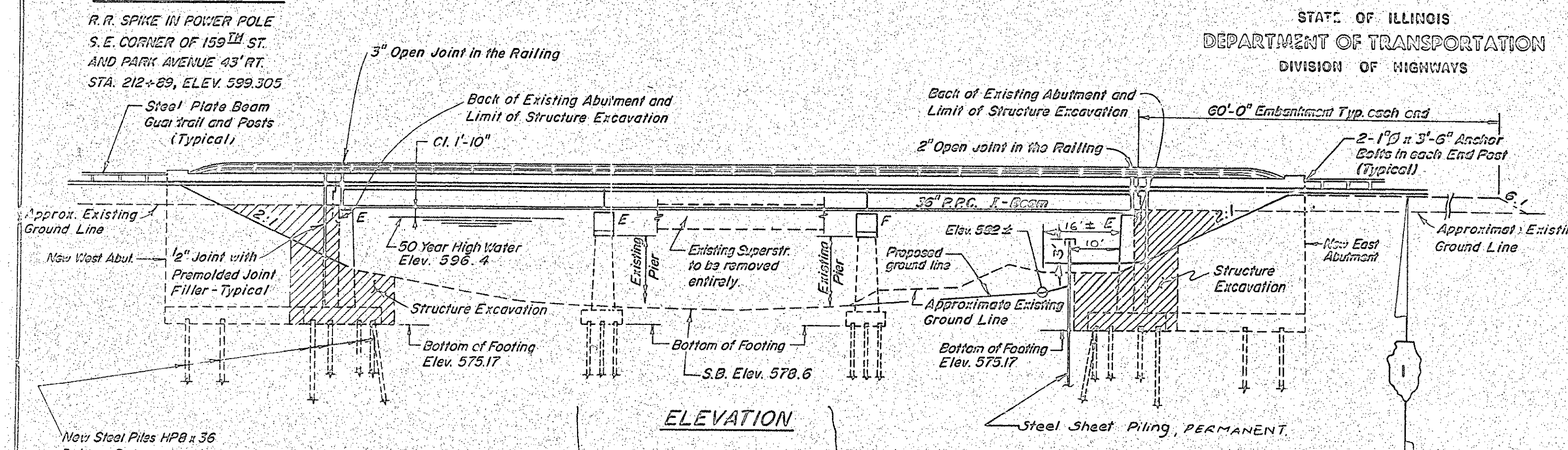
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

FOR INFORMATION ONLY

SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	COOK	177	103

SHEET NO. 1 OF 10 SHEETS

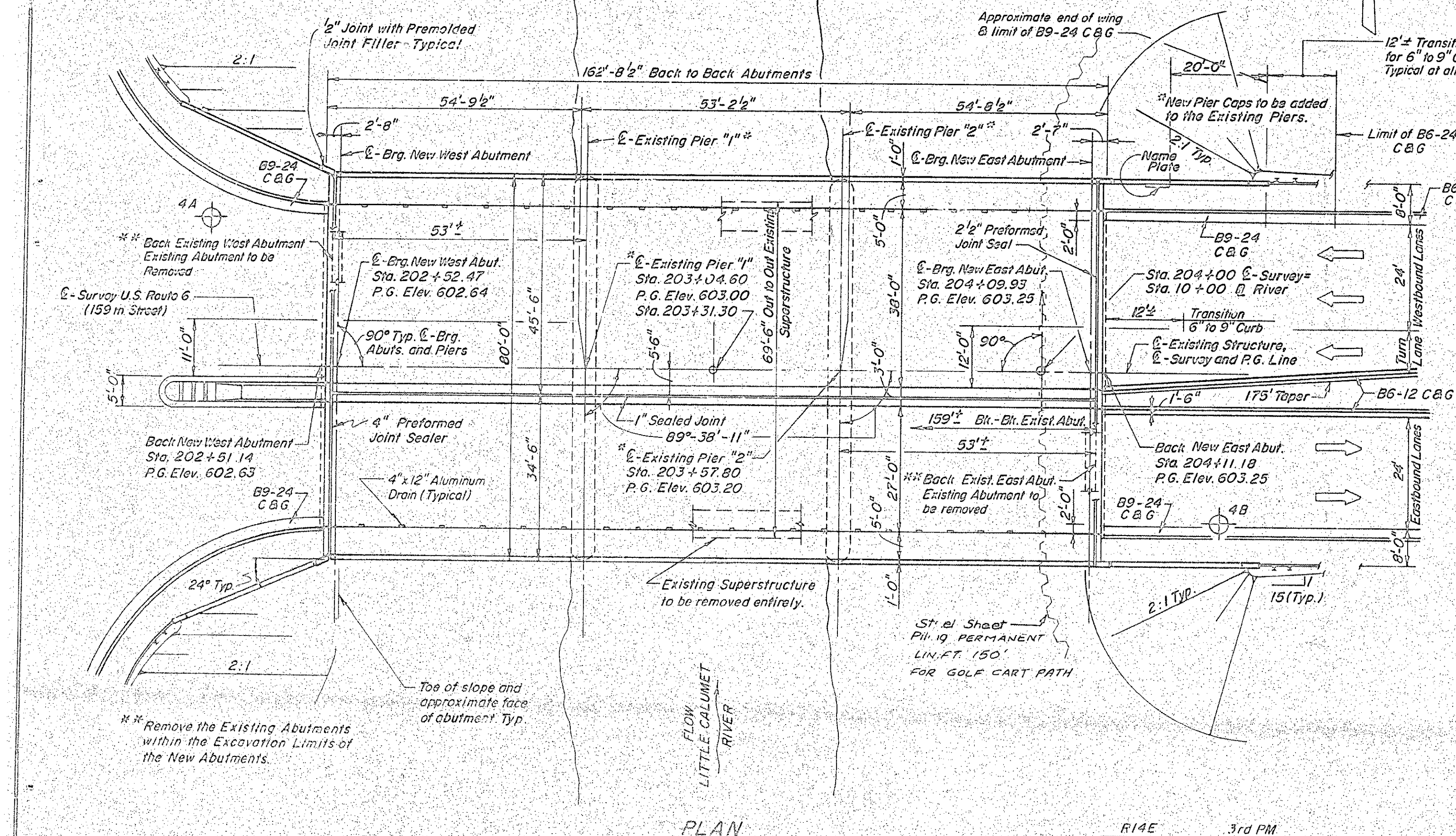
BENCH MARK #7
R.R. SPIKE IN POWER POLE
S.E. CORNER OF 159TH ST.
AND PARK AVENUE 43' RT.
STA. 212+89, ELEV. 599.305

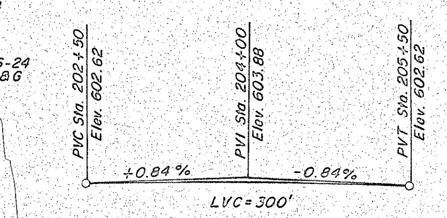


Existing Piles:
Original Structure: 16 ton untreated timber piles (8" tip and 12" butt)
1952 Widening: 20 ton untreated timber piles

STATION 203+31.20 (FAU 1608)
WIDENED 198 BY
STATE OF ILLINOIS
FAU 1608 SEC. 539-BY
F.A. PROJECT IX-5003(704)
LOADING HS 20
*** STRUCTURE No.

BRIDGE NAME PLATE
SEE STD. DWG. 2113
*** Structure No. to be supplied by district





PROFILE GRADE PROPOSED STRUCTURE

TOTAL BILL OF MATERIAL				
ITEM	UNIT	SUPER	SUB	TOTAL
Aluminum Railing - Type L	Lin. Ft.	493.5		493.5
Structure Excavation	Cu. Yd.		5040	5040
Class X Concrete	Cu. Yd.	490.2	1213.5	1567.7
Name Plates	Each	1		1
Porous Granular Embankment	Cu. Yd.		1377	1377
Reinforcement Bars	Pound	55010	150310	105420
Reinforcement Bars - (Epoxy Coated)	Pound	56350		56350
Preformed Joint Seal (4")	Lin. Ft.	01.5		01.5
Preformed Joint Seal (2 1/2")	Lin. Ft.	01.5		01.5
Steel Piles - HP8 x 36	Lin. Ft.		6947	6947
Test Pile Steel - (HP8 x 36)	Each		1	1
Furnishing and Erecting P.P.C. Beams - 36"	Lin. Ft.	2057.0		2057.0
Temporary Sheet Piling	Sq. Ft.		4437	4437
Removal of Existing Superstructure (1)	Each	1		1
Concrete Removal	Cu. Yd.		621.9	621.9
Floor Drains	Each	40		40
Temporary Bridge Rail	Lin. Ft.	162.7		162.7
Repair Concrete Structures (2)	Sq. Ft.	240		240
Traffic Barrier Terminal Type II	Each	2		2
Elastomeric Bearing Assembly Type I	Each	52		52
Protective Coat	Sq. Yd.	1572		1572
Structural Steel	Pound	4,880		4,880

(1) Approximate Volume of Existing Superstructure Concrete is 752 Cubic Yards.

(2) Estimated quantity. Deteriorated surface areas of the existing piers requiring repair shall be specified by the Engineer.

WATERWAY INFORMATION

Regulatory Flood Discharge	8600 cfs
Regulatory Flood Elevation	598.6 Ft.
Existing Opening Below 50 Year High Water	2000 Sq. Ft.
Proposed Opening Below 50 Year High Water	2350 Sq. Ft.
Q (50 Year)	4890 cfs
Created Head (50 Year)	0.07 Ft.
Q (100 Year)	5290 cfs
Created Head (100 Year)	0.08 Ft.
Highwater Elevation (50 Year)	596.4 Ft.
Highwater Elevation (100 Year)	597.0 Ft.

Existing Superstructure:
Reinforced Concrete Deck Girder, 69.5' out to out deck, 3 - spans at 53'±, 2-27' roadways, 4' mountable median and sidewalks with metal railing.

Existing Substructures:
Reinforced Concrete Abutments and Piers supported on untreated timber piles.

DESIGN STRESSES

FIELD UNITS

f'c = 1,000 psi, fs = 20,000 psi, Substructure with earth pressure
f'c = 1,400 psi, fs = 20,000 psi, Substructure without earth pressure
f'c = 3,500, fy = 60,000 psi, Deck Slab, Curb & Parapet (Epoxy Coated Bars in Top of Slab)
vc = 56 psi Footings
n = 9

For General Notes See Sheet No. 4

PRECAST PRESTRESSED UNITS

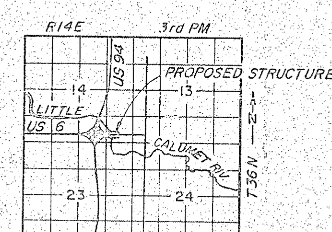
f'c = 5000 psi
f'ci = 4000 psi
f's = 270,000 psi, 1/2" Ø Strands
fsi = 189,000 psi, 1/2" Ø Strands
fy = 60,000 psi (Nonprestressed reinforcement) except as noted

LOADING HS 20-44

Allow 25 P.S.F. for Future Wearing Surface

DESIGN SPECIFICATIONS

AASHTO 1977 and Interims (1978 & 1979)



LOCATION SKETCH

LOUIS PAUL MOECK
3359
REGISTERED STRUCTURAL ENGINEER OF ILLINOIS

DESIGNED	Samano
CHECKED	Capshaw
DRAWN	[illegible]
CHECKED	FS

BRIGHTON ENGINEERING COMPANY CONSULTING ENGINEERS SCHAUMBURG, ILLINOIS

GENERAL PLAN AND ELEVATION

PROJECT IX-5003(704) SEC. 539-BY
FAU 1608 (159th ST.) OVER LITTLE CALUMET RIVER
COOK COUNTY
STA. 203+31.20

FILE NAME =	USER NAME = guillaumefp	DESIGNED -	REVISED -
cs\pw_work\pwidot\guillaumefp\d0188275\D152610-sht-plan.dgn		DRAWN -	REVISED -
	PLOT SCALE = 50.0000 ' / IN.	CHECKED -	REVISED -
	PLOT DATE = 4/12/2011	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN AND ELEVATION
STRUCTURE NO. 016-0389

SCALE: | SHEET NO. OF SHEETS | STA. TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	539 W-1-RS	COOK	56	43

CONTRACT NO. 60K57

ILLINOIS FED. AID PROJECT