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ELECTRICAL ENGINEER

SIMS GROUP 800 COLUMBIANA DR. SUITE 208 COLUMBIA, S.C. 29210 (803) 765-1007



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	Form F	3 - Building	Code Analys	515					
htt:: 08/29/2022									
SUBMITTAL:	TAL: □ Schematic □ Design Development □ Construction Document □ □ □								
				1 1					
SC CODE EDITION: 2018 10C CC	DE EDITION:	2018 ICC A	117.1 EDITION:	0 דו@2	SF GUIDE EDITI	ON: 2020			
OTHER CODES/STANDARDS & EDIT	IONS:								
PROJECT DESCRIPTION: [Brief Scope REPLACE EXST. COOLING	of Work & Inclu TOWER	de project delive	ry method (i.e. Ci	MR, etc.)]					
BASIC BUILDING CODE INFORMATION									
DESIGNATED AREAS OF BUILDING	Building Code	Area 1	Area 2	Area 3	Area 4	Area 5			
		I SCBC	SCBC	□ SCBC	SCBC	SCBC			
	-	SCEBC SCEBC	□ SCEBC	□ SCEBC	□ SCEBC	SCEBC			
CONSTRUCTION CLASSIFICATION TYPE	Section 602								
OCCUPANCY GROUP (indicate all)	Section 302			Γ					
MOST RESTRICTIVE OCCUPANCY GROUP	Tables 504.3, 504.4 & 506.2								
Does building require Incidental Use Area Separation?	Table 509	TYES INO	D KES INO	I YES I NO	🗆 YES 🗆 NO	🗆 YES 🗆 NO			
Does building have Accessory Occupancy (ies)?	Section 508.2	□ YEŠ □ NÖ	I YES INO	U YES DNO	🗆 YES 🗆 NÖ	🗆 YES 🗆 NÖ			
What is the aggregate square footage of the accessory occupancy (ics)?	Section 508.2	SF	SF	55	SF	SF			
What percent of the story is the agarcgate of the accessory occupancy (ies)?	Section 508.2	%	%	%	*	%			
Mixed Occupancy		□ YES □ NO	□ YES □ NO	□ YES □ NO	D YES D NO	VES INO			
	Section 508	Nonseparated	Nonseparateă	Nonseparated	Nonseparated	□ Non-separated			
/		□ Separated	□ Separated	□ Separated	□ Separated	□ Separated			
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	Form F3 – Buil	ding Code Ai	nalysis		
	ALLOWARLE	RUILDING AR	EA		
				_	
DESIGNATED AREAS OF BUILDING	Area 1	Area 2	Area 3	Arra 4	Area 5

E	arm F2	Buil	ding Co	de An	alveie					
	лш г <i>э</i> -	- Dulle	ung Co	de An	larysis		-			
A: Sabuka allowable area factor (NS, S1, S13R or SM as applicable) in accordance with IBC Table 506.2	A _t =	SF	A _t =	SF	A _t =	SF	A _t =	SF	A _t =	×
Allowable Area Increase (Equations 5-1 through 55, as applicable)	🗆 YES (ONC	O O YES		🗆 YES	DNO	□ YES	O NO	I YES I	
IBC Section 506.3.2 Equation 5 Authore:	Ľ"=		L _u =		$L_{\alpha} =$		I _u =		$I_{el} =$	
W - Width of public way or open space	w _z =		wg =		wa =		wa=		w <u>n</u> =	
L_{κ} Length of a portion of the exterior perimeter wall. w_{α} Width (>= 20 feet) of public way or open space	W		W =		W=		W =		W =	
associated with that portion of the exterior perimeter wall.	F=		\prec		F-		F-		F-	
F Building perimeter that fronts on a public way or open space having a width of 20 feet or more				\searrow						
<u>IFIC Section 506.3.3 Equation 5-5 where:</u> Ir = [F/P - 0.25] W/30	P =		P-		P		F -		Ir –	
Ir - Area factor increase factor due to formage										
F Building perimeter that from on a public way or open space having a width of 20 feet or more.	Lr =		I _i –		Ir=		I ₁ =		I _f =	
P Perimeter of chine building (feet).										

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Form F3 – Building Code Analysis									
GENERAL FIRE PROTECTION REQUIREMENTS									
DESIGNATED AREAS OF BUILDING	Building Code	Area I	Area 2	Area 3	Area 4	Area 5			
SEPARATIONS									
Fire Wall Required	Section 706	□ YES □ NO	□ YES □ NO	□ YES □ NO	L TES L NO	□ YES □ NO			
Fire Barrier Required	Section 707	□ YES □ NO	🗆 YES 🗆 NO	פעים מאם	□ YES □ NO	U YES UNO			
Fire Partition Required	Section 708	🗆 YES 🗆 NO	🗆 YES 🗆 NO	D YES D NO	🗆 YES 🗆 NO	□ YES □ NO			
Smoke Bornicas Required	Section 709	□ YE\$ □ NO	□ YES □ NO	□ YE\$ □ NO	□ YE\$ □ NO	□ YFS □ NO			
Smoke Partitions Required	Section 710	BYES D NO	D YES D NO	U YES U NO	U YES U NO	□ YES □ NO			
Fnebkecking	Section 718.2	I YES DNO	□ YEŠ □ NO	□ YES □ NÖ	🗆 YEŠ 🗆 NÖ	□ YEŠ □ NŎ			
Draftstopping	Sections 718.3 & 718.4	D YES DNO	Q YES □ NO	□ YES □ NO	U YES U NO	□ YES □ NO			
Incidental Use Area One hour fire barrier Sprinkler system plus smoke resistance	Section 509.4	□ YE\$ □ NŬ □ YE\$ □ NŬ	□ YES □ NO □ YES □ NO	□ YES □ NO □ YES □ NO	□ YE\$ □ NŬ □ YE\$ □ NO	□ YES □ NO □ YES □ NO			
ALARM & DETECTION				$\underline{\ }$					
Fire Alarm and Detection System Fire Alarm Mass Notification Emergency voice/alarm comm.	SCFC Section 907	□ YE\$ □ NO □ YE\$ □ NO □ YE\$ □ NO	□ YES □ NO □ YES □ NO □ YES □ NO	□ YES □ NO □ YES □ NO □ YES □ NO	□ YES □ NO □ YES □ NO □ YES □ NO	□ YES □ NO □ YES □ NO □ YES □ NO			
Emergency Alarm System Required	SCFC Section 908	□ YES □ NO	□ YES □ NO	U YES UNO	U YES U NO	I YES I NO			
SUPPRESSION									
Automatic Sprinkler System Bovided Required	SCFC Section 903	□ YES □ NO □ YES □ NO	□ YES □ NO □ YES □ NO	□ YES □ NO □ YES □ NO	□ YES □ NO □ YES □ NO	□ YES □ NO □ YES □ NO			

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	Form F	3 – Building	Code Analy	sis					
Alternative Automatic Fire Extinguishing Dischen Hoods Other	SCFC Section 904	□ YES □ NO □ YES □ NO	□ YES □ NO □ YES □ NO	□ YES □ NO □ YES □ NO	□ YFS □ NO □ YES □ NO				
Standpipes Required	SCFC Section 905	D YES D NO	U YES U NO	U YES U NO	□ YES □ NO	YES INO			
Portable extinguishers sourced General Building Kitchen Labs	SCFC Section 906	□ YES □ NO □ YES □ NO □ YES □ NO	□ YES □ NO □ YES □ NO □ YES □ NO	□ YES □ NO □ YES □ NO □ YES □ NO	U YES U NO U YES U NO U YES U NO	□ YES □ NO □ YES □ NO □ YES □ NO			
	<u> </u>			/					
OTHER FIRE AND LIFE SAFETY FEATURES									
DESIGNATED AREAS OF BUILDING	; Building Code	Area 1	Area 2	Area 3	Area 4	Area 5			
DESIGNATED AREAS OF BUILDING Smoke Control System	7 Building Code Section 909	Area 1 YES 🗆 NO	Area 2	Area 3	Area 4	Area 5			
DESIGNATED AREAS OF BUILDING Smoke Control System Smoke & Heat Removal Required	5 Building Cade Section 909 SCFC 910	Area 1 U YES D NO U YES D NO	Area Z	Area 3	Area 4	Area 5			
DESIGNATED AREAS OF BUILDING Smoke Control System Smoke & Heat Removal Required Fire Department Connections	Building Sade Section 909 SCFC 910 Section 912	Area 1 YES NO YES NO	Area 2	Area 3 □ YES □ NO □ YES □ NO □ YES □ NO	Area 4 YES [] NO YES [] NO YES [] NO	Area 5			
DESIGNATED AREAS OF BUILDING Smoke Control System Smoke & Heat Removal Required Fire Department Connections Carbon Monoxide Detection	Building Sade Section 909 SCFC 910 Section 912 Section 915	Area 1	Area 2 VES NO VES NO VES NO VES NO	Area 3 YES D NO YES D NO YES D NO YES D NO YES D NO	Area 4 YES [] NO YES [] NO YES [] NO YES [] NO YES [] NO	Area 5			
DESIGNATED AREAS OF BUILDING Smoke Control System Smoke & Heat Removal Required Fire Department Connections Carbon Monoxide Detection Gas Detection Systems	5 Building Sade Section 909 SCFC 910 Section 912 Section 915 Section 916	Area 1 VES NO VES NO VES NO VES NO VES NO	Area Z VIEX NO VIEX NO VIEX NO VIEX NO VIEX NO VIEX NO	Area 3 YES D NO YES D NO YES D NO YES D NO YES D NO YES D NO YES D NO	Area 4 YES [NO YES [NO YES [NO YES [NO YES [NO YES [NO YES [NO	Area 5 YES D NO YES D NO			
DESIGNATED AREAS OF BUILDING Smoke Control System Smoke & Heat Removal Required Fire Department Connections Carbon Monoxide Detection Gas Detection Systems Emergency Responder Radio Coverage	Building Sale Section 909 SCFC 910 Section 912 Section 915 Section 916 Section 918	Area 1 YES 0 NO YES NO YES NO YES NO YES NO YES NO YES NO	Area Z U YES D NO VYES D NO VYES D NO VYES D NO U YES D NO U YES D NO	Area 3 yes D NO yes D NO	Ares 4 YES [] NO YES [] NO	Area 5 YES NO YES NO YES NO YES NO YES NO YES NO YES NO YES NO			
DESIGNATED AREAS OF BUILDING Smoke Control System Smoke & Heat Removal Required Fire Department Connections Carbon Monoxide Detection Gas Detection Systems Emergency Responder Radio Coverage Fire Apparatus Access and Water Line	G Building Sade Section 909 SCFC 910 Scetion 912 Section 912 Section 915 Section 916 Section 918 SCEP 503 & 507	Area 1 YES NO YES NO YES NO YES NO YES NO YES NO YES NO	Area 2 VES NO VES NO VES NO VES NO VES NO VES NO VES NO	Area 3 YES D NO YES D NO	Area 4 YES [] NO YES [] NO	Area 5 YES NO YES NO YES NO YES NO YES NO YES NO YES NO YES NO YES NO YES NO			
DESIGNATED AREAS OF BUILDING Smoke Control System Smoke & Heat Removal Required Fire Department Connections Carbon Monoxide Detection Gas Detection Systems Emergency Responder Radio Coverage Fire Apparatus Access and Water Line 2-way Communication Required	5 Building Sade Section 909 SCFC 910 Section 912 Section 915 Section 916 Section 916 SCFC 503 & 507 Section 1009.8	Area 1 YES NO YES NO YES NO YES NO YES NO YES NO YES NO YES NO	Area 2 VES NO VES NO VES NO VES NO VES NO VES NO VES NO VES NO VES NO	Area 3 YES D NO YES D NO	Area 4 YES NO YES NO YES NO YES NO YES NO YES NO YES NO YES NO YES NO YES NO	Area 5 YES NO YES NO			

Exterior Area for Assist

(Add others as needed) (Juid others as needed)

(e.g. Separation, Ope

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rm F3 – Build	ing Code Analysis	
BUILDING COI	DE INFORMATION [SCEBC]	/
va İ	Area 2	Area 3
ptive Compliance	Option 1: Prescriptive Compliance Method (Cls. 3, 5)	Option 1: Prescriptive Compliance Method (C1. 3, 5)
m	Alteration	Alteration
L	Addition	Addition
of Occupancy	Change of Occupancy	□ Change of Occupancy
Baikling	Historic Building	Historic Building
rea Compliance	Option 2: Work Area Compliance	Option 2: Work Area Compliance
9	Method (Ch. 3, 6-12)	Method (Ch. 3, 6-12)
m Level	Alteration Level 1	Alteration Level 1
m Level 2	Alteration Level 2	□ Alteration Level 2
m Level 3	□ Alteration Level 3	□ Alteration Level 3
of Occupancy	Change of Occupancy	□ Change of Occupancy
в	Additions	Additions
Building	Nistoric Building	Historic Building
olung: SF F	Aggregate area of building: SF Work mea: SF	Aggregate area of building: SF Work area: SF
ance Compliance	Option 3: Performance Compliance Method (Ch. 3, 13)	Option 3: Performance Compliance Method (Ch. 3, 13)
S 🗆 NO	I YES I NO	I YES I NO
al 🗆 Auto	🗆 Manual 🗆 Auto	🗆 Manual 🗆 Auto
S 🗆 NÖ	I YES I NÖ	U YES U NO
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Alowable building area per story in square feet as calculated by Equations 5-1 through 5-3. (Indicated equation used.)					
$\square \text{ IBC Section 50058.1 Equation 5-1} \\ A_{ss} = A_t + (N_s - I_r)$	N _s =	N ₆ =	N ₈ =	N ₆ =	N _s =
□ IBC Section 506.2.3 Equation 5-2 A ₂ = [A ₂ + (N ₂ x I ₂)] x S ₂	S ₈ –	Sz –	S _k -	S ₈ -	Sz –
□ IBC Section 506.2.4 Equation 5-3 A ₄ = [A ₄ + (N ₅ x I ₇)]					
N. Tabular allowable area factor in accordance with Table 506.2 for a non-sprinklered building (regardless of whether the building is sprinklered)	Δ ₀ = 51	Aa= SF	As= SF	A _k = SF	A _s = SF
Sn Actual number of building stories above grade plane, not to exceed three (3). For buildings equipped throughout with automatic sprinkler system installed in accordance with SCBP Section 903.3.1.2, use the actual number of building stories above grade plane, not to exceed four (4).					
MAXIMUM AREA BER STORY	SF	SF	SF	SF	SF SF
AREA AS DESIGNED PER STORY (Report for each story)	SF	SF	SF	SF	

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		Form F3 –	Building Co	ode Analysi	S		
	FI	RE RESISTANCE 1	RATING OF B	UILDING ELI	EMENTS		/
DESIGNAT	TED AREAS OF	Building Code	Area I	Area 2	Area 3	Area 4	Area
	As Required, Hrs						
Primary Structural	As Designed, Bra	Table 601					
Frame	Testing Agency & Design No.(UL., FM, etc)						
	Wall/Partition Key Code						
	As Required, Hrs						
Bearing Walls, As Designed, Hrs	As Designed, Hrs	Table 601					
Faterior	Testing Agency & Design No.(UL, FM, etc)		\mathbf{X}				
	Wall/Partition Key Code						
	As Required, Hrs						
Bearing Walls,	As Designed, Hrs	Table 601			K		
Inferior	Testing Agency & Design No.(UL., FM, 200)						
	Wall/Partition Key Code						
	As Required, Hrs						
Nonbearing Walls and Bartitiment As Designed, Hrs	As Designed, Hrs	Table 601					
Interior	Testing Agency & Design No.(UL, FM, etc)						\mathbf{i}
	Wall/Partition Key Code	[

Building Code	Area 1	Area 2	Area 3	Area 4	Area 5
Section 909	YES 🗆 NO	□ YES □ NO	□ YES □ NO	□ YES □ NO	🗆 YES 🗆 NO
SCFC 910	DYES DNO	∐ YES □ NO	🗆 YES 🗆 NO	□ YES □ NO	🗆 YES 🗆 NÖ
Section 912		🗆 YES 🗆 NO	🗆 YES 🗆 NO	🗆 YES 🖾 NO	🗆 YES 🗆 NO
Section 915	U YES U NO	E YES 🗆 NO	🗆 YES 🗆 NO	□ YES □ NO	🗆 YES 🗆 NO
Section 916	YES INO	U YES U NO	□ YES □ NO	□ YES □ NO	I YES I NO
Section 918	TYES INO	U YES UNO	🗆 YES 🗆 NO	I YES INO	🗆 YES 🗆 NO
SCE2 503 & 507	□ YES □ NO	🗆 YES 🗆 NO	DNES DNO	□ YES □ NO	🗆 YES 🗆 NO
Section 1009.8	□ YES □ NO	🗆 YES 🗆 NO	I YES DINO	□ YES □ NO	I YES I NO
Sections 1009.6, 1009.9, 1009.10 & 1009.11	🗆 YES 🗆 NO	🗆 YES 🗖 NO	I YES I NO	YES INO	🗆 YES 🗋 NO
Sections 1009.7, 1009.9, 1009.10 & 1009.11	□ YES □ NO	□ YF\$ □ NO	□ YE\$ □ NO	U YES UNG	□ YE\$ □ NO
Section 1028.5	□ YES □ NO	□ YES □ NO	🗆 YES 🗆 NO	□ YES □ NO	LYES □ NO
	🗆 YES 🗆 NO	🗆 YES 🗆 NO	🗆 YES 🗆 NO	🗆 YES 🗆 NO	🗆 YES 🗖 NO
	U YFS U NO	U YFS U NO	I YES I NO	I YES INO	I YES INO
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Form F3 – Building Code Analysis							
$\overline{\ }$	D Option 3: Performance Compliance Method (Ch. 3, 13)	Option 3: Performance Compliance Method (Ch. 2, 13					
Original Building Code and Edition Applicable at the time of Construction:							
Existing Sprinkler System?	I YES I NO	U YES DAO					
Existing Fire Alarm System?	🗆 Manstal 🗆 Auto						
Scismic Evaluation Required?		□ YEŠ □ NO					
Change of Occupancy:	YES INO Existing Securemetry Classification(s): New Occupancy Classification(s):	YES NO Existing Occupancy Classification(s): New Occupancy Classification(s):					
Historic Bailding:	VES NO Preservation Rehabilitation Restoration Reconstruction	YES D NO Preservation Rehabilitation Restoration Restoration Reconstruction					
		1					
	SUMMARY - BUILDIN	SDESIGN OCCUPANT LOA					

		BILLO KEDIOLI	000011111 E	V
DESIGNATED AREAS OF BUILDING	Area 1	Area 2	Area 3	Area
1 st FLOOB				
2 nd ELOOR				
3 rd FLOOR				
4 th FLOOR				
ΤΟΤΑΙ	.: 0	0	0	\square
Note: Per SC Building Code Chapter 10, list individual spaces oc	upaut load ou life safety plun. Doub	le Click to Edit Table.		

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	BUILDING HEIGHT								
DESIGNATED AREAS OF BUILDING	Bailding Code	A	rea l	Are	en 2	A	rea 3		
HEIGHT		DESIGNED	ALLOWED	DESIGNED	ALLOWED	DESIGNED	ALLOWED		
In Feet	Table 504.3								
In Stories	Table 504.4								

E2 Duilding Cade A

		В	UILDING HEIGHT		
DESIGNATED AREAS OF BUILDING	Building Code	А	rca 4		Area 5
некент	-	DESIGNED	ALLOWED	DESIGNED	ALLOWED
In Feet	Table 504.3				
In Stories	Table 504.4				
Note: Allowable Build	ina Heiaht & Nu	wher of Stories Above G	rade Plane		

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<u> </u>			-				
	FD	RE RESISTANCE	RATING OF B	UILDING ELI	EMENTS		
DESIGNAT BU	TED AREAS OF REDING	Building Code	Area 1	Area 2	Area 3	Area 4	Area 5
	As Required, Hrs						
Nonbearing Walls and Partitions,	As Designed, Nes						
Extensor	Testing Agency & Design No.(UL, FM, etc)	Table 602					
	Wall/Partition Key Code						
	As Required, His						
Floor Construction and associated	As Designed, Hrs	Table 601					
econdary members	Testing Agency & Design No.(UL, FM, etc)		\mathbf{X}				
	Wall/Partition Key Code						
	As Required, Hrs						
and associated	As Designed, Hrs	Table 601			K		
coudary members	Testing Agency & Design No.(UL, FM, stc)						
	Wall/Partition Very Code						
	As Required, His						
Fire Walls	As Designed, Hrs	Section 706					
	Testing Agency &						$\overline{}$
	Wall/Partition Key Code						$\overline{}$

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on structural plans.

MATERIAL

TOWER PIERS

ELECTRICAL

STATEMENT OF SPECIAL INSPECTIONS

TYPE OF

CH-1

INSPECTION

CH-1 / 17

		Fo
\searrow	FI	RE RESI
DESIGNAT	ED AREAS OF LDING	Buildi
	As Required, Hrs	
Horizontal	As Designed, Nes	
Assemblies	Testing Agency & Design No.(UL, FM, etc)	Secti
ļ	Wall/Partition Key Code	
	As Required, Hrs	
Shaft Enclosures	As Designed, Hrs	
	Testing Agency & Design No.(UL, FM, etc)	Sections
	Wall/Partition Key Code	
Orening &	As Required, Hrs	
Protective Listing	As Designed, Hrs	
by Category (fire shutters, doors, etc.)	Testing Agency &	Secti
	Design No.(UL, FM, orc)	
	Wall/Partition Rey Code	
Othurs	As Required, Hrs	
(as required by	As Designed, Hrs	
Designer	Testing Agency & Design No.(UL, FM, etc)	
	Wall/Partition Key Code	

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	Form	F3 – Build	ling Code A	Analysis				
		Occ	upancy L	ad and Fixt	ure Coun	t Worksh	eet	/
	(Provide this ta	ble for nev	w construc	tion and addi	ition/renov	vations wi	th multiple	e occup
Room Number	Classification/Description	Room Area	Area per Person	Number of Occupants	W/O	Male		
700	Educational	1040	20	52	0.52	OK		0.5
702	Educational	1887	20	94.35	0.9435			0.94
803	Assembly - Place of worship	5000						
804	Assembly - Gym	50,000						
N/A	Assembly - Stadium & Bleache	r						
			\mathbb{N}					
			\square					
		1						
								<u> </u>
								
	\vdash	 				\vdash		
	/						\vdash	
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Note: Expand as Needed. Double Click to Edit & Change.



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Form F3 – Building Code Analysis



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rovide a table for each stractare.				
<u></u>			SUMMARY OF FIX	TURES (SCPC Section 403 & Table 400
PLUMBING INF	ORMATION			Male-Required
WATER SYSTEM				Male WC -Provided
Service Line Size	Inches		Water Closets	Male Urinal -Provided
Distribution Design Criteria (SCPC Table 604.3)	Fixture Units	_		Female-Required
Maximum Flow Rate (SCPC Table 604.4)	GPM	7		Male-Required
	Location	_	T anotanian	Male-Provided
Backflow	Type	-	Lavalorics	Female-Required
	-71~			Female-Provided
Test Pressure	psi	\mathbf{X}		
SANITARY SEWER SYSTEM			K	Male-Provided
Service Line Size	Inches		Showers	
Drainage Design Criteria (SCPC Tables 709.1 and 709.2)	Fixture Units			Female-Provided
Maximum Flow Rate	GPD		Drinking Fountains	Required
Slage (SCPC Table 704.1)	Inches/Ft	-		Previded
supe (set o rand rent)			Family or Assisted-	Required
/			Use Toilet	Provided
			Service Sink	Required
			Service Slik	Provided
			Other (Cat)	Required
			Others (list)	Dravidad

Form F3 – Building Code Analysis

The Designer(s) of Record shall determine the material and/or work on the project requiring Special Inspections. The Special Inspection requirements shall be based on Section 1704 & Section 1705 of the 2018 Sonth Carolinu Building Code. Any deviations from the requirements of Section 1704 and/or Section 1705 must be approved by OSF. Per SCBC Chapter 16 and ASCE 7 – This information may be shown on initial Structural Sheet of the drawings or on Sheet with other code information. List floor design louds

FREQUENCY	SPECIFICATION REFERENCE	INSPECTION BY
AS REQ'D	SPECIAL INSP.	THIRD-PARTY
AS REQ'D	SPECIAL INSP.	THIRD-PARTY

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Form F3 – Building Code Analysis

Per IBC Chapter 16 and ASCE 7 – Structural tables may be shown on initial Structural Sheet of the drawings or on Sheet with other code information. List floor design loads on structural plans.

	STRUC	TURAL DES	SIGN INFOR	MATION, ARI	EA.		
/	Building Code	Area 1	Area 2	Area 3	Area 4	Area 5	
OCCUPANCY CATEGORY		Table 1604.5	-	-	-	-	-
LIVELOAD FOR	Floor Live Load, F ₁	Figure	PSF	PSF	PSF	PSF	PSF
EACH CCUPANCY TYPE	Roof Live Load, Ra	1608.2 or ASCE 7		PSF	PSF	PSF	PSF
	Ground Snow Load, pg		PSF	PSF	PSF	PSF	PSF
MISCELLANEOUS LOADS BY SPECIAL USE AREA (ARCHITECTURAL, MECHANICAL, DATA CENTER, ETC.)		ASCE 7	PSF	PSF	PSF	PSF	PSF

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Kanana and Juday Canana		BG I	ELECTRICAL INFORM	MATION	
Summary oj anna jrom approvi sheets.	Я АЗПКАЕ	ую.1 сопирнансе	$\mathbf{\lambda}$	🗆 By Utility	
MECHANICA	L INFORM	ATION	SERVICE		KVA Primary
GENERAL INFORMATION			TRANSFORMER	By District	Voltage/Phase
Building Location	G	REENWOOD, SC	ELECTRICALSERVICE	INFORMATION	
Climate Zone		3A	Service Voltage/Phase		Amperes
	£5	9∅ deg F DB	Service Entrance		Otta mar Dhara
	Summer	78 deg F WB	Conductors Size		Qty per ruase
Outdoor Design Temperature		20 deg F DB	Total Connected Load		KVA
	Winter	deg F WR	Estimated Maximum Der	uand	KVA
		utgr wb	Available Fault Corrent in	Symmetrical	
	Summer	deg r DB	Interrupting Capacity of S	Interrupting Capacity of Service	
Indone Design Toursetour		% RH	Overcurrent Device	Overcurrent Device	
нкки плядя тетрелание	N 1 ⁴	deg F DB	Grounding electrode syste		
	wmter	% RH	EMERGENCY SERVICE	। र	
OUTSIDE AIR NOT APP					KVA
Occupied Minimum Outside	N/A	cfm per person	Emergency Generator	🗆 no 🗆 yes	Voltage/Phase
CO2 Demand Manascencet	N/A	□no □ves		Fuel	
Sumervised Central System			Enit/Engagement Linkts D	andreas Deserver	Integral Battery
MECHANCIAL SYSTEMS, S	ERVICE SY	STEMS &	Extractinergency Lights Backup Power		Generator
EQUIPMENT					Addressable
Briefly describe mechanical sys	stem:		Fire Alarm System		
REPLACE EXST. CO	OLING TO	OWER		Automatic	
			JIGHTNING PROTECT	ION PROVIDED	
			LIGHTNING I KOTECT	ON I KOYIDED	പനലുക







S SCHE	DULE
THICKNESS	REINFORCING EACH WAY

C	ONCRETE P	OST-INSTALLED A	NCHOR TAI	BLE	
TYPE	MANUFACTURER	PRODUCT	DIAMET	ER/SIZE	
SCREW	HILTI	KWIK HUS-EZ (KH-EZ)	1/4" TO 3/4"		
ANCHOR	POWERS	WEDGE-BOLT+ w/ WEDGE BIT	3/8" TO 3/4"		
	SIMPSON	TITEN HD	3/8" TO 3/4"		
ROD	HILTI	KWIK HUS-EZ -1	3/8" TO 1/2"		
ANCHOR	POWERS	VERTIGO + w/ WEDGE BIT	1/4" TO 1/2"		
		SNAKE +	3/8" TO 1/2"		
	SIMPSON	TITEN HD ROD HANGER	3/8", 1/2"		
EXPANSION	HILTI	KWIK BOLT TZ	1/4" TO 1"		
ANCHOR	POWERS	POWER-STUD + SD1	3/8" TO 1"		
	SIMPSON	STRONG-BOLT 2	3/8" TO 5/8"		
ADHESIVE	HILTI	HIT-HY 200 V3 SAFE SET	ALL THREAD ROD	3/8" TO 1 1/4"	
ANCHOR			REBAR	#3 TO #8	
		HIT-RE 500 V3 SAFE SET	ALL THREAD ROD	3/8" TO 1 1/4"	
			REBAR	#3 TO #10	
	POWERS	PE1000+	ALL THREAD ROD	1/2" TO 7/8"	
			REBAR	#3 TO #7	
	SIMPSON	SET-3G	ALL THREAD ROD	3/8" TO 1 1/4"	
			REBAR	#3 TO #10	
		AT-XP	ALL THREAD ROD	3/8" TO 1 1/4"	
			REBAR	#3 TO #10	

NOTES:

1. THIS SELECTION TABLE SHALL BE USED WHEN ANCHOR RODS OR REBARS WITH ANCHOR ADHESIVE, EXPANSION ANCHORS OR SCREW ANCHORS ARE CALLED OUT ON THE DRAWINGS. THE ADHESIVES SHOWN SHALL ALSO BE USED WHERE THE TERM "EPOXY IS USED ON THE STRUCTURAL DRAWINGS.

2. ADHESIVE ANCHORS HOLES SHALL BE CLEANED PER THE MANUFACTURER RECOMMENDATIONS INCLUDING USING A BRUSH AND 100 PSI MINIMUM OR THE

MANUFACTURERS REQUIRED COMPRESSED AIR. ANCHORS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURE'S PRINTED 3.

INSTALLATION INSTRUCTIONS. (MP11) 4

SCREW AND EXPANSION ANCHORS SHALL MEET THE EMBEDMENT DEPTHS AS SPECIFIED IN THE DRAWINGS BUT NOT LESS THAN THE MINIMUM OF 7 TIMES THE ANCHOR DIAMETER

ADHESIVE ANCHORS SHALL MEET THE EMBEDMENT DEPTHS AS SPECIFIED IN THE DRAWINGS. IF NO EMBEDMENT IS SPECIFIED, EMBED 12 TIMES THE ANCHOR DIAMETER. CONTACT THE ENGINEER OF RECORD FOR APPROVAL OF ANY OTHER ANCHOR TYPE OR

DIAMETER PRIOR TO INSTALLATION

GENEF	RAL NOT	ES	
1.	IN CAS MECHA	E OF DISCREPANCY BE NICAL. FOR DIMENSION	TWE IS A
	MECHA AND CO	NICAL OPENINGS AND	SUF) EX
2.	DESIG	N CRITERIA	
	A.	BUILDING CODE: 2018	INT
	в. С		
	0.	a. IMPORTANCE F	AC
		b. S _S = 0.306	-
		c. SD _S = 0.317	
		d. ASSUMED SITE	CL
	D	e. ANALYSIS PRO	
	D.		-н, ОР (
	F	GROUND SNOW LOAD	
3.	FOUND	ATION DESIGN IS BASE	DO
	CONTR	ACTOR SHALL HIRE AN	IND
	VERIFY	THE ALLOWABLE BEAF	RINC
	FABRIC	CATED.	
	A. P	ASSUMED ALLOWABLE	
Δ			200
т.	A.	ALL CONCRETE:	5010
5.	CONCF	RETE REINFORCING STE	EL
	Α.	ASTM A615, GRADE 60,	EX
		WELDABLE REINFORCI	NG.
	D	DRAWINGS TO BE WEL	DEI
	B. C		
	С. D	PROVIDE CORNER BAE	.83. 25.0
	υ.	AND FOOTING INTERSE	ECT
6.	STRUC	TURAL STEEL	
	Α.	MATERIALS:	
		a. PIPE:	AS
		b. IUBE:	
		C. WIDE FLANGES	AN (۵۵۲
	B.	FABRICATION SHALL B	F IN
	C.	BOLTED CONNECTION	S: A
		CONNECTIONS WITH T	HRE
	D.	WELDED CONNECTION	IS:
_	DOOT	BE LOW HYDROGEN EI	EC

TABLES ON S101.

-VERIFY W/ COOLING TOWER

PROVIDE 2" SLOTTED HOLES FOR COOLING TOWER BOLTS (NOTE 2)

(4) 3/4" DIAM. X 14" ANCHOR BOLTS —ÀŤ EACH PIER. SLOT HOLES IN BEAM FLANGE 2"



4' - 0"

CONTRACTOR MUST VERIFY ALL DIMENSIONS WITH CERTIFIED COOLING TOWER DRAWINGS. DETERMINE DIMENSION BETWEEN PIERS BASED ON COOLING TOWER DIMENSIONS AND 2 3/4" FOR BOLT GAGE SHOWN ABOVE. COOLING TOWER MUST BE BOLTED TO OUTSIDE OF BEAM FLANGE AS SHOWN ABOVE. PROVIDE DIMENSIONS TO STEEL FABRICATOR FOR

> EEN THE MECAHANICAL AND STRUCTURAL DRAWINGS, CONSULT WITH THE AND DETAILS NOT SHOWN, SEE THE MECHANICAL DRAWINGS. VERIFY ALL PPORTS WITH THE MECHANICAL EQUIPMENT. FIELD VERIFY ALL DIMENSIONS XISTING CONSTRUCTION.

TERNATIONAL BUILDING CODE

CTOR: 1.25 S₁ = 0.098

SD₁ = 0.156

LASS D, SEISMIC DESIGN CATEGORY C EDURE: EQUIVALENT LATERAL FORCE PROCEDURE I, EXPOSURE C, INTERNAL PRESSURE COEFFICIENT +/- 0.18. SEE DIAGRAM

COMPONENTS AND CLADDING DESIGN PRESSURES. 10 PSF ON THE ASSUMED ALLOWABLE BEARING PRESSURE LISTED BELOW.

DEPENDENT TESTING LABORATORY, ACCEPTABLE TO THE OWNER, TO G PRESSURE BEFORE FOOTINGS ARE CONSTRUCTED OR REINFORCING IS

EARING PRESSURE = 2500 PSF UIRED TO LET UTILITIES PASS OVER FOOTINGS. VE STRENGTHS SHALL BE AS FOLLOWS: 4000 PSI, NORMAL WEIGHT

KCEPT WHERE REINFORCING IS SHOWN TO BE WELDED, USE ASTM A706 DO NOT WELD OR TACK WELD ANY REINFORCING NOT SHOWN ON THE

WITH ACI DETAILING MANUAL, LATEST EDITION. SS B SPLICES UNLESS NOTED OTHERWISE. OF SAME SIZE AND SPACING AS HORIZONTAL REINFORCING AT ALL WALLS TIONS. LAP WITH CLASS B SPLICES.

STM A53, GRADE B STM A500, GRADE C ND TEES: ASTM A992, GRADE 50 STM A36

N ACCORDANCE WITH AISC SPECIFICATIONS. ASTM A325. 3/4" DIAMETER, SNUG-TIGHTENED, BEARING TYPE READS IN THE SHEAR PLANE UNLESS NOTED OTHERWISE. E70XX ELECTRODES. ELECTRODES USED FOR WELDING A992 STEEL SHALL

CTRODES. . 7. POST INSTALLED ANCHORS INSTALLED IN MASONRY OR HARDENED CONCRETE SHALL BE SHOWN IN THE









NOTES:

- 1. VERIFY RATED FLOOR AND WALL ASSEMBLY TYPES AND LOCATIONS WITH ARCHITECTURAL FLOOR PLANS.
- 2. SEAL ALL DUCT AND PIPE PENETRATIONS THROUGH FLOORS AND SMOKE RATED WALL ASSEMBLIES WITH ANGLE AND CAULK.
- 3. PROVIDE UL RATED ASSEMBLIES ON ALL DUCT AND PIPE PE3NETRATIONS THROUGH RATED WALL AND FLOOR ASSEMBLIES.

DEMOLITION NOTES

- D1 ALL HVAC MATERIAL AND EQUIPMENT REQUIRED TO BE DEMOLISHED OR MADE OBSOLETE BY THE SCOPE OF THIS WORK SHALL BE REMOVED FROM THE WORK SPACE. THE OWNER HAS THE FIRST RIGHT TO REFUSAL FOR ALL EQUIPMENT AND MATERIAL OF VALUE. TURN OVER ANY ITEMS FLAGGED BY THE OWNER TO KEEP AND DELIVER UNDAMAGED TO THE LOCATION ON SITE WHERE DIRECTED BY THE OWNER. ALL OTHER DEMOLISHED ITEMS NOT RETAINED BY THE OWNER SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND BE REMOVED FROM THE SITE IN ITS ENTIRETY.
- REMOVE SECTION OF PIPE AS NEEDED AND PROVIDE NEW 6" P2 VALVES FOR CONNECTION OF A TEMPORAY CHILLER. CONTRACTOR SHALL PROVIDE A MINIMUM OF 100 TONS OF CAPACITY WITH A RENTAL CHILLER DURING ALL PERIODS THE TOWER/HEAT EXCHANGER ARE DOWN AND THE OUTDOOR AIR TEMP IS HIGHER THAN 60F. RENTAL COMPANY SHALL BE RESPONSIBLE FOR TEMPORAY HOSES AND POWER WIRING.
- D3 REMOVE AND REPLACE EXISTING COOLING TOWER PUMP COMPLETE. PROVIDE NEW PUMP AND PIPING AS INDICATED.
- P4 REMOVE AND REPLACE EXISTING COOLING TOWER FROM GRADE LEVEL TO NEW COOLING PEIRS. PROVIDE NEW TOWER AND PIPING AS INDICATED.
- D5 REMOVE AND REPLACE EXISTING HEAT EXCHANGER. PROVIDE NEW AS INDICATED.
- DE REMOVE CONDENSER WATER PUMP AND MOTOR STARTERS. PROVIDE NEW PUMPS, VFD'S, AND CONTROLS.
- (DT) REMOVE EXISTING BOLLARDS AND CONCRETE SLAB.
- (D8) REMOVE ABONDONED CONTROLS CABIENTS AND WIRING.

EXISTING ABONDONED <u>ECMP-2</u> (D6) (D8)

<u>XIIIs</u>

ECMP-1

(D6)

O H Zā EE **A** I S S S ſ WINA ENGINEER. OS N IS NOILV CAROC ECHANIC, DESIGN, No. 0096 HINOS . /er Ko: . 2921 -9834 -9837 4403 Broad Rive Columbia, S.C. T: (803) 731-9 F: (803) 731-9 AI MECHANICA DESIGN INC. ທ

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DATE:

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GREENWOOI SCHOOL DISTRICT 5

- 1. VERIFY RATED FLOOR AND WALL ASSEMBLY TYPES AND LOCATIONS WITH ARCHITECTURAL FLOOR PLANS.
- 2. SEAL ALL DUCT AND PIPE PENETRATIONS THROUGH FLOORS AND SMOKE RATED WALL ASSEMBLIES WITH ANGLE AND CAULK.
- 3. PROVIDE UL RATED ASSEMBLIES ON ALL DUCT AND PIPE PE3NETRATIONS THROUGH RATED WALL AND FLOOR ASSEMBLIES.



		C00	LING TO	WER S	CHED	ULE	123	56				
MARK	MANUF' (4)	MODEL	CAPACITY (TONS)	MAX FLOW (GPM)	MIN FLOW (GPM)	ENT WATER	LVG WATER	WET BULB		FAN SPEED	FAN MOTOR (HP)	BASIN HEATER
CT-I	EVAPCO	AT 19-4J11	267 TONS	800	400	95°F	85 ° F	78 ° F	BELT	1,800 RPM	15.0	8.0 KW

(1) VOLTAGE SHALL MATCH AVAILABLE VOLTAGE AT THE SITE. (SEE ELECTRICAL DRAWINGS)

(2) FURNISH WITH STAINLESS STEEL TOWER BASIN, FACTORY MOUNTED VARIABLE SPEED DRIVE, PREMIUM EFFICIENT FAN MOTOR, ACCESS DOOR, BOTTOM CONNECTION, HEATER PACKAGE WITH DISCONNECT, EXTENDED LUBE LINES, AND VIBRATION SWITCH.

(3) ALL UNITS SHALL BE ASHRAE 900.1 COMPLIANT.

(4) OR EQUAL BY BAC, MARLEY, OR EQUAL, SEE SPEC'S

(5) FURNISH TOWER WITH LOW FLOW NOZZLES CAPABLE OF MINIMUM FLOW LISTED.

6 FURNISH TOWER WITH LADDER AND SERVICE PLATFORM

	PLATE TYPE HEAT EXCHANGER SCHEDULE 2									
	BłG	E	BLDG CONDE	ENSER WATER		c0	POLING TO	wer water	SIDE	
MARK	MODEL	FLOWRATE (GPM)	WATER P.D.	ENTERING TEMP.	LEAVING TEMP.	FLOWRATE (GPM)	WATER P.D.	ENTERING TEMP.	LEAVING: TEMP.	FOULING
HX-1	AP	800	5 PSI	98 ° F	88°F	800	5 PSI	85.Ø	95.0	10%

() OR EQUAL BY SONDEX, ALPHA LAVAL OR ACCEPTED EQUAL

2 AHRI STANDARD 400 CERTIFIED

MARK	B & G MODEL 2	C
CWP-1 (4)	e151Ø	4
CWP-2(4)	e1510	4
	e80	4
CTP-2 (4)	වෙ	4

(1) PUMP TO MATCH AVAILABLE ELECTRICAL SERVICE, SEE ELECTRICAL.

(2) OR EQUAL BY TACO, ARMSTRONG, PATTERSON OR APPROVED EQUAL, SEE SPECIFICATIONS.

3 BRAKE HORSEPOWER SHALL NOT EXCEED 85% OF MOTOR HORSEPOWER.

(4) PROVIDE WITH VARIABLE SPEED DRIVE WITH INTEGRAL DISCONNECT

PUMP SCHEDULE () MOTOR SERVICE MIN. EFF. CONTROL HEAD RPM GPM H.P.(3) 20 BUILDING COND. WATER LEAD/LAG 125' 1,800 65% 400 400 20 BUILDING COND. WATER LEAD/LAG 125' 1,800 65% 400 1,800 65% 1.5 COOLING TOWER LOOP PRIMARY/STANDBY 40' PRIMARY/STANDBY 400 40' 1,800 65% 1.5 COOLING TOWER LOOP

GENERAL NOTES

- DO NOT SCALE DRAWINGS. ROUGH FROM ARCHITECTURAL AND EQUIPMENT MANUFACTURER'S DRAWINGS.
- 2. DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.
- 3. WHENEVER THE WORD PROVIDE IS USED IT SHALL MEAN "FURNISH AND INSTALL COMPLETE AND READY FOR USE".
- 4. ELECTRICAL CHARACTERISTICS SHOWN ON SCHEDULES OR DRAWINGS ARE DESIGN VALUES ONLY AND SHALL BE VERIFIED BEFORE ORDERING EQUIPMENT.
- 5. MAINTAIN RECOMMENDED CLEARANCES AT EQUIPMENT AS REQUIRED BY THE MANUFACTURE FOR SERVICE.
- 6. PROVIDE GALVANIZED HANGERS AND PIPE SUPPORTS FOR ALL PIPING INSIDE AND OUTSIDE OF BUILDING.
- 7. ALL SUPPLEMENTAL STEEL AND HANGERS REQUIRED FOR THIS PROJECT SHALL BE PROVIDED BY THE CONTRACTOR UNLESS SHOWN OTHERWISE IN BID DOCUMENTS.
- 8. COORDINATE SHUT DOWN OF SYSTEMS WITH THE OWNER PRIOR TO SCHEDULING WORK.
- 9. PROVIDE VALVES AS REQUIRED FOR CONNECTION OF A TEMPORARY CHILLER.
- 10. PROVIDE TAPS/WELD-O-LETS FOR NEW CONTROLS SENSORS/DEVICES AS NOTED ON THE PLANS AND AS REQUIRED BY THE SEQUENCES IN THE SPECIFICATIONS.



STMBOLS	
NEW MATERIA	
MATERIAL TO BE REMOVED	<u></u>
AIR SEPARATOR	AS
CONDENSATE DRAIN LINE (INSULATED	,b
PIPE TURNING DOW	Ç
PIPE TURNING UF	·
EXISTING CONDENSER WATER SUPPLY	ECWS
EXISTING CONDENSER WATER RETURN	ECWR
CONDENSER WATER SUPPLY	
CONDENSER WATER RETURN	
BALL VALVE (2" & SMALLER BUTTERFLY VALVE (2-1/2" & LARGER	·
	·
STRAINER	, <u> </u> ,
RELIEF VALV	,
UNDERCUT DOOF	A
CONNECT NEW TO EXISTING	







E101 SHEET 1 OF 3



DATE: ISSUED BY:			
IO. REMARKS:			
		SCHOOL DISTRICT 50	
	CERT FOR SIMS	GROUP ERS, INC CO3104 F AVIV CARO SSION 21972 26 / 22 VC DAN	NOLL STILL THE SINES HIS
	E sims groub	SIMS GROUP ENGINEERS, INC. 800 Columbiana Drive. Suite 208	Irmo, South Carolina 29063 Phone: (803) 765-1007 Fax: (803) 765-1030 www.simsgroupusa.com
PROJECT TITLE:	GREENWOOD SCHOOL DISTRICT 50 MAYS ES - COOLING TOWER UPGRADES		ELECTRICAL PLAN
S⊦ S⊦	HEET NO: E1 HEET	02	2 0f 3



RECESSED BOXES IN MASONRY WALLS: SAW-CUT OPENING FOR BOX IN CENTER OF CELL OF MASONRY BLOCK, AND INSTALL BOX FLUSH WITH SURFACE OF WALL.

			EXISTING) volts 48 bus amps	0Y/2	77V	3P 4W		AIC EXISTING			P1 DOM
FE	D FROM	UTILITY	TON PRL4 SERIES MAIN SWITC	100% HBOA				LUGS STANDARD		FE NC	D FROI
CKT	CKT BKR	LOAD KVA	CIRCUIT DESCRIPTION		CKT #	CKT BKR	LOAD KVA	CIRCUIT DESCRIPTION		CKT #	CKT BKR
1 3 5	225/3	0.00	EXISTING CIRCUIT	a b c	2 4 6	225/3 	0.00	EXISTING CIRCUIT		1 3 5	20/1 20/1 20/1
7 9 11	70/3	0.00	PANEL RP1 VIA XFMR	a b c	8 10 12	100/3 	0.00	EXISTING SPARE		7 9 11	20/1 20/1 20/1
13 15 17	100/3 	0.00	EXISTING SPARE	a b c	14 16 18	150/3 	0.00	PANEL LP1		13 15 17	20/1 20/1 20/3
19 21 23	150/3	0.00	PANEL LP2	a b c	20 22 24	150/3 	0.00	PANEL LP3		19 21 23	20/3
25 27 29	60/3 	0.00	PUMP 1	a b c	26 28 30	60/3 	0.00	PUMP 2		25 27 29	20/1
31 33 35	200/3	0.00	PANEL MP3A	a b c	32 34 36	200/3 	0.00	PANEL MP2			
37 39 41	250/3	0.00	PANEL MP1	a b c	38 40 42	250/3 	0.00	EXISTING CIRCUIT		LIC CC	Ghting Ontinuoi
43 45 47	600/3 	0.00	EXISTING CIRCUIT	a b c	44 46 48	-/3 	0.00	SUB-FEED			
									_	PRO	IVIDE NE
		-	CONN CALC KVA KVA	T B	Total Balan Phas Phas Phas	- LOAD NCED 3-PH SE A SE B SE C	IASE LOA	CALC KVA 0.00 D 0.00 A 0.00% 0.00% 0.00%			

EXISTING MAIN SWITCHBOARD LOAD DATA: MAXIMUM KVA DEMAND AT 332 KVA PER LOCAL POWER UTILITY COMPANY. (GREENWOOD CPW)

<u>RECESSED BOXES IN STUD WALLS:</u> SUPPORT BOXES FROM MORE THAN ONE SIDE BY SPANNING TWO FRAMING MEMBERS OR MOUNTING ON BRACKETS SPECIFICALLY DESIGNED FOR THE PURPOSE. BOX BRACKETS RELIANT ON SUPPORT LEGS PRESSED AGAINST BACK OF OPPOSING WALL ARE NOT ACCEPTABLE.

-BRANCH CIRCUIT CONDUIT.

- MAKE CIRCUIT JOINT WITH TWIST-ON CONNECTOR AND CONNECT TO DEVICE WITH SINGLE LEADS. -1 #12 AWG GREEN INSULATED JUMPER TO BOX BONDING SCREW.

-1 #12 GREEN INSULATED JUMPER TO DEVICE GROUNDING SCREW.

1 TYPICAL DUPLEX RECEPTACLE INSTALLATION NOT TO SCALE

	Ρ1	(E	IXIS	TIN	G)							
RC MC FE NC	DOM DUNTING D FROM DTE EXIS ⁻	SURFA UTILIT	ACE Y ATON PRL	.2 SERIES	VOLTS 480 BUS AMPS NEUTRAL 1 S PANEL)Y/2 22 1009	277V 5 %	' 3P 4W		A M L	IC EXISTING IAIN BKR MLO UGS STANDARD	
CKT #	CKT BKR	LOAD KVA	CIRCUI	r descri	PTION		CKT #	CKT BKR	LOAD KVA	CIRCI	JIT DESCRIPTION	
1 3 5 7 9 11 3 5 7 9 21 23 5 7 9	20/1 20/1 20/1 20/1 20/1 20/1 20/1 20/3 20/3 20/3	0.00 0.00 4.00 4.00 4.00 4.00 4.00 7.50 7.50	SPARE SPARE EXISTIN EXISTIN EXISTIN EXISTIN NEW C ⁻¹ EXISTIN	G LTG (E G LTG (E G LTG (E G LTG (E IP—1 PUN IP—2 PUI G SPACE	STIMATED) STIMATED) STIMATED) STIMATED) STIMATED) IP	а	2 4 6 8 10 12 14 16 18 20 22 24 26 28 30	20/3 20/1 20/1 20/1 20/1 20/1 20/1 20/1 20/1 40/3 	8.00 4.00 4.00 4.00 0.00 4.00 0.00 0.00	NEW EXIST EXIST EXIST SPAR SPAR SPAR SPAR NEW	CT-1 BASIN HEATER ING LTG (ESTIMATED) ING LTG (ESTIMATED) ING LTG (ESTIMATED) ING LTG (ESTIMATED) E ING LTG (ESTIMATED) E COOLING TOWER FAN	
	Ghting Ontinuous		CONN KVA 40.00 38.00	CALC KVA 50.00 47.50	- (125%) (125%)		TOTA BALA PHA: PHA: PHA:	L LOAD NCED 3—PH SE A SE B SE C	HASE LOA	D	CALC KVA 97.50 117.27 A 110% 94.9% 94.9%	

PROVIDE NEW BREAKER, WIRING, AND CONDUIT FOR NEW CIRCUITS AS SPECIFIED.

NO. REMARKS: DATE: ISSUED BY:		
	GREENWOOD	SCHOOL DISTRICT 50
CERTINATION CERTINATION CONTRACTOR BELIN	SIMS GR ENGINEERS No. CO3	OUP INC. NOLATION NOLATION ROL
	<u> </u>	SIMS GROUP ENGINEERS, INC. 800 Columbiana Drive, Suite 208 Irmo, South Carolina 29063 Phone: (803) 765-1007 Fax: (803) 765-1030 www.simsgroupusa.com
	SCHOOL DISTRICT 50 COOLING TOWER UPGRADES	SCHEDULES AND DETAILS