

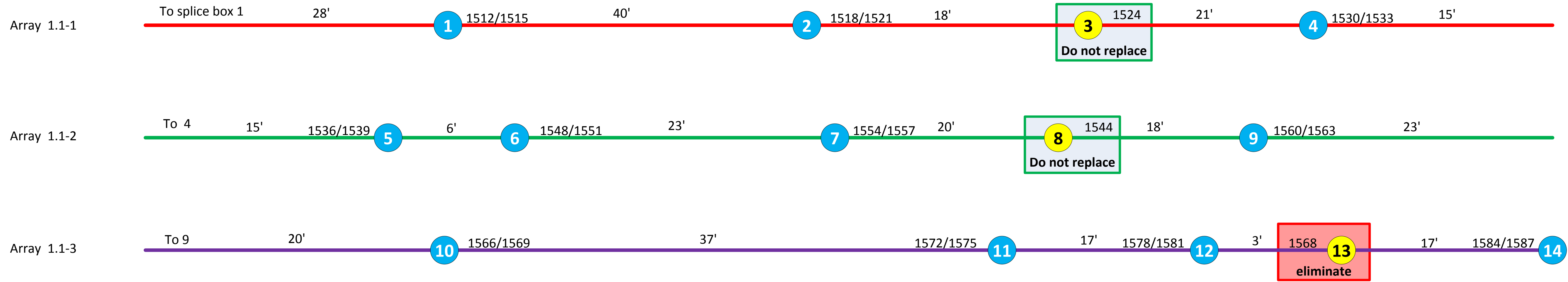
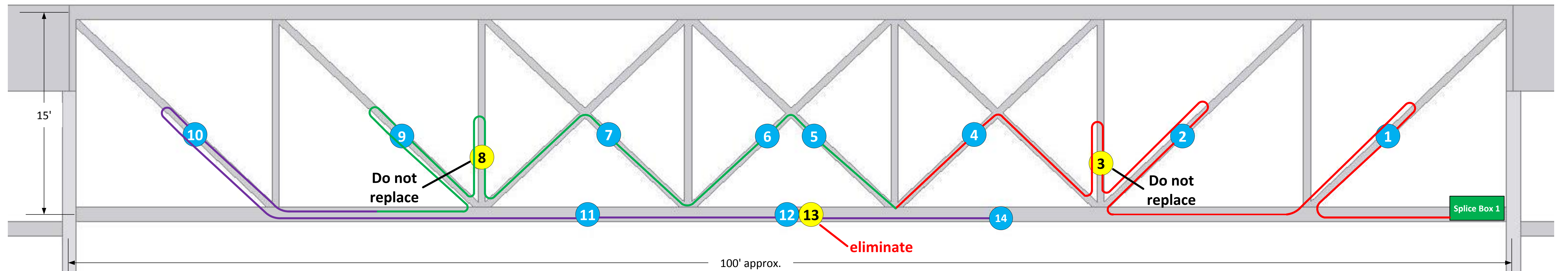
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		UNLESS OTHERWISE SPECIFIED:		NAME	DATE	Chandler Monitoring Systems	
		DIMENSIONS ARE IN INCHES		DRAWN			
		TOLERANCES:		CHECKED		TITLE:	
		FRACTIONAL ±		ENG APPR.		Norfolk Southern Portage Viaduct	
		ANGULAR: MACH ±		MFG APPR.		Sensor Channel Locations	
		TWO PLACE DECIMAL ±		Q.A.		SIZE	DWG. NO.
		THREE PLACE DECIMAL ±		COMMENTS:		B	Norfolk Southern Portage Viaduct
		INTERPRET GEOMETRIC				REV	
		TOLERANCING PER:					
		MATERIAL:					
		FINISH:					
NEXT ASSY	USED ON	DO NOT SCALE DRAWING				SCALE: 1:1	WEIGHT:
APPLICATION							SHEET 1 OF 1

Norfolk Southern Portage Viaduct Channel 1.1 Span 7 North

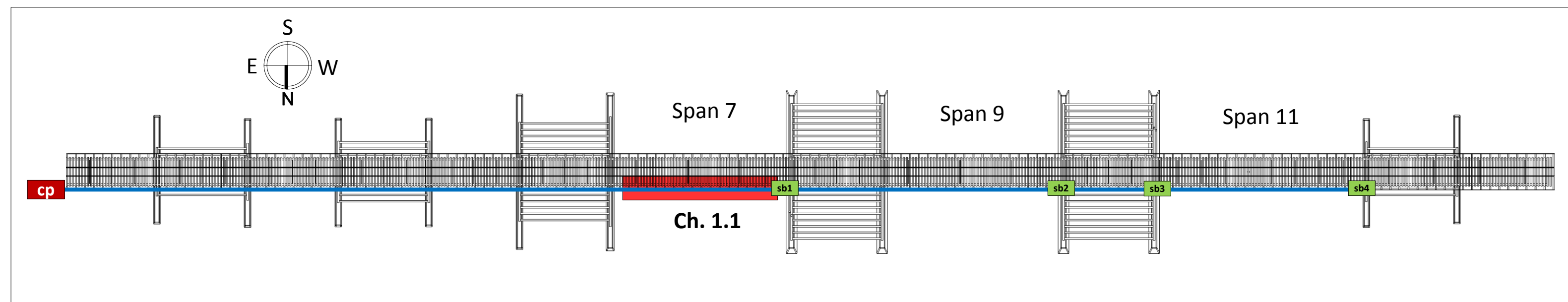
East

West



Sensor reference Channel 1.1

Array ID	Type	Wavelength	Sensor ID	Serial Number
1	3155	1512/1515	Strain_R11	C307684
2	3155	1518/1521	Strain_R10	C307694
3	temp	1524	Temp_R3	B312714
4	3155	1530/1533	Strain_R8	C307751
5	3155	1536/1539	Strain_R7	C307753
6	3155	1548/1551	Strain_R5	C307726
7	3155	1554/1557	Strain_R4	C307735
8	temp	1544	Temp_R1	B312690
9	3155	1560/1563	Strain_R2	C307715
10	3155	1566/1569	Strain_R1	C307770
11	3155	1572/1575	Strain_R3	C307764
12	3155	1578/1581	Strain_R6	C307703
13	eliminate	1568 temp	Temp_R2	B312691
14	3155	1584/1587	Strain_R9	C307708



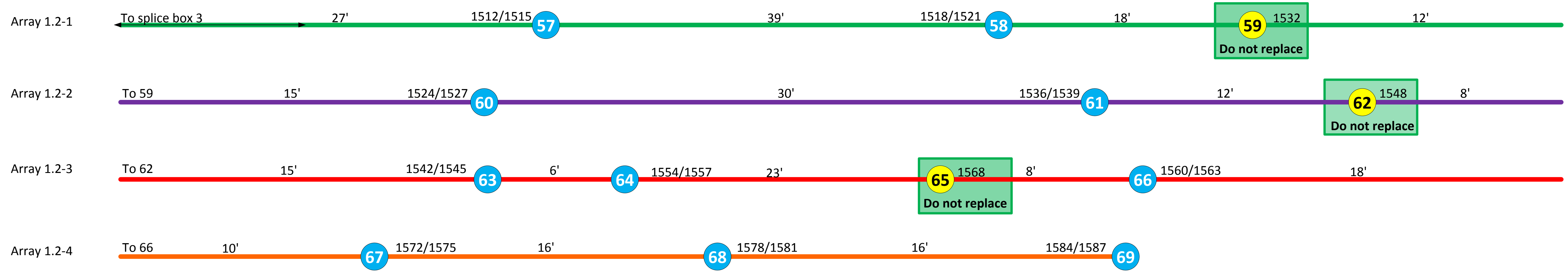
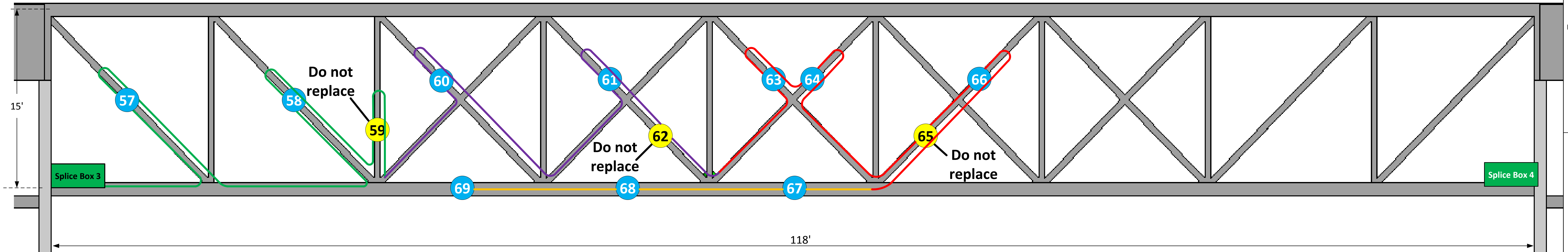
- os3155 strain sensor
- os4350 temperature sensor

Chandler Monitoring Systems			
Norfolk Southern Portage Viaduct Channel 1.1 Sensor & Array Layout Span 7 North			
SCALE	FSCM NO	DWG NO	REV
1 : 1	1/22/2013	NS-channel-1.1-span7-north-3nm	1 OF 1

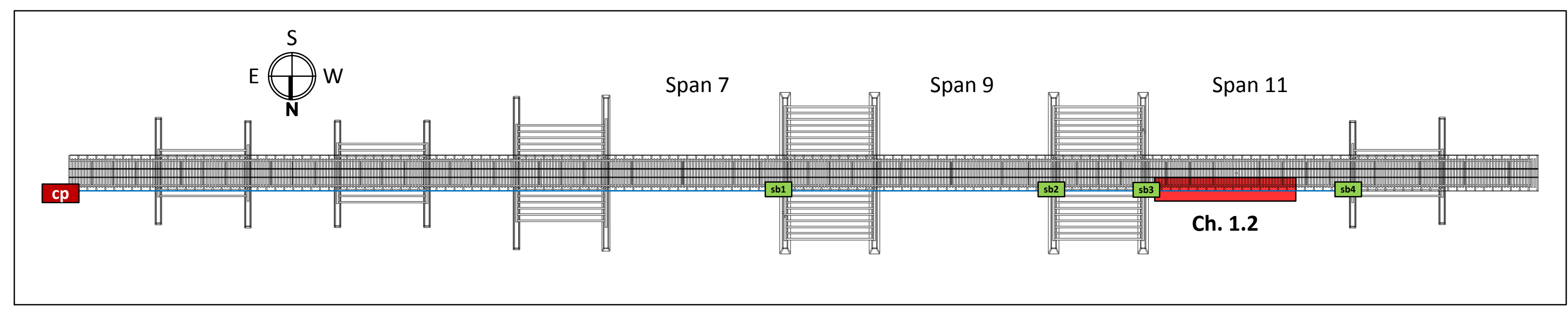
Norfolk Southern Portage Viaduct Sensor and Array Layout Channel 1.2 Span 11 North

East

West



Sensor reference Channel 1.2				
Array ID	Type	Wavelength	Sensor ID	Serial Number
57	3155	1512/1515	Strain_R23	C307730
58	3155	1518/1521	Strain_R24	C307695
59	temp	1532	Temp_R7	B312701
60	3155	1524/1527	Strain_R25	C307745
61	3155	1536/1539	Strain_R27	C307758
62	temp	1548	Temp_R8	B312702
63	3155	1542/1545	Strain_R29	C307721
64	3155	1554/1557	Strain_R31	C307732
65	temp	1568	Temp_R9	B312703
66	3155	1560/1563	Strain_R33	C307712
67	3155	1572/1575	Strain_R30	C307766
68	3155	1578/1581	Strain_R28	C307699
69	3155	1584/1587	Strain_R26	C307707



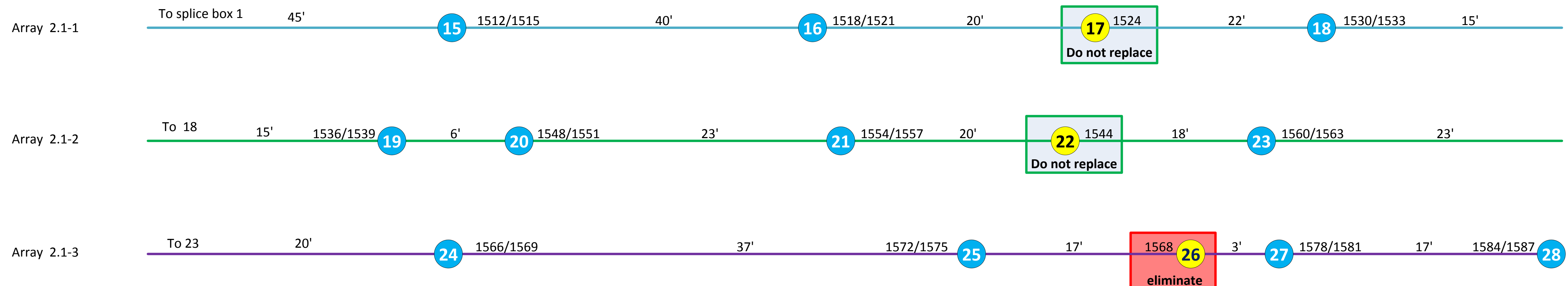
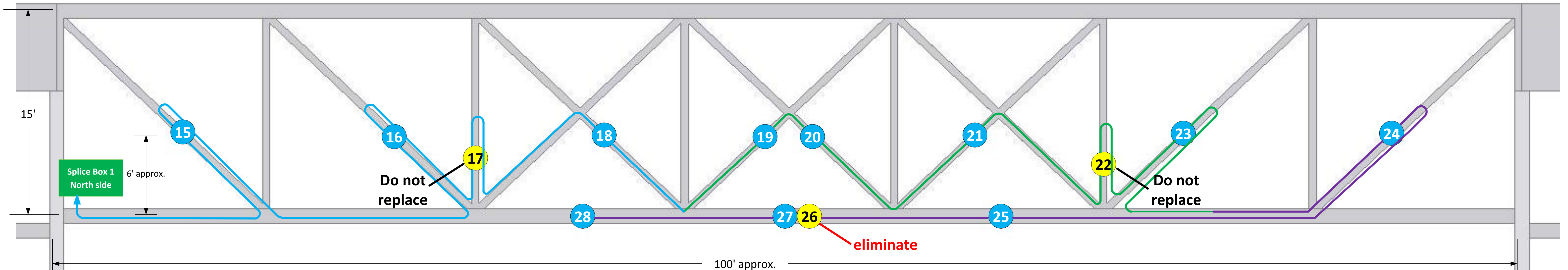
- os3155 strain sensor
- os4350 temperature sensor

Chandler Monitoring Systems			
Norfolk Southern Portage Viaduct Sensor and Array Layout Channel 1.2 Span 11 North			
SIZE	FSCM NO	DWG NO	REV
NS-channel-1.2-span11-north-3nm		SCALE	1:1
DATE	2/1/2013	SHEET	1 OF 1

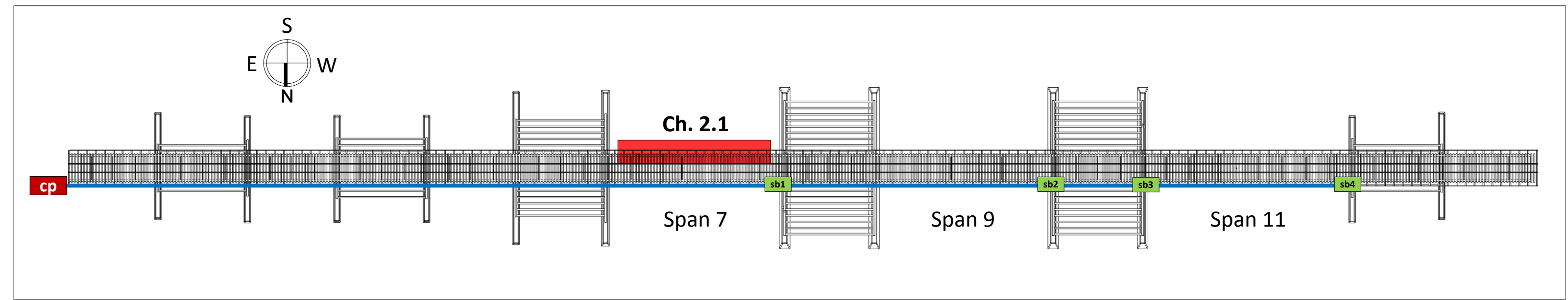
Norfolk Southern Portage Viaduct Channel 2.1 Span 7 South

West

East



Sensor reference Channel 2.1				
Array ID	Type	Wavelength	Sensor ID	Serial Number
15	3155	1512/1515	Strain_L48	C307685
16	3155	1518/1521	Strain_L_47	C307693
17	temp	1524	Temp_L13	B312715
18	3155	1530/1533	Strain_L45	C307752
19	3155	1536/1539	Strain_L44	C307755
20	3155	1548/1551	Strain_L42	C307728
21	3155	1554/1557	Strain_L41	C307736
22	temp	1544	Temp_L11	B312693
23	3155	1560/1563	Strain_L39	C307711
24	3155	1566/1569	Strain_L38	C307767
25	3155	1572/1575	Strain_L40	C307763
26	eliminate	temp 1568	Temp_L12	B312694
27	3155	1578/1581	Strain_L43	C307742
28	3155	1584/1587	Strain_L46	C307706



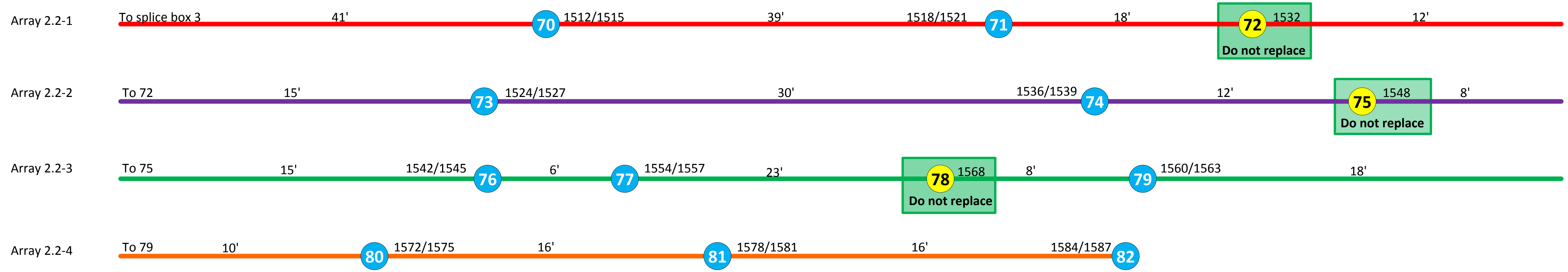
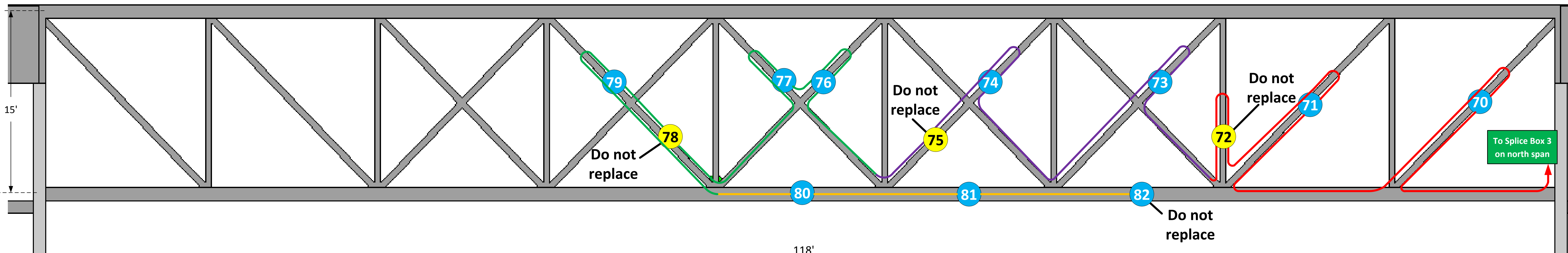
- os3155 strain sensor
- os4350 temperature sensor

Chandler Monitoring Systems			
Norfolk Southern Portage Viaduct Channel 2.1 Sensor & Array Layout Span 7 South			
SCALE	1 : 1	DATE	1/22/2013
SHEET	NS-channel-2.1-south-3nm		REV
1 OF 1			1 OF 1

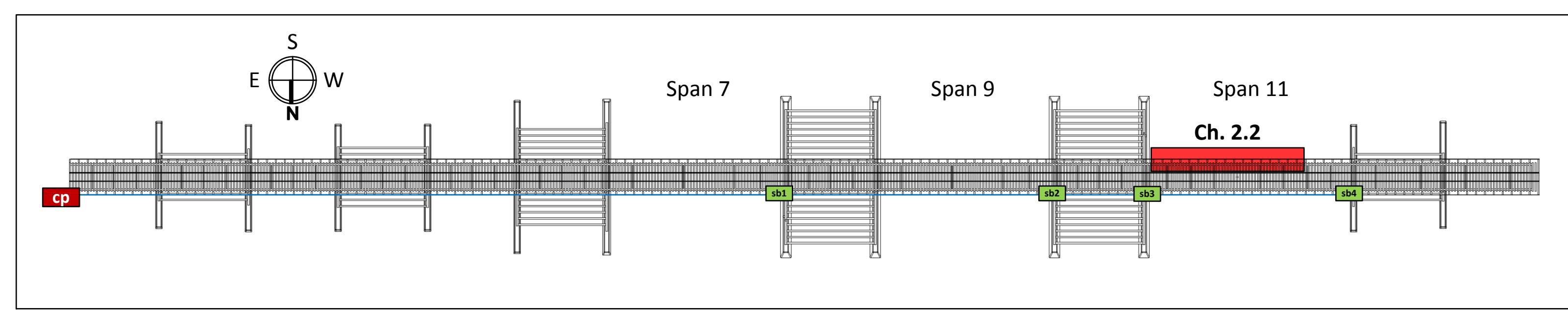
Norfolk Southern Portage Viaduct
Sensor and Array Layout
Channel 2.2
Span 11 South

West

East



Sensor reference Channel 2.2				
Array ID	Type	Wavelength	Sensor ID	Serial Number
70	3155	1512/1515	Strain_L60	C307686
71	3155	1518/1521	Strain_L61	C307692
72	temp	1532	Temp_L17	B312707
73	3155	1524/1527	Strain_L62	C307714
74	3155	1536/1539	Strain_L64	C307759
75	temp	1548	Temp_L18	B312705
76	3155	1542/1545	Strain_L66	C307719
77	3155	1554/1557	Strain_L68	C307733
78	temp	1568	Temp_L19	B312706
79	3155	1560/1563	Strain_L70	C307716
80	3155	1572/1575	Strain_L67	C307762
81	3155	1578/1581	Strain_L65	C307702
82	3155	1584/1587	Strain_L63	C307698



- os3155 strain sensor
- os4350 temperature sensor

Chandler Monitoring Systems

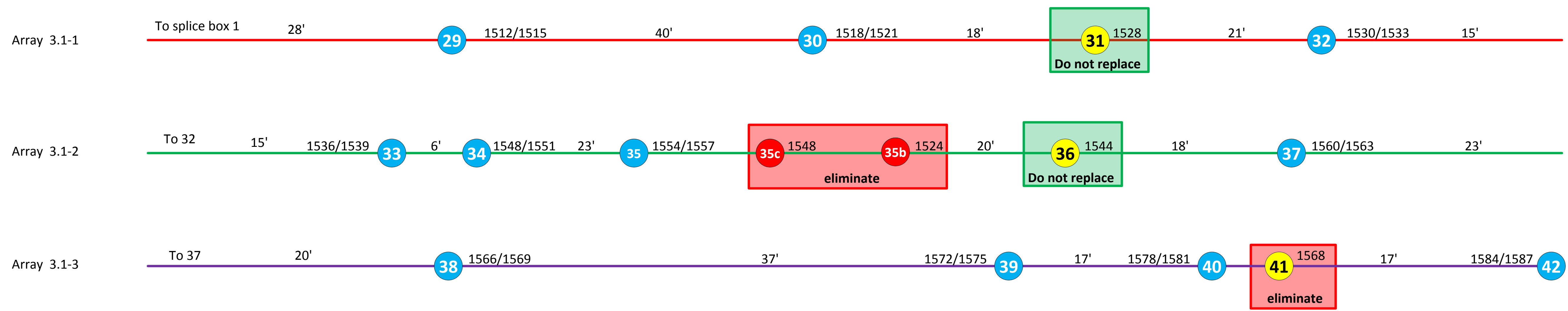
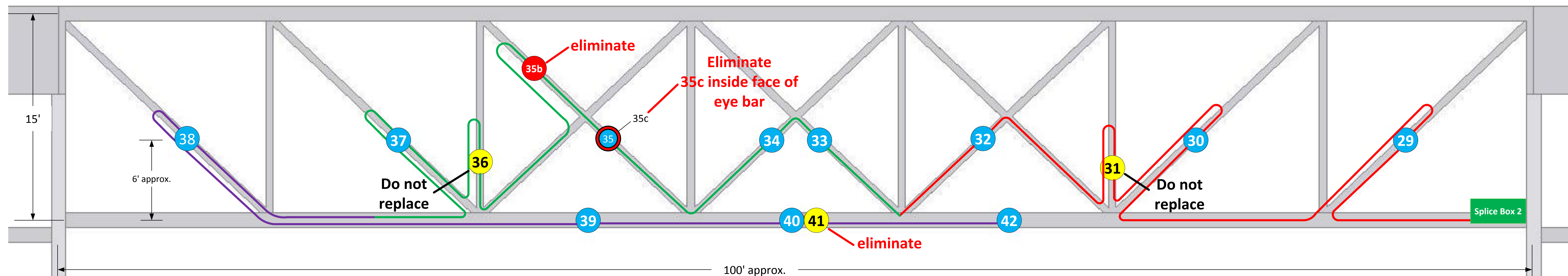
Norfolk Southern Portage Viaduct
Sensor and Array Layout
Channel 2.2
Span 11 South

SCALE	1:1	DATE	2/1/2012	SHEET	1 OF 1
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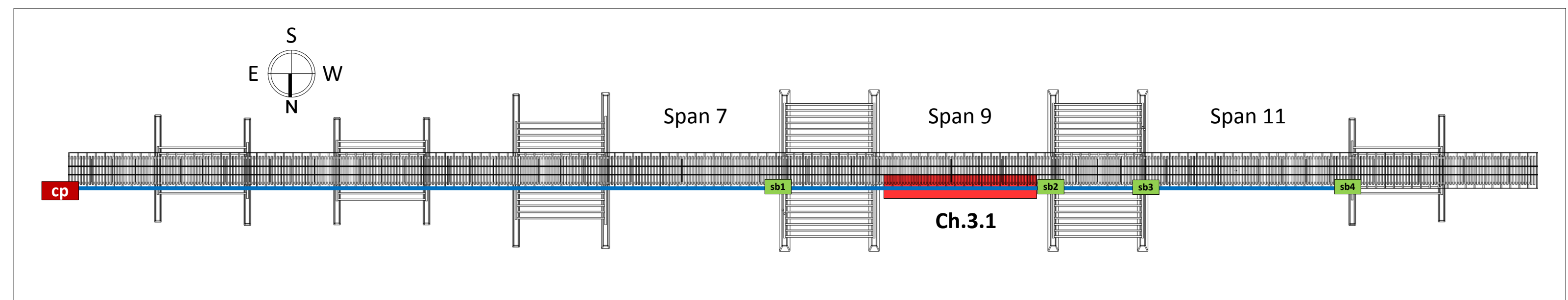
Norfolk Southern Portage Viaduct Channel 3.1 Span 9 North

East

West



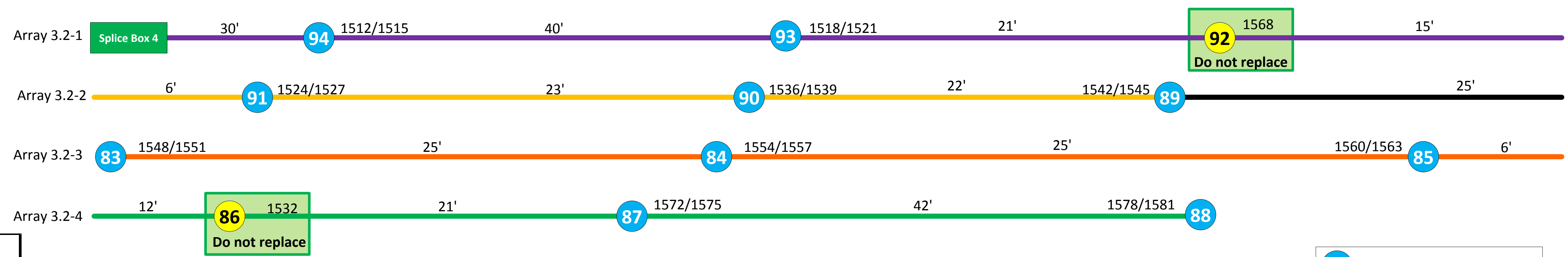
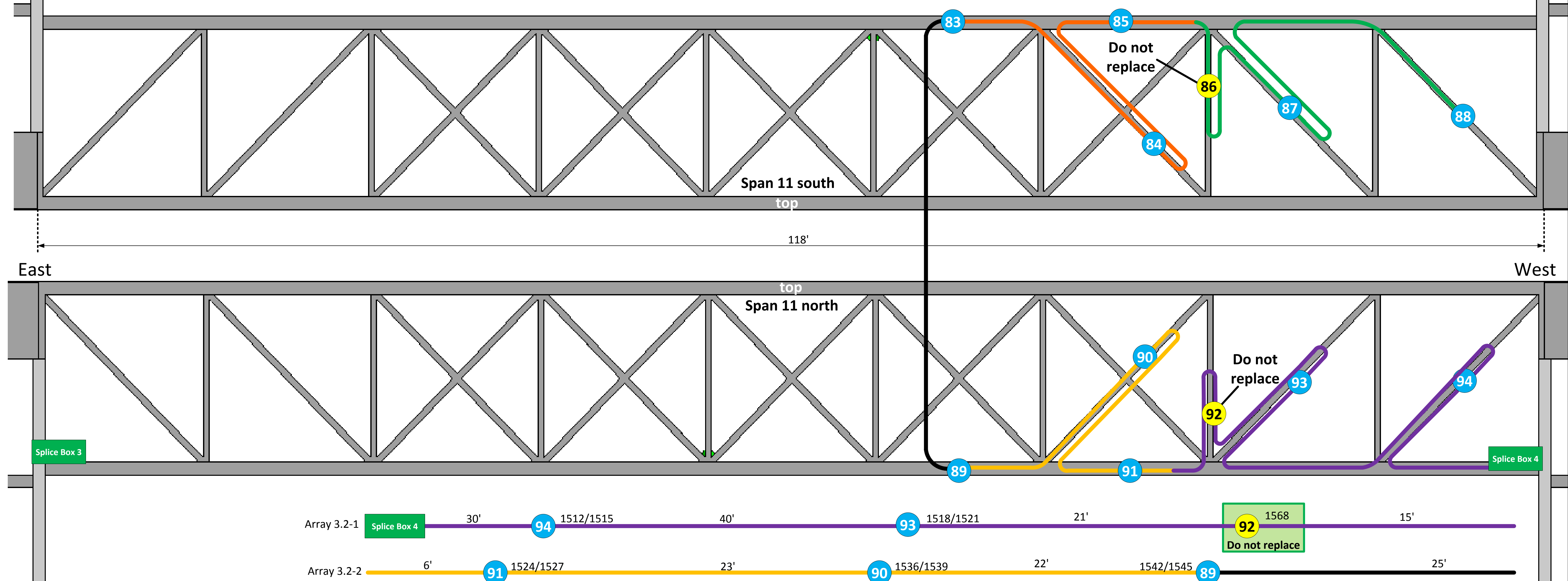
Sensor reference Channel 3.1				
Array ID	Type	Wavelength	Sensor ID	Serial Number
29	3155	1512/1515	Strain_R22	C307688
30	3155	1518/1521	Strain_R21	C307691
31	temp	1528	Temp_R6	B312716
32	3155	1530/1533	Strain_R19	C307749
33	3155	1536/1539	Strain_R18	C307754
34	3155	1548/1551	Strain_R16	C307729
35	3155	1554/1557	Strain_R15	C307737
35b	3150	eliminate	Strain_R15b	
35c	3150	eliminate	Strain_R15c	
36	temp	1544	Temp_R4	B312696
37	3155	1560/1563	Strain_R13	C307710
38	3155	1566/1569	Strain_R12	C307768
39	3155	1572/1575	Strain_R14	C307761
40	3155	1578/1581	Strain_R17	C307701
41	temp	eliminate	Temp_R5	B312697
42	3155	1584/1587	Strain_R20	C307704



- os3155 strain sensor
- os4350 temperature sensor

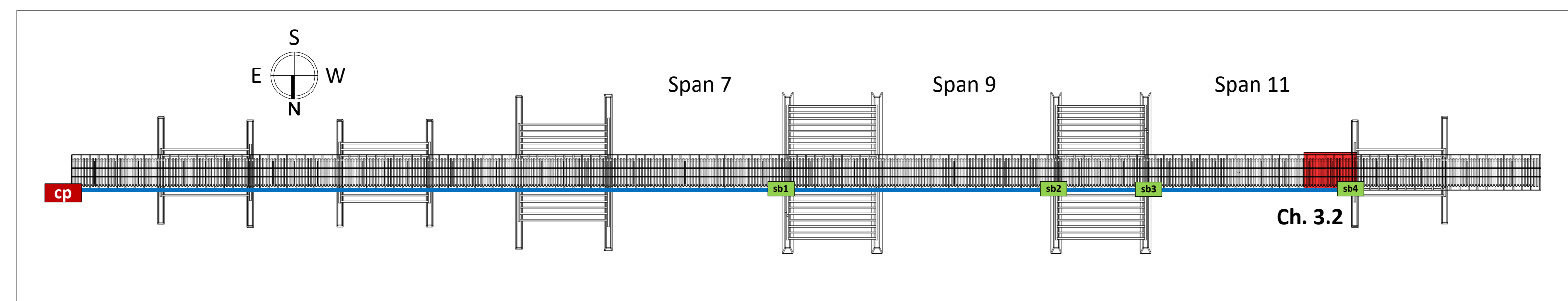
Chandler Monitoring System.			
Norfolk Southern Portage Viaduct Channel 3.1 Sensor & Array Layout Span 9 North			
SIZE	FSCM NO.	DWG NO.	REV.
SCALE	1:1	1/22/2012	SHEET 1 OF 1

Norfolk Southern Portage Viaduct Sensor and Array Layout Channel 3.2



Sensor reference Channel 3.2				
Array ID	Type	Wavelength	Sensor ID	Serial Number
83	3155	1548/1551	Strain_L69	C307724
84	3155	1554/1557	Strain_L72	C307734
85	3155	1560/1563	Strain_L71	C307713
86	temp	1532	Temp_L20	B312704
87	3155	1572/1575	Strain_L73	C307765
88	3155	1578/1581	Strain_L74	C307697
89	3155	1542/1545	Strain_R32	C307720
90	3155	1536/1539	Strain_R35	C307756
91	3155	1524/1527	Strain_R34	C307746
92	temp	1568	Temp_R10	B312708
93	3155	1518/1521	Strain_R36	C307740
94	3155	1512/1515	Strain_R37	C307687

- os3155 strain sensor
- os4350 temperature sensor



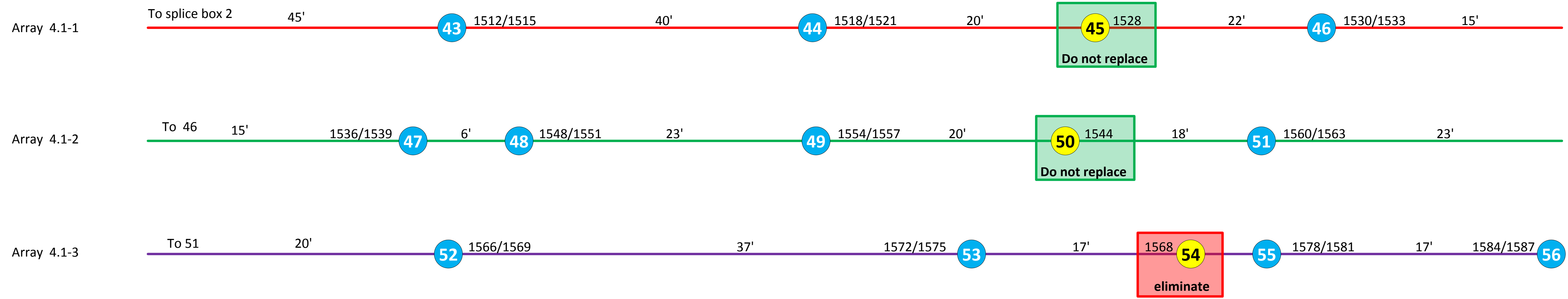
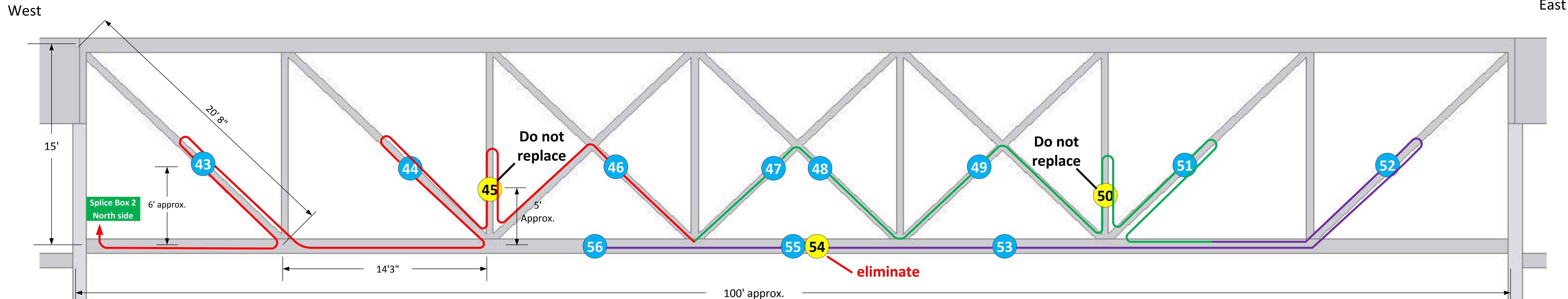
Chandler Monitoring Systems

Norfolk Southern Portage Viaduct
Sensor and Array Layout
Channel 3.2
Span 11

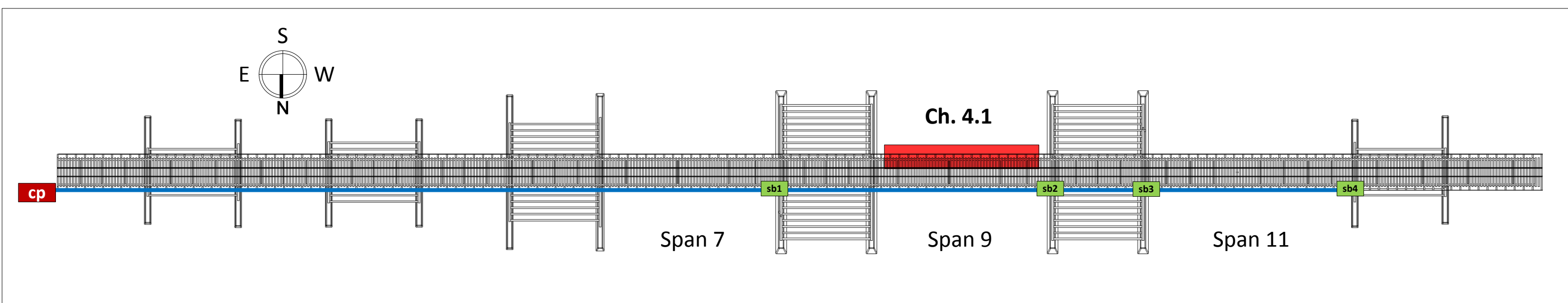
SIZE	FSCM NO	DWG NO	REV
SCALE	1:1	2/1/2012	SHEET 1 OF 1

NS-channel-3.2-span11-end-3nm

Norfolk Southern Portage Viaduct Channel 4.1 Span 9 South



Sensor reference Channel 4.1				
Array ID	Type	Wavelength	Sensor ID	Serial Number
43	3155	1512/1515	Strain_L59	C307683
44	3155	1518/1521	Strain_L_58	C307696
45	temp	1528	Temp_L16	B312603
46	3155	1530/1533	Strain_L56	C307750
47	3155	1536/1539	Strain_L55	C307757
48	3155	1548/1551	Strain_L53	C307727
49	3155	1554/1557	Strain_L52	C307731
50	temp	1544	Temp_L14	B700533
51	3155	1560/1563	Strain_L50	C307718
52	3155	1566/1569	Strain_L49	C307769
53	3155	1572/1575	Strain_L51	C307760
54	eliminate	temp 1568	Temp_L15	B312700
55	3155	1578/1581	Strain_L54	C307700
56	3155	1584/1587	Strain_L57	C307705



- os3155 strain sensor
- os4350 temperature sensor

Chandler Monitoring Systems			
Norfolk Southern Portage Viaduct Channel 4.1 Sensor & Array Layout Span 9 South			
SIZE	FSCM NO.	DWG NO.	REV.
SCALE	1:1	10/9/2012	SHEET 1 OF 1