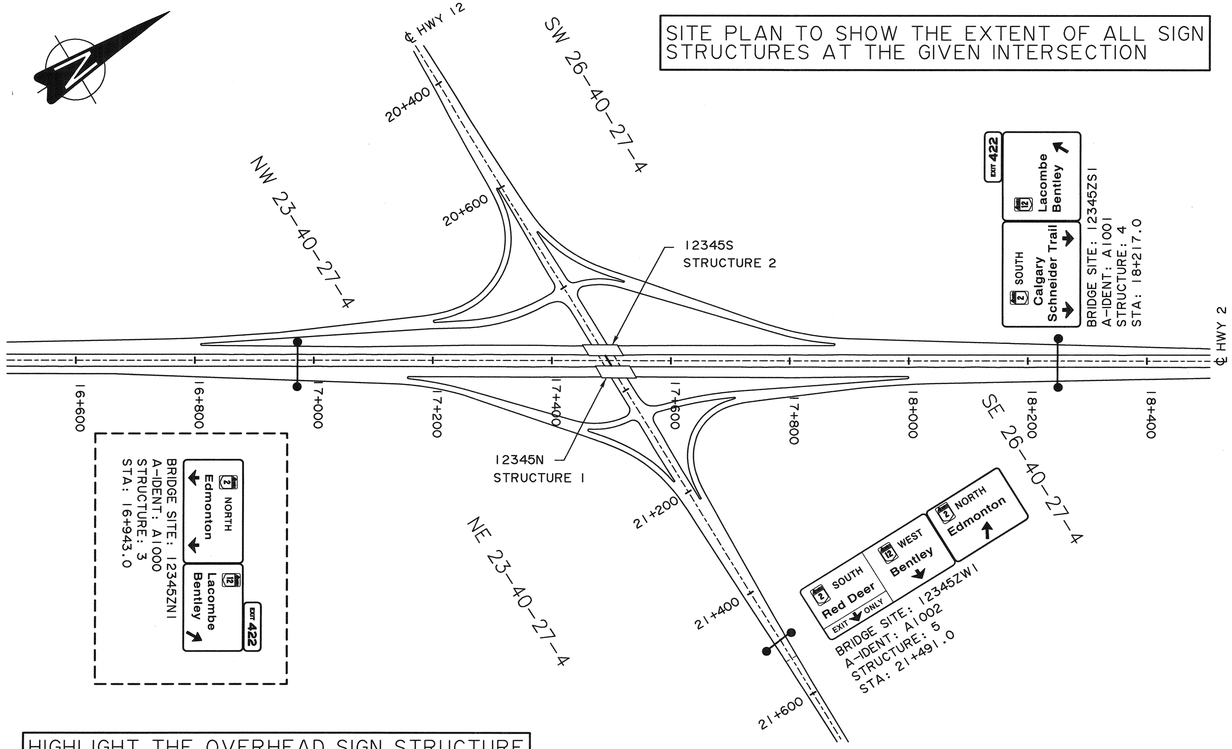
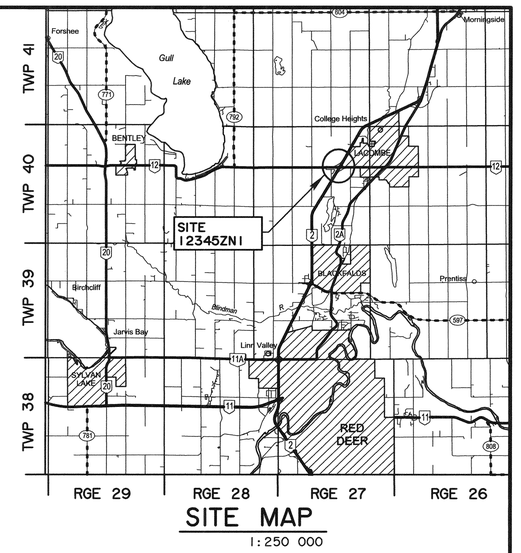
SITE PLAN TO SHOW THE EXTENT OF ALL SIGN STRUCTURES AT THE GIVEN INTERSECTION




HIGHLIGHT THE OVERHEAD SIGN STRUCTURE ON THE SITE PLAN WITH DASHED LINE




## SITE MAP

1:250 000

HIGHWAY 1 - 216

HIGHWAY 500 - 986

LOCAL ROADS

## GENERAL NOTES

- ALL DIMENSIONS, STATIONS AND ELEVATIONS ON THE GENERAL LAYOUT ARE GIVEN IN METRES
- ALL OVERHEAD SIGN STRUCTURES SHALL BE IN ACCORDANCE WITH STANDARD SPECIFICATIONS FOR BRIDGE CONSTRUCTION, SECTION 24

## SURVEY BY

- BY XXXXXX SURVEYS UNDER THE DIRECTION OF XXXXXX XXXXX, COMPLETED YEAR-MONTH-DAY

## BENCHMARKS

- CP 1, IRON BAR, LOCATED X.XXX RT OF HIGHWAY XX ALIGNMENT AT STA XX+XXX.XXX, EL XXX.XXX - (N=XXXXXXX.XXX, E=XXXXX.XXX)
  CP 2, IRON BAR, LOCATED X.XXX LT OF HIGHWAY XX ALIGNMENT AT STA XX+XXX.XXX, EL XXX.XXX - (N=XXXXXXX.XXX, E=XXXXX.XXX)

## DESIGN

- OVERHEAD SIGN STRUCTURES SHALL BE DESIGNED IN ACCORDANCE WITH THE REQUIREMENTS OF AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINARIES AND TRAFFIC SIGNALS LATEST EDITION PLUS INTERIMS AND THE ALBERTA TRANSPORTATION STANDARD SPECIFICATIONS FOR BRIDGE CONSTRUCTION SECTION 24
- THE FATIGUE IMPORTANCE FACTORS IN TABLE 11.6-1 OF THE AASHTO STANDARD SPECS SHALL BE BASED ON FATIGUE CATEGORY I
- THE FOLLOWING DESIGN INFORMATION SHALL BE FILLED OUT AND PROVIDED ON EACH OVERHEAD SIGN STRUCTURE GENERAL LAYOUT DRAWING:

1. FATIGUE DESIGN

| | IMPORTANCE FACTOR $I_F$ | PRESSURE P (Pa) |
|---|---|---|
| GALLOPING | | |
| VORTEX SHEDDING | | |
| NATURAL WIND GUSTS | | |
| TRUCK INDUCED WIND GUSTS | | |

2. WIND LOADING

| | |
|---|---|
| REFERENCE WIND PRESSURE q(50)(Pa) | |
| EXPOSURE FACTOR $K_Z$ | |
| DRAG COEFFICIENT Cd | |
| DESIGN PANEL AREA ($m^2$) | |
| DESIGN WIND PRESSURE (Pa) | |

3. ICE ACCRETION

| | |
|---|---|
| DESIGN ICE ACCRETION THICKNESS (mm) | |

4. CRITICAL ANCHOR ROD FORCES

| | |
|---|---|
| CRITICAL ANCHOR ROD FORCES (IDENTIFY LOAD TYPE) (kN) | |

## MATERIALS

- STRUCTURAL STEEL PLATE MATERIAL SHALL CONFORM TO EITHER CSA G40.21M GRADE 300W OR 350W OR ASTM A572 GRADE 50
- ALL OTHER STRUCTURAL SHAPES EXCEPT HSS SHALL CONFORM TO CSA G40.21M GRADE 300W OR 350W, HSS MEMBERS SHALL CONFORM TO CSA G40.21M GRADE 350W CLASS H
- ALL STEEL MATERIAL SHALL SATISFY THE SILICON CONTENT AND NOTCH TOUGHNESS REQUIREMENTS AS SPECIFIED IN THE STANDARD SPECIFICATIONS FOR BRIDGE CONSTRUCTION SECTION 24
- ALL BOLTS SHALL CONFORM TO ASTM F3125 GRADE A325/A325M TYPE 1 HEAVY HEX STYLE. NUTS SHALL BE HEAVY HEX STYLE AND SHALL CONFORM TO ASTM A563/A563M. HARDENED WASHERS SHALL CONFORM TO ASTM F436/F436M
- ANCHOR RODS SHALL BE MANUFACTURED FROM SMOOTH RODS CONFORMING TO THE REQUIREMENTS OF ASTM F1554 GRADE 55 (FY=380 MPa) INCLUDING SUPPLEMENTARY REQUIREMENT S4
- ALL CONCRETE SHALL BE CLASS C AND BE IN ACCORDANCE WITH THE STANDARD SPECIFICATION FOR BRIDGE CONSTRUCTION SECTION 4
- ALL REINFORCING STEEL SHALL CONFORM TO THE STANDARD SPECIFICATION FOR BRIDGE CONSTRUCTION SECTION 5

## FOUNDATION CONSTRUCTION

- COMPETENCY OF FOUNDATION MATERIAL SHALL BE EVALUATED AND CONFIRMED BY THE CONTRACTOR BEFORE STARTING THE DESIGN AND CONSTRUCTION
- CLEAR CONCRETE COVER TO STEEL REINFORCEMENT SHALL BE 100 mm ± 25 UNLESS NOTED OTHERWISE

## FABRICATION

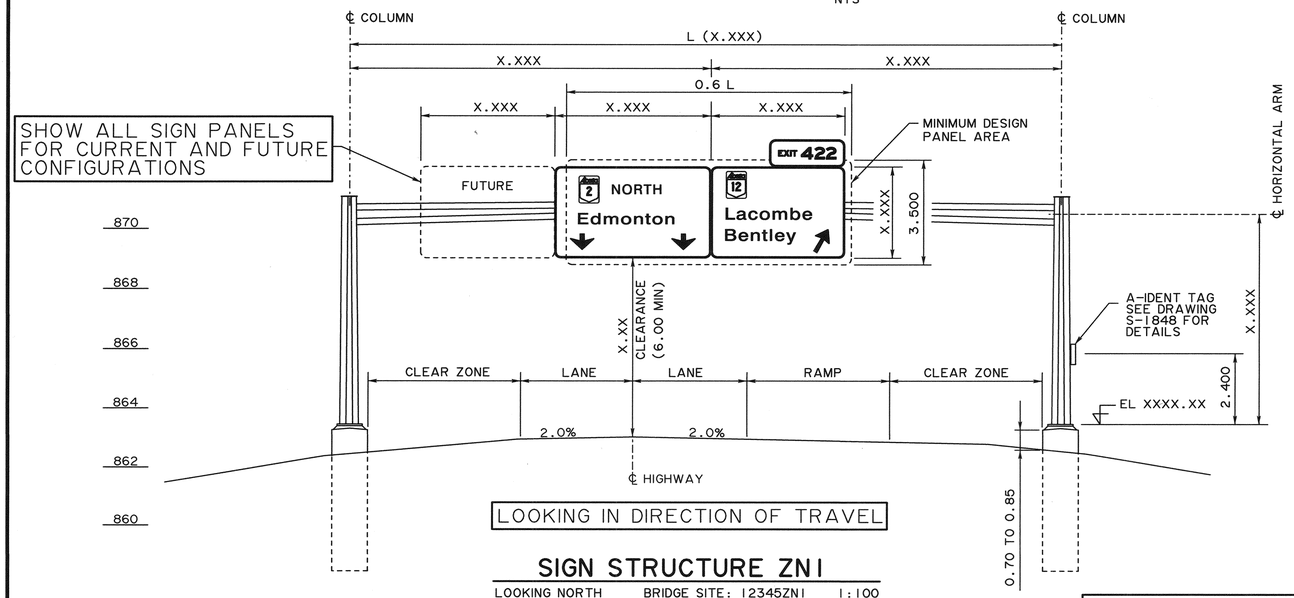
- ALL WELDING SHALL CONFORM TO AWS SPECIFICATIONS D1.5 AND D1.1 AND SHALL MEET THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS FOR BRIDGE CONSTRUCTION SECTION 24
- ALL STRUCTURAL STEEL, STEEL HARDWARE AND ANCHOR ROD ASSEMBLIES SHALL BE HOT-DIP GALVANIZED IN ACCORDANCE WITH ASTM A123/A123M AND ASTM F2329

## INSTALLATION

- FIELD WELDING OR MODIFICATION TO ANY PORTION OF THE SIGN STRUCTURE IS NOT PERMITTED
- ALL STRUCTURAL BOLTS SHALL BE TIGHTENED BY THE TURN-OF-NUT METHOD
- ANCHOR RODS SHALL BE SUPPLIED AND INSTALLED IN ONE COMPLETE ASSEMBLY. NO WELDING OF ANY COMPONENT IS ALLOWED. ANCHOR RODS SHALL BE INSTALLED TRUE AND PLUMB. ANCHOR ROD NUTS SHALL BE TIGHTENED BY TURN OF NUT METHOD AFTER GROUT PADS HAVE ATTAINED SUFFICIENT STRENGTH. ALL VOIDS INCLUDING SLOTS AND THE ANNULAR SPACE AROUND ANCHOR RODS IN THE BASE PLATE SHALL BE FILLED WITH CORROSION INHIBITING PASTE

## SITE PLAN

NTS




SHOW ALL SIGN PANELS FOR CURRENT AND FUTURE CONFIGURATIONS

LOOKING IN DIRECTION OF TRAVEL

## SIGN STRUCTURE ZN1

LOOKING NORTH — BRIDGE SITE: 12345ZN1 — A-IDENT: A1000 — STRUCTURE: 3 — STA: 16+943.0 — 1:100

BRIDGE SUPPORT OVERHEAD SIGN STRUCTURE SHOWN CANTILEVER SIMILAR

GENERIC STRUCTURE SHOWN ON TENDER DRAWINGS. RECORD DRAWINGS TO SHOW ACTUAL STRUCTURE BUILT

| REV | DATE | REVISION | BY |
|---|---|---|---|
| 5 | | | |
| 4 | | | |
| 3 | | | |
| 2 | | | |
| 1 | | | |

DESIGNER CM — CHECKER MT

RECOMMENDED DIRECTOR BRIDGE ENGINEERING

APPROVED EXECUTIVE DIRECTOR TECHNICAL STANDARDS BRANCH

D Williamson

DATE 2021.3.2

Alberta Transportation

# TYPICAL OVERHEAD SIGN STRUCTURE GENERAL LAYOUT

| DATE | SHEET | DRAWING |
|---|---|---|
| 2020-09-04 | 1 OF 1 | T-1721-20 |