

DESIGN DESIGNATION
A.A.D.T. - 2025 = 1548
V = 45-55 M.P.H.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
PLANS FOR PROPOSED
STATE HIGHWAY
CASS COUNTY



BEGIN PROJECT, ROUTE D
LOG MILE: 3.138
(AT HWY 58)

215TH STREET INTERSECTION
LOG MILE:8.657
CULVERT REPLACMENT

EXCEPTION AT
BRIDGE B0227
LOG MILE:8.965

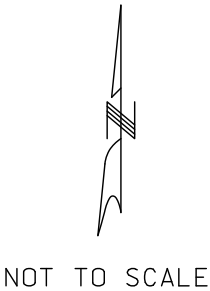
EXCEPTION AT
BRIDGE A2250
LOG MILE:9.925

EXCEPTION AT
BRIDGE A2251
LOG MILE:11.655

END PROJECT, ROUTE D
LOG MILE: 12.740
(AT ROUTE Y)



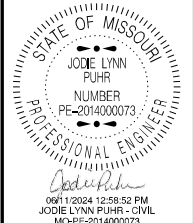
PROJECT URBAN ROUTES:
ROUTE D



PROJECT DESCRIPTION:
CONTRACT LEVELING COURSE,
1" PLANT MIX BITUMINOUS PAVEMENT
PG64-22 (SURFACE LEVELING)

INDEX OF SHEETS

| DESCRIPTION | SHEET NUMBER |
|-------------------------------------|--------------|
| TITLE SHEET ----- | 1 |
| TYPICAL SECTIONS (TS) (1 SHEET)---- | 2 |
| QUANTITIES (QU) (3 SHEETS)----- | 3 |
| PLAN SHEET (PP)----- | 4 |
| REFERENCE POINTS (RP)----- | 5 |
| COORDINATE POINTS (CP)----- | 6 |
| SPECIAL SHEET (SS)----- | 7 |
| TRAFFIC CONTROL SHEETS (TC)----- | 8-13 |
| CULVERT SECTION (CS)----- | 14 |
| CROSS SECTIONS (XS)----- | 1-2 |



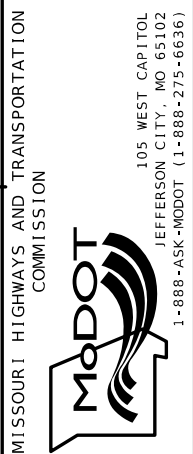
| | |
|----------------------------|----------------|
| DATE PREPARED 6/11/2024 | |
| ROUTE D | STATE MO |
| DISTRICT KC | SHEET NO. 1 |
| COUNTY CASS | |
| JOB NO. JKU0045 | |
| CONTRACT ID. | |
| PROJECT NO. | |
| BRIDGE NO. | |

| DESCRIPTION | DATE |
|-------------|------|
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LENGTH OF PROJECT

| | |
|---------------------------|--|
| ROUTE D: | |
| BEGINNING OF PROJECT | BEGIN LOG MILE: 3.138 |
| END OF PROJECT | END LOG MILE: 12.740 |
| APPARENT LENGTH | 9.602 MILES |
| EQUATIONS AND EXCEPTIONS: | |
| | EXCEPTION AT BRIDGE B0227 60 FEET = 0.011 MILES |
| | EXCEPTION AT BRIDGE A2250 265 FEET = 0.050 MILES |
| | EXCEPTION AT BRIDGE A2251 175 FEET = 0.033 MILES |
| TOTAL CORRECTIONS | 0.094 MILES |
| NET LENGTH OF PROJECT | 9.508 MILES |
| STATE LENGTH | 9.508 MILES |

FOR INFORMATION ONLY
ESTIMATED DISTURBED ACRES 0.027 ACRES




| | |
|---------------|----------|
| DATE PREPARED | |
| 7/9/2024 | |
| ROUTE | STATE |
| D | MO |
| DISTRICT | SHEET NO |
| KC | 3 |
| COUNTY | |
| CASS | |
| JOB NO. | |
| JKU0045 | |
| CONTRACT ID. | |

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|-------------|
| PROJECT NO. |
| BRIDGE NO. |

[illegible]

MISSOURI HIGHWAYS AND TRANSPORTATION
COMMISSION

 105 WEST CAPITOL
JEFFERSON CITY, MO 65102

CULVERT REPLACEMENT
SHEET

| |
|-------------------------------------|
| ADDITIONAL MOBILIZATION FOR SEEDING |
| EACH = 4 |

| |
|--|
| CONTRACTOR FURNISHED SURVEYING AND STAKING |
| LUMP SUM = 1 |

| PAVEMENT AND SHOULDER TREATMENT | | | | | | | | | |
|---------------------------------|-----------|-----------|--------|-----------|-----------------------|-------------------|-------------------------|--------------------------|--------------------------|
| SHEET NO. | STATION | STATION | OFFSET | LOCATION | TYPE 1 AGGR. FOR BASE | | TYPE A3 SHOULDER (S.Y.) | OPTIONAL PAVEMENT (S.Y.) | REMARK |
| | | | | | MAINLINE (S.Y.) | W 215TH ST (S.Y.) | | | |
| 4 | 396+78.06 | 397+16.70 | | RTE D | 92 | | | 92 | |
| 4 | 396+78.06 | 397+16.70 | RT | RTE D | 8.8 | | 8.8 | | |
| 4 | 396+78.06 | 397+07.70 | LT | RTE D | 6.4 | | 6.4 | | |
| 4 | 397+09.00 | 397+16.70 | RT | RTE D | | 1.5 | | | AGGR. SURFACE W 215TH ST |
| | | | | | | | | | |
| | | | | SUBTOTAL | 107.2 | 1.5 | 15.2 | 92 | |
| | | | | PAY TOTAL | 109 | | 15.2 | 92 | |

| STANDARD ACRYLIC WATERBORNE MARKING PAINT 4" - CULVERT REPLACEMENT | | | | | | | |
|--|----------------------------|---------|--------------|------------------------|-----------------------|-----------------------|---------|
| SHEET NO. | STATION | STATION | LOCATION | 4" SOLID YELLOW (L.F.) | 4" INT. YELLOW (L.F.) | 4" SOLID WHITE (L.F.) | REMARKS |
| 4 | 396+68 | 397+27 | RTE D RT | | | 59 | |
| 4 | 396+68 | 397+27 | RTE D CENTER | | 20 | | |
| 4 | 396+68 | 397+27 | RTE D LT | | | 59 | |
| | | | | | | | |
| | SUBTOTAL FROM SHEET 1 OF 3 | | | 49,076 | | 100,497 | |
| | PAY TOTAL | | | 49,096 | | 100,615 | |

| EROSION & SEDIMENT CONTROL | | | | | | | | | |
|----------------------------|-----------|-----------|---------|----------|-----------------------------------|-------------------------|-------------------------|--|---------------------------------|
| SHEET NO. | STATION | STATION | OFFSET | LOCATION | SEEDING - COOL SEASON MIX. (ACRE) | ALT. DITCH CHECK (L.F.) | SEDIMENT REMOVAL (EACH) | TYPE 2C EROSION CONRTOL BLANKET (S.Y.) | REMARK |
| 4 | 396+52.00 | 396+89.00 | RT | RTE D | | 18 | 2 | | 2 @ 37' SPACING |
| 4 | 397+00.00 | 397+17.00 | RT | RTE D | | 30 | 3 | | 3 @ 15' SPACING |
| 4 | 396+36.00 | 396+86.00 | LT | RTE D | | 22 | 2 | | 2 @ 50' SPACING |
| 4 | 397+10.00 | 397+15.00 | LT | RTE D | | 60 | 4 | | 4 @ 9' SPACING, N/O E 215TH ST |
| 4 | 397+17.00 | | LT | RTE D | | 14 | 1 | | 1 @ 19' SPACING, N/O E 215TH ST |
| 4 | 397+19.00 | 397+20.00 | LT | RTE D | | 30 | 2 | | 2 @ 37' SPACING, N/O E 215TH ST |
| 4 | 396+78.00 | 397+25.00 | RT | RTE D | | | | 48 | |
| 4 | 396+58.00 | 397+25.00 | LT | RTE D | | | | 86 | |
| - | 396+58.00 | 397+25.00 | RT & LT | RTE D | 0.1 | | | | |
| | | | | | | | | | |
| | | | | SUBTOTAL | 0.1 | 174 | 14 | 134 | |
| | | | | PAYTOTAL | 0.1 | 174 | 14 | 134 | |

SUMMARY OF QUANTITIES
SHEET 2 OF 3

| | | | | | | |
|--|--|--|---|--|-----------------------------------|---|
| <div><div><div>CENTERLINE DRIVEWAY</div><div><div><div>CENTERLINE ROUTE D</div><div><div><div>30.5'</div><div>12.5'</div></div></div><div><div>90°</div></div></div></div><div>RP-1 IRON BAR 1425' NORTH OF 223RD STREET SOUTH OF HOUSE CIRCLE DRIVE</div></div></div> | <div><div><div>EDGE OF GRAVEL 215TH STREET</div><div><div><div>WOOD FENCE POST</div><div><div><div>11'</div><div>18.2'</div></div></div><div><div>32°</div></div></div></div><div>RP-2 5/8"IRON BAR WITH PINK MODOT CAP SW CORNER OF INTERSECTION ROUTE D AND 215TH STREET, BURIED 0.5' ELEV. = 977.114'</div></div></div> | <div><div><div>RP-3 PIN HAS BEEN DESTROYED</div></div></div> | <div><div><div>CENTER OF GRAVEL FIELD ENTRANCE</div><div><div><div>TOP OF FIRE HYDRANT</div><div><div><div>52.8'</div><div>27°</div></div></div><div><div>18.2'</div><div>20'</div></div></div></div><div>RP-4 5/8"IRON BAR WITH PINK MODOT CAP APPROX. ½ MILE NORTH OF ROUTE D AND 215TH STREET, BURIED 0.5' ELEV. = 1003.084'</div></div></div> | <div><div><div>CENTERLINE ROUTE D</div><div><div><div>35.6'</div><div>6'</div></div></div><div>RP-5 IRON BAR 2200' SOUTH OF 215TH STREET JUST NORTH OF HOUSE DRIVEWAY ELEV. = 969.566'</div></div></div> | <div><div><div></div></div></div> | <div><div><div></div></div></div> |
| <div><div><div></div></div></div> | <div><div><div></div></div></div> | <div><div><div></div></div></div> | <div><div><div></div></div></div> | <div><div><div></div></div></div> | <div><div><div></div></div></div> | <div><div><div></div></div></div> |
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| <div><div><div></div></div></div> | <div><div><div></div></div></div> | <div><div><div></div></div></div> | <div><div><div></div></div></div> | <div><div><div></div></div></div> | <div><div><div></div></div></div> | <div><div><div>REFERENCE POINT SHEET SHEET 1 OF 1</div></div></div> |

STATE OF MISSOURI

JODE LYNN FUHR

NUMBER
PE-2014000073

PROFESSIONAL ENGINEER

06/13/2024 12:59:44 PM

JODE LYNN FUHR - CIVIL

MO-PE-2014000073

DATE PREPARED
6/13/2024

ROUTE
D

DISTRICT
KC

STATE
MO

SHEET NO.
5

COUNTY
CASS

JOB NO.
JKU0045

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION

DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

105 WEST CAPITOL
JEFFERSON CITY, MO 65102

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

ALL PROJECT COORDINATES HAVE BEEN PROJECTED FROM THE MISSOURI STATE PLANE COORDINATE (SPC) SYSTEM OF 1983 USING AN AVERAGE PROJECT PROJECTION (GRID TO GROUND) FACTOR. TO GET BACK TO STATE PLANE COORDINATES, MULTIPLY THE PROJECT COORDINATES BY THE AVERAGE GRID FACTOR AS SHOWN IN THE "REFERENCE CONTROL INFORMATION" PORTION OF THIS TABLE.

| PROJECT COORDINATE INFORMATION | | | | | |
|--------------------------------|--|--|--|--|--|
|--------------------------------|--|--|--|--|--|

| | |
|-----------------------------|-------------------------------|
| COORDINATE SYSTEM | MODIFIED STATE PLANE (GROUND) |
| HORIZONTAL DATUM | NAD88 |
| VERTICAL DATUM | NAVD88 |
| GEOID MODEL | GEOID18 |
| ELEVATIONS DETERMINED BY | GPS OBSERVATION |

| | |
|---------------------------|------------|
| PROJECT PROJECTION FACTOR | 1.00009901 |
|---------------------------|------------|

| REFERENCE | CONTROL | INFORMATION |
|-----------|---------|-------------|
|-----------|---------|-------------|

| | |
|-------------------|--------------------------------|
| COORDINATE SYSTEM | MO COORDINATE SYSTEM OF 1983 |
| CONTROL STATION | MO GEOGRAPHIC REFERENCE SYSTEM |

| | |
|-------------|-------|
| DESIGNATION | CA-53 |
|-------------|-------|

| | |
|---------|----|
| CORS_ID | XX |
|---------|----|

| | |
|-----|-------|
| PID | 37053 |
|-----|-------|

| | |
|----------|-----------------|
| LATITUDE | 38°43'36.49243" |
|----------|-----------------|

| | |
|-----------|--------------------|
| LONGITUDE | 94° 35 ' 26.26084" |
|-----------|--------------------|

| | |
|--------------|--------------|
| NORTHING (M) | 284,126.7400 |
|--------------|--------------|

| | |
|-------------|--------------|
| EASTING (M) | 842,119.5830 |
|-------------|--------------|

| | |
|------|------|
| ZONE | WEST |
|------|------|

| | |
|-----------------------------|------------|
| PROJECT AVERAGE GRID FACTOR | 0.99990100 |
|-----------------------------|------------|

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|---|--|
| EXAMPLE OF PROJECT COORDINATE TO C.B.C. | |
|---|--|

EXAMPLE 11 OF PROJECT COORDINATE TO S.I.T.C.

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PROJECT NORTHING X AVERAGE GRID FACTOR
= STATE PLANE NORTHING
PROJECT EASTING X AVERAGE GRID FACTOR
= STATE PLANE EASTING
```

```
EXAMPLE: CONTROL POINT #2
N 936,157.7860 X 0.99990100 = N 936,065.1064
E 2,763,192.5150 X 0.99990100 = E 2,762,951.1508
```





LINEAR UNIT CONVERSION

1 METER = 3.280833333 US SURVEY FEET (USFT)

COORDINATE POINT LISTING

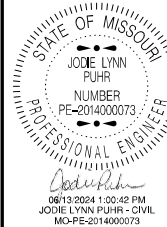
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| PROJECT CONTROL POINTS | |
|------------------------|--|
|------------------------|--|

| | | | | | | | | |
|--|-----------|--|-----------|--------------|----------------|------------|------------------|---|
| | | | | | | | | |
| | 397+83.14 | RTE D SURVEY  | 30.85' RT | 936,157.7860 | 2,763,192.5150 | 977.1140 | CONTROL POINT #2 | 2 |
| | 398+47.42 | RTE D SURVEY  | 38.99' RT | 936,093.8690 | 2,763,181.9030 | 975.4900 | CONTROL POINT #3 | 3 |
| | N/A | RTE D SURVEY  | N/A | 938,728.7730 | 2,763,271.9240 | 1,003.0840 | CONTROL POINT #4 | 4 |
| | 419+35.32 | RTE D SURVEY  | 35.56' LT | 934,004.6470 | 2,763,175.8790 | 969.5660 | CONTROL POINT #5 | 5 |
| | | | | | | | | |

ALIGNMENTS

| | | | | | | | | |
|--|-----------|----------------|---|--------------|----------------|--|-------------------|------------|
| | 379+26.83 | RTE D SURVEY C | 0 | 938,011.9012 | 2,763,284.4711 | | BEGIN RET D CHAIN | 5 |
| | 397+05.65 | RTE D SURVEY C | 0 | 936,243.0310 | 2,763,226.3315 | | PI RTE D CHAIN | COGO POINT |
| | 419+58.20 | RTE D SURVEY C | 0 | 933.983.1564 | 2,763,139.4697 | | END RTE D CHAIN | 19 |
| | | | | | | | | |
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DATE PREPARED
6/13/2024

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|-------|-------|
| ROUTE | STATE |
| D | MO |

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|----------|-----------|
| D | MO |
| DISTRICT | SHEET NO. |

| | |
|----------|-----------|
| DISTRICT | SHEET NO. |
| KC | 6 |

| | |
|--------|-----|
| COUNTY | 000 |
|--------|-----|

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|--------|
| CASS |
| LOB NO |

JKU0045

| |
|--------------|
| CONTRACT ID. |
|--------------|

PROJECT NO.

PROJECT NO.

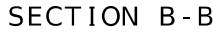
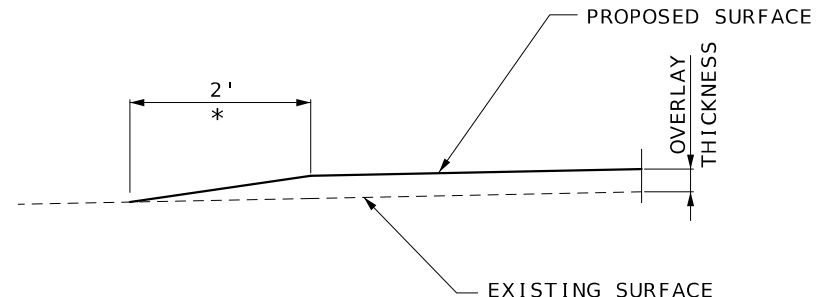
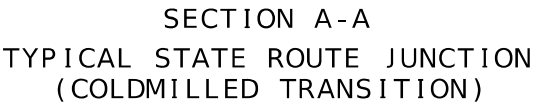
BRIDGE NO.

| DATE | DESCRIPTION |
|------|-------------|
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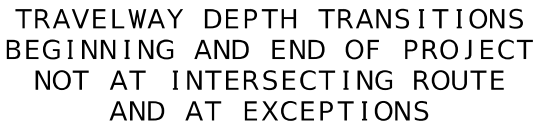
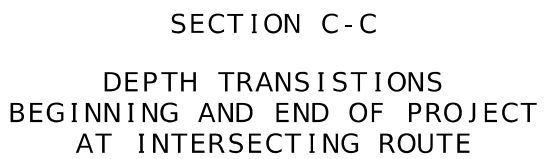


MISSOURI HIGHWAYS AND TRANSPORTATION
COMMISSION

105 WEST CAPITAL
JEFFERSON CITY, MO 65102

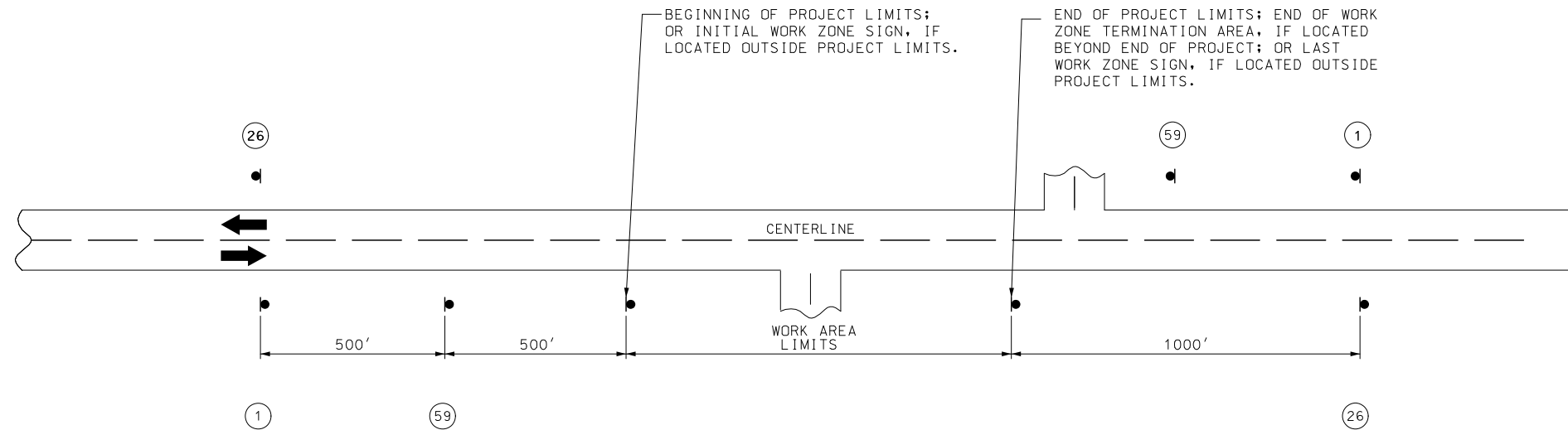


TYPICAL ENTRANCE
(FIELD, PRIVATE OR COUNTY ROAD)
* TAPER AT 1:1 FOR FIELD ENTRANCE



MISSOURI HIGHWAYS AND TRANSPORTATION
COMMISSION

105 WEST CAPITOL
JEFFERSON CITY, MO 65102
TEL: 1-888-354-MODOT / 1-888-375-6636

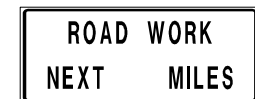


NOTES:

SIGN (1) AND (26) ARE ONLY USED ON PROJECT LENGTHS 2 MILES OR GREATER.

PROVIDE SIGNS IN EACH DIRECTION ON TWO-WAY HIGHWAY.

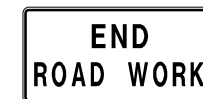
DISTANCE MAY BE ADJUSTED ACCORDING TO FIELD CONDITIONS.



G020-1



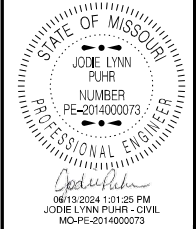
CONST-8



G020-2



TRAFFIC CONTROL
SHEET 1 OF 6



DATE PREPARED

6 / 13 / 2024

| | |
|------------|-------------|
| ROUTE D | STATE MO |
|------------|-------------|

| | |
|----------|-----------|
| DISTRICT | SHEET NO. |
| KC | 8 |

| | |
|--------|---|
| RE | 9 |
| COUNTY | |
| CASS | |

JOB NO.
JKU0045

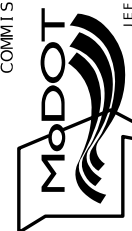
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CONTRACT ID:

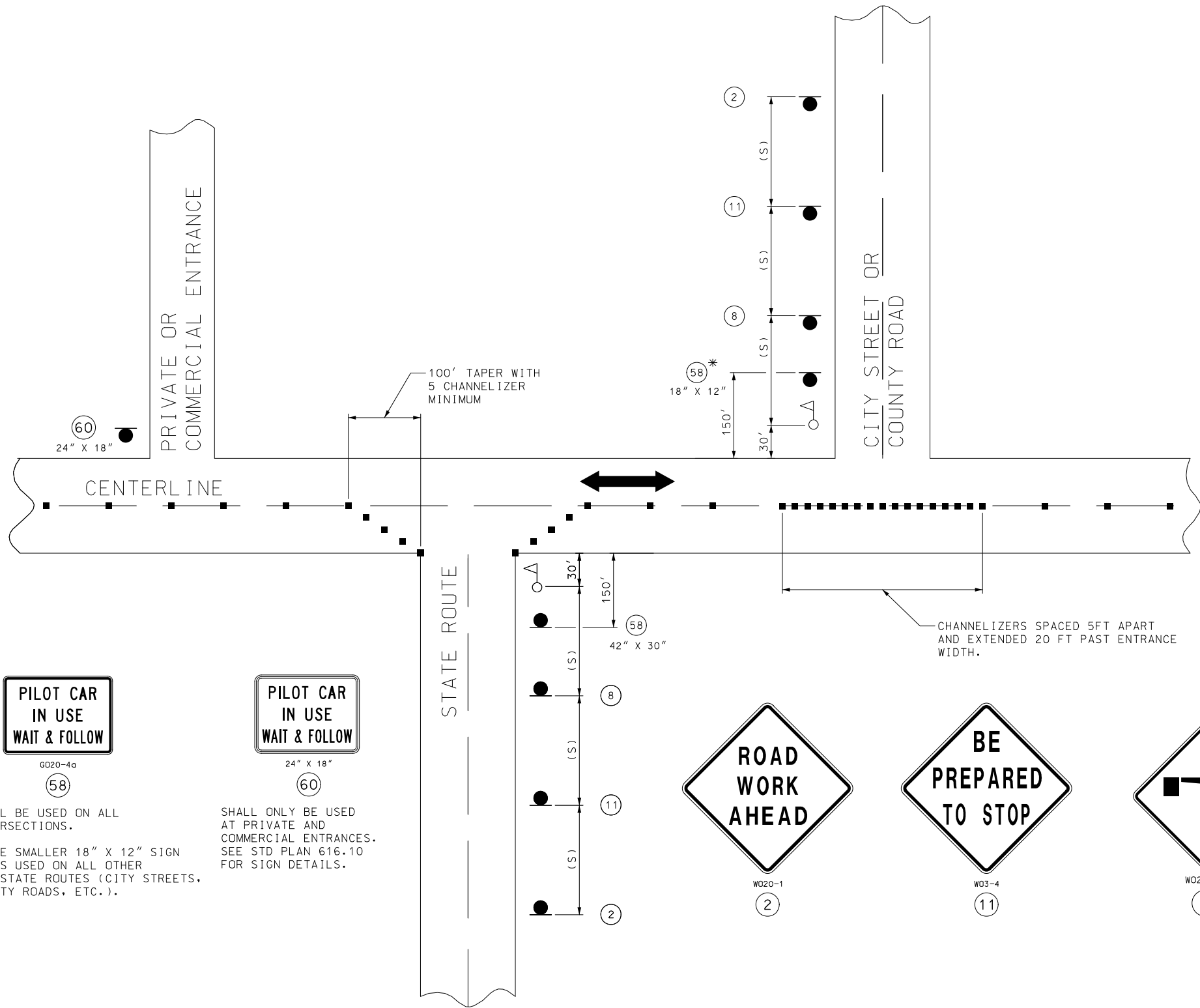
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| PROJECT NO. |
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PROJECT NO.

BRIDGE NO.

[illegible]MISSOURI HIGHWAYS AND TRANSPORTATION
COMMISSION

105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)



| SPEED | SIGN SPACING (FT) (1) | CHANNELIZER SPACING (FT) |
|------------------------------|--------------------------------|--------------------------------|
| PERMANENT POSTED (MPH) | NON-DIVIDED HIGHWAYS (S) | BUFFER/ WORK AREA (TYP.) |
| 0-35 | 200 | 40 |
| 40-45 | 350 | 80 |
| 50-55 | 500 | 80 |
| 60-70 | 1000 | 120 |

(1) SPACING BETWEEN SIGNS, BETWEEN LAST SIGN AND FLAGGER, BEGINNING OF TAPER OR SIGNED CONDITION.

SPACING MAY BE ADJUSTED AS NECESSARY TO MEET FIELD CONDITIONS.

NOTES:

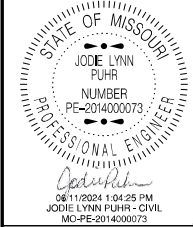
WARNING SIGNS SHALL BE ERECTED AT EACH INTERSECTION WITH ANOTHER STATE HIGHWAY WITHIN THE WORK ZONE.

ADDITIONAL WARNING SIGNS SHALL BE ERECTED AT OTHER INTERSECTIONS WITHIN THE WORK ZONE, AS DIRECTED BY THE ENGINEER.

■ - CHANNELIZERS (AS SPECIFIED)

△ - FLAGGER

NOT TO SCALE

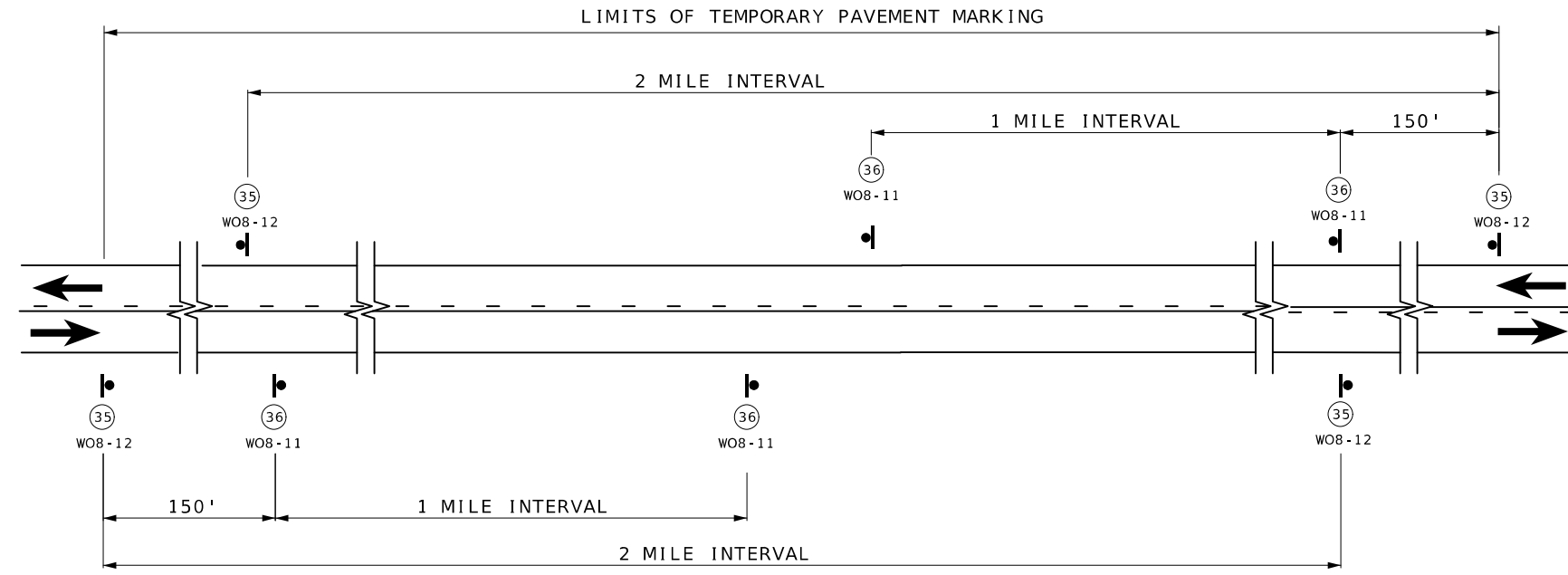


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|----------------------------|-----------------|
| DATE PREPARED 6/11/2024 | |
| ROUTE D | STATE MO |
| DISTRICT KC | SHEET NO. 10 |
| COUNTY CASS | |
| JOB NO. JKU0045 | |
| CONTRACT ID. | |
| PROJECT NO. | |
| BRIDGE NO. | |

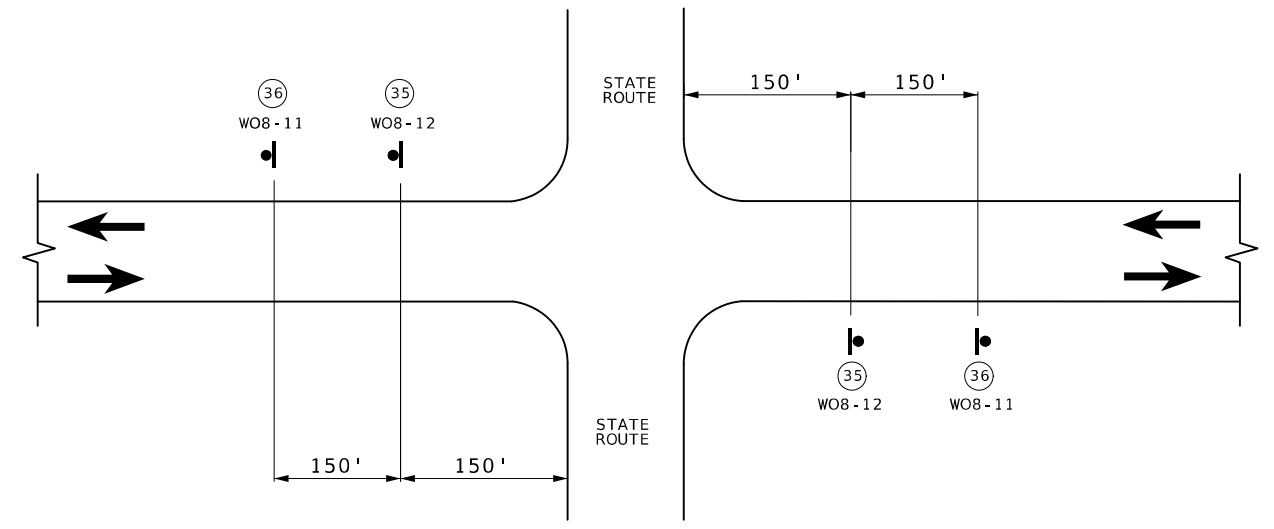
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MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

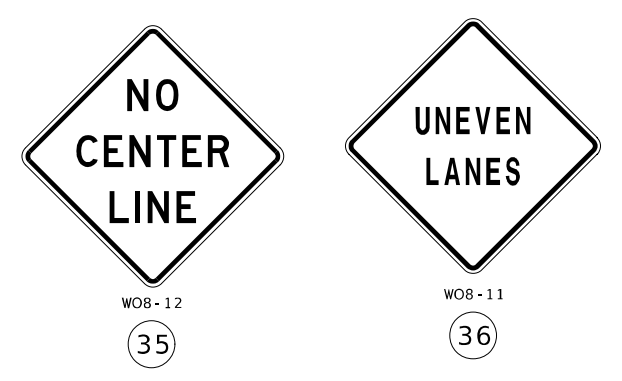
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)



SIGN SPACING AND TEMPORARY STRIPING FOR MAINLINE



SIGN SPACING AT STATE ROUTE INTERSECTIONS
SHOWING TEMPORARY STRIPING FOR MAINLINE



NOTES:

SIGN (35) AND TEMPORARY RAISED PAVEMENT MARKING (SEE STANDARD PLAN 620.10) INSTALLED WHERE CENTERLINE STRIPING HAS BEEN COVERED OR REMOVED. SIGNS ARE TO REMAIN IN PLACE UNTIL THE PERMANENT CENTERLINE PAVEMENT MARKINGS ARE IN PLACE. SIGNS SHALL BE COVERED OR REMOVED WHEN PAVEMENT CENTERLINE MARKING HAS BEEN INSTALLED.

SIGN (35) IS PLACED AT APPROXIMATELY TWO-MILE INTERVALS AND AT STATE ROUTE JUNCTIONS. WHEN THE INSTALLATION AT A JUNCTION IS WITHIN ONE-EIGHTH MILE OF THE NORMAL MAINLINE SIGN (35), THE LATTER MAY BE ELIMINATED.

ALL SIGNS SHALL BE POST MOUNTED AND IN ACCORDANCE WITH STANDARD PLAN 616.10 AND 903.03.

STATE OF MISSOURI
JOE LYNN PUHR
NUMBER
PE-2014000073
PROFESSIONAL ENGINEER

DATE PREPARED
6/11/2024

ROUTE
D

DISTRICT
KC

COUNTY
CASS

JOB NO.
JKU0045

CONTRACT ID.

PROJECT NO.

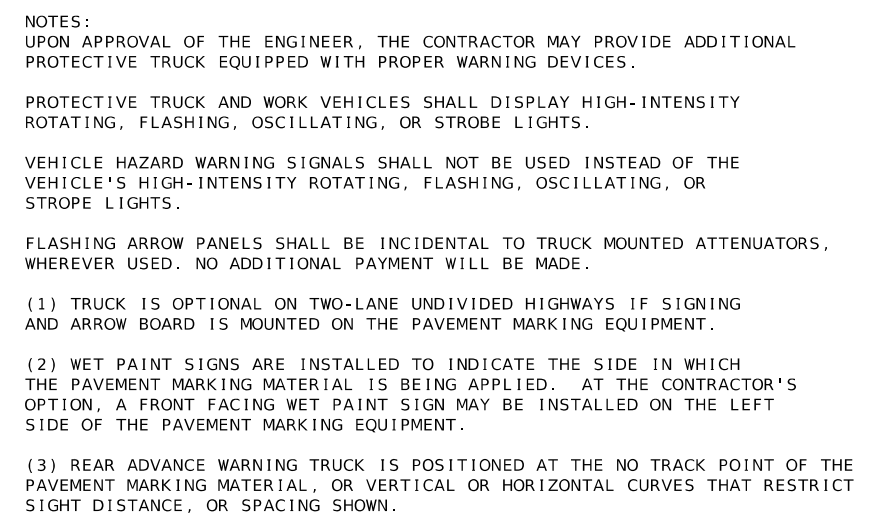
BRIDGE NO.

DESCRIPTION

DATE

MISSOURI HIGHWAYS AND TRANSPORTATION
COMMISSION

105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)



STATE OF MISSOURI

JOE LYNN PUHR

NUMBER

PE-2014000073

PROFESSIONAL ENGINEER

06/11/2024 1:08:02 PM

JOE LYNN PUHR - CIVIL

MO-PE-2014000073

DATE PREPARED

6/11/2024

ROUTE

D

STATE

MO

DISTRICT

KC

SHEET NO.

13

COUNTY

CASS

JOB NO.

JKU0045

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION

DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

105 WEST CAPITOL

JEFFERSON CITY, MO 65102

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

MoDOT

LOCATED AT MO 58, 203 RD STREET
AND AS DIRECTED BY THE ENGINEER

203 RD STREET

TA-08A

NOTES:

SEE TRAFFIC CONTROL SHEET 1 FOR WORK ZONE SPEED LIMIT GUIDELINES.

SEE TRAFFIC CONTROL SHEET 1 FOR SIGN SPACING, DEVICE SPACING AND CHANNELIZING TAPER LENGTHS.

WHEN A SIDE ROAD INTERSECTS THE HIGHWAY WITHIN THE TTC ZONE ADDITIONAL TTC DEVICES SHALL BE PLACED AS NEEDED.

“ROAD CLOSED” SIGN MAY BE PLACED 7-10 FEET BEHIND THE BARRICADES AND AT A SIGN HEIGHT APPROPRIATE TO THE TYPE OF ROADWAY. ONE BARRICADE SHOULD BE REQUIRED TO COMPLETELY CLOSE EACH 8- FEET OF PAVEMENT. PAVED SHOULDERS SHALL BE INCLUDED IN THE AREA TO BE CLOSED.

IF USED, THE “ROAD CLOSED XX MILES AHEAD LOCAL TRAFFIC ONLY” OR “ROAD CLOSED TO THRU TRAFFIC” SIGN SHOULD BE LOCATED AT THE FIRST STATE ROUTE OR, UPON THE DISCRETION OF THE ENGINEER, ANY OTHER INTERSECTION IN ADVANCE OF THE CLOSURE. ADDITIONAL BARRICADES MAY BE USED AND OFFSETTED TO FACILITATE ACCESS FOR WORK VEHICLES, LOCAL TRAFFIC, ETC.

WO20-3
20a

WO20-3
20b

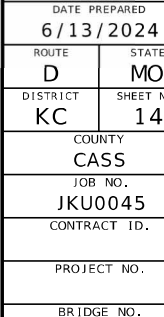
R11-3a
30

R11-2
29

R11-4
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BARRICADE

TRAFFIC CONTROL
SHEET 6 OF 6

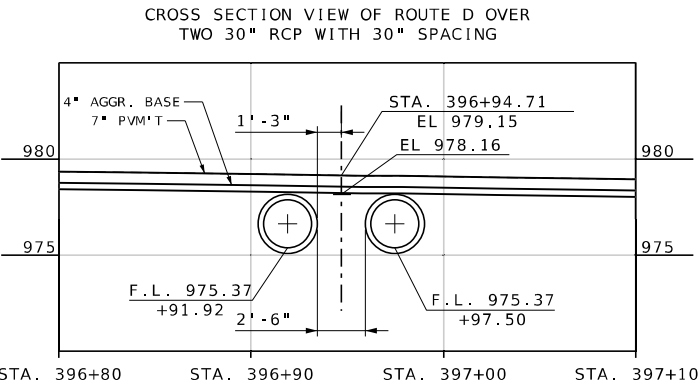
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MISSOURI HIGHWAYS AND TRANSPORTATION
COMMISSION

105 WEST CAPITOL
JEFFERSON CITY, MO. 65102

ENTERED ON STA. 397+94.71 ROUTE D
STA. 396+91.92 ROUTE D
BUILD 1-30" X 30' RCP GROUP A PIPE
BUILD 2-30" GROUP A CONC. FLARED END SECTIONS
SKEW = 0°
CL. 3 EXC. = 27.9 C.Y.
ROCK LINING FOR CULVERT OUTLET = 4 C.Y.
STA. 396+97.50 ROUTE D
BUILD 1-30" X 30' RCP GROUP A PIPES
BUILD 2-30" GROUP A CONC. FLARED END SECTIONS
SKEW = 0°
CL. 3 EXC. = 27.9 C.Y.
ROCK LINING FOR CULVERT OUTLET = 4 C.Y.

D.A. = 25.5 ACRES
Q25 = 55.25 CFS
S = 0.980%



CULVERT SECTION SHEET

DESIGN DESIGNATION

A.A.D.T. - 2024 = 3800
A.A.D.T. - 2044 = 4600
D.H.V. = 500
T = 8%
V = 45 M.P.H.
D = 50

FUNCTIONAL CLASSIFICATION-MAJOR COLLECTOR

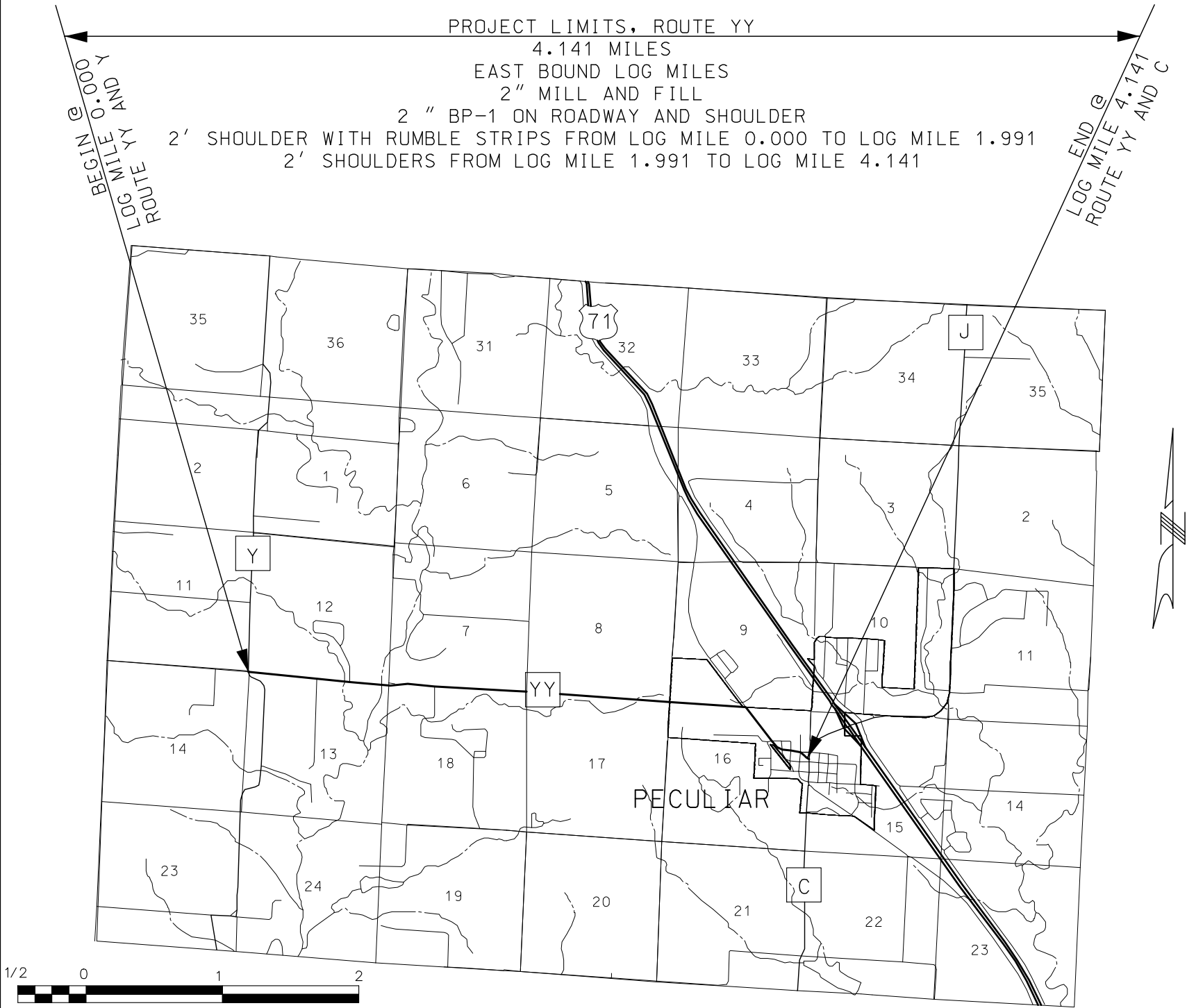
NO RIGHT OF WAY WILL BE ACQUIRED FOR THIS PROJECT

CONVENTIONAL SYMBOLS
(USED IN PLANS)

| | EXISTING | NEW |
|------------------------------|----------|-------|
| BUILDINGS AND STRUCTURES | | |
| GUARD RAIL | | |
| GUARD CABLE | | |
| CONCRETE RIGHT-OF-WAY MARKER | | |
| STEEL RIGHT-OF-WAY MARKER | | |
| LOCATION SURVEY MARKER | | |
| UTILITIES | | |
| FIBER OPTICS | -FO- | -FO- |
| OVERHEAD CABLE TV | -OTV- | -OTV- |
| UNDERGROUND CABLE TV | -UTV- | -UTV- |
| OVERHEAD TELEPHONE | -OT- | -OT- |
| UNDERGROUND TELEPHONE | -UT- | -UT- |
| OVERHEAD POWER | -OE- | -OE- |
| UNDERGROUND POWER | -UE- | -UE- |
| SANITARY SEWER | -S- | -S- |
| STORM SEWER | -SS- | -SS- |
| GAS | -G- | -G- |
| WATER | -W- | -W- |
| MANHOLE | | |
| FIRE HYDRANT | | |
| WATER VALVE | | |
| WATER METER | | |
| DROP INLET | | |
| DITCH BLOCK | | |
| GROUND MOUNTED SIGN | | |
| LIGHT POLE | | |
| H-FRAME POWER POLE | | |
| TELEPHONE PEDESTAL | | |
| FENCE | | |
| CHAIN LINK | | |
| WOVEN WIRE | | |
| GATE POST | | |
| BENCHMARK | | |

NOTE: DASHED OR OPEN SYMBOLS INDICATE EXISTING FEATURES

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
PLANS FOR PROPOSED
STATE HIGHWAY
CASS COUNTY



THE EXISTENCE AND APPROXIMATE LOCATION OF UTILITY FACILITIES KNOWN TO EXIST, AS SHOWN ON THE PLANS, ARE BASED ON THE BEST INFORMATION AVAILABLE TO THE COMMISSION AT THIS TIME. THIS INFORMATION IS PROVIDED BY THE COMMISSION "AS-IS" AND THE COMMISSION EXPRESSLY DISCLAIMS ANY REPRESENTATION OR WARRANTY AS TO THE COMPLETENESS, ACCURACY, OR SUITABILITY OF THE INFORMATION FOR ANY USE. RELIANCE UPON THIS INFORMATION IS DONE AT THE RISK AND PERIL OF THE USER, AND THE COMMISSION SHALL NOT BE LIABLE FOR ANY DAMAGES THAT MAY ARISE FROM ANY ERROR IN THE INFORMATION. IT IS, THEREFORE, THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE EXISTENCE, LOCATION AND STATUS OF ANY FACILITY. SUCH VERIFICATION INCLUDES DIRECT CONTACT WITH THE LISTED UTILITIES.

INDEX OF SHEETS

| DESCRIPTION | SHEET NUMBER |
|-------------------------------------|--------------|
| TITLE SHEET ----- | 1 |
| TYPICAL SECTIONS (TS) (1 SHEETS)--- | 2 |
| QUANTITIES (QU) (7 SHEETS)----- | 3 |
| TRAFFIC CONTROL SHEETS (TC)----- | 4-11 |



DATE PREPARED
4/2/2024

ROUTE YY STATE MO
DISTRICT KC SHEET NO. 1

COUNTY CASS
JOB NO. JKU0067
CONTRACT ID.

PROJECT NO.

BRIDGE NO.

| DESCRIPTION | DATE |
|-------------|------|
| | |
| | |
| | |
| | |
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| | |

LENGTH OF PROJECT

| | |
|--|-------------|
| BEGINNING LOG MILE OF PROJECT | 0.000 |
| ENDING LOG MILE OF PROJECT | 4.141 |
| APPARENT LENGTH | 4.141 MILES |
| EQUATIONS AND EXCEPTIONS: | |
| BRIDGE N0784 OVER EAST CREEK LOG MILE 0.936 TO LOG MILE 0.974 | 0.038 MILES |

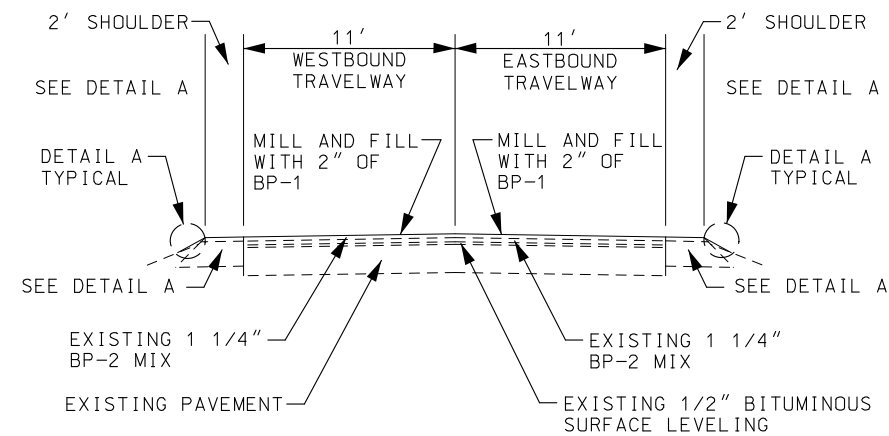
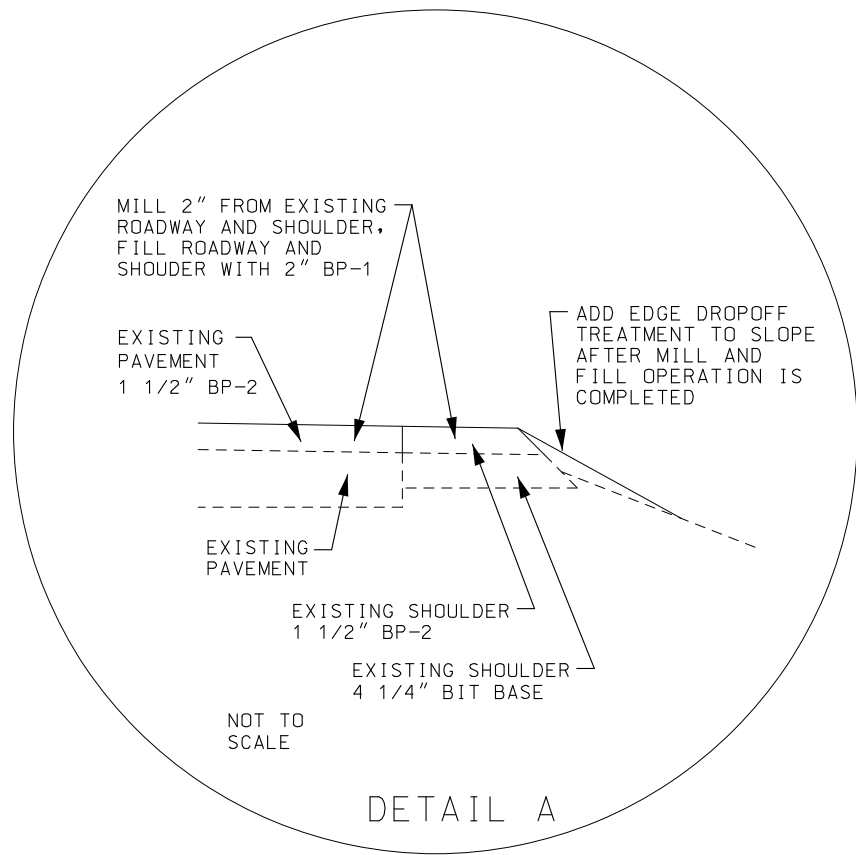
| | |
|---|--------------|
| TOTAL CORRECTIONS | 198 FEET |
| NET LENGTH OF PROJECT | 21663.8 FEET |
| STATE LENGTH | 4.103 MILES |
| FOR INFORMATION ONLY ESTIMATED DISTURBED ACRES | 0 ACRES |

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

MoDOT

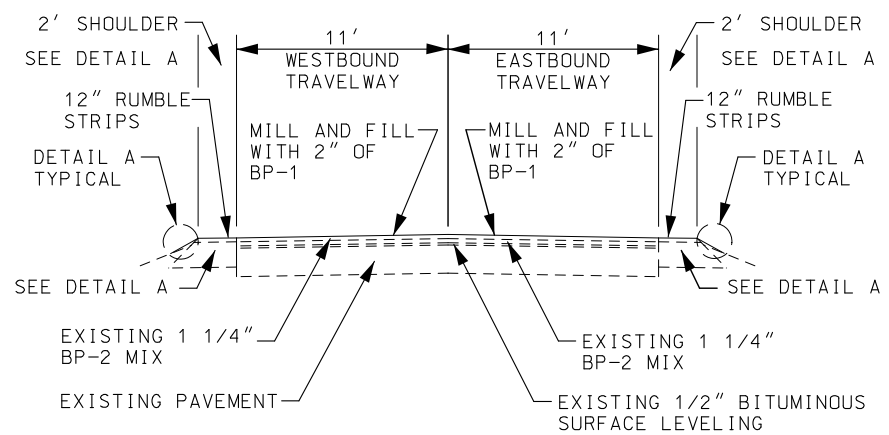
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

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



TYPICAL SECTION
ROUTE YY
LOG MILE 1.991 TO LOG MILE 4.141

NOT TO SCALE



TYPICAL SECTION
ROUTE YY
LOG MILE 0.000 TO LOG MILE 0.936
LOG MILE 0.974 TO LOG MILE 1.991

NOT TO SCALE

NOTES:

- (1). SURFACE LEVELING MIX SHALL BE A 2" BITUMINUS PAVEMENT (BP-1) MIXTURE PG 64-22.
- (2). SURFACE PLACEMENT SHALL BE ONE PASS PER LANE.
- (3). NO S.E. CORRECTION.
- (4). BITUMINOUS PAVEMENT (BP-1) 1.998 TONS/CY
- (5). TACK COAT 0.1 GAL/SQ.YD.

04/08/2024 11:48 AM
THANKAM MATHEW - CIVIL
MO-PE-2014000066

DATE PREPARED
4/2/2024

| | |
|-----------------------|-----------------------|
| ROUTE YY | STATE MO |
| DISTRICT KC | SHEET NO. 2 |

COUNTY
CASS

JOB NO.
JKU0067

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

| DATE | DESCRIPTION |
|------|-------------|
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MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

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

| EAST BOUND ROADWAY (COLDMILLING 3" OR LESS) | | | | | | |
|---|----|---------------------------|--------------------------|-----------------------|---------------------------------------|-----------------|
| EAST BOUND LOG MILE | TO | EAST BOUND LOG MILE | AVERAGE WIDTH FEET | NET LENGTH FEET | EAST BOUND COLDMILLING SQ. YDS. | REMARKS |
| 0.000 | | 0.014 | 58.00 | 73.92 | 476.37 | EAST BOUND LANE |
| 0.014 | | 0.019 | 23.00 | 26.40 | 67.47 | EAST BOUND LANE |
| 0.019 | | 0.936 | 11.00 | 4841.76 | 5917.71 | EAST BOUND LANE |
| 0.974 | | 3.545 | 11.00 | 13574.88 | 16591.52 | EAST BOUND LANE |
| 3.545 | | 3.556 | 11.00 | 58.08 | 70.99 | EAST BOUND LANE |
| 3.556 | | 3.562 | 25.00 | 31.68 | 88.00 | EAST BOUND LANE |
| 3.562 | | 4.141 | 11.00 | 3057.12 | 3736.48 | EAST BOUND LANE |
| | | | | | | |
| | | | | | | |
| | | | | SUBTOTAL 1 | 26948.54 | |

| EAST BOUND SHOULDER (COLDMILLING 3" OR LESS) | | | | | | |
|--|----|---------------------------|--------------------------|-----------------------|---------------------------------------|---------------------|
| EAST BOUND LOG MILE | TO | EAST BOUND LOG MILE | AVERAGE WIDTH FEET | NET LENGTH FEET | EAST BOUND COLDMILLING SQ. YDS. | REMARKS |
| 0.000 | | 0.014 | 2.00 | 73.92 | 16.43 | EAST BOUND SHOULDER |
| 0.014 | | 0.019 | 2.00 | 26.40 | 5.87 | EAST BOUND SHOULDER |
| 0.019 | | 0.936 | 2.00 | 4841.76 | 1075.95 | EAST BOUND SHOULDER |
| 0.974 | | 3.545 | 2.00 | 13574.88 | 3016.64 | EAST BOUND SHOULDER |
| 3.545 | | 3.556 | 2.00 | 58.08 | 12.91 | EAST BOUND SHOULDER |
| 3.556 | | 3.562 | 2.00 | 31.68 | 7.04 | EAST BOUND SHOULDER |
| 3.562 | | 4.141 | 2.00 | 3057.12 | 679.36 | EAST BOUND SHOULDER |
| | | | | | | |
| | | | | | | |
| | | | SUBTOTAL | 3 | 4814.20 | |

| SIDEROAD (COLDMILLING 3" OR LESS) | | | | |
|-----------------------------------|--------------------------|-----------------------|---------------------------------------|--|
| LOG MILE | AVERAGE WIDTH FEET | NET LENGTH FEET | EAST BOUND COLDMILLING SQ. YDS. | REMARKS |
| 1.340 | 45 | 22 | 110.00 | PEEK ROAD, EAST BOUND LANE |
| 1.998 | 47 | 22 | 114.89 | KNIGHTS ROAD, EAST BOUND LANE |
| 3.021 | 49 | 22 | 119.78 | HARPER ROAD, EAST BOUND LANE |
| 3.021 | 49 | 22 | 119.78 | HARPER ROAD, WEST BOUND LANE |
| 3.118 | 67 | 22 | 163.78 | POINTER DRIVE, EAST BOUND LANE |
| 3.290 | 61 | 22 | 149.11 | QUAIL RIDGE ROAD, EAST BOUND LANE |
| 3.411 | 64 | 22 | 156.44 | QUAIL RIDGE ROAD, EAST BOUND LANE |
| 3.466 | 64 | 22 | 156.44 | MEADOW LANE, EAST BOUND LANE |
| 3.565 | 85 | 22 | 207.78 | PECULIAR DRIVE, EAST & WEST BOUND LANE |
| 3.565 | 38 | 22 | 92.89 | SUMMERSKILL ROAD, WEST BOUND LANE |
| 3.711 | 53 | 22 | 129.56 | WILLOW LANE, EAST BOUND LANE |
| 3.711 | 47 | 22 | 114.89 | WILLOW STREET, WEST BOUND LANE |
| 3.863 | 35 | 22 | 85.56 | CHAMP STREET, WEST BOUND LANE |
| 3.871 | 52 | 22 | 127.11 | SHARI DRIVE, EAST BOUND LANE |
| 3.967 | 60 | 22 | 146.67 | TRACK SIDE DRIVE, EAST BOUND LANE |
| 3.967 | 36 | 22 | 88.00 | THIRD STREET, WEST BOUND LANE |
| 4.035 | 37 | 22 | 90.44 | SECOND STREET, EAST BOUND LANE |
| 4.035 | 26 | 22 | 63.56 | SECOND STREET, WEST BOUND LANE |
| 4.103 | 36 | 22 | 88.00 | FIRST STREET, EAST BOUND LANE |
| 4.103 | 35 | 22 | 85.56 | FIRST STREET, WEST BOUND LANE |
| 4.104 | 26 | 58 | 167.56 | NORTH STREET, WEST BOUND LANE |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | SUB TOTAL | 5 | 2577.80 | |

NOTES:

MILL 2" OF EXISTING ASPHALT FROM SIDEROADS. THE MILLING OF THE SIDEROADS MAY BE ADJUSTED BY THE ENGINEER IN CHARGE. THE ADJUSTMENT MAY BE NEEDED TO MATCH THE NEW ROADWAY AND SHOULDER ELEVATION AT THE SIDEROAD. PLACE 2" OF BP-1 w/ PG64-22, BACK ON THE SIDEROAD.

| | | COLDMILLING 3" OR LESS QUANTITIES |
|---------------------------------|-----------|--------------------------------------|
| | | COLDMILLING SQ. YDS. |
| SUBTOTAL 1, EAST BOUND ROADWAY | | 26948.54 |
| SUBTOTAL 2, WEST BOUND ROADWAY | | 27033.60 |
| SUBTOTAL 3, EAST BOUND SHOULDER | | 4814.20 |
| SUBTOTAL 4, WEST BOUND SHOULDER | | 4814.20 |
| SUBTOTAL 5, SIDEROADS | | 2577.80 |
| | | |
| | TOTAL | 66188.34 |
| | PAY TOTAL | 66188 |

| WEST BOUND ROADWAY (COLDMILLING 3" OR LESS) | | | | | | |
|---|----|---------------------------|--------------------------|-----------------------|---------------------------------------|-----------------|
| WEST BOUND LOG MILE | TO | WEST BOUND LOG MILE | AVERAGE WIDTH FEET | NET LENGTH FEET | WEST BOUND COLDMILLING SQ. YDS. | REMARKS |
| 0.000 | | 0.014 | 37.00 | 73.92 | 303.89 | WEST BOUND LANE |
| 0.014 | | 0.019 | 12.00 | 26.40 | 35.20 | WEST BOUND LANE |
| 0.019 | | 0.936 | 11.00 | 4841.76 | 5917.71 | WEST BOUND LANE |
| 0.974 | | 3.545 | 11.00 | 13574.88 | 16591.52 | WEST BOUND LANE |
| 3.545 | | 3.562 | 45.00 | 89.76 | 448.80 | WEST BOUND LANE |
| 3.562 | | 4.141 | 11.00 | 3057.12 | 3736.48 | WEST BOUND LANE |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | SUBTOTAL 2 | 27033.60 | |

| WEST BOUND SHOULDER (COLDMILLING 3" OR LESS) | | | | | | |
|--|----|---------------------------|--------------------------|-----------------------|---------------------------------------|---------------------|
| WEST BOUND LOG MILE | TO | WEST BOUND LOG MILE | AVERAGE WIDTH FEET | NET LENGTH FEET | WEST BOUND COLDMILLING SQ. YDS. | REMARKS |
| 0.000 | | 0.014 | 2.00 | 73.92 | 16.43 | WEST BOUND SHOULDER |
| 0.014 | | 0.019 | 2.00 | 26.40 | 5.87 | WEST BOUND SHOULDER |
| 0.019 | | 0.936 | 2.00 | 4841.76 | 1075.95 | WEST BOUND SHOULDER |
| 0.974 | | 3.545 | 2.00 | 13574.88 | 3016.64 | WEST BOUND SHOULDER |
| 3.545 | | 3.562 | 2.00 | 89.76 | 19.95 | WEST BOUND SHOULDER |
| 3.562 | | 4.141 | 2.00 | 3057.12 | 679.36 | WEST BOUND SHOULDER |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | SUBTOTAL 4 | 4814.20 | |

| EAST BOUND 2" PERMANENT AGGREGATE EDGE TREATMENT | | | | | | | | |
|--|-------------------|------------------------|-----------------------|--------------------------|-----------------|----------------------|--|--|
| LOG MILE | LOG MILE | NET LENGTH MILES | NET LENGTH FEET | AVERAGE WIDTH FEET | SQUARE YARDS | QUANTITY TONS | REMARKS | |
| 0.000 | 4.141 | 4.141 | 21864.48 | | | | EAST BOUND SHOULDER | |
| | | | -198.00 | | | | MINUS BRIDGE NO784 | |
| | | | -1877.00 | | | | MINUS AGGREGATE, CONCRETE, ASPHALT ROADS AND ENTRANCES | |
| | | | | | | | | |
| | TOTAL LENGTH FEET | | 19789.48 | 2 | 4397.66 | 483.74 | SUBTOTAL 1 | |

NOTES:

EDGE DROP OFF TREATMENT 0.055 TONS PER SQ. YARD COMPACTED, PER INCH.

| WEST BOUND 2" PERMANENT AGGREGATE EDGE TREATMENT | | | | | | | |
|--|----------|------------------------|-----------------------|--------------------------|-----------------|----------------------|--|
| LOG MILE | LOG MILE | NET LENGTH MILES | NET LENGTH FEET | AVERAGE WIDTH FEET | SQUARE YARDS | QUANTITY TONS | REMARKS |
| 0.000 | 4.141 | 4.141 | 21864.48 | | | | WEST BOUND SHOULDER |
| | | | -198.00 | | | | MINUS BRIDGE NO784 |
| | | | -1662.00 | | | | MINUS AGGREGATE, CONCRETE, ASPHALT ROADS AND ENTRANCES |
| | | | | | | | |
| TOTAL LENGTH FEET | | | 20004.48 | 2 | 4445.44 | 489.00 | SUBTOTAL 2 |
| | | | | | | 483.74 | SUBTOTAL 1 |
| | | | | | | 972.74 | TOTAL |
| | | | | | | 972.7 | PAY TOTAL |

NOTES:

EDGE DROP OFF TREATMENT 0.055 TONS PER SQ. YARD COMPACTED, PER INCH.

STATE OF MISSOURI

THANKAM
MATHEW

NUMBER
PE-2014000056

PROFESSIONAL ENGINEER

04/09/2014 12:22:00 AM
THANKAM MATHEW - CIVIL
MO-PE-2014000056

DATE PREPARED

4/2/2024

| | |
|-------------|-------------|
| ROUTE YY | STATE MO |
|-------------|-------------|

| | |
|----------|-----------|
| DISTRICT | SHEET NO. |
| KC | 3 |

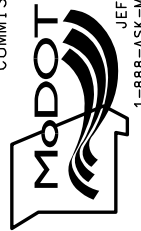
COUNTY

CASS

JOB NO.

JKU0067

CONTRACT ID.

[illegible]MISSOURI HIGHWAYS AND TRANSPORTATION
COMMISSION

105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

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

QUANTITY SHEET
SHEET 2 OF 7

| CLASS C PARTIAL DEPTH PAVEMENT REPAIR QUANTITIES | | | | | | | | | |
|--|------------------------|------------------|------------------------|-----------------|----------------|---|-------------------------------------|-----------|----------------------|
| LOG MILE | LANE/DIRECTION | LENGTH OF REPAIR | AVERAGE WIDTH OF WIDTH | DEPTH OF REPAIR | AREA SQ. YARDS | FURNISHING & PLACING BITUMINOUS PARTIAL PAVEMENT REPAIR | REMOVAL FOR CLASS C PAVEMENT REPAIR | TACK | REMARKS |
| | | (FEET) | (FEET) | (INCHES) | (SQ. YARDS) | TONS | SQ. YDS. | GAL | |
| 0.050 | EAST & WEST BOUND LANE | 2 FEET | 26 FEET | 4 INCHES | 5.78 SQ.YDS. | 1.28 TONS | 5.78 SQ.YDS. | 0.58 GAL | |
| 0.060 | EAST & WEST BOUND LANE | 10 FEET | 26 FEET | 4 INCHES | 28.89 SQ.YDS. | 6.41 TON | 28.89 SQ.YDS. | 2.89 GAL | |
| 0.070 | EAST & WEST BOUND LANE | 2 FEET | 26 FEET | 4 INCHES | 5.78 SQ.YDS. | 1.28 TONS | 5.78 SQ.YDS. | 0.58 GAL | |
| 0.090 | EAST & WEST BOUND LANE | 2 FEET | 30 FEET | 4 INCHES | 6.67 SQ.YDS. | 1.48 TONS | 6.67 SQ.YDS. | 0.67 GAL | |
| 0.112 | EAST & WEST BOUND LANE | 2 FEET | 30 FEET | 4 INCHES | 6.67 SQ.YDS. | 1.48 TONS | 6.67 SQ.YDS. | 0.67 GAL | |
| 0.113 | EAST & WEST BOUND LANE | 2 FEET | 30 FEET | 4 INCHES | 6.67 SQ.YDS. | 1.48 TONS | 6.67 SQ.YDS. | 0.67 GAL | |
| 0.114 | EAST & WEST BOUND LANE | 2 FEET | 30 FEET | 4 INCHES | 6.67 SQ.YDS. | 1.48 TONS | 6.67 SQ.YDS. | 0.67 GAL | |
| 0.132 | EAST & WEST BOUND LANE | 2 FEET | 26 FEET | 4 INCHES | 5.78 SQ.YDS. | 1.28 TONS | 5.78 SQ.YDS. | 0.58 GAL | |
| 0.133 | EAST & WEST BOUND LANE | 2 FEET | 26 FEET | 4 INCHES | 5.78 SQ.YDS. | 1.28 TONS | 5.78 SQ.YDS. | 0.58 GAL | |
| 0.141 | EAST & WEST BOUND LANE | 2 FEET | 26 FEET | 4 INCHES | 5.78 SQ.YDS. | 1.28 TONS | 5.78 SQ.YDS. | 0.58 GAL | |
| 0.149 | EAST & WEST BOUND LANE | 2 FEET | 26 FEET | 4 INCHES | 5.78 SQ.YDS. | 1.28 TONS | 5.78 SQ.YDS. | 0.58 GAL | |
| 0.150 | EAST & WEST BOUND LANE | 30 FEET | 2 FEET | 4 INCHES | 6.67 SQ.YDS. | 1.48 TONS | 6.67 SQ.YDS. | 0.67 GAL | CENTERLINE |
| 0.180 | EAST & WEST BOUND LANE | 2 FEET | 26 FEET | 4 INCHES | 5.78 SQ.YDS. | 1.28 TONS | 5.78 SQ.YDS. | 0.58 GAL | |
| 0.182 | EAST & WEST BOUND LANE | 2 FEET | 26 FEET | 4 INCHES | 5.78 SQ.YDS. | 1.28 TONS | 5.78 SQ.YDS. | 0.58 GAL | |
| 0.190 | EAST & WEST BOUND LANE | 40 FEET | 2 FEET | 4 INCHES | 8.89 SQ.YDS. | 1.97 TONS | 8.89 SQ.YDS. | 0.89 GAL | CENTERLINE |
| 0.200 | EAST & WEST BOUND LANE | 2 FEET | 26 FEET | 4 INCHES | 5.78 SQ.YDS. | 1.28 TONS | 5.78 SQ.YDS. | 0.58 GAL | |
| 0.201 | EAST & WEST BOUND LANE | 2 FEET | 26 FEET | 4 INCHES | 5.78 SQ.YDS. | 1.28 TONS | 5.78 SQ.YDS. | 0.58 GAL | |
| 0.226 | EAST & WEST BOUND LANE | 2 FEET | 26 FEET | 4 INCHES | 5.78 SQ.YDS. | 1.28 TONS | 5.78 SQ.YDS. | 0.58 GAL | |
| 0.240 | EAST & WEST BOUND LANE | 2 FEET | 26 FEET | 4 INCHES | 5.78 SQ.YDS. | 1.28 TONS | 5.78 SQ.YDS. | 0.58 GAL | |
| 0.264 | EAST & WEST BOUND LANE | 2 FEET | 26 FEET | 4 INCHES | 5.78 SQ.YDS. | 1.28 TONS | 5.78 SQ.YDS. | 0.58 GAL | |
| 0.278 | EAST & WEST BOUND LANE | 2 FEET | 26 FEET | 4 INCHES | 5.78 SQ.YDS. | 1.28 TONS | 5.78 SQ.YDS. | 0.58 GAL | |
| 0.300 | EAST & WEST BOUND LANE | 2 FEET | 26 FEET | 4 INCHES | 5.78 SQ.YDS. | 1.28 TONS | 5.78 SQ.YDS. | 0.58 GAL | |
| 0.304 | EAST & WEST BOUND LANE | 2 FEET | 26 FEET | 4 INCHES | 5.78 SQ.YDS. | 1.28 TONS | 5.78 SQ.YDS. | 0.58 GAL | |
| 0.316 | EAST & WEST BOUND LANE | 5 FEET | 26 FEET | 4 INCHES | 14.44 SQ.YDS. | 3.21 TONS | 14.44 SQ.YDS. | 1.44 GAL | |
| 0.319 | EAST & WEST BOUND LANE | 2 FEET | 26 FEET | 4 INCHES | 5.78 SQ.YDS. | 1.28 TONS | 5.78 SQ.YDS. | 0.58 GAL | |
| 0.331 | EAST & WEST BOUND LANE | 2 FEET | 26 FEET | 4 INCHES | 5.78 SQ.YDS. | 1.28 TONS | 5.78 SQ.YDS. | 0.58 GAL | |
| 0.333 | EAST & WEST BOUND LANE | 2 FEET | 26 FEET | 4 INCHES | 5.78 SQ.YDS. | 1.28 TONS | 5.78 SQ.YDS. | 0.58 GAL | |
| 0.368 | EAST & WEST BOUND LANE | 2 FEET | 26 FEET | 4 INCHES | 5.78 SQ.YDS. | 1.28 TONS | 5.78 SQ.YDS. | 0.58 GAL | |
| 0.369 | EAST & WEST BOUND LANE | 2 FEET | 26 FEET | 4 INCHES | 5.78 SQ.YDS. | 1.28 TONS | 5.78 SQ.YDS. | 0.58 GAL | |
| 0.381 | EAST & WEST BOUND LANE | 2 FEET | 26 FEET | 4 INCHES | 5.78 SQ.YDS. | 1.28 TONS | 5.78 SQ.YDS. | 0.58 GAL | |
| 0.393 | WEST BOUND LANE | 2 FEET | 13 FEET | 4 INCHES | 2.89 SQ.YDS. | 0.64 TONS | 2.89 SQ.YDS. | 0.29 GAL | WEST BOUND LANE ONLY |
| 0.416 | EAST & WEST BOUND LANE | 2 FEET | 26 FEET | 4 INCHES | 5.78 SQ.YDS. | 1.28 TONS | 5.78 SQ.YDS. | 0.58 GAL | |
| 0.439 | EAST & WEST BOUND LANE | 4 FEET | 26 FEET | 4 INCHES | 11.56 SQ.YDS. | 2.57 TONS | 11.56 SQ.YDS. | 1.16 GAL | |
| 0.440 | EAST & WEST BOUND LANE | 2 FEET | 26 FEET | 4 INCHES | 5.78 SQ.YDS. | 1.28 TONS | 5.78 SQ.YDS. | 0.58 GAL | |
| 0.450 | EAST & WEST BOUND LANE | 2 FEET | 26 FEET | 4 INCHES | 5.78 SQ.YDS. | 1.28 TONS | 5.78 SQ.YDS. | 0.58 GAL | |
| 0.454 | EAST & WEST BOUND LANE | 2 FEET | 26 FEET | 4 INCHES | 5.78 SQ.YDS. | 1.28 TONS | 5.78 SQ.YDS. | 0.58 GAL | |
| 0.455 | EAST & WEST BOUND LANE | 2 FEET | 26 FEET | 4 INCHES | 5.78 SQ.YDS. | 1.28 TONS | 5.78 SQ.YDS. | 0.58 GAL | |
| 0.482 | EAST & WEST BOUND LANE | 2 FEET | 26 FEET | 4 INCHES | 5.78 SQ.YDS. | 1.28 TONS | 5.78 SQ.YDS. | 0.58 GAL | |
| 0.515 | EAST BOUND LANE | 2 FEET | 13 FEET | 4 INCHES | 2.89 SQ.YDS. | 0.64 TONS | 2.89 SQ.YDS. | 0.29 GAL | EAST BOUND LANE ONLY |
| 0.516 | EAST & WEST BOUND LANE | 4 FEET | 26 FEET | 4 INCHES | 11.56 SQ.YDS. | 2.57 TONS | 11.56 SQ.YDS. | 1.16 GAL | |
| 0.517 | EAST & WEST BOUND LANE | 4 FEET | 26 FEET | 4 INCHES | 11.56 SQ.YDS. | 2.57 TONS | 11.56 SQ.YDS. | 1.16 GAL | |
| 0.518 | WEST BOUND LANE | 2 FEET | 13 FEET | 4 INCHES | 2.89 SQ.YDS. | 0.64 TONS | 2.89 SQ.YDS. | 0.29 GAL | WEST BOUND LANE ONLY |
| 0.584 | EAST & WEST BOUND LANE | 2 FEET | 26 FEET | 4 INCHES | 5.78 SQ.YDS. | 1.28 TONS | 5.78 SQ.YDS. | 0.58 GAL | |
| 0.595 | EAST & WEST BOUND LANE | 2 FEET | 26 FEET | 4 INCHES | 5.78 SQ.YDS. | 1.28 TONS | 5.78 SQ.YDS. | 0.58 GAL | |
| 0.603 | EAST & WEST BOUND LANE | 2 FEET | 26 FEET | 4 INCHES | 5.78 SQ.YDS. | 1.28 TONS | 5.78 SQ.YDS. | 0.58 GAL | |
| 0.607 | WEST BOUND LANE | 2 FEET | 13 FEET | 4 INCHES | 2.89 SQ.YDS. | 0.64 TONS | 2.89 SQ.YDS. | 0.29 GAL | WEST BOUND LANE ONLY |
| 0.650 | EAST & WEST BOUND LANE | 2 FEET | 26 FEET | 4 INCHES | 5.78 SQ.YDS. | 1.28 TONS | 5.78 SQ.YDS. | 0.58 GAL | |
| 0.659 | EAST & WEST BOUND LANE | 2 FEET | 26 FEET | 4 INCHES | 5.78 SQ.YDS. | 1.28 TONS | 5.78 SQ.YDS. | 0.58 GAL | |
| 0.690 | EAST & WEST BOUND LANE | 2 FEET | 26 FEET | 4 INCHES | 5.78 SQ.YDS. | 1.28 TONS | 5.78 SQ.YDS. | 0.58 GAL | |
| 0.700 | EAST & WEST BOUND LANE | 2 FEET | 26 FEET | 4 INCHES | 5.78 SQ.YDS. | 1.28 TONS | 5.78 SQ.YDS. | 0.58 GAL | |
| 0.760 | EAST & WEST BOUND LANE | 2 FEET | 26 FEET | 4 INCHES | 5.78 SQ.YDS. | 1.28 TONS | 5.78 SQ.YDS. | 0.58 GAL | |
| 0.780 | EAST BOUND LANE | 2 FEET | 13 FEET | 4 INCHES | 2.89 SQ.YDS. | 0.64 TONS | 2.89 SQ.YDS. | 0.29 GAL | EAST BOUND LANE ONLY |
| 0.843 | EAST & WEST BOUND LANE | 2 FEET | 26 FEET | 4 INCHES | 5.78 SQ.YDS. | 1.28 TONS | 5.78 SQ.YDS. | 0.58 GAL | |
| 0.849 | EAST & WEST BOUND LANE | 2 FEET | 26 FEET | 4 INCHES | 5.78 SQ.YDS. | 1.28 TONS | 5.78 SQ.YDS. | 0.58 GAL | |
| 0.925 | EAST & WEST BOUND LANE | 2 FEET | 26 FEET | 4 INCHES | 5.78 SQ.YDS. | 1.28 TONS | 5.78 SQ.YDS. | 0.58 GAL | |
| 0.957 | EAST & WEST BOUND LANE | 2 FEET | 26 FEET | 4 INCHES | 5.78 SQ.YDS. | 1.28 TONS | 5.78 SQ.YDS. | 0.58 GAL | |
| 0.968 | EAST & WEST BOUND LANE | 2 FEET | 26 FEET | 4 INCHES | 5.78 SQ.YDS. | 1.28 TONS | 5.78 SQ.YDS. | 0.58 GAL | |
| 0.987 | EAST & WEST BOUND LANE | 2 FEET | 26 FEET | 4 INCHES | 5.78 SQ.YDS. | 1.28 TONS | 5.78 SQ.YDS. | 0.58 GAL | |
| 1.039 | EAST & WEST BOUND LANE | 2 FEET | 26 FEET | 4 INCHES | 5.78 SQ.YDS. | 1.28 TONS | 5.78 SQ.YDS. | 0.58 GAL | |
| 1.044 | EAST & WEST BOUND LANE | 2 FEET | 26 FEET | 4 INCHES | 5.78 SQ.YDS. | 1.28 TONS | 5.78 SQ.YDS. | 0.58 GAL | |
| 1.167 | EAST BOUND LANE | 2 FEET | 13 FEET | 4 INCHES | 2.89 SQ.YDS. | 0.64 TONS | 2.89 SQ.YDS. | 0.29 GAL | EAST BOUND LANE ONLY |
| 1.170 | EAST & WEST BOUND LANE | 2 FEET | 26 FEET | 4 INCHES | 5.78 SQ.YDS. | 1.28 TONS | 5.78 SQ.YDS. | 0.58 GAL | |
| 1.171 | EAST & WEST BOUND LANE | 2 FEET | 26 FEET | 4 INCHES | 5.78 SQ.YDS. | 1.28 TONS | 5.78 SQ.YDS. | 0.58 GAL | |
| 1.263 | EAST & WEST BOUND LANE | 2 FEET | 26 FEET | 4 INCHES | 5.78 SQ.YDS. | 1.28 TONS | 5.78 SQ.YDS. | 0.58 GAL | |
| 1.429 | EAST & WEST BOUND LANE | 2 FEET | 26 FEET | 4 INCHES | 5.78 SQ.YDS. | 1.28 TONS | 5.78 SQ.YDS. | 0.58 GAL | |
| 1.431 | EAST & WEST BOUND LANE | 2 FEET | 26 FEET | 4 INCHES | 5.78 SQ.YDS. | 1.28 TONS | 5.78 SQ.YDS. | 0.58 GAL | |
| 1.485 | EAST & WEST BOUND LANE | 2 FEET | 26 FEET | 4 INCHES | 5.78 SQ.YDS. | 1.28 TONS | 5.78 SQ.YDS. | 0.58 GAL | |
| 1.670 | WEST BOUND LANE | 3 FEET | 3 FEET | 6 INCHES | 1.00 SQ.YDS. | 0.33 TONS | 1.00 SQ.YDS. | 0.10 GAL | WEST BOUND LANE ONLY |
| 2.176 | EAST & WEST BOUND LANE | 2 FEET | 26 FEET | 4 INCHES | 5.78 SQ.YDS. | 1.28 TONS | 5.78 SQ.YDS. | 0.58 GAL | |
| 2.374 | EAST & WEST BOUND LANE | 2 FEET | 26 FEET | 4 INCHES | 5.78 SQ.YDS. | 1.28 TONS | 5.78 SQ.YDS. | 0.58 GAL | |
| | | | | | SUB TOTAL 1 | 97.57 TONS | 439.00 SQ.YDS. | 43.90 GAL | |

QUANTITY SHEET
SHEET 3 OF 7

[illegible]


| | | | |
|----------------|-------------|----------------|-------------|
| SUBTOTAL 2 | 11.14 TONS | 49.67 SQ.YDS. | 4.98 GAL |
| SUBTOTAL 1 | 97.57 TONS | 439.00 SQ.YDS. | 43.90 GAL |
| TOTAL | 108.71 TONS | 488.67 SQ.YDS. | 48.88 GAL |
| ADDITIONAL 10% | 10.87 TONS | 48.87 SQ.YDS. | 4.89 GAL |
| TOTAL | 119.58 TONS | 537.54 SQ.YDS. | * 53.77 GAL |
| PAY TOTAL | 119.6 TONS | 537.5 SQ.YDS. | |

| | |
|-------|-------|
| TOTAL | 356.8 |
|-------|-------|

NOTE:

TYPE 5 AGGREGATE FOR ENTRANCE EQUALS 0.055 TONS
PER SQ. YDS. PER INCH COMPACTED.

QUANTITY SHEET
SHEET 4 OF 7



MISSOURI HIGHWAYS AND TRANSPORTATION
COMMISSION

105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

| EAST BOUND BITUMINOUS RUMBLE STRIPS (SHOULDERS) | | | | |
|---|--------------|---------------------|----------------------------------|---|
| LOG MILE BEGIN | LOG MILE END | LOCATION | BITUMINOUS RUMBLE STRIPS STATION | REMARKS |
| 0.000 | 1.991 | EAST BOUND SHOULDER | 105.125 | FROM ROUTE Y (0.000) TO LOG MILE (1.991) |
| | | | | |
| | | | | |
| | | TOTAL | 105.125 | |
| | | MINUS BRIDGES EBL | -1.980 | INCLUDES BRIDGES N0784 |
| | | MINUS ENTRANCES EBL | -4.050 | INCLUDES COUNTY ROADS, DRIVEWAYS, FIELD ENTRANCES |
| | | EAST BOUND TOTAL | 99.095 | |

NOTE:
FOR ENTRANCES LOCATIONS SEE QUANTITY SHEETS FOR AGGREGATE FOR ENTRANCE AND QUANTITY SHEETS FOR ASPHALT ENTRANCES.

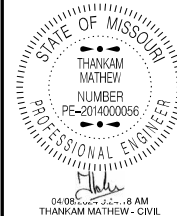
| WEST BOUND BITUMINOUS RUMBLE STRIPS (SHOULDERS) | | | | |
|---|--------------|-----------------------------|----------------------------------|---|
| LOG MILE BEGIN | LOG MILE END | LOCATION | BITUMINOUS RUMBLE STRIPS STATION | REMARKS |
| 0.000 | 1.991 | WEST BOUND SHOULDER | 105.125 | FROM ROUTE Y (0.000) TO LOG MILE (1.991) |
| | | | | |
| | | | | |
| | | TOTAL | 105.125 | |
| | | MINUS BRIDGES WBL | -1.980 | INCLUDES BRIDGES N0784 |
| | | MINUS ENTRANCES WBL | -3.650 | INCLUDES COUNTY ROADS, DRIVEWAYS, FIELD ENTRANCES |
| | | WEST BOUND TOTAL | 99.495 | |
| | | EAST BOUND TOTAL | 99.095 | |
| | | WEST & EAST BOUND TOTAL | 198.590 | |
| | | WEST & EAST BOUND PAY TOTAL | 198.6 | |

NOTE:
FOR ENTRANCES LOCATIONS SEE QUANTITY SHEETS FOR AGGREGATE FOR ENTRANCE AND QUANTITY SHEETS FOR ASPHALT ENTRANCES.

| GUARDRAIL QUANTITIES | | | | | |
|----------------------|---------------------------------------|------------------------------------|--------------------------------------|--------------------------------|---------|
| LOG MILE | LOCATION | MASH CRASHWORTHY END TERMINAL EACH | MGS HEIGHT AND BLOCK TRANSITION EACH | SHAPING SLOPES CLASS 3 100 FT. | REMARKS |
| 0.660 | ON THE WEST BOUND SIDE OF THE ROADWAY | 1.00 | 1.00 | 0.75 | |
| 1.042 | ON THE EAST BOUND SIDE OF THE ROADWAY | 1.00 | 1.00 | 0.75 | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | TOTAL | 2.00 | 2.00 | 1.50 |
| | | PAY TOTAL | 2.00 | 2.00 | 2.00 |

| REMOVAL OF IMPROVEMENT ROADWAY | | | | |
|--------------------------------|---------------------------------------|---|----------|----------|
| LOG MILE | LOCATION | DESCRIPTION | QUANTITY | UNITS |
| 0.660 | ON THE WEST BOUND SIDE OF THE ROADWAY | REMOVE EXISTING END TERMINAL, PLUS 25' OF GUARDRAIL FOR MSG HEIGHT AND BLOCK TRANSITION SECTION | 75' +/- | LIN. FT. |
| 1.042 | ON THE EAST BOUND SIDE OF THE ROADWAY | REMOVE EXISTING END TERMINAL, PLUS 25' OF GUARDRAIL FOR MSG HEIGHT AND BLOCK TRANSITION SECTION | 75' +/- | LIN. FT. |
| | | | | |
| | | | | |
| | | TOTAL | 1 | LUMP SUM |

QUANTITY SHEET
SHEET 5 OF 7



| | |
|---------------------------|----------------|
| DATE PREPARED 4/2/2024 | |
| ROUTE YY | STATE MO |
| DISTRICT KC | SHEET NO. 3 |
| COUNTY CASS | |
| JOB NO. JKU0067 | |
| CONTRACT ID. | |
| PROJECT NO. | |
| BRIDGE NO. | |

| DESCRIPTION | DATE |
|-------------|------|
| | |
| | |
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MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION



105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

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

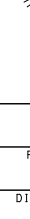
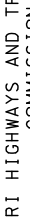
| PERMANENT STRIPING | | | | | | |
|--------------------|----|----------|---------------------------------------|---|--|------------------------|
| LOG MILE | TO | LOG MILE | LOCATION | 4" SOLID WHITE PAINT WATERBORNE TYPE P BEADS FEET | 4" SOLID YELLOW PAINT WATERBORNE TYPE P BEADS FEET | REMARKS |
| 0.000 | | 4.141 | WEST BOUND LANE, EDGE LINES | 21865 | | SOLID WHITE, EDGE LINE |
| 0.000 | | 4.141 | EAST BOUND LANE, EDGE LINES | 21865 | | SOLID WHITE, EDGE LINE |
| 0.009 | | 0.228 | EAST BOUND, CENTER LINE, NO PASSING | | 1157 | SOLID YELLOW |
| 0.009 | | 0.046 | WEST BOUND, CENTER LINE, NO PASSING | | 196 | SOLID YELLOW |
| 0.051 | | 0.222 | WEST BOUND, CENTER LINE, INTERMITTENT | | 226 | YELLOW INTERMITTENT |
| 0.228 | | 0.390 | WEST BOUND, CENTER LINE, NO PASSING | | 856 | SOLID YELLOW |
| 0.233 | | 0.326 | EAST BOUND, CENTER LINE, INTERMITTENT | | 123 | YELLOW INTERMITTENT |
| 0.333 | | 1.508 | EAST BOUND, CENTER LINE, NO PASSING | | 6204 | SOLID YELLOW |
| 0.395 | | 0.477 | WEST BOUND, CENTER LINE, INTERMITTENT | | 109 | YELLOW INTERMITTENT |
| 0.482 | | 0.701 | WEST BOUND, CENTER LINE, NO PASSING | | 1157 | SOLID YELLOW |
| 0.706 | | 0.786 | WEST BOUND, CENTER LINE, INTERMITTENT | | 106 | YELLOW INTERMITTENT |
| 0.791 | | 1.696 | WEST BOUND, CENTER LINE, NO PASSING | | 4779 | SOLID YELLOW |
| 1.514 | | 1.696 | EAST BOUND, CENTER LINE, INTERMITTENT | | 241 | YELLOW INTERMITTENT |
| 1.702 | | 2.160 | EAST BOUND, CENTER LINE, NO PASSING | | 2419 | SOLID YELLOW |
| 1.702 | | 1.857 | WEST BOUND, CENTER LINE, INTERMITTENT | | 205 | YELLOW INTERMITTENT |
| 1.862 | | 2.344 | WEST BOUND, CENTER LINE, NO PASSING | | 2545 | SOLID YELLOW |
| 2.165 | | 2.343 | EAST BOUND, CENTER LINE, INTERMITTENT | | 235 | YELLOW INTERMITTENT |
| 2.349 | | 2.616 | WEST BOUND, CENTER LINE, INTERMITTENT | | 353 | YELLOW INTERMITTENT |
| 2.454 | | 2.623 | EAST BOUND, CENTER LINE, NO PASSING | | 893 | SOLID YELLOW |
| 2.621 | | 2.801 | WEST BOUND, CENTER LINE, NO PASSING | | 951 | SOLID YELLOW |
| 2.628 | | 2.801 | EAST BOUND, CENTER LINE, INTERMITTENT | | 229 | YELLOW INTERMITTENT |
| 2.806 | | 3.043 | WEST BOUND, CENTER LINE, INTERMITTENT | | 313 | YELLOW INTERMITTENT |
| 2.882 | | 3.203 | EAST BOUND, CENTER LINE, NO PASSING | | 1695 | SOLID YELLOW |
| 3.048 | | 3.396 | WEST BOUND, CENTER LINE, NO PASSING | | 1838 | SOLID YELLOW |
| 3.208 | | 3.396 | EAST BOUND, CENTER LINE, INTERMITTENT | | 249 | YELLOW INTERMITTENT |
| 3.402 | | 3.517 | CENTER LINE, INTERMITTENT | | 608 | YELLOW INTERMITTENT |
| 3.522 | | 3.559 | EAST BOUND, CENTER LINE, NO PASSING | | 196 | SOLID YELLOW |
| 3.522 | | 3.559 | WEST BOUND, CENTER LINE, NO PASSING | | 196 | SOLID YELLOW |
| 3.560 | | 3.593 | EAST BOUND, CENTER LINE, NO PASSING | | 175 | SOLID YELLOW |
| 3.565 | | 3.601 | WEST BOUND, CENTER LINE, INTERMITTENT | | 48 | YELLOW INTERMITTENT |
| 3.598 | | 3.683 | EAST BOUND, CENTER LINE, INTERMITTENT | | 113 | YELLOW INTERMITTENT |
| 3.607 | | 3.684 | WEST BOUND, CENTER LINE, NO PASSING | | 407 | SOLID YELLOW |
| 3.689 | | 4.141 | CENTER LINE, INTERMITTENT | | 597 | YELLOW INTERMITTENT |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | TOTAL | 43730 | 29419 | |

NOTES:

THE CONTRACTOR SHALL LOG THE EXISTING PAVEMENT MARKINGS IN THE FIELD PRIOR TO ANY CONSTRUCTION OPERATIONS.

| PERMANENT STRIPING | | | |
|--------------------|-----------------|---|----------|
| LOG MILE | LOCATION | 24" TYPE 2 WHITE PREFORMED THERMOPLASTIC FEET | REMARKS |
| 0.009 | WEST BOUND LANE | 12 | STOP BAR |
| 3.559 | EAST BOUND LANE | 12 | STOP BAR |
| | | | |
| | | | |
| | TOTAL | 24 | |

QUANTITY SHEET
SHEET 6 OF 7

| | |
|---|-----------------------|
|  | |
| DATE PREPARED 4/27/2024 | |
| ROUTE YY | STATE MO |
| DISTRICT KC | SHEET NO. 3 |
| COUNTY CASS | |
| JOB NO. JKU0067 | |
| CONTRACT ID. | |
| PROJECT NO. | |
| BRIDGE NO. | |
| DESCRIPTION | |
| DATE | |
| | |
| | |
| | |
| | |
| | |
| MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION | |
|  | |
| 105 WEST CAPITOL JEFFERSON CITY, MO 65102 1-888-ASK-MODOT (1-888-275-6636) | |

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

Traffic Control Legend,
Sign Spacing, Device Spacing, Channelizing Taper Lengths
And Recommended Maximum Speed Reductions

| SPEED | SIGN SPACING (ft.) | | TAPER LENGTH (ft.) | | OPTIONAL | CHANNELIZER SPACING (ft.) | |
|----------------------------|--------------------|-------------|--------------------|---------------|-------------------------|---------------------------|-------------------------------|
| PERMANENT POSTED SPEED MPH | UNDIVIDED (S) | DIVIDED (S) | SHOULDER (1) (T1) | LANE (2) (T2) | BUFFER LENGTH (ft.) (B) | TAPERS | BUFFER/WORK AREA LENGTH (ft.) |
| 0-35 | --- | 200 | 70 | 245 | 280 | 35 | 40 |
| 40-45 | --- | 500 | 150 | 540 | 400 | 40 | 80 |
| 50-55 | --- | 1000 | 185 | 660 | 560 | 50 | 80 |
| 60-70 | --- | SA-1000 | 235 | 840 | 840 | 60 | 120 |
| | | SB-1500 | | | | | |
| | | SC-2640 | | | | | |

1. SHOULDER TAPER LENGTH BASED ON 10 FT. (STANDARD SHOULDER WIDTH) OFFSET. 2. LANE TAPER LENGTH BASED ON 12 FT. (STANDARD LANE WIDTH) OFFSET.

| SPEED | SIGN SPACING (ft.) | | TAPER LENGTH (ft.) | | OPTIONAL | CHANNELIZER SPACING (ft.) | |
|----------------------------|--------------------|-------------|--------------------|---------------|-------------------------|---------------------------|-------------------------------|
| PERMANENT POSTED SPEED MPH | UNDIVIDED (S) | DIVIDED (S) | SHOULDER (1) (T1) | LANE (2) (T2) | BUFFER LENGTH (ft.) (B) | TAPERS | BUFFER/WORK AREA LENGTH (ft.) |
| 0-35 | 200 | --- | 70 | 245 | 280 | 35 | 40 |
| 40-45 | 350 | --- | 150 | 540 | 400 | 40 | 80 |
| 50-55 | 500 | --- | 185 | 660 | 560 | 50 | 80 |
| 60-70 | 1000 | --- | 235 | 840 | 840 | 60 | 120 |

1. SHOULDER TAPER LENGTH BASED ON 10 FT. (STANDARD SHOULDER WIDTH) OFFSET.
2. LANE TAPER LENGTH BASED ON 12 FT. (STANDARD LANE WIDTH) OFFSET.

TAPER LENGTH (L)
L = W X P FOR 40 MPH OR MORE
 $L = \frac{WP^2}{60}$ FOR 35 MPH OR LESS
L = TAPER LENGTH IN FEET
W = LATERAL SHIFT IN FEET
P = POSTED SPEED PRIOR TO ROAD WORK IN MPH

TRAFFIC CONTROL LEGEND

SIGN (SINGLE SIDED)

FLAGGER

CHANNELIZER

PROTECTIVE VEHICLE WITH WORK SIGN, FLASHING ARROW PANEL AND REAR-MOUNTED IMPACT ATTENUATOR UNIT.

FLASHING ARROW PANEL

CHANGEABLE MESSAGE BOARD

BARRICADE

TUBULAR MARKERS

LEGEND NOTE:
THE PROTECTIVE VEHICLE SIGN SHALL BE MOUNTED AT A RECOMMENDED HEIGHT OF 48 IN. ABOVE THE ROAD SURFACE.

- GENERAL NOTES:
- SEE STANDARD PLAN 616.10 FOR DETAILS AND ITEMS NOT SHOWN.
 - EXISTING SIGNS SHALL BE COVERED DURING WORKING HOURS ONLY IF IN CONFLICT WITH TRAFFIC CONTROL PLANS.
 - NO DIRECT PAYMENT WILL BE MADE FOR RELOCATING, COVERING, UNCOVERING OR REMOVING SIGNS.
 - CONES ALLOWABLE FOR DAYTIME OPERATIONS ONLY.
 - LOCATE FLASHING ARROW PANEL AT BEGINNING OF TAPER WHEN FEASIBLE, ARROW PANELS ARE ALWAYS LOCATED BEHIND CHANNELIZERS OR CONES.
 - THE PLACEMENT OF THE CMS's ARE TO BE DIRECTED BY THE ENGINEER IN CHARGE.

| RECOMMENDED MAXIMUM SPEED REDUCTIONS | |
|---|---|
| ACTIVITY (I.E. WORKERS, EQUIPMENT OR MATERIAL) LOCATION | RECOMMENDED WORK ZONE SPEED REDUCTION (WHEN APPLICABLE) |
| 10 FT. BEYOND EDGE OF TRAVELWAY TO EDGE OF RIGHT OF WAY | NO SPEED REDUCTION |
| IN TRAFFIC LANE OR WITHIN 10FT. OF THE TRAFFIC LANE | 10 MPH |
| HEAD-TO-HEAD ON MULTILANE | 10 MPH |
| SPECIAL CIRCUMSTANCES WITHIN A TEMPORARY TRAFFIC CONTROL WORK ZONE MAY WARRANT A LOWER SPEED LIMIT THAN RECOMMENDED ABOVE. ALL SPEED LIMIT REDUCTIONS GREATER THAN 10 MPH SHALL BE DOCUMENTED, SUBMITTED TO AND APPROVED BY THE DISTRICT WORK ZONE COORDINATOR. | |

DEVICE SPACING
TEMPORARY
TRAFFIC CONTROL
SHEET 1 OF 8

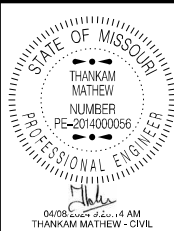
** THE SA DIMENSION IS THE DISTANCE FROM THE TRANSITION OR POINT OF RESTRICTION TO THE FIRST SIGN.

THE SB DIMENSION IS THE DISTANCE BETWEEN THE FIRST AND SECOND SIGNS.

THE SC DIMENSION IS THE DISTANCE BETWEEN THE SECOND AND THIRD SIGNS.

(THE "FIRST SIGN" IS THE SIGN IN A THREE-SIGN SERIES THAT IS CLOSEST TO THE TEMPORARY TRAFFIC CONTROL ZONE. THE "THIRD SIGN" IS THE SIGN THAT IS FURTHEST UPSTREAM FROM THE TEMPORARY TRAFFIC CONTROL ZONE)

- DETAILS NOTES:
- SPACING BETWEEN SIGNS AND SPACING BETWEEN LAST SIGN AND FLAGGER, BEGINNING OF TAPER, OF SIGNED CONDITION.
 - SPACING MAY BE ADJUSTED AS NECESSARY TO MEET FIELD CONDITIONS.
 - TAPER LENGTHS SHOWN INCLUDE LENGTH REQUIRED FOR LANE AND 10' SHOULDER
 - CONCRETE BARRIER MAY BE INSTALLED AT 8:1 FLARE RATE FROM THE SHOULDER POINT OF THE LIMITS OF THE CLEAR ZONE WHERE THE SIDE SLOPE IS 6:1 OR FLATTER



DATE PREPARED
4/2/2024

ROUTE YY STATE MO

DISTRICT KC SHEET NO. 4

COUNTY CASS

JOB NO. JKU0067

CONTRACT ID.

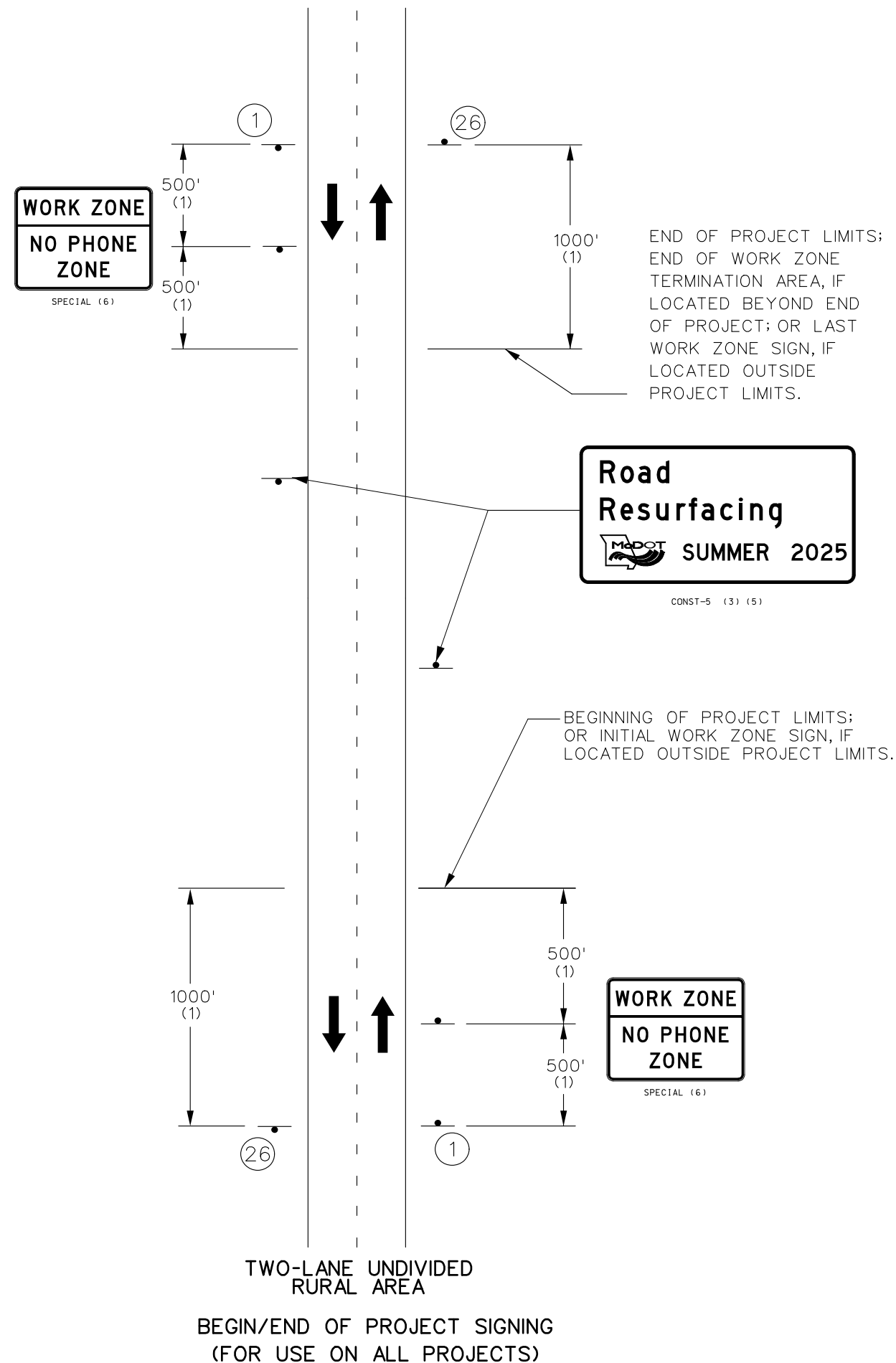
PROJECT NO.

BRIDGE NO.

| DESCRIPTION | DATE |
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MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)



NOTES:

SIGN G020-2 IS USED ON ALL PROJECTS WHERE SIGN G020-1 IS USED.

OTHER SIGNS SUCH AS DETOUR OR ALTERNATE ROUTE SIGNING MAY BE USED OUTSIDE THE PROJECT LIMITS.

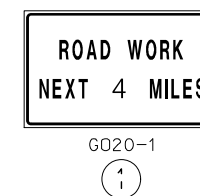
ANY EXISTING SIGNING THAT CONFLICTS WITH THE TRAFFIC CONTROL
SIGNING SHALL BE COMPLETELY COVERED OR REMOVED.

(1) DISTANCE MAY BE ADJUSTED ACCORDING TO FIELD CONDITIONS.
WHERE TRAFFIC BACKUPS ARE EXPECTED BEYOND THE ADVANCE
WARNING AREA, ADDITIONAL SIGNING MAY BE NEEDED.

(2) SIGN CONST-5-96 OR CONST-5-48 IS PLACED IN A VISIBLE AREA WITHIN THE PROJECT LIMITS PROVIDED ITS PLACEMENT DOES NOT DISRUPT A SEQUENCE OF SIGNS. IF A VISIBLE LOCATION WITHIN THE PROJECT IS NOT AVAILABLE, THE SIGN MAY BE PLACED 500 FEET BEFORE SIGN CONST-7-48 OR CONST-7-72.

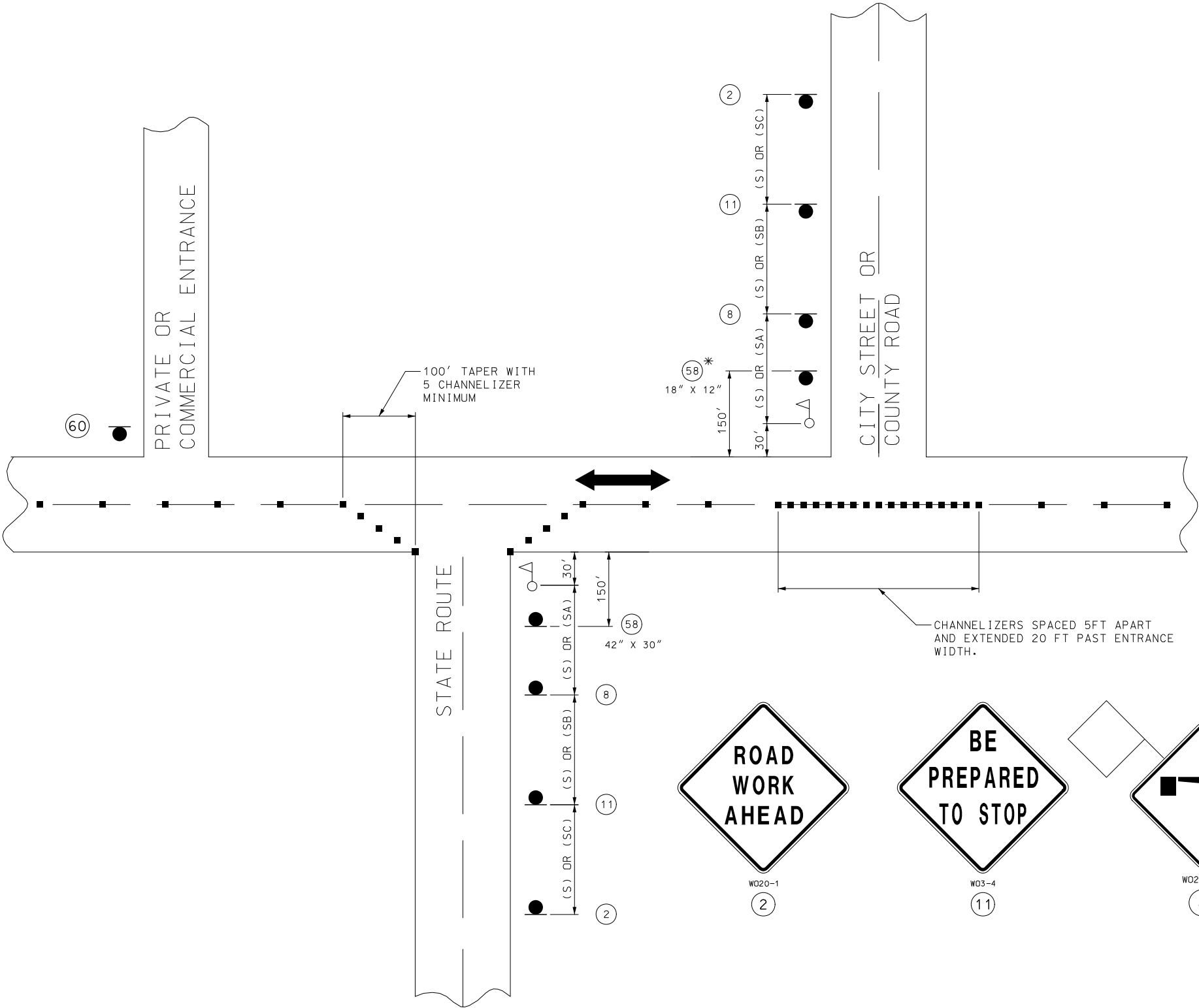
(3) THE "POINT OF PRESENCE" SIGN IS AVAILABLE IN TWO SIZES DEPENDING ON ROADWAY CONDITION. THE 48 IN. X 36 IN. SIGN IS USED ON LOW VOLUME ROUTES THAT CARRY 400 AADT OR LESS, ON PROJECTS THAT HAVE A DURATION OF 4 WEEKS OR LESS OR IN URBAN AREAS WHERE THERE IS INSUFFICIENT RIGHT OF WAY FOR AN EIGHT FOOT WIDE SIGN. THE 96IN. X 48 IN. VERSION OF THE SIGN IS USED IN ALL OTHER APPLICATIONS. BUT CAN ALSO BE USED IN PLACE OF THE 48 IN. X 36 IN. SIGN IF ADDED EMPHASIS IS DEEMED NECESSARY.

(4) THE "WORK ZONE NO PHONE ZONE" SIGN IS PLACED A MINIMUM OF 500 FEET BEFORE THE ROAD WORK AHEAD SIGN.



BEGIN/END
TEMPORARY
TRAFFIC CONTROL
SHEET 2 OF 8

[illegible]



| SPEED | SIGN SPACING (FT.) | |
|------------------------|--------------------------|-------------------------------------|
| | NON-DIVIDED HIGHWAYS (S) | DIVIDED HIGHWAYS (S) |
| PERMANENT POSTED (MPH) | | |
| 0-35 | 200 | 200 |
| 40-45 | 350 | 500 |
| 50-55 | 500 | 1000 |
| 60-70 | 1000 | (SA)-1000 (SB)-1500 (SC)-2640 |

DISTANCE MAY BE ADJUSTED ACCORDING TO FIELD CONDITIONS.

NOTES:
WARNING SIGNS SHALL BE ERECTED AT EACH INTERSECTION WITH ANOTHER STATE HIGHWAY WITHIN THE WORK ZONE.

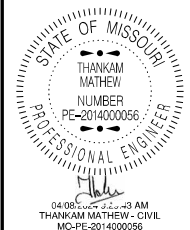
ADDITIONAL WARNING SIGNS SHALL BE ERECTED AT OTHER INTERSECTIONS WITHIN THE WORK ZONE, AS DIRECTED BY THE ENGINEER.

■ - CHANNELIZERS (AS SPECIFIED)

△ - FLAGGER

SIDE ROADS ENTERING WORK ZONES

SIDE ROADS
ENTERING WORK ZONE
TEMPORARY
TRAFFIC CONTROL
SHEET 3 OF 8



| | |
|---------------------------|----------------|
| DATE PREPARED 4/2/2024 | |
| ROUTE YY | STATE MO |
| DISTRICT KC | SHEET NO. 6 |
| COUNTY CASS | |
| JOB NO. JKU0067 | |
| CONTRACT ID. | |
| PROJECT NO. | |
| BRIDGE NO. | |

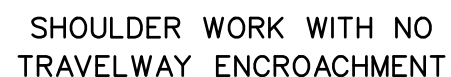
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MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

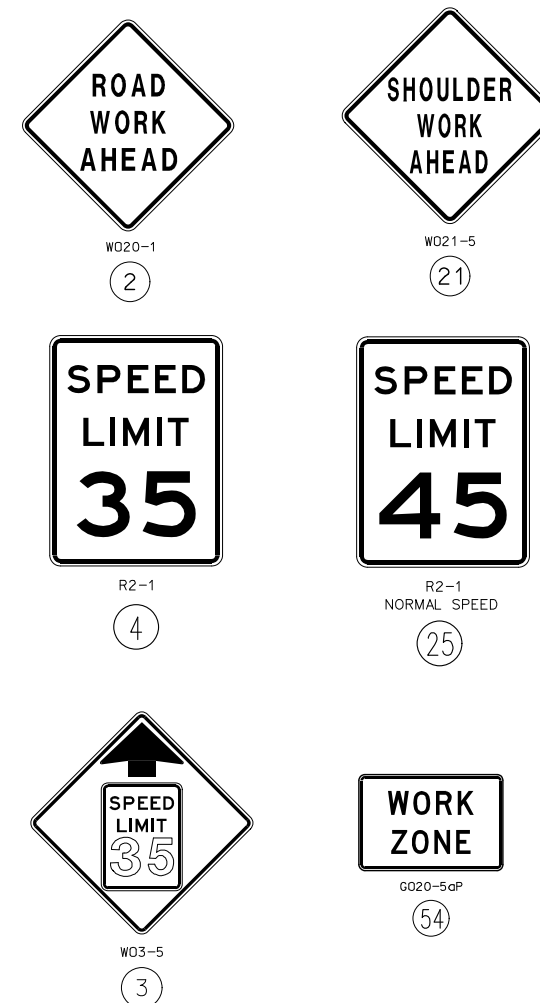
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)



VEHICLE HAZARD WARNING SIGNALS SHALL NOT BE USED INSTEAD OF THE VEHICLE'S HIGH -INTENSITY ROTATING FLASHING, FLASHING, OSCILLATING, OR STROBE LIGHTS.

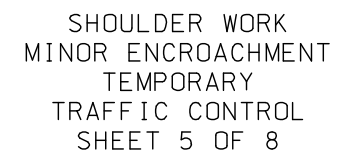
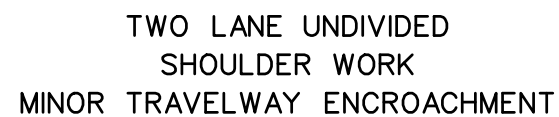


AWRS-ADVANCED WARNING RAIL SYSTEM



SHOULDER WORK
TEMPORARY
TRAFFIC CONTROL
SHEET 4 OF 8

[illegible][illegible]



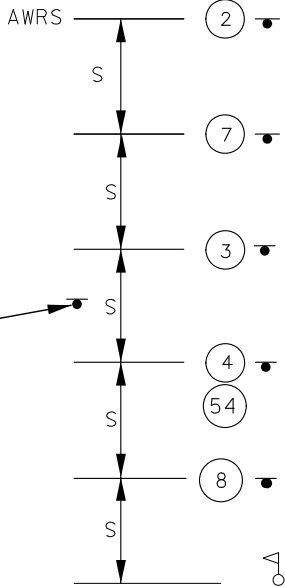
IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.



W03-4

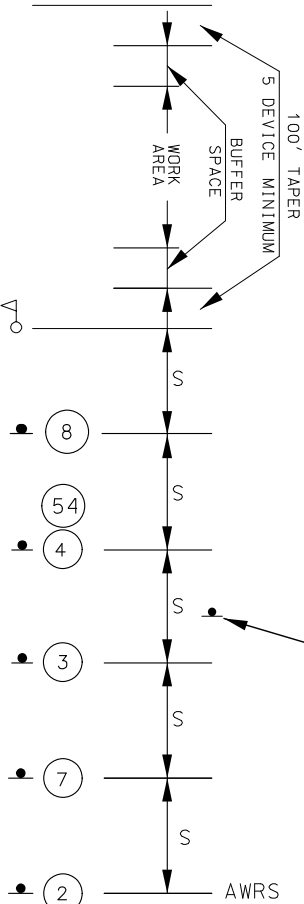
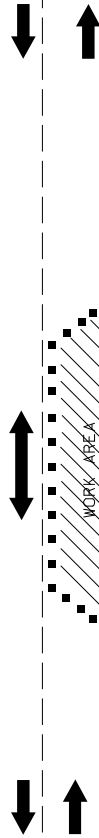
(11)

USED WHEN NO WORK
ZONE SPEED LIMIT
IS ESTABLISHED



LANE CLOSURE
ON TWO-LANE
ROAD USING FLAGGERS

(25)



AWRS



W03-4

(11)

USED WHEN NO WORK
ZONE SPEED LIMIT
IS ESTABLISHED



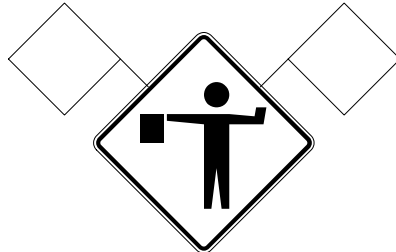
W020-1

(2)



W020-4

(7)



W020-7a

(8)



G020-5aP

(54)



W03-5

(3)



R2-1

(4)



R2-1

NORMAL SPEED

(25)

NOTES:

POSTED WORK ZONE SPEED LIMIT SHALL NOT BE BELOW 35 MPH, EXCEPT WHEN LOCAL ORDINANCE PROVIDES FOR A LOWER SPEED. THE LOWER SPEED SHALL BE USED WHEN APPLICABLE.

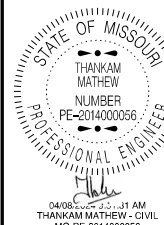
SEE TRAFFIC CONTROL SHEET 1 FOR WORK ZONE SPEED LIMIT GUIDELINES.

SEE TRAFFIC CONTROL SHEET 1 FOR SIGN SPACING, DEVICE SPACING AND CHANNELIZING TAPER LENGTHS.

IF USED AT NIGHT, THE FLAGGER STATIONS SHALL BE ILLUMINATED WITH AN AVERAGE MAINTAINED INTENSITY OF 0.6 FOOT CANDLES (6.5 LUX).

AWRS-ADVANCED WARNING RAIL SYSTEM

ONE LANE CLOSURE TWO WAY
FLAGGER CONTROL
TEMPORARY
TRAFFIC CONTROL
SHEET 6 OF 8



DATE PREPARED
4/2/2024

ROUTE
YY

STATE
MO

DISTRICT
KC

SHEET NO.
9

COUNTY
CASS

JOB NO.
JKU0067

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION

DATE

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W020-1
2



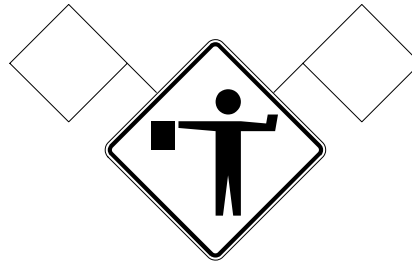
W03-5
3



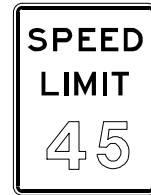
R2-1
4



W020-4
7



W020-7a
8

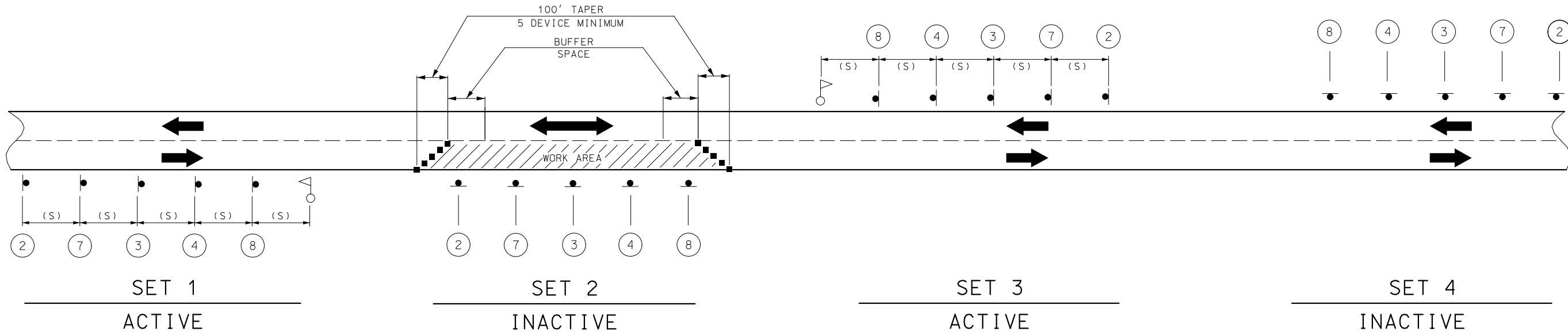


R2-1
NORMAL SPEED
25



G020-4
53

SIGN 53, "PILOT CAR FOLLOW ME" SHALL BE THE CONTRACTOR'S RESPONSIBILITY WHEN IN USE DURING OPERATION.



NOTES:

POSTED WORK ZONE SPEED LIMIT SHALL NOT BE BELOW 35 MPH, EXCEPT WHEN LOCAL ORDINANCE PROVIDES FOR A LOWER SPEED. THE LOWER SPEED SHALL BE USED WHEN APPLICABLE.

SIGN SETS 1 AND 3 ARE ACTIVE AND (I.E., SIGNS FACE ONCOMING TRAFFIC).

SIGN SETS 2 AND 4 ARE INACTIVE (I.E., SIGNS DO NOT FACE EITHER DIRECTION OF TRAFFIC) WHEN THE RESURFACING OPERATION IS LOCATED BETWEEN SIGN SETS 1 AND 3.

WHEN SIGN SETS 2 AND 4 ARE ACTIVE, SIGN SETS 1 AND 3 BECOME INACTIVE AND ARE ADVANCED TO BECOME SETS 2 AND 4 WITH SIGN LEGENDS TURNED AWAY FROM BOTH DIRECTIONS OF TRAFFIC. WHEN THE RESURFACING OPERATION ADVANCES TO BETWEEN SIGN SETS 2 AND 4, SIGN SETS 2 AND 4 BECOME ACTIVE (I.E., NEW SIGN SETS 1 AND 3) AND SIGN SETS 1 AND 3 ADVANCED IN THE DIRECTION OF THE OPERATION (I.E., NEW SIGN SETS 2 AND 4).

AWRS-ADVANCED WARNING RAIL SYSTEM

DAYLIGHT FLAGGING OPERATIONS ONLY.

CHANNELIZING DEVICES LOCATED DOWNSTREAM OF THE ONE-LANE, TWO-WAY TAPER ARE OPTIONAL. THESE DEVICES SHOULD BE ELIMINATED WHEN THEIR USE WILL REDUCE THE USABLE LANE WIDTH, INCLUDING ANY ACCEPTABLE SHOULDERS, TO LESS THAN 10' OR WILL SIGNIFICANTLY AFFECT THE RESURFACING OPERATION.

| SPEED | SIGN SPACING (FT.) (1) | |
|-------|--------------------------------|-------------------------------------|
| | NON-DIVIDED HIGHWAYS (S) | DIVIDED HIGHWAYS (S) |
| 0-35 | 200 | 200 |
| 40-45 | 350 | 500 |
| 50-55 | 500 | 1000 |
| 60-70 | 1000 | (SA)-1000 (SB)-1500 (SC)-2640 |

NOTES:

(1) SPACING BETWEEN SIGNS, BETWEEN LAST SIGN AND FLAGGER, BEGINNING OF TAPER OR SIGNED CONDITION.

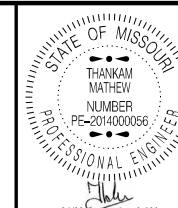
SPACINGS MAY BE ADJUSTED AS NECESSARY TO MEET FIELD CONDITIONS.

■ - CHANNELIZERS

○ - FLAGGER

| PERMANENT POSTED SPEED LIMIT (MPH) | BUFFER SPACE LENGTH (FT) |
|--|--------------------------------|
| 0 - 35 | 280 |
| 40 - 45 | 400 |
| 50 - 55 | 560 |
| 60 - 70 | 840 |

ONE LANE CLOSURE TWO WAY
FLAGGER CONTROL
TEMPORARY
TRAFFIC CONTROL
SHEET 7 OF 8



DATE PREPARED
4/2/2024

ROUTE YY STATE MO

DISTRICT KC SHEET NO. 10

COUNTY CASS

JOB NO.
JKU0067

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

| DESCRIPTION | DATE |
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MISSOURI HIGHWAYS AND TRANSPORTATION
COMMISSION



105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

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

REV.



MOVING OPERATION
OPEN TO TRAFFIC
TEMPORARY
TRAFFIC CONTROL
SHEET 8 OF 8

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