Bench Mark: Set east side of I-57. A square cut on concrete wall located at northeast corner of I-57 and Sibley Blvd./147th St. Elevation 626.29.

Existing Structure: None.

LOADING

Wind Loading for Noise Wall = 35 PSF
Panel Deflection for Noise Wall: L/240
Vertical Post Deflection for Noise Wall: L/180

DESIGN SPECIFICATIONS

2012 AASHTO LRFD Bridge Design Specifications with 2013 Interims

DESIGN STRESSES

FIELD UNITS

f'c = 3,500 psi
fy = 60,000 psi (Reinforcement)

PRECAST UNITS

f'c = 4,500 psi (Precast Panels)

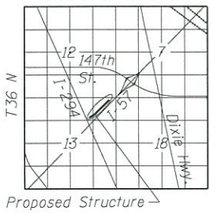
HIGHWAY CLASSIFICATION

F.A.I. Rte. I-57 Southbound
Functional Class: Interstate
ADT: 56,500 (2012); 44,880 (2030)
ADTT: 2,260 (2012); 2,828 (2030)
DHV: 4,560
Design Speed: 60 m.p.h.
Posted Speed: 55 m.p.h.

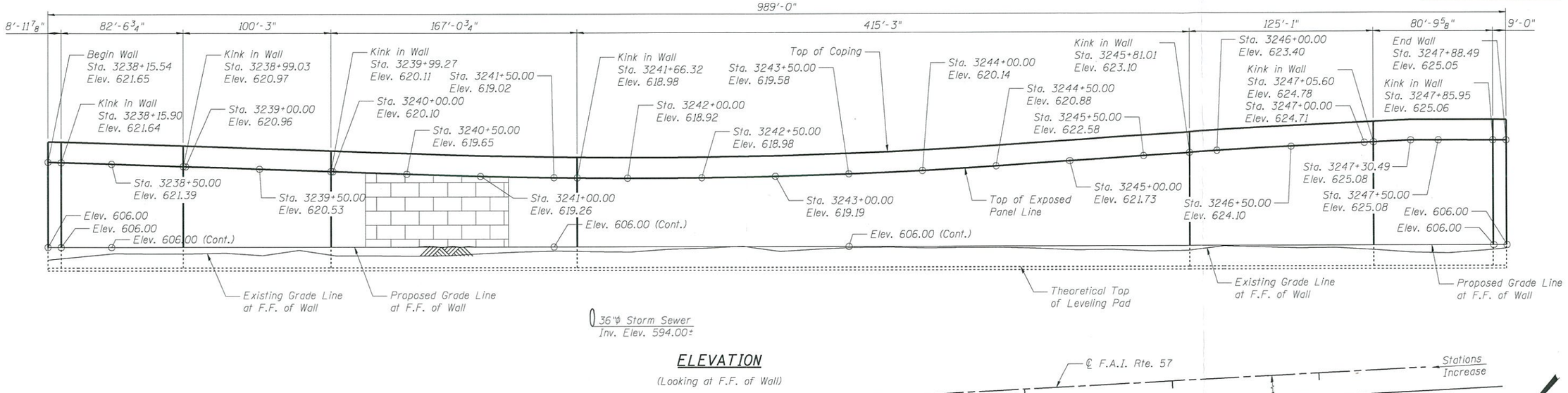
C-D Road C
Functional Class: Interstate
ADT: N/A (2012); 27,890 (2030)
ADTT: N/A (2012); 3,068 (2030)
DHV: 2,205
Design Speed: 45 m.p.h.
Posted Speed: 45 m.p.h.

Ramp F1
Functional Class: Interstate
ADT: 6,100 (2006); 9,230 (2030)
ADTT: 317 (2006); 480 (2030)
DHV: 900
Design Speed: 40 m.p.h.
Posted Speed: 40 m.p.h.

Ramp D
Functional Class: Interstate
ADT: N/A (2012); 8,210 (2030)
ADTT: N/A (2012); 550 (2030)
DHV: 630
Design Speed: 35 m.p.h.
Posted Speed: 35 m.p.h.

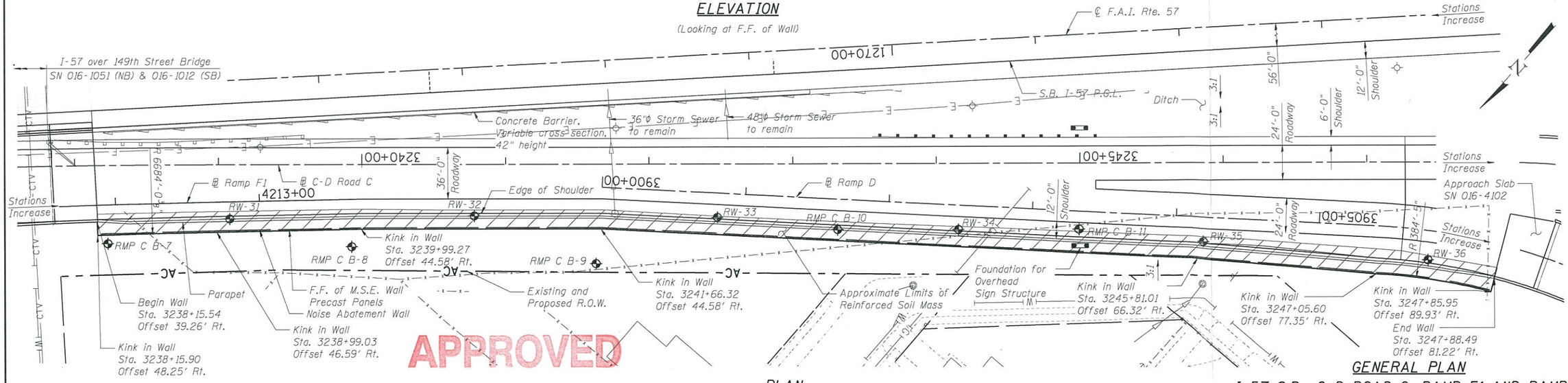


LOCATION SKETCH



ELEVATION

(Looking at F.F. of Wall)



PLAN

NOTES:

1. Offsets measured from ℄ C-D Road C to front face of precast panels.
2. F.F. - Indicates front face.
3. B.F. - Indicates back face.

APPROVED
MAY 29 2014
AS A BASIS FOR
PREPARATION OF DETAILED PLANS

GENERAL PLAN

I-57 S.B., C-D ROAD C, RAMP F1 AND RAMP D
F.A.I. ROUTE 57 - SEC. 1414.4-I
COOK COUNTY
STA. 3238+15.54 TO STA. 3247+88.49
STRUCTURE NO. 016-2203

FILE NAME =	USER NAME =	DESIGNED - TCG	REVISED	
TYLIN INTERNATIONAL		CHECKED - SP	REVISED	
	PLOT SCALE =	DRAWN - EKH	REVISED	
	PLOT DATE =	CHECKED - TCG	REVISED	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SHEET NO. 1 OF 2 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1414.4-I	COOK		
		CONTRACT NO.		
	ILLINOIS	FED. AID PROJECT		

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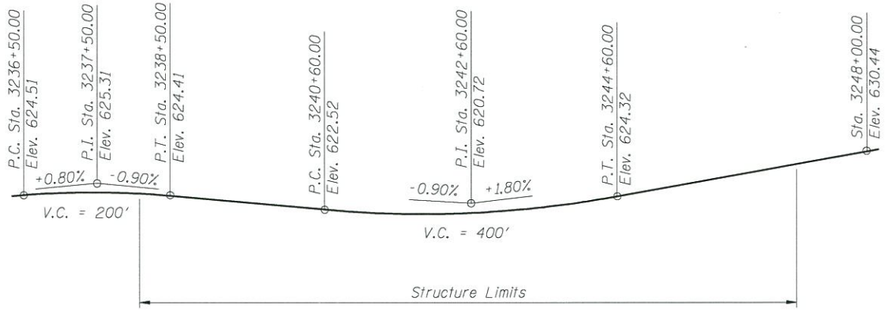
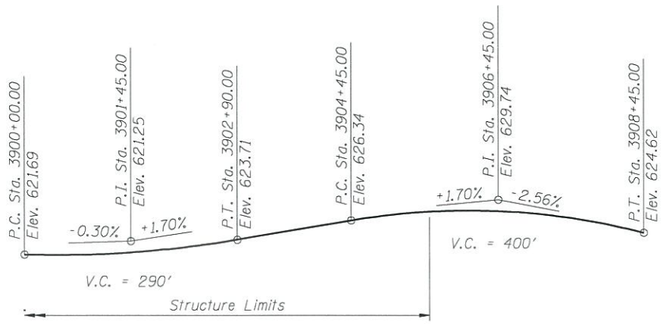
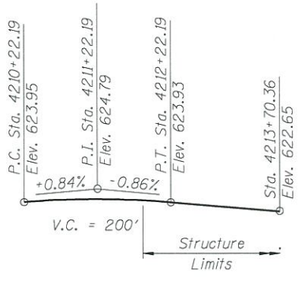


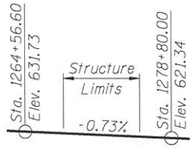
PROFILE GRADE - C-D ROAD C



PROFILE GRADE - RAMP D



PROFILE GRADE - RAMP F1



PROFILE GRADE - SB I-57

CURVE VEC D-1

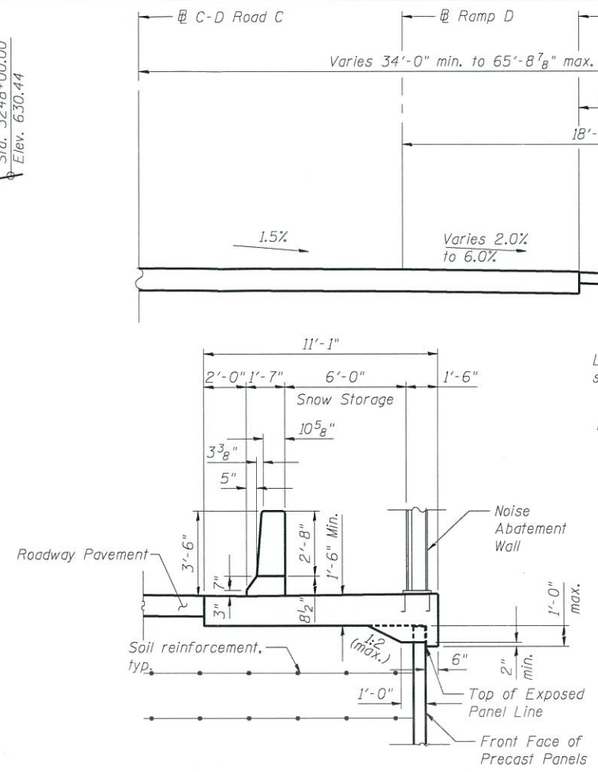
(℄ Ramp D)

P.I. = Sta. 3910+90.22
Δ = 105° 27' 13" (RT)
D = 13° 42' 26"
R = 418.00'
L = 769.34'
T = 549.24'
E = 272.21'
P.C. = Sta. 3905+40.99
P.T. = Sta. 3913+10.32
S.E. = 6.0%
P.O.T. = 3900+00.00
P.O.T. = 3904+83.04
P.O.T. = 3905+98.94

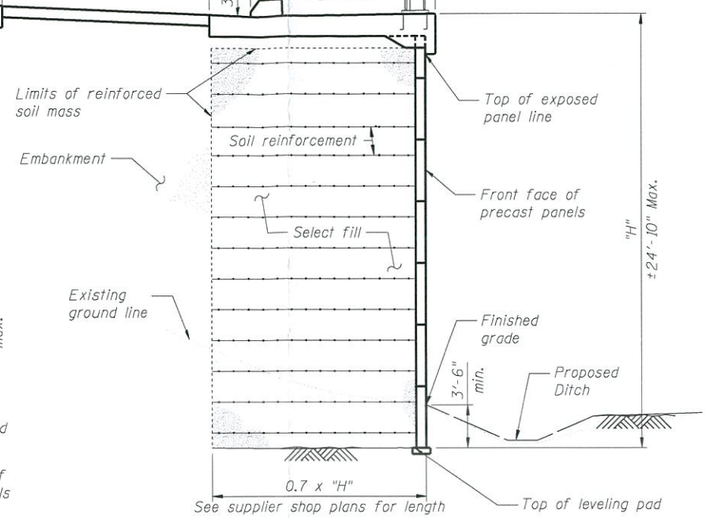
CURVE VEC F1-2

(℄ Ramp F1)

P.I. = 4210+94.74
Δ = 3° 00' 00" (RT)
D = 0° 51' 16"
R = 6,705.12'
L = 351.07'
T = 175.58'
E = 2.30'
P.C. = 4209+19.16
P.T. = 4212+70.24
S.E. = N.C.

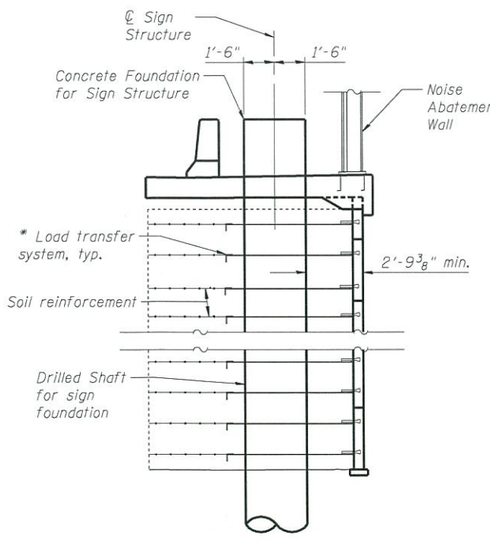


PARAPET AND ANCHORAGE SLAB DETAIL



TYPICAL WALL SECTION

(Looking South)



* M.S.E. supplier to design load transfer system to accomodate sign structure.

SECTION AT OVERHEAD SIGN STRUCTURE

(Sta. 3245+00)

APPROVED

MAY 29 2014

AS A BASIS FOR PREPARATION OF DETAILED PLANS

DETAILS

I-57 S.B., C-D ROAD C, RAMP F1 AND RAMP D

F.A.I. ROUTE I-57 - SEC. 1414.4-I

COOK COUNTY

STA. 3238+15.54 TO STA. 3247+88.49

STRUCTURE NO. 016-2203

FILE NAME =	USER NAME =	DESIGNED - TCG	REVISED
TYLIN INTERNATIONAL		CHECKED - SP	REVISED
	PLOT SCALE =	DRAWN - EKH	REVISED
	PLOT DATE =	CHECKED - TCG	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SHEET NO. 2 OF 2 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1414.4-I	COOK		
		CONTRACT NO.		
	ILLINOIS FED. AID PROJECT			

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