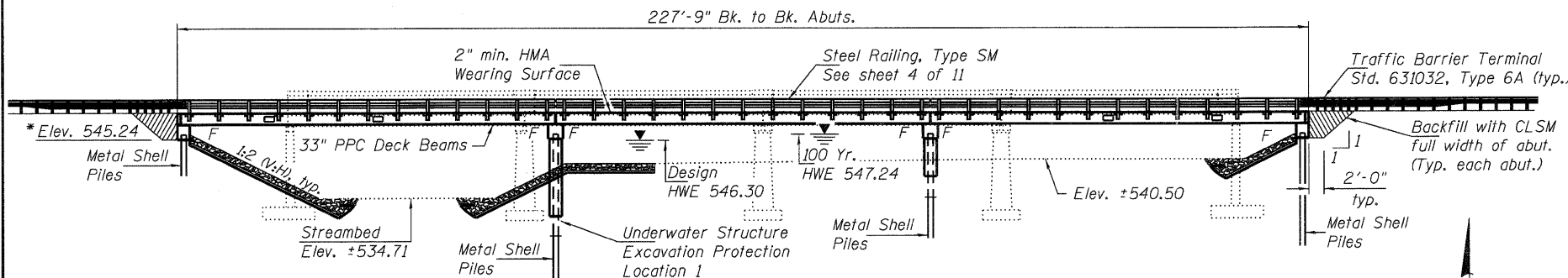


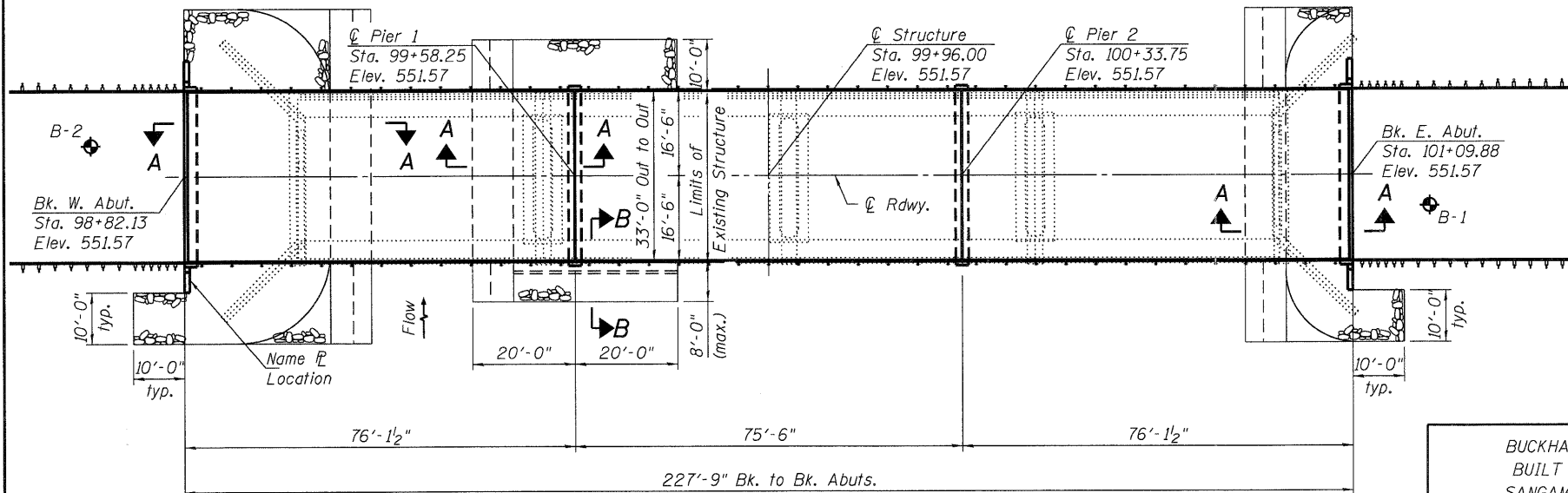
Bench Mark: BM "1" PK. nail in power pole S. of pavement, Sta. 88+74, 28' Rt., Elev. 560.55

Existing Structure: SN 084-0080, 4 span PPC Deck Beam bridge on concrete abutments and solid wall concrete piers on timber piles. 192'-0" back-to-back of abutments, 33'-0" out-to-out. Road to be closed during construction.

No Salvage



ELEVATION



PLAN

DESIGN SCOUR ELEVATION TABLE

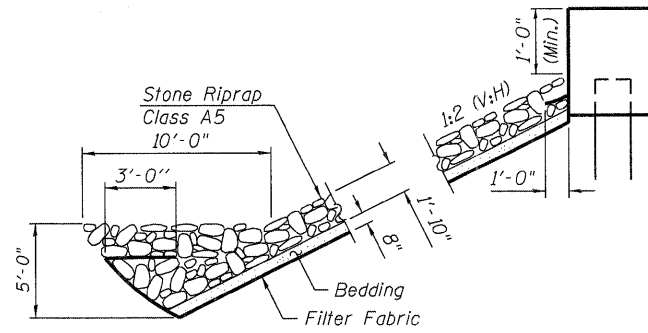
Design Scour Elevation (ft.)	W. Abut.	Pier 1	Pier 2	E. Abut.
	545.24	531.00	534.50	545.24

PROPOSED PROFILE GRADE
(Along C/L CH 4)

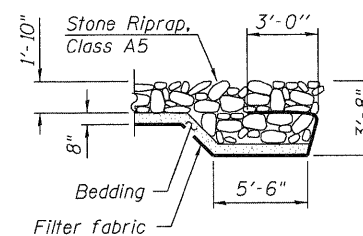
Construction Permits: The requirements of the IDNR - Office of Water Resources have been fulfilled in accordance with Statewide Permit No. 2.

WATERWAY INFORMATION

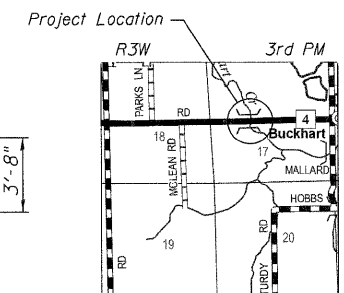
Flood	Freq. Yr.	Q	Opening Sq. Ft.		Head - Ft.		Headwater El.		
			Exist.	Prop.	H.W.E.	Exist.	Prop.	Exist.	Prop.
Design	30	5,658	1,337	1,462	546.3	0.16	0.09	546.46	546.39
Base	100	7,440	1,582	1,735	547.24	0.5	0.4	547.74	547.64
Max. Calc.	500	9,820	1,874	2,012	548.4	0.87	0.72	549.27	549.12



SECTION A-A



SECTION B-B



LOCATION SKETCH

INDEX OF SHEETS

- General Plan and Elevation
- 3. PPC Deck Beam Details
- Superstructure Details
- Steel Railing, Type SM
- Abutments
- Pier 1
- Pier 2
- Metal Shell Pile Details
- 11. Soil Boring Logs

GENERAL NOTES

Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60. Reinforcement bars designated (E) shall be epoxy coated. Layout of slope protection system may be varied in the field to suit ground conditions as directed by the Engineer. The Contractor shall drive test piles to 110% of nominal bearing specified in production locations at substructures specified or approved by the Engineer before ordering the remainder of piles.

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Channel Excavation	Cu. Yd.		320	320
Stone Riprap, Class A5	Sq. Yd.		770	770
Filter Fabric	Sq. Yd.		770	770
Hot-Mix Asphalt Surface Course, Mix "C", N50	Ton	120		120
Removal of Existing Structures	Each			1
Structure Excavation	Cu. Yd.		287	287
Concrete Structures	Cu. Yd.		108.1	108.1
Concrete Encasement	Cu. Yd.		5.8	5.8
Precast Prestressed Concrete Deck Beams (33" Depth)	Sq. Ft.	7,467		7,467
Reinforcement Bars, Epoxy Coated	Pound		13,470	13,470
Steel Railing, Type SM	Foot	456		456
Furnishing Metal Shell Piles 14" x 0.312"	Foot		1,690	1,690
Driving Piles	Foot		1,690	1,690
Test Pile Metal Shells	Each		2	2
Name Plates	Each			1
Waterproofing Membrane System	Sq. Yd.	830		830
Portland Cement Mortar Fairing Course	Foot	1,360		1,360
Controlled Low-Strength Material	Cu. Yd.		70.3	70.3
Underwater Structure Excavation Protection - Location 1	Each		1	1
Mechanical Splicers	Each		56	56

LOADING HL-93

50 psf future wearing surface

DESIGN SPECIFICATIONS

AASHTO LRFD 5th Edition with 2010 Interim Specifications

DESIGN STRESSES

FIELD UNITS

f'c = 3,500 psi

f'y = 60,000 psi (Reinforcement)

PRECAST PRESTRESSED UNITS

f'c = 6,000 psi

f'ci = 5,000 psi

f's = 270,000 psi (1/2" low-lax strands)

f'si = 201,960 psi (1/2" low-lax strands)

SEISMIC DATA

Seismic Performance Zone (SPZ) = 1
Design Spectral Acceleration at 1.0 sec. (S_{D1}) = 0.15g
Design Spectral Acceleration at 0.2 sec. (S_{D5}) = 0.29g
Soil Site Class = D



BUCKHART CREEK
BUILT 20 BY
SANGAMON COUNTY
SEC. 08-00119-04-BR
F.A.S. 556 STA. 99+96
STR. NO. 084-0480 LOADING HL93

NAME PLATE
See Std. 515001

GENERAL PLAN AND ELEVATION
C.H. 4 (F.A.S. 556)
OVER BUCKHART CREEK
SECTION 08-00119-04-BR
SANGAMON COUNTY
STRUCTURE NO. 084-0480

USER NAME = dhaberling	DESIGNED - TJZ	REVISED -
FILE NAME = D6_SNB848480.dgn	CHECKED - SDS	REVISED -
PLOT DATE = 9/8/2011	DRAWN - DLH	REVISED -
PLOT TIME = 6:59:13 AM	CHECKED - TJZ/SDS	REVISED -

WHKS & CO.
ENGINEERING
7018 KINGSMILL CT.,
SPRINGFIELD, IL
(217) 483-9457
DESIGN FIRM #184001036

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

F.A.S. RTE. 556	SECTION 08-00119-04-BR	COUNTY SANGAMON	TOTAL SHEETS 25	SHEET NO. 8
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CONTRACT NO. 93556	ILLINOIS FED. AID PROJECT
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