WKE

PROJECT ID: 3618-00-74

WITH: N/A

COUNTY: ROCK

NOVEMBER 2021
ORDER OF SHEETS

| | | |
|---|---|---|
| Section No. | 1 | Title |
| Section No. | 2 | Typical Sections and Details |
| Section No. | 3 | Estimate of Quantities |
| Section No. | 3 | Miscellaneous Quantities |
| Section No. | 4 | Right of Way Plat |
| Section No. | 5 | Plan and Profile (Incl. Erosion Control Plans) |
| Section No. | 6 | Standard Detail Drawings |
| Section No. | 7 | Sign Plates |
| Section No. | 8 | Structure Plans |
| Section No. | 9 | Computer Earthwork Data |
| Section No. | 9 | Cross Sections |

TOTAL SHEETS = 52

# STATE OF WISCONSIN
# DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

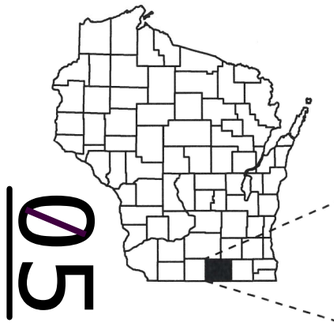
# TOWN OF LA PRAIRIE, ELM DRIVE

Br of Turtle Creek Bridge B-53-0388

## LOCAL STREET
## ROCK COUNTY

| STATE PROJECT | FEDERAL PROJECT | |
|---|---|---|
| | PROJECT | CONTRACT |
| 3618-00-74 | | |
| | | |
| | | |
| | | |

STATE PROJECT NUMBER
**3618-00-74**

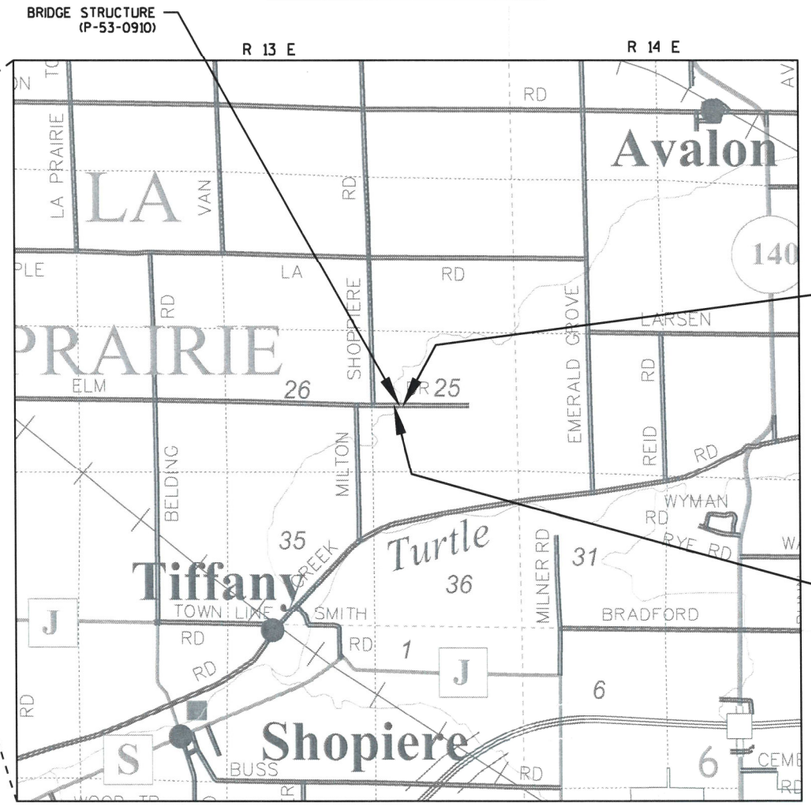


05

ROCK COUNTY

DESIGN DESIGNATION 3618-00-74

| | | | |
|---|---|---|---|
| A.A.D.T. | (2022) | = | <100 |
| A.A.D.T. | (2042) | = | <100 |
| D.H.V. | | = | |
| D.D. | | = | |
| T. | | = | 3.5% |
| DESIGN SPEED | | = | 25 MPH |
| ESALS | | = | 36,500 |




END PROJECT 3618-00-74
STA. 9+30
Y = 240,528.412
X = 523,594.773

T 2 N

BEGIN PROJECT 3618-00-74
STA. 10+70
Y = 240,526.951
X = 523,734.765

T 1 N

LAYOUT

SCALE 0 1 MI

TOTAL NET LENGTH OF CENTERLINE = 0.027 MILES

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COORDINATE REFERENCE SYSTEM (WISCRS), ROCK COUNTY, NAD83 ( 2011 ), IN U.S. SURVEY FEET. POSITIONS SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES ARE THE SAME AS GROUND DISTANCES. ELEVATIONS ARE REFERENCED TO NAVD 88 ( 2012 ). GPS DERIVED ELEVATIONS ARE BASED ON GEOID 12A.

## CONVENTIONAL SYMBOLS

| PLAN | | PROFILE | |
|---|---|---|---|
| CORPORATE LIMITS | | GRADE LINE | |
| PROPERTY LINE | | ORIGINAL GROUND | |
| LOT LINE | | MARSH OR ROCK PROFILE (To be noted as such) | ROCK |
| LIMITED HIGHWAY EASEMENT | | SPECIAL DITCH | LABEL |
| EXISTING RIGHT OF WAY | | GRADE ELEVATION | 95.36 |
| PROPOSED OR NEW R/W LINE | | CULVERT (Profile View) | |
| SLOPE INTERCEPT | | UTILITIES | |
| REFERENCE LINE | 300'EB' | ELECTRIC | E |
| EXISTING CULVERT | | FIBER OPTIC | FO |
| PROPOSED CULVERT (Box or Pipe) | | GAS | G |
| COMBUSTIBLE FLUIDS | CAUTION | SANITARY SEWER | SAN |
| | | STORM SEWER | SS |
| | | TELEPHONE | T |
| MARSH AREA | | WATER | W |
| | | UTILITY PEDESTAL | |
| | | POWER POLE | |
| WOODED OR SHRUB AREA | | TELEPHONE POLE | |

ACCEPTED FOR
*ROCK COUNTY*

Date 7/1/21 (DIRECTOR OF PUBLIC WORKS)

ORIGINAL PLANS PREPARED BY
AYRES

WISCONSIN
AMANDA M. INMAN 44690 OREGON WI
PROFESSIONAL ENGINEER

7/2/2021

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

| | |
|---|---|
| Surveyor | AYRES ASSOCIATES |
| Designer | AYRES ASSOCIATES |
| Regional Examiner | |
| Regional Supervisor | |

APPROVED FOR THE DEPARTMENT

DATE: 07/29/2021 (Signature)

E

FILE NAME : I:\47\470347 ROCK-TOWN OF LAPRAIRIE\C3D\SHEETSPLAN\470347-0101_TI.DWG

PLOT DATE : 7/1/2021 11:48 AM

PLOT BY : INMAN, AMANDA

PLOT NAME :

## GENERAL NOTES

NOTIFY DIGGERS HOTLINE AND AFFECTED UTILITIES PRIOR TO THE START OF WORK. ANY UTILITY WHICH IS NOT A MEMBER OF DIGGERS HOTLINE MUST BE CONTACTED SEPARATELY.

THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT LOCATION THAT ARE NOT SHOWN. THE CONTRACTOR IS RESPONSIBLE FOR FIELD LOCATING ALL UTILITIES.

A SAWED JOINT WILL BE REQUIRED WHERE NEW PAVEMENT IS TO MEET AN EXISTING PAVED SURFACE.

EXACT TRAFFIC CONTROL LOCATIONS WILL BE DETERMINED BY THE ENGINEER IN THE FIELD.

ALL SIGN LOCATIONS SHALL BE REVIEWED BY THE ENGINEER PRIOR TO INSTALLATION.

NO TREES OR SHRUBS SHALL BE REMOVED UNLESS DESIGNATED FOR REMOVAL BY THE ENGINEER.

PROTECT FROM DAMAGE AND COMPLETE SHOULDER WORK AROUND ANY EXISTING SIGNS OR MAILBOXES THAT ARE TO REMAIN IN PLACE.

RESTORATION OF EXPOSED SLOPES AND DITCHES SHALL TAKE PLACE WITHIN 7 CALENDAR DAYS AFTER FINISHED GRADING IS COMPLETE.

WETLANDS ARE PRESENT IN THE PROJECT AREA. DO NOT DISTURB WETLANDS OUTSIDE THE PROPOSED SLOPE INTERCEPTS

IF AN EXISTING SIGN IS TO BE REMOVED AND REPLACED WITH A NEW SIGN, DO NOT REMOVE THE EXISTING SIGN PRIOR TO INSTALLATION OF THE NEW SIGN.

THE LOCATIONS OF EROSION CONTROL ITEMS SHALL BE PLACED AS SHOWN ON THE PLAN OR AS DIRECTED BY THE ENGINEER. ALL EROSION CONTROL MEASURES SHALL BE MAINTAINED UNTIL SUCH TIME AS THE ENGINEER DETERMINES THE MEASURE IS NO LONGER NECESSARY.

FERTILIZER SHALL NOT BE USED WITHIN 20 FEET OF NAVIGABLE WATERWAYS OR WETLANDS.

ASSUMED ASPHALT UNIT WEIGHT: 112/LBS/INCH
ASSUMED TACK COAT APPLICATION RATE: 0.07 GAL/SY

ASPHALT PAVEMENT SUGGESTED LAYERS:
-UPPER: 2.25-INCH
-LOWER: 3-INCH

## ABBREVIATIONS

| | |
|---|---|
| A.D.T. | AVERAGE DAILY TRAFFIC |
| ATMS | ARTERIAL TRAFFIC MANAGEMENT SYSTEM |
| BM | BENCHMARK |
| BOC | BACK OF CURB |
| BTWN | BETWEEN |
| C&G | CURB AND GUTTER |
| C.E. | COMMERCIAL ENTRANCE |
| CONST | CONSTRUCTION |
| CP | CONTROL POINT |
| CTR. | CENTER |
| D.D. | DIRECTIONAL DISTRIBUTION |
| D.H.T. | DESIGN HOURLY VOLUME |
| DMS | DYNAMIC MESSAGE SIGN |
| EB | EASTBOUND |
| EXIST | EXISTING |
| GALV. | GALVANIZED |
| HMA | HOT MIX ASPHALT |
| H.S. | HIGH STRENGTH |
| ITS | INTELLIGENT TRAFFIC SYSTEM |
| MAX | MAXIMUM |
| MIN | MINIMUM |
| NB | NORTHBOUND |
| NOR | NORMAL |
| PC | POINT OF CURVATURE |
| PCC | POINT OF COMMON CURVATURE |
| PGL | PROFILE GRADE LINE |
| PI | POINT OF INTERSECTION |
| PRC | POINT OF REVERSE CURVATURE |
| PT | POINT OF TANGENCY |
| PVT | PAVEMENT |
| R/L | REFERENCE LINE |
| REQ'D | REQUIRED |
| SB | SOUTHBOUND |
| SYM | SYMMETRICAL |
| T. | PERCENT TRUCKS |
| TCC | TRAFFIC CONDITION CAMERA |
| TYP | TYPICAL |
| VAR | VARIABLE |
| WB | WESTBOUND |
| Wt. | WEIGHT |
| X-WALK | CROSS WALK |

## PROJECT CONTACTS

ROCK COUNTY PUBLIC WORKS
DUANE JORGENSON
DIRECTOR OF PUBLIC WORKS
3715 NEWVILLE ROAD
JANESVILLE, WI 53545
P: (608) 757-5450
E: JORGEND@CO.ROCK.WI.US

TOWN OF LA PRAIRIE CHAIRMAN
ALLAN ARNDT
TOWN CHAIRMAN
3610 S. LA PRAIRIE TOWN HALL ROAD
JANESVILLE, WI 53546
C: (608) 774-0136
E: LAPRAIRIETOWNCLERK@OUTLOOK.COM

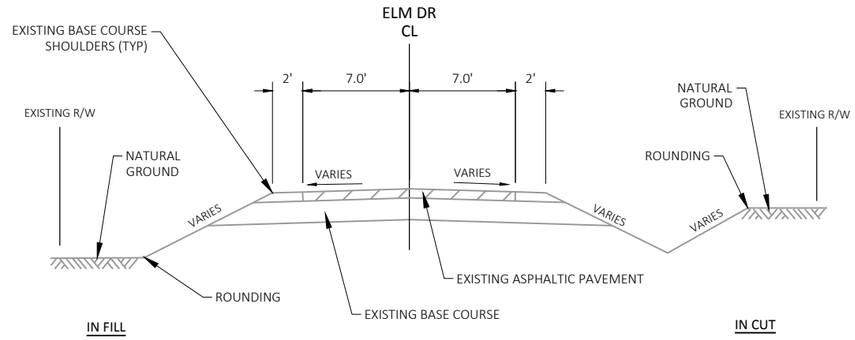
WISCONSIN DEPARTMENT OF NATURAL RESOURCES
SHELLEY NELSON
SOUTHWEST REGION HEADQUARTERS
3911 FISH HATCHERY ROAD
FITCHBURG, WI 53711
P: (608) 444-2835
E: SHELLY.NELSON@WISCONSIN.GOV

DESIGNER
AMANDA INMAN, PE
AYRES ASSOCIATES
5201 EAST TERRACE DRIVE, SUITE 200
MADISON, WI 53718
P: (608) 443-1239
E: INMANA@AYRESASSOCIATES.COM

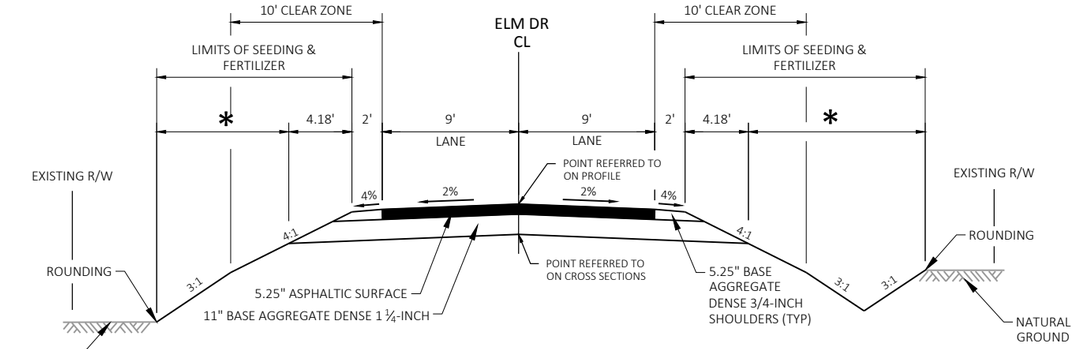
UTILITIES
ROCK ENERGY COOPERATIVE
TONY HAFFELDER
P.O. BOX 1758
2815 KENNEDY ROAD
JANESVILLE, WI 53547
P: (608) 752-4550
C: (920) 728-2379
E: TONYH@ROCK.COOP

** DENOTES UTILITIES THAT ARE NOT DIGGERS HOTLINE MEMBERS

DIGGERS HOTLINE
Dial 811 or (800)242-8511
www.DiggersHotline.com



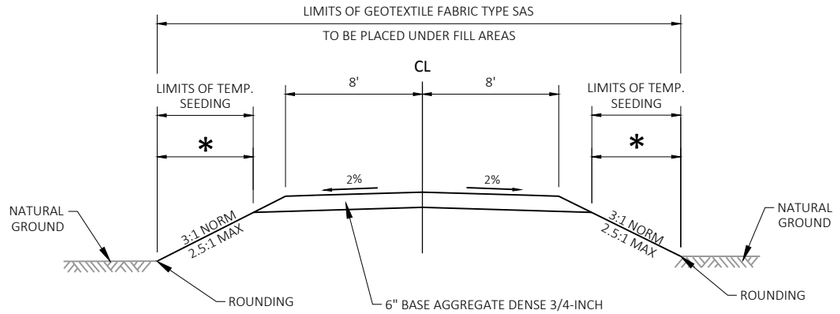

### TYPICAL EXISTING SECTION




### FINISHED TYPICAL SECTION

STA. 9+30 TO STA. 9+79
STA. 10+25 TO STA. 10+70

* LIMITS OF SALVAGED TOPSOIL AND EROSION MAT

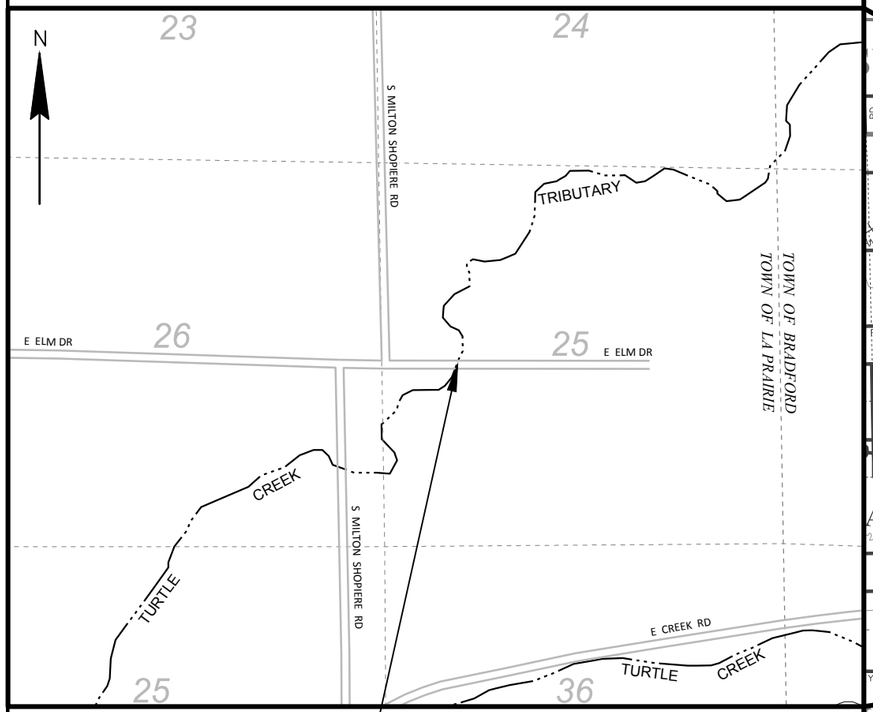



### FINISHED TYPICAL SECTION - TEMPORARY BYPASS

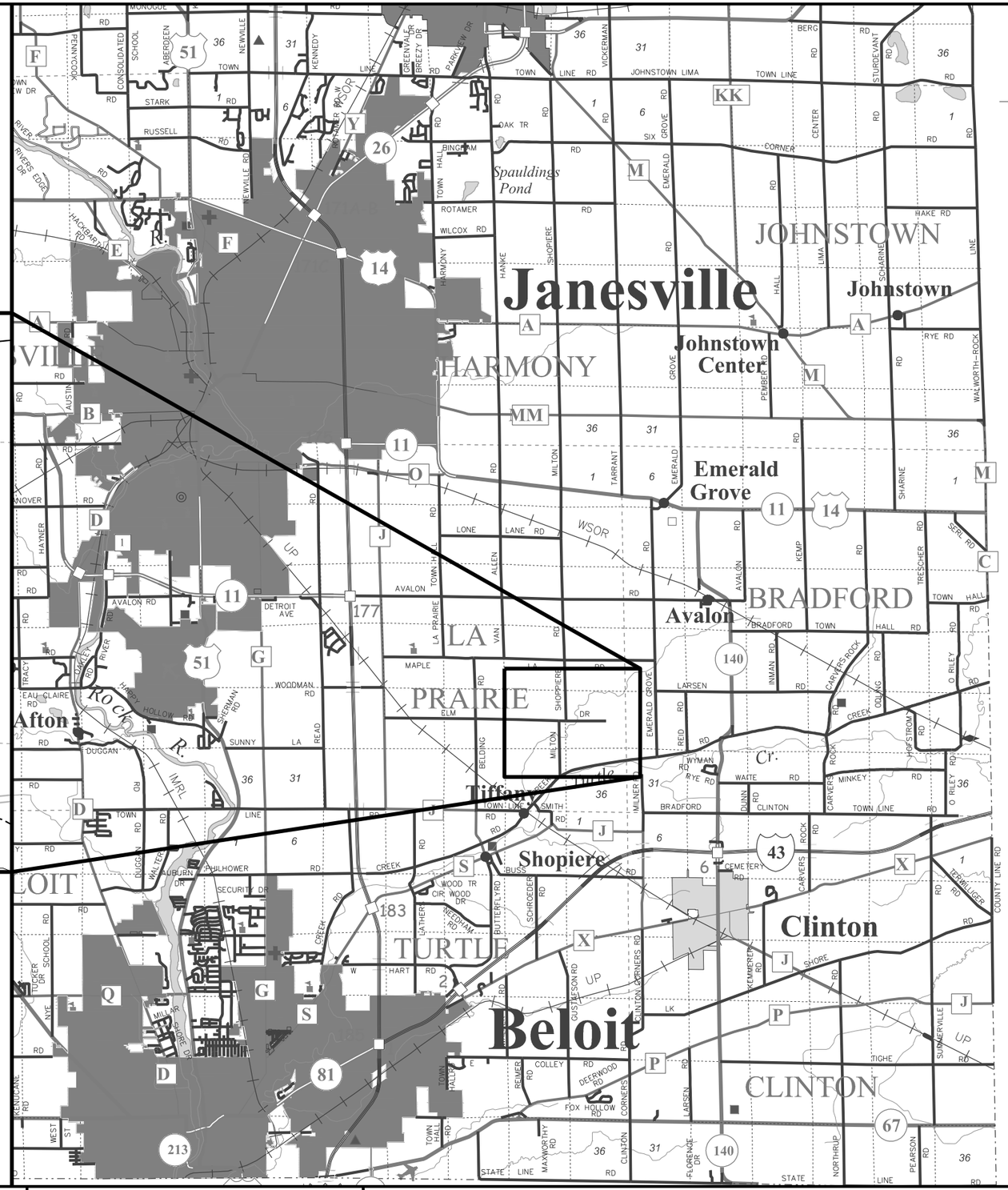
STA. 17+84'BP' TO STA. 21+55'BP'

* LIMITS OF SALVAGED TOPSOIL AND TEMPORARY SEED (EROSION MAT AS DIRECTED BY FIELD ENGINEER)

2




PROJECT LOCATION
ID 3618-00-04/74
TOWN OF LA PRAIRIE, ELM DR
(BR OF TURTLE CREEK BRIDGE B-53-0388)
LOCAL STREET
ROCK COUNTY




| PROJECT NO: 3618-00-74 | HWY: ELM DRIVE | COUNTY: ROCK | PROJECT OVERVIEW | SHEET 3 | E |
|---|---|---|---|---|---|

FILE NAME : I:\47\470347 ROCK-TOWN OF LAPRAIRIE\C3D\SHEETSPLAN\470347-0202_PO.DWG
LAYOUT NAME - 01
PLOT DATE : 7/1/2021 12:11 PM
PLOT BY : INMAN, AMANDA
PLOT NAME :
PLOT SCALE : 1 IN:2 MI

2

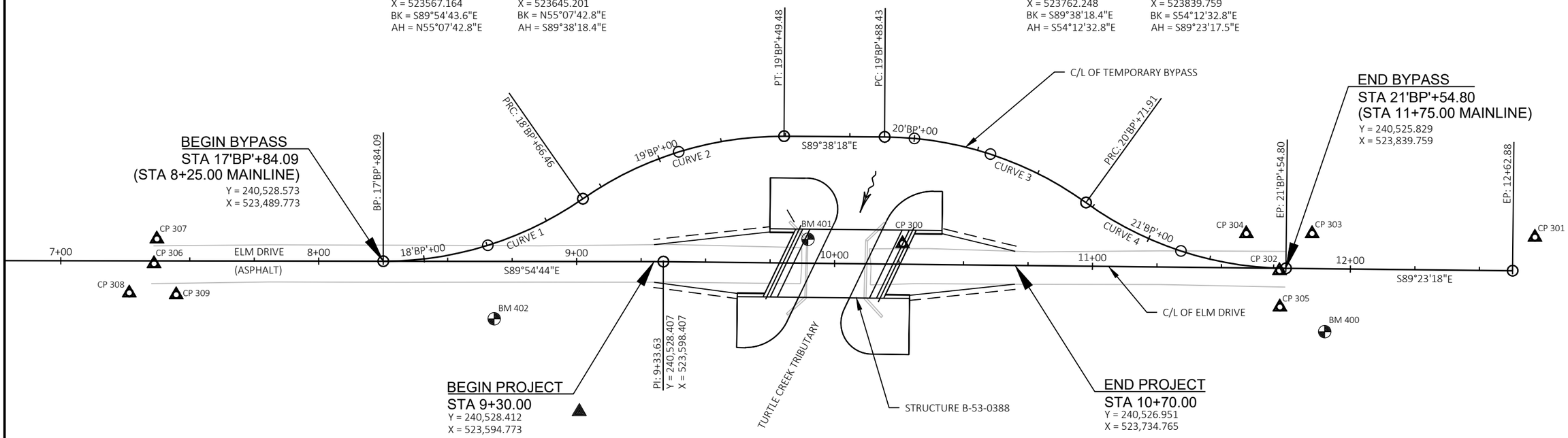
**CURVE 1**
PI STA = 18'BP'+26.61
Y = 240528.508
X = 523532.285
DELTA = 34°57'34"
D = 42°26'29"
T = 42.51'
L = 82.37'
R = 135.00'
PC STA = 17'BP'+84.09
Y = 240528.573
X = 523489.773
PT STA = 18'BP'+66.46
Y = 240552.814
X = 523567.164
BK = S89°54'43.6"E
AH = N55°07'42.8"E

**CURVE 2**
PI STA = 19'BP'+09.33
Y = 240577.323
X = 523602.334
DELTA = 35°13'59"
D = 42°26'29"
T = 42.87'
L = 83.02'
R = 135.00'
PC STA = 18'BP'+66.46
Y = 240552.814
X = 523567.164
PT STA = 19'BP'+49.48
Y = 240577.052
X = 523645.201
BK = N55°07'42.8"E
AH = S89°38'18.4"E

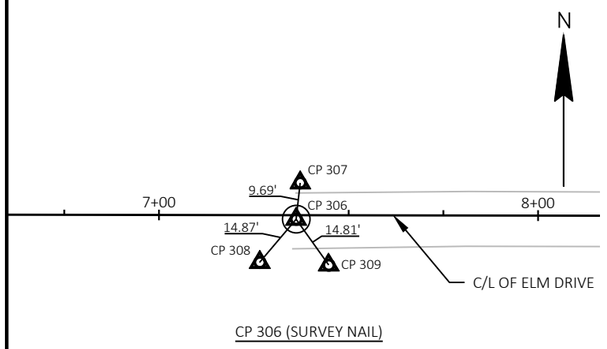
**CURVE 3**
PI STA = 20'BP'+31.55
Y = 240576.535
X = 523727.270
DELTA = 35°25'46"
D = 42°26'29"
T = 43.12'
L = 83.48'
R = 135.00'
PC STA = 19'BP'+88.43
Y = 240576.807
X = 523684.149
PT STA = 20'BP'+71.91
Y = 240551.315
X = 523762.248
BK = S89°38'18.4"E
AH = S54°12'32.8"E

**CURVE 4**
PI STA = 21'BP'+14.70
Y = 240526.286
X = 523796.964
DELTA = 35°10'45"
D = 42°26'29"
T = 42.80'
L = 82.89'
R = 135.00'
PC STA = 20'BP'+71.91
Y = 240551.315
X = 523762.248
PT STA = 21'BP'+54.80
Y = 240525.829
X = 523839.759
BK = S54°12'32.8"E
AH = S89°23'17.5"E

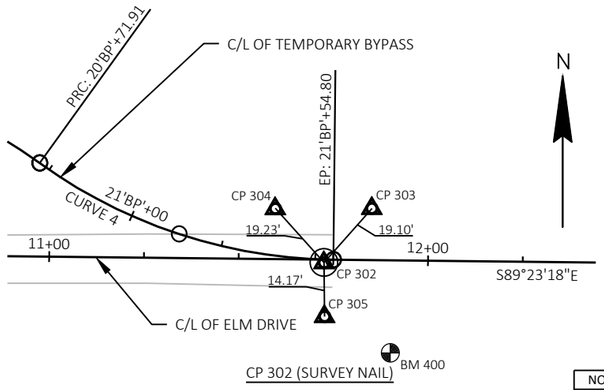
N




## ALIGNMENT CONTROLS




CP 306 (SURVEY NAIL)




CP 302 (SURVEY NAIL)

## CONTROL POINT TIES

BENCH MARKS

| NO. | STATION | OFFSET | ELEV. | DESCRIPTION |
|---|---|---|---|---|
| 400 | 11+90 | 24' RT | 863.34' | SPIKE IN POWER POLE |
| 401 | 9+90 | 9' LT | 857.49' | CHIS 'X', NW ABUT. OF BRIDGE |
| 402 | 8+68 | 22' RT | 862.11' | SPIKE IN 8" TREE |

CONTROL POINT DATA

| POINT NO. | FEATURE | NORTHING | EASTING | ELEVATION | DESCRIPTION |
|---|---|---|---|---|---|
| 300 | CP | 240,535.40 | 523,691.14 | 857.14 | REBAR/CAP |
| 301 | CP | 240,537.88 | 523,936.32 | 862.60 | REBAR/CAP |
| 302 | CP | 240,524.98 | 523,837.30 | 859.84 | SURVEY NAIL |
| 303 | CP | 240,539.30 | 523,849.94 | 859.99 | REBAR/CAP |
| 304 | CP | 240,539.26 | 523,824.42 | 859.04 | REBAR/CAP |
| 305 | CP | 240,510.81 | 523,837.42 | 859.63 | REBAR/CAP |
| 306 | CP | 240,527.62 | 523,400.92 | 872.42 | SURVEY NAIL |
| 307 | CP | 240,537.24 | 523,402.02 | 871.98 | REBAR/CAP |
| 308 | CP | 240,516.26 | 523,391.32 | 872.72 | REBAR/CAP |
| 309 | CP | 240,515.55 | 523,409.51 | 871.44 | REBAR/CAP |

| PROJECT NO: 3618-00-74 | HWY: ELM DRIVE | COUNTY: ROCK | ALIGNMENT CONTROLS AND TIES | SHEET 4 | E |
|---|---|---|---|---|---|

2

2

N

ANCHOR

ANCHOR

OH

DE LONG REVOCABLE TRUST

DE LONG REVOCABLE TRUST

PROPOSED TLE

TEMPORARY BYPASS C/L

SLOPE INTERCEPT

SLOPE INTERCEPT

19'BP'+00

20'BP'+00

21'BP'+00

18'BP'+00

EXISTING R/W

EXISTING R/W

EXISTING R/W

BM 401

7+00

8+00

9+00

10+00

11+00

12+00

ELM DR

ELM DR

99

99

SIGN

SIGN

SIGN

SIGN

ROCK ENERGY COOP.

BM 402

BM 400

ELM DRIVE C/L

OH

OH

OH

OH

OH

OH

OH

OH

IP

IP

EXISTING STRUCTURE
(P-53-0910) TO BE REMOVED

BEGIN BYPASS
STA 17'BP'+84.09
(STA 8+25.00 MAINLINE)
Y = 240,528.573
X = 523,489.773

END BYPASS
STA 21'BP'+54.80
(STA 11+75.00 MAINLINE)
Y = 240,525.829
X = 523,839.759

SEPV

DAVID O & JOAN E SCHOENFELD
REVOCABLE TRUST

TURTLE CREEK TRIBUTARY

PROPERTY LINE

DAVID O & JOAN E SCHOENFELD
REVOCABLE TRUST

LEGEND

TEMPORARY SEED
EROSION MAT URBAN CLASS I TYPE B
(MAT AS DIRECTED BY FIELD ENGINEER)

SILT FENCE

TURBIDITY BARRIER

SURFACE WATER FLOW

| PROJECT NO: 3618-00-74 | HWY: ELM DRIVE | COUNTY: ROCK | EROSION CONTROL - BYPASS | SHEET 5 | E |
|---|---|---|---|---|---|

FILE NAME : I:\47\470347 ROCK-TOWN OF LAPRAIRIE\C3D\SHEETSPLAN\470347-0220_EC.DWG
LAYOUT NAME - 02

PLOT DATE : 8/10/2021 11:40 AM PLOT BY : INMAN, AMANDA PLOT NAME : PLOT SCALE : ########## WISDOT/CADDS SHEET 42

2

N

ANCHOR

ANCHOR

OH

DE LONG REVOCABLE TRUST

PROPOSED TLE

TEMPORARY BYPASS C/L

SEEDING MIXTURE
NO. 60 AREA

STA 10+38.37
-79.62' LT
Y=240606.904
X=523703.988

STA 10+08.79
-74.62' LT
Y=240602.222
X=523674.356

STA 10+52.15
-77.92' LT
Y=240605.054
X=523717.746

STA 10+57.15
-70.33' LT
Y=240597.418
X=523722.670

DE LONG REVOCABLE TRUST

19'BP'+00

20'BP'+00

21'BP'+00

18'BP'+00

EXISTING R/W

EXISTING R/W

BM 401

7+00

8+00

9+00

10+00

11+00

12+00

ELM DR

ELM DR

99

99

ROCK ENERGY COOP.

BM 402

BM 400

ELM DRIVE C/L

EXISTING R/W

EXISTING R/W

BEGIN PROJECT
STA 9+30.00
Y = 240,528.412
X = 523,594.773

SLOPE INTERCEPT

STRUCTURE
B-53-0388 REQ'D

SLOPE INTERCEPT

END PROJECT
STA 10+70.00
Y = 240,526.951
X = 523,734.765

EXISTING STRUCTURE
(P-53-0910) TO BE REMOVED

SEPV

DAVID O & JOAN E SCHOENFELD
REVOCABLE TRUST

DAVID O & JOAN E SCHOENFELD
REVOCABLE TRUST

TURTLE CREEK TRIBUTARY

PROPERTY LINE

LEGEND

- EROSION MAT URBAN CLASS I TYPE B
- SILT FENCE
- TURBIDITY BARRIER
- SURFACE WATER FLOW

| | HYDROLOGIC SOIL GROUP | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | A | | | B | | | C | | | D | | |
| | SLOPE RANGE (PERCENT) | | | SLOPE RANGE (PERCENT) | | | SLOPE RANGE (PERCENT) | | | SLOPE RANGE (PERCENT) | | |
| LAND USE: | 0-2 | 2-6 | 6 & OVER | 0-2 | 2-6 | 6 & OVER | 0-2 | 2-6 | 6 & OVER | 0-2 | 2-6 | 6 & OVER |
| ROW CROPS | .08<br>.22 | .16<br>.30 | .22<br>.38 | .12<br>.26 | .20<br>.34 | .27<br>.44 | .15<br>.30 | .24<br>.37 | .33<br>.50 | .19<br>.34 | .28<br>.41 | .38<br>.56 |
| MEDIAN STRIP-TURF | .19<br>.24 | .20<br>.26 | .24<br>.30 | .19<br>.25 | .22<br>.28 | .26<br>.33 | .20<br>.26 | .23<br>.30 | .30<br>.37 | .20<br>.27 | .25<br>.32 | .30<br>.40 |
| SIDE SLOPE-TURF | | | .25<br>.32 | | | .27<br>.34 | | | .28<br>.36 | | | .30<br>.38 |
| PAVEMENT: | | | | | | | | | | | | |
| ASPHALT | .70 - .95 | | | | | | | | | | | |
| CONCRETE | .80 - .95 | | | | | | | | | | | |
| BRICK | .70 - .80 | | | | | | | | | | | |
| DRIVES, WALKS | .75 - .85 | | | | | | | | | | | |
| ROOFS | .75 - .95 | | | | | | | | | | | |
| GRAVEL ROADS, SHOULDERS | .40 - .60 | | | | | | | | | | | |

TOTAL PROJECT AREA = 0.809 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 0.420 ACRES

| PROJECT NO: 3618-00-74 | HWY: ELM DRIVE | COUNTY: ROCK | EROSION CONTROL - BRIDGE | SHEET 6 | E |
|---|---|---|---|---|---|

FILE NAME : I:\47\470347 ROCK-TOWN OF LAPRAIRIE\C3D\SHEETSPLAN\470347-0220_EC.DWG
LAYOUT NAME - 01

PLOT DATE : 8/10/2021 11:44 AM PLOT BY : INMAN, AMANDA PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

3618-00-74

| Line | Item | Item Description | Unit | Total | Qty |
|---|---|---|---|---|---|
| 0002 | 201.0105 | Clearing | STA | 3.000 | 3.000 |
| 0004 | 201.0205 | Grubbing | STA | 3.000 | 3.000 |
| 0006 | 203.0260 | Removing Structure Over Waterway Minimal Debris (structure) 01. P-53-0910 | EACH | 1.000 | 1.000 |
| 0008 | 204.0110 | Removing Asphaltic Surface | SY | 55.000 | 55.000 |
| 0010 | 205.0100 | Excavation Common | CY | 995.000 | 995.000 |
| 0012 | 206.1000 | Excavation for Structures Bridges (structure) 01. B-53-0388 | LS | 1.000 | 1.000 |
| 0014 | 208.0100 | Borrow | CY | 1,083.000 | 1,083.000 |
| 0016 | 210.1500 | Backfill Structure Type A | TON | 225.000 | 225.000 |
| 0018 | 213.0100 | Finishing Roadway (project) 01. 3618-00-74 | EACH | 1.000 | 1.000 |
| 0020 | 305.0110 | Base Aggregate Dense 3/4-Inch | TON | 201.000 | 201.000 |
| 0022 | 305.0120 | Base Aggregate Dense 1 1/4-Inch | TON | 191.000 | 191.000 |
| 0024 | 455.0605 | Tack Coat | GAL | 37.000 | 37.000 |
| 0026 | 465.0105 | Asphaltic Surface | TON | 79.000 | 79.000 |
| 0028 | 502.0100 | Concrete Masonry Bridges | CY | 153.000 | 153.000 |
| 0030 | 502.3200 | Protective Surface Treatment | SY | 160.000 | 160.000 |
| 0032 | 505.0400 | Bar Steel Reinforcement HS Structures | LB | 3,730.000 | 3,730.000 |
| 0034 | 505.0600 | Bar Steel Reinforcement HS Coated Structures | LB | 18,590.000 | 18,590.000 |
| 0036 | 513.4061 | Railing Tubular Type M | LF | 143.000 | 143.000 |
| 0038 | 516.0500 | Rubberized Membrane Waterproofing | SY | 18.000 | 18.000 |
| 0040 | 526.0100 | Temporary Structure (station) 01. 20'BP'+00 | LS | 1.000 | 1.000 |
| 0042 | 550.0020 | Pre-Boring Rock or Consolidated Materials | LF | 100.000 | 100.000 |
| 0044 | 550.1100 | Piling Steel HP 10-Inch X 42 Lb | LF | 120.000 | 120.000 |
| 0046 | 606.0300 | Riprap Heavy | CY | 190.000 | 190.000 |
| 0048 | 612.0406 | Pipe Underdrain Wrapped 6-Inch | LF | 150.000 | 150.000 |
| 0050 | 618.0100 | Maintenance And Repair of Haul Roads (project) 01. 3618-00-74 | EACH | 1.000 | 1.000 |
| 0052 | 619.1000 | Mobilization | EACH | 1.000 | 1.000 |
| 0054 | 623.0200 | Dust Control Surface Treatment | SY | 1,055.000 | 1,055.000 |
| 0056 | 624.0100 | Water | MGAL | 6.000 | 6.000 |
| 0058 | 625.0100 | Topsoil | SY | 650.000 | 650.000 |
| 0060 | 625.0500 | Salvaged Topsoil | SY | 1,510.000 | 1,510.000 |
| 0062 | 628.1504 | Silt Fence | LF | 443.000 | 443.000 |
| 0064 | 628.1520 | Silt Fence Maintenance | LF | 885.000 | 885.000 |
| 0066 | 628.1905 | Mobilizations Erosion Control | EACH | 4.000 | 4.000 |
| 0068 | 628.1910 | Mobilizations Emergency Erosion Control | EACH | 4.000 | 4.000 |
| 0070 | 628.2008 | Erosion Mat Urban Class I Type B | SY | 1,720.000 | 1,720.000 |
| 0072 | 628.6005 | Turbidity Barriers | SY | 223.000 | 223.000 |
| 0074 | 629.0210 | Fertilizer Type B | CWT | 1.400 | 1.400 |
| 0076 | 630.0120 | Seeding Mixture No. 20 | LB | 55.000 | 55.000 |
| 0078 | 630.0160 | Seeding Mixture No. 60 | LB | 3.000 | 3.000 |
| 0080 | 630.0200 | Seeding Temporary | LB | 25.000 | 25.000 |
| 0082 | 630.0300 | Seeding Borrow Pit | LB | 7.000 | 7.000 |
| 0084 | 630.0500 | Seed Water | MGAL | 72.000 | 72.000 |
| 0086 | 633.1100 | Delineators Temporary | EACH | 29.000 | 29.000 |
| 0088 | 634.0614 | Posts Wood 4x6-Inch X 14-FT | EACH | 4.000 | 4.000 |
| 0090 | 637.2230 | Signs Type II Reflective F | SF | 12.000 | 12.000 |
| 0092 | 638.2602 | Removing Signs Type II | EACH | 7.000 | 7.000 |
| 0094 | 638.3000 | Removing Small Sign Supports | EACH | 6.000 | 6.000 |
| 0096 | 642.5001 | Field Office Type B | EACH | 1.000 | 1.000 |
| 0098 | 643.0300 | Traffic Control Drums | DAY | 1,480.000 | 1,480.000 |

3618-00-74

| Line | Item | Item Description | Unit | Total | Qty |
|---|---|---|---|---|---|
| 0100 | 643.0420 | Traffic Control Barricades Type III | DAY | 1,480.000 | 1,480.000 |
| 0102 | 643.0705 | Traffic Control Warning Lights Type A | DAY | 592.000 | 592.000 |
| 0104 | 643.0715 | Traffic Control Warning Lights Type C | DAY | 592.000 | 592.000 |
| 0106 | 643.0900 | Traffic Control Signs | DAY | 2,072.000 | 2,072.000 |
| 0108 | 643.5000 | Traffic Control | EACH | 1.000 | 1.000 |
| 0110 | 645.0111 | Geotextile Type DF Schedule A | SY | 90.000 | 90.000 |
| 0112 | 645.0120 | Geotextile Type HR | SY | 375.000 | 375.000 |
| 0114 | 645.0140 | Geotextile Type SAS | SY | 580.000 | 580.000 |
| 0116 | 650.4500 | Construction Staking Subgrade | LF | 437.000 | 437.000 |
| 0118 | 650.5000 | Construction Staking Base | LF | 437.000 | 437.000 |
| 0120 | 650.6500 | Construction Staking Structure Layout (structure) 01. B-53-0388 | LS | 1.000 | 1.000 |
| 0122 | 650.9910 | Construction Staking Supplemental Control (project) 01. 3618-00-70 | LS | 1.000 | 1.000 |
| 0124 | 650.9920 | Construction Staking Slope Stakes | LF | 437.000 | 437.000 |
| 0126 | 690.0150 | Sawing Asphalt | LF | 170.000 | 170.000 |
| 0128 | 715.0502 | Incentive Strength Concrete Structures | DOL | 918.000 | 918.000 |
| 0130 | 999.2000.S | Installing and Maintaining Bird Deterrent System (Station) 01. Station 10+00 | EACH | 1.000 | 1.000 |

ELM DR EARTHWORK SUMMARY

| From/To Station | Location | Common Excavation (1) (item # 205.0100) Cut | Unexpanded Fill | Expanded Fill (2) Factor 1.30 | Mass Ordinate +/- (3) | Waste (4) | Borrow (5) (item #208.0100) | Comment: |
|---|---|---|---|---|---|---|---|---|
| 17+84 - 21+54 | BYPASS INSTALL | 91 | 753 | 978 | -887 | 0 | 887 | |
| 9+30 - 10+70 | ELM DRIVE | 64 | 200 | 260 | -196 | 0 | 196 | |
| 17+84 - 21+54 | BYPASS REMOVAL | 840 | 0 | 0 | 840 | 840 | 0 | |
| TOTALS | | 995 | | 1239 | | 840 | 1083 | |

1) Common Excavation is the Cut. Item number 205.0100.
2) Expanded Fill. Factor = 1.30; Expanded Fill = Unexpanded Fill * Fill Factor
3) The Mass Ordinate + or - Qty calculated for the Division. Plus quantity indicates an excess of material on the project.
4) Assumed all excavation is suitable for roadway fill.
5) Assumed excavation from following stage is not available as Borrow.
All quantities shown in CY.

## CLEARING AND GRUBBING

| CATEGORY | STATION | TO | STATION | LOCATION | 201.0105 CLEARING STA | 201.0205 GRUBBING STA |
|---|---|---|---|---|---|---|
| 0010 | 8+00 | - | 9+00 | LT | 1 | 1 |
| 0010 | 9+00 | - | 11+00 | LT & RT | 2 | 2 |
| | | | | TOTAL 0010 | 3 | 3 |

CONSTRUCTION ENGINEER TO HAVE FINAL SAY ON SPECIFIC TREES
TO BE REMOVED DUE TO A SENSATIVE OWNER TO THE NORTH

## REMOVING ASPHALTIC SURFACE

| CATEGORY | STATION | TO | STATION | LOCATION | 204.0110 REMOVING ASPHALTIC SURFACE SY | REMARKS |
|---|---|---|---|---|---|---|
| 0010 | 8+28 | - | 9+92 | LT | 28 | 3.25" THICK |
| 0010 | 11+08 | - | 11+69 | LT | 27 | 2.00" THICK |
| | | | | TOTAL 0010 | 55 | |

## BASE AGGREGATE

| CATEGORY | STATION | TO | STATION | LOCATION | 305.0110 BASE AGGREGATE DENSE 3/4-INCH TON | 305.0120 BASE AGGREGATE DENSE 1 1/4-INCH TON | 624.0100 WATER MGAL | REMARKS |
|---|---|---|---|---|---|---|---|---|
| 0010 | 17+84 | - | 19+85 | BYPASS | 113 | 0 | 1.7 | WEST |
| 0010 | 20+15 | - | 21+55 | BYPASS | 70 | 0 | 1.1 | EAST |
| 0010 | 9+30 | - | 9+80 | MAINLINE | 8 | 100 | 1.6 | WEST |
| 0010 | 10+24 | - | 10+70 | MAINLINE | 10 | 91 | 1.6 | EAST |
| | | | | TOTAL 0010 | 201 | 191 | 6.0 | |

## ASPHALT

| CATEGORY | STATION | TO | STATION | LOCATION | 455.0605 TACK COAT GAL | 465.0105 ASPHALTIC SURFACE TON | REMARKS |
|---|---|---|---|---|---|---|---|
| 0010 | 8+28 | - | 9+92 | W REPAIR | 4 | 9 | |
| 0010 | 9+30 | - | 9+80 | WEST | 15 | 33 | |
| 0010 | 10+24 | - | 10+70 | EAST | 14 | 29 | |
| 0010 | 11+08 | - | 11+69 | E REPAIR | 4 | 8 | |
| | | | | TOTAL 0010 | 37 | 79 | |

**NOTES:**
* TACK COAT APPLICATION RATE = 0.07 GAL/SY
** ASSUMED ASPHALT AT 112 LBS/SY/IN

ALL QUANTITIES CATEGORY 0010 UNLESS OTHERWISE NOTED

3

## EROSION CONTROL

| CATEGORY | STATION | TO | STATION | LOCATION | 625.0100 TOPSOIL SY | 625.0500 SALVAGED TOPSOIL SY | 628.1504 SILT FENCE LF | 628.1520 SILT FENCE MAINTENANCE LF | 628.2008 EROSION MAT URBAN CLASS I TYPE B SY | 628.6005 TURBIDITY BARRIERS SY | 629.0210 FERTILIZER TYPE B CWT | 630.0120 SEEDING MIXTURE NO. 20 LB | 630.0160 SEEDING MIXTURE NO. 60 LB | 630.0200 SEEDING TEMPORARY LB | 630.0300 SEEDING BORROW PIT LB | 630.0500 SEED WATER MGAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0010 | 17+84 | - | 20+00 | BYPASS-LT | 300 | - | 170 | 340 | - | - | - | - | - | 9 | - | 7.7 |
| 0010 | 17+84 | - | 20+00 | BYPASS-RT | 110 | - | 60 | 120 | - | 116 | - | - | - | 4 | 4 | 3.0 |
| 0010 | 20+00 | - | 21+55 | BYPASS-LT | 180 | - | 90 | 180 | - | - | - | - | - | 5 | - | 4.6 |
| 0010 | 20+00 | - | 21+55 | BYPASS-RT | 60 | - | 80 | 160 | - | 107 | - | - | - | 2 | - | 1.6 |
| 0010 | 8+25 | - | 10+00 | MAINLINE-LT | - | 840 | - | - | 910 | - | 0.5 | 22 | 2 | - | 1 | 21.5 |
| 0010 | 8+25 | - | 10+00 | MAINLINE-RT | - | 100 | - | - | 90 | - | 0.1 | 4 | - | - | - | 3.0 |
| 0010 | 10+00 | - | 11+75 | MAINLINE-LT | - | 490 | - | - | 550 | - | 0.4 | 15 | 1 | - | - | 13.5 |
| 0010 | 10+00 | - | 11+75 | MAINLINE-RT | - | 80 | - | - | 90 | - | 0.1 | 3 | - | - | - | 2.8 |
| 0010 | UNDISTRIBUTED | | | | - | - | 43 | 85 | 80 | - | 0.3 | 11 | - | 5 | 2 | 14.3 |
| | | | | TOTAL 0010 | 650 | 1,510 | 443 | 885 | 1,720 | 223 | 1.4 | 55 | 3 | 25 | 7 | 72.0 |

## SIGNS

| CATEGORY | STATION | LOCATION | 634.0614 POSTS WOOD 4X6-INCH X 14-FT EACH | 637.2230 SIGNS TYPE II REFLECTIVE F SF | 638.2602 REMOVING SIGNS TYPE II EACH | 638.3000 REMOVING SMALL SIGN SUPPORTS EACH | REMARKS |
|---|---|---|---|---|---|---|---|
| 0010 | WEST OF PROJECT | | - | - | 1 | - | 8 TON BRIDGE, 0.1 MILES AHEAD |
| 0010 | 9+60 | RT | - | - | 1 | 1 | R12-1: WEIGHT LIMIT 8 TONS |
| 0010 | 9+88 | LT | 1 | 3 | 1 | 1 | W5-52L: CLEARANCE STRIPER DOWN RIGHT |
| 0010 | 9+88 | RT | 1 | 3 | 1 | 1 | W5-52R: CLEARANCE STRIPER DOWN LEFT |
| 0010 | 10+12 | LT | 1 | 3 | 1 | 1 | W5-52R: CLEARANCE STRIPER DOWN LEFT |
| 0010 | 10+12 | RT | 1 | 3 | 1 | 1 | W5-52L: CLEARANCE STRIPER DOWN RIGHT |
| 0010 | 10+30 | LT | - | - | 1 | 1 | R12-1: WEIGHT LIMIT 8 TONS |
| | | TOTAL 0010 | 4 | 12 | 7 | 6 | |

ALL QUANTITIES CATEGORY 0010 UNLESS OTHERWISE NOTED

3

## TRAFFIC CONTROL

| CATEGORY | LOCATION | DURATION DAYS | 633.1100 DELINEATORS TEMPORARY EACH | NO. | 643.0300 TRAFFIC CONTROL DRUMS DAY | NO. | 643.0420 TRAFFIC CONTROL BARRICADES TYPE III DAY | NO. | 643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A DAY | NO. | 643.0715 TRAFFIC CONTROL WARNING LIGHTS TYPE C DAY | 643.0900 TRAFFIC CONTROL SIGNS DAY | 643.5000 TRAFFIC CONTROL EACH | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0010 | PER SDD 15D31 | 74 | 29 | 20 | 1,480 | 20 | 1,480 | 8 | 592 | 8 | 592 | 2,072 | 1 | |
| | TOTAL 0010 | | 29 | | 1,480 | | 1,480 | | 592 | | 592 | 2,072 | 1 | |

TRAFFIC CONTROL PLACEMENT SUBJECT TO ENGINEER APPROVAL
TEMPORARY PAVEMENT MARKING NOT REQUIRED
W5-52 SIGNS ACCOUNTED FOR IN "SIGNS" TABLE

## STAKING

| CATEGORY | STATION | TO | STATION | LOCATION | 650.4500 CONSTRUCTION STAKING SUBGRADE LF | 650.5000 CONSTRUCTION STAKING BASE LF | 650.6500.01 CONSTRUCTION STAKING STRUCTURE LAYOUT (STRUCTURE) (01. B-53-388) LS | 650.9910.01 CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (PROJECT) (01. 3618-00-74) LS | 650.9920 CONSTRUCTION STAKING SLOPE STAKES LF |
|---|---|---|---|---|---|---|---|---|---|
| 0010 | 17+84 | - | 21+55 | BYPASS | 341 | 341 | - | - | 341 |
| 0010 | 9+30 | - | 10+70 | MAINLINE | 96 | 96 | - | 1 | 96 |
| | | | | TOTAL 0010 | 437 | 437 | 0 | 1 | 437 |
| 0020 | 9+79 | - | 10+24 | B-53-0388 | - | - | 1 | - | - |
| | | | | TOTAL 0020 | 0 | 0 | 1 | 0 | 0 |
| | | | | PROJECT TOTAL | 437 | 437 | 1 | 1 | 437 |

## GEOTEXTILE TYPE SAS

| CATEGORY | LOCATION | 645.0140 GEOTEXTILE TYPE SAS SY | REMARKS |
|---|---|---|---|
| 0010 | UNDISTRIBUTED | 580 | BYPASS |
| | TOTAL 0010 | 580 | |

## SAWING ASPHALT

| CATEGORY | STATION | STATION | 690.0150 SAWING ASPHALT LF |
|---|---|---|---|
| 0010 | 8+28 | 9+92 | 72 |
| 0010 | | 9+30 | 14 |
| 0010 | | 10+70 | 14 |
| 0010 | 11+08 | 11+69 | 70 |
| | | TOTAL 0010 | 170 |

ALL QUANTITIES CATEGORY 0010 UNLESS OTHERWISE NOTED

## CONVENTIONAL SYMBOLS

SECTION LINE
QUARTER LINE
SIXTEENTH LINE
NEW REFERENCE LINE
NEW R/W LINE
EXISTING R/W LINE
PROPERTY LINE
LOT, TIE, AND OTHER MINOR LINES
SLOPE INTERCEPT
CORPORATE LIMITS
UNDERGROUND FACILITY (COMMUNICATIONS, ELECTRIC, ETC)
FEE ACQUISITION AREA (HATCHING VARIES BY OWNER)
TEMP. LIMITED EASEMENT AREA
EASEMENT AREA (HIGHWAY, PERMANENT LIMITED, OR RESTRICTED DEVELOPMENT)
TRANSMISSION STRUCTURES
BUILDING
BUILDING (TO BE REMOVED)
BRIDGE

PARCEL NUMBER
PRW POINT NUMBER
SECTION CORNER
NOTATION FOR COMBUSTABLE FLUIDS
NOTATION FOR HIGH VOLTAGE TRANSMISSION LINES
UTILITY NUMBER
TLE POINT NUMBER
R/W MONUMENT
NON-MONUMENTED R/W POINT
FOUND IRON PIN
VALVE (GAS, WATER, ETC.)
SIGN
OFF-PREMISE SIGN
ACCESS CONTROLLED BY ACQUISITION
NO ACCESS (BY STATUTORY AUTHORITY)
ACCESS RESTRICTED (BY PREVIOUS PROJECT OR CONTROL)
NO ACCESS (NEW HIGHWAY)
NATIONAL GEODETIC SURVEY MONUMENT
SIXTEENTH CORNER MONUMENT
PARALLEL OFFSETS

## CONVENTIONAL ABBREVIATIONS

| | | | |
|---|---|---|---|
| ACCESS RIGHTS | AR | OUTLOT | OL |
| ACRES | AC | PAGE | P |
| AHEAD | AH | POINT OF TANGENCY | PT |
| ALUMINUM | ALUM | PROPERTY LINE | PL |
| AND OTHERS | ET AL | RECORDED AS | (100') |
| BACK | BK | REEL / IMAGE | R/I |
| BLOCK | BLK | REFERENCE LINE | R/L |
| CENTERLINE | C/L | PERMANENT LIMITED EASEMENT | PLE |
| CERTIFIED SURVEY MAP | CSM | POINT OF BEGINNING | POB |
| CONCRETE | CONC | POINT OF CURVATURE | PC |
| COUNTY | CO | POINT OF COMPOUND CURVE | PCC |
| COUNTY TRUNK HIGHWAY | CTH | POINT OF INTERSECTION | PI |
| DISTANCE | DIST | REMAINING | REM |
| CORNER | COR | RESTRICTIVE DEVELOPMENT EASEMENT | RDE |
| DOCUMENT NUMBER | DOC | RIGHT | RT |
| EASEMENT | EASE | RIGHT OF WAY | R/W |
| EXISTING | EX | SECTION | SEC |
| GAS VALVE | GV | SEPTIC VENT | SEPV |
| GRID NORTH | GN | SQUARE FEET | SF |
| HIGHWAY EASEMENT | HE | STATE TRUNK HIGHWAY | STH |
| IDENTIFICATION | ID | STATION | STA |
| LAND CONTRACT | LC | TELEPHONE PEDESTAL | TP |
| LEFT | LT | TEMPORARY LIMITED EASEMENT | TLE |
| MONUMENT | MON | TRANSPORTATION PROJECT PLAT | TPP |
| NATIONAL GEODETIC SURVEY | NGS | UNITED STATES HIGHWAY | USH |
| NUMBER | NO | VOLUME | V |

## CONVENTIONAL UTILITY SYMBOLS

| | NON-COMPENSABLE | COMPENSABLE |
|---|---|---|
| WATER | W | |
| GAS | G | |
| TELEPHONE | T | |
| OVERHEAD TRANSMISSION LINES | OH | |
| ELECTRIC | E | |
| CABLE TELEVISION | TV | |
| FIBER OPTIC | FO | |
| SANITARY SEWER | SAN | |
| STORM SEWER | SS | |
| ELECTRIC TOWER | | |
| POWER POLE | | |
| TELEPHONE POLE | | |
| TELEPHONE PEDESTAL | | |

## CURVE DATA ABBREVIATIONS

| | |
|---|---|
| LONG CHORD | LCH |
| LONG CHORD BEARING | LCB |
| RADIUS | R |
| DEGREE OF CURVE | D |
| CENTRAL ANGLE | Δ / DELTA |
| LENGTH OF CURVE | L |
| TANGENT | T |
| DIRECTION AHEAD | DA |
| DIRECTION BACK | DB |

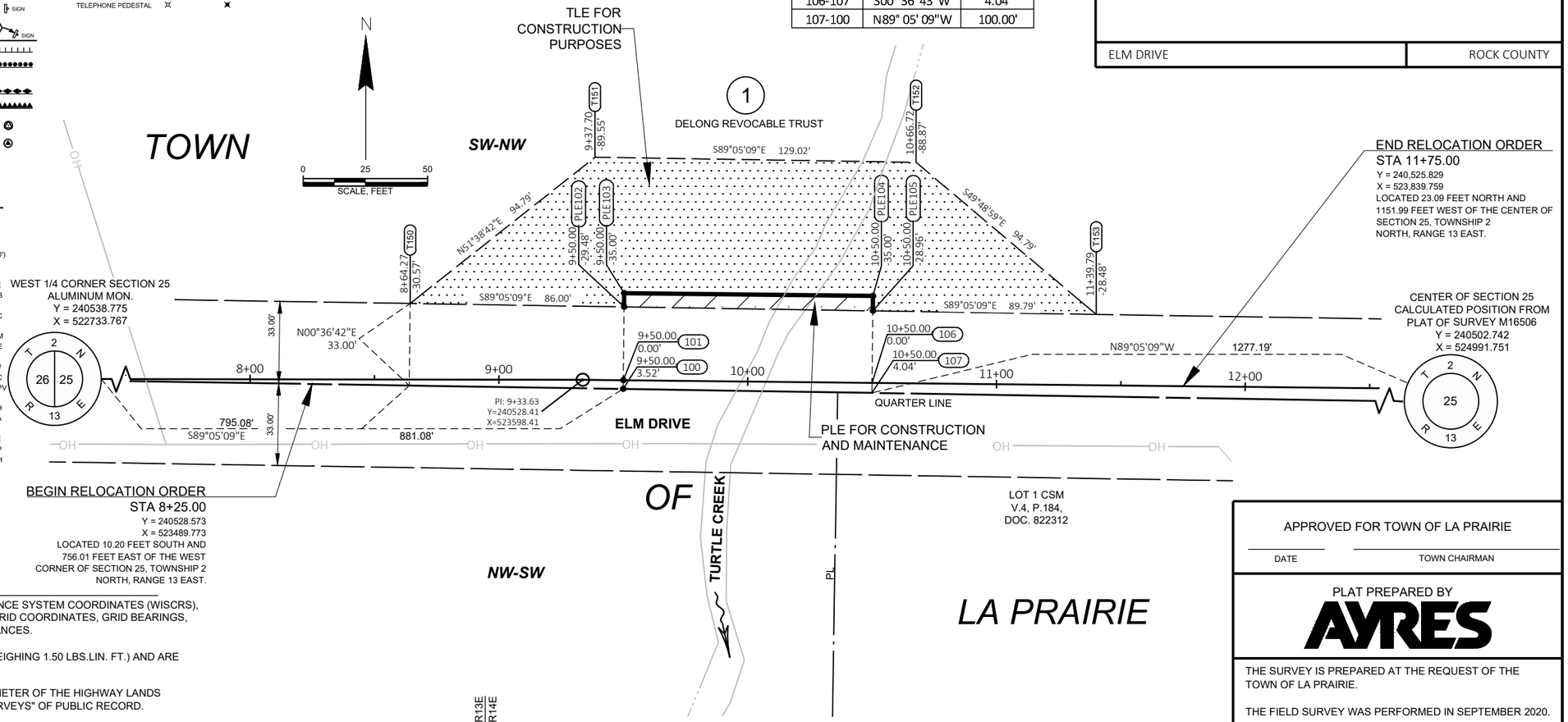
| COURSE TABLE | | |
|---|---|---|
| 100-101 | N00° 36' 43"E | 3.52' |
| 101-102 | N00° 36' 43"E | 29.48' |
| 102-103 | N00° 36' 43"E | 5.52' |
| 103-104 | S89° 23' 18"E | 100.00' |
| 104-105 | S00° 36' 43"W | 6.04' |
| 105-106 | S00° 36' 43"W | 28.96' |
| 106-107 | S00° 36' 43"W | 4.04' |
| 107-100 | N89° 05' 09"W | 100.00' |

| R/W PROJECT NUMBER | SHEET NUMBER | TOTAL SHEETS |
|---|---|---|
| 3618-00-04 | | |
| CONSTRUCTION PROJECT NUMBER | 4.01 | 1 |
| 3618-00-74 | | |

PLAT OF RIGHT OF WAY REQUIRED FOR

# ELM DRIVE

ELM DRIVE — ROCK COUNTY




## NOTES:

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COORDINATE REFERENCE SYSTEM COORDINATES (WISCRS), ROCK COUNTY, NAD83 (2011) IN US SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

RIGHT-OF-WAY MONUMENTS ARE TYPE 2 (¾"x24" CAPPED IRON REBAR WEIGHING 1.50 LBS.LIN. FT.) AND ARE PLACED PRIOR TO OR AT THE TIME OF LAND TITLE TRANSFER.

RIGHT-OF-WAY BOUNDARIES ARE DEFINED WITH COURSES OF THE PERIMETER OF THE HIGHWAY LANDS REFERENCED TO THE U.S. PUBLIC LAND SURVEY SYSTEM OR OTHER "SURVEYS" OF PUBLIC RECORD.

DIMENSIONING FOR THE NEW RIGHT-OF-WAY IS MEASURED ALONG AND PERPENDICULAR TO THE NEW REFERENCE LINES.

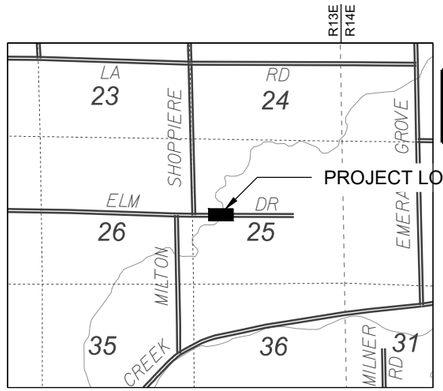
PROPERTY LINES SHOWN ON THIS PLAT ARE DRAWN FROM DATA DERIVED FROM MAPS AND DOCUMENTS OF PUBLIC RECORD AND/OR EXISTING OCCUPATIONAL LINES. THIS PLAT MAY NOT BE A TRUE REPRESENTATION OF EXISTING PROPERTY LINES, EXCLUDING RIGHT-OF-WAY, AND SHOULD NOT BE USED AS A SUBSTITUTE FOR AN ACCURATE FIELD SURVEY.

EXISTING HIGHWAY RIGHT-OF-WAY SHOWN HEREIN IS BASED ON THE FOLLOWING POINT OF REFERENCE:

EXISTING HIGHWAY RIGHT-OF-WAY FOR ROAD NAME SHOWN HEREIN IS BASED ON CSM DOC NO. 822312, PLAT OF SURVEYS M05295, M11230, M16506 AND IS PRESUMED TO BE 66 FEET IN WIDTH.

A PERMANENT LIMITED EASEMENT (PLE) IS A RIGHT FOR CONSTRUCTION AND MAINTENANCE PURPOSES, AS DEFINED HEREIN, INCLUDING THE RIGHT TO OPERATE NECESSARY EQUIPMENT THEREON AND THE RIGHT OF INGRESS AND EGRESS, AS LONG AS REQUIRED FOR SUCH PUBLIC PURPOSE, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE, OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM DESIRABLE, BUT WITHOUT PREJUDICE TO THE OWNER'S RIGHTS TO MAKE OR CONSTRUCT IMPROVEMENTS ON SAID LANDS OR TO FLATTEN THE SLOPES, SAID ACTIVITIES WILL NOT IMPAIR OR OTHERWISE ADVERSELY AFFECT THE HIGHWAY FACILITIES.

A TEMPORARY LIMITED EASEMENT (TLE) IS A RIGHT FOR CONSTRUCTION PURPOSES, AS DEFINED HEREIN, INCLUDING THE RIGHT TO OPERATE NECESSARY EQUIPMENT THEREON, THE RIGHT OF INGRESS AND EGRESS, AS LONG AS REQUIRED FOR SUCH PUBLIC PURPOSE, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE, OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM DESIRABLE. ALL (TLEs) ON THIS PLAT EXPIRE AT THE COMPLETION OF THE CONSTRUCTION PROJECT FOR WHICH THIS INSTRUMENT IS GIVEN.




LOCATION SKETCH
SCALE 0 1 MI

TOTAL NET LENGTH OF CENTERLINE = 0.08 MI.

## SCHEDULE OF LANDS AND INTERESTS REQUIRED

| PARCEL NO. | OWNER(S) | INTEREST REQUIRED | R/W (ACRES) FEE | EXISTING | TOTAL | TLE | PLE |
|---|---|---|---|---|---|---|---|
| 1 | DELONG REVOCABLE TRUST | PLE/TLE | 0.00 | 0.00 | 0.00 | 0.27 | 0.01 |

OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE COUNTY.

| UTILITY INTERESTS REQUIRED | | |
|---|---|---|
| PARCEL NUMBER | OWNER (S) | INTEREST REQUIRED |
| 50 | ROCK COUNTY ELECTIC COOPERATIVE ASSOCIATION | RELEASE OF RIGHTS |

50 ROCK COUNTY ELECTRIC COOPERATIVE
PARCEL 1 - V1. P227. DOC. 397881

REVISION DATE

APPROVED FOR TOWN OF LA PRAIRIE

DATE _____ TOWN CHAIRMAN

PLAT PREPARED BY
AYRES

THE SURVEY IS PREPARED AT THE REQUEST OF THE TOWN OF LA PRAIRIE.

THE FIELD SURVEY WAS PERFORMED IN SEPTEMBER 2020.

THIS SURVEY IS ACCURATE TO THE BEST OF MY KNOWLEDGE AND BELIEF.

WISCONSIN
BENJAMIN J LARSON
S-3006
EAST TROY
WISCONSIN
LAND SURVEYOR

February 09, 2021

BENJAMIN J LARSON, P.L.S. S-3006 — DATE

N

NOTE:
FOR ALIGNMENT CURVE DATA, BEARINGS, AND COORDINATES, SEE ALIGNMENT CONTROLS SHEET.

ADD STOP AHEAD AND STOP SIGNS TO EACH END OF THE TEMPORARY BYPASS.

TEMPORARY BYPASS
ADVISORY SPEED
15 MPH

DE LONG REVOCABLE TRUST

DE LONG REVOCABLE TRUST

PROPOSED TLE

SLOPE INTERCEPT

TEMPORARY BYPASS C/L

PROPOSED PLE

PT: 19'BP'+49.48

PC: 19'BP'+88.43

PRC: 18'BP'+66.45

19'BP'+00

20'BP'+00

PRC: 20'BP'+71.91

21'BP'+00

EXISTING R/W

EXISTING R/W

66'

66'

7+00

ELM DR

8+00

18'BP'+00

9+00

10+00

11+00

12+00

ELM DR

BM 401

SIGN

SIGN

SIGN

SIGN

ROCK ENERGY COOP.

BM 402

ELM DRIVE C/L

CAUTION

BM 400

TURTLE CREEK TRIBUTARY

EXISTING R/W

EXISTING R/W

IP

IP

BEGIN BYPASS
STA 17'BP'+84.09
(STA 8+25.00 MAINLINE)
Y = 240,528.573
X = 523,489.773

EXISTING STRUCTURE (P-53-0910)
TO BE REMOVED

PROPERTY LINE

SEPV

END BYPASS
STA 21'BP'+54.80
(STA 11+75.00 MAINLINE)
Y = 240,525.829
X = 523,839.759

DAVID O & JOAN E SCHOENFELD
REVOCABLE TRUST

DAVID O & JOAN E SCHOENFELD
REVOCABLE TRUST

5

5

STA 17+84.09
EL 865.67

VCL = 200.00

K = 20.05

STA 21+54.74
EL 859.91

-6.69%

PROPOSED PROFILE

3.28%

EXISTING PROFILE

WATER EL 847.7
(9/10/20)

STREAM BED
EL 846.8

VPC STA 18+63.75
VPC EL 860.34

VPI STA 19+63.75
VPI EL 853.65

VPT STA 20+63.75
VPT EL 856.93

EXISTING PROFILE ELEVATION

PROPOSED PROFILE ELEVATION

WETLAND IMPACT AREAS OCCUR WHERE SLOPE INTERCEPTS ASSOCIATES WITH GRADING ARE LOCATED WITHIN THE WETLAND BOUNDARY.

SILT FENCE IN WETLAND AREAS WILL BE INSTALLED AT THE TOE OF THE PROPOSED SLOPE AND TURBIDITY BARRIER WILL BE INSTALLED NO FURTHER THAN 3 FEET FROM THE TOE OF THE PROPOSED SLOPE.

FERTILIZER SHALL NOT BE USED WITHIN 20' OF NAVIGABLE WATERWAYS OR WETLANDS

STA 20'BP'+00
TEMPORARY BYPASS STRUCTURE SHALL HAVE A MINIMUM LOW CHORD OF 852.00 AND A 16.0' MINIMUM CLEAR ROADWAY WIDTH.

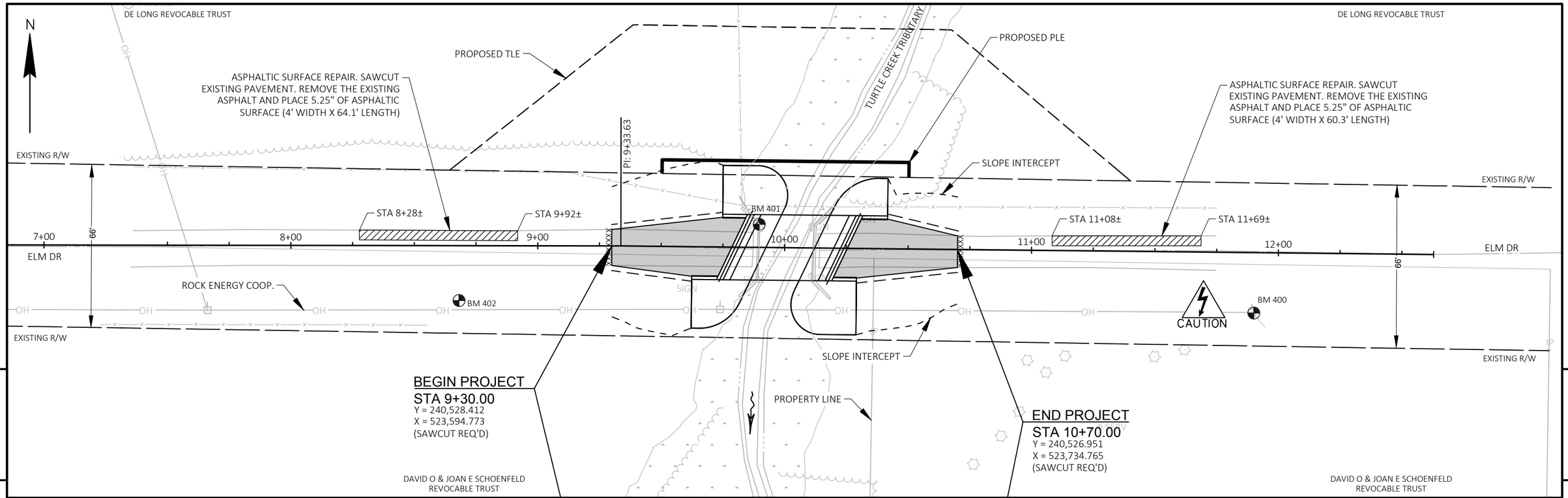
PROVIDE A MINIMUM BRIDGE OPENING OF 60 SQ FT AND MINIMUM 30.0' CLEAR SPAN.

870 865 860 855 850 845 840

| 864.58 | 860.64 | 855.00 | 851.05 | 847.14 | 857.55 | 859.77 |
|---|---|---|---|---|---|---|
| 864.60 | 861.26 | 858.24 | 856.42 | 855.85 | 858.12 | 859.76 |

17 18 19 20 21 22 23

| PROJECT NO: 3618-00-74 | HWY: ELM DRIVE | COUNTY: ROCK | PLAN AND PROFILE: TEMPORARY BYPASS | SHEET 13 | E |
|---|---|---|---|---|---|




WETLAND IMPACT AREAS OCCUR WHERE SLOPE INTERCEPTS ASSOCIATES WITH GRADING ARE LOCATED WITHIN THE WETLAND BOUNDARY.

SILT FENCE IN WETLAND AREAS WILL BE INSTALLED AT THE TOE OF THE PROPOSED SLOPE AND TURBIDITY BARRIER WILL BE INSTALLED NO FURTHER THAN 3 FEET FROM THE TOE OF THE PROPOSED SLOPE.

FERTILIZER SHALL NOT BE USED WITHIN 20' OF NAVIGABLE WATERWAYS OR WETLANDS

STA 10+00
REMOVE EXISTING STRUCTURE P-53-0910
SINGLE SPAN STEEL DECK GIRDER BRIDGE
20.8' CLEAR WIDTH X 24.2' LENGTH
0° SKEW

STA 10+00
STRUCTURE B-53-0388 REQ'D
SINGLE SPAN CONCRETE FLAT SLAB BRIDGE
24.0' CLEAR WIDTH X 46.8' LENGTH
25° SKEW LHF

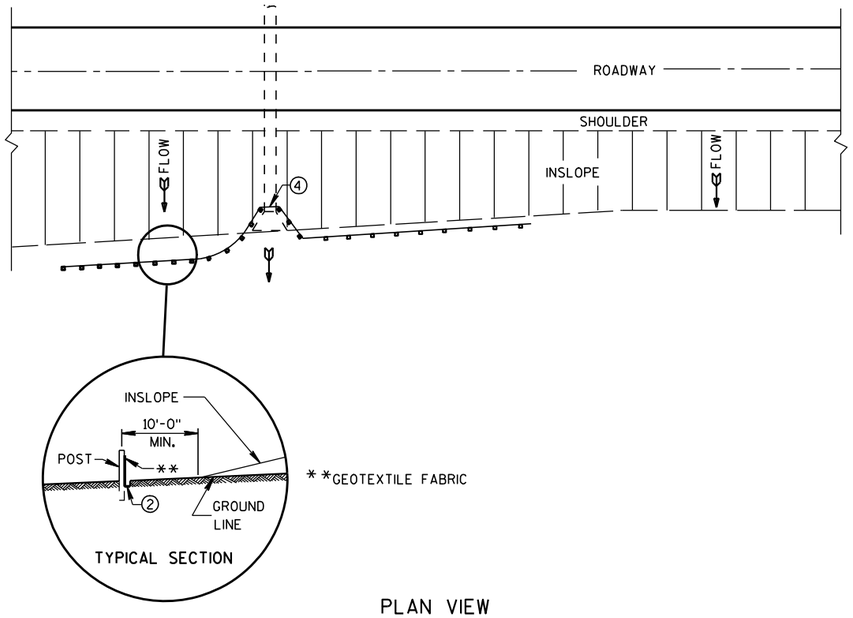
STA 20'BP'+00
TEMPORARY BYPASS STRUCTURE SHALL HAVE A MINIMUM LOW CHORD OF 852.00 AND A 16.0' MINIMUM CLEAR ROADWAY WIDTH.

PROVIDE A MINIMUM BRIDGE OPENING OF 60 SQ FT AND MINIMUM 30.0' CLEAR SPAN.

| PROJECT NO: 3618-00-74 | HWY: ELM DRIVE | COUNTY: ROCK | PLAN AND PROFILE: ELM DRIVE | SHEET 14 | E |
|---|---|---|---|---|---|

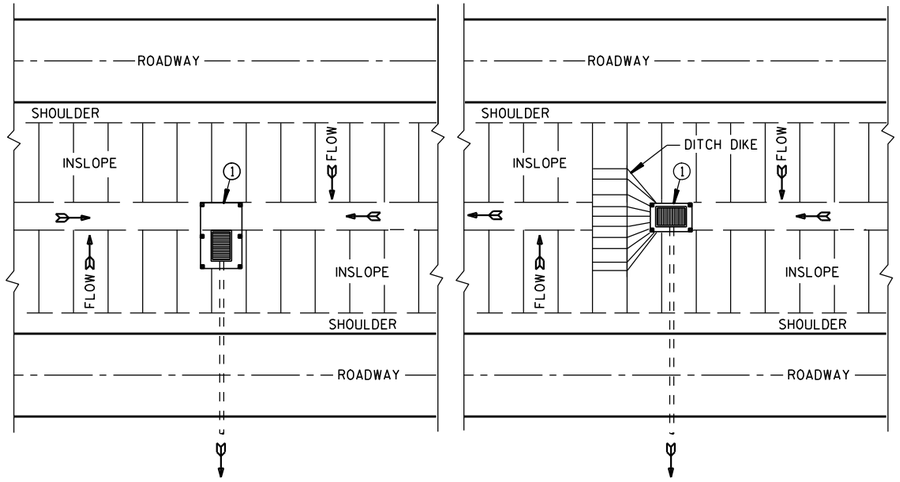
# Standard Detail Drawing List

| | |
|---|---|
| 08E09-06 | SILT FENCE |
| 08E11-02 | TURBIDITY BARRIER |
| 12A03-10 | NAME PLATE (STRUCTURES) |
| 15A04-06A | PERMANENT FLEXIBLE DELINEATOR POST |
| 15A04-06C | DELINEATOR POST WITH REFLECTIVE SHEETING |
| 15C06-09 | SIGNING & MARKING FOR TWO LANE BRIDGES |
| 15C11-09B | CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS |
| 15D31-03 | TRAFFIC CONTROL, TEMPORARY BYPASS ROADWAY |
| 15D38-02A | TEMPORARY TRAFFIC CONTROL SIGN MOUNTING |
| 15D38-02B | ATTACHMENT OF SIGNS TO POSTS |




PLAN VIEW

## TYPICAL APPLICATION OF SILT FENCE



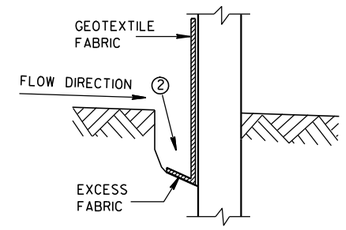

PLAN VIEW

## SILT FENCE AT MEDIAN SURFACE DRAINS

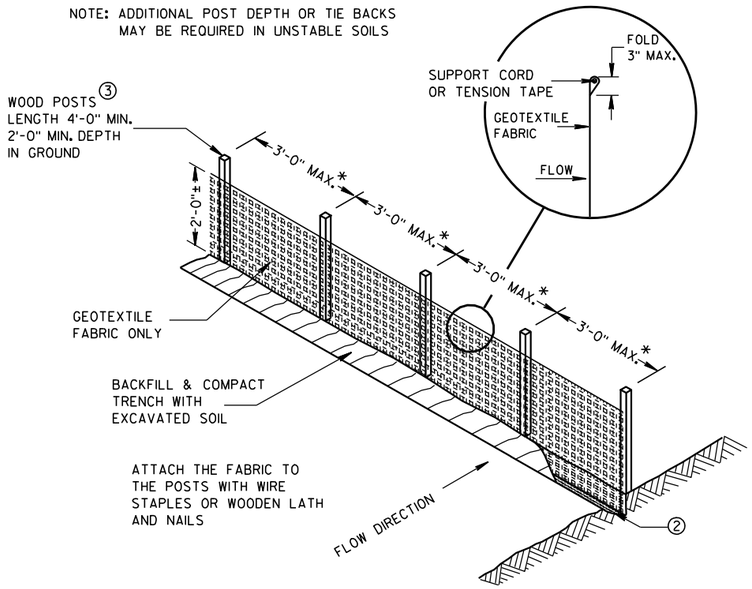
## GENERAL NOTES

DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

1. HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
2. FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
3. WOOD POSTS SHALL BE A MINIMUM SIZE OF 1⅛" X 1⅛" OF OAK OR HICKORY.
4. SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.
5. CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.

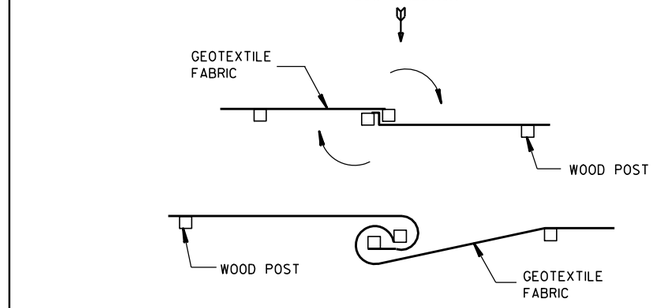



## TRENCH DETAIL

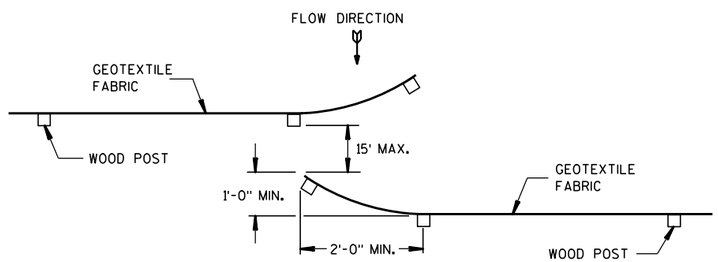



*NOTE: 8'-0" POST SPACING ALLOWED IF A WOVEN GEOTEXTILE FABRIC IS USED.

## SILT FENCE

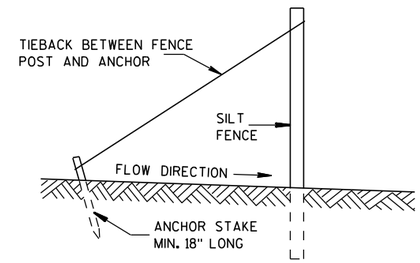



TWIST METHOD




HOOK METHOD

## JOINING TWO LENGTHS OF SILT FENCE 5




## SILT FENCE TIE BACK

(WHEN REQUIRED BY THE ENGINEER)

**SILT FENCE**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
4-29-05 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

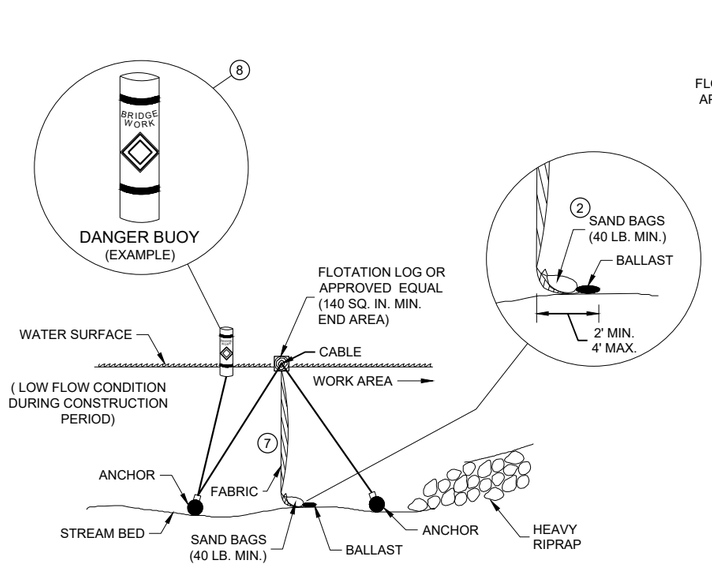


6

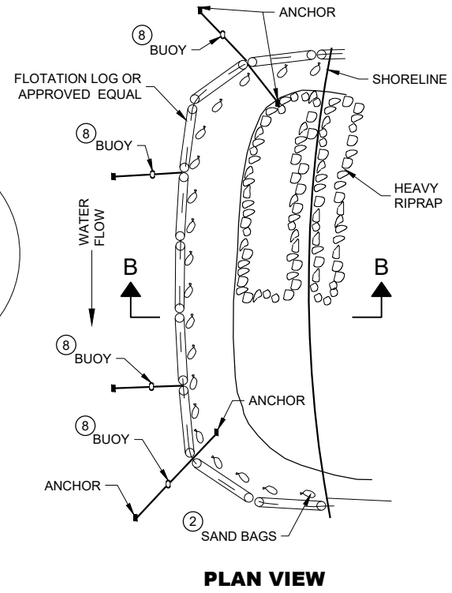
S.D.D. 8 E 9-6

6

S.D.D. 8 E 9-6

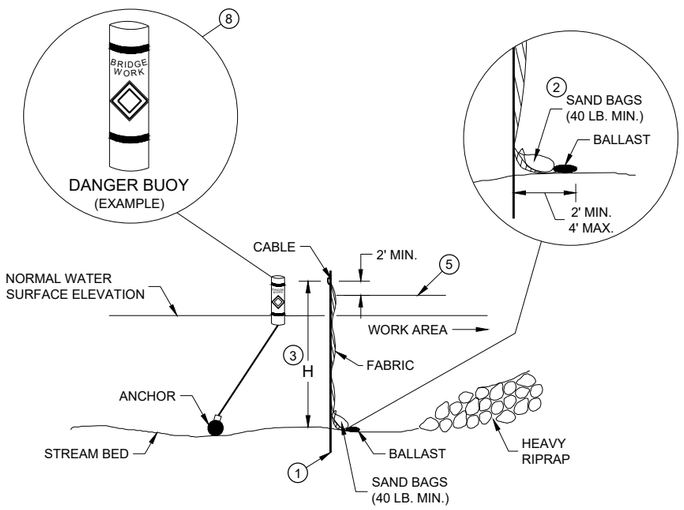



**SECTION B - B**

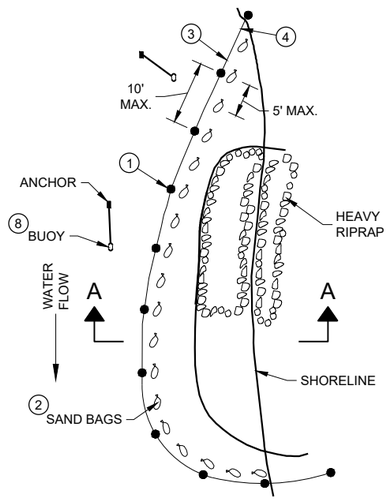



**PLAN VIEW**

**TURBIDITY BARRIER - FLOAT ALTERNATIVE**
**CAUTION - SEE NOTE 6**




**SECTION A - A**




**PLAN VIEW**

**TURBIDITY BARRIER - STANDARD POST INSTALLATION**

**TURBIDITY BARRIER PLACEMENT DETAILS**

## GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

TURBIDITY BARRIER MAY BE REMOVED AT THE ENGINEERS DISCRETION, WHEN PERMANENT EROSION CONTROL MEASURES HAVE BEEN ESTABLISHED.

(1) DRIVEN STEEL POSTS, PIPES, OR CHANNELS. LENGTH SHALL BE SUFFICIENT TO SECURELY SUPPORT BARRIER AT HIGH WATER ELEVATIONS.

(2) SAND BAGS TO BE USED AS ADDITIONAL BALLAST WHEN ORDERED BY THE ENGINEER TO MEET ADVERSE FIELD CONDITIONS. SPACE AS APPROPRIATE FOR SITE CONDITIONS.

(3) WHEN BARRIER HEIGHT "H" EXCEEDS 8 FEET, POST SPACING MAY NEED TO BE DECREASED.

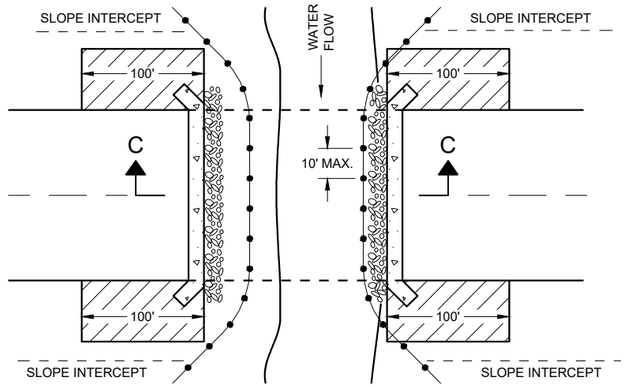
(4) IN WATERWAYS SUBJECT TO FLUCTUATING WATER ELEVATIONS, PROVISIONS SHOULD BE MADE TO ALLOW THE WATER TO EQUALIZE ON EACH SIDE OF THE BARRIER. THIS MAY BE ACCOMPLISHED BY LEAVING A PORTION OF THE BARRIER OPEN ON THE UPSTREAM END.

(5) ESTIMATED HIGH WATER ELEVATION DURING CONSTRUCTION PERIOD. MINIMUM BARRIER HEIGHT SHALL BE 2' GREATER THAN EITHER THE Q2 ELEVATION OR THE ESTIMATED HIGH WATER ELEVATION DURING CONSTRUCTION, WHICHEVER IS GREATER.

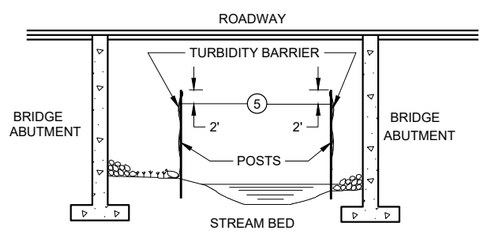
(6) FLOAT ALTERNATIVE WILL ONLY BE ALLOWED WITH WRITTEN APPROVAL OF THE ENGINEER, AND IS MEANT FOR LOCATIONS WHERE BEDROCK PREVENTS THE INSTALLATION OF POSTS.

(7) ALLOW SUFFICIENT SLACK VERTICALLY AND HORIZONTALLY SO THAT SEDIMENT BUILD UP WILL NOT SEPARATE OR LOWER THE TURBIDITY BARRIER.

(8) USE AS DIRECTED BY COAST GUARD OR DNR PERMIT WHEN WORKING IN NAVIGABLE WATERWAYS.




**PLAN VIEW**




**SECTION C - C**

**TURBIDITY BARRIER DETAIL SHOWING TYPICAL PLACEMENT AT STRUCTURES**

**TURBIDITY BARRIER**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

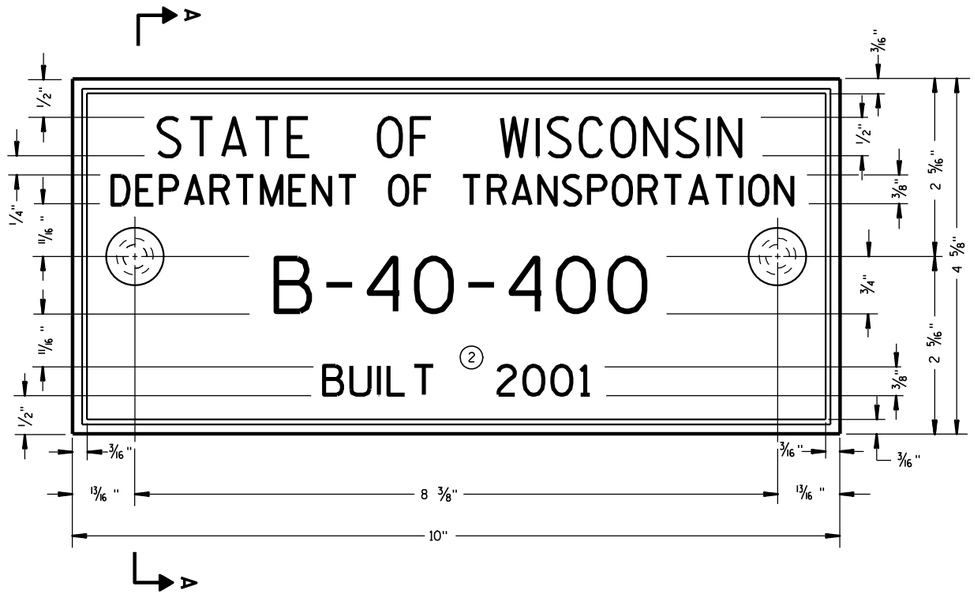
APPROVED
6/4/02
DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOI
ENGINEER

FHWA





6
SDD 08E11 - 02




**TYPICAL NAME PLATE**
(BRIDGES, CULVERTS, AND RETAINING WALLS)

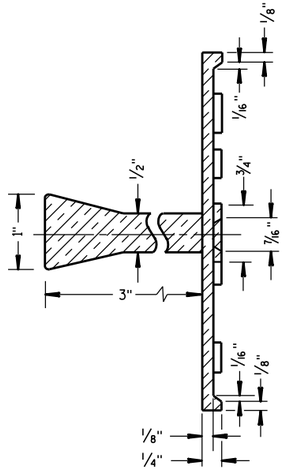
## GENERAL NOTES

NAME PLATES TO BE INSTALLED ON BRIDGES, CULVERTS, AND RETAINING WALLS SHALL CONFORM TO THE REQUIREMENTS OF SECTION 502.3.11 OF THE STANDARD SPECIFICATIONS.

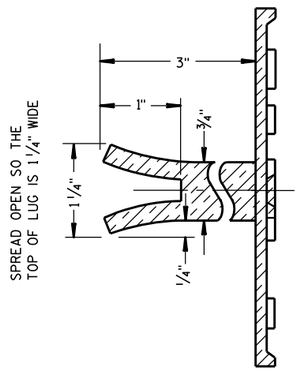
THE BRIDGE NUMBER AND YEAR BUILT SHOWN ON THIS DRAWING ARE EXAMPLES ONLY. SEE CONSTRUCTION PLANS FOR INDIVIDUAL NUMBERING AND YEAR BUILT.

(1) EPOXY RESIN SHALL BE FROM AN APPROVED MANUFACTURER AND USED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

(2) REHABILITATION OF AN EXISTING STRUCTURE SHOULD USE THE DATE OF ORIGINAL STRUCTURE CONSTRUCTION.




**SECTION A-A**




**ALTERNATE LUG**

FOR MULTI-UNIT STRUCTURES LINE 3 ABOVE SHALL READ

B = BRIDGE
C = CULVERT
R = RETAINING WALL

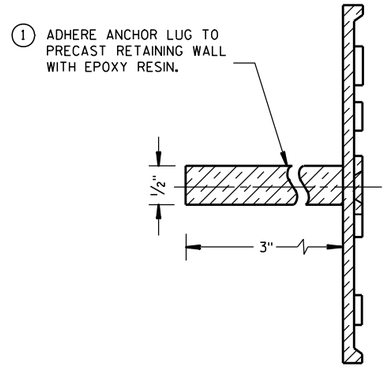
COUNTY NO.

BRIDGE NO.

UNIT NO. FOR MULTIPLE UNIT BRIDGE

B-40-400-1A

**NUMBERING DESIGNATION**
**MULTI-UNIT STRUCTURES**




**ALTERNATE LUG**
(FOR ATTACHMENT TO PRECAST STRUCTURES)

**NAME PLATE (STRUCTURES)**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

3/26/10 DATE

/S/ Scot Beck-- CHIEF STRUCTURAL DEVELOP ENGINEER

FHWA

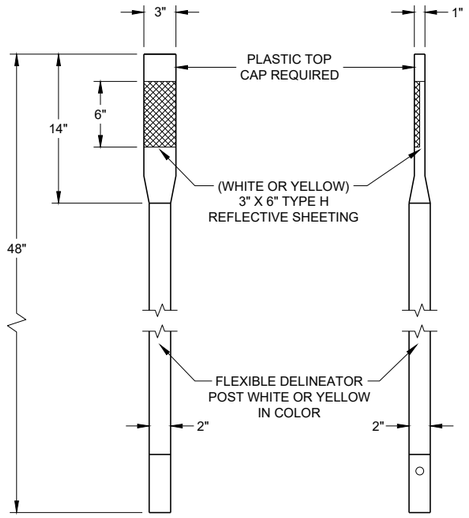


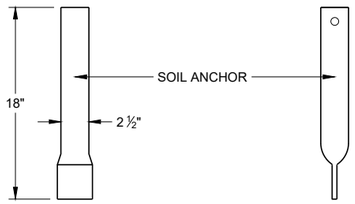
6

S.D.D. 12 A 3-10

6

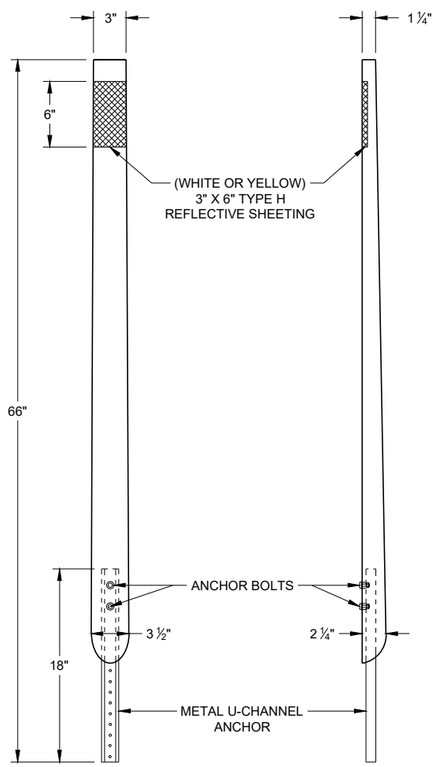
S.D.D. 12 A 3-10




FRONT VIEW SIDE VIEW

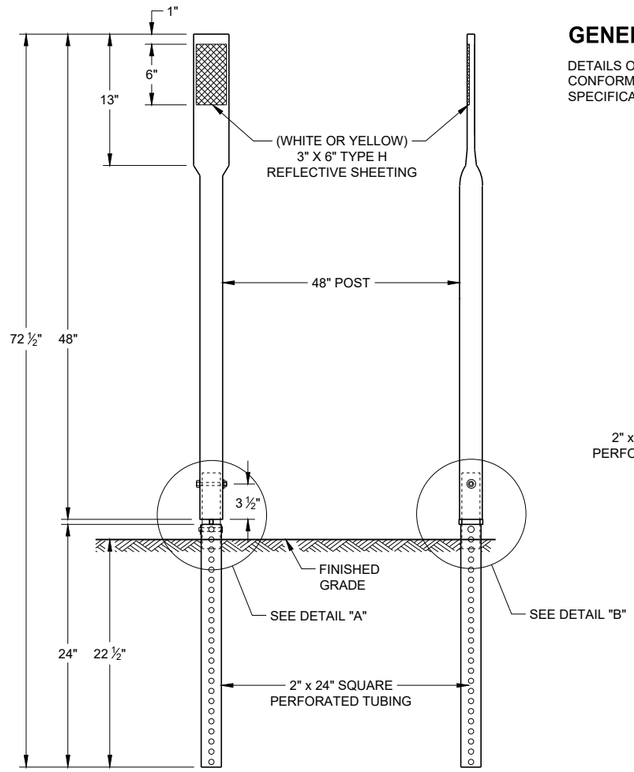
ALTERNATE 1




FRONT VIEW SIDE VIEW

ALTERNATE 2

## FLEXIBLE DELINEATOR POSTS

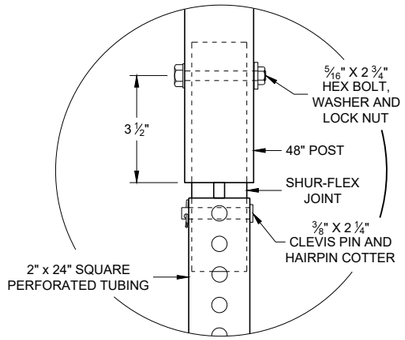



FRONT VIEW SIDE VIEW

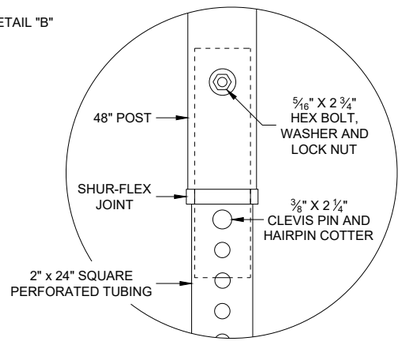
ALTERNATE 3

## GENERAL NOTES

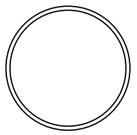
DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.



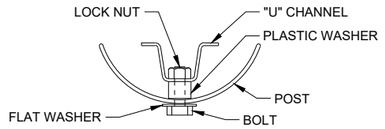

**DETAIL A**



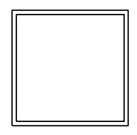

**DETAIL B**



**SECTION A - A**




**SECTION B - B**

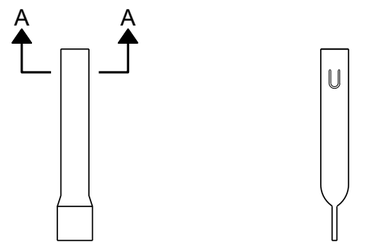


**SECTION C - C**

### REFLECTOR SPACING TABLE

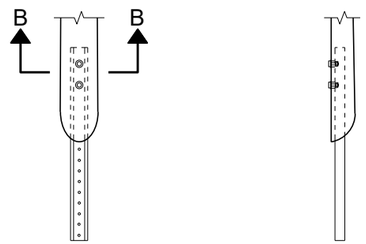
| REFLECTOR SPACING | LOCATION |
|---|---|
| * 100' C-C | RAMPS |
| 400' C-C | MAINLINE |

* START AT BEGINNING OF RAMP TAPER AND END AT END OF RAMP TAPER




FRONT VIEW SIDE VIEW

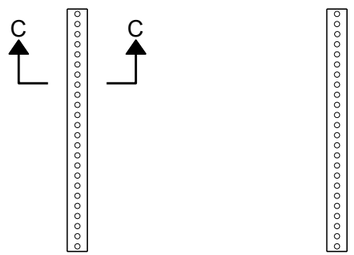
ALTERNATE 1




FRONT VIEW SIDE VIEW

ALTERNATE 2

## FLEXIBLE MARKER POST ANCHORS




FRONT VIEW SIDE VIEW

ALTERNATE 3

## FLEXIBLE DELINEATOR POST

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2021 — DATE
/S/ Matthew Rauch — STATE SIGNING AND MAF ENGINEER

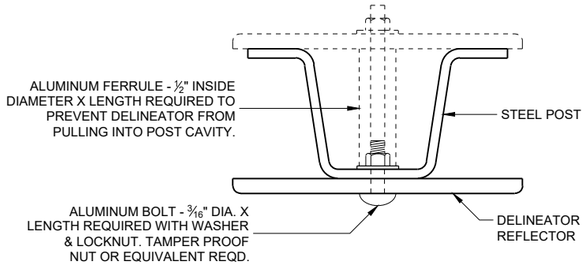
FHWA



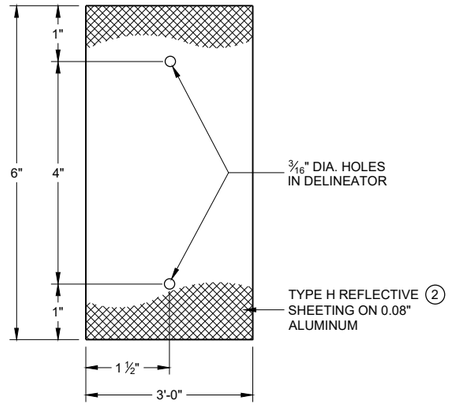
SDD 15A04 - 06a

6

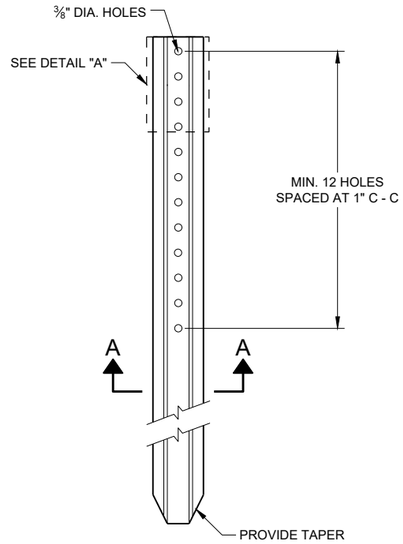
SDD 15A04 - 06a



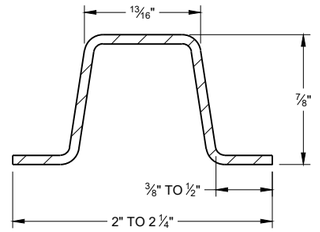

**MOUNTING DETAIL FOR DELINEATOR REFLECTOR**




**DETAIL "A" 3" X 6" DELINEATOR REFLECTOR**




**DELINEATOR POST**



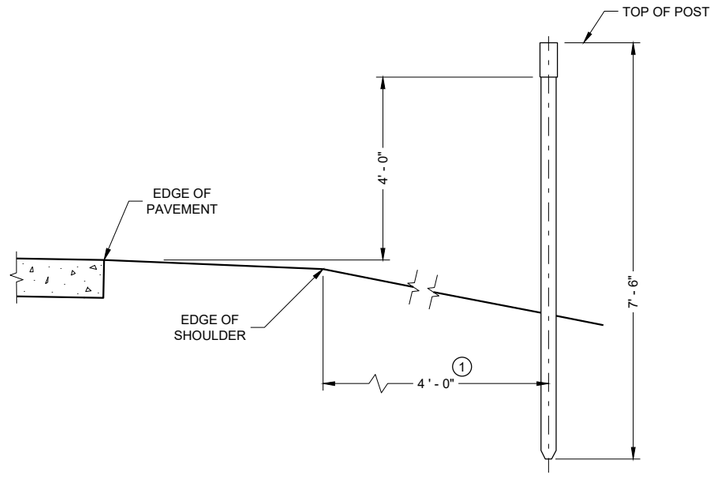

**SECTION A - A**

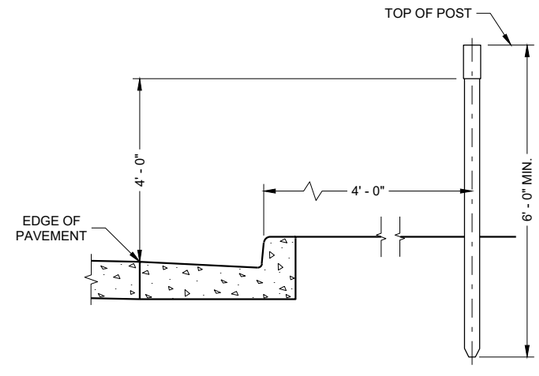
WEIGHT 1.12 LBS PER FT. \ 0.1 LB.

**REFLECTOR SPACING TABLE**

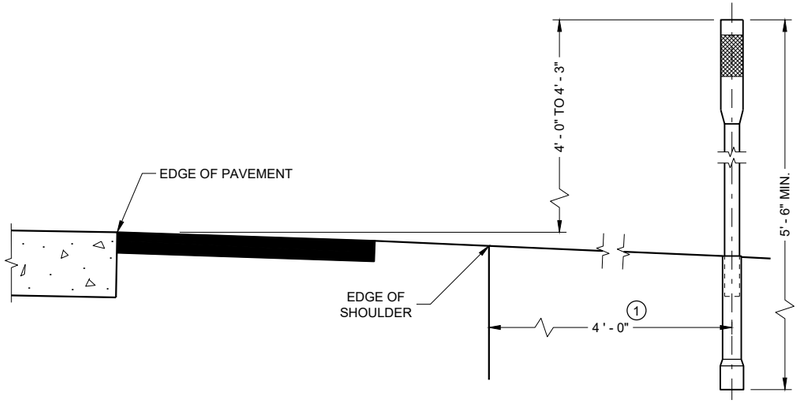
| REFLECTOR SPACING | LOCATION |
|---|---|
| * 100' C-C | RAMPS |
| 400' C-C | MAINLINE |

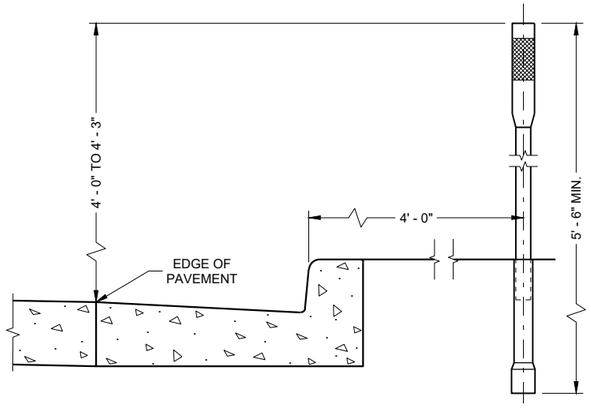
* START AT BEGINNING OF RAMP TAPER AND END AT END OF RAMP TAPER




**TYPICAL INSTALLATIONS OF DELINEATOR POSTS**




**TYPICAL INSTALLATIONS OF FLEXIBLE DELINEATOR POSTS**

## GENERAL NOTES

DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF TEH STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

1. DELINEATORS SHALL BE PLACED AT A CONSTANT DISTANCE FROM THE EDGE OF THE SHOULDER FOR THE LENGTH OF THE INSTALLATION.
2. FURNISH TYPE H SHEETING FROM THE APPROVED PRODUCTS LIST.

**DELINEATOR POST WITH REFLECTIVE SHEETING**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2021 — DATE
/S/ Matthew Rauch — STATE SIGNING AND MAF ENGINEER

FHWA

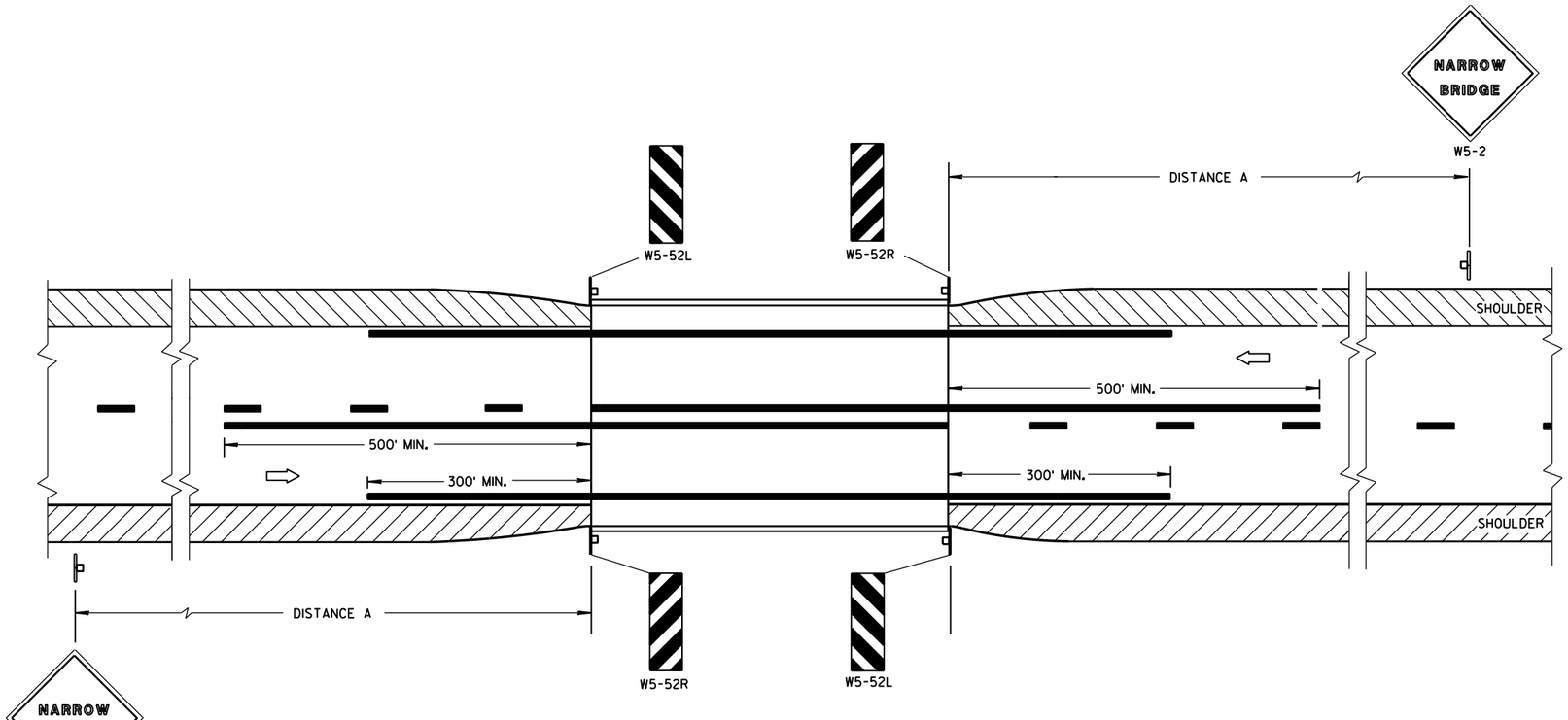


6

SDD 15A04 - 06c

6

SDD 15A04 - 06c




## SITUATION 1

WARRANTING CRITERIA:
BRIDGE WIDTH IS AT LEAST 16 FEET BUT LESS THAN 24 FEET.

### DISTANCE TABLE

| POSTED OR 85th PERCENTILE SPEED | DISTANCE "A" |
|---|---|
| 25 | 150' |
| 30 | 200' |
| 35 | 250' |
| 40 | 300' |
| 45 | 400' |
| 50 | 550' |
| 55 | 750' |

## GENERAL NOTES

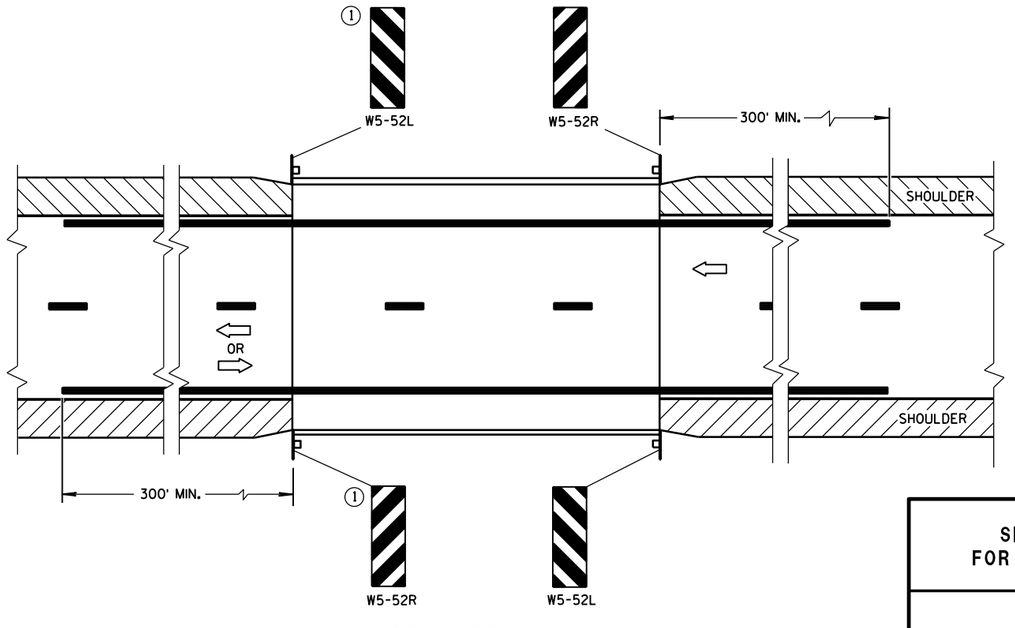
DETAILS OF TRAFFIC CONTROL DEVICES AND INSTALLATION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, THE SPECIAL PROVISIONS, AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

LOCATE W5-52 SIGN POST(S) BEHIND GUARDRAIL WHEN PRESENT.

PLACE THE EDGE OF THE W5-52 SIGN IN LINE WITH FACE OF CURB OR PARAPET.

(1) OMIT ON ONE-WAY TRAVELLED WAYS.

⇨ DIRECTION OF TRAFFIC




## SITUATION 2

WARRANTING CRITERIA:

1. BRIDGE WIDTH IS AT LEAST 24 FEET AND
2. BRIDGE SHOULDER WIDTH IS LESS THAN 6 FEET.

**SIGNING & MARKING FOR TWO LANE BRIDGES**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2017 — DATE
/S/ Matthew R. Rauch — STATE SIGNING AND MAR[illegible]EER
FHWA

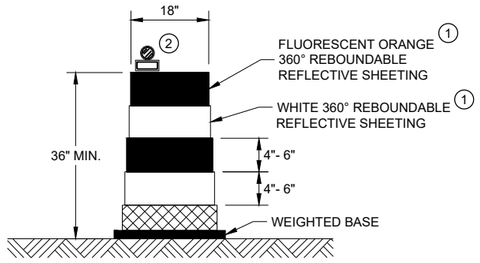



6

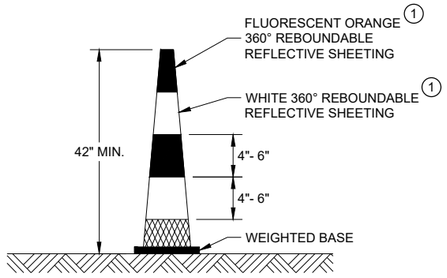
S.D.D. 15 C 6-9

## GENERAL NOTES

1. REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.
2. LOCATION OF WARNING LIGHTS WHEN SHOWN ON THE PLAN.

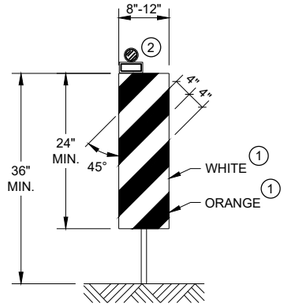



### DRUM



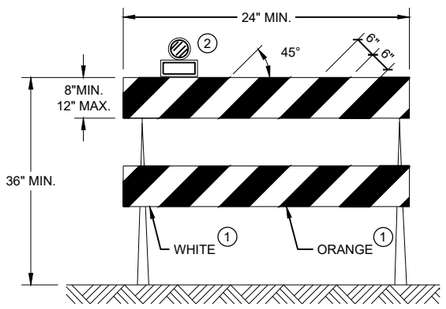

### 42" CONE

DO NOT USE IN TAPERS
½ SPACING OF DRUMS



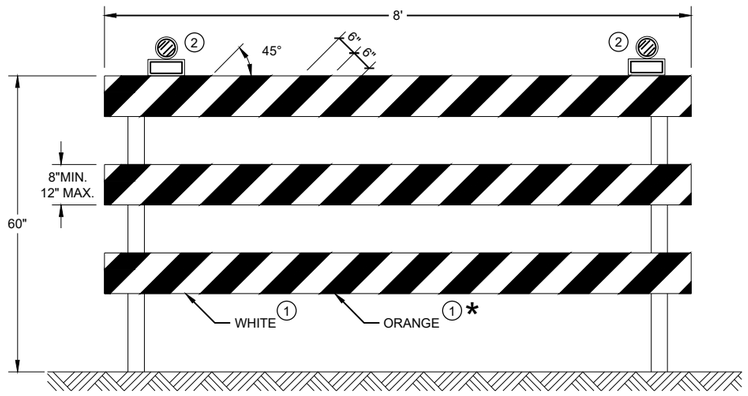

### VERTICAL PANEL

THE STRIPES SHALL SLOPE DOWNWARD TO
THE TRAFFIC SIDE FOR CHANNELIZATION.




### TYPE II BARRICADE

FOR RAILS LESS THAN 36" LONG, 4" WIDE STRIPES
MAY BE USED. ALL STRIPES SHALL SLOPE DOWNWARD
TO THE TRAFFIC SIDE FOR CHANNELIZATION.




### TYPE III BARRICADE

IF SIGN MOUNTED, DO NOT COVER MORE THAN 50% OF THE TOP
TWO RAILS OR 33% OF THE TOTAL AREA OF THE THREE RAILS.

* IF USED FOR A PERMANENT APPLICATION USE RED SHEETING.

**CHANNELIZING DEVICES**
**DRUMS, CONES, BARRICADES**
**AND VERTICAL PANELS**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2021 — DATE
/S/ Andrew Heidtke — WORK ZONE ENGINEER
FHWA



6

SDD15C11 - 09b

6

SDD15C11 - 09b

| S | BUFFER SPACE (DESIRABLE) |
|---|---|
| 25 | 55' |
| 30 | 85' |
| 35 | 120' |
| 40 | 170' |
| 45 | 220' |
| 50 | 280' |
| 55 | 335' |

S = NON-CONSTRUCTION SPEED LIMIT (MPH)

END ROAD WORK
G20-2A
48"x24"

NO PASSING ZONE
W14-3
48"x36"

BEGIN TEMPORARY PAVEMENT MARKING, 4-INCH SOLID YELLOW CENTERLINE ✳✳

1000'
500'
400'
500'
200'
50'
50'
25' TYP.

W01-6
48"x24"
✳✳✳

R11-2
48"x30"
ROAD CLOSED
TYPE III BARRICADE

FOR BRIDGE OR CULVERT REPLACEMENTS SUBSTITUTE
BRIDGE OUT
R11-2B
48"x30"

W01-6
48"x24"
TYPE III BARRICADE

W01-3L OR W01-4L
W013-1
XX M.P.H.
24"x24"

ROAD WORK 1000 FT
W20-1C

ROAD WORK AHEAD
W20-1A

END TEMPORARY PAVEMENT MARKING, 4-INCH SOLID YELLOW CENTERLINE ✳✳

ROAD CLOSURE OR BRIDGE/CULVERT REPLACEMENT

BUFFER SPACE (SEE TABLE)

WORK AREA

BUFFER SPACE (SEE TABLE)

BEGIN TEMPORARY PAVEMENT MARKING, 4-INCH WHITE EDGELINE

TEMPORARY STEEL PLATE BEAM GUARD AND END TREATMENT WHEN INCLUDED IN THE CONTRACT. FOR LAYOUT, SEE DETAILS ELSEWHERE IN THE PLAN.

W05-52L
12"x36"

W05-52R
12"x36"

25' TYP.

ROAD WORK AHEAD
W20-1A

ROAD WORK 1000 FT
W20-1C

W01-4R OR W01-3R
W013-1
XX M.P.H.
24"x24"

W01-6
48"x24"
✳✳✳

W01-4L OR W01-3L
W013-1
XX M.P.H.
24"x24"

END TEMPORARY PAVEMENT MARKING, 4-INCH WHITE EDGELINE

TEMPORARY PAVEMENT MARKING, 4-INCH WHITE EDGELINES. (USE REMOVABLE TAPE WHERE TEMPORARY MARKING CROSSES PERMANENT PAVEMENT)

NO PASSING ZONE
W14-3
48"x36"

END ROAD WORK
G20-2A
48"x24"

TEMPORARY PAVEMENT MARKING, 4-INCH DOUBLE YELLOW CENTERLINE AND 2-WAY YELLOW RAISED PAVEMENT MARKERS AT 25' SPACING. USE REMOVABLE TAPE WHERE TEMPORARY MARKING CROSSES PERMANENT PAVEMENT.

## GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

"WO" IS THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FHWA'S MANUAL OF STANDARD HIGHWAY SIGNS OR THE WISCONSIN STANDARD SIGN PLATES.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED.

EQUIPMENT, VEHICLES, OR MATERIAL SHOULD NOT BE STORED IN BUFFER SPACE.

✳ IF ADVISORY SPEED IS GREATER THAN 30 MPH, USE THE W01-4 SIGN. IF ADVISORY SPEED IS 30 MPH OR LESS, USE THE W01-3 SIGN.

✳✳ WHEN THE DISTANCE TO/FROM THE NEXT CLOSEST NO-PASSING ZONE IS LESS THAN THE MINIMUM DISTANCE BETWEEN ZONES AS INDICATED IN THE SPECIFICATIONS, THE TWO ZONES SHALL BE CONNECTED.

✳✳✳ OMIT THESE W01-6 SIGNS IF THE ADVISORY SPEED OF THE CURVE IS GREATER THAN 30 MPH.

## LEGEND

- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY-BURN LIGHT
- TRAFFIC CONTROL DRUM
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- Ⓐ TYPE "A" WARNING LIGHT (FLASHING)
- TEMPORARY DELINEATOR, (WHITE) (SINGLE DELINEATOR)
- TEMPORARY RAISED PAVEMENT MARKERS (TWO-WAY YELLOW)
- XXX REMOVE PAVEMENT MARKING
- DIRECTION OF TRAFFIC
- TEMPORARY STEEL PLATE BEAM GUARD AND END TREATMENT
- WORK AREA

# TRAFFIC CONTROL, TEMPORARY BYPASS ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

Sept. 2015 — DATE

/S/ Peter Amakobe Atepe — STATEWIDE WORK ZONE SAFETY ENGINEER

FHWA

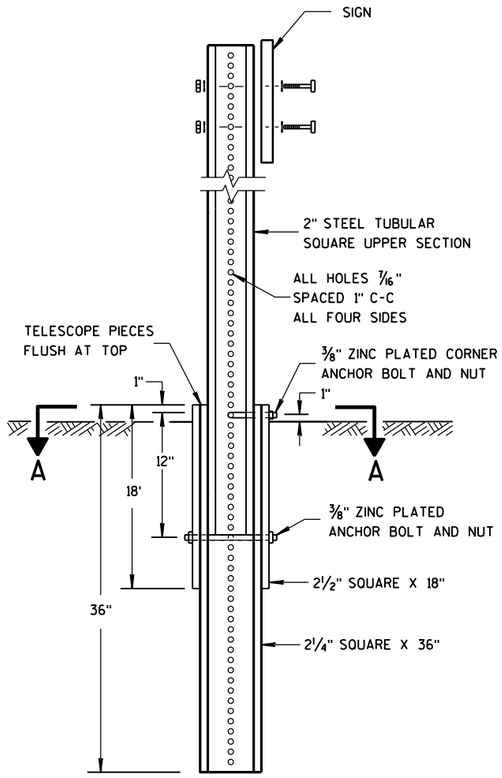




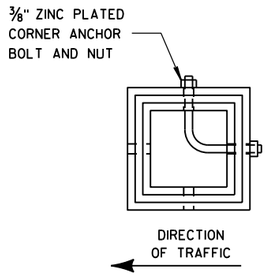


6

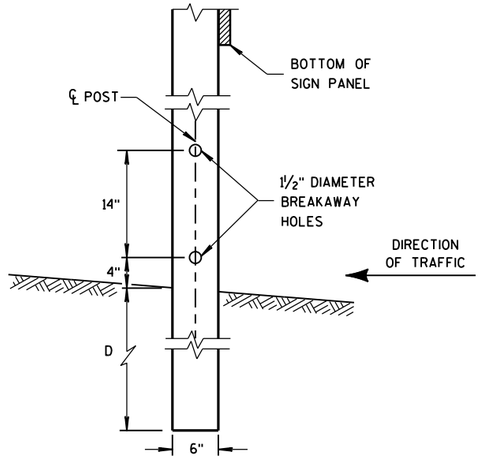
S.D.D. 15 D 31-3




## DETAIL OF TUBULAR STEEL SIGN POST




## SECTION A-A



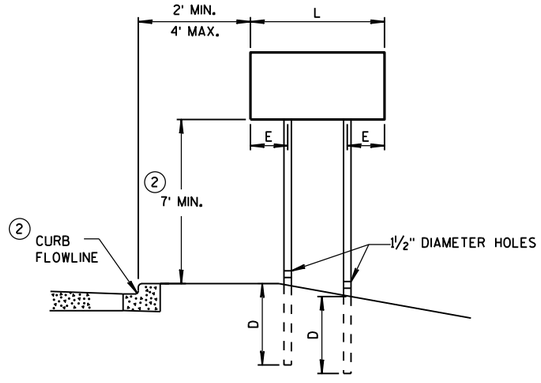

## 4"x6" WOOD POST MODIFICATION

## GENERAL NOTES

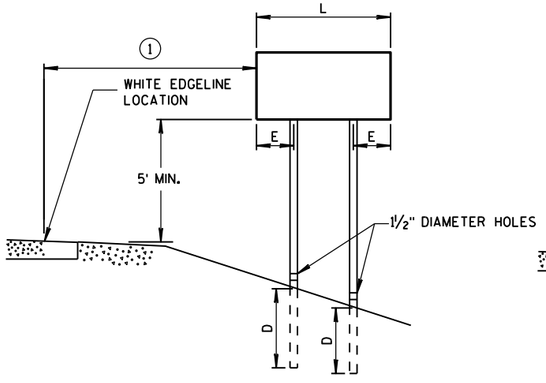
(1) 6 FEET FROM THE EDGE OF PAVEMENT (EDGE LINE LOCATION) UNLESS OTHERWISE DIRECTED BY THE PROJECT ENGINEER. LATERAL OFFSET SHOULD BE ADJUSTED TO AVOID THE DITCH FLOWLINE.

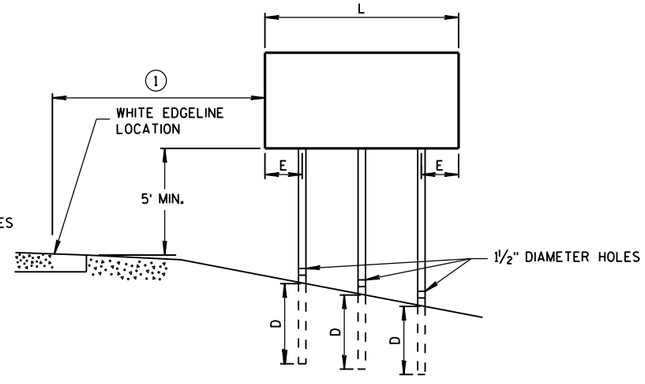
(2) THE EXISTENCE OF CURB AND GUTTER DOES NOT IN ITSELF MANDATE THE VERTICAL CLEARANCE ILLUSTRATED. THAT HEIGHT IS TYPICALLY MEASURED WHERE THERE IS SIDEWALK ADJACENT TO THE ROADWAY OR PARKING IS PERMITTED. IN THE ABSENCE OF SIDEWALK, VERTICAL CLEARANCE IS MEASURED FROM THE TOP OF THE CURB. IF NO SIDEWALK AND NO PARKING, VERTICAL CLEARANCE MAY BE REDUCED TO 5 FOOT MINIMUM. OFFSET OF SIGNS IS MEASURED FROM THE CURB FLOWLINE.

(3) FOR SIGNS REQUIRING 4 POSTS, SPACE INTERMEDIATE POSTS EVENLY.




## URBAN AREA




## RURAL AREA

## POST MOUNTING DETAIL FOR TEMPORARY TRAFFIC CONTROL FIXED MESSAGE SIGNS

### TUBULAR STEEL POSTS

| AREA OF SIGN INSTALLATION (SQ. FT.) | NUMBER OF REQUIRED TUBULAR STEEL POSTS |
|---|---|
| 9 OR LESS | 1 |
| GREATER THAN 9 LESS THAN OR EQUAL TO 18 | 2 |
| GREATER THAN 18 LESS THAN OR EQUAL TO 27 | 3 |

SIGNS WIDER THAN 3 FEET OR LARGER THAN 9 SQ. FT. SHALL BE MOUNTED ON MULTIPLE POSTS (SEE ABOVE TABLE).

SIGNS LARGER THAN 27 SQ. FT. SHALL NOT BE MOUNTED ON TUBULAR STEEL POSTS.

### WOOD POST EMBEDMENT DEPTH

| AREA OF SIGN INSTALLATION (SQ. FT.) | D (MIN) |
|---|---|
| 20 OR LESS | 4' |
| GREATER THAN 20 | 5' |

### 4" X 6" WOOD POST

| POST SPACING REQUIREMENTS | | NUMBER OF WOOD POSTS REQUIRED |
|---|---|---|
| L | E | |
| 48" OR LESS AND LESS THAN 20 SQ. FT. | - | 1 |
| LESS THAN 60" | 12" | 2 |
| 60" TO 120" | L/5 | 2 |
| GREATER THAN 120" LESS THAN 168" | 12" | 3 |
| 168" AND GREATER | 12" | 4 |

SEE NOTE (3)

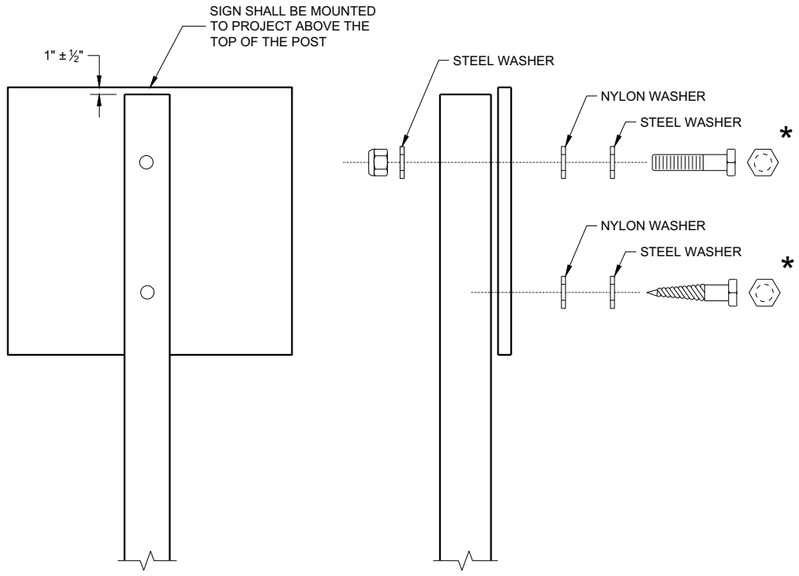
TEMPORARY TRAFFIC CONTROL SIGN MOUNTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI




6

S.D.D. 15 D 38-2a




NUTS, BOLTS AND LAGS USED FOR MOUNTING SIGNS SHALL HAVE HEXAGONAL HEADS AND SHALL BE EITHER:

A. HOT DIP GALVANIZED IN ACCORDANCE WITH ASTM DESIGNATION: A 153, CLASS D, OR SC 3
B. ELECTRO-GALVANIZED IN ACCORDANCE WITH ASTM DESIGNATION: B 633, TYPE III, SC 3

THREADS ON BOLTS AND NUTS SHALL BE MANUFACTURED WITH SUFFICIENT ALLOWANCE FOR THE CADMIUM PLATE OR GALVANIZED COATING TO PERMIT THE NUTS TO RUN FREELY ON THE BOLTS.

WOOD POST (4" x 6")
LAG SCREWS - ⅜" x 3"
MACHINE BOLTS - 5/16" x 6 ½" OR 7" LENGTH W/NUTS

SQUARE STEEL POST (2" x 2")
MACHINE BOLTS - ⅜" x 3 ¼" LENGTH W/NUTS
RIVETS - 9/32" (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL O.D. FLANGE 0.720 - 0.765 INCH, GRIP RANGE 0.042 - 0.375 INCH

WASHERS (ALL POSTS) -
1 ¼" O.D. x ⅜" I.D. x 1/16" STEEL
1 ¼" O.D. x ⅜" I.D. x 0.080 NYLON

* TWO DIFFERENT FASTENING SYSTEMS ARE SHOWN FOR ILLUSTRATION PURPOSES. ON ANY INDIVIDUAL SIGN, EITHER ONE OR THE OTHER SYSTEM SHALL BE USED. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH THE SIGN AREA. FOR A SINGLE POST INSTALLATION, ALL SIGNS GREATER THAN 9 SQ. FT. REQUIRE THE USE OF 3 FASTENERS.

6

6

SDD 15D38 - 02b

SDD 15D38 - 02b

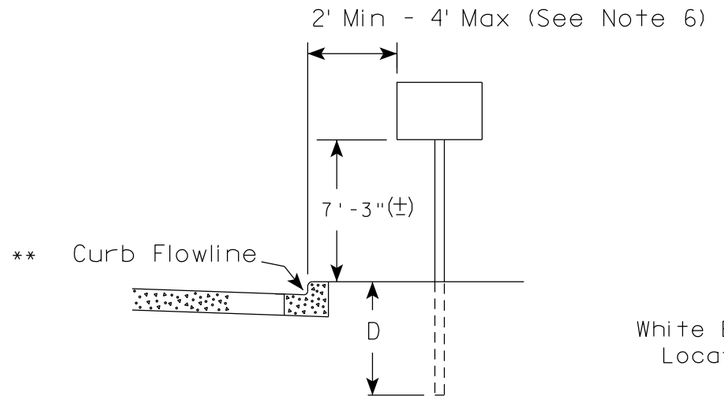
**ATTACHMENT OF SIGNS TO POSTS**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

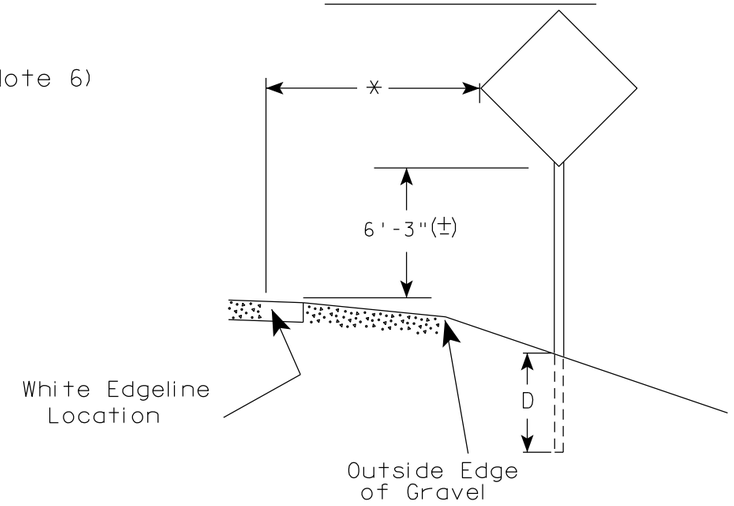
APPROVED
June 2017
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEE

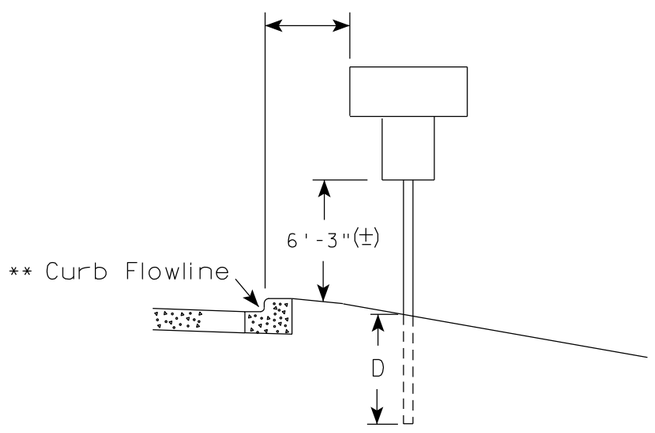
FHWA

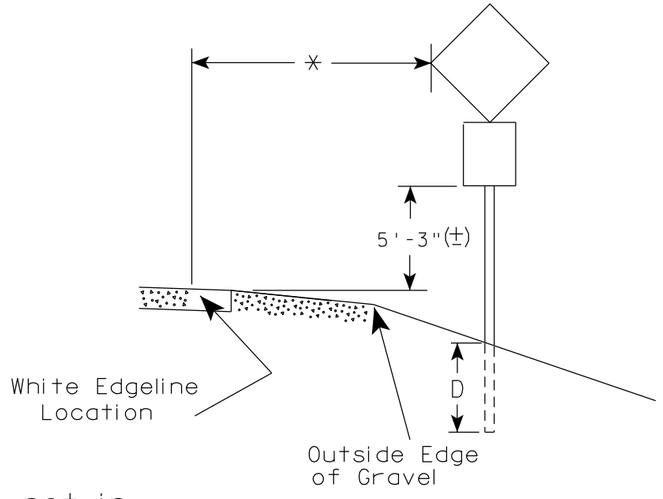
## URBAN AREA




## RURAL AREA (See Note 2)




** The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs is measured from the flow line.

* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

### POST EMBEDMENT DEPTH

| Area of Sign Installation ( Sq.Ft.) | D ( Min ) |
|---|---|
| 20 or Less | 4' |
| Greater than 20 | 5' |

### GENERAL NOTES

1. Signs wider than 4 feet or 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
2. If signs are mounted on or behind barrier wall, see A4-10 sign plate.
   The Double Arrow sign (W12-1D) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Enhanced Reference Markers, Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4'-3" (±).
3. For expressways and freeways, mounting height is 7'- 3" (±) or 6'-3" (±) depending upon existence of a sub-sign.
4. Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±).
5. Offset distance shall be consistent with existing signs or consistent throughout length of project.
6. The (±) tolerance for mounting height is 3 inches.
7. Folding signs shall be mounted at a height of 5'-3" (±) or as directd by the Engineer.

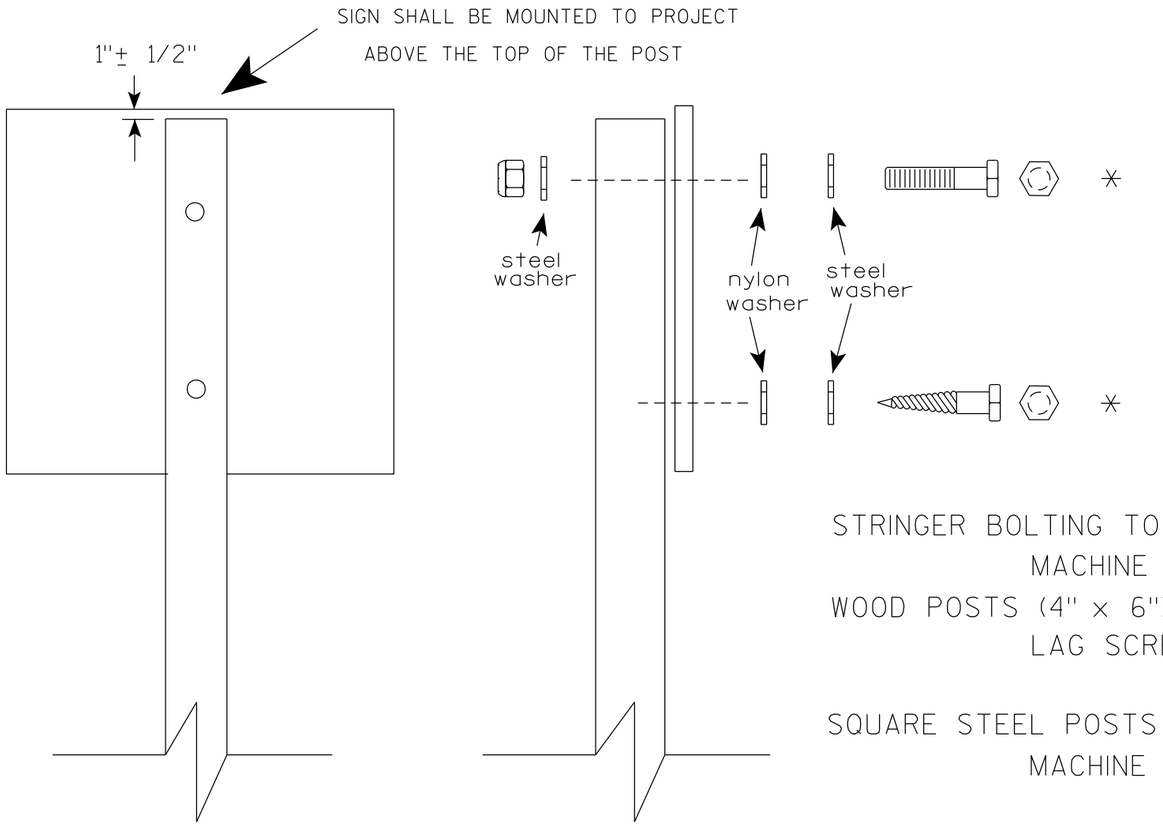
TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/13/2020 PLATE NO. A4-3.22

| PROJECT NO: | HWY: | COUNTY: | | SHEET NO: 26 | E |
|---|---|---|---|---|---|




Nuts, bolts and lags used for mounting signs shall have hexagonal heads and shall be either :

a. Hot dip galvanized in accordance with ASTM Designation: A 153, Class D, or SC 3

b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

Threads on bolts and nuts shall be manufactured with sufficient allowance for the cadmium plate or galvanized coating to permit the nuts to run freely on the bolts.

STRINGER BOLTING TO ALUMINUM SIGNS (SEE SIGN PLATE A4-18)

MACHINE BOLTS - 5/16" X 1-3/4" Length w/ lock nuts

WOOD POSTS (4" x 6")

LAG SCREWS - 3/8" X 3" (NO STRINGERS ON BACK OF SIGN)
3/8" X 4" (STRINGERS ON BACK OF SIGN)

SQUARE STEEL POSTS (2" x 2")

MACHINE BOLTS - 3/8" X 3-1/4" Length w/ nuts (NO STRINGER ON BACK OF SIGN)
3/8" X 5" Length w/ nuts (STRINGERS ON BACK OF SIGN)

RIVETS - 9/32" (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL
O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH

WASHERS (ALL POSTS) -

1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON

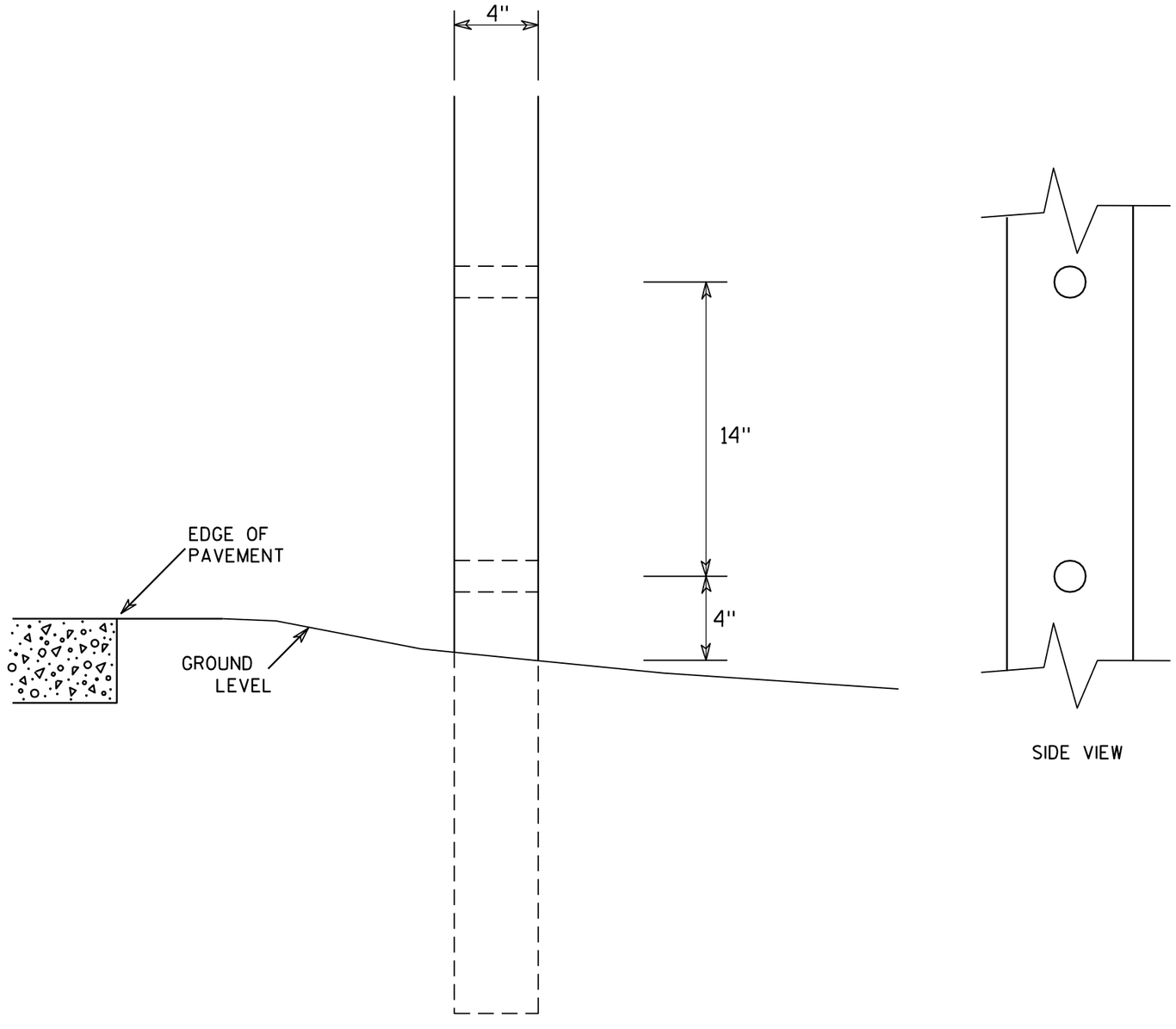
* Two different fastening systems are shown for illustration purposes. On any individual sign, either one or the other system shall be used. Actual number of fasteners per sign varies with the sign area, but normally there are two. For a single post installation, all signs greater than 9 sq. ft. require the use of 3 fasteners.

# ATTACHMENT OF SIGNS TO POSTS

*WISCONSIN DEPT OF TRANSPORTATION*

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/1/2020 PLATE NO. A4-8.9






SIDE VIEW

GENERAL NOTES

1. All 4 x 6 Wood Posts shall be modified by having two 1½" diameter holes drilled perpendicular to the roadway centerline.

7

7

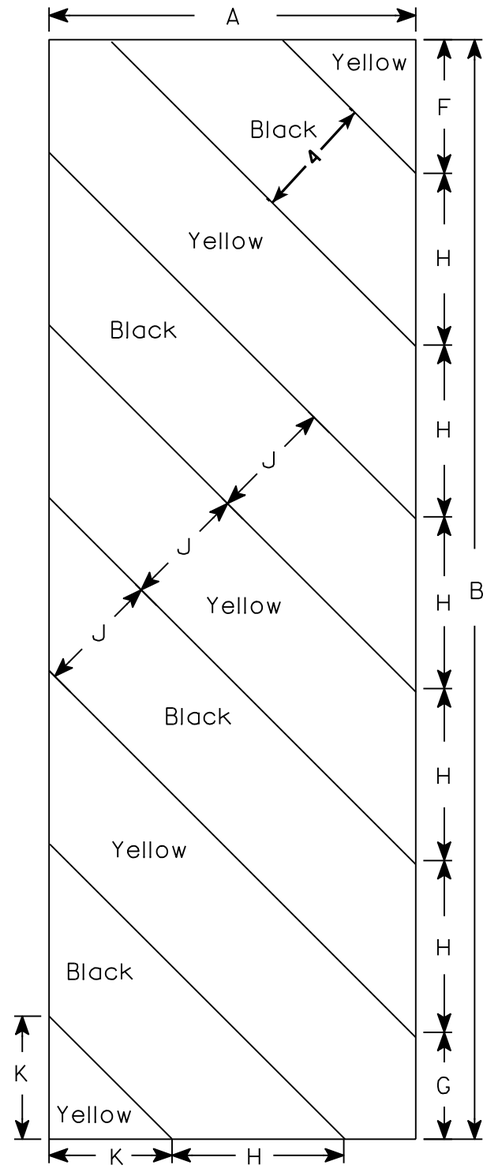
# 4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

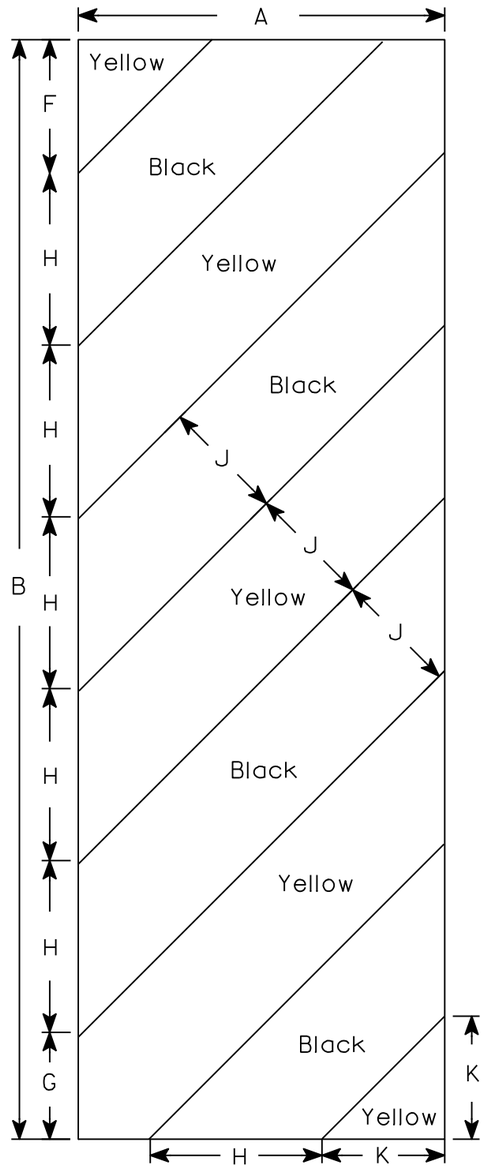
APPROVED Chester J Spang for State Traffic Engineer

DATE 3/27/97 PLATE NO. A4-11.2

| PROJECT NO: | HWY: | COUNTY: | | SHEET NO: 28 | E |
|---|---|---|---|---|---|




W5-52L




W5-52R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. Alternate colors of stripes as shown.

| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2S | 12 | 36 | | | | 4 3/8 | 3 1/2 | 5 5/8 | 45° | 4 | 4 | | | | | | | | | | | | | | | | 3.0 |
| 2M | 12 | 36 | | | | 4 3/8 | 3 1/2 | 5 5/8 | 45° | 4 | 4 | | | | | | | | | | | | | | | | 3.0 |
| 3 | 18 | 54 | | | | 6 | 5 1/2 | 8 1/2 | 45° | 6 | 6 9/16 | | | | | | | | | | | | | | | | 6.75 |
| 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | |

STANDARD SIGN

W5-52L & W5-52R

*WISCONSIN DEPT OF TRANSPORTATION*

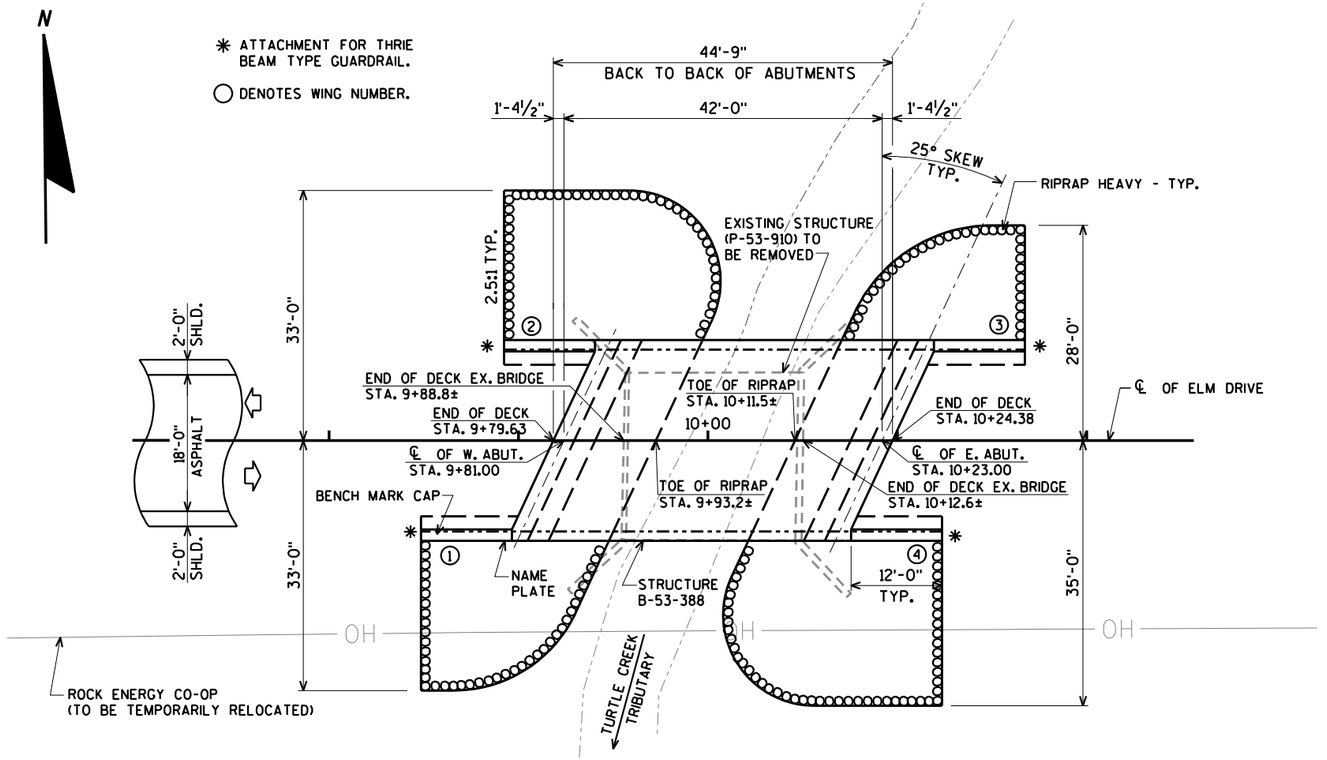
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/29/12 PLATE NO. W5-52.9

| PROJECT NO: | HWY: | COUNTY: | | SHEET NO: 29 | E |
|---|---|---|---|---|---|

STATE PROJECT NUMBER

3618-00-74

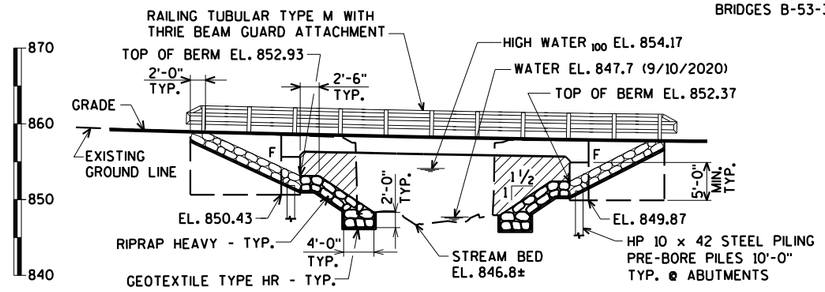



## PLAN

SINGLE-SPAN CONCRETE FLAT SLAB BRIDGE

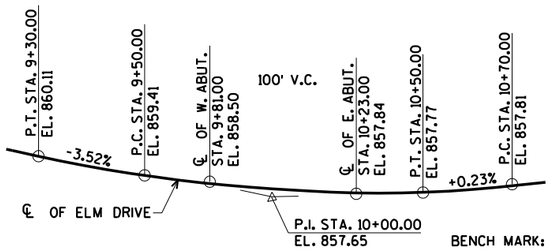
COST OF EXCAVATION IN THE HATCHED AREAS SHALL BE INCLUDED IN THE CONTRACT LUMP SUM PRICE FOR "EXCAVATION FOR STRUCTURES BRIDGES B-53-388".

REMOVE EXISTING SUBSTRUCTURE AS NEEDED. COST CONSIDERED INCIDENTAL TO "REMOVING STRUCTURE" ITEM. TYPICAL AT ALL SUBSTRUCTURES.




## ELEVATION

(NORMAL TO ℄ OF TRIBUTARY)



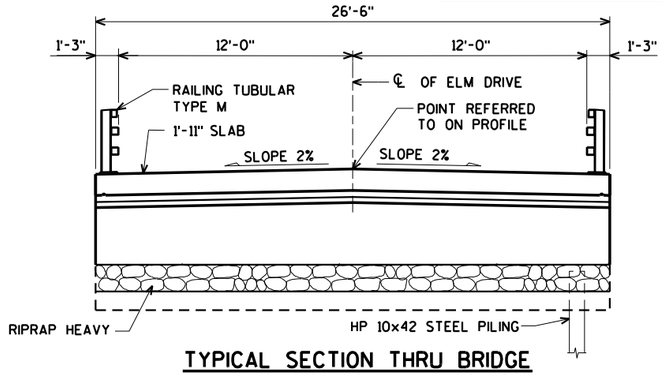

## PROFILE GRADE LINE

(ELM DRIVE)

BENCH MARK:
CHISLED 'X' NW ABUT. OF BRIDGE
STA. 9+90. 9'LT.
EL. 857.49

## LIST OF DRAWINGS






## TYPICAL SECTION THRU BRIDGE

## DESIGN DATA

LIVE LOAD:

DESIGN LOADING: HL-93
INVENTORY RATING FACTOR: 1.06
OPERATING RATING FACTOR: 1.38
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV) = 250 KIPS

STRUCTURE IS DESIGNED FOR A FUTURE WEARING SURFACE OF 20 #/S.F.

MATERIAL PROPERTIES:

CONCRETE MASONRY { SUPERSTRUCTURE ____ $f'_c$ = 4,000 p.s.i.
ALL OTHER ____ $f'_c$ = 3,500 p.s.i.
HIGH STRENGTH BAR STEEL REINFORCEMENT (GRADE 60) ____ $f_y$ = 60,000 p.s.i.

HYDRAULIC DATA:

| 100 YEAR FREQUENCY | 2 YEAR FREQUENCY |
|---|---|
| $Q_{100}$ = 856 c.f.s. | $Q_2$ = 205 c.f.s. |
| VEL.= 10.0 f.p.s. | VEL.= 4.7 f.p.s. |
| $HW_{100}$ = EL. 854.17 | $HW_2$ = EL. 850.83 |
| WATERWAY AREA = 86 sq. ft. | |
| DRAINAGE AREA = 4.6 sq. mi. | |
| ROADWAY OVERTOPPING = N/A | |
| SCOUR CRITICAL CODE = 5 | |
| DATUM = NAVD88 (2012) | |

TEMPORARY STRUCTURE

$Q_5$ = 330 c.f.s.
VEL.= 5.5 f.p.s.
$HW_5$ = EL. 851.99
MIN. AREA = 60 sq. ft.

FOUNDATION DATA:

ABUTMENTS TO BE SUPPORTED ON HP 10 x 42 STEEL PILING DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 140 TONS ‡ PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATED LENGTH 12'-0". PRE-BORE PILES 10'-0".

‡ THE FACTORED AXIAL RESISTANCE OF PILES IN COMPRESSION USED FOR DESIGN IS THE REQUIRED DRIVING RESISTANCE MULTIPLIED BY A RESISTANCE FACTOR OF 0.5 USING MODIFIED GATES TO DETERMINE DRIVEN PILE CAPACITY.

TRAFFIC DATA:

A.A.D.T. = <100 (2022)
A.A.D.T. = <100 (2042)
R.D.S. = 25 M.P.H.

WISCONSIN DANIEL N. SYDOW E-38363 WI PROFESSIONAL ENGINEER

07/29/2021

BRIDGE OFFICE CONTACT:
AARON BONK
(608)-261-0261

CONSULTANT CONTACT:
DAN SYDOW
(715)-834-3161

| NO. | DATE | REVISION | BY |
|---|---|---|---|

ORIGINAL PLANS PREPARED BY

AYRES 3433 Oakwood Hills Parkway Eau Claire, WI 54701 www.AyresAssociates.com

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED SDR 08/04/21
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE B-53-388

ELM DRIVE OVER TURTLE CREEK TRIBUTARY

| COUNTY | TOWN/~~CITY/VILLAGE~~ |
|---|---|
| ROCK | LA PRAIRIE |

DESIGN SPEC.
AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

| DESIGNED BY | DESIGN CK'D. | DRAWN BY | PLANS CK'D. |
|---|---|---|---|
| JLB | ZSS | CLP | DNS |

GENERAL PLAN

SHEET 1 OF 12
30

I.D. DATE:

DATE: DATE: DATE:
CHECKED BY: BACK CHECKED BY: CORRECTED BY:

7/28/2021
PENTABLE:BReau_shd_util.tbl

I:‡47‡470347 Rock-Town of LaPrairie‡Structures‡CADD‡Final‡470347 gp.dgn

8

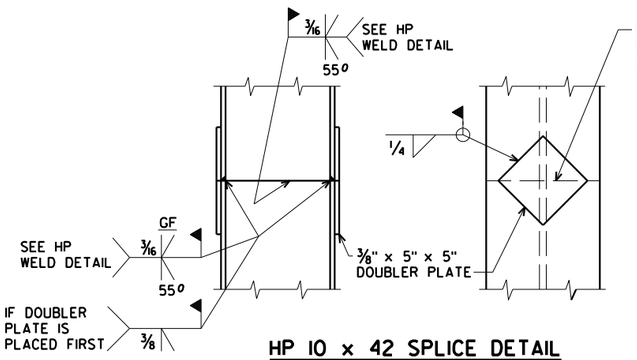
8

STATE PROJECT NUMBER

3618-00-74

## TOTAL ESTIMATED QUANTITIES

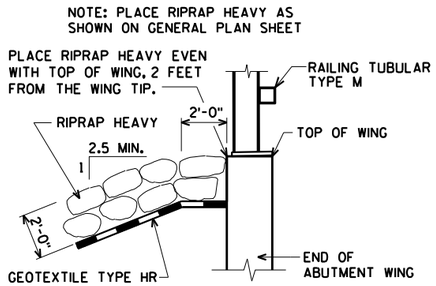
| BID ITEM NUMBER | BID ITEMS | UNIT | W. ABUT. | E. ABUT. | SUPER. | TOTAL |
|---|---|---|---|---|---|---|
| 203.0260 | REMOVING STRUCTURE OVER WATERWAY MINIMAL DEBRIS P-53-910 | EACH | ----- | ----- | ----- | 1 |
| 206.1000 | EXCAVATION FOR STRUCTURES BRIDGES B-53-388 | LS | ----- | ----- | ----- | 1 |
| 210.1500 | BACKFILL STRUCTURE TYPE A | TON | 115 | 110 | ----- | 225 |
| 502.0100 | CONCRETE MASONRY BRIDGES | CY | 33 | 32 | 88 | 153 |
| 502.3200 | PROTECTIVE SURFACE TREATMENT | SY | ----- | ----- | 160 | 160 |
| 505.0400 | BAR STEEL REINFORCEMENT HS STRUCTURES | LB | 1,870 | 1,860 | ----- | 3,730 |
| 505.0600 | BAR STEEL REINFORCEMENT HS COATED STRUCTURES | LB | 1,710 | 1,670 | 15,210 | 18,590 |
| 513.4061 | RAILING TUBULAR TYPE M | LF | 26.5 | 26.5 | 89.5 | 142.5 |
| 516.0500 | RUBBERIZED MEMBRANE WATERPROOFING | SY | 9 | 9 | ----- | 18 |
| 526.0100 | TEMPORARY STRUCTURE STATION 20'BP'+00 | LS | ----- | ----- | ----- | 1 |
| 550.0020 | PRE-BORING ROCK OR CONSOLIDATED MATERIALS | LF | 50 | 50 | ----- | 100 |
| 550.1100 | PILING STEEL HP 10-INCH X 42-LB | LF | 60 | 60 | ----- | 120 |
| 606.0300 | RIPRAP HEAVY | CY | 100 | 90 | ----- | 190 |
| 612.0406 | PIPE UNDERDRAIN WRAPPED 6-INCH | LF | 75 | 75 | ----- | 150 |
| 645.0111 | GEOTEXTILE TYPE DF SCHEDULE A | SY | 45 | 45 | ----- | 90 |
| 645.0120 | GEOTEXTILE TYPE HR | SY | 195 | 180 | ----- | 375 |
| | | | | | | |
| | | | | | | |
| | NON-BID ITEMS | | | | | |
| | FILLER | SIZE | ----- | ----- | ----- | ½" & ¾" |
| | | | | | | |
| | | | | | | |



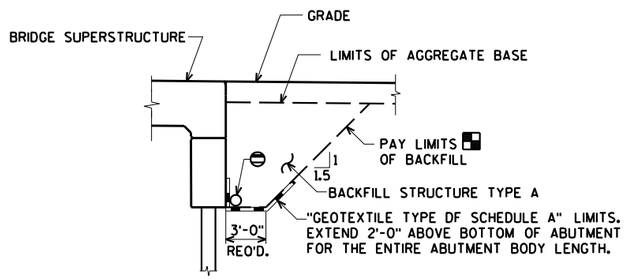

### HP 10 x 42 SPLICE DETAIL

### HP WELD DETAIL

FLANGE SHOWN, WEB SIMILAR




### TYPICAL FILL SECTION AT WING TIPS




### BACKFILL STRUCTURE LIMITS THRU ABUTMENT

BACKFILL PAY LIMITS. BACKFILL BEYOND BACKFILL PAY LIMITS SHALL BE INCIDENTAL TO EXCAVATION FOR STRUCTURES. LIMITS OF EXCAVATION SHALL BE DETERMINED BY THE CONTRACTOR.

PIPE UNDERDRAIN WRAPPED 6-INCH. SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE UNDERDRAIN AS DETAILED ON SHEET 4.

## GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2" CLEAR UNLESS SHOWN OR NOTED OTHERWISE.

THE FIRST DIGIT OF A THREE DIGIT BAR NO. AND THE FIRST TWO DIGITS OF A FOUR DIGIT BAR NO. SIGNIFIES THE BAR SIZE.

JOINT FILLER SHALL CONFORM TO THE REQUIREMENTS OF A.A.S.H.T.O. DESIGNATION M 153, TYPE I, II OR III OR A.A.S.H.T.O. DESIGNATION M 213.

THE SLOPE OF THE FILL IN FRONT OF THE ABUTMENTS SHALL BE COVERED WITH RIPRAP HEAVY AND GEOTEXTILE TYPE HR TO THE EXTENT SHOWN ON THE GENERAL PLAN SHEET AND IN THE ABUTMENT DETAILS.

SLAB FALSEWORK SHALL BE SUPPORTED ON PILES OR THE SUBSTRUCTURE UNLESS AN ALTERNATE METHOD IS APPROVED BY THE ENGINEER.

THE UPPER LIMITS OF "EXCAVATION FOR STRUCTURES BRIDGES B-53-388" SHALL BE THE EXISTING GROUNDLINE.

THE EXISTING STRUCTURE, P-53-910, TO BE REMOVED, IS A SINGLE-SPAN STEEL DECK GIRDER BRIDGE 24.2 - FT. LONG ON CONCRETE ABUTMENTS WITH A 20.8 - FT. CLEAR ROADWAY WIDTH.

AT THE BACK FACE OF ABUTMENTS, ALL VOLUME WHICH CANNOT BE PLACED BEFORE ABUTMENT CONSTRUCTION AND IS NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH BACKFILL STRUCTURE TYPE A.

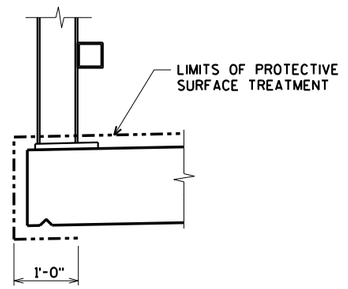
PROTECTIVE SURFACE TREATMENT IS TO BE APPLIED AS SHOWN IN DETAIL ON THIS SHEET.

BEVEL EXPOSED EDGES OF CONCRETE ¾" UNLESS NOTED OTHERWISE.

EXCAVATION BELOW THE ABUTMENT AND ABUTMENT BEDDING MATERIALS REQUIRES ENGINEER APPROVAL. GEOTEXTILE SHALL BE SET AT THE BOTTOM OF EXCAVATION AND EXTEND 2'-0" ABOVE BOTTOM OF ABUTMENT.

THE BACKFILL QUANTITIES ARE BASED ON THE PAY LIMITS SHOWN ON THE PLANS AND MAY NOT REFLECT ACTUAL PLACED QUANTITIES. "BACKFILL STRUCTURE TYPE A" REQUIRED DIRECTLY BEHIND ABUTMENTS AND ABUTMENT WINGS FOR 3 FEET. BACKFILL PLACED BEYOND PAY LIMITS OR EXCEEDING PLAN QUANTITIES SHALL BE INCIDENTAL TO EXCAVATIONS FOR STRUCTURES.

EXTENT OF BELOW GRADE SUBSTRUCTURES ARE NOT KNOWN. REMOVE EXISTING SUBSTRUCTURES AS NEEDED TO BUILD NEW SUBSTRUCTURES. COST OF SUBSTRUCTURE REMOVAL IS CONSIDERED INCIDENTAL TO "REMOVING STRUCTURE" BID ITEM.




### PROTECTIVE SURFACE TREATMENT DETAIL

| NO. | DATE | REVISION | BY |
|---|---|---|---|
| | | | |

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-53-388

DRAWN BY CLP | PLANS CK'D. ZSS

QUANTITIES AND NOTES

SHEET 2 OF 12

31

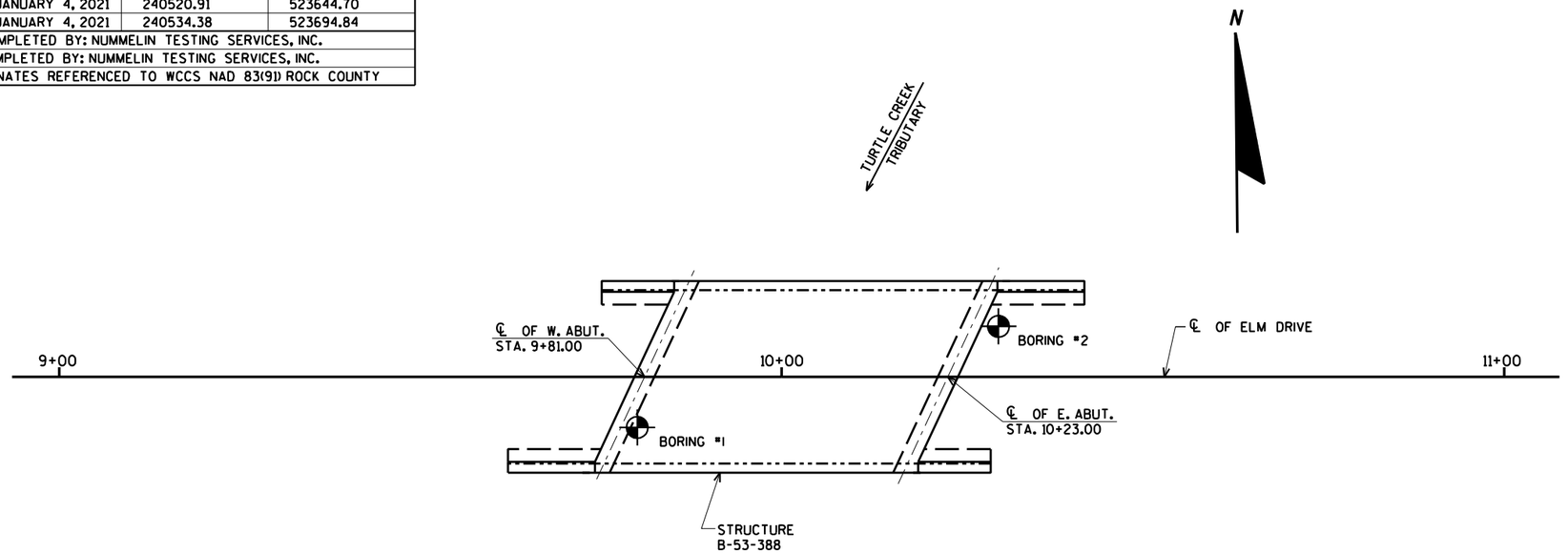
ORIGINAL PLANS PREPARED BY

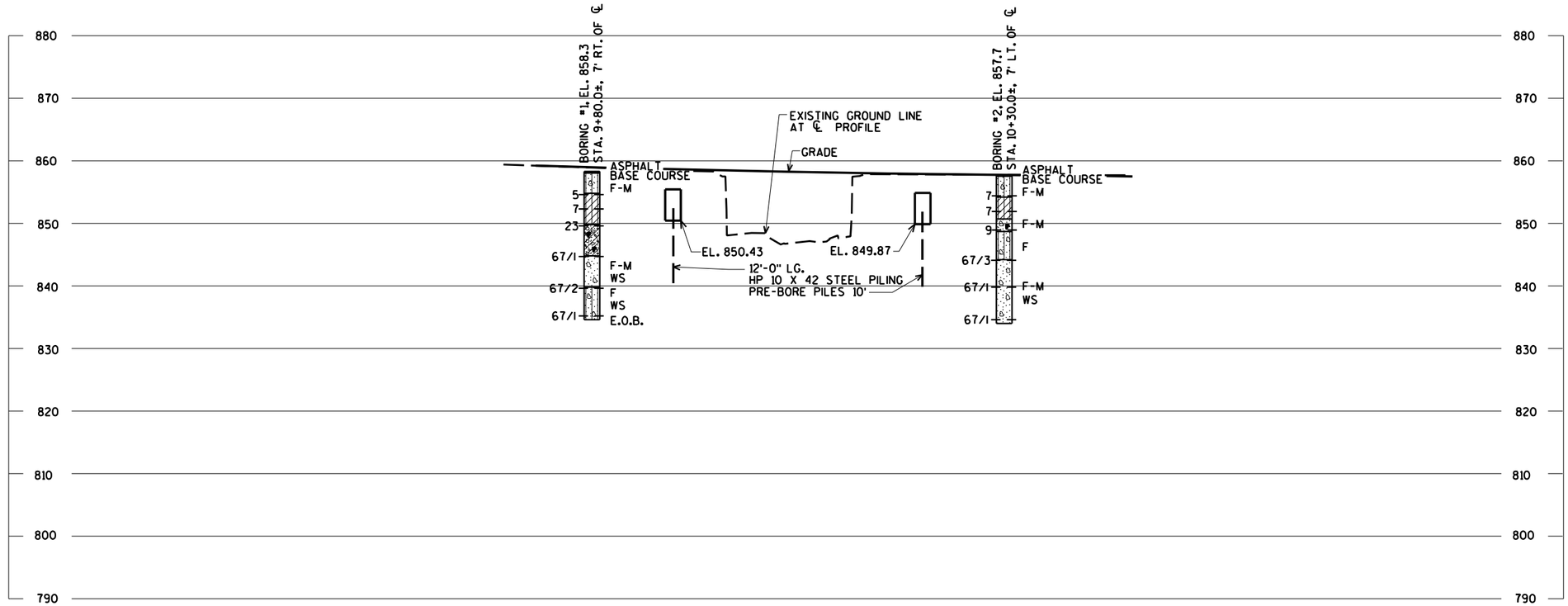
AYRES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
www.AyresAssociates.com

7/28/2021
PENTABLE:BReau_shd_util.tbl

I:±47±470347 Rock-Town of LaPrairie±Structures±CADD±Final±470347 gp.dgn

| BORING # | DATE COMPLETED | NORTHING (Y) | EASTING (X) |
|---|---|---|---|
| 1 | JANUARY 4, 2021 | 240520.91 | 523644.70 |
| 2 | JANUARY 4, 2021 | 240534.38 | 523694.84 |
| BORINGS COMPLETED BY: NUMMELIN TESTING SERVICES, INC. | | | |
| REPORT COMPLETED BY: NUMMELIN TESTING SERVICES, INC. | | | |
| ALL COORDINATES REFERENCED TO WCCS NAD 83(91) ROCK COUNTY | | | |



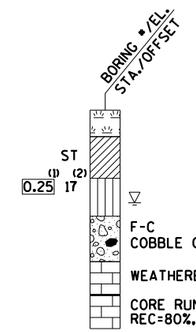

STATE PROJECT NUMBER

3618-00-74

MATERIAL SYMBOLS

| | | |
|---|---|---|
| ASPHALT | TOPSOIL | PEAT |
| CONCRETE | FILL | GRAVEL |
| SAND | CLAY | SILT |
| BOULDERS OR COBBLES | LIMESTONE | BEDROCK (UNKNOWN) |
| SHALE | SANDSTONE | IGNEOUS/ META |

LEGEND OF BORING




(1) UNCONFINED STRENGTH, AS DETERMINED BY A POCKET PENETROMETER (TSF)

(2) UNLESS OTHERWISE, SPECIFIED THE SPT 'N' VALUE IS BASED ON AASHTO T-206, STANDARD PENETRATION TEST. THE SPT 'N' VALUE PRESENTED HAS NOT BEEN CORRECTED FOR OVERBURDEN PRESSURE OR HAMMER EFFICIENCY.

GROUND WATER ELEVATION

- AT TIME OF DRILLING
- END OF DRILLING
- AFTER DRILLING

ABBREVIATIONS

F-FINE M-MEDIUM C-COARSE ST-SHELBY TUBE

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

BORINGS WERE COMPLETED AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING TO OBTAIN INFORMATION CONCERNING THE CHARACTER OF SUBSURFACE MATERIALS FOUND AT THE SITE. BECAUSE THE INVESTIGATED DEPTHS ARE LIMITED AND THE AREA OF THE BORINGS IS VERY SMALL IN RELATION TO THE ENTIRE SITE, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT SIMILAR SUBSURFACE CONDITIONS BELOW, BETWEEN, OR BEYOND THESE BORINGS. VARIATIONS IN SOIL CONDITIONS SHOULD BE EXPECTED AND FLUCTUATIONS IN GROUNDWATER LEVELS MAY OCCUR.

| NO. | DATE | REVISION | BY |
|---|---|---|---|

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-53-388

DRAWN BY CLP | PLANS CK'D. ZSS

SUBSURFACE EXPLORATION

SHEET 3 OF 12
32

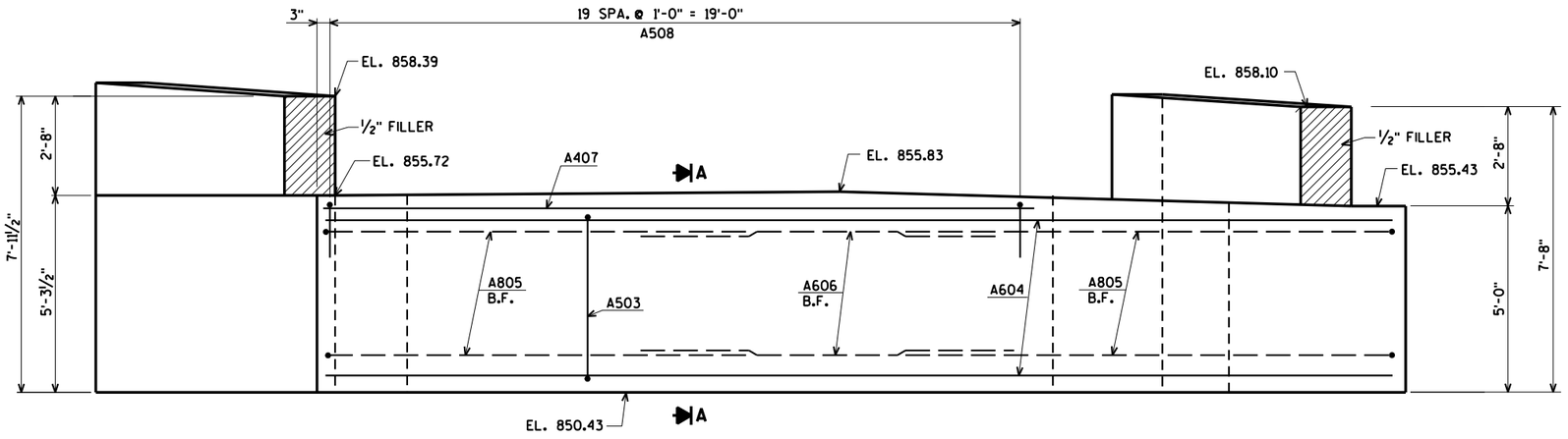
5/14/2021
PENTABLE:BReau_shd_util.tbl

I:±47±470347 Rock-Town of LaPrairie±Structures±CADD±Final±470347 soils.dgn

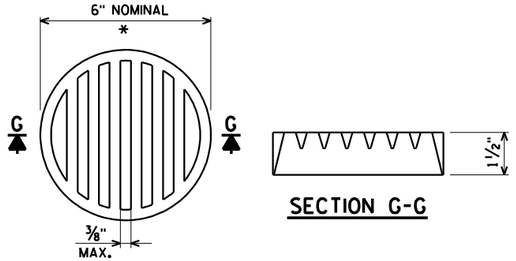
STATE PROJECT NUMBER

3618-00-74

NOTE:
SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF ½" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE).




ELEVATION
(LOOKING WEST)



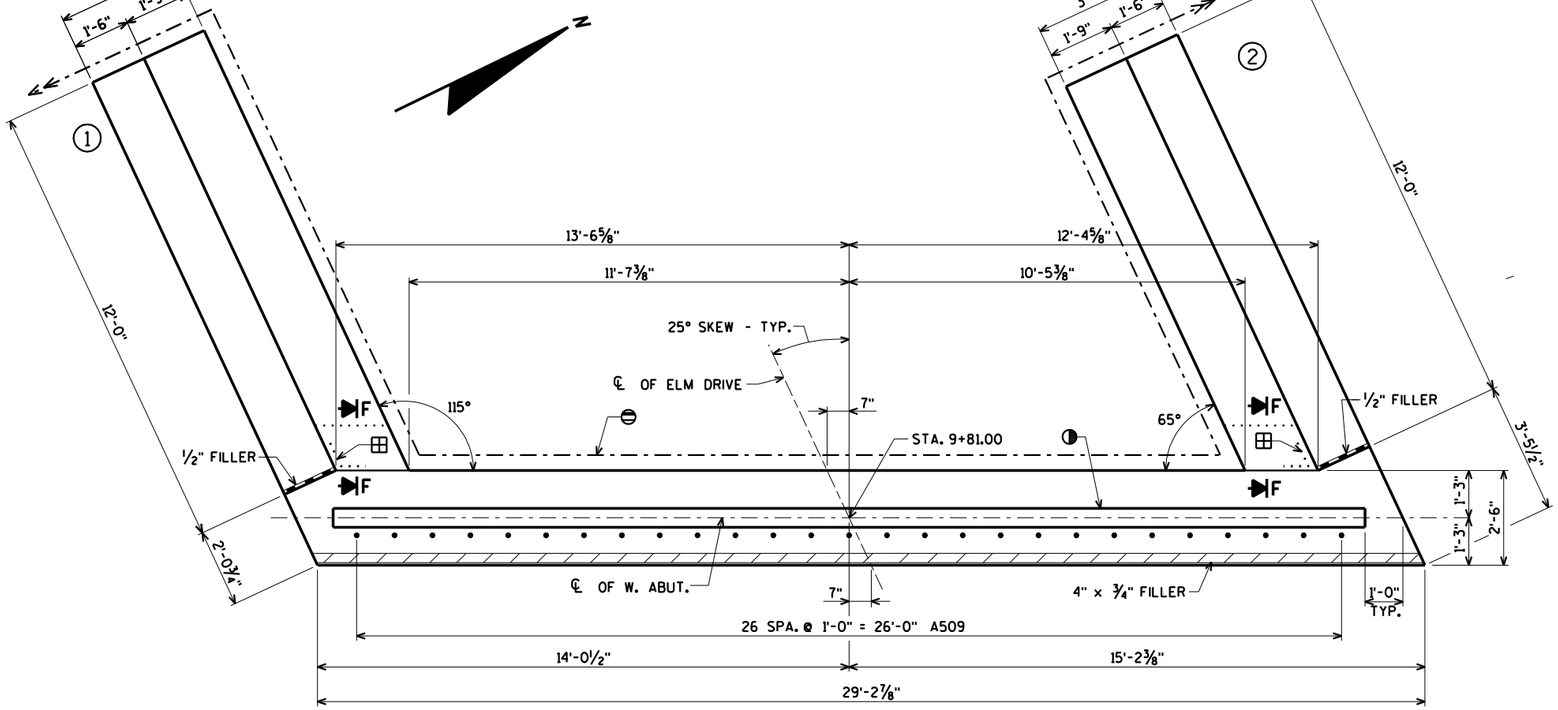

SECTION G-G

* DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING. ORIENT SO SLOTS ARE VERTICAL.

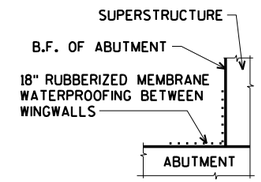
THE RODENT SHIELD, PIPE COUPLING AND SCREWS SHALL BE CONSIDERED INCIDENTAL TO THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH".

THE RODENT SHIELD SHALL BE PVC GRATE SIMILAR TO THIS DETAIL. THE GRATE IS COMMERCIALLY AVAILABLE AS A FLOOR STRAINER. A PIPE COUPLING IS REQUIRED FOR THE ATTACHMENT OF THIS SHIELD TO THE EXPOSED END OF THE PIPE UNDERDRAIN. THE SHIELD SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 x 1-INCH SHEET METAL SCREWS.

RODENT SHIELD DETAIL




PLAN




SECTION F

FOR SECTION A SEE SHEET 6.

⊖ PIPE UNDERDRAIN WRAPPED 6-INCH. SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE UNDERDRAIN AS DETAILED ON THIS SHEET. RODENT SHIELD TO BE INCIDENTAL TO BID PRICE OF "PIPE UNDERDRAIN WRAPPED 6-INCH".

◑ KEYED CONST. JOINT - FORMED BY A BEVELED 2" x 6".

⊞ VERTICAL 18" RUBBERIZED MEMBRANE WATERPROOFING TO EXTEND FROM BRIDGE SEAT TO TOP OF WINGWALL.

FOR PILE SPLICE DETAIL SEE SHEET 2.

| NO. | DATE | REVISION | BY |
|---|---|---|---|

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-53-388

DRAWN BY CLP | PLANS CK'D. ZSS

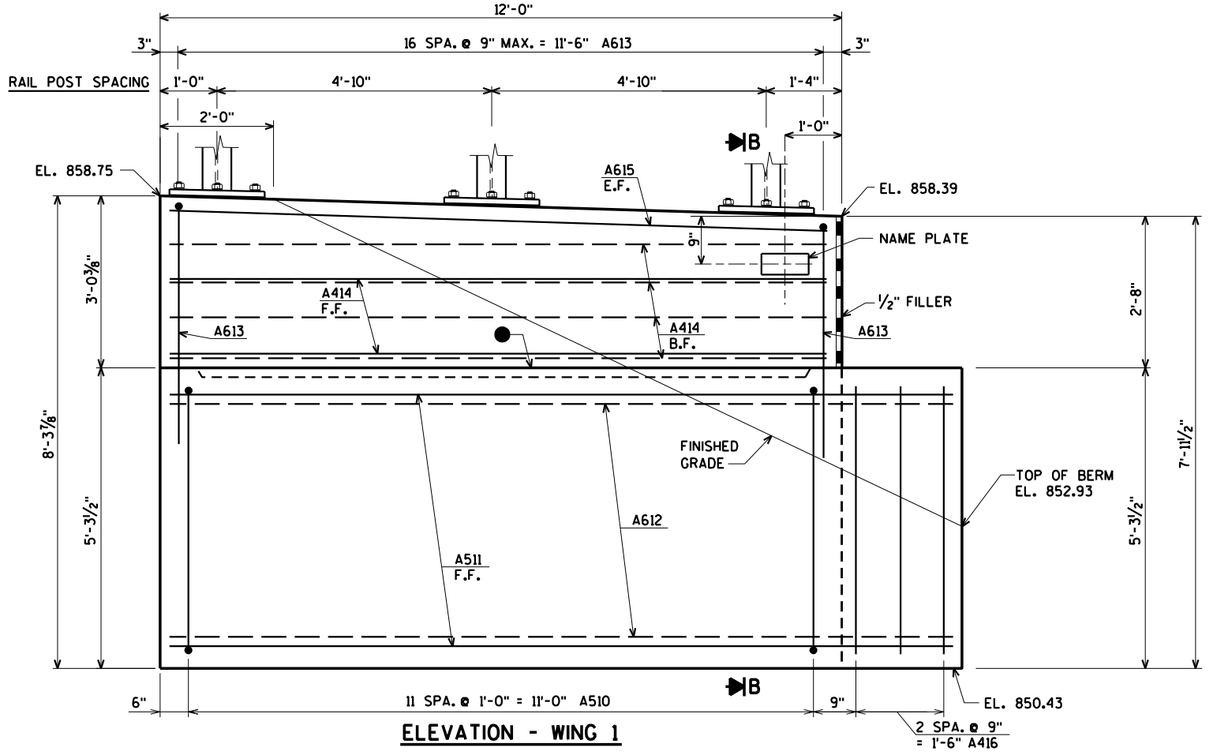
WEST ABUTMENT

SHEET 4 OF 12
33

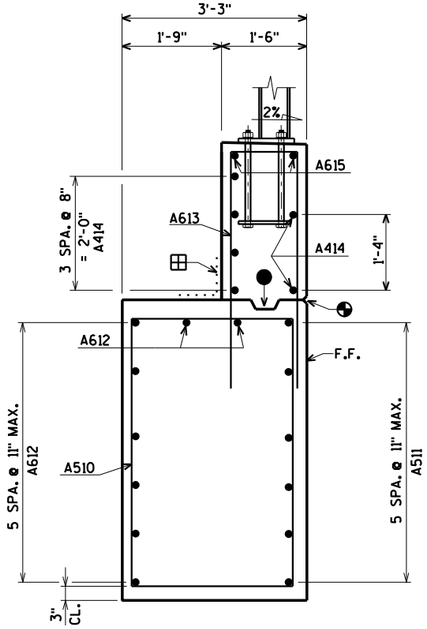
ORIGINAL PLANS PREPARED BY
AYRES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
www.AyresAssociates.com

STATE PROJECT NUMBER

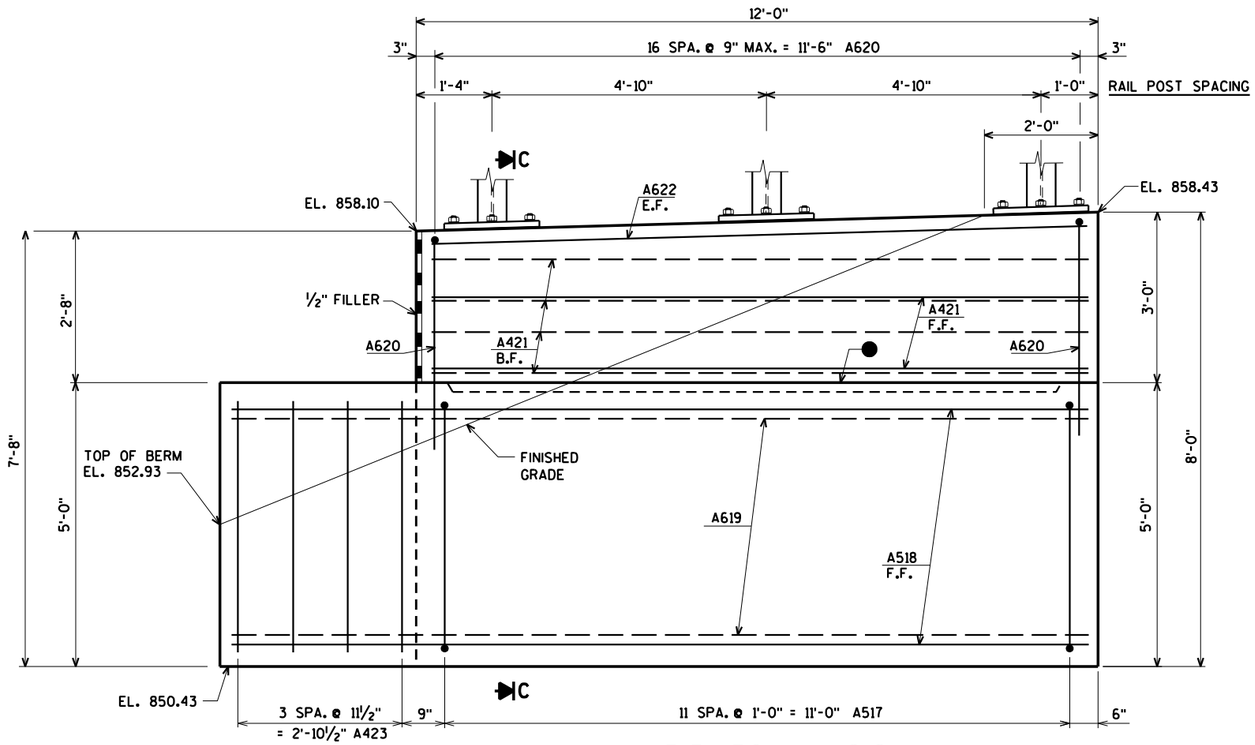
3618-00-74



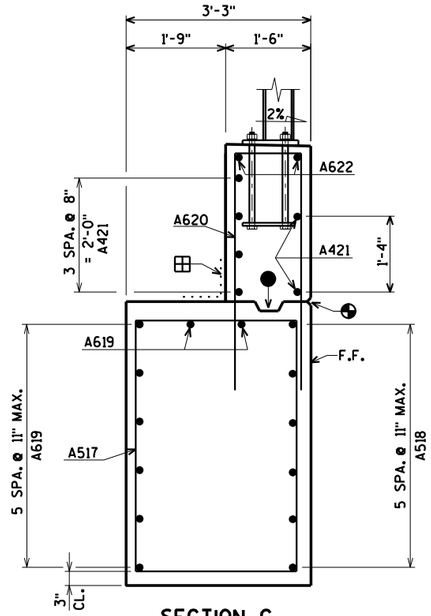

ELEVATION - WING 1




SECTION B




ELEVATION - WING 2




SECTION C

- ◔ 3/4" "V" GROOVE ON FRONT FACE OF WINGWALL. ONLY REQUIRED IF OPTIONAL CONSTRUCTION JOINT IS USED.
- ● OPT. CONST. JOINT FORMED BY A BEVELED 2" x 6" KEYWAY WITH MEMBRANE ON BACKFACE.
- ⊞ 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HOIRZONTAL AND VERTICAL JOINTS ON BACKFACE.

| NO. | DATE | REVISION | BY |
|---|---|---|---|

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-53-388

DRAWN BY CLP | PLANS CK'D. ZSS

WEST ABUTMENT WING DETAILS

SHEET 5 OF 12
34

ORIGINAL PLANS PREPARED BY

AYRES 3433 Oakwood Hills Parkway Eau Claire, WI 54701 www.AyresAssociates.com

8

8

5/11/2021
PENTABLE:BReau_shd_util.tbl

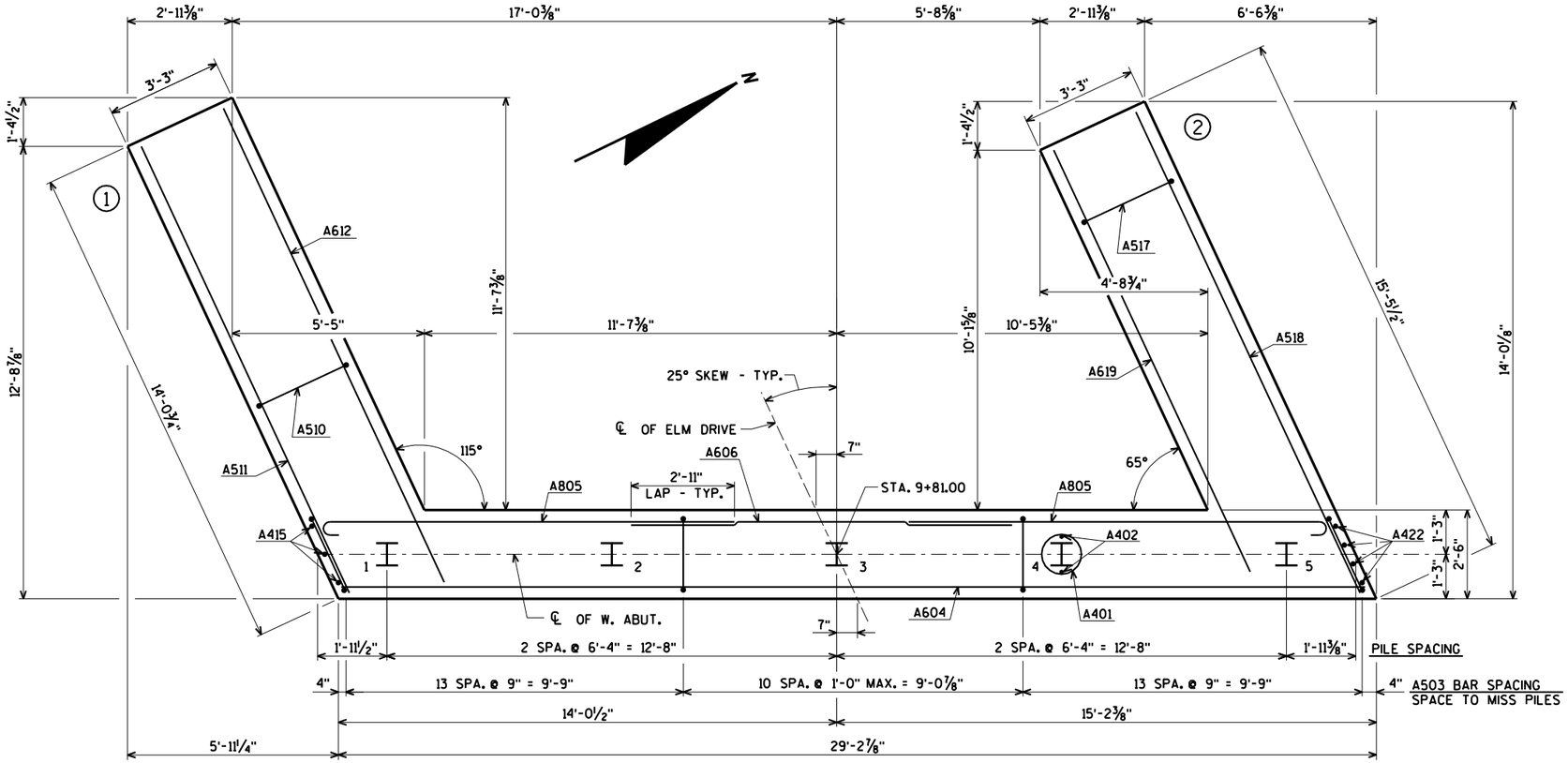
I:±47±470347 Rock-Town of LaPrairie±Structures±CADD±Final±470347 wa.dgn

| STATE PROJECT NUMBER |
|---|
| 3618-00-74 |

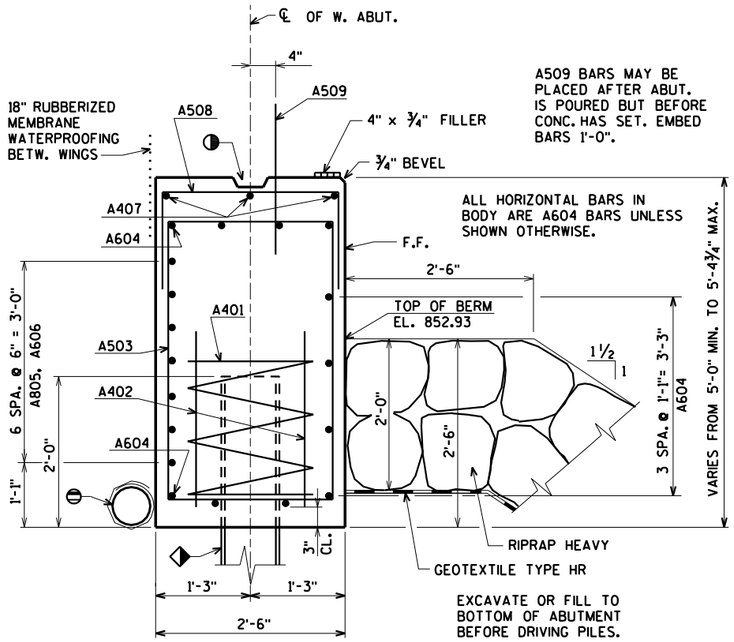
## BILL OF BARS

| BAR NO. | COATED BAR | NO. REQ'D. | LENGTH | BENT BAR | BUNDLED BAR SERIES | 1,710# COATED 1,870# UNCOATED LOCATION |
|---|---|---|---|---|---|---|
| A401 | | 5 | 28-0 | X | | BODY @ PILES |
| A402 | | 10 | 2-3 | | | BODY @ PILES |
| A503 | | 37 | 14-2 | X | | BODY VERT. |
| A604 | | 11 | 28-9 | | | BODY HORIZ. |
| A805 | | 14 | 12-11 | X | | BODY HORIZ. @ WING B.F. |
| A606 | | 7 | 10-9 | | | BODY HORIZ. BETW. WINGS B.F. |
| A407 | | 3 | 19-9 | | | BODY HORIZ. TOP |
| A508 | | 20 | 4-11 | X | | BODY VERT. TOP |
| A509 | X | 27 | 2-0 | | | BODY DOWELS |
| A510 | X | 12 | 16-2 | X | | WING 1 VERT. |
| A511 | X | 6 | 13-8 | | | WING 1 HORIZ. F.F. |
| A612 | X | 8 | 14-8 | | | WING 1 HORIZ. B.F. & TOP |
| A613 | X | 17 | 10-10 | X | | WING 1 VERT. |
| A414 | X | 6 | 11-8 | | | WING 1 HORIZ. E.F. |
| A615 | X | 2 | 11-8 | | | WING 1 HORIZ. E.F. |
| A416 | X | 3 | 4-10 | | | BODY VERT. END @ WING 1 |
| A517 | X | 12 | 15-8 | X | | WING 2 VERT. |
| A518 | X | 6 | 14-11 | | | WING 2 HORIZ. F.F. |
| A619 | X | 8 | 13-1 | | | WING 2 HORIZ. B.F. & TOP |
| A620 | X | 17 | 10-10 | X | | WING 2 VERT. |
| A421 | X | 6 | 11-8 | | | WING 2 HORIZ. E.F. |
| A622 | X | 2 | 11-8 | | | WING 2 HORIZ. E.F. |
| A423 | X | 4 | 4-7 | | | BODY VERT. END @ WING 2 |

BENDING DIMENSIONS ARE OUT TO OUT OF BARS.




## PILE LAYOUT




## SECTION A

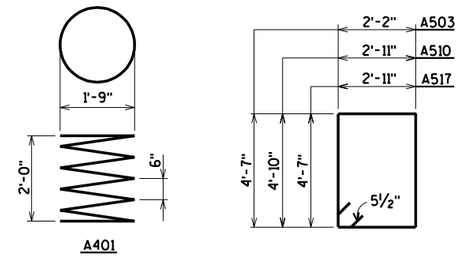
FOR LOCATION OF SECTION A SEE SHEET 4.

⊖ PIPE UNDERDRAIN WRAPPED 6-INCH. SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE UNDERDRAIN AS DETAILED ON SHEET 4. RODENT SHIELD TO BE INCIDENTAL TO BID PRICE OF "PIPE UNDERDRAIN WRAPPED 6-INCH".

◑ KEYED CONST. JOINT - FORMED BY A BEVELED 2" x 6".

◆ ABUTMENT TO BE SUPPORTED ON HP 10 x 42 STEEL PILING DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 140 TONS PER PILE. ESTIMATED LENGTH 12'-0". PRE-BORE PILES 10'-0".

FOR PILE SPLICE DETAIL SEE SHEET 2.




| NO. | DATE | REVISION | BY |
|---|---|---|---|
| | | | |

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-53-388

DRAWN BY CLP | PLANS CK'D. ZSS

WEST ABUTMENT PILE LAYOUT & BILL OF BARS

SHEET 6 OF 12
35

ORIGINAL PLANS PREPARED BY
AYRES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
www.AyresAssociates.com

5/14/2021
PENTABLE:BReau_shd_util.tbl

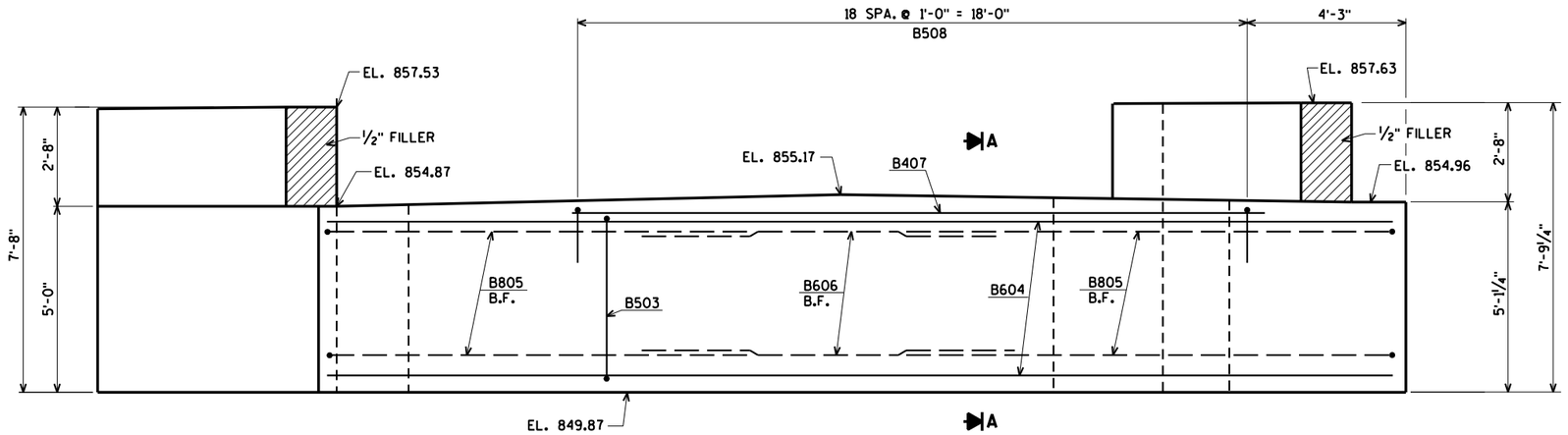
I:±47±470347 Rock-Town of LaPrairie±Structures±CADD±Final±470347 wa.dgn

8

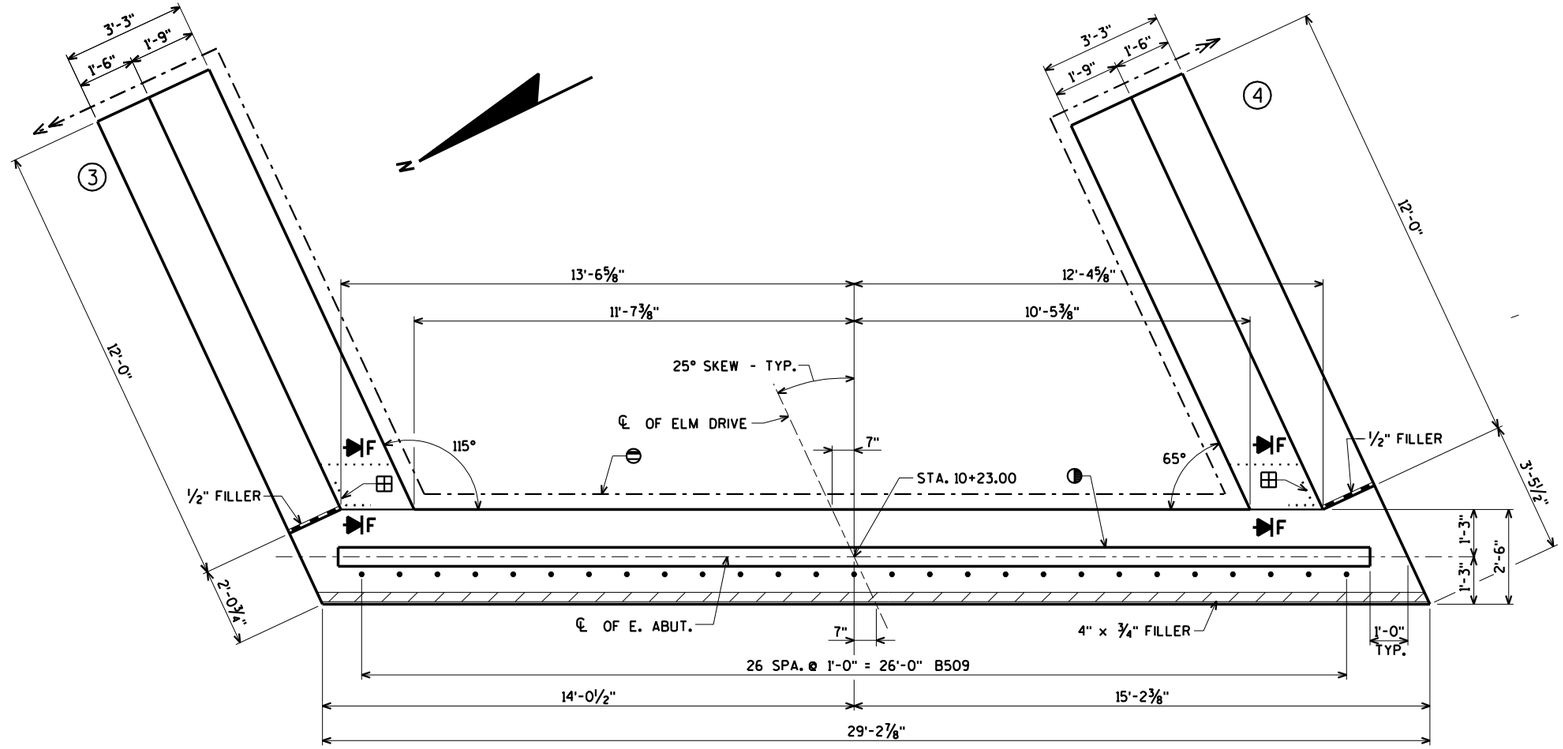
8

| STATE PROJECT NUMBER |
|---|
| 3618-00-74 |

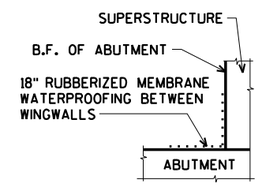
NOTE:
SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF ½" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE).




**ELEVATION**
(LOOKING EAST)




**PLAN**




**SECTION F**

FOR SECTION A SEE SHEET 9.

⊖ PIPE UNDERDRAIN WRAPPED 6-INCH. SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE UNDERDRAIN AS DETAILED ON SHEET 4. RODENT SHIELD TO BE INCIDENTAL TO BID PRICE OF "PIPE UNDERDRAIN WRAPPED 6-INCH".

◑ KEYED CONST. JOINT - FORMED BY A BEVELED 2" x 6".

⊞ VERTICAL 18" RUBBERIZED MEMBRANE WATERPROOFING TO EXTEND FROM BRIDGE SEAT TO TOP OF WINGWALL.

FOR PILE SPLICE DETAIL SEE SHEET 2.

| NO. | DATE | REVISION | BY |
|---|---|---|---|

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-53-388

DRAWN BY CLP | PLANS CK'D. ZSS

EAST ABUTMENT

SHEET 7 OF 12
36

ORIGINAL PLANS PREPARED BY
AYRES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
www.AyresAssociates.com

8

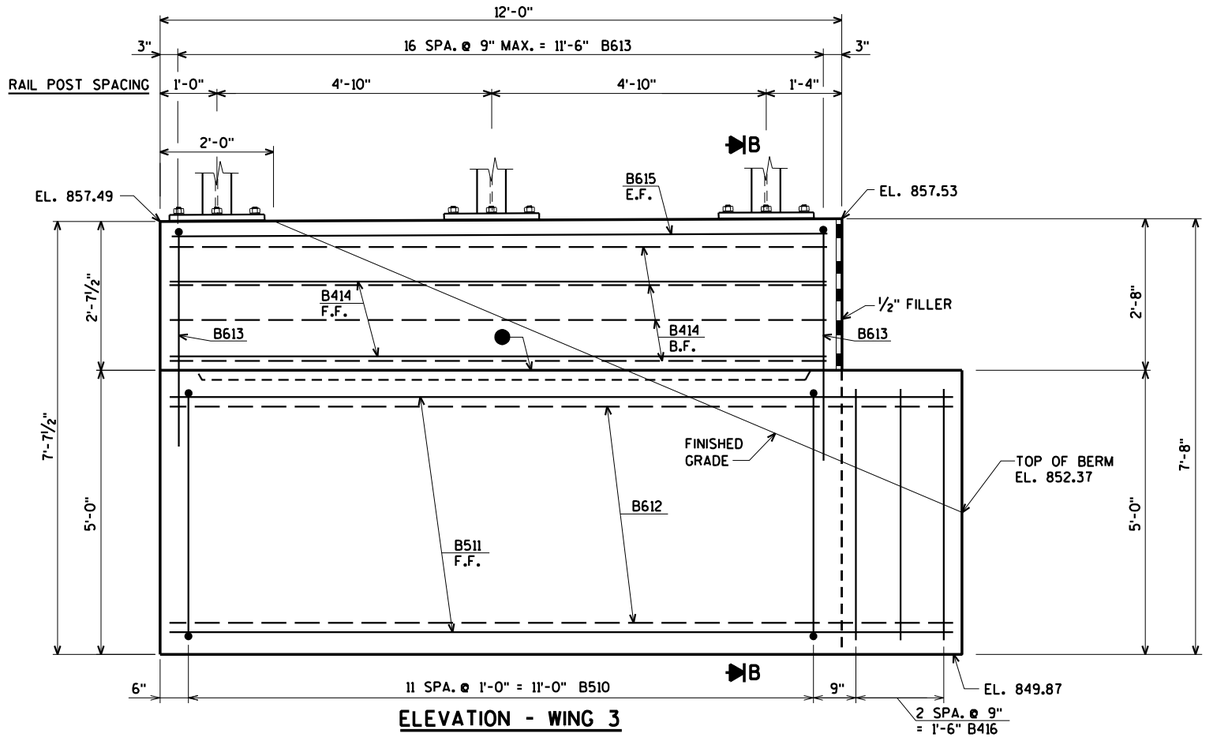
8

5/11/2021
PENTABLE:BReau_shd_util.tbl

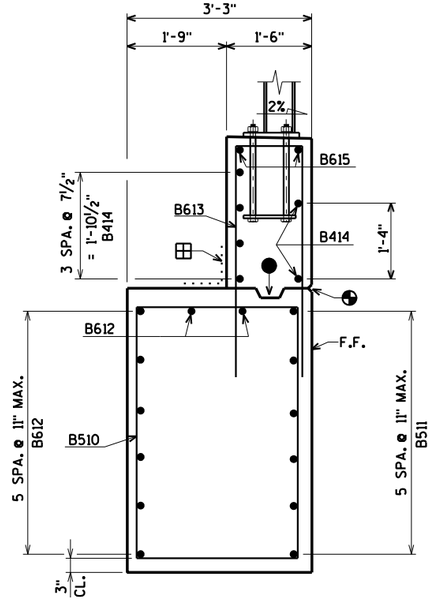
I:±47±470347 Rock-Town of LaPrairie±Structures±CADD±Final±470347 ea.dgn

STATE PROJECT NUMBER

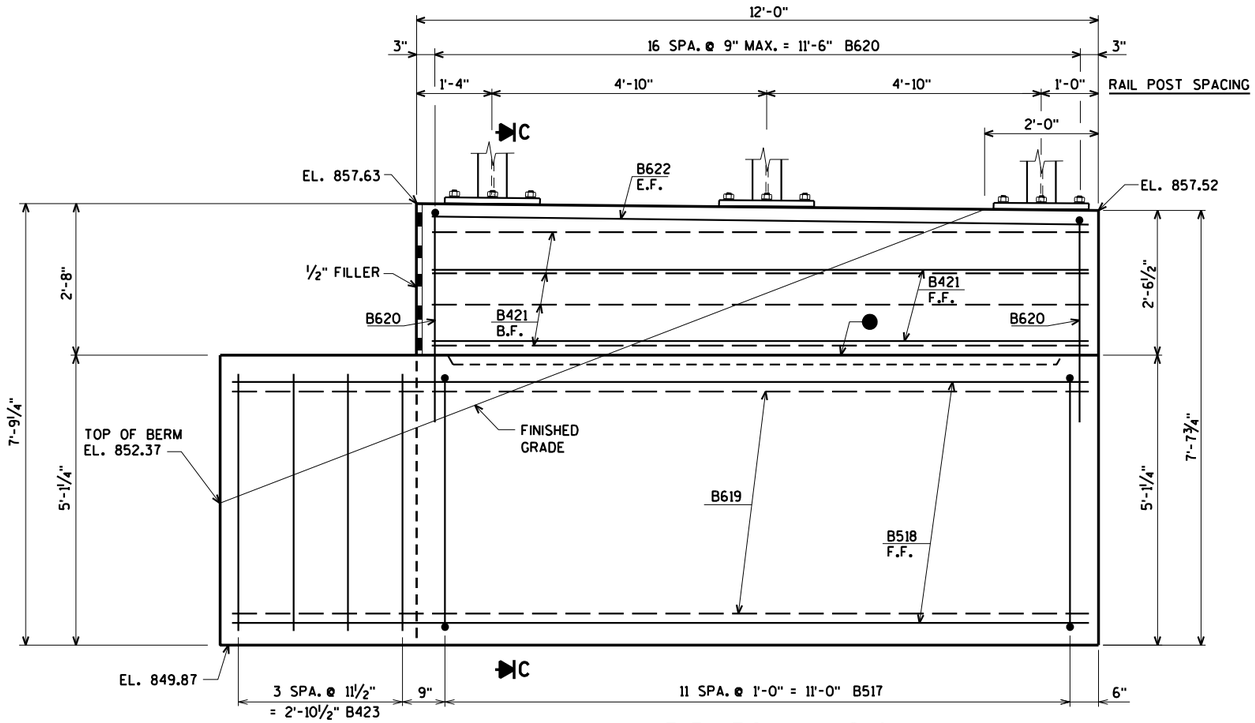
3618-00-74



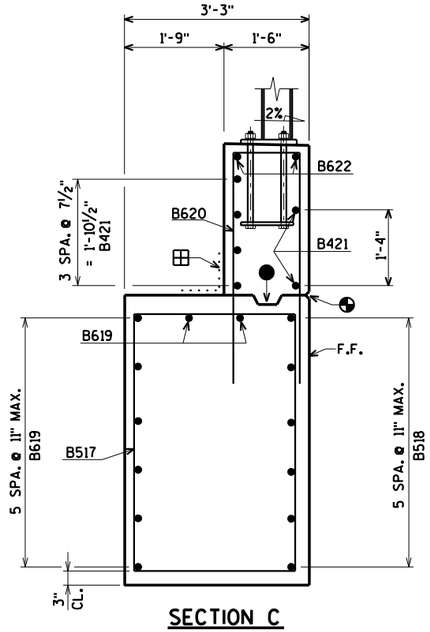

ELEVATION - WING 3




SECTION B




ELEVATION - WING 4




SECTION C

◔ ¾" "V" GROOVE ON FRONT FACE OF WINGWALL. ONLY REQUIRED IF OPTIONAL CONSTRUCTION JOINT IS USED.

● OPT. CONST. JOINT FORMED BY A BEVELED 2" x 6" KEYWAY WITH MEMBRANE ON BACKFACE.

⊞ 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HOIRZONTAL AND VERTICAL JOINTS ON BACKFACE.

| NO. | DATE | REVISION | BY |
|---|---|---|---|

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-53-388

DRAWN BY CLP | PLANS CK'D. ZSS

EAST ABUTMENT WING DETAILS

SHEET 8 OF 12
37

ORIGINAL PLANS PREPARED BY
AYRES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
www.AyresAssociates.com

8

8

5/11/2021
PENTABLE:BReau_shd_util.tbl

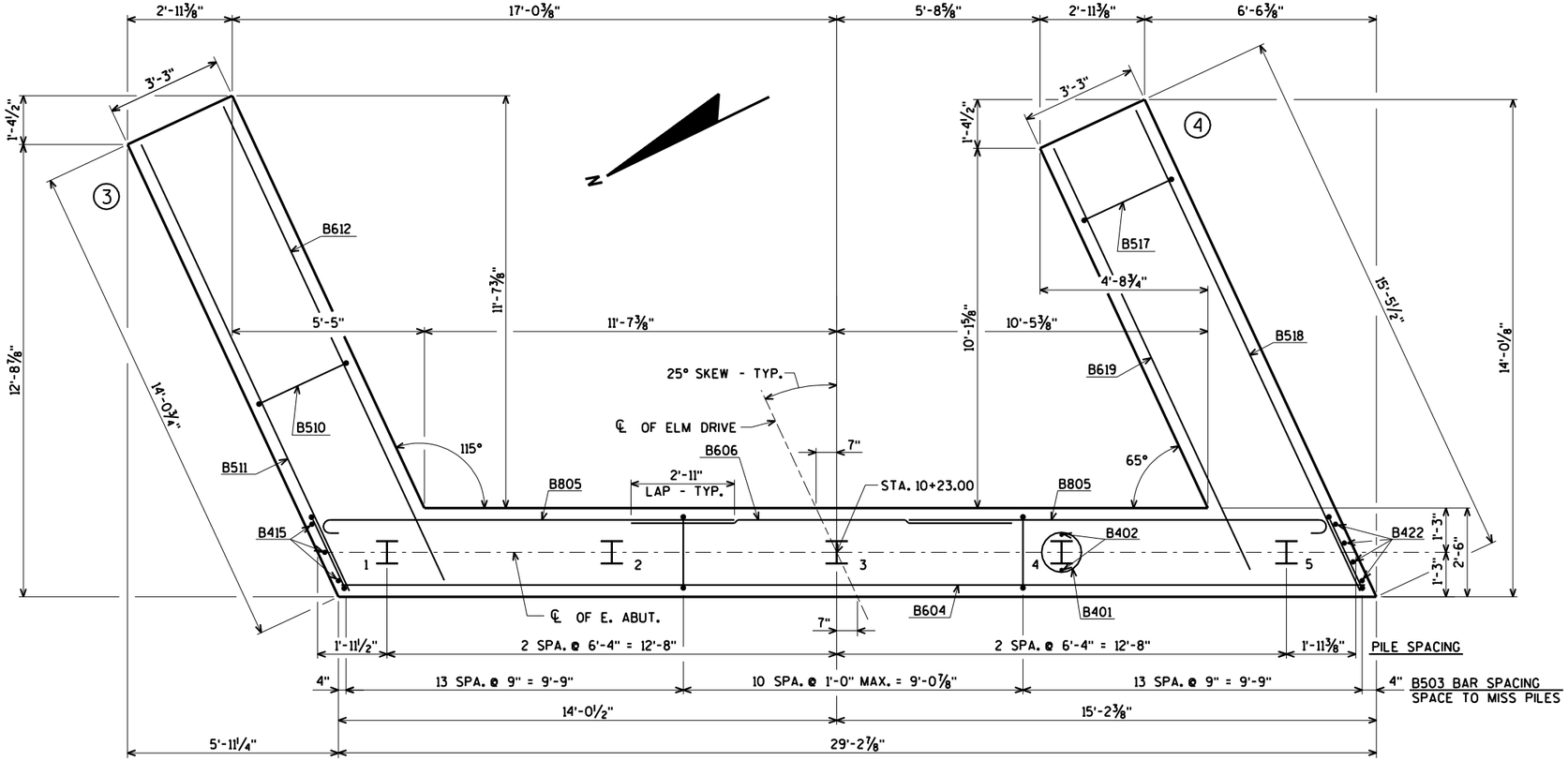
I:±47±470347 Rock-Town of LaPrairie±Structures±CADD±Final±470347 ea.dgn

| STATE PROJECT NUMBER |
|---|
| 3618-00-74 |

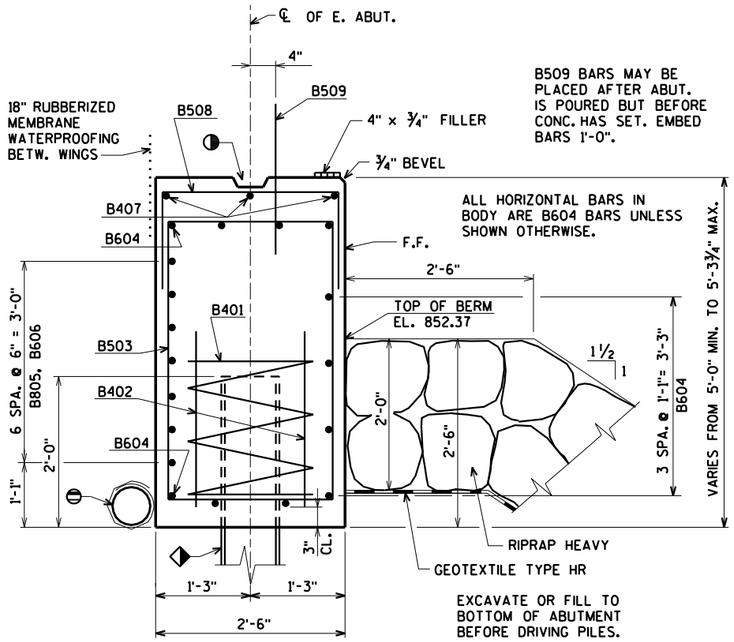
## BILL OF BARS

| BAR NO. | COATED BAR | NO. REQ'D. | LENGTH | BENT BAR | BUNDLED BAR SERIES | 1.670" COATED 1.860" UNCOATED LOCATION |
|---|---|---|---|---|---|---|
| B401 | | 5 | 28-0 | X | | BODY @ PILES |
| B402 | | 10 | 2-3 | | | BODY @ PILES |
| B503 | | 37 | 14-2 | X | | BODY VERT. |
| B604 | | 11 | 28-9 | | | BODY HORIZ. |
| B805 | | 14 | 12-11 | X | | BODY HORIZ. @ WING B.F. |
| B606 | | 7 | 10-9 | | | BODY HORIZ. BETW. WINGS B.F. |
| B407 | | 3 | 18-7 | | | BODY HORIZ. TOP |
| B508 | | 19 | 4-11 | X | | BODY VERT. TOP |
| B509 | X | 27 | 2-0 | | | BODY DOWELS |
| B510 | X | 12 | 15-8 | X | | WING 3 VERT. |
| B511 | X | 6 | 13-8 | | | WING 3 HORIZ. F.F. |
| B612 | X | 8 | 14-8 | | | WING 3 HORIZ. B.F. & TOP |
| B613 | X | 17 | 10-2 | X | | WING 3 VERT. |
| B414 | X | 6 | 11-8 | | | WING 3 HORIZ. E.F. |
| B615 | X | 2 | 11-8 | | | WING 3 HORIZ. E.F. |
| B416 | X | 3 | 4-7 | | | BODY VERT. END @ WING 3 |
| B517 | X | 12 | 15-10 | X | | WING 4 VERT. |
| B518 | X | 6 | 14-11 | | | WING 4 HORIZ. F.F. |
| B619 | X | 8 | 13-1 | | | WING 4 HORIZ. B.F. & TOP |
| B620 | X | 17 | 10-2 | X | | WING 4 VERT. |
| B421 | X | 6 | 11-8 | | | WING 4 HORIZ. E.F. |
| B622 | X | 2 | 11-8 | | | WING 4 HORIZ. E.F. |
| B423 | X | 4 | 4-8 | | | BODY VERT. END @ WING 4 |

BENDING DIMENSIONS ARE OUT TO OUT OF BARS.




## PILE LAYOUT




## SECTION A

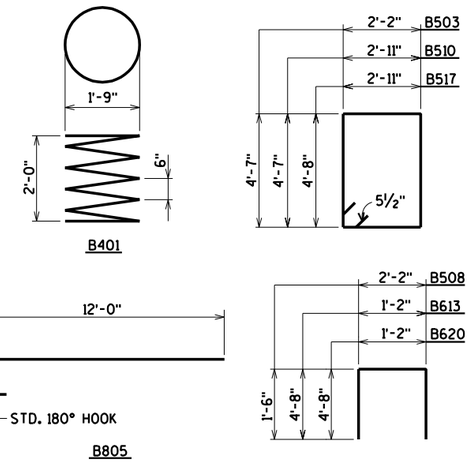
FOR LOCATION OF SECTION A SEE SHEET 7.

⊖ PIPE UNDERDRAIN WRAPPED 6-INCH. SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE UNDERDRAIN AS DETAILED ON SHEET 4. RODENT SHIELD TO BE INCIDENTAL TO BID PRICE OF "PIPE UNDERDRAIN WRAPPED 6-INCH".

◑ KEYED CONST. JOINT - FORMED BY A BEVELED 2" x 6".

◆ ABUTMENT TO BE SUPPORTED ON HP 10 x 42 STEEL PILING DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 140 TONS PER PILE. ESTIMATED LENGTH 12'-0". PRE-BORE PILES 10'-0".

FOR PILE SPLICE DETAIL SEE SHEET 2.




| NO. | DATE | REVISION | BY |
|---|---|---|---|

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-53-388

DRAWN BY CLP | PLANS CK'D. ZSS

EAST ABUTMENT PILE LAYOUT & BILL OF BARS

SHEET 9 OF 12
38

ORIGINAL PLANS PREPARED BY
AYRES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
www.AyresAssociates.com

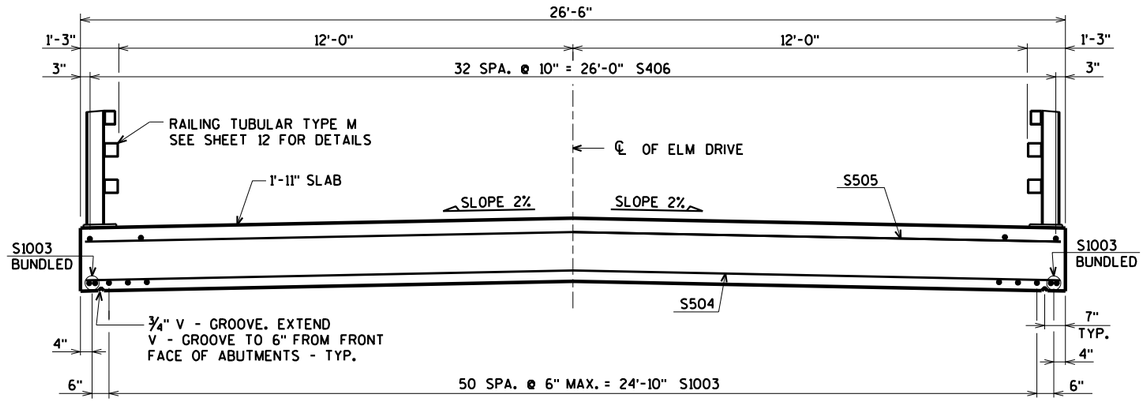
5/14/2021
PENTABLE:BReau_shd_util.tbl

I:±47±470347 Rock-Town of LaPrairie±Structures±CADD±Final±470347 ea.dgn

8

8

| STATE PROJECT NUMBER |
|---|
| 3618-00-74 |




## TYPICAL SECTION THRU BRIDGE

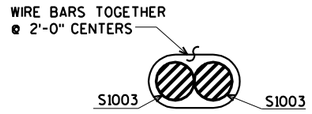
TOP TRANSVERSE BARS IN SLAB SHALL BE SUPPORTED BY INDIVIDUAL BAR CHAIRS AT APPROXIMATELY 3'-0" CENTERS EACH WAY. BOTTOM LONGITUDINAL BARS SHALL BE SUPPORTED BY CONTINUOUS BAR CHAIRS AT APPROXIMATELY 4'-0" CENTERS.

ALL SLAB THICKNESS DIMENSIONS ARE MINIMUM. ANY TOLERANCES NECESSARY TO CORRECT CONSTRUCTION DISCREPANCIES ARE TO BE PLUS (+).

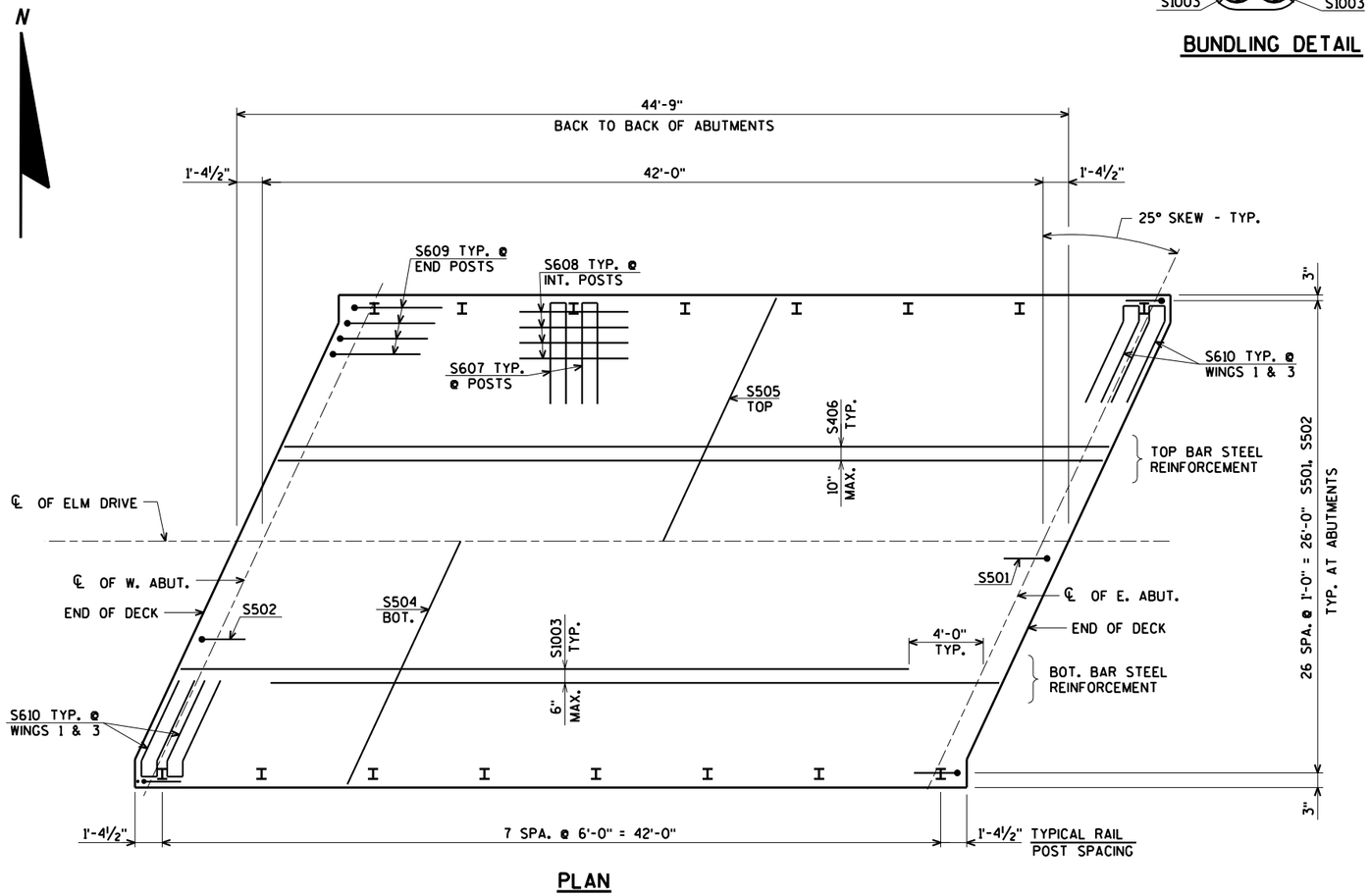
## BILL OF BARS

| BAR NO. | COATED BAR | NO. REQ'D. | LENGTH | BENT BAR | BUNDLED BAR | SERIES | 15,210# COATED LOCATION |
|---|---|---|---|---|---|---|---|
| S501 | X | 54 | 6-3 | X | | | SLAB @ ABUT. |
| S502 | X | 54 | 3-8 | X | | | SLAB @ ABUT. |
| S1003 | X | 55 | 39-2 | | X | | SLAB LONG. BOT. |
| S504 | X | 63 | 28-10 | | | | SLAB TRANS. BOT. |
| S505 | X | 45 | 28-10 | | | | SLAB TRANS. TOP |
| S406 | X | 33 | 44-4 | | | | SLAB LONG. TOP |
| S607 | X | 28 | 12-0 | X | | | SLAB @ RAIL POSTS |
| S608 | X | 48 | 6-0 | | | | SLAB @ INT. RAIL POSTS |
| S609 | X | 16 | 6-0 | X | | | SLAB @ END RAIL POSTS |
| S610 | X | 4 | 12-0 | X | | | SLAB @ END RAIL POSTS |

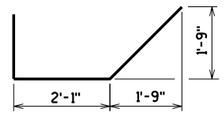
BENDING DIMENSIONS ARE OUT TO OUT OF BARS.



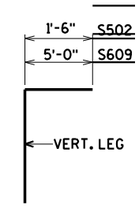

## BUNDLING DETAIL

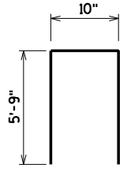



## PLAN

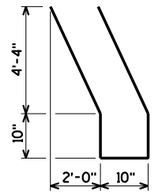



S501




S607




S610

| NO. | DATE | REVISION | BY |
|---|---|---|---|

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-53-388

DRAWN BY CLP | PLANS CK'D. ZSS

SUPERSTRUCTURE

SHEET 10 OF 12
39

ORIGINAL PLANS PREPARED BY
AYRES 3433 Oakwood Hills Parkway
Eau Claire, WI 54701
www.AyresAssociates.com

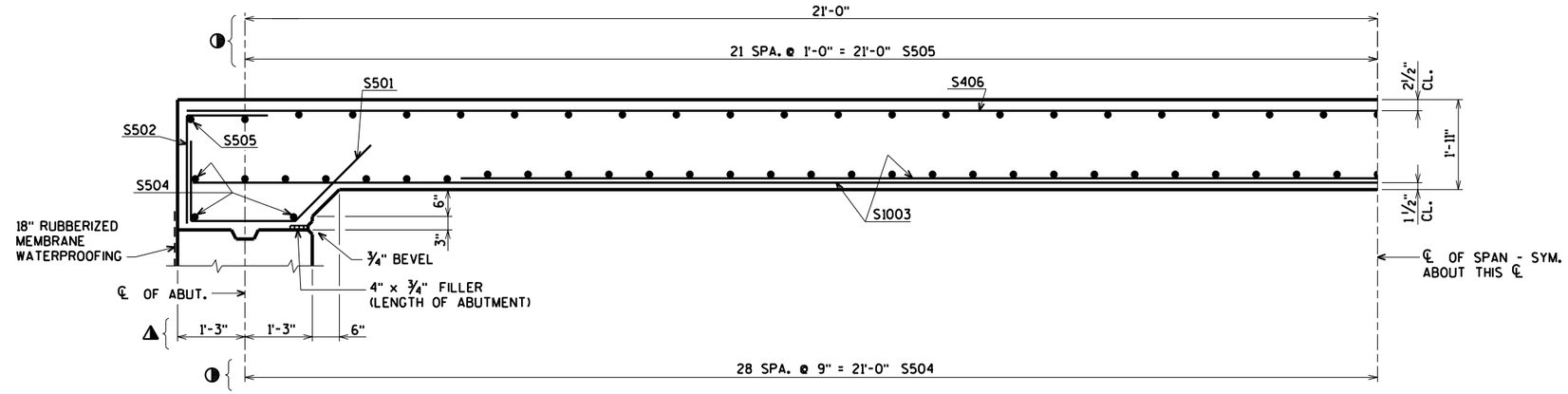
8

8

7/28/2021
PENTABLE:BRe au_shd_utl.tbl

I:±47±470347 Rock-Town of LaPrairie±Structures±CADD±Final±470347 sup.dgn

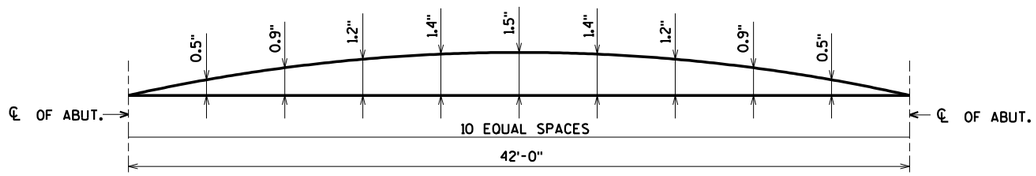
| STATE PROJECT NUMBER |
|---|
| 3618-00-74 |




## PART LONGITUDINAL SECTION

▲ DIMENSIONS MEASURED NORMAL TO ℄ OF SUBSTRUCTURE.

◑ DIMENSIONS MEASURED ALONG ℄ OF ELM DRIVE.




## CAMBER DIAGRAM

CAMBER SPAN AS SHOWN TO PROVIDE FOR DEAD LOAD DEFLECTION & FUTURE CREEP. CAMBER DOES NOT INCLUDE ALLOWANCE FOR FORM SETTLEMENT.

## SURVEY TOP OF SLAB ELEVATIONS

| LOCATION | ℄ OF W. ABUT. | 5/10 PTS. | ℄ OF E. ABUT. |
|---|---|---|---|
| N. EDGE OF SLAB | | | |
| ℄ OF STRUCTURE | | | |
| S. EDGE OF SLAB | | | |

PRIOR TO RELEASING SLAB FALSEWORK, TAKE TOP OF DECK ELEVATIONS AT THE ℄ OF ABUTMENTS AND AT 5/10 PTS. TO VERIFY CAMBER. TAKE ELEVATIONS ALONG EDGE OF SLAB AND CROWN OR ℄. RECORD THE ELEVATIONS IN THE ABOVE TABLE FOR THE "AS BUILT" PLANS.

## TOP OF DECK ELEVATIONS

| LOCATION | ℄ OF W. ABUT. | 0.1 | 0.2 | 0.3 | 0.4 | 0.5 | 0.6 | 0.7 | 0.8 | 0.9 | ℄ OF E. ABUT. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| N. EDGE OF SLAB | 858.10 | 858.01 | 857.93 | 857.86 | 857.79 | 857.73 | 857.68 | 857.63 | 857.59 | 857.56 | 857.53 |
| ℄ OF STRUCTURE | 858.50 | 858.40 | 858.31 | 858.23 | 858.16 | 858.09 | 858.02 | 857.97 | 857.92 | 857.88 | 857.84 |
| S. EDGE OF SLAB | 858.39 | 858.28 | 858.18 | 858.09 | 858.00 | 857.93 | 857.85 | 857.79 | 857.73 | 857.68 | 857.63 |

ELEVATIONS SHOWN ARE FINISHED DECK AND DO NOT INCLUDE ALLOWANCES OF DEAD LOAD DEFLECTION AND FUTURE CREEP.

| NO. | DATE | REVISION | BY |
|---|---|---|---|
| | | | |

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-53-388

DRAWN BY CLP | PLANS CK'D. ZSS

SUPERSTRUCTURE DETAILS

SHEET 11 OF 12
40

ORIGINAL PLANS PREPARED BY
AYRES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
www.AyresAssociates.com

8

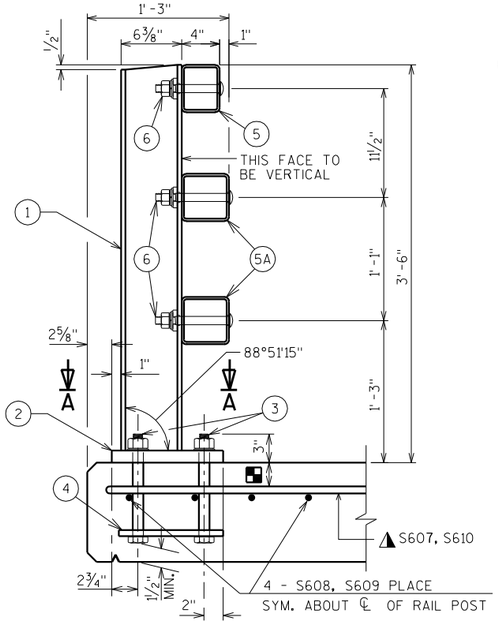
8

5/14/2021
PENTABLE:BReau_shd_util.tbl

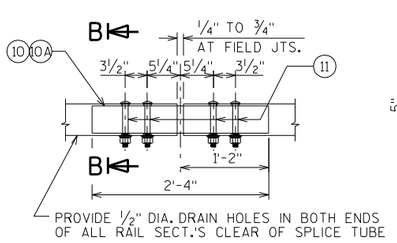
I:±47±470347 Rock-Town of LaPrairie±Structures±CADD±Final±470347 sup.dgn

STATE PROJECT NUMBER

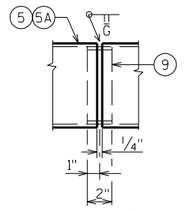
3618-00-74




SECTION THRU RAILING ON DECK

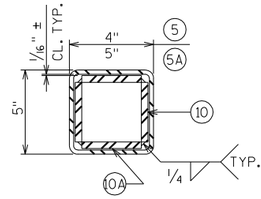



FIELD ERECTION JOINT DETAIL

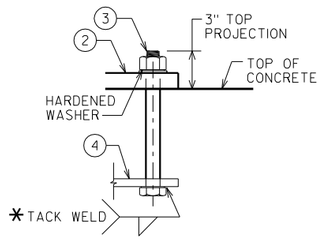



SHOP RAIL SPLICE DETAIL

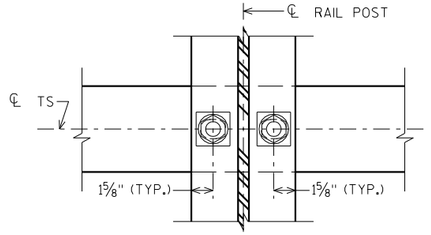
LOCATION MUST BE SHOWN ON SHOP DRAWINGS



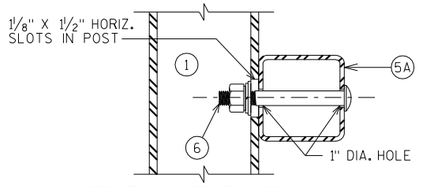

SECTION B-B




ANCHOR BOLTS



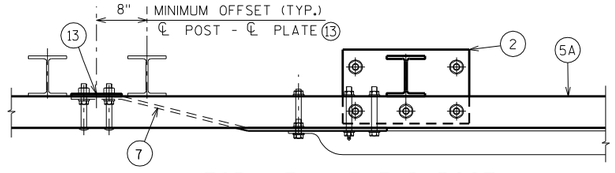

SECTION THRU POST WEB




SECTION THRU RAIL

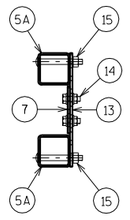
NOTE: CONNECTIONS AT LOWER RAILS SHOWN. CONNECTIONS AT TOP RAIL SIMILAR.

TYPICAL RAIL TO POST CONNECTIONS



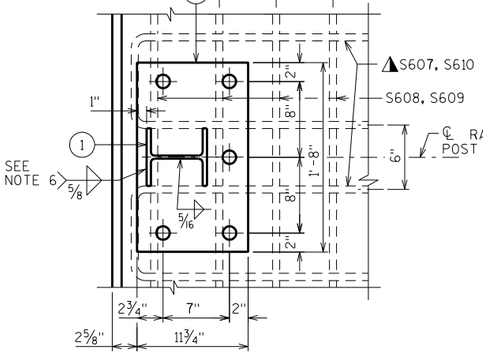

TOP VIEW AT END POST

THRIE BEAM RAIL ATTACHMENT

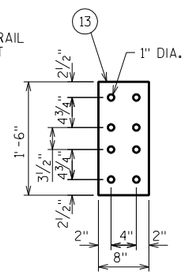


SECTION C-C

PLACE BELOW TOP MAT SLAB REINFORCEMENT

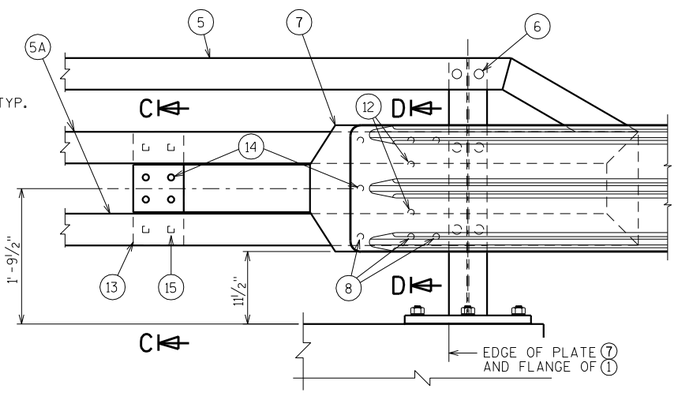



SECTION A-A



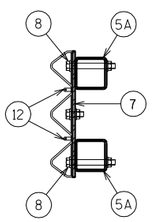

ANCHOR PLATE

AT BEAM GUARD ATTACHMENT

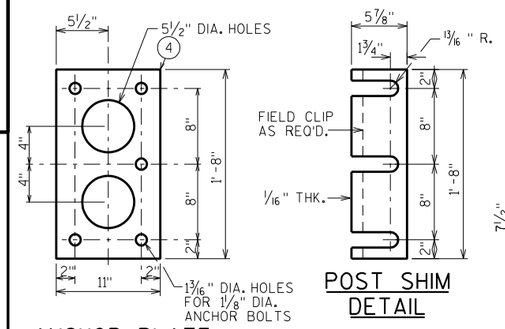



DETAIL AT END POST

THRIE BEAM RAIL ATTACHMENT



SECTION D-D

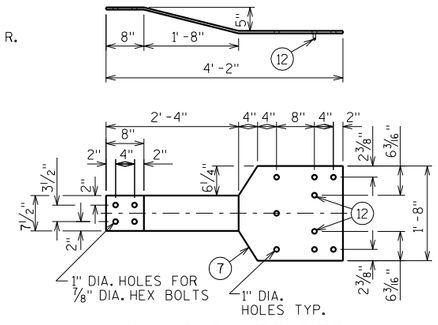



ANCHOR PLATE

AT RAIL TO DECK CONNECTION

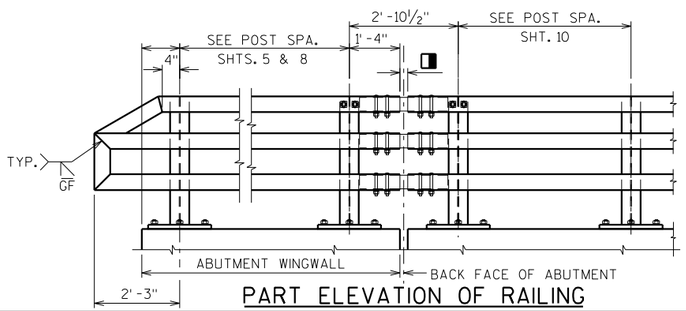



POST SHIM DETAIL




BACK-UP PLATE DETAIL

AT BEAM GUARD ATTACHMENT




PART ELEVATION OF RAILING

## LEGEND

(1) W6 x 25 WITH 1 1/8" X 1 1/2" HORIZ. SLOTS ON EACH SIDE OF POST FOR BOLT NO. 6. CUT BOTTOM OF POST TO MATCH CROSS SLOPE OF ROADWAY. PLACE POST VERTICAL. PLACE POSTS NORMAL TO GRADE LINE.

(2) PLATE 1 1/4" x 11 3/4" x 1'-8" WITH 1 7/16" DIA. OVERSIZED HOLES FOR ANCHOR BOLTS NO. 3. WELD TO NO. 1 AS SHOWN.

(3) ASTM A449 - 1 1/8" DIA. ANCHOR BOLTS WITH NUT AND HARDENED WASHER (ALL GALVANIZED). 5 REQ'D. PER POST. THREAD 3" AND PLACE NORMAL TO PLATE NO. 2. CHAMFER TOP OF BOLTS BEFORE THREADING. USE 1'-9" LONG IN ABUTMENT WINGS. AT POSTS ON CONCRETE SLAB SUPERSTRUCTURES WHERE THE SLAB THICKNESS IS > 16" USE 1'-3" LONG. ~~USE 10 3/4" LONG AT ALL OTHER LOCATIONS.~~ (AN EQUIVALENT THREADED ROD WITH NUTS AND HARDENED WASHERS MAY BE SUBSTITUTED FOR ANCHOR BOLTS IN WINGS IF REQ'D. FOR CONSTRUCTABILITY.)

(4) 5/8" x 11" x 1'-8" ANCHOR PLATE (GALVANIZED) WITH 1 3/16" DIA. HOLES FOR ANCHOR BOLTS NO. 3

(5) TS 5 x 4 x 0.25 STRUCTURAL TUBING. ATTACH TO NO. 1 WITH NO. 6.

(5A) TS 5 x 5 x 0.25 STRUCTURAL TUBING. ATTACH TO NO. 1 WITH NO. 6.

(6) 7/8" DIA. A325 SLOTTED ROUND HEAD BOLT WITH NUT, 3/16" X 1 5/8" X 1 5/8" MIN. WASHER, AND LOCK WASHER (2 REQ'D. AT EACH RAIL TO POST LOCATION.)

(7) 1/2" THK. BACK-UP PLATE WITH 2 - 7/8" X 1 1/2" THREADED SHOP WELDED STUDS (NO. 12). BOLT TO RAIL AS SHOWN IN DETAIL. REQUIRED AT THRIE BEAM GUARD RAIL ATTACHMENTS ONLY. PLACE SYMMETRICALLY ABOUT TUBES NO. 5A.

(8) 1" DIA. HOLES IN PLATE NO. 7 & TUBES NO. 5A FOR 7/8" DIA. A325 BOLTS WITH HEX NUTS AND WASHERS. 6 HOLES IN TUBES AND PLATE NO. 7.

(9) SPLICE SLEEVE FABRICATED FROM 1/4" PLATE. PROVIDE "SLIDING FIT".

(10) 3/8" X 3 5/8" X 2'-4" PLATE. 2 PER RAIL. USED IN NO. 5 & 5A.

(10A) 3/8" X 2 5/8" X 2'-4" PLATE USED IN NO. 5, 3/8" X 3 5/8" X 2'-4" PLATE USED IN NO. 5A. 2 PER RAIL.

(11) 7/8" DIA. A325 ROUND HEAD BOLT WITH NUT, WASHER, AND LOCK WASHER. USE 15/16" X 1 1/4" LONGIT. SLOTTED HOLES IN PLATE NO. 10A. AT FIELD JOINTS AND ~~15/16" X 2 1/4" MIN. LONGIT. SLOTTED HOLES AT EXP. JOINTS~~ IN PLATE NO. 10A. PROVIDE 15/16" DIA. ROUND HOLES IN TUBES NO. 5 AND NO. 5A.

(12) 7/8" DIA. X 1 1/2" LONG THREADED SHOP WELDED STUDS (2 REQ'D).

(13) 3/8" X 8" X 1'-6" PLATE. BOLT TO RAIL AS SHOWN IN DETAIL. REQ'D. AT THRIE BEAM GUARD RAIL ATTACHMENTS ONLY. PLACE SYM. ABOUT TUBES NO. 5A.

(14) 7/8" DIA. X 2" LONG A325 HEX BOLT WITH NUT AND WASHER (5 REQ'D.).

(15) 1" DIA. HOLES IN TUBES NO. 5A FOR 7/8" DIA. A325 ROUND HEAD BOLT WITH NUT, WASHER AND LOCK WASHER (4 REQ'D.). 4 HOLES IN TUBES.

## GENERAL NOTES

1. BID ITEM SHALL BE "RAILING TUBULAR TYPE M" WHICH INCLUDES ALL ITEMS SHOWN.
2. RAIL POST AND BASE PLATES SHALL CONFORM TO THE REQUIREMENTS OF ASTM A709 GRADE 50. HOLLOW RAILING STRUCTURAL TUBING SHALL CONFORM TO THE REQUIREMENTS OF ASTM A500 GRADE B OR C WITH A CERTIFIED FY = 50 KSI. ANCHOR PLATES, AND SPLICE TUBE PLATES SHALL CONFORM TO THE REQUIREMENTS OF ASTM A709 GRADE 36.
3. THE NUT SECURING THE POST BASE PLATE TO THE CONCRETE SHALL BE TIGHTENED TO A SNUG FIT AND GIVEN AN ADDITIONAL 1/8 TURN.
4. RAILS SHALL BE CONTINUOUS OVER A MINIMUM OF THREE (3) POSTS WITHOUT SPLICES WHERE POSSIBLE. ~~RAILS SHALL BE SPLICED IN A PANEL OVER EXPANSION JOINTS.~~
5. ENDS OF TUBE SECTIONS SHALL BE SAWED. GRIND SMOOTH EXPOSED EDGES. ALL CUT ENDS SHALL BE TRUE AND SMOOTH.
6. WELD IS THE SAME ON BOTH FLANGES. FLANGE WELD DOES NOT REQUIRE MAGNETIC PARTICLE TESTING.
7. FILL BOLT SLOT OPENINGS IN POST SHIMS AND PLATE NO. 2 AND CAULK AROUND PERIMETER OF PLATE NO. 2 WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. STEEL POST SHIMS MAY BE USED UNDER POSTS WHERE REQ'D. FOR ALIGNMENT.
8. POST BASE PLATES SHALL BE FLAT WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT AND VERTICAL. ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUT.
9. ALL MATERIAL SHALL BE GALVANIZED AFTER FABRICATION. PRIOR TO GALVANIZING, ALL STEEL RAILING POSTS & STEEL TUBING SHALL BE GIVEN A NO. 6 BLAST CLEANING BY SSPC SPECIFICATIONS.

◨ 1/4" TO 3/4" OPENING AT A1 ABUTMENTS.

◭ TIE TO TOP MAT OF STEEL.

✳ ANCHOR BOLT ASSEMBLY MAY BE TACK WELDED, EITHER IN THE SHOP, OR IN THE FIELD AFTER THE ANCHOR PLATE IS PLACED.

| NO. | DATE | REVISION | BY |
|---|---|---|---|

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-53-388

DRAWN BY CLP | PLANS CK'D. ZSS

TUBULAR STEEL RAILING TYPE 'M'

SHEET 12 OF 12

41

ORIGINAL PLANS PREPARED BY

AYRES 3433 Oakwood Hills Parkway Eau Claire, WI 54701 www.AyresAssociates.com

## ELM DRIVE COMPUTER EARTHWORK

*BYPASS INSTALL*

| Station | Distance | Area (SF) | | Incremental Vol (CY) (Unadjusted) | | Cumulative Vol (CY) | | Mass Ordinate |
|---|---|---|---|---|---|---|---|---|
| | | Cut | Fill | Cut | Fill | Cut | Expanded Fill | |
| | | | | | | 1.00 | 1.30 | |
| | | | | Note 1 | Note 2 | Note 1 | | Note 3 |
| 17+84 | -- | 34.6 | 0.0 | | | | | |
| 18+00 | 16 | 24.2 | 0.0 | 17 | 0 | 17 | 0 | 17 |
| 18+25 | 25 | 17.4 | 0.0 | 19 | 0 | 37 | 0 | 37 |
| 18+50 | 25 | 25.5 | 0.7 | 20 | 0 | 57 | 0 | 56 |
| 18+75 | 25 | 0.0 | 24.1 | 12 | 11 | 68 | 15 | 53 |
| 19+00 | 25 | 0.0 | 68.0 | 0 | 43 | 68 | 71 | -2 |
| 19+25 | 25 | 0.0 | 112.5 | 0 | 84 | 68 | 179 | -111 |
| 19+50 | 25 | 0.0 | 153.6 | 0 | 123 | 68 | 339 | -271 |
| 19+75 | 25 | 0.0 | 206.0 | 0 | 166 | 68 | 556 | -488 |
| 19+85 | 10 | 0.0 | 206.0 | 0 | 76 | 68 | 655 | -587 |
| TEMP BRIDGE | -- | -- | -- | -- | -- | -- | -- | -- |
| 20+15 | -- | 0.0 | 87.0 | -- | -- | -- | -- | -- |
| 20+25 | 10 | 0.0 | 87.0 | 0 | 32 | 68 | 697 | -629 |
| 20+50 | 25 | 0.0 | 90.1 | 0 | 82 | 68 | 804 | -735 |
| 20+75 | 25 | 0.0 | 47.5 | 0 | 64 | 68 | 886 | -818 |
| 21+00 | 25 | 15.9 | 1.0 | 7 | 22 | 76 | 916 | -840 |
| 21+25 | 25 | 11.3 | 0.0 | 4 | 48 | 80 | 978 | -898 |
| 21+50 | 25 | 9.6 | 0.0 | 10 | 0 | 90 | 978 | -889 |
| 21+54 | 4 | 9.4 | 0.0 | 1 | 0 | 91 | 978 | -887 |
| | | | | 91 | 753 | | | |

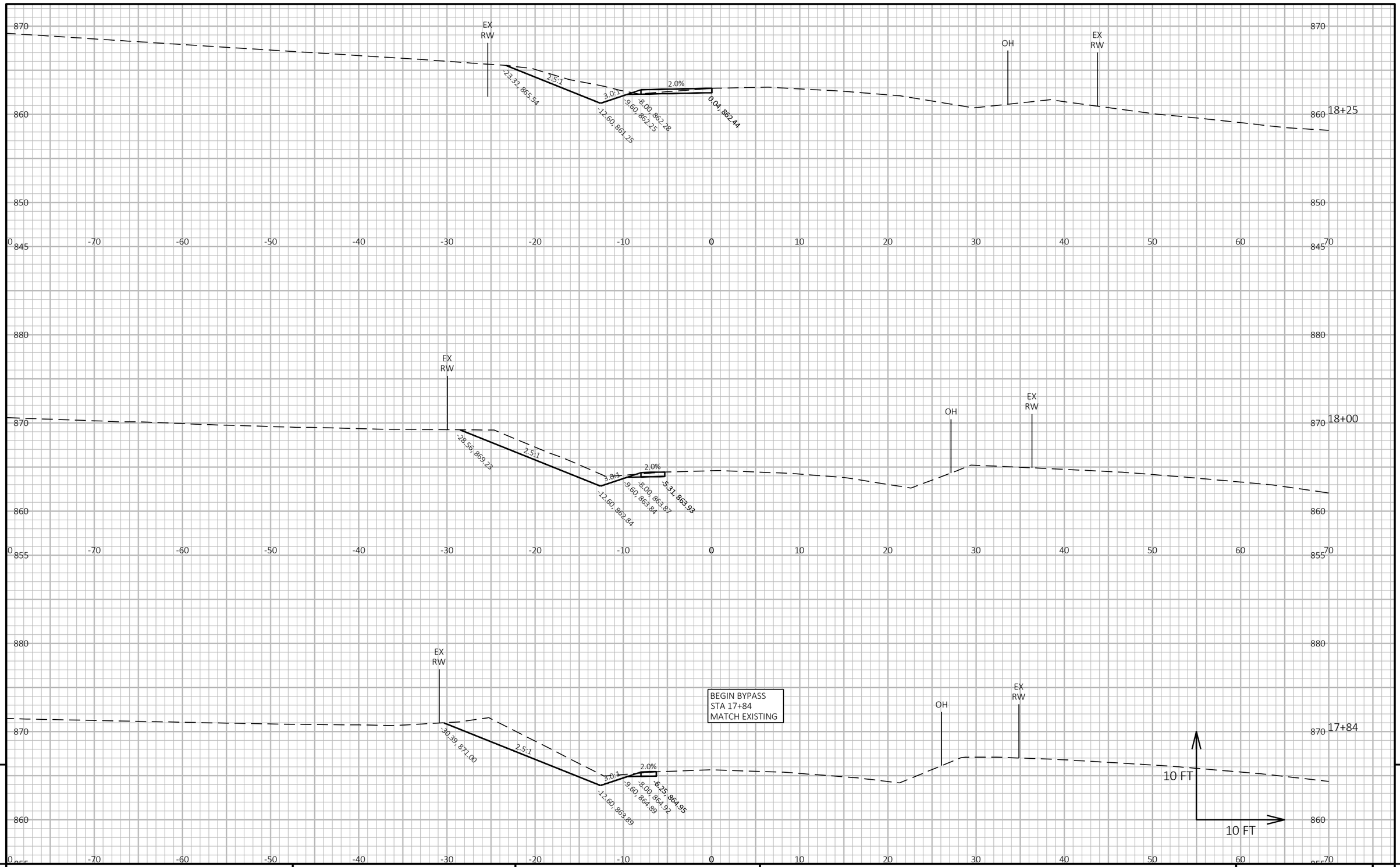
*MAINLINE*

| Station | Distance | Area (SF) | | Incremental Vol (CY) (Unadjusted) | | Cumulative Vol (CY) | | Mass Ordinate |
|---|---|---|---|---|---|---|---|---|
| | | Cut | Fill | Cut | Fill | Cut | Expanded Fill | |
| | | | | | | 1.00 | 1.30 | |
| | | | | Note 1 | Note 2 | Note 1 | | Note 3 |
| 9+30 | -- | 17.9 | 13.1 | | | | | |
| 9+50 | 20 | 17.8 | 68.2 | 13 | 30 | 13 | 39 | -26 |
| 9+70 | 20 | 18.3 | 123.6 | 13 | 71 | 27 | 131 | -105 |
| 9+77 | 7 | 18.3 | 123.6 | 5 | 32 | 31 | 173 | -142 |
| NEW BRIDGE | -- | -- | -- | -- | -- | -- | -- | -- |
| 10+23 | -- | 19.9 | 53.3 | -- | -- | -- | -- | -- |
| 10+35 | 12 | 19.9 | 53.3 | 9 | 24 | 40 | 204 | -164 |
| 10+50 | 15 | 18.6 | 37.4 | 11 | 25 | 51 | 237 | -186 |
| 10+70 | 20 | 17.6 | 11.7 | 13 | 18 | 64 | 260 | -196 |
| | | | | 64 | 200 | | | |

*BYPASS REMOVAL*

| Station | Distance | Area (SF) | | Incremental Vol (CY) (Unadjusted) | | Cumulative Vol (CY) | | Mass Ordinate |
|---|---|---|---|---|---|---|---|---|
| | | Cut | Fill | Cut | Fill | Cut | Expanded Fill | |
| | | | | | | 1.00 | 1.30 | |
| | | | | Note 1 | Note 2 | Note 1 | | Note 3 |
| Fill | -- | -- | -- | 753 | -- | -- | -- | -- |
| BAD 3/4-Inch | -- | -- | -- | 87 | -- | 840 | -- | 840 |
| | | | | 840 | 0 | | | |

| | |
|---|---|
| Note 1 - Cut | Cut includes existing asphalt pavement. Assumed to be reused as fill outside the 1:1 road core. |
| Note 2 - Fill | Volume needed to be filled. |
| Note 3 - Mass Ordinate | (Cut) - (Fill * 1.30) |

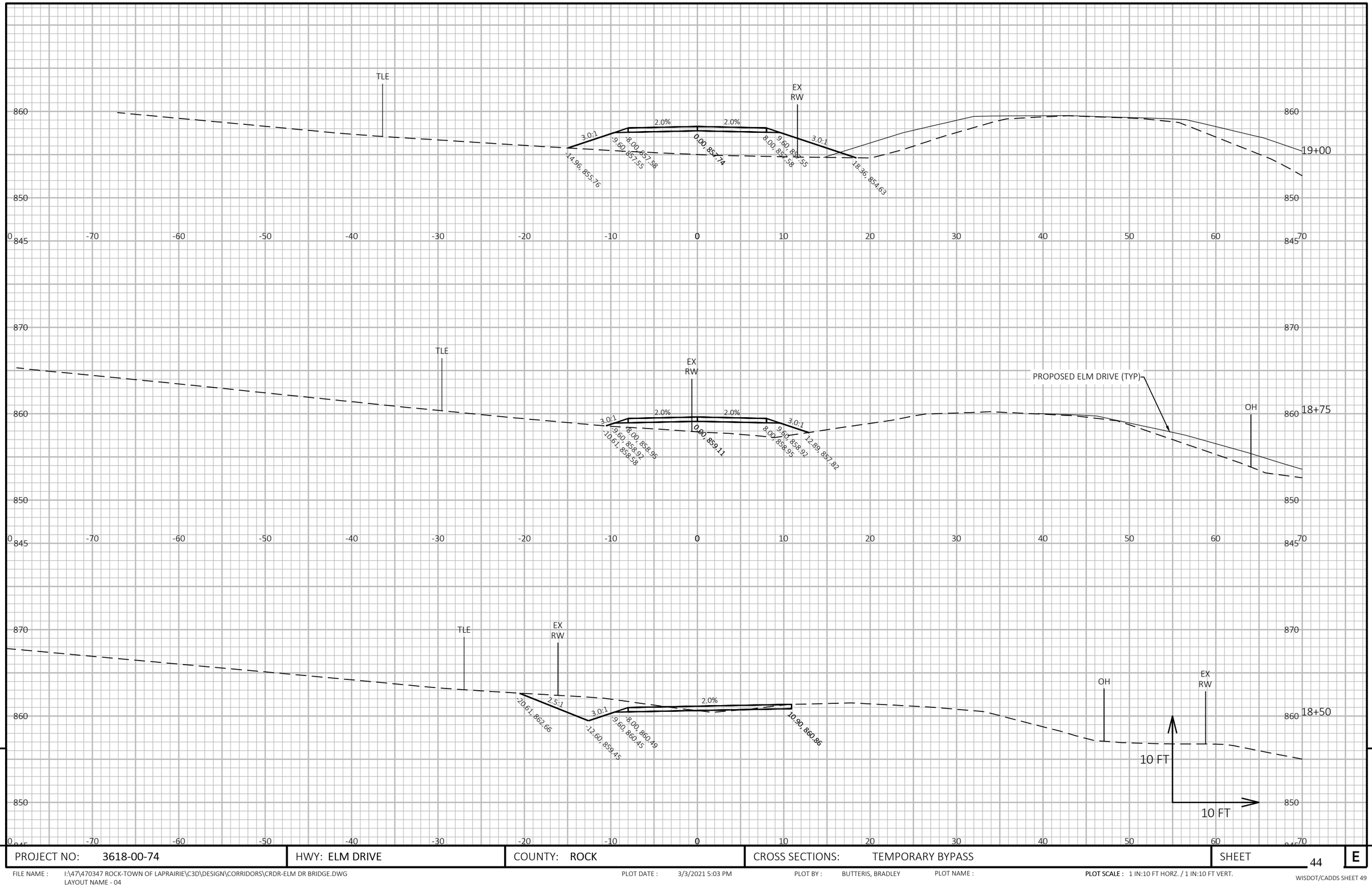



| PROJECT NO: 3618-00-74 | HWY: ELM DRIVE | COUNTY: ROCK | CROSS SECTIONS: TEMPORARY BYPASS | SHEET 43 | E |
|---|---|---|---|---|---|

FILE NAME : I:\47\470347 ROCK-TOWN OF LAPRAIRIE\C3D\DESIGN\CORRIDORS\CRDR-ELM DR BRIDGE.DWG
LAYOUT NAME - 03

PLOT DATE : 7/1/2021 12:42 PM PLOT BY : INMAN, AMANDA PLOT NAME :

**PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.




9

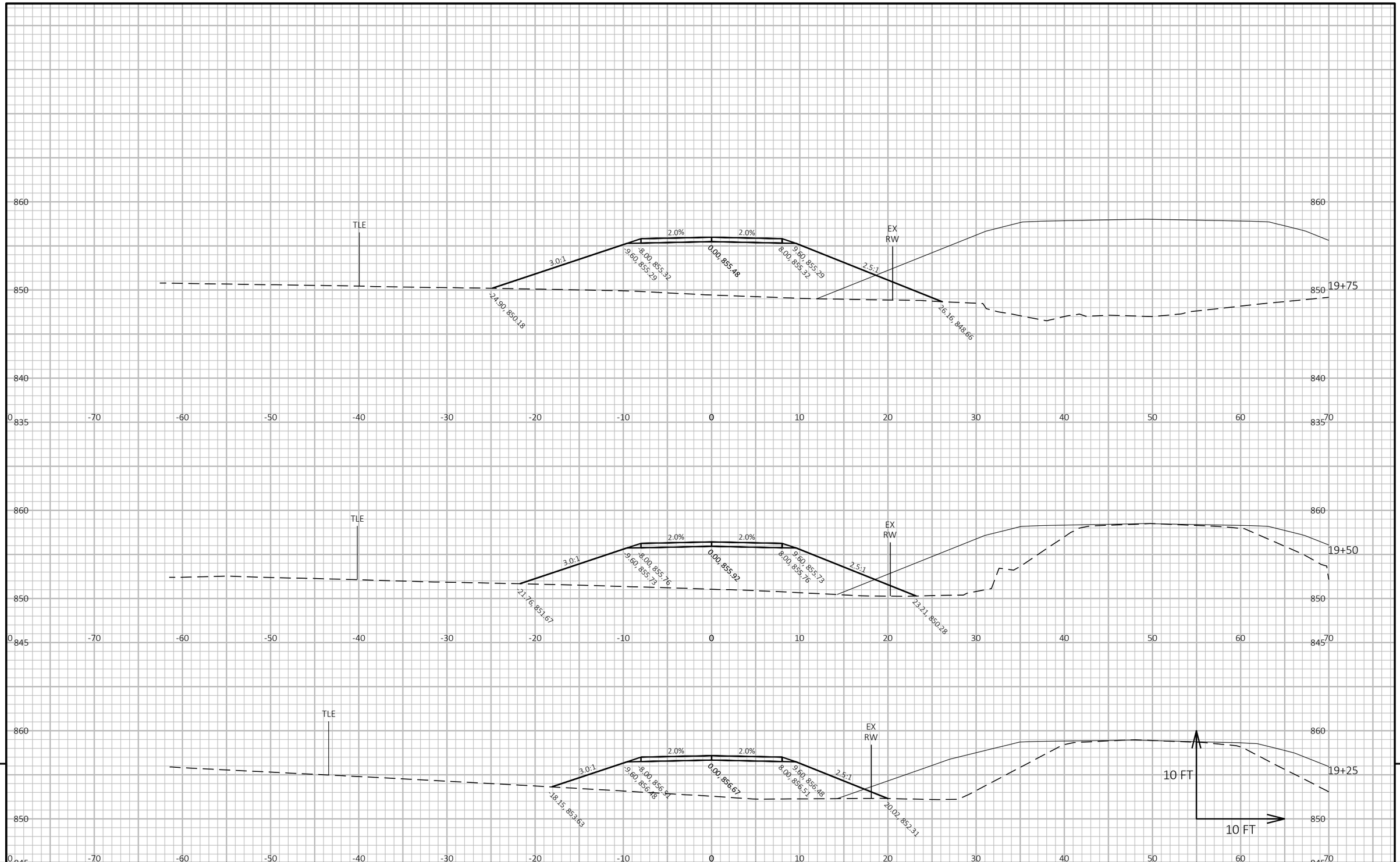
9

| PROJECT NO: 3618-00-74 | HWY: ELM DRIVE | COUNTY: ROCK | CROSS SECTIONS: TEMPORARY BYPASS | SHEET 44 | E |
|---|---|---|---|---|---|

FILE NAME : I:\47\470347 ROCK-TOWN OF LAPRAIRIE\C3D\DESIGN\CORRIDORS\CRDR-ELM DR BRIDGE.DWG
LAYOUT NAME - 04

PLOT DATE : 3/3/2021 5:03 PM PLOT BY : BUTTERIS, BRADLEY PLOT NAME :

**PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.




9

9

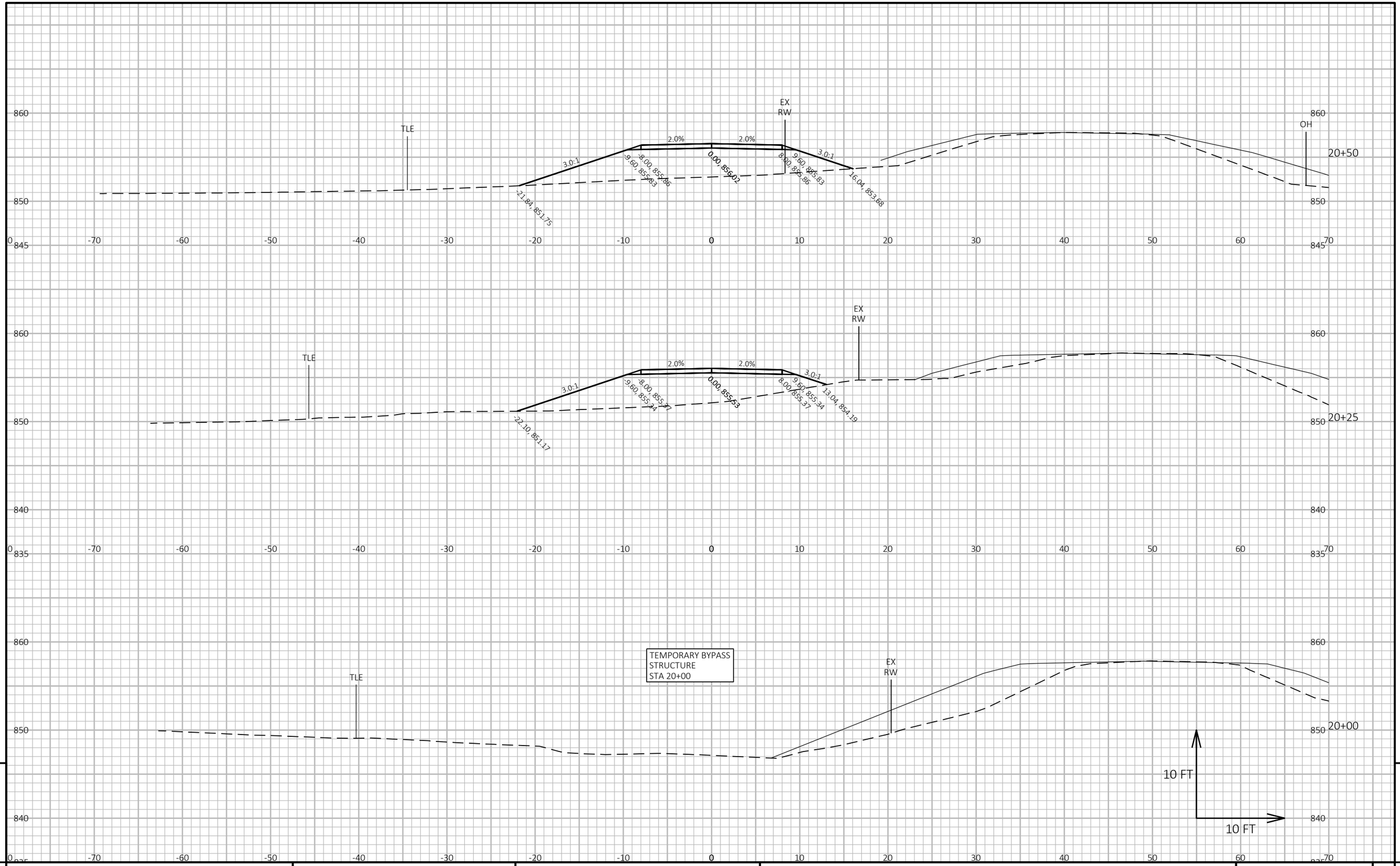
| PROJECT NO: 3618-00-74 | HWY: ELM DRIVE | COUNTY: ROCK | CROSS SECTIONS: TEMPORARY BYPASS | SHEET 45 | E |
|---|---|---|---|---|---|

FILE NAME : I:\47\470347 ROCK-TOWN OF LAPRAIRIE\C3D\DESIGN\CORRIDORS\CRDR-ELM DR BRIDGE.DWG
LAYOUT NAME - 05

PLOT DATE : 3/3/2021 5:03 PM PLOT BY : BUTTERIS, BRADLEY PLOT NAME :

**PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

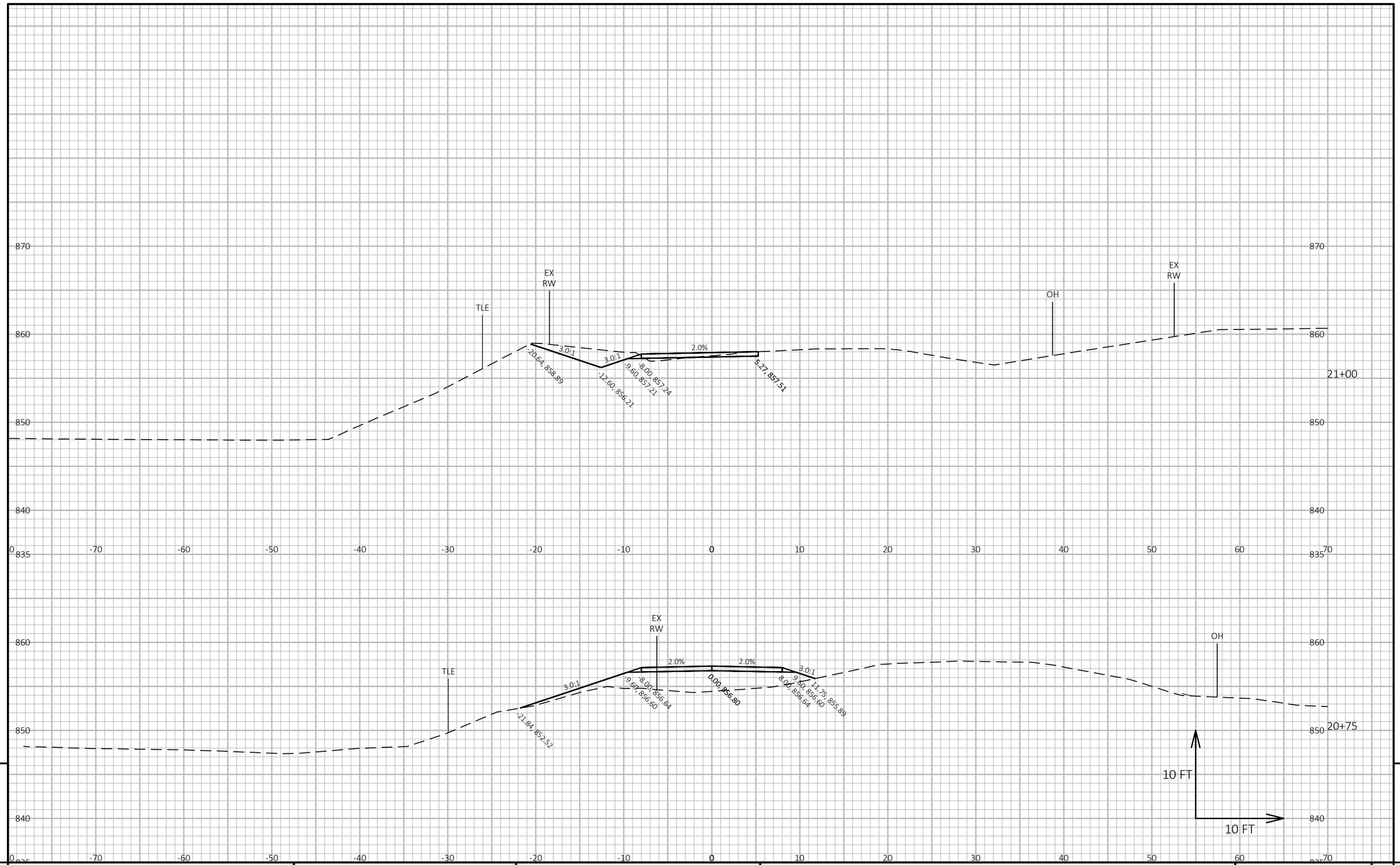



| | | | | |
|---|---|---|---|---|
| PROJECT NO: 3618-00-74 | HWY: ELM DRIVE | COUNTY: ROCK | CROSS SECTIONS: TEMPORARY BYPASS | SHEET 46 E |

FILE NAME : I:\47\470347 ROCK-TOWN OF LAPRAIRIE\C3D\DESIGN\CORRIDORS\CRDR-ELM DR BRIDGE.DWG
LAYOUT NAME - 06

PLOT DATE : 3/3/2021 5:03 PM PLOT BY : BUTTERIS, BRADLEY PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



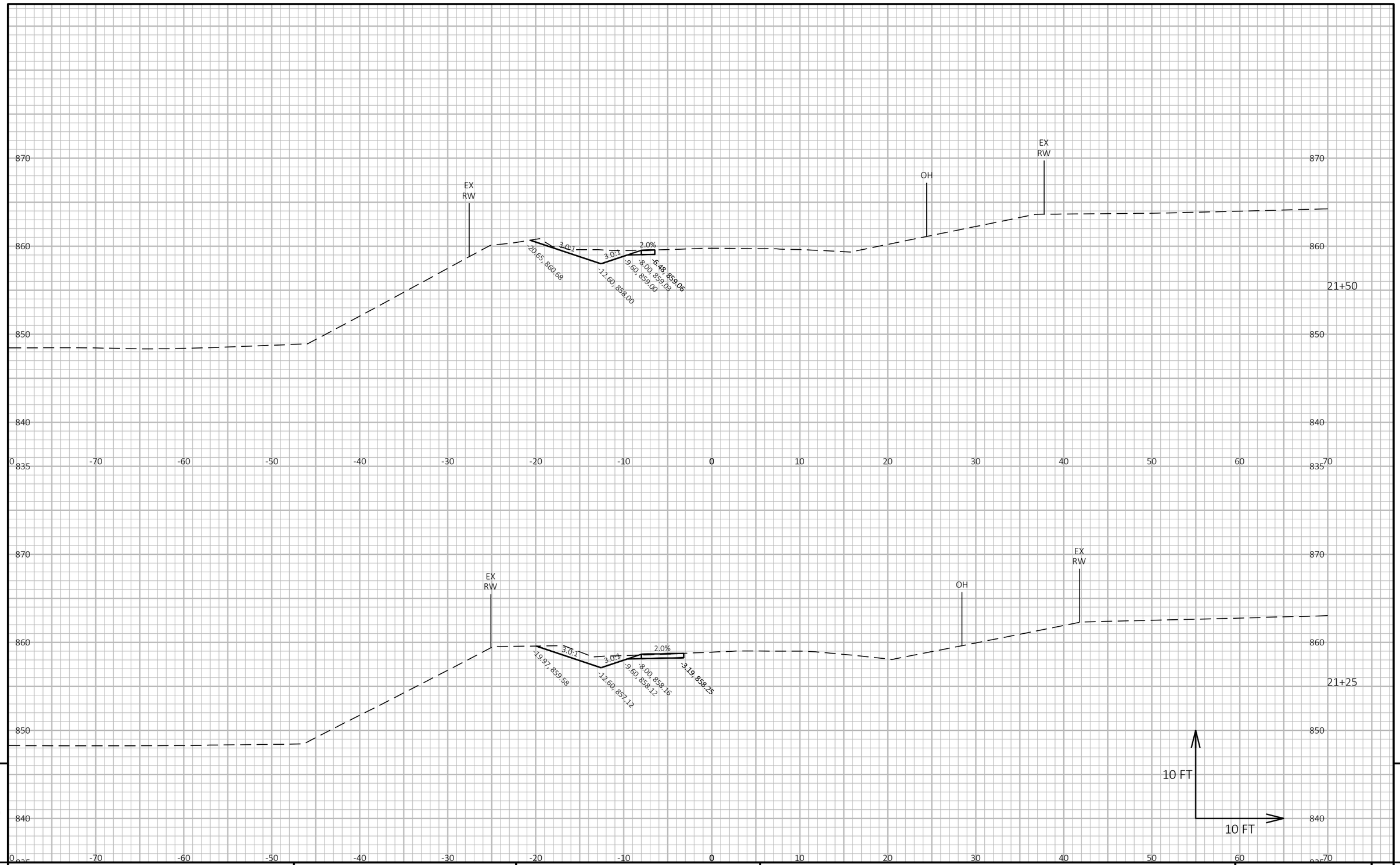

| PROJECT NO: 3618-00-74 | HWY: ELM DRIVE | COUNTY: ROCK | CROSS SECTIONS: TEMPORARY BYPASS | SHEET 47 | E |
|---|---|---|---|---|---|

FILE NAME : I:\47\470347 ROCK-TOWN OF LAPRAIRIE\C3D\DESIGN\CORRIDORS\CRDR-ELM DR BRIDGE.DWG
LAYOUT NAME - 07

PLOT DATE : 3/3/2021 5:03 PM PLOT BY : BUTTERIS, BRADLEY PLOT NAME :

**PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49




| PROJECT NO: 3618-00-74 | HWY: ELM DRIVE | COUNTY: ROCK | CROSS SECTIONS: TEMPORARY BYPASS | SHEET 48 | E |
|---|---|---|---|---|---|

FILE NAME : I:\47\470347 ROCK-TOWN OF LAPRAIRIE\C3D\DESIGN\CORRIDORS\CRDR-ELM DR BRIDGE.DWG
LAYOUT NAME - 08

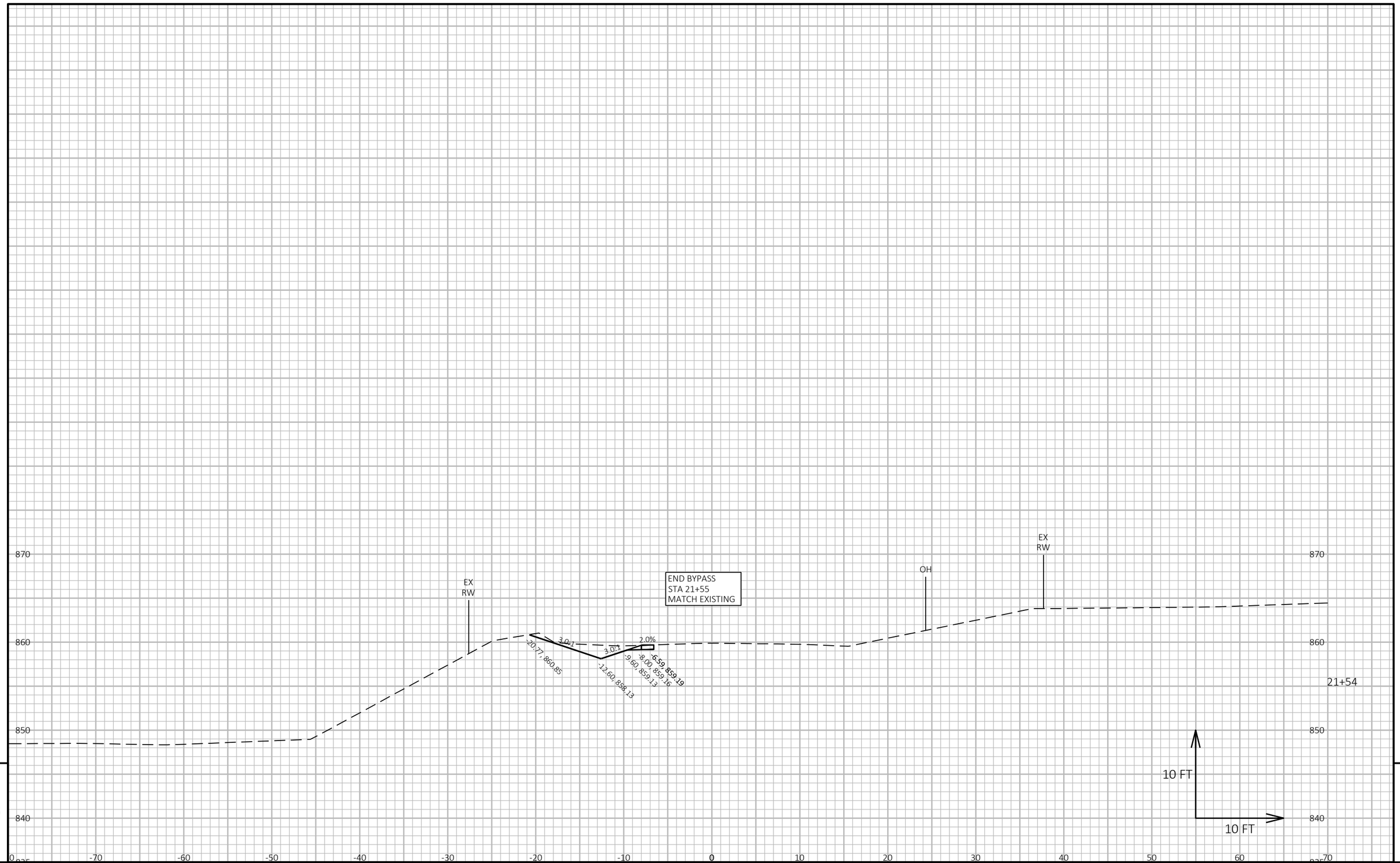
PLOT DATE : 3/3/2021 5:03 PM

PLOT BY : BUTTERIS, BRADLEY

PLOT NAME :

**PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49




9

9

| PROJECT NO: 3618-00-74 | HWY: ELM DRIVE | COUNTY: ROCK | CROSS SECTIONS: TEMPORARY BYPASS | SHEET 49 | E |
|---|---|---|---|---|---|

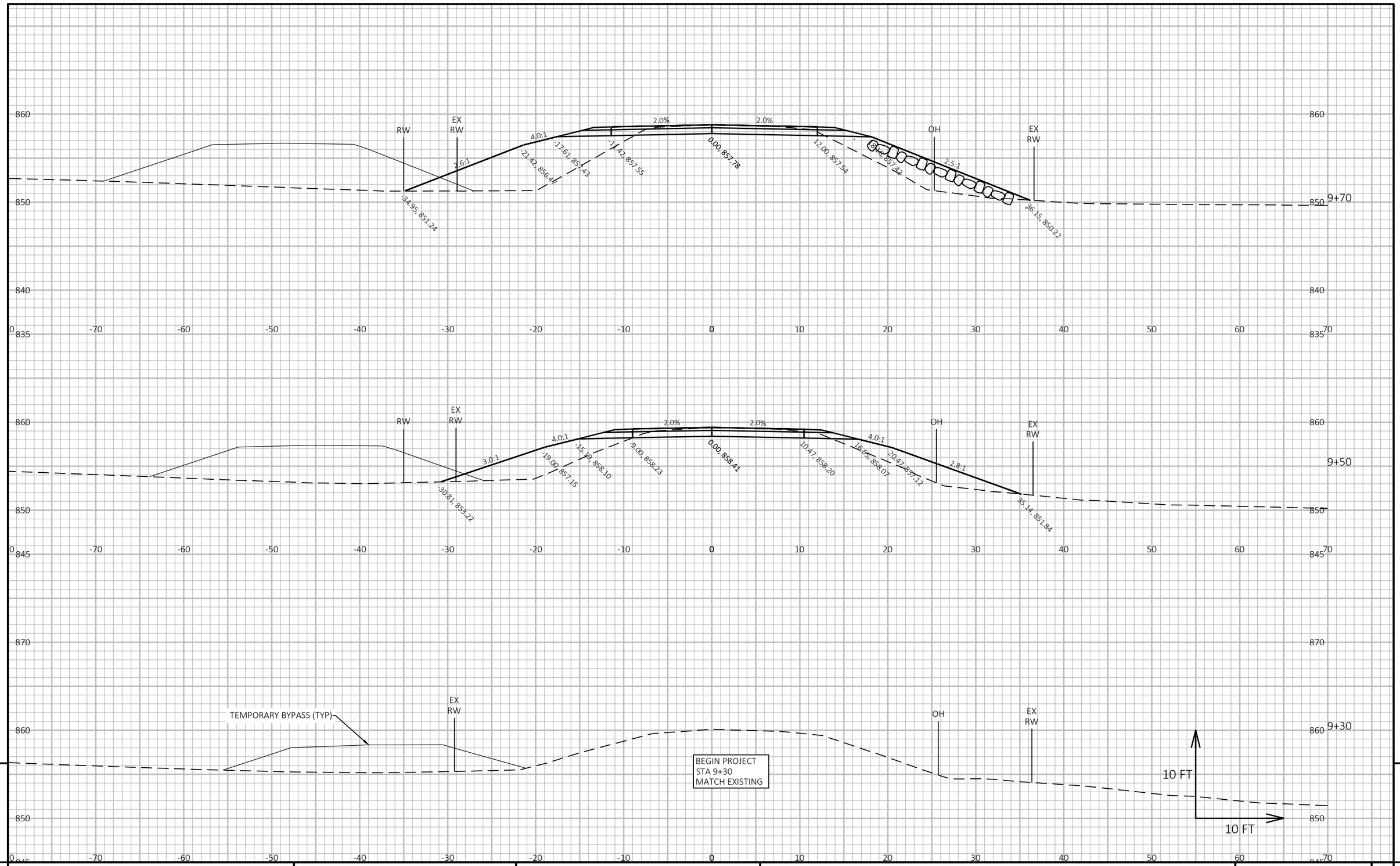
FILE NAME : I:\47\470347 ROCK-TOWN OF LAPRAIRIE\C3D\DESIGN\CORRIDORS\CRDR-ELM DR BRIDGE.DWG
LAYOUT NAME - 09

PLOT DATE : 3/3/2021 5:03 PM

PLOT BY : BUTTERIS, BRADLEY

PLOT NAME :

**PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



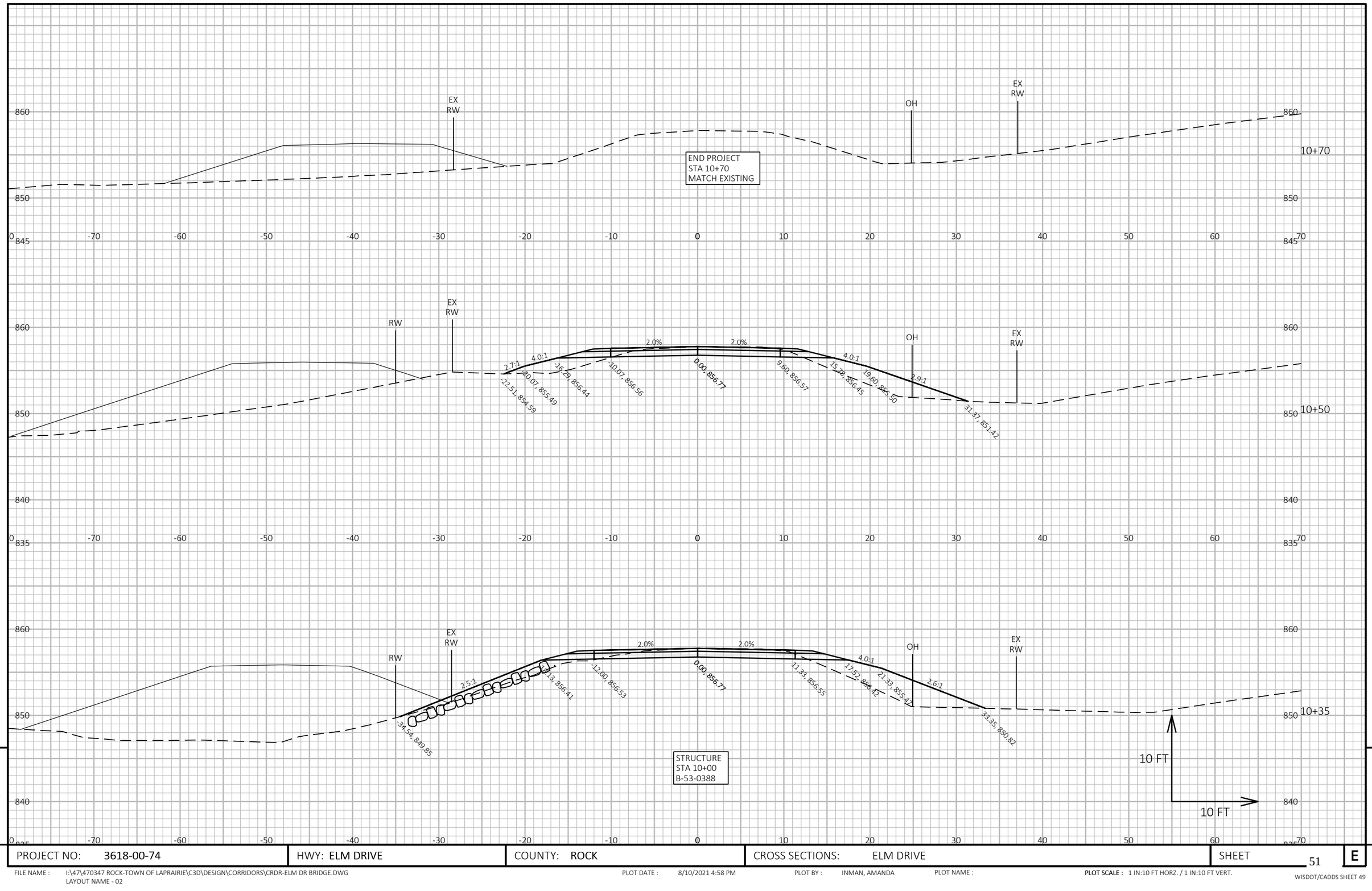

9

9

| PROJECT NO: 3618-00-74 | HWY: ELM DRIVE | COUNTY: ROCK | CROSS SECTIONS: ELM DRIVE | SHEET 50 | E |
|---|---|---|---|---|---|

FILE NAME : I:\47\470347 ROCK-TOWN OF LAPRAIRIE\C3D\DESIGN\CORRIDORS\CRDR-ELM DR BRIDGE.DWG
LAYOUT NAME - 01

PLOT DATE : 8/10/2021 4:58 PM PLOT BY : INMAN, AMANDA PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.




| PROJECT NO: 3618-00-74 | HWY: ELM DRIVE | COUNTY: ROCK | CROSS SECTIONS: ELM DRIVE | SHEET 51 | E |
|---|---|---|---|---|---|

FILE NAME : I:\47\470347 ROCK-TOWN OF LAPRAIRIE\C3D\DESIGN\CORRIDORS\CRDR-ELM DR BRIDGE.DWG
LAYOUT NAME - 02

PLOT DATE : 8/10/2021 4:58 PM PLOT BY : INMAN, AMANDA PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

**Wisconsin Department of Transportation**

Dedicated people creating transportation solutions
through innovation and exceptional service.

http://www.dot.wisconsin.gov