Benchmark:
Chiseled "□" NW corner of SN 051-0012 Sta. 3575+72.27, 21' Lt. Elev. 449.86.
Chiseled "□" SE corner of SN 051-0012 Sta. 3577+22.05, 30' Rt. Elev. 451.04.

Existing Structure:
SN 051-0012 Built as Section 51-23HB-2 in 1959. A four span continuous Steel Beam bridge with concrete deck supported on concrete pile bent, spill through ..... abutments and multi-column piers. The structure is 168'-0" Bk. to Bk. with two inside spans at 44'-8" and two outside spans at 37'-6. The deck varies 49'-10½" to 52'-5" out to out. The structure has no skew. Traffic to be maintained by utilizing crossovers.

No Salvage

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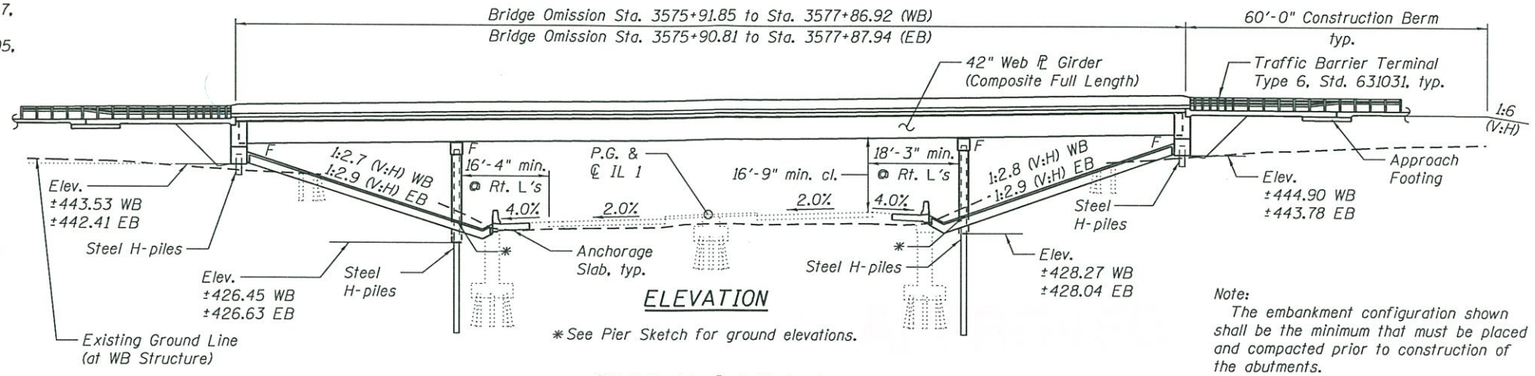
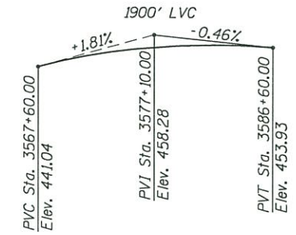
JAN 07 2016
AS A BASIS FOR PREPARATION OF DETAILED PLANS



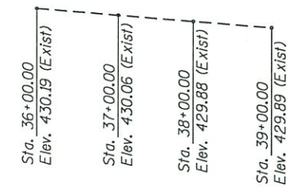
ELEVATION

*See Pier Sketch for ground elevations.

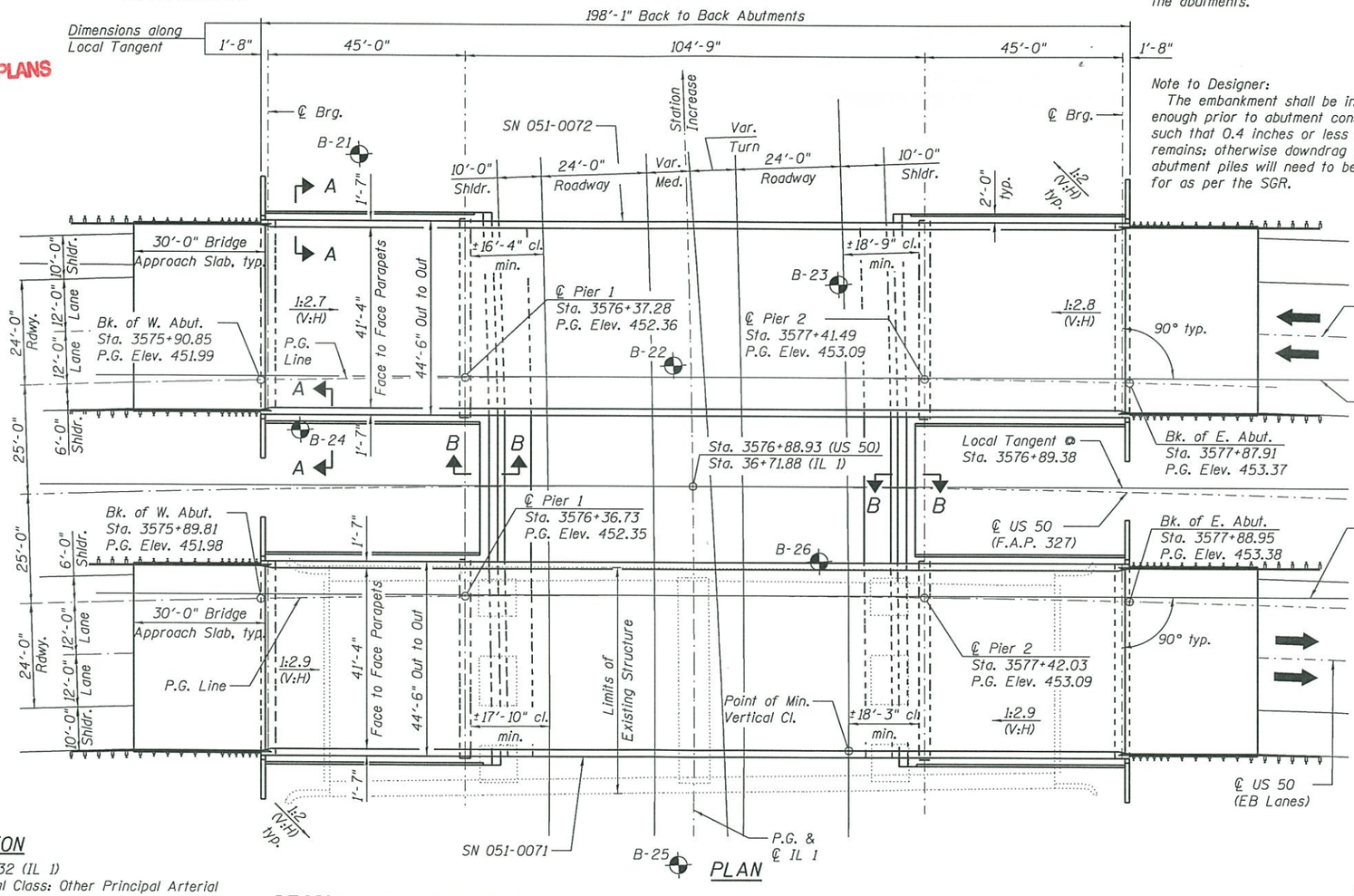
Note:
The embankment configuration shown shall be the minimum that must be placed and compacted prior to construction of the abutments.



PROFILE GRADE - US 50
(along inside shoulder)



PROFILE GRADE - IL 1
(along ℄ roadway)

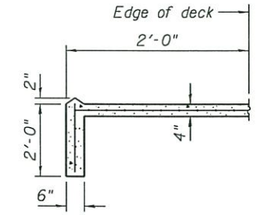


PLAN

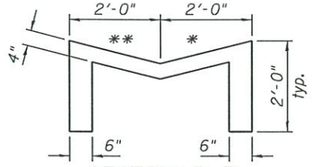
Note to Designer:
The embankment shall be in place long enough prior to abutment construction such that 0.4 inches or less of settlement remains; otherwise downdrag at the abutment piles will need to be accounted for as per the SGR.

CURVE DATA
(IL 1)
Δ = 15°19'00" Lt
D = 1°30'00"
R = 3,819.80'
T = 513.63'
L = 1,021.13'
E = 34.38'
e = 2.00%
P.C. Sta. = 27+86.06
P.T. Sta. = 38+07.19
P.I. Sta. = 32+99.69

CURVE DATA
(US 50)
Δ = 66°00'00" Rt
D = 1°12'06.34"
R = 4,767.65'
T = 3,096.15'
L = 5,491.94'
E = 917.12'
e = 4.00%
P.C. Sta. = 3550+17.24
P.T. Sta. = 3605+09.17
P.I. Sta. = 3581+13.39



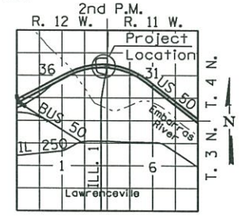
SECTION A-A



SECTION B-B

* 1:4 (V:H)
** 1:2.7 & Varies (V:H)

Indicates Boring Location



LOCATION SKETCH

HIGHWAY CLASSIFICATION

F.A.P. 327 (US 50)
Functional Class: Other Principal Arterial
ADT: 4,925 (2015)
6,385 (2035)
DHV: 542 (2015)
ADTT: 1,367 (2035)
Design Speed: 70 mph
Posted Speed: 55 mph
Directional Distribution: 50:50

F.A.P. 332 (IL 1)
Functional Class: Other Principal Arterial
ADT: 5,340 (2015)
6,380 (2035)
ADTT: 894 (2035)
Design Speed: 60 mph
Posted Speed: 55 mph
Directional Distribution: 50:50

DESIGN SPECIFICATIONS
2014 AASHTO LRFD Bridge Design Specifications 7th Edition w/ 2015 Interims

LOADING HL-93
Allow 50#/sq. ft. for future wearing surface.

DESIGN STRESSES
FIELD UNITS
f'c = 3,500 p.s.i.
f'c = 4,000 p.s.i. (Superstructure Concrete)
fy = 60,000 p.s.i. (Reinforcement)
fy = 50,000 p.s.i. (M270 Grade 50)

SEISMIC DATA
Seismic Performance Zone (SPZ) = 2
Design Spectral Acceleration at 1.0 sec. (S_{D1}) = 0.225g
Design Spectral Acceleration at 0.2 sec. (S_{DS}) = 0.516g
Soil Site Class = D

GENERAL PLAN & ELEVATION
US 50 OVER IL 1
F.A.P. RTE. 327 - SEC. (51-23HB-2)BR
LAWRENCE COUNTY
STATION 3576+88.93
STRUCTURE NO. 051-0071 (EB)
STRUCTURE NO. 051-0072 (WB)

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		CHECKED - JRS	REVISED -	

SHEET NO. 1 OF 3 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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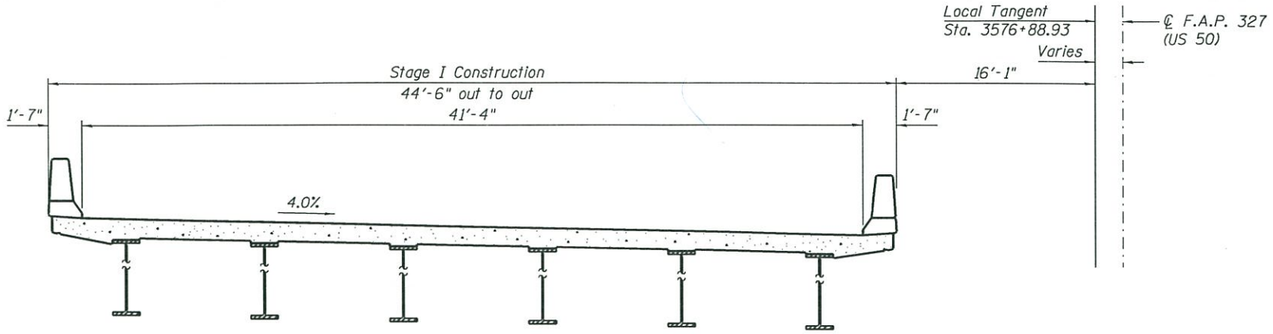
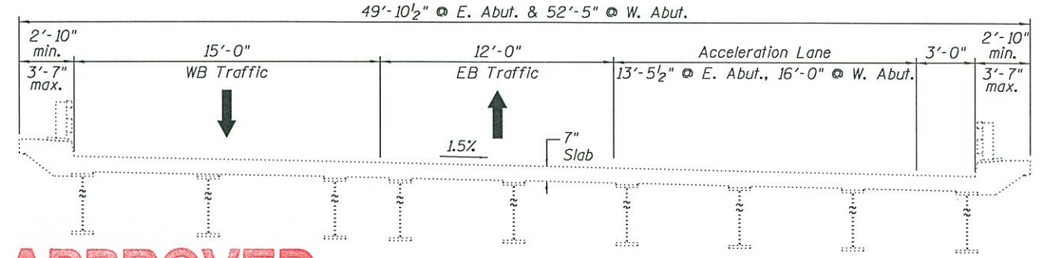
		CONTRACT NO. 74178		
		ILLINOIS FED. AID PROJECT		



STAGE I CONSTRUCTION
(Looking East)



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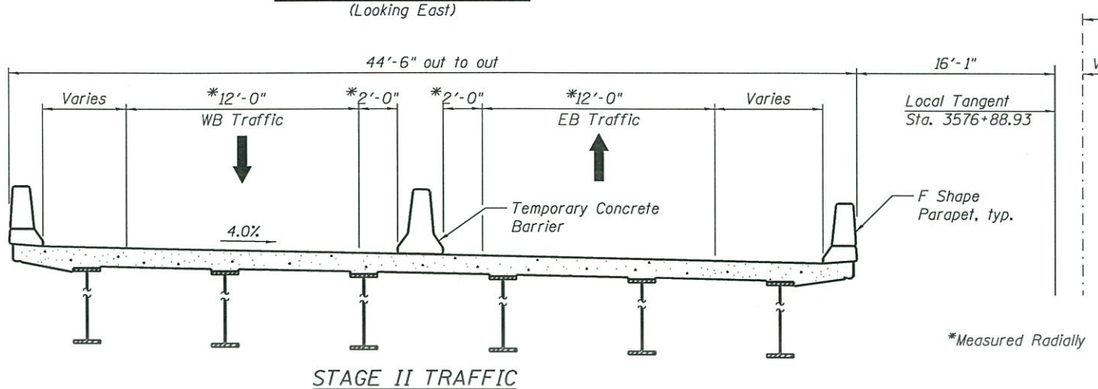
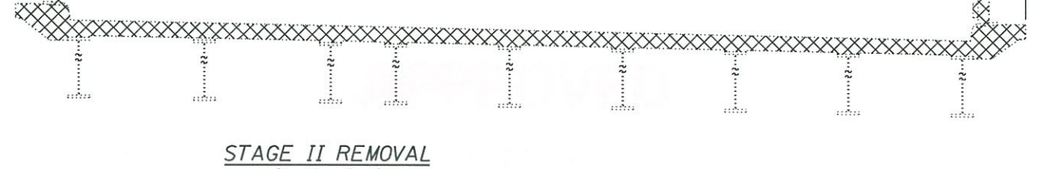
PREPARATION OF DETAILED PLANS

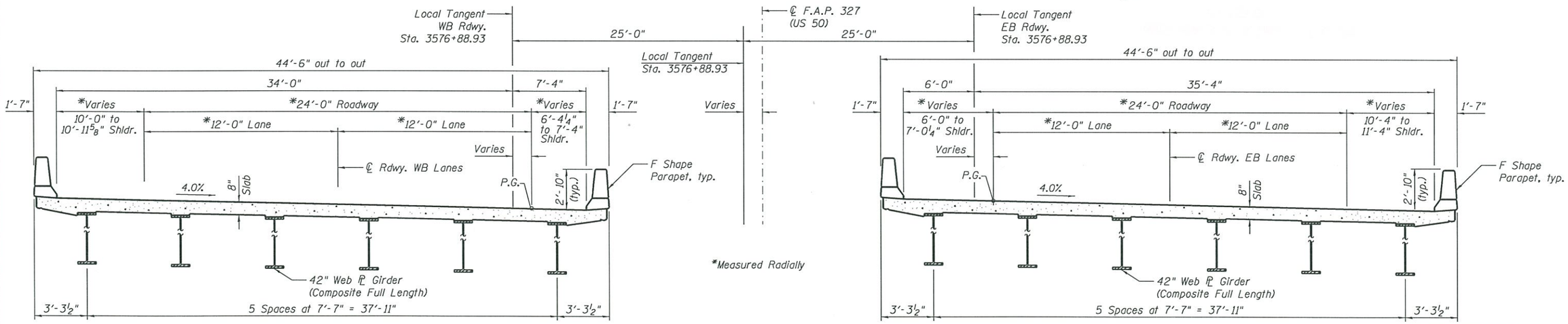
STAGE I TRAFFIC
(Looking East)



STAGE II TRAFFIC
(Looking East)



STAGE II REMOVAL
(Looking East)



PROPOSED CROSS SECTION
(Looking East)

GENERAL DETAILS
US 50 OVER IL 1
F.A.P. RTE. 327 - SEC. (51-23HB-2)BR
LAWRENCE COUNTY
STATION 3576+88.93
STRUCTURE NO. 051-0071 (EB)
STRUCTURE NO. 051-0072 (WB)

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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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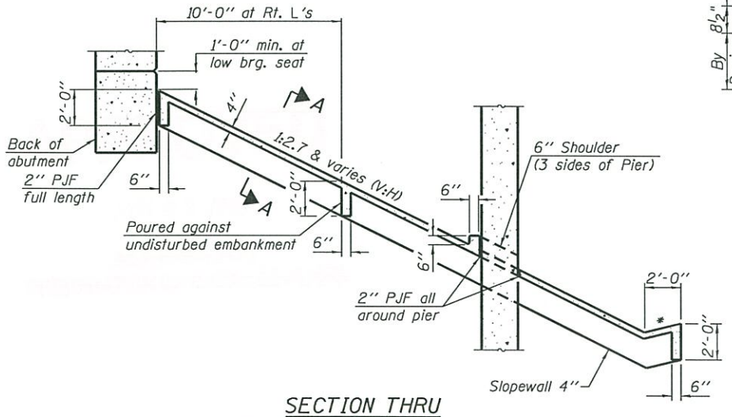
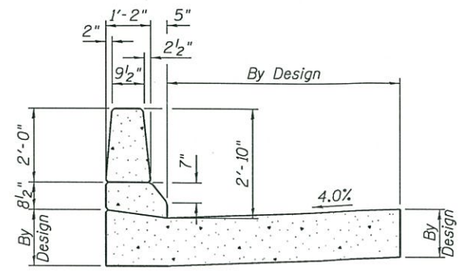
		CONTRACT NO. 74178		
		ILLINOIS FED. AID PROJECT		

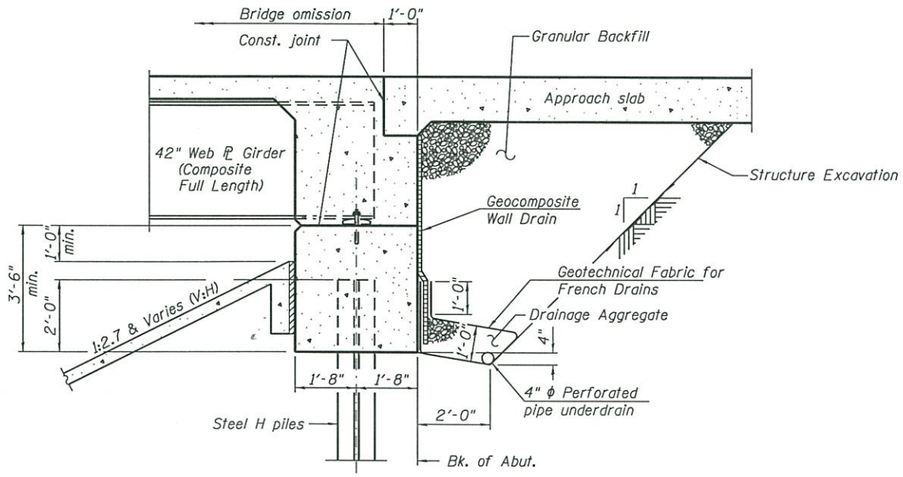


SECTION THRU
CONCRETE SLOPEWALL

For Sec. A-A, See Sh.# 1 of 3



SECTION THRU
ANCHORAGE SLAB



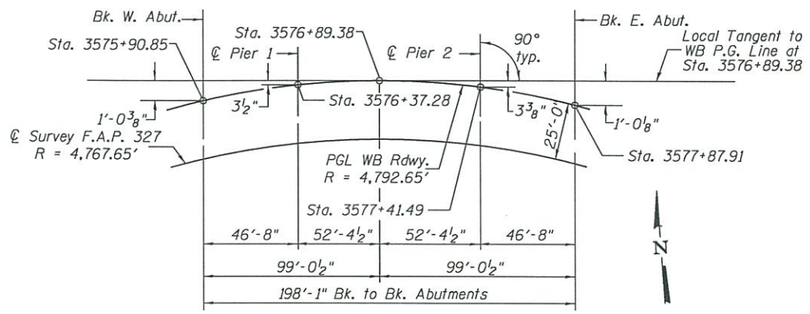
SECTION THRU INTEGRAL ABUTMENT

(Horiz. dim. ℄ Rt. L's)

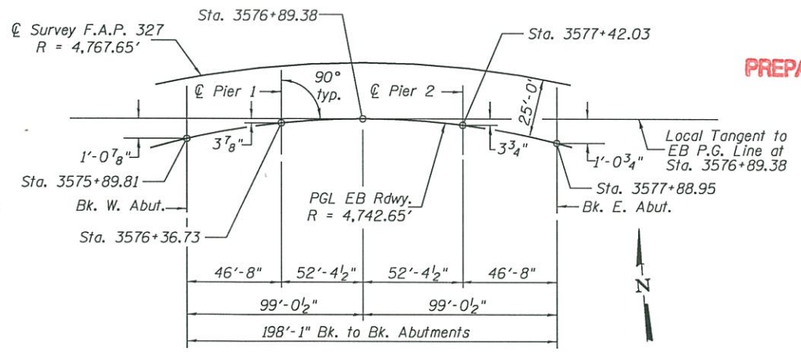
APPROVED

JAN 07 2016

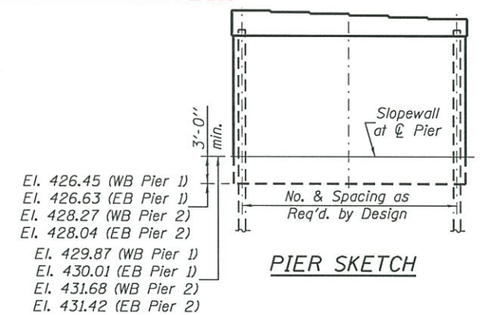
AS A BASIS FOR
PREPARATION OF DETAILED PLANS



OFFSET SKETCH
WESTBOUND STRUCTURE



OFFSET SKETCH
EASTBOUND STRUCTURE



PIER SKETCH

GENERAL PLAN & ELEVATION
US 50 OVER IL 1
F.A.P. RTE. 327 - SEC. (51-23HB-2)BR
LAWRENCE COUNTY
STATION 3576+88.93
STRUCTURE NO. 051-0071 (EB)
STRUCTURE NO. 051-0072 (WB)

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