Bench Mark:

BM #3 - Cut square in N.E. corner of large utility structure S. of the N. set of R.R. tracks (Norfolk Southern Railroad) and near the E. R.O.W. line of U.S. Rt. 30 Sta. 278+54.41, 71.23' Lt., Elev. 631.16

BM #103 - Cut square at corner of traffic manhole on E. side of U.S. Rt. 30 and E. line of Sauk Trail Sta. 291+34.10, 39.95' Lt., Elev. 633.67

Existing Structure: None

Stage traffic to be maintained along existing US 30.
See Roadway Plans for maintenance of traffic.

INDEX OF SHEETS

GENERAL NOTES

Reinforcement bars designated (E) shall be epoxy coated.
The foundation design is based on the following maximum reactions applied at the top of the footing/pedestal wall:

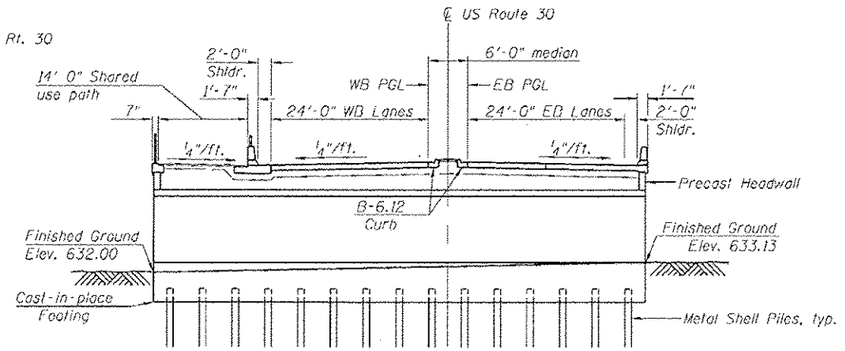
Exterior footings (Service Loads): 25.6 kips/foot (vertical), 13.3 kips/foot (horizontal)
Exterior footings (Factored Loads): 38.2 kips/foot (vertical), 20.0 kips/foot (horizontal)

The Contractor shall verify that the selected structure meets these design parameters. If the design parameters are exceeded, a complete foundation design with calculations, details, and the required seals shall be submitted for review and approval.

See wall plans for the backfill materials to be used within the limits of the Structure Excavation where the MSE wall soil reinforcement is used. Cast included with Mechanically Stabilized Earth Retaining Wall.

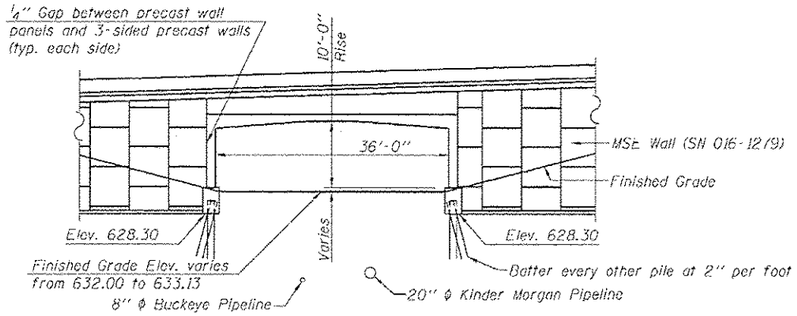
See Sheet 2 of 7 for Section A-A and Section B-B.

See SN 016-1279 for additional information and details.



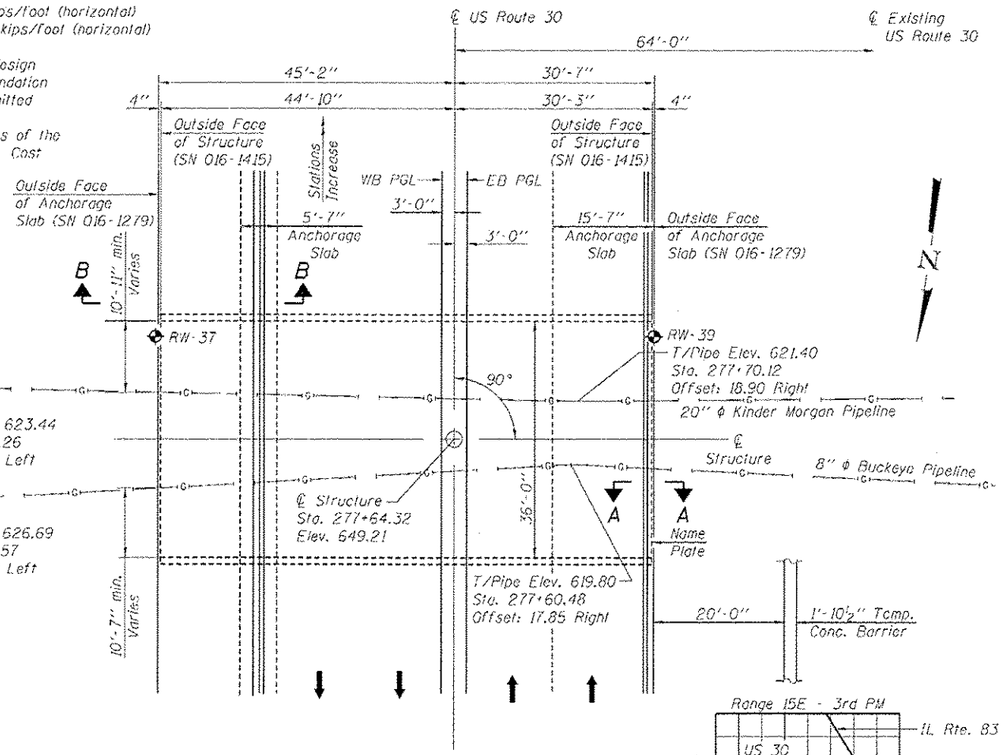
LONGITUDINAL SECTION

(Looking South)

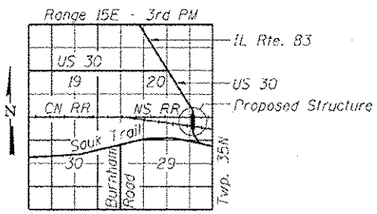


SECTION THRU STRUCTURE

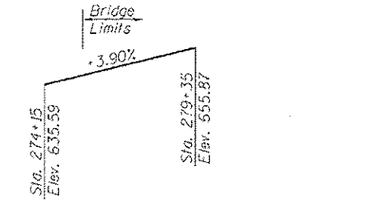
(Looking East)
Slab and wall thickness may vary per manufacturer



PLAN



LOCATION SKETCH



PROFILE GRADE - US 30

(Along EB & WB P.G.L.'s looking East)

DESIGN STRESSES

FIELD UNITS

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

PRECAST UNITS

f'c = 5,000 psi
fy = 60,000 psi (Reinforcement)
fy = 65,000 psi (Welded Wire Fabric)

SEISMIC DATA

Seismic Performance Zone (SPZ) = 1
Design Spectral Acceleration at 1.0 sec. (S_{D1}) = 0.093g
Design Spectral Acceleration at 0.2 sec. (S_{DS}) = 0.152g
Soil Site Class = D

LOADING HL-93

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

DESIGN SPECIFICATIONS

2012 AASHTO LRFD Bridge Design Specifications, 6th Edition.

APPROVED
For Structural Adequacy Only
Engineer of Bridges & Structures

STATE OF ILLINOIS
WILLIAM J. VEGRZYN
4983
HANOVER PARK
IL
LICENSED STRUCTURAL ENGINEER

Bill Vegrzyn 8/12/2013
Expires 11-30-14

TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
Structure Excavation	Cu. Yd.	191
Concrete Structures	Cu. Yd.	69.5
Reinforcement Bars, Epoxy Coated	Pound	4,640
Furnishing Metal Shell Piles, 14" x 0.25"	Foot	1,740
Driving Piles	Foot	1,740
Test Pile Metal Shells	Each	1
Name Plates	Each	1
Three Sided Precast Concrete Structures, 36'x10'	Foot	75.1

STATION 277+64.32
BUILT BY
STATE OF ILLINOIS
F.A.P. RT. 353 SEC. 11-Y-A
LOADING HL-93
STRUCTURE NO. 016-1415

NAME PLATE

See Std. 515001

GENERAL PLAN & ELEVATION
US ROUTE 30 OVER
FUTURE BIKE PATH
BUCKEYE AND KINDER MORGAN PIPELINES
F.A.P. RTE. 353 - SEC. 11-Y-A
COOK COUNTY
STATION 277+64.32
STRUCTURE NO. 016-1415

V3 Companies of Illinois Ltd.
7325 Janes Avenue
Woodridge, IL 60517
630.724.9200 phone
630.724.9202 fax
www.v3co.com

USER NAME =	DESIGNED - WJV	REVISED
	CHECKED - CJB	REVISED
PLOT SCALE =	DRAWN - WJV	REVISED
PLOT DATE =	CHECKED - CJB	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STRUCTURE NO. 016-1415
SHEET NO. 1 OF 7 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
353	11-Y-A	COOK	354	281
		CONTRACT NO. 60R19		
		ILLINOIS FED. AID PROJECT		

1 General Plan for 3-sided structure.dgn 3/21/2014 11:28:13 AM