

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 80/94	*	COOK	870	680
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

SHEET NO. 1
13 SHEETS

T.B.M. 311: Set cut box on southeast corner of foundation of overhead sign truss.
I-94 Eastbound, Approximate Sta. 19+015 (Approximate Mile Marker 73.40); Elev. 183.386

Existing Structure: Single 1.73m x 1.09m Elliptical RCP and Single 1.83m Diameter RCP.

Traffic to be maintained utilizing stage construction.

No Salvage.

Precast alternate is not allowed.

(0203.1 & 0312-TOBW) R-3 CONTRACT #62108

GENERAL NOTES

- All dimensions in millimeters (mm) unless noted.
- Reinforcement bars shall conform to the requirements of AASHTO M31M, M42M or M53M Grade 420.
- The Contractor shall drive one 305mm test pile in a permanent location as directed by the Engineer before ordering the remainder of the piles.
- All construction joints shall be bonded.
- The soft to medium stiff clay below the culvert shall be removed to an approximate depth of 300mm below the bottom of the bottom slab of the box culvert and replaced with Porous Granular Embankment. The exact depth of the undercut to be determined by the Engineer.
- On the upstream wingwalls, a distance of half the length of the wingwall but not less than 2m of the barrel shall be poured monolithically with the wingwalls.
- Details for WB I-94 Reconstruction are for information only.
- Porous Granular Embankment (Special) shall be used to backfill the culvert from the top of the top slab to the bottom of the bottom slab. Its horizontal limit shall be 600mm behind the culvert walls and the wingwalls.

BILL OF MATERIAL FOR EB RECONSTRUCTION

ITEM	UNIT	QUANTITY
Porous Granular Embankment	m ³	42.2
Removal and Disposal of Unsuitable Material	m ³	1,037.2
Porous Granular Embankment (Special)	m ³	138.5
Reinforcement Bars	Kg	14,930
Furnishing Metal Pile Shells 305mm	m	663
Driving and Filling Shells	m	663
Test Pile Metal Shells	Each	1
Temporary Soil Retention System	m ²	61.5
Concrete Box Culverts	m ³	139.4
Name Plates	Each	1
Bar Splicers	Each	59

DESIGN SPECIFICATIONS

2002 AASHTO

DESIGN STRESSES

FIELD UNITS

$f'_c = 24$ MPa
 $f_y = 420$ MPa (Reinforcement)

LOADING MS18 & ALTERNATE

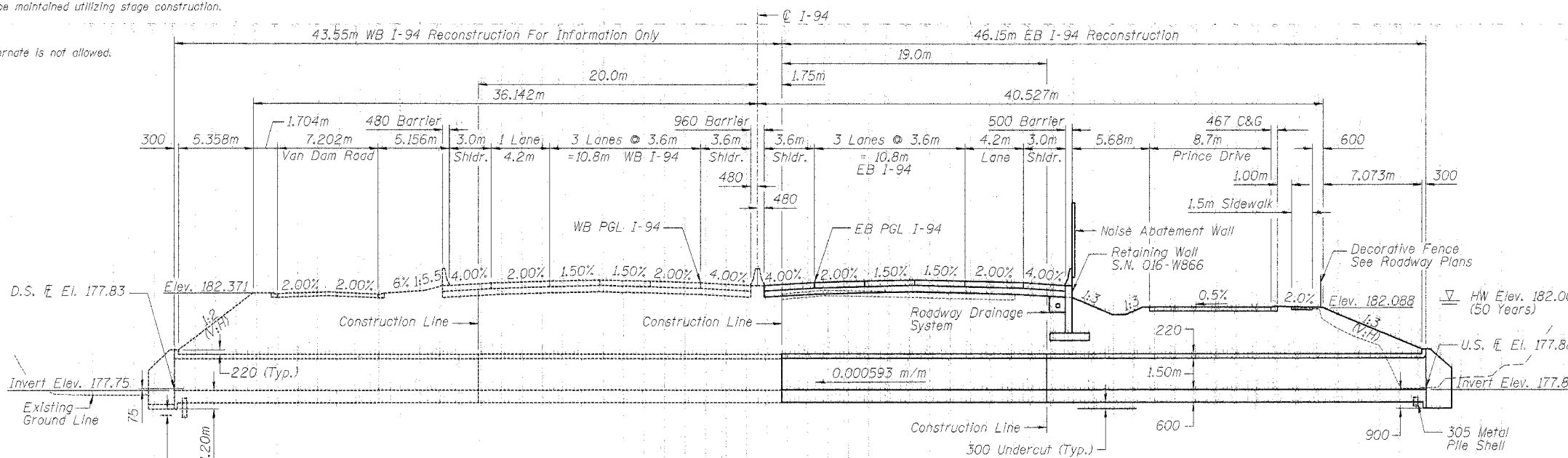
Allow 2.4 kN/m² Future Wearing Surface

LEGEND

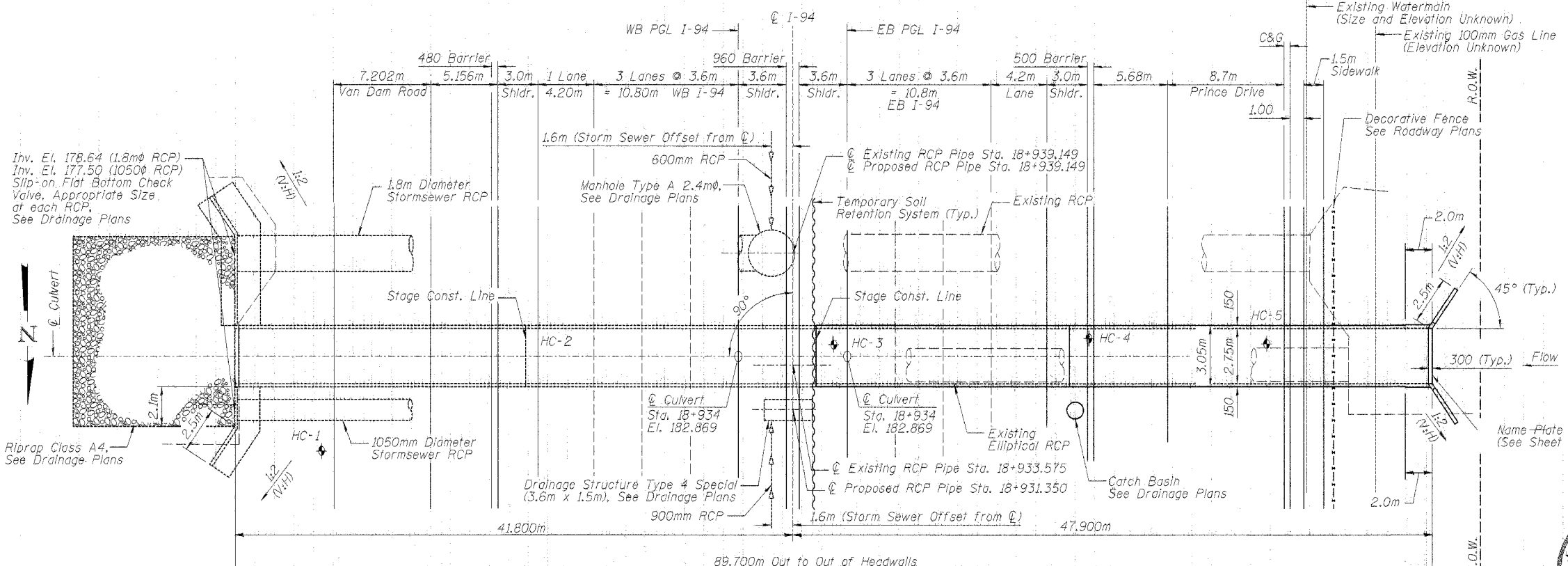
⚡ Soil Boring



Signature: *Deborah A. Zroka*
Date: July 8, 2005
Expires: 11-30-06



LONGITUDINAL SECTION
(Looking South)



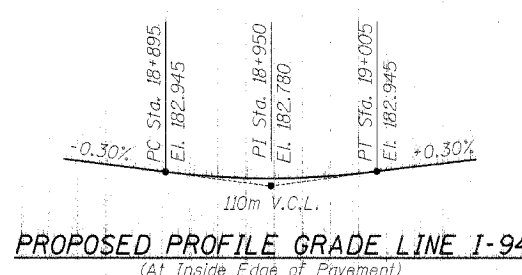
PLAN

WATERWAY INFORMATION TABLE

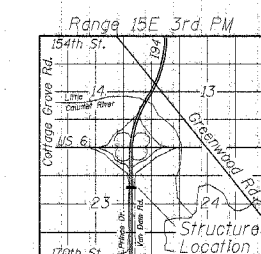
Drainage Area = 162.0 ha Low Grade Elev. = 182.99 @ Sta. 18+950

Flood	Freq. Yr.	Q (m ³ /s)	Opening (m ²)		Nat. H.W.E.	Head (m)		Headwater Elev.	
			Exist.	Prop.		Exist.	Prop.	Exist.	Prop.
Design	50	3.06	4.11	4.18	181.30	0.03	0.03	181.33	181.33
Base	100	3.33	4.11	4.18	182.00	0.06	0.05	182.06	182.05
Overtopping	325	3.69	4.11	4.18	182.30	0.06	0.06	182.15	182.36
Max. Calc.	500	3.92	4.11	4.18	183.30		0.08		182.99

DESIGNED	FMM
CHECKED	LAS
DRAWN	SAW
CHECKED	LAS



PROPOSED PROFILE GRADE LINE I-94
(At Inside Edge of Pavement)



LOCATION SKETCH

ILLINOIS DEPARTMENT OF TRANSPORTATION
FAI ROUTE 80 (INTERSTATE 80/94)
INTERSTATE 294 TO US ROUTE 41
GENERAL PLAN
F.A.I. 94 BOX CULVERT
SECTION (0203.1 & 0312-TOBW) R-3
COOK COUNTY
STA. 18+934.000
STRUCTURE NO. 016-C012
DATE JULY 18, 2005
SCALE

BRANCO & ZROKA
ENGINEERING, P.C.