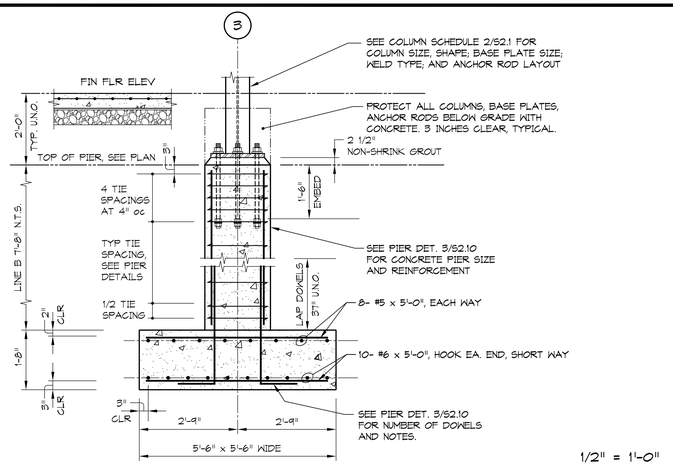
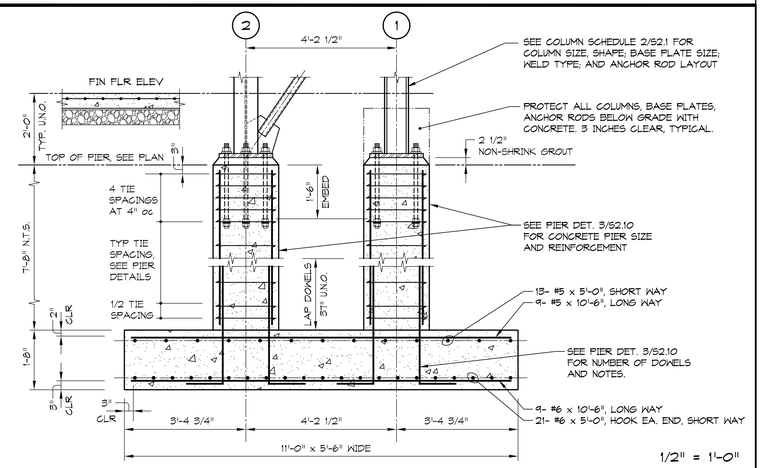
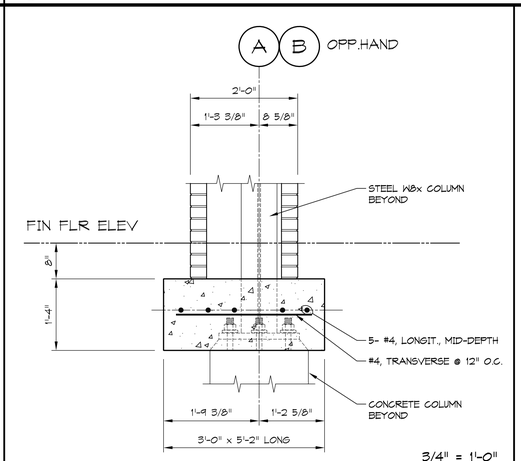


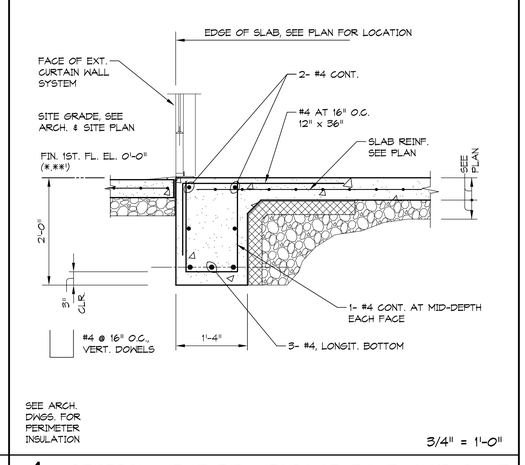
6 COMBINED FOOTING DETAIL GRID LINES A-3, B-3



1 COMBINED FOOTING DETAIL ALONG LINES A, B

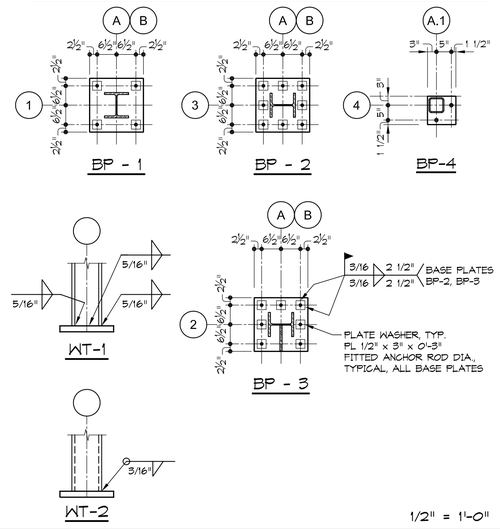


7 FOOTING AT ENTRY



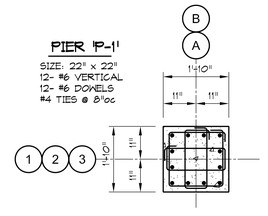
4 SECTION AT ENTRY, THICKENED FLOOR SLAB

MARK	SECTION	BASE PLATE, ASTM A36, GRADE 36 KSI			ANCHOR RODS ASTM F1554 GRADE 36
		TYPE	WELD	SIZE	
C-1	W8 x 35	BP-1	WT-1	PL 1 3/8" x 18" x 1'-6"	4 - 1 1/8"Φ
C-2	W8 x 48	BP-2	WT-1	PL 1 3/8" x 18" x 1'-6"	8 - 1 1/8"Φ
C-3	W8 x 48	BP-3	WT-1	PL 1 3/8" x 18" x 1'-6"	7 - 1 1/8"Φ
C-4	HSS 5 x 5 x 1/4	BP-4	WT-2	PL 1/2" x 9 1/2" x 0'-9 1/2"	2 - 3/4"Φ EB



2 COLUMN SCHEDULE & BASE PLATE DETAILS

PIER 'P-1'
SIZE: 22" x 22"
12- #6 VERTICAL
12- #6 DOWELS
#4 TIES @ 8"oc



WHERE PIER HEIGHT IS LESS THAN 6'-0" IN HEIGHT, RUN DOWELS FULL HEIGHT OF CONCRETE PIER/COLUMN AND OMIT LAPPED VERTICAL BARS.

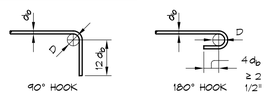
1/2" = 1'-0"

3 CONCRETE PIER PLAN DETAIL

STANDARD HOOKS, PRIMARY REINFORCEMENT

BAR	Min. Finished D
#3 thru #8	$6\,d_b$
#9, #10, #11	$8\,d_b$
#14, #18	$10\,d_b$

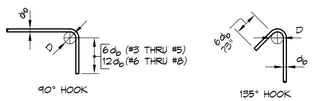
1. D (Bend Dia.) MEASURED ON INSIDE OF BAR.
2. ALL BENDS SHALL BE MADE COLD.
3. #14 AND #18 BARS SHALL BE BEND-TESTED AND APPROVED PRIOR TO BENDING.



STANDARD HOOKS, STIRRUPS, TIE REINFORCEMENT

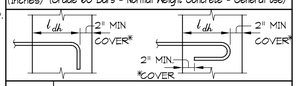
BAR	Min. Finished D
#3 thru #5	$4\,d_b$
#6 thru #8	$6\,d_b$

1. D (Bend Dia.) MEASURED ON INSIDE OF BAR.
2. ALL BENDS SHALL BE MADE COLD.
3. #14 AND #18 BARS SHALL BE BEND-TESTED AND APPROVED PRIOR TO BENDING.



l_{dh} Tension Development Length (embedment)

(Inches) For Standard End Hooks (Grade 60 Bars - Normal Weight Concrete - General Use)



BAR SIZE	f'c = (Normal Weight Concrete), psi			
	3,000	4,000	5,000	6,000
#3	8.2	7.1	6.4	6.0
#4	11.0	9.5	8.5	7.7
#5	13.7	11.9	10.6	9.7
#6	16.4	14.2	12.7	11.6
#7	19.2	16.6	14.8	13.6
#8	21.9	19.0	17.0	15.5
#9	24.7	21.4	19.1	17.5
#10	27.8	24.1	21.6	19.7
#11	30.9	26.8	23.9	21.8

(*) WHEN EITHER SIDE OR END COVER IS SMALLER THAN THE MINIMUM NUMBERS: MULTIPLY l_{dh} BY 1.4.

l_d Tension Development Length (embedment)

(Inches) For Beam, Slab and Wall Reinforcing (Grade 60 Bars - Normal Weight Concrete - General Use)

BAR SIZE	f'c = (Normal Weight Concrete), psi					
	3,000		4,000		5,000	
	TOP	BOTT	TOP	BOTT	TOP	BOTT
#3	21.4	16.4	18.5	14.2	16.5	12.7
#4	28.5	21.9	24.7	19.0	22.1	17.0
#5	35.6	27.4	30.8	23.7	27.6	21.2
#6	42.7	32.9	37.0	28.5	33.1	25.5
#7	62.3	47.9	54.0	41.5	48.3	37.1
#8	71.2	54.8	61.7	47.4	55.2	42.4
#9	80.3	61.8	69.6	53.5	62.2	47.9
#10	90.4	69.6	78.3	60.2	70.0	53.9
#11	100.4	77.2	86.9	66.9	77.8	59.8

1. CLEAR SPACING OF BARS BEING DEVELOPED OR SPLICED NOT LESS THAN 2*(BAR DIA.) AND CLEAR COVER NOT LESS THAN THE BAR DIAMETER.
2. "TOP" BARS ARE HORIZONTAL REBARS WITH MORE THAN 12 INCHES OF FRESH CONCRETE CAST BELOW THE BARS AT THE DEVELOPMENT LENGTH.
3. FOR LIGHT-WEIGHT CONCRETE, MULTIPLY THE TABULATED VALUES BY 1.3.

1.3 l_d TENSION LAP SPLICES

(Inches) Class 'B' Splice For Top And Bottom Bars (Grade 60 Bars - Normal Weight Concrete - General Use)

BAR SIZE	f'c = (Normal Weight Concrete), psi					
	3,000		4,000		5,000	
	TOP	BOTT	TOP	BOTT	TOP	BOTT
#3	27.8	21.4	24.0	18.5	21.5	16.5
#4	37.0	28.5	32.1	24.7	28.7	22.1
#5	46.3	35.6	40.1	30.8	35.9	27.6
#6	55.5	42.7	48.1	37.0	43.0	33.1
#7	81.0	62.3	70.1	54.0	62.7	48.3
#8	92.6	71.2	80.2	61.7	71.7	55.2
#9	104.4	80.3	90.4	69.6	80.9	62.2
#10	117.6	90.4	101.8	78.3	91.1	70.0
#11	130.5	100.4	113.0	86.9	101.1	77.8

FOR CLASS 'A' SPLICE (PERMITTED ONLY WHEN NOT MORE THAN HALF THE BARS SPLICED AND SPLICES STAGGERED BY THE DISTANCE OF SPLICE LENGTH), USE SAME AS " l_d " = TENSION DEVELOPMENT LENGTH TABLE.

l_c COMPRES. DEVELOP. LENGTH

(Inches) (Grade 60 Bars - Normal Weight Concrete General Use)

BAR SIZE	f'c = (Normal Weight Concrete), psi		
	3,000	4,000	5,000
#3	8.2	8.0	8.0
#4	11.0	9.5	9.0
#5	13.7	11.9	11.3
#6	16.4	14.2	13.5
#7	19.2	16.6	15.8
#8	21.9	19.0	18.0
#9	24.7	21.4	20.3
#10	27.8	24.1	22.9
#11	30.9	26.8	25.4
#14	37.1	32.1	30.5
#18	49.4	42.8	40.6

15 DETAILS OF REINFORCEMENT

RAMSAY BURGIN SMITH ARCHITECTS
225 NORTH MAIN STREET - SUITE 501
SALISBURY, NORTH CAROLINA 28144
Phone: (704) 633-5121 Fax: (704) 633-5561
Email: rbsa@rbsarch.com (www.rbsarch.com)

ices
INTERFACE FOR CONSULTING ENGINEERS, PA
STRUCTURAL ENGINEERING CONSULTANTS
5222 Begonia Drive, Charlotte, NC 28215
Tel: 704.599.8811
NC COA C-1887

TAG	DESCRIPTION	DATE

COLUMN SCHEDULE FOUNDATION SECTION & DETAILS

CLEMMONS FIRST BAPTIST CHURCH NARTHEX ADDITION

NORTH CAROLINA REGISTERED PROFESSIONAL ENGINEER 25088 STERLING SMITH
AUGUST 7, 2017

RSS	DRAWN BY
RSS	CHECKED BY
AUGUST 2017	DATE
516226	COMM. NO.

SHEET NO.
S2.1
OF 7

D:\PROJ-DWGS\408_RBS_17 CLEMMONS FIRST BAPTIST CHURCH STEEP\E\S-21.DWG - Aug 07, 2017 - 3:21 pm