

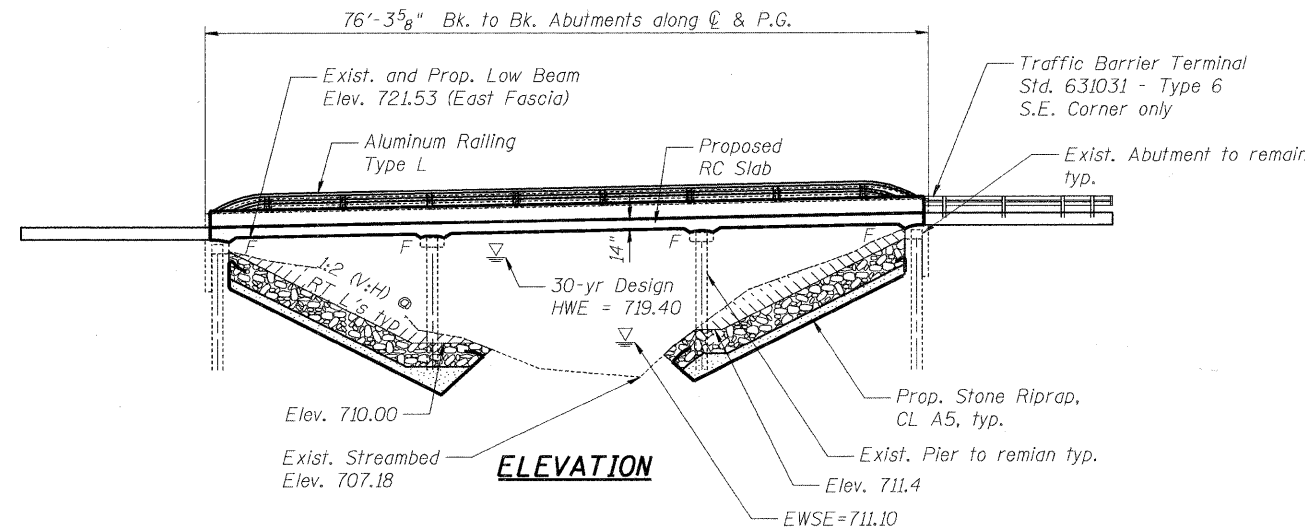
Bench Marks:

BM 1: Railroad spike in north face of wood light pole located at the southwest corner of the South Central bridge over Kent Creek. Elevation = 726.59 NAVD88

BM 2: Railroad spike in the south face of wood power pole located at the northeast corner of South Central Avenue and Preston Street. Elevation = 719.84 NAVD88

Existing Structure: S.N. 101-6124, originally built in 1975. The existing structure consists of a 3 span continuous reinforced concrete slab supported on pile bent piers and abutments. The back to back abutments measures 76'-3 5/8" along the C & P.G. and the out to out of deck is 39'-0". The Superstructure is to be removed and replaced. The Substructure is to remain. Traffic is to be detoured during construction.

No Salvage except for undamaged rails from the existing Aluminum Railings. Salvaged rails shall remain the property of the City of Rockford. Cost shall be included in the Removal of Existing Superstructures.



LOADING HS 20-44
Allow 25#/sq. ft. for future wearing surface.
DESIGN SPECIFICATIONS
2002 AASHTO Standard Specifications

DESIGN STRESSES
FIELD UNITS

f'c = 3,500 psi
fy = 60,000 psi (Reinforcement)

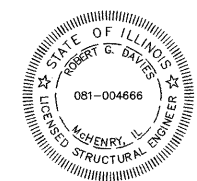
SEISMIC DATA

Seismic Performance Category (SPC) = A
Bedrock Acceleration Coefficient (A) = 4%g
Site Coefficient (S) = 1.0

CURVE DATA

Central Avenue Curve 1	Central Avenue Curve 2
D = 20°10'28"	D = 23°23'10"
T = 46.35'	T = 71.19'
L = 91.89'	L = 138.56'
E = 3.76'	E = 10.13'
R = 284.00'	R = 245.00'
S.E. =	S.E. =
P.C. = Sta. 7+76.53	P.C. = Sta. 8+68.42
P.T. = Sta. 8+68.42	P.T. = Sta. 10+06.99
P.I. = Sta. 8+22.88	P.I. = Sta. 9+39.61

See S-2 for offset sketch



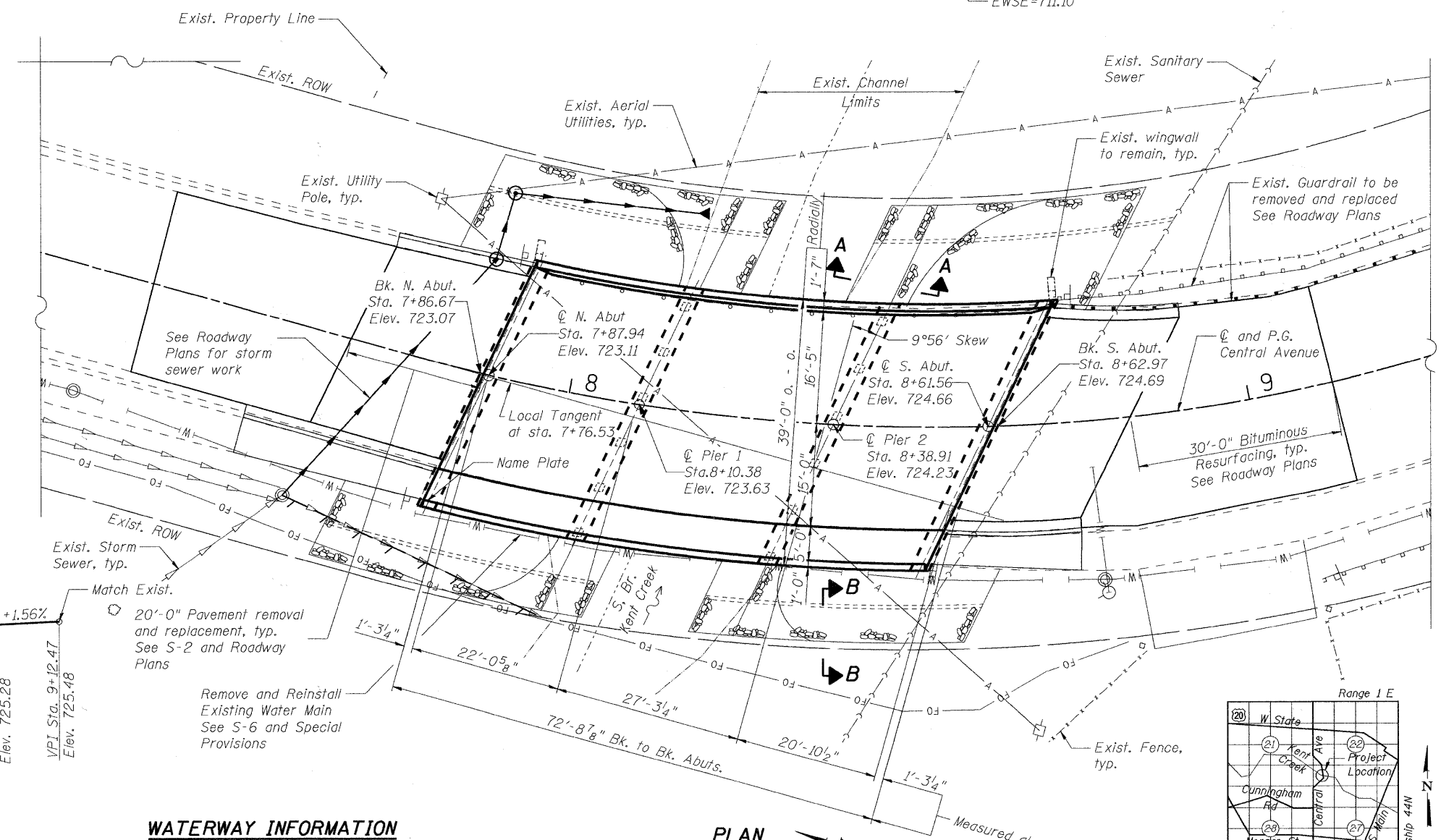
To the best of my knowledge, information and belief, this bridge design is structurally adequate for the design loading shown on the plans. The design is an economical one for the style of structure and complies with requirements of the current "AASHTO Standard Specifications for Highway Bridges".

Mark B. Davis 1/26/2010
Structural Engineer Expires: 11/30/2010
SEC Group, Inc.

GENERAL PLAN AND ELEVATION

**CENTRAL AVENUE (FAU ROUTE 5102)
OVER KENT CREEK
SECTION NO. 09-00557-00-BR
CITY OF ROCKFORD
WINNEBAGO COUNTY
STRUCTURE NO. 101-6124**

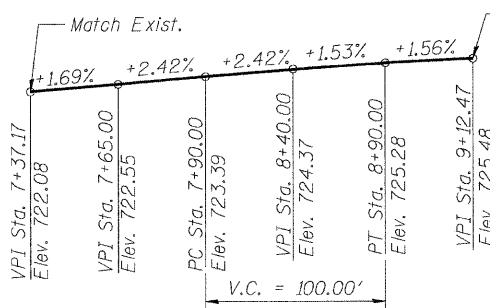
DATE: 1/26/10



KENT CREEK
RE-BUILT 2010 BY
CITY OF ROCKFORD
SEC. 09-00557-00-BR
F.A.U. RT. 5102 STA. 8+25.00
STR. NO. 101-6124 LOADING HS20

NAME PLATE

See Std. 515001
Existing Name Plate shall be cleaned and relocated next to the new Name Plate. Cost included with Name Plates



PROFILE GRADE
Central Avenue

WATERWAY INFORMATION

Drainage Area = 15.6 Sq. mi. Low Grade Elev. 722.72 @ Sta. 7+90.68

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft.		Nat. H.W.E.	Head - Ft.		Headwater El.	
			Exist.	Prop.		Exist.	Prop.	Exist.	Prop.
Design	10				719.40				
Base	30	1600	841	841	720.70	-	-	-	-
Overtopping	100								
Max. Calc.	500				721.40	-	-	-	-

FILE NAME: 090026-ape.dgn
PLOT DRIVER: pdf.plt
PEN TABLE: standard-trans.tbl 1/26/2010



Illinois Professional Design Firm # 184-000108
SEC GROUP, INC.
An HR Green Company
420 N. Front Street, McHenry, IL 60050
L 815.385.1778 F 815.385.1781
www.secgroupinc.com
McHenry, IL • Yorkville, IL • New Lenox, IL • Chicago, IL

SHEET NO. 5-1	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	5102	09-00557-00-BR	WINNEAGO	18	8
CONTRACT NO. 85508					
FED. ROAD DIST. NO. 2 ILLINOIS FED. AID PROJECT BHM 5099 (081)					