APPROVED

JAN 10 2006

AS A BASIS FOR PREPARATION OF DETAILED PLANS

Sheet 1 of 1

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2578	532B	DUPAGE		
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

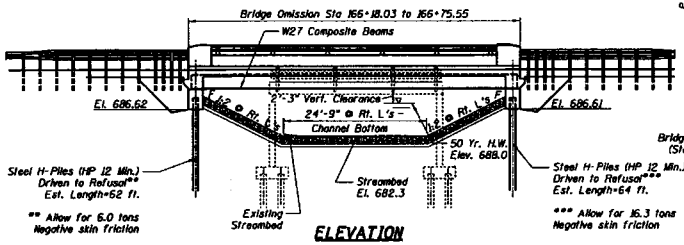
Bench Mark:

Cut square in SW corner of parapet on existing bridge. El. 690.92

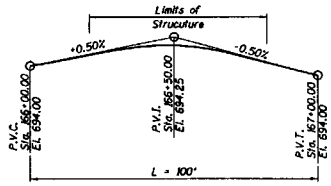
Existing Structure

S.N. 022-0074 was built in 1931 as a single span reinforced concrete slab bridge. The existing structure spans 30 feet, is 46 feet wide and has a 3.5 inch bituminous wearing surface. The existing structure is to be removed and replaced. Traffic is to be maintained utilizing stage construction.

No salvage



ELEVATION

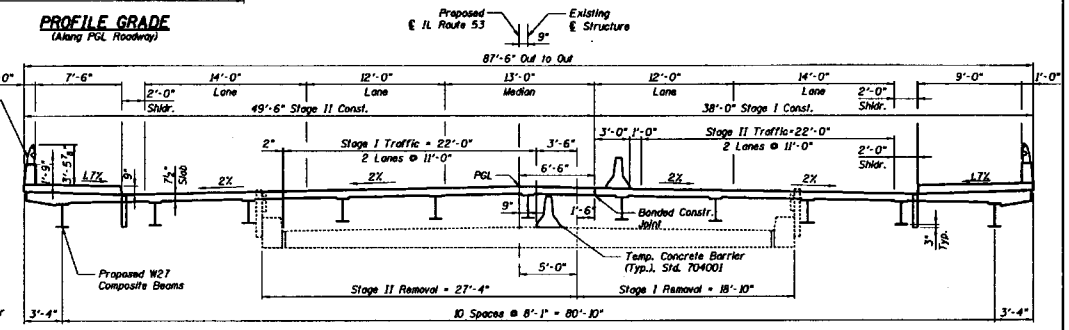


PROFILE GRADE
(Along PGL Roadway)

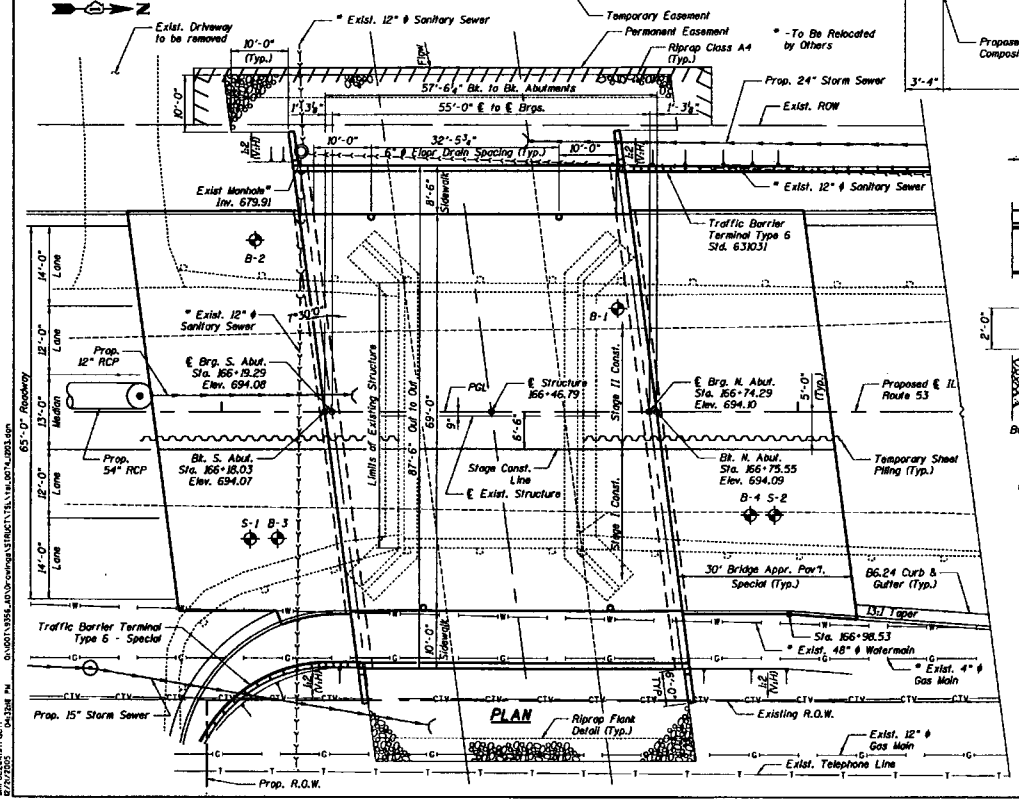
WATERWAY INFORMATION

Proposed Low Grade Elev. 691.0 @ Sta. NA
Drainage Area = 12.0 SQ. Miles — Existing Low Grade Elev. 688.8 @ Sta. 0+875

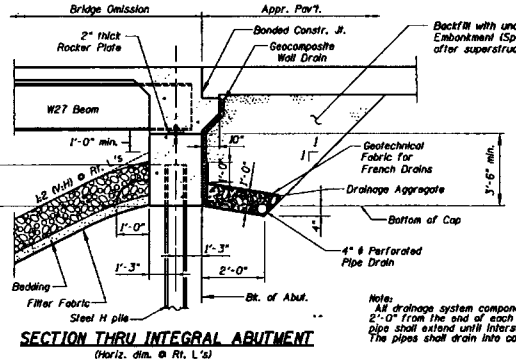
Flood	Freq. Yr.	Q (C.F.S.)	Opening (Sq. Ft.) Exist.	Opening (Sq. Ft.) Prop.	Nat. H.W.E.	Head (Ft.) Exist.	Head (Ft.) Prop.	Headwater Elev. Exist.	Headwater Elev. Prop.
	10	416	111	166	687.1	1.1	0.0	688.2	687.1
Overtop	40	550	130		687.8	1.0		688.8	
Design	50	597	136	208	688.0	1.0	0.0	689.0	688.0
Base	100	679	142	222	688.3	0.8	0.0	689.1	688.3
Max. Calc.	500	1153	142	309	690.4	0.1	0.6	690.5	691.0



CROSS SECTION
(Looking North)

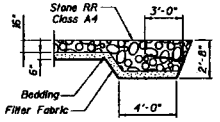


PLAN

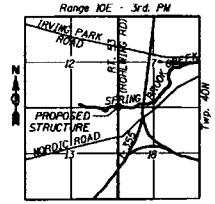


SECTION THRU INTEGRAL ABUTMENT
(Horiz. dim. @ Rt. L's)

Note:
All drainage system components shall extend 2'-0" from the end of each wingwall except an outlet pipe shall extend until intersecting with the side slopes. The pipes shall drain into concrete headwalls.



RIPRAP FLANK DETAIL



LOCATION SKETCH

HIGHWAY CLASSIFICATION

F.A.U. Route 2578-Illinois Route 53
ADT: 25,800 (2000); 31,000 (2020)
Functional Class: Suburban Minor Arterial
Design Speed: 45 mph
Posted Speed: 45 mph

LOADING HS20-44

Allowance for Future Wearing Surface=50 lb/ft²

DESIGN SPECIFICATIONS

2002 AASHTO Standard Specifications for Highway Bridges

DESIGN STRESSES

f'c=3500 psi
fy=60,000 psi (Reinf.)
fy=50,000 psi (M270 Grade 50W)

SEISMIC DATA

Seismic Performance Category (SPC)=A
Bedrock Acceleration Coefficient (A)=0.035g
Site Coefficient (S)=1.0

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

GENERAL PLAN
ILLINOIS ROUTE 53 OVER
SPRING BROOK CREEK
FAU 2578 SECTION 532B
STRUCTURE NO. 022-0189
DUPAGE COUNTY STATION 166+46.79

SCALE: NONE — DRAWN BY: E. MROCZEK
DATE: 12/21/2005 — CHECKED BY: G. HATLESTAD