

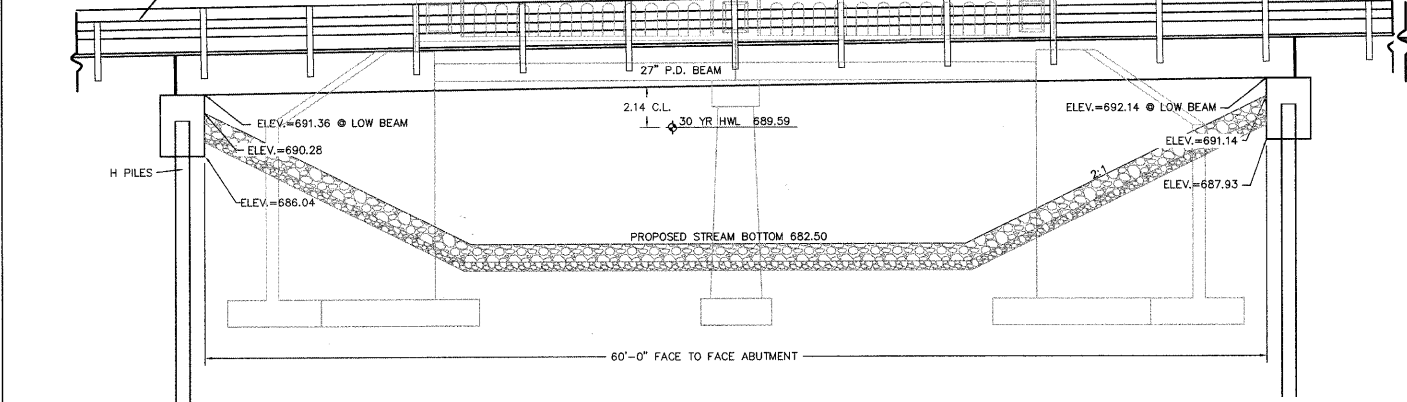
- BENCHMARK:**
- CITY OF AURORA BENCHMARK #20 NORTH
ELEVATION = 709.80
 - CITY OF AURORA BENCHMARK #20 SOUTH
ELEVATION = 708.91

EXISTING STRUCTURE, 045-3087 BUILT IN 1933. THE STRUCTURE CONSISTS OF A TWO SPAN REINFORCED CONCRETE BRIDGE, 36' BACK TO BACK OF ABUTMENTS. SUPER STRUCTURE ON CLOSED ABUTMENTS WITH DECK WIDTH OF 27'-0" EXISTING STRUCTURE IS TO BE REMOVED AND REPLACED. ROAD IS TO BE CLOSED AND TRAFFIC WILL BE DETOURED DURING BRIDGE RECONSTRUCTION.

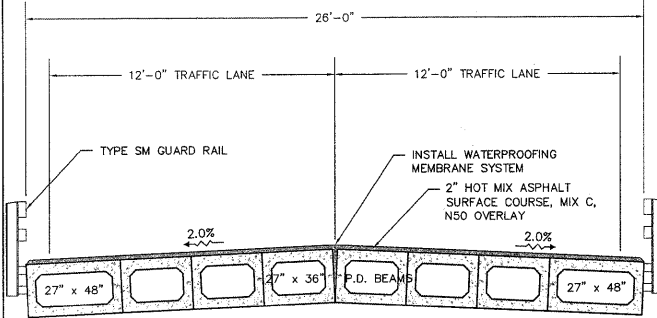
NO SALVAGE

TYPE SM RAIL - 65 LF. EACH SIDE OF BRIDGE

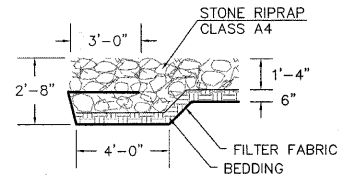
TRAFFIC BARRIER TERMINAL TYPE 6A



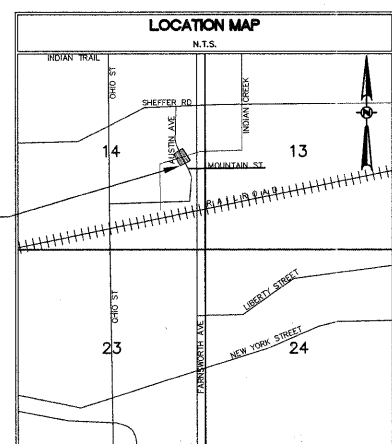
ELEVATION
LOOKING WEST
SCALE: 3/16" = 1'-0"



TYPICAL DECK CROSS SECTION
LOOKING NORTH
SCALE: 1/4" = 1'-0"



SECTION A-A
SCALE: 1/4" = 1'-0"

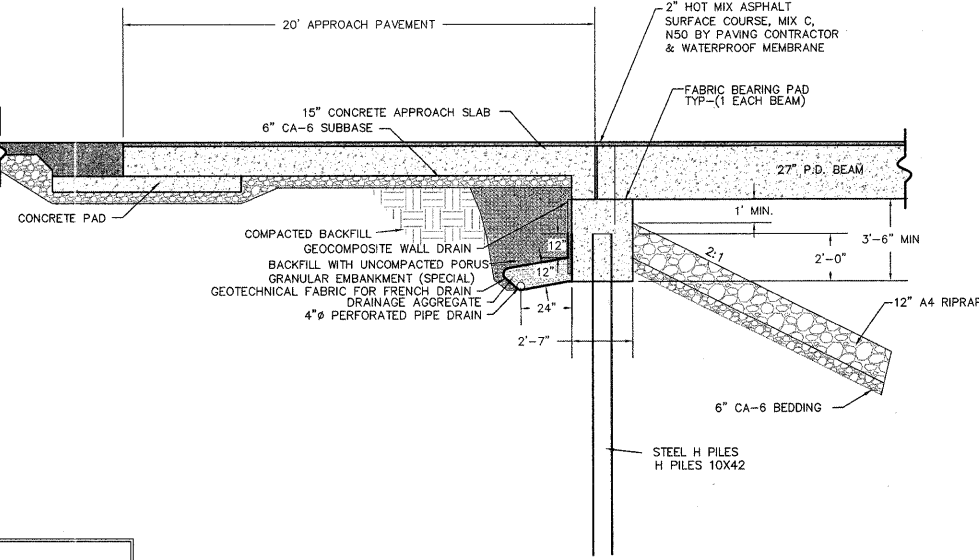


LOCATION MAP
N.T.S.

DESIGN SCOUR ELEVATION TABLE

Design Scour Elevation (ft.)	N. Abutment	S. Abutment
	687.93	686.04

GENERAL PLAN
AUSTIN AVENUE OVER INDIAN CREEK
KANE COUNTY
STA: 12+86.14 @ Q.C. BRIDGE
EXISTING STRUCTURE NO. 045-3087
PROPOSED STRUCTURE NO. 045-3091



SECTION THROUGH ABUTMENT
LOOKING NORTH
SCALE: 1/4" = 1'-0"

HIGHWAY CLASSIFICATION
F.A.P. Austin Avenue - 14
Functional Class: Minor Collector
ADT: 757 (2010) 757 (2030) 1,000
ADTT: 5.0Z
DHV: 133 (2010) 133 (2030) 239
Design speed: 30 mph
Posted speed: 30 mph

LOADING HL-93
Allow 50 #/sq ft for future wearing surface

DESIGN SPECIFICATIONS
AASHTO LRFD SPECS
2010 BRIDGE DESIGN SPECIFICATIONS

DESIGN STRESSES
FIELD UNITS
f'c = 3,500 psi
fy = 60,000 psi (REINFORCEMENT)

PRECAST PRESTRESSED UNITS
f'ci = 6,000 psi
f'ci = 5,000 psi
Fpu = 270,000 psi (1/2" low lax. strands)
Fpbt = 201,960 psi (3/8" low lax. strands)

SEISMIC DATA
Seismic Performance Category (SPC) = A
Acceleration Coefficient (A) = 0.039g
SITE Coefficient (S) = 1

TOTAL BILL OF MATERIAL

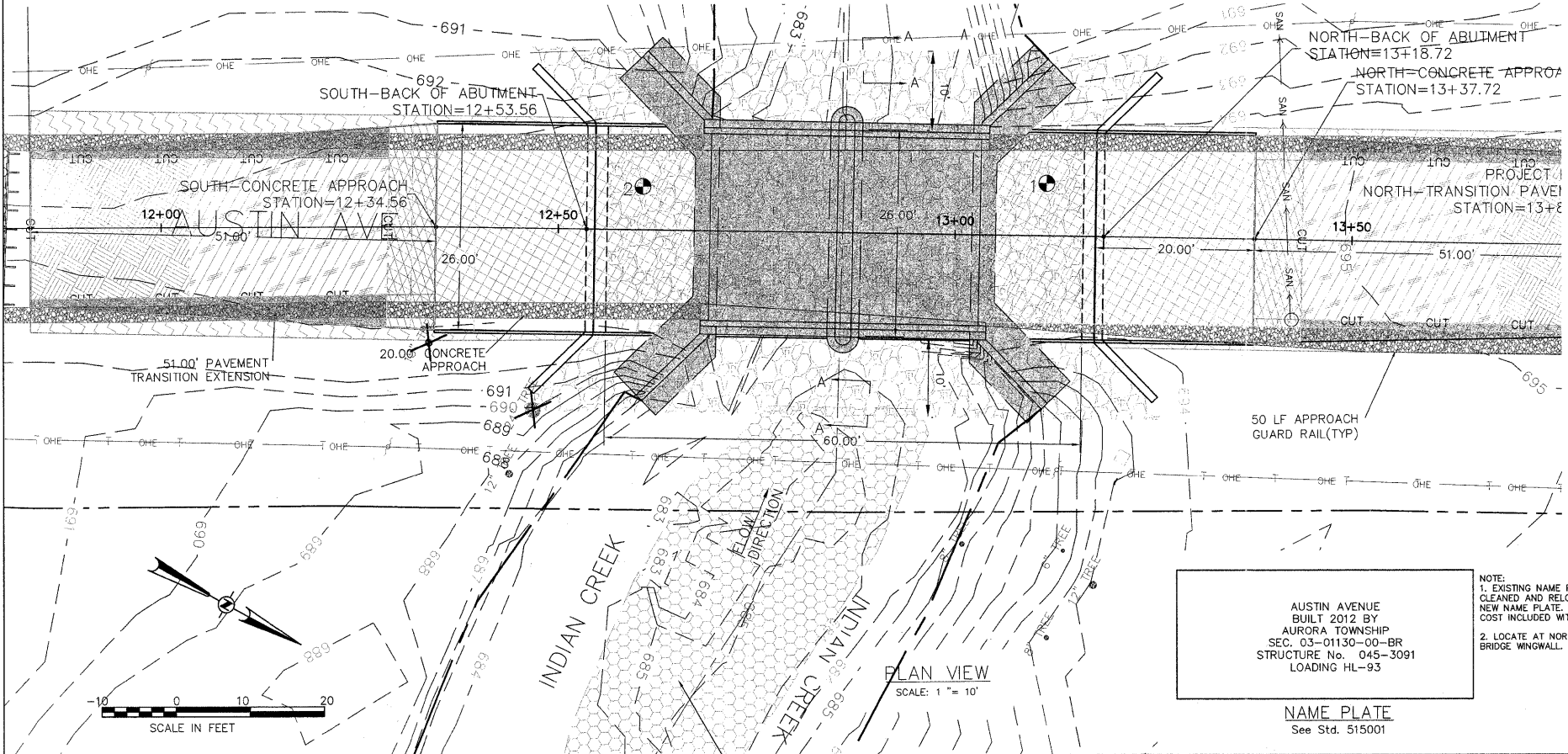
ITEM NUMBER	DESCRIPTION	UNIT	APPROACH	SUPERSTRUCTURE	SUBSTRUCTURE	TOTAL
28100107	STONE RIPRAP, CLASS A4	SQ YD			350.0	350.0
28200200	FILTER FABRIC	SQ YD			350.0	350.0
40603335	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50	TON	13.3	27.1		40.4
42001430	BRIDGE APPROACH PAVEMENT CONNECTOR (FLEXIBLE)	SQ YD	35			35
50100100	REMOVAL OF EXISTING STRUCTURE	EACH			1.0	1.0
50200100	STRUCTURE EXCAVATION	CU YD			187.0	187.0
50300225	CONCRETE STRUCTURES	CU YD	12.8		37.0	49.8
50300255	CONCRETE SUPERSTRUCTURES	CU YD	48.1			48.1
50300280	CONCRETE ENCASEMENT	CU YD			3.6	3.6
50400305	PRECAST PRESTRESSED CONCRETE DECK BEAMS (27" DEPTH)	SQ FT			1642.0	1642.0
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	13200.0		6560.0	19760.0
50901050	STEEL RAILING, TYPE SM	FOOT		130.0		130.0
51201610	FURNISHING STEEL PILES HP 12X63	FOOT			292.0	292.0
51202305	DRIVING PILES	FOOT			292.0	292.0
51203610	TEST STEEL PILE HP 12X63	EACH			2.0	2.0
51204200	PILE SHOES	EACH			10.0	10.0
51500100	NAME PLATES	EACH		1.0		1.0
58300100	PORTLAND CEMENT MORTAR FACING COURSE	FOOT		443.0		443.0
58700300	CONCRETE SEALER	SQ FT			432.0	432.0
59100100	GEOCOMPOSITE WALL DRAIN	SQ YD			66.0	66.0
X2070304	POROUS GRANULAR EMBANKMENT, SPECIAL	CU YD			99	99
X5810100	WATERPROOFING MEMBRANE SYSTEM, SPECIAL	SQ YD		183.0		183.0
Z0046304	PIPE UNDERDRAINS FOR STRUCTURES, 4"	FOOT			108.0	108.0

LONCO, INC.

I CERTIFY THAT TO THE BEST OF KNOWLEDGE, INFORMATION AND BELIEF, THIS BRIDGE/BOX CULVERT DESIGN IS STRUCTURALLY ADEQUATE FOR THE DESIGN LOADING SHOWN ON THE PLANS. THE DESIGN IS AN ECONOMICAL ONE FORB THE STYLE OF STRUCTURE AND COMPLIES WITH REQUIREMENTS OF THE CURRENT AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES.



WILLIAM EPP, SE
EXPIRES NOV 30, 2012



PLAN VIEW
SCALE: 1" = 10'

NAME PLATE
See Std. 515001

NOTE:
1. EXISTING NAME PLATE SHALL BE CLEANED AND RELOCATED NEXT TO THE NEW NAME PLATE. COST INCLUDED WITH NAME PLATES.
2. LOCATE AT NORTHEAST CORNER OF BRIDGE WINGWALL.

WATERWAY INFORMATION

DRAINAGE AREA = 10.7 SQ MI

Flood	Freq. Yr.	Q Ft ³ /s	Opening-ft ²		Natural H.W.E.	Head - Ft		Headwater - Elev.	
			Exist.	Prop.		Exist.	Prop.	Exist.	Prop.
Design	10	714	184.34	228.31	688.59	0.09	-0.03	688.68	688.56
Base	30	1250	218.19	283.25	689.57	0.33	0.02	690.26	689.59
Overtop Exist	100	1873	250.69	341.25	690.53	0.45	0.08	690.98	690.61
Overtop Prop	n/a	---	---	---	---	---	---	---	---
2624Max Calc.	500	2624	288.26	420.24	691.67	0.66	1.08	692.33	692.75

EXISTING LOW GRADE ELEV. = 693.25 STA. 12+00
PROPOSED LOW GRADE ELEV. = 693.25 STA. 12+00

10 YEAR VELOCITY THROUGH EXISTING BRIDGE = 3.87ft/s
10 YEAR VELOCITY THROUGH PROPOSED BRIDGE = 3.63ft/s

TEBRUGGE ENGINEERING
P.O. BOX 18, PEANOE, IL 60454
PHONE: (815) 352-4390 FAX: (815) 352-4392

DESIGNED - JJT	REVISED -
DRAWN - ASK	REVISED -
CHECKED - JJT	REVISED -
DATE - 10/7/2011	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN & ELEVATION
AUSTIN AVE OVER INDIAN CREEK

SHEET NO. 10F 13

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	03-01130-00-BR	KANE	33	13
D-91-352-04			CONTRACT NO. 63660	
FED. ROAD DIST. NO. - ILLINOIS FED. AID PROJECT				