SHEET 8 OF 2 METAL POLE STANDARD FOUNDATION										
SELECTION FORM										
SIGNAL I	DAT	ГЕ: <b>05</b>	/16/18							
INTERSE	CTION O	F:	SR 13	<b>SR 1308</b> AND			SR 1470			
BORING LABEL:   MP-1   COUNTY:   ONSLOW										
RESIDENT OR DIVISION ENGINEER: Trevor Carroll										
CONTRACTOR NAME: NCDOT Geotechnical Engineering Unit										
BORING IN	BORING INFORMATION:									
SPT DEPTH	1 ft (0.3 m)	2.5 ft (0.8 m)	5 ft (1.5 m)	7.5 ft (2.3 m)	10 ft (3.0 m)	15 ft (4.6 m)	20 ft (6.1 m)	26 ft (7.9 m)		
N-VALUE $MIN = 0$ $MAX = 50$	7	7	8	10	10	5	7	1		
$N_{AVG} = (N@$	01' + N@2.	5' +	. N@Deep	est Boring	Depth*)		=	6.9		
		Total Nu	mber of N-	values						
$Y = (N@1')^{2}$	$^{2} + (N@2.5)$	5') <sup>2</sup> +	(N@Deep	est Boring	Depth*) <sup>2</sup>		=	437		
Z=(N@1'+	+ N@2.5' +	N@	Deepest B	oring Dept	h*)		=	55		
*Note: becau • A t • A t	<ul> <li>*Note: Do not include the N-value at the deepest boring depth if the boring is discontinued because one of the following occurs:</li> <li>A total of 100 blows have been applied in any 2 consecutive 6-in. (0.15-m) intervals.</li> <li>A total of 50 blows have been applied with &lt; 3-in. (.08-m) penetration.</li> </ul>									
$N_{STD DEV} =$	ſ	(Total	Number of	N-values	$(X Y) - Z^2$	-	0.5 =	2.9		
	(Total N	umber of N	N-values) x	(Total Nu	mber of N-	values - 1)	J			
Design N-va	alue = N <sub>AV</sub>	<sub>G</sub> - (N <sub>STD D</sub>	<sub>EV</sub> x 0.45)				=	5.6		
IS <b>Design N</b> 0.8 m, 1.5 m If yes, st	IS Design N-value or THE AVERAGE OF THE N-VALUES AT 1 ft, 2.5 ft, 5 ft and 7.5 ft (0.3 m, 0.8 m, 1.5 m and 2.3 m) LESS THAN 4? Yes No X If yes, standard drilled pier foundation from Foundation Selection Table on plans can not be used.									
DESCRIPT	DESCRIPTION OF SOIL: Sand and Clay									
DRILLED	DRILLED PIER LENGTH (L): ft or m (circle) From Foundation Selection Table on Plans									
DEPTH OF	BORING:		32.5	(	ft r m (cir	rcle)				
IS DRILLED PIER LENGTH, L, GREATER THAN DEPTH OF BORING? Yes No If yes, standard drilled pier foundation from Foundation Selection Table on plans can not be used.										
CONTRACTOR REPRESENTATIVE SIGNATURE:										
DIVISION I	REPRESEN	NTATIVE	SIGNATU	RE:						

SHEET 9 OF METAL POLE STANDARD FOUNDATION										
SELECTION FORM										
SIGNAL INVENTORY NO.: <u>U-5319</u> DATE: <u>05/16/18</u>										
INTERSE	CTION O	F:	SR 13	<b>R 1308</b> AND			SR 1470			
BORING LABEL: MP-2 COUNTY: ONSLOW										
RESIDENT OR DIVISION ENGINEER: Trevor Carroll										
CONTRAC	CONTRACTOR NAME: NCDOT Geotechnical Engineering Unit									
BORING IN	FORMAT	ION:					1			
SPT DEPTH	1  ft (0.3 m)	2.5 ft (0.8 m)	5 ft (1.5 m)	7.5 ft (2.3 m)	10 ft (3.0 m)	15 ft (4.6 m)	20 ft (6.1 m)	26 ft (7.9 m)		
N-VALUE $MIN = 0$ $MAX = 50$	10	4	6	7	6	4	2	1		
$N_{AVG} = (N@$	21' + N@2.	.5' +	. N@Deep	est Boring	Depth*)		=	5.0		
		Total Nu	mber of N-	values	-					
$Y = (N@1')^2$	$^{2} + (N@2.5)$	$(5')^2 + \dots$	(N@Deep	est Boring	Depth*) <sup>2</sup>		=	258		
Z = (N@1' +	- N@2.5' +	N@	Deepest B	oring Dept	h*)		=	40		
*Note: becau • A t • A t	<ul> <li>*Note: Do not include the N-value at the deepest boring depth if the boring is discontinued because one of the following occurs:</li> <li>A total of 100 blows have been applied in any 2 consecutive 6-in. (0.15-m) intervals.</li> <li>A total of 50 blows have been applied with &lt; 3-in. (.08-m) penetration.</li> </ul>									
$N_{STD DEV} =$	ſ	(Total	Number of	f N-values	$(X Y) - Z^2$	-	0.5 =	2.9		
	(Total N	umber of N	N-values) x	(Total Nu	mber of N-	values - 1)				
Design N-va	alue = N <sub>AV</sub>	<sub>G</sub> - (N <sub>STD D</sub>	<sub>EV</sub> x 0.45)				=	3.7		
IS <b>Design N</b> 0.8 m, 1.5 m If yes, sta	IS Design N-value or THE AVERAGE OF THE N-VALUES AT 1 ft, 2.5 ft, 5 ft and 7.5 ft (0.3 m, 0.8 m, 1.5 m and 2.3 m) LESS THAN 4? Yes X No If yes, standard drilled pier foundation from Foundation Selection Table on plans can not be used									
DESCRIPTI	DESCRIPTION OF SOIL: Sand, Silt and Clay									
DRILLED	DRILLED PIER LENGTH (L): (ft or m (circle) From Foundation Selection Table on Plans									
DEPTH OF	BORING:		37.5	(	ft)rm(ci	rcle)				
IS DRILLEI If yes, sta	IS DRILLED PIER LENGTH, L, GREATER THAN DEPTH OF BORING? Yes No If yes, standard drilled pier foundation from Foundation Selection Table on plans can not be used.									
CONTRACTOR REPRESENTATIVE SIGNATURE:										
DIVISION I	REPRESEN	NTATIVE	SIGNATU	RE:						

SHEET 10 OF METAL POLE STANDARD FOUNDATION										
SELECTION FORM										
SIGNAL INVENTORY NO.: U-5319 DATE: 05/16/18										
INTERSEC	CTION O	F:	SR 13	SR 1308 AND			SR 1470			
BORING LABEL: MP-3 COUNTY: ONSLOW										
RESIDENT OR DIVISION ENGINEER: Trevor Carroll										
CONTRACTOR NAME: NCDOT Geotechnical Engineering Unit										
BORING IN	BORING INFORMATION:									
SPT	1  ft	2.5  ft	5  ft	7.5 ft	10  ft	15  ft	20 ft	26  ft		
N-VALUE	(0.3 m)	(0.8 m)	(1.5 m)	(2.3 m)	(3.0 m)	(4.0 m)	(0.1 m)	(7.9 m)		
MIN = 0 $MAX = 50$	27	12	4	7	9	14	21	1		
$N_{AVG} = (N@$	1' + N@2.	.5' +	. N@Deep	est Boring	Depth*)		=	11.9		
		Total Nur	nber of N-	values						
$Y = (N@1')^2$	+(N@2.5)	$(5')^2 + \dots$	(N@Deep	est Boring	Depth*) <sup>2</sup>		=	1657		
Z = (N@1' +	N@2.5' +	N@	Deepest B	oring Dept	h*)		=	95		
*Note: becau • A to • A to	<ul> <li>*Note: Do not include the N-value at the deepest boring depth if the boring is discontinued because one of the following occurs:</li> <li>A total of 100 blows have been applied in any 2 consecutive 6-in. (0.15-m) intervals.</li> <li>A total of 50 blows have been applied with &lt; 3-in. (.08-m) penetration.</li> </ul>									
$N_{STD DEV} =$	ſ	(Total	Number of	f N-values	$(X Y) - Z^2$		0.5 =	8.7		
	(Total N	umber of N	J-values) x	(Total Nu	mber of N-	values - 1)	J			
Design N-va	lue = N <sub>AV</sub>	<sub>G</sub> - (N <sub>STD D</sub>	<sub>EV</sub> x 0.45)				=	8.0		
IS <b>Design N</b> 0.8 m, 1.5 m If yes, sta	IS <b>Design N-value</b> or THE AVERAGE OF THE N-VALUES AT 1 ft, 2.5 ft, 5 ft and 7.5 ft (0.3 m, 0.8 m, 1.5 m and 2.3 m) LESS THAN 4? Yes <u>No X</u> If yes, standard drilled pier foundation from Foundation Selection Table on plans can not be used.									
DESCRIPTI	DESCRIPTION OF SOIL: Sand, Silt and Clay									
DRILLED	DRILLED PIER LENGTH (L): (ft or m (circle) From Foundation Selection Table on Plans									
DEPTH OF	BORING:		42.5	(	ft or m (cir	rcle)				
IS DRILLEI If yes, sta	IS DRILLED PIER LENGTH, L, GREATER THAN DEPTH OF BORING? Yes No If yes, standard drilled pier foundation from Foundation Selection Table on plans can not be used.									
CONTRACTOR REPRESENTATIVE SIGNATURE:										
DIVISION F	REPRESE	NTATIVE	SIGNATU	RE:						

METAL POLE STANDARD FOUNDATION										
SELECTION FORM										
SIGNAL INVENTORY NO.: U-5319 DATE: 05/16/18										
INTERSECTION OF: SR 1308 AND						SR 1470				
BORING LABEL: MP-4 COUNTY: ONSLOW										
RESIDENT OR DIVISION ENGINEER: Trevor Carroll										
CONTRACTOR NAME: NCDOT Geotechnical Engineering Unit										
BORING IN	FORMAT	ION:								
SPT	1  ft	2.5  ft	5  ft	7.5  ft	10  ft	15  ft	20 ft	26  ft		
N-VALUE	(0.5 III)	(0.8 III)	(1.3 III)	(2.5 III)	(3.0 III)	(4.0 III)	(0.1 III)	(7.9 III)		
MIN = 0 $MAX = 50$	7	6	6	8	5	4	1	5		
$N_{AVG} = (N@$	1' + N@2.	.5' +	. N@Deep	est Boring	Depth*)		=	5.3		
		Total Nu	nber of N-	values						
$Y = (N@1')^2$	$^{2}$ + (N@2.5	$(5')^2 + \dots$	(N@Deep	est Boring	Depth*) <sup>2</sup>		=	252		
Z = (N@1' +	N@2.5' +	N@	Deepest B	oring Dept	h*)		=	42		
*Note: becau • A to • A to	<ul> <li>*Note: Do not include the N-value at the deepest boring depth if the boring is discontinued because one of the following occurs:</li> <li>A total of 100 blows have been applied in any 2 consecutive 6-in. (0.15-m) intervals.</li> <li>A total of 50 blows have been applied with &lt; 3-in. (.08-m) penetration.</li> </ul>									
1 STD DEV —	(Total N	umber of N	V-values) x	(Total Nu	mber of N-	values - 1)		2.1		
Design N-va	alue = N <sub>AV</sub>	<sub>G</sub> - (N <sub>STD D</sub>	<sub>EV</sub> x 0.45)				=	4.3		
IS <b>Design N</b> 0.8 m, 1.5 m If yes, sta	IS Design N-value or THE AVERAGE OF THE N-VALUES AT 1 ft, 2.5 ft, 5 ft and 7.5 ft (0.3 m, 0.8 m, 1.5 m and 2.3 m) LESS THAN 4? Yes No X If yes, standard drilled pier foundation from Foundation Selection Table on plans can not be used.									
DESCRIPTI	DESCRIPTION OF SOIL: Sand, Silt and Clay									
DRILLED	DRILLED PIER LENGTH (L): (ft or m (circle) From Foundation Selection Table on Plans									
DEPTH OF	BORING:		42.5	(	ft)rm (ci	rcle)				
IS DRILLEI If yes, sta	IS DRILLED PIER LENGTH, L, GREATER THAN DEPTH OF BORING? Yes No If yes, standard drilled pier foundation from Foundation Selection Table on plans can not be used.									
CONTRACTOR REPRESENTATIVE SIGNATURE:										
DIVISION F	DIVISION REPRESENTATIVE SIGNATURE:									