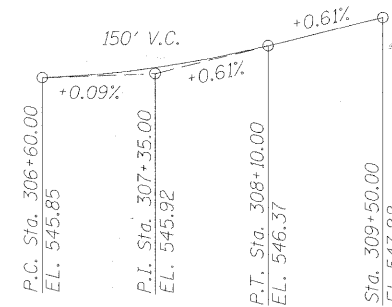
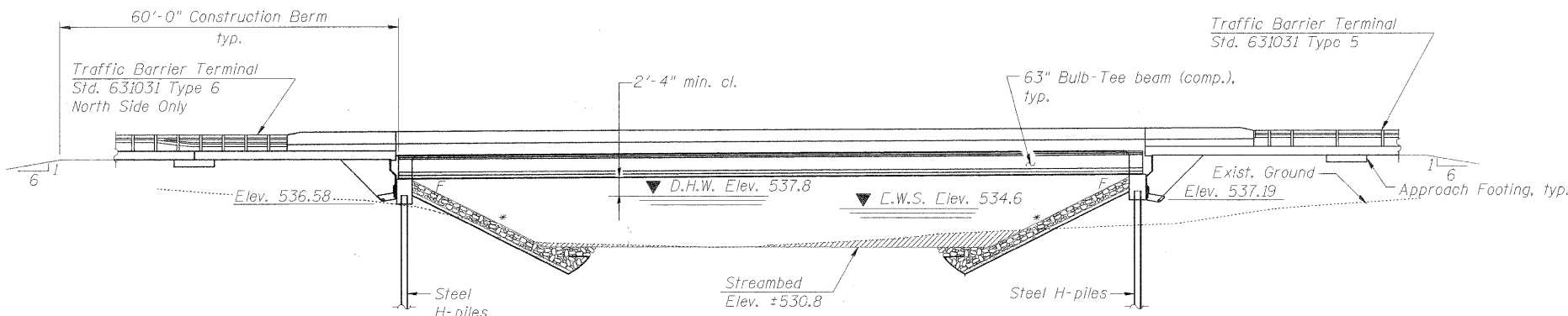


Bench Mark: B.M. #1409 chiseled square on S.E. wingwall of F.A.I. Route 80 bridge over Collins Run, S.N. 032-0104, Elev. 546.22.

Existing Structure: None

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



PROFILE GRADE
Along @ F.A.I. 80 Ramp C

LOADING HL-93

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

DESIGN SPECIFICATIONS

AASHTO LRFD Bridge Design Specifications, 4th Edition with 2008 and 2009 Interims

DESIGN STRESSES

FIELD UNITS

- $f'_c = 3,500$ psi
- $f_y = 60,000$ psi (Reinforcement)
- PRECAST PRESTRESSED UNITS**
- $f'_c = 6,000$ psi
- $f'_{ci} = 5,000$ psi
- $f'_s = 270,000$ psi (1/2" ϕ low lax. strands)
- $f_{si} = 201,960$ psi (1/2" ϕ low lax. strands)

SEISMIC DATA

- Seismic Performance Category (SPZ) = I
- Design Spectral Acceleration at 1.0 sec. (SD1) = 0.070g
- Design Spectral Acceleration at 0.2 sec. (SD5) = 0.128g
- Soil Site Class = C

DESIGN SCOUR ELEVATION TABLE

Design Scour Elevation (ft.)	E. Abut. W. Abut.
	533.58 534.19

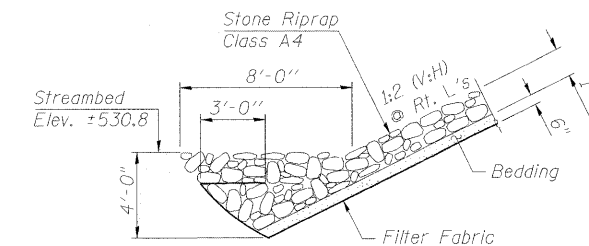
ELEVATION

* 1:2 (V:H) @ Rt. L's

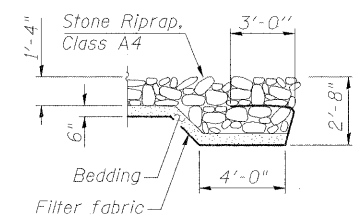
103'-6" Bk. to Bk. Abutments

STATION 308+53.69
BUILT 20 BY
STATE OF ILLINOIS
F.A.I. 80 SEC. (32,47-4) HBK-4
LOADING HL-93
STRUCTURE NO. 032-0118

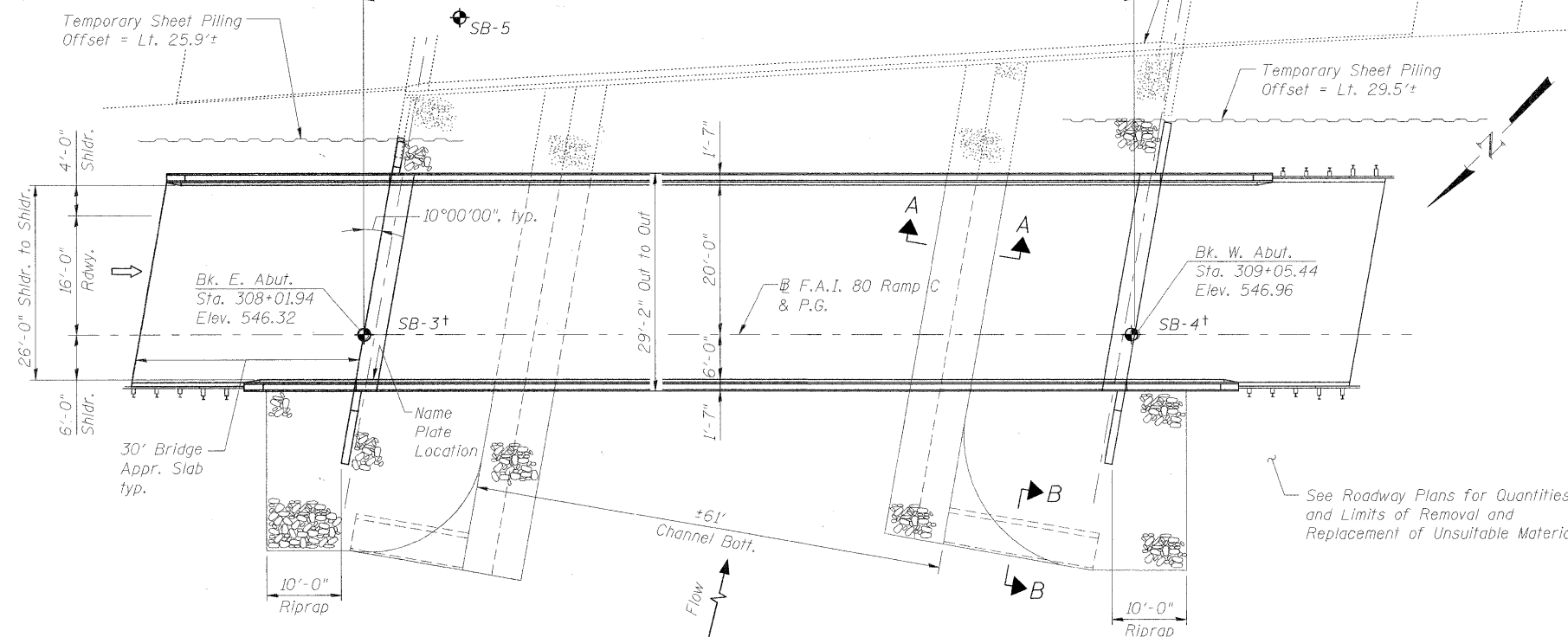
NAME PLATE
See Std. 515001



SECTION A-A



SECTION B-B



PLAN

See Roadway Plans for Quantities and Limits of Removal and Replacement of Unsuitable Material

LEGEND

- ◆ - Soil Boring
- ▨ - Channel Excavation (See Roadway Plans)
- + - Hand Auger Boring

DESIGNED - LJB
CHECKED - CMM
DRAWN - GJS
CHECKED - CMM

WATERWAY INFORMATION

Drainage Area = 30.30 S.M. Low Grade Elev. 547.07 @ Sta. 308+82.89

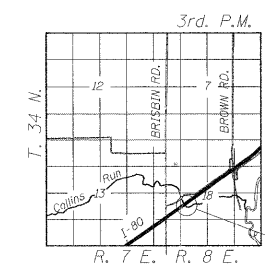
Flood Yr.	Freq. Q	C.F.S.	Opening Sq. Ft.		Nat. H.W.E.	Head - Ft.		Headwater El.	
			Exist.	Prop.		Exist.	Prop.	Exist.	Prop.
Design	10	1227	-	470.4	536.9	0.33	0.33	537.2	537.2
Base	50	1801	494.1	561.9	537.8	0.39	0.23	538.2	538.1
Overtopping	100	2031	522.0	597.4	538.2	0.42	0.29	538.6	538.5
Max. Calc.	500	2560	576.9	670.6	538.8	0.42	0.36	539.3	539.2

APPROVED
FOR STRUCTURAL ADEQUACY ONLY

Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES



Catherine M. Malone



LOCATION SKETCH

GENERAL PLAN AND ELEVATION
F.A.I. 80 RAMP C OVER
COLLINS RUN, SEC. (32,47-4) HBK-4
GRUNDY COUNTY
STATION 308+53.69
STRUCTURE NO. 032-0118

LOCHNER

H.W. LOCHNER, INC.
CONSULTING ENGINEERS & PLANNERS
20 NORTH WACKER DRIVE SUITE 1200
CHICAGO, IL 60606

SHEET NO. 1 OF 19 SHEETS	RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	*	(32,47-4) HBK-4 & G(N)	GRUNDY	351	333
FED. ROAD DIST. NO.			ILLINOIS	FED. AID PROJECT	
CONTRACT NO. 66408					

* FAI 80 & FAS 297 / FAU 392

+:\B2\struq\dgn\0320118-66408-001.GP01.dgn