

DATE: 8/28/2018
TIME: 2:33:40 PM

USER: \\USFAL3\p001\acesonnel\com\dw\p\o\leas\60336253\g00_Wor\A910_CAD\70_NC001_T\IP\Structures\04_Drawings\401_081_E4974_SML_DL.dgn
DGN: \\USFAL3\p001\acesonnel\com\dw\p\o\leas\60336253\g00_Wor\A910_CAD\70_NC001_T\IP\Structures\04_Drawings\401_081_E4974_SML_DL.dgn

DEAD LOAD DEFLECTION AND CAMBER																						
	SPANS A & I																					
0.6" Ø L.R. STRAND	GIRDERS 1 AND 4												GIRDERS 2 AND 3									
TENTH POINTS	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	0.0	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	0.0
CAMBER (GIRDER ALONE IN PLACE) ↑	0.000	0.012	0.023	0.032	0.037	0.039	0.037	0.032	0.023	0.012	0.000	0.000	0.012	0.023	0.032	0.037	0.039	0.037	0.032	0.023	0.012	0.000
* DEFLECTION DUE TO SUPERIMPOSED D.L. ↓	0.000	0.003	0.007	0.010	0.012	0.012	0.012	0.010	0.007	0.003	0.000	0.000	0.003	0.006	0.008	0.010	0.010	0.010	0.008	0.006	0.003	0.000
FINAL CAMBER ↑	0	1/8"	3/16"	1/4"	5/16"	5/16"	5/16"	1/4"	3/16"	1/8"	0	0	1/8"	3/16"	5/16"	5/16"	3/8"	5/16"	5/16"	3/16"	1/8"	0

* INCLUDES FUTURE WEARING SURFACE
ALL VALUES SHOWN IN FEET (DECIMAL FORM), EXCEPT "FINAL CAMBER" WHICH IS GIVEN IN INCHES (FRACTIONAL FORM).

DEAD LOAD DEFLECTION AND CAMBER																							
		SPANS B, G & H																					
0.6" Ø L.R. STRAND		GIRDERS 1 AND 4											GIRDERS 2 AND 3										
TENTH POINTS		0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	0.0	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	0.0
CAMBER (GIRDER ALONE IN PLACE)	↑	0.000	0.052	0.098	0.134	0.156	0.164	0.156	0.134	0.098	0.052	0.000	0.000	0.052	0.098	0.134	0.156	0.164	0.156	0.134	0.098	0.052	0.000
* DEFLECTION DUE TO SUPERIMPOSED D.L.	↓	0.000	0.023	0.045	0.063	0.074	0.078	0.074	0.063	0.045	0.023	0.000	0.000	0.019	0.037	0.052	0.061	0.064	0.061	0.052	0.037	0.019	0.000
FINAL CAMBER	↑	0	3⁄8"	5⁄8"	7⁄8"	1"	1"	1"	7⁄8"	5⁄8"	3⁄8"	0	0	3⁄8"	3⁄4"	1"	1 1⁄8"	1 3⁄16"	1 1⁄8"	1"	3⁄4"	3⁄8"	0

* INCLUDES FUTURE WEARING SURFACE
ALL VALUES SHOWN IN FEET (DECIMAL FORM), EXCEPT "FINAL CAMBER" WHICH IS GIVEN IN INCHES (FRACTIONAL FORM).

DEAD LOAD DEFLECTION AND CAMBER													
	ARCH SPAN C												
	BACK ARCH PIER	SPANDREL BENT											FORWARD ARCH PIER
		1	2	3	4	5	6	7	8	9	10	11	
CAMBER (GIRDER ALONE IN PLACE) ↑	0.000	-0.004	-0.008	-0.010	-0.009	-0.006	-0.001	0.002	0.004	0.004	0.004	0.003	0.000
* DEFLECTION DUE TO SUPERIMPOSED DL ↓	0.000	0.000	0.005	0.008	0.009	0.007	0.003	-0.002	-0.005	-0.006	-0.007	-0.007	0.000
FINAL CAMBER ↑	0	1/16	1/16	0	0	0	0	0	0	0	1/16	1/16	0

* INCLUDES FUTURE WEARING SURFACE
ALL VALUES SHOWN IN FEET (DECIMAL FORM), EXCEPT "FINAL CAMBER" WHICH IS GIVEN IN INCHES (FRACTIONAL FORM).

DEAD LOAD DEFLECTION AND CAMBER													
	ARCH SPAN D												
	BACK ARCH PIER	SPANDREL BENT											FORWARD ARCH PIER
		1	2	3	4	5	6	7	8	9	10	11	
CAMBER (GIRDER ALONE IN PLACE) ↑	0.000	0.000	0.001	0.005	0.010	0.015	0.019	0.019	0.016	0.010	0.004	0.001	0.000
* DEFLECTION DUE TO SUPERIMPOSED DL ↓	0.000	-0.005	-0.005	-0.007	-0.009	-0.014	-0.017	-0.018	-0.016	-0.012	-0.007	-0.005	0.000
FINAL CAMBER ↑	0	1/16	1/16	0	0	0	0	0	0	0	1/16	1/16	0

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ALL VALUES SHOWN IN FEET (DECIMAL FORM), EXCEPT "FINAL CAMBER" WHICH IS GIVEN IN INCHES (FRACTIONAL FORM).

DEAD LOAD DEFLECTION AND CAMBER														
	ARCH SPAN E													
	BACK ARCH PIER	SPANDREL BENT												FORWARD ARCH PIER
		1	2	3	4	5	6	7	8	9	10	11		
CAMBER (GIRDER ALONE IN PLACE) ↑	0.000	0.001	0.004	0.010	0.015	0.018	0.017	0.014	0.009	0.005	0.001	0.000	0.000	
* DEFLECTION DUE TO SUPERIMPOSED DL ↓	0.000	-0.006	-0.008	-0.012	-0.016	-0.017	-0.016	-0.012	-0.008	-0.006	-0.005	-0.005	0.000	
FINAL CAMBER ↑	0	1⁄16	1⁄16	0	0	0	0	0	0	0	1⁄16	1⁄16	0	

* INCLUDES FUTURE WEARING SURFACE
ALL VALUES SHOWN IN FEET (DECIMAL FORM), EXCEPT "FINAL CAMBER" WHICH IS GIVEN IN INCHES (FRACTIONAL FORM).

DEAD LOAD DEFLECTION AND CAMBER														
	ARCH SPAN F													
	BACK ARCH PIER	SPANDREL BENT											FORWARD ARCH PIER	
		1	2	3	4	5	6	7	8	9	10	11		
CAMBER (GIRDER ALONE IN PLACE) ↑	0.000	0.003	0.004	0.005	0.006	0.005	0.002	-0.002	-0.006	-0.007	-0.007	-0.004	0.000	
* DEFLECTION DUE TO SUPERIMPOSED DL ↓	0.000	-0.007	-0.007	-0.007	-0.007	-0.005	-0.001	0.004	0.006	0.006	0.003	-0.001	0.000	
FINAL CAMBER ↑	0	1/16	1/16	0	0	0	0	0	0	0	1/16	1/16	0	

* INCLUDES FUTURE WEARING SURFACE
ALL VALUES SHOWN IN FEET (DECIMAL FORM), EXCEPT "FINAL CAMBER" WHICH IS GIVEN IN INCHES (FRACTIONAL FORM).

NOTES

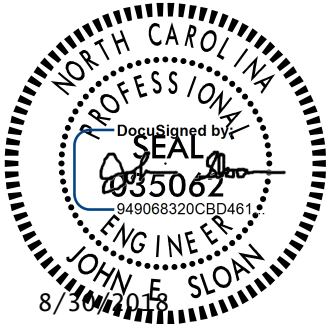
- CONTRACTOR SHALL EXERCISE GEOMETRIC CONTROL OF THE STRUCTURE BY APPROPRIATELY EVALUATING AND MONITORING THE GEOMETRY THROUGHOUT THE DEMOLITION AND CONSTRUCTION SEQUENCE.
- SURVEY DATA REQUIRED TO BE SUBMITTED CONSTITUTES THE MINIMUM REQUIREMENT FOR THE EXERCISE OF GEOMETRIC CONTROL OF THE STRUCTURE. CONTRACTOR SHALL TAKE ADDITIONAL SURVEY DATA REQUIRED, IF NECESSARY, TO PROPERLY CONSTRUCT THE STRUCTURE TO THE PROPOSED GEOMETRY.
- DEFLECTIONS AND CAMBER SHOWN ON THIS SHEET ARE AT A STRUCTURE TEMPERATURE OF 60 DEGREES FAHRENHEIT.
- CONTRACTOR SHALL SURVEY THE ELEVATIONS OF THE TOP OF THE SPANDREL BENT PEDESTALS, THE ARCH RIB EXTRADOS AT THE SPANDREL BENT CONTROL LINE, AND THE TOP OF GIRDER ELEVATIONS AT THE SPANDREL BENT CONTORL LINE. THIS SURVEY SHALL BE CONDUCTED FOLLOWING THE PLACEMENT OF THE BOX GIRDERS AND CASTING THE SPLICES, BUT PRIOR TO PLACING THE DECK PANELS. THE DATE OF THE SURVEY AND THE AMBIENT TEMPERATURE DURING THE SURVEY SHALL BE NOTED WITH THE ELEVATIONS. CONTRACTOR SHALL ADJUST THHE BUILDUP BASED ON THE RESULTS OF THE SRUVEY, AS DIRECTED BY THE ENGINEER. SURVEY SHALL BE SEALED BY A SURVEYOR LICENSED IN NORTH CAROLINA.
- FOR ADDITIONAL SURVEY REQUIREMENTS AT THE ARCH RIBS AND SPANDREL BENTS, SEE "SPANDREL BENTS ELEVATIONS" SHEET.

PROJECT NO. B-4974
STANLY/MONTGOMERY COUNTY
STATION: 339+86.39 -L-

DRAWN BY : <u>K. DONALD</u>	DATE : <u>6/2017</u>
CHECKED BY : <u>J. SLOAN</u>	DATE : <u>9/2017</u>
DESIGNED BY : <u>K. COMPTON</u>	DATE : <u>9/2017</u>
DESIGN CHECKED BY : <u>K. DONALD</u>	DATE : <u>9/2017</u>

DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
SIGNATURES COMPLETED

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AECOM License No. F-0342



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

SUPERSTRUCTURE

DEAD LOAD DEFLECTIONS

REVISIONS						SHEET NO. S-40
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			TOTAL SHEETS 148
2			4			