B.M. A 2" aluminum cap grouted in concrete median 308' north of the bridge, Elev. 757.53

Existing Structure: SN 016-0676 built in 1957 as Meacham Rd., Section TI-7.
The the southbound deck was overlayed and a northbound bridge was constructed in 1974.

The superstructure consists of four simple spans with 48" Prestressed Concrete Beams.
The substructure consists of two pile bent abutments and three multi-column piers.
The abutments and northbound piers are on 12" Cast-In-Place Concrete Piles.
The southbound piers are on 36" Concrete Piles (Raymond Piles).
Skewed at 5°-17'-50", 223'-2" Bk. to Bk. abutments. and 86'-0" O.-O. deck.

The southbound concrete deck slab to be removed and replaced.
The northbound concrete deck slab to be patched and overlayed.
See Scope of Work.

Traffic to be maintained using stage construction.

Salvage Aluminum Handrailing
(See General Notes on Sheet S-2).

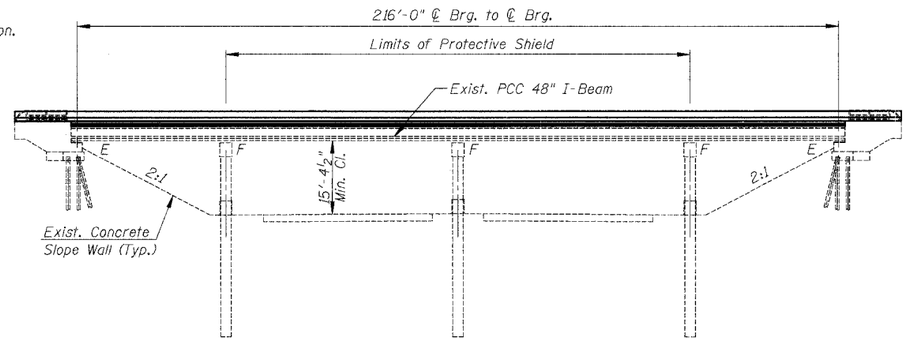
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.U. RTE. 2585	**	COOK	30	10
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT	

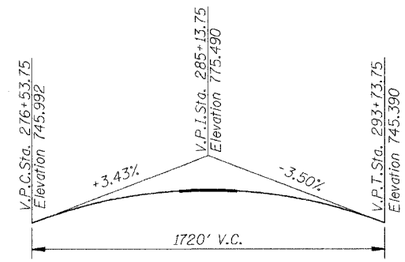
** 05-00068-02-BR CONTRACT No. 83800

SHEET NO. S-1 OF S-21 SHEETS

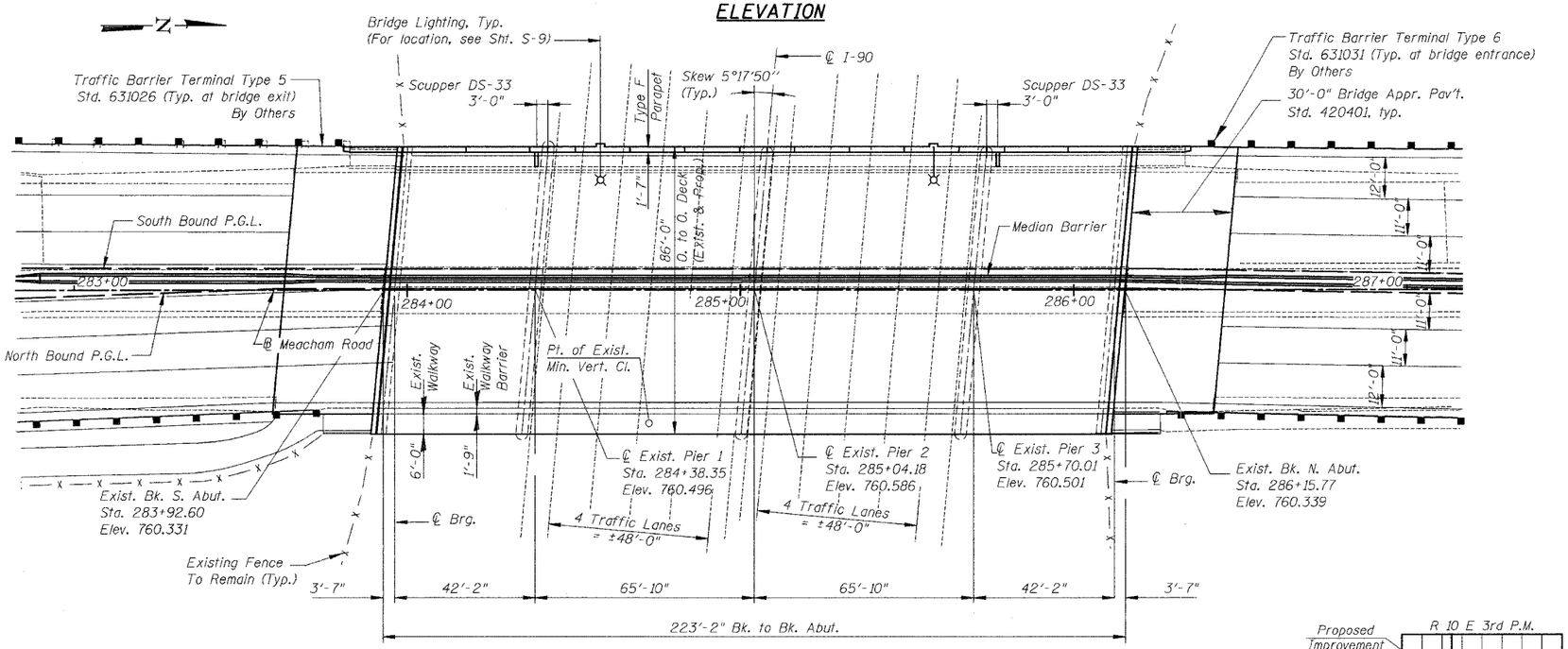
INDEX OF SHEETS



ELEVATION



MEACHAM ROAD
SOUTHBOUND AND NORTHBOUND
PROFILE GRADE



PLAN

SCOPE OF WORK

1. Remove and replace the southbound deck and overlay. Remove the southbound sidewalk and replace it with a Type-F parapet and add an additional median barrier.
2. Patch and overlay northbound deck. Repair cracks and spalls on the north bound sidewalk barrier, patch scaling and hollow conc. in NB sidewalk, and install new pedestrian railing.
3. Remove and replace approach slab.
4. Modify abutment backwalls for wider approach slabs.
5. Remove and replace expansion joints at abutments.
6. Remove loose, detrimental, foreign material from the abutment seats.
7. Jack and reposition the exist. sliding plate bearing under Beam 2 on South Abut.
8. Remove all abandoned utilities attached to N. Abutment and northeast wingwall.

I CERTIFY THAT TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF, THIS BRIDGE/BOX CULVERT DESIGN IS STRUCTURALLY ADEQUATE FOR THE DESIGN LOADING SHOWN ON THE PLANS. THE DESIGN IS AN ECONOMICAL ONE FOR THE STYLE OF STRUCTURE AND COMPLIES WITH REQUIREMENTS OF THE CURRENT "AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES".

APPROVED
FOR STRUCTURAL ADEQUACY ONLY
Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

STATE OF ILLINOIS · ROBERT A. LEE · 081-005246 · CHICAGO, IL · LICENSED STRUCTURAL ENGINEER
4/14/05

ROBERT A. LEE
LICENSED STRUCTURAL ENGINEER
NO. 081-005246
LICENSE EXPIRES ON NOV. 30, 2006

SEISMIC DATA

Seismic Performance Category (SPC) = A
Bedrock Acceleration Coefficient (A) = 0.04g
Site Coefficient (S) = 1.0

BRIDGE RATING

Inventory Rating = 23.9
Operating Rating = 38.3

HIGHWAY CLASSIFICATION

F.A.P. Rte. 876
Functional Class: Principal Arterial
ADT: 24,100 to 27,000 (1998)
ADT: 29,565 (2016)
DHV: Unknown
Design Speed: 40 m.p.h.
Posted Speed: 40 m.p.h.

LOADING HS20-44

Allow 25#/sq. ft. for future wearing surface.

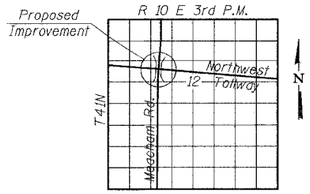
DESIGN SPECIFICATIONS

2002 AASHTO Standard Specifications for Highway Bridges, 17th Edition
2002 IDOT Bridge Manual
2000 ISTHA Bridge Design Criteria

DESIGN STRESSES

FIELD UNITS

f'_c = 3,500 psi
f'_c = 5,000 psi (existing precast beams)
f_y = 60,000 psi (reinforcement)
f_y = 40,000 psi (existing reinforcement)



LOCATION SKETCH

GENERAL PLAN

MEACHAM ROAD OVER NORTHWEST TOLLWAY

F.A.U. ROUTE 2585 SECTION 05-00068-02-BR

COOK COUNTY

STA. 285+04.18

STRUCTURE NO. 016-0676

MACTEC

DESIGNED: SCHELBIAN/AYARGICOGLU
DRAWN: SCHELBIAN/AYARGICOGLU
CHECKED: RALEE

Date: 4/14/05