

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

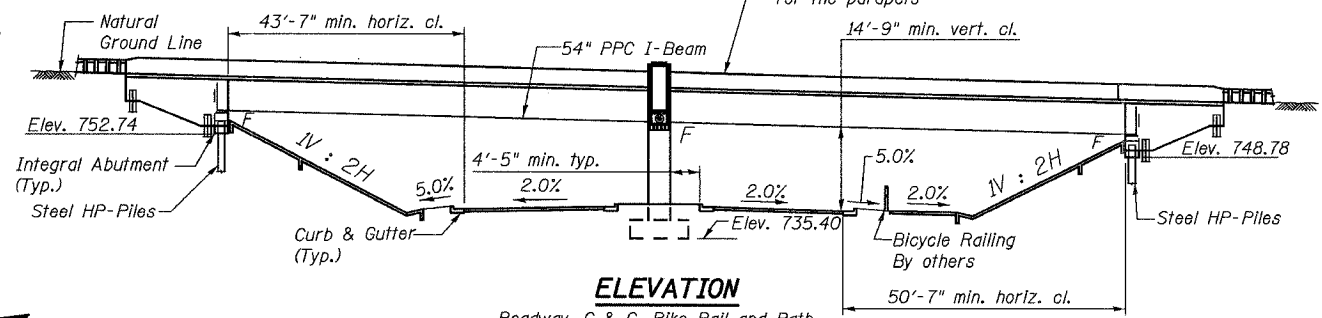
STATION 113+62.11
BUILT 2008 BY
STATE OF ILLINOIS
F.A.U. 3887
LOADING HS20
SEC. 06-00214-06-BR
STRUCTURE NO. 045-2031

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.U. 3887	06-00214-06-BR	KANE	55	16
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

CONTRACT NO. 83923

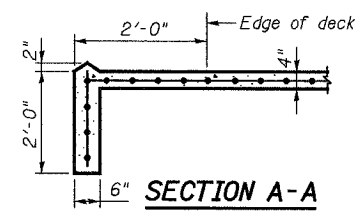
SHEET NO. 1
25 SHEETS

Benchmark BM-14:
"Aluminum Disk" set in concrete at side of Route 31 across from the property line extended between residences #7N398 and #7N416. Elev. 750.195
No existing structure.



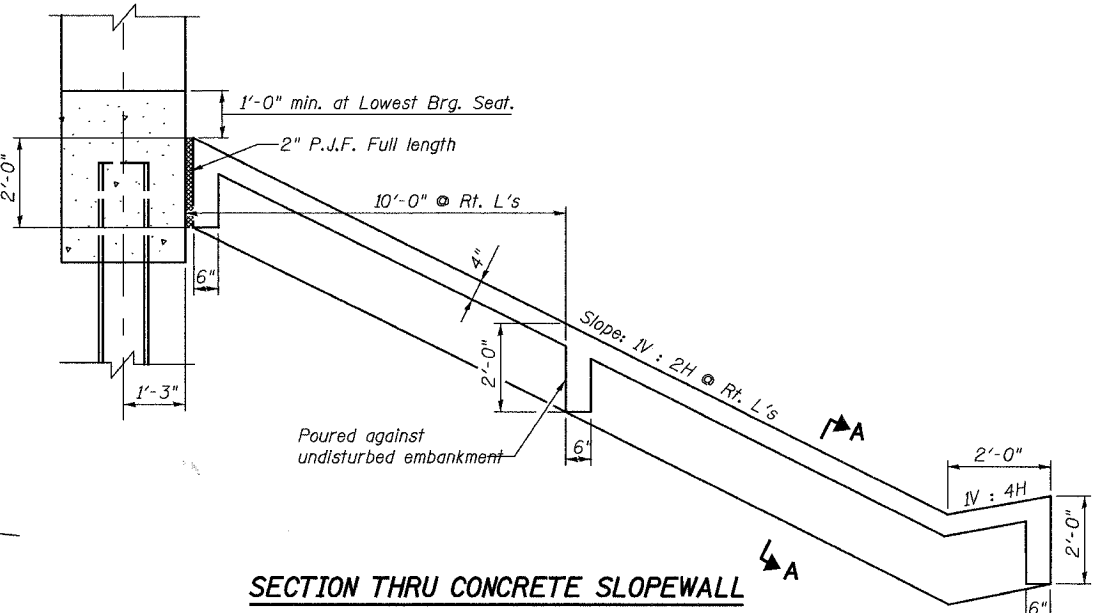
ELEVATION

Roadway, C & G, Bike Rail and Path
By others. Shown for Information only.



SECTION A-A

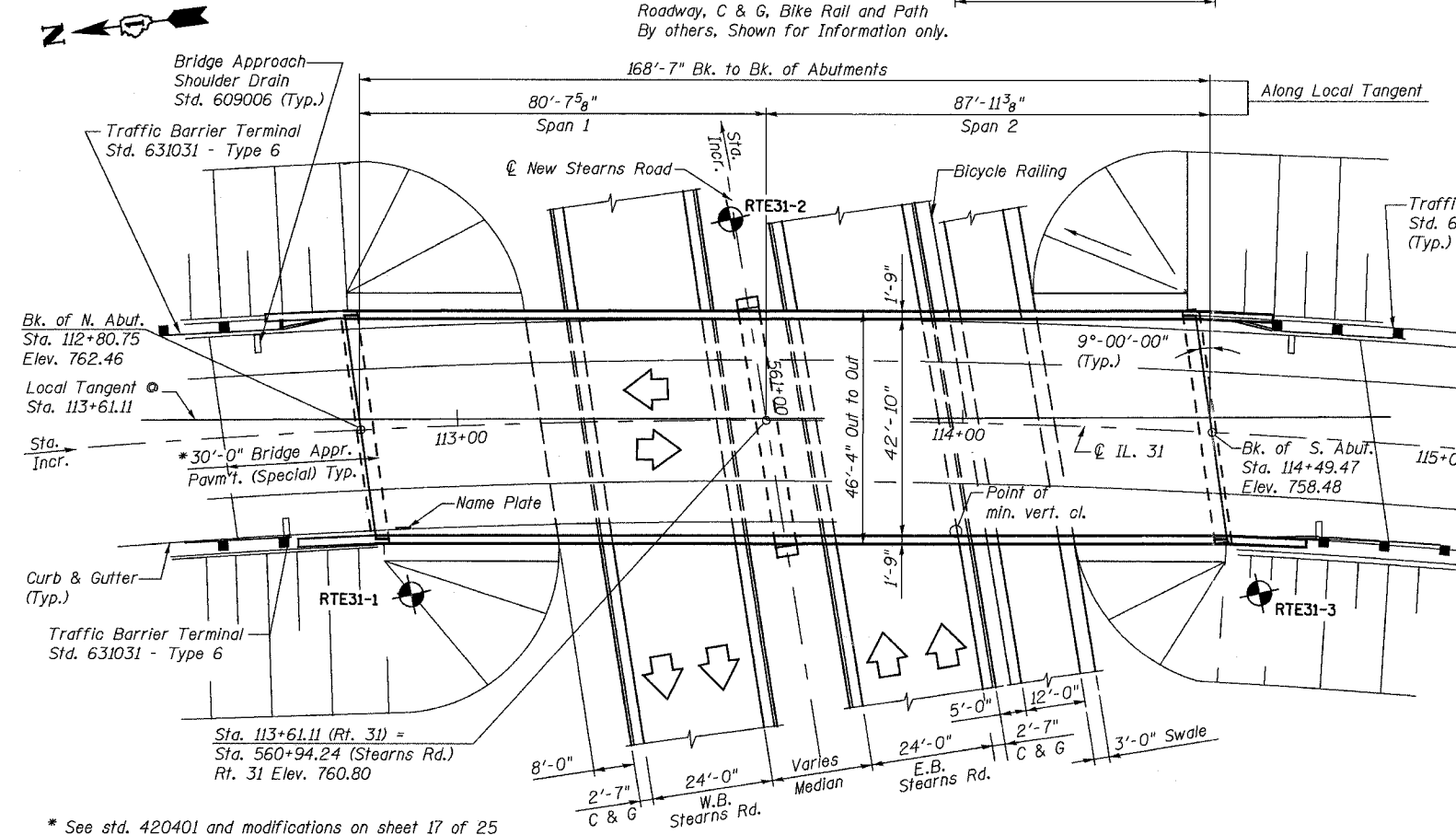
NAME PLATE
See Std. 515001



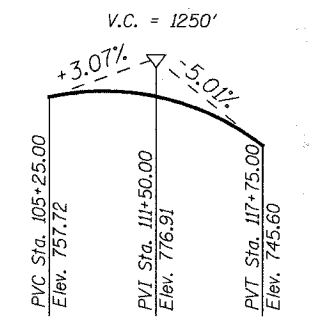
SECTION THRU CONCRETE SLOPEWALL

Slope wall shall be reinforced with welded wire fabric, 6 in. x 6 in. - W4.0 x W4.0, weighing 58 lbs. per 100 sq. ft.

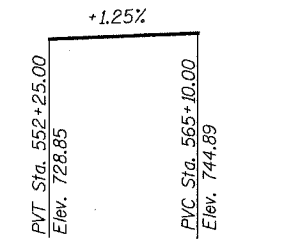
- Note:
1. Architectural Form Liner area is not shown for clarity. See sheet 18 of 25 for Details.
 2. The Contractor shall carry out roadway excavation first prior to excavating for bridge pier.



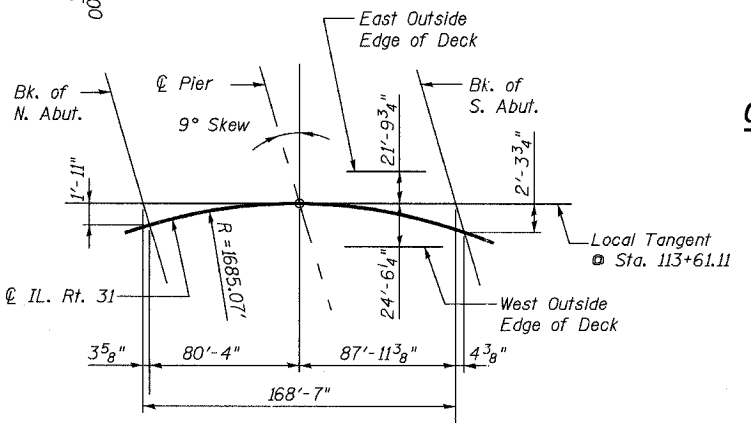
PLAN



PROFILE GRADE IL. 31



PROFILE GRADE NEW STEARNS ROAD



OFFSET SKETCH

LOADING HS20-44
Allow 50#/sq. ft. for future wearing surface.

DESIGN SPECIFICATIONS
2002 AASHTO

DESIGN STRESSES
FIELD UNITS
 $f'_c = 3,500$ psi
 $f_y = 60,000$ psi (reinforcement)

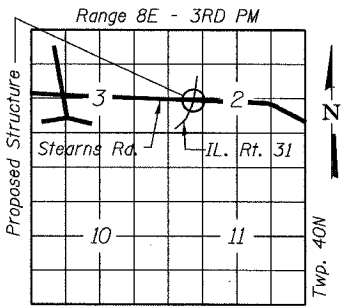
PRECAST PRESTRESSED UNITS
 $f'_c = 6,000$ psi
 $f'_d = 5,000$ psi
 $f'_s = 270,000$ psi ($\frac{1}{2}$ " ϕ low lax. strands)
 $f'_{sl} = 201,960$ psi ($\frac{1}{2}$ " ϕ low lax. strands)

CURVE DATA IL.31
 $\Delta = 18^\circ 34' 38''$
 $D = 3^\circ 24' 01''$
 $R = 1685.07'$
 $T = 275.60'$
 $L = 546.36'$
 $E = 22.39'$
 $S.E. = 0.048$ ' / ' /
P.C. STA. = 112+11.80
P.T. STA. = 117+58.16
P.I. STA. = 114+87.40
S.E. attained Sta. 110+87.00 to Sta. 112+50.20
S.E. removed Sta. 117+19.76 to Sta. 118+82.96

SEISMIC DATA
Seismic Performance Category (SPC) = A
Bedrock Acceleration Coefficient (A) = 0.037
Site Coefficient (S) = 1.0

APPROVED
FOR STRUCTURAL ADEQUACY ONLY

Robert E. Anderson
Engineer of Bridges and Structures



LOCATION SKETCH

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION ILLINOIS ROUTE 31 OVER NEW STEARNS ROAD KANE COUNTY
NAME	DATE	
		GENERAL PLAN & ELEVATION

F.A.U. 3887
STATION 113+61.11
SCALE:

SECTION 06-00214-06-BR
STRUCTURE NO. 045-2031
DATE: 00/00/2007

URS
100 South Wacker Drive,
Suite 500
Chicago, IL 60606
(312) 939-1000

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