F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

Sheet 1 of 2 Sheets

Bench Mark: TBM C - Spike in first PP along old RR on the North side of canal. 103.32' Rt. Sta. 201+93.00 FAP Rte. 999 Elev. 419.12

Existing Structure - None

Note: Conduits to be provide for future lighting.

Traffic Barrier Terminal Std. 631031 - Type 6 (Typ. Approach Ends Only)

Traffic Barrier Terminal Std. 631026 - Type 5 with 1" ϕ anchor bolts embedded into parapet (Typ. Departure Ends Only)

Bridge Omission Sta. 200+98.75 to Sta. 202+76.25

60'-0" Construction Berm Typ.

W 27 Composite (Positive moment regions)

6:1

Elev. ±426.38

Pile Encasement

Existing Ground Line

Steel H-piles w/ metal shoes
Required Bearing: Refusal
Est. Length: 127'
N.S.F. Allow.: 34 ton/pile

2:1 @ Rt. 1's

3:1 +0.7% 1.5% 1.5% 4.0% 3:1

17'-10" Min. Clr.

2'-6" Typ.

Elev. ±403.5

Steel H-piles w/ metal shoes
Required Bearing: Refusal
Est. Length: 128' (Pier #1)
Est. Length: 129' (Pier #2)

Slopewall See Sht. No. 2 of 2

Elev. ±403.5

Elev. ±429.36

Backfill behind Abut. by Bridge Contractor (Typ.)

Pile Encasement

Steel H-piles w/ metal shoes
Required Bearing: Refusal
Est. Length: 130'
N.S.F. Allow.: 34 ton/pile

ELEVATION

*Dimensions are at the Back of West Abut. and Back of East Abut.

177'-6" Back to Back of Abutments

1'-3" 58'-0" 59'-0" 58'-0" 1'-3"

2:1 Typ.

Bridge Approach Drain Sta. 609006 (Typ.)

℄ Pier #1
Sta. 292+17.59
Ramp A

Station Increase

Sta. 291+84.05 @ Ramp A=
Sta. 19+42.28 ℄ Track Ent. Road

±23'-8" Min. Clr.

2'-0" Typ.

1'-7"

@ Ramp A

Boring B-17

Boring B-18 ST

Point of Min. Vert. Clr.

Boring B-19 ST

Bk. E. Abut.
Sta. 290+99.31
Ramp A

Station Increase
Bk. W. Abut.
Sta. 292+76.85
Ramp A

"Varies 5'-2½" to 1'-7½"

"Varies 4'-2½" to 7'-9½"

6'-0" Shldr.

16'-0" RAMP A

30'-0" Bridge Appr. Pav't Std. 420401 (Typ. Ea. End)

2 Lanes at 12'-0"= 24'-0"

11'-6" 11'-6"

2 Lanes at 12'-0"= 24'-0"

15'-6½" 10'-0" Shldr.

65'-4"

℄ Pier #2
Sta. 291+58.58
Ramp A

P.G. W.B. Roadway

86° 90° (Typ.)

℄ FAP Rte. 999

Station Increase
Bk. W. Abut.
Sta. 200+98.75
Elev. 433.69

℄ Pier 1
Sta. 201+58.00
Elev. 434.81

℄ Pier 2
Sta. 202+17.00
Elev. 435.93

P.G. E.B. Roadway

Bk. E. Abut.
Sta. 202+76.25
Elev. 437.06

49'-5½"

℄ Track Ent. Road

66'-11"

51'-0½"

117'-11½" Out to Out of Deck

A

A

1'-7"

±24'-9" Min. Clr.

8'-0" Shldr. 12'-0" 12'-0" 8'-0" Shldr.

Sta. 201+87.50 ℄FAP Rte. 999
Sta. 20+00 ℄ Track Ent. Road

15:1 (Typ.)

Traffic Barrier Terminal Std. 631031- Type 6 (Typ. Approach Ends Only)

Traffic Barrier Terminal Std. 631026 - Type 5 (Typ. Departure Ends Only)

2:1 Typ.

PLAN

N

L.V.C. = 280'

P.V.C. Sta. 18+60.00 Elev. 414.75

P.V.I. Sta. 20+00.00 Elev. 411.38

P.V.T. Sta. 21+40.00 Elev. 415.09

-2.41% +2.85%

PROFILE GRADE TRACK ENT. ROAD

+1.90%

VPT Sta. 199+10.00 Elev. 430.10

VPC Sta. 204+75.50 Elev. 440.83

PROFILE GRADE F.A.P. 999

VPI Sta. 290+80.89 Elev. = 436.30

-1.66%

Sta. 293+00.00 Elev. = 432.66

PROFILE GRADE RAMP A

Sta. 292+88.08 3.26% Bk. W. Abut. Sta. 292+76.85

P.G.L. RAMP A

Bk. E. Abut. Sta. 290+99.31 Sta. 290+80.89 5.81%

RAMP A SUPERELEVATION TRANSITION

Range 10 W of the 3rd PM | Range 9 W of the 3rd PM

F.A.P. Rte. 14 F.A.P. Rte. 999 Twp. 2N Proposed Structure

LOCATION SKETCH

HIGHWAY CLASSIFICATION

F.A.P. Rte. 999 - Reloc. WB I-70
ADT: 11205 (2000); 18220 (2020)
ADTT: 1872 (2000); 3043 (2020)
DHV: 2470 (2020)
Functional Class: Trunk
Design Speed: 60 mph

F.A.P. Rte. 999 - Reloc. EB I-70
ADT: 10135 (2000); 16480 (2020)
ADTT 1691 (2000); 2753 (2020)
DHV: 2375 (2020)
Functional Class: Trunk
Design Speed: 60 mph

Future Race Track Entrance
ADT: Not Available
DHV: Not Available
Functional Class: Local Road
Design Speed: Not Available

CURVE DATA RAMP A

P.I. STA= 289+97.97
Δ= 7°-53'-20" (RT)
D= 4°-45'-00"
R= 1206.23'
T= 83.17'
L= 166.08'
E= 2.86'
e = 7.1%
T.R. = 0
S.E. Run = 180'
P.C. STA= 289+14.80
P.T. STA= 290+80.89

Superelevation Transition
sta. 287+70.89 to sta. 289+50.89

DESIGN SPECIFICATIONS

1996 AASHTO WITH 1997, 1998, 1999, 2000 and 2002 Interims

LOADING HS20-44

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

DESIGN STRESSES

f'c = 3,500 psi
fy = 60,000 psi (reinf.)
fy = 50,000 psi (M270 Grade 50) struct. steel
fy = 36,000 psi (M270 Grade 36) struct. steel

SEISMIC DATA

Seismic Performance Category (SPC) = B
Bedrock Acceleration Coefficient (A)=0.12g
Site Coefficient (S) = 1.5

GENERAL PLAN
F.A.P. RTE. 999 OVER TRACK ENT. RD
SECTION 83-3HB.
ST. CLAIR COUNTY
STA. 201+87.50.
STRUCTURE NO. 082-0358 (W.B.)
STRUCTURE NO. 082-0359 (E.B.)

DESIGNED	M.E.B.
CHECKED	G.R.
DRAWN	Chuck C.
CHECKED	G.R.

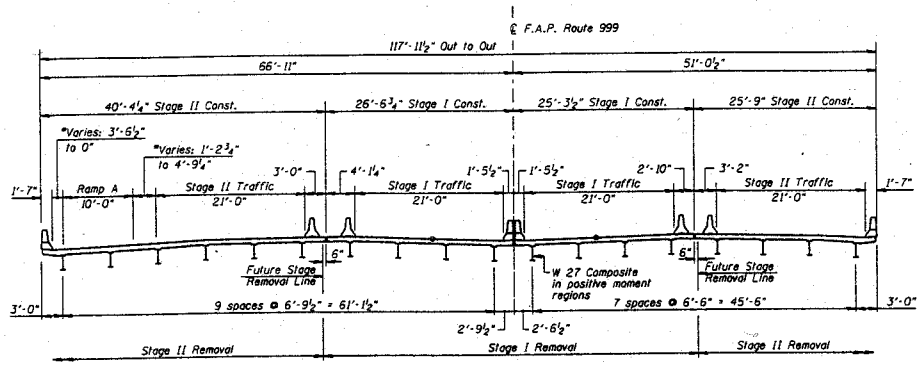
APPROVED

DEC 10 2002

AS A BASIS FOR
PREPARATION OF DETAILED PLANS

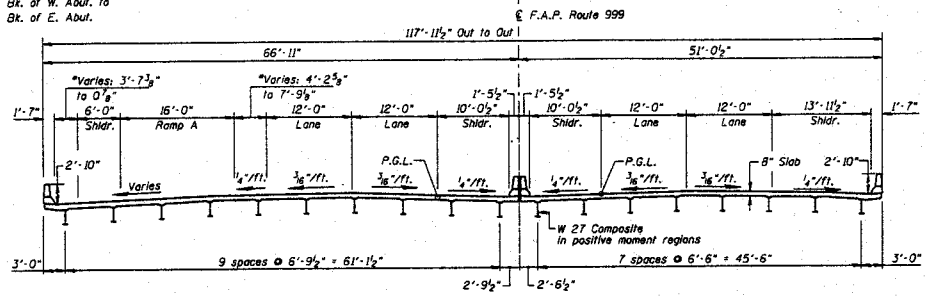
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

Sheet 2 of 2 Sheets



FUTURE STAGE CONSTRUCTION

*Dimensions taken from Bk. of W. Abut. to Bk. of E. Abut.

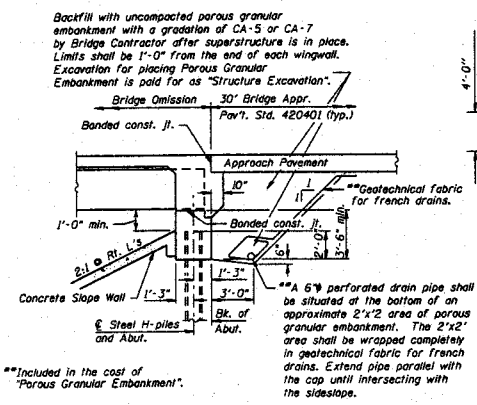


SECTION THRU BRIDGE DECK (LOOKING EAST)

Notes

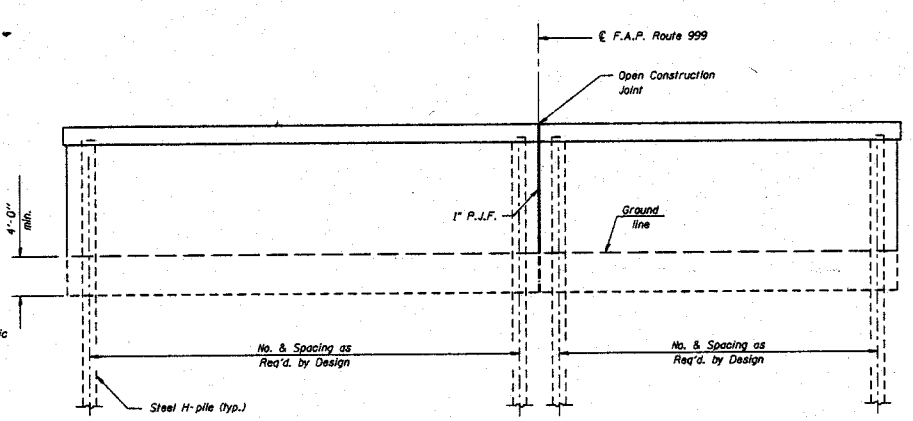
1. Minimum stage traffic width = 21'-0" (11'-0" Lane + 10'-0" Passing Lane) for F.A.P. Rte. 999 and 10'-0" for Ramp A. Wider lanes used where available.
2. Top reinforcement in deck slab will be designed to account for staging per IDOT.
3. Unless directed otherwise, beams will be checked for stage construction loading, assuming 50 psf FWS, including the increase in composite loading from the barrier and accounting for possible different distribution of wheel load to the exterior staged girder, as required.

PILE CONSOLIDATION-INDUCED NEGATIVE SKIN FRICTION & TOTAL DOWNDRAG				
Location	H-PILE SIZE	NSF w/i Embankment Fill (tons)	NSF w/i Underlying Soil (tons)	Total Downdrag (tons)
E. Abutment	12 " Piles		42	99
	14 " Piles	58	50	118
E. Int. Piers	12 " Piles		53	57
	14 " Piles		63	67
W. Abutment	12 " Piles	49	44	93
	14 " Piles	58		110
W. Int. Piers	12 " Piles	2	56	58
	14 " Piles	2	67	

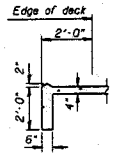


**Included in the cost of "Porous Granular Embankment".

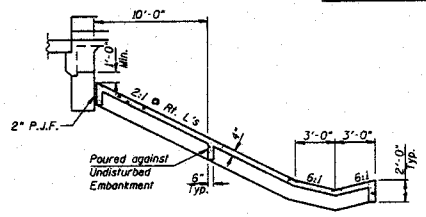
SECTION THRU INTEGRAL ABUTMENTS



PIER SKETCH



SECTION A-A



SECTION THRU SLOPEWALL

DETAILS
F.A.P. RTE. 999 OVER TRACK ENT. RD.
SECTION 83-3HB
ST. CLAIR COUNTY
STA. 201+87.50
STRUCTURE NO. 082-0358 (W.B.)
STRUCTURE NO. 082-0359 (E.B.)

DESIGNED	M.E.B.
CHECKED	G.R.
DRAWN	DREW C
CHECKED	M.A.C.

APPROVED

DEC 1 0 2002

AS A BASIS FOR

PREPARATION OF DETAILED PLANS