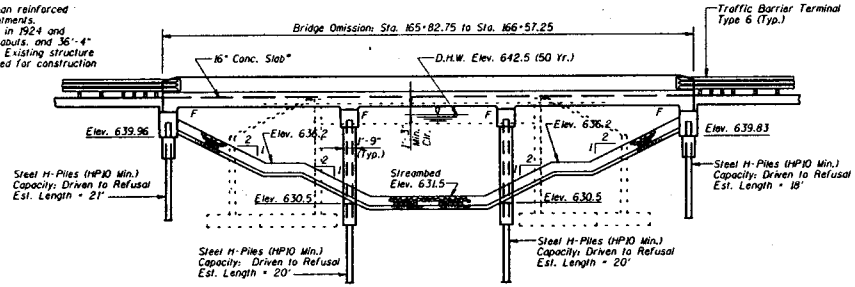
FAS 253	68BR-1	MARSHALL	1	1

BENCHMARK: #1-Chiseled square on wing wall at NE corner bridge on north bound lane of I-39. Elevation taken from Idot Bridge Plans. Elev. 649.14

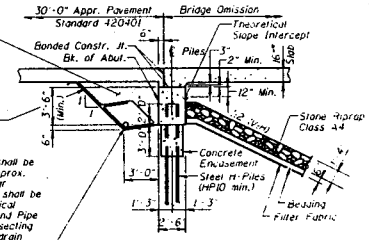
EXISTING STRUCTURE: SN 062-0001 is a single span reinforced concrete T-Beam structure supported on closed abutments. The structure has no skew. The structure was built in 1924 and was widened in 1956. The bridge is 33'-0" bk.-bk. abuts. and 36'-4" O.-O. deck with 30'-0" clear width between curbs. Existing structure is to be removed. A state route detour will be utilized for construction of the proposed bridge.

No salvage.



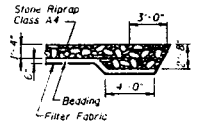
ELEVATION

Backfill with Uncompacted Porous Granular Embankment with a Gradation of CA-5 or CA-7 after Superstructure is in place. Limits shall be 12" from the end of each wingwall.



A 6" ϕ Perforated Drain Pipe shall be situated at the bottom of an approx. 2' x 2' area of Porous Granular Embankment. The 2' x 2' area shall be wrapped completely in Geotechnical Fabric for French Drains. Extend Pipe Parallel with the cap until intersecting with the sideslope. Pipes shall drain onto concrete headwalls (Article 601.05 of the Std. Specifications and Highway Standard 601101).

SECTION THRU INTEGRAL ABUTMENT

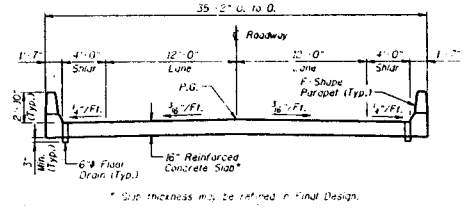


SECTION A-A

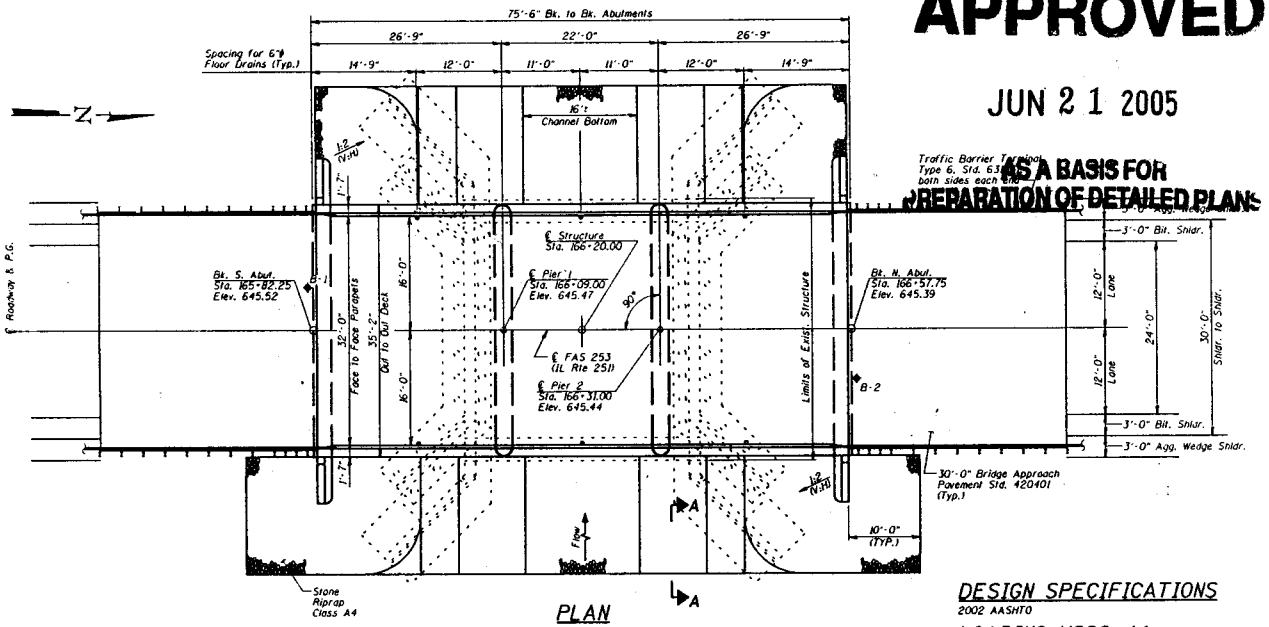
APPROVED

JUN 21 2005

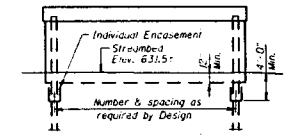
AS A BASIS FOR PREPARATION OF DETAILED PLANS



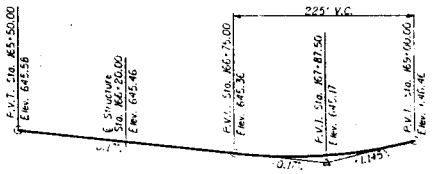
CROSS SECTION



PLAN



PIER SKETCH



PROFILE GRADE
(Along ℄ Roadway)

DESIGN SPECIFICATIONS

2002 AASHTO

LOADING HS20-44

Allow 50 psf for future wearing surface.

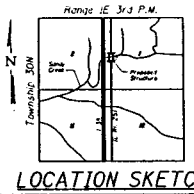
DESIGN STRESSES

FIELD UNITS

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

SEISMIC DATA

Seismic Performance Category (SPC) = A
Bedrock Acceleration Coefficient (A) = 0.04g
Site Coefficient (S) = 1.0



LOCATION SKETCH

WATERWAY INFORMATION

Drainage Area = 9.9 Sq. Mi. Exist. Low Grade Elev. = 644.50 Ft. @ Sta. 166+00

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft. Exist.	Opening Sq. Ft. Prop.	Nat. H.W.E.	Head-Ft. Exist.	Head-Ft. Prop.	Headwater El. Exist.	Headwater El. Prop.
Design	50	2060	269	440	642.5	1.1	0.0	643.6	642.5
Base	100	2365	269	469	643.0	1.5	0.0	644.5	643.0
Overtopping	100	2365	269	-	643.0	1.5	0.0	644.5	-
Max. Calc.	500	3065	269	523	643.9	1.3	0.0	645.2	643.9

HIGHWAY CLASSIFICATION

FAS Rte 253 (IL Rte 251)
Functional Class: Major Collector (Rural)
DHV: 100 (2003) 138 (2023)
ADT: 800 (2003), 1100 (2023)
Sta. 2:77: Mu. 5.4%
Design Speed: 55 mph
Posted Speed: 55 mph

DESIGNED BY:	RDP	8/04
DRAWN BY:	DWH/CJG	8/04
CHECKED BY:	ELH	6/05
APPROVED BY:	RDP	6/05

GENERAL PLAN
IL ROUTE 251 OVER
SANDY CREEK
FAS ROUTE 253 - SECTION 68BR-1
MARSHALL COUNTY
STATION 166+20
STRUCTURE NO. 062-0071