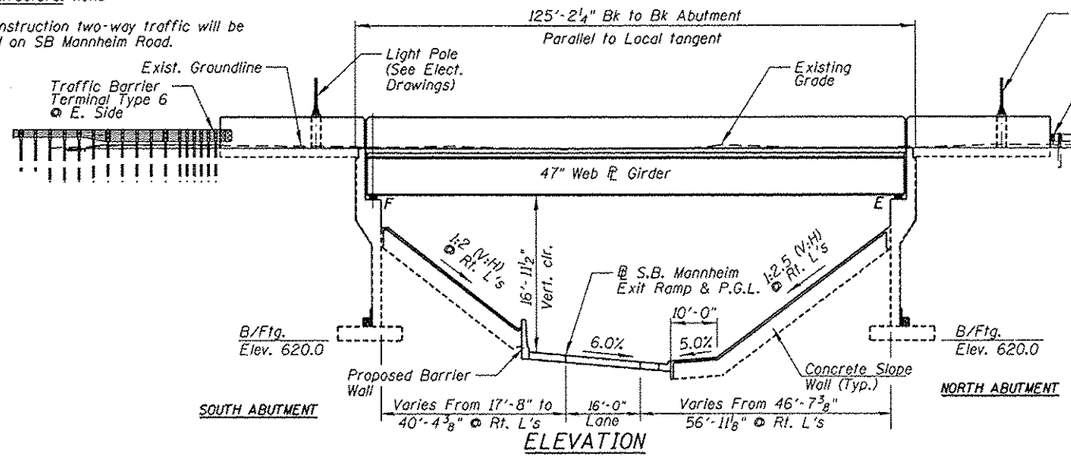
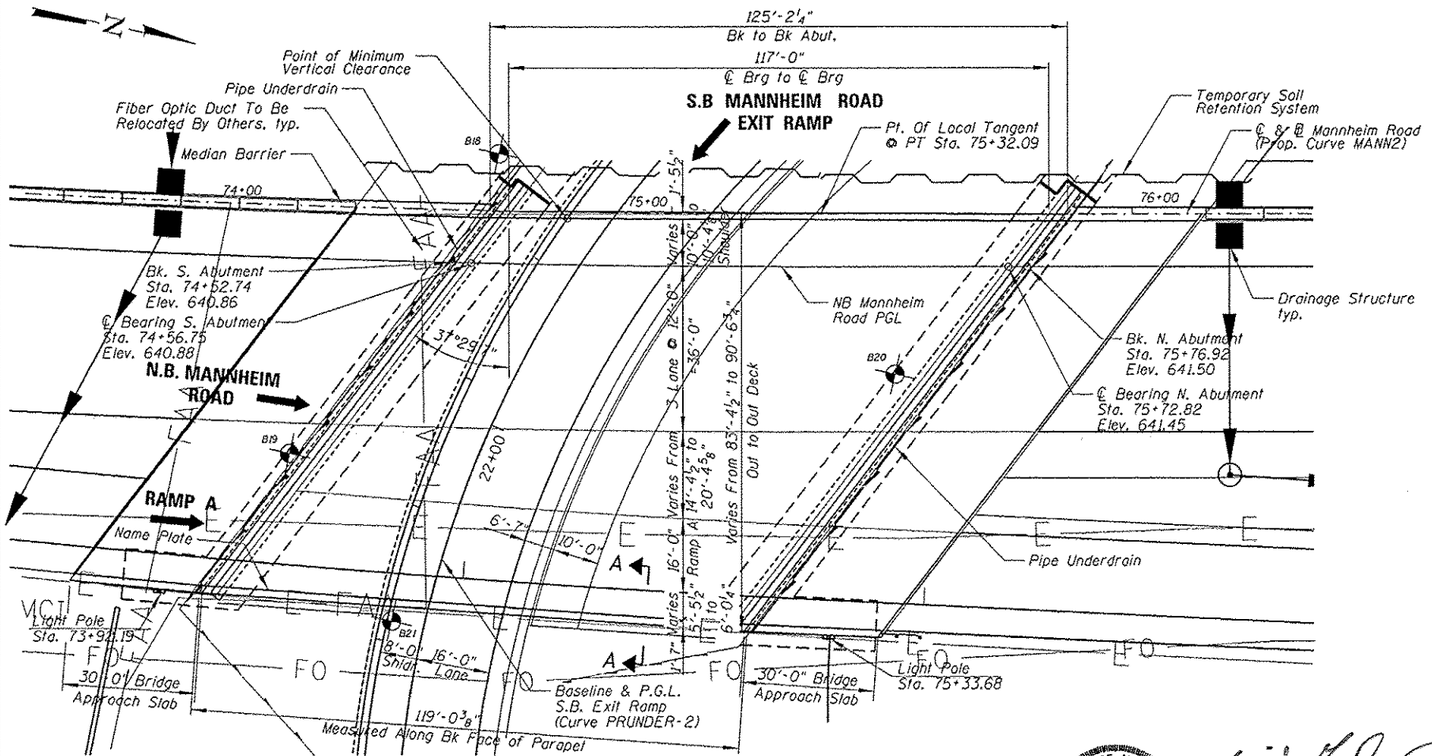
Bench Mark: MON 144 - Located East of Spine Road and West of Mannheim Road at the Southeasterly side of O'Hare Airport. Elev. 643.22

Existing Structure: None

During construction two-way traffic will be maintained on SB Mannheim Road.



ELEVATION



PLAN

DESIGN SPECIFICATIONS

2010 AASHTO LRFD Bridge Design Specifications with 2010 Interim

LOADING HL-93

Allow 50 #/sq. ft. for future wearing surface

SEISMIC DATA

Seismic Performance Zone (SPZ) = 1
Design Spectral Acceleration at 1.0 sec. (Sp_1) = 0.037g
Design Spectral Acceleration at 0.2 sec. (Sps) = 0.090g
Soil Site Class = C

DESIGN STRESSES

FIELD UNITS

f'_c = 3,500 psi
f_y = 50,000 psi (structural steel) (M270 Grade 50)
f_y = 60,000 psi (Reinf.)

CURVE DATA ALONG ℄ MANNHEIM ROAD

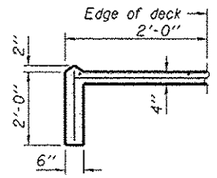
PROP. CURVE MANN2
PI STA. = 60+87.10
Δ = 55° 18' 45" (LT)
D = 1° 45' 00"
R = 3,274.04'
T = 1,715.72'
L = 3,160.72'
E = 422.32'
e = 3.20%
T.R. = 99'
S.E. Run = 154'
P.C. STA. = 43+71.38
P.T. STA. = 75+32.09
N.C. STA. = 79+09
FULL S.E. STA. = 76+60

CURVE DATA ALONG ℄ SB MANNHEIM EXIT RAMP

PROP. CURVE PRUNDER-2
PI STA. = 21+60.04
Δ = 89° 00' 23" (LT)
D = 23° 52' 24"
R = 240.00'
T = 235.87'
L = 372.83'
E = 96.51'
e = -6.0%
T.R. = 0'
S.E. Run = 97'
P.C. STA. = 19+24.17
P.T. STA. = 22+97.00

CURVE DATA ALONG PGL RAMP A

PROP. CURVE PRRAMPA-3
PI STA. = 14+55.27
Δ = 2° 03' 31" (LT)
D = 1° 43' 04"
R = 3,335.55'
T = 59.93'
L = 119.85'
E = 0.54'
e = N/A
T.R. = N/A
S.E. Run = N/A
P.C. STA. = 13+95.34
P.T. STA. = 15+15.18

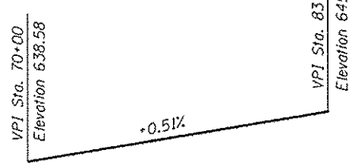


SECTION A-A

STATION 75+14.79
BUILT BY
STATE OF ILLINOIS
F.A.P. RT. 330 SEC. 0105 WRS&HB
LOADING HL-93
STRUCTURE NO. 016-7943

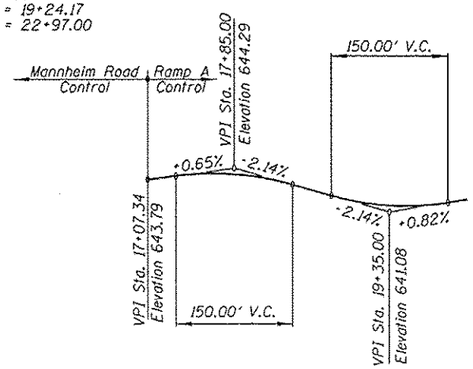
NAME PLATE

See Std. 515001

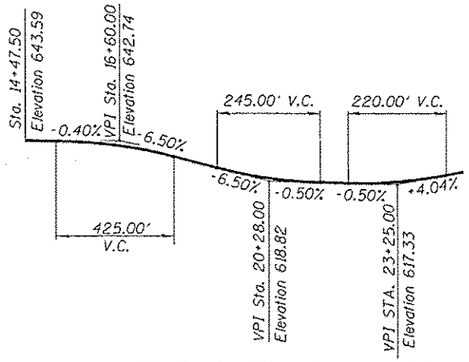


PROFILE GRADE- N.B. MANNHEIM ROAD BRIDGE

Bridge Elevations Are Controlled by Mannheim Road Profile



PROFILE GRADE-RAMP A



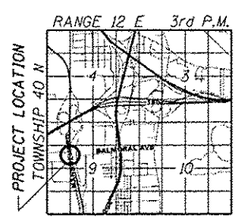
PROFILE GRADE-S.B. MANNHEIM ROAD EXIT RAMP

APPROVED
For Structural Adequacy Only
Carl Kruger
Engineer of Bridges & Structures

STATE OF ILLINOIS MAJID MOBASSERI 081-005058 CHAMPAIGN ILLINOIS LICENSED STRUCTURAL ENGINEER

Majid Mobasseri 10/18/12

MAJID MOBASSERI
ILLINOIS REGISTRATION No. 081-005058
STRUCTURAL ENGINEER
EXPIRATION DATE: 11/30/14



LOCATION SKETCH

GENERAL PLAN AND ELEVATION
N.B. MANNHEIM ROAD BRIDGE OVER SOUTHBOUND EXIT RAMP
F.A.P. RTE. 330-SEC 0105 WRS&HB
COOK COUNTY
STATION 75+14.79
STRUCTURE NO. 016-7943

CHRISTOPHER B. BURKE ENGINEERING, LTD.
9575 W Higgins Road, Suite 600
Rosemont, Illinois 60018
(847) 823-0500

USER NAME =	DESIGNED - MM	REVISED
	CHECKED - JMB	REVISED
PLOT SCALE =	DRAWN - PDR	REVISED
PLOT DATE =	CHECKED - MM	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN AND ELEVATION
NB MANNHEIM ROAD BRIDGE – STRUCTURE NO. 016-7943
SHEET NO. S-1 OF S-26 SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	0105 WRS&HB	COOK	605	331
		CONTRACT NO. 60G37		
	ILLINOIS FED. AID PROJECT			

N:\ROSEMONT\1128\VLC400_Sheets\016\7943-D16G37-E01_GPE.dgn