

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

Existing Structure: None

During Stage II construction two-way traffic will be maintained on N.B. Mannheim Road.

**DESIGN SPECIFICATIONS**

2010 AASHTO LRFD Bridge Design Specifications with 2010 Interims

**LOADING HL-93**

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

**CURVE DATA ALONG C  
MANNHEIM ROAD**

PROP. CURVE MANN2  
PI STA. = 60+87.10  
 $\Delta = 55^\circ 18' 45"$  (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 B  
SB MANNHEIM EXIT RAMP**

PROP. CURVE PRUNDER-2  
PI STA. = 21+60.04  
 $\Delta = 89^\circ 00' 23"$  (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

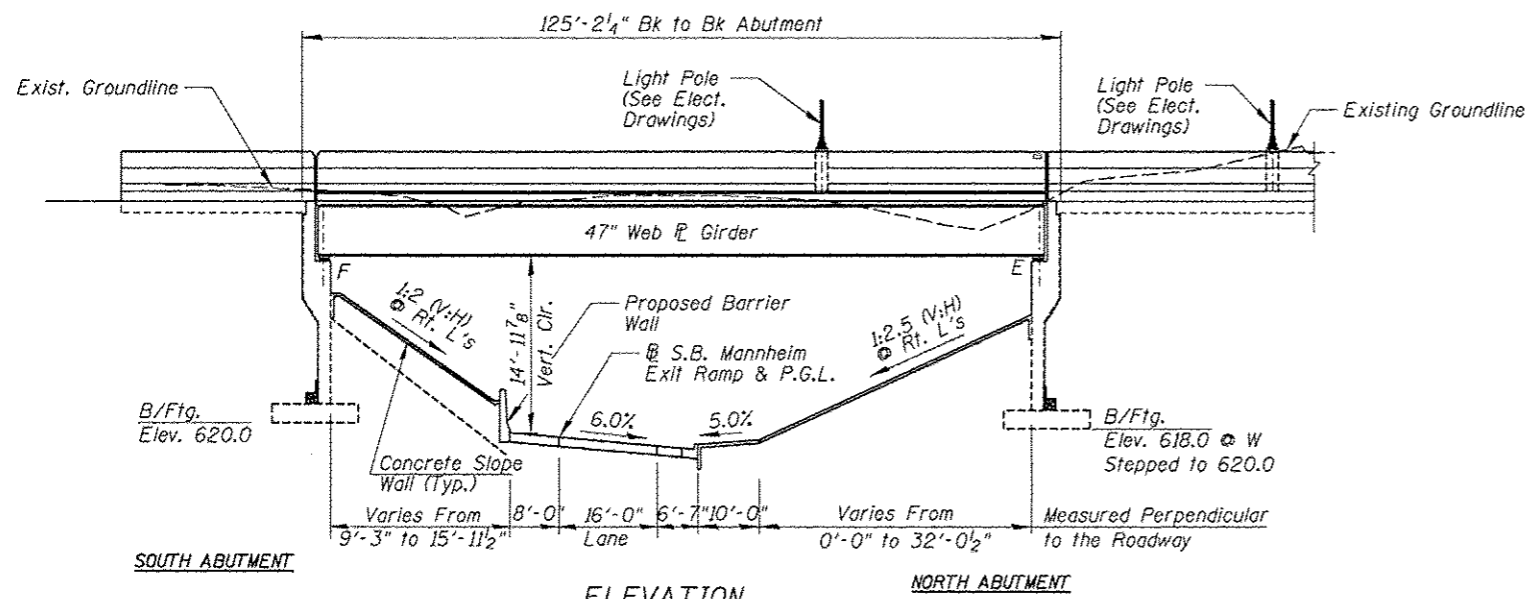
**SEISMIC DATA**

Seismic Performance Zone (SPZ) = 1  
Design Spectral Acceleration at 1.0 sec. ( $S_p$ ) = 0.037g  
Design Spectral Acceleration at 0.2 sec. ( $S_{ps}$ ) = 0.090g  
Soil Site Class = C

**DESIGN STRESSES**

**FIELD UNITS**

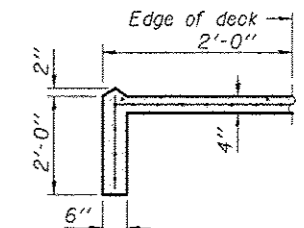
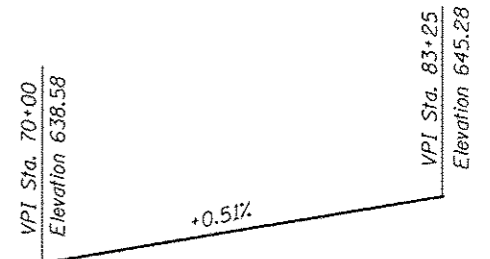
$f'_c = 3,500$  psi  
 $f_y = 50,000$  psi (structural steel)  
(M270 Grade 50)  
 $f_y = 60,000$  psi (Reinf.)



**APPROVED**  
For Structural Adequacy Only

*A. Carl Ruppel*  
Engineer of Bridges & Structures

**PROFILE GRADE -  
S.B. MANNHEIM ROAD**

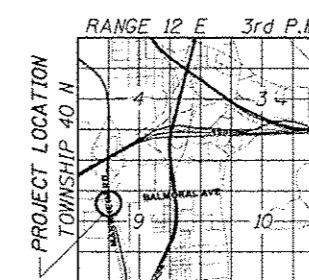


**SECTION A-A**

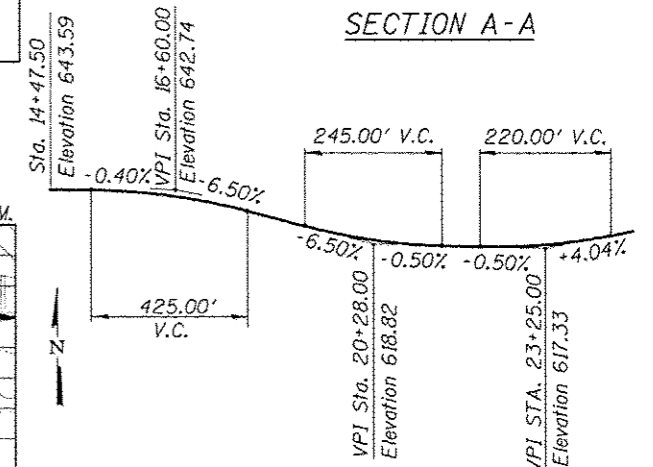
STATION 75+32.08  
BUILT BY  
STATE OF ILLINOIS  
F.A.P. RT. 330 SEC. 0105-WRS-1  
LOADING HL-93  
STRUCTURE NO. 016-7942

**NAME PLATE**

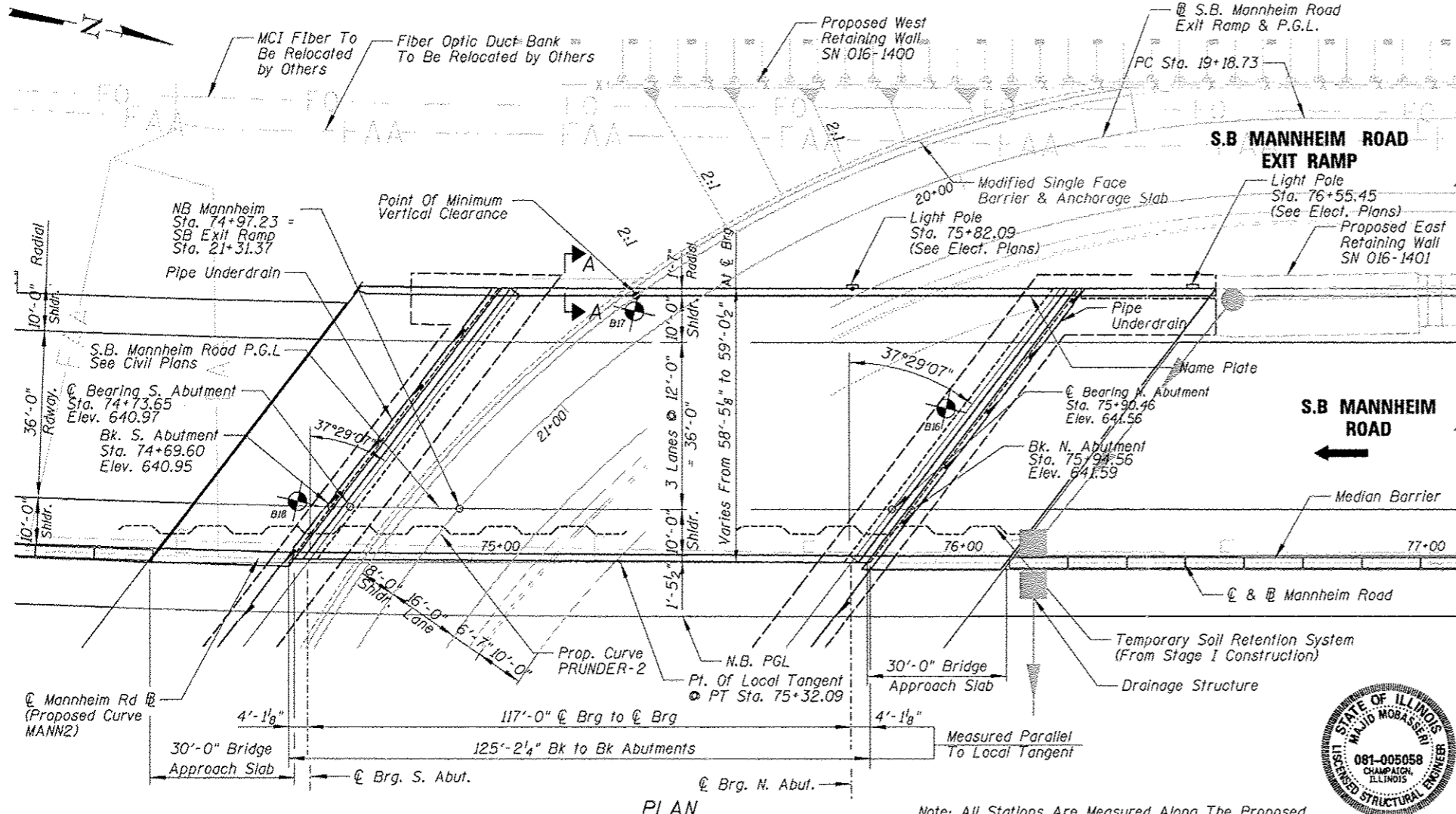
See Std. 515001



**LOCATION SKETCH**



**PROFILE GRADE - S.B. MANNHEIM  
ROAD EXIT RAMP**



**PLAN**

Note: All Stations Are Measured Along The Proposed C of Mannheim Road.



*Majid Mobasseri* 8/20/12  
**MAJID MOBASSERI**

ILLINOIS REGISTRATION No. 081-005058  
STRUCTURAL ENGINEER  
EXPIRATION DATE: 11/30/12

**GENERAL PLAN AND ELEVATION  
S.B. MANNHEIM ROAD BRIDGE OVER  
SOUTHBOUND EXIT RAMP**

F.A.P. RTE. 330-SEC 0105-WRS-1

COOK COUNTY

STATION 75+32.08

STRUCTURE NO. 016-7942

CHRISTOPHER B. BURKE ENGINEERING, LTD.  
4075 W. Higgins Road, Suite 600  
Rosemont, Illinois 60018  
(617) 823-0000

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

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**GENERAL PLAN AND ELEVATION  
SB MANNHEIM ROAD BRIDGE - STRUCTURE NO. 016-7942**

SHEET NO. S-1 OF S-28 SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	0105-F	COOK	55	29
CONTRACT NO. 60V68				

ILLINOIS FED. AID PROJECT