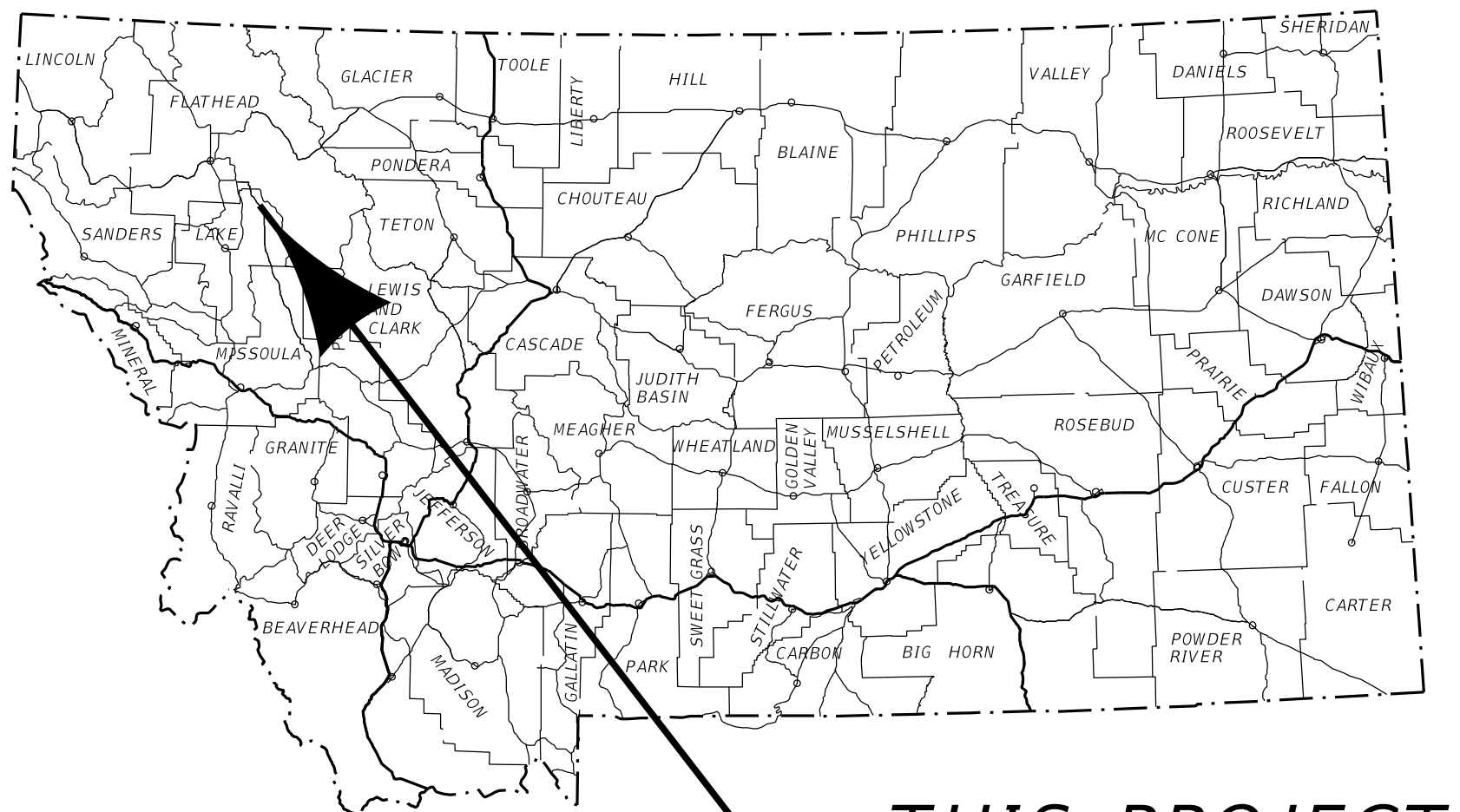
AWARD COPY

# MONTANA DEPARTMENT OF TRANSPORTATION

## FEDERAL AID PROJECT STPP 83-2(25)71
## MILL, FILL, SEAL & COVER, GUARDRAIL UPGRADES
## SWAN LAKE
## LAKE COUNTY

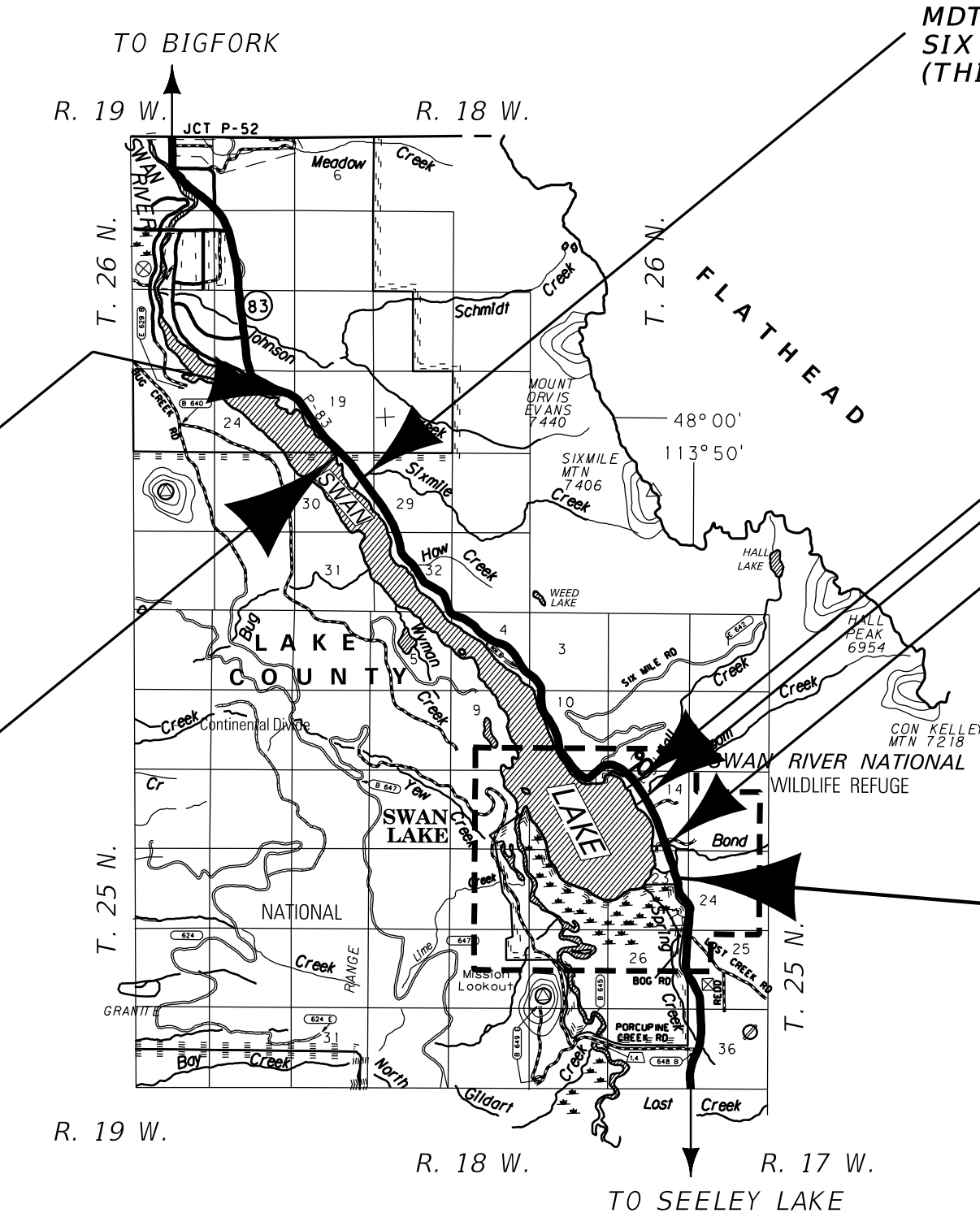
| PROJECT DESIGN DATA | | |
|---|---|---|
| PRESENT 2020 | A.D.T. = | 1,130 |
| LETTING 2022 | A.D.T. = | 1,170 |
| DESIGN 2024 | A.D.T. = | 1,520 |
| | D.H.V. = | 220 |
| | TRUCKS = | 16.9% |
| | V. = | 40/55 |
| | 18 KIP ESAL'S = | 104 |
| | GROWTH RATE = | 1.3% |




THIS PROJECT

LENGTH 7.3 MILES

SURFACING SOURCES -
CONTRACTOR FURNISHED




RP 77.2
26.2' X 21' BR. IN PL.
NBI P00083077+02001
MDT STRUCTURE ID - 06231
SIX MILE CREEK
(THIS CONTRACT)

RP 71.7
38.2' X 21' BR. IN PL.
NBI P00083071+07001
MDT STRUCTURE ID - 06230
HALL CREEK
(THIS CONTRACT)

RP 71.5
38.2' X 21' BR. IN PL.
NBI P00083071+04501
MDT STRUCTURE ID - 06229
GROOM CREEK
(THIS CONTRACT)

RP 70.9
30.2' X 21' BR. IN PL.
NBI P00083070+09001
MDT STRUCTURE ID - 06228
NORTH FORK BOND CREEK
(THIS CONTRACT)

STA. 13+21.85
GUARDRAIL & GUARDRAIL WIDENING RT.

STA. 15+54.00
ON F 83-2(1)65 =

STA. 15+54.00
BEGIN STPP 83-2(25)71

STA. 405+00.00
END STPP 83-2(25)71

STA. 405+00.00
ON F 83-2(1)65 =

RP 77.6 TO RP 70.5

THIS CONTRACT

| 3 | MONTANA Department of Transportation | C:\DGN\9869000rdttl001.dgn | DESIGNED BY | F. Cobarrubias | 12/2/2022 | ROAD PLANS |
|---|---|---|---|---|---|---|
| 2 | | 1/23/2023 | REVIEWED BY | | | |
| | | 3:27:23 PM CPS - U1114 | CHECKED BY | J. Fleming | 12/2/2022 | UPN 9869000 |

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# NOTES

## BASIS OF PLAN QUANTITIES

(QUANTITIES FOR ESTIMATING PURPOSES ONLY)

| | |
|---|---|
| COMP. AGGREGATE WEIGHT | = 3700 LBS. PER CUBIC YARD |
| COMP. WEIGHT OF PL. MIX BIT. SURF. | = 3855 LBS. PER CUBIC YARD |
| ASPHALT CEMENT - GRADE S - 1/2" AGG. | = 5.7% OF PL.MIX BIT.SURF. |
| HYDRATED LIME | = 1.4% OF PL.MIX BIT.SURF. |
| BITUMINOUS MATERIAL | = 8.5 LBS. PER GAL. |
| EMULSIFIED ASPHALT - TACK (ALL OTHER SURFACES) | = 0.05 GAL. PER SQ.YARD (UNDILUTED) |
| EMULSIFIED ASPHALT - FOG SEAL (S & C) | = 0.075 GAL. PER SQ.YARD (UNDILUTED) |
| SEAL | = 0.42 GAL. PER SQ.YARD |
| COVER | = 25 LBS. PER SQ.YARD |
| EMULSIFIED ASPHALT - FOG SEAL (RUMBLE STRIPS) | = 0.10 GAL. PER SQ.YARD (UNDILUTED) |

## UTILITIES

CALL THE UTILITIES UNDERGROUND LOCATION CENTER (811) OR OTHER NOTIFICATION SYSTEM FOR THE MARKING AND LOCATION OF ALL LINES AND SERVICES BEFORE EXCAVATING. ALL CLEARANCES OR DEPTHS PROVIDED FOR UTILITIES ARE FROM EXISTING GROUND LINE.

## WETLANDS

WETLANDS MAY EXIST ADJACENT TO THE ROADWAY AND BEYOND THE PROJECT LIMITS. A WETLAND DELINATION HAS NOT BEEN COMPLETED FOR THIS PROJECT. IMPACTS TO WETLAND AREAS ARE NOT ANTICIPATED IN ASSOCIATION WITH THE PROPOSED WORK, NO PERMITS HAVE BEEN OBTAINED. ANY ACTION IMPACTING WETLAND AREAS WITHOUT THE APPROPRIATE PERMITTING IS THE RESPONSIBILITY OF THE CONTRACTOR.

## AS-BUILTS

FOR HORIZONTAL ALIGNMENT AND STATIONING, REFER TO THE "AS-BUILT" PROJECT.
F 83-2(1)65

NOTE: STATIONING INCREASES FROM NORTH TO SOUTH.
REFERENCE POSTS INCREASE FROM SOUTH TO NORTH.

# LINEAR DATA

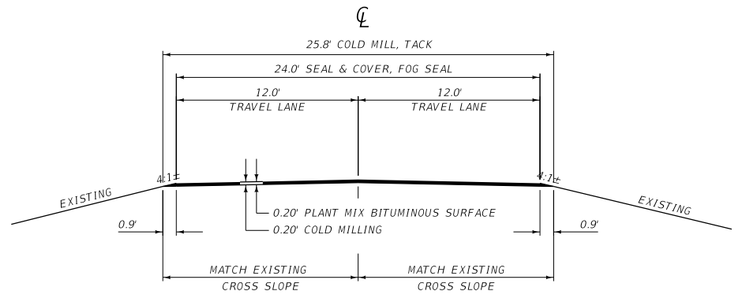
| | | | |
|---|---|---|---|
| LENGTH OF ROADWAY | | 2 LANE RURAL | 38,439.02 ft |
| LENGTH OF BRIDGES | THIS CONTRACT | 2 LANE RURAL | 76.00 ft |
| TOTAL LENGTH OF | STPP 83-2(25)71 | 2 LANE RURAL | 38,515.02 ft |

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# TYPICAL SECTION NO. 1

**MAINLINE**

| | | | |
|---|---|---|---|
| 15+54.00 | TO | 28+71.96 | THEN TYP. NO. 2 |
| 45+71.96 | TO | 330+00.00 | THEN TYP. NO. 4 |
| 395+00.00 | TO | 405+00.00 | |



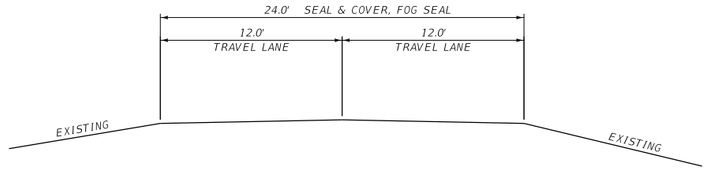

| QUANTITIES | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| UNIT | AGGREGATE | | UNIT | BITUMINOUS MATERIAL | | | | COLD MILL |
| | COVER | PLANT MIX | | ASPHALT CEMENT | SEAL | EMULSIFIED ASPHALT TACK* | EMULSIFIED ASPHALT FOG SEAL | |
| AREA square feet | | 4.98 | square yards PER STATION | | 267 | 287 | 267 | 287 |
| cubic yards PER STATION | | 18.4 | tons PER STATION | 2.02 | 0.48 | | | |
| tons PER STATION | | 35.5 | gals. PER STATION | | | 14 | 20 | |
| square yards PER STATION | 267 | | | | | | | |

*BASED ON 1 APPLICATIONS

# TYPICAL SECTION NO. 2

**MAINLINE**

| | | | |
|---|---|---|---|
| 28+71.96 | | | |
| 36+04.00 BE | TO | 36+23.00 BE | PAVED BRIDGE (SIX MILE CREEK) |
| | TO | 45+71.96 | THEN TYP. NO. 1 |




| QUANTITIES | | | | |
|---|---|---|---|---|
| UNIT | AGGREGATE | UNIT | BITUMINOUS MATERIAL | |
| | COVER | | SEAL | EMULSIFIED ASPHALT FOG SEAL |
| AREA square feet | | square yards PER STATION | 267 | 267 |
| cubic yards PER STATION | | tons PER STATION | 0.48 | |
| tons PER STATION | | gals. PER STATION | | 20 |
| square yards PER STATION | 267 | | | |

*BASED ON 1 APPLICATIONS

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 3 | MONTANA Department of Transportation | C:\DGN\9869000rdtyp001.dgn | DESIGNED BY | F. Cobarrubias | 12/2/2022 | ROAD PLANS | SWAN LAKE / STPP 83-2(25)71 |
| 2 | | 1/23/2023 | REVIEWED BY | | | | |
| | | 3:27:39 PM CPS - U1114 | CHECKED BY | J. Fleming | 12/2/2022 | LAKE COUNTY | UPN 9869000 / 3 |

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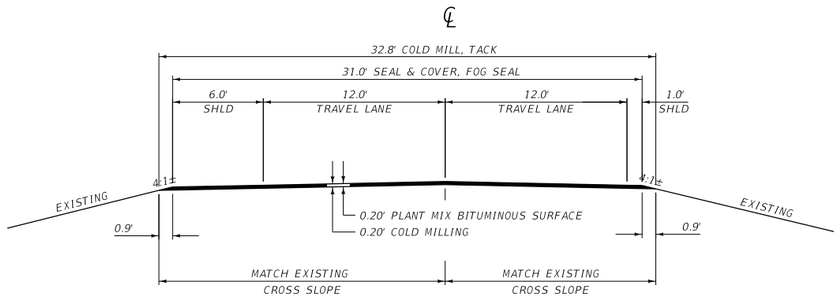
# TYPICAL SECTION NO. 3

**MAINLINE**

358+83.80

387+60.00 BE TO 387+79.00 BE PAVED BRIDGE (NORTH FORK BOND CREEK)

TO 395+00.00 THEN TYP. NO. 1




| QUANTITIES | | | | | | | |
|---|---|---|---|---|---|---|---|
| UNIT | AGGREGATE | | UNIT | BITUMINOUS MATERIAL | | | |
| | COVER | PLANT MIX | | ASPHALT CEMENT | SEAL | EMULSIFIED ASPHALT TACK* | EMULSIFIED ASPHALT FOG SEAL | COLD MILL |
| AREA square feet | | 6.38 | square yards PER STATION | | 344 | 364 | 344 | 364 |
| cubic yards PER STATION | | 23.6 | tons PER STATION | 2.59 | 0.61 | | | |
| tons PER STATION | | 45.5 | gals. PER STATION | | | 18 | 26 | |
| square yards PER STATION | 344 | | | | | | | |

*BASED ON 1 APPLICATIONS

# TYPICAL SECTION NO. 4

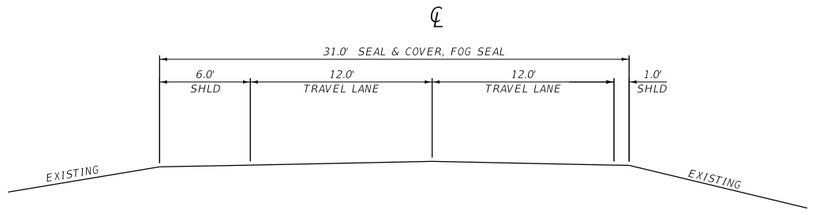
**MAINLINE**

330+00.00

339+25.00 BE TO 339+44.00 BE PAVED BRIDGE (HALL CREEK)

351+34.00 BE TO 351+53.00 BE PAVED BRIDGE (GROOM CREEK)

TO 358+83.80 THEN TYP. NO. 3




| QUANTITIES | | | | |
|---|---|---|---|---|
| UNIT | AGGREGATE | UNIT | BITUMINOUS MATERIAL | |
| | COVER | | SEAL | EMULSIFIED ASPHALT FOG SEAL |
| AREA square feet | | square yards PER STATION | 344 | 344 |
| cubic yards PER STATION | | tons PER STATION | 0.61 | |
| tons PER STATION | | gals. PER STATION | | 26 |
| square yards PER STATION | 344 | | | |

*BASED ON 1 APPLICATIONS

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 3 / 1 | MONTANA Department of Transportation | C:\DGN\9869000rdtyp001.dgn | DESIGNED BY | F. Cobarrubias | 12/2/2022 | ROAD PLANS | SWAN LAKE | STPP 83-2(25)71 |
| | | 1/23/2023 | REVIEWED BY | | | | | |
| | | 3:27:45 PM CPS - U1114 | CHECKED BY | J. Fleming | 12/2/2022 | LAKE COUNTY | UPN 9869000 | 4 |

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# SUMMARY

## SURFACING

| STATION | | linear feet | | | | FOR | tons | AGGREGATE | | BITUMINOUS MATERIAL | | | | sq. yards | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | sq. yards | tons | tons | | gallons | | | |
| FROM | TO | GROSS | NET | + | - | | HYDRATED LIME | COVER TYPE 1 | PLANT MIX BIT. SURF. GR. S - 1/2" | ASPHALT CEMENT PG 58V-34 | EMULSIFIED ASPHALT SEAL CHFRS-2P | EMULSIFIED ASPHALT TACK | EMULSIFIED ASPHALT FOG SEAL | COLD MILL | |
| 15+54.00 | | | | | | | | | | | | | | | |
| 25+81.23 BK | 25+81.01 AH | | | 0.22 | | EQUATION | | | | | | | | | |
| | 28+71.96 | 1,317.96 | 1,318.18 | | | | | 3,520 | 468 | 26.6 | 6.3 | 185 | 264 | 3,783 | TYP. NO. 1 |
| 28+71.96 | | | | | | | | | | | | | | | |
| 36+04.00 BE | 36+23.00 BE | | | | 19.00 | PAVED BRIDGE(SIX MILE CREEK) | | | | | | | | | |
| 40+40.09 BK | 40+46.98 AH | | | | 6.89 | EQUATION | | | | | | | | | |
| | 45+71.96 | 1,700.00 | 1,674.11 | | | | | 4,470 | | | 8.0 | | 335 | | TYP. NO. 2 |
| 45+71.96 | | | | | | | | | | | | | | | |
| 46+75.25 BK | 46+46.57 AH | | | 28.68 | | EQUATION | | | | | | | | | |
| 69+54.86 BK | 69+71.49 AH | | | | 16.63 | EQUATION | | | | | | | | | |
| 87+84.99 BK | 87+94.29 AH | | | | 9.30 | EQUATION | | | | | | | | | |
| 104+91.79 BK | 104+92.84 AH | | | | 1.05 | EQUATION | | | | | | | | | |
| 116+02.81 BK | 115+86.53 AH | | | 16.28 | | EQUATION | | | | | | | | | |
| 124+78.20 BK | 124+77.38 AH | | | 0.82 | | EQUATION | | | | | | | | | |
| 125+92.58 BK | 127+61.80 AH | | | | 169.22 | EQUATION | | | | | | | | | |
| 137+09.69 BK | 137+27.67 AH | | | | 17.98 | EQUATION | | | | | | | | | |
| 151+13.51 BK | 151+10.00 AH | | | 3.51 | | EQUATION | | | | | | | | | |
| 167+18.33 BK | 167+29.01 AH | | | | 10.68 | EQUATION | | | | | | | | | |
| 187+84.72 BK | 187+83.81 AH | | | 0.91 | | EQUATION | | | | | | | | | |
| 208+34.21 BK | 208+38.50 AH | | | | 4.29 | EQUATION | | | | | | | | | |
| 216+54.35 BK | 216+47.11 AH | | | 7.24 | | EQUATION | | | | | | | | | |
| 229+10.92 BK | 229+13.34 AH | | | | 2.42 | EQUATION | | | | | | | | | |
| 233+88.31 BK | 233+91.28 AH | | | | 2.97 | EQUATION | | | | | | | | | |
| 238+53.78 BK | 238+61.02 AH | | | | 7.24 | EQUATION | | | | | | | | | |
| 242+61.02 BK | 242+76.25 AH | | | | 15.23 | EQUATION | | | | | | | | | |
| 246+59.54 BK | 246+63.48 AH | | | | 3.94 | EQUATION | | | | | | | | | |
| 260+74.49 BK | 260+73.02 AH | | | 1.47 | | EQUATION | | | | | | | | | |
| 264+86.39 BK | 264+86.32 AH | | | 0.07 | | EQUATION | | | | | | | | | |
| 273+56.41 BK | 273+45.09 SAH | | | 11.32 | | EQUATION | | | | | | | | | |
| 277+97.82 BK | 277+91.65 AH | | | 6.17 | | EQUATION | | | | | | | | | |
| 310+29.74 BK | 310+34.47 AH | | | | 4.73 | EQUATION | | | | | | | | | |
| 324+97.24 BK | 327+29.22 AH | | | | 231.98 | EQUATION | | | | | | | | | |
| | 330+00.00 | 28,428.04 | 28,006.85 | | | | | 74,778 | 9,942 | 565.7 | 134.4 | 3,921 | 5,601 | 80,380 | TYP. NO. 1 |
| 330+00.00 | | | | | | | | | | | | | | | |
| 339+25.00 BE | 339+44.00 BE | | | | 19.00 | PAVED BRIDGE (HALL CREEK) | | | | | | | | | |
| 351+34.00 BE | 351+53.00 BE | | | | 19.00 | PAVED BRIDGE (GROOM CREEK) | | | | | | | | | |
| | 358+83.80 | 2,883.80 | 2,845.80 | | | | | 9,790 | | | 17.4 | | 740 | | TYP. NO. 4 |
| 358+83.80 | | | | | | | | | | | | | | | |
| 387+60.00 BE | 387+79.00 BE | | | | 19.00 | PAVED BRIDGE (N FORK BOND CREEK) | | | | | | | | | |
| 390+32.85 BK | 390+35.97 AH | | | | 3.12 | EQUATION | | | | | | | | | |
| | 395+00.00 | 3,616.20 | 3,594.08 | | | | | 12,364 | 1,635 | 93.1 | 21.9 | 647 | 934 | 13,082 | TYP NO. 3 |
| 395+00.00 | 405+00.00 | 1,000.00 | 1,000.00 | | | | | 2,670 | 355 | 20.2 | 4.8 | 140 | 200 | 2,870 | TYP. NO. 1 |
| | | | | | | | | | | | | | | | |
| | | | | | | ADDITIONAL SURFACING | | 246 | 9 | 0.5 | 0.4 | 3 | 19 | 69 | |
| | | | | | | | | | | | | | | | |
| TOTAL | | 38,946.00 | 38,439.02 | 76.69 | 583.67 | | 174 | 107,838 | 12,409 | 706.1 | 193.2 | 4,896 | 8,093 | 100,184 | |

# SUMMARY

## ADDITIONAL SURFACING (INCLUDED IN SURFACING FRAME)

| STATION | | linear feet | | | | FOR | tons | AGGREGATE | | BITUMINOUS MATERIAL | | | | sq. yards | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | sq. yards | tons | tons | | gallons | | | |
| FROM | TO | GROSS | NET | + | - | | HYDRATED LIME | COVER TYPE 1 | PLANT MIX BIT. SURF. GR. S - 1/2" | ASPHALT CEMENT PG 58V-34 | EMULSIFIED ASPHALT SEAL CHFRS-2P | EMULSIFIED ASPHALT TACK | EMULSIFIED ASPHALT FOG SEAL | COLD MILL | |
| 36+04.00 BE | 36+23.00 BE | 19.00 | 19.00 | | | PAVED BRIDGE (SIX MILE CREEK) | | 51 | | | 0.1 | | 4 | | TYP. NO. 2 |
| 339+25.00 BE | 339+44.00 BE | 19.00 | 19.00 | | | PAVED BRIDGE (HALL CREEK) | | 65 | | | 0.1 | | 5 | | TYP. NO. 4 |
| 351+34.00 BE | 351+53.00 BE | 19.00 | 19.00 | | | PAVED BRIDGE (GROOM CREEK) | | 65 | | | 0.1 | | 5 | | TYP. NO. 4 |
| 387+60.00 BE | 387+79.00 BE | 19.00 | 19.00 | | | PAVED BRIDGE (N FORK BOND CREEK) | | 65 | 9 | 0.5 | 0.1 | 3 | 5 | 69 | TYP. NO. 3 |
| SUBTOTAL | | ~ | ~ | ~ | ~ | | | 246 | 9 | 0.5 | 0.4 | 3 | 19 | 69 | |

## GUARDRAIL

| STATION | | linear feet | | | | each | | | | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|
| | | REMOVE AND SALVAGE GUARDRAIL * | | MGS GUARDRAIL LONG POST | | MASH W-BEAM TERMINAL SECTION | | MGS ONE-WAY DEPARTURE TERMINAL SECTION | | |
| FROM | TO | LEFT | RIGHT | LEFT | RIGHT | LEFT | RIGHT | LEFT | RIGHT | |
| NEW RAIL | | | | | | | | | | |
| 13+37.48 | 19+86.44 | | | | 575.0 | | 2 | | | |
| 87+89.39 | 93+45.64 | | | | 487.5 | | 2 | | | |
| 94+15.45 | 96+96.70 | | | | 212.5 | | 2 | | | |
| 98+31.34 | 104+75.09 | | | | 575.0 | | 2 | | | |
| 108+41.74 | 112+23.88 | | | | 312.5 | | 2 | | | |
| 114+67.78 | 121+00.98 | | | | 600.0 | | 1 | | 1 | NORTH END INCL. SHOP BENT MGS GUARDRAIL WITH A 50' RADIUS, L=37.5', AND Δ=42°58'19" RT. TERMINATING WITH A 1-WAY DEP. TERM. SEC. |
| 121+86.72 | 134+15.67 | | | | 1,150.0 | | 2 | | | |
| 138+32.32 | 144+94.22 | | | | 600.0 | | 2 | | | |
| 159+82.77 | 191+78.22 | | | | 3,125.0 | | 2 | | | |
| 202+31.50 | 207+25.22 | | | | 425.0 | | 2 | | | |
| 227+70.38 | 301+58.98 | | | | 7,387.5 | | 2 | | | |
| | | | | | | | | | | |
| REMOVE RAIL | | | | | | | | | | |
| 13+21.85 | 20+02.07 | | 678.1 | | | | | | | |
| 87+73.76 | 93+61.26 | | 590.4 | | | | | | | |
| 93+99.83 | 97+12.33 | | 303.8 | | | | | | | |
| 98+15.72 | 104+90.72 | | 678.2 | | | | | | | |
| 108+26.12 | 112+39.50 | | 416.2 | | | | | | | |
| 114+67.78 | 121+16.60 | | 653.3 | | | | | | | |
| 121+71.10 | 134+31.30 | | 1,252.4 | | | | | | | |
| 138+16.70 | 145+09.84 | | 703.2 | | | | | | | |
| 159+65.08 | 191+91.79 | | 3,220.9 | | | | | | | |
| 202+15.88 | 207+40.85 | | 528.4 | | | | | | | |
| 227+54.76 | 301+74.61 | | 7,484.8 | | | | | | | |
| | | | | | | | | | | |
| SUBTOTAL | | 0.0 | 16,509.7 | 0.0 | 15,450.0 | 0 | 21 | 0 | 1 | |
| TOTAL | | 16,509.7 | | 15,450.0 | | 21 | | 1 | | |

* DO NOT DISTURB GUARDRAIL OR BRIDGE RAIL ON ANY BRIDGES WITHIN THE PROJECT.
* SEE SALVAGE OF EXISTING GUARDRAIL SPECIAL PROVISION. NOTE: SOME STATIONS ARE OFF DUE TO EQUATIONS, REPLACE GUARDRAIL AT SAME LOCATION.

AWARD COPY

# SUMMARY

## GUARDRAIL END SECTION WIDENING

| STATION | | each WIDENING SECTIONS | | REMARKS |
|---|---|---|---|---|
| FROM | TO | LEFT | RIGHT | |
| SOUTHBOUND | | | | |
| | | | | |
| 13+37.48 | 301+58.98 | | 21 | |
| | | | | |
| | | | | |
| | | | | |
| NORTHBOUND | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| SUBTOTAL | | 0 | 21 | |
| TOTAL | | 21 | | |

## REVEGETATION

| STATION | | lump sum REVEGE-TATION | REMARKS |
|---|---|---|---|
| FROM | TO | | |
| | | | |
| 15+54.00 | 405+00.00 | 1 | |
| | | | |
| | | | |
| | | | |
| TOTAL | | 1 | |

## RUMBLE STRIPS *

| STATION | | miles SINUSOIDAL RUMBLE STRIPS | | | gals | REMARKS |
|---|---|---|---|---|---|---|
| | | CONTIN-UOUS | INTER-MITTENT | CENTERLINE | EMULSIFIED ASPHALT FOG SEAL # | |
| FROM | TO | | | | | |
| 15+54.00 | 405+00.00 | | | 5.2 | 607 | OMIT RUMBLE STRIPS IN AREAS WITH POSTED SEED LIMIT OF 45 MPH OR LESS (APPROX. RP 70.4 TO 72.5). |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| SUBTOTAL | | ~ | ~ | 5.2 | ~ | |
| TOTAL | | ~ | | 5.2 | ~ | |

\# FOR INFORMATION ONLY, INCLUDE IN THE COST OF RUMBLE STRIPS
* SEE DETAIL SHEET

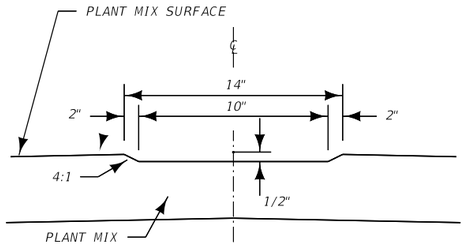
## PAVEMENT MARKINGS

| ITEM | UNIT | INTERIM APPLICA-TION # | FINAL APPLICA-TION | TOTAL |
|---|---|---|---|---|
| STRIPING - WHITE PAINT | gallon | 528 | | 528 |
| STRIPING - YELLOW PAINT | gallon | 494 | | 494 |
| WORDS & SYMBOLS - WHITE PAINT | gallon | 4 | | 4 |
| | | | | |
| STRIPING - WHITE EPOXY | gallon | | 352 | 352 |
| STRIPING - YELLOW EPOXY | gallon | | 329 | 329 |
| WORDS & SYMBOLS - WHITE EPOXY | gallon | | 2 | 2 |
| | | | | |
| TEMPORARY STRIPING | linear feet | | | 67,955 |
| | | | | |
| | | | | |

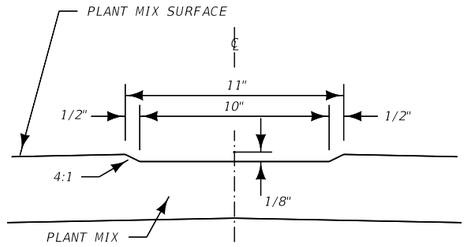
\# BASED ON 2 APPLICATIONS.

AWARD COPY

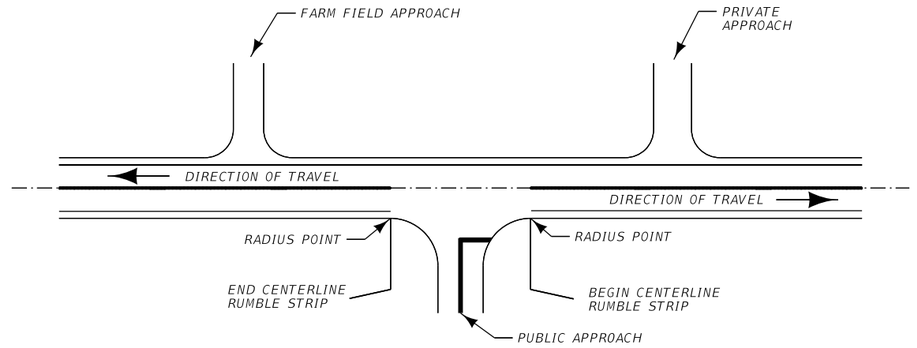
# DETAIL



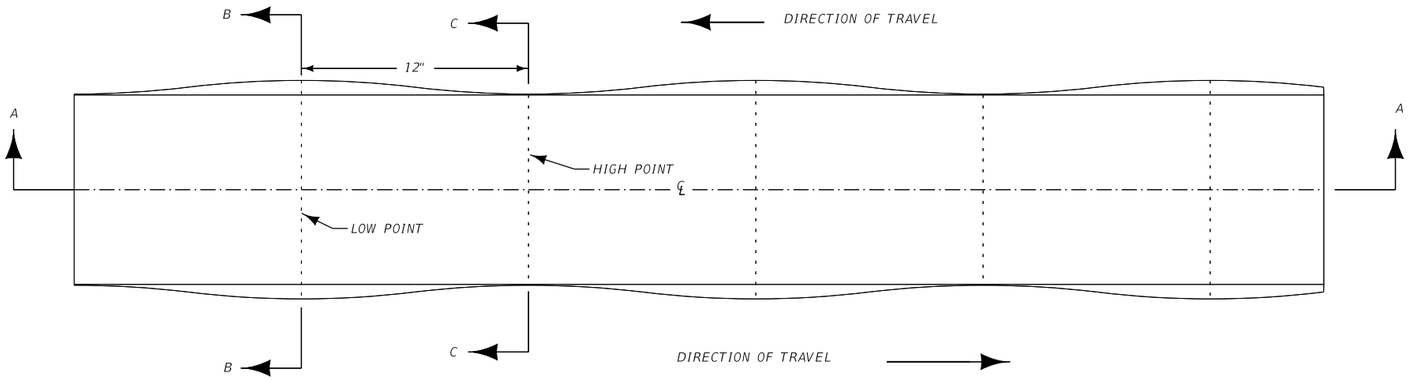

SECTION B-B



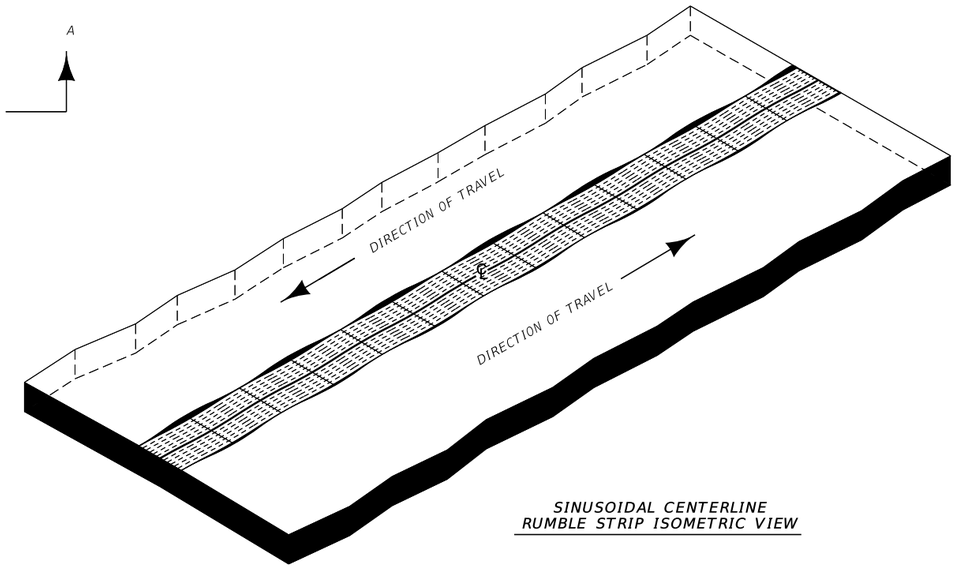

SECTION C-C



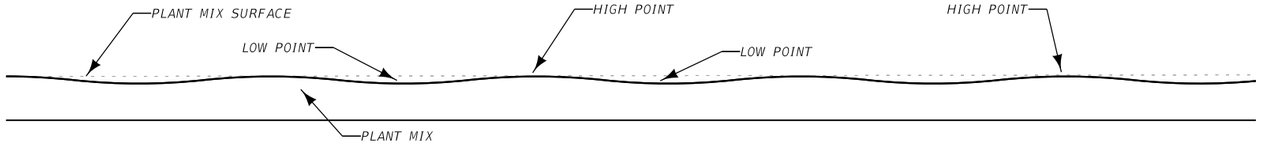

SINUSOIDAL CENTERLINE RUMBLE STRIP APPROACH DETAIL



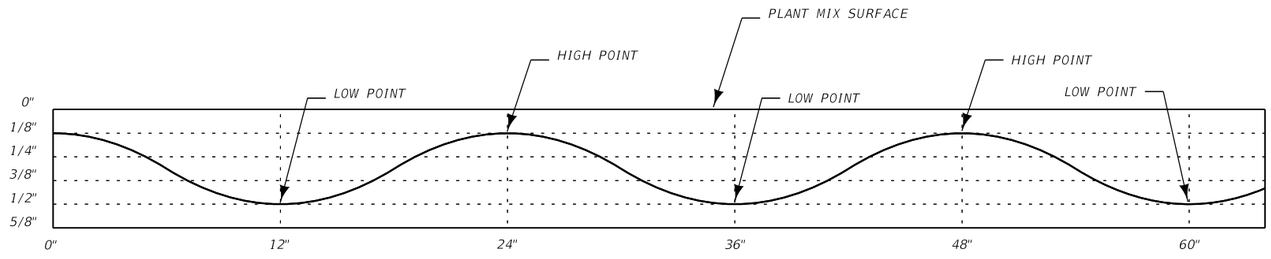

SINUSOIDAL CENTERLINE RUMBLE STRIP WITH TAPERED GROOVE PLAN VIEW




SINUSOIDAL CENTERLINE RUMBLE STRIP ISOMETRIC VIEW




SECTION A-A




SINUSOIDAL CENTERLINE RUMBLE STRIP PROFILE VIEW

EXAGGERATED VERTICAL SCALE 10:1

NOTES:

BREAK SINUSOIDAL CENTERLINE RUMBLE STRIPS FOR PUBLIC APPROACHES ONLY.

DO NOT INSTALL SINUSOIDAL CENTERLINE RUMBLE STRIPS ON CONCRETE BRIDGE DECKS AND CONCRETE BRIDGE APPROACH SLABS.

DO NOT INSTALL SINUSOIDAL CENTERLINE RUMBLE STRIPS IN AREAS POSTED AT 45 MPH OR LESS.

ROUTES WITHIN DESIGNATED CITY OR URBAN LIMITS USE ENGINEERING JUDGEMENT ON A CASE BY CASE BASIS TO DETERMINE IF SINUSOIDAL CENTERLINE RUMBLE STRIP INSTALLATION IS APPROPRIATE.

MINIMUM VERTICAL MILLING DEPTHS AND DIFFERENCE BETWEEN MILLING HIGH POINTS AND LOW POINTS SHOWN IN DETAIL. ADDITIONAL 1/8" DEPTH OF MILLING IS ALLOWABLE ON INSTALLATION OF SINUSOIDAL CENTERLINE RUMBLE STRIP.

SEE DETAILED DRAWING 620-30 FOR CENTERLINE RUMBLE STRIP PAVEMENT MARKING INFORMATION.

# DETAIL

## SINUSOIDAL CENTERLINE RUMBLE STRIPS

NO SCALE

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 3 | MONTANA Department of Transportation | C:\DGN\9869000rddet001.dgn | DESIGNED BY | F. Cobarrubias | 12/7/2022 | ROAD PLANS | SWAN LAKE | STPP 83-2(25)71 |
| 2 | | 1/23/2023 | REVIEWED BY | | | | | |
| | | 3:28:31 PM CPS - U1114 | CHECKED BY | J. Fleming | 12/7/2022 | LAKE COUNTY | UPN 9869000 | 8 |

AWARD COPY

# SUMMARY
# SIGNING & DELINEATION QUANTITIES

| MATERIAL | TOTAL | UNIT |
|---|---|---|
| SIGNS-ALUM REFL SHEET IV | | SQ. FOOT |
| SIGNS-ALUM REFL SHEET XI | 753.4 | SQ. FOOT |
| | | |
| SIGNS-ALUM SHEET INCR IV | | SQ. FOOT |
| SIGNS-ALUM SHEET INCR XI | 90.0 | SQ. FOOT |
| OVERLAY-SHEET ALUMINUM | | SQ. FOOT |
| POSTS-STEEL U SIGN | 379 | POUNDS |
| POLES-TREATED WOOD 4 IN | 1,066 | LINEAR FT. |
| POLES-TREATED WOOD 5 IN | 146 | LINEAR FT. |
| POLES-TREATED WOOD 6 IN | | LINEAR FT. |
| POLES-TREATED TIMBER-CLASS 4 | | LINEAR FT. |
| POLES-TREATED TIMBER-CLASS 3 | | LINEAR FT. |
| POSTS-TUBULAR STEEL | | POUNDS |
| POSTS-TUBULAR STEEL-SQ-PERF | 155.8 | POUNDS |
| POSTS-STEEL STRUCTURAL SIGN | | POUNDS |
| OVERHEAD STR/METAL-CANTILEVER | | EACH |
| OVERHEAD STR/METAL-BRIDGE | | EACH |
| | | |
| HIGHWAY TRAFFIC STRIPING-WHITE | | GAL.(S) |
| HIGHWAY TRAFFIC STRIPING-YELLOW | | GAL.(S) |
| WORDS & SYMBOLS | | GAL.(S) |
| | | |
| DELINEATOR DES A | 225 | EACH |
| DELINEATOR DES B | | EACH |
| DELINEATOR DES C | 68 | EACH |
| DELINEATOR DES D | 4 | EACH |
| DELINEATOR DES E | | EACH |
| DELINEATOR DES F | 215 | EACH |
| DELINEATOR DES G | | EACH |
| DELINEATOR DES H | | EACH |
| REMOVE SIGNS | 105 | EACH |
| REMOVE SIGNS-GUIDE | 4 | EACH |
| RESET SIGNS | 5 | EACH |
| RESET SIGNS-GUIDE | | EACH |
| | | |
| FRANG SIGN POST BKWY- | | EACH |
| FRANG SIGN POST BKWY- | | EACH |
| | | |
| | | |
| SQ TUBLR SLIP BASE BKWY-3 IN | 2 | EACH |

AWARD COPY

# SIGN LOCATION AND SPECIFICATIONS

| REF. POST | SIGN NO. | PANEL SIZE | REFL SHTG TYPE: BACK-GROUND | REFL SHTG TYPE: LEGEND | FEET: CLEARANCE | FEET: SIGN SUPPORT SPACING | TYPE OF SUPPORT | FEET: CANTILEVER | FEET: SUPPORT LENGTH (ESTIMATED) | FEET: SUPPORT LENGTH (INSTALLED) | FEET: MOUNTING HEIGHT | FEET: FOUNDATION DEPTH | SIGN PANEL (SQ. FT.): SHEET ALUMINUM | SIGN PANEL (SQ. FT.): ALUMINUM SHEET INCREMENT | SIGN PANEL (SQ. FT.): ALUMINUM SHEET OVERLAY | TIMBER POLE (LINEAR FT.): 4" TOP DIA. | TIMBER POLE (LINEAR FT.): 5" TOP DIA. | STEEL POST(LBS.): ROUND TUBULAR | STEEL POST(LBS.): SQUARE TUBULAR | STEEL POST(LBS.): STRUCTURAL STEEL | STEEL POST(LBS.): "U" POST | BREAKAWAY | SIGNS/GUIDE: REMOVE | SIGNS/GUIDE: RESET | SIGNS/GUIDE: REMOVE | SIGNS/GUIDE: RESET | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 77.564 Rt. | R2-1 (60) | 24"x30" | XI | | 10-0 | | 4" Dia. POLE | | 12-4 | | 5-0 | 3-0 | 5.0 (XI) | | | 14 | | | | | | 1 | | | | | |
| 77.523 Rt. | S3-1a | 30"x30" | XI | XI | 10-0 | | 4" Dia. POLE | | 15-5 | | 5-0 | 3-0 | 6.3 (XI) | | | 16 | | | | | | 1 | | | | FYG | |
| 77.079 Rt. | W14-3 | 48"x48"x36" | XI | | 10-0 | | 4" Dia. POLE | | 13-0 | | 5-0 | 3-0 | 5.5 (XI) | | | 14 | | | | | | 1 | | | | FY | M.H. 7' (Schrubery?) |
| 77.049 Rt. \| | N7-1 | 36"x48" | XI | XI | 10-0 | | 5" Dia. POLE | | 16-2 | | 6-1 | 3-6 | 12.0 (XI) | | | | 18 | | | | X | 1 | | | | | |
| \| | N7-1p | 36"x12" | XI | XI | | | | | | | | | 3.0 (XI) | | | | | | | | | | | | | | ECHO LAKE BASSMASTERS |
| 77.000 Lt. | (77) D10-2 (2) | 10"x27" | XI | XI | 4-0 | | 2 lb/ft STL-U | | 9-11 | | 4-0 | 3-0 | 1.9 (XI) 1.9 (XI) | | | | | | | | 20 | 1 | | | | | |
| 77.000 Lt. | W11-15a | 30"x30" | XI | | 10-0 | | 4" Dia. POLE | | 13-5 | | 5-0 | 3-0 | 6.3 (XI) | | | 14 | | | | | | 1 | | | | | Hinged Sign |
| 76.843 Rt. | D3 (2) | 42"x10" | XI | XI | 6-0 | | 4" Dia. POLE | | 10-7 | | 5-0 | 3-0 | 2.9 (XI) 2.9 (XI) | | | 12 | | | | | | 1 | | | | | |
| 76.804 Lt. | W14-3 | 48"x48"x36" | XI | | 10-0 | | 4" Dia. POLE | | 12-4 | | 5-0 | 3-0 | 5.5 (XI) | | | 14 | | | | | | 1 | | | | FY | |
| 76.615 Rt. | S3-1a | 30"x30" | XI | XI | 10-0 | | 4" Dia. POLE | | 13-5 | | 5-0 | 3-0 | 6.3 (XI) | | | 14 | | | | | | 1 | | | | FYG | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 76.000 Lt. | (76) D10-2 (2) | 10"x27" | XI | XI | 4-0 | | 2 lb/ft STL-U | | 9-11 | | 4-0 | 3-0 | 1.9 (XI) 1.9 (XI) | | | | | | | | 20 | 1 | | | | | |
| 75.807 Rt. \| | W1-4L | 36"x36" | XI | | | | R.S.F.O. | | | | | | 9.0 (XI) | | | | | | | | | 1 | | | | FY | RSFO |
| \| | W13-1 (45) | 24"x24" | XI | | | | R.S.F.O. | | | | | | 4.0 (XI) | | | | | | | | | | | | | FY | RSFO |
| 75.589 Lt. | VA Cross | By OTHERS | | | | | | | | | | | | | | | | | | | | | | | | | |
| 75.585 Lt. | W1-8 (2) | 24"x30" | XI | | 10-0 | | 4" Dia. POLE | | 12-4 | | 5-0 | 3-0 | 5.0 (XI) 5.0 (XI) | | | 14 | | | | | | 1 | | | | FY | |
| 75.561 Lt. | W1-8 (2) | 24"x30" | XI | | 10-0 | | 4" Dia. POLE | | 12-4 | | 5-0 | 3-0 | 5.0 (XI) 5.0 (XI) | | | 14 | | | | | | 1 | | | | FY | |
| 75.538 Lt. | W1-8 (2) | 24"x30" | XI | | 10-0 | | 4" Dia. POLE | | 11-4 | | 5-0 | 3-0 | 5.0 (XI) 5.0 (XI) | | | 12 | | | | | | 1 | | | | FY | Behind Concrete Barracade |
| 75.514 Lt. | W1-8 (2) | 24"x30" | XI | | 10-0 | | 4" Dia. POLE | | 12-4 | | 5-0 | 3-0 | 5.0 (XI) 5.0 (XI) | | | 14 | | | | | | 1 | | | | FY | |
| 75.490 Lt. | W1-8 (2) | 24"x30" | XI | | 10-0 | | 4" Dia. POLE | | 12-4 | | 5-0 | 3-0 | 5.0 (XI) 5.0 (XI) | | | 14 | | | | | | 1 | | | | FY | |
| 75.405 Lt. | W1-4L | 36"x36" | XI | | | | R.S.F.O. | | | | | | 9.0 (XI) | | | | | | | | | 1 | | | | FY | RSFO |
| \| | W13-1 (45) | 24"x24" | XI | | | | R.S.F.O. | | | | | | 4.0 (XI) | | | | | | | | | | | | | FY | RSFO |
| 75.379 Lt. \| | W8-11a | 30"x30" | XI | XI | 10-0 | | 4" Dia. POLE | | 13-11 | | 5-7 | 3-0 | 6.3 (XI) | | | 14 | | | | | | 1 | | | | | |
| \| | W8-11 | 18"x18" | XI | | | | | | | | | | 2.3 (XI) | | | | | | | | | | | | | | |
| 75.000 Lt. | (75) D10-2 (2) | 10"x27" | XI | XI | 4-0 | | 2 lb/ft STL-U | | 9-11 | | 4-0 | 3-0 | 1.9 (XI) 1.9 (XI) | | | | | | | | 20 | 1 | | | | | |
| 75.000 Rt. \| | N7-1 | 36"x48" | XI | XI | 10-0 | | 5" Dia. POLE | | 16-2 | | 6-1 | 3-6 | 12.0 (XI) | | | | 18 | | | | X | 1 | | | | | |
| \| | N7-1p | 36"x12" | XI | XI | | | | | | | | | 3.0 (XI) | | | | | | | | | | | | | | SHEVLIN FAMILY |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 74.960 Rt. | W8-11a W8-11 | 30"x30" 24"x18" | XI XI | | 2-0 | | 5" Dia. POLE | | 14-6 | | 5-0 | 3-0 | 6.3 (XI) 3.0 (XI) | | | | 16 | | | | X | 1 | | | | | Behind Guardrail |
| 74.391 Rt. \| | W1-2R | 30"x30" | XI | | 2-0 | | 4" Dia. POLE | | 13-7 | | 5-7 | 3-0 | 6.3 (XI) | | | 14 | | | | | | 1 | | | | FY | Behind Guardrail |
| \| | W13-1 (50) | 18"x18" | XI | | | | | | | | | | 2.3 (XI) | | | | | | | | | | | | | FY | |
| 74.342 Rt. | S3-1a | 30"x30" | XI | XI | 10-0 | | 4" Dia. POLE | | 13-4 | | 5-0 | 3-0 | 6.3 (XI) | | | 14 | | | | | | 1 | | | | FYG | Behind Guardrail |
| 74.341 Lt. | W8-11a W8-11 | 30"x30" 24"x18" | XI XI | | 10-0 | | 5" Dia. POLE | | 15-5 | | 5-0 | 3-0 | 6.3 (XI) 3.0 (XI) | | | | 16 | | | | X | 1 | | | | | |
| 74.235 Lt. \| | W1-2L | 30"x30" | XI | | 10-0 | | 4" Dia. POLE | | 13-11 | | 5-7 | 3-0 | 6.3 (XI) | | | 14 | | | | | | 1 | | | | FY | |
| \| | W13-1 (50) | 18"x18" | XI | | | | | | | | | | 2.3 (XI) | | | | | | | | | | | | | FY | |

**SIGNING LOCATIONS ARE APPROXIMATE.**

**FIELD PROJECT MANAGER TO FIELD ADJUST AS NECESSARY**

NOTE: Where adopt-a-highway sign(s) exist on a project, Contractor will confirm that the group name on the sign(s) currently existing at the time of construction corresponds to the group name on the sign(s) shown in plans. If name is different, Field Project Manager will contact Traffic & Safety Bureau Signing Section with correct name and a new sign design will be provided.

MOUNTING HEIGHT REQUIREMENTS: MOUNTING HEIGHTS SHOWN REFER TO THE BOTTOM OF THE MAJOR PANEL. SEE DETAILED DRAWINGS 619-00 & 619-08.

X = STANDARD BREAKAWAY DEVICE:
- FOR WOOD POST SEE DETAILED DRAWING 619-20.
- FOR STRUCTURAL STEEL SEE DETAILED DRAWING 619-13.

TYPE XI

FYG = FLUORESCENT YELLOW-GREEN SHEETING REQUIRED.

FY = TYPE XI FLUORESCENT YELLOW SHEETING REQUIRED.

RSFO = REPLACE SIGN FACE ONLY

ALL SIGNING NOT LISTED IS TO BE "USE AS IS"

| | | | | | | |
|---|---|---|---|---|---|---|
| 3 | MONTANA Department of Transportation | C:\DGN\9869000sisum001.dgn | Roger Schroeder | 05/2022 | SIGNING PLANS | Swan Lake / STPP 83-2(25)71 |
| 2 | | 1/18/2023 | Nathan Styren | 07/2022 | LAKE COUNTY | UPN 9869000 / S2 |
| 1 | | 9:08:13 AM CPS - U4044 | " | " | | |

AWARD COPY

# SIGN LOCATION AND SPECIFICATIONS

| REF. POST | | SIGN NO. | PANEL SIZE | REFL SHTG TYPE BACK-GROUND | REFL SHTG TYPE LEGEND | FEET CLEARANCE | FEET SIGN SUPPORT SPACING | TYPE OF SUPPORT | FEET CANTILEVER | FEET SUPPORT LENGTH (ESTIMATED) | FEET SUPPORT LENGTH (INSTALLED) | FEET MOUNTING HEIGHT | FEET FOUNDATION DEPTH | SIGN PANEL (SQ. FT.) SHEET ALUMINUM | ALUMINUM SHEET INCREMENT | ALUMINUM SHEET OVERLAY | TIMBER POLE (LINEAR FT.) 4" TOP DIA. | 5" TOP DIA. | STEEL POST(LBS.) ROUND TUBULAR | SQUARE TUBULAR | STRUCTURAL STEEL | "U" POST | BREAKAWAY | SIGNS/GUIDE REMOVE | SIGNS/GUIDE RESET | REMOVE | RESET | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 74.193 Rt. | | M3-3 | 21"x15" | XI | | 10-0 | | 4" Dia. POLE | 13-2 | | | 5-0 | 3-0 | 2.2 (XI) | | | 14 | | | | | | 1 | | | | | SOUTH MONTANA 83 |
| | | M1-5 | 24"x24" | XI | | | | | | | | | | 4.0 (XI) | | | | | | | | | | | | | | |
| 74.020 Rt. | | W1-5L | 30"x30" | XI | | 5-0 | | 4" Dia. POLE | 12-5 | | | 5-7 | 3-0 | 6.3 (XI) | | | 14 | | | | | | 1 | | | | FY | |
| | | W13-1 (50) | 18"x18" | XI | | | | | | | | | | 2.3 (XI) | | | | | | | | | | | | | FY | 50 MPH |
| 74.018 Lt. | | S3-1 | 30"x30" | XI | | 10-0 | | 4" Dia. POLE | 13-5 | | | 5-0 | 3-0 | 6.3 (XI) | | | 14 | | | | | | 1 | | | | | Hinged Sign — ADVISORY BIKE ROUTE AHEAD |
| 74.000 Lt. | | (74) D10-2 (2) | 10"x27" | XI | XI | 4-0 | | 2 lb/ft STL-U | 9-11 | | | 4-0 | 3-0 | 1.9 (XI) 1.9 (XI) | | | | | | | | 20 | 1 | | | | | NEXT 47 MILES 14 |
| 73.872 Rt. | | D3 (2) | 42"x10" | XI | XI | 6-0 | | 4" Dia. POLE | 10-7 | | | 5-0 | 3-0 | 2.9 (XI) 2.9 (XI) | | | 12 | | | | | | 1 | | | | | CRYSTAL BAY LN |
| 73.654 Rt. | | W8-11a | 30"x30" | XI | XI | 2-0 | | 4" Dia. POLE | 13-1 | | | 5-7 | 3-0 | 6.3 (XI) | | | 14 | | | | | | 1 | | | | | Behind Guardrail |
| | | W8-11 | 18"x12" | XI | | | | | | | | | | 1.5 (XI) | | | | | | | | | | | | | | FALLEN ROCK |
| 73.360 Lt. | | W1-5R | 30"x30" | XI | | 10-0 | | 4" Dia. POLE | 13-11 | | | 5-7 | 3-0 | 6.3 (XI) | | | 14 | | | | | | 1 | | | | FY | |
| | | W13-1 (50) | 18"x18" | XI | | | | | | | | | | 2.3 (XI) | | | | | | | | | | | | | FY | 50 MPH |
| 73.253 Rt. | | W14-3 | 48"x48"x36" | XI | | 2-0 | | 4" Dia. POLE | 11-11 | | | 5-0 | 3-0 | 5.5 (XI) | | | 12 | | | | | | 1 | | | | FY | NO PASSING ZONE — Behind Guardrail |
| 73.105 Lt. | | W14-3 | 48"x48"x36" | XI | | 10-0 | | 4" Dia. POLE | 12-4 | | | 5-0 | 3-0 | 5.5 (XI) | | | 14 | | | | | | 1 | | | | FY | NO PASSING ZONE |
| 73.000 Rt. | | (73) D10-2 (2) | 10"x27" | XI | XI | 2-0 | | 2 lb/ft STL-U | 9-5 | | | 4-0 | 3-0 | 1.9 (XI) 1.9 (XI) | | | | | | | | 19 | 1 | | | | | NEXT 37 MILES 13 — Behind Guardrail |
| 72.999 Rt. | | W1-2L | 30"x30" | XI | | 2-0 | | 4" Dia. POLE | 12-11 | | | 5-0 | 3-0 | 6.3 (XI) | | | 14 | | | | | | 1 | | | | FY | Behind Guardrail |
| 72.879 Lt. | | G11-72 | 9'-0"x3'-0" | XI | XI | 15-0 | 5-4 | 5" Dia. POLE | x=12-1 y=10-8 | | | 5-0 | 3-6 | | 27.0 (XI) | | | 14 12 | | | | | X | | 1 | | | BIGFORK 15 KALISPELL 33 |
| 72.859 Lt. | | W1-2R | 30"x30" | XI | | 10-0 | | 4" Dia. POLE | 13-5 | | | 5-0 | 3-0 | 6.3 (XI) | | | 14 | | | | | | 1 | | | | FY | |
| 72.624 Rt. | | W3-5 (45) | 30"x30" | XI | XI | 2-0 | | 4" Dia. POLE | 12-11 | | | 5-0 | 3-0 | 6.3 (XI) | | | 14 | | | | | | 1 | | | | | Behind Guardrail |
| 72.545 Rt. | | W1-2L | 30"x30" | XI | | 2-0 | | 4" Dia. POLE | 12-11 | | | 5-0 | 3-0 | 6.3 (XI) | | | 14 | | | | | | 1 | | | | FY | Behind Guardrail |
| 72.526 Rt. | | R2-1 (45) | 24"x30" | XI | | 2-0 | | 4" Dia. POLE | 11-11 | | | 5-0 | 3-0 | 5.0 (XI) | | | 12 | | | | | | 1 | | | | | SPEED LIMIT 45 — Behind Guardrail |
| 72.544 Lt. | | R2-1 (60) | 24"x30" | XI | | 10-0 | | 4" Dia. POLE | 12-4 | | | 5-0 | 3-0 | 5.0 (XI) | | | 14 | | | | | | 1 | | | | | SPEED LIMIT 60 |
| 72.491 Rt. | | W1-8 (2) | 24"x30" | XI | | 2-0 | | 4" Dia. POLE | 11-11 | | | 5-0 | 3-0 | 5.0 (XI) 5.0 (XI) | | | 12 | | | | | | 1 | | | | FY | |
| 72.471 Rt. | | W1-8 (2) | 24"x30" | XI | | 2-0 | | 4" Dia. POLE | 11-11 | | | 5-0 | 3-0 | 5.0 (XI) 5.0 (XI) | | | 12 | | | | | | 1 | | | | FY | Behind Guardrail |
| 72.466 Rt. | | S3-1a | 30"x30" | XI | XI | 2-0 | | 4" Dia. POLE | 12-11 | | | 7-0 | 3-0 | 6.3 (XI) | | | 14 | | | | | | 1 | | | | FYG | Behind Guardrail |
| 72.451 Rt. | | W1-6L | 48"x24" | XI | | 2-0 | | 4" Dia. POLE | 11-10 | | | 5-0 | 3-0 | 8.0 (XI) | | | 12 | | | | | | 1 | | | | FY | *Field Adjust — Behind Guardrail |
| 72.440 Rt. | | W1-6R | 48"x24" | XI | | 2-0 | | 4" Dia. POLE | 11-10 | | | 5-0 | 3-0 | 8.0 (XI) | | | 12 | | | | | | 1 | | | | FY | *Field Adjust — Behind Guardrail |
| 72.421 Rt. | | W1-6L | 48"x24" | XI | | 2-0 | | 4" Dia. POLE | 11-10 | | | 5-0 | 3-0 | 8.0 (XI) | | | 12 | | | | | | 1 | | | | FY | *Field Adjust — Behind Guardrail |
| 72.418 Rt. | | W1-6R | 48"x24" | XI | | 2-0 | | 4" Dia. POLE | 11-10 | | | 5-0 | 3-0 | 8.0 (XI) | | | 12 | | | | | | 1 | | | | FY | *Field Adjust — Behind Guardrail |
| 72.407 Rt. | | R5-5 | REMOVE | | | | | | | | | | | | | | | | | | | | 1 | | | | | COMPRESSION BRAKE MUFFLERS REQUIRED — Behind Guardrail |
| 72.407 Rt. | | W11-15a | 30"x30" | XI | | 2-0 | | 4" Dia. POLE | 12-11 | | | 5-0 | 3-0 | 6.3 (XI) | | | 14 | | | | | | | | | | | NEW — TRUCK ENTERS — Behind Guardrail |
| 72.392 Rt. | | W1-8 (2) | 24"x30" | XI | | 2-0 | | 4" Dia. POLE | 11-11 | | | 5-0 | 3-0 | 5.0 (XI) 5.0 (XI) | | | 12 | | | | | | 1 | | | | FY | Behind Guardrail |
| 72.365 Rt. | | W1-8 (2) | 24"x30" | XI | | 2-0 | | 4" Dia. POLE | 11-11 | | | 5-0 | 3-0 | 5.0 (XI) 5.0 (XI) | | | 12 | | | | | | 1 | | | | FY | Behind Guardrail |
| 72.338 Rt. | | W1-8 (2) | 24"x30" | XI | | 2-0 | | 4" Dia. POLE | 11-11 | | | 5-0 | 3-0 | 5.0 (XI) 5.0 (XI) | | | 12 | | | | | | 1 | | | | FY | |

**SIGNING LOCATIONS ARE APPROXIMATE.**

**FIELD PROJECT MANAGER TO FIELD ADJUST AS NECESSARY**

MOUNTING HEIGHT REQUIREMENTS: MOUNTING HEIGHTS SHOWN REFER TO THE BOTTOM OF THE MAJOR PANEL. SEE DETAILED DRAWINGS 619-00 & 619-08.

X = STANDARD BREAKAWAY DEVICE:
- FOR WOOD POST SEE DETAILED DRAWING 619-20.
- FOR STRUCTURAL STEEL SEE DETAILED DRAWING 619-13.

TYPE XI

FYG = FLUORESCENT YELLOW-GREEN SHEETING REQUIRED.

FY = TYPE XI FLUORESCENT YELLOW SHEETING REQUIRED.

ALL SIGNING NOT LISTED IS TO BE "USE AS IS"

AWARD COPY

# SIGN LOCATION AND SPECIFICATIONS

| REF. POST | SIGN NO. | PANEL SIZE | REFL SHTG TYPE: BACK-GROUND | REFL SHTG TYPE: LEGEND | FEET: CLEARANCE | FEET: SIGN SUPPORT SPACING | TYPE OF SUPPORT | FEET: CANTILEVER | FEET: SUPPORT LENGTH (ESTIMATED) | FEET: SUPPORT LENGTH (INSTALLED) | FEET: MOUNTING HEIGHT | FEET: FOUNDATION DEPTH | SIGN PANEL (SQ. FT.): SHEET ALUMINUM | SIGN PANEL (SQ. FT.): ALUMINUM SHEET INCREMENT | SIGN PANEL (SQ. FT.): ALUMINUM SHEET OVERLAY | TIMBER POLE (LINEAR FT.): 4" TOP DIA. | TIMBER POLE (LINEAR FT.): 5" TOP DIA. | STEEL POST(LBS.): ROUND TUBULAR | STEEL POST(LBS.): SQUARE TUBULAR | STEEL POST(LBS.): STRUCTURAL STEEL | STEEL POST(LBS.): "U" POST | BREAKAWAY | SIGNS/GUIDE: REMOVE | SIGNS/GUIDE: RESET | SIGNS/GUIDE: REMOVE | SIGNS/GUIDE: RESET | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 72.323 Rt. | By City | | | USE AS IS | | | | | | | | | | | | | | | | | | | | | | | | Welcome to SWAN LAKE MONTANA |
| 72.313 Rt. | N6-1a | 7'-0"x2'-0" | XI | XI | | R.S.F.O. | | | | | | | 14.0 (XI) | | | | | | | | | | | | 1 | | | ENTERING SWAN LAKE |
| 72.310 Rt. | W1-8 (2) | 24"x30" | XI | | 10-0 | | 4" Dia. POLE | 12-4 | | | 5-0 | 3-0 | 5.0 (XI) 5.0 (XI) | | | 14 | | | | | | 1 | | | FY | |
| 72.294 Rt. | NFRS | RESET | | | 10-0 | | | | | | | | | | | | | | | | | | | 1 | | | | |
| 72.293 Rt. | W1-8 (2) | 24"x30" | XI | | 10-0 | | 4" Dia. POLE | 12-4 | | | 5-0 | 3-0 | 5.0 (XI) 5.0 (XI) | | | 14 | | | | | | 1 | | | FY | |
| 72.283 Lt. | W8-11a | 30"x30" | XI | XI | 10-0 | | 4" Dia. POLE | 13-11 | | | 5-7 | 3-0 | 6.3 (XI) | | | 14 | | | | | | 1 | | | | |
| | W8-11 | 18"x18" | XI | | | | | | | | | | 2.3 (XI) | | | | | | | | | | | | | | FALLEN ROCK |
| 72.280 Lt. | W1-2R | 30"x30" | XI | | 10-0 | | 4" Dia. POLE | 13-5 | | | 5-0 | 3-0 | 6.3 (XI) | | | 14 | | | | | | 1 | | | FY | |
| 72.198 Lt. | W1-2R | 30"x30" | XI | | 10-0 | | 4" Dia. POLE | 13-5 | | | 5-0 | 3-0 | 6.3 (XI) | | | 14 | | | | | | 1 | | | FY | |
| 72.194 Rt. | W1-2R | 30"x30" | XI | | 10-0 | | 4" Dia. POLE | 13-5 | | | 5-0 | 3-0 | 6.3 (XI) | | | 14 | | | | | | 1 | | | FY | |
| 72.170 Lt. | R1-1 | 30"x30" | XI | XI | 6-0 | | 4" Dia. POLE | 11-8 | | | 5-0 | 3-0 | 5.2 (XI) | | | 12 | | | | | | 1 | | | | STOP |
| 72.096 Rt. | R2-1 (45) | 24"x30" | XI | | | | R.S.F.O. | | | | | | 5.0 (XI) | | | | | | | | | 1 | | | | SPEED LIMIT 45 YOUR SPEED |
| | R15-3 | 36"x10" | XI | | | | R.S.F.O. | | | | | | 2.5 (XI) | | | | | | | | | | | | | |
| 72.169 Lt. | W1-8 (2) | 24"x30" | XI | | 10-0 | | 4" Dia. POLE | 12-4 | | | 5-0 | 3-0 | 5.0 (XI) 5.0 (XI) | | | 14 | | | | | | 1 | | | FY | |
| 72.148 Lt. | W1-8 (2) | 24"x30" | XI | | 10-0 | | 4" Dia. POLE | 12-4 | | | 5-0 | 3-0 | 5.0 (XI) 5.0 (XI) | | | 14 | | | | | | 1 | | | FY | |
| 72.118 Lt. | W1-8 (2) | 24"x30" | XI | | 10-0 | | 4" Dia. POLE | 12-4 | | | 5-0 | 3-0 | 5.0 (XI) 5.0 (XI) | | | 14 | | | | | | 1 | | | FY | |
| 72.114 Rt. | NFRS | RESET | | | 10-0 | | | | | | | | | | | | | | | | | | | 1 | | | | |
| 72.114 Lt. | W1-8 (2) | 24"x30" | XI | | 10-0 | | 4" Dia. POLE | 12-4 | | | 5-0 | 3-0 | 5.0 (XI) 5.0 (XI) | | | 14 | | | | | | 1 | | | FY | |
| 72.087 Rt. | N7-1 | 36"x48" | XI | XI | 10-0 | | 5" Dia. POLE | 16-6 | | | 7-0 | 3-6 | 12.0 (XI) | | | | 18 | | | | X | 1 | | | | Adopt A Highway Litter Control Next 2 Miles |
| | N7-1p | 36"x12" | XI | XI | | | | | | | | | 3.0 (XI) | | | | | | | | | | | | | SWAN CHAMBER COMMUNITY CLUB |
| 72.085 Lt. | NFRS | RESET | | | 10-0 | | | | | | | | | | | | | | | | | | | 1 | | | | |
| 72.057 Lt. | W1-8 (2) | 24"x30" | XI | | 10-0 | | 4" Dia. POLE | 12-4 | | | 5-0 | 3-0 | 5.0 (XI) 5.0 (XI) | | | 14 | | | | | | 1 | | | FY | |
| 72.026 Lt. | W1-8 (2) | 24"x30" | XI | | 10-0 | | 4" Dia. POLE | 12-4 | | | 5-0 | 3-0 | 5.0 (XI) 5.0 (XI) | | | 14 | | | | | | 1 | | | FY | |
| 72.010 Rt. | W11-2 | 30"x30" | XI | | 10-0 | | 4" Dia. POLE | 13-5 | | | 5-1 | 3-6 | 6.3 (XI) | | | 14 | | | | | | 1 | | | FY | |
| | W16-2 | 24"x12" | XI | | | | | | | | | | 2.0 (XI) | | | | | | | | | | | | | FY | 800 FT |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 72.000 Lt. | (72) D10-2 (2) | 10"x27" | XI | XI | 4-0 | | 2 lb/ft STL-U | 9-11 | | | 4-0 | 3-0 | 1.9 (XI) 1.9 (XI) | | | | | | | | 20 | 1 | | | | | NEXT 2 EXITS |
| 72.000 Lt. | N7-1 | 36"x48" | XI | XI | 10-0 | | 5" Dia. POLE | 16-6 | | | 7-0 | 3-6 | 12.0 (XI) | | | | 18 | | | | X | 1 | | | | Adopt A Highway Litter Control Next 2 Miles |
| | N7-1p | 36"x12" | XI | XI | | | | | | | | | 3.0 (XI) | | | | | | | | | | | | | SHEVLIN FAMILY SCLS 1981 |
| 71.995 Lt. | W1-8 (2) | 24"x30" | XI | | 10-0 | | 4" Dia. POLE | 12-4 | | | 5-0 | 3-0 | 5.0 (XI) 5.0 (XI) | | | 14 | | | | | | 1 | | | FY | |
| 71.965 Lt. | W1-8 (2) | 24"x30" | XI | | 10-0 | | 4" Dia. POLE | 12-4 | | | 5-0 | 3-0 | 5.0 (XI) 5.0 (XI) | | | 14 | | | | | | 1 | | | FY | |
| 71.934 Lt. | S3-1 | 30"x30" | XI | XI | 10-0 | | 4" Dia. POLE | 13-4 | | | 5-0 | 3-0 | 6.3 (XI) | | | 14 | | | | | | 1 | | | FYG | |
| 71.934 Lt. | W1-8 (2) | 24"x30" | XI | | 10-0 | | 4" Dia. POLE | 12-4 | | | 5-0 | 3-0 | 5.0 (XI) 5.0 (XI) | | | 14 | | | | | | 1 | | | FY | |

**SIGNING LOCATIONS ARE APPROXIMATE.**

**FIELD PROJECT MANAGER TO FIELD ADJUST AS NECESSARY**

NOTE: Where adopt-a-highway sign(s) exist on a project, Contractor will confirm that the group name on the sign(s) currently existing at the time of construction corresponds to the group name on the sign(s) shown in plans. If name is different, Field Project Manager will contact Traffic & Safety Bureau Signing Section with correct name and a new sign design will be provided.

MOUNTING HEIGHT REQUIREMENTS: MOUNTING HEIGHTS SHOWN REFER TO THE BOTTOM OF THE MAJOR PANEL. SEE DETAILED DRAWINGS 619-00 & 619-08.

X = STANDARD BREAKAWAY DEVICE:
- FOR WOOD POST SEE DETAILED DRAWING 619-20.
- FOR STRUCTURAL STEEL SEE DETAILED DRAWING 619-13.

TYPE XI

FYG = FLUORESCENT YELLOW-GREEN SHEETING REQUIRED.

FY = TYPE XI FLUORESCENT YELLOW SHEETING REQUIRED.

RSFO = REPLACE SIGN FACE ONLY

ALL SIGNING NOT LISTED IS TO BE "USE AS IS"

| | | | | | | |
|---|---|---|---|---|---|---|
| 3 | MONTANA Department of Transportation | C:\DGN\9869000sisum002.dgn | Roger Schroeder | 05/2022 | SIGNING PLANS | Swan Lake / STPP 83-2(25)71 |
| 2 | | 1/18/2023 | Nathan Styren | 07/2022 | | UPN 9869000 / S4 |
| 1 | | 9:08:30 AM CPS - U4044 | " | " | LAKE COUNTY | |

AWARD COPY

# SIGN LOCATION AND SPECIFICATIONS

| REF. POST | | SIGN NO. | PANEL SIZE | REFL SHTG TYPE: BACK-GROUND | REFL SHTG TYPE: LEGEND | FEET: CLEARANCE | FEET: SIGN SUPPORT SPACING | TYPE OF SUPPORT | FEET: CANTILEVER | FEET: SUPPORT LENGTH (ESTIMATED) | FEET: SUPPORT LENGTH (INSTALLED) | FEET: MOUNTING HEIGHT | FEET: FOUNDATION DEPTH | SIGN PANEL (SQ. FT.): SHEET ALUMINUM | SIGN PANEL (SQ. FT.): ALUMINUM SHEET INCREMENT | SIGN PANEL (SQ. FT.): ALUMINUM SHEET OVERLAY | TIMBER POLE (LINEAR FT.): 4" TOP DIA. | TIMBER POLE (LINEAR FT.): 5" TOP DIA. | STEEL POST(LBS.): ROUND TUBULAR | STEEL POST(LBS.): SQUARE TUBULAR | STEEL POST(LBS.): STRUCTURAL STEEL | STEEL POST(LBS.): "U" POST | BREAKAWAY | SIGNS: REMOVE | SIGNS: RESET | GUIDE: REMOVE | GUIDE: RESET | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 71.929 Lt. | | W1-2L | 30"x30" | XI | | 10-0 | | 4" Dia. POLE | | 13-5 | | 5-0 | 3-0 | 6.3 (XI) | | | 14 | | | | | | | 1 | | | | FY | |
| 71.867 Rt. | | W11-2 | 30"x30" | XI | | 10-0 | | 4" Dia. POLE | | 13-5 | | 5-1 | 3-6 | 6.3 (XI) | | | 14 | | | | | | | 1 | | | | FY | |
| | | W16-7pL | 24"x12" | XI | | | | | | | | | | 2.0 (XI) | | | | | | | | | | | | | FY | |
| 71.864 Lt. | | R1-1 | 30"x30" | XI | XI | 6-0 | | 4" Dia. POLE | | 11-8 | | 5-0 | 3-0 | 5.2 (XI) | | | 12 | | | | | | | 1 | | | | | |
| 71.863 Rt. | | R1-1 | 30"x30" | XI | XI | 6-0 | | 4" Dia. POLE | | 11-8 | | 5-0 | 3-0 | 5.2 (XI) | | | 12 | | | | | | | 1 | | | | | |
| 71.844 Lt. | | W11-2 | 30"x30" | XI | | 10-0 | | 4" Dia. POLE | | 13-5 | | 5-1 | 3-6 | 6.3 (XI) | | | 14 | | | | | | | 1 | | | | FY | |
| | | W16-7pL | 24"x12" | XI | | | | | | | | | | 2.0 (XI) | | | | | | | | | | | | | FY | |
| 71.840 Lt. | | NFRS | RESET | | | 10-0 | | | | | | | | | | | | | | | | | | | 1 | | | | |
| 71.700 Rt. | | R2-1 (45) | 24"x30" | XI | | 10-0 | | 4" Dia. POLE | | 12-4 | | 5-0 | 3-0 | 5.0 (XI) | | | 14 | | | | | | | 1 | | | | | |
| 71.700 Lt. | | R2-1 (35) | 24"x30" | XI | | 10-0 | | 4" Dia. POLE | | 12-4 | | 5-0 | 3-0 | 5.0 (XI) | | | 14 | | | | | | | 1 | | | | | |
| 71.694 Lt. | | OM-3L | 12"x36" | XI | | 2-0 | | 2 lb/ft STL-U | | 10-5 | | 4-0 | 3-0 | 3.0 (XI) | | | | | | | | 20 | | 1 | | | | | |
| 71.688 Rt. | | OM-3R | 12"x36" | XI | | 2-0 | | 2 lb/ft STL-U | | 10-5 | | 4-0 | 3-0 | 3.0 (XI) | | | | | | | | 20 | | 1 | | | | | |
| 71.674 Lt. | | W11-2 | 30"x30" | XI | | 2-0 | | 4" Dia. POLE | | 12-11 | | 5-1 | 3-6 | 6.3 (XI) | | | 14 | | | | | | | 1 | | | | FY | Behind Guardrail |
| | | W16-2 | 24"x12" | XI | | | | | | | | | | 2.0 (XI) | | | | | | | | | | | | | FY | |
| 71.665 Lt. | | OM-3R | 12"x36" | XI | | 2-0 | | 2 lb/ft STL-U | | 10-5 | | 4-0 | 3-0 | 3.0 (XI) | | | | | | | | 20 | | 1 | | | | | |
| 71.659 Rt. | | OM-3L | 12"x36" | XI | | 2-0 | | 2 lb/ft STL-U | | 10-5 | | 4-0 | 3-0 | 3.0 (XI) | | | | | | | | 20 | | 1 | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 71.579 Lt. | | NFRS | RESET | | | 10-0 | | | | | | | | | | | | | | | | | | | 1 | | | | |
| 71.560 Lt. | | R8-1b | 24"x30" | XI | | 10-0 | | 4" Dia. POLE | | 12-4 | | 5-0 | 3-0 | 5.0 (XI) | | | 14 | | | | | | | 1 | | | | | NO DRIVING ON WALKWAY |
| 71.510 Lt. | | R2-1 (35) | 24"x30" | XI | | 10-0 | | 4" Dia. POLE | | 12-4 | | 5-0 | 3-0 | 5.0 (XI) | | | 14 | | | | | | | 1 | | | | | |
| 71.470 Lt. | | OM-3L | 12"x36" | XI | | 2-0 | | 2 lb/ft STL-U | | 10-5 | | 4-0 | 3-0 | 3.0 (XI) | | | | | | | | 20 | | 1 | | | | | |
| 71.450 Rt. | | OM-3R | 12"x36" | XI | | 2-0 | | 2 lb/ft STL-U | | 10-5 | | 4-0 | 3-0 | 3.0 (XI) | | | | | | | | 20 | | 1 | | | | | |
| 71.440 Lt. | | OM-3R | 12"x36" | XI | | 2-0 | | 2 lb/ft STL-U | | 10-5 | | 4-0 | 3-0 | 3.0 (XI) | | | | | | | | 20 | | 1 | | | | | |
| 71.431 Rt. | | OM-3L | 12"x36" | XI | | 2-0 | | 2 lb/ft STL-U | | 10-5 | | 4-0 | 3-0 | 3.0 (XI) | | | | | | | | 20 | | 1 | | | | | |
| 71.327 Rt. | | R2-1 (35) | 24"x30" | XI | | 10-0 | | 4" Dia. POLE | | 12-4 | | 5-0 | 3-0 | 5.0 (XI) | | | 14 | | | | | | | 1 | | | | | |
| 71.190 Lt. | | R2-1 (35) | 24"x30" | XI | | 10-0 | | 4" Dia. POLE | | 12-4 | | 5-0 | 3-0 | 5.0 (XI) | | | 14 | | | | | | | 1 | | | | | |
| 71.188 Rt. | | R2-1 (45) | 24"x30" | XI | | 10-0 | | 4" Dia. POLE | | 12-4 | | 5-0 | 3-0 | 5.0 (XI) | | | 14 | | | | | | | 1 | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 71.001 Lt. | | R8-1b | 24"x30" | XI | | 10-0 | | 4" Dia. POLE | | 12-4 | | 5-0 | 3-0 | 5.0 (XI) | | | 14 | | | | | | | 1 | | | | | NO DRIVING ON WALKWAY |
| 71.000 Lt. | | (71) D10-2 (2) | 10"x27" | XI | XI | 4-0 | | 2 lb/ft STL-U | | 9-11 | | 4-0 | 3-0 | 1.9 (XI) 1.9 (XI) | | | | | | | | 20 | | 1 | | | | | |
| 70.950 Rt. | | W11-8 | 30"x30" | XI | | 10-0 | | 4" Dia. POLE | | 13-11 | | 5-1 | 3-6 | 6.3 (XI) | | | 14 | | | | | | | 1 | | | | | |
| | | W11-8p | 24"x18" | XI | | | | | | | | | | 3.0 (XI) | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 70.870 Lt. | | D3 (2) | By Others | — USE AS IS — | | | | | | | | | | | | | | | | | | | | | | | | |
| 70.867 Rt. | | D3 (2) | By Others | — USE AS IS — | | | | | | | | | | | | | | | | | | | | | | | | |

**SIGNING LOCATIONS ARE APPROXIMATE.**

**FIELD PROJECT MANAGER TO FIELD ADJUST AS NECESSARY**

MOUNTING HEIGHT REQUIREMENTS: MOUNTING HEIGHTS SHOWN REFER TO THE BOTTOM OF THE MAJOR PANEL. SEE DETAILED DRAWINGS 619-00 & 619-08.

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- FOR WOOD POST SEE DETAILED DRAWING 619-20.
- FOR STRUCTURAL STEEL SEE DETAILED DRAWING 619-13.

FY = TYPE XI FLUORESCENT YELLOW SHEETING REQUIRED.

ALL SIGNING NOT LISTED IS TO BE "USE AS IS"

| | | | | | | |
|---|---|---|---|---|---|---|
| 3 | MONTANA Department of Transportation | C:\DGN\9869000sisum002.dgn | Roger Schroeder | 05/2022 | SIGNING PLANS | Swan Lake / STPP 83-2(25)71 |
| 2 | | 1/18/2023 | Nathan Styren | 07/2022 | | UPN 9869000 / S5 |
| 1 | | 9:08:34 AM CPS - U4044 | " | " | LAKE COUNTY | |

AWARD COPY

# SIGN LOCATION AND SPECIFICATIONS

| REF. POST | | SIGN NO. | PANEL SIZE | REFL SHTG TYPE: BACK-GROUND | REFL SHTG TYPE: LEGEND | FEET: CLEARANCE | FEET: SIGN SUPPORT SPACING | TYPE OF SUPPORT | FEET: CANTILEVER | FEET: SUPPORT LENGTH (ESTIMATED) | FEET: SUPPORT LENGTH (INSTALLED) | FEET: MOUNTING HEIGHT | FEET: FOUNDATION DEPTH | SIGN PANEL (SQ. FT.): SHEET ALUMINUM | SIGN PANEL (SQ. FT.): ALUMINUM SHEET INCREMENT | SIGN PANEL (SQ. FT.): ALUMINUM SHEET OVERLAY | TIMBER POLE (LINEAR FT.): 4" TOP DIA. | TIMBER POLE (LINEAR FT.): 5" TOP DIA. | STEEL POST(LBS.): ROUND TUBULAR | STEEL POST(LBS.): SQUARE TUBULAR | STEEL POST(LBS.): STRUCTURAL STEEL | STEEL POST(LBS.): "U" POST | BREAKAWAY | SIGNS/GUIDE REMOVE | SIGNS/GUIDE RESET | REMOVE | RESET | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 70.785 Lt. | | W11-8 | 30"x30" | XI | | 10-0 | | 4" Dia. POLE | 13-11 | | | 5-1 | 3-0 | 6.3 (XI) | | | 14 | | | | | | | 1 | | | | | |
| | | W11-8p | 24"x18" | XI | | | | | | | | | | 3.0 (XI) | | | | | | | | | | | | | | | |
| 70.825 Rt. | | OM-3R | 12"x36" | XI | | 2-0 | | 2 lb/ft STL-U | 10-5 | | | 4-0 | 3-0 | 3.0 (XI) | | | | | | | | 20 | | 1 | | | | | |
| 70.824 Lt. | | OM-3L | 12"x36" | XI | | 2-0 | | 2 lb/ft STL-U | 10-5 | | | 4-0 | 3-0 | 3.0 (XI) | | | | | | | | 20 | | 1 | | | | | |
| 70.807 Rt. | | OM-3L | 12"x36" | XI | | 2-0 | | 2 lb/ft STL-U | 10-5 | | | 4-0 | 3-0 | 3.0 (XI) | | | | | | | | 20 | | 1 | | | | | |
| 70.806 Lt. | | OM-3R | 12"x36" | XI | | 2-0 | | 2 lb/ft STL-U | 10-5 | | | 4-0 | 3-0 | 3.0 (XI) | | | | | | | | 20 | | 1 | | | | | |
| 70.665 Lt. | | W11-2 | 30"x30" | XI | | 10-0 | | 5" Dia. POLE | 16-0 | | | 5-7 | 3-6 | 6.3 (XI) | | | | 16 | | | | | X | 1 | | | | FY | |
| | | W11-2a | REMOVE | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | (1 MILE) W7-3a | 24"x18" | XI | | | | | | | | | | 3.0 (XI) | | | | | | | | | | | | | | FY | |
| 70.590 Lt. | | R8-1b | 24"x30" | XI | | 10-0 | | 4" Dia. POLE | 12-4 | | | 5-0 | 3-0 | 5.0 (XI) | | | 14 | | | | | | | 1 | | | | | NO DRIVING ON WALKWAY |
| 70.475 Lt. | | N6-1a | 7'-0"x2'-6" | XI | XI | 15-0 | 4-2 | 4" Dia. POLE | x=15-9 y=16-8 | | | 7-0 | 3-0 | | 17.5 (XI) | | 16 18 | | | | | | | | 1 | | | | ENTERING SWAN LAKE |
| 70.470 Rt. | | G11-70 | 10'-6"x3'-0" | XI | XI | 15-0 | 6.3 | 2-1/2" SQ.Tube | x=17-6 y=17-6 | | | 7-0 | 3-0 | | 31.5 (XI) | | | | | 77.9 | 77.9 | | | | 1 | | | | SEELEY LAKE 54 CLEARWATER 69 |
| TOTALS | | | | | | | | | | | | | | 753.4 (XI) | 90.0 (XI) | | 1,066 | 146 | | 155.8 | | 379 | 105 | 5 | 4 | | | |

**SIGNING LOCATIONS ARE APPROXIMATE.**

**FIELD PROJECT MANAGER TO FIELD ADJUST AS NECESSARY**

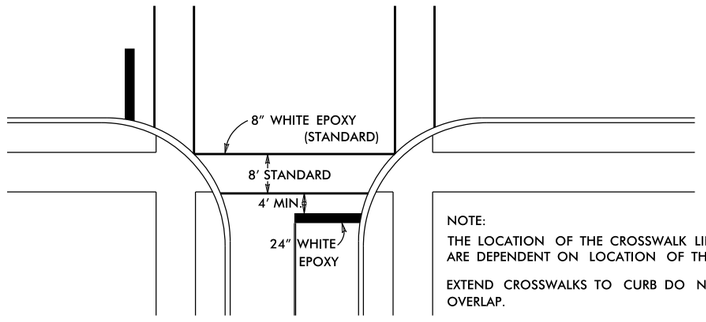
MOUNTING HEIGHT REQUIREMENTS: MOUNTING HEIGHTS SHOWN REFER TO THE BOTTOM OF THE MAJOR PANEL. SEE DETAILED DRAWINGS 619-00 & 619-08.

X = STANDARD BREAKAWAY DEVICE:
- FOR WOOD POST SEE DETAILED DRAWING 619-20.
- FOR STRUCTURAL STEEL SEE DETAILED DRAWING 619-13.

FY = TYPE XI FLUORESCENT YELLOW SHEETING REQUIRED.

● = SINGLE SQUARE TUBE WITH SLIP BASE BREAKAWAY REQUIRED. MOUNTED IN HEAVY DUTY STUB.

ALL SIGNING NOT LISTED IS TO BE "USE AS IS"



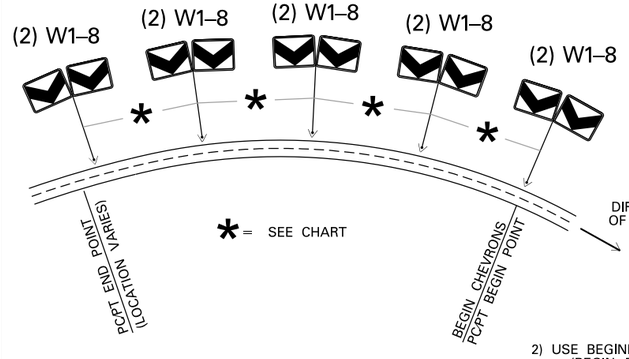

NOTE:
THE LOCATION OF THE CROSSWALK LINES ARE DEPENDENT ON LOCATION OF THE SIDEWALKS.

EXTEND CROSSWALKS TO CURB DO NOT OVERLAP.

## TYPICAL PAVEMENT MARKINGS FOR PEDESTRIAN CROSSINGS

# CHEVRON PLACEMENT DETAIL

## (GUIDANCE ONLY)




| CURVE RADIUS | SIGN SPACING | | R.P. CONVERSION |
|---|---|---|---|
| < 200′ | 40′ | = | .008+– |
| 200′ – 400′ | 80′ | = | .015+– |
| 401′ – 700′ | 120′ | = | .023+– |
| 701′ – 1250′ | 160′ | = | .030+– |
| > 1250′ | 200′ | = | .038+– |

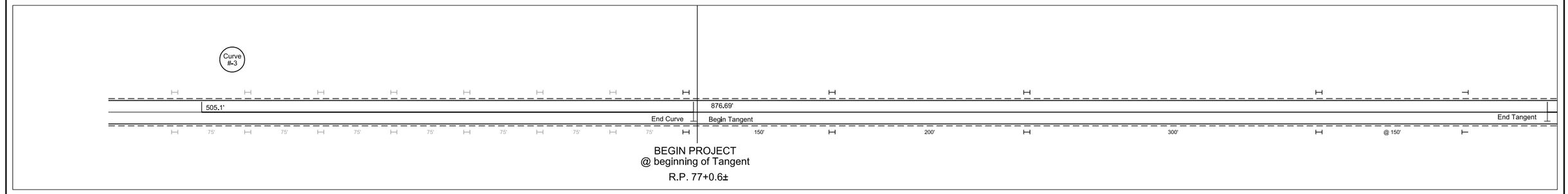
1) SEE SPEC SHEET FOR CHEVRON PLACEMENT

2) USE BEGINNING OF CURVE LOCATION AS REFERENCE POINT TO INSTALL CHEVRONS (BEGIN POINT – ALWAYS ON OUTSIDE OF CURVE IN DIRECTION OF TRAVEL)

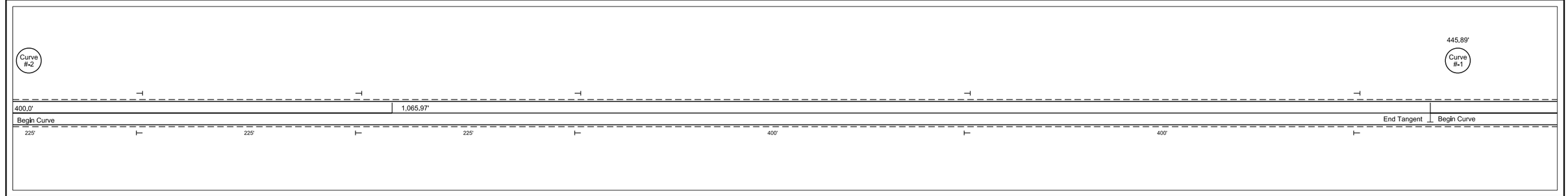
| DELINEATION TABLE | | |
|---|---|---|
| ⊣ | DESIGN "A" | 225 |
| ⊣\| | DESIGN "B" | |
| ⊢ | DESIGN "C" | 68 |
| \|⊣⊢\| | DESIGN "D" | 4 |
| ⊣\|\|\| | DESIGN "E" | |
| ⊢ | DESIGN "F" | 215 |
| —< | DESIGN "G" | |

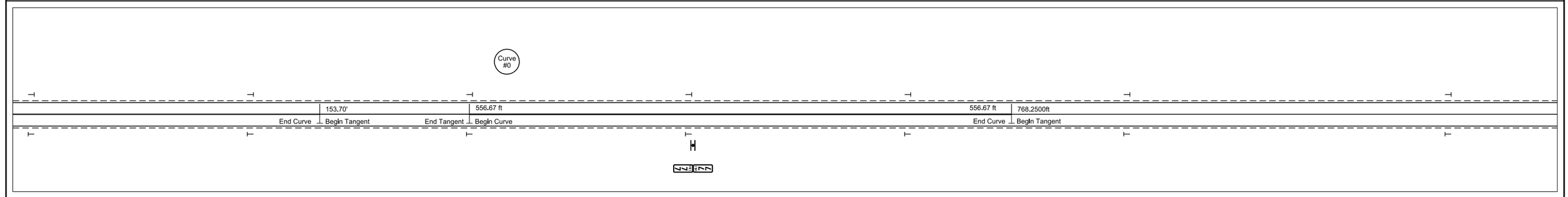
| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 3 | MONTANA Department of Transportation | C:\DGN\9869000sisum002.dgn | Roger Schroeder | 05/2022 | SIGNING PLANS | Swan Lake | STPP 83-2(25)71 |
| 2 | | 1/18/2023 | Nathan Styren | 07/2022 | | | |
| 1 | | 9:08:38 AM CPS - U4044 | " | " | LAKE COUNTY | UPN 9869000 | S6 |

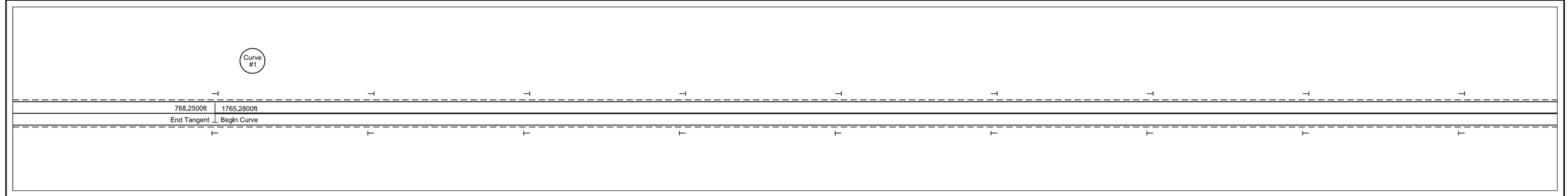
AWARD COPY

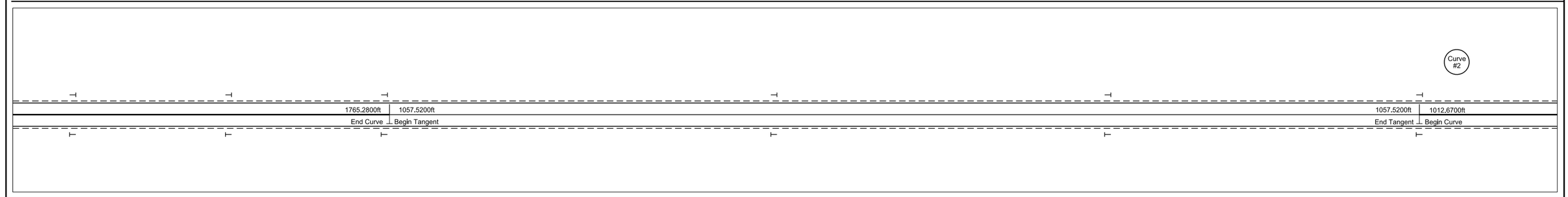



BEGIN PROJECT
@ beginning of Tangent
R.P. 77+0.6±




| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 3 | MONTANA Department of Transportation | C:\DGN\9869000sipln001.dgn | Designer: Roger Schroeder 05/2022 | SIGNING PLANS | DELINEATION | Swan Lake | STPP 83-2(25)71 |
| 2 | | 1/18/2023 | Checker: Nathan Styren 07/2022 | LAKE COUNTY | | UPN 9869000 | S7 |
| 1 | | 9:08:52 AM CPS - U4044 | Reviewer: * * | | | | |

AWARD COPY

1012.6700ft | 684.8300ft | 684.8300ft
End Curve | Begin Tangent | End Tangent | Begin

Curve #3

663.1300ft | 663.1300ft | 431.6100ft | 431.6100ft | 890.8500ft
Curve | End Curve | Begin Tangent | End Tangent | Begin Curve

Curve #4

Curve #5

890.8500ft | 1164.9800ft | 1164.9800ft | 84.4900ft
End Curve | Begin Curve | End Curve | Begin Tangent | End
Begin/End Tangent

Curve #6

Curve #7

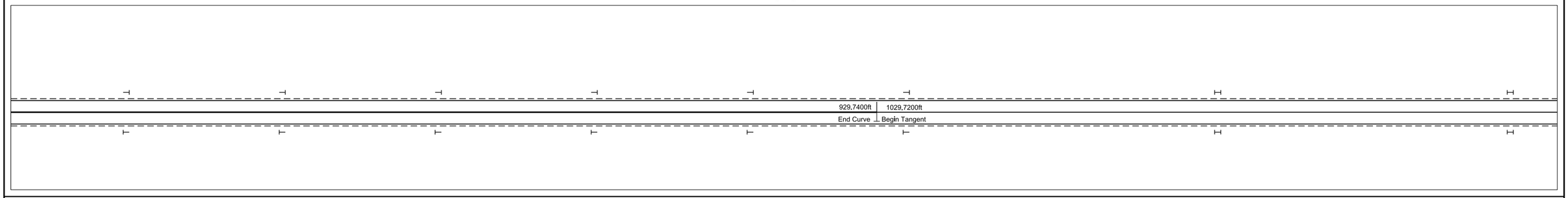
1345.1900ft | 1345.1900ft | 37.1400ft | 1607.3300ft
Tangent | Begin Curve | End Curve | End/Begin Tangent | Begin Curve

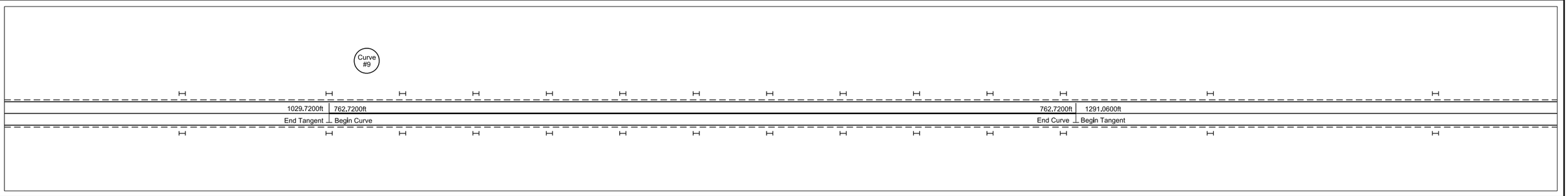
Curve #8

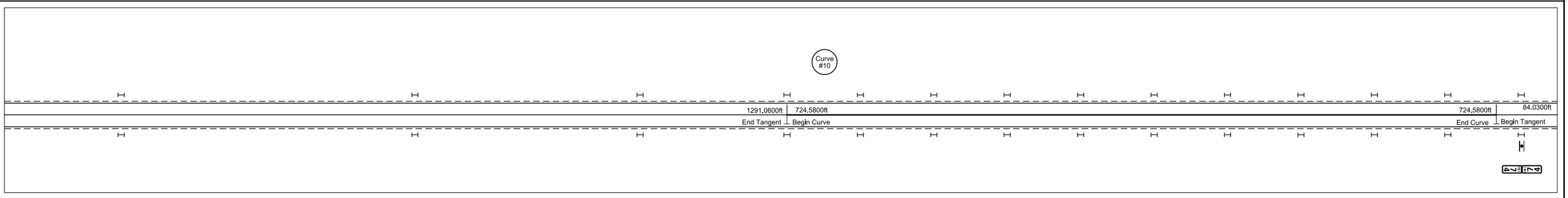
1607.3300ft | 107.9300ft | 929.7400ft
End Curve | Begin Tangent | End Tangent | Begin Curve

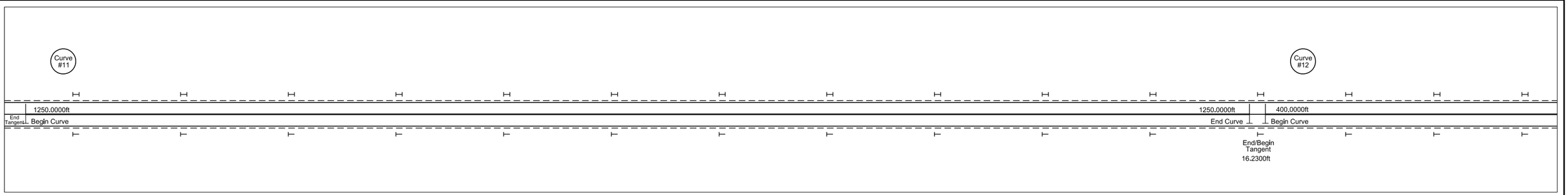
| | | | | | | |
|---|---|---|---|---|---|---|
| 3 2 1 | MONTANA Department of Transportation | C:\DGN\9869000sipln001.dgn<br>1/18/2023<br>9:08:56 AM CPS - U4044 | Designer: Roger Schroeder 05/2022<br>Checker: Nathan Styren 07/2022<br>Reviewer: * * | SIGNING PLANS<br>LAKE COUNTY | DELINEATION | Swan Lake<br>UPN 9869000 | STPP 83-2(25)71<br>S8 |

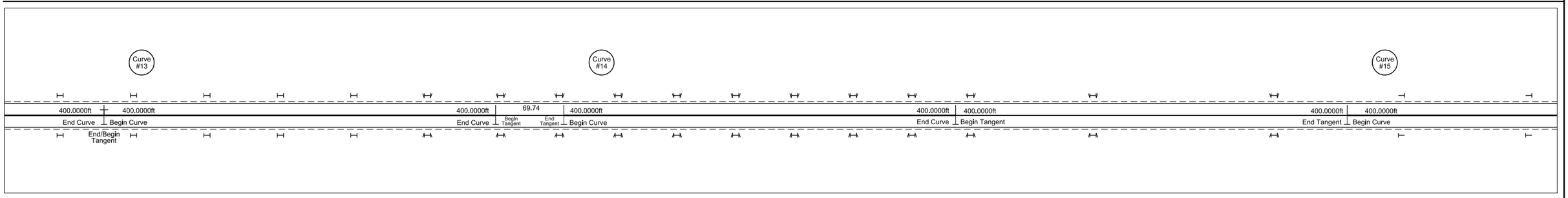
AWARD COPY




| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 3 | MONTANA Department of Transportation | C:\DGN\9869000sipln001.dgn | Designer: Roger Schroeder 05/2022 | SIGNING PLANS | DELINEATION | Swan Lake | STPP 83-2(25)71 |
| 2 | | 1/18/2023 | Checker: Nathan Styren 07/2022 | | | | |
| 1 | | 9:08:59 AM CPS - U4044 | Reviewer: * * | LAKE COUNTY | | UPN 9869000 | S9 |

AWARD COPY

A-A
400'-260'-130'-260'-400'
Radius 451.44'

400.0000ft | 1009.5400ft
End Curve | Begin Tangent

130' 130' @ 284'

Curve #16
F-F
400'-300'-230'-150'-75'-150'-230'-300'-400'
Radius 1,828.78'

1009.5400ft | 400.0000ft
End Tangent | Begin Curve

300' 230' 150' 75' 75' 75' 75' 75' 75'

F-F
400'-300'-230'-150'-75'-150'-230'-300'-400'
Radius 1,828.78'

400.0000ft
End Curve

Outside
Curve #17
Inside
F/o-A/i
400'-330'-220'-110'-220'-330'-400'
Radius 583.66'

825.0000ft
Begin Curve

75' 110' 110' 110' 110' 110' 110' 110' 110'

End/Begin Tangent
13.3000ft

268+18

F/o-A/i
400'-330'-220'-110'-220'-330'-400'
Radius 583.66'

825.0000ft
End Curve

Curve #18
F/o-A/i
400'-275'-185'-90'-185'-275'-400'
Radius 954.93'

400.0000ft
Begin Curve

90' 90' 90' 90'

Begin/End Tangent
33.7700ft

F/o-A/i
400'-275'-185'-90'-185'-275'-400'
Radius 954.93'

52.7300ft
400.0000ft
End Curve

Begin Tangent | End Tangent

Curve #19
A-A
400'-225'-400'
Radius 891.76'

1214.7700ft
Begin Curve

185' 225'

A-A
400'-225'-400'
Radius 891.76'

1214.7700ft | 284.3700ft
End Curve | Begin Tangent

225' 225' 225' @ 184'

Curve #20
C-C
400'-300'-230'-150'-75'-150'-230'-300'-400'
Radius 2,864.79'

284.3700ft | 1243.8300ft
End Tangent | Begin Curve

@ 142' @ 142' 75' 75' 75' 75' 75'

C-C
400'-300'-230'-150'-75'-150'-230'-300'-400'
Radius 2,864.79'

1243.8300ft | 488.9500ft
End Curve | Begin Tangent

75' 75' 75' 75' 75' 75' 75' 75' 75' 75' 75' 75' 75' 75' 150' @ 123'

Outside
Curve #21
Inside
F/o-A/i
400'-275'-185'-90'-185'-275'-400'
Radius 818.51'

488.9500ft | 1467.5000ft
End Tangent | Begin Curve

185' 90' 90'

F/o-A/i
400'-275'-185'-90'-185'-275'-400'
Radius 818.51'

1467.5000ft | 663.3500ft
End Curve | Begin Tangent

90' 90' 90' 90' 90' 90' 90' 90' 90' 90' 90' 90' 90' 90' 90' 90' 90' 90' 90' 90' 90' 185'

319+70

Field Adjust
Day Use/Camping
Intersection
"D" Delineators

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 3 | MONTANA Department of Transportation | C:\DGN\9869000sipln002.dgn | Designer: Roger Schroeder 05/2022 | SIGNING PLANS | DELINEATION | Swan Lake | STPP 83-2(25)71 |
| 2 | | 1/18/2023 | Checker: Nathan Styren 07/2022 | LAKE COUNTY | | UPN 9869000 | S10 |
| 1 | | 9:09:12 AM CPS - U4044 | Reviewer: * * | | | | |

AWARD COPY

Outside
Curve #22
Inside

F/o-A/i
400'-260'-130'-260'-400'
Radius 1,432.40'

663.3500ft | 743.0200ft
End Tangent | Begin Curve

@ 156' 260' 130' 130' 130' 130' 130' 130' 130'

F/o-A/i
400'-260'-130'-260'-400'
Radius 1,432.40'

743.0200ft | 1188.6600ft
End Curve | Begin Tangent

260' 400'

Curve #23

A-A
400'-300'-400'
Radius 17,188.74'

1188.6600ft | 3943.7000ft
End Tangent | Begin Curve

400' 300' 300' 300' 300'

300' 300' 300' 300' 300' 300' 300' 300'

375+43
ENTERING SWAN LAKE

A-A
400'-300'-400'
Radius 17,188.74'

3943.7000ft | 1792.3700ft
End Curve | Begin Tangent

300' 300' 300' 300' 300' 300' 300'

ENTERING SWAN LAKE

END PROJECT
@ end of curve

400' 400'

R.P. 70+0.5±

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 3 | MONTANA Department of Transportation | C:\DGN\9869000sipln002.dgn | Designer: Roger Schroeder | 05/2022 | SIGNING PLANS | DELINEATION | Swan Lake / UPN 9869000 / STPP 83-2(25)71 |
| 2 | | 1/18/2023 | Checker: Nathan Styren | 07/2022 | | | |
| 1 | | 9:09:15 AM CPS - U4044 | Reviewer: * | * | LAKE COUNTY | | S11 |