

0.6" Ø CFRP STRANDS				
AREA	ULTIMATE STRENGTH	APPLIED PRESTRESS		
(SQUARE INCHES)	(LBS. PER STRAND)	(LBS. PER STRAND)		
0.179	60,749	42,524		
CFRP STIRRUP FOR ONE GIRDER				
SPAN D				
BAR	NUMBER	TYPE	LENGTH	LIN. FT.
S1	112	1	4'-0"	448'-0"
S2	56	2	3'-5"	191'-4"
S4	20	STR	6'-0"	120'-0"
S5	156	STR	3'-8"	572'-0"
S11	32	3	7'-8"	245'-4"
S12	148	3	8'-2"	1208'-8"
S16	132	4	7'-3"	957'-0"
QUANTITIES FOR ONE GIRDER				
TOTAL CFRP STIRRUP LENGTH			0.6" Ø CFRP STRANDS	
LIN. FT.			No.	
3742.33'			56	
GIRDERS REQUIRED				
SPAN	NUMBER	LENGTH	TOTAL LENGTH	
D	4	VARIES	519.53'	

0.6" Ø CFRP STRANDS				
AREA	ULTIMATE STRENGTH	APPLIED PRESTRESS		
(SQUARE INCHES)	(LBS. PER STRAND)	(LBS. PER STRAND)		
0.179	60,749	42,524		
CFRP STIRRUP FOR ONE GIRDER				
SPAN E				
BAR	NUMBER	TYPE	LENGTH	LIN. FT.
S1	112	1	4'-0"	448'-0"
S2	56	2	3'-5"	191'-4"
S4	20	STR	6'-0"	120'-0"
S5	156	STR	3'-8"	572'-0"
S11	64	3	7'-8"	490'-8"
S13	116	3	8'-3"	957'-0"
S16	132	4	7'-3"	957'-0"
QUANTITIES FOR ONE GIRDER				
TOTAL CFRP STIRRUP LENGTH			0.6" Ø CFRP STRANDS	
LIN. FT.			No.	
3736.00'			56	
GIRDERS REQUIRED				
SPAN	NUMBER	LENGTH	TOTAL LENGTH	
E	4	VARIES	520.17'	

0.6" Ø CFRP STRANDS				
AREA	ULTIMATE STRENGTH	APPLIED PRESTRESS		
(SQUARE INCHES)	(LBS. PER STRAND)	(LBS. PER STRAND)		
0.179	60,749	42,524		
CFRP STIRRUP FOR ONE GIRDER				
SPAN F				
BAR	NUMBER	TYPE	LENGTH	LIN. FT.
S1	112	1	4'-0"	448'-0"
S2	56	2	3'-5"	191'-4"
S4	20	STR	6'-0"	120'-0"
S5	156	STR	3'-8"	572'-0"
S11	32	3	7'-8"	245'-4"
S13	148	3	8'-3"	1221'-0"
S16	132	4	7'-3"	957'-0"
QUANTITIES FOR ONE GIRDER				
TOTAL CFRP STIRRUP LENGTH			0.6" Ø CFRP STRANDS	
LIN. FT.			No.	
3754.67'			56	
GIRDERS REQUIRED				
SPAN	NUMBER	LENGTH	TOTAL LENGTH	
F	4	VARIES	518.67'	

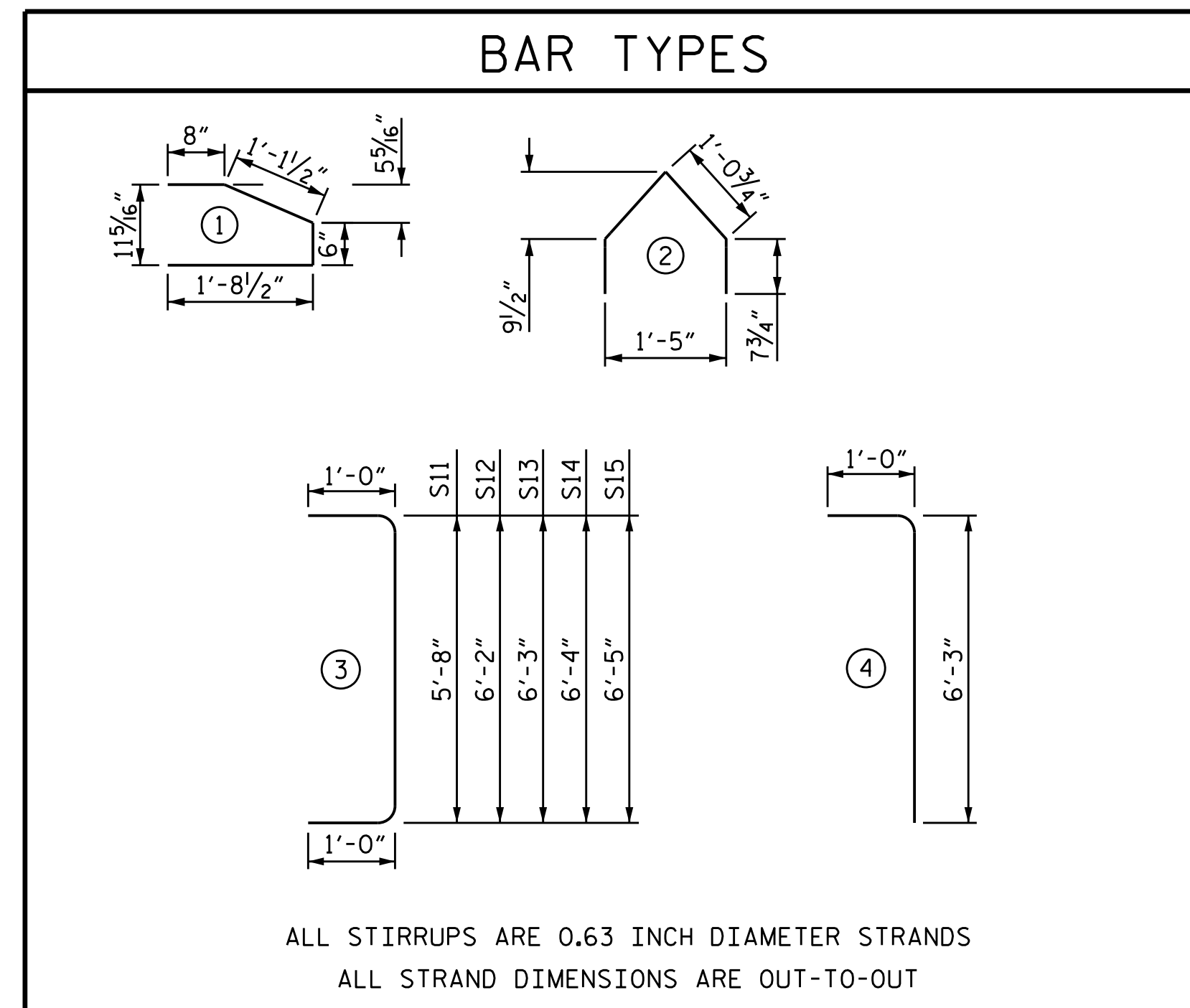
0.6" Ø CFRP STRANDS				
AREA	ULTIMATE STRENGTH	APPLIED PRESTRESS		
(SQUARE INCHES)	(LBS. PER STRAND)	(LBS. PER STRAND)		
0.179	60,749	42,524		
CFRP STIRRUP FOR ONE GIRDER				
SPAN J				
BAR	NUMBER	TYPE	LENGTH	LIN. FT.
S1	112	1	4'-0"	448'-0"
S2	56	2	3'-5"	191'-4"
S4	20	STR	6'-0"	120'-0"
S5	156	STR	3'-8"	572'-0"
S11	32	3	7'-8"	245'-4"
S15	148	3	8'-5"	1245'-8"
S16	132	4	7'-3"	957'-0"
QUANTITIES FOR ONE GIRDER				
TOTAL CFRP STIRRUP LENGTH			0.6" Ø CFRP STRANDS	
LIN. FT.			No.	
3779.33'			56	
GIRDERS REQUIRED				
SPAN	NUMBER	LENGTH	TOTAL LENGTH	
J	4	VARIES	518.67'	

0.6" Ø CFRP STRANDS				
AREA	ULTIMATE STRENGTH	APPLIED PRESTRESS		
(SQUARE INCHES)	(LBS. PER STRAND)	(LBS. PER STRAND)		
0.179	60,749	42,524		
CFRP STIRRUP FOR ONE GIRDER				
SPAN K				
BAR	NUMBER	TYPE	LENGTH	LIN. FT.
S1	112	1	4'-0"	448'-0"
S2	56	2	3'-5"	191'-4"
S4	20	STR	6'-0"	120'-0"
S5	156	STR	3'-8"	572'-0"
S11	64	3	7'-8"	490'-8"
S15	116	3	8'-5"	976'-4"
S16	132	4	7'-3"	957'-0"
QUANTITIES FOR ONE GIRDER				
TOTAL CFRP STIRRUP LENGTH			0.6" Ø CFRP STRANDS	
LIN. FT.			No.	
3755.33'			56	
GIRDERS REQUIRED				
SPAN	NUMBER	LENGTH	TOTAL LENGTH	
K	4	VARIES	520.19'	

0.6" Ø CFRP STRANDS				
AREA	ULTIMATE STRENGTH	APPLIED PRESTRESS		
(SQUARE INCHES)	(LBS. PER STRAND)	(LBS. PER STRAND)		
0.179	60,749	42,524		
CFRP STIRRUP FOR ONE GIRDER				
SPANS L, P, & Q				
BAR	NUMBER	TYPE	LENGTH	LIN. FT.
S1	112	1	4'-0"	448'-0"
S2	56	2	3'-5"	191'-4"
S4	20	STR	6'-0"	120'-0"
S5	156	STR	3'-8"	572'-0"
S11	32	3	7'-8"	245'-4"
S13	68	3	8'-3"	561'-0"
S14	80	3	8'-4"	666'-8"
S16	132	4	7'-3"	957'-0"
QUANTITIES FOR ONE GIRDER				
TOTAL CFRP STIRRUP LENGTH			0.6" Ø CFRP STRANDS	
LIN. FT.			No.	
3761.33'			56	
GIRDERS REQUIRED				
SPAN	NUMBER	LENGTH	TOTAL LENGTH	
L	4	VARIES	518.31'	
P	4	VARIES	517.67'	
Q	4	VARIES	518.67'	

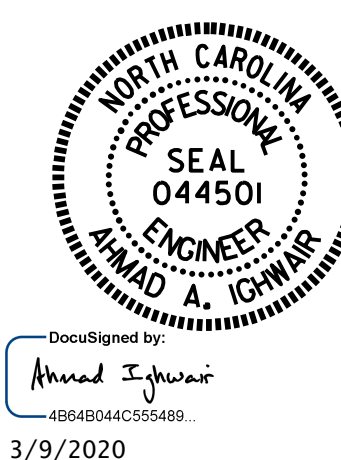
0.6" Ø CFRP STRANDS				
AREA	ULTIMATE STRENGTH	APPLIED PRESTRESS		
(SQUARE INCHES)	(LBS. PER STRAND)	(LBS. PER STRAND)		
0.179	60,749	42,524		
CFRP STIRRUP FOR ONE GIRDER				
SPANS M & O				
BAR	NUMBER	TYPE	LENGTH	LIN. FT.
S1	112	1	4'-0"	448'-0"
S2	56	2	3'-5"	191'-4"
S4	20	STR	6'-0"	120'-0"
S5	156	STR	3'-8"	572'-0"
S11	32	3	7'-8"	245'-4"
S14	68	3	8'-4"	566'-8"
S15	80	3	8'-5"	673'-4"
S16	132	4	7'-3"	957'-0"
QUANTITIES FOR ONE GIRDER				
TOTAL CFRP STIRRUP LENGTH			0.6" Ø CFRP STRANDS	
LIN. FT.			No.	
3773.67'			58	
GIRDERS REQUIRED				
SPAN	NUMBER	LENGTH	TOTAL LENGTH	
M	4	VARIES	518.13'	
O	4	VARIES	517.67'	

0.6" Ø CFRP STRANDS				
AREA	ULTIMATE STRENGTH	APPLIED PRESTRESS		
(SQUARE INCHES)	(LBS. PER STRAND)	(LBS. PER STRAND)		
0.179	60,749	42,524		
CFRP STIRRUP FOR ONE GIRDER				
SPAN N				
BAR	NUMBER	TYPE	LENGTH	LIN. FT.
S1	112	1	4'-0"	448'-0"
S2	56	2	3'-5"	191'-4"
S4	20	STR	6'-0"	120'-0"
S5	156	STR	3'-8"	572'-0"
S11	64	3	7'-8"	490'-8"
S14	68	3	8'-4"	566'-8"
S15	48	3	8'-5"	404'-0"
S16	132	4	7'-3"	957'-0"
QUANTITIES FOR ONE GIRDER				
TOTAL CFRP STIRRUP LENGTH			0.6" Ø CFRP STRANDS	
LIN. FT.			No.	
3749.67'			58	
GIRDERS REQUIRED				
SPAN	NUMBER	LENGTH	TOTAL LENGTH	
N	4	VARIES	519.67'	



PROJECT NO. B-4863  
CARTERET COUNTY  
 STATION: 34+75.00 -L-

SHEET 13 OF 17



STATE OF NORTH CAROLINA  
 DEPARTMENT OF TRANSPORTATION  
 RALEIGH  
 SUPERSTRUCTURE  
 72" CFRP F.I.B.  
 PRESTRESSED CONCRETE GIRDER  
 (CFRP STIRRUP OPTION)

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	TOTAL SHEETS
1			3			S1-073
2			4			194

DOCUMENT NOT CONSIDERED  
 FINAL UNLESS ALL  
 SIGNATURES COMPLETED

DRAWN BY: A. A. IGHWAIER DATE: 01-20  
 CHECKED BY: B.N.BARODAWALA DATE: 01-20  
 DESIGN ENGINEER OF RECORD: A. A. IGHWAIER DATE: 01-20