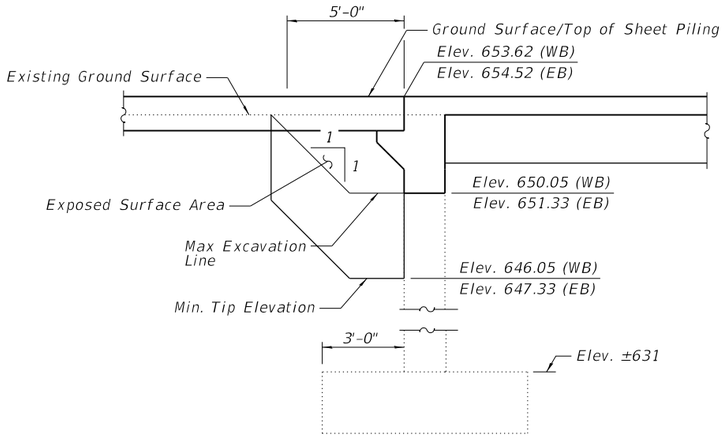
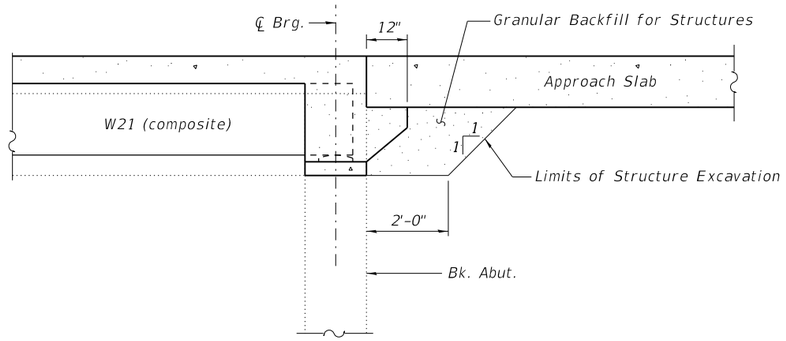


TEMPORARY SHEET PILING AT WEST ABUTMENT

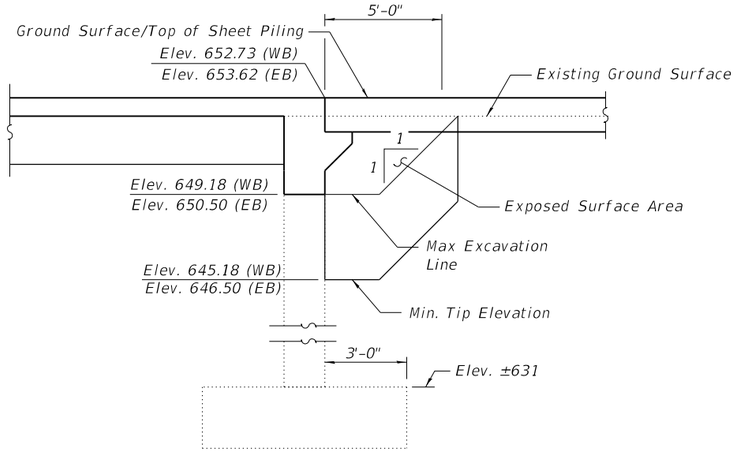
(Dimensions taken along Stage Construction Line)

Minimum Section Modulus = 1.0 in^3/ft



SECTION THRU ABUTMENT

(Horiz. dim. @ Rt. ℄'s)



TEMPORARY SHEET PILING AT EAST ABUTMENT

(Dimensions taken along Stage Construction Line)

Minimum Section Modulus = 1.0 in^3/ft

SUPERSTRUCTURE REMOVAL/ERECTION SEQUENCE

The existing abutment walls are restrained top and bottom, requiring lateral support during the superstructure removal and beam erection process.

Each stage of removal (Stages IA, IB, IIA and IIB) will be divided into sub-stages. The first half of each sub-stage (IA-1, IB-1, IIA-1 and IIB-1) shall only remove as much of the existing superstructure as required to place two new beams. The existing concrete beams are to act as lateral support of the abutments while the new beams are placed.

Each sub-stage will erect two beams. Once the beams and bearings of the first half of each sub-stage are fully installed, they will act as lateral support for the abutments and the remaining portion of the existing superstructure may be removed for that stage.

No heavy equipment shall be allowed behind unbraced portions of abutments during construction.

Notes:

If the Contractor chooses to alter the temporary cantilevered sheet piling design requirements shown on the plans, a design submittal including plan details and calculations will be required for review and acceptance by the Engineer.

The Contractor shall connect the first sheet to the existing abutment wall to ensure stability of sheets driven to the top of the existing footing. This connection shall be reviewed and accepted by the Engineer and included in the cost for Temporary Sheet Piling.

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LIN ENGINEERING,LTD. Consulting Engineers Springfield, Illinois	USER NAME =	DESIGNED - AML	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	STAGE CONSTRUCTION DETAILS STRUCTURE NOS. 050-0003 & 050-0004
		CHECKED - MTH	REVISED -		
	PLOT SCALE =	DRAWN - DAS	REVISED -		
	PLOT DATE = 10/04/2019	CHECKED - MTH	REVISED -		SHEET 3 OF 27 SHEETS

F.A.I. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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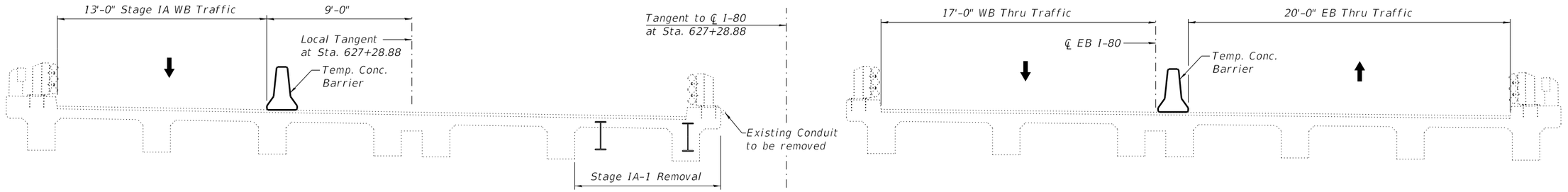
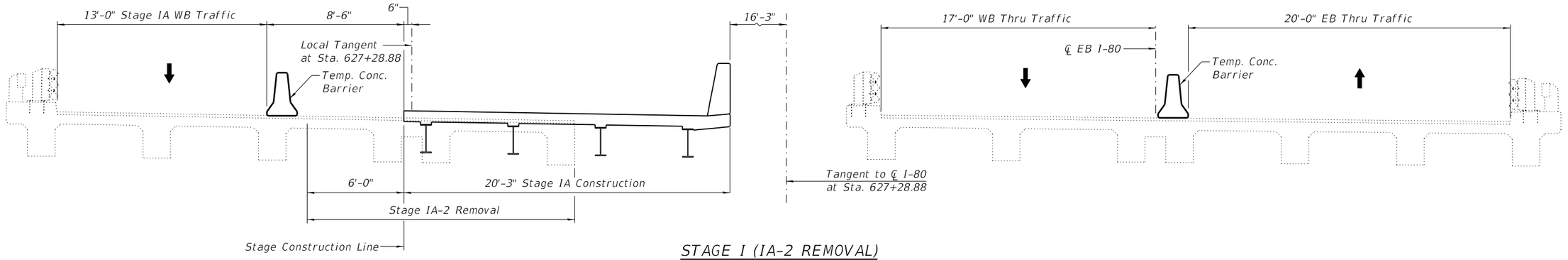
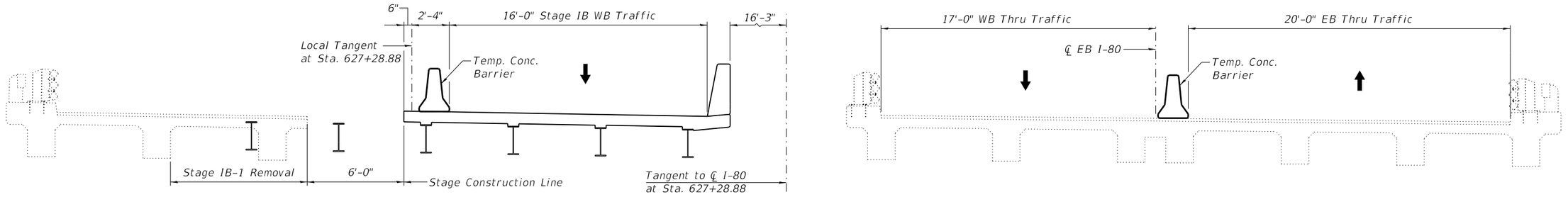
		CONTRACT NO. 66H21		
	ILLINOIS	FED. AID PROJECT		



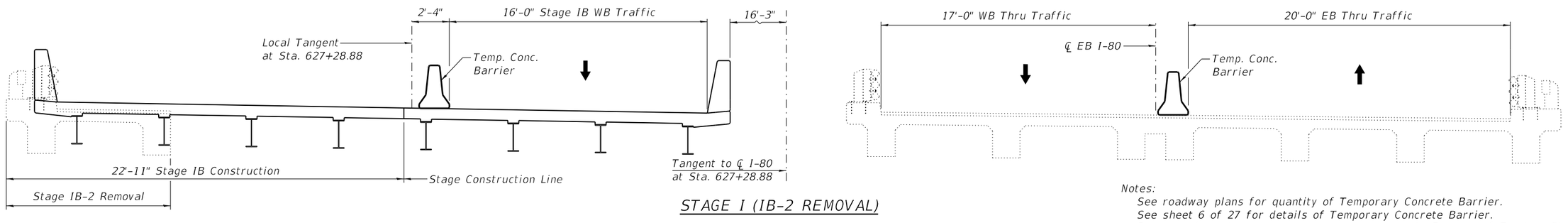
STAGE I (IA-1 REMOVAL)



STAGE I (IA-2 REMOVAL)



STAGE I (IB-1 REMOVAL)



STAGE I (IB-2 REMOVAL)

Notes:

See roadway plans for quantity of Temporary Concrete Barrier.
See sheet 6 of 27 for details of Temporary Concrete Barrier.
Removal of existing bridge railing is included with Removal of Existing Structures.
All transverse dimensions at Rt. L's to Local Tangent, unless otherwise noted.
All sections are looking East.

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	PLOT DATE = 10/04/2019	CHECKED - MTH	REVISED -	

STAGE CONSTRUCTION DETAILS
STRUCTURE NOS. 050-0003 & 050-0004

SHEET 4 OF 27 SHEETS

F.A.I. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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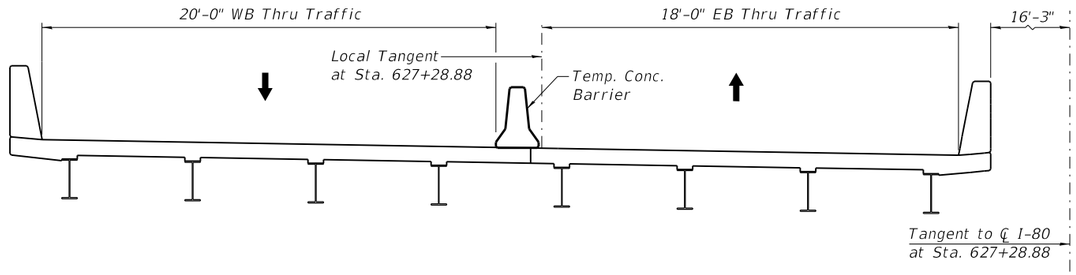
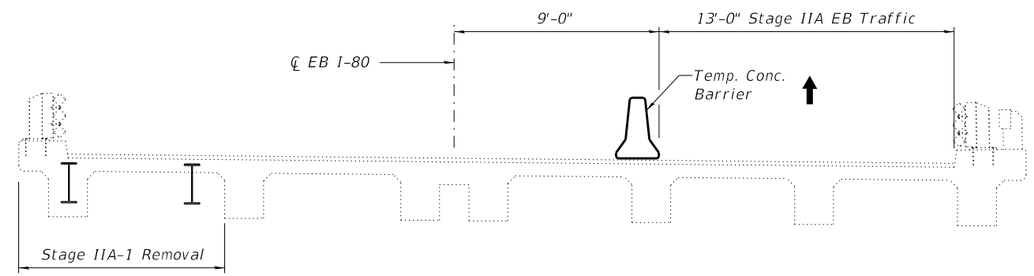
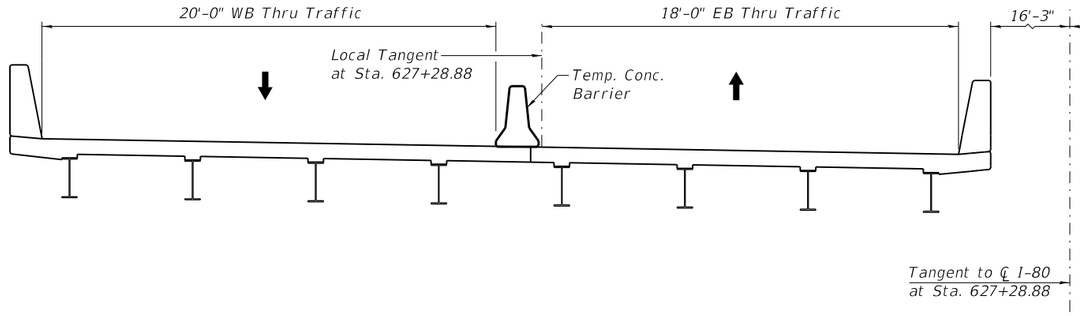
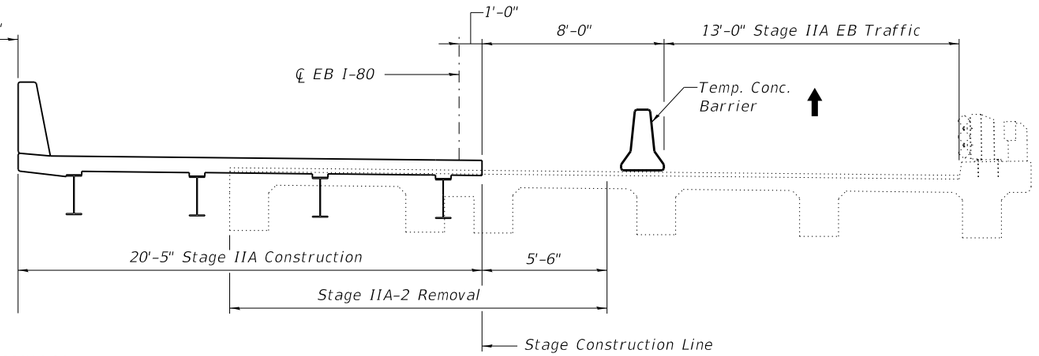
		CONTRACT NO. 66H21		
	ILLINOIS FED. AID PROJECT			



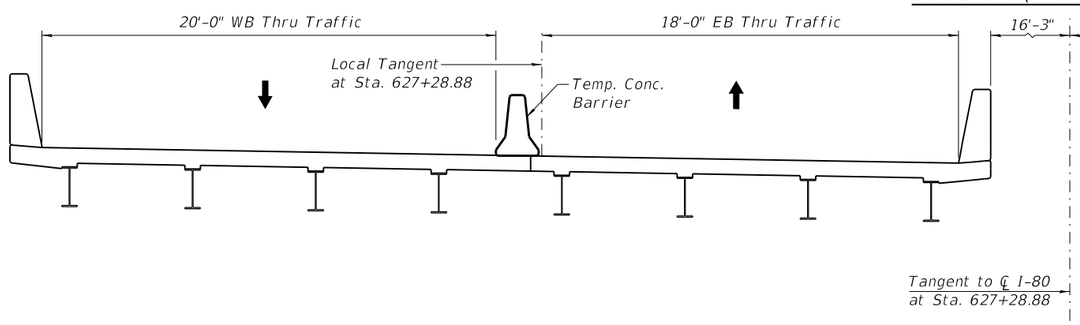


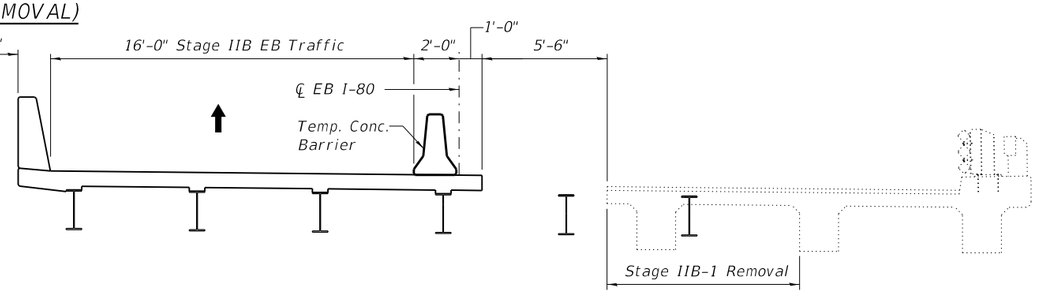
STAGE II (IIA-1 REMOVAL)



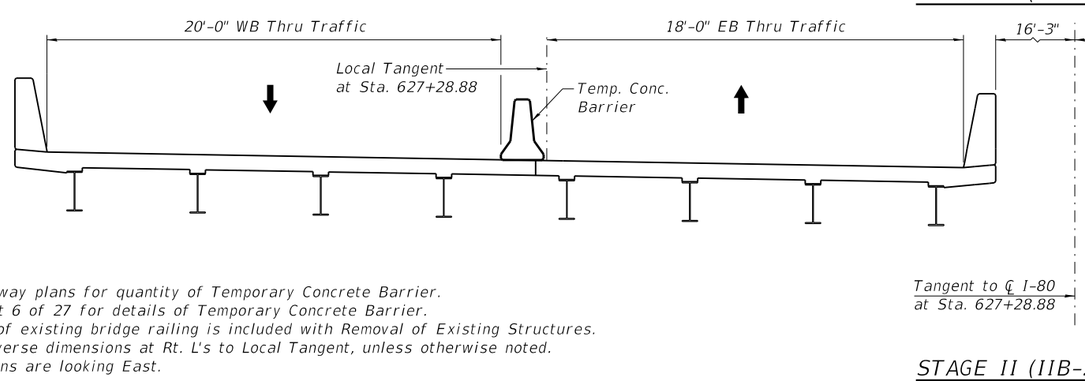


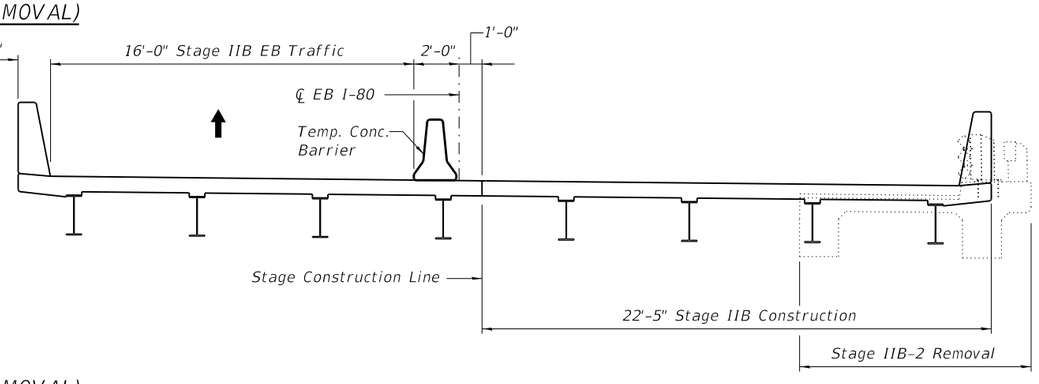
STAGE II (IIA-2 REMOVAL)





STAGE II (IIB-1 REMOVAL)





STAGE II (IIB-2 REMOVAL)

Notes:
See roadway plans for quantity of Temporary Concrete Barrier.
See sheet 6 of 27 for details of Temporary Concrete Barrier.
Removal of existing bridge railing is included with Removal of Existing Structures.
All transverse dimensions at Rt. L's to Local Tangent, unless otherwise noted.
All sections are looking East.

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Springfield, Illinois

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PLOT DATE = 10/04/2019	CHECKED - MTH	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STAGE CONSTRUCTION DETAILS
STRUCTURE NOS. 050-0003 & 050-0004
SHEET 5 OF 27 SHEETS

F.A.I. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(50-2)HBR-1	LASALLE	328	103
		CONTRACT NO. 66H21		
	ILLINOIS	FED. AID PROJECT		

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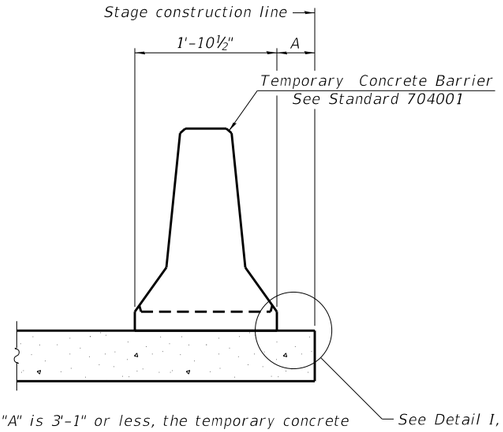
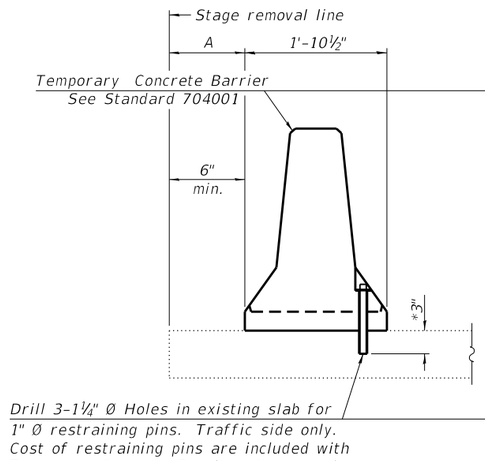


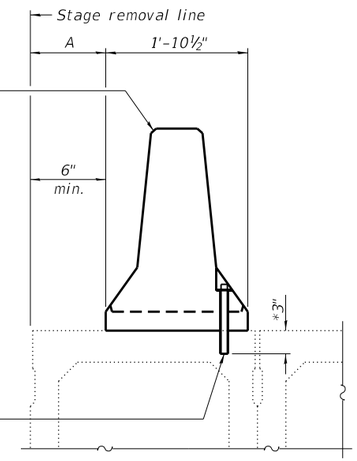
When "A" is 3'-1" or less, the temporary concrete barrier shall be restrained to the new slab according to Detail I, II or III. No restraint is required when "A" is greater than 3'-1".

NEW SLAB OR NEW DECK BEAM



Drill 3-1¼" Ø Holes in existing slab for 1" Ø restraining pins. Traffic side only. Cost of restraining pins are included with Temporary Concrete Barrier. No restraint is required when "A" is greater than 3'-1".

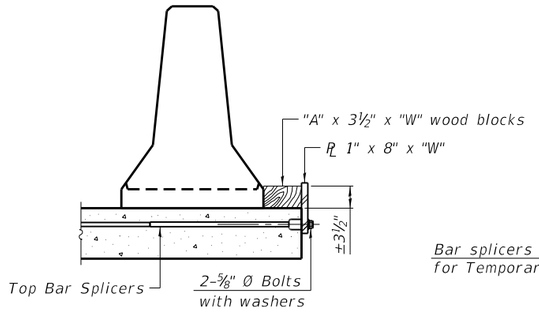
EXISTING SLAB



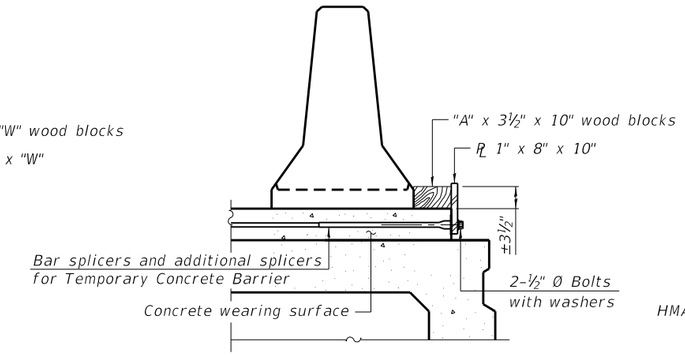
* When hot-mix asphalt wearng surface is present, embedment shall be 3" plus the wearing surface depth.

EXISTING DECK BEAM

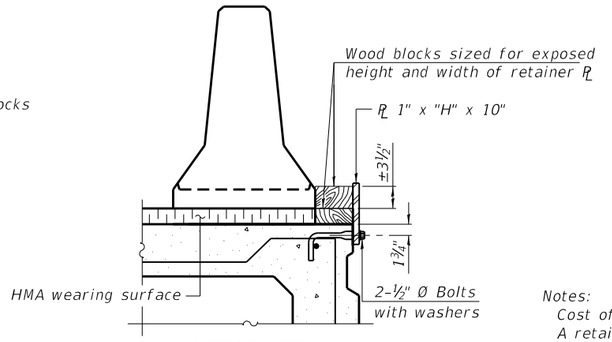
SECTIONS THRU SLAB OR DECK BEAM



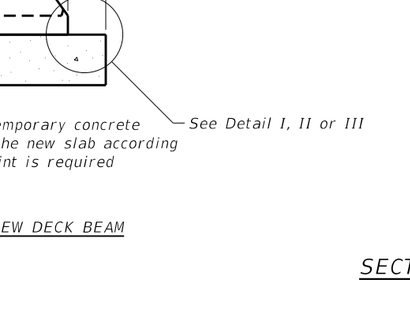
DETAIL I



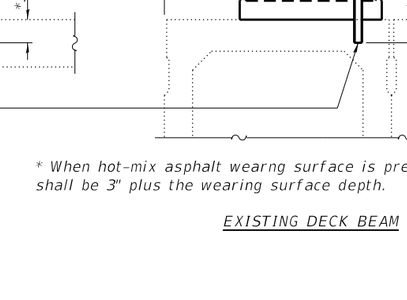
DETAIL II



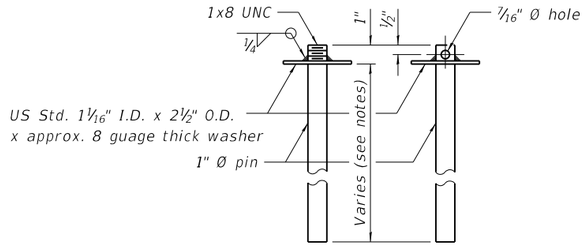
DETAIL III



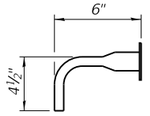
STEEL RETAINER PL 1" x 8" x "W"
(Detail I and II)



STEEL RETAINER PL 1" x "H" x 10"
(Detail III)



RESTRAINING PIN



BAR SPLICER FOR #4 BAR - DETAIL III

Notes:

Cost of retainer assembly is included with Temporary Concrete Barrier.

A retainer assembly shall be located at the approximate ℄ of each temporary concrete barrier.

The retainer plate shall not be removed until the concrete on the adjacent stage is ready to be poured. For Detail III applications the retainer plate shall not be removed until just prior to placing the adjacent beam.

When the 'A' dimension is less than 1½", the wood block shall be omitted and the barrier shall be placed in direct contact with the steel retainer plate. For deck beam applications the minimum required 'A' distance is 6" to accommodate the shear key clamping device.

Detail I - Installation for a new bridge deck or bridge slab.

Detail II - Installation for a new deck beam with an initial concrete wearing surface. Additional bar splicers shall be provided at 6'-0" centers and paired with the bar splicers of the concrete wearing surface reinforcement to accommodate the installation of the retainer assemblies. The cost of the additional bar splicers is included with the concrete wearing surface.

Detail III - Installation for a new deck beam with no initial wearing surface or with an initial hot-mix asphalt (HMA) wearing surface present. The deck beam directly beneath the temporary concrete barrier shall be fabricated with bar splicer inserts in the side of the beam, as detailed, to accommodate the installation of the retainer assemblies. A pair of bar splicers, 6" apart, shall be placed at 6'-0" centers along the length of the beam. The cost of the bar splicers is included with the deck beam.

R-27

2-17-2017

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Springfield, Illinois

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION
STRUCTURE NOS. 050-0003 & 050-0004

SHEET 6 OF 27 SHEETS

F.A.I. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(50-2)HBR-1	LASALLE	328	104
		CONTRACT NO. 66H21		
	ILLINOIS FED. AID PROJECT			

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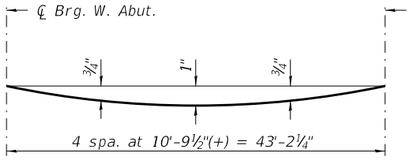
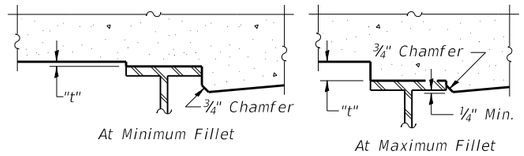


DEAD LOAD DEFLECTION DIAGRAM

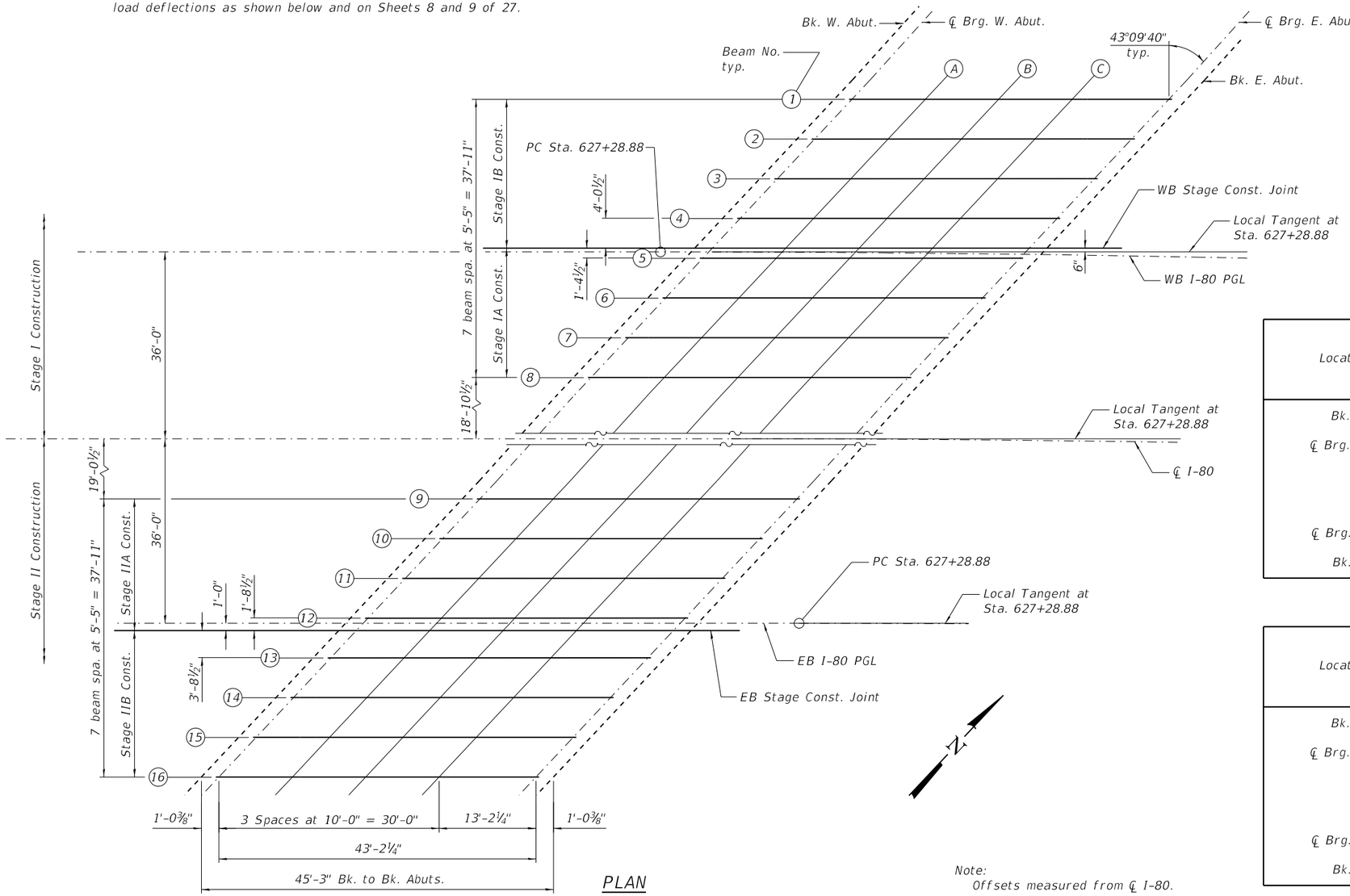
(Includes weight of concrete only.)

Note:
The above deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections as shown below and on Sheets 8 and 9 of 27.



To determine "t": After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals shown below. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" shown below and on Sheets 8 and 9 of 27, minus slab thickness, equals the fillet heights "t" above top flange of beams.

FILLET HEIGHTS



PLAN

Note:
Offsets measured from ℄ I-80.

BEAM 1

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	627+55.08	-56.88	653.85	653.85
℄ Brg. W. Abut.	627+56.09	-56.89	653.83	653.83
A	627+65.94	-56.97	653.64	653.69
B	627+75.79	-57.08	653.44	653.53
C	627+85.65	-57.22	653.25	653.32
℄ Brg. E. Abut.	627+98.64	-57.44	653.00	653.00
Bk. E. Abut.	627+99.66	-57.46	652.98	652.98

BEAM 2

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	627+50.10	-51.44	653.79	653.79
℄ Brg. W. Abut.	627+51.12	-51.44	653.77	653.77
A	627+60.98	-51.51	653.57	653.63
B	627+70.85	-51.61	653.38	653.46
C	627+80.71	-51.73	653.19	653.25
℄ Brg. E. Abut.	627+93.73	-51.93	652.93	652.93
Bk. E. Abut.	627+94.74	-51.95	652.91	652.91

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS
STRUCTURE NOS. 050-0003 & 050-0004
SHEET 7 OF 27 SHEETS

F.A.I. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(50-2)HBR-1	LASALLE	328	105
		CONTRACT NO. 66H21		
	ILLINOIS FED. AID PROJECT			

BEAM 3

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	627+45.11	-45.99	653.73	653.73
℄ Brg. W. Abut.	627+46.13	-46.00	653.70	653.70
A	627+56.01	-46.06	653.51	653.57
B	627+65.89	-46.14	653.31	653.40
C	627+75.77	-46.25	653.12	653.19
℄ Brg. E. Abut.	627+88.80	-46.43	652.86	652.86
Bk. E. Abut.	627+89.82	-46.45	652.84	652.84

BEAM 4

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	627+40.11	-40.56	653.66	653.66
℄ Brg. W. Abut.	627+41.13	-40.56	653.64	653.64
A	627+51.02	-40.61	653.45	653.50
B	627+60.91	-40.68	653.25	653.33
C	627+70.81	-40.77	653.05	653.12
℄ Brg. E. Abut.	627+83.86	-40.94	652.80	652.80
Bk. E. Abut.	627+84.88	-40.96	652.78	652.78

WB STAGE CONST. JOINT

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	627+36.37	-36.51	653.62	653.62
℄ Brg. W. Abut.	627+37.38	-36.51	653.60	653.60
A	627+47.29	-36.55	653.40	653.45
B	627+57.19	-36.61	653.20	653.29
C	627+67.10	-36.69	653.01	653.08
℄ Brg. E. Abut.	627+80.17	-36.85	652.75	652.75
Bk. E. Abut.	627+81.18	-36.86	652.73	652.73

WB I-80 P.G.L.

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	627+35.90	-36.00	653.61	653.61
℄ Brg. W. Abut.	627+36.91	-36.00	653.59	653.59
A	627+46.79	-36.00	653.39	653.45
B	627+56.64	-36.00	653.19	653.28
C	627+66.47	-36.00	653.00	653.07
℄ Brg. E. Abut.	627+79.40	-36.00	652.74	652.74
Bk. E. Abut.	627+80.41	-36.00	652.72	652.72

BEAM 5

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	627+35.09	-35.13	653.60	653.60
℄ Brg. W. Abut.	627+36.11	-35.13	653.58	653.58
A	627+46.02	-35.16	653.38	653.44
B	627+55.93	-35.22	653.19	653.27
C	627+65.83	-35.31	652.99	653.06
℄ Brg. E. Abut.	627+78.91	-35.46	652.73	652.73
Bk. E. Abut.	627+79.93	-35.47	652.71	652.71

BEAM 6

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	627+30.06	-29.71	653.54	653.54
℄ Brg. W. Abut.	627+31.08	-29.71	653.52	653.52
A	627+41.00	-29.73	653.32	653.38
B	627+50.92	-29.77	653.12	653.21
C	627+60.85	-29.84	652.93	653.00
℄ Brg. E. Abut.	627+73.94	-29.98	652.67	652.67
Bk. E. Abut.	627+74.96	-29.99	652.65	652.65

BEAM 7

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	627+22.30	-24.29	653.47	653.47
℄ Brg. W. Abut.	627+23.33	-24.29	653.45	653.45
A	627+35.97	-24.30	653.26	653.31
B	627+45.91	-24.33	653.06	653.14
C	627+55.84	-24.39	652.86	652.93
℄ Brg. E. Abut.	627+68.95	-24.50	652.60	652.60
Bk. E. Abut.	627+69.98	-24.51	652.58	652.58

BEAM 8

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	627+17.22	-18.88	653.41	653.41
℄ Brg. W. Abut.	627+18.25	-18.88	653.39	653.39
A	627+30.93	-18.88	653.20	653.25
B	627+40.88	-18.89	653.00	653.08
C	627+50.83	-18.94	652.80	652.87
℄ Brg. E. Abut.	627+63.96	-19.04	652.54	652.54
Bk. E. Abut.	627+64.98	-19.05	652.52	652.52

BEAM 9

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	626+81.66	19.04	654.72	654.72
℄ Brg. W. Abut.	626+82.69	19.04	654.70	654.70
A	626+92.69	19.04	654.50	654.56
B	627+02.69	19.04	654.30	654.38
C	627+12.69	19.04	654.10	654.17
℄ Brg. E. Abut.	627+25.89	19.04	653.84	653.84
Bk. E. Abut.	627+29.60	19.04	653.82	653.82

Note:
Offsets measured from ℄ I-80.

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Springfield, Illinois

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PLOT SCALE =	DRAWN - DAS	REVISED -	
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS
STRUCTURE NOS. 050-0003 & 050-0004
SHEET 8 OF 27 SHEETS

F.A.I. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(50-2)HBR-1	LASALLE	328	106
		CONTRACT NO. 66H21		
	ILLINOIS	FED. AID PROJECT		

BEAM 10

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	626+76.58	24.46	654.66	654.66
℄ Brg. W. Abut.	626+77.61	24.46	654.64	654.64
A	626+87.61	24.46	654.44	654.50
B	626+97.61	24.46	654.24	654.33
C	627+07.61	24.46	654.04	654.11
℄ Brg. E. Abut.	627+20.81	24.46	653.78	653.78
Bk. E. Abut.	627+21.83	24.46	653.76	653.76

BEAM 11

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	626+71.50	29.88	654.60	654.60
℄ Brg. W. Abut.	626+72.53	29.88	654.58	654.58
A	626+82.53	29.88	654.38	654.44
B	626+92.53	29.88	654.18	654.27
C	627+02.53	29.88	653.98	654.05
℄ Brg. E. Abut.	627+15.73	29.88	653.72	653.72
Bk. E. Abut.	627+16.75	29.88	653.70	653.70

BEAM 12

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	626+66.42	35.29	654.54	654.54
℄ Brg. W. Abut.	626+67.45	35.29	654.52	654.52
A	626+77.45	35.29	654.32	654.38
B	626+87.45	35.29	654.12	654.20
C	626+97.45	35.29	653.92	653.99
℄ Brg. E. Abut.	627+10.65	35.29	653.66	653.66
Bk. E. Abut.	627+11.67	35.29	653.64	653.64

EB I-80 P.G.L.

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	626+65.76	36.00	654.53	654.53
℄ Brg. W. Abut.	626+66.79	36.00	654.51	654.51
A	626+76.79	36.00	654.31	654.37
B	626+86.79	36.00	654.11	654.20
C	626+96.79	36.00	653.91	653.98
℄ Brg. E. Abut.	627+09.98	36.00	653.65	653.65
Bk. E. Abut.	627+11.01	36.00	653.63	653.63

EB STAGE CONST. JOINT

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	626+64.82	37.00	654.52	654.52
℄ Brg. W. Abut.	626+65.85	37.00	654.50	654.50
A	626+75.85	37.00	654.30	654.36
B	626+85.85	37.00	654.10	654.19
C	626+95.85	37.00	653.90	653.97
℄ Brg. E. Abut.	627+09.04	37.00	653.64	653.64
Bk. E. Abut.	627+10.07	37.00	653.62	653.62

BEAM 13

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	626+61.35	40.71	654.48	654.48
℄ Brg. W. Abut.	626+62.37	40.71	654.46	654.46
A	626+72.37	40.71	654.26	654.32
B	626+82.37	40.71	654.06	654.14
C	626+92.37	40.71	653.86	653.93
℄ Brg. E. Abut.	627+05.57	40.71	653.60	653.60
Bk. E. Abut.	627+06.60	40.71	653.58	653.58

BEAM 14

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	626+56.27	46.13	654.42	654.42
℄ Brg. W. Abut.	626+57.29	46.13	654.40	654.40
A	626+67.29	46.13	654.20	654.26
B	626+77.29	46.13	654.00	654.08
C	626+87.29	46.13	653.80	653.87
℄ Brg. E. Abut.	627+00.49	46.13	653.54	653.54
Bk. E. Abut.	627+01.52	46.13	653.51	653.51

BEAM 15

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	626+51.19	51.54	654.36	654.36
℄ Brg. W. Abut.	626+52.21	51.54	654.34	654.34
A	626+62.21	51.54	654.14	654.19
B	626+72.21	51.54	653.94	654.02
C	626+82.21	51.54	653.74	653.81
℄ Brg. E. Abut.	626+95.41	51.54	653.47	653.47
Bk. E. Abut.	626+96.44	51.54	653.45	653.45

BEAM 16

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	626+46.11	56.96	654.30	654.30
℄ Brg. W. Abut.	626+47.13	56.96	654.28	654.28
A	626+57.13	56.96	654.08	654.13
B	626+67.13	56.96	653.88	653.96
C	626+77.13	56.96	653.68	653.74
℄ Brg. E. Abut.	626+90.33	56.96	653.41	653.41
Bk. E. Abut.	626+91.36	56.96	653.39	653.39

Note:
Offsets measured from ℄ I-80.

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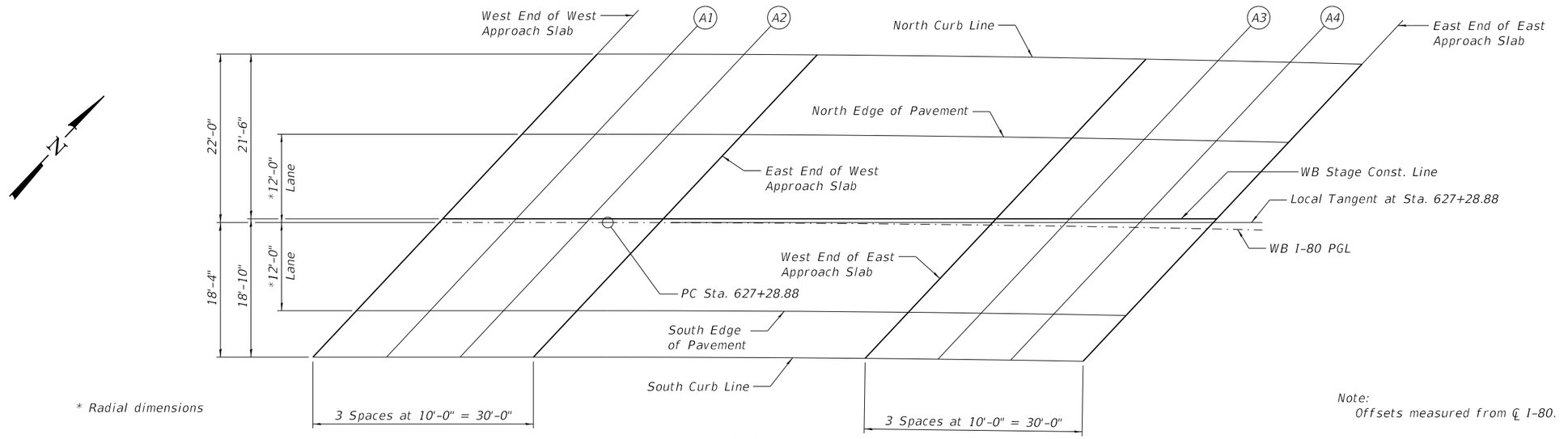
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS
STRUCTURE NOS. 050-0003 & 050-0004
SHEET 9 OF 27 SHEETS

F.A.I. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(50-2)HBR-1	LASALLE	328	107
		CONTRACT NO. 66H21		
	ILLINOIS	FED. AID PROJECT		



* Radial dimensions

Note:
Offsets measured from ℄ I-80.

PLAN
(WB Approaches)

NORTH CURB LINE

Location	Station	Offset	Theoretical Grade Elevations
W. End W. Appr. Slab	627+23.91	-58.00	654.45
A1	627+36.48	-58.01	654.26
A2	627+46.33	-58.04	654.06
E. End W. Appr. Slab	627+56.18	-58.10	653.87
W. End E. Appr. Slab	628+00.75	-58.69	652.99
A3	628+10.60	-58.89	652.79
A4	628+20.44	-59.11	652.60
E. End E. Appr. Slab	628+30.29	-59.37	652.41

NORTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
W. End W. Appr. Slab	627+14.53	-48.00	654.34
A1	627+24.53	-48.00	654.14
A2	627+37.11	-48.00	653.95
E. End W. Appr. Slab	627+46.95	-48.00	653.75
W. End E. Appr. Slab	627+91.21	-48.00	652.86
A3	628+00.93	-48.00	652.67
A4	628+10.62	-48.00	652.47
E. End E. Appr. Slab	628+20.29	-48.00	652.27

WB STAGE CONST. LINE

Location	Station	Offset	Theoretical Grade Elevations
W. End W. Appr. Slab	627+03.75	-36.50	654.20
A1	627+13.75	-36.50	654.01
A2	627+23.75	-36.50	653.81
E. End W. Appr. Slab	627+36.37	-36.51	653.62
W. End E. Appr. Slab	627+81.18	-36.86	652.73
A3	627+91.09	-37.01	652.54
A4	628+00.99	-37.19	652.34
E. End E. Appr. Slab	628+10.89	-37.39	652.14

WB I-80 PGL

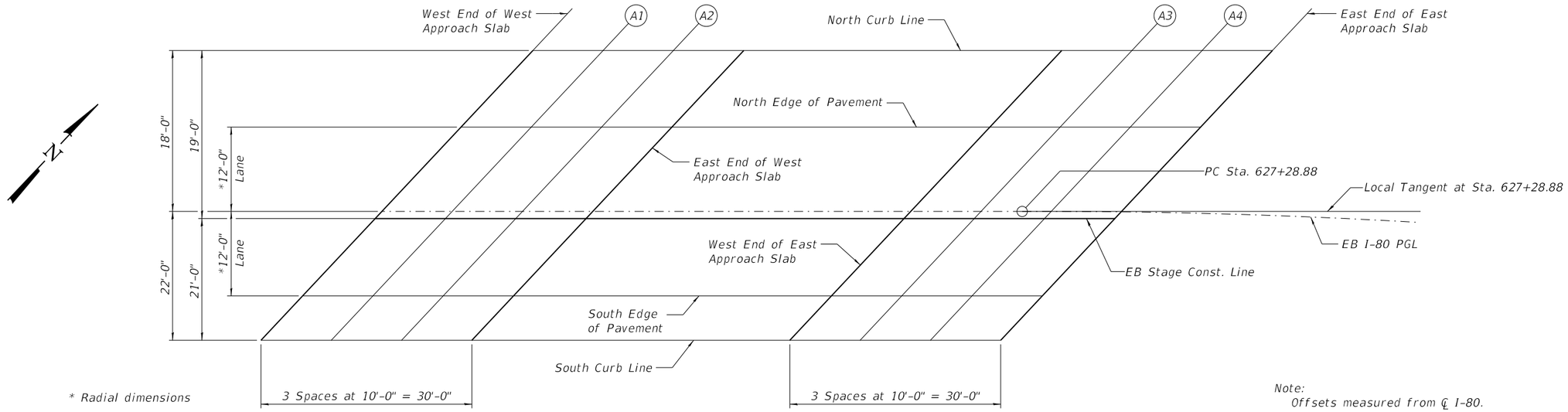
Location	Station	Offset	Theoretical Grade Elevations
W. End W. Appr. Slab	627+03.28	-36.00	654.19
A1	627+13.28	-36.00	654.00
A2	627+23.28	-36.00	653.80
E. End W. Appr. Slab	627+35.90	-36.00	653.61
W. End E. Appr. Slab	627+80.41	-36.00	652.72
A3	627+90.18	-36.00	652.52
A4	627+99.93	-36.00	652.33
E. End E. Appr. Slab	628+09.65	-36.00	652.13

SOUTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
W. End W. Appr. Slab	626+92.03	-24.00	654.06
A1	627+02.03	-24.00	653.86
A2	627+12.03	-24.00	653.67
E. End W. Appr. Slab	627+22.03	-24.00	653.47
W. End E. Appr. Slab	627+69.51	-24.00	652.58
A3	627+79.33	-24.00	652.38
A4	627+89.14	-24.00	652.18
E. End E. Appr. Slab	627+98.92	-24.00	651.99

SOUTH CURB LINE

Location	Station	Offset	Theoretical Grade Elevations
W. End W. Appr. Slab	626+86.09	-17.67	653.98
A1	626+96.09	-17.67	653.79
A2	627+06.09	-17.67	653.60
E. End W. Appr. Slab	627+16.09	-17.67	653.40
W. End E. Appr. Slab	627+63.86	-17.83	652.51
A3	627+73.82	-17.93	652.31
A4	627+83.77	-18.06	652.11
E. End E. Appr. Slab	627+93.72	-18.22	651.92



PLAN
(EB Approaches)

NORTH CURB LINE

Location	Station	Offset	Theoretical Grade Elevations
W. End W. Appr. Slab	626+52.64	18.00	655.34
A1	626+62.64	18.00	655.14
A2	626+72.64	18.00	654.94
E. End W. Appr. Slab	626+82.64	18.00	654.74
W. End E. Appr. Slab	627+30.59	18.00	653.84
A3	627+40.63	17.98	653.64
A4	627+50.68	17.94	653.43
E. End E. Appr. Slab	627+60.73	17.87	653.23

NORTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
W. End W. Appr. Slab	626+47.01	24.00	655.27
A1	626+57.01	24.00	655.07
A2	626+67.01	24.00	654.87
E. End W. Appr. Slab	626+77.01	24.00	654.67
W. End E. Appr. Slab	627+22.26	24.00	653.76
A3	627+34.98	24.00	653.57
A4	627+45.02	24.00	653.36
E. End E. Appr. Slab	627+55.03	24.00	653.16

EB I-80 PGL

Location	Station	Offset	Theoretical Grade Elevations
W. End W. Appr. Slab	626+35.76	36.00	655.13
A1	626+45.76	36.00	654.93
A2	626+55.76	36.00	654.73
E. End W. Appr. Slab	626+65.76	36.00	654.53
W. End E. Appr. Slab	627+11.01	36.00	653.63
A3	627+21.01	36.00	653.43
A4	627+33.74	36.00	653.23
E. End E. Appr. Slab	627+43.81	36.00	653.03

EB STAGE CONST. LINE

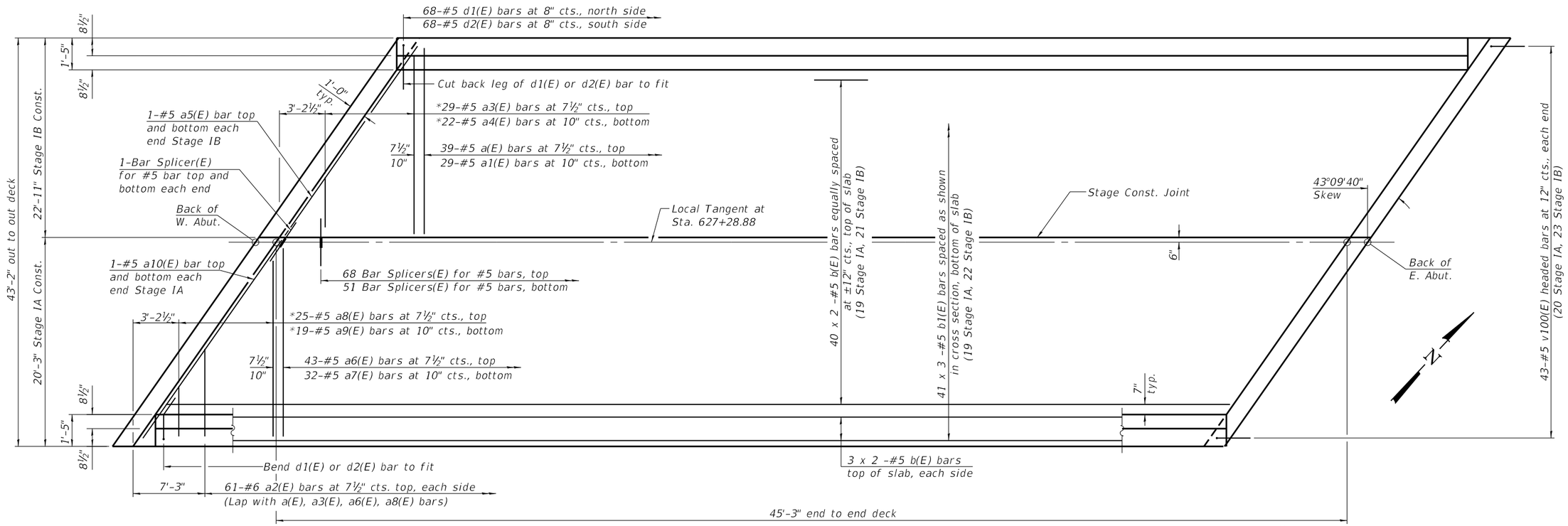
Location	Station	Offset	Theoretical Grade Elevations
W. End W. Appr. Slab	626+34.82	37.00	655.12
A1	626+44.82	37.00	654.92
A2	626+54.82	37.00	654.72
E. End W. Appr. Slab	626+64.82	37.00	654.52
W. End E. Appr. Slab	627+10.07	37.00	653.62
A3	627+20.07	37.00	653.42
A4	627+32.80	37.00	653.22
E. End E. Appr. Slab	627+42.90	36.98	653.02

SOUTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
W. End W. Appr. Slab	626+24.51	48.00	654.99
A1	626+34.51	48.00	654.80
A2	626+44.51	48.00	654.60
E. End W. Appr. Slab	626+54.51	48.00	654.40
W. End E. Appr. Slab	626+99.76	48.00	653.49
A3	627+09.76	48.00	653.29
A4	627+19.76	48.00	653.09
E. End E. Appr. Slab	627+32.49	48.00	652.90

SOUTH CURB LINE

Location	Station	Offset	Theoretical Grade Elevations
W. End W. Appr. Slab	626+15.13	58.00	654.88
A1	626+25.13	58.00	654.68
A2	626+35.13	58.00	654.48
E. End W. Appr. Slab	626+45.13	58.00	654.29
W. End E. Appr. Slab	626+90.38	58.00	653.38
A3	627+00.38	58.00	653.18
A4	627+10.38	58.00	652.98
E. End E. Appr. Slab	627+20.38	58.00	652.78



PLAN - WB

* See Field Cutting Diagram on sheet 14 of 27.

MINIMUM BAR LAP

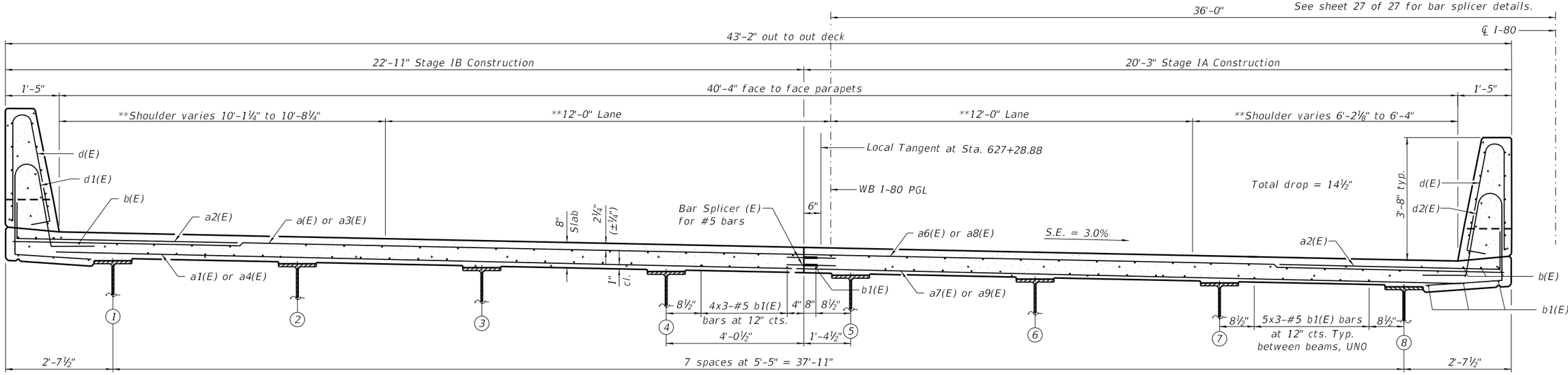
#5 bar = 3'-6"

Notes:

See sheet 14 of 27 for superstructure details and Bill of Material.

Bars indicated thus 20 x 3-#5 etc. indicates 20 lines of bars with 3 lengths per line.

See sheet 27 of 27 for bar splicer details.



CROSS SECTION - WB

(Looking East)

(Stud Shear Connectors not shown for clarity)

(Transverse dimensions measured at right angles to Local Tangent, UNO)

** Measured radially

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F.A.I. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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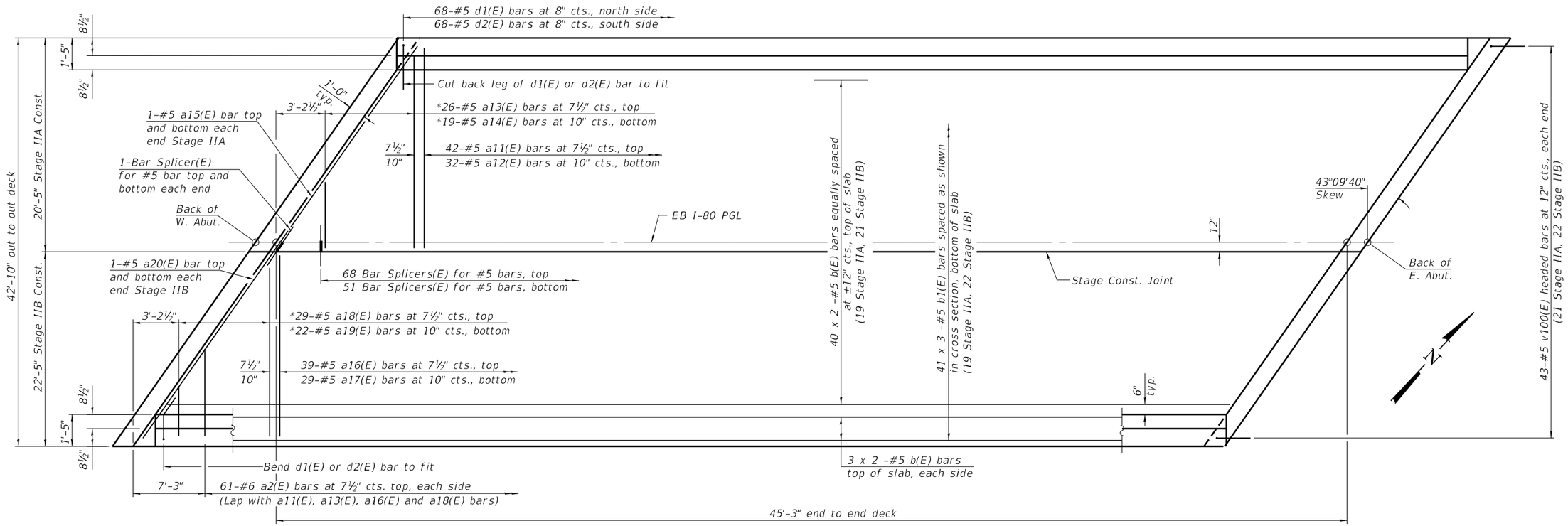
		CONTRACT NO. 66H21		
	ILLINOIS	FED. AID PROJECT		



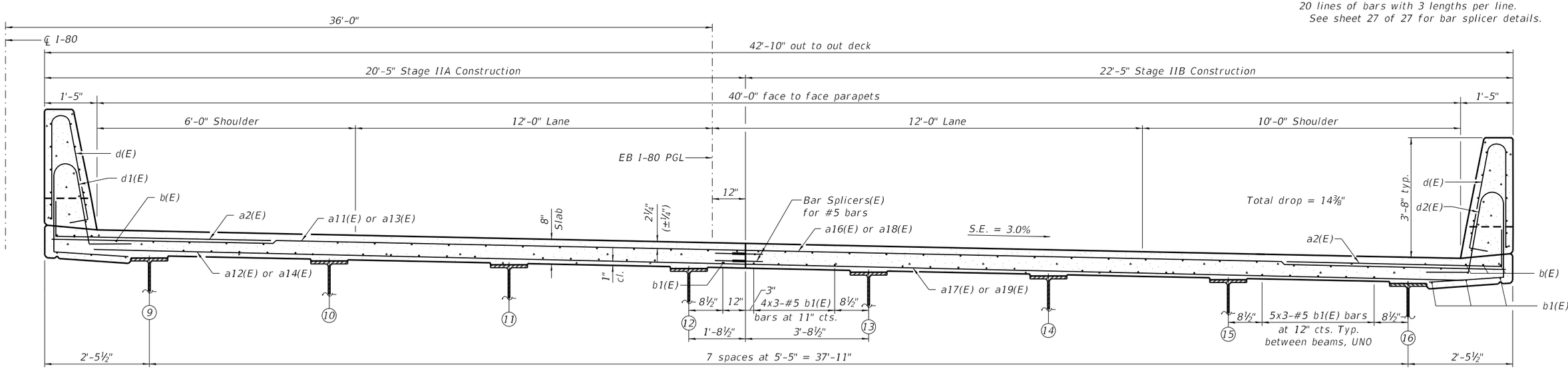
PLAN - EB

* See Field Cutting Diagram on sheet 14 of 27.

MINIMUM BAR LAP

#5 bar = 3'-6"

Notes:
See sheet 14 of 27 for superstructure details and Bill of Material.
Bars indicated thus 20 x 3-#5 etc. indicates 20 lines of bars with 3 lengths per line.
See sheet 27 of 27 for bar splicer details.



CROSS SECTION - EB

(Looking East)
(Stud Shear Connectors not shown for clarity)

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	PLOT DATE = 10/04/2019	CHECKED - MTH	REVISED -		

F.A.I. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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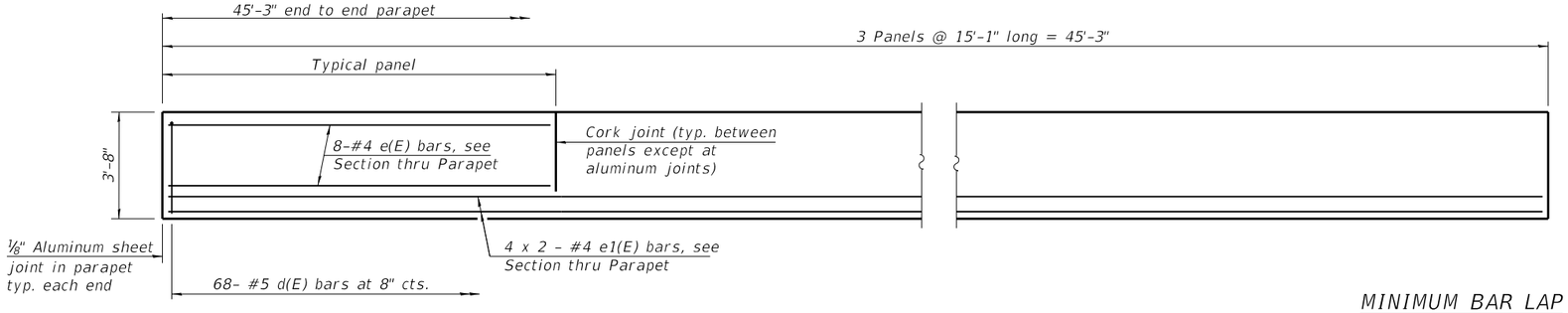
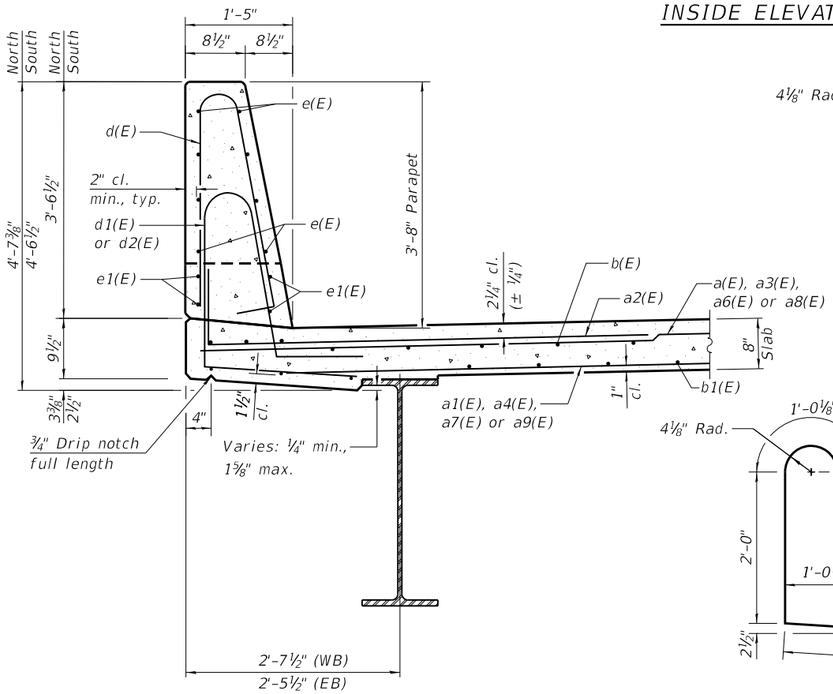
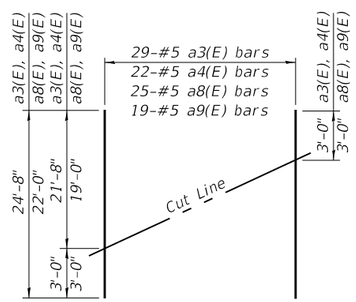
		CONTRACT NO. 66H21		
	ILLINOIS	FED. AID PROJECT		



INSIDE ELEVATION OF PARAPET

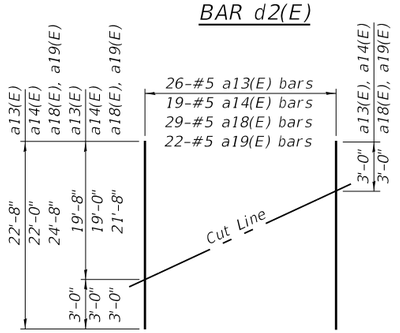


SECTION THRU PARAPET



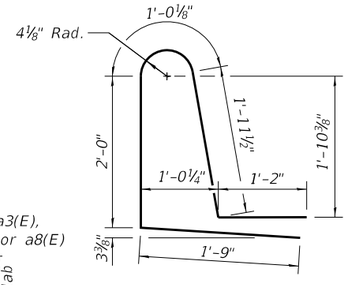
FIELD CUTTING DIAGRAM

Order a3(E), a4(E), a8(E) and a9(E) bars full length. Cut as shown and use remainder of bars in opposite end of deck.

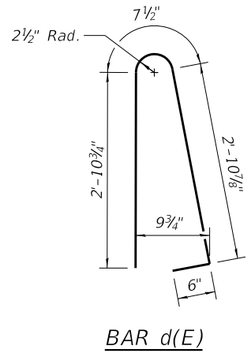


FIELD CUTTING DIAGRAM

Order a13(E), a14(E), a18(E) and a19(E) bars full length. Cut as shown and use remainder of bars in opposite end of deck.

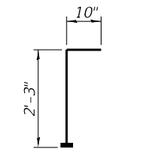


BAR d1(E)



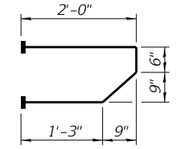
BAR d(E)

BAR d2(E)



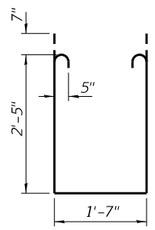
BAR v100(E)

(Headed)

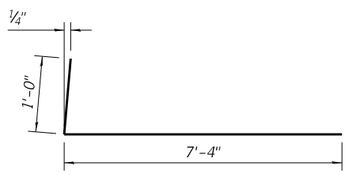


BAR s10(E)

(Headed)



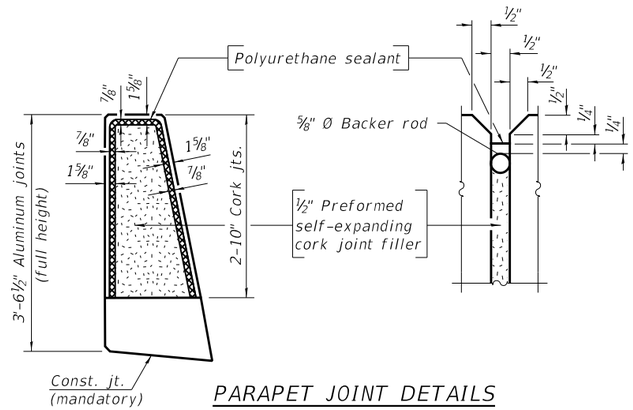
BAR s11(E)



BAR a2(E)

MINIMUM BAR LAP

#4 bar = 2'-5"



PARAPET JOINT DETAILS

Notes:

The ⅛" aluminum sheet shall be ASTM B 209 alloy 3003-H14 and coated to minimize reaction with wet concrete. Cost included with Concrete Superstructure.

The polyurethane sealant shall be according to Article 1050.04 of the Std. Spec. and the color shall be gray.

Headed bars shall conform to ASTM A970 with threaded attachment; Class HA; and reinforcement bars conforming to ASTM A706. Cost included with Reinforcement Bars, Epoxy Coated.

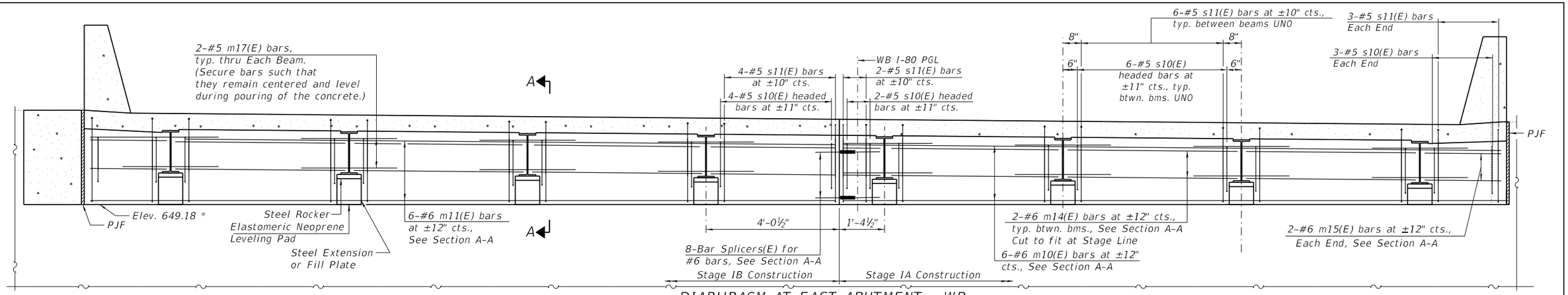
Bars indicated thus 1 x 2-#8 etc. indicates 1 line of bars with 2 lengths per line.

WB SUPERSTRUCTURE BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a(E)	39	#5	22'-7"	
a1(E)	29	#5	22'-3"	
a2(E)	122	#6	8'-4"	
a3(E)	29	#5	24'-8"	
a4(E)	22	#5	24'-8"	
a5(E)	4	#5	30'-6"	
a6(E)	43	#5	19'-11"	
a7(E)	32	#5	19'-7"	
a8(E)	25	#5	22'-0"	
a9(E)	19	#5	22'-0"	
a10(E)	4	#5	27'-3"	
b(E)	92	#5	24'-4"	
b1(E)	123	#5	17'-5"	
d(E)	136	#5	7'-0"	
d1(E)	68	#5	7'-11"	
d2(E)	68	#5	7'-11"	
e(E)	48	#4	14'-9"	
e1(E)	16	#4	23'-9"	
m10(E)	12	#6	27'-5"	
m11(E)	12	#6	31'-1"	
m14(E)	28	#6	7'-1"	
m15(E)	8	#6	3'-3"	
m17(E)	32	#5	4'-0"	
s10(E)	96	#5	4'-10"	
s11(E)	96	#5	7'-7"	
v100(E)	86	#5	3'-1"	
Reinforcement Bars, Epoxy Coated			Lbs.	17680
Concrete Superstructure			Cu. Yds.	77.2

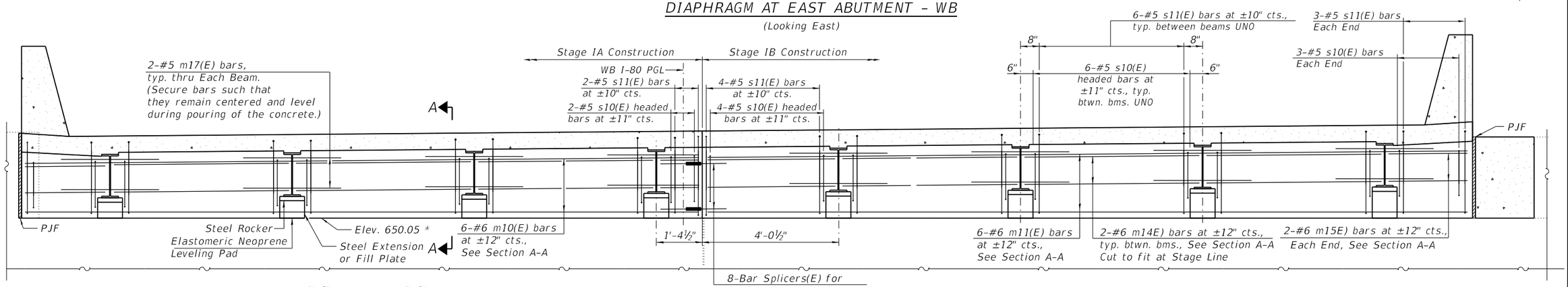
EB SUPERSTRUCTURE BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a2(E)	122	#6	8'-4"	
a11(E)	42	#5	20'-1"	
a12(E)	32	#5	19'-9"	
a13(E)	26	#5	22'-8"	
a14(E)	19	#5	22'-0"	
a15(E)	4	#5	27'-6"	
a16(E)	39	#5	22'-1"	
a17(E)	29	#5	21'-9"	
a18(E)	29	#5	24'-8"	
a19(E)	22	#5	24'-8"	
a20(E)	4	#5	30'-3"	
b(E)	92	#5	24'-4"	
b1(E)	123	#5	17'-5"	
d(E)	136	#5	7'-0"	
d1(E)	68	#5	7'-11"	
d2(E)	68	#5	7'-11"	
e(E)	48	#4	14'-9"	
e1(E)	16	#4	23'-9"	
m12(E)	12	#6	27'-8"	
m13(E)	12	#6	30'-4"	
m14(E)	28	#6	7'-1"	
m16(E)	8	#6	3'-0"	
m17(E)	32	#5	4'-0"	
s10(E)	96	#5	4'-10"	
s11(E)	96	#5	7'-7"	
v100(E)	86	#5	3'-1"	
Reinforcement Bars, Epoxy Coated			Lbs.	17690
Concrete Superstructure			Cu. Yds.	75.2



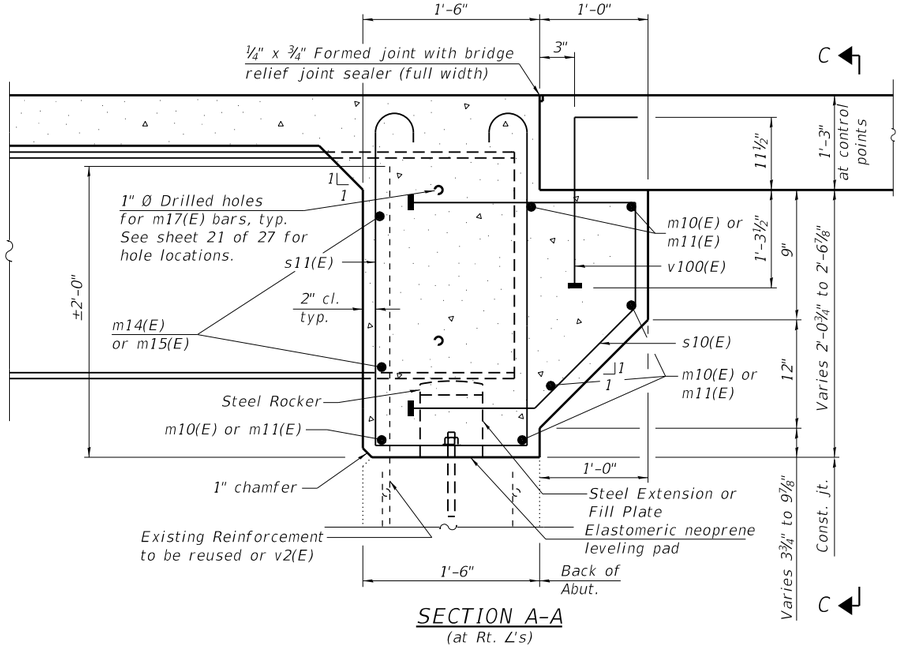
DIAPHRAGM AT EAST ABUTMENT – WB

(Looking East)



DIAPHRAGM AT WEST ABUTMENT – WB

(Looking West)



SECTION A–A

(at Rt. L's)

* A datum adjustment of –0.82 ft has been applied to existing plan elevations. Contractor shall field verify all existing elevations prior to ordering materials.

Notes:

Reinforcement bars in diaphragm are billed with superstructure on sheet 14 of 27.

Concrete in diaphragm is included with Concrete Superstructure on sheet 14 of 27.

For details of bars s10(E), s11(E) and v100(E) see sheet 14 of 27.

The s10(E) and s11(E) bars shall be placed parallel to the beams. Spacing for these bars shall be at right angles to the beams.

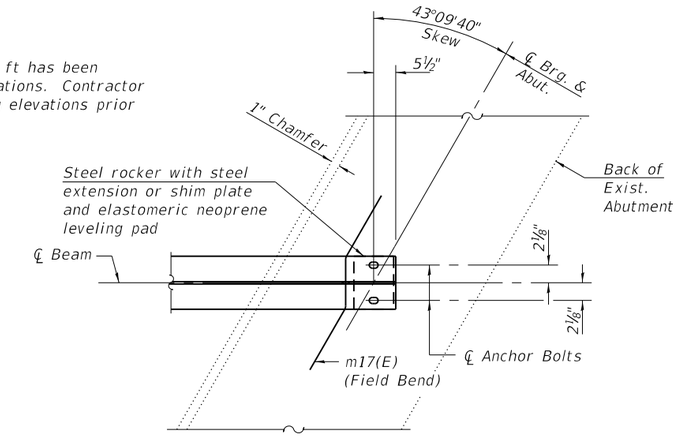
The approach slab seat shall have a constant slope determined from the control points shown.

For bearing details see sheet 22 of 27.

Beams shall be braced for stability during erection and remain braced until deck is poured and cured.

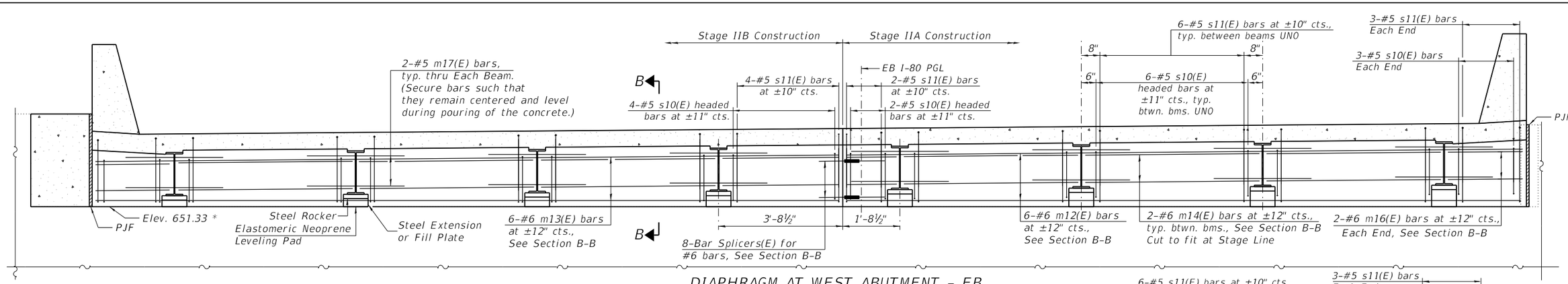
Existing reinforcement shall be cleaned and incorporated into the new construction. Cost included with Concrete Removal.

See sheet 16 of 27 for Section C–C.



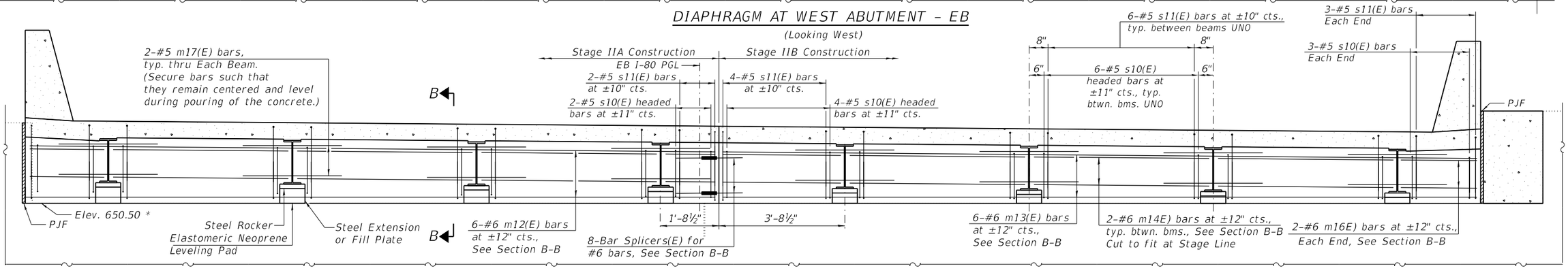
PLAN AT ABUTMENT

(Showing bottom flange of beam)



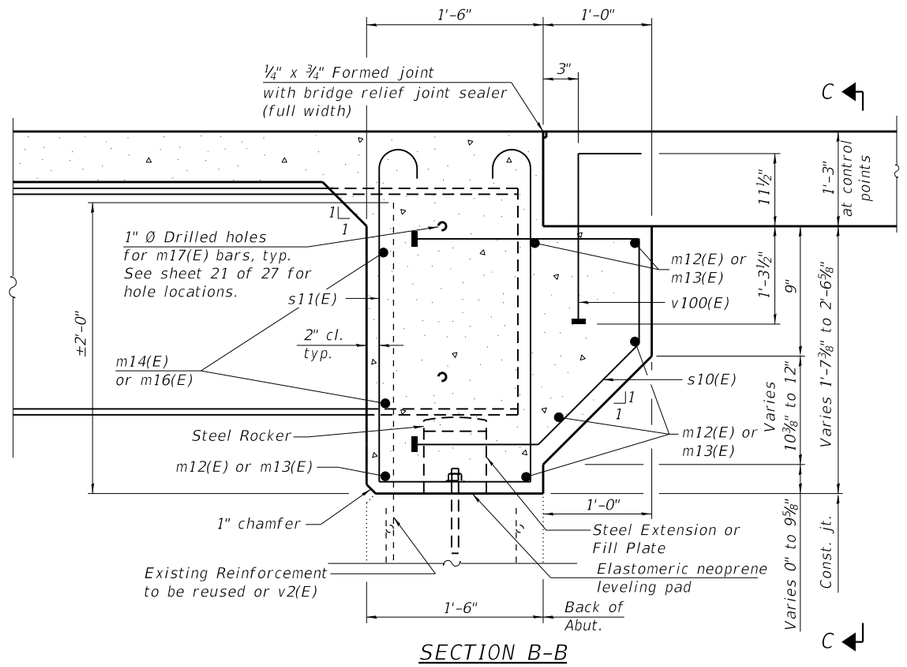
DIAPHRAGM AT WEST ABUTMENT - EB

(Looking West)



DIAPHRAGM AT EAST ABUTMENT - EB

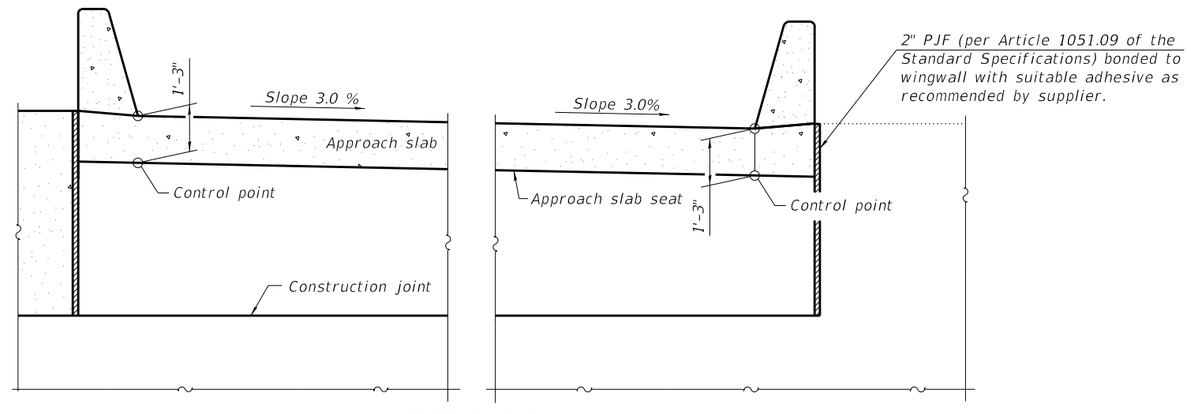
(Looking East)



SECTION B-B

(at Rt. ∠'s)

* A datum adjustment of -0.82 ft has been applied to existing plan elevations. Contractor shall field verify all existing elevations prior to ordering materials.



SECTION C-C

Note:
Work this sheet with sheet 15 of 27.

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PLOT DATE = 10/04/2019	CHECKED - MTH	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EB CONCRETE DIAPHRAGM DETAILS
STRUCTURE NOS. 050-0003 & 050-0004
SHEET 16 OF 27 SHEETS

F.A.I. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(50-2)HBR-1	LASALLE	328	114
		CONTRACT NO. 66H21		
	ILLINOIS	FED. AID PROJECT		

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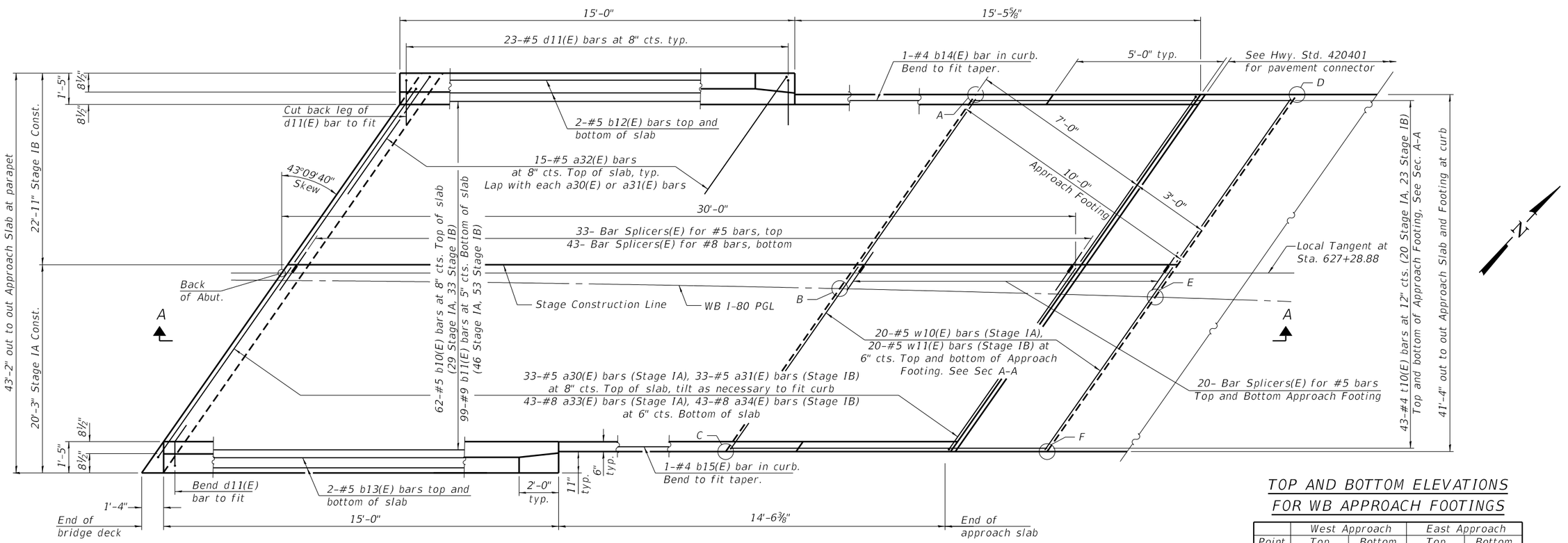
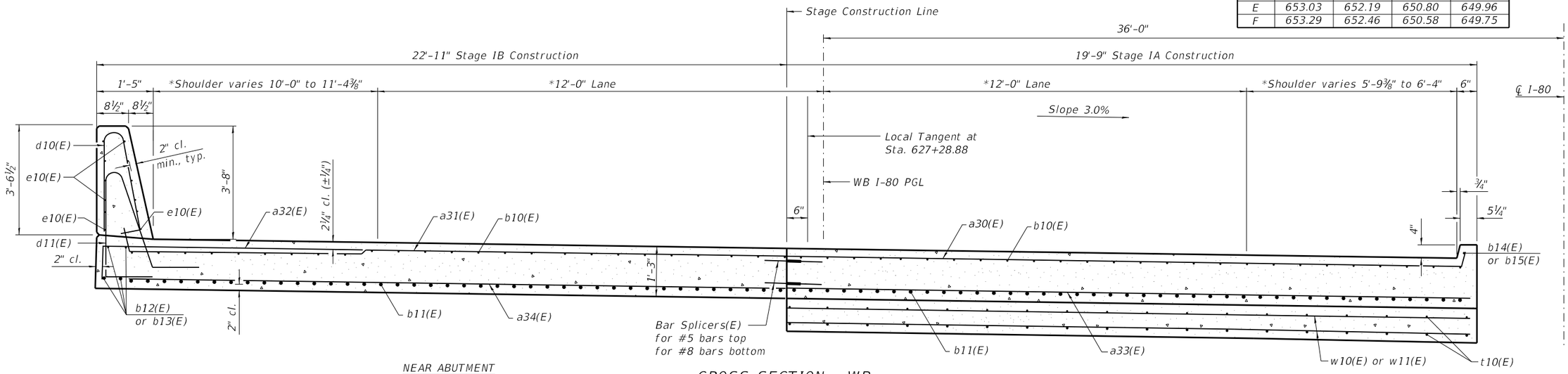


TOP AND BOTTOM ELEVATIONS FOR WB APPROACH FOOTINGS

	West Approach		East Approach	
Point	Top	Bottom	Top	Bottom
A	652.53	651.70	651.36	650.52
B	652.76	651.93	651.07	650.24
C	653.03	652.19	650.85	650.01
D	652.80	651.97	651.10	650.26
E	653.03	652.19	650.80	649.96
F	653.29	652.46	650.58	649.75

PLAN - WB

(East Approach Slab shown; West Approach Slab similar, Footing Elevations rotated 180°)



NEAR ABUTMENT

CROSS SECTION - WB

(Looking East)

AT APPROACH FOOTING

*measured radially

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PLOT DATE = 10/04/2019	CHECKED - MTH	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BRIDGE APPROACH SLAB DETAILS
STRUCTURE NOS. 050-0003 & 050-0004
SHEET 17 OF 27 SHEETS

F.A.I. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(50-2)HBR-1	LASALLE	328	115
		CONTRACT NO. 66H21		
	ILLINOIS	FED. AID PROJECT		

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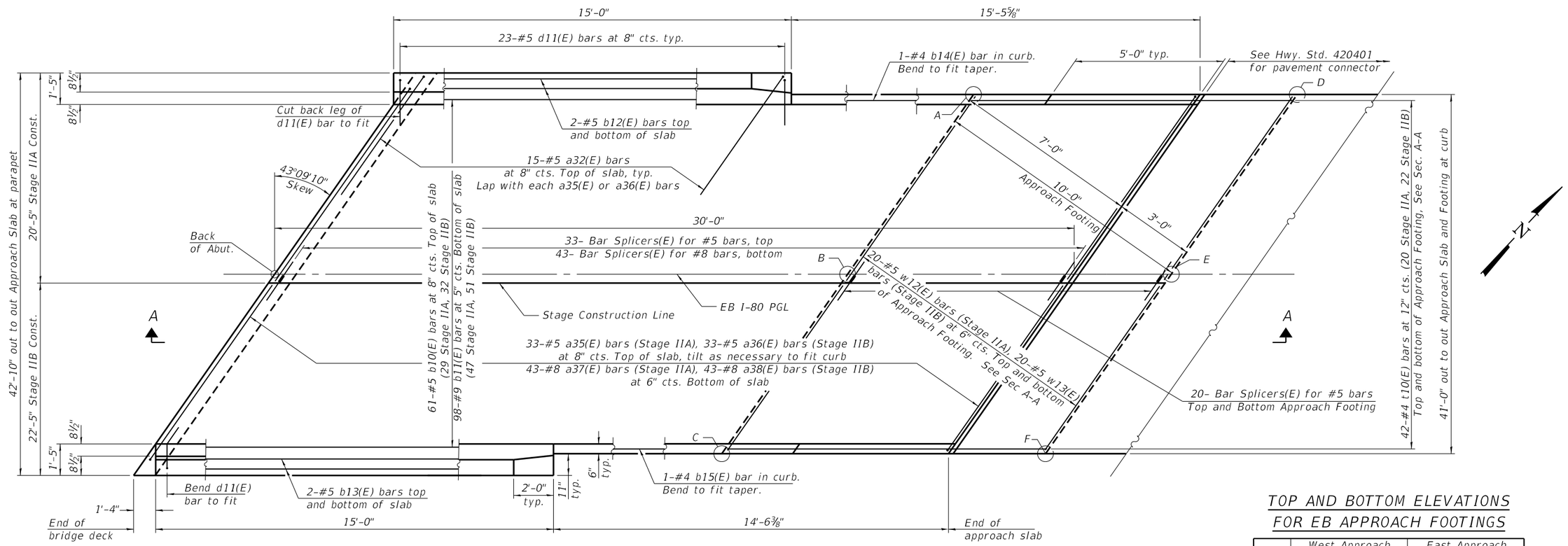
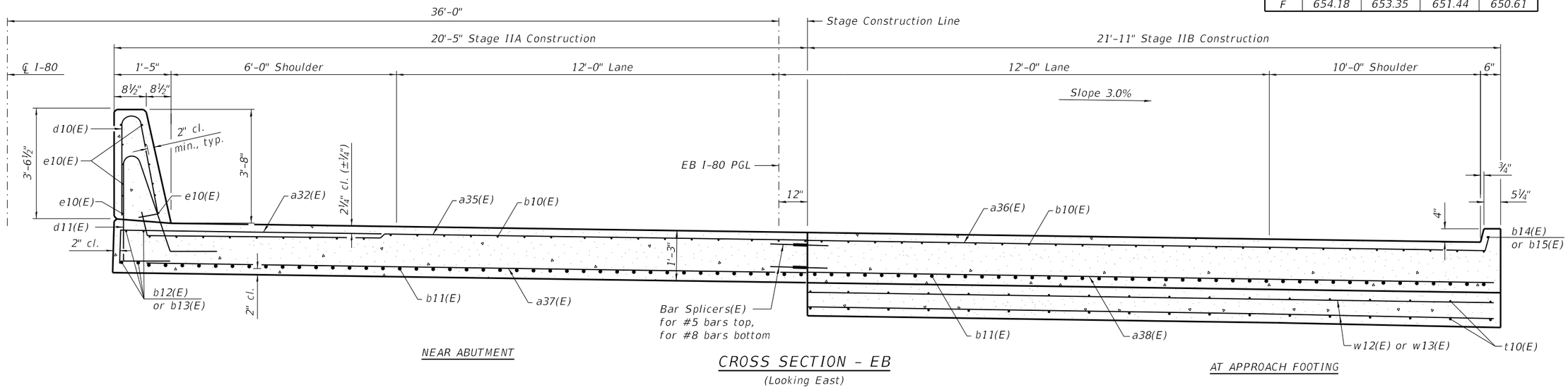


TOP AND BOTTOM ELEVATIONS FOR EB APPROACH FOOTINGS

	West Approach		East Approach	
Point	Top	Bottom	Top	Bottom
A	653.43	652.60	652.18	651.35
B	653.69	652.86	651.97	651.14
C	653.90	653.07	651.71	650.88
D	653.70	652.87	651.91	651.07
E	653.96	653.13	651.69	650.86
F	654.18	653.35	651.44	650.61

PLAN - EB

(East Approach Slab shown; West Approach Slab similar, Footing Elevations rotated 180°)



NEAR ABUTMENT

CROSS SECTION - EB

(Looking East)

AT APPROACH FOOTING

MODEL: Default
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BRIDGE APPROACH SLAB DETAILS
STRUCTURE NOS. 050-0003 & 050-0004

SHEET 18 OF 27 SHEETS

F.A.I. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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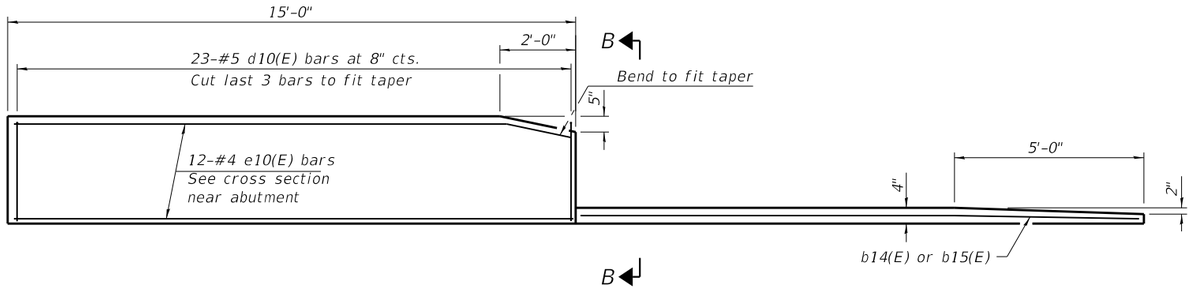
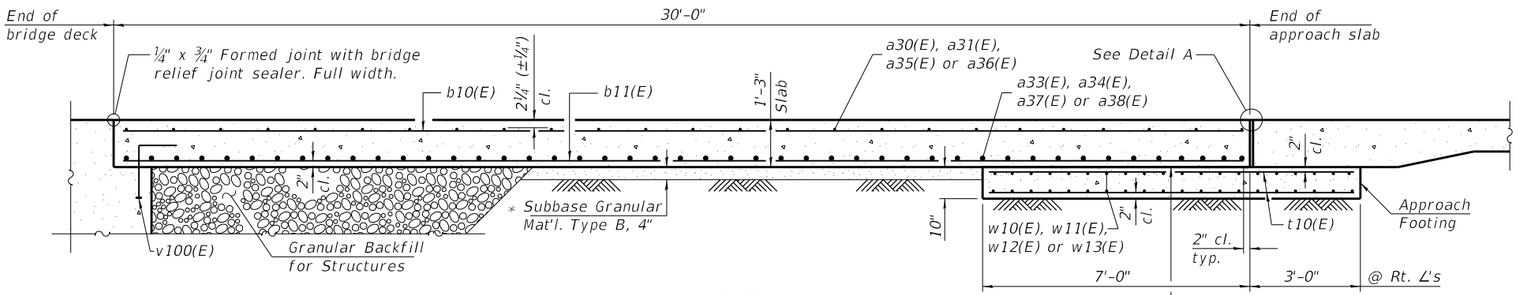
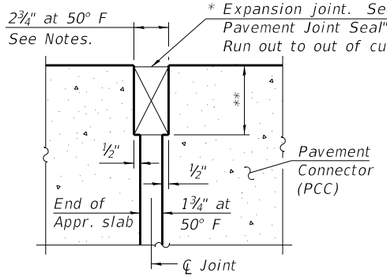
		CONTRACT NO. 66H21		
	ILLINOIS FED. AID PROJECT			



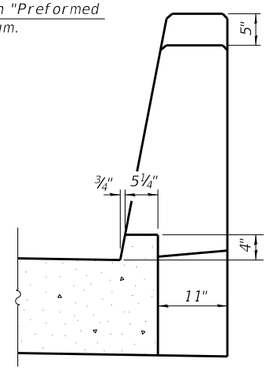
INSIDE ELEVATION OF PARAPET AND CURB



SECTION A-A



DETAIL A
(@ Rt. ∠'s)



VIEW B-B

* Cost included with Concrete Superstructure (Approach Slab).

** Per manufacturer recommendations

Notes:

The joint opening shall be adjusted for temperature per Article 520.04 of the Standard Specifications. However, since this detail is for jointless structures, the length of bridge used to calculate the adjustment shall be equal to half the total bridge length plus the length of the bridge approach slab.

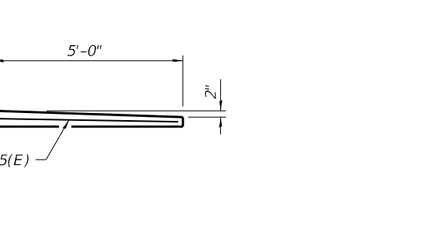
Parapet concrete shall be paid for as Concrete Superstructure.

Approach slab shall be paid for as Concrete Superstructure (Approach Slab).

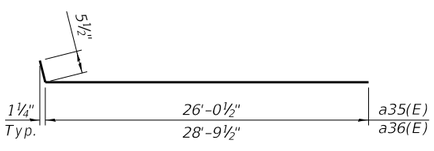
Approach footing concrete shall be paid for as Concrete Structures.

The approach footing maximum applied service bearing pressure (Qmax) = 2.0 ksf.

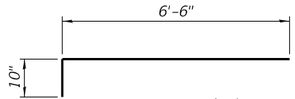
Cost of excavation for approach footing included with Concrete Structures.



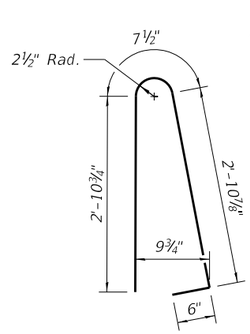
BARS a30(E) & a31(E)



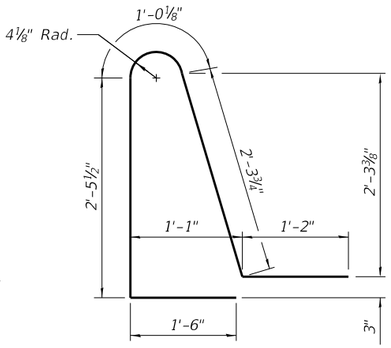
BARS a35(E) & a36(E)



BAR a32(E)



BAR d10(E)



BAR d11(E)

TWO WB APPROACHES
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a30(E)	66	#5	26'-3"	
a31(E)	66	#5	29'-11"	
a32(E)	60	#5	7'-4"	
a33(E)	86	#8	26'-3"	
a34(E)	86	#8	29'-11"	
b10(E)	124	#5	29'-8"	
b11(E)	198	#9	29'-8"	
b12(E)	8	#5	13'-5"	
b13(E)	8	#5	14'-9"	
b14(E)	2	#4	14'-9"	
b15(E)	2	#4	14'-3"	
d10(E)	92	#5	7'-0"	
d11(E)	92	#5	8'-6"	
e10(E)	48	#4	14'-8"	
t10(E)	172	#4	13'-5"	
w10(E)	80	#5	26'-3"	
w11(E)	80	#5	29'-11"	
Concrete Superstructure		Cu. Yd.	8.4	
Concrete Superstructure (Approach Slab)		Cu. Yd.	117.8	
Concrete Structures		Cu. Yd.	35.0	
Reinforcement Bars, Epoxy Coated		Pound	49,500	

TWO EB APPROACHES
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a32(E)	60	#5	7'-4"	
a35(E)	66	#5	26'-6"	
a36(E)	66	#5	29'-3"	
a37(E)	86	#8	26'-6"	
a38(E)	86	#8	29'-3"	
b10(E)	122	#5	29'-8"	
b11(E)	196	#9	29'-8"	
b12(E)	8	#5	13'-5"	
b13(E)	8	#5	14'-9"	
b14(E)	2	#4	14'-9"	
b15(E)	2	#4	14'-3"	
d10(E)	92	#5	7'-0"	
d11(E)	92	#5	8'-6"	
e10(E)	48	#4	14'-8"	
t10(E)	168	#4	13'-5"	
w12(E)	80	#5	26'-6"	
w13(E)	80	#5	29'-3"	
Concrete Superstructure		Cu. Yd.	8.4	
Concrete Superstructure (Approach Slab)		Cu. Yd.	116.8	
Concrete Structures		Cu. Yd.	34.7	
Reinforcement Bars, Epoxy Coated		Pound	49,240	

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STATE OF ILLINOIS
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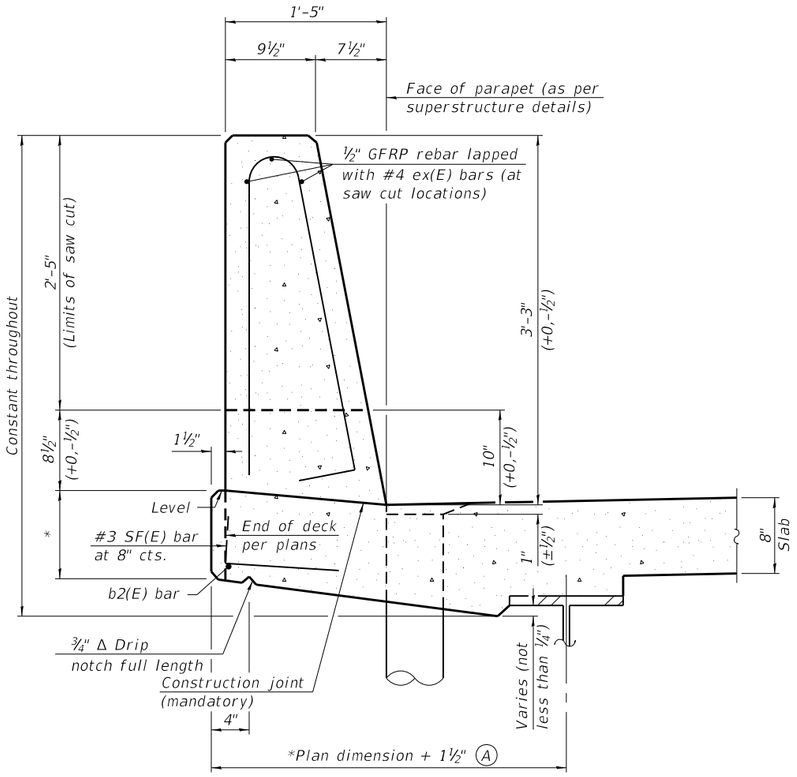
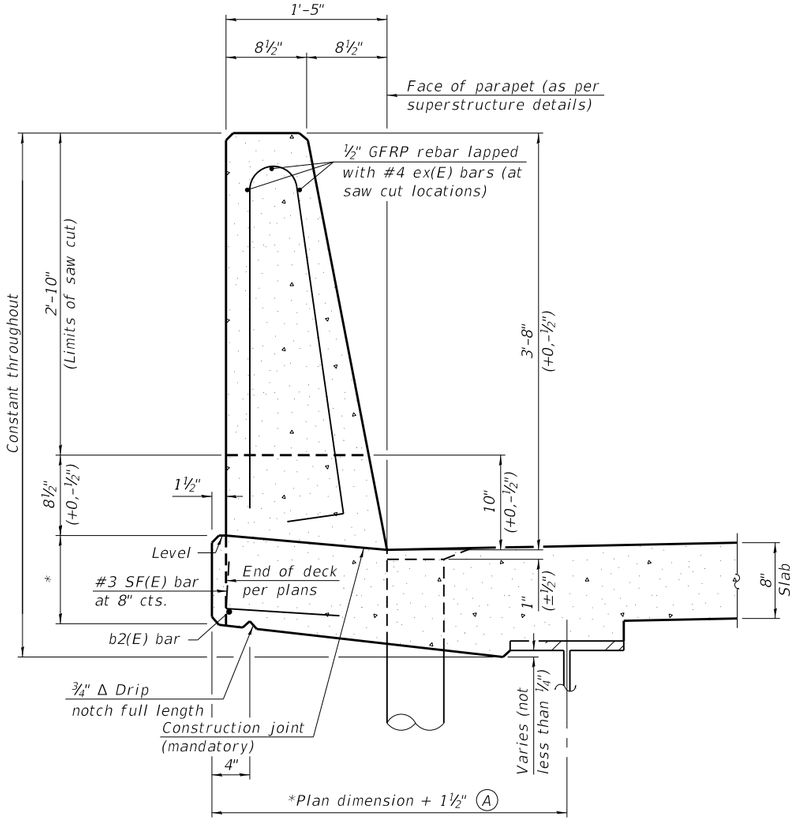
BRIDGE APPROACH SLAB DETAILS
STRUCTURE NOS. 050-0003 & 050-0004
SHEET 19 OF 27 SHEETS

F.A.I. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(50-2)HBR-1	LASALLE	328	117
		CONTRACT NO. 66H21		
	ILLINOIS	FED. AID PROJECT		



39" CONSTANT-SLOPE PARAPET SECTION

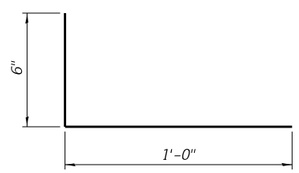
(Showing dimensions, d(E), and ½" Ø GFRP rebar)



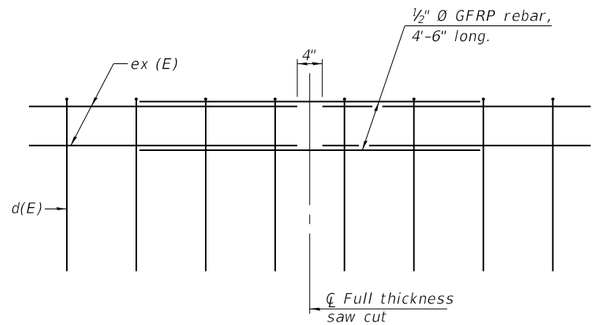
44" CONSTANT-SLOPE PARAPET SECTION

(Showing dimensions, d(E), and ½" Ø GFRP rebar)

*See Superstructure Details.



#3 (E) BAR



GFRP REBAR STIFFENING DETAIL

(Place as shown in parapet section at each parapet joint location.)

GENERAL NOTES

All dimensions shall remain the same as shown on superstructure details, except dimension A which is to be revised as shown. Additional concrete needed to revise dimension A = 0.00348 cu. yds./ft. for 39" and 44" parapets.

Place full depth aluminum sheets as shown on superstructure details.

Replace all cork joint filler locations with a full thickness saw cut.

Steel superstructure shown. Other superstructure types similar.

SFP 39-44 1-14-2019

LIN ENGINEERING, LTD. Consulting Engineers Springfield, Illinois	USER NAME =	DESIGNED - AML	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	CONCRETE PARAPET SLIPFORMING OPTION STRUCTURE NOS. 050-0003 & 050-0004
		CHECKED - MTH	REVISED -		
	PLOT SCALE =	DRAWN - DAS	REVISED -		SHEET 20 OF 27 SHEETS
	PLOT DATE = 10/04/2019	CHECKED - MTH	REVISED -		

F.A.I. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(50-2)HBR-1	LASALLE	328	118
		CONTRACT NO. 66H21		
	ILLINOIS	FED. AID PROJECT		

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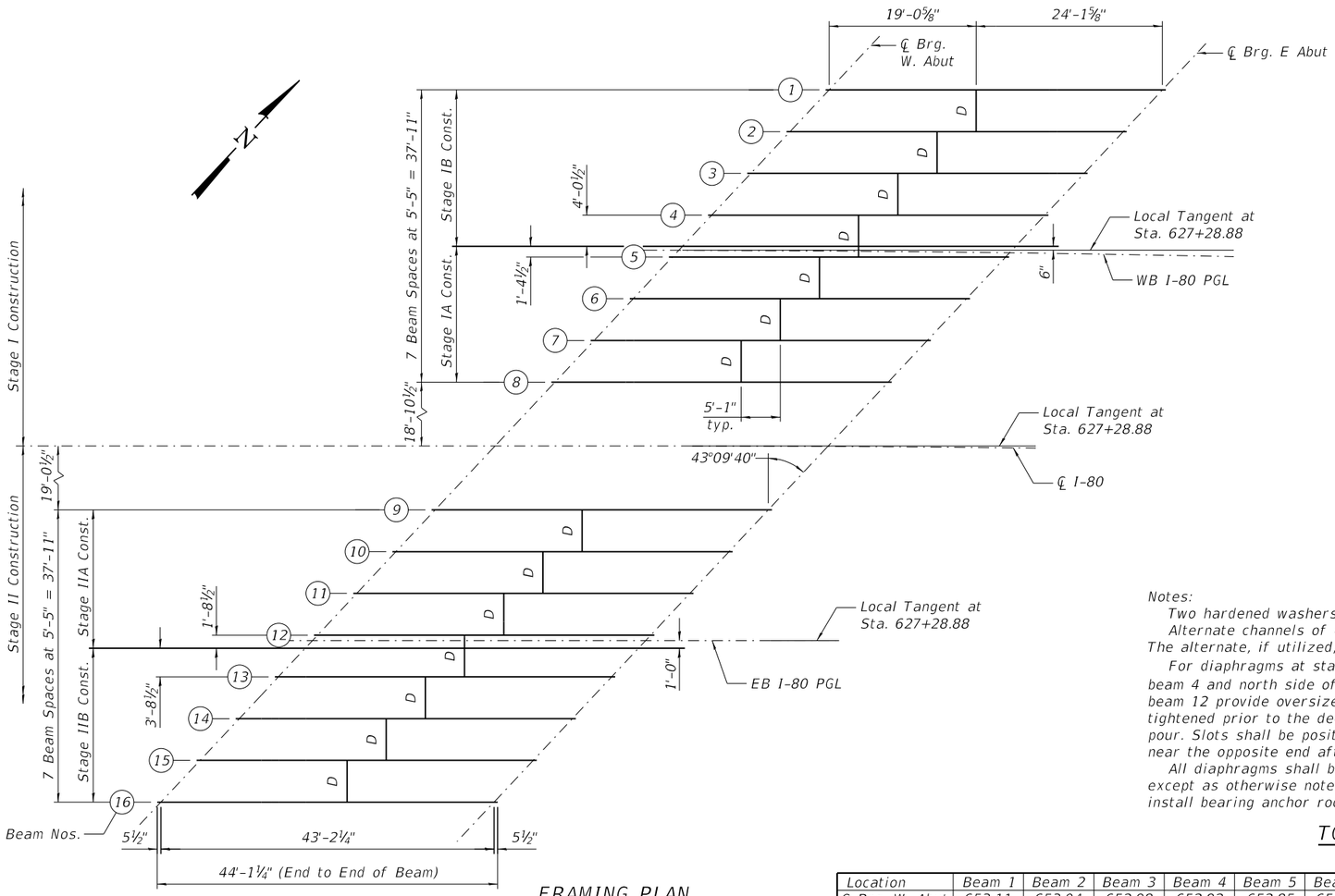
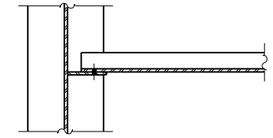
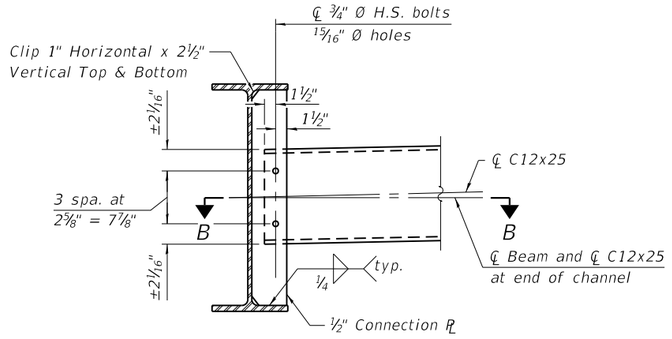


FRAMING PLAN



SECTION B-B



INTERIOR DIAPHRAGM D

(14 Required)

Notes:

Two hardened washers required for each set of oversized holes.

Alternate channels of equal depth and larger weight are permitted to facilitate material acquisition. The alternate, if utilized, shall be provided at no additional cost to the Department.

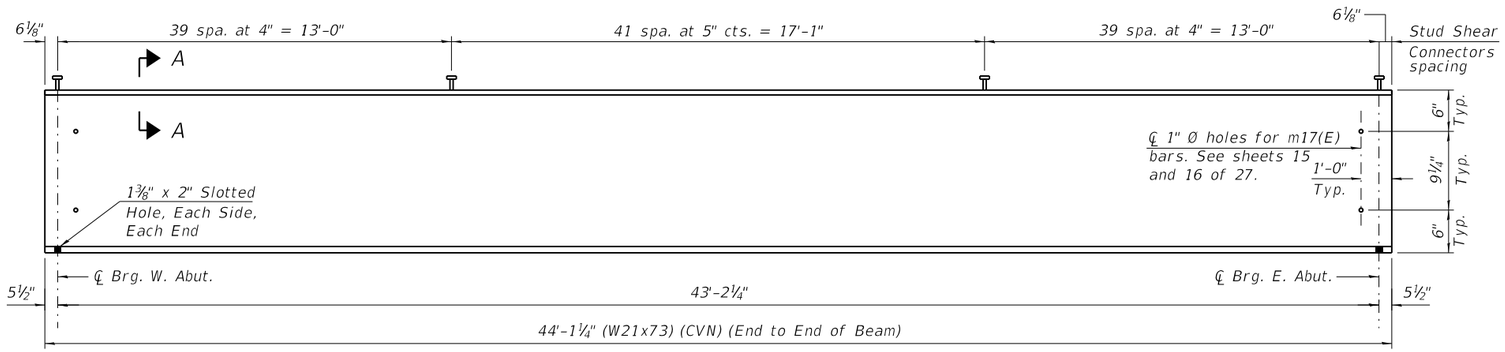
For diaphragms at stage construction line, provide 13/16"x1⅞" vertical slotted holes at south side of beam 4 and north side of beam 13 in connection plate and for north side of beam 5 and south side of beam 12 provide oversized holes in connection plate and channel. Bolts in slotted holes shall be finger tightened prior to the deck slab pouring and then fully tightened after completion of the second stage pour. Slots shall be positioned such that the bolts start at one end with no concrete load and finish near the opposite end after the deck pour.

All diaphragms shall be installed as steel is erected and secured with erection pins and bolts except as otherwise noted. Individual diaphragms at supports may be temporarily disconnected to install bearing anchor rods.

TOP OF BEAM ELEVATIONS

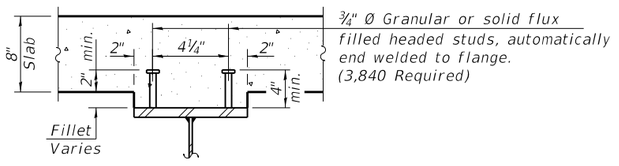
(For Fabrication Only)

Location	Beam 1	Beam 2	Beam 3	Beam 4	Beam 5	Beam 6	Beam 7	Beam 8	Beam 9	Beam 10	Beam 11	Beam 12	Beam 13	Beam 14	Beam 15	Beam 16
℄ Brg. W. Abut.	653.11	653.04	652.98	652.92	652.85	652.79	652.73	652.67	653.98	653.92	653.86	653.80	653.73	653.67	653.61	653.55
℄ Brg. E. Abut.	652.27	652.21	652.14	652.07	652.01	651.94	651.88	651.81	653.11	653.05	652.99	652.93	652.87	652.81	652.75	652.69



BEAM ELEVATION

"CVN" denotes Charpy-V-Notch impact energy requirements, zone 2.

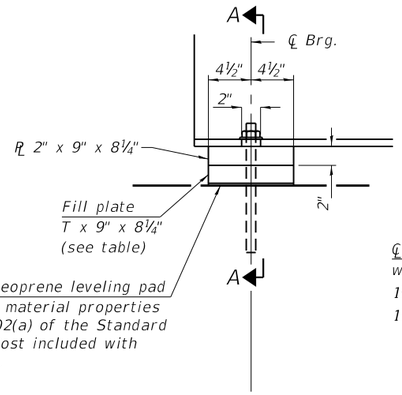


¾" Ø Granular or solid flux filled headed studs, automatically end welded to flange. (3,840 Required)

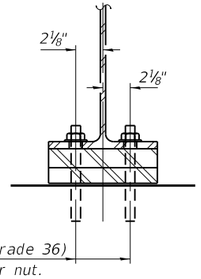
SECTION A-A

FILL PLATE THICKNESSES

Location	T
E. Abut. Beam 12	5¾"
W. Abut. Beam 13	5⅜"
E. Abut. Beam 13	5"
W. Abut. Beam 14	4⅝"
E. Abut. Beam 14	4⅜"
W. Abut. Beam 15	4"
E. Abut. Beam 15	3⅝"
W. Abut. Beam 16	3¼"
E. Abut. Beam 16	2⅛"

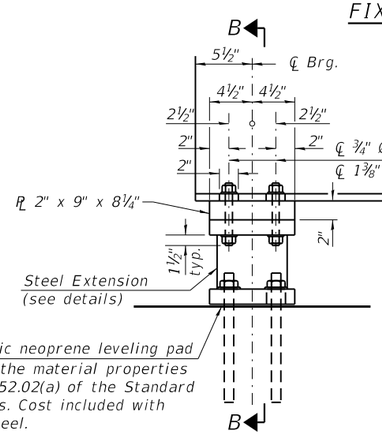


ELEVATION AT ABUTMENT

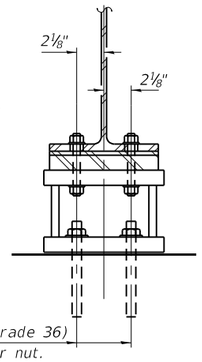


SECTION A-A

FIXED BEARING WITH FILL PLATES



ELEVATION AT ABUTMENT



SECTION B-B

INTERIOR BEAM MOMENT TABLE		
		0.5 Span
Is	(in⁴)	1600
Ic(n)	(in⁴)	5952
Ic(3n)	(in⁴)	4422
Ic(cr)	(in⁴)	–
Ss	(in³)	151
Sc(n)	(in³)	265
Sc(3n)	(in³)	237
Sc(cr)	(in³)	–
DC1	(k/')	0.629
MDC1	('k)	147
DC2	(k/')	0.143
MDC2	('k)	33
DW	(k/')	0.252
MDW	('k)	59
LLDF		0.556
M℄ + IM	('k)	451
Mu (Strength I)	('k)	1103
Ø Mn	('k)	1459
fs DC1	(ksi)	11.69
fs DC2	(ksi)	1.67
fs DW	(ksi)	2.99
fs (℄+IM)	(ksi)	20.44
fs (Service II)	(ksi)	42.92
0.95Rh Fyf	(ksi)	47.50
fs (Total)(Strength I)	(ksi)	–
Ø Fn	(ksi)	–
Vf	(k)	34.4

BEAM REACTION TABLE			
		Abut.	
		Interior	Exterior
LLDF		0.627	0.452
OCF		–	1.19
RDC1	(k)	* 17.4	* 18.5
RDC2	(k)	3.1	3.1
RDW	(k)	5.4	5.4
R℄	(k)	44.1	31.8
R IM	(k)	11.7	8.4
RTotal	(k)	81.6	67.2

* Includes weight of concrete end diaphragm.

Is, Ss: Non-composite moment of inertia and section modulus of the steel section used for computing fs(Total-Strength I, and Service II) due to non-composite dead loads (in.⁴ and in.³).

Ic(n), Sc(n): Composite moment of inertia and section modulus of the steel and deck based upon the modular ratio, "n", used for computing fs(Total-Strength I, and Service II) in uncracked sections due to short-term composite live loads (in.⁴ and in.³).

Ic(3n), Sc(3n): Composite moment of inertia and section modulus of the steel and deck based upon 3 times the modular ratio, "3n", used for computing fs(Total-Strength I, and Service II) in uncracked sections, due to long-term composite (superimposed) dead loads (in.⁴ and in.³).

Ic(cr), Sc(cr): Composite moment of inertia and section modulus of the steel and longitudinal deck reinforcement, used for computing fs (Total-Strength I and Service II) in cracked sections, due to both short-term composite live loads and long-term composite (superimposed) dead loads (in.⁴ and in.³).

DC1: Un-factored non-composite dead load (kips/ft.).

MDC1: Un-factored moment due to non-composite dead load (kip-ft.).

DC2: Un-factored long-term composite (superimposed excluding future wearing surface) dead load (kips/ft.).

MDC2: Un-factored moment due to long-term composite (superimposed excluding future wearing surface) dead load (kip-ft.).

DW: Un-factored long-term composite (superimposed future wearing surface only) dead load (kips/ft.).

MDW: Un-factored moment due to long-term composite (superimposed future wearing surface only) dead load (kip-ft.).

M℄ + IM: Un-factored live load moment plus dynamic load allowance (impact) (kip-ft.).

Mu (Strength I): Factored design moment (kip-ft.).
1.25 (MDC1 + MDC2) + 1.5 MDW + 1.75 M℄ + IM

Ø Mn: Compact composite positive moment capacity computed according to Article 6.10.7.1 or non-slender negative moment capacity according to Article A6.1.1 or A6.1.2 (kip-ft).

fs DC1: Un-factored stress at edge of flange for controlling steel flange due to vertical non-composite dead loads as calculated below (ksi).
MDC1/ Snc

fs DC2: Un-factored stress at edge of flange for controlling steel flange due to vertical composite dead loads as calculated below (ksi).
MDC2/ Sc(3n) or MDC2/ Sc(cr) as applicable.

fs DW: Un-factored stress at edge of flange for controlling steel flange due to vertical composite future wearing surface loads as calculated below (ksi).
MDW/ Sc(3n) or MDW/ Sc(cr) as applicable.

fs (℄+IM): Un-factored stress at edge of flange for controlling steel flange due to vertical composite live load plus impact loads as calculated below (ksi).
M℄ + IM / Sc(n) or M℄ + IM / Sc(cr) as applicable.

fs (Service II): Sum of stresses as computed below (ksi).
fsDC1 + fsDC2 + fsDW + 1.3 fs(℄ + IM)

0.95RhFyf: Composite stress capacity for Service II loading according to Article 6.10.4.2 (ksi).

fs (Total)(Strength I): Sum of stresses as computed below on non-compact section (ksi).
1.25 (fsDC1 + fsDC2) + 1.5 fsDW + 1.75 fs(℄ + IM)

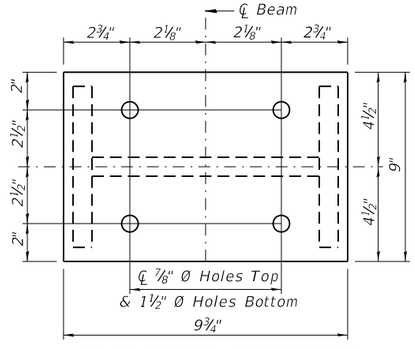
Ø Fn: Non-Compact composite positive or negative stress capacity for Strength I loading according to Article 6.10.7 or 6.10.8 (ksi).

Vf: Maximum factored shear range in span computed according to Article 6.10.10.

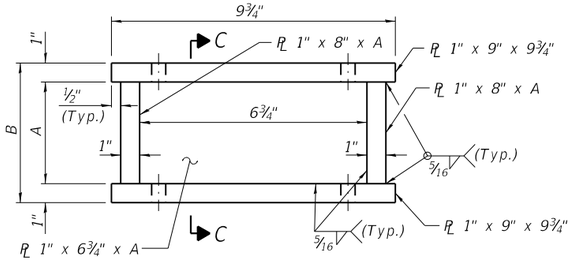
LLDF: Live Load Distribution Factor

OCF: Obtuse Correction Factor

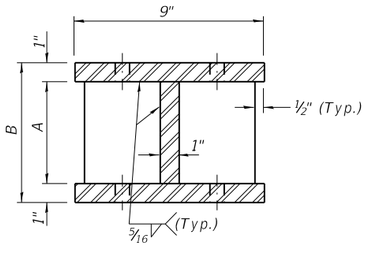
FIXED BEARING WITH STEEL EXTENSIONS



PLAN STEEL EXTENSION



ELEVATION STEEL EXTENSION



SECTION C-C

STEEL EXTENSION DIMENSIONS

	Beam 1	Beam 2	Beam 3	Beam 4	Beam 5	Beam 6	Beam 7	Beam 8	Beam 9	Beam 10	Beam 11	Beam 12
West Abutment												
A	11⅜"	10½"	9¾"	9"	8¼"	7½"	6¾"	6"	6⅜"	5⅝"	5"	4¼"
B	13⅜"	12½"	11¾"	11"	10¼"	9½"	8¾"	8"	8⅜"	7⅝"	7"	6¼"
East Abutment												
A	11⅝"	11"	10⅛"	9¼"	8½"	7¾"	7"	6⅛"	5⅞"	5¼"	4½"	–
B	13⅜"	13"	12⅛"	11¼"	10½"	9¾"	9"	8⅛"	7⅞"	7¼"	6½"	–

BILL OF MATERIAL

Item	Unit	Total
Anchor Bolts, 1"	Each	110

Notes:

The structural steel plates of the Bearing shall conform to the requirements of AASHTO M270 Grade 50.

Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.

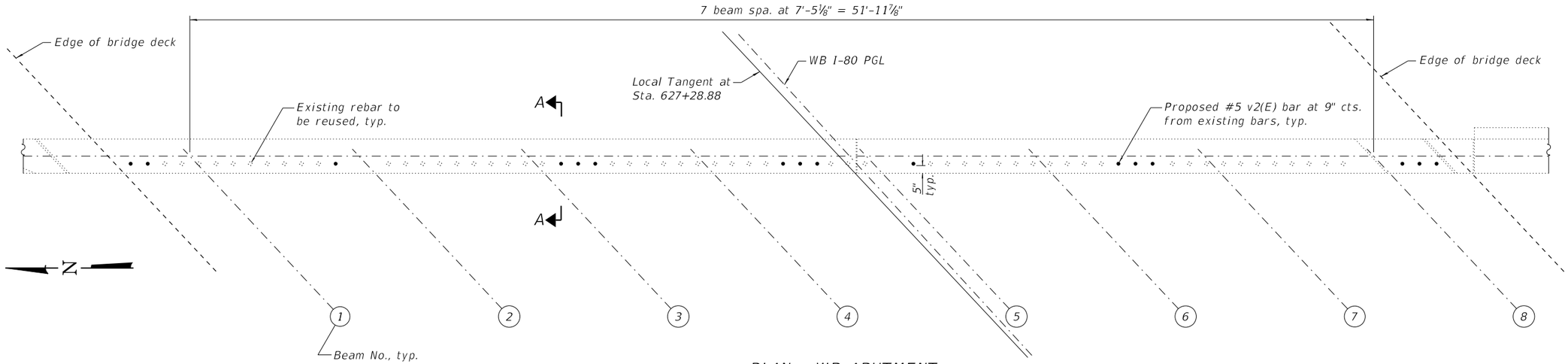
Anchor bolts shall be according to Article 521.06 of the Standard Specifications.

Beams shall be braced for stability during erection and remain braced until deck is poured and cured.

Anchor bolts at all supports shall be installed as each member is erected unless an equivalent temporary means of lateral restraint is used.

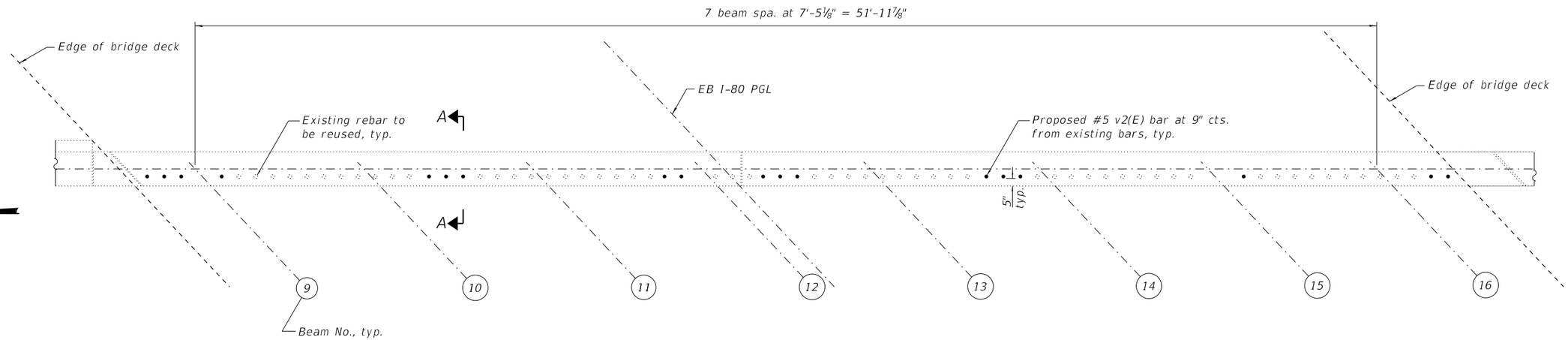
The Contractor shall field verify existing seat elevations and required dimensions prior to fabricating the steel extensions and shims.

Cost of steel extensions, connection bolts, and fill plates is included with Furnishing and Erecting Structural Steel.



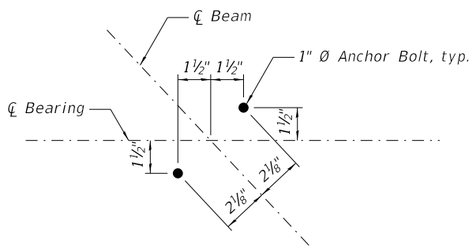
PLAN - WB ABUTMENT

(East Abutment shown; West Abutment Similar)

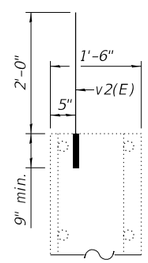


PLAN - EB ABUTMENT

(East Abutment shown; West Abutment Similar)



ANCHOR BOLT LAYOUT



SECTION A-A

Notes:
Cost of drilling and grouting reinforcement bars into existing concrete is included with Reinforcement Bars, Epoxy Coated.
Drill and grout v2(E) bars 9" min. into existing concrete according to Section 584 of the Standard Specifications.

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
v2(E)	68	#5	2'-9"	——
Reinforcement Bars, Epoxy Coated			Lbs.	200

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Springfield, Illinois

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PLOT DATE = 10/04/2019	CHECKED - MTH	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ABUTMENT REPAIR DETAILS
STRUCTURE NOS. 050-0003 & 050-0004
SHEET 23 OF 27 SHEETS

F.A.I. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(50-2)HBR-1	LASALLE	328	121
		CONTRACT NO. 66H21		
	ILLINOIS FED. AID PROJECT			

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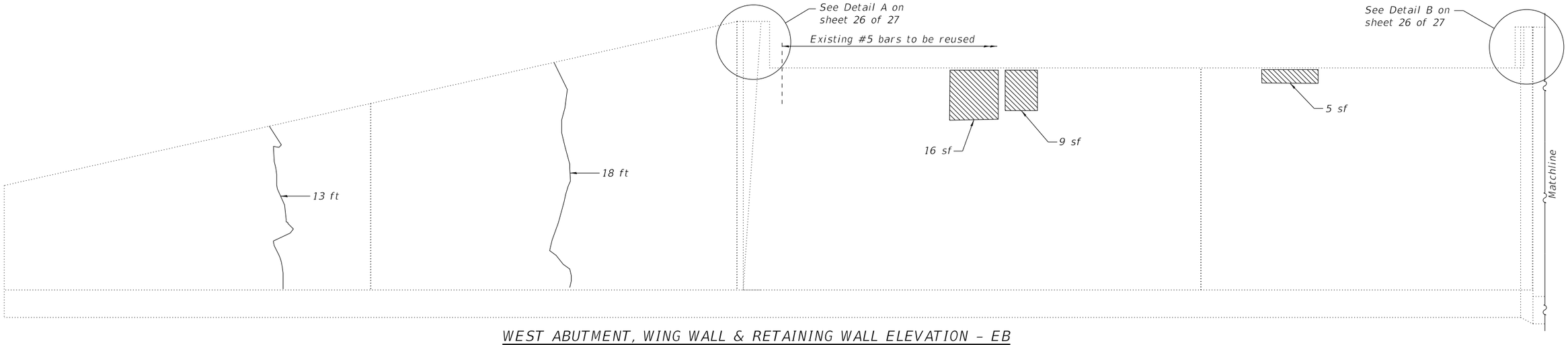
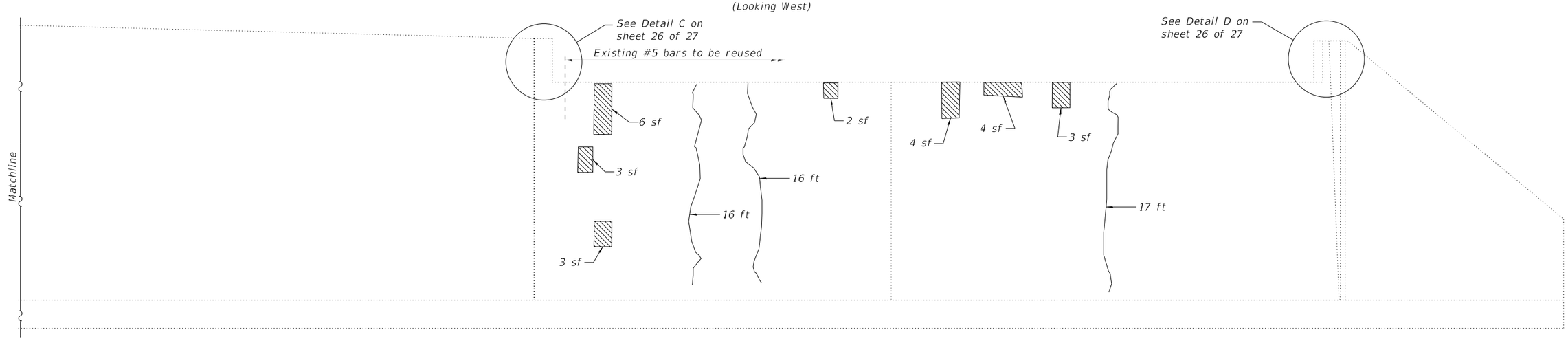


WEST ABUTMENT, WING WALL & RETAINING WALL ELEVATION – EB

(Looking West)



WEST ABUTMENT, WING WALL & RETAINING WALL ELEVATION – WB

(Looking West)

Note:
Repair of existing abutments shall include but may not be limited to the areas shown. The actual areas to be repaired shall be determined by the Engineer at time of construction.

LEGEND

- Epoxy Crack Injection
- Structural Repair of Concrete (Depth Equal To or Less Than 5 in.)
- sf square feet

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Epoxy Crack Injection	Foot	80
Structural Repair of Concrete (Depth ≤ 5 Inches)	Sq. Ft.	55

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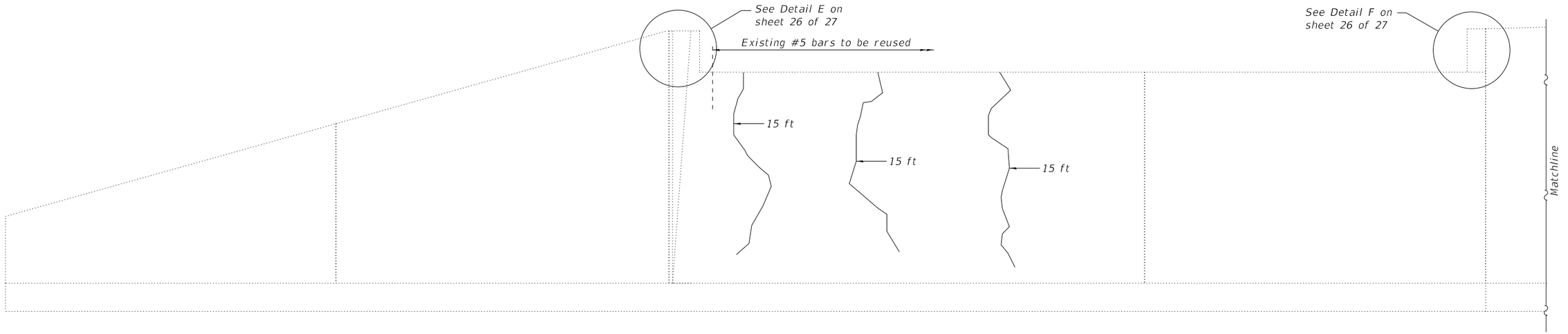
PLOT SCALE =		DRAWN -	DAS	REVISED -
PLOT DATE =	10/04/2019	CHECKED -	MTH	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

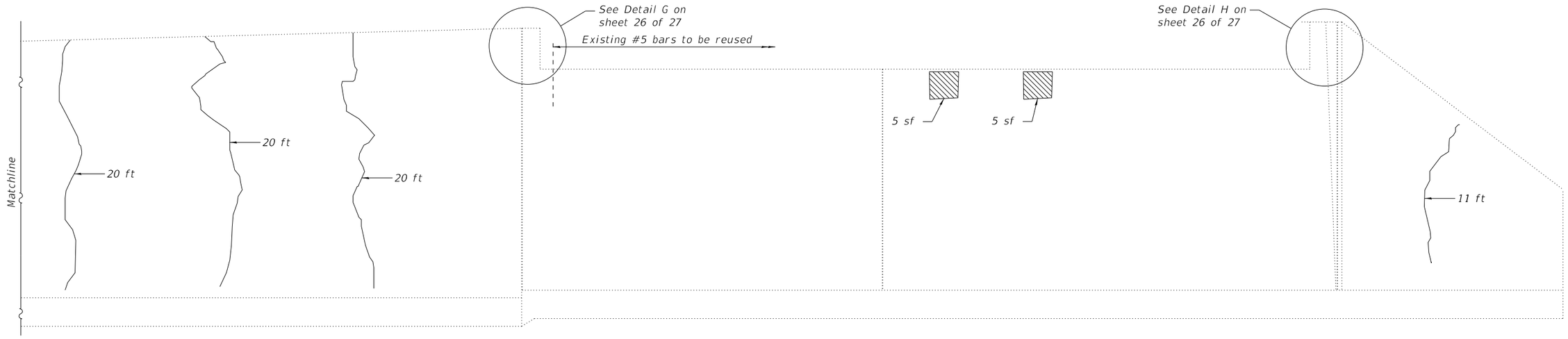
ABUTMENT REPAIR DETAILS
STRUCTURE NOS. 050-0003 & 050-0004
SHEET 24 OF 27 SHEETS

F.A.I. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(50-2)HBR-1	LASALLE	328	122
		CONTRACT NO. 66H21		
	ILLINOIS	FED. AID PROJECT		



EAST ABUTMENT, WING WALL & RETAINING WALL ELEVATION – WB

(Looking East)



EAST ABUTMENT, WING WALL & RETAINING WALL ELEVATION – EB

(Looking East)

Note:
Repair of existing abutments shall include but may not be limited to the areas shown.
The actual areas to be repaired shall be determined by the Engineer at time of construction.

LEGEND

Epoxy Crack Injection

Structural Repair of Concrete (Depth Equal To or Less Than 5 in.)

sf square feet

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Epoxy Crack Injection	Foot	116
Structural Repair of Concrete (Depth ≤ 5 Inches)	Sq. Ft.	10

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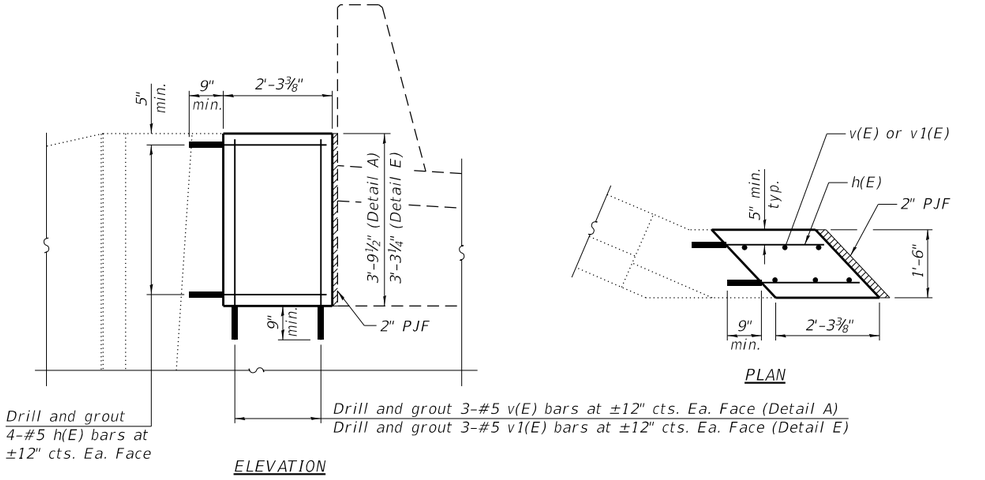
PLOT DATE = 10/04/2019	CHECKED - MTH	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ABUTMENT REPAIR DETAILS
STRUCTURE NOS. 050-0003 & 050-0004
SHEET 25 OF 27 SHEETS

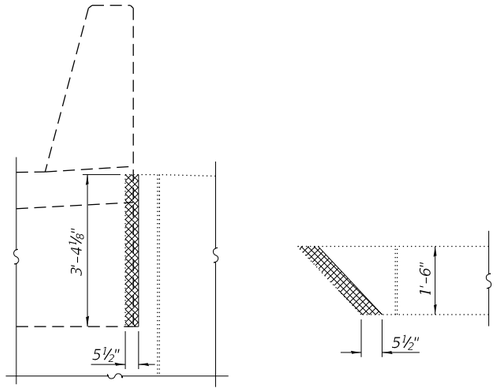
F.A.I. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(50-2)HBR-1	LASALLE	328	123
		CONTRACT NO. 66H21		
	ILLINOIS	FED. AID PROJECT		



ELEVATION

PLAN

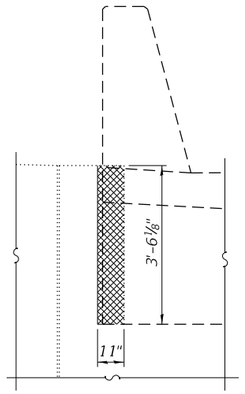
DETAILS A AND E



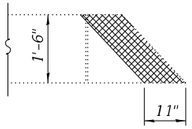
ELEVATION

PLAN

DETAIL B

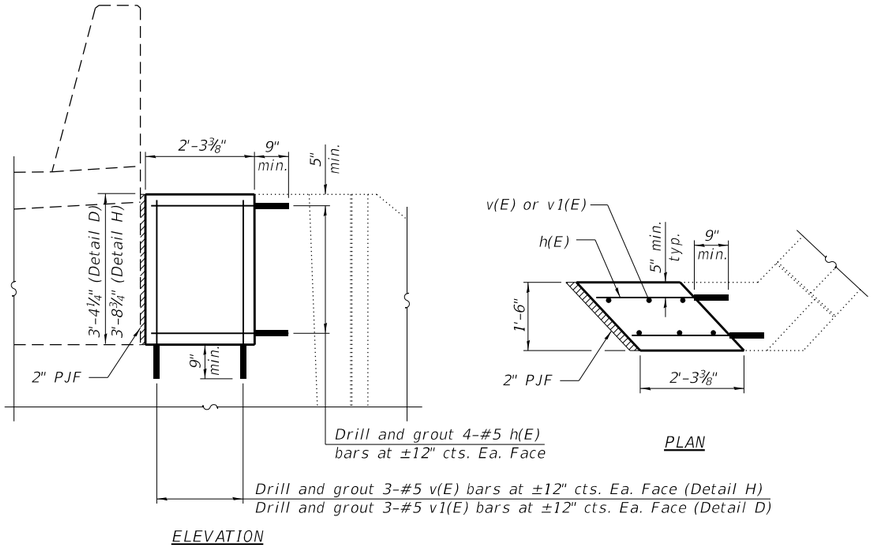


ELEVATION



PLAN

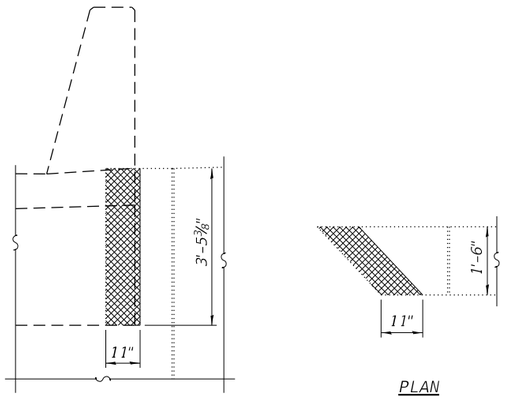
DETAIL C



ELEVATION

PLAN

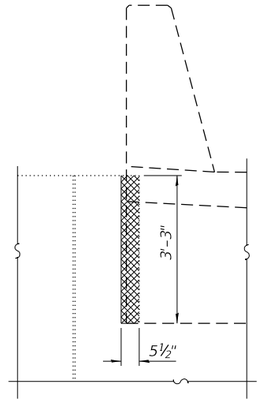
DETAILS D AND H



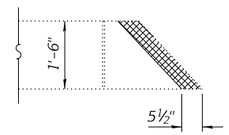
ELEVATION

PLAN

DETAIL F



ELEVATION



PLAN

DETAIL G

BAR LIST

Bar	No.	Size	Length	Shape
h(E)	32	#5	2'-11"	———
v(E)	12	#5	4'-5"	———
v1(E)	12	#5	4'-0"	———

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Concrete Removal	Cu. Yd.	0.6
Concrete Structures	Cu. Yd.	1.8
Reinforcement Bars, Epoxy Coated	Pound	210

Notes:

Cross hatching represents Concrete Removal.

Saw cut on exposed face for all concrete removal, in order to maintain a smooth finish. Cost included with Concrete Removal.

Cost of drilling and grouting reinforcement bars into existing concrete is included with Reinforcement Bars, Epoxy Coated.

Drill and grout h(E), v(E) and v1(E) bars 9" min. into existing concrete according to Section 584 of the Standard Specifications.

MODEL: Default
FILE NAME: E:\1609-20\Struct\Final Design\CADD\CADD Sheets\05000030004-66H21-026-Abutment Repair.dgn
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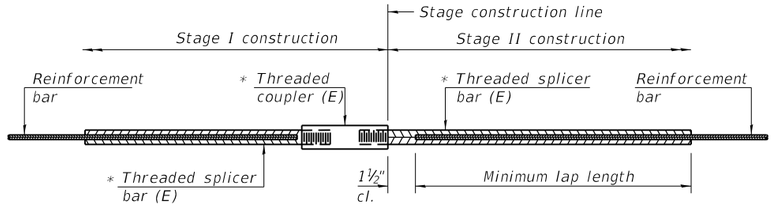
LIN ENGINEERING,LTD.
Consulting Engineers
Springfield, Illinois

USER NAME = | DESIGNED - AML | REVISED -
CHECKED - MTH | REVISED -
PLOT SCALE = | DRAWN - DAS | REVISED -
PLOT DATE = 10/04/2019 | CHECKED - MTH | REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ABUTMENT REPAIR DETAILS
STRUCTURE NOS. 050-0003 & 050-0004
SHEET 26 OF 27 SHEETS

F.A.I. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(50-2)HBR-1	LASALLE	328	124
		CONTRACT NO. 66H21		
	ILLINOIS	FED. AID PROJECT		

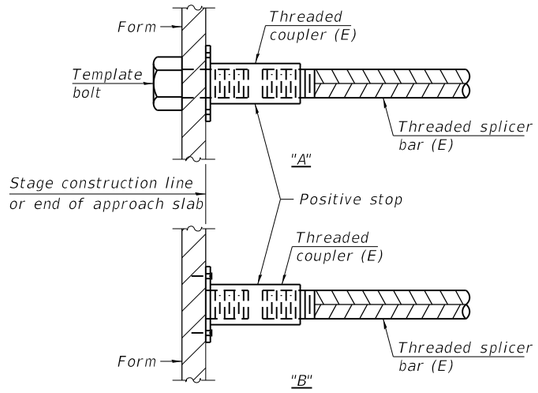


STANDARD BAR SPLICER ASSEMBLY

Threaded splicer bar length = min. lap length + 1½" + thread length

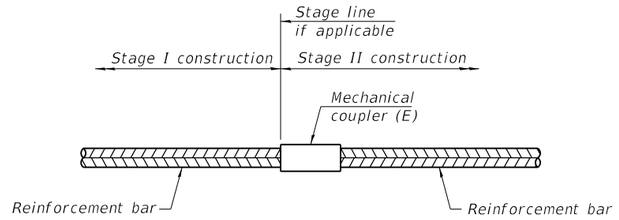
* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Minimum lap length
WB Deck Slab	#5	123	3'-6"
WB End Diaphragm	#6	16	5'-0"
WB Approach Slab	#5	66	3'-4"
WB Approach Slab	#8	86	4'-9"
WB Approach Footing	#5	80	3'-2"
EB Deck Slab	#5	123	3'-6"
EB End Diaphragm	#6	16	5'-0"
EB Approach Slab	#5	66	3'-4"
EB Approach Slab	#8	86	4'-9"
EB Approach Footing	#5	80	3'-2"



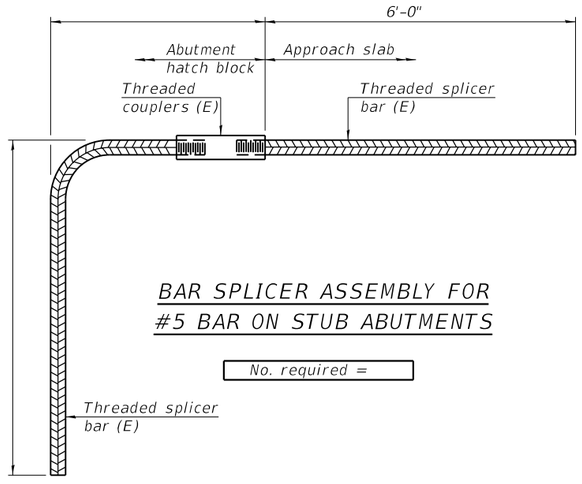
INSTALLATION AND SETTING METHODS

"A" : Set bar splicer assembly by means of a template bolt.
"B" : Set bar splicer assembly by nailing to wood forms or cementing to steel forms.
(E) : Indicates epoxy coating.



STANDARD MECHANICAL SPLICER

Location	Bar size	No. assemblies required



NOTES

Splicer bars shall be deformed with threaded ends and have a minimum 60 ksi yield strength.

All reinforcement shall be lapped and tied to the splicer bars.

Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars. See Section 508 of the Standard Specifications.

See approved list of bar splicer assemblies and mechanical splicers for alternatives.

BSD-1 2-17-2017

LIN ENGINEERING,LTD. Consulting Engineers Springfield, Illinois

USER NAME =		DESIGNED - AML	REVISED -
		CHECKED - MTH	REVISED -
PLOT SCALE =		DRAWN - DAS	REVISED -
PLOT DATE =	10/04/2019	CHECKED - MTH	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS
STRUCTURE NOS. 050-0003 & 050-0004
SHEET 27 OF 27 SHEETS

F.A.I. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(50-2)HBR-1	LASALLE	328	125
		CONTRACT NO. 66H21		
	ILLINOIS	FED. AID PROJECT		

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Bench Mark: BM #670. Brass disk set on top of N.W. Parapet of S.N 050-0221, Elev. 604.685.

Existing Structures: Structure Numbers 050-0220 and 0221 were reconstructed in 1996 as FAI 80 (Interstate 80), under (Section 50-2) HBR, HB-1, BR. The existing structures consists of four span, reinforced concrete decks supported on continuous precast, prestressed concrete bulb-tee beams. The beams are supported on stub abutments supported on drilled caisson shafts at the West Abutments and on driven HP piles at the East Abutments. The piles are from the original 1961 construction of F.A. I-80 under Section 50-2B & 2F. The reinforced concrete piers are supported by spread footings. The back to back abutments measure is 442'-5½" along the CL with an out-to-out bridge deck dimension that varies from 52'-7½" at the West end of deck to 43'-10⅞" at the East end for SN 050-0220 in the existing conditions. The back to back abutments measure is 442'-8" along the CL with an out-to-out bridge deck dimension that varies from 67'-8½" at the West end of deck to 43'-2⅛" at the East end for SN 050-0221 in the existing conditions. The superstructure is to be removed and replaced. The abutments will be modified and pier caps replaced. Traffic is to be maintained utilizing a median crossover and constructing each bridge under full closure, beginning with the Westbound Structure. No salvage

STATION 672+14.87 REBUILT 20__ BY STATE OF ILLINOIS FAI 80 (I-80) SEC. (50-2BR) ES LOADING HL-93 STR. NO. 050-0220	STATION 672+14.87 REBUILT 20__ BY STATE OF ILLINOIS FAI 80 (I-80) SEC. (50-2BR) ES LOADING HL-93 STR. NO. 050-0221

NAME PLATES

See Std. 515001

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

DESIGN SPECIFICATIONS

New Construction:

2017 AASHTO LRFD Bridge Design Specifications, Customary U.S. Units, 8th Edition

LOADING HL-93

Allow 50#/sq. ft. for future wearing surface.

DESIGN STRESSES

FIELD UNITS (New Construction)

f'c = 3,500 psi (Substructure)
f'c = 4,000 psi (Superstructure)
fy = 60,000 psi (Reinforcement)
fy = 50,000 psi (M270 Grade 50W)

FIELD UNITS (Existing Construction)

f'c = 3,500 psi (Substructure)
fy = 60,000 psi (Reinforcement)
fy = 36,000 psi (M270 Grade 36, (Piles Only))

SEISMIC DATA

New Construction:

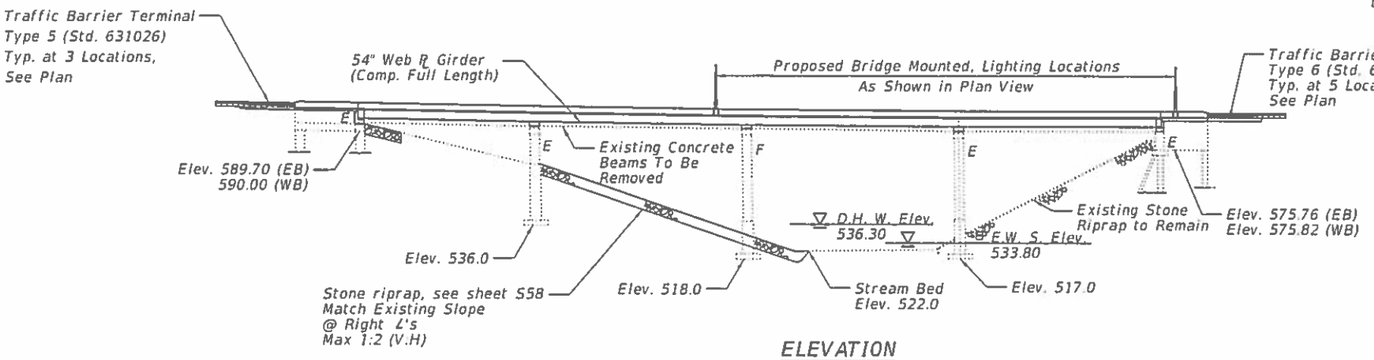
Seismic Performance Zone (SPZ) = 1
Design Spectral Acceleration at 1.0 sec. (S_{D1}) = 0.077 g
Design Spectral Acceleration at 0.2 sec. (S_{DS}) = 0.132 g
Soil Site Class = C

Existing Pier:

Seismic Performance Category (SPC) = A
Horizontal Bedrock Acceleration Coefficient = 0.037 g
Soil Site Coefficients = 1.0

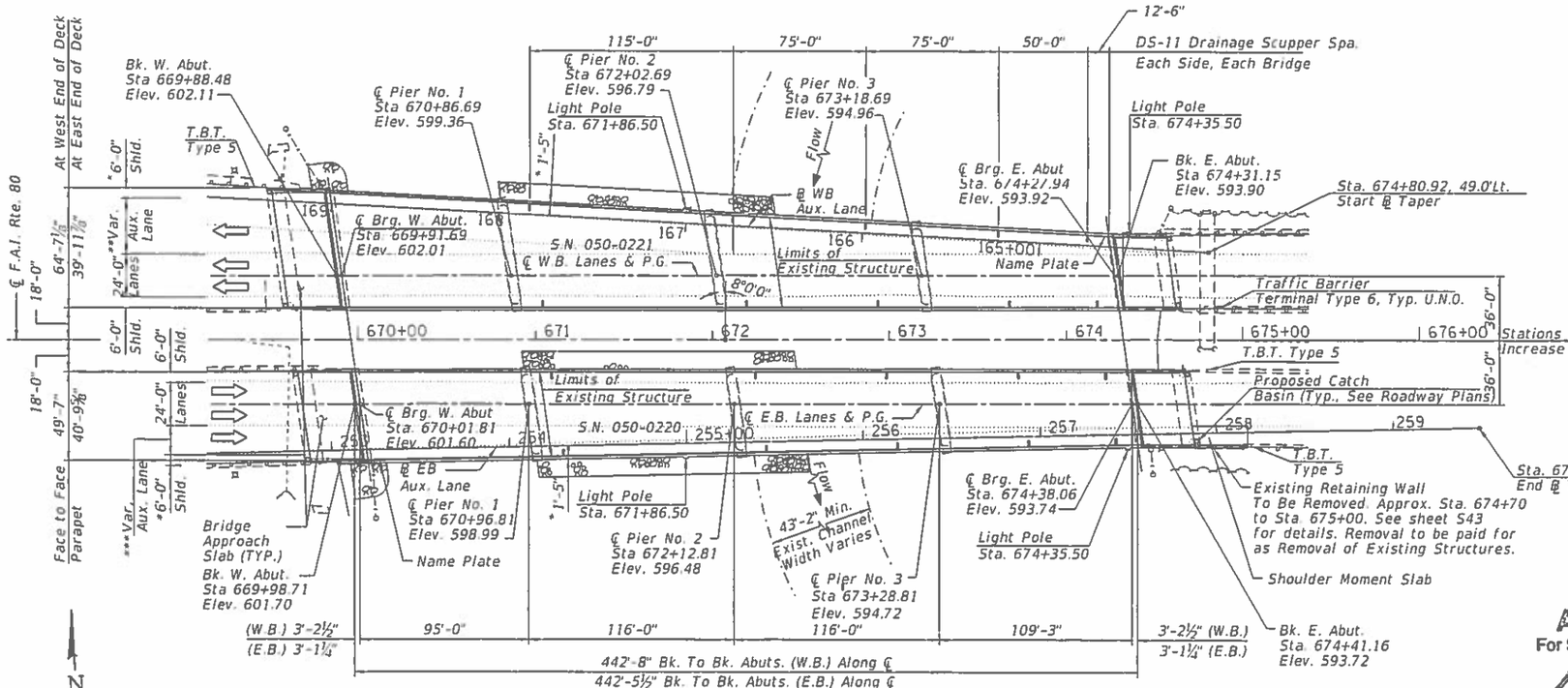
NOTE:

Up to ¼ inch may be ground off the bridge deck and the bridge approach slabs. The profile grade shows the final elevations after grinding.



ELEVATION

LOCATION SKETCH



PLAN

* Dimension Perpendicular to ℄ Aux. Lane

** WB Aux. Lane Varies from 28'-7" At West End to 3'-11¾" At East End of Deck.

*** EB Aux. Lane Varies from 13'-7" At West End to 4'-9⅝" At East End of Deck.

JOHN A. ZERAS — 081-004706 — CHICAGO, IL — LICENSED STRUCTURAL ENGINEER — 10/4/2019 — SEAL

LICENSE
EXPIRATION DATE: 11-30-2020
THIS SEAL APPLIES TO SHEETS: S1-S57

KEITH W. BENTINS — STATE OF ILLINOIS — 4777 — DECATUR, ILLINOIS — LICENSED STRUCTURAL ENGINEER — SEAL

LICENSE
EXPIRATION DATE: 11-30-2020
THIS SEAL APPLIES TO SHEETS: S58-S80

APPROVED
For Structural Adequacy Only
Engineer of Bridges & Structures

GENERAL PLAN & ELEVATION
FAI 80 (I-80) OVER THE LITTLE VERMILION RIVER
SECTION (50-2BR)ES
LASALLE COUNTY
STATION 672+14.87
STRUCTURE NO. SN 050-0220 (EB)
STRUCTURE NO. SN 050-0221 (WB)

GRAEF
8501 W. Higgins Road Suite 280
Chicago, Illinois 60631; (773) 399-0112

USER NAME =	DESIGNED - JAZ	REVISED -
	CHECKED - KGW	REVISED -
PLOT SCALE =	DRAWN - TCK	REVISED -
PLOT DATE = 10/04/2019	DATE - 10/04/2019	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN & ELEVATION
SN 050-0220 (EB), SN 050-0221 (WB)
SHEET NO. S1 OF 80 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	150-2BR)ES	LASALLE	328	126
		CONTRACT NO. 66H21		
	ILLINOIS FED. AID PROJECT			

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GENERAL NOTES

1. Fasteners shall be ASTM F 3125 Grade A325 Type 1, mechanically galvinized bolts in painted areas and ASTM F 3125 Grade A325 Type 3 weathering steel bolts in unpainted areas. Bolts 7/8 in. diameter, holes 15/16 in. diameter, unless otherwise noted.

2. Calculated weight of Structural Steel:
   AASHTO M270 Grade 50W = 1,499,800 lbs.
   AASHTO M270 Grade 50 = 3,410 lbs. (Quantity is for fixed bearing plates and pintles.)

3. All structural steel shall be AASHTO M 270 Grade 50W. (except expansion joints and bearings which shall be AASHTO M270 Grade 50).

4. No field welding is permitted except as specified in the contract documents.

5. Reinforcement bars designated (E) shall be epoxy coated

6. If the Contractor elects to use cantilever forming brackets on the exterior beams or girders, the brackets shall be placed at the same locations as required for the hardwood blocks in Article 503.06(b) of the Standard Specifications. If additional cantilever forming brackets are required, hardwood blocking shall be wedged between the exterior and first interior beam at each of these additional bracket locations.

7. Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.

8. Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of 1/8 in. (0.01 ft.). Adjustment shall be made either by grinding the surface or by shimming the bearings.

9. At the abutments, structural steel shall be painted for a distance equal to the depth of the embedment into the concrete cap plus 18 in. At the piers, all fascia girder structural steel and exposed surfaces and bearings shall be painted within a distance of 15 ft. each way from the centerline of bearing. Painted areas shall be primed in the shop with a Department-approved zinc rich primer. Field painting will not be required.

10. Layout of the slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.

SCOPE OF WORK

1. Remove and replace existing superstructures.
2. Reconfigure existing abutments and wingwalls to semi-integral.
3. Install abutment drainage and backfill.
4. Remove and replace pier caps.
5. Remove and replace approach slabs.
6. Remove retaining wall and construct moment slab.
7. Place stone riprap.

INDEX OF SHEETS

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
STONE RIPRAP, CLASS A4	TON	0	1,221	1,221
STONE RIPRAP, CLASS A5	TON	0	1,472	1,472
FILTER FABRIC	SQ YD	0	2,729	2,729
REMOVAL OF EXISTING STRUCTURES	EACH	0	1	1
REMOVAL OF EXISTING SUPERSTRUCTURES NO. 1	EACH	1	0	1
REMOVAL OF EXISTING SUPERSTRUCTURES NO. 2	EACH	1	0	1
CONCRETE REMOVAL	CU YD	0	330.1	330.1
STRUCTURE EXCAVATION	CU YD	0	498	498
CONCRETE STRUCTURES	CU YD	62.8	436.3	499.1
CONCRETE SUPERSTRUCTURE	CU YD	1,648.7	0	1,648.7
PROTECTIVE COAT	SQ YD	6,393	0	6,393
FURNISHING AND ERECTING STRUCTURAL STEEL	L SUM	1	0	1
STUD SHEAR CONNECTORS	EACH	34,604	0	34,604
REINFORCEMENT BARS, EPOXY COATED	POUND	495,250	39,870	535,120
NAME PLATES	EACH	2	0	2
PREFORMED JOINT STRIP SEAL	FOOT	208	0	208
ELASTOMERIC BEARING ASSEMBLY, TYPE I	EACH	57	0	57
ANCHOR BOLTS, 1"	EACH	86	0	86
ANCHOR BOLTS, 1 1/2"	EACH	58	0	58
GRANULAR BACKFILL FOR STRUCTURES	CU YD	0	533	533
GEOCOMPOSITE WALL DRAIN	SQ YD	0	224	224
BRIDGE DECK GROOVING (LONGITUDINAL)	SQ YD	4,086	0	4,086
CONCRETE WEARING SURFACE, 5"	SQ YD	685	0	685
PRECAST BRIDGE APPROACH SLAB	SQ FT	5,545	0	5,545
DRAINAGE SCUPPERS, DS-11	EACH	20	0	20
DIAMOND GRINDING (BRIDGE SECTION)	SQ YD	5,355	0	5,355
PIPE UNDERDRAINS FOR STRUCTURES 4"	FOOT	0	334	334

GRÄEF
8501 W. Higgins Road; Suite 280
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	CHECKED - KGW	REVISED -	
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PLOT DATE =	DATE - 10/28/2019	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES & TOTAL BILL OF MATERIAL
SN 050-0220 (EB), SN 050-0221 (WB)
SHEET NO. S2 OF 80 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(50-2BR)ES	LASALLE	328	127
		CONTRACT NO. 66H21		
	ILLINOIS FED. AID PROJECT			

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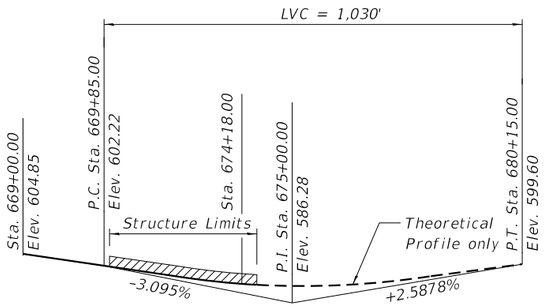

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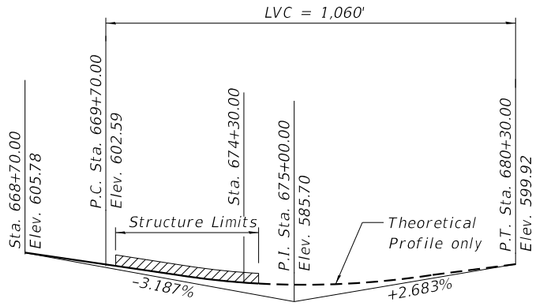
WB I-80 (S.N. 050-0221)



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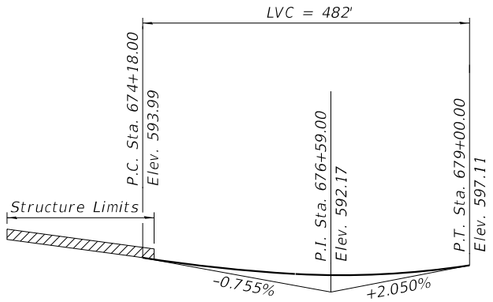
EB I-80 (S.N. 050-0220)



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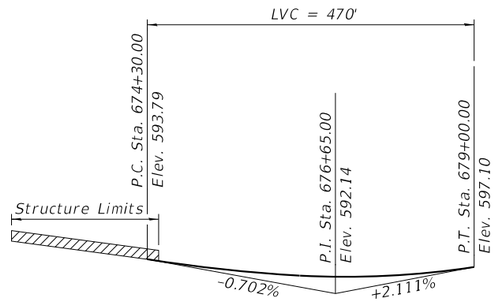
WB I-80 (S.N. 050-0221)



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EB I-80 (S.N. 050-0220)

DESIGN SCOUR ELEVATION TABLE (SN 050-0220)

Event / Limit State	Design Scour Elevations (ft.)					
	W. Abut	Pier 1	Pier 2	Pier 3	E. Abut	Item 113
Q100	589.7	536.0	525.8	529.4	575.8	
Q200	589.7	536.0	525.8	529.4	575.8	8
Design	589.7	536.0	518.0	517.0	575.8	

DESIGN SCOUR ELEVATION TABLE (SN 050-0221)

Event / Limit State	Design Scour Elevations (ft.)					
	W. Abut	Pier 1	Pier 2	Pier 3	E. Abut	Item 113
Q100	590.0	536.0	525.8	529.4	575.8	
Q200	590.0	536.0	525.8	529.4	575.8	8
Design	590.0	536.0	518.0	517.0	575.8	

WATERWAY INFORMATION

Drainage Area = 120.4 Sq. Mi. Low Grade Elevation =591.87 @ Sta. 675+00.00

Flood	Freq.	Q	Opening Sq. Ft.		Nat.	Head - Ft.		Head Water El.	
	Yr.	C.F.S.	Exist.	Prop.	H.W.E.	Exist.	Prop.	Exist.	Prop.
	10	6,430	1,204	1,204	533.8	0.1	0.1	533.9	533.9
Design	50	10,100	1,571	1,571	536.3	0.2	0.2	536.5	536.5
Base	100	11,700	1,717	1,717	537.3	0.2	0.2	537.5	537.5
Scour	200	13,400	1,866	1,866	538.2	0.2	0.2	538.5	538.5
Max. Calc.	500	15,700	2,052	2,052	539.4	0.3	0.3	539.7	539.7

Note:
The Profile Grade shows the final elevations after grinding.

GRĀEF
8501 W. Higgins Road; Suite 280
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	CHECKED - KGW	REVISED -	
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PLOT DATE = 10/04/2019	DATE - 10/04/2019	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROFILES, SCOUR AND WATERWAY TABLES
SN 050-0220 (EB), SN 050-0221 (WB)
SHEET NO. S3 OF 80 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(50-2BRIES	LASALLE	328	128
		CONTRACT NO. 66H21		
	ILLINOIS FED. AID PROJECT			

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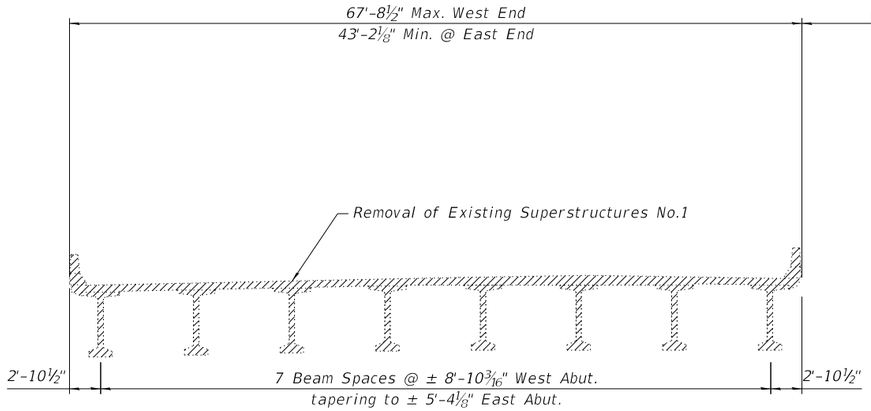
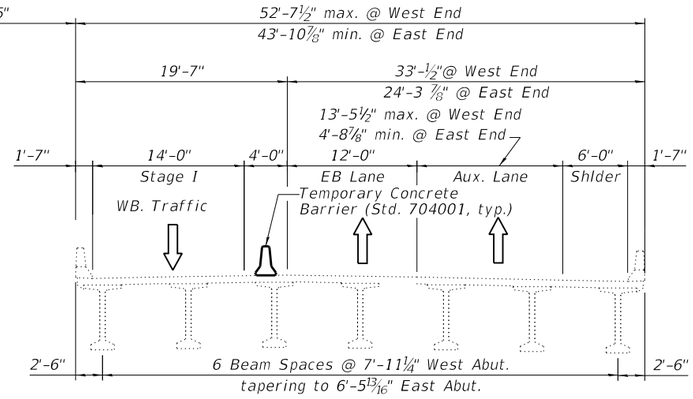
℄ F.A.I. Rte. I-80



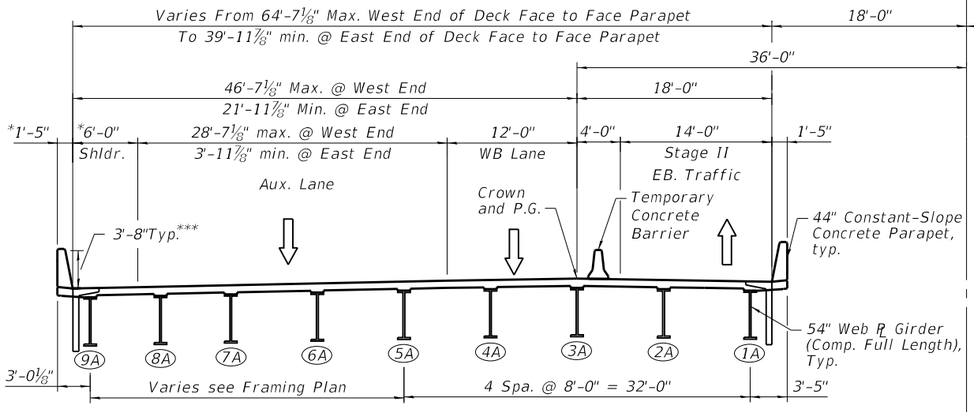
STAGE I REMOVAL
SN 050-0221
(Looking East)



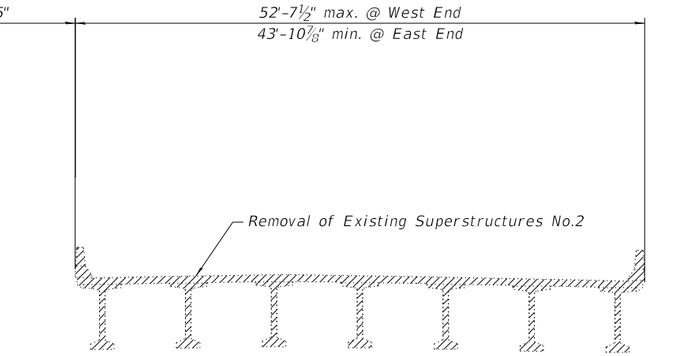
STAGE I TRAFFIC
SN 050-0220
(Looking East)

* Dimension Perpendicular to ℄ Aux. Lane
** Prior to Grinding
*** After Grinding

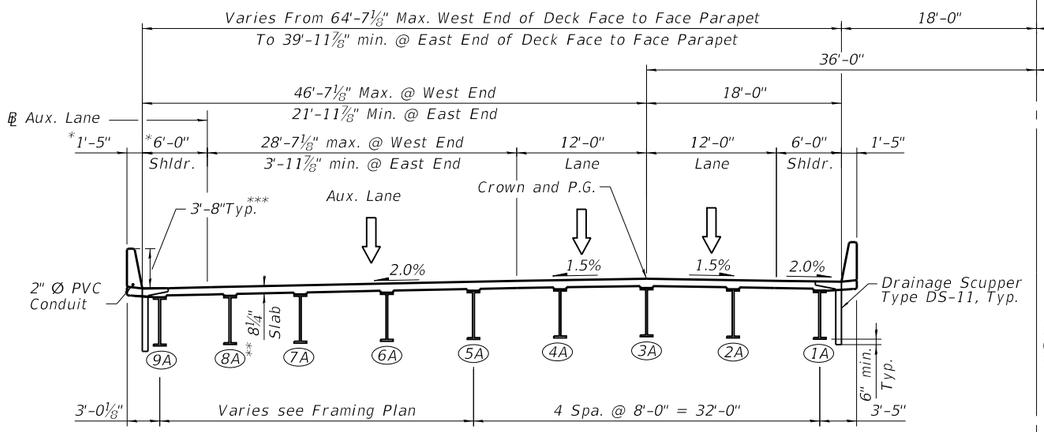
Note:
See Roadway plans for quantity of temporary concrete barrier



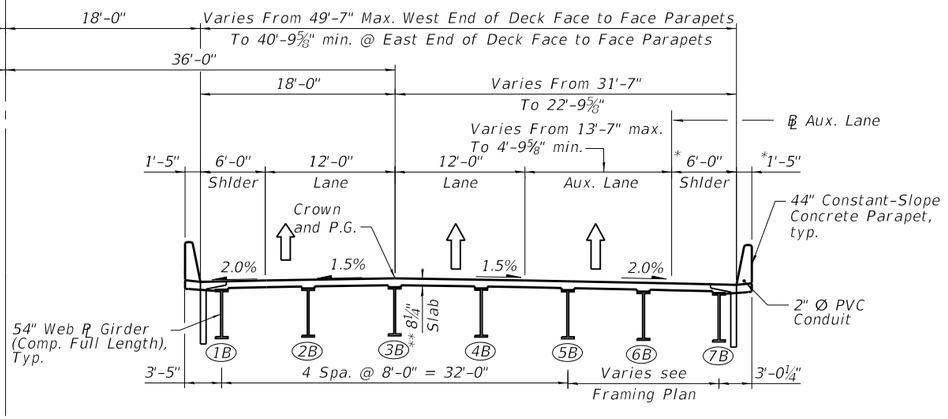
STAGE I CONSTRUCTION & STAGE II TRAFFIC
SN 050-0221
(Looking East)



STAGE II REMOVAL
SN 050-0220
(Looking East)



FINAL CROSS SECTION
SN 050-0221
(Looking East)



STAGE II CONSTRUCTION & FINAL CROSS SECTION
SN 050-0220
(Looking East)

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GRÄEF
8501 W. Higgins Road; Suite 280
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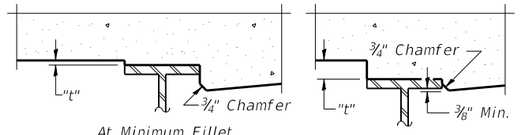
PLOT DATE = 10/04/2019	DATE - 10/04/2019	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CONSTRUCTION STAGING
SN 050-0220 (EB), SN 050-0221 (WB)
SHEET NO. 54 OF 80 SHEETS

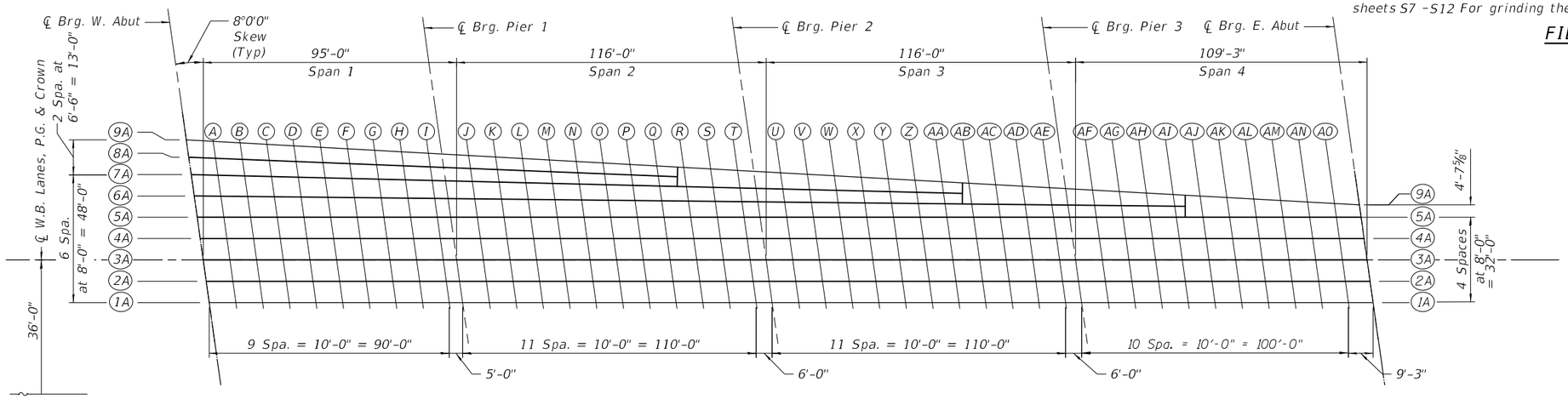
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(50-2BR)ES	LASALLE	328	129
		CONTRACT NO. 66H21		
	ILLINOIS FED. AID PROJECT			



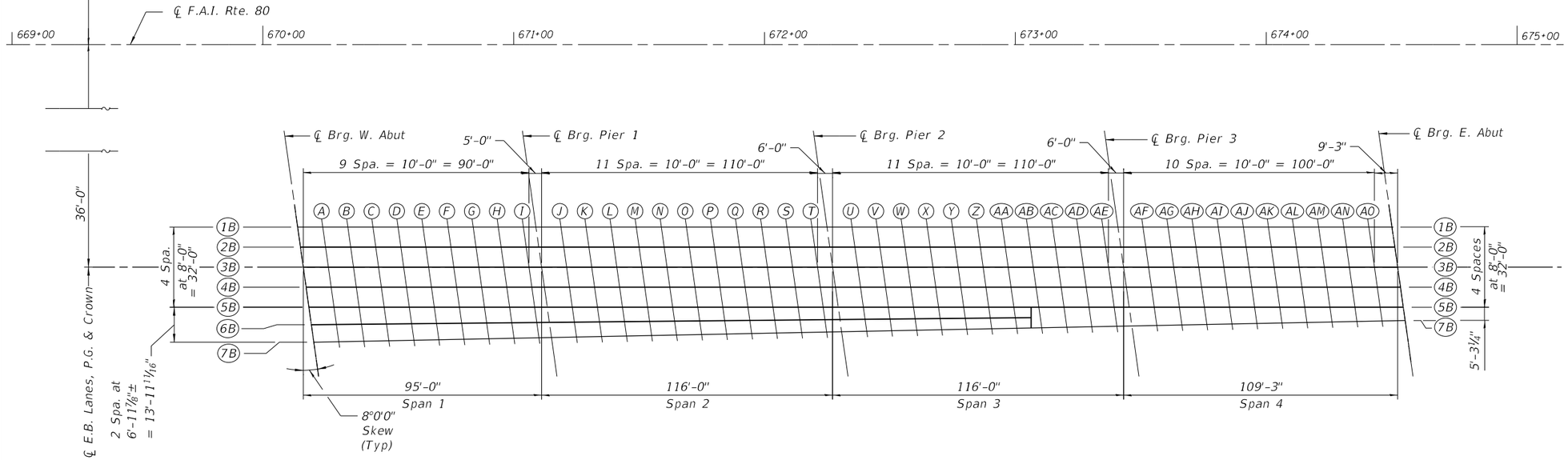
To determine "t": After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals shown below. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection and Grinding" shown on sheets S7 -S12 , minus the initial slab thickness prior to grinding, equals the fillet heights "t" above top flange of beams.

The slab is to be ground after curing to achieve smoothness, but the slab is not to be ground to elevations below the "Theoretical Grade Elevations" shown on sheets S7 -S12 For grinding the deck, see Special Provisions.

FILLET HEIGHTS



S.N. 050-0221



S.N. 050-0220
PLAN

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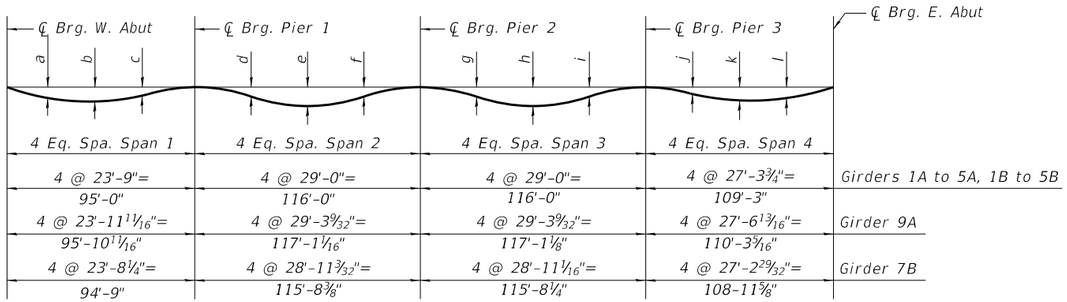
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

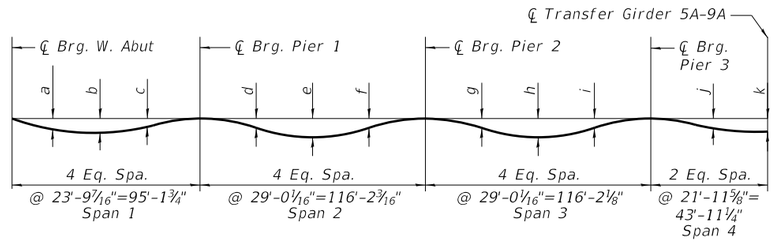
TOP OF DECK SLAB ELEVATIONS LAYOUT
SN 050-0220 (EB), SN 050-0221 (WB)
SHEET NO. S5 OF 80 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(50-2BRIES	LASALLE	328	130
		CONTRACT NO. 66H21		
	ILLINOIS FED. AID PROJECT			



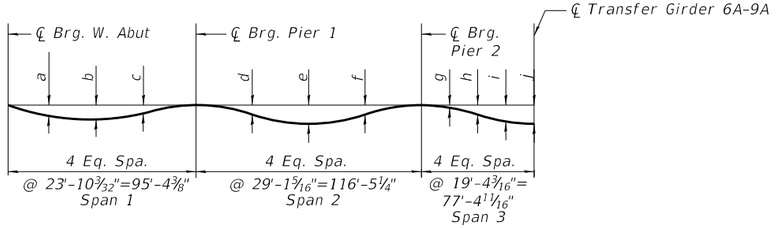
DEAD LOAD DEFLECTION DIAGRAM
Girders 1A to 5A, 9A, 1B to 5B & 7B

(Includes weight of concrete only.)



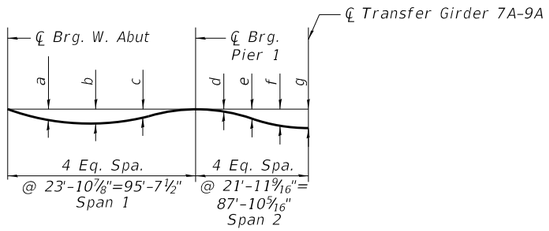
DEAD LOAD DEFLECTION DIAGRAM Girder 6A

(Includes weight of concrete only.)



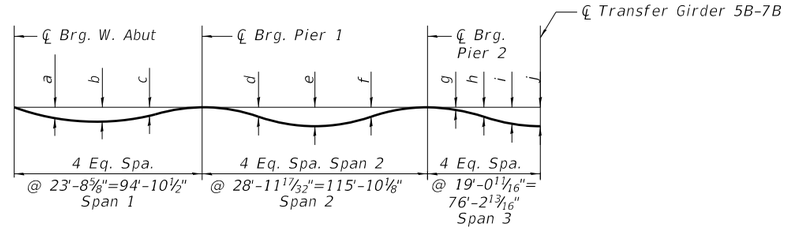
DEAD LOAD DEFLECTION DIAGRAM Girders 7A

(Includes weight of concrete only.)



DEAD LOAD DEFLECTION DIAGRAM Girder 8A

(Includes weight of concrete only.)



DEAD LOAD DEFLECTION DIAGRAM Girder 6B

(Includes weight of concrete only.)

DEAD LOAD DEFLECTION TABLE SN 050-0221 (WB)									
Location	Girder 1A	Girder 2A	Girder 3A	Girder 4A	Girder 5A	Girder 6A	Girder 7A	Girder 8A	Girder 9A
a	1/2"	5/8"	5/8"	5/8"	5/8"	5/8"	5/8"	5/8"	5/8"
b	5/8"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"
c	1/4"	3/8"	3/8"	3/8"	3/8"	3/8"	3/8"	3/8"	3/8"
d	3/8"	3/8"	3/8"	3/8"	3/8"	1/4"	1/4"	1/8"	1/4"
e	3/4"	7/8"	7/8"	3/4"	3/4"	5/8"	5/8"	1/2"	1/2"
f	1/2"	1/2"	1/2"	1/2"	3/8"	3/8"	3/8"	1/2"	3/8"
g	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/8"	3/8"	1/4"
h	3/8"	1/2"	1/2"	1/2"	1/2"	1/2"	3/8"	–	1/2"
i	1/8"	1/8"	1/8"	1/8"	1/8"	1/4"	1/2"	–	1/4"
j	3/4"	3/4"	3/4"	3/4"	5/8"	3/8"	3/8"	–	1/2"
k	1-1/2"	1-5/8"	1-5/8"	1-1/2"	1-3/8"	1"	–	–	1-1/8"
l	1-1/4"	1-1/4"	1-3/8"	1-1/4"	1-1/8"	–	–	–	1"

DEAD LOAD DEFLECTION TABLE SN 050-0220 (EB)							
Location	Girder 1B	Girder 2B	Girder 3B	Girder 4B	Girder 5B	Girder 6B	Girder 7B
a	5/8"	5/8"	5/8"	5/8"	5/8"	5/8"	5/8"
b	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"
c	3/8"	3/8"	3/8"	3/8"	3/8"	3/8"	3/8"
d	3/8"	3/8"	3/8"	3/8"	3/8"	3/8"	1/4"
e	7/8"	7/8"	7/8"	7/8"	3/4"	3/4"	5/8"
f	1/2"	1/2"	1/2"	1/2"	1/2"	3/8"	3/8"
g	1/4"	1/4"	1/4"	1/4"	1/4"	1/8"	1/4"
h	3/8"	1/2"	1/2"	1/2"	1/2"	3/8"	3/8"
i	1/8"	1/8"	1/8"	1/8"	1/8"	3/8"	1/8"
j	3/4"	3/4"	3/4"	3/4"	3/4"	1/4"	5/8"
k	1-3/8"	1-1/2"	1-5/8"	1-1/2"	1-1/2"	–	1-3/8"
l	1-1/8"	1-1/4"	1-1/4"	1-1/4"	1-1/4"	–	1-1/8"

Note: The above deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections and grinding as shown on sheets S7 to S12

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PLOT DATE =	DATE - 10/28/2019	REVISED -	

STATE OF ILLINOIS
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TOP OF DECK SLAB ELEVATIONS DEFLECTION DIAGRAMS
SN 050-0220 (EB), SN 050-0221 (WB)
SHEET NO. S6 OF 80 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(50-2BRIES	LASALLE	328	131
		CONTRACT NO. 66H21		
	ILLINOIS FED. AID PROJECT			

BEAM 1A

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection and Grinding
BK. W. ABUT.	669+90.73	16.00	601.78	601.80
℄ BRG. W. ABUT.	669+93.94	16.00	601.68	601.71
A	670+03.94	16.00	601.38	601.43
B	670+13.94	16.00	601.09	601.15
C	670+23.94	16.00	600.80	600.87
D	670+33.94	16.00	600.51	600.59
E	670+43.94	16.00	600.23	600.31
F	670+53.94	16.00	599.96	600.02
G	670+63.94	16.00	599.69	599.74
H	670+73.94	16.00	599.42	599.46
I	670+83.94	16.00	599.17	599.19
℄ BRG. PIER 1	670+88.94	16.00	599.04	599.06
J	670+98.94	16.00	598.79	598.82
K	671+08.94	16.00	598.55	598.59
L	671+18.94	16.00	598.31	598.37
M	671+28.94	16.00	598.08	598.15
N	671+38.94	16.00	597.85	597.93
O	671+48.94	16.00	597.63	597.71
P	671+58.94	16.00	597.41	597.49
Q	671+68.94	16.00	597.20	597.27
R	671+78.94	16.00	596.99	597.05
S	671+88.94	16.00	596.79	596.84
T	671+98.94	16.00	596.60	596.63
℄ BRG. PIER 2	672+04.94	16.00	596.49	596.51
U	672+14.94	16.00	596.30	596.32
V	672+24.94	16.00	596.12	596.15
W	672+34.94	16.00	595.95	595.99
X	672+44.94	16.00	595.78	595.83
Y	672+54.94	16.00	595.61	595.67
Z	672+64.94	16.00	595.46	595.51
AA	672+74.94	16.00	595.30	595.35
AB	672+84.94	16.00	595.16	595.20
AC	672+94.94	16.00	595.02	595.04
AD	673+04.94	16.00	594.88	594.90
AE	673+14.94	16.00	594.75	594.77
℄ BRG. PIER 3	673+20.94	16.00	594.68	594.70
AF	673+30.94	16.00	594.55	594.59
AG	673+40.94	16.00	594.44	594.50
AH	673+50.94	16.00	594.33	594.42
AI	673+60.94	16.00	594.22	594.34
AJ	673+70.94	16.00	594.12	594.26
AK	673+80.94	16.00	594.03	594.17
AL	673+90.94	16.00	593.94	594.08
AM	674+00.94	16.00	593.86	593.98
AN	674+10.94	16.00	593.78	593.88
AO	674+20.94	16.00	593.71	593.77
℄ BRG. E. ABUT.	674+30.19	16.00	593.64	593.66
BK. E. ABUT.	674+33.40	16.00	593.62	593.64

BEAM 2A

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection and Grinding
BK. W. ABUT.	669+89.61	8.00	601.96	601.98
℄ BRG. W. ABUT.	669+92.81	8.00	601.86	601.88
A	670+02.81	8.00	601.56	601.60
B	670+12.81	8.00	601.26	601.33
C	670+22.81	8.00	600.97	601.05
D	670+32.81	8.00	600.68	600.77
E	670+42.81	8.00	600.40	600.48
F	670+52.81	8.00	600.13	600.19
G	670+62.81	8.00	599.86	599.91
H	670+72.81	8.00	599.59	599.63
I	670+82.81	8.00	599.34	599.36
℄ BRG. PIER 1	670+87.81	8.00	599.21	599.23
J	670+97.81	8.00	598.96	598.99
K	671+07.81	8.00	598.71	598.75
L	671+17.81	8.00	598.48	598.53
M	671+27.81	8.00	598.24	598.32
N	671+37.81	8.00	598.01	598.10
O	671+47.81	8.00	597.79	597.88
P	671+57.81	8.00	597.57	597.66
Q	671+67.81	8.00	597.36	597.44
R	671+77.81	8.00	597.16	597.21
S	671+87.81	8.00	596.96	597.00
T	671+97.81	8.00	596.76	596.79
℄ BRG. PIER 2	672+03.81	8.00	596.65	596.67
U	672+13.81	8.00	596.46	596.48
V	672+23.81	8.00	596.28	596.31
W	672+33.81	8.00	596.11	596.15
X	672+43.81	8.00	595.94	595.99
Y	672+53.81	8.00	595.77	595.83
Z	672+63.81	8.00	595.61	595.67
AA	672+73.81	8.00	595.46	595.51
AB	672+83.81	8.00	595.31	595.35
AC	672+93.81	8.00	595.17	595.20
AD	673+03.81	8.00	595.04	595.05
AE	673+13.81	8.00	594.91	594.92
℄ BRG. PIER 3	673+19.81	8.00	594.83	594.85
AF	673+29.81	8.00	594.71	594.75
AG	673+39.81	8.00	594.59	594.65
AH	673+49.81	8.00	594.48	594.57
AI	673+59.81	8.00	594.37	594.50
AJ	673+69.81	8.00	594.27	594.42
AK	673+79.81	8.00	594.18	594.33
AL	673+89.81	8.00	594.09	594.24
AM	673+99.81	8.00	594.01	594.14
AN	674+09.81	8.00	593.93	594.03
AO	674+19.81	8.00	593.86	593.92
℄ BRG. E. ABUT.	674+29.06	8.00	593.79	593.81
BK. E. ABUT.	674+32.27	8.00	593.77	593.79

℄ W.B. Lanes, P.G., CROWN & BEAM 3A

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection and Grinding
BK. W. ABUT.	669+88.48	0.00	602.11	602.13
℄ BRG. W. ABUT.	669+91.69	0.00	602.01	602.03
A	670+01.69	0.00	601.71	601.76
B	670+11.69	0.00	601.41	601.48
C	670+21.69	0.00	601.12	601.20
D	670+31.69	0.00	600.83	600.92
E	670+41.69	0.00	600.55	600.64
F	670+51.69	0.00	600.28	600.35
G	670+61.69	0.00	600.01	600.06
H	670+71.69	0.00	599.74	599.78
I	670+81.69	0.00	599.48	599.51
℄ BRG. PIER 1	670+86.69	0.00	599.36	599.38
J	670+96.69	0.00	599.11	599.13
K	671+06.69	0.00	598.86	598.90
L	671+16.69	0.00	598.62	598.68
M	671+26.69	0.00	598.39	598.46
N	671+36.69	0.00	598.16	598.24
O	671+46.69	0.00	597.94	598.03
P	671+56.69	0.00	597.72	597.81
Q	671+66.69	0.00	597.51	597.58
R	671+76.69	0.00	597.30	597.36
S	671+86.69	0.00	597.10	597.14
T	671+96.69	0.00	596.90	596.93
℄ BRG. PIER 2	672+02.69	0.00	596.79	596.81
U	672+12.69	0.00	596.60	596.63
V	672+22.69	0.00	596.42	596.45
W	672+32.69	0.00	596.25	596.29
X	672+42.69	0.00	596.08	596.13
Y	672+52.69	0.00	595.91	595.97
Z	672+62.69	0.00	595.75	595.81
AA	672+72.69	0.00	595.60	595.65
AB	672+82.69	0.00	595.45	595.49
AC	672+92.69	0.00	595.31	595.34
AD	673+02.69	0.00	595.17	595.19
AE	673+12.69	0.00	595.04	595.06
℄ BRG. PIER 3	673+18.69	0.00	594.96	594.98
AF	673+28.69	0.00	594.84	594.88
AG	673+38.69	0.00	594.72	594.79
AH	673+48.69	0.00	594.61	594.71
AI	673+58.69	0.00	594.51	594.63
AJ	673+68.69	0.00	594.41	594.55
AK	673+78.69	0.00	594.31	594.47
AL	673+88.69	0.00	594.22	594.37
AM	673+98.69	0.00	594.14	594.27
AN	674+08.69	0.00	594.06	594.16
AO	674+18.69	0.00	593.98	594.05
℄ BRG. E. ABUT.	674+27.94	0.00	593.92	593.94
BK. E. ABUT.	674+31.15	0.00	593.90	593.92

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PLOT SCALE =	DRAWN - TCK	REVISED -	
PLOT DATE =	DATE - 10/28/2019	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF DECK SLAB ELEVATIONS I
SN 050-0220 (EB), SN 050-0221 (WB)
SHEET NO. 57 OF 80 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(50-2BRIDGES	LASALLE	328	132
		CONTRACT NO. 66H21		
	ILLINOIS FED. AID PROJECT			

BEAM 4A

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection and Grinding
BK. W. ABUT.	669+87.36	-8.00	602.03	602.05
℄ BRG. W. ABUT.	669+90.57	-8.00	601.93	601.95
A	670+00.57	-8.00	601.62	601.67
B	670+10.57	-8.00	601.33	601.40
C	670+20.57	-8.00	601.03	601.12
D	670+30.57	-8.00	600.75	600.84
E	670+40.57	-8.00	600.46	600.55
F	670+50.57	-8.00	600.19	600.26
G	670+60.57	-8.00	599.92	599.97
H	670+70.57	-8.00	599.65	599.69
I	670+80.57	-8.00	599.39	599.42
℄ BRG. PIER 1	670+85.57	-8.00	599.27	599.29
J	670+95.57	-8.00	599.01	599.04
K	671+05.57	-8.00	598.77	598.81
L	671+15.57	-8.00	598.53	598.58
M	671+25.57	-8.00	598.29	598.36
N	671+35.57	-8.00	598.06	598.15
O	671+45.57	-8.00	597.84	597.93
P	671+55.57	-8.00	597.62	597.71
Q	671+65.57	-8.00	597.41	597.48
R	671+75.57	-8.00	597.20	597.26
S	671+85.57	-8.00	597.00	597.04
T	671+95.57	-8.00	596.81	596.83
℄ BRG. PIER 2	672+01.57	-8.00	596.69	596.71
U	672+11.57	-8.00	596.50	596.53
V	672+21.57	-8.00	596.32	596.35
W	672+31.57	-8.00	596.15	596.19
X	672+41.57	-8.00	595.97	596.03
Y	672+51.57	-8.00	595.81	595.87
Z	672+61.57	-8.00	595.65	595.71
AA	672+71.57	-8.00	595.50	595.55
AB	672+81.57	-8.00	595.35	595.39
AC	672+91.57	-8.00	595.20	595.23
AD	673+01.57	-8.00	595.07	595.09
AE	673+11.57	-8.00	594.93	594.95
℄ BRG. PIER 3	673+17.57	-8.00	594.86	594.88
AF	673+27.57	-8.00	594.73	594.77
AG	673+37.57	-8.00	594.62	594.68
AH	673+47.57	-8.00	594.50	594.59
AI	673+57.57	-8.00	594.40	594.51
AJ	673+67.57	-8.00	594.30	594.43
AK	673+77.57	-8.00	594.20	594.35
AL	673+87.57	-8.00	594.11	594.26
AM	673+97.57	-8.00	594.03	594.16
AN	674+07.57	-8.00	593.95	594.05
AO	674+17.57	-8.00	593.87	593.94
℄ BRG. E. ABUT.	674+26.82	-8.00	593.81	593.83
BK. E. ABUT.	674+30.02	-8.00	593.78	593.80

BEAM 5A

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection and Grinding
BK. W. ABUT.	669+86.23	-16.00	601.92	601.94
℄ BRG. W. ABUT.	669+89.44	-16.00	601.82	601.84
A	669+99.44	-16.00	601.52	601.57
B	670+09.44	-16.00	601.22	601.29
C	670+19.44	-16.00	600.93	601.01
D	670+29.44	-16.00	600.64	600.73
E	670+39.44	-16.00	600.36	600.44
F	670+49.44	-16.00	600.08	600.15
G	670+59.44	-16.00	599.81	599.86
H	670+69.44	-16.00	599.54	599.58
I	670+79.44	-16.00	599.28	599.31
℄ BRG. PIER 1	670+84.44	-16.00	599.15	599.18
J	670+94.44	-16.00	598.90	598.93
K	671+04.44	-16.00	598.66	598.69
L	671+14.44	-16.00	598.42	598.47
M	671+24.44	-16.00	598.18	598.24
N	671+34.44	-16.00	597.95	598.03
O	671+44.44	-16.00	597.73	597.81
P	671+54.44	-16.00	597.51	597.58
Q	671+64.44	-16.00	597.29	597.36
R	671+74.44	-16.00	597.09	597.14
S	671+84.44	-16.00	596.88	596.92
T	671+94.44	-16.00	596.69	596.71
℄ BRG. PIER 2	672+00.44	-16.00	596.57	596.59
U	672+10.44	-16.00	596.38	596.41
V	672+20.44	-16.00	596.20	596.23
W	672+30.44	-16.00	596.02	596.07
X	672+40.44	-16.00	595.85	595.90
Y	672+50.44	-16.00	595.69	595.75
Z	672+60.44	-16.00	595.53	595.59
AA	672+70.44	-16.00	595.37	595.43
AB	672+80.44	-16.00	595.22	595.27
AC	672+90.44	-16.00	595.08	595.11
AD	673+00.44	-16.00	594.94	594.96
AE	673+10.44	-16.00	594.81	594.83
℄ BRG. PIER 3	673+16.44	-16.00	594.73	594.75
AF	673+26.44	-16.00	594.61	594.64
AG	673+36.44	-16.00	594.49	594.54
AH	673+46.44	-16.00	594.38	594.45
AI	673+56.44	-16.00	594.27	594.37
AJ	673+66.44	-16.00	594.17	594.29
AK	673+76.44	-16.00	594.07	594.21
AL	673+86.44	-16.00	593.98	594.11
AM	673+96.44	-16.00	593.90	594.01
AN	674+06.44	-16.00	593.82	593.91
AO	674+16.44	-16.00	593.74	593.80
℄ BRG. E. ABUT.	674+25.69	-16.00	593.67	593.69
BK. E. ABUT.	674+28.90	-16.00	593.65	593.67

BEAM 6A

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection and Grinding
BK. W. ABUT.	669+85.10	-24.03	601.80	601.82
℄ BRG. W. ABUT.	669+88.32	-24.00	601.70	601.72
A	669+98.33	-23.90	601.39	601.44
B	670+08.35	-23.79	601.10	601.16
C	670+18.36	-23.69	600.80	600.88
D	670+28.38	-23.58	600.52	600.60
E	670+38.39	-23.48	600.24	600.32
F	670+48.41	-23.37	599.96	600.03
G	670+58.42	-23.27	599.69	599.74
H	670+68.43	-23.16	599.43	599.46
I	670+78.45	-23.06	599.17	599.19
℄ BRG. PIER 1	670+83.46	-23.01	599.04	599.06
J	670+93.47	-22.90	598.79	598.81
K	671+03.49	-22.80	598.54	598.58
L	671+13.50	-22.69	598.30	598.35
M	671+23.52	-22.59	598.07	598.13
N	671+33.53	-22.49	597.84	597.91
O	671+43.54	-22.38	597.62	597.69
P	671+53.56	-22.28	597.40	597.47
Q	671+63.57	-22.17	597.19	597.25
R	671+73.59	-22.07	596.98	597.03
S	671+83.60	-21.96	596.78	596.82
T	671+93.62	-21.86	596.59	596.61
℄ BRG. PIER 2	671+99.63	-21.80	596.47	596.49
U	672+09.64	-21.69	596.28	596.31
V	672+19.66	-21.59	596.10	596.13
W	672+29.67	-21.48	595.93	595.97
X	672+39.69	-21.38	595.76	595.81
Y	672+49.70	-21.27	595.59	595.65
Z	672+59.71	-21.17	595.44	595.49
AA	672+69.73	-21.06	595.28	595.34
AB	672+79.74	-20.96	595.13	595.18
AC	672+89.76	-20.86	594.99	595.03
AD	672+99.77	-20.75	594.86	594.88
AE	673+09.79	-20.65	594.72	594.75
℄ BRG. PIER 3	673+15.80	-20.58	594.65	594.67
AF	673+25.81	-20.48	594.53	594.56
AG	673+35.83	-20.37	594.41	594.46
AH	673+45.84	-20.27	594.30	594.37
AI	673+55.86	-20.17	594.19	594.29
℄ Trans. BM 5A-9A	673+59.76	-20.12	594.15	594.26

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GRAEF
8501 W. Higgins Road; Suite 280
Chicago, Illinois 60631; (773) 399-0112

USER NAME =	DESIGNED - KGW	REVISED -	
	CHECKED - JAZ	REVISED -	
PLOT SCALE =	DRAWN - TCK	REVISED -	
PLOT DATE =	DATE - 10/28/2019	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF DECK SLAB ELEVATIONS II
SN 050-0220 (EB), SN 050-0221 (WB)
SHEET NO. 58 OF 80 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(50-2BR)ES	LASALLE	328	133
		CONTRACT NO. 66H21		
	ILLINOIS FED. AID PROJECT			

BEAM 7A

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection and Grinding
BK. W. ABUT.	669+83.97	-32.08	601.67	601.69
℄ BRG. W. ABUT.	669+87.19	-32.00	601.57	601.59
A	669+97.23	-31.75	601.27	601.32
B	670+07.26	-31.51	600.97	601.04
C	670+17.30	-31.26	600.68	600.76
D	670+27.33	-31.02	600.40	600.48
E	670+37.37	-30.77	600.12	600.20
F	670+47.40	-30.53	599.84	599.91
G	670+57.43	-30.28	599.58	599.63
H	670+67.47	-30.04	599.31	599.35
I	670+77.50	-29.79	599.06	599.08
℄ BRG. PIER 1	670+82.52	-29.67	598.93	598.95
J	670+92.55	-29.42	598.68	598.70
K	671+02.59	-29.18	598.44	598.47
L	671+12.62	-28.93	598.20	598.24
M	671+22.66	-28.69	597.97	598.02
N	671+32.69	-28.44	597.74	597.80
O	671+42.73	-28.20	597.52	597.59
P	671+52.76	-27.95	597.30	597.37
Q	671+62.80	-27.71	597.09	597.15
R	671+72.83	-27.46	596.89	596.94
S	671+82.86	-27.22	596.69	596.72
T	671+92.90	-26.97	596.50	596.52
℄ BRG. PIER 2	671+98.92	-26.83	596.38	596.41
U	672+08.95	-26.58	596.20	596.22
V	672+18.99	-26.33	596.02	596.05
W	672+29.02	-26.09	595.85	595.89
X	672+39.06	-25.84	595.68	595.73
Y	672+49.09	-25.60	595.52	595.58
Z	672+59.13	-25.35	595.36	595.42
AA	672+69.16	-25.11	595.21	595.27
℄ Trans. BM 6A-9A	672+76.37	-24.93	595.10	595.16

BEAM 8A

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection and Grinding
BK. W. ABUT.	669+83.05	-38.63	601.57	601.59
℄ BRG. W. ABUT.	669+86.28	-38.50	601.47	601.49
A	669+96.34	-38.10	601.17	601.22
B	670+06.39	-37.70	600.88	600.94
C	670+16.45	-37.29	600.59	600.66
D	670+26.51	-36.89	600.30	600.39
E	670+36.56	-36.49	600.03	600.10
F	670+46.62	-36.09	599.76	599.82
G	670+56.68	-35.68	599.49	599.54
H	670+66.73	-35.28	599.23	599.26
I	670+76.79	-34.88	598.97	599.00
℄ BRG. PIER 1	670+81.82	-34.68	598.85	598.87
J	670+91.87	-34.27	598.60	598.62
K	671+01.93	-33.87	598.36	598.39
L	671+11.99	-33.47	598.12	598.17
M	671+22.04	-33.07	597.89	597.95
N	671+32.10	-32.66	597.67	597.73
O	671+42.16	-32.26	597.45	597.52
P	671+52.21	-31.86	597.24	597.30
Q	671+62.27	-31.46	597.03	597.09
℄ Trans. BM 7A-9A	671+69.57	-31.17	596.88	596.93

BEAM 9A

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection and Grinding
BK. W. ABUT.	669+82.13	-45.18	601.46	601.49
℄ BRG. W. ABUT.	669+85.37	-45.00	601.37	601.39
A	669+95.44	-44.44	601.07	601.12
B	670+05.52	-43.88	600.78	600.84
C	670+15.60	-43.32	600.49	600.57
D	670+25.68	-42.76	600.21	600.29
E	670+35.76	-42.20	599.94	600.01
F	670+45.84	-41.64	599.67	599.73
G	670+55.92	-41.08	599.40	599.45
H	670+66.00	-40.52	599.14	599.18
I	670+76.07	-39.96	598.89	598.91
℄ BRG. PIER 1	670+81.11	-39.68	598.77	598.79
J	670+91.19	-39.12	598.52	598.54
K	671+01.27	-38.56	598.28	598.31
L	671+11.35	-38.00	598.05	598.09
M	671+21.43	-37.44	597.82	597.87
N	671+31.51	-36.88	597.60	597.66
O	671+41.59	-36.32	597.38	597.45
P	671+51.66	-35.76	597.17	597.24
Q	671+61.74	-35.20	596.97	597.02
R	671+71.82	-34.64	596.77	596.81
S	671+81.90	-34.08	596.57	596.61
T	671+91.98	-33.52	596.38	596.41
℄ BRG. PIER 2	671+98.03	-33.18	596.27	596.30
U	672+08.11	-32.62	596.09	596.12
V	672+18.18	-32.06	595.92	595.95
W	672+28.26	-31.50	595.75	595.80
X	672+38.34	-30.94	595.59	595.65
Y	672+48.42	-30.38	595.43	595.50
Z	672+58.50	-29.82	595.28	595.35
AA	672+68.58	-29.26	595.14	595.20
AB	672+78.66	-28.70	595.00	595.05
AC	672+88.73	-28.14	594.86	594.90
AD	672+98.81	-27.58	594.73	594.76
AE	673+08.89	-27.02	594.61	594.63
℄ BRG. PIER 3	673+14.94	-26.69	594.54	594.56
AF	673+25.02	-26.13	594.42	594.45
AG	673+35.10	-25.57	594.31	594.36
AH	673+45.18	-25.01	594.21	594.28
AI	673+55.25	-24.45	594.11	594.20
AJ	673+65.33	-23.89	594.02	594.13
AK	673+75.41	-23.33	593.93	594.05
AL	673+85.49	-22.77	593.85	593.97
AM	673+95.57	-22.21	593.78	593.89
AN	674+05.65	-21.65	593.71	593.79
AO	674+15.73	-21.09	593.64	593.70
℄ BRG. E. ABUT.	674+25.05	-20.57	593.59	593.61
BK. E. ABUT.	674+28.28	-20.39	593.57	593.59

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GRAEF
8501 W. Higgins Road; Suite 280
Chicago, Illinois 60631; (773) 399-0112

USER NAME =	DESIGNED - KGW	REVISED -
	CHECKED - JAZ	REVISED -
PLOT SCALE =	DRAWN - TCK	REVISED -
PLOT DATE =	DATE - 10/28/2019	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF DECK SLAB ELEVATIONS III
SN 050-0220 (EB), SN 050-0221 (WB)
SHEET NO. 59 OF 80 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(50-2BRIES	LASALLE	328	134
		CONTRACT NO. 66H21		
	ILLINOIS FED. AID PROJECT			

BEAM 1B

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection and Grinding
BK. W. ABUT.	669+96.46	-16.00	601.51	601.53
℄ BRG. W. ABUT.	669+99.56	-16.00	601.41	601.43
A	670+09.56	-16.00	601.11	601.16
B	670+19.56	-16.00	600.82	600.88
C	670+29.56	-16.00	600.53	600.61
D	670+39.56	-16.00	600.25	600.33
E	670+49.56	-16.00	599.97	600.05
F	670+59.56	-16.00	599.70	599.76
G	670+69.56	-16.00	599.43	599.48
H	670+79.56	-16.00	599.17	599.20
I	670+89.56	-16.00	598.92	598.94
℄ BRG. PIER 1	670+94.56	-16.00	598.79	598.81
J	671+04.56	-16.00	598.54	598.57
K	671+14.56	-16.00	598.30	598.34
L	671+24.56	-16.00	598.07	598.12
M	671+34.56	-16.00	597.84	597.91
N	671+44.56	-16.00	597.61	597.69
O	671+54.56	-16.00	597.39	597.48
P	671+64.56	-16.00	597.18	597.26
Q	671+74.56	-16.00	596.97	597.04
R	671+84.56	-16.00	596.77	596.82
S	671+94.56	-16.00	596.57	596.61
T	672+04.56	-16.00	596.38	596.40
℄ BRG. PIER 2	672+10.56	-16.00	596.27	596.29
U	672+20.56	-16.00	596.08	596.10
V	672+30.56	-16.00	595.91	595.94
W	672+40.56	-16.00	595.73	595.77
X	672+50.56	-16.00	595.57	595.62
Y	672+60.56	-16.00	595.41	595.46
Z	672+70.56	-16.00	595.25	595.31
AA	672+80.56	-16.00	595.10	595.15
AB	672+90.56	-16.00	594.96	595.00
AC	673+00.56	-16.00	594.82	594.85
AD	673+10.56	-16.00	594.69	594.71
AE	673+20.56	-16.00	594.56	594.58
℄ BRG. PIER 3	673+26.56	-16.00	594.49	594.51
AF	673+36.56	-16.00	594.37	594.40
AG	673+46.56	-16.00	594.26	594.32
AH	673+56.56	-16.00	594.15	594.23
AI	673+66.56	-16.00	594.05	594.16
AJ	673+76.56	-16.00	593.95	594.08
AK	673+86.56	-16.00	593.86	594.00
AL	673+96.56	-16.00	593.77	593.91
AM	674+06.56	-16.00	593.69	593.82
AN	674+16.56	-16.00	593.62	593.71
AO	674+26.56	-16.00	593.55	593.61
℄ BRG. E. ABUT.	674+35.81	-16.00	593.49	593.51
BK. E. ABUT.	674+38.91	-16.00	593.47	593.49

BEAM 2B

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection and Grinding
BK. W. ABUT.	669+97.58	-8.00	601.61	601.63
℄ BRG. W. ABUT.	670+00.69	-8.00	601.52	601.54
A	670+10.69	-8.00	601.22	601.27
B	670+20.69	-8.00	600.93	600.99
C	670+30.69	-8.00	600.64	600.72
D	670+40.69	-8.00	600.36	600.44
E	670+50.69	-8.00	600.08	600.16
F	670+60.69	-8.00	599.81	599.88
G	670+70.69	-8.00	599.54	599.59
H	670+80.69	-8.00	599.28	599.32
I	670+90.69	-8.00	599.03	599.05
℄ BRG. PIER 1	670+95.69	-8.00	598.90	598.92
J	671+05.69	-8.00	598.66	598.68
K	671+15.69	-8.00	598.41	598.46
L	671+25.69	-8.00	598.18	598.24
M	671+35.69	-8.00	597.95	598.03
N	671+45.69	-8.00	597.73	597.81
O	671+55.69	-8.00	597.51	597.60
P	671+65.69	-8.00	597.29	597.38
Q	671+75.69	-8.00	597.09	597.16
R	671+85.69	-8.00	596.88	596.94
S	671+95.69	-8.00	596.69	596.73
T	672+05.69	-8.00	596.50	596.52
℄ BRG. PIER 2	672+11.69	-8.00	596.38	596.41
U	672+21.69	-8.00	596.20	596.23
V	672+31.69	-8.00	596.03	596.06
W	672+41.69	-8.00	595.86	595.90
X	672+51.69	-8.00	595.69	595.74
Y	672+61.69	-8.00	595.53	595.59
Z	672+71.69	-8.00	595.38	595.43
AA	672+81.69	-8.00	595.23	595.28
AB	672+91.69	-8.00	595.08	595.12
AC	673+01.69	-8.00	594.95	594.97
AD	673+11.69	-8.00	594.81	594.83
AE	673+21.69	-8.00	594.69	594.71
℄ BRG. PIER 3	673+27.69	-8.00	594.61	594.63
AF	673+37.69	-8.00	594.50	594.53
AG	673+47.69	-8.00	594.38	594.44
AH	673+57.69	-8.00	594.28	594.36
AI	673+67.69	-8.00	594.17	594.29
AJ	673+77.69	-8.00	594.08	594.22
AK	673+87.69	-8.00	593.99	594.14
AL	673+97.69	-8.00	593.90	594.05
AM	674+07.69	-8.00	593.83	593.96
AN	674+17.69	-8.00	593.75	593.85
AO	674+27.69	-8.00	593.68	593.75
℄ BRG. E. ABUT.	674+36.94	-8.00	593.62	593.64
BK. E. ABUT.	674+40.04	-8.00	593.60	593.62

℄ E.B. Lanes, P.G., CROWN & BEAM 3B

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection and Grinding
BK. W. ABUT.	669+98.71	0.00	601.70	601.72
℄ BRG. W. ABUT.	670+01.81	0.00	601.60	601.63
A	670+11.81	0.00	601.31	601.36
B	670+21.81	0.00	601.01	601.08
C	670+31.81	0.00	600.73	600.81
D	670+41.81	0.00	600.44	600.53
E	670+51.81	0.00	600.17	600.25
F	670+61.81	0.00	599.90	599.97
G	670+71.81	0.00	599.63	599.69
H	670+81.81	0.00	599.37	599.41
I	670+91.81	0.00	599.12	599.14
℄ BRG. PIER 1	670+96.81	0.00	598.99	599.01
J	671+06.81	0.00	598.75	598.78
K	671+16.81	0.00	598.51	598.55
L	671+26.81	0.00	598.27	598.33
M	671+36.81	0.00	598.04	598.12
N	671+46.81	0.00	597.82	597.91
O	671+56.81	0.00	597.60	597.70
P	671+66.81	0.00	597.39	597.48
Q	671+76.81	0.00	597.18	597.26
R	671+86.81	0.00	596.98	597.04
S	671+96.81	0.00	596.79	596.83
T	672+06.81	0.00	596.60	596.62
℄ BRG. PIER 2	672+12.81	0.00	596.48	596.50
U	672+22.81	0.00	596.30	596.33
V	672+32.81	0.00	596.13	596.16
W	672+42.81	0.00	595.96	596.00
X	672+52.81	0.00	595.79	595.84
Y	672+62.81	0.00	595.63	595.69
Z	672+72.81	0.00	595.48	595.54
AA	672+82.81	0.00	595.33	595.38
AB	672+92.81	0.00	595.19	595.23
AC	673+02.81	0.00	595.05	595.08
AD	673+12.81	0.00	594.92	594.94
AE	673+22.81	0.00	594.79	594.81
℄ BRG. PIER 3	673+28.81	0.00	594.72	594.74
AF	673+38.81	0.00	594.60	594.64
AG	673+48.81	0.00	594.49	594.55
AH	673+58.81	0.00	594.38	594.48
AI	673+68.81	0.00	594.28	594.40
AJ	673+78.81	0.00	594.19	594.33
AK	673+88.81	0.00	594.10	594.25
AL	673+98.81	0.00	594.02	594.17
AM	674+08.81	0.00	593.94	594.07
AN	674+18.81	0.00	593.86	593.97
AO	674+28.81	0.00	593.80	593.86
℄ BRG. E. ABUT.	674+38.06	0.00	593.74	593.76
BK. E. ABUT.	674+41.16	0.00	593.72	593.74

GRÄEF
8501 W. Higgins Road; Suite 280
Chicago, Illinois 60631; (773) 399-0112

USER NAME =	DESIGNED - KGW	REVISED -	
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PLOT DATE =	DATE - 10/28/2019	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF DECK SLAB ELEVATIONS IV
SN 050-0220 (EB), SN 050-0221 (WB)
SHEET NO. S10 OF 80 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(50-2BRIES	LASALLE	328	135
		CONTRACT NO. 66H21		
	ILLINOIS FED. AID PROJECT			

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BEAM 4B

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection and Grinding
BK. W. ABUT.	669+99.83	8.00	601.54	601.56
℄ BRG. W. ABUT.	670+02.93	8.00	601.45	601.47
A	670+12.93	8.00	601.15	601.20
B	670+22.93	8.00	600.86	600.93
C	670+32.93	8.00	600.57	600.66
D	670+42.93	8.00	600.29	600.38
E	670+52.93	8.00	600.02	600.10
F	670+62.93	8.00	599.75	599.82
G	670+72.93	8.00	599.48	599.54
H	670+82.93	8.00	599.22	599.26
I	670+92.93	8.00	598.97	598.99
℄ BRG. PIER 1	670+97.93	8.00	598.85	598.87
J	671+07.93	8.00	598.60	598.63
K	671+17.93	8.00	598.36	598.40
L	671+27.93	8.00	598.13	598.18
M	671+37.93	8.00	597.90	597.97
N	671+47.93	8.00	597.68	597.76
O	671+57.93	8.00	597.46	597.55
P	671+67.93	8.00	597.25	597.33
Q	671+77.93	8.00	597.04	597.11
R	671+87.93	8.00	596.84	596.90
S	671+97.93	8.00	596.64	596.68
T	672+07.93	8.00	596.45	596.48
℄ BRG. PIER 2	672+13.93	8.00	596.34	596.36
U	672+23.93	8.00	596.16	596.19
V	672+33.93	8.00	595.99	596.02
W	672+43.93	8.00	595.82	595.86
X	672+53.93	8.00	595.65	595.71
Y	672+63.93	8.00	595.49	595.55
Z	672+73.93	8.00	595.34	595.40
AA	672+83.93	8.00	595.19	595.25
AB	672+93.93	8.00	595.05	595.09
AC	673+03.93	8.00	594.92	594.94
AD	673+13.93	8.00	594.78	594.80
AE	673+23.93	8.00	594.66	594.68
℄ BRG. PIER 3	673+29.93	8.00	594.59	594.61
AF	673+39.93	8.00	594.47	594.51
AG	673+49.93	8.00	594.36	594.42
AH	673+59.93	8.00	594.25	594.34
AI	673+69.93	8.00	594.15	594.27
AJ	673+79.93	8.00	594.06	594.20
AK	673+89.93	8.00	593.97	594.12
AL	673+99.93	8.00	593.89	594.04
AM	674+09.93	8.00	593.81	593.94
AN	674+19.93	8.00	593.74	593.84
AO	674+29.93	8.00	593.67	593.73
℄ BRG. E. ABUT.	674+39.18	8.00	593.61	593.63
BK. E. ABUT.	674+42.29	8.00	593.59	593.61

BEAM 5B

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection and Grinding
BK. W. ABUT.	670+00.96	16.00	601.37	601.39
℄ BRG. W. ABUT.	670+04.06	16.00	601.28	601.30
A	670+14.06	16.00	600.98	601.03
B	670+24.06	16.00	600.69	600.76
C	670+34.06	16.00	600.40	600.48
D	670+44.06	16.00	600.12	600.21
E	670+54.06	16.00	599.85	599.93
F	670+64.06	16.00	599.58	599.65
G	670+74.06	16.00	599.31	599.37
H	670+84.06	16.00	599.06	599.09
I	670+94.06	16.00	598.80	598.83
℄ BRG. PIER 1	670+99.06	16.00	598.68	598.70
J	671+09.06	16.00	598.43	598.46
K	671+19.06	16.00	598.19	598.23
L	671+29.06	16.00	597.96	598.01
M	671+39.06	16.00	597.73	597.80
N	671+49.06	16.00	597.51	597.59
O	671+59.06	16.00	597.29	597.38
P	671+69.06	16.00	597.08	597.16
Q	671+79.06	16.00	596.88	596.95
R	671+89.06	16.00	596.68	596.73
S	671+99.06	16.00	596.48	596.52
T	672+09.06	16.00	596.29	596.32
℄ BRG. PIER 2	672+15.06	16.00	596.18	596.20
U	672+25.06	16.00	596.00	596.03
V	672+35.06	16.00	595.83	595.86
W	672+45.06	16.00	595.66	595.70
X	672+55.06	16.00	595.50	595.54
Y	672+65.06	16.00	595.34	595.39
Z	672+75.06	16.00	595.18	595.24
AA	672+85.06	16.00	595.04	595.09
AB	672+95.06	16.00	594.90	594.94
AC	673+05.06	16.00	594.76	594.79
AD	673+15.06	16.00	594.63	594.65
AE	673+25.06	16.00	594.50	594.52
℄ BRG. PIER 3	673+31.06	16.00	594.43	594.45
AF	673+41.06	16.00	594.32	594.35
AG	673+51.06	16.00	594.21	594.26
AH	673+61.06	16.00	594.10	594.19
AI	673+71.06	16.00	594.00	594.12
AJ	673+81.06	16.00	593.91	594.04
AK	673+91.06	16.00	593.82	593.97
AL	674+01.06	16.00	593.74	593.88
AM	674+11.06	16.00	593.66	593.79
AN	674+21.06	16.00	593.59	593.69
AO	674+31.06	16.00	593.52	593.59
℄ BRG. E. ABUT.	674+40.31	16.00	593.46	593.48
BK. E. ABUT.	674+43.41	16.00	593.44	593.46

BEAM 6B

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection and Grinding
BK. W. ABUT.	670+01.94	23.02	601.20	601.22
℄ BRG. W. ABUT.	670+05.04	22.99	601.11	601.13
A	670+15.03	22.89	600.81	600.86
B	670+25.01	22.79	600.52	600.59
C	670+35.00	22.69	600.24	600.32
D	670+44.98	22.59	599.96	600.05
E	670+54.97	22.49	599.69	599.77
F	670+64.96	22.39	599.43	599.49
G	670+74.94	22.29	599.16	599.22
H	670+84.93	22.19	598.91	598.95
I	670+94.91	22.09	598.66	598.68
℄ BRG. PIER 1	670+99.91	22.04	598.54	598.56
J	671+09.89	21.94	598.29	598.32
K	671+19.88	21.84	598.06	598.09
L	671+29.87	21.74	597.83	597.88
M	671+39.85	21.64	597.60	597.67
N	671+49.84	21.55	597.38	597.46
O	671+59.82	21.45	597.17	597.25
P	671+69.81	21.35	596.96	597.04
Q	671+79.80	21.25	596.76	596.82
R	671+89.78	21.15	596.56	596.61
S	671+99.77	21.05	596.37	596.41
T	672+09.75	20.95	596.18	596.21
℄ BRG. PIER 2	672+15.75	20.89	596.07	596.09
U	672+25.73	20.79	595.89	595.92
V	672+35.72	20.69	595.72	595.75
W	672+45.70	20.59	595.56	595.60
X	672+55.69	20.49	595.40	595.44
Y	672+65.68	20.39	595.24	595.29
Z	672+75.66	20.29	595.09	595.15
AA	672+85.65	20.19	594.95	595.00
℄ Trans. BM 5B-7B	672+91.99	20.13	594.86	594.90

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8501 W. Higgins Road; Suite 280
Chicago, Illinois 60631; (773) 399-0112

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PLOT DATE =	DATE - 10/28/2019	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF DECK SLAB ELEVATIONS V
SN 050-0220 (EB), SN 050-0221 (WB)
SHEET NO. S11 OF 80 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(50-2BR)ES	LASALLE	328	136
		CONTRACT NO. 66H21		
	ILLINOIS FED. AID PROJECT			

BEAM 7B

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection and Grinding
BK. W. ABUT.	670+02.93	30.04	601.03	601.05
℄ BRG. W. ABUT.	670+06.02	29.97	600.94	600.96
A	670+15.99	29.77	600.65	600.69
B	670+25.97	29.58	600.36	600.43
C	670+35.94	29.38	600.08	600.16
D	670+45.91	29.18	599.81	599.89
E	670+55.88	28.98	599.54	599.62
F	670+65.85	28.78	599.27	599.34
G	670+75.83	28.58	599.02	599.07
H	670+85.80	28.38	598.76	598.80
I	670+95.77	28.18	598.52	598.54
℄ BRG. PIER 1	671+00.76	28.08	598.39	598.42
J	671+10.73	27.88	598.16	598.18
K	671+20.70	27.68	597.92	597.96
L	671+30.67	27.48	597.69	597.74
M	671+40.64	27.28	597.47	597.53
N	671+50.62	27.08	597.26	597.32
O	671+60.59	26.88	597.04	597.12
P	671+70.56	26.68	596.84	596.91
Q	671+80.53	26.48	596.64	596.70
R	671+90.50	26.28	596.44	596.49
S	672+00.48	26.08	596.25	596.29
T	672+10.45	25.88	596.07	596.10
℄ BRG. PIER 2	672+16.43	25.76	595.96	595.98
U	672+26.40	25.57	595.79	595.81
V	672+36.37	25.37	595.62	595.65
W	672+46.35	25.17	595.45	595.49
X	672+56.32	24.97	595.30	595.34
Y	672+66.29	24.77	595.14	595.20
Z	672+76.26	24.57	595.00	595.05
AA	672+86.23	24.37	594.85	594.90
AB	672+96.21	24.17	594.72	594.76
AC	673+06.18	23.97	594.59	594.62
AD	673+16.15	23.77	594.46	594.48
AE	673+26.12	23.57	594.34	594.36
℄ BRG. PIER 3	673+32.11	23.45	594.27	594.29
AF	673+42.08	23.25	594.16	594.19
AG	673+52.05	23.05	594.05	594.11
AH	673+62.02	22.85	593.95	594.04
AI	673+71.99	22.65	593.86	593.97
AJ	673+81.97	22.45	593.77	593.90
AK	673+91.94	22.25	593.69	593.83
AL	674+01.91	22.05	593.61	593.75
AM	674+11.88	21.85	593.54	593.66
AN	674+21.85	21.65	593.47	593.57
AO	674+31.83	21.46	593.41	593.47
℄ BRG. E. ABUT.	674+41.05	21.27	593.35	593.37
BK. E. ABUT.	674+44.14	21.21	593.33	593.35

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8501 W. Higgins Road; Suite 280
Chicago, Illinois 60631; (773) 399-0112

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF DECK SLAB ELEVATIONS VI
SN 050-0220 (EB), SN 050-0221 (WB)
SHEET NO. S12 OF 80 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(50-2BRIES	LASALLE	328	137
		CONTRACT NO. 66H21		
	ILLINOIS FED. AID PROJECT			

NORTH EDGE OF SHOULDER

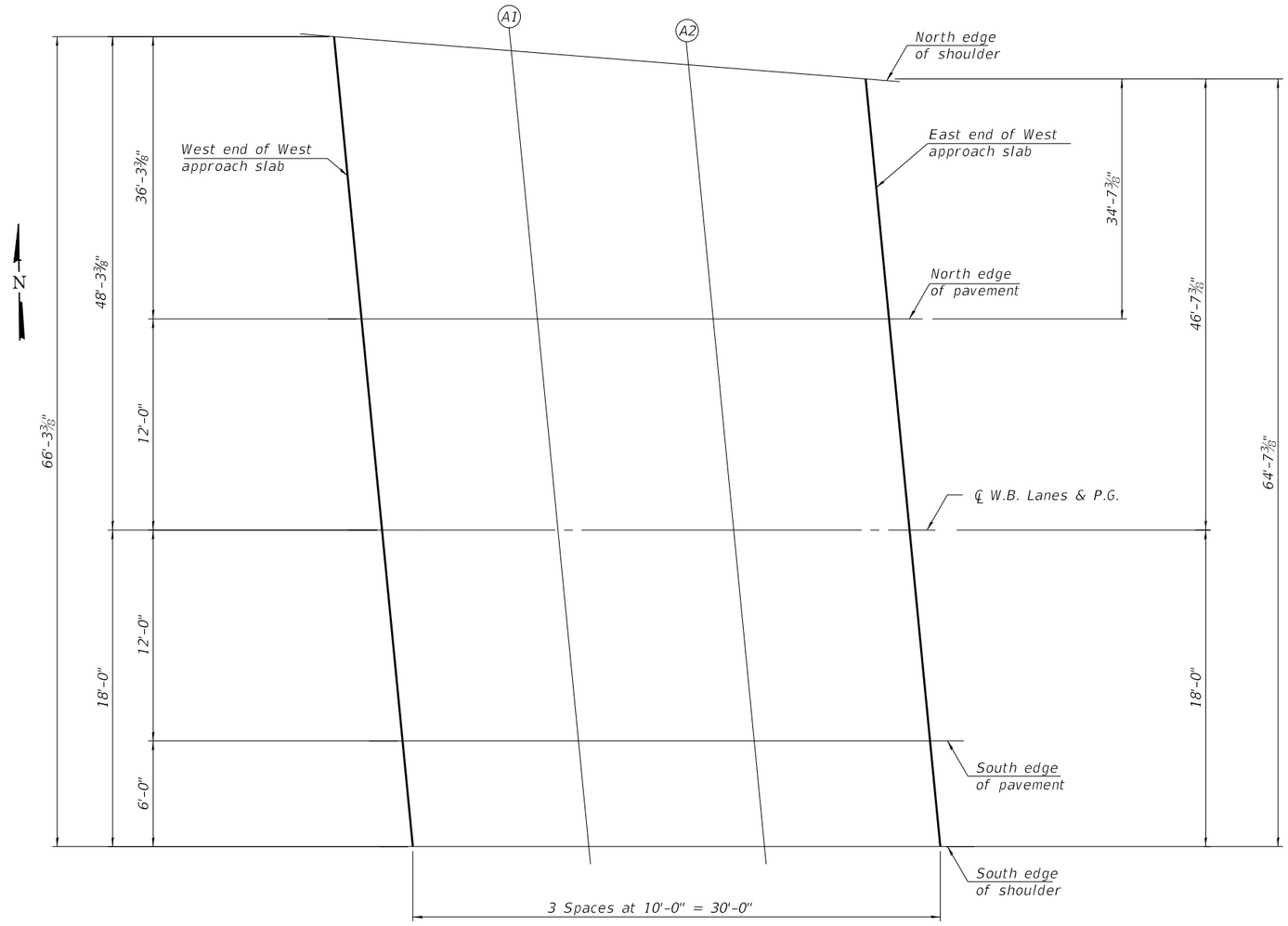
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Grinding
W. End West Appr. Slab	669+52.70	-48.29	602.34	602.36
A1	669+62.78	-47.73	602.03	602.05
A2	669+72.86	-47.17	601.72	601.74
E. End West Appr. Slab	669+82.94	-46.61	601.41	601.43

NORTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Grinding
W. End West Appr. Slab	669+57.80	-12.00	602.90	602.92
A1	669+67.80	-12.00	602.58	602.60
A2	669+77.80	-12.00	602.26	602.28
E. End West Appr. Slab	669+87.80	-12.00	601.95	601.97

℄ W.B. LANES & PG

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Grinding
W. End West Appr. Slab	669+59.49	0.00	603.03	603.05
A1	669+69.49	0.00	602.71	602.73
A2	669+79.49	0.00	602.39	602.41
E. End West Appr. Slab	669+89.49	0.00	602.08	602.10



PLAN

SOUTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Grinding
W. End West Appr. Slab	669+61.18	12.00	602.79	602.81
A1	669+71.18	12.00	602.47	602.49
A2	669+81.18	12.00	602.16	602.18
E. End West Appr. Slab	669+91.18	12.00	601.85	601.87

SOUTH EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Grinding
W. End West Appr. Slab	669+62.02	18.00	602.65	602.67
A1	669+72.02	18.00	602.33	602.35
A2	669+82.02	18.00	602.01	602.03
E. End West Appr. Slab	669+92.02	18.00	601.70	601.72

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GRAEF
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Chicago, Illinois 60631; (773) 399-0112

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PLOT DATE = 10/04/2019	DATE - 10/04/2019	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF WEST APPROACH SLAB ELEVATIONS (WB)
SN 050-0221 (WB)
SHEET NO. 513 OF 80 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(50-2BR)ES	LASALLE	328	138
		CONTRACT NO. 66H21		
	ILLINOIS FED. AID PROJECT			

NORTH EDGE OF SHOULDER

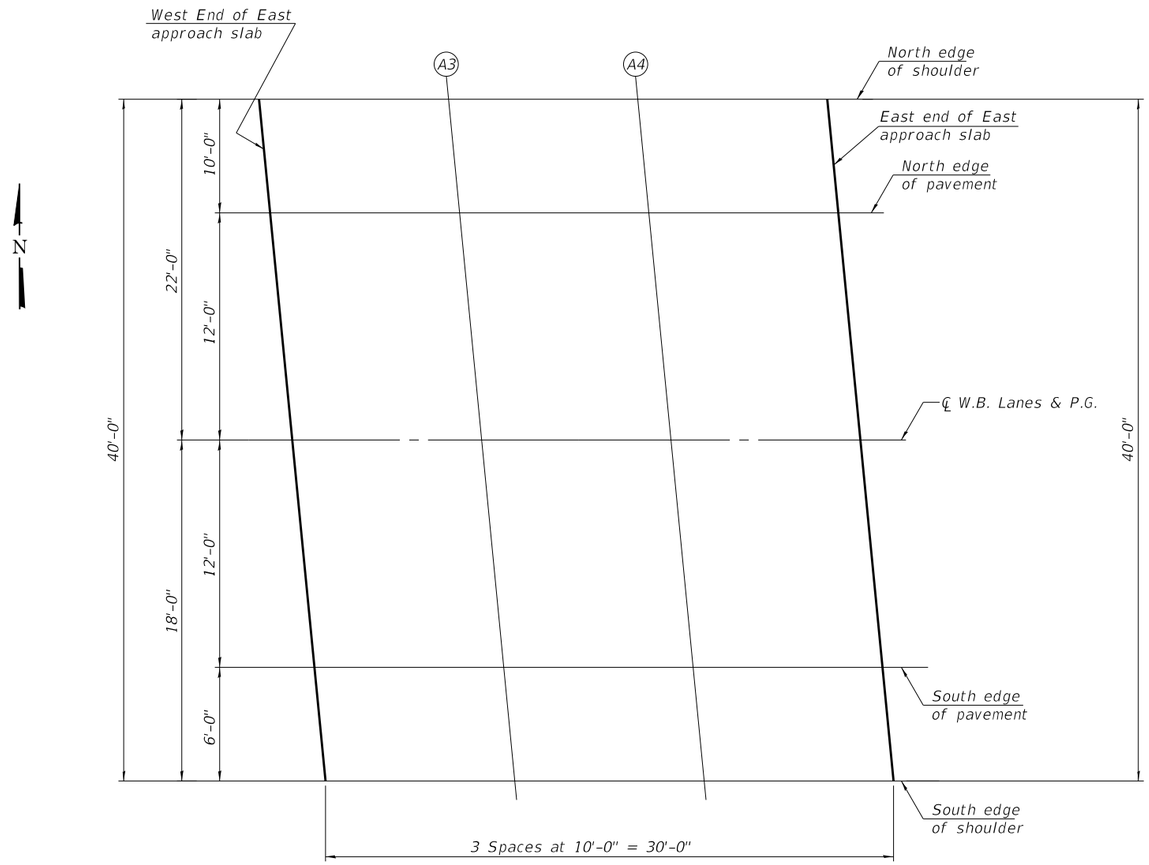
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Grinding
W. End East Appr. Slab	674+27.05	-22.00	593.54	593.56
A3	674+37.05	-22.00	593.48	593.50
A4	674+47.05	-22.00	593.42	593.44
E. End East Appr. Slab	674+57.05	-22.00	593.36	593.38

NORTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Grinding
W. End East Appr. Slab	674+28.45	-12.00	593.73	593.75
A3	674+38.45	-12.00	593.67	593.69
A4	674+48.45	-12.00	593.61	593.63
E. End East Appr. Slab	674+58.45	-12.00	593.55	593.57

℄ W.B. LANES & PG

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Grinding
W. End East Appr. Slab	674+30.14	0.00	593.90	593.92
A3	674+40.14	0.00	593.84	593.86
A4	674+50.14	0.00	593.78	593.80
E. End East Appr. Slab	674+60.14	0.00	593.72	593.74



PLAN

SOUTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Grinding
W. End East Appr. Slab	674+31.83	12.00	593.71	593.73
A3	674+41.83	12.00	593.65	593.67
A4	674+51.83	12.00	593.59	593.61
E. End East Appr. Slab	674+61.83	12.00	593.53	593.55

SOUTH EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Grinding
W. End East Appr. Slab	674+32.67	18.00	593.59	593.61
A3	674+42.67	18.00	593.52	593.54
A4	674+52.67	18.00	593.46	593.48
E. End East Appr. Slab	674+62.67	18.00	593.41	593.43

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GRÄEF
8501 W. Higgins Road; Suite 280
Chicago, Illinois 60631; (773) 399-0112

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PLOT SCALE =	DRAWN - TCK	REVISED -	
PLOT DATE = 10/04/2019	DATE - 10/04/2019	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF EAST APPROACH SLAB ELEVATIONS (WB)
SN 050-0221 (WB)
SHEET NO. S14 OF 80 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(50-2BR)ES	LASALLE	328	139
		CONTRACT NO. 66H21		
	ILLINOIS FED. AID PROJECT			

NORTH EDGE OF SHOULDER

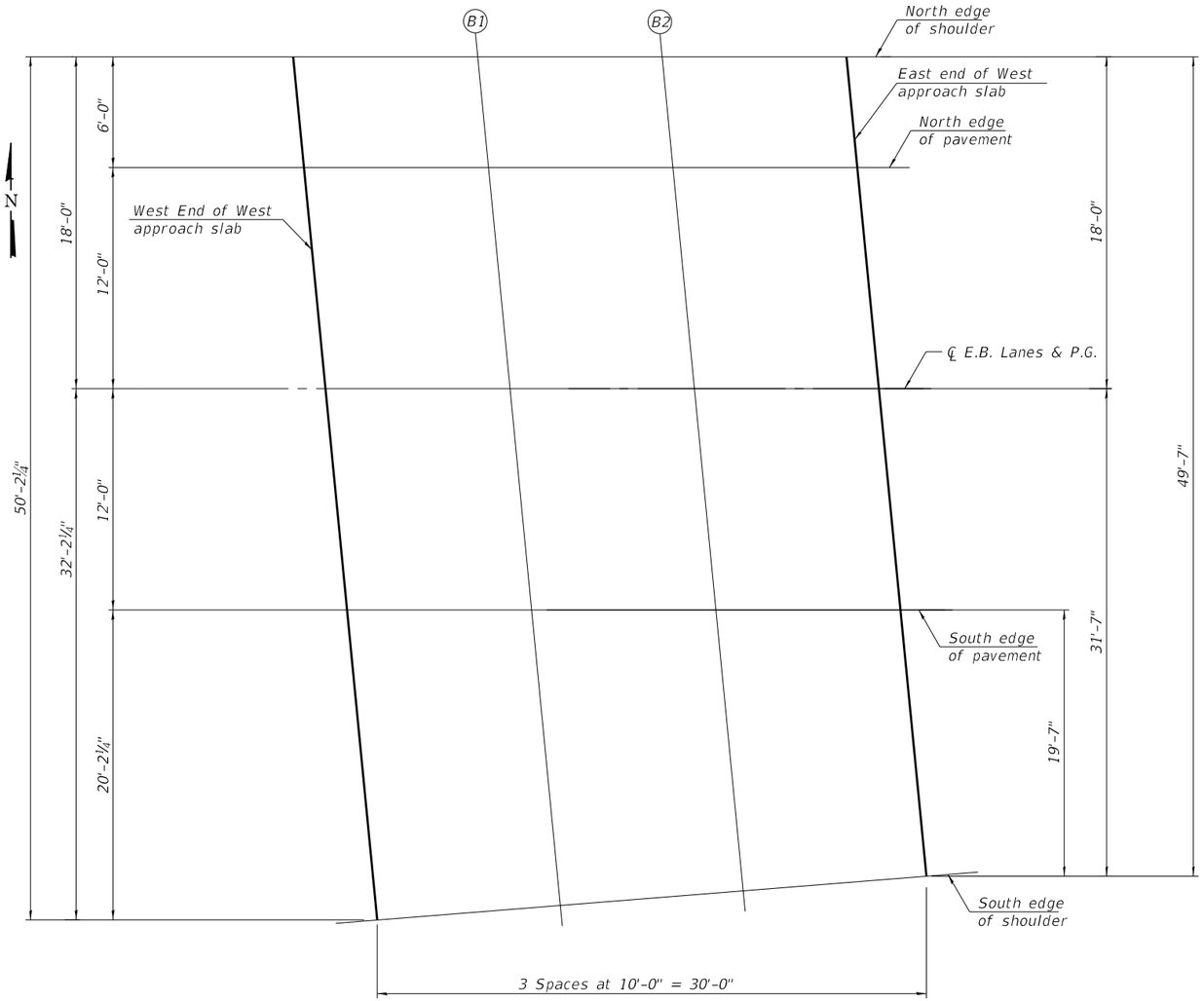
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Grinding
W. End West Appr. Slab	669+67.19	-18.00	602.38	602.40
B1	669+77.19	-18.00	602.06	602.08
B2	669+87.19	-18.00	601.75	601.77
E. End West Appr. Slab	669+97.19	-18.00	601.44	601.46

NORTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Grinding
W. End West Appr. Slab	669+68.03	-12.00	602.47	602.49
B1	669+78.03	-12.00	602.16	602.18
B2	669+88.03	-12.00	601.84	601.86
E. End West Appr. Slab	669+98.03	-12.00	601.54	601.56

℄ E.B. LANES & PG

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Grinding
W. End West Appr. Slab	669+69.72	0.00	602.60	602.62
B1	669+79.72	0.00	602.28	602.30
B2	669+89.72	0.00	601.97	601.99
E. End West Appr. Slab	669+99.72	0.00	601.67	601.69



PLAN

SOUTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Grinding
W. End West Appr. Slab	669+71.41	12.00	602.37	602.39
B1	669+81.41	12.00	602.05	602.07
B2	669+91.41	12.00	601.74	601.76
E. End West Appr. Slab	670+01.41	12.00	601.44	601.46

SOUTH EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Grinding
W. End West Appr. Slab	669+74.24	32.19	601.87	601.89
B1	669+84.22	31.99	601.56	601.58
B2	669+94.19	31.79	601.26	601.28
E. End West Appr. Slab	670+04.16	31.58	600.96	600.98

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF WEST APPROACH SLAB ELEVATIONS (EB)
SN 050-0220 (EB)
SHEET NO. S15 OF 80 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(50-2BRIES	LASALLE	328	140
		CONTRACT NO. 66H21		
	ILLINOIS FED. AID PROJECT			

NORTH EDGE OF SHOULDER

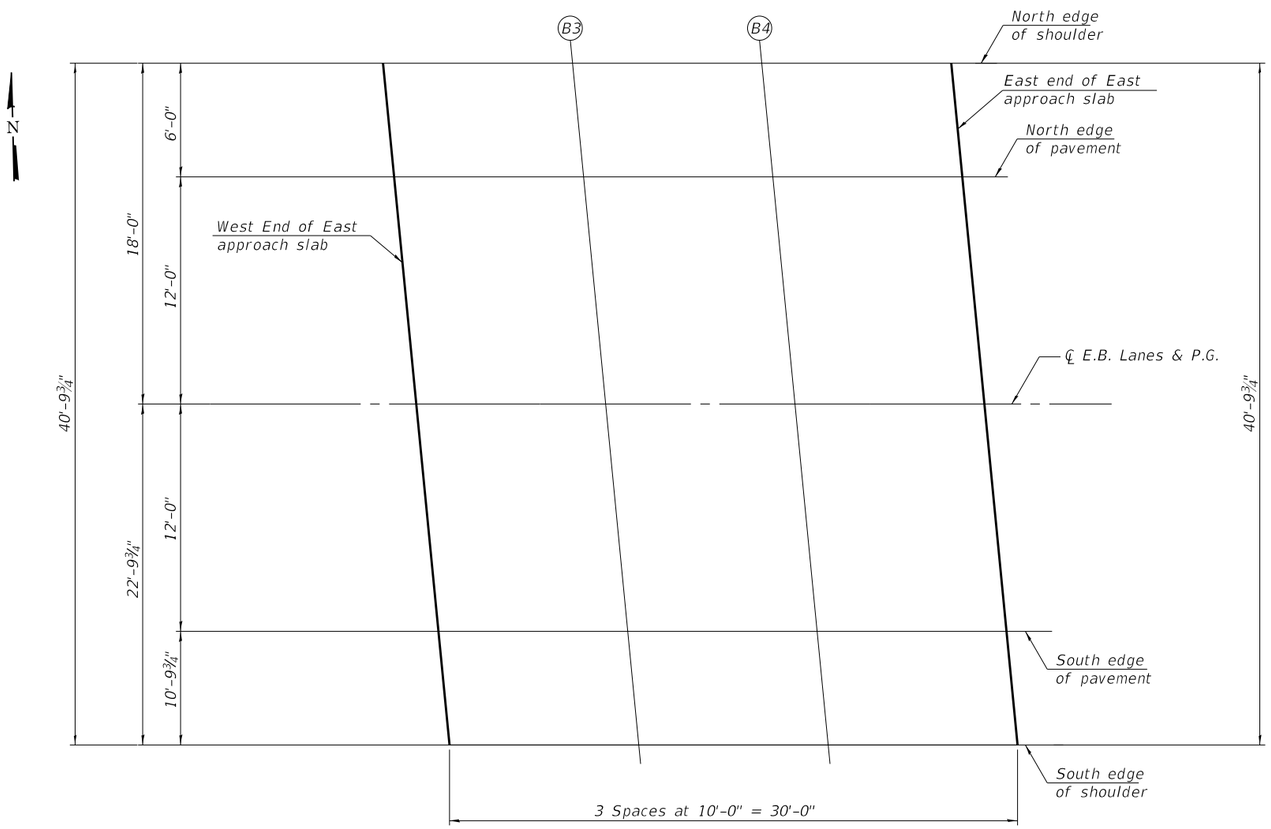
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Grinding
W. End East Appr. Slab	674+37.62	-18.00	593.44	593.46
B3	674+47.62	-18.00	593.38	593.40
B4	674+57.62	-18.00	593.32	593.34
E. End East Appr. Slab	674+67.62	-18.00	593.27	593.29

NORTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Grinding
W. End East Appr. Slab	674+38.46	-12.00	593.55	593.57
B3	674+48.46	-12.00	593.49	593.51
B4	674+58.46	-12.00	593.43	593.45
E. End East Appr. Slab	674+68.46	-12.00	593.38	593.40

℄ E.B. LANES & PG

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Grinding
W. End East Appr. Slab	674+40.15	0.00	593.72	593.74
B3	674+50.15	0.00	593.66	593.68
B4	674+60.15	0.00	593.61	593.63
E. End East Appr. Slab	674+70.15	0.00	593.56	593.58



PLAN

SOUTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Grinding
W. End East Appr. Slab	674+41.84	12.00	593.53	593.55
B3	674+51.84	12.00	593.47	593.49
B4	674+61.84	12.00	593.42	593.44
E. End East Appr. Slab	674+71.84	12.00	593.37	593.39

SOUTH EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Grinding
W. End East Appr. Slab	674+43.36	22.81	593.31	593.33
B3	674+53.36	22.81	593.25	593.27
B4	674+63.36	22.81	593.19	593.21
E. End East Appr. Slab	674+73.36	22.81	593.15	593.17

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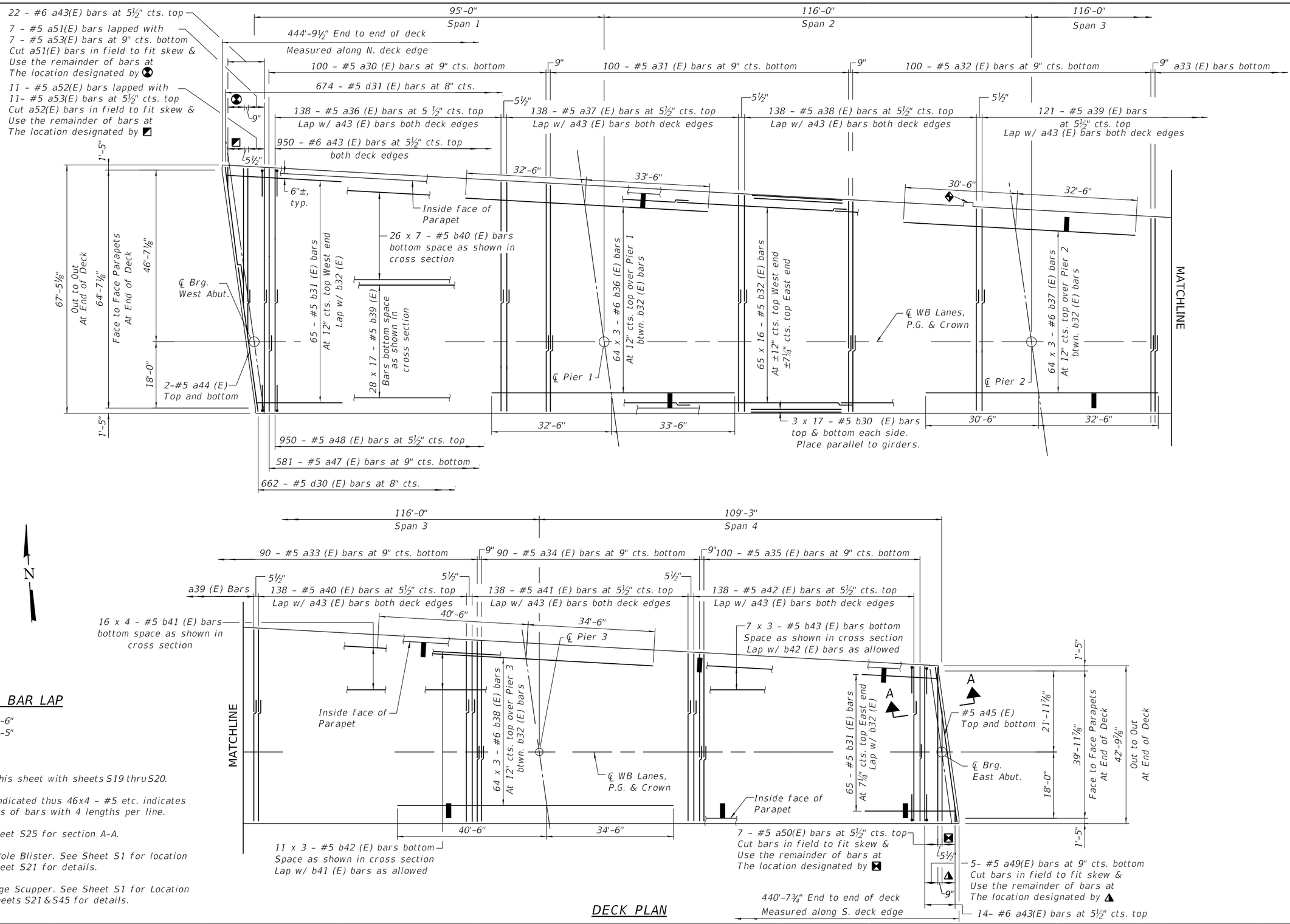
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF EAST APPROACH SLAB ELEVATIONS (EB)
SN 050-0220 (EB)
SHEET NO. S16 OF 80 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(50-2BR)ES	LASALLE	328	141
		CONTRACT NO. 66H21		
	ILLINOIS FED. AID PROJECT			



MINIMUM BAR LAP

#5 Bar = 3'–6"
#6 Bar = 4'–5"

NOTES

1. Work this sheet with sheets S19 thru S20.
2. Bars indicated thus 46x4 – #5 etc. indicates 46 lines of bars with 4 lengths per line.
3. See sheet S25 for section A–A.

◆ Light Pole Blister. See Sheet S1 for location and Sheet S21 for details.

▮ Drainage Scupper. See Sheet S1 for Location See Sheets S21 & S45 for details.

DECK PLAN

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PLOT DATE = 10/04/2019	DATE - 10/04/2019	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DECK PLAN (WB)
SN 050–0221 (WB)
SHEET NO. S17 OF 80 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(50-2BRIES	LASALLE	328	142
		CONTRACT NO. 66H21		
	ILLINOIS FED. AID PROJECT			

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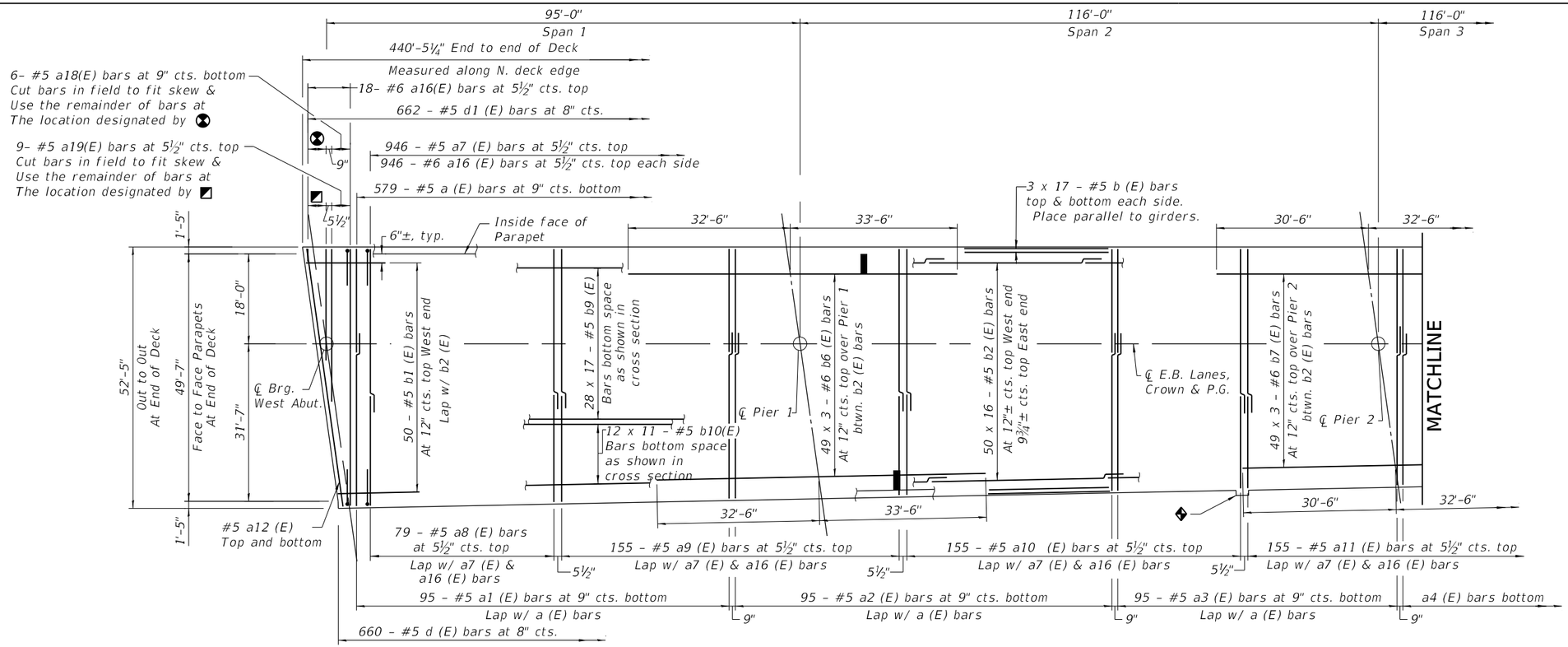

MINIMUM BAR LAP

#5 Bar = 3'-6"
#6 Bar = 4'-5"

NOTES

1. Work this sheet with sheets S19 thru S21.
2. Bars indicated thus 45x4 - #5 etc. indicates 45 lines of bars with 4 lengths per line.
3. See sheet S26 for Section B-B.

◆ Light Pole Blister. See Sheet S1 for location and Sheet S21 for details.

▮ Drainage Scupper. See Sheet S1 for Location See Sheets S21 & S45 for details.

DECK PLAN

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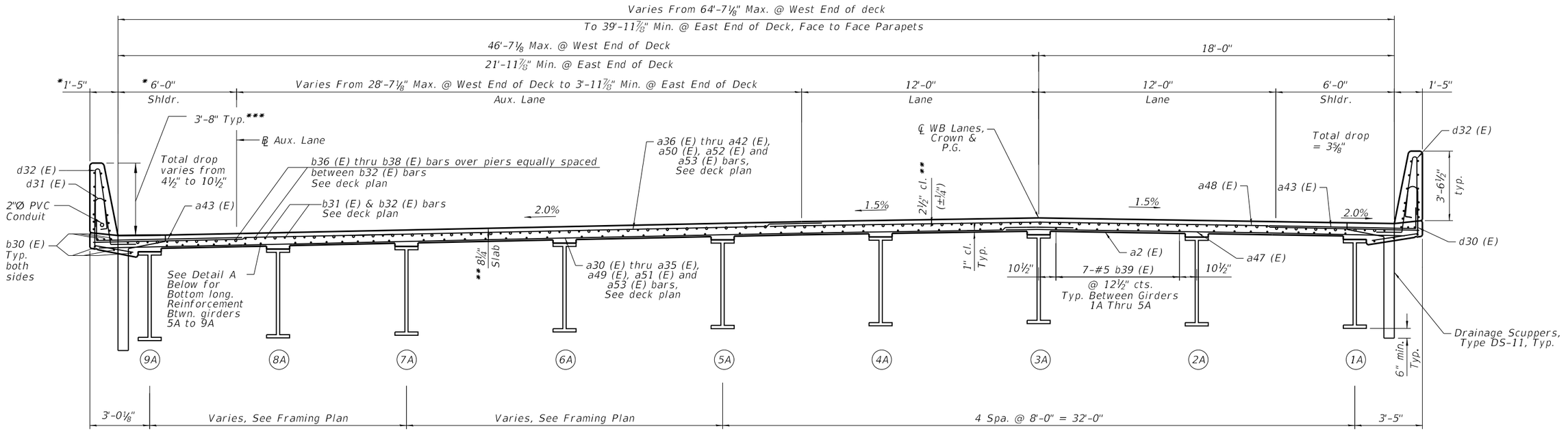
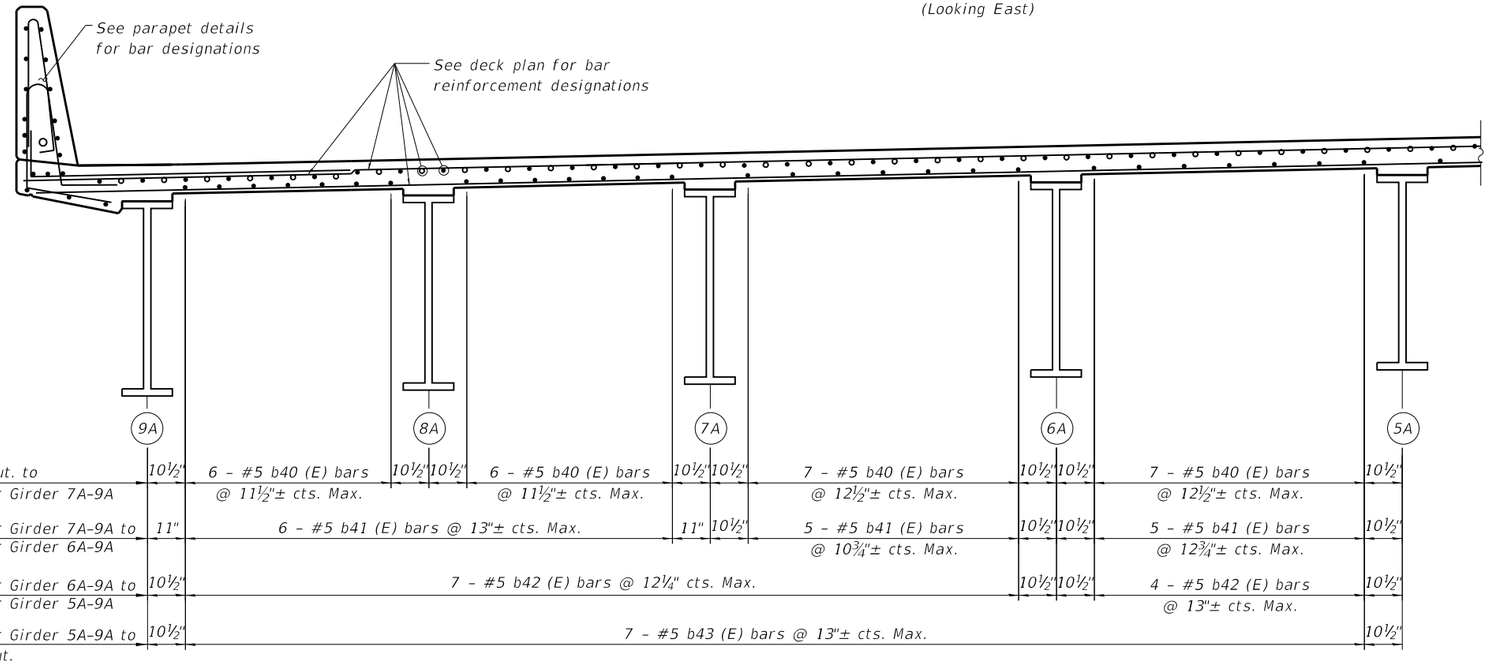
DECK PLAN (EB)
SN 050-0220 (EB)
SHEET NO. S18 OF 80 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(50-2BRIES)	LASALLE	328	143
		CONTRACT NO. 66H21		
	ILLINOIS FED. AID PROJECT			



WB CROSS SECTION
SN 050-0221

(Looking East)



DETAIL A - PARTIAL CROSS SECTION
SN 050-0221

(Looking East)

NOTES

See Sheet S20 for Deck pour sequence

Work this sheet with sheets S17, S21, & S22.

* Dimension perpendicular to ℄ Aux. Lane.

** Prior to grinding.

*** After grinding.

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DECK CROSS SECTIONS (WB)
SN 050-0221 (WB)

SHEET NO. S19 OF 80 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(50-2BRJES	LASALLE	328	144
		CONTRACT NO. 66H21		
	ILLINOIS FED. AID PROJECT			

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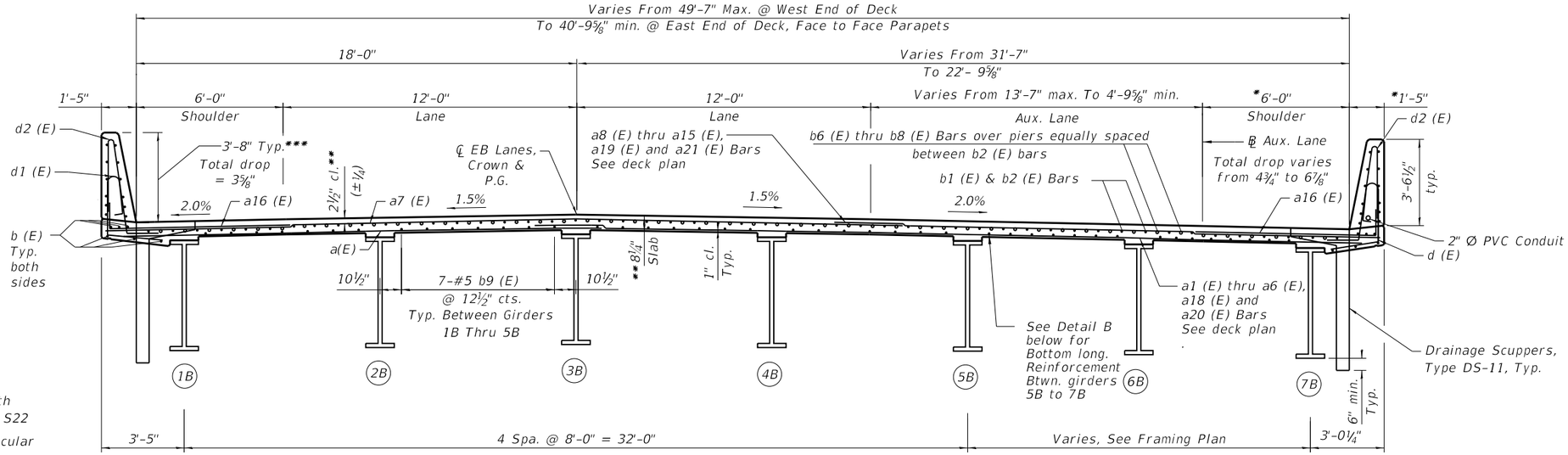


NOTES

Work this sheet with sheets S18, S21 & S22

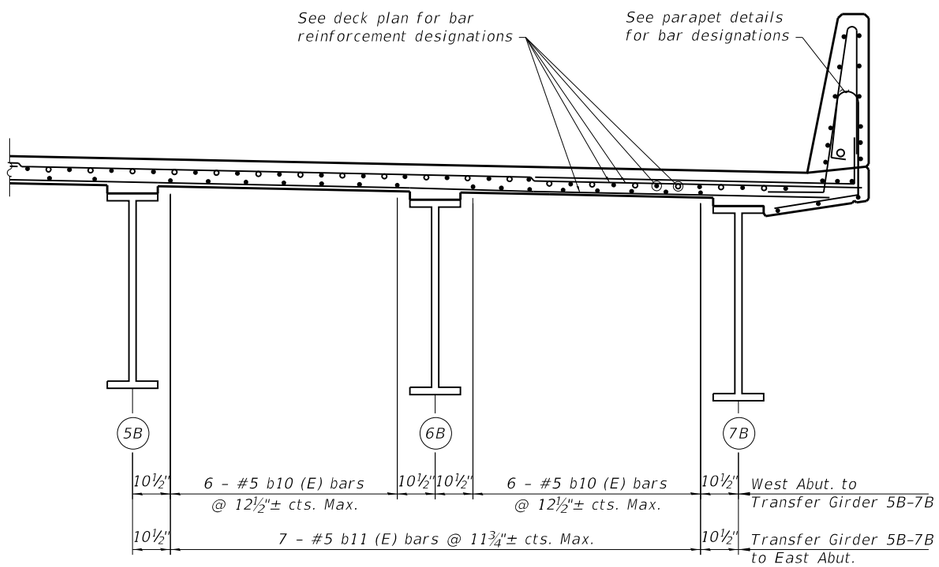
* Dimension perpendicular to ℄ Aux. Lane.

** Prior to grinding.

*** After grinding.

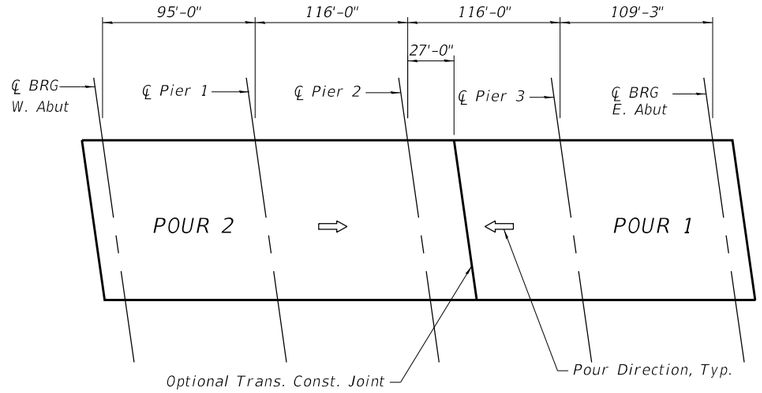
EB CROSS SECTION
SN 050-0220

(Looking East)



DETAIL B - PARTIAL CROSS SECTION
SN 050-0220

(Looking East)



DECK POUR SEQUENCE

(EB Shown, WB Similar)

When the deck pour is stopped for the day at the transverse bonded construction joint in the deck pouring sequence as shown, the next pour shall not be made until both of the following are met:

1) At least 72 hours shall have elapsed from the end of the previous pour.
2) The concrete strength shall have attained a minimum flexural strength of 675 psi or a minimum compressive strength of 4000 psi.

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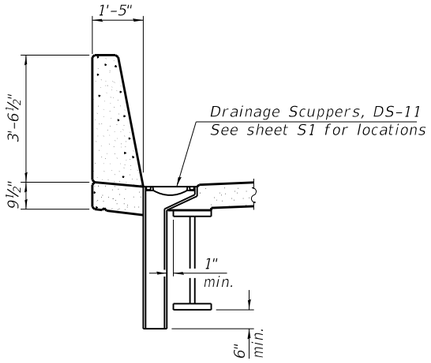
DEPARTMENT OF TRANSPORTATION

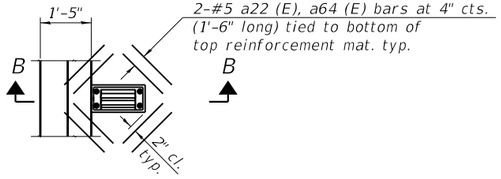
DECK CROSS SECTIONS (EB)
SN 050-0220 (EB)

SHEET NO. S20 OF 80 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(50-2BRIES	LASALLE	328	145
		CONTRACT NO. 66H21		
	ILLINOIS FED. AID PROJECT			

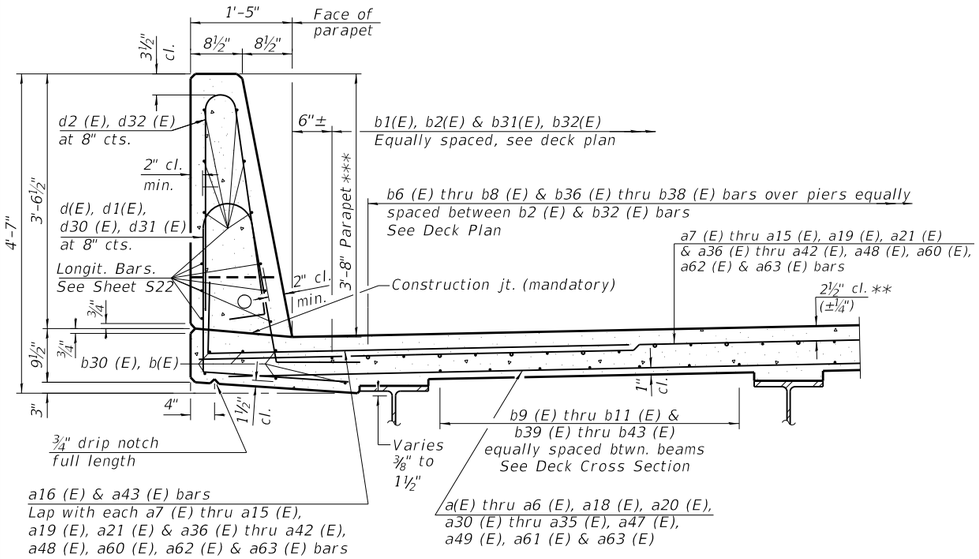


SECTION B-B



PLAN

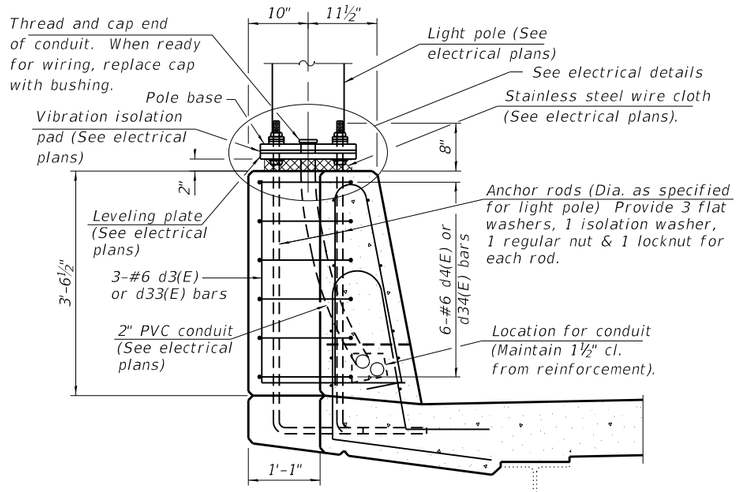
Note:
Cut longitudinal reinforcement to clear drainage scuppers.



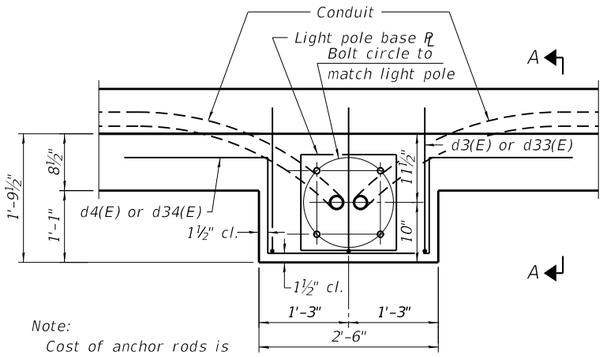
NOTES

** = Prior to grinding
*** = After grinding
Reinforcement bars shall not pass thru aluminum sheets and cork joint filler.

DECK & PARAPET REINFORCEMENT FOR 44" CONSTANT-SLOPE PARAPET

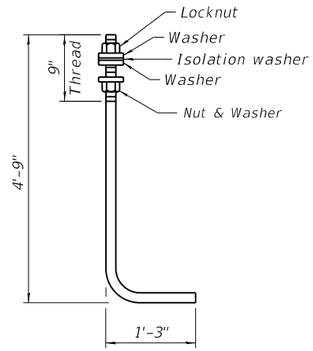


SECTION A-A



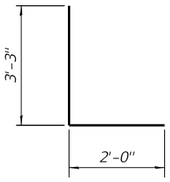
PLAN

Note:
Cost of anchor rods is included with Concrete Superstructure.

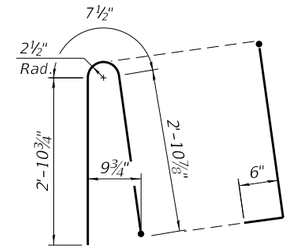


ANCHOR ROD

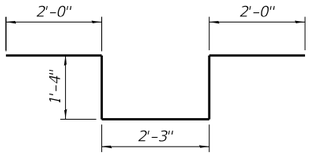
Diameter as specified for light poles. (ASTM F 1554 Grade 105) Full length hot dipped galvanized



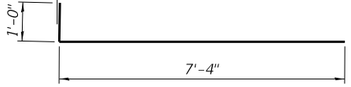
BAR d3(E) & d33(E)



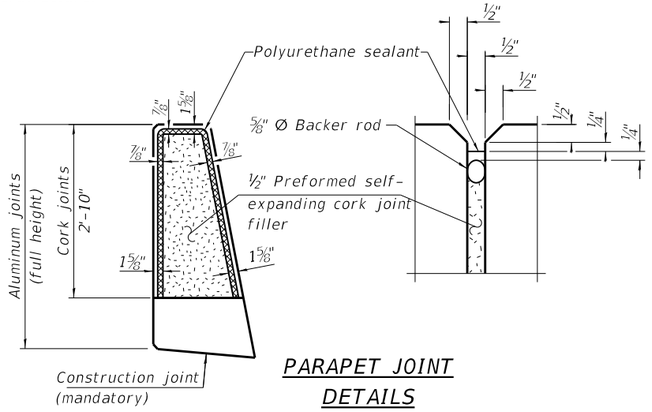
ALTERNATE BAR d2(E) & d32(E)
(when conduit is present)



BAR d4(E) & d34(E)

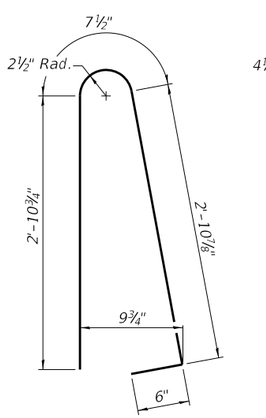


BAR a16(E) & a43(E)

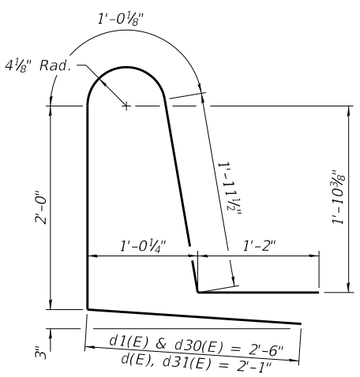


PARAPET JOINT DETAILS

Notes:
1) The polyurethane sealant shall be according to Article 1050.04 of the Standard Specifications and the color shall be gray.
2) The ⅛" aluminum sheet shall be ASTM B 209 alloy 3003-H14 and coated to minimize reaction with wet concrete. Cost included with Concrete Superstructure.



BAR d2(E) & d32(E)



BAR d(E), d1(E), d30(E) & d31(E)

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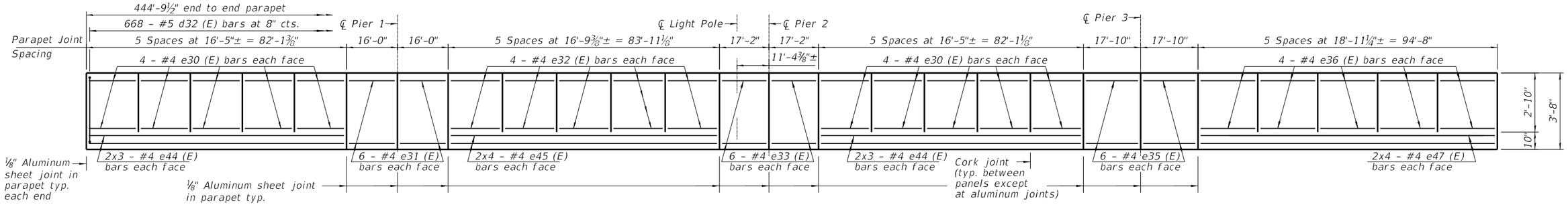
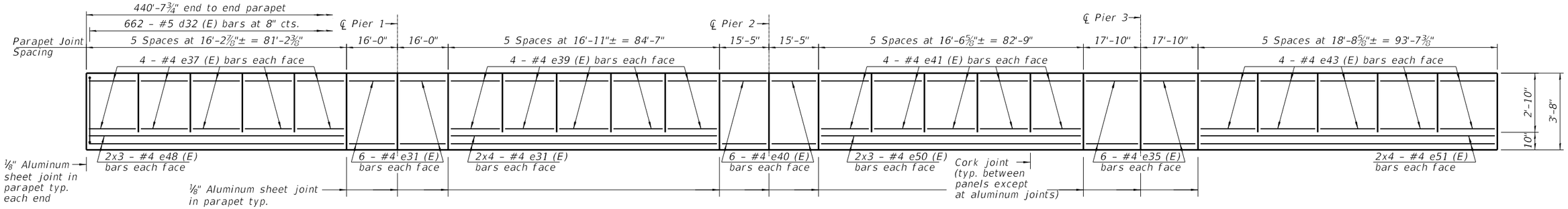
DECK AND PARAPET DETAILS
SN 050-0220 (EB), SN 050-0221 (WB)
SHEET NO. S21 OF 80 SHEETS

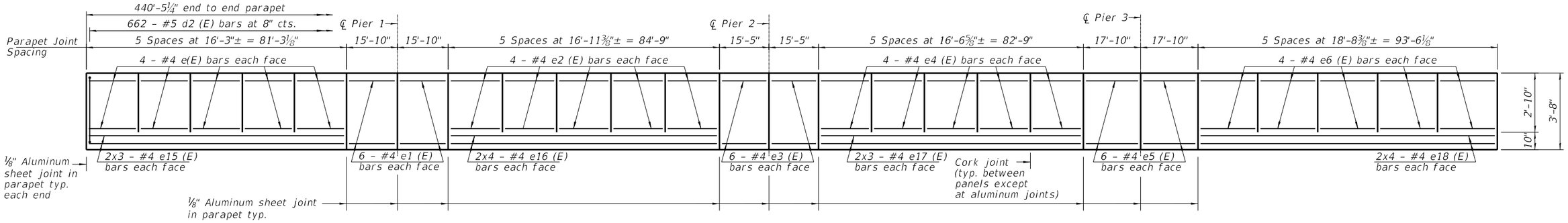
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(50-2BRIES	LASALLE	328	146
		CONTRACT NO. 66H21		
	ILLINOIS	FED. AID PROJECT		



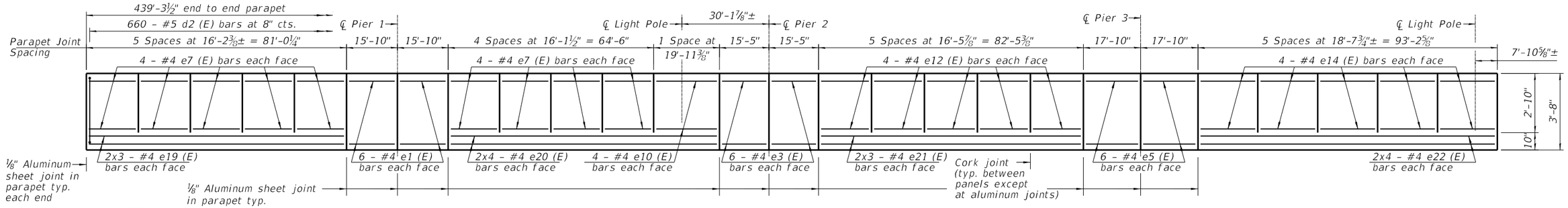
INSIDE ELEVATION OF SN 050-0221 NORTH PARAPET



INSIDE ELEVATION OF SN 050-0221 SOUTH PARAPET



INSIDE ELEVATION OF SN 050-0220 NORTH PARAPET



INSIDE ELEVATION OF SN 050-0220 SOUTH PARAPET

NOTE:

Parapet reinforcement cast into Deck not shown for clarity.

MINIMUM BAR LAP

(Parapet)

#4 bar = 2'-5"

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PARAPET ELEVATIONS
SN 050-0220 (EB), SN 050-0221 (WB)

SHEET NO. S22 OF 80 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(50-2BRIDES	LASALLE	328	147
		CONTRACT NO. 66H21		
	ILLINOIS FED. AID PROJECT			

WB SUPERSTRUCTURE BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a30(E)	100	#5	49' - 4"	
a31(E)	100	#5	45' - 2"	
a32(E)	100	#5	41' - 0"	
a33(E)	90	#5	36' - 10"	
a34(E)	90	#5	33' - 1"	
a35(E)	100	#5	29' - 4"	
a36(E)	138	#5	37' - 4"	
a37(E)	138	#5	33' - 10"	
a38(E)	138	#5	30' - 3"	
a39(E)	121	#5	26' - 9"	
a40(E)	138	#5	23' - 9"	
a41(E)	138	#5	20' - 2"	
a42(E)	138	#5	16' - 8"	
a43(E)	1936	#6	8' - 4"	
a44(E)	4	#5	36' - 1"	
a45(E)	2	#5	42' - 10"	
a47(E)	581	#5	21' - 0"	
a48(E)	950	#5	33' - 0"	
a49(E)	5	#5	48' - 0"	
a60(E)	7	#5	46' - 0"	
a61(E)	7	#5	39' - 9"	
a62(E)	11	#5	38' - 8"	
a63(E)	18	#5	33' - 7"	
a64(E)	80	#5	1' - 6"	
b30(E)	204	#5	29' - 8"	
b31(E)	130	#5	15' - 10"	
b32(E)	1040	#5	29' - 4"	
b36(E)	192	#6	25' - 0"	
b37(E)	192	#6	24' - 0"	
b38(E)	192	#6	28' - 0"	
b39(E)	476	#5	29' - 4"	
b40(E)	182	#5	29' - 6"	
b41(E)	64	#5	30' - 0"	
b42(E)	33	#5	31' - 0"	
b43(E)	21	#5	26' - 0"	
d30(E)	662	#5	8' - 8"	
d31(E)	674	#5	8' - 3"	
d32(E)	1330	#5	7' - 0"	
d33(E)	3	#6	5' - 3"	
d34(E)	6	#6	8' - 11"	
e30(E)	80	#4	16' - 0"	
e31(E)	48	#4	15' - 7"	
e32(E)	40	#4	16' - 4"	
e33(E)	24	#4	16' - 9"	
e35(E)	48	#4	17' - 5"	
e36(E)	40	#4	18' - 6"	
e37(E)	40	#4	15' - 10"	
e39(E)	40	#4	16' - 6"	
e40(E)	24	#4	15' - 0"	
e41(E)	40	#4	16' - 2"	
e43(E)	40	#4	18' - 4"	

WB SUPERSTRUCTURE BILL OF MATERIAL (CONT'D)

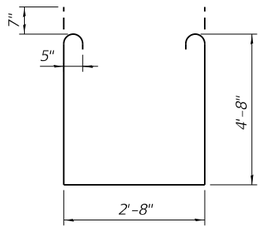
Bar	No.	Size	Length	Shape
e44(E)	24	#4	28' - 11"	
e45(E)	16	#4	22' - 9"	
e47(E)	16	#4	25' - 5"	
e48(E)	12	#4	28' - 8"	
e49(E)	16	#4	22' - 11"	
e50(E)	12	#4	29' - 2"	
e51(E)	16	#4	25' - 2"	
m30(E)	75	#5	4' - 0"	
m31(E)	6	#6	1' - 4"	
m32(E)	6	#6	1' - 3"	
m33(E)	30	#6	7' - 9"	
m34(E)	6	#6	6' - 3"	
m35(E)	3	#6	4' - 4"	
m36(E)	18	#6	35' - 0"	
m37(E)	18	#6	22' - 6"	
s(E)	118	#5	10' - 3"	
s1(E)	105	#5	13' - 2"	
u30(E)	108	#5	3' - 10"	
Reinforcement Bars, Epoxy Coated			Pounds	242,850
Concrete Superstructure			Cu. Yds.	843.0

EB SUPERSTRUCTURE BILL OF MATERIAL

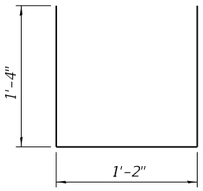
Bar	No.	Size	Length	Shape
a(E)	579	#5	21' - 0"	
a1(E)	95	#5	34' - 11"	
a2(E)	95	#5	33' - 6"	
a3(E)	95	#5	32' - 2"	
a4(E)	95	#5	30' - 8"	
a5(E)	95	#5	29' - 3"	
a6(E)	104	#5	27' - 10"	
a7(E)	946	#5	33' - 0"	
a8(E)	79	#5	22' - 11"	
a9(E)	155	#5	22' - 3"	
a10(E)	155	#5	20' - 10"	
a11(E)	155	#5	19' - 5"	
a12(E)	2	#5	52' - 7"	
a13(E)	155	#5	18' - 0"	
a14(E)	155	#5	16' - 7"	
a15(E)	92	#5	15' - 2"	
a16(E)	1924	#6	8' - 4"	
a17(E)	2	#5	43' - 8"	
a18(E)	6	#5	57' - 6"	
a19(E)	9	#5	55' - 4"	
a20(E)	5	#5	48' - 9"	
a21(E)	7	#5	46' - 8"	
a22(E)	80	#5	1' - 6"	
b(E)	204	#5	29' - 4"	
b1(E)	100	#5	15' - 10"	
b2(E)	800	#5	29' - 4"	
b6(E)	147	#6	25' - 0"	
b7(E)	147	#6	24' - 0"	
b8(E)	147	#6	28' - 0"	
b9(E)	476	#5	29' - 4"	
b10(E)	132	#5	29' - 6"	
b11(E)	42	#5	29' - 0"	
d(E)	660	#5	8' - 3"	
d1(E)	662	#5	8' - 8"	
d2(E)	1322	#5	7' - 0"	
d3(E)	6	#6	5' - 3"	
d4(E)	12	#6	8' - 11"	
e(E)	40	#4	15' - 10"	
e1(E)	48	#4	15' - 5"	
e2(E)	40	#4	16' - 6"	
e3(E)	48	#4	15' - 0"	
e4(E)	40	#4	16' - 2"	
e5(E)	48	#4	17' - 5"	
e6(E)	40	#4	18' - 3"	
e7(E)	72	#4	15' - 9"	
e10(E)	8	#4	19' - 7"	
e12(E)	40	#4	16' - 1"	
e14(E)	40	#4	18' - 3"	
e15(E)	12	#4	28' - 9"	
e16(E)	16	#4	22' - 11"	
e17(E)	12	#4	29' - 2"	

EB SUPERSTRUCTURE BILL OF MATERIAL (CONT'D)

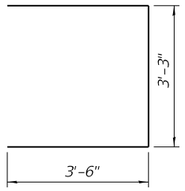
Bar	No.	Size	Length	Shape
e18(E)	16	#4	25' - 2"	
e19(E)	12	#4	28' - 6"	
e20(E)	16	#4	22' - 11"	
e21(E)	12	#4	29' - 0"	
e22(E)	16	#4	25' - 1"	
m(E)	65	#5	4' - 0"	
m1(E)	6	#6	1' - 4"	
m2(E)	6	#6	1' - 3"	
m3(E)	24	#6	7' - 9"	
m4(E)	6	#6	6' - 9"	
m5(E)	3	#6	5' - 0"	
m6(E)	18	#6	27' - 3"	
m7(E)	18	#6	23' - 0"	
s(E)	102	#5	10' - 3"	
s1(E)	91	#5	13' - 2"	
u(E)	94	#5	3' - 10"	
Reinforcement Bars, Epoxy Coated			Pounds	211,660
Concrete Superstructure			Cu. Yds.	750.8



BAR s1(E)



BARS u(E) & u30(E)



BAR s(E)

Note:
For additional bar bends see sheet S21.

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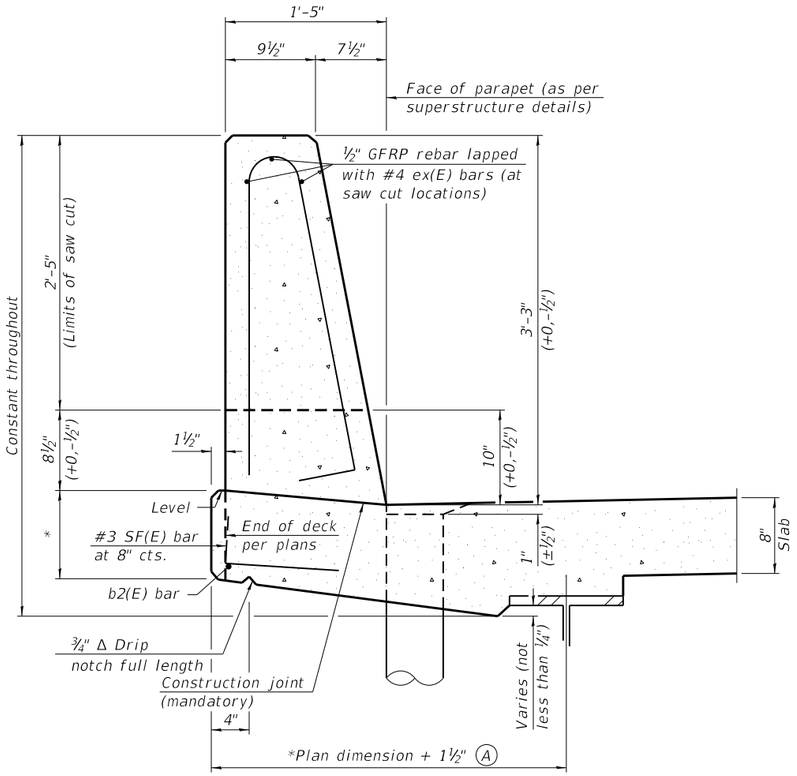
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

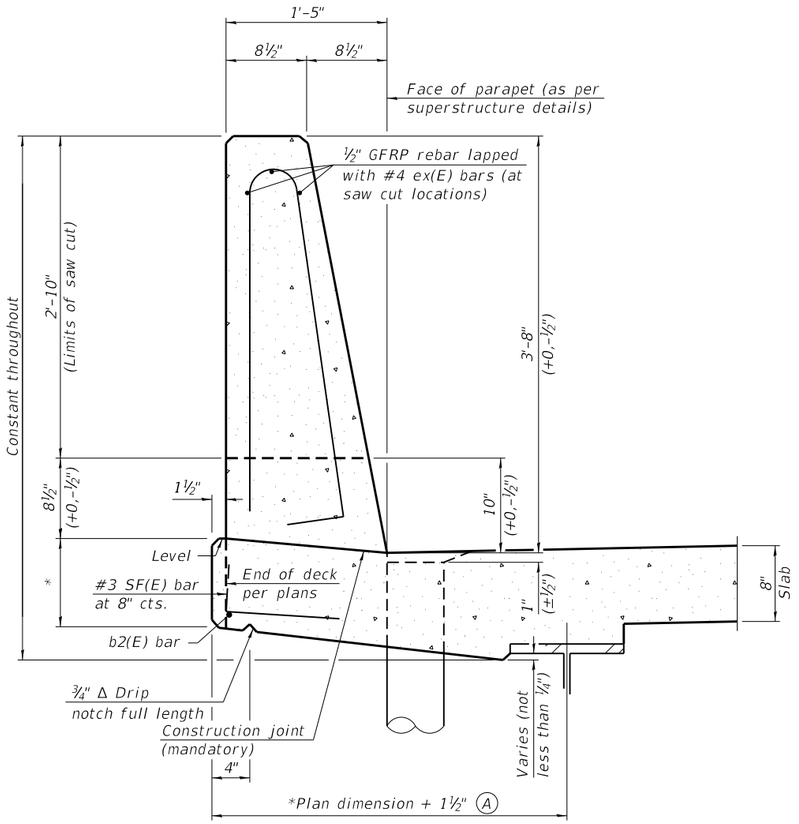
DECK DETAILS
SN 050-0220 (EB), SN 050-0221 (WB)
SHEET NO. S23 OF 80 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(50-2BR)ES	LASALLE	328	148
		CONTRACT NO. 66H21		
	ILLINOIS FED. AID PROJECT			



39" CONSTANT-SLOPE PARAPET SECTION

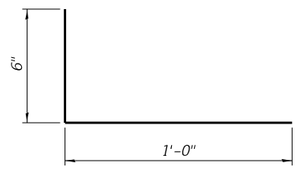
(Showing dimensions, d(E), and ½" Ø GFRP rebar)



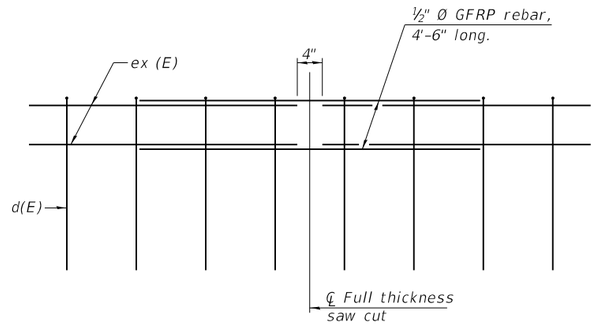
44" CONSTANT-SLOPE PARAPET SECTION

(Showing dimensions, d(E), and ½" Ø GFRP rebar)

*See Superstructure Details.



#3 (E) BAR



GFRP REBAR STIFFENING DETAIL

(Place as shown in parapet section at each parapet joint location.)

GENERAL NOTES

All dimensions shall remain the same as shown on superstructure details, except dimension A which is to be revised as shown. Additional concrete needed to revise dimension A = 0.00348 cu. yds./ft. for 39" and 44" parapets.

Place full depth aluminum sheets as shown on superstructure details.

Replace all cork joint filler locations with a full thickness saw cut.

Steel superstructure shown. Other superstructure types similar.

SFP 39-44 1-14-2019

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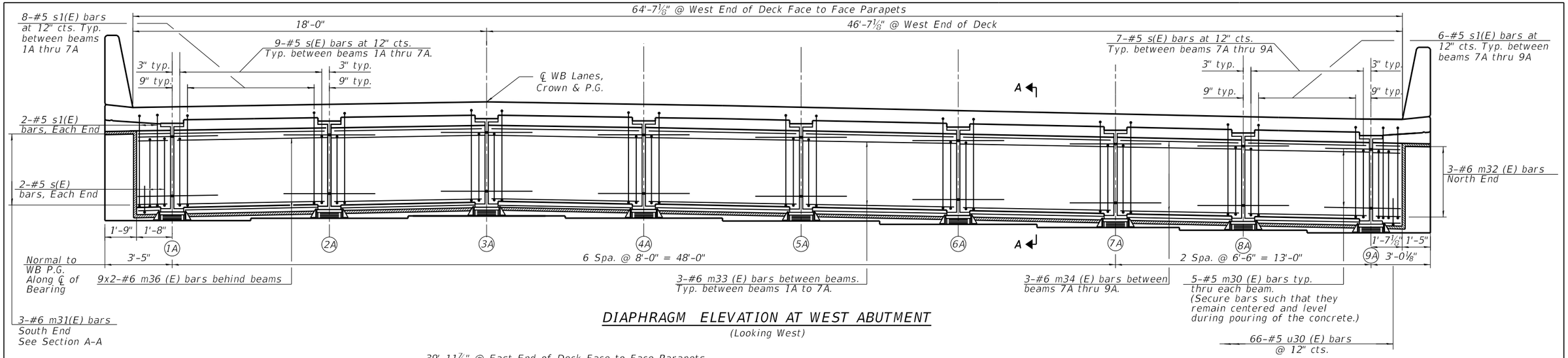
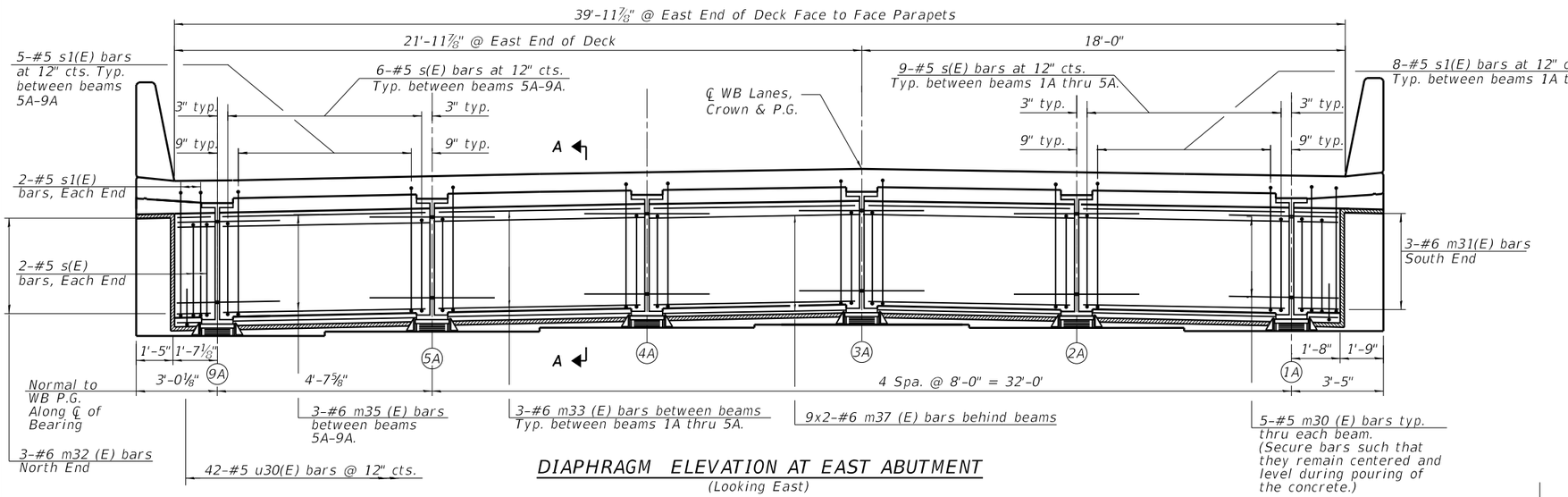
CONCRETE PARAPET SLIPFORMING OPTION
SN 050-0220 (EB), SN 050-0221 (WB)
SHEET NO. S24 OF 80 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(50-2BR)ES	LASALLE	328	149
		CONTRACT NO. 66H21		
	ILLINOIS FED. AID PROJECT			



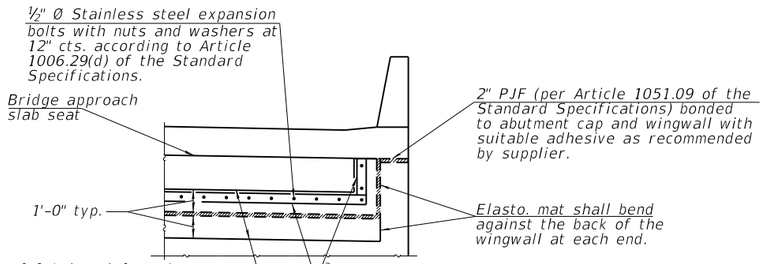
DIAPHRAGM ELEVATION AT WEST ABUTMENT

(Looking West)



DIAPHRAGM ELEVATION AT EAST ABUTMENT

(Looking East)



Note:
Cost of fabric reinforced elastomeric mat, galvanized plate, stainless steel expansion bolts with nuts and washers and installation are included in the cost of Concrete Superstructure.

BACK OF ABUTMENT ELEVATION

NOTES

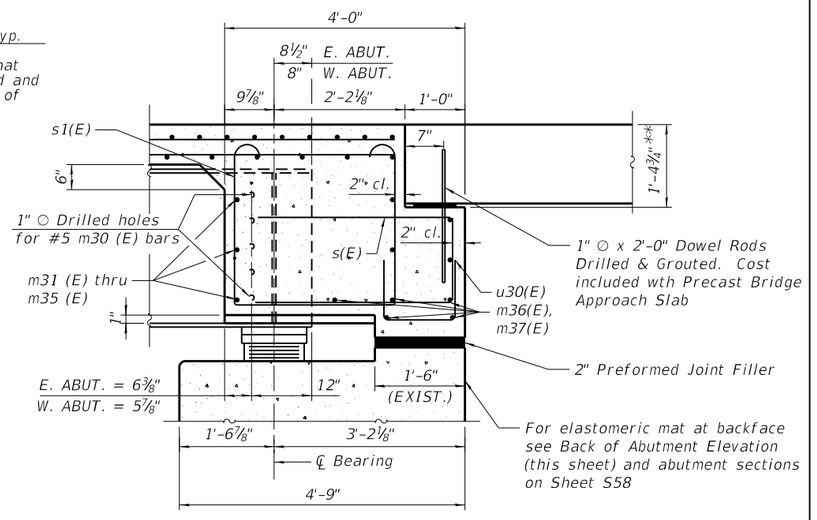
Bars indicated thus 9x2 - #6 etc. indicates 9 lines of bars with 2 lengths per line.

MINIMUM BAR LAP

#6 bar = 4'-5"

LEGEND

** = Prior to Grinding



SECTION A-A

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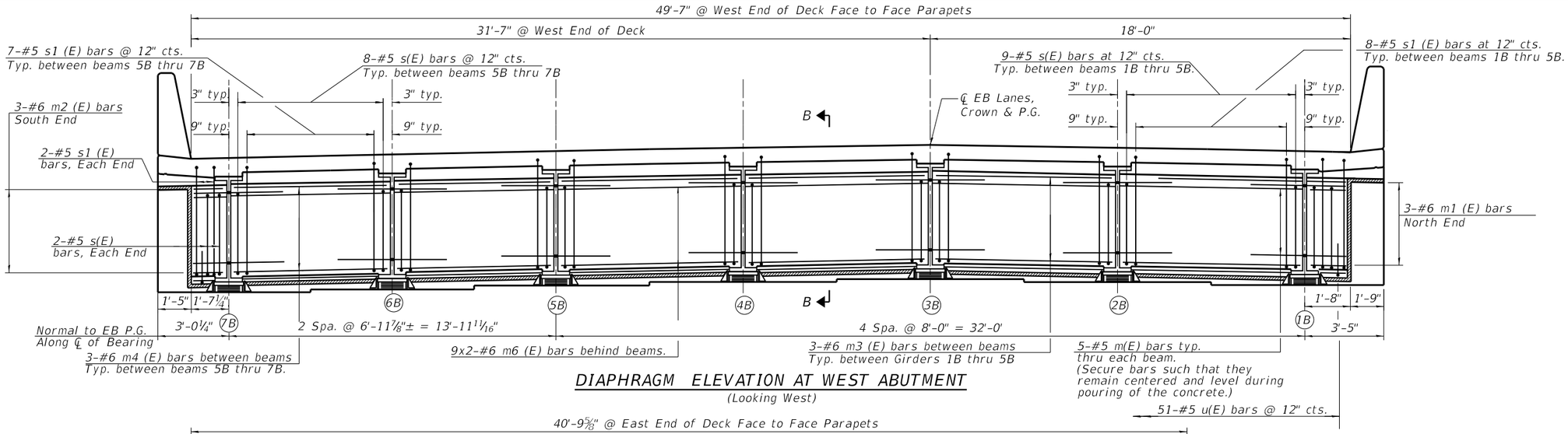
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

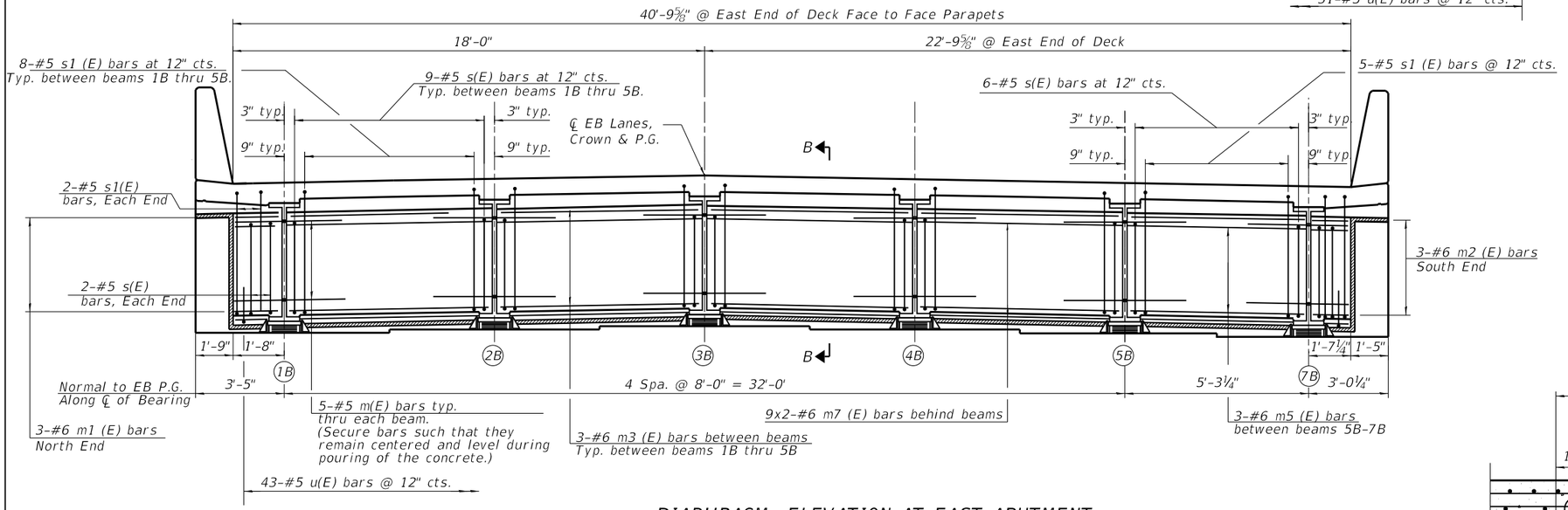
ABUTMENT DIAPHRAGM (WB)
SN 050-0221 (WB)
SHEET NO. S25 OF 80 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(50-2BRJES	LASALLE	328	150
		CONTRACT NO. 66H21		
	ILLINOIS FED. AID PROJECT			



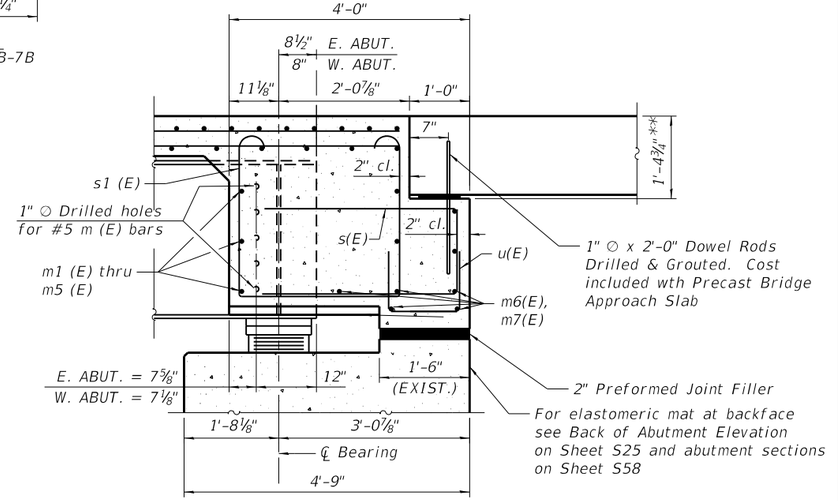
DIAPHRAGM ELEVATION AT WEST ABUTMENT

(Looking West)



DIAPHRAGM ELEVATION AT EAST ABUTMENT

(Looking East)



SECTION B-B

LEGEND

** = Prior to Grinding

NOTES

Bars indicated thus 9x2 - #6 etc. indicates 9 lines of bars with 2 lengths per line.

MINIMUM BAR LAP

#6 bar = 4'-5"

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ABUTMENT DIAPHRAGM (EB)
SN 050-0220 (EB)
SHEET NO. S26 OF 80 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(50-2BR)ES	LASALLE	328	151
		CONTRACT NO. 66H21		
	ILLINOIS	FED. AID PROJECT		

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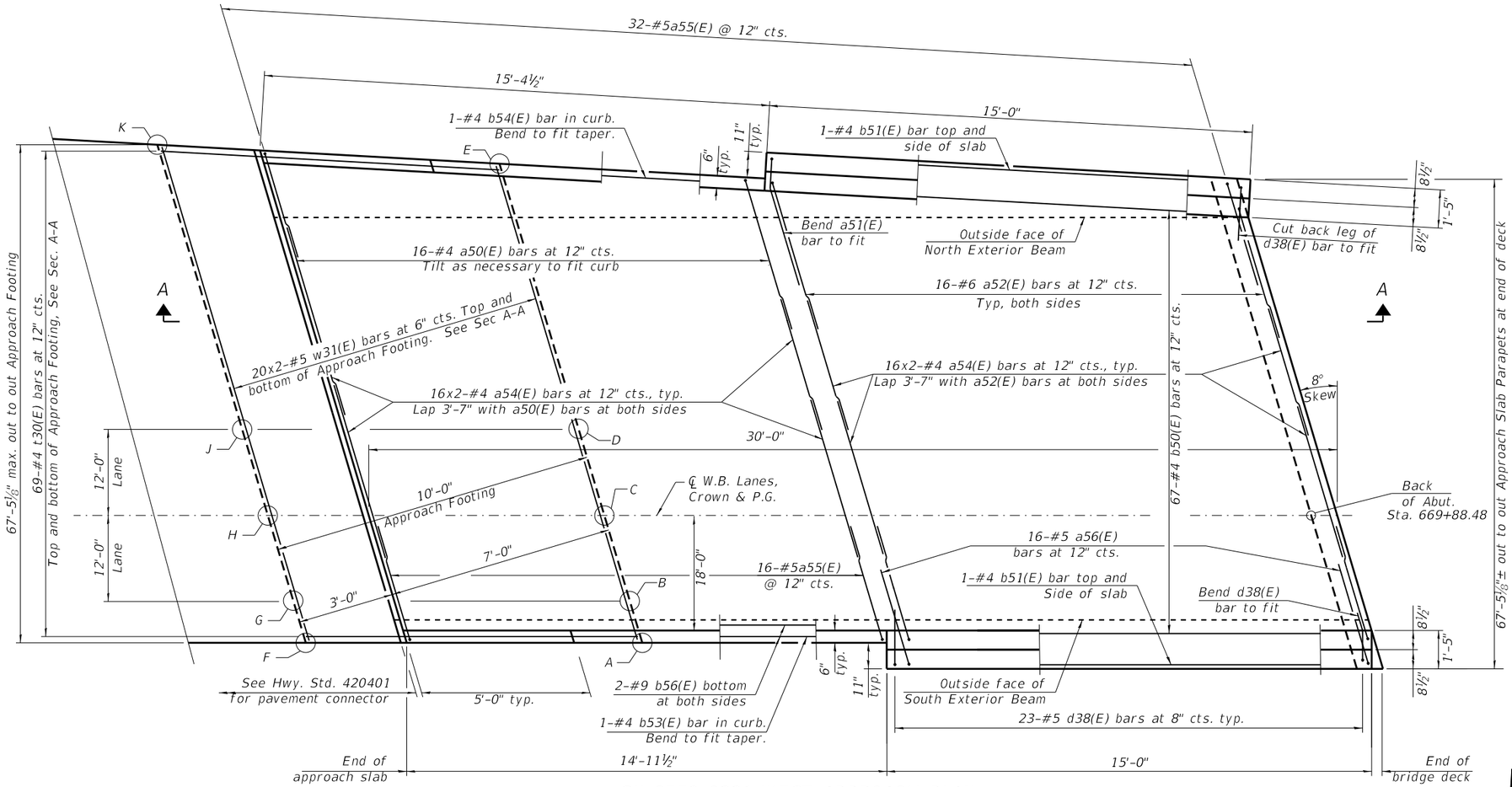
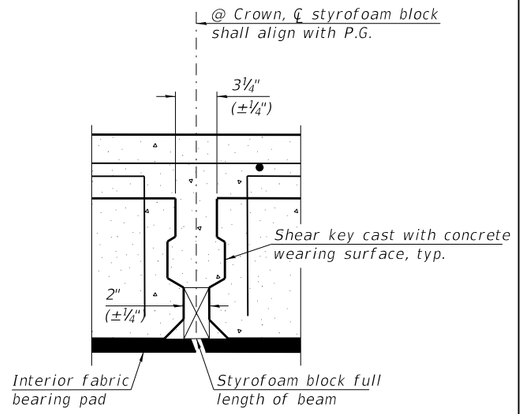


SN 0550-0221 WEST APPROACH PLAN



DETAIL 'A'

(See sheet S28)

TOP AND BOTTOM ELEVATIONS FOR APPROACH FOOTING

SN 050-0221 W. Approach		
Point	Top	Bottom
A	601.04	600.21
B	601.20	600.37
C	601.43	600.60
D	601.31	600.47
E	600.74	599.91
F	601.36	600.53
G	601.52	600.69
H	601.76	600.93
J	601.63	600.80
K	601.06	600.23

NOTE

See sheet S30 for Section A-A

MINIMUM BAR LAP

#6 bar = 3'-7"
#5 bar = 3'-0"
#4 bar = 2'-5"

N

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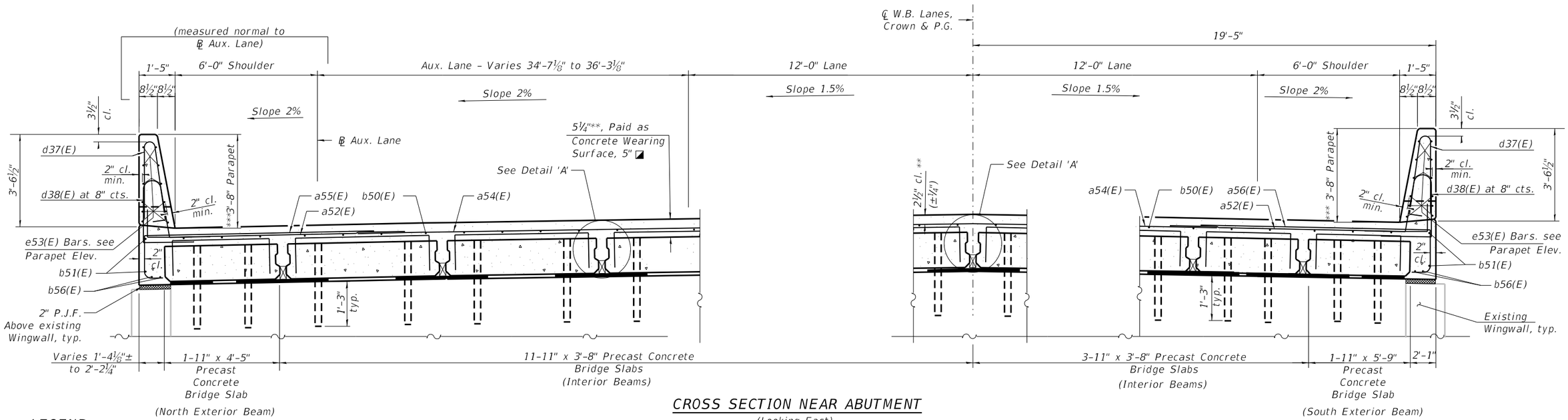
WEST APPROACH SLAB PLAN (WB)
SN 050-0221 (WB)
SHEET NO. S27 OF 80 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(50-2BRIES	LASALLE	328	152
		CONTRACT NO. 66H21		
	ILLINOIS FED. AID PROJECT			



CROSS SECTION NEAR ABUTMENT

(Looking East)

LEGEND

*** After grinding

** Prior to grinding

* Fabric bearing pads at the expansion end shall be recessed ¼" into the approach footing and bonded. Adjusting shims, when required, shall be bonded to the top of the fabric bearing pads.

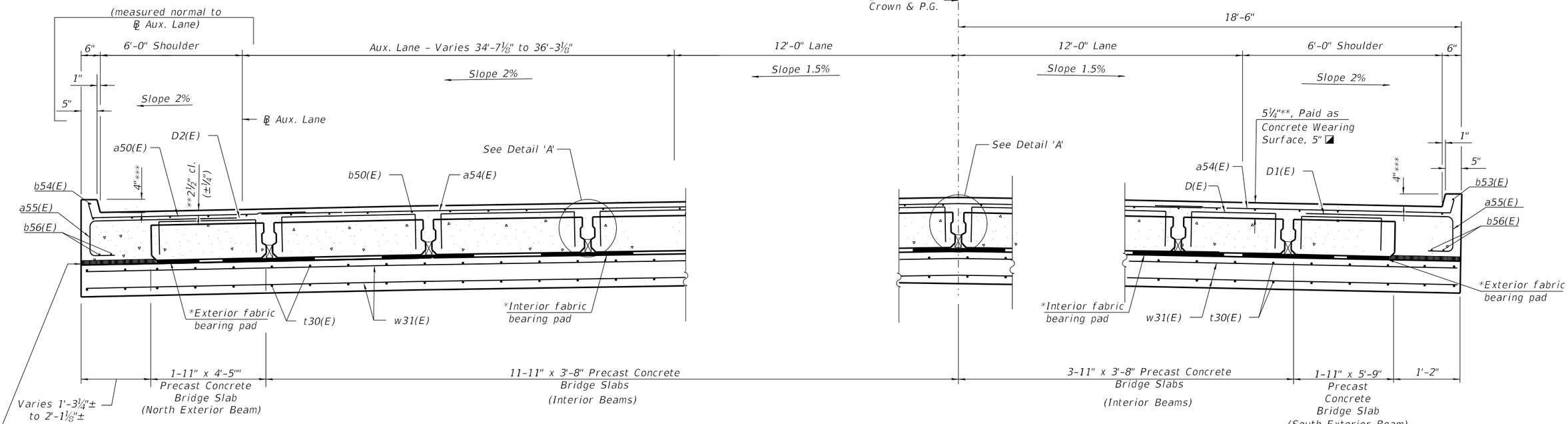
◪ Mininimum wear surface thickness after grinding is 5". Thickness will vary due to cross slope differences between the top of wearing surface and top of precast bridge slabs.

MINIMUM BAR LAP

#6 bar = 3'-7"

NOTES

1. For Detail A, see sheet S27
2. Cost of 2" P.J.F. included with Concrete Wearing Surface, 5".



CROSS SECTION AT APPROACH FOOTING

(Looking East)

½" Cellular polystyrene according to ASTM C 578 (Types V, VII, or XV). Placed under cast in place portion of approach slab full length of approach footing both sides.

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WEST APPROACH SLAB DETAILS I (WB)
SN 050-0221 (WB)
SHEET NO. S28 OF 80 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(50-2BR)ES	LASALLE	328	153
		CONTRACT NO. 66H21		
	ILLINOIS FED. AID PROJECT			

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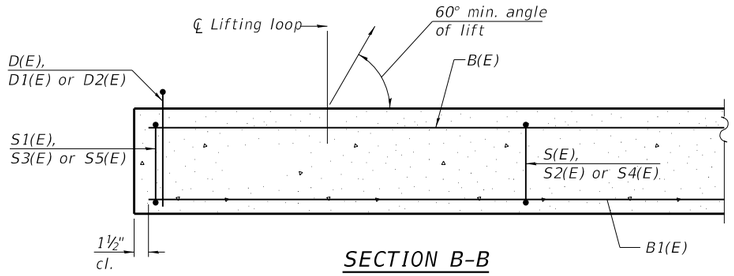
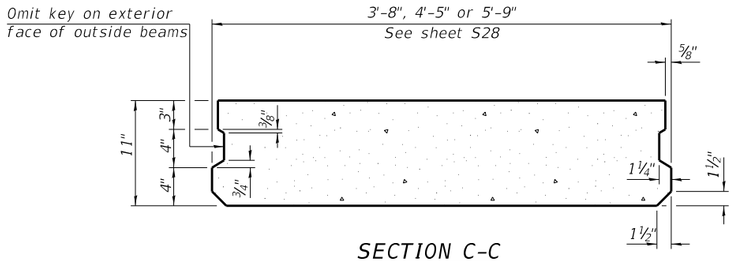


SECTION B-B



SECTION C-C
(Showing dimensions)

Notes:

The precast bridge approach slab shall be according to Section 504 of the Standard Specifications and shall be paid for at the contract unit price per square foot for Precast Concrete Bridge Slab.

Cast-in-place substitution of Precast Concrete Bridge Slab is not allowed.

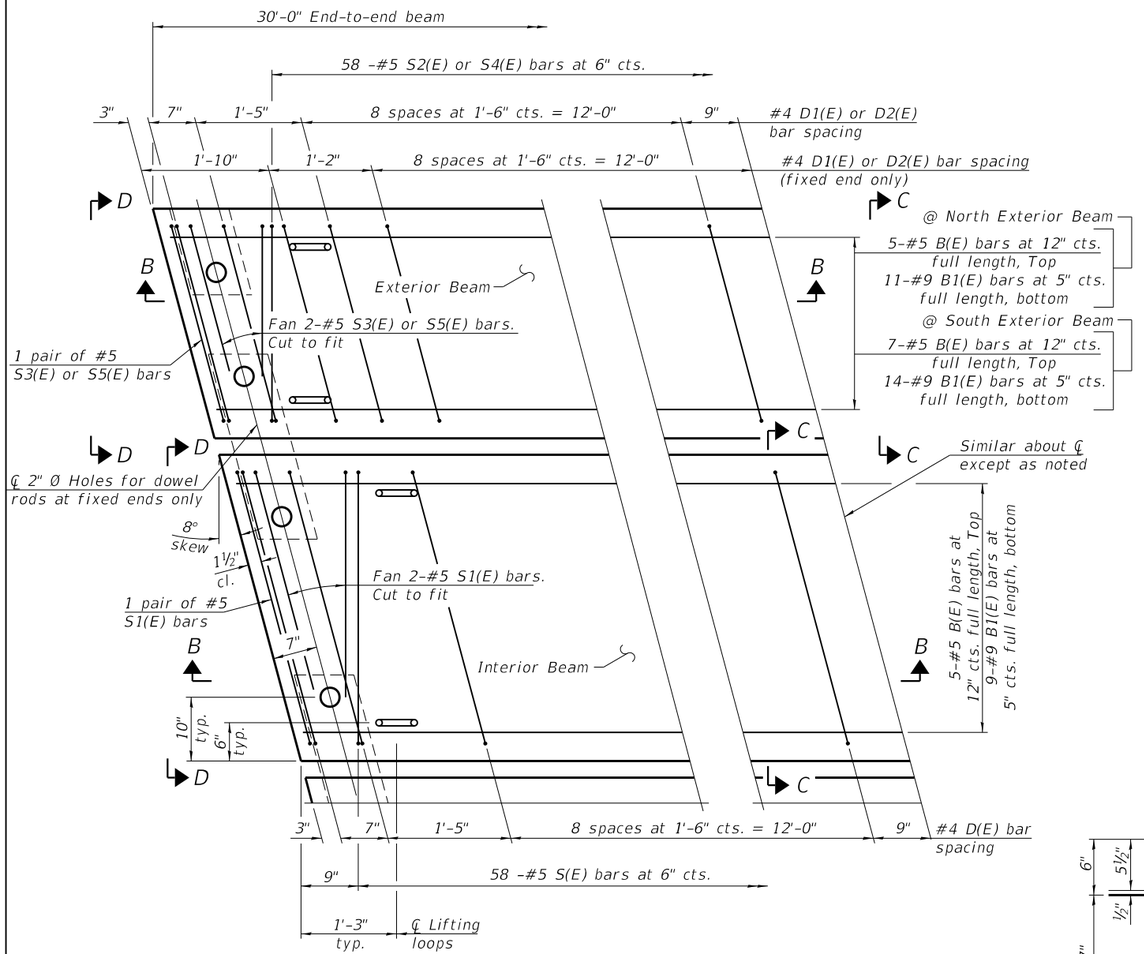
The top surface of precast concrete bridge slabs shall be finished similar to precast prestressed deck beams with concrete wearing surface as specified in the IDOT "Manual for Fabrication of Precast Prestressed Concrete Products."

Two ⅛" fabric adjusting shims of the dimensions of the exterior bearing pad shall be provided for each bearing pad location. Cost included with Precast Concrete Bridge Slab.

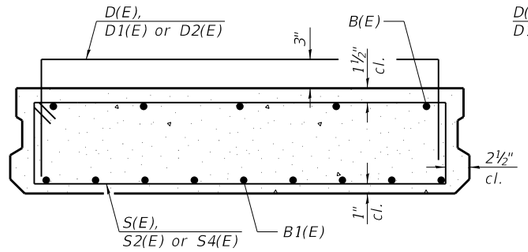
A minimum 2 ½" Ø lifting pins shall be used to engage the lifting loops during handling.

Compressive strength of precast concrete, f'c shall be 6,000 psi.

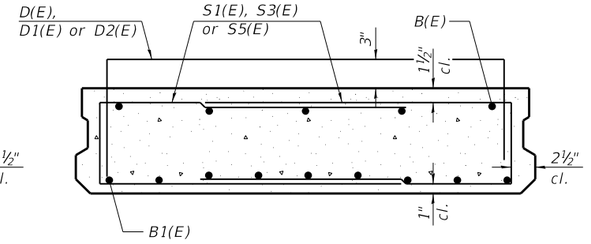
Compressive strength of precast concrete during initial lifting, f'ci shall be 5,000 psi.



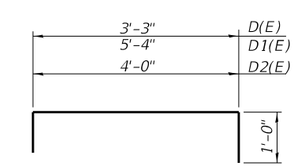
PLAN VIEW
(showing precast bridge approach beams)
(Spacing of D(E), D1(E) and D2(E) bars may be adjusted up to 3" to miss the dowel rod holes and the lifting loops at the beam ends)



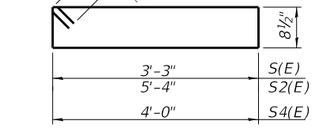
SECTION C-C
(Showing reinforcement)



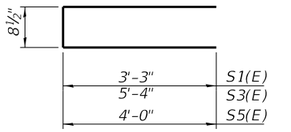
VIEW D-D
(Showing reinforcement)



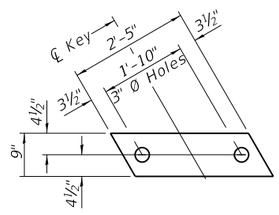
BARS D(E), D1(E) & D2(E)



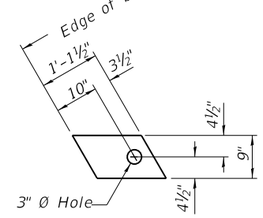
BARS S(E), S2(E) & S4(E)



BARS S1(E), S3(E) & S5(E)



INTERIOR



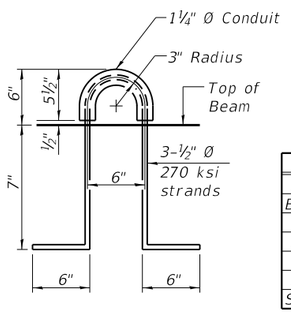
EXTERIOR

FABRIC BEARING PAD

Notes:

Bearing pads at fixed end shall be ½" thick and bearing pads at expansion end shall be ¾" thick.

Omit holes for fabric bearing pads at approach slab footing end of beams.



LIFTING LOOP DETAIL
(An alternate lifting loop with a proof load of 25,000 lbs. and utilized according to the manufacturer's recommendations may be used)

BAR LIST
EACH INTERIOR BEAM
(For information only)

Bar	No.	Size	Length	Shape
B(E)	5	#5	29'-8"	—
B1(E)	9	#9	29'-8"	—
D(E)	22	#4	5'-3"	⌐
S(E)	58	#5	8'-10"	▭
S1(E)	8	#5	7'-3"	▭

BAR LIST
SOUTH EXTERIOR BEAM
(For information only)

Bar	No.	Size	Length	Shape
B(E)	7	#5	29'-8"	—
B1(E)	14	#9	29'-8"	—
D1(E)	32	#4	7'-4"	⌐
S2(E)	58	#5	13'-0"	▭
S3(E)	8	#5	11'-5"	▭

BAR LIST
NORTH EXTERIOR BEAM
(For information only)

Bar	No.	Size	Length	Shape
B(E)	5	#5	29'-8"	—
B1(E)	11	#9	29'-8"	—
D2(E)	32	#4	6'-0"	⌐
S4(E)	58	#5	10'-4"	▭
S5(E)	8	#5	8'-9"	▭

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PLOT DATE = 10/04/2019	DATE - 10/04/2019	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

WEST APPROACH SLAB DETAILS II (WB)
SN 050-0221 (WB)
SHEET NO. S29 OF 80 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(50-2BRJES	LASALLE	328	154
		CONTRACT NO. 66H21		
	ILLINOIS FED. AID PROJECT			

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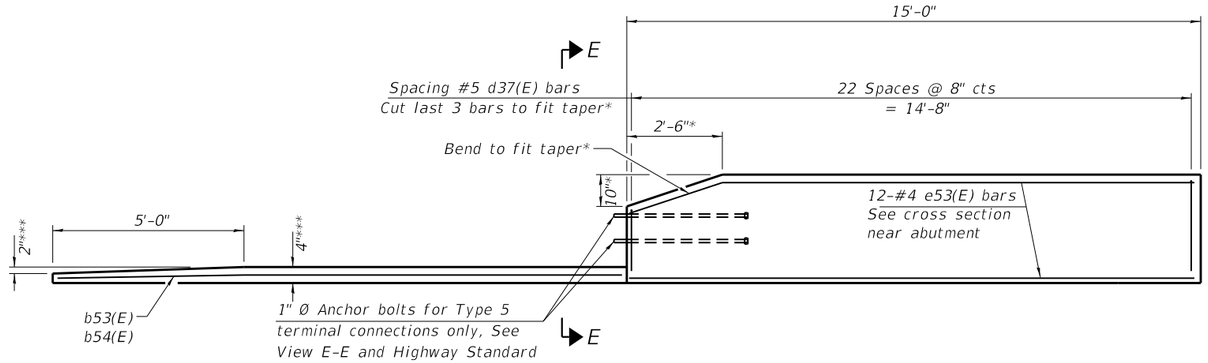
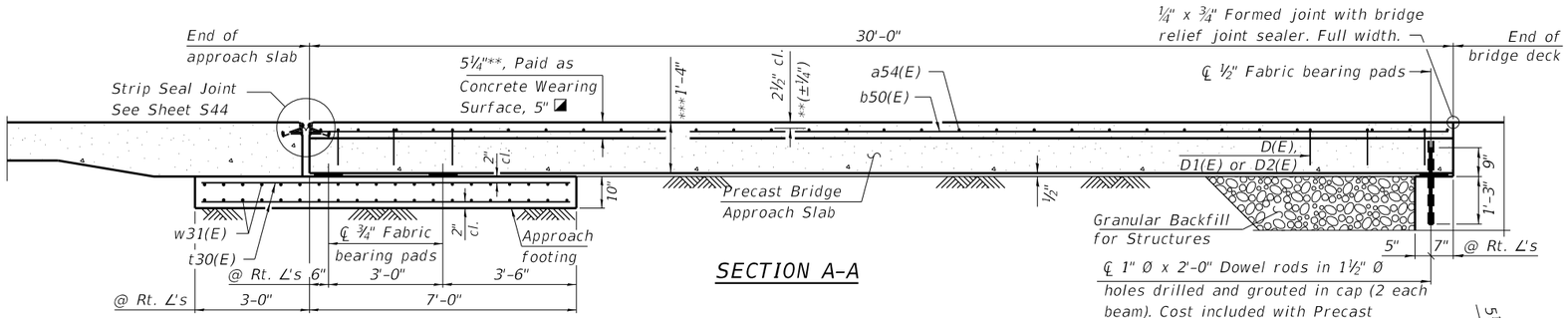
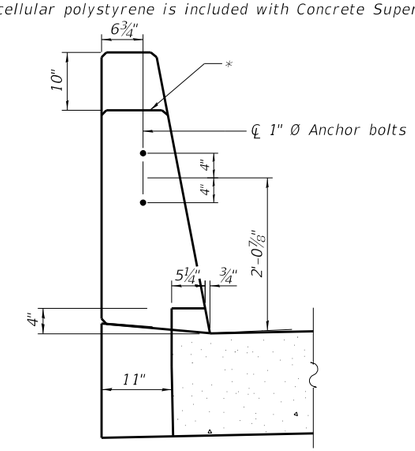


INSIDE ELEVATION OF NORTH PARAPET AND CURB

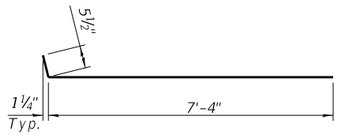
(South similar)



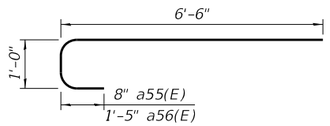
SECTION A-A



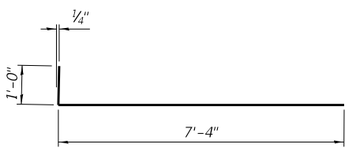
VIEW E-E



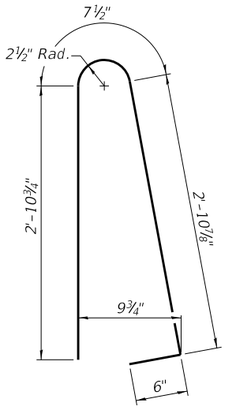
BAR a50(E)



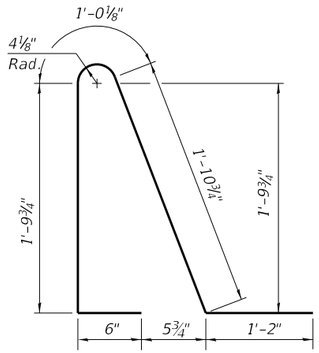
BARS a55(E) & a56(E)



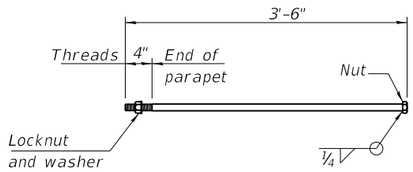
BAR a52(E)



BAR d37(E)



BAR d38(E)



1" Ø ANCHOR BOLT

(Anchor bolt assemblies shall be galvanized according to Article 1006.09 of the Standard Specifications. Cost of anchor bolt assemblies included with Concrete Superstructure)

LEGEND

* Taper end of parapet at Type 6 terminal only (South side only)
** Prior to grinding
*** After grinding

◪ Mininimum wear surface thickness after grinding is 5". Thickness will vary due to cross slope differences between the top of wearing surface and top of precast bridge slabs.

Notes:

The joint opening shall be adjusted for temperature per Article 520.04 of the Standard Specifications. However, since this detail is for jointless structures, the length of bridge used to calculate the adjustment shall be equal to half the total bridge length plus the length of the bridge approach slab.

After precast bridge approach slabs have been erected, holes shall be drilled into abutment and anchor dowels placed. Dowel holes shall be filled with non-shrink grout to top of precast slab and cured according to Article 1020.13(a)(3) or 1020.13(a)(5) of the Standard Specifications for a minimum of 24 hours before casting the shear keys and wearing surface.

Any concrete poured monolithically with the wearing surface, such as curbs, shall not be paid for separately, but will be included in the cost of Concrete Wearing Surface, 5".
The strip seal shall extend 6" beyond the edge of the approach slab on each end.
Parapet concrete shall be paid for as Concrete Superstructure.
Approach footing concrete shall be paid for as Concrete Structures.
The approach footing maximum applied service bearing pressure (Qmax) = 2.0 ksf.
Cost of excavation for approach footing included with Concrete Structures.
For Granular Backfill for Structures and drainage treatment details, see Sheet S58.
Cost of cellular polystyrene is included with Concrete Superstructure.

SN 050-0221 W. APPROACH

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a50(E)	32	#4	7'-10"	
a52(E)	32	#6	8'-4"	
a54(E)	64	#4	32'-0"	
a55(E)	48	#5	8'-0"	
a56(E)	16	#5	8'-11"	
b50(E)	67	#4	29'-8"	
b51(E)	4	#4	14'-8"	
b53(E)	1	#4	14'-7"	
b54(E)	1	#4	15'-0"	
b56(E)	4	#9	29'-8"	
d37(E)	46	#5	7'-0"	
d38(E)	46	#5	6'-5"	
e53(E)	24	#4	14'-8"	
t30(E)	138	#4	9'-7"	
w31(E)	80	#5	35'-6"	
Concrete Superstructure		Cu. Yd.	4.3	
Concrete Structures		Cu. Yd.	20.9	
Reinforcement Bars, Epoxy Coated		Pound	10,220	
Precast Bridge Approach Slab		Sq. Ft.	1,845	
Concrete Wearing Surface, 5"		Sq. Yd.	224	

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

WEST APPROACH SLAB DETAILS III (WB)
SN 050-0221 (WB)
SHEET NO. S30 OF 80 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(50-2BRJES	LASALLE	328	155
		CONTRACT NO. 66H21		
	ILLINOIS FED. AID PROJECT			

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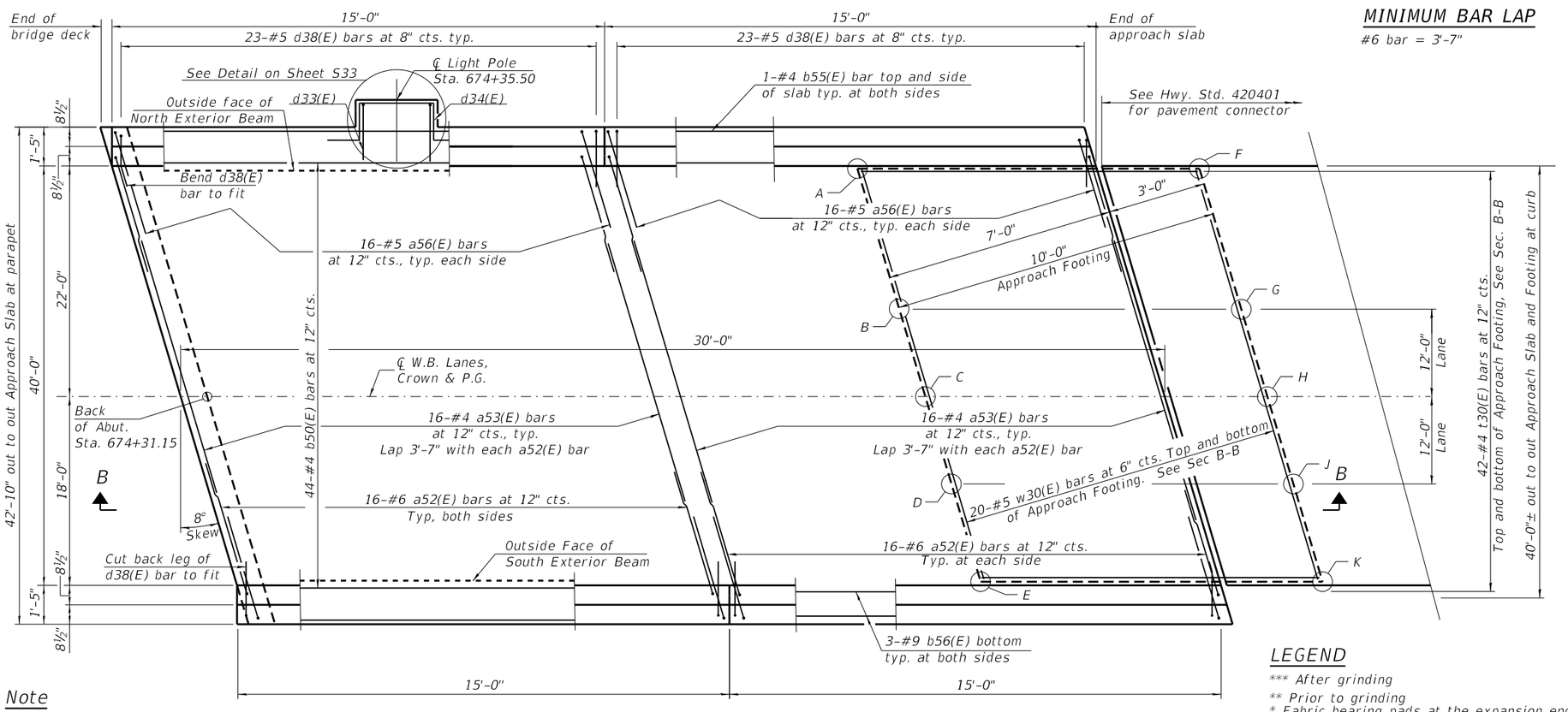
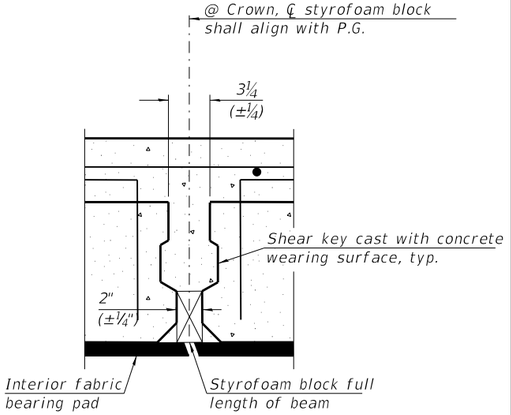


MINIMUM BAR LAP

#6 bar = 3'-7"



DETAIL 'A'

TOP AND BOTTOM ELEVATIONS FOR APPROACH FOOTING

SN 050-0221 E. Approach		
Point	Top	Bottom
A	592.03	591.20
B	592.22	591.39
C	592.39	591.56
D	592.20	591.37
E	592.08	591.25
F	591.97	591.14
G	592.17	591.33
H	592.34	591.51
J	592.15	591.32
K	592.03	591.20

N

LEGEND

*** After grinding

** Prior to grinding

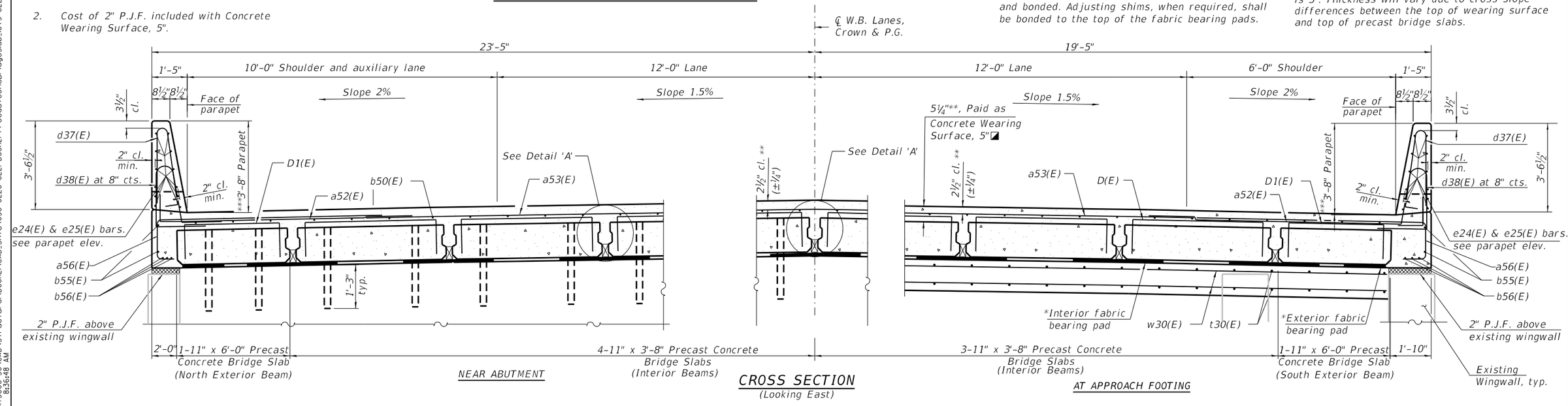
* Fabric bearing pads at the expansion end shall be recessed ¼" into the approach footing and bonded. Adjusting shims, when required, shall be bonded to the top of the fabric bearing pads.

◪ Minimum wearing surface thickness after grinding is 5". Thickness will vary due to cross slope differences between the top of wearing surface and top of precast bridge slabs.

Note

1. See Sheet S33 for Section B-B
2. Cost of 2" P.J.F. included with Concrete Wearing Surface, 5".

SN 050-0221 EAST APPROACH PLAN



NEAR ABUTMENT

CROSS SECTION (Looking East)

AT APPROACH FOOTING

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PLOT DATE =	DATE - 10/28/2019	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EAST APPROACH SLAB PLAN (WB)
SN 050-0221 (WB)
SHEET NO. S31 OF 80 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(50-2BRJES	LASALLE	328	156
		CONTRACT NO. 66H21		
	ILLINOIS FED. AID PROJECT			

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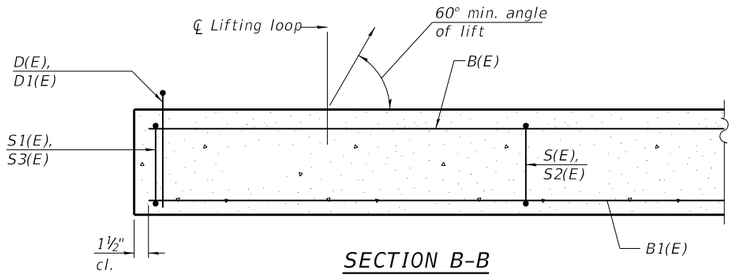
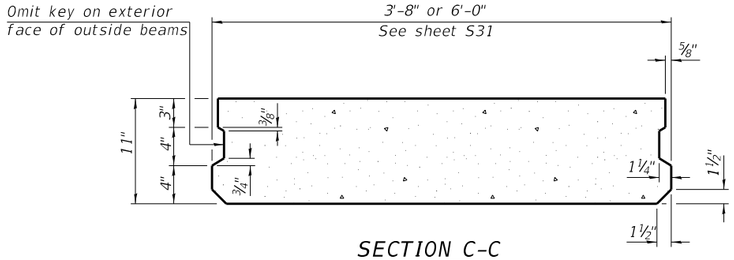


SECTION B-B



SECTION C-C
(Showing dimensions)

Notes:

The precast bridge approach slab shall be according to Section 504 of the Standard Specifications and shall be paid for at the contract unit price per square foot for Precast Concrete Bridge Slab.

Cast-in-place substitution of Precast Concrete Bridge Slab is not allowed.

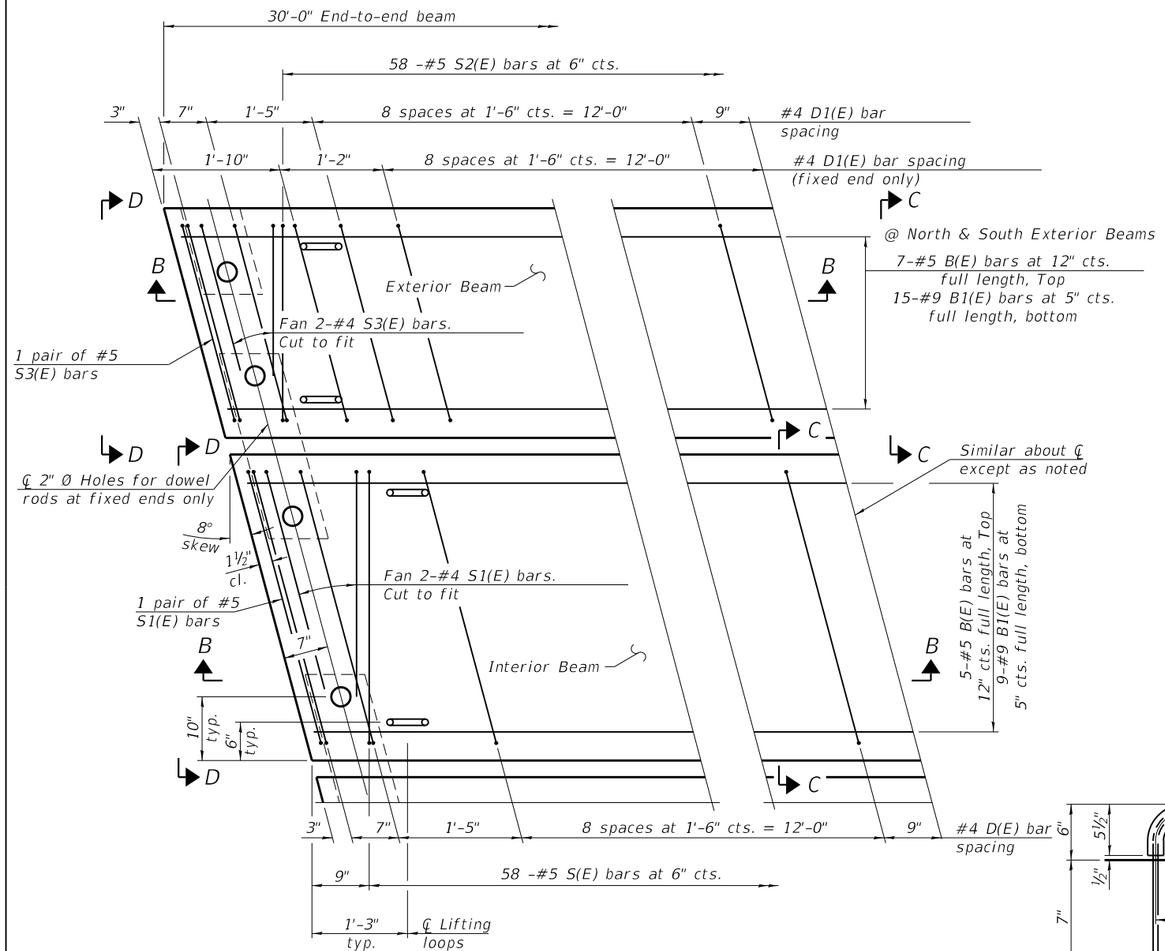
The top surface of precast concrete bridge slabs shall be finished similar to precast prestressed deck beams with concrete wearing surface as specified in the IDOT "Manual for Fabrication of Precast Prestressed Concrete Products."

Two ⅛" fabric adjusting shims of the dimensions of the exterior bearing pad shall be provided for each bearing pad location. Cost included with Precast Concrete Bridge Slab.

A minimum 2 ½" Ø lifting pins shall be used to engage the lifting loops during handling.

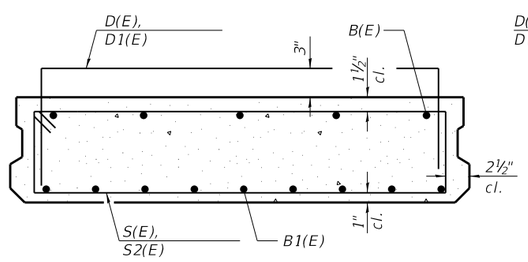
Compressive strength of precast concrete, f'c shall be 6,000 psi.

Compressive strength of precast concrete during initial lifting, f'ci shall be 5,000 psi.

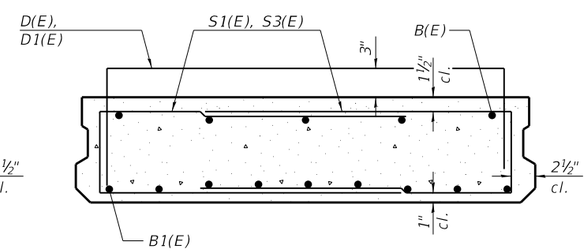


PLAN VIEW

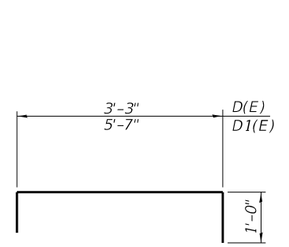
(showing precast bridge approach beams)
(Spacing of D(E) and D1(E) bars may be adjusted up to 3" to miss the dowel rod holes and the lifting loops at the beam ends)



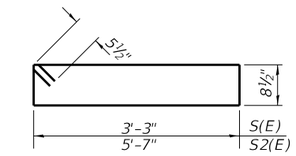
SECTION C-C
(Showing reinforcement)



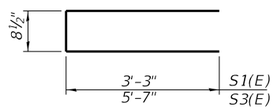
VIEW D-D
(Showing reinforcement)



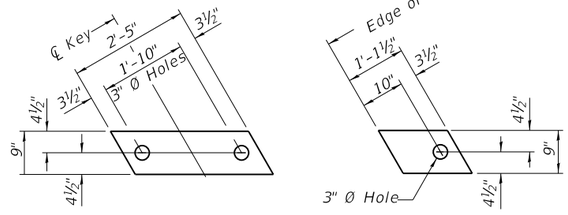
BARS D(E) & D1(E)



BARS S(E) & S2(E)



BARS S1(E) & S3(E)



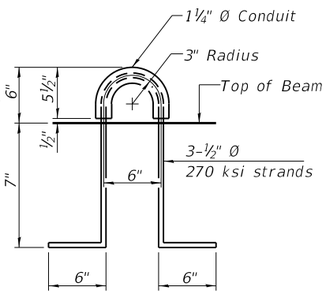
INTERIOR EXTERIOR

FABRIC BEARING PAD

Notes:

Bearing pads at fixed end shall be ½" thick and bearing pads at expansion end shall be ¾" thick.

Omit holes for fabric bearing pads at approach slab footing end of beams.



LIFTING LOOP DETAIL

(An alternate lifting loop with a proof load of 25,000 lbs. and utilized according to the manufacturer's recommendations may be used)

BAR LIST
EACH INTERIOR BEAM
(For information only)

Bar	No.	Size	Length	Shape
B(E)	5	#5	29'-8"	—
B1(E)	9	#9	29'-8"	—
D(E)	22	#4	5'-3"	⌐
S(E)	58	#5	8'-10"	▭
S1(E)	8	#5	7'-3"	⊏

BAR LIST
NORTH & SOUTH EXTERIOR BEAM
(For information only)

Bar	No.	Size	Length	Shape
B(E)	7	#5	29'-8"	—
B1(E)	15	#9	29'-8"	—
D1(E)	32	#4	7'-7"	⌐
S2(E)	58	#5	13'-6"	▭
S3(E)	8	#5	11'-11"	⊏

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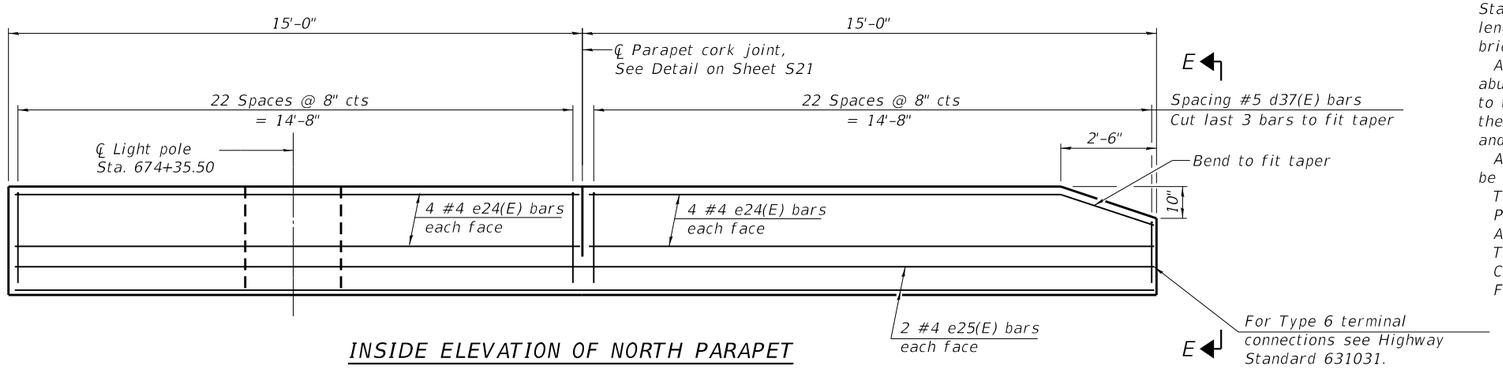
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

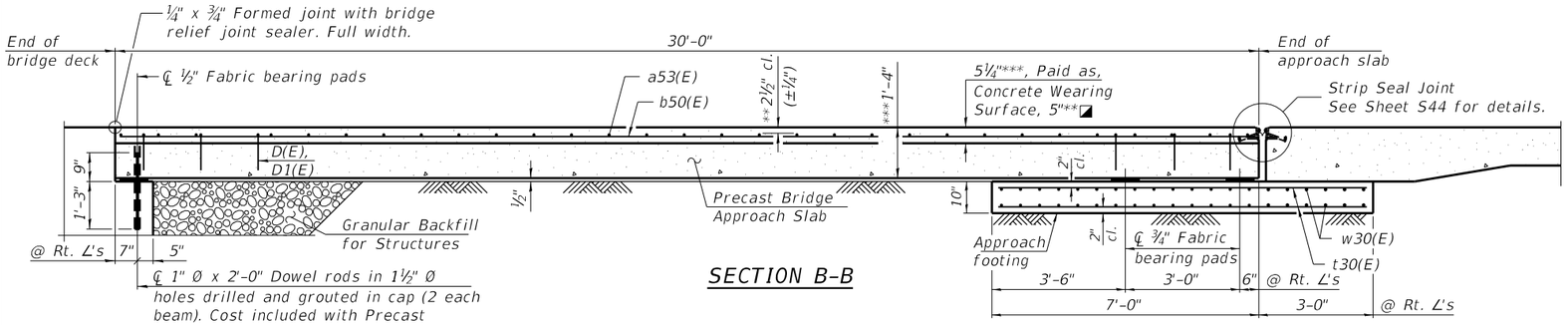
EAST APPROACH SLAB DETAILS I (WB)
SN 050-0221 (WB)
SHEET NO. S32 OF 80 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(50-2BRIES	LASALLE	328	157
		CONTRACT NO. 66H21		
	ILLINOIS FED. AID PROJECT			

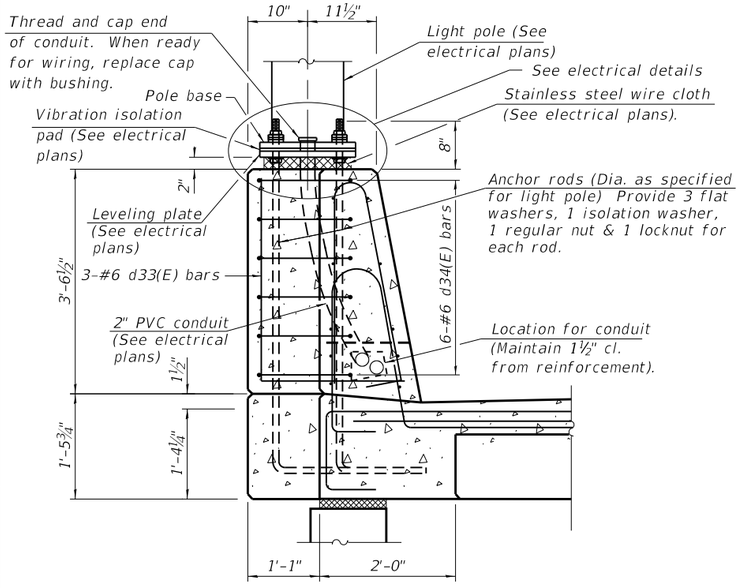


INSIDE ELEVATION OF NORTH PARAPET

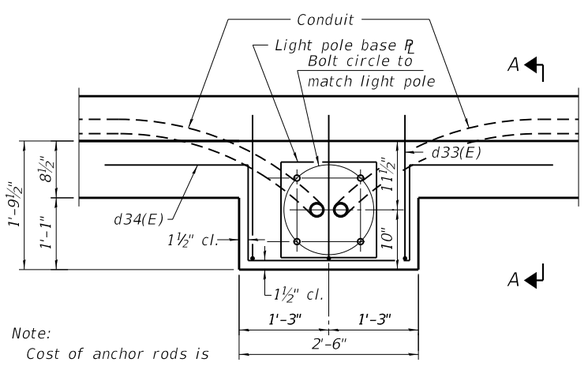
(South similar)



SECTION B-B



SECTION A-A

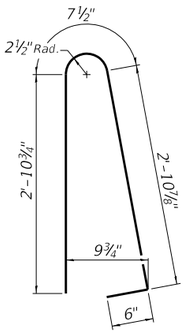


Note:
Cost of anchor rods is included with Concrete Superstructure.

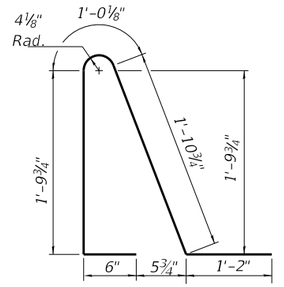
PLAN

Notes:

See Sheet S21 for d33(E) & d34(E) bar bend diagrams.
See Sheet S30 for a56(E) bar bend diagram.



BAR d37(E)

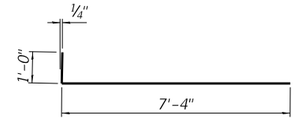


BAR d38(E)

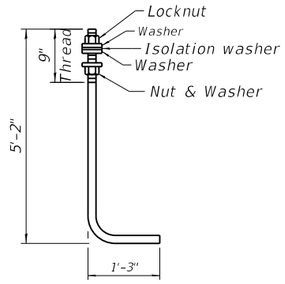
LEGEND

** Prior to grinding
*** After grinding
◪ Mininimum wear surface thickness after grinding is 5". Thickness will vary due to cross slope differences between the top of wearing surface and top of precast bridge slabs.

Notes:
The joint opening shall be adjusted for temperature per Article 520.04 of the Standard Specifications. However, since this detail is for jointless structures, the length of bridge used to calculate the adjustment shall be equal to half the total bridge length plus the length of the bridge approach slab.
After precast bridge approach slabs have been erected, holes shall be drilled into abutment and anchor dowels placed. Dowel holes shall be filled with non-shrink grout to top of precast slab and cured according to Article 1020.13(a)(3) or 1020.13(a)(5) of the Standard Specifications for a minimum of 24 hours before casting the shear keys and wearing surface.
Any concrete poured monolithically with the wearing surface, such as curbs, shall not be paid for separately, but will be included in the cost of Concrete Wearing Surface, 5".
The strip seal shall extend 6" beyond the edge of the approach slab on each end.
Parapet concrete shall be paid for as Concrete Superstructure.
Approach footing concrete shall be paid for as Concrete Structures.
The approach footing maximum applied service bearing pressure (Qmax) = 2.0 ksf.
Cost of excavation for approach footing included with Concrete Structures.
For Granular Backfill for Structures and drainage treatment details, see Sheet S58.

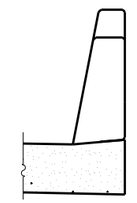


BAR a52(E)



ANCHOR ROD

Diameter as specified for light poles.
(ASTM F 1554 Grade 105) Full length
hot dipped galvanized



VIEW E-E

SN 050-0221 EAST APPROACH

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a52(E)	64	#6	8'-4"	
a53(E)	32	#4	35'-8"	
a56(E)	64	#5	8'-11"	
b50(E)	44	#4	29'-8"	
b55(E)	4	#4	29'-8"	
b56(E)	6	#9	29'-8"	
d33(E)	3	#6	5'-3"	
d34(E)	6	#6	8'-11"	
d37(E)	92	#5	7'-0"	
d38(E)	92	#5	6'-5"	
e24(E)	32	#4	14'-7"	
e25(E)	8	#4	29'-7"	
t30(E)	84	#4	9'-7"	
w30(E)	40	#5	40'-1"	
Concrete Superstructure		Cu. Yd.	8.9	
Concrete Structures		Cu. Yd.	12.5	
Reinforcement Bars, Epoxy Coated		Pound	8,550	
Precast Bridge Approach Slab		Sq. Ft.	1,130	
Concrete Wearing Surface, 5"		Sq. Yd.	143	

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EAST APPROACH SLAB DETAILS II (WB)
SN 050-0221 (WB)
SHEET NO. S33 OF 80 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(50-2BRIES	LASALLE	328	158
		CONTRACT NO. 66H21		
	ILLINOIS FED. AID PROJECT			

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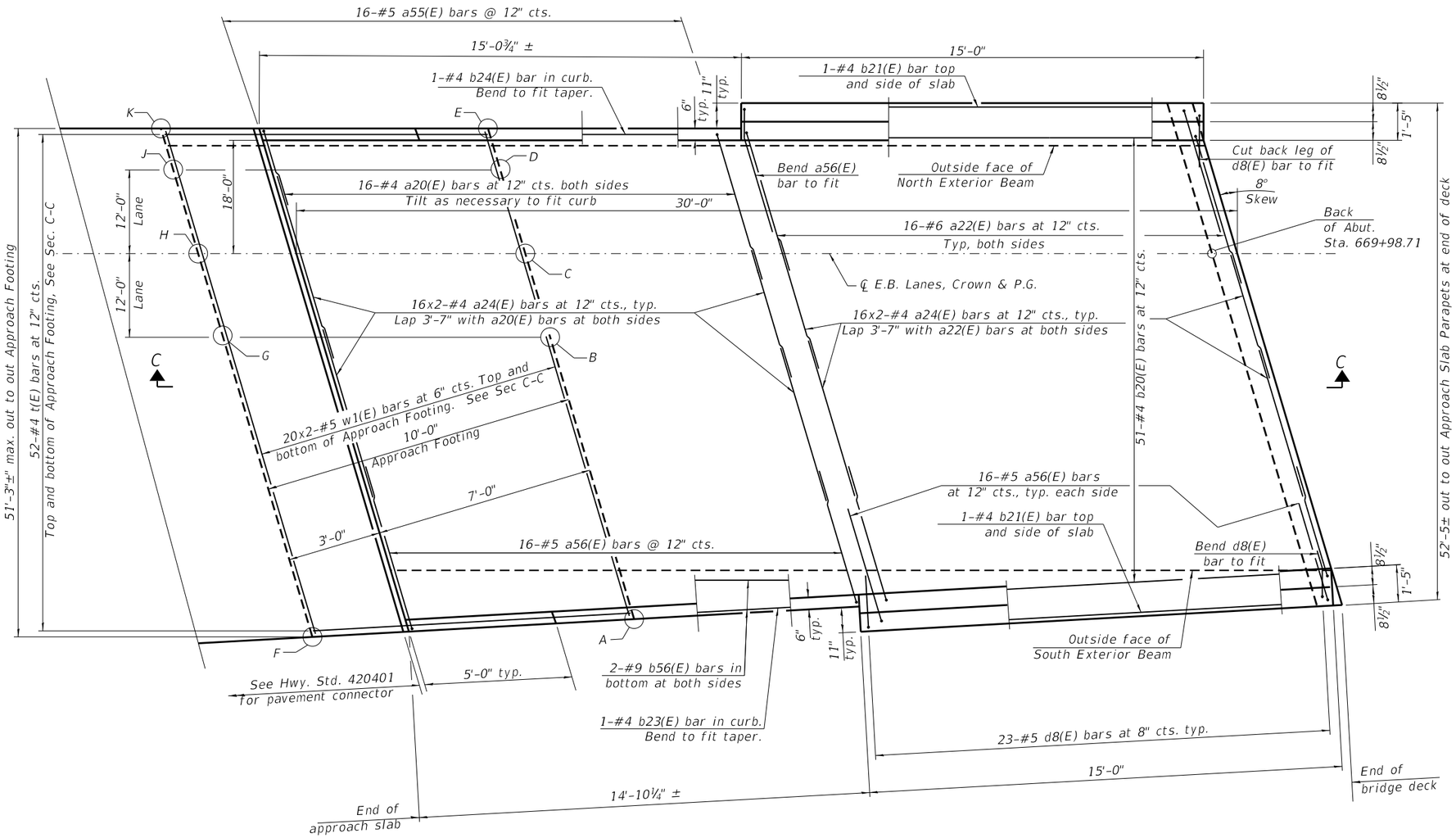
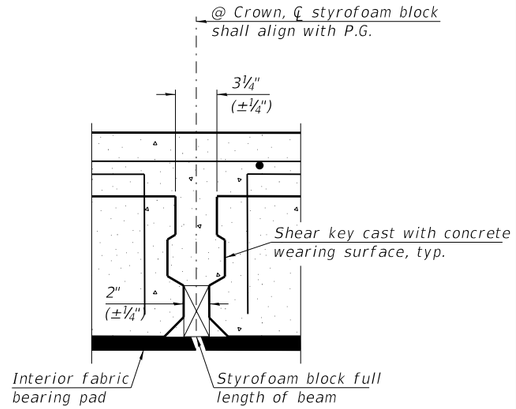


SN 050-0220 WEST APPROACH PLAN



DETAIL 'A'

(See sheet S35)

TOP AND BOTTOM ELEVATIONS FOR APPROACH FOOTING

SN 050-0220 W. Approach		
Point	Top	Bottom
A	600.27	599.44
B	601.77	599.94
C	601.00	600.17
D	600.88	600.04
E	600.78	599.95
F	600.58	599.75
G	601.09	600.26
H	601.33	600.50
J	601.20	600.37
K	601.10	600.27

Note

See Sheet S37 for Section C-C

N

MINIMUM BAR LAP

#6 bar = 3'-7"
#5 bar = 3'-0"
#4 bar = 2'-5"

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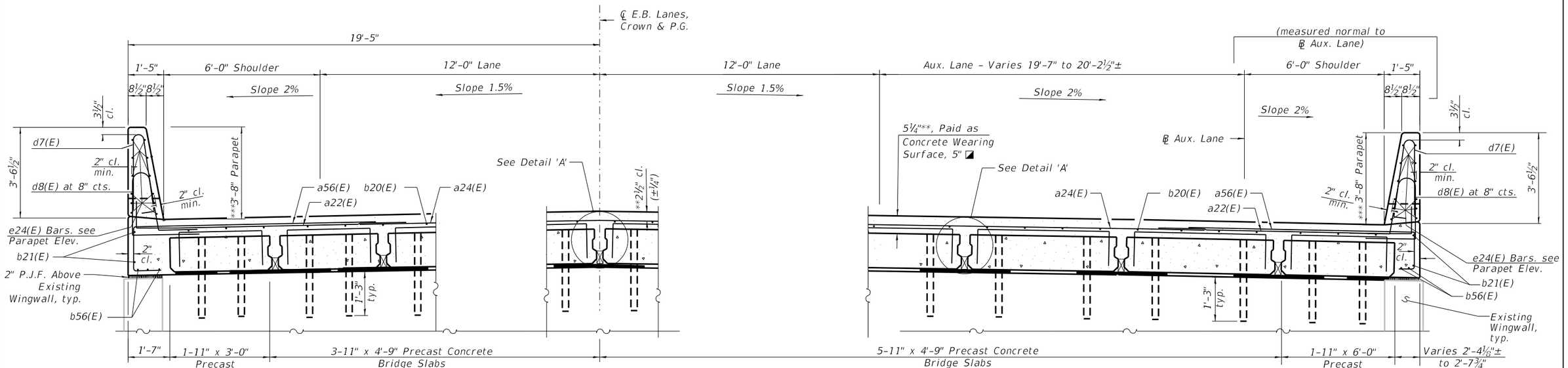
PLOT DATE = 10/04/2019	DATE - 10/04/2019	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

WEST APPROACH SLAB PLAN (EB)
SN 050-0220 (EB)
SHEET NO. S34 OF 80 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(50-2BR)ES	LASALLE	328	159
		CONTRACT NO. 66H21		
	ILLINOIS FED. AID PROJECT			



CROSS SECTION NEAR ABUTMENT

(Looking East)

NOTES

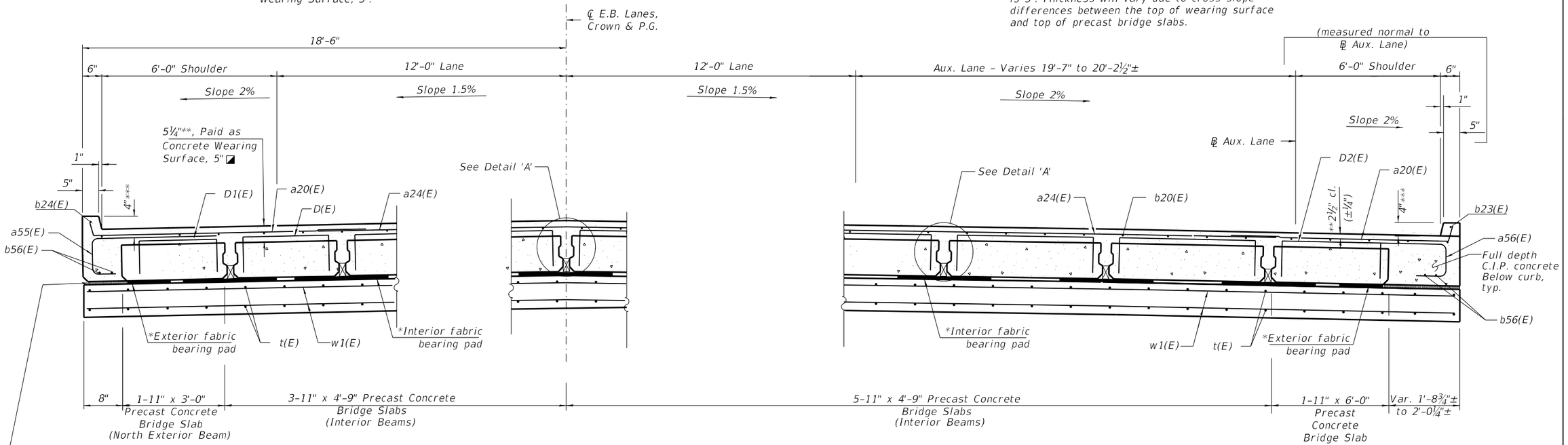
1. For Detail A, see Sheet S34
2. Cost of 2" P.J.F. included with Concrete Wearing Surface, 5".

LEGEND

*** After grinding
** Prior to grinding
* Fabric bearing pads at the expansion end shall be recessed ¼" into the approach footing and bonded. Adjusting shims, when required, shall be bonded to the top of the fabric bearing pads.
◪ Mininimum wear surface thickness after grinding is 5". Thickness will vary due to cross slope differences between the top of wearing surface and top of precast bridge slabs.

MINIMUM BAR LAP

#6 bar = 3'-7"



½" Cellular polystyrene according to ASTM C 578 (Types V, VII, or XV). Placed under cast in place portion of approach slab full length of approach footing both sides.

CROSS SECTION AT APPROACH FOOTING

(Looking East)

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DEPARTMENT OF TRANSPORTATION

WEST APPROACH SLAB DETAILS I (EB)
SN 050-0220 (EB)
SHEET NO. S35 OF 80 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(50-2BR)ES	LASALLE	328	160
		CONTRACT NO. 66H21		
	ILLINOIS	FED. AID PROJECT		

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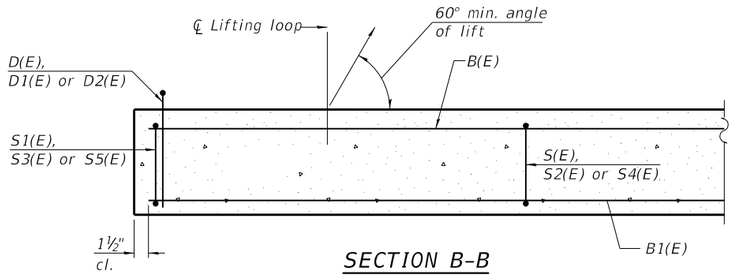
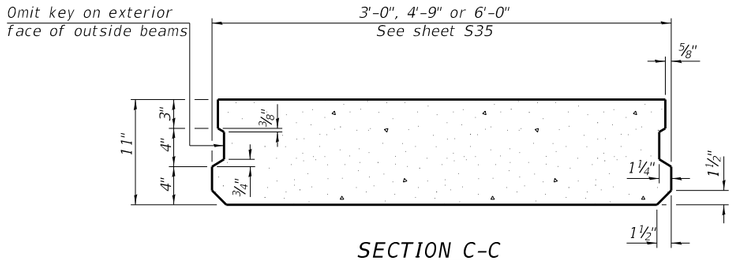


SECTION B-B



SECTION C-C
(Showing dimensions)

Notes:

The precast bridge approach slab shall be according to Section 504 of the Standard Specifications and shall be paid for at the contract unit price per square foot for Precast Concrete Bridge Slab.

Cast-in-place substitution of Precast Concrete Bridge Slab is not allowed.

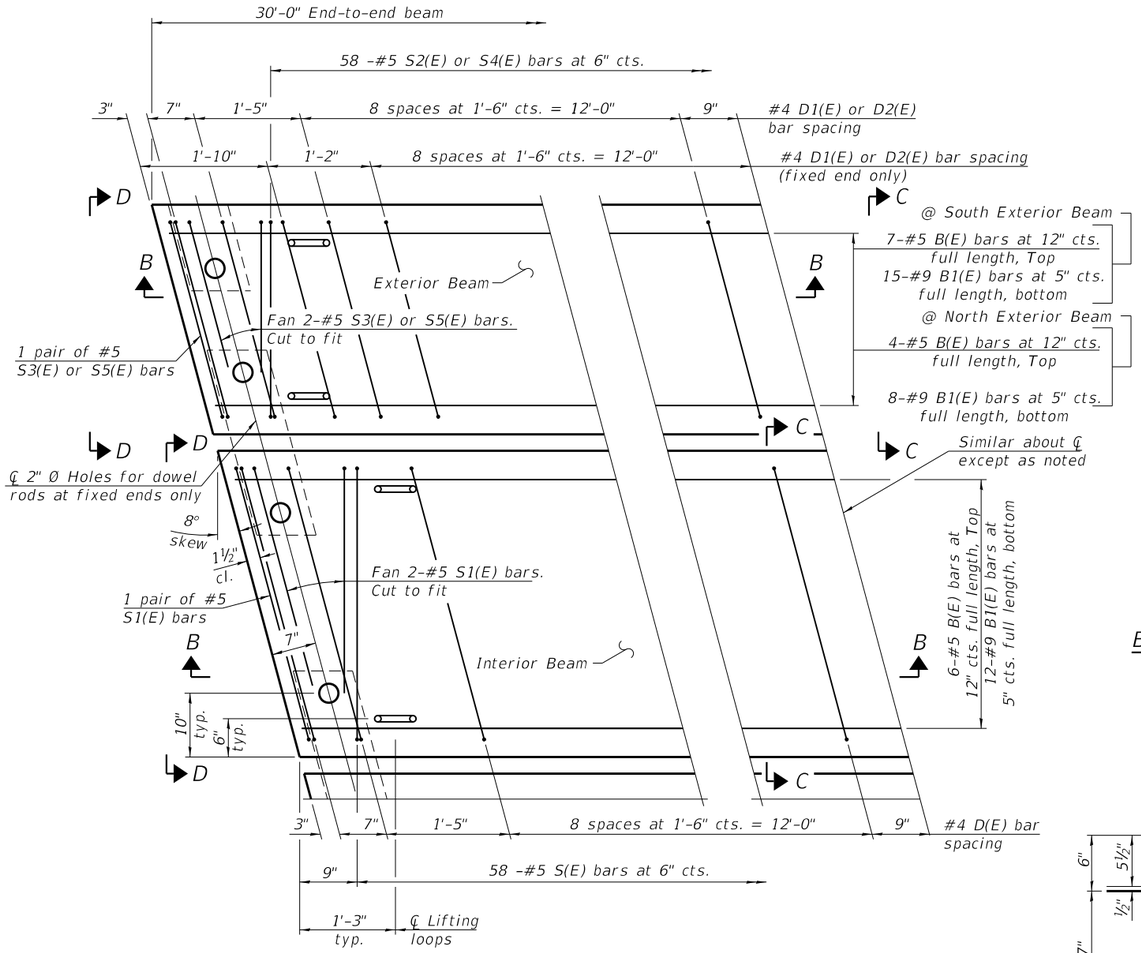
The top surface of precast concrete bridge slabs shall be finished similar to precast prestressed deck beams with concrete wearing surface as specified in the IDOT "Manual for Fabrication of Precast Prestressed Concrete Products."

Two ⅛" fabric adjusting shims of the dimensions of the exterior bearing pad shall be provided for each bearing pad location. Cost included with Precast Concrete Bridge Slab.

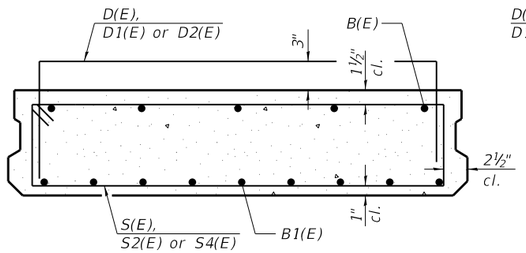
A minimum 2 ½" Ø lifting pins shall be used to engage the lifting loops during handling.

Compressive strength of precast concrete, f'c shall be 6,000 psi.

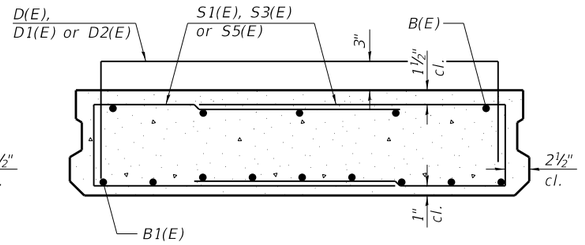
Compressive strength of precast concrete during initial lifting, f'ci shall be 5,000 psi.



PLAN VIEW
(showing precast bridge approach beams)
(Spacing of D(E), D1(E) & D2(E) bars may be adjusted up to 3" to miss the dowel rod holes and the lifting loops at the beam ends)

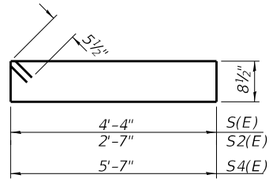


SECTION C-C
(Showing reinforcement)

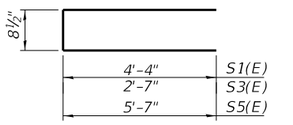


VIEW D-D
(Showing reinforcement)

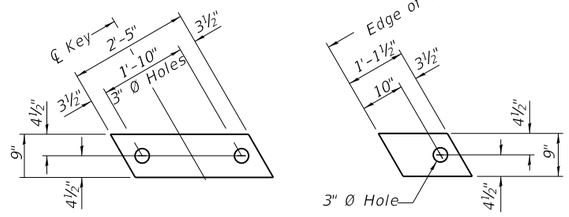
BARS D(E), D1(E) & D2(E)



BARS S(E), S2(E) & S4(E)



BARS S1(E), S3(E) & S5(E)



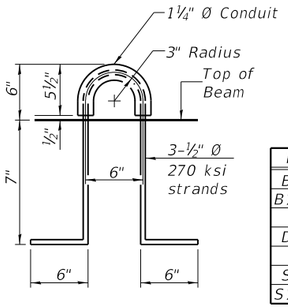
INTERIOR EXTERIOR

FABRIC BEARING PAD

Notes:

Bearing pads at fixed end shall be ½" thick and bearing pads at expansion end shall be ¾" thick.

Omit holes for fabric bearing pads at approach slab footing end of beams.



LIFTING LOOP DETAIL
(An alternate lifting loop with a proof load of 25,000 lbs. and utilized according to the manufacturer's recommendations may be used)

BAR LIST
EACH INTERIOR BEAM
(For information only)

Bar	No.	Size	Length	Shape
B(E)	6	#5	29'-8"	—
B1(E)	12	#9	29'-8"	—
D(E)	22	#4	6'-4"	⌐
S(E)	58	#5	11'-0"	▭
S1(E)	8	#5	9'-5"	▭

BAR LIST
NORTH EXTERIOR BEAM
(For information only)

Bar	No.	Size	Length	Shape
B(E)	4	#5	29'-8"	—
B1(E)	8	#9	29'-8"	—
D1(E)	32	#4	4'-7"	⌐
S2(E)	58	#5	7'-6"	▭
S3(E)	8	#5	5'-11"	▭

BAR LIST
SOUTH EXTERIOR BEAM
(For information only)

Bar	No.	Size	Length	Shape
B(E)	7	#5	29'-8"	—
B1(E)	15	#9	29'-8"	—
D2(E)	32	#4	7'-7"	⌐
S4(E)	58	#5	13'-6"	▭
S5(E)	8	#5	11'-11"	▭

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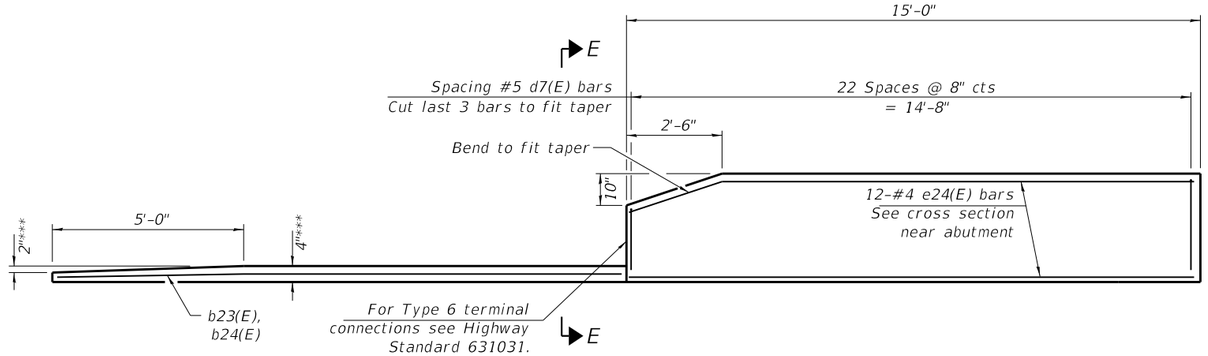
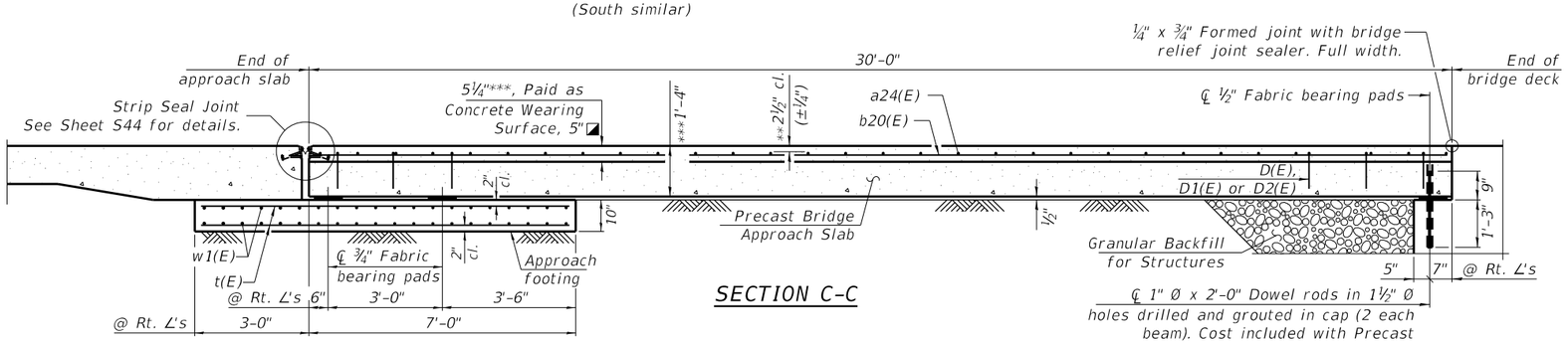
WEST APPROACH SLAB DETAILS II (EB)
SN 050-0220 (EB)
SHEET NO. S36 OF 80 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(50-2BR)ES	LASALLE	328	161
		CONTRACT NO. 66H21		
	ILLINOIS FED. AID PROJECT			

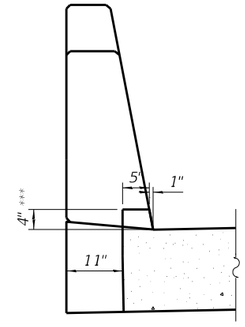


INSIDE ELEVATION OF NORTH PARAPET AND CURB

(South similar)



SECTION C-C



VIEW E-E

Notes:

The joint opening shall be adjusted for temperature per Article 520.04 of the Standard Specifications. However, since this detail is for jointless structures, the length of bridge used to calculate the adjustment shall be equal to half the total bridge length plus the length of the bridge approach slab.

After precast bridge approach slabs have been erected, holes shall be drilled into abutment and anchor dowels placed. Dowel holes shall be filled with non-shrink grout to top of precast slab and cured according to Article 1020.13(a)(3) or 1020.13(a)(5) of the Standard Specifications for a minimum of 24 hours before casting the shear keys and wearing surface.

Any concrete poured monolithically with the wearing surface, such as curbs, shall not be paid for separately, but will be included in the cost of Concrete Wearing Surface, 5".

The strip seal shall extend 6" beyond the edge of the approach slab on each end.

Parapet concrete shall be paid for as Concrete Superstructure.

Approach footing concrete shall be paid for as Concrete Structures.

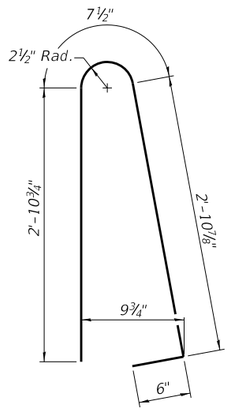
The approach footing maximum applied service bearing pressure (Qmax) = 2.0 ksf.

Cost of excavation for approach footing included with Concrete Structures.

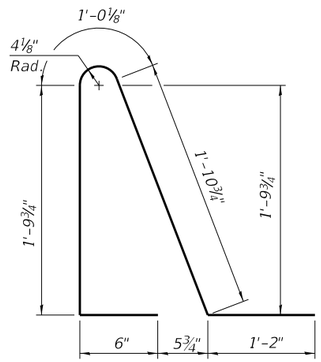
For Granular Backfill for Structures and drainage treatment details, see Sheet S58.

Cost of cellular polystyrene is included with Concrete Superstructure.

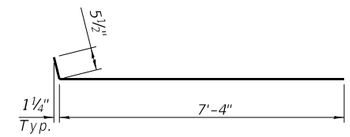
For a55(E) and a56(E) bar bend diagrams see sheet S30.



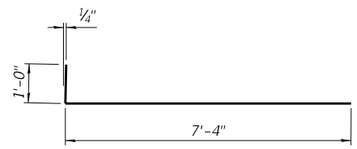
BAR d7(E)



BAR d8(E)



BAR a20(E)



BAR a22(E)

LEGEND

** Prior to grinding

*** After grinding

◪ Mininimum wear surface thickness after grinding is 5". Thickness will vary due to cross slope differences between the top of wearing surface and top of precast bridge slabs.

SN 050-0220 W. APPROACH

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a20(E)	32	#4	7'-10"	
a22(E)	32	#6	8'-4"	
a24(E)	64	#4	24'-0"	
a55(E)	16	#5	8'-0"	
a56(E)	48	#5	8'-11"	
b20(E)	51	#4	29'-8"	
b21(E)	4	#4	14'-8"	
b23(E)	1	#4	14'-6"	
b24(E)	1	#4	14'-10"	
b56(E)	4	#9	29'-8"	
d7(E)	46	#5	7'-0"	
d8(E)	46	#5	6'-5"	
e24(E)	24	#4	14'-8"	
t(E)	104	#4	9'-7"	
w1(E)	80	#5	27'-6"	
Concrete Superstructure			Cu. Yd.	4.3
Concrete Structures			Cu. Yd.	15.9
Reinforcement Bars, Epoxy Coated			Pound	8,700
Precast Bridge Approach Slab			Sq. Ft.	1,410
Concrete Wearing Surface, 5"			Sq. Yd.	173

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

WEST APPROACH SLAB DETAILS III (EB)
SN 050-0220 (EB)

SHEET NO. S37 OF 80 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(50-2BRIES	LASALLE	328	162
		CONTRACT NO. 66H21		
		ILLINOIS	FED. AID PROJECT	

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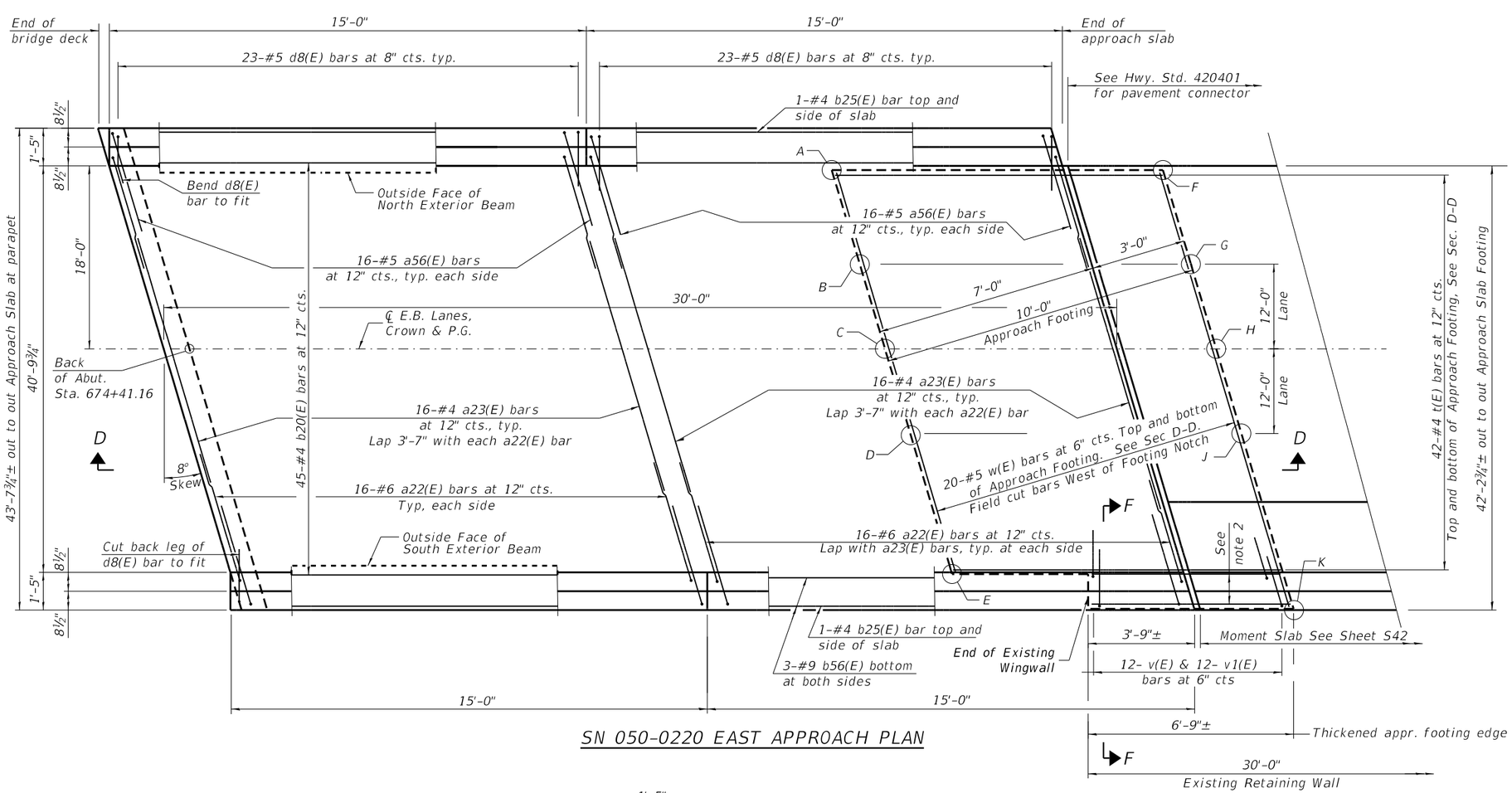
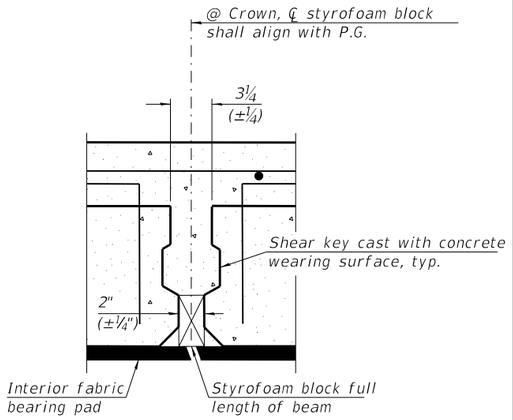


SN 050-0220 EAST APPROACH PLAN



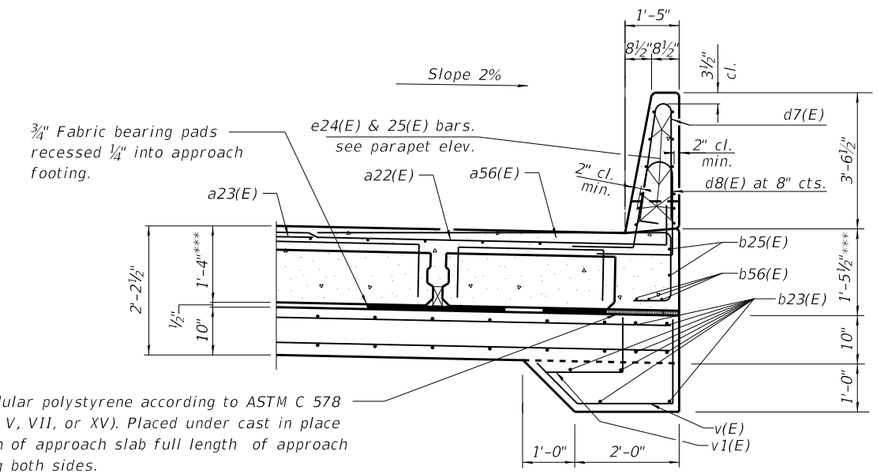
DETAIL 'A'

(See sheet S39)

N

TOP AND BOTTOM ELEVATIONS FOR APPROACH FOOTING

SN 050-0220 E. Approach		
Point	Top	Bottom
A	591.93	591.10
B	592.05	591.21
C	592.22	591.39
D	592.03	591.20
E	591.80	590.97
F	591.88	591.05
G	592.00	591.17
H	592.17	591.34
J	591.98	591.15
K	591.74	589.90



SECTION F-F

(Looking East)

MINIMUM BAR LAP

#6 bar = 3'-7"

Notes:

1) See Sheet S41 for Section D-D

2) 8-#4b23(E) in appr. ftg. as shown in section F-F.

LEGEND

*** After grinding

** Prior to grinding

* Fabric bearing pads at the expansion end shall be recessed ¼" into the approach footing and bonded. Adjusting shims, when required, shall be bonded to the top of the fabric bearing pads.

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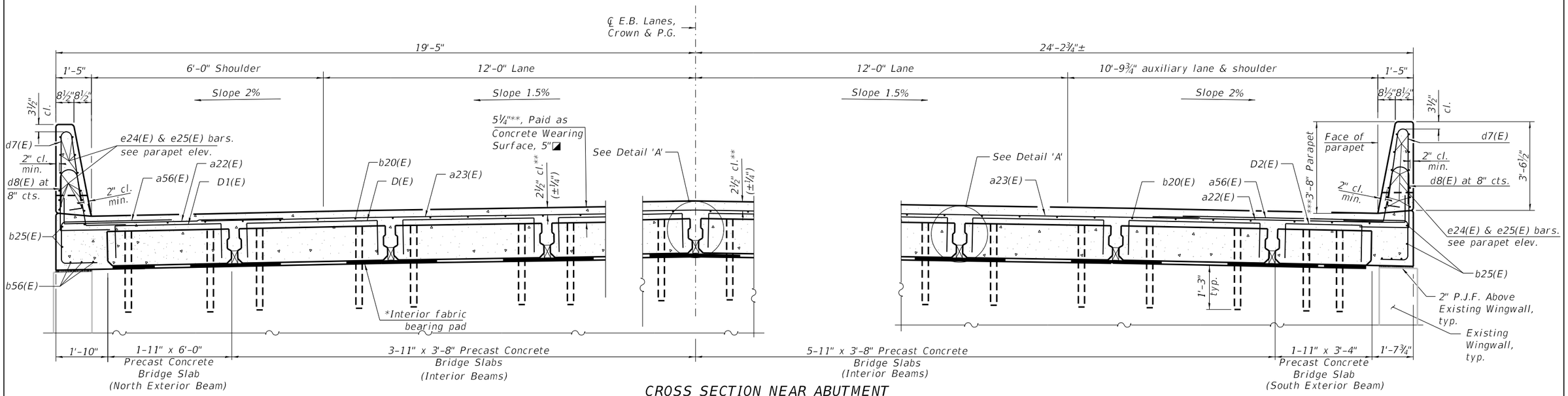
PLOT DATE = 10/04/2019	DATE - 10/04/2019	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EAST APPROACH SLAB PLAN (EB)
SN 050-0220 (EB)
SHEET NO. S38 OF 80 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(50-2BRIES	LASALLE	328	163
		CONTRACT NO. 66H21		
	ILLINOIS	FED. AID PROJECT		



CROSS SECTION NEAR ABUTMENT

(Looking East)

NOTES

1. For Detail A, see Sheet S38.
2. Cost of 2" P.J.F. included with Concrete Wearing Surface, 5".

LEGEND

*** After grinding

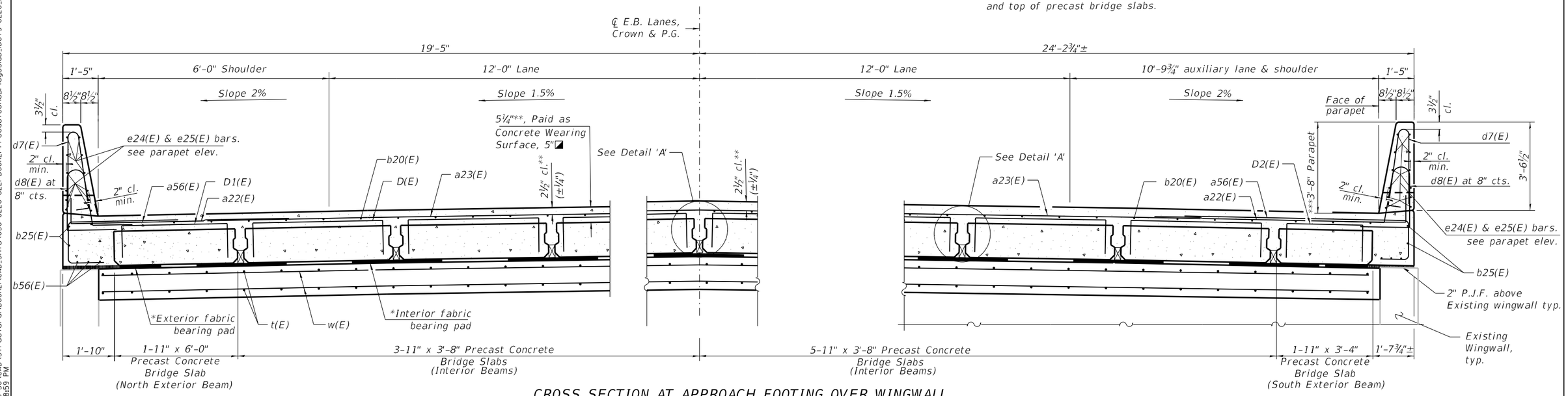
** Prior to grinding

* Fabric bearing pads at the expansion end shall be recessed ¼" into the approach footing and bonded. Adjusting shims, when required, shall be bonded to the top of the fabric bearing pads.

◪ Mininimum wear surface thickness after grinding is 5". Thickness will vary due to cross slope differences between the top of wearing surface and top of precast bridge slabs.

MINIMUM BAR LAP

#6 bar = 3'-7"



CROSS SECTION AT APPROACH FOOTING OVER WINGWALL

(Looking East)

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PLOT DATE = 10/04/2019	DATE - 10/04/2019	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EAST APPROACH SLAB DETAILS I (EB)
SN 050-0220 (EB)
SHEET NO. S39 OF 80 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(50-2BRIES	LASALLE	328	164
		CONTRACT NO. 66H21		
	ILLINOIS FED. AID PROJECT			

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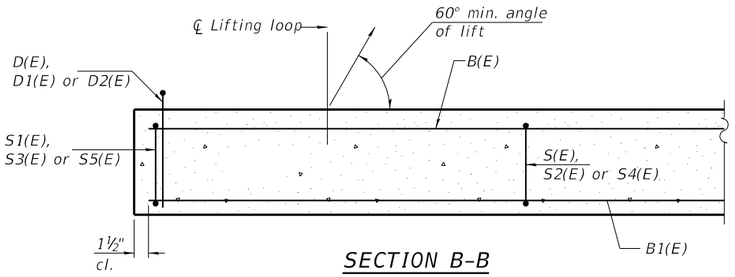
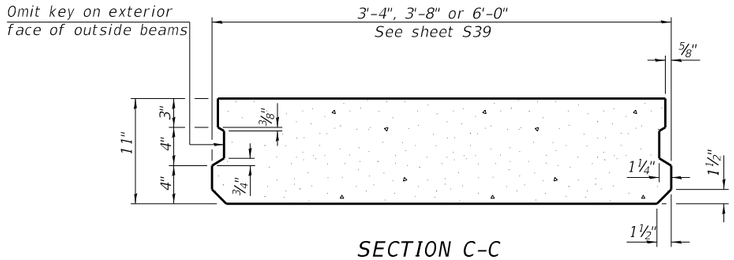


SECTION B-B



SECTION C-C
(Showing dimensions)

Notes:

The precast bridge approach slab shall be according to Section 504 of the Standard Specifications and shall be paid for at the contract unit price per square foot for Precast Concrete Bridge Slab.

Cast-in-place substitution of Precast Concrete Bridge Slab is not allowed.

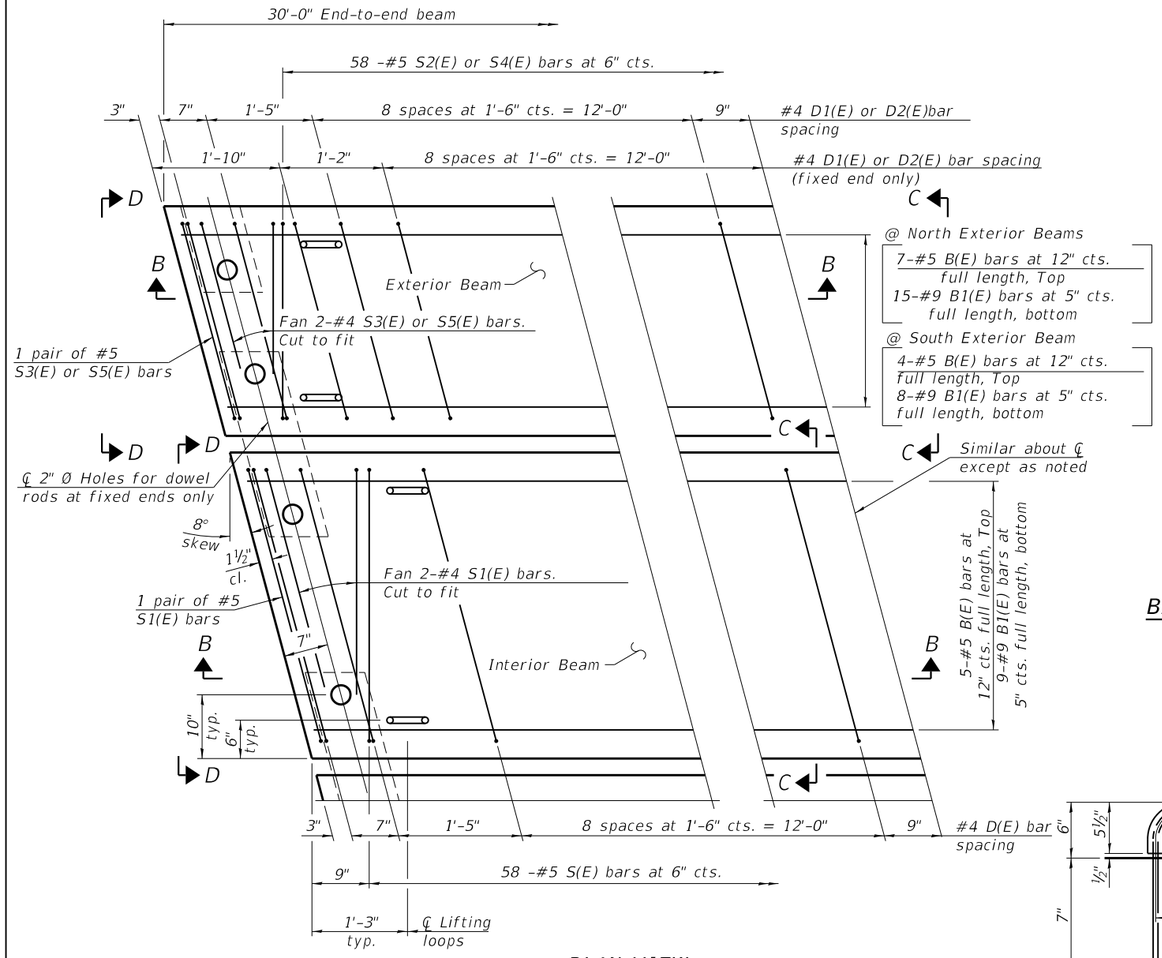
The top surface of precast concrete bridge slabs shall be finished similar to precast prestressed deck beams with concrete wearing surface as specified in the IDOT "Manual for Fabrication of Precast Prestressed Concrete Products."

Two ⅛" fabric adjusting shims of the dimensions of the exterior bearing pad shall be provided for each bearing pad location. Cost included with Precast Concrete Bridge Slab.

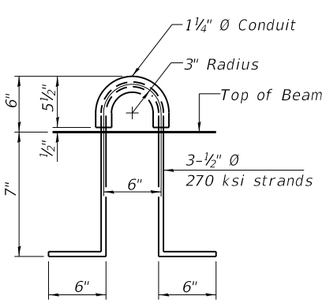
A minimum 2 ½" Ø lifting pins shall be used to engage the lifting loops during handling.

Compressive strength of precast concrete, f'c shall be 6,000 psi.

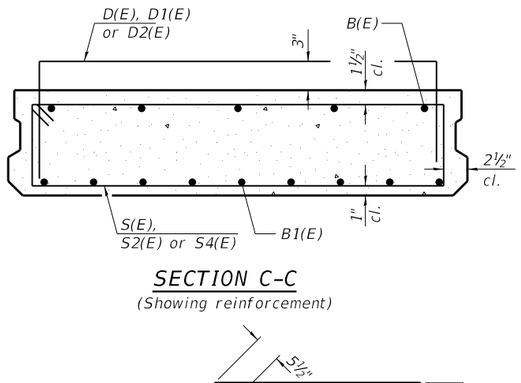
Compressive strength of precast concrete during initial lifting, f'ci shall be 5,000 psi.



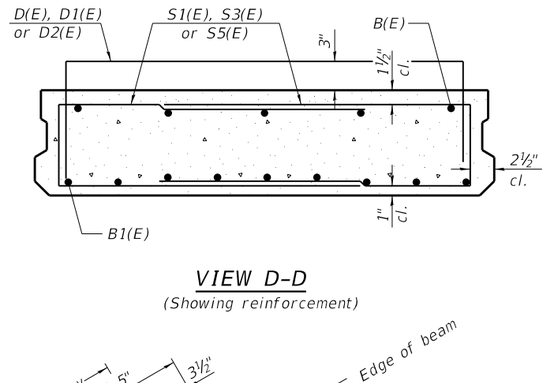
PLAN VIEW
(showing precast bridge approach beams)
(Spacing of D(E), D1(E) & D2(E) bars may be adjusted up to 3" to miss the dowel rod holes and the lifting loops at the beam ends)



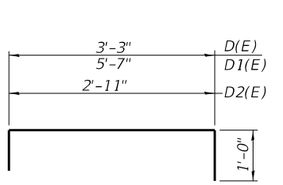
LIFTING LOOP DETAIL
(An alternate lifting loop with a proof load of 25,000 lbs. and utilized according to the manufacturer's recommendations may be used)



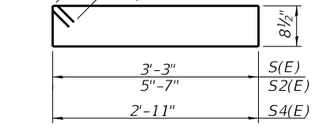
SECTION C-C
(Showing reinforcement)



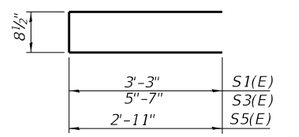
VIEW D-D
(Showing reinforcement)



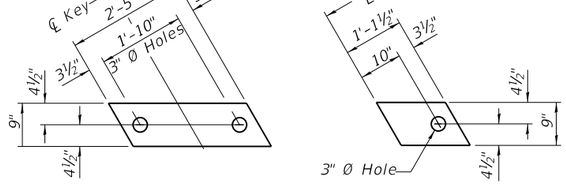
BARS D(E), D1(E) & D2(E)



BARS S(E), S2(E) & S4(E)



BARS S1(E), S3(E) & S5(E)



INTERIOR EXTERIOR

FABRIC BEARING PAD

Notes:

Bearing pads at fixed end shall be ½" thick and bearing pads at expansion end shall be ¾" thick.

Omit holes for fabric bearing pads at approach slab footing end of beams.

BAR LIST
EACH INTERIOR BEAM
(For information only)

Bar	No.	Size	Length	Shape
B(E)	5	#5	29'-8"	—
B1(E)	9	#9	29'-8"	—
D(E)	22	#4	5'-3"	⊓
S(E)	58	#5	8'-10"	⊏
S1(E)	8	#5	7'-3"	⊏

BAR LIST
NORTH EXTERIOR BEAM
(For information only)

Bar	No.	Size	Length	Shape
B(E)	7	#5	29'-8"	—
B1(E)	15	#9	29'-8"	—
D1(E)	32	#4	7'-7"	⊓
S2(E)	58	#5	13'-6"	⊏
S3(E)	8	#5	11'-11"	⊏

BAR LIST
SOUTH EXTERIOR BEAM
(For information only)

Bar	No.	Size	Length	Shape
B(E)	4	#5	29'-8"	—
B1(E)	8	#9	29'-8"	—
D2(E)	32	#4	4'-11"	⊓
S4(E)	58	#5	8'-2"	⊏
S5(E)	8	#5	6'-7"	⊏

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EAST APPROACH SLAB DETAILS II (EB)
SN 050-0220 (EB)
SHEET NO. 540 OF 80 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(50-2BRIES	LASALLE	328	165
		CONTRACT NO. 66H21		
	ILLINOIS FED. AID PROJECT			

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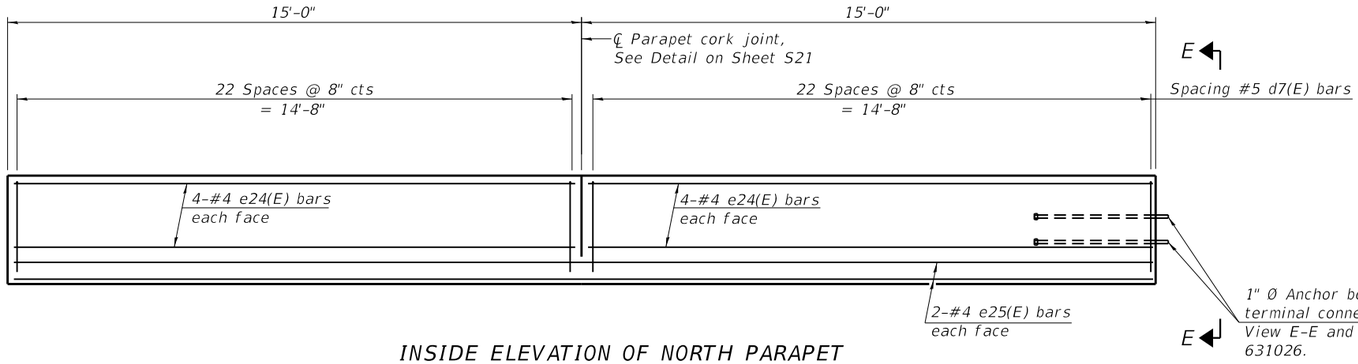


INSIDE ELEVATION OF NORTH PARAPET

(South similar)

Notes:

The joint opening shall be adjusted for temperature per Article 520.04 of the Standard Specifications. However, since this detail is for jointless structures, the length of bridge used to calculate the adjustment shall be equal to half the total bridge length plus the length of the bridge approach slab.

After precast bridge approach slabs have been erected, holes shall be drilled into abutment and anchor dowels placed. Dowel holes shall be filled with non-shrink grout to top of precast slab and cured according to Article 1020.13(a)(3) or 1020.13(a)(5) of the Standard Specifications for a minimum of 24 hours before casting the shear keys and wearing surface.

Any concrete poured monolithically with the wearing surface, such as curbs, shall not be paid for separately, but will be included in the cost of Concrete Wearing Surface, 5".

The strip seal shall extend 6" beyond the edge of the approach slab on each end.

Parapet concrete shall be paid for as Concrete Superstructure.

Approach footing concrete shall be paid for as Concrete Structures.

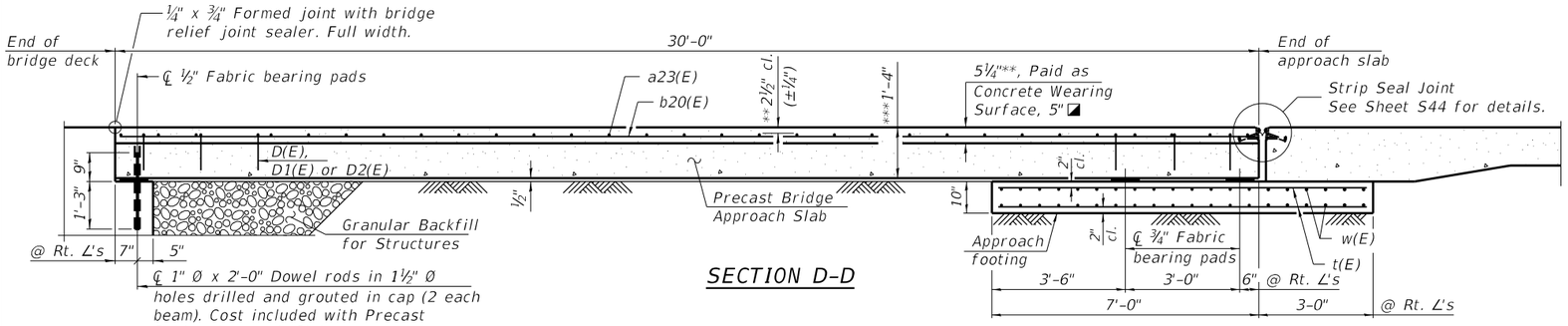
The approach footing maximum applied service bearing pressure (Qmax) = 2.0 ksf.

Cost of excavation for approach footing included with Concrete Structures.

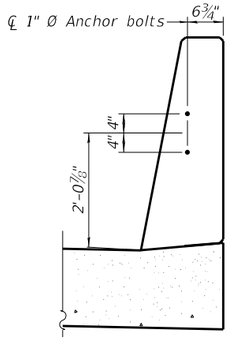
For Granular Backfill for Structures and drainage treatment details, see Sheet S58.

Cost of cellular polystyrene is included with Concrete Superstructure.

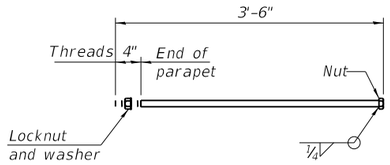
For a56(E) bar bend diagram see sheet S30.



SECTION D-D

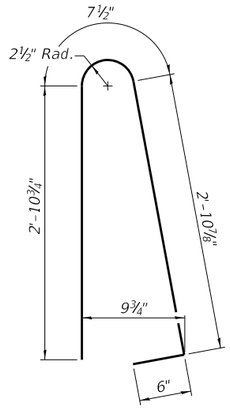


VIEW E-E

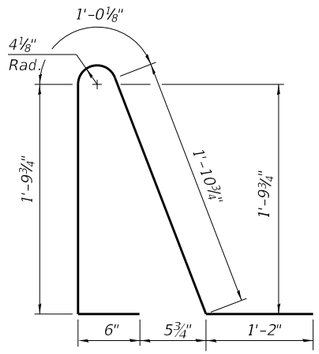


1" Ø ANCHOR BOLT

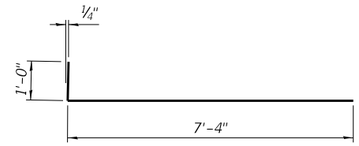
(Anchor bolt assemblies shall be galvanized according to Article 1006.09 of the Standard Specifications. Cost of anchor bolt assemblies included with Concrete Superstructure)



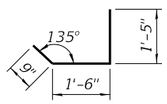
BAR d7(E)



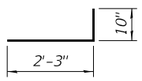
BAR d8(E)



BAR a22(E)



BAR v(E)



BAR v1(E)

LEGEND

** Prior to grinding

*** After grinding

◪ Minimum wear surface thickness after grinding is 5". Thickness will vary due to cross slope differences between the top of wearing surface and top of precast bridge slabs.

SN 050-0220 E. APPROACH

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a22(E)	64	#6	8'-4"	
a23(E)	32	#4	36'-9"	
a56(E)	64	#5	8'-11"	
b20(E)	45	#4	29'-8"	
b23(E)	8	#4	2'-8"	
b25(E)	4	#4	29'-8"	
b56(E)	6	#9	29'-8"	
d7(E)	92	#5	7'-0"	
d8(E)	92	#5	6'-5"	
e24(E)	32	#4	14'-7"	
e25(E)	8	#4	29'-7"	
t(E)	84	#4	9'-7"	
v(E)	12	#5	3'-8"	
v1(E)	12	#5	3'-1"	
w(E)	40	#5	42'-3"	
w2(E)	8	#5	5'-6"	
Concrete Superstructure			Cu. Yd.	8.5
Concrete Structures			Cu. Yd.	13.5
Reinforcement Bars, Epoxy Coated			Pound	9,780
Precast Bridge Approach Slab			Sq. Ft.	1,160
Concrete Wearing Surface, 5"			Sq. Yd.	145

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PLOT DATE = 10/04/2019	DATE - 10/04/2019	REVISED -	

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EAST APPROACH SLAB DETAILS III (EB)
SN 050-0220 (EB)
SHEET NO. S41 OF 80 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(50-2BR)ES	LASALLE	328	166
		CONTRACT NO. 66H21		
	ILLINOIS FED. AID PROJECT			

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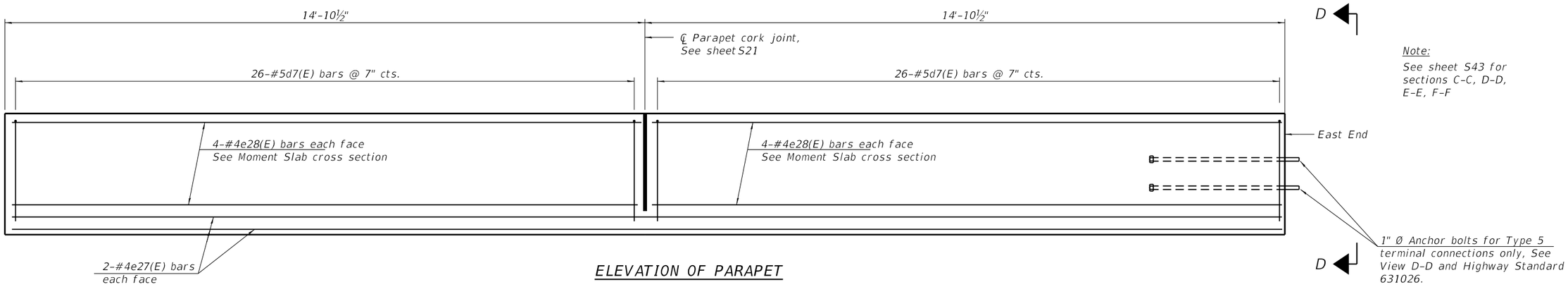
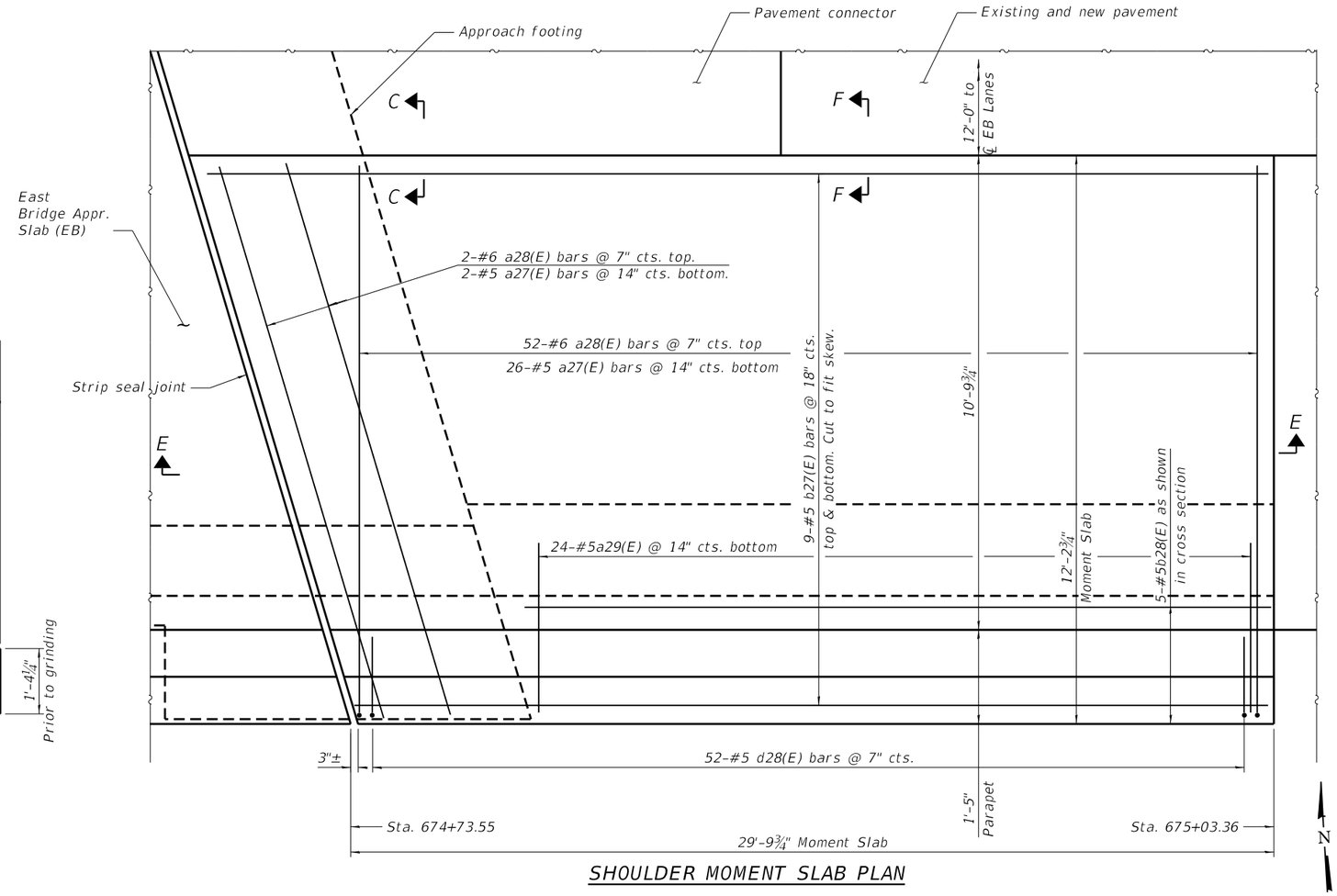
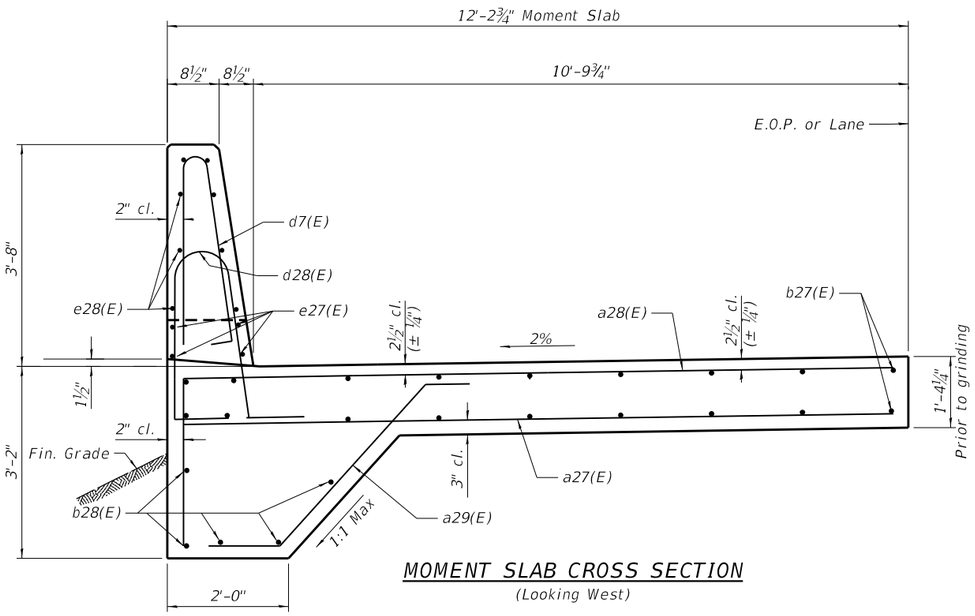


ELEVATION OF PARAPET



SHOULDER MOMENT SLAB PLAN



MOMENT SLAB CROSS SECTION
(Looking West)

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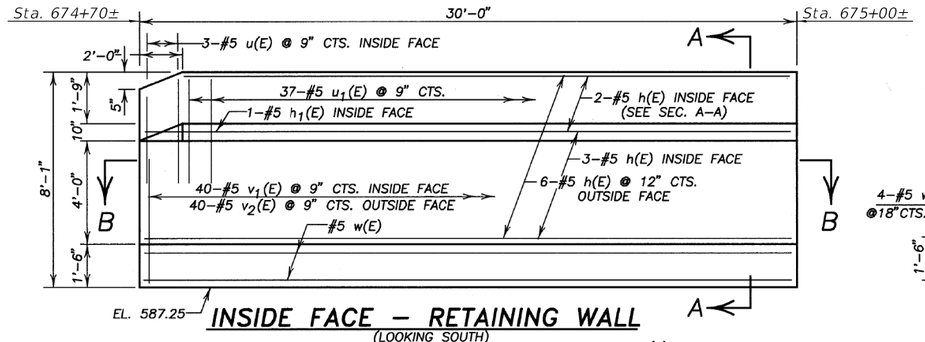
		CHECKED - JAZ	REVISED -
	PLOT SCALE =	DRAWN - TCK	REVISED -
	PLOT DATE =	DATE - 10/28/2019	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

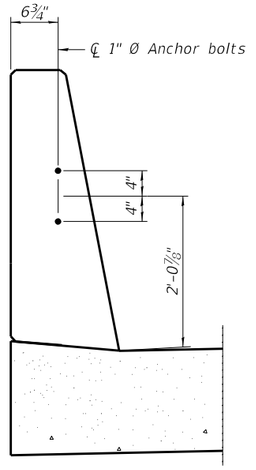
SHOULDER MOMENT SLAB
SN 050-0220 (EB)
SHEET NO. S42 OF 80 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(50-2BRIDES	LASALLE	328	167
		CONTRACT NO. 66H21		
	ILLINOIS FED. AID PROJECT			



EXISTING RETAINING WALL DETAILS

Note:
Existing retaining wall is to be completely removed. Removal to be paid for as Removal of Existing Structures. See Plan View on Sheet S1.

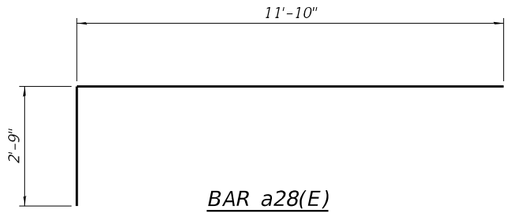


VIEW D-D

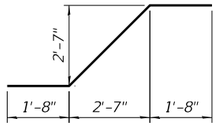
SHOULDER MOMENT SLAB BILL OF MATERIALS

Bar	No.	Size	Length	Shape
a27(E)	28	#5	11'-10"	
a28(E)	54	#6	14'-7"	
a29(E)	24	#5	7'-0"	
b27(E)	18	#5	31'-0"	
b28(E)	5	#5	26'-3"	
d7(E)	52	#5	7'-0"	
d28(E)	52	#5	8'-4"	
e27(E)	4	#4	29'-5"	
e28(E)	16	#4	14'-7"	
Concrete Superstructure			Cu. Yd.	28.9
Reinforcement Bars, Epoxy Coated			Pound	3,490

Note:
Moment slab and parapet concrete shall be paid for as Concrete Superstucture.



BAR a28(E)



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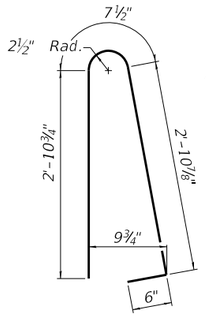

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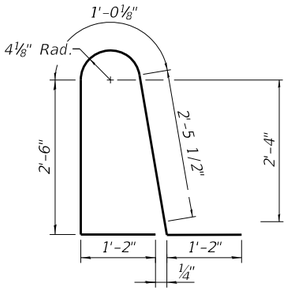

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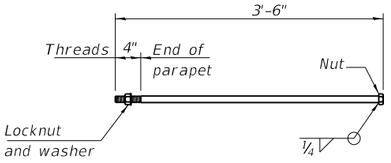
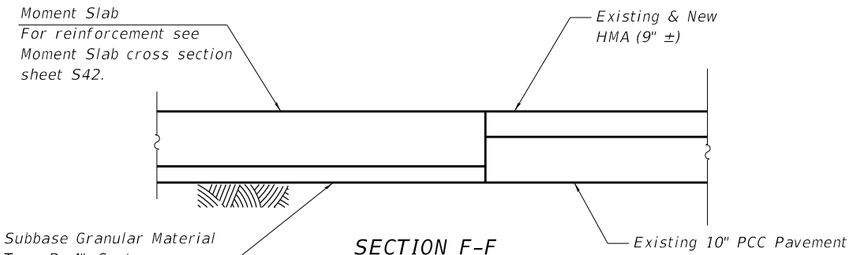
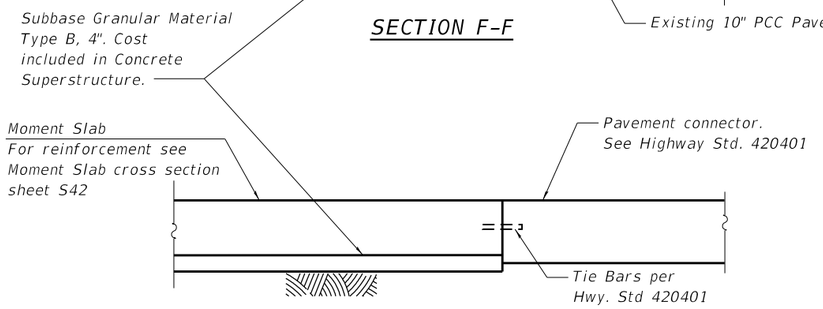


1" Ø ANCHOR BOLT

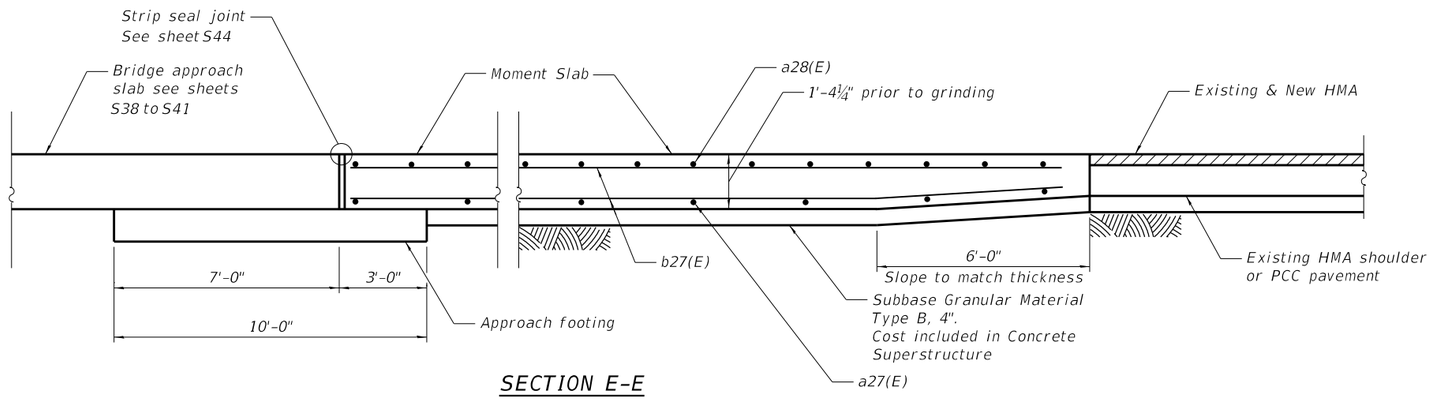
(Anchor bolt assemblies shall be galvanized according to Article 1006.09 of the Standard Specifications. Cost of anchor bolt assemblies included with Concrete Superstructure)



SECTION F-F



SECTION C-C



SECTION E-E

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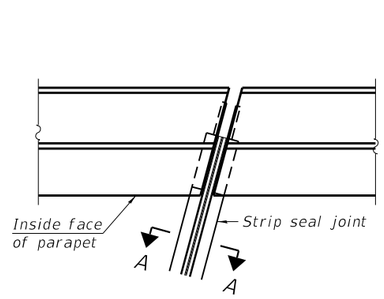
PLOT DATE =	DATE - 10/28/2019	REVISED -

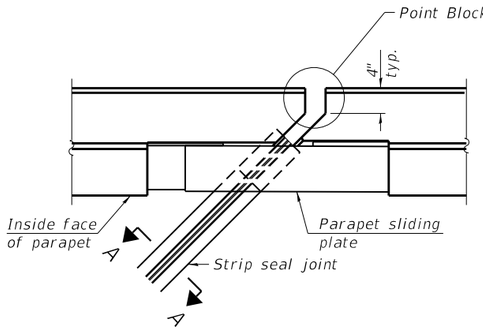
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SHOULDER MOMENT SLAB DETAILS
SN 050-0220 (EB)
SHEET NO. S43 OF 80 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(50-2BR)ES	LASALLE	328	168
		CONTRACT NO. 66H21		
	ILLINOIS FED. AID PROJECT			

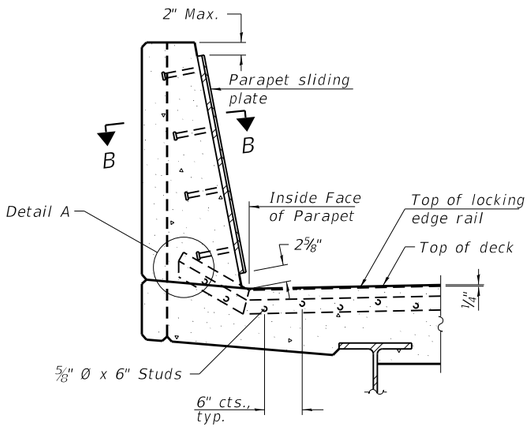


FOR SKEWS ≤ 30°



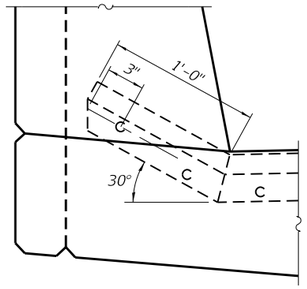
FOR SKEWS > 30°

PLAN AT PARAPET

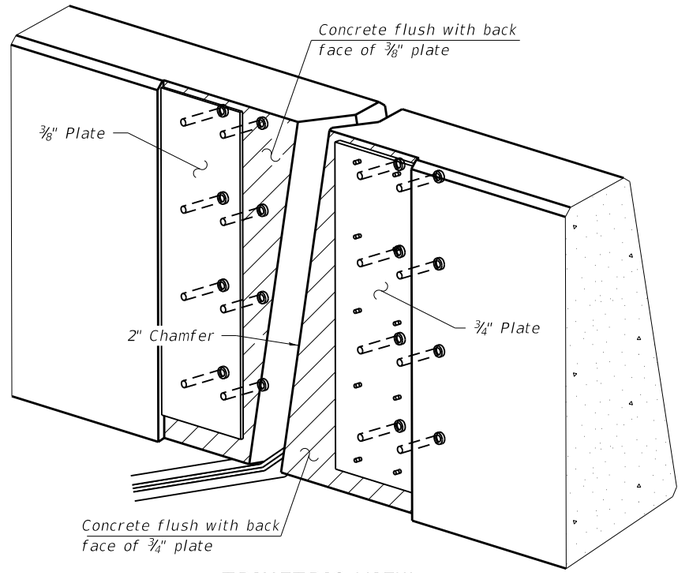


SECTION AT PARAPET

(Skews > 30° shown. Skews ≤ 30° similar except as shown in plan view.)

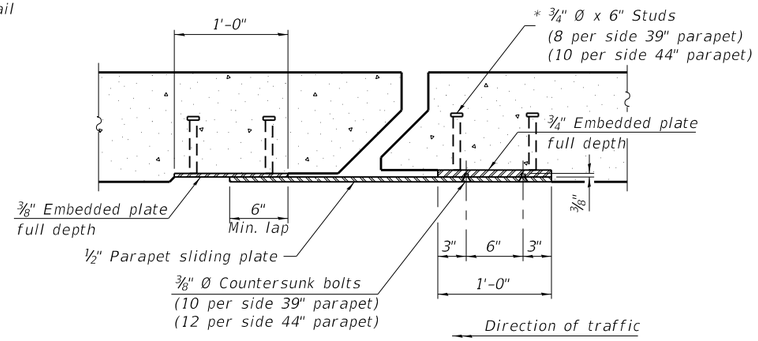


DETAIL A

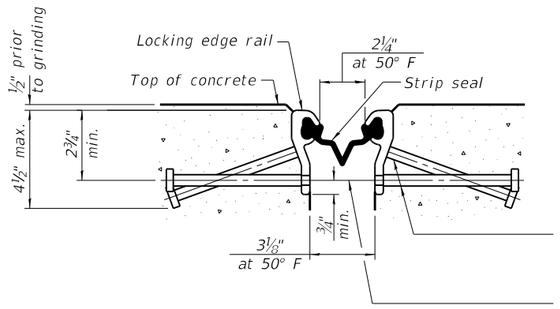


TRIMETRIC VIEW

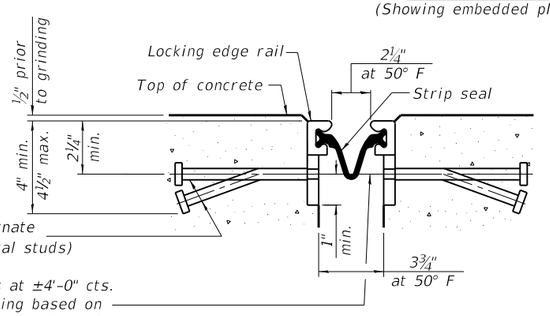
(Showing embedded plates only)



SECTION B-B



SHOWING ROLLED RAIL JOINT



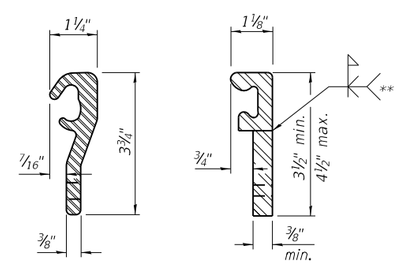
SHOWING WELDED RAIL JOINT

* ⅝" Ø x 6" studs @ 6" cts. (alternate angled/bent studs with horizontal studs)

⅜" ϕ threaded rods in 7/16" ϕ holes at ±4'-0" cts. for holding the proper joint opening based on the temperature during the deck pour. Place to miss studs. All rods shall be burned, or sawed off flush with the plates after concrete is set.

SECTION A-A

* Granular or solid flux filled headed studs conforming to Article 1006.32 of the Std. Specs., automatically end welded.

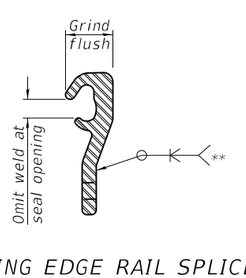


ROLLED (EXTRUDED) RAIL

WELDED RAIL

LOCKING EDGE RAILS

** Back gouge not required if complete joint penetration is verified by mock-up.



LOCKING EDGE RAIL SPLICE

The inside of the locking edge rail groove shall be free of weld residue. Rolled rail shown, welded rail similar.

Notes:

The strip seal shall be made continuous and shall have a minimum thickness of ¼". The configuration of the strip seal shall match the configuration of the locking edge rails. Open or "webbed" strip seal gland configurations are not permitted. The gland shall be sized for a maximum rated movement of 4 inches.

The locking edge rails depicted are configured for typical applications and are conceptual only. The actual configuration of the locking edge rails and matching strip seal may vary from manufacturer to manufacturer provided they fit the application and meet the minimum anchorage shown. Flanged edge rails, however, will not be allowed. Locking edge rails may exceed the 4½" maximum depth provided the anchorage system is revised according to the manufacturer's recommendation.

The manufacturer's recommended installation methods shall be followed.

All steel components shall be galvanized after fabrication according to Article 520.03 of the Standard Specifications.

The Maximum space between locking edge rail segments shall be 3/16" and sealed with a suitable sealant; however, any rail joint within 10' measured perpendicular to the face of the curb or parapet shall be welded as shown in the locking edge rail splice detail.

The top surface of sidewalk sliding plates shall have a raised pattern according to ASTM A786.

Cost of parapet sliding plates, sidewalk sliding plates, embedded plates, anchorage studs, and expansion anchors included with Preformed Joint Strip Seal.

39" constant slope barrier shown, 44" constant slope barrier similar as noted.

The concrete opening below the strip seal will vary based on the locking edge rail chosen by the Contractor. Deck and parapet lengths shown elsewhere in the plans are dimensioned to the concrete opening, not the joint opening, and are based on the rolled locking edge rail. If the Contractor elects to use a different locking edge rail, dimensional adjustments may be required. One exception to this would be the strip seal joint at the end of the precast bridge approach slab. For these cases the pavement connector length shall be adjusted, not the length of the bridge approach slab.

BILL OF MATERIAL

Item	Unit	Total
Preformed Joint Strip Seal	Foot	208

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DEPARTMENT OF TRANSPORTATION

MODIFIED PREFORMED JOINT STRIP SEAL
SN 050-0220 (EB), SN 050-0221 (WB)

SHEET NO. S44 OF 80 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(50-2BRJES	LASALLE	328	169
		CONTRACT NO. 66H21		
	ILLINOIS FED. AID PROJECT			

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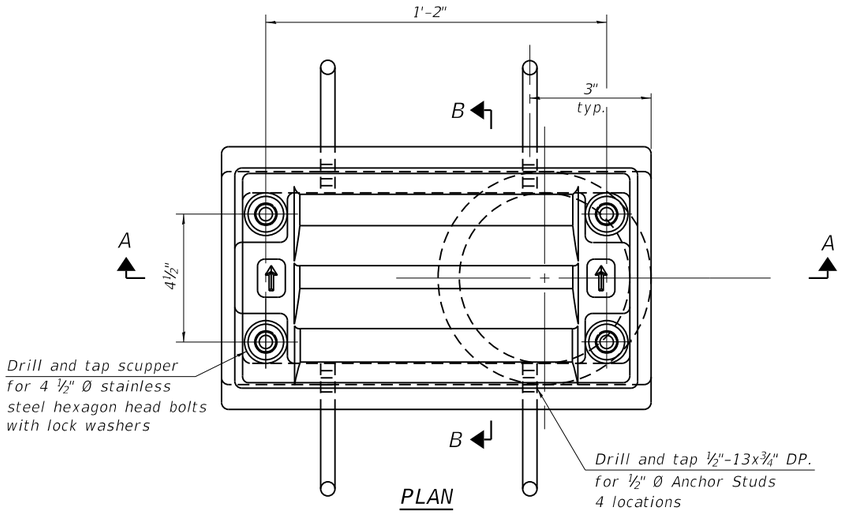
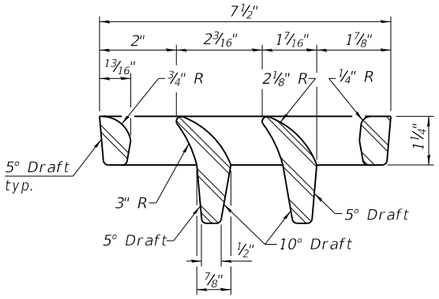
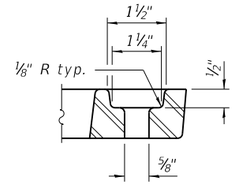


PLAN



VANE GRATE DETAIL



BOLT HOLE DETAIL

NOTES:

All cast iron parts shall be gray iron conforming to the requirements of AASHTO M 105, Class 35B.

Bolts, anchor studs, washers and nuts shall conform to the requirements of ASTM A 307 and shall be galvanized according to AASHTO M 232.

Downspouts located on the exterior side of a painted steel fascia beam shall be painted with the finish coat specified for the exterior side of the fascia beam.

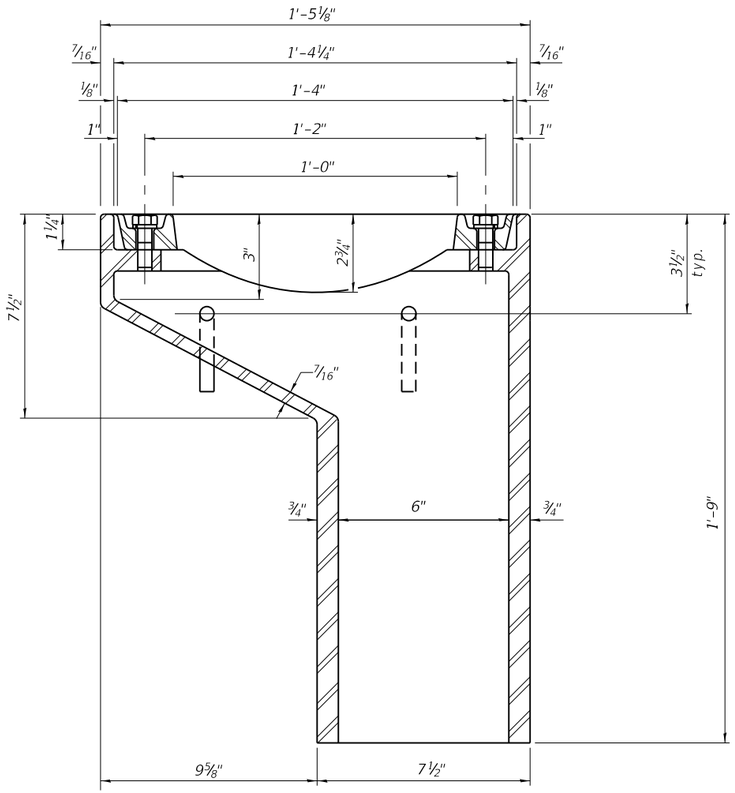
As an alternate, bolts, anchor studs, washers and nuts may be stainless steel according to Article 1006.29(d) of the Standard Specifications.

Structural steel weldments of equal sections and of the same configuration may be substituted for the cast iron scupper frame. Fillet or full penetration welds shall be used for the weldments. Details shall be submitted to the Engineer for approval. Structural steel weldments shall not be substituted for the cast iron scupper grate. Structural steel frames and downspouts shall be galvanized according to AASHTO M111.

The Contractor shall take appropriate measures to assure that Protective Coat is not applied to the scupper.

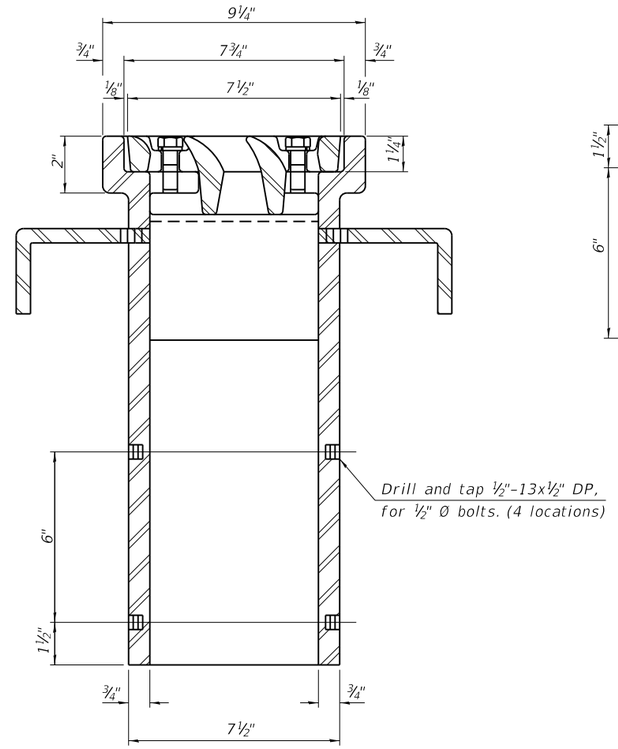
Cost of the Grate, Frame, Downspout, Anchor Studs, Bolts, Washers and Nuts including complete installation of the scupper shall be paid for at the contract unit price each for Drainage Scuppers, DS-11.

Alternate fiberglass downspout conforming to ASTM D 2996 with a short-time rupture strength hoop tensile stress of 30,000 psi min. may be used in lieu of the cast iron or steel equivalent.

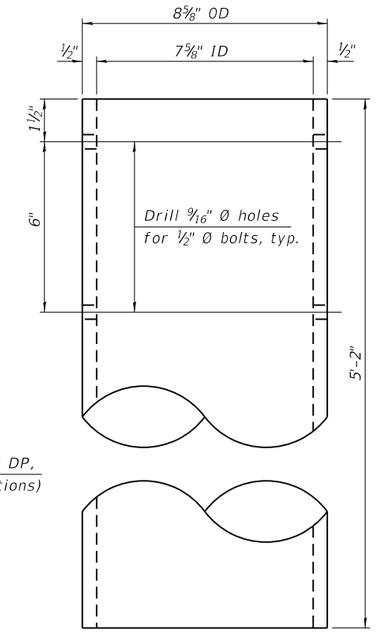


SECTION A-A

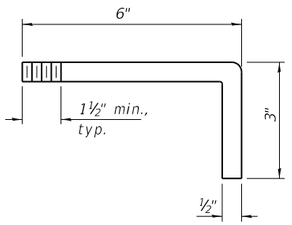
See sheet S21 of 80 for scupper location relative to parapet.



SECTION B-B



DOWNSPOUT



ANCHOR STUD DETAIL

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Drainage Scuppers, DS-11	Each	20

DS-11

2-17-2017

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DEPARTMENT OF TRANSPORTATION

DRAINAGE SCUPPERS, DS-11
SN 050-0220 (EB), SN 050-0221 (WB)
SHEET NO. 545 OF 80 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(50-2BR)ES	LASALLE	328	170
		CONTRACT NO. 66H21		
	ILLINOIS	FED. AID PROJECT		

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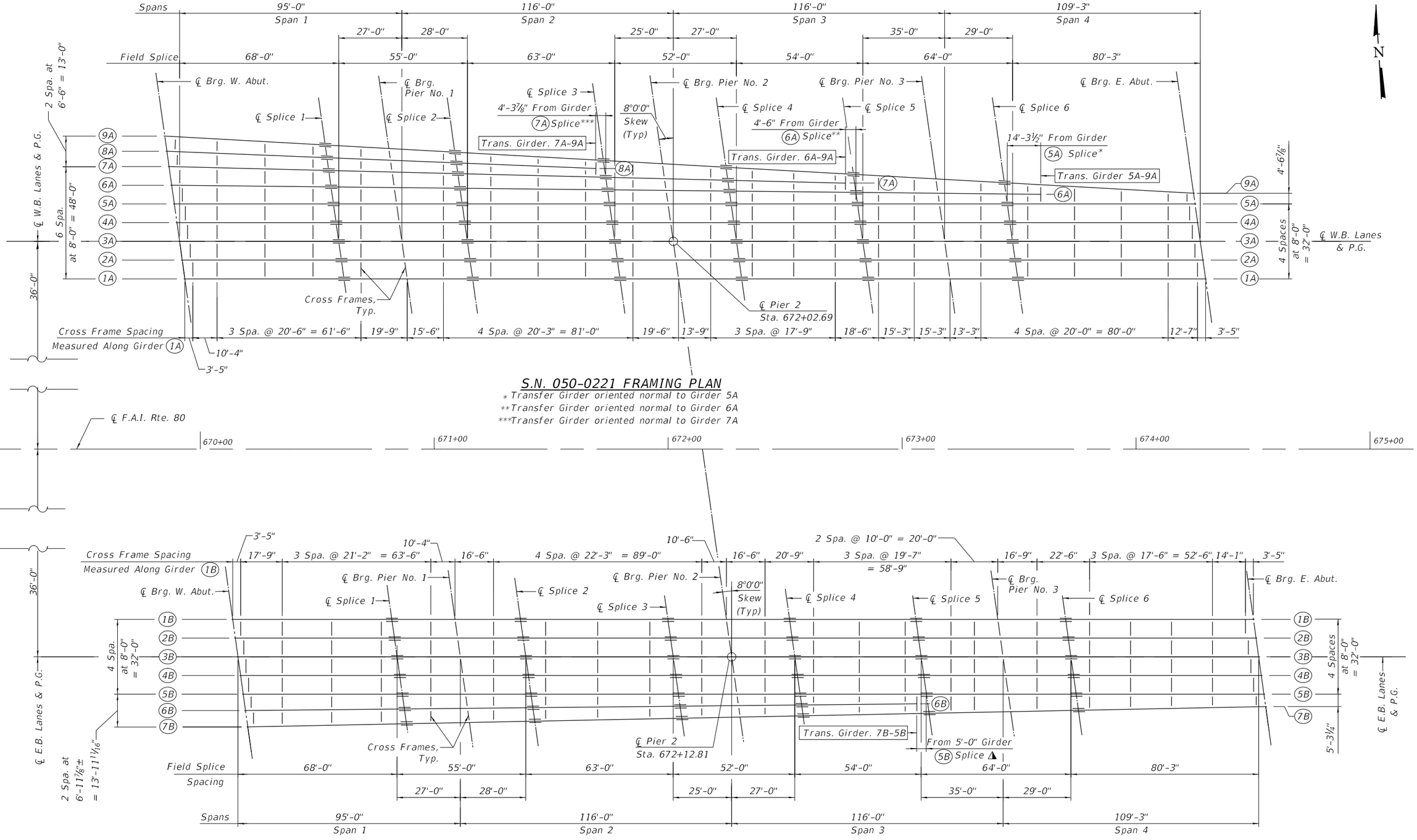

S.N. 050-0221 FRAMING PLAN

* Transfer Girder oriented normal to Girder 5A
** Transfer Girder oriented normal to Girder 6A
*** Transfer Girder oriented normal to Girder 7A

S.N. 050-0220 FRAMING PLAN

◮ Transfer Girder oriented normal to Girder 5B

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DEPARTMENT OF TRANSPORTATION

FRAMING PLAN
SN 050-0220 (EB), SN 050-0221 (WB)
SHEET NO. S46 OF 80 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(50-2BRIDGES	LASALLE	328	171
		CONTRACT NO. 66H21		
	ILLINOIS FED. AID PROJECT			

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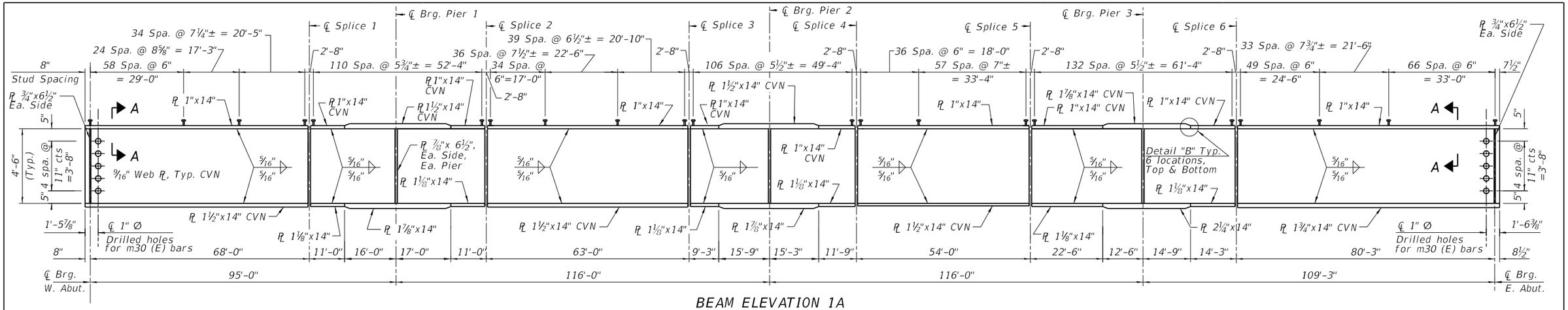
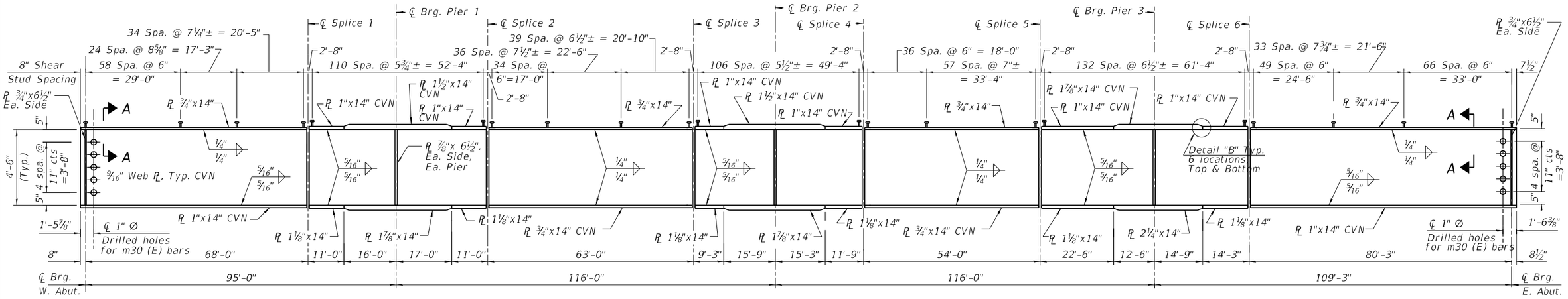
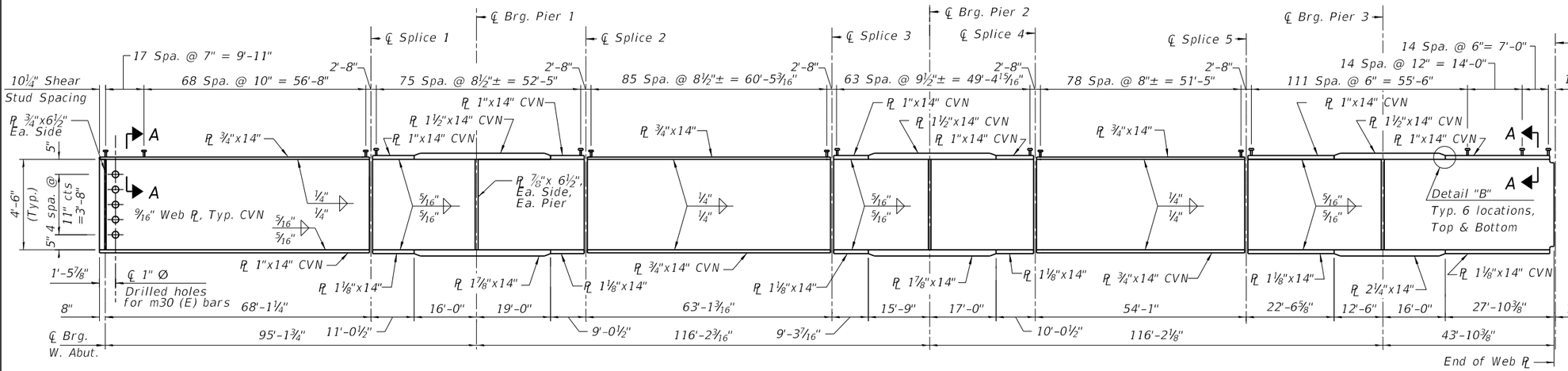


BEAM ELEVATION 1A



BEAM ELEVATION 2A TO 5A



BEAM ELEVATION 6A

NOTES

1. Load carrying components designated "CVN" shall conform to the Charpy-V-Notch impact energy requirements, zone 2.
2. See Sheet S54 for Section A-A and Detail "B"

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GIRDER ELEVATIONS I (WB)
SN 050-0221 (WB)
SHEET NO. S47 OF 80 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(50-2BRIES	LASALLE	328	172
		CONTRACT NO. 66H21		
	ILLINOIS FED. AID PROJECT			

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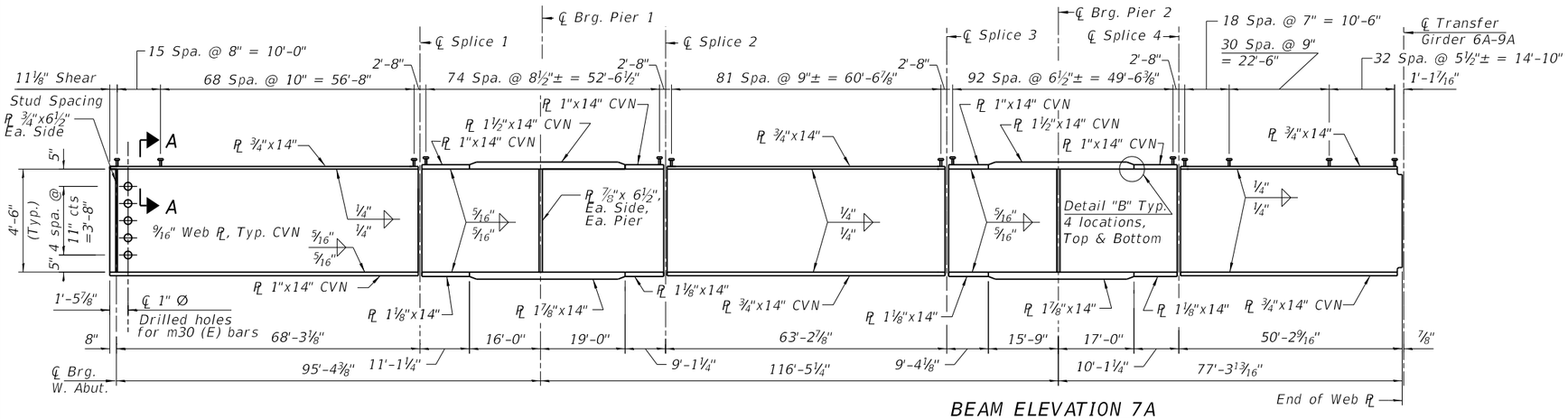
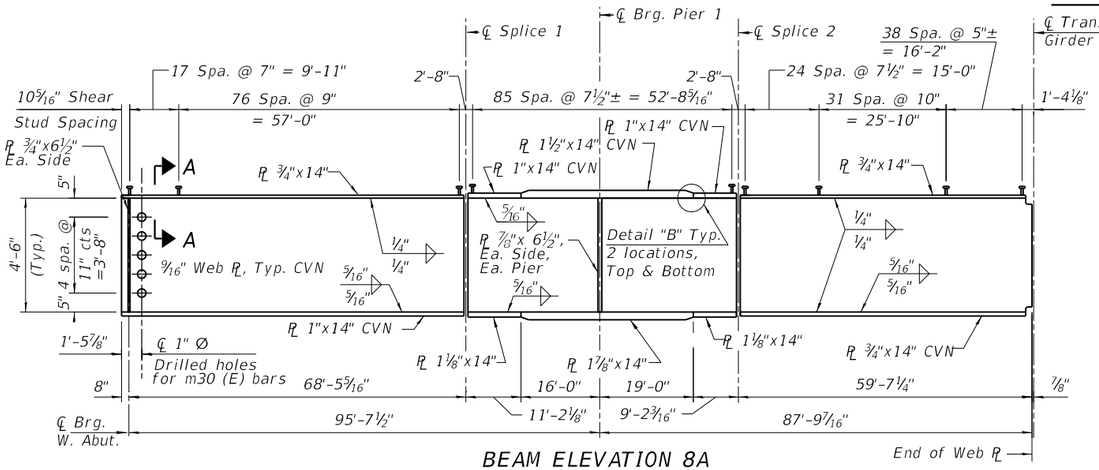
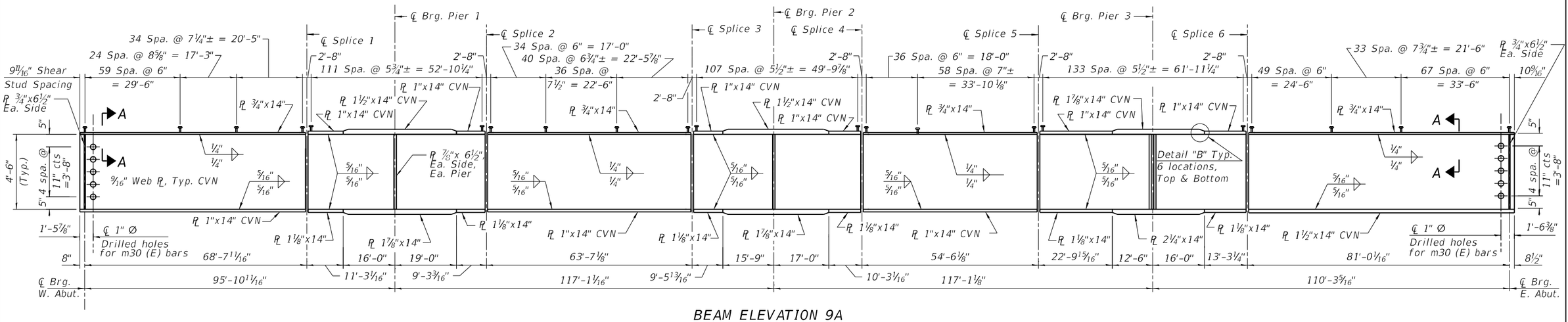


BEAM ELEVATION 7A



BEAM ELEVATION 8A



BEAM ELEVATION 9A

NOTES

1. Load carrying components designated "CVN" shall conform to the Charpy-V-Notch impact energy requirements, zone 2.
2. See Sheet S54 for Section A-A and Detail "B"

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PLOT DATE =	DATE - 10/28/2019	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GIRDER ELEVATIONS II (WB)
SN 050-0221 (WB)
SHEET NO. S48 OF 80 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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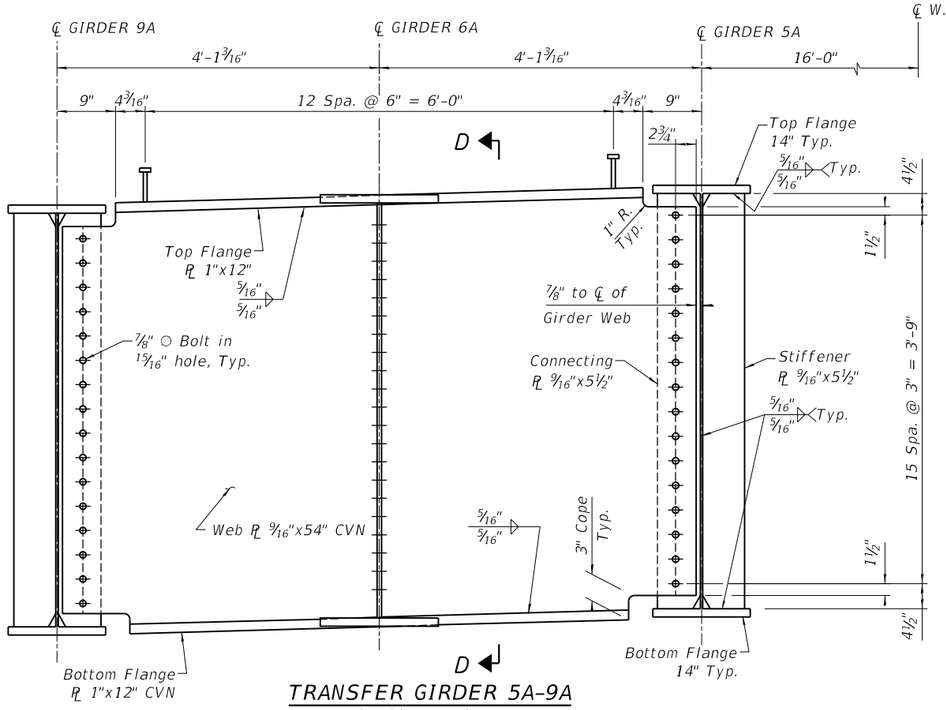
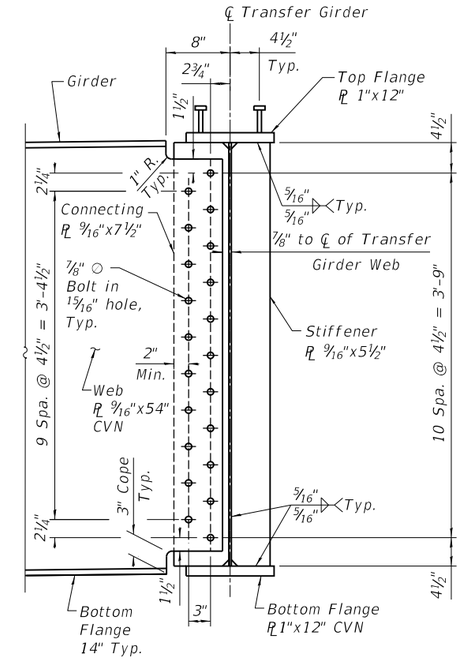
		CONTRACT NO. 66H21		
	ILLINOIS FED. AID PROJECT			



TRANSFER GIRDER 5A-9A

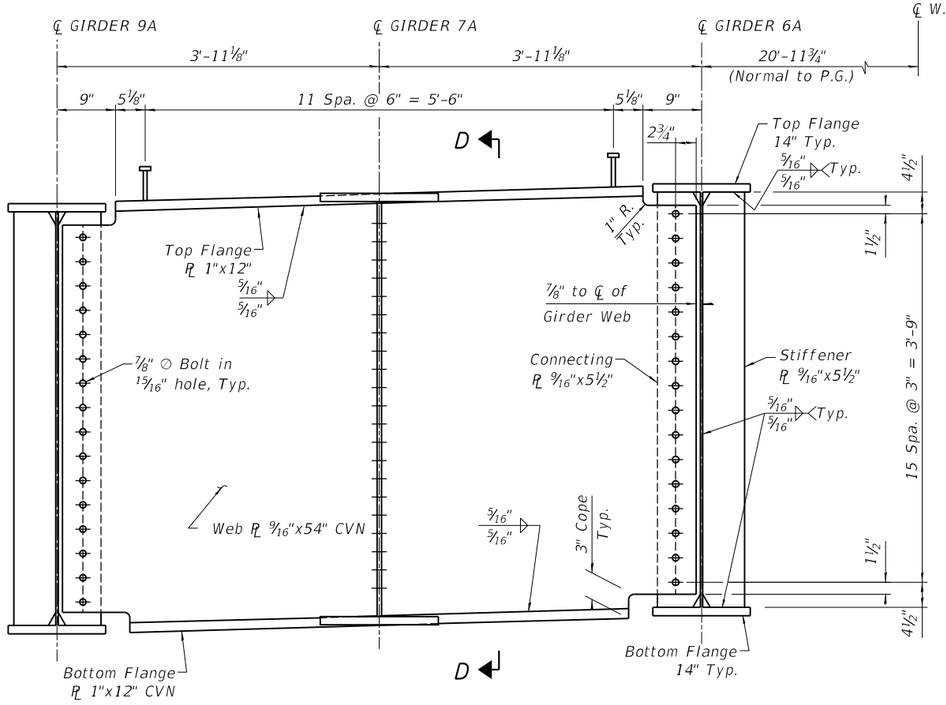
(Looking East)



SECTION D-D

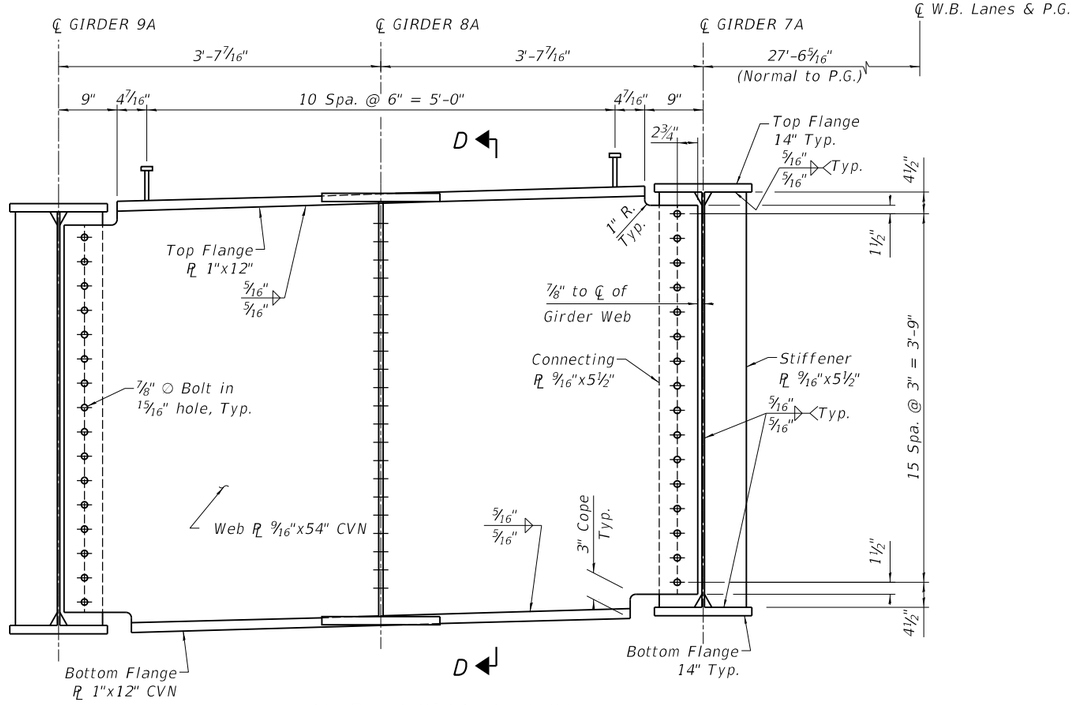
NOTES

1. Load carrying components designated "CVN" shall conform to the Charpy-V-Notch impact energy requirements, zone 2.
2. See Sheet S54 for Section A-A and Detail "B"



TRANSFER GIRDER 6A-9A

(Looking East)



TRANSFER GIRDER 7A-9A

(Looking East)

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GRĒEF
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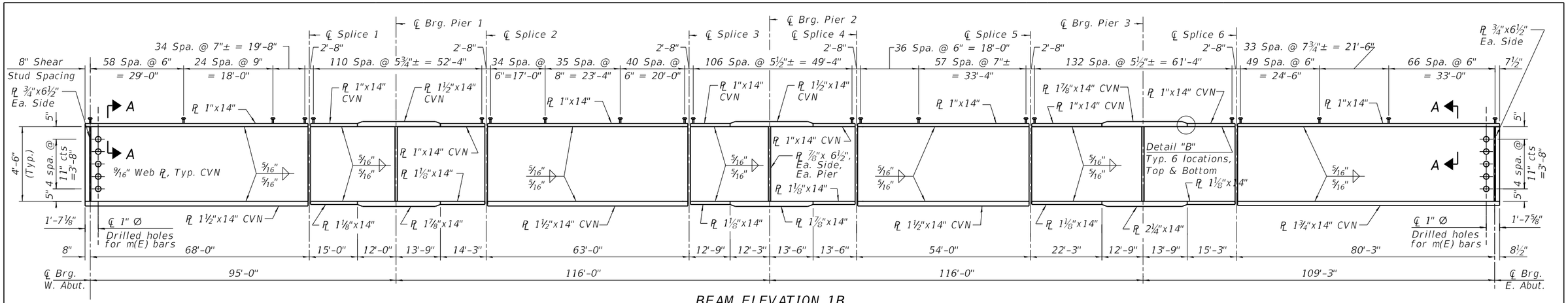
PLOT DATE = 10/04/2019	DATE - 10/04/2019	REVISED -

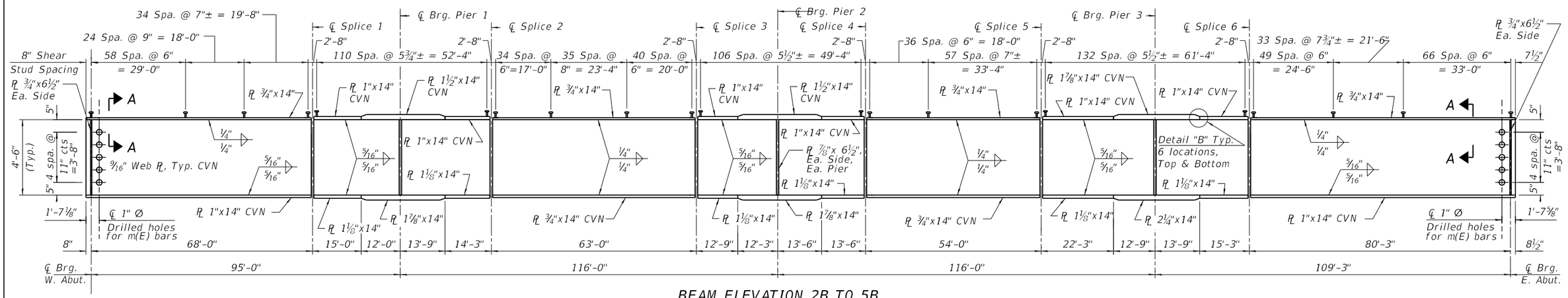
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRANSFER GIRDERS (WB)
SN 050-0221 (WB)
SHEET NO. S49 OF 80 SHEETS

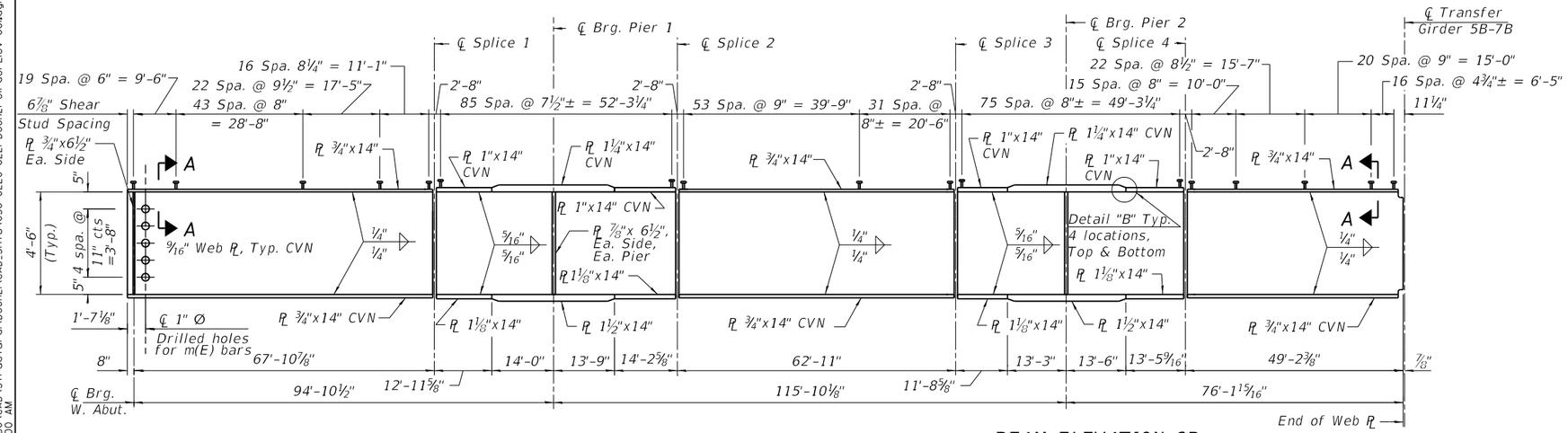
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(50-2BRJES	LASALLE	328	174
		CONTRACT NO. 66H21		
	ILLINOIS FED. AID PROJECT			



BEAM ELEVATION 1B



BEAM ELEVATION 2B TO 5B



BEAM ELEVATION 6B

NOTES

1. Load carrying components designated "CVN" shall conform to the Charpy-V-Notch impact energy requirements, zone 2.
2. See Sheet S54 for Section A-A and Detail "B"

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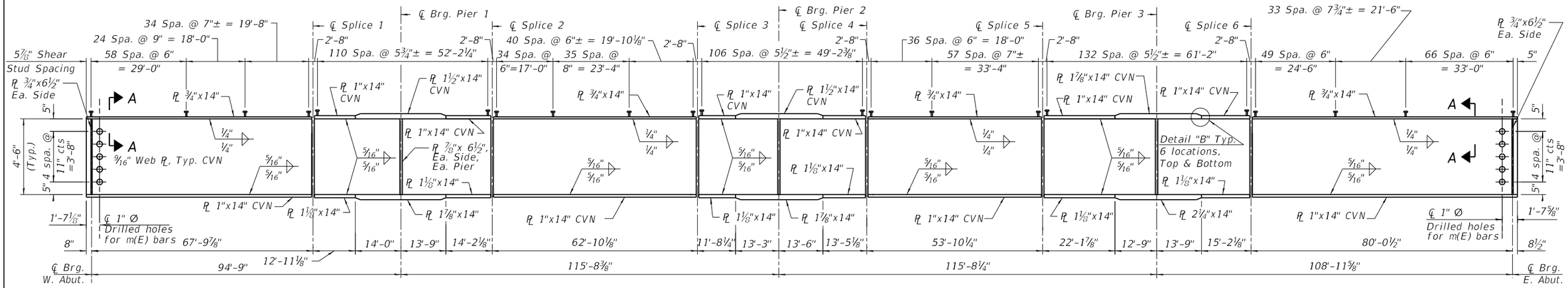
PLOT DATE =	DATE - 10/28/2019	REVISED -	

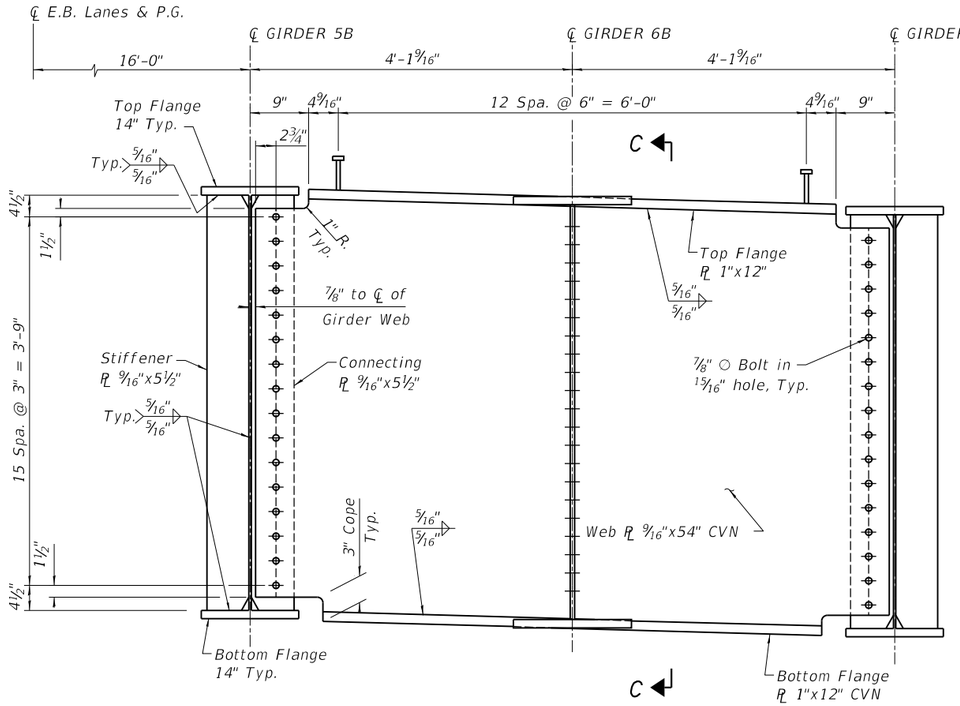
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GIRDER ELEVATIONS (EB)
SN 050-0220 (EB)
SHEET NO. S50 OF 80 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(50-2BRJES)	LASALLE	328	175
		CONTRACT NO. 66H21		
	ILLINOIS FED. AID PROJECT			

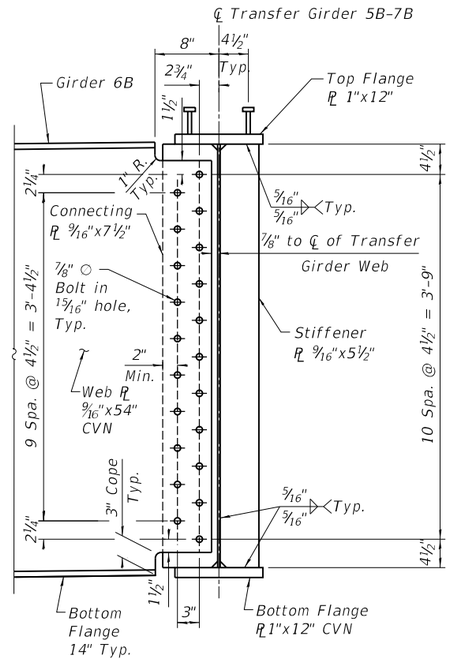


BEAM ELEVATION 7B



TRANSFER GIRDER 5B-7B

(Looking East)



SECTION C-C

NOTES

1. Load carrying components designated "CVN" shall conform to the Charpy-V-Notch impact energy requirements, zone 2.
2. See Sheet S54 for Section A-A and Detail "B"

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PLOT DATE =	DATE - 10/28/2019	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GIRDER ELEVATIONS AND TRANSFER GIRDER
SN 050-0220 (EB)
SHEET NO. S51 OF 80 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(50-2BRIES	LASALLE	328	176
		CONTRACT NO. 66H21		
	ILLINOIS FED. AID PROJECT			

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GIRDER 4A SN 050-0221

Note: Girder 4A Controls the Load Ratings

Interior Girder Moment Table								
		0.4 Span 1	Pier 1	0.5 Span 2	Pier 2	0.5 Span 3	Pier 3	0.6 Span 4
Is	(in^4)	25,665	43,760	23,119	43,760	23,119	52,543	25,665
Ic (n)	(in^4)	66,826		58,527		58,527		66,826
Ic (3n)	(in^4)	49,965		44,368		44,368		49,965
Ic (cr)	(in^4)		52,854		52,854		61,830	
Ss	(in^3)	978.8	1,625.0	833.1	1,625.0	833.1	1,909.3	978.8
Sc (n)	(in^3)	1,383.8		1,191.8		1,191.8		1,383.8
Sc (3n)	(in^3)	1,270.4		1,091.2		1,091.2		1,270.4
Sc (cr))	(in^3)		1,744.9		1,744.9		2,025.9	
DC1	(k/')	1.07	1.15	1.06	1.15	1.06	1.19	1.07
MDC1	('k)	617	1,383	473	1,193	386	1,557	815
DC2	(k/')	0.13	0.13	0.13	0.14	0.14	0.16	0.19
MDC2	('k)	73	161	66	156	58	247	157
DW	(k/')	0.34	0.32	0.31	0.33	0.31	0.33	0.35
MDW	('k)	208	413	154	360	135	486	285
M_{LL+IM}	(k/')	1,402	1,769	1,254	1,793	1,225	1,939	1,585
Mu (Strength I)	(k/')	3,628	5,645	3,099	5,364	2,901	6,377	4,416
Øf Mn	(k/')	7,034		6,087		6,152		6,876
fs DC1	(ksi)	7.56	10.21	6.81	8.81	5.56	9.79	9.99
fs DC2	(ksi)	0.63	1.11	0.66	1.07	0.58	1.46	1.36
fs DW	(ksi)	1.96	2.84	1.69	2.48	1.48	2.88	2.69
fs (LL+IM)	(ksi)	12.16	12.17	12.63	12.33	12.33	11.49	13.74
fs (Service II)	(ksi)	25.97	29.98	25.59	28.39	23.66	29.06	31.91
0.95 Rh Fyf	(ksi)	47.50	47.50	47.50	47.50	47.50	47.50	47.50
fs (Total)(Strength I)	(ksi)	34.47	39.70	33.98	37.65	31.49	38.48	42.28
Øf Fn	(ksi)		41.50		42.80		43.40	
Vf	(k)	46.49	75.83	52.38	79.47	49.56	79.71	48.24

GIRDER 4A SN 050-0221

Interior Girder Reaction Table						
		W. Abut	Pier 1	Pier 2	Pier 3	E. Abut
LLDF		0.837	0.814	0.814	0.814	0.837
OCF		1.028	-	-	-	1.028
RDC1	(k)	38.3	130.9	119.6	137.9	43.1
RDC2	(k)	4.4	15.4	16.0	21.7	7.8
RDW	(k)	12.3	39.4	36.3	43.2	14.1
R_{LL+I}	(k)	111.9	203.1	203.0	211.5	113.8
R Total	(k)	166.8	388.8	374.9	414.2	178.7

GIRDER 1A SN 050-0221

Exterior Girder Reaction Table						
		W. Abut	Pier 1	Pier 2	Pier 3	E. Abut
LLDF		0.771	0.750	0.750	0.750	0.771
OCF		1.028	-	-	-	1.028
RDC1	(k)	40.6	133.6	125.6	147.9	51.1
RDC2	(k)	4.5	15.3	15.8	21.4	8.4
RDW	(k)	12.7	39.2	35.8	42.6	15.1
R_{LL+I}	(k)	90.1	159.4	164.4	167.6	94.4
R Total	(k)	147.8	347.4	341.5	379.4	169.0

GIRDER 2B SN 050-0220

Note: Girder 2B Controls the Load Ratings

Interior Girder Moment Table								
		0.4 Span 1	Pier 1	0.5 Span 2	Pier 2	0.5 Span 3	Pier 3	0.6 Span 4
Is	(in^4)	25,665	43,760	23,119	43,760	23,119	52,543	25,665
Ic (n)	(in^4)	66,826		58,527		58,527		66,826
Ic (3n)	(in^4)	49,965		44,368		44,368		49,965
Ic (cr)	(in^4)		52,586		52,586		61,557	
Ss	(in^3)	978.8	1,625.0	833.1	1,625.0	833.1	1,909.3	978.8
Sc (n)	(in^3)	1,383.8		1,191.8		1,191.8		1,383.8
Sc (3n)	(in^3)	1,270.4		1,091.2		1,091.2		1,270.4
Sc (cr))	(in^3)		1,739.0		1,739.0		2,019.6	
DC1	(k/')	1.07	1.15	1.06	1.15	1.06	1.19	1.07
MDC1	('k)	583	1,336	488	1,199	367	1,640	813
DC2	(k/')	0.16	0.16	0.16	0.16	0.16	0.19	0.19
MDC2	('k)	91	199	82	180	58	264	153
DW	(k/')	0.35	0.34	0.33	0.32	0.32	0.36	0.35
MDW	('k)	200	413	161	355	117	493	274
M_{LL+IM}	(k/')	1,325	1,670	1,232	1,765	1,234	1,907	1,495
Mu (Strength I)	(k/')	3,461	5,461	3,110	5,345	2,866	6,457	4,235
Øf Mn	(k/')	7,056		6,073		6,169		6,880
fs DC1	(ksi)	7.15	9.87	7.03	8.85	5.29	10.31	9.97
fs DC2	(ksi)	0.79	1.37	0.83	1.24	0.58	1.57	1.33
fs DW	(ksi)	1.89	2.85	1.77	2.45	1.29	2.93	2.59
fs (LL+IM)	(ksi)	11.49	11.52	12.41	12.18	12.43	11.33	12.96
fs (Service II)	(ksi)	24.76	29.07	25.75	28.38	23.31	29.54	30.73
0.95 Rh Fyf	(ksi)	47.50	47.50	47.50	47.50	47.50	47.50	47.50
fs (Total)(Strength I)	(ksi)	32.86	38.49	34.18	37.61	31.01	39.07	40.69
Øf Fn	(ksi)		44.10		44.10		44.10	
Vf	(k)	48.12	73.91	50.01	78.3	49.44	80.66	44.96

GIRDER 2B SN 050-0220

Interior Girder Reaction Table						
		W. Abut	Pier 1	Pier 2	Pier 3	E. Abut
LLDF		0.837	0.814	0.814	0.814	0.837
OCF		1.028	-	-	-	1.028
RDC1	(k)	36.1	128.8	119.7	142.2	41.9
RDC2	(k)	5.5	19.3	18.2	23.5	7.5
RDW	(k)	11.9	40.2	35.7	44.2	13.5
R_{LL+I}	(k)	103.4	184.3	188.4	194.0	107.2
R Total	(k)	156.8	372.7	362.1	403.9	170.1

GIRDER 1B SN 050-0220

Exterior Girder Reaction Table						
		W. Abut	Pier 1	Pier 2	Pier 3	E. Abut
LLDF		0.771	0.750	0.750	0.750	0.771
OCF		1.028	-	-	-	1.028
RDC1	(k)	40.6	134.9	126.0	148.0	50.0
RDC2	(k)	5.8	19.7	18.6	24.0	8.4
RDW	(k)	12.6	41.0	36.4	45.1	15.3
R_{LL+I}	(k)	87.1	159.8	163.2	168.8	95.8
R Total	(k)	146.0	355.3	344.2	385.8	169.5

DEFINITIONS

Is, Ss: Non-composite moment of inertia and section modulus of the steel section used for computing fs(Total-Strength I, and Service II) due to non-composite dead loads ($in.^4$ and $in.^3$).

Ic(n), Sc(n): Composite moment of inertia and section modulus of the steel and deck based upon the modular ratio, "n", used for computing fs(Total-Strength I, and Service II) in uncracked sections due to short-term composite live loads ($in.^4$ and $in.^3$).

Ic(3n), Sc(3n): Composite moment of inertia and section modulus of the steel and deck based upon 3 times the modular ratio, "3n", used for computing fs(Total-Strength I, and Service II) in uncracked sections, due to long-term composite (superimposed) dead loads ($in.^4$ and $in.^3$).

Ic(cr), Sc(cr): Composite moment of inertia and section modulus of the steel and longitudinal deck reinforcement, used for computing fs (Total-Strength I and Service II) in cracked sections, due to both short-term composite live loads and long-term composite (superimposed) dead loads ($in.^4$ and $in.^3$).

DC1: Un-factored non-composite dead load (kips/ft.).

MDC1: Un-factored moment due to non-composite dead load (kip-ft.).

DC2: Un-factored long-term composite (superimposed excluding future wearing surface) dead load (kips/ft.).

MDC2: Un-factored moment due to long-term composite (superimposed excluding future wearing surface) dead load (kip-ft.).

DW: Un-factored long-term composite (superimposed future wearing surface only) dead load (kips/ft.).

MDW: Un-factored moment due to long-term composite (superimposed future wearing surface only) dead load (kip-ft.).

M(LL+IM): Un-factored live load moment plus dynamic load allowance (impact) (kip-ft.).

Mu (Strength I): Factored design moment (kip-ft.).
1.25 (MDC1 + MDC2) + 1.5 MDW + 1.75 M

Øf Mn: Compact composite positive moment capacity computed according to Article 6.10.7.1 or non-slender negative moment capacity according to Article A6.1.1 or A6.1.2 (kip-ft).

fs DC1: Un-factored stress at edge of flange for controlling steel flange due to vertical non-composite dead loads as calculated below (ksi).
MDC1/ Snc

fs DC2: Un-factored stress at edge of flange for controlling steel flange due to vertical composite dead loads as calculated below (ksi).
MDC2/ Sc(3n) or MDC2/ Sc(cr) as applicable.

fs DW: Un-factored stress at edge of flange for controlling steel flange due to vertical composite future wearing surface loads as calculated below (ksi).
MDW/ Sc(3n) or MDW/ Sc(cr) as applicable.

fs (LL+IM): Un-factored stress at edge of flange for controlling steel flange due to vertical composite live load plus impact loads as calculated below (ksi).
M(LL+IM)/ Sc(n) or M(LL+IM)/ Sc(cr) as applicable.

fs (Service II): Sum of stresses as computed below (ksi).
fsDC1 + fsDC2 + fsDW + 1.3 fs(LL+IM)

0.95RhFyf: Composite stress capacity for Service II loading according to Article 6.10.4.2 (ksi).

fs (Total)(Strength I): Sum of stresses as computed below on non-compact section (ksi).
1.25 (fsDC1 + fsDC2) + 1.5 fsDW + 1.75 fs(LL+IM)

Øf Fn: Non-Compact composite positive or negative stress capacity for Strength I loading according to Article 6.10.7 or 6.10.8 (ksi).

Vf: Maximum factored shear range in span computed according to Article 6.10.10.

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GIRDER MOMENT AND REACTION TABLES
SN 050-0220 (EB), SN 050-0221 (WB)
SHEET NO. 552 OF 80 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(50-2BR)ES	LASALLE	328	177
		CONTRACT NO. 66H21		
	ILLINOIS FED. AID PROJECT			

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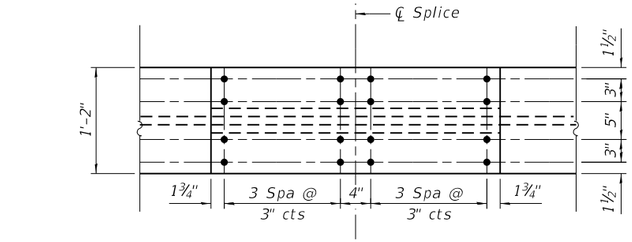
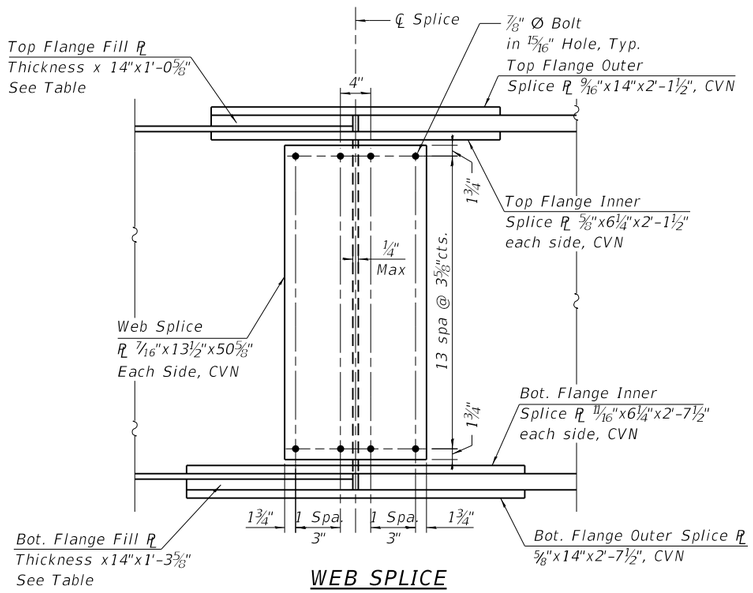


TOP FLANGE



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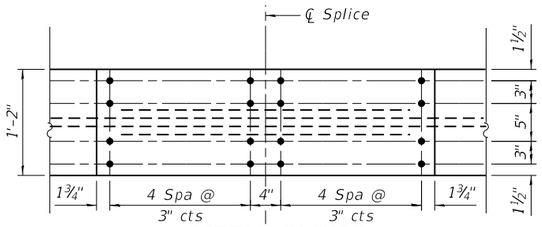
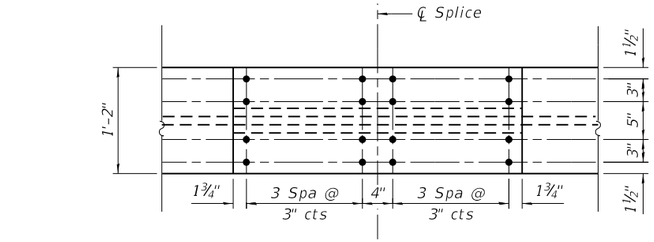


BOTTOM FLANGE
FIELD SPLICE #1



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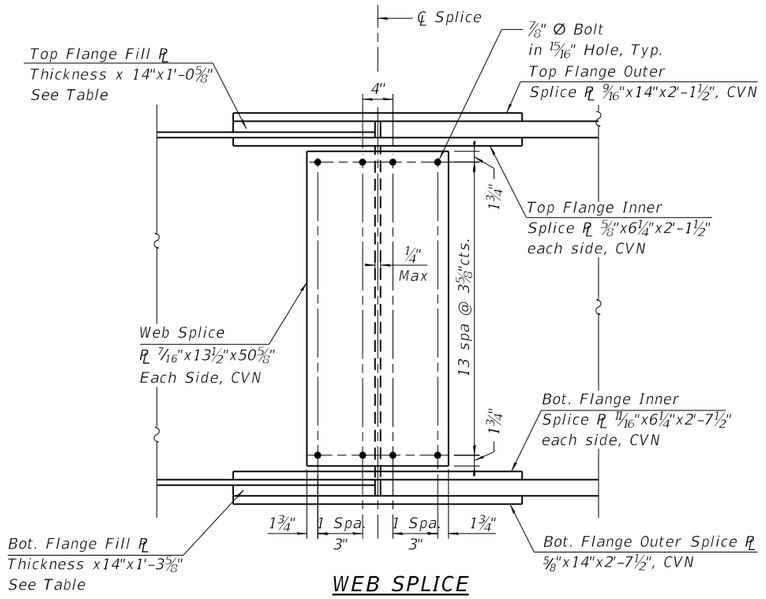

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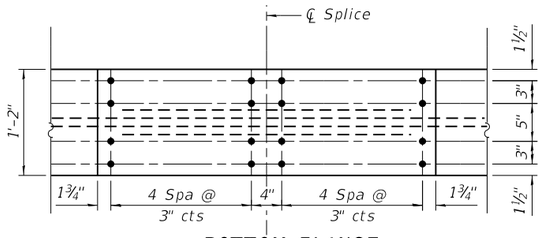
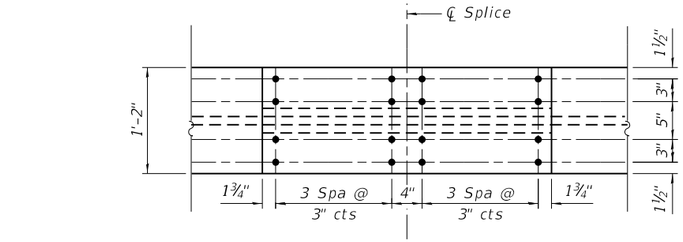
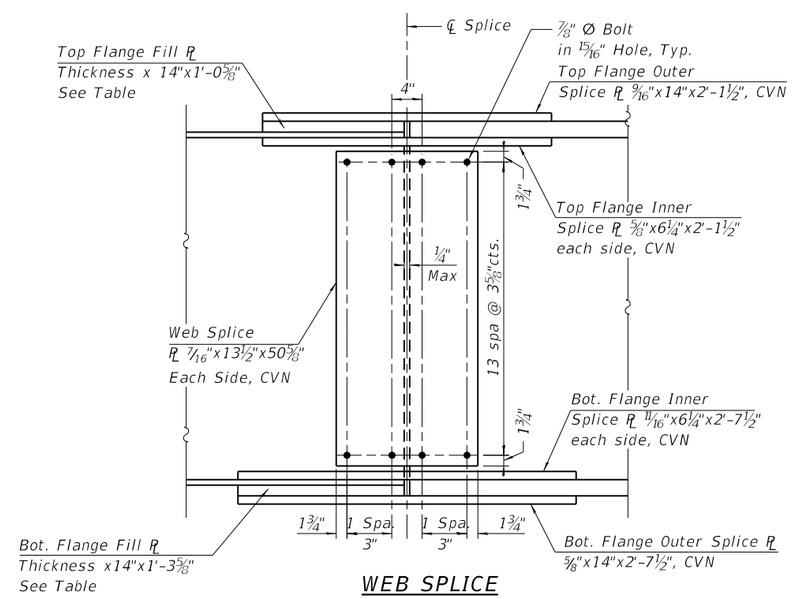


BOTTOM FLANGE
FIELD SPLICE #2, 3, 4 AND 5



TOP FLANGE



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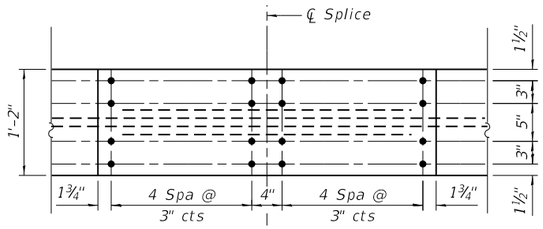

BOTTOM FLANGE
FIELD SPLICE #6

W.B. Flange Fill PL Thickness

	F.S. #1	
Girder	Top	Bott.
1A	–	3/8"
2A	1/4"	1/8"
3A	1/4"	1/8"
4A	1/4"	1/8"
5A	1/4"	1/8"
6A	1/4"	1/8"
7A	1/4"	1/8"
8A	1/4"	1/8"
9A	1/4"	1/8"

E.B. Flange Fill PL Thickness

	F.S. #1	
Girder	Top	Bott.
1B	–	3/8"
2B	1/4"	1/8"
3B	1/4"	1/8"
4B	1/4"	1/8"
5B	1/4"	1/8"
6B	1/4"	3/8"
7B	1/4"	1/8"

W.B. FLANGE FILL PL THICKNESS

	F.S. #2		F.S. #3		F.S. #4		F.S. #5	
Girder	Top	Bott.	Top	Bott.	Top	Bott.	Top	Bott.
1A	–	3/8"	–	3/8"	–	3/8"	–	3/8"
2A	1/4"	3/8"	1/4"	3/8"	1/4"	3/8"	1/4"	3/8"
3A	1/4"	3/8"	1/4"	3/8"	1/4"	3/8"	1/4"	3/8"
4A	1/4"	3/8"	1/4"	3/8"	1/4"	3/8"	1/4"	3/8"
5A	1/4"	3/8"	1/4"	3/8"	1/4"	3/8"	1/4"	3/8"
6A	1/4"	3/8"	1/4"	3/8"	1/4"	3/8"	1/4"	3/8"
7A	1/4"	3/8"	1/4"	3/8"	1/4"	3/8"	–	–
8A	1/4"	3/8"	–	–	–	–	–	–
9A	1/4"	1/8"	1/4"	1/8"	1/4"	1/8"	1/4"	1/8"

E.B. FLANGE FILL PL THICKNESS

	F.S. #2		F.S. #3		F.S. #4		F.S. #5	
Girder	Top	Bott.	Top	Bott.	Top	Bott.	Top	Bott.
1B	–	3/8"	–	3/8"	–	3/8"	–	3/8"
2B	1/4"	3/8"	1/4"	3/8"	1/4"	3/8"	1/4"	3/8"
3B	1/4"	3/8"	1/4"	3/8"	1/4"	3/8"	1/4"	3/8"
4B	1/4"	3/8"	1/4"	3/8"	1/4"	3/8"	1/4"	3/8"
5B	1/4"	3/8"	1/4"	3/8"	1/4"	3/8"	1/4"	3/8"
6B	1/4"	3/8"	1/4"	3/8"	1/4"	3/8"	–	–
7B	1/4"	1/8"	1/4"	1/8"	1/4"	1/8"	1/4"	1/8"

W.B. FLANGE FILL PL THICKNESS

	F.S. #6	
Girder	Top	Bott.
1A	–	5/8"
2A	1/4"	1/8"
3A	1/4"	1/8"
4A	1/4"	1/8"
5A	1/4"	1/8"
6A	–	–
7A	–	–
8A	–	–
9A	1/4"	3/8"

E.B. FLANGE FILL PL THICKNESS

	F.S. #6	
Girder	Top	Bott.
1B	–	5/8"
2B	1/4"	1/8"
3B	1/4"	1/8"
4B	1/4"	1/8"
5B	1/4"	1/8"
6B	–	–
7B	1/4"	1/8"

NOTES

1. Load carrying components designated "CVN" shall conform to the Charpy-V-Notch impact energy requirements, zone 2.

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PLOT DATE =	10/04/2019	DATE - 10/04/2019	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GIRDER SPLICES
SN 050-0220 (EB), SN 050-0221 (WB)
SHEET NO. 53 OF 80 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(50-2BR)ES	LASALLE	328	178
		CONTRACT NO. 66H21		
	ILLINOIS FED. AID PROJECT			

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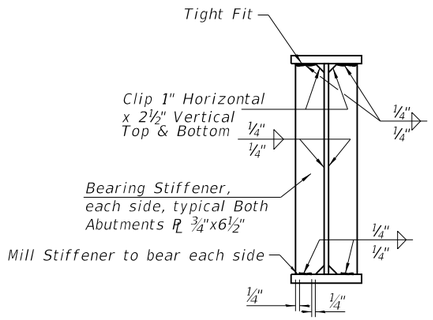
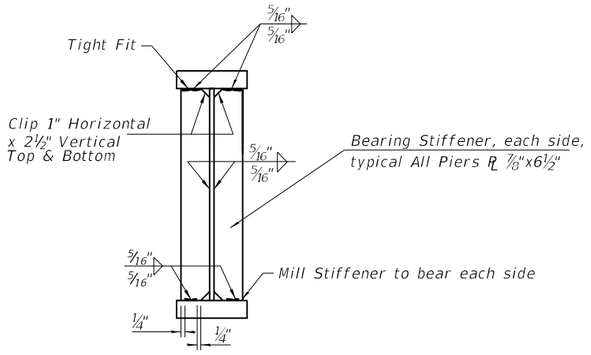
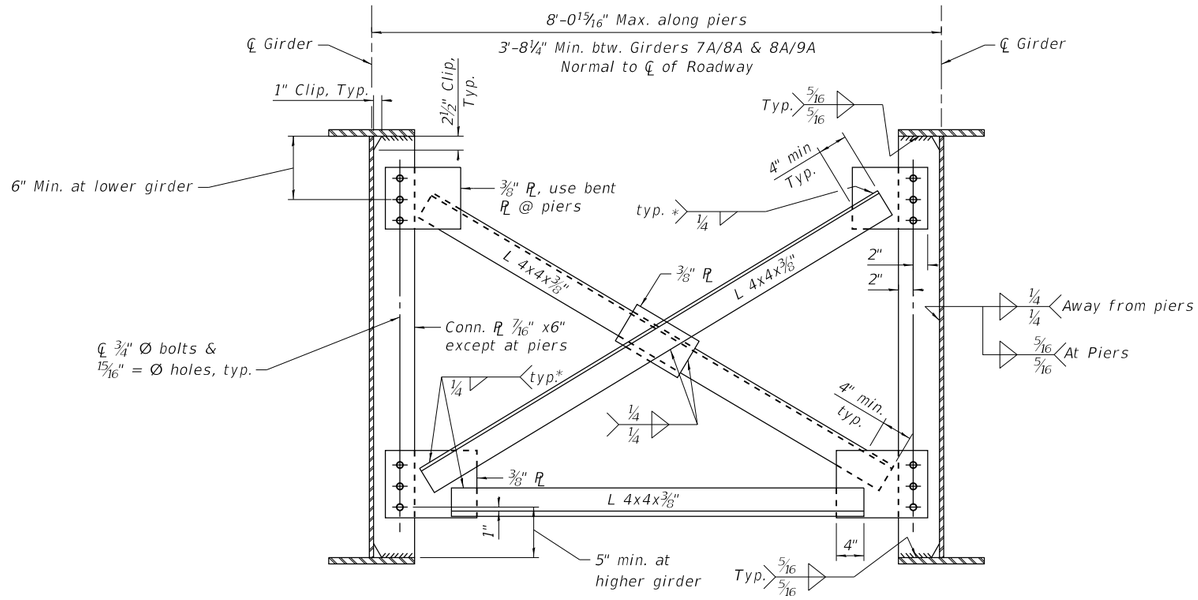


SECTION AT ABUTMENT



SECTION AT PIER



* Fillet weld angles along 3 sides on one face of gusset plate.

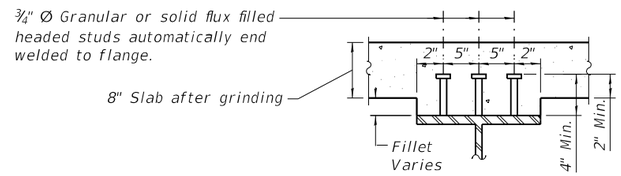
TYPICAL CROSS FRAME

141 Required For SN 050-0220
172 Required For SN 050-0221

Notes:

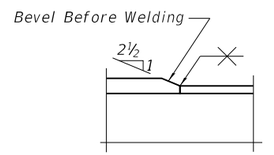
1. Two hardened washers required for each set of oversized holes.

2. All cross frames or diaphragms between beams or girders shall be installed with erection pins and bolts in accordance with the erection plan approved by the Engineer. Individual cross frames or diaphragms at supports may be temporarily disconnected to install bearing anchor rods.



SECTION A-A

(No. Studs Req'd. = 18,531 SN 050-0221 (WB))
(No. Studs Req'd. = 16,073 SN 050-0220 (EB))



DETAIL "B"

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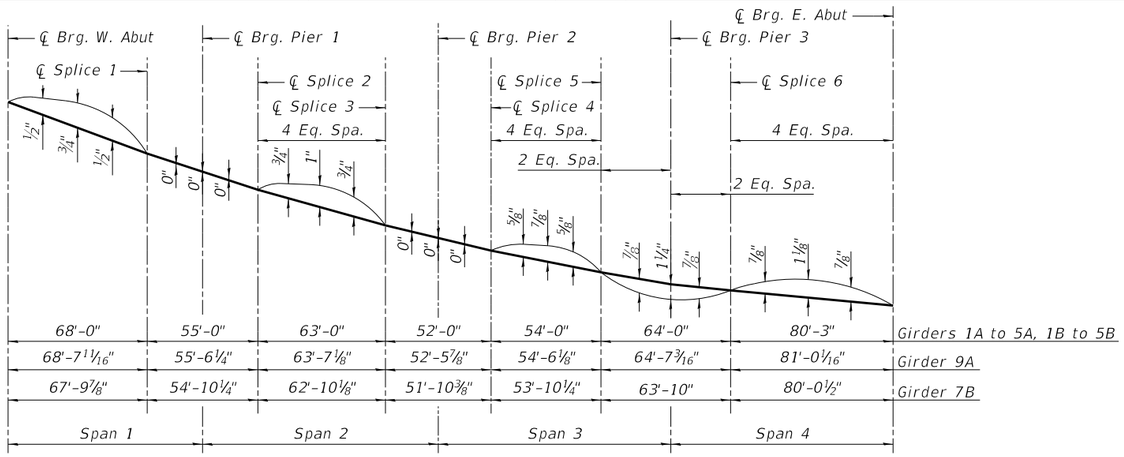
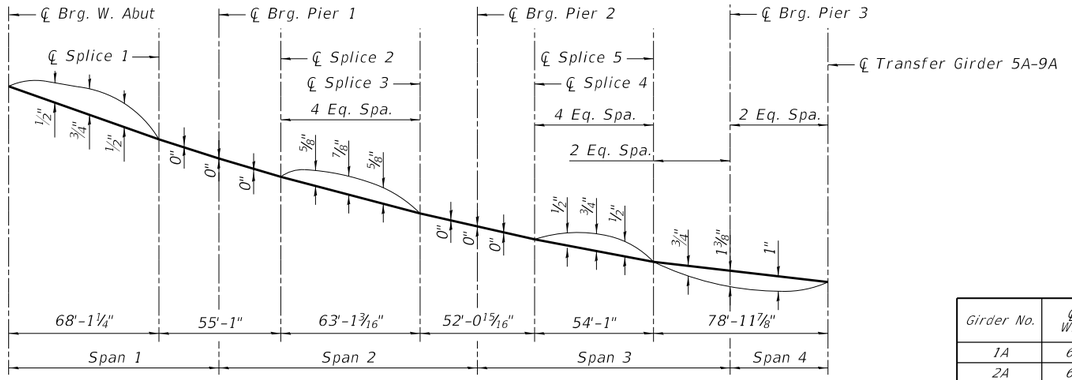
GRÄEF 8501 W. Higgins Road; Suite 280 Chicago, Illinois 60631; (773) 399-0112	USER NAME =	DESIGNED - KGW	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	CROSS FRAMES AND GIRDER DETAILS SN 050-0220 (EB), SN 050-0221 (WB)
		CHECKED - WAR	REVISED -		
	PLOT SCALE =	DRAWN - TCK	REVISED -		
	PLOT DATE = 10/04/2019	DATE - 10/04/2019	REVISED -		SHEET NO. 54 OF 80 SHEETS

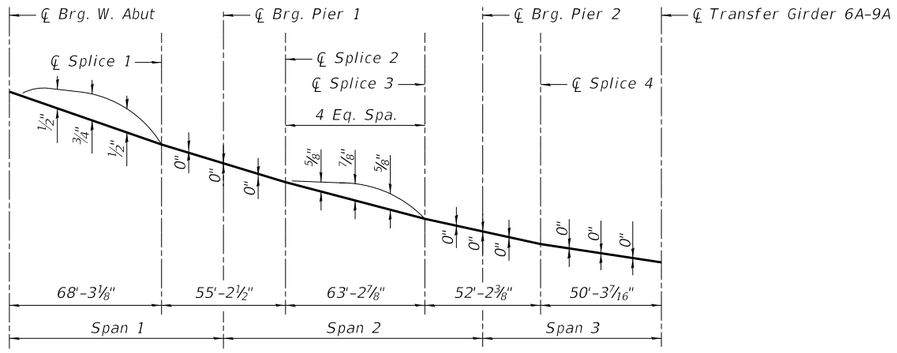
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(50-2BR)ES	LASALLE	328	179
		CONTRACT NO. 66H21		
	ILLINOIS	FED. AID PROJECT		



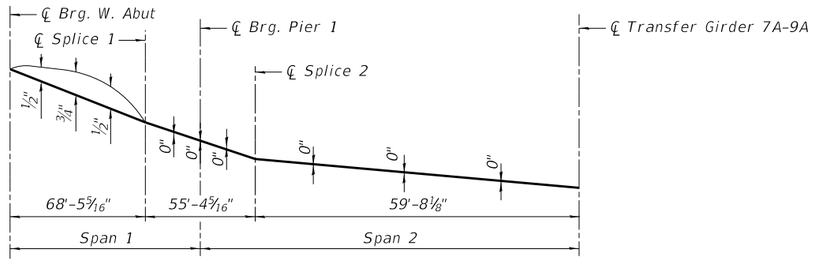
CAMBER DIAGRAM
Girders 1A to 5A, 9A, 1B to 5B & 7B



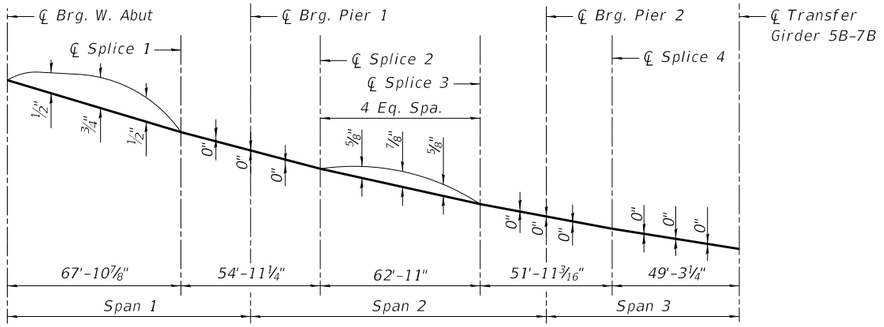
CAMBER DIAGRAM
Girder 6A



CAMBER DIAGRAM
Girder 7A



CAMBER DIAGRAM
Girders 8A



CAMBER DIAGRAM
Girders 6B

TOP OF GIRDER WEB ELEVATIONS SN 050-0221 WB (FOR FABRICATION ONLY)

Girder No.	℄ BRG W. ABUT	℄ Splice 1	℄ BRG. PIER 1	℄ Splice 2	Transfer Girder 7A-9A	℄ Splice 3	℄ BRG PIER 2	℄ Splice 4	Transfer Girder 6A-9A	℄ Splice 5	℄ BRG. PIER 3	℄ Splice 6	Transfer Girder 5A-9A	℄ BRG E. ABUT
1A	600.85	598.85	598.17	597.46	-	596.09	595.61	595.09	-	594.28	593.77	593.53	-	592.81
2A	601.05	599.02	598.33	597.63	-	596.25	595.77	595.25	-	594.44	593.92	593.69	-	592.98
3A	601.20	599.17	598.48	597.77	-	596.39	595.91	595.39	-	594.58	594.06	593.82	-	593.11
4A	601.12	599.08	598.39	597.68	-	596.30	595.82	595.30	-	594.48	593.95	593.71	-	592.99
5A	601.01	598.97	598.28	597.56	-	596.18	595.70	595.18	-	594.36	593.83	593.57	-	592.86
6A	600.88	598.85	598.16	597.45	-	596.07	595.60	595.08	-	594.27	593.77	-	593.41	-
7A	600.76	598.74	598.05	597.34	-	595.98	595.51	595.00	594.33	-	-	-	-	-
8A	600.66	598.65	597.97	597.26	596.11	-	-	-	-	-	-	-	-	-
9A	600.56	598.56	597.89	597.19	-	595.85	595.40	594.90	-	594.14	593.63	593.39	-	592.77

TOP OF GIRDER WEB ELEVATIONS SN 050-0220 EB (FOR FABRICATION ONLY)

Girder No.	℄ BRG W. ABUT	℄ Splice 1	℄ BRG. PIER 1	℄ Splice 2	℄ Splice 3	℄ BRG PIER 2	℄ Splice 4	Transfer Girder 5B-7B	℄ Splice 5	℄ BRG PIER 3	℄ Splice 6	℄ BRG E. ABUT
1B	600.58	598.59	597.91	597.22	595.86	595.39	594.88	-	594.09	593.58	593.35	592.66
2B	600.71	598.70	598.03	597.33	595.98	595.51	595.00	-	594.21	593.71	593.48	592.81
3B	600.79	598.79	598.12	597.42	596.08	595.61	595.10	-	594.32	593.81	593.59	592.92
4B	600.64	598.64	597.97	597.27	595.94	595.47	594.96	-	594.18	593.68	593.45	592.80
5B	600.46	598.47	597.80	597.11	595.77	595.31	594.81	-	594.03	593.53	593.30	592.65
6B	600.30	598.35	597.68	596.99	595.67	595.22	594.72	594.04	-	-	-	-
7B	600.13	598.18	597.52	596.84	595.54	595.09	594.60	-	593.85	593.36	593.15	592.54

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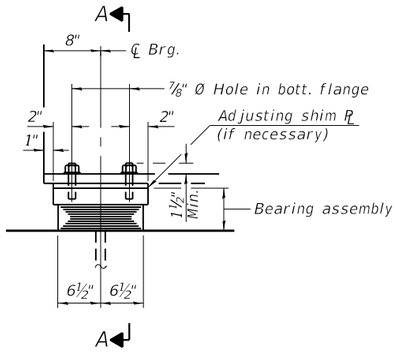
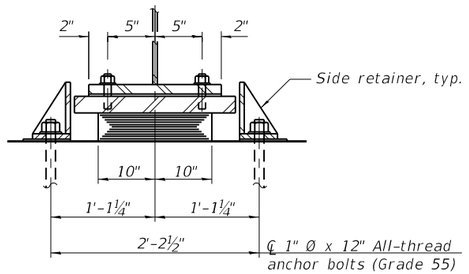
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CAMBER DIAGRAMS
SN 050-0220 (EB), SN 050-0221 (WB)
SHEET NO. 55 OF 80 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(50-2BRIES	LASALLE	328	180
		CONTRACT NO. 66H21		
	ILLINOIS FED. AID PROJECT			



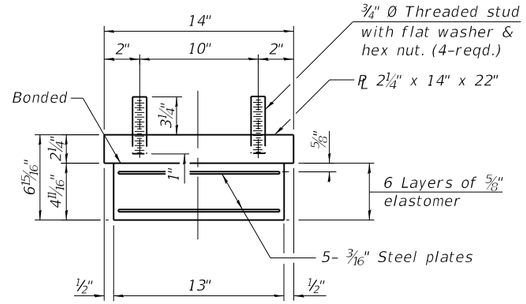
ELEVATION AT WEST ABUT.



SECTION A-A

TYPE I ELASTOMERIC EXP. BRG. AT WEST ABUT.

(16 Required)



BEARING ASSEMBLY

Bearing Notes:

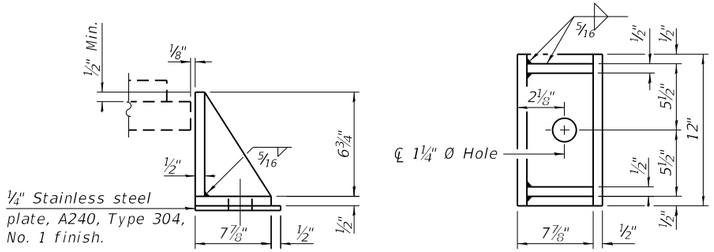
The structural steel plates of the Bearing Assembly shall conform to the requirements of AASHTO M 270 Grade 50.

Side retainers and other steel members required for the elastomeric bearing assembly shall be included in the cost of Elastomeric Bearing Assembly, Type I.

Anchor bolts and side retainers at all supports shall be installed as each member is erected unless an equivalent temporary means of lateral restraint is used.

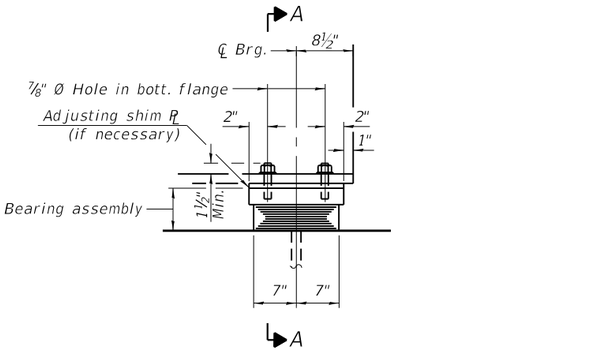
Two ½ in. adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.

Note:
Shim plates shall not be placed under bearing assembly.

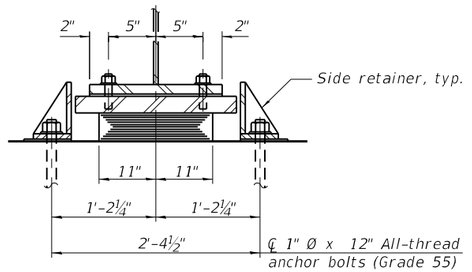


SIDE RETAINER

Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.



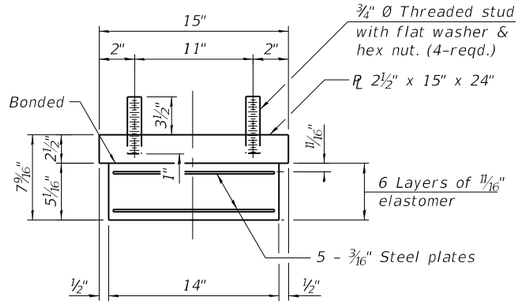
ELEVATION AT EAST ABUT.



SECTION A-A

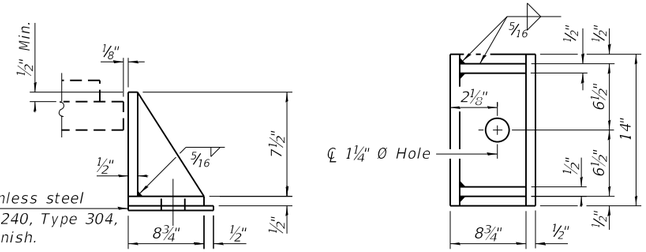
TYPE I ELASTOMERIC EXP. BRG. AT EAST ABUT.

(12 Required)



BEARING ASSEMBLY

Note:
Shim plates shall not be placed under bearing assembly.



SIDE RETAINER

Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly, Type I	Each	28
Anchor Bolts, 1"	Each	56

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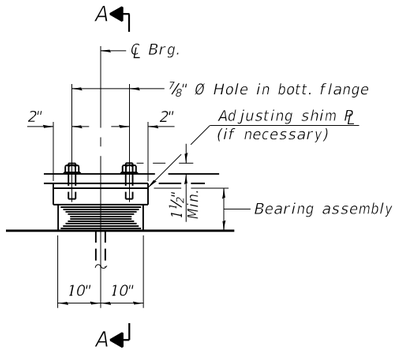
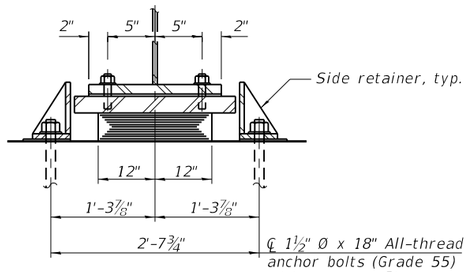
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXPANSION BEARING DETAILS
SN 050-0220 (EB), SN 050-0221 (WB)
SHEET NO. 556 OF 80 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(50-2BRIES	LASALLE	328	181
		CONTRACT NO. 66H21		
	ILLINOIS	FED. AID PROJECT		



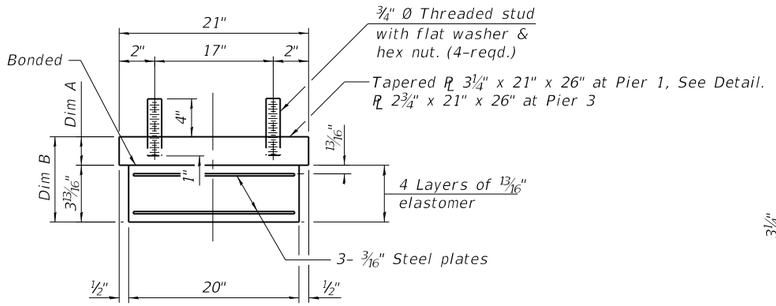
ELEVATION AT PIERS 1 & 3



SECTION A-A

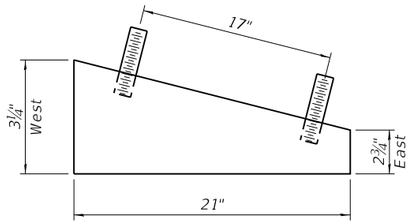
TYPE I ELASTOMERIC EXP. BRG. AT PIERS 1 & 3

(29 Required)



BEARING ASSEMBLY

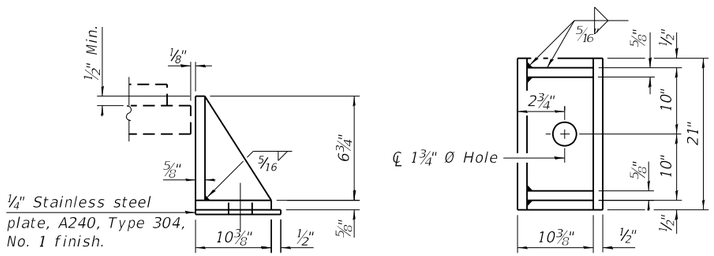
Note:
Shim plates shall not be placed under bearing assembly.



TAPERED PLATE AT PIER 1

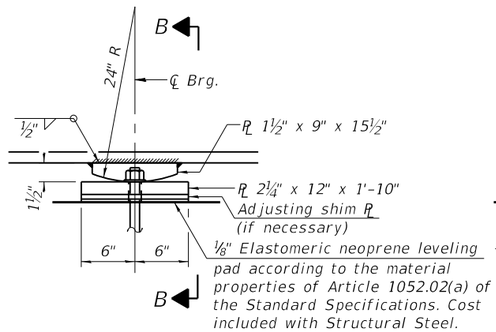
BEARING DIMENSIONS

Pier	Location	Dim. A	Dim. B
1	West Edge	3¼"	7 1/16"
	℄	3"	6 13/16"
	East Edge	2¾"	6 9/16"
3	All	2¾"	6 9/16"

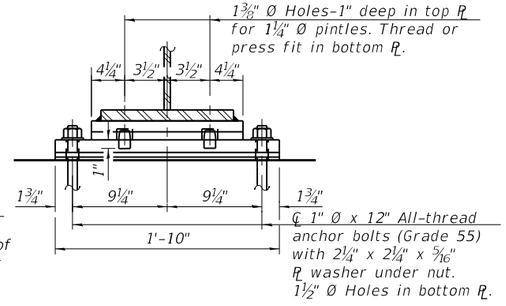


SIDE RETAINER

Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.



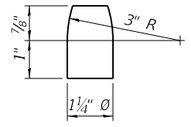
ELEVATION AT PIER



SECTION B-B

FIXED BEARING AT PIER 2

(15 Required)



PINTLES

Notes:
The structural steel plates and pintles of the fixed bearings and expansion bearing assemblies shall conform to the requirements of AASHTO M 270 Grade 50.

For additional bearing notes see Sheet S56 of 80

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly, Type I	Each	29
Anchor Bolts, 1"	Each	30
Anchor Bolts, 1½"	Each	58

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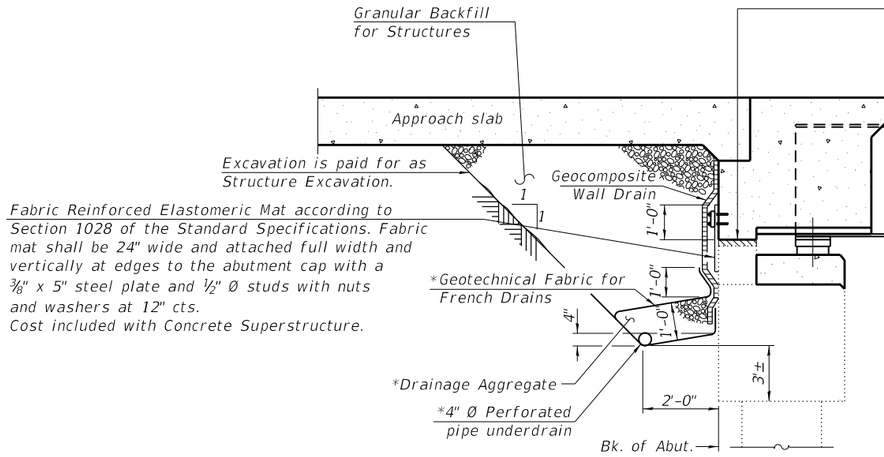
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FIXED AND EXPANSION BEARING DETAILS
SN 050-0220 (EB), SN 050-0221 (WB)
SHEET NO. S57 OF 80 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(50-2BRIES	LASALLE	328	182
		CONTRACT NO. 66H21		
	ILLINOIS FED. AID PROJECT			

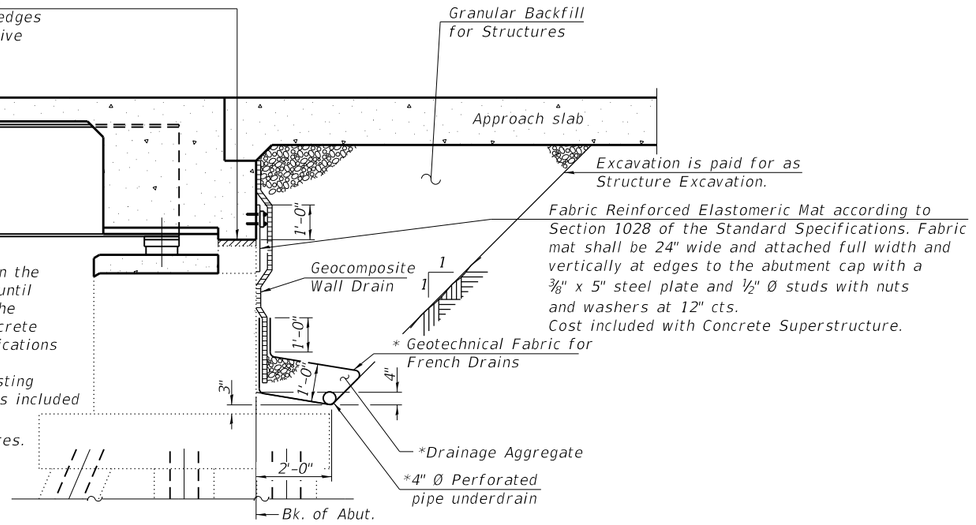


2" PJF (per Article 1051.09 of the Standard Specifications) full width and vertically at edges bonded to abutment cap with suitable adhesive as recommended by supplier.

Note:
All drainage system components shall extend between the existing wingwalls except an outlet pipe shall extend until intersecting with the embankment slope as shown on the abutment details sheet. The pipes shall drain into concrete headwalls. (See Article 601.05 of the Standard Specifications and Highway Standard 601101).

The pipe shall pass through a cored hole in the existing wingwall. Cost of coring and excavation to install pipes included in the cost of Pipe Underdrain for Structures.

*Included in the cost of Pipe Underdrains for Structures. (See Special Provisions)

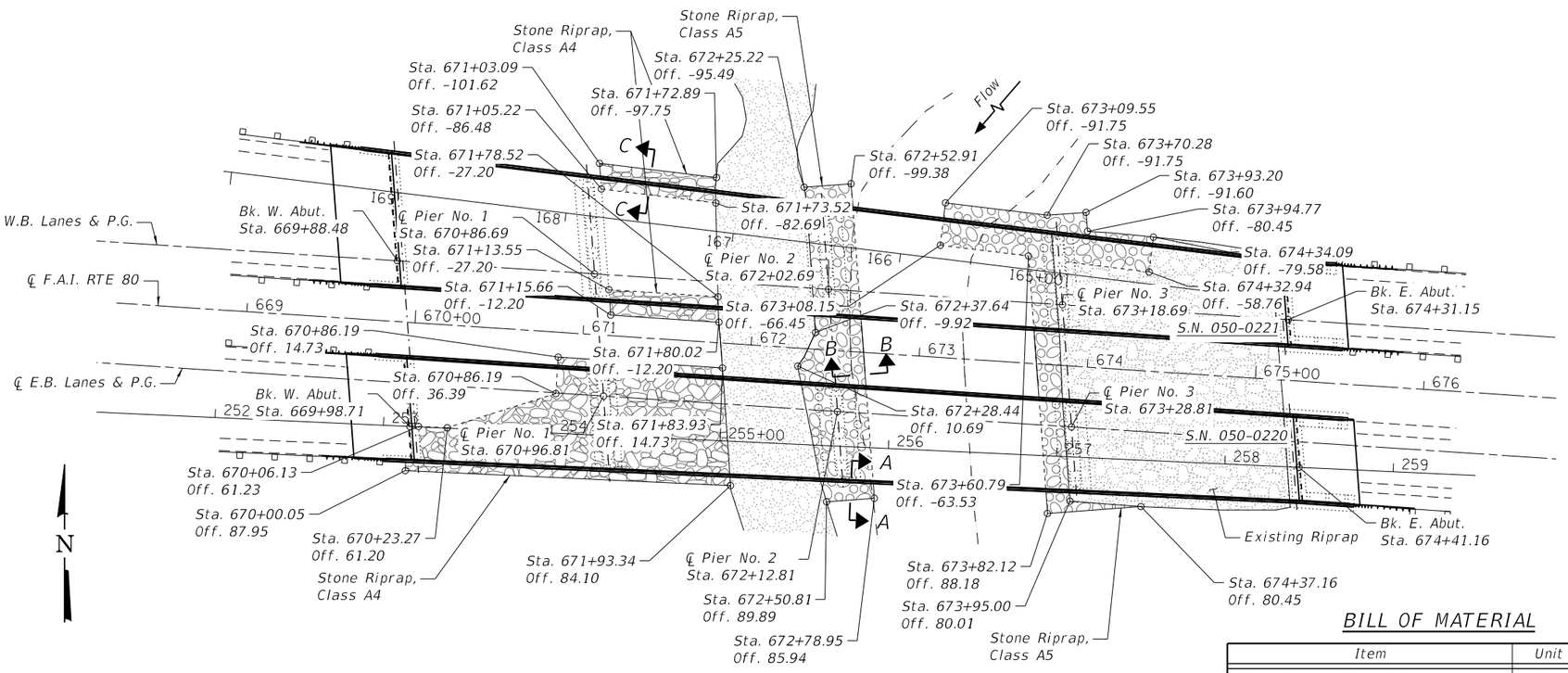


SECTION THRU WEST ABUTMENTS

(Horiz. dim. @ Rt. ℄'s)

SECTION THRU EAST ABUTMENTS

(Horiz. dim. @ Rt. ℄'s)

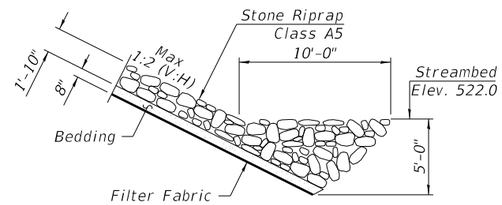


RIPRAP STATIONS AND OFFSETS RELATIVE TO ℄ F.A.I. RTE 80.

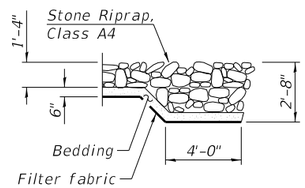
PLAN

BILL OF MATERIAL

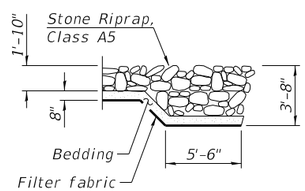
Item	Unit	Total
Stone Riprap, Class A4	Ton	1,221
Stone Riprap, Class A5	Ton	1,472
Filter Fabric	Sq. Yd.	2,729



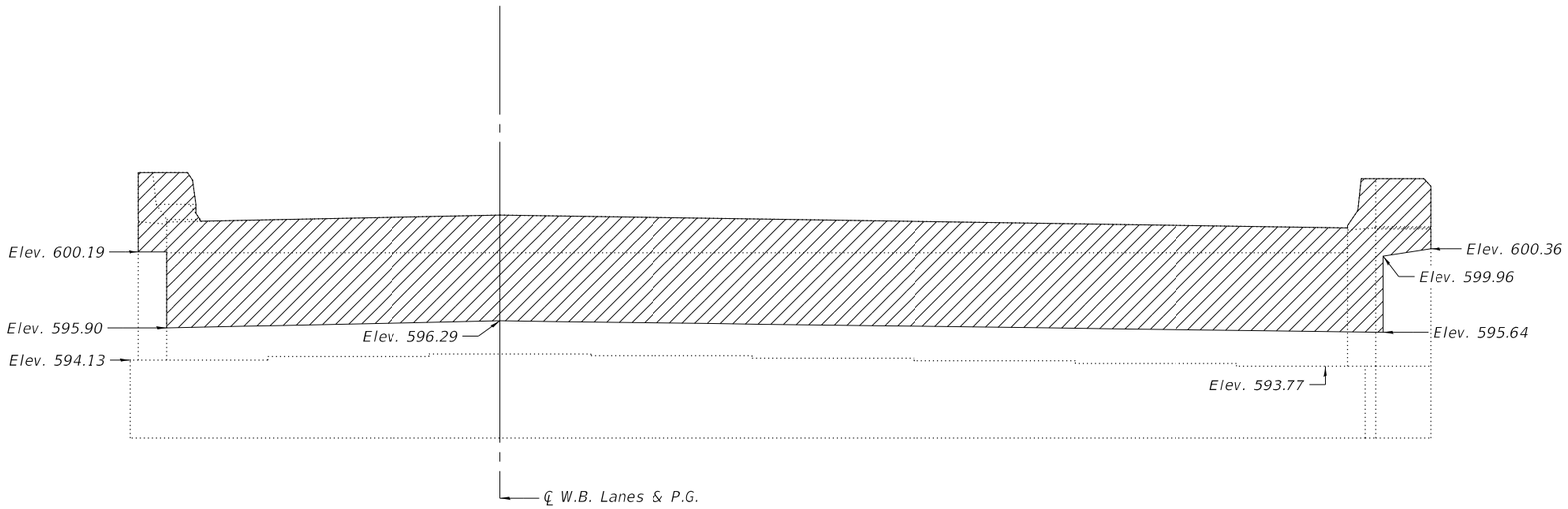
SECTION B-B



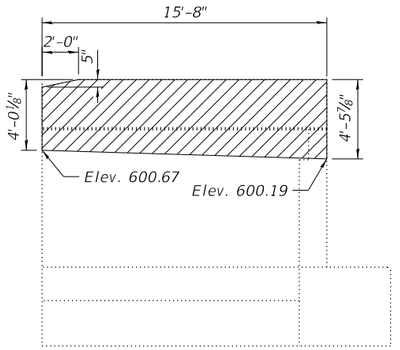
SECTION C-C



SECTION A-A

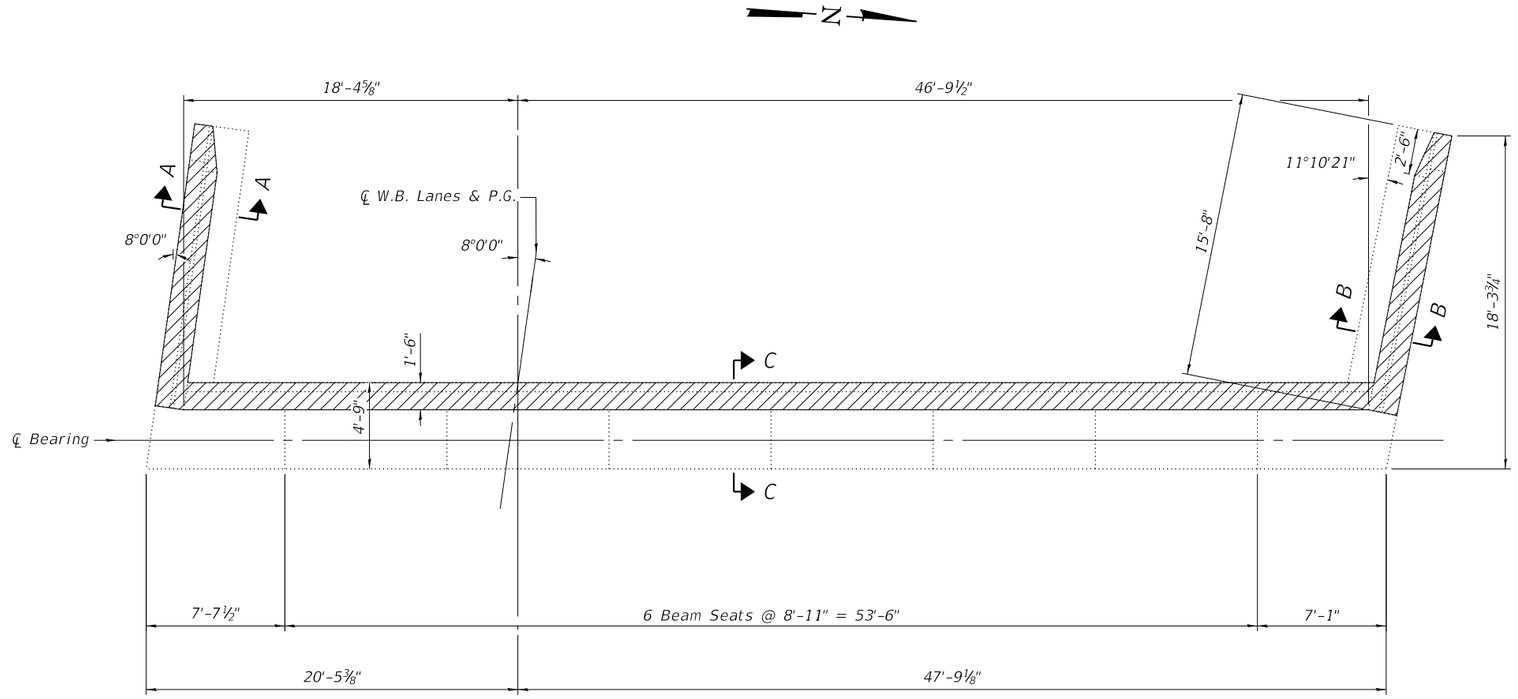


ABUTMENT ELEVATION
(Looking West)



SOUTH WINGWALL ELEVATION

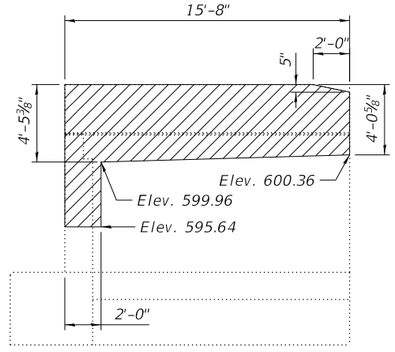
NOTE:
See Sheet S61 for sections A, B, and C.
See Sheet S58 for Structure Excavation Limits



PLAN

LEGEND

Concrete Removal



NORTH WINGWALL ELEVATION

BILL OF MATERIAL

Item	Unit	Total
Concrete Removal	Cu. Yd.	26.1
Structure Excavation	Cu. Yd.	98

MODEL: Default
FILE NAME: S:\2017\17IL021 Various Phase I-II IDOT D3-Graef PTB 184-017\Work Order 5 - I-80 Bridge PH-2\CADD\CADD Sheets\(2) 66H21 - Concrete Removal - WB West Abutment.dgn
10/15/2019 8:41:01 AM

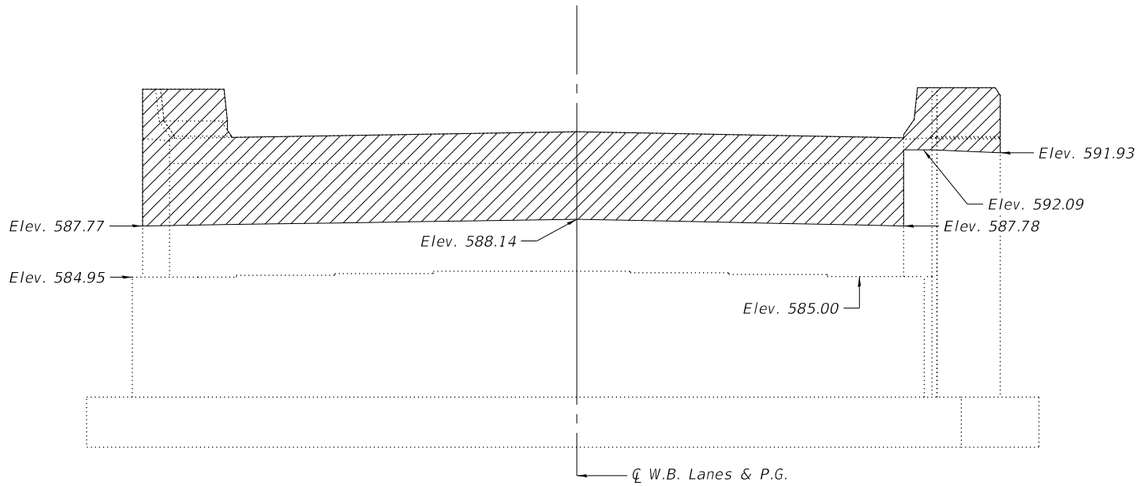
QUIGG ENGINEERING INC

USER NAME =		DESIGNED -	KWB	REVISED -
		CHECKED -	KFO	REVISED -
PLOT SCALE =		DRAWN -	LMC	REVISED -
PLOT DATE =	10/4/2019	CHECKED -	MDC	REVISED -

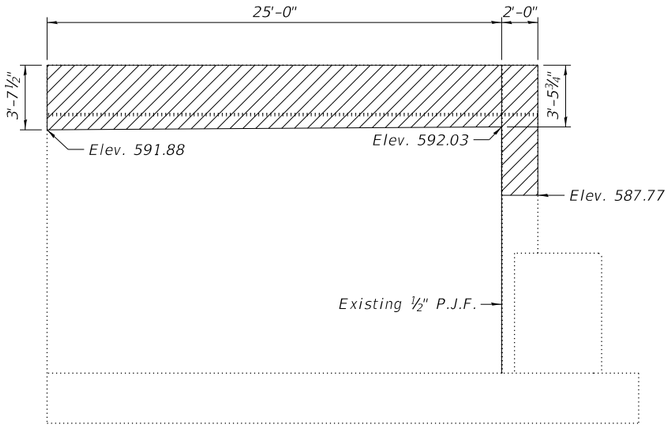
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CONCRETE REMOVAL - WB WEST ABUTMENT
SN 050-0221
SHEET S59 OF 80 SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(50-2BR)ES	LASALLE	328	184
		CONTRACT NO. 66H21		
	ILLINOIS FED. AID PROJECT			

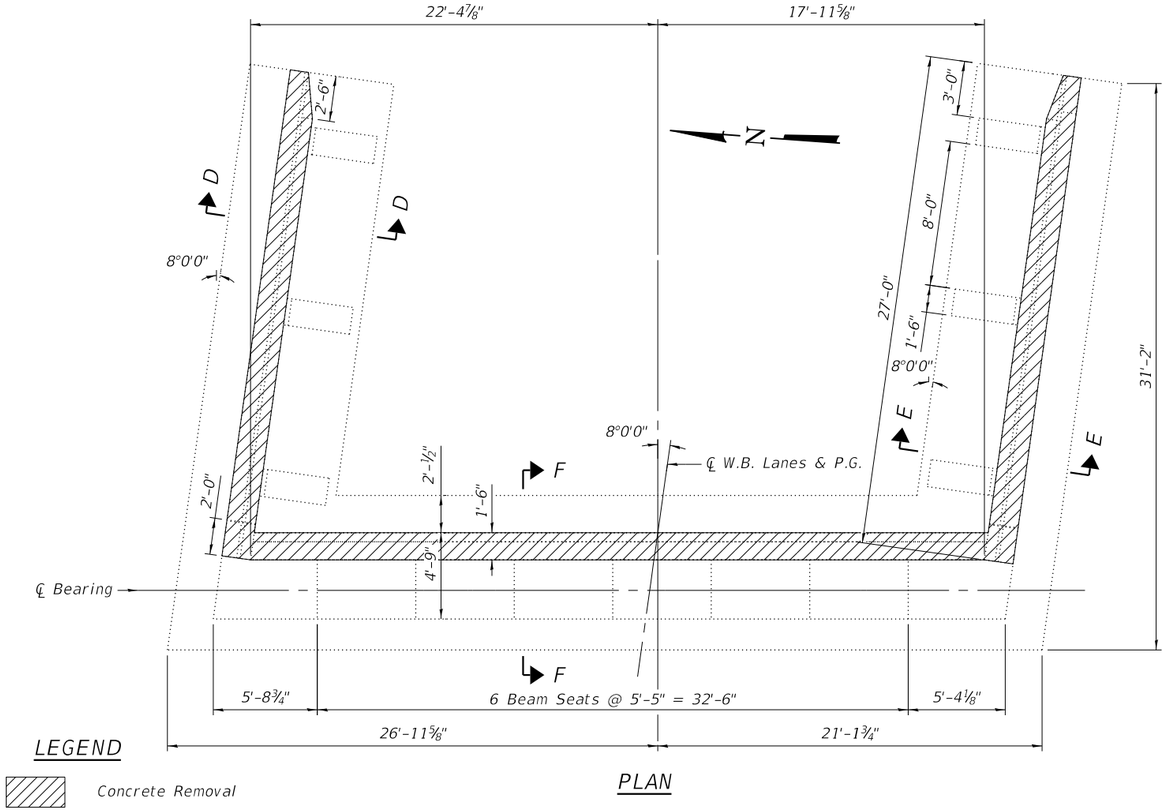


ABUTMENT ELEVATION
(Looking East)



NORTH WINGWALL ELEVATION

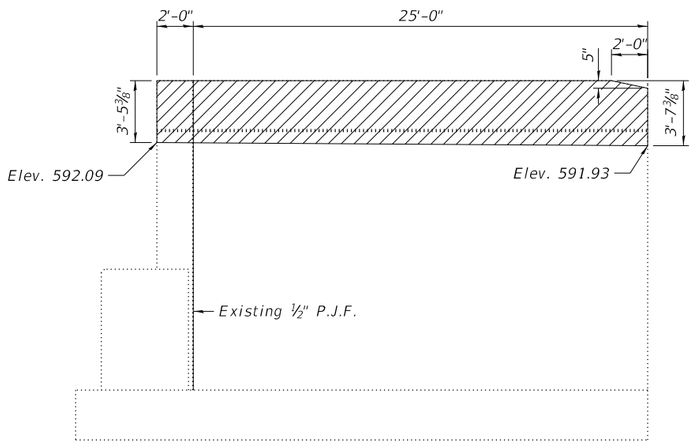
NOTE:
See Sheet S61 for sections D, E, and F.
See Sheet S58 for Structure Excavation Limits



LEGEND

Concrete Removal

PLAN



SOUTH WINGWALL ELEVATION

BILL OF MATERIAL

Item	Unit	Total
Concrete Removal	Cu. Yd.	18.7
Structure Excavation	Cu. Yd.	162

MODEL: Default
FILE NAME: S:\2017\17IL021 Various Phase III IDOT D3-Graef PTB 184-017\Work Order 5 - I-80 Bridge PH-2\CADD\CADD Sheets\(3) 66H21 - Concrete Removal - WB East Abutment.dgn
10/15/2019 8:41:02 AM

QUIGG ENGINEERING INC

USER NAME =	DESIGNED - KWB	REVISED -	
	CHECKED - KFO	REVISED -	
PLOT SCALE =	DRAWN - LMC	REVISED -	
PLOT DATE = 10/4/2019	CHECKED - MDC	REVISED -	

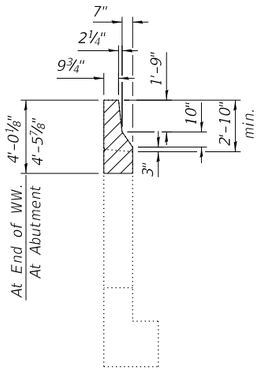
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CONCRETE REMOVAL - WB EAST ABUTMENT
SN 050-0221

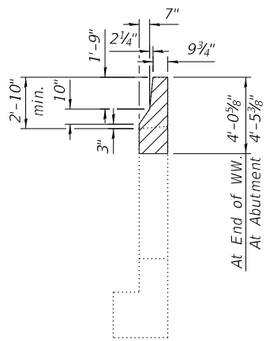
SHEET S60 OF 80 SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(50-2BR)ES	LASALLE	328	185
		CONTRACT NO. 66H21		
	ILLINOIS	FED. AID PROJECT		

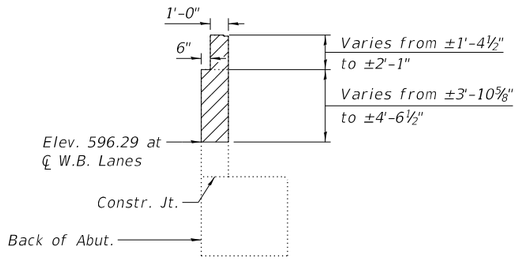
WEST ABUTMENT SECTIONS



SECTION A-A

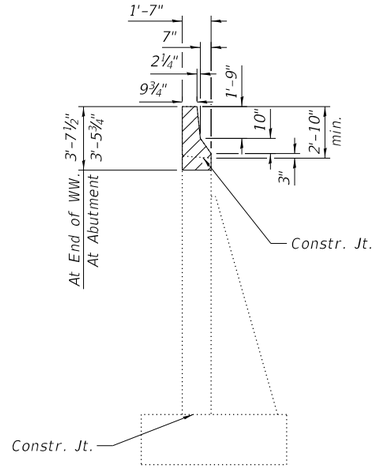


SECTION B-B

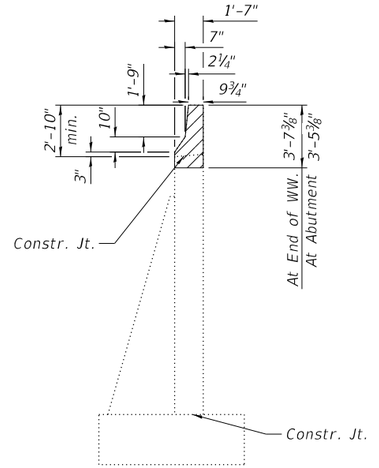


SECTION C-C

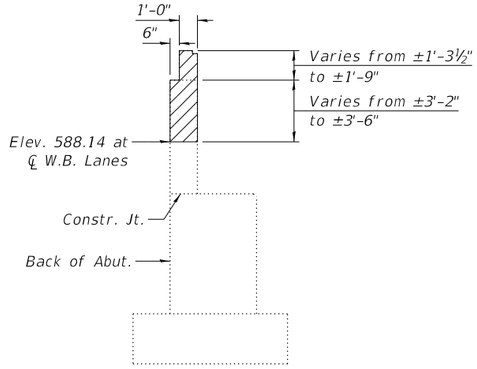
EAST ABUTMENT SECTIONS



SECTION D-D



SECTION E-E



SECTION F-F

LEGEND

Concrete Removal

LEGEND

Concrete Removal

MODEL: Default
FILE NAME: S:\2017\17IL021 Various Phase I-III IDOT D3-Graef PTB 184-017\Work Order 5 - I-80 Bridge PH-2\CADD\CADD Sheets\(4) 66H21 - Concrete Removal - WB Abutment Sections.dgn

10/15/2019 8:41:03 AM

QUIGG ENGINEERING INC

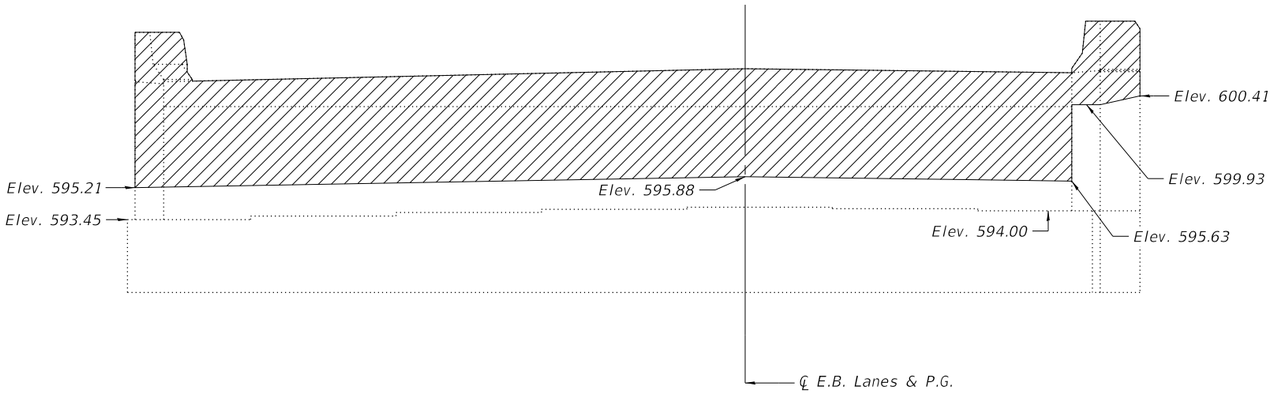
USER NAME =	DESIGNED - KWB	REVISED -	
	CHECKED - KFO	REVISED -	
PLOT SCALE =	DRAWN - LMC	REVISED -	
PLOT DATE = 10/4/2019	CHECKED - MDC	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

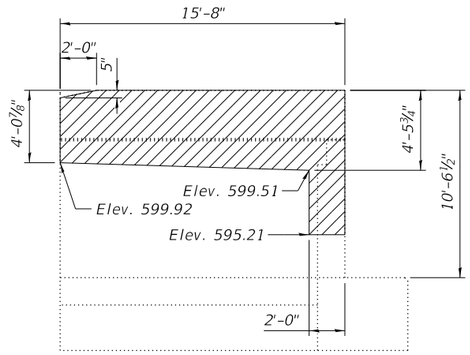
CONCRETE REMOVAL - WB ABUTMENT SECTIONS
SN 050-0221

SHEET S61 OF 80 SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(50-2BR)ES	LASALLE	328	186
		CONTRACT NO. 66H21		
	ILLINOIS	FED. AID PROJECT		

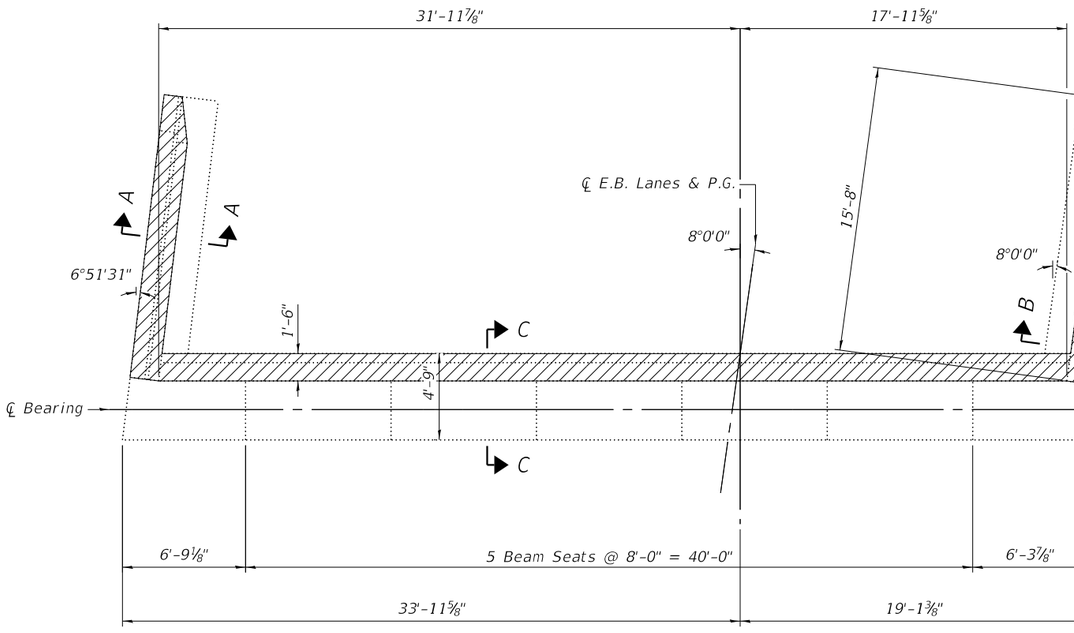


ABUTMENT ELEVATION
(Looking West)



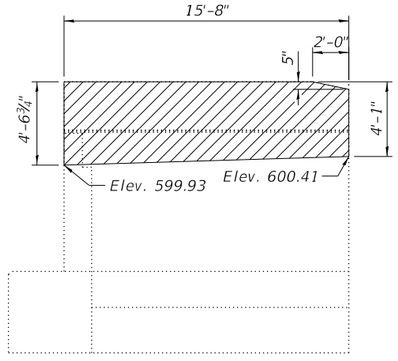
SOUTH WINGWALL ELEVATION

N



PLAN

NOTE:
See Sheet S64 for sections A, B, and C.
See Sheet S58 for Structure Excavation Limits



NORTH WINGWALL ELEVATION

LEGEND

Concrete Removal

BILL OF MATERIAL

Item	Unit	Total
Concrete Removal	Cu. Yd.	21.7
Structure Excavation	Cu. Yd.	75

MODEL: Default
FILE NAME: S:\2017\17IL021 Various Phase I-II IDOT D3-Graef PTB 184-017\Work Order 5 - I-80 Bridge PH-2\CADD\CADD Sheets\(5) 66H21 - Concrete Removal - EB West Abutment.dgn
10/15/2019 8:41:04 AM

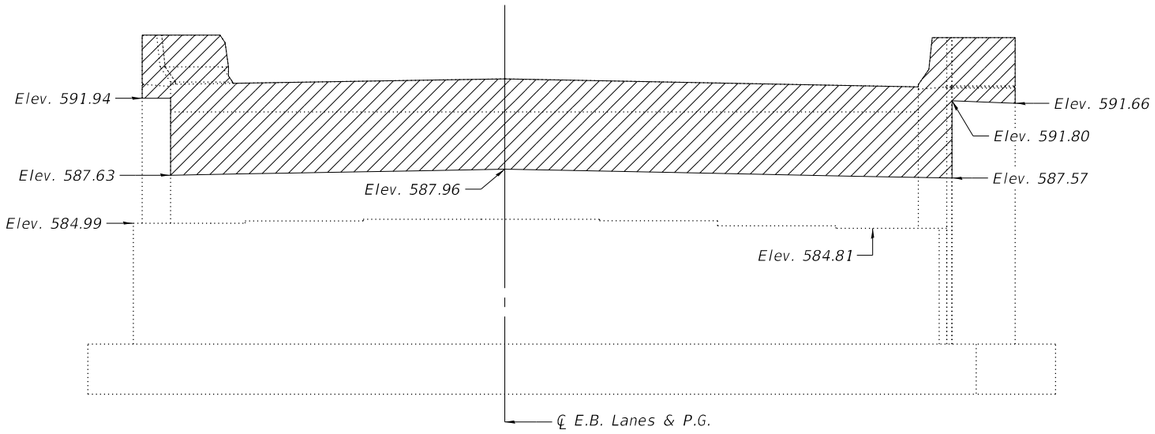
QUIGG ENGINEERING INC

USER NAME =	DESIGNED - KWB	REVISED -	
	CHECKED - KFO	REVISED -	
PLOT SCALE =	DRAWN - LMC	REVISED -	
PLOT DATE = 10/4/2019	CHECKED - MDC	REVISED -	

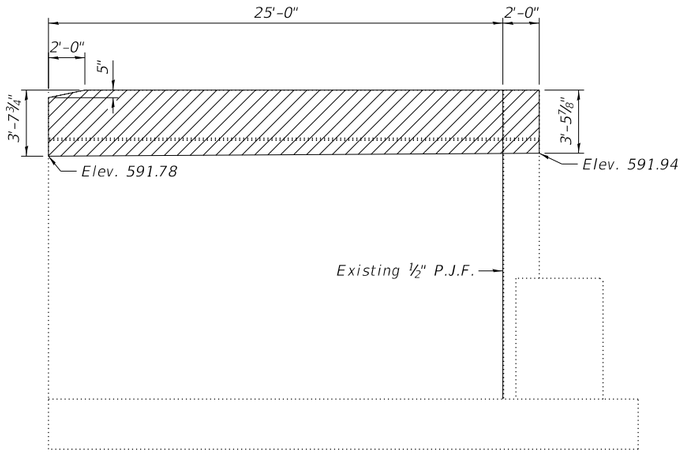
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CONCRETE REMOVAL - EB WEST ABUTMENT
SN 050-0220
SHEET S62 OF 80 SHEETS

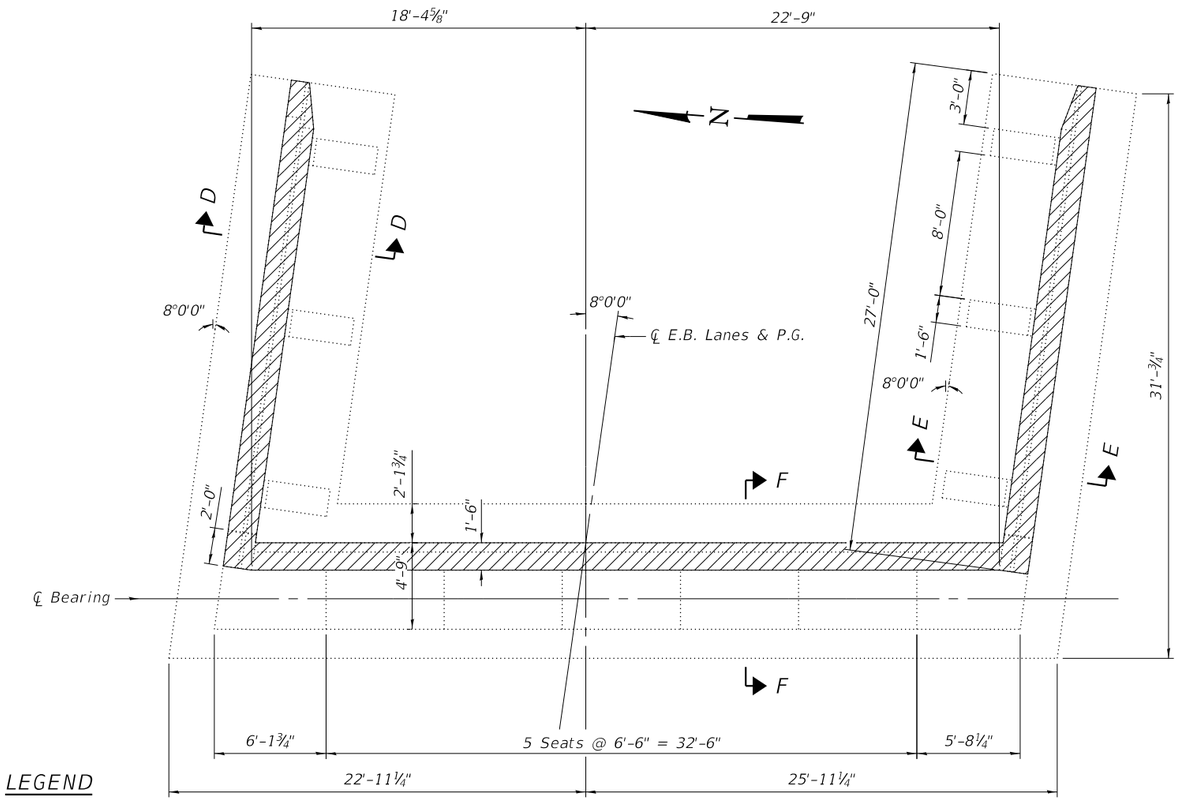
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(50-2BR)ES	LASALLE	328	187
		CONTRACT NO. 66H21		
	ILLINOIS	FED. AID PROJECT		



ABUTMENT ELEVATION
(Looking East)



NORTH WINGWALL ELEVATION

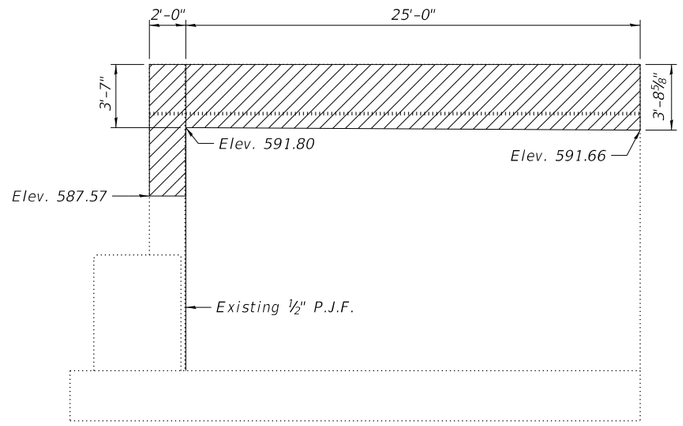


LEGEND

Concrete Removal

PLAN

NOTE:
See Sheet S64 for sections D, E, and F.
See Sheet S58 for Structure Excavation Limits



SOUTH WINGWALL ELEVATION

BILL OF MATERIAL

Item	Unit	Total
Concrete Removal	Cu. Yd.	19.2
Structure Excavation	Cu. Yd.	163

MODEL: Default
FILE NAME: S:\2017\17IL021 Various Phase I-II IDOT D3-Graef PTB 184-017\Work Order 5 - I-80 Bridge PH-2\CADD\CADD Sheets\(6) 66H21 - Concrete Removal - EB East Abutment.dgn
10/15/2019 8:41:05 AM

QUIGG ENGINEERING INC

USER NAME =	DESIGNED - KWB	REVISED -	
	CHECKED - KFO	REVISED -	
PLOT SCALE =	DRAWN - LMC	REVISED -	
PLOT DATE = 10/4/2019	CHECKED - MDC	REVISED -	

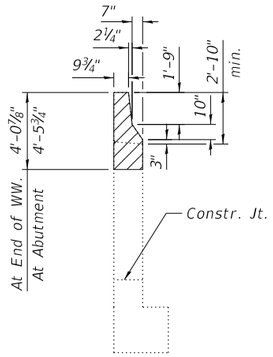
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CONCRETE REMOVAL - EB EAST ABUTMENT
SN 050-0220

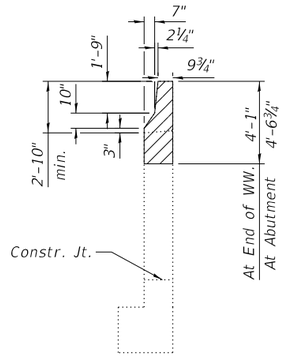
SHEET S63 OF 80 SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(50-2BR)ES	LASALLE	328	188
		CONTRACT NO. 66H21		
	ILLINOIS	FED. AID PROJECT		

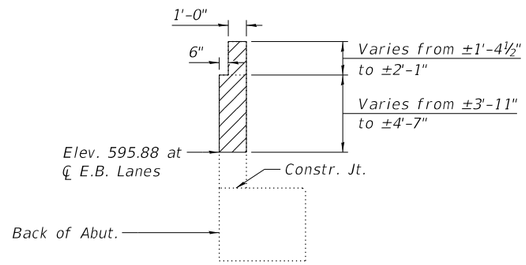
WEST ABUTMENT SECTIONS



SECTION A-A



SECTION B-B

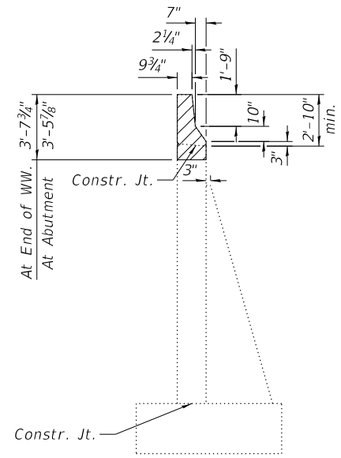


SECTION C-C

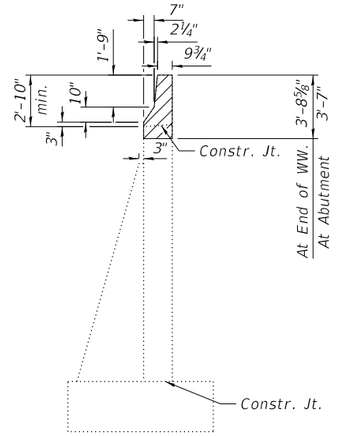
LEGEND

Concrete Removal

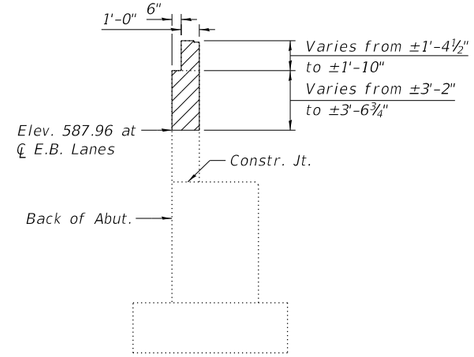
EAST ABUTMENT SECTIONS



SECTION D-D



SECTION E-E



SECTION F-F

LEGEND

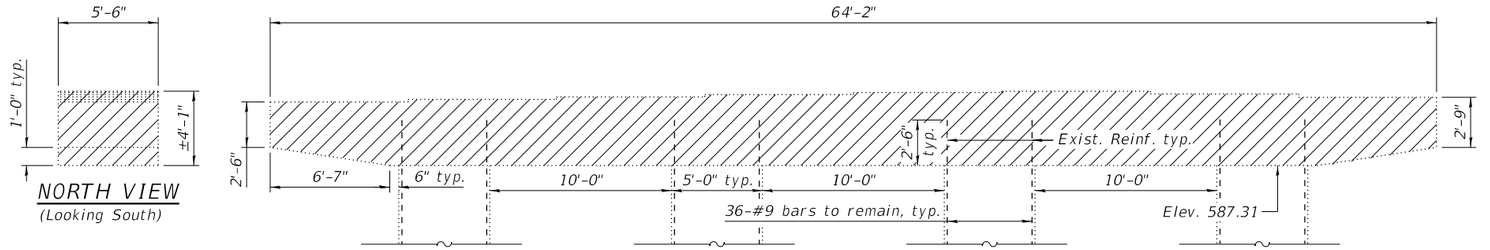
Concrete Removal

QUIGG ENGINEERING INC	USER NAME =	DESIGNED - KWB	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	CONCRETE REMOVAL - EB ABUTMENT SECTIONS SN 050-0220
		CHECKED - KFO	REVISED -		
	PLOT SCALE =	DRAWN - LMC	REVISED -		SHEET S64 OF 80 SHEETS
	PLOT DATE = 10/4/2019	CHECKED - MDC	REVISED -		

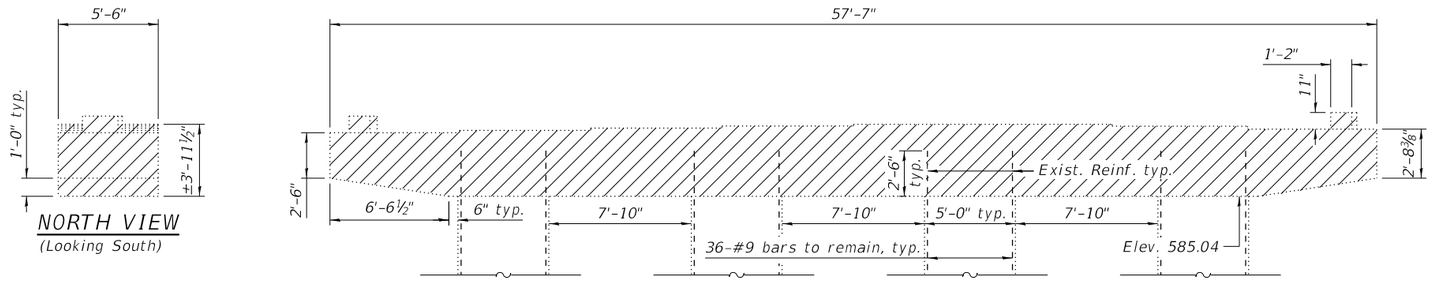
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(50-2BR)ES	LASALLE	328	189
		CONTRACT NO. 66H21		
	ILLINOIS	FED. AID PROJECT		

MODEL: Default
FILE NAME: S:\2017\17IL021 Various Phase I-III IDOT D3-Graef PTB 184-017\Work Order 5 - I-80 Bridge PH-2\CADD\CADD Sheets\(7) 66H21 - Concrete Removal - EB Abutment Sections.dgn

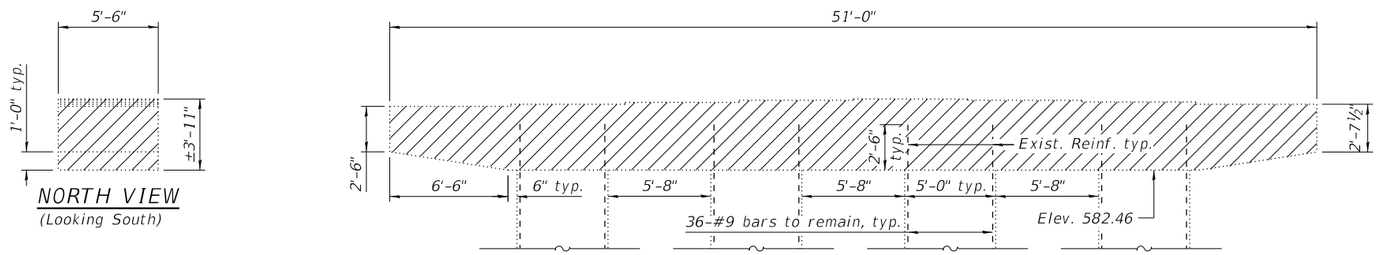
10/15/2019 8:41:06 AM



PIER 1
(Looking East)



PIER 2
(Looking East)



PIER 3
(Looking East)

Note:
Existing vertical column reinforcement bars extending into existing caps to be cleaned and reused in new construction. Cost included with Concrete Removal.

LEGEND

Concrete Removal

BILL OF MATERIAL

Item	Unit	Total
Concrete Removal	Cu. Yd.	129.3

MODEL: Default
FILE NAME: S:\2017\17IL021 Various Phase I-II IDOT D3-Graef PTB 184-017\Work Order 5 - I-80 Bridge PH-2\CADD\CADD Sheets\(8) 66H21 - Concrete Removal - WB Piers.dgn
10/15/2019 8:41:07 AM

QUIGG ENGINEERING INC

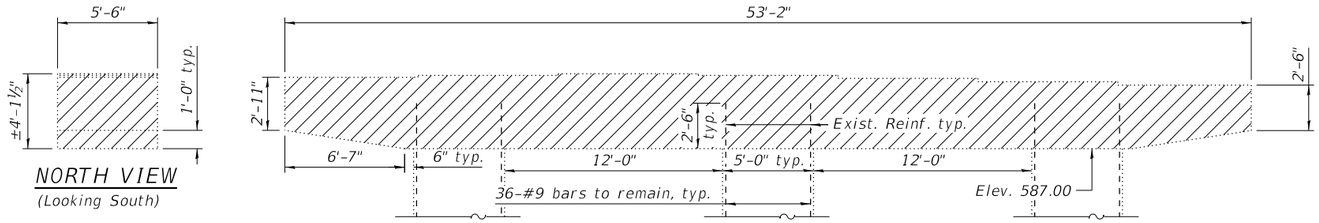
USER NAME =		DESIGNED -	KWB	REVISED -	
		CHECKED -	KFO	REVISED -	
PLOT SCALE =		DRAWN -	LMC	REVISED -	
PLOT DATE =	10/4/2019	CHECKED -	MDC	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

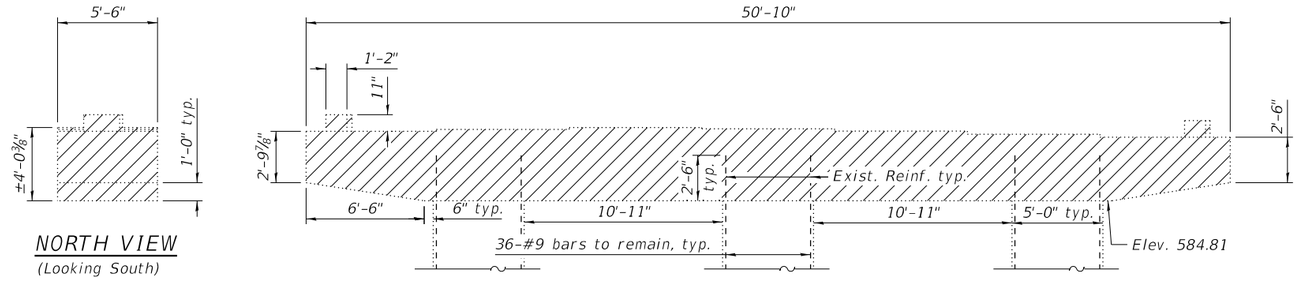
CONCRETE REMOVAL
WESTBOUND PIER CAPS

SHEET S65 OF 80 SHEETS

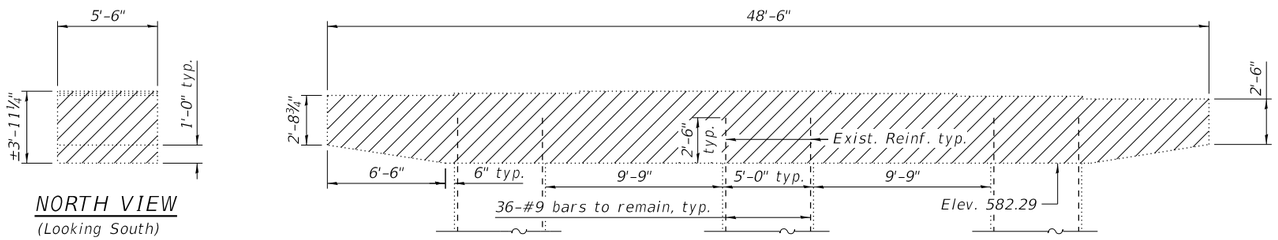
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(50-2BR)ES	LASALLE	328	190
		CONTRACT NO. 66H21		
	ILLINOIS FED. AID PROJECT			



PIER 1
(Looking East)



PIER 2
(Looking East)



PIER 3
(Looking East)

Note:
Existing vertical column reinforcement bars extending into existing caps to be cleaned and reused in new construction. Cost included with Concrete Removal.

LEGEND

Concrete Removal

BILL OF MATERIAL

Item	Unit	Total
Concrete Removal	Cu. Yd.	115.1

MODEL: Default
FILE NAME: S:\2017\17L021 Various Phase I-II IDOT D3-Graef PTB 184-017\Work Order 5 - I-80 Bridge PH-2\CADD\CADD Sheets\(9) 66H21 - Concrete Removal - EB Piers.dgn
10/15/2019 8:41:08 AM

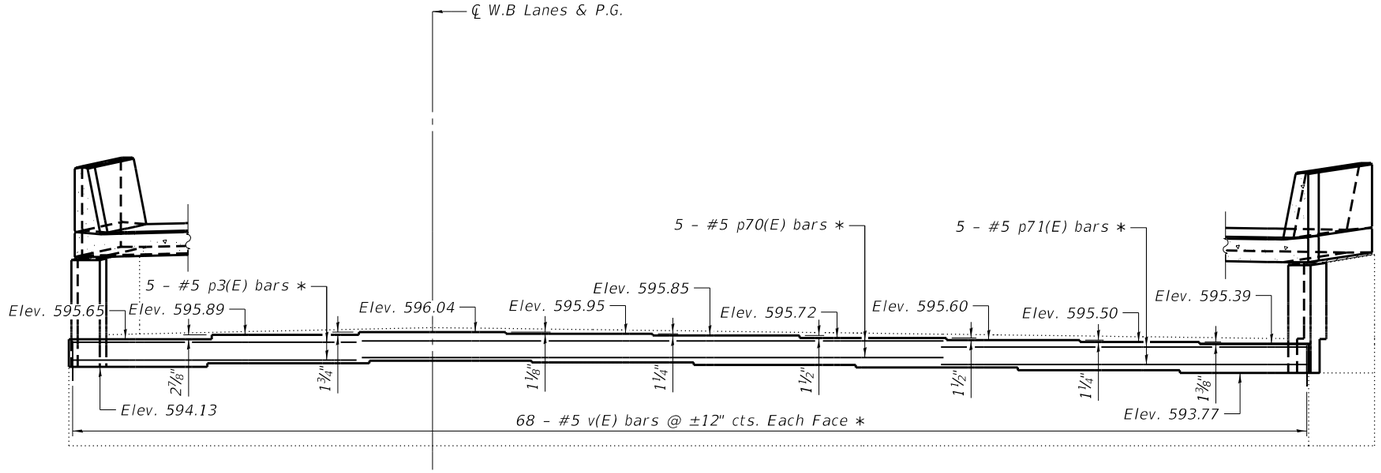
QUIGG ENGINEERING INC

USER NAME =		DESIGNED -	KWB	REVISED -
		CHECKED -	KFO	REVISED -
PLOT SCALE =		DRAWN -	LMC	REVISED -
PLOT DATE =	10/4/2019	CHECKED -	MDC	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

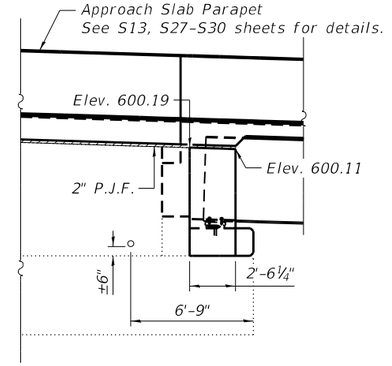
CONCRETE REMOVAL
EASTBOUND PIER CAPS
SHEET S66 OF 80 SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(50-2BR)ES	LASALLE	328	191
		CONTRACT NO. 66H21		
	ILLINOIS FED. AID PROJECT			

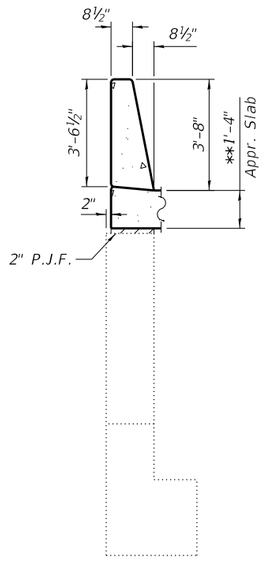


* See Section C-C

ABUTMENT ELEVATION
(Looking West)

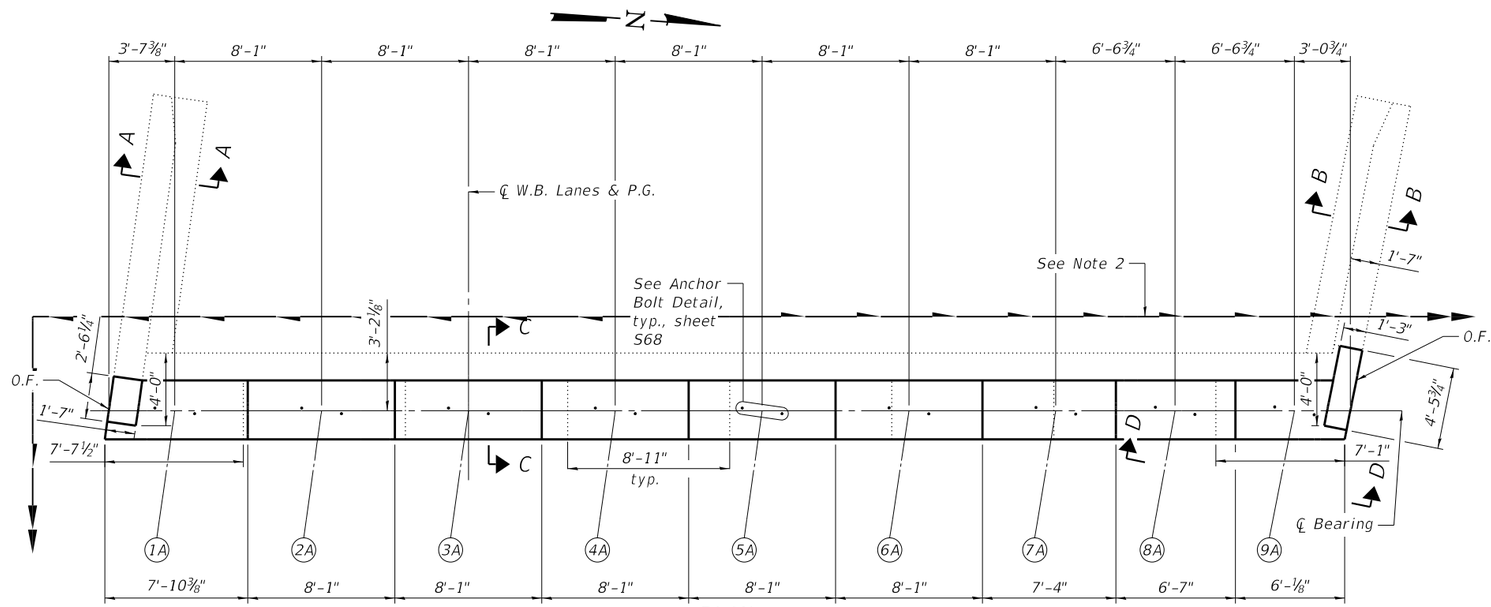


SOUTH WINGWALL ELEVATION

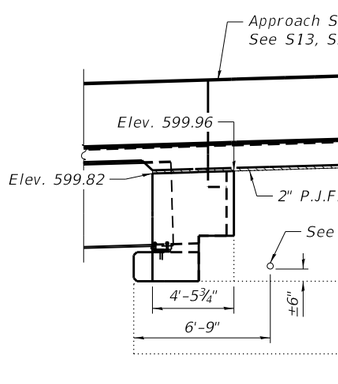


SECTION A-A

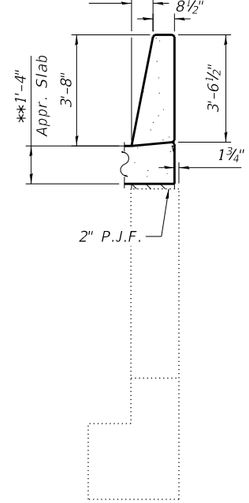
**After grinding



PLAN



NORTH WINGWALL ELEVATION



SECTION B-B

Notes:
1. See Sheet S68 for sections C and D.
2. Pipe Underdrains for Structures 4" Pass through cored holes in wingwalls. See sheet S58. Extend until intersecting with embankment slope.
3. Bars shall be drilled and set according to Article 584 of the Standard Specifications. Bars shall have a 9" minimum embedment depth.

MODEL: Default
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10/15/2019 8:41:10 AM

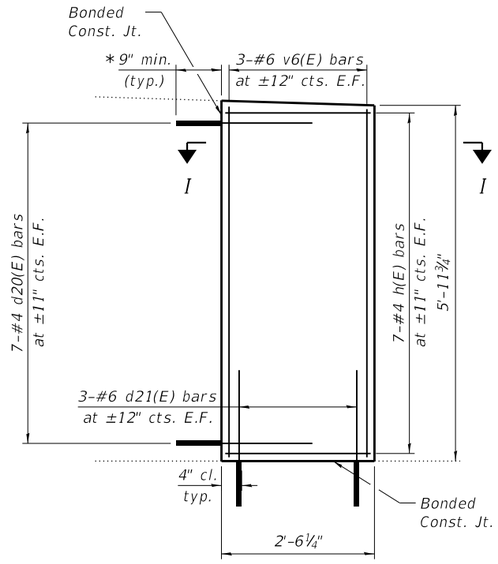
QUIGG ENGINEERING INC

USER NAME =	DESIGNED - KWB	REVISED -	
	CHECKED - KFO	REVISED -	
PLOT SCALE =	DRAWN - LMC	REVISED -	
PLOT DATE = 10/4/2019	CHECKED - MDC	REVISED -	

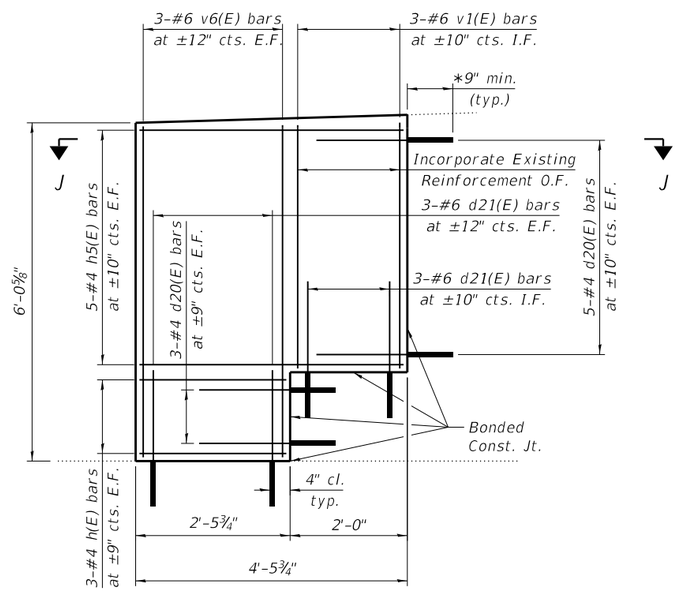
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

WB - WEST ABUTMENT - DETAILS
SN 050-0221
SHEET S67 OF 80 SHEETS

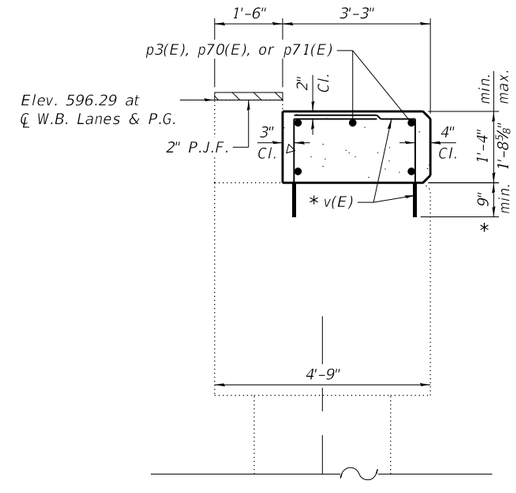
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(50-2BR)ES	LASALLE	328	192
		CONTRACT NO. 66H21		
	ILLINOIS	FED. AID PROJECT		



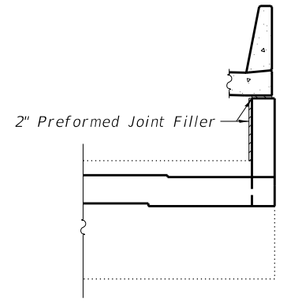
SOUTH WINGWALL ELEVATION
(Reinforcement)



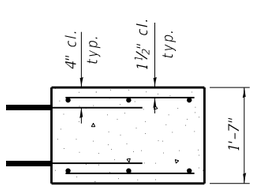
NORTH WINGWALL ELEVATION
(Reinforcement)



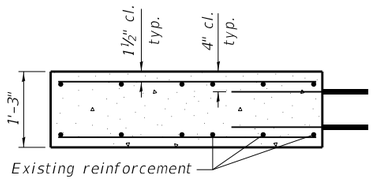
SECTION C-C



SECTION D-D



SECTION I-I



SECTION J-J

Notes:

Cost of drilling and grouting reinforcing bars included in cost for concrete structures.

* Bars shall be drilled and set according to Article 584 of the Standard Specifications. Bars shall have a 9" minimum embedment depth.

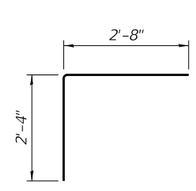
All construction joints between new and existing concrete shall be Bonded Construction Joints.

See sheet S58 for drainage details behind abutments.

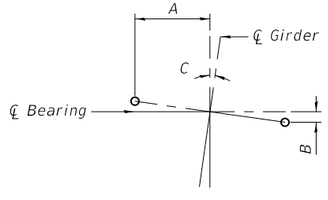
BILL OF MATERIAL

	Bar	No.	Size	Length	Shape
*	d20(E)	30	#4	2'-3"	———
*	d21(E)	15	#6	2'-3"	———
	h(E)	20	#4	2'-2"	———
	h5(E)	10	#4	4'-2"	———
	p3(E)	5	#5	15'-8"	———
	p70(E)	5	#5	32'-0"	———
	p71(E)	5	#5	20'-2"	———
*	v(E)	136	#5	5'-0"	⌐
	v1(E)	3	#6	3'-10"	———
	v6(E)	12	#6	5'-8"	———

Item	Unit	Total
Concrete Structures	Cu. Yd.	15.0
Reinforcement Bars, Epoxy Coated	Pound	1340
Granular Backfill for Structures	Cu. Yd.	98
Geocomposite Wall Drain	Sq. Yd.	56
Pipe Underdrain for Structures 4"	Foot	106



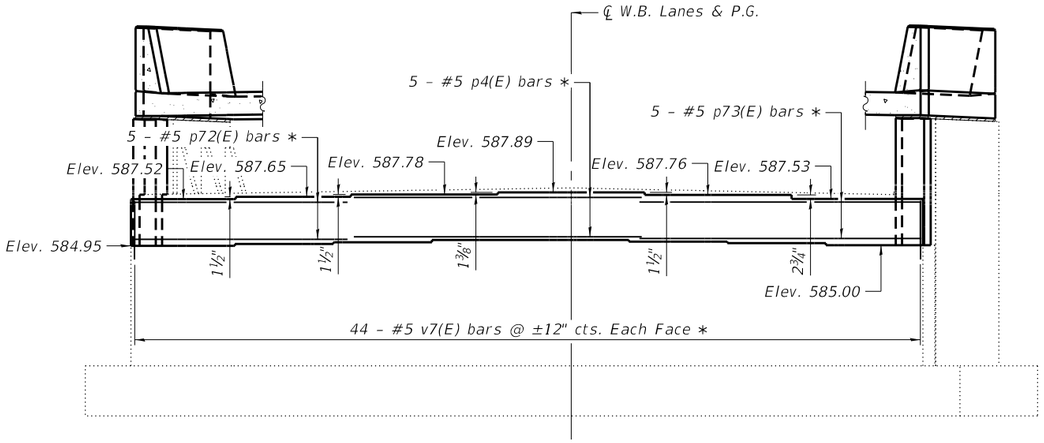
BAR *v(E)



ANCHOR BOLT DETAIL

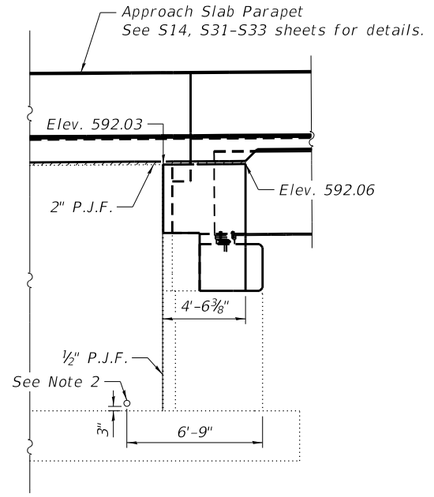
Beam	A	B	C
1A	1'-1⅛"	1⅞"	8.000°
2A	1'-1⅛"	1⅞"	8.000°
3A	1'-1⅛"	1⅞"	8.000°
4A	1'-1⅛"	1⅞"	8.000°
5A	1'-1⅛"	1⅞"	8.000°
6A	1'-1⅛"	2"	8.598°
7A	1'-1 1/16"	2 3/16"	9.399°
8A	1'-1 1/16"	2⅜"	10.290°
9A	1'-1 1/16"	2 9/16"	11.180°

A, B, & C DIMENSIONS

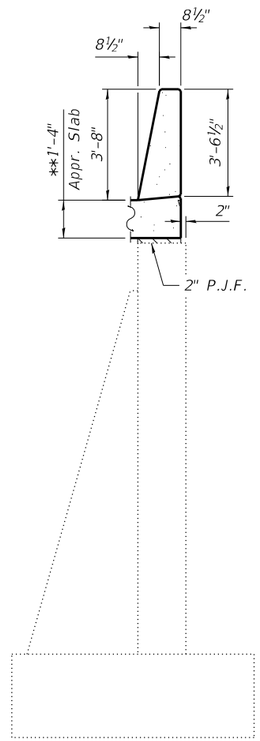


* See Section G-G

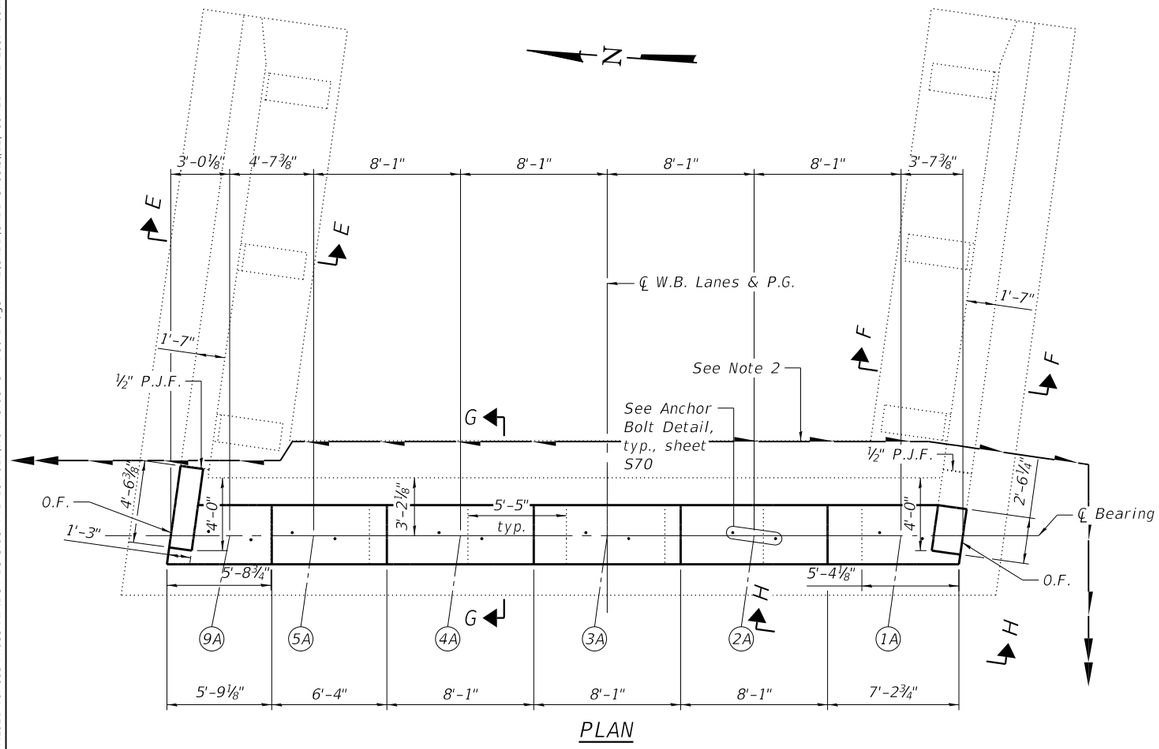
ABUTMENT ELEVATION
(Looking East)



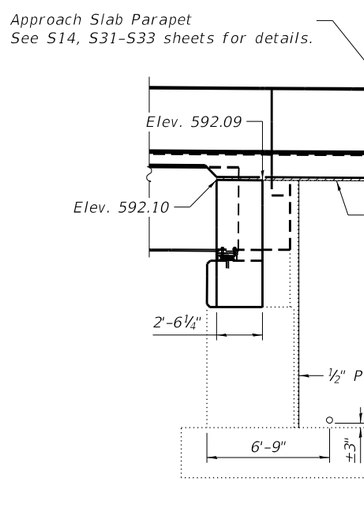
NORTH WINGWALL ELEVATION



SECTION F-F

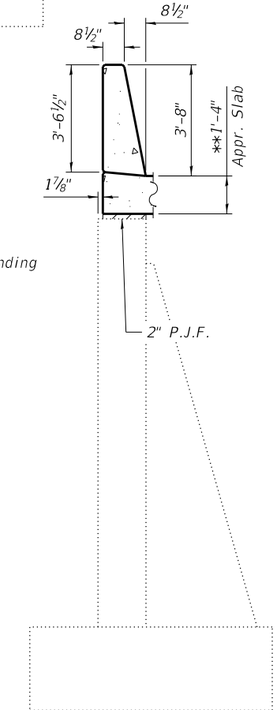


PLAN



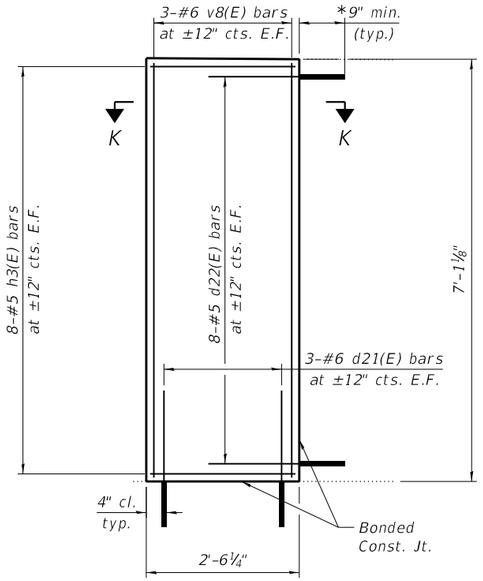
SOUTH WINGWALL ELEVATION

Notes:
1. See Sheet S70 for sections G and H.
2. Pipe Underdrains for Structures 4" Pass through cored holes in wingwalls. See sheet S58. Extend until intersecting with embankment slope.
3. Bars shall be drilled and set according to Article 584 of the Standard Specifications. Bars shall have a 9" minimum embedment depth.

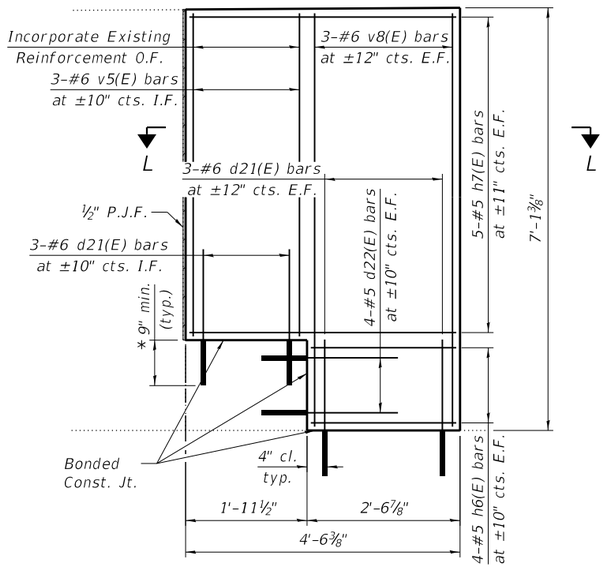


**After grinding

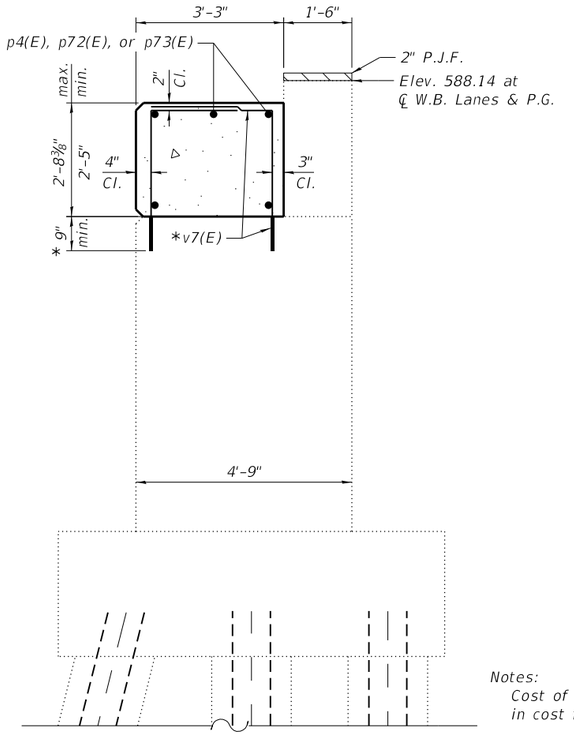
SECTION E-E



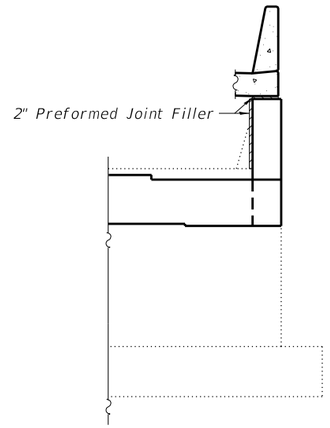
SOUTH WINGWALL ELEVATION
(Reinforcement)



NORTH WINGWALL ELEVATION
(Reinforcement)



SECTION G-G



SECTION H-H

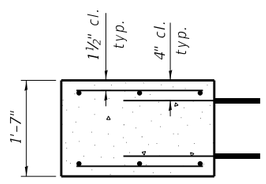
Notes:

Cost of drilling and grouting reinforcing bars included in cost for concrete structures.

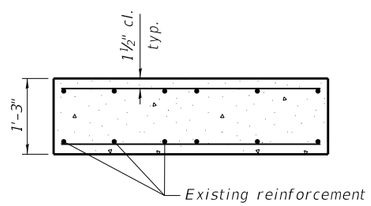
* Bars shall be drilled and set according to Article 584 of the Standard Specifications. Bars shall have a 9" minimum embedment depth.

All construction joints between new and existing concrete shall be Bonded Construction Joints.

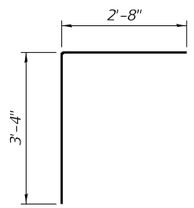
See Sheet S58 for drainage details behind abutments.



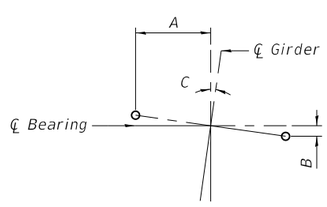
SECTION K-K



SETION L-L



BAR *v7(E)



ANCHOR BOLT
DETAIL

Beam	A	B	C
1A	1'-2⅛"	2"	8.000°
2A	1'-2⅛"	2"	8.000°
3A	1'-2⅛"	2"	8.000°
4A	1'-2⅛"	2"	8.000°
5A	1'-2⅛"	2"	8.000°
9A	1'-1⅛"	2¾"	11.180°

A, B, & C
DIMENSIONS

BILL OF MATERIAL

	Bar	No.	Size	Length	Shape
*	d21(E)	15	#6	2'-3"	———
*	d22(E)	24	#5	2'-3"	———
	h3(E)	16	#5	2'-2"	———
	h6(E)	8	#5	2'-3"	———
	h7(E)	10	#5	4'-2"	———
	p4(E)	5	#5	15'-10"	———
	p72(E)	5	#5	11'-9"	———
	p73(E)	5	#5	15'-6"	———
	v5(E)	3	#6	3'-11"	———
*	v7(E)	88	#5	6'-0"	⌐
	v8(E)	12	#6	6'-9"	———

Item	Unit	Total
Concrete Structures	Cu. Yd.	15.8
Reinforcement Bars, Epoxy Coated	Pound	1130
Granular Backfill for Structures	Cu. Yd.	180
Geocomposite Wall Drain	Sq. Yd.	63
Pipe Underdrains for Structures 4"	Foot	71

MODEL: Default
FILE NAME: S:\2017\17IL021 Various Phase I-II IDOT D3-Graef PTB 184-017\Work Order 5 - I-80 Bridge PH-2(CADD\CADD Sheets\(13) 66H21 - WB East Abutment - Sections.dgn
10/15/2019 8:41:15 AM

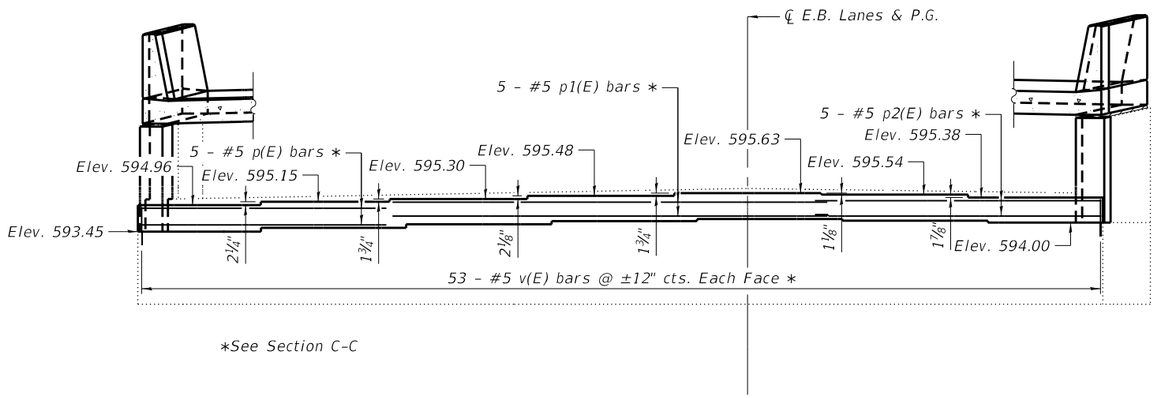
QUIGG ENGINEERING INC

USER NAME =	DESIGNED - KWB	REVISED -	
	CHECKED - KFO	REVISED -	
PLOT SCALE =	DRAWN - LMC	REVISED -	
PLOT DATE = 10/4/2019	CHECKED - MDC	REVISED -	

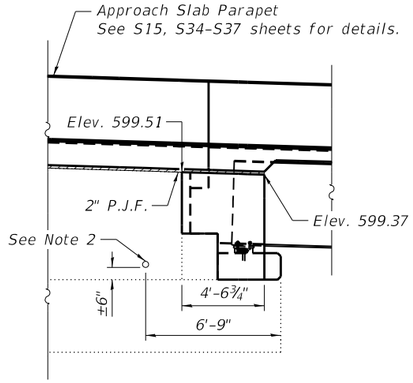
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

WB EAST ABUTMENT SECTIONS - DETAILS
SN 050-0221
SHEET S70 OF 80 SHEETS

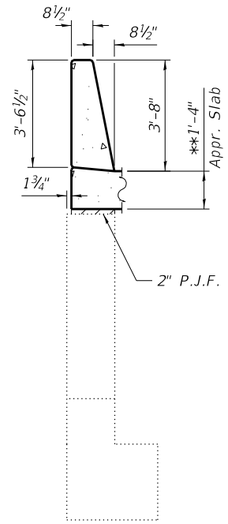
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(50-2BR)ES	LASALLE	328	195
		CONTRACT NO. 66H21		
	ILLINOIS FED. AID PROJECT			



ABUTMENT ELEVATION
(Looking West)

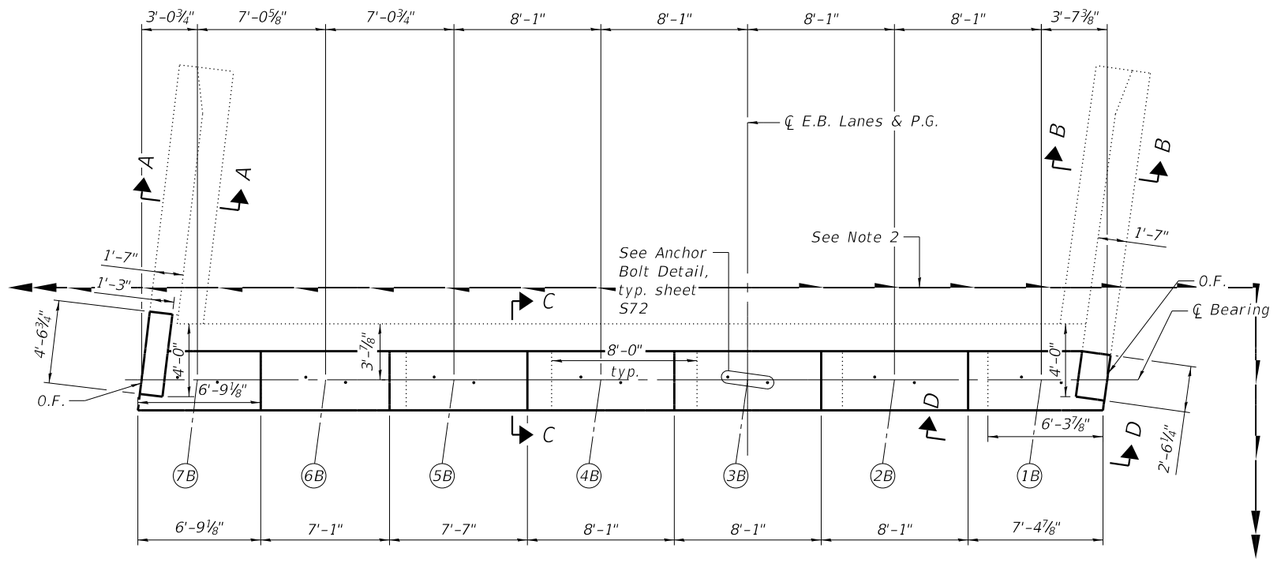


SOUTH WINGWALL ELEVATION

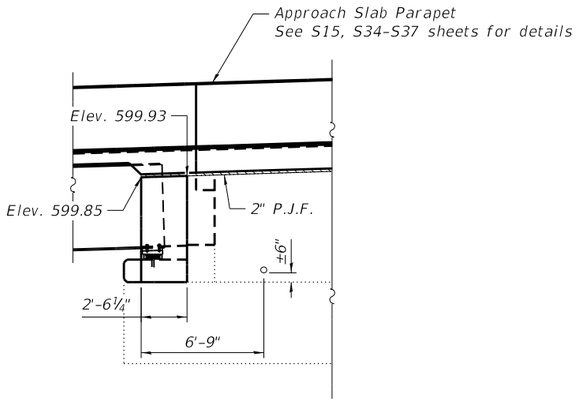


SECTION A-A

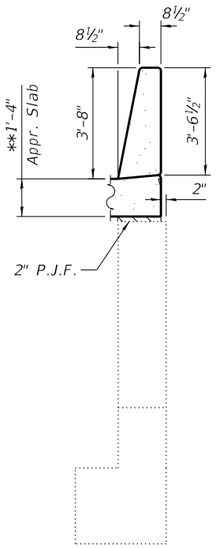
** After grinding



PLAN



NORTH WINGWALL ELEVATION



SECTION B-B

Notes:
1. See Sheet S72 for sections C and D.
2. Pipe Underdrains for Structures 4" Pass through cored holes in wingwalls. See sheet S58. Extend until intersecting with embankment slope.
3. Bars shall be drilled and set according to Article 584 of the Standard Specifications. Bars shall have a 9" minimum embedment depth.

MODEL: Default
FILE NAME: S:\2017\17L021 Various Phase I-II IDOT D3-Graef PTB 184-017\Work Order 5 - I-80 Bridge PH-2\CADD\CADD Sheets\(14) 66H21 - EB West Abutment - Details.dgn
10/15/2019 8:41:17 AM

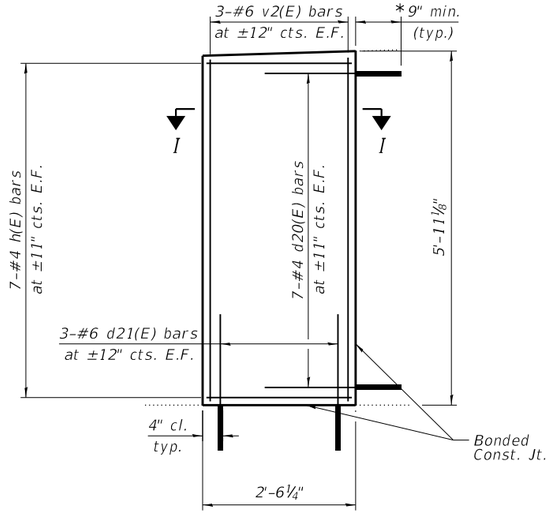
QUIGG ENGINEERING INC

USER NAME =	DESIGNED - KWB	REVISED -	
	CHECKED - KFO	REVISED -	
PLOT SCALE =	DRAWN - LMC	REVISED -	
PLOT DATE = 10/4/2019	CHECKED - MDC	REVISED -	

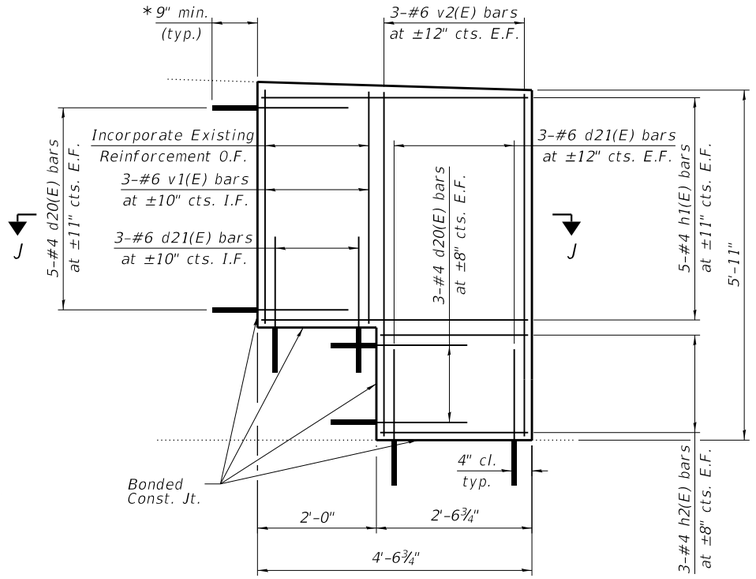
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EB - WEST ABUTMENT - DETAILS
SN 050-0220
SHEET S71 OF 80 SHEETS

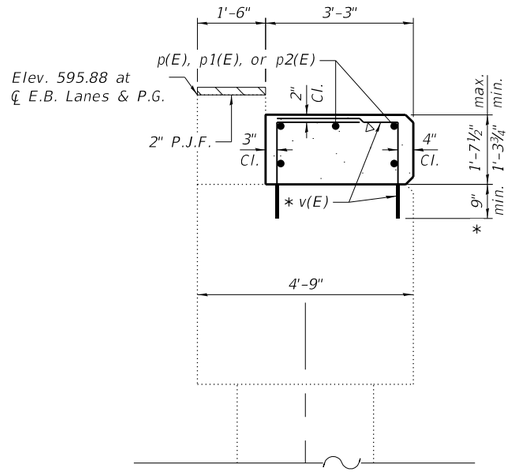
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(50-2BR)ES	LASALLE	328	196
		CONTRACT NO. 66H21		
	ILLINOIS FED. AID PROJECT			



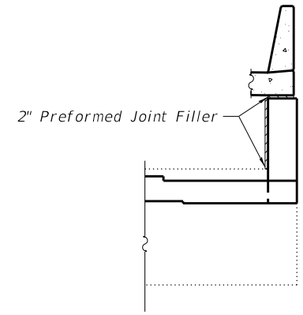
NORTH WINGWALL ELEVATION
(Reinforcement)



SOUTH WINGWALL ELEVATION
(Reinforcement)



SECTION C-C



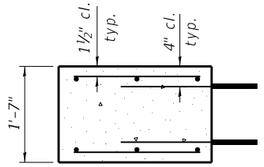
SECTION D-D

Notes:
Cost of drilling and grouting reinforcing bars included in cost for concrete structures.

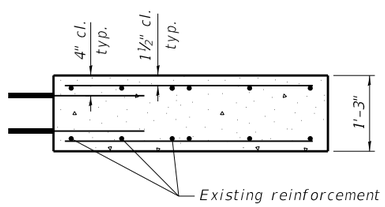
* Bars shall be drilled and set according to Article 584 of the Standard Specifications. Bars shall have a 9" minimum embedment depth.

All construction joints between new and existing concrete shall be Bonded Construction Joints.

See sheet S58 for drainage details behind abutments.



SECTION I-I

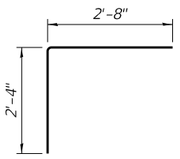


SECTION J-J

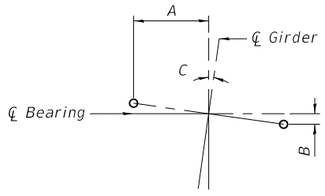
BILL OF MATERIAL

	Bar	No.	Size	Length	Shape
*	d20(E)	30	#4	2'-3"	———
*	d21(E)	15	#6	2'-3"	———
	h(E)	14	#4	2'-2"	———
	h1(E)	10	#4	4'-3"	———
	h2(E)	6	#4	2'-3"	———
	p(E)	5	#5	13'-6"	———
	p1(E)	5	#5	23'-11"	———
	p2(E)	5	#5	15'-9"	———
*	v(E)	106	#5	5'-0"	⌐
	v1(E)	3	#6	3'-10"	———
	v2(E)	12	#6	5'-7"	———

Item	Unit	Total
Concrete Structures	Cu. Yd.	11.3
Reinforcement Bars, Epoxy Coated	Pound	1110
Granular Backfill for Structures	Cu. Yd.	74
Geocomposite Wall Drain	Sq. Yd.	42
Pipe Underdrains for Structures 4"	Foot	86



BAR *v(E)



ANCHOR BOLT
DETAIL

Beam	A	B	C
1B	1'-1⅛"	1⅞"	8.000°
2B	1'-1⅛"	1⅞"	8.000°
3B	1'-1⅛"	1⅞"	8.000°
4B	1'-1⅛"	1⅞"	8.000°
5B	1'-1⅛"	1⅞"	8.000°
6B	1'-1⅛"	1 1/16"	7.429°
7B	1'-1⅛"	1 9/16"	6.854°

A, B, & C
DIMENSIONS

MODEL: Default
FILE NAME: S:\2017\17IL021 Various Phase I-III IDOT D3-Graef PTB 184-017\Work Order 5 - I-80 Bridge PH-2\CADD\CADD Sheets\(15) 66H21 - EB West Abutment - Sections.dgn
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QUIGG ENGINEERING INC

USER NAME =		DESIGNED -	KWB	REVISED -	
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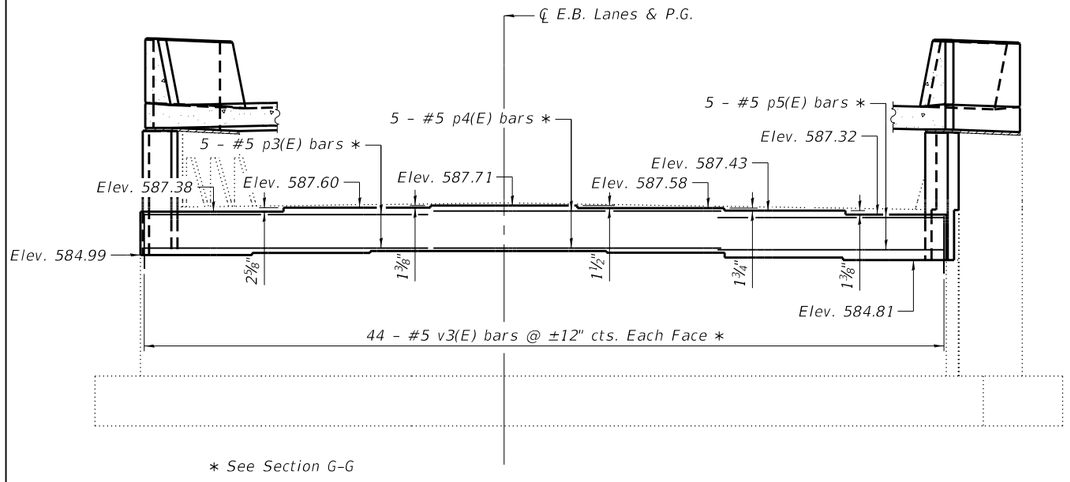
PLOT SCALE =		DRAWN -	LMC	REVISED -	
PLOT DATE =	10/4/2019	CHECKED -	MDC	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

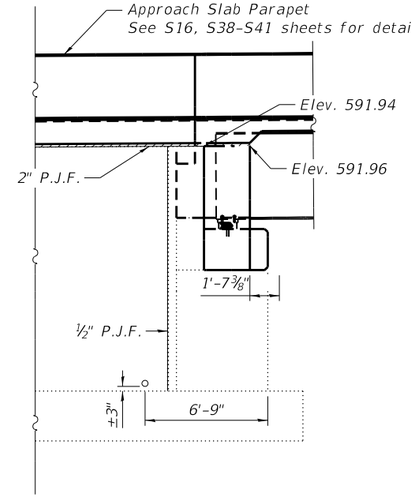
EB WEST ABUTMENT SECTIONS - DETAILS
SN 050-0220
SHEET S72 OF 80 SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(50-2BR)ES	LASALLE	328	197
		CONTRACT NO. 66H21		
	ILLINOIS	FED. AID PROJECT		

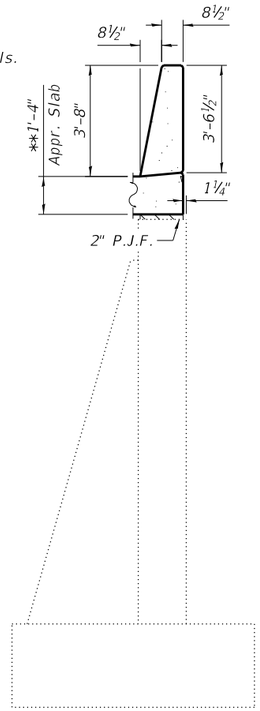


∗ See Section G–G

ABUTMENT ELEVATION
(Looking East)

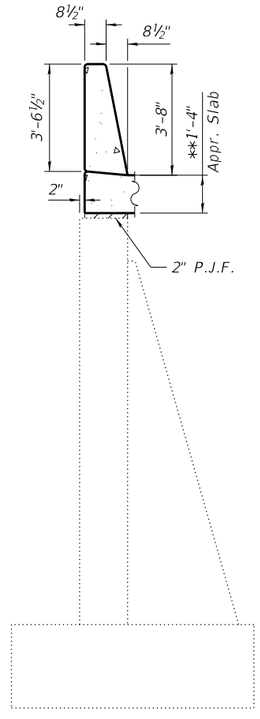


NORTH WINGWALL ELEVATION

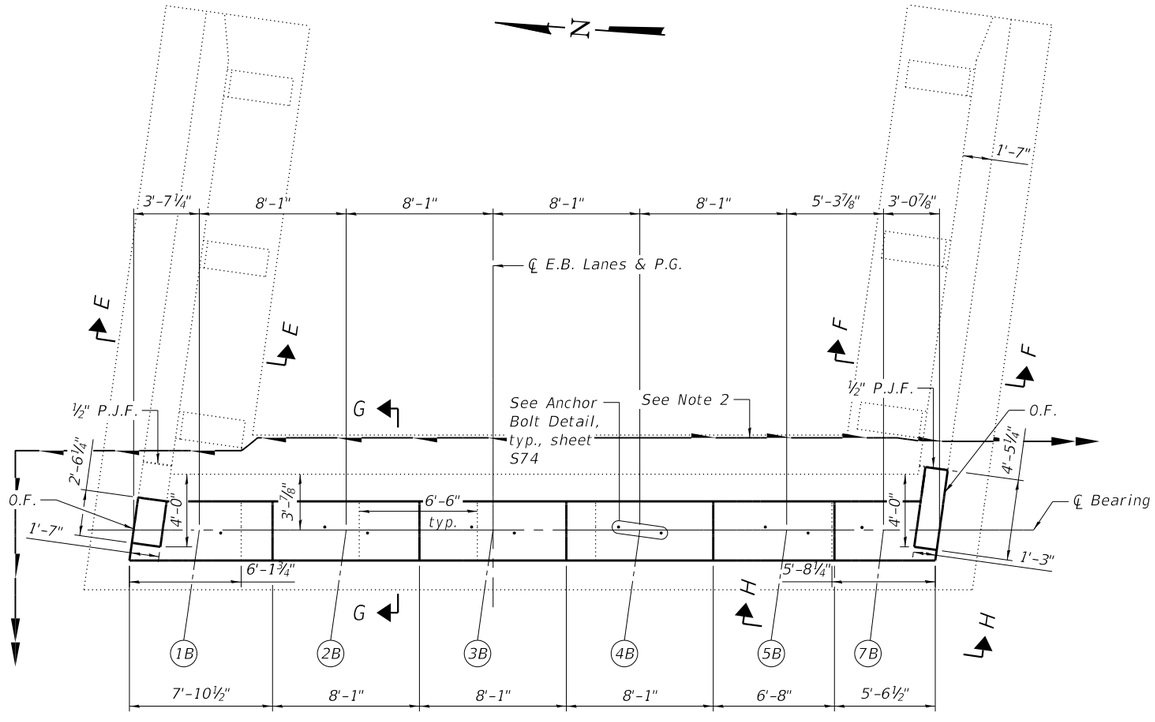


SECTION F-F

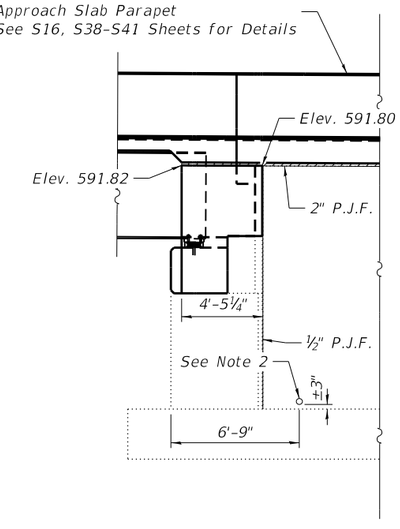
∗∗After grinding



SECTION E-E



PLAN



SOUTH WINGWALL ELEVATION

Notes:
1. See Sheet S74 for sections G and H.
2. Pipe Underdrains for Structures 4" Pass through cored holes in wingwalls. See sheet S58. Extend until intersecting with embankment slope.
3. Bars shall be drilled and set according to Article 584 of the Standard Specifications. Bars shall have a 9" minimum embedment depth.

MODEL: Default
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QUIGG ENGINEERING INC

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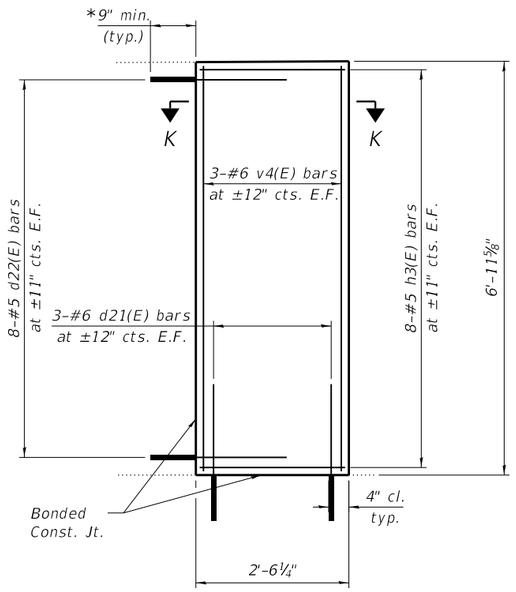
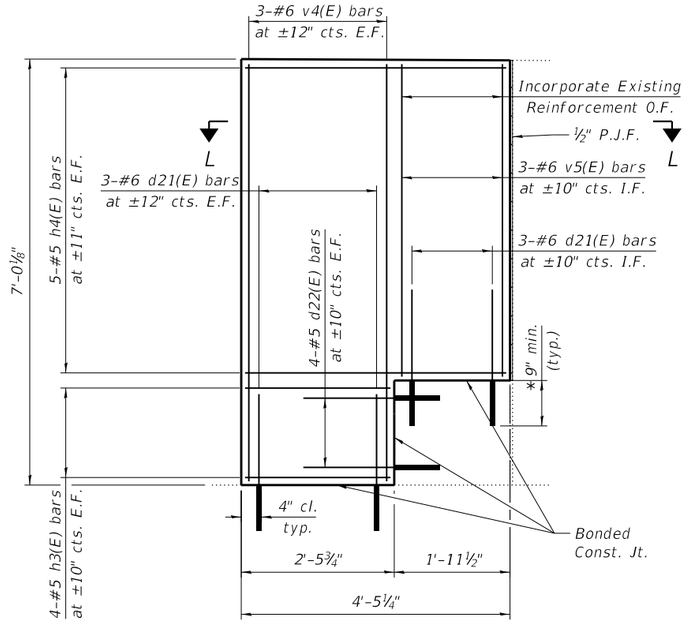
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EB - EAST ABUTMENT - DETAILS
SN 050-0220
SHEET S73 OF 80 SHEETS

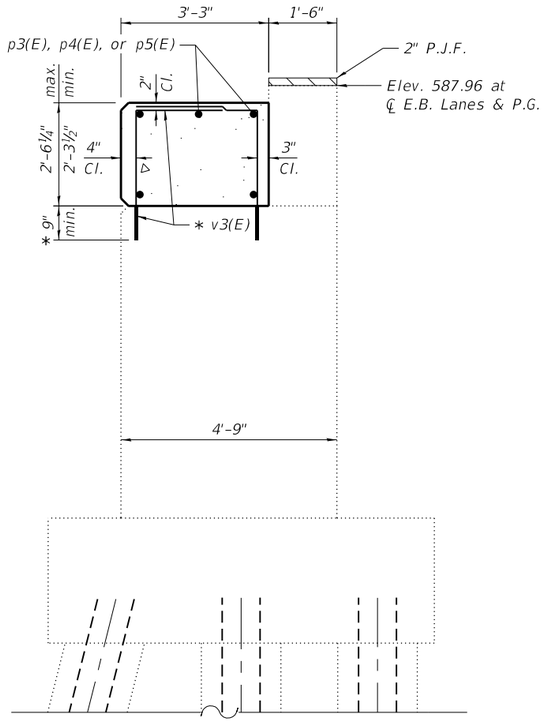
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(50-2BR)ES	LASALLE	328	198
		CONTRACT NO. 66H21		
	ILLINOIS FED. AID PROJECT			



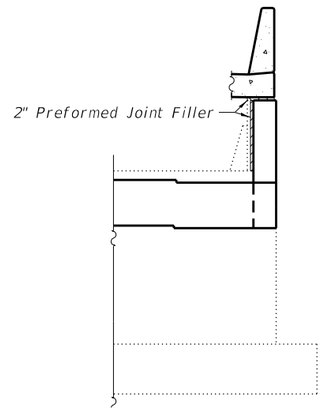
NORTH WINGWALL ELEVATION
(Reinforcement)



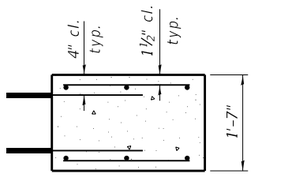
SOUTH WINGWALL ELEVATION
(Reinforcement)



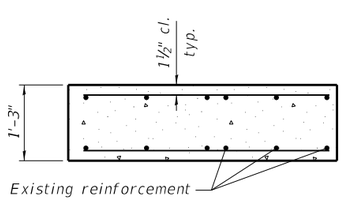
SECTION G-G



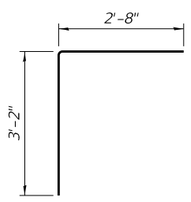
SECTION H-H



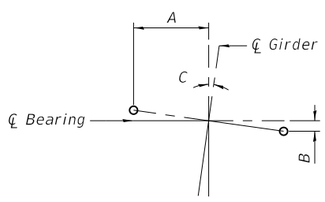
SECTION K-K



SECTION L-L



BAR *v3(E)



ANCHOR BOLT DETAIL

Beam	A	B	C
1B	1'-2⅛"	2"	8.000°
2B	1'-2⅛"	2"	8.000°
3B	1'-2⅛"	2"	8.000°
4B	1'-2⅛"	2"	8.000°
5B	1'-2⅛"	2"	8.000°
7B	1'-2⅛"	1'1 1/16"	6.854°

A, B, & C DIMENSIONS

Notes:

Cost of drilling and grouting reinforcing bars included in cost for concrete structures.

* Bars shall be drilled and set according to Article 584 of the Standard Specifications. Bars shall have a 9" minimum embedment depth.

All construction joints between new and existing concrete shall be Bonded Construction Joints.

See sheet S58 for drainage details behind abutments.

BILL OF MATERIAL

	Bar	No.	Size	Length	Shape
*	d21(E)	15	#6	2'-3"	———
*	d22(E)	24	#5	2'-3"	———
	h3(E)	24	#5	2'-2"	———
	h4(E)	10	#5	4'-1"	———
	p3(E)	5	#5	15'-8"	———
	p4(E)	5	#5	15'-10"	———
	p5(E)	5	#5	12'-6"	———
*	v3(E)	88	#5	5'-10"	⌐
	v4(E)	12	#6	6'-8"	———
	v5(E)	3	#6	3'-11"	———

Item	Unit	Total
Concrete Structures	Cu. Yd.	25.1
Reinforcement Bars, Epoxy Coated	Pound	1110
Granular Backfill for Structures	Cu. Yd.	181
Geocomposite Wall Drain	Sq. Yd.	63
Pipe Underdrains for Structures 4"	Foot	71

MODEL: Default
FILE NAME: S:\2017\17L021 Various Phase I-II IDOT D3-Graef PTB 184-017\Work Order 5 - I-80 Bridge PH-2\CADD\CADD Sheets\(17) 66H21 - EB East Abutment - Sections.dgn
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QUIGG ENGINEERING INC

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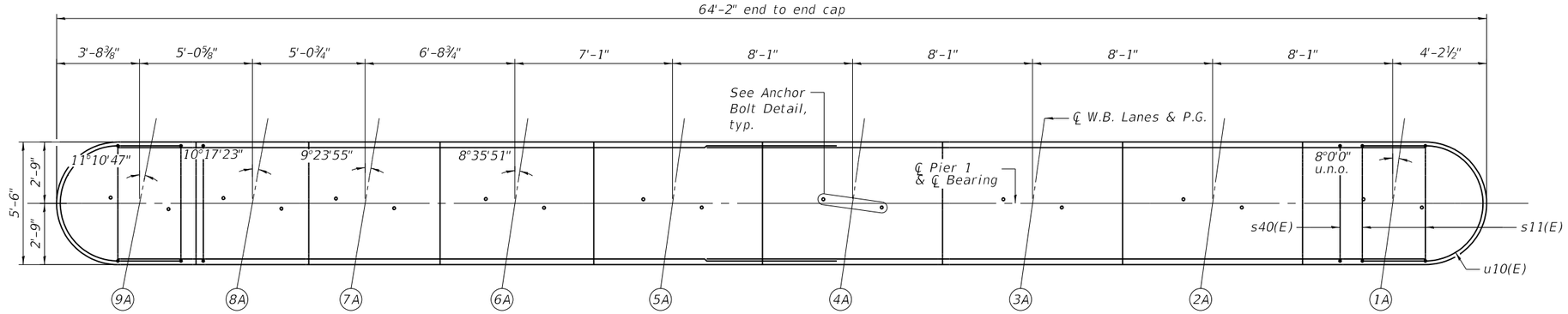
	CHECKED - KFO	REVISED -	
PLOT SCALE =	DRAWN - LMC	REVISED -	
PLOT DATE = 10/4/2019	CHECKED - MDC	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

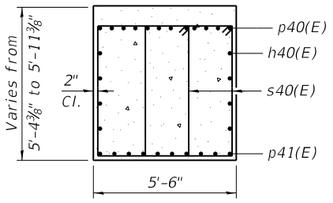
EB EAST ABUTMENT SECTIONS - DETAILS
SN 050-0220
SHEET S74 OF 80 SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(50-2BR)ES	LASALLE	328	199
		CONTRACT NO. 66H21		
	ILLINOIS	FED. AID PROJECT		

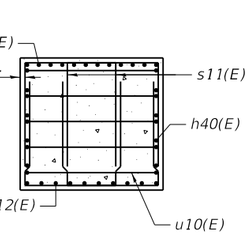
NOTES:
1. Space reinforcement in cap to miss anchor bolts.
2. Pour steps monolithically with cap.
3. Existing column reinforcement shall be cleaned and incorporated into new construction. Cost included in Concrete Removal.
4. Bars noted thus, 12x2 - #8 indicates 12 lines of bars with 2 lengths of bars per line.



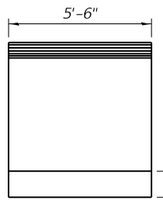
PLAN



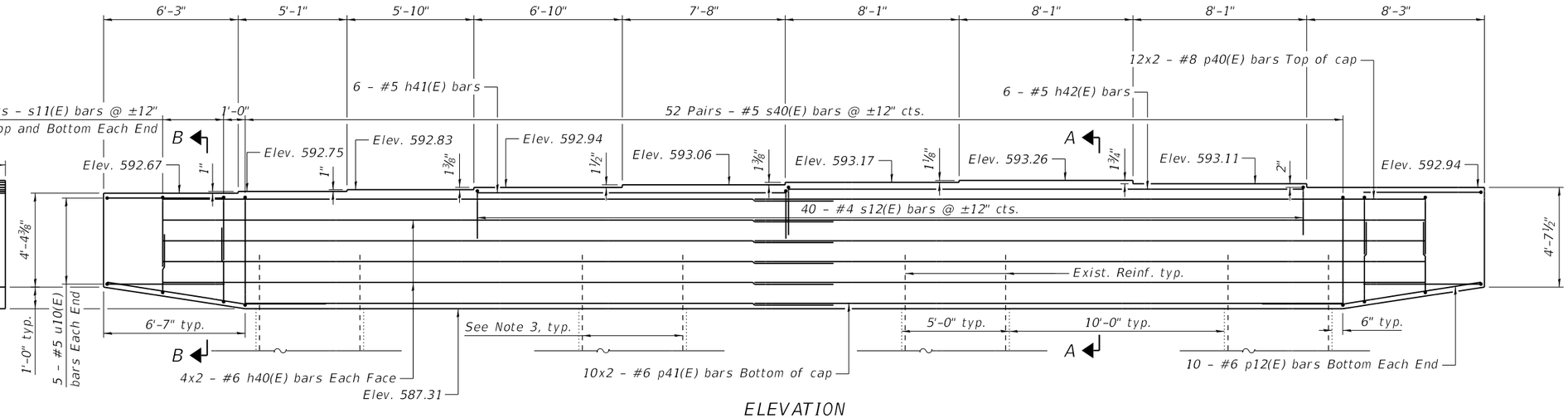
SECTION A-A



SECTION B-B



END VIEW



ELEVATION
(Looking East)

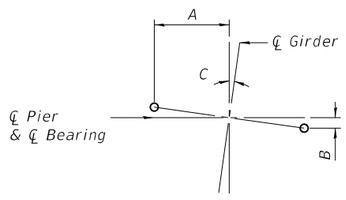
BAR LAP LENGTHS

#6 h40(E) bars 4'-4"
#8 p40(E) bars 8'-2"
#6 p41(E) bars 3'-10"

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h40(E)	16	#6	31'-6"	
h41(E)	6	#5	14'-4"	
h42(E)	6	#5	23'-11"	
p12(E)	20	#6	10'-3"	
p40(E)	24	#8	33'-5"	
p41(E)	20	#6	27'-5"	
s11(E)	32	#5	11'-6"	
s12(E)	40	#4	9'-2"	
s40(E)	104	#5	17'-11"	
u10(E)	10	#5	14'-6"	

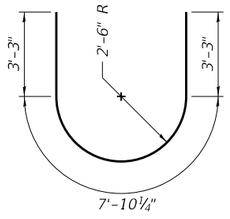
Item	Unit	Total
Concrete Structures	Cu. Yd.	71.8
Reinforcement Bars, Epoxy Coated	Pound	7000



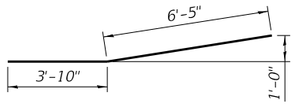
ANCHOR BOLT DETAIL

Beam	A	B	C
1A	1'-3¾"	2 3/16"	8.000°
2A	1'-3¾"	2 3/16"	8.000°
3A	1'-3¾"	2 3/16"	8.000°
4A	1'-3¾"	2 3/16"	8.000°
5A	1'-3¾"	2 3/16"	8.000°
6A	1'-3 11/16"	2⅜"	8.598°
7A	1'-3 11/16"	2⅜"	9.399°
8A	1'-3⅜"	2 13/16"	10.290°
9A	1'-3 9/16"	3 1/16"	11.180°

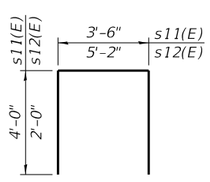
A, B, & C DIMENSIONS



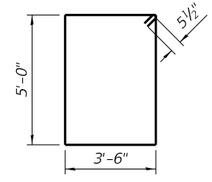
BAR u10(E)



BAR p12(E)



BAR s11(E) & s12(E)



BAR s40(E)

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	PLOT SCALE =	DRAWN - LMC	REVISED -
	PLOT DATE = 10/4/2019	CHECKED - MDC	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

WESTBOUND PIER 1
SN 050-0221
SHEET S75 OF 80 SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(50-2BR)ES	LASALLE	328	200
		CONTRACT NO. 66H21		
	ILLINOIS FED. AID PROJECT			

MODEL: Default
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