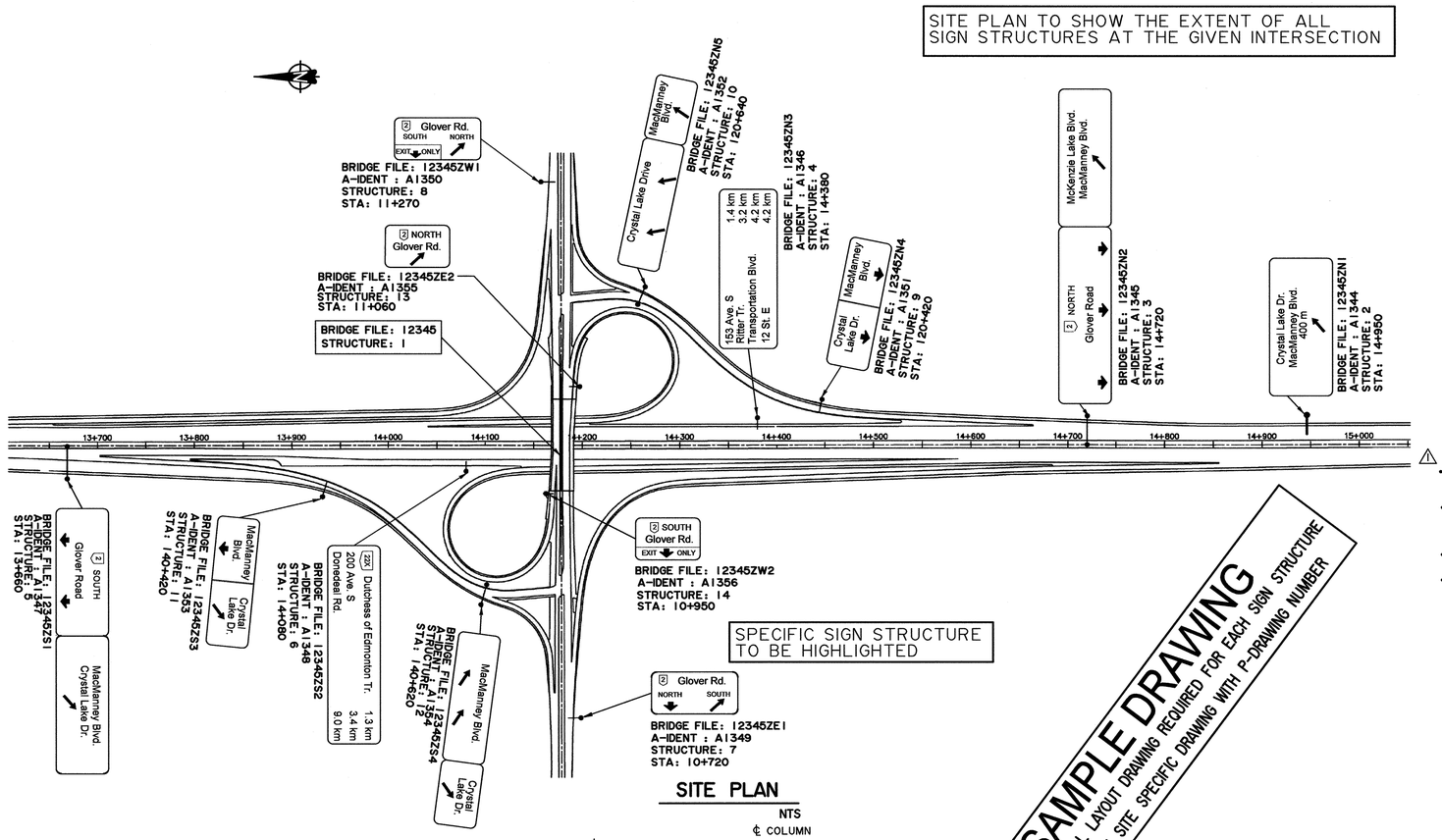
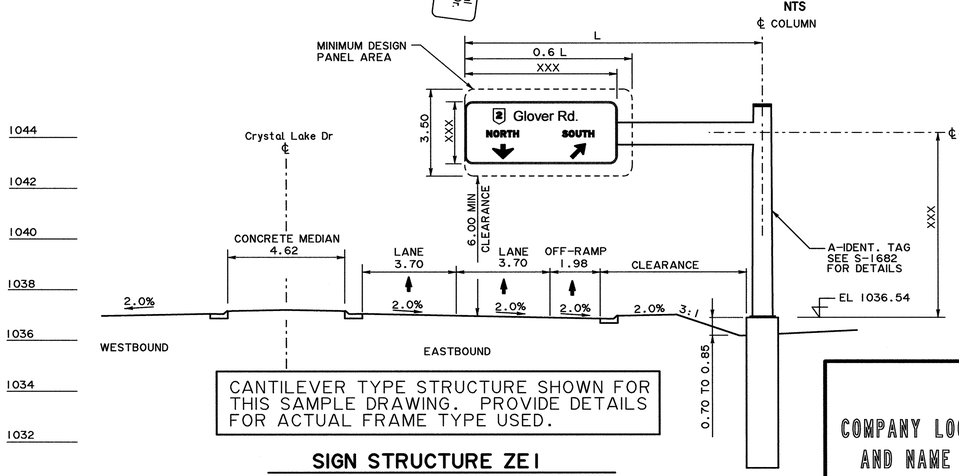


SITE PLAN

NTS



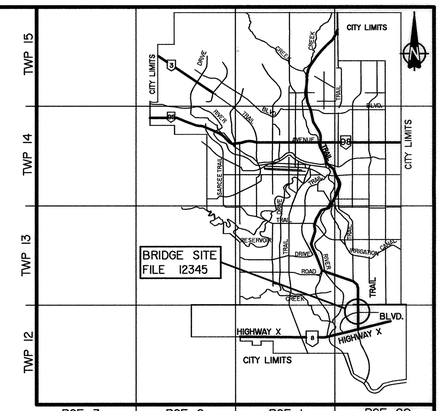
CANTILEVER TYPE STRUCTURE SHOWN FOR THIS SAMPLE DRAWING. PROVIDE DETAILS FOR ACTUAL FRAME TYPE USED.

SIGN STRUCTURE ZE1

LOOKING EAST FILE: 12345ZE1 A-IDENT: A1349 STRUCTURE: 7 STA: 10+720 1:100

CONTACT ALBERTA TRANSPORTATION FOR FILE NUMBER, A-IDENT, AND STRUCTURE NUMBER ASSIGNMENTS

SAMPLE DRAWING
ONE GENERAL LAYOUT DRAWING REQUIRED FOR EACH SIGN STRUCTURE
PROVIDE SITE SPECIFIC DRAWING WITH P-DRAWING NUMBER



SITE MAP 1:250 000

PRIMARY HIGHWAY - 1 TO 216
PRIMARY HIGHWAY - 500 TO 986
LOCAL ROAD
RAILWAY

⚠ GENERAL NOTES

- ALL DIMENSIONS, STATIONS AND ELEVATIONS ON THE GENERAL LAYOUT ARE GIVEN IN METRES

DESIGN

- OVERHEAD SIGN STRUCTURES SHALL BE DESIGNED IN ACCORDANCE WITH THE REQUIREMENTS OF AASHTO "STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS" (THE "AASHTO STANDARD SPECS"), LATEST EDITION PLUS INTERIMS AND ALBERTA TRANSPORTATION SPECIFICATIONS FOR BRIDGE CONSTRUCTION SECTION 24
- THE FATIGUE IMPORTANCE FACTORS IN TABLE 11-1 OF THE AASHTO STANDARD SPECS SHALL BE BASED ON FATIGUE CATEGORY I
- THE FOLLOWING DESIGN INFORMATION SHALL BE FILLED OUT AND PROVIDED ON EACH 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 (return period) (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 BOLT FORCES

CRITICAL ANCHOR BOLT FORCES (identify load type) (kN)	

MATERIALS

- ALL STEEL MEMBERS SHALL CONFORM TO THE REQUIREMENTS OF 640.21M-300W. REFER TO THE SPECIFICATIONS FOR BRIDGE CONSTRUCTION SECTION 24 FOR LIMITATIONS ON SILICON CONTENT
- ANCHOR BOLTS SHALL BE HOT-DIP GALVANIZED AND SHALL CONFORM TO THE REQUIREMENTS OF ASTM F1554 GRADE 55 (FY=380 MPa). ANCHOR BOLTS SHALL BE THE SINGLE NUT TYPE PRE-TENSIONED BY THE TURN-OF-THE-NUT METHOD ON TOP OF GROUTED BASE PLATES. BASE PLATES SHALL BE GROUTED WITH SIKA 212 FLOWABLE GROUT OR EQUIVALENT
- ALL BOLTED CONNECTIONS SHALL BE MADE WITH ASTM A325 BOLTS
- ALL REINFORCING STEEL SHALL CONFORM TO CSA G30.18-M92 - GRADE 400
- ALL CONCRETE SHALL BE CLASS C - 35 MPa WITH TYPE 50 SULPHATE RESISTANT CEMENT
- ALL GROUT SHALL BE FLOWABLE SIKA 212

FOUNDATION CONSTRUCTION

- COMPETENCY OF FOUNDATION MATERIAL SHALL BE CONFIRMED ON SITE PRIOR TO POURING FOUNDATION CONCRETE
- MINIMUM CLEAR CONCRETE COVER TO STEEL REINFORCEMENT SHALL BE 75 mm

FABRICATION

- ALL WELDING SHALL CONFORM TO AWS SPECIFICATIONS D1.5 AND D1.1
- ALL STRUCTURAL STEEL, STEEL HARDWARE AND ANCHOR BOLT 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 BOLTS SHALL BE SUPPLIED AND INSTALLED IN ONE COMPLETE ASSEMBLY AND CONSIST OF, BUT NOT LIMITED TO: ANCHOR BOLTS COMPLETE WITH PLATE WASHERS, TOP TEMPORARY TEMPLATES, BOTTOM ANCHOR PLATES, BOTTOM ANCHOR NUTS, AND THIN CLAMPING NUTS. NO WELDING OF ANY COMPONENT IS ALLOWED. ANCHOR BOLTS SHALL BE TRUE AND PLUMB. ANCHOR BOLTS SHALL BE BY THE TURN-OF-THE-NUT METHOD FROM A SNUG TIGHT CONDITION AFTER THE GROUT PADS HAVE ATTAINED DESIGN STRENGTH. ALL VOIDS INCLUDING SLOTS AND THE ANNULAR SPACE AROUND ANCHOR BOLTS IN THE BASE PLATE SHALL BE FILLED WITH CORROSION INHIBITING PASTE.

COMPANY LOGO AND NAME

REV	DATE	REVISIONS	BY
5			
4			
3			
2			
1	2012-01-18	GENERAL NOTES	CM

PERMIT TO PRACTICE
THE XYZ ENGINEERING LIMITED
Signature
Date
PERMIT NUMBER: P 123
The Association of Professional Engineers, Geologists and Geophysicists of Alberta

DESIGNER: PROFESSIONAL ENGINEERS ALBERTA BILL SMITH — DATE
CHECKER: PROFESSIONAL ENGINEERS ALBERTA JOHN DOE — DATE

Government of Alberta ■ Transportation

SIGN STRUCTURE ZE1 (STR 7)
CRYSTAL LAKE DR, OVER GLOVER RD
GRADE SEPARATION IN CITY
GENERAL LAYOUT

DEPARTMENT BAR CODE	DATE	STREAM	LOCATION	HIGHWAY	FILE	SHEET	DRAWING
	2007-09-01	GLOVER ROAD	INW 33-12-29-4	CRYSTAL LAKE DR	12345ZE1	1 OF 1	12345-P

REV	DATE	REVISIONS	BY
5			
4			
3			
2			
1	2012-01-18	GENERAL NOTES	CM

DESIGNER CM | CHECKER RY

RECOMMENDED
DIRECTOR BRIDGE ENGINEERING

APPROVED
EXECUTIVE DIRECTOR
TECHNICAL STANDARDS BRANCH
DATE

Government of Alberta ■ Transportation

SIGN STRUCTURE
SAMPLE GENERAL LAYOUT

DEPARTMENT BAR CODE	DATE	SHEET	DRAWING
	2007-09-10	1 OF 1	S-1721-07

WS 2012-01-18 S-1721-07-RVLOGN