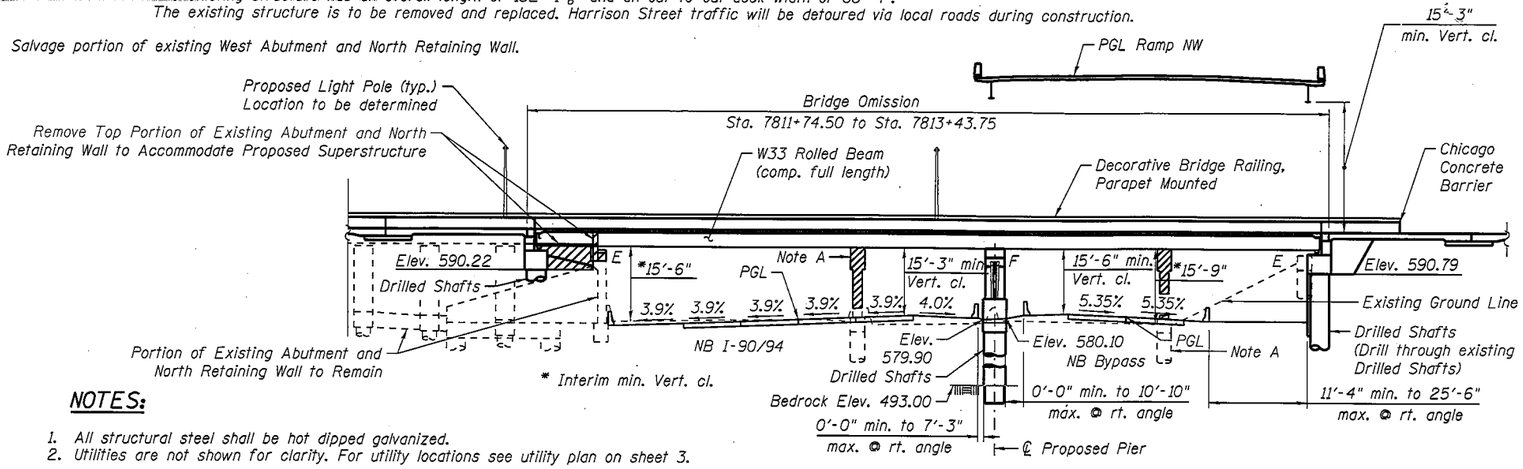
Bench Mark: Cut square at center of door entrance to 707 W. Harrison St; South side of Harrison St. ±90' west of west line of Des Plaines. Elevation 597.47.

Existing Structure: SN 016-1088 was originally built in 1960 as part of the F.A.I. Route No. 4 Project, Section S-2626.2-1B, and reconstructed in 1989 under Section 1985-080 R.
The existing structure is a three (3) span bridge with a reinf. concrete deck supported on steel WF beams.
The existing substructure consists of reinforced concrete abutments and multi column piers founded on sub-piers (reinforced concrete caissons).
The existing structure has an overall length of 152'-1 3/8" and an out-to-out deck width of 68'-4".
The existing structure is to be removed and replaced. Harrison Street traffic will be detoured via local roads during construction.

Salvage portion of existing West Abutment and North Retaining Wall.



ELEVATION

NOTES:

1. All structural steel shall be hot dipped galvanized.
2. Utilities are not shown for clarity. For utility locations see utility plan on sheet 3.

HIGHWAY CLASSIFICATION

F.A.U. Rte. 1429 (Harrison St.)
Functional Class: Collector (Urban)
ADT: 16,800 (2012); 17,000 (2040)
ADTT: 340 (2012); 510 (2040)
DHV: 1,700 (2040)
Design Speed: 25 m.p.h.
Posted Speed: 25 m.p.h.
Two-Way Traffic
Directional Distribution: 50:50

F.A.I. Rte. NB 90/94
Functional Class: Interstate
ADT: 96,700 (2012); 81,000 (2040)
ADTT: 11,220 (2012); 9,400 (2040)
DHV: 4,780 (2040)
Design Speed: 60 m.p.h.
Posted Speed: 45 m.p.h.
One-Way Traffic
Directional Distribution: NA

NB Bypass
Functional Class: Interstate
ADT: NA (2012); 17,000 (2040)
ADTT: NA (2012); 440 (2040)
DHV: 1,680 (2040)
Design Speed: 30 m.p.h.
Posted Speed: NA m.p.h.
One-Way Traffic
Directional Distribution: NA

Ramp NW
Functional Class: Interstate
ADT: 32,500 (2012); 36,000 (2040)
ADTT: 2,480 (2012); 2,750 (2040)
DHV: 2,790 (2040)
Design Speed: 35 m.p.h.
Posted Speed: 20 m.p.h.
One-Way Traffic
Directional Distribution: NA

Ramp NE
Functional Class: Interstate
ADT: 3,100 (2012); 4,000 (2040)
ADTT: 45 (2012); 55 (2040)
DHV: 280 (2040)
Design Speed: 30 m.p.h.
Posted Speed: 20 m.p.h.
One-Way Traffic
Directional Distribution: NA

Note A:
Top portion of the pier to be removed during the construction of Harrison St. Bridge.
Remaining portion to be removed during I-94/90 reconstruction. (Future Contract)

DESIGN SPECIFICATIONS

2012 AASHTO LRFD Bridge Design Specifications, 6th Edition with 2013 Interim Revisions

LOADING HL-93

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

DESIGN STRESSES

FIELD UNITS

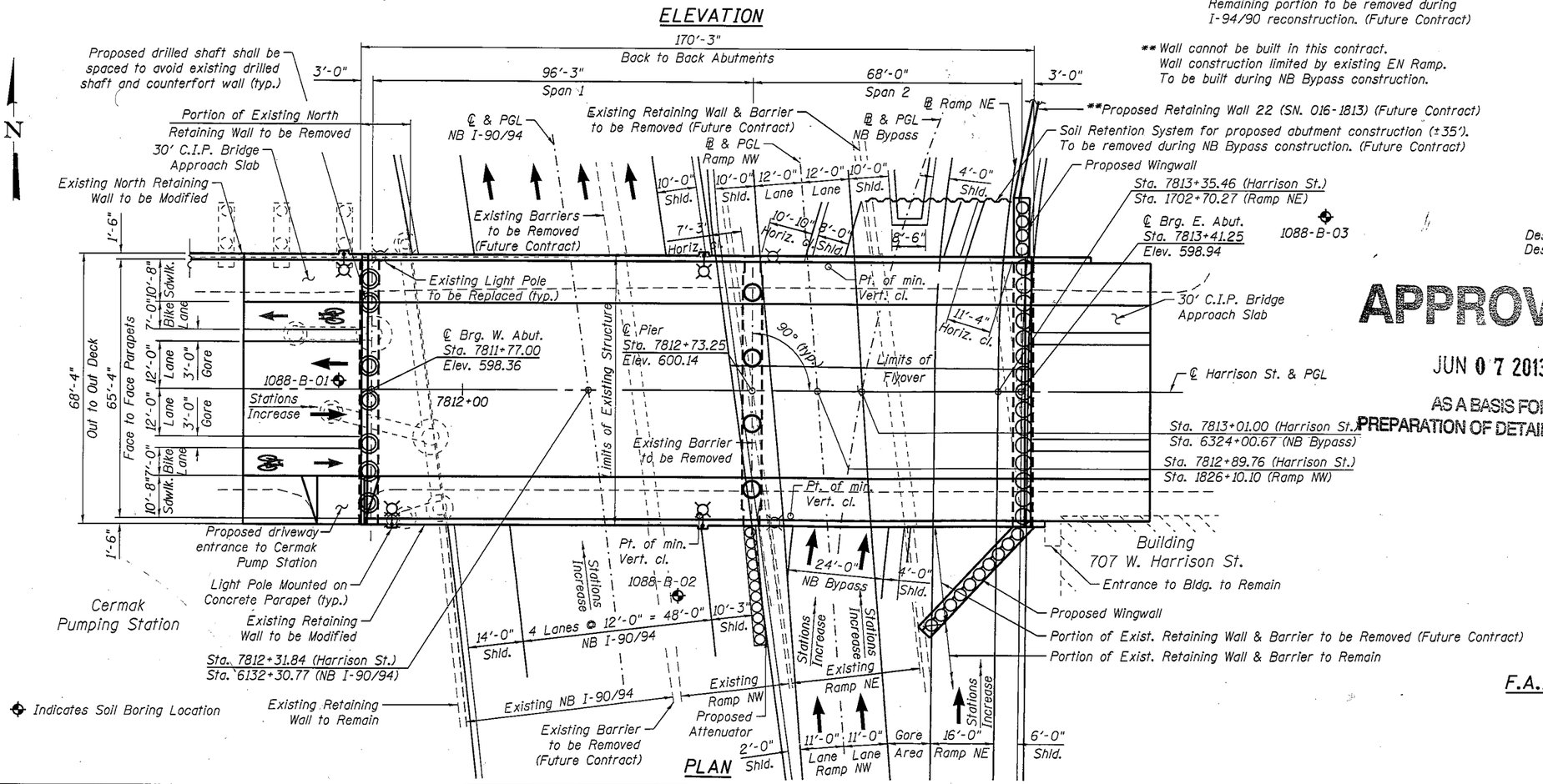
f'c = 3,500 psi
fy = 60,000 psi (Reinforcement)
fy = 50,000 psi (M270 Grade 50)

EXISTING UNITS

f'c = 3,000 psi
fy = 40,000 psi (Reinforcement)

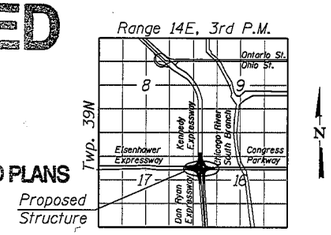
SEISMIC DATA

Seismic Performance Zone (SPZ) = 1
Design Spectral Acceleration at 1.0 sec. (S_{D1}) = 0.085g
Design Spectral Acceleration at 0.2 sec. (S_{DS}) = 0.144g
Soil Site Class = D



PLAN

APPROVED
JUN 07 2013
AS A BASIS FOR PREPARATION OF DETAILED PLANS



LOCATION SKETCH

GENERAL PLAN & ELEVATION
HARRISON ST. OVER
F.A.I. RTE. NB 90/94
(DAN RYAN EXPRESSWAY)
F.A.I. RTE. 90/94 - SECTION 2013-008R
COOK COUNTY
STATION 7812+31.84
STRUCTURE NO. 016-1711

AECOM

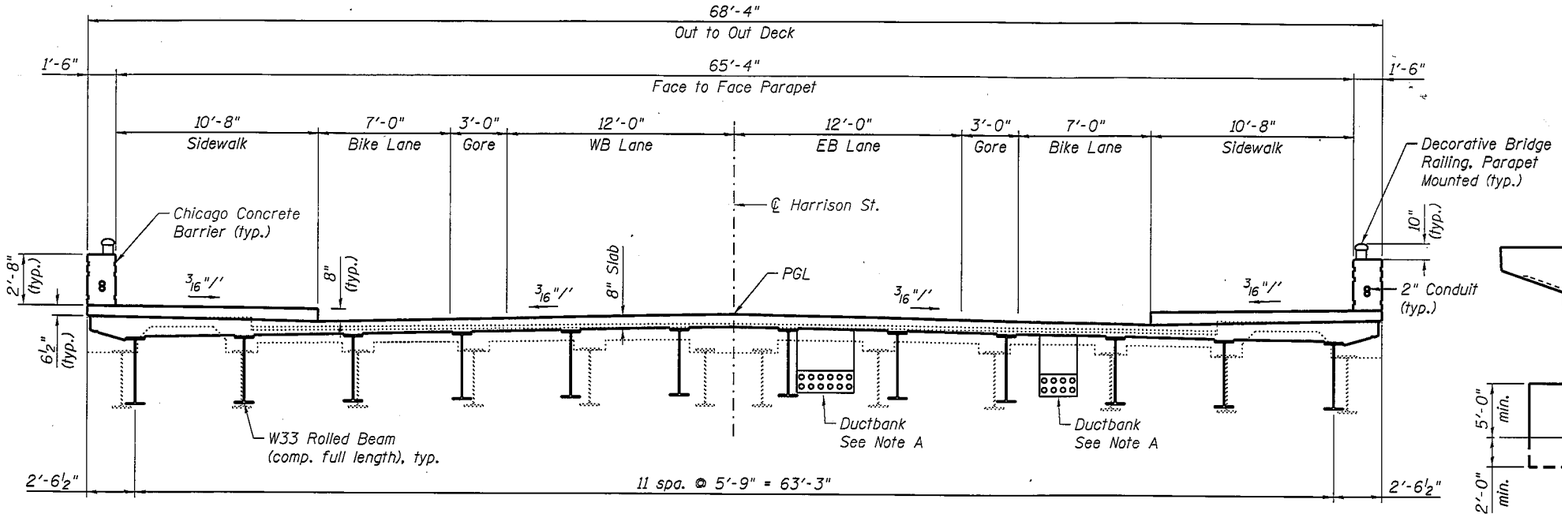
USER NAME = dabezicd	DESIGNED - DD	REVISED	
	CHECKED - EJO	REVISED	
PLOT SCALE = N.T.S.	DRAWN - MRK	REVISED	
PLOT DATE = 5/31/2013	DATE - 02-06-13	REVISED	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SHEET NO. 1 OF 3 SHEETS

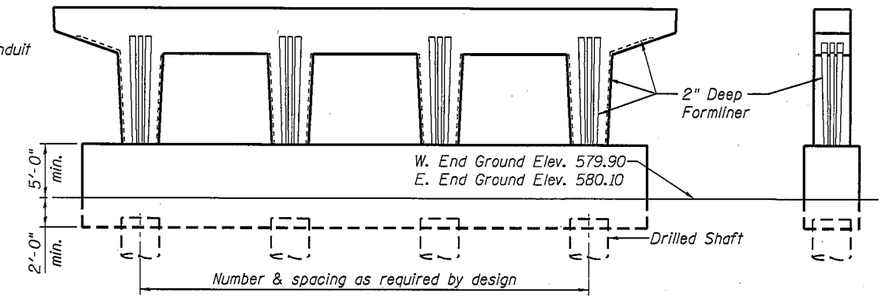
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1429		COOK		
		CONTRACT NO.		
		ILLINOIS FED. AID PROJECT		

016-1711-CIRCLE100-SHT-ACM-ST-TSL-001



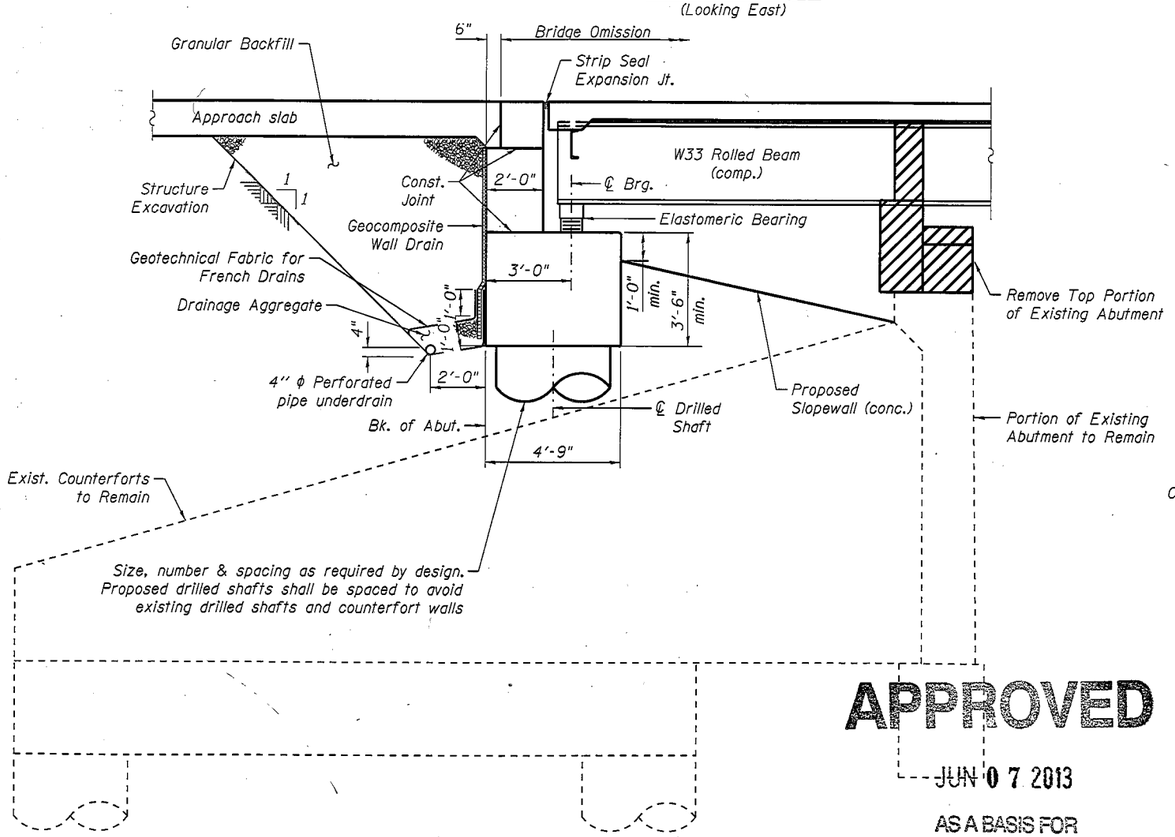
Note A
Existing utilities between girders will be relocated to provide uninterrupted service during construction. Provisions will be made to accommodate the existing utilities into the proposed structure.

CROSS SECTION
(Looking East)

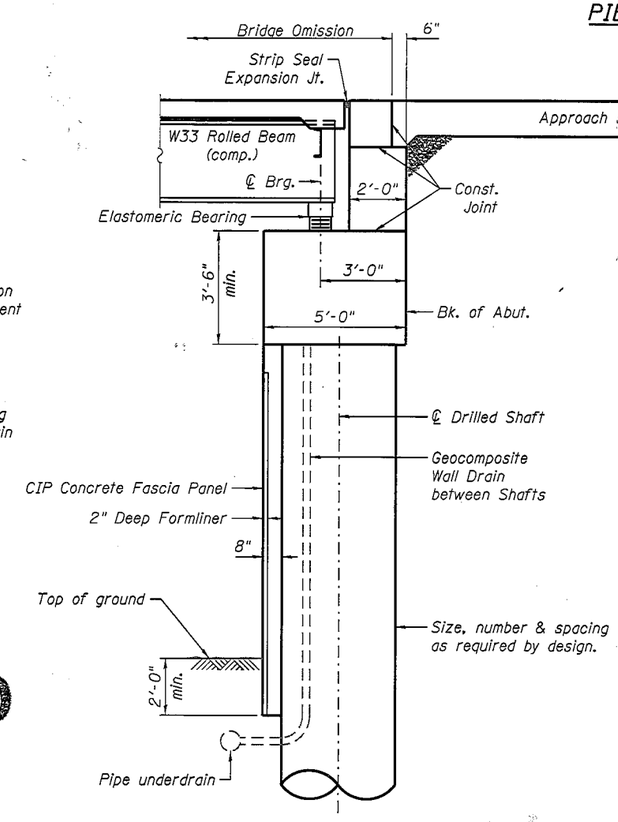


PIER SKETCH

END VIEW



SECTION THRU WEST ABUTMENT



SECTION THRU EAST ABUTMENT

APPROVED
JUN 07 2013
AS A BASIS FOR
PREPARATION OF DETAILED PLANS

CURVE DATA
(F.A.I. Rte. NB 90/94)
Prop. Curve P-KDR-NB-3
P.I. Sta. = 6129+99.47
Δ = 11° 38' 44" (LT)
D = 1° 33' 16"
R = 3,686.00'
T = 375.89'
L = 749.19'
E = 19.12'
e = 3.80%
T.R. = 107'
S.E. Run = 204'
P.C. Sta. = 6126+23.58
P.T. Sta. = 6133+72.77

CURVE DATA
(Ramp NE)
Prop. Curve P-CIR-NE-1
P.I. Sta. = 1705+92.61
Δ = 84° 25' 39" (RT)
D = 16° 30' 42"
R = 347.00'
T = 314.79'
L = 511.32'
E = 121.51'
e = 5.60%
T.R. = 48'
S.E. Run = 136'
P.C. Sta. = 1702+77.82
P.T. Sta. = 1707+89.14

CURVE DATA
(NB Bypass)
Prop. Curve P-NCD-NX-3
P.I. Sta. = 6324+45.57
Δ = 22° 34' 58" (RT)
D = 13° 38' 31"
R = 420.00'
T = 83.86'
L = 165.54'
E = 8.29'
e = 5.20%
T.R. = NA
S.E. Run = 95'
P.C. Sta. = 6323+61.71
P.T. Sta. = 6325+27.25

DETAILS
HARRISON ST. OVER
F.A.I. RTE. NB 90/94
(DAN RYAN EXPRESSWAY)
F.A.I. RTE. 90/94 - SECTION 2013-008R
COOK COUNTY
STATION 7812+31.84
STRUCTURE NO. 016-1711

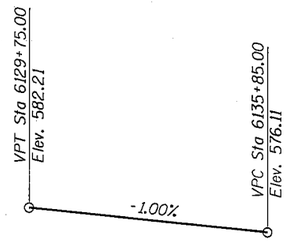
AECOM	USER NAME = dabezicd	DESIGNED - DD	REVISED
		CHECKED - EJO	REVISED
	PLOT SCALE = N.T.S.	DRAWN - MRK	REVISED
	PLOT DATE = 5/31/2013	DATE - 02-06-13	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

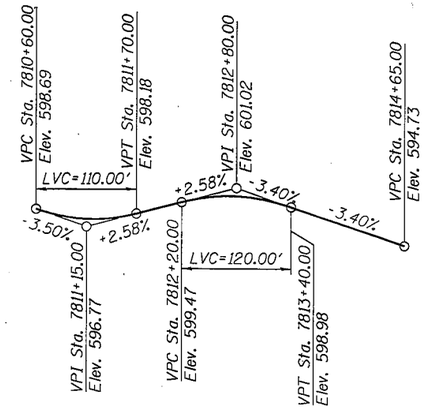
SHEET NO. 2 OF 3 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1429		COOK		
		CONTRACT NO.		
		ILLINOIS FED. AID PROJECT		

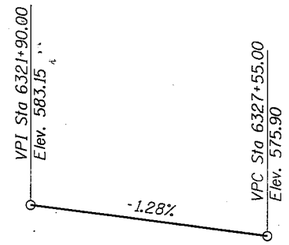
016-1711-CIRCLE100-SHT-ACM-ST-TSL-002



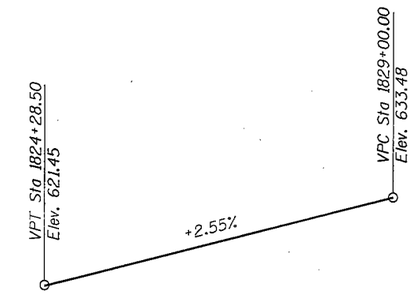
PROFILE GRADE
(along ℄ NB I-90/94)



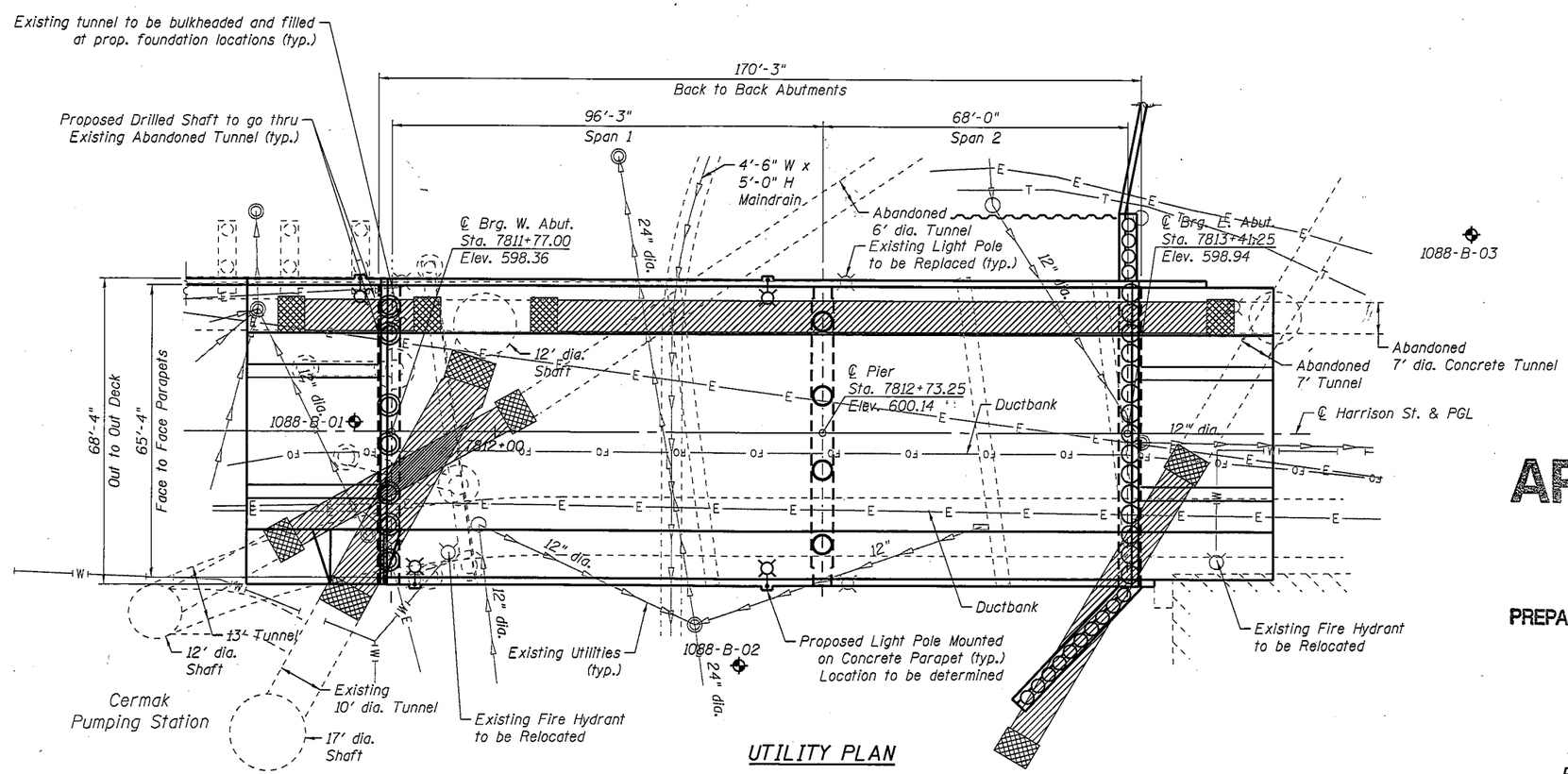
PROFILE GRADE
(along ℄ Harrison)



PROFILE GRADE
(along ℄ NB Bypass)



PROFILE GRADE
(along ℄ Ramp NW)
(Ramp NE profile controlled by Ramp NW over Harrison St.)



UTILITY PLAN

LEGEND:

- Telephone — T —
- Combined Sewer
- Electric — E —
- Fiber Optic — FO —
- Storm Sewer
- Water Line — W —
- Fire Hydrant
- Light Pole
- Soil Boring
- Bulkhead
- Area filled with Grout

APPROVED

JUN 07 2013

AS A BASIS FOR PREPARATION OF DETAILED PLANS

UTILITY PLAN
HARRISON ST. OVER
F.A.I. RTE. NB 90/94
(DAN RYAN EXPRESSWAY)
F.A.I. RTE. 90/94 - SECTION 2013-008R
COOK COUNTY
STATION 7812+31.84
STRUCTURE NO. 016-1711

016-1711-CIRCLE100-SHT-ACM-ST-TSL-003

AECOM

USER NAME = dabezlcd	DESIGNED - DD	REVISED	
	CHECKED - EJO	REVISED	
PLOT SCALE = N.T.S.	DRAWN - MRK	REVISED	
PLOT DATE = 5/31/2013	DATE - 02-06-13	REVISED	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SHEET NO. 3 OF 3 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1429		COOK		
		CONTRACT NO.		
		ILLINOIS FED. AID PROJECT		