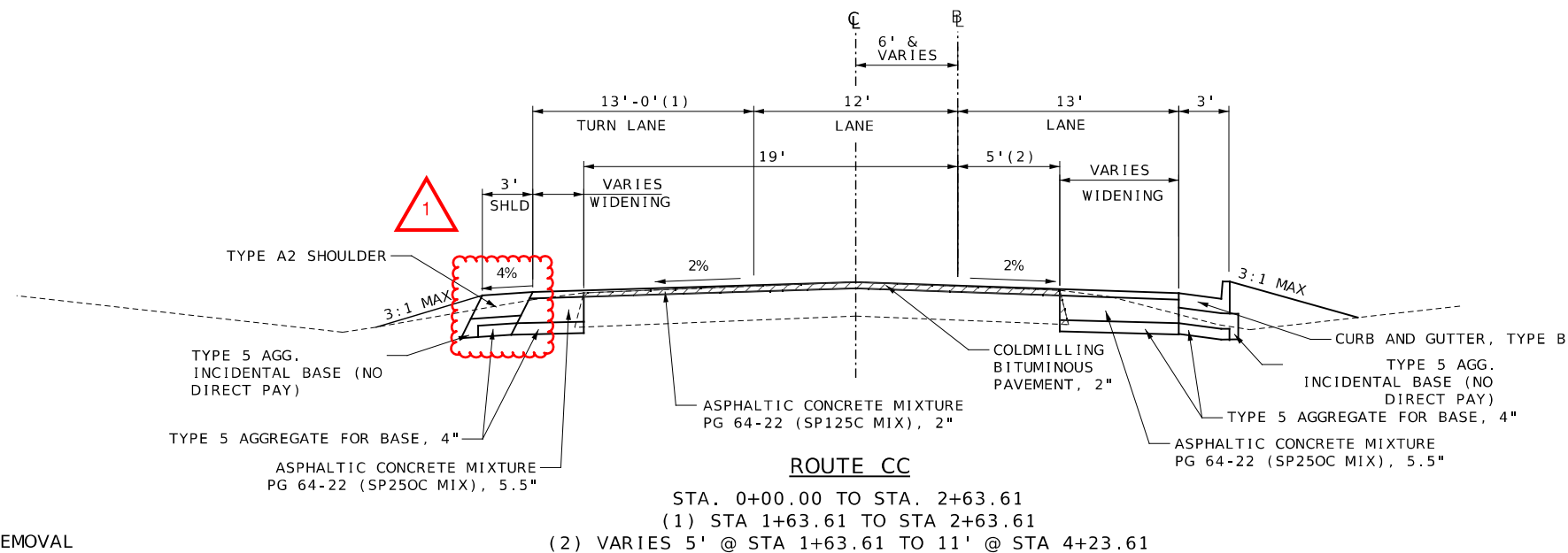
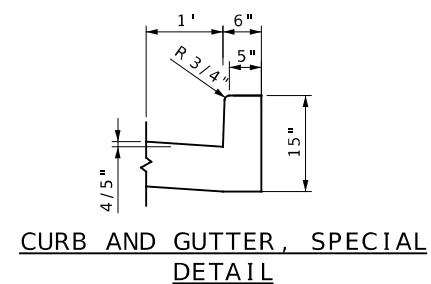
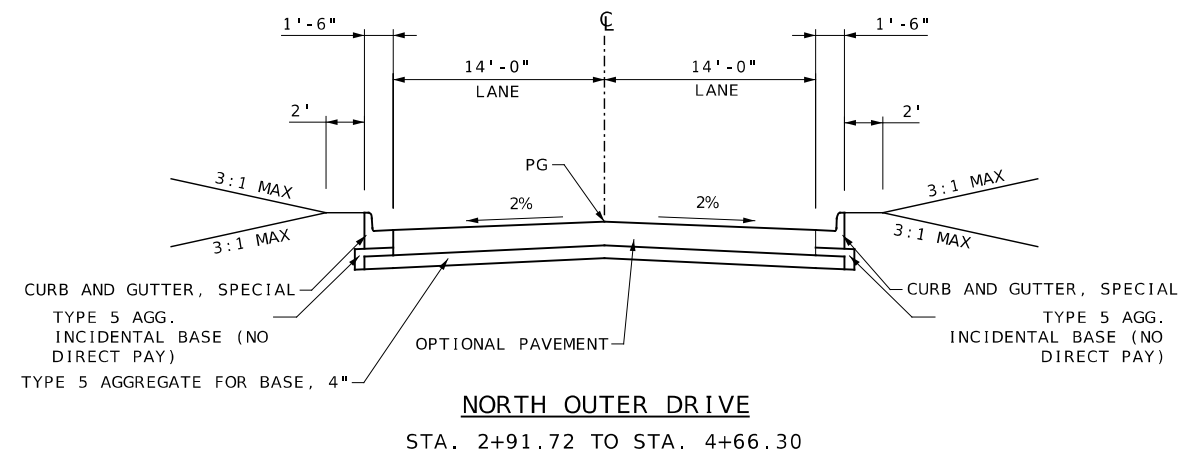
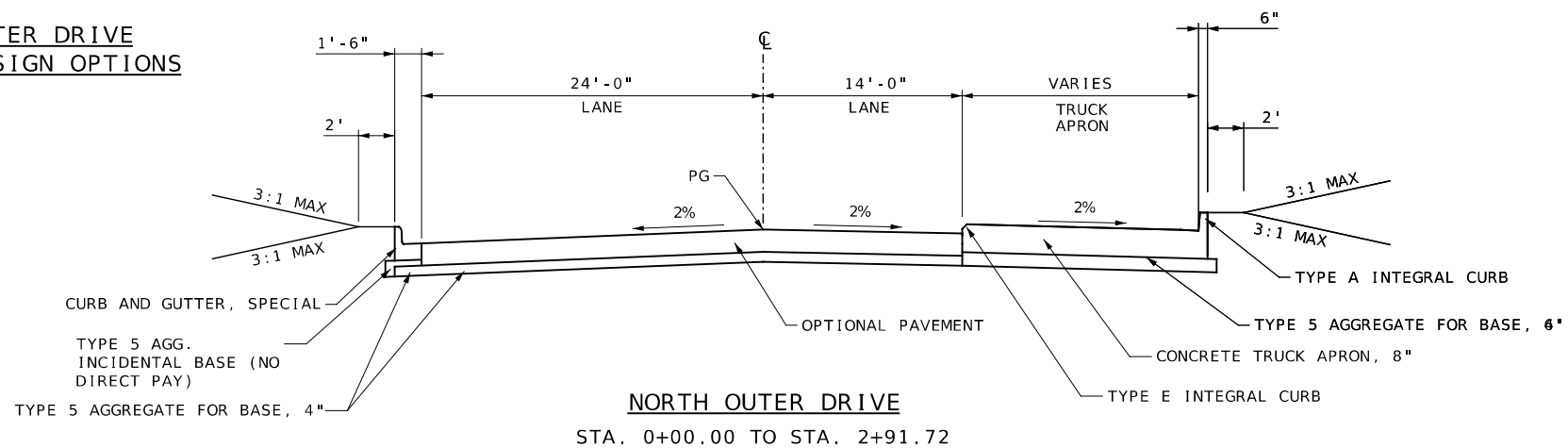


**NORTH OUTER DRIVE
PAVEMENT DESIGN OPTIONS**



TYPICAL SECTIONS
(SHEET 5 OF 6)

STATE OF MISSOURI

COLLIN J. WILCOX

NUMBER

PE-2019035614

THIS SHEET HAS BEEN

SIGNED, SEALED, AND

DATED ELECTRONICALLY

DATE PREPARED

4/8/2024

ROUTE

50

STATE

MO

DISTRICT

CD

SHEET NO.

2

COUNTY

OSAGE

JOB NO.

J5P3574

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION

ADD#1 - REVISED SHOULDER

DATE

4-17-24

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

105 WEST CAPITAL

JEFFERSON CITY, MO 65102

1-888-ASK-MODOT (1-888-275-6636)

LOCHMUELLER GROUP

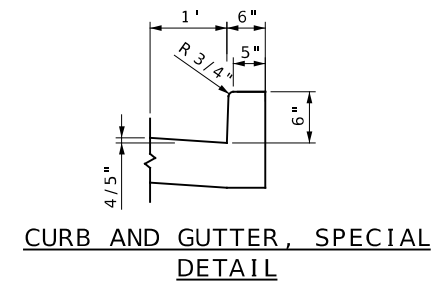
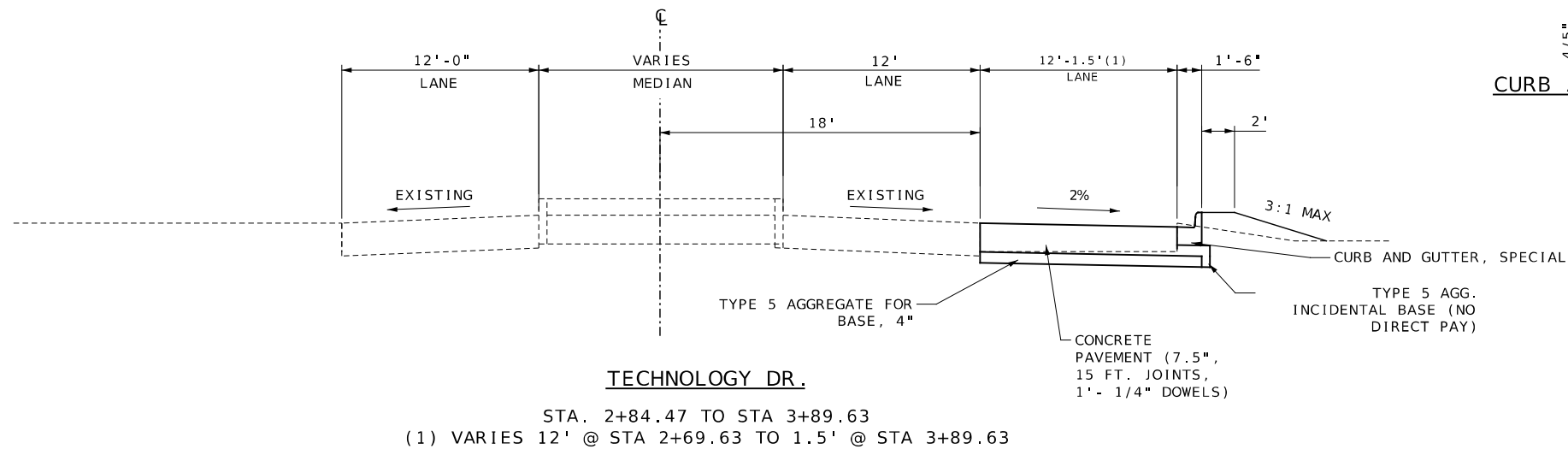
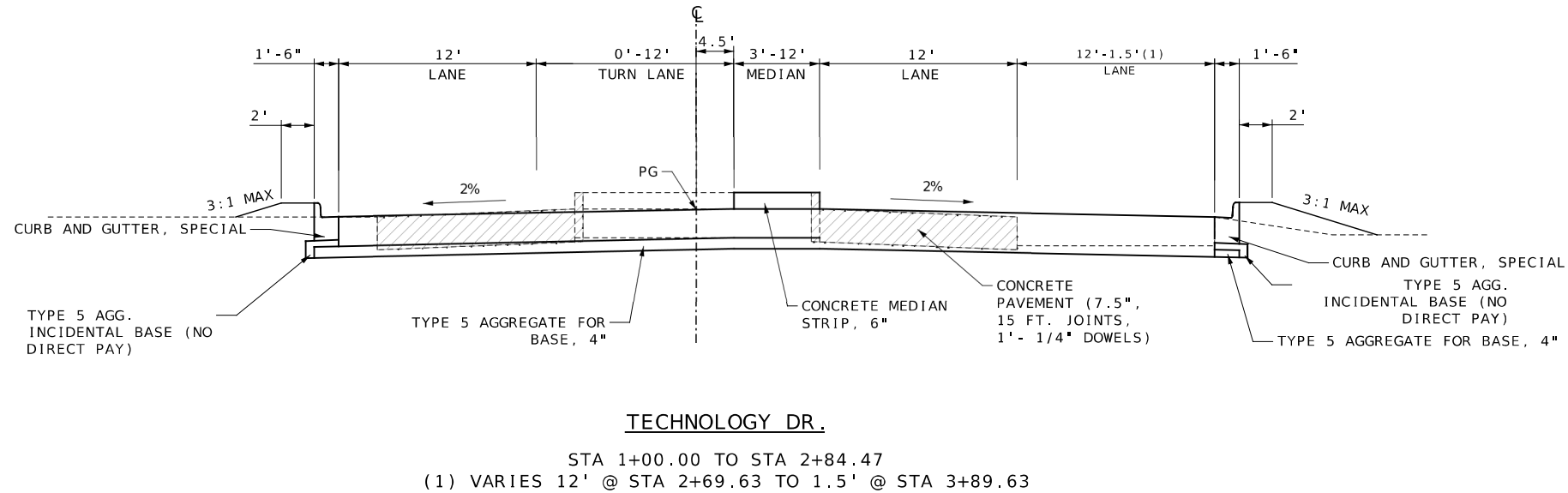
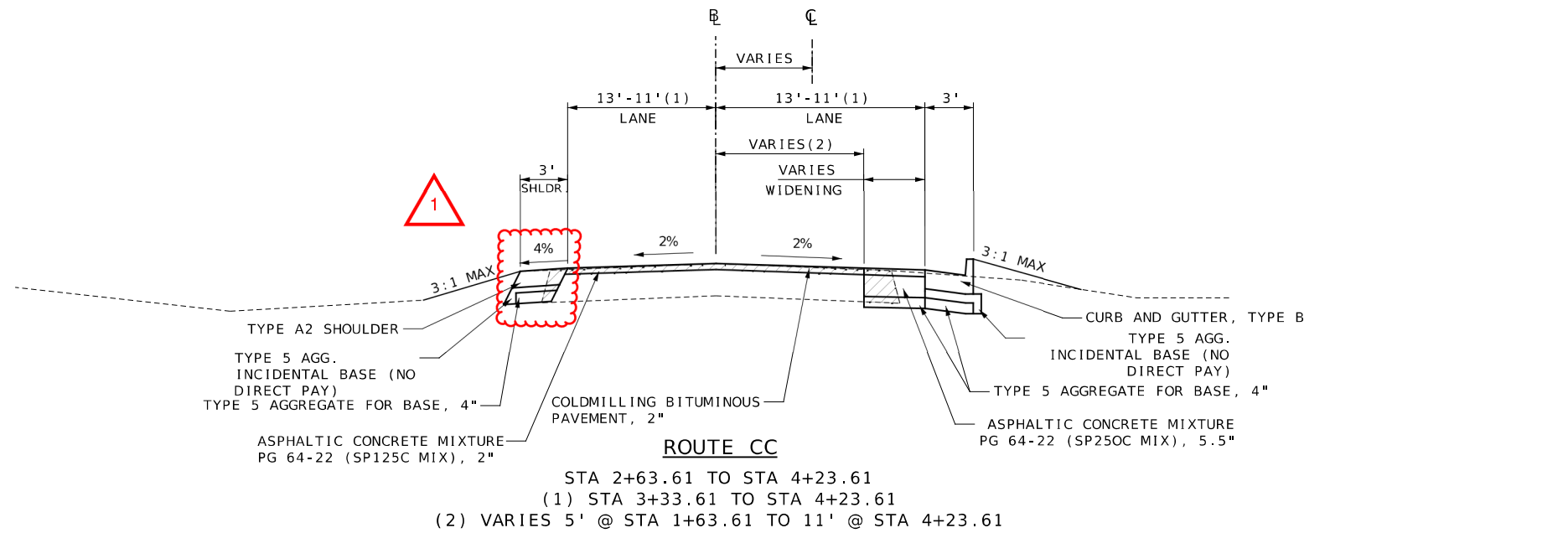
411 North 10th Street, Suite 200

St. Louis, MO 63101

Phone: 314.621.3395

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

REV.



TYPICAL SECTIONS
 (SHEET 6 OF 6)

COLLIN J. WILCOX
 NUMBER
 PE-2019035614
 PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN
 SIGNED, SEALED, AND
 DATED ELECTRONICALLY

DATE PREPARED 4/8/2024	
ROUTE 50	STATE MO
DISTRICT CD	SHEET NO. 2
COUNTY OSAGE	
JOB NO. J5P3574	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO.	

DESCRIPTION	DATE
ADD#1 - REVISED SHOULDER	4-17-24

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

105 WEST CAPITOL
 JEFFERSON CITY, MO 65102
 1-888-ASK-MODOT (1-888-273-6636)

LOCHMUELLER GROUP
 411 North 10th Street, Suite 200
 St. Louis, MO 63101
 Phone: 314.621.3395

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

REMOVAL OF IMPROVEMENTS					
SHEET	FROM STATION	TO STATION	ROADWAY	LOCATION	DESCRIPTION
TC 9	665+84.94	673+69.88	ROUTE 50	RT	437 SY SHOULDER REMOVAL (TRAFFIC CONTROL)
PLAN 1-8	666+90	702+32.12	ROUTE 50	LT	3532 LF SAW CUT
PLAN 1-8	666+90	702+32.12	ROUTE 50	LT	896 SY ASPHALT PAVEMENT REMOVAL
PLAN 3	676+54.84	678+38.76	ROUTE 50	LT	306 SY PAVED APPROACH REMOVAL
PLAN 3-4	677+29.95	679.79.88	ROUTE 50	LT	262 LF SAW CUT
PLAN 3	677+58.96	678+99.32	ROUTE 50	LT	141 LF PIPE REMOVAL
PLAN 3	678+31.47	679+10.81	ROUTE 50	LT	87 LF CURB REMOVAL
PLAN 3	679+00.28	-	ROUTE 50	LT	INLET REMOVAL
PLAN 3-4	679+01.28	680+21.25	ROUTE 50	LT	121 LF PIPE REMOVAL
PLAN 3-4	679+05.42	680+19.99	ROUTE 50	LT	219 SY PAVED APPROACH REMOVAL
PLAN 4	679+79.86	679+89.51	ROUTE 50	LT	17 LF CURB REMOVAL
PLAN 4	680+22.75	-	ROUTE 50	LT	INLET REMOVAL
PLAN 4	680+23.52	680+82.76	ROUTE 50	LT	PIPE REMOVAL
PLAN 4	680+24.71	680+69.16	ROUTE 50	LT	97 SY PAVED APPROACH REMOVAL
PLAN 4	680+30.56	680+37.72	ROUTE 50	LT	25 LF CURB REMOVAL
PLAN 4	680+37.72	680+65.00	ROUTE 50	LT	28 LF SAWCUT
PLAN 4	680+59.85	680+64.43	ROUTE 50	LT	19 LF CURB REMOVAL
PLAN 4	680+83.46	-	ROUTE 50	LT	INLET REMOVAL
PLAN 4	680+83.55	680+84.48	ROUTE 50	LT	10 LF PIPE REMOVAL
PLAN 4	680+84.43	681+19.91	ROUTE 50	LT	36 LF PIPE REMOVAL
PLAN 4	680+89.44	681+13.26	ROUTE 50	LT	28 SY PAVED APPROACH REMOVAL
PLAN 4-5	683+35.93	684+73.92	ROUTE 50	LT	169 LF SAW CUT
PLAN 4-5	683+35.93	684+82.22	ROUTE 50	LT	990 SY PARKING LOT PAVEMENT REMOVAL
PLAN 4-5	684+17.52	685+24.90	ROUTE 50	LT	674 SY PAVED APPROACH REMOVAL
PLAN 4-5	684+28.08	684+97.83	ROUTE 50	LT	70 LF PIPE REMOVAL
PLAN 4	684+43.37	684+59.84	ROUTE 50	LT	50 LF CURB REMOVAL
PLAN 4-5	684+56.00	684+75.00	ROUTE 50	LT	90 LF CURB REMOVAL
PLAN 5	684+72.87	684+87.61	ROUTE 50	LT	28 LF CURB REMOVAL
PLAN 5	684+95.05	685+24.90	ROUTE 50	LT	31 LF SAW CUT
PLAN 5	685+75.00	686+67.59	ROUTE 50	LT	593 SY PARKING LOT PAVEMENT REMOVAL
PLAN 5	685+82.20	686+67.59	ROUTE 50	LT	114 LF SAW CUT
PLAN 5	686+37.06	687+03.73	ROUTE 50	LT	341 SY PAVED APPROACH REMOVAL
PLAN 5	686+45.55	686+58.24	ROUTE 50	LT	59 LF CURB REMOVAL
PLAN 5	686+51.81	687+10.97	ROUTE 50	LT	60 LF PIPE REMOVAL
PLAN 5	686+71.22	686+79.51	ROUTE 50	LT	19 LF CURB REMOVAL
PLAN 5	686+79.51	687+46.17	ROUTE 50	LT	101 LF SAW CUT
PLAN 5	686+87.13	686+91.62	ROUTE 50	LT	18 LF CURB REMOVAL
PLAN 5	686+91.62	687+46.17	ROUTE 50	LT	207 SY PARKING LOT PAVEMENT REMOVAL
PLAN 5	687+13.38	-	ROUTE 50	LT	INLET REMOVAL
PLAN 5-6	687+48.10	690+23.94	ROUTE 50	LT	307 LF SAW CUT
PLAN 5-6	687+48.10	690+24.65	ROUTE 50	LT	62 SY PARKING LOT PAVEMENT REMOVAL
PLAN 6	690+07.45	691+26.01	ROUTE 50	LT	121 LF PIPE REMOVAL
TC 10-11	694+89.27	705+30.00	ROUTE 50	RT	579 SY SHOULDER REMOVAL (TRAFFIC CONTROL)
PLAN 7	697+07.03	697+15.94	ROUTE 50	LT	20 LF PIPE REMOVAL
PLAN 6	1+28.27	3+89.63	TECHNOLOGY DR	RT	589 SY PAVEMENT REMOVAL
PLAN 6, 10	1+75.36	2+85.61	TECHNOLOGY DR	LT/RT	239 LF CURB REMOVAL
PLAN 6, 10	2+84.47	3+89.63	TECHNOLOGY DR	LT/RT	147 LF SAW CUT
PLAN 4, 9	0+06.81	4+23.61	ROUTE CC	LT	460 LF SAW CUT
PLAN 4, 9	0+06.81	4+23.61	ROUTE CC	LT	195 SY PAVEMENT REMOVAL
PLAN 4, 9	0+26.50	4+23.61	ROUTE CC	RT	435 SAW CUT
PLAN 4, 9	0+26.50	4+23.61	ROUTE CC	RT	93 SY PAVEMENT REMOVAL
PLAN 9	1+66.79	-	ROUTE CC	LT/RT	35 LF PIPE REMOVAL
PLAN 9	1+74.69	2+65.58	ROUTE CC	RT	155 SY PAVED APPROACH REMOVAL
PLAN 9	2+28.11	2+99.95	ROUTE CC	LT	72 SY PAVED APPROACH REMOVAL
SIGNING 2	669+28.88	-	ROUTE 50	LT	OBJECT MARKER
SIGNING 3	676+64.09	-	ROUTE 50	LT	PROGRESS DRIVE
SIGNING 4	682+75.88	-	ROUTE 50	RT	ROUTE DESIGNATION SIGN
SIGNING 4	683+55.87	-	ROUTE 50	LT	ROUTE DESIGNATION SIGN
SIGNING 5	689+95.72	-	ROUTE 50	LT	CENTER LANE ONLY SIGN
SIGNING 7	697+02.81	-	ROUTE 50	LT	OBJECT MARKER
SIGNING 4	0+44.44	-	ROUTE CC	LT	STOP
SIGNING 4	0+88.35	-	ROUTE CC	RT	ROUTE DESIGNATION SIGN
SIGNING 5	1+48.12	-	TECHNOLOGY DR	LT	STOP SIGN
PAY TOTAL					1 LUMP SUM

MOBILIZATION

LUMP SUM = 1

TEMPORARY TRAFFIC CONTROL

LUMP SUM = 1

CONTRACTOR FURNISHED SURVEYING & STAKING

LUMP SUM = 1

PERMANENT EROSION CONTROL

ROADWAY	SHEET	FROM STATION	TO STATION	LOCATION	TURF TYPE TALL FESCUE SODDING	TYPE 4 EROSION CONTROL BLANKET	SEEDING - COOL SEASON MIX	REMARKS
					(SY)	(SY)	(AC)	
RTE 50	1	666+89.87	668+40.90	LT		288.7	0.06	
RTE 50	2	668+40.00	673+04.29	LT		831.0	0.17	
RTE 50	4	679+80.42	684+70.11	LT	1089.0			
RTE CC	4	0+11.31	1+39.89	LT/RT		183.7	0.04	
RTE 50	5	684+70.00	690+00.00	LT	2039.5			
RTE 50	6	690+00.00	695+20.00	LT/RT	36.3	894.7	0.18	
RTE 50	7	695+20.00	700+50.00	LT		1782.9	0.37	
RTE 50	8	700+50.00	702+32.07	LT		619.2	0.13	
RTE CC	9	1+40.00	4+24.05	LT/RT	464.3	190.7	0.04	
Tech Dr	10	3+00.00	3+89.83	RT		64.7	0.01	
TOTAL					3791.8	4876	1.0	

AGGREGATE BASE COURSE SUMMARY (FOR INFORMATION ONLY)

ITEM	4" TYPE 5 AGG BASE	6" TYPE 5 AGG BASE	REMARKS
	(SY)	(SY)	
ASPHALT PAVEMENT WIDENING TYPE A2 SHOULDER	471.3	7209.7	
PAVED APPROACH, 8"	1004.8	998.6	
OPTIONAL PAVEMENT	2688.4		
CONCRETE PAVEMENT	1099.0		
6" BIT. PAVEMENT (PARKING LOTS)	289.1		
TYPE B CURB AND GUTTER		453.9	
SPECIAL CURB AND GUTTER		337.5	
TYPE A INTEGRAL CURB	11.7		
8" CONCRETE TRUCK APRON		314.6	
TYPE E INTEGRAL CURB	11.7		
0" CONCRETE MEDIAN	80.4		
CONCRETE CURB RAMP	52.0		
TOTAL	5714	9314	

TEMPORARY EROSION CONTROL

ROADWAY	SHEET	FROM STATION	TO STATION	LOCATION	SILT FENCE	CURB INLET CHECK	SEDIMENT TRAPS	ROCK DITCH CHECK	SEDIMENT REMOVAL	REMARKS
					(LF)	(EA)	(CY)	(LF)	(CY)	
RTE 50	1	665+84.94	668+40.00	RT	257.2				3	
RTE 50	1	666+95.00	668+40.00	LT				144.7	2	
RTE 50	2	668+40.00	672+84.37	LT				356.8	9	
RTE 50	2	668+40.00	672+19.33	RT	382.6				4	
RTE 50	2	672+59.01	673+80.86	RT	102.5				1	
RTE 50	2	669+12.88	669+29.02	LT			15			
RTE 50	3	677+58.27		LT		1				
RTE 50	3	679+00.19		LT		1				
RTE 50	4	680+21.43		LT		1				
RTE 50	4	680+34.31		LT		1				
RTE 50	4	680+83.93		LT		1				
RTE 50	4	682+71.59		LT		1				
RTE CC	4	0+99.27		RT		1				
RTE CC	4	0+31.00	1+40.00	LT	137.3				2	
RTE 50	4	681+20.28	682+71.47	LT				154.1	3	
N OUTER DR	5	2+78.44		LT		1				
N OUTER DR	5	3+38.19		LT		1				
N OUTER DR	5	4+21.18		LT		1				
RTE 50	5	685+30.00		LT		1				
RTE 50	5	687+12.54		LT		2				
RTE 50	5	687+24.54		RT			5			
TECH DR/ RTE 50	6	3+00.00	693+73.99	LT	397				4	
RTE 50	6	691+55.23	693+68.51	RT	210.8				2	
RTE 50	6	691+08.52		RT		1				
RTE 50	6	693+80.05	695+20.00	LT				143.4	2	
RTE 50	7	695+20.00	700+50.00	LT				517.4	11	
RTE 50	7		697+00.00	RT			5			
RTE 50	7	695+20.00	696+21.00	RT	101				1	
RTE 50	7	696+62.50	700+50.00	RT	388				4	
RTE 50	8	700+50.00	705+30.00	RT	487.9				5	
RTE 50	8	700+50.00	702+32.07	LT				183.6	4	
RTE CC	9	1+65.88		RT		2				
RTE CC	9	1+65.88		LT			5			
RTE CC	9	1+40.00	2+49.00	LT	109				1	
RTE CC	9	2+63.56	4+24.04	RT				162.9	3	
TECH DR	10	3+00.00	3+90.85	RT	91					
TOTALS					2664	16	30	1663	61	

QUANTITY SHEETS
1 OF 8



THIS SHEET HAS BEEN
SIGNED, SEALED, AND
DATED ELECTRONICALLY

DATE PREPARED
4/8/2024

ROUTE 50 STATE MO
DISTRICT CD SHEET NO. 3

COUNTY OSAGE
JOB NO. J5P3574

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION	DATE
ADD#1 - QUANTITY REVISION	4-17-24

MISSOURI HIGHWAYS AND TRANSPORTATION
COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-273-6636)

LOCHMUELLER GROUP
411 North 10th Street, Suite 200
St. Louis, MO 63101
Phone: 314.621.3395

1

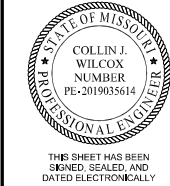
ASPHALTIC CONCRETE MIXTURE										
PLAN SHEET	STAGE	ROADWAY	FROM STATION	TO STATION	LOCATION	ASPHALTIC CONCRETE MIXTURE PG 64-22 (SP250C MIX)	ASPHALTIC CONCRETE MIXTURE PG 64-22 (SP125C MIX)	TYPE 5 AGG. BASE 6 IN. THICK	TYPE 5 AGG. BASE 4 IN. THICK	REMARKS
						(TONS)	(TONS)	(SY)	(SY)	
4, 9	1A	RTE CC	0+06.91	4+23.61	LT	63.1	92.0	137.5	137.5	
4, 9	1B	RTE CC	0+26.61	4+23.61	RT	153.1	160.5	333.8	333.8	
5-7	1C	ROUTE 50	689+60.14	698+71.00	LT/RT	805.7	574.9	1756.3		
1-4	2A	ROUTE 50	664+04.94	682+69.94	RT	416.2		907.2		
4-8	2A	ROUTE 50	684+07.00	705+47.89	RT	598.0		1303.5		
1-2	2B	ROUTE 50	666+90.00	673+03.77	LT/RT	249.9	274.0	544.7		
7-8	2B	ROUTE 50	698+71.00	702+32.12	LT/RT	108.5	145.2	236.5		
2-4	3A	ROUTE 50	673+03.77	684+26.00	LT/RT	654.7	643.9	1427.0		
4-5	3B	ROUTE 50	684+08.09	686+35.64	LT/RT	258.4	163.4	563.2		
TOTALS						3307.6	2053.9	7209.7	471.3	

TYPE A2 SHOULDER								
PLAN SHEET	STAGE	ROADWAY	FROM STATION	TO STATION	LOCATION	TYPE A2 SHOULDER	TYPE 5 AGG. BASE 6 IN. THICK	REMARKS
						(SY)	(SY)	
4	1A	RTE CC	0+08.56	1+40.00	LT	55.6	55.6	
9	1A	RTE CC	1+40.00	4+22.89	LT	62.4	62.4	
6	1C	RTE 50	691+36.17	695+20.00	LT	158.3	158.3	
7	1C	RTE 50	695+20.00	698+71.18	LT	195.7	195.7	
1	2B	RTE 50	666+89.87	668+40.00	LT	82.8	82.8	
2	2B	RTE 50	668+40.00	672+94.01	LT	247.1	247.1	
7	2B	RTE 50	698+71.18	700+50.00	LT	96.8	96.8	
8	2B	RTE 50	700+50.00	702+32.35	LT	100.0	100.0	
TOTALS						998.6	998.6	

ENTRANCES							
PLAN SHEET	ROADWAY	FROM STATION	TO STATION	LOCATION	PAVED APPROACH, 8"	TYPE 5 AGG. BASE 4 IN. THICK	REMARKS
					(SY)	(SY)	
2	RTE 50	672+82.73	673+53.32	LT	120.7	120.7	
3	RTE 50	676+24.64	676+69.96	LT	76.2	76.2	
3	RTE 50	676+69.96	677+24.04	LT	97.2	97.2	
3	RTE 50	677+24.04	678+36.05	LT	127.1	127.1	
4	RTE 50	679+05.42	679+90.15	LT	106.4	106.4	
4	RTE 50	680+25.81	680+76.86	LT	60.8	60.8	
4	RTE 50	680+88.39	681+49.59	LT	127.3	127.3	
4	N. OUTER	1+96.64	2+03.20	LT	17.1	17.1	
5	N. OUTER	2+00.84	2+11.64	LT	31.1	31.1	
9	RTE CC	1+79.12	2+58.07	RT	122.3	122.3	
9	RTE CC	2+28.89	3+22.64	LT	118.6	118.6	
TOTAL					1004.8	1004.8	

COLDMILL BITUMINOUS PAVEMENT								
PLAN SHEET	STAGE	ROADWAY	FROM STATION	TO STATION	LOCATION	TACK COAT	COLDMILL BIT. PVM.T. 3" OR LESS	REMARKS
						(GAL)	(SY)	
4	1A	RTE CC	0+08.56	1+40.00	LT	11.1	222.2	
9	1A	RTE CC	1+40.00	4+23.00	LT	7.9	157.8	
4	1B	RTE CC	0+26.61	1+40.00	RT	12.7	253.4	
9	1B	RTE CC	1+40.00	4+24.15	RT	18.1	362.9	
5	1C	RTE 50	689+59.38	690+00.00	LT	5.2	104.4	
6	1C	RTE 50	690+00.00	695+20.00	LT	58.4	1167.2	
7	1C	RTE 50	695+20.00	698+71.18	LT	23.4	468.5	
1	2A	RTE 50	666+90.00	668+40.00	RT	14.6	292.2	
2	2A	RTE 50	668+40.00	673+90.00	RT	52.6	1051.6	
3	2A	RTE 50	673+90.00	679+30.00	RT	54.0	1080.0	
4	2A	RTE 50	679+30.00	684+70.00	RT	67.8	1355.0	
5	2A	RTE 50	684+70.00	690+00.00	RT	51.6	1031.6	
6	2A	RTE 50	690+00.00	695+20.00	RT	51.0	1019.9	
7	2A	RTE 50	695+20.00	700+50.00	RT	50.2	1003.8	
8	2A	RTE 50	700+50.00	702+32.12	RT	17.5	350.3	
1	2B	RTE 50	666+90.00	668+40.00	LT	9.1	182.9	
2	2B	RTE 50	668+40.00	673+03.97	LT	22.8	455.1	
7	2B	RTE 50	698+71.18	700+50.00	LT	10.8	215.3	
8	2B	RTE 50	700+50.00	702+32.12	LT	11.1	221.7	
2	3A	RTE 50	673+03.97	673+90.00	LT	6.6	131.8	
3	3A	RTE 50	673+90.00	679+30.00	LT	63.4	1267.5	
4	3A	RTE 50	679+30.00	684+08.09	LT	61.1	1221.8	
4	3B	RTE 50	684+08.09	684+70.00	LT	7.9	158.2	
5	3B	RTE 50	684+70.00	686+35.87	LT	21.2	423.9	
5	3C	RTE 50	686+35.87	689+58.42	LT	41.4	827.9	
TOTALS						752.0	15027	

QUANTITY SHEETS
3 OF 8



DATE PREPARED 4/8/2024	
ROUTE 50	STATE MO
DISTRICT CD	SHEET NO. 3
COUNTY OSAGE	
JOB NO. J5P3574	
CONTRACT ID. .	
PROJECT NO. .	
BRIDGE NO. .	

DESCRIPTION	DATE
ADD#1 - QUANTITY REVISION	4-17-24

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

105 WEST CAPITOL
JEFFERSON CITY, MO 65102
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