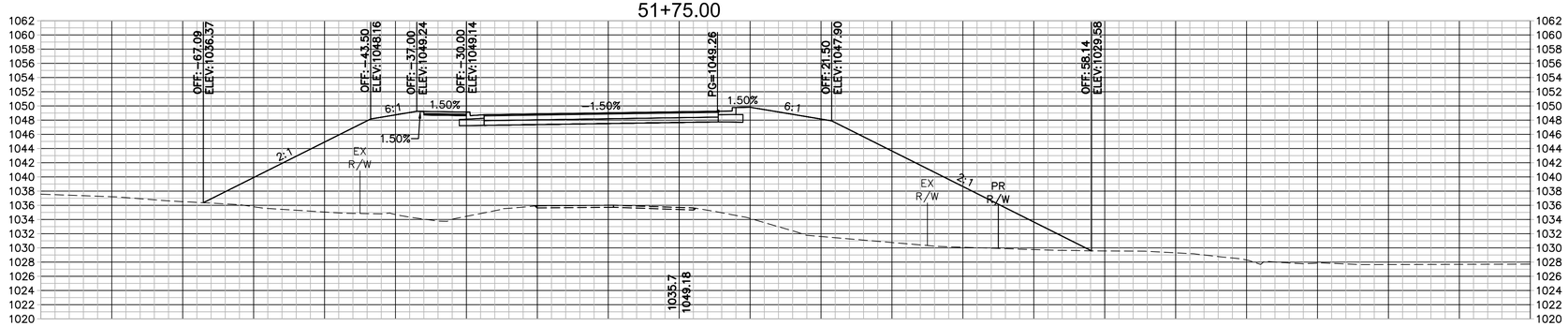

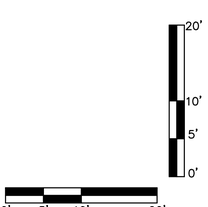

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SHEET
A108 of A122

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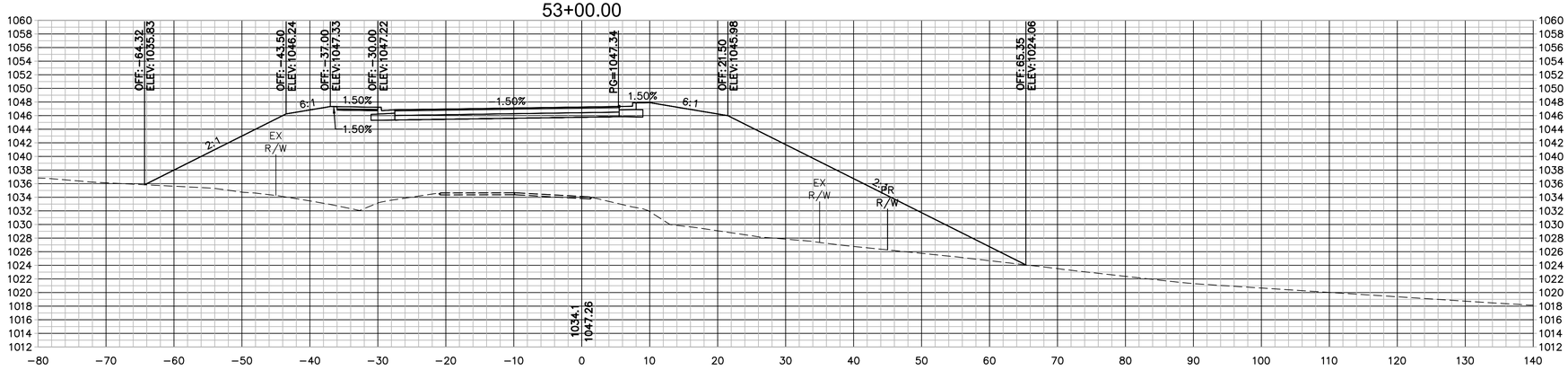

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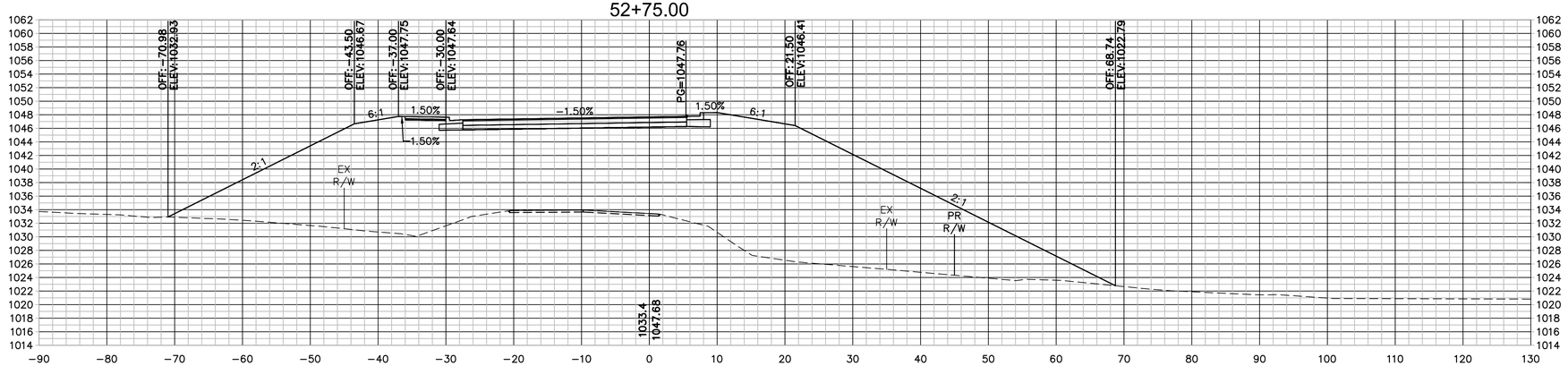

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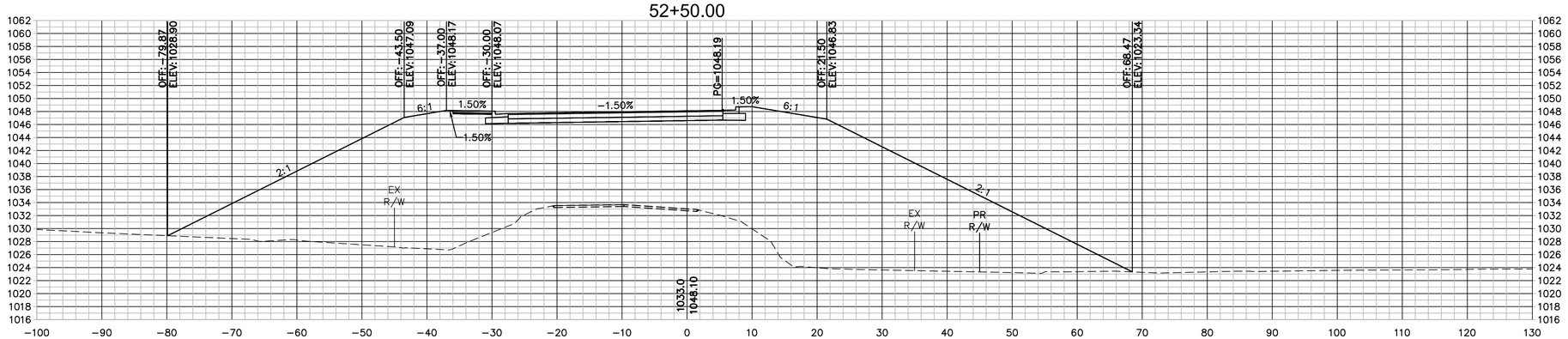

0' 5' 10' 20'
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A109 of A122

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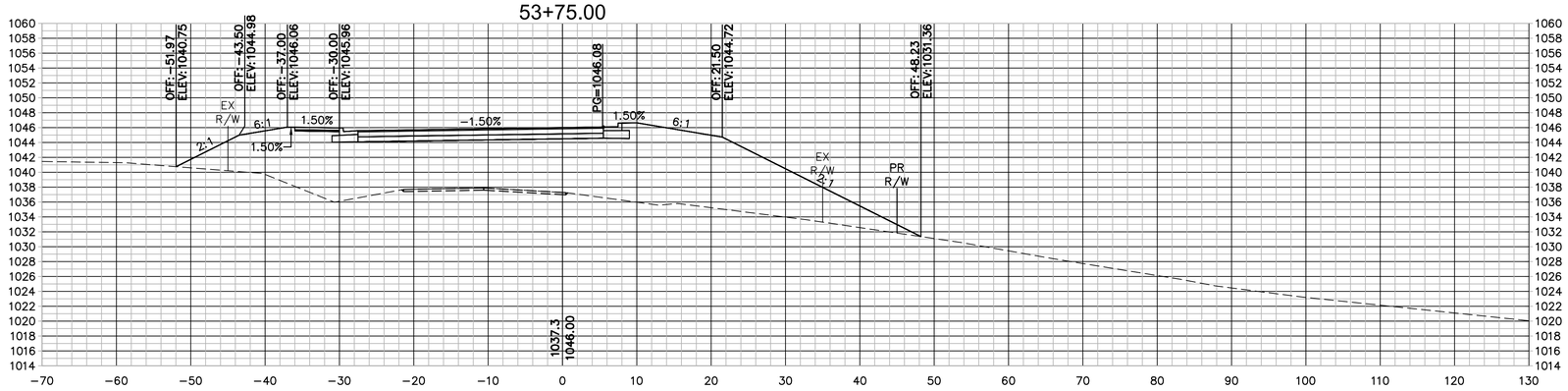

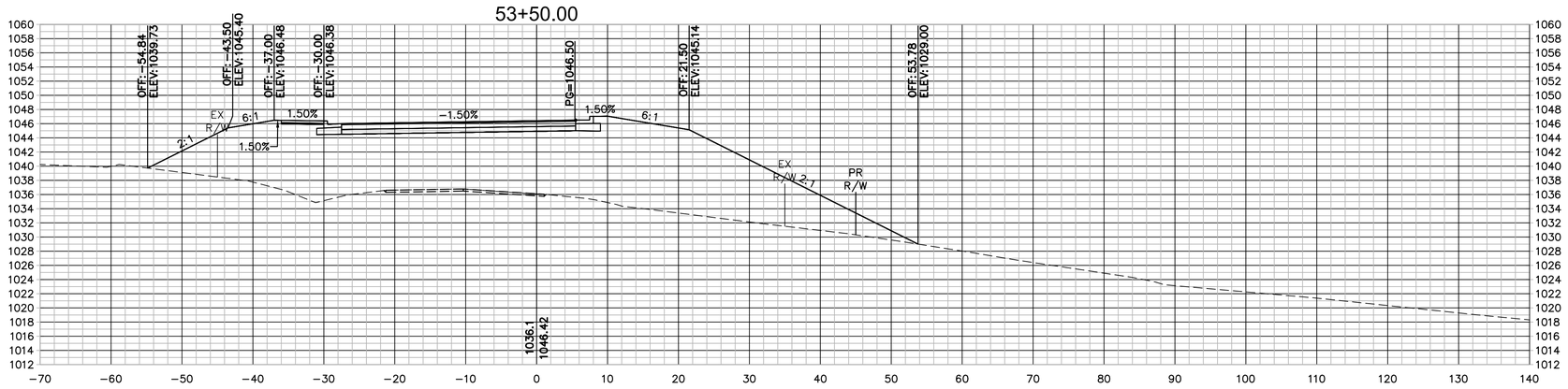

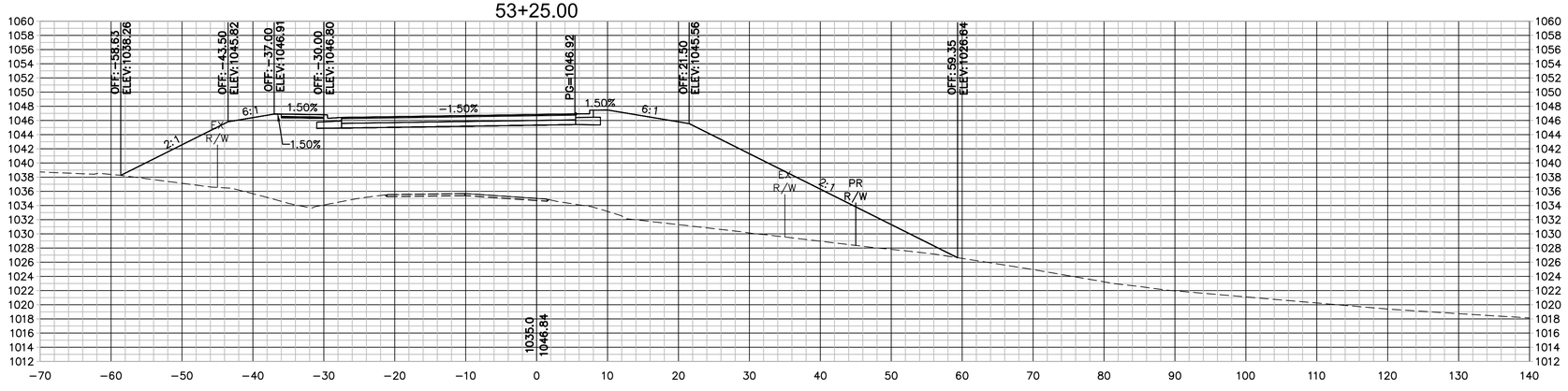

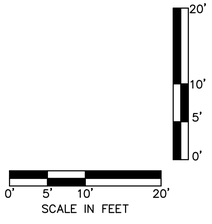

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STATE OF MISSOURI
BRIAN COOMES
Brian Coomes
04/23/2021
NUMBER PE-2015029306
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY
		REVISIONS	

CROSS SECTIONS - 32ND STREET

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by: JKL & NJJ
checked by: BMC & JKL
approved by: BMC
QA/QC by: PM
project no.: 015-2768
drawing no.: OA_T_XSC_52768
date: 04/23/2021

SHEET
A110 of A122

DWG: F:\PROJECTS\015-2768\40-Design\AutoCAD\Final Plans\Sheets\TRNS\CROSS SECTIONS\OA_T_XSC_52768.dwg USER: skendall
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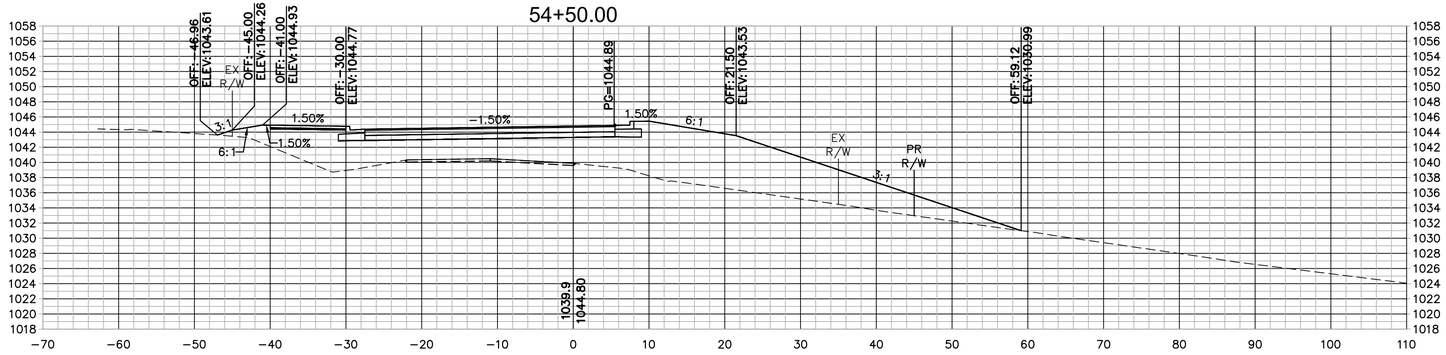

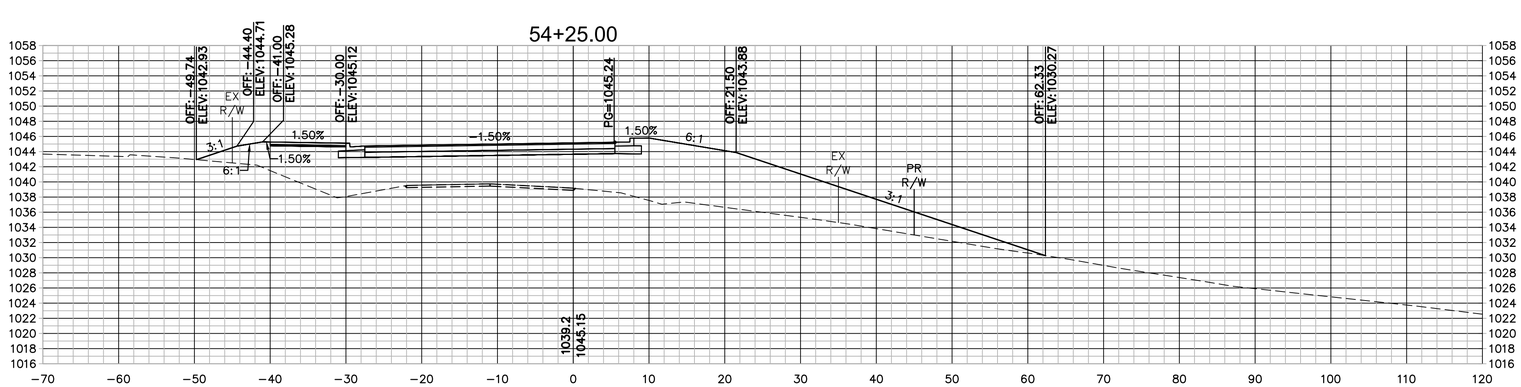

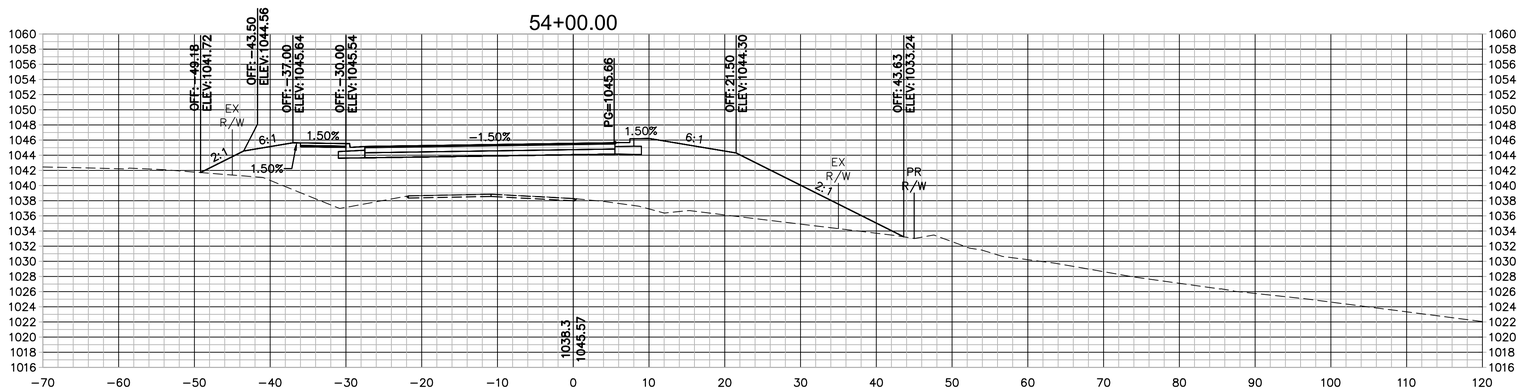

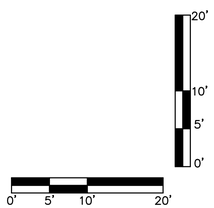

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REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

CROSS SECTIONS - 32ND STREET

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by:	JKL & NJJ
checked by:	BMC & JKL
approved by:	BMC
QA/QC by:	PM
project no.:	015-2768
drawing no.:	OA_T_XSC_52768
date:	04/23/2021

SHEET
A111 of A122

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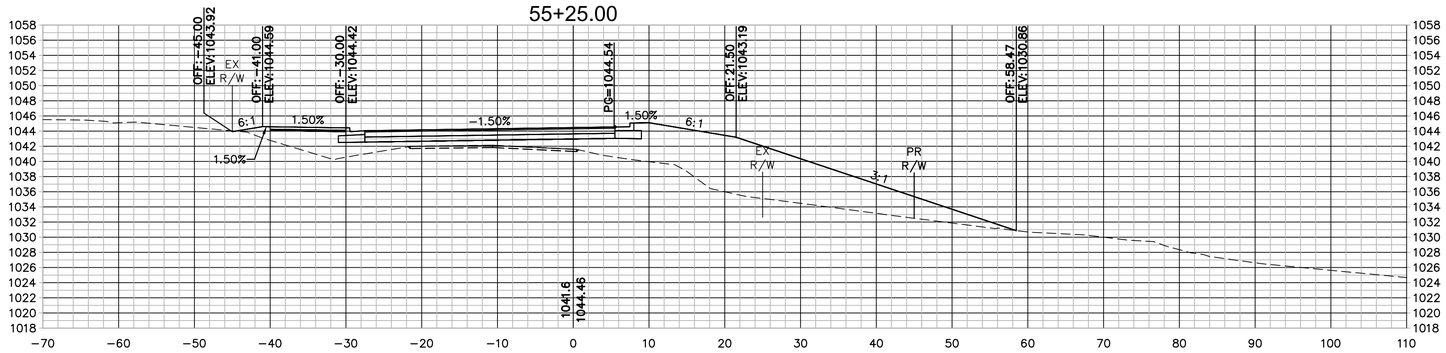

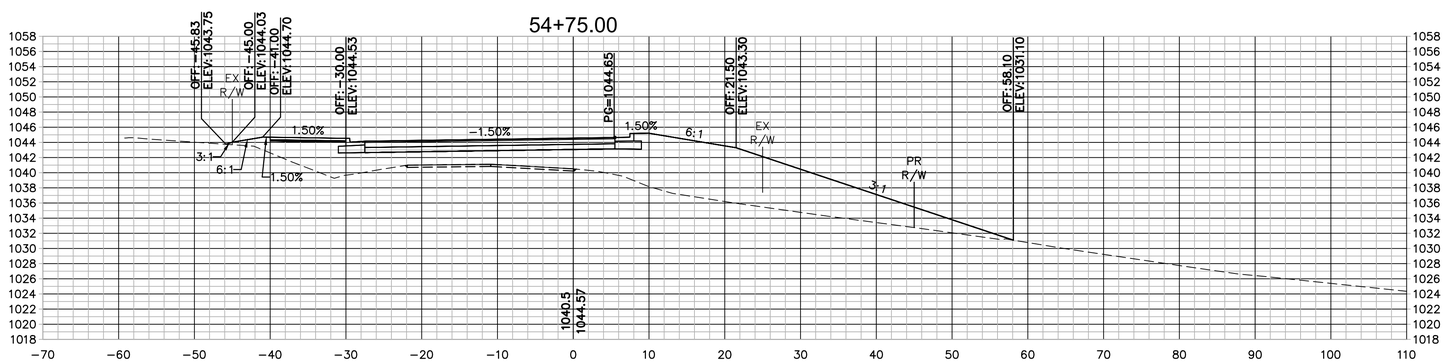

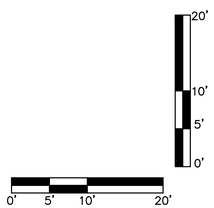

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04/23/2021
NUMBER PE-2015029306
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

CROSS SECTIONS - 32ND STREET

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by:	JKL & NJJ
checked by:	BMC & JKL
approved by:	BMC
QA/QC by:	PM
project no.:	015-2768
drawing no.:	OA_T_XSC_52768
date:	04/23/2021

SHEET
A112 of A122

DWG: F:\PROJECTS\015-2768\40-Design\AutoCAD\Final Plans\Sheets\TRNS\CROSS SECTIONS\OA_T_XSC_52768.dwg USER: skendall
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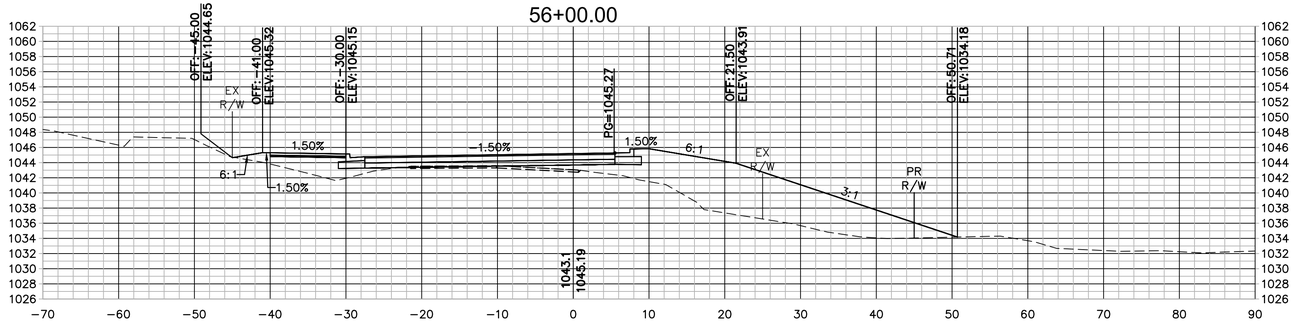

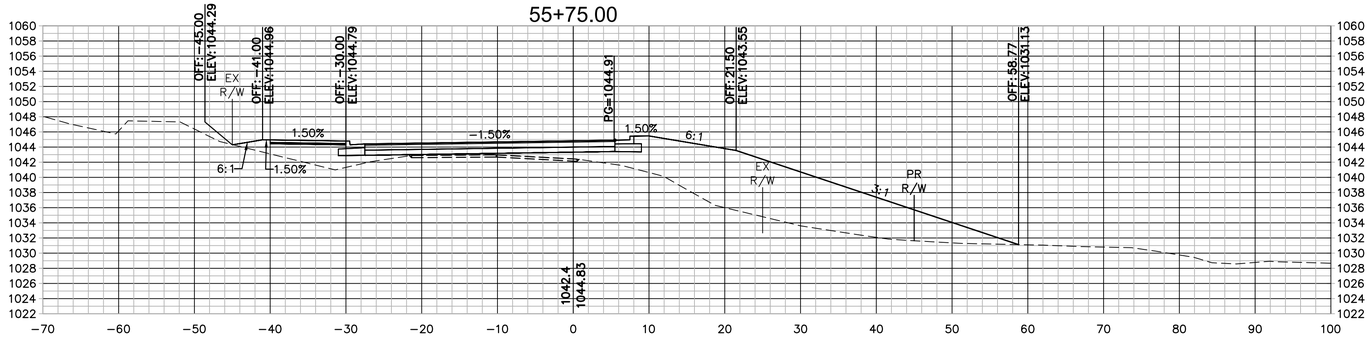

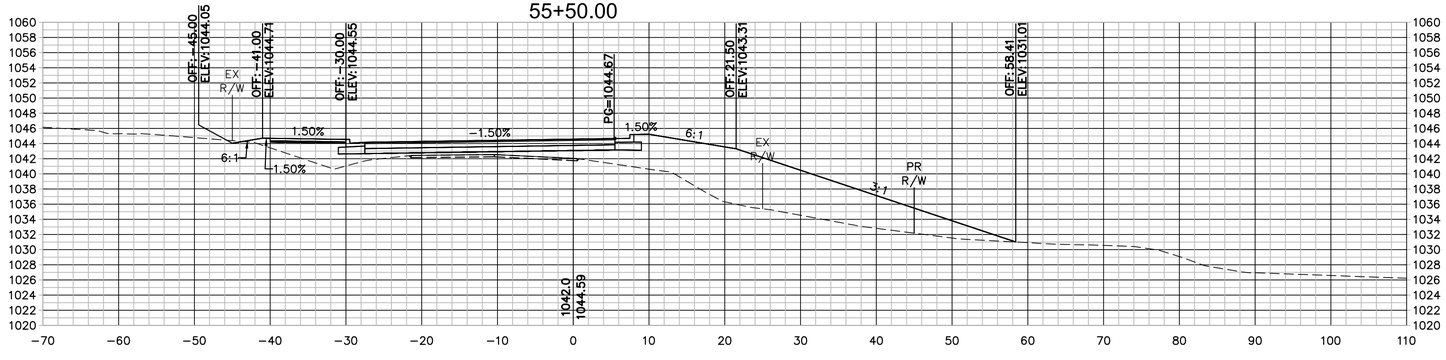

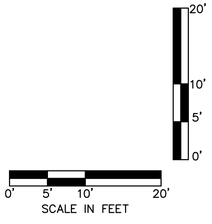

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REV. NO.	DATE	REVISIONS DESCRIPTION	BY
		REVISIONS	

CROSS SECTIONS - 32ND STREET

32ND STREET WIDENING
CITY OF JOPLIN

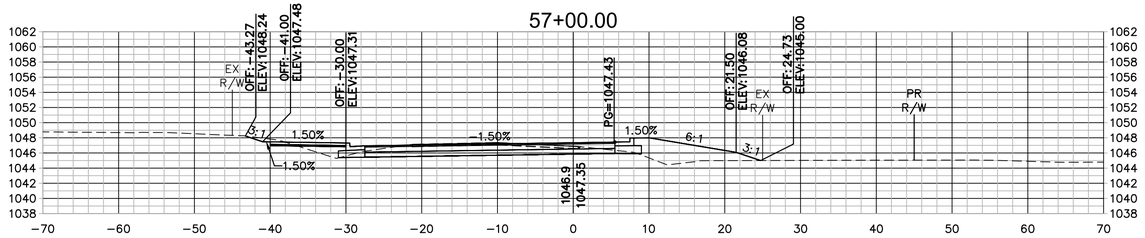
JOPLIN, MISSOURI

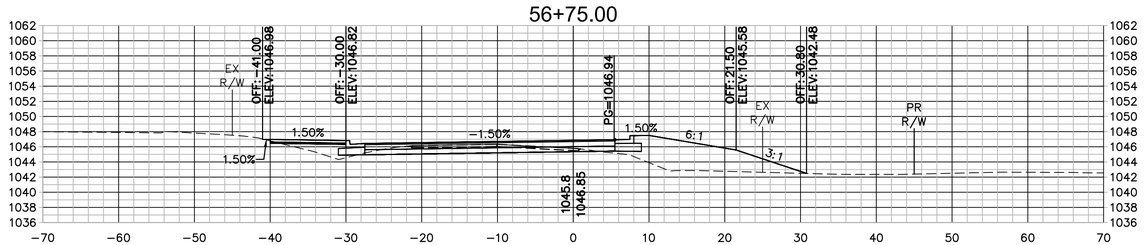
2021

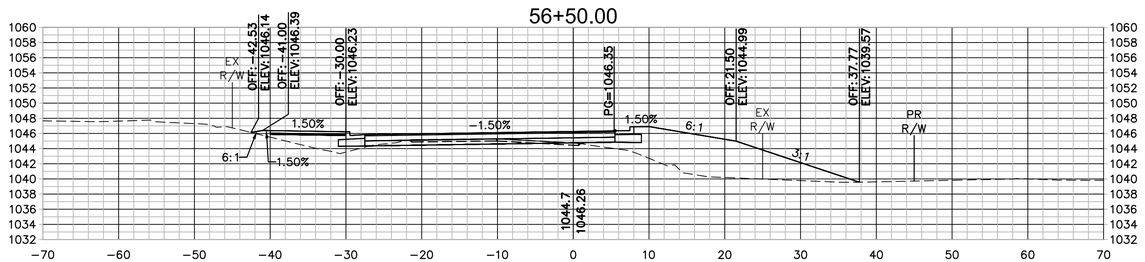
drawn by: JKL & NJJ
checked by: BMC & JKL
approved by: BMC
QA/QC by: PM
project no.: 015-2768
drawing no.: OA_T_XSC_52768
date: 04/23/2021

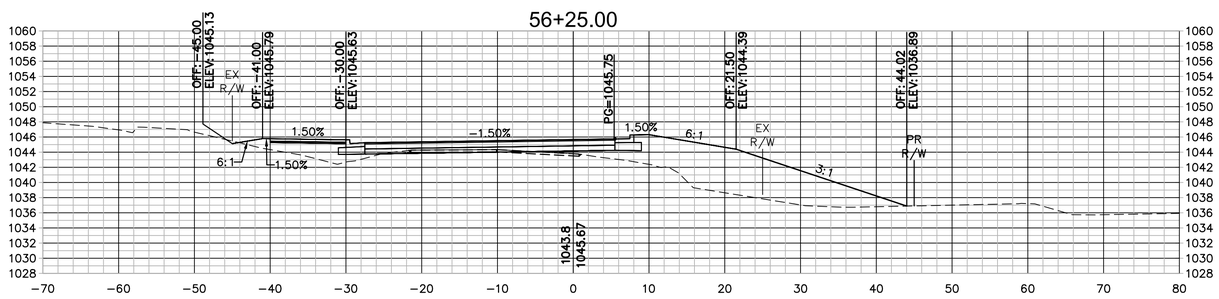
SHEET
A113 of A122

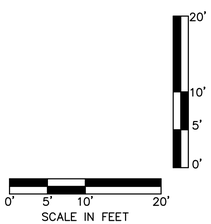
DWG: F:\PROJECTS\015-2768\40-Design\AutoCAD\Final Plans\Sheets\TRNS\CROSS SECTIONS\OA_T_XSC_52768.dwg USER: skendall
DATE: Apr 21, 2021 11:20am XREFS: OA_T_PTBLK_52768











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STATE OF MISSOURI
BRIAN COOMES
Brian Coomes
04/23/2021
NUMBER PE-2015029306
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

CROSS SECTIONS - 32ND STREET

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by: JKL & NJJ
checked by: BMC & JKL
approved by: BMC
QA/QC by: PM
project no.: 015-2768
drawing no.: OA_T_XSC_52768
date: 04/23/2021

SHEET
A114 of A122

DWG: F:\PROJECTS\015-276840-Design\AutoCAD\Final Plans\Sheets\TRNS\CROSS SECTIONS\OA_T_XSC_52768.dwg USER: skendall
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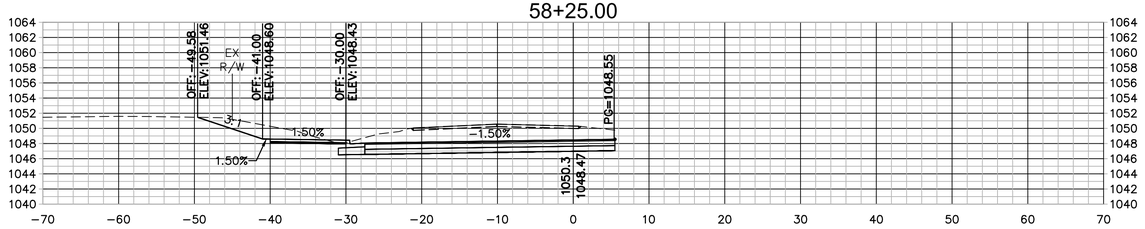

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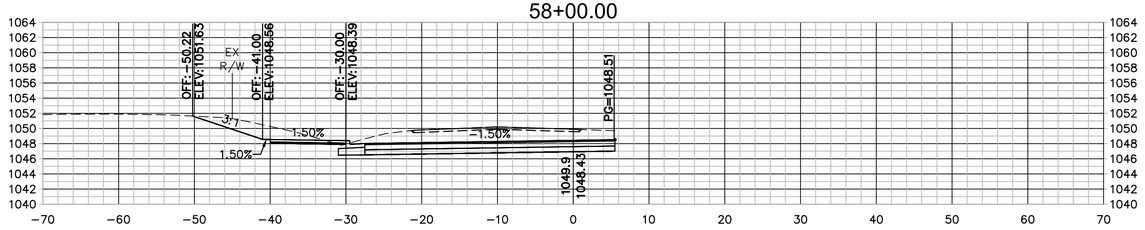

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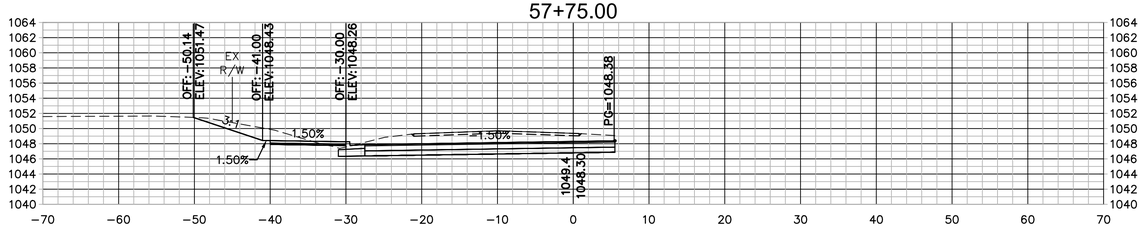

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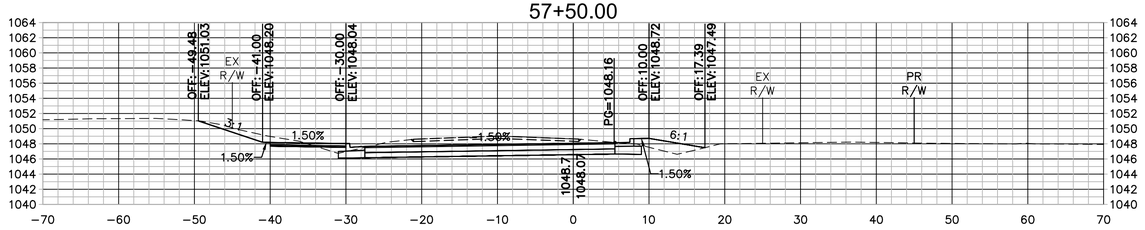

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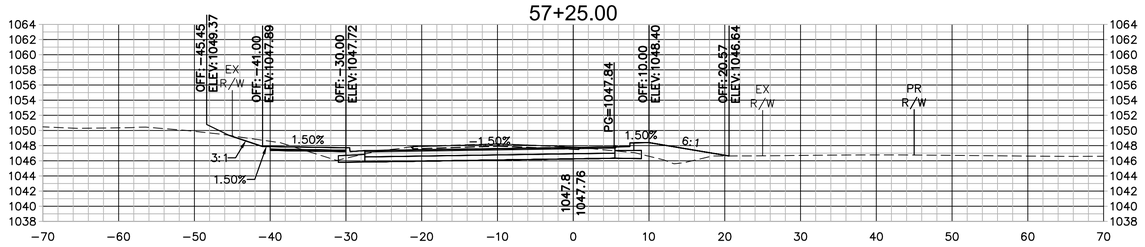

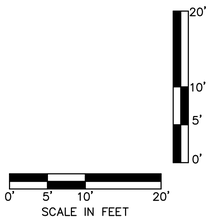

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DATE: Apr 21, 2021 11:21am XREFS: OA_T_PTBLK_52768

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STATE OF MISSOURI
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Brian Coomes
04/23/2021
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REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

CROSS SECTIONS - 32ND STREET

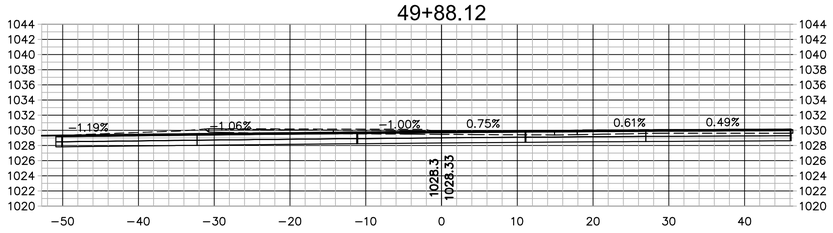
32ND STREET WIDENING
CITY OF JOPLIN

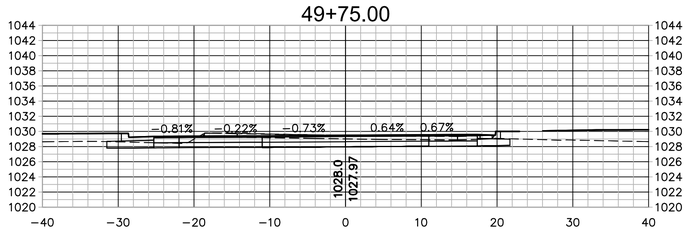
JOPLIN, MISSOURI

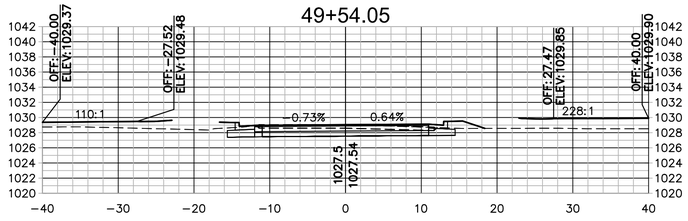
2021

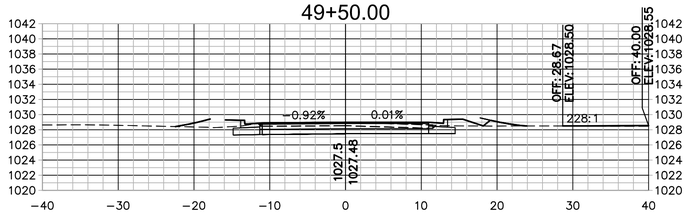
drawn by: JKL & NJJ
checked by: BMC & JKL
approved by: BMC
QA/QC by: PM
project no.: 015-2768
drawing no.: OA_T_XSC_52768
date: 04/23/2021

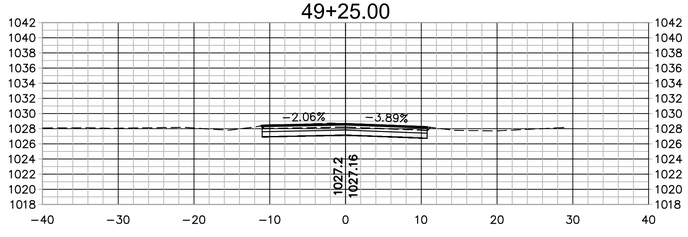
SHEET
A115 of A122

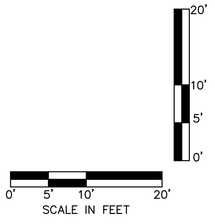












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STATE OF MISSOURI
BRIAN COOMES
Brian Coomes
04/23/2021
NUMBER PE-2015029306
PROFESSIONAL ENGINEER

REVISIONS

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

CROSS SECTIONS - ALFALFA ROAD

32ND STREET WIDENING
CITY OF JOPLIN

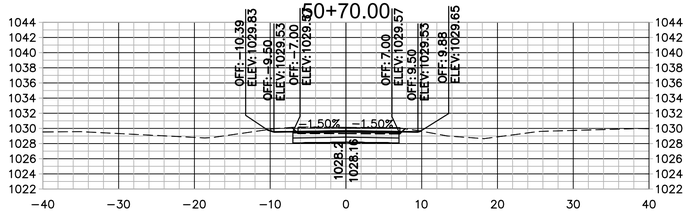
JOPLIN, MISSOURI

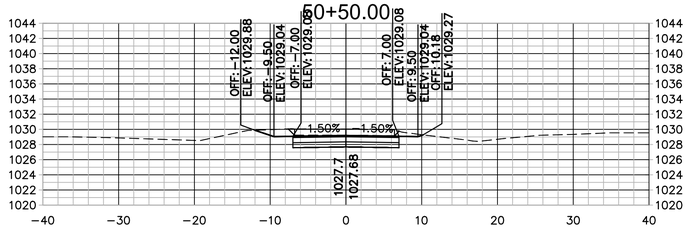
2021

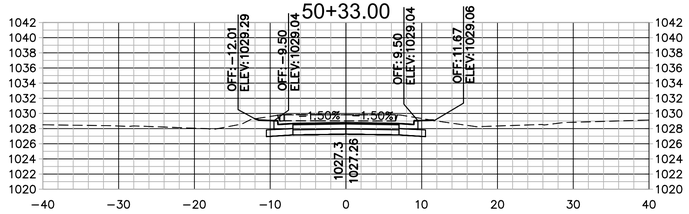
drawn by: JKL & NJJ
checked by: BMC & JKL
approved by: BMC
QA/QC by: PM
project no.: 015-2768
drawing no.: QA_T_XSC2_52768
date: 04/23/2021

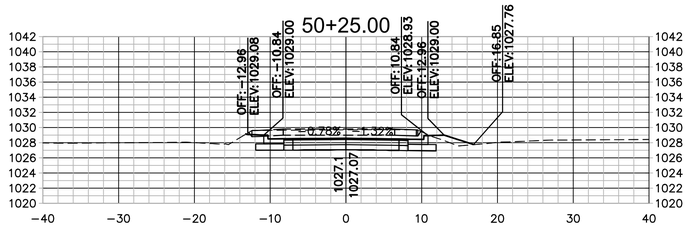
SHEET
A116 of A122

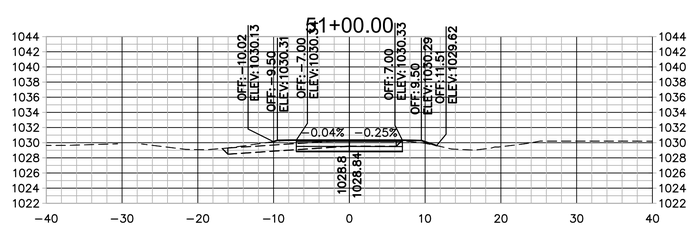
DWG: F:\PROJECTS\015-2768\40-Design\AutoCAD\Final Plans\Sheets\TRNS\CROSS SECTIONS\QA_T_XSC2_52768.dwg USER: skendall
DATE: Apr 23, 2021 8:47am XREFS: QA_T_PTBLK_52768

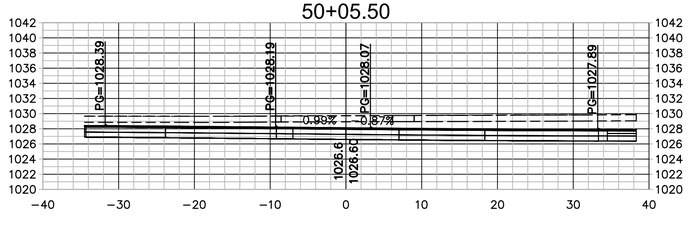


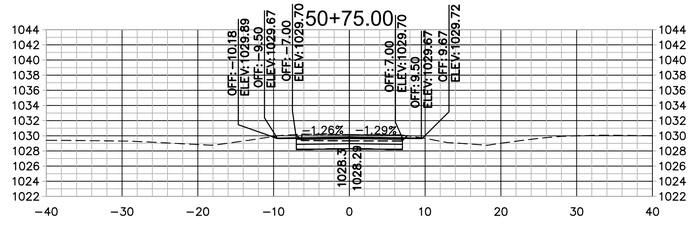


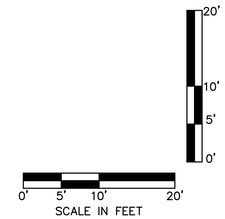












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STATE OF MISSOURI
BRIAN COOMES
Brian Coomes
04/23/2021
NUMBER PE-2015029306
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

CROSS SECTIONS - APPLEGATE ROAD

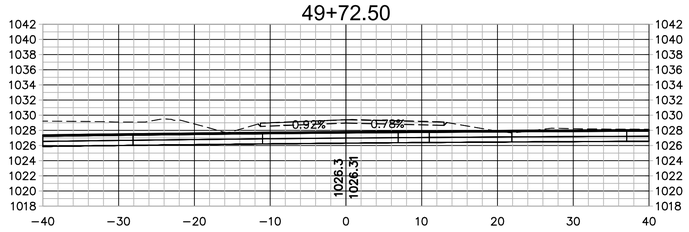
32ND STREET WIDENING
CITY OF JOPLIN

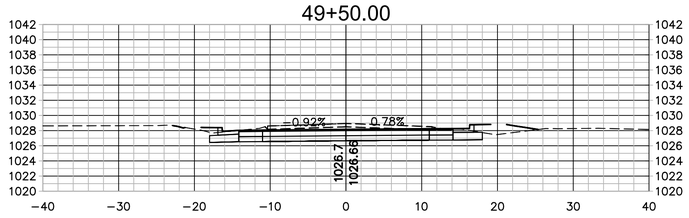
JOPLIN, MISSOURI

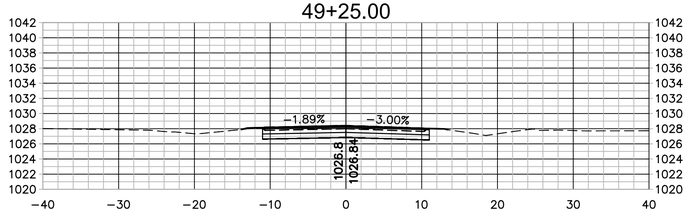
2021

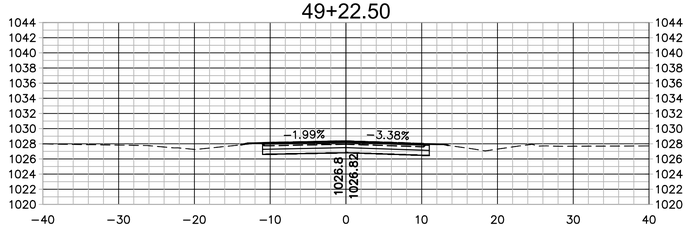
drawn by: JKL & NJJ
checked by: BMC & JKL
approved by: BMC
QA/QC by: PM
project no.: 015-2768
drawing no.: OA_T_XSC2_52768
date: 04/23/2021

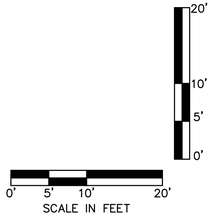
SHEET
A117 of A122











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STATE OF MISSOURI
BRIAN COOMES
Brian Coomes
04/23/2021
NUMBER PE-2015029306
PROFESSIONAL ENGINEER

REVISIONS

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

CROSS SECTIONS - WOODLAND DRIVE

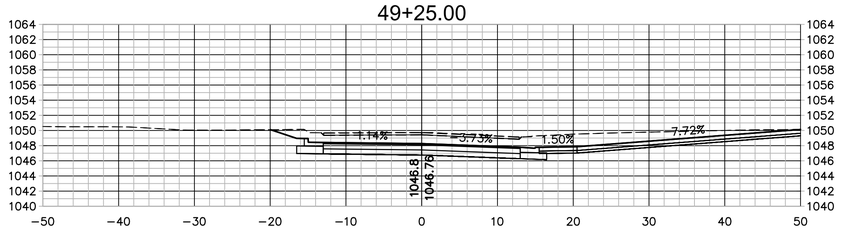
32ND STREET WIDENING
CITY OF JOPLIN

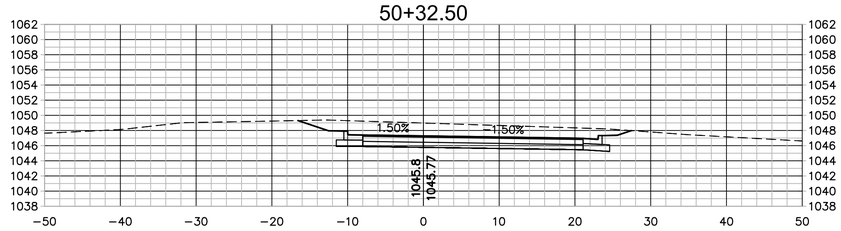
JOPLIN, MISSOURI

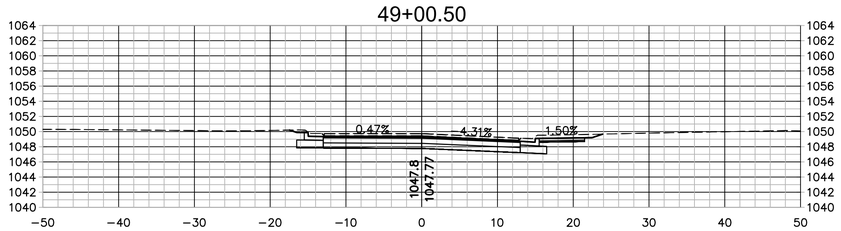
2021

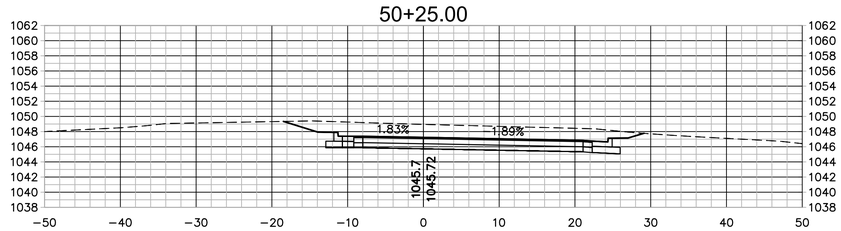
drawn by: JKL & NJJ
checked by: BMC & JKL
approved by: BMC
QA/QC by: PM
project no.: 015-2768
drawing no.: OA_T_XSC2_52768
date: 04/23/2021

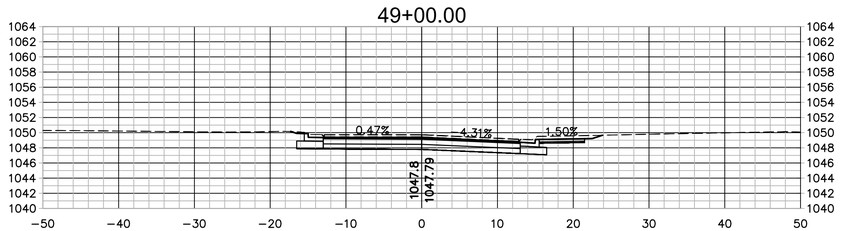
SHEET
A118 of A122

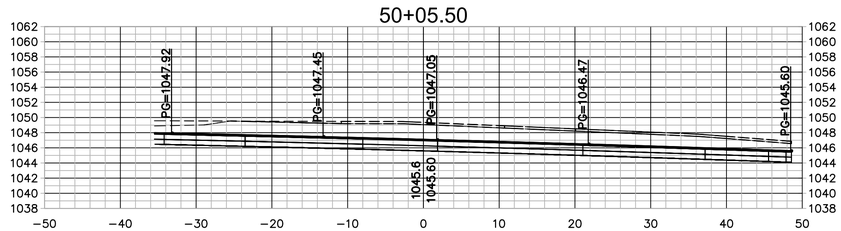


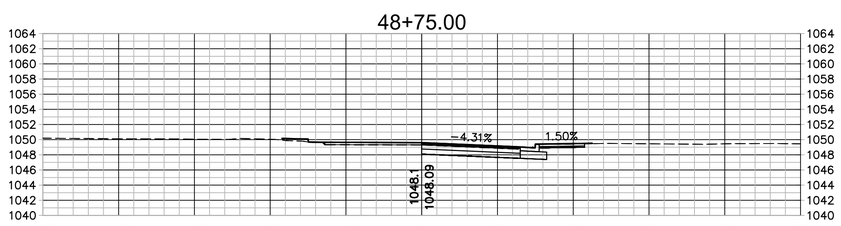


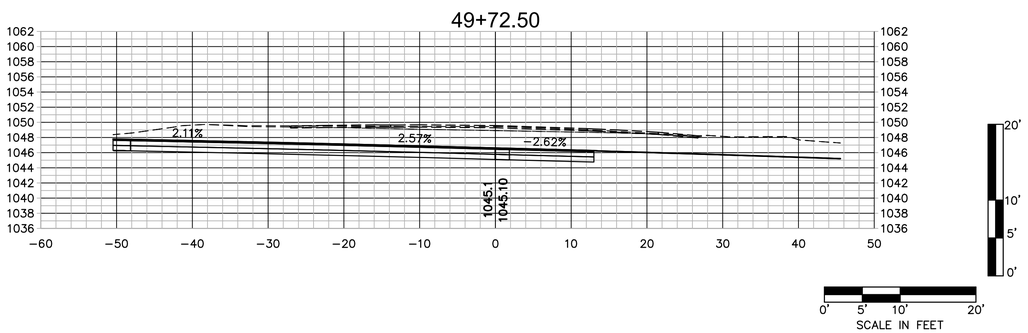


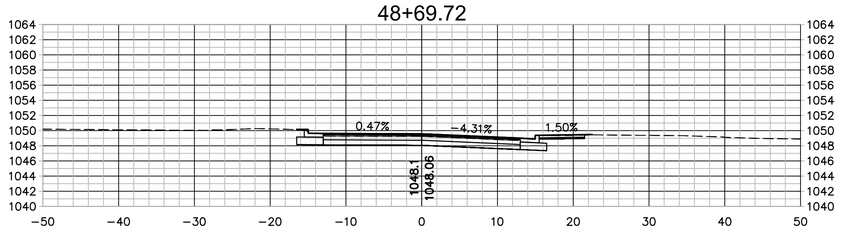


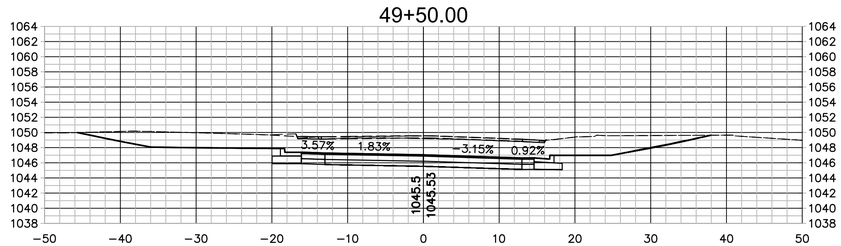












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STATE OF MISSOURI
BRIAN COOMES
Brian Coomes
04/23/2021
NUMBER PE-2015029306
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

CROSS SECTIONS - ASHWOOD AVENUE

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by: JKL & NJJ
checked by: BMC & JKL
approved by: BMC
QA/QC by: PM
project no.: 015-2768
drawing no.: OA_T_XSC2_52768
date: 04/23/2021

SHEET
A119 of A122

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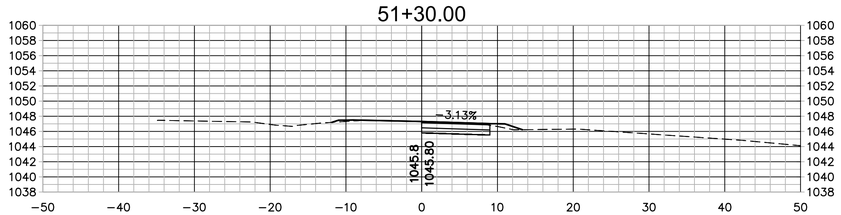

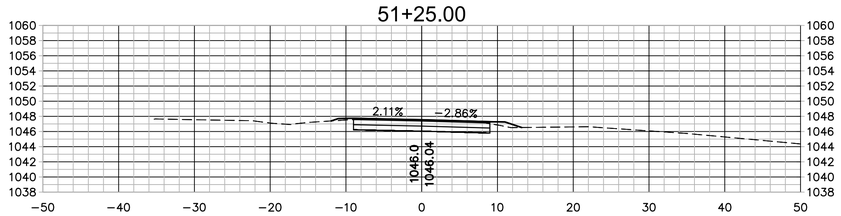

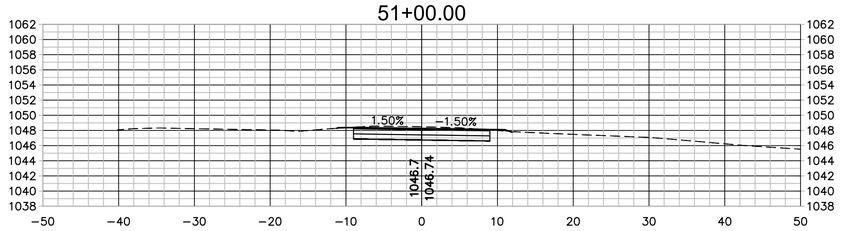

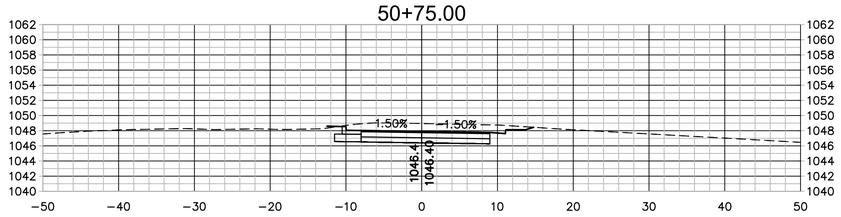

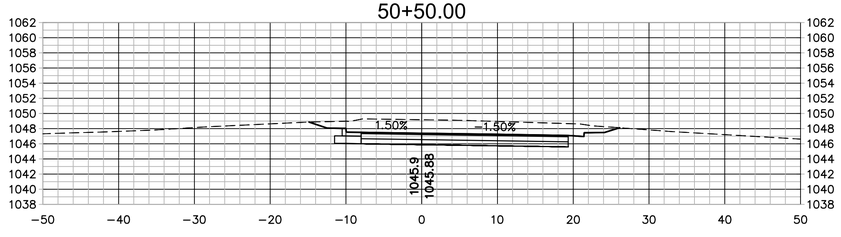

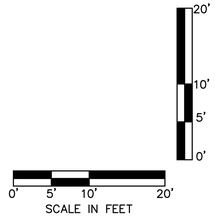

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STATE OF MISSOURI
BRIAN COOMES
Brian Coomes
04/23/2021
NUMBER PE-2015029306
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

CROSS SECTIONS - ASHWOOD AVENUE

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by: JKL & NJJ
checked by: BMC & JKL
approved by: BMC
QA/QC by: PM
project no.: 015-2768
drawing no.: OA_T_XSC2_52768
date: 04/23/2021

SHEET
A120 of A122

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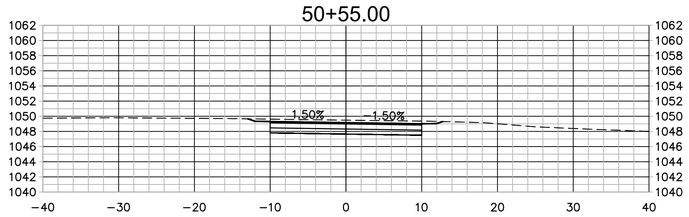

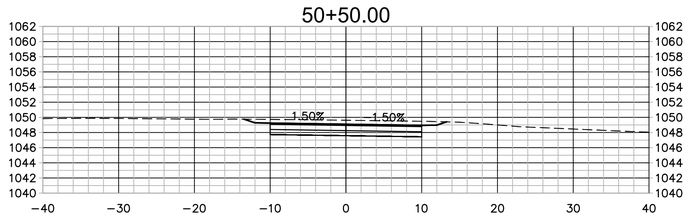

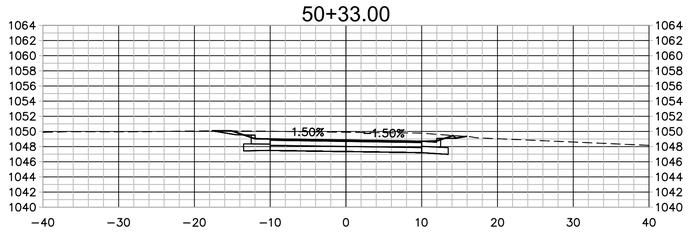

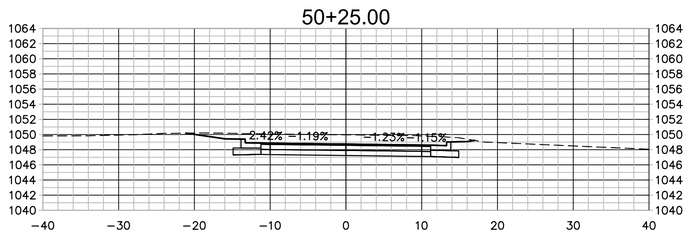

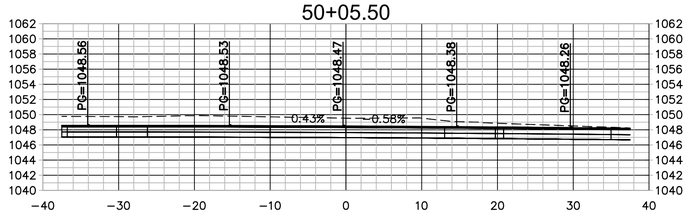

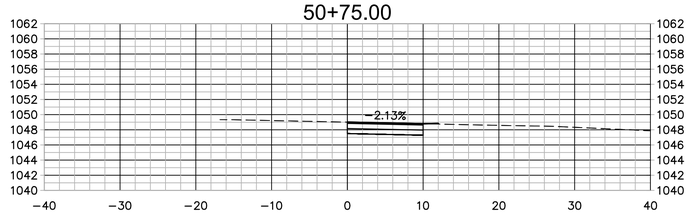

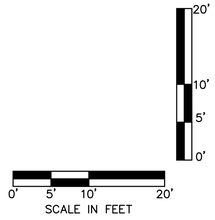

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BRIAN COOMES
Brian Coomes
04/23/2021
NUMBER PE-2015029306
PROFESSIONAL ENGINEER

REVISIONS

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

CROSS SECTIONS - ARCADIA ROAD

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by: JKL & NJJ
checked by: BMC & JKL
approved by: BMC
QA/QC by: PM
project no.: 015-2768
drawing no.: OA_T_XSC2_52768
date: 04/23/2021

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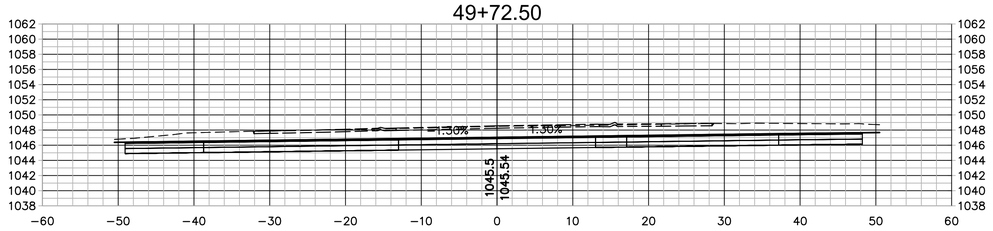

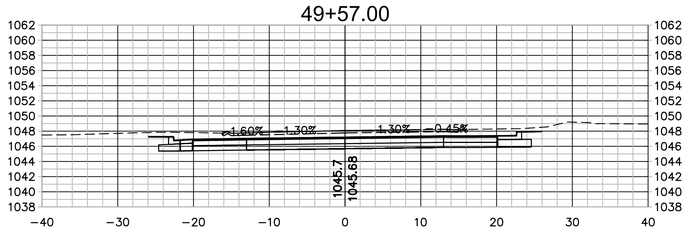

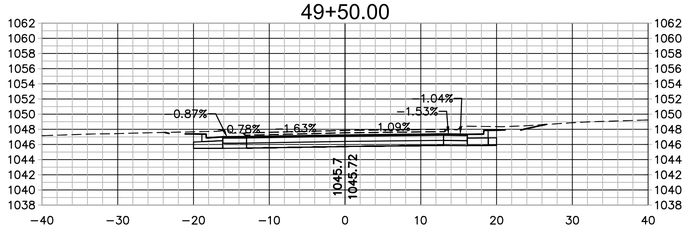

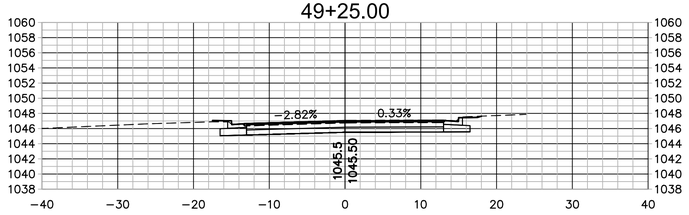

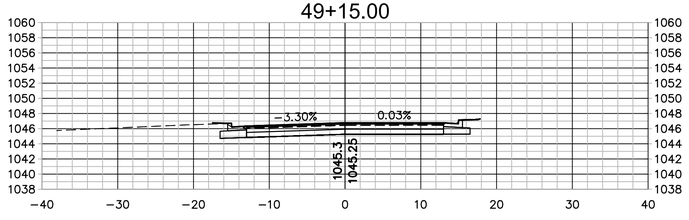

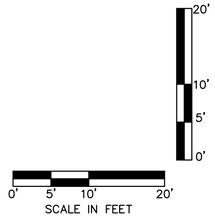

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STATE OF MISSOURI
BRIAN COOMES
Brian Coomes
04/23/2021
NUMBER PE-2015029306
PROFESSIONAL ENGINEER

REVISIONS

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

CROSS SECTIONS - JENNIFER AVENUE

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by: JKL & NJJ
checked by: BMC & JKL
approved by: BMC
QA/QC by: PM
project no.: 015-2768
drawing no.: OA_T_XSC2_52768
date: 04/23/2021

SHEET
A122 of A122

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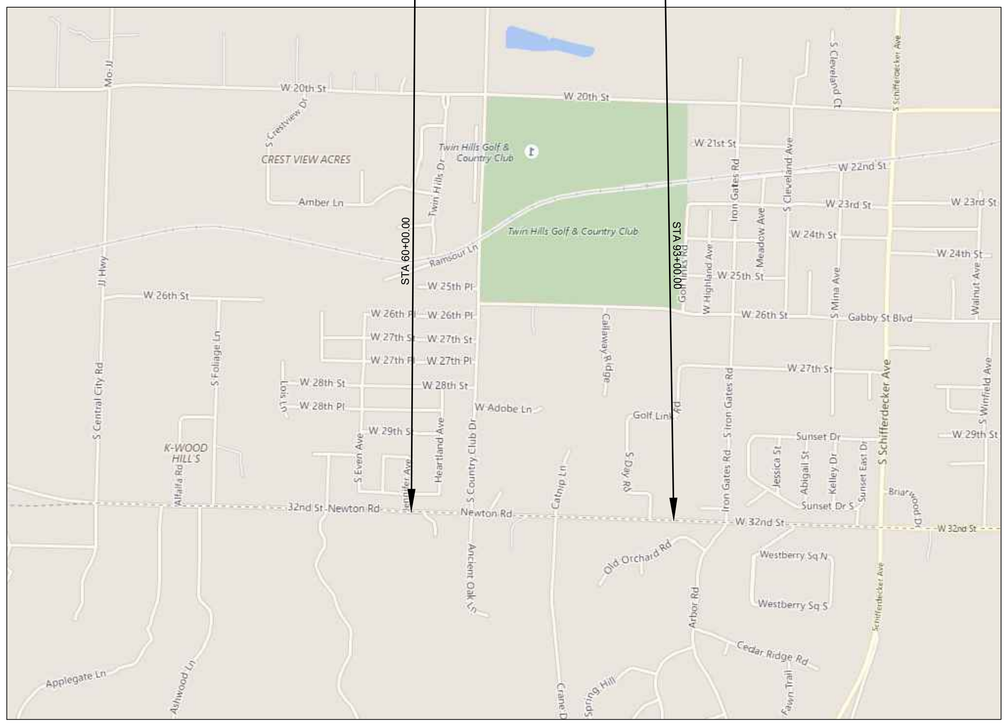
DATE: Apr 23, 2021 8:30am XREFS: OA_T_PTBLK_52768

PUBLIC STREET PLANS FOR
32ND STREET WIDENING
JENNIFER AVE. TO EAST OF DAY RD.
SECTIONS 17, 18, 19 & 20, TOWNSHIP 27N, RANGE 33W
CITY OF JOPLIN, MISSOURI
JASPER & NEWTON COUNTIES, MISSOURI

"B" PLANS
PROJECT LOCATION



N.T.S.

LOCATION MAP
NOT TO SCALE

LEGEND

CTL	SURVEY CONTROL POINT	TS	TRAFFIC SIGNAL BOX
	SURVEY BENCHMARK	TS	TRAFFIC SIGNAL MANHOLE
TBM	SURVEY TEMPORARY BENCHMARK		TRAFFIC SIGNAL POLE W/ ARM
GM	GAS METER		TRAFFIC SIGNAL POLE
GAR	GAS RISER	TS	TRAFFIC SIGNAL CONTROL BOX
	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
C	CABLE BOX		ELECTRIC CABINET
CV	CABLE VAULT		ELECTRIC JUNCTION BOX
TP	TELEPHONE PEDESTAL	SPH	SPRINKLER HEAD
	STORM MANHOLE	SCV	SPRINKLER CONTROL VALVE
	STORM GRATE		WATER METER PIT
S	SANITARY MANHOLE		FIRE HYDRANT
YL	YARD LIGHT	WM	WATER METER
LTP	LIGHT POLE	WV	WATER VALVE
	POWER POLE	FP	FLAG POLE
LPPP	POWER POLE W/ LIGHT		SIGN
	GUY WIRE		BOLLARD
BU	STUMP		WOOD POST
	BUSH		STEEL POST
	EVERGREEN TREE	COL	COLUMN
	DECIDUOUS TREE		BORE HOLE

- SECTION LINE
- PROPERTY LINE
- CENTER LINE
- PROPOSED ROW LINE
- EXISTING ROW LINE
- UTILITY EASEMENT
- 1370 EXISTING MAJOR CONTOUR
- 1371 EXISTING MINOR CONTOUR
- 1370 PROPOSED MAJOR CONTOUR
- 1371 PROPOSED MINOR CONTOUR
- TEL EXISTING TELEPHONE LINE
- SS EXISTING SANITARY LINE
- SD EXISTING STORM LINE
- G EXISTING GAS LINE
- W EXISTING WATER LINE
- EXISTING CHAIN LINK FENCE
- P—OH EXISTING OVERHEAD ELECTRIC
- FO EXISTING FIBER OPTIC CABLE
- P EXISTING PIPE LINE
- GRADING LIMITS
- TEMPORARY CONSTRUCTION EASEMENT
- PROPOSED PERMANENT EASEMENT
- PROPOSED CHAIN LINK FENCE
- PROPOSED WOOD PRIVACY FENCE
- EXISTING TREELINE
- CONSTRUCTION LIMITS
- UNDERDRAIN

- ASPHALT PAVEMENT
- CONCRETE SIDEWALK
- CONCRETE DRIVE
- AGGREGATE SURFACE
- ASPHALT OVERLAY
- STAMPED CONCRETE PAVEMENT
- DETECTABLE WARNING SURFACE
- CURB RAMP
- ROCK BLANKET

ABBREVIATION TABLE

M.G.	MATCH GRADE
TP	PAVEMENT
TC	TOP OF CURB
BC	BACK OF CURB
EP	EDGE OF PAVEMENT
R/W	RIGHT-OF-WAY
TCE	TEMPORARY CONSTRUCTION EASEMENT
PROP.	PROPOSED
EXIST.	EXISTING
TYP.	TYPICAL
(R)	REMOVAL
CONST.	CONSTRUCT
TBM	TEMPORARY BENCMARK
C.P.	CONTROL POINT
D.N.D.	DO NOT DISTURB
U.I.P.	USE IN PLACE
ADJ.	ADJUST
EL.	ELEVATION
ESMT.	EASEMENT
B-B	BACK OF CURB TO BACK OF CURB DIMENSION
℄	CENTERLINE

MISSOURI ONE CALL SYSTEM
1-800-DIG-RITE ■ 811
www.mo1call.com

THE EXISTING UTILITY LOCATIONS SHOWN ON THE PLANS ARE APPROXIMATE AND MAY NOT INCLUDE ALL LINES PRESENT. THE CONTRACTOR SHALL BE RESPONSIBLE TO CALL "1-800-DIG-RITE", AND COORDINATE FIELD LOCATION OF EXISTING UNDERGROUND UTILITIES PRIOR TO BEGINNING GRADING ACTIVITIES. !!STOP!! CALL BEFORE YOU DIG!!

DESIGN DESIGNATION
MAJOR ARTERIAL
DESIGN SPEED: 40 MPH
POSTED SPEED: 40 MPH



SECTION 17,18, 19 & 20, T-27-N, R-33-W
JASPER & NEWTON COUNTIES, MISSOURI

VICINITY MAP
SCALE: 1" = 2000'

INDEX OF SHEETS

SHEET NO.	TITLE
B01	TITLE SHEET
B02	SUMMARY OF QUANTITIES
B03-B12	RIGHT-OF-WAY AND EASEMENT PLANS
B13-B21	DEMOLITION AND REMOVAL PLANS
B22-B24	TYPICAL SECTIONS
B25-B38	ROADWAY PLAN AND PROFILES
B39-B46	SIDE STREET PLAN AND PROFILES
B47-B49	INTERSECTION LAYOUTS
B50-B54	DRIVE LAYOUTS
B55-B57	SIDEWALK RAMP LAYOUTS
B58-B60	DRAINAGE AREA MAP AND CALCULATIONS
B61-B70	STORM DRAIN PROFILES
B71-B77	STORM DRAIN DETAILS
B78-B79	RETAINING WALL PLAN AND PROFILES
B80-B82	RETAINING WALL DETAILS
B83-B91	EROSION CONTROL PLANS
B92-B100	SEEDING & SODDING PLANS
B101-B108	PAVEMENT MARKING & SIGNING PLANS
B109	SOUTHERN TRAILS SIGN DETAILS
B110-B150	CROSS SECTIONS

ELECTRIC – LIBERTY UTILITIES
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3400 S KODIAK RD
JOPLIN, MO 64801
(417) 626-6842

NATURAL GAS – SPIRE ENERGY
ATTN: KEN STEGALL
520 E. 5TH ST.,
JOPLIN, MO 64801
(417) 626-4831

WATER – MISSOURI-AMERICAN WATER CO.
ATTN: DEREC BASS
2650 E. 32ND ST. – SUITE 121
JOPLIN, MO 64804
(417) 623-0676 EXT. 1009

TELEPHONE – A.T.&T.
ATTN: KENNETH KENWORTHY
321 W. 8TH ST.,
JOPLIN, MO 64801
(417) 625-8090

CABLE TELEVISION – CABLE ONE DIGITAL
ATTN: RANDY KENNEDY
112 E. 32ND ST.,
JOPLIN, MO 64804
(417) 206-5399

FIBER OPTIC – LIBERTY CONNECT
ATTN: RANDY KENNEDY
720 SCHIFFERDECKER AVE.,
JOPLIN, MO 64801
(417) 625-5179

PREPARED & SUBMITTED BY:
CJW TRANSPORTATION CONSULTANTS, L.L.C.
5051 S. NATIONAL AVE. SUITE 7A
SPRINGFIELD, MO 65810

DANE M. SEILER — DATE 4/23/21

I CERTIFY THESE PLANS WERE PREPARED BY ME OR UNDER MY IMMEDIATE PERSONAL SUPERVISION.

Prepared by:
CJW
CJW Transportation Consultants, L.L.C.
5051 S. National Ave. Suite 7A Springfield, MO 65810
Tel: 417.889.3400 Fax: 417.889.3402 www.GoCJW.com
CJW Transportation Consultants, L.L.C. Engineering MO C.A. #2006012385

STATE OF MISSOURI
DANE MITCHELL SEILER
NUMBER PE-2010019595
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY
		REVISIONS	

COVER SHEET
32ND STREET WIDENING
CITY OF JOPLIN
2021
JOPLIN, MISSOURI

drawn by: AJT
checked by: JCR
approved by: DMS
QA/QC by: OLSSON
project no.: 015-2768
drawing no.:
date: 04/23/2021

SHEET
B01 of B150

DWG: G:\15065 - 32nd Street Roadway\015-2768 32nd Street Widening\40-Design\AutoCAD\Final Plans\Sheets\CJW_B01 COVER SHEET.dwg USER: Aaron
DATE: Apr 21, 2021 7:58am XREFS: CJW_T_CTBLK_015-2768 (2019)

RECAPITULATION OF QUANTITIES - BASE BID - SECTION B				
ITEM NO.	DESCRIPTION	UNIT	ESTIMATED QUANTITY	GOVERNING TECHNICAL SPECIFICATION
1	Mobilization	LS		JSP-0400-04
2	Contractor Furnished Construction Staking and Surveying	LS		JSP-0400-05
3	Clearing & Grubbing / Tree & Brush Removal	LS		JSP-1100-01
4	Demolition & Removal	LS		JSP-1100-02
5	Temporary Seeding, Fertilizing, and Mulching	ACRE	5	JSP-1000-01
6	Erosion Control Blanket (MoDOT Type 2.D)	SY	8,450	JSP-1000-01
7	8" Biodegradable Log	LF	9,220	JSP-1000-01
8	12" Biodegradable Log	LF	2,500	JSP-1000-01
9	Curb Inlet/Area Inlet Protection	EA	24	JSP-1000-01
10	Culvert Inlet Protection	EA	9	JSP-1000-01
11	Permanent Seeding, Fertilizing and Mulching (Hydroseed Cellulose Mulch)	ACRE	5	City 5100
12	Modify & Repair Exisitng Irrigation Systems	LS		JSP-5100-01
13	Kentucky Bluegrass Sodding	SY	3,185	City 5200
14	Turf Type Tall Fescue Sodding	SY		City 5200
15	Bermuda Sodding	SY		City 5200
16	Zoysia Sodding	SY		City 5200
17	Unclassified Excavation*	CY		City 1200
18	Embankment*	CY		City 1200
19	Embankment (Special)(Minimum 40% Chert)*	CY		JSP-1200-01
20	Imported Fill*	CY		City 1200
21	Removal of Unsuitable Material*	CY		City 1200
22	Backfill of Unsuitable Material*	CY		City 1200
23	Removal, Transportation & Disposal of Contaminated Soils*	CY		City 1800
24	Milling	SY		JSP-2300-01
25	Asphaltic Concrete Surface (2") (MoDOT BP-1)	TONS	1,625	City 2200
26	Asphaltic Concrete Surface (4") (MoDOT BP-1)	TONS		City 2200
27	Asphaltic Concrete Base (8") (MoDOT Bituminous Base)	TONS	6,500	City 2200
28	8" MoDOT Type 5 Aggregate Base	SY	14,625	JSP-1400-01
29	6" MoDOT Type 1 Aggregate Surface	SY	1,041	JSP-1400-02
30	Temporary Surfacing Material (Aggregate)(MoDOT Type 1)	TONS	300	JSP-1400-02
31	Temporary Surfacing Material (HMA MoDOT BP-1)	TONS	700	City 2200
32	8" Concrete Pavement (Gutter Crossing incl. Intergral Curb)	SY	115	JSP-3100-01
33	8" Concrete Pavement (Roadway)	SY	460	City 3100
34	2'-6" Curb & Gutter, Combined (All Types)	LF	6,945	JSP-3200-01
35	Curb Flume (3' wide)	SY		JSP-3100-02
36	Concrete Flume (6' wide)	LF	101	JSP-3100-02
37	4" Sidewalk Construction (Incl. 2" MoDOT Type 5 Agg. Base)	SY	2,895	JSP-3300-01
38	Curb Ramp (Incl. 2" MoDOT Type 5 Agg. Base)	SY	190	JSP-3300-01
39	Residential Driveway Construction (6" Concrete)(Inc. 4" MoDOT Type 5 Agg. Base)	SY	96	JSP-3400-01
40	Commercial Driveway Construction (8" Concrete) (Incl. 4" MoDOT Type 5 Agg. Base)	SY	1,032	JSP-3400-01
41	Cast-in-Place Concrete Wall (Sidewalk)	SF		JSP-3300-02
42	Cast-in-Place Concrete Wall (Sidewalk)(Special)	SF	505	Plan Sheet B80
43	Soldier Pile Retaining Wall	SF	1,804	Plan sheet B81-B82
44	Type D Barrier w/ Integral Reinforced Slab	LF	380	Plan sheet B81-B82
45	Relocate Existing Vinyl Fence	LF		City 2307
46	Relocate or Replace Existing Vinyl Fence (Southern Trails)	LF	560	City 2307
47	Temporary Fencing (Chain Link)	LF		City 2307
48	Temporary Gate	EA		City 2307
49	Relocate Existing Power Service for Gate	LS	#REF!	JSP-2307-01
50	Type A Catch Basin 3'x3' I.D.	EA	4	City 4400
51	Type C Inlet 4'x7' I.D.	EA	2	City 4400
52	Type C Inlet 6'x3' I.D.	EA		City 4400
53	Type C Inlet 6'x4' I.D.	EA		City 4400
54	Type C Inlet 6'x5' I.D.	EA		City 4400
55	Type C Inlet 6'x6' I.D.	EA		City 4400
56	Type C Inlet 8'x3' I.D.	EA		City 4400
57	Type C Inlet 8'x4' I.D.	EA		City 4400
58	Type D Inlet 3'x7' I.D.	EA	7	City 4400
59	Type D Inlet 4'x7' I.D.	EA	9	City 4400
60	Type D Inlet 6'x3' I.D.	EA		City 4400
61	Type D Inlet 6'x4' I.D.	EA		City 4400
62	Type D Inlet 8'x3' I.D.	EA		City 4400
63	Type D Inlet 8'x4' I.D.	EA		City 4400
64	Area Inlet 3'x3' I.D.	EA	1	City 4400
65	Area Inlet 4'x3' I.D.	EA		City 4400
66	Area Inlet 4'x4' I.D.	EA	1	City 4400
67	Area Inlet 5'x4' I.D.	EA		City 4400
68	Area Inlet 8'x4' I.D.	EA		City 4400

RECAPITULATION OF QUANTITIES - BASE BID - SECTION B				
ITEM NO.	DESCRIPTION	UNIT	ESTIMATED QUANTITY	GOVERNING TECHNICAL SPECIFICATION
69	Junction Box 3'x3' I.D.	EA		City 4400
70	Junction Box 4'x4' I.D.	EA	2	City 4400
71	4' Diameter Manhole - Storm Sewer	EA		City 4400
72	Precast Drop Inlet (MoDOT Type S-1)	EA		JSP-4400-01
73	12" Class III RCP (including trenching, bedding, backfill, gaskets, and concrete collars)	LF		City 4200
74	15" Class III RCP (including trenching, bedding, backfill, gaskets, and concrete collars)	LF	282	City 4200
75	18" Class III RCP (including trenching, bedding, backfill, gaskets, and concrete collars)	LF	1,057	City 4200
76	24" Class III RCP (including trenching, bedding, backfill, gaskets, and concrete collars)	LF	1,456	City 4200
77	24" Class V RCP (including trenching, bedding, backfill, gaskets, and concrete collars)	LF		City 4200
78	30" Class III RCP (including trenching, bedding, backfill, gaskets, and concrete collars)	LF	690	City 4200
79	30" Class V RCP (including trenching, bedding, backfill, gaskets, and concrete collars)	LF		City 4200
80	36" Class III RCP (including trenching, bedding, backfill, gaskets, and concrete collars)	LF		City 4200
81	42" Class III RCP (including trenching, bedding, backfill, gaskets, and concrete collars)	LF		City 4200
82	48" Class V RCP (including trenching, bedding, backfill, gaskets, and concrete collars)	LF		City 4200
83	44"x27" Class III RCPA (including trenching, bedding, backfill, gaskets, and concrete collars)	LF		City 4200
84	19"x30" HE RCP (including trenching, bedding, backfill, gaskets, and concrete collars)	LF	35	City 4200
85	15" RCP FES (including trenching, bedding, backfill, gaskets, and concrete collars)	EA	2	City 4200
86	18" RCP FES (including trenching, bedding, backfill, gaskets, and concrete collars)	EA	10	City 4200
87	24" RCP FES (including trenching, bedding, backfill, gaskets, and concrete collars)	EA	2	City 4200
88	30" RCP FES (including trenching, bedding, backfill, gaskets, and concrete collars)	EA		City 4200
89	42" RCP FES (including trenching, bedding, backfill, gaskets, and concrete collars)	EA		City 4200
90	48" RCP FES (including trenching, bedding, backfill, gaskets, and concrete collars)	EA		City 4200
91	19"X30" HE RCP FES (including trenching, bedding, backfill, gaskets, and concrete collars)	EA	2	City 4200
92	24" RCP PRE-CAST TEE	EA	1	City 4200
93	108"x48" Reinforced Concrete Box Culvert (RCBC)	LF	204	JSP-4200-01
94	108"x48" RCBC Inlet/Outlet Structures	EA	2	JSP-4200-01
95	15" Nyloplast Drain Basin	EA		JSP-4400-03
96	10" HDPE (including trenching, bedding, backfill, gasket, and collars)	LF		City 4200
97	12" HDPE (including trenching, bedding, backfill, gasket, and collars)	LF		City 4200
98	MoDOT Rock Lining for Culvert Outlet	SY	90	JSP-2303-01
99	Flexamat 10NW UV-T	SY	100	JSP-2303-02
100	Rip-Rap Splash Pad	SY	970	JSP-2303-03
101	Southern Trails Monument Signage	LS	1	JSP-2300-02
102	Removal & Resetting Existing Signs	LS	0.3	JSP-2300-03
103	Permanent Signage-Flat Sheet	SF	85	JSP-2300-03
104	Steel Sign Support (2 Inch Round) (Type P)	LF	86	JSP-2300-03
105	Steel Sign Support (2-1/2 Inch Round NP-40) (Type P1)	LF	42	JSP-2300-03
106	Steel Sign Support (2-1/2 Inch Round SCH 40) (Type P2)	LF		JSP-2300-03
107	Sign Post Foundation, Combined (Including Socket & Concrete) (All Types)	EA	13	JSP-2300-03
108	Pavement Marking Removal	LF		City 2306
109	4" White Pavement Marking	LF		City 2306
110	4" Yellow Pavement Marking	LF	9,650	City 2306
111	6" White Pavement Marking	LF	395	City 2306
112	12" White Pavement Marking	LF		City 2306
113	12" Yellow Pavement Marking	LF		City 2306
114	24" White Pavement Marking	LF	66	City 2306
115	Left/Right Turn Arrow White Pavement Marking Symbol	EA	19	City 2306
116	"Only" White Pavement Marking Symbol	EA		City 2306
117	Traffic Signal Modifications	LS		JSP-9000-01
118	3" Schedule 40 HDPE Conduit w/ Pull String (incl. Boring or Trenching) (Fiber Optic)	LF		JSP-9000-02
119	Type II Fiber Optic Pull Box	EA		JSP-9000-02
120	1-1c 10 Tracer Wire	LF		JSP-9000-02
121	Traffic Control Signs (Total Area)	SF		JSP-6700-01
122	Type III Movable Barricade	EA		JSP-6700-01
123	Channelizer	EA		JSP-6700-01
124	Adjust Sanitary Sewer Manhole	EA	1	JSP-2300-04
125	12" PVC Sewer Main	LF		City 4100
126	Trenching (6' to 8') - Sanitary Sewer	LF		City 1700
127	Trenching (8' to 10') - Sanitary Sewer	LF		City 1700
128	Trenching (10' to 12') - Sanitary Sewer	LF		City 1700
129	Trenching (12' to 14') - Sanitary Sewer	LF		City 1700
130	24" Steel Schedule 40 Pipe Casing including Boring and Jacking (Unclassified)	LF		City 1600
131	12" Restrained Joint Ductile Iron Sewer Main (Installed in Casing)	LF		City 4100
132	4' Standard Manhole - Sanitary Sewer	EA		City 4300
133	4' Manhole Extra Depth - Sanitary Sewer	LF		City 4300
134	Sanitary Sewer Testing	LS		City 4100
135	Bypass Pumping	LS		City 4100
136	Lift Station Decommission	LS		JSP-4100-01

* See sheet 9 for overall earthworks summary.

Prepared by:
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STATE OF MISSOURI
DANE MITCHELL SEILER
NUMBER PE-2010019595
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

SUMMARY OF QUANTITIES

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by: AJT
checked by: JCR
approved by: DMS
QA/QC by: OLSSON
project no.: 015-2768
drawing no.:
date: 04/23/2021

SHEET
B02 of B150

DWG: G:\15065 - 32nd Street Roadway\015-2768_32nd Street Widening\40-Design\AutoCAD\Final Plans\Sheets\CJW\B02 SUMMARY OF QUANTITIES.dwg USER: Aaron
DATE: Apr 21, 2021 3:32pm XREFS: CJW_T_CTBLK_015-2768 (2019)

Prepared by:
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STATE OF MISSOURI
DANE MITCHELL SEILER
NUMBER PE-2010019595
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PARCEL 17
ETHAN & HANNAH NEW
ALL LOT 75 & W. 36.5 FEET LOT 74 CEDAR RIDGE SUB-DIVISION PLAT NO. 4 PHASE II REPLAT
BOOK 2,178, PAGE 1,619
R/W ACQUISITION = 200 SQ.FT.
TEMP. CONST. ESMT.=485SQ.FT.

PARCEL 23
JOSEPH & SARIAH WALTERS
ALL LOT 73 & LOT 74 EX. W. 36.5 FEET CEDAR RIDGE SUB-DIVISION PLAT NO. 4 PHASE II REPLAT
BOOK 2,212, PAGE 1,947
R/W ACQUISITION = NONE
TEMP. CONST. ESMT.=NONE

PARCEL 24
SALVATION ARMY, AN ILLINOIS CORPORATION
LOT 72 CEDAR RIDGE SUB-DIVISION PLAT NO. 4 PHASE II REPLAT
BOOK 2,029, PAGE 57
R/W ACQUISITION = NONE
TEMP. CONST. ESMT.=365 SQ.FT.

PARCEL 25
DUSTIN RICHARDSON
LOT 71 CEDAR RIDGE SUB-DIVISION PLAT NO. 4 PHASE II REPLAT
BOOK 2,355, PAGE 2,193
R/W ACQUISITION = NONE
TEMP. CONST. ESMT.=365 SQ.FT.

PARCEL 26
CHASTITY ROSSER
LOT 70 CEDAR RIDGE SUB-DIVISION PLAT NO. 4 PHASE II REPLAT
BOOK 2,068, PAGE 2,437
R/W ACQUISITION = NONE
PERM. SLOPE ESMT. = 2,511 SQ. FT.
TEMP. CONST. ESMT.=974 SQ. FT.

PARCEL 27
CHARLENE CAMPBELL
LOT 69 CEDAR RIDGE SUB-DIVISION PLAT NO. 4 PHASE II REPLAT
BOOK 2,396, PAGE 212
R/W ACQUISITION = NONE
PERM. SLOPE ESMT. = 313 SQ. FT.
TEMP. CONST. ESMT.= NONE

PROPOSED TEMPORARY CONSTRUCTION EASEMENT
PROPOSED PERMANENT SLOPE EASEMENT
LIMITS OF DISTURBANCE
EXISTING RIGHT-OF-WAY

+49.47 45.00' LT
+49.48 50.00' LT
+85.97 45.00' LT
+85.97 50.00' LT
+95.46 45.00' LT
+95.47 50.00' LT
+68.46 45.00' LT
+68.47 50.00' LT
+41.46 45.00' LT
+41.47 50.00' LT
+41.50 65.00' LT
+38.89 65.00' LT
+63.25 70.00' LT
+94.13 70.00' LT
+91.51 75.03' LT

B 927, P 358 10' R/W
B 906 P 640 35' R/W
B 222 P 609 35' R/W

℄ 32ND STREET

60+00 61+00 62+00 63+00 64+00 65+00
32ND STREET

MATCH LINE 60+00 - SEE SECTION A
MATCH LINE 65+00 - SEE SHEET B04

70.00' EXISTING RIGHT-OF-WAY
90.00' PROPOSED RIGHT-OF-WAY
5.00'
45.00'
25.00'
20.00'
20.00'
25.00'
30.00'

+51.57 45.00' RT
+92.10 65.00' RT
+63.80 65.00' RT
+63.98 45.00' RT

UTILITY EASEMENT EMPIRE DISTRICT ELECTRIC B 349, P 277
APPROXIMATE LOCATION 35' EACH SIDE OF THE LINE

DEED FROM COUNTY TO PROPERTY OWNER
B 227, P 255

UTILITY EASEMENT EMPIRE DISTRICT ELECTRIC B349, P 279 AND
B 349, P 277 APPROXIMATE LOCATION 35' EACH SIDE OF THE LINE

PARCEL 22
MONKEY HILL MINING COMPANY, LLC
PT NE1/4 NE 1/4 19-27-33
BOOK 367, PAGE 4,745 & 4,746
R/W ACQUISITION = 26,376 SQ. F.T
PERM. SLOPE ESMT. = 22,977 SQ. FT.
TEMP. CONST. ESMT.=32,738 SQ. FT.

N
0' 10' 20' 40'
SCALE IN FEET

MISSOURI ONE CALL SYSTEM
1-800-DIG-RITE = 811
www.mo1call.com

LEGEND
- PROPOSED RIGHT-OF-WAY
- TEMPORARY CONSTRUCTION EASEMENT LINE
- PERMANENT SLOPE EASEMENT LINE
- PERMANENT ACCESS EASEMENT LINE
- PERMANENT DRAINAGE EASEMENT LINE
- LIMITS OF DISTURBANCE
- TEMPORARY CONSTRUCTION EASEMENT
- EXCEPTION TO TEMPORARY CONSTRUCTION EASEMENT
- PROPOSED RIGHT-OF-WAY
- PERMANENT SLOPE EASEMENT
- PERMANENT ACCESS EASEMENT
- PERMANENT DRAINAGE EASEMENT

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

RIGHT OF WAY & EASEMENT PLANS

32ND STREET WIDENING
CITY OF JOPLIN

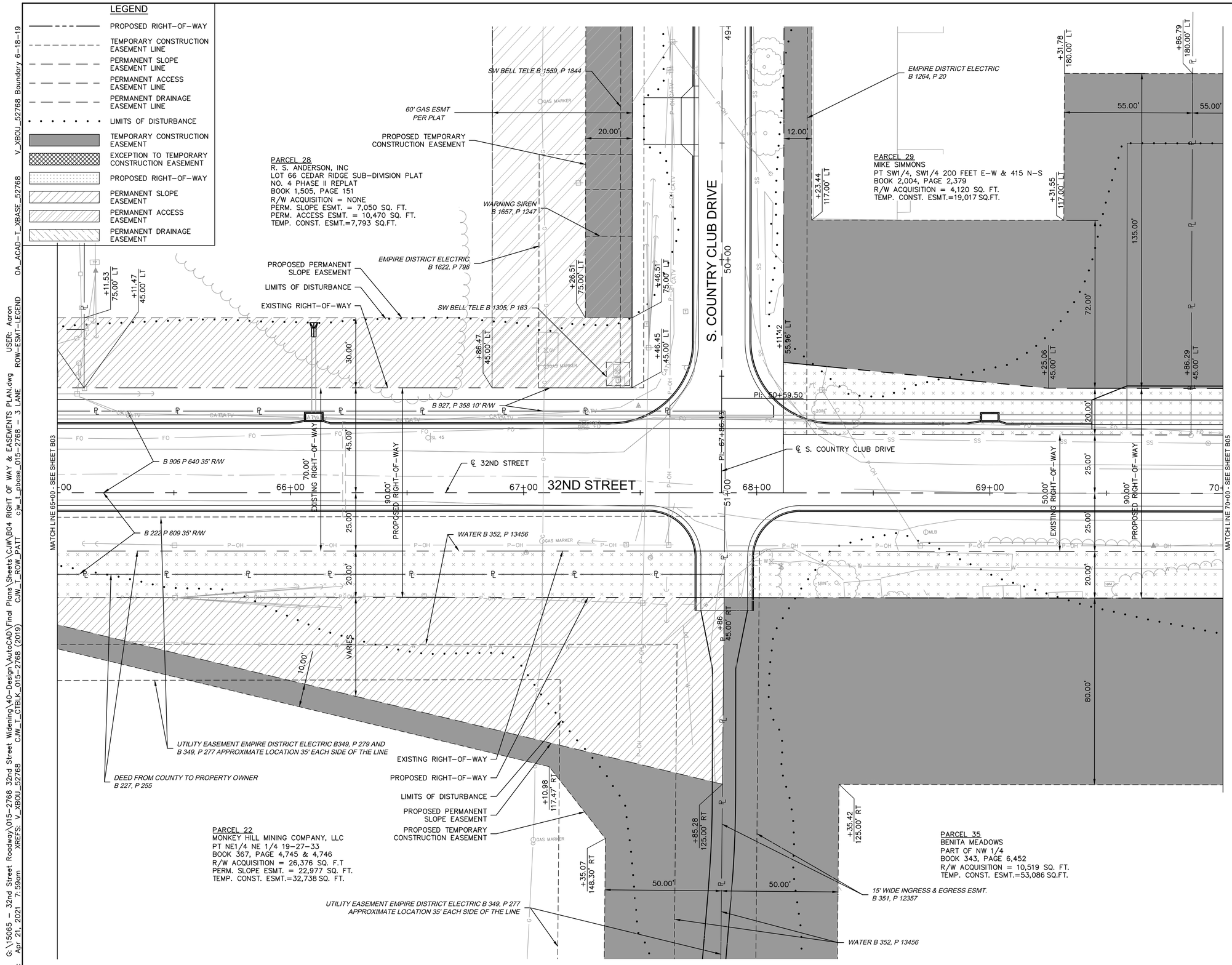
JOPLIN, MISSOURI

2021

drawn by: AJT
checked by: JCR
approved by: DMS
QA/QC by: OLSSON
project no.: 015-2768
drawing no.:
date: 04/23/2021

SHEET
B03 of B150

DWG: G:\15065 - 32nd Street Roadway\015-2768 32nd Street Widening\40-Design\AutoCAD\Final Plans\Sheets\CJW\B03 RIGHT OF WAY & EASEMENTS PLAN.dwg USER: Aaron
DATE: Apr 21, 2021 7:58am XREFS: V_XBOU_52768 CJW_T_CTBLK_015-2768 (2019) CJW_T_ROW_PATT ROW-ESMT-LEGEND OA_ACAD-T_XBASE_52768 cjw_t_pbase_015-2768 - 3 lane



DWG: G:\15065 - 32nd Street Roadway\015-2768 32nd Street Widening\40-Design\AutoCAD\Final Plans\Sheets\CJW\B04 RIGHT OF WAY & EASEMENTS PLAN.dwg USER: Aaron
DATE: Apr 21, 2021 7:59am XREFS: V_XBOU_52768 CJW_T_CTBLK_015-2768 (2019) CJW_T_ROW_PATT cjw_t_pbase_015-2768 - 3 LANE ROW-ESMT-LEGEND OA_ACAD-T_XBASE_52768 V_XBOU_52768 Boundary 6-18-19

Prepared by:
CJW
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DANE MITCHELL SEILER E-23271 NUMBER PE-2010019595 STATE OF MISSOURI PROFESSIONAL ENGINEER

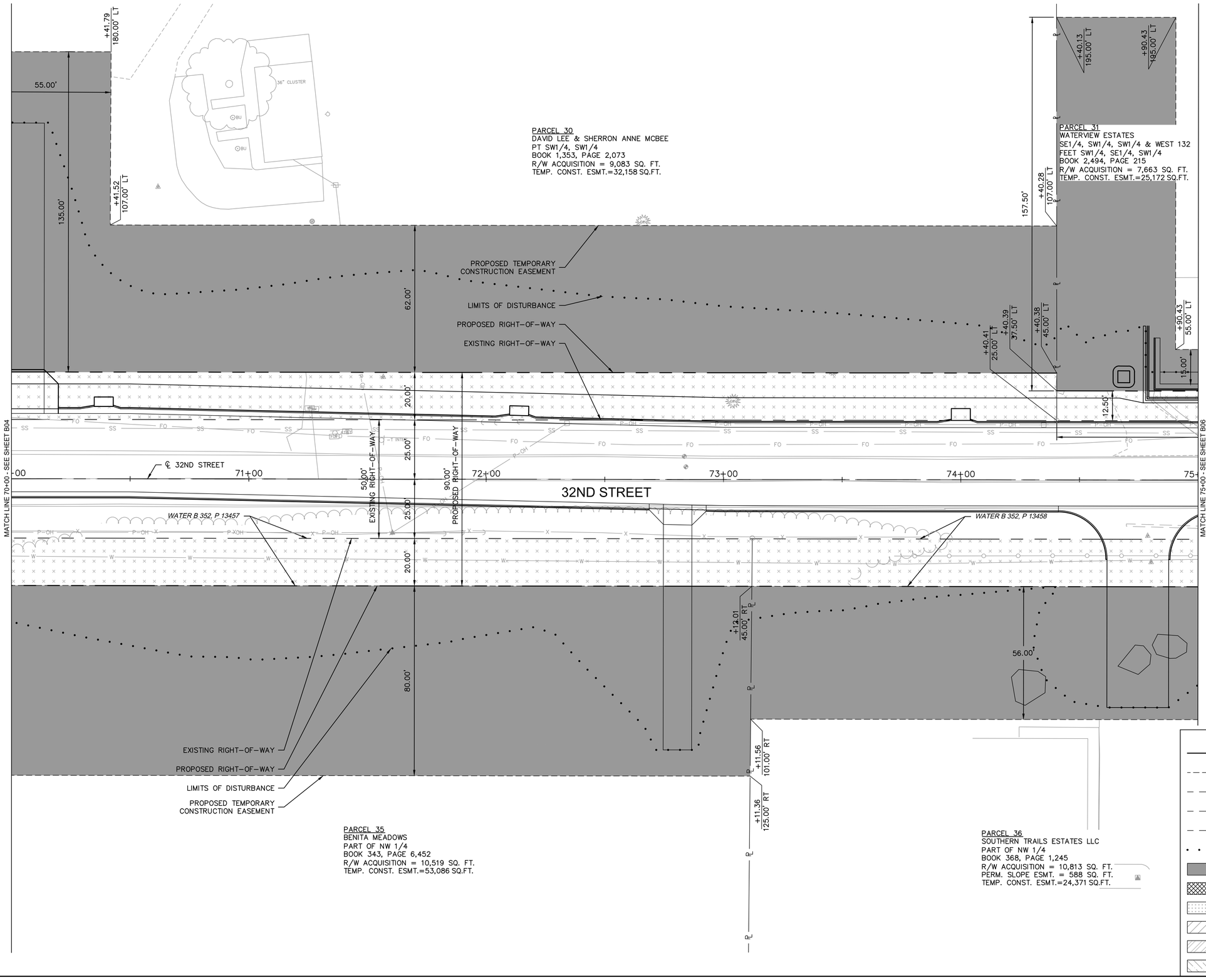
REV. NO.	DATE	REVISIONS DESCRIPTION	BY
		REVISIONS	

RIGHT OF WAY & EASEMENT PLANS
32ND STREET WIDENING
CITY OF JOPLIN
JOPLIN, MISSOURI
2021

drawn by: AJT
checked by: JCR
approved by: DMS
QA/QC by: OLSSON
project no.: 015-2768
drawing no.:
date: 04/23/2021

SHEET B04 of B150

MISSOURI ONE CALL SYSTEM
1-800-DIG-RITE = 811
www.mo1call.com



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STATE OF MISSOURI
DANE MITCHELL SEILER
#2021 NUMBER PE-2010019595
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

RIGHT OF WAY & EASEMENT PLANS

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by:	AJT
checked by:	JCR
approved by:	DMS
QA/QC by:	OLSSON
project no.:	015-2768
drawing no.:	
date:	04/23/2021

SHEET
B05 of B150

DWG: G:\15065 - 32nd Street Roadway\015-2768 32nd Street Widening\40-Design\AutoCAD\Final Plans\Sheets\CJW\B05 RIGHT OF WAY & EASEMENTS PLAN.dwg USER: Aaron
DATE: Apr 21, 2021 7:59am XREFS: V_XBOU_52768 CJW_T_CTBLK_015-2768 (2019) CJW_T_ROW_PATT cjw_t_pbase_015-2768 - 3 LANE ROW-ESMT-LEGEND OA_ACAD-T_XBASE_52768 V_XBOU_52768 Boundary 6-18-19

DWG: G:\15065 - 32nd Street Roadway\015-2768 32nd Street Widening\40-Design\AutoCAD\Final Plans\Sheets\CJW\B06 RIGHT OF WAY & EASEMENTS PLAN.dwg USER: Aaron
DATE: Apr 21, 2021 7:59am XREFS: V_XBOU_52768 CJW_T_CTBLK_015-2768 (2019) CJW_T_ROW_PATT CJW_T_ROW-ESMT-LEGEND OA_ACAD-T_XBASE_52768 V_XBOU_52768 Boundary 6-18-19

LEGEND

- PROPOSED RIGHT-OF-WAY
- TEMPORARY CONSTRUCTION EASEMENT LINE
- PERMANENT SLOPE EASEMENT LINE
- PERMANENT ACCESS EASEMENT LINE
- PERMANENT DRAINAGE EASEMENT LINE
- LIMITS OF DISTURBANCE
- TEMPORARY CONSTRUCTION EASEMENT
- EXCEPTION TO TEMPORARY CONSTRUCTION EASEMENT
- PROPOSED RIGHT-OF-WAY
- PERMANENT SLOPE EASEMENT
- PERMANENT ACCESS EASEMENT
- PERMANENT DRAINAGE EASEMENT

PARCEL 31
WATERVIEW ESTATES
SE1/4, SW1/4, SW1/4 & WEST 132 FEET SW1/4, SE1/4, SW1/4
BOOK 2,494, PAGE 215
R/W ACQUISITION = 7,663 SQ. FT.
TEMP. CONST. ESMT.=25,172 SQ.FT.

PARCEL 32
RBC ENTERPRISES
3110 S. CATNIP LANE
BOOK 2,494, PAGE 528
R/W ACQUISITION = 7,270 SQ. FT.
PERM. SLOPE ESMT. = 3,664 SQ. FT.
TEMP. CONST. ESMT.=5,846 SQ.FT.

PARCEL 36
SOUTHERN TRAILS ESTATES LLC
PART OF NW 1/4
BOOK 368, PAGE 1,245
R/W ACQUISITION = 10,813 SQ. FT.
PERM. SLOPE ESMT. = 588 SQ. FT.
TEMP. CONST. ESMT.=24,371 SQ.FT.

PARCEL 37
EDWARD & ALISON HERSHEWE
431 VIRGINIA
BOOK 354, PAGE 4,486 & 4,613
R/W ACQUISITION = 27,754 SQ. FT.
PERM DRAINAGE ESMT. = 6,152 SQ. FT.
PERM SLOPE ESMT. = 9,748SQ. FT.
TEMP. CONST. ESMT.= 66,656 SQ.FT.

PROPOSED TEMPORARY CONSTRUCTION EASEMENT
LIMITS OF DISTURBANCE
PROPOSED RIGHT-OF-WAY
EXISTING RIGHT-OF-WAY
PROPOSED PERMANENT SLOPE EASEMENT
PROPOSED PERMANENT DRAINAGE EASEMENT

CATNIP LANE
32ND STREET
CRANE DRIVE
℄ 32ND STREET
℄ CATNIP LANE
℄ CRANE DRIVE
PI: 48+57.12
PI: 49+42.26
PI: 50+99.95
MATCH LINE 75+00 - SEE SHEET B05
MATCH LINE 80+00 - SEE SHEET B07
WATER B 352, P 13458
WATER B 352, P 13721

+58.63 195.00' LT
+23.63 195.00' RT
+93.63 55.00' LT
+93.63 70.00' LT
+58.63 70.00' LT
+23.63 85.00' LT
+41.41 85.00' LT
+42.98 68.42' LT
+47.08 25.00' LT
+07.63 68.42' LT
+17.63 46.80' LT
+64.90 37.50' LT
+32.13 51.00' RT
+32.13 101.00' RT
+98.36 51.00' RT
+19.14 45.00' RT
+35.57 61.65' RT
+30.21 83.26' RT
+10.48 66.43' RT
+94.31 136.56' RT
+29.30 137.14' RT
+33.56 81.63' RT
+98.91 96.00' RT
+97.40 146.00' RT
+26.28 146.00' RT
+19.93 190.00' RT

17.50'
12.50'
50.00' EXISTING RIGHT-OF-WAY
25.00'
25.00'
82.50' PROPOSED RIGHT-OF-WAY
20.00'
6.00'
57'

0' 10' 20' 40'
SCALE IN FEET

1-800-DIG-RITE ■ 811
www.mo1call.com

Prepared by:
CJW Transportation Consultants, L.L.C.
CJW Transportation Consultants, L.L.C. Engineering MO C.A. #2006012385
5051 S. National Ave. Suite 7A Springfield, MO 65810
Tel: 417.889.3400 Fax: 417.889.3402 www.GoCJW.com

DANE MITCHELL SEILER
E-23271
NUMBER
PE-2010019595
STATE OF MISSOURI
PROFESSIONAL ENGINEER

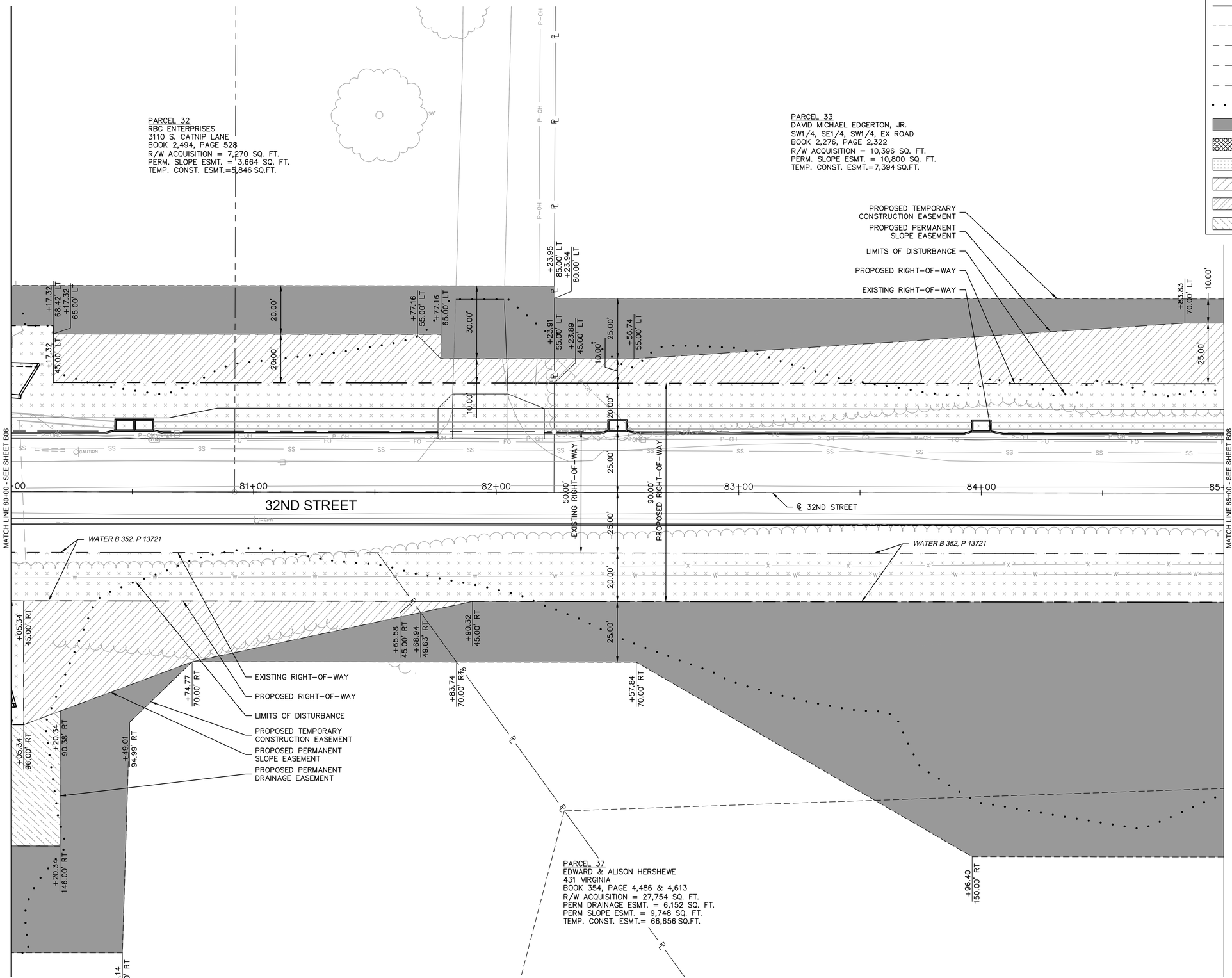
REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

RIGHT OF WAY & EASEMENT PLANS
32ND STREET WIDENING
CITY OF JOPLIN
JOPLIN, MISSOURI
2021

drawn by: AJT
checked by: JCR
approved by: DMS
QA/QC by: OLSSON
project no.: 015-2768
drawing no.:
date: 04/23/2021

SHEET
B06 of B150



LEGEND

- PROPOSED RIGHT-OF-WAY
- TEMPORARY CONSTRUCTION EASEMENT LINE
- PERMANENT SLOPE EASEMENT LINE
- PERMANENT ACCESS EASEMENT LINE
- PERMANENT DRAINAGE EASEMENT LINE
- LIMITS OF DISTURBANCE
- TEMPORARY CONSTRUCTION EASEMENT
- EXCEPTION TO TEMPORARY CONSTRUCTION EASEMENT
- PROPOSED RIGHT-OF-WAY
- PERMANENT SLOPE EASEMENT
- PERMANENT ACCESS EASEMENT
- PERMANENT DRAINAGE EASEMENT

N

0' 10' 20' 40'
SCALE IN FEET

MISSOURI ONE CALL SYSTEM
1-800-DIG-RITE or 811
www.mo1call.com

Prepared by:
CJW
CJW Transportation Consultants, L.L.C.
CJW Transportation Consultants, L.L.C. Engineering MO C.A. #2006012385
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STATE OF MISSOURI
DANE MITCHELL SEILER
E-23271
NUMBER
PE-2010019595
PROFESSIONAL ENGINEER

REV. NO.	DATE	BY	REVISIONS DESCRIPTION
			REVISIONS

RIGHT OF WAY & EASEMENT PLANS

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by: AJT
checked by: JCR
approved by: DMS
QA/QC by: OLSSON
project no.: 015-2768
drawing no.:
date: 04/23/2021

SHEET
B07 of B150

DWG: G:\15065 - 32nd Street Roadway\015-2768 32nd Street Widening\40-Design\AutoCAD\Final Plans\Sheets\CJW\B07 RIGHT OF WAY & EASEMENTS PLAN.dwg USER: Aaron
DATE: Apr 21, 2021 7:59am XREFS: V_XBOU_52768 CJW_T_CTBLK_015-2768 (2019) CJW_T_ROW_PATT cjw_t_pbase_015-2768 - 3 LANE ROW-ESMT-LEGEND OA_ACAD-T_XBASE_52768

DWG: G:\15065 - 32nd Street Roadway\015-2768 32nd Street Widening\40-Design\AutoCAD\Final Plans\Sheets\CJW\B08 RIGHT OF WAY & EASEMENTS PLAN.dwg USER: Aaron
DATE: Apr 21, 2021 8:00am XREFS: V_XBOU_52768 OA_ACAD-T_XBASE_52768 V_XBOU_52768 Boundary 6-18-19
cJW_T_CTBLK_015-2768 (2019) cJW_T_ROW_PATT cJW_T_pbase_015-2768 - 3 LANE ROW-ESMT-LEGEND

PARCEL 33
DAVID MICHAEL EDGERTON, JR.
SW1/4, SE1/4, SW1/4, EX ROAD
BOOK 2,276, PAGE 2,322
R/W ACQUISITION = 10,396 SQ. FT.
PERM. SLOPE ESMT. = 10,800 SQ. FT.
TEMP. CONST. ESMT.=7,395 SQ.FT.

PARCEL 34
WILLIAM LETT
3110 SOUTH DAY ROAD
BOOK 2,300, PAGE 1,839
R/W ACQUISITION = 15,564 SQ. FT.
PERM. SLOPE ESMT. = 7,385 SQ. FT.
TEMP. CONST. ESMT.=10,447 SQ.FT.

PROPOSED TEMPORARY CONSTRUCTION EASEMENT
PROPOSED PERMANENT SLOPE EASEMENT
LIMITS OF DISTURBANCE
PROPOSED RIGHT-OF-WAY
EXISTING RIGHT-OF-WAY

+43.83 75.00' LT
+43.85 80.00' LT
+43.81 70.00' LT
+43.72 45.00' LT

10.00'
25.00'
20.00'
5.00'
25.00'

MATCH LINE 85+00 - SEE SHEET B07
BH #6
86+00
87+00
88+00
89+00
90+00
MATCH LINE 90+00 - SEE SHEET ###

50.00' EXISTING RIGHT-OF-WAY
25.00'
90.00' PROPOSED RIGHT-OF-WAY

32ND STREET
℄ 32ND STREET

WATER B 352, P 13721
WATER B 352, P 13804 & B 353, P 7039

+03.62 45.00' RT
+03.62 125.76' RT
+13.15 150.00' RT
VARIES
20.00'

+98.94 45.00' RT
+98.94 62.50' RT
+11.71 70.00' RT
17.50'

EXISTING RIGHT-OF-WAY
PROPOSED RIGHT-OF-WAY
LIMITS OF DISTURBANCE
PROPOSED PERMANENT SLOPE EASEMENT
PROPOSED TEMPORARY CONSTRUCTION EASEMENT

PARCEL 37
EDWARD & ALISON HERSHEWE
431 VIRGINIA
BOOK 354, PAGE 4,486 & 4,613
R/W ACQUISITION = 27,754 SQ. FT.
PERM DRAINAGE ESMT. = 6,152 SQ. FT.
PERM SLOPE ESMT. = 9,748SQ. FT.
TEMP. CONST. ESMT.= 66,656 SQ.FT.

N

0' 10' 20' 40'
SCALE IN FEET

MISSOURI ONE CALL SYSTEM
1-800-DIG-RITE ☎ 811
www.mo1call.com

LEGEND
- PROPOSED RIGHT-OF-WAY
- TEMPORARY CONSTRUCTION EASEMENT LINE
- PERMANENT SLOPE EASEMENT LINE
- PERMANENT ACCESS EASEMENT LINE
- PERMANENT DRAINAGE EASEMENT LINE
- LIMITS OF DISTURBANCE
- TEMPORARY CONSTRUCTION EASEMENT
- EXCEPTION TO TEMPORARY CONSTRUCTION EASEMENT
- PROPOSED RIGHT-OF-WAY
- PERMANENT SLOPE EASEMENT
- PERMANENT ACCESS EASEMENT
- PERMANENT DRAINAGE EASEMENT

Prepared by:
CJW
CJW Transportation Consultants, L.L.C.
5051 S. National Ave. Suite 7A Springfield, MO 65810
Tel. 417.889.3400 Fax. 417.889.3402 www.GoCJW.com
CJW Transportation Consultants, L.L.C. Engineering MO C.A. #2006012385

DANE MITCHELL SEILER
NUMBER PE-2010019595
STATE OF MISSOURI
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY
		REVISIONS	

RIGHT OF WAY & EASEMENT PLANS

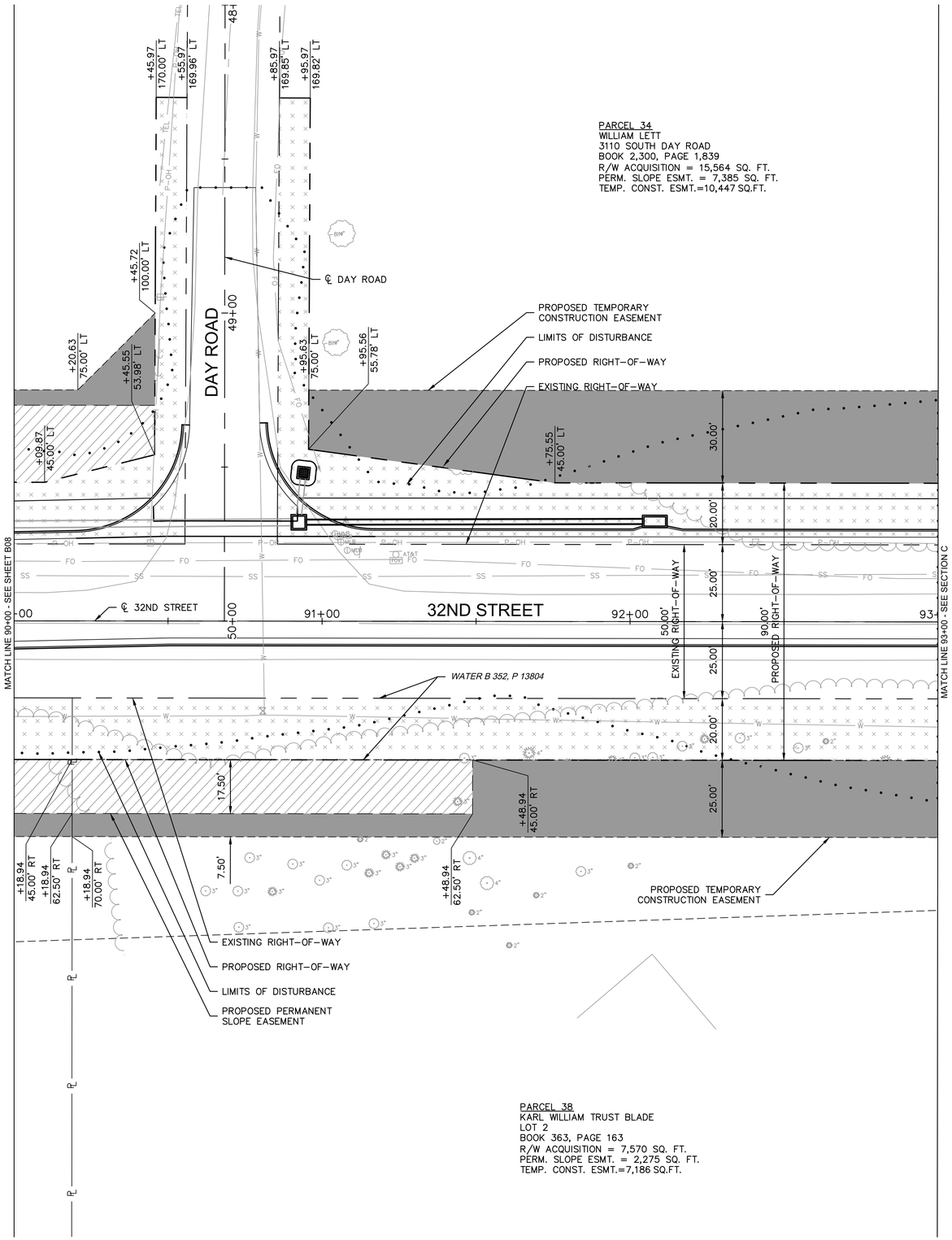
32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by: AJT
checked by: JCR
approved by: DMS
QA/QC by: OLSSON
project no.: 015-2768
drawing no.:
date: 04/23/2021

SHEET
B08 of B150



N

0' 10' 20' 40'
SCALE IN FEET

MISSOURI ONE CALL SYSTEM
1-800-DIG-RITE = 811
www.mo1call.com

LEGEND

- PROPOSED RIGHT-OF-WAY
- TEMPORARY CONSTRUCTION EASEMENT LINE
- PERMANENT SLOPE EASEMENT LINE
- PERMANENT ACCESS EASEMENT LINE
- PERMANENT DRAINAGE EASEMENT LINE
- LIMITS OF DISTURBANCE
- TEMPORARY CONSTRUCTION EASEMENT
- EXCEPTION TO TEMPORARY CONSTRUCTION EASEMENT
- PROPOSED RIGHT-OF-WAY
- PERMANENT SLOPE EASEMENT
- PERMANENT ACCESS EASEMENT
- PERMANENT DRAINAGE EASEMENT

Prepared by:
CJW
CJW Transportation Consultants, L.L.C.
CJW Transportation Consultants, L.L.C. Engineering MO C.A. #2006012385
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STATE OF MISSOURI
DANE MITCHELL SEILER
E-23727
NUMBER
PE-2010019595
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

RIGHT OF WAY & EASEMENT PLANS

32ND STREET WIDENING
CITY OF JOPLIN

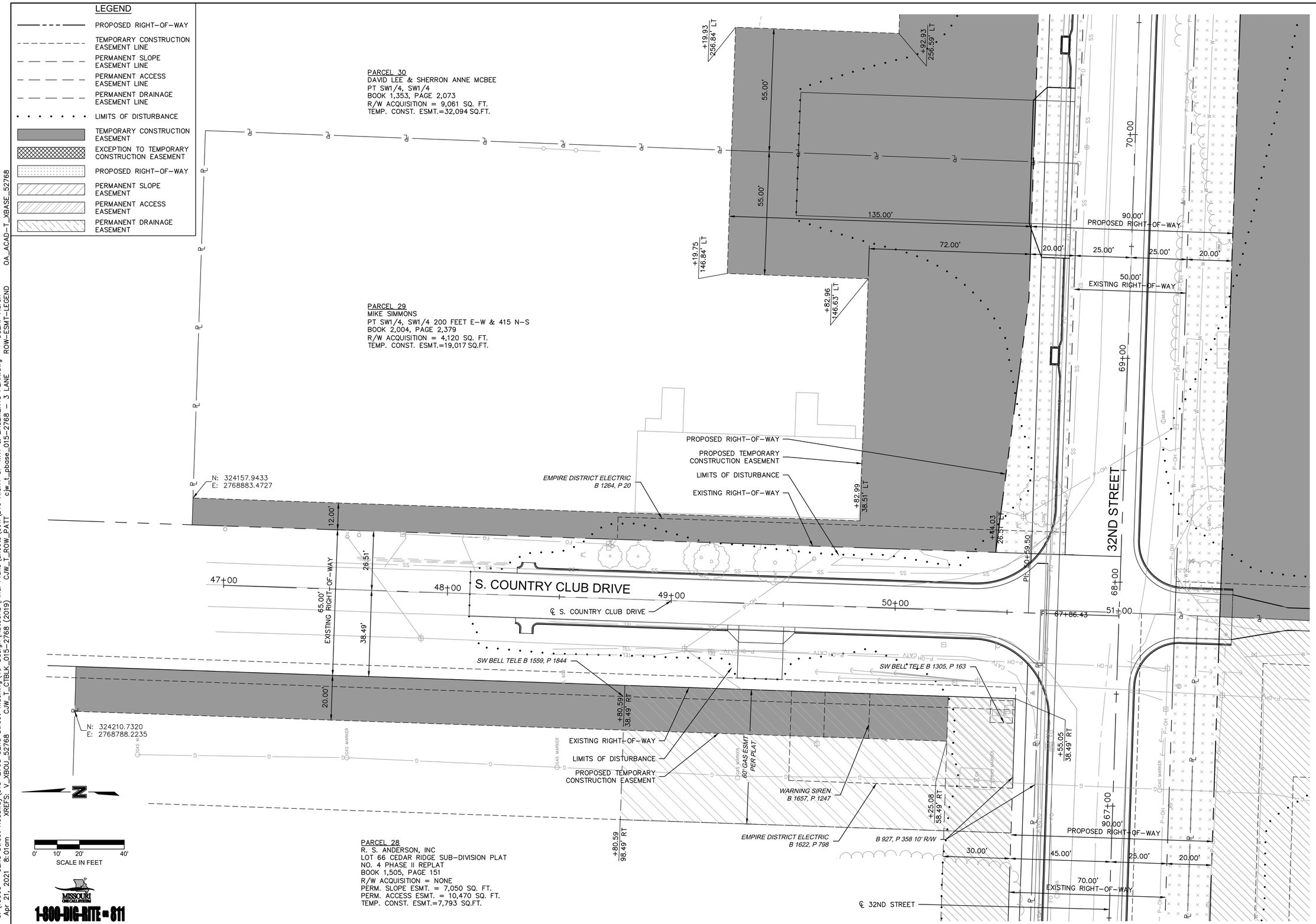
JOPLIN, MISSOURI

2021

drawn by: AJT
checked by: JCR
approved by: DMS
QA/QC by: OLSSON
project no.: 015-2768
drawing no.:
date: 04/23/2021

SHEET
B09 of B150

DWG: G:\15065 - 32nd Street Roadway\015-2768 32nd Street Widening\40-Design\AutoCAD\Final Plans\Sheets\CJW\B09 RIGHT OF WAY & EASEMENTS PLAN.dwg USER: Aaron
DATE: Apr 21, 2021 8:00am XREFS: V_XBOU_52768 CJW_T_CTBLK_015-2768 (2019) CJW_T_ROW_PATT CJW_T_CTBLK_015-2768 – 3 LANE ROW-ESMT-LEGEND OA_ACAD-T_XBASE_52768 V_XBOU_52768 Boundary 6-18-19



DWG: G:\15065 - 32nd Street Roadway\015-2768 32nd Street Widening\40-Design\AutoCAD\Final Plans\Sheets\CJW\B10 RIGHT OF WAY & EASEMENTS PLAN.dwg USER: Aaron
DATE: Apr 21, 2021 8:01am XREFS: V_XB0U_52768 CJW_T_CTBLK_015-2768 (2019) CJW_T_ROW_PATT OA_ACAD-T_XBASE_52768 ROW-ESMT-LEGEND

Prepared by:
CJW Transportation Consultants, L.L.C.
CJW Transportation Consultants, L.L.C. Engineering MO C.A. #2006012385
5051 S. National Ave. Suite 7A Springfield, MO 65810
Tel: 417.889.3400 Fax: 417.889.3402 www.GoCJW.com

STATE OF MISSOURI
DANE MITCHELL SEILER
NUMBER PE-2010019595
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

RIGHT OF WAY & EASEMENT PLANS

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by: AJT
checked by: JCR
approved by: DMS
QA/QC by: OLSSON
project no.: 015-2768
drawing no.:
date: 04/23/2021

SHEET
B10 of B150

DWG: G:\15065 - 32nd Street Roadway\015-2768 32nd Street Widening\40-Design\AutoCAD\Final Plans\Sheets\CJW\B11 RIGHT OF WAY & EASEMENTS PLAN.dwg USER: Aaron
DATE: Apr 21, 2021 8:01am XREFS: V_XBOU_52768 CJW_T_CTBLK_015-2768 (2019) CJW_T_ROW_PATT cjw_t_pbase_015-2768 - 3 LANE ROW-ESMT-LEGEND OA_ACAD-T_XBASE_52768

LEGEND

- PROPOSED RIGHT-OF-WAY
- TEMPORARY CONSTRUCTION EASEMENT LINE
- PERMANENT SLOPE EASEMENT LINE
- PERMANENT ACCESS EASEMENT LINE
- PERMANENT DRAINAGE EASEMENT LINE
- LIMITS OF DISTURBANCE
- TEMPORARY CONSTRUCTION EASEMENT
- EXCEPTION TO TEMPORARY CONSTRUCTION EASEMENT
- PROPOSED RIGHT-OF-WAY
- PERMANENT SLOPE EASEMENT
- PERMANENT ACCESS EASEMENT
- PERMANENT DRAINAGE EASEMENT

PARCEL 29
MIKE SIMMONS
PT SW1/4, SW1/4 200 FEET E-W & 415 N-S
BOOK 2,004, PAGE 2,379
R/W ACQUISITION = 4,120 SQ. FT.
PERM. ACCESS ESMT. = 5,400 SQ. FT.
TEMP. CONST. ESMT.=14,967 SQ.FT.

PARCEL 35
BENITA MEADOWS
PART OF NW 1/4
BOOK 343, PAGE 6,452
R/W ACQUISITION = 10,519 SQ. FT.
TEMP. CONST. ESMT.=53,086 SQ.FT.

PARCEL 28
R. S. ANDERSON, INC
LOT 66 CEDAR RIDGE SUB-DIVISION PLAT NO. 4 PHASE II REPLAT
BOOK 1,505, PAGE 151
R/W ACQUISITION = NONE
PERM. SLOPE ESMT. = 7,050 SQ. FT.
TEMP. CONST. ESMT.=7,794 SQ.FT.

PARCEL 22
MONKEY HILL MINING COMPANY, LLC
PT NE1/4 NE 1/4 19-27-33
BOOK 367, PAGE 4,745 & 4,746
R/W ACQUISITION = 26,376 SQ. F.T
PERM. SLOPE ESMT. = 13,377 SQ. FT.
TEMP. CONST. ESMT.=34,394 SQ. FT.

0' 10' 20' 40'
SCALE IN FEET

1-800-DIG-RITE = 811
www.mo1call.com

Prepared by:
CJW Transportation Consultants, L.L.C.
CJW Transportation Consultants, L.L.C. Engineering MO C.A. #2006012385
5051 S. National Ave. Suite 7A Springfield, MO 65810
Tel. 417.889.3400 Fax. 417.889.3402 www.GoCJW.com

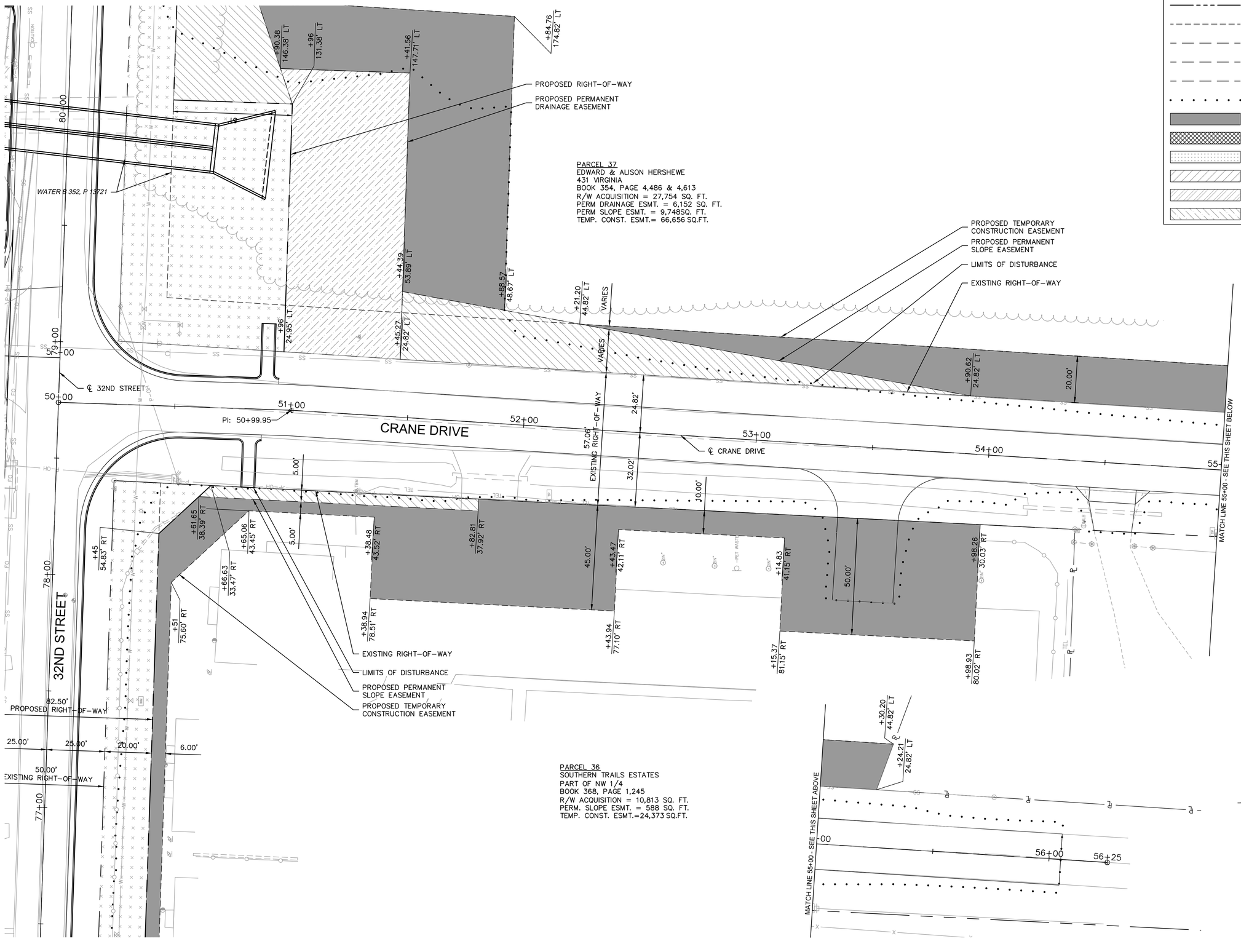
STATE OF MISSOURI
DANE MITCHELL SEILER
4-23-21
NUMBER PE-2010019595
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY
		REVISIONS	

RIGHT OF WAY & EASEMENT PLANS
32ND STREET WIDENING
CITY OF JOPLIN
JOPLIN, MISSOURI
2021

drawn by:	AJT
checked by:	JCR
approved by:	DMS
QA/QC by:	OLSSON
project no.:	015-2768
drawing no.:	
date:	04/23/2021

SHEET
B11 of B150



Prepared by:
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5051 S. National Ave. Suite 7A Springfield, MO 65810
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STATE OF MISSOURI
DANE MITCHELL SEILER
NUMBER PE-2010019595
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY
		REVISIONS	

RIGHT OF WAY & EASEMENT PLANS

32ND STREET WIDENING
CITY OF JOPLIN

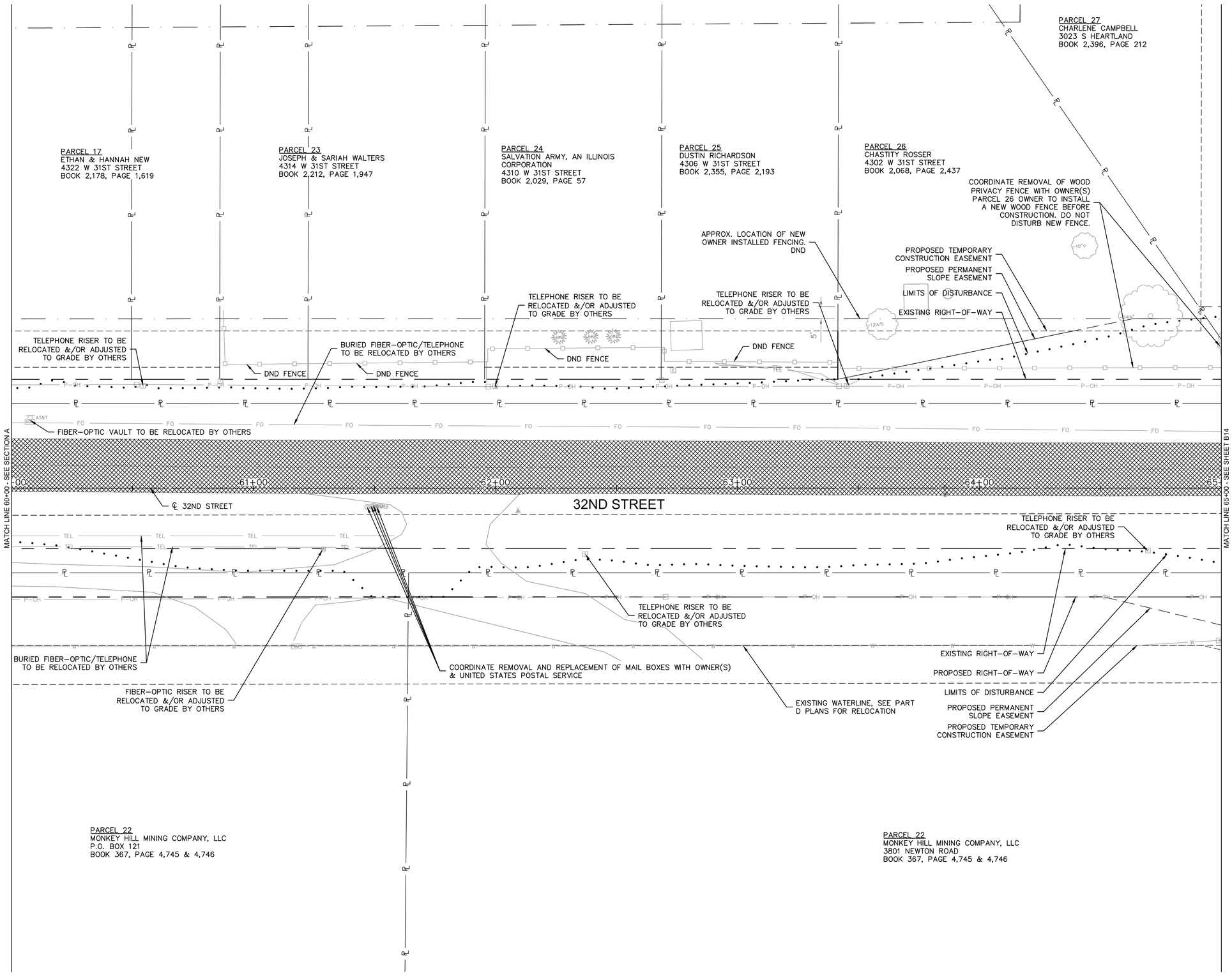
JOPLIN, MISSOURI

2021

drawn by: AJT
checked by: JCR
approved by: DMS
QA/QC by: OLSSON
project no.: 015-2768
drawing no.:
date: 04/23/2021

SHEET
B12 of B150

DWG: G:\15065 - 32nd Street Roadway\015-2768 32nd Street Widening\40-Design\AutoCAD\Final Plans\Sheets\CJW\B12 RIGHT OF WAY & EASEMENTS PLAN.dwg USER: Aaron
DATE: Apr 21, 2021 8:01am XREFS: V_XBOU_52768 CJW_T_CTBLK_015-2768 (2019) CJW_T_ROW_PATT CJW_T_pbase_015-2768 - 3 LANE ROW-ESMT-LEGEND OA_ACAD-T_XBASE_52768



LEGEND:

- PAVEMENT, CURB & GUTTER, AND SIDEWALK REMOVAL
- SURFACE MILL
- STORM SEWER REMOVAL
- TREE REMOVAL (AREA)
- TREE REMOVAL (INDIVIDUAL)
- SAWCUT
- LIMITS OF DISTURBANCE

NOTE:
INDIVIDUAL TREE REMOVAL IS SHOWN FOR REFERENCE ONLY. ALL TREE REMOVAL SHALL BE SUBSIDIARY TO THE BID ITEM "CLEARING & GRUBBING". REFER TO DEMOLITION JSP IN THE SPECIFICATIONS.

THESE DEMOLITION & REMOVAL PLANS ARE THE ENGINEER'S BEST EFFORT TO IDENTIFY ALL ITEMS TO BE REMOVED. ADDITIONAL ITEMS FOUND DURING CONSTRUCTION ARE TO BE INCLUDED WITH THE BID ITEM "DEMOLITION & REMOVAL".

0' 10' 20' 40'
SCALE IN FEET

1-800-DIG-RITE = 811
www.mo1call.com

Prepared by:
CJW Transportation Consultants, L.L.C.
CJW Transportation Consultants, L.L.C. Engineering MO C.A. #2006012385
5051 S National Ave. Suite 7A Springfield, MO 65810
Tel: 417.889.3400 Fax: 417.889.3402 www.GoCJW.com

STATE OF MISSOURI
DANE MITCHELL SEILER
NUMBER PE-2010019595
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

DEMOLITION & REMOVAL PLAN

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

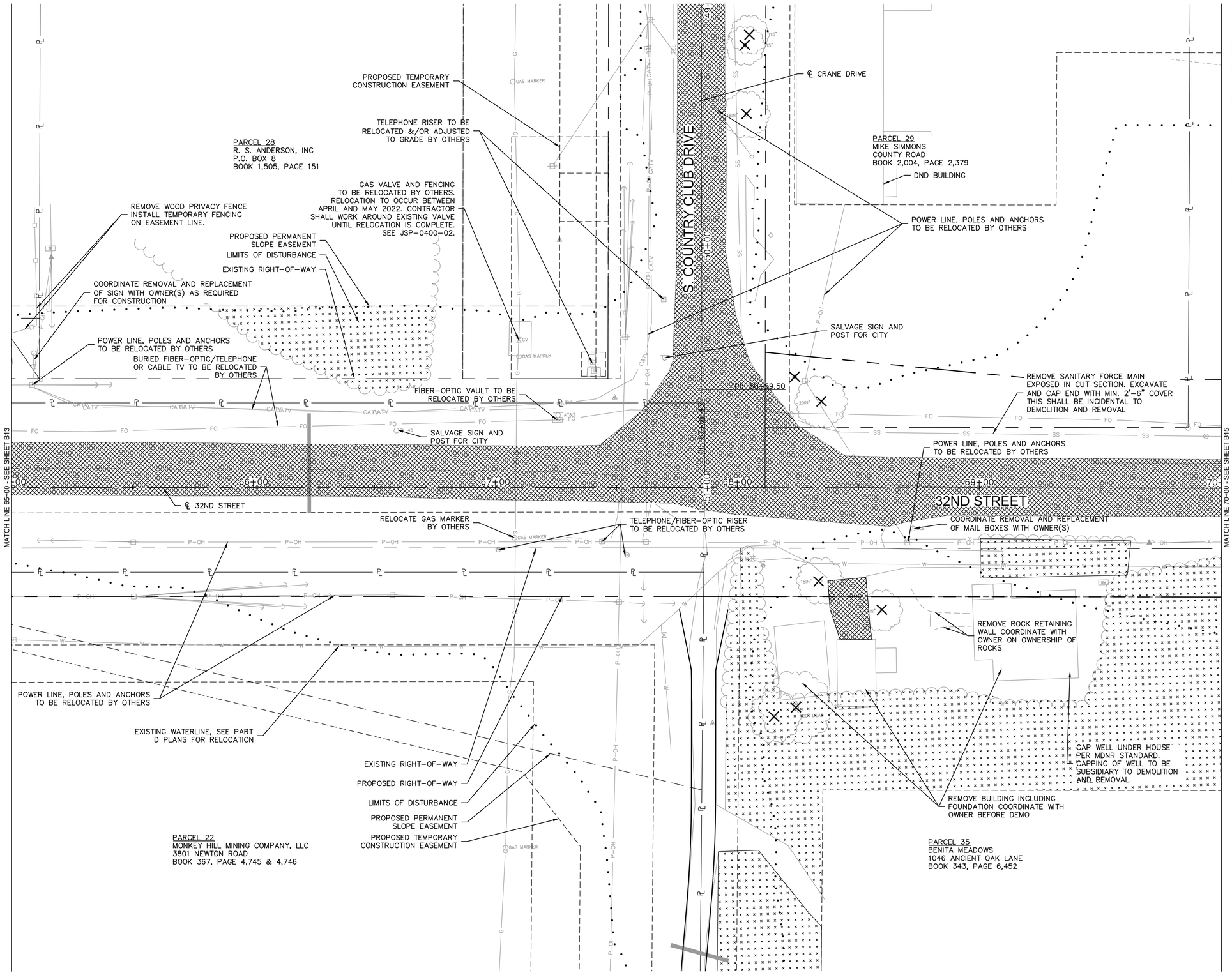
2021

drawn by: AJT
checked by: JCR
approved by: DMS
QA/QC by: OLSSON
project no.: 015-2768
drawing no.:
date: 04/23/2021

SHEET B13 of B150

DWG: G:\15065 - 32nd Street Roadway\015-2768 32nd Street Widening\40-Design\AutoCAD\Final Plans\Sheets\CJW\B13 DEMOLITION & REMOVAL PLAN.dwg USER: Aaron
DATE: Apr 21, 2021 8:01am XREFS: V_XBOU_52768 CJW_T_CTBLK_015-2768 (2019) cjw_t_pbase_015-2768 - 3 LANE DEMO-LEGEND OA_ACAD-T_XBASE_52768 CJW_T_PPATT_DEMO_015-2768 - 3 lane

DWG: G:\15065 - 32nd Street Roadway\015-2768 32nd Street Widening\40-Design\AutoCAD\Final Plans\Sheets\CJW\B14 DEMOLITION & REMOVAL PLAN.dwg USER: Aaron
DATE: Apr 21, 2021 8:02am XREFS: V_XBOU_52768 OA_ACAD-T_XBASE_52768 CJW_T_CTBLK_015-2768 (2019) CJW_T_PPATT_DEMO_015-2768 - 3 lane
cjw_t_pbase_015-2768 - 3 LANE DEMO-LEGEND



LEGEND:

- PAVEMENT, CURB & GUTTER, AND SIDEWALK REMOVAL
- SURFACE MILL
- STORM SEWER REMOVAL
- TREE REMOVAL (AREA)
- TREE REMOVAL (INDIVIDUAL)
- SAWCUT
- LIMITS OF DISTURBANCE

NOTE:
INDIVIDUAL TREE REMOVAL IS SHOWN FOR REFERENCE ONLY. ALL TREE REMOVAL SHALL BE SUBSIDIARY TO THE BID ITEM "CLEARING & GRUBBING". REFER TO DEMOLITION JSP IN THE SPECIFICATIONS.

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N

0' 10' 20' 40'
SCALE IN FEET

MISSOURI ONE CALL SYSTEM
1-800-DIG-RITE = 811
www.mo1call.com

Prepared by:
CJW Transportation Consultants, L.L.C.
CJW Transportation Consultants, L.L.C. Engineering MO C.A. #2006012385
5051 S. National Ave. Suite 7A Springfield, MO 65810
Tel: 417.889.3400 Fax: 417.889.3402 www.GoCJW.com

STATE OF MISSOURI
DANE MITCHELL SEILER
NUMBER PE-2010019595
PROFESSIONAL ENGINEER

REVISIONS

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

DEMOLITION & REMOVAL PLAN
32ND STREET WIDENING
CITY OF JOPLIN
JOPLIN, MISSOURI
2021

drawn by: AJT
checked by: JCR
approved by: DMS
QA/QC by: OLSSON
project no.: 015-2768
drawing no.:
date: 04/23/2021

SHEET
B14 of B150

LEGEND:

- PAVEMENT, CURB & GUTTER, AND SIDEWALK REMOVAL
- SURFACE MILL
- STORM SEWER REMOVAL
- TREE REMOVAL (AREA)
- TREE REMOVAL (INDIVIDUAL)
- SAWCUT
- LIMITS OF DISTURBANCE

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Prepared by:
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STATE OF MISSOURI
DANE MITCHELL SEILER
NUMBER PE-2010019595
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

N

0' 10' 20' 40'
SCALE IN FEET

MISSOURI ONE-CALL SYSTEM
1-800-DIG-RITE or 811
www.mo1call.com

DEMOLITION & REMOVAL PLAN

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by:	AJT
checked by:	JCR
approved by:	DMS
QA/QC by:	OLSSON
project no.:	015-2768
drawing no.:	
date:	04/23/2021

SHEET
B15 of B150

DWG: G:\15065 - 32nd Street Roadway\015-2768 32nd Street Widening\40-Design\AutoCAD\Final Plans\Sheets\CJW\B15 DEMOLITION & REMOVAL PLAN.dwg USER: Aaron
DATE: Apr 21, 2021 8:02am XREFS: V_XBOU_52768 CJW_T_CTBLK_015-2768 (2019) OA_ACAD-T_XBASE_52768 DEMO-LEGEND
cjw_t_pbase_015-2768 - 3 LANE
C:\W_T_PPATT_DEMO_015-2768 - 3 lane

DWG: G:\15065 - 32nd Street Roadway\015-2768 32nd Street Widening\40-Design\AutoCAD\Final Plans\Sheets\CJW\B16 DEMOLITION & REMOVAL PLAN.dwg USER: Aaron
DATE: Apr 21, 2021 8:02am XREFS: V_XBOU_52768 CJW_T_CTBLK_015-2768 (2019) cjw_t_pbase_015-2768 - 3 LANE DEMO-LEGEND

PARCEL 31
WATERVIEW ESTATES
3110 S CATNIP LANE
BOOK 2,494, PAGE 215

℄ CATNIP LANE

CATNIP LANE

PI: 48+57.12

48+

49+00

DND
CONCRETE SPILL WAY

DND
BUILDING

PROPOSED TEMPORARY
CONSTRUCTION EASEMENT

LIMITS OF DISTURBANCE

PROPOSED RIGHT-OF-WAY

EXISTING RIGHT-OF-WAY

REMOVE SANITARY FORCE MAIN
EXPOSED IN CUT SECTION. EXCAVATE
AND CAP END WITH MIN. 2'-6" COVER

POWER LINE, POLES AND ANCHORS
TO BE RELOCATED BY OTHERS

BURIED FIBER-OPTIC/TELEPHONE
TO BE RELOCATED BY OTHERS

PI: 49+42.26

℄ 32ND STREET

MATCH LINE 75+00 - SEE SHEET B15

75+00

76+00

77+00

78+00

79+00

50+00

32ND STREET

MATCH LINE 80+00 - SEE SHEET B17

EXISTING WATERLINE, SEE PART
D PLANS FOR RELOCATION

TELEPHONE RISER TO BE
RELOCATED &/OR ADJUSTED
TO GRADE BY OTHERS

REMOVE ROCK RETAINING WALL
SIGN COORDINATE WITH OWNER ON
OWNERSHIP OF ITEMS REMOVED

LIMITS OF DISTURBANCE

REMOVE BLOCK WALL SIGN AND
LIGHT COORDINATE WITH OWNER
ON OWNERSHIP OF ITEMS REMOVED

SALVAGE SIGN AND
POST FOR CITY

DND BUILDING

DND BUILDING

DND BUILDING

EXISTING RIGHT-OF-WAY

PROPOSED RIGHT-OF-WAY

PROPOSED TEMPORARY
CONSTRUCTION EASEMENT

DND BUILDING

POWER LINE, POLES AND ANCHORS
TO BE RELOCATED BY OTHERS

PI: 50+99.95

PROPOSED PERMANENT
SLOPE EASEMENT

COORDINATE REMOVAL AND REPLACEMENT OF FENCE WITH OWNER(S). FENCE SHALL BE REINSTALLED AT PROPOSED RIGHT-OF-WAY LINE. CONTRACTOR MAY RELOCATE EXISTING FENCING OR REPLACE THE FENCING WITH NEW. THE CONTRACTOR SHALL REPLACE ALL FENCING DAMAGED BY THE CONTRACTOR DURING REMOVAL OPERATIONS. ALL REPLACEMENT FENCE SHALL MATCH COLOR, MATERIAL AND CONFIGURATION OF EXISTING FENCE. ALL COST ASSOCIATED WITH THIS SHALL BE INCLUDED IN BID ITEM "RELOCATE OR REPLACE EXISTING VINYL FENCE (SOUTHERN TRAILS)"

PARCEL 36
SOUTHERN TRAILS ESTATES LLC
P.O. BOX 2283
BOOK 358, PAGE 1,245

℄ CRANE DRIVE

CRANE DRIVE

50+00

51+00

55+00

PARCEL 37
EDWARD & ALISON HERSHEWE
431 VIRGINIA
BOOK 354, PAGE 4,486 & 4,613

ADJUST SANITARY SEWER
MANHOLE TO GRADE

PROPOSED PERMANENT
DRAINAGE EASEMENT

LEGEND:

- PAVEMENT, CURB & GUTTER, AND SIDEWALK REMOVAL
- SURFACE MILL
- STORM SEWER REMOVAL
- TREE REMOVAL (AREA)
- TREE REMOVAL (INDIVIDUAL)
- SAWCUT
- LIMITS OF DISTURBANCE

NOTE:
INDIVIDUAL TREE REMOVAL IS SHOWN FOR REFERENCE ONLY. ALL TREE REMOVAL SHALL BE SUBSIDIARY TO THE BID ITEM "CLEARING & GRUBBING". REFER TO DEMOLITION JSP IN THE SPECIFICATIONS.

THESE DEMOLITION & REMOVAL PLANS ARE THE ENGINEER'S BEST EFFORT TO IDENTIFY ALL ITEMS TO BE REMOVED. ADDITIONAL ITEMS FOUND DURING CONSTRUCTION ARE TO BE INCLUDED WITH THE BID ITEM "DEMOLITION & REMOVAL".

N

0' 10' 20' 40'
SCALE IN FEET

MISSOURI ONE CALL SYSTEM
1-800-DIG-RITE or 811
www.mo1call.com

Prepared by:
CJW
CJW Transportation Consultants, L.L.C.
CJW Transportation Consultants, L.L.C. Engineering MO C.A. #2006012385
3051 S. National Ave. Suite 7A Springfield, MO 65810
Tel. 417.889.3400 Fax. 417.889.3402 www.GoCJW.com

STATE OF MISSOURI
DANE MITCHELL SEILER
NUMBER PE-2010019595
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

DEMOLITION & REMOVAL PLAN
32ND STREET WIDENING
CITY OF JOPLIN
2021
JOPLIN, MISSOURI

drawn by: AJT
checked by: JCR
approved by: DMS
QA/QC by: OLSSON
project no.: 015-2768
drawing no.:
date: 04/23/2021

SHEET
B16 of B150

DWG: G:\15065 - 32nd Street Roadway\015-2768 32nd Street Widening\40-Design\AutoCAD\Final Plans\Sheets\CJW\B17 DEMOLITION & REMOVAL PLAN.dwg USER: Aaron
DATE: Apr 21, 2021 8:02am XREFS: V_XBOU_52768 CJW_T_CTBLK_015-2768 (2019) OA_ACAD-T_XBASE_52768 DEMO-LEGEND
cjw_t_pbase_015-2768 - 3 lane C:\CJW_T_PPATT_DEMO_015-2768 - 3 lane

PARCEL 32
RBC ENTERPRISES
3110 S CATNIP LANE
BOOK 2,494, PAGE 528

PARCEL 33
DAVID MICHAEL EDGERTON, JR.
3066–3104 SOUTH DAY ROAD
BOOK 2,506, PAGE 141

DND
CONCRETE SPILL WAY

REMOVE CONCRETE
RETAINING WALL

SALVAGE SIGN AND
POST FOR CITY

FIBER-OPTIC VAULT TO BE
RELOCATED BY OTHERS

BURIED FIBER-OPTIC/TELEPHONE
TO BE RELOCATED BY OTHERS

REMOVE SANITARY FORCE MAIN
EXPOSED IN CUT SECTION. EXCAVATE
AND CAP END WITH MIN. 2'-6" COVER
THIS SHALL BE INCIDENTAL TO
DEMOLITION AND REMOVAL

POWER LINE, POLES AND ANCHORS
TO BE RELOCATED BY OTHERS

PROPOSED TEMPORARY
CONSTRUCTION EASEMENT

PROPOSED PERMANENT
SLOPE EASEMENT

LIMITS OF DISTURBANCE

PROPOSED RIGHT-OF-WAY

EXISTING RIGHT-OF-WAY

℄ 32ND STREET

32ND STREET

MATCH LINE 80+00 - SEE SHEET B16

MATCH LINE 85+00 - SEE SHEET B18

REMOVE ROCK HEADWALL

SALVAGE SIGN AND
POST FOR CITY

EXISTING RIGHT-OF-WAY

PROPOSED RIGHT-OF-WAY

LIMITS OF DISTURBANCE

PROPOSED TEMPORARY
CONSTRUCTION EASEMENT

PROPOSED PERMANENT
SLOPE EASEMENT

PROPOSED PERMANENT
DRAINAGE EASEMENT

EXISTING WATERLINE, SEE PART
D PLANS FOR RELOCATION

REMOVE FENCING

PARCEL 37
EDWARD & ALISON HERSHEWE
431 VIRGINIA
BOOK 354, PAGE 4,486 & 4,613

PARCEL 37
EDWARD & ALISON HERSHEWE
431 VIRGINIA
BOOK 354, PAGE 4,486 & 4,613

LEGEND:

- PAVEMENT, CURB & GUTTER, AND SIDEWALK REMOVAL
- SURFACE MILL
- STORM SEWER REMOVAL
- TREE REMOVAL (AREA)
- TREE REMOVAL (INDIVIDUAL)
- SAWCUT
- LIMITS OF DISTURBANCE

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N

0' 10' 20' 40'
SCALE IN FEET

1-800-DIG-RITE = 811
www.mo1call.com

Prepared by:
CJW
CJW Transportation Consultants, L.L.C.
5051 S. National Ave. Suite 7A Springfield, MO 65810
Tel: 417.889.3400 Fax: 417.889.3402 www.GoCJW.com
CJW Transportation Consultants, L.L.C. Engineering MO C.A. #2006012385

STATE OF MISSOURI
DANE MITCHELL SEILER
NUMBER PE-2010019595
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

DEMOLITION & REMOVAL PLAN

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by: AJT
checked by: JCR
approved by: DMS
QA/QC by: OLSSON
project no.: 015-2768
drawing no.:
date: 04/23/2021

SHEET
B17 of B150

PARCEL 33
DAVID M. EDGERTON JR.
3066-3104 SOUTH DAY ROAD
BOOK 2,506, PAGE 141

PARCEL 34
WILLIAM LETT
3110 SOUTH DAY ROAD
BOOK 2,300, PAGE 1,839

PROPOSED TEMPORARY CONSTRUCTION EASEMENT
PROPOSED PERMANENT SLOPE EASEMENT
LIMITS OF DISTURBANCE
PROPOSED RIGHT-OF-WAY
EXISTING RIGHT-OF-WAY

POWER LINE, POLES AND ANCHORS TO BE RELOCATED BY OTHERS

BURIED FIBER-OPTIC/TELEPHONE TO BE RELOCATED BY OTHERS

REMOVE SANITARY FORCE MAIN EXPOSED IN CUT SECTION. EXCAVATE AND CAP END WITH MIN. 2'-6" COVER

℄ 32ND STREET

32ND STREET

MATCH LINE 85+00 - SEE SHEET B17

MATCH LINE 90+00 - SEE SHEET B19

REMOVE FENCING

EXISTING WATERLINE, SEE PART D PLANS FOR RELOCATION

PARCEL 37
EDWARD & ALISON HERSHEWE
431 VIRGINIA
BOOK 354, PAGE 4,486 & 4,613

PARCEL 37
EDWARD & ALISON HERSHEWE
431 VIRGINIA
BOOK 354, PAGE 4,486 & 4,613

EXISTING RIGHT-OF-WAY
PROPOSED RIGHT-OF-WAY
LIMITS OF DISTURBANCE
PROPOSED PERMANENT SLOPE EASEMENT
PROPOSED TEMPORARY CONSTRUCTION EASEMENT

LEGEND:

- PAVEMENT, CURB & GUTTER, AND SIDEWALK REMOVAL
- SURFACE MILL
- STORM SEWER REMOVAL
- TREE REMOVAL (AREA)
- TREE REMOVAL (INDIVIDUAL)
- SAWCUT
- LIMITS OF DISTURBANCE

NOTE:
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THESE DEMOLITION & REMOVAL PLANS ARE THE ENGINEER'S BEST EFFORT TO IDENTIFY ALL ITEMS TO BE REMOVED. ADDITIONAL ITEMS FOUND DURING CONSTRUCTION ARE TO BE INCLUDED WITH THE BID ITEM "DEMOLITION & REMOVAL".

N

0' 10' 20' 40'
SCALE IN FEET

MISSOURI ONE CALL SYSTEM
1-800-DIG-RITE or 811
www.mo1call.com

Prepared by:
CJW
CJW Transportation Consultants, L.L.C.
5051 S. National Ave. Suite 7A Springfield, MO 65810
Tel. 417.889.3400 Fax. 417.889.3402 www.GoCJW.com
CJW Transportation Consultants, L.L.C. Engineering MO C.A. #2006012385

STATE OF MISSOURI
DANE MITCHELL SEILER
NUMBER PE-2010019595
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

DEMOLITION & REMOVAL PLAN

32ND STREET WIDENING
CITY OF JOPLIN

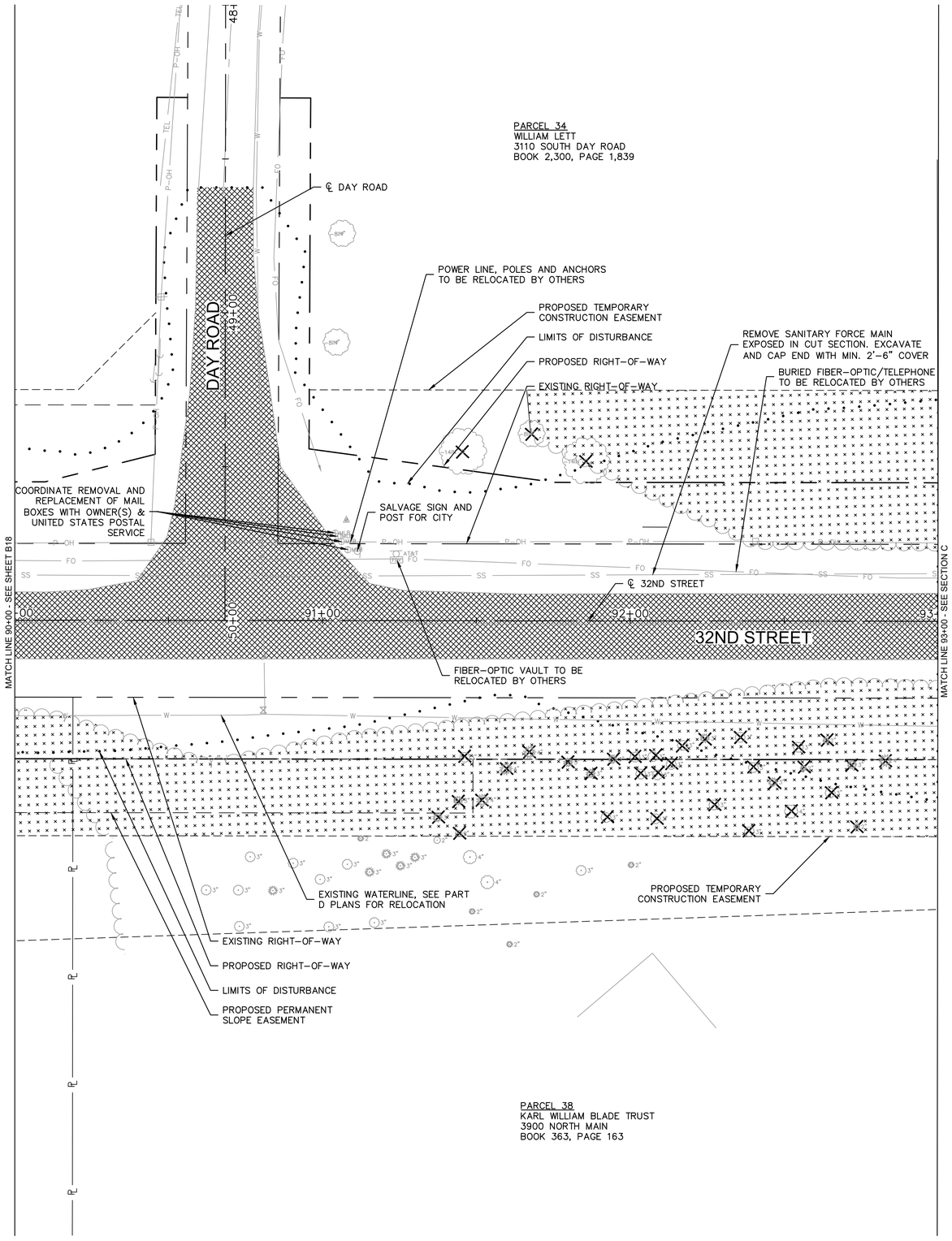
JOPLIN, MISSOURI

2021

drawn by: AJT
checked by: JCR
approved by: DMS
QA/QC by: OLSSON
project no.: 015-2768
drawing no.:
date: 04/23/2021

SHEET
B18 of B150

DWG: G:\15065 - 32nd Street Roadway\015-2768 32nd Street Widening\40-Design\AutoCAD\Final Plans\Sheets\CJW\B18 DEMOLITION & REMOVAL PLAN.dwg USER: Aaron
DATE: Apr 21, 2021 8:03am XREFS: V_XBOU_52768 CJW_T_CTBLK_015-2768 (2019) cjw_t_pbase_015-2768 - 3 lane OA_ACAD-T_XBASE_52768 DEMO-LEGEND C:\W_T_PPATT_DEMO_015-2768 - 3 lane



LEGEND:

- PAVEMENT, CURB & GUTTER, AND SIDEWALK REMOVAL
- SURFACE MILL
- STORM SEWER REMOVAL
- TREE REMOVAL (AREA)
- TREE REMOVAL (INDIVIDUAL)
- SAWCUT
- LIMITS OF DISTURBANCE

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N

0' 10' 20' 40'
SCALE IN FEET

MISSOURI ONE-CALL SYSTEM
1-800-DIG-RITE or 811
www.mo1call.com

Prepared by:
CJW
CJW Transportation Consultants, L.L.C.
5051 S. National Ave. Suite 7A Springfield, MO 65810
Tel: 417.889.3400 Fax: 417.889.3402 www.GoCJW.com
CJW Transportation Consultants, L.L.C. Engineering MO C.A. #2006012385

DANE MITCHELL SEILER
4/23/21
NUMBER PE-2010019595
STATE OF MISSOURI
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

DEMOLITION & REMOVAL PLAN
32ND STREET WIDENING
CITY OF JOPLIN
JOPLIN, MISSOURI
2021

drawn by: AJT
checked by: JCR
approved by: DMS
QA/QC by: OLSSON
project no.: 015-2768
drawing no.:
date: 04/23/2021

SHEET
B19 of B150

DWG: G:\15065 - 32nd Street Roadway\015-2768 32nd Street Widening\40-Design\AutoCAD\Final Plans\Sheets\CJW\B19 DEMOLITION & REMOVAL PLAN.dwg USER: Aaron
DATE: Apr 21, 2021 8:03am XREFS: V_XBOU_52768 CJW_T_CTBLK_015-2768 (2019) cjw_t_pbase_015-2768 - 3 lane OA_ACAD-T_XBASE_52768 CJW_T_PPATT_DEMO_015-2768 - 3 lane DEMO-LEGEND

DWG: G:\15065 - 32nd Street Roadway\015-2768 32nd Street Widening\40-Design\AutoCAD\Final Plans\Sheets\CJW\B20 DEMOLITION & REMOVAL PLAN.dwg USER: Aaron
DATE: Apr 21, 2021 8:03am XREFS: V_XBOU_52768 CJW_T_CTBLK_015-2768 (2019) CJW_T_PPATT_DEMO_015-2768 - 3 lane
CJW_T_pbosse_015-2768 - 3 LANE DEMO-LEGEND OA_ACAD-T_XBASE_52768

LEGEND:

- PAVEMENT, CURB & GUTTER, AND SIDEWALK REMOVAL
- SURFACE MILL
- STORM SEWER REMOVAL
- TREE REMOVAL (AREA)
- TREE REMOVAL (INDIVIDUAL)
- SAWCUT
- LIMITS OF DISTURBANCE

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PARCEL 29
MIKE SIMMONS
COUNTY ROAD
BOOK 2,004, PAGE 2,379

REMOVE SANITARY FORCE MAIN EXPOSED IN CUT SECTION. EXCAVATE AND CAP END WITH MIN. 2'-6" COVER

COORDINATE REMOVAL AND REPLACEMENT OF MAIL BOXES WITH OWNER(S)

DND BUILDING

POWER LINE, POLES AND ANCHORS TO BE RELOCATED BY OTHERS

EXISTING WATERLINE, SEE PART D PLANS FOR RELOCATION

SALVAGE SIGN AND POST FOR CITY

DND SHALLOW PRIVATE FIBER. ANY RELOCATION, REPAIR OR ADJUSTMENT OF THIS LINE SHALL BE CONSIDERED SUBSIDIARY TO DEMOLITION & REMOVAL

POWER LINE, POLES AND ANCHORS TO BE RELOCATED BY OTHERS

PROPOSED RIGHT-OF-WAY

PROPOSED TEMPORARY CONSTRUCTION EASEMENT

LIMITS OF DISTURBANCE

EXISTING RIGHT-OF-WAY

POWER LINE, POLES AND ANCHORS TO BE RELOCATED BY OTHERS

32ND STREET

S. COUNTRY CLUB DRIVE

47+00 48+00 49+00 50+00 51+00

PI: 52+89.50

PI: 67+06.41

68+00

67+00

℄ CRANE DRIVE

MATCH LINE A - THIS SHEET BELOW

TELEPHONE RISER TO BE RELOCATED &/OR ADJUSTED TO GRADE BY OTHERS

TELEPHONE RISER TO BE RELOCATED &/OR ADJUSTED TO GRADE BY OTHERS

TELEPHONE/FIBER-OPTIC RISER TO BE RELOCATED BY OTHERS

EXISTING RIGHT-OF-WAY

LIMITS OF DISTURBANCE

PROPOSED TEMPORARY CONSTRUCTION EASEMENT

GAS VALVE AND FENCING RELOCATED BY OTHERS

FIBER-OPTIC VAULT TO BE RELOCATED BY OTHERS

RELOCATE GAS MARKER BY OTHERS

MATCH LINE A - THIS SHEET ABOVE

PROPOSED PERMANENT SLOPE EASEMENT

LIMITS OF DISTURBANCE

PROPOSED TEMPORARY CONSTRUCTION EASEMENT

N

0' 10' 20' 40'
SCALE IN FEET

MISSOURI ONE-CALL SYSTEM
1-800-DIG-RITE = 811
www.mo1call.com

Prepared by:
CJW
CJW Transportation Consultants, L.L.C.
5051 S. National Ave. Suite 7A Springfield, MO 65810
Tel. 417.889.3400 Fax. 417.889.3402 www.GoCJW.com
CJW Transportation Consultants, L.L.C. Engineering MO C.A. #2006012385

STATE OF MISSOURI
DANE MITCHELL SEILER
NUMBER PE-2010019595
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

DEMOLITION & REMOVAL PLAN

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by: AJT
checked by: JCR
approved by: DMS
QA/QC by: OLSSON
project no.: 015-2768
drawing no.:
date: 04/23/2021

SHEET
B20 of B150

DWG: G:\15065 - 32nd Street Roadway\015-2768 32nd Street Widening\40-Design\AutoCAD\Final Plans\Sheets\CJW\B21 DEMOLITION & REMOVAL PLAN.dwg USER: Aaron
DATE: Apr 21, 2021 8:04am XREFS: V_XBOU_52768 CJW_T_CTBLK_015-2768 (2019) cjw_t_pbase_015-2768 - 3 LANE DEMO-LEGEND OA_ACAD-T_XBASE_52768 CJW_T_PPATT_DEMO_015-2768 - 3 lane

REMOVE ROCK HEADWALL

PROPOSED RIGHT-OF-WAY

PROPOSED PERMANENT DRAINAGE EASEMENT

PARCEL 37
EDWARD & ALISON HERSHEWE
431 VIRGINIA
BOOK 354, PAGE 4,486 & 4,613

PROPOSED TEMPORARY CONSTRUCTION EASEMENT

PROPOSED PERMANENT SLOPE EASEMENT

LIMITS OF DISTURBANCE

EXISTING RIGHT-OF-WAY

SALVAGE SIGN AND POST FOR CITY

ADJUST SANITARY SEWER MANHOLE TO GRADE

℄ CRANE DRIVE

CRANE DRIVE

POWER LINE, POLES AND ANCHORS TO BE RELOCATED BY OTHERS

DND BUILDING

TELEPHONE RISER TO BE RELOCATED &/OR ADJUSTED TO GRADE BY OTHERS

EXISTING RIGHT-OF-WAY

LIMITS OF DISTURBANCE

PROPOSED PERMANENT SLOPE EASEMENT

PROPOSED TEMPORARY CONSTRUCTION EASEMENT

REMOVE BLOCK WALL SIGN AND LIGHT COORDINATE WITH OWNER ON OWNERSHIP OF BLOCKS

COORDINATE REMOVAL AND REPLACEMENT OF FENCE WITH OWNER(S). FENCE TO BE REMOVED FOR NEW ENTRANCE

EXISTING WATERLINE, SEE PART D PLANS FOR RELOCATION

DND BUILDING

℄ 32ND STREET

COORDINATE REMOVAL AND REPLACEMENT OF FENCE WITH OWNER(S). FENCE TO BE REINSTALLED AT PROPOSED RIGHT-OF-WAY LINE

DND BUILDING

PARCEL 36
SOUTHERN TRAILS ESTATES LLC
P.O. BOX 2283
BOOK 358, PAGE 1,245

32ND STREET

MATCH LINE 55+00 - SEE THIS SHEET BELOW

MATCH LINE 55+00 - SEE THIS SHEET ABOVE

50+00 51+00 52+00 53+00 54+00 55+00 56+00 56+25 77+00 78+00

PI: 50+99.95

LEGEND:

- PAVEMENT, CURB & GUTTER, AND SIDEWALK REMOVAL
- SURFACE MILL
- STORM SEWER REMOVAL
- TREE REMOVAL (AREA)
- TREE REMOVAL (INDIVIDUAL)
- SAWCUT
- LIMITS OF DISTURBANCE

NOTE:
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0' 10' 20' 40'
SCALE IN FEET

1-800-DIG-RITE = 811
www.mo1call.com

Prepared by:
CJW
CJW Transportation Consultants, L.L.C.
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Tel: 417.889.3400 Fax: 417.889.3402 www.GoCJW.com
CJW Transportation Consultants, L.L.C. Engineering MO C.A. #2006012385

STATE OF MISSOURI
DANE MITCHELL SEILER
#-2327
NUMBER
PE-2010019595
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

DEMOLITION & REMOVAL PLAN

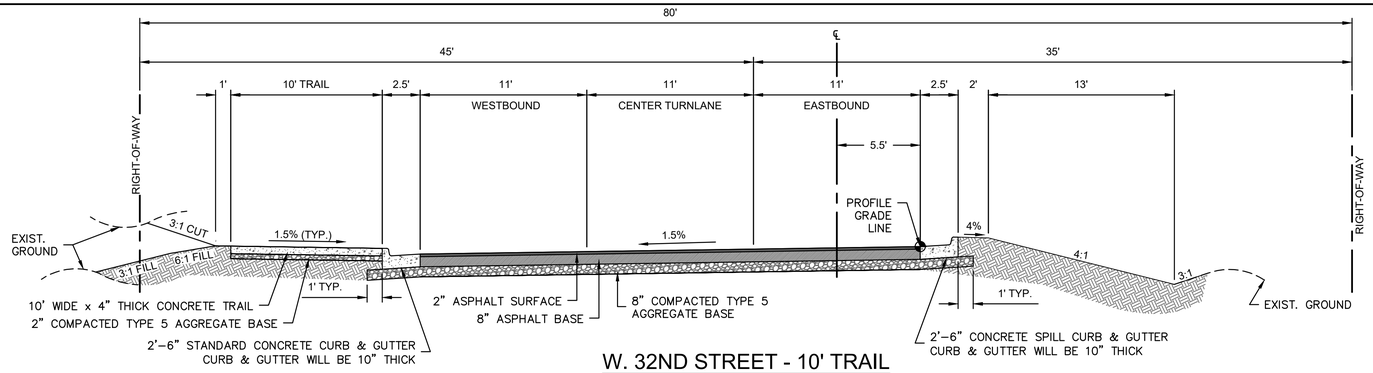
32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

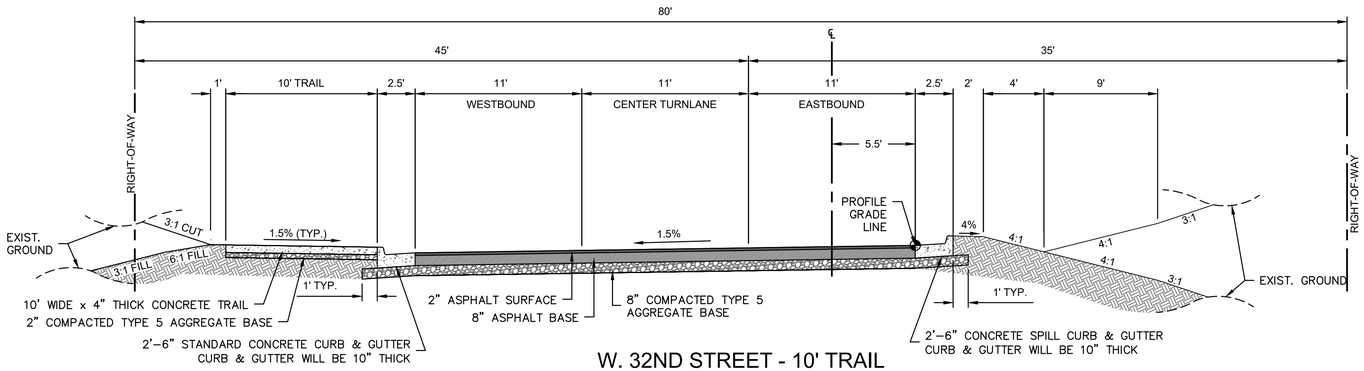
drawn by: AJT
checked by: JCR
approved by: DMS
QA/QC by: OLSSON
project no.: 015-2768
drawing no.:
date: 04/23/2021

SHEET
B21 of B150



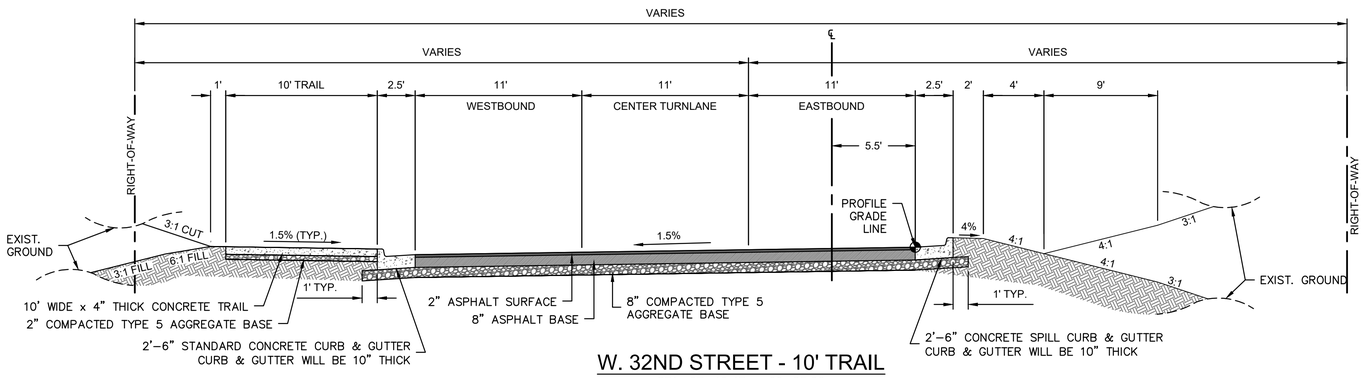
W. 32ND STREET - 10' TRAIL

STA. 60+00.00 – 64+25.00



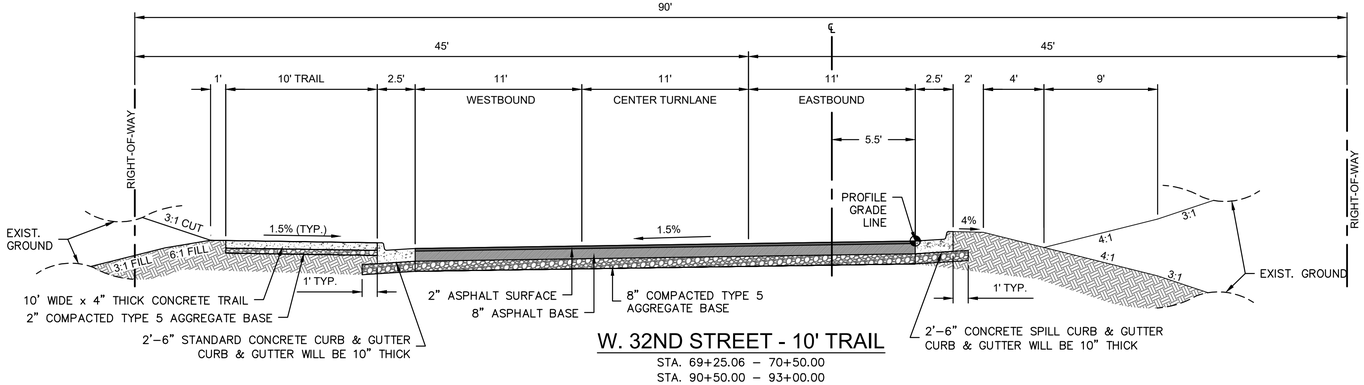
W. 32ND STREET - 10' TRAIL

STA. 64+25.00 – 67+46.47



W. 32ND STREET - 10' TRAIL

STA. 67+46.47 – 69+25.06



W. 32ND STREET - 10' TRAIL

STA. 69+25.06 – 70+50.00
STA. 90+50.00 – 93+00.00

Prepared by:
CJW
CJW Transportation Consultants, L.L.C.
Tel. 417.889.3400
Fax. 417.889.3402
www.GoCJW.com
CJW Transportation Consultants, L.L.C. Engineering MO C.A. #2006012385
3051 S. National Ave. Suite 7A Springfield, MO 65810

STATE OF MISSOURI
DANE MITCHELL SEILER
#2371
NUMBER PE-2010019595
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY
		REVISIONS	

TYPICAL SECTIONS

32ND STREET WIDENING
CITY OF JOPLIN

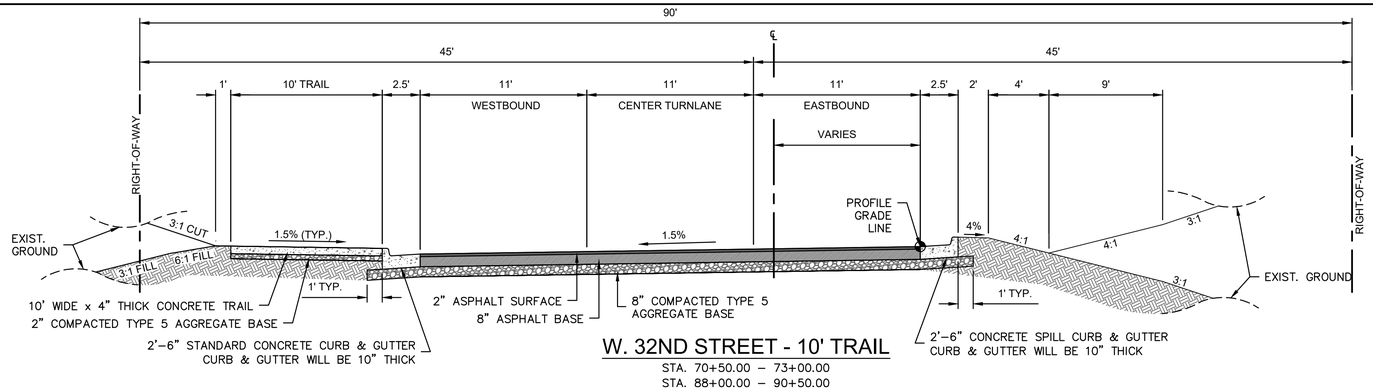
JOPLIN, MISSOURI

2021

drawn by: AJT
checked by: JCR
approved by: DMS
QA/QC by: OLSSON
project no.: 015-2768
drawing no.:
date: 04/23/2021

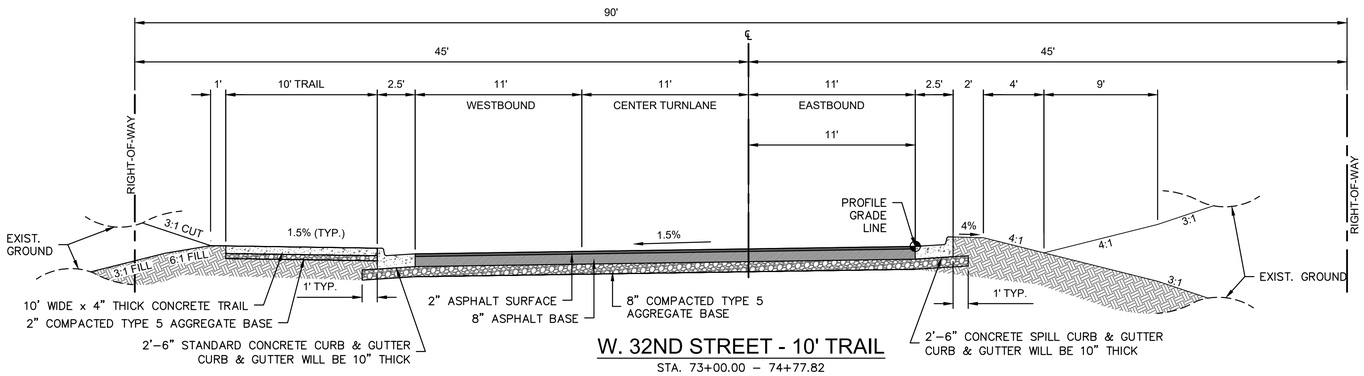
SHEET
B22 of B150

DWG: G:\15065 – 32nd Street Roadway\015-2768 32nd Street Widening\40-Design\AutoCAD\Final Plans\Sheets\CJW\B22 – B24 TYPICAL SECTIONS.dwg USER: Aaron
DATE: Apr 21, 2021 8:04am XREFS: CJW_T_CTBLK_015-2768 (2019)



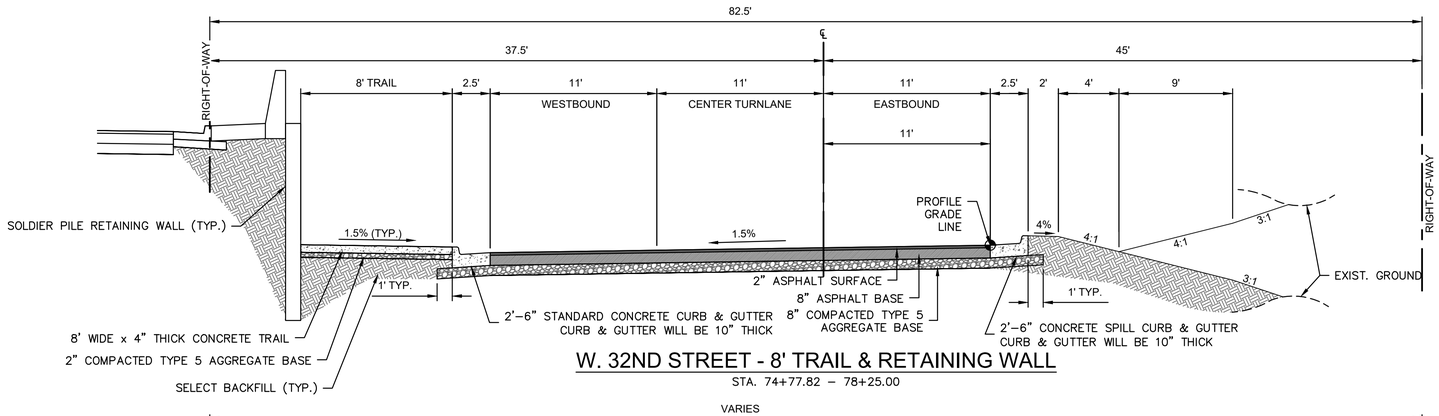
W. 32ND STREET - 10' TRAIL

STA. 70+50.00 – 73+00.00
STA. 88+00.00 – 90+50.00



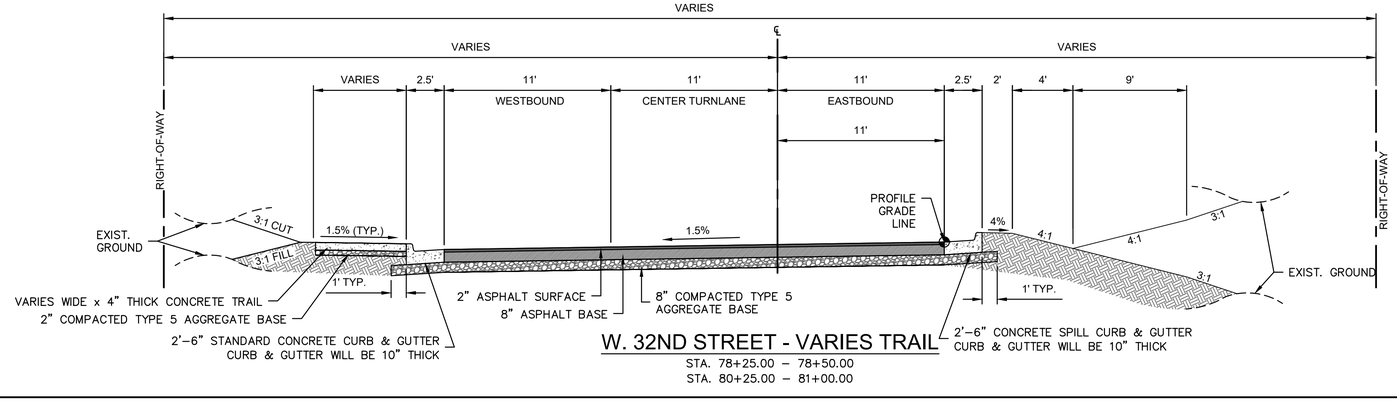
W. 32ND STREET - 10' TRAIL

STA. 73+00.00 – 74+77.82
STA. 81+00.00 – 88+00.00



W. 32ND STREET - 8' TRAIL & RETAINING WALL

STA. 74+77.82 – 78+25.00



W. 32ND STREET - VARIES TRAIL

STA. 78+25.00 – 78+50.00
STA. 80+25.00 – 81+00.00

Prepared by:
CJW
CJW Transportation Consultants, L.L.C.
CJW Transportation Consultants, L.L.C. Engineering MO C.A. #2006012385
3051 S. National Ave. Suite 7A Springfield, MO 65810
Tel. 417.889.3400 Fax. 417.889.3402 www.GoCJW.com

STATE OF MISSOURI
DANE MITCHELL SEILER
NUMBER PE-2010019595
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY
		REVISIONS	

TYPICAL SECTIONS

32ND STREET WIDENING
CITY OF JOPLIN

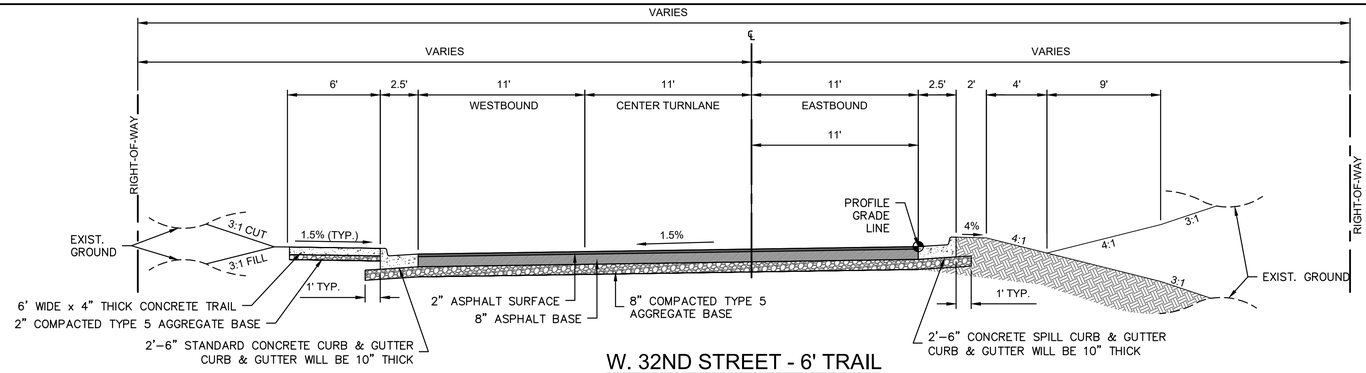
JOPLIN, MISSOURI

2021

drawn by: AJT
checked by: JCR
approved by: DMS
QA/QC by: OLSSON
project no.: 015-2768
drawing no.:
date: 04/23/2021

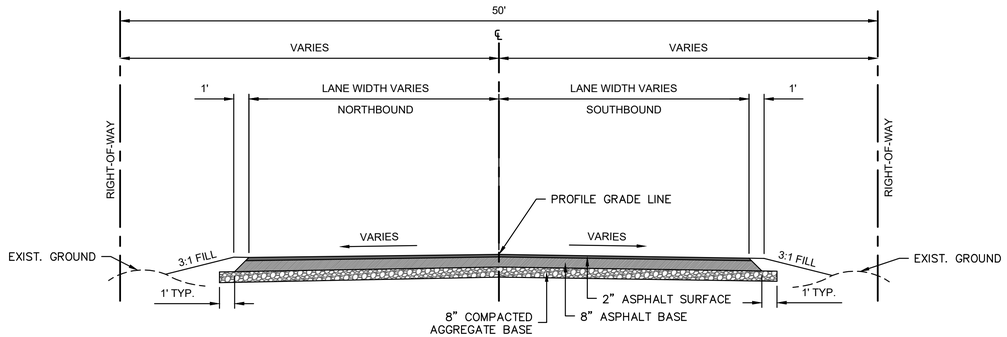
SHEET
B23 of B150

DWG: G:\15065 – 32nd Street Roadway\015-2768 32nd Street Widening\40-Design\AutoCAD\Final Plans\Sheets\CJW\B22 – B24 TYPICAL SECTIONS.dwg USER: Aaron
DATE: Apr 21, 2021 8:04am XREFS: CJW_T_CTBLK_015-2768 (2019)



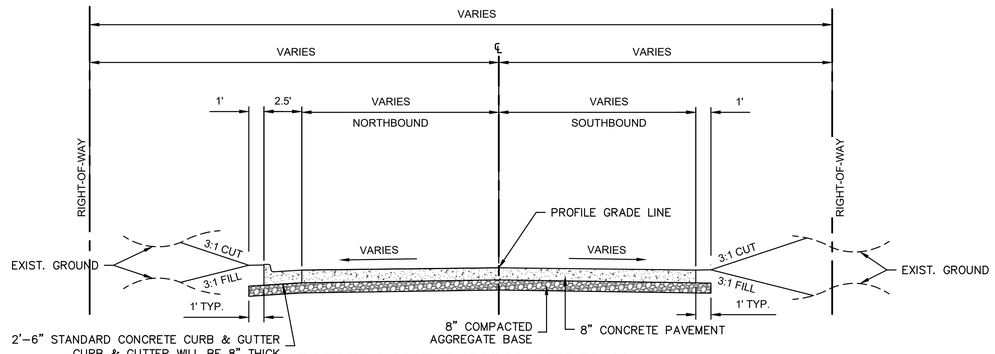
W. 32ND STREET - 6' TRAIL

STA. 78+50.00 – 80+25.00



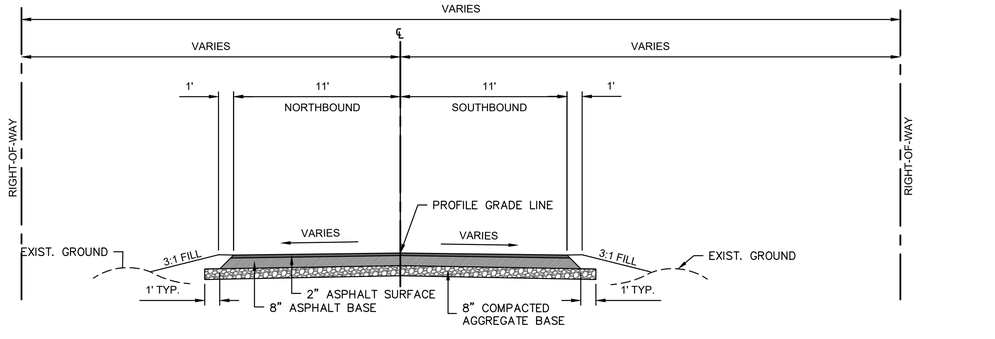
DAY DRIVE TYPICAL SECTION

STA. 48+10.00 – 49+57.00



CATNIP LANE TYPICAL SECTION

STA. 49+27.00 – 49+28.00



CRANE DRIVE TYPICAL SECTION

STA. 50+99.95 – 56+05.00

Prepared by:
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STATE OF MISSOURI
DANE MITCHELL SEILER
NUMBER PE-2010019595
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

TYPICAL SECTIONS

32ND STREET WIDENING
CITY OF JOPLIN

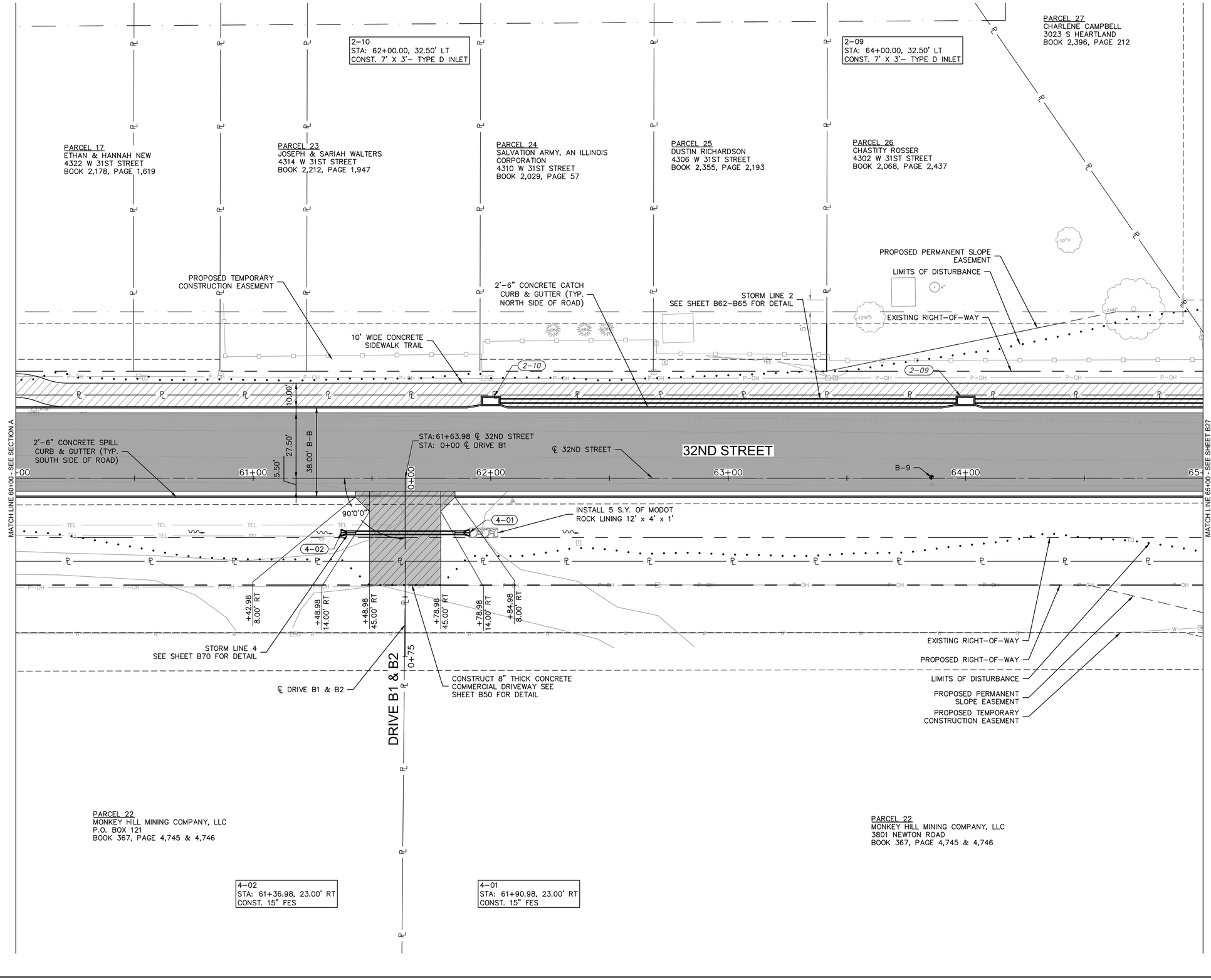
JOPLIN, MISSOURI

2021

drawn by: AJT
checked by: JCR
approved by: DMS
QA/QC by: OLSSON
project no.: 015-2768
drawing no.:
date: 04/23/2021

SHEET
B24 of B150

DWG: G:\15065 - 32nd Street Roadway\015-2768 32nd Street Widening\40-Design\AutoCAD\Final Plans\Sheets\CJW\B22 - B24 TYPICAL SECTIONS.dwg USER: Aaron
DATE: Apr 21, 2021 8:04am XREFS: CJW_T_CTBLK_015-2768 (2019)



LEGEND

- ASPHALT PAVEMENT
- CONCRETE SIDEWALK
- CONCRETE DRIVE
- AGGREGATE SURFACE
- ASPHALT OVERLAY
- STAMPED CONCRETE PAVEMENT
- DETECTABLE WARNING SURFACE
- CURB RAMP
- ROCK BLANKET
- FLEXAMAT 10NW UV-T
- PROPOSED RIGHT-OF-WAY
- TEMPORARY CONSTRUCTION EASEMENT LINE
- PERMANENT SLOPE EASEMENT LINE
- LIMITS OF DISTURBANCE

N

0' 10' 20' 40'
SCALE IN FEET

MISSOURI ONE CALL SYSTEM
1-800-DIG-RITE = 811
www.mo1call.com

Prepared by:
CJW
CJW Transportation Consultants, L.L.C.
CJW Transportation Consultants, L.L.C. Engineering MO C.A. #2006012385
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STATE OF MISSOURI
DANE MITCHELL SEILER
#E-27371 NUMBER
PE-2010019595
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

PLAN - 32ND STREET
60+00 TO 65+00

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

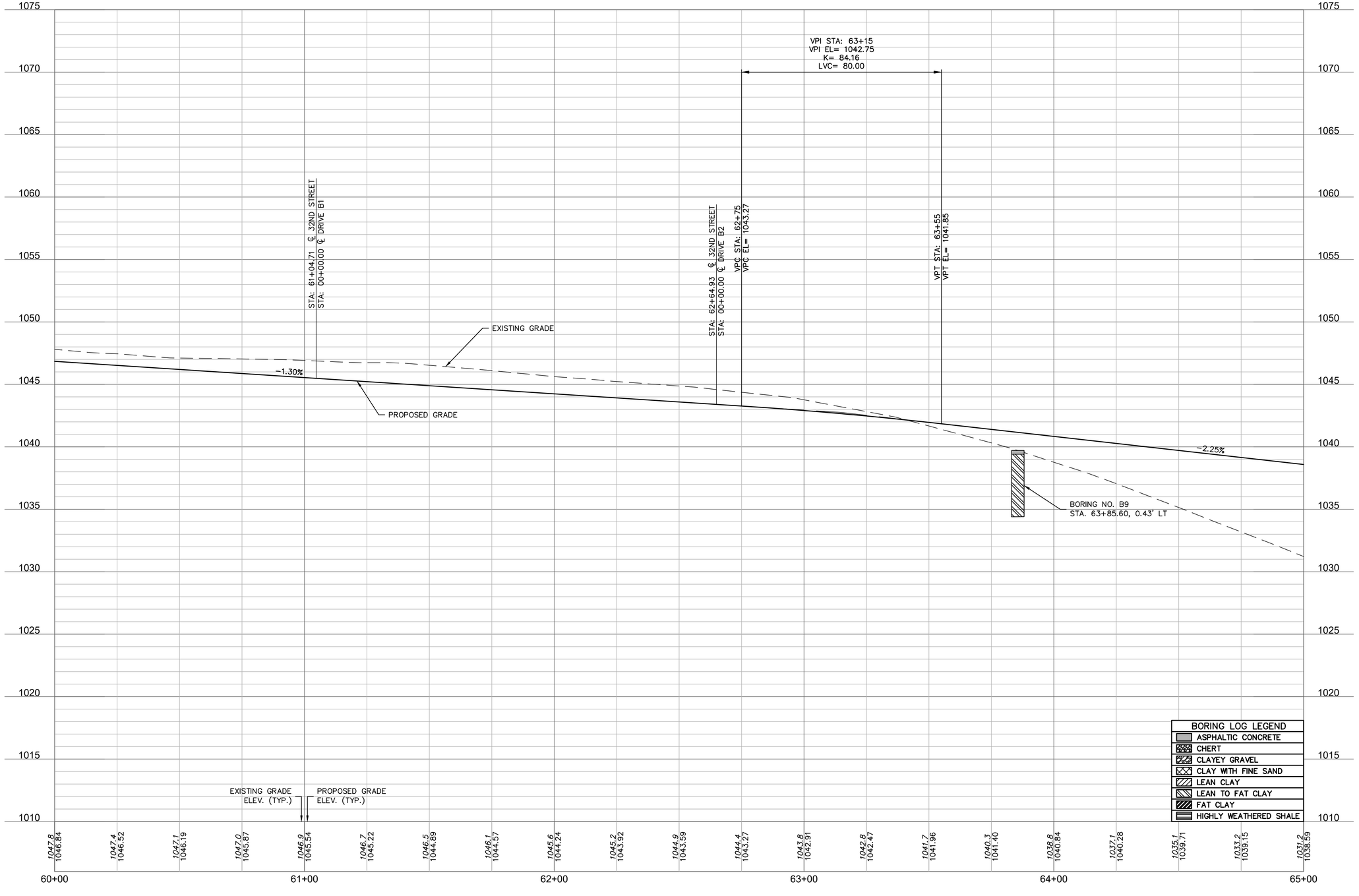
2021

drawn by: AJT
checked by: JCR
approved by: DMS
QA/QC by: OLSSON
project no.: 015-2768
drawing no.:
date: 04/23/2021

SHEET
B25 of B150

DWG: G:\15065 - 32nd Street Roadway\015-2768 32nd Street Widening\40-Design\AutoCAD\Final Plans\Sheets\CJW_B25 & 26 PLAN & PROFILE - 32ND STREET 60+00 TO 65+00.dwg USER: Aaron
DATE: Apr 21, 2021 8:04am XREFS: CJW_T_OTBLK_015-2768 (2019) CJW_T_PPATT_015-2768 - 3 lane phtch-legend COLOR UTILITIES T_SOIL BORING-
CJW_T_pbase_015-2768 - 3 lane V_XBOU_52768 OA_ACAD-T_XBASE_52768

W. 32ND STREET



ALIGNMENT AND PROFILE NOTE:

ALTHOUGH EXISTING GRADE SHOWN IS NEAR THE EXISTING CENTERLINE OF 32ND STREET, THE FINISH GRADE PROFILE AND ULTIMATE CROWN IS NOT AT THE CENTERLINE OF 32ND STREET, BUT IS THE SOUTH GUTTER FLAG AND VARIES SOUTH OF THE PROPOSED ULTIMATE CENTERLINE.

Prepared by:
CJW Transportation Consultants, L.L.C.
CJW Transportation Consultants, L.L.C. Engineering MO C.A. #2006012385
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STATE OF MISSOURI
DANE MITCHELL SEILER
E-23271
NUMBER
PE-2010019595
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

PROFILE- 32ND STREET
60+00 TO 65+00

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by: AJT
checked by: JCR
approved by: DMS
QA/QC by: OLSSON
project no.: 015-2768
drawing no.:
date: 04/23/2021

SHEET
B26 of B150

DWG: G:\15065 - 32nd Street Roadway\015-2768 32nd Street Widening\40-Design\AutoCAD\Final Plans\Sheets\CJW\B25 & 26 PLAN & PROFILE - 32ND STREET 60+00 TO 65+00.dwg USER: Aaron
DATE: Apr 21, 2021 8:04am XREFS: CJW_T_CTBLK_015-2768 (2019) cjw_t_pbase_015-2768 - 3 lane phtch-legend COLOR UTILITIES T_SOIL BORING-
OA_ACAD-T_XBASE_52768 cjw_t_ppatt_015-2768 - 3 lane V_XBOU_52768

DWG: G:\15065 - 32nd Street Roadway\015-2768 32nd Street Widening\40-Design\AutoCAD\Final Plans\Sheets\CJW\B27 & 28 PLAN & PROFILE - 32ND STREET 65+00 TO 70+00.dwg USER: Aaron
DATE: Apr 21, 2021 8:05am XREFS: CJW_T_OTBLK_015-2768 (2019) CJW_T_PPATT_015-2768 - 3 lane phtch-legend COLOR UTILITIES T_SOIL BORING-
V_XBOU_52768 OA_ACAD-T_XBASE_52768 CJW_T_pbase_015-2768 - 3 lane

MATCH LINE 65+00 - SEE SHEET B25

2-08
STA: 66+10.00, 32.50' LT
CONST. 7' X 3'- TYPE D INLET

2A-01
STA: 66+10.00, 72.94' LT
CONST. 18" FES

CONSTRUCT 8" THICK CONCRETE COMMERCIAL DRIVEWAY SEE SHEET B54 FOR DETAIL

DRIVE B10
0+50
0+00

STA: 49+40.93 ℄ COUNTRY CLUB DRIVE
STA: 0+00 ℄ DRIVE B10

2-07
STA: 68+99.97, 32.50' LT
CONST. 7' X 3'- TYPE D INLET

PROPOSED TEMPORARY CONSTRUCTION EASEMENT

PARCEL 28
R. S. ANDERSON, INC
P.O. BOX 8
BOOK 1,505, PAGE 151

PARCEL 29
MIKE SIMMONS
COUNTY ROAD
BOOK 2,004, PAGE 2,379

℄ COUNTRY CLUB DRIVE

S. COUNTRY CLUB DRIVE

DRIVE B4

+58.72
150.11' LT

℄ DRIVE B4

PROPOSED PERMANENT ACCESS EASEMENT

CONSTRUCT 8" THICK COMPACTED AGGREGATE SURFACE DRIVEWAY SEE SHEET B51 FOR DETAIL

CONSTRUCT 8" THICK CONCRETE COMMERCIAL DRIVEWAY SEE SHEET B51 FOR DETAIL

PROPOSED PERMANENT SLOPE EASEMENT

LIMITS OF DISTURBANCE

+37.49
30.00' LT

+35.07
12.50' RT

+34.99
12.50' LT

2A-01

EXISTING RIGHT-OF-WAY

10' WIDE CONCRETE SIDEWALK TRAIL

2'-6" CONCRETE CATCH CURB & GUTTER (TYP. NORTH SIDE OF ROAD)

STORM LINE 2A
SEE SHEET B66 FOR DETAIL

PI: 50+59.50

+32.41
30.00' LT

STORM LINE 2
SEE SHEET B62-B65 FOR DETAIL

+43.72
30.00' LT

+43.72
40.00' LT

+58.72
46.00' LT

10.00'

2-08

2-07

R35.00'

PI: 67+86.77

R35.00'

5' GUTTER CROSSING

STA: 67+84.90 ℄ 32ND STREET
STA: 5+00 ℄ COUNTRY CLUB DRIVE

℄ 32ND STREET

B-104

66+00

67+00

68+00

69+00

32ND STREET

5.50'

27.50'

38.00' B-B

90°4'49"

90°13'16"

50+00

11+00

2'-6" CONCRETE SPILL CURB & GUTTER (TYP. SOUTH SIDE OF ROAD)

90°0'0"

+53.54
8.00' RT

R20.00'

+18.59
8.00' RT

STA: 69+86.09 ℄ 32ND STREET
STA: 0+00 ℄ DRIVE B4

MATCH LINE 70+00 - SEE SHEET B29

STA: 67+86.09 ℄ 32ND STREET
STA: 0+00 ℄ DRIVE B3

+28.01
12.53' RT

+28
12.50' LT

CONSTRUCT 8" THICK CONCRETE COMMERCIAL DRIVEWAY SEE SHEET B50 FOR DETAIL

℄ DRIVE B3

CONSTRUCT 8" THICK COMPACTED AGGREGATE SURFACE DRIVEWAY SEE SHEET B50 FOR DETAIL

EXISTING RIGHT-OF-WAY

PROPOSED RIGHT-OF-WAY

LIMITS OF DISTURBANCE

PROPOSED PERMANENT SLOPE EASEMENT

PROPOSED TEMPORARY CONSTRUCTION EASEMENT

PC: 1+29.48

PARCEL 22
MONKEY HILL MINING COMPANY, LLC
3801 NEWTON ROAD
BOOK 367, PAGE 4,745 & 4,746

PARCEL 35
BENITA MEADOWS
1046 ANCIENT OAK LANE
BOOK 343, PAGE 6,452

5-02
STA: 67+54.47, 187.70' RT
CONST. 24" FES

5-02

PT: 1+70.49

STORM LINE 5
SEE SHEET B70 FOR DETAIL

DRIVE B3

1+00

2+

LEGEND

- ASPHALT PAVEMENT
- CONCRETE SIDEWALK
- CONCRETE DRIVE
- AGGREGATE SURFACE
- ASPHALT OVERLAY
- STAMPED CONCRETE PAVEMENT
- DETECTABLE WARNING SURFACE
- CURB RAMP
- ROCK BLANKET
- FLEXAMAT 10NW UV-T
- PROPOSED RIGHT-OF-WAY
- TEMPORARY CONSTRUCTION EASEMENT LINE
- PERMANENT SLOPE EASEMENT LINE
- LIMITS OF DISTURBANCE

N

0' 10' 20' 40'
SCALE IN FEET

MISSOURI ONE CALL SYSTEM
1-800-DIG-RITE = 811
www.mo1call.com

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STATE OF MISSOURI
DANE MITCHELL SEILER
#2021
NUMBER PE-2010019595
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

PLAN - 32ND STREET
65+00 TO 70+00

32ND STREET WIDENING
CITY OF JOPLIN

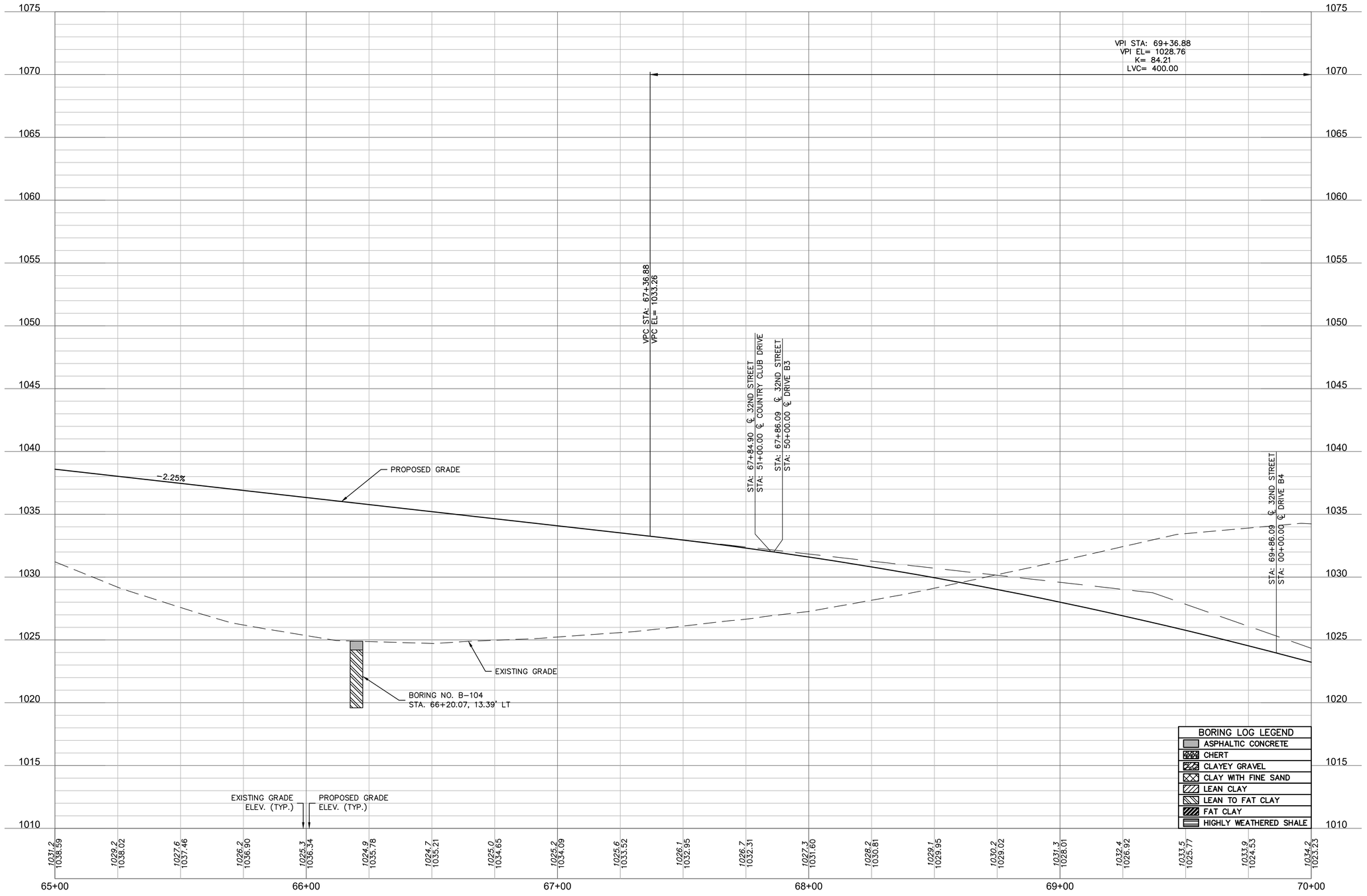
JOPLIN, MISSOURI

2021

drawn by:	AJT
checked by:	JCR
approved by:	DMS
QA/QC by:	OLSSON
project no.:	015-2768
drawing no.:	
date:	04/23/2021

SHEET
B27 of B150

W. 32ND STREET



ALIGNMENT AND PROFILE NOTE:

ALTHOUGH EXISTING GRADE SHOWN IS NEAR THE EXISTING CENTERLINE OF 32ND STREET, THE FINISH GRADE PROFILE AND ULTIMATE CROWN IS NOT AT THE CENTERLINE OF 32ND STREET, BUT IS THE SOUTH GUTTER FLAG AND VARIES SOUTH OF THE PROPOSED ULTIMATE CENTERLINE.

Prepared by:
CJW Transportation Consultants, L.L.C.
CJW Transportation Consultants, L.L.C. Engineering MO C.A. #2006012385
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Tel: 417.889.3400 Fax: 417.889.3402 www.GoCJW.com

DANE MITCHELL SEILER E-2371 NUMBER PE-2010019595 STATE OF MISSOURI PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY
		REVISIONS	

PROFILE - 32ND STREET
65+00 TO 70+00

32ND STREET WIDENING
CITY OF JOPLIN

2021

JOPLIN, MISSOURI

drawn by: AJT
checked by: JCR
approved by: DMS
QA/QC by: OLSSON
project no.: 015-2768
drawing no.:
date: 04/23/2021

SHEET
B28 of B150

DWG: G:\15065 - 32nd Street Roadway\015-2768 32nd Street Widening\40-Design\AutoCAD\Final Plans\Sheets\CJW\B27 & 28 PLAN & PROFILE - 32ND STREET 65+00 TO 70+00.dwg USER: Aaron
DATE: Apr 21, 2021 8:05am XREFS: CJW_T_CTBLK_015-2768 (2019) cjw_t_pbase_015-2768 - 3 lane phtch-legend COLOR UTILITIES T_SOIL BORING-
OA_ACAD-T_XBASE_52768 CJW_T_PPATT_015-2768 - 3 lane V_XBOU_52768

DWG: G:\15065 - 32nd Street Roadway\015-2768 32nd Street Widening\40-Design\AutoCAD\Final Plans\Sheets\CJW\B29 & 30 PLAN & PROFILE - 32ND STREET 70+00 TO 75+00.dwg USER: Aaron
DATE: Apr 21, 2021 8:06am XREFS: CJW_T_CTBLK_015-2768 (2019) cjw_t_pbase_015-2768 - 3 lane phtch-legend COLOR UTILITIES T_SOIL BORING-
V_XBOU_52768 0A_ACAD-T_XBASE_52768 CJW_T_PPATT_015-2768 - 3 lane

2-06
STA: 70+38.85, 32.50' LT
CONST. 7' X 3'- TYPE D INLET

2-05
STA: 72+13.90, 28.90' LT
CONST. 7' X 3'- TYPE D INLET

2-04
STA: 73+99.97, 27.50' LT
CONST. 7' X 4' - TYPE D INLET

2B-01
STA: 74+68.64, 43.50' LT
CONST. 4' X 4' AREA INLET

36" CLUSTER

PARCEL 30
DAVID LEE & SHERRON ANNE MCBEE
3097 S CHERRY HILLS LANE
BOOK 1,353, PAGE 2,073

PARCEL 31
WATERVIEW ESTATES
3110 S CATNIP LANE
BOOK 2,494, PAGE 215

+13.72 149.89' LT
+13.72 46.00' LT
+19.72 40.00' LT
+19.72 30.43' LT
+50.14 40.00' LT
+50.03 30.00' LT
+00.03 24.50' LT
10.00'
+77.82 35.00' LT
+77.82 45.00' LT
+76.82 32.50' LT
+66.82 34.50' LT

PROPOSED TEMPORARY CONSTRUCTION EASEMENT
LIMITS OF DISTURBANCE
PROPOSED RIGHT-OF-WAY
EXISTING RIGHT-OF-WAY
10' WIDE CONCRETE SIDEWALK TRAIL
STORM LINE 2
SEE SHEET B62-B65 FOR DETAIL
2'-6" CONCRETE CATCH CURB & GUTTER (TYP. NORTH SIDE OF ROAD)
STORM LINE 2B
SEE SHEET B66 FOR DETAIL

2-06 2-05 2-04 2B-01

B-105 B-8

STA: 72+80.72 ℄ 32ND STREET
STA: 0+00 ℄ DRIVE B5

℄ 32ND STREET

STA: 74+74.64 ℄ 32ND STREET
STA: 0+00 ℄ DRIVE B6

22.00' B-B
38.00' B-B
11.00'

71+00 72+00 73+00 74+00 75+00

32ND STREET

0+00 90°0'0" 0+00 90°0'0" 0+00

STORM LINE 6
SEE SHEET B61 FOR DETAIL

STORM LINE 7
SEE SHEET B61 FOR DETAIL

MATCH LINE 70+00 - SEE SHEET B27

MATCH LINE 75+00 - SEE SHEET B31

+49.61 8.00' RT

6-02 6-01 7-02 8-02

INSTALL 5 S.Y. OF MODOT ROCK LINING 12' x 4' x 1"

2'-6" CONCRETE SPILL CURB & GUTTER (TYP. SOUTH SIDE OF ROAD)

+68.72 12.82' RT
+74.72 18.95' RT
+74.72 41.50' RT
+86.72 41.50' RT
+86.72 19.22' RT
+92.72 13.35' RT
+41.14 13.50' RT
+61.64 33.50' RT
+87.64 33.50' RT

CONSTRUCT 6" THICK CONCRETE RESIDENTIAL DRIVEWAY SEE SHEET B52 FOR DETAIL

℄ DRIVE B5

SOUTHERN TRAILS SIGN
SEE SHEET B109 FOR DETAIL

℄ DRIVE B6

STORM LINE 8
SEE SHEET B61 FOR DETAIL

CONSTRUCT 6" THICK COMPACTED AGGREGATE SURFACE DRIVEWAY SEE SHEET B52 FOR DETAIL

CONSTRUCT 8" THICK CONCRETE COMMERCIAL DRIVEWAY SEE SHEET B52 FOR DETAIL

EXISTING RIGHT-OF-WAY
PROPOSED RIGHT-OF-WAY
LIMITS OF DISTURBANCE
PROPOSED TEMPORARY CONSTRUCTION EASEMENT

+74.72 114.00' RT
+86.72 114.00' RT
DRIVE B5 1+25

+61.64 95.92' RT
+87.64 95.92' RT
DRIVE B6 1+00
1+50

PARCEL 35
BENITA MEADOWS
1046 ANCIENT OAK LANE
BOOK 343, PAGE 6,452

PARCEL 36
SOUTHERN TRAILS ESTATES LLC
P.O. BOX 2283
BOOK 358, PAGE 1,245

6-02
STA: 72+63.43, 27.70' RT
CONST. 18" FES

6-01
STA: 73+02.55, 28.12' RT
CONST. 18" FES

7-02
STA: 74+50.22, 28.50' RT
CONST. 18" FES

8-02
STA: 74+51.39, 72.05' RT
CONST. 18" FES

LEGEND

- ASPHALT PAVEMENT
- CONCRETE SIDEWALK
- CONCRETE DRIVE
- AGGREGATE SURFACE
- ASPHALT OVERLAY
- STAMPED CONCRETE PAVEMENT
- DETECTABLE WARNING SURFACE
- CURB RAMP
- ROCK BLANKET
- FLEXAMAT 10NW UV-T
- PROPOSED RIGHT-OF-WAY
- TEMPORARY CONSTRUCTION EASEMENT LINE
- PERMANENT SLOPE EASEMENT LINE
- LIMITS OF DISTURBANCE

N

0' 10' 20' 40'
SCALE IN FEET

MISSOURI ONE CALL SYSTEM
1-800-DIG-RITE = 811
www.mo1call.com

Prepared by:
CJW
CJW Transportation Consultants, L.L.C.
CJW Transportation Consultants, L.L.C. Engineering MO C.A. #2006012385
5051 S. National Ave. Suite 7A Springfield, MO 65810
Tel: 417.889.3400 Fax: 417.889.3402 www.GoCJW.com

STATE OF MISSOURI
DANE MITCHELL SEILER
#2021 NUMBER PE-2010019595
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

PLAN - 32ND STREET 70+00 TO 75+00

32ND STREET WIDENING
CITY OF JOPLIN

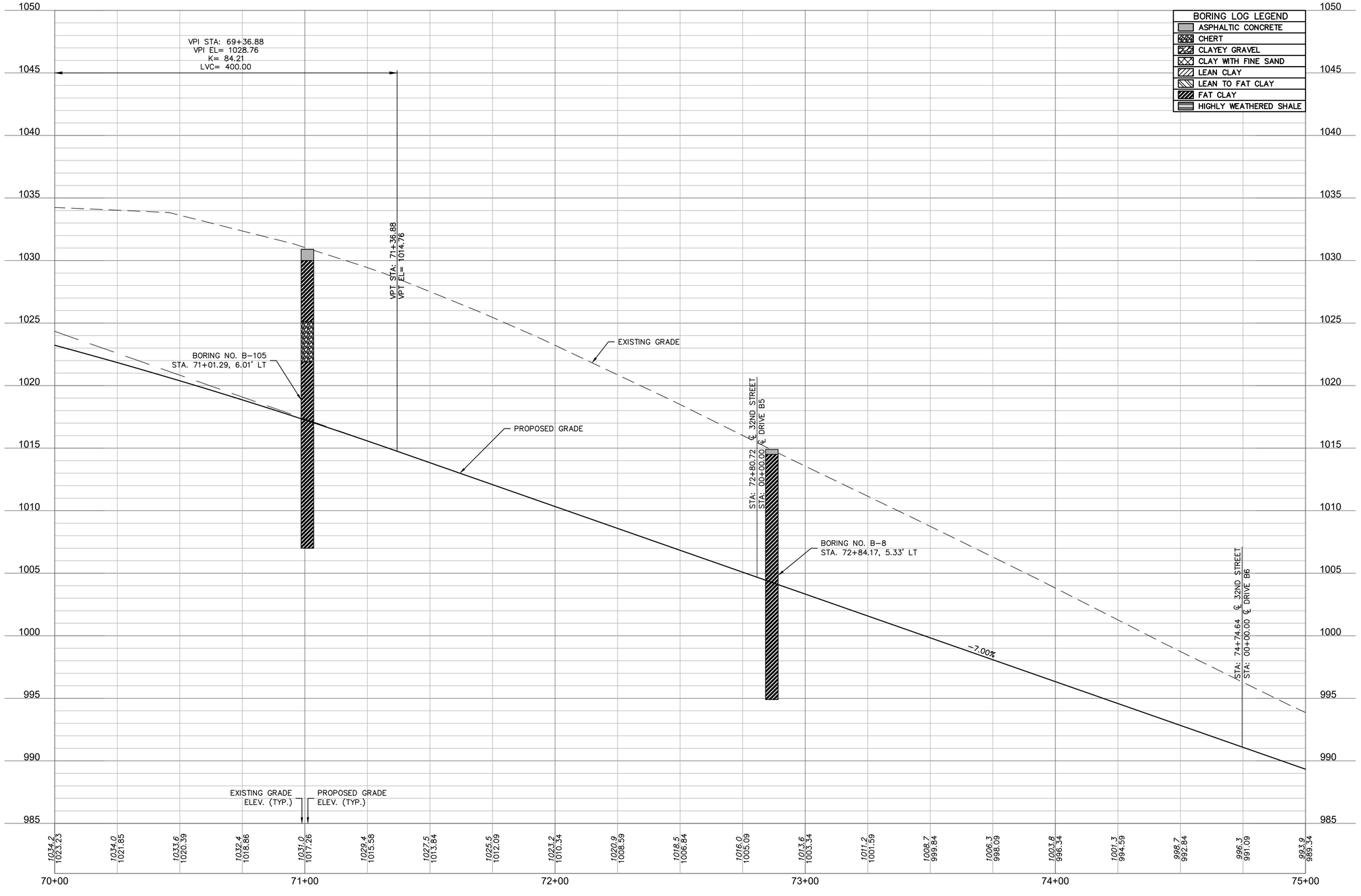
2021

JOPLIN, MISSOURI

drawn by: AJT
checked by: JCR
approved by: DMS
QA/QC by: OLSSON
project no.: 015-2768
drawing no.:
date: 04/23/2021

SHEET
B29 of B150

W. 32ND STREET



BORING LOG LEGEND
ASPHALTIC CONCRETE
CHERT
CLAYEY GRAVEL
CLAY WITH FINE SAND
LEAN CLAY
LEAN TO FAT CLAY
FAT CLAY
HIGHLY WEATHERED SHALE

ALIGNMENT AND PROFILE NOTE:

ALTHOUGH EXISTING GRADE SHOWN IS NEAR THE EXISTING CENTERLINE OF 32ND STREET, THE FINISH GRADE PROFILE AND ULTIMATE CROWN IS NOT AT THE CENTERLINE OF 32ND STREET, BUT IS THE SOUTH GUTTER FLAG AND VARIES SOUTH OF THE PROPOSED ULTIMATE CENTERLINE.

8' 4' 2' 0'

0' 10' 20' 40'
SCALE IN FEET

Prepared by:
CJW Transportation Consultants, L.L.C.
CJW Transportation Consultants, L.L.C. Engineering MO C.A. #2006012385
5051 S. National Ave. Suite 7A Springfield, MO 65810
Tel: 417.889.3400 Fax: 417.889.3402 www.GoCJW.com

STATE OF MISSOURI
DANE MITCHELL SEILER
NUMBER PE-2010019595
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY
		REVISIONS	

PROFILE - 32ND STREET
70+00 TO 75+00

32ND STREET WIDENING
CITY OF JOPLIN

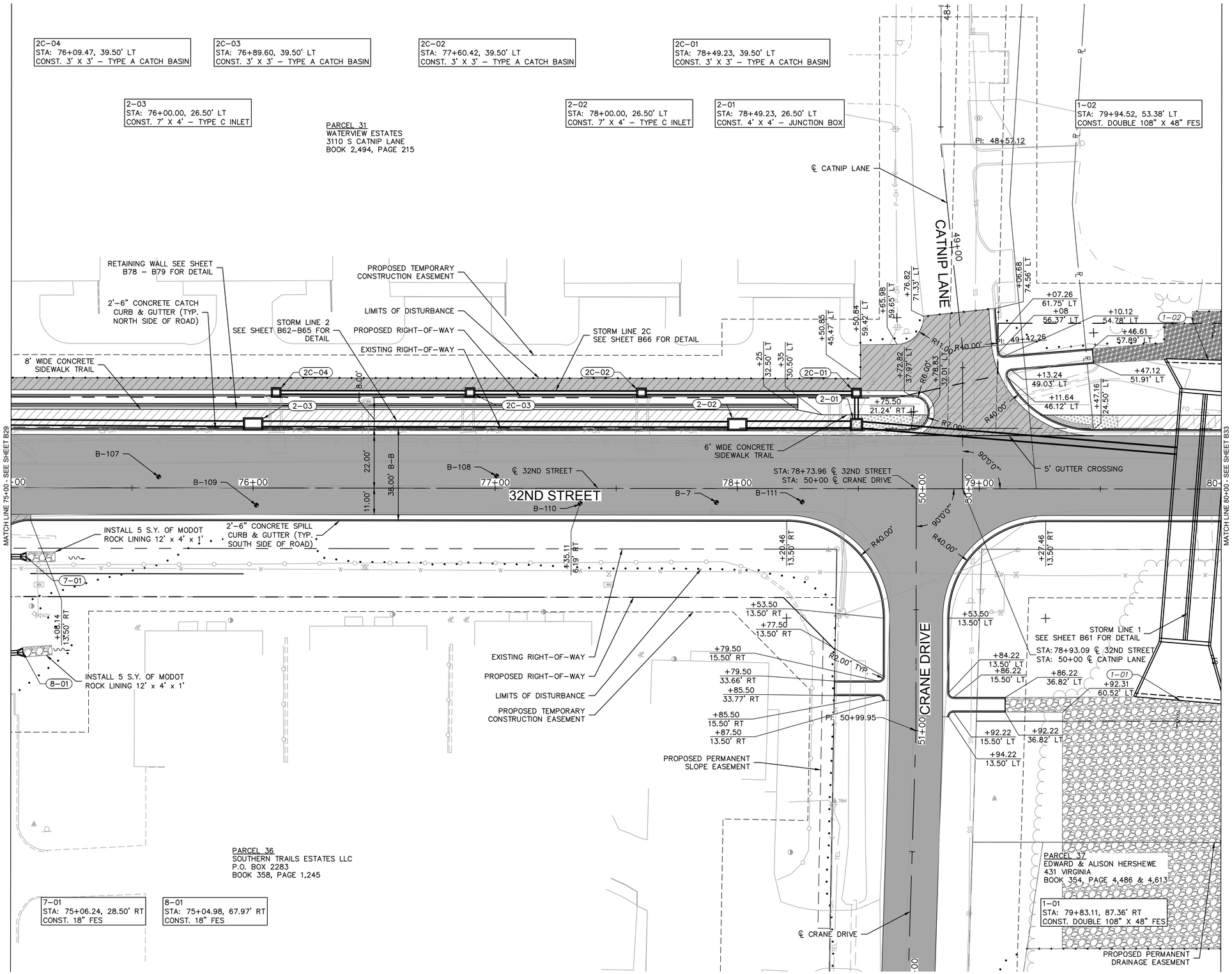
JOPLIN, MISSOURI

2021

drawn by: AJT
checked by: JCR
approved by: DMS
QA/QC by: OLSSON
project no.: 015-2768
drawing no.:
date: 04/23/2021

SHEET
B30 of B150

DWG: G:\15065 - 32nd Street Roadway\015-2768 32nd Street Widening\40-Design\AutoCAD\Final Plans\Sheets\CJW\B29 & 30 PLAN & PROFILE - 32ND STREET 70+00 TO 75+00.dwg USER: Aaron
DATE: Apr 21, 2021 8:06am XREFS: CJW_T_OTBLK_015-2768 (2019) CJW_T_PPATT_015-2768 - 3 lane phtch-legend COLOR UTILITIES T_SOIL BORING-
OA_ACAD-T_XBASE_52768 V_XBOU_52768 cjw_t_pbase_015-2768 - 3 lane



LEGEND

- ASPHALT PAVEMENT
- CONCRETE SIDEWALK
- CONCRETE DRIVE
- AGGREGATE SURFACE
- ASPHALT OVERLAY
- STAMPED CONCRETE PAVEMENT
- DETECTABLE WARNING SURFACE
- CURB RAMP
- ROCK BLANKET
- FLEXAMAT 10NW UV-T
- PROPOSED RIGHT-OF-WAY
- TEMPORARY CONSTRUCTION EASEMENT LINE
- PERMANENT SLOPE EASEMENT LINE
- LIMITS OF DISTURBANCE

Prepared by:
CJW
CJW Transportation Consultants, L.L.C.
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DANE MITCHELL SEILER
E-2371
NUMBER PE-2010019595
STATE OF MISSOURI
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

SCALE IN FEET: 0' 10' 20' 40'

MISSOURI ONE CALL SYSTEM
1-800-DIG-RITE = 811
www.mo1call.com

PLAN - 32ND STREET
75+00 TO 80+00

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

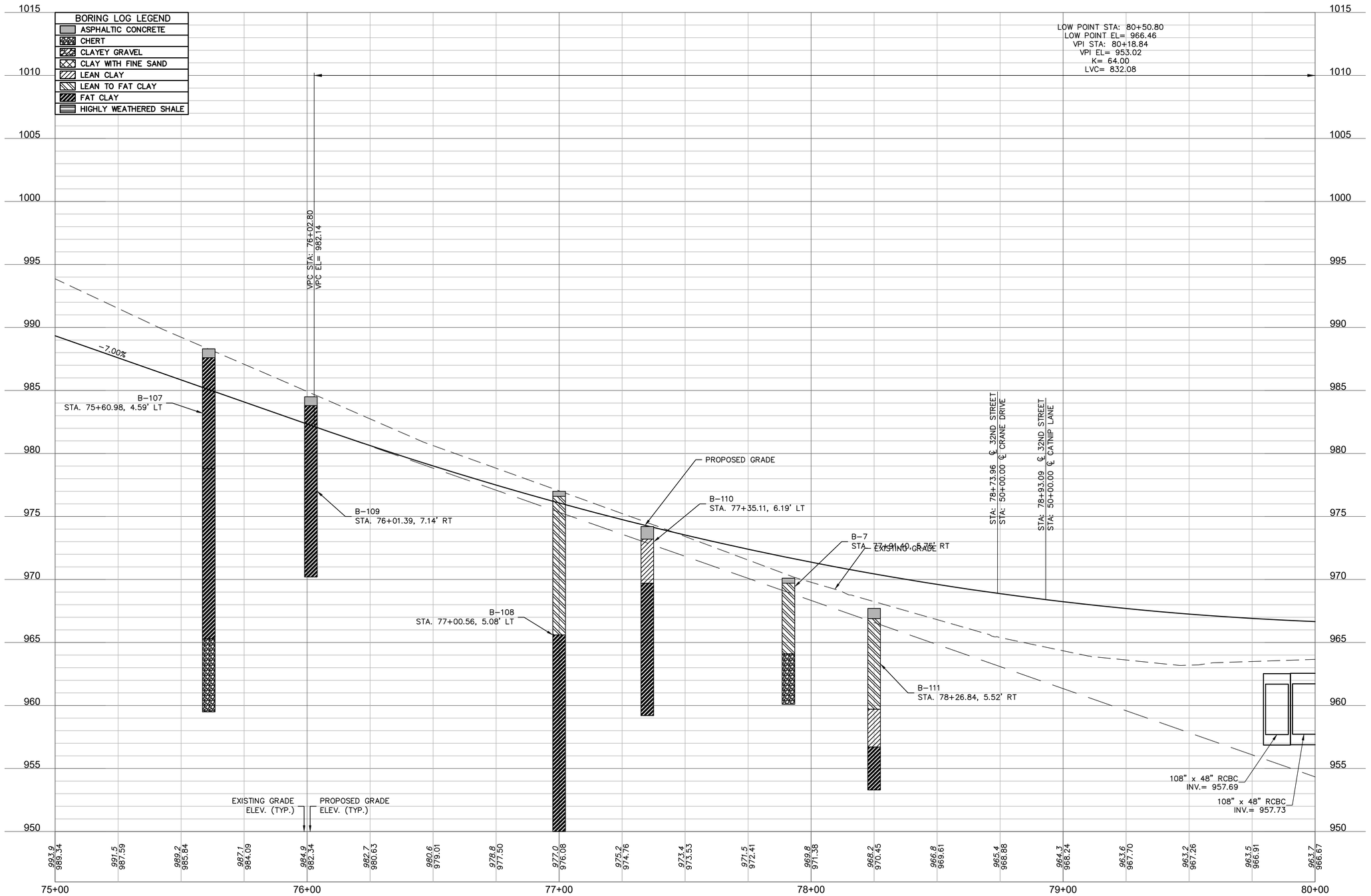
2021

drawn by:	AJT
checked by:	JCR
approved by:	DMS
QA/QC by:	OLSSON
project no.:	015-2768
drawing no.:	
date:	04/23/2021

SHEET
B31 of B150

DWG: G:\15065 – 32nd Street Roadway\015-2768 32nd Street Widening\40-Design\AutoCAD\Final Plans\Sheets\CJW\B31 & 32 PLAN & PROFILE – 32ND STREET 75+00 TO 80+00.dwg USER: Aaron
DATE: Apr 21, 2021 8:06am XREFS: CJW_T_CTBLK_015-2768 (2019) CJW_T_PPATT_015-2768 – 3 lane
V_XBOU_52768 OA_ACAD-T_XBASE_52768 CJW_T_pbase_015-2768 – 3 lane phtch-legend COLOR UTILITIES BORING LOG-LEGEND

W. 32ND STREET



ALIGNMENT AND PROFILE NOTE:

ALTHOUGH EXISTING GRADE SHOWN IS NEAR THE EXISTING CENTERLINE OF 32ND STREET, THE FINISH GRADE PROFILE AND ULTIMATE CROWN IS NOT AT THE CENTERLINE OF 32ND STREET, BUT IS THE SOUTH GUTTER FLAG AND VARIES SOUTH OF THE PROPOSED ULTIMATE CENTERLINE.

0' 10' 20' 40'
SCALE IN FEET

8'
4'
2'
0'

Prepared by:
CJW Transportation Consultants, L.L.C.
CJW Transportation Consultants, L.L.C. Engineering MO C.A. #2006012385
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STATE OF MISSOURI
DANE MITCHELL SEILER
NUMBER PE-2010019595
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY
		REVISIONS	

PROFILE - 32ND STREET
75+00 TO 80+00

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by:	AJT
checked by:	JCR
approved by:	DMS
QA/QC by:	OLSSON
project no.:	015-2768
drawing no.:	
date:	04/23/2021

SHEET
B32 of B150

DWG: G:\15065 - 32nd Street Roadway\015-2768 32nd Street Widening\40-Design\AutoCAD\Final Plans\Sheets\CJW\B31 & 32 PLAN & PROFILE - 32ND STREET 75+00 TO 80+00.dwg USER: Aaron
DATE: Apr 21, 2021 8:06am XREFS: CJW_T_CTBLK_015-2768 (2019) CJW_T_PPATT_015-2768 - 3 lane phtch-legend COLOR UTILITIES BORING LOG-LEGEND
CJW_T_pbase_015-2768 - 3 lane V_XBOU_52768
OA_ACAD-T_XBASE_52768 52768

DWG: G:\15065 - 32nd Street Roadway\015-2768 32nd Street Widening\40-Design\AutoCAD\Final Plans\Sheets\CJW\B33 & 34 PLAN & PROFILE - 32ND STREET 80+00 TO 85+00.dwg USER: Aaron
DATE: Apr 21, 2021 8:07am XREFS: CJW_T_CTBLK_015-2768 (2019) cjw_t_pbase_015-2768 - 3 lane phtch-legend COLOR UTILITIES
V_XBOU_52768 0A_ACAD-T_XBASE_52768 CJW_T_PPATT_015-2768 - 3 lane

3-01
STA: 80+46.80, 27.50' LT
CONST. 7' X 4'- TYPE D INLET

3-02
STA: 80+54.80, 27.50' LT
CONST. 7' X 4'- TYPE D INLET

3-03
STA: 82+50.00, 27.50' LT
CONST. 7' X 4'- TYPE D INLET

3-04
STA: 84+00.00, 27.50' LT
CONST. 7' X 4'- TYPE D INLET

9-01
STA: 81+70.00, 51.00' LT
CONST. 19" X 30" HE RCP FES

9-02
STA: 82+16.85, 51.00' LT
CONST. 19" X 30" HE RCP

PARCEL 32
RBC ENTERPRISES
3110 S CATNIP LANE
BOOK 2,494, PAGE 528

PARCEL 33
DAVID MICHAEL EDGERTON, JR.
3066-3104 SOUTH DAY ROAD
BOOK 2,506, PAGE 141

DRIVE B7 1+50

CONSTRUCT 8" THICK CONCRETE COMMERCIAL DRIVEWAY SEE SHEET B53 FOR DETAIL

+83.17 79.50' LT
1+00
+03.25 79.50' LT

℄ DRIVE B7

STORM LINE 9
SEE SHEET B61 FOR DETAIL

2'-6" CONCRETE CATCH CURB & GUTTER (TYP. NORTH SIDE OF ROAD)

INSTALL 9 S.Y. OF MODOT ROCK LINING 14' x 6' x 1"

+76 24.50' LT
+76 34.50' LT
+82 40.50' LT
+04.84 40.50' LT
+19.84 34.50' LT
+19.84 24.50' LT

STORM LINE 3
SEE SHEET B67-B69 FOR DETAIL

10' WIDE CONCRETE SIDEWALK TRAIL

+65 30.50' LT
+85 34.50' LT

PROPOSED TEMPORARY CONSTRUCTION EASEMENT
PROPOSED PERMANENT SLOPE EASEMENT
LIMITS OF DISTURBANCE
PROPOSED RIGHT-OF-WAY
EXISTING RIGHT-OF-WAY

10.00'

PI: 0+17.06

90°0'0"

32ND STREET

℄ 32ND STREET

STA: 81+91.77 ℄ 32ND STREET
STA: 0+00 ℄ DRIVE B7

22.00'
38.00' B-B
11.00'

MATCH LINE 80+00 - SEE SHEET B31

MATCH LINE 85+00 - SEE SHEET B35

2'-6" CONCRETE SPILL CURB & GUTTER (TYP. SOUTH SIDE OF ROAD)

EXISTING RIGHT-OF-WAY
PROPOSED RIGHT-OF-WAY
LIMITS OF DISTURBANCE
PROPOSED TEMPORARY CONSTRUCTION EASEMENT
PROPOSED PERMANENT SLOPE EASEMENT
PROPOSED PERMANENT DRAINAGE EASEMENT

PARCEL 37
EDWARD & ALISON HERSHEWE
431 VIRGINIA
BOOK 354, PAGE 4,486 & 4,613

PARCEL 37
EDWARD & ALISON HERSHEWE
431 VIRGINIA
BOOK 354, PAGE 4,486 & 4,613

LEGEND

- ASPHALT PAVEMENT
- CONCRETE SIDEWALK
- CONCRETE DRIVE
- AGGREGATE SURFACE
- ASPHALT OVERLAY
- STAMPED CONCRETE PAVEMENT
- DETECTABLE WARNING SURFACE
- CURB RAMP
- ROCK BLANKET
- FLEXAMAT 10NW UV-T
- PROPOSED RIGHT-OF-WAY
- TEMPORARY CONSTRUCTION EASEMENT LINE
- PERMANENT SLOPE EASEMENT LINE
- LIMITS OF DISTURBANCE

0' 10' 20' 40'
SCALE IN FEET

1-800-DIG-RITE or 811
www.mo1call.com

Prepared by:
CJW
CJW Transportation Consultants, L.L.C.
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STATE OF MISSOURI
DANE MITCHELL SEILER
NUMBER PE-2010019595
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

PLAN - 32ND STREET
80+00 TO 85+00

32ND STREET WIDENING
CITY OF JOPLIN

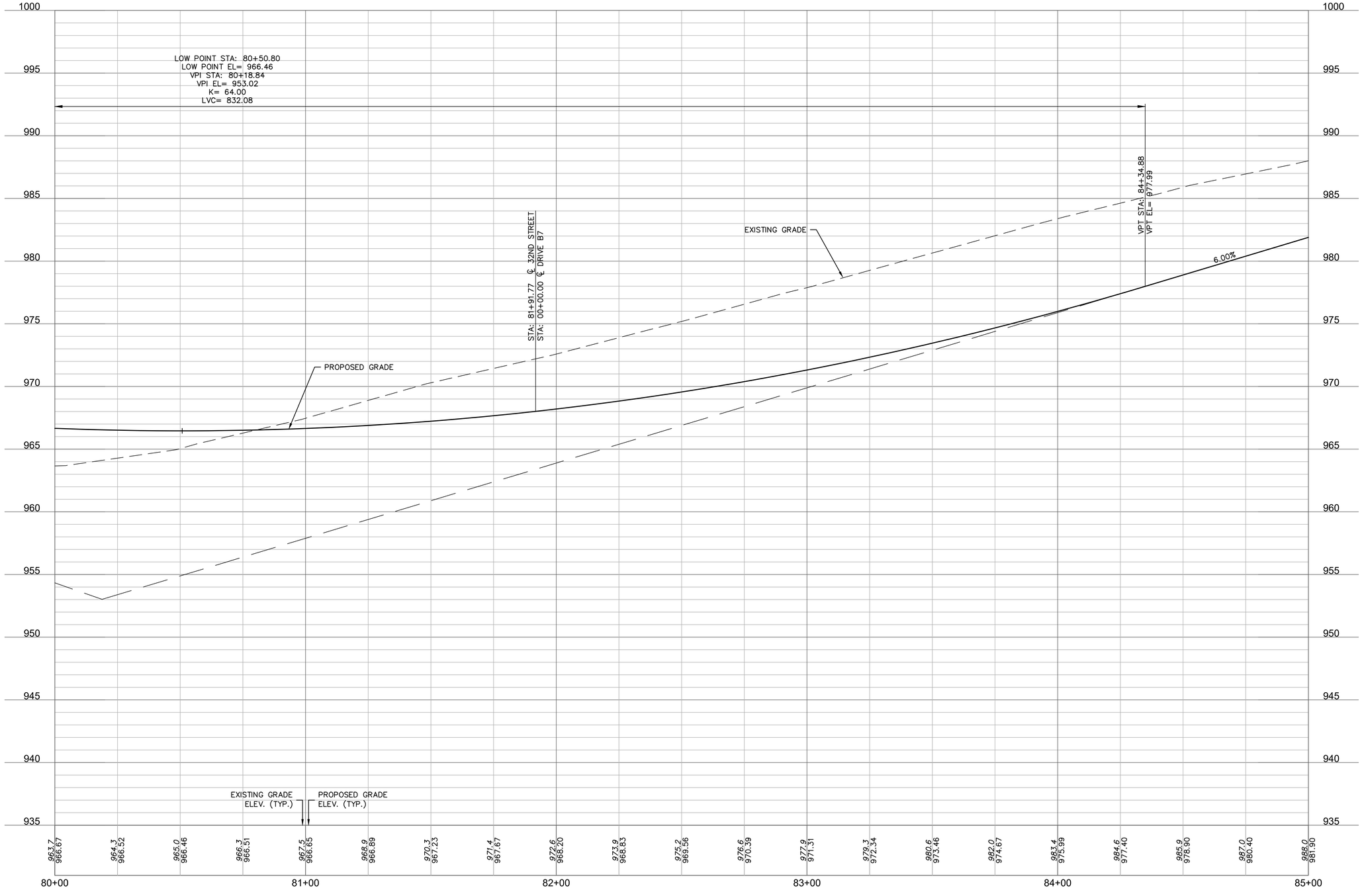
JOPLIN, MISSOURI

2021

drawn by: AJT
checked by: JCR
approved by: DMS
QA/QC by: OLSSON
project no.: 015-2768
drawing no.:
date: 04/23/2021

SHEET
B33 of B150

W. 32ND STREET



ALIGNMENT AND PROFILE NOTE:

ALTHOUGH EXISTING GRADE SHOWN IS NEAR THE EXISTING CENTERLINE OF 32ND STREET, THE FINISH GRADE PROFILE AND ULTIMATE CROWN IS NOT AT THE CENTERLINE OF 32ND STREET, BUT IS THE SOUTH GUTTER FLAG AND VARIES SOUTH OF THE PROPOSED ULTIMATE CENTERLINE.

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CJW Transportation Consultants, L.L.C. Engineering MO C.A. #2006012385

STATE OF MISSOURI
DANE MITCHELL SEILER
NUMBER PE-2010019595
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

PROFILE - 32ND STREET
80+00 TO 85+00

32ND STREET WIDENING
CITY OF JOPLIN

2021

JOPLIN, MISSOURI

drawn by: AJT
checked by: JCR
approved by: DMS
QA/QC by: OLSSON
project no.: 015-2768
drawing no.:
date: 04/23/2021

SHEET
B34 of B150

DWG: G:\15065 - 32nd Street Roadway\015-2768 32nd Street Widening\40-Design\AutoCAD\Final Plans\Sheets\CJW\B33 & 34 PLAN & PROFILE - 32ND STREET 80+00 TO 85+00.dwg USER: Aaron
DATE: Apr 21, 2021 8:07am XREFS: CJW_T_OTBLK_015-2768 (2019) CJW_T_PPATT_015-2768 - 3 lane phtch-legend COLOR UTILITIES
CJW_T_pbase_015-2768 - 3 lane V_XBOU_52768 OA_ACAD-T_XBASE_52768

3–05
STA: 85+50.00, 27.50' LT
CONST. 7' X 4'– TYPE D INLET

3–06
STA: 87+50.00, 27.50' LT
CONST. 7' X 4'– TYPE D INLET

3–07
STA: 89+45.95, 30.71' LT
CONST. 7' X 4'– TYPE D INLET

3–08
STA: 89+53.94, 30.89' LT
CONST. 7' X 4'– TYPE D INLET

PARCEL 33
DAVID M. EDGERTON JR.
3066–3104 SOUTH DAY ROAD
BOOK 2,506, PAGE 141

PARCEL 34
WILLIAM LETT
3110 SOUTH DAY ROAD
BOOK 2,300, PAGE 1,839

PROPOSED TEMPORARY CONSTRUCTION EASEMENT
PROPOSED PERMANENT SLOPE EASEMENT
LIMITS OF DISTURBANCE
PROPOSED RIGHT–OF–WAY
EXISTING RIGHT–OF–WAY

2'–6" CONCRETE CATCH CURB & GUTTER (TYP. NORTH SIDE OF ROAD)

STORM LINE 3
SEE SHEET B67–B69 FOR DETAIL

10' WIDE CONCRETE SIDEWALK TRAIL

+99.97
24.50' LT

+99.86
34.50' LT

10.00'

22.00'

11.00'

38.00' B–B

B–6

℄ 32ND STREET

32ND STREET

86+00

87+00

88+00

89+00

90+00

MATCH LINE 85+00 - SEE SHEET B33

MATCH LINE 90+00 - SEE SHEET B37

2'–6" CONCRETE SPILL CURB & GUTTER (TYP. SOUTH SIDE OF ROAD)

STORM LINE 3B SEE SHEET B69 FOR DETAIL

+01.15
35.50' RT

3B–01

EXISTING RIGHT–OF–WAY
PROPOSED RIGHT–OF–WAY
LIMITS OF DISTURBANCE
PROPOSED PERMANENT SLOPE EASEMENT
PROPOSED TEMPORARY CONSTRUCTION EASEMENT

PARCEL 37
EDWARD & ALISON HERSHEWE
431 VIRGINIA
BOOK 354, PAGE 4,486 & 4,613

PARCEL 37
EDWARD & ALISON HERSHEWE
431 VIRGINIA
BOOK 354, PAGE 4,486 & 4,613

3B–01
STA: 89+50.24, 40.35' RT
CONST. 18" FES

LEGEND

- ASPHALT PAVEMENT
- CONCRETE SIDEWALK
- CONCRETE DRIVE
- AGGREGATE SURFACE
- ASPHALT OVERLAY
- STAMPED CONCRETE PAVEMENT
- DETECTABLE WARNING SURFACE
- CURB RAMP
- ROCK BLANKET
- FLEXAMAT 10NW UV–T
- PROPOSED RIGHT–OF–WAY
- TEMPORARY CONSTRUCTION EASEMENT LINE
- PERMANENT SLOPE EASEMENT LINE
- LIMITS OF DISTURBANCE

N

0' 10' 20' 40'
SCALE IN FEET

MISSOURI ONE CALL SYSTEM
1-800-DIG-RITE = 811
www.mo1call.com

Prepared by:
CJW
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STATE OF MISSOURI
DANE MITCHELL SEILER
#2371 NUMBER
PE-2010019595
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

PLAN - 32ND STREET
85+00 TO 90+00

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

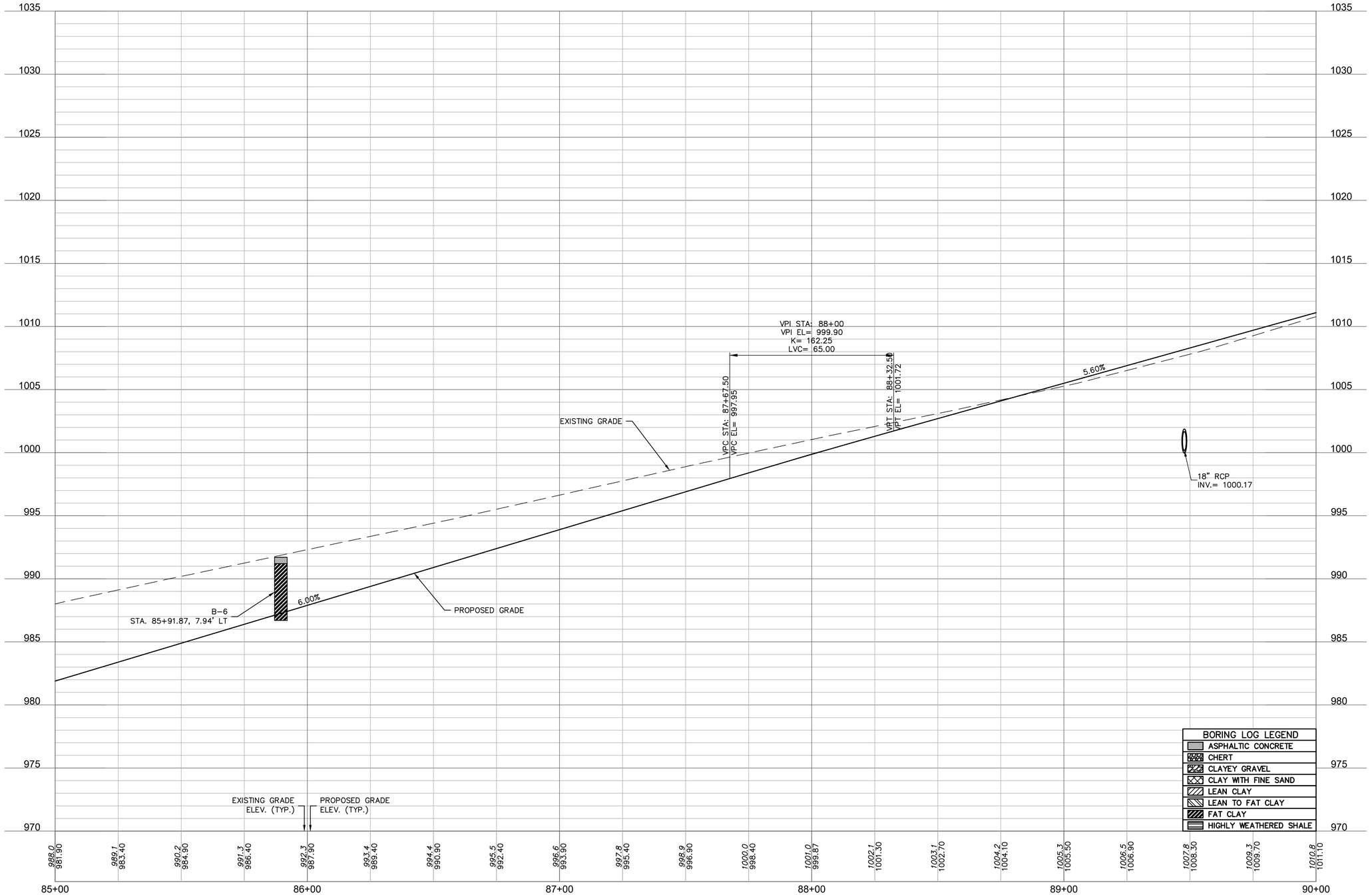
2021

drawn by: AJT
checked by: JCR
approved by: DMS
QA/QC by: OLSSON
project no.: 015-2768
drawing no.:
date: 04/23/2021

SHEET
B35 of B150

DWG: G:\15065 – 32nd Street Roadway\015–2768 32nd Street Widening\40–Design\AutoCAD\Final Plans\Sheets\CJW\B35 & 36 PLAN & PROFILE – 32ND STREET 85+00 TO 90+00.dwg USER: Aaron
DATE: Apr 21, 2021 8:07am XREFS: CJW_T_CTBLK_015–2768 (2019) CJW_T_pbase_015–2768 – 3 lane phtch–legend COLOR UTILITIES BORING LOG–LEGEND
V_XBOU_52768 OA_ACAD–T_XBASE_52768 CJW_T_PPATT_015–2768 – 3 lane

W. 32ND STREET



ALIGNMENT AND PROFILE NOTE:

ALTHOUGH EXISTING GRADE SHOWN IS NEAR THE EXISTING CENTERLINE OF 32ND STREET, THE FINISH GRADE PROFILE AND ULTIMATE CROWN IS NOT AT THE CENTERLINE OF 32ND STREET, BUT IS THE SOUTH GUTTER FLAG AND VARIES SOUTH OF THE PROPOSED ULTIMATE CENTERLINE.

Prepared by:
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CJW Transportation Consultants, L.L.C. Engineering MO C.A. #2006012385

STATE OF MISSOURI
DANE MITCHELL SEILER
NUMBER PE-2010019595
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

PROFILE - 32ND STREET
85+00 TO 90+00

32ND STREET WIDENING
CITY OF JOPLIN

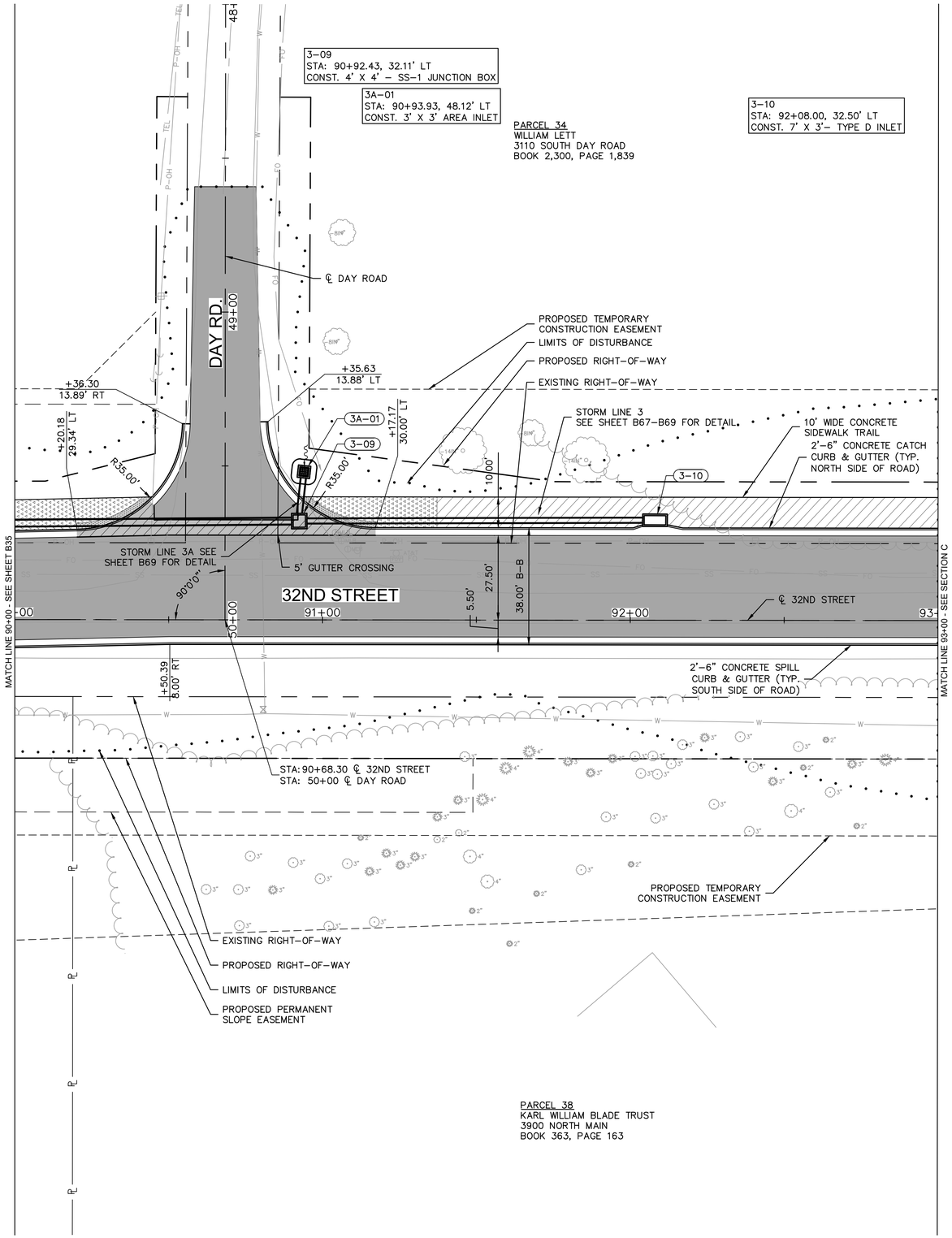
JOPLIN, MISSOURI

2021

drawn by:	AJT
checked by:	JCR
approved by:	DMS
QA/QC by:	OLSSON
project no.:	015-2768
drawing no.:	
date:	04/23/2021

SHEET
B36 of B150

DWG: G:\15065 - 32nd Street Roadway\015-2768 32nd Street Widening\40-Design\AutoCAD\Final Plans\Sheets\CJW\B35 & 36 PLAN & PROFILE - 32ND STREET 85+00 TO 90+00.dwg USER: Aaron
DATE: Apr 21, 2021 8:07am XREFS: CJW_T_CTBLK_015-2768 (2019) CJW_T_PPATT_015-2768 - 3 lane phtch-legend COLOR UTILITIES BORING LOG-LEGEND
OA_ACAD-T_XBASE_52768 CJW_t_pbase_015-2768 - 3 lane V_XBOU_52768



LEGEND

- ASPHALT PAVEMENT
- CONCRETE SIDEWALK
- CONCRETE DRIVE
- AGGREGATE SURFACE
- ASPHALT OVERLAY
- STAMPED CONCRETE PAVEMENT
- DETECTABLE WARNING SURFACE
- CURB RAMP
- ROCK BLANKET
- FLEXAMAT 10NW UV–T
- PROPOSED RIGHT–OF–WAY
- TEMPORARY CONSTRUCTION EASEMENT LINE
- PERMANENT SLOPE EASEMENT LINE
- LIMITS OF DISTURBANCE

Prepared by:
CJW
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STATE OF MISSOURI
DANE MITCHELL SEILER
#2371
NUMBER
PE-2010019595
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

N

0' 10' 20' 40'
SCALE IN FEET

MISSOURI ONE CALL SYSTEM
1-800-DIG-RITE or 811
www.mo1call.com

PLAN - 32ND STREET
90+00 TO 93+00

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

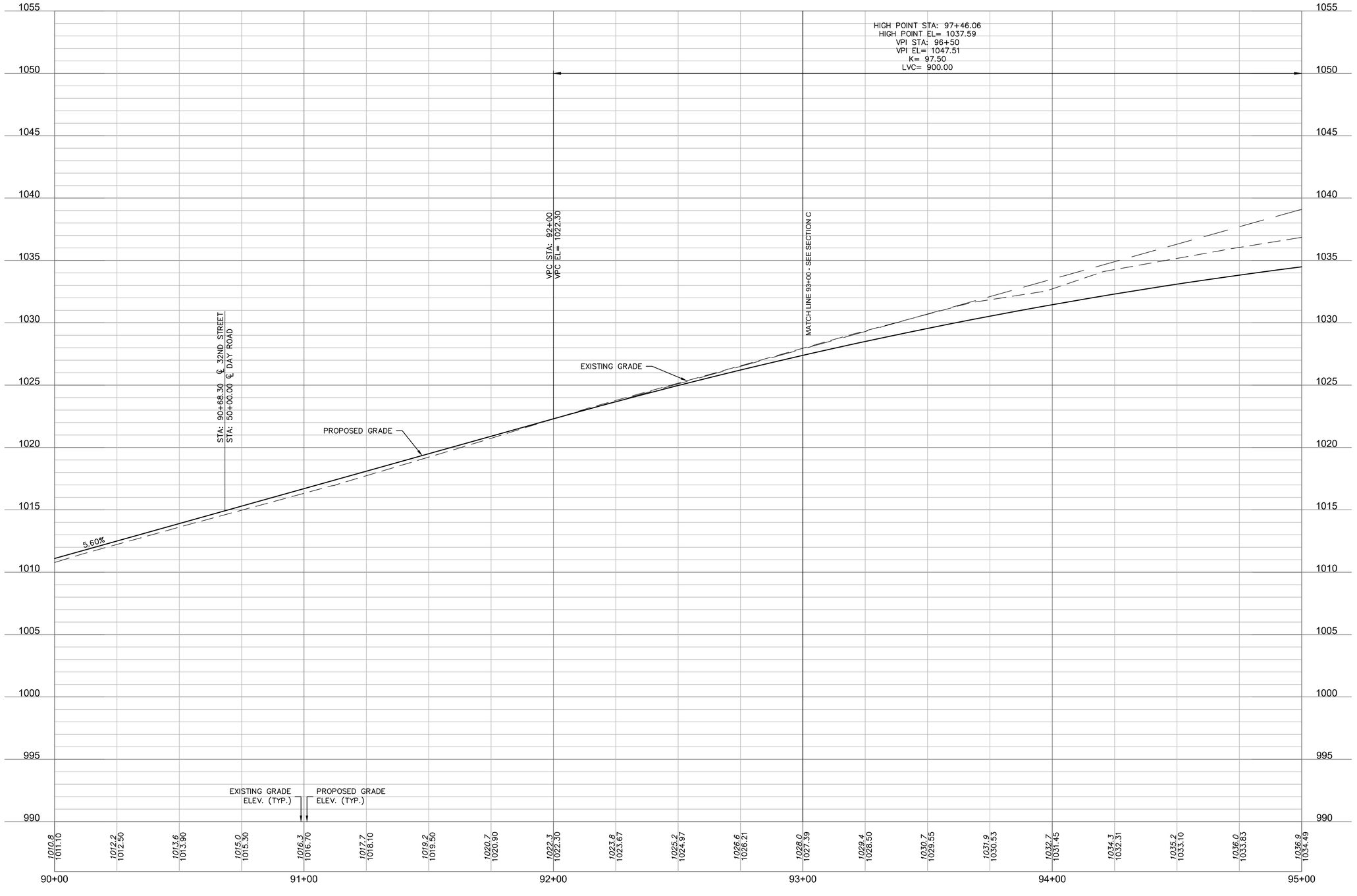
2021

drawn by:	AJT
checked by:	JCR
approved by:	DMS
QA/QC by:	OLSSON
project no.:	015-2768
drawing no.:	
date:	04/23/2021

SHEET
B37 of B150

DWG: G:\15065 – 32nd Street Roadway\015–2768 32nd Street Widening\40–Design\AutoCAD\Final Plans\Sheets\CJW\B37 & 38 PLAN & PROFILE – 32ND STREET 90+00 TO 93+00.dwg USER: Aaron
DATE: Apr 21, 2021 8:08am XREFS: CJW_T_CTBLK_015–2768 (2019) cjw_t_pbase_015–2768 – 3 lane OA_ACAD–T_XBASE_52768 CJW_T_PPATT_015–2768 – 3 lane phtch–legend COLOR UTILITIES
V_XBOU_52768

W. 32ND STREET



ALIGNMENT AND PROFILE NOTE:

ALTHOUGH EXISTING GRADE SHOWN IS NEAR THE EXISTING CENTERLINE OF 32ND STREET, THE FINISH GRADE PROFILE AND ULTIMATE CROWN IS NOT AT THE CENTERLINE OF 32ND STREET, BUT IS THE SOUTH GUTTER FLAG AND VARIES SOUTH OF THE PROPOSED ULTIMATE CENTERLINE.

Prepared by:
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5051 S. National Ave. Suite 7A Springfield, MO 65810
Tel: 417.889.3400 Fax: 417.889.3402 www.GoCJW.com

STATE OF MISSOURI
DANE MITCHELL SEILER
E-2327
NUMBER
PE-2010019595
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY
		REVISIONS	

PROFILE - 32ND STREET
90+00 TO 93+00

32ND STREET WIDENING
CITY OF JOPLIN

2021

JOPLIN, MISSOURI

drawn by: AJT
checked by: JCR
approved by: DMS
QA/QC by: OLSSON
project no.: 015-2768
drawing no.:
date: 04/23/2021

SHEET
B38 of B150

DWG: G:\15065 - 32nd Street Roadway\015-2768 32nd Street Widening\40-Design\AutoCAD\Final Plans\Sheets\CJW\B37 & 38 PLAN & PROFILE - 32ND STREET 90+00 TO 93+00.dwg USER: Aaron
DATE: Apr 21, 2021 8:08am XREFS: CJW_T_CTBLK_015-2768 (2019) cjw_t_pbase_015-2768 - 3 lane phtch-legend COLOR UTILITIES
OA_ACAD-T_XBASE_52768 CJW_T_PPATT_015-2768 - 3 lane V_XBOU_52768

DWG: G:\15065 – 32nd Street Roadway\015-2768 32nd Street Widening\40-Design\AutoCAD\Final Plans\Sheets\CJW\B39 & 40 PLAN & PROFILE – COUNTRY CLUB DRIVE 47+00 TO 51+00.dwg USER: Aaron COLOR UTILITIES
DATE: Apr 21, 2021 8:08am XREFS: CJW_T_CTBLK_015-2768 (2019) cjw_t_pbase_015-2768 – 3 lane phtch-legend
OA_ACAD-T_XBASE_52768 CJW_T_PPATT_015-2768 – 3 lane V_XBOU_52768

PARCEL 29
MIKE SIMMONS
COUNTY ROAD
BOOK 2,004, PAGE 2,379

32ND STREET

LIMITS OF DISTURBANCE

PROPOSED RIGHT-OF-WAY

PROPOSED TEMPORARY CONSTRUCTION EASEMENT

STA: 49+40.93 ℄ COUNTRY CLUB DR.
STA: 0+00 ℄ DRIVE 10

BEGIN TRANSITION FROM NORMAL CROWN TO REVERSE CROWN
STA: 49+29.10

EXISTING RIGHT-OF-WAY

LIMITS OF DISTURBANCE

PI: 50+59.50

38.00' B TO B

10.00'

27.50'

5.50'

+32.41
30.00' LT

+34.99
12.50' LT

+18.59
8.00' RT

+98.59
28.00' RT

PI: 67+86.43

+98.59
50.50' RT

+73.54
50.49' RT

+73.54
28.00' RT

+53.54
8.00' RT

+30.80 12.50' LT
+32.80 14.50' LT
+32.80 14.80' LT
+38.80 14.80' LT
+38.80 14.50' LT
+40.80 12.50' LT

48+00
49+00
50+00
51+00
68+00
69+00
67+00

℄ COUNTRY CLUB DR.

S. COUNTRY CLUB DR.

BEGIN CONSTRUCTION
STA: 48+10

10.00'

0+00

℄ DRIVE B10

90°0'0"

89°59'3"

R35.00'

R20.00'

R2.00' TYP.

DRIVE B3

EXISTING RIGHT-OF-WAY

+30.80 12.50' RT
+32.80 14.50' RT
+32.80 16.80' RT
+38.80 16.60' RT
+38.80 14.50' RT
+40.80 12.50' RT
+25.59 12.50' RT
+30.59 17.50' RT
+30.59 33.49' RT
+50.59 33.49' RT
+50.59 17.50' RT
+55.59 12.50' RT
+35.07 12.50' RT

0+50
DRIVE B10

STA: 51+00.00 ℄ COUNTRY CLUB DR.
STA: 67+84.90 ℄ 32ND STREET

+37.49
30.00' LT

PROPOSED TEMPORARY CONSTRUCTION EASEMENT

PROPOSED PERMANENT ACCESS EASEMENT

CONSTRUCT 8" THICK CONCRETE COMMERCIAL DRIVEWAY SEE SHEET B54 FOR DETAIL

℄ 32ND STREET

PARCEL 28
R. S. ANDERSON, INC
P.O. BOX 8
BOOK 1,505, PAGE 151

LEGEND

- ASPHALT PAVEMENT
- CONCRETE SIDEWALK
- CONCRETE DRIVE
- AGGREGATE SURFACE
- ASPHALT OVERLAY
- STAMPED CONCRETE PAVEMENT
- DETECTABLE WARNING SURFACE
- CURB RAMP
- ROCK BLANKET
- FLEXAMAT 10NW UV-T
- PROPOSED RIGHT-OF-WAY
- TEMPORARY CONSTRUCTION EASEMENT LINE
- PERMANENT SLOPE EASEMENT LINE
- LIMITS OF DISTURBANCE

N

0' 10' 20' 40'
SCALE IN FEET

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Prepared by:
CJW
CJW Transportation Consultants, L.L.C.
CJW Transportation Consultants, L.L.C. Engineering MO C.A. #2006012385
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STATE OF MISSOURI
DANE MITCHELL SEILER
#-2371
NUMBER
PE-2010019595
PROFESSIONAL ENGINEER

REVISIONS

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

PLAN - COUNTRY CLUB DRIVE
47+00 TO 51+00

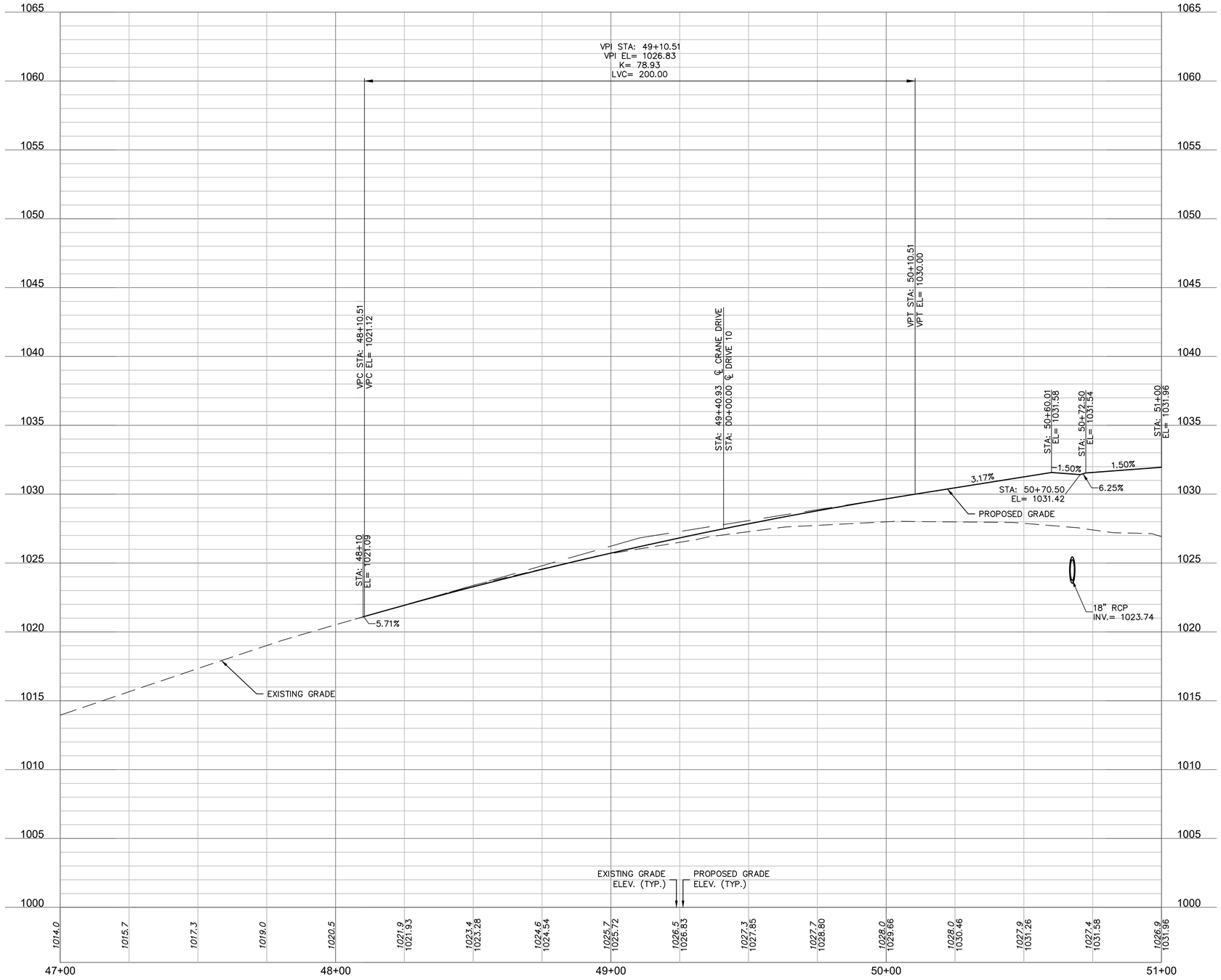
32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by:	AJT
checked by:	JCR
approved by:	DMS
QA/QC by:	OLSSON
project no.:	015-2768
drawing no.:	
date:	04/23/2021

SHEET
B39 of B150



Prepared by:
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CJW Transportation Consultants, L.L.C. Engineering MO C.A. #2006012385

STATE OF MISSOURI
DANE MITCHELL SEILER
NUMBER PE-2010019595
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

PROFILE - COUNTRY CLUB DRIVE
47+00 TO 51+00

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

8'
4'
2'
0'

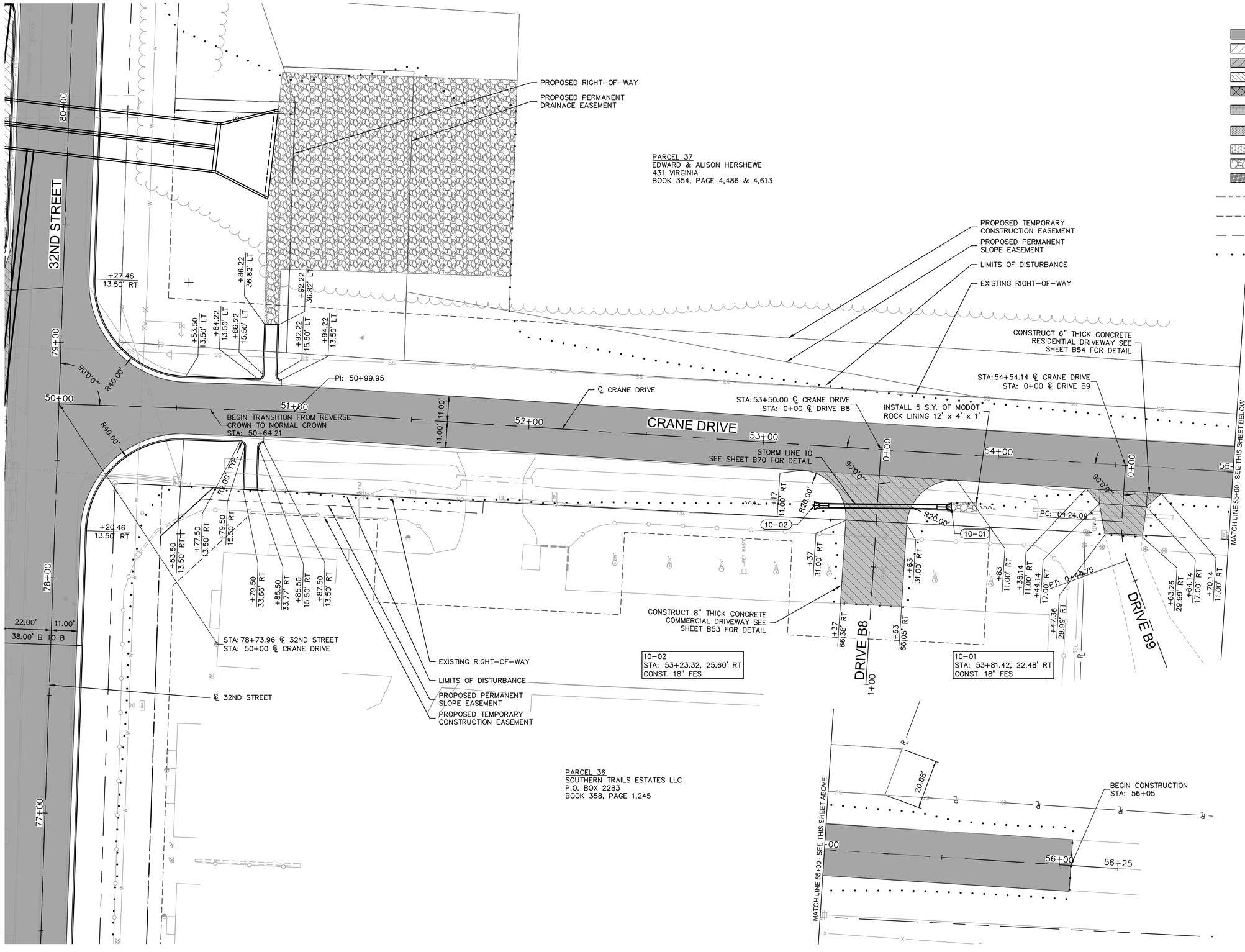
0' 10' 20' 40'
SCALE IN FEET

drawn by: AJT
checked by: JCR
approved by: DMS
QA/QC by: OLSSON
project no.: 015-2768
drawing no.:
date: 04/23/2021

SHEET
B40 of B150

DWG: G:\15065 - 32nd Street Roadway\015-2768 32nd Street Widening\40-Design\AutoCAD\Final Plans\Sheets\CJW\B39 & 40 PLAN & PROFILE - COUNTRY CLUB DRIVE 47+00 TO 51+00.dwg USER: Aaron
DATE: Apr 21, 2021 8:08am XREFS: CJW_T_CTBLK_015-2768 (2019) cjw_t_pbase_015-2768 - 3 lane phtch-legend COLOR UTILITIES
015-2768 OA_ACAD-T_XBASE_52768 CJW_T_PPATT_015-2768 - 3 lane V_XBOU_52768

DWG: G:\15065 – 32nd Street Roadway\015-2768 32nd Street Widening\40-Design\AutoCAD\Final Plans\Sheets\CJW\B41 & 42 PLAN & PROFILE – CRANE DRIVE 50+00 TO 55+00.dwg USER: Aaron
DATE: Apr 21, 2021 8:09am XREFS: CJW_T_CTBLK_015-2768 (2019) cjw_t_pbase_015-2768 – 3 lane OA_ACAD-T_XBASE_52768 phtch-legend COLOR UTILITIES
PLAN & PROFILE – CRANE DRIVE 50+00 TO 55+00 – 3 lane CJW_T_PPATT_015-2768 – 3 lane V_XBOU_52768



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STATE OF MISSOURI
DANE MITCHELL SEILER
NUMBER PE-2010019595
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY
		REVISIONS	

PLAN - CRANE DRIVE
50+00 TO 55+00

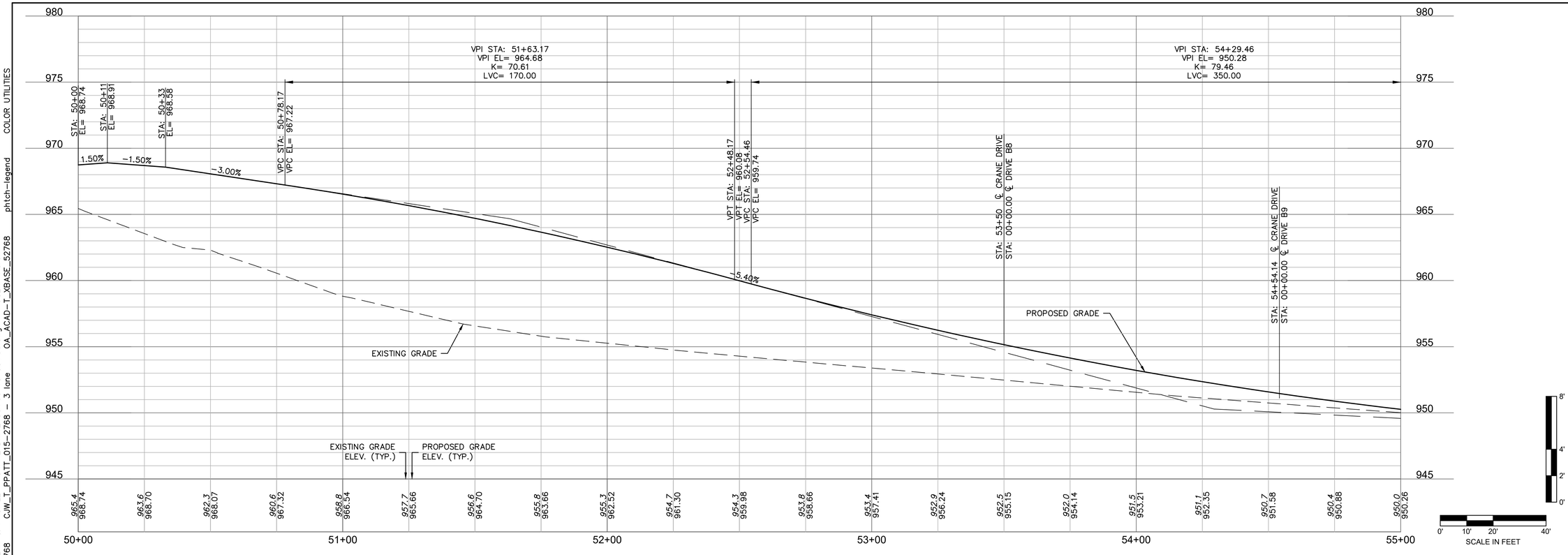
32ND STREET WIDENING
CITY OF JOPLIN

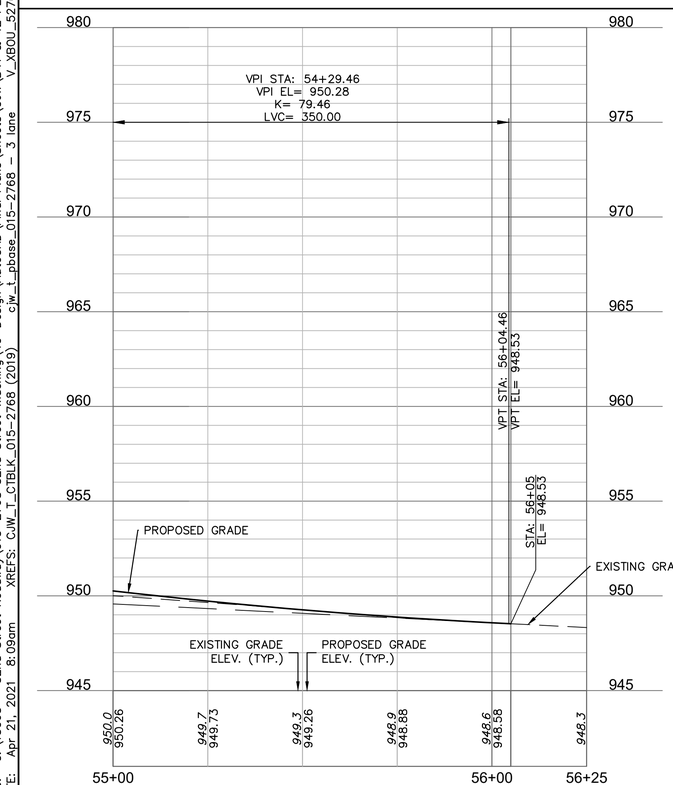
JOPLIN, MISSOURI

2021

drawn by: AJT
checked by: JCR
approved by: DMS
QA/QC by: OLSSON
project no.: 015-2768
drawing no.:
date: 04/23/2021

SHEET
B41 of B150





DWG: G:\15065 - 32nd Street Roadway\015-2768 32nd Street Widening\40-Design\AutoCAD\Final Plans\Sheets\CJW\B41 & 42 PLAN & PROFILE - CRANE DRIVE 50+00 TO 55+00.dwg USER: Aaron
DATE: Apr 21, 2021 8:09am XREFS: CJW_T_CTBLK_015-2768 (2019) cjw_t_pbase_015-2768 - 3 lane OA_ACAD-T_XBASE_52768 phtch-legend COLOR UTILITIES
CJW_T_PPATT_015-2768 - 3 lane V_XB0U_52768

Prepared by:
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STATE OF MISSOURI
DANE MITCHELL SEILER
NUMBER PE-2010019595
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY
		REVISIONS	

PROFILE - CRANE DRIVE
50+00 TO 55+00

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by: AJT
checked by: JCR
approved by: DMS
QA/QC by: OLSSON
project no.: 015-2768
drawing no.:
date: 04/23/2021

SHEET
B42 of B150

DWG: G:\15065 - 32nd Street Roadway\015-2768 32nd Street Widening\40-Design\AutoCAD\Final Plans\Sheets\CJW\B43 & 44 PLAN & PROFILE - CATNIP LANE 47+00 TO 50+00.dwg USER: Aaron
DATE: Apr 21, 2021 8:09am XREFS: CJW_T_CTBLK_015-2768 (2019) cjw_t_pbase_015-2768 - 3 lane V_XBOU_52768 OA_ACAD-T_XBASE_52768 phtch-legend COLOR UTILITIES

PROPOSED PERMANENT SLOPE EASEMENT

PARCEL 32
RBC ENTERPRISES
3110 S CATNIP LANE
BOOK 2,494, PAGE 528

PARCEL 31
WATERVIEW ESTATES
3110 S CATNIP LANE
BOOK 2,494, PAGE 215

PROPOSED RIGHT-OF-WAY
EXISTING RIGHT-OF-WAY
LIMITS OF DISTURBANCE
PROPOSED TEMPORARY CONSTRUCTION EASEMENT
℄ 32ND STREET

CATNIP LANE
℄ CATNIP LANE
48+00
49+00
BEGIN CONSTRUCTION STA: 49+27
PI: 48+57.12
PI: 49+42.26

CRANE DRIVE
32ND STREET
50+00
78+00
77+00
STA: 50+00.00 ℄ CATNIP LANE
STA: 78+93.09 ℄ 32ND STREET

6.00'
22.00'
11.00'
38.00' B TO B
80.00'
R40.00'
R6.00'
R27.00'
90°0'0"
+41.30 53.99' LT
+75.50 54.07' LT
+43.63 14.91' LT
+45.22 17.04' LT
+50.97 20.16' LT
+53.88 18.55' LT
+27.02 15.02' LT
+27 14.71' RT
+37.45 26.75' RT
+36.01 41.82' RT
+62.03 20.27' RT
+67.59 14.28' RT
+75.50 21.24' RT

LEGEND
- ASPHALT PAVEMENT
- CONCRETE SIDEWALK
- CONCRETE DRIVE
- AGGREGATE SURFACE
- ASPHALT OVERLAY
- STAMPED CONCRETE PAVEMENT
- DETECTABLE WARNING SURFACE
- CURB RAMP
- ROCK BLANKET
- FLEXAMAT 10NW UV-T
- PROPOSED RIGHT-OF-WAY
- TEMPORARY CONSTRUCTION EASEMENT LINE
- PERMANENT SLOPE EASEMENT LINE
- LIMITS OF DISTURBANCE

0' 10' 20' 40'
SCALE IN FEET

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CJW
CJW Transportation Consultants, L.L.C.
CJW Transportation Consultants, L.L.C. Engineering MO C.A. #2006012385
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STATE OF MISSOURI
DANE MITCHELL SEILER
NUMBER PE-2010019595
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY
		REVISIONS	

PLAN - CATNIP LANE
47+00 TO 50+00

32ND STREET WIDENING
CITY OF JOPLIN

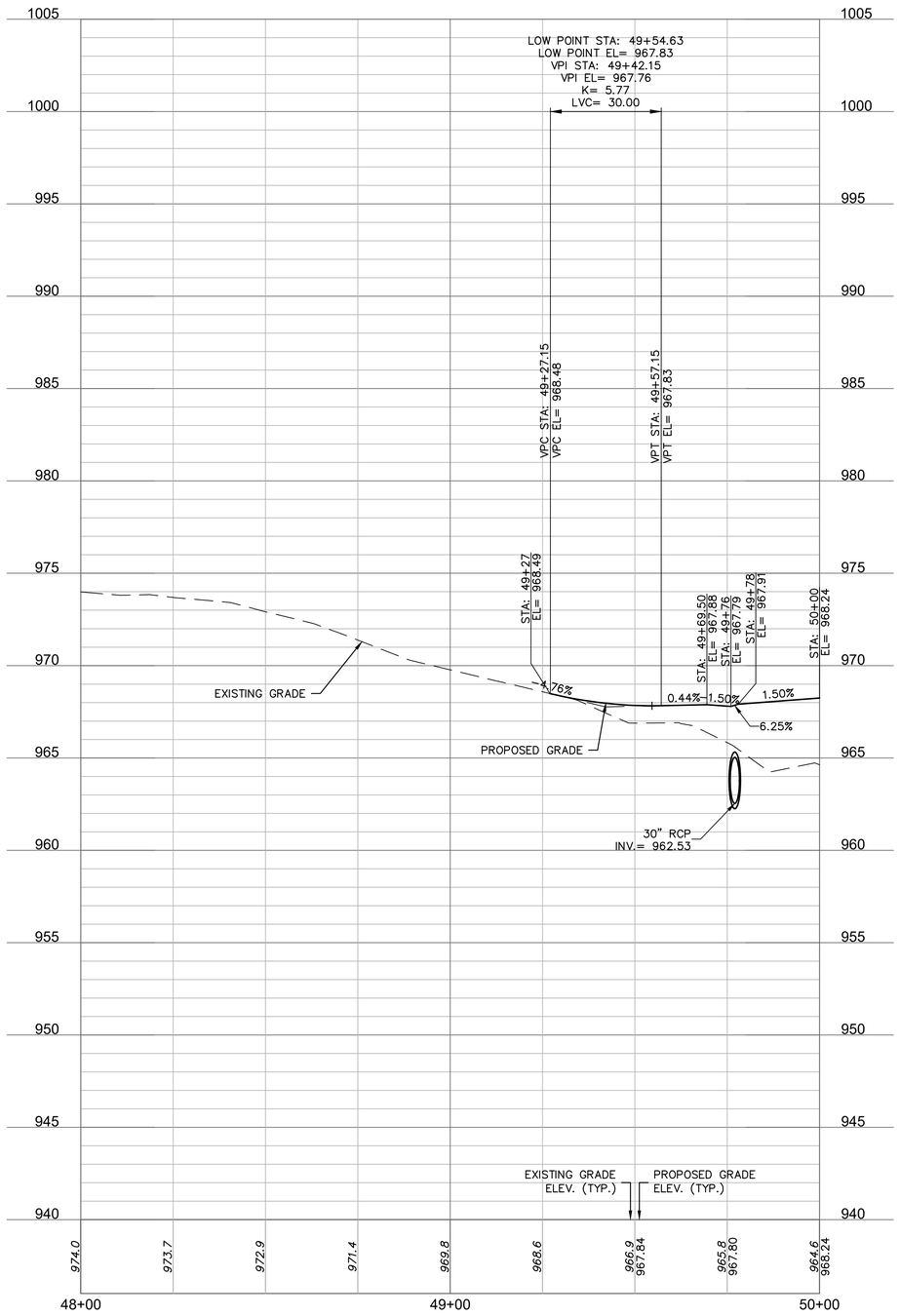
2021

JOPLIN, MISSOURI

drawn by:	AJT
checked by:	JCR
approved by:	DMS
QA/QC by:	OLSSON
project no.:	015-2768
drawing no.:	
date:	04/23/2021

SHEET
B43 of B150

CATNIP LANE



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STATE OF MISSOURI
DANE MITCHELL SEILER
#2021 NUMBER
PE-2010019595
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

PROFILE - CATNIP LANE
47+00 TO 50+00

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by: AJT
checked by: JCR
approved by: DMS
QA/QC by: OLSSON
project no.: 015-2768
drawing no.:
date: 04/23/2021

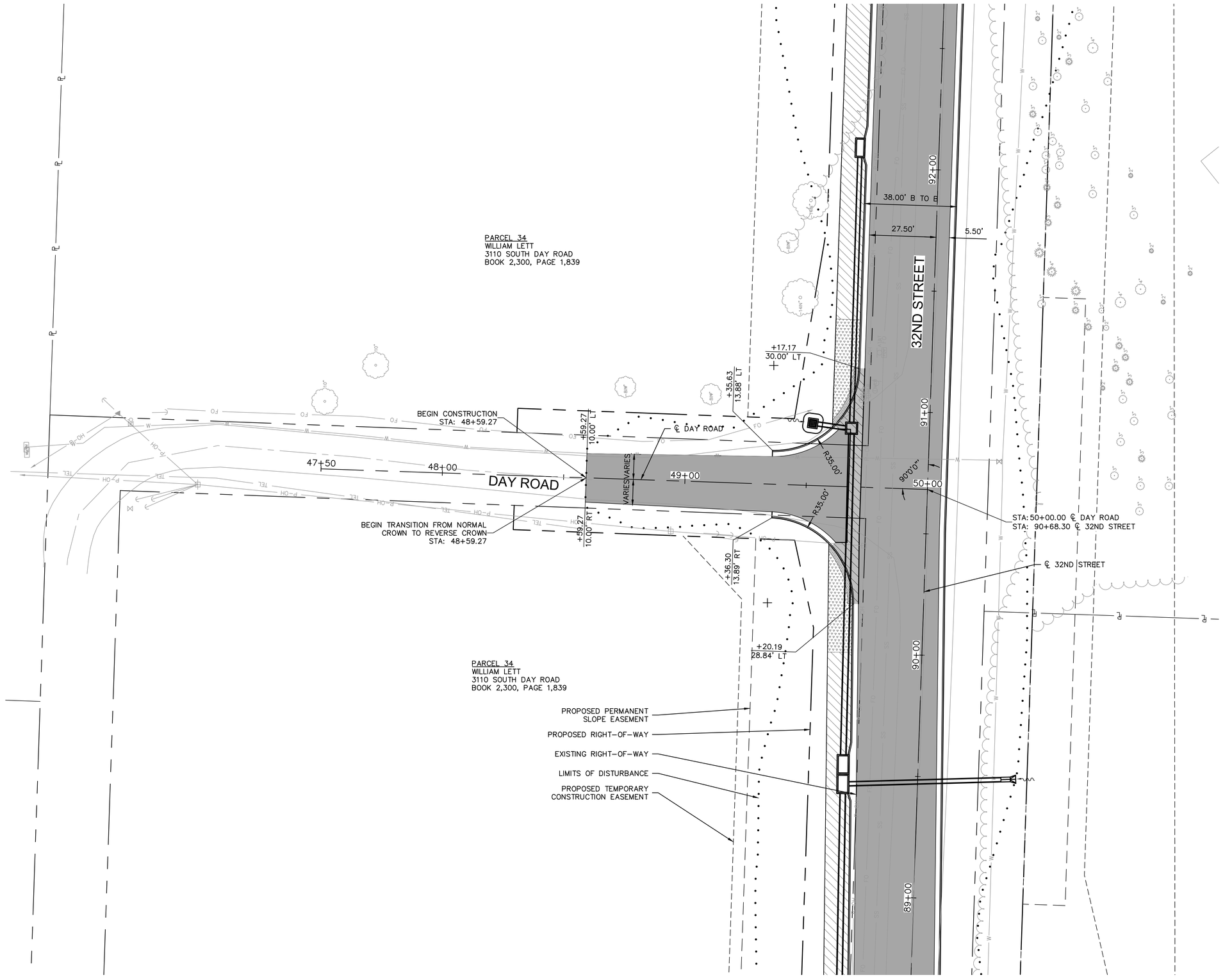
SHEET
B44 of B150

8'
4'
2'
0'

0' 10' 20' 40'
SCALE IN FEET

DWG: G:\15065 - 32nd Street Roadway\015-2768 32nd Street Widening\40-Design\AutoCAD\Final Plans\Sheets\CJW\B43 & 44 PLAN & PROFILE - CATNIP LANE 47+00 TO 50+00.dwg USER: Aaron
DATE: Apr 21, 2021 8:09am XREFS: CJW_T_CTBLK_015-2768 (2019) OA_ACAD-T_XBASE_52768 CJW_T_PPATT_015-2768 - 3 lane cjw_t_pbase_015-2768 - 3 lane phtch-legend COLOR UTILITIES V_XBOU_52768

DWG: G:\15065 - 32nd Street Roadway\015-2768 32nd Street Widening\40-Design\AutoCAD\Final Plans\Sheets\CJW\B45 & 46 PLAN & PROFILE - DAY ROAD 47+00 - 50+00.dwg USER: Aaron
DATE: Apr 21, 2021 8:10am XREFS: CJW_T_CTBLK_015-2768 (2019) cjw_t_pbase_015-2768 - 3 lane V_XBOU_52768 0A_ACAD-T_XBASE_52768 CJW_T_PPATT_015-2768 - 3 lane phtch-legend COLOR UTILITIES



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STATE OF MISSOURI
DANE MITCHELL SEILER
NUMBER PE-2010019595
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

PLAN - DAY ROAD
47+00 - 50+00

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by:	AJT
checked by:	JCR
approved by:	DMS
QA/QC by:	OLSSON
project no.:	015-2768
drawing no.:	
date:	04/23/2021

SHEET
B45 of B150

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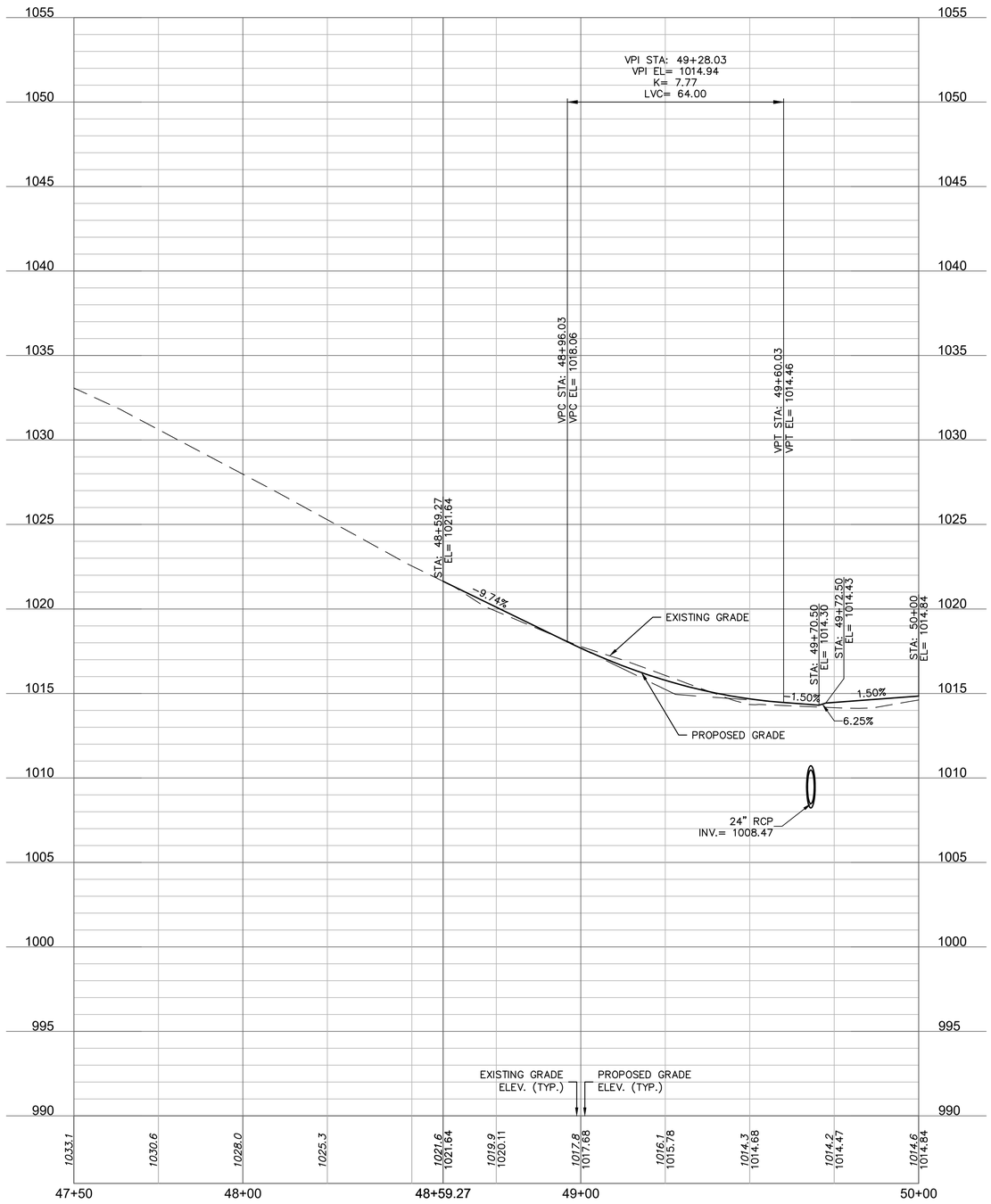
www.mo1call.com

DAY ROAD



DWG: G:\15065 - 32nd Street Roadway\015-2768 32nd Street Widening\40-Design\AutoCAD\Final Plans\Sheets\CJW\B45 & 46 PLAN & PROFILE - DAY ROAD 47+00 - 50+00.dwg USER: Aaron
DATE: Apr 21, 2021 8:10am XREFS: CJW_T_CTBLK_015-2768 (2019) cjw_t_pbase_015-2768 - 3 lane phtch-legend COLOR UTILITIES
OA_ACAD-T_XBASE_52768 V_XBOU_52768

Prepared by:
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CJW Transportation Consultants, L.L.C. Engineering MO C.A. #2006012385

STATE OF MISSOURI
DANE MITCHELL SEILER
E-27
NUMBER
PE-2010019595
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

PROFILE - DAY ROAD
47+00 - 50+00

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

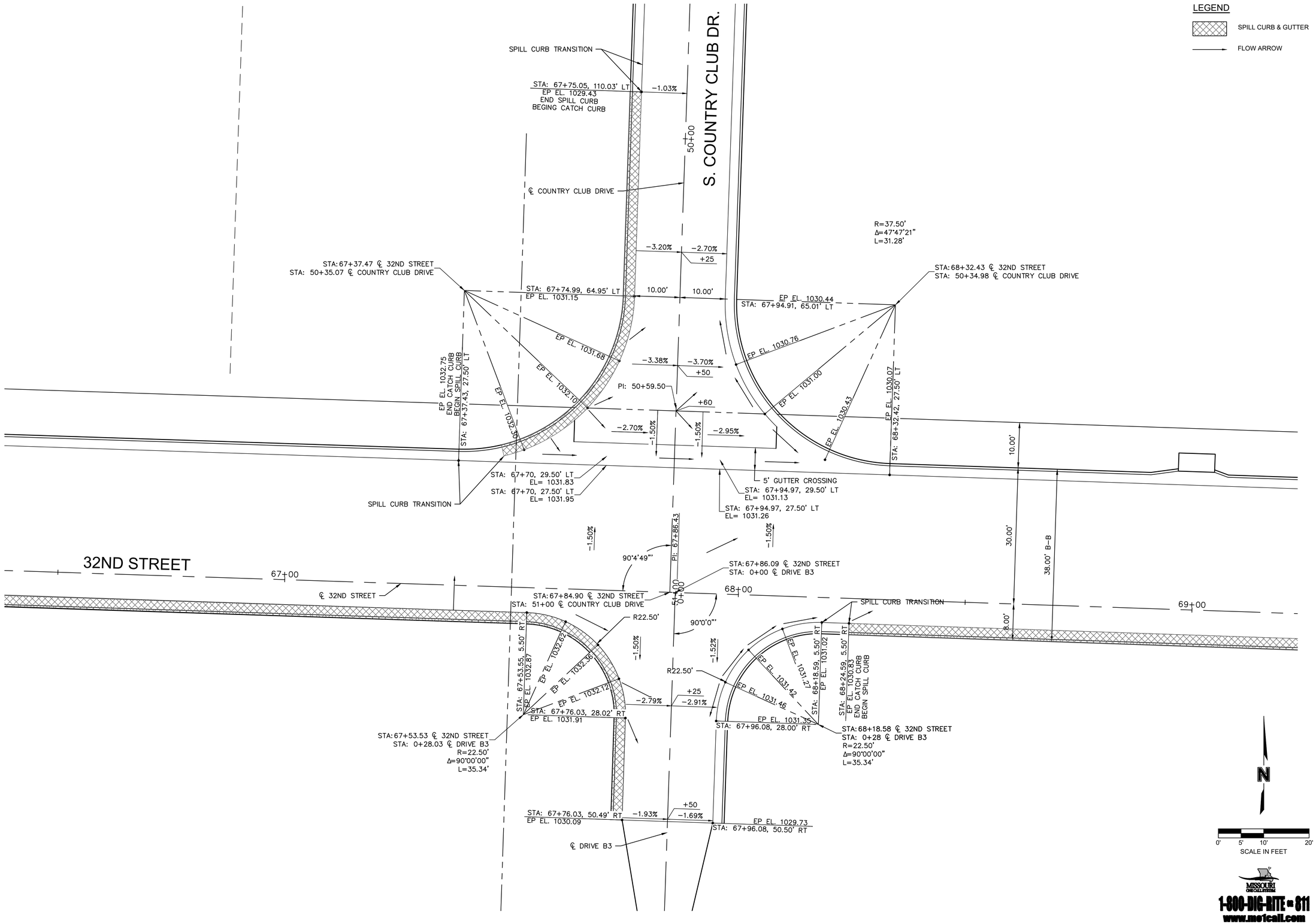
2021

8'
4'
2'
0'

0' 10' 20' 40'
SCALE IN FEET

drawn by:	AJT
checked by:	JCR
approved by:	DMS
QA/QC by:	OLSSON
project no.:	015-2768
drawing no.:	
date:	04/23/2021

SHEET
B46 of B150



DWG: G:\15065 - 32nd Street Roadway\015-2768 32nd Street Widening\40-Design\AutoCAD\Final Plans\Sheets\CJW\B47 INTERSECTION LAYOUT.dwg USER: Aaron
DATE: Apr 21, 2021 8:10am XREFS: CJW_T_CTBLK_015-2768 (2019) cjw_t_pbase_015-2768 - 3 lane phtch-legend
V_XBOU_52768 OA_ACAD-T_XBASE_52768 CJW_T_PPATT_015-2768 - 3 lane

Prepared by:
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CJW Transportation Consultants, L.L.C.
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5051 S. National Ave. Suite 7A Springfield, MO 65810
CJW Transportation Consultants, L.L.C. Engineering MO C.A. #2006012385

STATE OF MISSOURI
DANE MITCHELL SEILER
NUMBER PE-2010019595
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

INTERSECTION LAYOUT
32ND STREET & COUNTRY CLUB DRIVE

32ND STREET WIDENING
CITY OF JOPLIN

2021

JOPLIN, MISSOURI

drawn by:	AJT
checked by:	JCR
approved by:	DMS
QA/QC by:	OLSSON
project no.:	015-2768
drawing no.:	
date:	04/23/2021

SHEET
B47 of B150

MISSOURI ONE CALL SYSTEM
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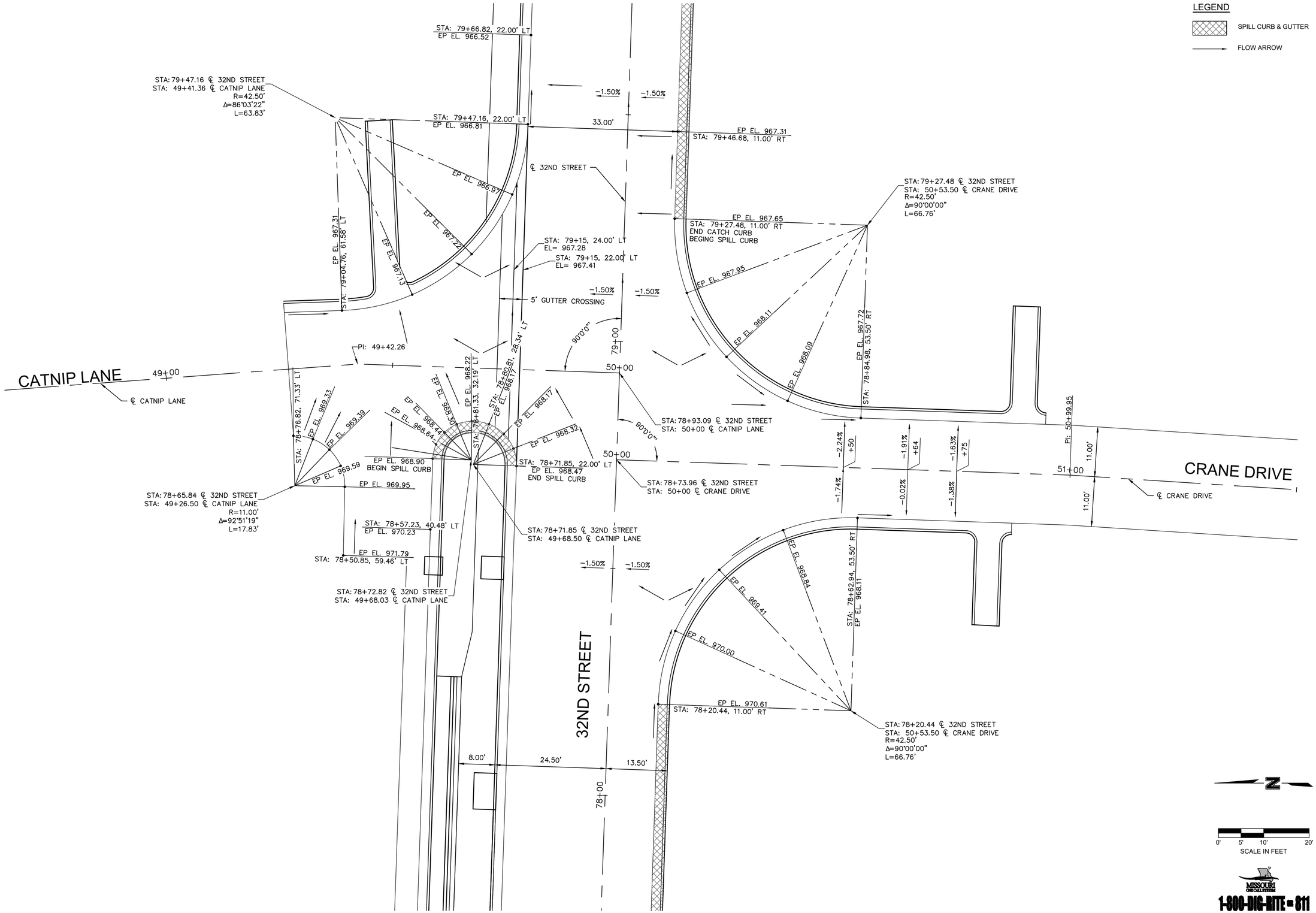
www.mo1call.com



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DATE: Apr 21, 2021 8:10am XREFS: CJW_T_CTBLK_015-2768 (2019) cjw_t_pbase_015-2768 – 3 lane V_XBOU_52768 OA_ACAD-T_XBASE_52768 CJW_T_PPATT_015-2768 – 3 lane

Prepared by:
CJW
CJW Transportation Consultants, L.L.C.
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Tel. 417.889.3400 Fax. 417.889.3402 www.GoCJW.com
CJW Transportation Consultants, L.L.C. Engineering MO C.A. #2006012385

STATE OF MISSOURI
DANE MITCHELL SEILER
#2327 NUMBER
PE-2010019595
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY
		REVISIONS	

INTERSECTION LAYOUT
32ND STREET & CATNIP LANE & CRANE DRIVE

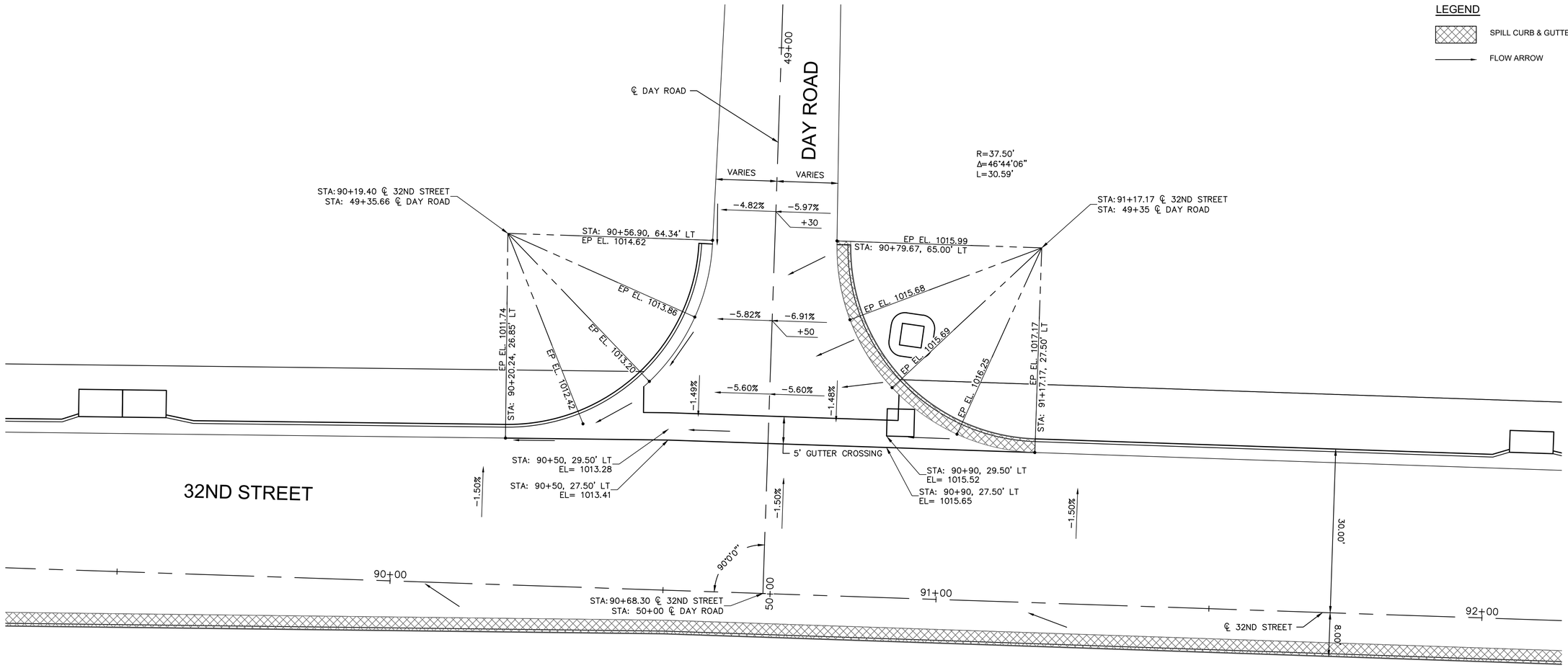
32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by:	AJT
checked by:	JCR
approved by:	DMS
QA/QC by:	OLSSON
project no.:	015-2768
drawing no.:	
date:	04/23/2021

SHEET
B48 of B150



N

0' 5' 10' 20'

SCALE IN FEET

MISSOURI ONE CALL SYSTEM

1-800-DIG-RITE or 811

www.mo1call.com

DWG: G:\15065 - 32nd Street Roadway\015-2768 32nd Street Widening\40-Design\AutoCAD\Final Plans\Sheets\CJW\B49 INTERSECTION LAYOUT.dwg USER: Aaron
DATE: Apr 21, 2021 8:11am XREFS: CJW_T_CTBLK_015-2768 (2019) cjw_t_pbase_015-2768 - 3 lane V_XBOU_52768 OA_ACAD-T_XBASE_52768

Prepared by:
CJW
CJW Transportation Consultants, L.L.C.
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Fax: 417.889.3402
www.GoCJW.com

STATE OF MISSOURI
DANE MITCHELL SEILER
NUMBER PE-2010019595
PROFESSIONAL ENGINEER

REV. NO	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

INTERSECTION LAYOUT
32ND STREET & DAY ROAD

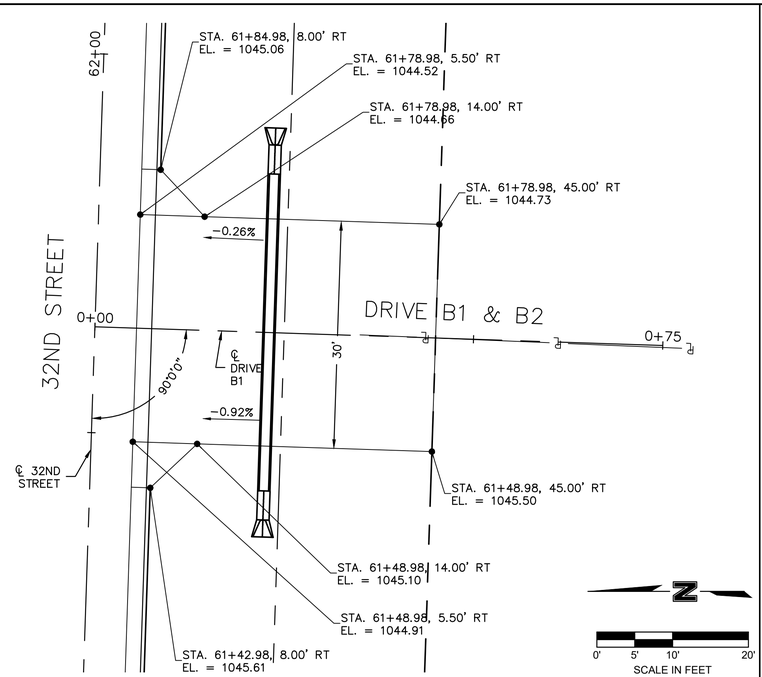
32ND STREET WIDENING
CITY OF JOPLIN

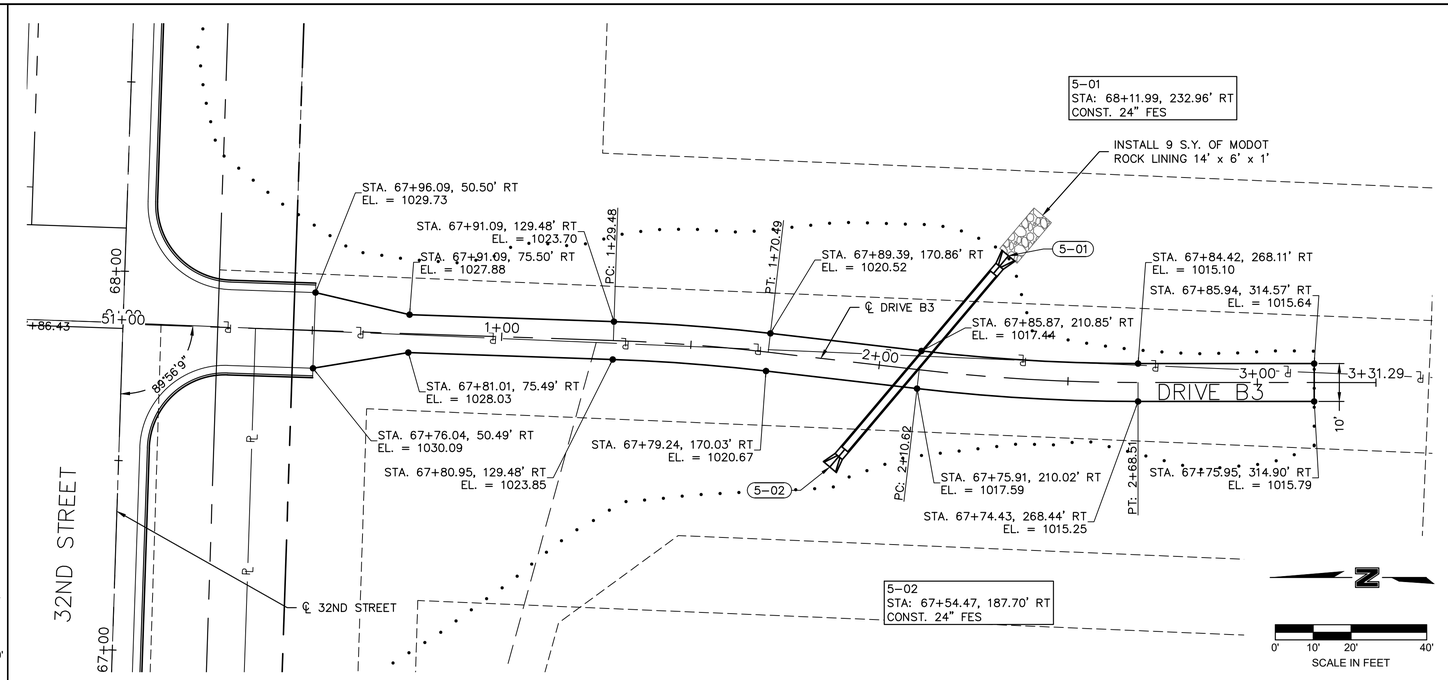
JOPLIN, MISSOURI

2021

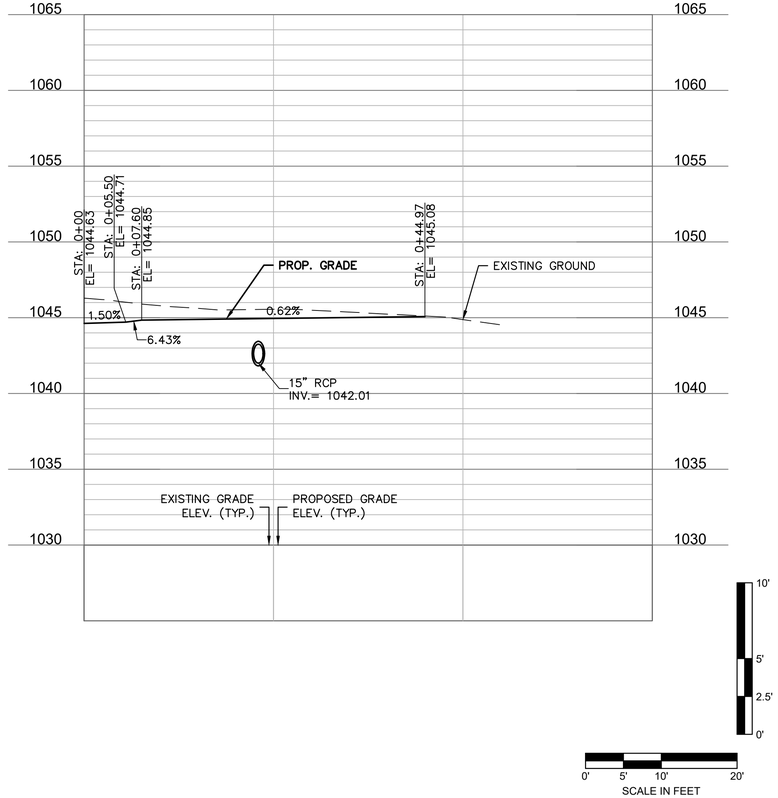
drawn by: AJT
checked by: JCR
approved by: DMS
QA/QC by: OLSSON
project no.: 015-2768
drawing no.:
date: 04/23/2021

SHEET
B49 of B150





DRIVE B1 & B2



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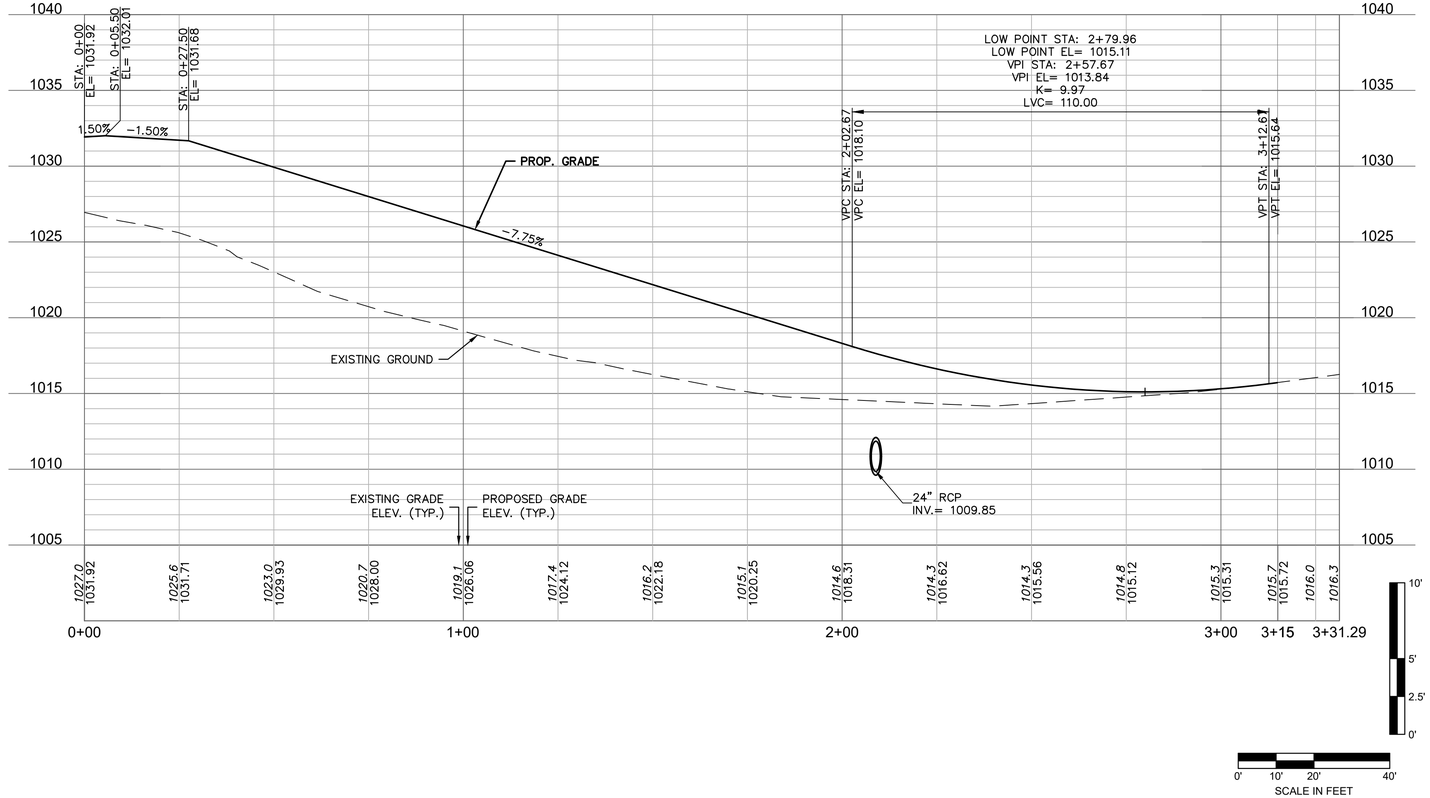

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www.GoCJW.com

STATE OF MISSOURI
DANE MITCHELL SEILER
NUMBER PE-2010019595
PROFESSIONAL ENGINEER

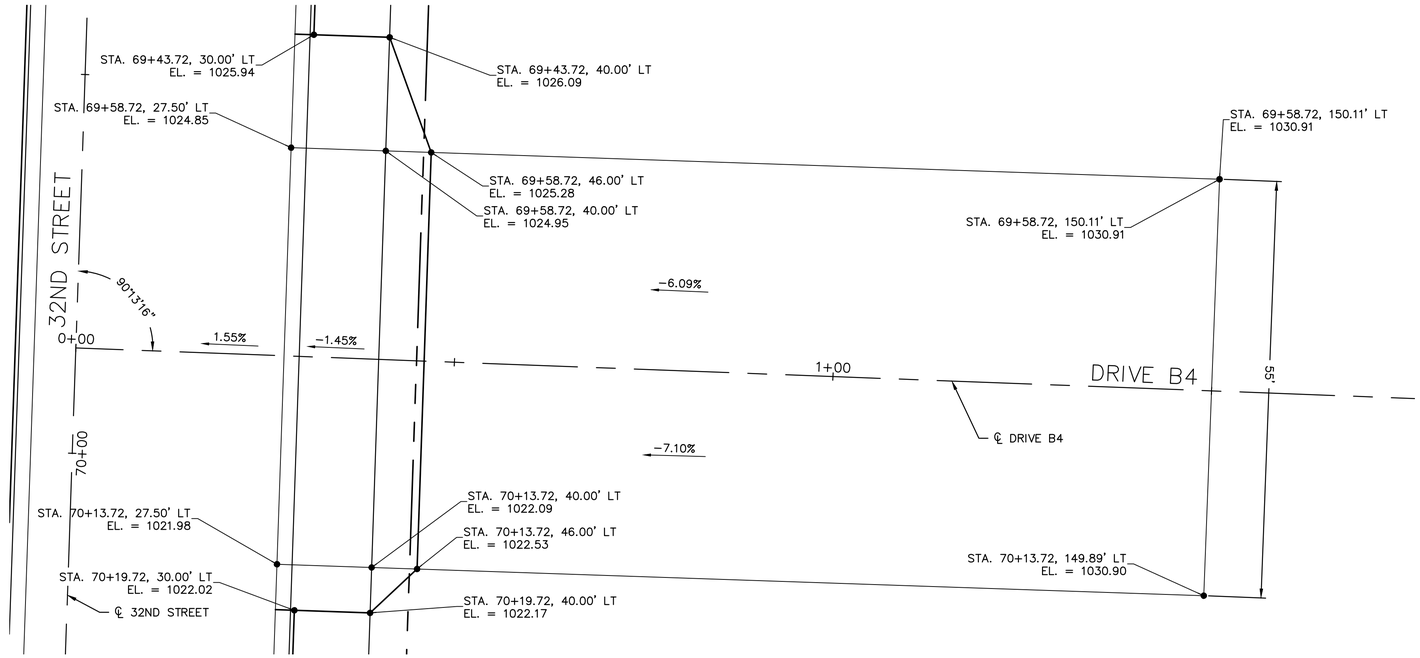
REV. NO.	DATE	REVISIONS DESCRIPTION	BY
		REVISIONS	

DRIVEWAY DETAILS
32ND STREET WIDENING
CITY OF JOPLIN
2021
JOPLIN, MISSOURI

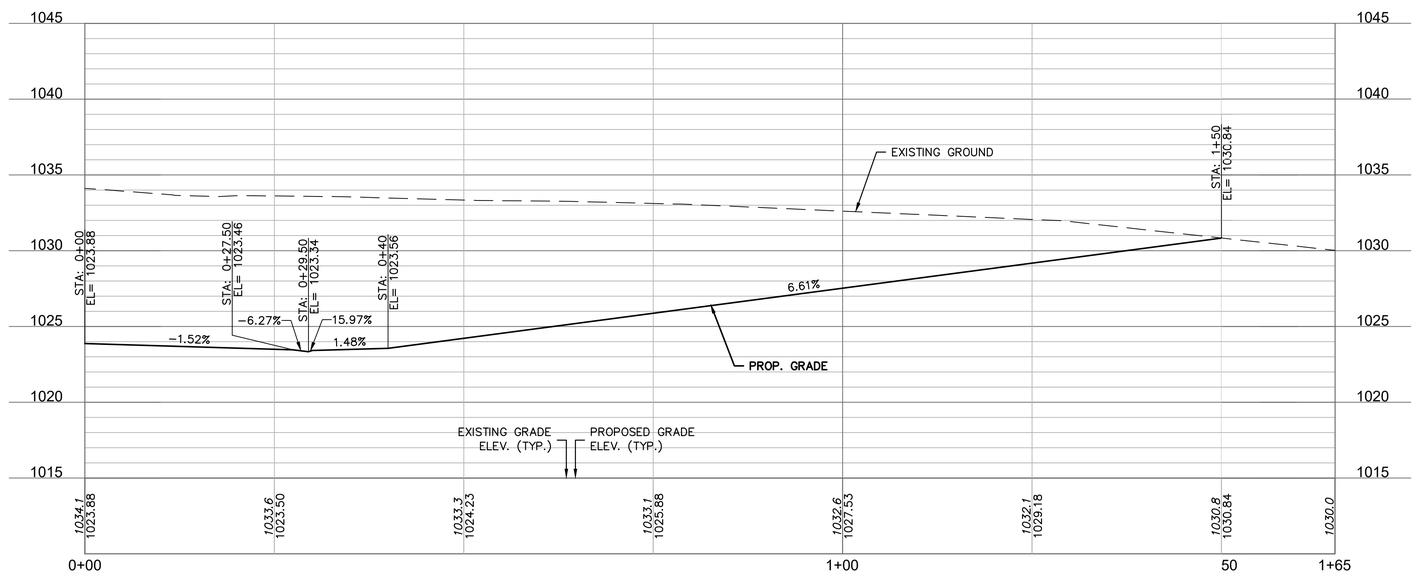
drawn by: AJT
checked by: JCR
approved by: DMS
QA/QC by: OLSSON
project no.: 015-2768
drawing no.:
date: 04/23/2021

SHEET
B50 of B150

DWG: G:\15065 - 32nd Street Roadway\015-2768 32nd Street Widening\40-Design\AutoCAD\Final Plans\Sheets\CJW\B50 - B54 DRIVEWAY DETAILS.dwg USER: Aaron
DATE: Apr 21, 2021 8:11am XREFS: CJW_T_CTBLK_015-2768 (2019) cjw_t_pbase_015-2768 - 3 lane V_XBOU_52768 CJW_T_PPATT_015-2768 - 3 lane



DRIVE B4



0' 5' 10' 20'
SCALE IN FEET

10'
5'
2.5'
0'

Prepared by:
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STATE OF MISSOURI
DANE MITCHELL SEILER
NUMBER PE-2010019595
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY
		REVISIONS	

DRIVEWAY DETAILS

32ND STREET WIDENING
CITY OF JOPLIN

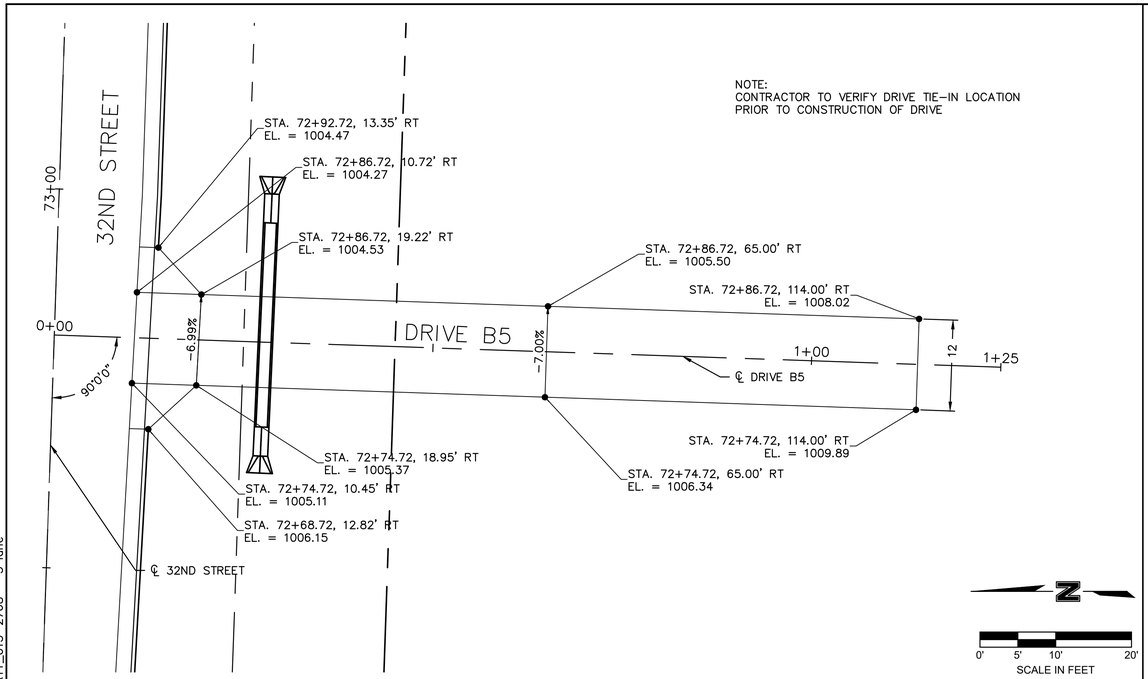
JOPLIN, MISSOURI

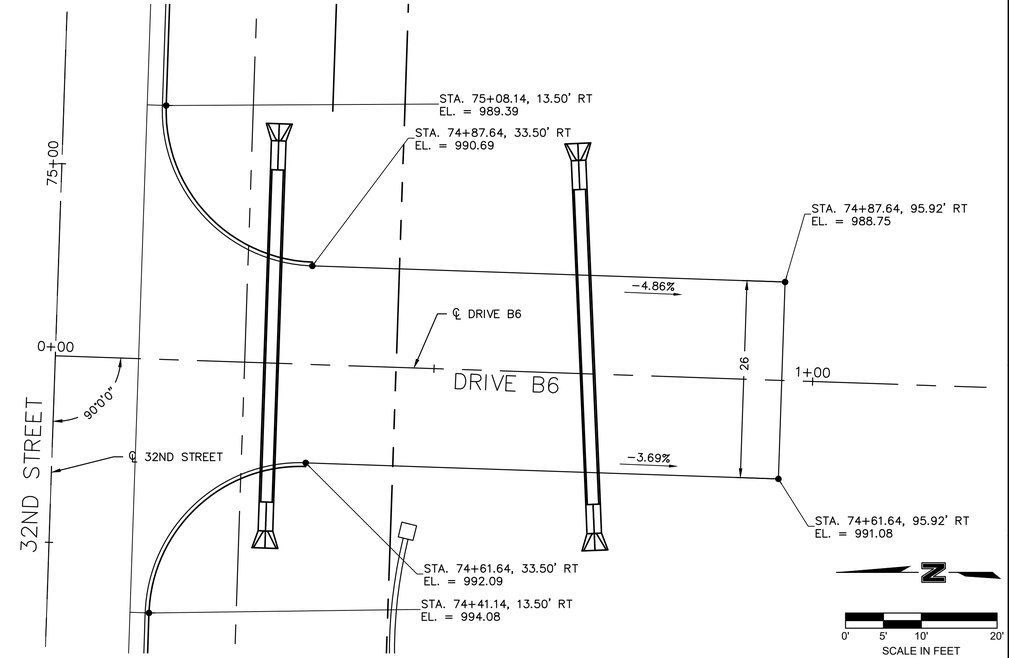
2021

drawn by: AJT
checked by: JCR
approved by: DMS
QA/QC by: OLSSON
project no.: 015-2768
drawing no.:
date: 04/23/2021

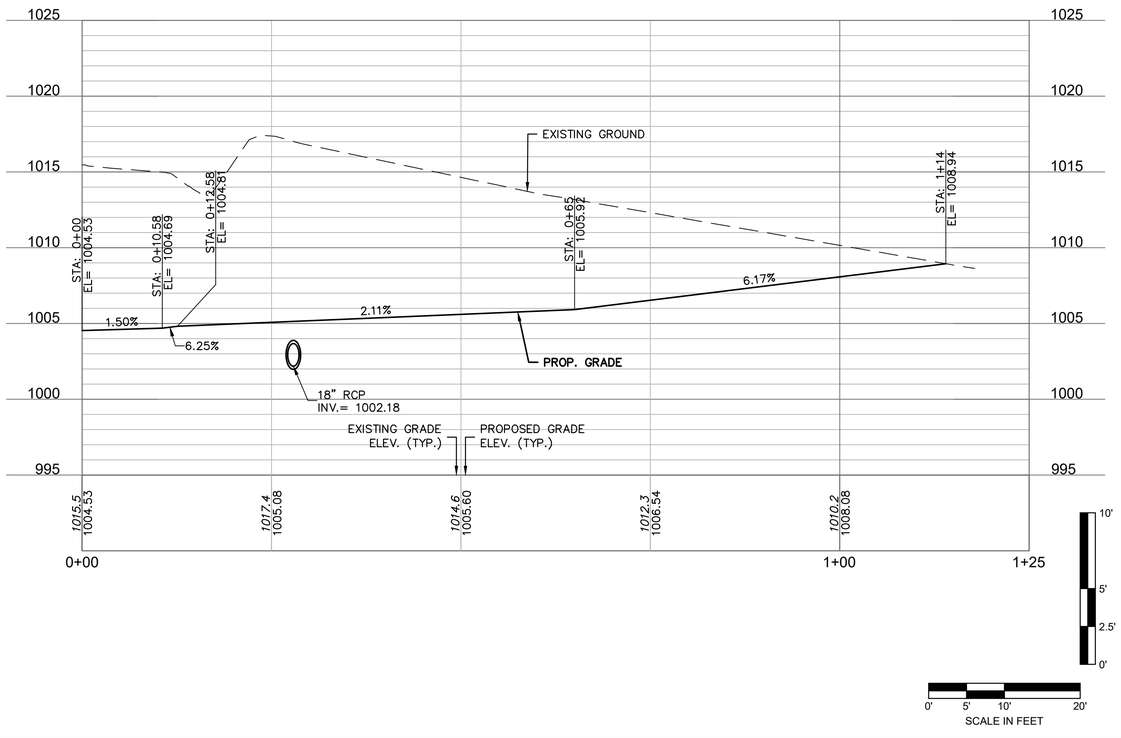
SHEET
B51 of B150

DWG: G:\15065 - 32nd Street Roadway\015-2768 32nd Street Widening\40-Design\AutoCAD\Final Plans\Sheets\CJW\B50 - B54 DRIVEWAY DETAILS.dwg USER: Aaron
DATE: Apr 21, 2021 8:11am XREFS: CJW_T_CTBLK_015-2768 (2019) cjw_t_pbase_015-2768 - 3 lane V_XBOU_52768 CJW_T_PPATT_015-2768 - 3 lane





DRIVE B5



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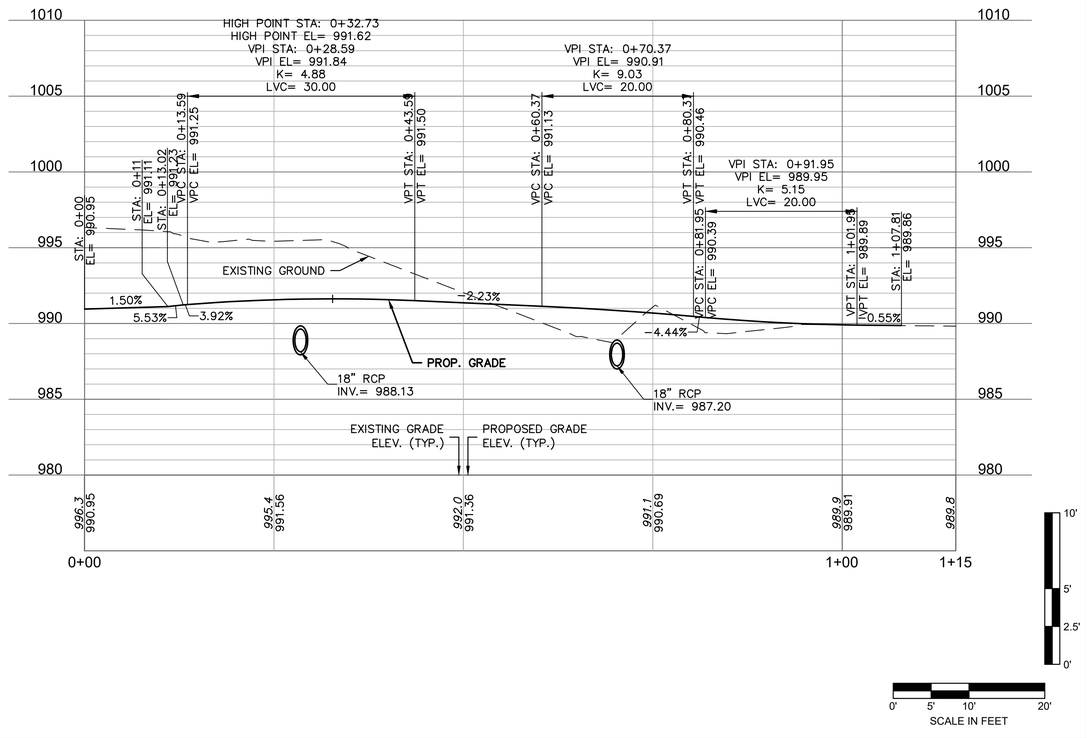

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STATE OF MISSOURI
DANE MITCHELL SEILER
NUMBER PE-2010019595
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

DRIVEWAY DETAILS

32ND STREET WIDENING
CITY OF JOPLIN

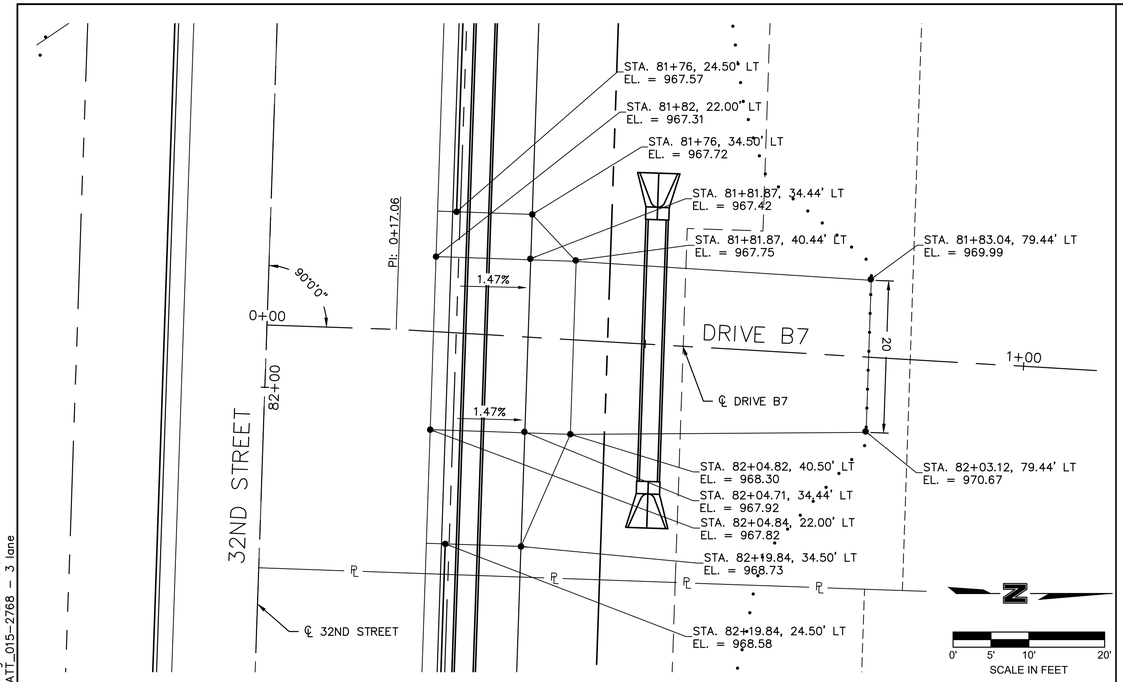
JOPLIN, MISSOURI

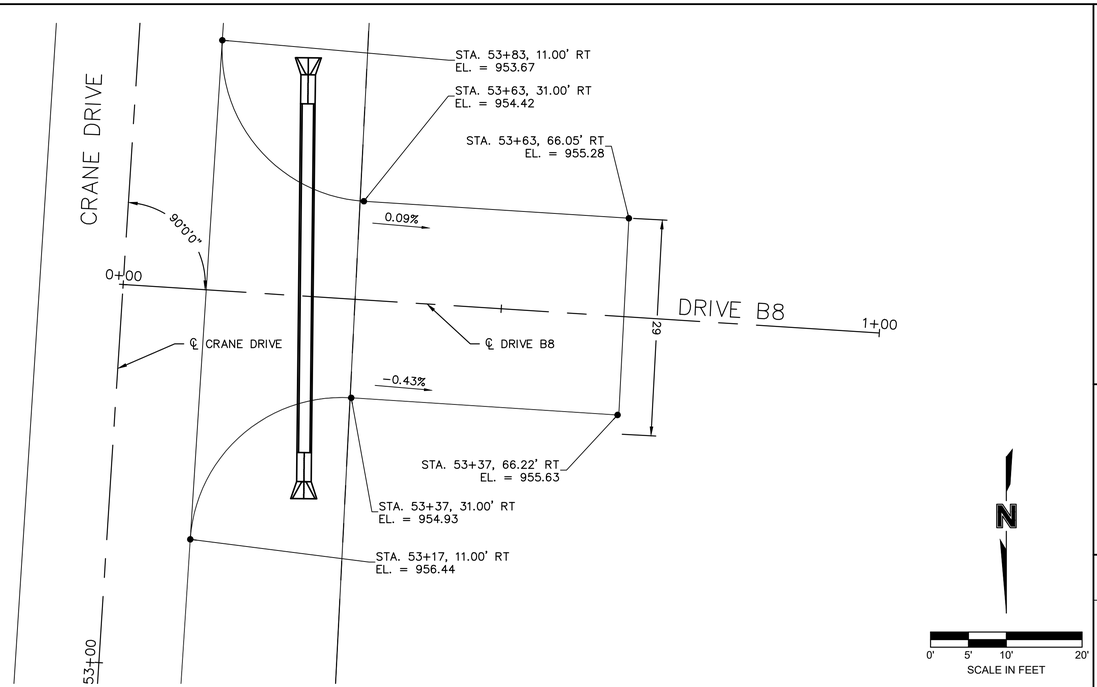
2021

drawn by: AJT
checked by: JCR
approved by: DMS
QA/QC by: OLSSON
project no.: 015-2768
drawing no.:
date: 04/23/2021

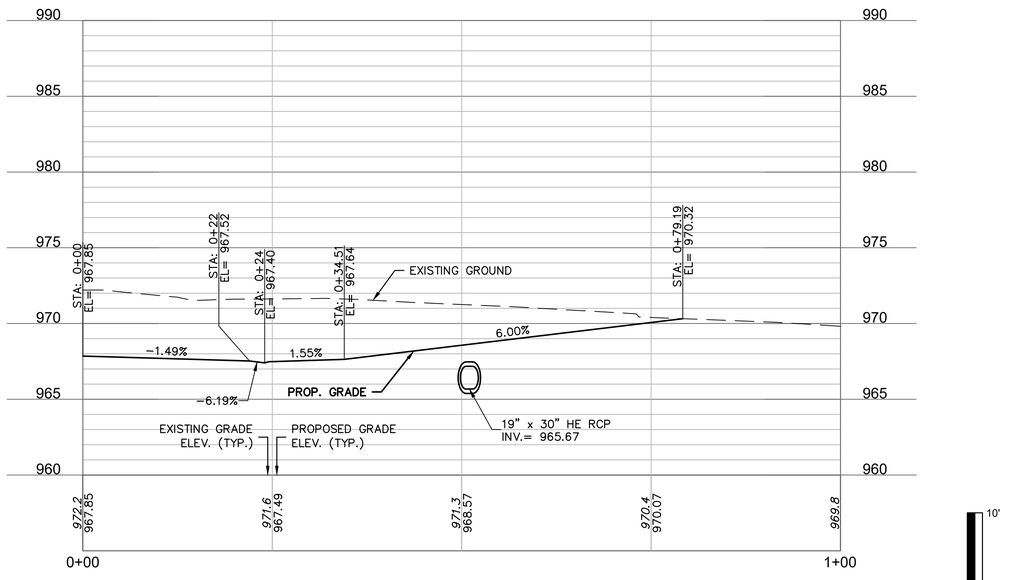
SHEET
B52 of B150

DWG: G:\15065 - 32nd Street Roadway\015-2768 32nd Street Widening\40-Design\AutoCAD\Final Plans\Sheets\CJW\B50 - B54 DRIVEWAY DETAILS.dwg USER: Aaron
DATE: Apr 21, 2021 8:11am XREFS: CJW_T_CTBLK_015-2768 (2019) cjw_t_pbase_015-2768 - 3 lane V_XBOU_52768 CJW_T_PPATT_015-2768 - 3 lane

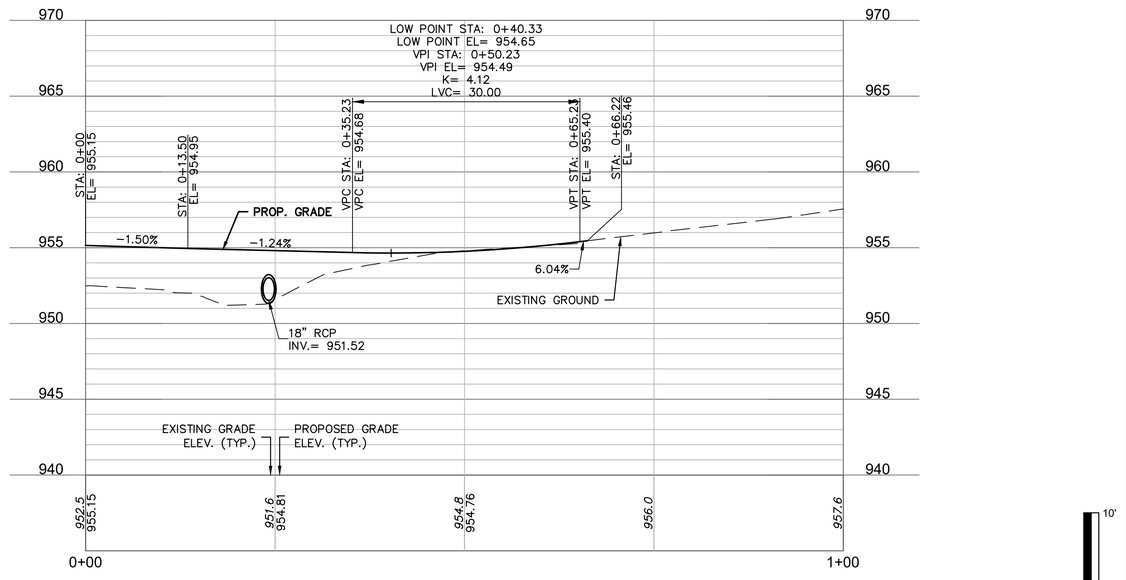




DRIVE B7



DRIVE B8



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STATE OF MISSOURI
DANE MITCHELL SEILER
NUMBER PE-2010019595
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

DRIVEWAY DETAILS

32ND STREET WIDENING
CITY OF JOPLIN

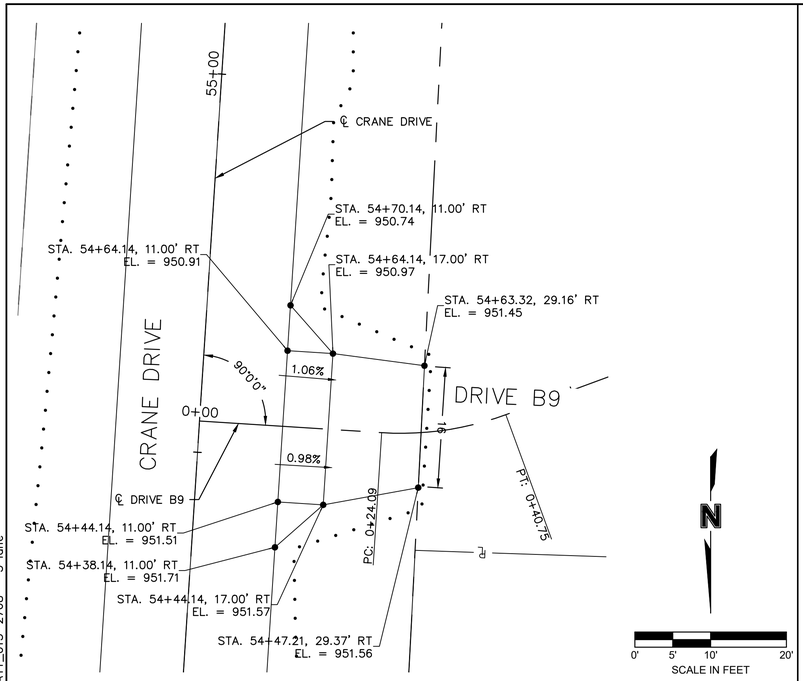
JOPLIN, MISSOURI

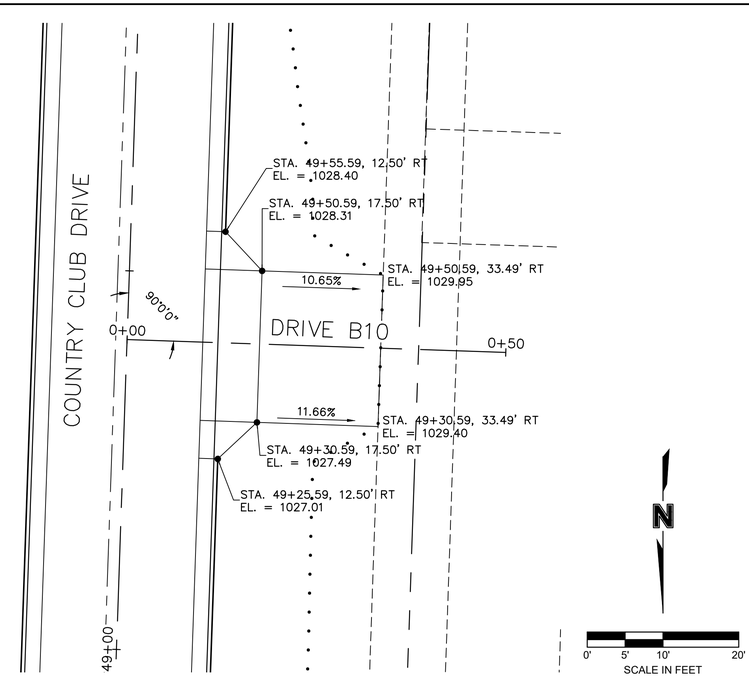
2021

drawn by: AJT
checked by: JCR
approved by: DMS
QA/QC by: OLSSON
project no.: 015-2768
drawing no.:
date: 04/23/2021

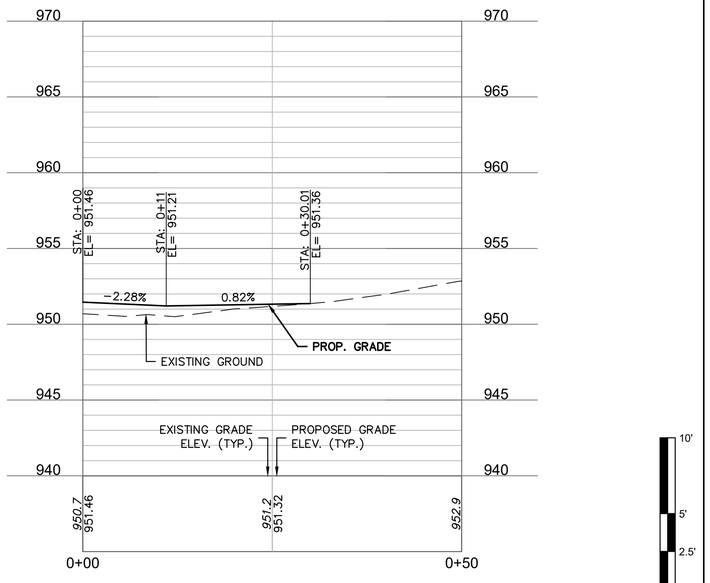
SHEET
B53 of B150

DWG: G:\15065 - 32nd Street Roadway\015-2768 32nd Street Widening\40-Design\AutoCAD\Final Plans\Sheets\CJW\B50 - B54 DRIVEWAY DETAILS.dwg USER: Aaron
DATE: Apr 21, 2021 8:12am XREFS: CJW_T_CTBLK_015-2768 (2019) cjw_t_pbase_015-2768 - 3 lane V_XBOU_52768 CJW_T_PPATT_015-2768 - 3 lane

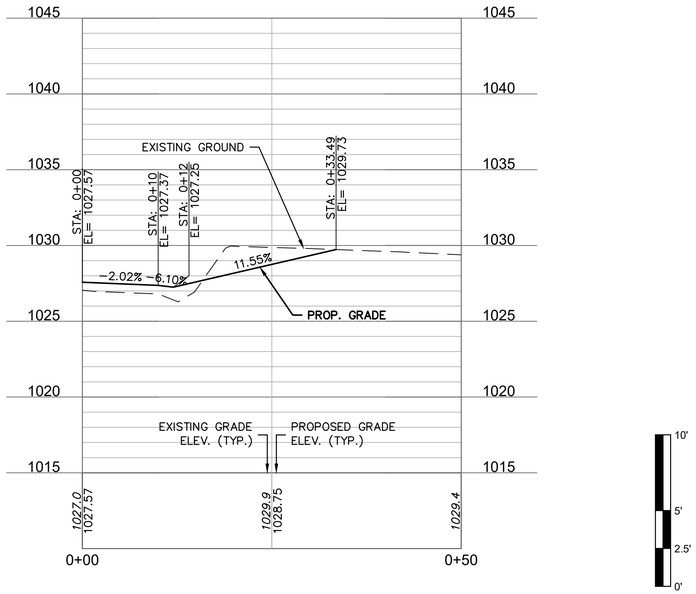




DRIVE B9



DRIVE B10



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STATE OF MISSOURI
DANE MITCHELL SEILER
2021 NUMBER PE-2010019595
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

DRIVEWAY DETAILS

32ND STREET WIDENING
CITY OF JOPLIN

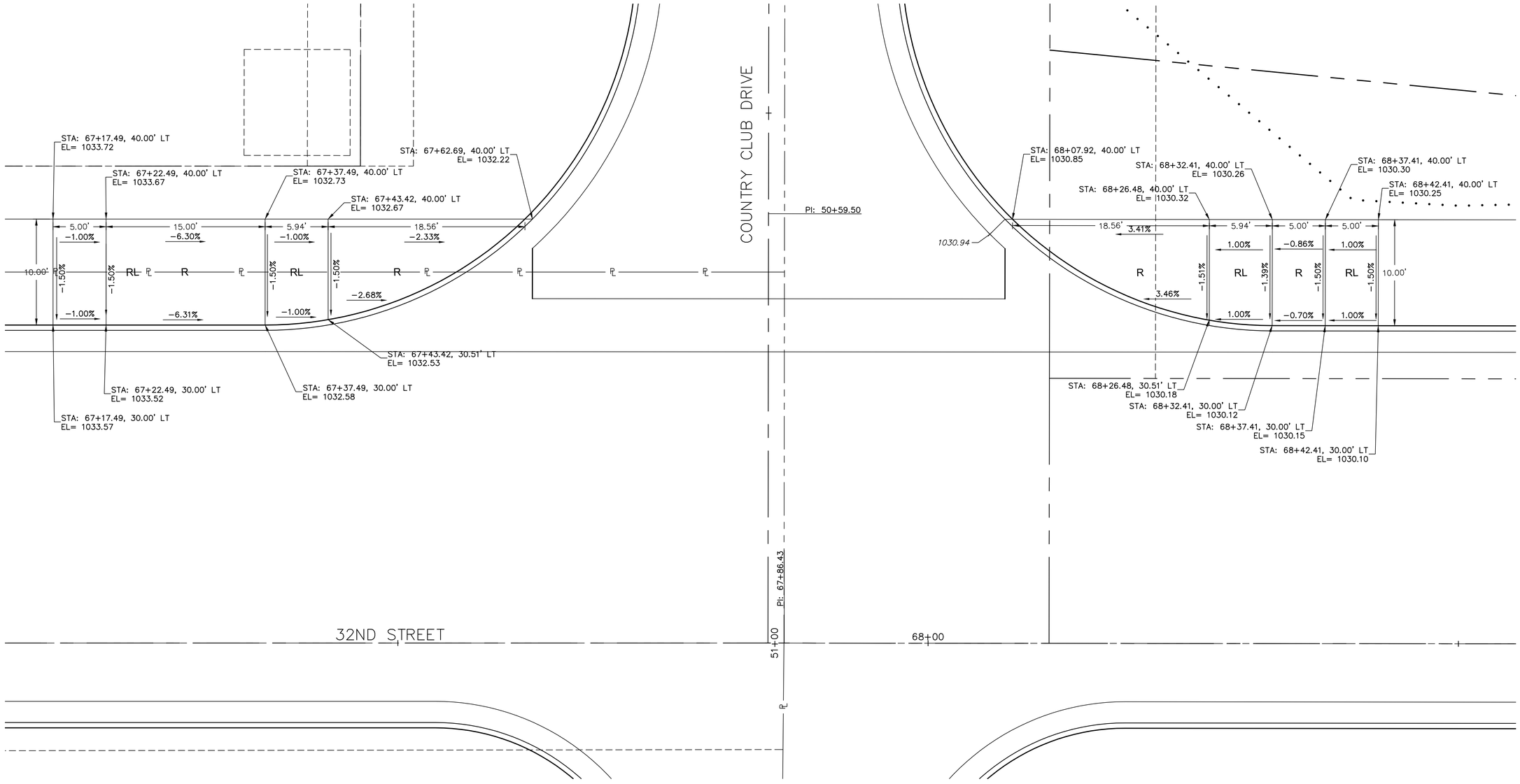
JOPLIN, MISSOURI

2021

drawn by: AJT
checked by: JCR
approved by: DMS
QA/QC by: OLSSON
project no.: 015-2768
drawing no.:
date: 04/23/2021

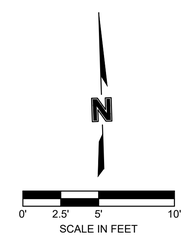
SHEET
B54 of B150

DWG: G:\15065 - 32nd Street Roadway\015-2768 32nd Street Widening\40-Design\AutoCAD\Final Plans\Sheets\CJW\B50 - B54 DRIVEWAY DETAILS.dwg USER: Aaron
DATE: Apr 21, 2021 8:12am XREFS: CJW_T_CTBLK_015-2768 (2019) cjw_t_pbase_015-2768 - 3 lane V_XBOU_52768 CJW_T_PPATT_015-2768 - 3 lane



LEGEND

R	CURB RAMP
RL	RAMP LANDING
SL	SIDEWALK LANDING
SR	SIDEWALK WITH RAMP SLOPE



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STATE OF MISSOURI
DANE MITCHELL SEILER
NUMBER PE-2010019595
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

ADA RAMP DETAILS

32ND STREET WIDENING
CITY OF JOPLIN

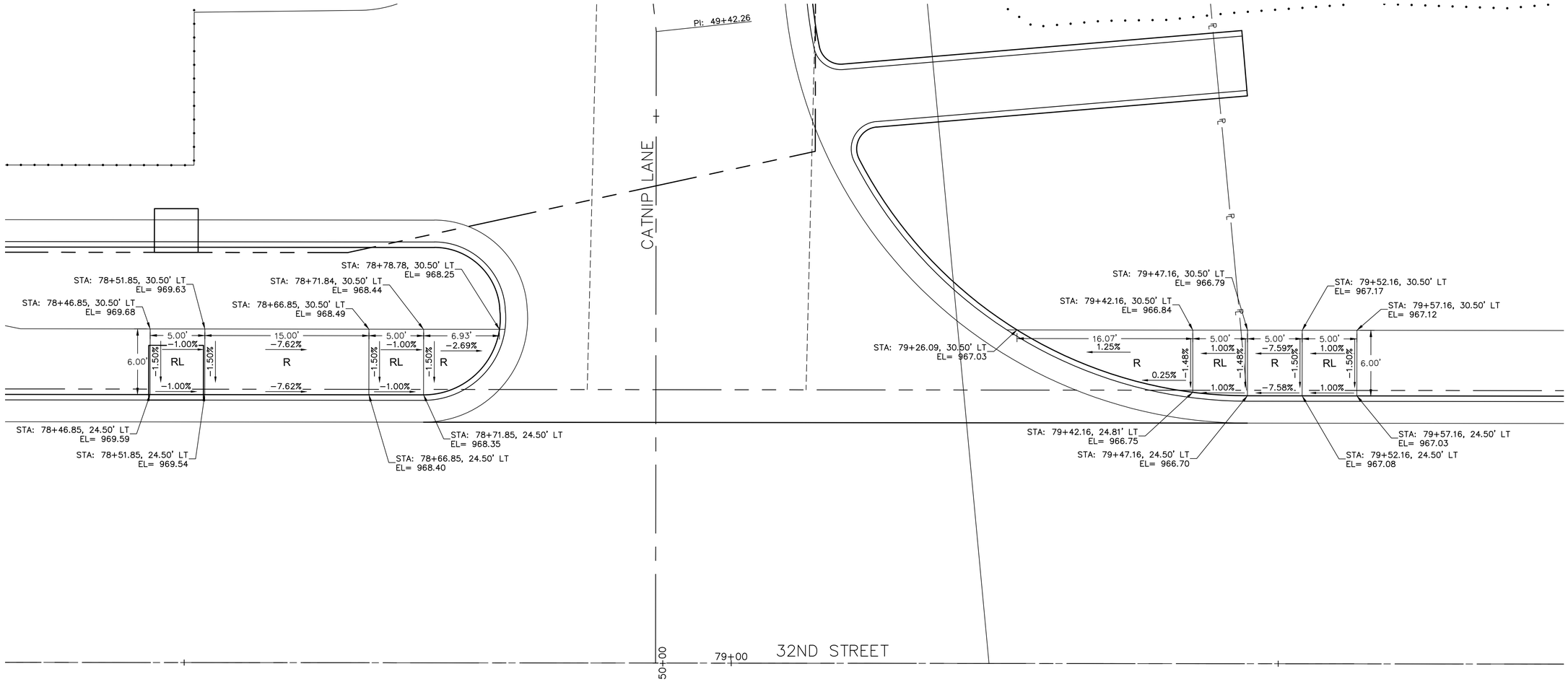
JOPLIN, MISSOURI

2021

drawn by: AJT
checked by: JCR
approved by: DMS
QA/QC by: OLSSON
project no.: 015-2768
drawing no.:
date: 04/23/2021

SHEET
B55 of B150

DWG: G:\15065 - 32nd Street Roadway\015-2768 32nd Street Widening\40-Design\AutoCAD\Final Plans\Sheets\CJW\B55 - 57 ADA RAMP DETAILS.dwg USER: Aaron
DATE: Apr 21, 2021 8:12am XREFS: cjw_t_pbase_015-2768 - 3 lane cjw_t_ctblk_015-2768 (2019) v_xbou_52768 RAMP-LANDING-LEGEND



LEGEND

R	CURB RAMP
RL	RAMP LANDING
SL	SIDEWALK LANDING
SR	SIDEWALK WITH RAMP SLOPE

N

0' 2.5' 5' 10'

SCALE IN FEET

DWG: G:\15065 - 32nd Street Roadway\015-2768 32nd Street Widening\40-Design\AutoCAD\Final Plans\Sheets\CJW\B55 - 57 ADA RAMP DETAILS.dwg USER: Aaron
DATE: Apr 21, 2021 8:12am XREFS: cjw_t_pbase_015-2768 - 3 lane cjw_t_ctblk_015-2768 (2019) v_xbou_52768 CJW_T_PPATT_015-2768 - 3 lane RAMP_LANDING_LEGEND

Prepared by:
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STATE OF MISSOURI
DANE MITCHELL SEILER
NUMBER PE-2010019595
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY
		REVISIONS	

ADA RAMP DETAILS

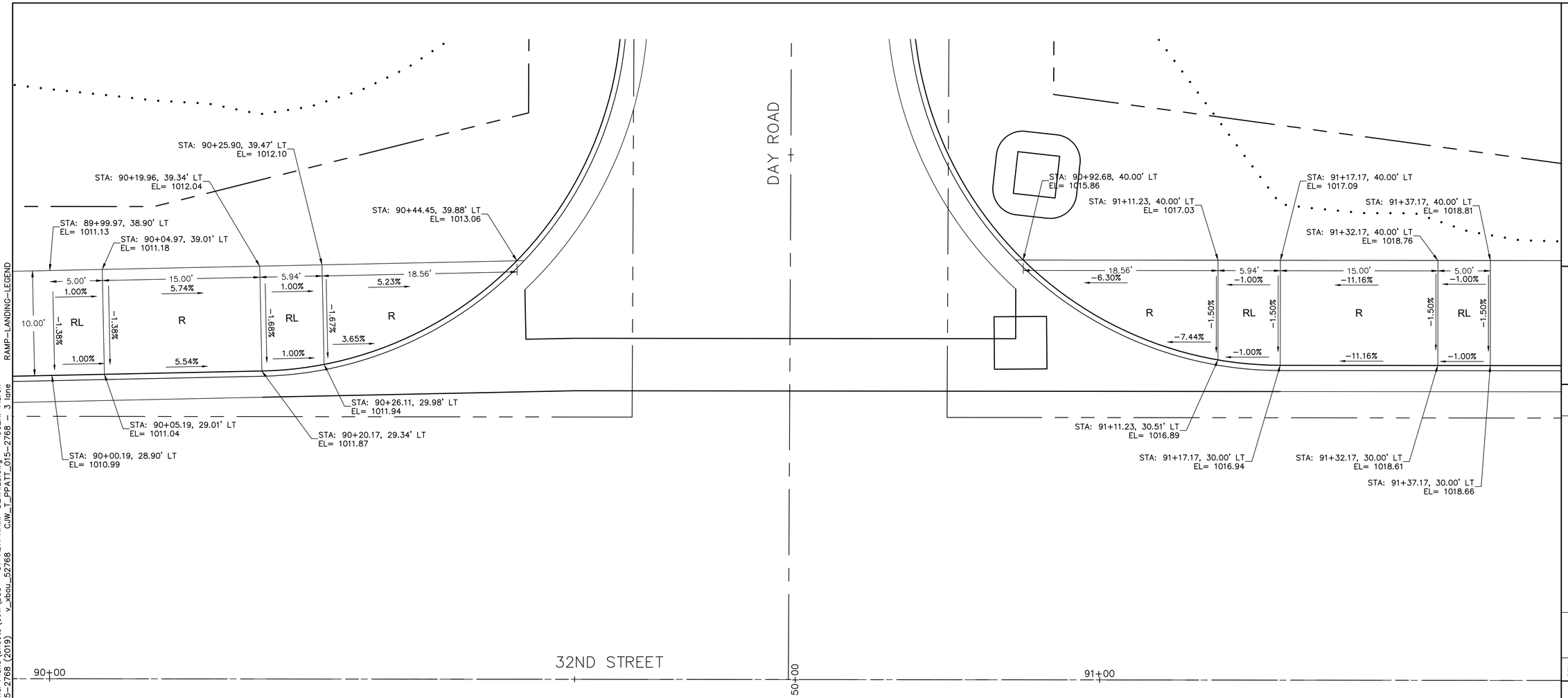
32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by: AJT
checked by: JCR
approved by: DMS
QA/QC by: OLSSON
project no.: 015-2768
drawing no.:
date: 04/23/2021

SHEET
B56 of B150



LEGEND

R	CURB RAMP
RL	RAMP LANDING
SL	SIDEWALK LANDING
SR	SIDEWALK WITH RAMP SLOPE

N

0' 2.5' 5' 10'
SCALE IN FEET

RAMP_LANDING_LEGEND

DWG: G:\15065 - 32nd Street Roadway\015-2768 32nd Street Widening\40-Design\AutoCAD\Final Plans\Sheets\CJW\B55 - 57 ADA RAMP DETAILS.dwg USER: Aaron
DATE: Apr 21, 2021 8:12am XREFS: cjw_t_pbase_015-2768 - 3 lane CJW_T_PPATT_015-2768 - 3 lane
cjw_t_ctblk_015-2768 (2019) v_xbou_52768

Prepared by:
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STATE OF MISSOURI
DANE MITCHELL SEILER
NUMBER PE-2010019595
PROFESSIONAL ENGINEER

REVISIONS

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

ADA RAMP DETAILS

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by: AJT
checked by: JCR
approved by: DMS
QA/QC by: OLSSON
project no.: 015-2768
drawing no.:
date: 04/23/2021

DWG: G:\15065 - 32nd Street Roadway\015-2768 32nd Street Widening\40-Design\AutoCAD\Final Plans\Sheets\CJW\B58-B60 - DRAINAGE CALCULATIONS.dwg USER: Aaron
DATE: Apr 21, 2021 8:13am XREFS: oa_acad-t_xbase_52768 cjw_t_pbase_015-2768 - 3 lane cjw_t_ctblk_015-2768 (2019)



SHEET B58 of B150

drawn by: AJT
checked by: JDR
approved by: DMS
project no.: 015-2768
drawing no.:
date: 04/23/2021

DRAINAGE AREA MAP

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI 2021

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

STATE OF MISSOURI
MITCHELL E. SEILER
NUMBER
PE-2010019998
PROFESSIONAL ENGINEER

Prepared by:

CJW

CJW Transportation Consultants, L.L.C.

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Storm Sewer Tabulation

Station		Len	Drng Area		Rnoff coeff	Area x C		Tc		Rain (I)	Total flow	Cap full	Vel	Pipe		Invert Elev		HGL Elev		Grnd / Rim Elev		Line ID
Line	To Line		Incr	Total		Incr	Total	Inlet	Syst					Size	Slope	Dn	Up	Dn	Up	Dn	Up	
		(ft)	(ac)	(ac)	(C)			(min)	(min)	(in/hr)	(cfs)	(cfs)	(ft/s)	(in)	(%)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	
1	End	62.390	0.01	326.9	0.90	0.01	164.4	5.0	60.1	2.5	404.1	2367.2	15.49	48 x 216 b	3.65	956.17	958.45	957.19	960.95	961.20	966.40	Box Culvert
2	1	11.030	0.01	323.0	0.90	0.01	161.5	5.0	60.1	2.5	397.0	2358.0	9.26	48 x 216 b	3.63	958.65	959.05	960.95	961.52	966.40	966.70	Box Culvert
3	2	20.580	323.00	323.0	0.50	161.50	161.5	60.0	60.0	2.5	397.2	2182.1	9.32	48 x 216 b	3.64	959.25	960.00	961.52	962.47	966.70	965.50	Box Culvert
4	1	130.800	0.01	3.86	0.90	0.01	2.93	5.0	15.5	5.1	15.05	81.77	4.73	30	3.98	959.00	964.20	960.95	965.51	966.40	969.55	2-01 to box
5	4	43.730	0.25	3.32	0.90	0.23	2.50	5.0	15.3	5.2	12.92	78.45	5.83	30	3.66	964.40	966.00	965.51	967.21	969.55	970.59	2-02 to 2-01
6	5	193.000	0.16	3.07	0.80	0.13	2.27	5.0	14.5	5.3	12.02	48.57	9.33	24	4.61	966.70	975.60	967.38	976.84	970.59	981.55	2-03 to 2-02
7	6	127.990	0.01	2.91	0.01	0.00	2.15	5.0	13.9	5.4	11.51	60.47	10.28	24	7.15	976.80	985.95	977.39	987.17	981.55	991.50	Tee to 2-03
8	7	65.140	0.37	2.68	0.80	0.30	2.04	5.0	13.6	5.4	11.01	60.43	5.58	24	7.14	985.95	990.60	987.17	991.79	991.50	995.57	2-04 to Tee
9	8	179.080	0.36	2.31	0.80	0.29	1.74	5.0	12.7	5.6	9.66	60.70	5.81	24	7.20	990.80	1003.70	991.79	1004.81	995.57	1008.58	2-05 to 2-04
10	9	168.080	0.15	1.95	0.90	0.14	1.45	5.0	11.7	5.7	8.30	59.42	5.54	24	6.90	1003.90	1015.50	1004.81	1016.53	1008.58	1020.27	2-06 to 2-05
11	10	131.880	0.31	1.80	0.90	0.28	1.32	5.0	10.9	5.9	7.73	49.04	5.65	24	4.70	1015.70	1021.90	1016.53	1022.89	1020.27	1027.23	2-07 to 2-06
12	11	283.000	0.22	1.49	0.90	0.20	1.04	5.0	9.7	6.1	6.33	10.63	5.75	18	1.02	1022.60	1025.50	1023.43	1026.47	1027.23	1035.33	2-08 to 2-07
13	12	203.000	0.20	0.51	0.90	0.18	0.46	5.0	7.8	6.5	2.99	17.90	5.76	18	2.91	1030.00	1035.90	1030.42	1036.56	1035.33	1040.05	2-09 to 2-08
14	13	193.000	0.31	0.31	0.90	0.28	0.28	5.0	5.0	7.2	2.02	13.63	4.00	18	1.68	1036.10	1039.35	1036.56	1039.89	1040.05	1043.46	2-10 to 2-09
15	12	32.870	0.76	0.76	0.50	0.38	0.38	5.0	5.0	7.2	2.75	10.52	3.46	18	1.00	1025.70	1026.03	1026.47	1026.66	1035.33	1027.80	2A-01 to 2-08
16	4	9.570	0.10	0.53	0.80	0.08	0.42	5.0	8.0	6.5	2.74	13.20	6.31	15	4.18	966.20	966.60	966.59	967.26	969.55	970.13	2C-01 to 2-01
17	16	85.860	0.14	0.43	0.80	0.11	0.34	5.0	7.3	6.6	2.28	16.37	4.70	15	6.43	966.80	972.32	967.26	972.92	970.13	975.62	2C-02 to 2C-01
18	17	67.820	0.10	0.29	0.80	0.08	0.23	5.0	6.4	6.8	1.59	15.80	4.64	15	5.99	972.58	976.64	972.92	977.14	975.62	980.18	2C-03 to 2C-02
19	18	77.130	0.19	0.19	0.80	0.15	0.15	5.0	5.0	7.2	1.10	18.10	5.12	15	7.86	976.91	982.97	977.14	983.38	980.18	986.17	2C-04 to 2C-03
20	7	14.350	0.22	0.22	0.50	0.11	0.11	5.0	5.0	7.2	0.80	21.53	1.50	24	0.91	985.95	986.08	987.17	986.39	991.50	991.50	2B-01 to Tee
21	End	42.000	0.08	0.08	0.50	0.04	0.04	5.0	5.0	7.2	0.29	8.34	2.67	15	1.67	1041.66	1042.36	1041.82	1042.57	0.00	1045.20	4-02
22	End	60.750	2.59	2.59	0.50	1.30	1.30	5.0	5.0	7.2	9.37	62.84	9.85	24	7.72	1007.34	1012.03	1007.86	1013.12	0.00	1014.20	5-02
23	End	26.950	0.51	0.51	0.50	0.26	0.26	5.0	5.0	7.2	1.85	32.49	6.71	18	9.57	1000.71	1003.29	1000.95	1003.80	0.00	1005.70	6-02
24	End	43.850	0.24	0.24	0.50	0.12	0.12	5.0	5.0	7.2	0.87	29.96	5.15	18	8.14	986.12	989.69	986.30	990.04	0.00	992.20	7-02
25	End	41.580	0.17	0.17	0.50	0.09	0.09	5.0	5.0	7.2	0.62	33.85	4.95	18	10.39	984.76	989.08	984.90	989.37	0.00	991.10	8-02
26	End	46.020	4.70	4.70	0.60	2.82	2.82	10.0	10.0	6.0	17.04	20.65	11.41	18	3.87	950.56	952.34	951.60	953.78	0.00	955.00	10-02

Project File: 15065 - 32ND ST - STORM LINE 2.stm | Number of lines: 26 | Run Date: 2/25/2021

NOTES:Intensity = 88.24 / (Inlet time + 15.50) ^ 0.83; Return period =Yrs. 10 ; c = cir e = ellip b = box

Storm Sewers v2021.00

Inlet Report

Line No	Inlet ID	Q = CIA	Q carry	Q capt	Q Byp	Junc Type	Curb Inlet		Grate Inlet			Gutter							Inlet			Byp Line No
							Ht (in)	L (ft)	Area (sqft)	L (ft)	W (ft)	So (ft/ft)	W (ft)	Sw (ft/ft)	Sx (ft/ft)	n	Depth (ft)	Spread (ft)	Depth (ft)	Spread (ft)	Depr (in)	
		(cfs)	(cfs)	(cfs)	(cfs)																	
1	BOX CULVERT	0.07	2.02	0.00	2.08	MH	0.0	0.00	0.00	0.00	0.00	Sag	2.00	0.050	0.020	0.013	0.00	0.00	0.00	0.00	0.0	Off
2	BOX CULVERT	0.07	0.00	0.00	0.07	MH	0.0	0.00	0.00	0.00	0.00	Sag	2.00	0.050	0.020	0.013	0.00	0.00	0.00	0.00	0.0	1
3	1-02	397.23	0.00	397.23	0.00	Hdwl	0.0	0.00	0.00	0.00	0.00	Sag	2.00	0.050	0.020	0.013	0.00	0.00	0.00	0.00	0.0	2
4	2-01	0.07	1.89	0.00	1.95	MH	0.0	0.00	0.00	0.00	0.00	Sag	2.00	0.050	0.020	0.013	0.00	0.00	0.00	0.00	0.0	1
5	2-02	1.63	1.80	1.69	1.74	Curb	6.0	6.30	0.00	0.00	0.00	0.030	2.00	0.050	0.021	0.013	0.22	7.80	0.35	5.74	2.0	4
6	2-03	0.93	2.38	1.50	1.80	Curb	6.0	6.30	0.00	0.00	0.00	0.050	2.00	0.050	0.021	0.013	0.20	6.86	0.33	5.16	2.0	5
7	24X24X24 TEE	0.00	2.38	0.00	2.38	MH	0.0	0.00	0.00	0.00	0.00	Sag	2.00	0.050	0.021	0.013	0.00	0.00	0.00	0.00	0.0	6
8	2-04	2.14	1.77	1.53	2.38	Curb	6.0	6.30	0.00	0.00	0.00	0.070	2.00	0.050	0.021	0.013	0.20	6.86	0.34	5.44	2.0	7
9	2-05	2.08	1.06	1.37	1.77	Curb	6.0	6.30	0.00	0.00	0.00	0.070	2.00	0.050	0.021	0.013	0.19	6.20	0.32	4.70	2.0	8
10	2-06	0.98	1.21	1.13	1.06	Curb	6.0	6.30	0.00	0.00	0.00	0.070	2.00	0.050	0.021	0.013	0.17	5.23	0.30	3.51	2.0	9
11	2-07	2.02	0.50	1.31	1.21	Curb	6.0	6.30	0.00	0.00	0.00	0.050	2.00	0.050	0.021	0.013	0.19	6.06	0.31	4.20	2.0	10
12	2-08	1.43	0.60	1.54	0.50	Curb	6.0	6.30	0.00	0.00	0.00	0.010	2.00	0.050	0.021	0.013	0.22	7.89	0.31	4.01	2.0	11
13	2-09	1.30	0.49	1.19	0.60	Curb	6.0	6.30	0.00	0.00	0.00	0.030	2.00	0.050	0.021	0.013	0.18	5.82	0.29	3.23	2.0	12
14	2-10	2.02	0.00	1.53	0.49	Curb	6.0	6.30	0.00	0.00	0.00	0.010	2.00	0.050	0.021	0.013	0.22	7.86	0.31	3.97	2.0	13
15	2A-01	2.75	0.00	2.75	0.00	Hdwl	0.0	0.00	0.00	0.00	0.00	Sag	2.00	0.050	0.020	0.013	0.00	0.00	0.00	0.00	0.0	12
16	2C-01	0.58	0.28	0.71	0.15	Curb	6.0	6.30	0.00	0.00	0.00	0.040	2.00	0.050	0.021	0.013	0.14	3.68	0.24	1.41	2.0	4
17	2C-02	0.81	0.22	0.75	0.28	Curb	6.0	6.30	0.00	0.00	0.00	0.060	2.00	0.050	0.021	0.013	0.13	3.63	0.25	1.67	2.0	16
18	2C-03	0.58	0.34	0.70	0.22	Curb	6.0	6.30	0.00	0.00	0.00	0.060	2.00	0.050	0.021	0.013	0.13	3.38	0.24	1.53	2.0	17
19	2C-04	1.10	0.00	0.76	0.34	Curb	6.0	6.30	0.00	0.00	0.00	0.070	2.00	0.050	0.021	0.013	0.13	3.60	0.25	1.74	2.0	18
20	2B-01	0.80	0.00	0.80	0.00	Hdwl	0.0	0.00	0.00	0.00	0.00	Sag	2.00	0.050	0.020	0.013	0.00	0.00	0.00	0.00	0.0	7
21	4-02	0.29	0.00	0.29	0.00	Hdwl	0.0	0.00	0.00	0.00	0.00	Sag	2.00	0.050	0.020	0.013	0.00	0.00	0.00	0.00	0.0	Off
22	5-02	9.37	0.00	9.37	0.00	Hdwl	0.0	0.00	0.00	0.00	0.00	Sag	2.00	0.050	0.020	0.013	0.00	0.00	0.00	0.00	0.0	Off
23	6-02	1.85	0.00	1.85	0.00	Hdwl	0.0	0.00	0.00	0.00	0.00	Sag	2.00	0.050	0.020	0.013	0.00	0.00	0.00	0.00	0.0	Off
24	7-02	0.87	0.00	0.87	0.00	Hdwl	0.0	0.00	0.00	0.00	0.00	Sag	2.00	0.050	0.020	0.013	0.00	0.00	0.00	0.00	0.0	Off
25	8-02	0.62	0.00	0.62	0.00	Hdwl	0.0	0.00	0.00	0.00	0.00	Sag	2.00	0.050	0.020	0.013	0.00	0.00	0.00	0.00	0.0	Off
26	10-02	17.04	0.00	17.04	0.00	Hdwl	0.0	0.00	0.00	0.00	0.00	Sag	2.00	0.050	0.020	0.013	0.00	0.00	0.00	0.00	0.0	Off

Project File: 15065 - 32ND ST - STORM LINE 2.stm | Number of lines: 26 | Run Date: 2/25/2021

NOTES: Inlet N-Values = 0.016; Intensity = 88.24 / (Inlet time + 15.50) ^ 0.83; Return period = 10 Yrs. ; * Indicates Known Q added. All curb inlets are throat.

Storm Sewers v2021.00

Storm Sewer Tabulation

Station		Len	Drng Area		Rnoff coeff	Area x C		Tc		Rain (I)	Total flow	Cap full	Vel	Pipe		Invert Elev		HGL Elev		Grnd / Rim Elev		Line ID
Line	To Line		Incr	Total		Incr	Total	Inlet	Syst					Size	Slope	Dn	Up	Dn	Up	Dn	Up	
		(ft)	(ac)	(ac)	(C)			(min)	(min)	(in/hr)	(cfs)	(cfs)	(ft/s)	(in)	(%)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	
1	End	62.390	0.01	333.5	0.90	0.01	166.7	5.0	60.1	2.5	409.7	2367.2	15.67	48 x 216 b	3.65	956.17	958.45	957.19	960.97	961.20	966.40	Box Culvert
2	1	11.030	0.01	333.5	0.90	0.01	166.7	5.0	60.1	2.5	409.8	2358.0	9.41	48 x 216 b	3.63	958.65	959.05	960.97	961.57	966.40	966.70	Box Culvert
3	2	20.580	323.00	323.0	0.50	161.50	161.5	60.0	60.0	2.5	397.2	2182.1	9.21	48 x 216 b	3.64	959.25	960.00	961.57	962.47	966.70	965.50	Box Culvert
4	2	40.880	0.59	10.46	0.90	0.53	5.22	5.0	9.1	6.2	32.50	44.50	7.93	30	1.00	959.62	960.03	961.57	961.97	966.70	965.69	3-01 to Box
5	4	188.200	0.18	9.87	0.90	0.16	4.69	5.0	8.5	6.3	29.74	44.41	8.49	30	1.00	960.43	962.31	961.97	964.17	965.69	968.79	3-03 to 3-02
6	5	143.000	0.16	9.69	0.90	0.14	4.53	5.0	8.1	6.4	29.13	91.70	7.98	30	5.00	962.51	969.66	964.17	971.50	968.79	975.21	3-04 to 3-03
7	6	143.000	0.19	9.53	0.90	0.17	4.38	5.0	7.7	6.5	28.62	100.5	7.93	30	6.00	969.86	978.44	971.50	980.26	975.21	984.12	3-05 to 3-04
8	7	193.000	0.21	9.34	0.90	0.19	4.21	5.0	7.3	6.6	27.87	55.40	13.46	24	6.00	979.50	991.08	980.50	992.90	984.12	996.12	3-06 to 3-05
9	8	188.980	0.30	9.13	0.90	0.27	4.02	5.0	7.0	6.7	26.97	46.88	9.45	24	4.30	991.28	999.40	992.90	1001.21	996.12	1007.30	3-07 to 3-06
10	9	132.990	0.01	2.03	0.90	0.01	1.03	5.0	6.0	6.9	7.18	63.25	3.96	24	7.82	999.80	1010.20	1001.21	1011.15	1007.30	1015.00	3-09 to 3-08
11	10	110.070	0.54	0.54	0.80	0.43	0.43	5.0	5.0	7.2	3.13	26.29	7.04	18	6.27	1010.90	1017.80	1011.25	1018.47	1015.00	1021.96	3-10 to 3-09
12	10	12.630	1.48	1.48	0.40	0.59	0.59	5.0	5.0	7.2	4.28	14.77	5.88	18	1.98	1010.90	1011.15	1011.45	1011.94	1015.00	1015.00	3A-01 to 3-09
13	9	63.120	6.80	6.80	0.40	2.72	2.72	5.0	5.0	7.2	19.69	12.95	11.14	18	1.52	999.60	1000.56	1001.21	1003.43	1007.30	1005.00	3B-01 to 3-07
14	End	34.680	6.02	6.02	0.40	2.41	2.41	10.0	10.0	6.0	14.55	13.10	8.23	18	1.56	965.41	965.95	966.91	967.58	0.00	969.00	9-02

Project File: 15065 - 32ND ST - STORM LINE 3.stm | Number of lines: 14 | Run Date: 2/25/2021

NOTES:Intensity = 88.24 / (Inlet time + 15.50) ^ 0.83; Return period =Yrs. 10 ; c = cir e = ellip b = box

Storm Sewers v2021.00

Inlet Report

Line No	Inlet ID	Q = CIA	Q carry	Q capt	Q Byp	Junc Type	Curb Inlet		Grate Inlet			Gutter							Inlet			Byp Line No
							Ht (in)	L (ft)	Area (sqft)	L (ft)	W (ft)	So (ft/ft)	W (ft)	Sw (ft/ft)	Sx (ft/ft)	n	Depth (ft)	Spread (ft)	Depth (ft)	Spread (ft)	Depr (in)	
		(cfs)	(cfs)	(cfs)	(cfs)																	
1	BOX CULVERT	0.07	0.72	0.00	0.79	MH	0.0	0.00	0.00	0.00	0.00	Sag	2.00	0.050	0.020	0.013	0.00	0.00	0.00	0.00	0.0	Off
2	BOX CULVERT	0.07	0.66	0.00	0.72	MH	0.0	0.00	0.00	0.00	0.00	Sag	2.00	0.050	0.020	0.013	0.00	0.00	0.00	0.00	0.0	1
3	1-02	397.23	0.00	397.23	0.00	Hdwl	0.0	0.00	0.00	0.00	0.00	Sag	2.00	0.050	0.020	0.013	0.00	0.00	0.00	0.00	0.0	2
4	3-01,02	3.84	0.90	4.09	0.66	Curb	6.0	12.60	0.00	0.00	0.00	0.010	2.00	0.050	0.021	0.013	0.29	11.20	0.32	4.64	2.0	2
5	3-03	1.17	0.91	1.18	0.90	Curb	6.0	6.30	0.00	0.00	0.00	0.050	2.00	0.050	0.021	0.013	0.17	5.53	0.30	3.54	2.0	4
6	3-04	1.04	1.04	1.18	0.91	Curb	6.0	6.30	0.00	0.00	0.00	0.050	2.00	0.050	0.021	0.013	0.17	5.54	0.30	3.55	2.0	5
7	3-05	1.24	1.05	1.24	1.04	Curb	6.0	6.30	0.00	0.00	0.00	0.050	2.00	0.050	0.021	0.013	0.18	5.79	0.31	3.86	2.0	6
8	3-06	1.37	0.92	1.24	1.05	Curb	6.0	6.30	0.00	0.00	0.00	0.050	2.00	0.050	0.021	0.013	0.18	5.79	0.31	3.86	2.0	7
9	3-07,08	1.95	1.73	2.77	0.92	Curb	6.0	12.60	0.00	0.00	0.00	0.050	2.00	0.050	0.021	0.013	0.21	7.19	0.30	3.57	2.0	8
10	3-09	0.07	1.67	0.00	1.73	MH	0.0	0.00	0.00	0.00	0.00	Sag	2.00	0.050	0.021	0.013	0.00	0.00	0.00	0.00	0.0	9
11	3-10	3.13	0.00	1.46	1.67	Curb	6.0	6.30	0.00	0.00	0.00	0.050	2.00	0.050	0.021	0.013	0.20	6.69	0.33	4.96	2.0	10
12	3A-01	4.28	0.00	4.28	0.00	Hdwl	0.0	0.00	0.00	0.00	0.00	Sag	2.00	0.050	0.020	0.013	0.00	0.00	0.00	0.00	0.0	10
13	3B-01	19.69	0.00	19.69	0.00	Hdwl	0.0	0.00	0.00	0.00	0.00	Sag	2.00	0.050	0.020	0.013	0.00	0.00	0.00	0.00	0.0	9
14	9-02	14.55	0.00	14.55	0.00	Hdwl	0.0	0.00	0.00	0.00	0.00	Sag	2.00	0.050	0.020	0.013	0.00	0.00	0.00	0.00	0.0	Off

Project File: 15065 - 32ND ST - STORM LINE 3.stm | Number of lines: 14 | Run Date: 2/25/2021

NOTES: Inlet N-Values = 0.016; Intensity = 88.24 / (Inlet time + 15.50) ^ 0.83; Return period = 10 Yrs. ; * Indicates Known Q added. All curb inlets are throat.

Storm Sewers v2021.00

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STATE OF MISSOURI
DANE MITCHELL SEILER
NUMBER PE-2010019595
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY
		REVISIONS	

10 YEAR DRAINAGE CALCULATIONS

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by: AJT
checked by: JCR
approved by: DMS
QA/QC by: OLSSON
project no.: 015-2768
drawing no.:
date: 04/23/2021

SHEET
B59 of B150

DWG: G:\15065 - 32nd Street Roadway\015-2768 32nd Street Widening\40-Design\AutoCAD\Final Plans\Sheets\CJW\B58-B60 - DRAINAGE CALCULATIONS.dwg USER: Aaron
DATE: Apr 21, 2021 8:13am XREFS: oa_acad-t_xbase_52768 cjw_t_pbase_015-2768 - 3 lane cjw_t_ctblk_015-2768 (2019)

DWG: G:\15065 - 32nd Street Roadway\015-2768 32nd Street Widening\40-Design\AutoCAD\Final Plans\Sheets\CJW\B58-B60 - DRAINAGE CALCULATIONS.dwg USER: Aaron
DATE: Apr 21, 2021 8:13am XREFS: og_acad-t_xbase_52768 cjw_t_pbase_015-2768 - 3 lane cjw_t_ctblk_015-2768 - 3 lane

Storm Sewer Tabulation

Station Line	To Line	Len (ft)	Drng Area Incr (ac)	Drng Area Total (ac)	Rnoff coeff (C)	Area x C Incr	Area x C Total	Tc Inlet (min)	Tc Syst (min)	Rain (I) (in/hr)	Total flow (cfs)	Cap full (cfs)	Vel (ft/s)	Pipe Size (in)	Pipe Slope (%)	Invert Elev Dn (ft)	Invert Elev Up (ft)	HGL Elev Dn (ft)	HGL Elev Up (ft)	Grnd / Rim Elev Dn (ft)	Grnd / Rim Elev Up (ft)	Line ID
1	End	62.390	0.01	326.9	0.90	0.01	164.4	5.0	60.1	3.6	591.6	2367.2	17.74	48 x 216 b	3.65	956.17	958.45	957.47	961.67	961.20	966.40	Box Culvert
2	1	11.030	0.01	323.0	0.90	0.01	161.5	5.0	60.0	3.6	581.2	2358.0	10.41	48 x 216 b	3.63	958.65	959.05	961.67	962.23	966.40	966.70	Box Culvert
3	2	20.580	323.00	323.0	0.50	161.50	161.5	60.0	60.0	3.6	581.4	2182.1	10.48	48 x 216 b	3.64	959.25	960.00	962.23	963.19	966.70	965.50	Box Culvert
4	1	130.800	0.01	3.86	0.90	0.01	2.93	5.0	12.7	7.8	22.73	81.77	5.69	30	3.98	959.00	964.20	961.67	965.82	966.40	969.55	2-01 to box
5	4	43.730	0.25	3.32	0.90	0.23	2.50	5.0	12.5	7.8	19.47	78.45	6.56	30	3.66	964.40	966.00	965.82	967.50	969.55	970.59	2-02 to 2-01
6	5	193.000	0.16	3.07	0.80	0.13	2.27	5.0	11.9	7.9	18.00	48.57	10.65	24	4.61	966.70	975.60	967.54	977.13	970.59	981.55	2-03 to 2-02
7	6	127.990	0.01	2.91	0.01	0.00	2.15	5.0	11.5	8.0	17.17	60.47	11.70	24	7.15	976.80	985.95	977.53	987.44	981.55	991.50	Tee to 2-03
8	7	65.140	0.37	2.68	0.80	0.30	2.04	5.0	11.3	8.1	16.39	60.43	6.60	24	7.14	985.95	990.60	987.44	992.06	991.50	995.57	2-04 to Tee
9	8	179.080	0.36	2.31	0.80	0.29	1.74	5.0	10.6	8.2	14.27	60.70	6.56	24	7.20	990.80	1003.70	992.06	1005.06	995.57	1008.58	2-05 to 2-04
10	9	168.080	0.15	1.95	0.90	0.14	1.45	5.0	9.9	8.4	12.15	59.42	6.16	24	6.90	1003.90	1015.50	1005.06	1016.75	1008.58	1020.27	2-06 to 2-05
11	10	131.880	0.31	1.80	0.90	0.28	1.32	5.0	9.3	8.5	11.22	49.04	6.20	24	4.70	1015.70	1021.90	1016.75	1023.10	1020.27	1027.23	2-07 to 2-06
12	11	283.000	0.22	1.49	0.90	0.20	1.04	5.0	8.4	8.8	9.09	10.63	6.46	18	1.02	1022.60	1025.50	1023.67	1026.67	1027.23	1035.33	2-08 to 2-07
13	12	203.000	0.20	0.51	0.90	0.18	0.46	5.0	7.1	9.2	4.20	17.90	6.38	18	2.91	1030.00	1035.90	1030.50	1036.69	1035.33	1040.05	2-09 to 2-08
14	13	193.000	0.31	0.31	0.90	0.28	0.28	5.0	5.0	9.8	2.74	13.63	4.10	18	1.68	1036.10	1039.35	1036.69	1039.98	1040.05	1043.46	2-10 to 2-09
15	12	32.870	0.76	0.76	0.50	0.38	0.38	5.0	5.0	9.8	3.74	10.52	3.71	18	1.00	1025.70	1026.03	1026.67	1026.77	1035.33	1027.80	2A-01 to 2-08
16	4	9.570	0.10	0.53	0.80	0.08	0.42	5.0	7.2	9.1	3.87	13.20	7.02	15	4.18	966.20	966.60	966.66	967.39	969.55	970.13	2C-01 to 2-01
17	16	85.860	0.14	0.43	0.80	0.11	0.34	5.0	6.7	9.3	3.19	16.37	4.96	15	6.43	966.80	972.32	967.39	973.04	970.13	975.62	2C-02 to 2C-01
18	17	67.820	0.10	0.29	0.80	0.08	0.23	5.0	6.1	9.5	2.20	15.80	4.61	15	5.99	972.58	976.64	973.04	977.23	975.62	980.18	2C-03 to 2C-02
19	18	77.130	0.19	0.19	0.80	0.15	0.15	5.0	5.0	9.8	1.49	18.10	4.70	15	7.86	976.91	982.97	977.23	983.45	980.18	986.17	2C-04 to 2C-03
20	7	14.350	0.22	0.22	0.50	0.11	0.11	5.0	5.0	9.8	1.08	21.53	1.63	24	0.91	985.95	986.08	987.44	986.44	991.50	991.50	2B-01 to Tee
21	End	42.000	0.08	0.08	0.50	0.04	0.04	5.0	5.0	9.8	0.39	8.34	2.91	15	1.67	1041.66	1042.36	1041.85	1042.60	0.00	1045.20	4-02
22	End	60.750	2.59	2.59	0.50	1.30	1.30	5.0	5.0	9.8	12.73	62.84	10.83	24	7.72	1007.34	1012.03	1007.95	1013.31	0.00	1014.20	5-02
23	End	26.950	0.51	0.51	0.50	0.26	0.26	5.0	5.0	9.8	2.51	32.49	7.35	18	9.57	1000.71	1003.29	1000.99	1003.89	0.00	1005.70	6-02
24	End	43.850	0.24	0.24	0.50	0.12	0.12	5.0	5.0	9.8	1.18	29.96	5.64	18	8.14	986.12	989.69	986.32	990.10	0.00	992.20	7-02
25	End	41.580	0.17	0.17	0.50	0.09	0.09	5.0	5.0	9.8	0.84	33.85	5.43	18	10.39	984.76	989.08	984.92	989.42	0.00	991.10	8-02
26	End	46.020	4.70	4.70	0.60	2.82	2.82	10.0	10.0	8.4	23.57	20.65	13.34	18	3.87	950.56	952.34	952.06	954.38	0.00	955.00	10-02

Project File: 15065 - 32ND ST - STORM LINE 2.stm | Number of lines: 26 | Run Date: 2/25/2021

NOTES:Intensity = 127.16 / (Inlet time + 17.80) ^ 0.82; Return period =Yrs. 100 ; c = cir e = ellip b = box

Storm Sewers v2021.00

Inlet Report

Line No	Inlet ID	Q = CIA (cfs)	Q carry (cfs)	Q capt (cfs)	Q Byp (cfs)	Junc Type	Curb Inlet Ht (in)	Curb Inlet L (ft)	Grate Inlet Area (sqft)	Grate Inlet L (ft)	Grate Inlet W (ft)	Gutter So (ft/ft)	Gutter W (ft)	Gutter Sw (ft/ft)	Gutter Sx (ft/ft)	Gutter n	Gutter Depth (ft)	Gutter Spread (ft)	Inlet Depth (ft)	Inlet Spread (ft)	Inlet Depr (in)	Byp Line No
1	BOX CULVERT	0.09	4.18	0.00	4.27	MH	0.0	0.00	0.00	0.00	0.00	Sag	2.00	0.050	0.020	0.013	0.00	0.00	0.00	0.00	0.0	Off
2	BOX CULVERT	0.09	0.00	0.00	0.09	MH	0.0	0.00	0.00	0.00	0.00	Sag	2.00	0.050	0.020	0.013	0.00	0.00	0.00	0.00	0.0	1
3	1-02	581.40	0.00	581.40	0.00	Hdwl	0.0	0.00	0.00	0.00	0.00	Sag	2.00	0.050	0.020	0.013	0.00	0.00	0.00	0.00	0.0	2
4	2-01	0.09	4.00	0.00	4.09	MH	0.0	0.00	0.00	0.00	0.00	Sag	2.00	0.050	0.020	0.013	0.00	0.00	0.00	0.00	0.0	1
5	2-02	2.21	3.57	2.20	3.59	Curb	6.0	6.30	0.00	0.00	0.00	0.030	2.00	0.050	0.021	0.013	0.26	9.70	0.39	7.94	2.0	4
6	2-03	1.26	4.25	1.94	3.57	Curb	6.0	6.30	0.00	0.00	0.00	0.050	2.00	0.050	0.021	0.013	0.24	8.55	0.37	7.10	2.0	5
7	24X24X24 TEE	0.00	4.25	0.00	4.25	MH	0.0	0.00	0.00	0.00	0.00	Sag	2.00	0.050	0.021	0.013	0.00	0.00	0.00	0.00	0.0	6
8	2-04	2.91	3.25	1.91	4.25	Curb	6.0	6.30	0.00	0.00	0.00	0.070	2.00	0.050	0.021	0.013	0.23	8.35	0.37	7.11	2.0	7
9	2-05	2.83	2.13	1.72	3.25	Curb	6.0	6.30	0.00	0.00	0.00	0.070	2.00	0.050	0.021	0.013	0.22	7.61	0.36	6.30	2.0	8
10	2-06	1.33	2.28	1.47	2.13	Curb	6.0	6.30	0.00	0.00	0.00	0.070	2.00	0.050	0.021	0.013	0.20	6.61	0.33	5.16	2.0	9
11	2-07	2.74	1.17	1.64	2.28	Curb	6.0	6.30	0.00	0.00	0.00	0.050	2.00	0.050	0.021	0.013	0.21	7.39	0.35	5.78	2.0	10
12	2-08	1.95	1.20	1.97	1.17	Curb	6.0	6.30	0.00	0.00	0.00	0.010	2.00	0.050	0.021	0.013	0.26	9.47	0.35	6.17	2.0	11
13	2-09	1.77	0.91	1.49	1.20	Curb	6.0	6.30	0.00	0.00	0.00	0.030	2.00	0.050	0.021	0.013	0.21	7.00	0.32	4.77	2.0	12
14	2-10	2.74	0.00	1.83	0.91	Curb	6.0	6.30	0.00	0.00	0.00	0.010	2.00	0.050	0.021	0.013	0.25	8.95	0.34	5.49	2.0	13
15	2A-01	3.74	0.00	3.74	0.00	Hdwl	0.0	0.00	0.00	0.00	0.00	Sag	2.00	0.050	0.020	0.013	0.00	0.00	0.00	0.00	0.0	12
16	2C-01	0.79	0.60	0.97	0.42	Curb	6.0	6.30	0.00	0.00	0.00	0.040	2.00	0.050	0.021	0.013	0.16	4.78	0.27	2.21	2.0	4
17	2C-02	1.10	0.47	0.97	0.60	Curb	6.0	6.30	0.00	0.00	0.00	0.060	2.00	0.050	0.021	0.013	0.15	4.60	0.28	2.52	2.0	16
18	2C-03	0.79	0.58	0.89	0.47	Curb	6.0	6.30	0.00	0.00	0.00	0.060	2.00	0.050	0.021	0.013	0.15	4.26	0.27	2.07	2.0	17
19	2C-04	1.49	0.00	0.92	0.58	Curb	6.0	6.30	0.00	0.00	0.00	0.070	2.00	0.050	0.021	0.013	0.15	4.29	0.27	2.30	2.0	18
20	2B-01	1.08	0.00	1.08	0.00	Hdwl	0.0	0.00	0.00	0.00	0.00	Sag	2.00	0.050	0.020	0.013	0.00	0.00	0.00	0.00	0.0	7
21	4-02	0.39	0.00	0.39	0.00	Hdwl	0.0	0.00	0.00	0.00	0.00	Sag	2.00	0.050	0.020	0.013	0.00	0.00	0.00	0.00	0.0	Off
22	5-02	12.73	0.00	12.73	0.00	Hdwl	0.0	0.00	0.00	0.00	0.00	Sag	2.00	0.050	0.020	0.013	0.00	0.00	0.00	0.00	0.0	Off
23	6-02	2.51	0.00	2.51	0.00	Hdwl	0.0	0.00	0.00	0.00	0.00	Sag	2.00	0.050	0.020	0.013	0.00	0.00	0.00	0.00	0.0	Off
24	7-02	1.18	0.00	1.18	0.00	Hdwl	0.0	0.00	0.00	0.00	0.00	Sag	2.00	0.050	0.020	0.013	0.00	0.00	0.00	0.00	0.0	Off
25	8-02	0.84	0.00	0.84	0.00	Hdwl	0.0	0.00	0.00	0.00	0.00	Sag	2.00	0.050	0.020	0.013	0.00	0.00	0.00	0.00	0.0	Off
26	10-02	23.57	0.00	23.57	0.00	Hdwl	0.0	0.00	0.00	0.00	0.00	Sag	2.00	0.050	0.020	0.013	0.00	0.00	0.00	0.00	0.0	Off

Project File: 15065 - 32ND ST - STORM LINE 2.stm | Number of lines: 26 | Run Date: 2/25/2021

NOTES: Inlet N-Values = 0.016; Intensity = 127.16 / (Inlet time + 17.80) ^ 0.82; Return period = 100 Yrs. ; * Indicates Known Q added.All curb inlets are throat.

Storm Sewers v2021.00

Storm Sewer Tabulation

Station Line	To Line	Len (ft)	Drng Area Incr (ac)	Drng Area Total (ac)	Rnoff coeff (C)	Area x C Incr	Area x C Total	Tc Inlet (min)	Tc Syst (min)	Rain (I) (in/hr)	Total flow (cfs)	Cap full (cfs)	Vel (ft/s)	Pipe Size (in)	Pipe Slope (%)	Invert Elev Dn (ft)	Invert Elev Up (ft)	HGL Elev Dn (ft)	HGL Elev Up (ft)	Grnd / Rim Elev Dn (ft)	Grnd / Rim Elev Up (ft)	Line ID
1	End	62.390	0.01	333.5	0.90	0.01	166.7	5.0	60.1	3.6	599.8	2367.2	17.94	48 x 216 b	3.65	956.17	958.45	957.47	961.70	961.20	966.40	Box Culvert
2	1	11.030	0.01	333.5	0.90	0.01	166.7	5.0	60.0	3.6	600.0	2358.0	10.58	48 x 216 b	3.63	958.65	959.05	961.70	962.30	966.40	966.70	Box Culvert
3	2	20.580	323.00	323.0	0.50	161.50	161.5	60.0	60.0	3.6	581.4	2182.1	10.36	48 x 216 b	3.64	959.25	960.00	962.30	963.19	966.70	965.50	Box Culvert
4	2	40.880	0.59	10.46	0.90	0.53	5.22	5.0	8.0	8.9	46.40	44.50	9.45	30	1.00	959.62	960.03	962.30	962.75	966.70	965.69	3-01 to Box
5	4	188.200	0.18	9.87	0.90	0.16	4.69	5.0	7.6	9.0	42.21	44.41	8.60	30	1.00	960.43	962.31	963.44	965.14	965.69	968.79	3-03 to 3-02
6	5	143.000	0.16	9.69	0.90	0.14	4.53	5.0	7.3	9.1	41.15	91.70	8.77	30	5.00	962.51	969.66	965.72	971.81	968.79	975.21	3-04 to 3-03
7	6	143.000	0.19	9.53	0.90	0.17	4.38	5.0	7.0	9.2	40.24	100.5	9.40	30	6.00	969.86	978.44	971.81	980.57	975.21	984.12	3-05 to 3-04
8	7	193.000	0.21	9.34	0.90	0.19	4.21	5.0	6.7	9.3	39.01	55.40	15.80	24	6.00	979.50	991.08	980.74	993.03	984.12	996.12	3-06 to 3-05
9	8	188.980	0.30	9.13	0.90	0.27	4.02	5.0	6.5	9.3	37.59	46.88	12.50	24	4.30	991.28	999.40	993.03	1001.34	996.12	1007.30	3-07 to 3-06
10	9	132.990	0.01	2.03	0.90	0.01	1.03	5.0	5.8	9.6	9.89	63.25	4.63	24	7.82	999.80	1010.20	1001.34	1011.32	1007.30	1015.00	3-09 to 3-08
11	10	110.070	0.54	0.54	0.80	0.43	0.43	5.0	5.0	9.8	4.25	26.29	7.43	18	6.27	1010.90	1017.80	1011.32	1018.59	1015.00	1021.96	3-10 to 3-09
12	10	12.630	1.48	1.48	0.40	0.59	0.59	5.0	5.0	9.8	5.82	14.77	6.46	18	1.98	1010.90	1011.15	1011.55	1012.08	1015.00	1015.00	3A-01 to 3-09
13	9	63.120	6.80	6.80	0.40	2.72	2.72	5.0	5.0	9.8	26.75	12.95	15.14	18	1.52	999.60	1000.56	1001.34	1005.44	1007.30	1005.00	3B-01 to 3-07
14	End	34.680	6.02	6.02	0.40	2.41	2.41	10.0	10.0	8.4	20.13	13.10	11.39	18	1.56	965.41	965.95	966.91	968.19	0.00	969.00	9-02

Project File: 15065 - 32ND ST - STORM LINE 3.stm | Number of lines: 14 | Run Date: 2/25/2021

NOTES:Intensity = 127.16 / (Inlet time + 17.80) ^ 0.82; Return period =Yrs. 100 ; c = cir e = ellip b = box

Storm Sewers v2021.00

Inlet Report

Line No	Inlet ID	Q = CIA (cfs)	Q carry (cfs)	Q capt (cfs)	Q Byp (cfs)	Junc Type	Curb Inlet Ht (in)	Curb Inlet L (ft)	Grate Inlet Area (sqft)	Grate Inlet L (ft)	Grate Inlet W (ft)	Gutter So (ft/ft)	Gutter W (ft)	Gutter Sw (ft/ft)	Gutter Sx (ft/ft)	Gutter n	Gutter Depth (ft)	Gutter Spread (ft)	Inlet Depth (ft)	Inlet Spread (ft)	Inlet Depr (in)	Byp Line No
1	BOX CULVERT	0.09	2.01	0.00	2.10	MH	0.0	0.00	0.00	0.00	0.00	Sag	2.00	0.050	0.020	0.013	0.00	0.00	0.00	0.00	0.0	Off
2	BOX CULVERT	0.09	1.92	0.00	2.01	MH	0.0	0.00	0.00	0.00	0.00	Sag	2.00	0.050	0.020	0.013	0.00	0.00	0.00	0.00	0.0	1
3	1-02	581.40	0.00	581.40	0.00	Hdwl	0.0	0.00	0.00	0.00	0.00	Sag	2.00	0.050	0.020	0.013	0.00	0.00	0.00	0.00	0.0	2
4	3-01,02	5.22	2.06	5.35	1.92	Curb	6.0	12.60	0.00	0.00	0.00	0.010	2.00	0.050	0.021	0.013	0.34	13.27	0.39	7.70	2.0	2
5	3-03	1.59	2.04	1.58	2.06	Curb	6.0	6.30	0.00	0.00	0.00	0.050	2.00	0.050	0.021	0.013	0.21	7.15	0.34	5.50	2.0	4
6	3-04	1.42	2.20	1.57	2.04	Curb	6.0	6.30	0.00	0.00	0.00	0.050	2.00	0.050	0.021	0.013	0.21	7.13	0.34	5.48	2.0	5
7	3-05	1.68	2.13	1.62	2.20	Curb	6.0	6.30	0.00	0.00	0.00	0.050	2.00	0.050	0.021	0.013	0.21	7.30	0.34	5.68	2.0	6
8	3-06	1.86	1.87	1.60	2.13	Curb	6.0	6.30	0.00	0.00	0.00	0.050	2.00	0.050	0.021	0.013	0.21	7.23	0.34	5.60	2.0	7
9	3-07,08	2.65	2.63	3.41	1.87	Curb	6.0	6.30	0.00	0.00	0.00	0.050	2.00	0.050	0.021	0.013	0.23	8.40	0.34	5.26	2.0	8
10	3-09	0.09	2.54	0.00	2.63	MH	0.0	0.00	0.00	0.00	0.00	Sag	2.00	0.050	0.021	0.013	0.00	0.00	0.00	0.00	0.0	9
11	3-10	4.25	0.00	1.71	2.54	Curb	6.0	6.30	0.00	0.00	0.00	0.050	2.00	0.050	0.021	0.013	0.22	7.65	0.35	6.09	2.0	10
12	3A-01	5.82	0.00	5.82	0.00	Hdwl	0.0	0.00	0.00	0.00	0.00	Sag	2.00	0.050	0.020	0.013	0.00	0.00	0.00	0.00	0.0	10
13	3B-01	26.75	0.00	26.75	0.00	Hdwl	0.0	0.00	0.00	0.00	0.00	Sag	2.00	0.050	0.020	0.013	0.00	0.00	0.00	0.00	0.0	9
14	9-02	20.13	0.00	20.13	0.00	Hdwl	0.0	0.00	0.00	0.00	0.00	Sag	2.00	0.050	0.020	0.013	0.00	0.00	0.00	0.00	0.0	Off

Project File: 15065 - 32ND ST - STORM LINE 3.stm | Number of lines: 14 | Run Date: 2/25/2021

NOTES: Inlet N-Values = 0.016; Intensity = 127.16 / (Inlet time + 17.80) ^ 0.82; Return period = 100 Yrs. ; * Indicates Known Q added.All curb inlets are throat.

Storm Sewers v2021.00

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Tel: 417.889.3400 Fax: 417.889.3402 www.GoCJW.com

STATE OF MISSOURI
DANC MITCHELL SEILER
NUMBER PE-2010019595
PROFESSIONAL ENGINEER

REVISIONS

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

100 YEAR DRAINAGE CALCULATIONS

32ND STREET WIDENING
CITY OF JOPLIN

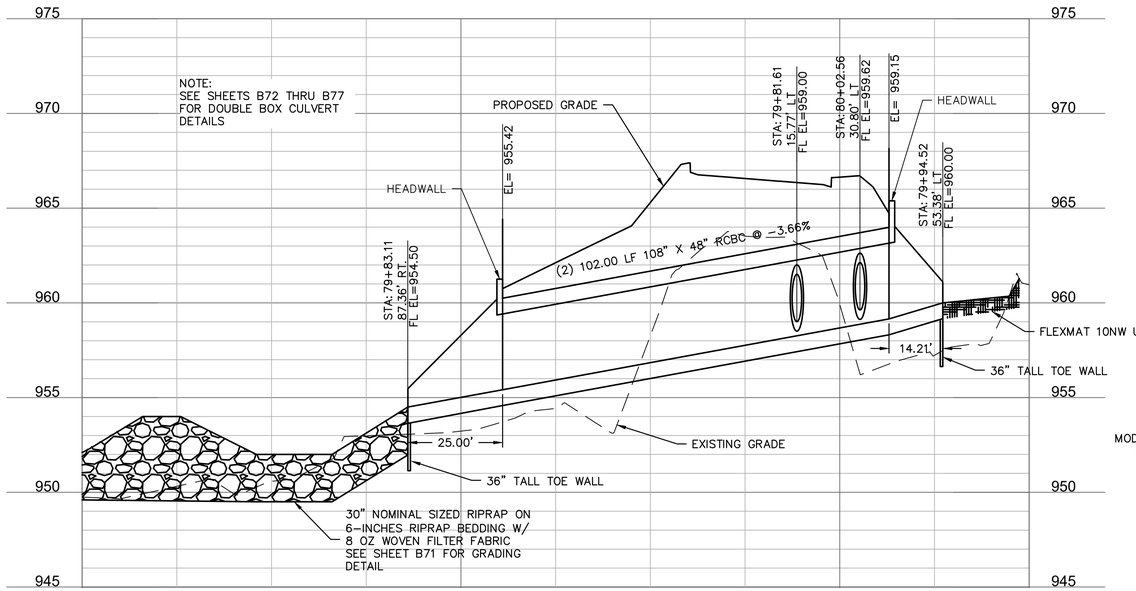
JOPLIN, MISSOURI

2021

drawn by: AJT
checked by: JCR
approved by: DMS
QA/QC by: OLSSON
project no.: 015-2768
drawing no.:
date: 04/23/2021

SHEET
B60 of B150

STORM LINE - 1



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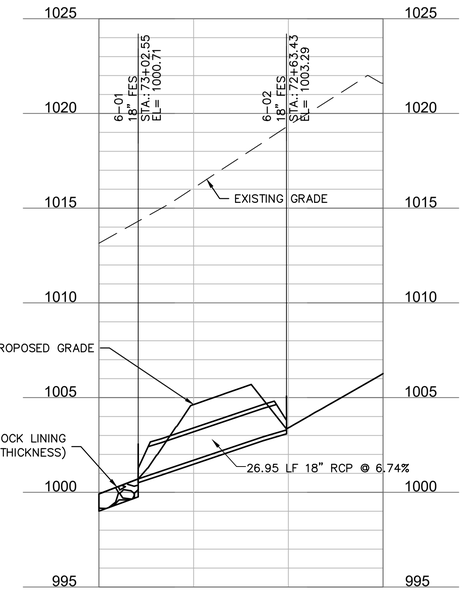

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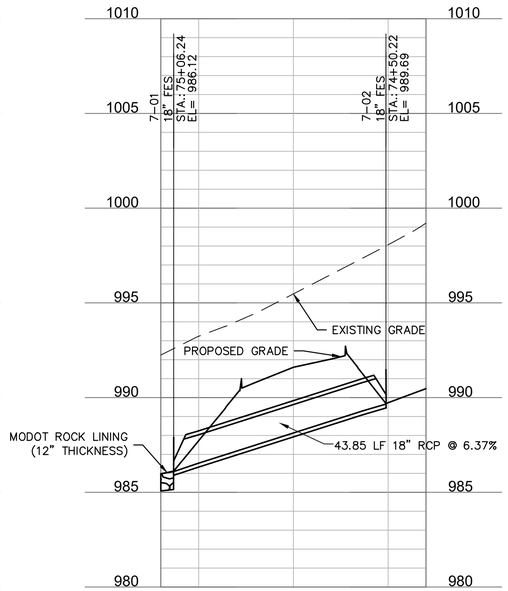

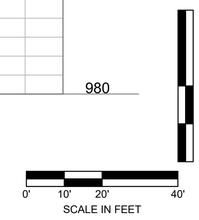

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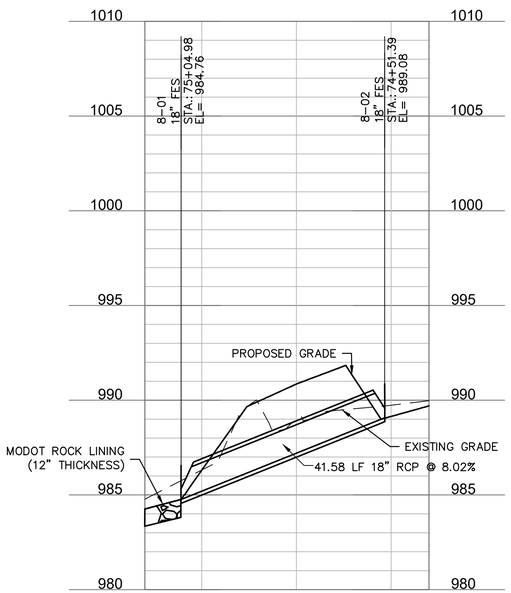

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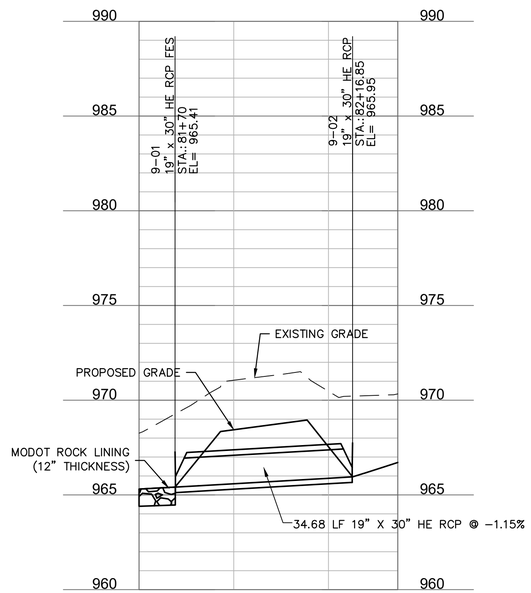

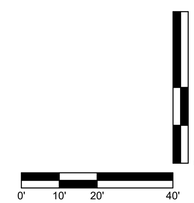

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STORM PLAN & PROFILE

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

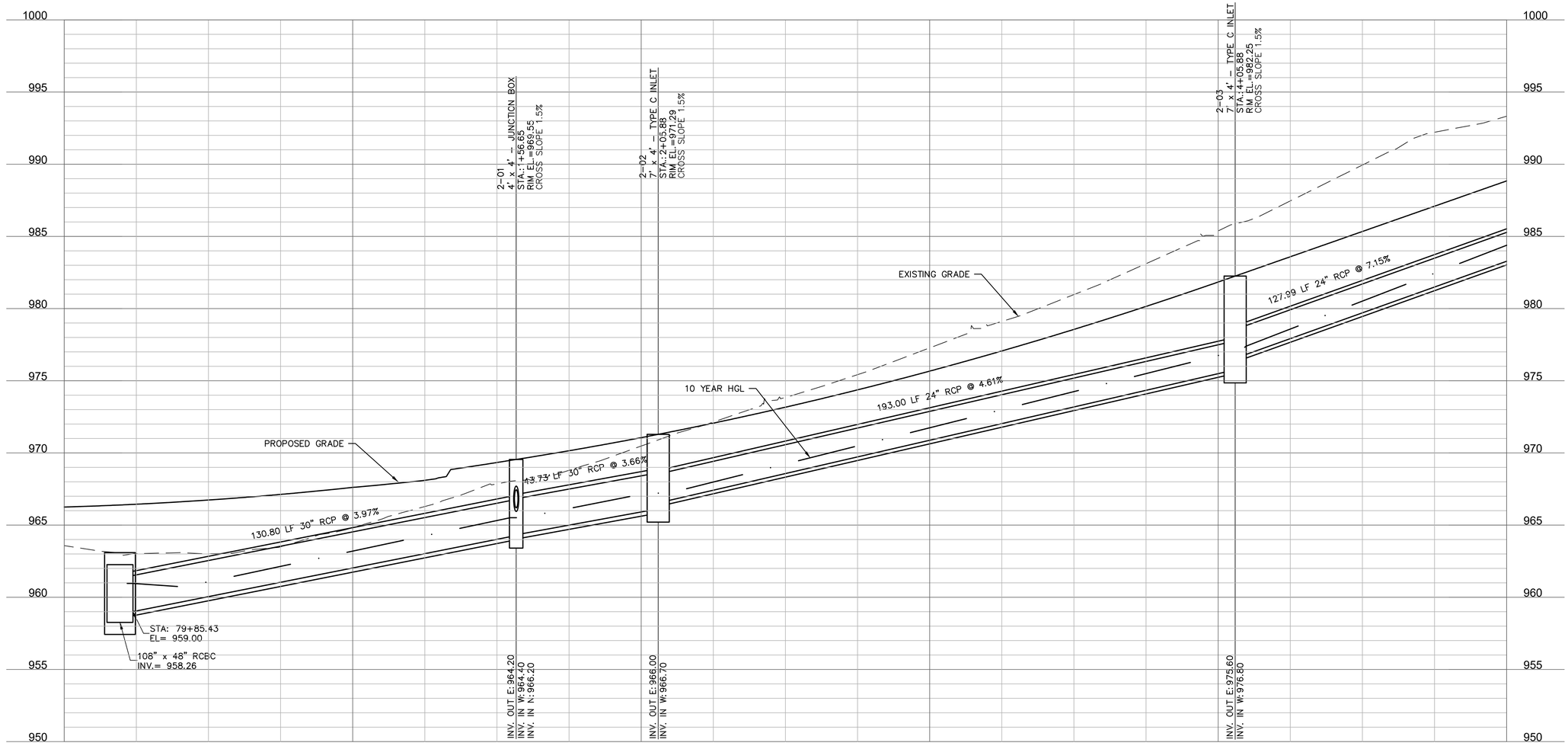
2021

drawn by:	AJT
checked by:	JCR
approved by:	DMS
QA/QC by:	OLSSON
project no.:	015-2768
drawing no.:	
date:	04/23/2021

SHEET
B61 of B150

DWG: G:\15065 - 32nd Street Roadway\015-2768 32nd Street Widening\40-Design\AutoCAD\Final Plans\Sheets\CJW\B61 STORM PLAN & PROFILE.dwg USER: Aaron
DATE: Apr 21, 2021 8:14am XREFS: cjw_t_pbase_015-2768 - 3 lane cjw_t_ctblk_015-2768 (2019) OA_ACAD-T_XBASE_52768
V_XBOU_52768

STORM LINE - 2



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SCALE IN FEET

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4'
2'
0'

DWG: G:\15065 - 32nd Street Roadway\015-2768 32nd Street Widening\40-Design\AutoCAD\Final Plans\Sheets\CJW\B62 STORM PLAN & PROFILE.dwg USER: Aaron
DATE: Apr 21, 2021 8:14am XREFS: cjw_t_pbase_015-2768 - 3 lane V_XBOU_52768 cjw_t_ctblk_015-2768 (2019) OA_ACAD-T_XBASE_52768

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STATE OF MISSOURI
DANE MITCHELL SEILER
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		REVISIONS	

STORM PLAN & PROFILE

32ND STREET WIDENING
CITY OF JOPLIN

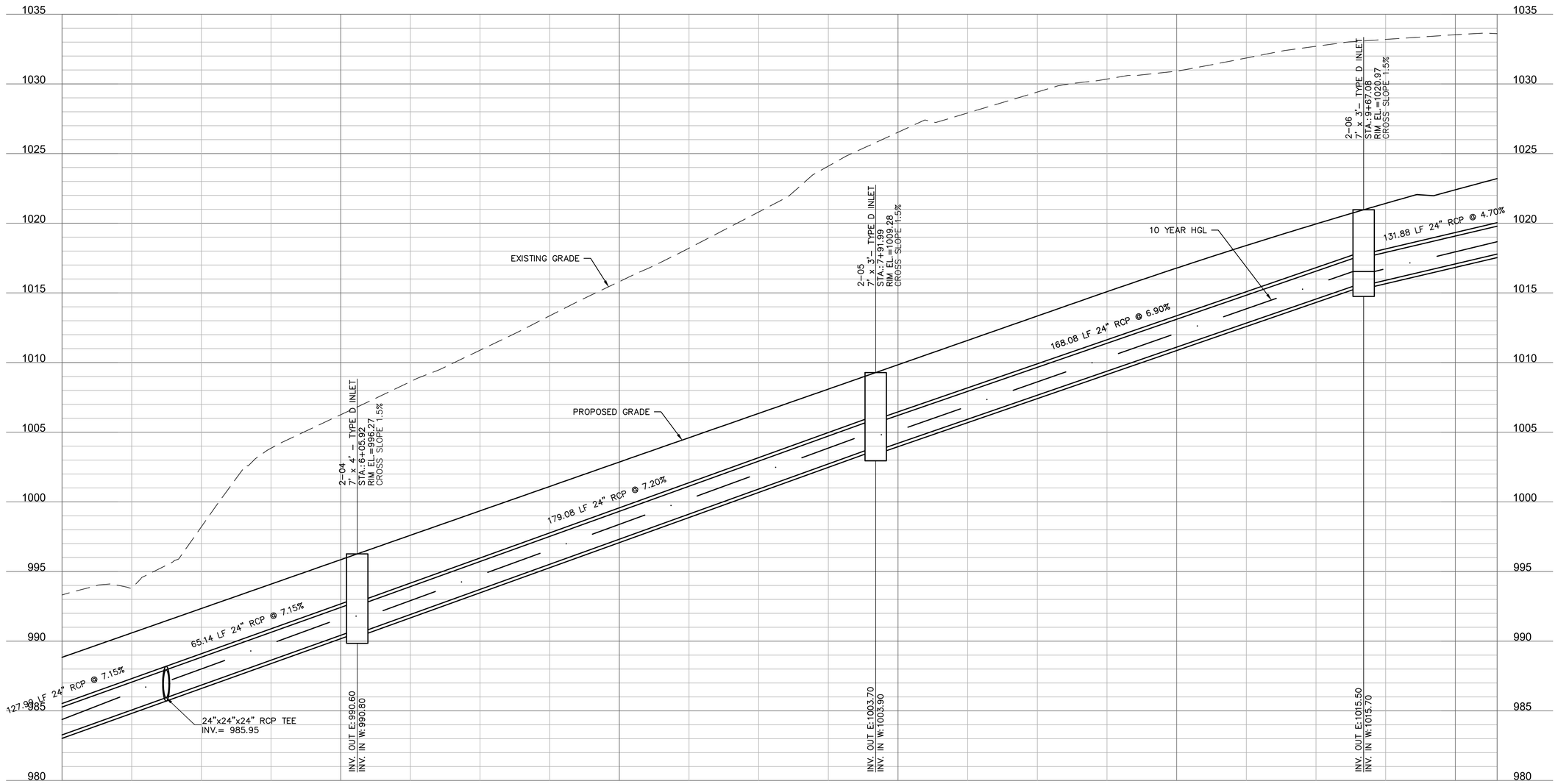
JOPLIN, MISSOURI

2021

drawn by: AJT
checked by: JCR
approved by: DMS
QA/QC by: OLSSON
project no.: 015-2768
drawing no.:
date: 04/23/2021

SHEET
B62 of B150

STORM LINE - 2



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32ND STREET WIDENING
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JOPLIN, MISSOURI

2021

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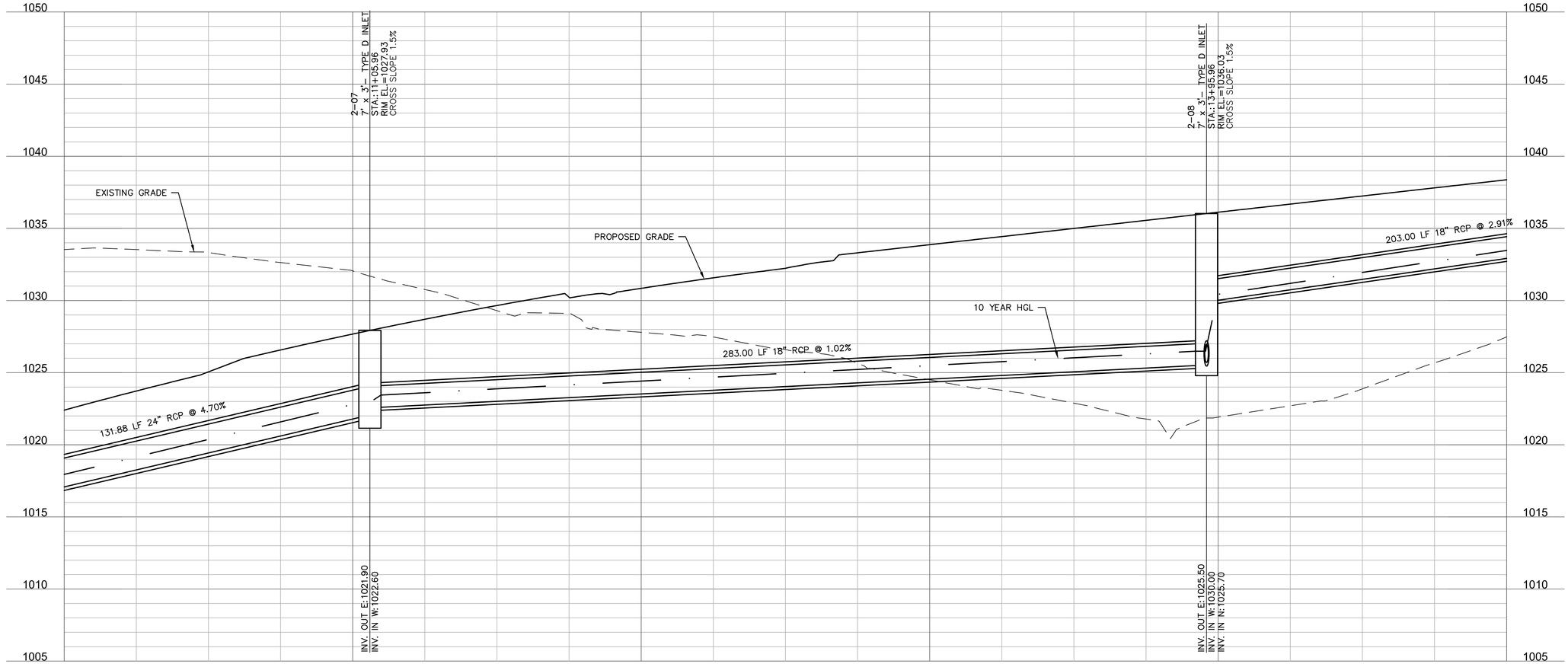
SHEET
B63 of B150

DWG: G:\15065 - 32nd Street Roadway\015-2768 32nd Street Widening\40-Design\AutoCAD\Final Plans\Sheets\CJW\B63 STORM PLAN & PROFILE.dwg USER: Aaron
DATE: Apr 21, 2021 8:14am XREFS: cjw_t_pbase_015-2768 - 3 lane cjw_t_ctblk_015-2768
V_XBOU_52768 V_XBASE_52768

STORM LINE - 2



SCALE IN FEET: 0' 10' 20' 40' | 0' 2' 4' 8'

DWG: G:\15065 - 32nd Street Roadway\015-2768 32nd Street Widening\40-Design\AutoCAD\Final Plans\Sheets\CJW\B64 STORM PLAN & PROFILE.dwg USER: Aaron
DATE: Apr 21, 2021 8:15am XREFS: cjw_t_pbase_015-2768 - 3 lane V_XBOU_52768 cjw_t_ctblk_015-2768 (2019) OA_ACAD-T_XBASE_52768

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STORM PLAN & PROFILE

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

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checked by: JCR
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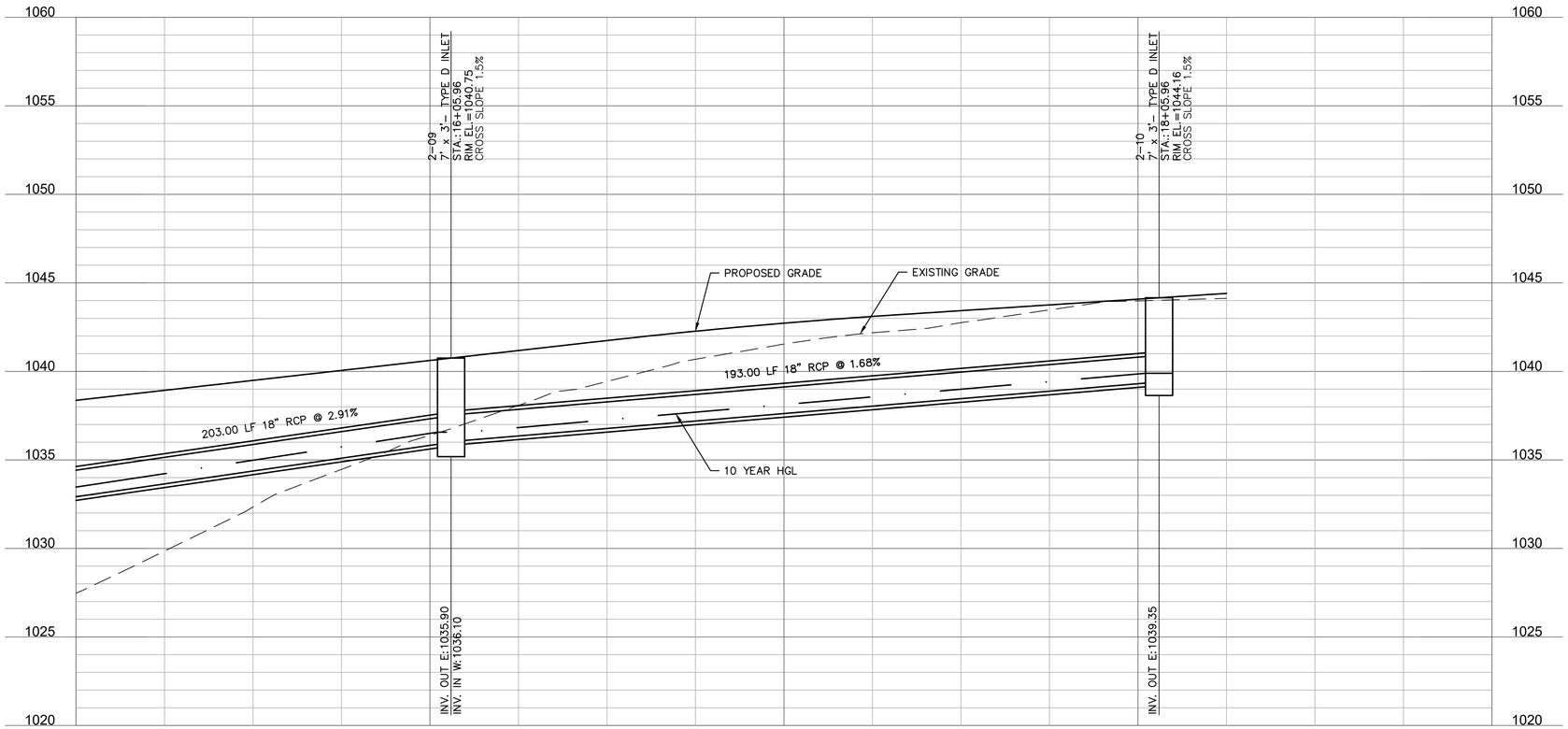
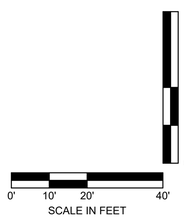
date: 04/23/2021

SHEET
B64 of B150

DWG: G:\15065 - 32nd Street Roadway\015-2768 32nd Street Widening\40-Design\AutoCAD\Final Plans\Sheets\CJW\B65 STORM PLAN & PROFILE.dwg USER: Aaron
DATE: Apr 21, 2021 8:15am XREFS: cjw_t_pbase_015-2768 - 3 lane V_XBOU_52768 cjw_t_ctblk_015-2768 (2019) OA_ACAD-T_XBASE_52768

STORM LINE - 2





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32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

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checked by: JCR
approved by: DMS
QA/QC by: OLSSON
project no.: 015-2768
drawing no.:
date: 04/23/2021

SHEET
B65 of B150

DWG: G:\15065 - 32nd Street Roadway\015-2768 32nd Street Widening\40-Design\AutoCAD\Final Plans\Sheets\cjw\B66 STORM PLAN & PROFILE.dwg USER: Aaron
DATE: Apr 21, 2021 8:15am XREFS: cjw_t_pbase_015-2768 - 3 lane V_XBOU_52768 cjw_t_ctblk_015-2768 (2019) OA_ACAD-T_XBASE_52768

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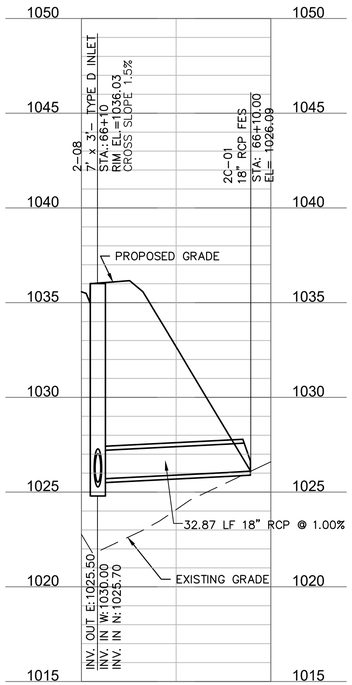
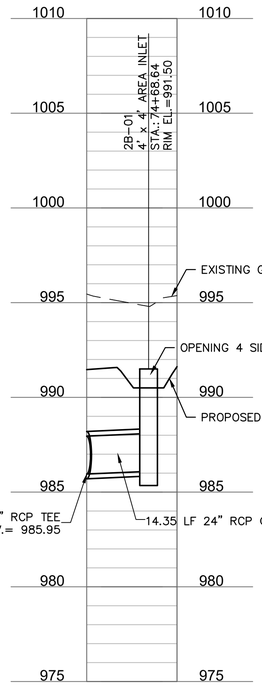


STORM LINE 2B



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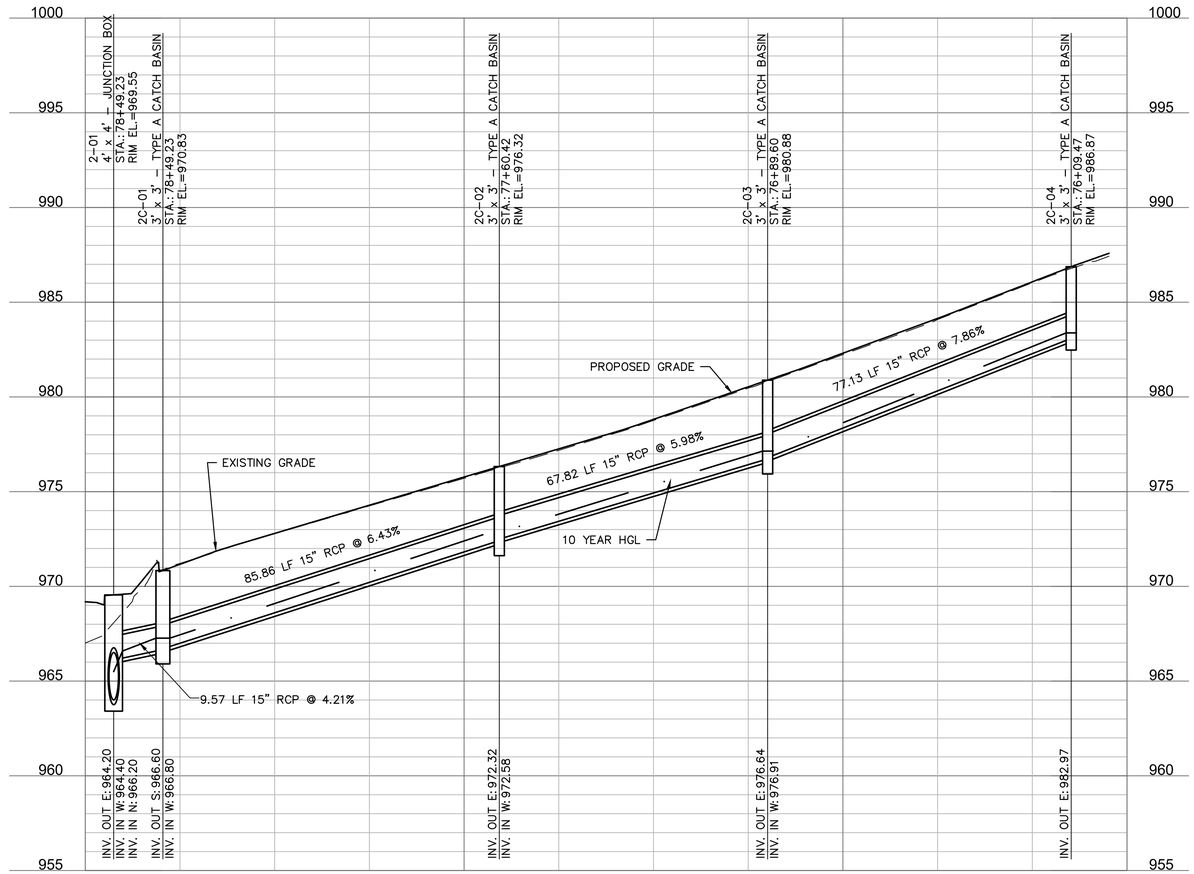

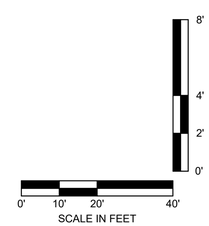

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CJW Transportation Consultants, L.L.C.
CJW Transportation Consultants, L.L.C. Engineering MO C.A. #2006012385
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STATE OF MISSOURI
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STORM PLAN & PROFILE

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

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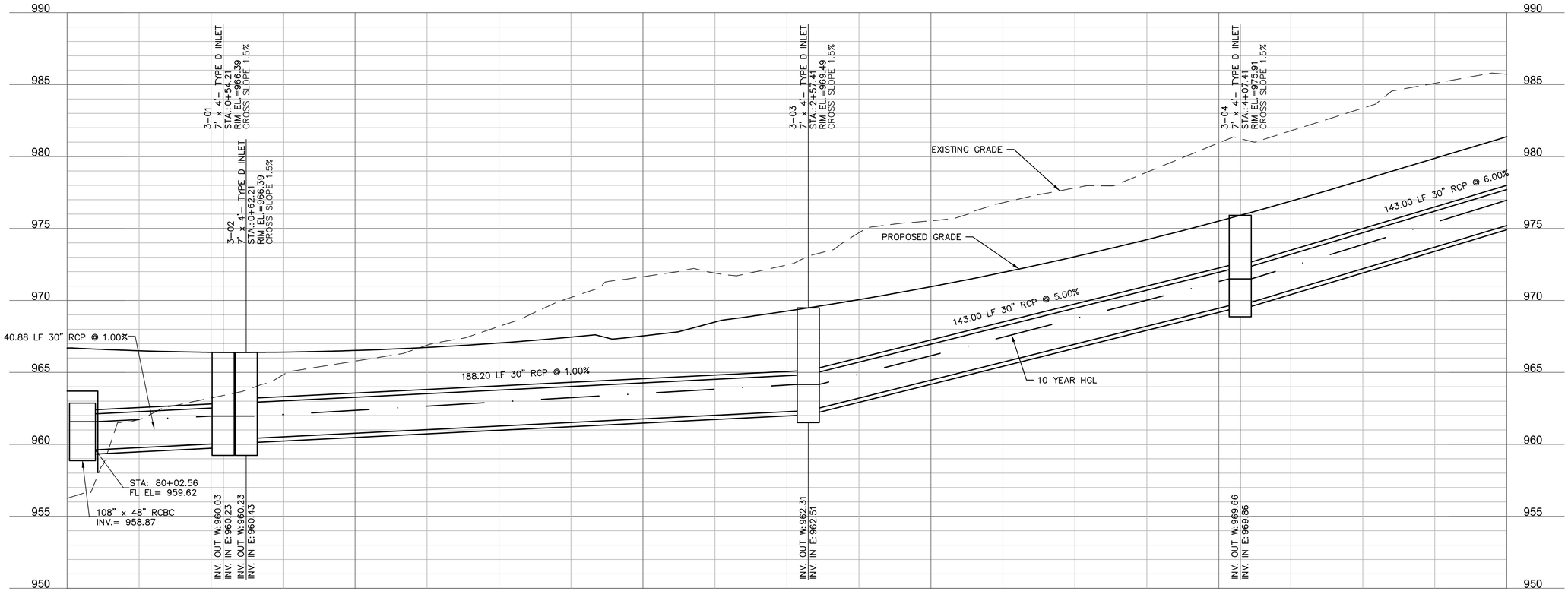
checked by: JCR
approved by: DMS
QA/QC by: OLSSON
project no.: 015-2768
drawing no.:
date: 04/23/2021

SHEET
B66 of B150

STORM LINE - 3



8'
4'
2'
0'

0' 10' 20' 40'
SCALE IN FEET

DWG: G:\15065 - 32nd Street Roadway\015-2768 32nd Street Widening\40-Design\AutoCAD\Final Plans\Sheets\CJW\B67 STORM PLAN & PROFILE.dwg USER: Aaron
DATE: Apr 21, 2021 8:16am XREFS: cjw_t_pbase_015-2768 - 3 lane V_XBOU_52768 cjw_t_ctblk_015-2768 (2019) OA_ACAD-T_XBASE_52768

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STORM PLAN & PROFILE

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

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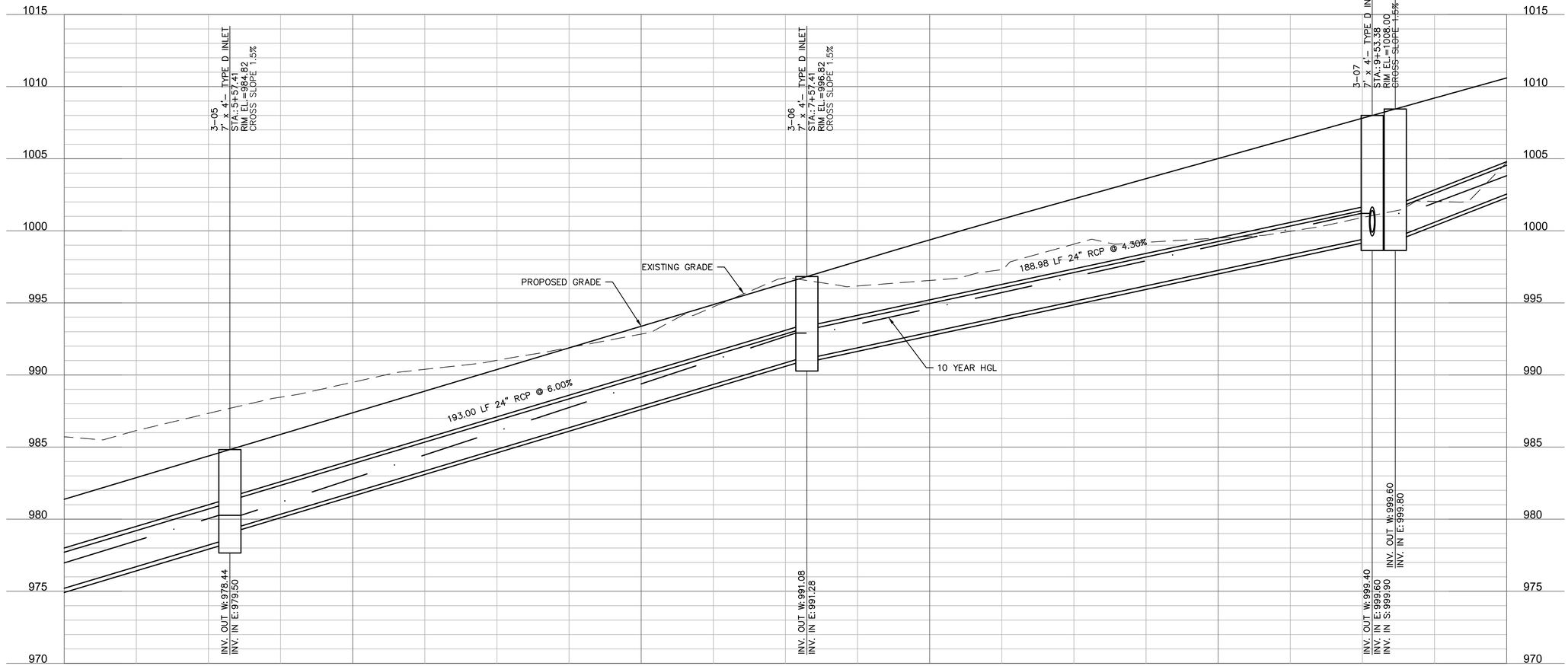
approved by: DMS
QA/QC by: OLSSON
project no.: 015-2768
drawing no.:
date: 04/23/2021

SHEET
B67 of B150

STORM LINE - 3



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SCALE IN FEET

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2'
0'

DWG: G:\15065 - 32nd Street Roadway\015-2768 32nd Street Widening\40-Design\AutoCAD\Final Plans\Sheets\CJW\B68 STORM PLAN & PROFILE.dwg USER: Aaron
DATE: Apr 21, 2021 8:16am XREFS: cjw_t_pbase_015-2768 - 3 lane cjw_t_ctblk_015-2768 (2019) OA_ACAD-T_XBASE_52768
V_XBOU_52768

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STORM PLAN & PROFILE

32ND STREET WIDENING
CITY OF JOPLIN

2021

JOPLIN, MISSOURI

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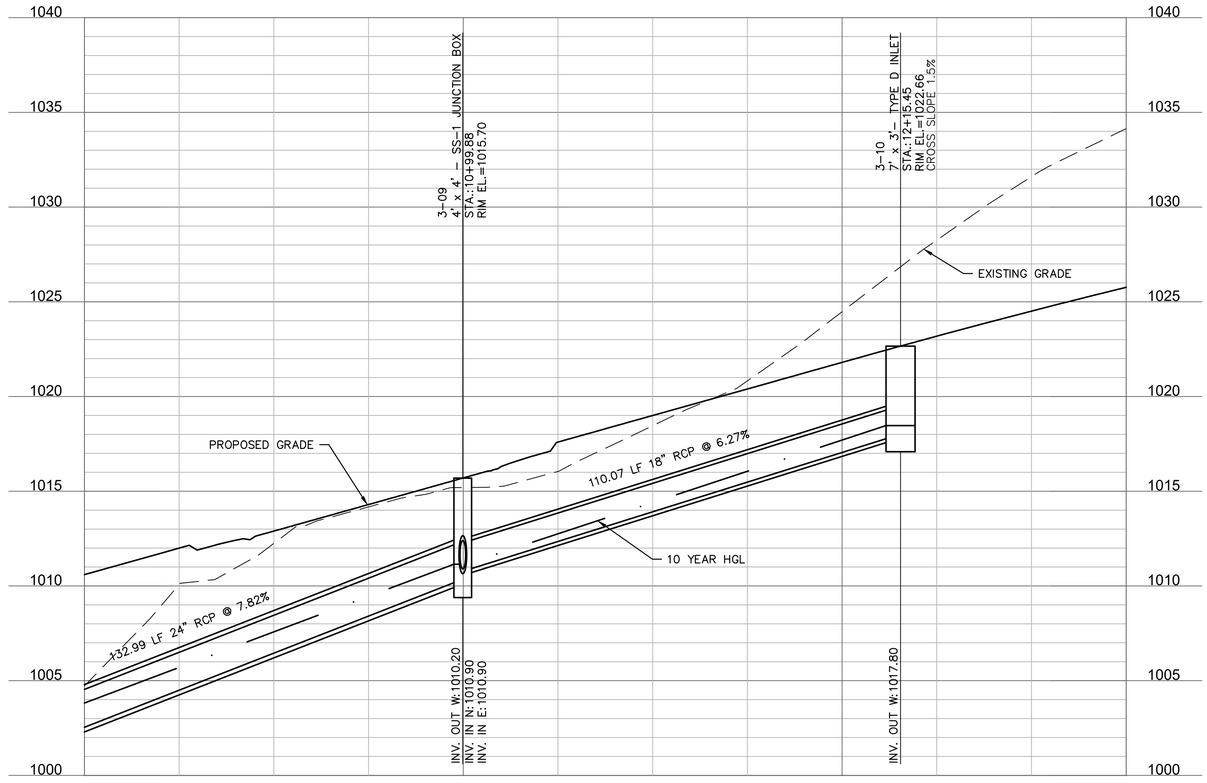
project no.: 015-2768
drawing no.:
date: 04/23/2021

SHEET
B68 of B150

STORM LINE - 3



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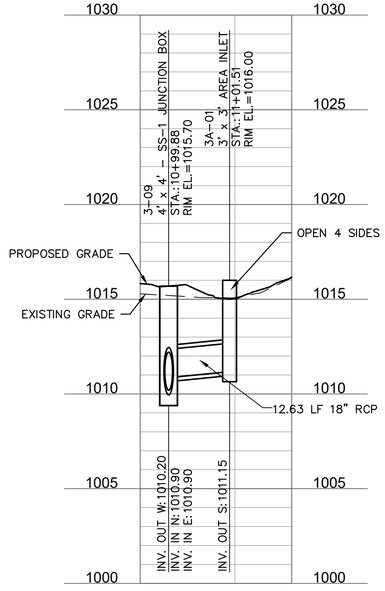
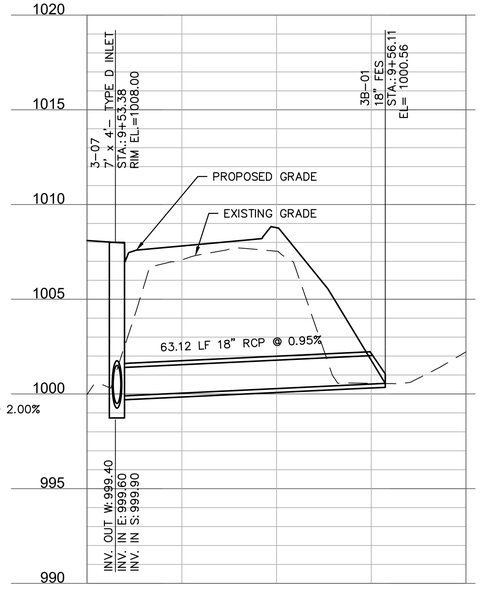


STORM LINE - 3B



8' 4' 2' 0'

0' 10' 20' 40'
SCALE IN FEET

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STORM PLAN & PROFILE

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

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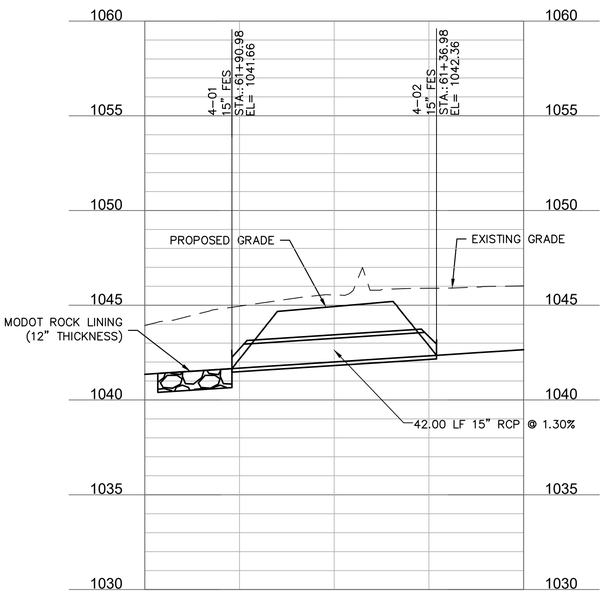
drawing no.:
date: 04/23/2021

SHEET
B69 of B150

DWG: G:\15065 - 32nd Street Roadway\015-2768 32nd Street Widening\40-Design\AutoCAD\Final Plans\Sheets\CJW\B69 STORM PLAN & PROFILE.dwg USER: Aaron
DATE: Apr 21, 2021 8:16am XREFS: cjw_t_pbase_015-2768 - 3 lane V_XBOU_52768 cjw_t_ctblk_015-2768 (2019) OA_ACAD-T_XBASE_52768

STORM LINE - 4



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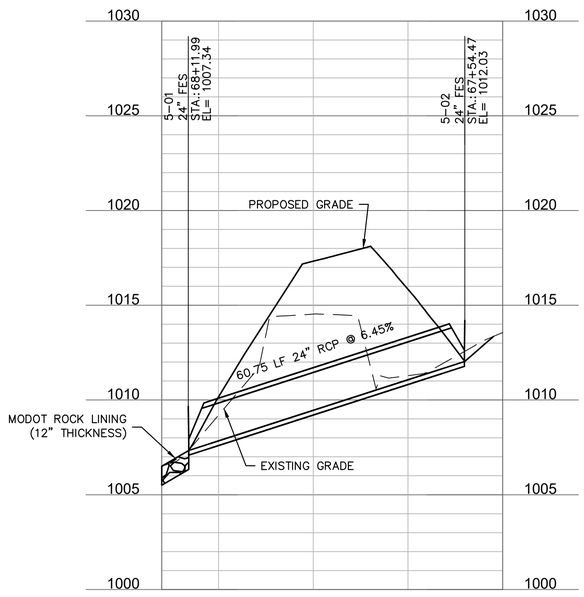

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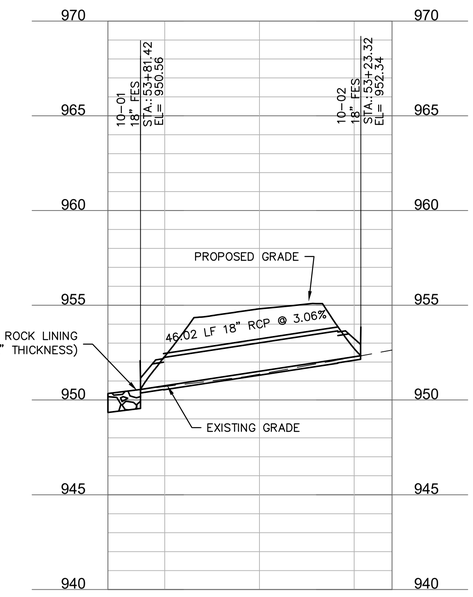

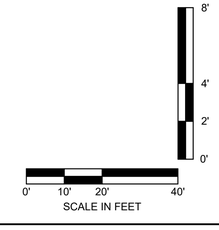

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STORM PLAN & PROFILE

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

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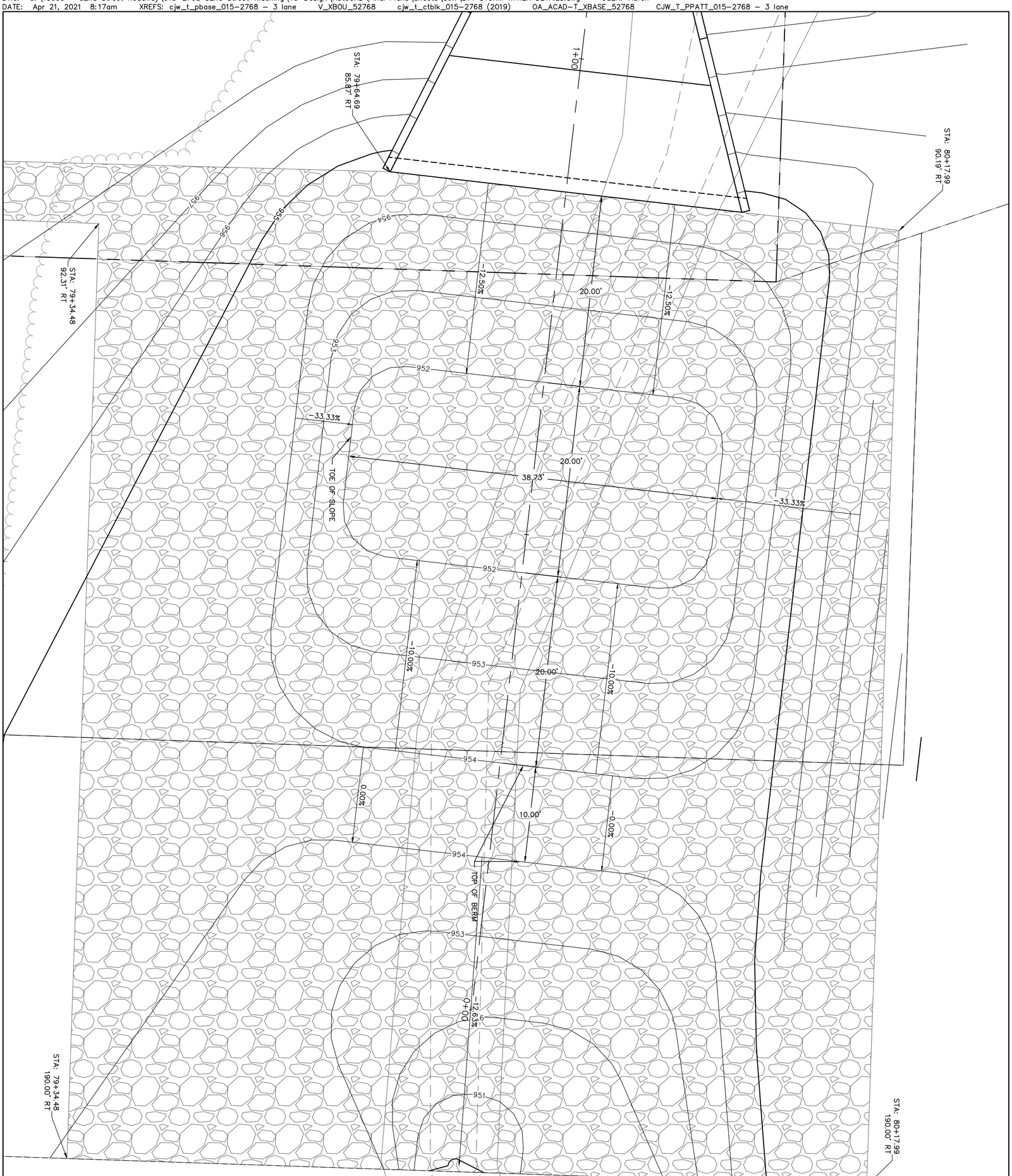
checked by: JCR
approved by: DMS
OA/QC by: OLSSON
project no.: 015-2768
drawing no.:
date: 04/23/2021

SHEET
B70 of B150

DWG: G:\15065 - 32nd Street Roadway\015-2768 32nd Street Widening\40-Design\AutoCAD\Final Plans\Sheets\CJW\B70 STORM PLAN & PROFILE.dwg USER: Aaron
DATE: Apr 21, 2021 8:17am XREFS: cjw_t_pbase_015-2768 - 3 lane V_XBOU_52768 cjw_t_ctblk_015-2768 (2019) OA_ACAD-T_XBASE_52768

DWG: G:\15065 - 32nd Street Roadway\015-2768 32nd Street Widening\40-Design\AutoCAD\Final Plans\Sheets\CJW\B71 STORM WATER DETAILS.dwg USER: Aaron
DATE: Apr 21, 2021 8:17am XREFS: cjw_t_pbase_015-2768 - 3 lane V_XBOU_52768 cjw_t_ctblk_015-2768 (2019) OA_ACAD-T_XBASE_52768 CJW_T_PPATT_015-2768 - 3 lane



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0' 2.5' 5' 10'
SCALE IN FEET

N

SHEET B71 of B150	drawn by: AJT checked by: JDR approved by: DMS QA/QC by: CJW project no.: 015-2768 drawing no.: date: 04/23/2021	STORM PLAN & PROFILE 32ND STREET WIDENING CITY OF JOPLIN JOPLIN, MISSOURI 2021	REV. NO. / DATE / REVISIONS DESCRIPTION / BY REVISIONS

STATE OF MISSOURI
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NUMBER
PE-2010019998

Prepared by:
CJW
CJW Transportation Consultants, L.L.C.
CJW Transportation Consultants, L.L.C. Engineering MO C.A. #2006012385
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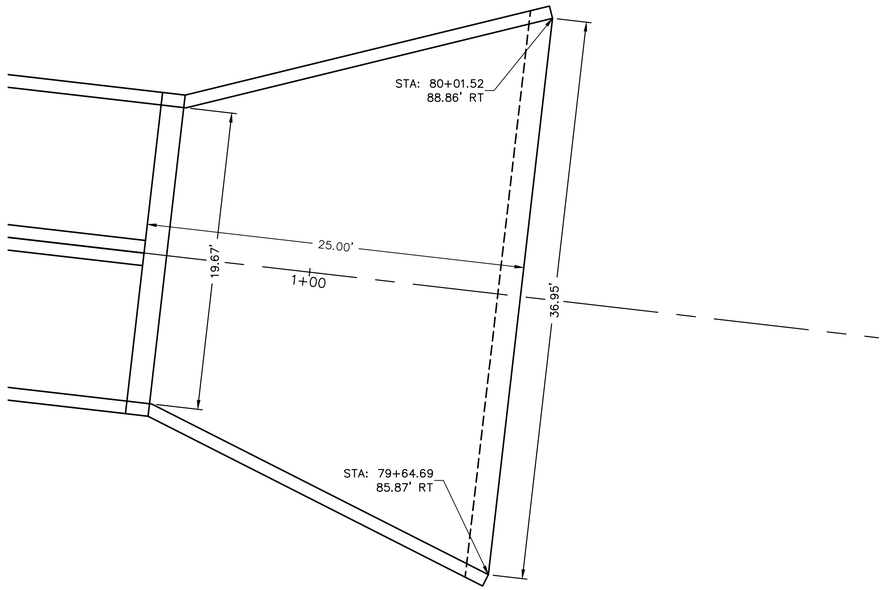
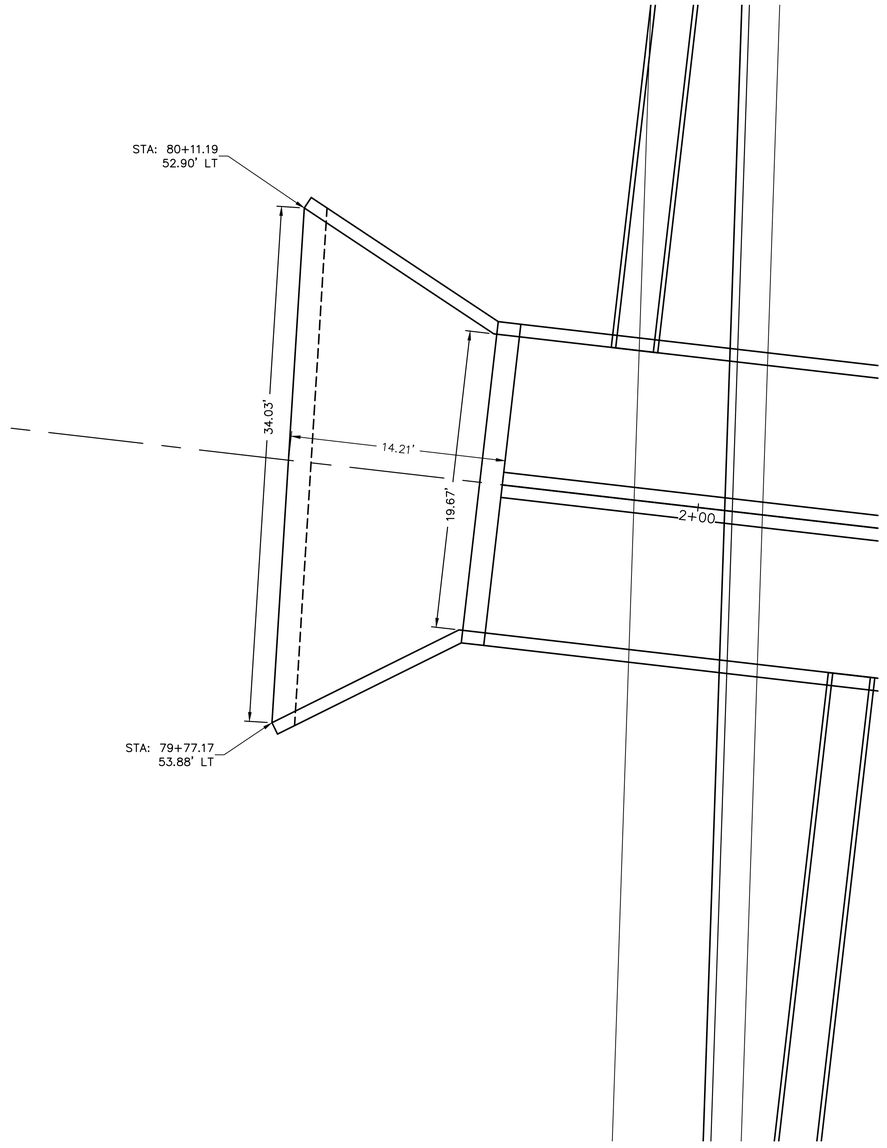


STRUCTURE 1-01 LAYOUT DETAIL



STRUCTURE 1-02 LAYOUT DETAIL

0' 2.5' 5' 10'
SCALE IN FEET

MISSOURI ONE CALL SYSTEM
1-800-DIG-RITE = 811
www.mo1call.com

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STATE OF MISSOURI
DANE MITCHELL SEILER
NUMBER PE-2010019595
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

STORM PLAN & PROFILE

32ND STREET WIDENING
CITY OF JOPLIN

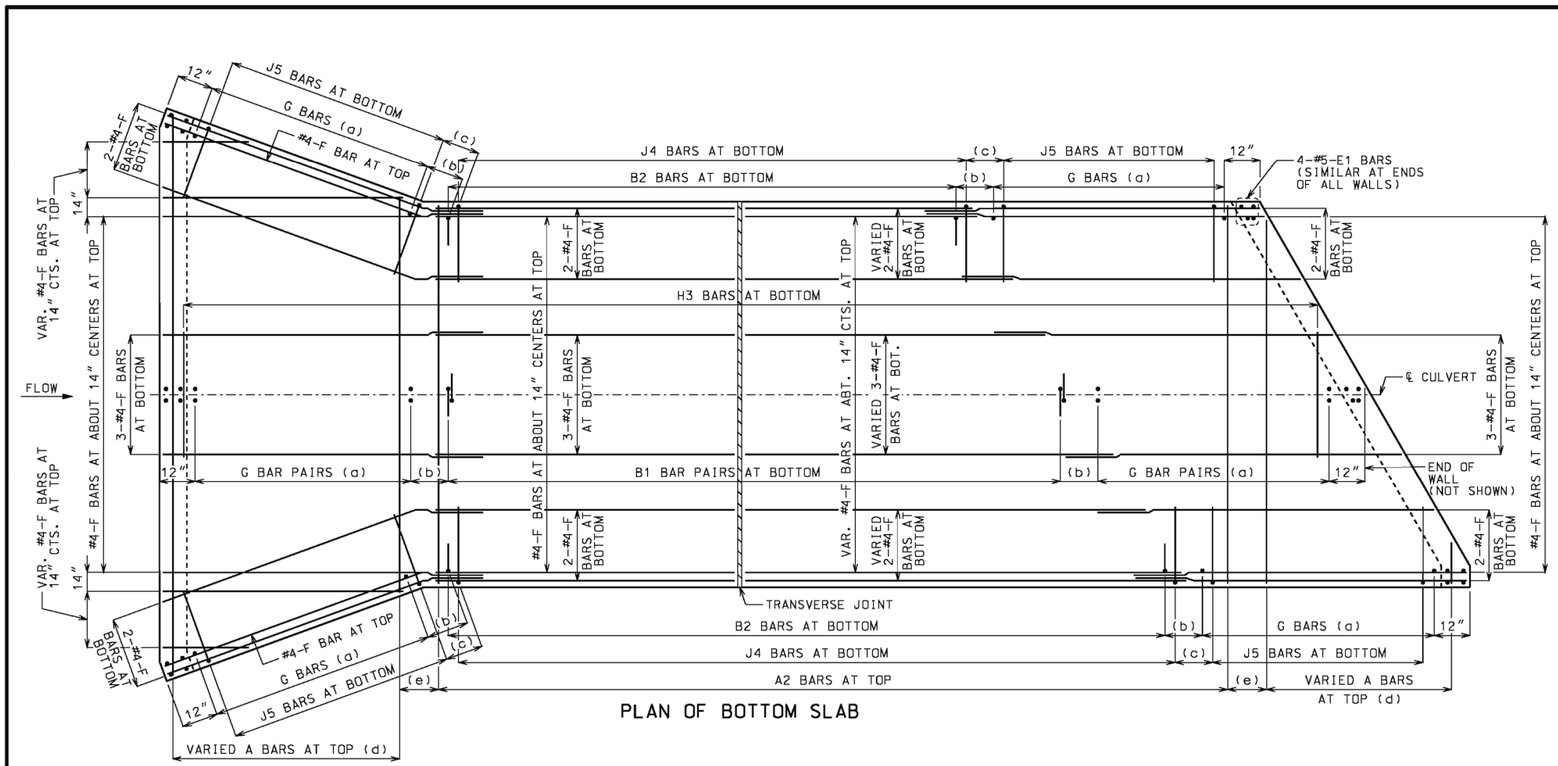
JOPLIN, MISSOURI

2021

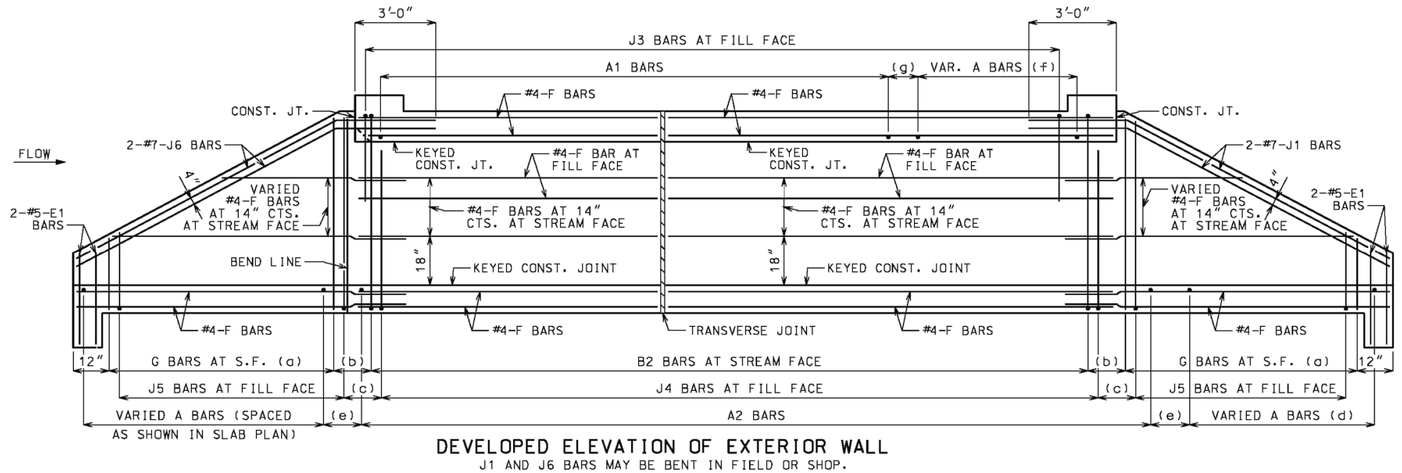
drawn by: AJT
checked by: JCR
approved by: DMS
QA/QC by: OLSSON
project no.: 015-2768
drawing no.:
date: 04/23/2021

SHEET
B72 of B150

DWG: G:\15065 - 32nd Street Roadway\015-2768 32nd Street Widening\40-Design\AutoCAD\Final Plans\Sheets\CJW\B72 - STORM DETAILS.dwg USER: Aaron
DATE: Apr 21, 2021 8:17am XREFS: cjw_t_pbase_015-2768 - 3 lane V_XBOU_52768 cjw_t_ctblk_015-2768 (2019) OA_ACAD-T_XBASE_52768 CJW_T_PPATT_015-2768 - 3 lane



PLAN OF BOTTOM SLAB



DEVELOPED ELEVATION OF EXTERIOR WALL

J1 AND J6 BARS MAY BE BENT IN FIELD OR SHOP.

LAYING OUT TRANVERSE JOINTS

UNLESS SHOWN ON BRIDGE PLANS

USE A TRANSVERSE JOINT WHEN BARREL LENGTH IS OVER 80 FEET. USE ADDITIONAL JOINTS TO LIMIT CUT SECTION LENGTH AND END SECTION BARREL LENGTH MEASURED ALONG CENTERLINE OF CULVERT TO 50 FEET.

MINIMUM END SECTION LENGTH SHALL BE 3 FEET MEASURED ALONG THE SHORTEST WALL FROM THE INSIDE FACE OF HEADWALL TO THE TRANSVERSE JOINT.

TO AVOID LOCATING TRANSVERSE JOINTS UNDER A TRAVELED WAY WITH DESIGN FILLS 2 FEET OR LESS THE FOLLOWING SHALL APPLY:

BARREL LENGTH UP TO 90 FEET WITHOUT A TRANSVERSE JOINT

CUT SECTION LENGTHS UP TO 60 FEET

WHEN BARREL AND CUT SECTION LENGTH RESTRICTIONS REQUIRE TRANSVERSE JOINTS TO BE LOCATED UNDER A TRAVELED WAY WITH DESIGN FILLS 2 FEET OR LESS, THE JOINTS SHALL BE LOCATED TO MINIMIZE THE LENGTH OF JOINT UNDER THE TRAVELED WAY.

TRAVELED WAY IS THE ROADWAY WIDTH MINUS SHOULDER WIDTHS.

FOR CUT SECTION DETAILS, SEE 703.46.

GENERAL NOTES:

FOR SECTIONS THRU BARREL, WINGS AND HEADWALLS, SEE SHEET 3 OF 3. FOR BAR SIZES, SPACING AND DIMENSIONS OF ALL REINFORCEMENT EXCEPT J5 BARS, SEE 703.47. FOR J5 BARS, SEE 703.37.

CONSTRUCTION JOINT KEY NOT SHOWN FOR CLARITY IN PLAN AND ELEVATION, SEE SHEET 3 OF 3 FOR DETAILS.

DRAWING NOT TO SCALE. FOLLOW DIMENSIONS.

MINIMUM CLEARANCE TO REINFORCING STEEL SHALL BE 1½".

LAP LONGITUDINAL BARS A MINIMUM OF 23" AT SPLICES.

BEVELED HEADWALL SHALL BE LOCATED AT UPSTREAM END.

(a) SAME SIZE AND SPACING AS ADJACENT B BARS

(b) VARIES, 12" MAXIMUM

(c) J4 BAR SPACING

(d) SAME SIZE AND SPACING AS A2 BARS

(e) A2 BAR SPACING

(f) SAME SIZE AND SPACING AS A1 BARS

(g) A1 BAR SPACING

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
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STATE OF MISSOURI — DENNIS W. HECKMAN — NUMBER PE-27141 — PROFESSIONAL ENGINEER

THIS SHEET WAS SIGNED, SEALED AND DATED ELECTRONICALLY.

CONCRETE DOUBLE BOX CULVERT

SKEW: LEFT ADVANCE
WINGS: FLARED

REINFORCEMENT

DATE EFFECTIVE: 10/01/2011
DATE PREPARED: 5/13/2015

703.43H

SHEET NO. 1 OF 3

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

Prepared by:
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STATE OF MISSOURI — DANE MITCHELL SEILER — NUMBER PE-2010019595 — PROFESSIONAL ENGINEER

REVISIONS

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

STORM PLAN & PROFILE

32ND STREET WIDENING
CITY OF JOPLIN

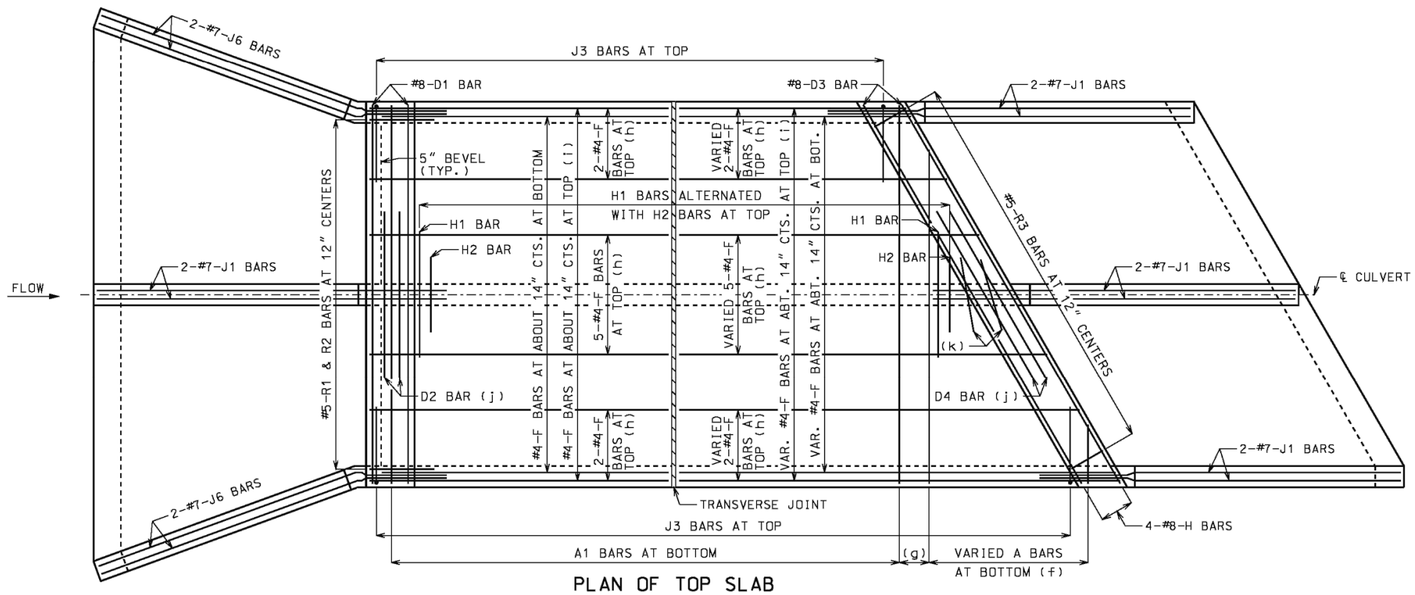
JOPLIN, MISSOURI

2021

drawn by: AJT
checked by: JCR
approved by: DMS
QA/QC by: OLSSON
project no.: 015-2768
drawing no.:
date: 04/23/2021

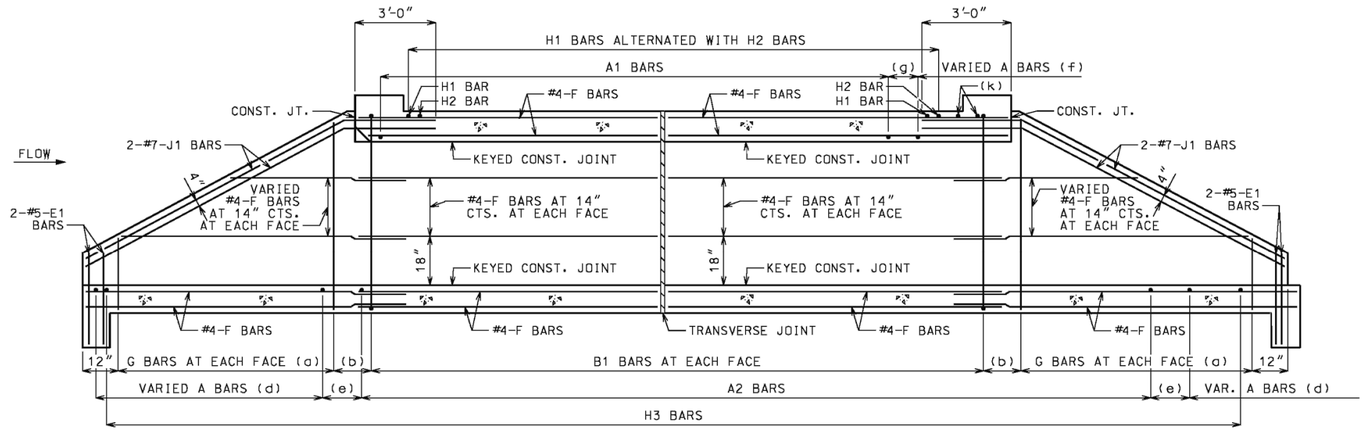
SHEET B73 of B150

DWG: G:\15065 - 32nd Street Roadway\015-2768 32nd Street Widening\40-Design\AutoCAD\Final Plans\Sheets\CJW\B72 - STORM DETAILS.dwg USER: Aaron
DATE: Apr 21, 2021 8:18am XREFS: cjw_t_pbase_015-2768 - 3 lane V_XBOU_52768 cjw_t_ctblk_015-2768 - 3 lane V_XBASE_52768 CJW_T_PPATT_015-2768 - 3 lane



PLAN OF TOP SLAB

B BARS IN WALLS ARE NOT SHOWN FOR CLARITY.
FOR PLACEMENT, SEE SHEET 1 OF 3.



SECTION NEAR INTERIOR WALL

J1 BARS MAY BE BENT IN FIELD OR SHOP.

GENERAL NOTES:

FOR SECTIONS THRU BARREL, WINGS AND HEADWALLS, SEE SHEET 3 OF 3. FOR BAR SIZES, SPACING AND DIMENSIONS OF ALL REINFORCEMENT EXCEPT J5 BARS, SEE 703.47. FOR J5 BARS, SEE 703.37.

CONSTRUCTION JOINT KEY NOT SHOWN FOR CLARITY IN PLAN AND SECTION, SEE SHEET 3 OF 3 FOR DETAILS.

DRAWING NOT TO SCALE. FOLLOW DIMENSIONS.

MINIMUM CLEARANCE TO REINFORCING STEEL SHALL BE 1½".

LAP LONGITUDINAL BARS A MINIMUM OF 23" AT SPLICES.

BEVELED HEADWALL SHALL BE LOCATED AT UPSTREAM END.

(a) SAME SIZE AND SPACING AS ADJACENT B BARS

(b) VARIES, 12" MAXIMUM

(c) NOT SPECIFIED ON THIS SHEET

(d) SAME SIZE AND SPACING AS A2 BARS

(e) A2 BAR SPACING

(f) SAME SIZE AND SPACING AS A1 BARS

(g) A1 BAR SPACING

(h) FOR DESIGN FILLS OVER 2'-0"

(i) FOR DESIGN FILLS 2'-0" OR LESS

(j) NOT REQUIRED FOR CLEAR SPANS ≤ 10'-0"
#8 FOR CLEAR SPAN > 10'-0"
#9 FOR CLEAR SPAN > 13'-0"

IF REQUIRED, THE MINIMUM LENGTH EACH SIDE OF ℄ WALL SHALL BE THE GREATER OF 48 BAR DIAMETERS OR ½ CLEAR SPAN. THE CLEAR SPAN IS PARALLEL TO LONG DIRECTION OF HEADWALL.

(k) H2 BARS AS REQUIRED, QUANTITY OF BARS VARIES WITH SKEW.

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
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JEFFERSON CITY, MO 65102
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STATE OF MISSOURI — DENNIS W. HECKMAN — NUMBER PE-27141 — PROFESSIONAL ENGINEER
THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

CONCRETE DOUBLE BOX CULVERT

SKEW: LEFT ADVANCE
WINGS: FLARED

REINFORCEMENT

DATE EFFECTIVE: 10/01/2011
DATE PREPARED: 5/13/2015

703.43H

SHEET NO. 2 OF 3

Prepared by:
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STATE OF MISSOURI — DANE MITCHELL SEILER — NUMBER PE-2010019595 — PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

STORM PLAN & PROFILE

32ND STREET WIDENING
CITY OF JOPLIN

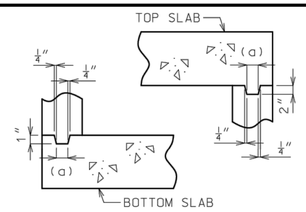
JOPLIN, MISSOURI

2021

drawn by: AJT
checked by: JCR
approved by: DMS
QA/QC by: OLSSON
project no.: 015-2768
drawing no.:
date: 04/23/2021

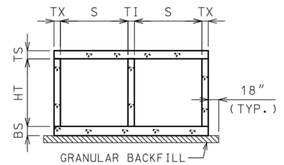
SHEET B74 of B150

DWG: G:\15065 - 32nd Street Roadway\015-2768 32nd Street Widening\40-Design\AutoCAD\Final Plans\Sheets\CJW\B72 - STORM DETAILS.dwg USER: Aaron
DATE: Apr 21, 2021 8:18am XREFS: cjw_t_pbase_015-2768 - 3 lane CJW_T_PPATT_015-2768 - 3 lane
cjw_t_ctblk_015-2768 (2019) OA_ACAD-T_XBASE_52768
cjw_t_ctblk_015-2768 - 3 lane V_XBOU_52768

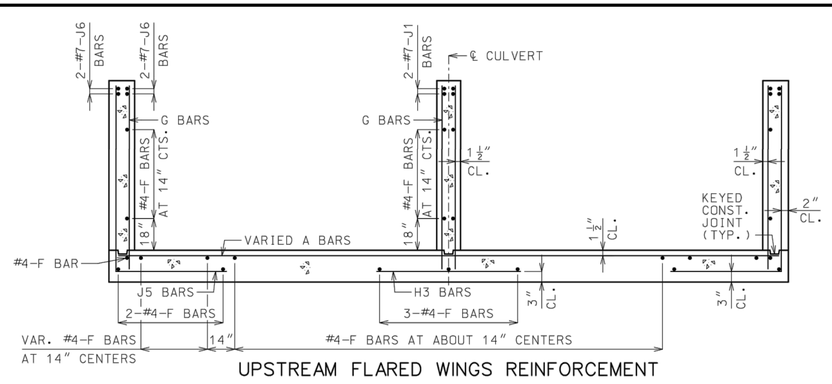


KEYED CONSTRUCTION JOINT

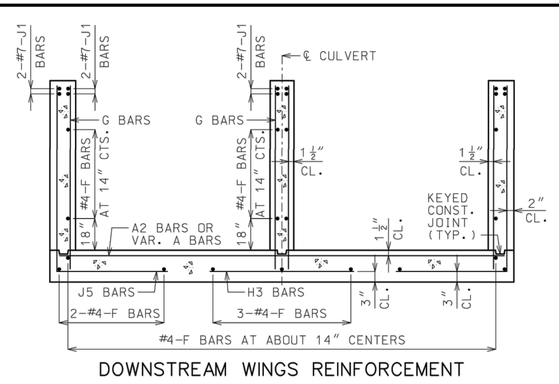
(a) APPROXIMATELY ONE-THIRD OF WALL THICKNESS



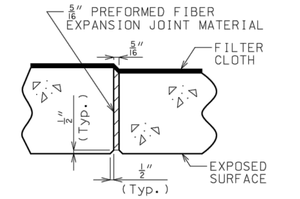
GRANULAR BACKFILL LIMITS AND MEMBER DIMENSIONS



UPSTREAM FLARED WINGS REINFORCEMENT



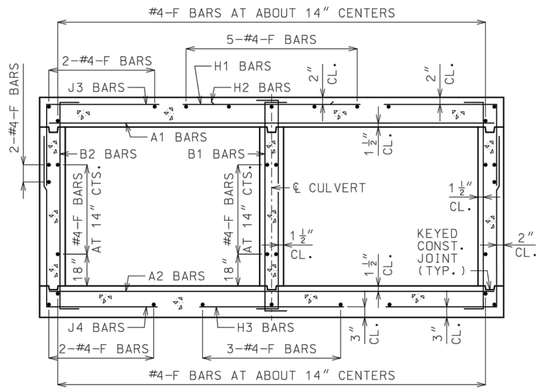
DOWNSTREAM WINGS REINFORCEMENT



TRANSVERSE JOINT THRU BARREL

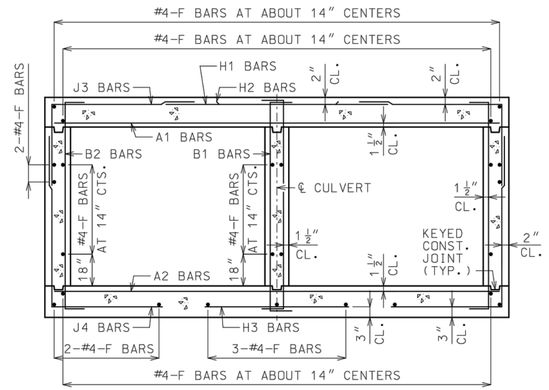
PREFORMED FIBER EXPANSION JOINT MATERIAL IN ACCORDANCE WITH SEC 1057 SHALL BE SECURELY STITCHED TO ONE FACE OF THE CONCRETE WITH 10 GAGE COPPER WIRE OR 12 GAGE SOFT DRAWN GALVANIZED STEEL WIRE.

FILTER CLOTH 3 FEET IN WIDTH AND DOUBLE THICKNESS SHALL BE CENTERED ON TRANSVERSE JOINTS IN TOP SLAB AND SIDEWALLS WITH EDGES SEALED WITH MASTIC OR TWO SIDED TAPE. FILTER CLOTH SHALL BE A SEPARATION GEOTEXTILE IN ACCORDANCE WITH SEC 1011. COST OF FURNISHING AND INSTALLING FILTER CLOTH WILL BE CONSIDERED COMPLETELY COVERED BY THE CONTRACT UNIT PRICE FOR OTHER ITEMS.



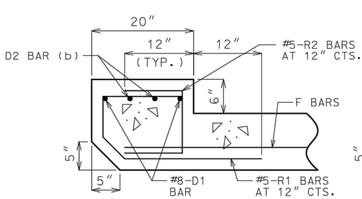
BARREL REINFORCEMENT

FOR DESIGN FILLS OVER 2'-0"



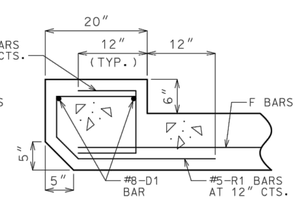
BARREL REINFORCEMENT

FOR DESIGN FILLS 2'-0" OR LESS



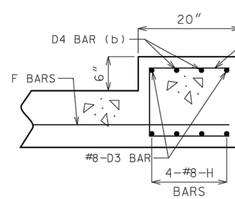
UPSTREAM HEADWALL REINFORCEMENT

NEAR INTERIOR WALL



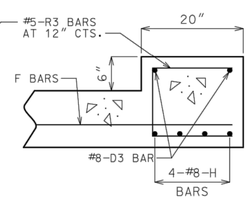
UPSTREAM HEADWALL REINFORCEMENT

NEAR MIDSPAN



DOWNSTREAM HEADWALL REINFORCEMENT

NEAR INTERIOR WALL



DOWNSTREAM HEADWALL REINFORCEMENT

NEAR MIDSPAN

(b) #8 FOR CLEAR SPAN > 10'-0"
#9 FOR CLEAR SPAN > 13'-0"
NOT REQUIRED FOR CLEAR SPANS ≤ 10'-0"

IF D2 AND D4 BARS ARE REQUIRED, THE MINIMUM LENGTH EACH SIDE OF ℄ WALL SHALL BE THE GREATER OF 48 BAR DIAMETERS OR ¼ CLEAR SPAN. THE CLEAR SPAN IS PARALLEL TO LONG DIRECTION OF HEADWALL.

GENERAL NOTES:

FOR MEMBER THICKNESS AND FOR BAR SIZES, SPACING AND DIMENSIONS OF ALL REINFORCEMENT EXCEPT J5 BARS, SEE 703.47. FOR J5 BARS, SEE 703.37.

BARREL AND WINGS SECTIONS ARE SYMMETRICAL ABOUT AND NORMAL TO ℄ CULVERT. HEADWALL SECTIONS ARE NORMAL TO LONG DIRECTION OF HEADWALL.

DRAWING NOT TO SCALE. FOLLOW DIMENSIONS.

MINIMUM CLEARANCE TO REINFORCING STEEL SHALL BE 1½".

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

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DENNIS W. HECKMAN
NUMBER PE-27141
PROFESSIONAL ENGINEER
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CONCRETE DOUBLE BOX CULVERT

SKEW: LEFT ADVANCE
WINGS: FLARED

SECTIONS

DATE EFFECTIVE: 01/01/2021
DATE PREPARED: 10/14/2020

703.43H

SHEET NO. 3 OF 3

Prepared by:
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STATE OF MISSOURI
DANE MITCHELL SEILER
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REV. NO.	DATE	REVISIONS DESCRIPTION	BY
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STORM PLAN & PROFILE

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by: AJT
checked by: JCR
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QA/QC by: OLSSON
project no.: 015-2768
drawing no.:
date: 04/23/2021

SHEET B75 of B150

DWG: G:\15065 - 32nd Street Roadway\015-2768 32nd Street Widening\40-Design\AutoCAD\Final Plans\Sheets\CJW\B72 - STORM DETAILS.dwg USER: Aaron
DATE: Apr 21, 2021 8:18am XREFS: cjw_t_pbase_015-2768 - 3 lane CJW_T_PPATT_015-2768 - 3 lane
cjw_t_ctblk_015-2768 (2019) OA_ACAD-T_XBASE_52768
V_XBOU_52768 OA_ACAD-T_XBASE_52768

NOTE: FOR 4' HEIGHT K3 = 53"

SPAN (S) = 9 FT HEIGHT (HT) = 5 FT OR 6 FT OR 7 FT

DESIGN FILL	MEMBER THICKNESS				TOP SLAB BARS												BOTTOM SLAB BARS												WALL BARS				
					A1 BARS		J3 BARS						H1 BARS			H2 BARS			A2 BARS		J4 BARS					H3 BARS			B1 BARS		B2 BARS		
										K2												K3										
	TS	BS	TX	TI	SIZE	SPA.	SIZE	SPA.	C1	HT=5′	HT=6′	HT=7′	SIZE	SPA.	C5	SIZE	SPA.	C6	SIZE	SPA.	SIZE	SPA.	C4	HT=5′	HT=6′	HT=7′	SIZE	SPA.	C7	SIZE	SPA.	SIZE	SPA.	G1
1 FT	13	9	8	8	5	6.5	4	7.5	45.3	29.0	29.0	29.0	5	17	89.5	5	17	28.5	4	6	4	6	47.3	65	77	89	5	6	44.0	5	12	5	12	12
2 FT	13	10	8	8	5	6.5	4	7.5	45.3	29.0	29.0	29.0	5	16	89.5	5	16	27.5	4	6	4	7.5	44.5	66	78	90	5	6.5	44.0	5	12	5	12	12
4 FT	9	9	8	8	5	8.5	5	6.5	42.1	25.0	25.0	25.0	5	15	59.0	5	15	28.5	5	8	4	6	39.5	65	77	89	6	6.5	46.0	5	11	5	12	12
6 FT	9	9	8	8	5	8.5	5	6.5	36.9	25.0	25.0	29.0	5	14	47.0	5	14	27.5	5	7.5	5	7	36.5	65	77	89	6	6	45.0	5	12	5	12	12
8 FT	9	10	8	8	5	8.5	5	6.5	35.6	25.0	25.0	25.0	5	12	44.0	5	12	27.0	5	7.5	4	6.5	34.6	66	78	90	6	6.5	45.0	5	12	5	12	0
10 FT	10	11	8	8	5	8	5	7.5	34.3	26.0	26.0	26.0	5	12	43.0	5	12	26.5	5	7.5	4	6.5	33.3	67	79	91	6	6.5	44.5	5	12	5	12	0
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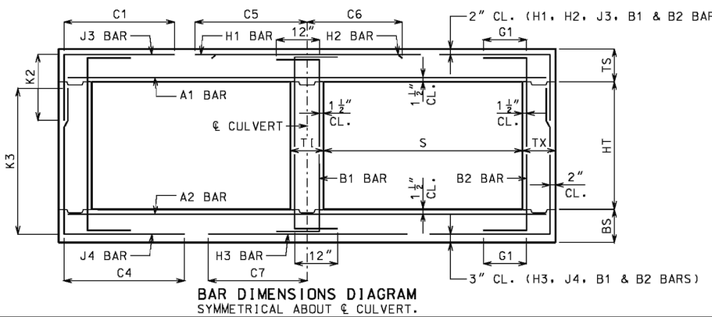
18 FT	13	15	8	8	5	6.5	5	8	31.3	29.0	29.0	33.0	6	15	44.5	6	15	29.5	5	6.5	5	8.5	30.5	71	83	95	6	6.5	44.5	5	12	5	12	0
20 FT	14	15	8	8	5	6	5	8.5	29.3	30.0	30.0	34.0	6	16	43.5	6	16	29.0	5	6	5	8.5	29.1	71	83	95	6	6.5	44.5	5	12	5	12	0
22 FT	15	16	8	8	5	6	5	8	34.1	31.0	31.0	35.0	6	15	49.5	6	15	35.0	5	6	5	8	29.1	72	84	96	6	6.5	44.5	5	12	5	12	0
24 FT	15	17	8	8	6	7.5	5	8	34.3	31.0	31.0	35.0	6	14	49.5	6	14	35.0	5	6	5	7	28.9	73	85	97	6	6.5	44.5	5	12	5	12	0
26 FT	16	18	8	8	6	8	5	7	34.1	32.0	36.0	36.0	6	14	49.0	6	14	35.0	5	6	5	6.5	29.0	74	86	98	6	6.5	44.5	5	12	5	11	0
28 FT	17	19	8	8	6	7.5	5	6.5	34.0	37.0	37.0	37.0	6	14	49.0	6	14	35.0	5	6	5	6.5	29.1	75	87	99	6	6	44.5	5	12	5	10	0
30 FT	18	20	8	8	6	7.5	5	6.5	34.0	38.0	38.0	38.0	6	13	48.5	6	13	34.0	6	8.5	5	6	29.3	76	88	100	6	6	44.5	5	12	5	9.5	0
32 FT	19	21	8	8	6	7.5	5	6	34.1	39.0	39.0	39.0	6	13	48.0	6	13	33.0	6	8.5	6	7.5	32.5	77	89	101	7	7.5	47.0	5	12	5	9.5	0
34 FT	20	21	8	8	6	7.5	6	7.5	38.0	44.0	44.0	44.0	6	12	47.5	6	12	32.5	6	7.5	6	7.5	32.6	77	89	101	7	7.5	47.0	5	12	5	9.5	0
36 FT	20	22	8	8	6	7	6	7.5	38.0	44.0	44.0	44.0	6	12	47.5	6	12	33.0	6	8	6	7	32.6	78	90	102	7	7.5	47.0	5	12	5	9.5	0
38 FT	21	23	8	8	6	7	6	7	38.1	45.0	45.0	45.0	6	12	47.0	6	12	32.0	6	7.5	6	6.5	32.8	79	91	103	7	7	47.0	5	12	5	9	0
40 FT	22	24	8	8	6	6.5	6	6.5	38.3	46.0	46.0	46.0	7	15	51.5	7	15	36.0	6	7.5	6	6	33.0	80	92	104	7	7	47.0	5	12	5	8	0
42 FT	22	24	8	8	6	6.5	6	6	38.1	46.0	46.0	46.0	7	15	51.5	7	15	36.5	6	7.5	6	6	33.0	80	92	104	7	7	47.0	5	12	5	7.5	0
44 FT	23	25	9	8	6	6.5	6	7	39.0	47.0	47.0	47.0	7	15	50.5	7	15	36.0	6	7.5	6	7	33.5	81	93	105	7	7	47.0	5	12	5	8.5	0
46 FT	24	26	9	8	6	6	6	7	39.0	48.0	48.0	48.0	7	15	49.5	7	15	35.5	6	7.5	6	6.5	33.8	82	94	106	7	7	47.0	5	12	5	8	0
48 FT	24	26	9	8	6	6	6	7	39.0	48.0	48.0	48.0	7	15	49.5	7	15	35.5	6	6.5	6	6.5	33.8	82	94	106	7	6.5	47.0	5	12	5	8	0
50 FT	25	27	9	8	6	6	6	6.5	39.0	49.0	49.0	49.0	7	15	49.0	7	15	35.5	6	7	6	6.5	34.0	83	95	107	7	6.5	47.0	5	12	5	7.5	0

SPAN (S) = 9 FT HEIGHT (HT) = 8 FT OR 9 FT OR 10 FT

DESIGN FILL	MEMBER THICKNESS				TOP SLAB BARS												BOTTOM SLAB BARS												WALL BARS				
					A1 BARS		J3 BARS						H1 BARS			H2 BARS			A2 BARS		J4 BARS					H3 BARS			B1 BARS		B2 BARS		
										K2												K3										
	TS	BS	TX	TI	SIZE	SPA.	SIZE	SPA.	C1	HT=8′	HT=9′	HT=10′	SIZE	SPA.	C5	SIZE	SPA.	C6	SIZE	SPA.	SIZE	SPA.	C4	HT=8′	HT=9′	HT=10′	SIZE	SPA.	C7	SIZE	SPA.	SIZE	SPA.	G1
1 FT	13	10	8	8	5	6.5	5	8.5	47.3	29.0	29.0	33.0	5	18	91.5	5	18	29.0	4	6	5	6	69.0	102	114	126	5	6.5	44.5	5	12	5	12	12
2 FT	13	10	8	8	5	6.5	5	8.5	47.3	29.0	29.0	33.0	5	17	91.5	5	17	28.0	5	9	6	7	66.6	102	114	126	5	6	44.0	5	12	5	12	12
4 FT	9	9	8	8	5	8.5	6	7	47.3	29.0	33.0	33.0	5	15	91.5	5	15	29.0	5	7.5	6	6	59.4	101	113	125	6	6	46.0	5	12	5	10.5	12
6 FT	9	10	9	8	5	8.5	5	6	54.1	25.0	25.0	29.0	5	14	48.0	5	14	27.5	5	8	5	6	51.8	102	114	126	6	6.5	45.5	5	12	5	11.5	12
8 FT	9	11	9	8	5	8.5	5	6	48.0	25.0	29.0	29.0	5	13	44.0	5	13	27.0	5	8	5	6	49.3	103	115	127	6	7	45.0	5	12	5	11	0
10 FT	10	11	9	8	5	8	5	6	46.6	26.0	30.0	30.0	5	12	43.0	5	12	26.5	5	7	6	7	50.0	103	115	127	6	6.5	44.5	5	12	5	10	0
12 FT	11	12	9	8	5	7.5	6	7	48.4	31.0	31.0	35.0	5	12	42.0	5	12	26.5	5	7	6	7	49.0	104	116	128	6	6.5	44.5	5	12	5	9.5	0
14 FT	12	13	9	8	5	7	6	7.5	47.4	32.0	32.0	36.0	5	12	41.5	5	12	26.5	5	6.5	6	7	48.1	105	117	129	6	6.5	44.5	5	12	5	8.5	0
16 FT	12	14	9	8	5	7	6	6.5	46.4	32.0	32.0	36.0	6	15	44.5	6	15	29.5	5	6.5	6	7	47.5	106	118	130	6	6.5	44.5	5	12	5	8.5	0
18 FT	13	15	9	8	5	6.5	6	6.5	46.0	33.0	33.0	37.0	6	15	44.0	6	15	29.0	5	6.5	6	7.5	47.3	107	119	131	6	7	44.5	5	12	5	8.5	0
20 FT	14	15	9	8	5	6.5	5	6	40.1	34.0	34.0	34.0	6	16	43.0	6	16	29.0	5	6	6	7.5	44.4	107	119	131	6	6.5	44.5	5	12	5	8.5	0
22 FT	14	16	10	8	5	6	5	6	40.5	34.0	34.0	34.0	6	15	43.0	6	15	29.0	5	6	5	7	41.5	108	120	132	6	6.5	44.5	5	12	5	8	0
24 FT	15	17	10	8	6	8	6	8	49.5	35.0	35.0	35.0	6	15	48.5	6	15	35.0	5	6	5	6.5	41.6	109	121	133	6	6.5	44.5	5	12	5	8	0
26 FT	16	18	11	8	6	8	5	6	46.1	36.0	36.0	36.0	6	15	48.0	6	15	34.5	5	6	5	7	41.9	110	122	134	6	6.5	44.5	5	12	5	7.5	0
28 FT	17	19	11	8	6	8	6	8	50.1	37.0	37.0	37.0	6	14	47.5	6	14	33.5	5	6	5	7	42.0	111	123	135	6	6	44.5	5	12	5	7.5	0
30 FT	18	20	12	8	6	8	5	6	46.8	38.0	38.0	38.0	6	13	47.0	6	13	32.5	6	8.5	5	6.5	42.4	112	124	136	6	6	44.5	5	12	5	7.5	0
32 FT	18	21	12	8	6	7.5	6	8	50.8	38.0	38.0	38.0	6	13	47.0	6	13	33.5	6	8	5	6.5	42.5	113	125	137	7	7.5	47.5	5	12	5	7	0
34 FT	19	22	12	8	6	7	6	7.5	50.9	39.0	39.0	39.0	6	13	46.0	6	13	32.5	6	8	5	6.5	42.8	114	126	138	7	7.5	47.5	5	12	5	7	0
36 FT	20	23	13	8	6	7	6	8	51.5	40.0	40.0	40.0	6	12	45.0	6	12	31.5	6	8	5	6	43.1	115	127	139	7	7	47.5	5	12	5	6.5	0
38 FT	20	23	13	8	6	6.5	6	7.5	51.4	40.0	40.0	40.0	6	12	45.0	6	12	32.0	6	7.5	5	6	43.0	115	127	139	7	7	47.5	5	12	5	6.5	0
40 FT	21	24	13	8	6	6.5	6	7	51.5	41.0	41.0	41.0	6	12	44.5	6	12	31.0	6	7.5	5	6	43.3	116	128	140	7	7	47.5	5	12	5	6.5	0
42 FT	21	25	14	8	6	6	6	7.5	52.3	41.0	41.0	41.0	6	12	44.5	6	12	31.5	6	7.5	5	6	43.5	117	129	141	7	7	47.5	5	12	5	6	0
44 FT	22	25	14	8	6	6.5	6	7	52.1	42.0	42.0	42.0	7	16	49.0	7	16	35.5	6	6.5	5	6	43.6	117	129	141	7	6.5	47.5	5	12	5	6	0
46 FT	23	26	14	8	6	6	6	7	52.1	43.0	43.0	43.0	6	12	43.5	6	12	30.5	6	7	5	6	43.9	118	130	142	7	6.5	47.5	5	12	5	6	0
48 FT	23	27	15	8	6	6	6	7	53.0	43.0	43.0	47.0	6	12	43.5	6	12	30.0	6	7	6	8.5	47.1	119	131	143	7	6.5	47.5	5	12	5	6	0
50 FT	24	28	15	8	6	6	6	7	53.0	44.0	44.0	48.0	6	12	43.0	6	12	30.0	6	7	6	8	47.5	120	132	144	7	6.5	47.5	5	12	6	8	0



BAR DIMENSIONS DIAGRAM
SYMMETRICAL ABOUT ℄ CULVERT.

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

GENERAL NOTES:

IF DESIGN FILL IS BETWEEN TABULATED DESIGN FILLS, USE THE NEXT GREATER TABULATED DESIGN FILL, EXCEPT FOR DESIGN FILLS BETWEEN 2 FEET AND 4 FEET. FOR DESIGN FILLS BETWEEN 2 FEET AND 4 FEET USE THE GREATER MEMBER THICKNESS, AREA OF REINFORCEMENT AND BAR DIMENSIONS FROM THE 2 FEET AND 4 FEET TABULATED DESIGN FILLS. AREA OF REINFORCEMENT EQUALS BAR AREA PER FOOT SPACING.

SPECIAL DESIGNS ARE REQUIRED WHEN THE DESIGN FILL IS LESS THAN 1 FOOT OR GREATER THAN 50 FEET.

DIMENSIONS ARE IN INCHES UNLESS OTHERWISE SPECIFIED.

DESIGN FILLS ARE MEASURED FROM THE TOP OF TOP SLAB TO THE TOP OF EARTH FILL OR ROADWAY.

CULVERTS MEET STRENGTH AND SERVICEABILITY REQUIREMENTS FOR THE DESIGN VEHICULAR LIVE LOAD HL-93 MINUS THE LANE LOAD.

MoDOT

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

STATE OF MISSOURI — DENNIS W. HECKMAN — NUMBER PE-2741 — PROFESSIONAL ENGINEER
THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

CONCRETE DOUBLE BOX CULVERT

MEMBER THICKNESS
BAR SIZE, SPACING & DIMENSIONS

SPAN (S): 9 FEET
HEIGHT (HT): 5 THRU 10 FEET

DATE EFFECTIVE: 10/01/2011
DATE PREPARED: 9/8/2011

703.47

SHEET NO. 12 OF 27

Prepared by:
CJW
CJW Transportation Consultants, L.L.C.
CJW Transportation Consultants, L.L.C. Engineering MO C.A. #2006012385
5051 S. National Ave. Suite 7A Springfield, MO 65810
Tel: 417.889.3400 Fax: 417.889.3402 www.GoCJW.com

STATE OF MISSOURI — DANE MITCHELL SEILER — #-2021 — NUMBER PE-2010019595 — PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

STORM PLAN & PROFILE

32ND STREET WIDENING
CITY OF JOPLIN

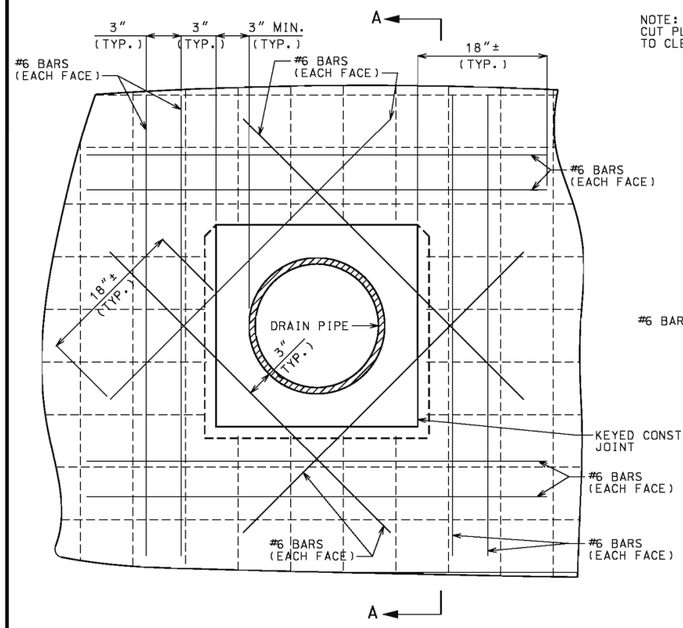
JOPLIN, MISSOURI

2021

drawn by: AJT
checked by: JCR
approved by: DMS
QA/QC by: OLSSON
project no.: 015-2768
drawing no.:
date: 04/23/2021

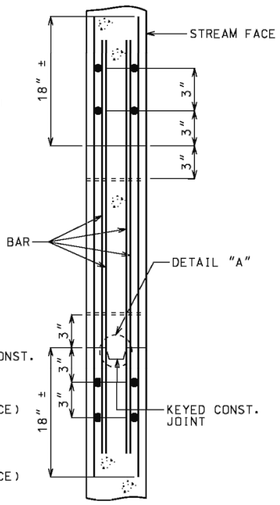
SHEET B76 of B150

DWG: G:\15065 - 32nd Street Roadway\015-2768 32nd Street Widening\40-Design\AutoCAD\Final Plans\Sheets\CJW\B72 - STORM DETAILS.dwg USER: Aaron
DATE: Apr 21, 2021 8:18am XREFS: cjw_t_pbase_015-2768 - 3 lane V_XBOU_52768 cjw_t_ctbik_015-2768 (2019) OA_ACAD-T_XBASE_52768 CJW_T_PPATT_015-2768 - 3 lane

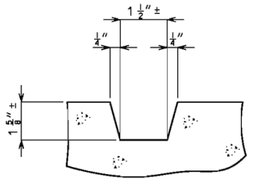


PART ELEVATION OF EXTERIOR WALL
(PIPE DIAMETER = 24" OR MORE)
(WALL THICKNESS = 12" OR MORE)

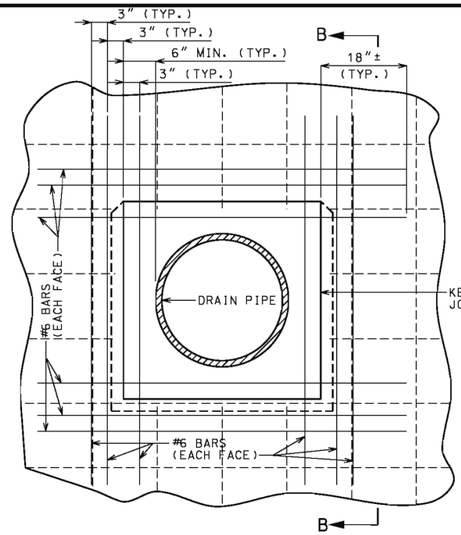
NOTE:
CUT PLAN REINFORCING BARS
TO CLEAR PIPE BLOCK-OUT.



SECTION A-A

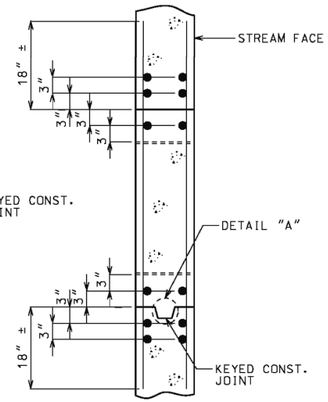


DETAIL "A"
(KEYED JOINT)

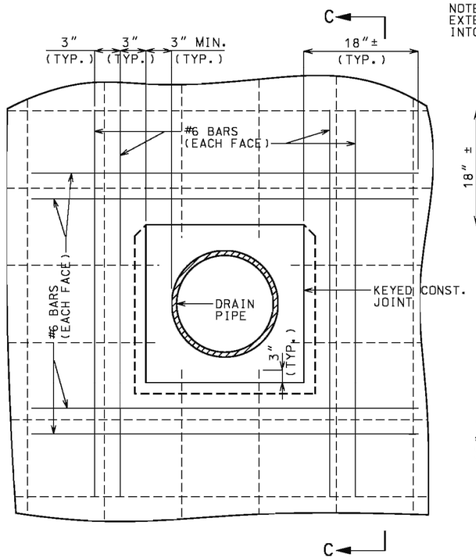


PART ELEVATION OF EXTERIOR WALL
(PIPE DIAMETER = 24" OR MORE)
(WALL THICKNESS = 8" TO 12")

NOTE:
CUT PLAN REINFORCING BARS
TO CLEAR PIPE BLOCK-OUT.

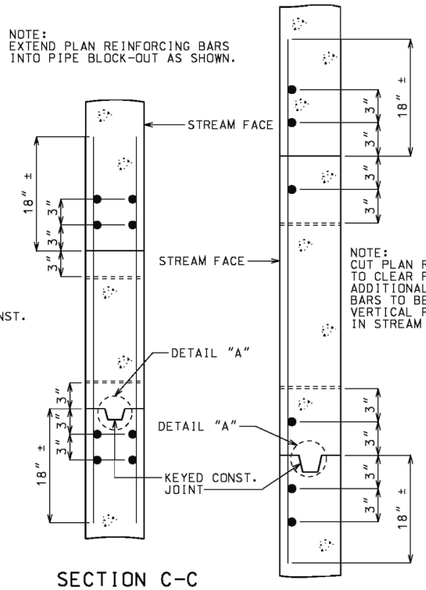


SECTION B-B



PART ELEVATION OF EXTERIOR WALL
(PIPE DIAMETER = LESS THAN 24")
(WALL THICKNESS = 8" OR MORE)

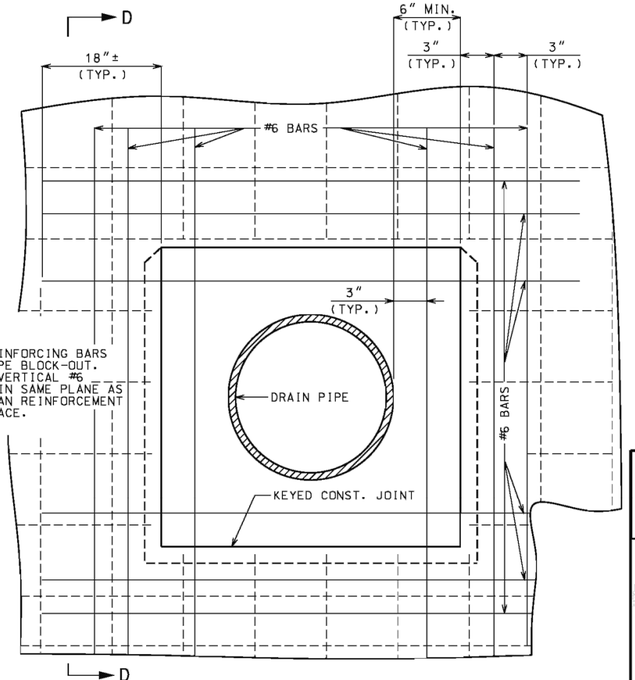
NOTE:
EXTEND PLAN REINFORCING BARS
INTO PIPE BLOCK-OUT AS SHOWN.



SECTION C-C

NOTE:
CUT PLAN REINFORCING BARS
TO CLEAR PIPE BLOCK-OUT.
ADDITIONAL VERTICAL #6
BARS TO BE IN SAME PLANE AS
VERTICAL PLAN REINFORCEMENT
IN STREAM FACE.

SECTION D-D



PART ELEVATION OF EXTERIOR WALL
(PIPE DIAMETER = 36" OR LESS)
(WALL THICKNESS = LESS THAN 8")

NOTE:
DASHED BARS REPRESENT PLAN REINFORCEMENT.

SOLID BARS INDICATE ADDITIONAL #6 BARS.

BAR COVER FROM FACE OF CONCRETE = 1-1/2" CLEAR.

SEE ROAD PLANS FOR LOCATION, SIZE AND TYPE OF PIPE.

PLACE 5/16" JOINT FILLER AROUND REINFORCED CONCRETE PIPE AND EMULSIFIED ASPHALT AROUND CORRUGATED METAL PIPE AT PIPE INLET.

THE BLOCK-OUT MAY BE ELIMINATED AT CONTRACTORS ELECTION. IF BLOCK-OUT IS ELIMINATED, REINFORCEMENT SHALL BE AS SHOWN EXCEPT PLAN REINFORCEMENT MAY BE BENT TO CLEAR PIPE.

ADDITIONAL REINFORCEMENT REQUIRED FOR BLOCK-OUT IS NOT INCLUDED IN ESTIMATED QUANTITIES. NO SEPARATE PAYMENT WILL BE MADE FOR ADDITIONAL REINFORCING REQUIRED.

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

STATE OF MISSOURI
DENNIS W. HECKMAN
NUMBER PE-27141
PROFESSIONAL ENGINEER
THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

CONCRETE BOX STRUCTURE PIPE INLET

DATE EFFECTIVE:	07/01/2001	703.60E	SHEET NO. 1 OF 1
DATE PREPARED:	9/3/2009		

Prepared by:
CJW Transportation Consultants, L.L.C.
CJW Transportation Consultants, L.L.C. Engineering MO C.A. #2006012385
3051 S. National Ave. Suite 7A Springfield, MO 65810
Tel: 417.889.3400 Fax: 417.889.3402 www.GoCJW.com

STATE OF MISSOURI
DANE MITCHELL SEILER
#2021
NUMBER PE-2010019595
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

STORM PLAN & PROFILE

32ND STREET WIDENING
CITY OF JOPLIN

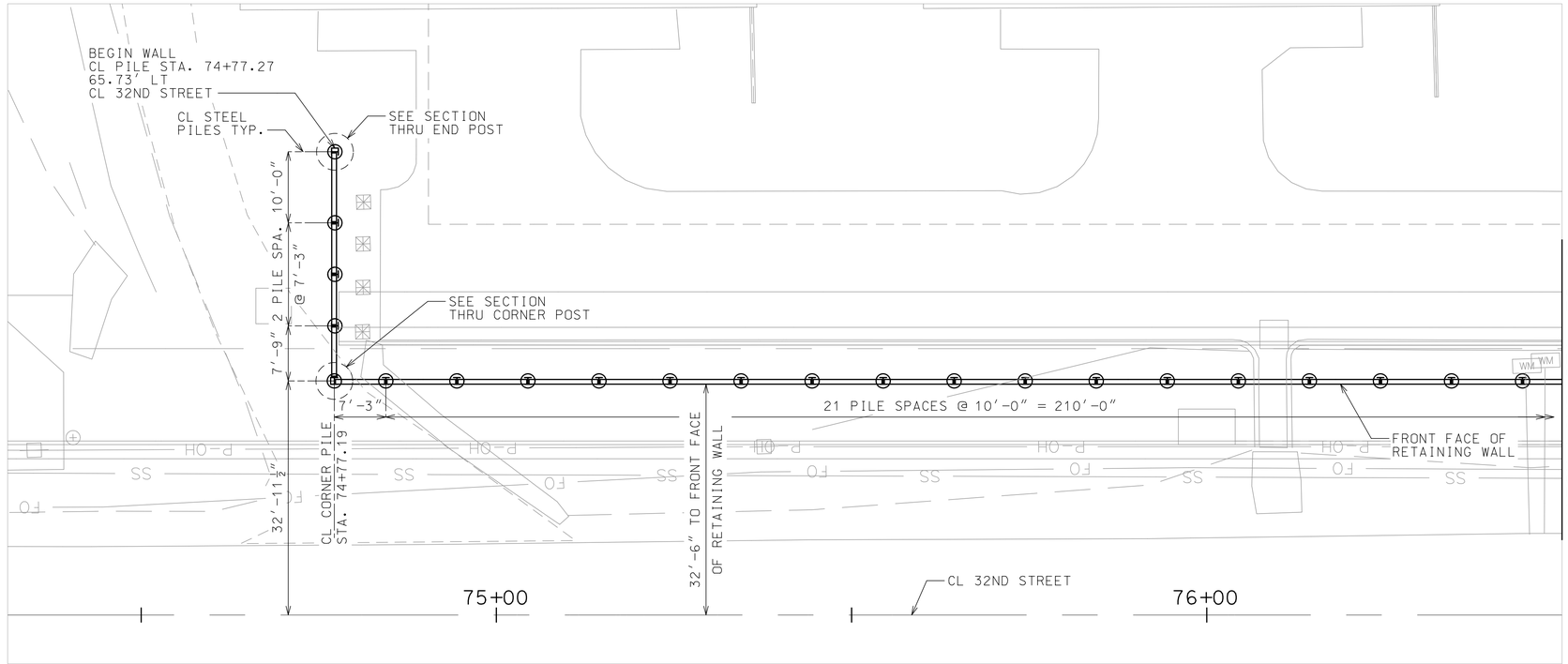
JOPLIN, MISSOURI

2021

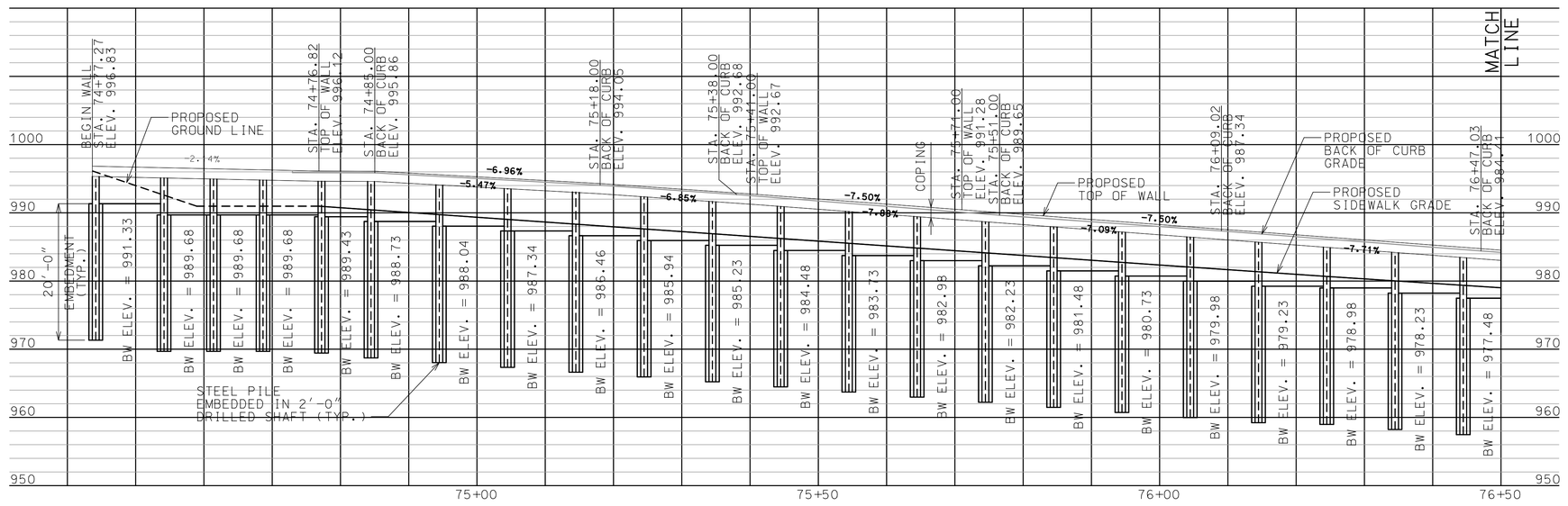
drawn by: AJT
checked by: JCR
approved by: DMS
QA/QC by: OLSSON
project no.: 015-2768
drawing no.:
date: 04/23/2021

SHEET
B77 of B150

DWG: G:\15065 - 32nd Street Roadway\015-2768 32nd Street Widening\40-Design\AutoCAD\Final Plans\Sheets\CJW\B72 - STORM DETAILS.dwg USER: Aaron
DATE: Apr 21, 2021 8:18am XREFS: cjw_t_pbase_015-2768 - 3 lane V_XBOU_52768 cjw_t_ctblk_015-2768 (2019) OA_ACAD-T_XBASE_52768 CJW_T_PPATT_015-2768 - 3 lane



PLAN OF RETAINING WALL



PROFILE OF RETAINING WALL

NOTES:

BARRIER BEHIND WALL IS NOT SHOWN FOR CLARITY.

BW DENOTES BOTTOM OF WALL.

BOTTOM OF WALL = TOP OF SUPPORTING DRILLED SHAFT ELEVATION.

SCALE
0 10 20 30

SCALE
10
0

SCALE
0 10 20 30

olsson
Olsson - Civil Engineering
Missouri Certificate of Authority #001592
702 S. Main Street
Joplin, MO 64801
TEL 417.781.0643
www.olsson.com

STATE OF MISSOURI
4/23/2021
KRISTEN ASHLEY STEHL
NUMBER PE - 2021000284
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION
		REVISIONS

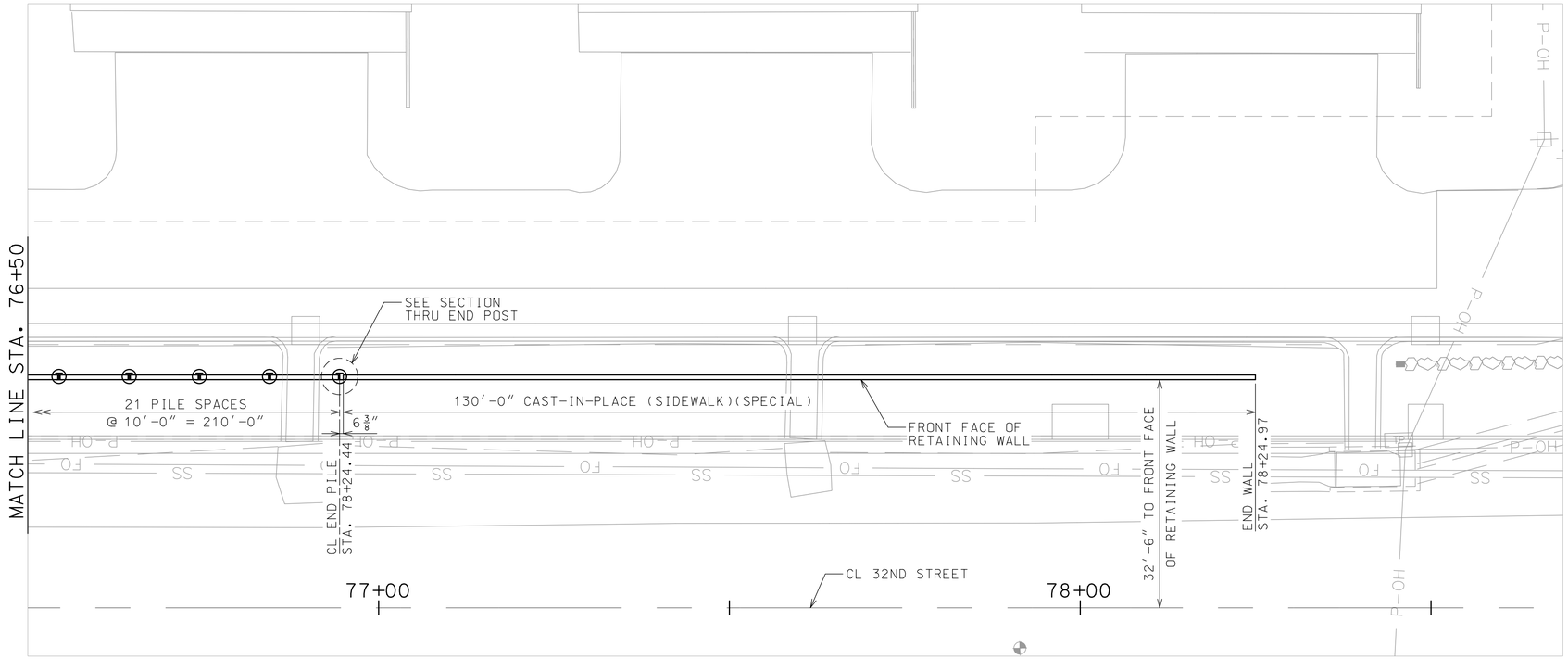
RETAINING WALL PLAN & PROFILE
SHEET 1 OF 2

32ND STREET IMPROVEMENTS
CITY OF JOPLIN

JOPLIN, MISSOURI

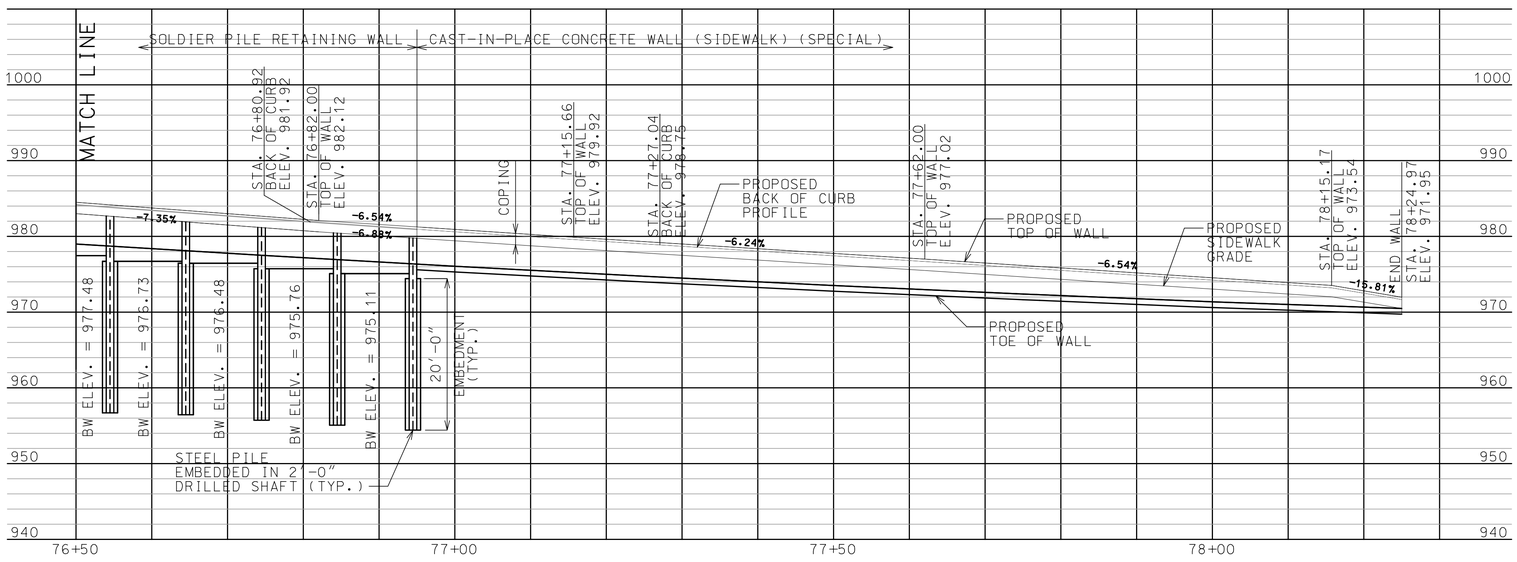
2021

drawn by: BSB
designed by: LAH
checked by: SAS
project no.: 015-2768
drawing no.:
date: 04/23/2021



SCALE
0 10 20 30

PLAN OF RETAINING WALL



SCALE
10
0

PROFILE OF RETAINING WALL

NOTES:

BARRIER BEHIND WALL IS NOT SHOWN FOR CLARITY.

BW DENOTES BOTTOM OF WALL.

BOTTOM OF WALL = TOP OF SUPPORTING DRILLED SHAFT ELEVATION.

SCALE
0 10 20 30

olsson
Olsson - Civil Engineering
Missouri Certificate of Authority #001592
702 S. Main Street
Joplin, MO 64801
TEL 417.781.0643
www.olsson.com

STATE OF MISSOURI
4/23/2021
KRISTEN ASHLEY STEHL
NUMBER PE - 2021000284
PROFESSIONAL ENGINEER

REVISIONS

REV. NO.	DATE	REVISIONS DESCRIPTION

RETAINING WALL PLAN & PROFILE
SHEET 2 OF 2

32ND STREET IMPROVEMENTS
CITY OF JOPLIN

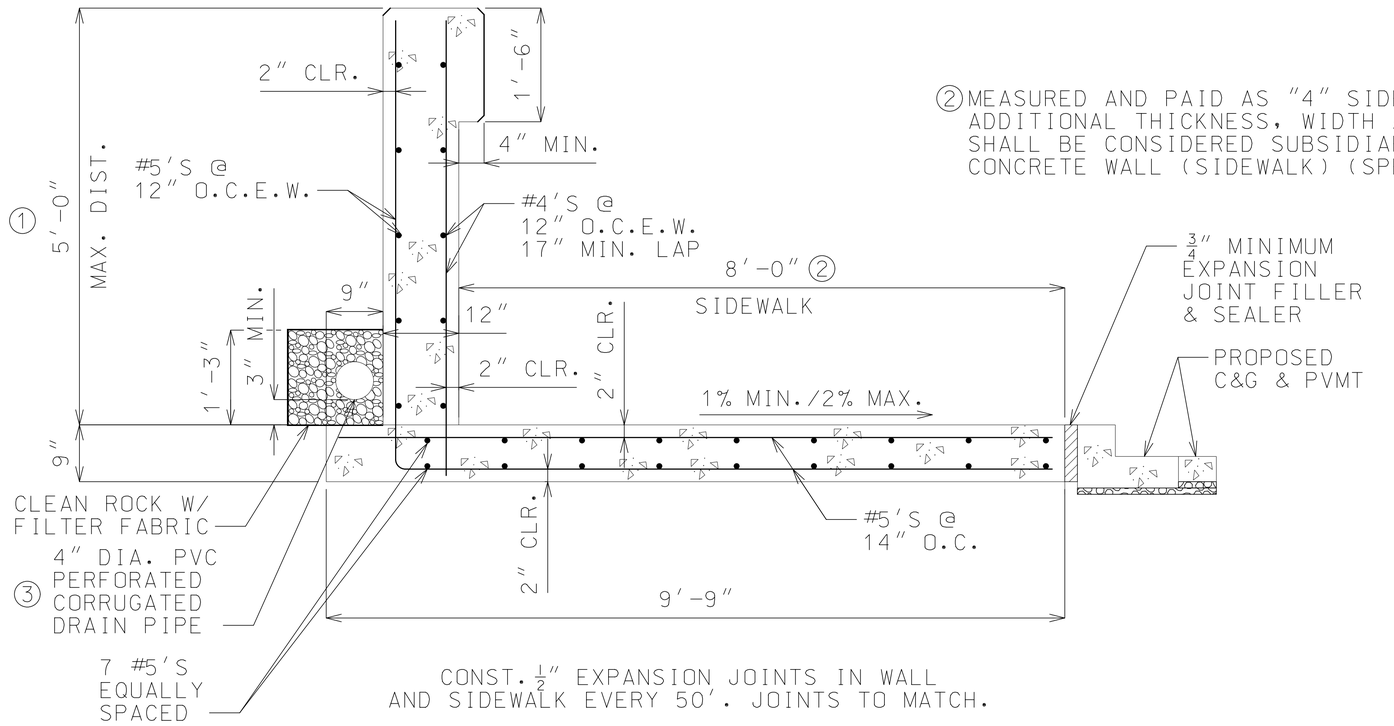
2021

JOPLIN, MISSOURI

drawn by: BSB
designed by: LAH
checked by: SAS
project no.: 015-2768
drawing no.:
date: 04/23/2021

① PAY LIMITS OF THE CAST-IN-PLACE CONCRETE WALL ARE MEASURED FROM THE TOP OF WALL TO TOP OF SIDEWALK.





② MEASURED AND PAID AS "4" SIDEWALK CONSTRUCTION". ADDITIONAL THICKNESS, WIDTH AND REINFORCING SHALL BE CONSIDERED SUBSIDIARY TO "CAST-IN-PLACE CONCRETE WALL (SIDEWALK) (SPECIAL)".

③ CONNECT TO PROPOSED STORM SEWER. CORE PROPOSED INLET & CONNECT WITH NON-SHRINK GROUT.

CAST-IN-PLACE CONCRETE WALL (SIDEWALK) (SPECIAL)

USE CLASS B-1 CONCRETE, f'c=3000 PSI. Fy=60000 PSI.

SUMMARY OF QUANTITIES

CAST-IN-PLACE CONCRETE WALL (SIDEWALK) (SPECIAL)	505.2 SF

ALL REINFORCING STEEL, PERFORATED PIPE, FABRIC, BACKFILL CONNECTION OF UNDERDRAIN TO PROPOSED SEWER SHALL BE INCLUDED IN THE BID ITEM CAST-IN-PLACE CONCRETE WALL (SIDEWALK)(SPECIAL).

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4/23/2021
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CAST-IN-PLACE CONCRETE WALL (SIDEWALK) (SPECIAL)

32ND STREET IMPROVEMENTS
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

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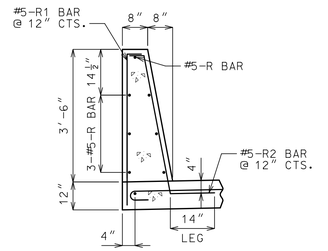
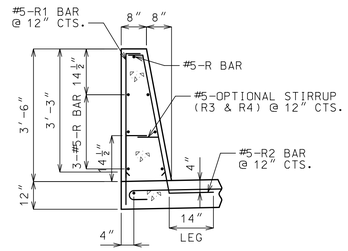
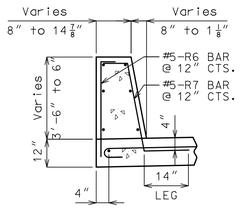


PART SECTION THROUGH BARRIER



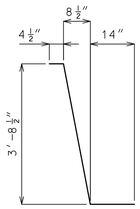
ALTERNATE PART SECTION THROUGH BARRIER WITH OPTIONAL STIRRUP



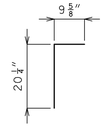
PART SECTION THROUGH BARRIER END TRANSITION



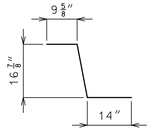
#5 R1



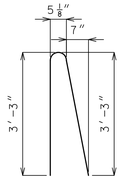
#5 R2



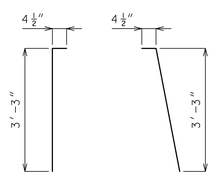
#5 R3



#5 R4



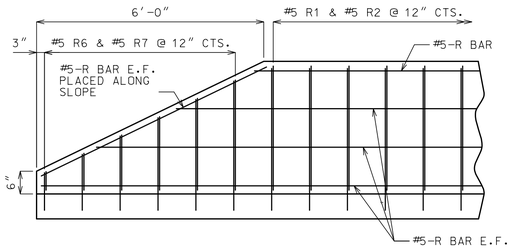
#5 R5✱✱✱



#5 R1 ALT.✱✱✱ #5 R2 ALT.✱✱✱

#5 R6

#5 R7



BARRIER END TRANSITION ELEVATION
(TWO REQUIRED)

SUMMARY OF QUANTITIES

TYPE D BARRIER W/ INTEGRAL REINFORCED SLAB	379.8 LF

TYPE D BARRIER NOTES:

TYPE D BARRIER SHALL BE USED ONLY AT LOCATIONS SHOWN ON PLANS.

THE COST OF REINFORCING STEEL, BARRIER CONCRETE, CONCRETE PAVEMENT, JOINT FILLER, END TRANSITIONS, COMPLETE IN PLACE, WILL BE COMPLETELY COVERED BY THE BID ITEM TYPE D BARRIER W/ INTEGRAL REINFORCED SLAB.

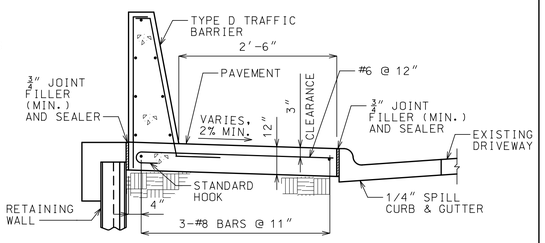
ALL REINFORCEMENT SHALL BE EPOXY COATED.

MINIMUM CLEARANCE TO REINFORCING STEEL SHALL BE 1½" UNLESS OTHERWISE SHOWN.

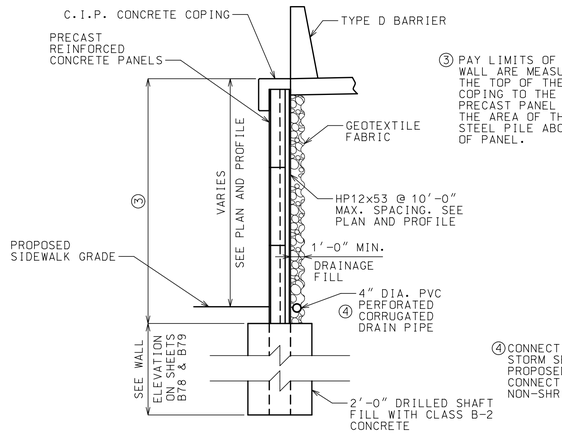
✱✱✱ R1 AND R2 MAY BE REPLACED WITH ALTERNATE (3'-3") R1 AND R2 OR R5 ONLY FOR USE WITH OPTIONAL STIRRUP.

MINIMUM LAP FOR LONGITUDINAL #5-R BARS IN BARRIER SHALL BE 3'-1".

SAWED JOINTS IN BARRIER AND PAVEMENT SHALL BE PLACED TO MATCH JOINTS IN EXISTING PAVEMENT OR AT 15'-0" MAX..



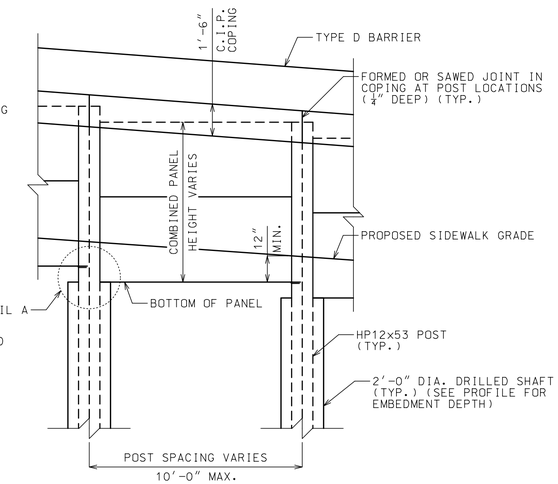
TYPE D TRAFFIC BARRIER ON TOP OF RETAINING WALL



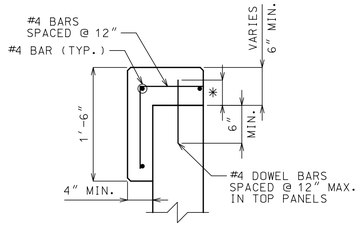
SOLDIER PILE RETAINING WALL SECTION

③ PAY LIMITS OF RETAINING WALL ARE MEASURED FROM THE TOP OF THE CONCRETE COPING TO THE BOTTOM OF PRECAST PANEL AND INCLUDE THE AREA OF THE SUPPORTING STEEL PILE ABOVE BOTTOM OF PANEL.

④ CONNECT TO PROPOSED STORM SEWER. CORE PROPOSED INLET & CONNECT WITH NON-SHRINK GROUT.

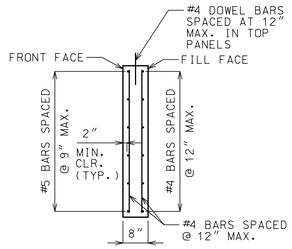


PART ELEVATION OF SOLDIER PILE RETAINING WALL

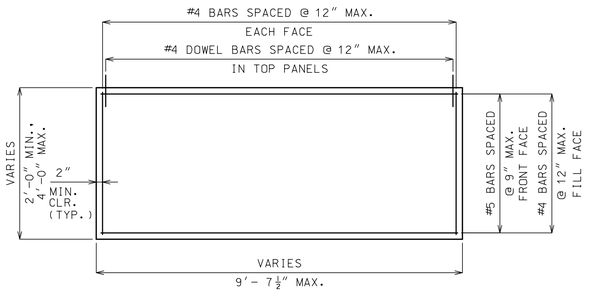


✱EXTEND #4 DOWEL BARS 4" MIN. OUT OF TOP PANEL TO THE HEIGHT OF THE #4 BARS IN COPING.

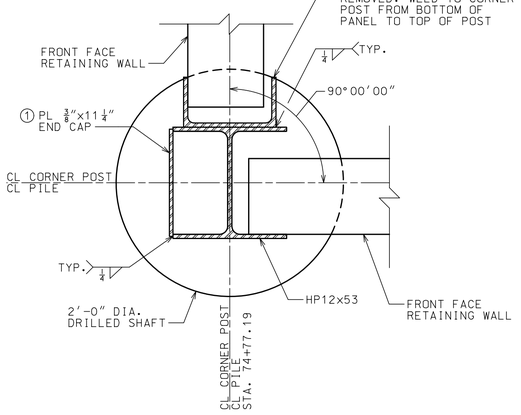
SECTION THRU C.I.P. COPING
PANEL REINFORCEMENT NOT SHOWN FOR CLARITY.



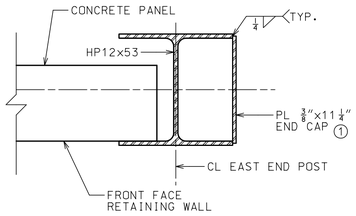
PRECAST PANEL SECTION



PRECAST PANEL ELEVATION

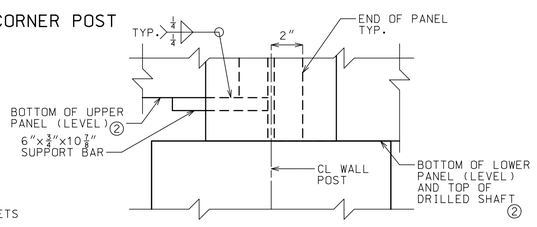


SECTION THRU CORNER POST



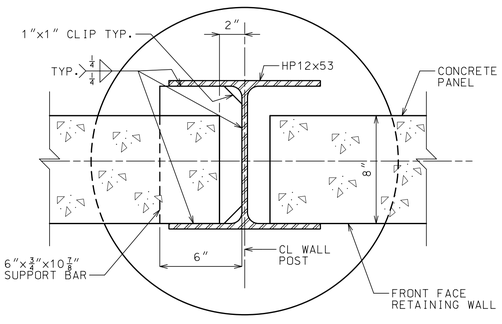
SECTION THRU END POST

① PLACE END CAP FROM TOP OF PILE TO 6" ABOVE TOP OF DRILLED SHAFT.



ELEVATION

② SEE ELEVATION VIEW OF RETAINING WALL ON SHEETS B78 & B79 FOR TOP OF DRILLED SHAFT/BOTTOM OF PANEL ELEVATIONS.



PLAN

DETAIL A

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STATE OF MISSOURI
PROFESSIONAL ENGINEER
4/23/2021
KRISTEN ASHLEY STEHL
NUMBER PE-2021000284

REV. NO.	DATE	REVISIONS DESCRIPTION
		REVISIONS

RETAINING WALL DETAILS
32ND STREET IMPROVEMENTS
CITY OF JOPLIN
JOPLIN, MISSOURI
2021

drawn by: BSB
designed by: LAH
checked by: SAS
project no.: 015-2768
drawing no.:
date: 04/23/2021

SHEET
B81 *of* B150

SOLDIER PILE RETAINING WALL NOTES:

SOLDIER PILE INSTALLATION

1. CONTRACTOR SHALL VERIFY THE LOCATION OF ALL ACTIVE UTILITIES AND SHALL PROTECT THEM FROM HARM AS REQUIRED TO PREVENT DAMAGE AND TO MAINTAIN THEIR UNINTERRUPTED USE.

2. EXCAVATION BELOW PLANNED FINISHED GRADE IN FRONT OF SOLDIER PILE WALL SHALL BE LIMITED TO NO GREATER THAN 2 FEET.

3. TOP OF SOLDIER PILE AND LAGGING WALL ELEVATION VARIES AND SHOULD FOLLOW PROFILE SHOWN ON PLANS.

4. SOIL PARAMETERS USED IN THE DESIGN OF THE SOLDIER PILE WALL:
   MATERIAL - CLAY SOILS
   (RETAINED SOILS)
   UNIT WEIGHT - 120
   FRICTION ANGLE - 26 DEGREES

5. SURCHARGE USED BEHIND WALL = 90 PSF.

7. ALL SOLDIER PILES SHALL BE PREDRILLED TO PROVIDE A FOUNDATION SOCKET WITH MINIMUM EMBEDMENT AS SHOWN ON THE WALL PLANS.

8. ALL HP SECTIONS FOR THE SOLDIER PILES SHALL CONFORM TO THE REQUIREMENTS OF ASTM A992 WITH A MINIMUM YIELD STRENGTH OF 50 KSI AND SHALL BE GALVANIZED. THE SOLDIER PILES SHALL BE PLACED IN THE CENTER OF THE DRILLED SHAFTS USING CENTRALIZERS OR OTHER NECESSARY MEANS TO KEEP THEM PLUMB AND IN LINE WITH ONE ANOTHER.

9. STEEL FOR SUPPORT BARS AND END CAP PLATES SHALL CONFORM TO THE REQUIREMENTS OF ASTM A 529, GRADE 50 AND SHALL BE GLAVANIZED.

10. ALL SOLDIER PILE FOUNDATION SOCKETS SHALL HAVE A MINIMUM DIAMETER AS NOTED ON THE PLANS. ALL HOLES SHALL BE CLEANED FREE OF LOOSE MATERIAL AND DEBRIS AND BE INSPECTED PRIOR TO INSTALLING SOLDIER PILES OR CONCRETE.

11. DRILLING EQUIPMENT SHALL BE SUITABLE FOR THE STRATA ENCOUNTERED. DRILLING MAY BE ACCOMPLISHED BY ROTARY OR PERCUSSION METHODS. THE METHOD SELECTED SHALL NOT CAUSE CAVITATION OR SUBSIDENCE OF THE SOILS IN AND AROUND THE SITE.

12. THE FOUNDATION SOCKET FOR ALL SOLDIER PILES SHALL BE FILLED WITH CLASS B-2 CONCRETE HAVING A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 4,000 PSI.

13. PRECAST PANEL HEIGHTS SHALL VARY FROM 2'-0" TO 4'-0"IN INCREMENTS OF 6". CONTRACTOR TO SUBMIT SHOP DRAWINGS FOR PRECAST PANELS PRIOR TO CONSTRUCTION.

14. CONCRETE FOR PRECAST PANELS SHALL BE CLASS B-1 CONCRETE.

15. DRAINAGE FILL SHALL CONSIST OF CLEAN ROCK AND EXTEND A MINIMUM OF 12 INCHES BEHIND THE PRECAST PANEL AND 1 FOOT BELOW THE PROPOSED GRADE AT THE BOTTOM OF THE WALL. DRAINAGE FILL SHALL BE WRAPPED WITH ONE LAYER OF GEOSYNTHETIC FABRIC TO PREVENT MIGRATION INTO SURROUNDING SOIL. A SINGLE WEEP HOLE SHALL BE PROVIDED IN EACH PANEL CONSISTING OF 2 INCH DIAMETER PVC PIPE.

16. IF UNSUITABLE SOILS ARE ENCOUNTERED, TIMBER LAGGING MAY BE USED TEMPORARILY TO FACILITATE PLACEMENT OF THE PRECAST PANELS. TIMBER LAGGING SHALL BE CONSTRUCTION GRADE AND THE THICKNESS IS TO BE DETERMINED BY THE CONTRACTOR.

17. RECESSES FOR LIFTING LOOPS IN THE PRECAST CONCRETE COPING AND PANELS SHALL BE FILLED WITH GROUT.

18. THE CONTRACTOR IS TO EXECUTE THE WORK BY EXCAVATING BETWEEN PILES, PLACING ONE SECTION OF PANELS AND BACKFILLING WITH GRANULAR DRAINAGE FILL AS SHOWN IN THE DETAILS ON SHEET B81 PRIOR TO EXCAVATION AND PLACEMENT OF ADJACENT PANELS. PANEL EXCAVATION AND PLACEMENT MAY BE STAGGERED. EXCAVATION, PANEL PLACEMENT, AND BACKFILLING BEHIND THE WALL SHALL BE COMPLETED IN A MANNER THAT MINIMIZES SLOUGHING OF THE RETAINED EARTH. EXPOSED VERTICAL EXCAVATIONS SHALL NOT BE LEFT OVERNIGHT WITHOUT APPROVAL OF THE ENGINEER.

QUALITY CONTROL, QUALITY ASSURANCE, & SPECIAL INSPECTION

1. CONTRACTOR IS RESPONSIBLE FOR QUALITY CONTROL OF ALL FABRICATION AND INSTALLATION TOLERANCES.

2. THE OWNER SHALL ENGAGE OLSSON TO PROVIDE QUALITY ASSURANCE AND TESTING SERVICES DURING CONSTRUCTION OF THE PROJECT.

3. ALL SPECIAL INSPECTIONS SHALL BE UNDER THE SUPERVISION OF A REGISTERED ENGINEER.

4. TESTING AND INSPECTION SERVICES SHALL BE PERFORMED ONLY BY TRAINED AND EXPERIENCED PERSONNEL AND EXPERIENCED TECHNICIANS CURRENTLY QUALIFIED FOR THE WORK THEY ARE TO PERFORM.

5. IF SPECIAL INSPECTION IS PERFORMED BY ANYONE OTHER THAN THE ENGINEER OF RECORD, THE QUALIFICATIONS OF ALL SPECIAL INSPECTORS SHALL BE REVIEWED AND APPROVED BY THE ENGINEER OF RECORD.

6. ALL WORK REQUIRED SPECIAL INSPECTION SHALL BE MADE AVAILABLE AND REMAIN ACCESSIBLE AND EXPOSED UNTIL IT IS OBSERVED BY THE SPECIAL INSPECTOR.

7. WRITTEN REPORTS SHALL BE PROVIDED OF ALL INSPECTIONS ON A WEEKLY BASIS. SUCH REPORTS SHALL INCLUDE A DESCRIPTION OF THE WORK PERFORMED, DEFICIENCIES NOTED IN THE CONSTRUCTION AND CORRECTIVE ACTION UNDERTAKEN TO RESOLVE SUCH DEFICIENCIES. THE WRITTEN REPORTS WILL ALSO INCLUDE THE LOCATION, TYPE AND RESULTS OF ALL TESTS TAKEN ON THE PROJECT.

GENERAL NOTES

1. SOLDIER PILE AND LAGGING SYSTEM DESCRIBED HEREIN IS DESIGNED FOR SUPPORT OF THE PROPOSED RETAINED HEIGHT. MAXIMUM RETAINED HEIGHT SHALL NOT EXCEED THE DEPTHS SHOWN ON THE ATTACHED WALL DETAILS AND PLANS.

2. THE SOLDIER PILE WALL SYSTEM WAS FOR THE RETAINED HEIGHTS SHOWN. THE UPPER ONE FOOT OF MATERIAL IN FRONT OF THE WALL WAS NEGLECTED IN THE CALCULATIONS. THE ENGINEER SHALL BE NOTIFIED IF DEEPER EXCAVATIONS ARE REQUIRED IN THE VICINITY OF THE SOLDIER PILE WALL.

3. CONTRACTOR SHALL VERIFY THE LOCATION OF ALL ACTIVE UTILITIES AND SHALL PROTECT THEM FROM HARM AS REQUIRED TO PREVENT DAMAGE AND TO MAINTAIN THEIR UNINTERRUPTED USE.

4. SITE SAFETY INCLUDING TEMPORARY FENCING FOR PEDESTRIAN AND SURFACE TRAFFIC IS THE RESPONSIBILITY OF OTHERS.

5. DESIGN OF THE WALL SYSTEM IS BASED ON ASSUMED SOIL AND BEDROCK STRATIGRAPHY DEVELOPED BASED ON THE BORING LOGS. IF DIFFERING SITE CONDITIONS ARE ENCOUNTERED DURING CONSTRUCTION, THE ENGINEER SHALL BE CONTACTED TO REVIEW THE CONDITIONS ENCOUNTERED AND MODIFY THE DESIGN OF THE WALL ACCORDINGLY.

6. IF REQUIRED, DESIGN OF ANY REQUIRED DEWATERING PLANS AND WATERPROOFING IS THE RESPONSIBILITY OF OTHERS. THE PLANNED WALL SYSTEM IS FREE DRAINING AND IS NOT, NOR INTENDED TO BE, WATER TIGHT.

7. THE CONTRACTOR SHALL MAKE DAILY VISUAL OBSERVATIONS FOR SIGNS OF GROUND MOVEMENTS IN THE VICINITY OF EACH WORKING FRONT DURING CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY OLSSON THE SAME DAY VERBALLY AND WITHIN 24 HOURS IN WRITING IF SIGNS OF MOVEMENTS SUCH AS NEW CRACKS IN STRUCTURES, INCREASED SIZE OF OLD CRACKS OR SEPARATION OF JOINTS IN STRUCTURES, FOUNDATIONS, STREETS OR PAVED AND UNPAVED SURFACES ARE OBSERVED.

8. A SURCHARGE LOAD OF 90 PSF WAS INCLUDED IN THE ANALYSIS FOR THE WALL SYSTEM.

9. THE SOLDIER PILES SHALL BE PLACED IN PREDRILLED 24-INCH DIAMETER HOLES TO THE DEPTHS SHOWN HEREIN. ADJUSTMENT OF INDIVIDUAL PILE EMBEDMENT LENGTHS MAY BE REQUIRED BASED ON CONDITIONS ENCOUNTERED DURING DRILLING OF HOLE.

10. FIELD LOGS OF ALL DRILLED PIER HOLES FOR SOLDIER PILE INSTALLATION SHALL BE PREPARED AND SHALL INCLUDE SOLDIER PILE DESIGNATION AND LOCATION, DESCRIPTION OF SOIL AND BEDROCK STRATA ENCOUNTERED, ELEVATION OF CHANGES IN STRATIGRAPHY AND BOTTOM OF PIER HOLE ELEVATION. THE LOGS SHALL NOTE ANY JOINTS, DISCONTINUITIES OR OTHER INCONSISTENCIES IN THE LIMESTONE BEDROCK.

11. DRILLING EQUIPMENT SHALL BE SUITABLE FOR THE STRATA ENCOUNTERED. DRILLING MAY BE ACCOMPLISHED BY ROTARY METHODS. THE METHOD SELECTED SHALL NOT CAUSE CAVITATION OR SUBSIDENCE OF THE SOILS IN AND AROUND THE SITE.

12. SOLDIER PILES SHALL CONSIST OF GALVANIZED HP SHAPES (GRADE 50) AS NOTED ON THE DETAILS PROVIDED HEREIN, SPACED NO FARTHER THAN 10'-0" CENTER TO CENTER.

13. THE COST OF STEEL PILES, DRILLED SHAFTS, CONCRETE PANELS, CONCRETE COPING, CLEAN ROCK, GEOSYNTHETIC FABRIC, DRAINAGE SYSTEM, COMPLETE IN PLACE, WILL BE COMPLETELY COVERED BY THE BID ITEM SOLDIER PILE RETAINING WALL. PAY LIMITS OF RETAINING WALL ARE ARE MEASURED FROM THE TOP OF THE CONCRETE COPING TO THE BOTTOM OF PRECAST PANEL AND INCLUDE THE AREA OF THE SUPPORTING STEEL PILE ABOVE BOTTOM OF PANEL. SEE SHEET B81 FOR DETAIL.

SUMMARY OF QUANTITIES

SOLDIER PILE RETAINING WALL	1804.2 SF

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Olsson - Civil Engineering
Missouri Certificate of Authority #001592
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Joplin, MO 64801
TEL 417.781.0643
www.olsson.com

STATE OF MISSOURI
4/23/2021
KRISTEN ASHLEY STEHL
NUMBER PE - 2021000284
PROFESSIONAL ENGINEER

REVISIONS

REV. NO.	DATE	REVISIONS DESCRIPTION

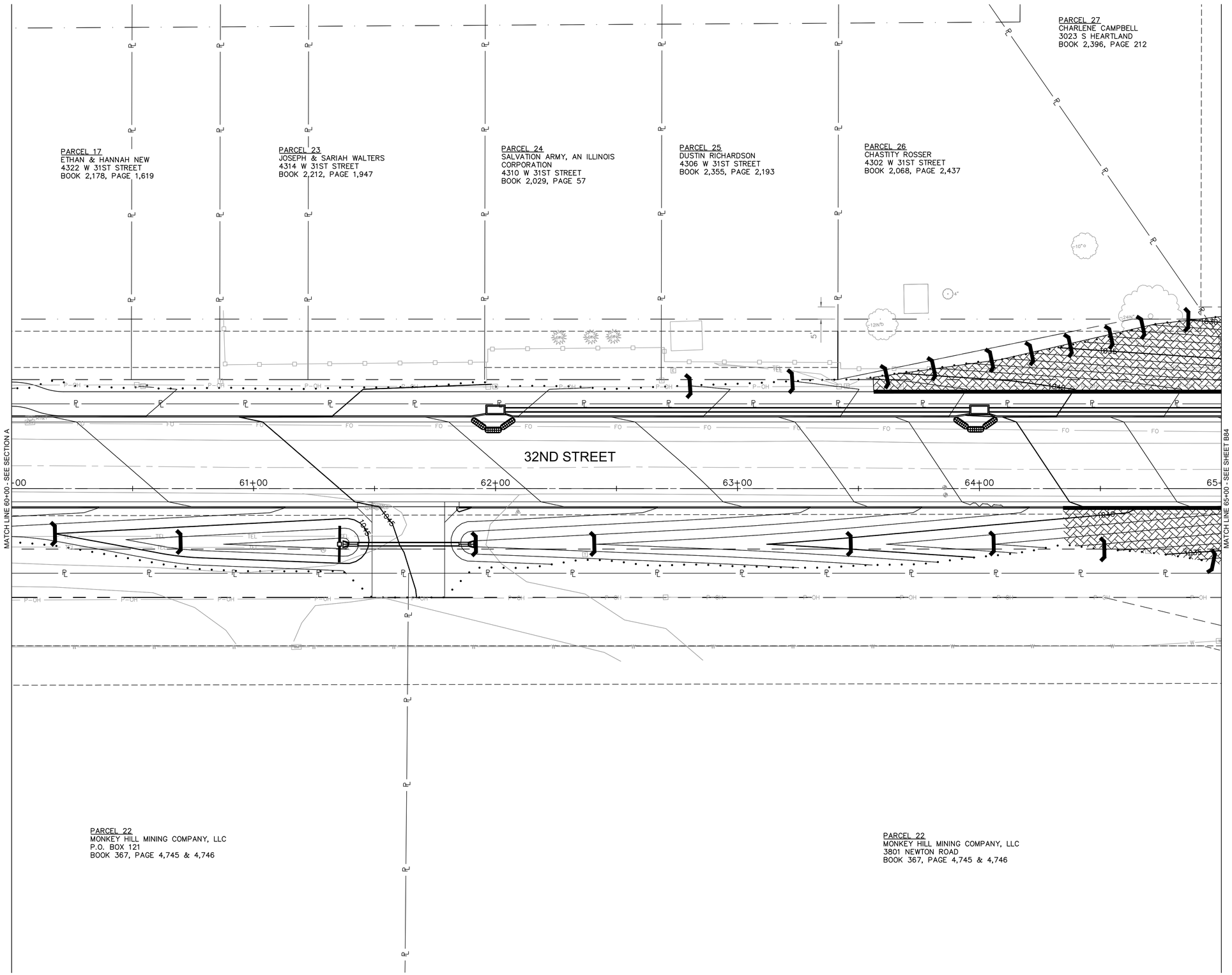
RETAINING WALL NOTES

32ND STREET IMPROVEMENTS
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by: BSB
designed by: LAH
checked by: SAS
project no.: 015-2768
drawing no.:
date: 04/23/2021



LEGEND

- 12" BIOLOG DITCH CHECK
- CULVERT INLET PROTECTION
- 8" BIODEGRADABLE LOG
- INLET PROTECTION
- EROSION CONTROL BLANKET (MODOT TYPE 2.D)

N

0' 10' 20' 40'

SCALE IN FEET

MISSOURI ONE CALL SYSTEM

1-800-DIG-RITE or 811

www.mo1call.com

Prepared by:

CJW Transportation Consultants, L.L.C.

CJW Transportation Consultants, L.L.C. Engineering MO C.A. #2006012385

5051 S National Ave. Suite 7A Springfield, MO 65810

Tel: 417.889.3400 Fax: 417.889.3402 www.GoCJW.com

STATE OF MISSOURI
DANE MITCHELL SEILER
NUMBER PE-2010019595
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

EROSION CONTROL PLAN

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

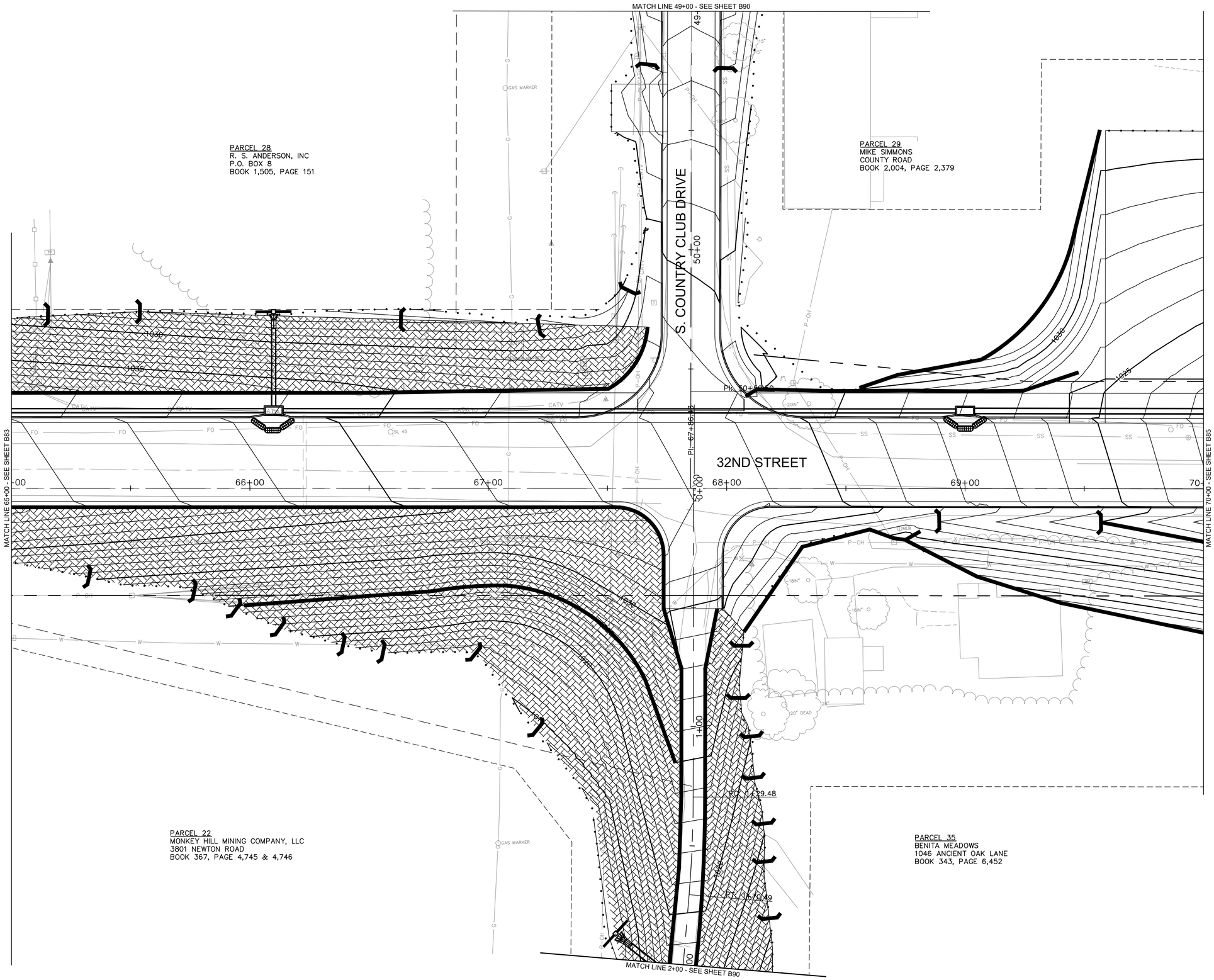
2021

drawn by: AJT
checked by: JCR
approved by: DMS
QA/QC by: OLSSON
project no.: 015-2768
drawing no.:
date: 04/23/2021

SHEET
B83 of B150

DWG: G:\15065 - 32nd Street Roadway\015-2768 32nd Street Widening\40-Design\AutoCAD\Final Plans\Sheets\CJW\B83 EROSION CONTROL PLAN.dwg USER: Aaron
DATE: Apr 21, 2021 8:19am XREFS: V_XB0U_52768 CJW_T_CTBLK_015-2768 (2019) cjw_t_pbase_015-2768 - STRIPING 3 lane OA_ACAD-T_XBASE_52768 CJW_T_ECP ERC-LEGEND

DWG: G:\15065 - 32nd Street Roadway\015-2768 32nd Street Widening\40-Design\AutoCAD\Final Plans\Sheets\CJW\B90 EROSION CONTROL PLAN.dwg USER: Aaron
DATE: Apr 21, 2021 8:19am XREFS: CJW_T_CTBLK_015-2768 (2019) OA_ACAD-T_XBASE_52768 ERC-LEGEND CJW_T_ECP
cjw_t_pbase_015-2768 - 3 LANE cjw_t_pbase_015-2768 - STRIPING 3 lane



LEGEND

- 12" BIOLOG DITCH CHECK
- CULVERT INLET PROTECTION
- 8" BIODEGRADABLE LOG
- INLET PROTECTION
- EROSION CONTROL BLANKET (MODOT TYPE 2.D)

Prepared by:
CJW
CJW Transportation Consultants, L.L.C.
CJW Transportation Consultants, L.L.C. Engineering MO C.A. #2006012385
5051 S. National Ave. Suite 7A Springfield, MO 65810
Tel: 417.889.3400
Fax: 417.889.3402
www.GoCJW.com

STATE OF MISSOURI
DANE MITCHELL SEILER
#-2371
NUMBER
PE-2010019595
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

EROSION CONTROL PLAN

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

N

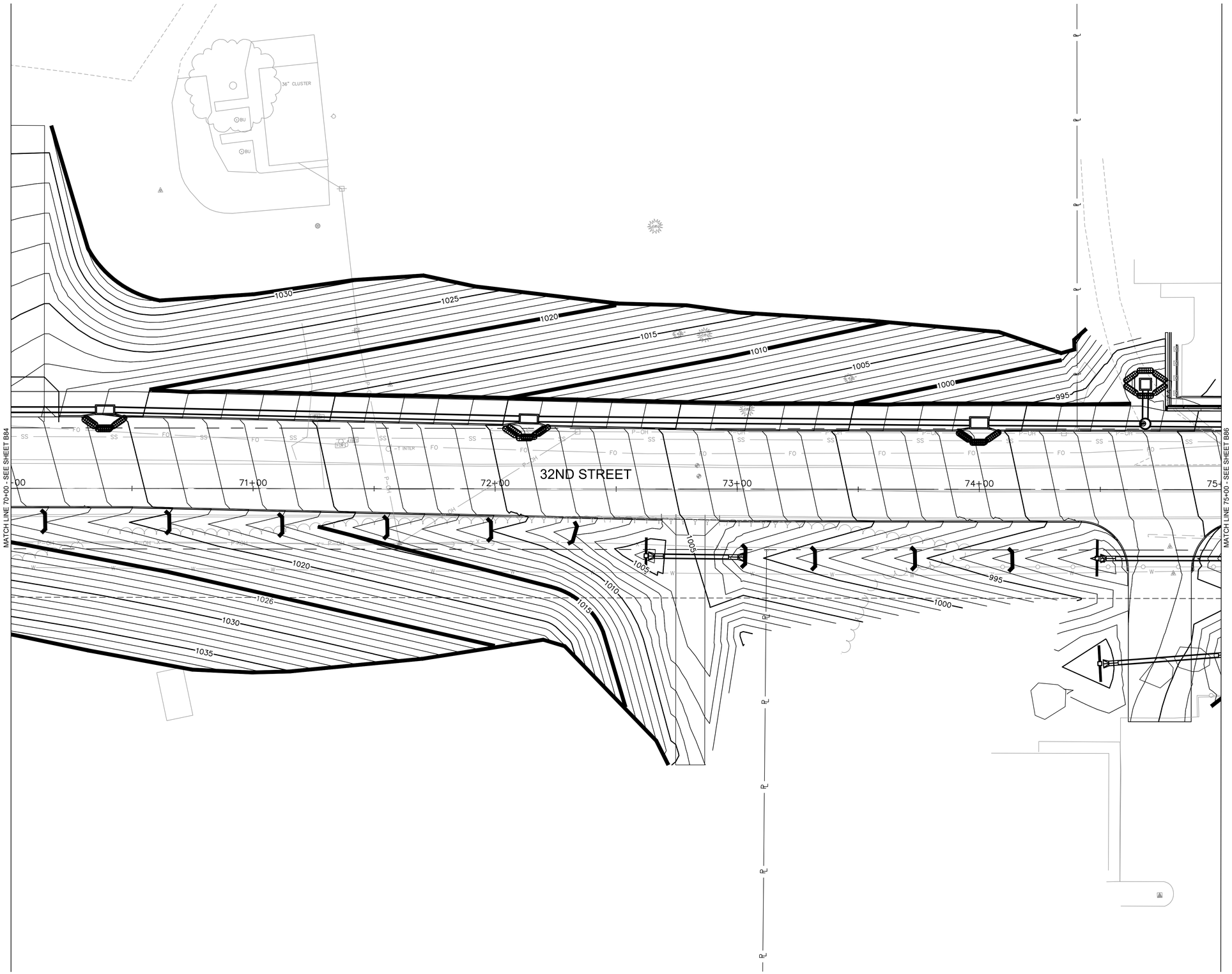
0' 10' 20' 40'
SCALE IN FEET

MISSOURI ONE CALL SYSTEM
1-800-DIG-RITE or 811
www.mo1call.com

drawn by:	AJT
checked by:	JCR
approved by:	DMS
QA/QC by:	OLSSON
project no.:	015-2768
drawing no.:	
date:	04/23/2021

SHEET
B84 of B150

DWG: G:\15065 - 32nd Street Roadway\015-2768 32nd Street Widening\40-Design\AutoCAD\Final Plans\Sheets\CJW\B85 EROSION CONTROL PLAN.dwg USER: Aaron
DATE: Apr 21, 2021 8:20am XREFS: V_XB0U_52768 CJW_T_CTBLK_015-2768 (2019) cjw_t_pbase_015-2768 - striping 3 lane OA_ACAD-T_XBASE_52768 ERC-LEGEND CJW_T_ECP



LEGEND

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DANE MITCHELL SEILER
#2021 NUMBER PE-2010019595
STATE OF MISSOURI PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

EROSION CONTROL PLAN

32ND STREET WIDENING
CITY OF JOPLIN

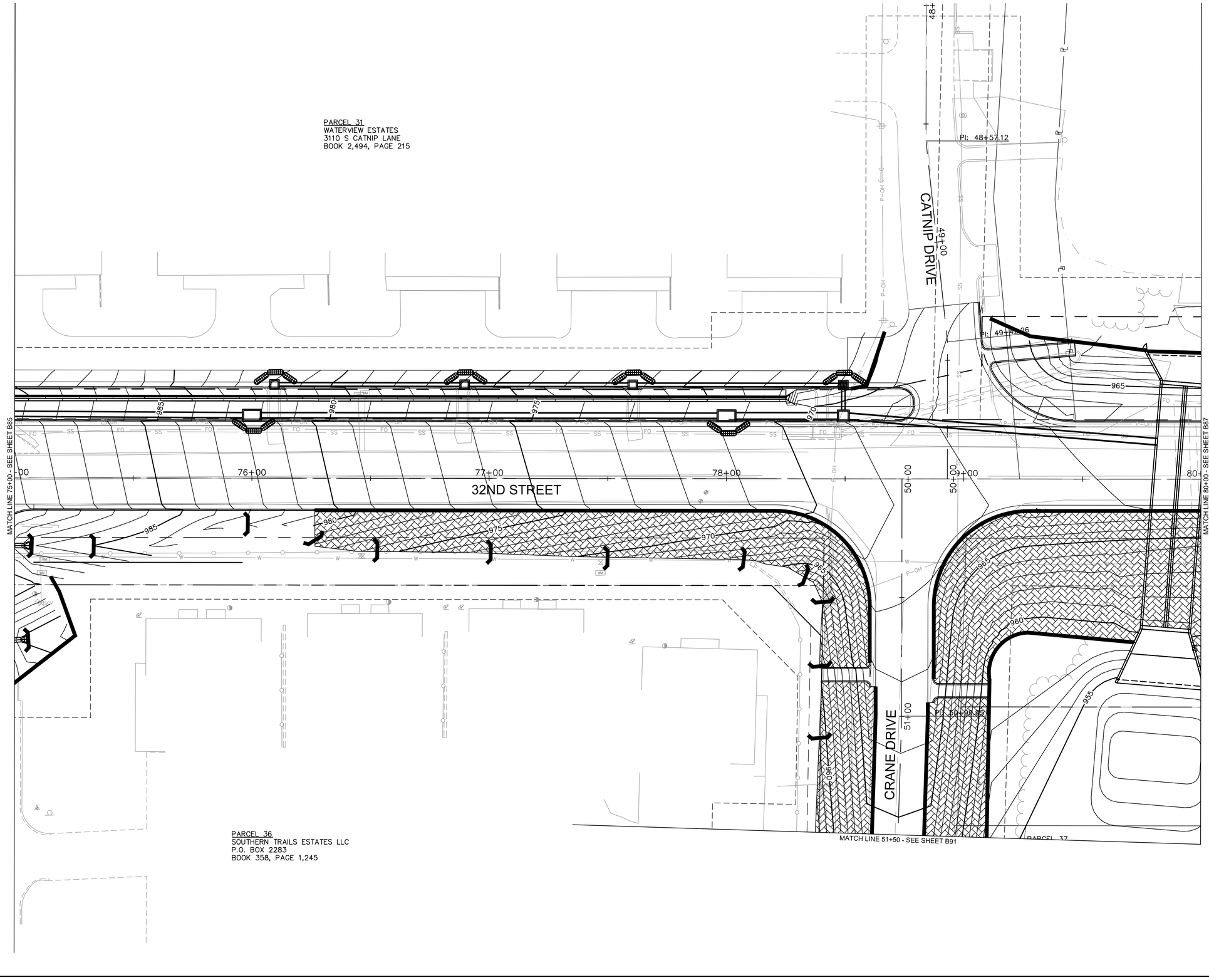
JOPLIN, MISSOURI

2021

drawn by:	AJT
checked by:	JCR
approved by:	DMS
QA/QC by:	OLSSON
project no.:	015-2768
drawing no.:	
date:	04/23/2021

SHEET
B85 of B150

DWG: G:\15065 - 32nd Street Roadway\015-2768 32nd Street Widening\40-Design\AutoCAD\Final Plans\Sheets\CJW\B91 EROSION CONTROL PLAN.dwg USER: Aaron
DATE: Apr 21, 2021 8:20am XREFS: V_XB0U_52768 CJW_T_CTBLK_015-2768 (2019) cjw_t_pbase_015-2768 - striping 3 lane OA_ACAD-T_XBASE_52768 ERC-LEGEND CJW_T_ECP
015-2768 - 3 LANE



LEGEND

- 12" BIOLOG DITCH CHECK
- CULVERT INLET PROTECTION
- 8" BIODEGRADABLE LOG
- INLET PROTECTION
- EROSION CONTROL BLANKET (MODOT TYPE 2.D)

NOTE:
CONTRACTOR SHALL INSTALL FLEX MAT AND RIPRAP BASIN CONCURRENTLY WITH INSTALLATION OF DOUBLE BOX CULVERT

N

0' 10' 20' 40'
SCALE IN FEET

MISSOURI ONE CALL SYSTEM
1-800-DIG-RITE or 811
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Prepared by:
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STATE OF MISSOURI
DANE MITCHELL SEILER
NUMBER PE-2010019595
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

EROSION CONTROL PLAN

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by: AJT
checked by: JCR
approved by: DMS
QA/QC by: OLSSON
project no.: 015-2768
drawing no.:
date: 04/23/2021

DWG: G:\15065 - 32nd Street Roadway\015-2768 32nd Street Widening\40-Design\AutoCAD\Final Plans\Sheets\CJW\B87 EROSION CONTROL PLAN.dwg USER: Aaron
DATE: Apr 21, 2021 8:21am XREFS: V_XB0U_52768 CJW_T_CTBLK_015-2768 (2019) cjw_t_pbase_015-2768 - striping 3 lane OA_ACAD-T_XBASE_52768 ERC-LEGEND CJW_T_ECP
cjw_t_pbase_015-2768 - 3 LANE

PARCEL 32
RBC ENTERPRISES
3110 S CATNIP LANE
BOOK 2,494, PAGE 528

PARCEL 33
DAVID MICHAEL EDGERTON, JR.
3066–3104 SOUTH DAY ROAD
BOOK 2,506, PAGE 141

MATCH LINE 80+00 - SEE SHEET B86

81+00 82+00 32ND STREET 83+00 84+00 85+

MATCH LINE 85+00 - SEE SHEET B88

PARCEL 37
EDWARD & ALISON HERSHEWE
431 VIRGINIA
BOOK 354, PAGE 4,486 & 4,613

PARCEL 37
EDWARD & ALISON HERSHEWE
431 VIRGINIA
BOOK 354, PAGE 4,486 & 4,613

LEGEND

- 12" BIOLOG DITCH CHECK
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STATE OF MISSOURI
DANE MITCHELL SEILER
#2021 NUMBER PE-2010019595
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

EROSION CONTROL PLAN

32ND STREET WIDENING
CITY OF JOPLIN

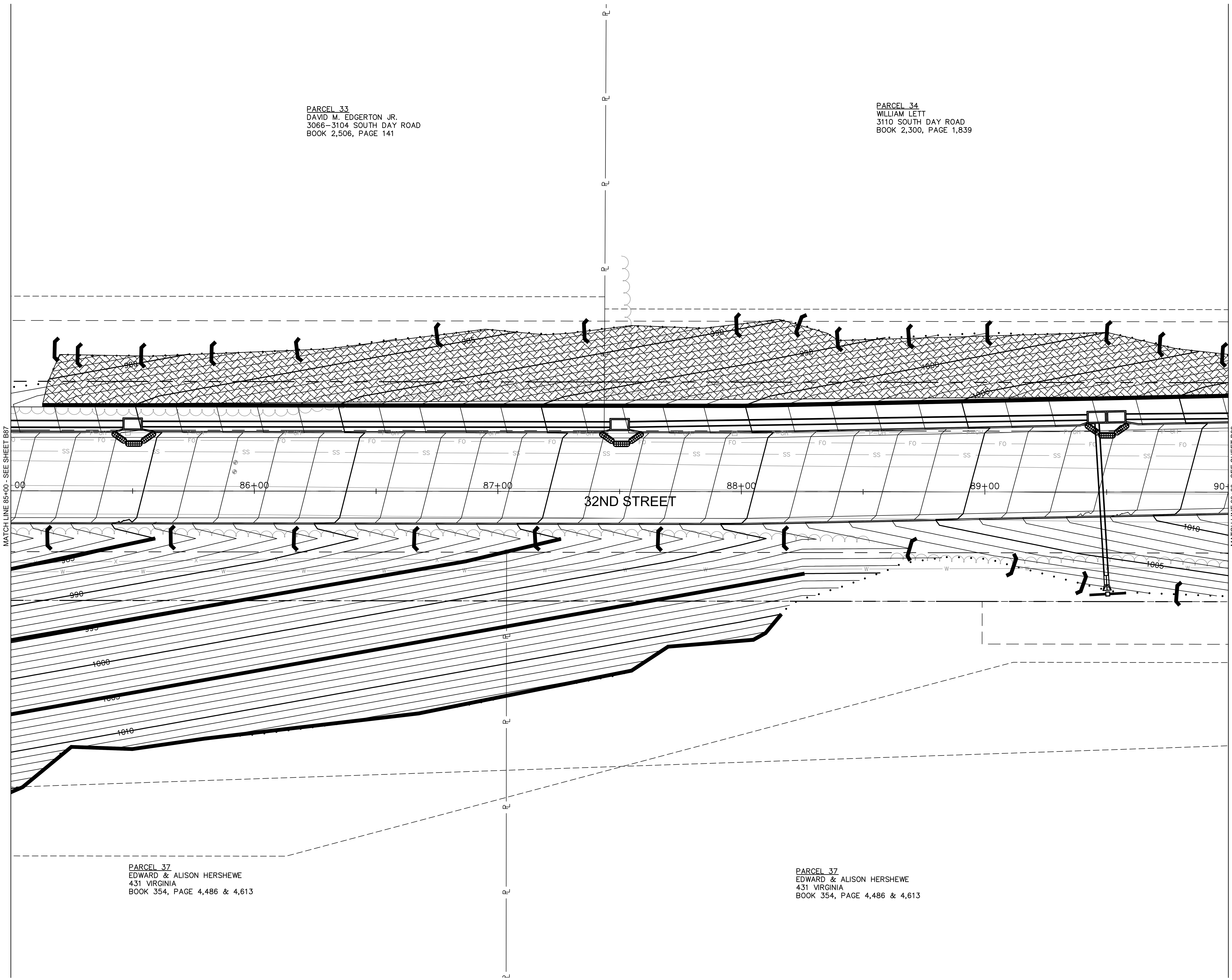
JOPLIN, MISSOURI

2021

drawn by: AJT
checked by: JCR
approved by: DMS
QA/QC by: OLSSON
project no.: 015-2768
drawing no.:
date: 04/23/2021

SHEET
B87 of B150

DWG: G:\15065 - 32nd Street Roadway\015-2768 32nd Street Widening\40-Design\AutoCAD\Final Plans\Sheets\CJW\B88 EROSION CONTROL PLAN.dwg USER: Aaron
DATE: Apr 21, 2021 8:21am XREFS: V_XBOU_52768 CJW_T_CTBLK_015-2768 (2019) cjw_t_pbase_015-2768 - 3 LANE cjw_t_pbase_015-2768 - striping 3 lane OA_ACAD-T_XBASE_52768 ERC-LEGEND CJW_T_ECP



LEGEND

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0' 10' 20' 40'
SCALE IN FEET

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Springfield, MO 65810
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CJW Transportation Consultants, L.L.C. Engineering
MO C.A. #2006012385

STATE OF MISSOURI
DANE MITCHELL SEILER
4-23-21
NUMBER PE-2010019595
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

EROSION CONTROL PLAN

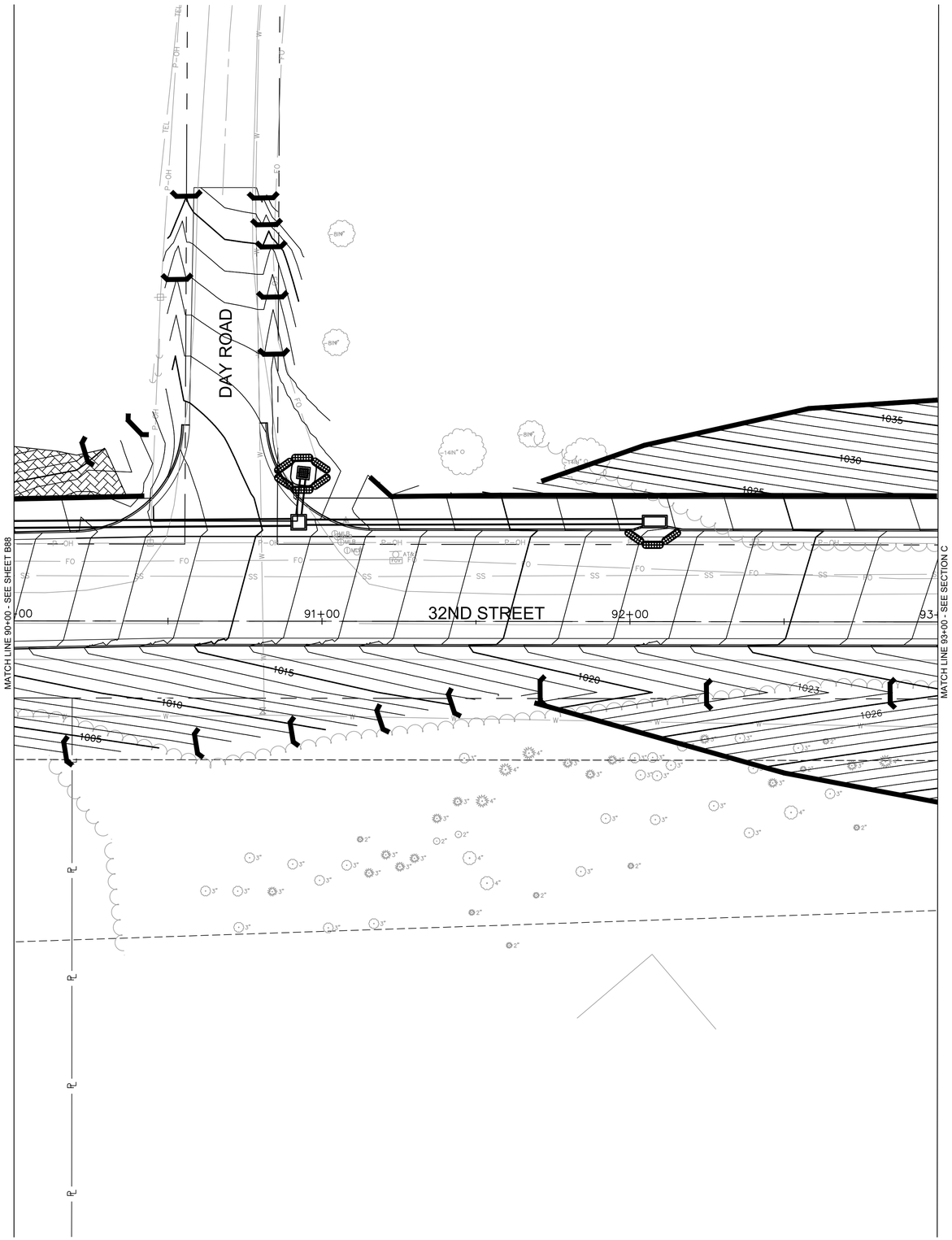
32ND STREET WIDENING
CITY OF JOPLIN

2021

JOPLIN, MISSOURI

drawn by: AJT
checked by: JCR
approved by: DMS
QA/QC by: OLSSON
project no.: 015-2768
drawing no.:
date: 04/23/2021

SHEET
B88 of B150



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0' 10' 20' 40'

SCALE IN FEET

MISSOURI ONE CALL SYSTEM

1-800-DIG-RITE or 811

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Prepared by:

CJW

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CJW Transportation Consultants, L.L.C. Engineering MO C.A. #2006012385

DANE MITCHELL SEILER

E-2371

NUMBER PE-2010019595

STATE OF MISSOURI PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

EROSION CONTROL PLAN

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by: AJT
checked by: JCR
approved by: DMS
QA/QC by: OLSSON
project no.: 015-2768
drawing no.:
date: 04/23/2021

SHEET B89 of B150

DWG: G:\15065 - 32nd Street Roadway\015-2768 32nd Street Widening\40-Design\AutoCAD\Final Plans\Sheets\CJW\B89 EROSION CONTROL PLAN.dwg USER: Aaron
DATE: Apr 21, 2021 8:21am XREFS: V_XBOU_52768 CJW_T_CTBLK_015-2768 (2019) cjw_t_pbase_015-2768 - striping 3 lane OA_ACAD-T_XBASE_52768 ERC-LEGEND CJW_T_ECP

Prepared by:
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CJW Transportation Consultants, L.L.C. Engineering MO C.A. #2006012385
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Tel: 417.889.3400 Fax: 417.889.3402 www.GoCJW.com

DANE MITCHELL SEILER
E-2371
NUMBER
PE-2010019595
STATE OF MISSOURI
PROFESSIONAL ENGINEER

REV. NO	DATE	REVISIONS DESCRIPTION	BY
		REVISIONS	

EROSION CONTROL PLAN

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

N

0' 10' 20' 40'
SCALE IN FEET

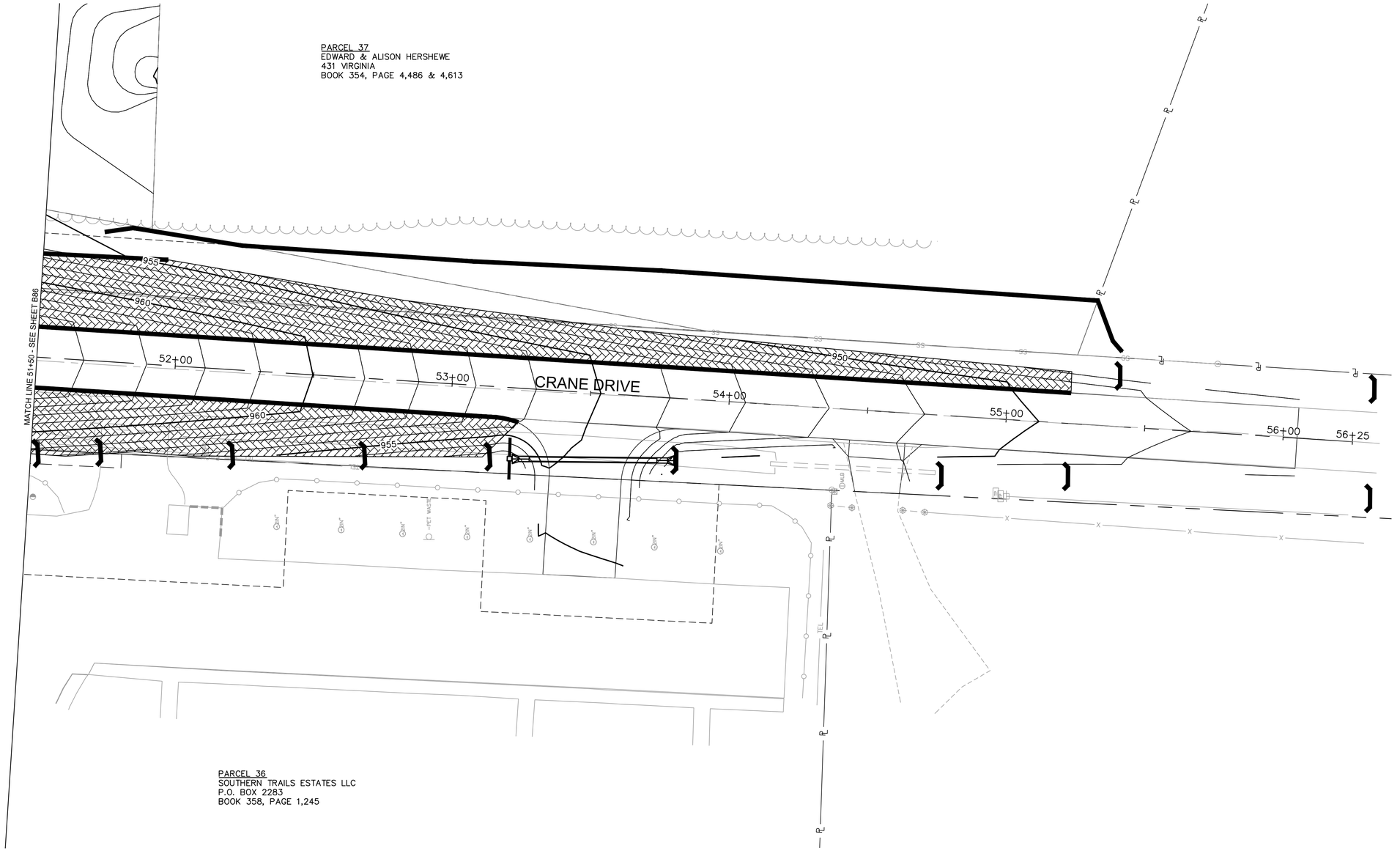
MISSOURI ONE CALL SYSTEM
1-800-DIG-RITE or 811
www.mo1call.com

drawn by:	AJT
checked by:	JCR
approved by:	DMS
QA/QC by:	OLSSON
project no.:	015-2768
drawing no.:	
date:	04/23/2021

SHEET
B90 of B150

DWG: G:\15065 - 32nd Street Roadway\015-2768 32nd Street Widening\40-Design\AutoCAD\Final Plans\Sheets\CJW\B90 EROSION CONTROL PLAN.dwg USER: Aaron
DATE: Apr 21, 2021 8:22am XREFS: CJW_T_CTBLK_015-2768 (2019) cjw_t_pbase_015-2768 - 3 LANE cjw_t_pbase_015-2768 - STRIPING 3 lane OA_ACAD-T_XBASE_52768 ERC-LEGEND CJW_T_ECP

DWG: G:\15065 - 32nd Street Roadway\015-2768 32nd Street Widening\40-Design\AutoCAD\Final Plans\Sheets\CJW\B91 EROSION CONTROL PLAN.dwg USER: Aaron
DATE: Apr 21, 2021 8:22am XREFS: V_XBOU_52768 cjw_t_pbase_015-2768 - striping 3 lane OA_ACAD-T_XBASE_52768 ERC-LEGEND CJW_T_ECP
cjw_t_pbase_015-2768 (2019) CJW_T_CTBLK_015-2768 (2019)



LEGEND

- 12" BIOLOG DITCH CHECK
- CULVERT INLET PROTECTION
- 8" BIODEGRADABLE LOG
- INLET PROTECTION
- EROSION CONTROL BLANKET (MODOT TYPE 2.D)

Prepared by:
CJW Transportation Consultants, L.L.C.
CJW Transportation Consultants, L.L.C. Engineering MO C.A. #2006012385
5051 S. National Ave. Suite 7A Springfield, MO 65810
Tel: 417.889.3400 Fax: 417.889.3402 www.GoCJW.com

STATE OF MISSOURI
DANE MITCHELL SEILER
NUMBER PE-2010019595
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

0' 10' 20' 40'
SCALE IN FEET

MISSOURI ONE CALL SYSTEM
1-800-DIG-RITE or 811
www.mo1call.com

EROSION CONTROL PLAN

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by: AJT
checked by: JCR
approved by: DMS
QA/QC by: OLSSON
project no.: 015-2768
drawing no.:
date: 04/23/2021

SHEET
B91 of B150

DWG: G:\15065 - 32nd Street Roadway\015-2768 32nd Street Widening\40-Design\AutoCAD\Final Plans\Sheets\CJW\B84 SEEDING & SODDING PLAN.dwg USER: Aaron
DATE: Apr 21, 2021 8:23am XREFS: V_XBOU_52768 CJW_T_CTBLK_015-2768 (2019) cjw_t_pbase_015-2768 - 3 LANE OA_ACAD-T_XBASE_52768 ERC-LEGEND CJW_T_PPATT_SOD

PARCEL 17
ETHAN & HANNAH NEW
4322 W 31ST STREET
BOOK 2,178, PAGE 1,619

PARCEL 23
JOSEPH & SARIAH WALTERS
4314 W 31ST STREET
BOOK 2,212, PAGE 1,947

PARCEL 24
SALVATION ARMY, AN ILLINOIS CORPORATION
4310 W 31ST STREET
BOOK 2,029, PAGE 57

PARCEL 25
DUSTIN RICHARDSON
4306 W 31ST STREET
BOOK 2,355, PAGE 2,193

PARCEL 26
CHASTITY ROSSER
4302 W 31ST STREET
BOOK 2,068, PAGE 2,437

PARCEL 27
CHARLENE CAMPBELL
3023 S HEARTLAND
BOOK 2,396, PAGE 212

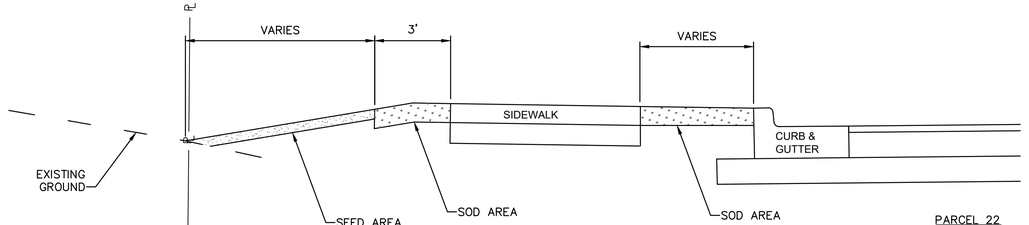
LEGEND
SODDED AREA
SEEDED AREA

MATCH LINE 60+00 - SEE SECTION A

60+00 61+00 62+00 32ND STREET 63+00 64+00 65+00

MATCH LINE 65+00 - SEE SHEET B93

PARCEL 22
MONKEY HILL MINING COMPANY, LLC
P.O. BOX 121
BOOK 367, PAGE 4,745 & 4,746



SEEDING & SODDING - TYPICAL SECTION
N.T.S.

PARCEL 22
MONKEY HILL MINING COMPANY, LLC
3801 NEWTON ROAD
BOOK 367, PAGE 4,745 & 4,746

N

0' 10' 20' 40'
SCALE IN FEET

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STATE OF MISSOURI
DANE MITCHELL SEILER
#-2371
NUMBER
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PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

SEEDING & SODDING PLAN

32ND STREET WIDENING
CITY OF JOPLIN

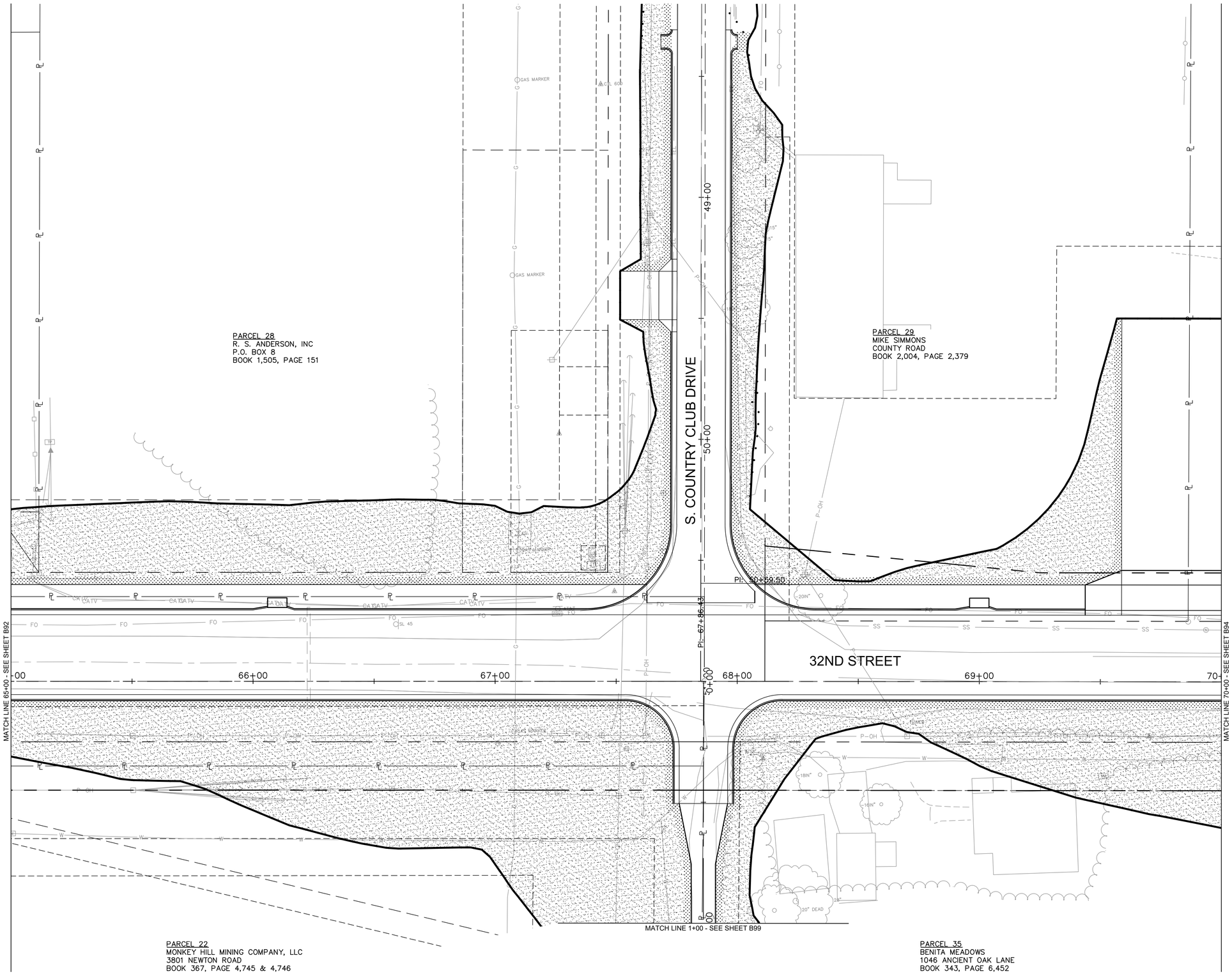
JOPLIN, MISSOURI

2021

drawn by: AJT
checked by: JCR
approved by: DMS
QA/QC by: OLSSON
project no.: 015-2768
drawing no.:
date: 04/23/2021

SHEET
B92 of B150

DWG: G:\15065 - 32nd Street Roadway\015-2768 32nd Street Widening\40-Design\AutoCAD\Final Plans\Sheets\CJW\B93 - B99 SEEDING & SODDING PLAN.dwg USER: Aaron
DATE: Apr 21, 2021 8:23am XREFS: V_XBOU_52768 CJW_T_CTBLK_015-2768 (2019) cjw_t_pbase_015-2768 - 3 LANE cjw_t_pbase_015-2768 - STRIPING 3 lane OA_ACAD-T_XBASE_52768 ERC-LEGEND CJW_T_PPATT_SOD



MISSOURI ONE CALL SYSTEM
1-800-DIG-RITE or 811
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Prepared by:
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STATE OF MISSOURI
DANE MITCHELL SEILER
#2021 NUMBER PE-2010019595
PROFESSIONAL ENGINEER

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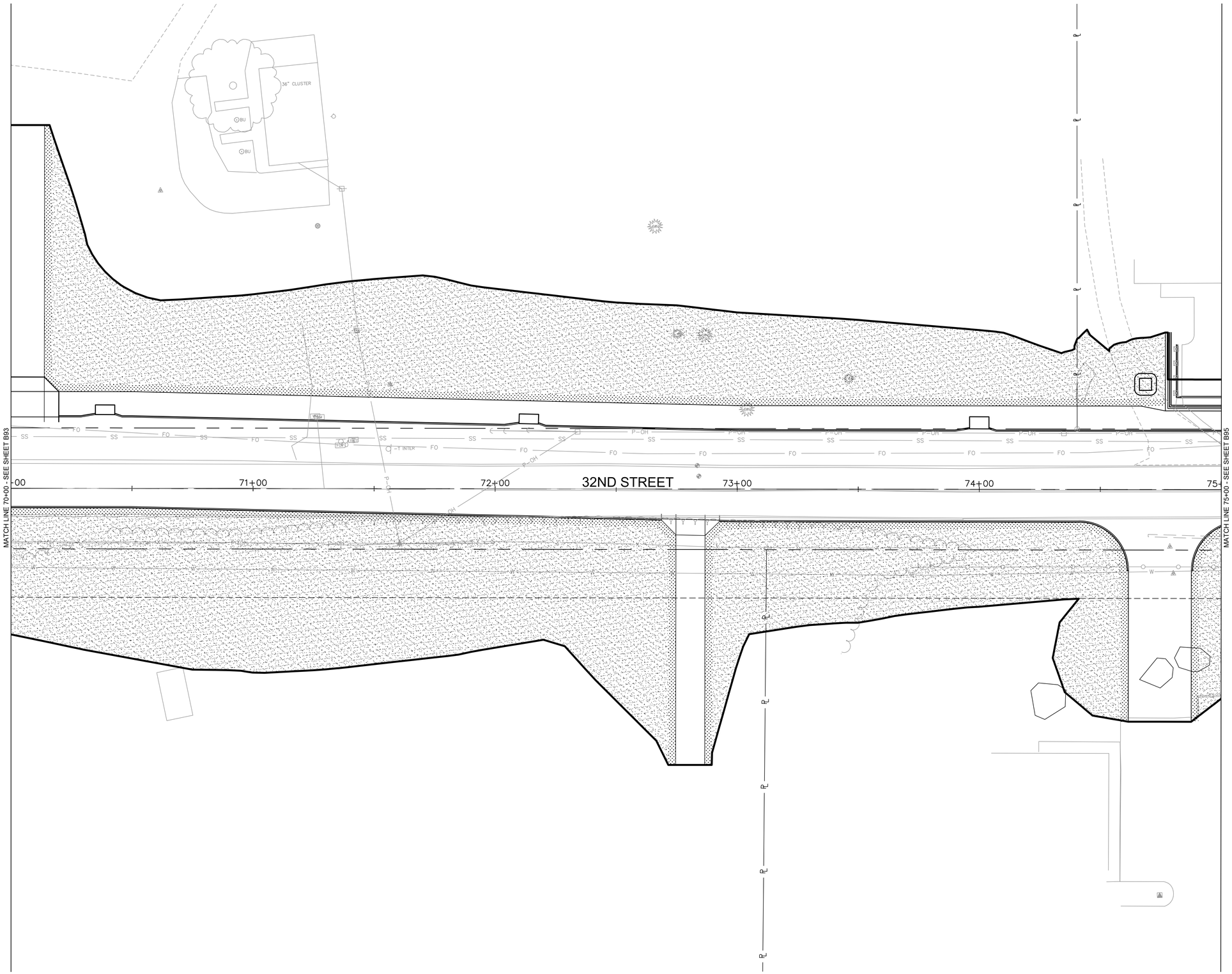
32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by: AJT
checked by: JCR
approved by: DMS
QA/QC by: OLSSON
project no.: 015-2768
drawing no.:
date: 04/23/2021

SHEET
B93 of B150



0' 10' 20' 40'
SCALE IN FEET

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STATE OF MISSOURI
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REVISIONS

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32ND STREET WIDENING
CITY OF JOPLIN

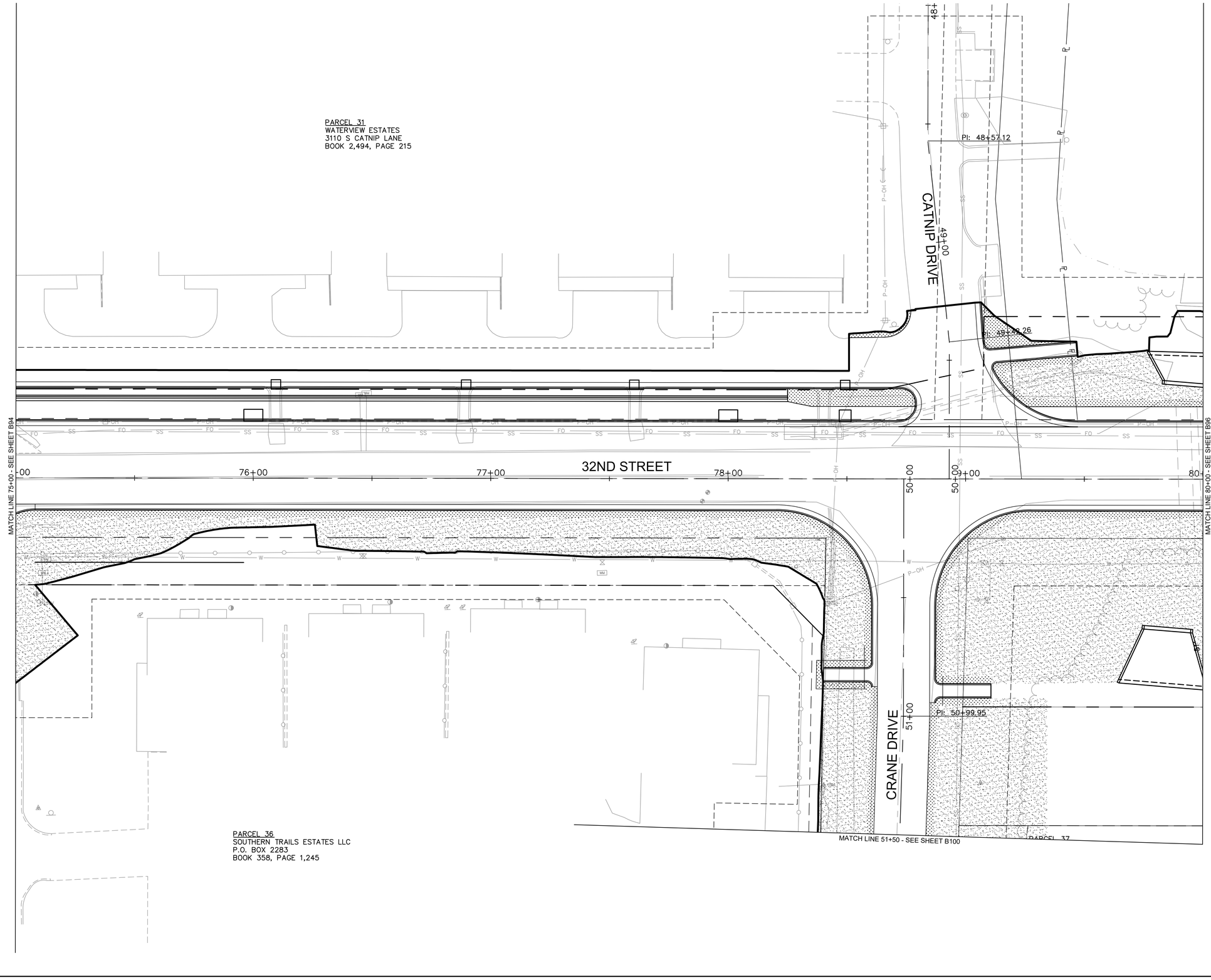
JOPLIN, MISSOURI

2021

drawn by: AJT
checked by: JCR
approved by: DMS
QA/QC by: OLSSON
project no.: 015-2768
drawing no.:
date: 04/23/2021

SHEET
B94 of B150

DWG: G:\15065 - 32nd Street Roadway\015-2768 32nd Street Widening\40-Design\AutoCAD\Final Plans\Sheets\CJW\B94 SEEDING & SODDING PLAN.dwg USER: Aaron
DATE: Apr 21, 2021 8:23am XREFS: V_XB0U_52768 CJW_T_CTBLK_015-2768 (2019) cjw_t_pbase_015-2768 - striping 3 lane OA_ACAD-T_XBASE_52768 ERC-LEGEND CJW_T_PPATT_SOD
B94 SEEDING & SODDING PLAN 32nd Street Roadway 015-2768 - 3 LANE



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CJW Transportation Consultants, L.L.C. Engineering MO C.A. #2006012385

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E-2021 NUMBER PE-2010019595
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32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by: AJT
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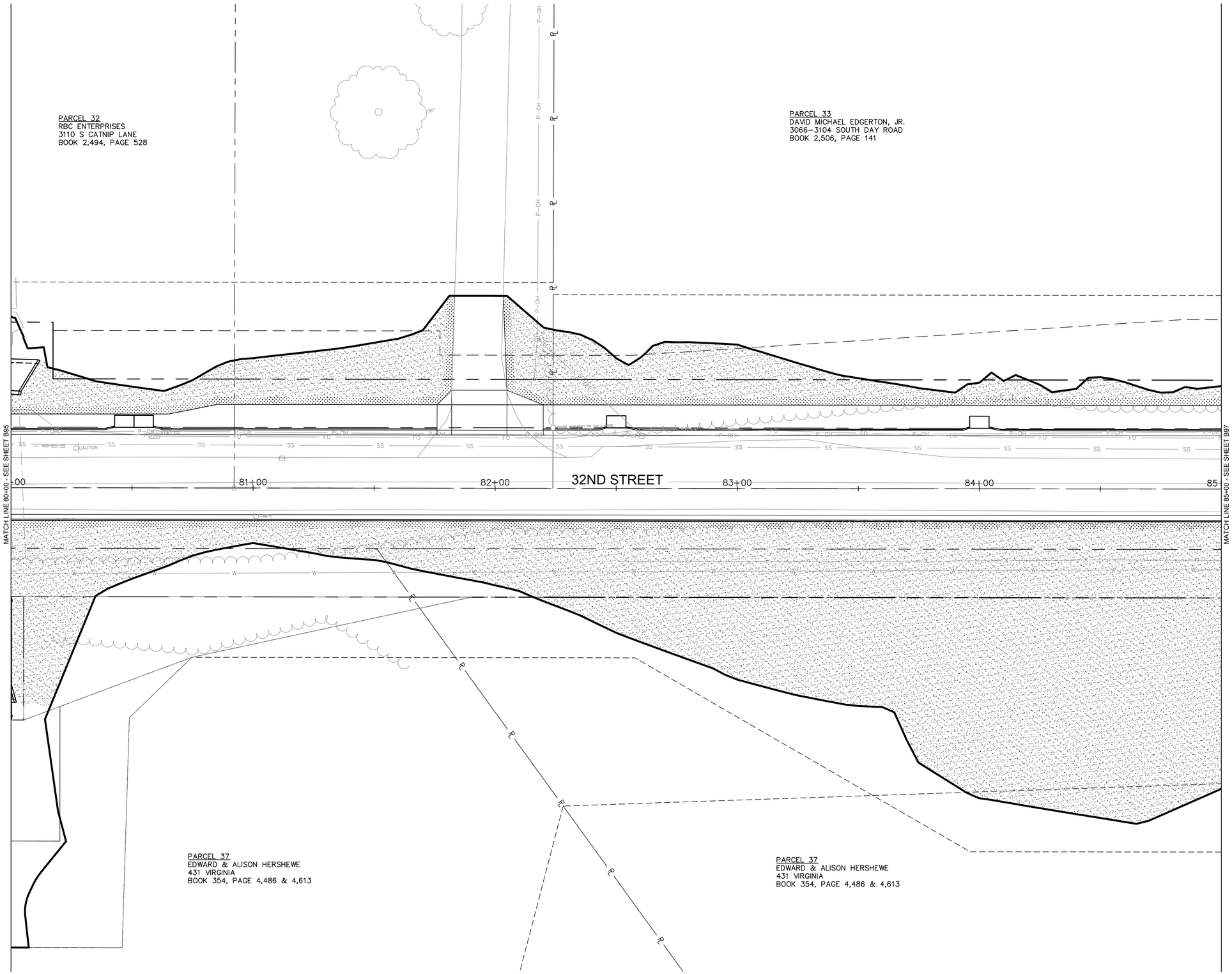
date: 04/23/2021

SHEET
B95 of B150

DWG: G:\15065 - 32nd Street Roadway\015-2768 32nd Street Widening\40-Design\AutoCAD\Final Plans\Sheets\CJW\B95 SEEDING & SODDING PLAN.dwg USER: Aaron
DATE: Apr 21, 2021 8:24am XREFS: V_XB0U_52768 CJW_T_CTBLK_015-2768 (2019) cjw_t_pbase_015-2768 - 3 LANE cjw_t_pbase_015-2768 - striping 3 lane OA_ACAD-T_XBASE_52768 ERC-LEGEND CJW_T_PPATT_SOD



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SCALE IN FEET

1-800-DIG-RITE = 811
www.mo1call.com

DWG: G:\15065 – 32nd Street Roadway\015-2768 32nd Street Widening\40-Design\AutoCAD\Final Plans\Sheets\CJW\B96 SEEDING & SODDING PLAN.dwg USER: Aaron
DATE: Apr 21, 2021 8:24am XREFS: V_XB0U_52768 CJW_T_CTBLK_015-2768 (2019) cjw_t_pbase_015-2768 – striping 3 lane OA_ACAD-T_XBASE_52768 ERC-LEGEND CJW_T_PPATT_SOD
B96 SEEDING & SODDING PLAN – 3 LANE

Prepared by:
CJW
CJW Transportation Consultants, L.L.C.
CJW Transportation Consultants, L.L.C. Engineering MO C.A. #2006012385
5051 S. National Ave. Suite 7A Springfield, MO 65810
Tel. 417.889.3400 Fax. 417.889.3402 www.GoCJW.com

STATE OF MISSOURI
DANE MITCHELL SEILER
#2021 NUMBER PE-2010019595
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

SEEDING & SODDING PLAN

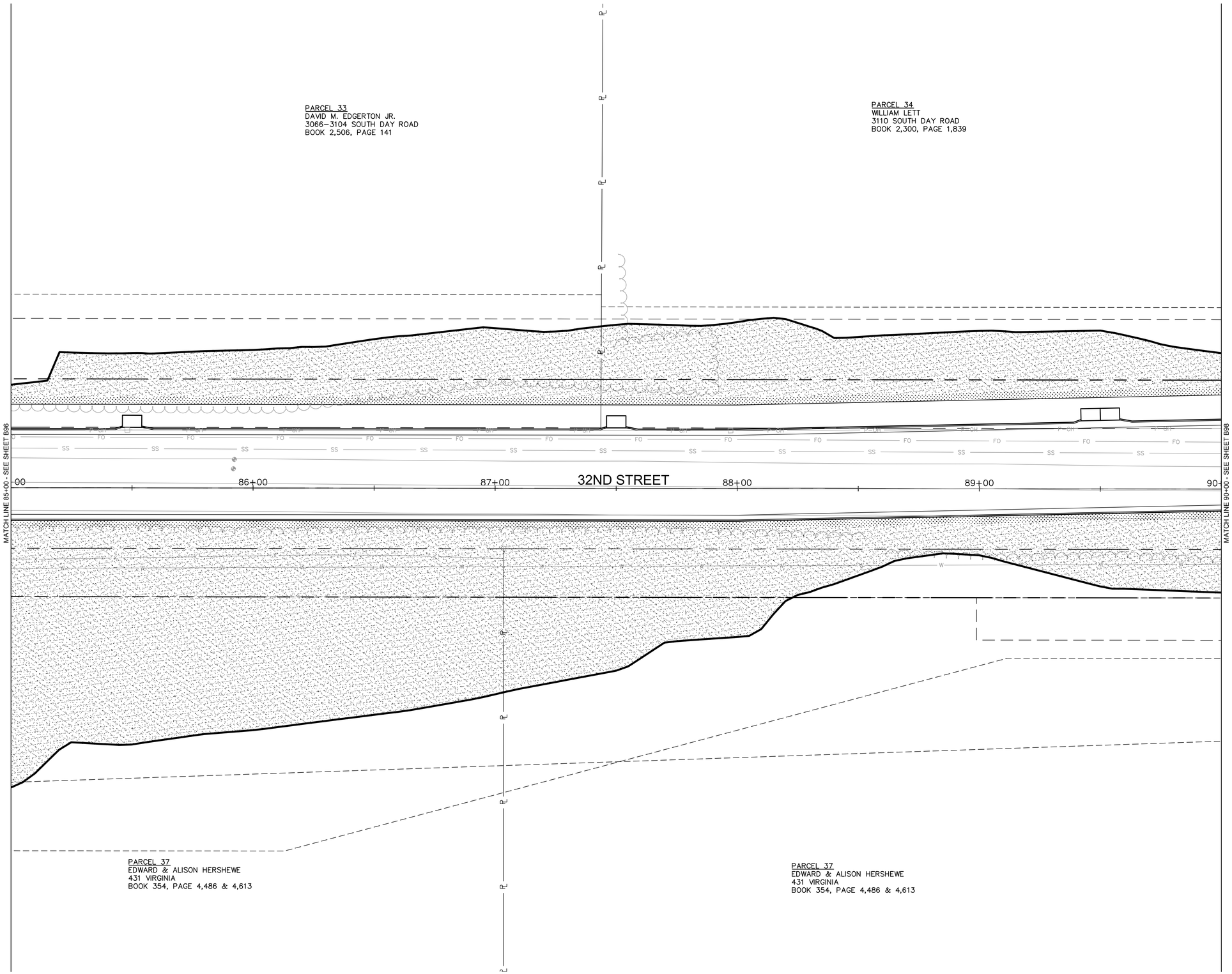
32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by:	AJT
checked by:	JCR
approved by:	DMS
QA/QC by:	OLSSON
project no.:	015-2768
drawing no.:	
date:	04/23/2021

SHEET
B96 of B150



N

0' 10' 20' 40'

SCALE IN FEET

MISSOURI ONE CALL SYSTEM

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Prepared by:

CJW

CJW Transportation Consultants, L.L.C.

CJW Transportation Consultants, L.L.C. Engineering MO C.A. #2006012385

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DANE MITCHELL SEILER
#-2021
NUMBER
PE-2010019595
STATE OF MISSOURI
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

SEEDING & SODDING PLAN

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

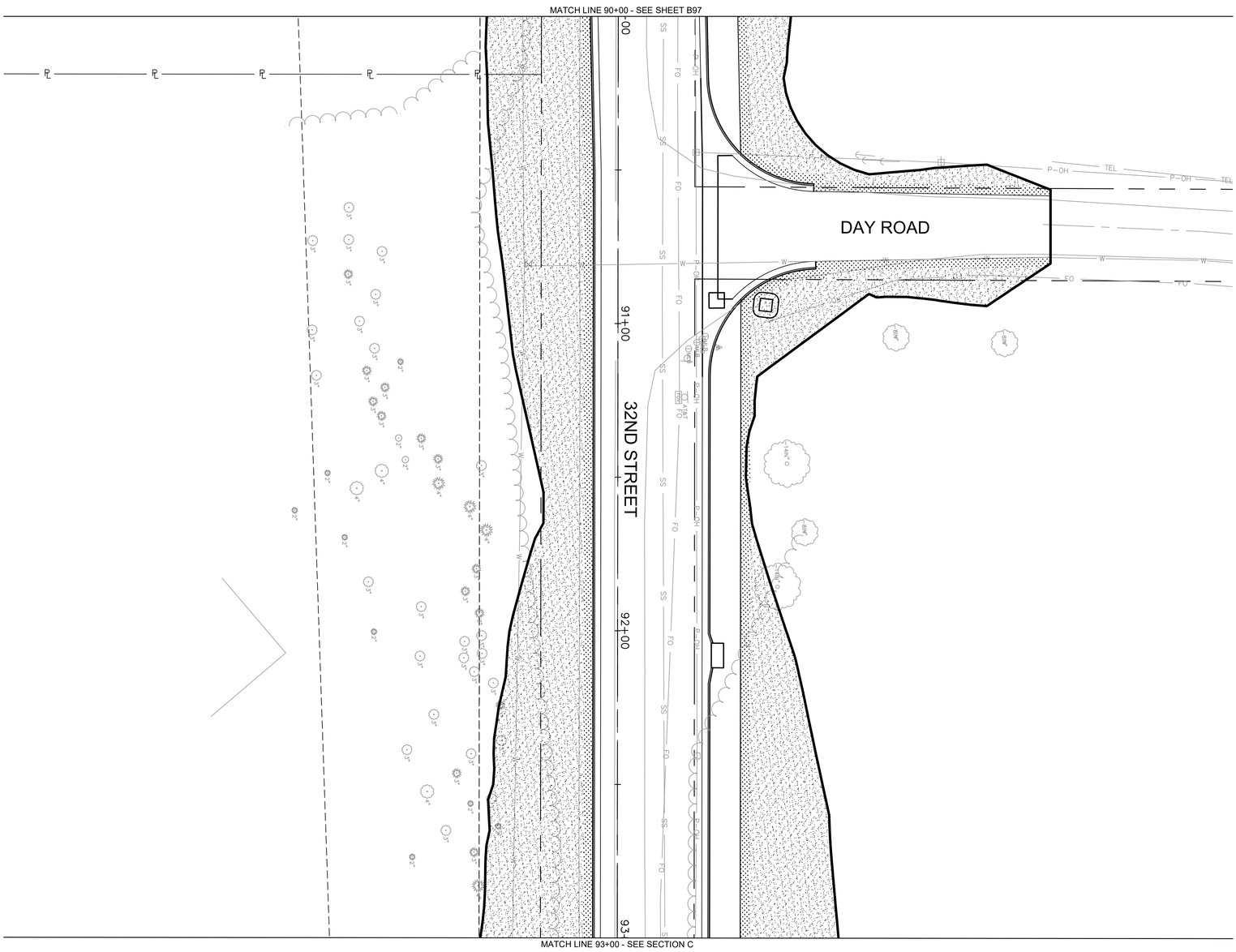
2021

drawn by: AJT
checked by: JCR
approved by: DMS
QA/QC by: OLSSON
project no.: 015-2768
drawing no.:
date: 04/23/2021

SHEET
B97 of B150

DWG: G:\15065 - 32nd Street Roadway\015-2768 32nd Street Widening\40-Design\AutoCAD\Final Plans\Sheets\CJW\B97 SEEDING & SODDING PLAN.dwg USER: Aaron
DATE: Apr 21, 2021 8:24am XREFS: V_XB0U_52768 CJW_T_CTBLK_015-2768 (2019) cjw_t_pbase_015-2768 - striping 3 lane OA_ACAD-T_XBASE_52768 ERC-LEGEND CJW_T_PPATT_SOD

DWG: G:\15065 - 32nd Street Roadway\015-2768 32nd Street Widening\40-Design\AutoCAD\Final Plans\Sheets\CJW\B98 SEEDING & SODDING PLAN.dwg USER: Aaron
DATE: Apr 21, 2021 8:25am XREFS: V_XBOU_52768 CJW_T_CTBLK_015-2768 (2019) cjw_t_pbase_015-2768 - 3 LANE cjw_t_pbase_015-2768 - striping 3 lane OA_ACAD-T_XBASE_52768 ERC-LEGEND CJW_T_PPATT_SOD



LEGEND

SODDED AREA

SEEDED AREA

SCALE IN FEET
0'
10'
20'
40'

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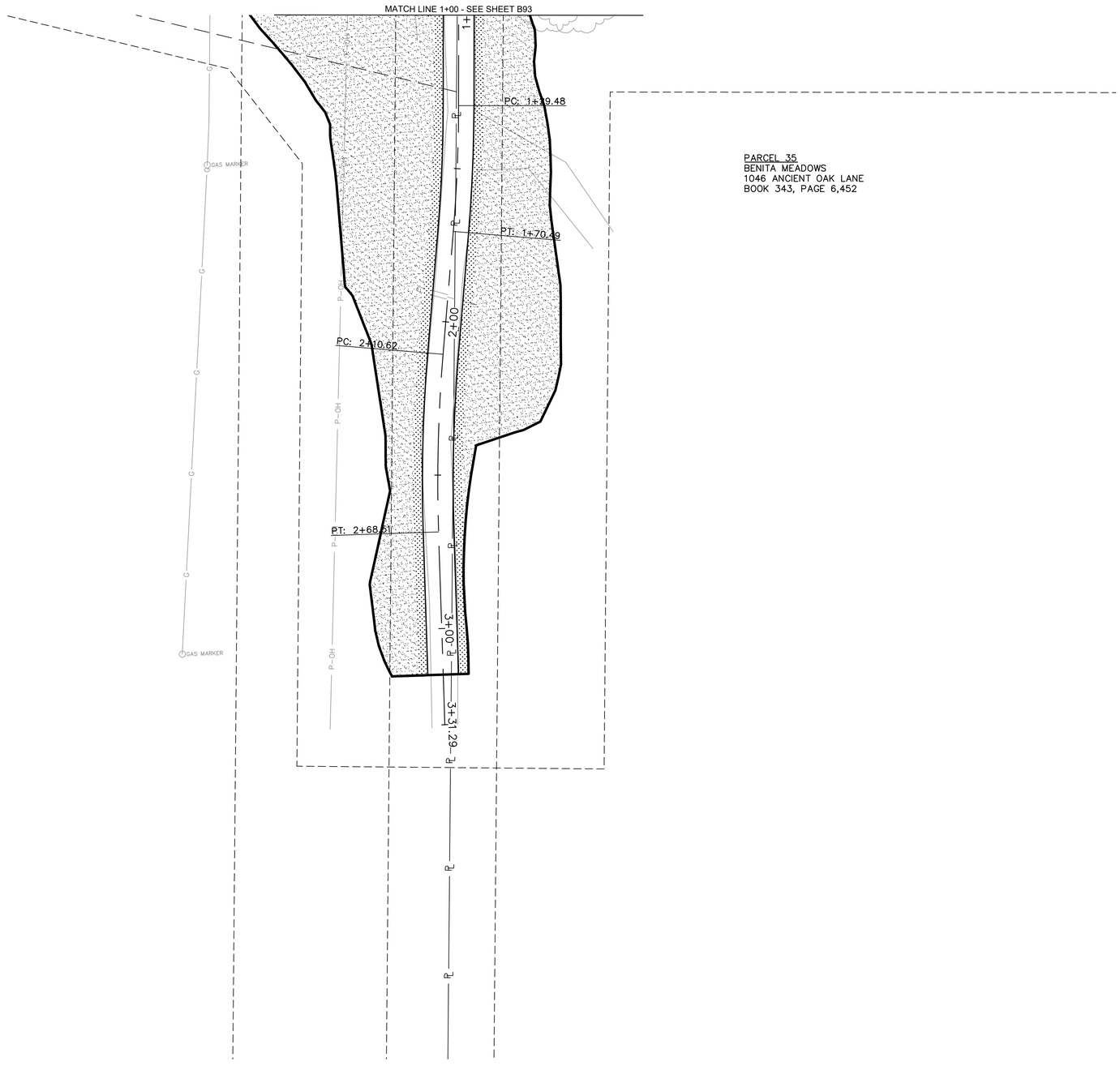
SHEET						
B98 of B150	drawn by: AJT checked by: JDR approved by: DMS QC check by: CJW project no.: 015-2768 drawing no.: date: 04/23/2021	SEEDING & SODDING PLAN 32ND STREET WIDENING CITY OF JOPLIN	JOPLIN, MISSOURI	2021	REV. NO. / DATE / REVISIONS DESCRIPTION / BY	REVISIONS

STATE OF MISSOURI
PROFESSIONAL ENGINEER
MITCHELL T. SEILER
NUMBER
PE-2010019998

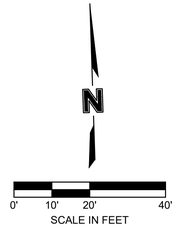
Prepared by:
CJW
CJW Transportation Consultants, L.L.C.
CJW Transportation Consultants, L.L.C. Engineering MO C.A. #2006012385
5051 S. National Ave. Suite 7A Springfield, MO 65810
Tel: 417.889.3400 Fax: 417.889.3402 www.GoCJW.com

DWG: G:\15065 - 32nd Street Roadway\015-2768 32nd Street Widening\40-Design\AutoCAD\Final Plans\Sheets\CJW\B93 - B99 SEEDING & SODDING PLAN.dwg USER: Aaron
DATE: Apr 21, 2021 8:25am XREFS: V_XBOU_52768 CJW_T_CTBLK_015-2768 (2019) cjw_t_pbase_015-2768 - 3 LANE cjw_L_pbase_015-2768 - STRIPING 3 lane OA_ACAD-T_XBASE_52768 ERC-LEGEND CJW_T_PPATT_SOD



LEGEND

- SODDED AREA
- SEEDED AREA



MISSOURI ONE-CALL SYSTEM
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Prepared by:
CJW Transportation Consultants, L.L.C.
5051 S. National Ave. Suite 7A Springfield, MO 65810
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CJW Transportation Consultants, L.L.C. Engineering MO C.A. #2006012385

STATE OF MISSOURI
DANE MITCHELL SEILER
#-2371
NUMBER
PE-2010019595
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

SEEDING & SODDING PLAN

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by: AJT
checked by: JCR
approved by: DMS
QA/QC by: OLSSON
project no.: 015-2768
drawing no.:
date: 04/23/2021

SHEET
B99 of B150

DWG: G:\15065 - 32nd Street Roadway\015-2768 32nd Street Widening\40-Design\AutoCAD\Final Plans\Sheets\CJW_B95 SEEDING & SODDING PLAN.dwg USER: Aaron
DATE: Apr 21, 2021 8:26am XREFS: V_XBOU_52768 CJW_T_CTBLK_015-2768 (2019) cjw_t_pbase_015-2768 - 3 LANE cjw_t_pbase_015-2768 - striping 3 lane OA_ACAD-T_XBASE_52768 ERC-LEGEND CJW_T_PPATT_SOD

LEGEND

SODDED AREA

SEEDED AREA

PARCEL 37
EDWARD & ALISON HERSHEWE
431 VIRGINIA
BOOK 354, PAGE 4,486 & 4,613

MATCH LINE 51+50 - SEE SHEET B95

52+00

53+00

CRANE DRIVE

54+00

55+00

56+00

56+25

PARCEL 36
SOUTHERN TRAILS ESTATES LLC
P.O. BOX 2283
BOOK 358, PAGE 1,245

0' 10' 20' 40'
SCALE IN FEET

MISSOURI ONE CALL SYSTEM
1-800-DIG-RITE or 811
www.mo1call.com

Prepared by:
CJW Transportation Consultants, L.L.C.
5051 S. National Ave. Suite 7A Springfield, MO 65810
Tel: 417.889.3400 Fax: 417.889.3402 www.GoCJW.com
CJW Transportation Consultants, L.L.C. Engineering MO C.A. #2006012385

STATE OF MISSOURI
DANE MITCHELL SEILER
NUMBER PE-2010019595
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY
		REVISIONS	

SEEDING & SODDING PLAN

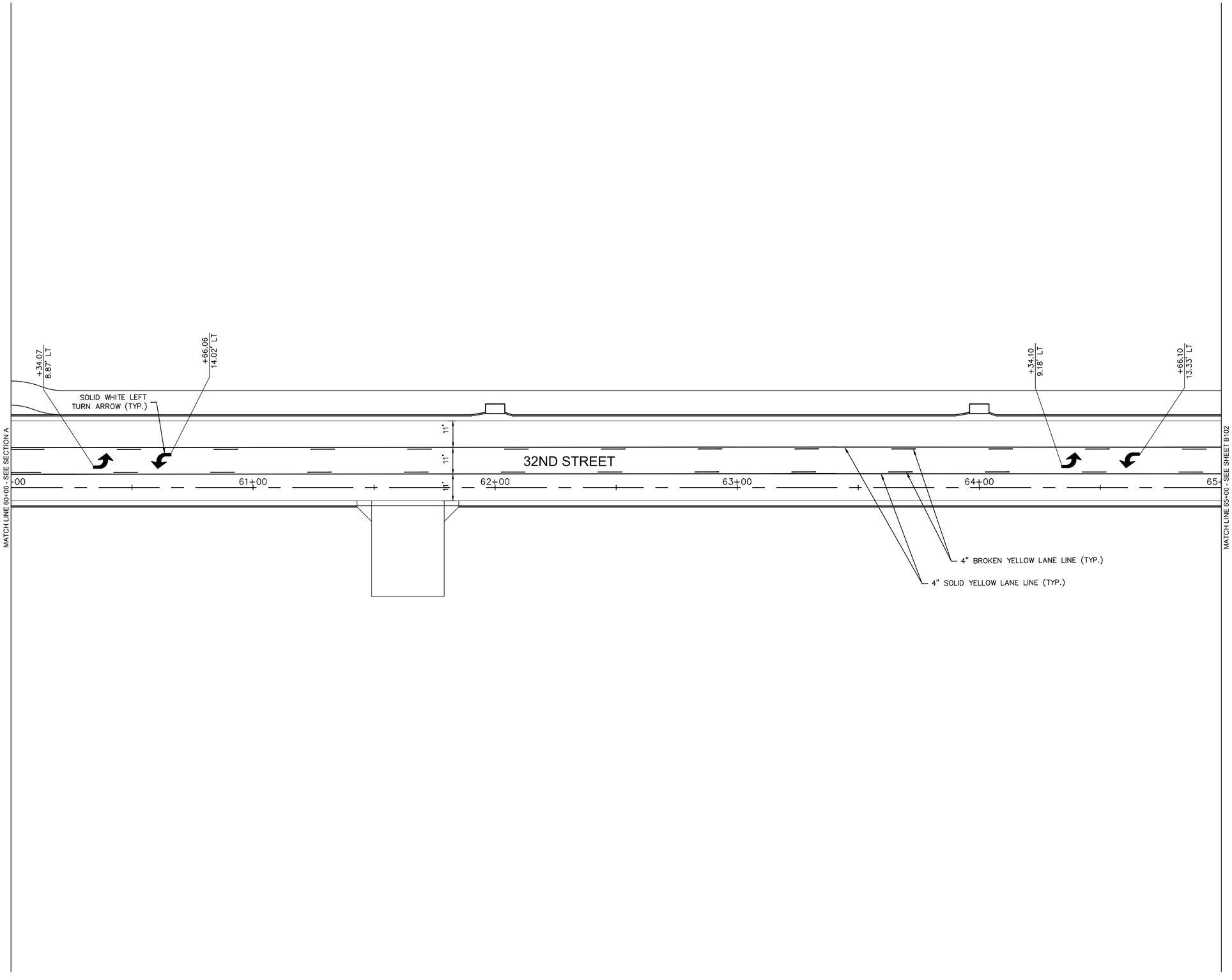
32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by: AJT
checked by: JCR
approved by: DMS
QA/QC by: OLSSON
project no.: 015-2768
drawing no.:
date: 04/23/2021

SHEET
B100 of B150



N

0' 10' 20' 40'

SCALE IN FEET

MISSOURI ONE CALL SYSTEM
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Prepared by:
CJW
CJW Transportation Consultants, L.L.C.
5051 S. National Ave. Suite 7A Springfield, MO 65810
Tel: 417.889.3400 Fax: 417.889.3402 www.GoCJW.com
CJW Transportation Consultants, L.L.C. Engineering MO C.A. #2006012385

STATE OF MISSOURI
DANE MITCHELL SEILER
NUMBER PE-2010019595
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

PAVEMENT MARKING AND SIGNING PLAN

32ND STREET WIDENING
CITY OF JOPLIN

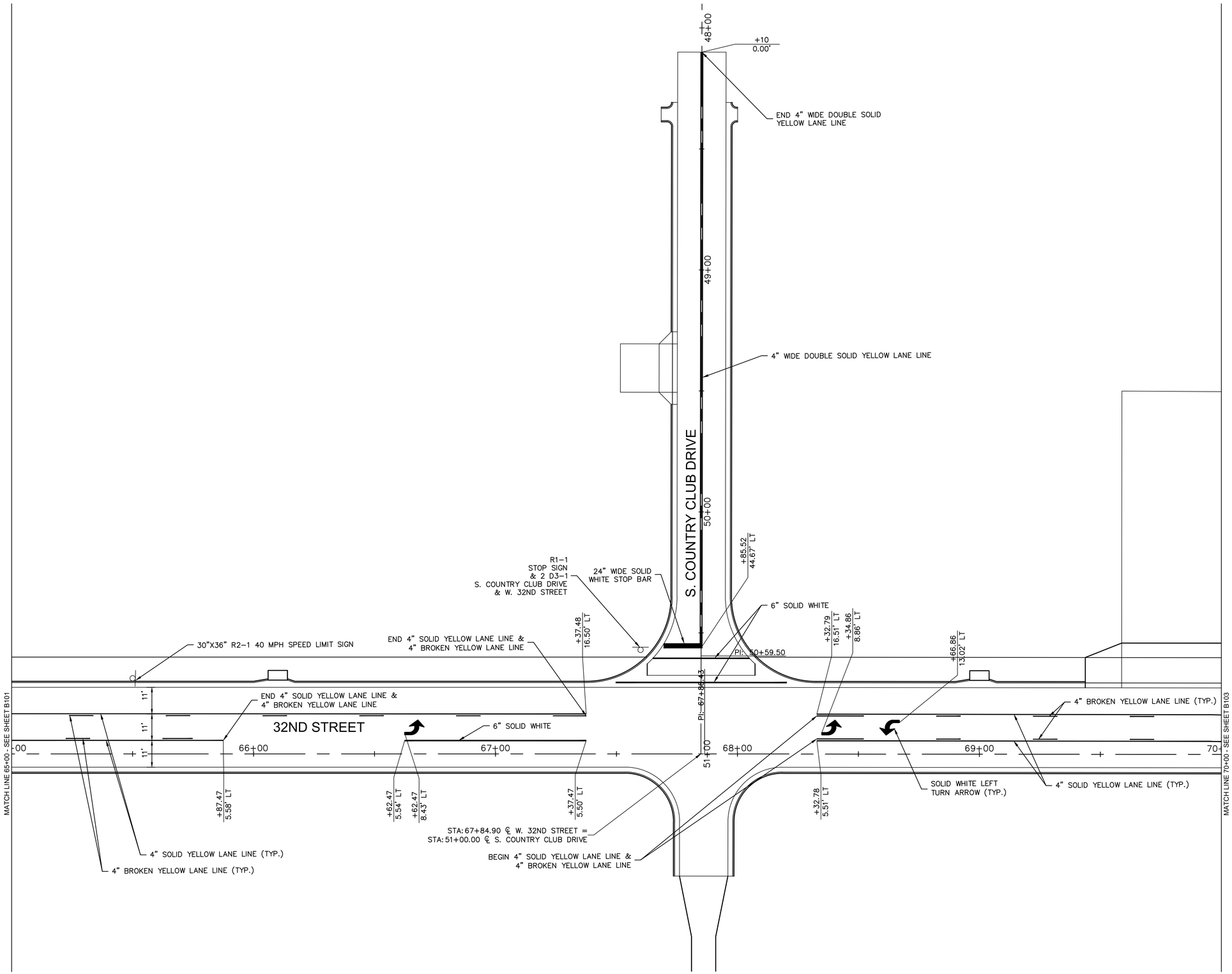
JOPLIN, MISSOURI

2021

drawn by: AJT
checked by: JCR
approved by: DMS
QA/QC by: OLSSON
project no.: 015-2768
drawing no.:
date: 04/23/2021

SHEET
B101 of B150

DWG: G:\15065 - 32nd Street Roadway\015-2768 32nd Street Widening\40-Design\AutoCAD\Final Plans\Sheets\CJW\B101 PAVEMENT MARKING & SIGNING PLAN.dwg USER: Aaron
DATE: Apr 21, 2021 8:26am XREFS: V_XB0U_52768 CJW_T_CTBLK_015-2768 (2019) cjw_t_pbase_015-2768 - STRIPING 3 lane OA_ACAD-T_XBASE_52768
B101 PAVEMENT MARKING & SIGNING PLAN - 3 LANE cjw_t_pbase_015-2768 - 3 LANE



N

0' 10' 20' 40'

SCALE IN FEET

MISSOURI ONE CALL SYSTEM

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DWG: G:\15065 - 32nd Street Roadway\015-2768 32nd Street Widening\40-Design\AutoCAD\Final Plans\Sheets\CJW\B102 PAVEMENT MARKING & SIGNING PLAN.dwg USER: Aaron
DATE: Apr 21, 2021 8:26am XREFS: V_XB0U_52768 CJW_T_CTBLK_015-2768 (2019) cjw_t_pbase_015-2768 - 3 LANE STRIPING 3 lane OA_ACAD-T_XBASE_52768

Prepared by:
CJW
CJW Transportation Consultants, L.L.C.
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5051 S. National Ave. Suite 7A Springfield, MO 65810
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DANE MITCHELL SEILER
NUMBER PE-2010019595
STATE OF MISSOURI
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

PAVEMENT MARKING AND SIGNING PLAN

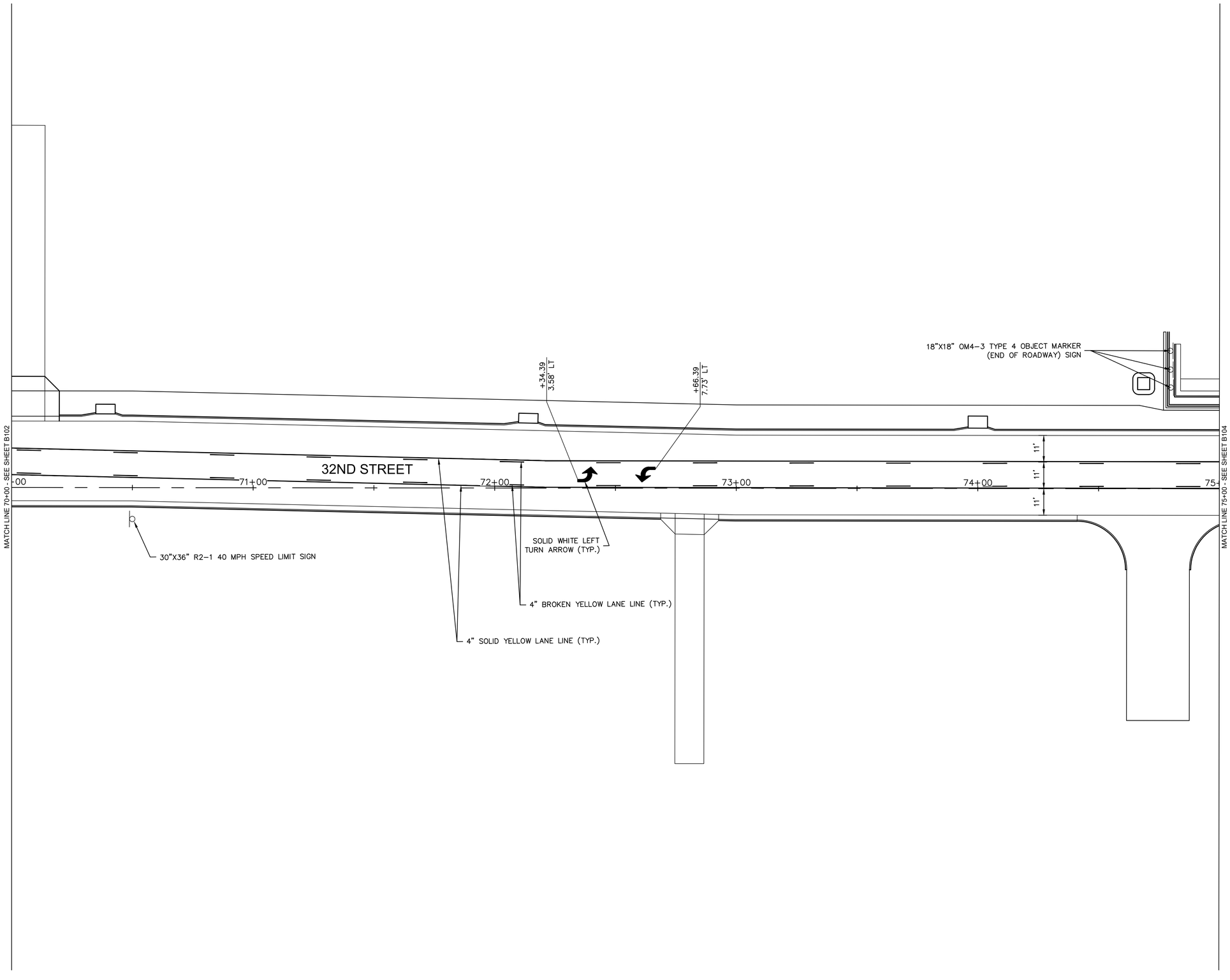
32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by: AJT
checked by: JCR
approved by: DMS
QA/QC by: OLSSON
project no.: 015-2768
drawing no.:
date: 04/23/2021

SHEET
B102 of B150



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SCALE IN FEET

MISSOURI
ONE CALL SYSTEM
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DWG: G:\15065 - 32nd Street Roadway\015-2768 32nd Street Widening\40-Design\AutoCAD\Final Plans\Sheets\CJW\B103 PAVEMENT MARKING & SIGNING PLAN.dwg USER: Aaron
DATE: Apr 21, 2021 8:26am XREFS: V_XBOU_52768 CJW_T_CTBLK_015-2768 (2019) cjw_t_pbase_015-2768 - striping 3 lane OA_ACAD-T_XBASE_52768

Prepared by:
CJW
CJW Transportation Consultants, L.L.C.
CJW Transportation Consultants, L.L.C. Engineering MO C.A. #2006012385
5051 S. National Ave. Suite 7A Springfield, MO 65810
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STATE OF MISSOURI
DANE MITCHELL SEILER
NUMBER PE-2010019595
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY
		REVISIONS	

PAVEMENT MARKING AND SIGNING PLAN

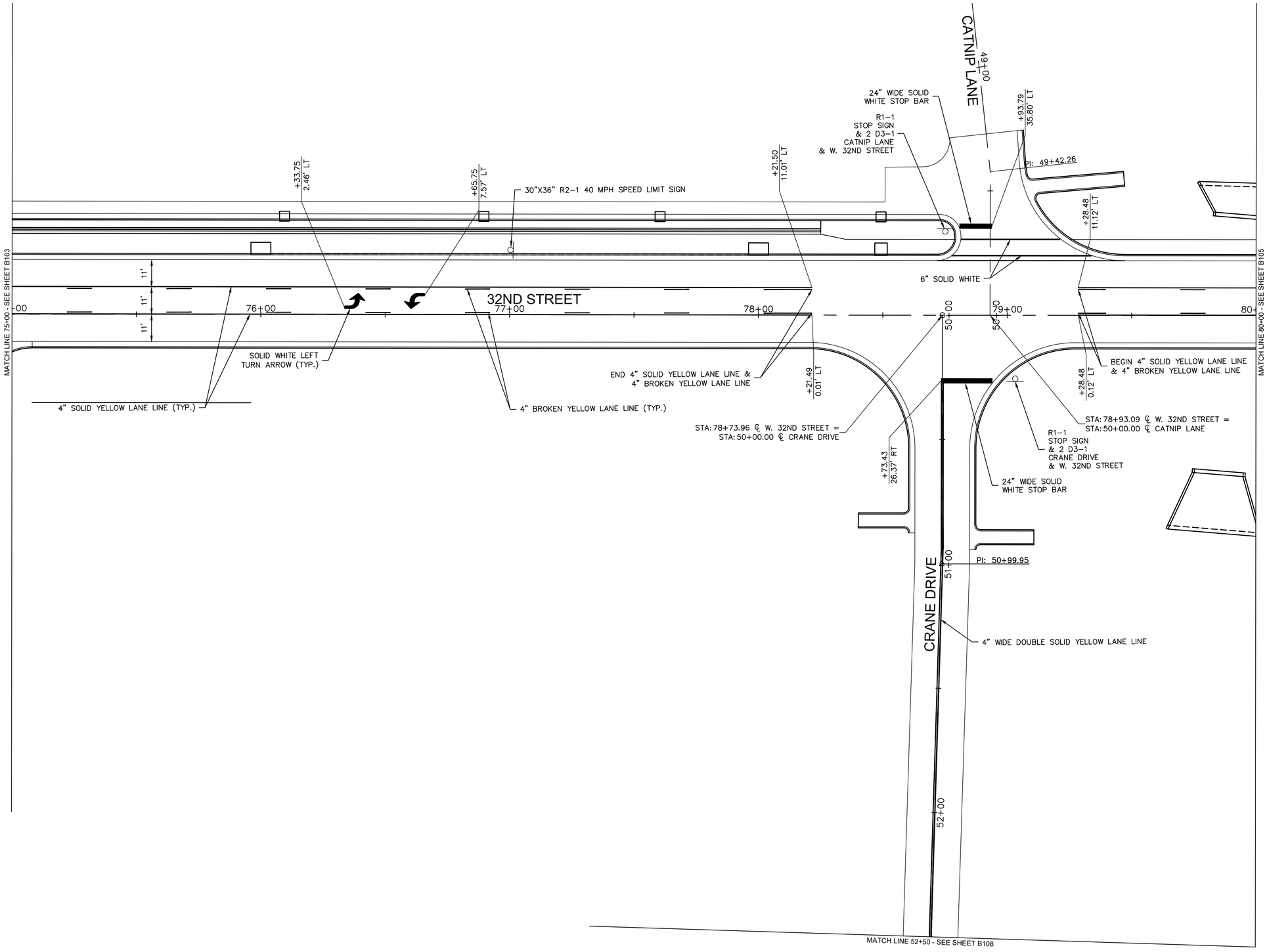
32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by: AJT
checked by: JCR
approved by: DMS
QA/QC by: OLSSON
project no.: 015-2768
drawing no.:
date: 04/23/2021

SHEET
B103 of B150



N

0' 10' 20' 40'

SCALE IN FEET

MISSOURI ONE-CALL SYSTEM

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DWG: G:\15065 - 32nd Street Roadway\015-2768 32nd Street Widening\40-Design\AutoCAD\Final Plans\Sheets\CJW\B108 PAVEMENT MARKING & SIGNING PLAN.dwg USER: Aaron
DATE: Apr 21, 2021 8:26am XREFS: V_XBOU_52768 CJW_T_CTBLK_015-2768 (2019) cjw_t_pbase_015-2768 - 3 LANE cjw_t_pbase_015-2768 - striping 3 lane OA_ACAD-T_XBASE_52768

Prepared by:
CJW
CJW Transportation Consultants, L.L.C.
CJW Transportation Consultants, L.L.C. Engineering MO C.A. #2006012385
5051 S. National Ave. Suite 7A Springfield, MO 65810
Tel: 417.889.3400 Fax: 417.889.3402 www.GoCJW.com

STATE OF MISSOURI
DANE MITCHELL SEILER
NUMBER PE-2010019595
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

PAVEMENT MARKING AND SIGNING PLAN

32ND STREET WIDENING
CITY OF JOPLIN

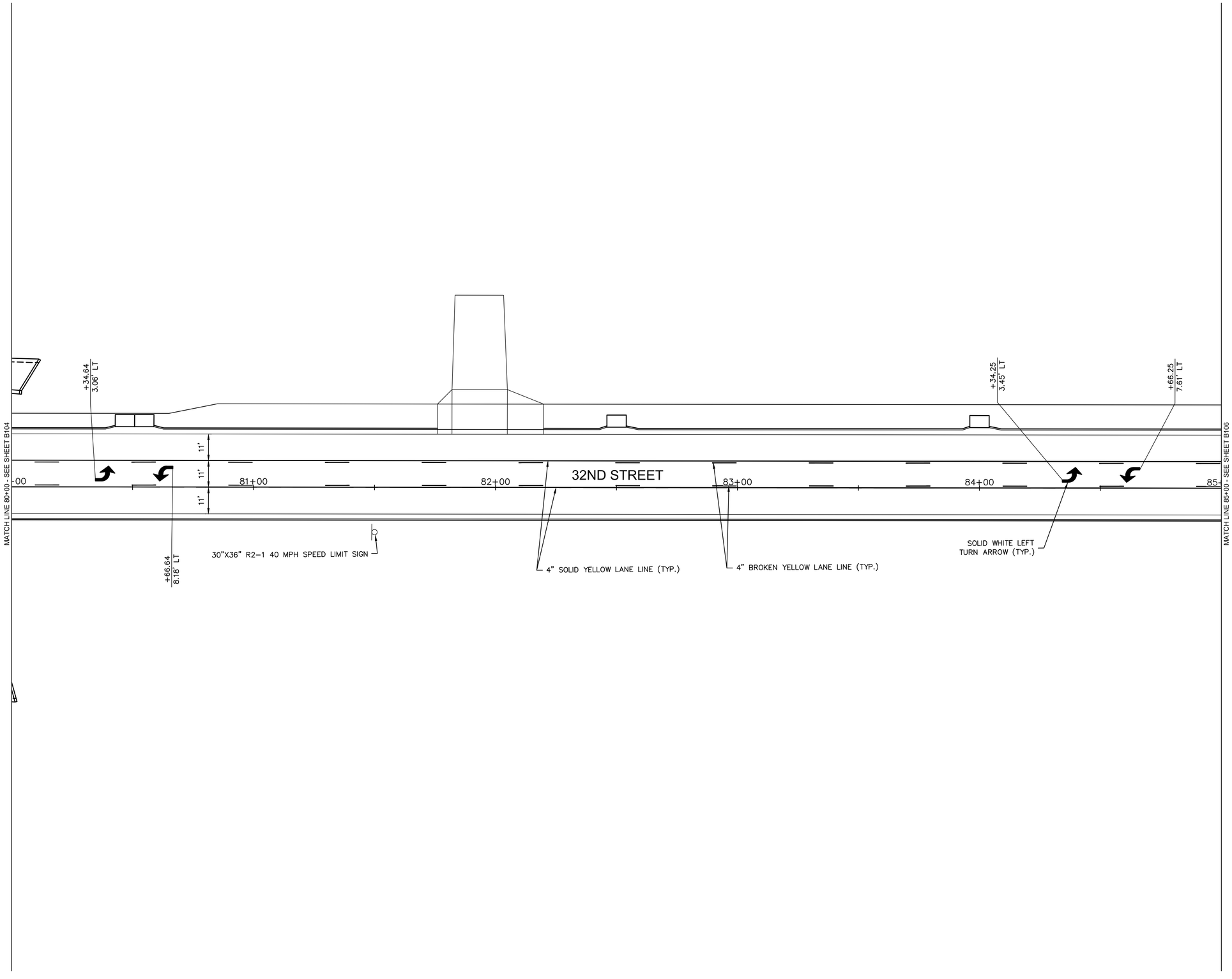
JOPLIN, MISSOURI

2021

drawn by: AJT
checked by: JCR
approved by: DMS
QA/QC by: OLSSON
project no.: 015-2768
drawing no.:
date: 04/23/2021

SHEET
B104 of B150

DWG: G:\15065 - 32nd Street Roadway\015-2768 32nd Street Widening\40-Design\AutoCAD\Final Plans\Sheets\CJW\B105 PAVEMENT MARKING & SIGNING PLAN.dwg USER: Aaron
DATE: Apr 21, 2021 8:26am XREFS: V_XBOU_52768 CJW_T_CTBLK_015-2768 (2019) cjw_t_pbase_015-2768 - striping 3 lane cjw_t_pbase_015-2768 - 3 LANE OA_ACAD-T_XBASE_52768



N

0' 10' 20' 40'
SCALE IN FEET

MISSOURI ONE-CALL SYSTEM
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Prepared by:
CJW
CJW Transportation Consultants, L.L.C.
CJW Transportation Consultants, L.L.C. Engineering MO C.A. #2006012385
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Tel: 417.889.3400
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www.GoCJW.com

STATE OF MISSOURI
DANE MITCHELL SEILER
#-2371
NUMBER
PE-2010019595
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

PAVEMENT MARKING AND SIGNING PLAN

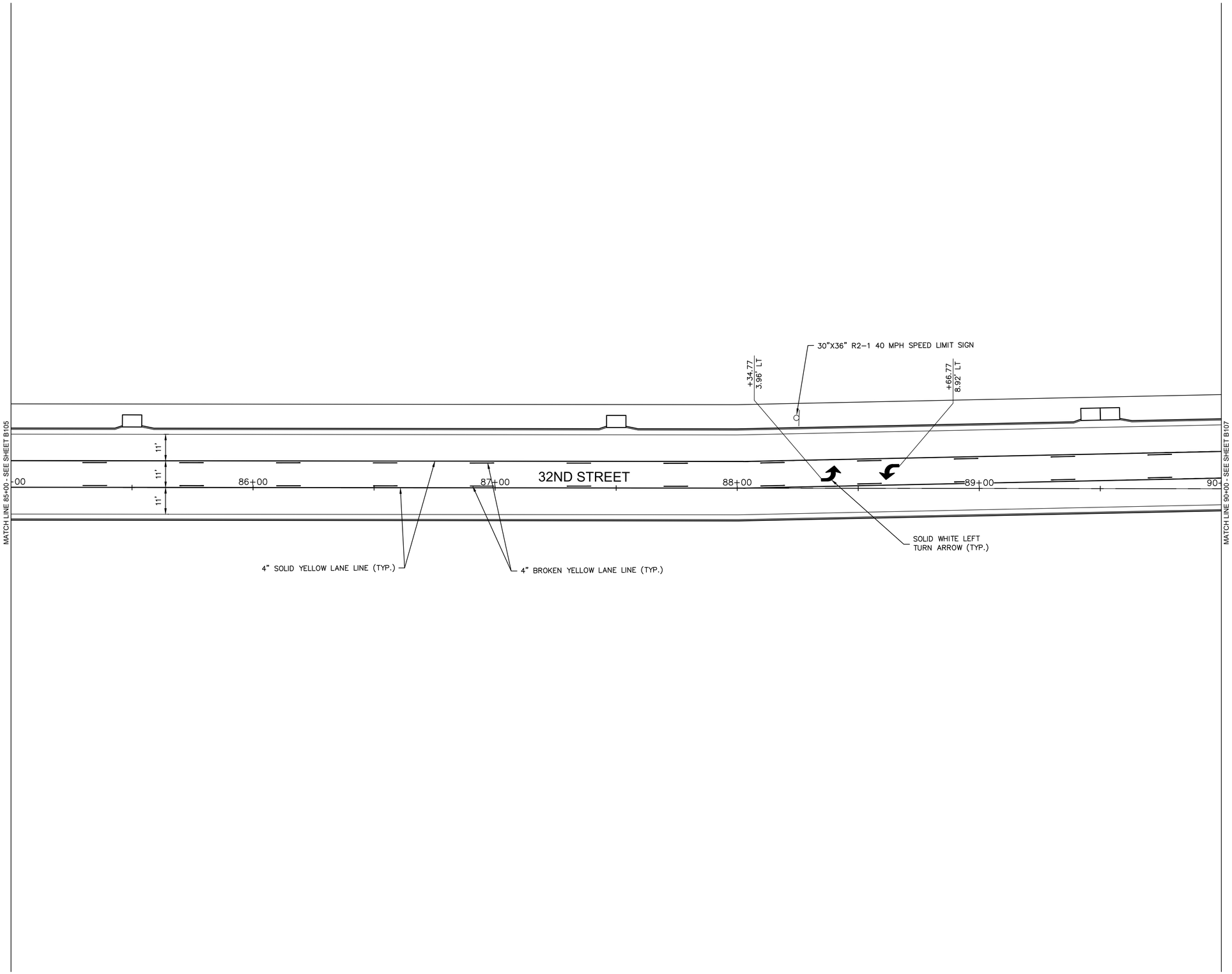
32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by: AJT
checked by: JCR
approved by: DMS
QA/QC by: OLSSON
project no.: 015-2768
drawing no.:
date: 04/23/2021

SHEET
B105 of B150



N

0' 10' 20' 40'
SCALE IN FEET

MISSOURI ONE CALL SYSTEM
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Prepared by:
CJW
CJW Transportation Consultants, L.L.C.
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CJW Transportation Consultants, L.L.C. Engineering MO C.A. #2006012385

STATE OF MISSOURI
DANE MITCHELL SEILER
NUMBER PE-2010019595
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY
		REVISIONS	

PAVEMENT MARKING AND SIGNING PLAN

32ND STREET WIDENING
CITY OF JOPLIN

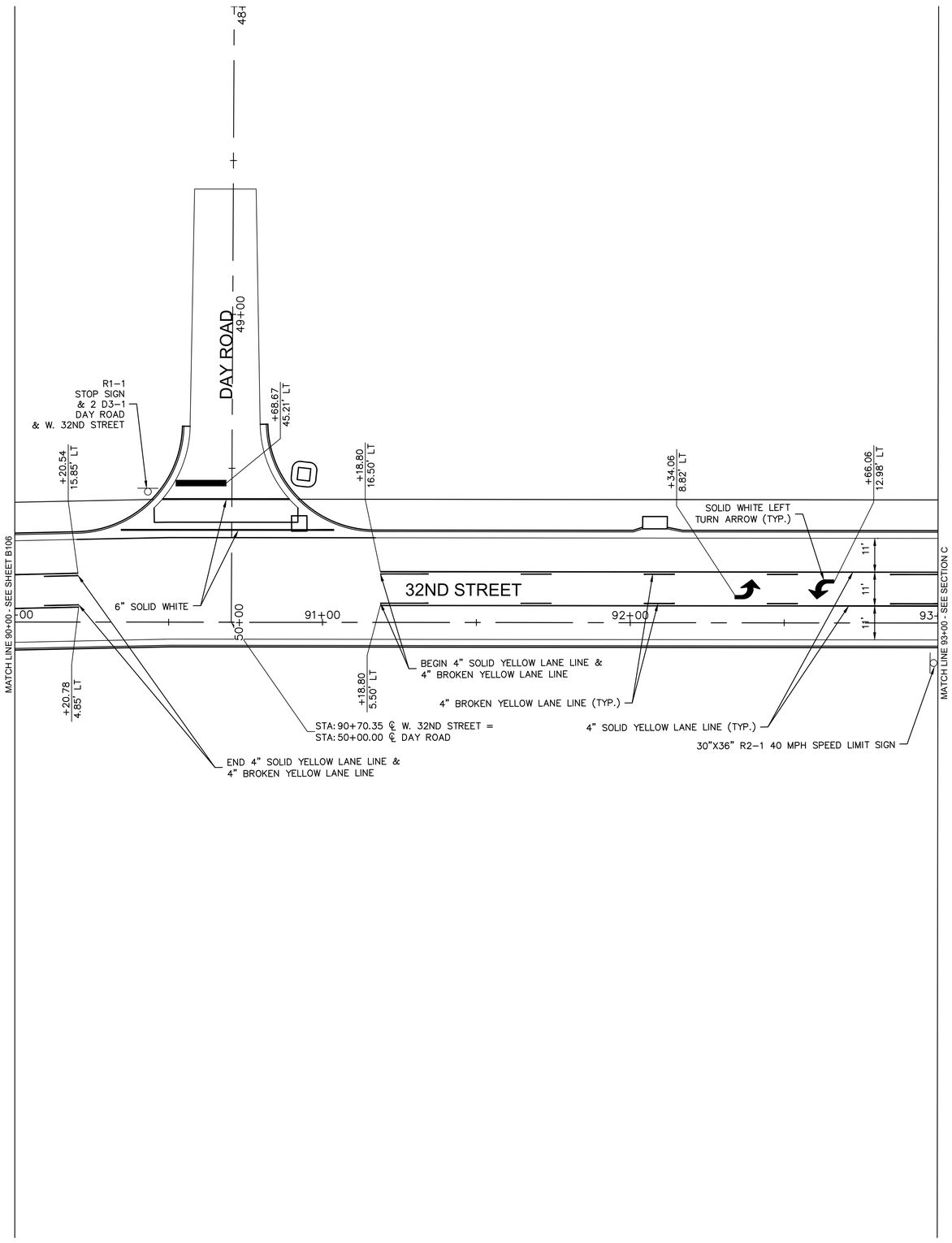
JOPLIN, MISSOURI

2021

drawn by: AJT
checked by: JCR
approved by: DMS
QA/QC by: OLSSON
project no.: 015-2768
drawing no.:
date: 04/23/2021

SHEET
B106 of B150

DWG: G:\15065 - 32nd Street Roadway\015-2768 32nd Street Widening\40-Design\AutoCAD\Final Plans\Sheets\CJW\B106 PAVEMENT MARKING & SIGNING PLAN.dwg USER: Aaron
DATE: Apr 21, 2021 8:27am XREFS: V_XB0U_52768 CJW_T_CTBLK_015-2768 (2019) cjw_t_pbase_015-2768 - striping 3 lane OA_ACAD-T_XBASE_52768



DWG: G:\15065 - 32nd Street Roadway\015-2768 32nd Street Widening\40-Design\AutoCAD\Final Plans\Sheets\CJW\B107 PAVEMENT MARKING & SIGNING PLAN.dwg USER: Aaron
DATE: Apr 21, 2021 8:27am XREFS: V_XBOU_52768 CJW_T_CTBLK_015-2768 (2019) cjw_t_pbase_015-2768 - striping 3 lane OA_ACAD-T_XBASE_52768

N

0' 10' 20' 40'
SCALE IN FEET

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Prepared by:
CJW
CJW Transportation Consultants, L.L.C.
5051 S. National Ave. Suite 7A Springfield, MO 65810
Tel: 417.889.3400 Fax: 417.889.3402 www.GoCJW.com
CJW Transportation Consultants, L.L.C. Engineering MO C.A. #2006012385

STATE OF MISSOURI
DANE MITCHELL SEILER
4/23/21
NUMBER PE-2010019595
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY
		REVISIONS	

PAVEMENT MARKING AND SIGNING PLAN

32ND STREET WIDENING
CITY OF JOPLIN

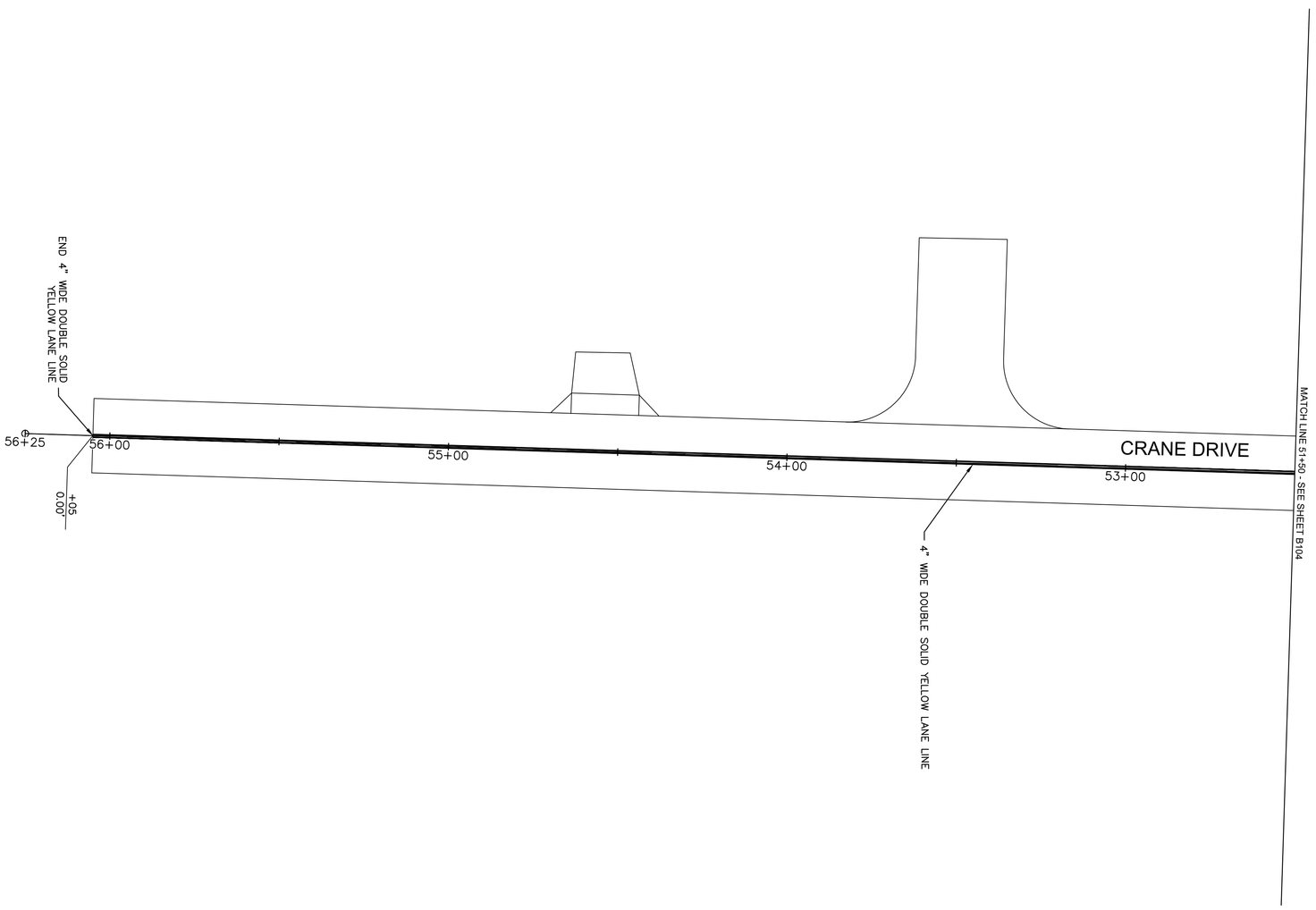
JOPLIN, MISSOURI

2021

drawn by: AJT
checked by: JCR
approved by: DMS
QA/QC by: OLSSON
project no.: 015-2768
drawing no.:
date: 04/23/2021

SHEET
B107 of B150

DWG: G:\15065 - 32nd Street Roadway\015-2768 32nd Street Widening\40-Design\AutoCAD\Final Plans\Sheets\CJW\B108 PAVEMENT MARKING & SIGNING PLAN.dwg USER: Aaron
DATE: Apr 21, 2021 8:27am XREFS: V_XBOU_52768 CJW_T_CTBLK_015-2768 (2019) cjw_t_pbase_015-2768 - 3 LANE cjw_t_pbase_015-2768 - striping 3 lane OA_ACAD-T_XBASE_52768



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0' 10' 20' 40'
SCALE IN FEET

N

SHEET B108 of B150

drawn by: AJT
checked by: JDR
approved by: DMS
QC check by:
project no.: 015-2768
drawing no.:
date: 04/23/2021

PAVEMENT MARKING AND SIGNING PLAN

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI 2021

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

STATE OF MISSOURI
PROFESSIONAL ENGINEER
MITCHELL SEILER
NUMBER
PE-2010019999

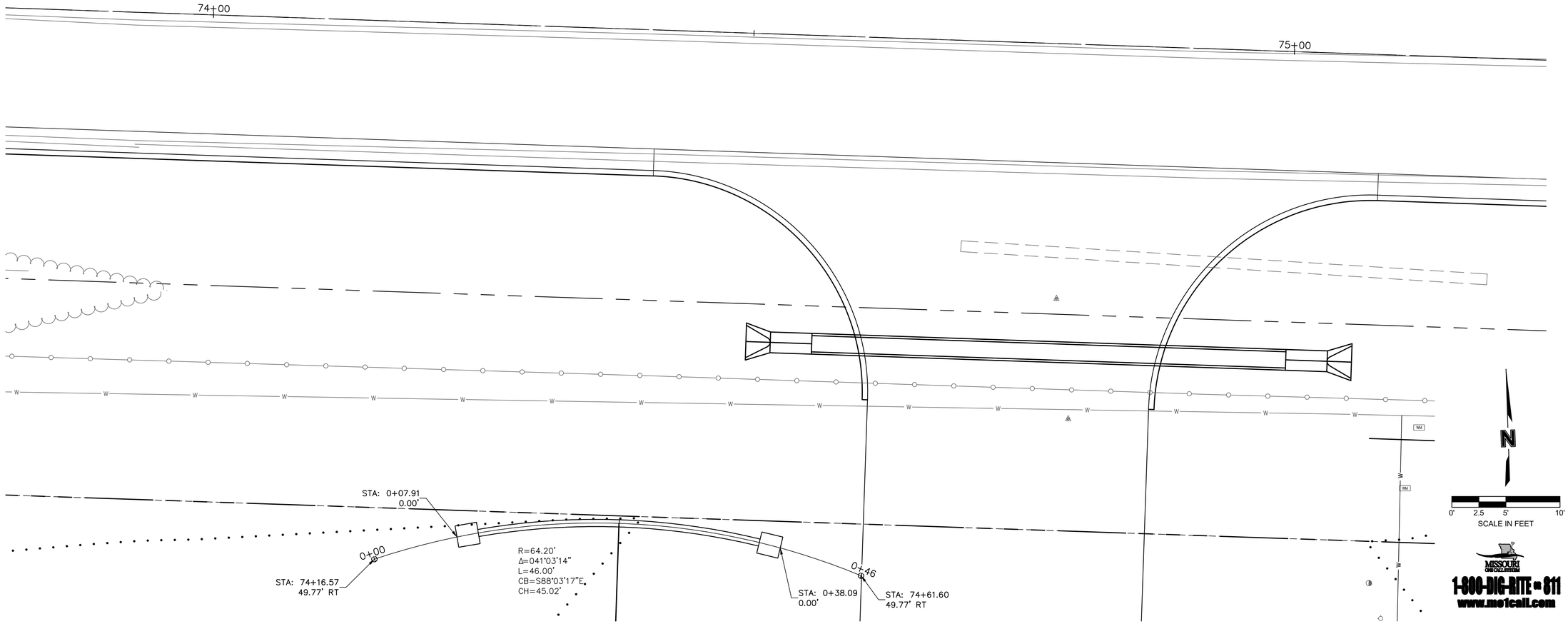
Prepared by:

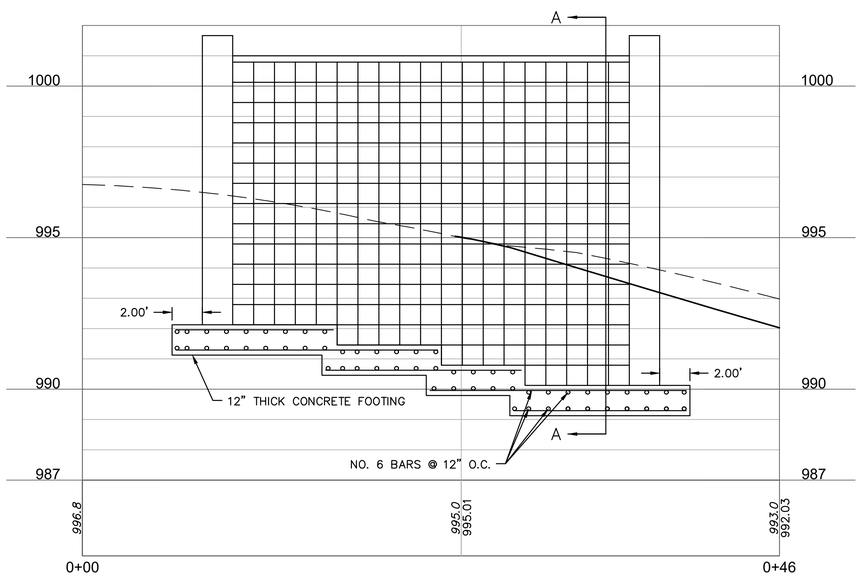
CJW

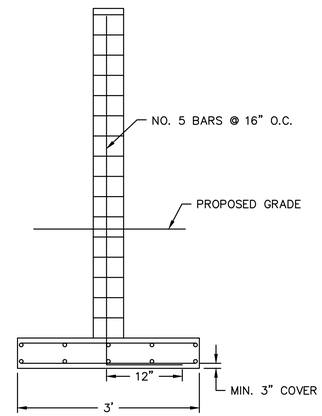
CJW Transportation Consultants, L.L.C.

CJW Transportation Consultants, L.L.C. Engineering MO C.A. #2006012385
5051 S. National Ave. Suite 7A Springfield, MO 65810
Tel: 417.889.3400 Fax: 417.889.3402 www.GoCJW.com

DWG: G:\15065 - 32nd Street Roadway\015-2768 32nd Street Widening\40-Design\AutoCAD\Final Plans\Sheets\CJW\B109 SOUTHERN TRAILS SIGN DETAIL.dwg USER: Aaron
DATE: Apr 21, 2021 8:28am XREFS: CJW_T_CTBLK_015-2768 (2019) cjw_t_pbase_015-2768 - 3 lane V_XBOU_52768 OA-TSE Combined_V_TOPO_RoundAbout_52768

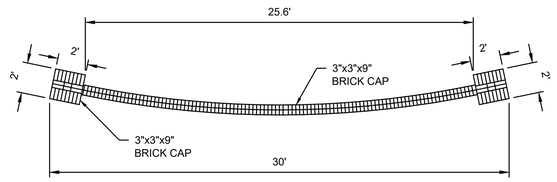




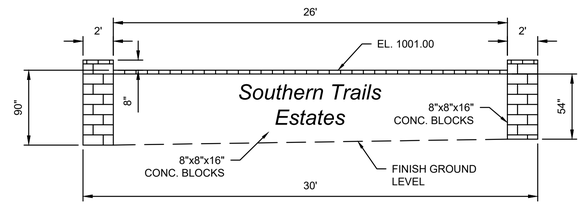


NOTE:
1. LAP LENGTH SHALL NOT BE LESS THAN 24" FOR VERTICAL BARS
2. LAP LENGTH SHALL NOT BE LESS THAN 48" FOR HORIZONTAL BARS

SECTION A–A



CONCRETE BLOCKS DIMENSIONS:
8"X8"X16"
RED BRICK CAP
9.5"X2.5"X2.5"



SOUTH SIGN

Prepared by:
CJW
CJW Transportation Consultants, L.L.C.
5051 S. National Ave. Suite 7A Springfield, MO 65810
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STATE OF MISSOURI
DANE MITCHELL SEILER
NUMBER PE-2010019595
PROFESSIONAL ENGINEER

MISSOURI ONE CALL SYSTEM
1-800-DIG-RITE = 811
www.mo1call.com

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

SOUTHERN TRAILS SIGN DETAIL

32ND STREET WIDENING
CITY OF JOPLIN

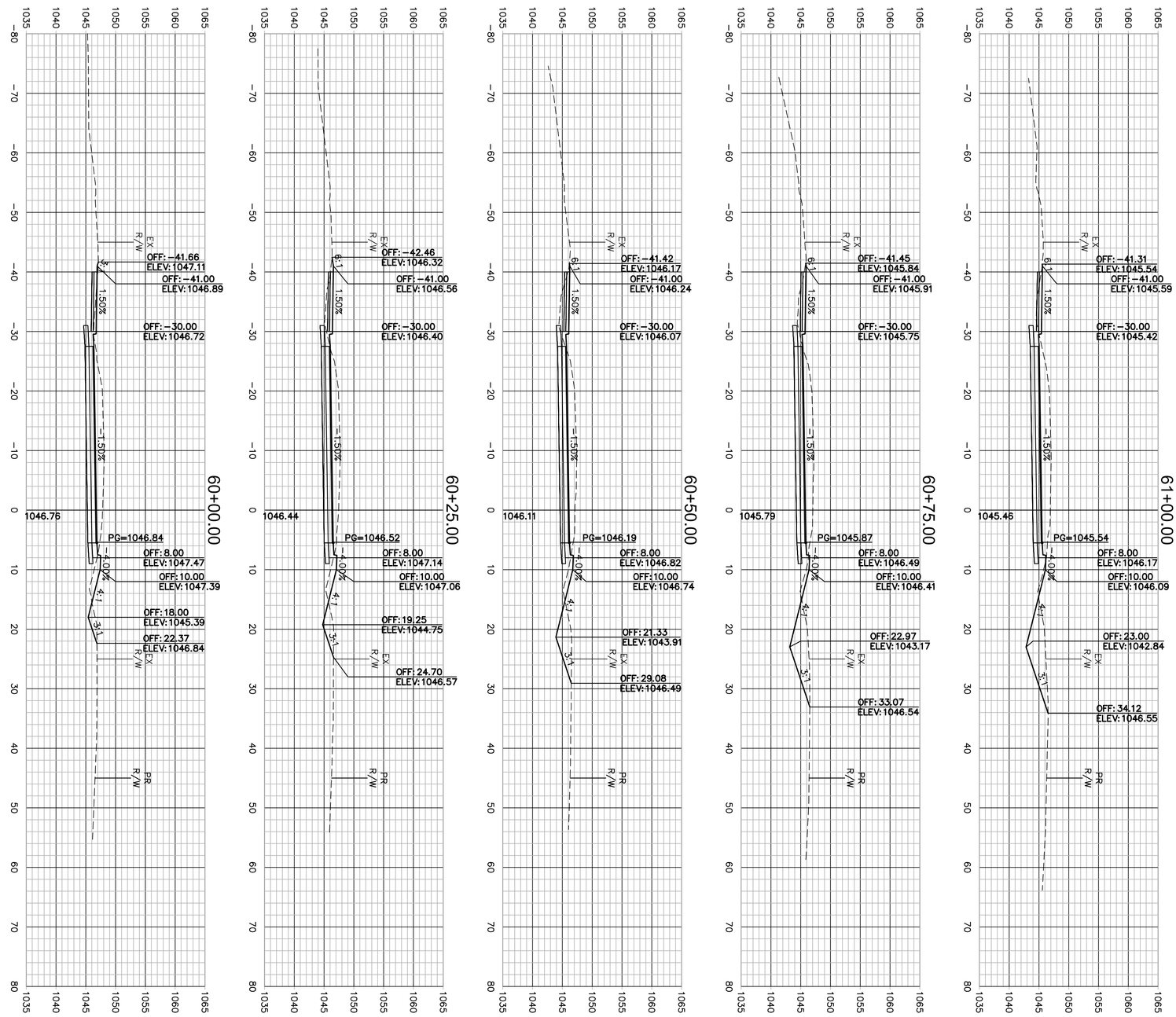
JOPLIN, MISSOURI

2021

drawn by:	AJT
checked by:	JCR
approved by:	DMS
QA/QC by:	OLSSON
project no.:	015-2768
drawing no.:	
date:	04/23/2021

SHEET
B109 of B150

DWG: G:\15065 - 32nd Street Roadway\015-2768 32nd Street Widening\40-Design\AutoCAD\Final Plans\Sheets\CJW\B110 - B150 CROSS SECTIONS.dwg USER: Aaron
DATE: Apr 21, 2021 8:28am XREFS: CJW_T_PCORR_015-2768 - 3 LANE CJW_T_CTBLK_015-2768 (2019) V_XBOU_52768



SCALE IN FEET
0' 5' 10' 20'

0' 5' 10' 20'

SHEET B110 of B150

drawn by:	AJT
checked by:	JDR
approved by:	DMS
QC/QA by:	CJW
project no.:	015-2768
drawing no.:	
date:	04/23/2021

32ND STREET CROSS SECTIONS

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI 2021

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

STATE OF MISSOURI
PROFESSIONAL ENGINEER
MITCHELL SEILER
NUMBER
PE-2010019999

Prepared by:
CJW
CJW Transportation Consultants, L.L.C.
CJW Transportation Consultants, L.L.C. Engineering MO C.A. #2006012385
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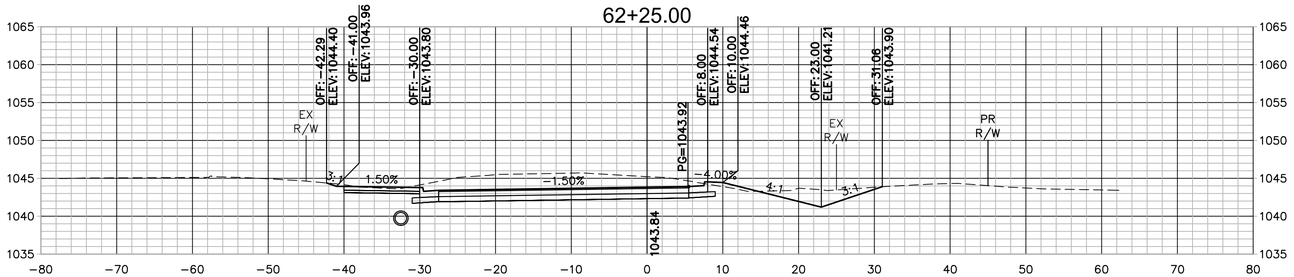

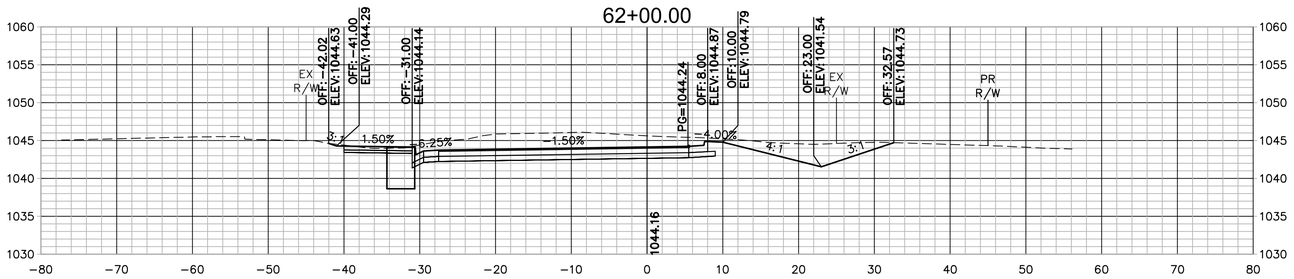

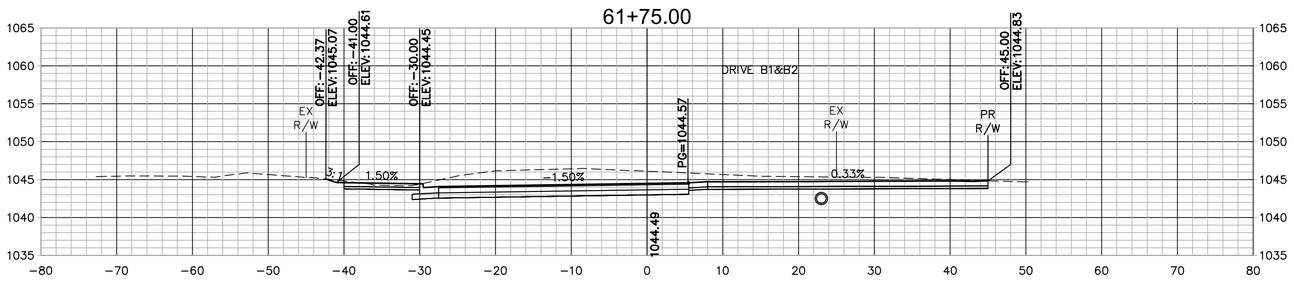

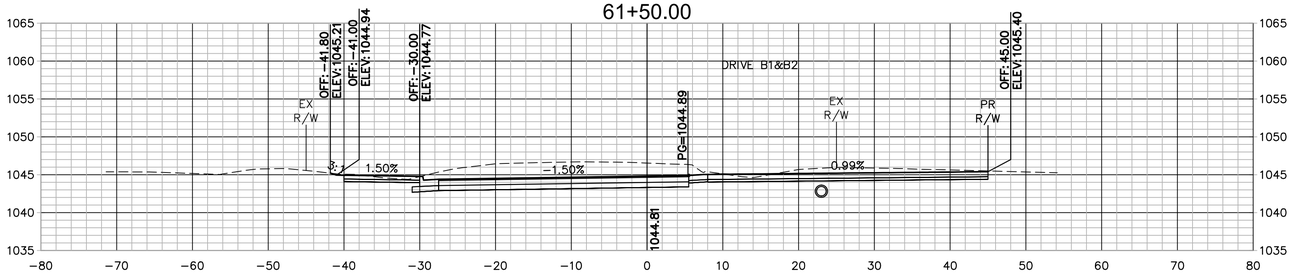

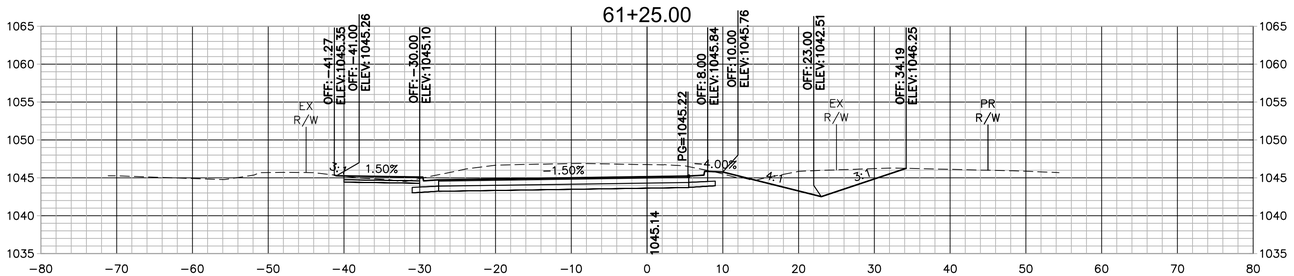

Prepared by:
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CJW Transportation Consultants, L.L.C. Engineering MO C.A. #2006012385
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STATE OF MISSOURI
DANE MITCHELL SEILER
#-2037
NUMBER
PE-2010019595
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

20'
10'
5'
0'

0' 5' 10' 20'
SCALE IN FEET

32ND STREET CROSS SECTIONS

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by: AJT
checked by: JCR
approved by: DMS
QA/QC by: OLSSON
project no.: 015-2768
drawing no.:
date: 04/23/2021

SHEET
B111 of B150

DWG: G:\15065 - 32nd Street Roadway\015-2768 32nd Street Widening\40-Design\AutoCAD\Final Plans\Sheets\CJW\B110 - B150 CROSS SECTIONS.dwg USER: Aaron
DATE: Apr 21, 2021 8:29am XREFS: CJW_T_PCORR_015-2768 - 3 LANE CJW_T_CTBLK_015-2768 (2019) V_XBOU_52768

Prepared by:
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REVISIONS

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

32ND STREET CROSS SECTIONS

32ND STREET WIDENING
CITY OF JOPLIN

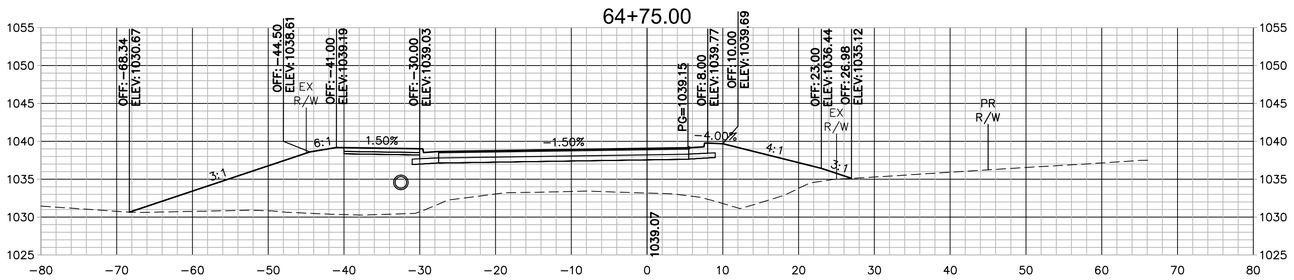
JOPLIN, MISSOURI

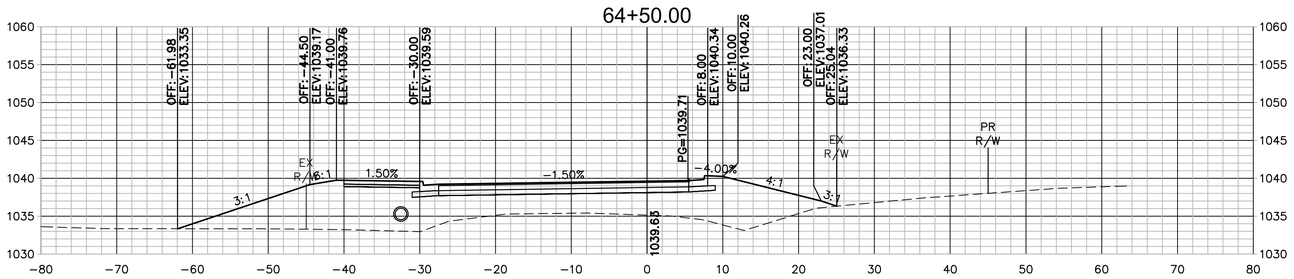
2021

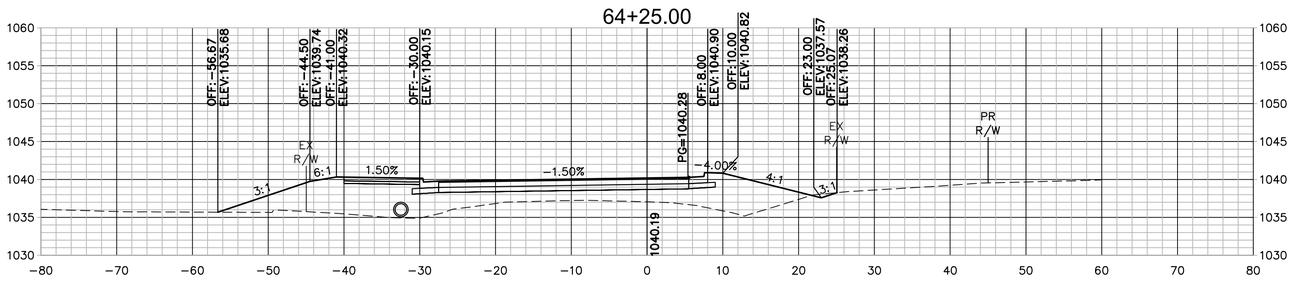
drawn by: AJT
checked by: JCR
approved by: DMS
QA/QC by: OLSSON
project no.: 015-2768
drawing no.:
date: 04/23/2021

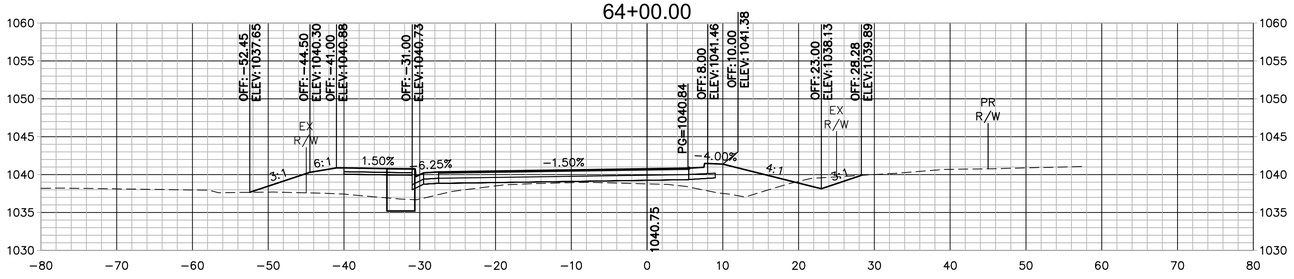
SHEET
B112 of B150

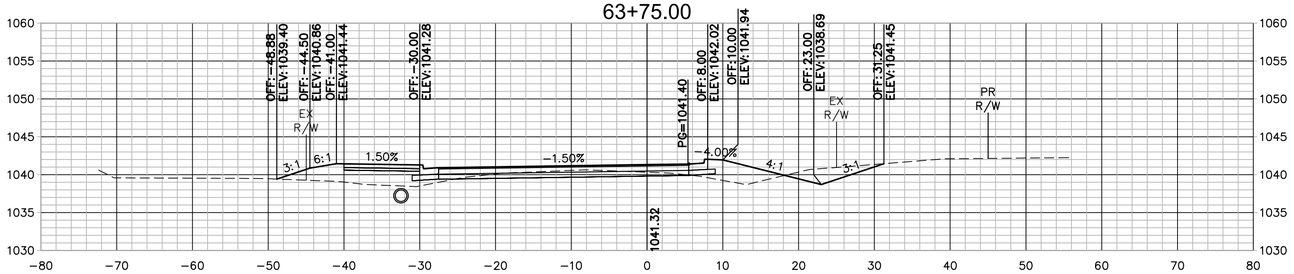
DWG: G:\15065 - 32nd Street Roadway\015-2768 32nd Street Widening\40-Design\AutoCAD\Final Plans\Sheets\CJW\B110 - B150 CROSS SECTIONS.dwg USER: Aaron
DATE: Apr 21, 2021 8:29am XREFS: CJW_T_PCORR_015-2768 - 3 LANE CJW_T_CTBLK_015-2768 (2019) V_XBOU_52768











0' 5' 10' 20'
SCALE IN FEET

0' 5' 10' 20'

Prepared by:
CJW Transportation Consultants, L.L.C.
CJW Transportation Consultants, L.L.C. Engineering MO C.A. #2006012385
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STATE OF MISSOURI
DANE MITCHELL SEILER
NUMBER PE-2010019595
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

32ND STREET CROSS SECTIONS

32ND STREET WIDENING
CITY OF JOPLIN

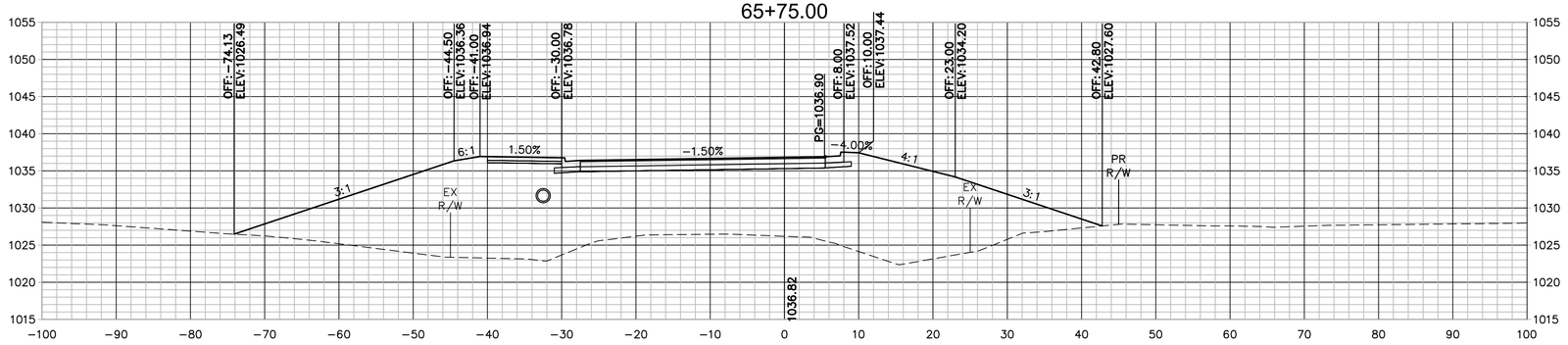
JOPLIN, MISSOURI

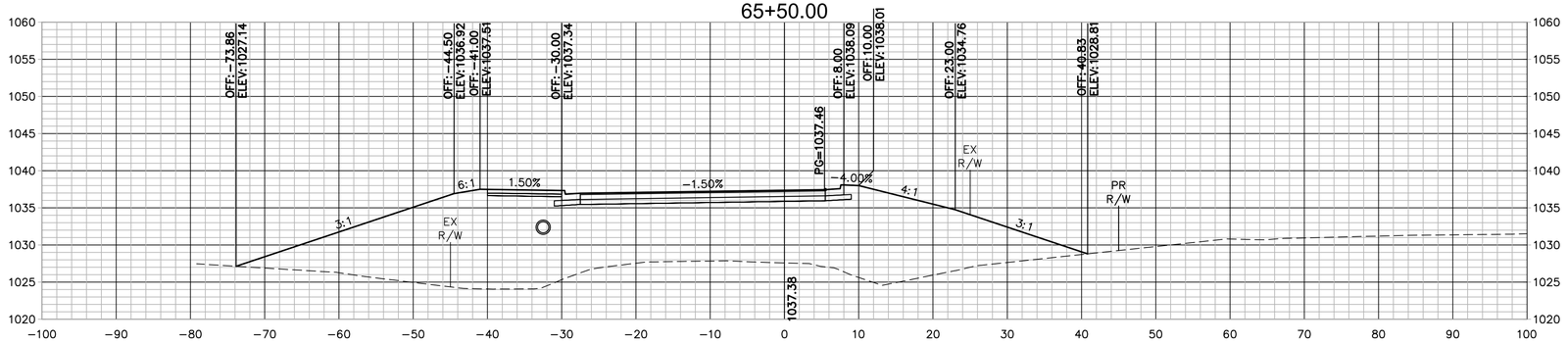
2021

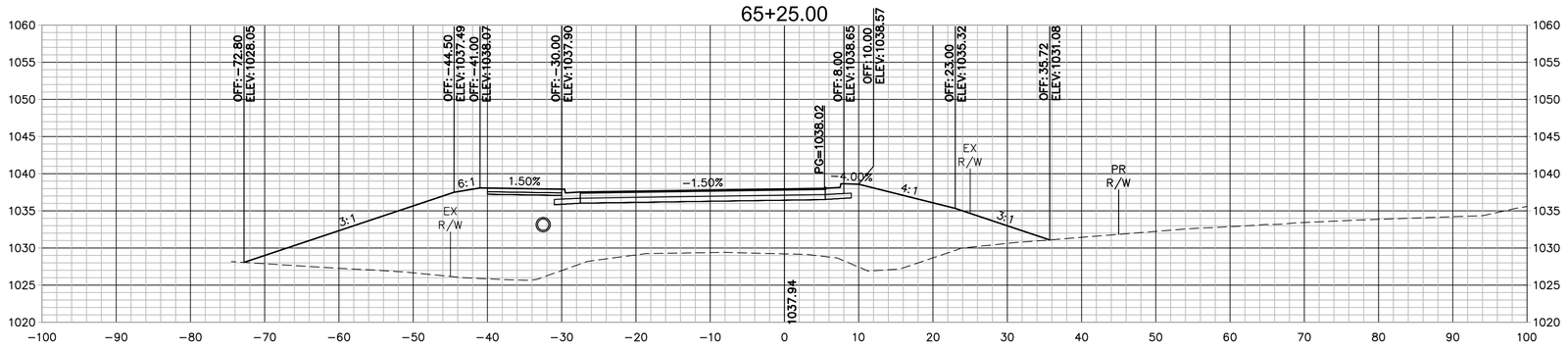
drawn by: AJT
checked by: JCR
approved by: DMS
QA/QC by: OLSSON
project no.: 015-2768
drawing no.:
date: 04/23/2021

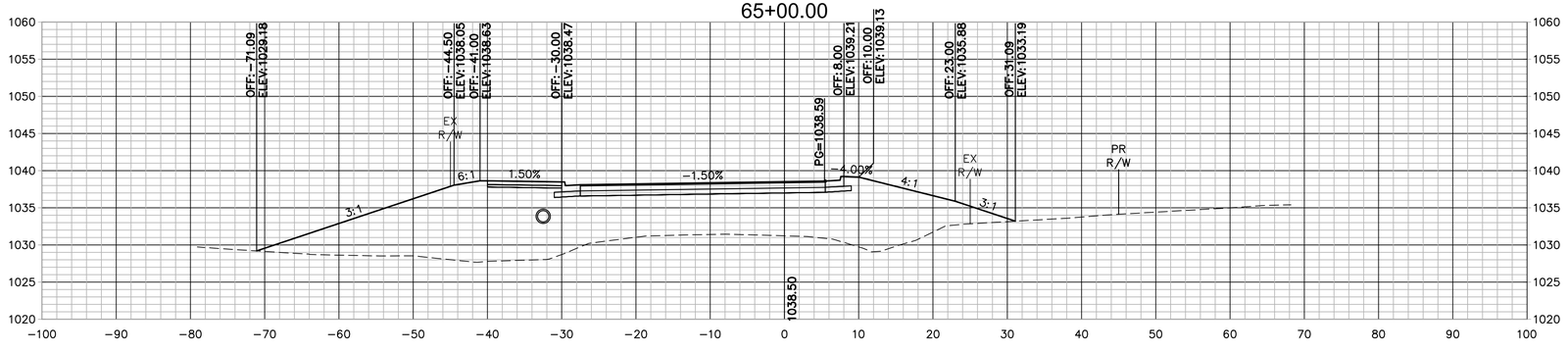
SHEET
B113 of B150

DWG: G:\15065 - 32nd Street Roadway\015-2768 32nd Street Widening\40-Design\AutoCAD\Final Plans\Sheets\CJW\B110 - B150 CROSS SECTIONS.dwg USER: Aaron
DATE: Apr 21, 2021 8:29am XREFS: CJW_T_PCORR_015-2768 - 3 LANE CJW_T_CTBLK_015-2768 (2019) V_XBOU_52768









Prepared by:
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CJW Transportation Consultants, L.L.C.
CJW Transportation Consultants, L.L.C. Engineering MO C.A. #2006012385
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STATE OF MISSOURI
DANE MITCHELL SEILER
NUMBER PE-2010019595
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REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

32ND STREET CROSS SECTIONS

32ND STREET WIDENING
CITY OF JOPLIN

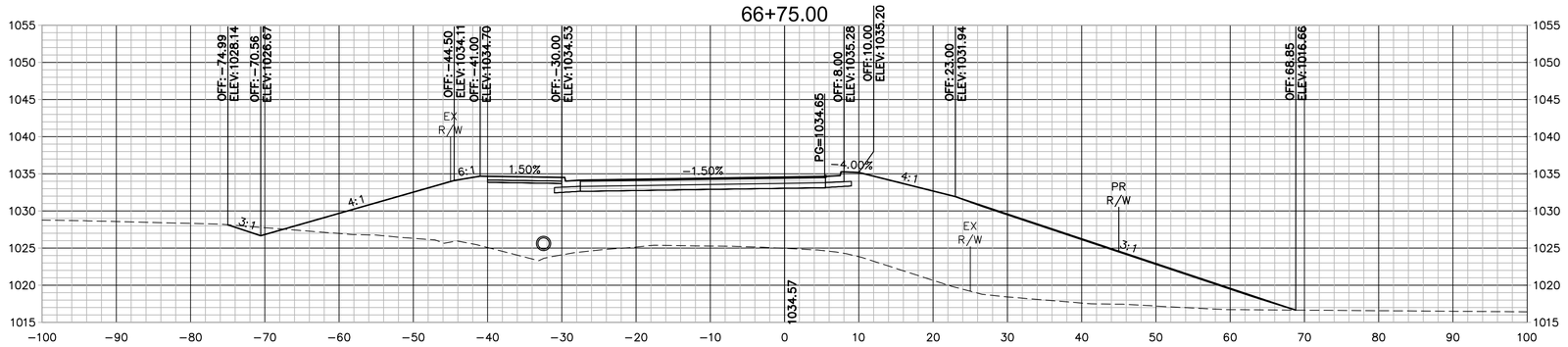
JOPLIN, MISSOURI

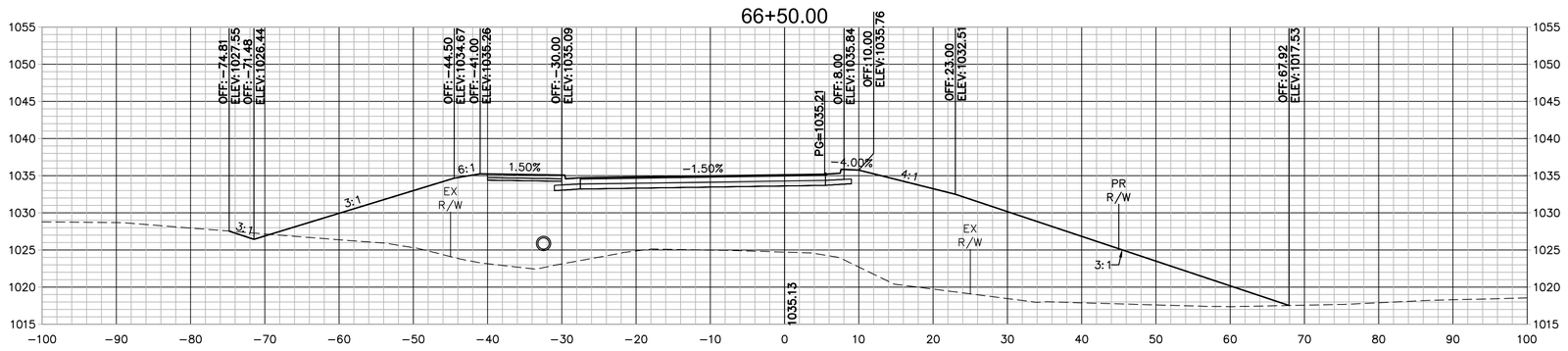
2021

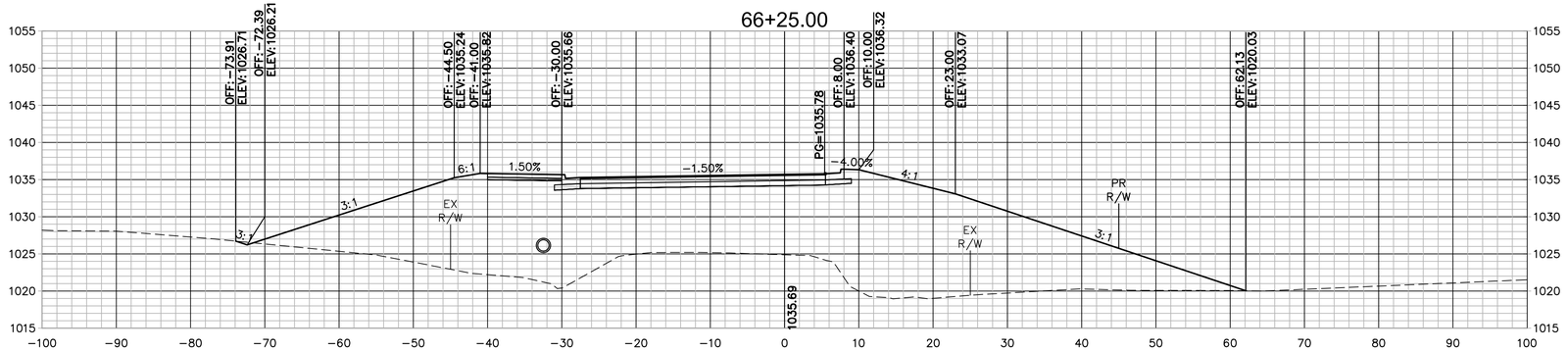
drawn by: AJT
checked by: JCR
approved by: DMS
QA/QC by: OLSSON
project no.: 015-2768
drawing no.:
date: 04/23/2021

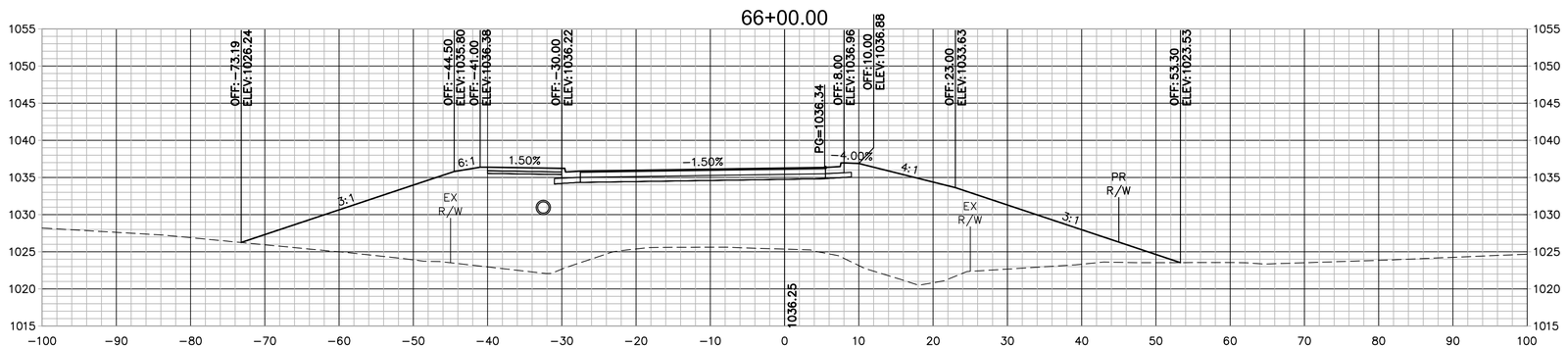
SHEET
B114 of B150

DWG: G:\15065 - 32nd Street Roadway\015-2768 32nd Street Widening\40-Design\AutoCAD\Final Plans\Sheets\CJW\B110 - B150 CROSS SECTIONS.dwg USER: Aaron
DATE: Apr 21, 2021 8:29am XREFS: CJW_T_PCORR_015-2768 - 3 LANE CJW_T_CTBLK_015-2768 (2019) V_XBOU_52768









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www.GoCJW.com

DANE MITCHELL SEILER
NUMBER PE-2010019595
STATE OF MISSOURI
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY
		REVISIONS	

32ND STREET CROSS SECTIONS

32ND STREET WIDENING
CITY OF JOPLIN

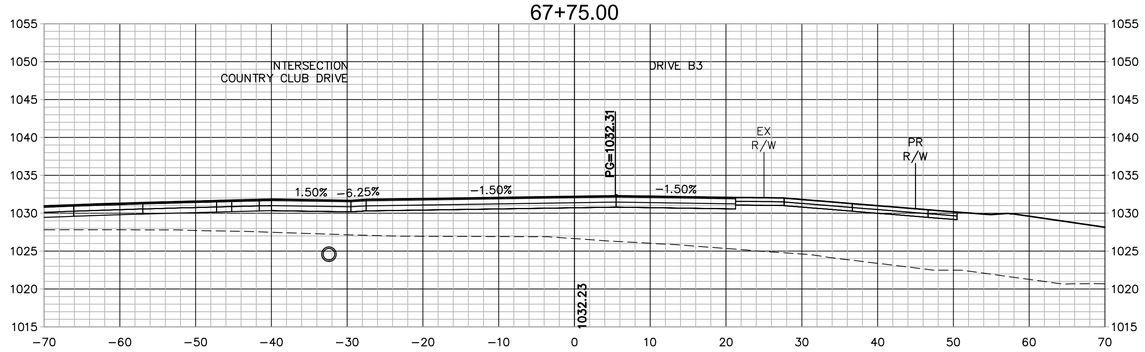
JOPLIN, MISSOURI

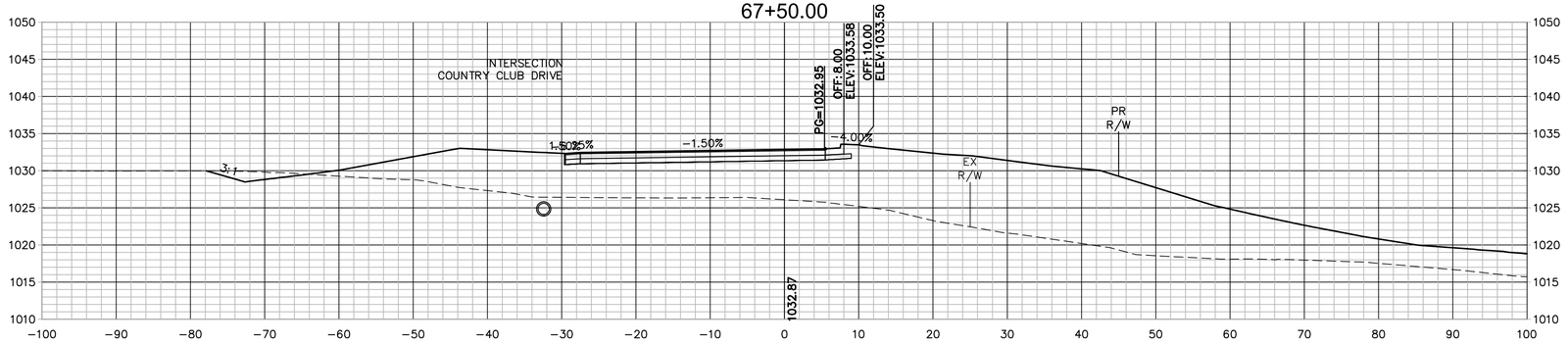
2021

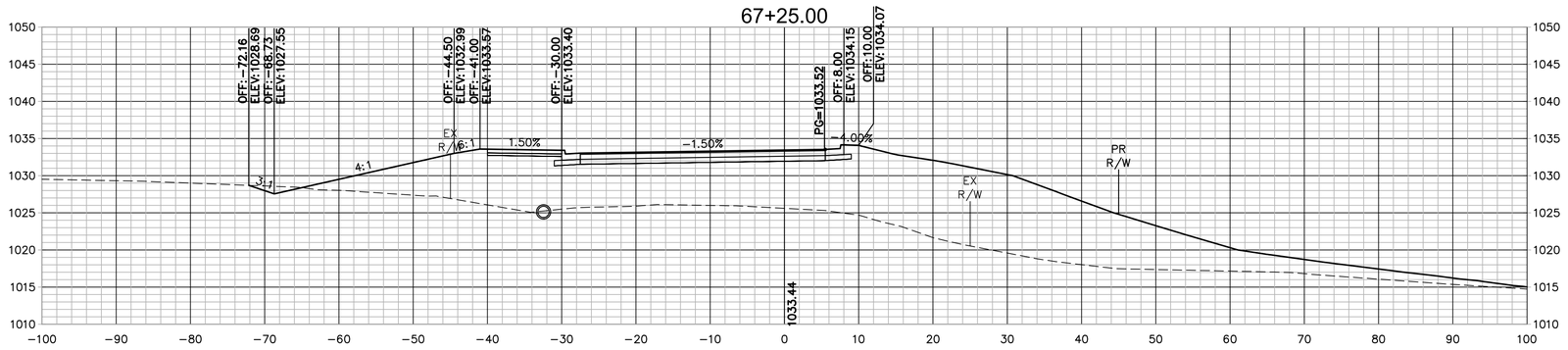
drawn by: AJT
checked by: JCR
approved by: DMS
QA/QC by: OLSSON
project no.: 015-2768
drawing no.:
date: 04/23/2021

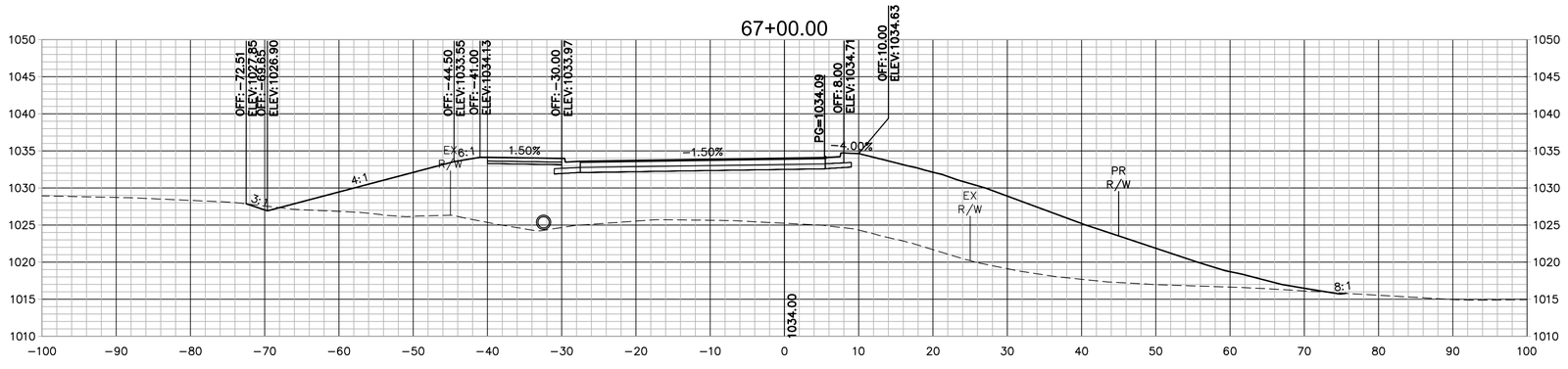
SHEET
B115 of B150

DWG: G:\15065 - 32nd Street Roadway\015-2768 32nd Street Widening\40-Design\AutoCAD\Final Plans\Sheets\CJW\B110 - B150 CROSS SECTIONS.dwg USER: Aaron
DATE: Apr 21, 2021 8:30am XREFS: CJW_T_PCORR_015-2768 - 3 LANE CJW_T_CTBLK_015-2768 (2019) V_XBOU_52768









0' 5' 10' 20'
SCALE IN FEET

0' 5' 10' 20'

Prepared by:
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STATE OF MISSOURI
DANE MITCHELL SEILER
NUMBER PE-2010019595
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

32ND STREET CROSS SECTIONS

32ND STREET WIDENING
CITY OF JOPLIN

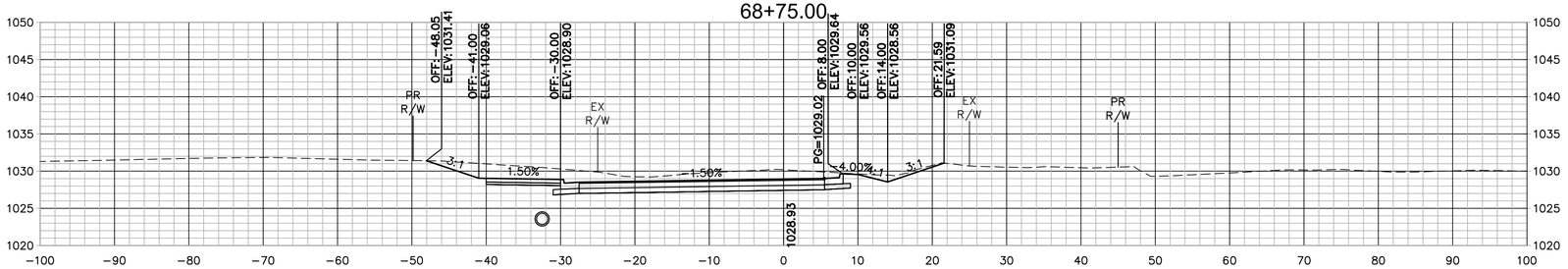
JOPLIN, MISSOURI

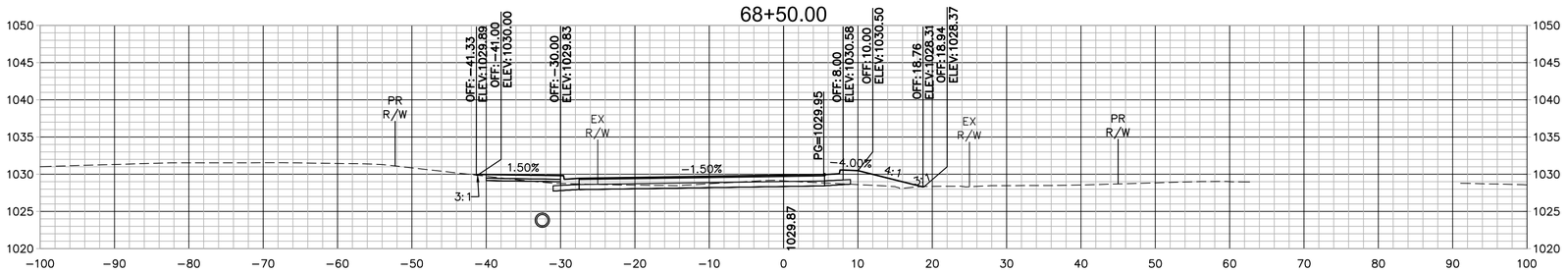
2021

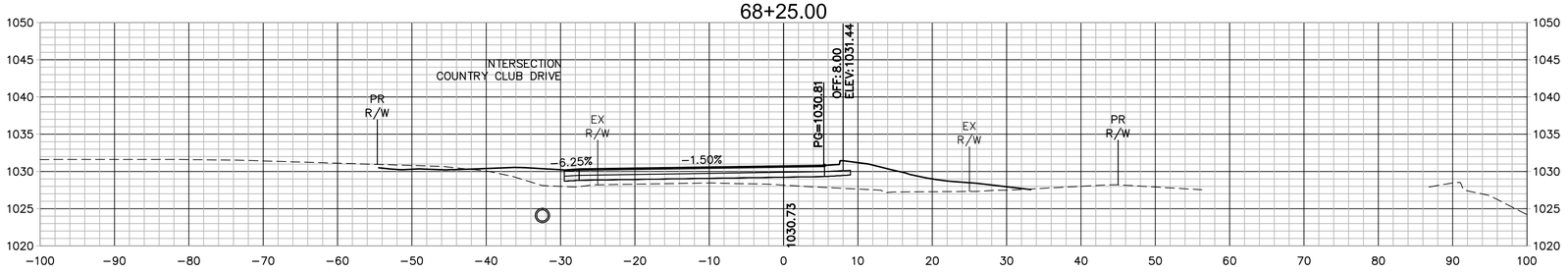
drawn by: AJT
checked by: JCR
approved by: DMS
QA/QC by: OLSSON
project no.: 015-2768
drawing no.:
date: 04/23/2021

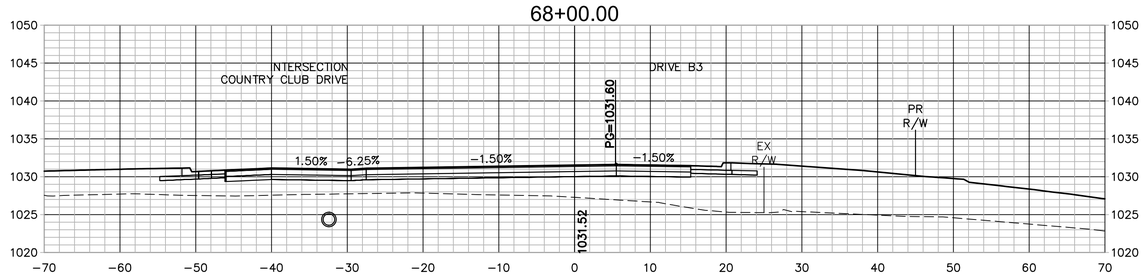
SHEET
B116 of B150

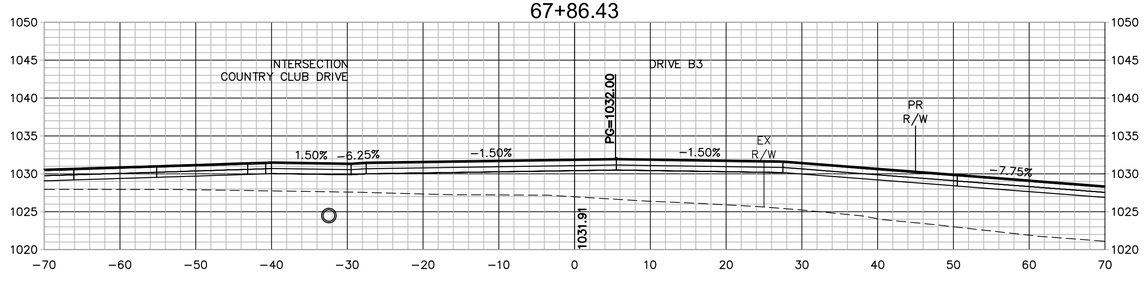
DWG: G:\15065 - 32nd Street Roadway\015-2768 32nd Street Widening\40-Design\AutoCAD\Final Plans\Sheets\CJW\B110 - B150 CROSS SECTIONS.dwg USER: Aaron
DATE: Apr 21, 2021 8:30am XREFS: CJW_T_PCORR_015-2768 - 3 LANE CJW_T_CTBLK_015-2768 (2019) V_XBOU_52768











0' 5' 10' 20'
SCALE IN FEET

20'
10'
5'
0'

Prepared by:
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STATE OF MISSOURI
DANE MITCHELL SEILER
NUMBER PE-2010019595
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

32ND STREET CROSS SECTIONS

32ND STREET WIDENING
CITY OF JOPLIN

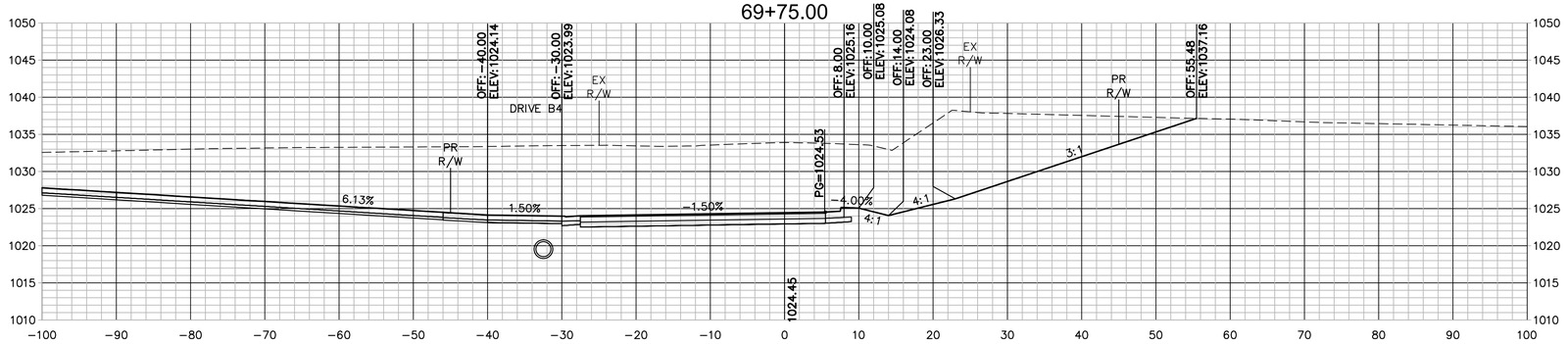
JOPLIN, MISSOURI

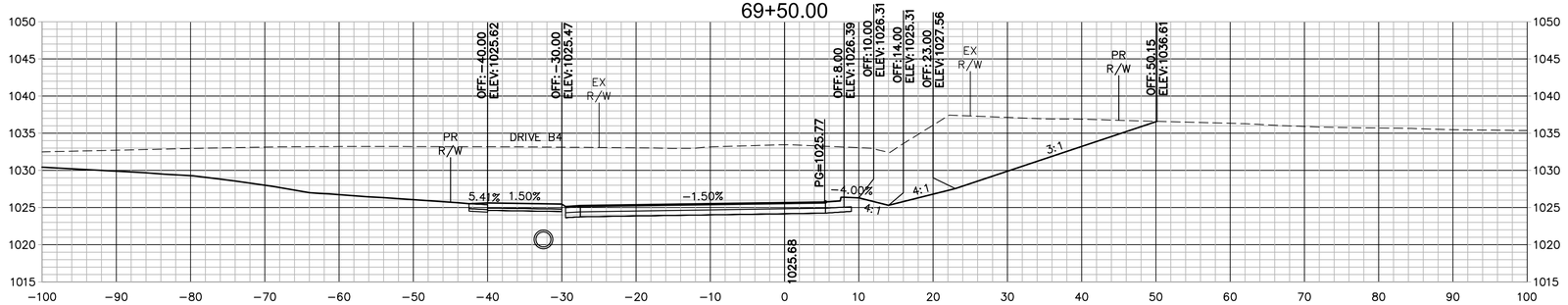
2021

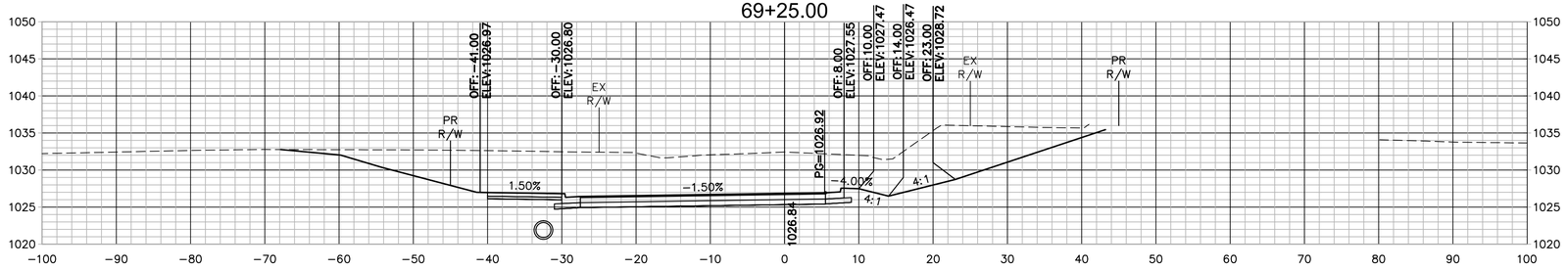
drawn by: AJT
checked by: JCR
approved by: DMS
QA/QC by: OLSSON
project no.: 015-2768
drawing no.:
date: 04/23/2021

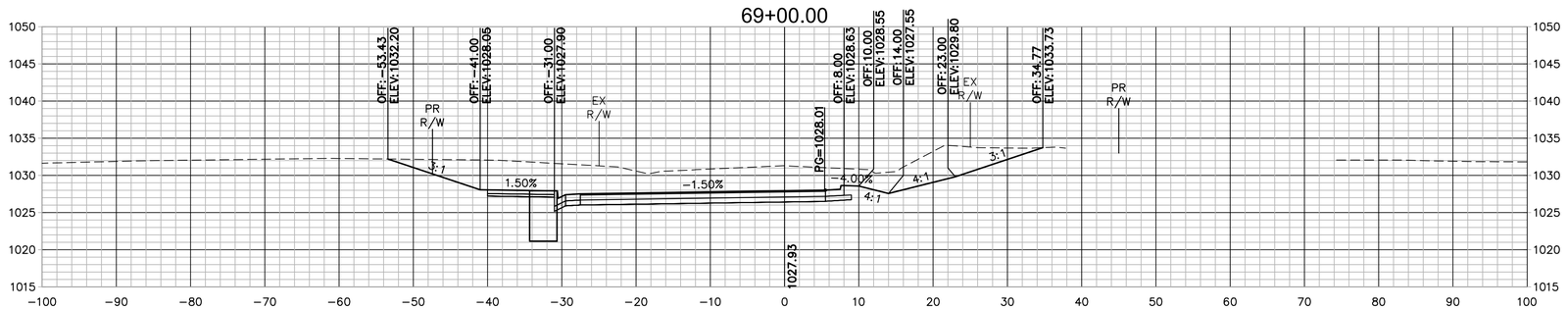
SHEET
B117 of B150

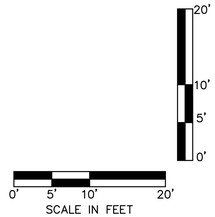
DWG: G:\15065 - 32nd Street Roadway\015-2768 32nd Street Widening\40-Design\AutoCAD\Final Plans\Sheets\CJW\B110 - B150 CROSS SECTIONS.dwg USER: Aaron
DATE: Apr 21, 2021 8:30am XREFS: CJW_T_PCORR_015-2768 - 3 LANE CJW_T_CTBLK_015-2768 (2019) V_XBOU_52768











Prepared by:
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CJW Transportation Consultants, L.L.C.
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STATE OF MISSOURI
DANE MITCHELL SEILER
NUMBER PE-2010019595
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

32ND STREET CROSS SECTIONS

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by: AJT
checked by: JCR
approved by: DMS
QA/QC by: OLSSON
project no.: 015-2768
drawing no.:
date: 04/23/2021

SHEET
B118 of B150

DWG: G:\15065 - 32nd Street Roadway\015-2768 32nd Street Widening\40-Design\AutoCAD\Final Plans\Sheets\CJW\B110 - B150 CROSS SECTIONS.dwg USER: Aaron
DATE: Apr 21, 2021 8:30am XREFS: CJW_T_PCORR_015-2768 - 3 LANE CJW_T_CTBLK_015-2768 (2019) V_XBOU_52768

0' 5' 10' 20'
SCALE IN FEET

0' 5' 10' 20'

Prepared by:
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STATE OF MISSOURI
DANE MITCHELL SEILER
#-2027
NUMBER
PE-2010019595
PROFESSIONAL ENGINEER

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32ND STREET CROSS SECTIONS

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by: AJT
checked by: JCR
approved by: DMS
QA/QC by: OLSSON
project no.: 015-2768
drawing no.:
date: 04/23/2021

SHEET
B119 of B150

DWG: G:\15065 - 32nd Street Roadway\015-2768 32nd Street Widening\40-Design\AutoCAD\Final Plans\Sheets\CJW\B110 - B150 CROSS SECTIONS.dwg USER: Aaron
DATE: Apr 21, 2021 8:31am XREFS: CJW_T_PCORR_015-2768 - 3 LANE CJW_T_CTBLK_015-2768 (2019) V_XBOU_52768

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STATE OF MISSOURI
DANE MITCHELL SEILER
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32ND STREET CROSS SECTIONS

32ND STREET WIDENING
CITY OF JOPLIN

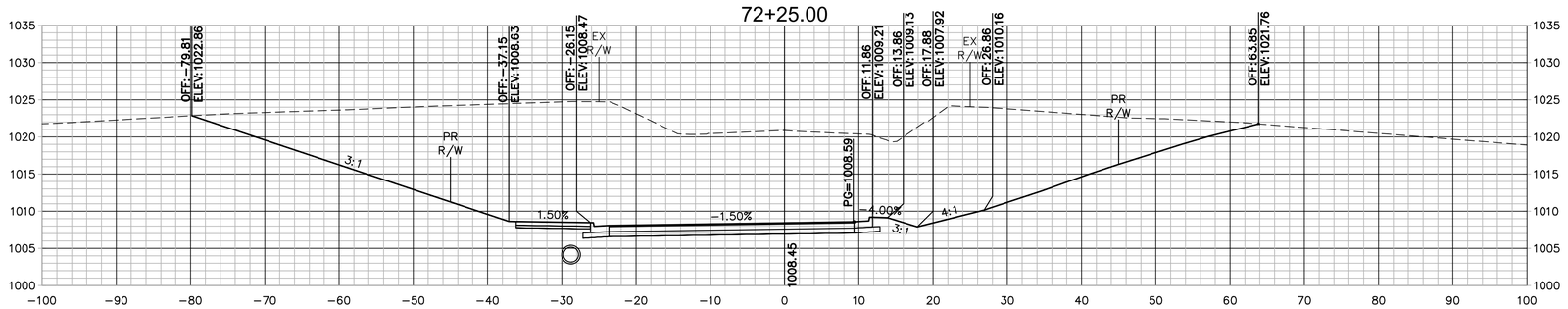
JOPLIN, MISSOURI

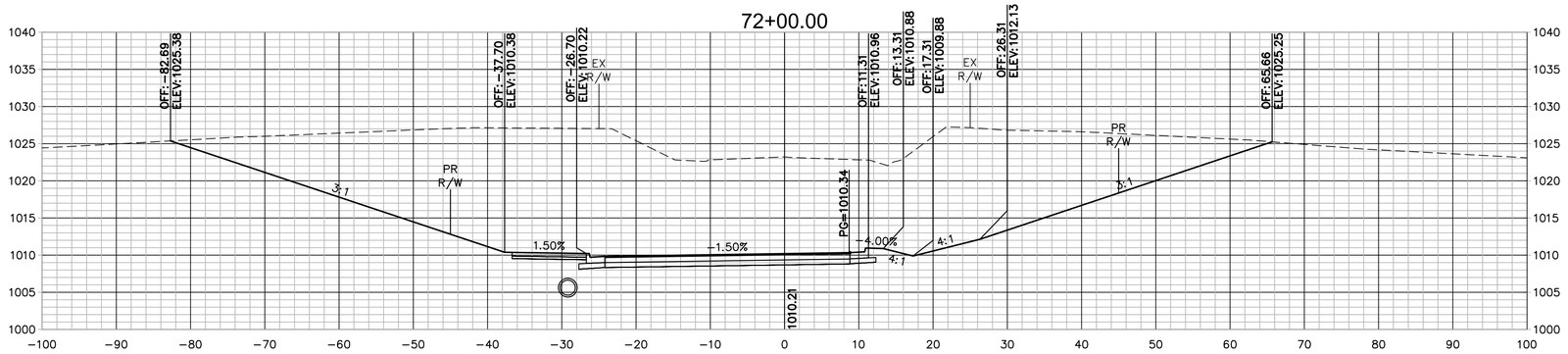
2021

drawn by:	AJT
checked by:	JCR
approved by:	DMS
QA/QC by:	OLSSON
project no.:	015-2768
drawing no.:	
date:	04/23/2021

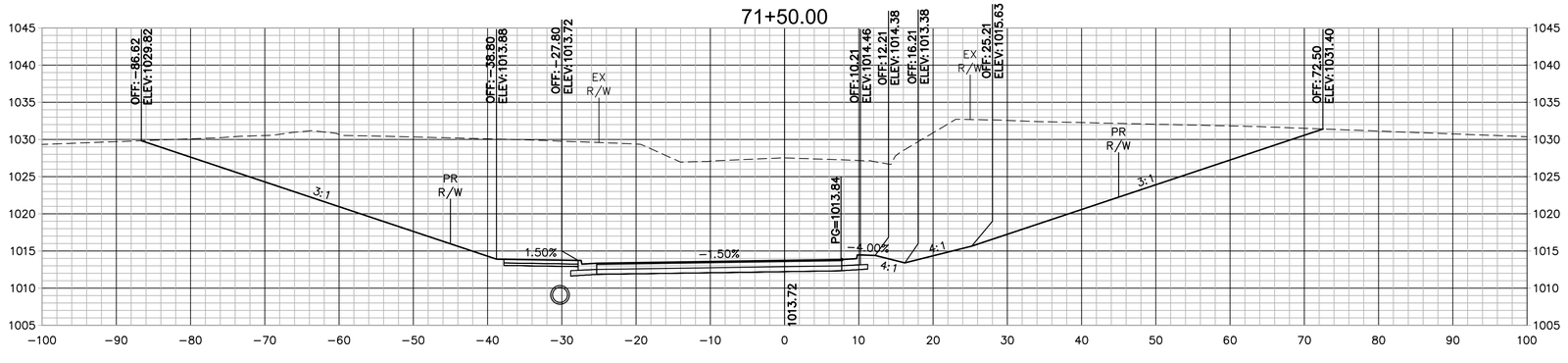
SHEET
B120 of B150

DWG: G:\15065 - 32nd Street Roadway\015-2768 32nd Street Widening\40-Design\AutoCAD\Final Plans\Sheets\CJW\B110 - B150 CROSS SECTIONS.dwg USER: Aaron
DATE: Apr 21, 2021 8:31am XREFS: CJW_T_PCORR_015-2768 - 3 LANE CJW_T_CTBLK_015-2768 (2019) V_XBOU_52768









20'
10'
5'
0'

0' 5' 10' 20'
SCALE IN FEET

Prepared by:
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CITY OF JOPLIN

JOPLIN, MISSOURI

2021

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project no.:	015-2768
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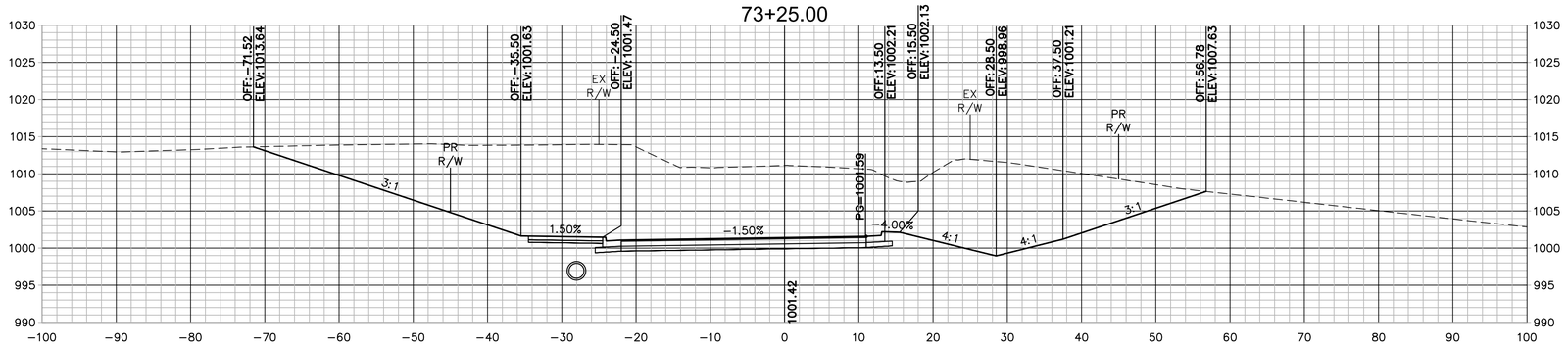
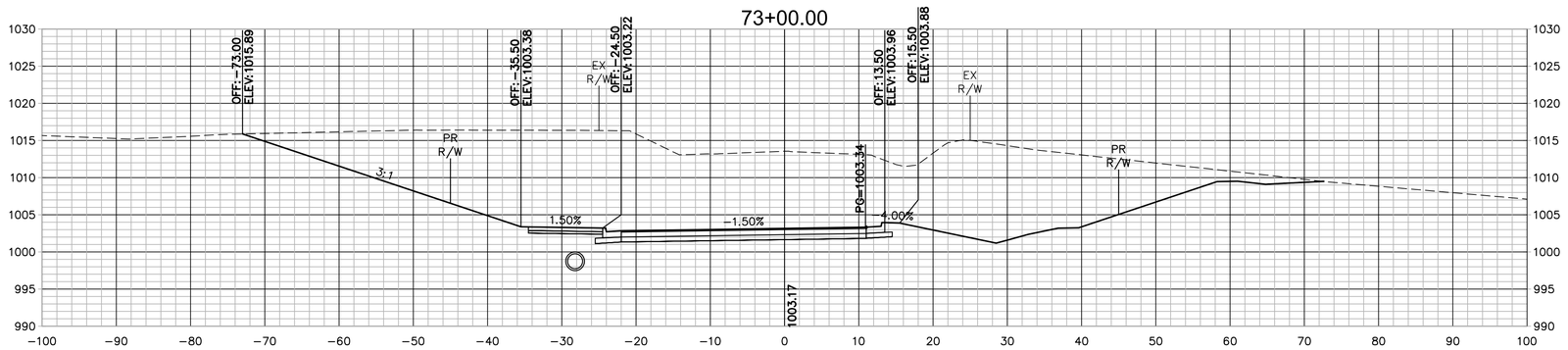
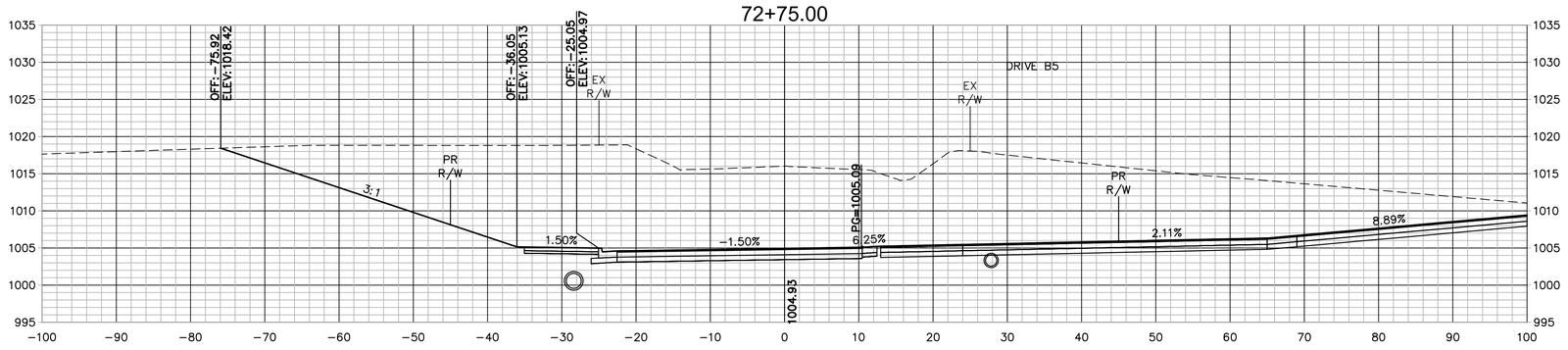
date:	04/23/2021

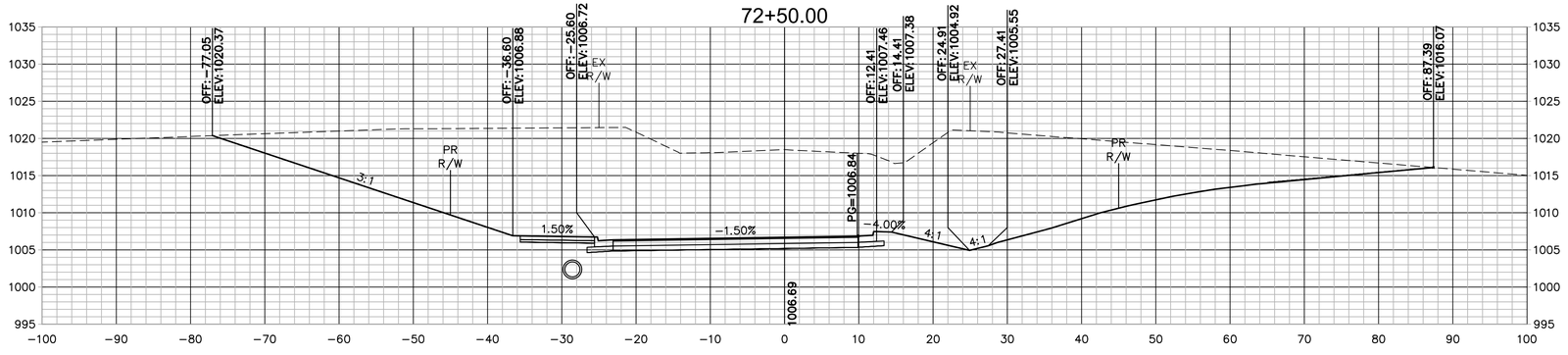
SHEET
B121 of B150

DWG: G:\15065 - 32nd Street Roadway\015-2768 32nd Street Widening\40-Design\AutoCAD\Final Plans\Sheets\CJW\B110 - B150 CROSS SECTIONS.dwg USER: Aaron
DATE: Apr 21, 2021 8:31am XREFS: CJW_T_PCORR_015-2768 - 3 LANE CJW_T_CTBLK_015-2768 (2019) V_XBOU_52768









0' 5' 10' 20'
SCALE IN FEET

Prepared by:
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STATE OF MISSOURI
DANE MITCHELL SEILER
NUMBER PE-2010019595
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

32ND STREET CROSS SECTIONS

32ND STREET WIDENING
CITY OF JOPLIN

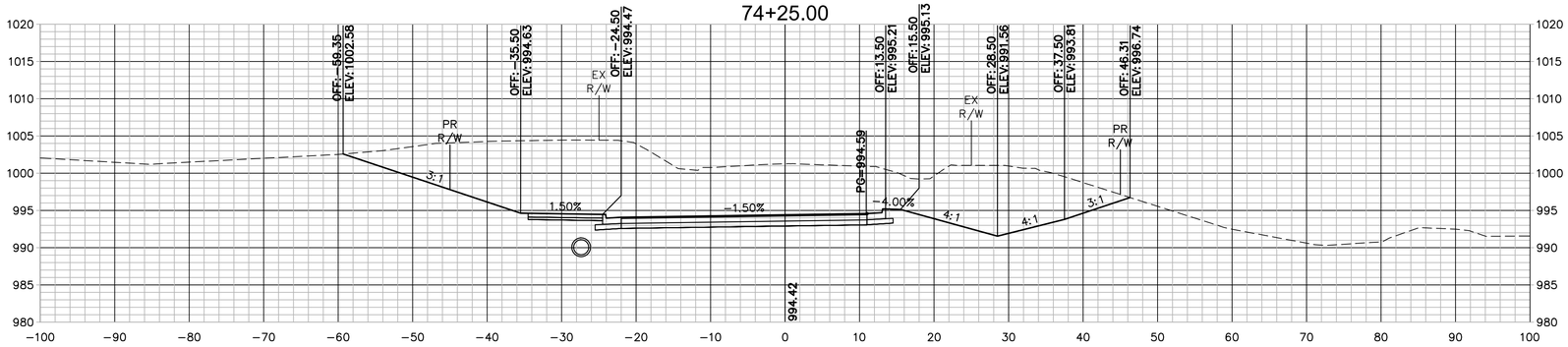
JOPLIN, MISSOURI

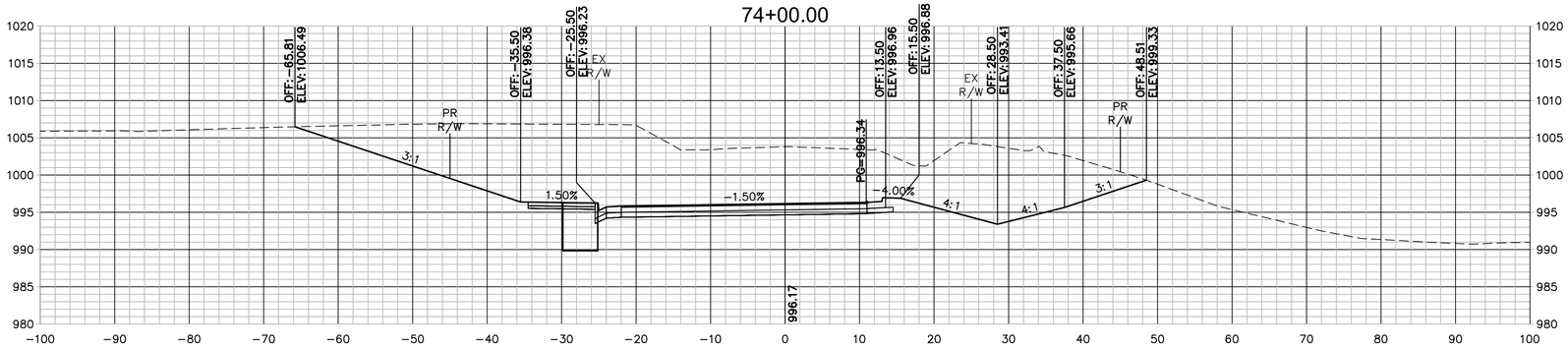
2021

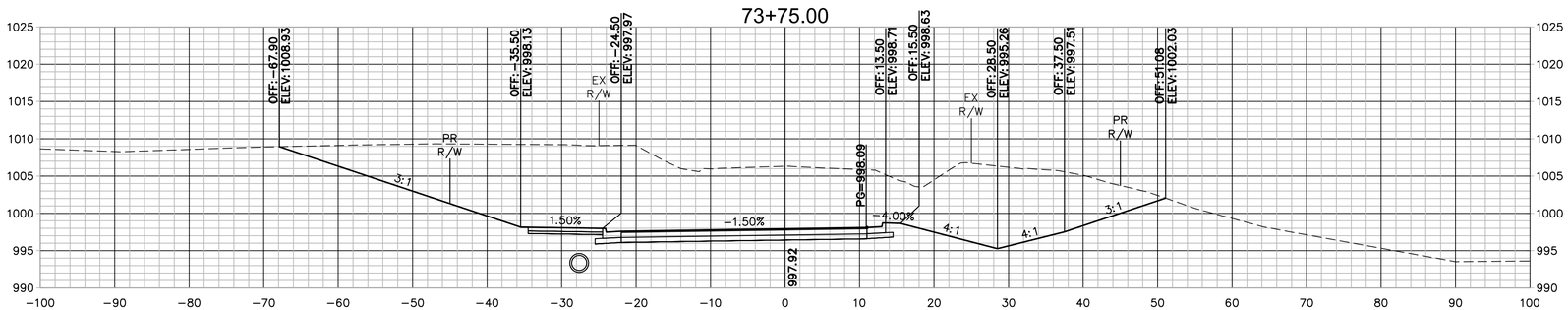
drawn by: AJT
checked by: JCR
approved by: DMS
QA/QC by: OLSSON
project no.: 015-2768
drawing no.:
date: 04/23/2021

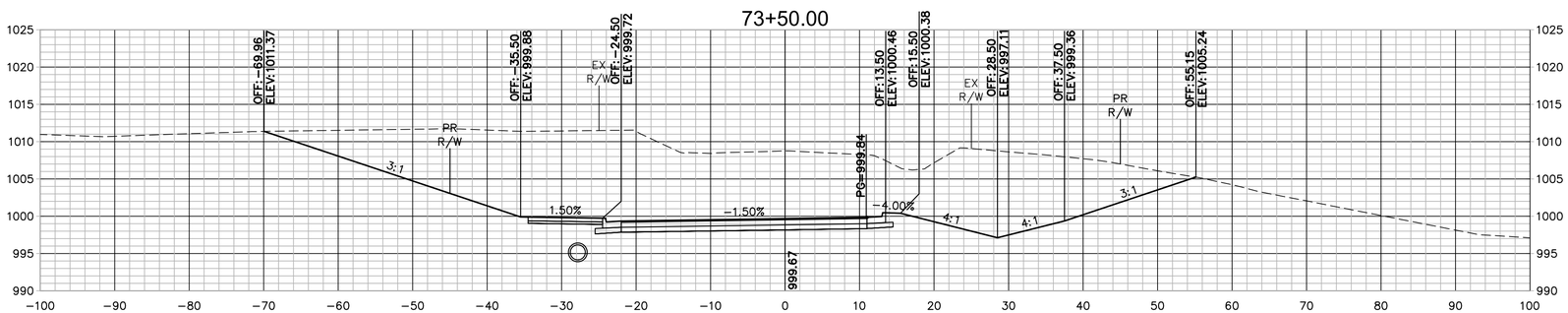
SHEET
B122 of B150

DWG: G:\15065 - 32nd Street Roadway\015-2768 32nd Street Widening\40-Design\AutoCAD\Final Plans\Sheets\CJW\B110 - B150 CROSS SECTIONS.dwg USER: Aaron
DATE: Apr 21, 2021 8:31am XREFS: CJW_T_PCORR_015-2768 - 3 LANE CJW_T_CTBLK_015-2768 (2019) V_XBOU_52768









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DANE MITCHELL SEILER
E-2327
NUMBER
PE-2010019595
STATE OF MISSOURI
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

32ND STREET CROSS SECTIONS

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

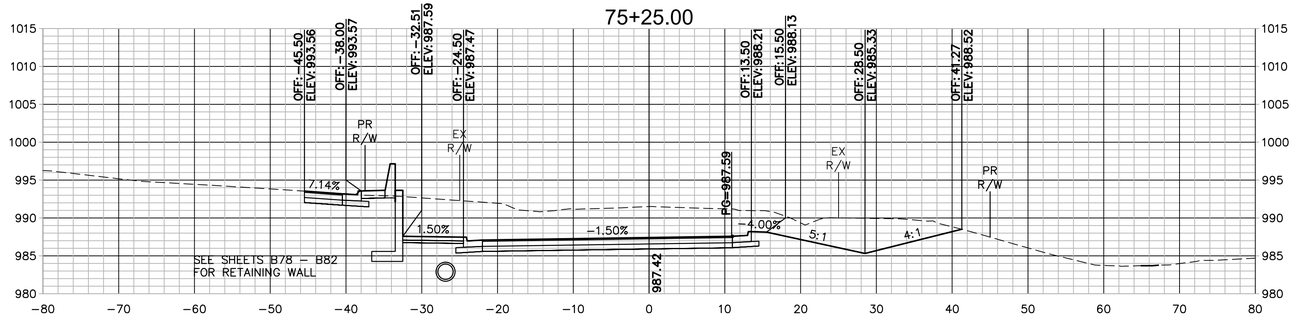
drawn by:	AJT
checked by:	JCR
approved by:	DMS
QA/QC by:	OLSSON
project no.:	015-2768
drawing no.:	
date:	04/23/2021

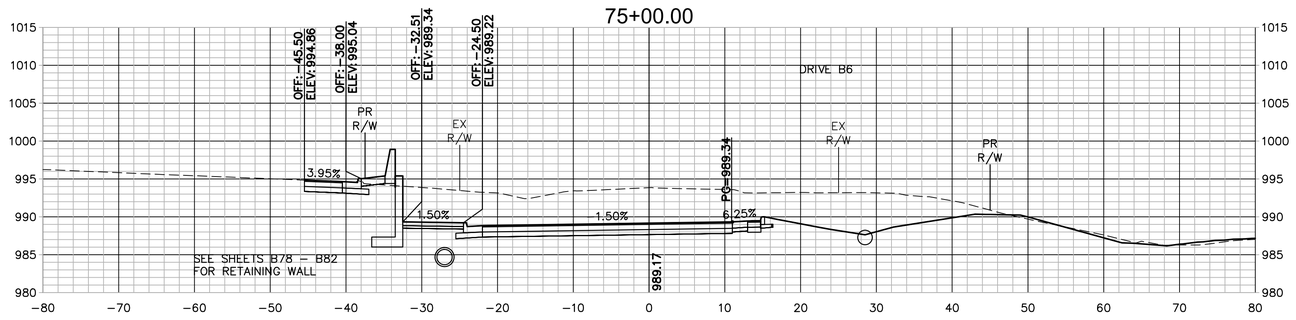
SHEET
B123 of B150

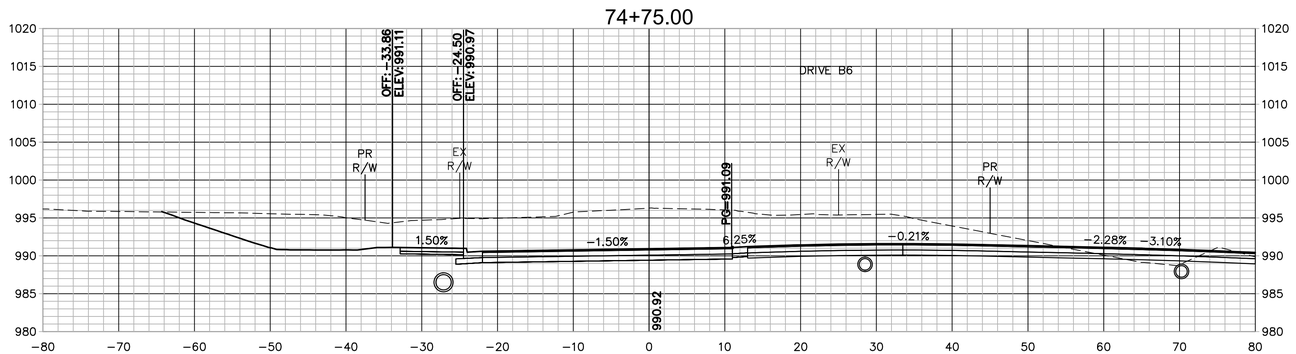
0' 5' 10' 20'
SCALE IN FEET

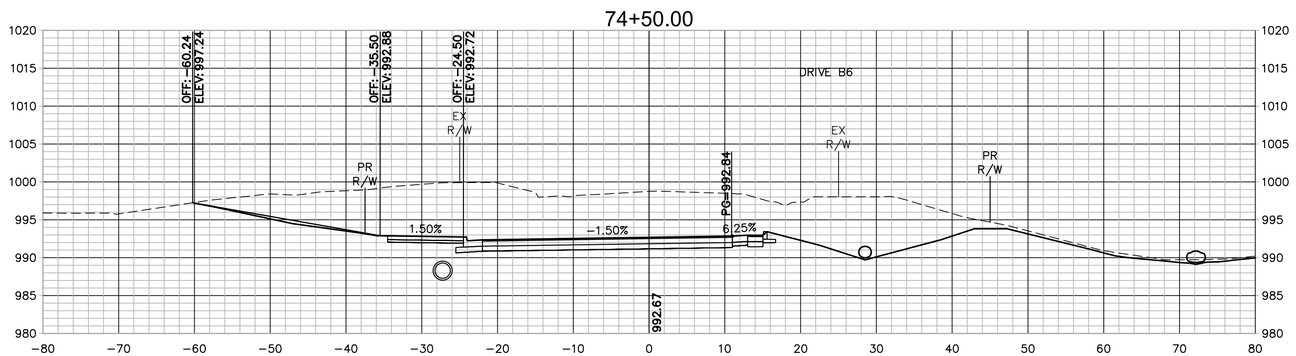
0' 5' 10' 20'

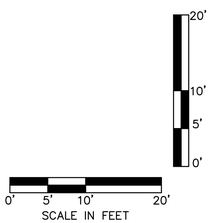
DWG: G:\15065 - 32nd Street Roadway\015-2768 32nd Street Widening\40-Design\AutoCAD\Final Plans\Sheets\CJW\B110 - B150 CROSS SECTIONS.dwg USER: Aaron
DATE: Apr 21, 2021 8:32am XREFS: CJW_T_PCORR_015-2768 - 3 LANE CJW_T_CTBLK_015-2768 (2019) V_XBOU_52768











Prepared by:
CJW Transportation Consultants, L.L.C.
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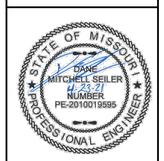

REV. NO.	DATE	REVISIONS DESCRIPTION	BY
		REVISIONS	

32ND STREET CROSS SECTIONS

32ND STREET WIDENING
CITY OF JOPLIN

2021

JOPLIN, MISSOURI

drawn by:	AJT
checked by:	JCR
approved by:	DMS
QA/QC by:	OLSSON
project no.:	015-2768
drawing no.:	
date:	04/23/2021

SHEET
B124 of B150

DWG: G:\15065 – 32nd Street Roadway\015-2768 32nd Street Widening\40-Design\AutoCAD\Final Plans\Sheets\CJW\B110 – B150 CROSS SECTIONS.dwg USER: Aaron
DATE: Apr 21, 2021 8:32am XREFS: CJW_T_PCORR_015-2768 – 3 LANE CJW_T_CTBLK_015-2768 (2019) V_XBOU_52768

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REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

32ND STREET CROSS SECTIONS

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by: AJT
checked by: JCR
approved by: DMS
QA/QC by: OLSSON
project no.: 015-2768
drawing no.:
date: 04/23/2021

SHEET
B125 of B150

DWG: G:\15065 – 32nd Street Roadway\015-2768 32nd Street Widening\40-Design\AutoCAD\Final Plans\Sheets\CJW\B110 – B150 CROSS SECTIONS.dwg USER: Aaron
DATE: Apr 21, 2021 8:32am XREFS: CJW_T_PCORR_015-2768 – 3 LANE CJW_T_CTBLK_015-2768 (2019) V_XBOU_52768

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STATE OF MISSOURI
DANE MITCHELL SEILER
E-23217 NUMBER
PE-2010019595
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

32ND STREET CROSS SECTIONS

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by: AJT
checked by: JCR
approved by: DMS
QA/QC by: OLSSON
project no.: 015-2768
drawing no.:
date: 04/23/2021

SCALE IN FEET
0' 5' 10' 20'
0' 5' 10' 20'

SHEET
B126 of B150

DWG: G:\15065 - 32nd Street Roadway\015-2768 32nd Street Widening\40-Design\AutoCAD\Final Plans\Sheets\CJW\B110 - B150 CROSS SECTIONS.dwg USER: Aaron
DATE: Apr 21, 2021 8:32am XREFS: CJW_T_PCORR_015-2768 - 3 LANE CJW_T_CTBLK_015-2768 (2019) V_XBOU_52768

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DANE MITCHELL SEILER
E-23271
NUMBER
PE-2010019595
STATE OF MISSOURI
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY
		REVISIONS	

32ND STREET CROSS SECTIONS

32ND STREET WIDENING
CITY OF JOPLIN

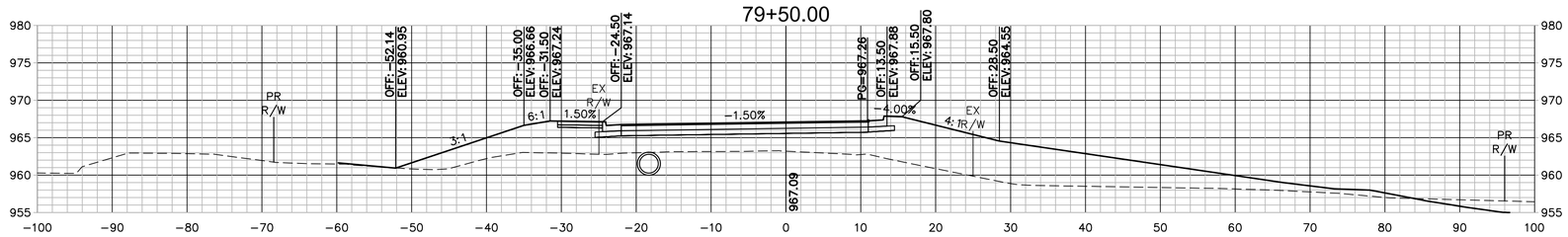
2021

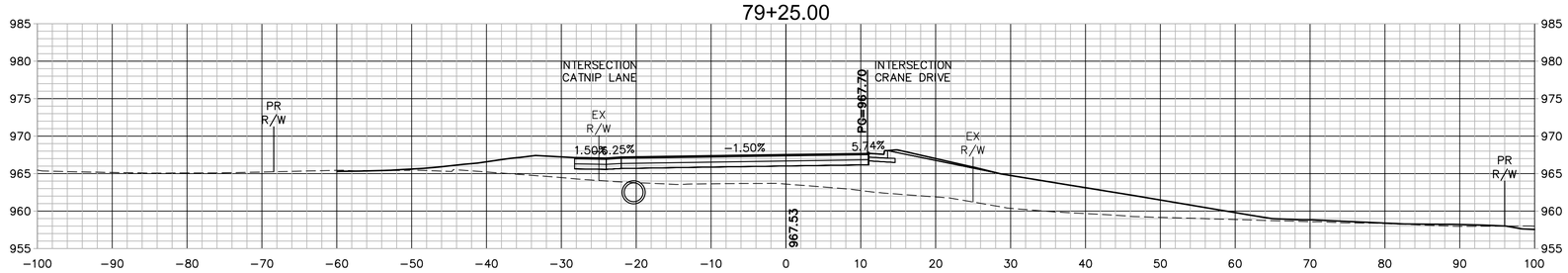
JOPLIN, MISSOURI

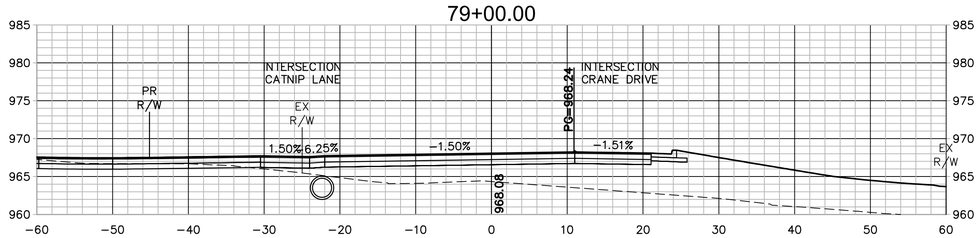
drawn by: AJT
checked by: JCR
approved by: DMS
QA/QC by: OLSSON
project no.: 015-2768
drawing no.:
date: 04/23/2021

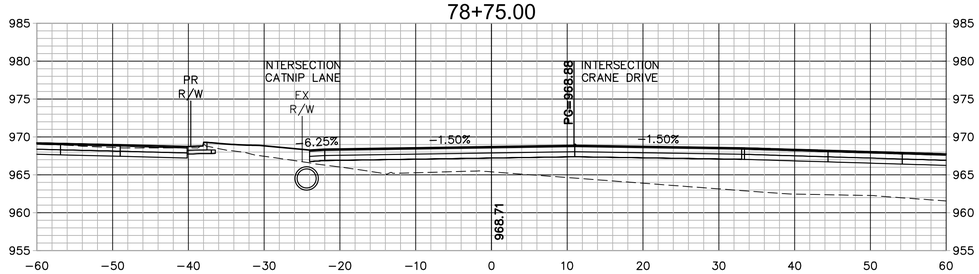
SHEET
B127 of B150

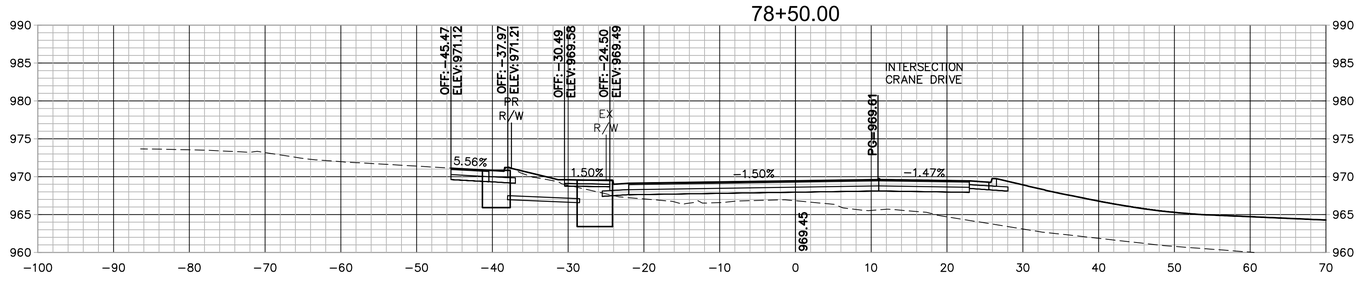
DWG: G:\15065 - 32nd Street Roadway\015-2768 32nd Street Widening\40-Design\AutoCAD\Final Plans\Sheets\CJW\B110 - B150 CROSS SECTIONS.dwg USER: Aaron
DATE: Apr 21, 2021 8:33am XREFS: CJW_T_PCORR_015-2768 - 3 LANE CJW_T_CTBLK_015-2768 (2019) V_XBOU_52768











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STATE OF MISSOURI
DANE MITCHELL SEILER
NUMBER PE-2010019595
PROFESSIONAL ENGINEER

REVISIONS

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

32ND STREET CROSS SECTIONS

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by: AJT
checked by: JCR
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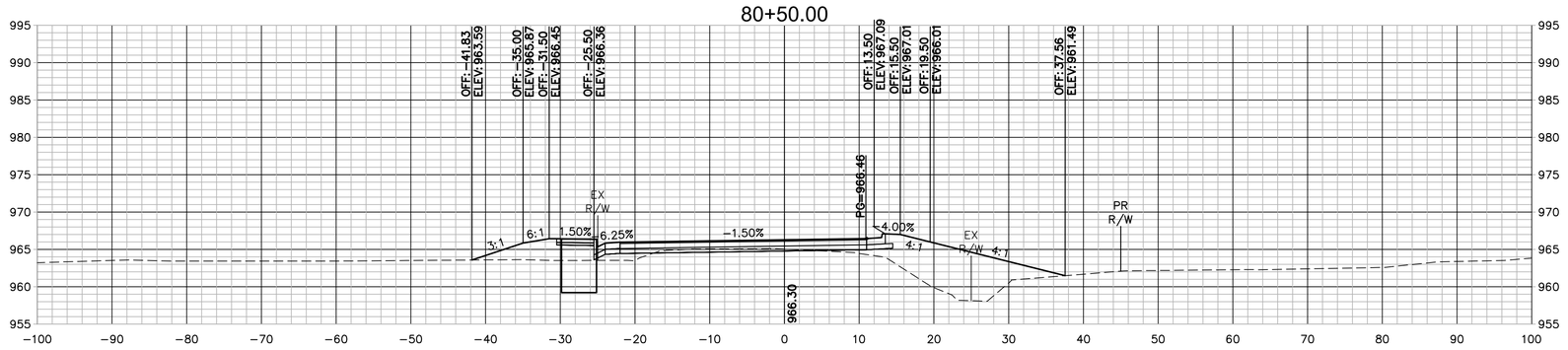
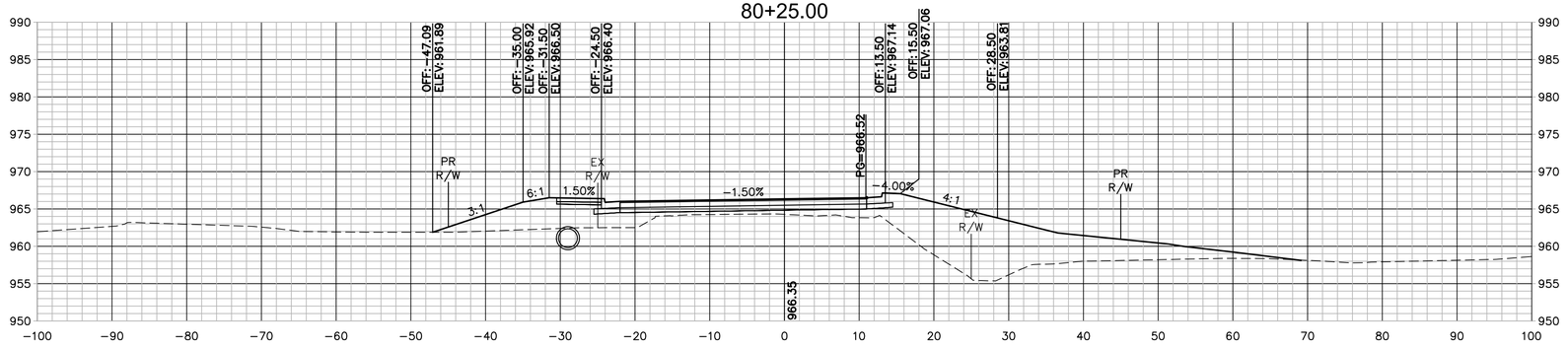
QA/QC by: OLSSON
project no.: 015-2768
drawing no.:
date: 04/23/2021

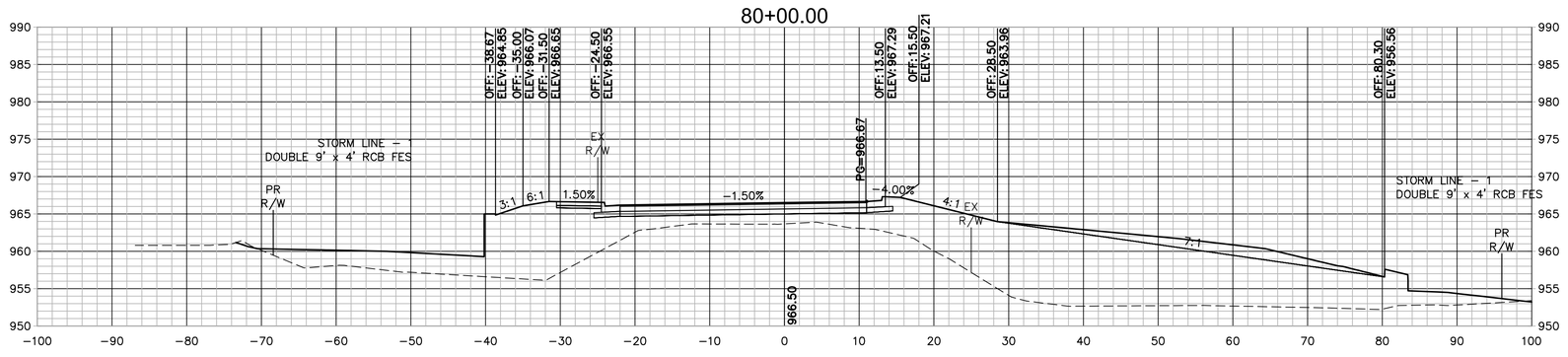
SHEET
B128 of B150

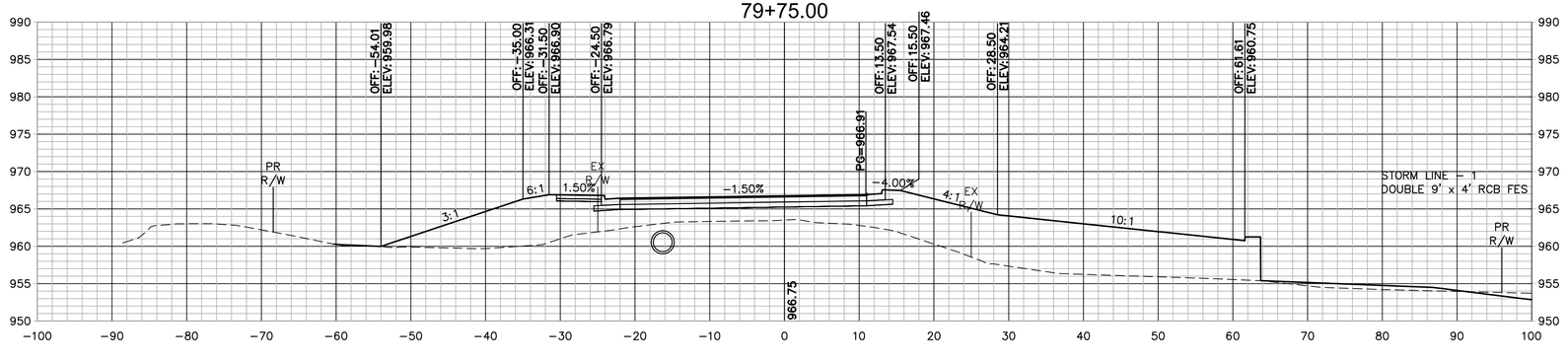
SCALE IN FEET
0' 5' 10' 20'
20' 10' 5' 0'

DWG: G:\15065 - 32nd Street Roadway\015-2768 32nd Street Widening\40-Design\AutoCAD\Final Plans\Sheets\CJW\B110 - B150 CROSS SECTIONS.dwg USER: Aaron
DATE: Apr 21, 2021 8:33am XREFS: CJW_T_PCORR_015-2768 - 3 LANE CJW_T_CTBLK_015-2768 (2019) V_XBOU_52768









0' 5' 10' 20'
SCALE IN FEET

0' 5' 10' 20'

DWG: G:\15065 - 32nd Street Roadway\015-2768 32nd Street Widening\40-Design\AutoCAD\Final Plans\Sheets\CJW\B110 - B150 CROSS SECTIONS.dwg USER: Aaron
DATE: Apr 21, 2021 8:33am XREFS: CJW_T_PCORR_015-2768 - 3 LANE CJW_T_CTBLK_015-2768 (2019) V_XBOU_52768

Prepared by:
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CJW Transportation Consultants, L.L.C.
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STATE OF MISSOURI
DANE MITCHELL SEILER
E-23271
NUMBER
PE-2010019595
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

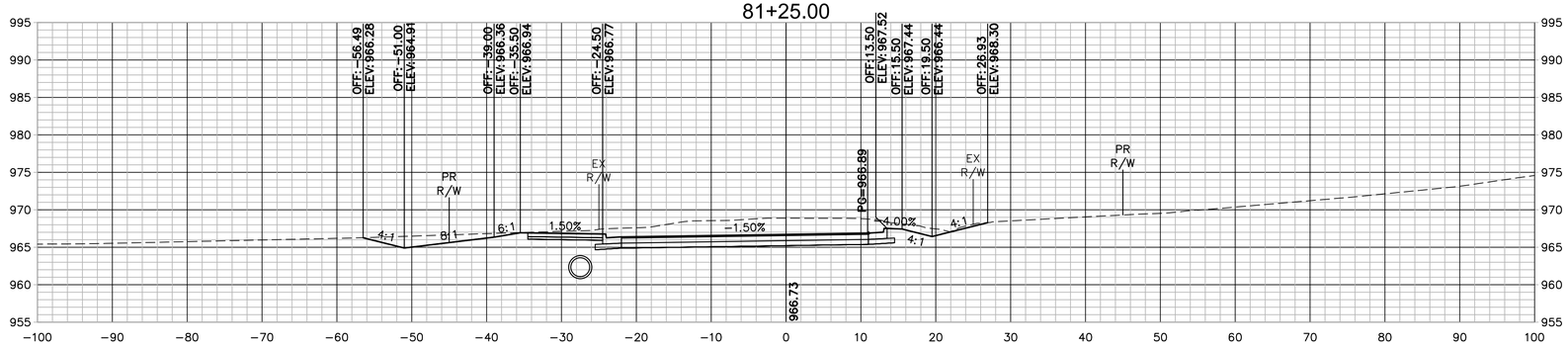
32ND STREET CROSS SECTIONS

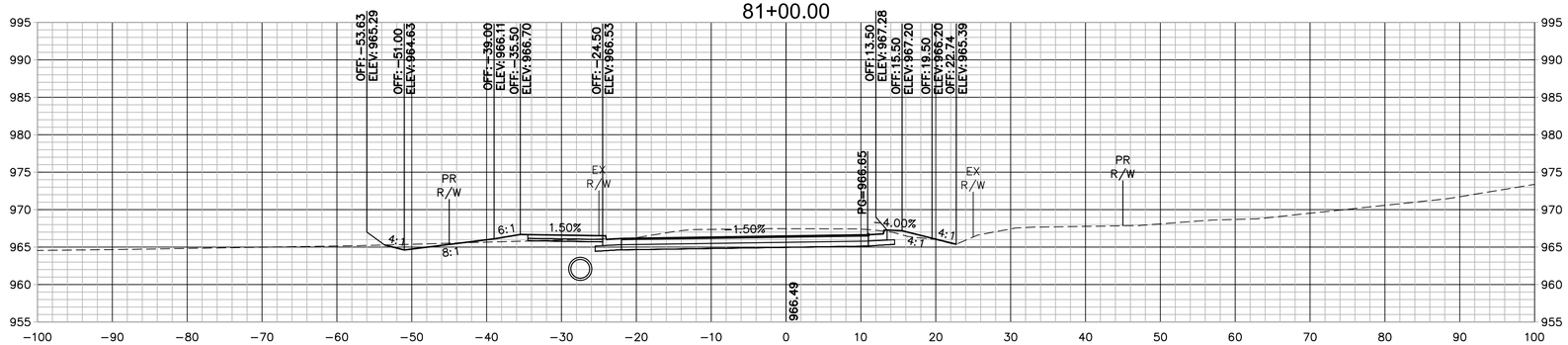
32ND STREET WIDENING
CITY OF JOPLIN

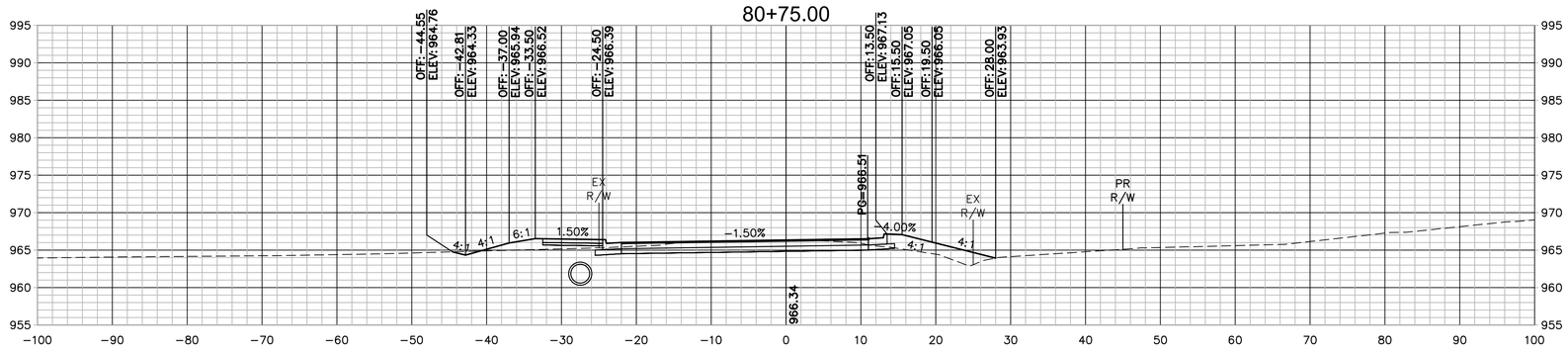
JOPLIN, MISSOURI

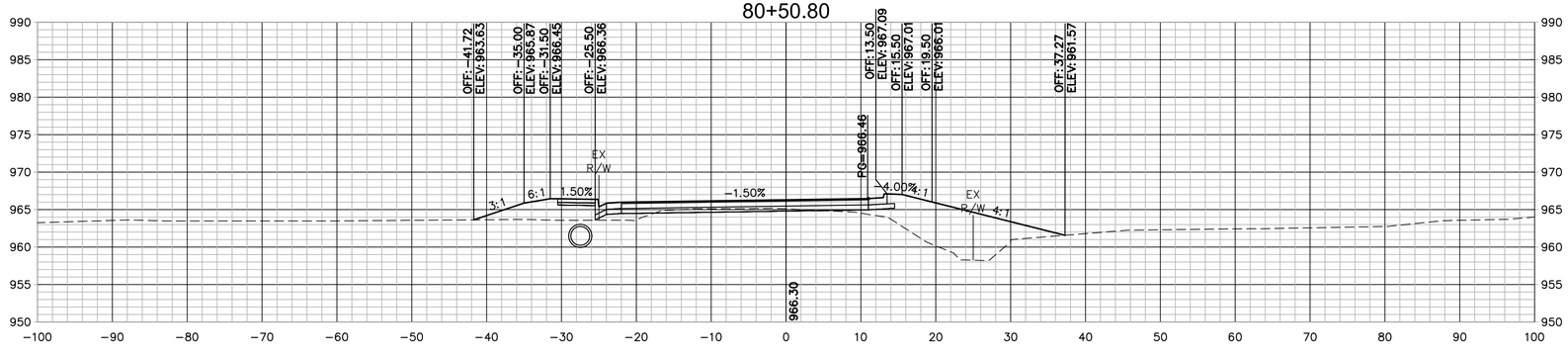
2021

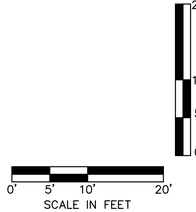
drawn by: AJT
checked by: JCR
approved by: DMS
QA/QC by: OLSSON
project no.: 015-2768
drawing no.:
date: 04/23/2021











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32ND STREET WIDENING
CITY OF JOPLIN

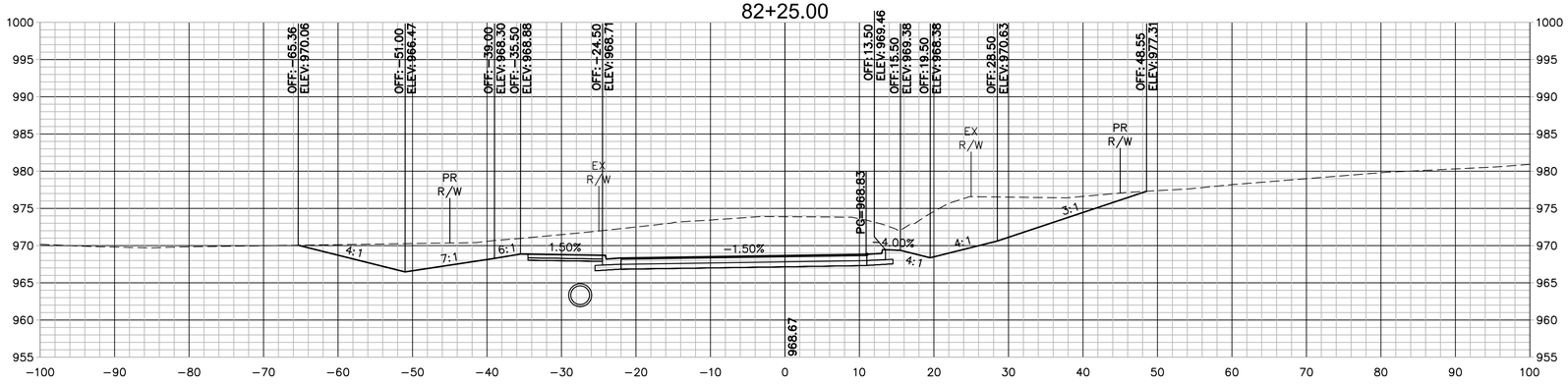
JOPLIN, MISSOURI

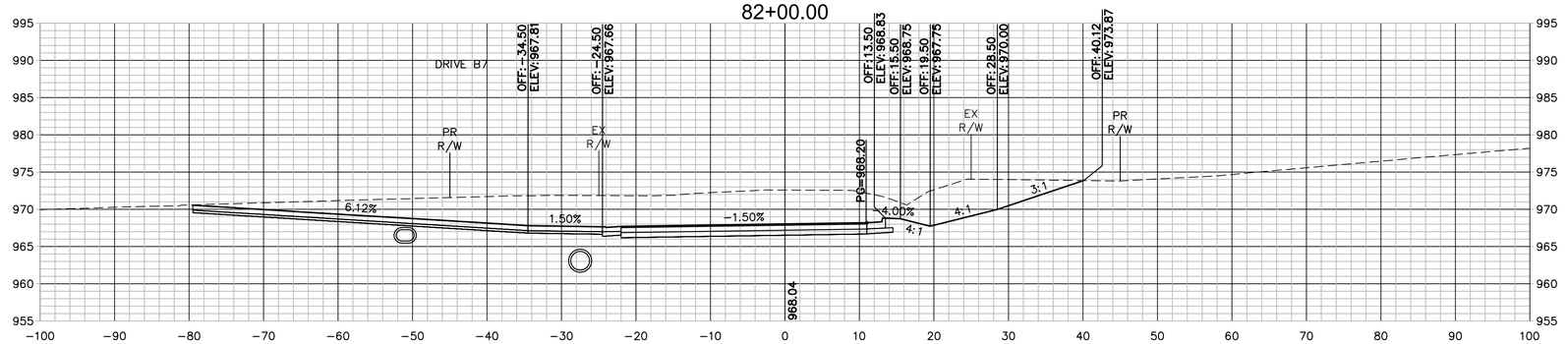
2021

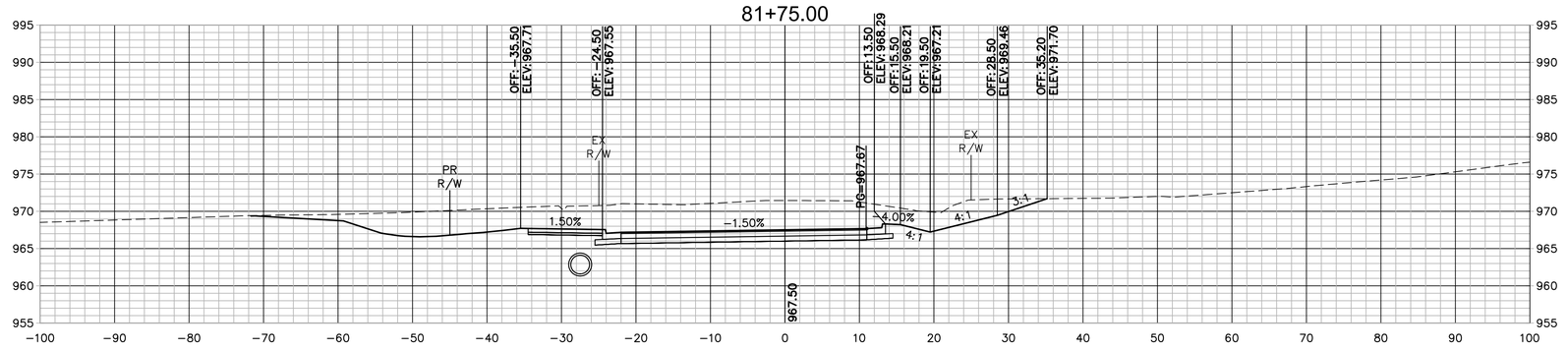
drawn by: AJT
checked by: JCR
approved by: DMS
QA/QC by: OLSSON
project no.: 015-2768
drawing no.:
date: 04/23/2021

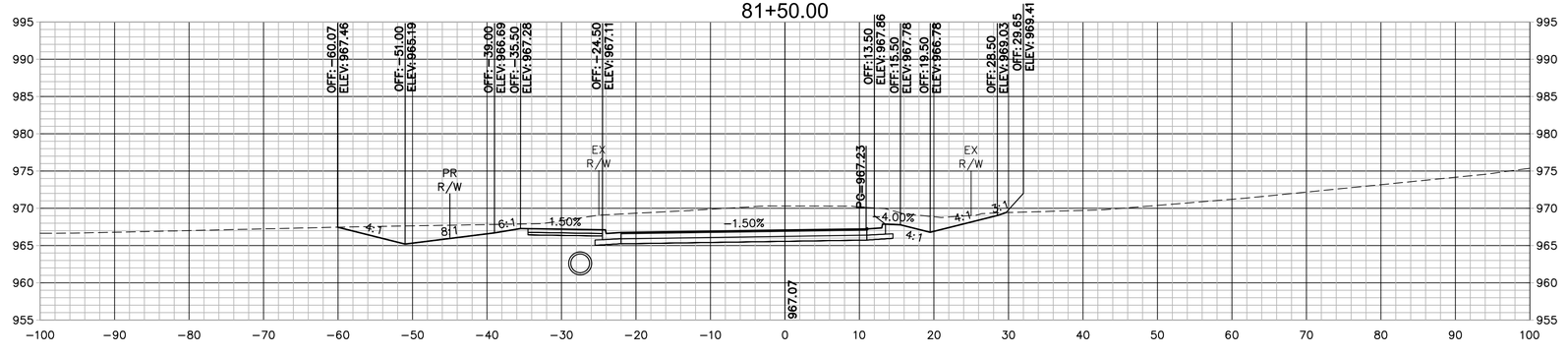
SHEET
B130 of B150

DWG: G:\15065 - 32nd Street Roadway\015-2768 32nd Street Widening\40-Design\AutoCAD\Final Plans\Sheets\CJW\B110 - B150 CROSS SECTIONS.dwg USER: Aaron
DATE: Apr 21, 2021 8:33am XREFS: CJW_T_PCORR_015-2768 - 3 LANE CJW_T_CTBLK_015-2768 (2019) V_XBOU_52768









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SCALE IN FEET

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32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

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project no.: 015-2768
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SHEET
B131 of B150

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SCALE IN FEET

20'
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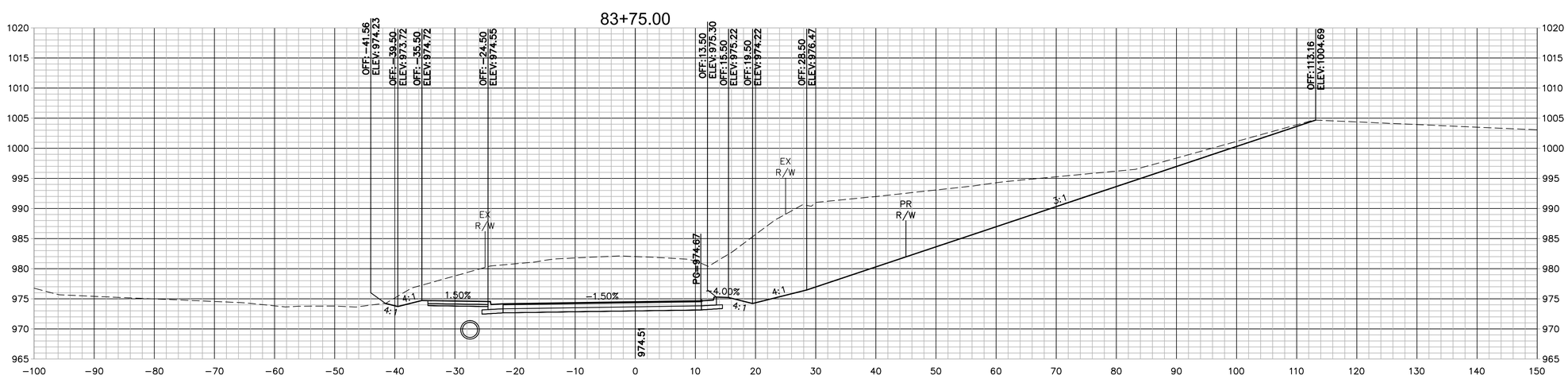

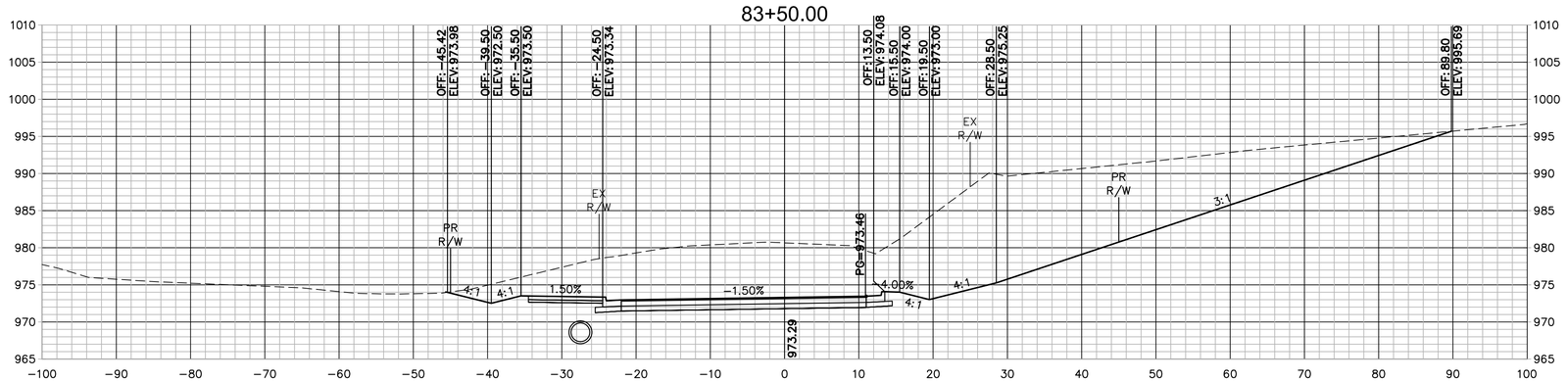

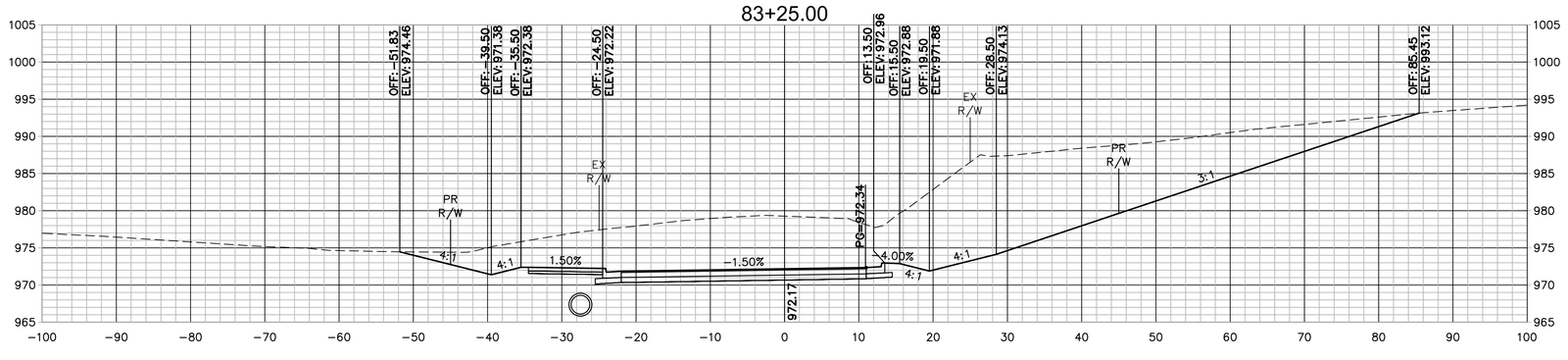

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CITY OF JOPLIN

JOPLIN, MISSOURI

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B133 of B150

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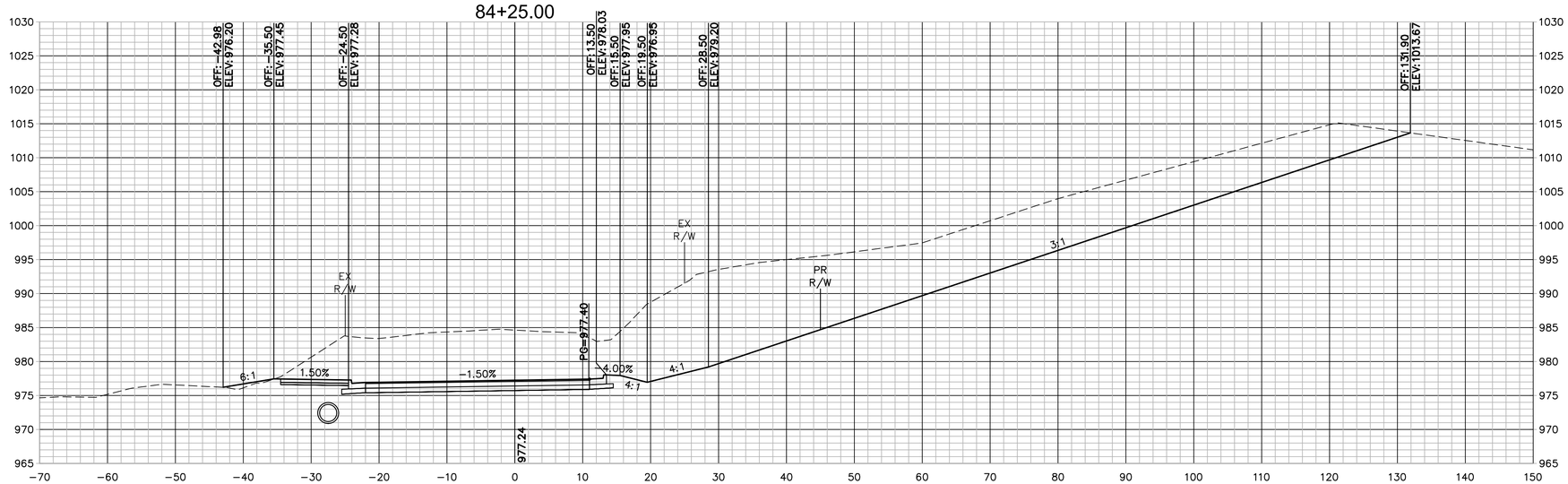

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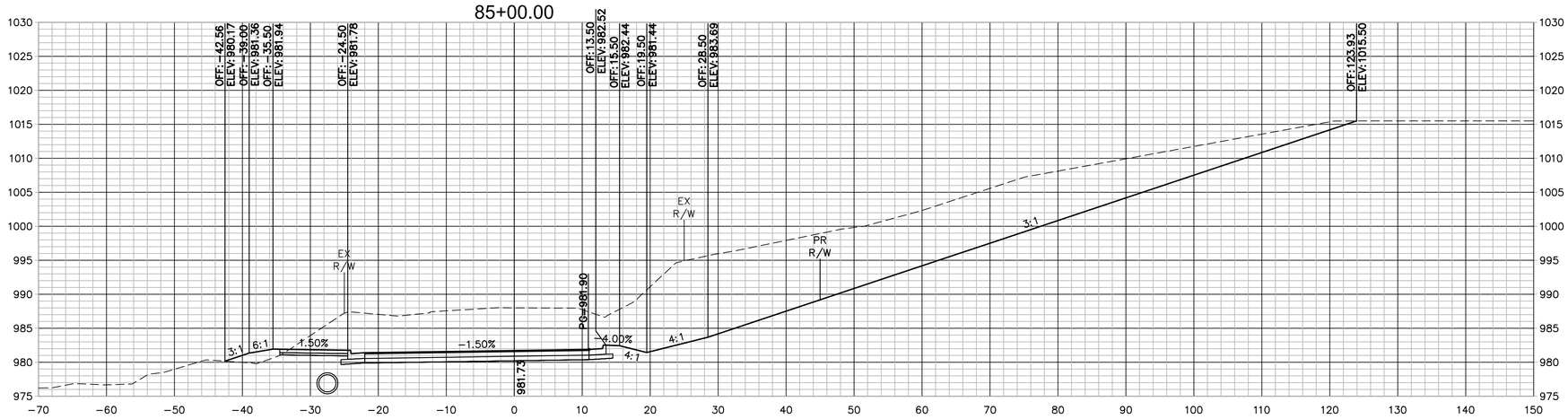
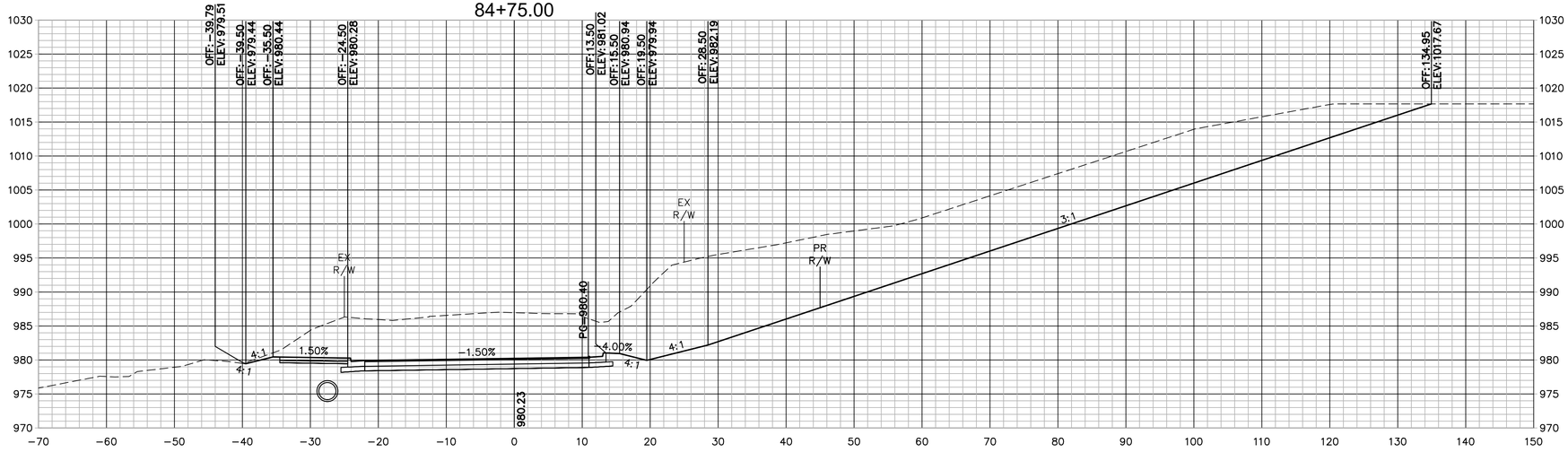
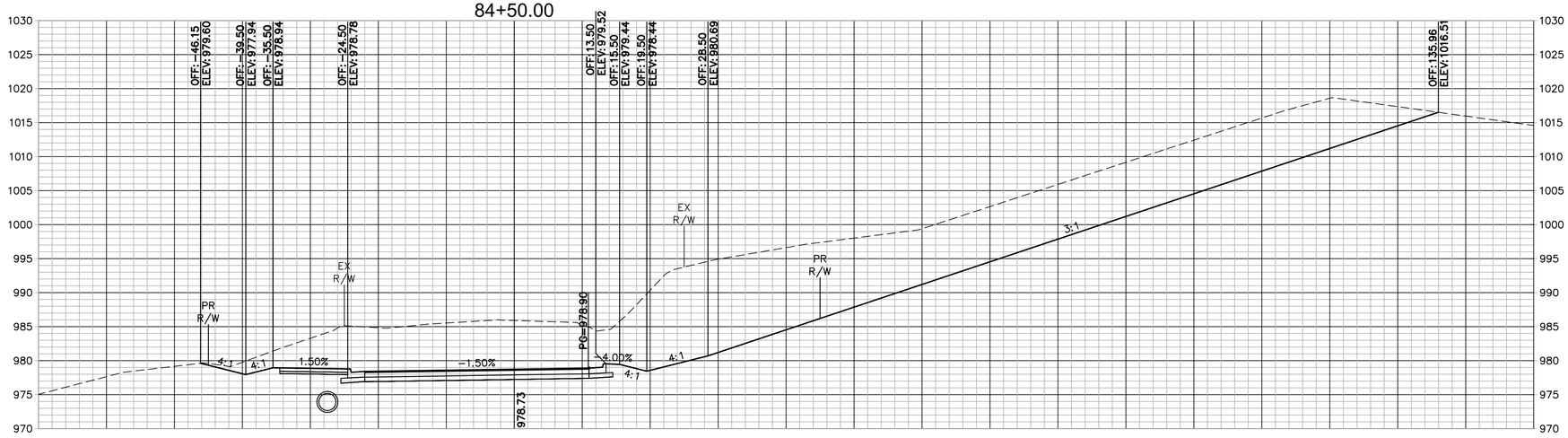
B134 of B150







20'
10'
5'
0'
0' 5' 10' 20'
SCALE IN FEET

Prepared by:
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CJW Transportation Consultants, L.L.C.
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STATE OF MISSOURI
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32ND STREET CROSS SECTIONS

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

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SHEET
B135 of B150

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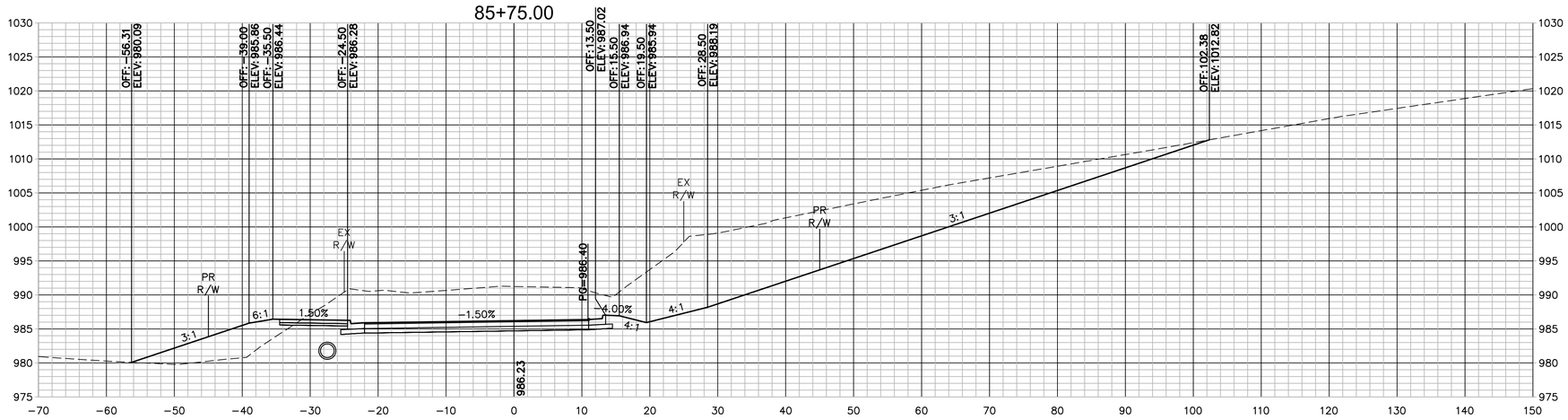
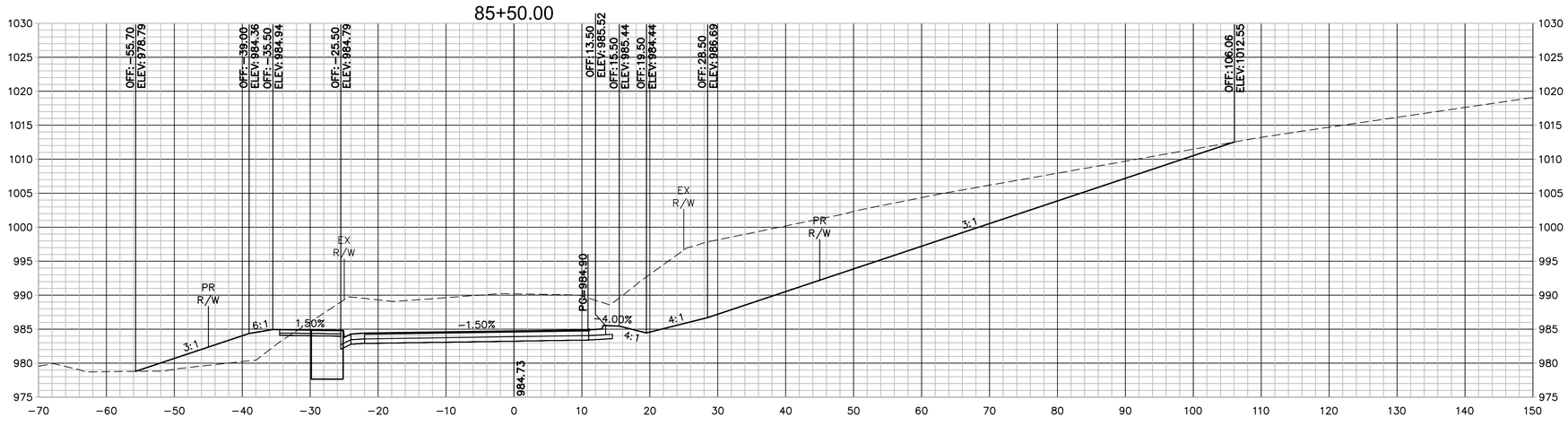
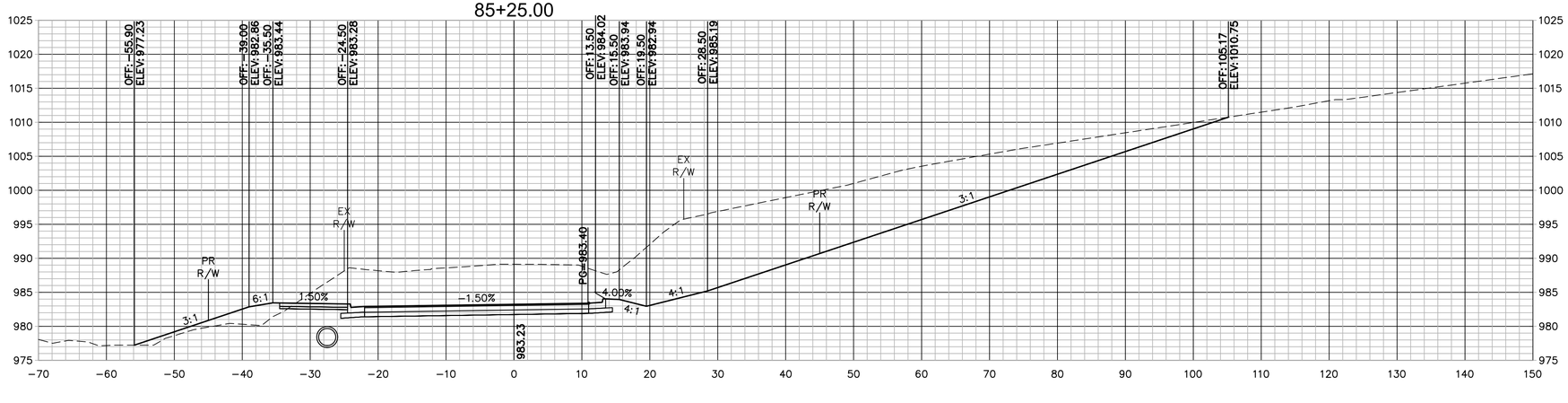
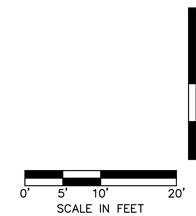
DATE: Apr 21, 2021 8:35am XREFS: CJW_T_PCORR_015-2768 - 3 LANE CJW_T_CTBLK_015-2768 (2019) V_XBOU_52768









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32ND STREET CROSS SECTIONS

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

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SHEET
B136 of B150

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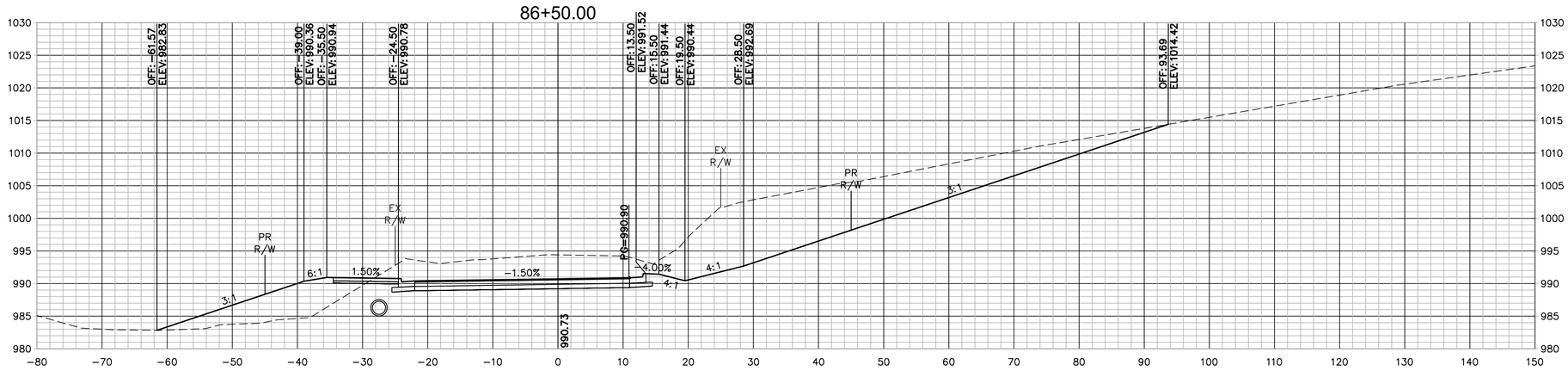

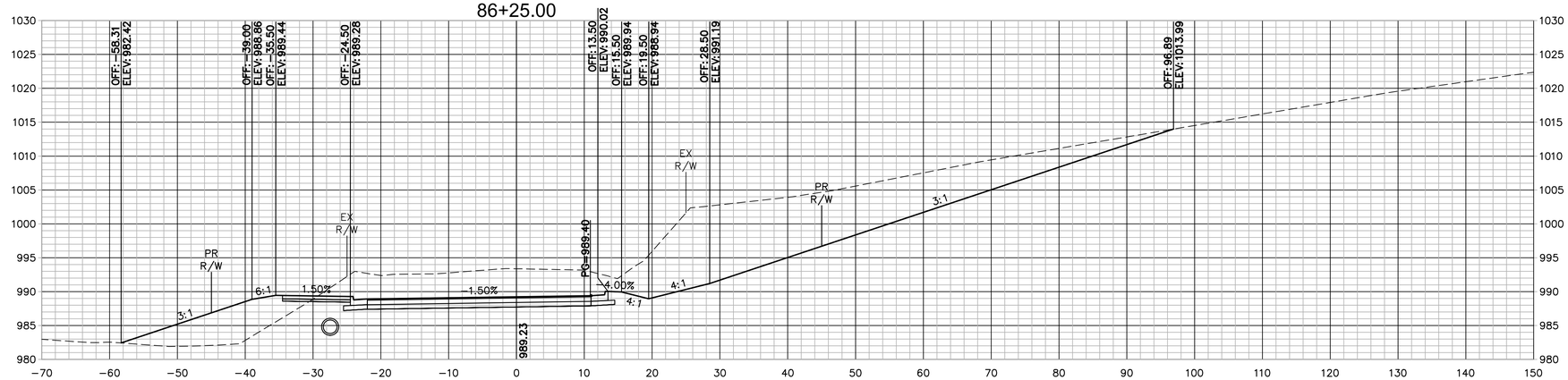

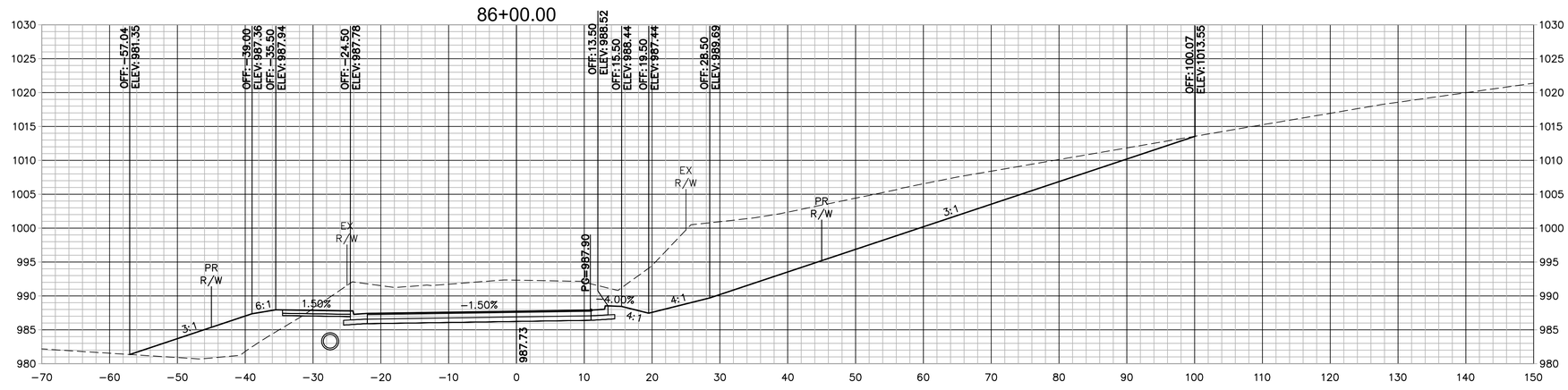

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SCALE IN FEET

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B137 of B150

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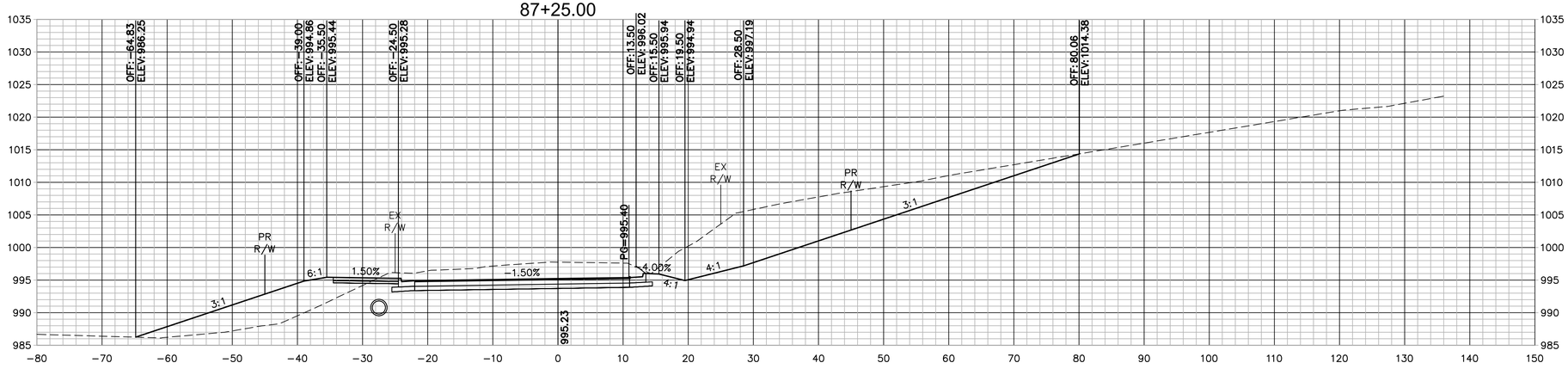

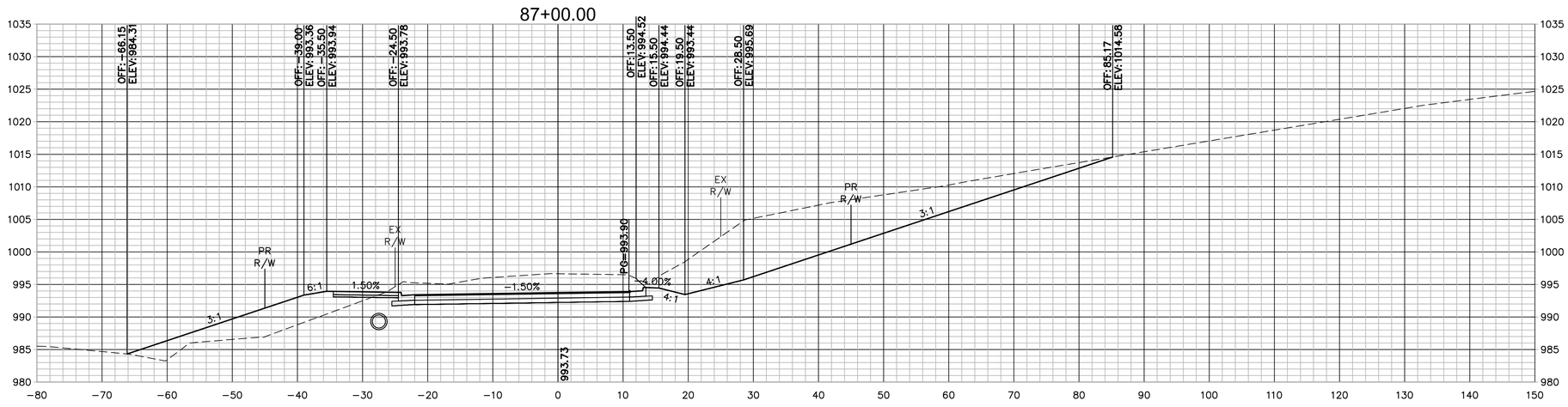

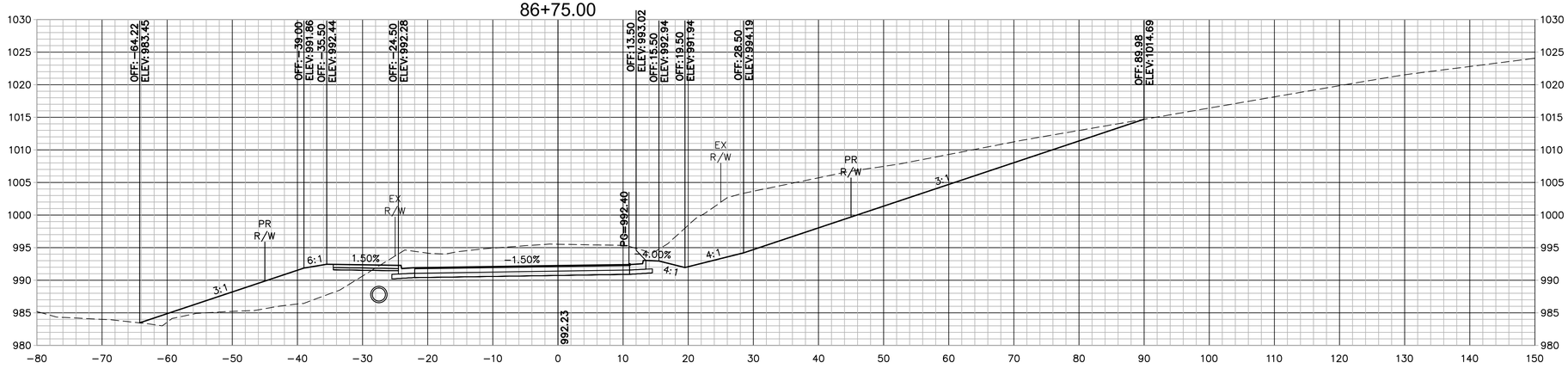

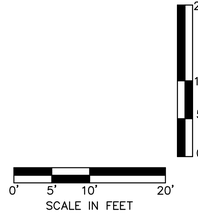

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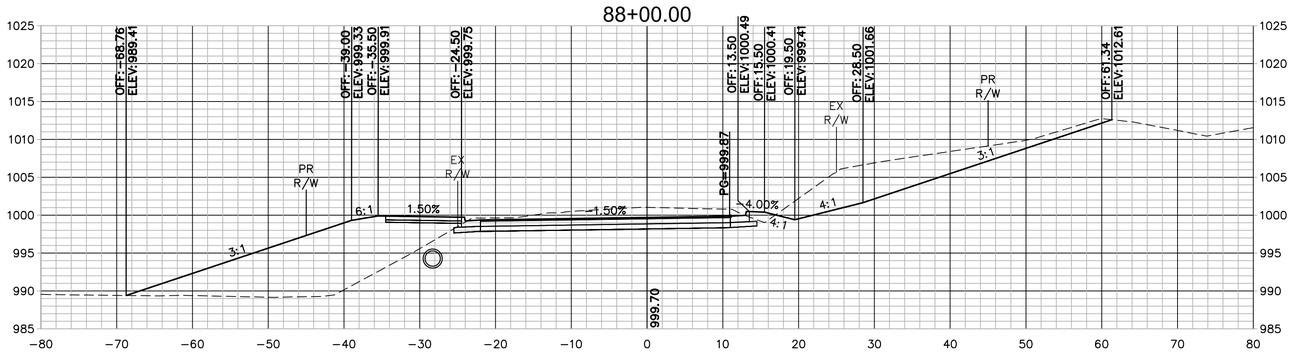
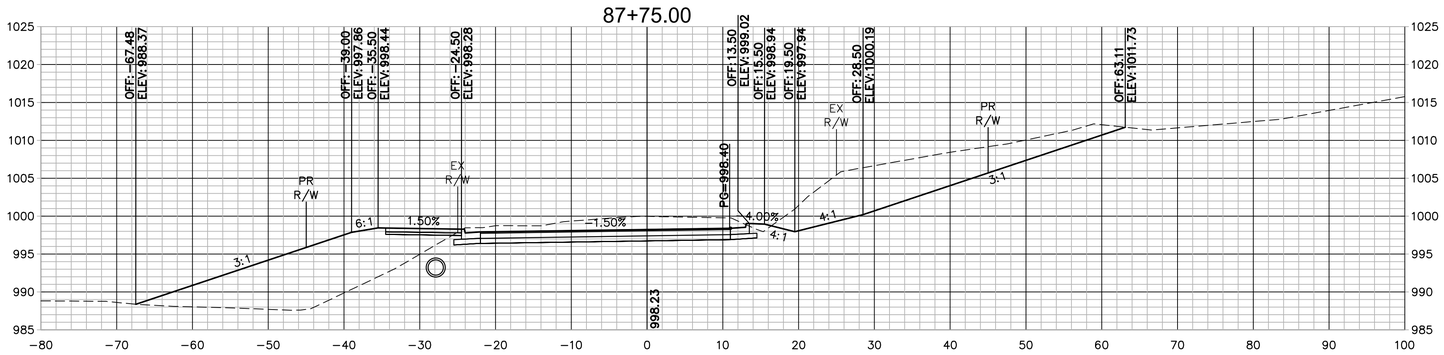
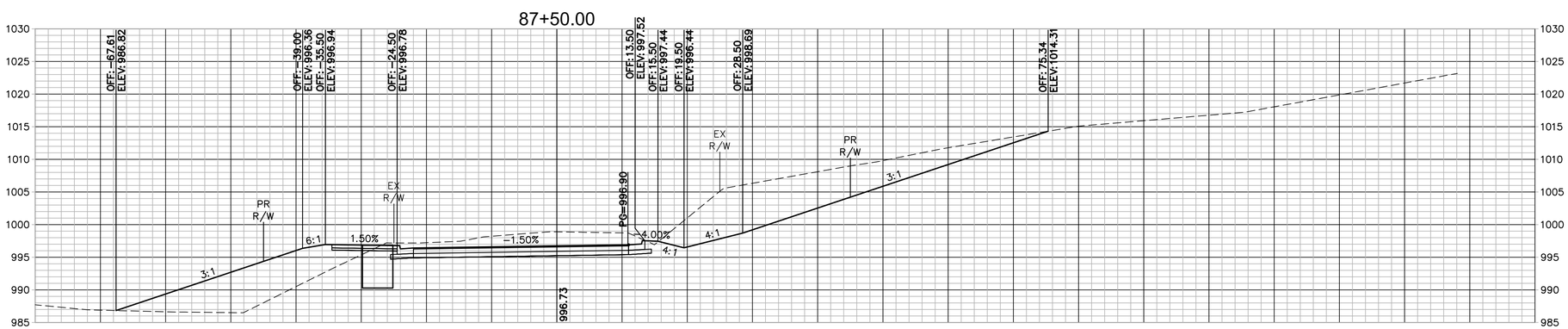
DATE: Apr 21, 2021 8:35am XREFS: CJW_T_PCORR_015-2768 - 3 LANE CJW_T_CTBLK_015-2768 (2019) V_XBOU_52768







0' 5' 10' 20'
SCALE IN FEET

0' 5' 10' 20'

Prepared by:
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CJW Transportation Consultants, L.L.C. Engineering MO C.A. #2006012385

STATE OF MISSOURI
DANE MITCHELL SEILER
NUMBER PE-2010019595
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

32ND STREET CROSS SECTIONS

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by: AJT
checked by: JCR
approved by: DMS
QA/QC by: OLSSON
project no.: 015-2768
drawing no.:
date: 04/23/2021

SHEET
B139 of B150

DWG: G:\15065 – 32nd Street Roadway\015-2768 32nd Street Widening\40-Design\AutoCAD\Final Plans\Sheets\CJW\B110 – B150 CROSS SECTIONS.dwg USER: Aaron
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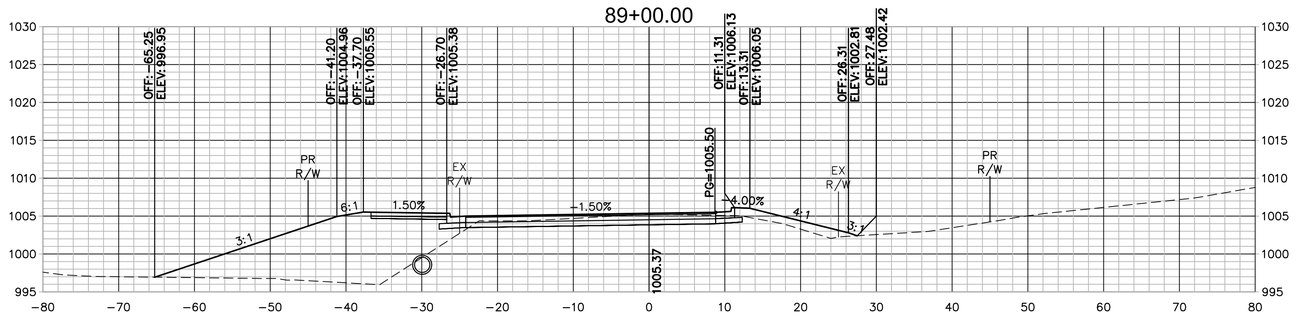

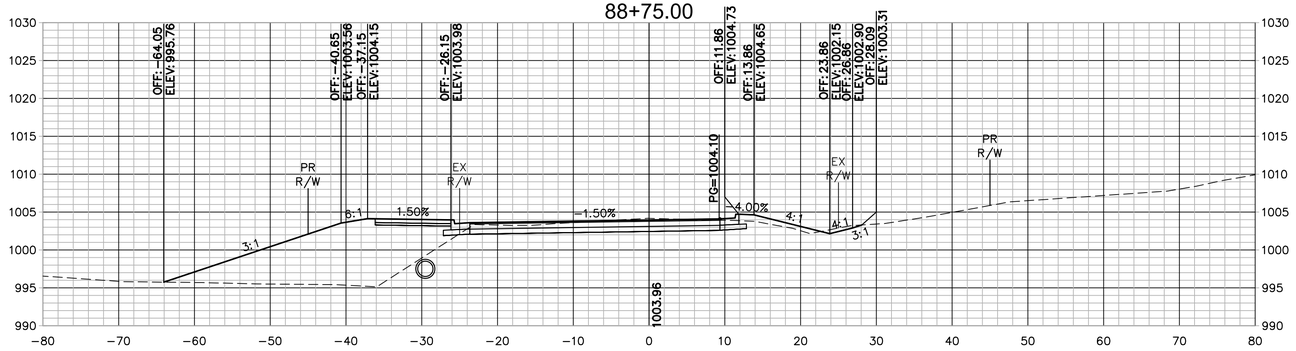

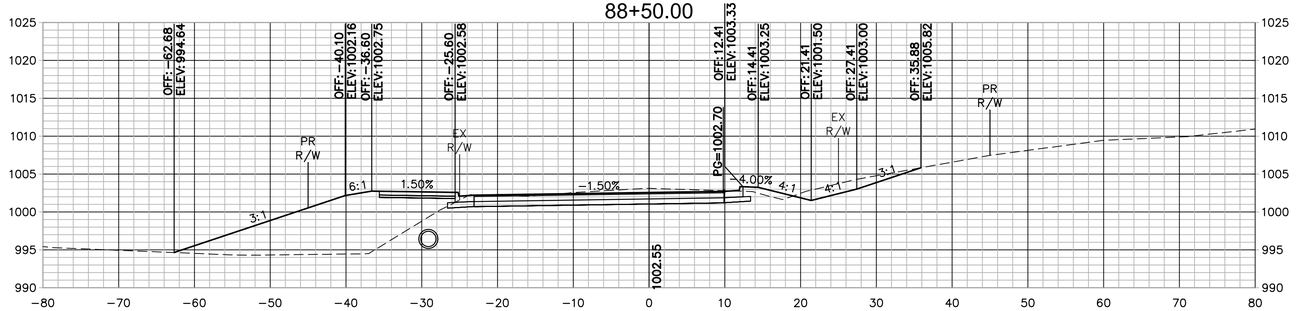

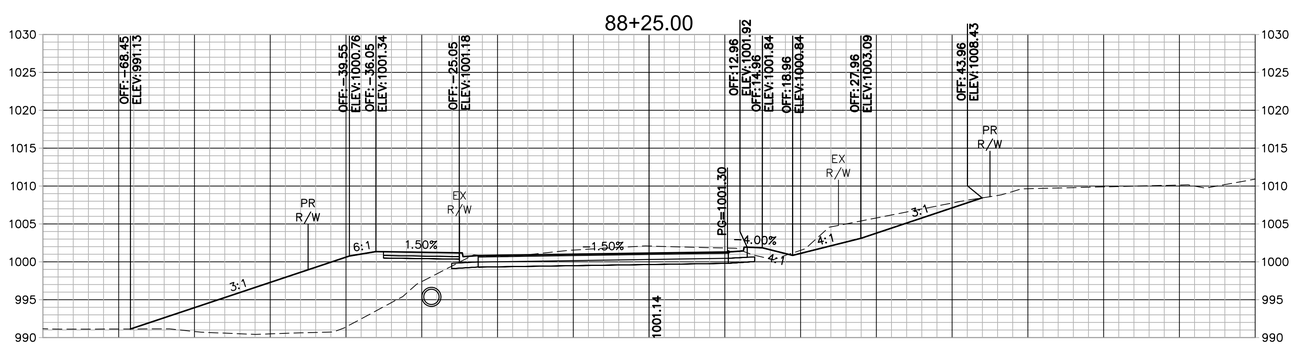

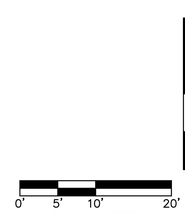

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32ND STREET CROSS SECTIONS

32ND STREET WIDENING
CITY OF JOPLIN

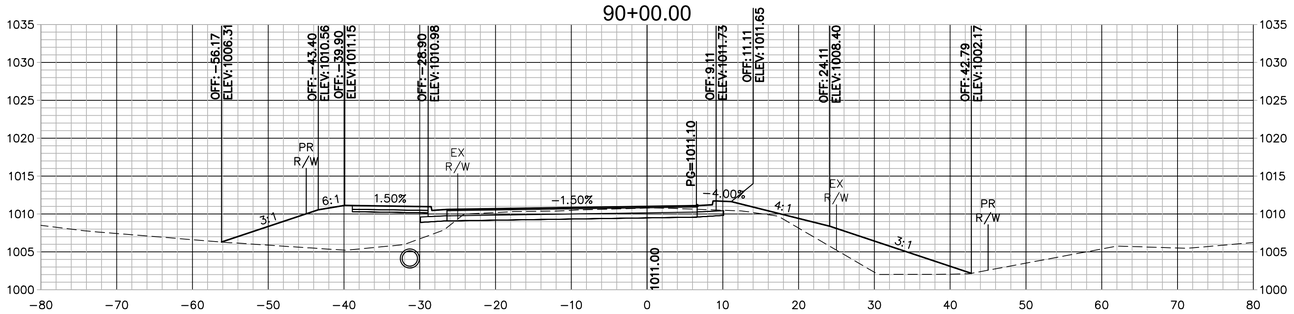
JOPLIN, MISSOURI

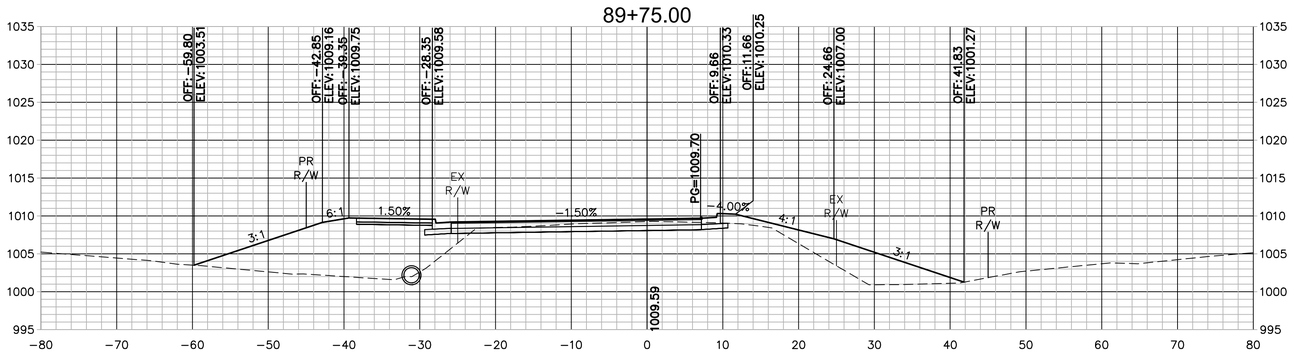
2021

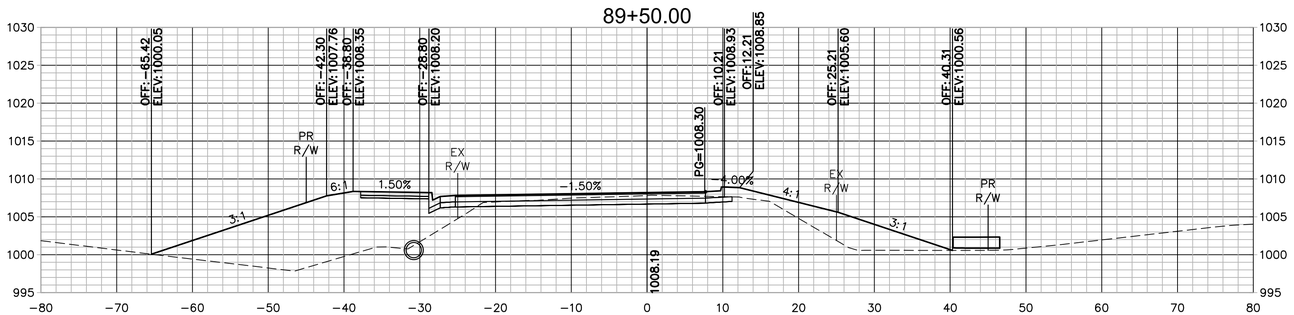
drawn by:	AJT
checked by:	JCR
approved by:	DMS
QA/QC by:	OLSSON
project no.:	015-2768
drawing no.:	
date:	04/23/2021

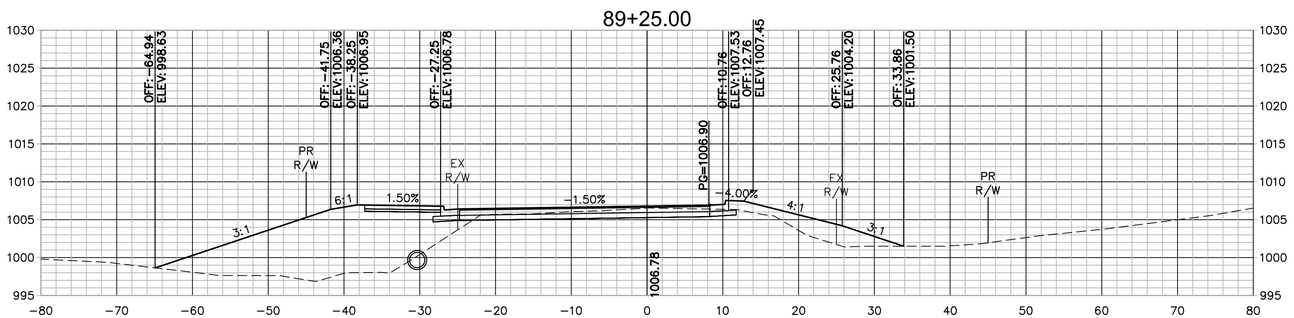
SHEET
B140 of B150

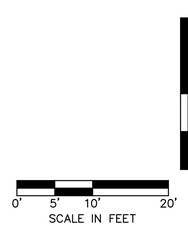
DWG: G:\15065 - 32nd Street Roadway\015-2768 32nd Street Widening\40-Design\AutoCAD\Final Plans\Sheets\CJW\B110 - B150 CROSS SECTIONS.dwg USER: Aaron
DATE: Apr 21, 2021 8:36am XREFS: CJW_T_PCORR_015-2768 - 3 LANE CJW_T_CTBLK_015-2768 (2019) V_XBOU_52768











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32ND STREET CROSS SECTIONS

32ND STREET WIDENING
CITY OF JOPLIN

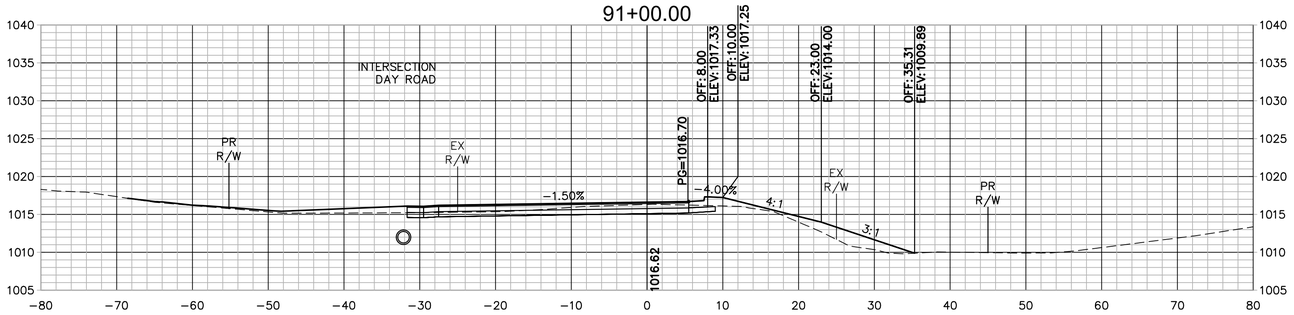
JOPLIN, MISSOURI

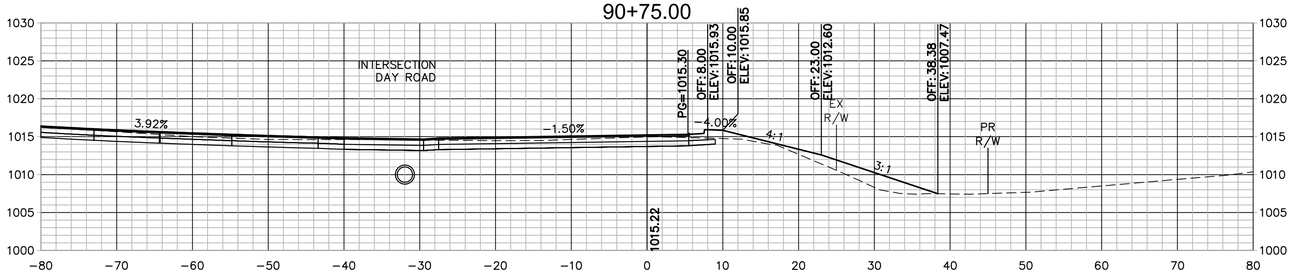
2021

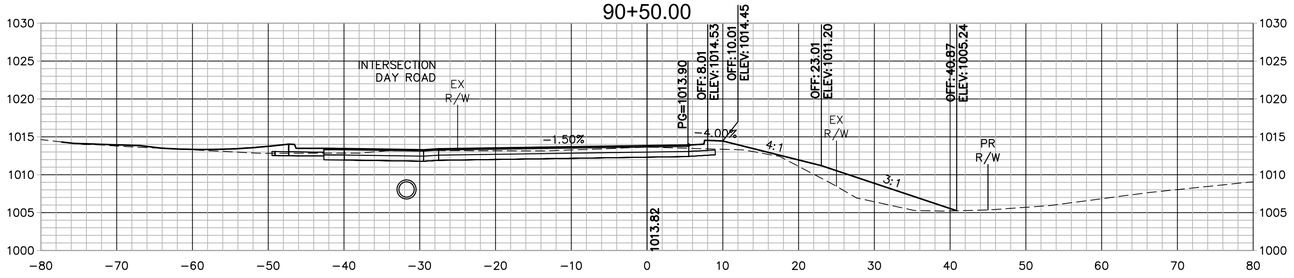
drawn by:	AJT
checked by:	JCR
approved by:	DMS
QA/QC by:	OLSSON
project no.:	015-2768
drawing no.:	
date:	04/23/2021

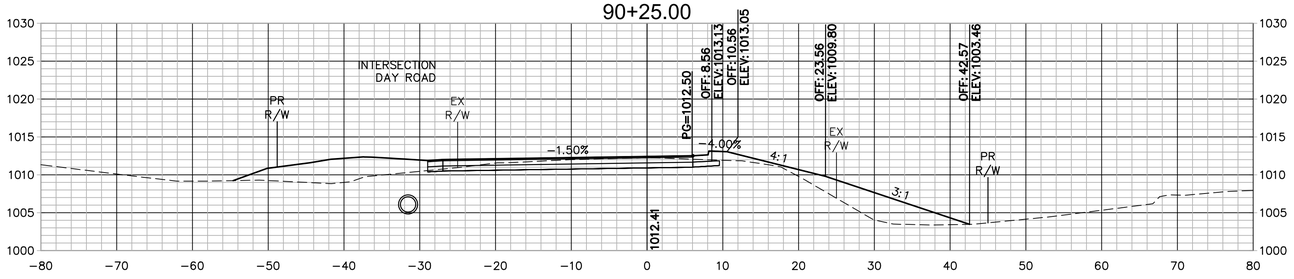
SHEET
B141 of B150

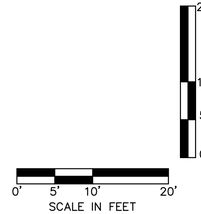
DWG: G:\15065 - 32nd Street Roadway\015-2768 32nd Street Widening\40-Design\AutoCAD\Final Plans\Sheets\CJW\B110 - B150 CROSS SECTIONS.dwg USER: Aaron
DATE: Apr 21, 2021 8:36am XREFS: CJW_T_PCORR_015-2768 - 3 LANE CJW_T_CTBLK_015-2768 (2019) V_XBOU_52768











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REVISIONS

32ND STREET CROSS SECTIONS

32ND STREET WIDENING
CITY OF JOPLIN

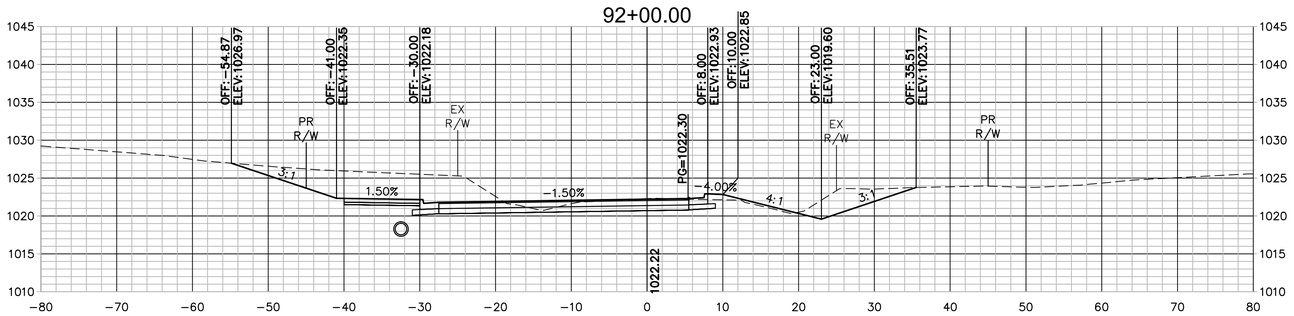
JOPLIN, MISSOURI

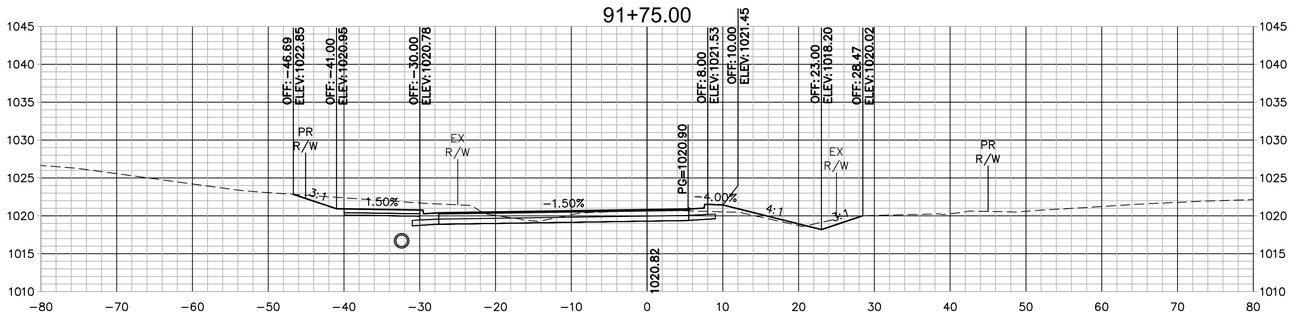
2021

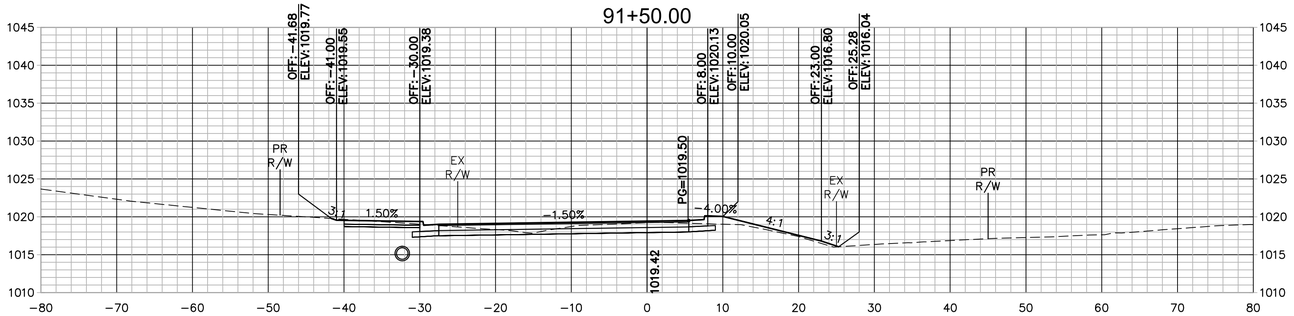
drawn by: AJT
checked by: JCR
approved by: DMS
QA/QC by: OLSSON
project no.: 015-2768
drawing no.:
date: 04/23/2021

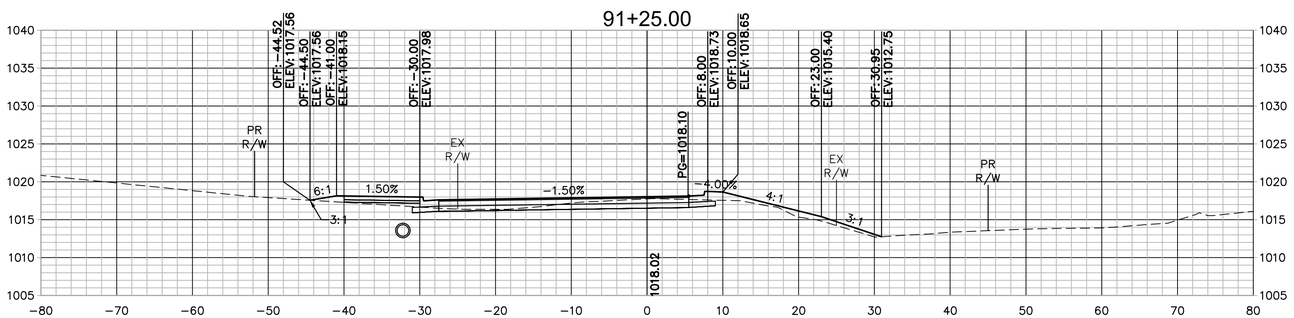
SHEET
B142 of B150

DWG: G:\15065 - 32nd Street Roadway\015-2768 32nd Street Widening\40-Design\AutoCAD\Final Plans\Sheets\CJW\B110 - B150 CROSS SECTIONS.dwg USER: Aaron
DATE: Apr 21, 2021 8:36am XREFS: CJW_T_PCORR_015-2768 - 3 LANE CJW_T_CTBLK_015-2768 (2019) V_XBOU_52768









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32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

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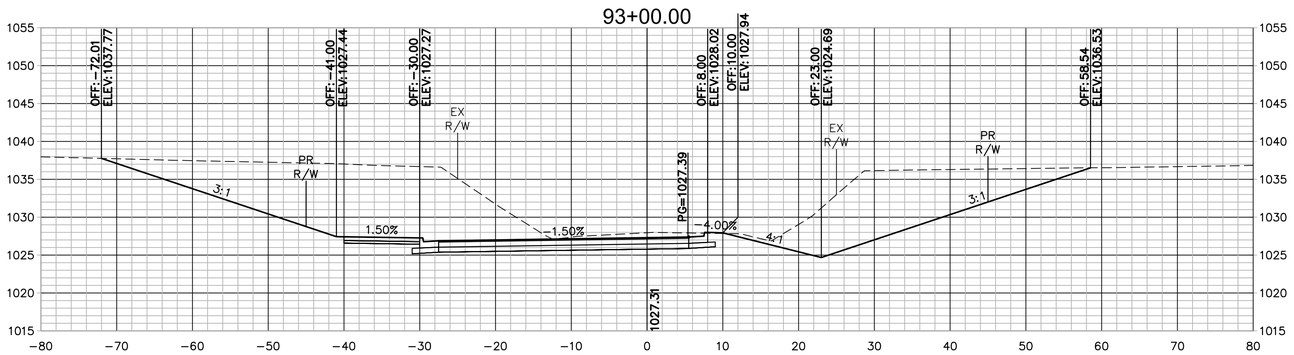
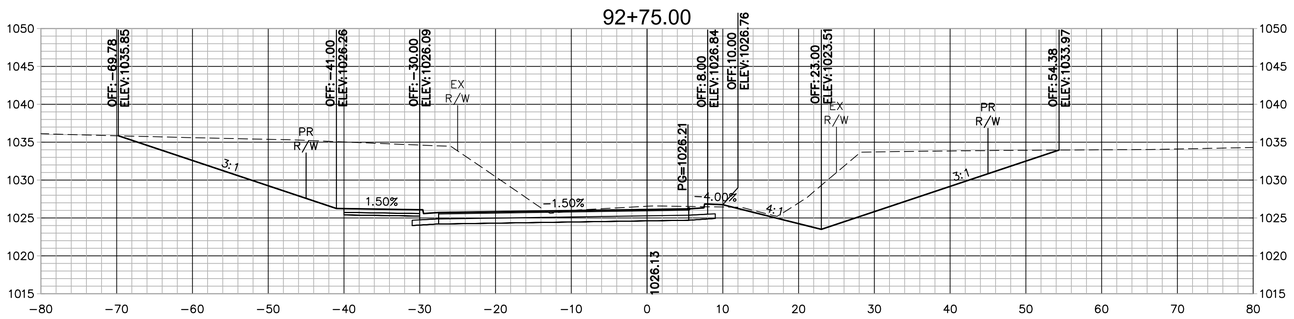
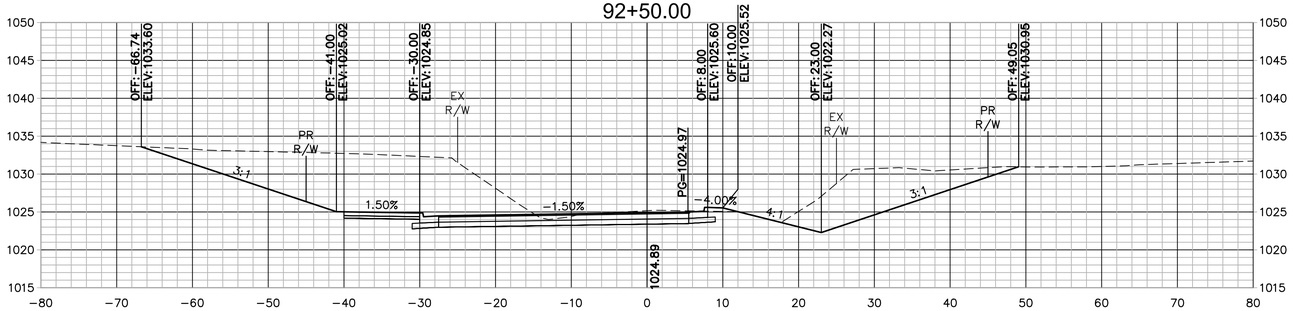
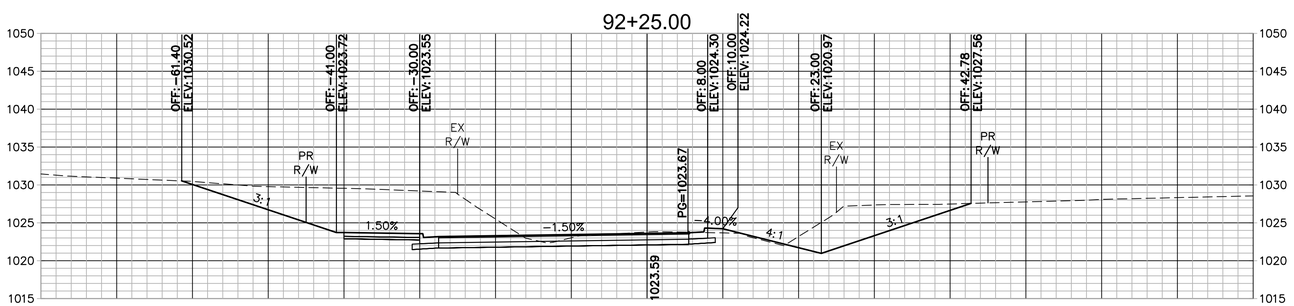
SHEET
B143 of B150

DWG: G:\15065 - 32nd Street Roadway\015-2768 32nd Street Widening\40-Design\AutoCAD\Final Plans\Sheets\CJW\B110 - B150 CROSS SECTIONS.dwg USER: Aaron
DATE: Apr 21, 2021 8:37am XREFS: CJW_T_PCORR_015-2768 - 3 LANE CJW_T_CTBLK_015-2768 (2019) V_XBOU_52768









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CITY OF JOPLIN

JOPLIN, MISSOURI

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SHEET
B144 of B150

0' 5' 10' 20'
SCALE IN FEET

0' 5' 10' 20'

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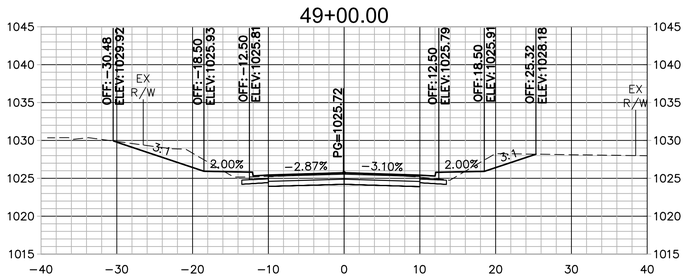

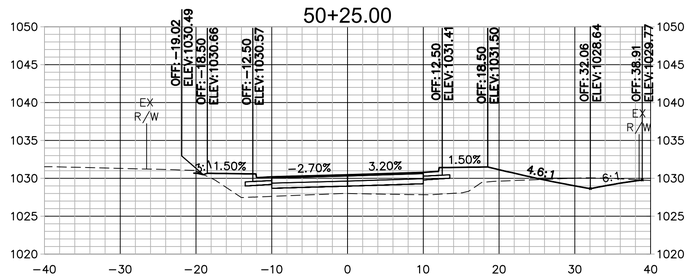

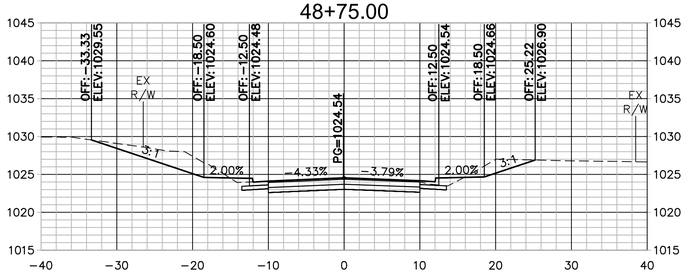

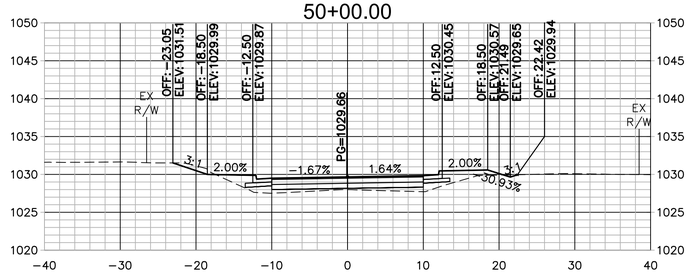

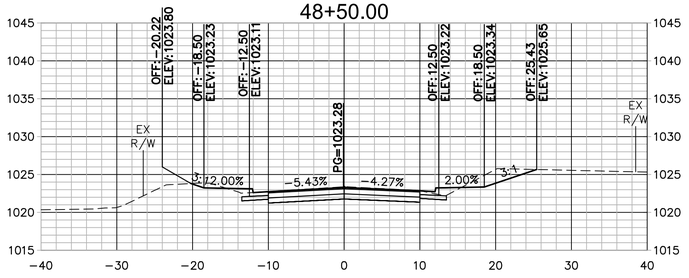

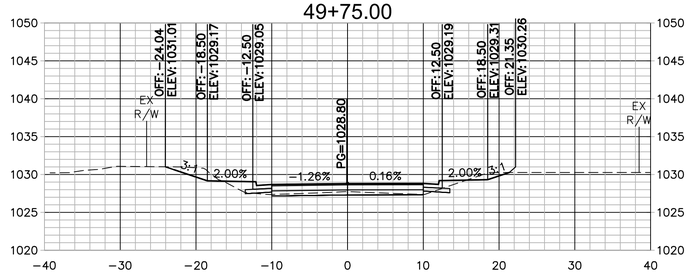

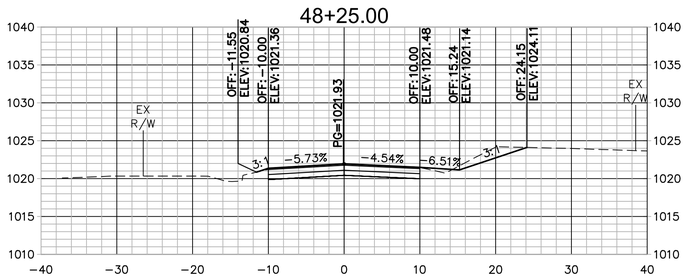

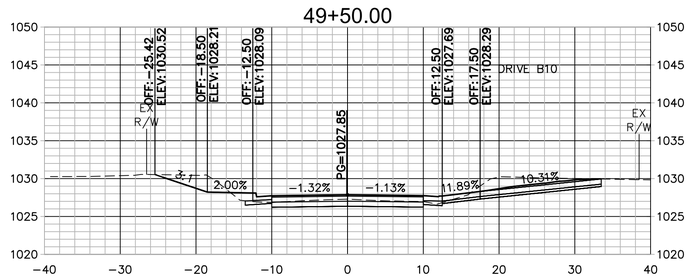

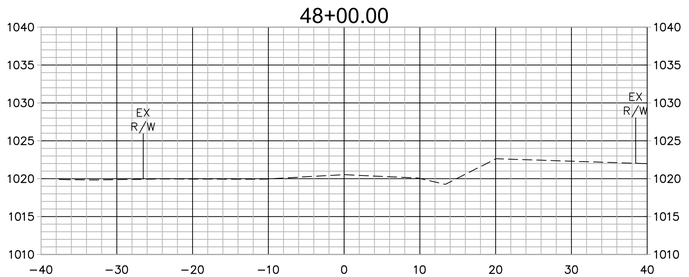

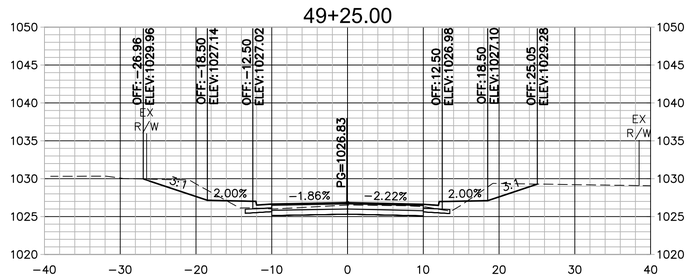

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REVISIONS

COUNTRY CLUB DRIVE CROSS SECTIONS

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by: AJT
checked by: JCR
approved by: DMS
QA/QC by: OLSSON
project no.: 015-2768
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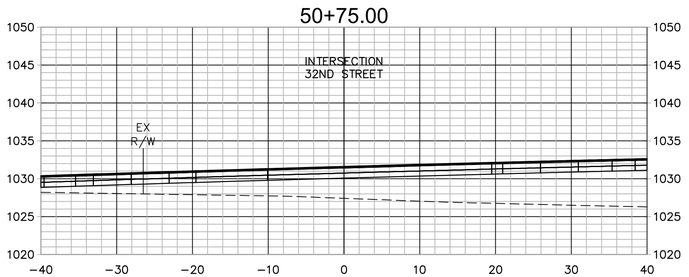
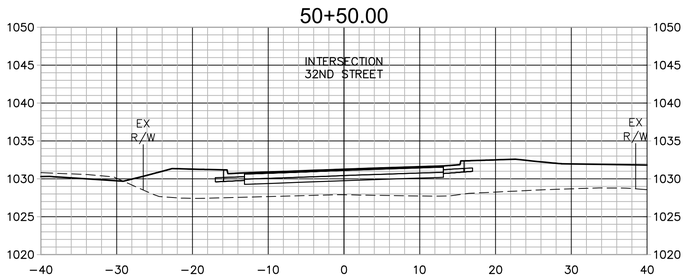
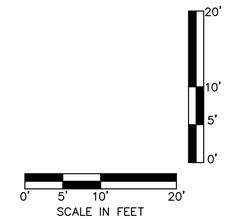
SHEET
B145 of B150







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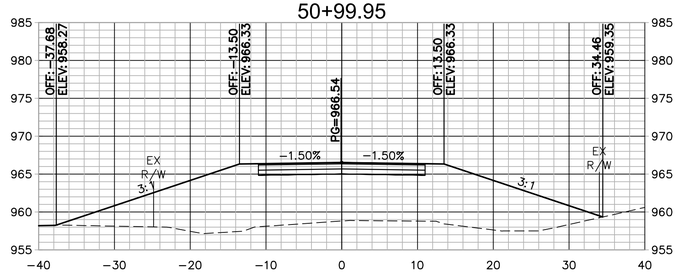
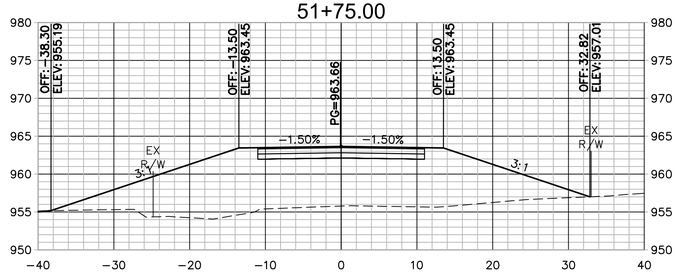
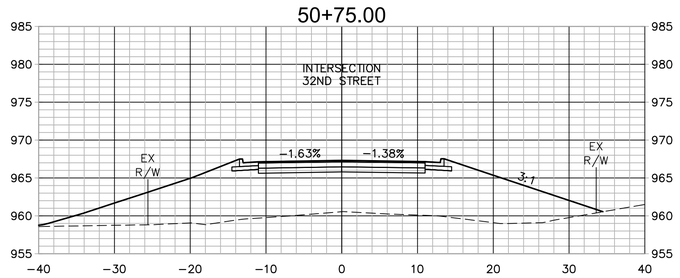
QA/QC by:	OLSSON
project no.:	015-2768
drawing no.:	
date:	04/23/2021

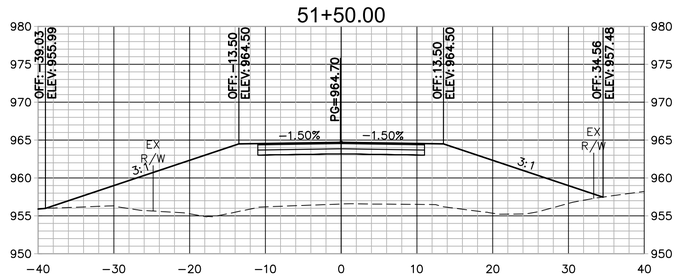
SHEET
B146 of B150

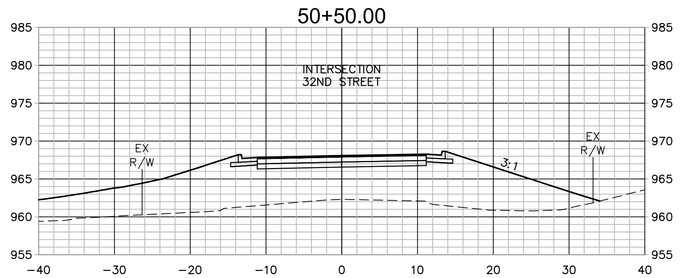
DWG: G:\15065 – 32nd Street Roadway\015-2768 32nd Street Widening\40-Design\AutoCAD\Final Plans\Sheets\CJW\B110 – B150 CROSS SECTIONS.dwg USER: Aaron
DATE: Apr 21, 2021 8:37am XREFS: CJW_T_PCORR_015-2768 – 3 LANE CJW_T_CTBLK_015-2768 (2019) V_XBOU_52768

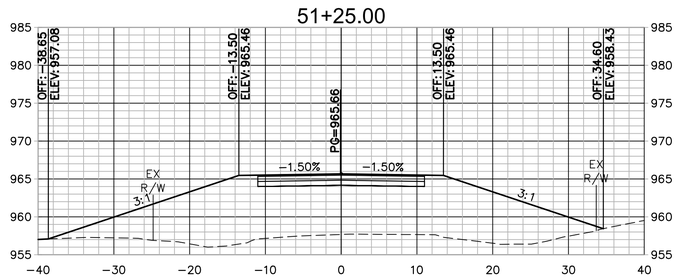


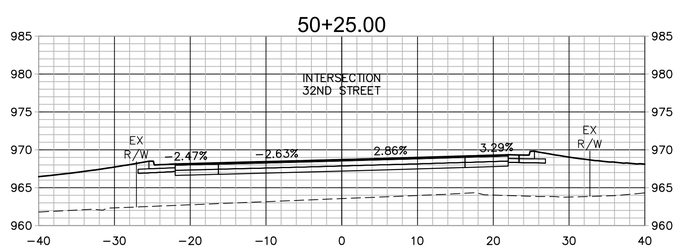


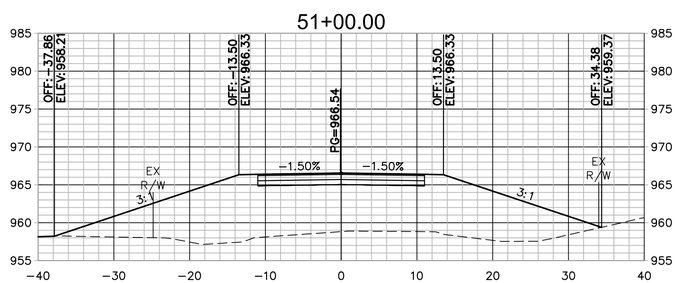


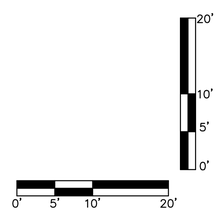












Prepared by:
CJW Transportation Consultants, L.L.C.
CJW Transportation Consultants, L.L.C. Engineering MO C.A. #2006012385
5051 S National Ave. Suite 7A Springfield, MO 65810
Tel: 417.889.3400
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DANE MITCHELL SEILER
E-2371
NUMBER
PE-2010019595
STATE OF MISSOURI
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

CRANE DRIVE CROSS SECTIONS

32ND STREET WIDENING
CITY OF JOPLIN

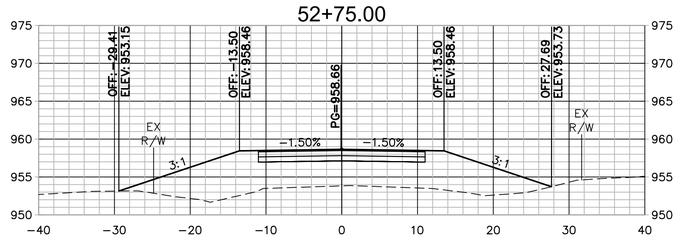
JOPLIN, MISSOURI

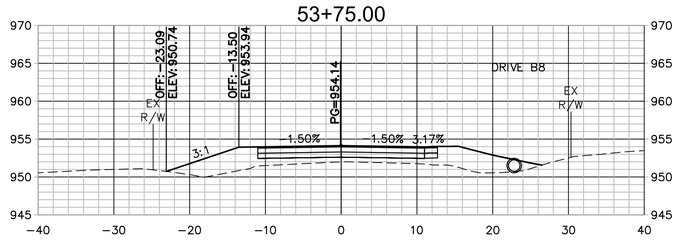
2021

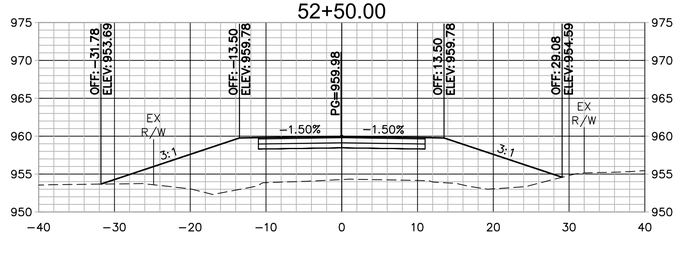
drawn by:	AJT
checked by:	JCR
approved by:	DMS
QA/QC by:	OLSSON
project no.:	015-2768
drawing no.:	
date:	04/23/2021

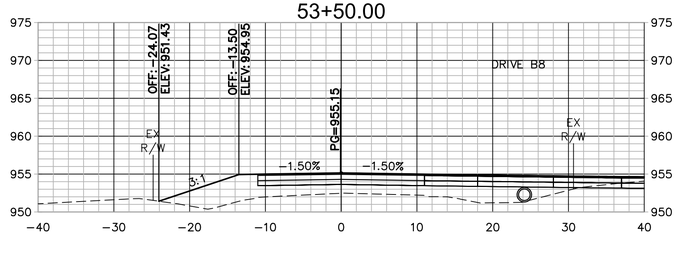
SHEET
B147 of B150

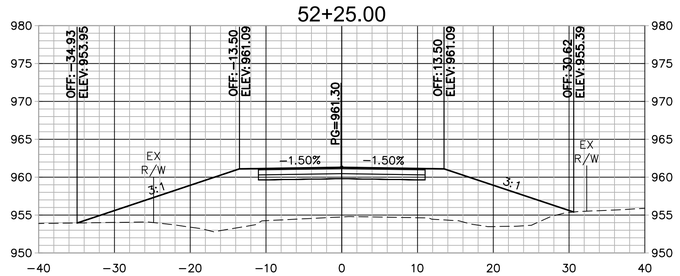
DWG: G:\15065 - 32nd Street Roadway\015-2768 32nd Street Widening\40-Design\AutoCAD\Final Plans\Sheets\CJW\B110 - B150 CROSS SECTIONS.dwg USER: Aaron
DATE: Apr 21, 2021 8:38am XREFS: CJW_T_PCORR_015-2768 - 3 LANE CJW_T_CTBLK_015-2768 (2019) V_XBOU_52768

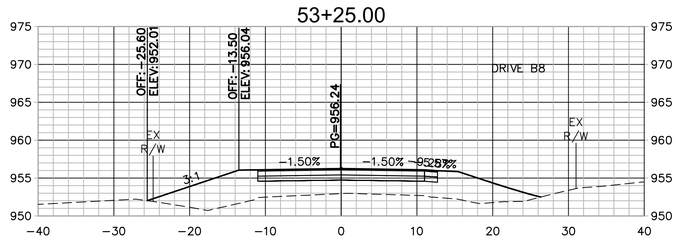


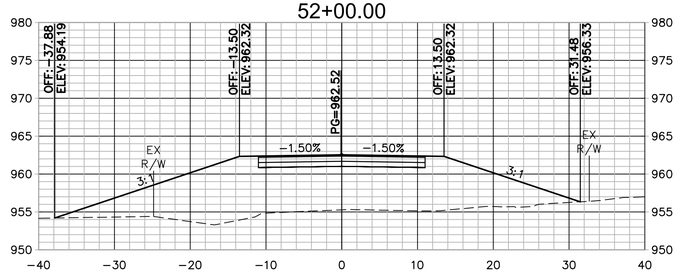


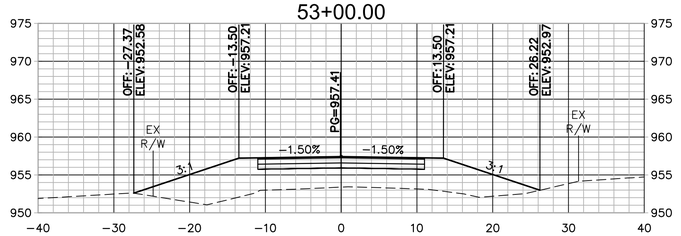












0' 5' 10' 20'
SCALE IN FEET

Prepared by:
CJW
CJW Transportation Consultants, L.L.C.
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STATE OF MISSOURI
DANE MITCHELL SEILER
NUMBER PE-2010019595
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY
		REVISIONS	

CRANE DRIVE CROSS SECTIONS

32ND STREET WIDENING
CITY OF JOPLIN

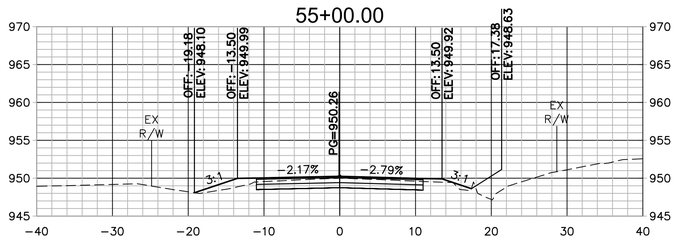
JOPLIN, MISSOURI

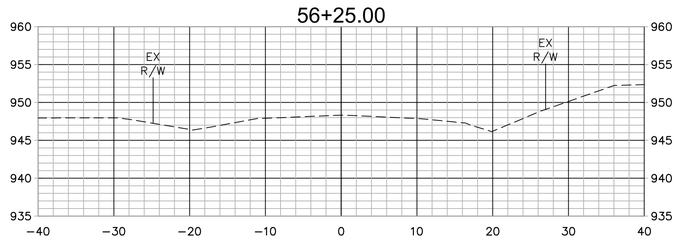
2021

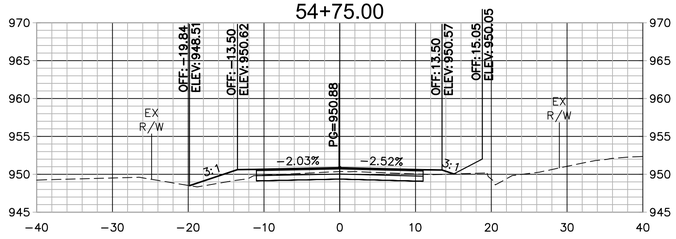
drawn by: AJT
checked by: JCR
approved by: DMS
QA/QC by: OLSSON
project no.: 015-2768
drawing no.:
date: 04/23/2021

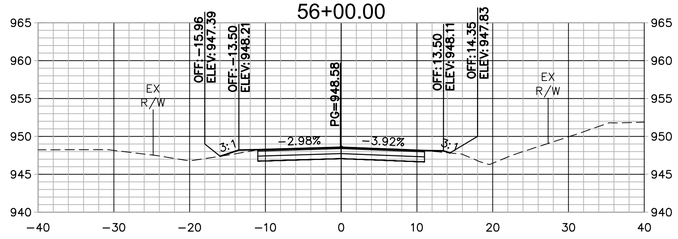
SHEET
B148 of B150

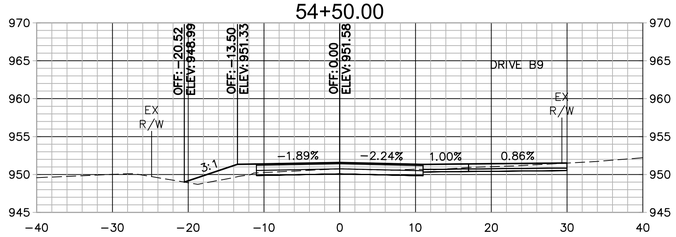
DWG: G:\15065 - 32nd Street Roadway\015-2768 32nd Street Widening\40-Design\AutoCAD\Final Plans\Sheets\CJW\B110 - B150 CROSS SECTIONS.dwg USER: Aaron
DATE: Apr 21, 2021 8:38am XREFS: CJW_T_PCORR_015-2768 - 3 LANE CJW_T_CTBLK_015-2768 (2019) V_XBOU_52768

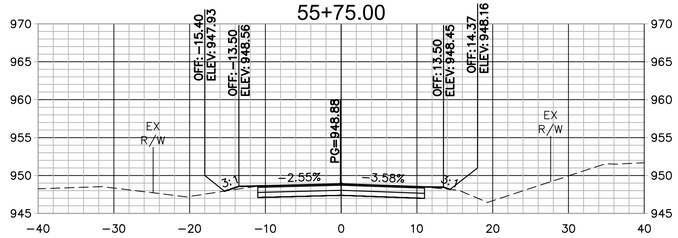


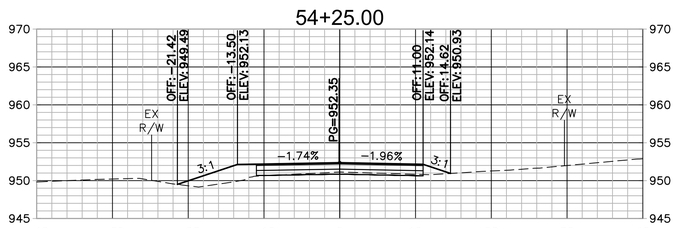


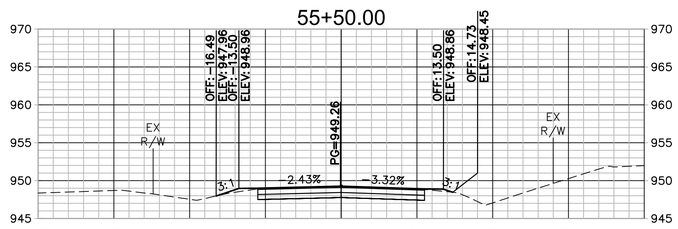


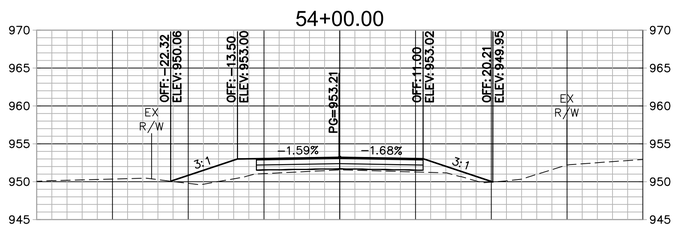














0' 5' 10' 20'
SCALE IN FEET

0' 10' 20'
0' 5'

Prepared by:
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CJW Transportation Consultants, L.L.C. Engineering MO C.A. #2006012385
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DANE MITCHELL SEILER
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NUMBER
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PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

CRANE DRIVE CROSS SECTIONS

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by:	AJT
checked by:	JCR
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project no.:	015-2768
drawing no.:	
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SHEET
B149 of B150

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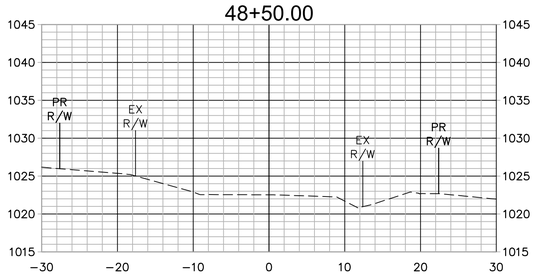

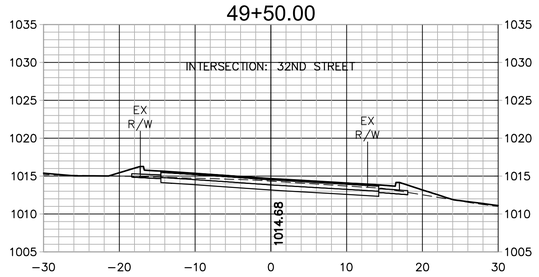

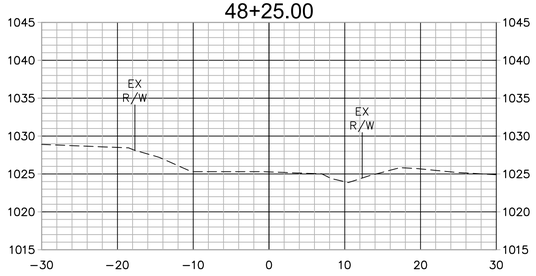

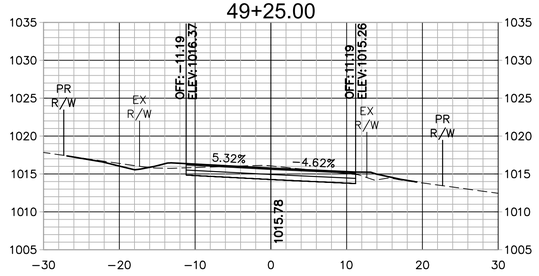

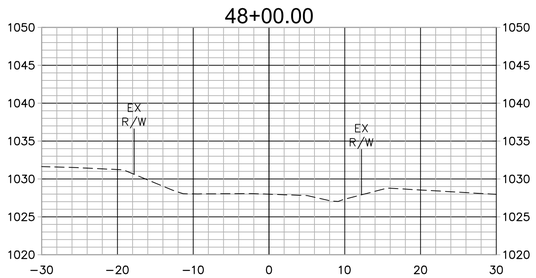

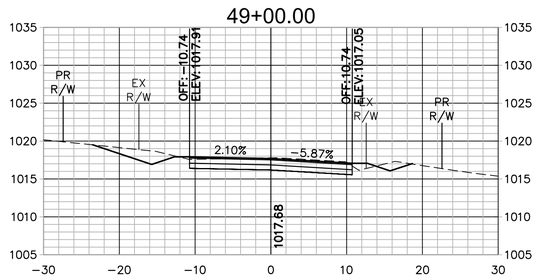

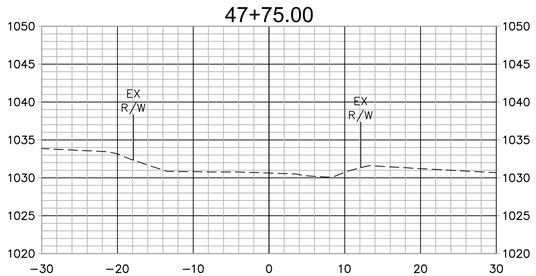

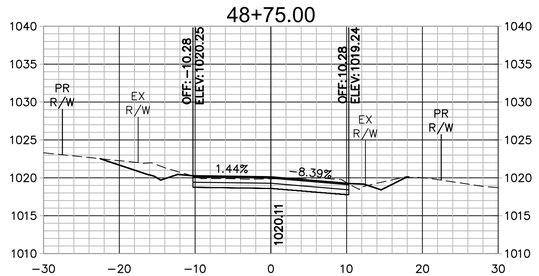

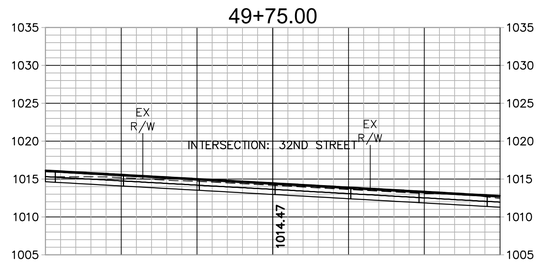

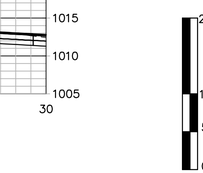

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STATE OF MISSOURI
DANE MITCHELL SEILER
NUMBER PE-2010019595
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

DAY ROAD CROSS SECTIONS

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by:	AJT
checked by:	JCR
approved by:	DMS
QA/QC by:	OLSSON
project no.:	015-2768
drawing no.:	
date:	04/23/2021

SHEET
B150 of B150

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PUBLIC STREET PLANS FOR
32ND STREET WIDENING
EAST OF DAY RD. TO SCHIFFERDECKER AVE.
SECTIONS 17 & 20, TOWNSHIP 27N, RANGE 33W
CITY OF JOPLIN, MISSOURI
JASPER & NEWTON COUNTIES, MISSOURI

LEGEND

CTL	SURVEY CONTROL POINT		TRAFFIC SIGNAL BOX
	SURVEY BENCHMARK		TRAFFIC SIGNAL MANHOLE
TBM	SURVEY TEMPORARY BEMCHMARK		TRAFFIC SIGNAL POLE W/ ARM
GM	GAS METER		TRAFFIC SIGNAL POLE
GAR	GAS RISER		TRAFFIC SIGNAL CONTROL BOX
	GAS MANHOLE	TS	TRAFFIC SIGNAL PEDESTAL
GR	GAS REGULATOR		ELECTRIC MANHOLE
TVP	TELEVISION PEDESTAL	EM	ELECTRIC METER
F	FIBER BOX	ER	ELECTRIC RISER
	FIBER PEDESTAL	E	ELECTRIC BOX
C	CABLE BOX		ELECTRIC CABINET
CV	CABLE VAULT		ELECTRIC JUNCTION BOX
TP	TELEPHONE PEDESTAL	SPH	SPRINKLER HEAD
	STORM MANHOLE	SCV	SPRINKLER CONTROL VALVE
	STORM GRATE		WATER METER PIT
	SANITARY MANHOLE		FIRE HYDRANT
YL	YARD LIGHT	WM	WATER METER
LTP	LIGHT POLE	WV	WATER VALVE
	POWER POLE	FP	FLAG POLE
LPPP	POWER POLE W/ LIGHT		SIGN
	GUY WIRE		BOLLARD
BU	STUMP		WOOD POST
	BUSH		STEEL POST
	EVERGREEN TREE	COL	COLUMN
	DECIDUOUS TREE		BORE HOLE

- SECTION LINE
- PROPERTY LINE
- CENTER LINE
- PROPOSED ROW LINE
- EXISTING ROW LINE
- UTILITY EASEMENT
- EXISTING MAJOR CONTOUR (1370)
- EXISTING MINOR CONTOUR (1371)
- PROPOSED MAJOR CONTOUR (1370)
- PROPOSED MINOR CONTOUR (1371)
- EXISTING TELEPHONE LINE (TEL)
- EXISTING SANITARY LINE (SS)
- EXISTING STORM LINE
- EXISTING GAS LINE (GAS)
- EXISTING WATER LINE (W)
- EXISTING CHAIN LINK FENCE
- EXISTING OVERHEAD ELECTRIC (P-OH)
- EXISTING FIBER OPTIC CABLE (FO)
- EXISTING PIPE LINE (P)
- GRADING LIMITS
- TEMPORARY CONSTRUCTION EASEMENT
- PROPOSED PERMANENT EASEMENT
- PROPOSED CHAIN LINK FENCE
- PROPOSED WOOD PRIVACY FENCE
- EXISTING TREELINE
- CONSTRUCTION LIMITS
- UNDERDRAIN

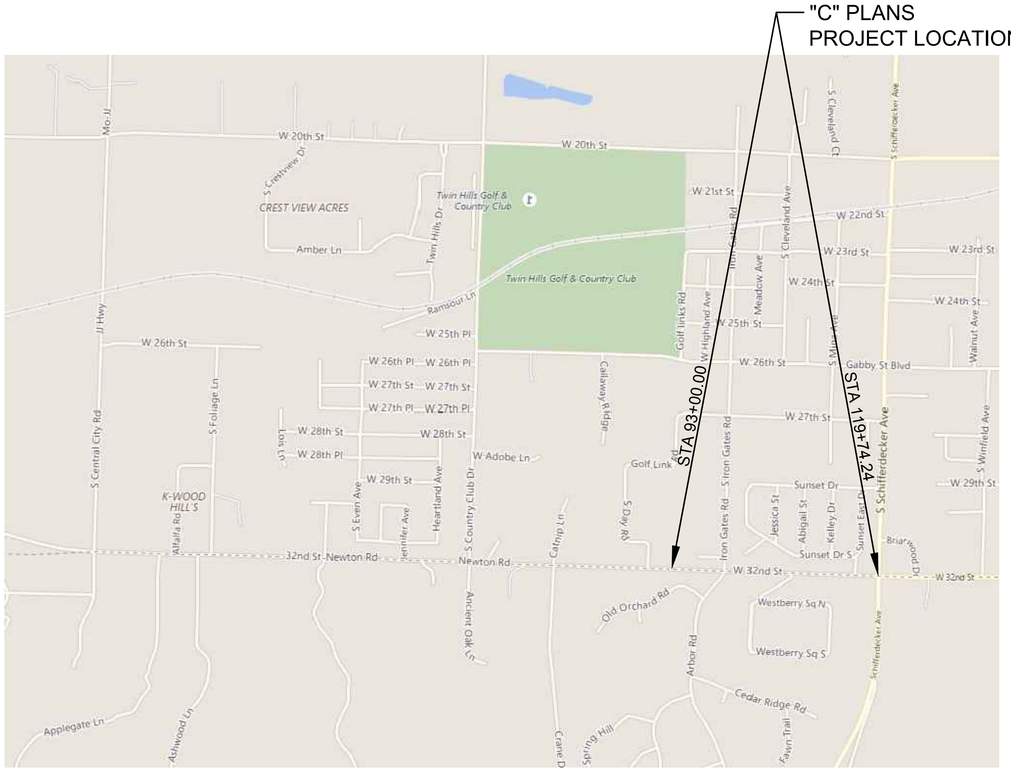
- ASPHALT PAVEMENT
- CONCRETE SIDEWALK
- CONCRETE DRIVE
- AGGREGATE SURFACE
- ASPHALT OVERLAY
- STAMPED CONCRETE PAVEMENT
- DETECTABLE WARNING SURFACE
- CURB RAMP
- ROCK BLANKET

ABBREVIATION TABLE

M.G.	MATCH GRADE
TP	PAVEMENT
TC	TOP OF CURB
BC	BACK OF CURB
EP	EDGE OF PAVEMENT
R/W	RIGHT-OF-WAY
TCE	TEMPORARY CONSTRUCTION EASEMENT
PROP.	PROPOSED
EXIST.	EXISTING
TYP.	TYPICAL
(R)	REMOVAL
CONST.	CONSTRUCT
TBM	TEMPORARY BENCMARK
C.P.	CONTROL POINT
D.N.D.	DO NOT DISTURB
U.I.P.	USE IN PLACE
ADJ.	ADJUST
EL.	ELEVATION
ESMT.	EASEMENT
B-B	BACK OF CURB TO BACK OF CURB DIMENSION
℄	CENTERLINE

MISSOURI ONE CALL SYSTEM
1-800-DIG-RITE ■ 811
www.mo1call.com

THE EXISTING UTILITY LOCATIONS SHOWN ON THE PLANS ARE APPROXIMATE AND MAY NOT INCLUDE ALL LINES PRESENT. THE CONTRACTOR SHALL BE RESPONSIBLE TO CALL "1-800-DIG-RITE", AND COORDINATE FIELD LOCATION OF EXISTING UNDERGROUND UTILITIES PRIOR TO BEGINNING GRADING ACTIVITIES. !!STOP!! CALL BEFORE YOU DIG!!



LOCATION MAP
NOT TO SCALE

DESIGN DESIGNATION
MAJOR ARTERIAL
DESIGN SPEED: 40 MPH
POSTED SPEED: 40 MPH



SECTION 17 & 20, T-27-N, R-33-W
JASPER & NEWTON COUNTIES, MISSOURI

VICINITY MAP
SCALE: 1" = 2000'

UTILITIES INFORMATION

ELECTRIC – LIBERTY UTILITIES
ATTN: JIMMY TURNER
3400 S. KODIAK ROAD
JOPLIN, MO 64804
(417) 626-6842

NATURAL GAS – SPIRE
ATTN: KEN STEGALL
520 E. 5TH STREET
JOPLIN, MO 64801
(417) 626-4831

WATER – MISSOURI-AMERICAN WATER CO.
ATTN: DEREC BASS
2650 E. 32ND ST. – SUITE 121
JOPLIN, MO 64804
(417) 623-0676 EXT. 1009

TELEPHONE – AT&T
ATTN: KENNETH KENWORTHY
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(417) 625-8092

CABLE TELEVISION – CABLE ONE DIGITAL
ATTN: RANDY KENNEDY
2600 DAVIS BLVD.
JOPLIN, MO 64804
(417) 206-5399

FIBER OPTIC – LIBERTY CONNECT
ATTN: BRAD MYERS
720 SCHIFFERDECKER AVE
JOPLIN, MO 64801
(417) 625-5179

INDEX OF SHEETS

SHEET NO.	TITLE
C1	TITLE SHEET
C2	SUMMARY OF QUANTITIES
C3–C7	RIGHT-OF-WAY AND EASEMENT PLANS
C8–C13	DEMOLITION AND REMOVAL PLANS
C14–C16	FENCING PLAN
C17–C19	TYPICAL SECTIONS
C20–C30	ROADWAY PLAN AND PROFILES
C31–C32	SIDE STREET PLAN AND PROFILES
C33–C34	INTERSECTION LAYOUTS
C35–C37	DRIVE LAYOUTS
C38–C39	SIDEWALK PAVING LAYOUTS
C40–C41	DRAINAGE AREA MAP AND CALCULATIONS
C42–C45	STORM DRAIN PROFILES
C46–C55	EROSION CONTROL/SEEDING & SODDING PLAN
C56–C61	PAVEMENT MARKING AND SIGNING PLAN
C62	SIGNAL PLAN & DETAILS
C63–C91	CROSS SECTIONS

PREPARED & SUBMITTED BY:

OLSSON
702 S. MAIN STREET
JOPLIN, MISSOURI 64801

Brian Coomes — 04/23/2021
BRIAN COOMES P.E. — DATE

I CERTIFY THESE PLANS WERE PREPARED BY ME OR UNDER MY IMMEDIATE PERSONAL SUPERVISION.

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Missouri Certificate of Authority #001592
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Joplin, MO 64801
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STATE OF MISSOURI
BRIAN COOMES
Brian Coomes
04/23/2021
NUMBER PE-2015029306
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY
		REVISIONS	

TITLE SHEET
32ND STREET WIDENING
CITY OF JOPLIN
JOPLIN, MISSOURI
2021

drawn by: SMK/CTK
checked by: PM/LB/RF
approved by: BMC
QA/QC by: PM/LB/FR
project no.: 015-2768
drawing no.: TSE_T_TTL01_52768
date: 04/23/2021

SHEET
C1 of C91

DWG: F:\PROJECTS\015-2768\40-Design\AutoCAD\Final Plans\Sheets TSE\TRNS\TSE_T_TTL01_52768.dwg USER: skendall
DATE: Apr 21, 2021 11:34am XREFS: TSE_T_CTBLK_52768

RECAPITULATION OF QUANTITIES - BASE BID - SECTION C				
ITEM NO.	DESCRIPTION	UNIT	ESTIMATED QUANTITY	GOVERNING TECHNICAL SPECIFICATION
1	Mobilization	LS		JSP-0400-04
2	Contractor Furnished Construction Staking and Surveying	LS		JSP-0400-05
3	Clearing & Grubbing / Tree & Brush Removal	LS		JSP-1100-01
4	Demolition & Removal	LS		JSP-1100-02
5	Temporary Seeding, Fertilizing, and Mulching	ACRE		JSP-1000-01
6	Erosion Control Blanket (MoDOT Type 2.D)	SY	542	JSP-1000-01
7	8" Biodegradable Log	LF	5,510	JSP-1000-01
8	12" Biodegradable Log	LF	250	JSP-1000-01
9	Curb Inlet/Area Inlet Protection	EA	19	JSP-1000-01
10	Culvert Inlet Protection	EA	3	JSP-1000-01
11	Permanent Seeding, Fertilizing and Mulching (Hydroseed Cellulose Mulch)	ACRE	1	City 5100
12	Modify & Repair Exisitng Irrigation Systems	LS		JSP-5100-01
13	Kentucky Bluegrass Sodding	SY	2,821	City 5200
14	Turf Type Tall Fescue Sodding	SY		City 5200
15	Bermuda Sodding	SY		City 5200
16	Zoysia Sodding	SY		City 5200
17	Unclassified Excavation*	CY		City 1200
18	Embankment*	CY		JSP-1200-01
19	Embankment (Special)(Minimum 40% Chert)*	CY		JSP-1200-01
20	Imported Fill*	CY		City 1200
21	Removal of Unsuitable Material	CY		City 1200
22	Backfill of Unsuitable Material	CY		City 1200
23	Removal, Transportation & Disposal of Contaminated Soils	CY		City 1800
24	Milling	SY	1,158	JSP-2300-01
25	Asphaltic Concrete Surface (2") (MoDOT BP-1)	TONS	1,223	City 2200
26	Asphaltic Concrete Surface (4") (MoDOT BP-1)	TONS	51	City 2200
27	Asphaltic Concrete Base (8") (MoDOT Bituminous Base)	TONS	4,893	City 2200
28	8" MoDOT Type 5 Aggregate Base	SY	12,913	JSP-1400-01
29	6" MoDOT Type 1 Aggregate Surface	SY	51	JSP-1400-02
30	Temporary Surfacing Material (Aggregate)(MoDOT Type 1)	TONS		JSP-1400-02
31	Temporary Surfacing Material (HMA MoDOT BP-1)	TONS	54	City 2200
32	8" Concrete Pavement (Gutter Crossing incl. Intergral Curb)	SY	51	JSP-3100-01
33	8" Concrete Pavement (Roadway)	SY	486	City 3100
34	2'-6" Curb & Gutter, Combined (All Types)	LF	5,793	JSP-3200-01
35	Curb Flume (3' wide)	LF	14	JSP-3100-02
36	Concrete Flume (6' wide)	LF	10	JSP-3100-02
37	4" Sidewalk Construction (Incl. 2" MoDOT Type 5 Agg. Base)	SY	2,562	JSP-3300-01
38	Curb Ramp (Incl. 2" MoDOT Type 5 Agg. Base)	SY	33	JSP-3300-01
39	Residential Driveway Construction (6" Concrete)(Inc. 4" MoDOT Type 5 Agg. Base)	SY	217	JSP-3400-01
40	Commercial Driveway Construction (8" Concrete) (Incl. 4" MoDOT Type 5 Agg. Base)	SY		JSP-3400-01
41	Cast-in-Place Concrete Wall (Sidewalk)	SF	88	JSP-3300-02
42	Cast-in-Place Concrete Wall (Sidewalk)(Special)	SF		Plan Sheet B80
43	Soldier Pile Retaining Wall	SF		Plan Sheet B81-B82
44	Type D Barrier w/ Integral Reinforced Slab	LF		Plan Sheet B81-B82
45	Relocate Existing Vinyl Fence	LF	135	City 2307
46	Relocate or Replace Existing Vinyl Fence (Southern Trails)	LF		City 2307
47	Temporary Fencing (Chain Link)	LF	1,173	City 2307
48	Temporary Gate	EA	2	City 2307
49	Relocate Existing Power Service for Gate	LS		JSP-2307-01
50	Type A Catch Basin 3'x3' I.D.	EA		City 4400
51	Type C Inlet 4'x7" I.D.	EA		City 4400
52	Type C Inlet 6'x3' I.D.	EA	4	City 4400
53	Type C Inlet 6'x4' I.D.	EA		City 4400
54	Type C Inlet 6'x5' I.D.	EA	1	City 4400
55	Type C Inlet 6'x6' I.D.	EA	1	City 4400
56	Type C Inlet 8'x3' I.D.	EA	1	City 4400
57	Type C Inlet 8'x4' I.D.	EA	4	City 4400
58	Type D Inlet 3'x7" I.D.	EA		City 4400
59	Type D Inlet 4'x7" I.D.	EA		City 4400
60	Type D Inlet 6'x3' I.D.	EA		City 4400
61	Type D Inlet 6'x4' I.D.	EA		City 4400
62	Type D Inlet 8'x3' I.D.	EA	2	City 4400
63	Type D Inlet 8'x4' I.D.	EA		City 4400
64	Area Inlet 3'x3' I.D.	EA		City 4400
65	Area Inlet 4'x3' I.D.	EA		City 4400
66	Area Inlet 4'x4' I.D.	EA	1	City 4400
67	Area Inlet 5'x4' I.D.	EA	1	City 4400
68	Area Inlet 8'x4' I.D.	EA	1	City 4400
69	Junction Box 3'x3' I.D.	EA		City 4400

RECAPITULATION OF QUANTITIES - BASE BID - SECTION C				
ITEM NO.	DESCRIPTION	UNIT	ESTIMATED QUANTITY	GOVERNING TECHNICAL SPECIFICATION
70	Junction Box 4'x4' I.D.	EA	1	City 4400
71	4' Diameter Manhole - Storm Sewer	EA		City 4400
72	Precast Drop Inlet (MoDOT Type S-1)	EA		JSP-4400-01
73	12" Class III RCP (including trenching, bedding, backfill, gaskets, and concrete collars)	LF		City 4200
74	15" Class III RCP (including trenching, bedding, backfill, gaskets, and concrete collars)	LF	1,112	City 4200
75	18" Class III RCP (including trenching, bedding, backfill, gaskets, and concrete collars)	LF	82	City 4200
76	24" Class III RCP (including trenching, bedding, backfill, gaskets, and concrete collars)	LF	344	City 4200
77	24" Class V RCP (including trenching, bedding, backfill, gaskets, and concrete collars)	LF		City 4200
78	30" Class III RCP (including trenching, bedding, backfill, gaskets, and concrete collars)	LF	755	City 4200
79	30" Class V RCP (including trenching, bedding, backfill, gaskets, and concrete collars)	LF		City 4200
80	36" Class III RCP (including trenching, bedding, backfill, gaskets, and concrete collars)	LF	142	City 4200
81	42" Class III RCP (including trenching, bedding, backfill, gaskets, and concrete collars)	LF	47	City 4200
82	48" Class V RCP (including trenching, bedding, backfill, gaskets, and concrete collars)	LF		City 4200
83	44"x27" Class III RCPA (including trenching, bedding, backfill, gaskets, and concrete collars)	LF	65	City 4200
84	19"x30" HE RCP (including trenching, bedding, backfill, gaskets, and concrete collars)	LF		City 4200
85	15" RCP FES (including trenching, bedding, backfill, gaskets, and concrete collars)	EA	2	City 4200
86	18" RCP FES (including trenching, bedding, backfill, gaskets, and concrete collars)	EA		City 4200
87	24" RCP FES (including trenching, bedding, backfill, gaskets, and concrete collars)	EA	1	City 4200
88	30" RCP FES (including trenching, bedding, backfill, gaskets, and concrete collars)	EA		City 4200
89	42" RCP FES (including trenching, bedding, backfill, gaskets, and concrete collars)	EA	1	City 4200
90	48" RCP FES (including trenching, bedding, backfill, gaskets, and concrete collars)	EA		City 4200
91	19"X30" HE RCP FES (including trenching, bedding, backfill, gaskets, and concrete collars)	EA		City 4200
92	24" RCP PRE-CAST TEE	EA		City 4200
93	108"x48" Reinforced Concrete Box Culvert (RCBC)	LF		JSP-4200-01
94	108"x48" RCBC Inlet/Outlet Structures	EA		JSP-4200-01
95	15" Nyloplast Drain Basin	EA	2	JSP-4400-02
96	10" HDPE (including trenching, bedding, backfill, gasket, and collars)	LF		City 4200
97	12" HDPE (including trenching, bedding, backfill, gasket, and collars)	LF	286	City 4200
98	MoDOT Rock Lining for Culvert Outlet	SY	41	JSP-2303-01
99	Flexamat 10NW UV-T	SY		JSP-2303-02
100	Rip-Rap Splash Pad	SY		JSP-2303-03
101	Southern Trails Monument Signage	LS		JSP-2300-02
102	Remove & Relocate Existing Signs	LS		JSP-2300-03
103	Permanent Signage-Flat Sheet	SF	44	JSP-2300-03
104	Steel Sign Support (2 Inch Round) (Type P)	LF		JSP-2300-03
105	Steel Sign Support (2-1/2 Inch Round NP-40) (Type P1)	LF		JSP-2300-03
106	Steel Sign Support (2-1/2 Inch Round SCH 40) (Type P2)	LF	33	JSP-2300-03
107	Sign Post Foundation, Combined (Including Socket & Concrete) (All Types)	EA	3	JSP-2300-03
108	Pavement Marking Removal	LF	1,050	City 2306
109	4" White Pavement Marking	LF	59	City 2306
110	4" Yellow Pavement Marking	LF	6,963	City 2306
111	6" White Pavement Marking	LF	1,039	City 2306
112	12" White Pavement Marking	LF	60	City 2306
113	12" Yellow Pavement Marking	LF	104	City 2306
114	24" White Pavement Marking	LF	104	City 2306
115	Left/Right Turn Arrow White Pavement Marking Symbol	EA	23	City 2306
116	"Only" White Pavement Marking Symbol	EA	1	City 2306
117	Traffic Signal Modifications	LS	1	JSP-9000-01
118	3" Schedule 40 HDPE Conduit w/ Pull String (incl. Boring or Trenching) (Fiber Optic)	LF		JSP-9000-02
119	Type II Fiber Optic Pull Box	EA		JSP-9000-02
120	1-1c 10 Tracer Wire	LF		JSP-9000-02
121	Traffic Control Signs (Total Area)	SF	448	JSP-6700-01
122	Type III Movable Barricade	EA	33	JSP-6700-01
123	Channelizer	EA	22	JSP-6700-01
124	Adjust Sanitary Sewer Manhole	EA		JSP-2300-04
125	12" PVC Sewer Main	LF		City 4100
126	Trenching (6' to 8') - Sanitary Sewer	LF		City 1700
127	Trenching (8' to 10') - Sanitary Sewer	LF		City 1700
128	Trenching (10' to 12') - Sanitary Sewer	LF		City 1700
129	Trenching (12' to 14') - Sanitary Sewer	LF		City 1700
130	24" Steel Schedule 40 Pipe Casing including Boring and Jacking (Unclassified)	LF		City 1600
131	12" Restrained Joint Ductile Iron Sewer Main (Installed in Casing)	LF		City 4100
132	4' Standard Manhole - Sanitary Sewer	EA		City 4300
133	4' Manhole Extra Depth - Sanitary Sewer	LF		City 4300
134	Sanitary Sewer Testing	LS		City 4100
135	Bypass Pumping	LS		City 4100
136	Lift Station Decommission	LS		JSP-4100-01

* See sheet 9 for overall earthworks summary.

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STATE OF MISSOURI
BRIAN COOMES
Brian Coomes
04/23/2021
NUMBER PE-2015029306
PROFESSIONAL ENGINEER

REVISIONS

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

SUMMARY OF QUANTITIES

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by: SMK/CTK
checked by: PM/LB/RF
approved by: BMC
QA/QC by: PM/LB/FR
project no.: 015-2768
drawing no.: TSE_T_QTY_52768
date: 04/23/2021

SHEET
C2 of C91

DWG: F:\PROJECTS\015-2768\40-Design\AutoCAD\Final Plans\Sheets TSE\TRNS\TSE_T_QTY_52768.dwg USER: skendall
DATE: Apr 21, 2021 3:21pm XREFS: TSE_T_CTBLK_52768

DWG: F:\PROJECTS\015-2768\40-Design\AutoCAD\Final Plans\Sheets TSE\TRNS\TSE_T_ROW_52768.dwg USER: skendall
DATE: Apr 21, 2021 11:36am XREFS: TSE_T_PBASE_52768 TSE_T_CTBLK_52768 V_XBOU_52768 OA_ACAD-T_XBASE_52768 TSE_T_PSTRM_BASE_52768 OA_T_XUTL-RECORD_52768 cjw_t_pbase_015-2768 - 3 lane

LEGEND

- PROPOSED RIGHT-OF-WAY
- TEMPORARY CONSTRUCTION EASEMENT LINE
- PERMANENT SLOPE EASEMENT LINE
- PERMANENT ACCESS EASEMENT LINE
- PERMANENT DRAINAGE EASEMENT LINE
- LIMITS OF DISTURBANCE
- TEMPORARY CONSTRUCTION EASEMENT
- EXCEPTION TO TEMPORARY CONSTRUCTION EASEMENT
- PROPOSED RIGHT-OF-WAY
- PERMANENT SLOPE EASEMENT
- PERMANENT ACCESS EASEMENT
- PERMANENT DRAINAGE EASEMENT

PARCEL 34
WILLIAM LETT
3110 S. DAY RD.
BOOK 2300, PAGE 1839
EXISTING = 201035 SQ. FT.
R/W ACQUISITION = 15564 SQ. FT.
PERM. SLOPE ESMT. = 7386 SQ. FT.
TEMP. CONST. ESMT. = 10448 SQ. FT.
REMAINING = 185471 SQ. FT.

NOTE:
LIBERTY UTILITIES/EMPIRE DISTRICT ELECTRIC CO. EASEMENTS ARE 15' EACH SIDE OF LINES AND 10' IN ALL DIRECTIONS OF ANCHORS, AS BUILT (TYPICAL).

PARCEL 39
DEBBIE GARRISON
3501 W. 32ND ST.
BOOK 1025, PAGE 163
EXISTING = 103699 SQ. FT.
R/W ACQUISITION = 6153 SQ. FT.
TEMP. CONST. ESMT. = 8595 SQ. FT.
REMAINING = 97546 SQ. FT.

PARCEL 40
JOEL STANDEFORD
3418 W. 31ST ST.
BOOK 2419, PAGE 0506
EXISTING = 16015 SQ. FT.
R/W ACQUISITION = NONE
TEMP. CONST. ESMT. = 1400 SQ. FT.
REMAINING = 16015 SQ. FT.

B 1607, P 1173 SEWER ESMT
B 1607, P 1175 SEWER ESMT
UTIL. ESMT. PER PLAT
* B 940, P 737 GAS LINE ESMT.
* THIS GAS EASEMENT HAS PROBABLY BEEN VACATED AND HAS NO WIDTH AS INDICATED BY THE DEED RECORDED NOV. 15, 1960.

PROP. TCE
PROP. R/W
EXIST. R/W
B 1711, P 678 WATER ESMT.
B 352, P13804 WATER ESMT
WILDLIFE ESMT PER ARBOR HILLS PLAT
BEGIN PART C, MATCH ADJACENT PROJECT PLAN SET B, STA. 93+00
32ND STREET
℄ 32ND STREET
MATCH LINE 97+50
EXISTING RIGHT-OF-WAY
PROPOSED RIGHT-OF-WAY
P-OH
TEL
SS
FO
W

+97.60 75.00' LT.
+97.48 45.00' LT.
+97.40 25.00' LT.
+05.18 75.00' LT.
+05.15 65.00' LT.
+05.10 45.00' LT.
+05.06 25.00' LT.
+27.33 45.00' RT.
+27.33 70.00' RT.
+97.34 45.00' RT.
+97.36 25.00' RT.
+97.33 70.00' RT.

PARCEL 38
KARL WILLIAM BLADE
PROPERTY ADDRESS
BOOK 363, PAGE 163
EXISTING = 121532 SQ. FT.
R/W ACQUISITION = 7570 SQ. FT.
PERM. SLOPE ESMT. = 2275 SQ. FT.
TEMP. CONST. ESMT. = 7186 SQ. FT.
REMAINING = 113963 SQ. FT.

PARCEL 52
WESTBERRY FARMS, LLC
PROPERTY ADDRESS
BOOK 344, PAGE 110
EXISTING = 80586 SQ. FT.
R/W ACQUISITION = 8824 SQ. FT.
TEMP. CONST. ESMT. = 3250 SQ. FT.
REMAINING = 71762 SQ. FT.

N
0' 10' 20' 40'
SCALE IN FEET

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BRIAN COOMES
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REVISIONS

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RIGHT-OF-WAY PLAN

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by: SMK/CTK
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approved by: BMC
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drawing no.: TSE_T_ROW_52768
date: 04/23/2021

SHEET
C3 of C91

B 1607, P 1175
SEWER ESMT.

31ST STREET

20'

PARCEL 41
BAILEE K. BROWN, ROBERT A.
& KELSA K. BROWN
3414 W. 31ST ST.
BOOK 2442, PAGE 0426
EXISTING = 8023 SQ. FT.
R/W ACQUISITION = NONE
TEMP. CONST. ESMT. = 1417 SQ. FT.
REMAINING = 8023 SQ. FT.

UTIL. ESMT.
PER PLAT

PARCEL 42
SUDHAKAR AND
BALAMBA ANCHA
3402 W. 31ST ST.
BOOK 2090, PAGE 1655
NO TAKING

* B 940, P 737
GAS LINE ESMT.

* THIS GAS EASEMENT HAS PROBABLY BEEN VACATED AND HAS NO WIDTH AS INDICATED BY THE DEED RECORDED NOV. 15, 1960.

PRIVATE DRIVE C3

EXIST. R/W

PRIVATE
DRIVE C4

IRON GATES ROAD

49+00

PARCEL 43
LYNDA BANWART TRUST
3130 SKELLEY CT.
BOOK 2044, PAGE 1436
EXISTING = 47648 SQ. FT.
R/W ACQUISITION = 196 SQ. FT.
TEMP. CONST. ESMT. = 3138 SQ. FT.
REMAINING = 47452 SQ. FT.

PARCEL 44
LINDA MEIER TRUST
3131 SKELLEY DR.
BOOK 1649, PAGE 1730
EXISTING = 74454 SQ. FT.
R/W ACQUISITION =
7835 SQ. FT.
TEMP. CONST. ESMT. =
4208 SQ. FT.
REMAINING =
66619 SQ. FT.

N

0' 10' 20' 40'
SCALE IN FEET

PRIVATE DRIVE C5

30'

+63.59 72.99' LT.
+63.58 64.34' LT.
+93.59 76.70' LT.

+92.00 45.00' LT.
+15.15 55.00' LT.
+02.66 25.00' LT.

+82.30 55.00' LT.
+82.30 60.00' LT.

PRIVATE DRIVE C6

+05.80 60.00' LT.
+05.80 55.00' LT.

PROP. TCE

PROP. R/W

MATCH LINE
97+50

MATCH LINE
103+00

+45.99 65.00' LT.

25.00' LT.

PROP. TCE

20'

10'

EXIST. R/W

B 1711, P 678
WATER ESMT.

70'
EXISTING RIGHT-OF-WAY

90'
PROPOSED RIGHT-OF-WAY

50'
EXISTING RIGHT-OF-WAY

45'

25'

98+00 99+00 100+00 101+00 102+00 103+00

32ND STREET

℄ 32ND STREET

B 352, P13804 WATER ESMT

PROP. R/W

+78.50 25.00' RT.
+78.50 54.89' RT.
+48.50 25.00' RT.
+48.50 52.53' RT.
+56.35 45.00' RT.
+66.43 45.00' RT.
+78.47 57.56' RT.

51+00

52+00

ARBOR ROAD

UTIL. ESMT.
PER PLAT

LEGEND

- PROPOSED RIGHT-OF-WAY
- TEMPORARY CONSTRUCTION EASEMENT LINE
- PERMANENT SLOPE EASEMENT LINE
- PERMANENT ACCESS EASEMENT LINE
- PERMANENT DRAINAGE EASEMENT LINE
- LIMITS OF DISTURBANCE

- TEMPORARY CONSTRUCTION EASEMENT
- EXCEPTION TO TEMPORARY CONSTRUCTION EASEMENT
- PROPOSED RIGHT-OF-WAY
- PERMANENT SLOPE EASEMENT
- PERMANENT ACCESS EASEMENT
- PERMANENT DRAINAGE EASEMENT

PARCEL 52
WESTBERRY FARMS, LLC
PROPERTY ADDRESS
BOOK 344, PAGE 110
EXISTING = 80586 SQ. FT.
R/W ACQUISITION = 8824 SQ. FT.
TEMP. CONST. ESMT. = 3250 SQ. FT.
REMAINING = 71762 SQ. FT.

PARCEL 53
WESTBERRY FARMS, LLC
ARBOR HILLS N. GATEWAY
BOOK 344, PAGE 110
EXISTING = 47874 SQ. FT.
R/W ACQUISITION = 3208 SQ. FT.
REMAINING = 44666 SQ. FT.

PARCEL 55
GARY BANDY & DORIS CARLIN
3234 N. WESTBERRY SQ.
BOOK 366, PAGE 7238
EXISTING = 69569 SQ. FT.
R/W ACQUISITION = 200 SQ. FT.
REMAINING = 69369 SQ. FT.

PARCEL 56
JAHAN & ABBY ZEB
3220 N. WESTBERRY SQ.
BOOK 366, PAGE 2873
EXISTING = 67911 SQ. FT.
R/W ACQUISITION = 7101 SQ. FT.
REMAINING = 60810 SQ. FT.

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2021

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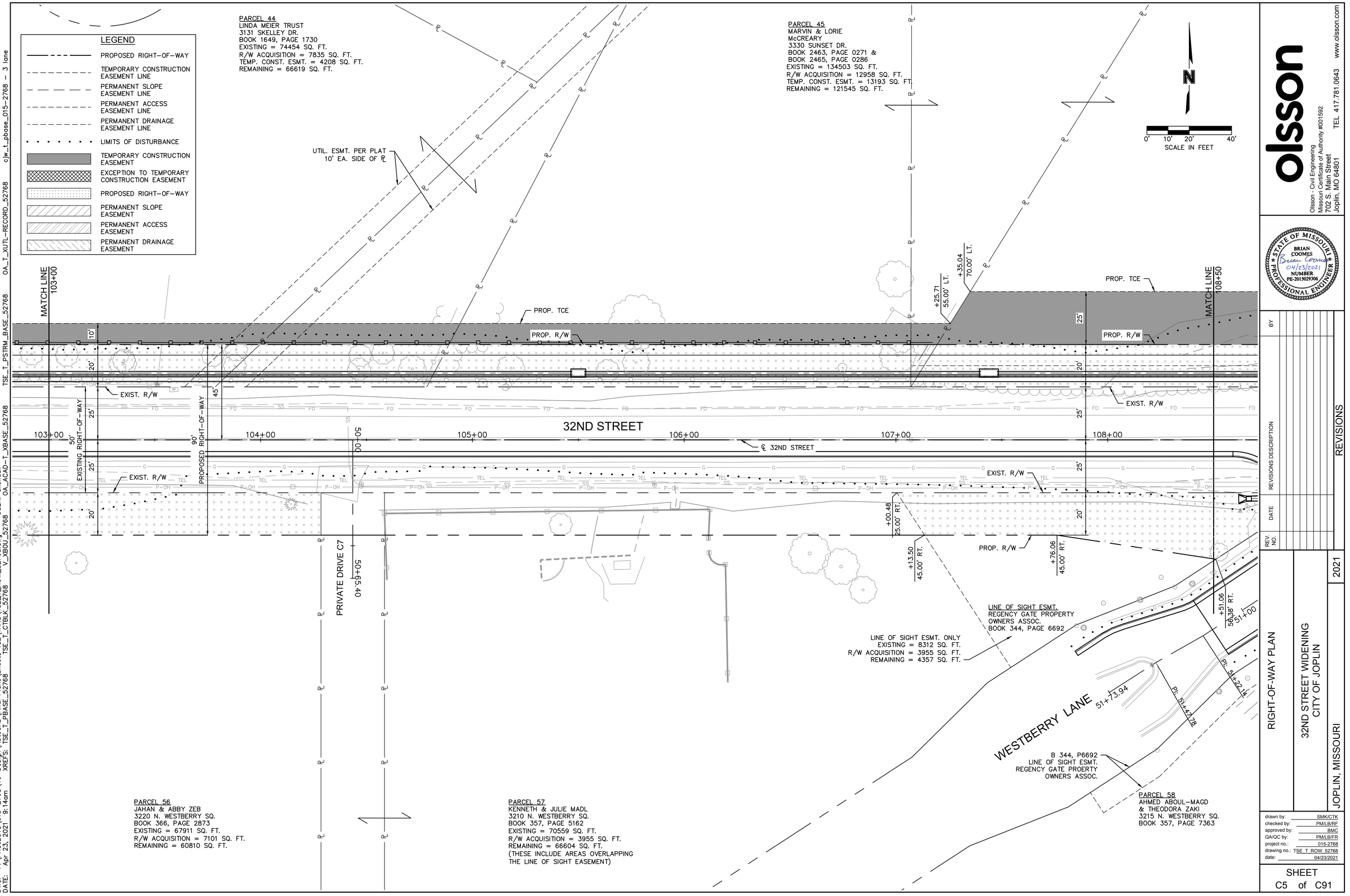
QA/QC by: PM/LB/FR
project no.: 015-2768
drawing no.: TSE_T_ROW_52768
date: 04/23/2021

SHEET
C4 of C91

DWG: F:\PROJECTS\015-2768\40-Design\AutoCAD\Final Plans\Sheets TSE\TRNS\TSE_T_ROW_52768.dwg USER: skendall
DATE: Apr 21, 2021 11:36am XREFS: TSE_T_PBASE_52768 TSE_T_GTBLK_52768 V_XBOU_52768 OA_T_XUTL-RECORD_52768 cjw_t_pbase_015-2768 - 3 lane OA_ACAD-T_XBASE_52768 TSE_T_PSTRM_BASE_52768



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STATE OF MISSOURI
BRIAN COOMES
Brian Coomes
04/23/2021
NUMBER PE-2015029306
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

RIGHT-OF-WAY PLAN

32ND STREET WIDENING
CITY OF JOPLIN

2021

JOPLIN, MISSOURI

drawn by: SMK/CTK
checked by: PM/LB/RF
approved by: BMC
QA/QC by: PM/LB/FR
project no.: 015-2768
drawing no.: TSE_T_ROW_52768
date: 04/23/2021

SHEET
C5 of C91

DWG: F:\PROJECTS\015-2768\40-Design\AutoCAD\Final Plans\Sheets_TSE\TRNS\TSE_T_ROW_52768.dwg USER: skendall
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DWG: F:\PROJECTS\015-2768\40-Design\AutoCAD\Final Plans\Sheets TSE\TRNS\TSE_T_ROW_52768.dwg USER: skendall
DATE: Apr 23, 2021 9:14am XREFS: TSE_T_PBASE_52768 TSE_T_CTBLK_52768 V_XBOU_52768 OA_ACAD-T_XBASE_52768
TSE_T_PSTRM_BASE_52768 OA_T_XUTL-RECORD_52768 cjw_L_pbase_015-2768 - 3 lane

PARCEL 45
MARVIN & LORIE
McCREARY
3330 SUNSET DR.
BOOK 2463, PAGE 0271 &
BOOK 2465, PAGE 0286
EXISTING = 134503 SQ. FT.
R/W ACQUISITION = 12958 SQ. FT.
TEMP. CONST. ESMT. = 13193 SQ. FT.
REMAINING = 121545 SQ. FT.

PARCEL 47
MICHAEL & SONYA NAGLE
3222 W. SUNSET DR. S.
BOOK 2278, PAGE 2127
EXISTING = 25155 SQ. FT.
R/W ACQUISITION = 2800 SQ. FT.
TEMP. CONST. ESMT. = 1400 SQ. FT.
REMAINING = 22355 SQ. FT.

PARCEL 48
ANTHONY & KAMAN DOLL
3202 W. SUNSET DR.
BOOK 2410, PAGE 0043
EXISTING = 25147 SQ. FT.
R/W ACQUISITION = 2800 SQ. FT.
TEMP. CONST. ESMT. = 1400 SQ. FT.
REMAINING = 22347 SQ. FT.

N

0' 10' 20' 40'
SCALE IN FEET

MATCH LINE 108+50

+76.60 70.00' LT.
+77.14 75.00' LT.
+31.59 75.00' LT.
+31.61 55.00' LT.

PROP. TCE
PROP. R/W
25'
30'
20'
10'
UTIL. ESMT. PER PLAT
EXIST. R/W
25'
45'

MATCH LINE 113+50

32ND STREET

109+00 110+00 111+00 112+00 113+00 114

50' EXISTING RIGHT-OF-WAY
℄ 32ND STREET
90' PROPOSED RIGHT-OF-WAY

EXIST. R/W
25'
20'
PROP. R/W
45'
EXIST. R/W

50+25

+82.60 25.00' RT.
+73.51 41.76' RT.
+51.06 58.38' RT.
51+00
+82.87 45.00' RT.
+42.60 53.36' RT.
+24.83 57.04' RT.
+42.60 85.00' RT.
+98.74 85.00' RT.
PROP. TCE
WESTBERRY LANE
PI: 51+47.78
PI: 51+22.14
B 359, P6626
VAC. DRAINAGE ESMT.
ORD. NO. 2010-139

+40.60 45.00' RT.
+40.60 65.00' RT.

LEGEND

- PROPOSED RIGHT-OF-WAY
- TEMPORARY CONSTRUCTION EASEMENT LINE
- PERMANENT SLOPE EASEMENT LINE
- PERMANENT ACCESS EASEMENT LINE
- PERMANENT DRAINAGE EASEMENT LINE
- LIMITS OF DISTURBANCE

- TEMPORARY CONSTRUCTION EASEMENT
- EXCEPTION TO TEMPORARY CONSTRUCTION EASEMENT
- PROPOSED RIGHT-OF-WAY
- PERMANENT SLOPE EASEMENT
- PERMANENT ACCESS EASEMENT
- PERMANENT DRAINAGE EASEMENT

PARCEL 58
AHMED ABOUL-MAGD
& THEODORA ZAKI
3215 N. WESTBERRY SQ.
BOOK 357, PAGE 7363

PARCEL 58
AHMED ABOUL-MAGD &
THEODORA ZAKI
3215 N. WESTBERRY SQ.
BOOK 357, PAGE 7363
EXISTING = 110485 SQ. FT.
R/W ACQUISITION = 3297 SQ. FT.
TEMP. CONST. ESMT. = 827 SQ. FT.
REMAINING = 107188 SQ. FT.

PARCEL 59
JAY & LINDA ROSENBERG
3133 N. WESTBERRY SQ.
BOOK 347, PAGE 4048
EXISTING = 84880 SQ. FT.
R/W ACQUISITION = 5200 SQ. FT.
REMAINING = 79680 SQ. FT.

PARCEL 60
CHANCE LEE & LORI
MICHA MATTHIESEN
3115 N. WESTBERRY SQ.
BOOK 365, PAGE 8319
EXISTING = 81753 SQ. FT.
R/W ACQUISITION = 8140 SQ. FT.
TEMP. CONST. ESMT. = 7740 SQ. FT.
REMAINING = 73613 SQ. FT.

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STATE OF MISSOURI
BRIAN COOMES
Brian Coomes
04/23/2021
NUMBER PE-2015029306
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY
		REVISIONS	

RIGHT-OF-WAY PLAN
32ND STREET WIDENING
CITY OF JOPLIN
JOPLIN, MISSOURI
2021

drawn by: SMK/CTK
checked by: PM/LB/RF
approved by: BMC
QA/QC by: PM/LB/FR
project no.: 015-2768
drawing no.: TSE_T_ROW_52768
date: 04/23/2021

SHEET
C6 of C91

PARCEL 48
ANTHONY & KAMAN DOLL
3202 W. SUNSET DR.
BOOK 2410, PAGE 0043
EXISTING = 25147 SQ. FT.
R/W ACQUISITION = 2800 SQ. FT.
TEMP. CONST. ESMT. = 1400 SQ. FT.
REMAINING = 22347 SQ. FT.

PARCEL 49
BETTY McELHANEY
3118 W. SUNSET DR.
BOOK 1959, PAGE 0830
EXISTING = 25138 SQ. FT.
R/W ACQUISITION = 2800 SQ. FT.
TEMP. CONST. ESMT. = 1400 SQ. FT.
REMAINING = 22338 SQ. FT.

PARCEL 50
CHARLES & BARBARA EASLEY
3102 S. SUNSET DR.
BOOK 2240, PAGE 840
EXISTING = 22237 SQ. FT.
R/W ACQUISITION = 90 SQ. FT.
TEMP. CONST. ESMT. = 1249 SQ. FT.
REMAINING = 22147 SQ. FT.

PARCEL 51
LOYCO ENTERPRISES
NE. CORNER OF 32ND ST.
& S. SUNSET EAST DR.
BOOK 1361, PAGE 1199
NO TAKING

LEGEND

- PROPOSED RIGHT-OF-WAY
- TEMPORARY CONSTRUCTION EASEMENT LINE
- PERMANENT SLOPE EASEMENT LINE
- PERMANENT ACCESS EASEMENT LINE
- PERMANENT DRAINAGE EASEMENT LINE
- LIMITS OF DISTURBANCE
- TEMPORARY CONSTRUCTION EASEMENT
- EXCEPTION TO TEMPORARY CONSTRUCTION EASEMENT
- PROPOSED RIGHT-OF-WAY
- PERMANENT SLOPE EASEMENT
- PERMANENT ACCESS EASEMENT
- PERMANENT DRAINAGE EASEMENT

N
0' 10' 20' 40'
SCALE IN FEET

℄ OF SUNSET DRIVE
SUNSET DRIVE
48+59
49+00
MATCH LINE 113+50
UTIL. ESMT. PER PLAT 10' EA. SIDE OF ℄
UTIL. ESMT PER PLAT
PROP. TCE
PROP. R/W
EXIST. R/W
+51.64 25.00' LT.
+51.62 45.00' LT.
+71.51 45.00' LT.
+76.62 45.00' LT.
+81.49 55.00' LT.
+91.60 65.12' LT.
+91.60 60.00' LT.
B 1840, P 1398 R/W
B 1840, P 1396 DRAINAGE ESMT
24" RCP
32ND STREET
℄ 32ND STREET
114+00
115+00
116+00
117+00
118+00
119+00
EXISTING RIGHT-OF-WAY 50' 25' 25'
PROPOSED RIGHT-OF-WAY 90' 45' 45'
20'
B 352, P 12122 R/W
B 353, P5119 EMPIRE ELEC. UTIL. ESMT.
+40.60 45.00' RT.
+40.60 65.00' RT.
+37.60 45.00' RT.
+57.60 25.00' RT.
+08.80 45.00' RT.
+08.80 65.00' RT.
UTIL. ESMT. PER PLAT 10' EA. SIDE OF ℄
20' UTIL. ESMT. PER PLAT
AGRICULTURE ESMT. PER PLAT

PARCEL 60
CHANCE LEE & LORI
MICHA MATTHIESEN
3115 N. WESTBERRY SQ.
BOOK 365, PAGE 8319

PARCEL 60
CHANCE LEE & LORI
MICHAEL MATTHIESEN
3115 N. WESTBERRY SQ.
BOOK 365, PAGE 8319
EXISTING = 81753 SQ. FT.
R/W ACQUISITION = 8140 SQ. FT.
TEMP. CONST. ESMT. = 7740 SQ. FT.
REMAINING = 73613 SQ. FT.

PARCEL 61
BRUCE & SHAMSHINUR SILVERBERG
3303 E. WESTBERRY SQ.
BOOK 356, PAGE 9392
TEMP. CONST. ESMT. = 1624 SQ. FT.

PARCEL 62
CITY OF JOPLIN
SW. CORNER OF
32ND & SCHIFFERDECKER
BOOK 225, PAGE 170
NO TAKING

DWG: F:\PROJECTS\015-2768\40-Design\AutoCAD\Final Plans\Sheets TSE\TRNS\TSE_T_ROW_52768.dwg USER: skendall
DATE: Apr 23, 2021 9:14am XREFS: TSE_T_PBASE_52768 V_XBOU_52768 TSE_T_CTBLK_52768 OA_ACAD-T_XBASE_52768
TSE_T_PSTRM_BASE_52768 OA_T_XUTL-RECORD_52768 c|w_L_pbase_015-2768 - 3 lane

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STATE OF MISSOURI
BRIAN COOMES
Brian Coomes
04/23/2021
NUMBER PE-2015029306
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

RIGHT-OF-WAY PLAN

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by: SMK/CTK
checked by: PM/LB/RF
approved by: BMC
QA/QC by: PM/LB/FR
project no.: 015-2768
drawing no.: TSE_T_ROW_52768
date: 04/23/2021

SHEET
C7 of C91

DWG: F:\PROJECTS\015-2768\40-Design\AutoCAD\Final Plans\Sheets TSE\TRNS\TSE_T_DEM_52768.dwg USER: skendall
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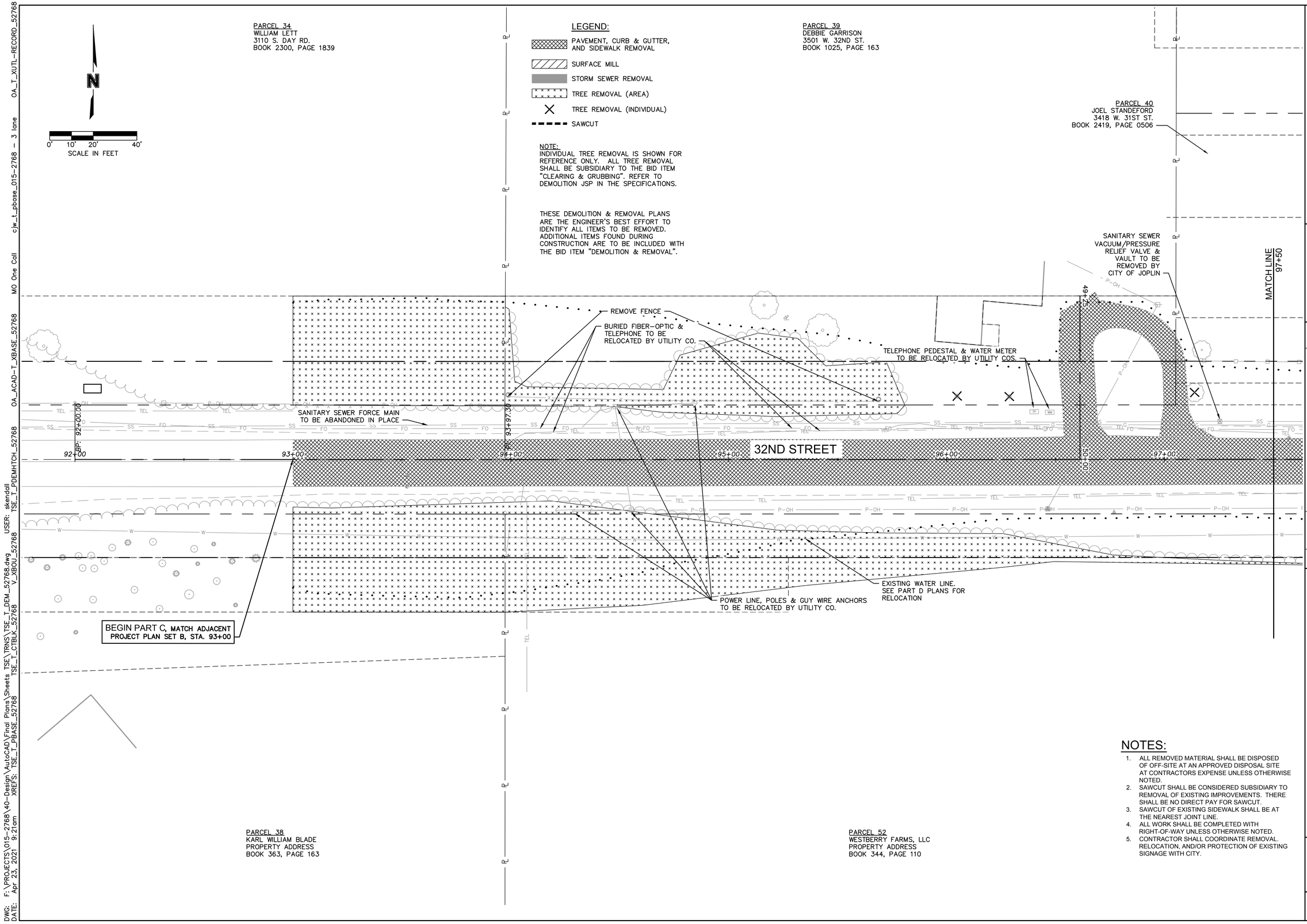

NOTES:

1. ALL REMOVED MATERIAL SHALL BE DISPOSED OF OFF-SITE AT AN APPROVED DISPOSAL SITE AT CONTRACTORS EXPENSE UNLESS OTHERWISE NOTED.
2. SAWCUT SHALL BE CONSIDERED SUBSIDIARY TO REMOVAL OF EXISTING IMPROVEMENTS. THERE SHALL BE NO DIRECT PAY FOR SAWCUT.
3. SAWCUT OF EXISTING SIDEWALK SHALL BE AT THE NEAREST JOINT LINE.
4. ALL WORK SHALL BE COMPLETED WITH RIGHT-OF-WAY UNLESS OTHERWISE NOTED.
5. CONTRACTOR SHALL COORDINATE REMOVAL, RELOCATION, AND/OR PROTECTION OF EXISTING SIGNAGE WITH CITY.

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STATE OF MISSOURI
BRIAN COOMES
Brian Coomes
04/23/2021
NUMBER PE-2015029306
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

DEMOLITION & REMOVALS

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by: SMK/CTK
checked by: PM/LB/RF
approved by: BMC
QA/QC by: PM/LB/TR
project no.: 015-2768
drawing no.: TSE_T_DEM_52768
date: 04/23/2021

SHEET
C8 of C91

DWG: F:\PROJECTS\015-2768\40-Design\AutoCAD\Final Plans\Sheets TSE\TRNS\TSE_T_DEM_52768.dwg USER: skendall
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OA_ACAD-T_XBASE_52768 MO One Call cjw_t_pbase_015-2768 - 3 lane OA_T_XUTL-RECORD_52768

PARCEL 41
BAILEE K. BROWN, ROBERT A.
& KELSA K. BROWN
3414 W. 31ST ST.
BOOK 2442, PAGE 0426

PARCEL 42
SUDHAKAR AND
BALAMBA ANCHA
3402 W. 31ST ST.
BOOK 2090, PAGE 1655

PARCEL 43
LYNDA BANWART TRUST
3130 SKELLEY CT.
BOOK 2044, PAGE 1436

PARCEL 44
LINDA MEIER TRUST
3131 SKELLEY DR.
BOOK 1649, PAGE 1730

0' 10' 20' 40'
SCALE IN FEET

MATCH LINE 97+50

MATCH LINE 103+00

IRON GATES ROAD

32ND STREET

98+00 99+00 100+00 101+00 102+00 103+00

WARNING: SPRINKLER HEADS & IRRIGATION SYSTEM IN THIS AREA

DO NOT DISTURB PRIVACY FENCE, GARDEN & RET. WALL N. OF R/W LINE

EXISTING WATER LINE. SEE PART D PLANS FOR RELOCATION

BURIED FIBER-OPTIC/TELEPHONE TO BE RELOCATED BY UTILITY CO.

TELEPHONE PEDESTAL TO BE RELOCATED BY UTILITY CO.

DND PLANTER BED

COORDINATE REMOVAL OF PRIVACY FENCE WITH PROPERTY OWNERS

POWER LINE, POLES & ANCHORS TO BE RELOCATED BY UTILITY CO.

EXISTING WATER LINE. SEE PART D PLANS FOR RELOCATION

POWER LINE & POLES TO BE RELOCATED BY UTILITY CO.

DO NOT DISTURB STONE WALL & LIGHTS

POWER LINE & POLES TO BE RELOCATED BY UTILITY CO.

PC 50+53.10

DO NOT DISTURB WROUGHT IRON FENCE WITH STONE COLUMNS

ARBOR RGAD

51+00

52+00

PT 51+90.39

17.50' RT. +52.39

17.50' LT. +52.39

REMOVE PAVEMENT TO EXISTING PAVEMENT JOINT.

NOTE:
DO NOT DISTURB OR DAMAGE UNMARKED TREES.

LEGEND:

- PAVEMENT, CURB & GUTTER, AND SIDEWALK REMOVAL
- SURFACE MILL
- STORM SEWER REMOVAL
- TREE REMOVAL (AREA)
- TREE REMOVAL (INDIVIDUAL)
- SAWCUT

NOTE:
INDIVIDUAL TREE REMOVAL IS SHOWN FOR REFERENCE ONLY. ALL TREE REMOVAL SHALL BE SUBSIDIARY TO THE BID ITEM "CLEARING & GRUBBING". REFER TO DEMOLITION JSP IN THE SPECIFICATIONS.

THESE DEMOLITION & REMOVAL PLANS ARE THE ENGINEER'S BEST EFFORT TO IDENTIFY ALL ITEMS TO BE REMOVED. ADDITIONAL ITEMS FOUND DURING CONSTRUCTION ARE TO BE INCLUDED WITH THE BID ITEM "DEMOLITION & REMOVAL".

PARCEL 52
WESTBERRY FARMS, LLC
PROPERTY ADDRESS
BOOK 344, PAGE 110

PARCEL 53
WESTBERRY FARMS, LLC
ARBOR HILLS N. GATEWAY
BOOK 344, PAGE 110

PARCEL 55
GARY BANDY & DORIS CARLIN
3234 N. WESTBERRY SQ.
BOOK 366, PAGE 7238

PARCEL 56
JAHAN & ABBY ZEB
3220 N. WESTBERRY SQ.
BOOK 366, PAGE 2873

NOTES:

1. ALL REMOVED MATERIAL SHALL BE DISPOSED OF OFF-SITE AT AN APPROVED DISPOSAL SITE AT CONTRACTORS EXPENSE UNLESS OTHERWISE NOTED.
2. SAWCUT SHALL BE CONSIDERED SUBSIDIARY TO REMOVAL OF EXISTING IMPROVEMENTS. THERE SHALL BE NO DIRECT PAY FOR SAWCUT.
3. SAWCUT OF EXISTING SIDEWALK SHALL BE AT THE NEAREST JOINT LINE.
4. ALL WORK SHALL BE COMPLETED WITH RIGHT-OF-WAY UNLESS OTHERWISE NOTED.
5. CONTRACTOR SHALL COORDINATE REMOVAL, RELOCATION, AND/OR PROTECTION OF EXISTING SIGNAGE WITH CITY.

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STATE OF MISSOURI
BRIAN COOMES
Brian Coomes 04/23/2021
NUMBER PE-2015029306
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

DEMOLITION & REMOVALS

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by: SMK/CTK
checked by: PM/LB/RF
approved by: BMC
QA/QC by: PM/LB/FR
project no.: 015-2768
drawing no.: TSE_T_DEM_52768
date: 04/23/2021

SHEET
C9 of C91

DWG: F:\PROJECTS\015-2768\40-Design\AutoCAD\Final Plans\Sheets TSE\TRNS\TSE_T_DEM_52768.dwg USER: skendall
DATE: Apr 23, 2021 9:21am XREFS: TSE_T_PBASE_52768 TSE_T_CTBLK_52768 V_XBOU_52768 TSE_T_PDEMHTCH_52768
OA_ACAD-T_XBASE_52768 MO One Call cjw_t_pbase_015-2768 - 3 lane OA_T_XUTL-RECORD_52768

PARCEL 44
LINDA MEIER TRUST
3131 SKELLEY DR.
BOOK 1649, PAGE 1730

PARCEL 45
MARVIN & LORIE
McCREARY
3330 SUNSET DR.
BOOK 2463, PAGE 0271 &
BOOK 2465, PAGE 0286

PARCEL 49
MARVIN & LORIE
McCREARY
3302 SUNSET DR.
BOOK 2465, PAGE 286

N

0' 10' 20' 40'
SCALE IN FEET

LEGEND:

- PAVEMENT, CURB & GUTTER, AND SIDEWALK REMOVAL
- SURFACE MILL
- STORM SEWER REMOVAL
- TREE REMOVAL (AREA)
- TREE REMOVAL (INDIVIDUAL)
- SAWCUT

NOTE:
INDIVIDUAL TREE REMOVAL IS SHOWN FOR REFERENCE ONLY. ALL TREE REMOVAL SHALL BE SUBSIDIARY TO THE BID ITEM "CLEARING & GRUBBING". REFER TO DEMOLITION JSP IN THE SPECIFICATIONS.

MATCH LINE 103+00

MATCH LINE 108+50

SANITARY SEWER FORCE MAIN TO BE ABANDONED IN PLACE

FIBER-OPTIC TO BE RELOCATED BY UTILITY CO.

CABLE RISER, POWER POLE, TELEPHONE PEDESTAL, & GUY WIRE ANCHOR TO BE RELOCATED BY UTILITY CO.

TELEPHONE RISER TO BE RELOCATED BY UTILITY CO.

COORDINATE REMOVAL OF PRIVACY FENCE WITH PROPERTY OWNERS

32ND STREET

103+00 104+00 105+00 106+00 107+00 108+00

POWER LINE & POLES TO BE RELOCATED BY UTILITY CO.

CAP OR PLUG FORCE MAIN TO BE ABANDONED
LOWER MH. RIM 0.75 FT.
EX. RIM 1018.35, PR. RIM 1017.60

EXISTING CONCRETE BLOCK FENCE WITH BRICK COLUMNS TO REMAIN. DO NOT DISTURB.

LINE OF SIGHT ESMT.
REGENCY GATE PROPERTY OWNERS ASSOC.
BOOK 344, PAGE 6692

+60.06 25.24 Rt.

+21.24 17.18 Rt.

PL. 51+00

PL. 51+22.14

PL. 51+47.78

WESTBERRY LANE 51+75.94

NOTES:

1. ALL REMOVED MATERIAL SHALL BE DISPOSED OF OFF-SITE AT AN APPROVED DISPOSAL SITE AT CONTRACTORS EXPENSE UNLESS OTHERWISE NOTED.
2. SAWCUT SHALL BE CONSIDERED SUBSIDIARY TO REMOVAL OF EXISTING IMPROVEMENTS. THERE SHALL BE NO DIRECT PAY FOR SAWCUT.
3. SAWCUT OF EXISTING SIDEWALK SHALL BE AT THE NEAREST JOINT LINE.
4. ALL WORK SHALL BE COMPLETED WITH RIGHT-OF-WAY UNLESS OTHERWISE NOTED.
5. CONTRACTOR SHALL COORDINATE REMOVAL. RELOCATION, AND/OR PROTECTION OF EXISTING SIGNAGE WITH CITY.

THESE DEMOLITION & REMOVAL PLANS ARE THE ENGINEER'S BEST EFFORT TO IDENTIFY ALL ITEMS TO BE REMOVED. ADDITIONAL ITEMS FOUND DURING CONSTRUCTION ARE TO BE INCLUDED WITH THE BID ITEM "DEMOLITION & REMOVAL".

PARCEL 56
JAHAN & ABBY ZEB
3220 N. WESTBERRY SQ.
BOOK 366, PAGE 2873

PARCEL 57
KENNETH & JULIE MADL
3210 N. WESTBERRY SQ.
BOOK 357, PAGE 5162

PARCEL 58
AHMED ABOUL-MAGD
& THEODORA ZAKI
3215 N. WESTBERRY SQ.
BOOK 357, PAGE 7363

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BRIAN COOMES
Brian Coomes
04/23/2021
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PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

DEMOLITION & REMOVALS

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by: SMK/CTK
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SHEET
C10 of C91

DWG: F:\PROJECTS\015-2768\40-Design\AutoCAD\Final Plans\Sheets TSE\TRNS\TSE_T_DEM_52768.dwg
DATE: Apr 21, 2021 11:38am XREFS: TSE_T_PBASE_52768 TSE_T_CTBLK_52768 V_XBOU_52768
USER: skendall TSE_T_PDEMHTCH_52768 OA_ACAD-T_XBASE_52768 MO One Call cjw_t_pbase_015-2768 - 3 lane OA_T_XUTL-RECORD_52768

PARCEL 45
MARVIN & LORIE
McCREARY
3330 SUNSET DR.
BOOK 2463, PAGE 0271 &
BOOK 2465, PAGE 0286

PARCEL 47
MICHAEL & SONYA NAGLE
3222 W. SUNSET DR. S.
BOOK 2278, PAGE 2127

PARCEL 48
ANTHONY & KAMAN DOLL
3202 W. SUNSET DR.
BOOK 2410, PAGE 0043

N

0' 10' 20' 40'
SCALE IN FEET

LEGEND:

- PAVEMENT, CURB & GUTTER, AND SIDEWALK REMOVAL
- SURFACE MILL
- STORM SEWER REMOVAL
- TREE REMOVAL (AREA)
- TREE REMOVAL (INDIVIDUAL)
- SAWCUT

NOTE:
INDIVIDUAL TREE REMOVAL IS SHOWN FOR REFERENCE ONLY. ALL TREE REMOVAL SHALL BE SUBSIDIARY TO THE BID ITEM "CLEARING & GRUBBING". REFER TO DEMOLITION JSP IN THE SPECIFICATIONS.

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MATCH LINE 108+50

MATCH LINE 113+50

FIBER-OPTIC TO BE RELOCATED BY UTILITY CO.

COORDINATE REMOVAL OF PRIVACY FENCE WITH PROPERTY OWNER

COORDINATE REMOVAL OF PRIVACY FENCE WITH PROPERTY OWNER

REMOVE FENCE

32ND STREET

109+00 110+00 111+00 112+00 113+00 114

50+00

PC: 50+28

WESTBERRY LANE

51+00

R=21.34' L=17.18' R.

Pt: 50+72.14

Pt: 51+22.14

Pt: 51+47.78

L=16.91' R=16.66' L=10.49' L.

COORDINATE REMOVAL OF LANDSCAPING BED WITH PROPERTY OWNER

LIGHT POLE TO BE RELOCATED

POWER LINE & POLES TO BE RELOCATED BY UTILITY CO.

PARCEL 58
AHMED ABOUL-MAGD
& THEODORA ZAKI
3215 N. WESTBERRY SQ.
BOOK 357, PAGE 7363

PARCEL 58
AHMED ABOUL-MAGD &
THEODORA ZAKI
3215 N. WESTBERRY SQ.
BOOK 357, PAGE 7363

PARCEL 59
JAY & LINDA ROSENBERG
3133 N. WESTBERRY SQ.
BOOK 347, PAGE 4048

PARCEL 60
CHANCE LEE & LORI
MICHA MATTHIESEN
3115 N. WESTBERRY SQ.
BOOK 365, PAGE 8319

NOTES:

1. ALL REMOVED MATERIAL SHALL BE DISPOSED OF OFF-SITE AT AN APPROVED DISPOSAL SITE AT CONTRACTORS EXPENSE UNLESS OTHERWISE NOTED.
2. SAWCUT SHALL BE CONSIDERED SUBSIDIARY TO REMOVAL OF EXISTING IMPROVEMENTS. THERE SHALL BE NO DIRECT PAY FOR SAWCUT.
3. SAWCUT OF EXISTING SIDEWALK SHALL BE AT THE NEAREST JOINT LINE.
4. ALL WORK SHALL BE COMPLETED WITH RIGHT-OF-WAY UNLESS OTHERWISE NOTED.
5. CONTRACTOR SHALL COORDINATE REMOVAL. RELOCATION, AND/OR PROTECTION OF EXISTING SIGNAGE WITH CITY.

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STATE OF MISSOURI
BRIAN COOMES
Brian Coomes
04/23/2021
NUMBER PE-2015029306
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

DEMOLITION & REMOVALS

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by: SMK/CTK
checked by: PM/LB/RF
approved by: BMC
QA/QC by: PM/LB/TR
project no.: 015-2768
drawing no.: TSE_T_DEM_52768
date: 04/23/2021

SHEET
C11 of C91

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TSE_T_PDEMHTCH_52768 OA_ACAD-T_XBASE_52768 MO One Call cjw_t_pbase_015-2768 - 3 lane OA_T_XUTL-RECORD_52768

PARCEL 48
ANTHONY & KAMAN DOLL
3202 W. SUNSET DR.
BOOK 2410, PAGE 0043

PARCEL 49
BETTY McELHANEY
3118 W. SUNSET DR.
BOOK 1959, PAGE 0830

PARCEL 50
CHARLES & BARBARA EASLEY
3102 S. SUNSET DR.
BOOK 2240, PAGE 840

PARCEL 51
LOYCO ENTERPRISES
NE. CORNER OF 32ND ST.
& S. SUNSET EAST DR.
BOOK 1361, PAGE 1199

N

0' 10' 20' 40'
SCALE IN FEET

LEGEND:
- PAVEMENT, CURB & GUTTER, AND SIDEWALK REMOVAL
- SURFACE MILL
- STORM SEWER REMOVAL
- TREE REMOVAL (AREA)
- TREE REMOVAL (INDIVIDUAL)
- SAWCUT

NOTE:
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MATCH LINE 113+50

MATCH LINE 118+75

SUNSET DRIVE 48+59 49+00 50+00

32ND STREET

114+00 115+00 116+00 117+00 118+00 119+0

COORDINATE REMOVAL OF PRIVACY FENCE WITH PROPERTY OWNER

FIBER-OPTIC TO BE RELOCATED BY UTILITY CO.

GUY POLE & GUY WIRE ANCHORS TO BE RELOCATED BY UTILITY CO.

POWER LINE & POLES TO BE RELOCATED BY UTILITY CO.

+76.56 30.06' LT.

15.42' RT. +35.04

15.92' LT. +35.06

+57.61 30.00' LT.

+57.61 11.00' RT.

+05|63 11.00' RT.

+60.74 11.00' RT.

+60.79 27.36' RT.

60" ROP

72" ROP

PARCEL 60
CHANCE LEE & LORI
MICHA MATTHIESEN
3115 N. WESTBERRY SQ.
BOOK 365, PAGE 8319

PARCEL 60
CHANCE LEE & LORI
MICHAEL MATTHIESEN
3115 N. WESTBERRY SQ.
BOOK 365, PAGE 8319

PARCEL 61
BRUCE & SHAMSHINUR SILVERBERG
3303 E. WESTBERRY SQ.
BOOK 356, PAGE 9392

PARCEL 62
CITY OF JOPLIN
SW. CORNER OF
32ND & SCHIFFERDECKER
BOOK 225, PAGE 170

NOTES:

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BRIAN COOMES
Brian Coomes
04/23/2021
NUMBER PE-2015029306
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

DEMOLITION & REMOVALS

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by: SMK/CTK
checked by: PM/LB/RF
approved by: BMC
QA/QC by: PM/LB/FR
project no.: 015-2768
drawing no.: TSE_T_DEM_52768
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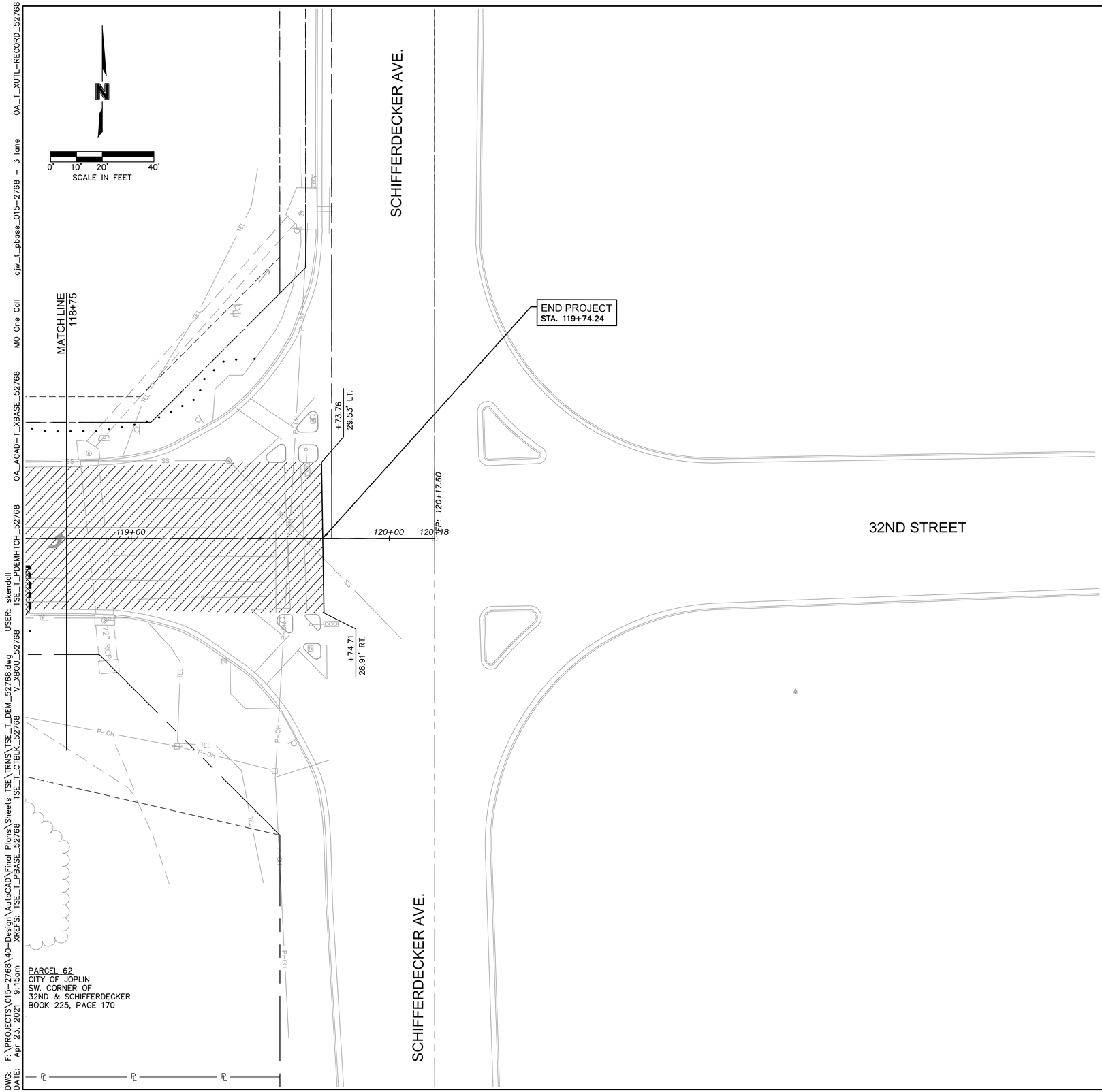
SHEET
C12 of C91



LEGEND:

- PAVEMENT, CURB & GUTTER, AND SIDEWALK REMOVAL
- SURFACE MILL
- STORM SEWER REMOVAL
- TREE REMOVAL (AREA)
- TREE REMOVAL (INDIVIDUAL)
- SAWCUT

NOTE:
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CITY OF JOPLIN

JOPLIN, MISSOURI

2021

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SHEET
C13 of C91

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FENCE PLAN

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by:	SMK/CTK
checked by:	PM/LB/RF
approved by:	BMC
QA/QC by:	PM/LB/FR
project no.:	015-2768
drawing no.:	TSE_T_DTL-FENCE_52768
date:	04/23/2021

SHEET
C14 of C91

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TSE_T_PBASE_52768 G_TBLK_52768 OA_F_PBASE_52768 TSE_T_CTBLK_52768 c:\w_t_pbase_015-2768 – 3 lane

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N

0' 10' 20' 40'
SCALE IN FEET

PARCEL 44
LINDA MEIER TRUST

RUCT
RARY

MATCH LINE
103+00

LEGEND

TEMPORARY FENCE
NEW FENCE – TO BE CONSTRUCTED BY OTHERS
EXISTING WOOD FENCE
EXISTING WIRE FENCE

PARCEL 45
MARVIN & LORIE
McCREARY

MATCH LINE
108+00

END TEMPORARY FENCE PARCEL 44
STA 104+93.67 OFF 54.11' LT

CONSTRUCT TEMPORARY FENCE

STA 104+93.67 OFF 54.11' LT
BEGIN TEMPORARY FENCE PARCEL 45

GRADING LIMITS

END TEMPORARY FENCE PARCEL 45
STA 107+22.17 OFF 54.14' LT

PROP. TCE

PROP. R/W

EXIST. R/W

REMOVE EXIST. FENCE

REMOVE EXIST. FENCE

EXIST. R/W

32ND STREET

103+00 104+00 105+00 106+00 107+00 108+00

EXIST. R/W

GRADING LIMITS

EXIST. R/W

PROP. R/W

EXISTING CONCRETE BLOCK FENCE WITH BRICK COLUMNS TO REMAIN. DO NOT DISTURB.

PROP. R/W

PARCEL 56
JAHAN & ABBY ZEB

PARCEL 57
KENNETH & JULIE MADL

PARCEL 45
MARVIN & LORIE
McCREARY

LEGEND

TEMPORARY FENCE
TEMPORARY VINYL FENCE
NEW FENCE – TO BE CONSTRUCTED BY OTHERS
EXISTING WOOD FENCE
EXISTING WIRE FENCE

PARCEL 46
MARVIN & LORIE
McCREARY

PARCEL 47
MICHAEL & SONYA NAGLE

PARCEL 48
ANTHONY & KAMAN DOLL

MATCH LINE
108+00

MATCH LINE
113+50

STA 111+31.92 OFF 54.05' LT
BEGIN TEMPORARY FENCE PARCEL 47

END TEMPORARY FENCE PARCEL 47
STA 112+71.61 OFF 54.02' LT

STA 112+71.61 OFF 54.02' LT
BEGIN TEMPORARY VINYL FENCE PARCEL 48

FOR PARCEL 48, CONTRACTOR SHALL RELOCATE EXISTING VINYL FENCE TO TEMPORARY EASEMENT LINE.

PROP. TCE

PROP. TCE

GRADING LIMITS

PROP. R/W

PROP. R/W

REMOVE EXIST. FENCE

EXIST. R/W

EXIST. R/W

32ND STREET

108+00 109+00 110+00 111+00 112+00 113+00

EXIST. R/W

EXIST. R/W

PROP. R/W

PROP. R/W

GRADING LIMITS

PROP. R/W

WESTBERRY LANE

PARCEL 58
AHMED ABOUL-MAGD & THEODORA ZAKI

PARCEL 59
JAY & LINDA ROSENBERG

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Brian Coomes
04/23/2021
NUMBER PE-2015029306
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

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FENCE PLAN

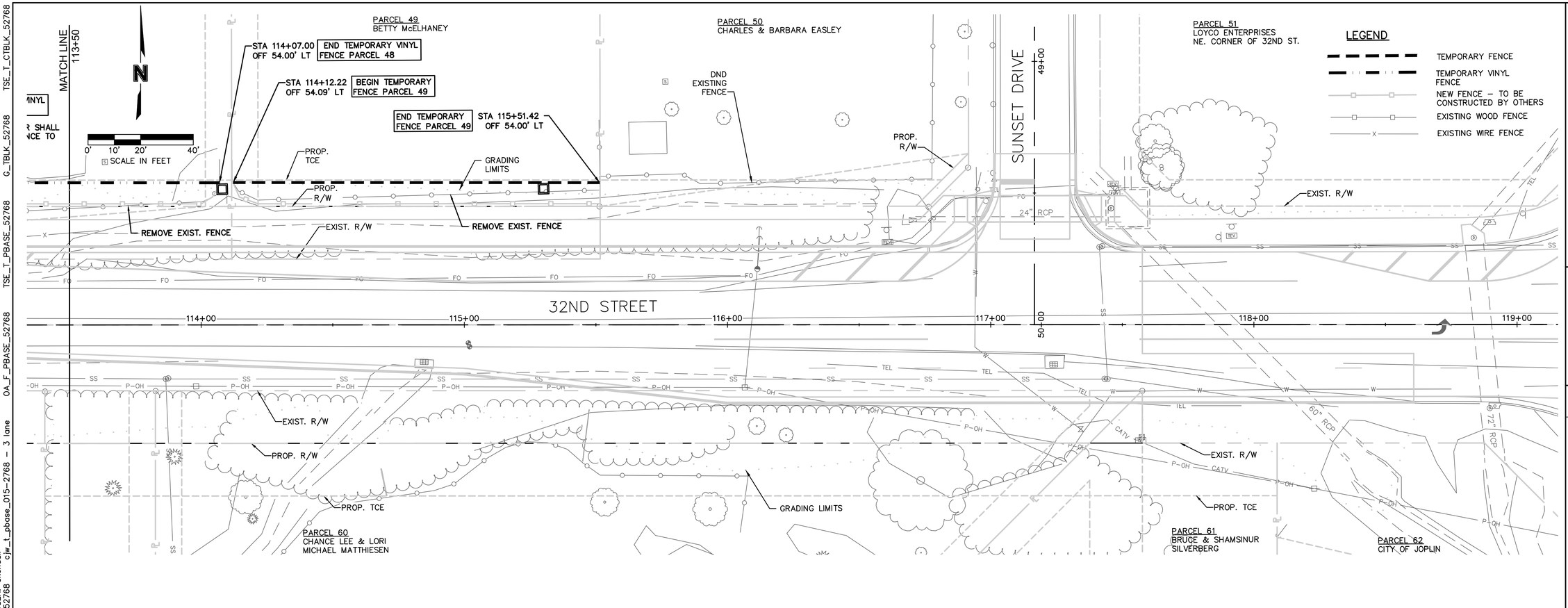
32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by:	SMK/CTK
checked by:	PM/LB/RF
approved by:	BMC
QA/QC by:	PM/LB/FR
project no.:	015-2768
drawing no.:	TSE_T_DTL-FENCE_52768
date:	04/23/2021

SHEET
C15 of C91



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FENCE PLAN

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by: SMK/CTK
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drawing no.: TSE_T_DTL-FENCE_52768
date: 04/23/2021

SHEET
C16 of C91

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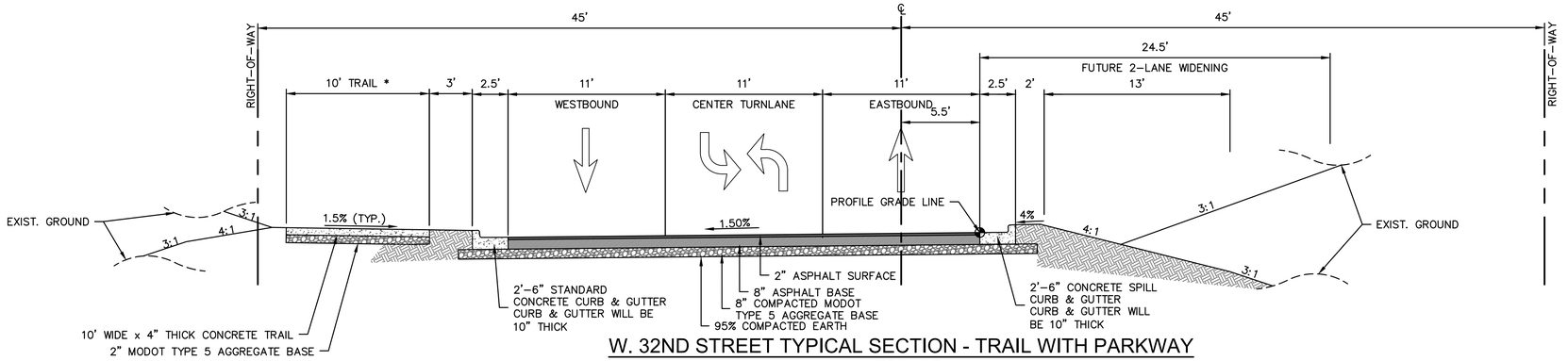


W. 32ND STREET TYPICAL SECTION - TRAIL WITH PARKWAY

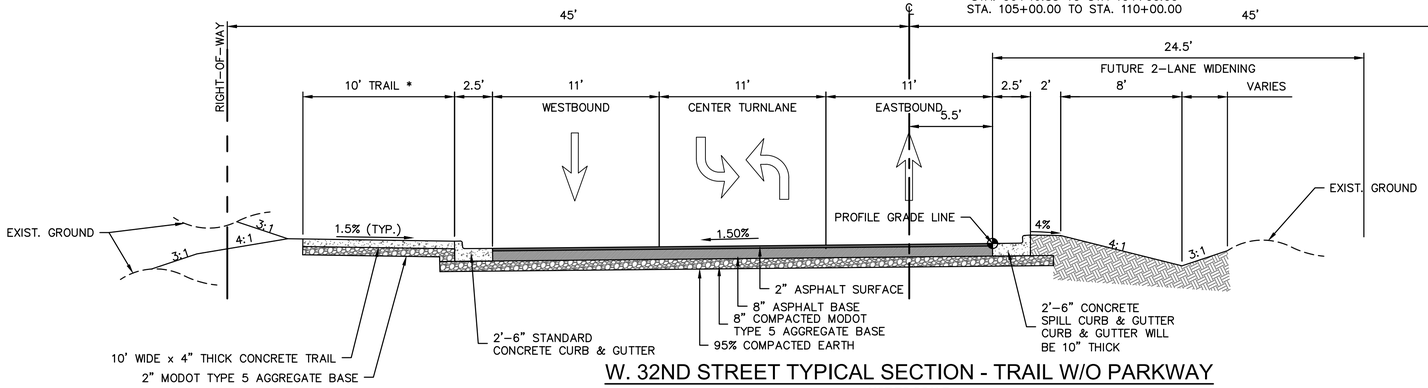
NOT TO SCALE

STA. 93+00.00 TO STA. 95+75.00
STA. 96+46.83 TO STA 104+00.00
STA. 105+00.00 TO STA. 110+00.00

NOTES:
LOCATION OF TRAIL AND FILL SLOPES WILL VARY. (SEE PLANS & CROSS SECTIONS FOR PARTICULAR LOCATIONS).

ONE FOOT WIDE SHOULDER TO BE OMITTED AT THE ANCHA'S PROPERTY IMMEDIATELY WEST OF IRON GATES RD.

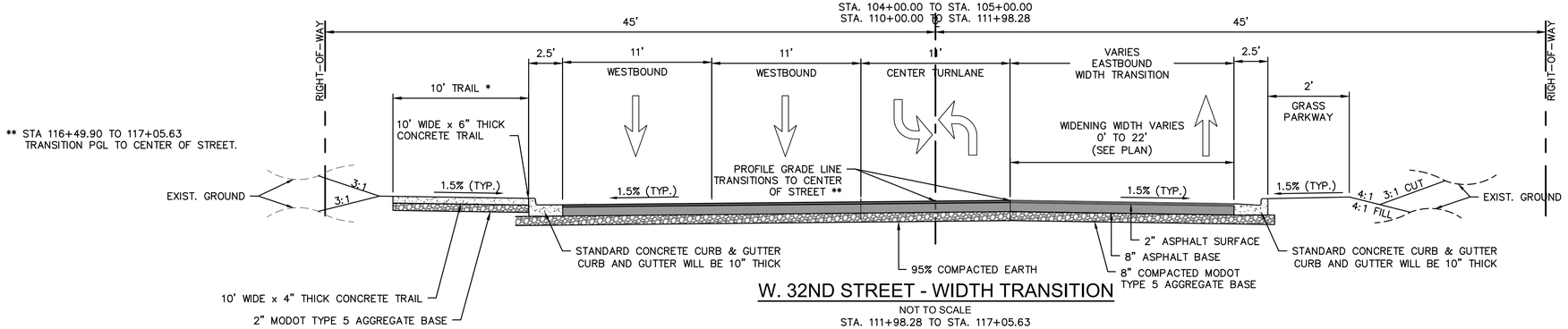
AGGREGATE AREA SHALL BE CONSIDERED AS EXTENDING 1' BEYOND THE BACK OF CURB FOR PURPOSES OF PAY LIMITS.



W. 32ND STREET TYPICAL SECTION - TRAIL W/O PARKWAY

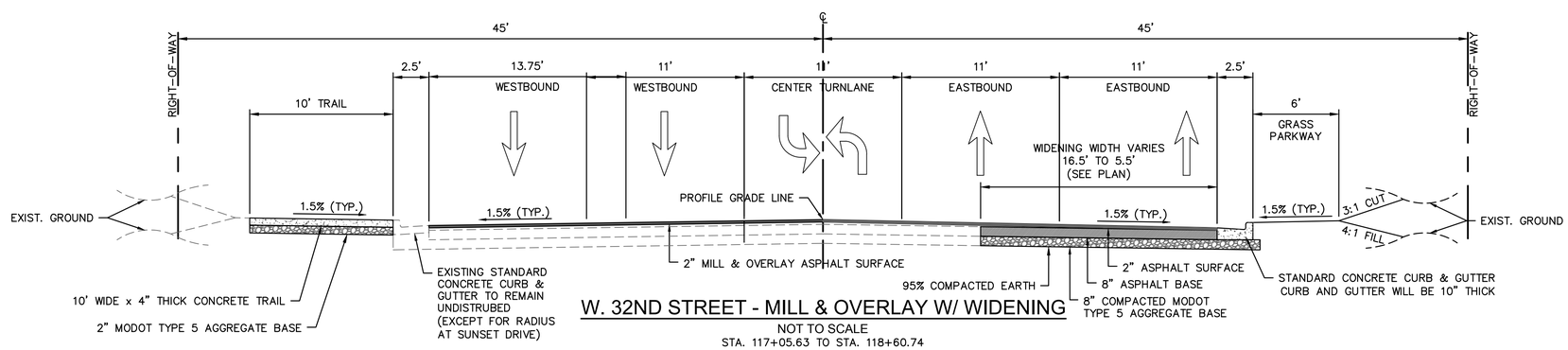
NOT TO SCALE

STA. 95+75.00 TO STA. 96+46.8
STA. 104+00.00 TO STA. 105+00.00
STA. 110+00.00 TO STA. 111+98.28



W. 32ND STREET - WIDTH TRANSITION

NOT TO SCALE
STA. 111+98.28 TO STA. 117+05.63



W. 32ND STREET - MILL & OVERLAY W/ WIDENING

NOT TO SCALE
STA. 117+05.63 TO STA. 118+60.74

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CITY OF JOPLIN

JOPLIN, MISSOURI

2021

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SHEET
C17 of C91

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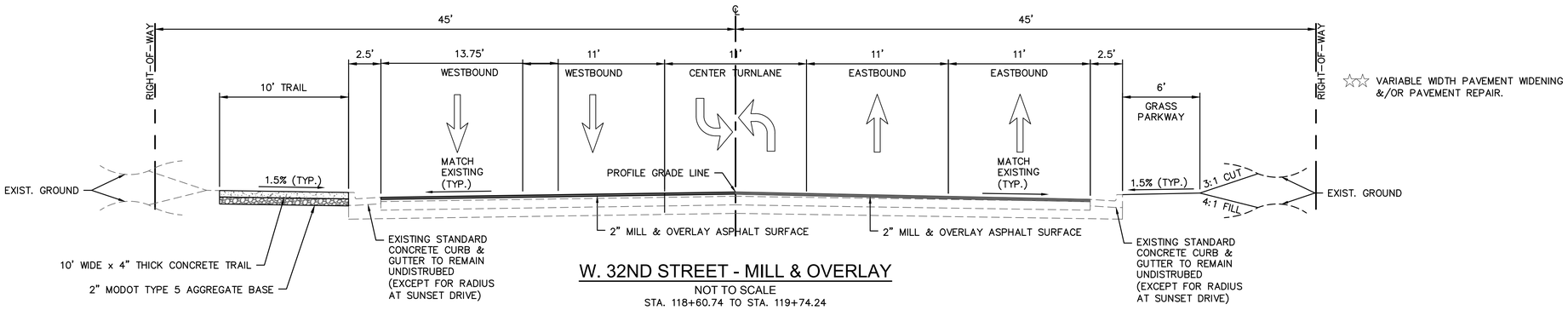

W. 32ND STREET - MILL & OVERLAY

NOT TO SCALE

STA. 118+60.74 TO STA. 119+74.24

DWG: F:\PROJECTS\015-2768\40-Design\AutoCAD\Final Plans\Sheets TSE\TRNS\TSE_T_TYP_52768.dwg USER: skendall
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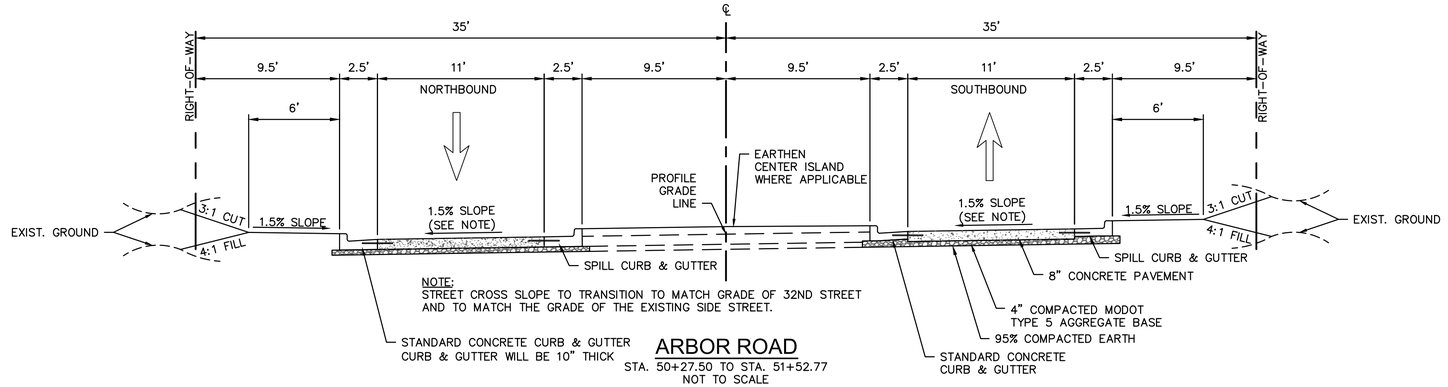
SHEET
C18 of C91



NOTES:
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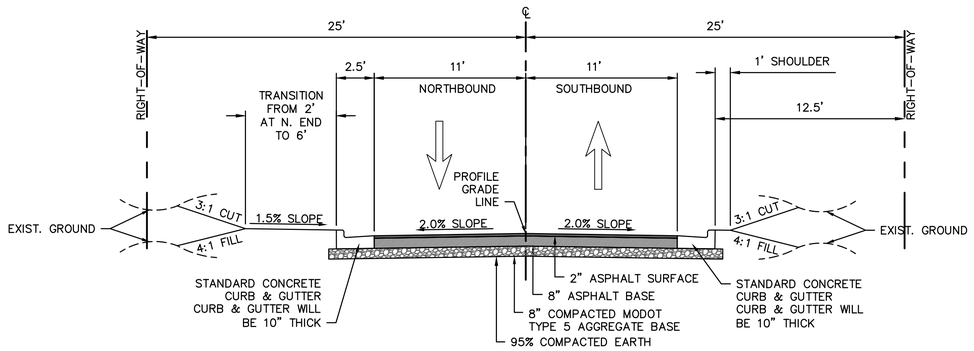
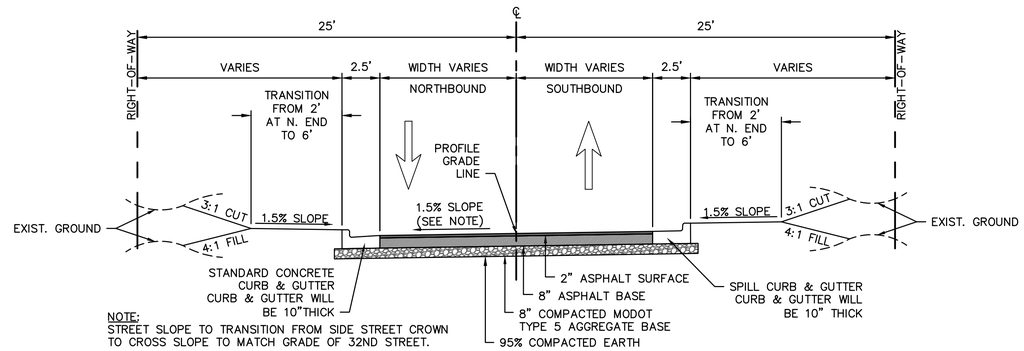
NOTE:
STREET CROSS SLOPE TO TRANSITION TO MATCH GRADE OF 32ND STREET AND TO MATCH THE GRADE OF THE EXISTING SIDE STREET.

ARBOR ROAD
STA. 50+27.50 TO STA. 51+52.77
NOT TO SCALE

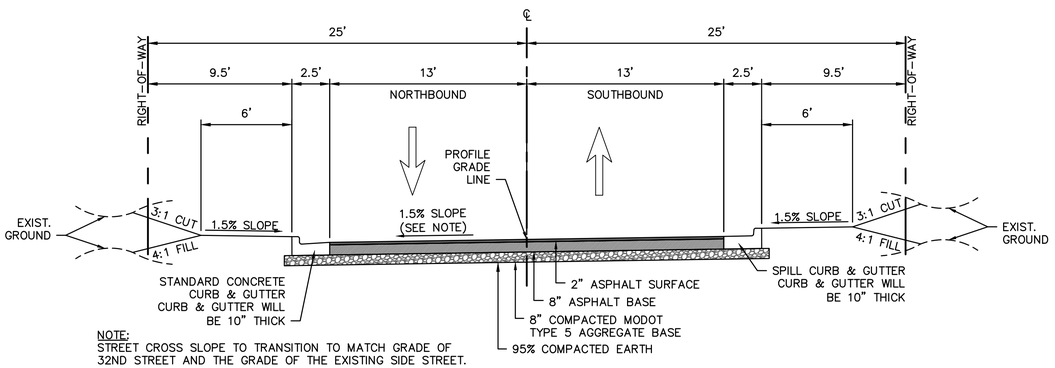


IRON GATES ROAD
STA. 48+50 TO STA. 49+39.57
NOT TO SCALE



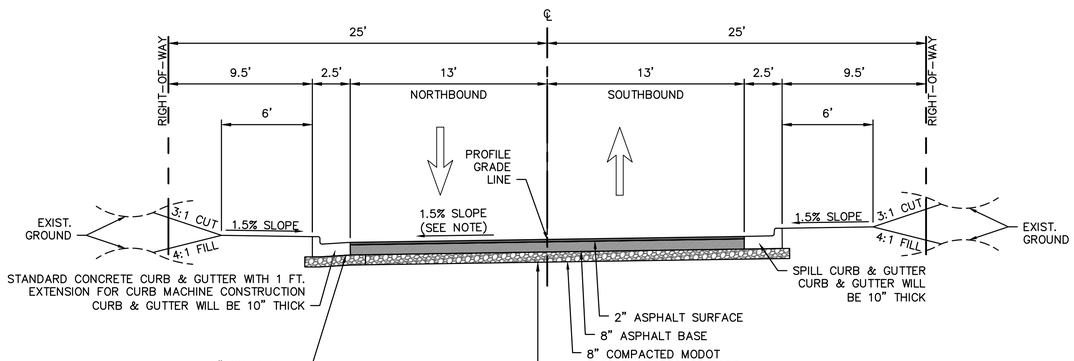
NOTE:
STREET SLOPE TO TRANSITION FROM SIDE STREET CROWN TO CROSS SLOPE TO MATCH GRADE OF 32ND STREET.

IRON GATES ROAD
STA. 49+39.57 TO STA. 49+94.50
NOT TO SCALE



NOTE:
STREET CROSS SLOPE TO TRANSITION TO MATCH GRADE OF 32ND STREET AND THE GRADE OF THE EXISTING SIDE STREET.

WESTBERRY LANE
STA. 50+27.50 TO STA. 51+16.86
NOT TO SCALE



NOTE:
STREET CROSS SLOPE TO TRANSITION FROM THE CROWN OF THE EXISTING SIDE STREET TO MATCH GRADE OF 32ND STREET.

SUNSET DRIVE
STA. 49+44.75 TO STA. 49+72.50
NOT TO SCALE

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TEL 417.781.0643
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STATE OF MISSOURI
BRIAN COOMES
Brian Coomes
04/23/2021
NUMBER PE-2015029306
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

TYPICAL SECTIONS

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by: SMK/CTK
checked by: PM/LB/RF
approved by: BMC
QA/QC by: PM/LB/FR
project no.: 015-2768
drawing no.: TSE_T_TYP_52768
date: 04/23/2021

SHEET
C19 of C91

DWG: F:\PROJECTS\015-2768\40-Design\AutoCAD\Final Plans\Sheets TSE\TRNS\TSE_T_TYP_52768.dwg USER: skendall
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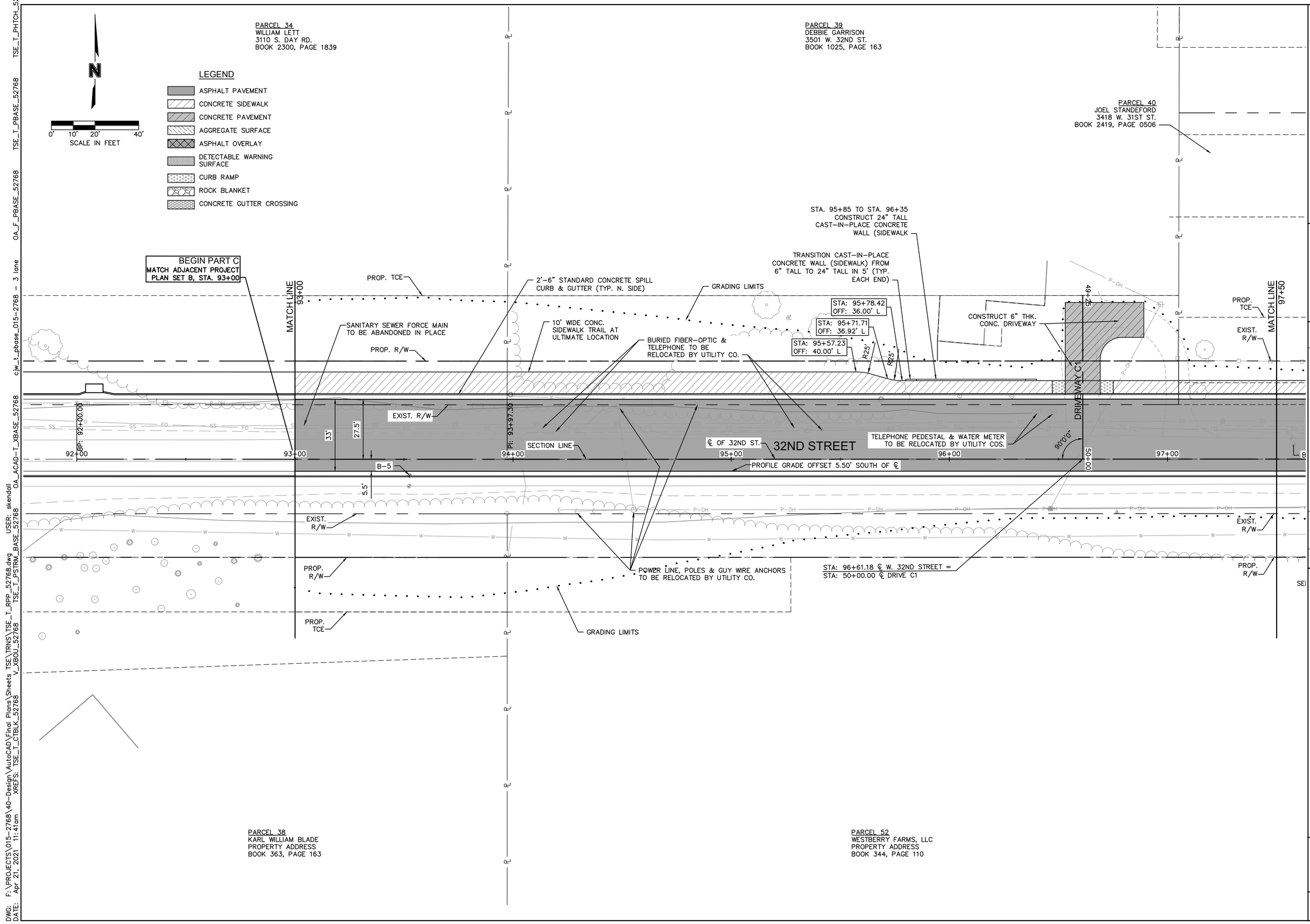
DATE: Apr 21, 2021 11:41am XREFS: TSE_T_CTBLK_52768 V_XBOU_52768 TSE_T_PSTRM_BASE_52768 OA_ACAD-T_XBASE_52768 cjw_t_pbase_015-2768 - 3 lane OA_F_PBASE_52768 TSE_T_PBASE_52768 TSE_T_PHTCH_52768
USER: skendall



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STATE OF MISSOURI
BRIAN COOMES
Brian Coomes
04/23/2021
NUMBER PE-2015029306
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

ROADWAY PLAN

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

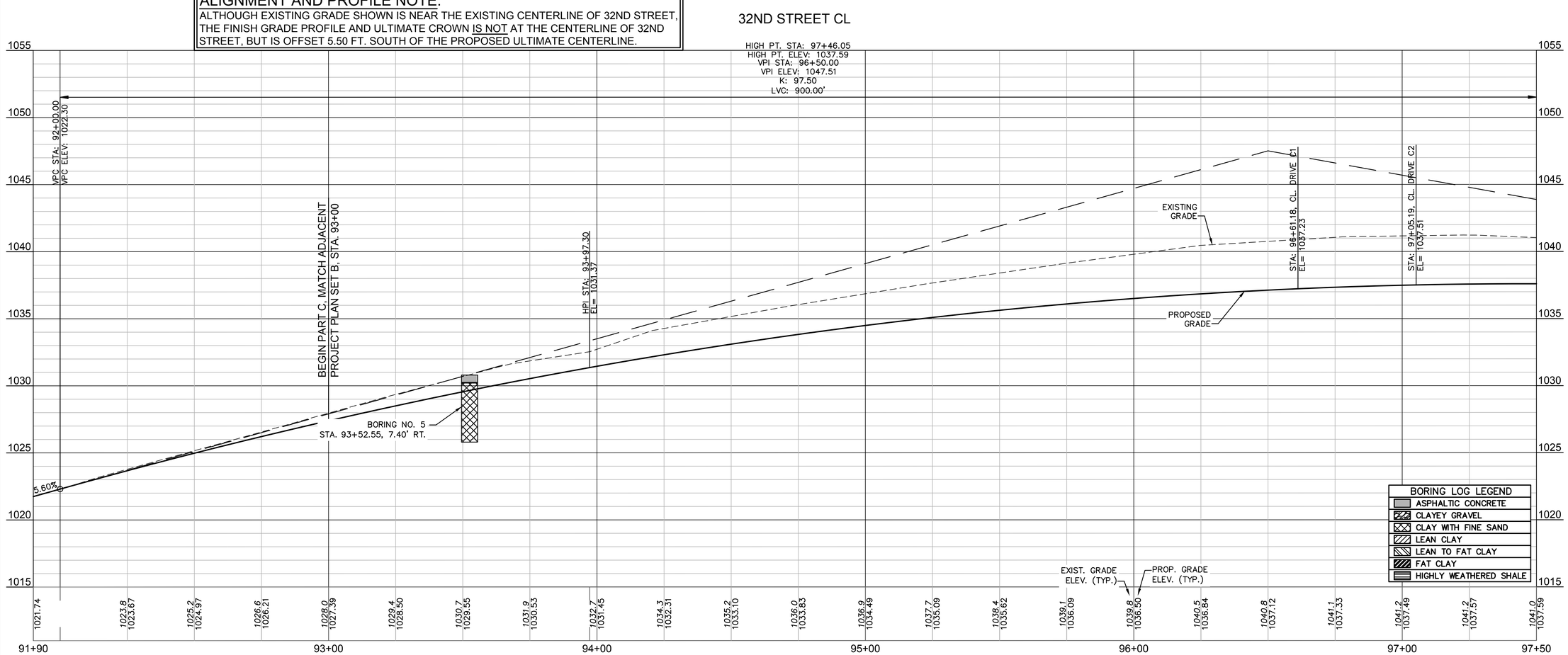
drawn by: SMK/CTK
checked by: PM/LB/RF
approved by: BMC
QA/QC by: PM/LB/FR
project no.: 015-2768
drawing no.: TSE_T_RPP_52768
date: 04/23/2021

SHEET
C20 of C91

DWG: F:\PROJECTS\015-2768\40-Design\AutoCAD\Final Plans\Sheets TSE\TRNS\TSE_T_RPP_52768.dwg USER: skendall
DATE: Apr 21, 2021 11:42am XREFS: TSE_T_CTBLK_52768 V_XB0U_52768 TSE_T_PSTRM_BASE_52768 OA_ACAD-T_XBASE_52768 c)w_t_pbase_015-2768 - 3 lane OA_F_PBASE_52768 TSE_T_PBASE_52768 TSE_T_PHTCH_52768

ALIGNMENT AND PROFILE NOTE:

ALTHOUGH EXISTING GRADE SHOWN IS NEAR THE EXISTING CENTERLINE OF 32ND STREET, THE FINISH GRADE PROFILE AND ULTIMATE CROWN IS NOT AT THE CENTERLINE OF 32ND STREET, BUT IS OFFSET 5.50 FT. SOUTH OF THE PROPOSED ULTIMATE CENTERLINE.



BORING LOG LEGEND

- ASPHALTIC CONCRETE
- CLAYEY GRAVEL
- CLAY WITH FINE SAND
- LEAN CLAY
- LEAN TO FAT CLAY
- FAT CLAY
- HIGHLY WEATHERED SHALE

8'
4'
2'
0'

0' 10' 20' 40'
SCALE IN FEET

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STATE OF MISSOURI
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Brian Coomes
04/23/2021
NUMBER PE-2015029306
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

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ROADWAY PROFILE

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by: SMK/CTK
checked by: PM/LB/RF
approved by: BMC
QA/QC by: PM/LB/FR
project no.: 015-2768
drawing no.: TSE_T_RPP_52768
date: 04/23/2021

SHEET
C21 of C91

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A9
STA. 99+96.78, 31.50' LT.
CONST. 6'x3' TYPE C CURB INLET

PARCEL 41
BAILEE K. BROWN, ROBERT A.
& KELSA K. BROWN
3414 W. 31ST ST.
BOOK 2442, PAGE 0426

PARCEL 42
SUDHAKAR AND
BALAMBA ANCHA
3402 W. 31ST ST.
BOOK 2090, PAGE 1655

PARCEL 43
LYNDA BANWART TRUST
3130 SKELLEY CT.
BOOK 2044, PAGE 1436

PARCEL 44
LINDA MEIER TRUST
3131 SKELLEY DR.
BOOK 1649, PAGE 1730

IRON GATES RD.

BP: 48+00.00

STA. 48+44.48
BEGIN CONSTRUCTION
MATCH EXISTING

CONSTRUCT 14 LF OF
3' WIDE CURB FLUME

+44.48
10.40' LT.
+54.48
13.50' LT.

EXTEND 8" CMP 4 LIN. FT. ON EA. END

STA: 48+91.40 ℄ TSE_PVMT-IRON GATES-CL =
STA: 10+00.00 ℄ TSE_DRVY-C5

EXISTING WATER LINE.
SEE PART D PLANS FOR
RELOCATION

CONSTRUCT 6" CONC.
DRIVEWAY ENTR. TO FENCE

DRIVEWAY C5

CONSTRUCT 6" THK.
AGGR. DRIVEWAY

RECONSTRUCT PRIVACY FENCE
AS SHOWN.

+31.56
33.13' RT.

+51.56
13.50' RT.

STA: 48+68.23 ℄ TSE_PVMT-IRON GATES-CL =
STA: 10+00.00 ℄ TSE_DRVY-C3
PC: 10+25.48

DRIVEWAY C3

CONSTRUCT 6" CONCRETE
DRIVEWAY

STA: 49+26.07 ℄ TSE_PVMT-IRON GATES-CL =
STA: 10+00.00 ℄ TSE_DRVY-C4

WARNING: SPRINKLER HEADS & IRRIGATION SYSTEM IN THIS AREA

DO NOT DISTURB EXISTING TREES & LANSCAPE BEDS
SOUTH OF THE FENCE

DO NOT DISTURB PRIVACY FENCE, GARDEN OR
RETAINING WALL NORTH OF RIGHT-OF-WAY LINE.

BURIED FIBER-OPTIC/TELEPHONE
TO BE RELOCATED BY UTILITY CO

RELOCATE &
REPAIR
IRRIGATION SYSTEM

TELEPHONE PEDESTAL TO BE
RELOCATED BY UTILITY CO.

PROP.
TCE

EXIST.
R/W

MATCH LINE
97+50

6' WIDE CONC.
SIDEWALK TRAIL

DRIVEWAY C4

PC: 10+25.48

+03.28
30.00' LT.

+39.34
13.50' RT.

+40.65
13.50' LT.

PROP.
R/W

EXIST.
R/W

+90.29
30.00' LT.

STA: 100+93.29
OFF: 36.00' L

STA: 101+03.09
OFF: 37.99' L

STA: 101+12.90
OFF: 40.00' L

POWER LINE, POLES
& ANCHORS TO BE
RELOCATED BY
UTILITY CO.

10' WIDE CONC. SIDEWALK TRAIL

CONSTRUCT 6" THK. AGGR. DRIVEWAY

CONSTRUCT 6" CONC. DRIVEWAY
& ENTR. TO PROP. R/W

DRIVEWAY C6

49+34

PROP.
TCE

PROP.
R/W

MATCH LINE
103+00

22'

R30'

R25'

WATER LINE TO
BE RELOCATED
BY UTILITY CO.

STA: 100+13.30 ℄ W. 32ND STREET =
STA: 50+00.00 ℄ ARBOR ROAD

A9

EXIST. R/W

32ND STREET

33'

B-4

98+00

99+00

100+00

℄ OF 32ND ST.

PROFILE GRADE OFFSET 5.50' SOUTH OF ℄

SECTION LINE

F3

50+00

BP: 50+00.00

R20'

EP: 50+00.00

101+00

102+00

103+00

B-3

STA: 100+47.69 ℄ W. 32ND STREET =
STA: 50+00.00 ℄ IRON GATES ROAD

STA: 101+94.05 ℄ W. 32ND STREET =
STA: 50+00.00 ℄ DRIVE C6

+28.09
25.50' LT.

+58.85
8.00' RT.

F1

F0

+67.85
8.00' RT.

+27.95
25.50' RT.

F2

EXIST.
R/W

PROP.
R/W

EXISTING WATER LINE.
SEE PART D PLANS FOR RELOCATION

POWER LINE & POLES TO BE
RELOCATED BY UTILITY CO.

DO NOT DISTURB
STONE WALL &
LIGHTS

+53.10
25.50' RT.

R9.5'

PC: 50+53.10

+53.30
25.50' LT.

INSTALL 3 SY. OF
MODOT ROCK LINING FOR
CULVERT 7' x 4' x 2'

POWER LINE & POLES TO BE
RELOCATED BY UTILITY CO.

GRADING LIMITS

PROP.
R/W

PROP.
TCE

R165.5'

11'

19'

11'

NOTE:
DO NOT DISTURB OR DAMAGE
UNMARKED TREES.

CONSTRUCT 8" THICK
CONCRETE PAVEMENT

ARBOR ROAD
(a.k.a. CAMDEN LANE)

51+00

R184.5'

+53.17
25.57' RT.

CONSTRUCT STANDARD CONCRETE
CURB & GUTTER ALONG
PERIMETER & FOR ISLAND

STA. 51+52.64
END CONSTRUCTION
MATCH EXISTING

+52.46
25.50' LT.

DO NOT DISTURB
WROUGHT IRON
FENCE WITH
STONE COLUMNS

PC: 52+00

PT: 51+80.39

52+00

PARCEL 52
WESTBERRY FARMS, LLC
PROPERTY ADDRESS
BOOK 344, PAGE 110

PARCEL 53
WESTBERRY FARMS, LLC
ARBOR HILLS N. GATEWAY
BOOK 344, PAGE 110

PARCEL 53
WESTBERRY FARMS, LLC
ARBOR HILLS N. GATEWAY
BOOK 344, PAGE 110

PARCEL 55
GARY BANDY & DORIS CARLIN
3234 N. WESTBERRY SQ.
BOOK 366, PAGE 7238

PARCEL 56
JAHAN & ABBY ZEB
3220 N. WESTBERRY SQ.
BOOK 366, PAGE 2873

F3
STA. 50+16.31, 955.66' RT.
CONST. Concrete Flared End Section
STATIONING FROM ARBOR ROAD

F2
STA. 50+41.12, 27.00' RT.
CONST. 6'x3' TYPE C CURB INLET
STATIONING FROM ARBOR ROAD

F1
STA. 50+30.01, 27.00' LT.
CONST. 6'x3' TYPE C CURB INLET
STATIONING FROM ARBOR ROAD

F0
STA. 50+21.38, 815.20' RT.
CONST. Concrete Flared End Section
STATIONING FROM ARBOR ROAD

NOTE:
FOR STORM DRAIN PROFILES SEE SHEET C43.

0' 10' 20' 40'
SCALE IN FEET

LEGEND

- ASPHALT PAVEMENT
- CONCRETE SIDEWALK
- CONCRETE PAVEMENT
- AGGREGATE SURFACE
- ASPHALT OVERLAY
- DETECTABLE WARNING SURFACE
- CURB RAMP
- ROCK BLANKET
- CONCRETE GUTTER CROSSING

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STATE OF MISSOURI
BRIAN COOMES
Brian Coomes
04/23/2021
NUMBER PE-2015029306
PROFESSIONAL ENGINEER

REVISIONS

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

ROADWAY PLAN

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by: SMK/CTK
checked by: PM/LB/RF
approved by: BMC
QA/QC by: PM/LB/FR
project no.: 015-2768
drawing no.: TSE_T_RPP_52768
date: 04/23/2021

SHEET
C22 of C91

DWG: F:\PROJECTS\015-2768\40-Design\AutoCAD\Final Plans\Sheets TSE\TRNS\TSE_T_RPP_52768.dwg USER: skendall
DATE: Apr 21, 2021 11:42am XREFS: TSE_T_CTBLK_52768 V_XB0U_52768 TSE_T_PSTRM_BASE_52768 OA_ACAD-T_XBASE_52768 c)w_t_pbase_015-2768 - 3 lane OA_F_PBASE_52768 TSE_T_PBASE_52768 TSE_T_PHTCH_52768

ALIGNMENT AND PROFILE NOTE:

ALTHOUGH EXISTING GRADE SHOWN IS NEAR THE EXISTING CENTERLINE OF 32ND STREET, THE FINISH GRADE PROFILE AND ULTIMATE CROWN IS NOT AT THE CENTERLINE OF 32ND STREET, BUT IS OFFSET 5.50 FT. SOUTH OF THE PROPOSED ULTIMATE CENTERLINE.

32ND STREET CL

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STATE OF MISSOURI
BRIAN COOMES
Brian Coomes
04/23/2021
NUMBER PE-2015029306
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

ROADWAY PROFILE

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by: SMK/CTK
checked by: PM/LB/RF
approved by: BMC
QA/QC by: PM/LB/FR
project no.: 015-2768
drawing no.: TSE_T_RPP_52768
date: 04/23/2021

SHEET
C23 of C91

DWG: F:\PROJECTS\015-2768\40-Design\AutoCAD\Final Plans\Sheets TSE\TRNS\TSE_T_RPP_52768.dwg
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USER: skendall

PARCEL 44
LINDA MEIER TRUST
3131 SKELLEY DR.
BOOK 1649, PAGE 1730

A8
STA. 105+50.00, 31.50' LT.
CONST. 6'x3' TYPE C CURB IINLET

A7
STA. 107+43.91, 31.50' LT.
CONST. 8'x3' TYPE C CURB INLET

PARCEL 45
MARVIN & LORIE
McCREARY
3330 SUNSET DR.
BOOK 2463, PAGE 0271 &
BOOK 2465, PAGE 0286

PARCEL C14
WALTER & DOROTHY SMITH
B 1939, P 487

N

0' 10' 20' 40'
SCALE IN FEET

LEGEND
- ASPHALT PAVEMENT
- CONCRETE SIDEWALK
- CONCRETE PAVEMENT
- AGGREGATE SURFACE
- ASPHALT OVERLAY
- DETECTABLE WARNING SURFACE
- CURB RAMP
- ROCK BLANKET
- CONCRETE GUTTER CROSSING

SANITARY SEWER FORCE MAIN TO BE ABANDONED IN PLACE
FIBER-OPTIC TO BE RELOCATED BY UTILITY CO.
CABLE RISER, POWER POLE, TELEPHONE PEDESTAL, & GUY WIRE ANCHOR TO BE RELOCATED BY UTILITY CO.
TELEPHONE RISER TO BE RELOCATED BY UTILITY CO.
10' WIDE CONCRETE SIDEWALK TRAIL
RELOCATE EXISTING SHED
GRADING LIMITS
PROP. TCE
PROP. R/W
MATCH LINE 103+00
MATCH LINE 108+50
33'
STA. 107+43.91
OFF. 31.50' L
EXIST. R/W
32ND STREET
SECTION LINE
℄ OF 32ND ST.
103+00 104+00 105+00 106+00 107+00 108+00
PROFILE GRADE OFFSET 5.50' SOUTH OF ℄.
E1
+77
17.18'
EXIST. R/W
PROP. R/W
PROP. TCE
GRADING LIMITS
POWER LINE & POLES TO BE RELOCATED BY UTILITY CO.
DO NOT DISTURB EXISTING STONE FENCE
CAP OR PLUG FORCE MAIN TO BE ABANDONED
REGRADE NE. END OF BERM TO DIRECT DRAINAGE TO FES
+16.96
16.63' RT.
+23.15
17.27' RT.
LINE OF SIGHT ESMT.
REGENCY GATE PROPERTY OWNERS ASSOC.
BOOK 344, PAGE 6692
MATCH EXISTING
STA. 51+16.86
END CONSTRUCTION
MATCH EXISTING
PI: 51+22.14
PI: 51+47.78
51+74
WESTBERRY LANE
EXIST. LINE OF SIGHT ESMT.

PARCEL 56
JAHAN & ABBY ZEB
3220 N. WESTBERRY SQ.
BOOK 366, PAGE 2873

PARCEL 57
KENNETH & JULIE MADL
3210 N. WESTBERRY SQ.
BOOK 357, PAGE 5162

PARCEL 58
AHMED ABOUL-MAGD
& THEODORA ZAKI
3215 N. WESTBERRY SQ.
BOOK 357, PAGE 7363

NOTE: FOR STORM DRAIN PROFILES SEE SHEETS C43 & C44.

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STATE OF MISSOURI
BRIAN COOMES
Brian Coomes
04/23/2021
NUMBER PE-2015029306
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

ROADWAY PLAN

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by: SMK/CTK
checked by: PM/LB/RF
approved by: BMC
QA/QC by: PM/LB/FR
project no.: 015-2768
drawing no.: TSE_T_RPP_52768
date: 04/23/2021

SHEET
C24 of C91

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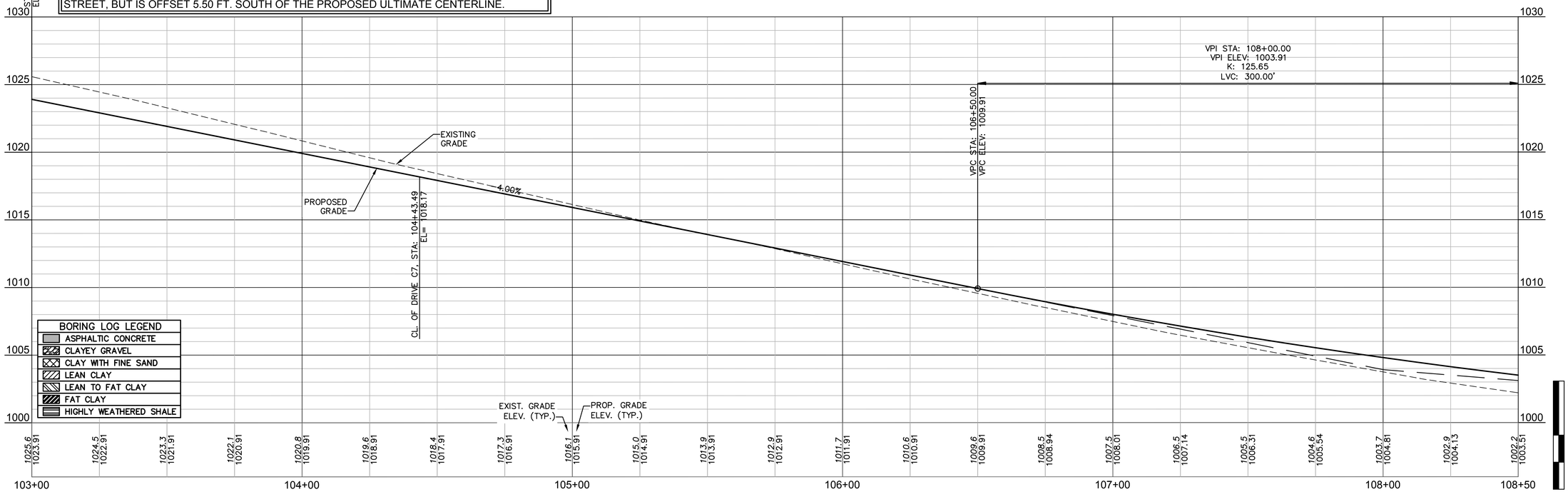
ALIGNMENT AND PROFILE NOTE:

ALTHOUGH EXISTING GRADE SHOWN IS NEAR THE EXISTING CENTERLINE OF 32ND STREET, THE FINISH GRADE PROFILE AND ULTIMATE CROWN IS NOT AT THE CENTERLINE OF 32ND STREET, BUT IS OFFSET 5.50 FT. SOUTH OF THE PROPOSED ULTIMATE CENTERLINE.

32ND STREET CL



BORING LOG LEGEND

- ASPHALTIC CONCRETE
- CLAYEY GRAVEL
- CLAY WITH FINE SAND
- LEAN CLAY
- LEAN TO FAT CLAY
- FAT CLAY
- HIGHLY WEATHERED SHALE

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REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

ROADWAY PROFILE

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by: SMK/CTK
checked by: PM/LB/RF
approved by: BMC
QA/QC by: PM/LB/FR
project no.: 015-2768
drawing no.: TSE_T_RPP_52768
date: 04/23/2021

SHEET
C25 of C91

DWG: F:\PROJECTS\015-2768\40-Design\AutoCAD\Final Plans\Sheets TSE\TRNS\TSE_T_RPP_52768.dwg
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USER: skendall

PARCEL 45
MARVIN & LORIE
McCREARY
3330 SUNSET DR.
BOOK 2463, PAGE 0271 &
BOOK 2465, PAGE 0286

PARCEL 47
MICHAEL & SONYA NAGLE
3222 W. SUNSET DR. S.
BOOK 2278, PAGE 2127

PARCEL 48
ANTHONY & KAMAN DOLL
3202 W. SUNSET DR.
BOOK 2410, PAGE 0043

N

0' 10' 20' 40'
SCALE IN FEET

LEGEND
- ASPHALT PAVEMENT
- CONCRETE SIDEWALK
- CONCRETE PAVEMENT
- AGGREGATE SURFACE
- ASPHALT OVERLAY
- DETECTABLE WARNING SURFACE
- CURB RAMP
- ROCK BLANKET
- CONCRETE GUTTER CROSSING

A6
STA. 109+52.24, 32.00' LT.
CONST. 8'x4' TYPE C CURB INLET

A5
STA. 112+60.00, 31.50' LT.
CONST. 8'x4' TYPE C CURB INLET

INTERCEPT EXISTING SUMP PUMP AND FRENCH DRAIN LINES AND CONNECT TO NEW DRAIN BASIN. ALL INLET PIPE AND FITTINGS NECESSARY TO CONNECT TO EXISTING LINES ARE SUBSIDIARY TO THE DRAIN BASIN.

FIBER-OPTIC TO BE RELOCATED BY UTILITY CO.

PROP. TCE

MATCH LINE 108+50

MATCH LINE 113+50

PROP. R/W

GRADING LIMITS

10' WIDE CONC. SIDEWALK TRAIL

EXIST. R/W

32ND STREET

STA: 109+07.13 ℄ W. 32ND STREET =
STA: 50+00.00 ℄ WESTBERRY LANE

B-2

℄ OF 32ND ST.

33'

SECTION LINE

PROFILE GRADE OFFSET 5.50' SOUTH OF ℄

PROFILE GRADE OFFSET 5.50' SOUTH ℄

109+00 110+00 111+00 112+00 113+00 114

50+00

+59.14
8.00' RT.

PC: 50+28.00

R25'

R30'

E1

+55.24
8.00' RT.

D1

20.34' LT.
+26.63

7.77' RT.
+98.28

+77.50
17.18' RT.

+16.96
16.63' RT.

+23.15
17.27' RT.

PT: 50+72.14

D1A

D2

D3

WESTBERRY LANE

26'

51+00

90°35'5"

15.03' LT.
+43.74

GRADE TO DRAIN FROM OVERFLOW FLUME TO AREA INLET

LIGHT POLE TO BE RELOCATED

CONSTRUCT 10 LF OF 6' WIDE CONCRETE FLUME

PROP. TCE

VACATED EASEMENT

14.11' LT.
+72.02

14.00' LT.
+16.91

PI: 51+22.14

PI: 51+47.78

STA. 51+16.86
END CONSTRUCTION
MATCH EXISTING

EXIST. LINE OF SIGHT ESMT.

LOWER MH. RIM 2.47 FT.
EX. RIM 990.19
PR. RIM 987.72

PARCEL 58
AHMED ABOUL-MAGD
& THEODORA ZAKI
3215 N. WESTBERRY SQ.
BOOK 357, PAGE 7363

PARCEL 58
AHMED ABOUL-MAGD &
THEODORA ZAKI
3215 N. WESTBERRY SQ.
BOOK 357, PAGE 7363

PARCEL 59
JAY & LINDA ROSENBERG
3133 N. WESTBERRY SQ.
BOOK 347, PAGE 4048

PARCEL 60
CHANCE LEE & LORI
MICHA MATTHIESEN
3115 N. WESTBERRY SQ.
BOOK 365, PAGE 8319

D3
STA. 50+79.49, 16.59' LT.
CONST. 8'x3' TYPE D CURB INLET

D2
STA. 50+64.80, 17.14' LT.
CONST. 8'x3' TYPE D CURB INLET

D1
STA. 50+25.57, 45.11' LT.
CONST. 5'x4' AREA INLET
OPENS N, S, E & W

D1A
STA. 50+54.00, 12.11' LT.
CONST. FLUME INLET

E1
STA. 50+72.80, 44.96' RT.
CONST. Concrete Flared End Section

NOTE: FOR STORM DRAIN PROFILES SEE SHEETS C42 & C44.

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STATE OF MISSOURI
BRIAN COOMES
Brian Coomes
04/23/2021
NUMBER PE-2015029306
PROFESSIONAL ENGINEER

REVISIONS

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

ROADWAY PLAN

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by:	SMK/CTK
checked by:	PM/LB/RF
approved by:	BMC
QA/QC by:	PM/LB/FR
project no.:	015-2768
drawing no.:	TSE_T_RPP_52768
date:	04/23/2021

SHEET
C26 of C91

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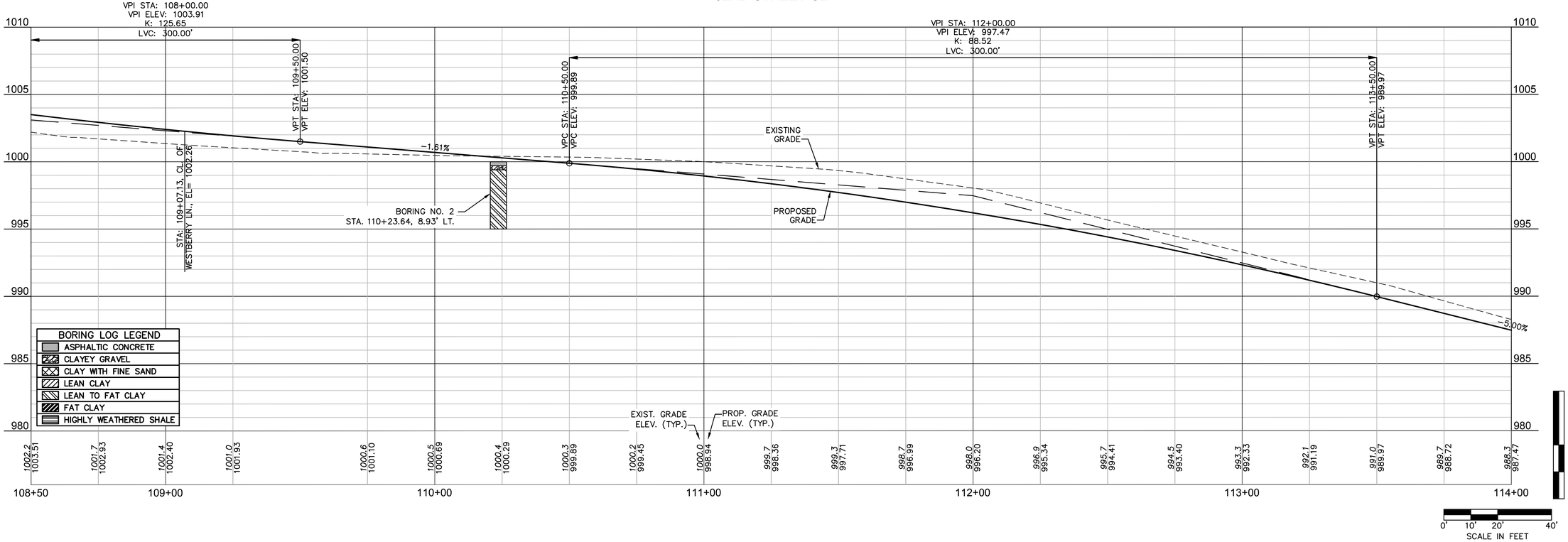
c)w_t_phase_015-2768 - 3 lane OA_F_PBASE_52768 TSE_T_PBASE_52768 TSE_T_PHTCH_52768

ALIGNMENT AND PROFILE NOTE:

ALTHOUGH EXISTING GRADE SHOWN IS NEAR THE EXISTING CENTERLINE OF 32ND STREET, THE FINISH GRADE PROFILE AND ULTIMATE CROWN IS NOT AT THE CENTERLINE OF 32ND STREET, BUT IS OFFSET 5.50 FT. SOUTH OF THE PROPOSED ULTIMATE CENTERLINE.

32ND STREET CL



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BRIAN COOMES
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NUMBER PE-2015029306
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

ROADWAY PROFILE

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by: SMK/CTK
checked by: PM/LB/RF
approved by: BMC
QA/QC by: PM/LB/FR
project no.: 015-2768
drawing no.: TSE_T_RPP_52768
date: 04/23/2021

SHEET
C27 of C91

PARCEL 48
ANTHONY & KAMAN DOLL
3202 W. SUNSET DR.
BOOK 2410, PAGE 0043

PARCEL 49
BETTY McELHANEY
3118 W. SUNSET DR.
BOOK 1959, PAGE 0830

PARCEL 50
CHARLES & BARBARA EASLEY
3102 S. SUNSET DR.
BOOK 2240, PAGE 840

PARCEL 51
LOYCO ENTERPRISES
NE. CORNER OF 32ND ST.
& S. SUNSET EAST DR.
BOOK 1361, PAGE 1199

N

0' 10' 20' 40'
SCALE IN FEET

G1
STA. 114+08.01, 51.56' LT.
CONST. 15" DRAIN BASIN

G2
STA. 115+30.11, 51.70' LT.
CONST. 15" DRAIN BASIN

A4
STA. 114+57.00, 32.00' LT.
CONST. 8'x4' TYPE C CURB INLET

A3
STA. 116+50.00, 32.00' LT.
CONST. 8'x4' TYPE C CURB INLET

C0
STA. 116+73.11, 40.07' LT.
CONST. 4'x4' JUNCTION BOX

C1
STA. 116+73.26, 46.75' LT.
CONST. 4'x4' AREA INLET
OPENS W

LEGEND
- ASPHALT PAVEMENT
- CONCRETE SIDEWALK
- CONCRETE PAVEMENT
- AGGREGATE SURFACE
- ASPHALT OVERLAY
- DETECTABLE WARNING SURFACE
- CURB RAMP
- ROCK BLANKET
- CONCRETE GUTTER CROSSING

INTERCEPT EXISTING SUMP PUMP AND FRENCH DRAIN LINES AND CONNECT TO NEW DRAIN BASIN. ALL INLET PIPE AND FITTINGS NECESSARY TO CONNECT TO EXISTING LINES ARE SUBSIDIARY TO THE DRAIN BASIN.

MATCH LINE 113+50

PROP. TCE

FIBER-OPTIC TO BE RELOCATED BY UTILITY CO.

GRADING LIMITS

PROP. TCE

PROP. R/W

GUY POLE & GUY WIRE ANCHORS TO BE RELOCATED BY UTILITY CO.

DND EXISTING FENCE

UTILITY EASEMENT (TYP.)

BACK YARDS TO DRAIN TO THIS AREA INLET

10' WIDE CONC. SIDEWALK TRAIL

STA. 49+35.05
END CONSTRUCTION
MATCH EXISTING

SUNSET DRIVE

49+59
BP: 48+59.00

49+00

+35.06
15.42' RT.

+44.78
15.50' RT.

PROP. R/W

26'

+35.05
15.92' LT.

+44.74
15.92' LT.

LOWER MH. RIM 0.05 FT.
EX. RIM 973.52
PR. RIM 973.47

STA. 117+57.61, BEGIN 2" DEPTH OVERLAY WITH VARIABLE WIDTH PAVEMENT WIDENING TO THE SOUTH.

10 FT. WIDE CONC. SIDEWALK TRAIL

MATCH LINE 118+75

EXIST. R/W

EXIST. R/W

EXIST. R/W

EXIST. R/W

EXISTING 24" RCP

30.00' LT. +76.13

30.00' LT. +57.61

R25'

R25'

℄ OF 32ND ST.

SECTION LINE

32ND STREET

114+00

115+00

116+00

117+00

118+00

119+0

50+00
EP: 50+00.00

STA: 117+16.60 ℄ W. 32ND STREET =
STA: 50+00.00 ℄ SUNSET DRIVE

SET 5.50' SOUTH ℄

PROFILE GRADE OFFSET 5.50' SOUTH ℄

B-1

29.5

27.5

+99.92
19.01' RT.

+99.86
29.97' RT.

+60.74
30.00' RT.

EXIST. R/W

PROP. R/W

POWER LINE & POLES TO BE RELOCATED BY UTILITY CO.

PROP. TCE

GRADING LIMITS

CONCRETE ENCASE EXISTING SANITARY SEWER LINE CROSSING OF STORM SEWER (SUBSIDIARY TO STORM PIPE) SEE SHEET 51 FOR DETAILS.

LOWER MH. RIM 2.47 FT.
EX. RIM 990.19
PR. RIM 987.72

REGRADE CHANNEL & REINSTALL ROCK BLANKET TO DIRECT CHANNEL INTO CURB OPENING IN BACK OF CURB INLET

LOWER MH. RIM 0.91 FT.
EX. RIM 974.06
PR. RIM 973.15

INSTALL 37.6 S.Y. OF MODOT ROCK LINING FOR CULVERT OUTLET
20' x 18' x 2'

50' ROD

12" ROD

PARCEL 60
CHANCE LEE & LORI
MICHA MATTHIESEN
3115 N. WESTBERRY SQ.
BOOK 365, PAGE 8319

PARCEL 60
CHANCE LEE & LORI
MICHAEL MATTHIESEN
3115 N. WESTBERRY SQ.
BOOK 365, PAGE 8319

PARCEL 61
BRUCE & SHAMSHINUR SILVERBERG
3303 E. WESTBERRY SQ.
BOOK 356, PAGE 9392

PARCEL 62
CITY OF JOPLIN
SW. CORNER OF
32ND & SCHIFFERDECKER
BOOK 225, PAGE 170

NOTE: FOR STORM DRAIN PROFILES SEE SHEETS C42 & C44.

B1
STA. 114+64.14, 64.14' RT.
CONST. 8'x4' AREA INLET
OPENS N & S

A2
STA. 116+50.00, 32.45' RT.
CONST. 6'x5' TYPE C CURB INLET

A1
STA. 117+92.02, 32.86' RT.
CONST. 6'x6' TYPE C CURB INLET

A0
STA. 118+32.57, 56.53' RT.
CONST. 36" Concrete Flared End Section

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BRIAN COOMES
Brian Coomes
04/23/2021
NUMBER PE-2015029306
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

ROADWAY PLAN

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by: SMK/CTK
checked by: PM/LB/RF
approved by: BMC
QA/QC by: PM/LB/FR
project no.: 015-2768
drawing no.: TSE_T_RPP_52768
date: 04/23/2021

SHEET
C28 of C91

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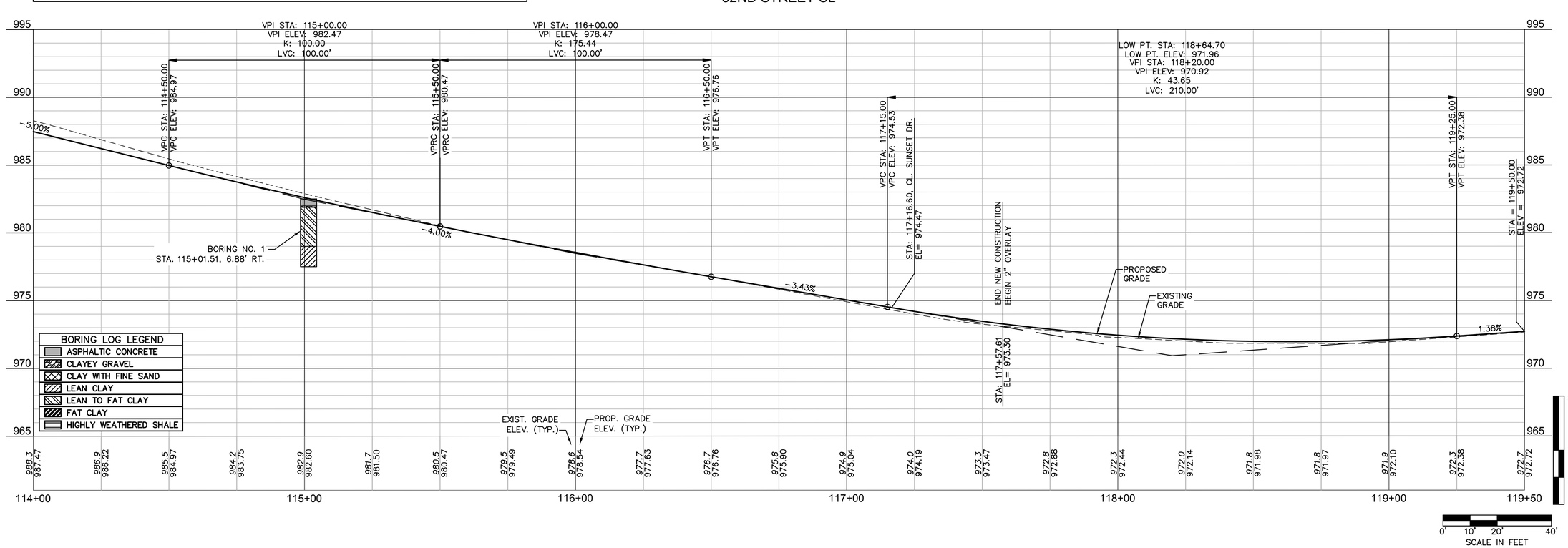
c:\w_t_phase_015-2768 - 3 lane OA_F_PBASE_52768 TSE_T_PBASE_52768 TSE_T_PHTCH_52768

ALIGNMENT AND PROFILE NOTE:
ALTHOUGH EXISTING GRADE SHOWN IS NEAR THE EXISTING CENTERLINE OF 32ND STREET, THE FINISH GRADE PROFILE AND ULTIMATE CROWN IS NOT AT THE CENTERLINE OF 32ND STREET, BUT IS OFFSET 5.50 FT. SOUTH OF THE PROPOSED ULTIMATE CENTERLINE.

32ND STREET CL



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		REVISIONS	

ROADWAY PROFILE

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by: SMK/CTK
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approved by: BMC
QA/QC by: PM/LB/FR
project no.: 015-2768
drawing no.: TSE_T_RPP_52768
date: 04/23/2021

SHEET
C29 of C91

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N

0' 10' 20' 40'
SCALE IN FEET

SCHIFFERDECKER AVE.

USE ADA RAMP IN PLACE.
CONSTRUCT 5' WIDE PATH
AROUND EXISTING RAMP.

MATCH LINE
118+75

CONC.
RAIL

STA. 119+55.61, 69.17' LT.
END TRAIL CONSTRUCTION
MATCH EXISTING SIDEWALK

STA. 119+74.24,
END PROJECT
MATCH EXISTING

119+00

120+00

120+18

SECTION LINE

+60.74
30.00' RT.

72"
RCP

TEL
P
OH

HDPE

SS

STA. 119+74.24, END 2" DEPTH OVERLAY.

32ND STREET

SCHIFFERDECKER AVE.

PARCEL 62
CITY OF JOPLIN
SW. CORNER OF
32ND & SCHIFFERDECKER
BOOK 225, PAGE 170

LEGEND

- ASPHALT PAVEMENT
- CONCRETE SIDEWALK
- CONCRETE PAVEMENT
- AGGREGATE SURFACE
- ASPHALT OVERLAY
- DETECTABLE WARNING SURFACE
- CURB RAMP
- ROCK BLANKET
- CONCRETE GUTTER CROSSING

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04/23/2021
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		REVISIONS	

ROADWAY PLAN

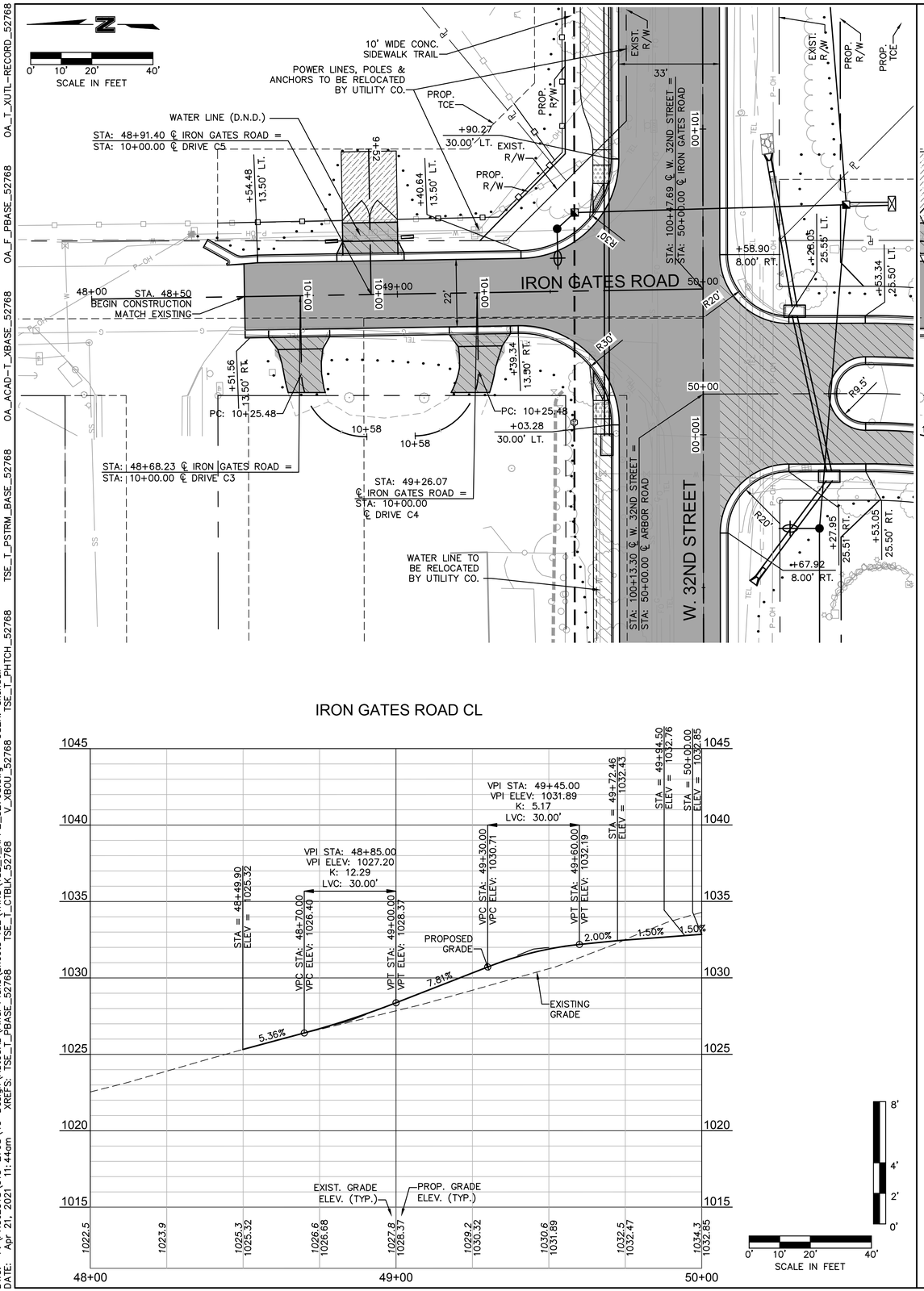
32ND STREET WIDENING
CITY OF JOPLIN

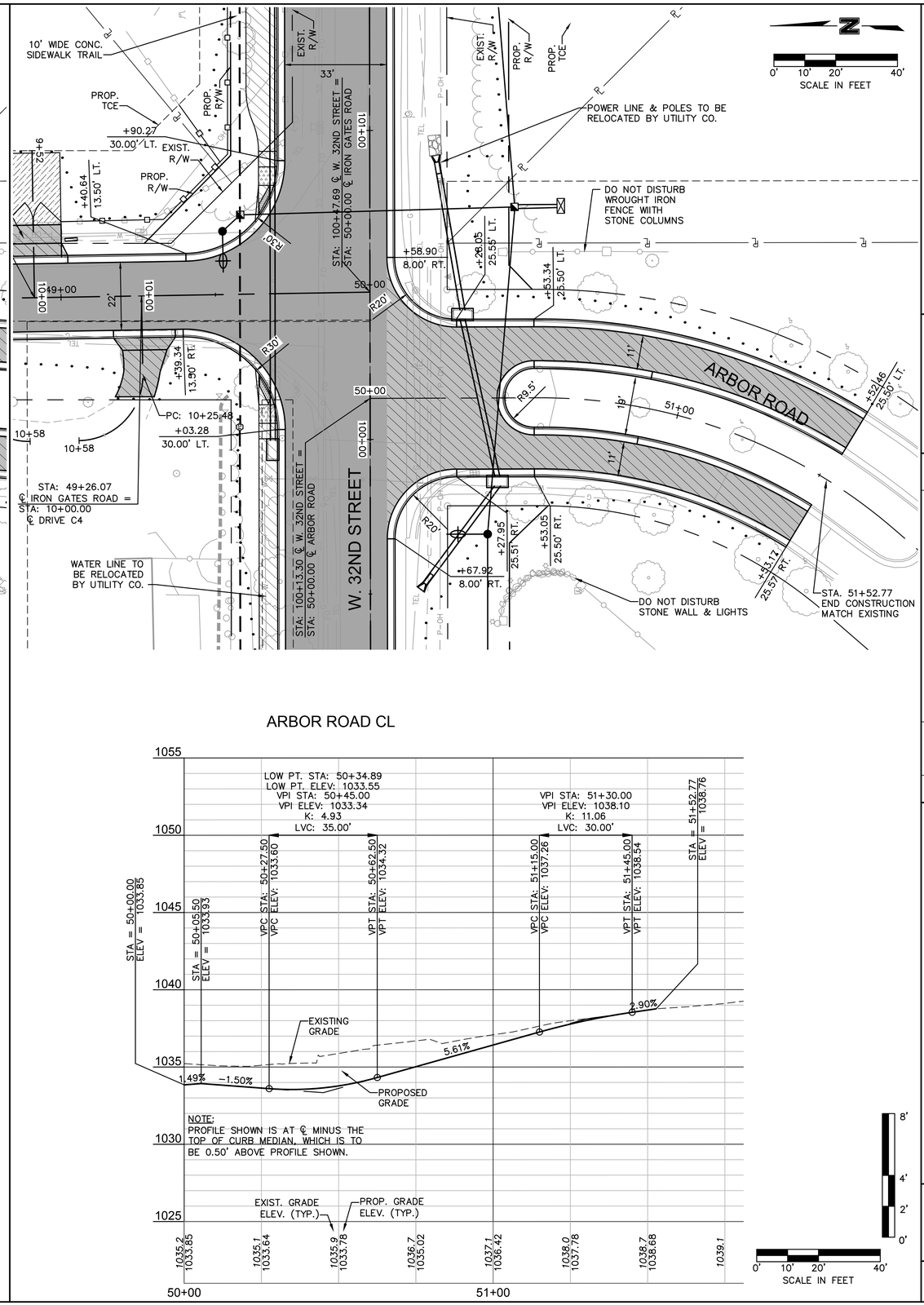
JOPLIN, MISSOURI

2021

drawn by: SMK/CTK
checked by: PM/LB/RF
approved by: BMC
QA/QC by: PM/LB/FR
project no.: 015-2768
drawing no.: TSE_T_RPP_52768
date: 04/23/2021

SHEET
C30 of C91





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04/23/2021
NUMBER PE-2015029306
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REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

SIDE STREET PLAN & PROFILE

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by: SMK/CTK
checked by: PM/LB/RF
approved by: BMC
QA/QC by: PM/LB/FR
project no.: 015-2768
drawing no.: TSE_T_RPP2_52768
date: 04/23/2021

SHEET
C31 of C91

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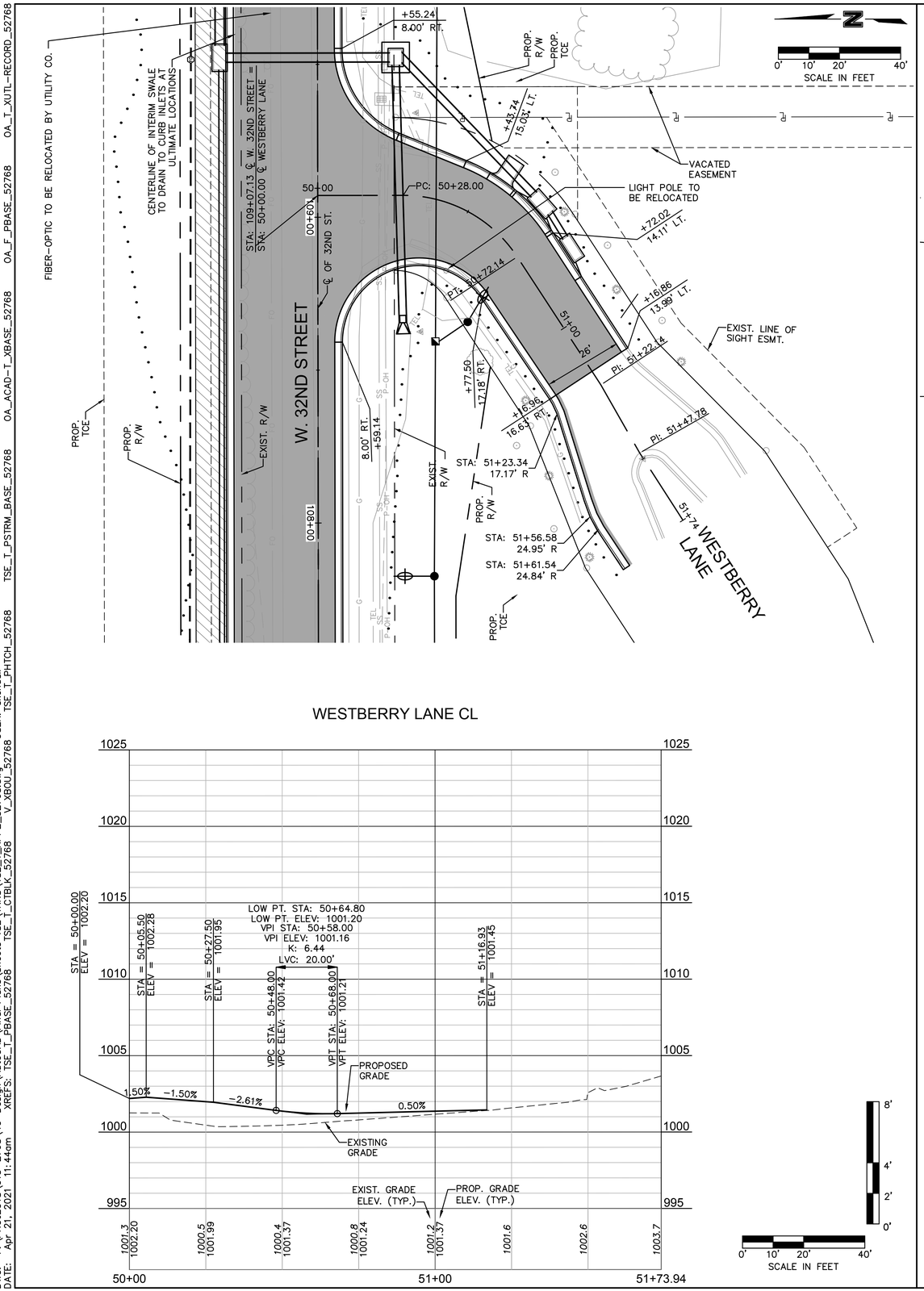

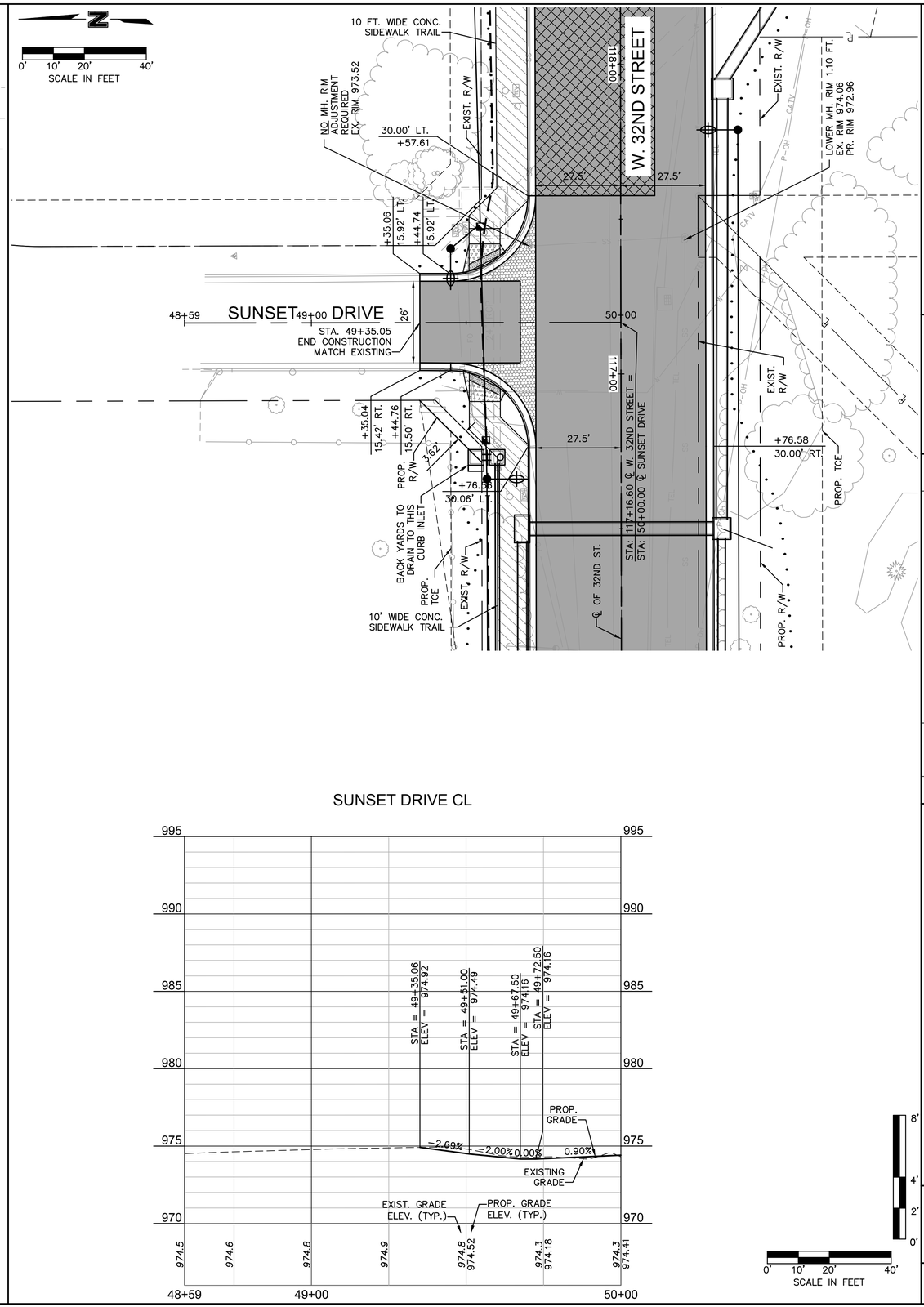

WESTBERRY LANE CL

SUNSET DRIVE CL

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BRIAN COOMES
Brian Coomes
04/23/2021
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REV. NO.	DATE	REVISIONS DESCRIPTION	BY

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SIDE STREET PLAN & PROFILE

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by: SMK/CTK
checked by: PM/LB/RF
approved by: BMC
QA/QC by: PM/LB/FR
project no.: 015-2768
drawing no.: TSE_T_RPP2_52768
date: 04/23/2021

SHEET
C32 of C91

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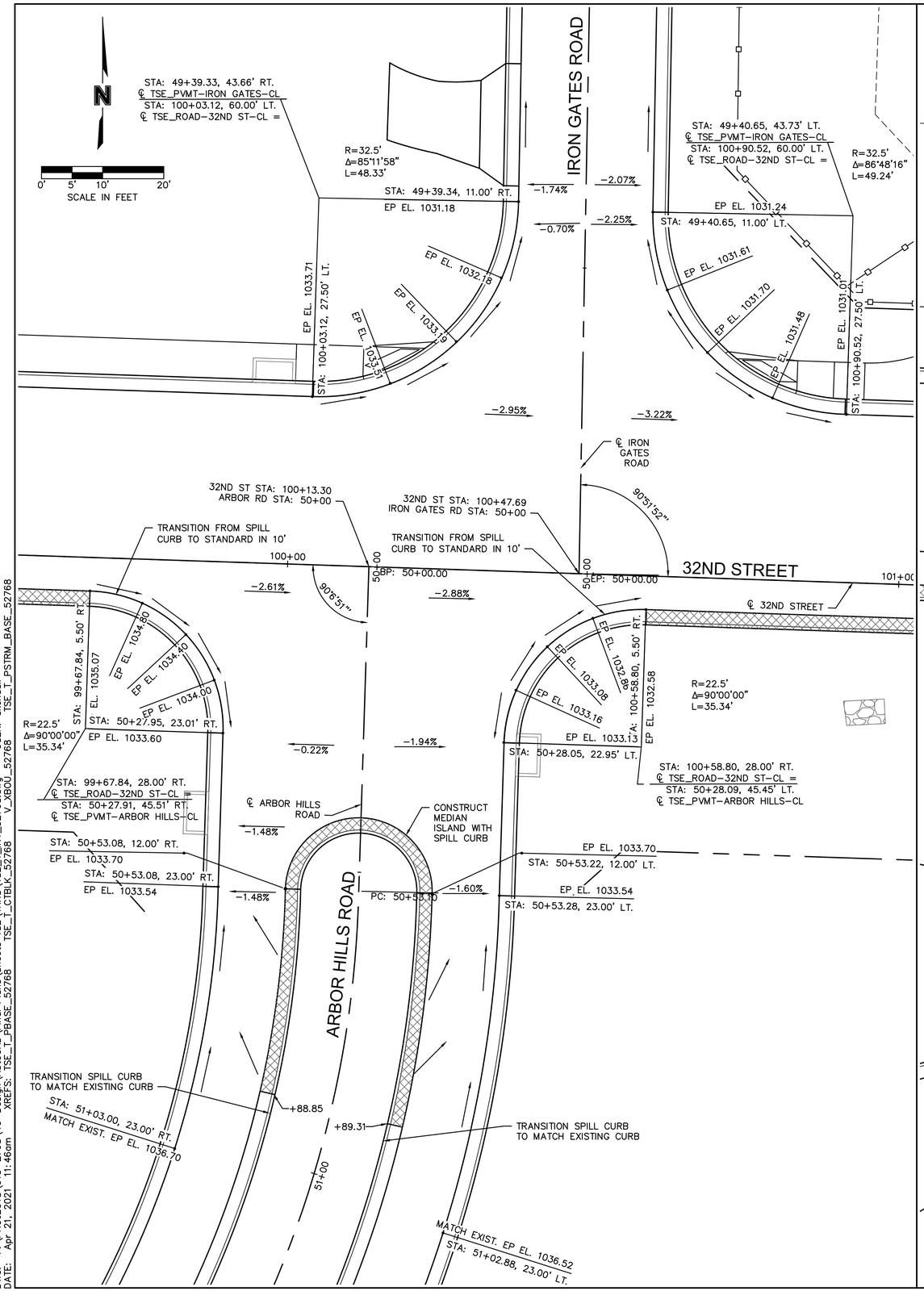

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Brian Coomes
04/23/2021
NUMBER PE-2015029306
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

INTERSECTION PLANS

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by: SMK/CTK
checked by: PM/LB/RF
approved by: BMC
QA/QC by: PM/LB/FR
project no.: 015-2768
drawing no.: TSE_T_INT_52768
date: 04/23/2021

SHEET
C33 of C91

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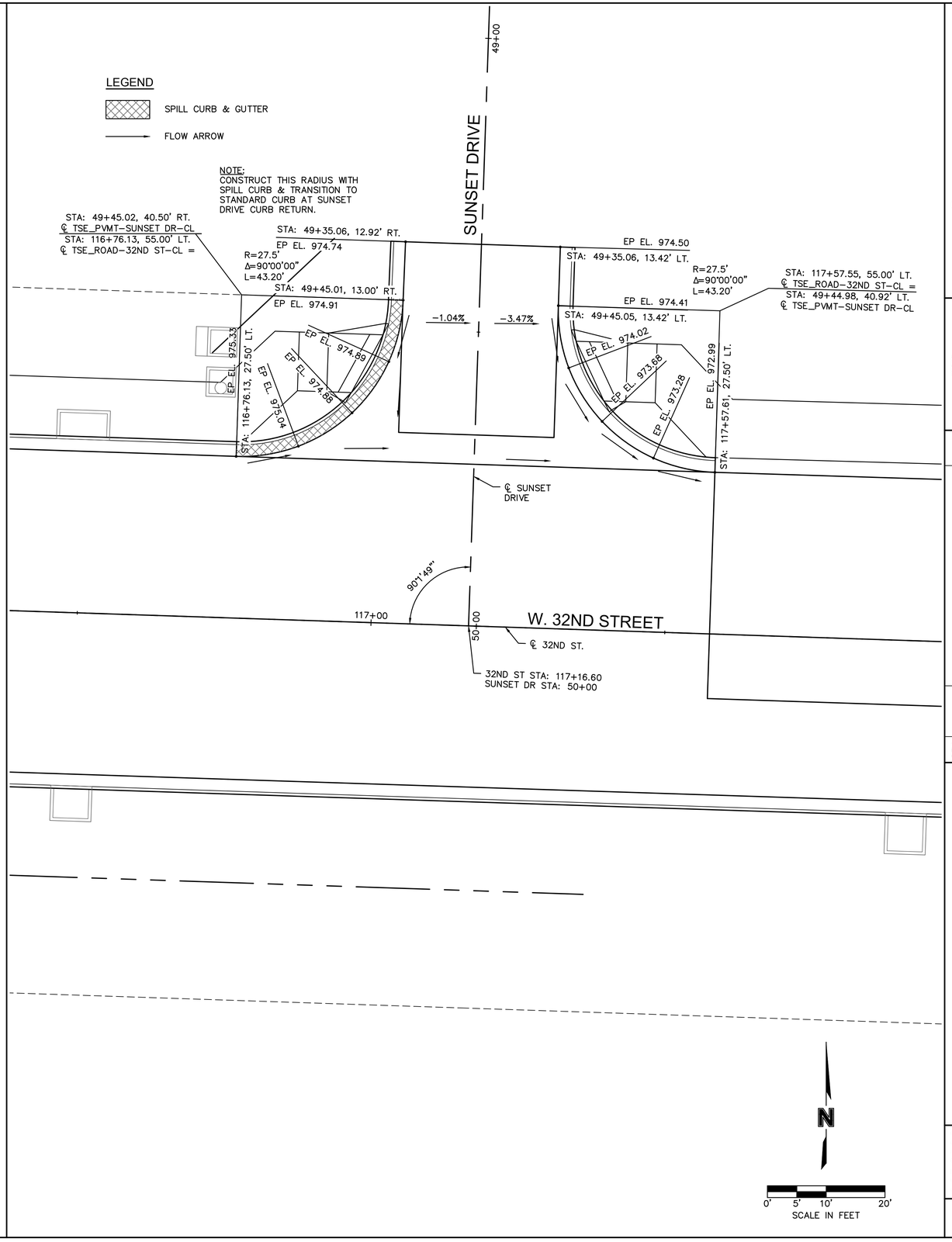

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INTERSECTION PLANS

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

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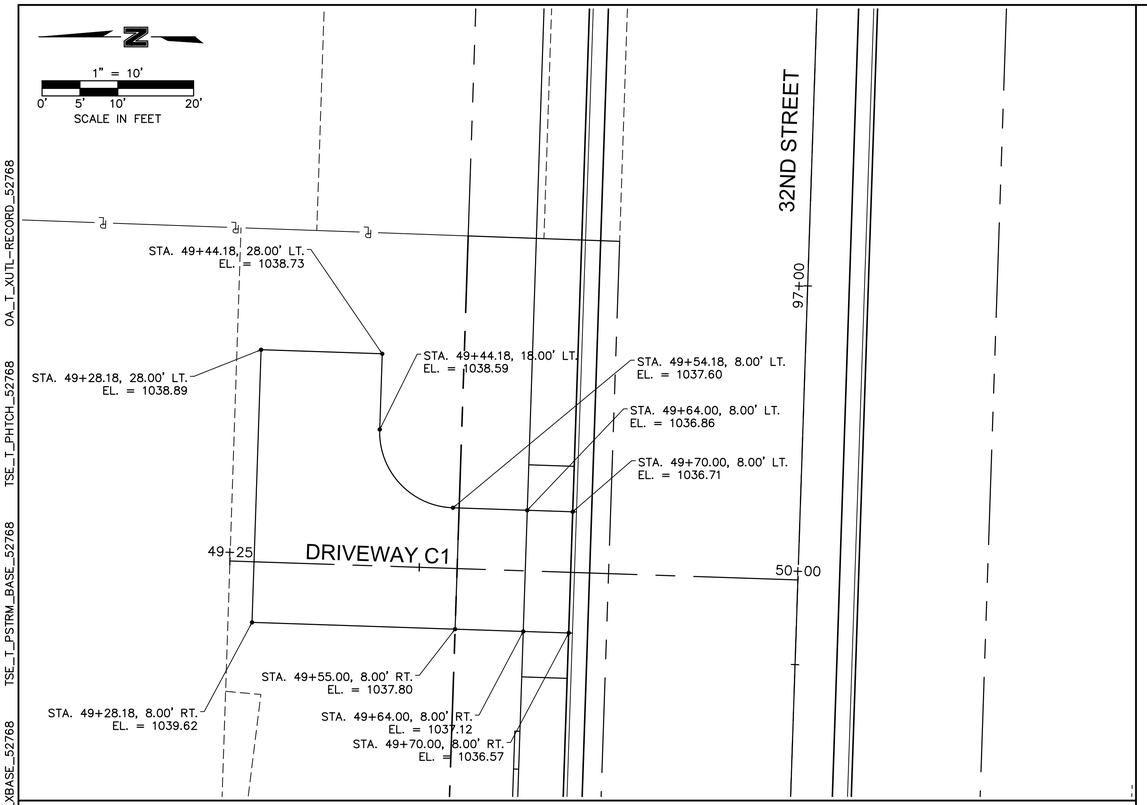
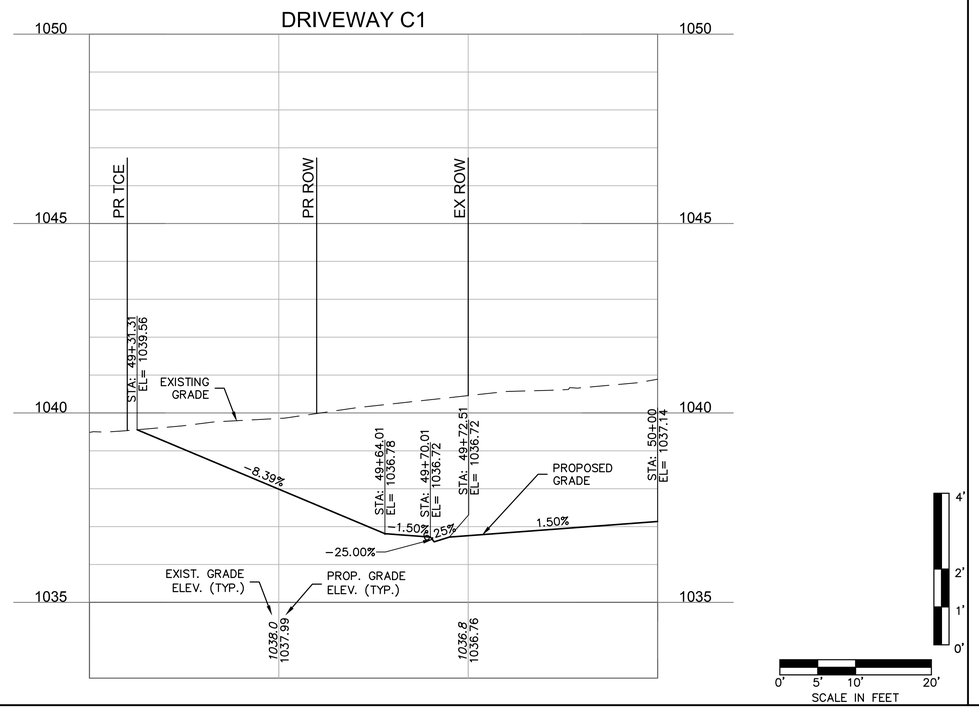
SHEET
C34 of C91





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BRIAN COOMES
Brian Coomes
04/23/2021
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PROFESSIONAL ENGINEER

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DRIVEWAY PLAN & PROFILE

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by: SMK/CTK
checked by: PM/LB/RF
approved by: BMC
QA/QC by: PM/LB/FR
project no.: 015-2768
drawing no.: TSE_T_DRV_52768
date: 04/23/2021

SHEET
C35 of C91

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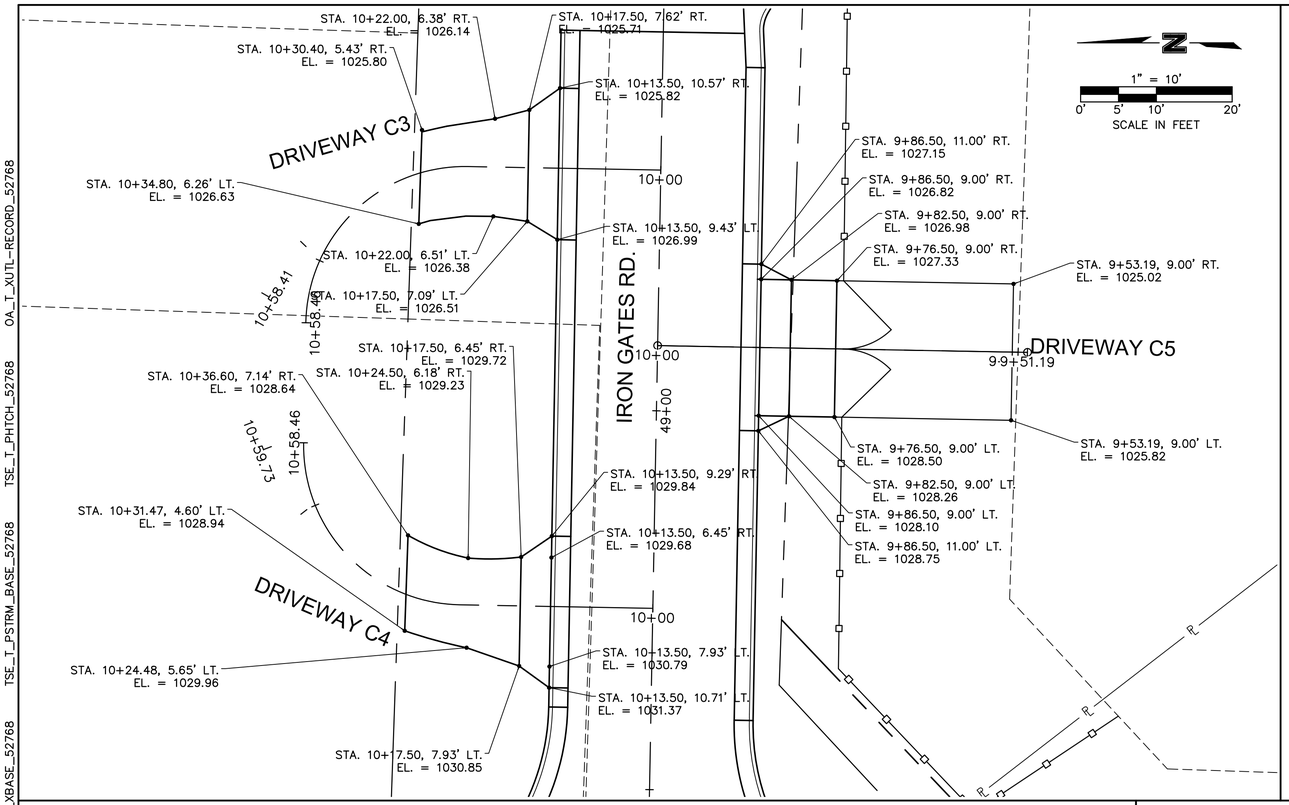

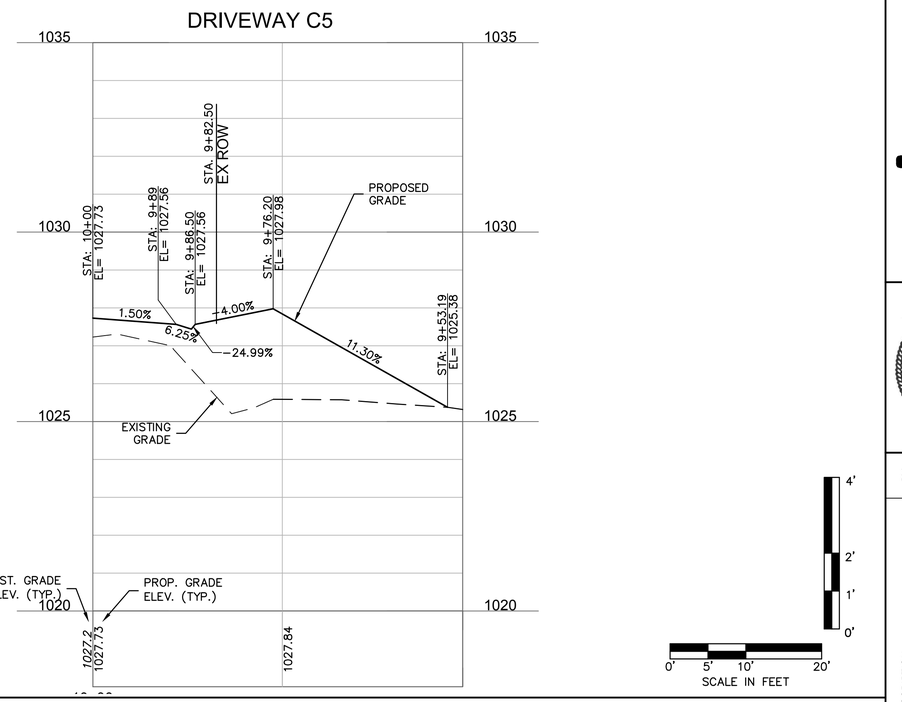

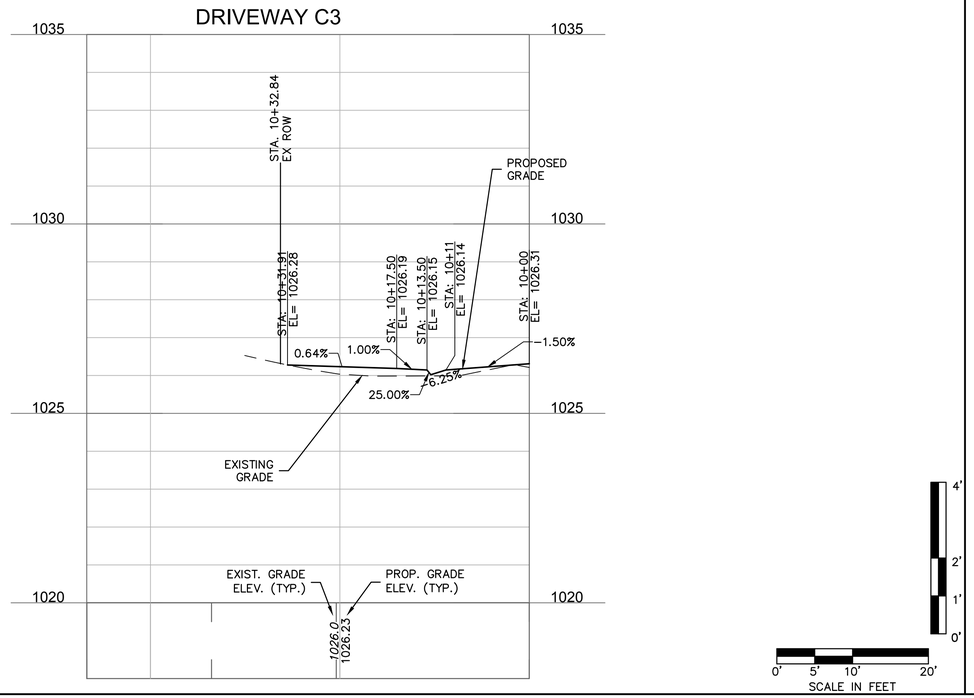

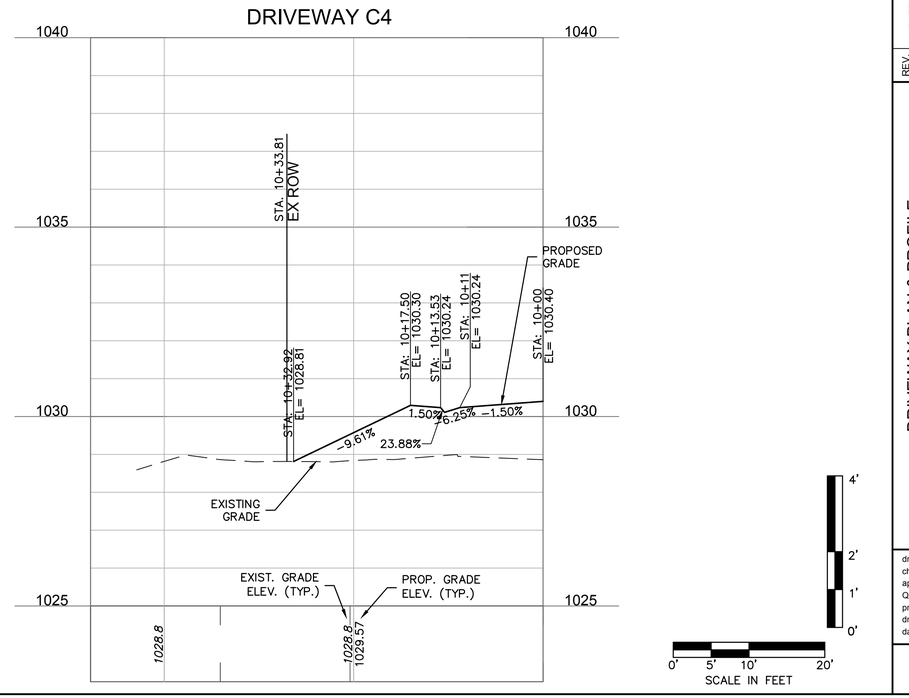

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STATE OF MISSOURI
BRIAN COOMES
Brian Coomes
04/23/2021
NUMBER PE-2015029306
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

DRIVEWAY PLAN & PROFILE

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by: SMK/CTK
checked by: PM/LB/RF
approved by: BMC
QA/QC by: PM/LB/FR
project no.: 015-2768
drawing no.: TSE_T_DRV_52768
date: 04/23/2021

SHEET
C36 of C91

DWG: F:\PROJECTS\015-2768\40-Design\AutoCAD\Final Plans\Sheets TSE\TRNS\TSE_T_DRV_52768.dwg USER: skendall
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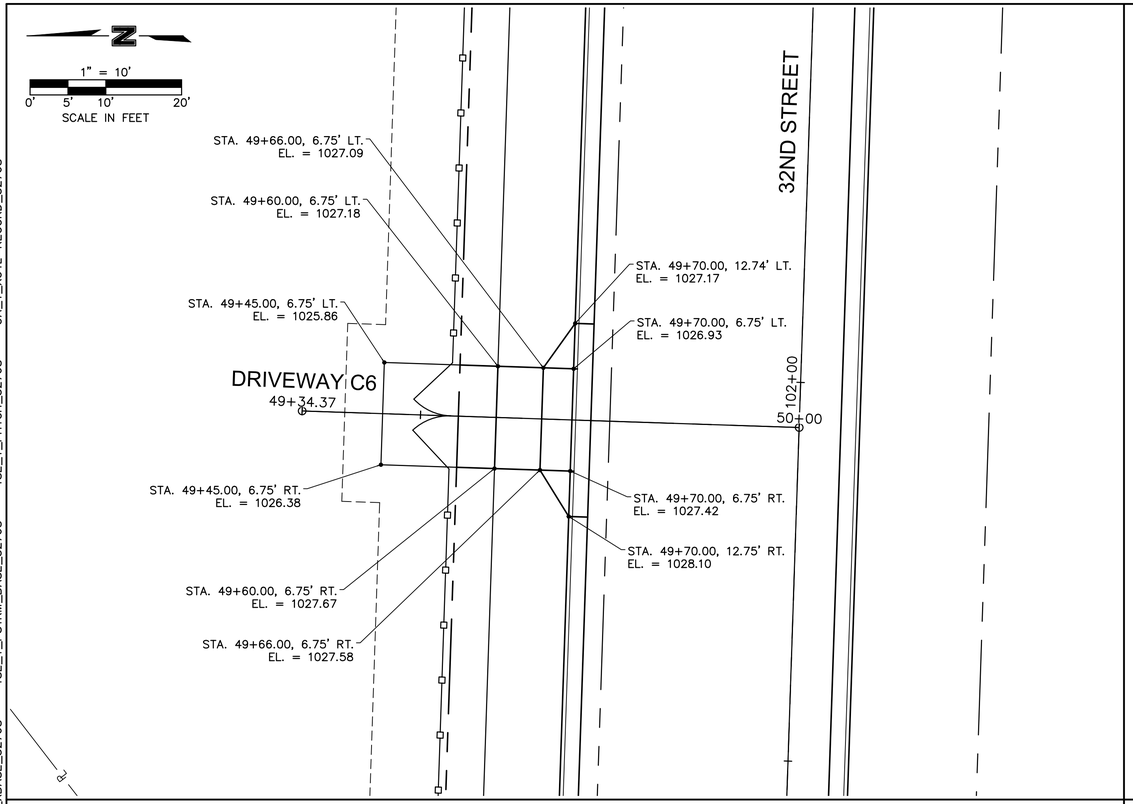

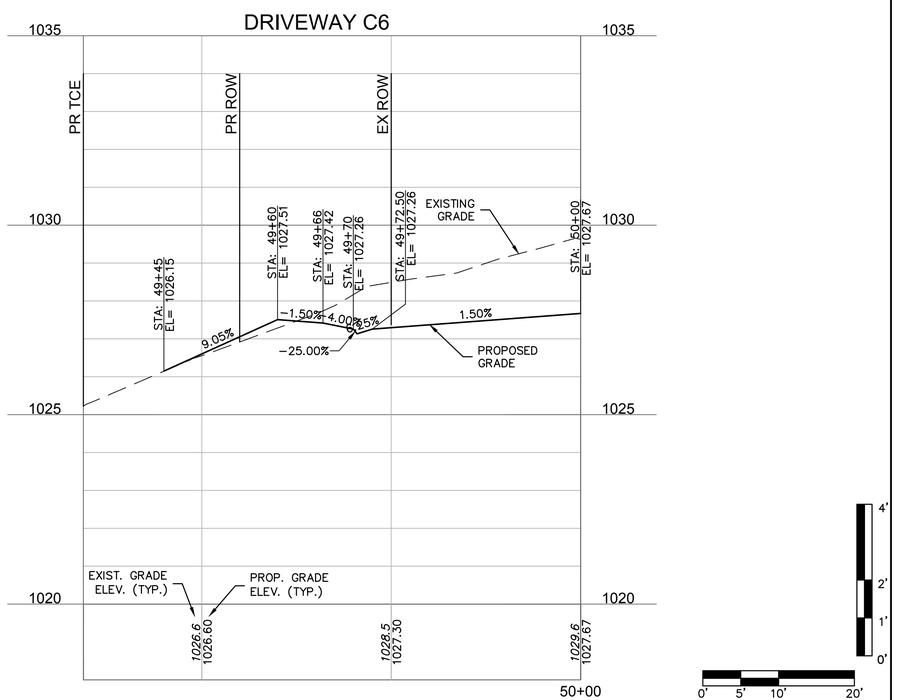

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STATE OF MISSOURI
BRIAN COOMES
Brian Coomes
04/23/2021
NUMBER PE-2015029306
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

DRIVEWAY PLAN & PROFILE

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by: SMK/CTK
checked by: PM/LB/RF
approved by: BMC
QA/QC by: PM/LB/FR
project no.: 015-2768
drawing no.: TSE_T_DRV_52768
date: 04/23/2021

SHEET
C37 of C91

DWG: F:\PROJECTS\015-2768\40-Design\AutoCAD\Final Plans\Sheets TSE\TRNS\TSE_T_DRV_52768.dwg USER: skendall
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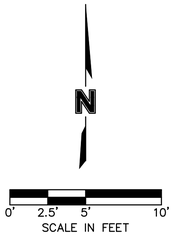

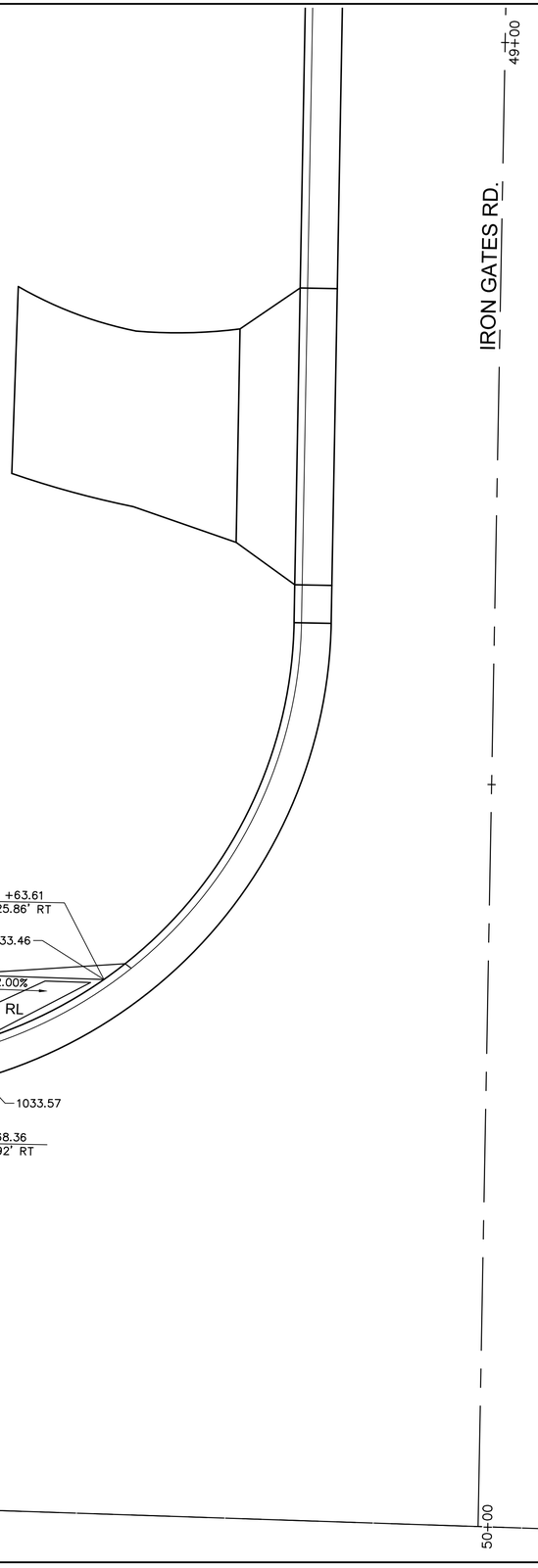

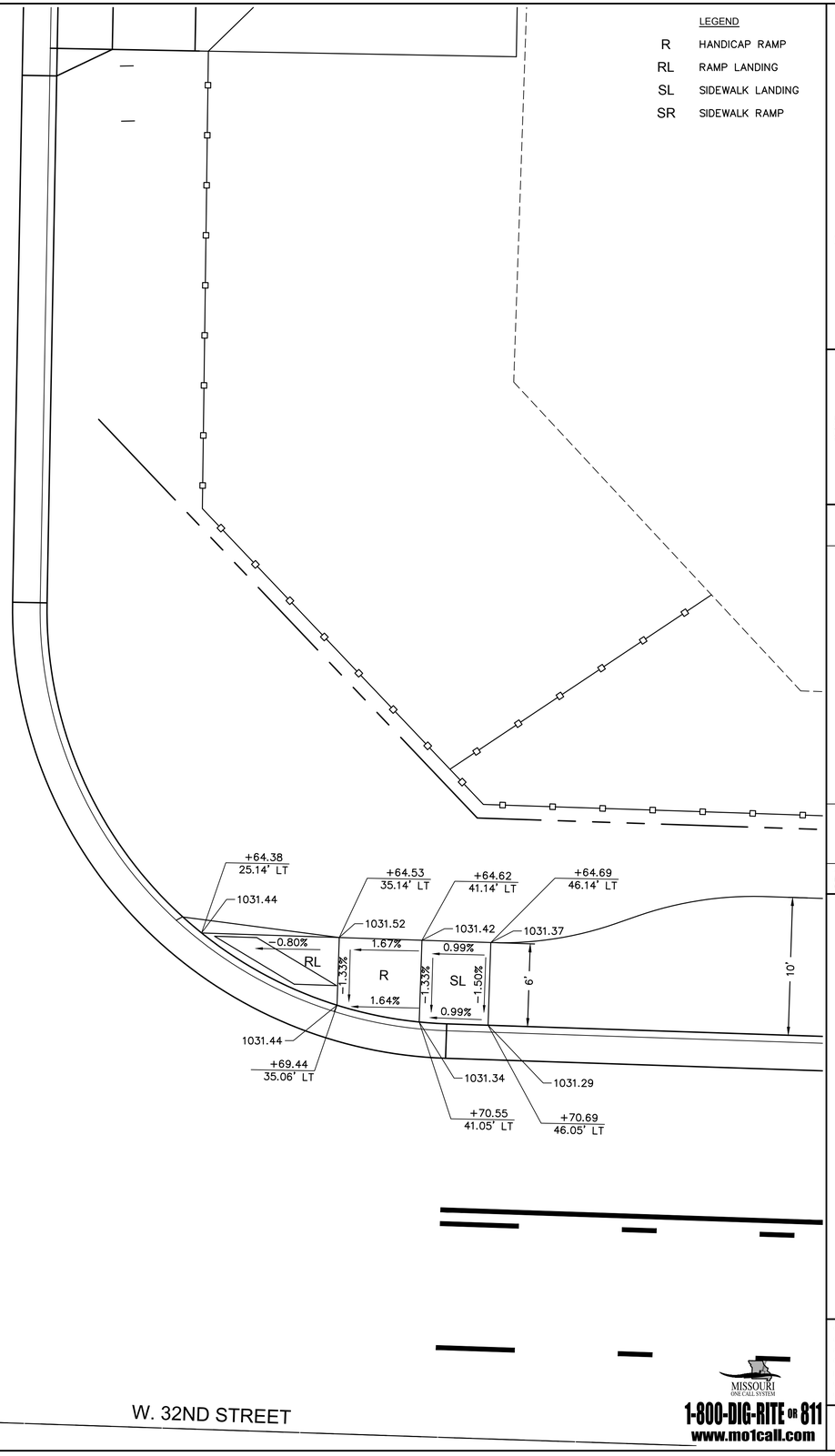

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Brian Coomes
04/23/2021
NUMBER PE-2015029306
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

SIDEWAK RAMP LAYOUTS

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by: SMK/CTK
checked by: PM/LB/RF
approved by: BMC
QA/QC by: PM/LB/FR
project no.: 015-2768
drawing no.: TSE_T_SWK_52768
date: 04/23/2021

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SHEET
C38 of C91

DWG: F:\PROJECTS\015-2768\40-Design\AutoCAD\Final Plans\Sheets TSE\TRNS\TSE_T_SWK_52768.dwg USER: skendall
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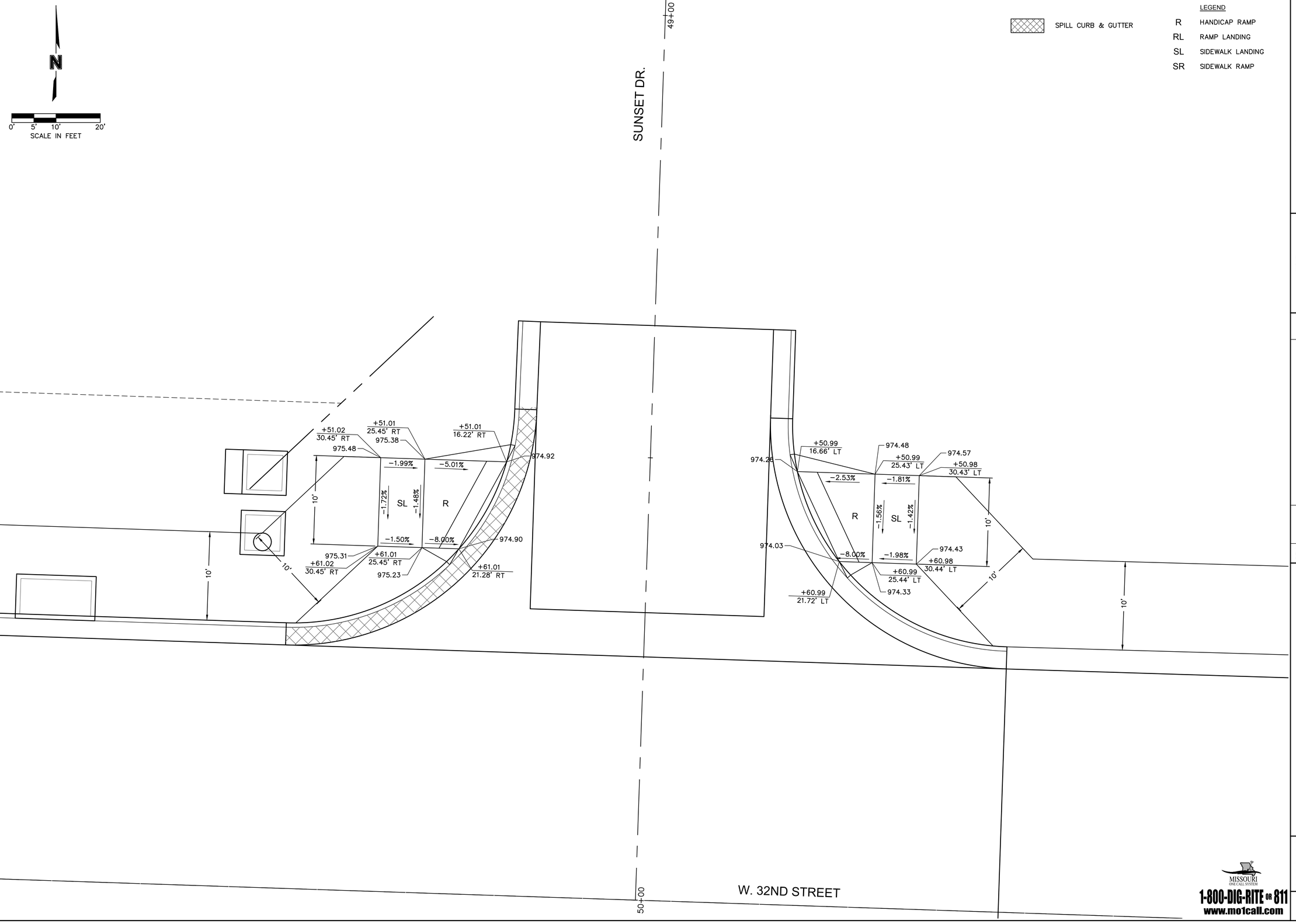

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OA_ACAD-T_XBASE_52768 MO One Call OA_ACAD-T_XBASE_52768

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STATE OF MISSOURI
BRIAN COOMES
Brian Coomes
04/23/2021
NUMBER PE-2015029306
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY
		REVISIONS	

SIDEWALK RAMP LAYOUTS

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by: SMK/CAB
checked by: PM/LEM/BMC
approved by: BMC
QA/QC by: PM/LEM/BMC
project no.: 015-2768
drawing no.: TSEETPSWKS52768
date: 04/23/2021

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SHEET
C39 of C91

DWG: F:\PROJECTS\015-2768\40-Design\AutoCAD\Final Plans\Sheets TSE\TRNS\TSE_T_DRN_52768.dwg USER: skendall
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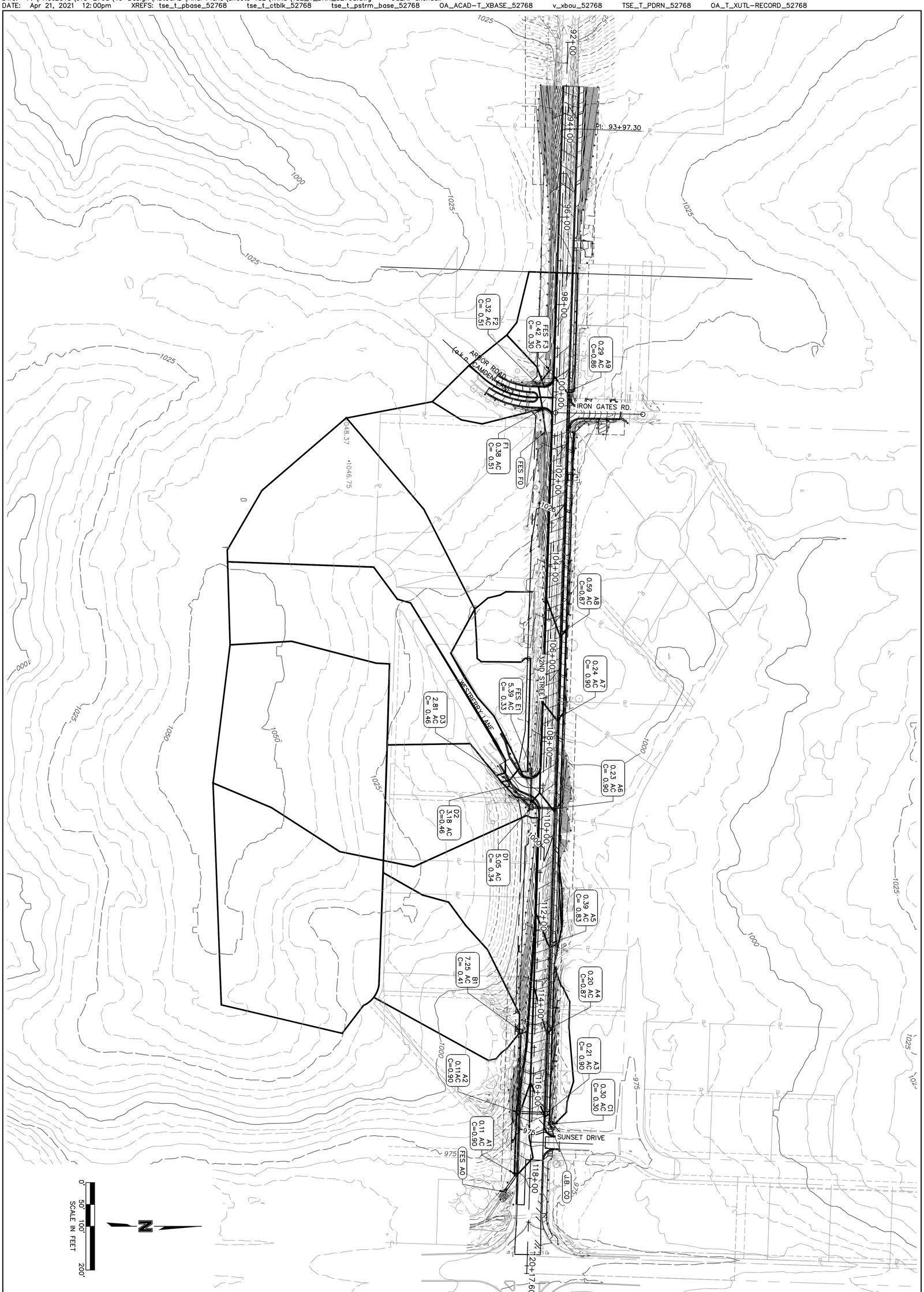

SHEET C40 of C91

drawn by:	SMK/CTK
checked by:	PML/BJF
approved by:	PML/BJF
QC/QA by:	BMC
project no.:	015-2768
drawing no.:	TSE_T_DRN_52768
date:	04/23/2021

DRAINAGE AREA MAP

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI 2021

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

STATE OF MISSOURI * BRIAN COOMES * NUMBER PE-2010029396 * PROFESSIONAL ENGINEER

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10 YEAR STORM STRUCTURE DESIGN

Label	Inlet	Inlet Location	Elevation (Rim) (ft)	Elevation (Invert) (ft)	Inlet C	Inlet Drainage Area (acres)	Total Inlet Tc (min)	Local Intensity (in/h)	System Intensity (in/h)	Curb Opening Length (ft)	Flow (Captured) (cfs)	Flow (Total Bypassed) (cfs)	Capture Efficiency (Calculated) (%)	Bypass Target	Longitudinal Slope (Inlet) (%)	Road Cross Slope (%)	Spread / Top Width (ft)	Depth (Gutter) (in)	Notes
A1	TYPE C NON-SETBACK 8FT	On Grade	972.25	965.88	0.90	0.11	5.00	7.25	5.34	6.00	0.74	0.07	91.40	(N/A)	1.81	1.50	6.60	1.20	
A2	TYPE C NON-SETBACK	On Grade	976.75	967.50	0.90	0.11	5.00	7.25	5.38	6.00	0.63	0.09	87.50	A1	3.44	1.50	5.60	1.00	
A3	TYPE C NON-SETBACK	On Grade	976.58	968.34	0.90	0.21	5.00	7.25	5.40	8.00	1.70	0.91	65.20	EX1	3.44	1.50	9.10	1.60	
A4	TYPE C NON-SETBACK	On Grade	984.50	978.80	0.87	0.20	5.00	7.25	5.44	8.00	1.70	1.22	58.10	A3	4.93	1.50	8.80	1.60	
A5	TYPE C NON-SETBACK	On Grade	993.89	988.39	0.83	0.39	5.00	7.25	5.47	8.00	1.98	1.65	54.60	A4	3.99	1.50	10.00	1.80	
A6	TYPE C NON-SETBACK	On Grade	1001.34	994.20	0.90	0.23	5.00	7.25	5.54	8.00	2.30	1.26	64.70	A5	1.61	1.50	11.70	2.10	
A7	TYPE C NON-SETBACK	On Grade	1006.39	1002.39	0.90	0.24	5.00	7.25	6.79	8.00	2.23	2.04	52.20	A6	3.31	1.50	11.00	2.00	
A8	TYPE C NON-SETBACK	On Grade	1013.79	1009.29	0.87	0.59	5.00	7.25	6.89	6.00	1.70	2.70	38.70	A7	4.00	1.50	10.70	1.90	
A9	TYPE C NON-SETBACK	On Grade	1034.25	1030.25	0.86	0.29	5.00	7.25	7.25	6.00	1.17	0.65	64.30	A8	2.58	1.50	8.40	1.50	
B1	AREA INLET	In Sag	984.50	979.50	0.41	7.25	10.50	5.96	5.96	12.80	17.94	0.00	100.00	(N/A)	(N/A)	1.50	(N/A)	(N/A)	
C1	AREA INLET	In Sag	976.00	971.07	0.30	0.30	5.00	7.25	7.25	4.00	0.66	0.00	100.00	(N/A)	(N/A)	1.50	(N/A)	(N/A)	
D1	AREA INLET	In Sag	999.58	995.28	0.34	5.05	10.50	5.96	5.56	12.80	10.32	0.00	100.00	(N/A)	(N/A)	1.50	(N/A)	(N/A)	
D2	TYPE D INLET	In Sag	1001.20	996.60	0.46	3.18	10.72	5.92	5.91	6.40	10.04	0.00	100.00	(N/A)	(N/A)	3.00	18.10	6.50	
D3	TYPE D INLET	On Grade	1001.28	997.28	0.46	2.81	10.72	5.92	5.92	8.00	6.39	1.32	82.90	D2	0.60	3.00	12.30	4.40	
E1	FES	In Sag	1003.00	999.23	0.33	5.39	12.48	5.58	5.58	2.50	10.04	0.00	100.00	(N/A)	(N/A)	1.50	(N/A)	(N/A)	
F1	TYPE C NON-SETBACK	On Grade	1033.50	1029.53	0.51	0.38	5.00	7.25	7.17	6.00	0.95	0.47	66.80	(N/A)	3.86	1.50	7.10	1.30	
F2	TYPE C NON-SETBACK	In Sag	1033.61	1030.00	0.51	0.32	5.00	7.25	7.23	4.80	1.19	0.00	100.00	(N/A)	(N/A)	1.50	10.40	1.90	
F3	FES	In Sag	1037.00	1034.31	0.30	0.42	5.00	7.25	7.25	2.00	0.92	0.00	100.00	(N/A)	(N/A)	1.50	(N/A)	(N/A)	

10 YEAR STORM PIPE DESIGN

Label	Upstream Structure	Downstream Structure	Upstream Inlet Area (acres)	Upstream Inlet C	Upstream Inlet Tc (min)	System CA (acres)	Time (Pipe Flow) (min)	System Flow Time (min)	System Rational Flow (cfs)	Invert (Start) (ft)	Invert (Stop) (ft)	Slope (Calculated) (%)	Material	Diameter (in)	Length (Scaled) (ft)	Flow (cfs)	Velocity (ft/s)	Capacity (Full Flow) (cfs)	Flow / Capacity (Design) (%)	Hydraulic Grade Line (In) (ft)	Hydraulic Grade Line (Out) (ft)	Notes
A1	A1	A0	0.11	0.90	5.00	11.18	0.07	13.89	60.17	965.88	965.43	0.96	Concrete	42.0	46.90	60.17	10.75	98.51	61.10	968.31	968.40	
A2	A2	A1	0.11	0.90	5.00	11.08	0.22	13.67	60.05	967.50	966.08	1.00	Concrete	36.0	142.00	60.05	10.68	66.69	90.00	970.00	968.31	
A3	A3	A2	0.21	0.90	5.00	8.01	0.12	13.51	43.61	968.34	967.70	0.99	Concrete	22"X36"	64.50	43.61	6.84	55.23	79.00	970.83	970.43	
A4	A4	A3	0.20	0.87	5.00	7.78	0.20	13.31	42.61	978.80	971.65	3.71	Concrete	30.0	193.00	42.61	16.39	78.94	54.00	980.98	972.96	
A5	A5	A4	0.39	0.83	5.00	7.54	0.18	13.13	41.57	988.39	979.00	4.77	Concrete	30.0	197.00	41.57	17.90	89.55	46.40	990.55	980.20	
A6	A6	A5	0.23	0.90	5.00	7.27	0.42	12.71	40.60	994.20	988.59	1.82	Concrete	30.0	307.80	40.60	12.32	55.38	73.30	996.34	990.18	
A7	A7	A6	0.24	0.90	5.00	0.70	0.39	6.87	4.78	1002.39	995.95	3.09	Concrete	15.0	208.30	4.78	8.85	11.36	42.10	1003.28	996.52	
A8	A8	A7	0.59	0.87	5.00	0.39	0.42	6.45	2.73	1009.29	1002.89	3.30	Concrete	15.0	193.90	2.73	7.79	11.74	23.30	1009.95	1003.30	
A9	A9	A8	0.29	0.86	5.00	0.16	1.45	5.00	1.17	1030.25	1009.79	3.70	Concrete	15.0	553.20	1.17	6.36	12.42	9.40	1030.68	1010.05	
B1	B1	A2	7.25	0.41	10.50	2.99	0.22	10.50	17.94	979.50	971.50	4.30	Concrete	24.0	185.90	17.94	13.93	46.93	38.20	981.03	972.36	
C1	C1	C0	0.30	0.30	5.00	0.09	0.04	5.00	0.66	971.07	971.03	0.59	Concrete	15.0	6.80	0.66	2.80	4.94	13.30	971.39	971.34	
D1	D1	A6	5.05	0.34	10.50	6.26	0.10	12.61	35.05	995.28	994.70	1.01	Concrete	30.0	57.60	35.05	9.42	41.17	85.10	997.29	996.50	
D2	D2	D1	3.18	0.46	10.72	2.76	0.13	10.77	16.41	996.60	995.78	1.21	Concrete	24.0	67.70	16.41	8.46	24.90	65.90	998.06	997.50	
D3	D3	D2	2.81	0.46	10.72	1.07	0.05	10.72	6.39	997.28	997.10	1.03	Concrete	18.0	17.50	6.39	6.30	10.66	59.90	998.39	998.41	
E1	E1	D1	5.39	0.33	12.48	1.79	0.13	12.48	10.04	999.23	995.78	3.82	Concrete	24.0	90.40	10.04	11.38	44.19	22.70	1000.36	997.50	
F1	F1	F0	0.38	0.51	5.00	0.42	0.21	5.34	3.03	1029.53	1029.25	0.54	Concrete	15.0	52.30	3.03	4.09	4.73	64.00	1030.26	1029.95	
F2	F2	F1	0.32	0.51	5.00	0.29	0.25	5.09	2.11	1030.00	1029.73	0.49	Concrete	15.0	55.10	2.11	3.62	4.52	46.60	1030.62	1030.55	
F3	F3	F2	0.42	0.30	5.00	0.13	0.09	5.00	0.92	1034.31	1030.20	9.59	Concrete	15.0	42.90	0.92	8.29	20.00	4.60	1034.69	1030.66	

100 YEAR STORM STRUCTURE DESIGN

Label	Inlet	Inlet Location	Elevation (Rim) (ft)	Elevation (Invert) (ft)	Inlet C	Inlet Drainage Area (acres)	Total Inlet Tc (min)	Local Intensity (in/h)	System Intensity (in/h)	Curb Opening Length (ft)	Flow (Captured) (cfs)	Flow (Total Bypassed) (cfs)	Capture Efficiency (Calculated) (%)	Bypass Target	Longitudinal Slope (Inlet) (%)	Road Cross Slope (%)	Spread / Top Width (ft)	Depth (Gutter) (in)	Notes
A1	TYPE C NON-SETBACK 8FT	On Grade	972.25	965.88	0.90	0.11	5.00	12.75	9.45	6.00	1.17	0.47	71.40	(N/A)	1.81	1.50	8.60	1.50	
A2	TYPE C NON-SETBACK	On Grade	976.75	967.50	0.90	0.11	5.00	12.75	9.49	6.00	0.91	0.37	71.20	A1	3.44	1.50	6.90	1.20	
A3	TYPE C NON-SETBACK	On Grade	976.58	968.34	0.90	0.21	5.00	12.75	9.52	8.00	2.95	4.60	39.10	EX1	3.44	1.50	13.50	2.40	
A4	TYPE C NON-SETBACK	On Grade	984.50	978.80	0.87	0.20	5.00	12.75	9.58	8.00	2.81	5.12	35.40	A3	4.93	1.50	12.90	2.30	
A5	TYPE C NON-SETBACK	On Grade	993.89	988.39	0.83	0.39	5.00	12.75	9.63	8.00	3.08	5.70	35.10	A4	3.99	1.50	13.90	2.50	
A6	TYPE C NON-SETBACK	On Grade	1,001.34	994.20	0.90	0.23	5.00	12.75	9.75	8.00	3.56	4.62	43.50	A5	1.61	1.50	16.10	2.90	
A7	TYPE C NON-SETBACK	On Grade	1,006.39	1,002.39	0.90	0.24	5.00	12.75	11.97	8.00	3.18	5.52	36.60	A6	3.31	1.50	14.40	2.60	
A8	TYPE C NON-SETBACK	On Grade	1,013.79	1,009.29	0.87	0.59	5.00	12.75	12.14	6.00	2.29	5.93	27.90	A7	4.00	1.50	13.60	2.40	
A9	TYPE C NON-SETBACK	On Grade	1,034.25	1,030.25	0.86	0.29	5.00	12.75	12.75	6.00	1.58	1.62	49.40	A8	2.58	1.50	10.30	1.90	
B1	AREA INLET	In Sag	984.50	979.50	0.41	7.25	10.50	10.48	10.48	12.80	31.54	0.00	100.00	(N/A)	(N/A)	1.50	(N/A)	(N/A)	
C1	AREA INLET	In Sag	976.00	971.07	0.30	0.30	5.00	12.75	12.75	4.00	1.16	0.00	100.00	(N/A)	(N/A)	1.50	(N/A)	(N/A)	
D1	AREA INLET	In Sag	999.58	995.28	0.34	5.05	10.50	10.48	9.77	12.80	18.14	0.00	100.00	(N/A)	(N/A)	1.50	(N/A)	(N/A)	
D2	TYPE D INLET	In Sag	1,001.20	996.60	0.46	3.18	10.72	10.40	10.38	6.40	19.91	0.00	100.00	(N/A)	(N/A)	3.00	28.60	10.30	
D3	TYPE D INLET	On Grade	1,001.28	997.28	0.46	2.81	10.72	10.40	10.40	8.00	8.98	4.57	66.30	D2	0.60	3.00	15.10	5.40	
E1	FES	In Sag	1003.00	999.23	0.33	5.39	12.48	9.81	9.81	2.50	17.66	0.00	100.00	(N/A)	(N/A)	1.50	(N/A)	(N/A)	
F1	TYPE C NON-SETBACK	On Grade	1033.50	1,029.53	0.51	0.38	5.00	12.75	12.61	6.00	1.29	1.20	51.70	(N/A)	3.86	1.50	8.70	1.60	
F2	TYPE C NON-SETBACK	In Sag	1,033.61	1,030.00	0.51	0.32	5.00	12.75	12.72	4.80	2.10	0.00	100.00	(N/A)	(N/A)	1.50	15.20	2.70	
F3	FES	In Sag	1,037.00	1,034.31	0.3	0.42	5.00	12.75	12.75	2.00	1.62	0.00	100.0	(N/A)	(N/A)	1.50	(N/A)	(N/A)	

100 YEAR STORM PIPE DESIGN

Label	Upstream Structure	Downstream Structure	Upstream Inlet Area (acres)	Upstream Inlet C	Upstream Inlet Tc (min)	System CA (acres)	Time (Pipe Flow) (min)	System Flow Time (min)	System Rational Flow (cfs)	Invert (Start) (ft)	Invert (Stop) (ft)	Slope (Calculated) (%)	Material	Diameter (in)	Length (Scaled) (ft)	Flow (cfs)	Velocity (ft/s)	Capacity (Full Flow) (cfs)	Flow / Capacity (Design) (%)	Hydraulic Grade Line (In) (ft)	Hydraulic Grade Line (Out) (ft)	Notes
A1	A1	A0	0.11	0.90	5.00	10.92	0.07	13.66	103.99	965.88	965.43	0.96	Concrete	42.0	46.90	103.99	11.58	98.51	105.60	968.99	968.52	
A2	A2	A1	0.11	0.90	5.00	10.83	0.25	13.50	103.63	967.50	966.08	1.00	Concrete	36.0	142.00	103.63	14.66	66.69	155.40	972.83	969.40	
A3	A3	A2	0.21	0.90	5.00	7.77	0.12	13.41	74.59	968.34	967.70	0.99	Concrete	22"X36"	64.50	74.59	11.70	55.23	135.10	975.00	973.83	
A4	A4	A3	0.20	0.87	5.00	7.54	0.20	13.19	72.86	978.80	971.65	3.71	Concrete	30.0	193.00	72.86	14.84	78.94	92.30	982.16	976.07	
A5	A5	A4	0.39	0.83	5.00	7.33	0.16	13.03	71.09	988.39	979.00	4.77	Concrete	30.0	197.00	71.09	20.24	89.55	79.40	990.83	982.16	
A6	A6	A5	0.23	0.90	5.00	7.09	0.36	12.67	69.60	994.20	988.59	1.82	Concrete	30.0	307.80	69.60	14.18	55.38	125.70	999.93	991.03	
A7	A7	A6	0.24	0.90	5.00	0.55	0.36	6.71	6.63	1002.39	995.95	3.09	Concrete	15.0	208.30	6.63	9.61	11.36	58.40	1003.43	999.93	
A8	A8	A7	0.59	0.87	5.00	0.30	0.38	6.33	3.69	1009.29	1002.89	3.30	Concrete	15.0	193.90	3.69	8.46	11.74	31.40	1010.07	1003.37	
A9	A9	A8	0.29	0.86	5.00	0.12	1.33	5.00	1.58	1030.25	1009.79	3.70	Concrete	15.0	553.20	1.58	6.94	12.42	12.70	1030.75	1010.09	
B1	B1	A2	7.25	0.41	10.50	2.99	0.19	10.50	31.54	979.50	971.50	4.30	Concrete	24.0	185.90	31.54	16.02	46.93	67.20	981.38	973.83	
C1	C1	C0	0.30	0.30	5.00	0.09	0.04	5.00	1.16	971.07	971.03	0.59	Concrete	15.0	6.80	1.16	3.29	4.94	23.40	971.49	971.44	
D1	D1	A6	5.05	0.34	10.50	6.26	0.11	12.59	61.63	995.28	994.70	1.01	Concrete	30.0	57.60	61.63	12.56	41.17	149.70	1001.23	999.93	
D2	D2	D1	3.18	0.46	10.72	2.76	0.14	10.78	28.83	996.60	995.78	1.21	Concrete	24.0	67.70	28.83	9.18	24.90	115.80	1000.68	999.58	
D3	D3	D2	2.81	0.46	10.72	0.86	0.05	10.72	8.98	997.28	997.10	1.03	Concrete	18.0	17.50	8.98	5.08	10.66	84.30	1001.33	1001.20	
E1	E1	D1	5.39	0.33	12.48	1.79	0.11	12.48	17.66	999.23	995.78	3.82	Concrete	24.0	90.40	17.66	13.28	44.19	40.00	1000.74	999.58	
F1	F1	F0	0.38	0.51	5.00	0.39	0.20	5.30	4.95	1029.53	1029.25	0.54	Concrete	15.0	52.30	4.95	4.37	4.73	104.70	1030.58	1030.15	
F2	F2	F1	0.32	0.51	5.00	0.29	0.22	5.07	3.71	1030.00	1029.73	0.49	Concrete	15.0	55.10	3.71	4.11	4.52	82.00	1031.11	1030.97	
F3	F3	F2	0.42	0.30	5.00	0.13	0.07	5.00	1.62	1034.31	1030.20	9.59	Concrete	15.0	42.90	1.62	9.80	20.00	8.10	1034.81	1031.14	

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STATE OF MISSOURI
BRIAN COOMES
Brian Coomes
04/23/2021
NUMBER PE-2015029306
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

DRAINAGE AREA CALCULATIONS

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by: SMK/CTK
checked by: PM/LB/RF
approved by: BMC
QA/QC by: PM/LB/FR
project no.: 015-2768
drawing no.TSE_T_CALCS_52768
date: 04/23/2021

SHEET
C41 of C91

DWG: F:\PROJECTS\015-2768\40-Design\AutoCAD\Final Plans\Sheets TSE\TRNS\TSE_T_CALCS_52768.dwg USER: skendall
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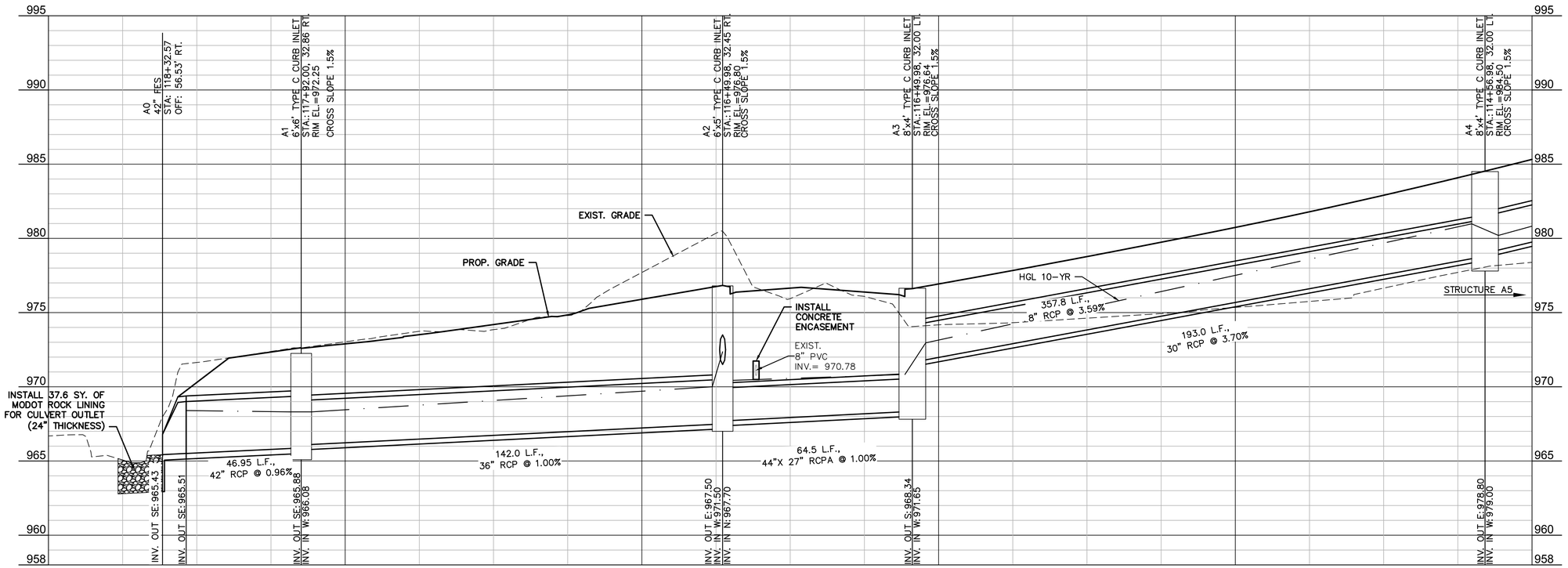
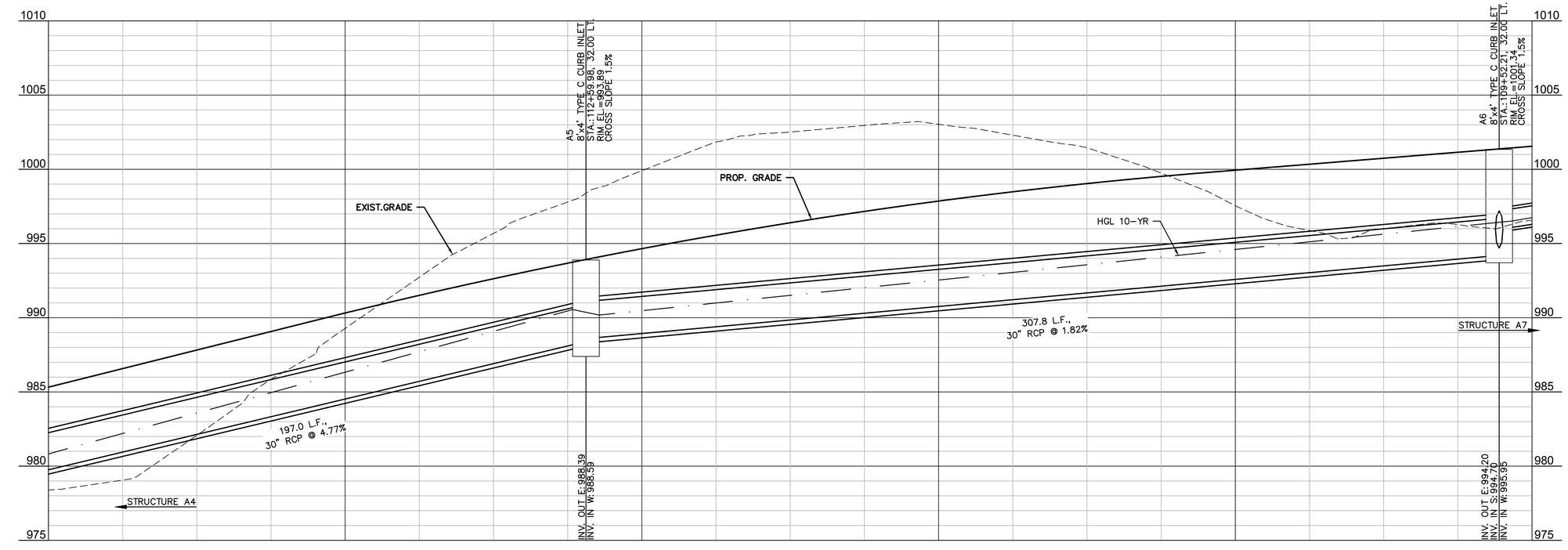
STORM LINE A



STORM LINE A

NOTE:
THE RIM ELEVATION SHOWN FOR ALL CURB INLETS IS THE TOP OF CURB ELEVATION.



0' 10' 20' 40'
SCALE IN FEET

8'
4'
2'
0'

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Brian Coomes
04/23/2021
NUMBER PE-2015029306
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY
		REVISIONS	

STORM SEWER PROFILES

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by: SMK/CTK
checked by: PM/LB/RF
approved by: BMC
QA/QC by: PM/LB/FR
project no.: 015-2768
drawing no: TSE_T_PSTRM_52768
date: 04/23/2021

SHEET
C42 of C91

DWG: F:\PROJECTS\015-2768\40-Design\AutoCAD\Final Plans\Sheets TSE\TRNS\STORM SEWER PROFILES\TSE_T_PSTRM_52768.dwg USER: skendall
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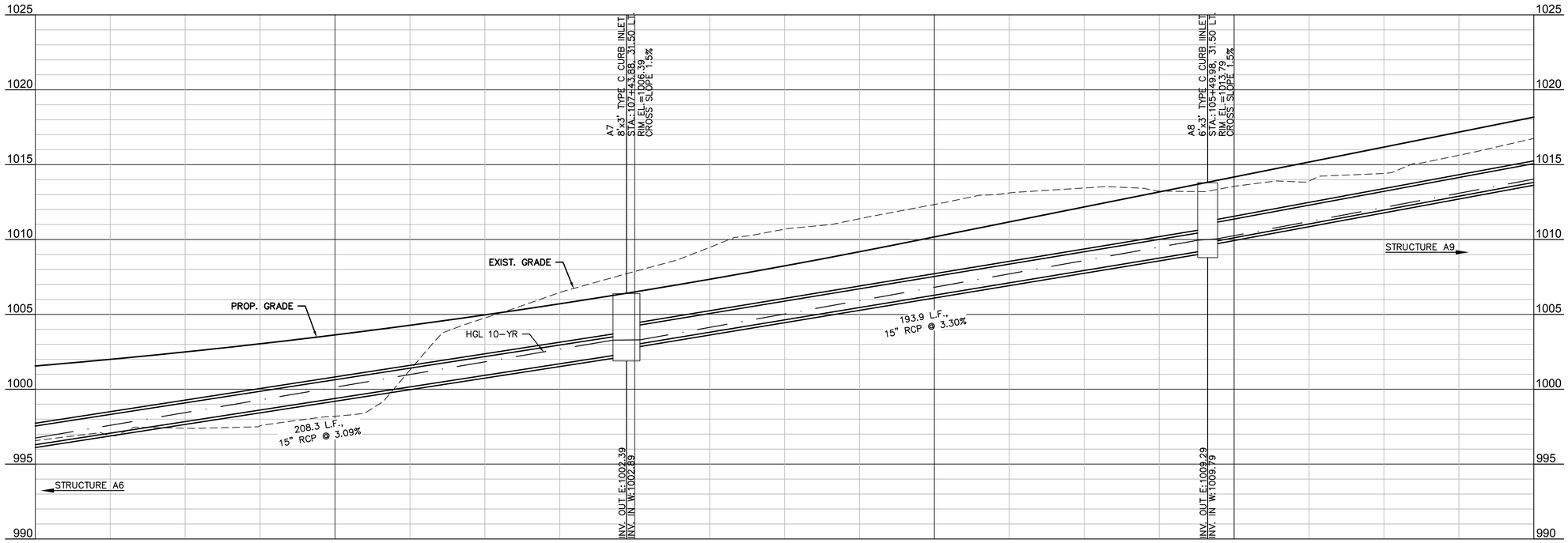
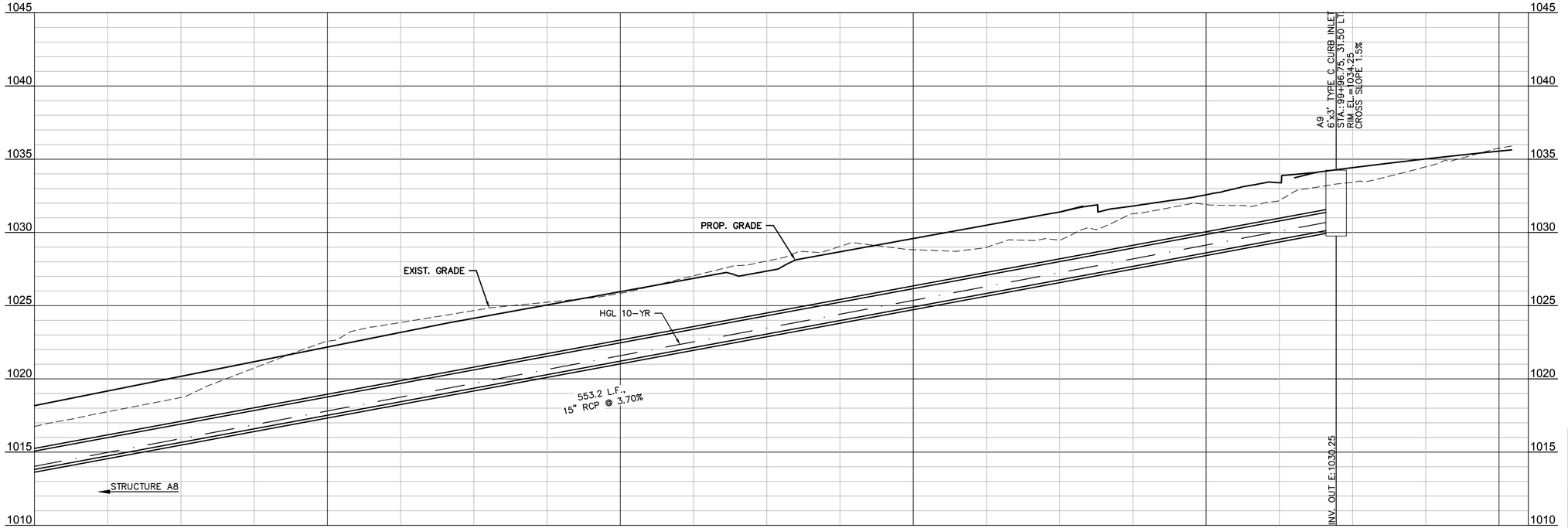
STORM LINE A



STORM LINE A

NOTE:
THE RIM ELEVATION SHOWN FOR ALL CURB INLETS
IS THE TOP OF CURB ELEVATION.



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BRIAN COOMES
Brian Coomes
04/23/2021
NUMBER PE-2015029306
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		REVISIONS	

STORM SEWER PROFILES

32ND STREET WIDENING
CITY OF JOPLIN

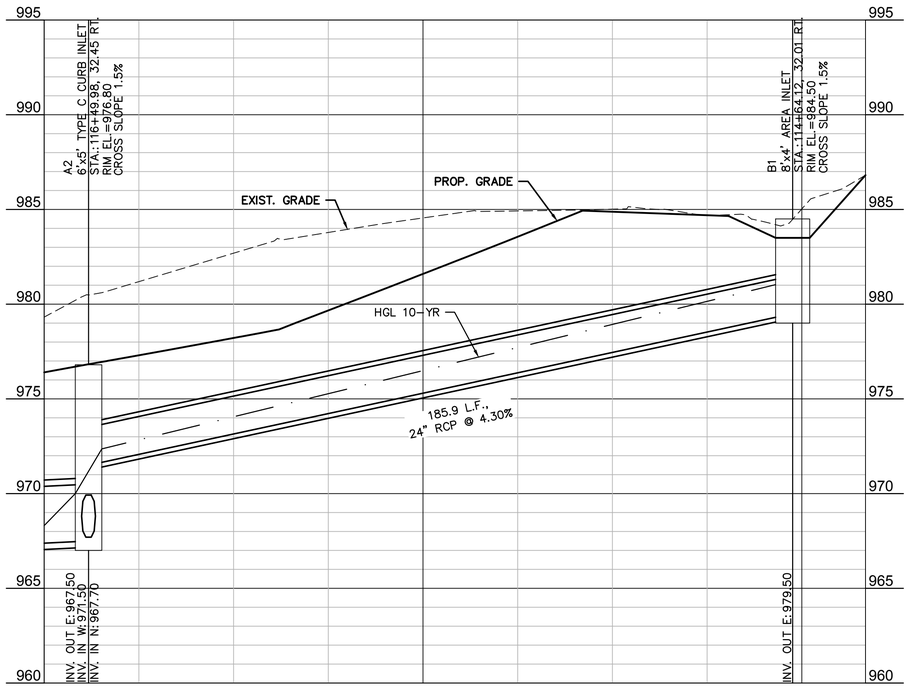
2021

JOPLIN, MISSOURI

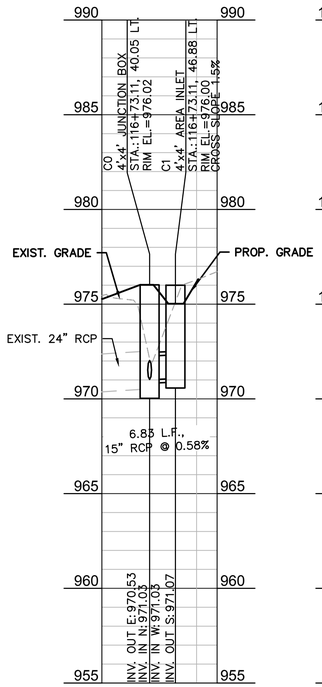
drawn by: SMK/CTK
checked by: PM/LB/RF
approved by: BMC
QA/QC by: PM/LB/FR
project no.: 015-2768
drawing no: SE_T_PSTRM_52768
date: 04/23/2021

DWG: F:\PROJECTS\015-2768\40-Design\AutoCAD\Final Plans\Sheets TSE\TRNS\STORM SEWER PROFILES\TSE_T_PSTRM_52768.dwg USER: skendall
DATE: Apr 21, 2021 12:07pm XREFS: TSE_T_CTBLK_52768 TSE_T_PSTRM_PROF_52768 TSE_T_PBASE_52768

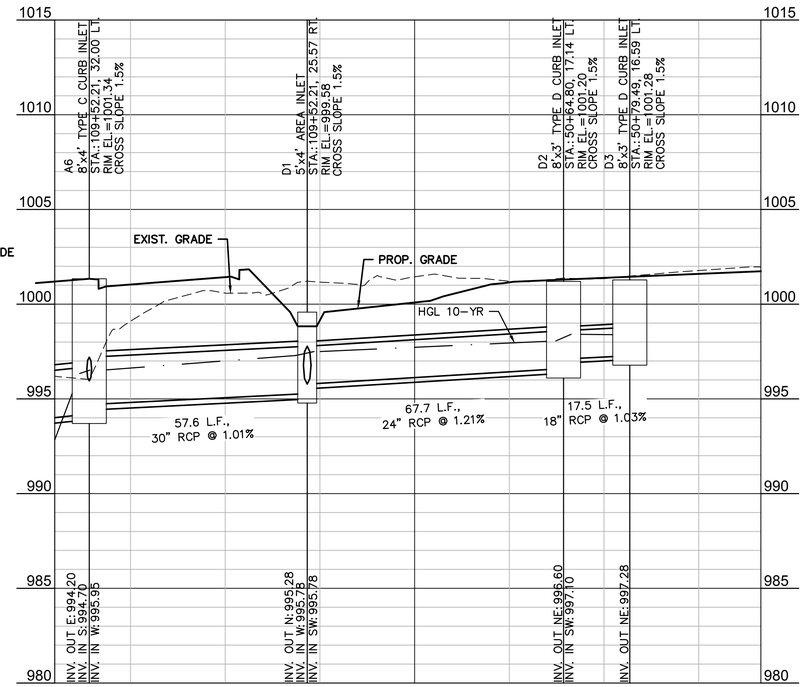
STORM LINE B



STORM LINE C

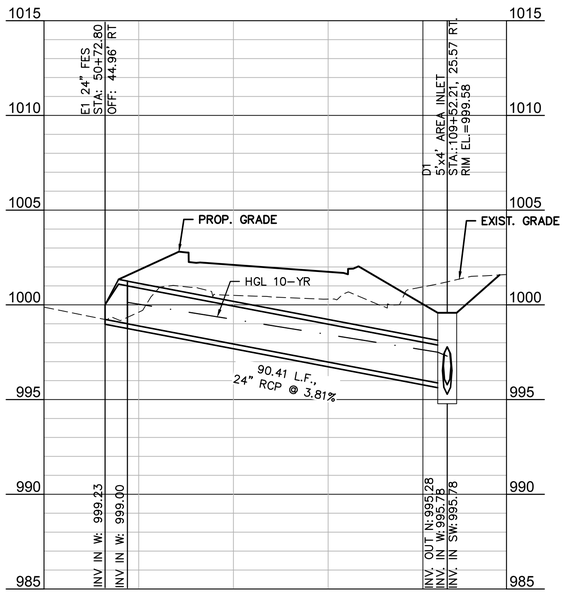


STORM LINE D

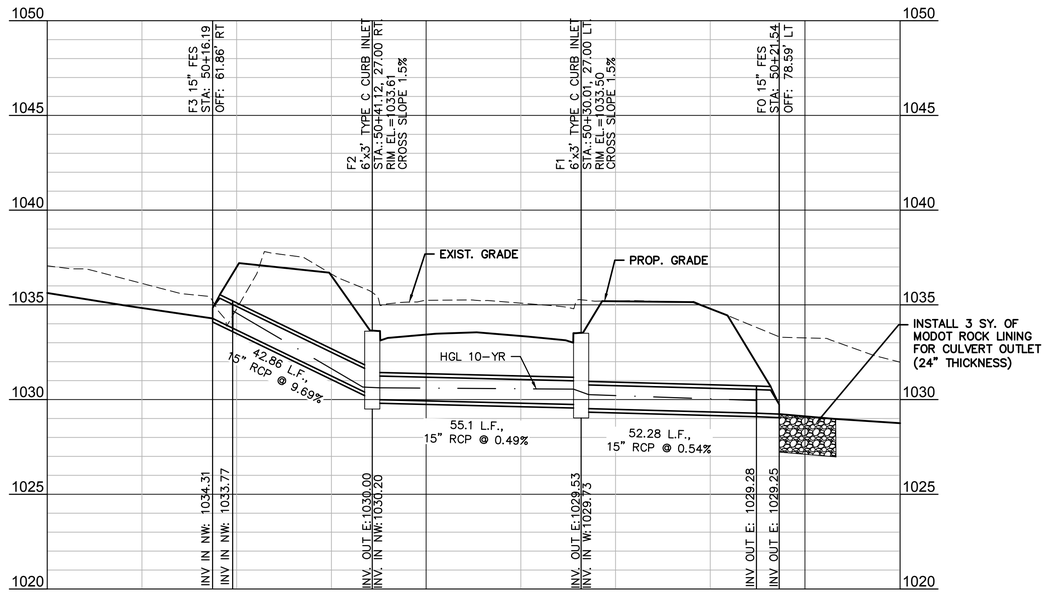


NOTE:
THE RIM ELEVATION SHOWN FOR ALL CURB INLETS
IS THE TOP OF CURB ELEVATION.

STORM LINE E



STORM LINE F



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STATE OF MISSOURI
BRIAN COOMES
Brian Coomes
04/23/2021
NUMBER PE-2015029306
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY
		REVISIONS	

STORM SEWER PROFILES

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by: SMK/CTK
checked by: PM/LB/RF
approved by: BMC
QA/QC by: PM/LB/FR
project no.: 015-2768
drawing no: TSE_T_PSTRM_52768
date: 04/23/2021

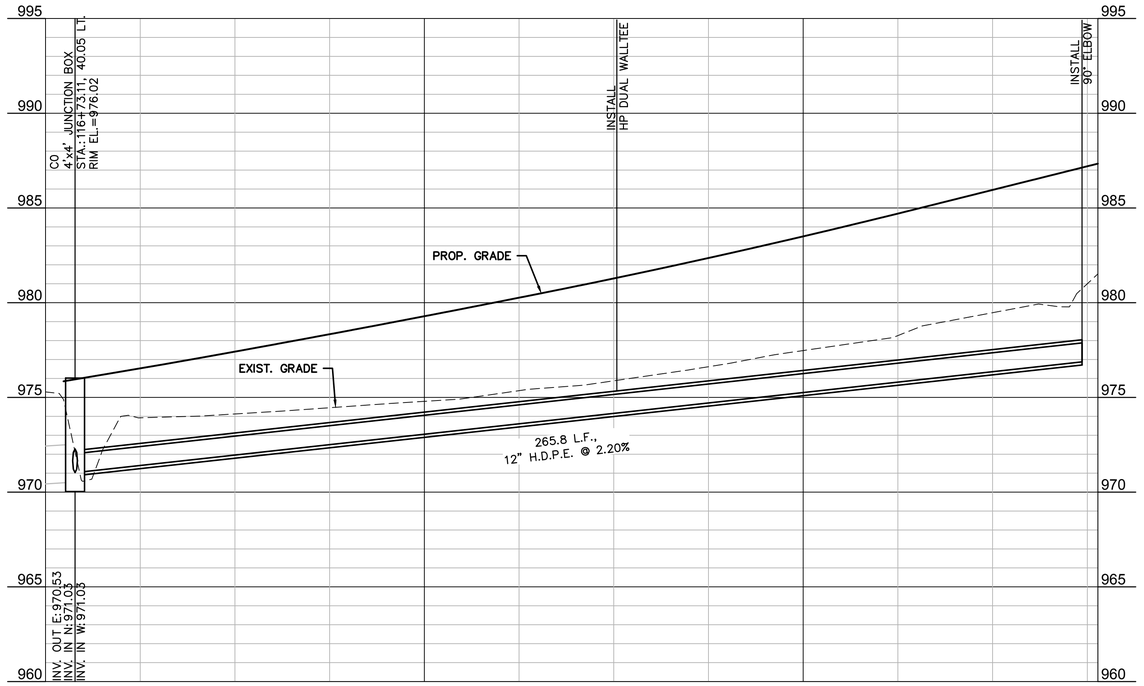
SHEET
C44 of C91

0' 10' 20' 40'
SCALE IN FEET

0' 2' 4' 8'

DWG: F:\PROJECTS\015-2768\40-Design\AutoCAD\Final Plans\Sheets TSE\TRNS\STORM SEWER PROFILES\TSE_T_PSTRM_52768.dwg USER: skendall
DATE: Apr 21, 2021 12:08pm XREFS: TSE_T_CTBLK_52768 TSE_T_PSTRM_PROF_52768 TSE_T_PBASE_52768

STORM LINE G



0' 10' 20' 40'
SCALE IN FEET

8'
4'
2'
0'

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REVISIONS

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STORM SEWER PROFILES

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by: SMK/CTK
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QA/QC by: PM/LB/FR
project no.: 015-2768
drawing no: TSE_T_PSTRM_52768
date: 04/23/2021

SHEET
C45 of C91

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DATE: Apr 21, 2021 12:08pm XREFS: TSE_T_CTBLK_52768 TSE_T_PSTRM_PROF_52768 TSE_T_PBASE_52768

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DATE: Apr 21, 2021 12:09pm XREFS: TSE_T_CTBLK_52768 V_XBOU_52768 TSE_T_PSTRM_BASE_52768
USER: skendall OA_ACAD_T_XBASE_52768 OA_F_PBASE_52768 c_w_t_pbase_015-2768 - 3 lane TSE_T_PBASE_52768 TSE_T_PHTCH_52768

N

0' 10' 20' 40'
SCALE IN FEET

PARCEL 34
WILLIAM LETT
3110 S. DAY RD.
BOOK 2300, PAGE 1839

LEGEND

- 12" BIODEGRADABLE LOG DITCH CHECK
- CURB/AREA INLET PROTECTION
- 8" BIODEGRADABLE LOG
- EROSION CONTROL BLANKET (MODOT TYPE 2.D)
- CULVERT INLET PROTECTION

PARCEL 39
DEBBIE GARRISON
3501 W. 32ND ST.
BOOK 1025, PAGE 163

PARCEL 40
JOEL STANDEFORD
3418 W. 31ST ST.
BOOK 2419, PAGE 0506

MATCH LINE 93+00

MATCH LINE 97+50

GRADING LIMIT

49+25

BP: 92+00.00

PI: 93+97.30

00+50

32ND STREET

92+00 93+00 94+00 95+00 96+00 97+00

1025 1030 1035 1040 1037

PARCEL 38
KARL WILLIAM BLADE
PROPERTY ADDRESS
BOOK 363, PAGE 163

PARCEL 52
WESTBERRY FARMS, LLC
PROPERTY ADDRESS
BOOK 344, PAGE 110

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STATE OF MISSOURI
BRIAN COOMES
Brian Coomes
04/23/2021
NUMBER PE-2015029306
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

EROSION CONTROL PLAN

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by: SMK/CTK
checked by: PM/LB/RF
approved by: BMC
QA/QC by: PM/LB/FR
project no.: 015-2768
drawing no.: TSE_T_ERC_52768
date: 04/23/2021

SHEET
C46 of C91

DWG: F:\PROJECTS\015-2768\40-Design\AutoCAD\Final Plans\Sheets TSE\TRNS\TSE_T_ERC_52768.dwg USER: skendall
DATE: Apr 21, 2021 12:09pm XREFS: TSE_T_CTBLK_52768 V_XBOU_52768 TSE_T_PSTRM_BASE_52768 OA_ACAD-T_XBASE_52768 c|w_t_pbase_015-2768 - 3 lane OA_F_PBASE_52768 TSE_T_PBASE_52768 TSE_T_PHTCH_52768

PARCEL 41
BAILEE K. BROWN, ROBERT A.
& KELSA K. BROWN
3414 W. 31ST ST.
BOOK 2442, PAGE 0426

PARCEL 42
SUDHAKAR AND
BALAMBA ANCHA
3402 W. 31ST ST.
BOOK 2090, PAGE 1655

PARCEL 43
LYNDA BANWART TRUST
3130 SKELLEY CT.
BOOK 2044, PAGE 1436

PARCEL 44
LINDA MEIER TRUST
3131 SKELLEY DR.
BOOK 1649, PAGE 1730

LEGEND
- 12" BIODEGRADABLE LOG DITCH CHECK
- CURB/AREA INLET PROTECTION
- 8" BIODEGRADABLE LOG
- EROSION CONTROL BLANKET (MODOT TYPE 2.D)
- CULVERT INLET PROTECTION

0' 10' 20' 40'
SCALE IN FEET

MATCH LINE 97+50

MATCH LINE 103+00

IRON GATES RD.

BP: 48+00.00

EP: 50+00.00

PC: 10+25.48

DRIVEWAY C3

DRIVEWAY C4

PC: 10+25.48

GRADING LIMIT

DRIVEWAY C5

9+52

DRIVEWAY C6

49+34

32ND STREET

PC: 50+53.10

ARBOR ROAD
(a.k.a. CAMDEN LANE)

PT: 51+80.39

PARCEL 52
WESTBERRY FARMS, LLC
PROPERTY ADDRESS
BOOK 344, PAGE 110

PARCEL 53
WESTBERRY FARMS, LLC
ARBOR HILLS N. GATEWAY
BOOK 344, PAGE 110

PARCEL 55
GARY BANDY & DORIS CARLIN
3234 N. WESTBERRY SQ.
BOOK 366, PAGE 7238

PARCEL 56
JAHAN & ABBY ZEB
3220 N. WESTBERRY SQ.
BOOK 366, PAGE 2873

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STATE OF MISSOURI
BRIAN COOMES
04/23/2021
NUMBER PE-2015029306
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

EROSION CONTROL PLAN

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by: SMK/CTK
checked by: PM/LB/RF
approved by: BMC
QA/QC by: PM/LB/FR
project no.: 015-2768
drawing no.: TSE_T_ERC_52768
date: 04/23/2021

SHEET
C47 of C91

DWG: F:\PROJECTS\015-2768\40-Design\AutoCAD\Final Plans\Sheets TSE\TRNS\TSE_T_ERC_52768.dwg
DATE: Apr 21, 2021 12:09pm XREFS: TSE_T_CTBLK_52768 V_XBOU_52768 TSE_T_PSTRM_BASE_52768
USER: skendall OA_ACAD-T_XBASE_52768 c|w_t_pbase_015-2768 - 3 lane OA_F_PBASE_52768 TSE_T_PBASE_52768 TSE_T_PHTCH_52768

PARCEL 44
LINDA MEIER TRUST
3131 SKELLEY DR.
BOOK 1649, PAGE 1730

PARCEL 45
MARVIN & LORIE
McCREARY
3330 SUNSET DR.
BOOK 2463, PAGE 0271 &
BOOK 2465, PAGE 0286

LEGEND

- 12" BIODEGRADABLE LOG DITCH CHECK
- CURB/AREA INLET PROTECTION
- 8" BIODEGRADABLE LOG
- EROSION CONTROL BLANKET (MODOT TYPE 2.D)
- CULVERT INLET PROTECTION

N

0' 10' 20' 40'
SCALE IN FEET

MATCH LINE 103+00

MATCH LINE 108+50

32ND STREET

GRADING LIMIT

LINE OF SIGHT ESMT.
REGENCY GATE PROPERTY
OWNERS ASSOC.
BOOK 344, PAGE 6692

WESTBERRY LANE

PT: 51+00

PC: 51+12.72

PT: 51+47.78

PC: 51+72.72

PT: 51+72.32

PARCEL 56
JAHAN & ABBY ZEB
3220 N. WESTBERRY SQ.
BOOK 366, PAGE 2873

PARCEL 57
KENNETH & JULIE MADL
3210 N. WESTBERRY SQ.
BOOK 357, PAGE 5162

PARCEL 58
AHMED ABOUL-MAGD
& THEODORA ZAKI
3215 N. WESTBERRY SQ.
BOOK 357, PAGE 7363

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32ND STREET WIDENING
CITY OF JOPLIN

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date: 04/23/2021

SHEET
C48 of C91

DWG: F:\PROJECTS\015-2768\40-Design\AutoCAD\Final Plans\Sheets TSE\TRNS\TSE_T_ERC_52768.dwg USER: skendall
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PARCEL 45
MARVIN & LORIE
McCREARY
3330 SUNSET DR.
BOOK 2463, PAGE 0271 &
BOOK 2465, PAGE 0286

PARCEL 47
MICHAEL & SONYA NAGLE
3222 W. SUNSET DR. S.
BOOK 2278, PAGE 2127

PARCEL 48
ANTHONY & KAMAN DOLL
3202 W. SUNSET DR.
BOOK 2410, PAGE 0043

LEGEND

- 12" BIODEGRADABLE LOG DITCH CHECK
- CURB/AREA INLET PROTECTION
- 8" BIODEGRADABLE LOG
- EROSION CONTROL BLANKET (MODOT TYPE 2.D)
- CULVERT INLET PROTECTION

N

0' 10' 20' 40'
SCALE IN FEET

MATCH LINE 108+50

MATCH LINE 113+50

GRADING LIMIT

32ND STREET

WESTBERRY LANE

PC: 50+28.00

PT: 50+72.14

PI: 51+22.14

PI: 51+47.78

109+00 110+00 111+00 112+00 113+00 114

PARCEL 58
AHMED ABOUL-MAGD
& THEODORA ZAKI
3215 N. WESTBERRY SQ.
BOOK 357, PAGE 7363

PARCEL 58
AHMED ABOUL-MAGD &
THEODORA ZAKI
3215 N. WESTBERRY SQ.
BOOK 357, PAGE 7363

PARCEL 59
JAY & LINDA ROSENBERG
3133 N. WESTBERRY SQ.
BOOK 347, PAGE 4048

PARCEL 60
CHANCE LEE & LORI
MICHA MATTHIESEN
3115 N. WESTBERRY SQ.
BOOK 365, PAGE 8319

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STATE OF MISSOURI
BRIAN COOMES
Brian Coomes
04/23/2021
NUMBER PE-2015029306
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

EROSION CONTROL PLAN

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by: SMK/CTK
checked by: PM/LB/RF
approved by: BMC
QA/QC by: PM/LB/FR
project no.: 015-2768
drawing no.: TSE_T_ERC_52768
date: 04/23/2021

SHEET
C49 of C91

PARCEL 48
ANTHONY & KAMAN DOLL
3202 W. SUNSET DR.
BOOK 2410, PAGE 0043

PARCEL 49
BETTY McELHANEY
3118 W. SUNSET DR.
BOOK 1959, PAGE 0830

PARCEL 50
CHARLES & BARBARA EASLEY
3102 S. SUNSET DR.
BOOK 2240, PAGE 840

PARCEL 51
LOYCO ENTERPRISES
NE. CORNER OF 32ND ST.
& S. SUNSET EAST DR.
BOOK 1361, PAGE 1199

LEGEND

- 12" BIODEGRADABLE LOG DITCH CHECK
- CURB/AREA INLET PROTECTION
- 8" BIODEGRADABLE LOG
- EROSION CONTROL BLANKET (MODOT TYPE 2.D)
- CULVERT INLET PROTECTION

N

0' 10' 20' 40'
SCALE IN FEET

INSET DETAIL

SUNSET DRIVE

BP: 48+59.00

49+00

50+00

EP: 50+00.00

MATCH LINE 113+50

SEE INSET DETAIL ABOVE FOR CONTINUATION OF TRAIL CONSTRUCTION

32ND STREET

24" RCP

GRADING LIMIT

PARCEL 60
CHANCE LEE & LORI
MICHA MATTHIESEN
3115 N. WESTBERRY SQ.
BOOK 365, PAGE 8319

PARCEL 60
CHANCE LEE & LORI
MICHAEL MATTHIESEN
3115 N. WESTBERRY SQ.
BOOK 365, PAGE 8319

PARCEL 61
BRUCE & SHAMSHINUR SILVERBERG
3303 E. WESTBERRY SQ.
BOOK 356, PAGE 9392

PARCEL 62
CITY OF JOPLIN
SW. CORNER OF
32ND & SCHIFFERDECKER
BOOK 225, PAGE 170

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Brian Coomes
04/23/2021
NUMBER PE-2015029306
PROFESSIONAL ENGINEER

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REVISIONS

EROSION CONTROL PLAN

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by: SMK/CTK
checked by: PM/LB/RF
approved by: BMC
QA/QC by: PM/LB/FR
project no.: 015-2768
drawing no.: TSE_T_ERC_52768
date: 04/23/2021

SHEET
C50 of C91

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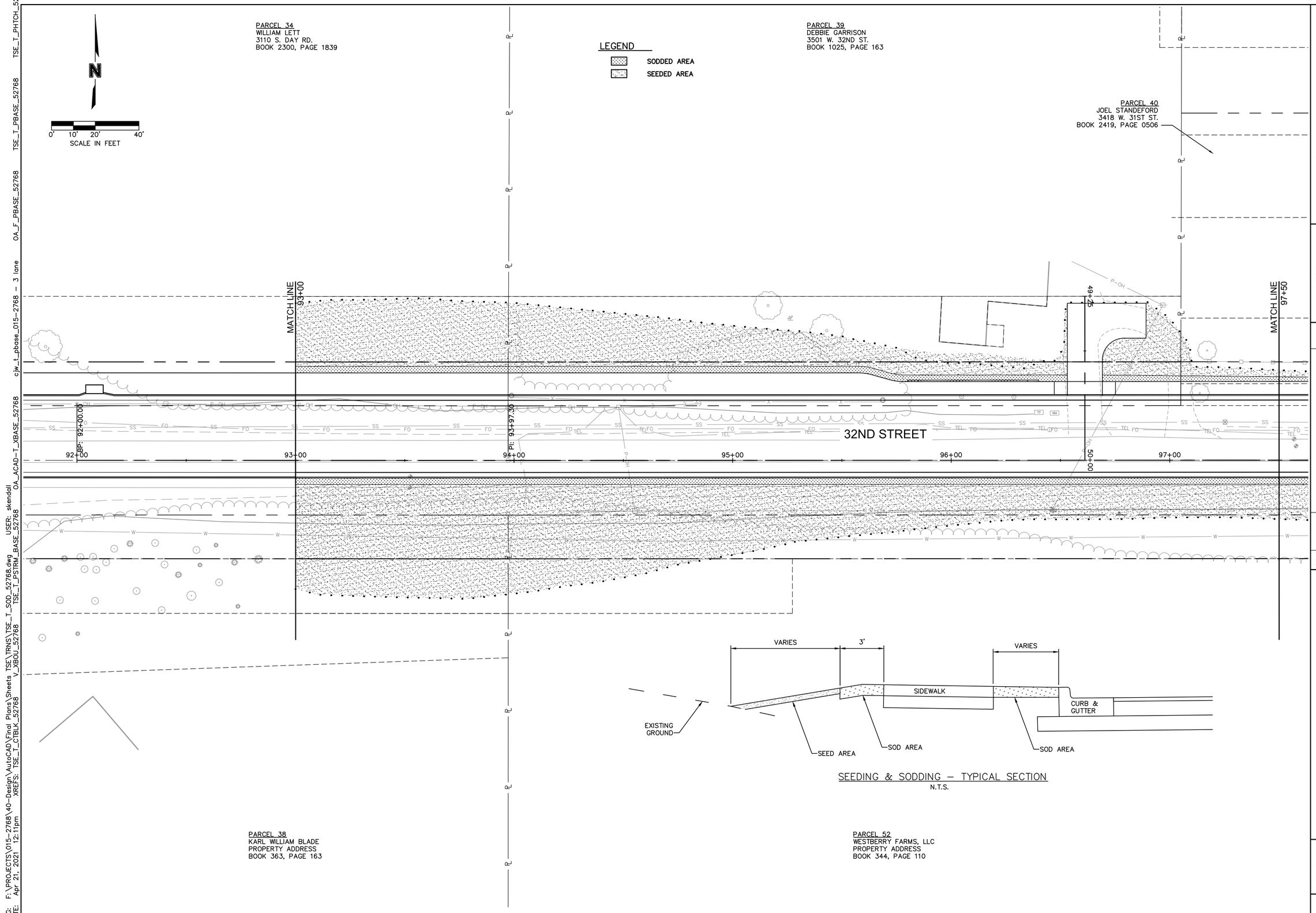

SEEDING & SODDING – TYPICAL SECTION
N.T.S.

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32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by: SMK/CTK
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drawing no.: TSE_T_SOD_52768
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SHEET
C51 of C91

DWG: F:\PROJECTS\015-2768\40-Design\AutoCAD\Final Plans\Sheets TSE\TRNS\TSE_T_SOD_52768.dwg USER: skendall
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cjw_t_pbase_015-2768 - 3 lane OA_F_PBASE_52768 TSE_T_PBASE_52768 TSE_T_PHTCH_52768

PARCEL 41
BAILEE K. BROWN, ROBERT A.
& KELSA K. BROWN
3414 W. 31ST ST.
BOOK 2442, PAGE 0426

PARCEL 42
SUDHAKAR AND
BALAMBA ANCHA
3402 W. 31ST ST.
BOOK 2090, PAGE 1655

PARCEL 43
LYNDA BANWART TRUST
3130 SKELLEY CT.
BOOK 2044, PAGE 1436

PARCEL 44
LINDA MEIER TRUST
3131 SKELLEY DR.
BOOK 1649, PAGE 1730

LEGEND
- SODDED AREA
- SEEDED AREA

0' 10' 20' 40'
SCALE IN FEET

MATCH LINE 97+50

MATCH LINE 103+00

32ND STREET

IRON GATES RD.

DRIVEWAY C3
PC: 10+25.48
10+58

DRIVEWAY C4
PC: 10+25.48
10+58

DRIVEWAY C5
9+52

DRIVEWAY C6
49+34

BP: 48+00.00

BP: 50+00.00

EP: 50+00.00

PC: 50+53.00

ARBOR ROAD (a.k.a. CAMDEN LANE)
51+00

PT: 51+80.39
52+00

PARCEL 52
WESTBERRY FARMS, LLC
PROPERTY ADDRESS
BOOK 344, PAGE 110

PARCEL 53
WESTBERRY FARMS, LLC
ARBOR HILLS N. GATEWAY
BOOK 344, PAGE 110

PARCEL 55
GARY BANDY & DORIS CARLIN
3234 N. WESTBERRY SQ.
BOOK 366, PAGE 7238

PARCEL 56
JAHAN & ABBY ZEB
3220 N. WESTBERRY SQ.
BOOK 366, PAGE 2873

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04/23/2021
NUMBER PE-2015029306
PROFESSIONAL ENGINEER

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SEEDING & SODDING PLAN

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by: SMK/CTK
checked by: PM/LB/RF
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QA/QC by: PM/LB/FR
project no.: 015-2768
drawing no.: TSE_T_SOD_52768
date: 04/23/2021

SHEET
C52 of C91

DWG: F:\PROJECTS\015-2768\40-Design\AutoCAD\Final Plans\Sheets TSE\TRNS\TSE_T_SOD_52768.dwg USER: skendall
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cjw_t_pbase_015-2768 - 3 lane OA_F_PBASE_52768 TSE_T_PBASE_52768 TSE_T_PHTCH_52768

PARCEL 44
LINDA MEIER TRUST
3131 SKELLEY DR.
BOOK 1649, PAGE 1730

PARCEL 45
MARVIN & LORIE
McCREARY
3330 SUNSET DR.
BOOK 2463, PAGE 0271 &
BOOK 2465, PAGE 0286

LEGEND
SODDED AREA
SEEDED AREA

N

0' 10' 20' 40'
SCALE IN FEET

MATCH LINE 103+00

MATCH LINE 108+50

32ND STREET

103+00 104+00 105+00 106+00 107+00 108+00

LINE OF SIGHT ESMT.
REGENCY GATE PROPERTY
OWNERS ASSOC.
BOOK 344, PAGE 6692

WESTBERRY LANE

PARCEL 56
JAHAN & ABBY ZEB
3220 N. WESTBERRY SQ.
BOOK 366, PAGE 2873

PARCEL 57
KENNETH & JULIE MADL
3210 N. WESTBERRY SQ.
BOOK 357, PAGE 5162

PARCEL 58
AHMED ABOUL-MAGD
& THEODORA ZAKI
3215 N. WESTBERRY SQ.
BOOK 357, PAGE 7363

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Brian Coomes
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REVISIONS

SEEDING & SODDING PLAN

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

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project no.: 015-2768
drawing no.: TSE_T_SOD_52768
date: 04/23/2021

SHEET
C53 of C91

DWG: F:\PROJECTS\015-2768\40-Design\AutoCAD\Final Plans\Sheets TSE\TRNS\TSE_T_SOD_52768.dwg USER: skendall
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cjw_t_pbase_015-2768 - 3 lane OA_F_PBASE_52768 TSE_T_PBASE_52768 TSE_T_PHTCH_52768

PARCEL 45
MARVIN & LORIE
McCREARY
3330 SUNSET DR.
BOOK 2463, PAGE 0271 &
BOOK 2465, PAGE 0286

PARCEL 47
MICHAEL & SONYA NAGLE
3222 W. SUNSET DR. S.
BOOK 2278, PAGE 2127

PARCEL 48
ANTHONY & KAMAN DOLL
3202 W. SUNSET DR.
BOOK 2410, PAGE 0043

LEGEND
SODDED AREA
SEEDED AREA

N

0' 10' 20' 40'
SCALE IN FEET

MATCH LINE 108+50

MATCH LINE 113+50

32ND STREET

109+00 110+00 111+00 112+00 113+00 114

PC: 50+28.00

PT: 50+72.14

WESTBERRY LANE

51+00

PI: 51+22.14

PI: 51+47.78

PARCEL 58
AHMED ABOUL-MAGD
& THEODORA ZAKI
3215 N. WESTBERRY SQ.
BOOK 357, PAGE 7363

PARCEL 58
AHMED ABOUL-MAGD &
THEODORA ZAKI
3215 N. WESTBERRY SQ.
BOOK 357, PAGE 7363

PARCEL 59
JAY & LINDA ROSENBERG
3133 N. WESTBERRY SQ.
BOOK 347, PAGE 4048

PARCEL 60
CHANCE LEE & LORI
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BOOK 365, PAGE 8319

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CITY OF JOPLIN

JOPLIN, MISSOURI

2021

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drawing no.: TSE_T_SOD_52768
date: 04/23/2021

SHEET
C54 of C91

PARCEL 48
ANTHONY & KAMAN DOLL
3202 W. SUNSET DR.
BOOK 2410, PAGE 0043

PARCEL 49
BETTY McELHANEY
3118 W. SUNSET DR.
BOOK 1959, PAGE 0830

PARCEL 50
CHARLES & BARBARA EASLEY
3102 S. SUNSET DR.
BOOK 2240, PAGE 840

PARCEL 51
LOYCO ENTERPRISES
NE. CORNER OF 32ND ST.
& S. SUNSET EAST DR.
BOOK 1361, PAGE 1199

LEGEND
SODDED AREA
SEEDED AREA

N
0' 10' 20' 40'
SCALE IN FEET

INSET DETAIL

MATCH LINE 113+50

SUNSET DRIVE

BP: 48+59.00

49+00

SEE INSET DETAIL ABOVE FOR CONTINUATION OF TRAIL CONSTRUCTION

24" RCP

32ND STREET

114+00 115+00 116+00 117+00 118+00 119+0

EP: 50+00.00

PARCEL 60
CHANCE LEE & LORI
MICHA MATTHIESEN
3115 N. WESTBERRY SQ.
BOOK 365, PAGE 8319

PARCEL 60
CHANCE LEE & LORI
MICHAEL MATTHIESEN
3115 N. WESTBERRY SQ.
BOOK 365, PAGE 8319

PARCEL 61
BRUCE & SHAMSHINUR SILVERBERG
3303 E. WESTBERRY SQ.
BOOK 356, PAGE 9392

PARCEL 62
CITY OF JOPLIN
SW. CORNER OF
32ND & SCHIFFERDECKER
BOOK 225, PAGE 170

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Brian Coomes
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SEEDING & SODDING PLAN

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

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drawing no.: TSE_T_SOD_52768
date: 04/23/2021

SHEET
C55 of C91

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USER: skendall
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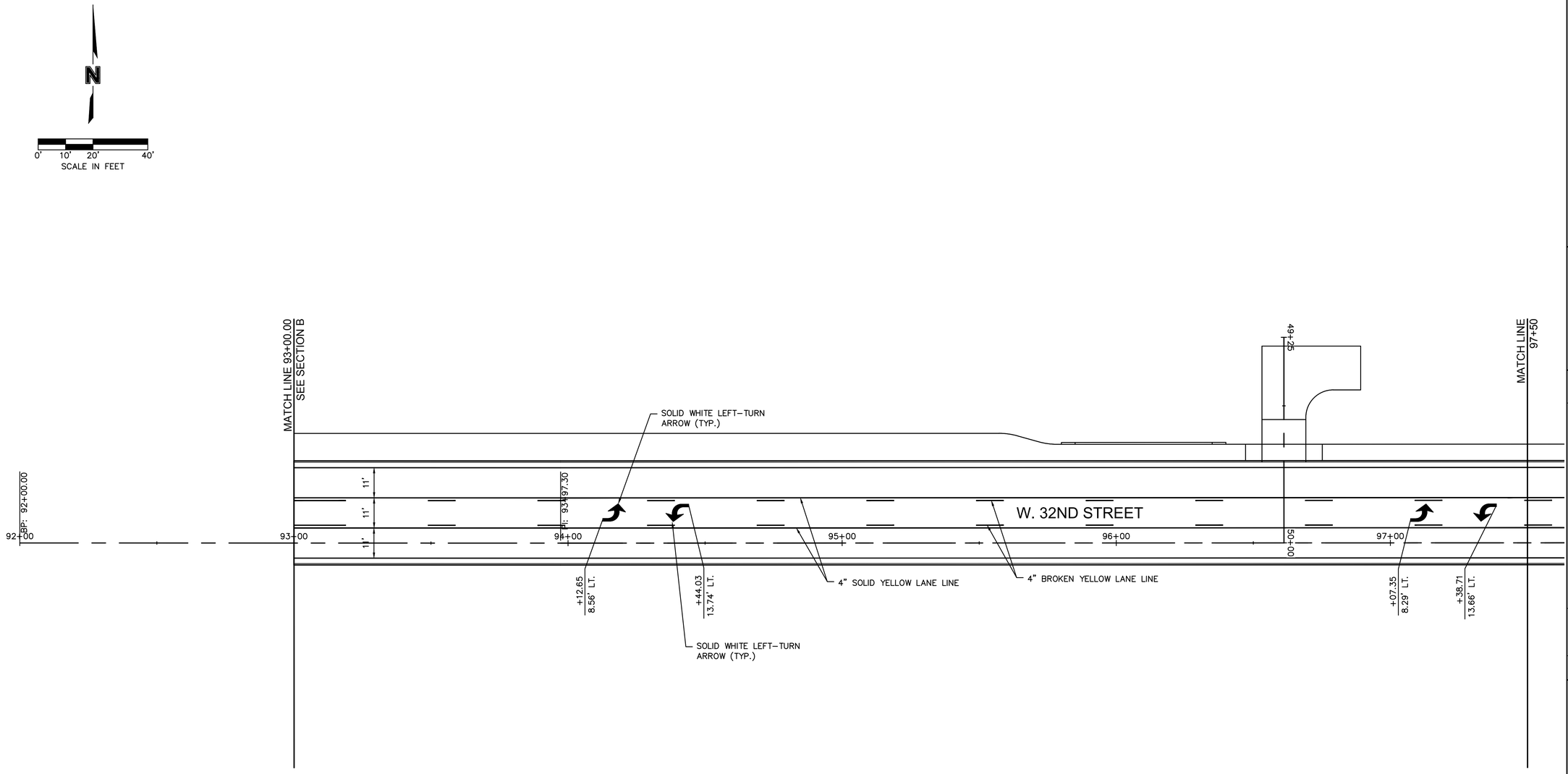
c|w_t_pbase_015-2768 - 3 lane



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STATE OF MISSOURI
JEREMY SCOTT STREET
NUMBER PE-2017023856
PROFESSIONAL ENGINEER
4/23/2021

REVISIONS

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

STRIPING & SIGNAGE PLAN

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by: SMK/CTK
checked by: PM/LB/RF
approved by: BMC
QA/QC by: PM/LB/FR
project no.: 015-2768
drawing no.: TSE_T_STP_52768
date: 04/23/2021

SHEET
C56 of C91

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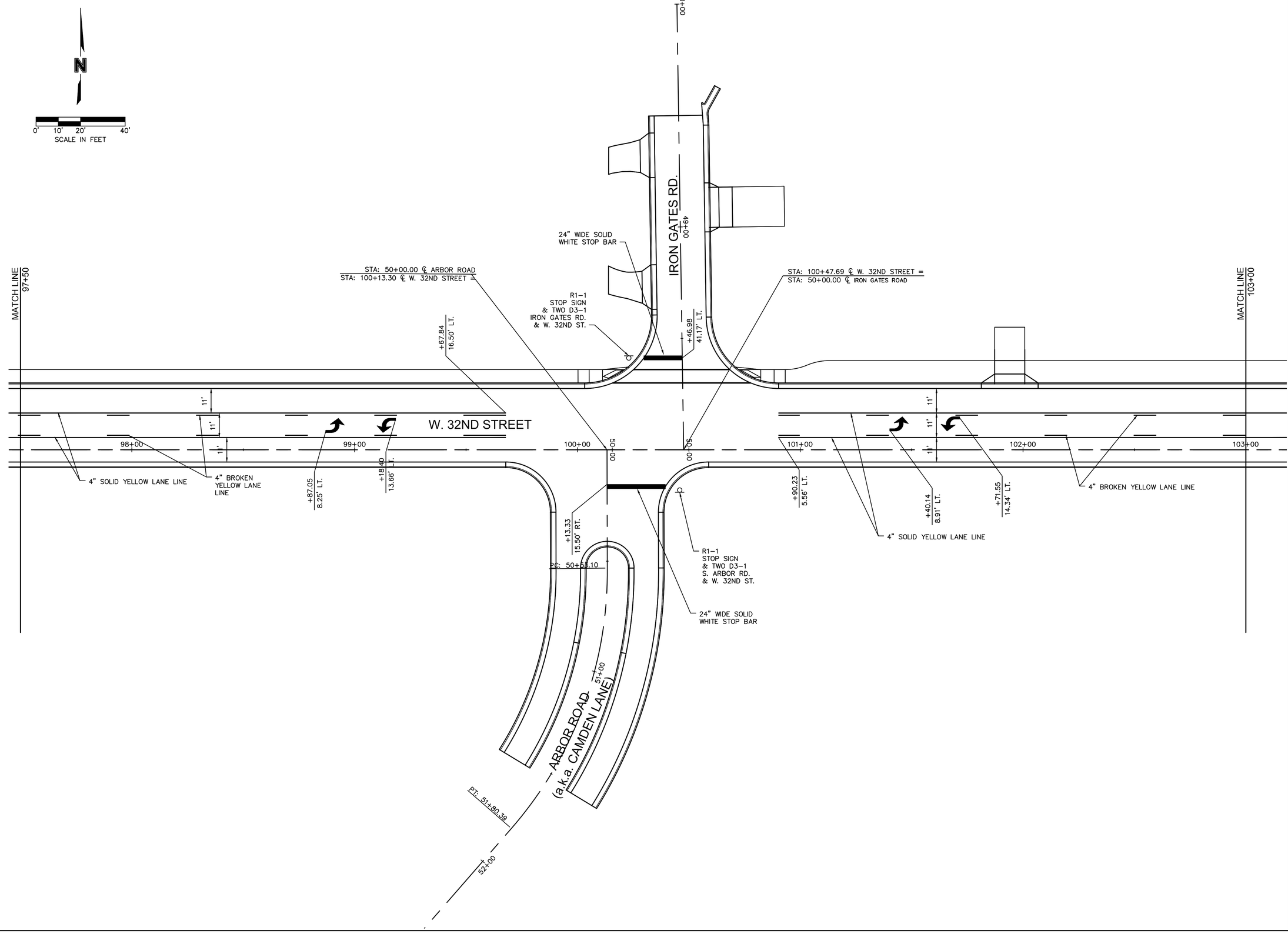

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JEREMY SCOTT STREET
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4/23/2021

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STRIPING & SIGNAGE PLAN

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

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checked by: PM/LB/RF
approved by: BMC
QA/QC by: PM/LB/FR
project no.: 015-2768
drawing no.: TSE_T_STP_52768
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SHEET
C57 of C91

DWG: F:\PROJECTS\015-2768\40-Design\AutoCAD\Final Plans\Sheets TSE\TRNS\TSE_T_STP_52768.dwg USER: skendall
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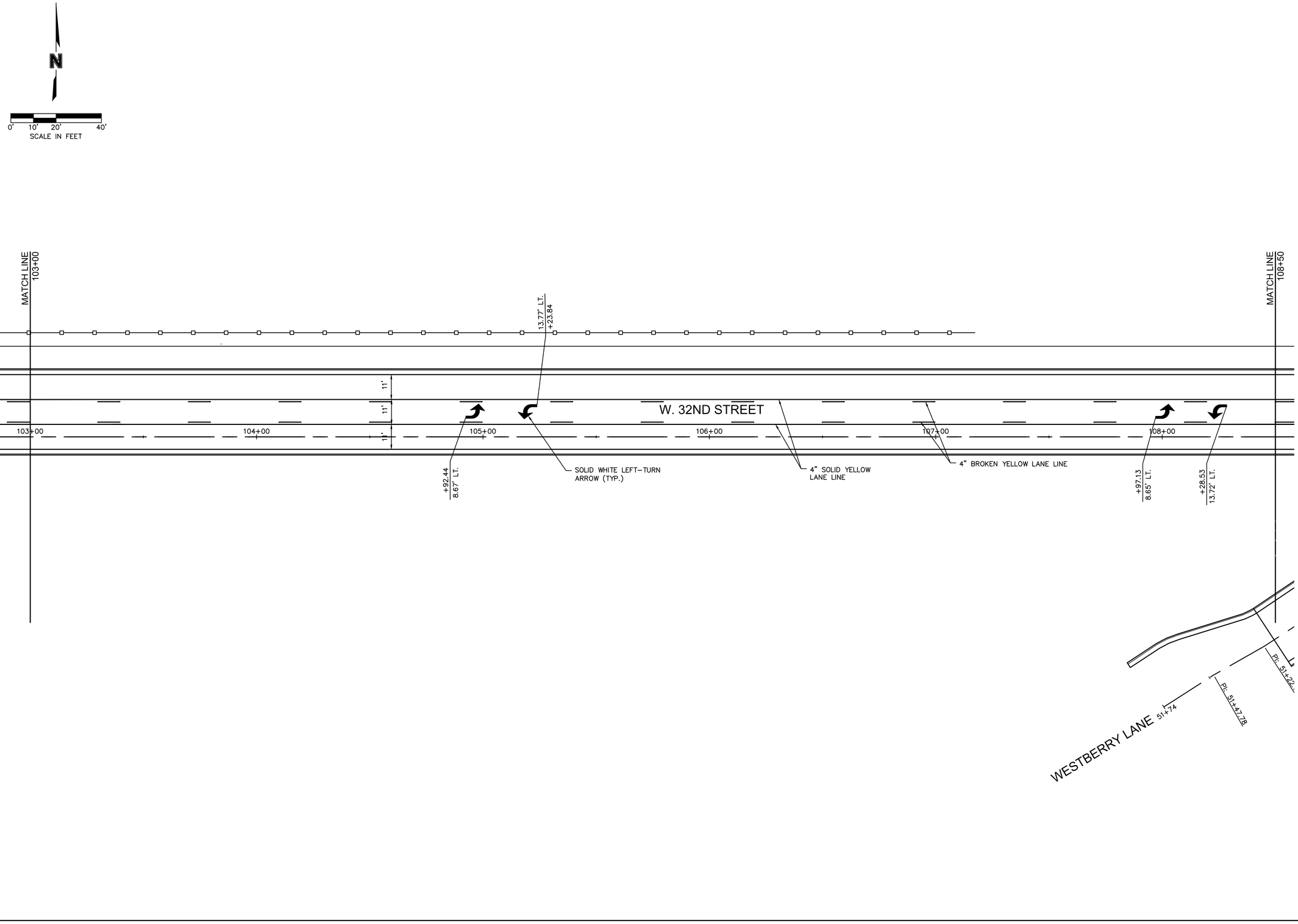

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4/23/2021

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JOPLIN, MISSOURI

2021

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SHEET
C58 of C91

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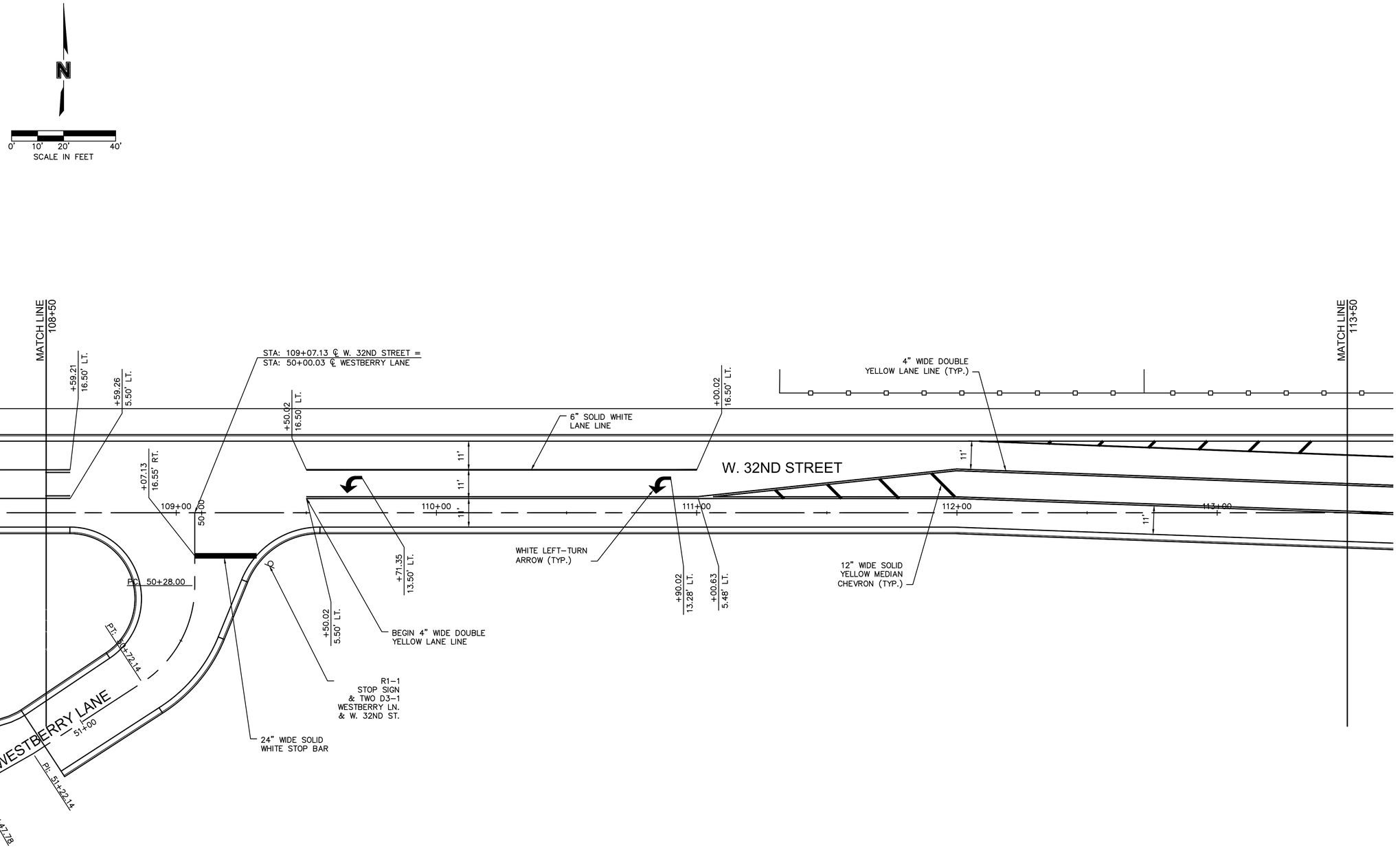

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JOPLIN, MISSOURI

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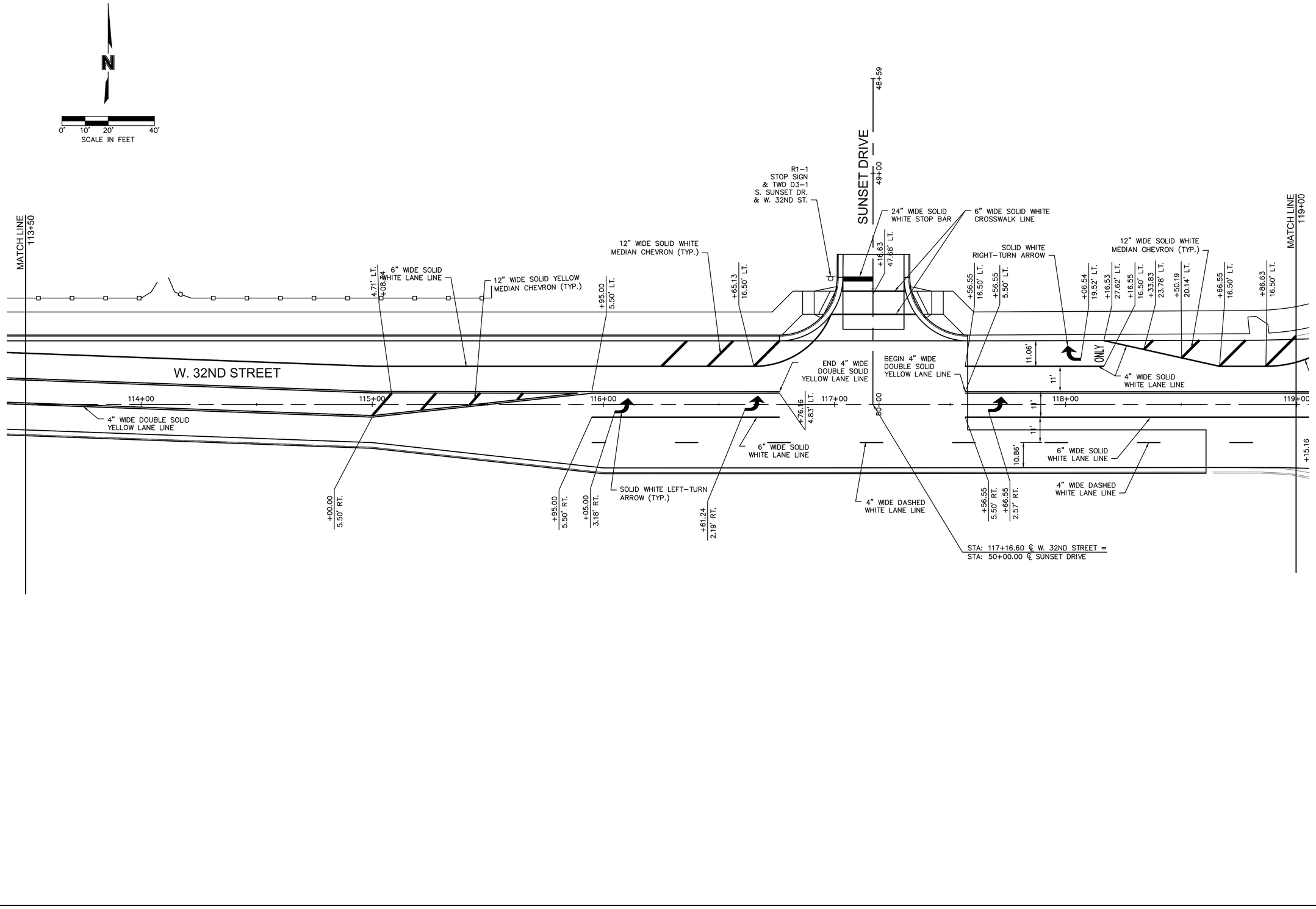
SHEET
C59 of C91



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SHEET
C60 of C91

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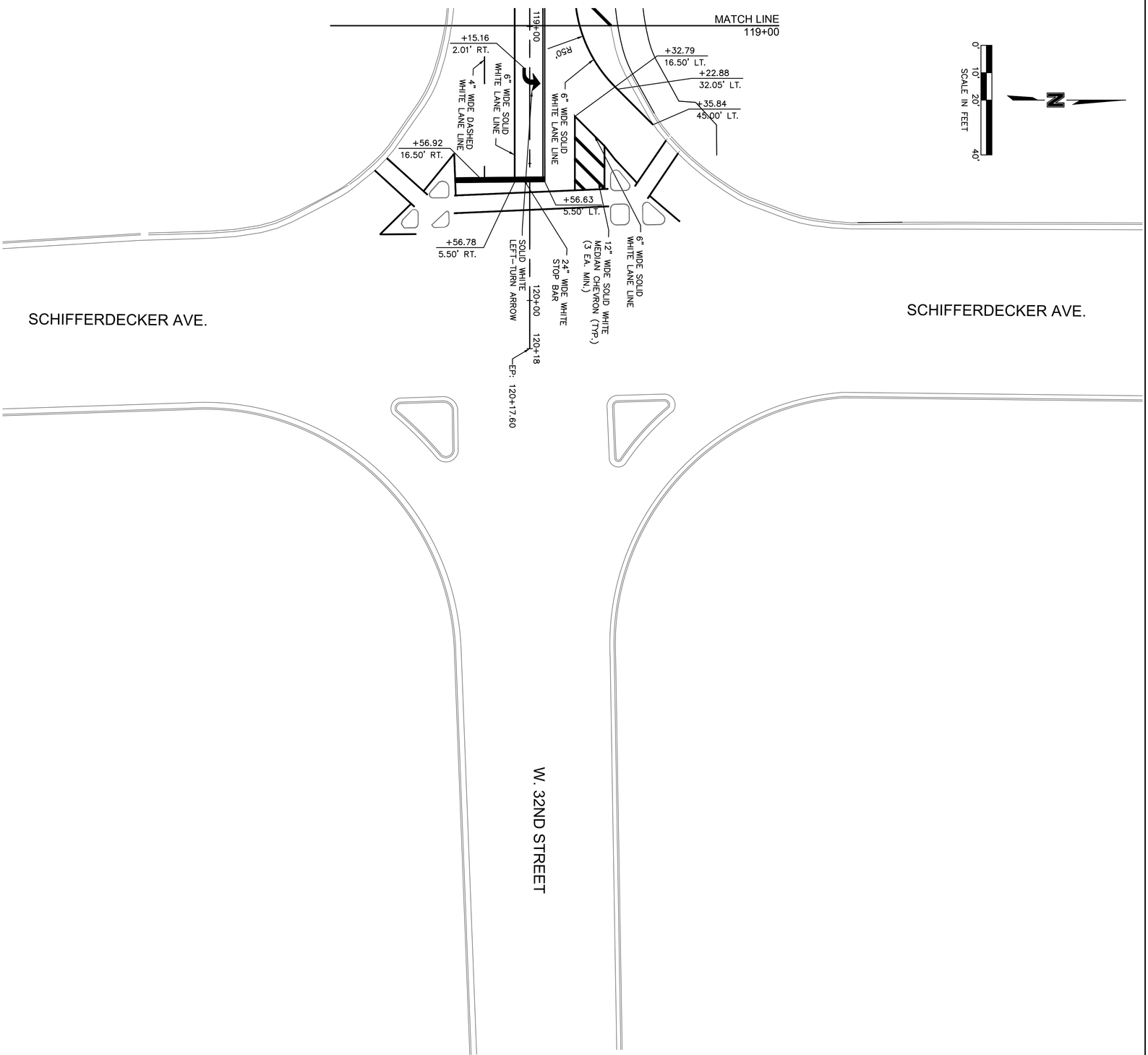

SHEET C61 of C91

drawn by: SMK/CTK
checked by: PML/BJRF
approved by: BMC
QC/QA by: PML/BJRF
project no.: 015-2768
drawing no.: TSE_T_STP_52768
date: 04/23/2021

STRIPING & SIGNAGE PLAN

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI 2021

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

JEREMY SCOTT STREET
NUMBER
PE-2017023556
PROFESSIONAL ENGINEER
STATE OF MISSOURI
4/23/2021

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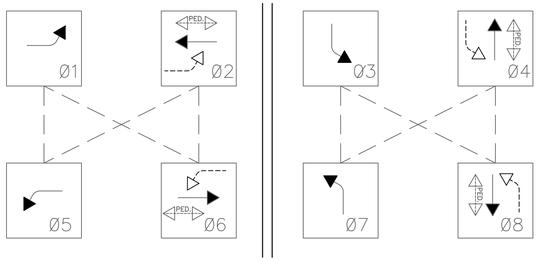
PHASING DIAGRAM

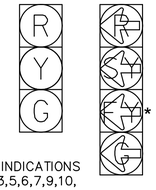


INDICATES PHASES THAT MAY TIME CONCURRENTLY



KR 10–12

SIGNAL FACES



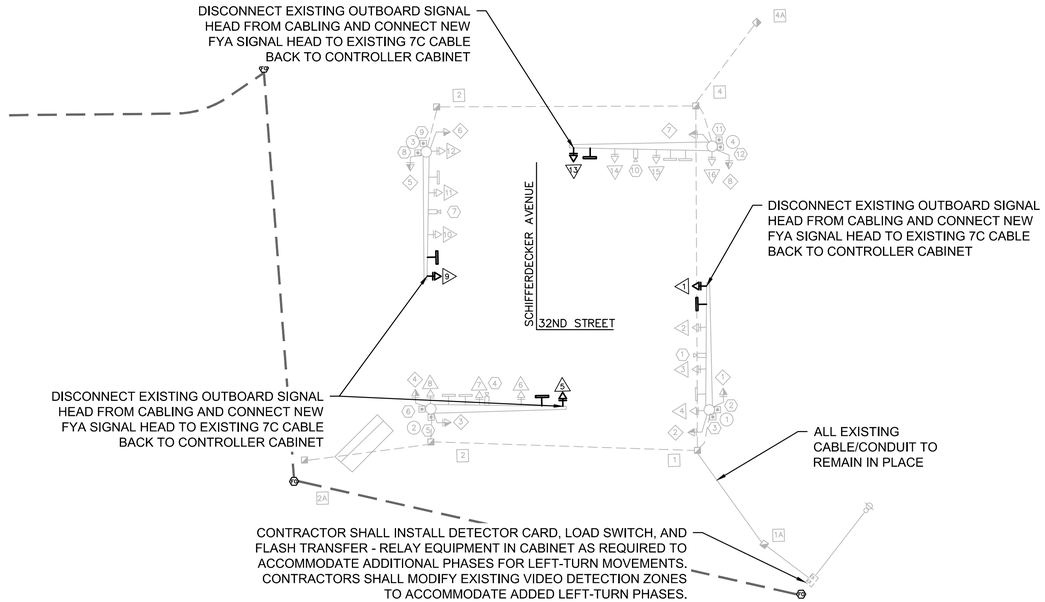
EX. INDICATIONS 1,2,3,5,6,7,9,10, 11,13,14,15

PROP. INDICATIONS 1,5,9,13

NOTES:

1. ALL WORK AND EQUIPMENT SHALL COMPLY WITH THE LATEST EDITION OF THE CITY OF JOPLIN STANDARDS AND SPECIFICATIONS.
2. SIGNAL WORK MUST BE COMPLETED BY A IMSA LEVEL II TECHNICIAN OR BETTER.
3. ALL SIGNAL INDICATIONS SHALL BE 12" LED PER ITE SPECIFICATIONS.
4. THE CONTRACTOR SHALL BE RESPONSIBLE TO MAINTAIN ALL SIGNAL EQUIPMENT DURING THE CONSTRUCTION OF THE PROJECT AND SHALL BE RESPONSIBLE FOR SUBMITTING PROPOSED TIMING CHANGES AS NEEDED DURING CONSTRUCTION OF THE PROJECT TO THE PROJECT ENGINEER AT LEAST TEN (10) WORKING DAYS PRIOR TO THE DATE OF THE PROPOSED SIGNAL TIMING UPDATE.
5. INSTALLATION SHALL BE COORDINATED WITH THE CITY OF JOPLIN AND SHALL OCCUR DURING OFF–PEAK TIMES. CONTRACTOR SHALL USE JOPLIN AND MODOT STANDARD DETAILS FOR TRAFFIC CONTROL DURING INSTALLATION OF NEW SIGNAL HEADS.

WIRING DIAGRAM



TRAFFIC SIGNALS LEGEND

- CONTROLLER
- CONTROLLER (EXISTING)
- JUNCTION BOX
- POWER SUPPLY
- WOOD POST
- SIGNAL HEAD (OPT LIM CONV)
- SIGNAL HEAD (OPT LIM)
- SIGNAL HEAD (PEDESTRIAN)
- SIGNAL HEAD (STANDARD)
- VIDEO DETECTOR
- PUSH BUTTON DETECTOR
- PREFORMED PULL BOX TYPE 1
- PREFORMED PULL BOX TYPE 2
- CONCRETE PULL BOX TYPE 1
- CONCRETE PULL BOX TYPE 2
- ITS PULL BOX TYPE 2
- ITS PULL BOX TYPE 5
- 6 X 6 LOOP DETECTOR
- 6 X 15 LOOP DETECTOR
- 30 X 6 LOOP DETECTOR
- CONDUIT MEDIAN
- CONDUIT PUSHED
- CONDUIT BRIDGE
- CONDUIT EXISTING
- CONDUIT TRENCHED
- SPAN WIRE
- MAST ARM – TYPE A BASE
- MAST ARM – TYPE C BASE
- MAST ARM – TYPE F BASE
- TYPE C BASE

BILL OF MATERIALS

ITEM	UNIT	QUANTITY
KR10-12 STREET SIGN	EACH	4
FLASHING YELLOW ARROW SIGNAL HEAD	EACH	4
DETECTOR CARD	EACH	AS NEEDED
LOAD SWITCH	EACH	AS NEEDED
FLASH TRANSFER - RELAY EQUIPMENT	EACH	AS NEEDED

N

0' 15' 30' 60'
SCALE IN FEET

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STATE OF MISSOURI
JEREMY SCOTT STRETZ
NUMBER PE-2017023856
PROFESSIONAL ENGINEER
4/23/2021

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

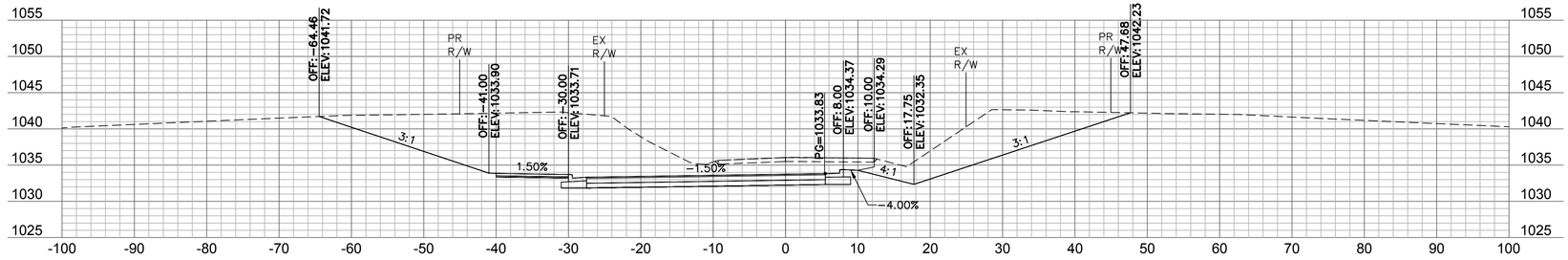
TRAFFIC SIGNAL PLAN

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by: SMK/CTK
checked by: PM/LB/RF
approved by: BMC
QA/QC by: PM/LB/FR
project no.: 015-2768
drawing no.: F_TRS_52768
date: 04/23/2021



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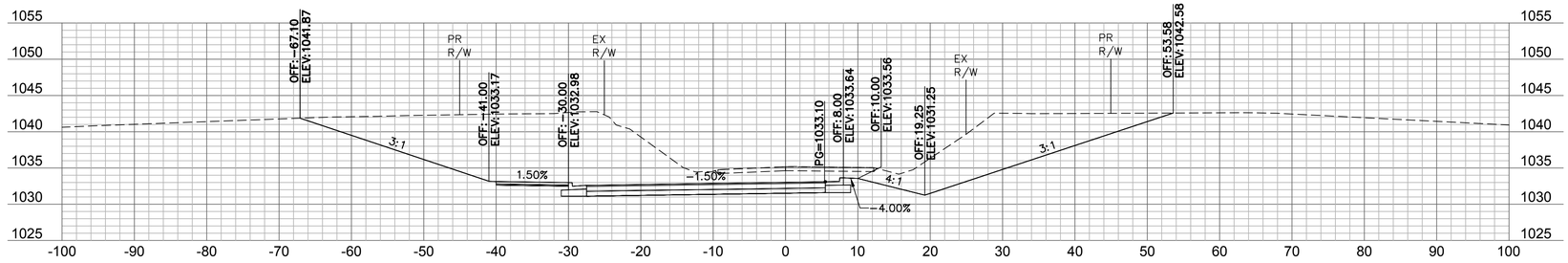

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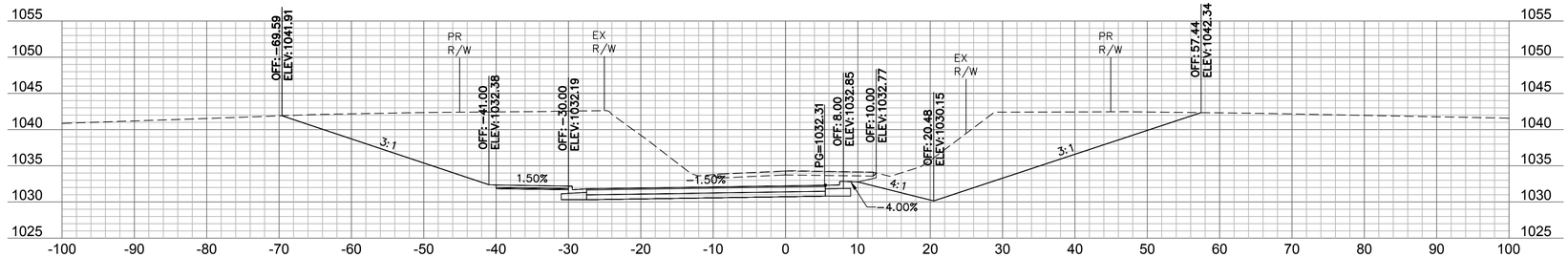

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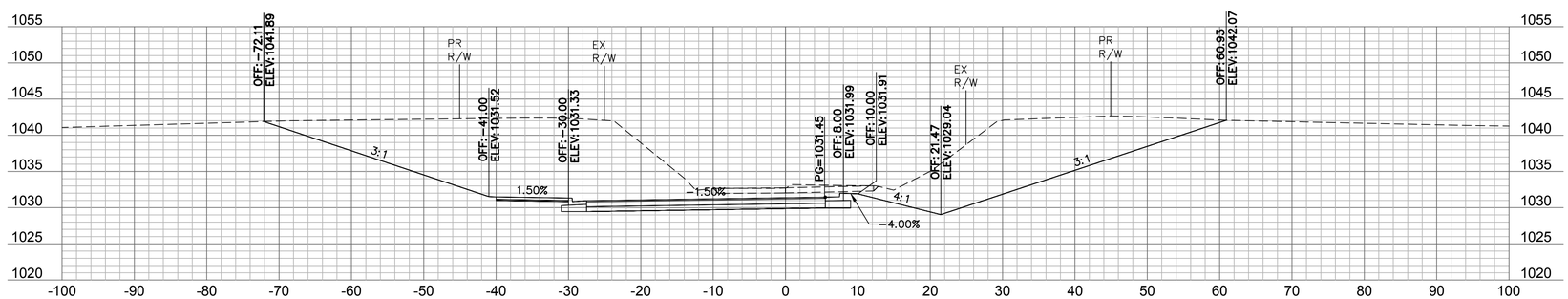

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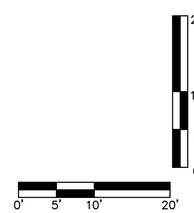

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BRIAN COOMES
Brian Coomes
04/23/2021
NUMBER PE-2015029306
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

CROSS SECTIONS - 32ND STREET

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

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project no.: 015-2768
drawing no.TSE_T_PXSEC_52768
date: 04/23/2021

SHEET
C63 of C91

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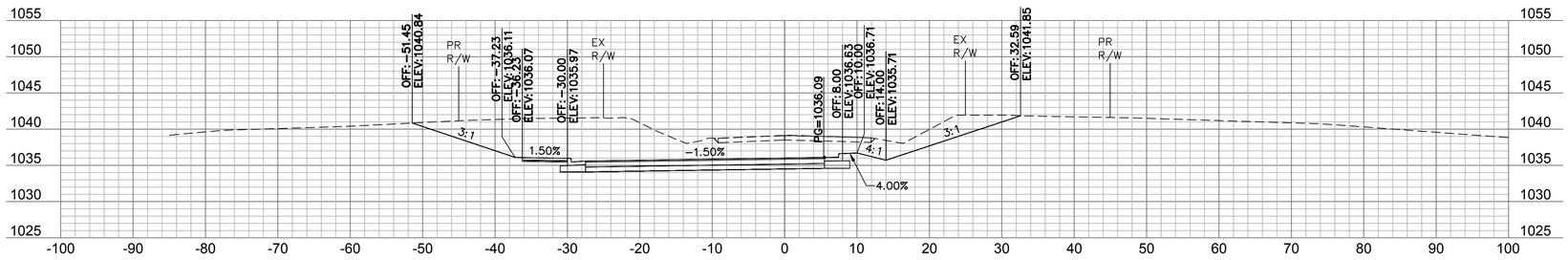

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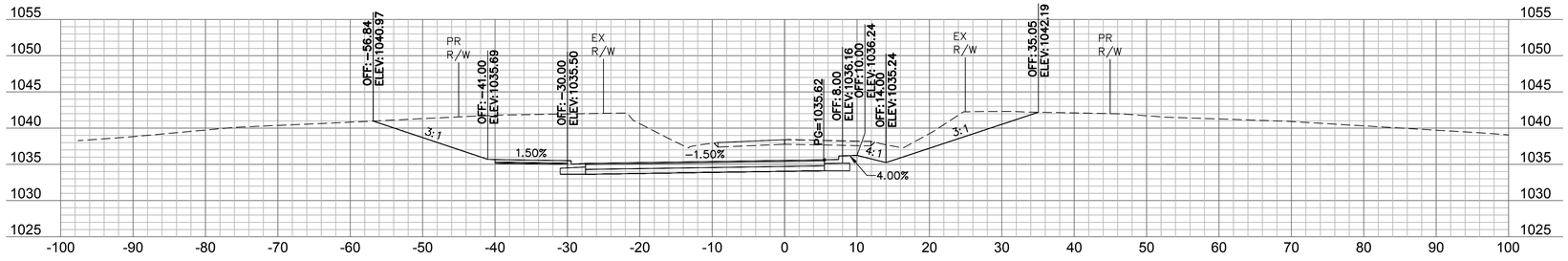

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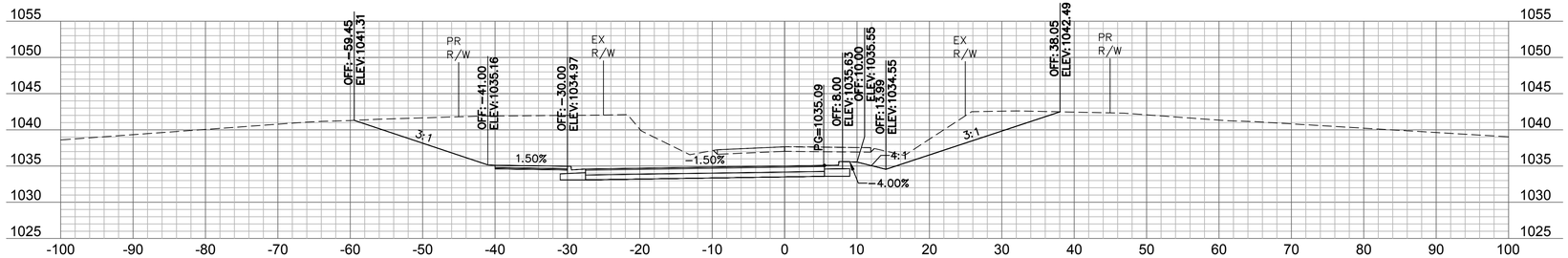

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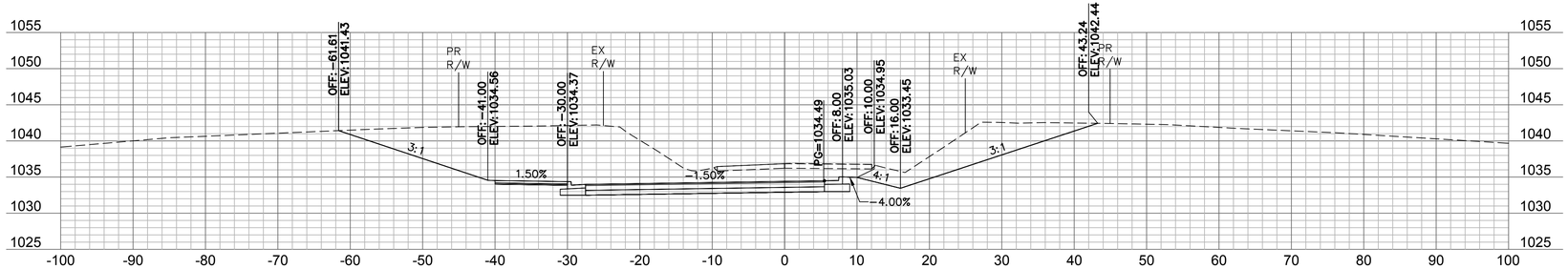

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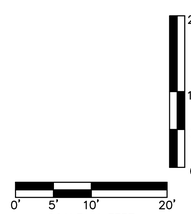

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BRIAN COOMES
Brian Coomes
04/23/2021
NUMBER PE-2015029306
PROFESSIONAL ENGINEER

REVISIONS

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

CROSS SECTIONS - 32ND STREET

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by: SMK/CTK
checked by: PM/LB/RF
approved by: BMC
QA/QC by: PM/LB/FR
project no.: 015-2768
drawing no.TSE_T_PXSEC_52768
date: 04/23/2021

SHEET
C64 of C91

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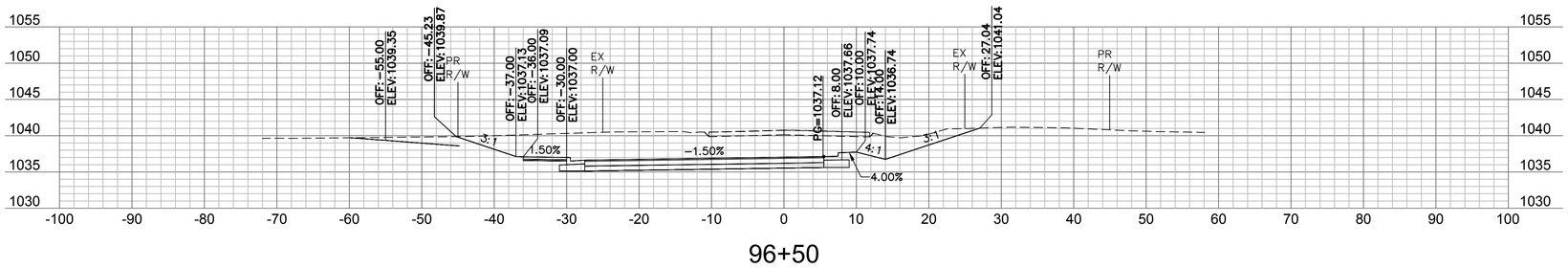

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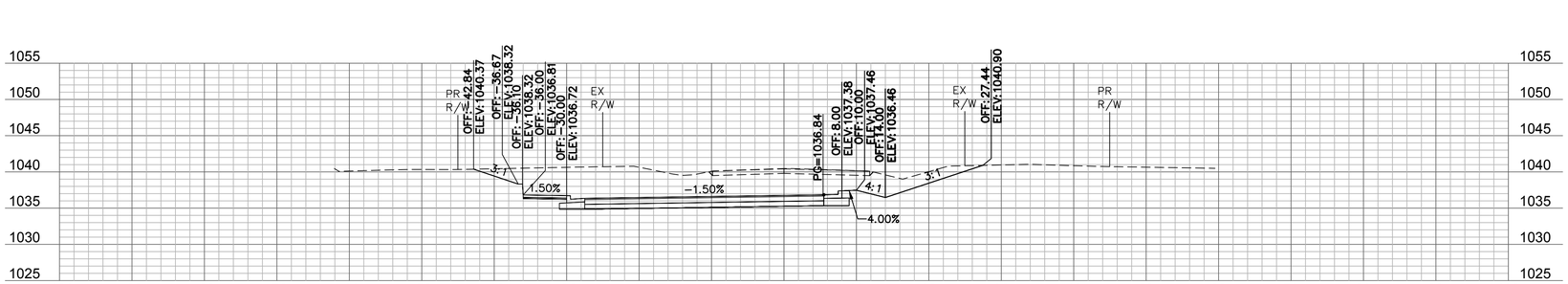

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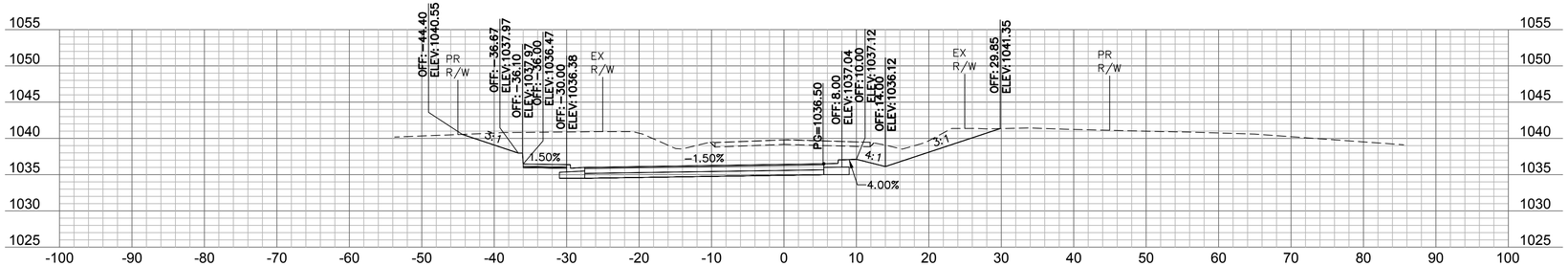

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0' 5' 10' 20'
SCALE IN FEET

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04/23/2021
NUMBER PE-2015029306
PROFESSIONAL ENGINEER

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REVISIONS

CROSS SECTIONS - 32ND STREET

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

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checked by: PM/LB/RF
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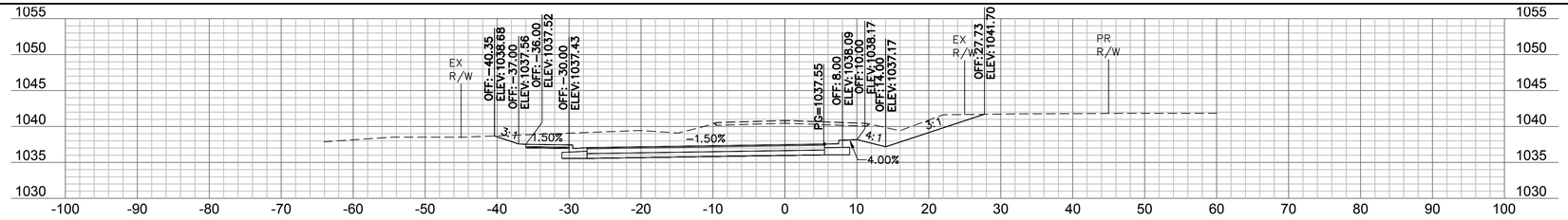
QA/QC by: PM/LB/FR
project no.: 015-2768
drawing no.TSE_T_PXSEC_52768
date: 04/23/2021

SHEET
C65 of C91



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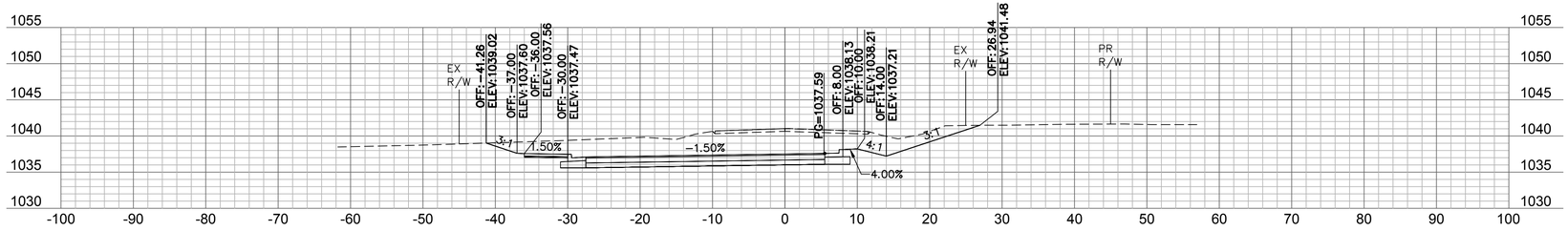

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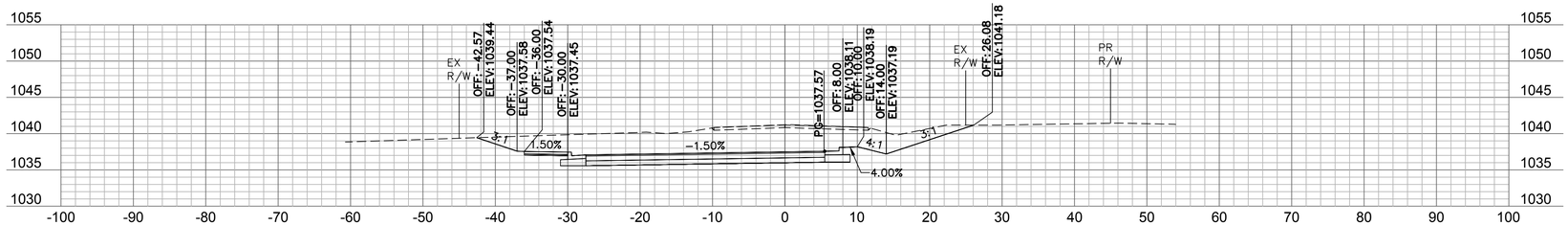

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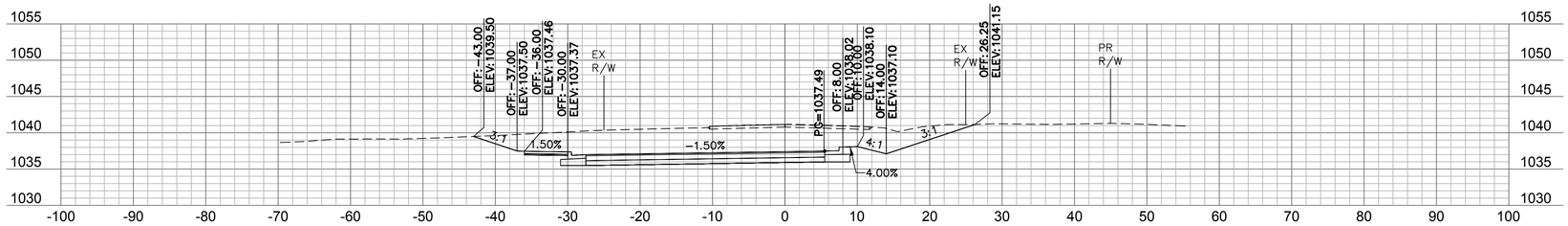

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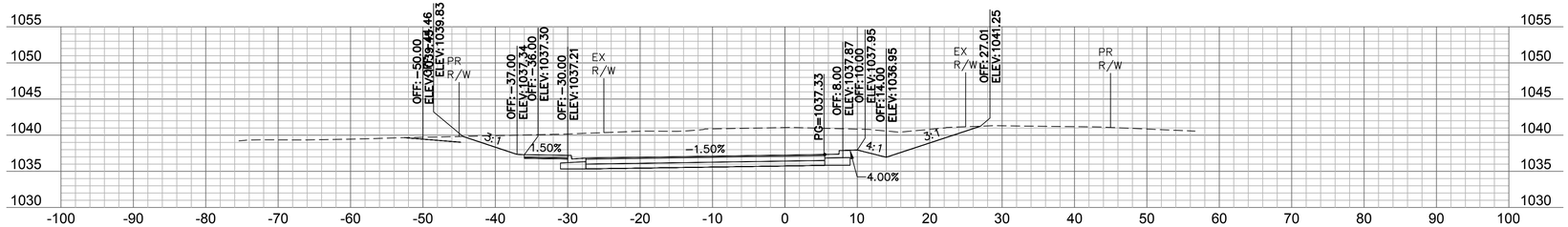

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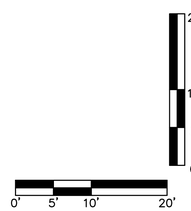

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BRIAN COOMES
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04/23/2021
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REVISIONS

CROSS SECTIONS - 32ND STREET

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

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SHEET
C66 of C91

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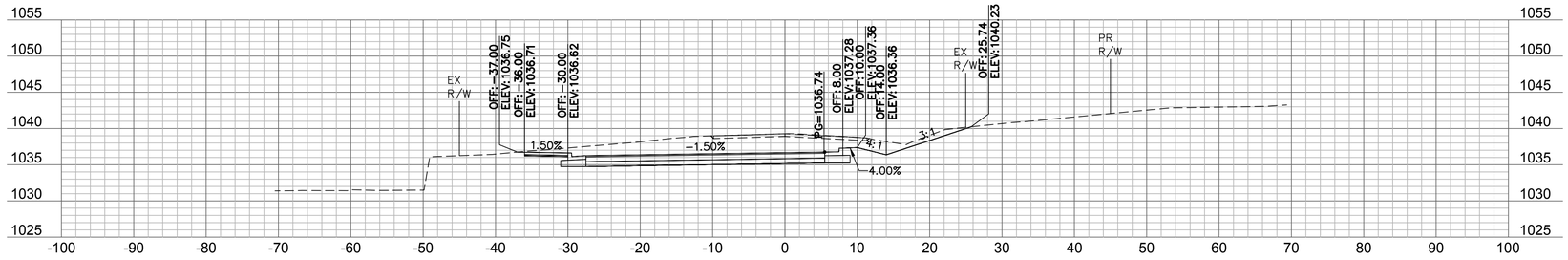

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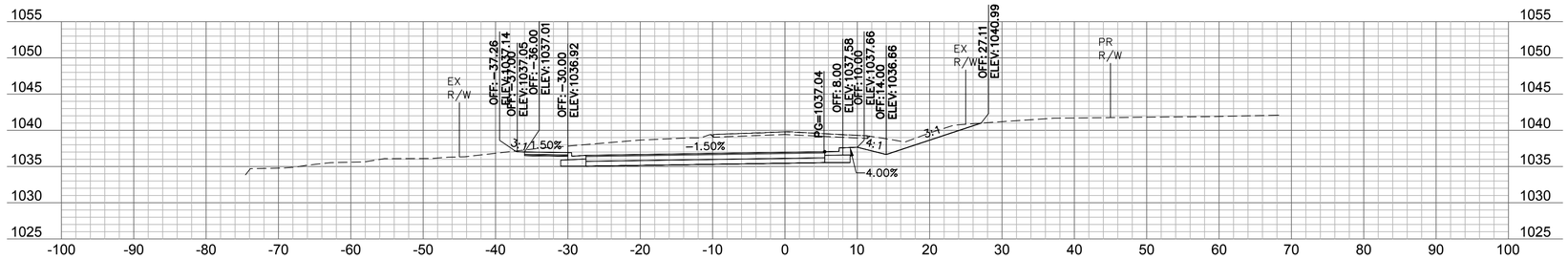

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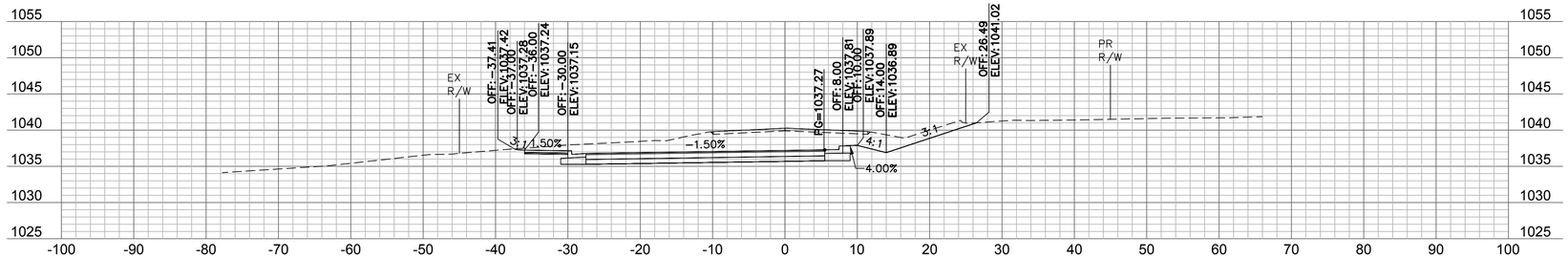

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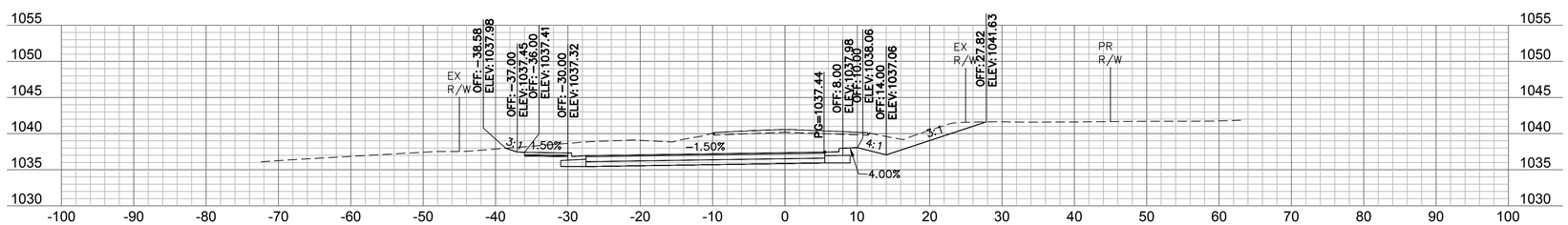

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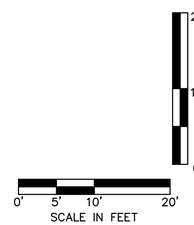

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STATE OF MISSOURI
BRIAN COOMES
04/23/2021
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32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

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SHEET
C67 of C91

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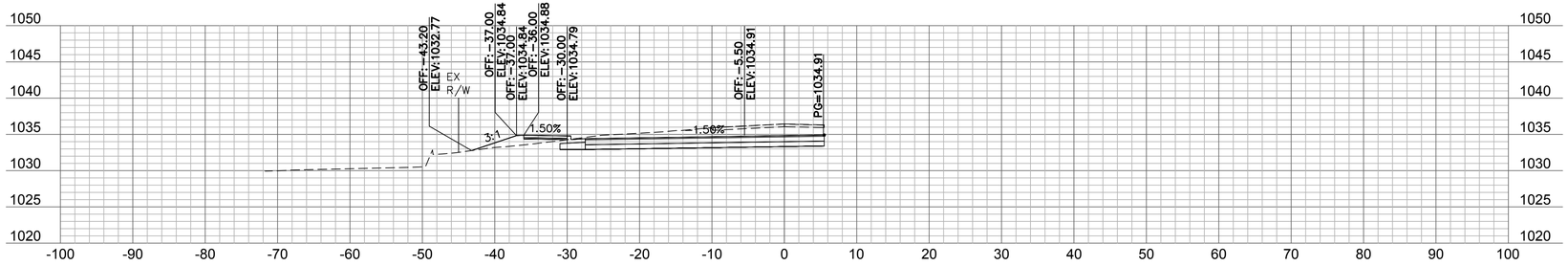

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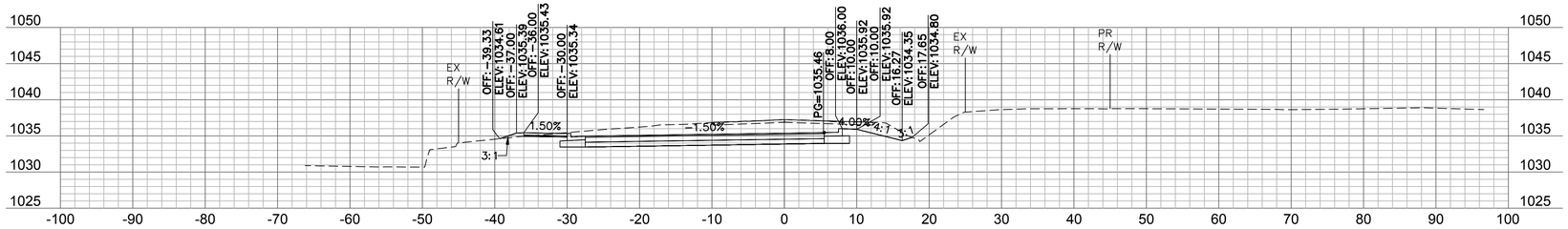

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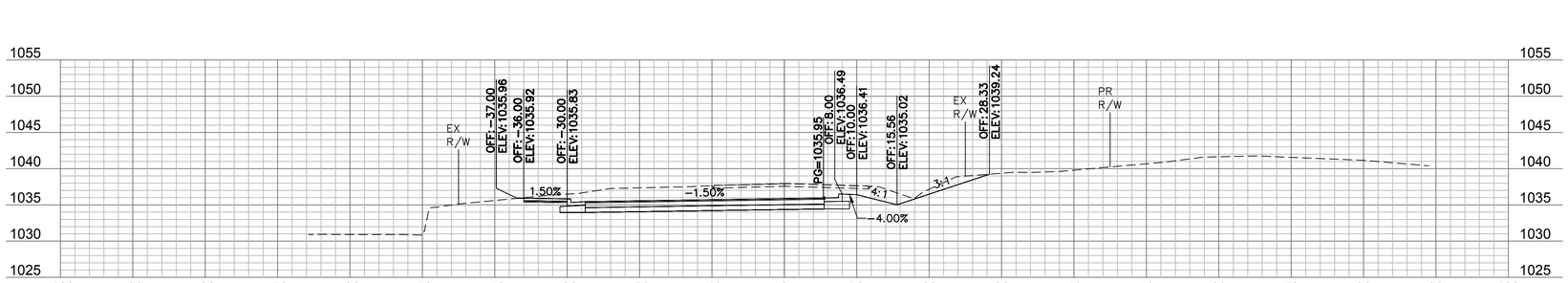

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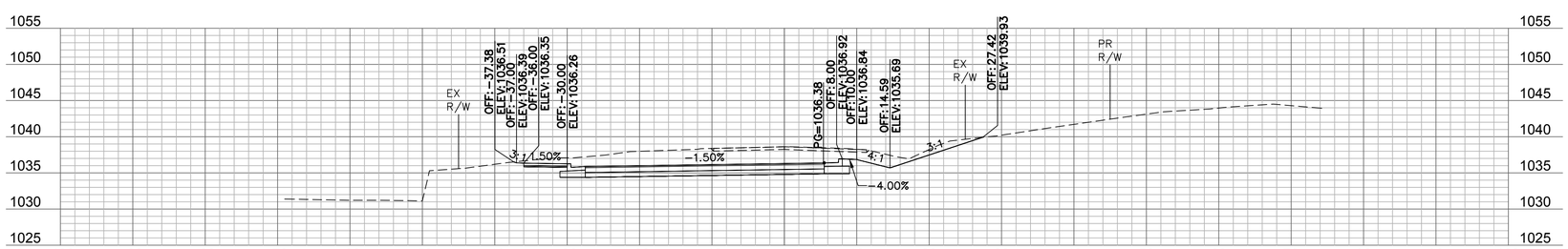

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20'
10'
5'
0'

0' 5' 10' 20'
SCALE IN FEET

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32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

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SHEET
C68 of C91

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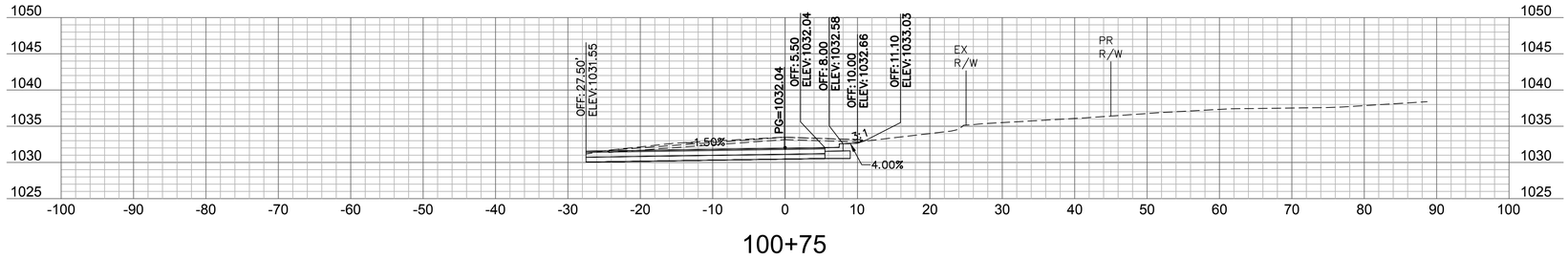

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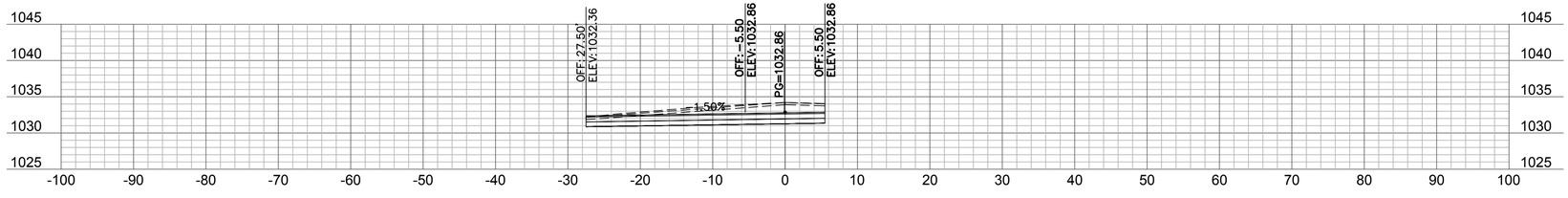

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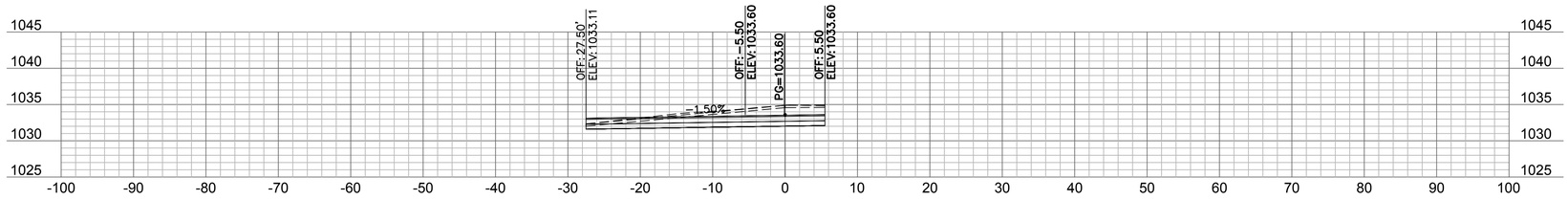

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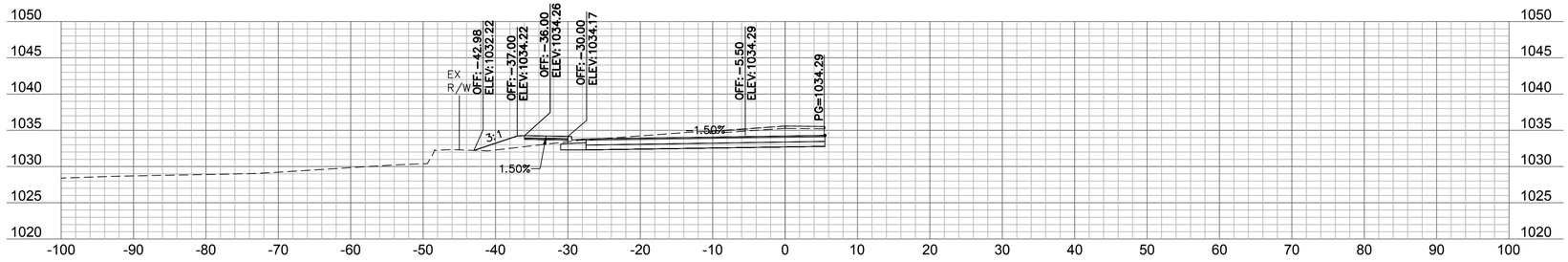

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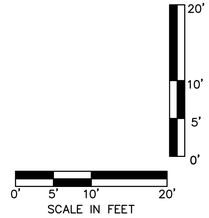

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Brian Coomes
04/23/2021
NUMBER PE-2015029306
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REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

CROSS SECTIONS - 32ND STREET

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by: SMK/CTK
checked by: PM/LB/RF
approved by: BMC
QA/QC by: PM/LB/FR
project no.: 015-2768
drawing no.TSE_T_PXSEC_52768
date: 04/23/2021

SHEET
C69 of C91

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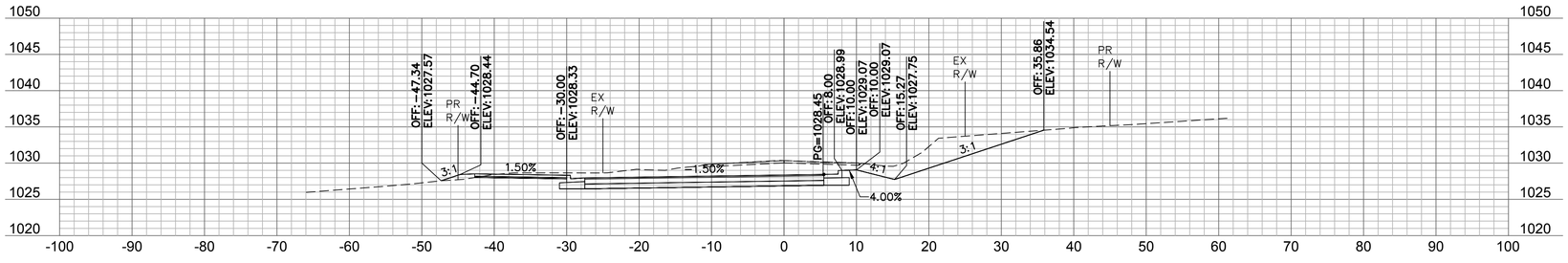

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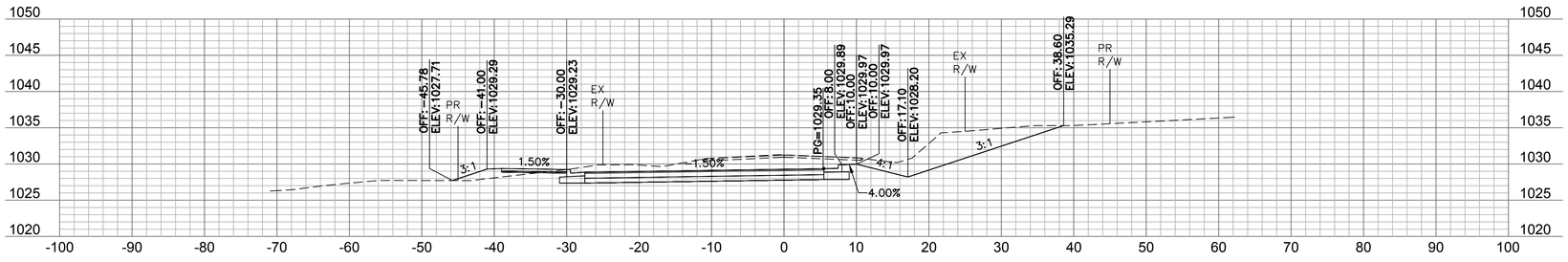

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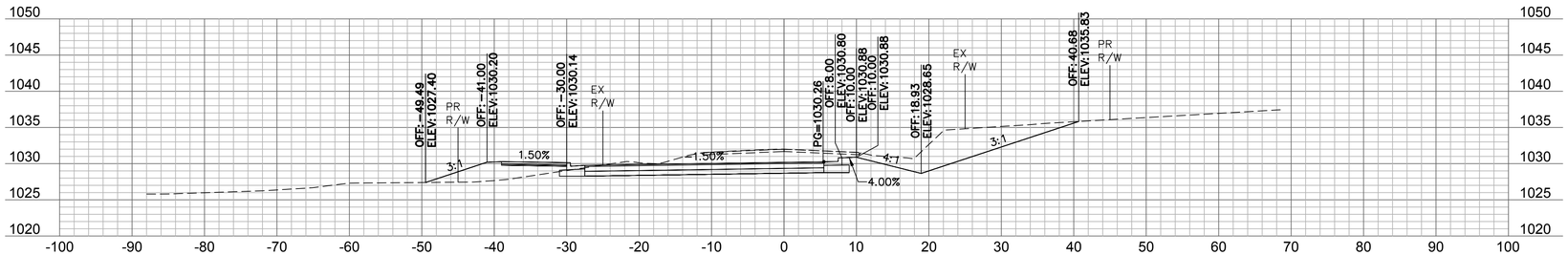

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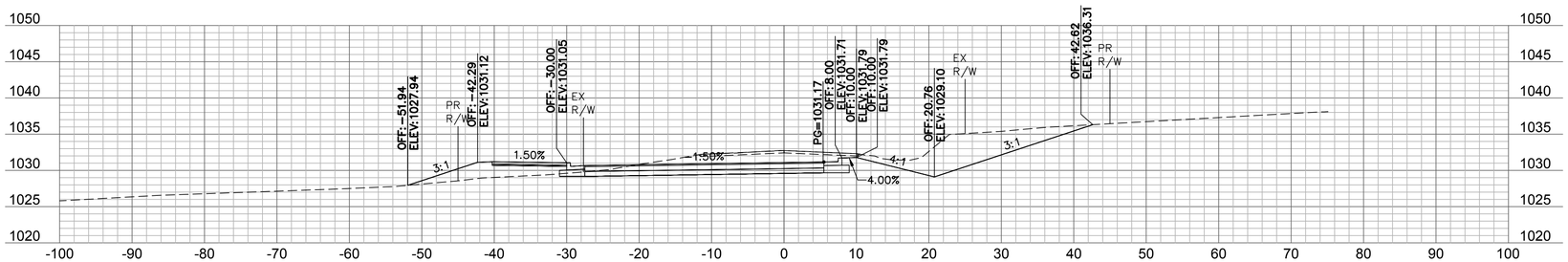

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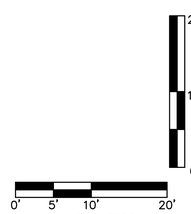

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SHEET
C70 of C91

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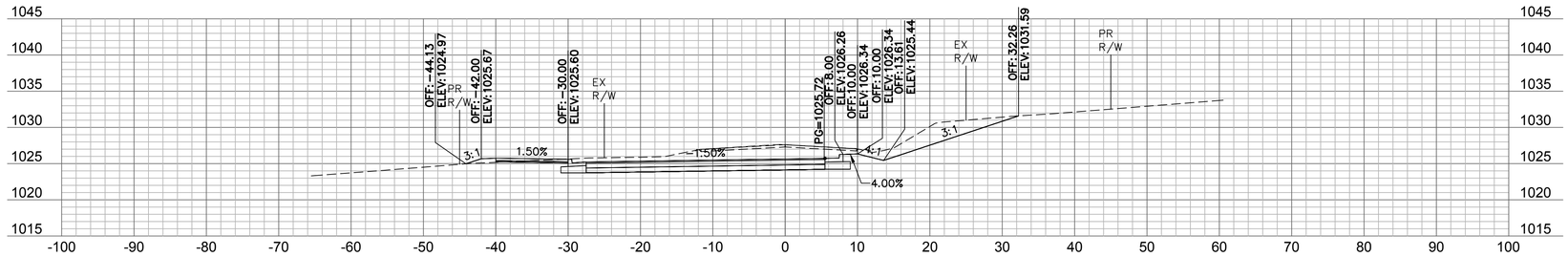

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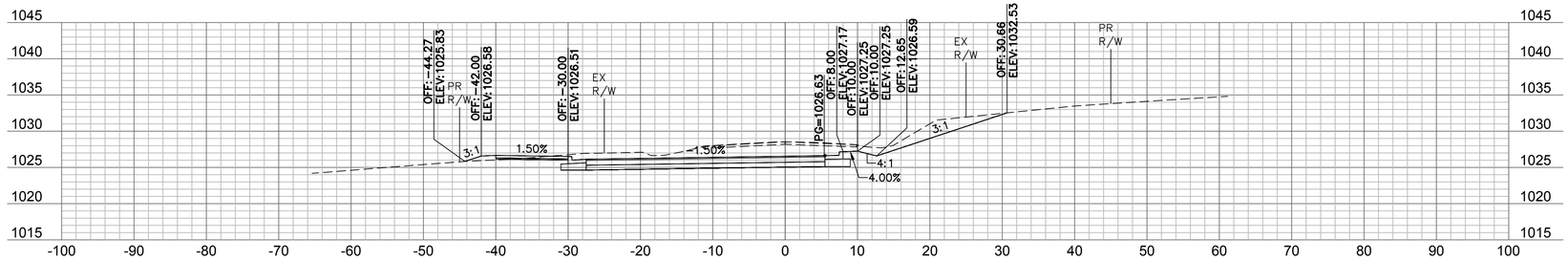

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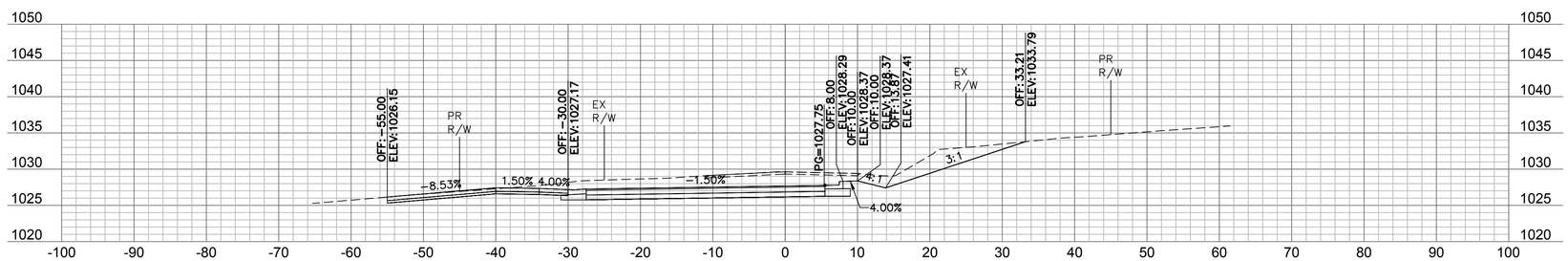

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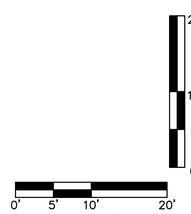

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C71 of C91

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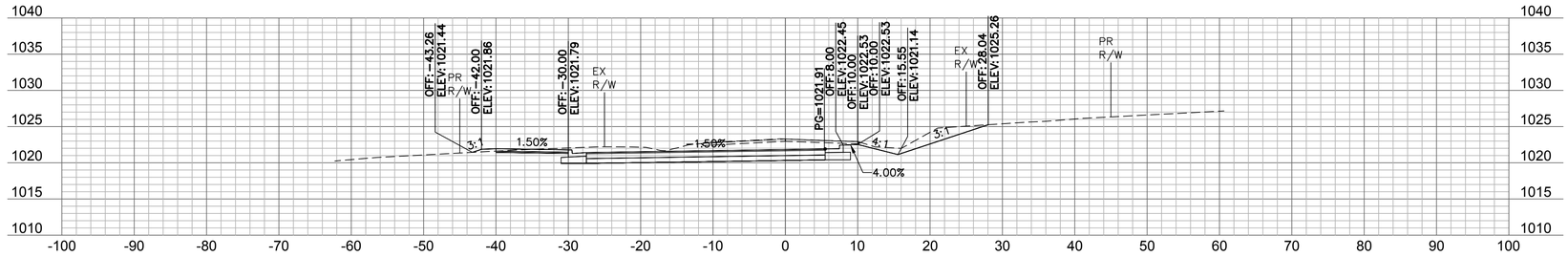

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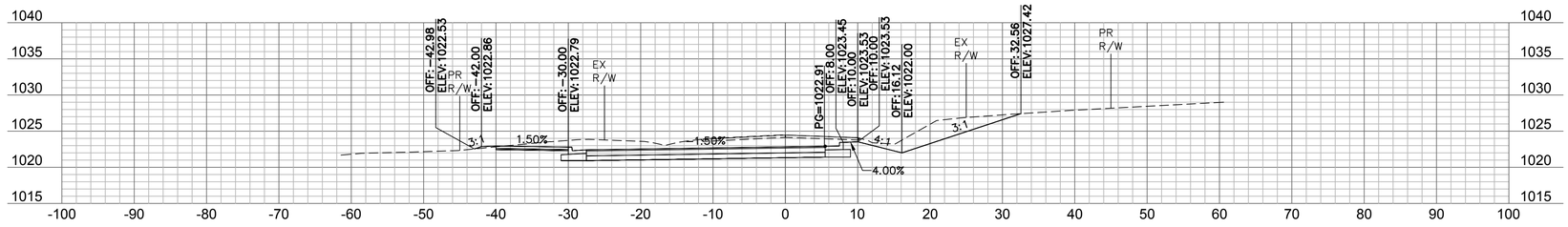

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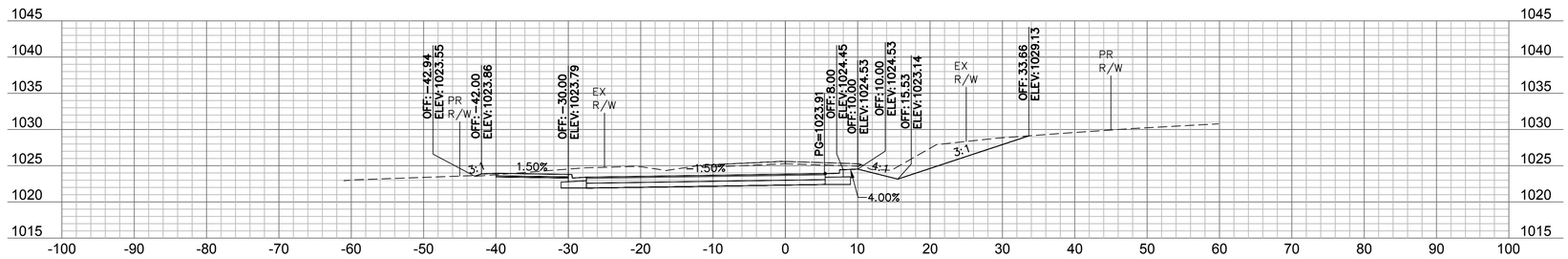

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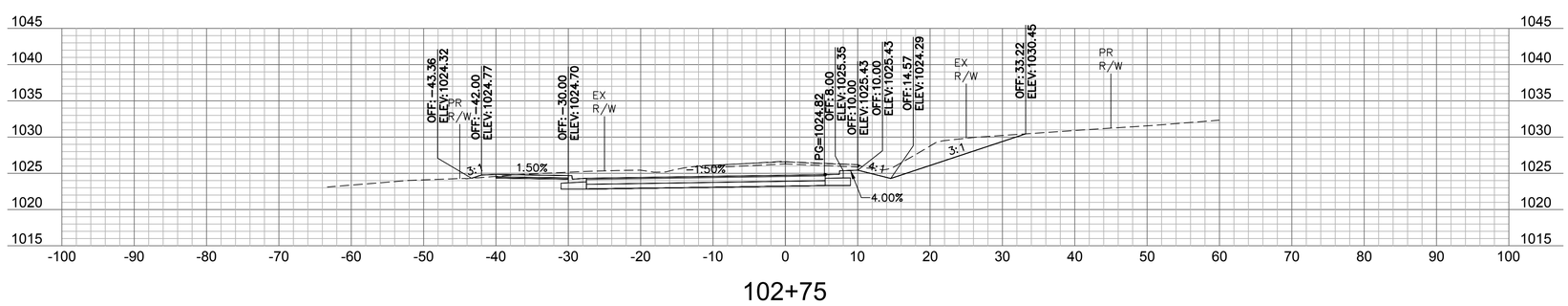

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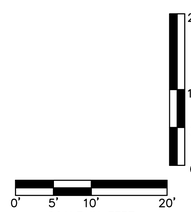

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32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

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C72 of C91

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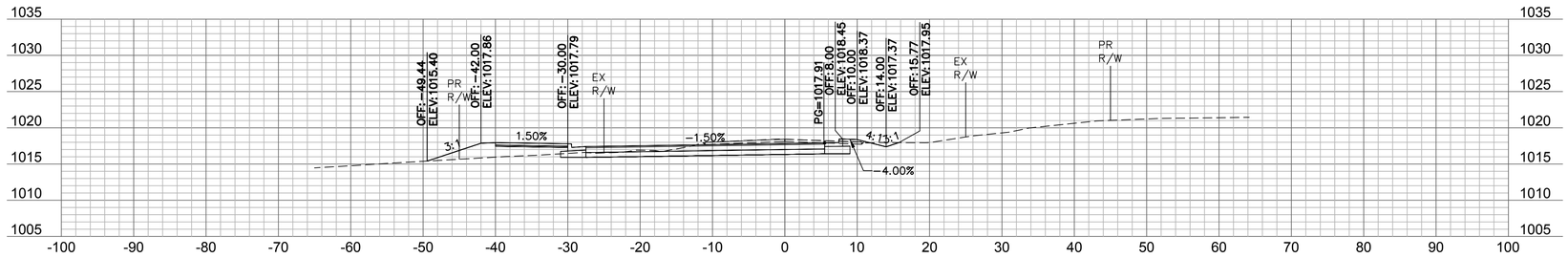

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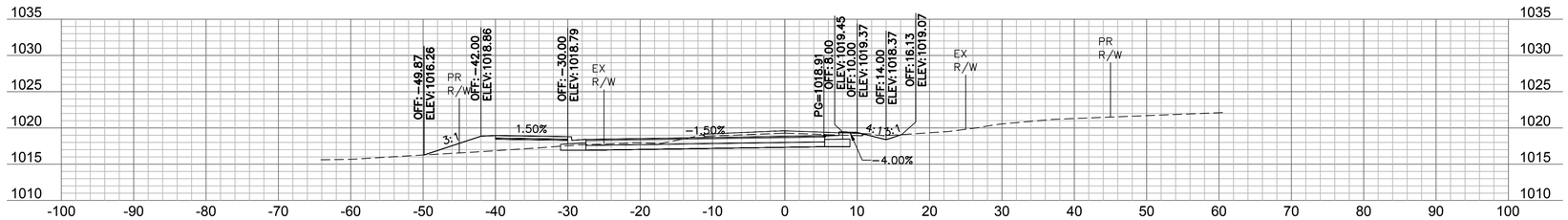

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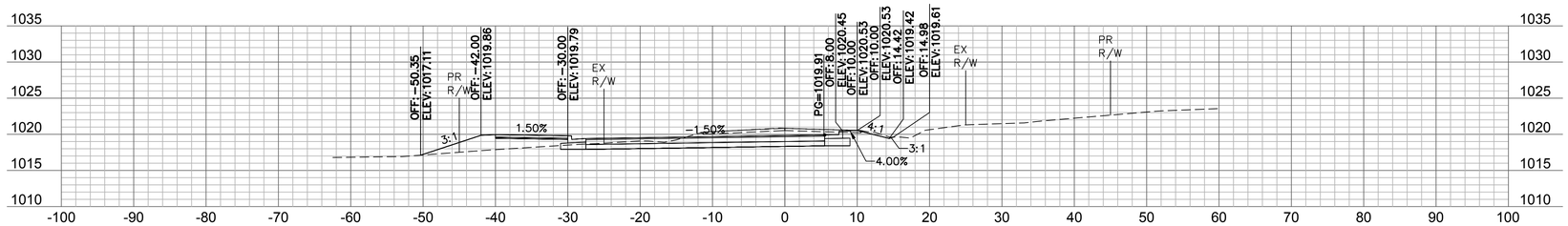

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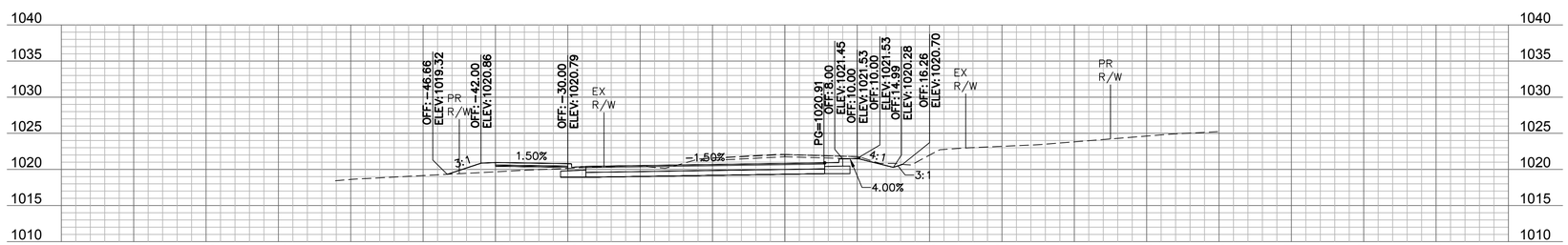

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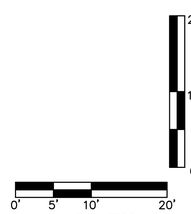

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CITY OF JOPLIN

JOPLIN, MISSOURI

2021

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QA/QC by: PM/LB/FR
project no.: 015-2768
drawing no.TSE_T_PXSEC_52768
date: 04/23/2021

SHEET
C73 of C91

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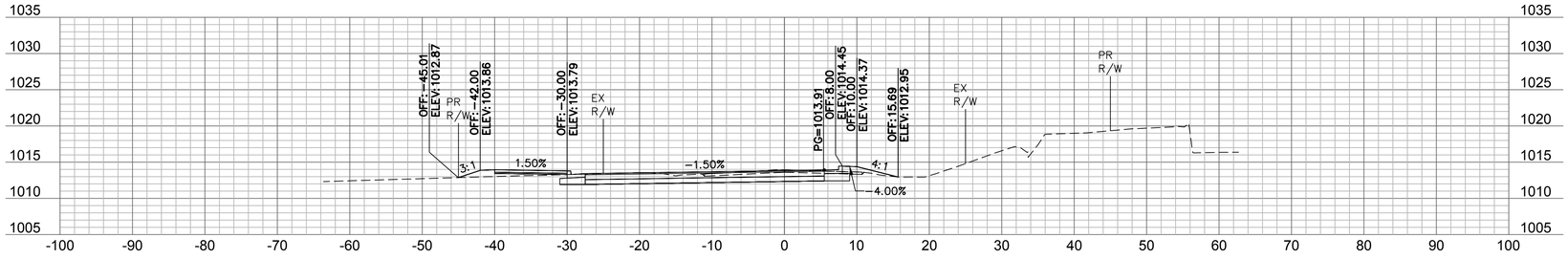

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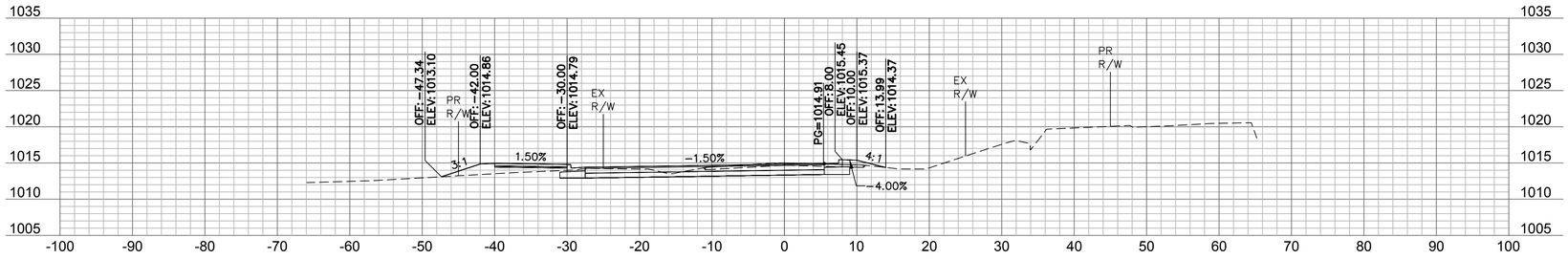

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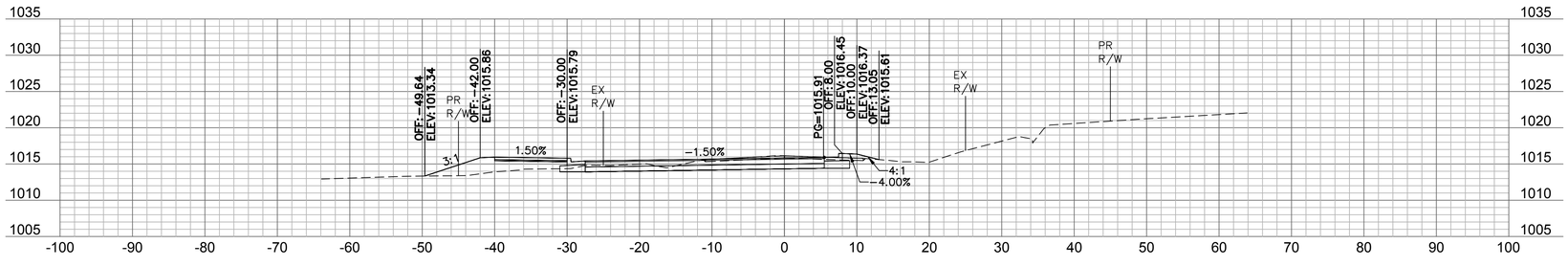

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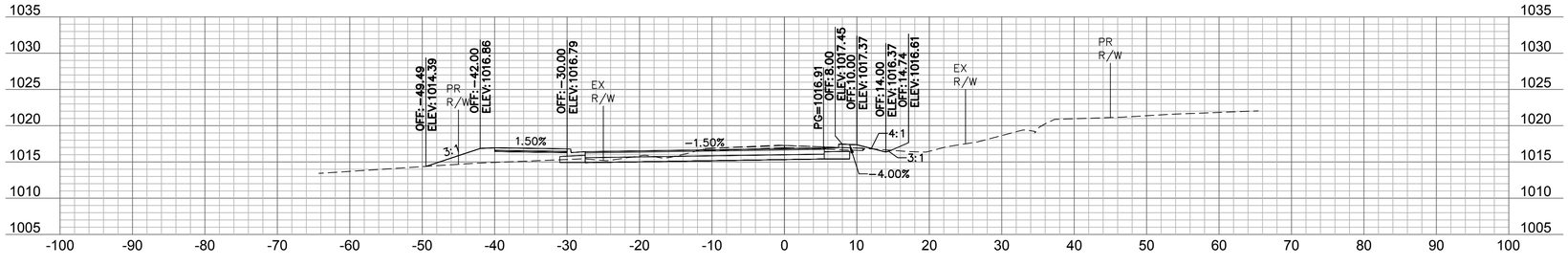

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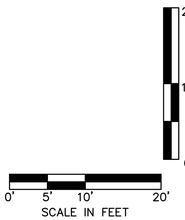

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JOPLIN, MISSOURI

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SHEET
C74 of C91

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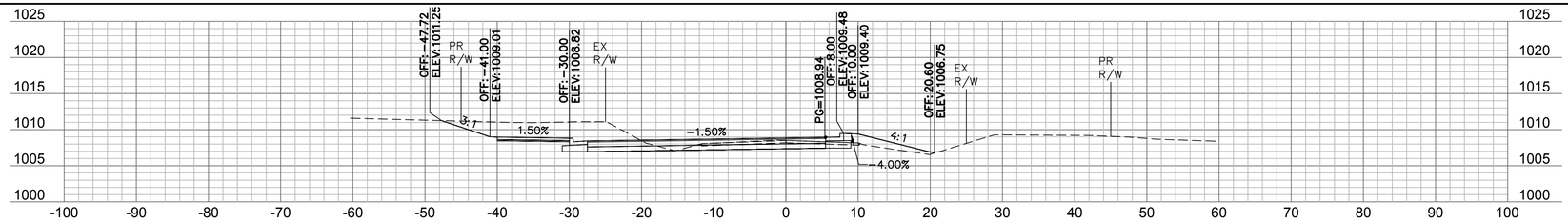

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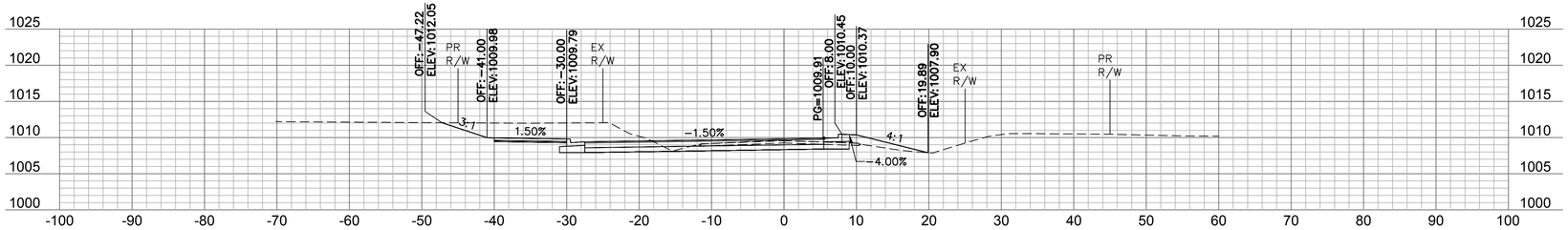

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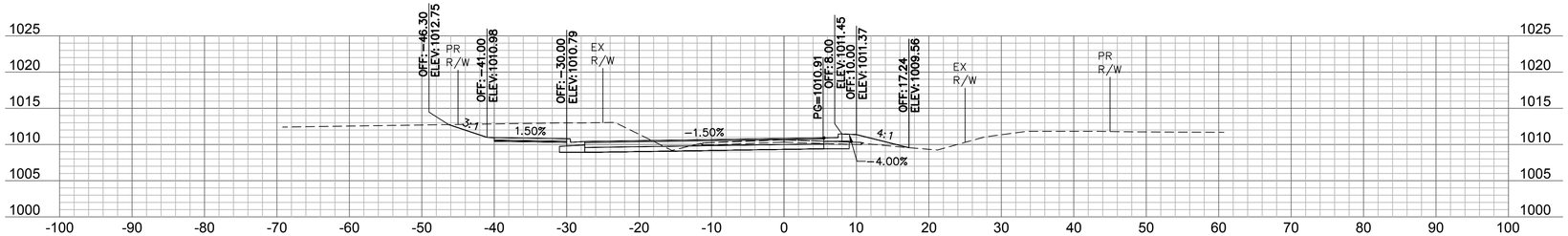

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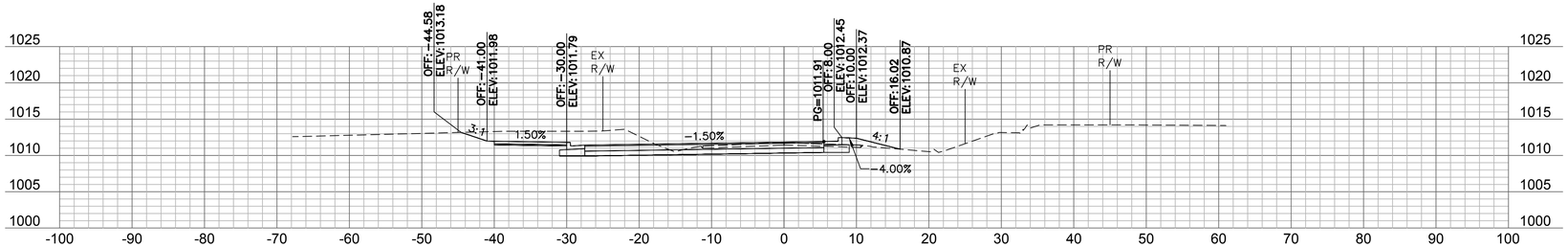

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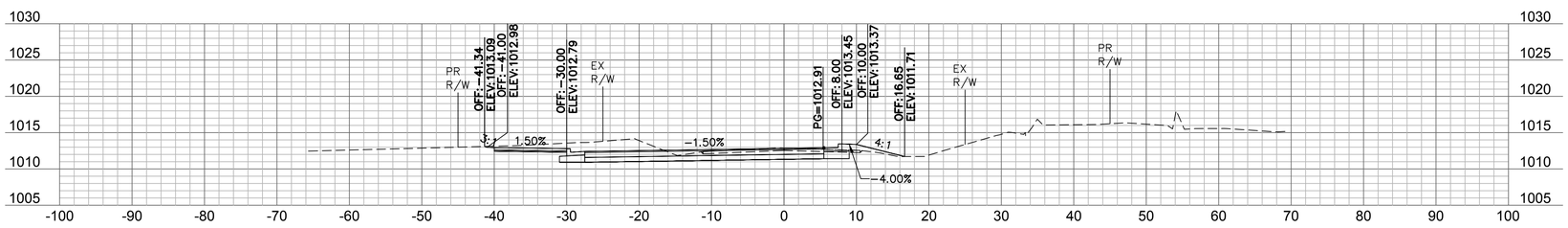

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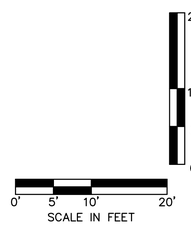

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C75 of C91

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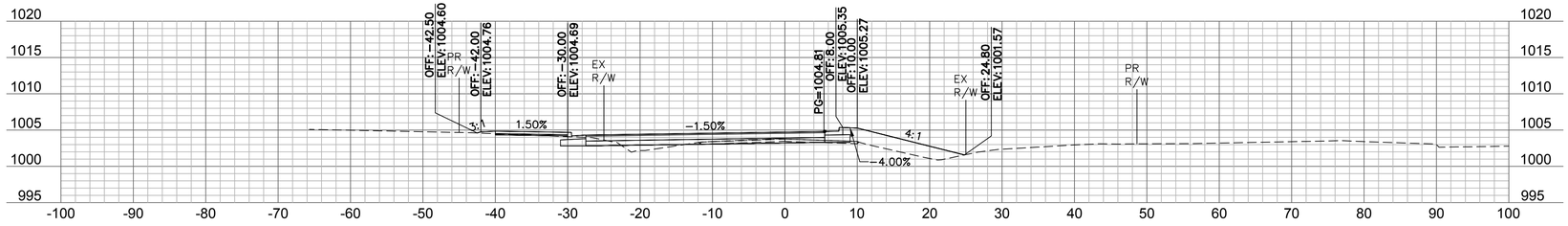

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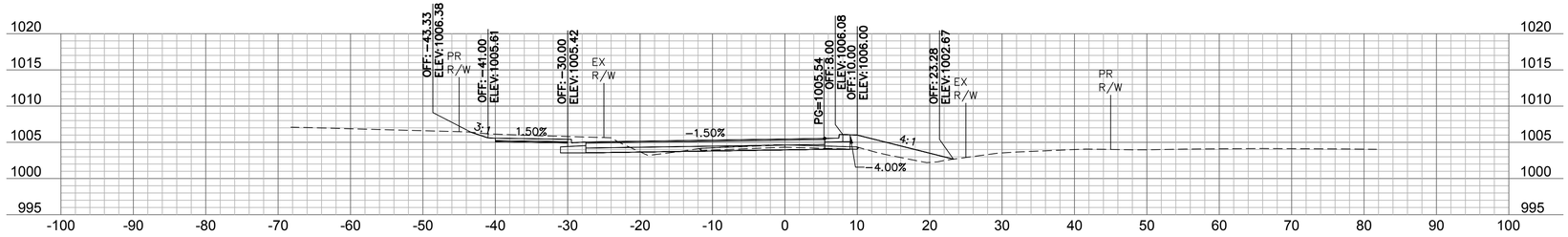

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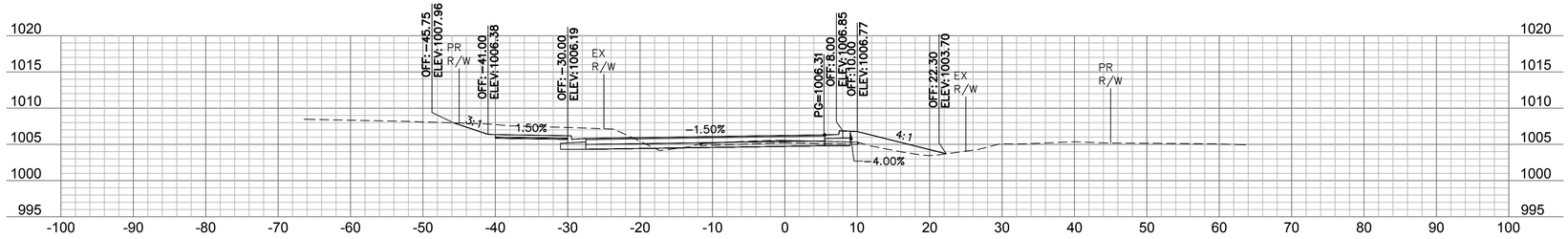

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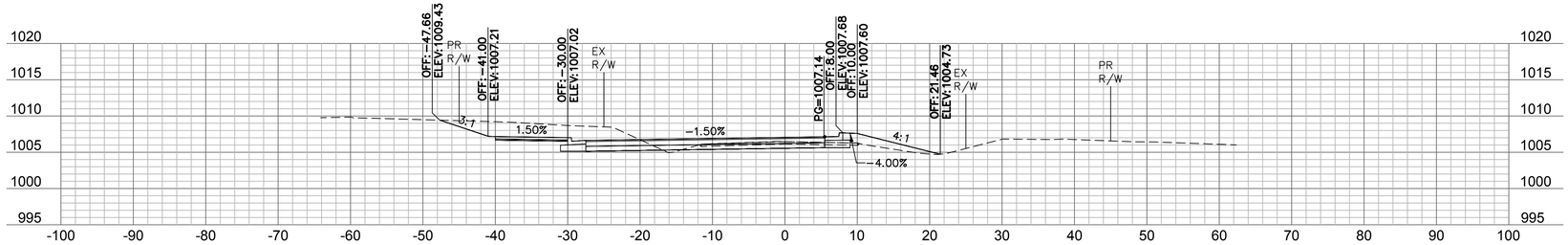

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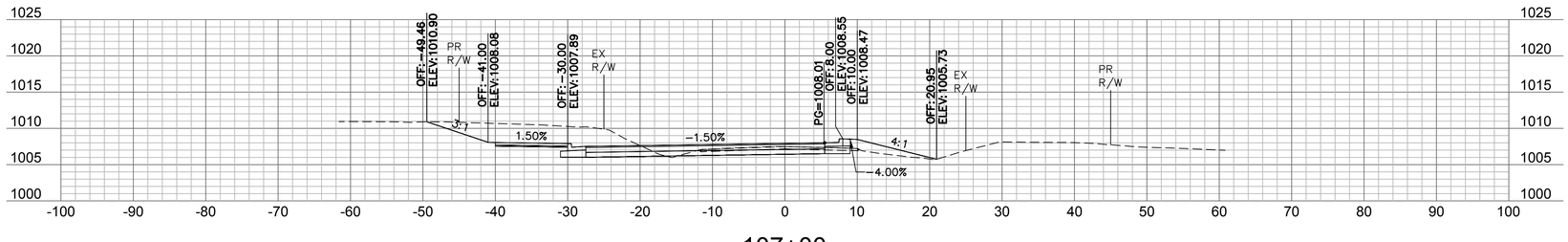

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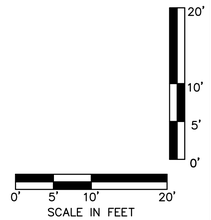

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REVISIONS

CROSS SECTIONS - 32ND STREET

32ND STREET WIDENING
CITY OF JOPLIN

2021

JOPLIN, MISSOURI

drawn by: SMK/CTK
checked by: PM/LB/RF
approved by: BMC
QA/QC by: PM/LB/FR
project no.: 015-2768
drawing no.TSE_T_PXSEC_52768
date: 04/23/2021

SHEET
C76 of C91

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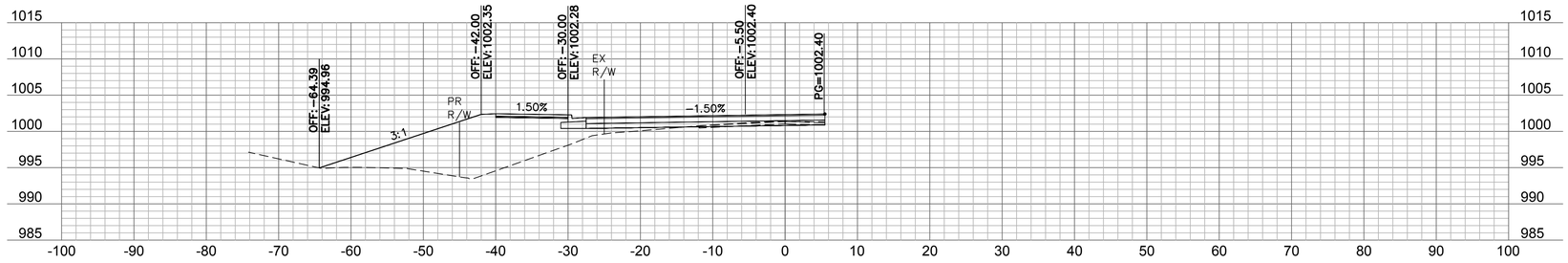

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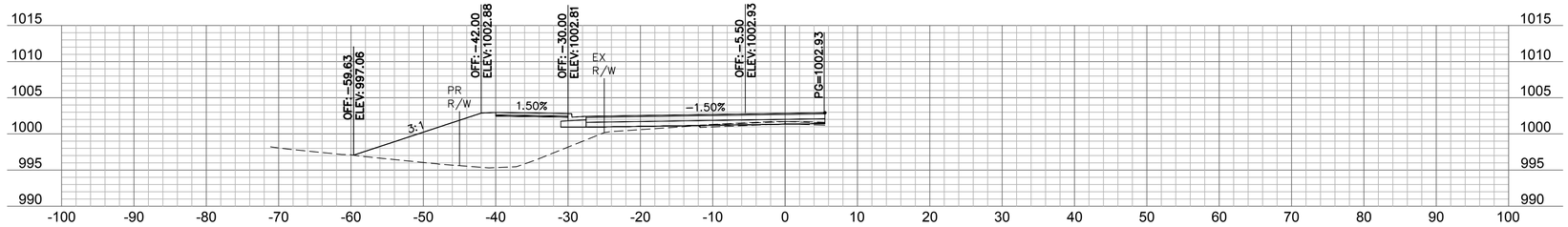

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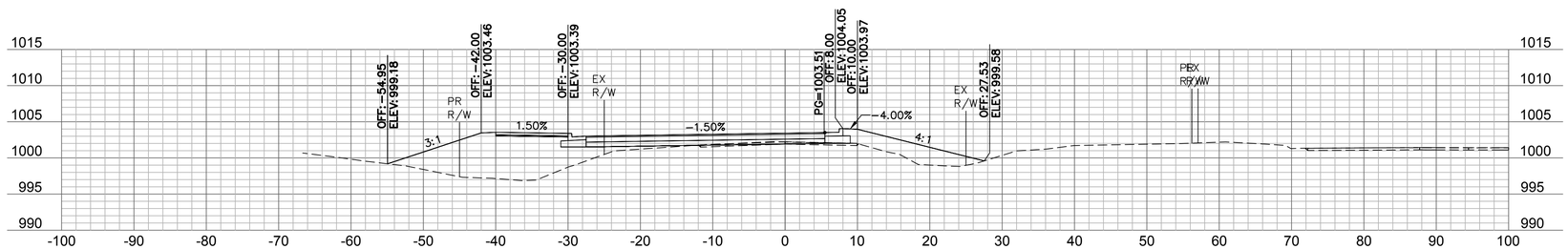

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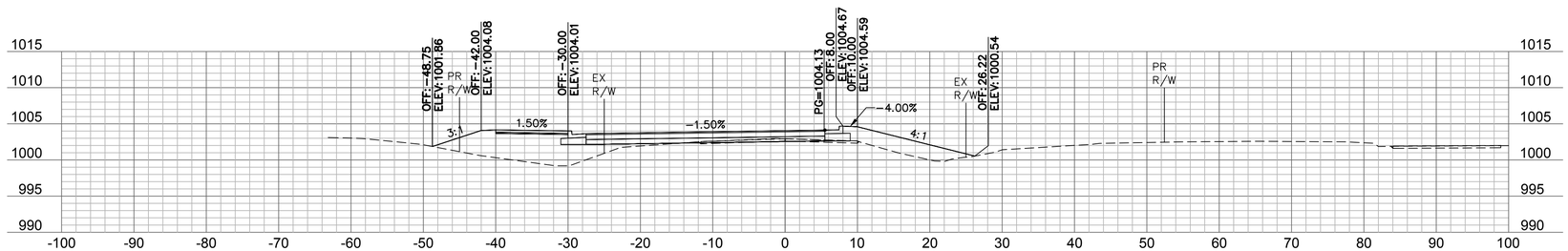

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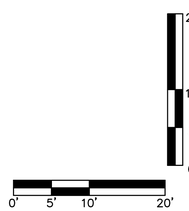

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SHEET
C77 of C91

DWG: F:\PROJECTS\015-2768\40-Design\AutoCAD\Final Plans\Xref\TSE_T_PXSEC_52768.dwg USER: skendall
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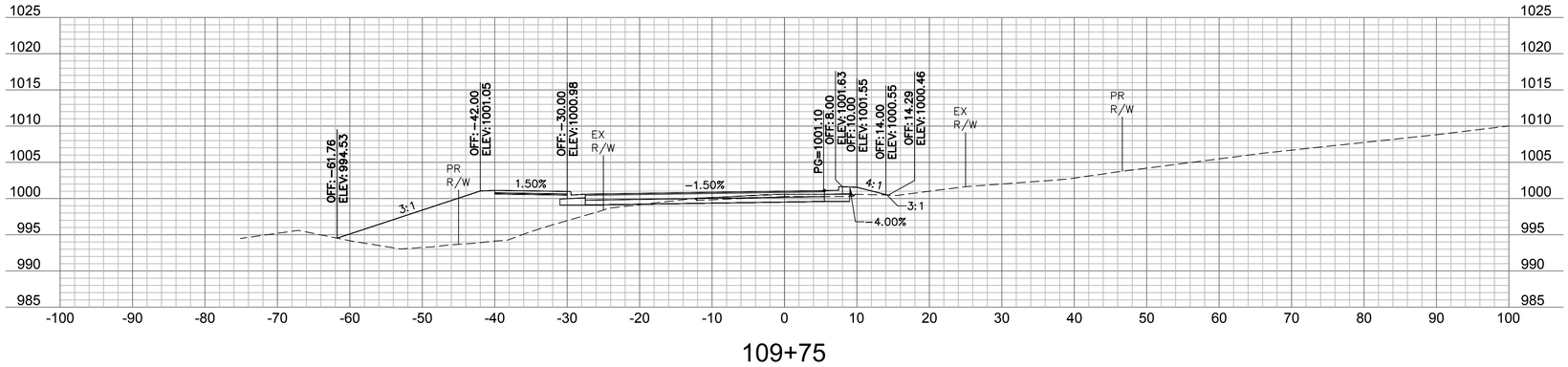

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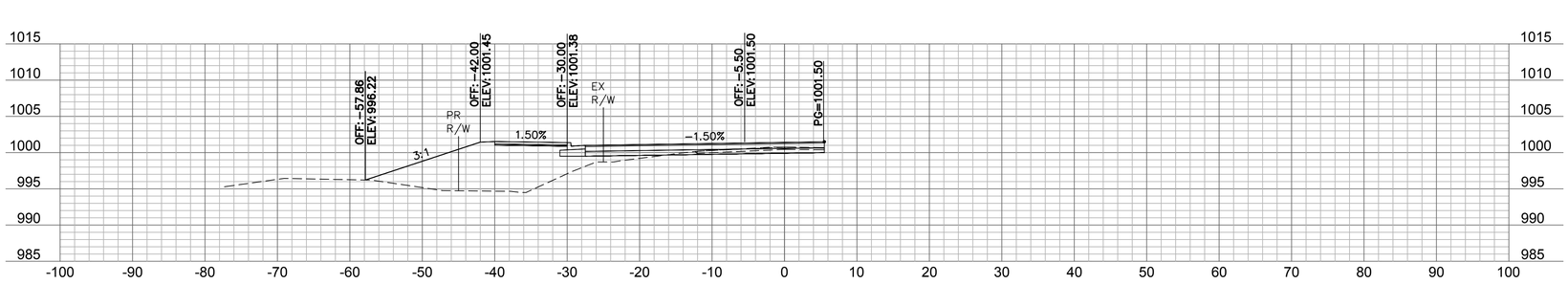

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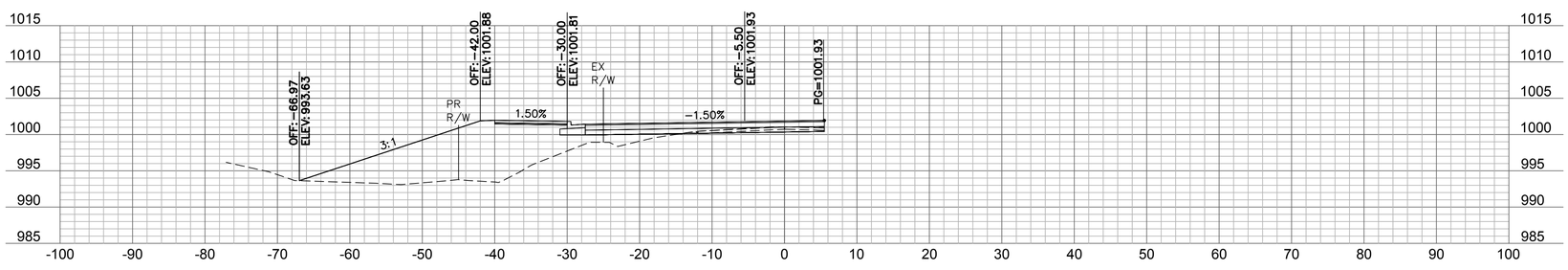

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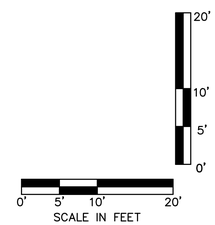

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SHEET
C78 of C91

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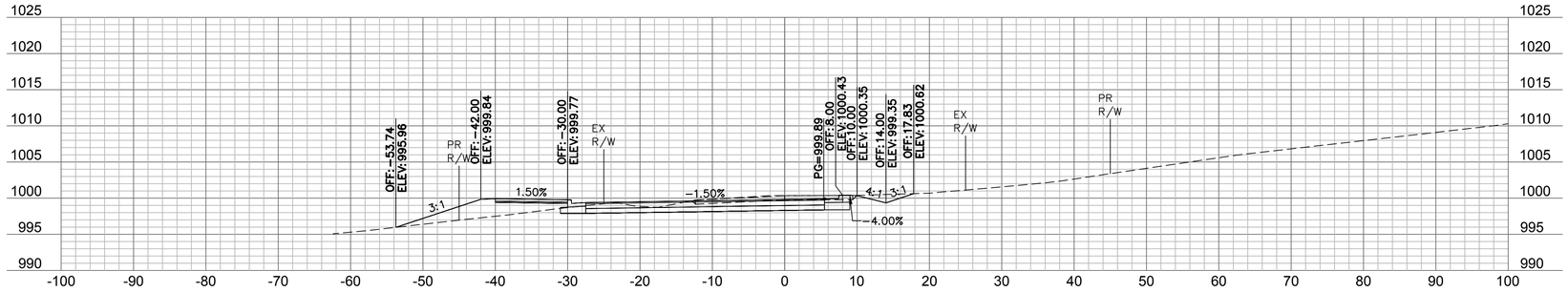

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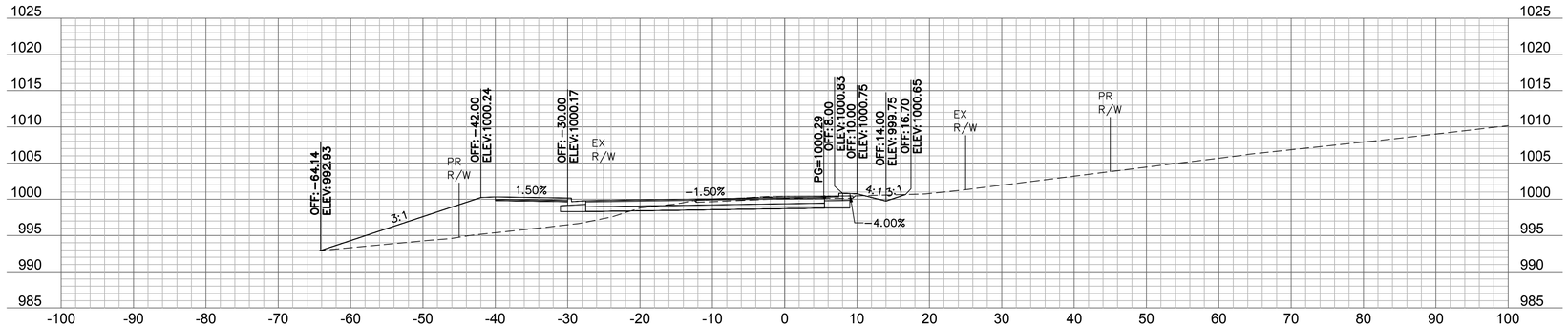

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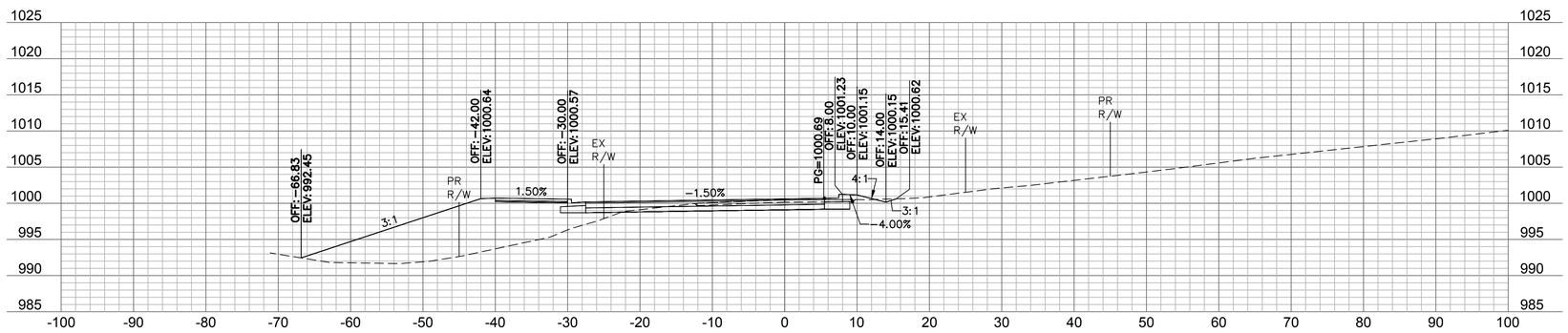

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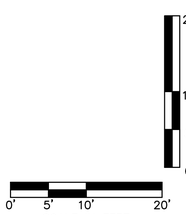

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SHEET
C79 of C91

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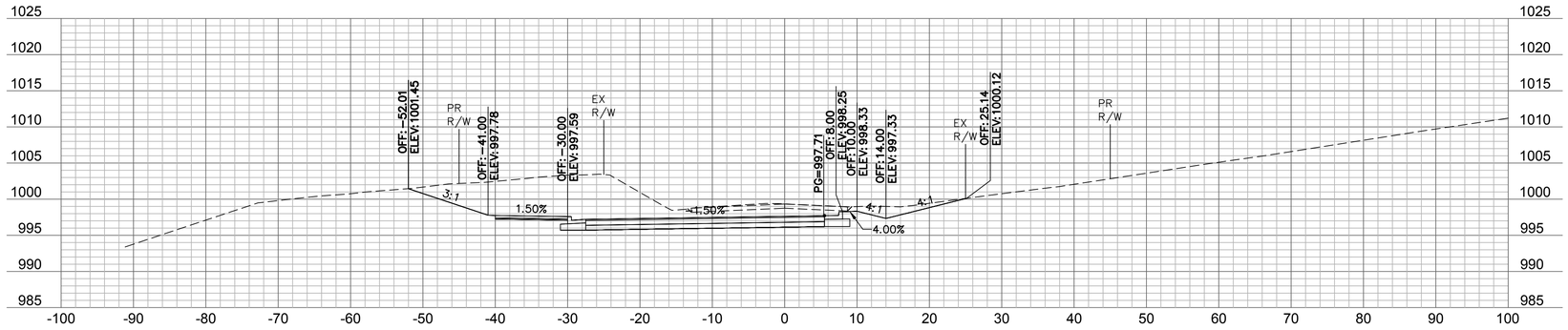

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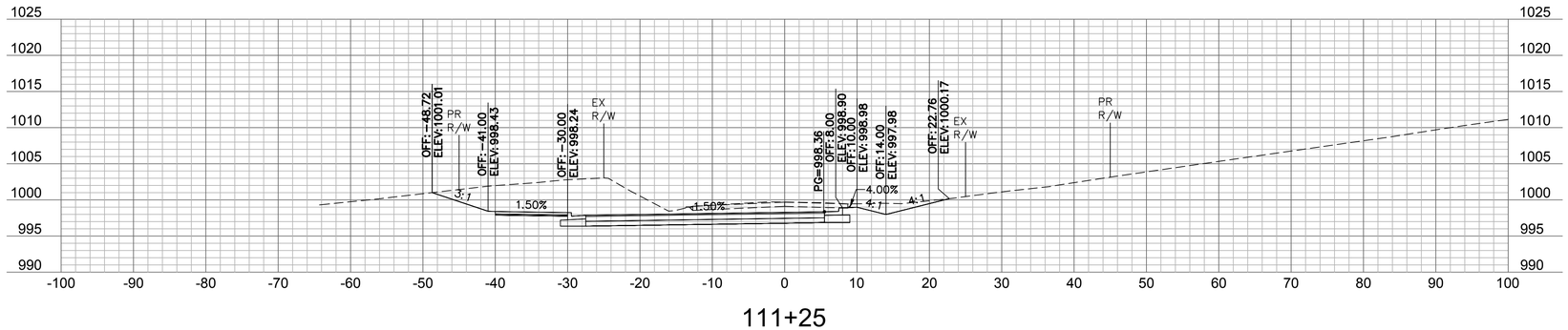

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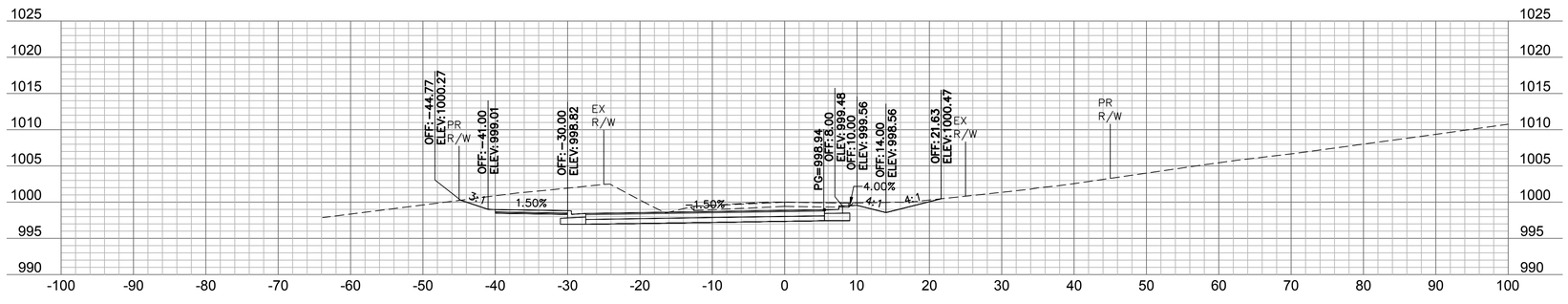

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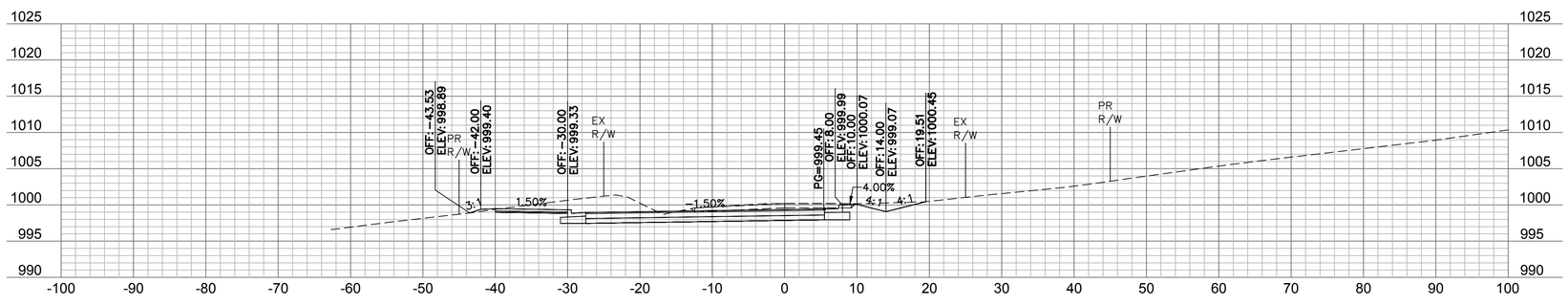

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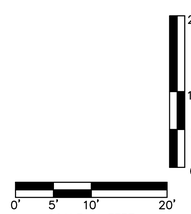

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JOPLIN, MISSOURI

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SHEET
C80 of C91

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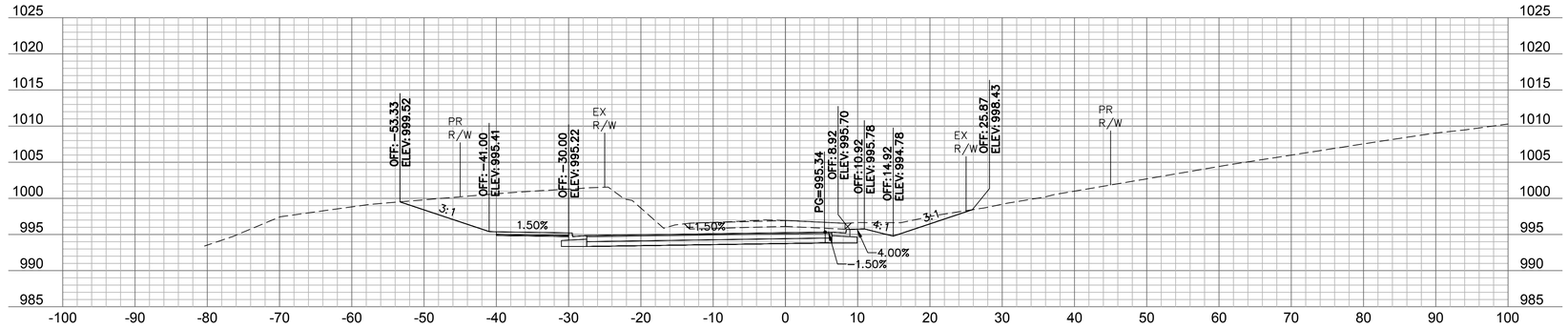

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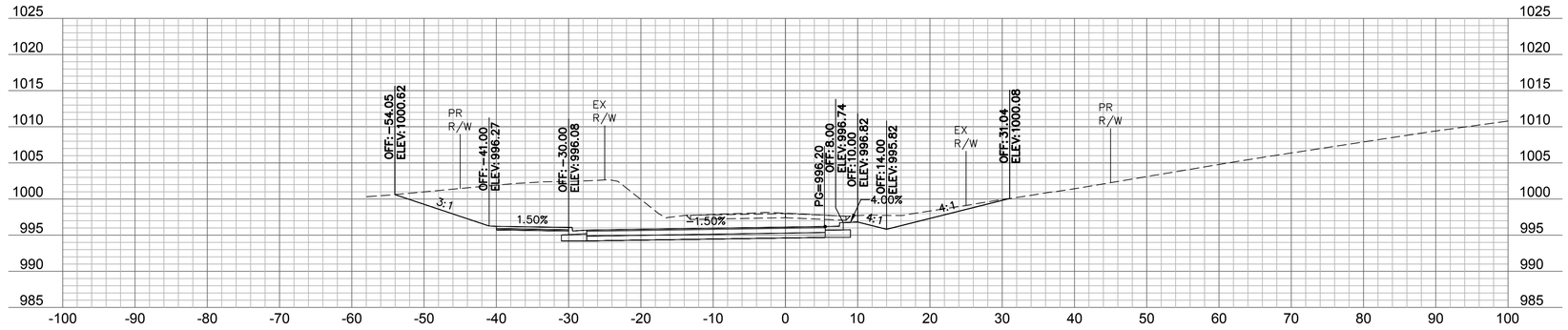

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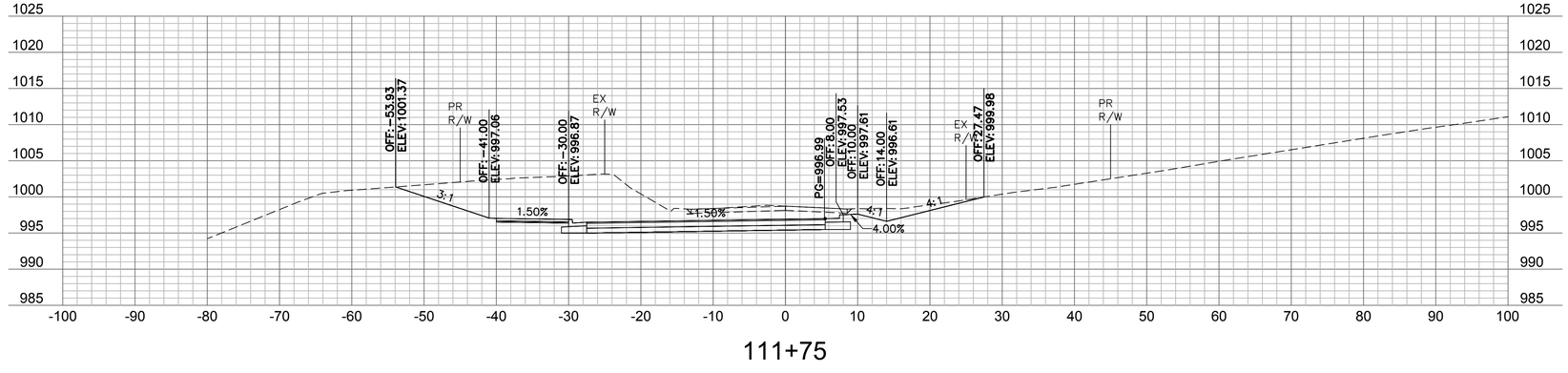

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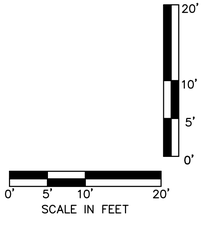

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SHEET
C81 of C91

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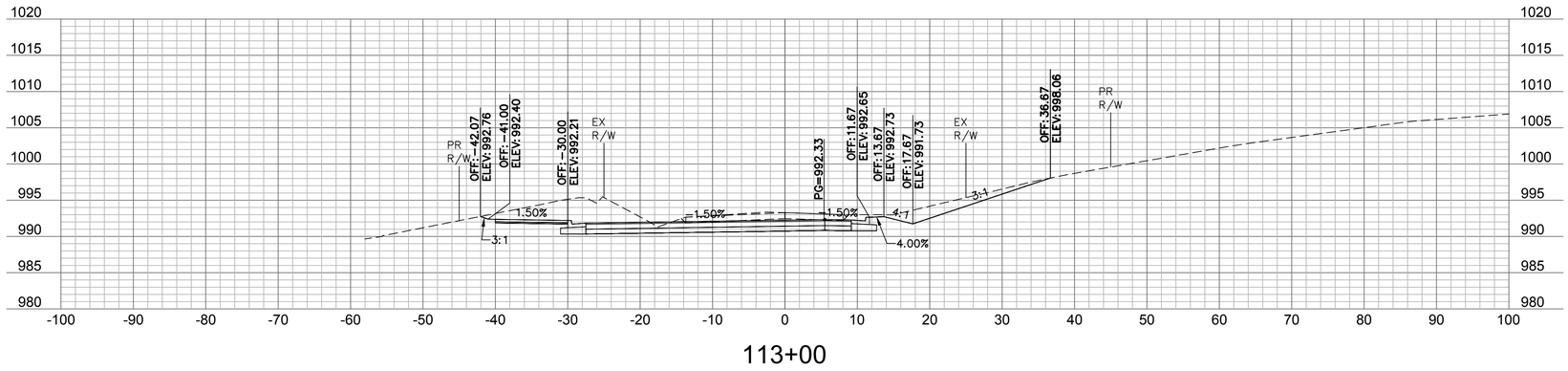

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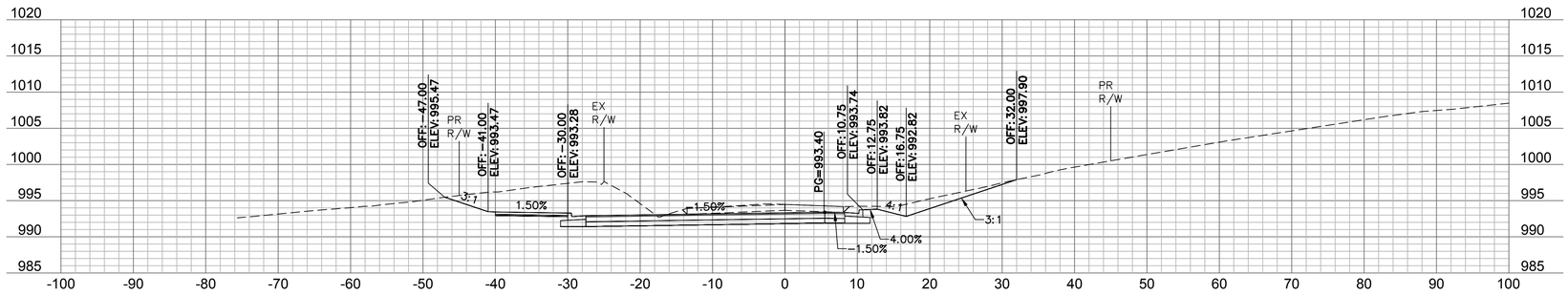

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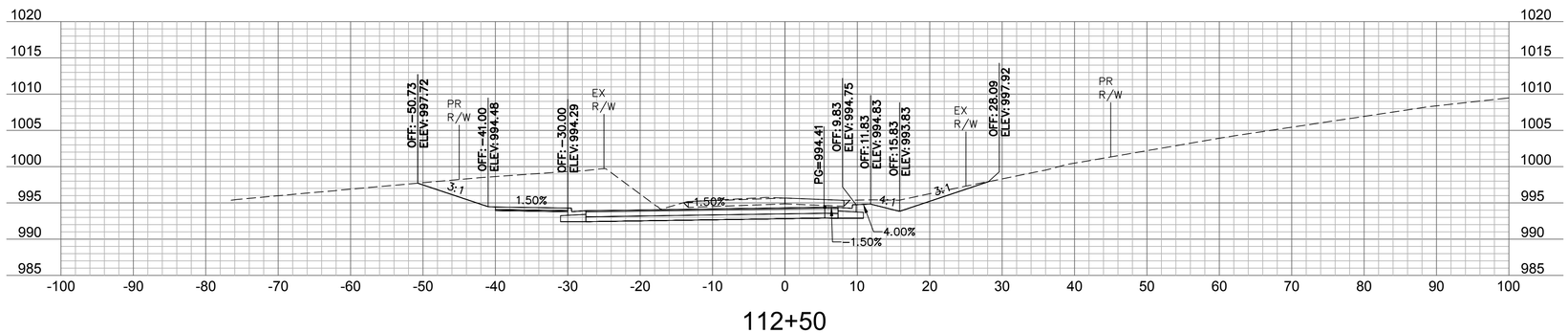

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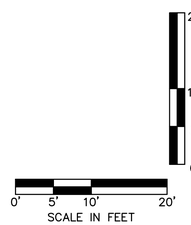

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SHEET
C82 of C91

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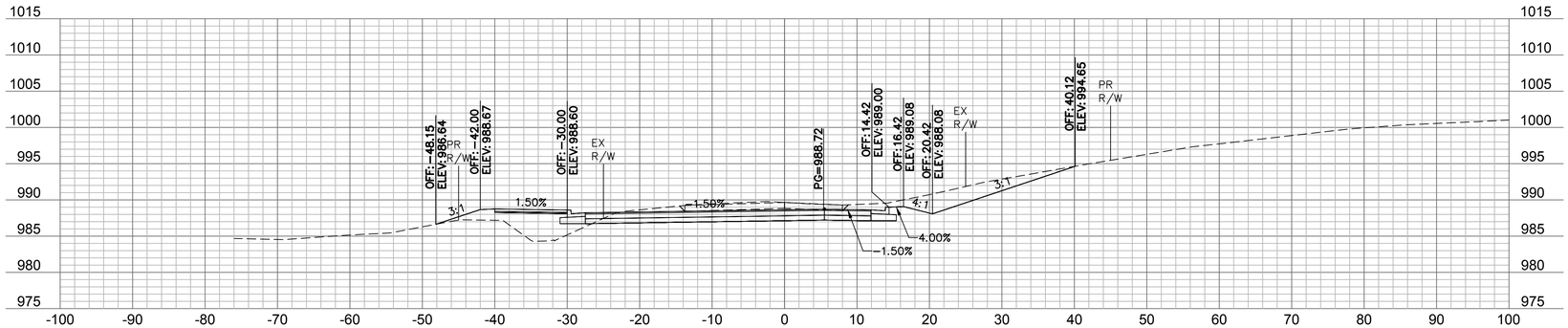

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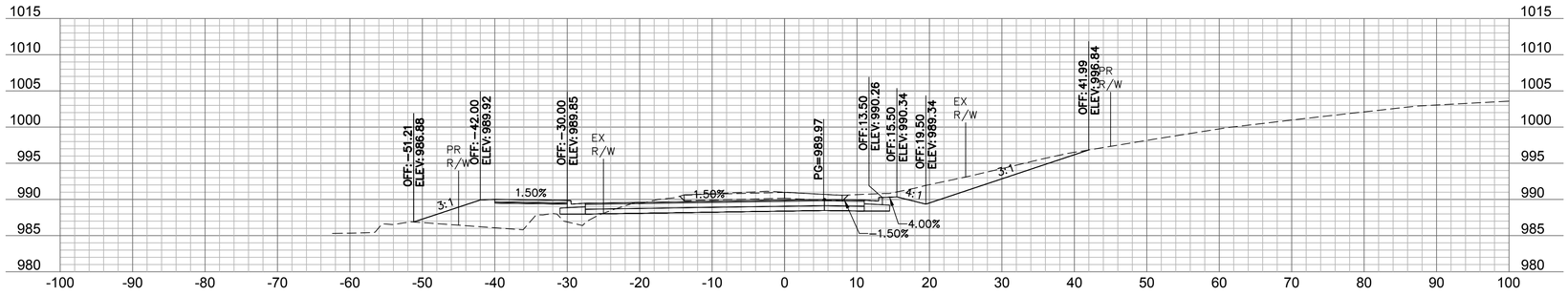

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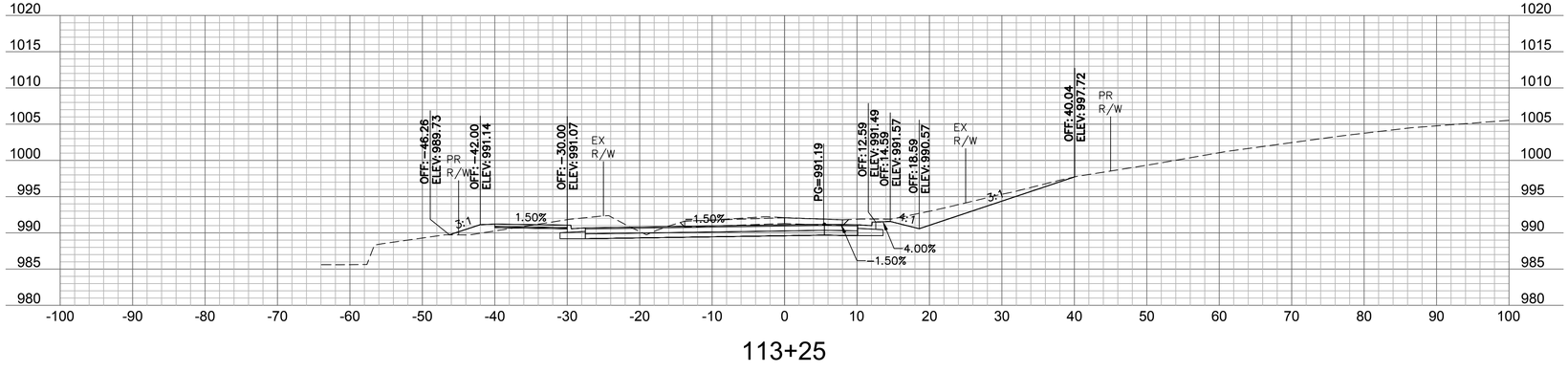

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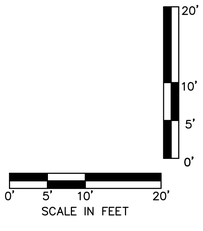

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SHEET
C83 of C91

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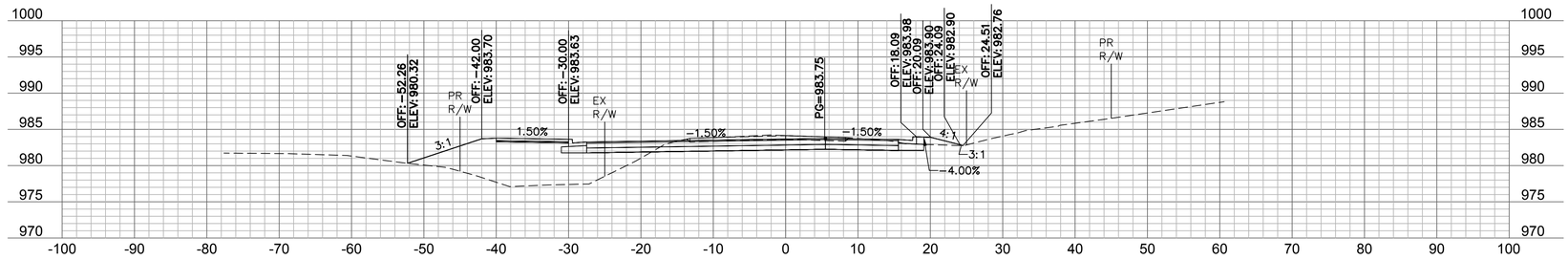

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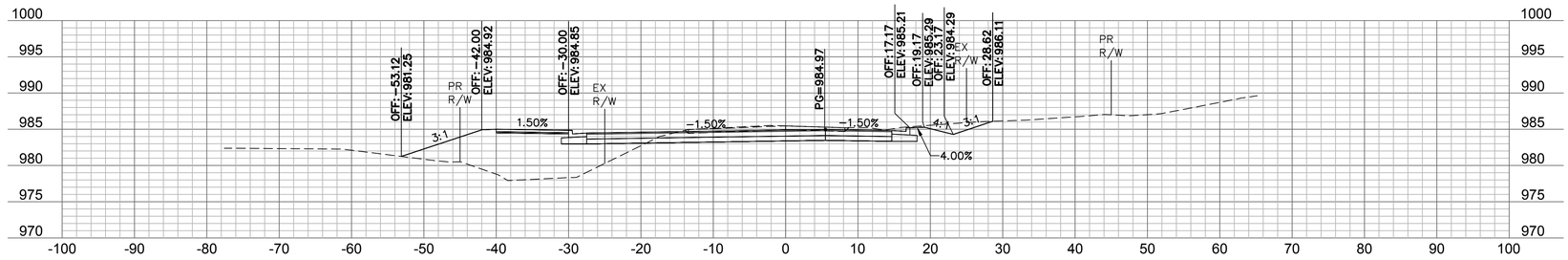

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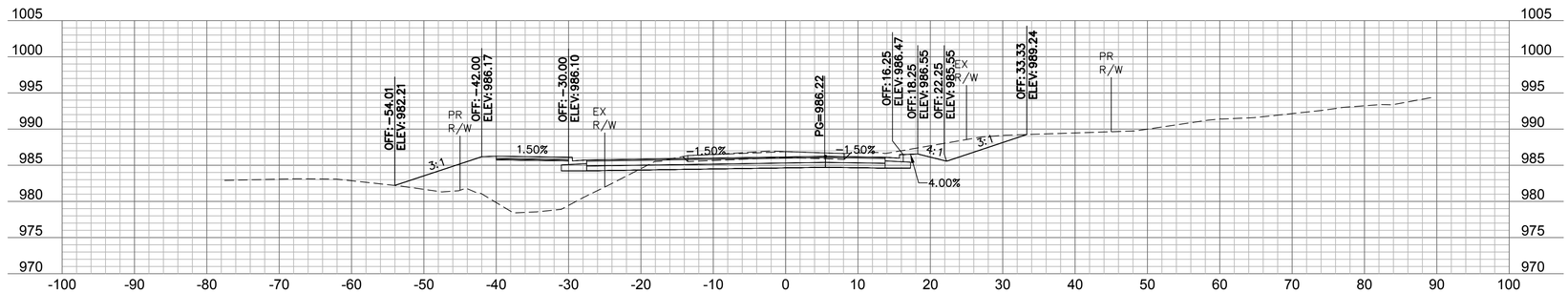

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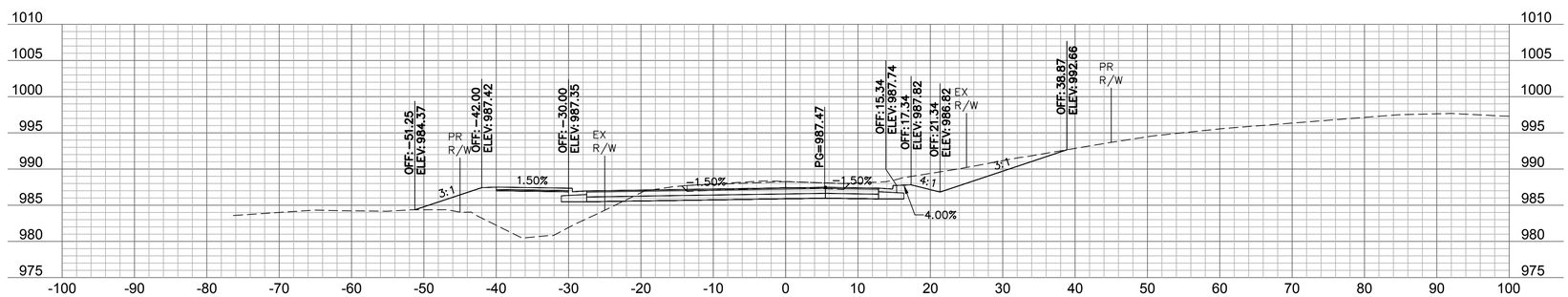

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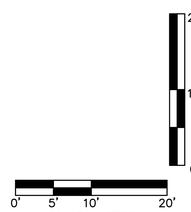

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QA/QC by: PM/LB/FR
project no.: 015-2768
drawing no.TSE_T_PXSEC_52768
date: 04/23/2021

SHEET
C84 of C91

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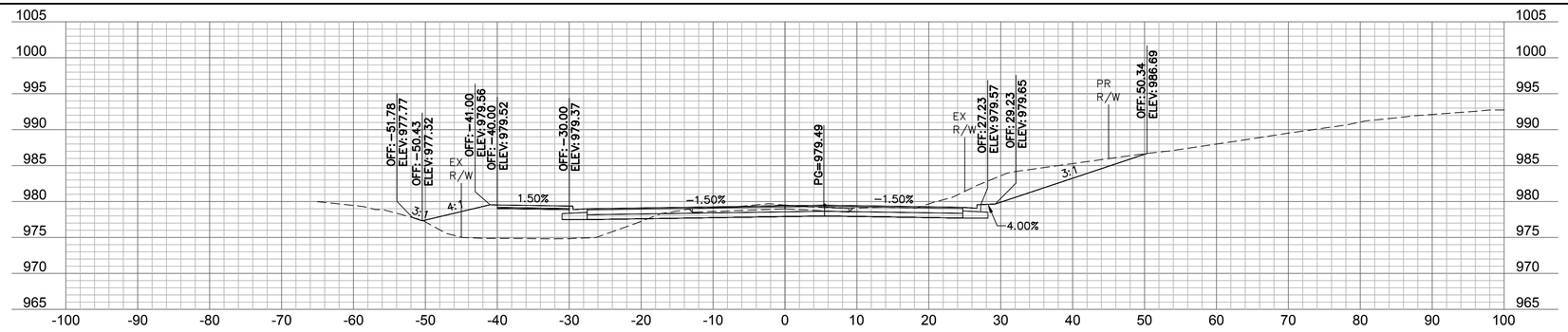
TSE_T_PBASE_52768 V_XBOU_52768



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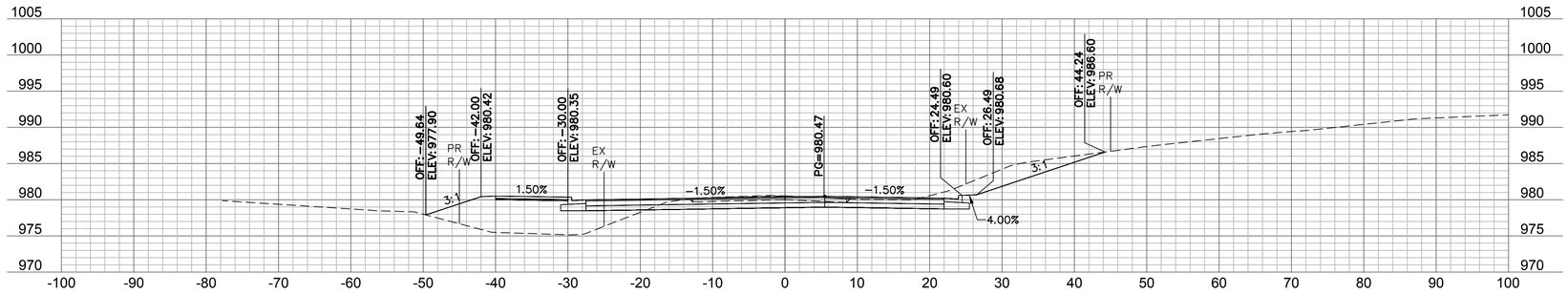

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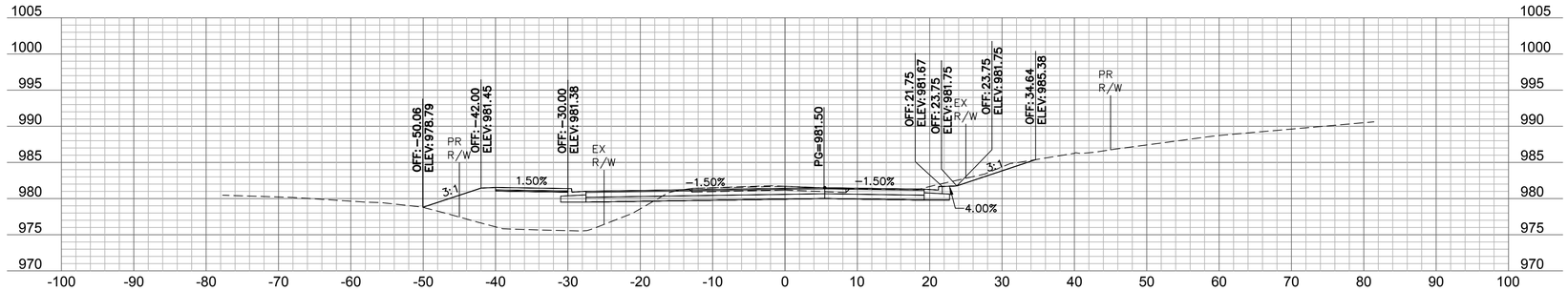

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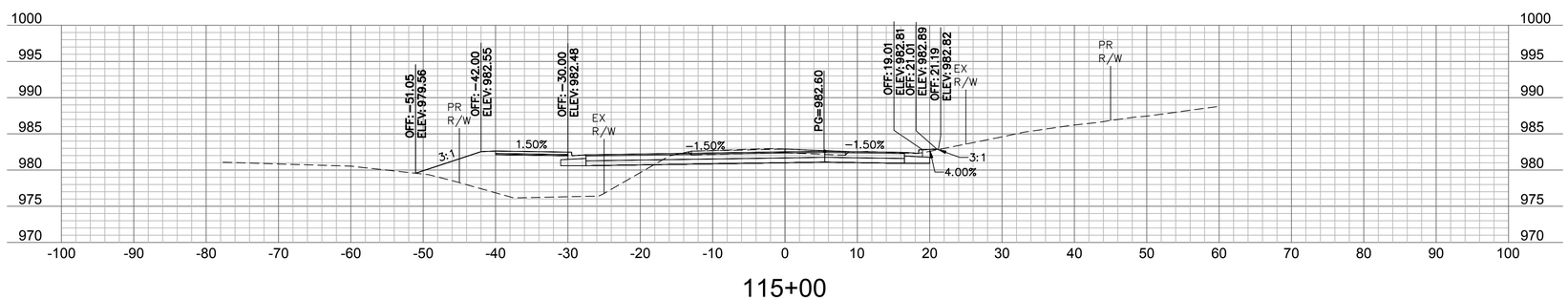

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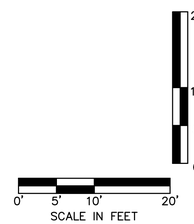

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BRIAN COOMES
Brian Coomes
04/23/2021
NUMBER PE-2015029306
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

CROSS SECTIONS - 32ND STREET

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by: SMK/CTK
checked by: PM/LB/RF
approved by: BMC
QA/QC by: PM/LB/FR
project no.: 015-2768
drawing no.TSE_T_PXSEC_52768
date: 04/23/2021

SHEET
C85 of C91

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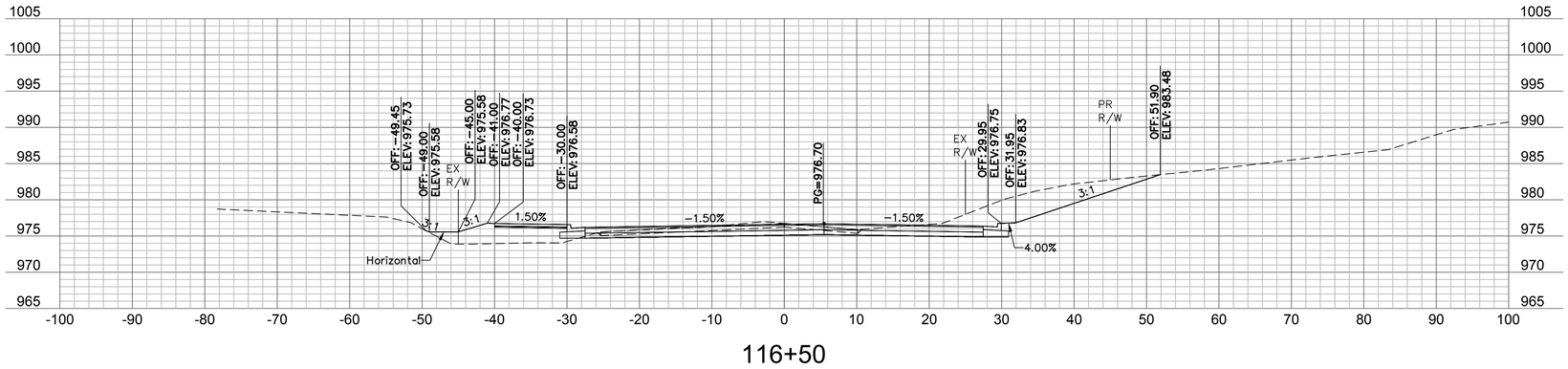

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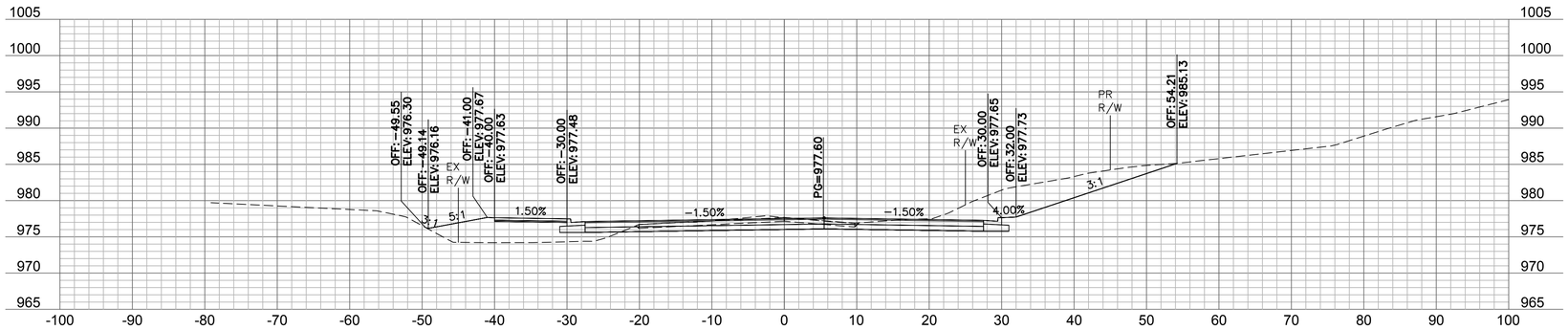

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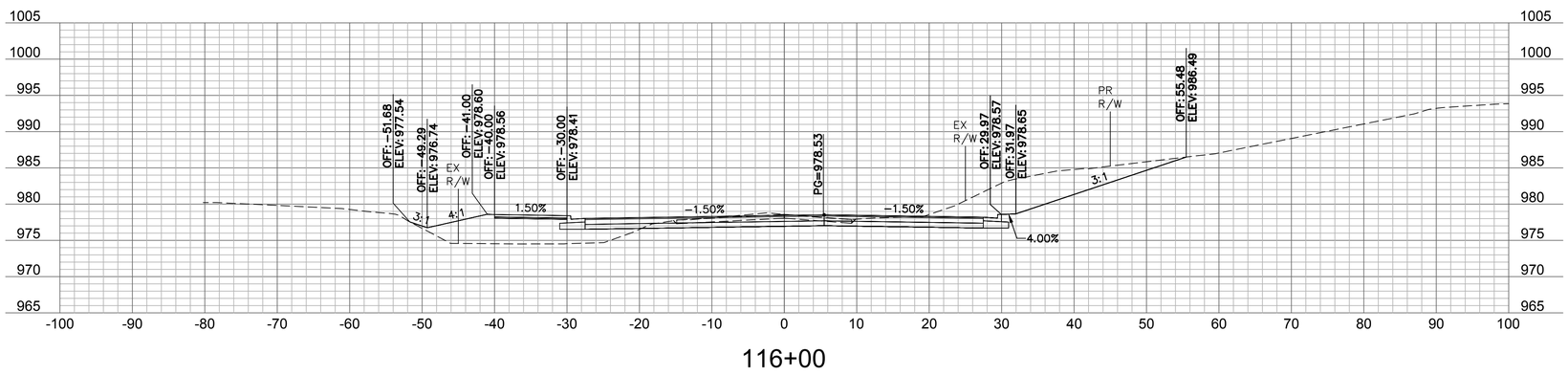

116+00

20'
10'
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0' 5' 10' 20'
SCALE IN FEET

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CROSS SECTIONS - 32ND STREET

32ND STREET WIDENING
CITY OF JOPLIN

2021

JOPLIN, MISSOURI

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SHEET
C86 of C91

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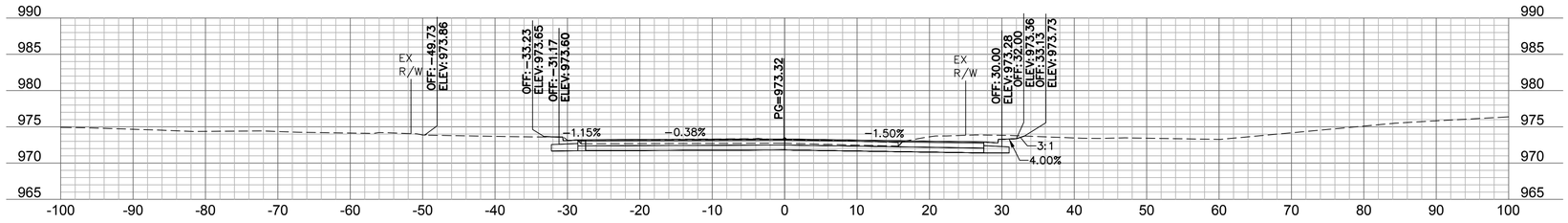

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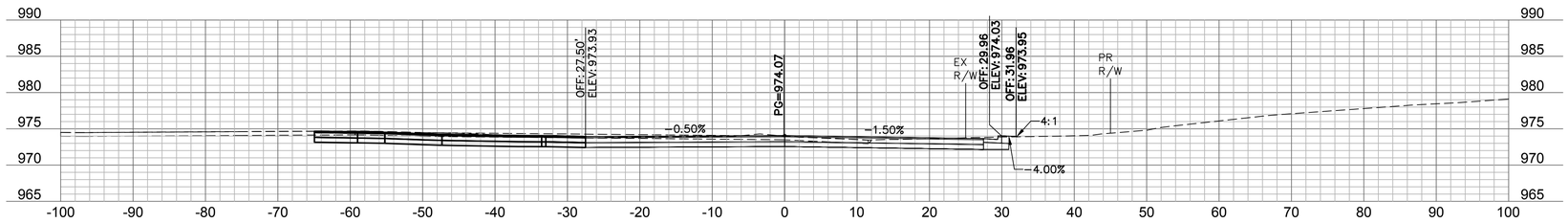

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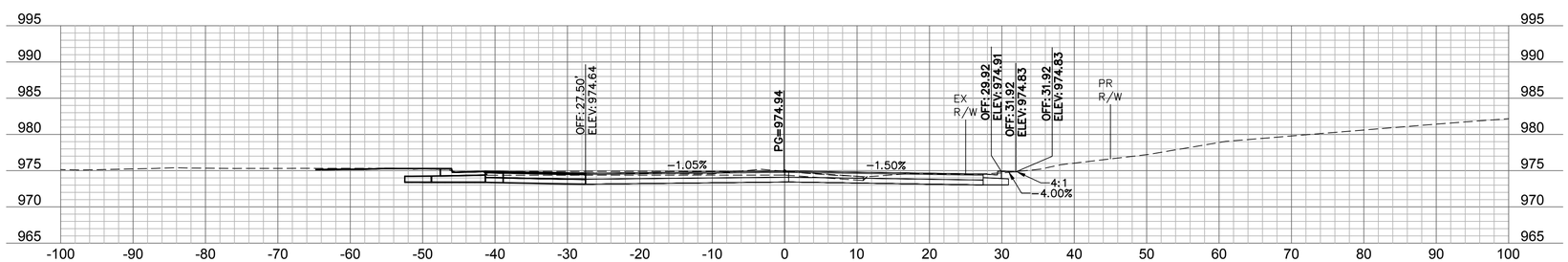

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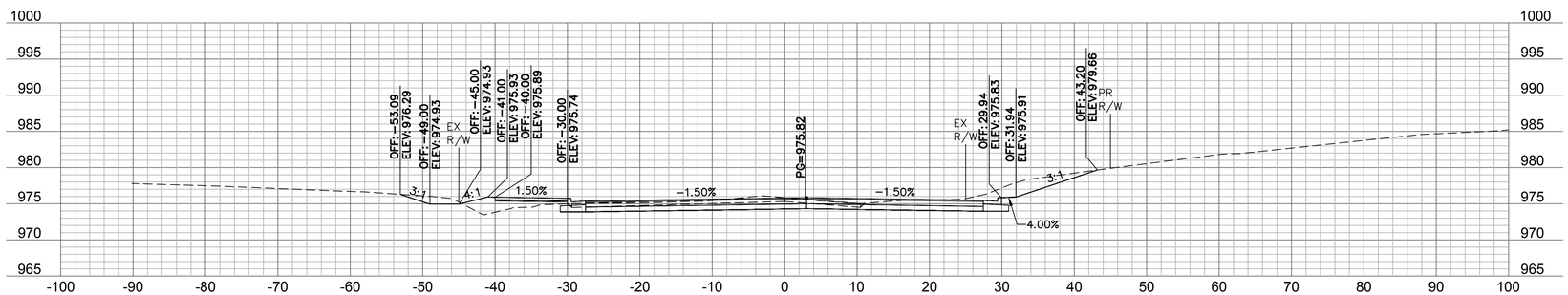

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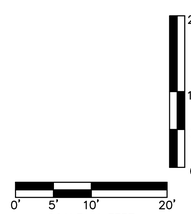

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BRIAN COOMES
Brian Coomes
04/23/2021
NUMBER PE-2015029306
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REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

CROSS SECTIONS - 32ND STREET

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by: SMK/CTK
checked by: PM/LB/RF
approved by: BMC
QA/QC by: PM/LB/FR
project no.: 015-2768
drawing no.TSE_T_PXSEC_52768
date: 04/23/2021

SHEET
C87 of C91

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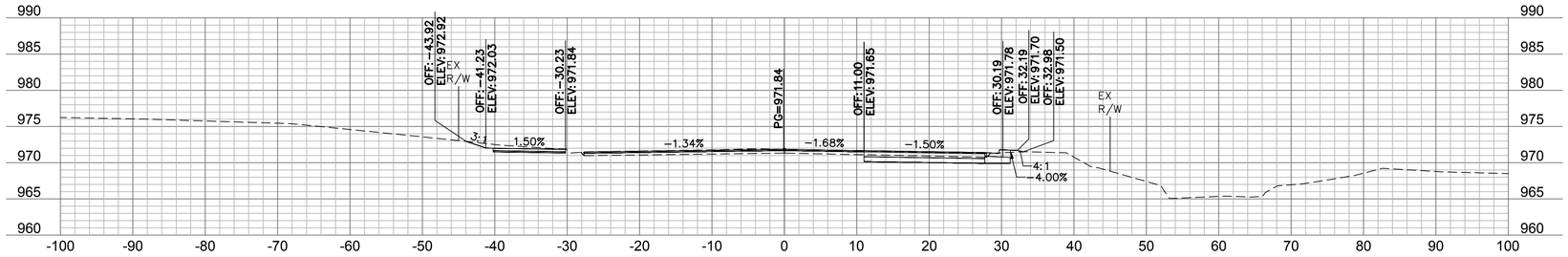

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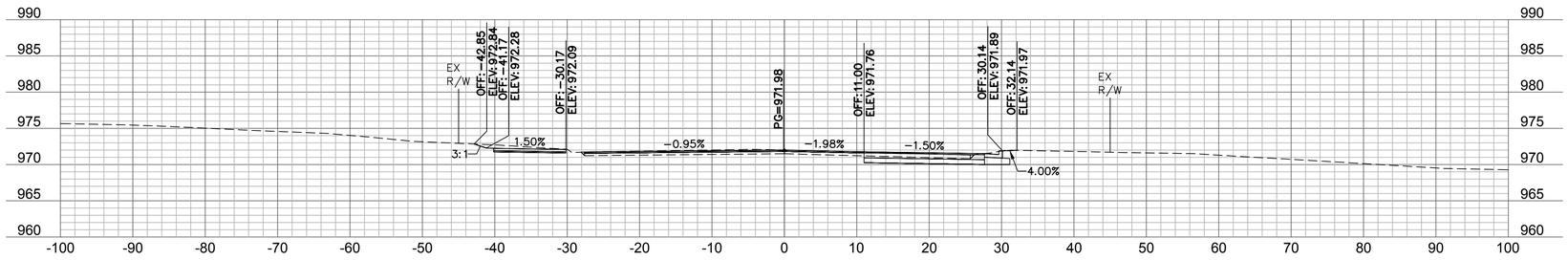

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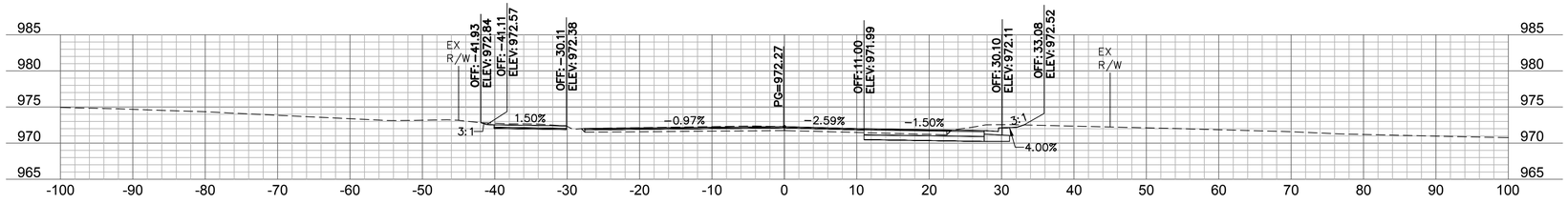

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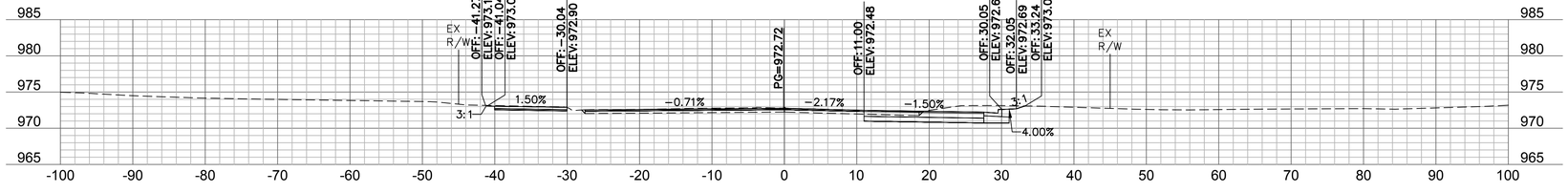

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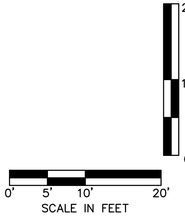

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Brian Coomes
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PROFESSIONAL ENGINEER

REVISIONS

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

CROSS SECTIONS - 32ND STREET

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by: SMK/CTK
checked by: PM/LB/RF
approved by: BMC
QA/QC by: PM/LB/TR
project no.: 015-2768
drawing no.: TSE_T_PXSEC_52768
date: 04/23/2021

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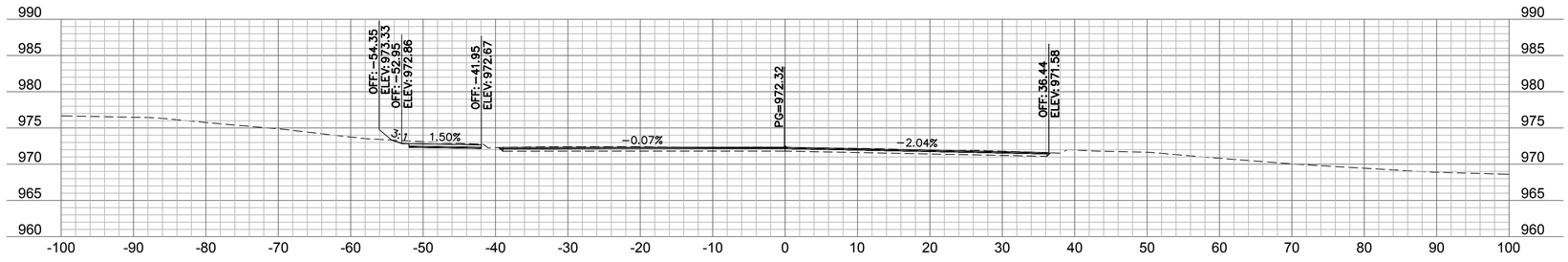

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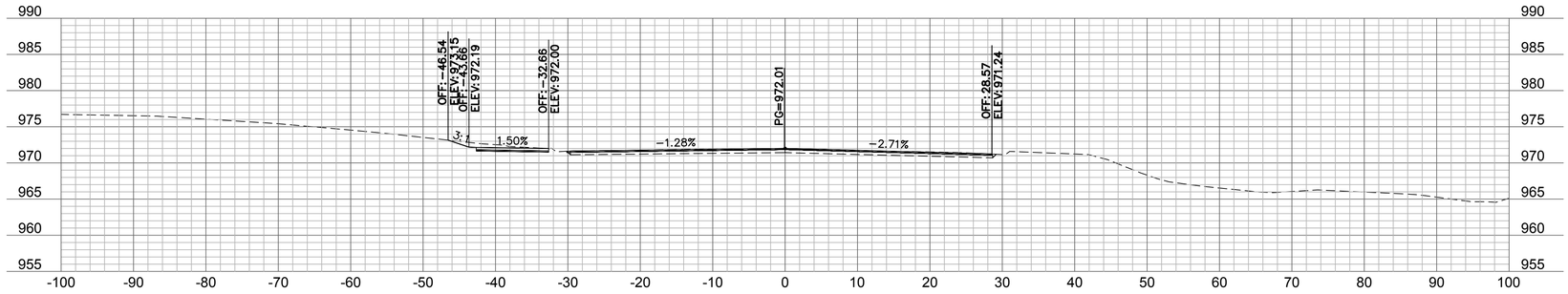

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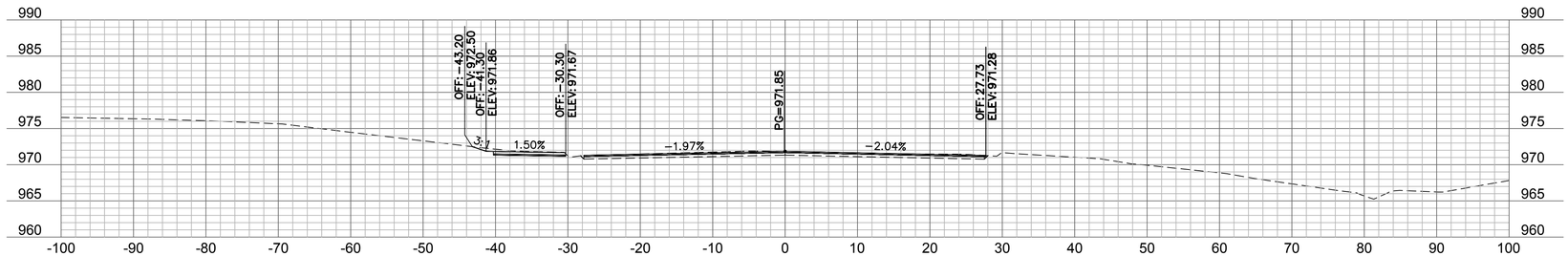

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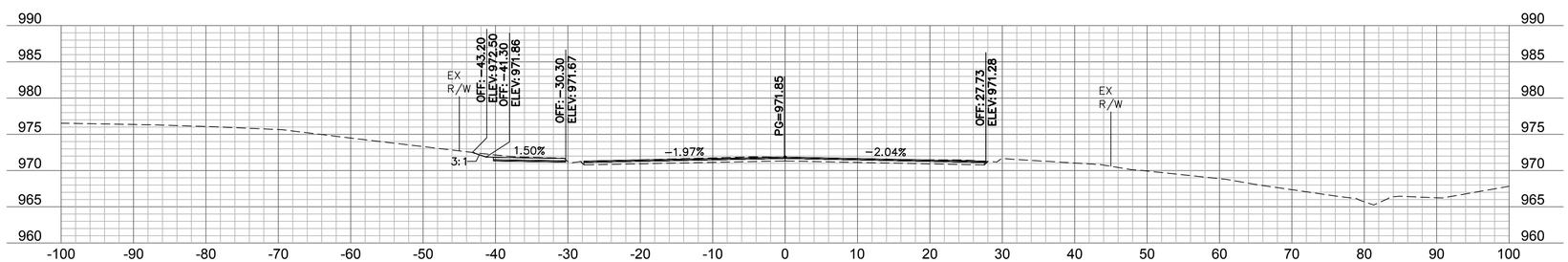

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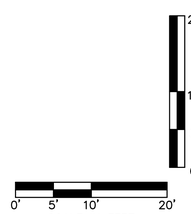

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Brian Coomes
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NUMBER PE-2015029306
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REVISIONS

CROSS SECTIONS - 32ND STREET

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by: SMK/CTK
checked by: PM/LB/RF
approved by: BMC
QA/QC by: PM/LB/FR
project no.: 015-2768
drawing no.TSE_T_PXSEC_52768
date: 04/23/2021

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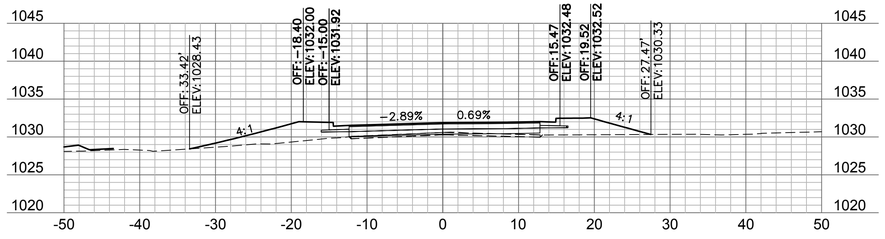

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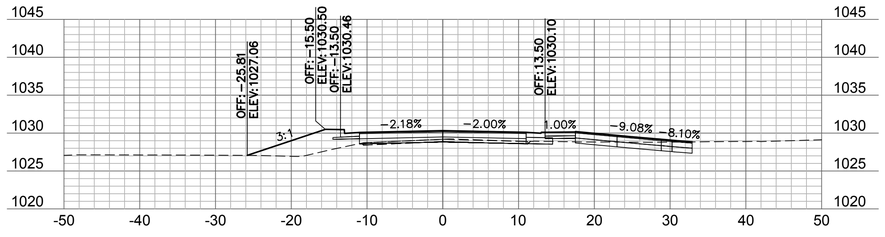

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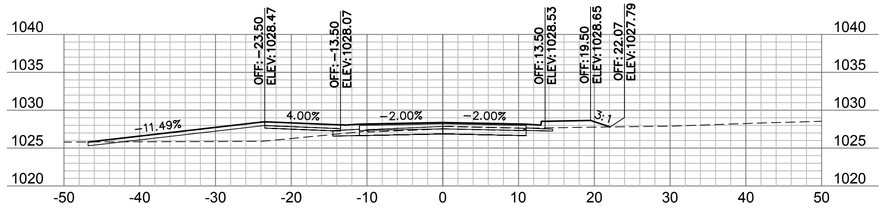

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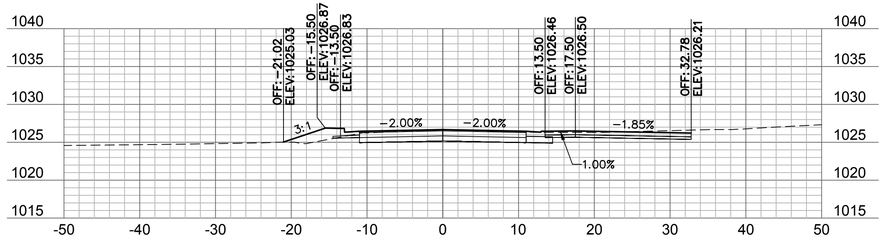

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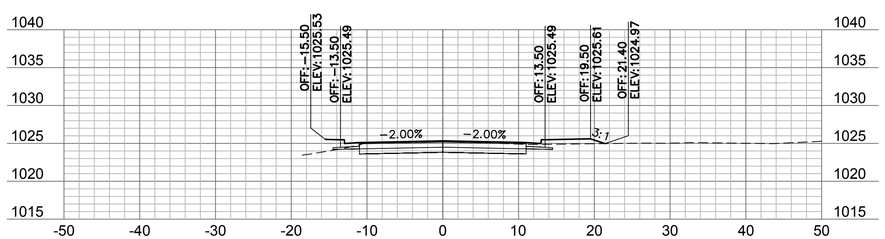

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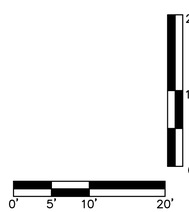

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Brian Coomes
04/23/2021
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REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

CROSS SECTIONS - IRON GATES ROAD

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by: SMK/CTK
checked by: PM/LB/RF
approved by: BMC
QA/QC by: PM/LB/FR
project no.: 015-2768
drawing no.TSE_T_PXSEC_52768
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SHEET
C90 of C91

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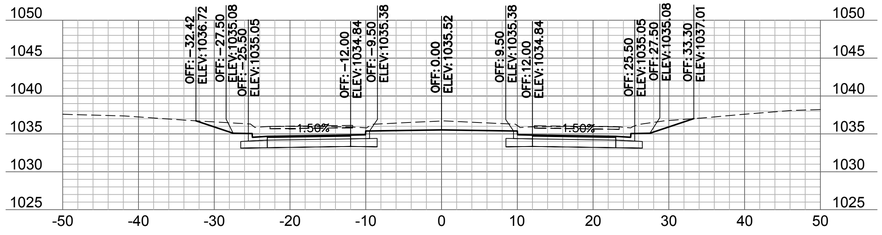

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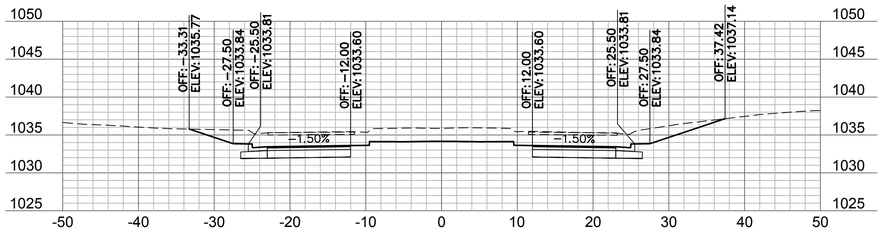

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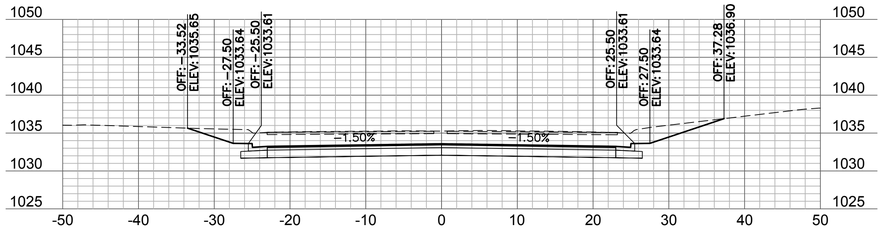

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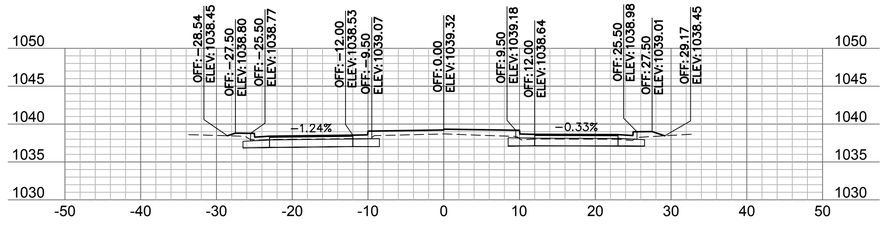

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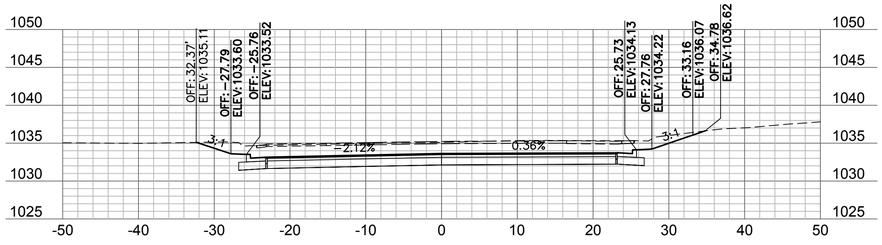

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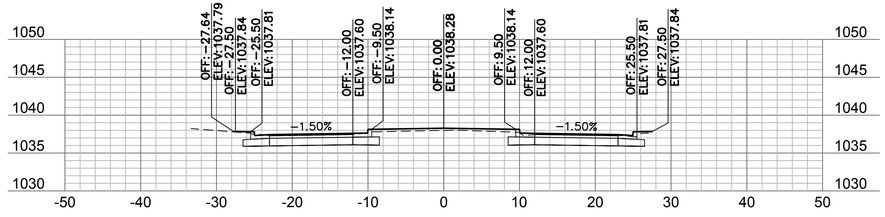

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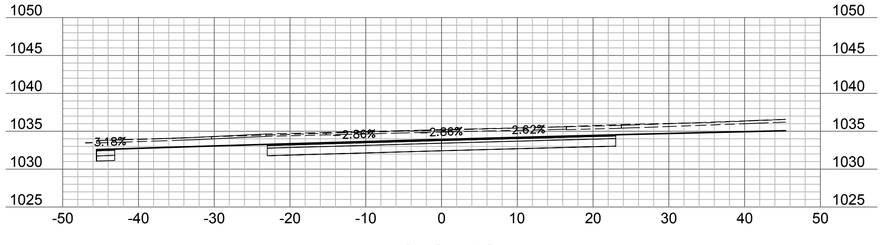

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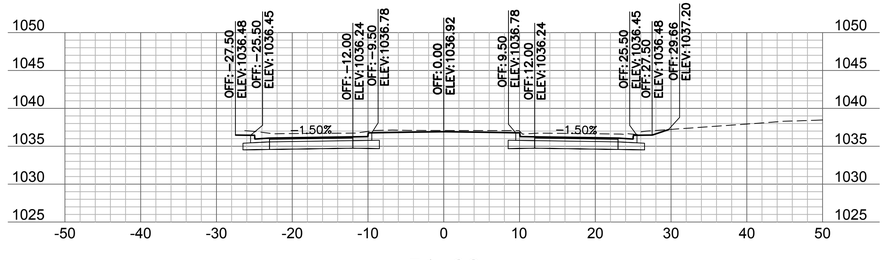

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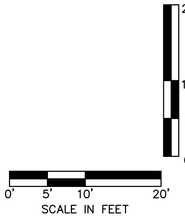

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BRIAN COOMES
Brian Coomes
04/23/2021
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REVISIONS

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

CROSS SECTIONS - ARBOR HILLS ROAD

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by: SMK/CTK
checked by: PM/LB/RF
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C91 of C91

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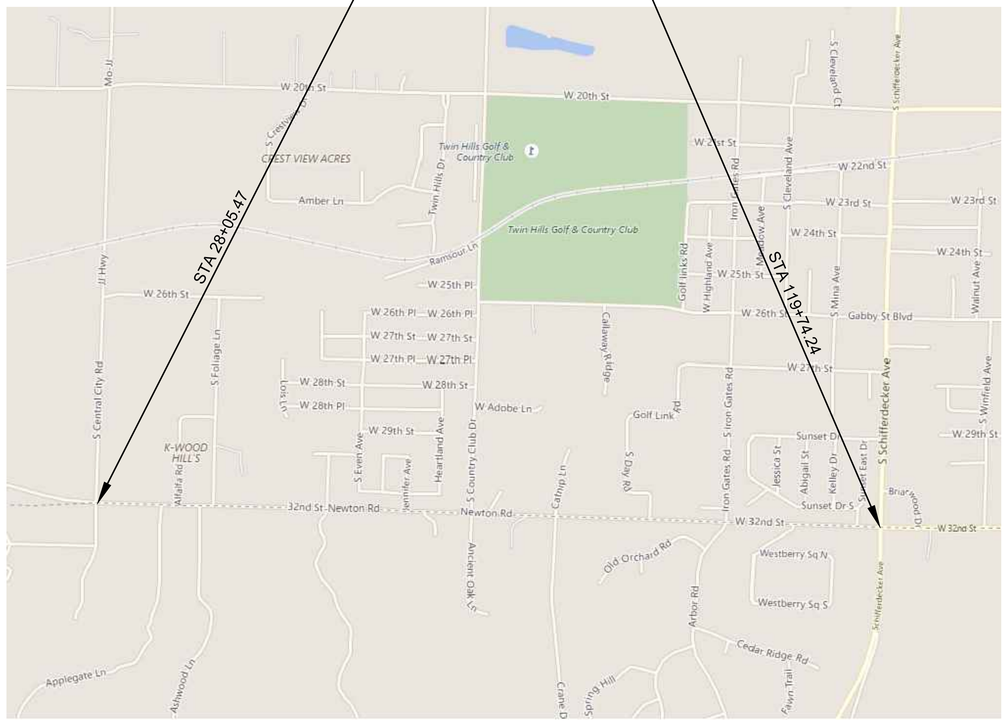
WATERLINE RELOCATION PLANS FOR
32ND STREET WIDENING
CENTRAL CITY RD. TO SCHIFFERDECKER AVE.
SECTIONS 17, 18, 19 & 20, TOWNSHIP 27N, RANGE 33W
CITY OF JOPLIN, MISSOURI
JASPER & NEWTON COUNTIES, MISSOURI

"D" PLANS
PROJECT LOCATION



N.T.S.

LOCATION MAP
NOT TO SCALE

INDEX OF SHEETS

SHEET NO.	TITLE
D1	TITLE SHEET
D2	SUMMARY OF QUANTITIES
D3 – D9	PHASE 1 WATERLINE RELOCATION PLANS & PROFILES
D10 – *	PHASE 2 WATERLINE RELOCATION TO BE PROVIDED AT A LATER DATE

LEGEND

CTL	SURVEY CONTROL POINT		TRAFFIC SIGNAL BOX
	SURVEY BENCHMARK		TRAFFIC SIGNAL MANHOLE
TBM	SURVEY TEMPORARY BEMCHMARK		TRAFFIC SIGNAL POLE W/ ARM
GM	GAS METER		TRAFFIC SIGNAL POLE
GAR	GAS RISER		TRAFFIC SIGNAL CONTROL BOX
	GAS MANHOLE	TS	TRAFFIC SIGNAL PEDESTAL
GR	GAS REGULATOR		ELECTRIC MANHOLE
TVP	TELEVISION PEDESTAL	EM	ELECTRIC METER
F	FIBER BOX	ER	ELECTRIC RISER
	FIBER PEDESTAL	E	ELECTRIC BOX
C	CABLE BOX		ELECTRIC CABINET
CV	CABLE VAULT		ELECTRIC JUNCTION BOX
TP	TELEPHONE PEDESTAL	SPH	SPRINKLER HEAD
	STORM MANHOLE	SCV	SPRINKLER CONTROL VALVE
	STORM GRATE		WATER METER PIT
	SANITARY MANHOLE		FIRE HYDRANT
YL	YARD LIGHT	WM	WATER METER
LTP	LIGHT POLE	WV	WATER VALVE
	POWER POLE	FP	FLAG POLE
LPPP	POWER POLE W/ LIGHT		SIGN
	GUY WIRE		BOLLARD
BU	STUMP		WOOD POST
	BUSH		STEEL POST
	EVERGREEN TREE	COL	COLUMN
	DECIDUOUS TREE		BORE HOLE

	SECTION LINE
PL	PROPERTY LINE
	CENTER LINE
	PROPOSED ROW LINE
	EXISTING ROW LINE
	UTILITY EASEMENT
1370	EXISTING MAJOR CONTOUR
1371	EXISTING MINOR CONTOUR
1370	PROPOSED MAJOR CONTOUR
1371	PROPOSED MINOR CONTOUR
TEL	EXISTING TELEPHONE LINE
SS	EXISTING SANITARY LINE
	EXISTING STORM LINE
GAS GAS	EXISTING GAS LINE
W	EXISTING WATER LINE
	EXISTING CHAIN LINK FENCE
P-OH	EXISTING OVERHEAD ELECTRIC
FO	EXISTING FIBER OPTIC CABLE
P	EXISTING PIPE LINE
	GRADING LIMITS
	TEMPORARY CONSTRUCTION EASEMENT
	PROPOSED PERMANENT EASEMENT
	PROPOSED CHAIN LINK FENCE
	PROPOSED WOOD PRIVACY FENCE
	EXISTING TREELINE
	CONSTRUCTION LIMITS
	UNDERDRAIN

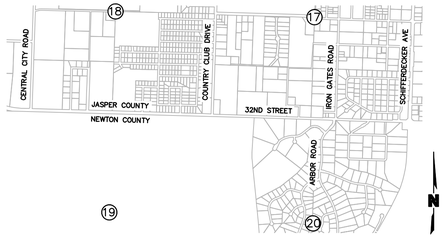
	ASPHALT PAVEMENT
	CONCRETE SIDEWALK
	CONCRETE DRIVE
	AGGREGATE SURFACE
	ASPHALT OVERLAY
	STAMPED CONCRETE PAVEMENT
	DETECTABLE WARNING SURFACE
	CURB RAMP
	ROCK BLANKET

ABBREVIATION TABLE

M.G.	MATCH GRADE
TP	PAVEMENT
TC	TOP OF CURB
BC	BACK OF CURB
EP	EDGE OF PAVEMENT
R/W	RIGHT-OF-WAY
TCE	TEMPORARY CONSTRUCTION EASEMENT
PROP.	PROPOSED
EXIST.	EXISTING
TYP.	TYPICAL
(R)	REMOVAL
CONST.	CONSTRUCT
TBM	TEMPORARY BENCMARK
C.P.	CONTROL POINT
D.N.D.	DO NOT DISTURB
U.I.P.	USE IN PLACE
ADJ.	ADJUST
EL.	ELEVATION
ESMT.	EASEMENT
B-B	BACK OF CURB TO BACK OF CURB DIMENSION
℄	CENTERLINE

MISSOURI ONE CALL SYSTEM
1-800-DIG-RITE or 811
www.mo1call.com

THE EXISTING UTILITY LOCATIONS SHOWN ON THE PLANS ARE APPROXIMATE AND MAY NOT INCLUDE ALL LINES PRESENT. THE CONTRACTOR SHALL BE RESPONSIBLE TO CALL "1-800-DIG-RITE", AND COORDINATE FIELD LOCATION OF EXISTING UNDERGROUND UTILITIES PRIOR TO BEGINNING GRADING ACTIVITIES. !!STOP!! CALL BEFORE YOU DIG!!



SECTION 17,18, 19 & 20, T-27-N, R-33-W
JASPER & NEWTON COUNTIES, MISSOURI

VICINITY MAP
SCALE: 1" = 2000'

UTILITIES INFORMATION

ELECTRIC – LIBERTY UTILITIES
ATTN: JIMMY TURNER
3400 S. KODIAK ROAD
JOPLIN, MO 64804
(417) 626-6842

NATURAL GAS – SPIRE
ATTN: KEN STEGALL
520 E. 5TH STREET
JOPLIN, MO 64801
(417) 626-4831

WATER – MISSOURI-AMERICAN WATER CO.
ATTN: DEREC BASS
2650 E. 32ND ST. – SUITE 121
JOPLIN, MO 64804
(417) 623-0676 EXT. 1009

TELEPHONE – AT&T
ATTN: KENNETH KENWORTHY
321 W. 8TH STREET
JOPLIN, MO 64801
(417) 625-8092

CABLE TELEVISION – CABLE ONE DIGITAL
ATTN: RANDY KENNEDY
2600 DAVIS BLVD.
JOPLIN, MO 64804
(417) 206-5399

FIBER OPTIC – LIBERTY CONNECT
ATTN: BRAD MYERS
720 SCHIFFERDECKER AVE
JOPLIN, MO 64801
(417) 625-5179

PREPARED & SUBMITTED BY:

OLSSON
702 S. MAIN STREET
JOPLIN, MISSOURI 64801

JERRY G. JESKY JR., P.E. — DATE 4-23-21

I CERTIFY THESE PLANS WERE PREPARED BY ME OR UNDER MY IMMEDIATE PERSONAL SUPERVISION.

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STATE OF MISSOURI
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NUMBER PE-2004000803
PROFESSIONAL ENGINEER
JERRY G. JESKY JR.–CIVIL ENGINEER
PE–2004000803

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

TITLE SHEET

32ND STREET WIDENING
CITY OF JOPLIN

2021

JOPLIN, MISSOURI

drawn by:	SDN
checked by:	TC
approved by:	JJ
QA/QC by:	PM/LB/ER
project no.:	N18-1949
drawing no.:	C_TTL_N181949
date:	04/23/2021

SHEET
D1 of D9

DWG: F:\2018\1501-2000\018-1949-N\40-Design\AutoCAD\Final Plans\Sheets\C_TTL_N181949.dwg USER: tclemens
DATE: Apr 22, 2021 8:31pm XREFS: C_CTBLK_N181949 JERRY_JESKY_PE_MO

RECAPITULATION OF QUANTITIES – BASE BID – SECTION D PHASE 1				
ITEM NO.	DESCRIPTION	UNIT	ESTIMATED QUANTITY	GOVERNING TECHNICAL SPECIFICATION
	12" Waterline, Complete, Open–Cut Installation	LF	1200	MAWC (Appendix)
	12" Waterline, Complete, HDD Installation	LF	1175	MAWC (Appendix)
	8" Waterline, Complete	LF	280	MAWC (Appendix)
	24" Steel Casing	LF	32	MAWC (Appendix)
	12"x12" Tapping Sleeve and Valve	EA	1	MAWC (Appendix)
	12" Gate Valve	EA	8	MAWC (Appendix)
	8" Gate Valve	EA	4	MAWC (Appendix)
	Tie to Existing Waterline	EA	8	MAWC (Appendix)
	Reconnect Existing Service Connections	EA	2	MAWC (Appendix)
	Relocate Existing Fire Hydrant Assembly, Complete	EA	1	MAWC (Appendix)
	New Fire Hydrant Assembly, Complete	EA	1	MAWC (Appendix)

RECAPITULATION OF QUANTITIES – BASE BID – SECTION D PHASE 2				
ITEM NO.	DESCRIPTION	UNIT	ESTIMATED QUANTITY	GOVERNING TECHNICAL SPECIFICATION
	12" Waterline, Complete, Open Cut Installation	LF	1800	MAWC (Appendix)
	12" Waterline, Complete, HDD Installation	LF	900	MAWC (Appendix)
	8" Waterline, Complete	LF	130	MAWC (Appendix)
	12" Gate Valve	EA	6	MAWC (Appendix)
	8" Gate Valve	EA	2	MAWC (Appendix)
	Tie to Existing Waterline	EA	7	MAWC (Appendix)
	Reconnect Existing Service Connections	EA	5	MAWC (Appendix)
	Relocate Existing Fire Hydrant Assembly, Complete	EA	1	MAWC (Appendix)
	New Fire Hydrant Assembly, Complete	EA	1	MAWC (Appendix)

GENERAL CONSTRUCTION NOTES:

1. THE LOCATIONS OF ALL EXISTING UTILITIES SHOWN ON THESE PLANS ARE APPROXIMATE AND SHALL BE FIELD VERIFIED. UTILITIES SHOWN IN PROFILE ARE SHOWN AT TYPICAL DEPTHS UNLESS NOTED OTHERWISE.
2. STREETS, CURBS, SIDEWALKS, AND DRIVEWAYS SHALL BE SAW CUT AND REPAIRED ACCORDING TO REQUIREMENTS OF THE CITY OF JOPLIN SPECIFICATIONS AND DETAILS. SPECIFICATION AND DETAILS MAY BE FOUND AT: https://www.joplinmo.org/898/Engineering–Division
3. STREET SHALL BE REPAIRED WITH 10" OF BLACK TINTED CONCRETE PER CITY OF JOPLIN SPECIFICATION SECTION 1700.3.12 PAVEMENT REPAIR AND DETAILS SAN–05 PAVEMENT REPAIR.
4. WATER CONSTRUCTION SHALL CONFORM TO MISSOURI AMERICAN WATER COMPANY SPECIFICATIONS AND DETAILS PROVIDED AS CONTRACT DOCUMENT.
5. ALL NEW WATERLINE PIPE, FITTINGS, AND VALVES SHALL BE FULLY RESTRAINED.
6. CONTRACTOR SHALL POTHOLE EXISTING UTILITY CROSSINGS BEFORE INSTALLATION.
7. INSTALL NEW WATER SERVICE LINES TO ALL EXISTING WATER SERVICES AFFECTED BY ABANDONMENT OF EXISTING WATERLINES. COORDINATE ABANDONMENT OF EXISTING LINES AND NEW WATER SERVICE LINE TAP LOCATIONS AND COMNECTIONS TO EXISTING WATER METERS WITH MISSOURI AMERICAN WATER COMPANY STAFF. CUT AND CAP EXISTING SERVICE LINES TO BE ABANDONED.

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Joplin, MO 64801
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STATE OF MISSOURI
JERRY G. JESKY JR.
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PROFESSIONAL ENGINEER

JERRY G. JESKY JR.–CIVIL ENGINEER
PE–2004000803

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

SUMMARY OF QUANTITIES

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by: SDN
checked by: TC
approved by: JJ
QA/QC by: PM/LB/FR
project no.: N18-1949
drawing no.: C_QTY_N1819498
date: 04/23/2021

SHEET
D2 of D9

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DATE: Apr 23, 2021 12:05pm XREFS: C_CTBLK_N181949 JERRY_JESKY_PE_MO

BEGIN PHASE 1
MATCH ADJACENT
WATERLINE RELOCATION TO
PLAN SET D PHASE 2

GRADING LIMITS

SANITARY SEWER FORCE MAIN
TO BE ABANDONED IN PLACE

BURIED FIBER-OPTIC TO BE
RELOCATED BY UTILITY CO.

MATCH LINE
4+00

CENTERLINE
32ND STREET
STATIONING SHOWN
FOR REFERENCE ONLY

79+00 80+00 81+00 82+00 83+00

STA 0+09.30
RELOCATE EXISTING
FIRE HYDRANT

STA 0+00
CLOSE EXISTING 12" GATE
VALVES AND TIE NEW 12"
WATERLINE TO EXISTING 12"
WATERLINE WITH 12" 45°
BEND BETWEEN EXISTING
GATE VALVES.
INSTALL THRUST BLOCK
BEHIND FITTINGS.

STA 0+14.42
INSTALL 12" GATE VALVE
WITH BOX

ABANDON EXISTING 12" WATERLINE
AFTER NEW WATERLINE IN SERVICE
AND ALL WATER SERVICES
RECONNECTED.

12" WATERLINE "D"
RELOCATION

0+00 1+00 2+00 3+00 4+00

STA 0+06.62
INSTALL 12" 45° BEND

FUTURE
EDGE OF CURB

PROPOSED RIGHT-OF-WAY

PROPOSED RIGHT-OF-WAY

GRADING LIMITS

INSTALL 32 LF
MIN. 24" STEEL CASING
UNDER PROPOSED
STORM CULVERT

PROPOSED AT&T FIBER OPTIC LINE
(APPROXIMATE LOCATION)

PROPOSED
PERMANENT SLOPE
EASEMENT

PROPOSED TEMPORARY
CONSTRUCTION EASEMENT

THIS AREA, AFTER NEW WATERLINE
APPROVED BY MAWC, RECONNECT
SERVICE TO RESIDENCE ON NORTH
SIDE OF 32ND STREET.

CRANE DRIVE

PROPOSED PERMANENT
DRAINAGE EASEMENT

N

0' 10' 20' 40'
SCALE IN FEET

BEGIN PHASE 1
MATCH ADJACENT
WATERLINE RELOCATION TO
PLAN SET D PHASE 2

WATERLINE "D" RELOCATION PLAN AND PROFILE (STA 0+00 TO 4+00)

985 980 975 970 965 960 955 950 945 940

STA 0+00.00
TIE TO EXISTING 12" WATERLINE
INSTALL 12" 45° BEND

STA 0+14.42
INSTALL 12" GATE VALVE
WITH BOX

STA 0+67.67
PROPOSED STORM CULVERT

STA 0+89.14
PROPOSED STORM CULVERT

FUTURE GRADE

PROPOSED BOX CULVERT

PROPOSED GRADE

EXISTING GRADE

11'-0"±

4'-0"
MIN.

6'-0"±

3'-6"
MIN.

13'-0"±

INSTALL 12" WATERLINE "D"

INSTALL 32 LF
24" STEEL
CASING

EXISTING WATERLINE
(ESTIMATED)

STA 0+09.30
RELOCATE EXSTING
FIRE HYDRANT

0+00 1+00 2+00 3+00 4+00

10' 5' 2.5' 0'
0' 10' 20' 40'
SCALE IN FEET

NOTES:
1. CONTRACTOR TO INSTALL VERTICAL FITTINGS AS NECESSARY TO ACHIEVE ALIGNMENT SHOWN WHILE LIMITING PIPE JOINT DEFLECTION TO 60% OF MANUFACTURER'S MAXIMUM STATED JOINT DEFLECTION ANGLE.
2. CONTRACTOR TO GIVE MAWC MIN. 48 HOURS NOTICE BEFORE PLANNING TO RECONNECT EXISTING SERVICE CONNECTIONS TO NEW WATERLINE.

* SEE SHEET D2 FOR GENERAL CONSTRUCTION NOTES

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PROFESSIONAL ENGINEER
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PE–2004000803

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

WATERLINE "D" RELOCATION PLAN AND PROFILE
(STA 0+00 TO 4+00)

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by: SDN
checked by: TC
approved by: JJ
QA/QC by: PM/LB/FR
project no.: N18-1949
drawing no C_RPP01-01_N181949
date: 04/23/2021

SHEET
D3 of D9

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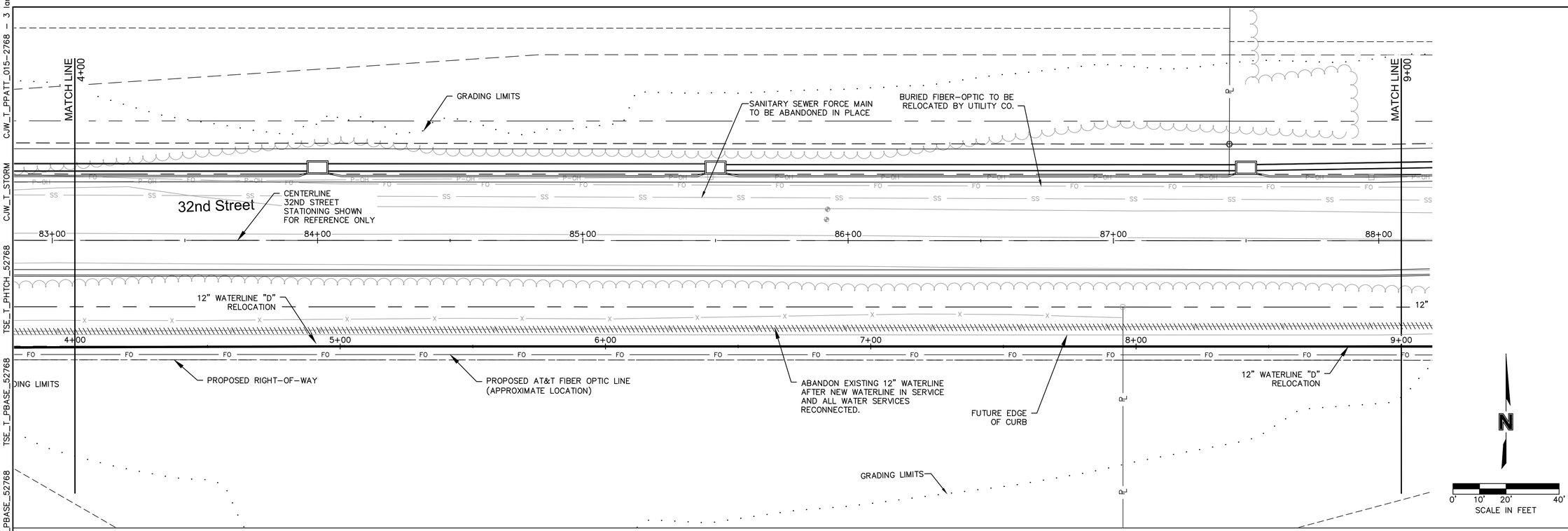
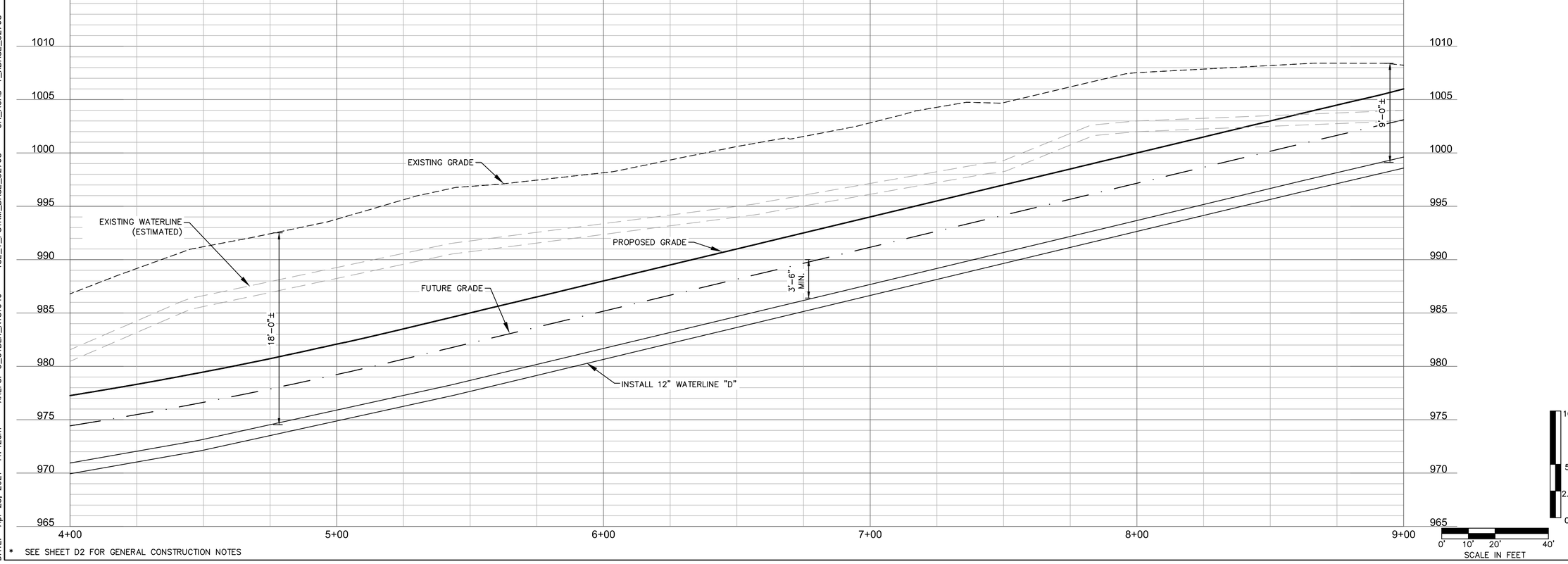
CJW_T_PPATT_015-2768 - 3 lane CJW_T_STORM TSE_T_PHTCH_52768 TSE_T_PBASE_52768 0A_F_PBASE_52768



WATERLINE "D" RELOCATION PLAN AND PROFILE (STA 4+00 TO 9+00)



* SEE SHEET D2 FOR GENERAL CONSTRUCTION NOTES

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REVISIONS

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

WATERLINE "D" RELOCATION PLAN AND PROFILE (STA 4+00 TO 9+00)

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by:	SDN
checked by:	TC
approved by:	JJ
QA/QC by:	PM/LB/FR
project no.:	N18-1949
drawing no	C_RPP01-01 N181949
date:	04/23/2021

SHEET
D4 of D9

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CJW_T_PPAIT_015-2768 - 3 lane
CJW_T_STORM
TSE_T_PHTCH_52768
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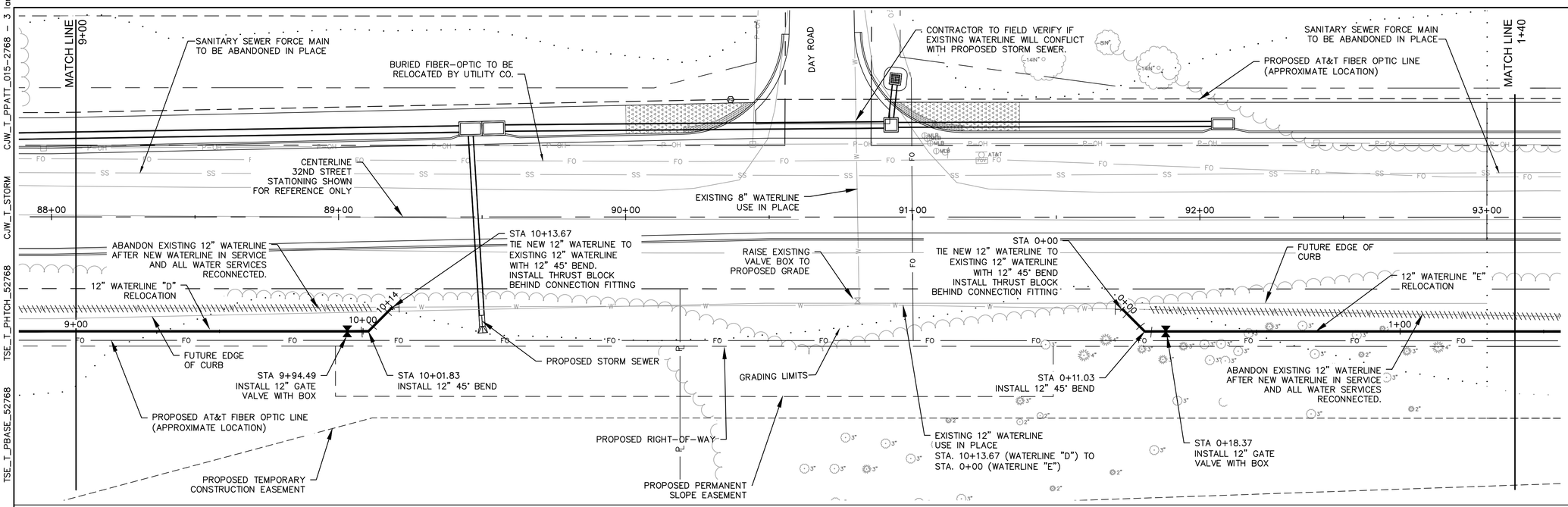
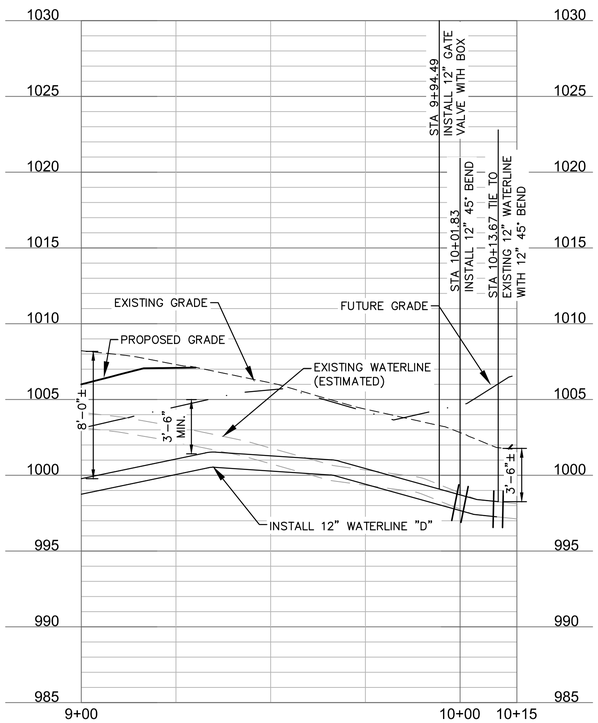
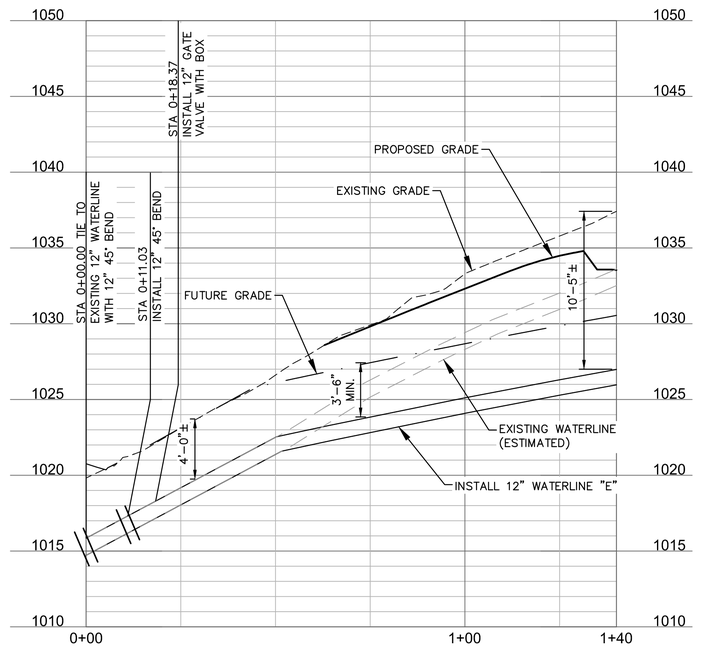
OA_F_PBASE_52768



WATERLINE "D" RELOCATION PLAN AND PROFILE (STA 9+00 TO 10+15)



WATERLINE "E" RELOCATION PLAN AND PROFILE (STA 0+00 TO 1+40)



10' 5' 2.5' 0'
0' 10' 20' 40'
SCALE IN FEET

* SEE SHEET D2 FOR GENERAL CONSTRUCTION NOTES

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REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

WATERLINE RELOCATION PLAN AND PROFILE
(STA 9+00 TO 10+10+15) & (STA 0+00 TO 1+40)

32ND STREET WIDENING
CITY OF JOPLIN

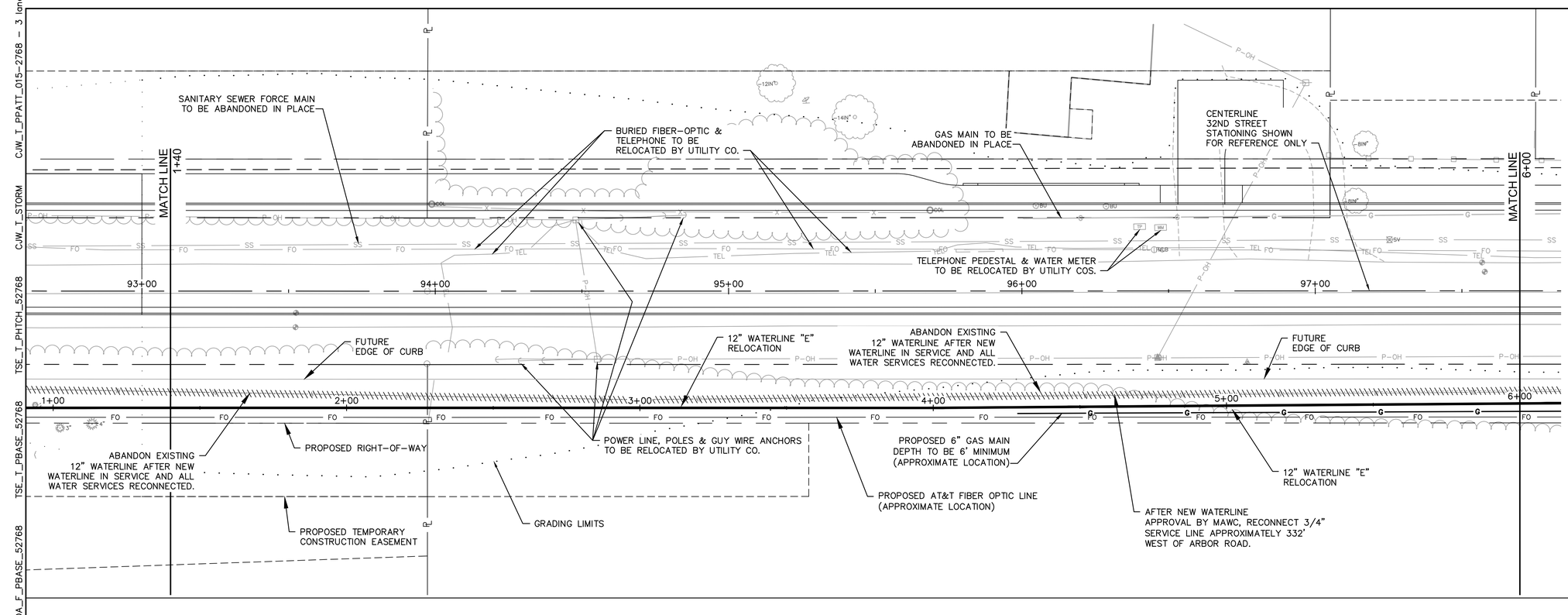
JOPLIN, MISSOURI

2021

drawn by: SDN
checked by: TC
approved by: JJ
QA/QC by: PM/LB/FR
project no.: N18-1949
drawing no C_RPP01-01_N181949
date: 04/23/2021

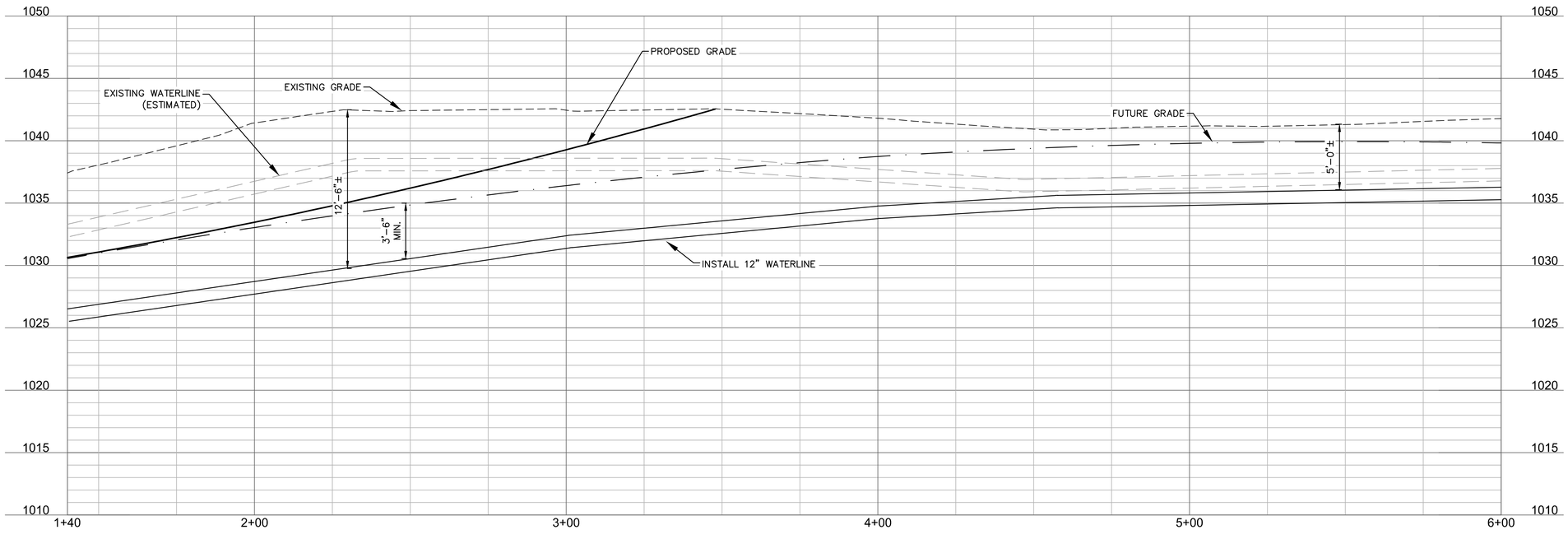
SHEET
D5 of D9

DWG: F:\2018\1501-2000\018-1949-N\40-Design\AutoCAD\Final Plans\Sheets\C_RPP01-01_N181949.dwg USER: tclemens
DATE: Apr 23, 2021 11:44am XREFS: C_CTBLK_N181949 TSE_T_PSTRM_BASE_52768 OA_ACAD-T_XBASE_52768
CJW_T_PPAIT_015-2768 - 3 lane CJW_T_STORM TSE_T_PHTCH_52768 TSE_T_PBASE_52768 OA_F_PBASE_52768



WATERLINE "E" RELOCATION PLAN AND PROFILE (STA 1+40 TO 6+00)

NOTE: CONTRACTOR TO GIVE MAWC MIN. 48 HOURS NOTICE BEFORE PLANNING TO RECONNECT EXISTING SERVICE CONNECTIONS TO NEW WATERLINE



* SEE SHEET D2 FOR GENERAL CONSTRUCTION NOTES

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REV. NO.	DATE	REVISIONS DESCRIPTION	BY

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WATERLINE "E" RELOCATION PLAN AND PROFILE (STA 1+40 TO 6+00)

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by: SDN
checked by: TC
approved by: JJ
QA/QC by: PM/LB/FR
project no.: N18-1949
drawing no: C_RPP01-02_N181949
date: 04/23/2021

SHEET
D6 of D9

DWG: F:\2018\1501-2000\018-1949-N\40-Design\AutoCAD\Final Plans\Sheets\C_RPP01-02_N1181949.dwg USER: tclemens
DATE: Apr 22, 2021 7:31pm XREFS: C_CTBLK_N181949 TSE_T_PSTRM_BASE_52768 OA_ACAD-T_XBASE_52768 OA_F_PBASE_52768 TSE_T_PBASE_52768 TSE_T_PHTCH_52768 CJW_T_STORM CJW_T_PPATT_015-2768 - 3 lane

DWG: F:\2018\1501-2000\018-1949-N\40-Design\AutoCAD\Final Plans\Sheets\C_RPP01-02_N181949.dwg USER: tclemens
DATE: Apr 23, 2021 12:01pm XREFS: C_CTBLK_N181949 TSE_T_PSTRM_BASE_52768 OA_ACAD-T_XBASE_52768
OA_F_PBASE_52768 TSE_T_PBASE_52768 TSE_T_PHTCH_52768 CJW_T_STORM CJW_T_PPATT_015-2768 - 3 lane

STA 7+60.87
STA 7+63.70
INSTALL 12" 45° BENDS

PROPOSED TEMPORARY CONSTRUCTION EASEMENT

BURIED FIBER-OPTIC/TELEPHONE TO BE RELOCATED BY UTILITY CO.

ABANDON EXISTING 12" WATERLINE AFTER NEW WATERLINE IN SERVICE AND ALL WATER SERVICES RECONNECTED

MATCH LINE 6+00

GAS MAIN TO BE ABANDONED IN PLACE

12" WATERLINE "E" RELOCATION

ABANDON EXISTING 12" WATERLINE AFTER NEW WATERLINE IN SERVICE AND ALL WATER SERVICES RECONNECTED

PROTECT LANDSCAPING

SANITARY SEWER FORCE MAIN TO BE ABANDONED IN PLACE

PROPOSED 6" GAS MAIN DEPTH TO BE 6' MINIMUM (APPROXIMATE LOCATION)

PROPOSED RIGHT-OF-WAY

12" WATERLINE "E" RELOCATION

IRON GATES ROAD

STA 9+72.78
TIE TO EXISTING 8" WATERLINE
INSTALL 12"x8" TEE AND 8" GATE VALVE WITH BOX (NORTH) AND 12" GATE VALVE WITH BOX (EAST)
INSTALL THRUST BLOCK BEHIND 12"x8" TEE

POWER LINE, POLES & ANCHORS TO BE RELOCATED BY UTILITY CO.

PROPOSED RIGHT-OF-WAY

PROPOSED FIBER-OPTIC CONDUIT

PROPOSED TEMPORARY CONSTRUCTION EASEMENT

STA 8+87.00
STA 8+92.72
INSTALL 12" 45° BENDS

INSTALL 12" WATERLINE CAPPED STUB-OUT FOR FUTURE CONNECTION

GAS MAIN TO BE ABANDONED IN PLACE

FUTURE EDGE OF CURB

STA 6+88.64
INSTALL 12"x12" TEE AND 12" GATE VALVES WITH BOX (NORTH AND WEST)

POWER LINES & POLES TO BE RELOCATED BY UTILITY COMPANY

PROPOSED RIGHT-OF-WAY

8" WATERLINE RELOCATION SEE SHT D8

ARBOR ROAD

PROPOSED 6" GAS MAIN DEPTH TO BE 6' MINIMUM (APPROXIMATE LOCATION)

PROPOSED AT&T FIBER OPTIC LINE (APPROXIMATE LOCATION)

FUTURE EDGE OF CURB

CENTERLINE 32ND STREET STATIONING SHOWN FOR REFERENCE ONLY

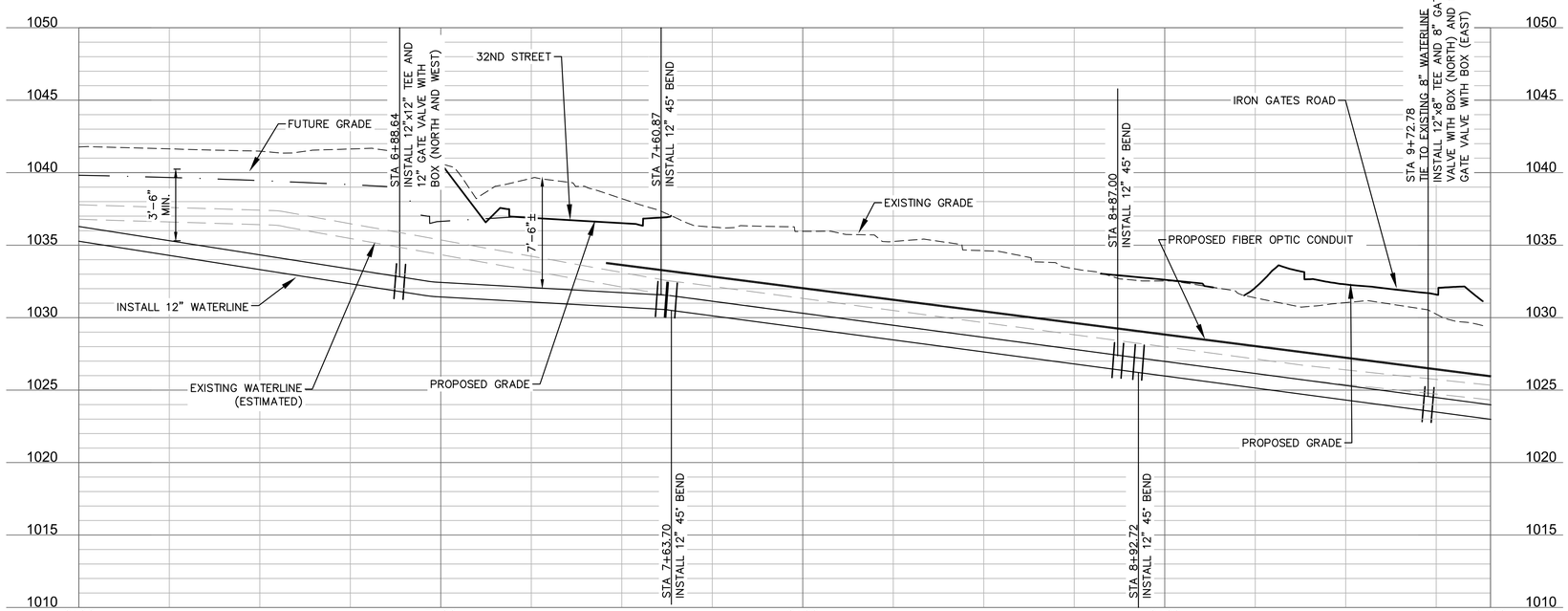
PROPOSED RIGHT-OF-WAY

GRADING LIMITS

N

0' 10' 20' 40'
SCALE IN FEET

WATERLINE "E" RELOCATION PLAN AND PROFILE (STA 6+00 TO 9+90)



NOTE: CONTRACTOR'S OPTION AT STA 9+72.78 TO USE 12"x12" TEE WITH 12"x8" REDUCER IN LIEU OF 12"x8" TEE.

10' 5' 2.5' 0'

0' 10' 20' 40'
SCALE IN FEET

* SEE SHEET D2 FOR GENERAL CONSTRUCTION NOTES

olsson
Olsson - Civil Engineering
Missouri Certificate of Authority #001592
702 S. Main Street
Joplin, MO 64801
TEL 417.781.0643
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STATE OF MISSOURI
JERRY G. JESKY JR.
NUMBER PE-2004000803
PROFESSIONAL ENGINEER
JERRY G. JESKY JR.–CIVIL ENGINEER
PE–2004000803

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

WATERLINE "E" RELOCATION PLAN AND PROFILE
(STA 6+00 TO 9+90)

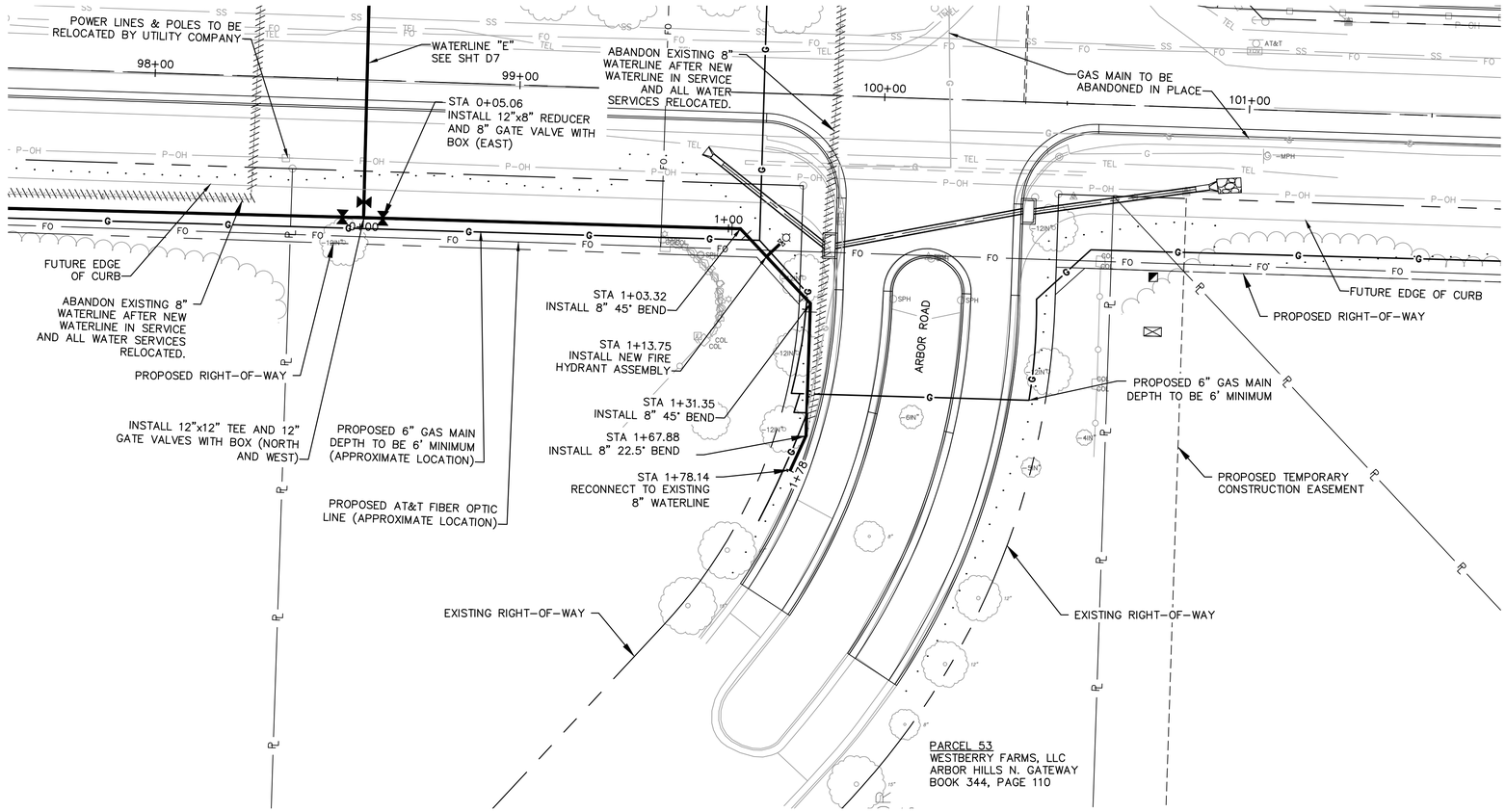
32ND STREET WIDENING
CITY OF JOPLIN

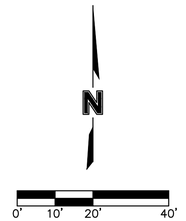
JOPLIN, MISSOURI

2021

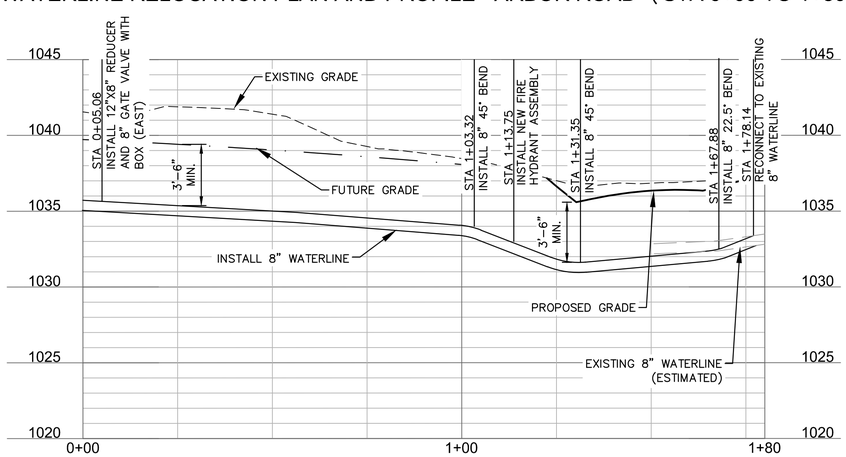
drawn by: SDN
checked by: TC
approved by: JJ
QA/QC by: PM/LB/FR
project no.: N18-1949
drawing no C_RPP01-02_N181949
date: 04/23/2021

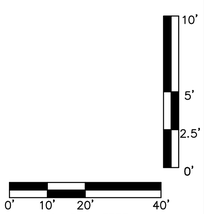
SHEET
D7 of D9





WATERLINE RELOCATION PLAN AND PROFILE - ARBOR ROAD (STA 0+00 TO 1+80)





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WATERLINE RELOCATION PLAN AND PROFILE
ARBOR ROAD (STA 0+00 TO 1+80)

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by: SDN
checked by: TC
approved by: JL
QA/QC by: PM/LB/FR
project no.: N18-1949
drawing no C_RPP01-02_N181949
date: 04/23/2021

SHEET
D8 of D9

DWG: F:\2018\1501-2000\018-1949-N\40-Design\AutoCAD\Final Plans\Sheets\C_RPP01-02_N181949.dwg USER: tclemens
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OA_F_PBASE_52768 TSE_T_PBASE_52768 TSE_T_PHTCH_52768 CJW_T_STORM CJW_T_PPATT_015-2768 - 3 lane

STA 0+00
TIE NEW 8" WATERLINE TO EXISTING 8" WATERLINE WITH 8" 45° BEND INSTALL THRUST BLOCK BEHIND CONNECTION FITTING

STA 0+04.56
INSTALL 8" GATE VALVE WITH BOX

STA 0+19.78
INSTALL 8" 45° BEND

FIBER-OPTIC TO BE RELOCATED BY UTILITY CO.

GUY POLE & GUY WIRE ANCHORS TO BE RELOCATED BY UTILITY CO.

SUNSET DRIVE

PROPOSED FIBER-OPTIC CONDUIT

24" RCP

INSTALL NEW 8" WATERLINE

STA 0+80.81
INSTALL NEW 8" WATERLINE WITH 12" MIN. CLEARANCE OVER EXISTING SANITARY SEWER

ABANDON EXISTING 8" WATERLINE AFTER NEW WATERLINE IN SERVICE AND ALL WATER SERVICES RECONNECTED

CENTERLINE 32ND STREET STATIONING SHOWN FOR REFERENCE ONLY

116+00 | 117+00 | 118+00 | 119+00 | 120+00

FUTURE EDGE OF CURB

POWER LINE & POLES TO BE RELOCATED BY UTILITY CO.

STA 1+51.00
INSTALL 12"x12" TEE AND 12"x8" REDUCER, 8" GATE VALVE WITH BOX (SOUTH)

ABANDON EXISTING 8" WATERLINE AFTER NEW WATERLINE IN SERVICE AND ALL WATER SERVICES RECONNECTED

STA 0+96.98
INSTALL 12"x8" REDUCER AND 8" GATE VALVE WITH BOX (NORTH)

60" RCP

72" RCP

2+00

INSTALL 12" WATERLINE CAPPED STUB-OUT FOR FUTURE CONNECTION

TIE NEW 8" WATERLINE TO EXISTING 8" WATERLINE WITH 8" 45° BEND

STA 1+02.10
INSTALL 12"x12" TEE AND 12" GATE VALVE WITH BOX (WEST)

STA 2+09.73
INSTALL 12" 45° BEND

15'

3+00

4+00

4+61

PROPOSED FIBER-OPTIC CONDUIT

GRADING LIMITS

PROPOSED RIGHT-OF-WAY

PERMANENT 15' WATERLINE EASEMENT TO BE OBTAINED

PROPOSED TEMPORARY CONSTRUCTION EASEMENT

STA 2+49.00
INSTALL 12" 45° BEND

PERMANENT 15' WATERLINE EASEMENT TO BE OBTAINED

INSTALL 12" WATERLINE "F"

STA 3+67.85
INSTALL 12" GATE VALVE WITH BOX AND MARKER

STA 4+17.26
INSTALL NEW 12" WATERLINE WITH 18" MIN. CLEARANCE OVER EXISTING 21" SANITARY SEWER

TIE TO EXISTING 12" DIP WATERLINE WITH 12"x12" TAPPING SLEEVE AND VALVE (NO BOX) INSTALL THRUST BLOCK BEHIND TAPPING SLEEVE

EXISTING 12" DIP WATERLINE

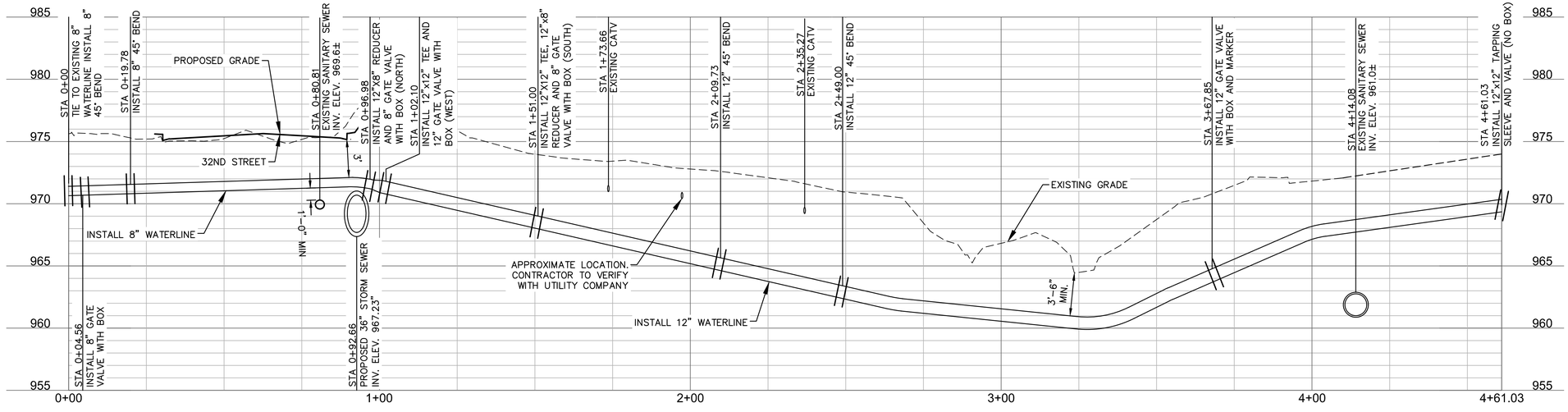
PROPOSED AT&T FIBER OPTIC LINE (APPROXIMATE LOCATION)

EXISTING 21" SANITARY SEWER

NOTE:
CONTRACTOR TO INSTALL VERTICAL FITTINGS AS NECESSARY TO ACHIEVE ALIGNMENT SHOWN WHILE LIMITING PIPE JOINT DEFLECTION TO 60% OF MANUFACTURER'S MAXIMUM STATED JOINT DEFLECTION ANGLE.

0' 10' 20' 40'
SCALE IN FEET

WATERLINE "F" RELOCATION PLAN AND PROFILE (STA 0+00 TO 4+61.03)



10'
5'
2.5'
0'
0' 10' 20' 40'
SCALE IN FEET

* SEE SHEET D2 FOR GENERAL CONSTRUCTION NOTES

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REVISIONS

WATERLINE "F" RELOCATION PLAN AND PROFILE
(STA 0+00 TO STA 4+61.03)

32ND STREET WIDENING
CITY OF JOPLIN

JOPLIN, MISSOURI

2021

drawn by:	SDN
checked by:	TG
approved by:	JJ
QA/QC by:	PM/LB/FR
project no.:	N18-1949
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SHEET
D9 of D9

DWG: F:\2018\1501-2000\018-1949-N\40-Design\AutoCAD\Final Plans\Sheets\C_RPP01-02_N181949.dwg USER: tclemens
DATE: Apr 22, 2021 8:02pm XREFS: C_CTBLK_N181949 TSE_T_PSTRM_BASE_52768 OA_ACAD-T_XBASE_52768

C:W_T_PPATT_015-2768 – 3 lane
CJW_T_STORM
TSE_T_PHTCH_52768
TSE_T_PBASE_52768
OA_F_PBASE_52768