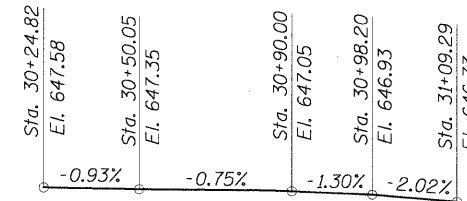
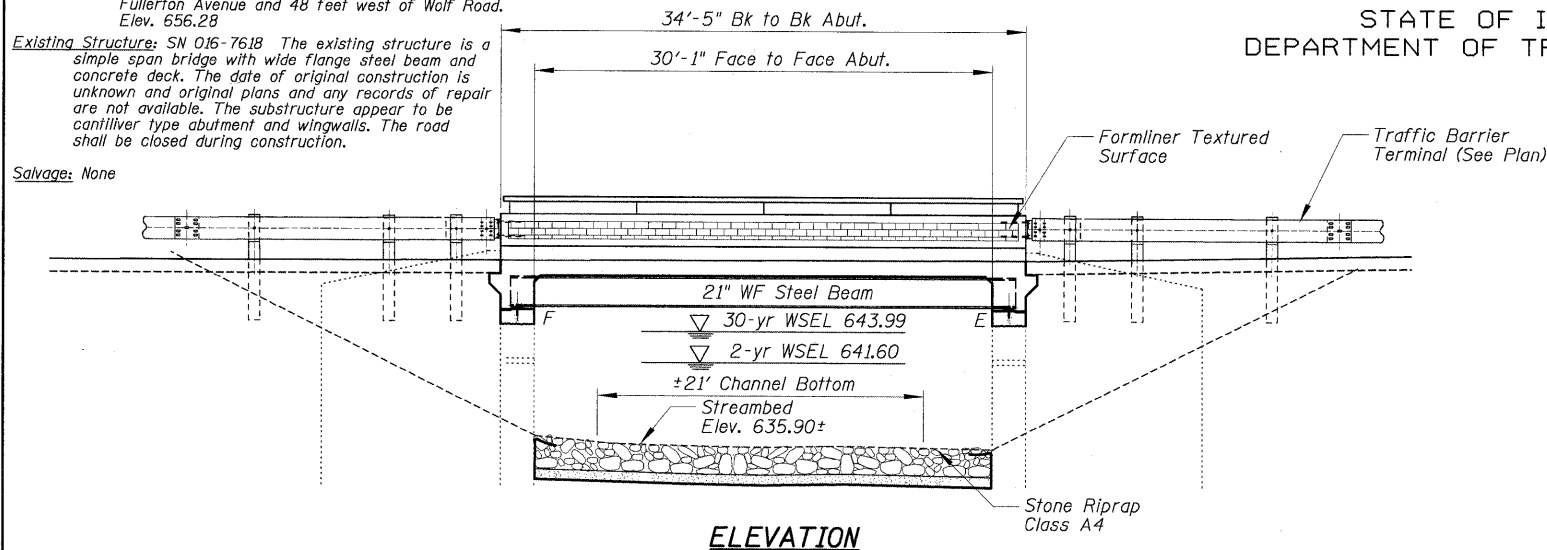


Bench Mark: BM 29C Monument at NW corner of Wolf Road and Fullerton Avenue and 48 feet west of Wolf Road. Elev. 656.28

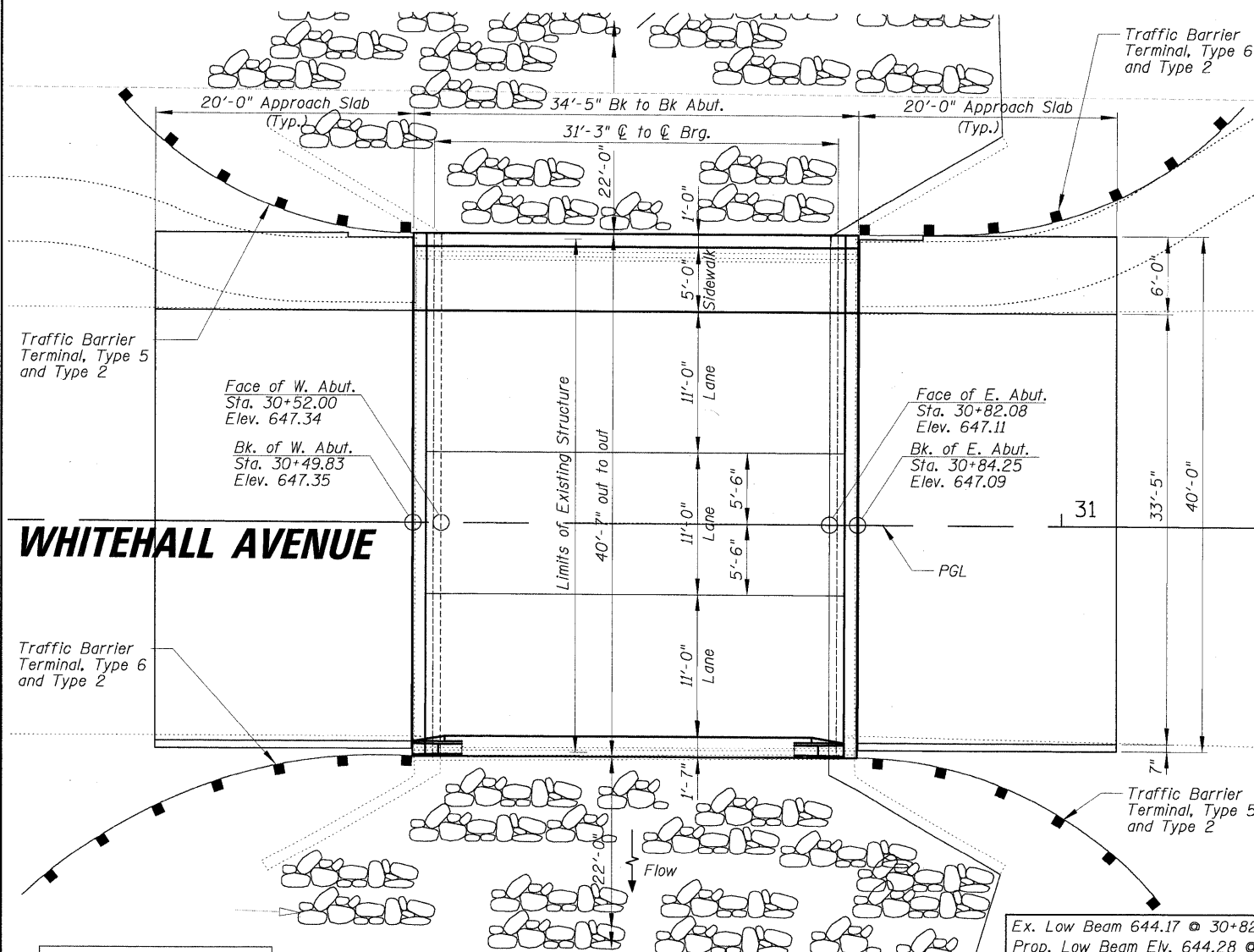
Existing Structure: SN 016-7618 The existing structure is a simple span bridge with wide flange steel beam and concrete deck. The date of original construction is unknown and original plans and any records of repair are not available. The substructure appear to be cantilever type abutment and wingwalls. The road shall be closed during construction.

Salvage: None

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



ELEVATION



WHITEHALL AVENUE

PLAN

PROFILE GRADE

ADDISON CREEK
BUILT BY
COOK COUNTY
SEC. 09-00071-00-BR
F.A. RT. 4025 STA. 30+67.04
STR. NO. 016-7618 LOADING HS-20

NAME PLATE

I Certify That To The Best Of My Knowledge, Information And Belief, This Bridge 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 Specification For Highway And Bridges".



12/16/2009
Majid Mobasseri
MAJID MOBASSERI
ILLINOIS REGISTRATION No. 081-005058
STRUCTURAL ENGINEER
EXPIRATION DATE: 11/30/10

DESIGN SCOUR ELEVATION TABLE

Flood Frequency/ Depth Elevation	West Abut.	East Abut.
100 year/ Scour Depth Elevation (ft.)	625.5	622.9
500 year/ Scour Depth Elevation (ft.)	623.7	621.0

WATERWAY INFORMATION

Ex. Low Beam 644.17 @ 30+82.08 Ex. Low Grade 647.23 @ 30+82.08 Drainage Area = 8.1 mi²
Prop. Low Beam Elev. 644.28 @ 30+82.08 Prop. Low Grade Elev. 647.11 @ 30+82.08

Flood	Freq. Yr.	Q cfs	Opening ft ²		Nat. H.W.E.	Head - ft		Headwater El.	
			Exist.	Prop.		Exist.	Prop.	Exist.	Prop.
Design	30	335	252	273	643.33	0.01	0.01	643.34	643.34
	50	353	280	280	644.19	0.02	0.02	644.21	644.21
Base	100	481	298	298	644.77	0.03	0.03	644.80	644.80
Max. Calc.	500	840	342	342	646.05	0.18	0.18	646.23	646.23

DESIGNED -	200	EXAMINED	ENGINEER OF BRIDGE DESIGN
CHECKED -		PASSED	ENGINEER OF BRIDGES AND STRUCTURES
DRAWN -			
CHECKED -			

INDEX OF SHEETS

- S1 General Plan and Elevation
- S2 General Notes
- S3 Top Of Deck Elevations - 1
- S4 Top Of Deck Elevations - 2
- S5 Top Of Approach Slab Elevations
- S6 Deck Plan And Cross Section
- S7 Superstructure Details
- S8 Diaphragm Details
- S9 Aluminum Railing, Type L
- S10 Framing Plan Details
- S11 Steel Details
- S12 Existing Abutment
- S13 Proposed Abutment
- S14 Bridge Approach Slab Details -1
- S15 Bridge Approach Slab Details -2

LOADING HS20-44

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

DESIGN SPECIFICATIONS

2002 AASHTO Bridge Design Specifications

DESIGN STRESSES

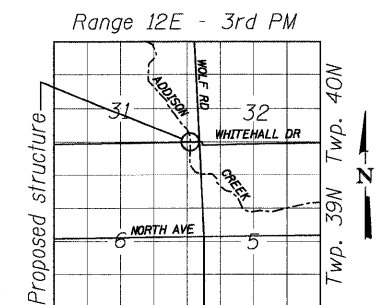
FIELD UNITS

Reinforced Concrete:
f'c = 3,000 psi (Existing)
f'c = 3,500 psi (New)

Reinforcement:
fy = 40 ksi (Existing)
fy = 60 ksi (New)
fy = 50 ksi (Structural Steel, M270 Gr50) (New)

SEISMIC DATA

Seismic Performance Zone (SPZ) = A
Horizontal Bedrock Acceleration Coefficient (A) = 0.036g
Site Coefficient (S) = 1.2



LOCATION SKETCH

GENERAL PLAN AND ELEVATION
WHITEHALL AVENUE OVER
ADDISON CREEK
F.A. RTE. 4025
SECTION 09-00071-00-BR
COOK COUNTY
STATION 30+67.04
STRUCTURE No. 016-7618

SHEET NO. S-1 SHEETS	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	4025	09-00071-00-BR	COOK	31	13
CONTRACT NO. 63437					
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					