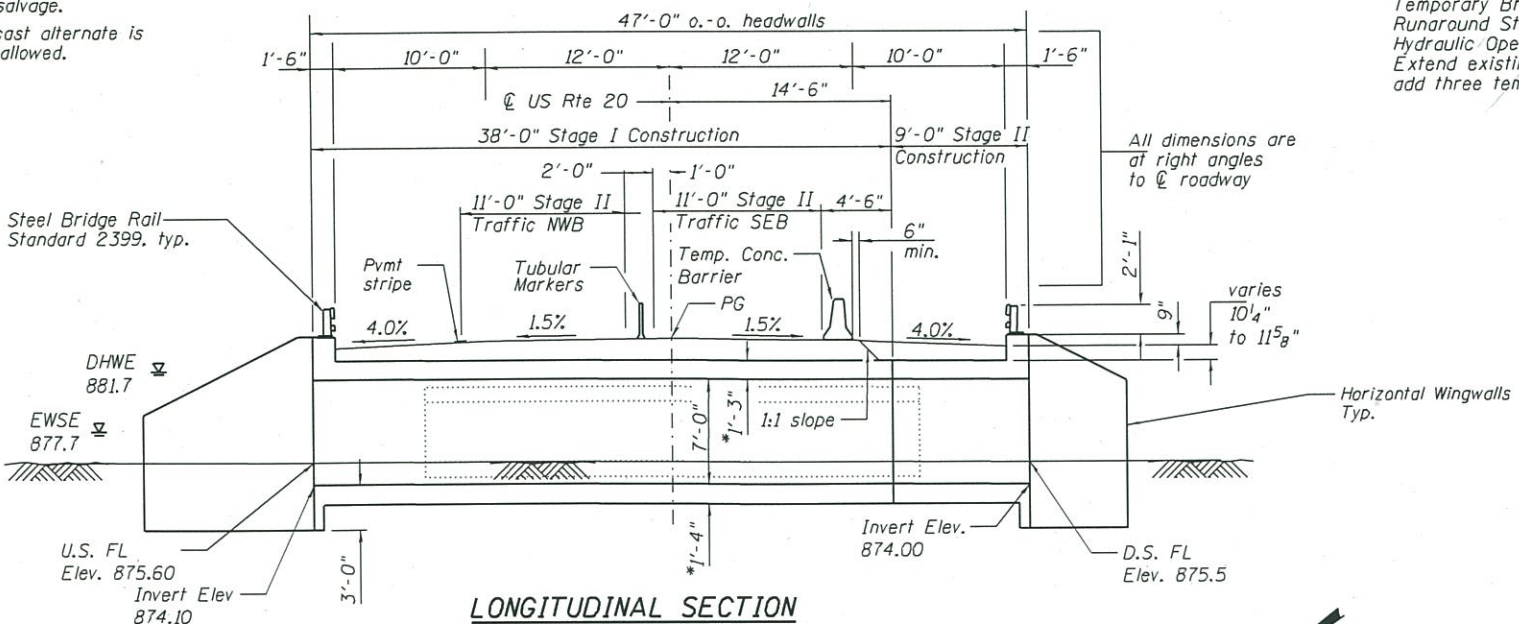


Benchmark B: Bench tie on PP @ NW corner of Getty Road and US 20. Elev. 882.67  
 Existing Structure No. 045-2037 built in the 1920's as a cast in place 12'Wx4'Hx32'L box culvert.  
 Stage construction with two lanes of Stage I traffic on a runaround to the west.

No salvage.  
 Precast alternate is not allowed.

Temporary Bridge/Culvert - for Temporary Runaround Stage I Construction (per contractor)  
 Hydraulic Opening Size = 28.3 sq. ft. (min.)  
 Extend existing 36"  $\phi$  culvert and add three temporary 36"  $\phi$  culverts.

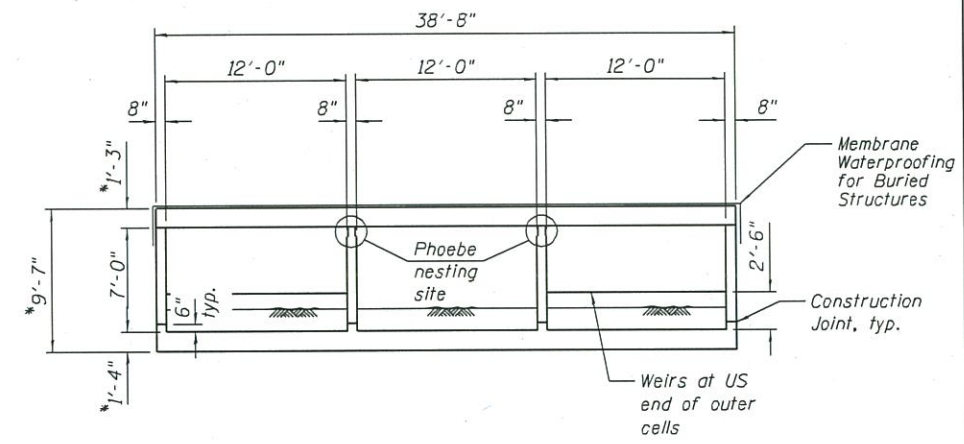


**LONGITUDINAL SECTION**

**WATERWAY INFORMATION**

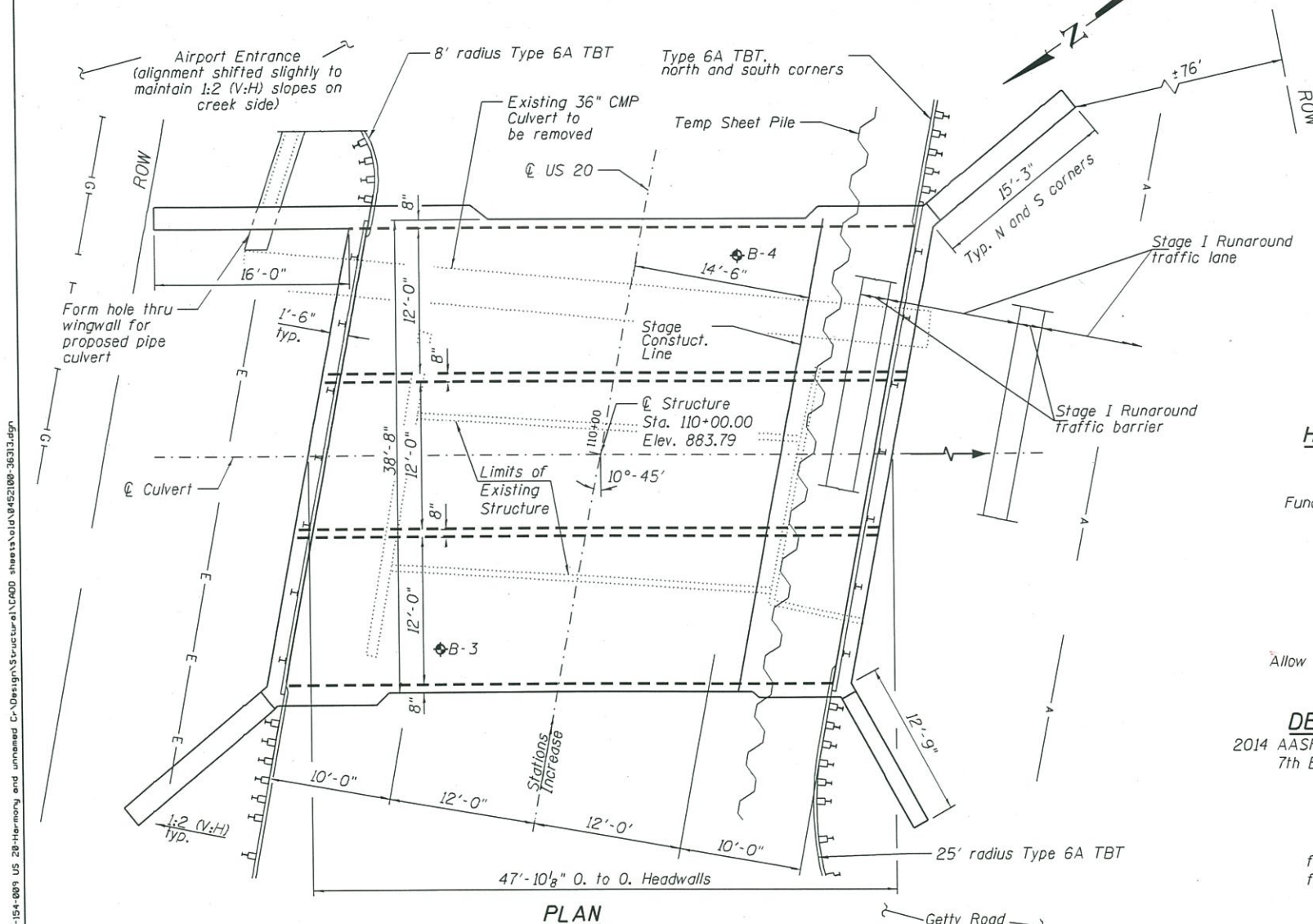
Drainage Area = 3.5 sq. mi.		Low Grade Elev. 883.5 @ Sta. 113+00	
Flood Yr.	0	50	100
Opening Sq. Ft.	Nat.	Exist.	Prop.
10	352	37.2	166.8
Design	50	622	48.6
Base	100	787	54.2
Overlapping		1250	174.0
Max. Calc.	500	1005	55.1
Head - Ft.	Exist.	Prop.	Headwater El.
	2.2	0.3	882.9
	2.3	0.3	884.0
	2.0	0.3	884.1
		0.6	883.9
	1.5	0.4	884.2
			883.1

10 year velocity (exist) = 2.1 ft/sec  
 10 year velocity (proposed) = 1.8 ft/sec  
 2 year peak flow (Q) = 178.0 cfs



**SECTION THRU BARREL**

\* Slab thickness may be refined in final design



**PLAN**

**LEGEND**

- A — Aerial Cable
- E — Underground Electric
- G — Underground Gas

**HIGHWAY CLASSIFICATION**

Rte.: FAP 525 & 345 (US 20)  
 Functional Class: Other Principal Arterial  
 ADT: 9700 (2015);  
 ADTT: 2454 (2015);  
 Design Speed: 45 m.p.h.  
 Posted Speed: 45 m.p.h.

**LOADING HL-93**

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

**DESIGN SPECIFICATIONS**

2014 AASHTO LRFD Bridge Design Specifications.  
 7th Edition with 2015 & 2016 Interims

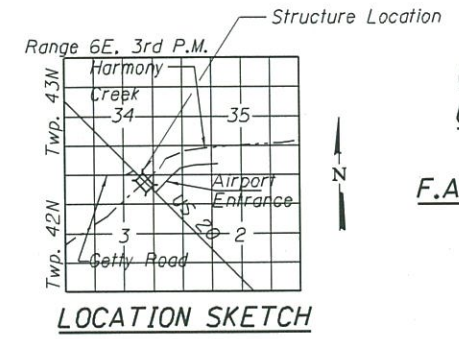
**DESIGN STRESSES**

**FIELD UNITS**  
 $f'_c = 3,500$  psi  
 $f_y = 60,000$  psi (Reinforcement)

**APPROVED**  
 AUG 3 2017  
 AS A BASIS FOR  
 PREPARATION OF DETAILED PLANS

**PROFILE GRADE**

(Along  $\phi$  Roadway)



**LOCATION SKETCH**

**GENERAL PLAN & ELEVATION**  
**US 20 (GRANT HIGHWAY) OVER**  
**HARMONY CREEK**  
**F.A.P. 525 & 345 SEC. 2015-063B**  
**KANE COUNTY**  
**STATION 110+00.00**  
**STRUCTURE NO. 045-2100**

T:\Projects\12-15-09\US 20-Harmony and unnamed Cr.Design\Structural\14000 sheets\045-2100-063B.dwg



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	CHECKED - DDB	REvised -

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

SHEET NO. 1 OF 1 SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2015-063B	KANE		
CONTRACT NO. 62B31				
ILLINOIS FED. AID PROJECT				