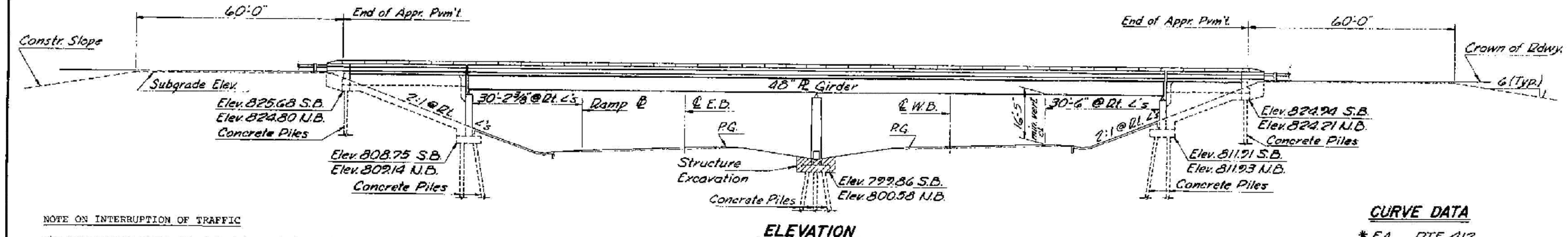
FOR INFORMATION ONLY

Bench Mark #8: Iron Pin 4' N of R.O.W.
Fence For Tollway 275' Rt. Sta. 1406+50.00
Elev. 810.71.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
F.A. 412	141-1A	OGLE	628	196
FED. ROAD DIST. NO. 7	ILLINOIS PROJECT			

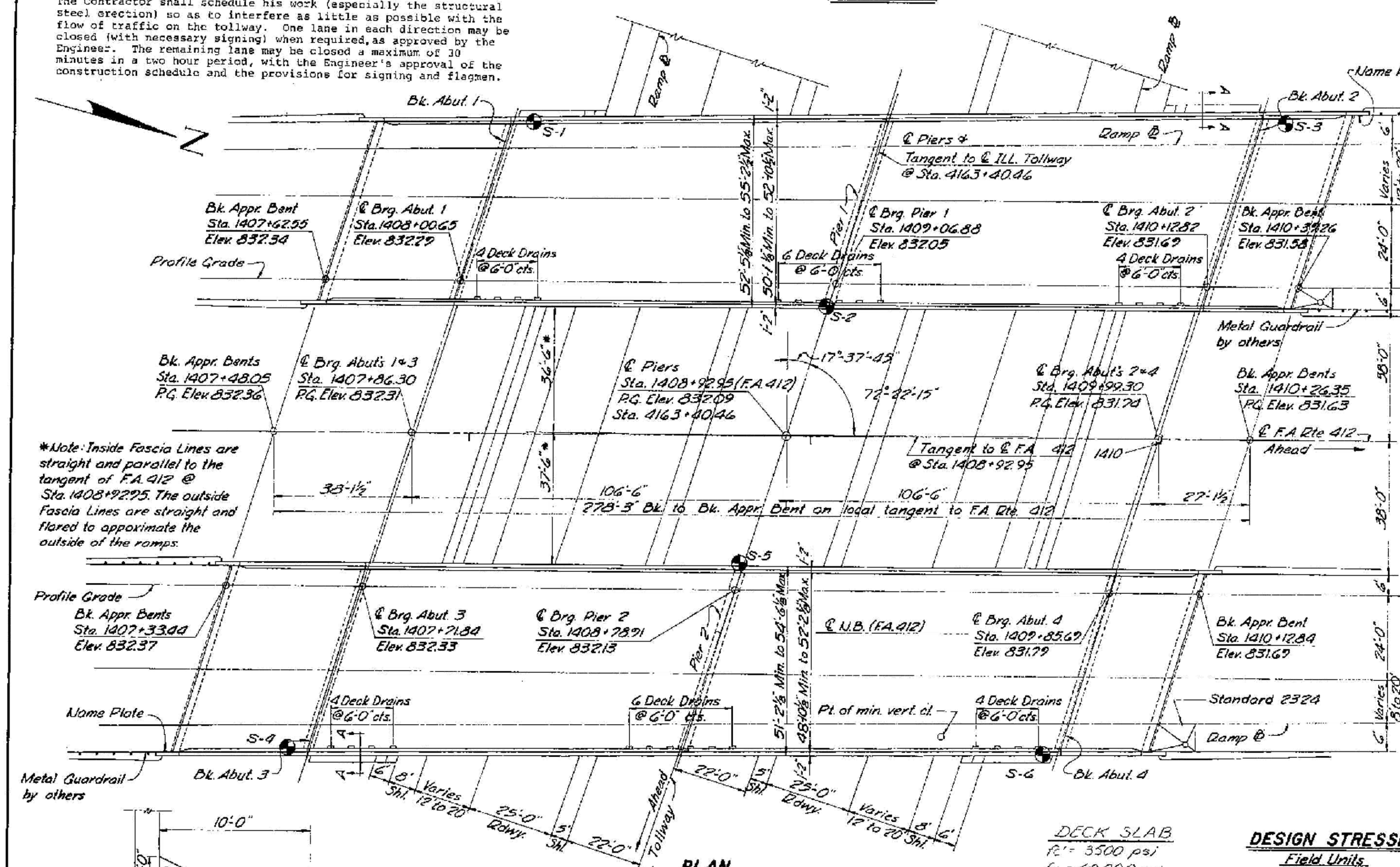
SHEET NO. 1
28 SHEETS



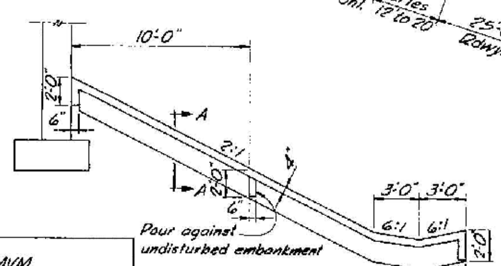
ELEVATION

NOTE ON INTERRUPTION OF TRAFFIC

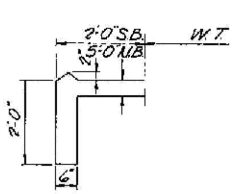
The Contractor shall schedule his work (especially the structural steel erection) so as to interfere as little as possible with the flow of traffic on the tollway. One lane in each direction may be closed (with necessary signing) when required, as approved by the Engineer. The remaining lane may be closed a maximum of 30 minutes in a two hour period, with the Engineer's approval of the construction schedule and the provisions for signing and flagmen.



PLAN

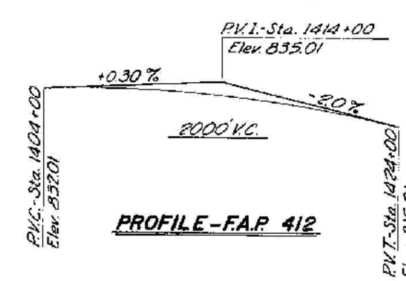


SECTION THRU SLOPEWALL



SEC. A-A

DECK SLAB
f'c = 3500 psi
fy = 60,000 psi



PROFILE-F.A.P. 412

DESIGN STRESSES
Field Units

fc=1,400 p.s.i. (Curb, Parapet, Sub., Appr. slab)
fs=20,000 p.s.i. (Reinf.)
fs=20,000 p.s.i. to 27,000 p.s.i. M183 & M223 (Struct.)(Grade 50)
vc=75 p.s.i. (Ftgs.)
n=9
Allowable ℄ Deflection = L/1440 or L/1200
Allow 25#/□' for future W.S.
Design Specifications-1973 AASHO as applicable.

Precast Prestress Units
f'c=5,000 p.s.i. f's=270,000 p.s.i. (½" ø Strands)
f'ci=4,000 p.s.i. fsi=189,000 p.s.i. (½" ø Strands)

LOADING HS 20-44

CURVE DATA

*F.A. RTE 412
P.I. Sta. 1427+95.57
Δ = 22°-37'-48"
D = 0°-28'-00"
R = 12,277.667'
T = 2,456.66'
L = 4,849.28'
E = 243.37'
Se = 0.023'/'
S.A. & Crown Reduced to Zero
Sta. 1401+78.91 to Sta. 1404+18.91
Sta. 1451+08.19 to Sta. 1453+48.18

E.-W. TOLLWAY
P.I. Sta. 4160+58.02
Δ = 9°-46'-34"
D = 0°-58'-00"
R = 5,927.15'
T = 506.89'
L = 1,011.32'
E = 21.71'
Se = 0.04'/'

APPROVED
FOR STRUCTURAL ADEQUACY ONLY
Engineer of Bridge & Traffic Structures

STATION 1408+92.95
BUILT 19 BY
STATE OF ILLINOIS
F.A. RTE. 412 SEC. 141-1HB-1
PROJECT FF-FFG-412-5(4)
LOADING HS 20

NAME PLATE
See Std. 2113

The main load carrying member components subject to the tensile stress shall conform to the Supplemental Requirements for Notch Toughness Zone 2. These components are the tension flanges, webs and all splice plate material of the steel girders or wide flange beams.

FASTENERS SHALL BE HIGH STRENGTH BOLTS. BOLTS 7/8"ø, OPEN HOLES 15/16"ø, UNLESS OTHERWISE NOTED.

All reinforcement bars in deck slab shall conform to AASHTO M 31 gr. 60 or M 53 gr. 60.

ALL STRUCTURAL STEEL IS M183 EXCEPT AS NOTED ON GIRDER ELEVATION.
CALCULATED WEIGHT OF STRUCTURAL STEEL: (M183) = 350,680
(M223) = 328,410

THE BASIC LEAD SILICO CHROMATE PAINT SYSTEM SHALL BE USED FOR SHOP AND FIELD PAINTING OF STRUCTURAL STEEL.

FIELD WELDING OF CONSTRUCTION ACCESSORIES WILL NOT BE PERMITTED TO THE BOTTOM FLANGE OF BEAMS OR GIRDERS NOR TO THE TOP FLANGE FOR A DISTANCE EQUAL TO ONE-FOURTH THE SPAN LENGTH EACH WAY FROM THE PIER SUPPORTS. FIELD WELDING IN OTHER AREAS WILL BE PERMITTED ONLY WHEN APPROVED BY THE ENGINEER.

ANCHOR BOLTS SHALL BE SET BEFORE BOLTING DIAPHRAMS OVER SUPPORTS.

SLOPE WALL SHALL BE REINFORCED WITH WELDED WIRE FABRIC 6" X 6" MESH, WEIGHING 58# PER 100 SQ. FT.

THE CONTRACTOR SHALL DRIVE ONE CONCRETE TEST PILE IN A PERMANENT LOCATION AT THE PIER AND EACH ABUTMENT AS DIRECTED BY THE ENGINEER BEFORE ORDERING THE REMAINDER OF PILES.

THE CONCRETE PARAPET SECTION ABOVE THE MANDATORY CONSTRUCTION JOINT AT THE TOP OF THE SLAB SHALL BE CONSTRUCTED OF CLASS X CONCRETE, EXCEPT THE AGGREGATES SHALL CONFORM TO THE REQUIREMENTS OF HANDRAIL CONCRETE.

PROTECTIVE COAT SHALL NOT BE APPLIED TO SURFACES TO WHICH WATERPROOFING MEMBRANE SYSTEM IS APPLIED.

BEARING SEAT SURFACES SHALL BE CONSTRUCTED OR ADJUSTED TO THE DESIGNATED ELEVATION WITHIN A TOLERANCE OF ± 1/8 INCH. ADJUSTMENT SHALL BE MADE EITHER BY GRINDING THE SURFACE OR BY SHIMMING THE BEARING. TWO 1/8" ADJUSTING SHIMS, OF THE DIMENSIONS OF THE BOTTOM BEARING PLATE, SHALL BE PROVIDED FOR EACH BEARING IN ADDITION TO ALL OTHER PLATES OR SHIMS.

THE EMBANKMENT CONFIGURATION SHOWN SHALL BE THE MINIMUM EMBANKMENT THAT MUST BE CONSTRUCTED PRIOR TO CONSTRUCTION OF THE ABUTMENTS.

SEE THE SPECIAL PROVISIONS FOR BORING LOGS.

CONCRETE PILES AT ABUTMENTS SHALL BE DRIVEN IN HOLES PRECORED THROUGH THE EMBANKMENT IN ACCORDANCE WITH ARTICLE 513.09(C) OF THE STANDARD SPECS.

TOTAL BILL OF MATERIALS

ITEM	UNIT	SUPER.	SUB.	TOTAL
Structure Excavation	Cu. Yd.	——	250	250
Class 'X' Concrete	Cu. Yd.	912.4	770.5	1682.9
Structural Steel	Lump Sum	0.44	——	0.44
Reinforcement Bars	Lbs.	239,000	93620	332,620
Concrete Piles	Lin. Ft.	——	7806	7806
Test Piles (Concrete)	Each	——	6	6
Slopewall (4")	Sq. Yd.	——	1060	1060
Bitum. Surf. Mixture D, Class I	Tons	259	——	259
Waterproofing Membrane Sys.	Sq. Yd.	3080	——	3080
Preformed Joint Sealer (4")	Lin. Ft.	223	——	223
Stud Shear Connectors, ¾"	Each	8400	——	8400
Protective Coat	Sq. Yd.	427	——	427
P.P.C. I Beam (36")	Lin. Ft.	727	——	727
Name Plates	Each	2	——	2
Aluminum Railing	Lin. Ft.	1144	——	1144

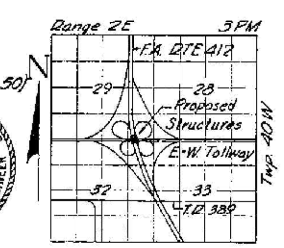
Sta.	4162+00	4163+00	4164+00	4165+00
W.B. Elev.	807.96	808.57	809.15	809.72 (52' LT.)
W.B. Elev.	807.02	807.67	808.24	808.83 (27' LT.)
E.B. Elev.	806.99	807.65	808.17	808.85 (27' RT.)
E.B. Elev.	806.00	806.63	807.12	807.91 (52' RT.)

TOP OF CONCRETE EXISTING E.-W. TOLLWAY
(From Field Survey Notes)

Reinforcement Bar Min. Splice Length

Bar #	Min. Length
4	1'-0"
5	1'-3"
6	1'-9"
7	2'-4"
8	3'-0"
9	3'-10"
10	4'-10"
11	6'-0"

(Unless Otherwise Noted)



LOCATION SKETCH

STATE OF ILLINOIS HOMER M. WALKER 81-3549 FRANKFORT, KY. REGISTERED STRUCTURAL ENGINEER

GENERAL PLAN & ELEVATION
F.A. RTE. 412 OVER E.-W. TOLLWAY
F.A. RTE. 412 SECTION 141-1 HB-1
OGLE COUNTY
STA. 1408 + 92.95 (F.A.P. RTE. 412)

PLANS PREPARED BY AMERICAN ENG. CO.

DESIGNED	MVM
CHECKED	HMW
DRAWN	CWB
CHECKED	HMW

FILE NAME = D264J27-sht-GenPlan.dgn
PLOT DATE = 9/6/2012
PLOT SCALE = 100.0000 ' / IN.

CHRISTIAN-ROGE & ASSOCIATES, INC.
ENGINEERS-PLANNERS-SURVEYORS
211 WEST WACKER DRIVE
CHICAGO, ILLINOIS 60606
PHONE: (312)372-2023 FAX: (312)372-5274

DESIGNED - G.F.L.	REVISED -	
DRAWN - K.R.K.	REVISED -	
CHECKED - E.J.M.	REVISED -	
DATE - JULY 2012	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN & ELEVATION

SCALE: SHEET NO. OF SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	D2 BRIDGE PAINTING 2013-2	OGLE	26	17
		CONTRACT NO. 64J27		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

ORIGINAL SURVEY		BY	DATE
NOTE BOOK	SURVEYED		
NO.	PLOTTED		
	TEMPLATE		
	AREAS		
	AREAS CHECKED		

FINAL SURVEY		BY	DATE
NOTE BOOK	SURVEYED		
NO.	PLOTTED		
	TEMPLATE		
	AREAS		
	AREAS CHECKED		