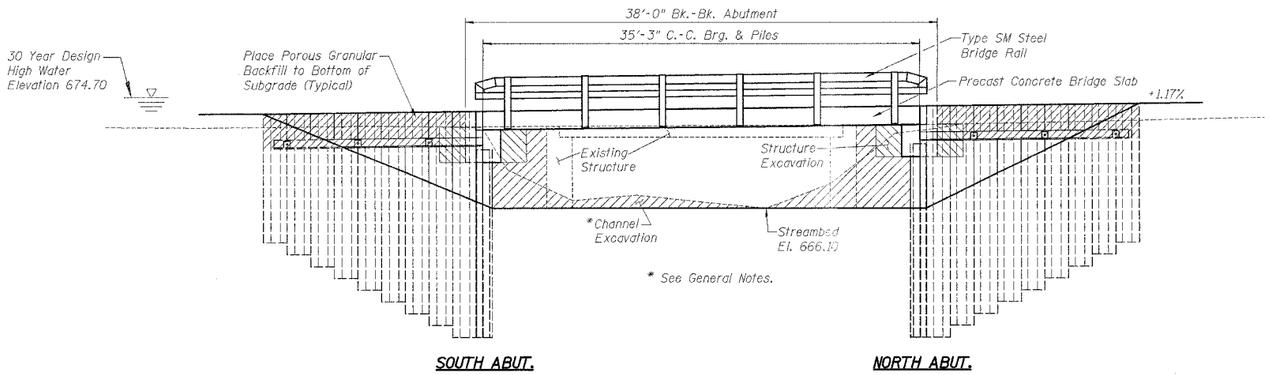
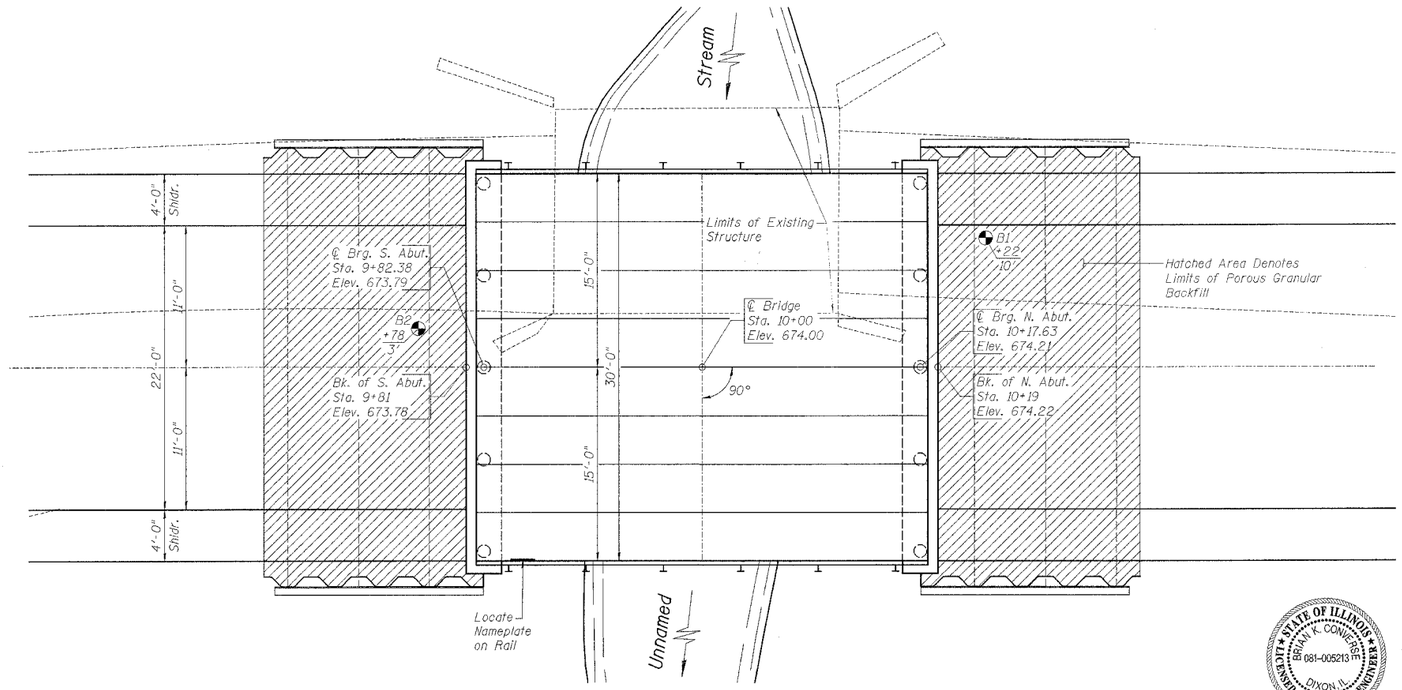
ROUTE NO.	SECTION 03-08111-00-BR	TOTAL SHEETS	SHEET NO.
F. A.	COUNTY OGLE	10	4
ILLINOIS PROJECT BROS-141(60)			

EXISTING STRUCTURE: S.N. 071-3125
A Single Span (1 @ 20'-0") R.C. Slab On Steel Stringers and Closed Concrete Abutments. To Be Removed. No Salvage.

BENCH MARK: Chisled "□" on N.W. Wingwall of Exist. Bridge, 22' Lt. Sta. 10+11. El. 672.65



ELEVATION



PLAN VIEW

BILL OF MATERIAL - BRIDGE

ITEM	UNIT	SUB	SUPER	TOTAL
Porous Granular Backfill	Cu. Yd.	———	143	143
Removal Of Existing Structures	Each	———	———	1
Channel Excavation	Cu. Yd.	51	———	51
Structure Excavation	Cu. Yd.	105	———	105
Concrete Structures	Cu. Yd.	21.7	———	21.7
Precast Concrete Bridge Slab	Sq. Ft	———	1077.5	1077.5
Furnishing & Erecting Structural Steel	Pound	5130	———	5130
Steel Rail, Type SM	Foot	———	72	72
Hardware	Pound	1210	———	1210
Reinforcement Bars	Pound	2260	———	2260
Furnishing Metal Pile Shells-12"	Foot	264	———	264
Driving & Filling Shells	Foot	264	———	264
Test Piles - Metal Shell	Each	2	———	2
Steel Sheet Piling	Sq. Ft	2815	———	2815
Name Plates	Each	———	1	1

UNNAMED STREAM
BUILT 2005 BY
GRAND DETOUR TOWNSHIP
& OGLE COUNTY
SECTION 03-08111-00-BR
F.A. PROJ. BROS-141(60)
LOADING HS20 STR. 071-3328

NAME PLATE LETTERING
Refer To Std. 515001

DESIGN STRESSES
FIELD (LOAD FACTOR)
f'c = 3,500 P.S.I.
fy = 60,000 P.S.I. (Reinf.)
fy = 36,000 P.S.I. (Struct. Steel)

PRECAST BRIDGE SLAB
f'c = 4,500 psi.
fc = 1,800 psi.
fy = 60,000 psi.
n = 8

DESIGN SPECIFICATIONS
Designed in accordance with A.A.S.H.T.O. Spec. dated 2002

LOADING HS20-44
Allow 50#/Sq. Ft. for future wearing surface.

GENERAL NOTES

See Proposal For Boring Data.

Reinforcement Bars Shall Conform To The Requirements Of AASHTO M-31, M-42, Or M-53 Grade 60.

Backfill Shall Be Placed Behind Abutments After Deck Beams Are Set And Grouted And Tie-Rods In Place. Refer To Article 502.10 Of The Standard Specifications.

Contractor Shall Drive One Metal Shell Test Pile In A Permanent Location At The North And South Abutments As Directed By Engineer Before Ordering The Remainder Of Piles.

Steel Sheet Piling For Abutments Is Based On The Use Of PZ-22 Sheet Piling. The Substitution Of An Alternate Type Of Steel Sheet Piles Must Be Approved By The Engineer And Must Have Equal Or Greater Section Properties. (Minimum Sx = 18.1 Cubic Inches Per Foot Of Wall) No Additional Compensation For Alternate Will Be Allowed.

See Special Provisions For Field Painting Of Exposed Portions Of Steel Sheet Piling, Waiers, & 1/4" Cap Plate.

Channel To Be Transitioned To Fit Proposed Structure Inside Right Of Way. Cost Shall Be Included In Price Per Cubic Yard For "Channel Excavation".

The Aluminum Epoxy Mastic /Acrylic Paint System Shall Be Used For Shop And Field Painting Of New Structural Steel Except Where Otherwise Noted. The Color Of The Acrylic Finish Shall Be Light Grey Munsell No. 10Y 7/1, See Special Provisions "Cleaning And Painting New Metal Structures".

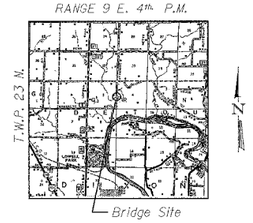
WATERWAY INFORMATION

DRAINAGE AREA	4.5 Sq. Mi.
DESIGN DISCHARGE (30 YR.)	1600 C.F.S.
EXISTING OPENING	96 Sq. Ft.
REQUIRED OPENING	192 Sq. Ft.
PROPOSED OPENING	192 Sq. Ft.
CREATED HEAD (30 YR.)	< 0.5'
100 YR. DISCHARGE	2130 C.F.S.
CREATED HEAD (100 YR.)	< 1.0'
HIGH WATER ELEV. (100 YR.)	675.2 Ft.

STATE OF ILLINOIS
BRIAN K. CONVERSE
081-005213
DIXON, IL
REGISTERED STRUCTURAL ENGINEER

Brian K. Converse
DATE: 1/25/05
EXPIRES 11/30/06

"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 Complies With Requirements Of The Current 'AASHTO Standard Specifications For Highway Bridges'."



LOCATION SKETCH

GENERAL PLAN AND ELEVATION
ANTERIOR ROAD OVER UNNAMED STREAM
SECTION 03-08111-00-BR
STA. 10+00 (S.N. 071-3328)
OGLE COUNTY

WILLETT HOFMANN & ASSOCIATES, Inc.
Consulting Engineers
WHA #1024D03

DESIGNED BY: B.K. Converse DATE: 5/03
CHECKED BY: M.R. Leslie DATE: 5/03
DRAWN BY: F.D. Lachat DATE: 5/03