# INTERIOR RENOVATION MARCUS STROKE AND NEUROSCIENCE ANGIO 1 REPLACEMENT

GRADY MEMORIAL HOSPITAL SUITE 8-A 80 JESSE HILL, JUNIOR DRIVE SE ATLANTA, GA 30303

### **DRAWING INDEX** ARCHITECTURAL EQUIPMENT A-001 COVER SHEET • EQ0.00 MDEQ COVER SHEET A-002 GENERAL NOTES, SYMBOLS, & ABBREVIATIONS EQ1.01 | 1ST FLOOR - MEDICAL EC A-004 TYPICAL MOUNTING HEIGHTS • A-006 ACCESSIBILITY REQUIREMENTS • A-030 LIFE SAFETY PLAN • STRUCTURAL A-070 INFECTION CONTROL AND DOOR SCHEDULE • A-080 DEMOLITION PLAN AND REFLECTED CEILING PLAN • S-001 GENERAL NOTES, ABB A-100 OVERALL BUILDING PLAN AND REFLECTED CEILING PLAN • S-002 SCHEDULE OF SPECIAL A-410 INTERIOR ELEVATIONS • S-003 SCHEDULE OF SPECIAL A-700 FINISH, FURNITURE, AND EQUIPMENT PLANS AND SCHEDULE • S-100 PARTIAL 8TH FLOOR DE S-101 PARTIAL 8TH FLOOR FF S-102 PARTIAL 9TH FLOOR FR MECHANICAL M-001 MECHANICAL SYMBOLS M-002 MECHANICAL SPECIFIC M-003 MECHANICAL DETAILS M-004 MECHANICAL DETAILS M-101 MECHANICAL PLANS ELECTRICAL E-001 ELECTRICAL SYMBOLS E-002 ELECTRICAL GENERAL E-003 ELECTRICAL SCHEDULI E-101 ELECTRICAL OVERALL E-102 ELECTRICAL ENLARGED PLUMBING P-001 PLUMBING SYMBOLS, L P-101 PLUMBING PLANS LOW VOLTAGE LV-000 COVER PAGE LV-200 LEVEL 8 - OVERALL FLO LV-201 LEVEL 8 - DEMOLITION F LV-202 LEVEL 8 - FLOOR PLAN LV-401 ONE-LINE DIAGRAMS LV-501 DETAILS LV-502 DETAILS FIRE PROTECTION FP001 FIRE PROTECTION SYM FP101 FIRE PROTECTION PLAN **REFERENCE DRAWINGS** WEST PHYSICS - 2025-03-18\_SD R PHILIPS - N-SOU240375 - FINAL SI

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	25 APRIL 2025	ISSUE FOR PERMIT	DD MMM YYYY	REVISION DESCRIPTION	DD MMM YYYY	REVISION DESCRIPTION	DD MMM YYYY	REVISION DESCRIPTION	DD MMM YYYY	REVISION DESCRIPTION	DD MMM YYYY	REVISION DESCRIPTION	DD MMM YYYY	<b>REVISION DESCRIPTION</b>	рр ммм үүүү	REVISION DESCRIPTION	DD MMM YYYY	REVISION DESCRIPTION	DD MMM YYYY	REVISION DESCRIPTION	OWNER         GRADY HEALTH SYSTEMS         80 JESSE HILL JR. DRIVE SE         ATLANTA, GA 30303         404.616         ADDRESS 3	E WILLIAMS 3228
EQUIPMENT		•																				
REVIATIONS & LEGEND INSPECTIONS INSPECTIONS MOLITION PLAN RAMING PLAN RAMING PLAN		• • • •																			ARCHITECT RANDALL-PAULSON ARCHITECTS 85-A MILL STREET ARCHIT SUITE 200 PROJEC ROSWELL, GEORGIA 30075 770.650	ECT OF RECORD: ALEX S. PAULSON CT CONTACT: ALIZA GRAY .7558
6, LEGEND, NOTES AND INDEX ATIONS		•																			SHEAR STRUCTURAL         3411 PIERCE DRIVE         ANGELI         SUITE 100         CHAMBLEE, GA 30341	NA STASULIS .8051
LEGEND, NOTES, AND INDEX NOTES		• • • • •																			<ul> <li>MECHANICAL ENGINEER</li> <li>TLC ENGINEERING</li> <li>4360 CHAMBLEE DUNWOODY RAOD MATT N SUITE 210 770.451</li> <li>ATLANTA, GA 30341</li> </ul>	1ASON .6757
ES PLANS D PLANS FGEND, NOTES AND INDEX		•																			ELECTRICAL ENGINEER TLC ENGINEERING 4360 CHAMBLEE DUNWOODY RAOD MICHAE SUITE 210 770.451 ATLANTA, GA 30341	EL GIORDANO .6757
		•																			<ul> <li>PLUMBING ENGINEER</li> <li>TLC ENGINEERING</li> <li>4360 CHAMBLEE DUNWOODY RAOD MICHAE</li> <li>SUITE 210 770.451</li> <li>ATLANTA, GA 30341</li> </ul>	EL GIORDANO .6757
PLAN		• • • • • • • • • • • • • • • • • • • •																			LOW VOLTAGE ENGINEER         J&A ENGINEERING         4994 LOWER ROSWELL ROAD         KALEB         SUITE 1         ATLANTA, GA 30341	PERKINS .4220
BOLS, LEGEND, NOTES AND INDEX N AND DETAILS		•																			LOCATION N	IAP
REPORT_FLUORO_ANGIO SUITE_GRADY MEMO TE PREPARATION DOCUMENTS 4-18-2025	RIAL	HOS	SPITAL	F10	00363	8_DC	<u>В, МУ</u>	< <u>\\</u>													HILS PARK NS-Inman Yard WEST HIGHLANDS Westside Park ENTER HILL DIXIE HILLS UXIE HILLS U	V JONES GOIT COUISE Piedmont Atlanta Piedmont

	NAME OF DEVELOPMENT:	MARCUS STROKE AND NEUROSCIENCE CENTER- ANGIO 1 REPLACE
	PROJECT ADDRESS:	80 JESSE HILL, JUNIOR DRIVE, SE, ATLANTA, GEORGIA, 30303
TEWILLIAMS@GMH.EDU	ARCHITECT:	ALEX S. PAULSON, AIA PHONE #: 770.650.7558 STATE REGIS
	A: SCOPE OF WORK:	THE SCOPE OF WORK CONSISTS OF AN EQUIPMENT REPLACEMENT EXISITING ANGIO 1 IN GRADY HOSPITAL. THE WORK WILL INCLUDE E FINISH UPGRADES ALONG WITH, MECHANICAL, ELECTRICAL, AND PL UPDATES.
	B: OCCUPANCY CLASSIFICATION:	BUISNESS
AGRAY@RANDALLPAULSON.COM	C: TYPE OF CONSTRUCTION:	EXISTING, II-B
	D. SPRINKLERED:	YES
	E: SEISMIC RISK CATEGORY:	EXISTING
	F. SEISMIC DESIGN CATEGORY:	EXISTING
	G: TOTAL AREA IN SQUARE FEET: ±	1080 SF
AS TASULIS (USHEARS TRUCTURAL.COM	H: BUILDING HEIGHT IN FEET:	EXISTING
	I: NUMBER OF STORIES:	EXISTING 8
	J: PERMIT APPLIED FOR:	INTERIOR TENANT
	K: CALCULATED LOAD FOR OCCUPANCY:	HEALTHCARE - INPATIENT TREATMENT DEPARTMENTS ± (1080) SF/
MATT.MASON@TLC.COM	L: ALL BUILDINGS DESCRIBED IN THESE PL LISTED BELOW:	ANS SHALL BE CONSTRUCTED IN COMPLIANCE WITH THE GEORGIA ST.
	BUILDING - INTERNATIONAL BUILD	ING CODE, 2018 EDITION, WITH CURRENT STATE AMENDMENT
	PLUMBING - INTERNATIONAL PLUM	IBING CODE, 2018 EDITION, WITH CURRENT STATE AMENDMENT
	MECHANICAL - INTERNATIONAL ME	ECHANICAL CODE, 2018 EDITION, WITH CURRENT STATE AMENDMENT
	GAS - INTERNATIONAL FUEL AND (	GAS CODE, 2018 EDITION, WITH CURRENT STATE AMENDMENT
WICHAEL.GIONDANO@TEC.COW	ENERGY - INTERNATIONAL ENERG	BY CONSERVATION CODE, 2015 EDITION, WITH CURRENT STATE SUPPLE
	FIRE - INTERNATIONAL FIRE CODE	, 2018 EDITION, WITH CURRENT STATE AMENDMENT
	ELECTRICAL - NATIONAL ELECTRIC	CAL CODE, 2023 EDITION, WITH CURRENT STATE AMENDMENT
	LIFE SAFETY - NFPA 101 LIFE SAFE	TY CODE, 2024 EDITION, WITH CURRENT STATE AMENDMENT
	2010 AMERICAN DISABILITIES ACT	STANDARDS FOR ACCESSIBLE DESIGN
MICHAEL.GIORDANO@TLC.COM	SEE SI	HEET A-030 FOR ADDITIONAL CODE INFORMATION
KPERKINS@JAENGINEERING.NET		



OAKLAND CIT

# **REFERENCE PLAN**





# ABBREVIATIONS

A	Δ <u>Τ</u>
۵B	
ABV	ABOVE
AC	
ACI	AMERICAN CONCRETE INSTITUTE
ACT	ACOUSTICAL CEILING TILE
AD	ACCESS DOOR
ADA	AMERICAN DISABILITIES ACT
ADMIN	ADMINISTRATIVE
	ACCESS FLOOR
AISC	
	CONSTRUCTION
ALT	ALTERNATE
ALUM	ALUMINUM
ANOD	ANODIZED
ANSI	AMERICAN NATIONAL STANDARDS
۸D	
ARCH	
ASHRAE	AMERICAN SOCIETY HEATING
	REFRIGERATING AND AIR
	CONDITIONING ENGINEERS
ASTM	
	MATERIALS
AUX	AUXLIARY
B	
B/O	
BB	BUILLENTIN BOARD
BD	BOARD
BFF	BELOW FINISHED FLOOR
BFV	BUTTERFLY VALVE
BLDG	BUILDING
BUS BTH	
С	
С	CONDUIT
CAP	CAPACITY
CTM	
CI	
CLG	
CLO	COLUMN
CLOS	CLOSET
CLR	CLEAR
CMU	CONCRETE MASONRY UNIT
	CASED OPENING, CLEANOUT
COMP	
CONC	CONCRETE
COND	CONDENSATION
CONF	CONFERENCE
CONN	CONNECTION
CORR	CONTINUOUS
CPT	CARPET
CRT	CIRCUIT
СТ	CERAMIC TILE
CU	CUBIC
CVV	COLD WATER
D	
D	DRAIN
D/W	DISHWASHER
DBL	DOUBLE
	DIAMETER
DN	DIVISION
DOE	DEPARTMENT OF ENERGY
DS	DOWNSPOUT
DW	DOMESTIC WATER
DWG(S)	DRAWING(S)
DWLS	DOWELS
E	
EA	EACH
EF	EXHAUST FAN
lifo F.I	EXTERIOR INSULATION FINISH SYSTEM
ELEC	
ELEV, EL	ELEVATION
EMS	ENERGY MANAGEMENT SYSTEM
EPDM	ETHYLENE PROPYLENE DIENE MONOMER,
FPS	EXISTING OVERHEAD ELECTRICAL
EQ	
EQUIP	EQUIPMENT
ESFR	EARLY SUPPRESSION FAST RESPONSE
ESP	EXTERNAL STATIC PRESSURE
EWC	
⊑w⊓ EXIST	
EXP	EXPANSION
EXPO	EXPOSED
EXT	EXTERIOR
F	
F	FAHRENHEIT
FA	FIRE ALARM
FAP	FIRE ALARM PANEL
FC	FOOTCANDLES
FD	FLOOR DRAIN, FIRE DAMPER
1.1.0.5	
FEB	
FEB FEC	FIRE EXTINGUISHER CABINET
FEB FEC FF	FIRE EXTINGUISHER CABINET FINISHED FLOOR
FEB FEC FF FIN	FIRE EXTINGUISHER CABINET FIRE EXTINGUISHER CABINET FINISHED FLOOR FINISH
FEB FEC FF FIN FM FOI D PART	FIRE EXTINGUISHER CABINET FINISHED FLOOR FINISH FACTORY MUTUAL
FEB FEC FF FIN FM FOLD PART FP	FIRE EXTINGUISHER BRACKET FIRE EXTINGUISHER CABINET FINISHED FLOOR FINISH FACTORY MUTUAL FOLDING PARTITION FIRE PROTECTION
FEB FEC FF FIN FM FOLD PART FP FRP	FIRE EXTINGUISHER DRACKET FIRE EXTINGUISHER CABINET FINISHED FLOOR FINISH FACTORY MUTUAL FOLDING PARTITION FIRE PROTECTION FIBERGLASS REINFORCED PLASTIC
FEB FEC FF FIN FM FOLD PART FP FRP FT	FIRE EXTINGUISHER BRACKET FIRE EXTINGUISHER CABINET FINISHED FLOOR FINISH FACTORY MUTUAL FOLDING PARTITION FIRE PROTECTION FIBERGLASS REINFORCED PLASTIC FEET
FEB FEC FF FIN FM FOLD PART FP FRP FT	FIRE EXTINGUISHER BRACKET FIRE EXTINGUISHER CABINET FINISHED FLOOR FINISH FACTORY MUTUAL FOLDING PARTITION FIRE PROTECTION FIBERGLASS REINFORCED PLASTIC FEET
FEB FEC FF FIN FM FOLD PART FP FRP FT G G	FIRE EXTINGUISHER BRACKET FIRE EXTINGUISHER CABINET FINISHED FLOOR FINISH FACTORY MUTUAL FOLDING PARTITION FIRE PROTECTION FIBERGLASS REINFORCED PLASTIC FEET GAS
FEB FEC FF FIN FM FOLD PART FP FRP FT G G GA	FIRE EXTINGUISHER BRACKET FIRE EXTINGUISHER CABINET FINISHED FLOOR FINISH FACTORY MUTUAL FOLDING PARTITION FIRE PROTECTION FIBERGLASS REINFORCED PLASTIC FEET GAS GUAGE CALVANUZED
FEB FEC FF FIN FM FOLD PART FP FRP FT FT <b>G</b> GA GALV GFN	FIRE EXTINGUISHER BRACKET FIRE EXTINGUISHER CABINET FINISHED FLOOR FINISH FACTORY MUTUAL FOLDING PARTITION FIRE PROTECTION FIBERGLASS REINFORCED PLASTIC FEET GAS GUAGE GALVANIZED GENERATOR
FEB FEC FF FIN FM FOLD PART FP FRP FT G G G G G G A G A LV GEN GFI	FIRE EXTINGUISHER DRACKET FIRE EXTINGUISHER CABINET FINISHED FLOOR FINISH FACTORY MUTUAL FOLDING PARTITION FIRE PROTECTION FIBERGLASS REINFORCED PLASTIC FEET GAS GUAGE GALVANIZED GENERATOR GROUND FAULT (CURRENT) INTERRUPTER

G (Continued	) GROUND	P (Continued) PSI
GWB	GYPSUM WALLBOARD	PT
		PTD
HR		_ PVC
НС	HANDICAPPED	F VIVI I
HD	HUB DRAIN	Q
HDWR	HARDWARE	QA
HM HORIZ	HOLLOW METAL HORIZONTAI	QC QT
HP	HORSEPOWER	QTY
HPS	HIGH PRESSURE SODIUM	
HR HW	HOUR HOT WATER	R
HWH	HOT WATER HEATER	RA
HZ	HERTZ	RB
		RCP
I/M	ICE MAKER	RCPTN
IBC	INTERNATIONAL BUILDING CODE	RD
ICC		REF
ID IF	INSIDE DIMENSION	REG
IECC	INTERNATIONAL ENERGY CONSERVATION	REQD
	CODE	RFG
IFC		RH
IN	INCH(ES)	RL
INSUL	INSULATION, INSULATING	RM
INV	INVERT	RO
IPC	INTERNATIONAL PLUMBING CODE	ROW
J		RR
JAN	JANITOR	ROW
JB		RPM
JST	JOINTION BUX	кк RT
JT	JOINT	RTF
14		RTU
KO	KNOCK OUT	s
KOP	KNOCK OUT PANEL	SA
kV	KILOVOLTS	SAN
kVA		SC
κW	KILOWATI	SCHED an
L		SEC
LAM	LAMINATE	SEP
LAU	LAUNDRY	SGL
LAV LB(S)		SHGH
LD BRG	LOAD-BEARING	SHWR
LF	LINEAR FEET	SIM
LG		SM
LH	LEFT HAND	SUG
LIB	LIBRARY	SQ
LN	LINE	SS
LOCK		074
LSP	LIFE SAFETY PLAN LEFT	STA
LVR	LOUVER	STD
LVT	LUXURY VINYL TILE	STL
М		STLJST
M/W	MICROWAVE	STRUCT
MAINT	MAINTENANCE	SVT
MATL	MATERIAL MAKELID ALD LINIT	т
MAX	MAXIMUM	T/O
MDF	MEDIUM DENSITY FIBERBOARD	TECH
MECH	MECHANCIAL	TEL
MEZZ	MEZZANINE MAXIMUM FORESEFABLE LOSS	TEMP
MFR(S)	MANUFACTURER(S)	THRESH
MGR	MANAGER	THRU
MH	MANHOLE	TI TI T
MID MIN	MIDDLE MINIMUM	TOM
MISC	MISCELLANEOUS	TOS
MM	MILLIMETER	TP
MO		TR
MPH	MILES PER HOUR	TSTAT
MT(D)	MOUNTED	TYP
MTL	METAL	
Ν		U/S
NA	NOT APPLICABLE	UBC
NEC	NATIONAL ELECTRIC CODE	UFC
NEG NFPA	NEGATIVE NATIONAL FIRE PROTECTION ASSOCIATION	UH
NFWH	NON-FREEZE WALL HYDRANT	UMC
NIC		UNO
NO/#		UPC
NRC	NOISE REDUCTION COEFFICIENT	UTIL
NTS	NOT TO SCALE	V
0		V
OA	OVERALL	VA VAR
OC	ON CENTER	VCT
000	OCCUPANT	VEND
OD OFF	OUTSIDE DIMENSION OFFICE	VENT
OH	OVERHEAD	VEST
OPNG	OPENING	VIF
OPP	OPPOSITE	VTR
U9R	ORIENTED STRAIND BOAKD	VVVC
Ρ		W
PA	PUBLIC ADDRESS	W
PAR PERP	PARALLEL PERPENDICI II AR	W/ \\//µ
PIV	POST INDICATOR VALUE	W/O
PLAM	PLASTIC LAMINATE	WC
PLYWD	PLYWOOD	WCO
PNL POS	PANEL POSITIVF	WD WHSF
. 33 PR	PAIR	WM
PRFFAB		
	PREFABRICATED	WP
PREFIN, PF	PREFABRICATED PREFINISHED	WP WT
PREFIN, PF PRI PROV	PREFABRICATED PREFINISHED PRIMARY PROVIDED	WP WT
PREFIN, PF PRI PROV PRV	PREFABRICATED PREFINISHED PRIMARY PROVIDED PRESSURE REDUCTION VALVE	WP WT YD

# POUNDS PER SQUARE INCH PRESSURE TREATMENT, PORCELEAN TILE PAINTED POLYVINYL CHLORIDE PAVEMENT

QUALITY ASSURANCE QUALITY CONTROL QUARRY TILE QUANTITY

RADIUS **RETURN AIR** 

RUBBER BASE, RESILIENT BASE REINFORCED CONCRETE PIPE, REFLECTED CEILING PLAN RECEPTION ROOF DRAIN

REFRIGERATOR REGISTRATION, REGISTER REINFORCE(D) REQUIRED ROOFING RIGHT HAND

RIGHT HAND REVERSE RAIN LEADER ROOM ROUGH OPENING

RIGHT OF WAY **REVOLUTIONS PER MINUTE** RESTROOM RIGHT OF WAY

**REVOLUTIONS PER MINUTE** RESTROOM RIGHT RUBBER TILE FLOOR

ROOF TOP UNIT

SUPPLY AIR SANITARY SHADING COEFFICIENT SCHEDULE STORM DRAIN

SECONDARY SEPARATE SINGLE SOLAR HEAT GAIN COEFFICIENT

SHEET SHOWER SIMILAR

SMALL SLAB ON GRADE SPECIFICATION

SQUARE SANITARY SEWER LINE, SERVICE SINK, STANDING SEAM, STAINLESS STEEL

STATION SOUND TRANSMISSION CLASS STANDARD

STEEL STEEL JOIST STORAGE

STRUCTURAL STATIC DISSIPATIVE TILE

TOP OF TECHNICAL TELEPHONE TEMPERATURE TOP OF FINISHED FLOOR THRESHOLD THROUGH TENANT IMPROVEMENT TOILET TOP OF MASONRY TOP OF STEEL TOILET PARTITION TRANSITION STRIP TREATED

THERMOSTAT TYPICAL

UNDERSIDE

UNIFORM BUILDING CODE UNIFORM FIRE CODE UNIT HEATER UNDERWRITERS LABORATORY UNIFORM MECHANICAL CODE UNLESS NOTED OTHERWISE UNIFORM PLUMBING CODE UTILITY

VOLTS, VENT VOLTAMPS VARIATION VINYL COMPOSITION TILE VENDING VENTILATION VERTICAL VESTIBULE VERIFY IN FIELD

VENT THROUGH ROOF VINYL WALL COVERING

WATER WITH WATER HEATER WITHOUT WATER CLOSET, WALL COVERING WALL CLEANOUT WOOD WAREHOUSE WOMEN

### WEATHERPROOF WALL TILE

YARD

# SYMBOLS



# ELEVATION INDICATION

PLAN DETAIL INDICATION



∖X-### /

- DETAIL NUMBER

- DRAWN ON THIS SHEET

# E

REFERENCE NORTH TRUE NORTH PROJECT NORTH JOB NORTH	ROOF SLOPE INDICATION	PLAN NOTES       ###     GENERIC KEY NOTE       PANEL DIRECTION       X###       PANEL NUMBER
ELEVATION HEIGHT INDICATION HEIGHT ABOVE OR BELOW REFERENCE LOCATION OF REFERENCE HEIGHT	GRID LINES	### DOOR NUMBER   # WINDOW NUMBER   # PARTITION KEY NOTE   # TOILET ASSESSORY NOTE   # REVISION NUMBER
ROOM INDICATION NAME OF ROOM ROOM NAME ### SF SIZE OF ROOM	FINISH NOTES WALL FINISH W: ### F: ### B: ### BASE FINISH	€ → CENTER LINE TRANSITION CHANGE

# **GENERAL NOTES**

SPE WO SHO SHO TO, COI SEA	CIFIED PRODUCT; THAT THE CONTRACTOR WILL COORDINATE INSTALLATION AND MAKE CHANGES TO O RK THAT MAY BE REQUIRED FOR THE WORK TO BE COMPLETE WITH NO ADDITIONAL COST TO THE OWN DULD THIS SUBSTITUTION REQUIRE RE-DESIGN, THERE MAY BE AN ADDITIONAL COST FROM THE ARCHIT DULD SUCH SUBSTITUTION IMPACT ANY CODE RELATED ITEMS IN THE DOCUMENTS SUCH AS, BUT NOT L UL DETAILS, FIRE RATINGS, SIZING, SPACING OR REVISION OF STRUCTURAL REQUIREMENTS, IT SHALL NTRACTOR'S DUTY TO RESEARCH AND PROVIDE ANY REQUIRED DOCUMENTATION INCLUDING SIGNED AN ALED ENGINEERING CERTIFICATIONS AS MAY BE NECESSARY FOR APPROVALS BY THE AUTHORITY HAVI
<b>ј</b> џг 1.	DO NOT SCALE DRAWINGS; DIMENSIONS GOVERN.
<b>2.</b> 3.	REFER TO THE PROJECT SPECIFICATIONS FOR FURTHER INFORMATION. THE DESIGN OF THIS PROJECT TO THE BEST OF OUR PROFESSIONAL KNOWLEDGE, INFORMATION AND I COMPLIES WITH THE APPLICABLE PROVISIONS OF THE AMERICANS WITH DISABILITIES ACT (ADA), ANSI STANDARD A117.1 AND APPLICABLE ACCESSIBILITY CODE REQUIREMENTS AS THEY APPLY TO THIS PRO THAT ARE IN EFFECT AT THE TIME OF PERMITTING. BECAUSE THE REQUIREMENTS OF THE ADA ARE SUB TO VARIOUS AND POSSIBLY CONTRADICTORY INTERPRETATIONS, WE CANNOT AND DO NOT WARRANT O GUARANTEE THAT THIS PROJECT WILL COMPLY WITH INTERPRETATIONS OF ADA REQUIREMENTS AS TH APPLY TO THIS PROJECT.
4.	ALL WORK SHALL BE DONE IN STRICT ACCORDANCE WITH THE APPLICABLE STATE AND LOCAL CODES A LISTED ON COVER SHEET.
5.	THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL REQUIRED PERMITS FOR THE SCOPE OWORK.
6.	ANY ERRORS, INCONSISTENCIES OR OMISSIONS IN THE CONTRACT DOCUMENTS DISCOVERED BY THE CONTRACTOR SHALL BE REPORTED PROMPTLY TO THE ARCHITECT AND NO LESS THAN TWO BUSINESS BEFORE THE WORK IS TO COMMENCE.
7.	THE CONTRACTOR SHALL PROVIDE A WARRANTY OF THE WORK FOR THE PERIOD OF ONE YEAR OR PER AGREEMENT WITH OWNER AFTER SUBSTANTIAL COMPLETION OR AS OTHERWISE STIPULATED IN THE CONTRACT DOCUMENTS.
8.	THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL DESIGN DISCIPLINES WITH THE ARCHITECTURAL DRAWINGS, INCLUDING ALL REQUIRED CLEARANCES FOR INSTALLATION OR MAINTENA ALL DISCREPANCIES IN THE DOCUMENTS OR CONFLICTS WITH ANY DESIGN ELEMENTS SHALL BE REPORTO THE ARCHITECT FOR RESOLUTION NO LESS THAN TWO BUSINESS DAYS BEFORE PROCEEDING WITH IF WORK IS COMPLETE & NOT APPROVED BY THE ARCHITECT, THE WORK SHALL BE REDONE TO MEET IN WITH NO ADDITIONAL COST TO OWNER.
9.	THE ARCHITECT IS NOT RESPONSIBLE FOR CHANGES MADE OR AUTHORIZED BY THE OWNER, OWNER'S REPRESENTATIVES, TENANTS, CONTRACTOR OR OTHERS WITHOUT WRITTEN CONSENT BY THE ARCHIT CONSULTANT.
10.	THE CONTRACTOR SHALL SUBMIT TO THE ARCHITECT OR OWNER'S REPRESENTATIVE AND THE OWNER OF ALL ITEMS AND THEIR DELIVERY SCHEDULES. THE LIST SHALL IDENTIFY ALL LONG-LEAD TIME ITEMS THE PROJECT SUCH AS MATERIALS, FABRICS, HARDWARE, ETC. PRIOR TO ORDERING AN ITEM, THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING THE ARCHITECT AND OWNER OF ANY ITEM WHIC CAUSE THE PROJECT TO BE DELAYED.
11.	THE EXTENT OF THE WORK SHALL BE LIMITED TO THAT INDICATED IN THE DRAWINGS. ANY ADDITIONAL DONE MUST HAVE WRITTEN PERMISSION FROM THE ARCHITECT OR OWNER'S REPRESENTATIVE. WORK WITHOUT WRITTEN PERMISSION SHALL BE AT THE CONTRACTOR'S RISK.
12.	THE CONTRACTOR SHALL TAKE ADEQUATE PRECAUTIONS TO PROTECT THE BUILDING OCCUPANTS, MATERIALS AND EXISTING FINISHES THROUGHOUT THE DURATION OF THE WORK. BARRIERS TO CONTR NOISE, DUST, AND SECURITY BETWEEN CONSTRUCTION AREAS AND OCCUPIED AREAS OR PUBLIC AREA SHALL BE ERECTED AND MAINTAINED BY THE CONTRACTOR.
13.	THE CONTRACTOR SHALL FIELD VERIFY CONSTRUCTION TOLERANCES AND TAKE FIELD MEASUREMENT ANY EXISTING CONDITIONS RELATED TO THE WORK OF THIS PROJECT. CONDITIONS ENCOUNTERED AT SITE MATERIALLY DIFFERENT FROM THOSE INDICATED IN THE CONTRACT DOCUMENTS SHALL BE PROM REPORTED TO THE ARCHITECT OR OWNER'S REPRESENTATIVE BEFORE THE CONDITIONS ARE DISTURE
14.	EXISTING CONSTRUCTION SHOWN TO REMAIN INCLUDING BUT NOT LIMITED TO WALLS, PARTITIONS, DO FRAMES, CONSTRUCTION AND MATERIALS BEYOND THE SCOPED AREA ETC. SHALL BE PROTECTED FROW WEATHER AND OTHER DAMAGE DURING CONSTRUCTION ACTIVITIES. DAMAGE TO EXISTING CONSTRUCT SHOWN TO REMAIN SHALL BE RESTORED OR REPLACED TO MATCH EXISTING CONDITION IN FINISH, RATAND APPEARANCE AT NO ADDITIONAL COST.
15.	THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CUTTING, PATCHING AND FITTING NECESSARY TO ACHIEVE THE SCOPE OF THE WORK.
16.	THE EXISTING UTILITIES OR OTHER MECHANICAL, ELECTRICAL, PLUMBING, AND LOW-VOLTAGE EQUIPME REQUIRING REMOVAL, CAPPING, TERMINATION, AND/OR RELOCATION SHALL BE INCLUDED IN THE OVER SCOPE AND PERFORMANCE OF THE PROJECT BY THE CONTRACTOR.
17.	THE CONTRACTOR SHALL PROTECT AND SHALL NOT DISCONNECT ANY EXISTING FIRE ALARM DEVICES, ALARMS, SPRINKLER HEADS, EXIT SIGNS, ASSOCIATED WIRING, AND OTHER LIFE SAFETY DEVICES IN OPERATION, BEFORE COORDINATING WITH FIRE MARSHAL. FINAL LIFE SAFETY DEVICE LOCATION LAYO AND EGRESS PLAN SHALL BE REVIEWED AND APPROVED BY AUTHORITY HAVING JURISDICTION PRIOR T WORK BEING PERFORMED.
18.	ALL MATERIALS AND DEVICES USED FOR THIS PROJECT ARE TO BE NEW, NEITHER PREVIOUSLY STORED PREVIOUSLY USED IN THIS OR ANOTHER LOCATION.
19.	CENTERLINE OF PARTITIONS SHALL ALIGN WITH CENTERLINE OF COLUMN, COLUMN LINE, DIMENSION REFERENCE, OR CENTERLINE OF WINDOW MULLIONS AS SHOWN, UNLESS OTHERWISE NOTED.
20.	DIMENSIONS AT STUD WALLS ARE MEASURED FROM FACE OF STUD TO FACE OF STUD, UNLESS OTHER NOTED. DIMENSIONS AT STOREFRONT ARE MEASURED FROM THE FACE OF STUD TO FACE OF MULLION UNLESS OTHERWISE NOTED. DIMENSIONS AT BUILDING WALLS (IMP/CONCRETE/CMU) ARE MEASURED F FACE OF STUD TO FACE OF BUILDING WALL MATERIAL, UNLESS OTHERWISE NOTED.
21.	NEW WORK AT EXISTING CONDITIONS SHALL ALIGN WITH AND MATCH EXISTING WORK EXCEPT WHERE OTHERWISE DIMENSIONED OR DETAILED.
22.	"TYPICAL" OR "TYP." SHALL MEAN THAT THE REFERENCED DETAIL OR DIMENSION SHALL APPLY FOR ALL SIMILAR CONDITIONS UNLESS OTHERWISE INDICATED.
23.	PROVIDE BRACING ABOVE PARTITIONS AS NECESSARY TO SUPPORT ASSEMBLIES ATTACHED OR CONTA WITHIN, IN COMPLIANCE WITH MINIMUM STANDARDS OF ASTM C645-88. DESIGN INTERIOR PARTITIONS F MAXIMUM DEFLECTION OF L/240 AT 5 PSF.
24.	AT EXISTING PARTITIONS TO REMAIN WHICH ARE CHANGED TO BE RATED PARTITIONS, MODIFY THE PAR CONSTRUCTION ASSEMBLY AS REQUIRED TO MEET THE REQUIREMENTS FOR THE APPLICABLE FIRE RA
25.	PERMANENTLY IDENTIFY BOTH SIDES OF ALL FIRE RATED AND SMOKE PARTITIONS IN CONCEALED SPACE WITH THE WORDING - "FIRE AND(/OR) SMOKE BARRIER - PROTECT ALL OPENINGS."
26.	ALL SOUND PARTITIONS SHALL INCLUDE ACOUSTICAL SEALANT AT BASE, HEAD, PERIMETER AND ALL OPENINGS.
27.	PARTITIONS ABUTTING CURTAIN WALL MULLIONS AND/OR STOREFRONT SHALL NOT BE ATTACHED BY S OR OTHER MECHANICAL FASTENERS.
28.	ALL WOOD USED AS STUDS, BLOCKING OR BRACING SHALL BE PRESSURE TREATED IF EXPOSED TO WE AREAS, AND/OR IS IN CONTACT WITH CONCRETE OR MASONRY AND FIRE TREATED IF REQUIRED BY CON
29.	PROVIDE BLOCKING, BRACING, AND NAILERS AS REQUIRED FOR FINISHES, MILLWORK (UPPER AND LOW CABINETS), EQUIPMENT (I.E. RESTROOM), SHELVING, FIXTURES, ETC. CONTRACTOR TO COORDINATE REQUIRED HEIGHTS AND TYPE OF BLOCKING FOR LOCATIONS INDICATED AND/OR CODE REQUIREMENT ATTACHMENTS, SCREWS, AND BOLTS BETWEEN STRUCTURAL STEEL AND TREATED WOOD, BLOCKING A NAILERS SHALL BE GALVANIZED.
30.	HORIZONTAL ELEMENTS SUCH AS DOOR HEADS SHALL BE MAINTAINED AT A CONSTANT LEVEL AND SHA FOLLOW VARIATIONS IN FLOOR PLANE. LEVEL FLOORS AS REQUIRED USING APPROVED LEVELING COM UNLESS OTHERWISE DIRECTED IN DRAWINGS.
31.	ALL SUBSTRATE SURFACES ARE TO BE PREPARED TO RECEIVE FINISH MATERIALS PER MANUFACTURE PRODUCT LITERATURE AND WRITTEN INSTRUCTIONS FOR INSTALLATION OR APPLICATION.
32. 32	ALL FASTENERS AND ATTACHMENTS SHALL BE CONCEALED FROM VIEW, UNLESS OTHERWISE NOTED.
აპ.	EATE DOORS SHALL NOT REQUIRE THE USE OF A KEY, TOOL, OR SPECIAL KNOWLEDGE OR EFFORT FOR OPERATION FROM THE INSIDE OF THE BUILDING PER THE NFPA 101 LIFE SAFETY CODE IN EFFECT AT TI PERMITTING: LOCKS, LATCHES, AND ALARM DEVICES.
34.	NEW AND EXISTING PENETRATIONS, WITHIN THE SCOPE OF THE WORK, INTO OR THROUGH EITHER VER OR HORIZONTAL FIRE-RATED BARRIERS SHALL BE PROTECTED BY A SYSTEM LISTED BY A RECOGNIZED TESTING AGENCY.
35.	THE CONTRACTOR SHALL PROVIDE AND INSTALL EQUIPMENT AND APPLIANCES SPECIFIED, UNLESS OTHERWISE NOTED. THE CONTRACTOR SHALL PROVIDE AND/OR COORDINATE INSTALLATION OF TENAN FURNISHED FOUIPMENT AND APPLIANCES. IF REQUIRED. THE CONTRACTOR SHALL VERIEVALL PLUMBI

ELECTRICAL REQUIREMENTS RELATED TO EQUIPMENT AND APPLIANCES IN THE SCOPE OF THE WORK. 36. VERIFY LOCATIONS OF ALL FIRE EXTINGUISHERS, SURFACE-MOUNTED OR RECESSED, FOR CODE COMPLIANCE. PROVIDE FIRE EXTINGUISHERS PER CODE IF NOT SHOWN ON DRAWINGS.

37. VERIFY LOCATIONS OF ALL ELECTRICAL DEVICES, LIFE SAFETY DEVICES AND THERMOSTAT LOCATIONS WITH ARCHITECT FOR COORDINATION WITH DESIGN ELEMENTS PRIOR TO INSTALLATION. AT LOCATIONS WHERE ELECTRICAL, MECHANICAL AND/OR OTHER DEVICES OCCUR TOGETHER BUT AT DIFFERENT HEIGHTS, THE DEVICES SHALL BE CENTERED ABOVE EACH OTHER.



Released for Construction

Not Released for Construction









LIFE	SAFETY PLAN LEGEND
SYMBOI	DESCRIPTION
	DESCRIPTION DENOTES SURFACE MOUNTED FIRE EXTINGUISHER TO COMPLY WITH PRODUCT REQUIN NFPA 10 AND APPLICABLE CODES, WHICHEVER IS MORE STRINGENT. • DRY CHEMICAL TYPE FIRE EXTINGUISHERS: CARBON STEEL TANK, WITH PRESSURE • STORED PRESSURE OPERATED: DEEP DRAWN • CLASS: 4A - 60B:C • SIZE: 10 POUND SIZE: 10 POUND
F.E.C.	DENOTES SEMI-RECESSED FIRE EXTINGUISHER CABINET AND EXTINGUISHER TO COMPL PRODUCT REQUIREMENTS OF NFPA 10 AND APPLICABLE CODES, WHICHEVER IS MORE S • DRY CHEMICAL TYPE FIRE EXTINGUISHERS: CARBON STEEL TANK, WITH PRESSURE • STORED PRESSURE OPERATED: DEEP DRAWN • CLASS: 4A - 60B:C SIZE: 10 POUND
F.E.C.	DENOTES RECESSED FIRE EXTINGUISHER CABINET AND EXTINGUISHER TO COMPLY WIT REQUIREMENTS OF NFPA 10 AND APPLICABLE CODES, WHICHEVER IS MORE STRINGENT • DRY CHEMICAL TYPE FIRE EXTINGUISHERS: CARBON STEEL TANK, WITH PRESSURE • STORED PRESSURE OPERATED: DEEP DRAWN • CLASS: 4A - 60B:C SIZE: 10 POUND
$\bigotimes$	EXIT LIGHT
$\overleftarrow{}$	DIRECTIONAL EXIT LIGHT
(##)	DOOR RATING (IN MINUTES)
Н	HOLD OPEN
A	AUTOMATIC DOOR
AC	ACCESS CONTROL
H	HORIZONTAL EXIT
	TRAVEL DISTANCE
(	POINT OF CHOICE
(B)	WHEELCHAIR TURNING DIAMETER
	ONE-HOUR FIRE RESISTANT RATED WALL CONSTRUCTED TIGHT TO UNDERSIDE OF STRUCTURE ABOVE
	TWO-HOUR FIRE RESISTANT RATED WALL CONSTRUCTED TIGHT TO UNDERSIDE OF STRUCTURE ABOVE
	THREE-HOUR FIRE RESISTANT RATED WALL CONSTRUCTED TIGHT TO UNDERSIDE OF STRUCTURE ABOVE
	SMOKE PARTITION CONSTRUCTED TIGHT TO UNDERSIDE OF STRUCTURE ABOVE
ALL FIRE EXTING	UISHER LOCATIONS TO BE APPROVED BY FIRE MARSHAL AND/OR AHJ

# FIRE EXTINGUISHER CABINET DETAIL



EXISTING PARTITIONS TO REMAIN
EXISTING PARTITIONS TO BE DEMOLISHED
NEW PARTITIONS
AREA NOT IN SCOPE







WRAP AROUND HOLLOW METAL FRAME — CONTINUOUS PAINTABLE CAULK ALONG PERIMETER OF FRAME, BOTH SIDES -PARTITION AS SCHEDULED -METAL STUD FRAMING

DOOR AS SCHEDULED INTERSECTING PARTITION

4 DETAIL - H.M. HEAD @ PARTITION WALL A-070 1 1/2" = 1'-0"



LE - D	DOOR							
	FRAME			DETAILS		HARDWARE		
TYPE	MATERIAL	FINISH	HEAD	JAMB	THRESHOLD	SET	RATING	REMARKS
1	HM	PAINT	4/A-070	5/A-070	-	1	-	
1	HM	PAINT	4/A-070	5/A-070	-	2		

# **INFECTION PREVENTION GENERAL NOTES**

1. CONSTRUCTION ZONE TO MAINTAIN NEGATIVE PRESSURE: HAVING A DESIGN STATIC PRESSURE A MINIMUM OF 0.01 INCHES GREATER THAN THE SURROUNDING SPACES.

- 2. ERECT AND MAINTAIN DUSTPROOF PARTITIONS AND TEMPORARY ENCLOSURES TO LIMIT DUST AND DIRT MIGRATION AND TO SEPARATE AREAS FROM FUMES AND NOISE. PARTITIONS TO BE NOT LESS THAN 4 INCH (NOMINAL) METAL STUDS AND ONE LAYER 5/8 INCH GYPSUM WALLBOARD WITH JOINTS TAPED ON BOTH SIDES. PROVIDE PAINT ON GWB IN AREAS EXPOSED TO PUBLIC OR OWNER'S OCCUPIED AREAS.
- 3. WHERE DUCTWORK, CONDUIT AND OTHER SERVICES MAKE WALL TEMPORARY CONSTRUCTION IMPOSSIBLE, PROVIDE 2 LAYERS OF 3 MIL POLYETHYLENE SHEETS INSIDE AND OUTSIDE TEMPORARY ENCLOSURE ABOVE THE CEILING LINE.
- 4. INSULATE PARTITIONS TO PROVIDE NOISE PROTECTION TO OCCUPIED AREAS.
- 5. SEAL JOINTS AND PERIMETER. EQUIP PARTITIONS WITH DUSTPROOF DOORS AND SECURITY LOCKS. 6. PROTECT AIR-HANDLING EQUIPMENT.
- 7. WEATHERSTRIP OPENINGS.
- 8. UNTIL FIRE-PROTECTION NEEDS ARE SUPPLIED BY PERMANENT FACILITIES, INSTALL AND MAINTAIN TEMPORARY FIRE PROTECTION FACILITIES OF TYPES NEEDED TO PROTECT AGAINST REASONABLY PREDICTABLE AND CONTROLLABLE FIRE LOSSES. COMPLY WITH NFPA 241.
- 9. REMOVE TEMPORARY FACILITY WHEN IT'S NEED FOR SERVICE HAS ENDED OR REPLACED BY AUTHORIZED USE OF A PERMANENT FACILITY.
- 10. SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION.

# INFECTION PREVENTION LEGEND

SYMBOL DESCRIPTION PROJECT AREA - - - - TEMPORARY BARRIER EXISTING WALL AS BARRIER ANTEROOM CONSTRUCTION ENTRANCE  $\leftarrow$ EXHAUST FOR NEGATIVE PRESSURE EMERGENCY EGRESS ONLY

# **GENERAL DOOR AND FRAME NOTES**

- 1. ALL DOOR HARDWARE SHALL BE HANDICAP ACCESSIBLE, COMPLYING WITH 2010 ADA STANDARDS FOR ACCESSIBLE DESIGN.
- 2. WHERE DISCREPANCIES OCCUR BETWEEN THE DOOR SCHEDULED NOTES AND HARDWARE SPECIFICATIONS,
- NOTIFY THE ARCHITECT OF DISCREPANCIES TO RECEIVE DIRECTION ON HOW TO PROCEED.
- 3. ALL DOORS TO HAVE SILENCERS.
- 4. HARDWARE TO MATCH BUILDING STANDARD.
- 5. TIE MAGNETIC LOCK INTO FIRE ALARM.
- 6. DOOR STAIN TO BE CHOCOLATE, CH18 FOR VT INDUSTRIES SWING DOORS.
- 7. DOOR TRIM TO BE P-2.

# HARDWARE SCHEDULE

Hardware Set No. 1 - TYP. INTERIOR DOOR W/ MAGNETIC LOCK

(1) CARD READER (1) MAGNETIC LOCK (1) OVERHEAD STOP (1) CLOSER (3) HINGES (3) SILENCERS (4) KICK PLATE

Hardware Set No. 2 - TYP. INTERIOR DOOR W/ PASSAGE LOCK

(1) PASSAGE LOCK (1) OVERHEAD STOP (1) CLOSER (3) HINGES (3) SILENCERS (2) KICK PLATE



# 5 DETAIL - H.M. JAMB @ PARTITION WALL A-070 1 1/2" = 1'-0"





### **DEMOLITION PLAN GENERAL NOTES** 1. DEMOLITION PLANS SHOW APPROXIMATE LAYOUT OF THE EXISTING BUILDING AND ARE NOT INTENDED TO REPRESENT PRECISE "AS-BUILT" CONDITIONS. THE CONTRACTOR AND ALL SUBCONTRACTORS SHALL VISIT THE PROJECT SITE AND BECOME FAMILIAR WITH ALL JOB CONDITIONS, INCLUDING EXISTING MECHANICAL, PLUMBING, AND ELECTRICAL WORK. USE METHODS REQUIRED TO COMPLETE THE WORK WITHIN LIMITATIONS OF GOVERNING REGULATIONS. 2. SHOULD THE CONTRACTOR ENCOUNTER CONDITIONS AT THE SITE MATERIALLY DIFFERING FROM THOSE INDICATED IN THE CONTRACT DOCUMENTS, THE CONTRACTOR SHALL IMMEDIATELY GIVE NOTICE TO THE ARCHITECT'S AND OWNER'S REPRESENTATIVE OF SAID CONDITIONS BEFORE THEY ARE DISTURBED. 3. THE CONTRACTOR SHALL CEASE OPERATIONS IMMEDIATELY IF HAZARDOUS OR CONTAMINATED MATERIALS SUCH AS ASBESTOS OR POLYCHLORINATED BIPHENYL (PCB), NOT PREVIOUSLY RENDERED HARMLESS, ARE ENCOUNTERED. CONTACT ARCHITECT AND OWNER IN WRITING. DO NOT RESUME OPERATIONS UNTIL DIRECTED, HAZARDOUS OR CONTAMINATED MATERIALS HAVE BEEN RENDERED HARMLESS, AND CONDITIONS ARE AGREED TO BY OWNER AND CONTRACTOR IN WRITING. 4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION OF ALL TRADES. THIS INCLUDES SCHEDULING OF ALL WORK TO BE PERFORMED, COORDINATION OF ALL CUTTING, FITTING, PATCHING AND REPAIRING AS REQUIRED, ETC. 5. THE OWNER AND AFFECTED TENANT SHALL BE NOTIFIED NO LESS THAN TWO BUSINESS DAYS PRIOR TO SHUTDOWN OF ANY SHARED UTILITIES, INCLUDING BUT NOT LIMITED TO, MECHANICAL, PLUMBING AND/OR ELECTRICAL SYSTEMS. MAINTAIN EXISTING UTILITIES INDICATED TO REMAIN IN SERVICE AND PROTECT THEM AGAINST DAMAGE DURING DEMOLITION OPERATIONS. 6. THE CONTRACTOR SHALL TAKE ADEQUATE PRECAUTIONS TO PROTECT THE BUILDING OCCUPANTS, MATERIALS AND EXISTING FINISHES THROUGHOUT THE DURATION OF THE WORK, INSIDE AND OUTSIDE THE SCOPED AREA. BARRIERS TO CONTROL NOISE, DUST, VIBRATION, ODORS, AND SECURITY BETWEEN CONSTRUCTION AREAS AND OCCUPIED AREAS OR PUBLIC AREAS SHALL BE ERECTED AND MAINTAINED BY THE CONTRACTOR. 7. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN ADEQUATE SHORING AND BRACING AS REQUIRED FOR TEMPORARY SUPPORT OF ALL WORK TO BE PERFORMED. THE SHORING AND BRACING SHALL PREVENT MOVEMENT, SETTLEMENT, AND/OR COLLAPSE OF STRUCTURE OR ELEMENT SHOWN TO REMAIN. IF REQUIRED, SHORING AND BRACING SHALL BE DESIGNED BY A PROFESSIONAL ENGINEER LICENSED IN THE LOCAL JURISDICTION. 8. EXISTING CONSTRUCTION SHOWN TO REMAIN INCLUDING BUT NOT LIMITED TO WALLS, PARTITIONS, DOORS, FRAMES, CONSTRUCTION AND MATERIALS BEYOND THE SCOPED AREA ETC. SHALL BE PROTECTED FROM WEATHER AND OTHER DAMAGE DURING CONSTRUCTION ACTIVITIES. DAMAGE TO EXISTING CONSTRUCTION SHOWN TO REMAIN SHALL BE RESTORED TO MATCH PRE-DAMAGED ADJACENT CONDITION AT NO ADDITIONAL COST TO OWNER PRIOR TO SUBSTANTIAL COMPLETION. 9. EXISTING ITEMS OR MATERIAL TO BE SALVAGED SHALL BE REMOVED, CLEANED, AND STORED AT LOCATION PROVIDED BY OWNER OR TEMPORARILY STORED AND RE-USED AS INDICATED ON DRAWINGS. CONTRACTOR SHALL MAINTAIN AND PROVIDE TO OWNER A LIST OF ALL REMOVED AND SALVAGED ITEMS AT THE COMPLETION OF DEMOLITION WORK. SALVAGE EXISTING RATED DOORS, WINDOWS, AND FRAMES IN A MANNER TO MAINTAIN RATINGS FOR RE-USE. 10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL RELOCATION OF MATERIAL WITHOUT PERMANENT DAMAGE OR MARRING. NEW MATERIAL SHALL BE PROVIDED WHERE THE CONTRACTOR IS UNABLE TO PROTECT EXISTING MATERIAL FROM PERMANENT DAMAGE OR MARRING. 11. EXISTING UTILITIES OR OTHER MECHANICAL, ELECTRICAL OR PLUMBING EQUIPMENT REQUIRING REMOVAL,

- CAPPING, TERMINATION, AND/ OR RELOCATION SHALL BE INCLUDED IN THE OVERALL SCOPE AND PERFORMANCE OF THE PROJECT BY THE CONTRACTOR.
  12. THE CONTRACTOR SHALL PROTECT AND SHALL NOT DISCONNECT ALL EXISTING FIRE ALARM DEVICES, SMOKE ALARMS, SPRINKLER HEADS, EXIT SIGNS, ASSOCIATED WIRING, AND OTHER LIFE SAFETY DEVICES IN OPERATION, UNLESS OTHERWISE NOTED. RELOCATE AS REQUIRED IN NEW PLAN.
- 13. EXISTING CONCRETE FLOOR SLABS, MASONRY WALLS AND EXISTING STRUCTURAL FRAMING SYSTEMS SHOWN TO BE REMOVED SHALL BE CLEANLY SAWCUT FROM EXISTING CONSTRUCTION. COMPLETELY REMOVE FOOTINGS, FOUNDATIONS AND ABOVEGROUND AND UNDERGROUND CONSTRUCTION AS INDICATED ON DRAWINGS.
- 14. EXISTING EXTERIOR WALL INSULATION SHALL BE LEFT IN PLACE OR SHALL BE REPLACED WITH NEW MATERIAL OF EQUAL OR GREATER INSULATING VALUE UNLESS OTHERWISE NOTED.
- 15. WHERE FINISHES ARE SHOWN TO BE REMOVED FROM EXISTING CONSTRUCTION, REPAIR AND PATCH REMAINING SUBSTRATES AND PREPARE FOR NEW FINISH. CAREFULLY REPAIR AND PATCH ALL REMAINING SUBSTRATES THAT WERE ORIGINALLY CONCEALED BY EXISTING FINISHES BUT WILL NOW BE EXPOSED IN THE NEW CONSTRUCTION.
- 16. ALL INFILL OR REPLACEMENT WORK IS TO MATCH EXISTING CONDITIONS IN MATERIALS, CONSTRUCTION, PERFORMANCE, RATING AND FINISH, UNLESS SPECIFICALLY NOTED ELSEWHERE IN THE CONSTRUCTION DOCUMENTS.
- EXISTING CONDITIONS DISTURBED BY NEW WORK MUST BE RESTORED WITH EQUAL OR ARCHITECT-APPROVED COMPARABLE NEW MATERIAL TO A CLEAN NEW CONDITION. ALL NEW MATERIALS SHALL MATCH EXISTING UNLESS OTHERWISE NOTED.
   THE CONTRACTOR SHALL BE RESPONSIBLE FOR DEBRIS REMOVAL. DO NOT ALLOW DEBRIS TO ACCUMULATE.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR DEBRIS REMOVAL. DO NOT ALLOW DEBRIS TO ACCOMULATE ALL AREAS TO BE LEFT CLEAN DAILY. WASH AND CLEAN ALL WORK AFFECTED BY CONSTRUCTION AT COMPLETION OF PROJECT.
   THE CONTRACTOR SHALL COORDINATE ALL WORK WITH TENANT AND SHALL VERIFY ALL TENANT REQUESTS
- WITH OWNERS' REPRESENTATIVE PRIOR TO PERFORMING SUCH REQUESTS.
- 20. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CORRECTION OF IRREGULARITIES IN FLOOR FINISH AND/OR ELEVATION THAT BECOME APPARENT DUE TO DEMOLITION.
   21. THE CONTRACTOR SHALL BE RESPONSIBLE TO REMOVE AND REPLACE BROKEN CEILING TILES AND GRIDS,
- AND OTHERWISE THAT MAY BE INCLUDED.
  22. REMOVE ALL OBSOLETE PLUMBING, MECHANICAL, AND ELECTRICAL EQUIPMENT IN THEIR ENTIRETY THROUGHOUT SPACE AND ON THE ROOF, PARTICULARLY WHERE EXISTING ITEMS WILL INTERFERE WITH THE INSTALLATION OF NEW CONSTRUCTION, OR WHERE EXISTING ITEMS WILL BE EXPOSED IN THE NEW CONSTRUCTION, UNLESS SPECIFICALLY NOTED ELSEWHERE IN THE CONTRACT DOCUMENTS TO REMAIN. REPAIR AND PATCH SYSTEMS TO REMAIN WITH MATCHING OR COMPARABLE NEW CONSTRUCTION AND AS

INDICATED IN CONTRACT DOCUMENTS. COORDINATE WITH NEW CONSTRUCTION.

# **DEMOLITION PLAN NOTES**

- 1. REMOVE ALL EXISTING DEBRIS, MATERIALS, OR OTHERWISE THAT MAY BE ATTACHED TO THE WALLS OR CONTAINED WITHIN OR AROUND THE BUILDING. .
- 2. REMOVE EXISTING FLOORING, FLOOR BASE. PATCH AND REPAIR FLOORING AND WALL AS REQUIRED TO RECEIVE NEW FINISH.
- 3. REMOVE EXISTING DOOR, DOOR HARDWARE AND DOOR FRAME IN A PERMANANT MANNER.
- 4. REMOVE EXISTING MILLWORK INCLUSIVE OF ALL UTILITIES AND FIXTURES. TERMINATE AND CAP ALL ABANDONED UTILITIES ABOVE THE CEILING OR BELOW THE FLOOR IN A PERMANENT MANNER.
- REMOVE EXISTING PLUMBING FIXTURE. AREA TO RECIEVE NEW SINK IN SAME LOCATION.
   REMOVE EXISTING WALL ASSEMBLY IN ITS ENTIRETY. INCLUDING DOORS, ELECTRICAL, MECHANICAL, PLUMBING OR OTHERWISE THAT MAY BE CONTAINED WITHIN. TERMINATE ALL ABANDONED UTILITIES BACK TO THE SOURCE IN A PERMANENT MANNER.
- 7. REMOVE EXISTING CEILING ASSEMBLY IN ITS ENTIRETY, SAVE EXISTING FIXTURES TO BE RELOCATED. SPACE TO RECEIVE NEW CEILING TO RECEIVE NEW CEILING AND EXISTING LIGHTS.
- EXISTING CEILING ASSEMBLY, LIGHTS, OTHER OTHERWISE THAT MAY BE CONTAINED WITHIN TO REMAIN.
   PORTION EXISTING CEILING SOFFIT TO REMAIN, REMOVE PORTION TO ALLOW FOR NEW WALLS CEILING AS
- NEEDED. 10. REMOVE ALL EXISTING EQUIPMENT IN EQUIPMENT ROOM OR OTHERWISE THAT MAY BE ATTACHED TO THE
- WALLS OR THE FLOOR INCLUSIVE OF ALL UTILITIES AND FIXTURES. TERMINATE AND CAP ALL ABANDONED UTILITIES ABOVE THE CEILING OR THE BELOW THE FLOOR IN A PERMANENT MANNER. REMOVE EXISTING RAISED SLAB TO CREATE SMOOTH EVEN FLOOR.
- 11. REMOVE EXISTING PORTION OF WALL ASSEMBLY IN ITS ENTIRETY. INCLUDING DOORS, ELECTRICAL, MECHANICAL, PLUMBING OR OTHERWISE THAT MAY BE CONTAINED WITHIN. TERMINATE ALL ABANDONED UTILITIES BACK TO THE SOURCE IN A PERMANENT MANNER.

# **PARTITION LEGEND**

 EXISTING PARTITIONS TO REMAIN

 EXISTING PARTITIONS TO BE DEMOLISHED

 NEW PARTITIONS

 AREA NOT IN SCOPE









(A1) 3 5/8" METAL STUD @ 16" OC WITH INSULATION

# **FLOOR PLAN NOTES**

## #

. EXISTING BARN DOOR DOES NOT WORK PROPERLY. GC TO FIX OR REPLACE DOOR AS NEEDED TO LIKE NEW WORKING CONDITION.

# FLOOR PLAN GENERAL NOTES

- 1. REFER TO PROJECT GENERAL NOTES FOR FURTHER INFORMATION.
- 2. SEE ENGINEERING DRAWINGS FOR MORE INFORMATION. COORDINATE PARTITION LAYOUT WITH MECHANICAL, ELECTRICAL, DATA, SPRINKLER AND PLUMBING WORK. NOTIFY ARCHITECT TO RESOLVE CONFLICTS OR DISCREPANCIES WITH ANY DESIGN ELEMENTS.
- 3. PROVIDE AUDIBLE/ VISUAL SIGNAL APPLIANCES COMPLYING WITH THE REQUIREMENTS OF THE PREVAILING NFPA 72 AND GEORGIA ACCESSIBILITY CODES, IF REQUIRED BY LOCAL CODES.
- 4. ALL INSULATING MATERIALS SHALL HAVE A FLAME SPREAD INDEX OF NOT MORE THAN 25 AND A SMOKE-DEVELOPED INDEX OF NOT MORE THAN 450 OR NO MORE THAN 50 AS DETERMINED IN ACCORDANCE WITH PREVAILING ASTM E84 AND SBC.
- 5. WRAP AND INSULATE ALL PLUMBING PIPES TO MEET CODE.

# PARTITION TYPES GENERAL NOTES

- 1. PROVIDE MOISTURE RESISTANT GYPSUM BOARD AT ALL WET LOCATIONS. IF TOILET ROOM WALLS ARE TO RECEIVE A TILE FINISH, PROVIDE CEMENTITIOUS BOARD.
- 2. EXTEND MOISTURE RESISTANT GYPSUM BOARD 3'-0" BEYOND ALL SINKS.
- 3. ALL BLOCKING TO BE FIRE RETARDANT TREATED.
- 4. FOR ALL WALLS ATTACHING TO STRUCTURE, REFERENCE SLIP TRACK DETAILS ON SHEET A-XXX. 5. ALL NEW WALLS EXCEEDING 10'-0" IN UNBRACED LENGTH SHALL BE BRACED WITH A HORIZONTAL STUD CONNECTING THE TOP OF THE WALL WITH THE ADJACENT PERPENDICULAR WALL. THE HORIZONTAL BRACING SHALL START 5'-0" FROM THE CORNER OF THE INTERSECTION OF THE TWO WALLS CREATING A 45 DEGREE
- ANGLE. THE HORIZONTAL BRACING SHALL BE THE SAME STUD SIZE AND GAUGE AS THE WALL STUD. 6. CONTRACTOR SHALL INSTALL SIGNS OR BY STENCILING IN CONCEALED SPACE ON ALL FIRE-RESISTANCE-RATED WALLS (AND CORRESPONDING FIRE-RESISTANT RATING) INCLUDING FIRE BARRIER WALLS, SMOKE BARRIER WALLS, FIRE PARTITIONS, FIRE WALLS, AND SHAFT ENCLOSURES. IDENTIFICATION SHALL BE SPACED NO MORE THAN TWELVE FEET APART ON CENTER WITH A MINIMUM LETTER SIZE OF THREE INCHES
- HOUR FIRE AND SMOKE BARRIER PROTECT ALL OPENINGS

IN HEIGHT IN A CONTRASTING COLOR. SIGN AS FOLLOWS:

# **RCP GENERAL NOTES**

- 1. REFER TO GENERAL NOTES, SPECIFICATIONS AND DEMOLITION NOTES FOR MORE INFORMATION.
- 2. REFER TO PARTITION PLAN LEGEND FOR PARTITIONS PENETRATING THROUGH CEILING GRID, BRACE AS REQUIRED.
- 3. REFER TO ENGINEERING DRAWINGS AND SPECIFICATIONS FOR HVAC AND ELECTRICAL FIXTURES AND DETAILS.
- 4. LIGHT FIXTURES SHOWN ON REFLECTED CEILING PLAN FOR LOCATION ONLY.
- 5. DIMENSIONS INDICATE STARTING POINT OF GRID. IF NOT DIMENSIONED, CENTER GRID IN ROOM OR SPACE AS SHOWN, IN BOTH DIRECTIONS.
- 6. COORDINATE ALL NEW ABOVE CEILING INSTALLATIONS TO PROVIDE DESIGN ELEMENTS AND FIXTURES AS SHOWN ON REFLECTED CEILING PLAN. CONFLICTS MAY REQUIRE INSTALLATION OF MECHANICAL, ELECTRICAL OR PLUMBING ELEMENTS ABOVE TYPICAL MOUNTING HEIGHTS IN PLENUM.
- 7. IF ACCESS DOORS OR PANELS ARE REQUIRED, SUBMIT PROPOSED TYPE, SIZE AND LOCATION TO ARCHITECT FOR APPROVAL PRIOR TO INSTALLATION, IN COMPLIANCE WITH THE SPECIFICATIONS. CONFIRM FINISH WITH ARCHITECT.
- 8. PROVIDE HANGER FOR EACH LIGHT FIXTURE ATTACHED TO STRUCTURE. 9. ALL LIGHT FIXTURES, DIFFUSER, SPRINKLER HEADS, ELECTRICAL DEVISES, LIFE SAFETY DEVISES, ETC. IN ACOUSTICAL LAY-IN CEILINGS SHALL BE LOCATED IN THE CENTER OF THE CEILING, UNLESS NOTED OTHERWISE.
- 10. ALL LIGHT FIXTURES, DIFFUSERS, SPRINKLER HEADS, ETC. IN DRYWALL CEILINGS SHALL BE CENTERED IN THE CEILING SPACE, UNLESS OTHERWISE NOTED.
- 11. IF APPLICABLE USE CONCEALED SPRINKLER HEADS IN LOCATIONS WHERE SPRINKLER HEADS FALL ON GYP. BD. CEILING. SPRINKLER HEAD COVERS TO MATCH COLOR OF ADJACENT SURFACE WHERE COVER IS MOUNTED ON. RELOCATE AND/OR ADD SPRINKLERS AS REQUIRED FOR COMPLIANCE WITH ALL APPLICABLE CODES
- 12. PAINT ALL SIDES/EDGES OF HEADERS AND SOFFITS TO MATCH ADJACENT WALL COLOR UNLESS NOTED OTHERWISE.
- 13. CEILING HIEGHTS TO MATCH EXISTING HEIGHTS WITHIN SPACE OR RAISE CEILINGS IF POSSIBLE.

# **REFLECTED CEILING PLAN FINISH LEGEND**

1BOL	DESCRIPTION
GWB	5/8" GYPSUM BOARD CEILING
ACT-1	MANUFACTURER: ARMSTRONG PATTERN: CANYON SQ PRODUCT: 1490 GRID: PRELUDE XL COLOR: WHITE SIZE: 24 X 24 SQUARE LAY-IN

# **REFLECTED CEILING PLAN LEGEND**

SYMBOL	IMAGE	DESCRIPTION	CONTACT
		ACOUSTICAL CEILING TILE, 2'X2' SEE RCP FINISH LEGEND FOR FINISH INFORMATION	
		GYPSUM BOARD CEILING	
		2' X 2' LAY-IN LIGHT FIXTURE	
0		6" RECESSED CAN LIGHT FIXTURE	
		4" LINEAR LIGHT RECTANGLE TO HAVE CONTINUOUS CORNERS	
REFER TO ELECT	TRICAL ENGINEERI	NG DRAWINGS FOR ADDITIONAL INFORMATION.	

# **REFLECTED CEILING PLAN NOTES**

- 1. EXISTING CIELING AND LIGHTS TO REMAIN.
- 2. EXISTING GWB SOFFIT TO REMAIN.

# **PARTITION LEGEND**

EXISTING PARTITIONS TO REMAIN EXISTING PARTITIONS TO BE DEMOLISHED NEW PARTITIONS AREA NOT IN SCOPE



BOTTOM OF STRUCTURE SOUND BATT INSULATION PER PARTITION DESIGNATIONS BELOW

FINISH BEAD OR CHANNEL AS REQUIRED BY SCHEDULED CEILING SYSTEM, CAULK CHANNEL WHERE IT MEETS WALL

SEE PHYSICIST REPORT FOR LEAD AND FASTENING REQUIREMENTS 1 LAYER 5/8" GYP BOARD ON EACH SIDE, SCREW ATTACHED, FINISH JOINTS. METAL STUDS

- BASE AS SCHEDULED BOTH SIDES - ACOUSTICAL SEALANT

- (1) 3 5/8" METAL STUD @ 16" OC WITH INSULATION
- (L2) 6" METAL STUD @ 16" OC WITH INSULATION









	Ν	
WALL AS SCHEDULED		
COUNTERTOP AS SCHEDULED		
PROVIDE BLOCKING IN WALL AND AT CABINETS AS REQUIRED FOR SECURE ATTACHMENT TO WALL	 2' - 1"	
FULL EXTENSION DRAWER GLIDES		11/2
ALL INTERIOR SURFACES TO BE MELAMINE		
3/4" PLYWOOD DOOR WITH PLASTIC LAMINATE ON BOTH SIDES, HUNG ON CONCEALED HINGES		VARIES
ADJUSTABLE SHELVES, MELAMINE FACED, 1/2" THICK		
PLASTIC LAMINATE BASE OF THE CABINET	 1' - 9" 3	;"

WALL AS SCHEDULED

MATCH WALL

LAMINATE SCHEDULED BASE

7 MILLWORK - BASE CABINET W/ DRAWER A-410 / 3/4" = 1'-0"







# **\ ELEVATION - SCAN ROOM MILLWORK**



# MILLWORK - WORK DESK RAKKS 8 BRACKET A-410 3/4" = 1'-0"





ELE	EVATION LEGEND
)L	DESCRIPTION
	DUPLEX OUTLET
	QUAD OUTLET
	DATA OUTLET
	GROMMET
S SHC	WN FOR REFERENCE ONLY. SEE ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION.

N	IILLWORK NOTES
1.	REFER TO GENERAL NOTES AND SPECIFICATIONS FOR MORE INFORMATION.
2.	ALL MILLWORK SHALL BE FABRICATED AND INSTALLED IN STRICT ACCORDANCE WITH THE PREVAIL EDITONS OF ALL APPLICABLE STATE AND LOCAL CODES. CONTRACTOR TO MEET THE REQUIREME THE PREVAILING ACCESSIBILITY CODES AS THEY PERTAIN TO MILLWORK OF ANY KIND.
3.	THE CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS PRIOR TO FABRICATION.
4.	MILLWORK PULLS SHALL BE 4" BRUSHED CHROME FINISH WIRE PULL UNLESS OTHERWISE NOTED.
5.	MILLWORK SHELVES ON ADJUSTABLE STANDARDS.
6.	REFER TO MILLWORK ELEVATIONS FOR COUNT AND LOCATION OF MILLWORK SHELVING.
7.	COUNTERTOPS TO BE 1-1/2" THICK WITH 4" HIGH BACKSPASH.
8.	REFER TO MILLWORK ELEVATIONS FOR COUNTERTOP MATERIAL AND CABINET FINISH.
9.	THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OF ALL MILLLWORK TO ARCHITECT FOR APPROTO FABRICATION.
10.	ALL EXPOSED MILLWORK SURFACES TO BE FINISHED.
44	

11. PROVIDE BLOCKING FOR ALL MILLWORK ATTACHED TO PARTITIONS. 12. PROVIDE 3" DIA. GROMMETS AT BACK OF COUNTERTOPS EXACT LOCATION TO BE COORDINATED WITH THE OWNER IN THE FIELD AT THE TIME OF INSTALLATION.





PROJECT NORTH



KEY	
CG-1	С
P-1	V
P-2	Т
P-3	С
PL-1	Ρ
RT-1	R
SDT-2	S
SDT-3	S
SS-1	S
WB-1	V
WP-1	V

# **PAINT FINISH NOTES**

- 1. ALL WALLS TO BE PAINTED EGGSHELL FINISH.
- 2. ALL SOFFITS, HEADERS, AND CEILINGS TO BE PAINTED FLAT FINISH.
- 3. ALL PAINT GRADE MILLWORK AND TRIM TO BE PAINTED SEMI-GLOSS.
- 4. ALL STAINED MILLWORK TO BE SATIN FINISH.
- 5. ALL WALLS IN JANITOR CLOSETS AND RESTROOMS TO BE EPOXY FINISH.

# FINISH PLAN GENERAL NOTES

- 1. REFER TO GENERAL NOTES, SPECIFICATIONS, FINISH SCHEDULE, OR FINISH PLANS FOR MORE INFORMATION. 2. CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING ALL DIMENSIONS, NOTIFY ARCHITECT OF ANY DISCREPANCIES.
- 3. CONTRACTOR IS RESPONSIBLE FOR PROTECTING EXISTING FINISHES THAT ARE SCHEDULED TO REMAIN. FINISHES DAMAGED DURING CONSTRUCTION ARE TO BE CLEANED, PATCHED, REPAIRED TO ORIGINAL CONDITION, OR REPLACED AT CONTRACTOR'S EXPENSE.
- 4. ALL MATERIALS TO BE INSTALLED WITH METHODS AND PRODUCTS RECOMMENDED BY THE MANUFACTURER. 5. INSTALLER SHALL EXAMINE CONDITIONS OF SURFACES ON WHICH NEW FINISHES ARE TO BE INSTALLED AND NOTIFY GENERAL CONTRACTOR PRIOR TO INSTALLATION IF CONDITIONS ARE NOT SATISFACTORY. ALL SURFACES SHALL BE CLEANED AND CONDITIONED TO RECEIVE NEW FINISH AS REQUIRED BY FINISH PRODUCT MANUFACTURER. SURFACES SHALL BE SMOOTH, FREE FROM DEPRESSIONS. PROTRUSIONS, PITS,
- SUMPS, STREAKS AND VARIATION IN TEXTURE. CONTRACTOR TO NOTIFY ARCHITECT IMMEDIATELY OF ANY IMPERFECTIONS, COMMENCING WITH WORK SHALL CONSTITUTE ACCEPTANCE OF SURFACES SCHEDULED TO RECEIVE NEW FINISHES TO BE SMOOTH, EVEN AND FREE OF IMPERFECTIONS. 6. CONTRACTOR TO APPROVE ALL NEW FINISHES AGAINST DEFECTS, IF ANY DEFECTS IN MATERIALS ARE
- FOUND, DO NOT PROCEED WITH INSTALLATION. NOTIFY THE MANUFACTURER AND ARRANGE REPLACEMENT AS SOON AS POSSIBLE. GC SHOULD NOTIFY ARCHITECT AND OWNER IMMEDIATELY OF DELAYS CAUSED BY REPLACEMENTS OF NEW FINISHES.
- 7. ALL WALL MOUNTED MECHANICAL SLOTS OR GRILLES, PAINTED SHELVES, ETC ON WALL OR CEILING TO MATCH ADJACENT WALL COLOR UNLESS OTHERWISE NOTED. DO NOT PAINT PRE-FINISHED COMPONENTS, INCLUDING BUT NOT LIMITED TO, WALL MULLION END CAPS. 8. METAL TRANSITION FLOOR TRANSITION STRIPS WHEREVER FLOOR TYPES CHANGE. SUBMIT PHYSICAL
- SAMPLE OF MANUFACTURER'S STANDARD COLORS TO ARCHITECT FOR COLOR SELECTION OR PROVIDE RUBBER TRANSITION STRIPS TO MATCH WALL BASE UNLESS NOTED OTHERWISE. 9. ALL FLOOR FINISH CHANGES TO OCCUR UNDER CENTERLINE OF DOOR IN CLOSED POSITION UNLESS NOTED
- OTHERWISE. 10. CAULK ALL MILLWORK WHERE IT MEETS THE WALL AND FLOOR.
- 11. ALL SPECIFIED FINISHES SHALL MATCH EXISTING BUILDING STANDARDS. CONTRACTOR TO NOTIFY ARCHITECT OF ANY SPECIFIED DISCREPANCIES OR DISCONTINUED ITEMS IN A TIMELY MANNER.
- 12. EACH MATERIAL SPECIFIED FOR APPLICATION ON THE ENTIRE PROJECT SHALL BE FROM THE SAME DYE LOT. 13. COMBUSTIBLE INTERIOR FINISH PRODUCTS SHALL BE PROVIDED PER THE REQUIREMENT OF THE RESPECTIVE OCCUPANCY CHAPTER OF THE PREVAILING EDITION OF THE NFPA 101 LIFE SAFETY CODE, UNDER WHICH THE PROJECT IS BEING PERMITTED. PROVIDE VERIFICATION AT THE TIME OF FINAL INSPECTION THAT THE PRODUCTS COMPLY WITH THE REQUIREMENTS. 14. CONTRACTOR SHALL BE RESPONSIBLE FOR LEVELING OF FLOOR SLABS TO RECEIVE SPECIFIED FINISHES. 15. ALL PATTERNED FLOORING TO BE CENTERED IN BOTH DIRECTIONS AND GENERATED FROM CENTER OF ROOM OUTWARD TOWARD PARTITIONS, UNLESS OTHERWISE NOTED.
- 16. CARPET SEAMS SHALL OCCUR AT JUNCTIONS OF PARTITIONS, THRESHOLDS OR CHANGE OF DIRECTION IN CORRIDORS. NO STRIP PATCHING ALLOWED. SUBMIT SEAMING DIAGRAM FOR APPROVAL PRIOR TO INSTALLATION. ALL CARPET BORDER CORNERS SHALL BE MITERED.
- 17. GYPSUM BOARD SURFACES TO RECEIVE THE FOLLOWING FINISH LEVELS PER THE GUIDELINES OF GA-214-M-97 OF THE GYPSUM ASSOCIATION: LEVEL 1 - ABOVE FINISHED CEILINGS CONCEALED FROM VIEW.
  - LEVEL 2 PANELS THAT ARE SUBSTRATE FOR TILE.
  - LEVEL 4 WALLS AND CEILINGS SCHEDULED TO RECEIVE FLAT OR EGGSHELL PAINT FINISH (SEE FINISH LEGEND FOR EXACT FINISH).
- LEVEL 5 WALLS AND CEILINGS SCHEDULED TO RECEIVE SEMI-GLOSS OR GLOSS PAINT FINISH OR WALLCOVERING (SEE FINISH LEGEND FOR EXACT FINISH).
- 18. PROVIDE SCHLUTER STRIP AT ALL EXPOSED EDGES OF WALL TILE, TYPICAL.

# FINISH SYMBOL LEGEND

SYMBOL	DESCRIPTION
<b>_</b>	FLOOR TRANSITION
CG-X	CORNER GUARD
HR-X	HANDRAIL
 WP-X	WALL PROTECTION
- <del>CT-X</del>	CURTAIN & TRACK

FINISH SCHEDULE					
ROOM NAME	FLOOR FINISH	BASE FINISH	WALL FINISH	CEILING FINISH	COMMENTS
RECEIVING	RT-1	RT-1	P-1	ACT	
ANGIO CONTROL	SDT-2	SDT-2	P-1	ACT	
HANDWASH SINK	SDT-2	SDT-2	P-1	ACT	
EQUIPMENT ROOM	RT-1	RT-1	P-1	ACT	
BI-PLANE ANGIO	SDT-2 / SDT-3	SDT-2	P-1	ACT	

FINISH LEGEND					
PRODUCT	MANUFACTURER	COLOR	FINISH	SIZE	COMMENTS
NER GUARD	CS ACROVYN, SM-20	MISSION WHITE #933		FULL HEIGHT	
L PAINT	SHERWIN WILLIAMS	PEARLY WHITE SW 7009	EGGSHELL		
/ PAINT	SHERWIN WILLIAMS	BEIGE SW 7036	SEMI-GLOSS		
ING PAINT	SHERWIN WILLIAMS	BRIGHT WHITE SW 7007	FLAT		
STIC LAMINATE	WILSONART, 38 FINE, WOOD GRAIN	7985-38 MORELIA MANGO	VELVET TEXTURE, AEON FINISH		
ILIENT TILE	NORAPLAN SATURA RUBBER TILE	ARA 5110		3MM	HEAT WELD WITH 6" INTEGRAL COVE BASE
TIC DISSIPATIVE SHEET	NORA PLAN SENTICA RUBBER SHEET	SNOW DAY 6520		3MM	HEAT WELD WITH 6" INTEGRAL COVE BASE
TIC DISSIPATIVE SHEET	NORA PLAN SENTICA RUBBER SHEET	ICE CUBE 6528		3MM	HEAT WELD WITH 6" INTEGRAL COVE BASE
ID SURFACE	LG HIMACS, 1/2" THICK SOLID SURFACE	ARCTIC WHITE S006			
DOW BLINDS	MECHO SHADE, MECH 7 MANUAL SHADE SYSTEM				
L PROTECTION	CS ACROVYN, 4000 RIGID SHEET	MISSION WHITE #933		.04" THICK	4" AFF



(	GRADY	Gra MEMO		y.	- )Sf	M >IT/	<b>2</b> 4
							V
							<
				Sheet	Ind	ex	
Sheet		Shoot Namo	03.3_	SHEET LIST - CON	STRUCTIC Current Revision	N DOCUMEN Current	IT SE
EQ0.00 EQ1.01	MDEQ COVER SHEET - CO 1ST FLOOR - MEDICAL EQ	DNSTRUCTION DOCUMENT	SET	25 APRIL 2025 25 APRIL 2025			

# arcus Stroke - Angio 1 Replacement SUITE 8-A 80 JESSE HILL, JUNIOR DRIVE SE ATLANTA, GA 30303 **MEDICAL EQUIPMENT PACKAGE CONSTRUCTION DOCUMENT REVIEW SET**



# **MDEQ GENERAL NOTES**

- REFER TO THE TRADE CONTRACTOR
- 1.1 FOR INSTALLATION OF ALL SYSTEMS 1.2 ALL CODES, SPECIFICATIONS, AND BEST PRACTICES 1.3 ALL EQUIPMENT & LIGHTING DOCUMENTS
- MODELING 2.1 ALL MODEL COMPONENTS ARE SHOWN SYMBOLICALLY.
- USE ALL APPROPRIATE COMPONENTS PER CODE AND SPECIFICATIONS COORDINATION 3.
- 3.1 COORDINATED CLOSELY WITH ARCHITECT TO AVOID CONFLICT AND ENSURE ALL EQUIPMENT IS SHOWN SCHEMATICALLY
- 3.2 AREAS THAT HAVE AN OPEN RFI OR ISSUES WILL BE NOTED ON SIGNOFF DOCUMENTS BY ARCHITECT / GC / DESIGN TEAM /OR OWNER 4. DRAWINGS
- 4.1 ARE FOR LAYOUT AND COORDINATION ONLY; THEY ARE NOT A PRODUCT OF AN ENGINEER OR CODE
- APPROVAL 4.2 AREAS THAT HAVE AN OPEN RFI OR ISSUES SHOULD BE COORDINATED WITH THE ARCHITECT / GC / DESIGN TEAM /OR OWNER AS NEEDED BEFORE CONSTRUCTION

AFF AFG FV

**Current Revision Description** 

ABOVE FINISHED FLOOR ABOVE FINISHED GRADE FIELD VERITY

# Notes

# MDEQ PROJECT NOTES

- FIELD VERIFY ALL LOCATIONS & HEIGHTS OF ALL WALL
- MOUNTED EQUIPMENT ALL HEIGHT DIMENSIONS ARE FROM THE FINISHED FLOOR FIELD VERIFY ALL LOCATIONS OF ALL CEILING MOUNTED EQUIPMENT

# **MDEQ ABBREVIATIONS**

# Sheet Numbering Key

# AAN.NNUUU

		.NN	(SEC
EQ MEDICAL EQUIPMENT G General S Structural A Architectural I Interiors EQ Medical Equipment F Fire Protection P Plumbing M Mechanical E Electrical T Telecommunications X Other Disciplines Z Contractor/Shop Drawings	0       GENERAL COVER SHEET         1       PLANS MEDICAL EQUIPMENT PLAN         2       CEILING REFLECTIVE CEILING PLAN CEILING ACCESS         3       CUT SECTIONS (USER DEFINED) DETAIL / SECTION         4       ARCHITECTURAL BACKGROUND ROOM NAMES         5       ELECTRICAL BACKGROUND (USER DEFINED)         0       USER DEFINED)	$\frac{\text{LEVEL}}{\text{U1 UG 1}}$ $01 \text{ LEVEL 1}$ $11 \text{ LEVEL 11}$ $A = alphabetic$ $N = numerical$ $U = user-define$	A A A1 F al char charac ed cha
	Color Leg	end	
RGB 250-150-000 Ceiling	Equipment Mounted Equipme	nt	

RGB 000-150-000 RGB 000-150-250

**Temporary Space Holder Equipment** 





aracter cter aracter



![](_page_11_Figure_1.jpeg)

GENERAL	

GENERAL	CODE/DESIGN CRITERIA
<ol> <li>NO PROVISION OF ANY REFERENCED STANDARD SPECIFICATION, MANUAL OR CODE (WHETHER OR NOT SPECIFICALLY INCORPORATED BY REFERENCE IN THE CONTRACT DOCUMENTS) SHALL BE EFFECTIVE TO CHANGE THE DUTIES AND RESPONSIBILITIES OF OWNER, CONTRACTOR, DESIGN PROFESSIONAL SUPPLIER OR ANY OF THEIR CONSULTANTS, AGENTS, OR EMPLOYEES FROM THOSE</li> </ol>	<ol> <li>SCOPE OF WORK IS DESIGN</li> <li>INTERNATIONAL</li> </ol>
SET FORTH IN THE CONTRACT DOCUMENTS. NOR SHALL IT BE EFFECTIVE TO ASSIGN TO THE DESIGN PROFESSIONAL OF RECORD OR ANY OF THE DESIGN PROFESSIONAL OF RECORD'S CONSULTANTS, ACENTS, OR EMPLOYEES ANY DUTY OR AUTHORITY TO SUPERVISE OR DIRECT THE EURNISHING OR	2. GRAVITY LOADS (FROM EXIS OCTOBER 8, 1993)
PERFORMANCE OF THE WORK OR ANY DUTY OR AUTHORITY TO UNDERTAKE RESPONSIBILITIES CONTRARY TO THE PROVISIONS OF THE CONTRACT DOCUMENTS.	2.1 UNIFORM FLOOR LIVE L
2. CONTRACT DOCUMENTS INCLUDE, BUT ARE NOT LIMITED TO, THE STRUCTURAL DOCUMENTS	OFFICES
(DRAWINGS AND SPECIFICATIONS), BUT DO NOT INCLUDE SHOP DRAWINGS, VENDOR DRAWINGS, OR MATERIAL PREPARED AND SUBMITTED BY THE CONTRACTOR.	2.2 CONCENTRATED FLOOF NOTED OTHERWISE:
3. REFERENCE TO STANDARD SPECIFICATIONS OF ANY TECHNICAL SOCIETY, ORGANIZATION, OR ASSOCIATION OR TO CODES OF LOCAL OR STATE AUTHORITIES, SHALL MEAN THE LATEST STANDARD,	HOSPITAL
CODE, SPECIFICATION OR TENTATIVE SPECIFICATION ADOPTED AT THE DATE OF TAKING BIDS, UNLESS SPECIFICALLY STATED OTHERWISE.	
4. CONTRACT DOCUMENTS SHALL GOVERN IN THE EVENT OF A CONFLICT WITH THE CODE OF PRACTICE OR SPECIFICATIONS OF ACI, PCI, AISC, SJI OR OTHER STANDARDS. WHERE A CONFLICT OCCURS WITHIN THE CONTRACT DOCUMENTS, THE STRICTEST REQUIREMENT SHALL GOVERN.	CEILING/MEP  FLOOR:
5. MATERIAL, WORKMANSHIP, AND DESIGN SHALL CONFORM TO THE REFERENCED BUILDING CODE.	MISCELLANEOUS     CEILING/MEP     UNISTRUT CRID
<ol> <li>CONTRACTOR SHALL COORDINATE THE STRUCTURAL DOCUMENTS WITH THE ARCHITECTURAL, MECHANICAL, ELECTRICAL, PLUMBING AND CIVIL DOCUMENTS. DESIGN PROFESSIONAL SHALL BE NOTIFIED OF ANY DISCREPANCY OR OMISSION. FOR DIMENSIONS NOT SHOWN ON THE STRUCTURAL</li> </ol>	3. WIND LOADS:
7 CONTRACTOR SHALL VERIEVEVISTING DIMENSIONS ELEVATIONS AND SITE CONDITIONS REFORE	BASIC DESIGN W     ALLOWABLE DES     DISK CATEGORY
STARTING WORK. DESIGN PROFESSIONAL SHALL BE NOTIFIED OF ANY DISCREPANCY.	EXPOSURE B     INTERNAL PRES
<ol> <li>CONTRACTOR SHALL VERIFY THE STRUCTURALLY SUPPORTED MECHANICAL EQUIPMENT WEIGHTS, OPENING SIZES AND LOCATIONS IDENTIFIED ON THE STRUCTURAL DRAWINGS WITH ARCHITECTURAL AND MECHANICAL DRAWINGS.</li> </ol>	4. EARTHQUAKE LOADS:
<ol> <li>CONTRACTOR SHALL VERIFY THAT MISCELLANEOUS FRAMING SHOWN ON THE STRUCTURAL DRAWINGS FOR MECHANICAL EQUIPMENT, OWNER-FURNISHED ITEMS, PARTITIONS, ETC. IS CONSISTENT WITH THE REQUIREMENTS OF SUCH ITEMS.</li> </ol>	SEISMIC IMPORT     SHORT PERIOD I     1 SECOND PERIO
10. CONTRACTOR HAS SOLE RESPONSIBILITY FOR MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES OF CONSTRUCTION.	SITE CLASS D-DE     SHORT PERIOD I     1 SECOND PERIO     SEISMIC DESIGN
11. THE STRUCTURE IS STABLE ONLY IN ITS COMPLETED FORM. TEMPORARY SUPPORTS REQUIRED FOR STABILITY DURING ALL INTERMEDIATE STAGES OF CONSTRUCTION SHALL BE DESIGNED, FURNISHED, AND INSTALLED BY THE CONTRACTOR.	5. UNLESS NOTED OTHERWISE EXCEED THE FOLLOWING:
12. CONTRACTOR HAS SOLE RESPONSIBILITY TO COMPLY WITH ALL OSHA REGULATIONS.	
13. ELECTRONIC DRAWING FILES WILL NOT BE PROVIDED TO THE CONTRACTOR. REPRODUCTION OF STRUCTURAL DRAWINGS FOR SHOP DRAWINGS IS NOT PERMITTED.	• WHERE, L = SPA
14. REVIEW OF SUBMITTALS OR SHOP DRAWINGS BY THE DESIGN PROFESSIONAL DOES NOT RELIEVE THE CONTRACTOR OF THE SOLE RESPONSIBILITY TO REVIEW AND CHECK ALL SUBMITTALS AND SHOP DRAWINGS BEFORE SUBMITTING TO THE DESIGN PROFESSIONAL. CONTRACTOR REMAINS SOLELY	TWICE THE LENG FLOOR SYSTEM ELEMENTS IN A I
RESPONSIBLE FOR ERRORS AND OMISSIONS ASSOCIATED WITH THE PREPARATION OF SHOP DRAWINGS AS THEY PERTAIN TO MEMBER SIZES, DETAILS, AND DIMENSIONS SPECIFIED IN THE CONTRACT DOCUMENTS.	<ol> <li>6. SPECIAL INSPECTIONS:</li> <li>6.1 THE STRUCTURAL TEST</li> </ol>
15. DETAILS LABELED "TYPICAL" ON THE STRUCTURAL DRAWINGS APPLY TO ALL SITUATIONS OCCURRING ON THE PROJECT THAT ARE THE SAME OR SIMILAR TO THE TYPICAL DETAILS UNLESS THOSE LOCATIONS ARE SPECIFICALLY DETAILED OTHERWISE.	PERFORM SPECIAL INSF MATERIALS AND WORK A COMPLETE LIST OF W
16. STRUCTURAL DESIGN PROFESSIONAL IS NOT RESPONSIBLE FOR THE DESIGN OF CURTAIN WALL/WINDOW WALL SYSTEMS, COLD-FORMED METAL FRAMING, OR OTHER SYSTEMS NOT SHOWN IN THE STRUCTURAL DOCUMENTS, SUCH SYSTEMS SHALL BE DESIGNED, FURNISHED, AND INSTALLED AS	6.2 SPECIAL INSPECTION AS STRUCTURAL COMPONE CONSTRUCTION JOB SIT
REQUIRED BY OTHER PORTIONS OF THE CONTRACT DOCUMENTS.	6.3 SPECIAL INSPECTION AS ITEMS WHICH ARE PROL
17. SUBMITTALS	
TO THE INITIAL SUBMITTAL, CONTRACTOR SHALL SUBMIT TO THE DESIGN PROFESSIONAL A SCHEDULE OF SUBMITTED INFORMATION.	THE APPROVED FABRIC COMMERCIAL BUILDING
17.2 SUBMITTALS SHALL BE ACCOMPANIED BY A TRANSMITTAL LETTER WITH THE FOLLOWING INFORMATION:	6.4 THE PROJECT OWNER V
PROJECT NAME     CONTRACTOR'S NAME	THE PROJECT. DOCUME
<ul> <li>DATE SUBMITTED</li> <li>DESCRIPTION OF ITEMS SUBMITTED. IDENTIFY WORK AND PRODUCT BY SPECIFICATION SECTION</li> </ul>	PARTICULAR TYPE OF C THE CHIEF COMMERCIA PRIOR TO CONSTRUCTIO
NUMBER OF DRAWINGS AND OTHER PERTINENT DATA.	6.5 APPROVED SPECIAL INS
17.3 CONTRACTOR SHALL DIRECT SPECIFIC ATTENTION ON THE SUBMITTAL TO ANY DEVIATION FROM THE CONTRACT DOCUMENTS. CONTRACTOR SHALL STAMP AND SIGN EACH SHEET OF SHOP DRAWINGS AND PRODUCT DATA, AND SIGN OR INITIAL EACH SAMPLE TO CERTIFY COMPLIANCE WITH REQUIREMENTS OF CONTRACT DOCUMENTS. SUBMITTALS RECEIVED WITHOUT THE CONTRACTOR'S STAMP OF REVIEW WILL BE RETURNED TO THE CONTRACTOR FOR REVIEW AND RESUBMITTAL.	COMMERCIAL BUILDING INDICATE THAT THE WO CONSTRUCTION DOCUM SPECIAL INSPECTIONS F DURING INSPECTION SH CHIEF COMMERCIAL BUI
17.4 WORK REQUIRING SHOP DRAWINGS, WHETHER CALLED FOR BY THE CONTRACT DOCUMENTS OR REQUESTED BY THE CONTRACTOR, SHALL NOT COMMENCE UNTIL THE SUBMISSION HAS BEEN REVIEWED BY THE DESIGN PROFESSIONAL. WORK MAY COMMENCE IF THE CONTRACTOR	6.6 SPECIAL INSPECTION RE BE SUBMITTED TO THE E APPROVED FOR OCCUP
VERIFIES THE ACCURACY OF THE DESIGN PROFESSIONAL'S CORRECTIONS AND NOTATIONS AND COMPLIES WITH THEM WITHOUT EXCEPTION AND WITHOUT REQUESTING CHANGE IN CONTRACT SUM OR CONTRACT TIME AT COPY OF THE MARKED STRUCTURAL SHOP DRAWINGS WITH THE DESIGN PROFESSIONAL'S REVIEW STAMP IS TO BE MAINTAINED AT THE JOB SITE.	7. NO PROVISIONS HAVE BEEN

PROJECT SCOPE

- 1. THE PROJECT SCOPE INVOLVES THE ADDITION OF NEW IMAGING EQUIPMENT WITH PATIENT TABLE, CEILING SUPPORT SYSTEM, AND ADDITIONAL MEDICAL EQUIPMENT FOR A SUITE IN GRADY MEMORIAL HOSPITAL.
- 2. STRUCTURAL SCOPE OF THIS PROJECT IS LIMITED TO ANALYSIS OF THE EXISTING STRUCTURE FOR THE NEW LOADING CONDITIONS IMPARTED BY THE NEW MEDICAL EQUIPMENT.

**EXISTING CONDITIONS** 

ABBREVIA

ABT

ACI

ADDL

AISC

APPROX

ARCH

ASCE

ASTM

AWS

BLDG

BOTT

BRG

C/C

CIP

CJP

CLR

COL

CONC CONN

COORD

CRSI

CTRD

CTR

DBA

DBL

DEG

DET

DIA

DIAG

DIR

DWG

DRAWING

DL

CJ

CALC

CHKD

BTWN

BM

ALT

- 1. CONTRACTOR TO FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO FABRICATION AND/OR CONSTRUCTION AND NOTIFY ENGINEER OF ANY DISCREPANCIES. 2. EXISTING CONDITIONS SHOWN ARE BASED ON:
- A. AVAILABLE EXISTING DRAWINGS AS NOTED BELOW: GRADY MEMORIAL HOSPITAL BY URS CONSULTANTS, DATED OCTOBER 8, 1993.

VIATIONS				
ABOUT	(E)	EXISTING	IF	INSIDE FACE
AMERICAN CONCRETE INSTITUTE	ÈÁ	EACH	IBC	INTERNATIONAL BUILDING C
ADDITIONAL	EF	EACH FACE	ICC	INTERNATIONAL CODE COUN
AMERICAN INSTITUTE OF STEEL CONSTRUCTION	EL	ELEVATION	ID	INSIDE DIAMETER
ALTERNATE	ELEC	ELECTRICAL	IE	INVERT ELEVATION
APPROXIMATE	ENGR	ENGINEER	IN	INCH
ARCHITECTURAL/ARCHITECT	EOD	EDGE OF DECK	INT	INTERIOR
AMERICAN SOCIETY OF CIVIL ENGINEERS	EOR	ENGINEER OF RECORD		
AMERICAN SOCIETY FOR TESTING MATERIALS	EOS	EDGE OF SLAB	JT	JOINT
AMERICAN WELDING SOCIETY	EQ	EQUAL		
	EQUIP	EQUIPMENT	K	KIP(S)
BOTTOM OF	EW	EACH WAY	KSF	KIPS PER SQUARE FOOT
BUILDING	EXP	EXPANSION	KSI	KIPS PER SQUARE INCH
BEAM	EXT	EXTERIOR		
BOTTOM			(LLH)	LONG LEG HORIZONTAL (AN
BEARING	FD	FLOOR DRAIN	(LLV)	LONG LEG VERTICAL (ANGLE
BEIWEEN	FDN	FOUNDATION	(LSH)	LONG SIDE HORIZONTAL (HS
	FF	FINISHED FLOOR	(LSV)	LONG SIDE VERTICAL (HSS)
	FG	FINISHED GRADE	LB	POUND
CALCULATION(S)	FIN	FINISH	LF	
	FLG	FLANGE	LL	
	FLR	FLOOR	LOC	
	FRMG		LONG	
	FRP		LP	
	FS FT	FAR SIDE	LSH	LONG SLOTTED HOLE
	FI	FUUT	LVVC	LIGHT WEIGHT CONCRETE
	FIG		N.4	
	ΓV			
	C A		MC	
	GALV			MECHANICAL
	GREV	GRATING	MEC	
CENTERED	GITIG	GIATING	MER	MANUEACTURER
GENTERED	(H)	HORIZONTAL BEAM ORIENTATION	MIN	
DEFORMED BAR ANCHOR		HEADED CONCRETE ANCHOR	MISC	
	HDR	HEADER	MTD	MOUNTED
DEGREES	HGR	HANGER	MTI	METAI
DETAIL	HORIZ	HORIZONTAL		METAE
DIAMETER	HP	HIGH POINT	N&F	NEAR AND FAR
DIAGONAL	HR	HANDRAII	N/A	NOT APPLICABLE
DIRECTION	HSB	HIGH STRENGTH BOI T	NIC	NOT IN CONTRACT
DEAD LOAD			NO/NO.	NUMBER

GRAVITY I OCTOBER	LOADS (FROM EXISTING STRUCTURAL I 8 8, 1993)
2.1 UNIFC	RM FLOOR LIVE LOADS (REDUCED AS /
•	OFFICES
2.2 CONC NOTE	ENTRATED FLOOR LOADS: DISTRIBUTE D OTHERWISE:
•	HOSPITAL
2.3 DEAD	LOADS (IN ADDITION TO STRUCTURE S
EXIST	ING FLOOR: CEILING/MEP
FLOOI	R: MISCELLANEOUS CEILING/MEP UNISTRUT GRID SYSTEM
WIND LOA	DS:
• • •	BASIC DESIGN WIND SPEED, V = 119 M ALLOWABLE DESIGN WIND SPEED, VA RISK CATEGORY: IV EXPOSURE B INTERNAL PRESSURE COEFFICIENT =
EARTHQU	AKE LOADS:
• • •	RISK CATEGORY: IV SEISMIC IMPORTANCE FACTOR: I = 1.9 SHORT PERIOD MAPPED SPECTRAL F 1 SECOND PERIOD MAPPED SPECTRA SITE CLASS D-DEFAULT (ASSUMED) SHORT PERIOD DESIGN SPECTRAL R

EXCEED THE FOLLOWING:

OOR MEMBERS:	DEAD LOAD L/360	<u>LIVE I</u> L/
<ul> <li>WHERE, I TWICE TH FLOOR S' ELEMENT</li> </ul>	- = SPAN LENGTH IE LENGTH OF TH YSTEM DEFECTIC 'S IN A BAY.	i (in inche ie cantil )n will bi

SEISMIC DESIGN CATEGORY: D

- SPECIAL INSPECTIONS:
- A COMPLETE LIST OF WORK REQUIRING SPECIAL INSPECTIONS. STRUCTURAL COMPONENTS AND ASSEMBLIES WHICH ARE NOT FABRICATED AT THE
- 6.4 THE PROJECT OWNER WILL EMPLOY ONE OR MORE SPECIAL INSPECTORS TO PERFORM PRIOR TO CONSTRUCTION.
- CHIEF COMMERCIAL BUILDING INSPECTOR PRIOR TO CONSTRUCTION.
- APPROVED FOR OCCUPANCY.

NOM

NS

NTS

NWC

NOMINAL

NEAR SIDE

NOT TO SCALE

NORMAL WEIGHT CONCRETE

### SCOPE OF WORK IS DESIGNED IN ACCORDANCE WITH THE FOLLOWING:

 INTERNATIONAL BUILDING CODE, 2018 EDITION WITH GEORGIA AMENDMENTS. DRAWINGS BY URS CONSULTANTS DATED

# ALLOWED BY THE BUILDING CODE):

- 60 PSF
- ED OVER AN AREA OF 2-1/2 FEET BY 2-1/2 FEET, UNLESS
- 1000 LB
- ELF-WEIGHT):
- 10 PSF
- 3 PSF
- 5 PSF 7 PSF

### MPH $V_{ASD} = 92 \text{ MPH}$

= ± 0.18

### RESPONSE COEFFICIENT, S<sub>S</sub> = 0.183 RAL RESPONSE COEFFICIENT, $S_1 = 0.085$

RESPONSE COEFFICIENT, S<sub>DS</sub> = 0.195 • 1 SECOND PERIOD DESIGN SPECTRAL RESPONSE COEFFICIENT, SD1 = 0.136

UNLESS NOTED OTHERWISE CALCULATED INDIVIDUAL MEMBER DEFLECTIONS (IN INCHES) DO NOT

### <u>DEAD + LIVE LOAD</u> L/240

IES) BETWEEN SUPPORTS. (FOR CANTILEVERS, L IS LEVER.) NOTE THAT THE TOTAL MAXIMUM CALCULATED BE THE SUM OF THE DEFLECTIONS OF THE SUPPORTED

### 6.1 THE STRUCTURAL TESTING/INSPECTION AGENCY, SEE SPECIFICATION SECTION 014525, WILL PERFORM SPECIAL INSPECTIONS AS REQUIRED BY CHAPTER 17 OF THE BUILDING CODE. MATERIALS AND WORK TO BE INSPECTED INCLUDE STEEL CONSTRUCTION. SEE SHEET S-003 FOR

6.2 SPECIAL INSPECTION AS REQUIRED BY CHAPTER 17 OF THE BUILDING CODE ARE REQUIRED FOR CONSTRUCTION JOB SITE INCLUDING BUT NOT LIMITED TO STRUCTURAL STEEL FRAMING.

6.3 SPECIAL INSPECTION AS REQUIRED BY CHAPTER 17 OF THE BUILDING CODE MAY BE WAIVED FOR ITEMS WHICH ARE PRODUCED ON THE PREMISES OF A FABRICATOR REGISTERED AND APPROVED TO PERFORM SUCH WORK WITHOUT SPECIAL INSPECTION. APPROVAL SHALL BE BASED UPON REVIEW OF THE FABRICATOR'S WRITTEN PROCEDURAL AND QUALITY CONTROL MANUALS AND BY PERIODIC AUDITING OF FABRICATION PRACTICES BY AN APPROVED SPECIAL INSPECTION AGENCY. THE APPROVED FABRICATOR SHALL SUBMIT A CERTIFICATE OF COMPLIANCE TO THE CHIEF COMMERCIAL BUILDING INSPECTOR OR HIS DESIGNEE WHICH STATES THAT THE FABRICATION WORK WAS PERFORMED IN ACCORDANCE WITH THE APPROVED CONSTRUCTION DOCUMENTS.

INSPECTIONS AS REQUIRED BY CHAPTER 17 OF THE BUILDING CODE DURING CONSTRUCTION OF THE PROJECT. DOCUMENTATION THAT SUMMARIZES THE QUALIFICATION AND CREDENTIALS OF EACH SPECIAL INSPECTOR AND DEMONSTRATES COMPETENCE FOR INSPECTION OF EACH PARTICULAR TYPE OF CONSTRUCTION REQUIRING SPECIAL INSPECTION SHALL BE SUBMITTED TO THE CHIEF COMMERCIAL BUILDING INSPECTOR OR HIS DESIGNEE FOR REVIEW AND APPROVAL

6.5 APPROVED SPECIAL INSPECTORS SHALL FURNISH INSPECTION REPORTS TO THE CHIEF COMMERCIAL BUILDING INSPECTOR OR HIS DESIGNEE AND TO THE DESIGN PROFESSIONAL WHICH INDICATE THAT THE WORK INSPECTED WAS DONE IN CONFORMANCE WITH THE APPROVED CONSTRUCTION DOCUMENTS. A FINAL REPORT WHICH DOCUMENTS THE RESULTS OF THE SPECIAL INSPECTIONS PERFORMED INCLUDING CORRECTION OF ANY DISCREPANCIES IDENTIFIED DURING INSPECTION SHALL BE SUBMITTED PERIODICALLY AT A FREQUENCY APPROVED BY THE

6.6 SPECIAL INSPECTION REPORTS AND FINAL REPORT IN ACCORDANCE WITH SECTION 1704.2.4 SHALL BE SUBMITTED TO THE BUILDING OFFICIAL PRIOR TO THE TIME THAT PHASE OF WORK IS

OC

OD

OF

OPNG

OPP

OSH

PCF

PJF

PLCS

PLF

PSF

PSI

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REINF

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REV

RTU

SCHED

STL

RO

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PERIM

PE

ΡL

NO PROVISIONS HAVE BEEN MADE FOR FUTURE HORIZONTAL OR VERTICAL EXPANSION.

### STRUCTURAL STEEL

1. STRUCTURAL STEEL SHALL CONFORM TO ASTM A992, UNLESS NOTED OTHERWISE.

 STRUCTURAL STEEL HSS SHAPES SHALL CONFORM TO ASTM A500, GRADE C. MISCELLANEOUS PLATES AND CONNECTION MATERIAL SHALL CONFORM TO ASTM A36, UNLESS NOTED OTHERWISE.

- 2. BOLTS AND ANCHORS:
- 2.1 BOLTED CONNECTIONS SHALL BE TYPE N (BEARING TYPE WITH THREADS INCLUDED IN SHEAR PLANE) WITH MINIMUM 3/4" DIAMETER F3125 BOLTS. SUBMIT PROPOSED BOLT TIGHTENING PROCEDURE FOR REVIEW. BOLTED CONNECTIONS SHALL BE ASSEMBLED AND INSPECTED IN ACCORDANCE WITH RCSC-2014 (SPECIFICATION FOR STRUCTURAL JOINTS USING HIGH STRENGTH BOLTS).
- 2.2 ANCHOR BOLTS SHALL BE HEADED BOLTS CONFORMING TO ASTM F1554 GRADE 36 AND SHALL BE HEADED RODS OR THREADED RODS WITH HEAVY HEXAGONAL NUT WELDED TO THE BOTTOM OF THE THREADED ROD, GRADE A563A, UNLESS NOTED OTHERWISE.
- 2.3 EXPANSION ANCHORS SHALL HAVE BEEN EVALUATED BY THE ICC EVALUATION SERVICES, INC (ICC-ES) WITH A PUBLISHED EVALUATION REPORT. ANCHORS INSTALLED IN CONCRETE THAT MAY BECOME CRACKED UNDER SERVICE LOADS SHALL BE EVALUATED BY ICC-ES ACCEPTANCE CRITERIA 193 AND BE SPECIFICALLY APPROVED FOR USE IN CRACKED CONCRETE. CONTACT DESIGN PROFESSIONAL FOR DETERMINATION OF CRACKED OR UNCRACKED CONCRETE CONDITION UNLESS CONDITION IS NOTED ON THE DRAWINGS. ALL ANCHORS SHALL BE APPROVED FOR RESISTING WIND AND SEISMIC LOADS. INSTALL IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. MINIMUM EMBEDMENT SHALL BE EQUAL TO 4.5 TIMES THE ANCHOR DIAMETER, UNLESS NOTED OTHERWISE.
- 2.4 ADHESIVE ANCHORS SHALL CONSIST OF AN ALL-THREAD STEEL ANCHOR WITH ADHESIVE CONFORMING TO ASTM C881-02, TYPE IV, GRADE 3, CLASS A, B, & C EXCEPT GEL TIMES AND EPOXY CONTENT. ADHESIVE SHALL CONSIST OF A TWO COMPONENT ADHESIVE SYSTEM CONTAINED IN SIDE BY SIDE PACKAGING CONNECTED TO A MIXING NOZZLE WHICH THOROUGHLY MIXES THE COMPONENTS AS IT IS INJECTED INTO THE HOLE. ADHESIVE SHALL HAVE PASSED ICC EVALUATION SERVICES, INC (ICC-ES) ACCEPTANCE CRITERIA 308 FOR LONG TERM CREEP. ANCHORS INSTALLED IN CONCRETE THAT MAY BECOME CRACKED UNDER SERVICE LOADS SHALL BE EVALUATED BY ICC-ES ACCEPTANCE CRITERIA 308 AND BE SPECIFICALLY APPROVED FOR USE IN CRACKED CONCRETE. CONTACT DESIGN PROFESSIONAL FOR DETERMINATION OF CRACKED OR UNCRACKED CONCRETE CONDITION UNLESS CONDITION IS NOTED ON THE DRAWINGS. INSTALL IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. MINIMUM EMBEDMENT SHALL BE EQUAL TO 4.5 TIMES THE ANCHOR DIAMETER, UNLESS NOTED OTHERWISE.
- 3. STRUCTURAL STEEL SHALL BE FABRICATED AND ERECTED ACCORDING TO BOTH THE AISC "SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS" AND THE AISC "CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES".
- 4. SUBMIT SHOP DRAWINGS WHICH ADEQUATELY DEPICT THE STRUCTURAL ELEMENTS AND CONNECTIONS SHOWN IN THE CONTRACT DOCUMENTS. CONNECTIONS SHALL BE DETAILED BASED ON THE DESIGN INFORMATION PROVIDED IN THE CONTRACT DOCUMENTS. CONNECTIONS SHALL BE DESIGNED FOR THE SERVICE LOAD REACTION VALUES SHOWN ON THE STRUCTURAL DRAWINGS. FOR STEEL MEMBERS WHOSE REACTIONS ARE NOT SHOWN, THE DESIGN REACTION SHALL BE DESIGNED FOR THE SERVICE LOAD REACTION OF 10 KIPS UNLESS SHOWN OTHERWISE ON THE STRUCTURAL DRAWINGS. DEVIATION FROM THE CONNECTION DETAILS DEPICTED IN THE CONTRACT DOCUMENTS SHALL NOT BE PERMITTED WITHOUT WRITTEN PERMISSION FROM THE DESIGN PROFESSIONAL. DESIGN PROFESSIONAL SHALL BE COMPENSATED BY THE CONTRACTOR FOR THE COST INVOLVED IN THE REDESIGN OF CONNECTIONS FOR THE CONVENIENCE OF THE CONTRACTOR. STEEL CONNECTIONS NOT COMPLETELY DETAILED ON THE STRUCTURAL DRAWINGS SHALL BE DESIGNED BY THE CONTRACTOR. THIS DESIGN SERVICE SHALL BE INCLUDED IN THE CONTRACTOR'S SCOPE OF SERVICES. SHOP DRAWINGS AND CALCULATIONS FOR SUCH CONNECTIONS SHALL BE SEALED BY AN ENGINEER LICENSED IN THE PROJECT STATE. REVIEW DOES NOT RELIEVE THE CONTRACTOR OF THE FULL RESPONSIBILITY FOR THE DESIGN AND ADEQUACY OF SUCH CONNECTIONS. FOR CONNECTION DETAILS DEPICTING ARRANGEMENT CONCEPT OF THE CONNECTION WITHOUT COMPLETE DETAILS, THE CONNECTION DESIGN ENGINEER SHALL FOLLOW THAT ARRANGEMENT CONCEPT IN THE DESIGN. SINGLE ANGLE CONNECTIONS ARE NOT ACCEPTABLE.
- 5. USE PRE-QUALIFIED WELDED JOINTS IN ACCORDANCE WITH AISC AND THE STRUCTURAL WELDING CODE OF THE AMERICAN WELDING SOCIETY D1.1/D1.1M-2015. "NON-PRE-QUALIFIED JOINTS" SHALL BE QUALIFIED PRIOR TO FABRICATION. PROOF OF WELDER CERTIFICATION SHALL BE AVAILABLE AT THE JOB SITE DURING TIMES OF INSPECTION.
- 8. STRUCTURAL STEEL EXPOSED TO WEATHER SHALL BE GALVANIZED.

### DEFERRED SUBMITTALS

- DEFERRED SUBMITTALS ARE THOSE PORTIONS OF THE DESIGN WHICH ARE NOT SUBMITTED AT THE TIME OF PERMIT APPLICATION AND WHICH ARE TO BE SUBMITTED TO THE BUILDING OFFICIAL WITHIN A SPECIFIED PERIOD.
- 2. SUBMITTAL DOCUMENTS FOR DEFERRED SUBMITTAL ITEMS SHALL BE SUBMITTED TO THE ENGINEER OF RECORD THROUGH THE ARCHITECT AND GENERAL CONTRACTOR. ONCE THE SUBMITTAL DOCUMENTS HAVE BEEN FOUND TO BE IN GENERAL CONFORMANCE TO THE CONTRACT DOCUMENTS. THE ENGINEER OF RECORD WILL FORWARD THEM TO THE ARCHITECT WITH A NOTATION INDICATING THAT THEY ARE IN GENERAL CONFORMANCE WITH THE DESIGN OF THE BUILDING. THE ARCHITECT WILL FORWARD THE DEFERRED SUBMITTAL DOCUMENTS TO THE GENERAL CONTRACTOR WHO WILL MAINTAIN ONE SET ON SITE FOR REFERENCE BY THE BUILDING INSPECTOR. THE DEFERRED SUBMITTAL ITEMS SHALL NOT BE INSTALLED UNTIL THE SUBMITTAL DOCUMENTS HAVE BEEN APPROVED BY THE BUILDING OFFICIAL.
- 3. DEFERRED SUBMITTALS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. SUBMIT SHOP DRAWINGS, CALCULATIONS, DESIGN LOAD DATA AND SUPPORT REACTIONS OF THE COMPONENTS SEALED BY AN ENGINEER LICENSED IN THE PROJECT STATE.
- 4. ITEMS THAT ARE SUBMITTED FOR CONSIDERATION AS DEFERRED SUBMITTALS ARE AS FOLLOWS: a. UNISTRUT CEILING GRID SYSTEM

# BUILDING CODE

CODE COUNCIL

E FOOT E INCH ONTAL (ANGLE) CAL (ANGLE) ONTAL (HSS)

NCRETE

CTION

SECT SHT SIM SL SPCS SPEC(S) SQ SS SSH STD STIF

### ON CENTER OUTSIDE DIAMETER OUTSIDE FACE OPENING OPPOSITE OVERSIZED HOLE

POUNDS PER CUBIC FOOT PROFESSIONAL ENGINEER PERIMETER PREMOLDED JOINT FILLER PLATE PLACES POUNDS PER LINEAR FOOT PREFAB PREFABRICATED POUNDS PER SQUARE FOOT

POUNDS PER SQUARE INCH

RADIUS ROOF DRAIN REFERENCE REINFORCING REQUIRED RETURN REVISION

ROUGH OPENIN

POINT

ROOFTOP UNIT SLIP CRITICAL SCHEDULE SECTION SHEET

SIMILAR SLOPE SPACES SPECIFICATION(S) SQUARE STAINLESS STEEL SHORT SLOTTED HOLE STANDARD STIFFENER STEEL STRUCT STRUCTURAL

SYM SYMMETRICAL

### T&B T/O THK THRU TYP UL UNO VERT

W/O WP WS

WWF

TOP AND BOTTOM TOP OF THINK

### THROUGH TYPICAL

UNDERWRITER'S LABORATORIES UNLESS NOTED OTHERWISE VERTICAL

WITH WITHOUT WORKING POINT

WATERSTOP WELDED WIRE FABRIC

### <u>LEGEND</u>

STEEL COLUMN/FOOTING TYPE INDICATOR STRUCTURAL STEEL MOMENT CONNECTION ▶-----COL SIZE STEEL COLUMN SIZE BASE PLATE MARK BP-X FX.X (-0'-0") FOOTING MARK (T/FTG ELEVATION) P-X (-0'-0") PEDESTAL MARK (T/PEDESTAL ELEVATION) STRUCTURAL STEEL BEAM DESIGNATION BEAM SIZE FOUNDATION STEP INDICATOR T/FOOTING ELEVATION (-x'-x") <u>∽\_(</u>-x'-x") T/FOOTING ELEVATION W8x10 (XX) c=x" (XXk) OPENING IN FLOOR OR ROOF RECESS/DEPRESSION INDICATOR

### // STRUCTURAL STEEL CONNECTION AXIAL FORCE

<----> SLOPE INDICATOR

CONCRETE SLAB/METAL DECK SPAN INDICATOR *\_\_\_\_* 

![](_page_12_Picture_83.jpeg)

![](_page_12_Figure_84.jpeg)

DIMENSION

![](_page_12_Picture_85.jpeg)

	TABLE 1704.2 MINI
ROJECT: INTERIOR RENOVATION AT MARCUS STROKE AND NEUROSCIENCE ANGIO 1 REPLACEMENT OR GRADY MEMORIAL HOSPITAL OCATION: 90 JESSE HILL - HINDOR DRIVE SELATI ANTA CA 20202	
ERMIT APPLICANT: <u>RANDALL-PAULSON ARCHITECTS</u> PLICANT'S ADDRESS: 85-A MILL STREET, SUITE 200, ROSWELL, GEORGIA 30075	Category of Testing and Inspection
CHITECT OF RECORD:	
CHANICAL ENGINEER OF RECORD: ECTRICAL ENGINEER OF RECORD: 	1704.2.5 Inspection of Fabricators
s Statement of Special Inspections is submitted in accordance with Section 1704.3 of the 2018 International	Pre- Structural stee
ling Code. It includes a <i>Schedule of Special Inspection Services</i> applicable to the above-referenced Project as as the identity of the individuals, agencies, or firms intended to be retained for conducting these inspections. If	Woo
licable, it includes Requirements for Seismic Resistance and/or Requirements for Wind Resistance.	Cold formed meta
Requirements for Wind Resistance included in the Statement of Special Inspections? No	1705.2, 1705.10, 1705.11& 1705.12 Steel Cons
Special Inspector(s) shall keep records of all inspections and shall furnish interim inspection reports to the	procedure specifications, procedure records and personnel performance
ding Official and to the Registered Design Professional in Responsible Charge at a frequency agreed upon by the sign Professional and the Building Official prior to the start of work. Discrepancies shall be brought to the pediate attention of the Contractor for correction. If the discrepancies are not corrected, the discrepancies shall	
rought to the attention of the Building Official and the Registered Design Professional in Responsible Charge r to completion of that phase of work. A <i>Final Report of Special Inspections</i> documenting required special	Nondestructive test
pections and corrections of any discrepancies noted in the inspections shall be submitted to the Building Official the Registered Design Professional in Responsible Charge at the conclusion of the project.	Inspect
quency of interim report submittals to the Registered Design Professional in Responsible Charge:	Verification of fabricator and erector
WeeklyMonthly Other; specify:	listed in AISC 360, chapter N,
e Special Inspection program does not relieve the Contractor of the responsibility to comply with the Contract cuments. Jobsite safety and means and methods of construction are solely the responsibility of the Contractor.	Material verification of weld
tement of Special Inspections Prepared by:	Inspection of high strength bolting and st
	Inspection of
pe or print name	Inspection of steel elements of composite
SEE TITLEBLOCK	Verification of reinforcing steel, cold form and tr
uilding Official's Acceptance:	Inspection of reinforcing steel, cold form
inature Date	1705.3 & 1705.12 Concrete Construction
equency of interim report submittals to the Building Official:	Reinforcing placement, cast- post installed anchors concrete
MonthlyBi- MonthlyUpon Completion Other; specify:	formwork for shape, location, an
ecial Inspections for Seismic Resistance	Pre-stressing st
e the Schedule of Special Inspections for inspection and testing requirements	Erection of pre-cast cond
smic Design Category: D	Concrete field sampling a
tement of Special Inspection for Seismic Resistance Required (Yes/No): No	
scription of seismic force-resisting system subject to special inspection and testing for seismic	Concrete s
here required per IBC Sections 1705.12.1, 1705.12.2, and 1705.12.3) (Special inspections for seismic resistance structural steel, where required, shall be in accordance with AISC 341)	Review certifi
A	Verify use of requir
	Pre-stressed (pre-tensioned) concrete fo
	Post-tensioned concrete fo
cription of designated seismic systems subject to special inspection and testing for seismic resistance: quired for architectural, electrical and mechanical systems and their components that require design in	Review of in-situ concrete st stressing of tendons in j
ordance with Chapter 13 of ASCE 7, have a component importance factor, <i>Ip</i> , greater than one and are in smic Design Categories C, D, E or F.)	forms from beams and si
	Reinforcing steel weldability, reinforcing
	Testing of welding of re
cription of additional seismic systems and components reduiring special inspections:	
quired for systems noted in IBC Section 1705.12.5, 1705.12.6, 1705.12.7, and 1705.12.8.)	Verification of
equired for systems noted in IBC Section 1705.12.5, 1705.12.6, 1705.12.7, and 1705.12.8.)	Verification of Mortar joint construction, grout
equired for systems noted in IBC Section 1705.12.5, 1705.12.6, 1705.12.7, and 1705.12.8.)	Verification of Mortar joint construction, grout placement, materials proportion, type/s reinforcement, structural elements, an
equired for systems noted in IBC Section 1705.12.5, 1705.12.6, 1705.12.7, and 1705.12.8.) cription of additional seismic systems and components requiring testing: here required per IBC Section 1705.13)	Verification of Mortar joint construction, grout placement, materials proportion, type/s reinforcement, structural elements, an Sampling/testing of grout/mor
equired for systems noted in IBC Section 1705.12.5, 1705.12.6, 1705.12.7, and 1705.12.8.) scription of additional seismic systems and components requiring testing: here required per IBC Section 1705.13)	Verification of Mortar joint construction, grout placement, materials proportion, type/s reinforcement, structural elements, an Sampling/testing of grout/mor Observe preparation of masonry prisma
equired for systems noted in IBC Section 1705.12.5, 1705.12.6, 1705.12.7, and 1705.12.8.) scription of additional seismic systems and components requiring testing: here required per IBC Section 1705.13) tement of Responsibility: ch contractor responsible for the construction or fabrication of a system or component described above must	Verification of Mortar joint construction, grout placement, materials proportion, type/s reinforcement, structural elements, an Sampling/testing of grout/mor Observe preparation of masonry prisms compressive strength of masonry Inspection of welding of re
equired for systems noted in IBC Section 1705.12.5, 1705.12.6, 1705.12.7, and 1705.12.8.)  scription of additional seismic systems and components requiring testing: here required per IBC Section 1705.13)  atement of Responsibility: ch contractor responsible for the construction or fabrication of a system or component described above must omit a Statement of Responsibility.	Verification of Mortar joint construction, grout placement, materials proportion, type/s reinforcement, structural elements, an Sampling/testing of grout/mor Observe preparation of masonry prisms compressive strength of masonr Inspection of welding of re Testing of welding of re
equired for systems noted in IBC Section 1705.12.5, 1705.12.6, 1705.12.7, and 1705.12.8.)  Secription of additional seismic systems and components requiring testing:  Phere required per IBC Section 1705.13)  atement of Responsibility:  ch contractor responsible for the construction or fabrication of a system or component described above must binit a Statement of Responsibility.  ecial Inspections for Wind Resistance	Verification of Mortar joint construction, grout placement, materials proportion, type/s reinforcement, structural elements, an Sampling/testing of grout/mor Observe preparation of masonry prisms compressive strength of masonr Inspection of welding of re Testing of welding of re 1705.6 & 1804 Soils
equired for systems noted in IBC Section 1705.12.5, 1705.12.6, 1705.12.7, and 1705.12.8.)  escription of additional seismic systems and components requiring testing: /here required per IBC Section 1705.13)  atement of Responsibility:	Tros.4 Masonry         Verification of         Mortar joint construction, grout           placement, materials proportion, type/s         reinforcement, structural elements, an         Sampling/testing of grout/mor         Observe preparation of masonry prisms         compressive strength of masonr         Inspection of welding of re         Testing of welding of re         Observe site preparation, fill placem         Observe site preparation, fill placem         Compaction for compliance with the
equired for systems noted in IBC Section 1705.12.5, 1705.12.6, 1705.12.7, and 1705.12.8.)  scription of additional seismic systems and components requiring testing:  here required per IBC Section 1705.13)  atement of Responsibility: ch contractor responsible for the construction or fabrication of a system or component described above must binit a Statement of Responsibility.  recial Inspections for Wind Resistance  re the Schedule of Special Inspections for inspection and testing requirements lowable Stress Design Wind Speed, Vast: <u>92</u> m.p.h.	Verification of Mortar joint construction, grout placement, materials proportion, type/s reinforcement, structural elements, an Sampling/testing of grout/mor Observe preparation of masonry prisms compressive strength of masonr Inspection of welding of re Testing of welding of re 1705.6 & 1804 Soils Observe site preparation, fill placem compaction for compliance with the documents to
equired for systems noted in IBC Section 1705.12.5, 1705.12.6, 1705.12.7, and 1705.12.8.)  escription of additional seismic systems and components requiring testing: //here required per IBC Section 1705.13)  atement of Responsibility: ich contractor responsible for the construction or fabrication of a system or component described above must bmit a Statement of Responsibility.  ete the Schedule of Special Inspections for inspection and testing requirements lowable Stress Design Wind Speed, Vasd: 92 m.p.h. ind Exposure Category: B	Verification of Mortar joint construction, grout placement, materials proportion, type/s reinforcement, structural elements, an Sampling/testing of grout/mor Observe preparation of masonry prisms compressive strength of masonr Inspection of welding of re Testing of welding of re 1705.6 & 1804 Soils Observe site preparation, fill placem compaction for compliance with the documents to Observe test bearing materials below shallow for ability to achieve design bea
scription of additional seismic systems and components requiring testing: here required per IBC Section 1705.12.5, 1705.12.6, 1705.12.7, and 1705.12.8.)  atement of Responsibility: ch contractor responsible for the construction or fabrication of a system or component described above must omit a Statement of Responsibility. ecial Inspections for Wind Resistance e the Schedule of Special Inspections for inspection and testing requirements owable Stress Design Wind Speed, V <sub>asd</sub> : <u>92</u> m.p.h. nd Exposure Category: B atement of Special Inspection for Wind Resistance Required (Yes/No): No	Verification of Mortar joint construction, grout placement, materials proportion, type/s reinforcement, structural elements, an Sampling/testing of grout/mor Observe preparation of masonry prisms compressive strength of masonr Inspection of welding of re Testing of welding of re 1705.6 & 1804 Soils Observe site preparation, fill placem compaction for compliance with the documents for Observe test bearing materials below shallow for ability to achieve design bear
equired for systems noted in IBC Section 1705.12.5, 1705.12.6, 1705.12.7, and 1705.12.8.)  escription of additional seismic systems and components requiring testing:  'here required per IBC Section 1705.13)  atement of Responsibility: ch contractor responsible for the construction or fabrication of a system or component described above must bmit a Statement of Responsibility.  etecial Inspections for Wind Resistance  e the Schedule of Special Inspections for inspection and testing requirements owable Stress Design Wind Speed, V <sub>asd</sub> : 92 m.p.h. nd Exposure Category: B  atement of Special Inspection for Wind Resistance Required (Yes/No): No squired in wind exposure Category B, where the allowable stress design wind speed, V <sub>asd</sub> , is 120 miles per hour or sater Required in wind exposure Category C or D, where the allowable stress design wind speed, V <sub>asd</sub> , is 110 es per hour or greater.)	Verification of Mortar joint construction, grout placement, materials proportion, type/s reinforcement, structural elements, an Sampling/testing of grout/mor Observe preparation of masonry prisms compressive strength of masonr Inspection of welding of re Testing of welding of re 1705.6 & 1804 Soils Observe site preparation, fill placem compaction for compliance with the documents for Observe test bearing materials below shallow for ability to achieve design bea Review compaction testing for compli- construction documents for 1705.5, 1705.10, 1705.11 & 1705.12 Wood Com
equired for systems noted in IBC Section 1705.12.5, 1705.12.6, 1705.12.7, and 1705.12.8.)  scription of additional seismic systems and components requiring testing: here required per IBC Section 1705.13)  tement of Responsibility: ch contractor responsible for the construction or fabrication of a system or component described above must mit a Statement of Responsibility.  ecial Inspections for Wind Resistance  e the Schedule of Special Inspections for inspection and testing requirements owable Stress Design Wind Speed, V <sub>asd</sub> : 92/m.p.h. nd Exposure Category: B  tement of Special Inspection for Wind Resistance Required (Yes/No): No squired in wind exposure Category C or D, where the allowable stress design wind speed, V <sub>asd</sub> , is 120 miles per hour or after. Required in wind exposure Category C or D, where the allowable stress design wind speed, V <sub>asd</sub> , is 110 es per hour or greater.)	Verification of Mortar joint construction, grout placement, materials proportion, type/s reinforcement, structural elements, an Sampling/testing of grout/mor Observe preparation of masonry prisms compressive strength of masonr Inspection of welding of re Testing of welding of re 1705.6 & 1804 Soils Observe site preparation, fill placem compaction for compliance with the documents to Observe test bearing materials below shallow for ability to achieve design bear Review compaction testing for compli construction documents to 1705.5, 1705.10, 1705.11 & 1705.12 Wood Com
scription of additional seismic systems and components requiring testing: here required per IBC Section 1705.12.5, 1705.12.6, 1705.12.7, and 1705.12.8.)  stement of Responsibility: ch contractor responsible for the construction or fabrication of a system or component described above must omit a Statement of Responsibility.  ecial Inspections for Wind Resistance  e the Schedule of Special Inspections for inspection and testing requirements owable Stress Design Wind Speed, Vasd: 92 m.p.h. nd Exposure Category: B  tement of Special Inspection for Wind Resistance Required (Yes/No): No rquired in wind exposure Category B, where the allowable stress design wind speed, Vasd, is 120 miles per hour or ater. Required in wind exposure Category C or D, where the allowable stress design wind speed, Vasd, is 110 es per hour or greater.)	Verification of Mortar joint construction, grout placement, materials proportion, type/s reinforcement, structural elements, at Sampling/testing of grout/mor Observe preparation of masonry prisms compressive strength of masonr Inspection of welding of re Testing of welding of re Testing of welding of re Observe site preparation, fill placem compaction for compliance with the documents of Observe test bearing materials below shallow for ability to achieve design bea Review compaction testing for complia construction documents of 1705.5, 1705.10, 1705.11 & 1705.12 Wood Com Observe structural panel sheathing, s members, nail or staple diameter and leng fastener lines, and spacing of fastener lines a for compliance with construction docu
quired for systems noted in IBC Section 1705.12.5, 1705.12.6, 1705.12.7, and 1705.12.8)         scription of additional seismic systems and components requiring testing:         here required per IBC Section 1705.13)         tement of Responsibility:         th contractor responsible for the construction or fabrication of a system or component described above must mit a Statement of Responsibility.         scial Inspections for Wind Resistance	Verification of Mortar joint construction, grout placement, materials proportion, type/s reinforcement, structural elements, an Sampling/testing of grout/mor Observe preparation of masonry prisms compressive strength of masonry Inspection of welding of re Testing of welding of re <b>1705.6 &amp; 1804 Soils</b> Observe site preparation, fill placem compaction for compliance with the documents f Observe test bearing materials below shallow for ability to achieve design bea Review compaction testing for compliance <b>1705.5, 1705.10, 1705.11 &amp; 1705.12 Wood Com</b> Observe structural panel sheathing, s members, nail or staple diameter and leng fastener lines, and spacing of fastener lines a for compliance with construction documents of Observe temporary and permanent to
quired for systems noted in IBC Section 1705.12.6, 1705.12.6, 1705.12.7, and 1705.12.8.)         cription of additional seismic systems and components requiring testing:         iere required per IBC Section 1705.13)         terment of Responsibility:         h contractor responsible for the construction or fabrication of a system or component described above must         mit a Statement of Responsibility:         the Schedule of Special Inspections for inspection and testing requirements         wable Stress Design Wind Speed, Vasd: 92 m.p.h.         d Exposure Category: B         ement of Special Inspection for Wind Resistance Required (Yes/No): No         quired in wind exposure Category D, where the allowable stress design wind speed, Vasd, is 120 miles per hour or iter. Required in wind exposure Category C or D, where the allowable stress design wind speed, Vasd, is 110 s per hour or greater.)         cription of structural wood and cold-formed steel light frame construction main windforce-resisting unvector special inspections for wind resistance:         quired for systems noted in IBC Section 1705.11.1 and 1705.11.2).	Verification of Mortar joint construction, grout placement, materials proportion, type/s reinforcement, structural elements, at Sampling/testing of grout/mor Observe preparation of masonry prisms compressive strength of masonr Inspection of welding of re Testing of welding of re 1705.6 & 1804 Soils Observe site preparation, fill placem compaction for compliance with the documents of Observe test bearing materials below shallow for ability to achieve design bea Review compaction testing for compli- construction documents of 1705.5, 1705.10, 1705.11 & 1705.12 Wood Com Observe structural panel sheathing, s members, nail or staple diameter and leng fastener lines, and spacing of fastener lines a for compliance with construction docu
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sequired for systems noted in IBC Section 1705.12.5, 1705.12.6, 1705.12.7, and 1705.12.8.)         escription of additional seismic systems and components requiring testing:         Where required per IBC Section 1705.13)         tatament of Responsibility:         ach contractor responsible for the construction or fabrication of a system or component described above must ibuit a Statement of Responsibility.         pecial Inspections for Wind Resistance         ee the Schedule of Special Inspections for inspection and testing requirements         Howable Stress Design Wind Speed, Vasc: 92 m.p.h.         Ind Exposure Category: 8         tatement of Special Inspections for Wind Resistance Required (Yes/No): No         eadrer. Required in wind exposure Category C or D, where the allowable stress design wind speed, Vast, is 110 miles per hour or eader. Required in wind exposure Category C or D, where the allowable stress design wind speed, Vast, is 110 miles per hour or greater.)         escription of structural wood and cold-formed steel light frame construction main windforce-resisting visem sublect to special inspections for wind resistance:         required for systems noted in IBC Section 1705.11.1 and 1705.11.2).         (A         escription of structural wood and cold formed steel light frame construction main windforce-resisting components noted in IBC Section 1705.11.3)         escription of structural wood and cold-formed steel light frame construction main windforce-resisting components noted in IBC Section 1705.11.3)         escription of windforce-resisting comp	Tros.4 Masonry           Verification of           Mortar joint construction, grout j           placement, materials proportion, type/s           reinforcement, structural elements, at           Sampling/testing of grout/mor           Observe preparation of masonry prism:           compressive strength of masonr           Inspection of welding of re           Testing of welding of re           Observe site preparation, fill placement           compaction for compliance with the           documents i           Observe test bearing materials below shallow           for ability to achieve design beaching to achieve design beachi
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sequired for systems noted in IBC Section 1706.12.6, 1706.12.6, 1706.12.7, and 1706.12.8)         excription of additional seismic systems and components requiring testing:         When required per IBC Section 1706.13)         tatement of Responsibility:         aci contractor responsible for the construction of fabrication of a system or component described above must durit a Statement of Responsibility.         pecial Inspections for Wind Resistance         eath Schedule of Special Inspections for Inspection and testing requirements         Howbie Stress Design Wind Speed, Veet: $\frac{92}{2}$ m.p.h.         Ind Exposure Category: B         tatement of Special Inspection for Wind Resistance Required (Yes/No): No.         Required in wind exposure Category C or D, where the allowable stress design wind speed, Vaec, is 120 miles per hour or aster. Required in wind exposure Category C or D, where the allowable stress design wind speed, Vaec, is 110 miles per hour or aster. Stress and components action of resistance:         responsibility       Section of structural wood and cold-formed steel light frame construction main windforce-resisting stress subject to special inspections for wind resistance:         responsibility       Required for systems and components subject to special Inspections for wind resistance:         responsibility       Required for systems and components noted in IBC Section 1705.11.3)         responsibility:       Required for systems and components noted in IBC Section 1705.11.3)	Verification of Mortar joint construction, grout placement, materials proportion, type/s reinforcement, structural elements, au Sampling/testing of grout/mor Observe preparation of masonry prism compressive strength of masonr Inspection of welding of re Testing of welding of re Testing of welding of re Observe site preparation, fill placem compaction for compliance with the documents the Observe test bearing materials below shallon for ability to achieve design bear Review compaction testing for compli construction documents the Observe structural panel sheathing, s members, nail or staple diameter and leng fastener lines, and spacing of fastener lines i for compliance with construction docu Observe temporary and permanent to restraint/bracing, field gluing of eleme botting, anchoring or other fastening of diaphragms, drag struts, braces an
Impuried for systems noted in IBC Section 1706.12.6, 1705.12.6, 1706.12.7, and 1706.12.8.)  excription of additional selamic systems and components requiring testing:  there required for systems noted in IBC Section 1705.13)  attement of Responsibility  the comparison of the construction of fabrication of a system or component described above must bint a Statement of Responsibility  there is backedule of Special Inspections for inspection and testing requirements  there is backedule of Special Inspections for inspection and testing requirements  there is backedule of Special Inspections for inspection and testing requirements  there is backedule of Special Inspections for inspection and testing requirements  there is backedule of Special Inspections for Vind Resistance Required (Yes/Ne): No  testing the system of Responsibility  testing the system of the adoption of Vind Resistance Required (Yes/Ne): No  testing the system of Special Inspection of Vind Resistance Required (Yes/Ne): No  testing the system of system of addition of a system or construction main windforce-resisting  testing to systems noted in IBC Section 1705.11.1 and 1705.11.2).   atement of systems and components noted in IBC Section 1705.11.3 and 1705.11.3.  atement of Responsibility:  by contractor responsibility  the ontractor responsibility  the system of ont described above must thint a Statement of Responsibility.	Tros.4 masonry           Verification of Mortar joint construction, grout placement, materials proportion, type/s reinforcement, structural elements, at Sampling/testing of grout/mor Observe preparation of masonry prism compressive strength of masonr           Inspection of welding of re           Tos.6 & 1804 Soils           Observe site preparation, fill placem compaction for compliance with the documents i           Observe test bearing materials below shalloo for ability to achieve design bear construction documents i           Observe test bearing materials below shalloo for ability to achieve design bear construction documents i           Observe test bearing materials below shalloo for ability to achieve design bear construction documents is           Observe test bearing materials below shalloo for ability to achieve design bear construction documents is           Tots.5, 1705.10, 1705.11 & 1705.12 Wood Com Observe structural panel sheathing, s members, nail or staple diameter and leng fastener lines, and spacing of fastener lines i for compliance with construction docu           Observe temporary and permanent to restraint/bracing, field gluing of eleme bolting, anchoring or other fastening of diaphragms, drag struts, braces an
sequence for systems noted in IBC Section 1705.12.5, 1705.12.6, 1705.12.7, and 1705.12.8)           sectprion of additional selemic systems and components requiring testing:           there required per IBC Section 1705.13)           atternet of Responsibility:           in onitraction responsibility in the construction or fabrication of a system or component described above must tomit a Statement of Responsibility:           rediction sectors for Wind Resistance           the Schedule of Special Inspections for Inspection and testing requirements:           towatic Stress Design Wind Speed, Vari: <sup>92</sup> m.p.h.           taget of Special Inspection for Wind Resistance Required (Yes/No): <sup>NO</sup> required in wind exposure Category C or D, where the allowable stress design wind speed. Vari, is 110 miles per hour or greater.           required in wind exposure Category C or D, where the allowable stress design wind speed. Vari, is 110 miles per hour or greater.           required in wind exposure Category C or D, where the allowable stress design wind speed. Vari, is 110 miles per hour or greater.           required for systems noted in IBC Section 1705.11.1 and 1705.11.2).           required for systems and components noted in IBC Section 1705.11.3)           strent of Mindforce-resisting components sublect to special Inspections for wind resistance:           equired for systems and components noted in IBC Section 1705.11.3)           strent of Notific Responsibility:	1705.4 Masonry           Verification of Mortar joint construction, grout placement, materials proportion, type/s reinforcement, structural elements, at Sampling/testing of grout/mor Observe preparation of masonry prism compressive strength of masonr Inspection of welding of re Testing of welding of re           1705.6 & 1804 Soils           Observe site preparation, fill placem compaction for compliance with the documents i           Observe test bearing materials below shallon for ability to achieve design bear construction documents is           Review compaction testing for compli- construction documents is           1705.5, 1705.10, 1705.11 & 1705.12 Wood Con Observe structural panel sheathing, s members, nail or staple diameter and leng fastener lines, and spacing of fastener lines a for compliance with construction docu           Observe temporary and permanent to restraint/bracing, field gluing of eleme bolting, anchoring or other fastening of diaphragms, drag struts, braces an
explote of additional seismic systems and components requiring testing: there required per IBC Section 1705.13) atement of Responsibility: atement of Responsibility: atement of Responsibility: testial inspections for Wind Resistance test Schedule of Special inspections for inspection and testing requirements towable Stress Design Wind Speed, Vacci. <sup>120</sup> m.p.h. Ind Exposure Category: B atement of Special inspection for Wind Resistance Required (Yes/No): <sup>ND</sup> equired for systems noted in IBC Section 1705.11.1 and 1705.11.2). Attraction of structural wood and cold-formed steel light frame construction main windforce-resisting stammator of systems noted in IBC Section 1705.11.1 and 1705.11.2). Attraction of structural wood and cold-formed steel light frame construction main windforce-resisting stammator of systems noted in IBC Section 1705.11.1 and 1705.11.2). Attraction of structural wood and cold-formed steel light frame construction main windforce-resisting stammator of systems noted in IBC Section 1705.11.1 and 1705.11.2). Attraction of vind resistance: equired for systems and components noted in IBC Section 1705.11.3)	1705.4 Masonry         Verification of         Mortar joint construction, grout j         placement, materials proportion, typels         reinforcement, structural elements, at         Sampling/testing of grout/mor         Observe preparation of masonry prism:         compressive strength of masonry         Inspection of welding of re         Tots.6 & 1804 Soils         Observe site preparation, fill placem         compaction for compliance with the         documents i         Observe test bearing materials below shalloo         for ability to achieve design beaching to acommute the documents i         Observe structural panel sheathing, s         members, nail or staple diameter and leng         fastener lines, and spacing of fastener lines i         for compliance with construction docu         Observe temporary and permanent 1         restraint/bracing, field gluing of eleme         bolting, anchoring or other fastening of         diaphragms, drag struts, braces an
experied for systems noted in IBC Section 1705.12.5, 1705.12.6, 1705.12.7, and 1705.12.8.1  secreption of additional seismic systems and components requiring testing: there required per IBC Section 1705.13  terment of Responsibility.  reductions for Wind Resistance  reductions for Wind Resistance  reductions for Kind Resistance Required (Year King)  reductions for Kind Resistance Required (Year King)  reduction reductions for Kind Resistance Required (Year King)  reduction of structural wood and cold/formed steel light frame construction main windforce-resistance  reduction of structural wood and cold/formed steel light frame construction main windforce-resistance  reduction of structural wood and cold/formed steel light frame construction main windforce-resistance  reduction of structural wood and cold/formed steel light frame construction main windforce-resistance  reduction of structural wood and cold/formed steel light frame construction main windforce-resistance  reduction of structural wood and cold/formed steel light frame construction main windforce-resistance  reduction of systems noted in IBC Section 1705.11.1 and 1705.11.2).  A  reduction of windforce-resisting components subject to special Inspections for wind resistance:  reduction of windforce-resisting components noted in IBC Section 1705.11.3)  reduction of windforce-resisting components noted in IBC Section 1705.11.3)  reduction of windforce-resisting components noted in IBC Section 1705.11.3)  reduction of responsible for the construction or fabrication of a system or comp	Tros.4 masonry           Verification of Mortar joint construction, grout/ placement, materials proportion, type/s reinforcement, structural elements, at Sampling/testing of grout/mor Observe preparation of masonry prism compressive strength of masonry Inspection of welding of re Testing of welding of re Testing of welding of re Observe site preparation, fill placem compaction for compliance with the documents i           Observe test bearing materials below shallon for ability to achieve design bea Review compaction testing for compli construction documents i           Tots.5, 1705.10, 1705.11 & 1705.12 Wood Con Observe structural panel sheathing, s members, nail or staple diameter and leng fastener lines, and spacing of fastener lines i for compliance with construction docu           Observe temporary and permanent for restraint/bracing, field gluing of eleme bolting, anchoring or other fastening of diaphragms, drag struts, braces an
equired for systems noted in IBC Section 1705.12.5.1705.12.6.1705.12.7. and 1705.12.8.1 there required per IBC Section 1705.13 there required per IBC Section 1705.13 the construction of the construction of fabrication of a system or component described above must built a Statement of Responsibility. the desponsibility. The desponsibility is a statement of Special Inspections for inspection and testing requirements location of Special Inspection for Wind Resistance Required in wind exposure Category 15 and and the special Inspection for Wind Resistance Required (Vas/No). <sup>NO</sup> equired for systems noted in IBC Section 1705.11.1 and 1705.11.2). The factor of special Inspections for Wind resistance: equired for systems noted in IBC Section 1705.11.1 and 1705.11.2). A respective for systems noted in IBC Section 1705.11.1 and 1705.11.2). A respective for systems noted in IBC Section 1705.11.1 and 1705.11.2). A respective for systems and components notific to special Inspections for wind resistance: equired for systems and components notific in IBC Section 1705.11.3 and 1705.11.3).	Verification of Mortar joint construction, grout placement, materials proportion, type/s reinforcement, structural elements, an Sampling/testing of grout/mor Observe preparation of masonry prism compressive strength of masonr Inspection of welding of re Testing of welding of re Observe site preparation, fill placem compaction for compliance with the documents I Observe test bearing materials below shallon for ability to achieve design bea Review compaction testing for compli construction documents 1705.5, 1705.10, 1705.11 & 1705.12 Wood Com Observe structural panel sheathing, s members, nail or staple diameter and leng fastener lines, and spacing of fastener lines. for compliance with construction docu Observe temporary and permanent 1 restraint/bracing, field gluing of eleme bolting, anchoring or other fastening of diaphragms, drag struts, braces an
sequence for systems noted in IBC Section 1705 12:5, 1705 12:6, 1705 12:7, and 1705 12:8,)         sectiption of additional setamic systems and components requiring testing:         where required per IBC Section 1705 12:5, 1705 12:6, 1705 12:7, and 1705 12:8,)         atomant of Responsibility:         ish contractor responsible for the construction or fabrication of a system or component described above must bit is Statement of Responsibility:         boot and the systems and components requiring testing:         atomat of Special Inspections for inspection and testing requirements:         lowable Stress Design Wind Specid, Vari: 0, mp,h.         instance of Special Inspections for Wind Resistance Required (Yes/No); 10.         required for systems noted in IBC Section 1705 11:1 and 1705 11:2.         required for systems noted in IBC Section 1705 11:1 and 1705 11:2.         required for systems and components subject to special inspections for wind resistance;         systems noted in IBC Section 1705 11:1 and 1705 11:2.         required for systems and components subject to special inspections for wind resistance;         equired for systems and components noted in IBC Section 1705 11:3.         required for systems and components noted in IBC Section 1705 11:3.         required for systems and components noted in IBC Section 1705 11:3.         required for systems and components noted in IBC Section 1705 11:3.	Verification of Mortar joint construction, grout placement, materials proportion, type/s reinforcement, structural elements, an Sampling/testing of grout/mor Observe preparation of masonry prism compressive strength of masonry Inspection of welding of re Testing of welding of re 1705.6 & 1804 Soils Observe site preparation, fill placem compaction for compliance with the documents i Observe test bearing materials below shallon for ability to achieve design bear Review compaction testing for compli construction documents f 1705.5, 1705.10, 1705.11 & 1705.12 Wood Com Observe structural panel sheathing, s members, nail or staple diameter and leng fastener lines, and spacing of fastener lines for compliance with construction docu Observe temporary and permanent 1 restraint/bracing, field gluing of eleme bolting, anchoring or other fastening of diaphragms, drag struts, braces an

•	Minimum Qualifications (refer to key at end of Table)									
n	Shop Testing or Inspection	Field Testing or Inspection	Review Testing, Certification& Lab Reports							
re-cast concrete	A, C, E									
teel construction	C, F, G									
ood construction etal construction	A									
nstruction										
les, filler metals, lure qualification nce qualification records			C, F							
esting of welding	G	G								
ection of welding	C, F	C, F								
or documents as N, paragraph 3.2			A, C							
ld filler materials			C, F							
steel frame joint details		A, C								
n of embedment		A, C, F								
site construction		A, C, F								
rmed steel deck I truss materials			A, C, F							
rmed steel deck and trusses		A, C								
at in place holts										
te and shotcrete ns. Inspection of and dimensions.		A, C, H								
steel installation		A, C, D, E								
oncrete members		A, C, H								
and field testing		A, J								
e strength testing		Р								
tified mill reports			A, C							
uired design mix		A, I, J, H, C								
force application	A, C, E									
force application		A, C, D								
strength, prior to n post-tensioned /al of shores and l structural slabs.		A, C, D, H								
ng welding, weld filler material		C, F								
reinforcing steel		G								
of f'm and f'AAC		A, C, L, M								
ut protection and e/size/location of anchorage, and connectors		А, С, К								
ortar specimens		A, C, L, M								
ms for testing of onry, $f'_m$ and $f'_{AAC}$		A, C, K, L, M								
reinforcing steel		C, F								
reinforcing steel		G								
ement testing of the construction is for the project		A, C, I, N								
low foundations bearing capacity		A, C, I, N (Level III)								
pliance with the s for the project			A							
onstruction										
, size of framing ngth, number of is and fasteners cuments for the project		A								
nt truss member ments. Observe of: shear walls, and hold-downs		А								

CIAL INSPECTO	R QUALIFICAT	IONS			
Minimum Qualifications (refer to key at end of Table)					
Shop Testing or Inspection	Field Testing or Inspection	Review Te Certifica Lab Rep			
		1			
	A, N				
	A				
	A, C				
	A, C				
	A, B, C, O				
	A, B, O				
See Requirements 1705.16.2	of IBC Sections 1705	5.16.1 and			
See Requirements	of IBC Section 1705.	17.2			
	А				
pecific task area or gra ct supervision of a GA dited architecture/arch spection listed in the ta or unbonded as applic tor (CWI) or AWS Cert CWI. Il certification, or a Lev d testing methodology pecial Inspector. es (NICET) Level II or e to each Category of T ation	iduate of accredited PE. itecture technology p ticular material and te ble. cable. ified Associate Weld vel III certification if applicable to each C higher certification s Festing and Inspectio	orogram esting ling Category pecific on listed in			
	Since Presentation         Shop Testing or Inspection         Shop Testing or Inspection         Shop Testing or Inspection         Shop Testing or Inspection         See Requirements         1705.16.2         See Requirements         1705.16.2         See Requirements         Inspection         See Requirements         1705.16.2         See Requirements         Inspection listed in the tallor unbonded as applied         tor (CWI) or AWS Cert         WI.         Il certification, or a Level         pecial Inspector.         es (NICET) Level II or         etation	CIAL INSPECTOR QUALIFICAT         Minimum Qualifications (refer to key at end of Table)         Shop Testing or Inspection       Field Testing or Inspection         Shop Testing or Inspection       Field Testing or Inspection         A, N       A         A, N       A         A, C       A         A, C       A, C         A, B, C, O       A, B, C, O         See Requirements of IBC Sections 1705 1705.16.2       A, B, O         See Requirements of IBC Section 1705.       A         A       A         A       A         Intervision of a GA PE.       A         A       A         Conspecific task area or graduate of accredited ct supervision of a GA PE.       A         Intervision of a GA PE.       A         Intervision of a CA PE.       A			

- K. Georgia Concrete and Products Association (GC&PA) Masonry Association of Georgia (MAG) Masonry Construction Inspector Certification. L. National Concrete Masonry Association (NCMA) Concrete Masonry Testing Procedures certification.
- M. GC&PA MAG Masonry Testing Technician certification. N. NICET Certified Engineering Technologist (CT).O. Other Qualified Special Inspector as approved by the Building Official.

P. American Concrete Institute (ACI) Strength Testing Technician.

Notes:

1. The Special Inspector shall meet one of the minimum qualifications listed for the applicable Category of Testing and Inspection. 2. Materials testing shall be done by an Approved Testing Agency meeting the requirements of IBC Section 1703 and ASTM E 329.

### TIONS

Review Testing, Certification& Lab Reports

![](_page_13_Picture_21.jpeg)

![](_page_13_Figure_22.jpeg)

SCHEDULE OF SPECIAL INSPECTION SERVICES	SCHEDULE OF SPECIAL INSPECTION SERVICES	SCHEDULE OF SPECIAL INSPECTION SERVICES	SCHEDULE OF SPECIAL INSPECTION SERVICES	SCHEDULE OF SPECIAL INSPECTION SERVICES		
PROJECT MARKUS STROKE AND NEUROSCIENCE ANGIO 1 REPLACEMENT	PROJECT MARKUS STROKE AND NEUROSCIENCE ANGIO 1 REPLACEMENT	PROJECT MARKUS STROKE AND NEUROSCIENCE ANGIO 1 REPLACEMENT	PROJECT MARKUS STROKE AND NEUROSCIENCE ANGIO 1 REPLACEMENT	PROJECT MARKUS STROKE AND NEUROSCIENCE ANGIO 1 REPLACEMENT		
MATERIAL / ACTIVITY SERVICE APPLICABLE TO THIS PROJECT	MATERIAL / ACTIVITY SERVICE APPLICABLE TO THIS PROJECT	MATERIAL / ACTIVITY SERVICE APPLICABLE TO THIS PROJECT	MATERIAL / ACTIVITY SERVICE APPLICABLE TO THIS PROJECT	MATERIAL / ACTIVITY SERVICE APPLICABLE TO THIS PROJECT		
Y/N         EXTENT         AGENT*         DATE COMPLETER           1705.1.1 Special Cases (work	b. Inspection tasks During	2. Prior to grouting, verify that the following are in	Y/N EXTENT AGENT* DATE COMPLETED 1705.10 Fabricated items	Y/N EXTENT AGENT* DATE COMPLET 1705.12.9 Cold-formed Steel Special Bolted Moment Frames		
unusual in nature, including but not limited to alternative materials and Submittal review.	Mechanical Fastening (Observe the QA tasks listed in SDI QA/QC, N Observe (4)	compliance:	1. List of fabricated items requiring As noted in	Inspection of installation of cold-		
systems, unusual design applications, materials and systems with special field inspection	Appendix 1 Table 1.7)	a. Grout space Field inspection	Shop inspection Y applicable shop	frames in the seismic force-resisting systems in structures assigned to		
additional rows as needed.)	Mechanical Fastening (Perform the OA tasks listed in SDI OA/OC	N Level 3 - Continuous	activity	SDC D, E or F.		
1. Inspection of anchors post-installed in solid grouted masonry: Per	Appendix 1 Table 1.8)	b. Placement of prestressing Field inspection N Periodic	a. Unistrut Ceiling Grid Support Y	1705.13.1 Structural Steel Testing for Seismic Resistance 1. Nondestructive testing of structural		
research reports including verification of anchor type, anchor dimensions,	1705.2.3. Open-Web Steel Joists and Joist Girders	N Level 2 -	2. List of fabricated items to be fabricated on the premises of a	steel in the seismic force-resisting Field test N Periodic		
hole dimensions, hole cleaning procedures, anchor spacing, edge	and joist girders.	c. Placement of reinforcement, connectors, and anchor bolts Field inspection I evel 3 -	fabricator approved to perform such work without special inspection	in structures assigned to SDC B, C, D, E or F.		
distances, masonry unit, grout, masonry compressive strength,	a. End connections - welding or per SJI CJ or SJI N Periodic	Continuous	(including name of approved agency providing periodic auditing):	2. Nondestructive testing of structural		
anchor embedment and tightening torque	b. Bridging - horizontal or diagonal.	d. Proportions of site-prepared Field inspection N Periodic grout and prestresssing grout for		resisting systems not covered in 1		
2. Aggregate Pier Inspection: The	1) Standard bridging. per SJI CJ or SJI N Periodic	3 Verify compliance of the following during construction:	1705.11.1 Structural Wood Special Inspections For Wind Resistance	chords and foundation elements in accordance with AISC 341 in		
include, but are not limited to, review	2) Bridging that differs from	a. Materials and procedures with Field inspection N Periodic	1. Inspection of field gluing operations         of elements of the main windforce-         Field inspection         N         Continuous	structures assigned to SDC B, C, D, E or F.		
of soil parameters as presented in the project soils report, and during	the specifications listed in SJI     N     Periodic       CJ or SJI 100.     Image: Close of the specification	b. Placement of masonry units Field inspection N Derivation	2. Inspection of nailing, bolting,	1705.13.2 Seismic Certification of Nonstructural Components		
construction, verification of aggregate properties, type and number of lifts of Periodic or as required by the	1705.2.4. Cold-Formed Steel Trusses Spanning 60 feet or Greater	and mortar joint construction	anchoring and other fastening of components within the main Shop (3) and field inspection N Periodic	Review certificate of compliance for designated seismic system Certificate of N Each submitted		
aggregate, hole size and depths and top elevations of the pier elements, Field inspection N report issued	restraint/bracing are installed in Field inspection N	members respective and location of structural Field inspection N Periodic	windforce-resisting system	components in structures assigned to SDC B, C, D, E or F.		
and applied energy. Additionally, results of qualitative tests on source	submittal package	d. Type, size, location of anchors, including other details of encharge of massen to be field inspection	1.Inspection during welding operations	1705.13.3 Seismic Certification of Designated Seismic Systems		
such as modulus load testing, uplift	1705.3 Concrete Construction         1. Inspection and placement       Shop (3) and field	structural members, frames, or other construction	of elements of the main windforce- resisting system Shop (3) and field N Periodic	Review certificate of compliance for designated seismic system Certificate of N Each submittal		
tests shall be reviewed to verify	verification of reinforcing steel and inspection N Periodic prestressing tendons.	e. Welding of reinforcement Field inspection N Continuous	2.Inspection of screw attachment, bolting, anchoring and other fastening	SDC B, C, D, E or F.		
compliance with design	2. Reinforcing bar welding:	f. Preparation, construction, and protection of masonry during cold	of components within the main Shop (3) and field N Periodic windforce-resisting system, including inspection	1705.13.4 Seismic Isolation Systems		
1705.2.1 Structural Steel Construction	a. Verification of weldability of hars other than ASTM A706 N Periodic	weather (temperature below 40°F) or hot weather (temperature	shear walls, braces, diaphragms, collectors (drag struts) and hold-	accordance with ASCE 7 Section Prototype testing N Per ASCE 7		
1. Fabricator and erector documents (Verify reports and certificates as	b. Inspection of single-pass fillet N Periodic	above 90°F)	downs. 1705.11.3 Wind-resisting Components	C, D, E or F.		
listed in AISC 360, chapter N, paragraph 3.2 for compliance with Submittal Review N Each submittal	welds 5/16 or less in size.     N     Continuous       c. Inspection of all other welds.     N     Continuous	of prestressing force Field testing N Continuous	1. Roof covering, roof deck and roof Shop (3) and field N Periodic	1705.14 Sprayed Fire-resistant Materials		
construction documents)	3. Inspection of anchors cast in Shop (3) and field N Periodic	n. Placement of grout and prestressing grout for bonded Field inspection N Continuous	framing connections. inspection inspection 2. Exterior wall covering and wall Shop (3) and field	of structural members Field inspection N Periodic		
2. Material verification of structural Shop (3) and field inspection N Periodic	4. Inspection of anchors post-installed	i. Placement of AAC masonry Level 2 -	connections to roof and floor inspection N Periodic	2. Verify minimum thickness of sprayed fire-resistant materials applied Field inspection N Periodic		
3. Structural steel welding: N	in hardened concrete members per research reports, or, if no specific	units and construction of thin-bed mortar jointsContinuous (b)	1705.12.1 Structural Steel Special Inspections for Seismic Resistance	3. Verify density of the sprayed fire-		
a. Inspection tasks Prior to Welding (Observe, or perform for each welded joint or member, the Shop (3) and field	requirements shall be provided by the required by the recearch report	(b) Required for the first 5,000 square feet Field inspection Periodic	1. Seismic force-resisting systems in SDC B, C, D, E, or F.Shop (3) and field inspectionIn accordance with AISC 341	resistant material complies with and testing N Section 1705.13.5		
QA tasks listed in AISC 360, inspection N Perform as noted (4)	approved by the building official, Field inspection Field inspection Y issued by an approved	(c) Required after the first 5,000 square feet	2. Structural steel elements in SDC B, C. D. F. or F. other than those in Item Shop (3) and field N In accordance	4. Verify the cohesive/adhesive bond Field inspection Per IBC		
	anchor dimensions, hole dimensions, source	N Continuous	1. including struts, collectors, chords and foundation elements	resistant material N Section 1705.13.6		
Welding (Observe, or perform for each welded joint or member, the Shop (3) and field	spacing, edge distances, concrete	4. Observe preparation of grout specimens, mortar specimens, and/or prices	1705.12.2 Structural Wood Special Inspections for Seismic Resistance	5. Condition of finished application Field inspection N Periodic		
QA tasks listed in AISC 360, inspection N Observe (4) Table N5 4-2)	embedment and tightening torque	N Level 3 - Continuous	1. Field gluing operations of elements of the seismic-force resisting system	Inspect and test mastic and		
c Inspection tasks After Wolding	a. Adhesive anchors installed in horizontal or upward-inclined	1705.5 Wood Construction	for SDC C, D, E or F.	intumescent fire-resistant coatings Field inspection N Periodic		
(Observe, or perform for each welded joint or member the OA Shop (3) and field Observe or	tension loads.	elements, inspection of the fabrication process and assemblies in In-plant review (3) N Periodic	2. Nailing, bolting, anchoring and other fastening of components within	decks per AWCI 12-B 1705.16 Exterior Insulation and Finish Systems (EIFS)		
tasks listed in AISC 360, Table inspection N Perform as noted (4)	b. Mechanical and adhesive anchors not defined in 4a.	accordance with Section 1704.2.5.	the seismic-force-resisting system including wood shear walls, woodShop (3) and field inspectionNPeriodic	Inspection of water-resistive barrier Field inspection N Periodic		
d. Nondestructive testing (NDT)	5. Verify use of approved design mix Shop (3) and field Inspection N Periodic	2. For high-load diaphragms, verify grade and thickness of structural panel	diaphragms, drag struts, shear panels and hold-downs for SDC C, D, E or F.	1705.17 Fire-Resistant Penetrations and Joints		
of welded joints: see Commentary	6. Prior to placement, fresh concrete	sheathing agree with approved Field inspection N Periodic building plans.	1705.12.3 Cold-formed Steel Light-Frame Construction Special Inspections for Seismic Resistance	1. Inspect penetration firestop     Field testing     N     Per ASTM E2174		
1) Complete penetration Shop (3) or field groove welds 5/16" or greater ultrasonic testing - N Periodic	sampling, perform slump and air content tests and determine inspection	3. For high-load diaphragms, verify	1. During welding operations of elements of the seismic-force-resisting system for SDC C. D. F. or F. Shop (3) and field inspection	2. Inspect fire-resistant joint systems     Field testing     N     Per ASTM E2393       1705.18 Smoke Control Systems		
2) Complete penetration Shop (3) or field	any other tests as specified in	nominal size of framing members at adjoining panel edges, nail or staple	2. Screw attachment, bolting.	1. Leakage testing and recording of device locations prior to concealment Field testing N Periodic		
groove welds 5/16" or greater ultrasonic testing - Periodic in risk category II 10% of welds N	7. Inspection of concrete and shotcrete Shop (2) and field	diameter and length, number of fastener lines, and that spacing Field inspection N Periodic	anchoring and other fastening of components within the seismic-force- Shop (3) and field	2. Prior to occupancy and after		
minimum	techniques N Continuous	between fasteners in each line and at edge margins agree with approved	resisting system including shear inspection N Periodic walls, braces, diaphragms, collectors	difference testing, flow measurements, Field testing N Periodic		
3) Welded joints subject to fatigue when required by subject to shop (3) or field		4. Metal-plate-connected wood	(drag struts) and hold-downs for SDC C, D, E or F.	* INSPECTION AGENTS		
AISC 360, Appendix 3, Table A-3.1 Ultrasonic testing	Vorify maintenance of aposified	trusses: N	1705.12.4 Designated Seismic Systems Verification	FIRM         ADDRESS         TELEPHONE N           1 LINITED CONSULTING         635 HOLCOMB RELIDEE RD, NORCHOSS, CA         (770) 200 000		
4) Fabricator's NDT reports	curing temperature and techniques Shop (3) and field inspection N Periodic	individual truss member	verify that the component label,	2. CEOHYDRO ENCINEERS 1000 CORP DL BLVD #200, KENNESAW, CA. (770) 209-00.		
NDT Verify reports N (5)	9. Inspection of prestressed concrete: Shop (3) and field	Field inspection N Periodic	the certificate of compliance in accordance with ASCE 7 Section	2. GEONTDRO ENGINEERS         1000 COBB PL BLVD #230, REINESAW, GA         (770) 420-71           3. TERRACON         2105 NEWPOINT PL #600, LAWRENCEVILLE, GA         (770) 623-07		
4. Structural steel bolting: Shop (3) and field inspection N	a. Application of prestressing	when the truss height is greater than or equal to 60".	13.2.2.	4. Notes:		
a. Inspection tasks Prior to Bolting	b. Grouting of bonded	b. For trusses spanning 60 feet or greater: verify temporary and	1705.12.5 Architectural Components Special Inspections for Seismic Resistance         1. For SDC D, E or F, inspection	<ol> <li>The inspection and testing agent(s) shall be engaged by the Owner or the Owner's Agent, and not by the Contractor or Subcontractor whose work is to be inspected or tested. Any conflict of interest must be</li> </ol>		
each bolted connection, in accordance with QA tasks listed	prestressing tendons N Continuous	permanent restraint/bracing are Field inspection N Periodic	during the erection and fastening of exterior cladding and interior or       Field inspection       N       Periodic	disclosed to the Building Official prior to commencing work. The qualifications of the Special Inspector(s) and/or testing agencies may be subject to the approval of the Building Official and/or the Design Professional.		
in AISC 360, Table N5.6-1)	10. Inspect erection of precast     N     Periodic	approved truss submittal package	exterior veneer more than 30 feet above grade or walking surface and	<ol> <li>The list of Special Inspectors may be submitted as a separate document, if noted so above.</li> <li>Special Insepctions as required by Section 1704.2.5 are not required where the fabricator is approved in</li> </ol>		
b.Inspection tasks During Bolting (Observe the QA tasks listed in N Observe (4)	11. Verification of in-situ concrete strength, prior to stressing of tendons	1. Verify materials below shallow	weighing more than 5 psf.       2. For SDC D, E or F, inspection	<ol> <li>Observe on a random basis, operations need not be delayed pending these inspections. Perform these tasks for each welded joint, bolted connection, or steel element.</li> </ol>		
AISC 360, Table N5.6-2)	in post tensioned concrete and prior to removal of shores and forms from	foundations are adequate to achieve Field inspection N Periodic the design bearing capacity.	during the erection and fastening of interior nonbearing walls more thanField inspectionNPeriodic	<ol> <li>NDT of welded joint, boiled connection, or steer element.</li> <li>NDT of welds completed in an approved fabricator's shop may be performed by that fabricator when approved by the AHJ Refer to AISC 360 N7.</li> </ol>		
1) Pre-tensioned and slip- critical joints	beams and structural slabs	2. Verify excavations are extended to proper depth and have reached proper Field inspection N Periodic	30 feet above grade or walking surface and weighing more than 15			
a) Turn-of-nut with natching markings N Periodic	12. Inspection of formwork for shape, lines, location and dimensions Field inspection N Periodic	material.     3. Perform classification and testing of	psf. 3 For SDC D F or F inspection	Are Requirements for Seismic Resistance included in the Statement of Special Inspections? Are Requirements for Wind Resistance included in the Statement of Special Inspections?		
b) Direct tension indicator N Periodic	13. Concrete strength testing and Field testing and verification of compliance with	controlled fill materials. A Verific use of proper meterials	during the erection and fastening of exterior nonbearing walls more than	DATE: SEE TITLEBLOO		
c) Twist-off type tension control bolt N Periodic	construction documents laboratory reports	densities, and lift thicknesses during placement and compaction of Field inspection N Continuous	30 feet above grade or walking surface.			
d) Turn-of-nut without N Continuous	1705.4 Masonry Construction	controlled fill	4. For SDC D, E or F, inspection Field inspection N Periodic			
e) Calibrated wrench N Continuous	(A) Level 1, 2 and 3 Quality Assurance:	5. Prior to placement of controlled fill, observe subgrade and verify that site Field inspection N Periodic	1705.12.6 Mechanical and Electrical Components Special Inspections for Seismic Resistance			
c. Inspection tasks After Bolting	1. Prior to construction, verification of compliance of submittalsSubmittal ReviewNPrior to Construction	has been prepared properly	1. Inspection during the anchorage of electrical equipment for emergency or       Field inspection       N       Periodic			
connection in accordance with QA N Perform (4)	(B) Level 2 & 3 Quality Assurance:	1705.7 Driven Deep Foundations 1. Verify element materials, sizes and	standby power systems in SDC C, D, E or F			
N5.6-3)	1. Prior to construction verification Testing by unit Of f'm and f'AAC except where Strength method or Construction	lengths comply with requirements     Field inspection     N     Continuous       2     Determine capacities of test     Image: Continuous	2. Inspection during the anchorage of other electrical equipment in SDC E Field inspection N Periodic			
surfaces of galvanized structural steel Shop (3) and field NI Periodic	specifically required by the code prism test method	elements and conduct additional load Field inspection N Continuous tests, as required	or F 3. Inspection during installation and			
of the rectangular HSS for cracks testing testing	2. During construction, verification of Slump Flow and Visual Stability Index (VSI) when solf consolidation strength method or N Periodic	3. Observe driving operations and	anchorage of piping systems designed to carry hazardous materials, and their Field inspection N Periodic			
6. Embedments (Verify diameter,	grout is delivered to project site	records for each element Field inspection N Continuous	associated mechanical units in SDC C, D, E or F			
grade, type, length, embedment. See     Field inspection     N     Periodic       1705.3 for anchors)	(C) Level 3 Quality Assurance:	4. Verify placement locations and plumbness, confirm type and size of	4. Inspection during the installation and anchorage of HVAC ductwork that will Field inspection			
7. Verify member locations, braces, stiffeners, and application of joint       Field inspection       N       Periodic	1. During construction, verification Testing by unit	hammer, record number of blows per foot of penetration, determine required	contain hazardous materials SDC C, D, E or F			
details at each connection comply with construction documents	strength method or N Periodic	penetrations to achieve designField inspectionNContinuouscapacity, record tip and butt elevations	5. Inspection during the installation and anchorage of vibration isolation			
1705.2.2 Cold-Formed Steel Deck	2. During construction, verification of proportions of materials as	and document any damage to foundation element	systems in SDC C, D, E or F where nominal clearance of 1/4 inch or less Field inspection N Periodic			
1. Manutacturer documents (Verify reports and certificates as listed in	delivered to the project site for premixed or preblended mortar, prestration growt and growt other     Field inspection     N     Periodic	5. For steel elements, perform See Section See Section	is required by the approved construction documents			
SDI QA/QC, Section 2, Paragraphs 2.1 and 2.2 for compliance with	than self-consolidating grout.	1705.2 1705.2 1705.2	6. Inspection during installation of			
2. Material verification of steel deck, Shop (3) and field	MINIMUM SPECIAL INSPECTION REQUIREMENTS (D) Levels 2 and 3 Quality Assurance:	6. For concrete elements and concrete-filled elements, perform See Section See Section	including duct work, piping systems			
mechanical fasteners and welding inspection N Periodic materials:	1. As masonry construction begins, verify that the following	additional inspections per Section 1705.3 N 1705.3	and their structural supports, where automatic fire sprinkler systems are N			
3. Cold-formed steel deck placement: Shop (3) and field inspection N	are in           a. Proportions of the site-	7. For specialty elements, perform	SDC C, D, E, or F to verify one of the following unless flexible sprinkler			
a. Inspection tasks Prior to Deck Placement (Perform the OA tasks	prepared mortar Field inspection N Periodic	by the registered design professional Field inspection N with construction documents	hose fittings are used:			
listed in SDI QA/QC, Appendix 1 Table 1.1)	tendons and anchorages Field inspection N Periodic	1705.8 Cast-in-Place Deep Foundations	a. ASCE/SEL /, Section 13.2.3 minimum required clearances have been provided			
b. Inspection tasks After Deck Placement (Perform the OA tasks	c. Grade, type, and size of reinforcement, anchor bolts, and Field inspection N Periodic	1.Inspect drilling operations and	b. A three inch or greater nominal			
listed in SDI QA/QC, Appendix 1 Table 1.2)	anchorages	records for each element	clearance has been provided between fire protection sprinkler			
4. Cold-formed steel deck welding: Shop (3) and field N	d. Prestressing technique     Field inspection     N     Periodic       e. Properties of thin-bed mortar for     Image: Second Sec	2. Verify placement locations and plumbness, confirm element	system drops and sprigs and: structural members not used Field inspection N Periodic			
a. Inspection tasks Prior to	AAC masonry	diameters, bell diameters (if applicable), lengths, embedment into Field inspection N Continuous	collectively or independently to support the sprinklers; equipment			
Welding (Observe the QA tasks listed in SDI QA/QC, Appendix 1NObserve (4)	(b) Required for the first 5,000 square feet	bedrock (if applicable) and adequate end-bearing strata capacity. Record	attached to the building structure; and other systems' piping.			
Table 1.3)       b. Inspection tasks During	(c) Required after the first 5,000 square feet	concrete or grout volumes	1705.12.7 Storage Racks Special Inspections for Seismic Resistance			
Welding (Observe the QA tasks listed in SDI QA/QC, Appendix 1NObserve (4)	N Level 3 - Continuous	additional inspections in accordanceSee SectionNSee Sectionwith Section 1705.31705.31705.3	Inspection during the anchorage of storage racks 8 feet or greater in Field inspection N Periodic			
Table 1.4)	f. Sample panel construction	1705.9 Helical Pile Foundations	D, E or F.			
c. Inspection tasks After Welding (Perform the QA tasks listed in SDLOA/OC Appendix 4 Table	N     Level 3 -       Continuous	Verify installation equipment, pile dimensions, tip elevations, final	1705.12.8 Seismic Isolation Systems			
		depth, final installation torque and other installation data as required byField inspectionNContinuous	Inspection during the fabrication and installation of isolator units and operated discipation devices used as Shop and field			
5. Cold-formed steel deck mechanical fastening:     Shop (3) and field inspection     N		construction documents.	part of the seismic isolation system in structures assigned to SDC B C D	ORGI		
a. Inspection tasks Prior to Mechanical Fastening (Observe N Observe (4)			E or F.	CO SEGISTERED		
the QA tasks listed in SDI QA/QC, Appendix 1 Table 1.6)				TRUCTURAL		
				WEINELES CWGINELES		

![](_page_14_Picture_1.jpeg)

![](_page_15_Figure_0.jpeg)

![](_page_15_Picture_6.jpeg)

![](_page_15_Figure_7.jpeg)

![](_page_16_Figure_0.jpeg)

![](_page_16_Picture_8.jpeg)

![](_page_16_Figure_9.jpeg)

![](_page_17_Figure_0.jpeg)

![](_page_17_Picture_6.jpeg)

![](_page_17_Figure_7.jpeg)

SYMBOL  $\boxtimes \}$  $\Lambda$ (1) M-1) Ð 0  $\Theta$ М-----TS-----₽—₽ ®—® BD---- $\land$ <u>\_+</u>  $\triangle$ 1 \_\_\_  $\square$ 

(CEILING DIFFUSERS ARE 4-WAY THROW UNO)
-ROUND DIFFUSER
-CEILING RETURN
-CEILING EXHAUST
-CEILING DIFFUSER, RECTANGULAR OR SQUARE NECK (CEILING DIFFUSERS ARE 4-WAY THROW UNO)
-SUPPLY REGISTER OR GRILLE (VERTICAL MOUNT, SIDEWALL)
-RETURN/EXHAUST REGISTER OR GRILLE (VERTICAL MOUNT, SIDEWALL) -REVISION REFERENCE
-DETAIL REFERENCE: TOP-DETAIL#, BOTTOM-DRAWING# SHOWN ON
-THERMOSTAT/TEMPERATURE SENSOR
-HUMIDISTAT/HUMIDITY SENSOR
-DUCT SMOKE DETECTOR
-CONNECT TO EXISTING
-DEMOLISH TO POINT INDICATED
-MOTORIZED CONTROL DAMPER
-TEMPERATURE SENSOR
-DIGITAL ROOM PRESSURE MONITOR
-ANALOG ROOM PRESSURE MONITOR
-BACKDRAFT DAMPER
-NEUTRAL RELATIVE PRESSURE
-POSITIVE RELATIVE PRESSURE
-NEGATIVE RELATIVE PRESSURE
-SHEET NOTE CALLOUT
-SHEET NOTE CALLOUT
-SHEET NOTE CALLOUT

DESCRIPTION

-CEILING DIFFUSER, ROUND NECK

-CEILING MOUNTED ACCESS DOOR

SYMBC	)L	
CWS	9	-(
CWR	9	-(
CHWS	9	-(
CHWR	9	-(
CD	S	-(
CR	9	-(
PC	9	-
HHWR	9	-ł
HHWS	S	-ł
HPS	9	-1
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DESCRIPTION	

CONDENSER WATER SUPPLY

CONDENSER WATER RETURN CHILLED WATER SUPPLY

CHILLED WATER RETURN CONDENSATE

CONDENSATE RETURN PUMPED CONDENSATE HEATING HOT WATER RETURN -HEATING HOT WATER SUPPLY

HIGH PRESSURE STEAM SUPPLY -MEDIUM PRESSURE STEAM SUPPLY -LOW PRESSURE STEAM SUPPLY

-HIGH PRESSURE STEAM RETURN -MEDIUM PRESSURE STEAM RETURN -LOW PRESSURE STEAM RETURN

REFRIGERANT LIQUID REFRIGERANT SUCTION -TEE, OUTLET DOWN

-TEE, OUTLET UP -45° PIPE RISE (R) / DROP (D)

-PIPE ANCHORS -CONCENTRIC REDUCER ECCENTRIC REDUCER

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL
Į į	-FIRE DAMPER		-TERMINAL UNIT, VARIABLE/CONSTANT AIR	AFD
	(WITH ACCESS PANEL)		VOLUME WITH ELECTRIC HEAT	AFF
↓ J	-FIRE & SMOKE DAMPER		VOLUME WITH ELECTRIC HEAT	
	(WITH ACCESS PANEL)			AP
	-SMOKE DAMPER			BOP
F	(WITH ACCESS PANEL)			BHP
SA-1	-SOUND ATTENUATOR		VOLUME, FAN POWERED	BTU
				CL
	-MOTOR OPERATED CONTROL DAMPER (MOD)			
M			VOLUME, FAN POWERED, WITH ELECTRIC	CT
{FM	-AIR FLOW MEASURING STATION	<u> </u>		CV
<u>}</u> ][}			(W/ PANEL CLEARANCE)	ΔP
				ΔΤ
	-DOOR GRILLE			CFM
				CU
ŹS	-UNDERCUT DOOR		-HYDRONIC REHEAT COIL	
× /				EA
	-ACCESS DOORS, VERTICAL OR HORIZONTAL		-INLINE CENTRIFUGAL FAN	EAT
				ESP
<i>{////////////////////////////////////</i>	-STAINLESS STEEL DUCTWORK		-PACKAGED TERMINAL AIR CONDITIONER (PTAC)	EWT
<u>}</u> }			(*****)	FCU
<u>ا</u> ااالـــــــــــــــــــــــــــــــــ				FD
12/8	-FLAT OVAL DUCT		-CHANGE OF ELEVATION	
·		+++++++++++++++++++++++++++++++++++++++	-FLEXIBLE DUCT	FPM
24x12	-NEW DUCTWORK, FIRST DIMENSION IS SIDE SHOWN			GPM
24x12	-EXISTING DUCTWORK TO REMAIN		-TRANSITION, CONCENTRIC	ISO
24 <u>x12</u>	-EXISTING DUCTWORK TO BE REMOVED		-TRANSITION, ECCENTRIC	KW LAT
24x12				LWT
	DIMENSION INDICATES SIDE TO WHICH ARROW IS POINTING	2 10x8 8"	-TRANSITION, SQUARE TO ROUND	
	-DUCT ELBOW, EXHAUST		-SQUARE THROAT TEE WITH DAMPERS	
	-DUCT ELBOW, NEGATIVE PRESSURE, RETURN			
		Д		
		12x8	-RADIUS TEE WITH DAMPERS	
	-RECTANGULAR DUCT SECTION UP, POSITIVE PRESSURE, SUPPLY OR OUTSIDE AIR			
	-RECTANGULAR DUCT SECTION UP,	́А́		
	NEGATIVE PRESSURE, RETURN		-RECTANGLE-TO-ROUND TAKE-OFF WITH DAMPER	
	-REGTANGULAR DUCT SECTION OF, EXHAUST	↓ <u>↓</u> ↓		
	-ROUND DUCT SECTION UP		-STANDARD BRANCH TAKE-OFF WITH DAMPER	
	-FLAT OVAL DUCT SECTION UP	A T		
			-SPIN-IN TAKE-OFF WITH DAMPER	
			-SQUARE THROAT ELBOW	
			W/TURNING VANES	
			-RADIUS ELBOW	
			-RECTANGUI AR/ROUND RRANCH ΤΔΚΕ-ΩΕΕ	
			OR ROUND/ROUND BRANCH TAKE-OFF	
			-EXHAUST DUCT UP THROUGH SLAB W/ FAN ON ROOF ABOVE	
			-EXHAUST FAN ON ROOF W/ DUCT DOWN	
			THROUGH ROOF	
				1

MECHANICAL SYMBOL LEGEND			MECHANICAL	ABBREVIATIONS	MECHANICAL GENERAL NOTES
SYMBOL DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL DESCRIPTION	SYMBOL DESCRIPTION	1. CONNECTION TO EQUIPMENT SHALL BE VERIFIED WITH MANUFACTURER'S CERTIFIED DRAWINGS.
-FIRE DAMPER (WITH ACCESS PANEL)		-TERMINAL UNIT, VARIABLE/CONSTANT AIR VOLUME WITH ELECTRIC HEAT	AFD -ADJUSTABLE FREQUENCY DRIVE AFF -ABOVE FINISHED FLOOR	LD -LINEAR DIFFUSER MBH -THOUSAND BTUS PER HOUR	<ol> <li>DIMENSIONS SHALL BE FIELD-VERIFIED AND COORDINATED PRIOR TO PROCUREMENT OR FABRICATION.</li> <li>DIMENSIONS SHALL BE FIELD-VERIFIED AND COORDINATED PRIOR TO PROCUREMENT OR FABRICATION.</li> </ol>
-FIRE & SMOKE DAMPER (WITH ACCESS PANEL)		-TERMINAL UNIT, VARIABLE/CONSTANT AIR VOLUME WITH ELECTRIC HEAT	AFR -ABOVE FINISHED ROOF AHU -AIR HANDLING UNIT	MCA -MINIMUM CIRCUIT AMPS MOCP -MAXIMUM OVER CURRENT PROTECTION	PIPING OR DUCTWORK (INCLUDING DIVIDED DUCTWORK) NEEDED DUE TO OBSTRUCTIONS OR INTERFERENCES SHALL BE PROVIDED AT NO ADDITIONAL COST. FOR PROJECTS INVOLVING
-SMOKE DAMPER			AP -ACCESS PANEL BOP -BOTTOM OF PIPE	MOD -MOTOR OPERATED CONTROL DAMPER (MOD) NAM -NEGATIVE AIR MACHINE	STRUCTURE AND ARCHITECTURAL FEATURES, SPRINKLER PIPING, LIGHTS, PLUMBING, AND ELECTRICAL CONDUIT.
		-TERMINAL UNIT, VARIABLE/CONSTANT AIR VOLUME, FAN POWERED	BHP -BRAKE HORSEPOWER BTU -BRITISH THERMAL UNIT	NC -NORMALLY CLOSED NO -NORMALLY OPEN	3. DUCT CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE SMACNA HVAC DUCT CONSTRUCTION STANDARD.
			CL -CENTER LINE CFM -CFM (CUBIC FEET PER MINUTE)	NTS -NOT TO SCALE OA -OUTSIDE AIR	4. SEE SPECIFICATIONS FOR GAUGES, THICKNESS, BRACING, REQUIREMENTS, ETC., OF DUCTWORK.
		-TERMINAL UNIT, VARIABLE/CONSTANT AIR VOLUME, FAN POWERED, WITH ELECTRIC HEAT	CD -CEILING DIFFUSER CT -COOLING TOWER	OAL -OUTSIDE AIR LOUVER PRV -PRESSURE REDUCING VALVE	<ol> <li>PROVIDE AIR TORNING VANES IN ALL 90 DEGREE RECTANGULAR DUCT ELBOWS.</li> <li>DUCT SIZES AND ALL OPENINGS THROUGH BUILDING CONSTRUCTION SHALL SUIT EQUIPMENT EURNISHED.</li> </ol>
		-ELECTRIC DUCT HEATER (W/ PANEL CLEARANCE)	CV -CONSTANT AIR VOLUME ΔP -CHANGE IN PRESSURE	PRS -PRESSURE REDUCING STATION PSI -POUNDS PER SOLIARE INCH	7. COORDINATE DIFFUSER, GRILLE AND REGISTER LOCATIONS WITH ARCHITECTURAL REFLECTED
			ΔT -CHANGE IN TEMPERATURE	PSIG -PSI GAUGE	<ol> <li>LOCATE THERMOSTATS, TEMPERATURE SENSORS, HUMIDISTATS, AND HUMIDITY SENSORS AT 48"</li> <li>ABOVE FINISHED FLOOR LINE FSS NOTED OTHERWISE. COORDINATE LOCATIONS WITH OTHER</li> </ol>
	ر ب	-HYDRONIC REHEAT COIL	CU -CONDENSING UNIT	PVC -POLYVINYL CHLORIDE PIPE	EQUIPMENT, FURNITURE, AND DOOR SWINGS.
-UNDERCUT DOOR			DN -DOWN FA -EXHAUST AIR	RHC -REHEAT COIL	ADDITIONAL SUPPORTS AS REQUIRED TO PROVIDE A VIBRATION-FREE, RIGID INSTALLATION.
-ACCESS DOORS, VERTICAL OR HORIZONTAL		-INLINE CENTRIFUGAL FAN	EAT -ENTERING AIR TEMPERATURE	RPM -REVOLUTIONS PER MINUTE	11. DAMPERS AND INSIDES OF DUCTS VISIBLE THROUGH GRILLES, REGISTERS AND DIFFUSERS SHALL BE PAINTED FLAT BLACK.
-STAINLESS STEEL DUCTWORK		-PACKAGED TERMINAL AIR CONDITIONER (PTAC)	EWT -ENTERING WATER TEMPERATURE	R5/L -REFRIGERANT SUCTION & LIQUID LINES RTU -ROOFTOP AIR HANDLING UNIT	12. REFER TO TYPICAL DETAILS FOR PIPING AND INSTALLATION OF EQUIPMENT.
-FLEXIBLE CONNECTION			FCU -FAN COIL UNIT FD -FIRE DAMPER	SA -SUPPLY AIR SP -STATIC PRESSURE	13. TRAPPED CONDENSATE DRAINS FROM ALL MECHANICAL EQUIPMENT SHALL BE PROVIDED FOR PROPER DRAINAGE TO SUIT EQUIPMENT FURNISHED.
12/8 -FLAT OVAL DUCT	<u>{   →&gt;     →&gt;   }</u>	-CHANGE OF ELEVATION	FF -FINAL FILTERS FLA -FULL LOAD AMPS	TSP -TOTAL STATIC PRESSURE UNO -UNLESS NOTED OTHERWISE	14. ACCESS PANELS IN DUCTWORK AND CEILINGS SHALL BE PROVIDED WHERE REQUIRED FOR OPERATION, BALANCING OR MAINTENANCE OF ALL MECHANICAL EQUIPMENT.
-NEW DUCTWORK, FIRST DIMENSION IS SIDE SHOWN			FPM -FEET PER MINUTE GPM -GALLONS PER MINUTE	V/PH -VOLTS/PHASE VAV -VARIABLE AIR VOLUME	15. ALL DUCTWORK AND PIPING IS SHOWN SCHEMATICALLY. PROVIDE ALL TRANSITIONS, TURNING VANES, ELBOWS, FITTINGS, ETC., TO ALLOW SMOOTH FLOWS. ALL SPLIT DUCT FITTINGS SHALL TRANSITION TO FULL SIZE OF THE SUM OF BOTH BRANCHES, UPSTREAM OF SPLIT.
-EXISTING DUCTWORK TO REMAIN		-TRANSITION, CONCENTRIC	ISO -ISOLATION EXHAUST KW -KILOWATT	VFD -VARIABLE FREQUENCY DRIVE	16. VERIFY FINISH WITH ARCHITECT PRIOR TO PURCHASING GRILLES, REGISTERS, DIFFUSERS, LOUVERS AND OTHER AIR DISTRIBUTION DEVICES.
-EXISTING DUCTWORK TO BE REMOVED		-TRANSITION, ECCENTRIC	LAT -LEAVING AIR TEMPERATURE LWT -LEAVING WATER TEMPERATURE		17. PROVIDE FLEXIBLE DUCT CONNECTIONS ON ALL DUCTWORK CONNECTING TO EACH FAN, AIR HANDLING UNITS, AND FAN COIL UNITS.
Image: Supply state       Image: Supply state       -DUCT ELBOW, POSITIVE PRESSURE (SUPPLY), FIRST         DOWN       UP W/IN FLOOR       DIMENSION INDICATES SIDE TO WHICH ARROW IS POINTING	10x8 8"	-TRANSITION, SQUARE TO ROUND			18. PROVIDE TRANSITIONS AT DIFFUSER NECKS AS REQUIRED TO MATCH SIZES OF FLEX DUCTS TO BE CONNECTED.
-DUCT ELBOW, EXHAUST		-SQUARE THROAT TEE WITH DAMPERS			19. INTERRUPTIONS TO EXISTING SERVICES SHALL BE SCHEDULED FOR TIMES OTHER THAN NORMAL OPERATING HOURS (SUCH AS NIGHTS AND WEEKENDS). SUCH INTERRUPTIONS TO SERVICES SHALL
-DUCT ELBOW, NEGATIVE PRESSURE, RETURN					NOT BE MADE WITHOUT THE PRIOR WRITTEN CONSENT OF THE OWNER'S REPRESENTATIVE AND PROPER COORDINATION WITH OTHER TRADES. PRE-WORK SHALL BE PERFORMED TO MAKE THE SHUTDOWN PERIOD AS BRIEF AS POSSIBLE.
	12x8	-RADIUS TEE WITH DAMPERS			20. ALL EQUIPMENT, DUCTWORK, ETC., TO BE REMOVED SHALL REMAIN PROPERTY OF THE OWNER OR DISPOSED OF LEGALLY, AS DIRECTED BY OWNER.
-RECTANGULAR DUCT SECTION UP, POSITIVE PRESSURE, SUPPLY OR OUTSIDE AIR -RECTANGULAR DUCT SECTION UP,	بط لل				21. MAINTAIN CLEARANCE OF A MINIMUM OF 4" BETWEEN DUCTWORK, PIPING, EQUIPMENT, ETC., AND ALL FIRE AND/OR SMOKE RATED WALLS, TO ALLOW FOR INSPECTIONS OF RATED WALLS.
NEGATIVE PRESSURE, RETURN         -RECTANGULAR DUCT SECTION UP, EXHAUST		-RECTANGLE-TO-ROUND TAKE-OFF WITH DAMPER			22. LOCATE ALL OUTSIDE AIR INTAKES A MINIMUM OF 10' CLEAR FROM ALL PLUMBING VENTS AND EXHAUST AIR DISCHARGE LOCATIONS, AND A MINIMUM OF 1' ABOVE ROOF SURFACES/GRADE.
-ROUND DUCT SECTION UP		-STANDARD BRANCH TAKE-OFF WITH DAMPER			23. DUCT RUNOUTS TO DIFFUSERS SHALL MATCH THE SIZE OF THE DIFFUSER NECK.
-FLAT OVAL DUCT SECTION UP		-SPIN-IN TAKE-OFF WITH DAMPER			<ul><li>24. WATER PRESSURE DROPS THROUGH COIL CONTROL VALVES SHALL NOT EXCEED 5 PSI.</li><li>25. UNLESS OTHERWISE NOTED, ALL EQUIPMENT AND VALVE DRAINS SHALL BE INDEPENDENTLY PIPED</li></ul>
		-SQUARE THROAT ELBOW			FULL SIZE TO THE NEAREST PLUMBING DRAIN. 26. SLEEVE AND SEAL ALL PIPING PENETRATIONS THROUGH BUILDING PARTITIONS. PROVIDE MANUAL AIR
		W/IORNING VANES			VENTS AT ALL HIGH POINTS IN CHILLED WATER AND HOT WATER PIPING. 27. PIPING, DUCTWORK, LEAK PROTECTION APPARATUS, OR OTHER EQUIPMENT FOREIGN TO ELECTRICAL
		-RADIUS ELBOW			SWITCHBOARDS, PANELBOARDS, DISTRIBUTION BOARDS, OR MOTOR CONTROL CENTERS SHALL NOT BE INSTALLED WITHIN THE REQUIRED SPACE FOR WORKING CLEARANCES OR DEDICATED SPACES OF THE ELECTRICAL EQUIPMENT, EXTENDING IN FRONT OF AND FROM FLOOR TO STRUCTURAL CEILING
		-RECTANGULAR/ROUND BRANCH TAKE-OFF			28. TEST AND BALANCE SHALL BE PERFORMED AT EACH PHASE OF CONSTRUCTION, ON ALL SPACES AND
		OR ROUND/ROUND BRANCH TAKE-OFF			29. SUBMITTALS: ELECTRONIC SUBMITTALS SHALL BE IN SEARCHABLE FORMAT. DO NOT SUBMIT SCANNED
		-EXHAUST DUCT UP THROUGH SLAB W/ FAN ON ROOF ABOVE			30. MECHANICAL SYSTEMS COMMISSIONING WILL BE PERFORMED IN ACCORDANCE WITH CURRENT
		THROUGH ROOF			ACCORDANCE WITH IEEC C408.2.1. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.
MECHANICAL PIPING SYMBOL LEGEND			APPLICA	BLE CODES	
SYMBOL DESCRIPTION	SYMBOL	DESCRIPTION	<ul> <li>A. STATE, COUNTY, AND CITY HEALTH AND BUI</li> <li>B. NFPA 51B, 2019 EDITION</li> <li>C. NFPA 70, 2017 EDITION</li> </ul>	LDING CODES	MECHANICAL SHEET INDEX
-FLOW DIRECTION	EQUIP. — ခ႐ု က	- P-TRAP	<ul> <li>D. NFPA 72, 2019 EDITION</li> <li>E. NFPA 90A, 2018 EDITION</li> <li>F. NFPA 90B, 2018 EDITION</li> </ul>		SHEET         DESCRIPTION           M-001         MECHANICAL SYMBOLS, LEGEND, NOTES AND INDEX
		-TWO-WAY CHECK VALVE	<ul> <li>G. NFPA 99: STANDARD FOR HEALTHCARE FAC</li> <li>H. NFPA 101, LIFE SAFETY CODE, 2018 EDITION,</li> <li>I. IBC 2018 EDITION, WITH GEORGIA AMENDME</li> </ul>	ILITIES, 2018 EDITION , GEORGIA AMENDMENTS (2020) INTS (2025)	M-002     MECHANICAL SPECIFICATIONS       M-003     MECHANICAL DETAILS
-CALIBRATING BALANCING VALVE		-MANUAL VENT	J. IMC 2018 EDITION, WITH GEORGIA AMENDME K. IPC 2018 EDITION, WITH GEORGIA AMENDME L. IEC 2015 EDITION, WITH GEORGIA SUPPLEME	ENTS (2020) ENTS (2020) ENTS AND AMENDMENTS (2020)	M-004         MECHANICAL DETAILS           M-005         MECHANICAL CONTROLS           M-101         MECHANICAL PLANS
	♀	-PRESSURE GAUGE	M. IFC 2018 EDITION, WITH GEORGIA AMENDME N. OTHER NFPA CODES AS REFERENCED BY ST O. ANSI A117.1-1992 ACCESSIBLE AND USABLE	NTS (2020) TANDARD CODES. BUILDING AND FACILITIES.	
	<u>ج</u> ر	-RELIEF VALVE	P. THE AMERICANS WITH DISABILITIES ACT (AD BUILDINGS AND FACILITIES - 1991 Q. 2022 FGI GUIDELINES	A), ACCESSIBLITY GUIDELINES FOR	
	FM	-FLOW METER	MECHAI	NICAL TAGS	
		-INLINE PUMP	Δ Δ	AG	
	G	-INLINE PUMP	(A 200)	-AIR DISTRIBUTION DEVICE TAG	
	HO	-VALVE ON RISER -CAP		-CFM	
-SLOPE DIRECTION (DOWN)	Ĵ	-CONNECTION, BOTTOM		QUIPMENT NUMBER	
		-CONNECTION, TOP -COUPLING	AHU-1	-EQUIPMENT TAG	
-O.S.&Y. GATE VALVE	r	-ELBOW, 90°		JCT SYSTEM	
		-ELBOW, 40 -ELBOW, TURNED DOWN	24x12 SA	-RECTANGULAR DUCT TAG	
للمانية المانية الم		-ELBOW, TURNED UP	24/12 SA 12Ø SA	-OVAL DUCT TAG TAG -ROUND DUCT TAG	
				PE SYSTEM	
			12" CHWS	-PIPE TAG	
NOTE: SOME SYMBOLS SHOWN ON THIS LEGEND MAY NOT PERTAIN TO THIS PROJEC	СТ		-		
			•		

![](_page_18_Picture_18.jpeg)

![](_page_18_Figure_19.jpeg)

![](_page_18_Picture_20.jpeg)

FLEXIBLE DUCTS TEST AND BALANCE: GENERAL: SHALL BE PERFORMED BY AN INDEPENDENT T&B AGENCY. RENOVATION PROJECTS, PERFORMANCE VERIFICATION: PROVIDE A PRE-DEMOLITION TEST OF ALL AIR DEVICES AND EQUIPMENT WITHIN THE SCOPE OF WORK AREA OR AS OTHERWISE INSTRUCTED. INSTRUCTIONS. T&B FOR THE MECHANICAL EQUIPMENT SHALL INCLUDE: DIFFERENTIAL PRESSURE ON FILTER(S), COOLING COIL(S), AND FAN(S) INLET AND DISCHARGE STATIC PRESSURES TOTAL SUPPLY CFM TOTAL RETURN CFM PERM MAXIMUM PER ASTM E96-A. OA CFM (IF APPLICABLE) FAN MOTOR NAMEPLATE DATA FAN MOTOR AMP DRAW TEMPERATURE PROFILE 603.6.4 OF THE GOVERNING MECHANICAL CODE. T&B REPORT SHALL BE FORWARDED TO ENGINEER BEFORE DEMOLITION OF SYSTEMS. MANUFACTURER AND TYPE: THERMAFLEX M-KE OR FLEXMASTER 1M ARE ACCEPTABLE. CERTIFICATION: THE T&B AGENCY SHALL BE A CERTIFIED MEMBER OF THE ASSOCIATED AIR BALANCE COUNCIL (AABC) OR THE NATIONAL ENVIRONMENTAL BALANCING BUREAU (NEBB). THERMAL INSULATION: WORK INCLUDED: THE T&B AGENCY SHALL PROVIDE ALL LABOR, SUPERVISION, PROFESSIONAL SERVICES, TOOLS, TEST EQUIPMENT AND INSTRUMENTS (EXCEPT AS OTHERWISE INDICATED) TO PERFORM WORK OF THIS SECTION; INCLUDING BUT NOT LIMITED TO: COVER, FACING OR JACKET SPECIFIED IN THIS DOCUMENT. REVIEW THE AUTOMATIC TEMPERATURE CONTROL AND AIR TERMINAL UNIT SPECIFICATIONS FOR THEIR EFFECTS ON THE TESTING AND BALANCING PROCEDURES FOR THE AIR SYSTEMS. WHERE CONDITIONS MAY EXIST IN THE SYSTEM DESIGN OR CONSTRUCTION WHICH MAY ADVERSELY AFFECT SYSTEM PERFORMANCE. IDENTIFY THE CONDITIONS AND SUBMIT RECOMMENDED CORRECTIONS IN WRITING FOR CONSIDERATION BY THE ARCHITECT. PERFORM A COMPLETE AIR TEST AND BALANCE OF ALL HEATING, VENTILATING, AIR CONDITIONING AND EXHAUST AIR SYSTEMS SHOWN AND DESCRIBED ON THE CONTRACT DOCUMENTS. ALTERNATE MATERIALS SHALL BE APPROVED ON THE BASIS OF THICKNESSES PROVIDING EQUIVALENT HEAT TRANSFER OR VAPOR TRANSMISSION RATES TAB REPORT: RECORDED TEST DATA SHALL BE AT THE FINAL BALANCED CONDITION FOR EACH SYSTEM, AND SHALL BE ARRANGED BY SYSTEM USING THE APPROPRIATE DESIGNATION AS ESTABLISHED ON THE CONTRACT DOCUMENTS. 6 COPIES OF THE TYPEWRITTEN, SIGNED. BOUND AND INDEXED FINAL REPORT SHALL BE SUBMITTED TO THE ARCHITECT FOR REVIEW PRIOR TO REQUEST FOR SUBSTANTIAL COMPLETION INSPECTION. THE SUBSTANTIAL COMPLETION INSPECTION SHALL NOT BE SCHEDULED UNTIL THE FINAL REPORT HAS BEEN RECEIVED AND IS ACCEPTABLE TO THE ARCHITECT. REPORT FORMAT SHALL BE SIMILAR TO FORMS APPROVED FOR USE BY SMACNA OR AABC. MASTICS, CEMENTS, TAPES AND CLOTH FOR FITTINGS SHALL HAVE THE SAME RATINGS. MEASUREMENTS: WHERE ACTUAL MEASUREMENTS RECORDED FOR THE FINAL BALANCE SHOW DEVIATIONS OF MORE THAN 10 PERCENT FROM THE DESIGN, THE T&B AGENCY SHALL NOTE SAME IN THE REPORT AND SUBMIT RECOMMENDATIONS FOR CORRECTIVE ACTION TO THE ARCHITECT. VIBRATION: WHERE, IN THE OPINION OF THE T&B AGENCY, THERE IS EXCESSIVE VIBRATION, MOVEMENT OR NOISE FROM ANY PIECE OF EQUIPMENT, DUCTWORK, PIPES, ETC., THE T&B AGENCY SHALL NOTE SAME IN THE REPORT AND SUBMIT RECOMMENDATIONS FOR CORRECTIVE ACTION TO THE ARCHITECT. EQUIPMENT ROOMS. TEST DATA: PROVIDE TEST AND BALANCE REPORT PRIOR TO AND AFTER THE BALANCING OF EACH CONSTRUCTION PHASE. INCLUDE THE FOLLOWING DATA IN THE SYSTEMS TEST AND BALANCE REPORT: MANUFACTURER, MODEL AND SERIAL NUMBER. SPACED 1 FOOT ON CENTER TO PREVENT SAGGING OF THE INSULATION. TYPE OF FAN, WHEEL DIAMETER RATED CFM, MEASURED CFM DESIGN INLET AND OUTLET TOTAL EXTERNAL STATIC PRESSURES, ACTUAL INLET AND OUTLET TOTAL AND EXTERNAL STATIC PRESSURES 2. AIR SYSTEMS (INCLUDING INLETS AND OUTLETS): GRILLE AND OR DIFFUSER: REFERENCE NUMBER, MANUFACTURER, SYSTEM TYPE AND LOCATION. DENSITY OF 1-1/2 PCF. DESIGN AND MEASURED CFM TABULATION OF DESIGN AND MEASURED CFM FOR EACH INLET OR OUTLET. MANUFACTURER: OWENS-CORNING, SCHULLER, CERTAINTEED, KNAUF A SUMMARIZATION BY SYSTEM TO COMPARE DESIGN DATA TO ACTUAL 3. AIR HANDLING UNITS: DESIGN AND MEASURED AIR FLOW <u>PIPING</u> DESIGN AND MEASURED AIRSIDE STATIC PRESSURE DROPS ACROSS EACH COIL AND ACROSS THE ENTIRE UNIT DESIGN AND MEASURED AIRSIDE COOLING COIL ENTERING AND LEAVING DRY AND WET BULB TEMPERATURES DESIGN AND MEASURED AIRSIDE HEATING COIL ENTERING AND LEAVING DRY BULB TEMPERATURES. DESIGN AND MEASURE WATER FLOW & TEMPERATURES. 4. UPON COMPLETION OF ALL OTHER AIR BALANCING WORK, TEST THE DIFFERENTIAL PRESSURE AVAILABLE ACROSS EACH DUCT MOUNTED SMOKE DETECTOR AND VERIFY THAT THE SMOKE DETECTOR IS OPERATING WITHIN ITS SPECIFIED DIFFERENTIAL PRESSURE RANGE. IN THE FINAL TEST AND BALANCE REPORT, RECORD THE DIFFERENTIAL PRESSURE AVAILABLE ACROSS EACH DUCT MOUNTED SMOKE DETECTOR, INDICATE THE ALLOWABLE DIFFERENTIAL PRESSURE RANGE AS CATALOGED BY THE DETECTOR MANUFACTURER, AND DOCUMENT THAT THE SMOKE DETECTOR IS OPERATING WITHIN THE ALLOWABLE DIFFERENTIAL PRESSURE RANGE. POINT IN THE SYSTEM AT THIS PRESSURE. 5. CONTROLS: THE T&B AGENCY SHALL VERIFY THAT EACH CONTROLLER AND THE DEVICES IT CONTROLS, SUCH AS CONTROL VALVES, RDINATION AND ASSISTANCE HOT WATER PIPING MOTORIZED DAMPERS, VAV BOXES, ETC., OPERATES IN THE EXACT SEQUENCE REQUIRED. PRODUCTS AIR DISTRIBUTION SUBMITTAL DATA: MANUFACTURERS LITERATURE, PHOTOGRAPH OR RENDERING OF EACH DEVICE, STATIC AND TOTAL PRESSURE DROP. FACE VELOCITY, THROW AND NOISE LEVEL FOR EACH OF THE AIR DISTRIBUTION DEVICES AT THE AIR FLOWS INDICATED. CONFORMING TO ANSI B16.15. DEVICES: PROVIDE AIR DISTRIBUTION DEVICES AS INDICATED. ALL AIR DISTRIBUTION DEVICES PROVIDED SHALL BE THE PRODUCT OF A SINGLE MANUFACTURER UNLESS SPECIFICALLY INDICATED OTHERWISE. PIPING MATERIAL. THE USE OF FIELD FABRICATED FITTINGS IS PROHIBITED. MATERIAL: ALL DEVICES SHALL BE CONSTRUCTED OF ALUMINUM UNLESS OTHERWISE INDICATED. AIR DISTRIBUTION DEVICES INSTALLED IN FIRE RATED CEILING, FLOOR/CEILING ASSEMBLY, OR RATED WALL SHALL BE CONSTRUCTED OF STEEL. DEVICES INSTALLED ON HARD SURFACES (DRYWALL OR PLASTER CEILINGS OR WALLS) SHALL HAVE A NEOPRENE GASKET ALONG EACH EDGE TO PROVIDE AN AIRTIGHT SEAL. FINISH: EACH AIR DISTRIBUTION DEVICE SHALL HAVE A FACTORY APPLIED BAKED ENAMEL FINISH. CEILING DEVICES SHALL BE FINISHED IN OFF-WHITE AND SIDEWALL DEVICES SHALL BE FINISHED IN OFF-WHITE UNLESS OTHERWISE INDICATED. INTEGRAL COMPONENTS: ALL DAMPERS, BLANK-OFF BAFFLES AND OTHER COMPANION DEVICES WHICH FORM AN INTEGRAL PART OF AN AIR DISTRIBUTION DEVICE SHALL BE FACTORY-MADE. APPROVED MANUFACTURERS: TITUS, E. H. PRICE, ANEMOSTAT, KRUEGER, METALAIRE INSTALLATION AND COORDINATION: COORDINATE THE LOCATION OF AIR DISTRIBUTION DEVICES AND REFLECTED CEILING DRAWINGS WITH RESPECT TO PLACEMENT AND ALIGNMENT TO PREVENT CONFLICT WITH LIGHTING FIXTURES, FIRE PROTECTION SPRINKLERS AND SMOKE DETECTORS. ALL RECTANGULAR CEILING DEVICES SHALL BE INSTALLED WITH THEIR LINES PARALLEL AND PERPENDICULAR TO THE BUILDING LINES AND ALIGNED WITH THE CEILING. SURFACE MOUNTED DEVICES SHALL BE SECURED TO AND SUPPORTED BY METAL DUCT BRANCHES OR DROPS. DEVICES SHALL BE SUPPORTED BY SEPARATE HANGERS WHERE FLEXIBLE DUCT CONNECTIONS ARE INDICATED. PIPING <u>DUCTWORK</u> SHEET METAL DUCTWORK SPACES AND ENCLOSURES. APPLICABLE STANDARDS: SMACNA: USE MATERIAL, WEIGHT, THICKNESS, GAUGE, REINFORCING, SEAMS AND JOINTS, SUSPENSION, WORKMANSHIP AND CONSTRUCTION AND INSTALLATION METHODS AS OUTLINED IN THE SHEET METAL AND AIR CONDITIONING CONTRACTORS NATIONAL ASSOCIATION, INC. AND SHALL COMPLY WITH THE MANUFACTURER'S PUBLISHED RECOMMENDATIONS AND INSTALLATION INSTRUCTIONS. MATERIAL: PRIME QUALITY 48 INCH WIDE RESQUARE TIGHT COAT COLD- ROLLED HOT-DIPPED GALVANIZED STEEL CAPABLE OF DOUBLE SEAMING WITHOUT FRACTURE. CONFORM TO THE REQUIREMENTS OF ASTM A-525 AND ASTM-G90 FOR A MINIMUM GALVANIZING COAT OF 1.25 OUNCES PER SQUARE FOOT TOTAL FOR BOTH SIDES. ALL DUCT SUPPORTS SHALL BE SUPPORTED FROM THE STRUCTURAL MEMBERS, NO PENETRATIONS OF THE ROOF DECK IS ALLOWED. POINT IN THE SYSTEM AT THIS PRESSURE. PROHIBITED DUCT LOCATIONS: DO NOT ROUTE DUCTWORK THROUGH TRANSFORMER VAULTS, OR INTO ELECTRICAL ROOMS OR ELEVATOR EQUIPMENT SPACES UNLESS THE DUCTWORK IS DEDICATED TO SERVING THAT SPACE. DO NOT INSTALL DUCTWORK OVER ELEVATOR CHILLED WATER PIPING: EQUIPMENT, ELECTRICAL DISTRIBUTION PANELS OR MOTOR CONTROL STATIONS. BALANCING DEVICES: IN ORDER TO MAINTAIN CLARITY OF THE DRAWINGS, NOT ALL REQUIRED DUCT BALANCING DAMPERS ARE INDICATED. HOWEVER, PROVIDE EACH DUCT BRANCH AND EACH DUCT TAKEOFF WITH A BALANCING DAMPER TO ASSURE CORRECT BALANCE AND QUIET DISTRIBUTION OF INDICATED AIR QUANTITIES. STANDARD WEIGHT STEEL PIPE. EQUIPMENT CONNECTIONS: PROVIDE AND INSTALL ALL DUCT CONNECTIONS TO AIR HANDLING UNITS AND FANS AND PROVIDE FLEXIBLE CONNECTIONS, ELBOWS AND BENDS WHICH MINIMIZE NOISE AND PRESSURE DROP. PROVIDE FLEXIBLE CONNECTIONS BETWEEN DUCTWORK AND ALL ROTATING OR VIBRATING EQUIPMENT. BE TYPE L COPPER. COORDINATION: COORDINATE DIMENSIONS AT INTERFACES OF DISSIMILAR TYPE OF DUCTWORK AND AT INTERFACES OF DUCTWORK WITH EQUIPMENT SO THAT PROPER OVERLAPS. INTERFACES. ETC., OF INSULATION AND CONTINUITY OF VAPOR BARRIERS ARE MAINTAINED. CONFORMING TO ANSI B16.15. WHERE DUCTS OF TWO DISSIMILAR METALS MEET, THE JOINTS SHALL BE INSTALLED SUCH THAT THE METALS DO NOT CONTACT EACH OTHER PIPING MATERIAL. THE USE OF FIELD FABRICATED FITTINGS IS PROHIBITED. SUPPLY, RETURN, INTAKE, EXHAUST AND RELIEF DUCTWORK MINIMUM REQUIREMENTS: UNLESS OTHERWISE INDICATED ALL DUCTWORK SHALL COMPLY WITH THE FOLLOWING MINIMUM PRESSURE REQUIREMENTS: 3 INCH W.G. PRESSURE: FROM THE SUPPLY FAN DISCHARGE TO A TERMINAL UNIT OR ZONE DAMPER INLET. 2 INCH W.G. PRESSURE FROM THE RETURN AIR INLET DEVICE TO THE INLET OF THE RETURN FAN OR AIR HANDLING FAN RETURN CONNECTION. FROM THE DISCHARGE SIDE OF A TERMINAL UNIT TO THE ROOM SUPPLY AIR DEVICE. FROM THE ROOM EXHAUST DEVICE TO THE INLET OF THE EXHAUST FAN. ALL SUPPLY AND OUTSIDE AIR DUCTS SHALL BE EXTERNALLY INSULATED EXTENDING FROM SUPPLY FAN DISCHARGE, THROUGHOUT SYSTEM. TO ALL OUTLETS. TOILET EXHAUST, GENERAL EXHAUST: DUCTWORK SHALL NOT HAVE INTERNAL INSULATION, AND DOES NOT HAVE TO BE EXTERNALLY INSULATED UNLESS OTHERWISE INDICATED. CHANGES IN SHAPE OR DIMENSION CRITERIA, WHERE DUCT SIZE OR SHAPE IS ALTERED TO EFFECT A CHANGE IN AREA, THE FOLLOWING

BASIC MECHANICAL REQUIREMENTS: UNLESS AN ITEM IS SPECIFICALLY MENTIONED AS BEING PROVIDED BY OTHERS, THE REQUIREMENTS OF DIVISION 23 CONTRACT AND ADJUSTED FOR CONTINUOUS AND PROPER OPERATION. ANY APPARATUS, MATERIAL OR DEVICE NOT SHOWN ON THE DRAWINGS BUT COMPLETE AND OPERATIONAL IN ALL RESPECTS, SHALL BE FURNISHED, DELIVERED AND INSTALLED WITHOUT ADDITIONAL EXPENSE TO THE OWNER. INCLUDE ALL MATERIALS, EQUIPMENT, SUPERVISION, OPERATION, METHODS AND LABOR FOR THE FABRICATION, INSTALLATION, START-UP AND TESTS NECESSARY FOR COMPLETE AND PROPERLY FUNCTIONING SYSTEMS. AND THE AMENDMENTS AND INTERPRETATION OF SUCH RULES. REGULATIONS, STANDARDS, CODES, ORDINANCES AND LAWS OF LOCAL. DRAWINGS AND SPECIFICATIONS: INTENT: THE INTENT OF THE DRAWINGS AND SPECIFICATIONS IS TO ESTABLISH MINIMUM ACCEPTABLE QUALITY STANDARDS FOR BUILDING PLANS AND BY ACTUAL MEASUREMENTS IN THE BUILDING AS BUILT. REASONABLE CHANGES IN LOCATIONS ORDERED BY THE DRAWING SCALE: DUE TO THE SMALL SCALE OF THE DRAWINGS, AND TO UNFORESEEN JOB CONDITIONS, ALL REQUIRED OFFSETS, TRANSITIONS AND FITTINGS MAY NOT BE SHOWN BUT SHALL BE PROVIDED AT NO ADDITIONAL COST. CONFLICT: IN THE EVENT OF A CONFLICT, THE ARCHITECT WILL RENDER AN INTERPRETATION IN ACCORDANCE WITH THE GENERAL CONDITIONS. ABBREVIATIONS: ABBREVIATIONS, WHERE NOT DEFINED IN THE CONTRACT DOCUMENTS, SHALL BE INTERPRETED TO MEAN THE NORMAL WORKMANSH GENERAL: THE INSTALLATION OF MATERIALS AND EQUIPMENT SHALL BE DONE IN A NEAT, WORKMANLIKE AND TIMELY MANNER BY AN FOREIGN MATTER. DO NOT OPERATE AIR HANDLING EQUIPMENT IF THE BUILDING IS NOT CLEAN OR IF DUST CAN ENTER THE COILS OR THE BUILDING CLEANUP: REMOVE DEBRIS, RUBBISH, LEFTOVER MATERIALS, TOOLS AND EQUIPMENT FROM WORK AREAS AND SITE. CLEAN TUNNELS AND CLOSED OFF SPACES OF PACKING BOXES, WOOD FRAME MEMBERS AND OTHER WASTE MATERIALS USED IN THE INSTALLATION. PROTECTION OF THE AIR MOVING EQUIPMENT AND DUCTWORK CONTINUOUSLY THROUGHOUT THE CONSTRUCTION PHASE. PROVIDE A CORRECTION OF WORK GENERAL: AT NO ADDITIONAL COST TO THE OWNER. RECTIFY DISCREPANCIES BETWEEN THE ACTUAL INSTALLATION AND CONTRACT PERFORMANCE GENERAL: PROVIDE ALL LABOR, EQUIPMENT, TOOLS AND MATERIAL REQUIRED TO OPERATE THE EQUIPMENT AND SYSTEMS NECESSARY FOR THE TESTING AND BALANCING OF THE SYSTEMS. COORDINATE THE OPERATION OF THESE SYSTEMS WITH THE T&B AGENCY. CORRECT DEFICIENCIES NOTED BY THE T&B AGENCY. THE CONTRACTOR WILL BE HELD LIABLE FOR RETEST/REBALANCE REQUIRED FROM CONTRACTOR RELATED SYSTEM DEFIECIENCES. DRAWINGS AND SPECIFICATIONS: PROVIDE TO THE T&B AGENCY A COMPLETE SET OF PROJECT RECORD DRAWINGS AND SPECIFICATIONS AND AN APPROVED COPY OF ALL HVAC SHOP DRAWINGS AND EQUIPMENT SUBMITTALS. THE T&B AGENCY SHALL BE INFORMED OF ALL CHANGES MADE TO THE SYSTEM DURING CONSTRUCTION, INCLUDING APPLICABLE CHANGE ORDERS. COORDINATION: COORDINATE THE WORK OF ALL TRADES AND EQUIPMENT SUPPLIERS TO COMPLETE THE MODIFICATIONS RECOMMENDED DIRECTED FOR TEST PURPOSES; REPAIR TO AS-NEW CONDITION, INSERTING PLASTIC CAPS OR COVERS TO PREVENT AIR LEAKAGE. REPAIR OR REPLACE INSULATION AND RE-ESTABLISH THE INTEGRITY OF THE VAPOR RETARDANT. COORDINATION DRAWINGS: CONTRACTOR WILL PROVIDE M, E, P, & FP COORDINATION DRAWINGS TO BE RECEIVED AND APPROVED BY THE ENGINEER AND ARCHITECT BEFORE FABRICATION OR INSTALLATION OF ANY SYSTEM. PROVIDE 6 COPIES OF COORDINATED 1/4" SCALE PROTECTION OF MATERIALS AND EQUIPMENT: REPLACEMENT OF DAMAGED STORED MATERIAL AND EQUIPMENT: ANY MATERIAL AND EQUIPMENT THAT HAS BEEN WET OR OTHERWISE DAMAGED PRIOR TO INSTALLATION, IN THE OPINION OF THE ARCHITECT, SHALL BE REPLACED WITH NEW MATERIAL REGARDLESS OF THE CONDITION OF THE MATERIAL AND EQUIPMENT AT THE TIME OF INSTALLATION. REPAIR OF DAMAGED EXISTING MATERIAL AND EQUIPMENT AFTER INSTALLATION: CORRECT OR REPAIR DENTS, SCRATCHES AND OTHER VISIBLE BLEMISHES. AT THE DIRECTION OF ARCHITECT REPLACE OR REPAIR TO "AS NEW" CONDITION EQUIPMENT THAT HAS BEEN DAMAGED DURING CONSTRUCTION. ASBESTOS AND HAZARDOUS MATERIALS: GENERAL: SHOULD ASBESTOS OR OTHER HAZARDOUS MATERIAL BE ENCOUNTERED DURING EXECUTION OF THE WORK, OR SHOULD THE PRESENCE OF ASBESTOS OR OTHER HAZARDOUS MATERIAL BE SUSPECTED, IMMEDIATELY NOTIFY THE ARCHITECT AND SUSPEND WORK IN THE AFFECTED AREA. THE OWNER WILL INITIATE A STUDY TO DETERMINE IF ASBESTOS OR OTHER HAZARDOUS MATERIALS ARE PRESENT AND WILL DETERMINE WHAT ACTION WILL BE TAKEN. REMOVAL OF ASBESTOS OR OTHER HAZARDOUS MATERIALS WILL BE DONE UNDER A SEPARATE CONTRACT COORDINATION OF SERVICES: GENERAL: COORDINATE INTERRUPTION OF EXISTING SERVICES TO OWNER-OCCUPIED AREAS. IN WRITING, AT LEAST 1-WEEK IN ADVANCE FIRE SAFETY IN EXISTING FACILITIES DO NOT DECREASE THE FIRE RATING OF WALLS, PARTITIONS, CEILINGS, FLOORS, DOORS OR COMBINATIONS THEREOF IN ADJACENT AREAS ARCHITECT. INFORM ALL NECESSARY PARTIES (FIRE DEPARTMENT, OWNER'S INSURANCE CARRIER, ETC.) IN ADVANCE, PRIOR TO AND IMMEDIATELY AFTER SHUTDOWN, DISCONNECTION OR ISOLATION OF ANY PORTION OF LIFE SAFETY OR FIRE SPRINKLER SYSTEM. LAYOUT OF EXISTING EQUIPMENT GENERAL: EXISTING EQUIPMENT, PIPING, DUCTWORK, ETC., AS INDICATED ON THE DRAWINGS HAVE, FOR THE MOST PART, BEEN PROVIDED TO THE ARCHITECT THROUGH EXISTING DRAWINGS. THE LAYOUTS SHOWN MAY NOT BE FROM AS-BUILT DRAWINGS AND MAY BE FROM PARTIAL COPIES OF ORIGINAL DESIGN DOCUMENTS NOT PRODUCED BY THE ARCHITECT. THE ARCHITECT IS NOT RESPONSIBLE FOR THE UNDERSTOOD THAT UNFORESEEN CONDITIONS PROBABLY EXIST AND THAT EXISTING AND NEW WORK MAY NOT BE FIELD LOCATED REROUTING, EXTENDING WITH NEW MATERIALS, AND REINSTALL EXISTING PIPING, DUCTWORK, CONDUITS, WIRING, TUBING, SUPPORTS AND OTHER EQUIPMENT. THE ARCHITECT SHALL MAKE THE FINAL DECISION ON ALL DEVIATIONS OR MODIFICATIONS REQUIRED BY THE SUBMITTALS SHALL INCLUDE THE FOLLOWING DATA: MANUFACTURERS LITERATURE, SIZE, MAKE, MODEL NUMBER, THICKNESS, MERV RATING. AND EFFICIENCY OF FILTER SELECTED. PERFORMANCE DATA: INITIAL AND RECOMMENDED FINAL PRESSURE DROP ACROSS EACH FILTER ASSEMBLY AT THE AIR FLOWS INDICATED. PLEATED FILTER MEDIA GENERAL: UNLESS OTHERWISE INDICATED ALL PLEATED MEDIA FILTERS SHALL HAVE A FACE SIZE OF 24 INCHES BY 24 INCHES OR 24 INCHES BY 12 INCHES. 30 PERCENT EFFICIENT/MERV 8 FILTERS: FILTER MEDIA SHALL BE REINFORCED NON- WOVEN COTTON WITH POLYESTER TRACE FIBERS. TREATED WITH ADHESIVE AND CONTINUOUSLY LAMINATED TO A SUPPORTED STEEL WELDED WIRE GRID. THE DISPOSABLE FILTER MEDIA ENCLOSING FRAME SHALL BE RIGID WET-STRENGTH BEVERAGE BOARD WITH DIAGONAL SUPPORT MEMBERS. THE INSIDE PERIPHERY OF THE FRAME SHALL BE BONDED TO THE FILTER MEDIA TO ELIMINATE AIR BYPASS. EACH FILTER SHALL CONTAIN A MINIMUM 3 SQUARE FEET OF MEDIA PER SQUARE FOOT OF FACE AREA, AND A MINIMUM 11 PLEATS PER LINEAR FOOT. UNLESS OTHERWISE INDICATED, MEDIA THICKNESS SHALL BE 2 INCHES; CLEAN RESISTANCE SHALL NOT EXCEED 0.30 INCHES OF WATER AT 500 FPM FACE VELOCITY. MANUFACTURER AND MODEL: AMERICAN AIR FILTER, PERFECT PLEAT ULTRA, CAMFIL FARR, 30/30 90 PERCENT EFFICIENT/MERV 14 CARTRIDGE FILTERS: AIR FILTERS SHALL BE HIGH PERFORMANCE, EXTENDED AREA, DEEP PLEATED. CARTRIDGE TYPE CONSISTING OF A FILTER ELEMENT, MEDIA RETAINER HOLDING FRAME AND SEALER FRAME. THE MEDIA SHALL BE MICROFINE GLASS FIBER REINFORCED BY A LAMINATED SYNTHETIC BACKING. RETAINER SHALL BE OF WELDED STEEL CONSTRUCTION AND

CONFLICTS: NOTHING CONTAINED HEREIN SHALL BE CONSTRUED TO CONFLICT IN ANY WAY WITH OTHER PROVISIONS OR REQUIREMENTS OF THE CONTRACT DOCUMENTS. THE INTENT IS THAT THIS SECTION WILL TAKE PRECEDENCE. WHERE DIFFERENCES ARISE, THE ARCHITECT SHALL DECIDE WHICH DIRECTIONS OR INSTRUCTIONS TAKE PRECEDENCE. DOCUMENTS SHALL BE COMPLETED. THE SYSTEMS, EQUIPMENT, DEVICES AND ACCESSORIES SHALL BE INSTALLED. FINISHED, TESTED MENTIONED IN THESE SPECIFICATIONS, OR VICE VERSA, OR ANY INCIDENTAL ACCESSORIES NECESSARY TO MAKE THE PROJECT COMPLY WITH ALL RULES, REGULATIONS, STANDARDS, CODES, ORDINANCES AND LAWS OF LOCAL, STATE AND FEDERAL GOVERNMENTS STATE AND FEDERAL GOVERNMENTS BY THE AUTHORITIES HAVING LAWFUL JURISDICTION. MATERIALS, EQUIPMENT AND WORKMANSHIP, AND TO PROVIDE OPERABLE MECHANICAL SYSTEMS COMPLETE IN EVERY RESPECT. EQUIPMENT PLACEMENT: THE DRAWINGS ARE DIAGRAMMATIC, INTENDED TO SHOW GENERAL ARRANGEMENT, CAPACITY AND LOCATION OF VARIOUS COMPONENTS, EQUIPMENT AND DEVICES. EACH LOCATION SHALL BE DETERMINED BY REFERENCE TO THE GENERAL ARCHITECT PRIOR TO THE PERFORMANCE OF THE AFFECTED WORK SHALL BE PROVIDED AT NO ADDITIONAL COST TO THE OWNER. CONSTRUCTION INDUSTRY TERMINOLOGY, AS DETERMINED BY THE ARCHITECT. PLURAL WORDS SHALL BE INTERPRETED AS SINGULAR AND SINGULAR WORDS SHALL BE INTERPRETED AS PLURAL WHERE APPLICABLE FOR CONTEXT OF THE CONTRACT DOCUMENTS. ADEQUATE NUMBER OF CRAFTSMEN KNOWLEDGEABLE OF THE REQUIREMENTS OF THE CONTRACT DOCUMENTS. THEY SHALL BE SKILLED IN THE METHODS AND CRAFTSMANSHIP NEEDED TO PRODUCE A FIRST-QUALITY INSTALLATION. PERSONNEL WHO INSTALL MATERIALS AND EQUIPMENT SHALL BE QUALIFIED BY TRAINING AND EXPERIENCE TO PERFORM THEIR ASSIGNED TASKS. HOUSEKEEPING: KEEP INTERIORS OF DUCT AND PIPE SYSTEMS CLEAN AND FREE FROM DIRT, RUBBISH AND FOREIGN MATTER, CLOSE OPEN ENDS OF PIPING AND DUCTWORK AT ALL TIMES THROUGHOUT THE INSTALLATION. EQUIPMENT PROTECTION: PROTECT FAN MOTORS, SWITCHES, EQUIPMENT, FIXTURES, AND OTHER ITEMS FROM DIRT, RUBBISH AND FAN HOUSINGS. EQUIPMENT CLEANING: THOROUGHLY CLEAN EQUIPMENT AND ENTIRE PIPING SYSTEMS INTERNALLY UPON COMPLETION OF INSTALLATION AND IMMEDIATELY PRIOR TO FINAL ACCEPTANCE. FILTER REPLACEMENT: PROVIDE FILTERS, WITH THE SAME EFFICIENCY RATING AS REQUIRED FOR THE FINAL INSTALLATION, FOR THE NEW SET OF CLEAN FILTERS FOR THE TEST AND BALANCE OF THE AIR SIDE EQUIPMENT. PROTECTION OF FINISHED INSTALLATION: WHERE INSTALLATION IS REQUIRED IN AREAS PREVIOUSLY FINISHED BY OTHER TRADES, PROTECT THE AREA FROM MARRING, SOILING OR OTHER DAMAGE. CLEAN-UP: DEBRIS AND RUBBISH SHALL NOT BE DISPOSED INTO THE OWNER'S CONTAINERS. DOCUMENTS WHEN IN THE OPINION OF THE T&B AGENCY OR THE ARCHITECT THE DISCREPANCIES WILL AFFECT SYSTEM BALANCE AND DRIVE CHANGES: INCLUDE THE COST OF ALL PULLEY, BELT, AND DRIVE CHANGES, AS WELL AS BALANCING DAMPERS, VALVES AND FITTINGS, AND ACCESS PANELS TO ACHIEVE PROPER SYSTEM BALANCE RECOMMENDED BY THE T&B AGENCY. BY THE T&B AGENCY AND ACCEPTED BY THE ARCHITECT. CUT OR DRILL HOLES FOR THE INSERTION OF AIR MEASURING DEVICES AS DRAWINGS FOR REVIEW. ALL CONFLICTS SHALL RESOLVED BEFORE FINAL ACCEPTANCE. WITH THE ARCHITECT. THE OWNER SHALL DECIDE SHUTDOWN TIME AND DURATION OF SERVICES INTERRUPTION. PROVIDE SHUTOFF VALVES AT POINTS OF INTERCONNECTION TO MINIMIZE DOWNTIME. PROCEDURES INCIDENTAL TO THE OUTAGE SHALL BE PREPARED IN ADVANCE TO MINIMIZE DOWNTIME. OR MEANS OF EGRESS. DO NOT INTERRUPT FIRE SPRINKLING OR LIFE SAFETY SYSTEMS WITHOUT PRIOR COORDINATION WITH THE ACCURACY NOR COMPLETENESS OF THE EXISTING INSTALLATION AND ALL LAYOUTS ARE SHOWN FOR REFERENCE ONLY. IT IS TO BE EXACTLY AS SHOWN ON THE DRAWINGS. VERIFY EXISTING CONDITIONS IN THE FIELD AND NOTIFY THE ARCHITECT OF ANY DEVIATIONS REQUIRED TO INSTALL THE WORK AS SHOWN. COORDINATE NEW WORK WITH EXISTING EQUIPMENT, INCLUDING REMOVING, RELOCATING, EXISTING CONDITIONS. <u>AIR FILTER</u>

SHALL BE DESIGNED TO SUPPORT THE MULTIPLE PLEATS OF THE FILTER ELEMENT AGAINST THE DIRECTION OF AIRFLOW. THE WELDED SHALL APPLY

WIRE GRID SHALL BE BONDED TO THE FILTER MEDIA. ENCLOSURE FRAMES SHALL BE FACTORY FABRICATED OF GALVANIZED STEEL AND SHALL BE EQUIPPED WITH GASKETS AND FOUR SPRING-TYPE POSITIVE SEALING FASTENERS CAPABLE OF BEING ATTACHED OR REMOVED WITHOUT TOOLS. SEALER FRAMES SHALL BE FABRICATED OF 20 GAUGE GALVANIZED STEEL AND SHALL BE EQUIPPED WITH GASKETING MATERIAL ON THE FRAME REAR FLANGE. UNLESS OTHERWISE INDICATED. FILTER CLEAN RESISTANCE SHALL NOT EXCEED 0.70 INCHES OF WATER AT 500 FPM FACE VELOCITY.

MANUFACTURER AND MODEL: AMERICAN AIR FILTER, VARICEL DH, CAMFIL FARR, MICRETAIN

2. DO NOT EXCEED A SLOPE OF 1 INCH IN 4 INCHES FOR TRANSITIONS WITH DECREASING AREA. 1 INCH IN 7 INCHES IS PREFERABLE AND

3. TRANSITION ANGLES SHALL NOT EXCEED 30 DEGREES AT INLET CONNECTIONS TO COILS OR OTHER EQUIPMENT, NOR 15 DEGREES AT

1. DO NOT EXCEED A SLOPE OF 1 INCH IN 7 INCHES FOR TRANSITIONS WITH INCREASING AREA.

SHOULD BE USED WHEN EVER POSSIBLE.

OUTLET CONNECTIONS.

SPACES AND ENCLOSURES.

### APPLICABLE STANDARDS: SMACNA: USE MATERIAL, WEIGHT, THICKNESS, GAUGE, REINFORCING, SEAMS AND JOINTS, SUSPENSION, WORKMANSHIP AND CONSTRUCTION AND INSTALLATION METHODS AS OUTLINED IN THE HVAC DUCT CONSTRUCTION STANDARDS. METAL & FLEXIBLE, FIRST EDITION, 1985. AND SHALL COMPLY WITH THE MANUFACTURER'S PUBLISHED RECOMMENDATIONS AND INSTALLATION

### MATERIALS: INSULATED FLEXIBLE DUCTS SHALL BE FACTORY-FABRICATED. PRE-INSULATED TYPE WITH SEAMLESS VAPOR BARRIER. FIBERGLASS INSULATION SHALL BE NOMINAL 1 INCH THICKNESS WITH MAXIMUM THERMAL CONDUCTANCE OF 0.23 BTU/HR-SQ.FT.-DEGREE F. AT 75 DEGREE F. MEAN TEMPERATURE. FLEXIBLE DUCT SHALL HAVE AN OPERATING PRESSURE RANGE OF MINUS 3.0 INCH W.G. TO PLUS 6 INCH W.G., MAXIMUM WORKING VELOCITY TO 4000 FPM AND TEMPERATURE RANGE TO 250 DEGREE F. INNER LINER SHALL BE CONTINUOUS AND CONSIST OF CORREGATED POLYTHYLENE (CPE) BONDED TO A METAL HELIX. VAPOR RETARDANT RATING SHALL BE 0.05

CODE REQUIREMENTS: THE DUCT SHALL BE UL181 LISTED AS A CLASS 1 AIR DUCT AND SHALL COMPLY WITH PARAGRAPHS 603.6 THRU

PERFORMANCE DATA: PROVIDE THERMAL PERFORMANCE, DENSITY AND VAPOR PERMEANCE FOR EACH TYPE OF INSULATION, FINISH,

UNLESS OTHERWISE STATED, INSULATION TYPES AND THICKNESSES SPECIFIED ARE BASED ON INSULATING MATERIALS HAVING A "K" VALUE (BTU PER HOUR PER SQUARE FOOT PER DEGREE TEMPERATURE DIFFERENCE) PER INCH OF THICKNESS AS INDICATED. VAPOR PERMEANCE IS BASED ON VAPOR RETARDANT MATERIALS HAVING WATER VAPOR TRANSMISSION RATES IN PERMS (GRAINS OF VAPOR PER HOUR PER SQUARE FOOT PER INCH OF MERCURY VAPOR PRESSURE DIFFERENTIAL).

APPLICABLE STANDARDS: NFPA: ALL MATERIALS AND ADHESIVES USED SHALL CONFORM TO THE REQUIREMENTS OF NFPA 90A, 2015 REVISION. AS TO FLAME SPREAD AND SMOKE DEVELOPED RATINGS THROUGHOUT THEIR OPERATING TEMPERATURE RANGE. ALL INSULATION, JACKETS, FACINGS AND ADHESIVES USED TO ADHERE THE JACKET OR FACING TO THE INSULATION, INCLUDING FITTINGS AND BUTT STRIPS, SHALL HAVE A NON-COMBUSTIBLE FIRE AND SMOKE HAZARD RATING AND LABEL AS TESTED BY ASTM E-84, NFPA 255 AND UL-723 NOT EXCEEDING FLAME SPREAD VALUE OF 25 AND SMOKE DEVELOPED/FUEL CONTRIBUTED VALUE OF 50. ACCESSORIES SUCH AS

INSULATION THERMAL CONDUCTANCE VALUES AND INSULATION THICKNESS SHALL COMPLY WITH THE GOVERNING MECHANICAL CODE. INSULATION FOR DUCT SYSTEMS: GENERAL: AIR HANDLING UNIT CASINGS DOWNSTREAM OF COOLING COILS SHALL BE INSULATED. INSULATE SUPPLY AND RETURN AIR DUCTS FOR HEATING AND AIR CONDITIONING SYSTEMS FROM SUPPLY FAN DISCHARGE TO ROOM OUTLETS ON ALL SYSTEMS. OUTSIDE AIR DUCTS SHALL BE EXTERNALLY INSULATED, EXCEPT WHERE LOCATED IN MECHANICAL

### INSULATE WITH A MINIMUM OF 2 INCH THICK FIBERGLASS BLANKET WRAP APPLIED OVER CLEAN, DRY SHEET METAL DUCTWORK INSTALLED TO ALLOW MAXIMUM FULLNESS AT CORNERS (AVOID EXCESSIVE COMPRESSION). ADHERE DUCT INSULATION TO METAL AND PROVIDE CONTINUITY OF VAPOR RETARDANT IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. WHERE DUCT WIDTH EXCEEDS 24 INCHES, THE INSULATION SHALL BE ADDITIONALLY SECURED TO THE BOTTOM OF THE DUCT USING MECHANICAL FASTENERS

DUCTWORK INSULATION SHALL BE INORGANIC FIBROUS GLASS, FLEXIBLE BLANKET OF GLASS FIBER FACTORY LAMINATED TO A REINFORCED FOIL KRAFT (FRK) VAPOR RETARDANT WITH A MINIMUM 2 INCH TAPING AND STAPLING FLANGE ON ONE EDGE. SUITABLE FOR OPERATION AT TEMPERATURES FROM 40 DEGREES F. TO 250 DEGREES F. THERMAL CONDUCTIVITY OF 0.31 AT 75 DEGREES F. MINIMUM

### ALL PRESSURIZED PIPING SYSTEMS SHALL CONFORM TO ASME B31.9, CODE FOR PRESSURE PIPING, BUILDING SERVICES PIPING. BEFORE FINAL TESTING, FLUSH PIPING SYSTEMS WITH CLEAN WATER TO REMOVE DEBRIS. DISCONNECT ALL COILS FROM SYSTEM BEFORE FLUSHING. FLUSH ALL COILS SEPARATE FROM SYSTEM. PROVIDE TEMPORARY VALVES AND DRAINS AS REQUIRED. PRIOR TO INSULATING AND CONCEALING THE PIPING SYSTEM. APPLY A WATER PRESSURE TEST TO ALL PARTS OF EACH SYSTEM BEFORE

EQUIPMENT IS CONNECTED. USE A HYDROSTATIC PRESSURE OF NOT LESS THAN 100 PSIG OR 150 PERCENT OF SYSTEM OPERATING PRESSURE WHICHEVER IS GREATER. TEST SYSTEM FOR A PERIOD NOT LESS THAN FOUR HOURS. THERE SHALL BE NO LEAKS AT ANY

### PROVIDE AND INSTALL PIPE AND FITTINGS AS INDICATED, INCLUDING ALL OFFSETS, FITTINGS, SLEEVES AND SIMILAR ITEMS REQUIRED BUT NOT NECESSARILY INDICATED DUE TO DRAWING SCALE FOR COMPLETE AND OPERABLE SYSTEMS.

ALL PRESSURIZED PIPING SYSTEMS SHALL CONFORM TO ASME B31.9, CODE FOR PRESSURE PIPING, BUILDING SERVICES PIPING. COPPER PIPING, ANNEALED SEAMLESS HARD TEMPER TYPE "L" AND COMPLYING WITH ASTM B-88 SHALL BE USED FOR PIPE SIZES UP TO 2". COPPER FITTINGS SHALL BE STREAMLINED PATTERN, WROUGHT OR CAST BRASS CONFORMING TO ANSI B16.22 OR WROUGHT BRONZE

# FITTINGS SHALL AT A MINIMUM, HAVE THE SAME WALL THICKNESS AS THE CONNECTED PIPING AND SHALL BE COMPATIBLE WITH THE

DIELECTRIC UNIONS OR FLANGES SHALL BE PROVIDED AT ALL JUNCTIONS OF COPPER OR BRASS PIPE OR FITTINGS AND FERROUS MATERIAL TO PREVENT ELECTROLYSIS AND GALVANIC CORROSION. WHERE COPPER OR BRASS COME IN CONTACT WITH FERROUS PIPING SYSTEMS MATERIALS, ISOLATE THE TWO MATERIALS WITH A NON-CONDUCTIVE NEOPRENE SPACER.

### DIELECTRIC COUPLINGS SHALL BE RATED FOR AT LEAST 150 PERCENT OF MAXIMUM WORKING PRESSURE OF THE PIPING SYSTEM AND AT LEAST 50 F HIGHER THAN THE MAXIMUM OPERATING TEMPERATURE OF THE PIPING SYSTEM IN WHICH THEY ARE INSTALLED. COUPLINGS SHALL BE ELECTROPLATED STEEL OR BRASS WITH INERT AND NON-CORRISIVE THERMOPLASTIC LINING OR BRONZE FITTINGS. PROVIDE DIELECTRIC INSULATING UNIONS IN PIPING 2 INCH AND SMALLER WITH THREADED OR SOLDER JOINT CONNECTIONS.

PIPE AND FITTINGS SHALL BE INSTALLED WITH A MIN. OF JOINTS AND COUPLINGS BUT WITH ADEQUATE AND ACCESSIBLE UNIONS FOR DISASSEMBLY AND MAINTENANCE REPLACEMENT VALVES AND EQUIPMENT. REDUCE SIZES WERE INDICTED USING REDUCING FITTINGS. PIPING SHALL BE RAN WITHOUT TRAPS OR POCKETS AND A MIN. 1 INCH IN 40 FEET IN THE DIRECTION OF FLOW.

PIPING SHALL BE RAN PARALLEL TO THE WALLS AND CEILINGS WITH A MINIMUM OF 6 INCH CLEARANCE BETWEEN WALLS AND HORIZONTAL PIPE REQUIRING INSULATION SHALL BE INSTALLED WITH SUFFICIENT CLEARANCES TO PERMIT PROPER APPLICATION OF INSULATION.

DO NOT RUN PIPING OVER ELECTRICAL PANELS, TRANSFORMER VAULTS, ELEVATOR EQUIPMENT ROOMS OR ELECTRONIC EQUIPMENT

# PIPING SHALL BE INSTALLED WITH PROVISION FOR PIPE EXPANSION BOTH HORIZONTALLY AND VERTICALLY.

BEFORE FINAL TESTING, FLUSH PIPING SYSTEMS WITH CLEAN WATER TO REMOVE DEBRIS. DISCONNECT ALL COILS FROM SYSTEM BEFORE FLUSHING. FLUSH ALL COILS SEPARATE FROM SYSTEM. PROVIDE TEMPORARY VALVES AND DRAINS AS REQUIRED. PRIOR TO INSULATING AND CONCEALING THE PIPING SYSTEM, APPLY A WATER PRESSURE TEST TO ALL PARTS OF EACH SYSTEM BEFORE

EQUIPMENT IS CONNECTED. USE A HYDROSTATIC PRESSURE OF NOT LESS THAN 100 PSIG OR 150 PERCENT OF SYSTEM OPERATING PRESSURE WHICHEVER IS GREATER. TEST SYSTEM FOR A PERIOD NOT LESS THAN FOUR HOURS. THERE SHALL BE NO LEAKS AT ANY

### PROVIDE AND INSTALL PIPE AND FITTINGS AS INDICATED, INCLUDING ALL OFFSETS, FITTINGS, SLEEVES AND SIMILAR ITEMS REQUIRED BUT NOT NECESSARILY INDICATED DUE TO DRAWING SCALE FOR COMPLETE AND OPERABLE SYSTEMS. ALL PRESSURIZED PIPING SYSTEMS SHALL CONFORM TO ASME B31.9, CODE FOR PRESSURE PIPING, BUILDING SERVICES PIPING.

CHILLED WATER PIPING ABOVE TWO INCHES IN DIAMETER SHALL BE FORMED FROM WELDED, SEAMLESS ASTM A-53, GRADE B, AND

SMALLER CHILLED WATER PIPING SHALL BE FORMED FROM TYPE L, ASTM B-88, COPPER WITH FITTINGS. COLD CONDENSATE PIPING SHALL

COPPER FITTINGS SHALL BE STREAMLINED PATTERN, WROUGHT OR CAST BRASS CONFORMING TO ANSI B16.22 OR WROUGHT BRONZE

# FITTINGS SHALL AT A MINIMUM, HAVE THE SAME WALL THICKNESS AS THE CONNECTED PIPING AND SHALL BE COMPATIBLE WITH THE

DIELECTRIC UNIONS OR FLANGES SHALL BE PROVIDED AT ALL JUNCTIONS OF COPPER OR BRASS PIPE OR FITTINGS AND FERROUS MATERIAL TO PREVENT ELECTROLYSIS AND GALVANIC CORROSION. WHERE COPPER OR BRASS COME IN CONTACT WITH FERROUS PIPING

SYSTEMS MATERIALS, ISOLATE THE TWO MATERIALS WITH A NON-CONDUCTIVE NEOPRENE SPACER. DIELECTRIC COUPLINGS SHALL BE RATED FOR AT LEAST 150 PERCENT OF MAXIMUM WORKING PRESSURE OF THE PIPING SYSTEM AND AT LEAST 50 F HIGHER THAN THE MAXIMUM OPERATING TEMPERATURE OF THE PIPING SYSTEM IN WHICH THEY ARE INSTALLED. COUPLINGS SHALL BE ELECTROPLATED STEEL OR BRASS WITH INERT AND NON-CORRISIVE THERMOPLASTIC LINING OR BRONZE FITTINGS.

PROVIDE DIELECTRIC INSULATING UNIONS IN PIPING 2 INCH AND SMALLER WITH THREADED OR SOLDER JOINT CONNECTIONS. PIPE AND FITTINGS SHALL BE INSTALLED WITH A MIN. OF JOINTS AND COUPLINGS BUT WITH ADEQUATE AND ACCESSIBLE UNIONS FOR DISASSEMBLY AND MAINTENANCE REPLACEMENT VALVES AND EQUIPMENT. REDUCE SIZES WERE INDICTED USING REDUCING FITTINGS.

PIPING SHALL BE RAN WITHOUT TRAPS OR POCKETS AND A MIN. 1 INCH IN 40 FEET IN THE DIRECTION OF FLOW.

PIPING SHALL BE RAN PARALLEL TO THE WALLS AND CEILINGS WITH A MINIMUM OF 6 INCH CLEARANCE BETWEEN WALLS AND HORIZONTAL

PIPE REQUIRING INSULATION SHALL BE INSTALLED WITH SUFFICIENT CLEARANCES TO PERMIT PROPER APPLICATION OF INSULATION DO NOT RUN PIPING OVER ELECTRICAL PANELS, TRANSFORMER VAULTS, ELEVATOR EQUIPMENT ROOMS OR ELECTRONIC EQUIPMENT

PIPING SHALL BE INSTALLED WITH PROVISION FOR PIPE EXPANSION BOTH HORIZONTALLY AND VERTICALLY.

# PIPING IDENTIFICATION:

PROVIDE PIPE IDENTIFICATION CONSISTING OF SETON SNAP-ON PLASTIC SLEEVES OR EQUAL. PROVIDE PAINT ON PIPING AT SCOPE AREA BOUNDRIES PER DETAIL 1/M-003.

# PIPE INSULATION:

ACCEPTABLE INSULATION MANUFACTURERS OF FLEXIBLE ELASTOMERIC INSULATION PRODUCTS INCLUDE ARMSTRONG, HALSTEAD, MANVILLE, RUBATEX, OR SPECIFICALLY APPROVED EQUAL.

INSULATION AND ACCESSORIES SHALL HAVE A FLAME SPREAD RATING OF 25 OR LESS AND A SMOKE DEVELOPED RATING OF 50 OR LESS WHEN TESTED IN ACCORDANCE WITH ASTM E84-75, NFPA 225, UL 723, AND FURTHER MUST MEET THE REQUIREMENTS OF NFPA 90-A. PROVIDE FIRE-RETARDANT CLOSED-CELL SLIP-ON FLEXIBLE TYPE. PRODUCT SHALL HAVE CONTINUOUS OPERATIONAL TEMPERATURE LIMIT OF NOT LESS THAN 220 DEGREES F, AND A MINIMUM "F" VALUE OF ((3.70 DEGREE F/FT/HR) 1/2BTUH) PER INCH THICKNESS AT 75 DEGREES F AMBIENT

PIPE REQUIRING INSULATION SHALL BE INSTALLED WITH SUFFICIENT CLEARANCES TO PERMIT PROPER APPLICATION OF INSULATION AND MAINTAIN REQUIRED CLEARANCES. USE ELASTOMERIC PIPING INSULATION FOR THE FOLLOWING SERVICES:

BOTH REFRIGERANT AND CONDENSATE LINES SHALL HAVE 3/4" THICK INSULATION OF AS REQUIRED BY APPLICABLE ENERGY CODES, WHICH EVER IS MORE STRINGENT. USE FIBERGLASS PIPING INSULATION FOR THE FOLLOWING SERVICES:

HEATING WATER LINES 1-1/2" THK, 1-1/4" PIPE SIZE & UNDER HEATING WATER LINES 2" THK, 1-1/2" PIPE SIZE & GREATER

USE FOAMGLASS PIPING INSULATION FOR THE FOLLOWING SERVICES: 1-1/2" THK, 2" PIPE SIZE & UNDER CHILLED WATER LINES CHILLED WATER LINES 2" THK, 2-1/2" PIPE SIZE & GREATER

JACKET SHALL BE REINFORCED KRAFT PAPER WITH ALUMINUM FOIL. PREMOLDING FITTING MATERIAL (INSERTS) SHALL BE PRECISELY CUT OR MITERED TO FIT AND TAPED TO FORM A FULLY INSULATED PIPE COVERING. USE ADHESIVE AND / OR TAPE SPECIFIED FOR TYPE OF INSULATION TO INSURE A THOROUGH VAPOR BARRIER.

PRIOR TO INSULATING AND CONCEALING THE PIPING SYSTEM, APPLY A WATER PRESSURE TEST TO ALL PARTS OF EACH SYSTEM BEFORE EQUIPMENT IS CONNECTED. USE A HYDROSTATIC PRESSURE OF NOT LESS THAN 100 PSIG OR 150 PERCENT OF SYSTEM OPERATING PRESSURE WHICHEVER IS GREATER. TEST SYSTEM FOR A PERIOD NOT LESS THAN FOUR HOURS. THERE SHALL BE NO LEAKS AT ANY POINT IN THE SYSTEM AT THIS PRESSURE.

![](_page_19_Picture_94.jpeg)

![](_page_19_Picture_95.jpeg)

Not Released for Construction

![](_page_20_Figure_0.jpeg)

4360 Chamblee Dunwoody Rd. Suite 210 Atlanta, GA 30341 P 770.451.6757 THINK. LISTEN. CREATE.

![](_page_20_Figure_2.jpeg)

![](_page_20_Picture_3.jpeg)

![](_page_21_Picture_0.jpeg)

![](_page_21_Figure_1.jpeg)

![](_page_21_Picture_2.jpeg)

![](_page_21_Figure_4.jpeg)

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![](_page_22_Picture_0.jpeg)

	CONTROLS S	YMBOL
SYMBOL	DESCRIPTION	S
	PREFILTER	
	FINAL FILTER	
	CHILLED WATER COIL	
	DX COIL	
H c	HOT WATER COIL	
E H	ELECTRIC HEAT COIL	
	BELT-DRIVE FAN	
	DIRECT DRIVE FAN	
	FAN ARRAY (EXACT QTY NOTED)	
M N.C. 24 V	MOTORIZED DAMPER	
	HUMIDIFIER DISPERSION TUBE	
	UV LIGHT ARRAY	
	TEMPERATURE SENSOR (AVERAGING)	ADJ. USER
	TEMPERATURE SENSOR (PROBE)	BAS BUILD CFM CUBIC DAT DISCH
	. HUMIDITY SENSOR	DX DIGIT DX DIREC FLA FULL GPM GALL KW KILOV

![](_page_22_Figure_2.jpeg)

- 1. NEW MECHANICAL EQUIPMENT SHALL TIE INTO EXISTING CENTRALIZED BAS SYSTEMS 2. DEVICE CONTROLLERS SHALL COMMUNICATE WITH CENTRAL BUILDING AUTOMATION SYSTEM (IF APPLICABLE) VIA STANDARD PROTOCOLS.
- 3. CONTROLS CONTRACTOR SHALL PROVIDE ALL CONTROLLERS, RELAYS, WIRING, AND OTHER DEVICES REQUIRED TO PROVIDE A FULLY FUNCTIONAL SYSTEM IN COMPLIANCE WITH THE DIAGRAMS, SEQUENCES AND
- SPECIFICATIONS INCLUDED IN THESE DOCUMENTS. 4. 120V CIRCUITS FOR CONTROLS SHALL BE PROVIDED BY ELECTRICAL CONTRACTOR. 5. 120V TO 24V STEP-DOWN TRANSFORMER SHALL BE PROVIDED BY CONTROLS CONTRACTOR.
- 6. ALL POINTS SHALL BE CAPABLE OF BEING TRENDED. 7. ALL POINTS SHALL BE REPRESENTED GRAPHICALLY.

![](_page_22_Picture_7.jpeg)

![](_page_22_Figure_8.jpeg)

![](_page_22_Picture_9.jpeg)

				VAR	IABLE	<b>AIR VOI</b>		RMINA	AL UNI	T SCHE		E - HO'		rer h	EA1
	1	1	1	• • • • •		/									
				PRIMARY	PRIMARY AIRFLOW HEATING COIL										
			NECK						AIRSIDE				NATERSIDE		
MARK	MANUFACTURER	MODEL NO.	SIZE	MAX	MIN	CAP	DESIGN FLOW	EAT(db)	LAT(db)	PD	ROWS	FLOW	EWT	LWT	NC
VAV-1	DAIKIN APPLIED	MQTHI508	8	325 CFM	100 CFM	4347.0 Btu/h	330 CFM	55 °F	95 °F	0.04 in-wg	1	2 GPM	140 °F	134 °F	16
VAV-2	DAIKIN APPLIED	MQTHI512	12	1475 CFM	600 CFM	17121.0 Btu/h	1475 CFM	55 °F	81 °F	0.11 in-wg	1	10 GPM	140 °F	137 °F	24

	FAN COIL UNIT SCHEDULE - CHILLED WATER																			
			AIR SIDE		FAN COOLING COIL											E				
			SUPPLY AIR	PRESS		MOTOR			CAP AIRSIDE					WATERSIDE						
MARK	MANUFACTURER	MODEL NO.	FLOW	ESP	QTY	POWER	ECM	TOTAL	EAT(db)	EAT(wb)	LAT(db)	LAT(wb)	ROWS	FLOW (gpm)	EWT °F	LWT °F	PD ft H20	UNIT WEIGHT	FLA	MCA
FCU-1	DAIKIN APPLIED	FCHC208	690	0.25	2	1/4 hp	No	26509	80	67	55	54.6	4	4.4	44	56	10	153	3.5	4.4

				TRIBUTIO	N SCHEDULE	
MARK	CFM	NECK SIZE	ACTUAL VELOCITY (FPM)	NC (ACTUAL)	FACE SIZE LENGTH	DESCRIPTION
A	50-115 116-240 241-435 436-625 625-850 751-980	6Ø 8Ø 10Ø 12Ø 14Ø 16Ø	0 - 590 450 - 800 560 - 800 590 - 800	0 15 - 20 23 25	24x24	SUPPLY DIFFUSER BASIS OF DESIGN: PRICE SPD COLOR: WHITE MATERIAL: ALUMINUM OPPOSED BLADE DAMPERS: NO BACK PAN SIZE: 18x18 INSULATED BACK PAN
В	000-110 111-200 201-315 316-450 451-615 616-800 801-1015 1016-1250 1251-1515	6x6 8x8 10x10 12x12 14x14 16x16 18x18 20x20 22x22			24x24	RETURN / EXHAUST GRILLE BASIS OF DESIGN: PRICE 80 COLOR: WHITE MATERIAL: ALUMINUM OPPOSED BLADE DAMPERS: NO 1/2"x1/2"x1/2" GRID
E	000-110 111-240 241-380 381-550 551-750 751-980	6Ø 8Ø 10Ø 12Ø 14Ø 16Ø			48x1.5	SUPPLY DIFFUSER BASIS OF DESIGN: JST COLOR: WHITE MATERIAL: ALUMINUM BLADE DAMPERS: INCLUDE FACE OPERATED CABLE DAMPER INSULATED PLENUM

### **TER** UNIT WFIGH REMARKS 15.00 lbf 22.00 lbf

### ELECTRICAL MOCP VOLTS / PH REMARKS 15 115/1

### (#) NEW WORK KEY NOTES :

- 1. NEW 2 TON CHILLED WATER FCU TO BE INSTALLED WITH DRAIN PAN. PAN SHALL BE INSTALLED WITH LEAK DETECTION SYSTEM. IF LEAK IS DETECTED, SYSTEM SHALL DIRECT CHWS & CHWR CONTROL VALVES TO BE CLOSED AND ALARM TO BMS. COORDINATE LOCATION WITH EXISTING DOMESTIC WATER PIPING. 2. NEW 4" DEEP, GALVANIZED STEEL DRAIN PAN TO BE INSTALLED BENEATH EXISTING FCU AND ALL WATER PIPING TO PROTECT EQUIPMENT BELOW. PAN TO BE SIZED TO SHIELD ALL EQUIPMENT BELOW. PROVIDE CONDENSATE PUMP AND
- LEAK DETECTION SYSTEM. IF LEAK IS DETECTED, THE SYSTEM SHALL ACTIVATE CONDENSATE PUMP AND ALARM BMS UNTIL LEVEL IS BELOW ACCEPTABLE LIMITS.
- 3. CONTRACTOR TO ENSURE THAT NEW CONNECTION IS MADE INTO THE TOP OF EXISTING CONDENSATE PIPE. 4. CONTRACTOR TO UTILIZE EXISTING HHWS & HHWR PIPING FOR VAV HEATING COIL CONNECTIONS. CONTRACTOR IS RESPONSIBLE FOR ALL TRANSITIONS AND CONNECTIONS REQUIRED FOR CONNECTION.
- 5. ENSURE RETURN IS BALANCED TO 255 CFM FOR PROPER POSITIVE PRESSURIZATION. 6. ENSURE RETURN IS BALANCED TO 1400 CFM FOR PROPER POSITIVE PRESSURIZATION.
- 7. LAMINAR FLOW DIFFUSER TO BE LOCATED ABOVE PATIENT. COORDINATE FINAL LOCATION WITH EQUIPMENT, EQUIPMENT SUPPORT STRUCTURE, AND LIGHTING.

### MECHANICAL ICRA NOTES:

- 1. PROVIDE NEGATIVE AIR MACHINE. NEGATIVE AIR MACHINE SHALL BE AAF MODEL OR APPROVED EQUAL. MAINTAIN RENOVATION AREA UNDER NEGATIVE PRESSURE AT ALL TIMES. DISCHARGE FROM THE NEGATIVE AIR MACHINE SHALL BE DUCTED INTO THE EXISTING EXHAUST/RETURN SYSTEM OR THRU WALL, AS SHOWN ON PLANS, AFTER PROPER FILTRATION WITHIN THE MACHINE TO ENSURE THAT EXISTING DUCTWORK IS NOT CONTAMINATED WITH CONSTRUCTION DUST. PROVIDE NEW FINAL FILTER WITH EFFICIENCY OF 99.99% OR HIGHER FOR 1 MICRON PARTICLES.
- 2. PROVIDE PRESSURE GAUGE TO MONITOR THE PRESSURE RELATIONSHIP BETWEEN THE CONSTRUCTION AREA AND THE ADJACENT SPACES. LOCATE PRESSURE GAUGE AT ENTRANCE TO CONSTRUCTION AREA. ADJUST THE VOLUME OF THE NEGATIVE AIR MACHINE TO PROVIDE A NEGATIVE PRESSURE OF -0.03" W.G. WITHIN THE SPACE AS IT IS BEING MODIFIED. IT IS PERMISSIBLE TO MAINTAIN SUPPLY TO THE SPACE, BUT MAINTAIN THE SPACE UNDER NEGATIVE PRESSURIZATION. IT IS NOT PERMISSIBLE TO APPLY FILTER MEDIA OVER RETURN GRILLES, THEY MUST BE COMPELETLY SEALED. DECREASE THE RETURN CAPACITY IN ADJACENT SPACES TO OFFSET
- BETWEEN SUPPLY AND EXHAUST/RETURN IN THE RENOVATED AREA. DO NOT POSITIVELY PRESSURIZE EXISTING DUCTWORK. B. MAINTAIN CONNECTION OF NEGATIVE AIR MACHINE UNTIL
- CONSTRUCTON IS COMPLETE. 4. CONTRACTOR SHALL PROVIDE NECESSARY EGRESS WHEN ANY WORK IN CORRIDOR IS CONDUCTED DURING WORKING HOURS.
- 5. CONTRACTOR SHALL COMPLY WITH OWNER REQUIREMENTS FOR INFECTION CONTROL RISK ASSESSMENT (ICRA) REQUIREMENTS.
- REFER TO ARCHITECTURAL PLAN FOR TEMPORARY PARTITIONS. TEMPORARY PARTITIONS ARE FOR ICRA REQUIREMENTS, ADDITIONAL TEMPORARY PARTITIONS MAY BE NECESSARY TO ACCOMMODATE PHASING.

# # DEMOLITION KEY NOTES :

1. DEMOLISH VAV & HOT WATER ACCESSORIES. 2. DEMOLISH CHILLED WATER FCU AND PIPING ACCESSORIES. 3. DEMOLISH AIR DISTRIBUTION & FLEX DUCT.

![](_page_23_Figure_20.jpeg)

![](_page_23_Picture_21.jpeg)

![](_page_23_Figure_24.jpeg)

![](_page_23_Picture_25.jpeg)

## ELECTRICAL DRAWING INDEX

SHEET	DESCRIPTION
E-001	ELECTRICAL SYMBOLS, LEGEND, NOTES AND INDEX
E-002	ELECTRICAL GENERAL NOTES
E-003	ELECTRICAL SCHEDULES
E-101	ELECTRICAL OVERALL PLANS
E-102	ELECTRICAL ENLARGED PLANS

![](_page_24_Picture_4.jpeg)

![](_page_24_Figure_5.jpeg)

![](_page_24_Picture_6.jpeg)

<ol> <li>ALL FIRE ALARM EQUIPMENT IS TO BE NEW, UL LISTED FOR FIRE SERVICE, AND SHALL BE COMPATIBLE WITH THE SYSTEM BEING USED.</li> <li>ALL WIRING AND CONDUIT IS TO CONFORM TO NEC ARTICLE 760. WIRING SHALL BE UL LISTED, MINIMUM 300V TYPE FPLP PLENUM RATED SOLID COPPER OR STRANDED COPPER WITH MAXIMUM 19 STRANDS.</li> <li>LOW VOLTAGE CONDUCTORS: PROVIDE CONDUCTORS IN ACCORDANCE WITH NFPA 70 AND NFPA 72, AND AS RECOMMENDE BY THE FIRE ALARM SYSTEM MANUFACTURER. CONDUCTORS SHALL BE COPPER, MINIMUM NO. 14 AWG, TWISTED SHIELDE PAIR.</li> <li>SURVIVABILITY: A 2-HOUR RATED CABLE ASSEMBLY SHALL BE PROVIDED FOR NOTIFICATION APPLIANCE CIRCUITS AND ANY OTHER CIRCUITS NECESSARY FOR THE OPERATION OF THE NOTIFICATION APPLIANCE CIRCUITS AND ANY OTHER CIRCUITS NECESSARY FOR THE OPERATION OF THE NOTIFICATION APPLIANCE CIRCUITS AND ANY OTHER CIRCUITS NECESSARY FOR THE OPERATION OF THE NOTIFICATION APPLIANCE CIRCUITS AND ANY OTHER CIRCUITS NECESSARY FOR THE OPERATION OF THE NOTIFICATION APPLIANCE CIRCUITS AND ANY OTHER CIRCUITS NECESSARY FOR THE OPERATION OF THE NOTIFICATION APPLIANCE ORECUTS NECESSARY FOR THE OPERATION OF THE NOTIFICATION APPLIANCE ONTROL UNIT UNTIL THE POINT THAT THEY ENTER THE NOTIFICATION ZONE THAT THEY SERVE.</li> <li>MANUAL PULL STATIONS ARE TO BE INSTALLED AT 42° TO BOTTOM OF DEVICE AND NO HIGHER THAN 48° TO HANDLE ABOVE FINISHED FLOOR.</li> <li>PROVIDE MINIMUM 3/4° CONDUIT AND WIRING BETWEEN EACH FIRE ALARM DEVICE AND FROM LAST DEVICE TO FACP UNLE OTHERWISE NOTED.</li> <li>PROVIDE DUCT DETECTOR (AND FIRE ALARM RELAY WHERE APPLICABLE) CONNECTED TO FIRE ALARM SYSTEM, WITHIN 5' O ALL DUCT PENETRATIONS THROUGH FIRE/SMOKE WALLS, WHETHER INDICATED ON ELECTRICAL OR MECHANICAL PLANS OR NOT.</li> <li>RIFE ALARM CONTROL PANEL IS TO BE PROVIDED WITH DEDICATED 120V CIRCUIT WITH EQUIPMENT GROUND CONNECTION PER MANUFACTURER'S RECOMMENDATIONS AND ARTICLE 760 OF THE NEC. PROVIDE MINIMUM #12 AWG FOR GROUND CONNECTION. NOTE: PANEL NEUTRAL OR CONDUIT GROUND IS NOT ACCEPTABLE. 120V CIRCUIT SHAL</li></ol>
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<ul> <li>EMERGENCY/LIFE SAFETY BRANCH WHERE AVAILABLE.</li> <li>9. SECONDARY BACK-UP POWER SHALL BE PROVIDED BY INTEGRAL BATTERIES WITHIN THE FIRE ALARM CONTROL PANEL TO SUPPLY POWER TO THE SYSTEM UNDER QUIESCENT LOAD FOR A MINIMUM OF 24 HOURS, AND THEN BE CAPABLE OF AN ADDITIONAL 15 MINUTES (5 MINUTES FOR NON VOICE SYSTEMS) ALARM OPERATION AT MAXIMUM CONNECTED LOAD.</li> <li>10. ALL FIRE ALARM POWER CIRCUITS SHALL HAVE A DEDICATED 120V 20A BREAKER THAT SHALL BE RED IN COLOR AND MECHANICALLY PROTECTED (LOCKABLE IN THE "ON" POSITION), MARKED AS "FIRE ALARM CIRCUIT".</li> <li>11. A SUPERVISORY SIGNAL SHALL BE ANNUNCIATED UPON ANY TAMPER SWITCH ACTIVATION. FAILURE OR REMOVAL OF ANY</li> </ul>
ADDITIONAL 15 MINUTES (5 MINUTES FOR NON VOICE SYSTEMS) ALARM OPERATION AT MAXIMUM CONNECTED LOAD. 10. ALL FIRE ALARM POWER CIRCUITS SHALL HAVE A DEDICATED 120V 20A BREAKER THAT SHALL BE RED IN COLOR AND MECHANICALLY PROTECTED (LOCKABLE IN THE "ON" POSITION), MARKED AS "FIRE ALARM CIRCUIT". 11. A SUPERVISORY SIGNAL SHALL BE ANNUNCIATED UPON ANY TAMPER SWITCH ACTIVATION. FAILURE OR REMOVAL OF ANY
IT. A SUPERVISURY SIGNAL SHALL BE ANNUNCIATED UPON ANY TAMPER SWITCH ACTIVATION, FAILURE OR REMOVAL OF ANY
DETECTION OR MANUAL DEVICE SHALL ACTIVATE A TROUBLE SIGNAL. 12. A CERTIFICATION OF COMPLETION AND UL LISTING SHALL BE ISSUED AND INSTALLED ON THE FIRE ALARM CONTROL PAN SUBMIT NFPA RECORD OF COMPLETION FORM ALONG WITH SMOKE DETECTOR SENSITIVITY REPORT FOR ALL DETECTORS WITHIN THE PROJECT AREA TO ENGINEER AND MAKE AVAILABLE AT FINAL INSPECTION.
<ol> <li>MINIMUM CANDELA RATING OF STROBES IS 75; "110" ADJACENT TO DEVICE INDICATES 110 CANDELA RATING. PROVIDE SYNCHRONIZATION OF STROBES IN ALL ADJACENT AREAS WHERE STROBES ARE VISIBLE TO EACH OTHER.</li> <li>ALL STROBES SHALL ACTIVATE UPON INITIATION OF THE GENERAL ALARM.</li> </ol>
15. ALL STROBES SHALL BE INSTALLED PER ADA MOUNTING HEIGHT REQUIREMENTS. WALL MOUNTED STROBES SHALL BE INSTALLED SO THAT THE BOTTOM OF THE STROBE LENS IS 80" AFF.
16. STROBES SHALL BE INSTALLED WITHIN 15' OF THE ENDS OF ALL CORRIDORS. 17. FIRE ALARM DEVICES INSTALLED OUTSIDE OR IN AREAS OPEN TO THE EXTERIOR SHALL BE WEATHERPROOF DEVICES IN
APPROVED BACKBOXES. 18. SMOKE DETECTORS SHALL BE PHOTO-ELECTRIC ADDRESSABLE TYPE, UNLESS SPECIFICALLY NOTED OTHERWISE.
19. SMOKE DETECTORS ARE TO BE INSTALLED PER NFPA 72. WALL MOUNTED SMOKE DETECTORS SHALL BE MOUNTED 4"-12" BELOW THE CEILING AND AWAY FROM CORNERS.
<ol> <li>20. SMOKE DETECTORS LOCATED IN ELEVATOR LOBBIES, ELEVATOR HOISTWAYS AND ELEVATOR MACHINE ROOMS SHALL INITIATE ELEVATOR RECALL, ACTIVATE ELEVATOR WARNING LIGHTS AND CAUSE SEPARATE AND DISTINCT VISIBLE ANNUNCIATION AT THE FIRE ALARM CONTROL PANEL AND FIRE ALARM ANNUNCIATORS.</li> <li>21. DUCT DETECTORS SHALL BE PHOTO-ELECTRIC ADDRESSABLE TYPE, AND RATED FOR VELOCITIES UP TO 5000 FT/MIN.</li> </ol>
<ol> <li>HEAT DETECTORS SHALL BE ADDRESSABLE, FIXED TYPE @ 135 DEG F, UNLESS OTHERWISE NOTED.</li> <li>FOR PROJECTS WITH AN ELEVATOR, THE ELEVATOR CONTROL PANEL SHALL HAVE TWO SIGNALS FROM THE FIRE ALARM</li> </ol>
CONTROL PANEL/ ASSOCIATED SMOKE DETECTORS - ONE FROM THE "DESIGNATED FLOOR" SMOKE DETECTOR AND ANOTHE COMBINED SIGNAL FROM THE SMOKE DETECTORS AT THE OTHER LOBBY LANDINGS AND IN THE ELEVATOR EQUIPMENT ROC 24. ACTIVATION OF ANY SMOKE DETECTOR IN THE FLEVATOR LOBBY OF THE DESIGNATED PRIMARY RECALL LEVEL OR FLEVATOR
MACHINE ROOM SHALL ACTIVATE ALTERNATE LEVEL RECALL. 25. PRIOR TO INSTALLATION OF ELEVATOR HOISTWAY HEAT DETECTORS, VERIFY WITH LOCAL AUTHORITY HAVING JURISDICTION
IF THEY ARE REQUIRED. 26. HEAT DETECTORS SHALL BE LOCATED WITHIN 24" OF SPRINKLER HEADS LOCATED IN THE ELEVATOR MACHINE ROOM AND HOISTWAY SPRINKLER HEADS LOCATED 24" ABOVE THE ELEVATOR PIT FLOOR. THESE HEAT DETECTORS SHALL HAVE BOTH
LOWER TEMPERATURE RATING AND HIGHER SENSITIVITY THAN THE SPRINKLER HEADS. HEAT DETECTORS SHALL OPEN THE MAIN DISCONNECT/POWER SUPPLY TO THE ELEVATOR CONTROLLER. CONTROL CIRCUITS TO SHUT OFF ELEVATOR POWER SHALL BE MONITORED BY THE FIRE ALARM CONTROL PANEL.CONTROL MODULE SHALL BE WITHIN 3 FEET OF THE ELEVATOR
CONTROLLER. 27. WHERE THERE IS A GENERATOR ON THE PROJECT, PROVIDE RELAYS AS REQUIRED FOR THE FIRE ALARM SYSTEM TO MONITOR THE FOLLOWING THREE CONDITIONS' GENERATOR RUNNING' GENERATOR FAULT: GENERATOR SWITCH NOT IN
AUTO. 28. WHERE THERE IS A FIRE PUMP ON THE PROJECT, PROVIDE RELAYS AS REQUIRED FOR THE FIRE ALARM SYSTEM TO MONIT
THE FOLLOWING THREE CONDITIONS: FIRE PUMP RUNNING; FIRE PUMP LOSS OF POWER; FIRE PUMP POWER PHASE REVERS 29. PROVIDE AN ADDRESSABLE FIRE ALARM SYSTEM PER NFPA AND ALL STATE AND LOCAL CODE REQUIREMENTS. COMPLY W NEPA 72 AND ADA REQUIREMENTS.
<ol> <li>FIELD VERIFY LOCATION OF AREA SMOKE DETECTORS AND HEAT DETECTORS. DO NOT LOCATE WITHIN 36" OF AN HVAC DIFFUSER (SUPPLY OR RETURN), IN DIRECT AIR FLOW PATH, OR WITHIN 24" OF A SPRINKLER HEAD UNLESS NOTED OTHERN</li> </ol>
SMORE DETECTORS FOR DOOR RELEASE SHALL BE LOCATED ON THE CENTERLINE OF THE DOOR AND A MAXIMUM OF FIVE FEET FROM THE DOOR. THE MINIMUM DISTANCE FROM THE DOOR SHALL BE THE DEPTH OF THE WALL SECTION ABOVE THE DOOR, BUT NOT LESS THAN 12".
31. PROVIDE LABELS FOR REMOTE ALARM INDICATORS FOR DUCT MOUNTED SMOKE DETECTORS (I.E., AHU-1 SUPPLY, AHU-2 RETURN, FIRE/SMOKE DAMPER, ETC.). DUCT DETECTORS SHOULD BE LOCATED WITHIN 6 TO 10 EQUIVALENT DIAMETERS OF STRAIGHT, UNINTERRUPTED DUCTWORK. DUCT DETECTORS FOR FIRE/SMOKE DAMPERS SHOULD BE LOCATED BETWEEN TH LAST INLET OR OUTLET UPSTREAM OF THE DAMPER AND THE FIRE INLET OR OUTLET DOWNSTREAM OF THE DAMPER, AND WITHIN FIVE FEET OF THE FIRE/SMOKE WALL.
32. EQUIPMENT SHUT DOWN FIRE ALARM RELAYS SHALL BE LOCATED WITHIN THREE (3) FEET OF THE EQUIPMENT CONTROLS A THE WIRING TO THE RELAY SHALL BE MONITORED BY THE FIRE ALARM SYSTEM.
33. ALL FIRE ALARM CABLE SHALL BE INSTALLED IN CONDUIT; NO FIRE ALARM CONDUIT SHALL BE INSTALLED UNDER SLAB. PROVIDE MANUFACTURED RED CONDUIT UNLESS OTHERWISE NOTED.
<ul> <li>34. MINIMIZE EXPOSURE OF DETECTORS TO DIRT AND DUST FROM CONSTRUCTION. PROVIDE PLASTIC COVERS DURING CONSTRUCTION.</li> <li>35. STATE CERTIFIED AND LICENSED FIRE ALARM CONTRACTOR SHALL PREPARE AND SUBMIT SIGNED AND SEALED DRAWINGS</li> </ul>
FOR THE LOCAL AUTHORITY HAVING JURISDICTION/ FIRE MARSHALL. 36. FOR RENOVATION PROJECTS, CONTRACTOR SHALL PROVIDE MEANS OF AUTOMATIC SMOKE DETECTION VIA INSTALLED
SMOKE DETECTORS CONNECTED TO THE FACILITY FIRE ALARM SYSTEM FOR COVERAGE DURING NON-OCCUPIED PERIODS WITHIN THE CONSTRUCTION AREA. ALTERNATIVELY, A DOCUMENTED FIRE WATCH OF THE ENTIRE AREA PERFORMED IN INCREMENTS NO GREATER THAN ONE HOUR MAY BE PERFORMED PROVIDED THAT IT IS DOCUMENTED IN FULL ACCORDANC WITH NFPA 72. COORDINATE ACTIVITY IN FIELD WITH GENERAL CONTRACTOR.
37. ALL NOTIFICATION DEVICES SHALL MATCH EXISTING NOTIFICATION DEVICES IN COLOR.
39. ALL NOTIFICATION DEVICES SHALL BE WHITE IN COLOR UNLESS OTHERWISE NOTED.
<ul> <li>40. FIRE ALARM CIRCUITS SHALL BE CLASS "A",</li> <li>41. NOTIFICATION DEVICES SHALL BE ADDRESSABLE ELECTRIC-VIBRATING-POLARIZED HORNS, SELECTABLE FOR HIGH OR LOU dBA OUTPUT THEY SHALL HAVE A COUND DEPENDENCE FOR HIGH OF A COUNT AFTA DEPENDENCE AND A D</li></ul>
<ul> <li>dBA UUTPUT. THEY SHALL HAVE A SOUND PRESSURE LEVEL OF 90dBA MEASURED 10 FEET FROM HORN, USING CODED SIG PER NFPA 72.</li> <li>42. FIRE ALARM CONTRACTOR/VENDOR SHALL PREPARE WORKING DRAWINGS INCORPORATING THE FIRE ALARM CRITERIA DESIGN AND CONFIDENTIAL TO ALL PEOL/IDEA/CODE OLIVER DATE AND CONFIDENTIAL DESIGN AND CONFIDENTIAL DESIGN</li></ul>
DESIGN CRITERIA FOR A FULLY FUNCTIONING AND PERMITTABLE FIRE ALARM SYSTEM. SUBMIT TO DESIGN PROFESSIONAL A SHOP DRAWING FOR REVIEW. SUBMIT COMPLETE SIGNED & SEALED DRAWINGS TO PERMITTING AGENCY AND FOR CERTIFICATE OF OCCUPANCY. COMPLETED FIRE ALARM CERTIFICATION SHALL BE PROVIDED TO OWNER AT COMPLETION O CONSTRUCTION.
43. WHERE A FIRE ALARM RISER IS INDICATED, IT IS DIAGRAMMATIC IN NATURE AND NOT INTENDED TO REPRESENT A COMPLE WIRING AND DEVICE DISPLAY. ALL WIRING AND DEVICES SHALL BE IN ACCORDANCE WITH SELECTED VENDOR'S POINT-BY-PU WIRING DIAGRAM. REFER TO FLOOR PLAN FOR DESIGN INTENT AND PROPOSED QUANTITY OF FIRE ALARM SYSTEM COMPONENTS.

### IPATIBLE WITH THE SYSTEM

### MINIMUM 300V TYPE FPLP PA 72, AND AS RECOMMENDED

NO. 14 AWG, TWISTED SHIELDED

### PPLIANCE CIRCUITS AND ANY JITS FROM THE POINT AT WHICH THAT THEY SERVE. R THAN 48" TO HANDLE ABOVE

I LAST DEVICE TO FACP UNLESS

E ALARM SYSTEM, WITHIN 5' OF AL OR MECHANICAL PLANS OR

### MENT GROUND CONNECTION M #12 AWG FOR GROUND JIT SHALL BE FROM

### E FIRE ALARM CONTROL PANEL. EPORT FOR ALL DETECTORS

VALS FROM THE FIRE ALARM IOKE DETECTOR AND ANOTHER E ELEVATOR EQUIPMENT ROOM.

RY RECALL LEVEL OR ELEVATOR THORITY HAVING JURISDICTION

EVATOR MACHINE ROOM AND ALL TECTORS SHALL HAVE BOTH A DETECTORS SHALL OPEN THE SHUT OFF ELEVATOR POWER THIN 3 FEET OF THE ELEVATOR

IRE ALARM SYSTEM TO MONITOR E PUMP POWER PHASE REVERSAL. E REQUIREMENTS. COMPLY WITH

TE WITHIN 36" OF AN HVAC HEAD UNLESS NOTED OTHERWISE. OOR AND A MAXIMUM OF FIVE E WALL SECTION ABOVE THE

S (I.E., AHU-1 SUPPLY, AHU-2 0 EQUIVALENT DIAMETERS OF ULD BE LOCATED BETWEEN THE FREAM OF THE DAMPER, AND

THE EQUIPMENT CONTROLS AND

GNED AND SEALED DRAWINGS

DETECTION VIA INSTALLED RING NON-OCCUPIED PERIODS TIRE AREA PERFORMED IN IMENTED IN FULL ACCORDANCE

SELECTABLE FOR HIGH OR LOW ROM HORN, USING CODED SIGNAL

THE FIRE ALARM CRITERIA IAL REQUIRED PER AHJ AND TO DESIGN PROFESSIONAL AS

FING AGENCY AND FOR TO OWNER AT COMPLETION OF

ED TO REPRESENT A COMPLETE ECTED VENDOR'S POINT-BY-POINT FIRE ALARM SYSTEM

GENERAL REQUIREMENTS THE DRAWINGS AND APPLICABLE SPECIFICATIONS SHALL BE CONSIDERED SUPPLEMENTARY. ONE TO THE OTHER AND ARE CONSIDERED THE "CONTRACT DOCUMENTS". ALL WORKMANSHIP, METHODS AND/OR MATERIALS DESCRIBED OR IMPLIED BY ONE AND NOT DESCRIBED OR IMPLIED BY THE OTHER SHALL BE PROVIDED, FURNISHED OR PERFORMED AS IF IT HAD APPEARED IN BOTH SECTIONS, THE TERM "CONTRACT DOCUMENTS" DESCRIBED HEREIN IS NOT LIMITED SOLELY TO THE ELECTRICAL PORTION OF THE DRAWINGS AND SPECIFICATIONS, BUT ENCOMPASSES THE DRAWINGS AND SPECIFICATIONS OF ALL DIVISIONS AS A WHOLE 2. THE DRAWINGS ARE DIAGRAMMATIC AND ARE NOT INTENDED TO SHOW EVERY DETAIL OF CONSTRUCTION, METHODS, MATERIALS AND EQUIPMENT. OR EXACT LOCATIONS, ROUTING, ETC. THEY INDICATE THE RESULT TO BE ACHIEVED BY THE ASSEMBLAGE OF SEVERAL SYSTEMS FOR A COMPLETE AND OPERATIONAL ELECTRICAL SYSTEM. DO NOT SCALE THE CONTRACT

DOCUMENTS, COORDINATE EXACT EQUIPMENT LOCATIONS WITH THE ARCHITECTURAL, CIVIL AND STRUCTURAL CONTRACT DOCUMENTS, AS WELL AS FIELD CONDITIONS, APPROVED SHOP DRAWINGS AND WORK OF ALL OTHER DIVISIONS/TRADES. D. THE TERM "PROVIDE" USED IN THE CONTRACT DOCUMENTS INDICATES TO FURNISH AND INSTALL MATERIALS REQUIRED FOR CORRECT INSTALLATION OF A COMPLETE SYSTEM, UNLESS SPECIFICALLY NOTED OTHERWISE . UNLESS NOTED AS EXISTING, ALL ELECTRICAL INDICATED ON THE CONTRACT DOCUMENTS SHALL BE NEW, SHALL BE U.L. LISTED, AND SHALL BEAR A U.L. LABEL, WHERE NO U.L. LABEL OR LISTING IS AVAILABLE. THE MATERIAL SHALL BE LISTED WITH AN APPROVED, NATIONALLY RECOGNIZED ELECTRICAL TESTING AGENCY.

. PROVIDE EXPERIENCED, QUALIFIED AND RESPONSIBLE SUPERVISION FOR ALL WORK REQUIRED BY THE CONTRACT DOCUMENTS. ALL ELECTRICAL EQUIPMENT SHALL BE INSTALLED IN A NEAT AND WORKMANLIKE MANNER, TO THE SATISFACTION OF THE ARCHITECT/ENGINEER AND OWNER. 6. CARRY ALL INSURANCE REQUIRED TO PROTECT AGAINST PUBLIC LIABILITY AND PROPERTY DAMAGE FOR THE DURATION OF THIS PROJECT

GUARANTEE ALL MATERIALS AND WORKMANSHIP ARE FREE FROM DEFECTS FOR A PERIOD OF NOT LESS THAN ONE YEAR FROM THE DATE OF FINAL ACCEPTANCE BY THE ARCHITECT/ENGINEER AND OWNER, UNLESS NOTED OTHERWISE IN DIVISION 1. AT NO ADDITIONAL COSTS, PROVIDE THE CORRECTION OF ANY DEFECTS INCLUDING REPAIR OR REPLACEMENT. 8. INCLUDE ALL COSTS ASSOCIATED WITH PERMITS, LICENSES, FEES, INSPECTIONS, TESTING AND TEMPORARY POWER IN THE BID PRICE UNLESS NOTED OTHERWISE

IF HAZARDOUS MATERIALS ARE ENCOUNTERED. COMPLY WITH ALL APPLICABLE RULES. REGULATIONS AND GUIDELINES CONCERNING REMOVAL, HANDLING, DISPOSAL AND PROTECTION AGAINST ENVIRONMENTAL EXPOSURE OR POLLUTION. PROVIDE DOCUMENTATION OF SAID COMPLIANCE 0. PROVIDE ELECTRONIC SUBMITTALS (PRODUCT DATA & SHOP DRAWINGS) FOR EACH MAJOR COMPONENT OF THE ELECTRICAL

SYSTEM FOR REVIEW BY THE ARCHITECT/ENGINEER AND OWNER. MAJOR COMPONENTS INCLUDE, BUT ARE NOT LIMITED TO. RACEWAYS, BOXES, WIRE AND CABLE, EQUIPMENT, DEVICES, LIGHT FIXTURES, SWITCHGEAR, PANELBOARDS, CIRCUIT BREAKERS, SAFETY SWITCHES, FIRE ALARM SYSTEM, ETC, ALL SUBMITTALLS ARE TO BE REVIEWED AND APPROVED BY THE CONTRACTOR FOR CONFORMANCE WITH THE PROJECT REQUIREMENTS PRIOR TO SUBMITTING TO THE ARCHITECT/ENGINEER. ALLOW A MINIMUM OF TEN (10) BUSINESS DAYS FOR REVIEW BY ARCHITECT/ENGINEER, UNLESS NOTED OTHERWISE IN DIVISION

THE ELECTRICAL PORTION OF THE CONTRACT DOCUMENTS ARE COORDINATED WITH THE DESIGN BASIS EQUIPMENT SPECIFIED BY DIVISION 26 AND OTHER DIVISIONS. WHERE THE CONTRACTOR ELECTS TO SUBSTITUTE A PRODUCT IN LIEU OF PROVIDING THE DESIGN BASIS, AND SAID SUBSTITUTION IS ACCEPTED BY THE ARCHITECT/ENGINEER AND OWNER. THE CONTRACTOR SHALL MAKE ALL CORRECTIONS TO THE ELECTRICAL SYSTEM NECESSARY IN ORDER TO ENSURE A COMPLETE AND OPERATIONAL INSTALLATION OF THE EQUIPMENT AT NO ADDITIONAL COSTS. WHERE THE CONTRACTOR'S DESIGN SUBSTITUTION RESULTS IN THE NEED FOR THE ENGINEER TO REVISE THE CONTRACT DOCUMENTS, THE ENGINEER RESERVES THE RIGHT TO REQUEST COMPENSATION FROM THE CONTRACTOR FOR SAID SERVICES.

2. MAINTAIN A CURRENT AND ACCURATE SET OF PROJECT RECORD DOCUMENTS (AS-BUILTS) AT THE SITE THROUGHOUT THE DURATION OF THE PROJECT. RECORD DRAWINGS SHALL BE UPDATED EACH DAY TO REFLECT THE ACTUAL LOCATIONS, SIZES, ROUTING, ETC. OF EACH PORTION OF THE ELECTRICAL SYSTEM AFFECTED BY THIS WORK. A FINAL SET OF RECORD DOCUMENTS SHALL BE ISSUED TO THE ARCHITECT/ ENGINEER FOR REVIEW AND THEN SUBMITTED TO THE OWNER WITHIN 30 DAYS AFTER THE DATE OF FINAL ACCEPTANCE. PROVIDE RECORD DRAWINGS OF THE ACTUAL INSTALLATION INCLUDING SINGLE LINE DIAGRAM, POWER RISER DIAGRAM OF THE BUILDING ELECTRICAL DISTRIBUTION SYSTEM, SITE PLANS AND ALL ELECTRICAL FLOORPLANS, DETAILS, PANEL SCHEDULES, ETC. 3. PROVIDE AN OPERATING AND MAINTENANCE MANUAL TO OWNER PRIOR TO THE FINAL ACCEPTANCE. THE MANUAL SHALL

INCLUDE, AS A MINIMUM. (1) SUBMITTAL DATA STATING EQUIPMENT RATING AND SELECTED OPTIONS FOR EACH PIECE OF EQUIPMENT REQUIRING MAINTENANCE. ALSO PROVIDE TWO OPERATIONS AND MAINTENANCE MANUALS FOR EACH PIECE OF EQUIPMENT REQUIRING MAINTENANCE. REQUIRED ROUTINE MAINTENANCE ACTIONS AND METHOD OF OPERATION FOR EQUIPMENT SHALL BE CLEARLY IDENTIFIED, AND THE NAME, PHONE NUMBER AND ADDRESS OF AT LEAST ONE QUALIFIED SERVICE AGENCY 14. INCLUDE ALL COSTS FOR EXCAVATION, SAW CUTTING, DIRECTIONAL BORING, CORE DRILLING, BACKFILLING, SURFACE

RESTORATION, REPAIR OF FINISHES, ETC. THAT IS REQUIRED IN ORDER TO MEET THE PROJECT REQUIREMENTS. 5. INCLUDE IN BID ALL COSTS ASSOCIATED WITH TEMPORARY ELECTRICAL SERVICE AS REQUIRED FOR USE BY ALL TRADES DURING CONSTRUCTION. REMOVE TEMPORARY POWER AT THE COMPLETION OF THE PROJECT. OBTAIN AND PAY FOR ALL REQUIRED PERMITS FOR TEMPORARY POWER. ENGINEER OF RECORD SHALL BE PROVIDED WITH ADDITIONAL COMPENSATION FROM THE CONTRACTOR WHERE SIGNED & SEALED DRAWINGS ARE REQUESTED BY THE CONTRACTOR TO THE ENGINEER OF RECORD IF REQUIRED BY THE AHJ FOR THE TEMPORARY POWER. 16. LOCATE, IDENTIFY, PROTECT AND DOCUMENT ALL UTILITY LINES LOCATED WITHIN THE PROJECT BOUNDARY. FOR LOCATING

SITE UTILITIES, CONTACT ALL LOCAL MUNICIPALITIES AND UTILITIES AT LEAST 48 HOURS PRIOR TO DIGGING. 7. INCLUDE IN BID THE TRANSPORT AND DISPOSAL OR RECYLING OF ALL WASTE MATERIALS GENERATED BY THIS PROJECT IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL RULES, REGULATIONS AND GUIDELINES APPLICABLE. COMPLY FULLY WITH ALL APPLICABLE STATUTES REGARDING MERCURY- CONTAINING DEVICES. AND WITH ALL LOCAL. STATE AND FEDERAL APPLICABLE GUIDELINES AT THE TIME OF DISPOSAL. PROVIDE OWNER WITH WRITTEN CERTIFICATION OF ACCEPTED DISPOSAL.

# <u>OORDINATION</u>

. VERIFY AND COORDINATE LOCATIONS OF ANY MISCELLANEOUS EQUIPMENT REQUIRING ELECTRICAL CONNECTIONS (I.E COPIERS, FAX MACHINES, PRINTERS, KITCHEN APPLIANCES, LAUNDRY APPLIANCES, PROJECTION SCREENS, SHOP TOOLS, MACHINE, ELEVATORS, ETC.) WITH APPROVED SHOP DRAWINGS, OWNER-PROVIDED CUT SHEETS, MANUFACTURER'S INSTRUCTIONS, AND EQUIPMENT NAMEPLATE INFORMATION, PRIOR TO ROUGH IN, AND PROVIDE ALL NECESSARY ELECTRICAL REQUIRED

2. VERIFY AND COORDINATE LOCATIONS AND EXACT ELECTRICAL REQUIREMENTS FOR ALL MECHANICAL, PLUMBING AND FIRE PROTECTION EQUIPMENT PRIOR TO SUBMITTAL OF SHOP DRAWINGS OF ELECTRICAL EQUIPMENT, PROVIDE ALL NECESSARY RACEWAYS, CONDUCTORS, BOXES, EQUIPMENT, ACCESSORIES, ASSOCIATED DISCONNECT SWITCHES, CIRCUIT BREAKERS, CONTROL TRANSFORMERS, FIRE ALARM SHUTDOWN, ETC. REQUIRED FOR A COMPLETE AND OPERATIONAL SYSTEM. COORDINATE WITH APPROPRIATE TRADE'S APPROVED SHOP DRAWINGS, MANUFACTURER'S INSTRUCTIONS, AND EQUIPMENT NAMEPLATE INFORMATION, PRIOR TO ROUGH IN, AND PROVIDE ALL NECESSARY ELECTRICAL REQUIRED, UNLESS NOTED OTHERWISE

9. THIS PROJECT REQUIRES COORDINATION DRAWINGS BY THE CONTRACTOR. PARTICIPATE IN THE COORDINATION DRAWING PREPARATION PROCESS AND PROVIDE ALL NECESSARY INFORMATION REQUIRED TO COORDINATE ALL TRADE INFORMATION. . ALL WORK ON THE ELECTRICAL SYSTEM REQUIRED BY THE CONTRACT DOCUMENTS SHALL BE COORDINATED WITH THE WORK OF ALL OTHER DIVISIONS/TRADES PRIOR TO COMMENCEMENT OF WORK. AVOID INTERFERENCES WITH THE PROGRESS OF OTHER DIVISIONS/TRADES.

5. WHERE WALLS ARE OF TILT-UP OR PRE-CAST CONSTRUCTION, PROVIDE COORDINATION FOR EXACT DIMENSIONS AND OPENINGS REQUIRED FOR ALL ELECTRICAL COMPONENTS INSTALLED WITHIN SUCH WALLSDURING THE SHOP DRAWING REVIEW PROCESS OF THE WALLS, PRIOR TO CONSTRUCTION OF THE WALLS. 6. LOCATIONS OF VFD'S, DISCONNECTS, MOTOR STARTERS, ETC. FOR HVAC EQUIPMENT ARE DIAGRAMMATIC ON THE PLAN DRAWINGS. EXACT LOCATIONS ARE TO BE COORDINATED WITH CONTRACTOR'S COORDINATION DRAWINGS PRIOR TO ROUGH-IN TO ENSURE PROPER NEC CLEARANCES AND APPROPRIATE MOUNTING SURFACE

Z. REFER TO ARCHITECTURAL, MECHANICAL, PLUMBING, FIRE PROTECTION, CIVIL, LANDSCAPE, INTERIOR DESIGN, TECHNOLOGY, STRUCTURAL, AND VENDOR EQUIPMENT DRAWINGS FOR RELATED INFORMATION AND ADDITIONAL INSTALLATION REQUIREMENTS TO BE PERFORMED AS PART OF THE WORK. 8. WHERE A DISCREPANCY OR CONFLICT IS FOUND BETWEEN ONE DRAWING AND ANOTHER, OR BETWEEN A DRAWING AND APPLICABLE SPECIFICATIONS, NOTIFY THE ARCHITECT/ENGINEER IMMEDIATELY IN WRITTEN FORM. IN GENERAL, THE MOST STRINGENT REQUIREMENT SHALL GOVERN UNLESS THE DISCREPANCY CONFLICTS WITH APPLICABLE CODES OR OWNER'S

DESIGN STANDARDS, WHEREIN THE CODE OR OWNER'S DESIGN STANDARDS SHALL GOVERN. ). CAREFULLY EXAMINE THOSE PORTIONS OF THE BUILDING AND/OR SITE AFFECTED BY THIS WORK PRIOR TO SUBMITTING BID PRICE, SO AS TO BECOME FAMILIAR WITH EXISTING CONDITIONS AND DIFFICULTIES THAT MAY AFFECT EXECUTION OF THE WORK. SUBMISSION OF A BID PRICE SHALL BE CONSTRUED AS EVIDENCE THAT SUCH EXAMINATION HAS BEEN MADE. LATER CLAIMS FOR LABOR, EQUIPMENT AND/OR MATERIALS REQUIRED DUE TO DIFFICULTIES ENCOUNTERED THAT COULD HAVE BEEN REASONABLY OBSERVED WILL NOT BE RECOGNIZED.

0. COORDINATE ALL PROJECT SCHEDULING AND PHASING REQUIREMENTS WITH ARCHITECT/ENGINEER AND OWNER PRIOR TO SUBMITTING BID PRICE. THIS PROJECT MAY REQUIRE PHASING SEQUENCES AND POTENTIAL PREMIUM TIME WORK AND ALL COSTS FOR SUCH SHALL BE INCLUDED IN THE BID PRICE. PROVIDE ADEQUATE WORK FORCE AND EQUIPMENT, AND INCLUDE PREMIUM TIME AS MAY BE REQUIRED IN ORDER TO ADHERE TO THE PROJECT SCHEDULE. ADDITIONALLY, ENSURE THAT LONG LEAD ITEMS DO NOT IMPACT THE PROJECT'S SCHEDULE OR PHASING. 1. ANY TEMPORARY INTERRUPTION OF POWER REQUIRED FOR THE SYSTEM TIE-IN OR SWITCHOVER FOR ANY PORTION OF THE ELECTRICAL SYSTEM SHALL BE PRE-APPROVED IN WRITING BY THE OWNER AND SCHEDULED IN ADVANCE.

2. COORDINATE EXACT REQUIREMENTS WITH THE LOCAL UTILITY COMPANIES AND PROVIDERS (ELECTRIC, TELEPHONE, CABLE TV, ETC.) AND INCLUDE ALL COSTS FOR PROVIDING TEMPORARY AND PERMANENT SERVICES REQUIRED FOR THIS PROJECT IN THE BID PRICE. BID PRICE SHALL INCLUDE, BUT NOT BE LIMITED TO, EXCAVATION, RACEWAYS, BACKFILL, EQUIPMENT, EQUIPMENT PADS, BACKBOARDS, METERS, GROUNDING, UTILITY ENGINEERING AND IMPACT FEES. . CONDUCT WORK OPERATIONS AND DEBRIS REMOVAL IN A MANNER THAT ENSURES MINIMUM INTERFERENCE WITH NORMAL BUSINESS OPERATIONS, TRAFFIC, PARKING, ETC. ONGOING IN ADJACENT OCCUPIED SPACES OR FACILITIES. PROVIDE ALL THAT

IS REQUIRED TO EFFECTIVELY PROTECT SURROUNDING OCCUPANTS, EQUIPMENT, FINISHES, FURNITURE, ETC. FROM DAMAGE OR EXCESSIVE NOISE THROUGHOUT THE DURATION OF THIS PROJECT. CONTRACTOR IS RESPONSIBLE FOR ANY LOSSES OR ANY DAMAGE RESULTING FROM THE FAILURE TO ADHERE TO THIS REQUIREMENT. RESTORE DAMAGED ELEMENTS TO ORIGINAL CONDITION TO THE SATISFACTION OF THE ARCHITECT/ENGINEER AND OWNER, AT NO ADDITIONAL COSTS. REPORT OF ANY SUCH OCCURRENCE TO THE ARCHITECT/ENGINEER AND OWNER IMMEDIATELY AND AWAIT WRITTEN DIRECTION PRIOR TO PROCEEDING WITH REPAIRS. 4. COORDINATE THE LOCATION OF ALL LIGHT FIXTURES, DEVICES AND BOXES WITH WINDOWS, MIRRORS, MILLWORK, CABINETS,

GLASS CURTAIN WALLS, AND GLASS WALLS PRIOR TO INSTALLATION OF CONDUITS OR BOXES. REVIEW ALL CONTRACT DRAWINGS TO ASCERTAIN ANY CONFLICTS PRIOR TO BIDDING. OBTAIN CLARIFICATION FROM THE ARCHITECT/ENGINEER PRIOR TO BID. CONTRACTOR SHALL NOT BE ENTITLED TO ADDITIONAL COMPENSATION FOR WORK REQUIRED TO RELOCATE OUTLET BOXES OR RACEWAYS FOR COORDINATION WITH OTHER TRADE'S WORK.

FIRE PROTECTION PIPING SHALL NOT BE USED FOR GROUNDING.

- 2. ALL FEEDERS AND BRANCH CIRCUITS SHALL INCLUDE AN EQUIPMENT GROUND CONDUCTOR. METAL RACEWAYS SHALL NOT BE USED AS THE SOLE EQUIPMENT GROUND. 3. WHERE A PHASE CONDUCTOR IS INCREASED IN SIZE DUE TO VOLTAGE DROP, THE EQUIPMENT GROUND CONDUCTOR SHALL BE INCREASED IN SIZE PROPORTIONATELY.
- . PROVIDE A GROUND BUS BAR IN EACH ELECTRICAL ROOM AND TELECOMMUNICATIONS / IDF/ MDF ROOM FOR ALL NEW CONSTRUCTION AND NEW ROOMS IN EXISTING CONSTRUCTION, AND IN EXISTING CONSTRUCTION WHERE THERE IS NONE INSTALLED WITHIN AN EXISTING ROOM.

LECTRICAL EQUIPMENT

- EQUIPMENT SHALL BE OF MATERIALS SUITABLE FOR AND RATED FOR THE ENVIRONMENT IN WHICH THEY ARE TO BE INSTALLED. ALL COMPONENTS OF THE ELECTRICAL SYSTEM LOCATED OUTDOORS OR INDOORS WHERE EXPOSED TO SIGNIFICANT MOISTURE SHALL BE WEATHERPROOF, NEMA 3R, AS A MINIMUM, WHETHER INDICATED ON THE CONTRACT DRAWINGS OR NOT. . TERMINATION PROVISIONS FOR ALL ELECTRICAL EQUIPMENT (PANELBOARDS, SWITCHBOARD, TRANSFORMERS, DISCONNECT SWITCHES, MOTOR CONTROLLERS, AUTOMATIC TRANSFER SWITCHES, ENCLOSED CIRCUIT BREAKERS, BUSWAYS, ETC.) SHALL BE LISTED AND IDENTIFIED FOR USE WITH MINIMUM 75 DEG. F CONDUCTORS IN ACCORDANCE WITH NEC.
- . WORKING CLEARANCES FOR ELECTRICAL EQUIPMENT SHALL BE IN COMPLIANCE WITH NEC. 4. THE ELECTRICAL DEDICATED EQUIPMENT SPACE EXTENDING FROM FLOOR TO 6' ABOVE ELECTRICAL EQUIPMENT OR TO THE STRUCTURAL CEILING, WHICHEVER DISTANCE IS LOWER, WITH A WIDTH AND DEPTH OF THE PANELBOARD OR SWITCHBOARD MUST BE CLEAR OF ALL PIPING, DUCTS, ARCHITECTURAL APPURTENANCES AND OTHER EQUIPMENT FOREIGN TO THE ELECTRICAL INSTALLATION IN ACCORDANCE WITH NEC.
- 5. PROVIDE A REINFORCED CONCRETE PAD. SIZED 4" LARGER IN ALL DIRECTIONS THAN THE FOOTPRINT OF THE EQUIPMENT, AND 4" HIGH, FOR ALL FREESTANDING, FLOOR-MOUNTED ELECTRICAL EQUIPMENT. PROVIDE VIBRATION ISOLATORS AND/OR ANCHORS PER MANUFACTURER'S INSTRUCTIONS. PROVIDE HACR RATED CIRCUIT BREAKER FOR ALL HVAC EQUIPMENT.
- 7. ALL PANELBOARDS OR DISCONNECT SWITCHES LOCATED IN KITCHEN AREAS SHALL BE STAINLESS STEEL (COVER AND DOOR WHERE PANEL IS FLUSH MOUNTED; PANEL BOX, COVER & DOOR WHERE SURFACE MOUNTED). 3. PROVIDE SURGE PROTECTION DEVICE FOR ALL MAIN SERVICE EQUIPMENT, PANELBOARDS SERVING SENSITIVE ELECTRONIC EQUIPMENT (DATA RACKS) OR COMPUTERS, EMERGENCY SWITCHBOARDS AND PANELBOARDS, LIGHTING PANELS SERVING EXTERIOR LIGHTING, POWER CIRCUITS OR LOW VOLTAGE (FIRE ALARM, TELECOMMUNICATIONS) EXITING THE BUILDING, PROVIDE
- MINIMUM 30A/3P BREAKER IN BRANCH CIRCUIT PANELBOARDS AND 60A/3P IN DISTRIBUTION PANELBOARDS OR SWITCHBOARDS, UNLESS NOTED OTHERWISE, OR PER THE SPD MANUFACTURER'S RECOMMENDATIONS FOR SURGE PROTECTION DEVICE.

# ELECTRICAL GENERAL NOTES

LECTRICAL EQUIPMENT (CONTINUED)

PROVIDE ARC ENERGY REDUCING MAINTENANCE SWITCH FOR ANY BREAKER RATED (OR ABLE TO BE ADJUSTED TO) 1200A OR HIGHER UNLESS OTHER ARC ENERGY REDUCTION MEANS MEETING NEC 240.87 IS INDICATED ON DRAWINGS/SPECIFICATIONS OR OTHERWISE PROVIDED.

LECTRICAL DEVICES OUTLET BOXES, JUNCTION BOXES

- . LIGHT SWITCHES SHALL BE MOUNTED 48 INCHES ABOVE FINISHED FLOOR TO CENTER LINE OF DEVICE, UNLESS NOTED OTHERWISE. 2. RECEPTACLES, VOICE/DATA OUTLETS AND WALL FURNITURE FEEDS SHALL BE MOUNTED 18 INCHES ABOVE FINISHED FLOOR T
- CENTER LINE OF DEVICE, UNLESS NOTED OTHERWISE. ABOVE COUNTER RECEPTACLES SHALL BE MOUNTED 6" ABOVE BACK SPLASH TO CENTERLINE OF DEVICE, UNLESS NOTED OTHERWISE 3. IT IS THE INTENT THAT ALL DEVICE OUTLET BOXES (POWER AND SYSTEMS) BE FLUSH MOUNTED IN WALLS, CEILINGS OR FLOOR: AND JUNCTION BOXES FLUSH MOUNTED IN WALLS, CEILINGS, OR FLOORS, OR CONCEALED ABOVE ACCESSIBLE CEILINGS, AND NOT SURFACE MOUNTED, UNLESS SPECIFICALLY NOTED ON THE CONTRACT DRAWINGS, OR UNLESS THE ARCHITECT/ENGINEER
- GRANTS WRITTEN PERMISSION. ALL COMPONENTS OF THE ELECTRICAL SYSTEM (INCLUDE RACEWAYS, ELECTRICAL EQUIPMENT, OUTLET BOXES, JUNCTION BOXES, ETC.) LOCATED IN A HAZARDOUS (CLASSIFIED) LOCATION SHALL BE APPROVED FOR USE IN SAID LOCATION, AS DEFINED BY THE NEC, WHETHER INDICATED ON THE CONTRACT DOCUMENTS OR NOT. 5. ALL DEVICES SHALL BE MOUNTED VERTICALLY, UNLESS NOTED OTHERWISE.
- 6. ALL RECEPTACLES SHALL BE MOUNTED SUCH THAT THE GROUND PIN IS MOUNTED UP. . WHERE DEVICES ARE SHOWN IN WALLS BACK-TO-BACK ON OPPOSITE SIDES, INSTALL SO THAT THEY ARE SEPARATED BY AT I FAST 12" 8. RECEPTACLES OR JUNCTION BOXES FOR ELECTRIC WATER COOLERS AND VENDING MACHINES SHALL BE LOCATED DIRECTLY
- BEHIND SAID APPLIANCE. CONCEALED FROM DIRECT VIEW. RECEPTACLES AND/OR HARD WIRED EQUIPMENT CONNECTIONS SHALL BE PROTECTED BY A READILY ACCESSIBLE GFCI FEED-THRU DEVICE LOCATED IMMEDIATELY ADJACENT TO THE APPLIANCE OR BE PROTECTED BY GFCI BREAKER IN THE PANELBOARD. ALL GFCI DEVICES MUST BE READILY ACCESSIBLE PER THE NEC. 9. ALL EXTERIOR RECEPTACLES OR RECEPTACLES LOCATED IN AREAS SUBJECT TO MOISTURE (PARKING GARAGE, WASHDOWN
- AREAS IN KITCHEN, ETC) SHALL BE GFCI TYPE. ALL EXTERIOR RECEPTACLES SHALL WE PROVIDED WITH CAST METAL, IN-USE COVER UNLESS NOTED OTHERWISE 0. ALL RECEPTACLES LOCATED IN KITCHENS, BATHROOMS, MECHANICAL ROOMS, JANITOR CLOSETS, ELEVATOR SHAFTS,
- ELEVATOR EQUIPMENT ROOMS, FOR ELEVATOR SUMP PUMP(S) OR INSTALLED WITHIN 6' OF THE INSIDE FACE OF A SINK, SHALL BE GFCI TYPE OR GFCI PROTECTED. 1. ALL RECEPTACLES LOCATED IN CHILD-CARE FACILITIES, DWELLING UNITS, HOTEL/MOTEL GUEST ROOMS, PEDIATRIC CLINICS OR
- PEDIATRIC CAREA AREAS, AND OTHER AREAS AS REQUIRED BY NEC AND LOCAL CODE REQUIREMENTS SHALL BE TAMPER RESISTANT 12. WHEN ELECTRICAL BOXES ARE LOCATED IN VERTICAL FIRE-RESISTIVE ASSEMBLIES, THEY SHALL BE INSTALLED WITHOUT AFFECTING THE FIRE CLASSIFICATION. ALL OF THE FOLLOWING CONDITIONS SHALL BE MET:
- A. ALL ELECTRICAL BOXES SHALL BE METALLIC. B. BOX OPENING SHALL OCCUR ONLY ON ONE SIDE OF FRAMING SPACE. BOX OPENING SHALL NOT EXCEED 16 SQUARE INCHES.
- D. ALL CLEARANCES BETWEEN OUTLET BOX AND GYPSUM BOARD SHALL BE COMPLETELY FILLED WITH JOINT COMPOUND (OR OTHER APPROVED MATERIAL) PROVIDE A WALL AROUND OUTLETS LARGER THAN 16 SQUARE INCHES. THE INTEGRITY OF THE WALL RATING SHALL BE
- MAINTAINED THE TOTAL AGGREGATE SURFACE AREA OF THE BOXES SHALL NOT EXCEED 100 SQUARE INCHES PER 100 SQUARE FEET
- . OUTLET BOXES LOCATED ON OPPOSITE SIDES OF FIRE RESISTIVE ASSEMBLIES SHALL BE SEPARATED BY A MINIMUM HORIZONTAL DISTANCE OF 24 INCHES. H. OUTLET BOXES SHALL BE SECURELY FASTENED TO WALL FRAMING MEMBERS. THE OPENING IN THE GYPSUM BOARD FACING SHALL BE CUT NOT TO EXCEED 1/8 INCH BETWEEN THE EDGES OF THE OUTLET BOX AND THE EDGES OF THE OPENING.

ACEWAYS

FLEXIBLE METAL CONDUIT AND LIQUIDTIGHT FLEXIBLE METAL CONDUIT (FMC & LFMC) SHALL NOT BE USED IN LENGTHS THAT EXCEED 6'-0" UNLESS SPECIFICALLY NOTED OTHERWISE, OR UNLESS THE ARCHITECT/ENGINEER GRANTS WRITTEN PERMISSION ALL FEEDER AND BRANCH CIRCUIT CONDUCTORS, INCLUDING LOW VOLTAGE SYSTEMS, SHALL BE INSTALLED IN A COMPLETE RACEWAY SYSTEM (CONDUIT) UNLESS SPECIFICALLY NOTED OTHERWISE.

3. THE USE OF ELECTRICAL NON-METALLIC TUBING (ENT) AND LIQUIDTIGHT FLEXIBLE NON-METALLIC CONDUIT (LFNC) ARE PROHIBITED UNLESS SPECIFICALLY NOTED OTHERWISE, OR UNLESS THE ARCHITECT/ENGINEER OR OWNER GRANTS WRITTEN PERMISSION 4. CONNECTIONS TO TRANSFORMERS, AHU'S, AND PUMPS SHALL BE WITH LIGUIDTIGHT, FLEXIBLE METAL CONDUIT NO PVC CONDUIT MAY BE USED INSIDE OF BUILDING UNLESS ROUTED UNDERGROUND, AND UNLESS NOTED OTHERWISE.

- 6. ALL CONDUIT TERMINATIONS AT TERMINAL BOARDS ARE TO HAVE GROUNDING BUSHINGS AT CONDUIT ENDS. 7. ALL CONDUITS ARE TO BE CONCEALED UNLESS IMPOSSIBLE DUE TO EXISTING CONDITIONS (I.E. EXPOSED CEILINGS. BUILDING EXTERIOR WALL RUNS). CONCEAL ALL CONDUITS ABOVE CEILINGS OR IN WALLS AND MILLWORK. WHERE EXISTING CONDITIONS DICTATE THAT CONDUITS CANNOT BE CONCEALED, NOTIFY ARCHITECT/ENGINEER PRIOR TO INSTALLING CONDUIT FOR RESOLUTION TO ROUTING.
- . SEAL ALL PENETRATIONS AND OPENINGS MADE DURING EXECUTION OF WORK IN FIRE-RATED AND SMOKE-RATED WALLS. WALLS SHALL BE SEALED WITH UL-APPROVED PRODUCT WITH THE SAME OR GREATER RATING OF WALL PENETRATED. 9. PROVIDE ALL PENETRATIONS THROUGH FLOORS, WALLS, CEILINGS AND ROOFS WHERE REQUIRED, COORDINATE LOCATIONS AND SIZES WITH ARCHITECTURAL AND STRUCTURAL DRAWINGS, FIELD CONDITIONS AND WORK OF ALL OTHER DIVISIONS/TRADES. ALL OPENINGS ARE TO BE SEALED WATERTIGHT
- 0. ALL RACEWAYS THAT TURN UP THROUGH THE SLAB OR INTO ELECTRICAL EQUIPMENT FROM UNDERGROUND SHALL BE RIGID GALVANIZED STEEL (RGS) WITH BITUMASTIC COATING FOR AT LEAST THE FINAL 18" LENGTH. THE USE OF NON-METALLIC CONDUIT ABOVE GRADE IS PROHIBITED. 1. PANEL SCHEDULES AND FLOOR PLANS MAY INDICATE DEDICATED HOMERUNS FOR EACH BRANCH CIRCUIT. BRANCH
- CIRCUITS MAY BE GROUPED IN A COMMON HOMERUN WHERE THE HOMERUN DOES NOT EXCEED 3 PHASE CONDUCTORS, 3 NEUTRAL CONDUCTORS, AND 1 EQUIPMENT GROUND. THE HOMERUN RACEWAY SIZE AND CONDUCTOR SIZE SHALL BE INCREASED AS NECESSARY TO COMPLY WITH THE NEC FOR 40% MAXIMUM FILL AND DERATING REQUIREMENTS. 2. PROVIDE SEAL OFF FITTINGS. APPROVED FOR SUCH USE. WHERE RACEWAYS PENETRATE BETWEEN A DRY. CONDITIONED ENVIRONMENT AND THE EXTERIOR OR OTHER WET ENVIRONMENTS AND ADDITIONAL AREAS WHERE
- CONDUITS PASS FROM WARM TO COLD LOCATIONS SUCH AS WALK-IN COOLERS OR FREEZERS, BOILER ROOMS, ETC 3. PROVIDE POLYOLEFIN JET-LINE #232 (NYLON PULL STRING) IN EACH EMPTY CONDUIT WITH ENGRAVED METAL TAG INDICATING CONDUIT DESIGNATION. 14. ALL HOMERUNS SHALL BE IN 3/4" RACEWAY MINIMUM. 1/2" RACEWAY IS ACCEPTABLE FOR A SINGLE CIRCUIT FROM THE
- HOMERUN TO REMAINING DEVICES. CONTRACTOR SHALL USE COMPRESSION FITTINGS ONLY FOR EMT CONDUIT 16. WHERE RACEWAYS ARE INSTALLED IN SLABS, THE MINIMUM SPACING, MAXIMUM RACEWAY SIZE, AND ANY OTHER
- STRUCTURAL LIMITATIONS SHALL BE COORDINATED WITH THE STRUCTURAL DRAWINGS AND THE STRUCTURAL ENGINEER PRIOR TO INSTALLATION.

# <u>CONDUCTORS</u>

. ALL WIRE SHALL BE SIZED AS SHOWN ON THE DRAWINGS. IF NO WIRE SIZE IS SHOWN, THEN WIRE SHALL BE #12 AWG. . BRANCH CIRCUITS SHALL BE INCREASED IN SIZE AS REQUIRED TO COMPENSATE FOR VOLTAGE DROP FROM LENGTH OF CIRCUIT DUE TO FIELD ROUTING. FINAL INSTALLATION SHALL NOT EXCEED A MAXIMUM OF 3% VOLTAGE DROP FOR BRANCH CIRCUITS. REFER TO VOLTAGE DROP TABLE BELOW FOR CONDUCTOR SIZES FOR BRANCH CIRCUITS AS FOLLOWS: A. 120V, 20A CIRCUITS SHALL BE: #12 FROM 0-70 FT ii. #10 FROM 71-115FT iii. #8 FROM 116-180FT B. 277V, 20A CIRCUITS SHALL BE i. #12 FROM 0-140FT ii. #10 FROM 141-220FT iii. #8 FROM 221-350FT ANYTHING LONGER THAN THE ABOVE SHALL BE SUBMITTED TO THE ENGINEER WITH CALCULATIONS FOR APPROVAL. ALL CONDUCTORS IN CABINETS MUST BE CAREFULLY FORMED AND HARNESSED SO THAT EACH CONDUCTOR DROPS OFF DIRECTLY OPPOSITE TO TERMINAL 4. ALL WIRE SIZES ARE BASED ON AMPACITIES FOR 60 DEG F TEMPERATURE RATING FROM 0-100A AND 75 DEG. F TEMPERATURE RATING LISTED IN NEC FOR 100A AND ABOVE.

5. ALL CONDUCTORS SHALL BE COPPER, THHN/THWN; SOLID FOR #10 AWG AND SMALLER; STRANDED FOR #8 AWG AND LARGER. 6. CONDUCTORS USED IN WET LOCATIONS, INCLUDING BUT NOT LIMITED TO UNDERGROUND CONDUITS/ DUCTBANKS AND EXTERIOR CONDUITS SHALL COMPLY WITH NEC 310.10 AND BE LISTED FOR USE IN WET LOCATIONS. . ALL POWER CIRCUITS HAVE BEEN DESIGNED TO MEET 2% OR LESS VOLTAGE DROP FOR FEEDERS, AND 3% OR LESS VOLTAGE DROP FOR BRANCH CIRCUITS. **IDENTIFICATION** . PROVIDE TYPED PANEL DIRECTORIES FOR ALL NEW PANELBOARDS, AND EXISTING PANELBOARDS AFFECTED BY THIS PROJECT

- DIRECTORIES SHALL REFLECT PROJECT AS- BUILT CONDITIONS FOR ALL BRANCH CIRCUITS. DIRECTORIES SHALL INCLUDE WHER EACH PANEL IS FED FROM. ADDITIONALLY, EACH BRANCH CIRCUIT LOAD DESCRIPTION SHALL INCLUDE THE ROOM NUMBER(S) FOR EACH LOAD (I.E., RECEPTACLES-RMS 501,503). ROOM NUMBERS SHALL BE BASED ON ACTUAL ROOM SIGNAGE INSTALLED IN FIELD. COORDINATE EXACT ROOM NUMBERS WITH ARCHITECT/ENGINEER AND OWNER PRIOR TO COMPLETION OF PANELDIRECTORIES. . PROVIDE ENGRAVED PLASTIC LAMINATE NAME TAGS ON EACH SWITCHBOARD, SWITCHGEAR, DISTRIBUTION PANEL, PANELBOARI MOTOR CONTROL CENTER, SAFETY SWITCH, ENCLOSED CIRCUIT BREAKER, CABINET, STEP-DOWN TRANSFORMER, TRANSFER
- SWITCH, ETC., AND ANY OTHER MAJOR COMPONENT OF THE ELECTRICAL SYSTEM. . PROVIDE ENGRAVED PLASTIC LAMINATE NAME TAGS FOR EACH DISTRIBUTION BREAKER OR BRANCH CIRCUIT BREAKER IN SWITCHGEAR, SWITCHBOARDS, MOTOR CONTROL CENTERS AND OTHER DISTRIBUTION EQUIPMENT. NAME TAG SHALL INCLUDE LOAD DESCRIPTION AND ROOM NUMBER FOR EACH LOAD. 4. ARC FLASH DANGER/WARNING LABELS SHALL BE APPLIED TO SWITCHBOARD, PANELBOARDS, AND EQUIPMENT CONTROLLERS F
- 5. PROVIDE LABELS ON THE INSIDE OF EACH DEVICE COVERPLATE, IDENTIFYING THE PANEL(S)/ CIRCUIT NUMBER(S) DEVICE IS CONNECTED TO. . PROVIDE NEATLY, HANDWRITTEN IDENTIFICATION ON THE EXTERIOR COVER OF ALL JUNCTION BOXES, PULLBOXES AND WIREWAYS, IDENTIFYING THE PANEL(S)/ CIRCUIT NUMBER(S) CONTAINED WITHIN.
- **IDENTIFICATION (CONTINUED)**
- . PROVIDE A PERMANENT SIGN ON THE MAIN ELECTRICAL ROOM DOOR TO THE BUILDING STATING THAT THE MAIN SERVICE DISCONNECTING MEANS IS LOCATED INSIDE. . PROVIDE A PERMANENT LABEL ON ALL PANELBOARDS, SWITCHBOARDS, SWITCHGEAR, MOTOR CONTROL CENTERS AND DISTRIBUTION PANELS STATING "DO NOT WORK ON EQUIPMENT WHILE ENERGIZED. LOCK-OUT TAG-OUT REQUIRED".
- . PROVIDE REQUIRED IDENTIFICATION PER ANSI STANDARDS, NEC REQUIREMENTS, AND OWNER'S PUBLISHED DESIGN STANDARDS WHERE APPLICABLE. 0. PROVIDE ENGRAVED PHENOLIC LABEL ON ALL NEW SERVICE EQUIPMENT TO INDICATE THE MAXIMUM AVAILABLE FAULT CURRENT AND THE DATE THE FAULT CURRENT CALCULATION WAS PERFORMED. PROVIDE LABEL ON ALL EXISTING SERVICE EQUIPMENT WHEN MODIFICATIONS OCCUR THAT AFFECT THE MAXIMUM AVAILABLE FAULT CURRENT AT THE SERVICE.

BETWEEN ABOVE GENERAL NOTES AND SPECIFICATIONS, WHERE APPLICABLE, SPECIFICATIONS SHALL BE FOLLOWED

### <u>Lighting</u> LIGHT FIXTURES SUPPORTED BY CEILING GRID SHALL BE SUPPORTED AS FOLLOWS: LIGHT FIXTURES WEIGHING LESS THAN 10 POUNDS SHALL HAVE 12-GAUGE HANGER WIRE CONNECTED FROM THE LIGHT FIXTURE TO THE STRUCTURE ABOVE, LIGHT FIXTURES WEIGHING 10 POUNDS OR MORE SHALL HAVE (2) 12-GAUGE HANGER WIRES ATTACHED AT OPPOSITE CORNERS OF THE LIGHT FIXTURE TO THE STRUCTURE ABOVE. 2. COORDINATE EXACT LOCATIONS OF LIGHT FIXTURES IN LAY-IN AND GYPBOARD CEILINGS WITH ARCHITECTURAL REFLECTED CEILING PLANS, AND WALL MOUNTED EXTERIOR AND INTERIOR LIGHT FIXTURES WITH ARCHITECTURAL ELEVATIONS PRIOR TO INSTALLATION. WHERE THE QUANTITY OF LIGHTS DIFFERS BETWEEN THE ARCHITECTURAL RCP AND THE ELECTRICAL LIGHTING PLANS, PROVIDE THE HIGHEST QUANTITY OF FIXTURES IN THE BID PRICE. THE DISCREPANCY IN QUANTITY SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT/ENGINEER. THE HIGHEST QUANTITY SHALL BE CIRCUITED TO THE LOCAL ROOM OR AREA LIGHTING CIRCUITS AND LIGHTING CONTROL DEVICES, UNLESS OTHERWISE DIRECTED IN WRITING BY THE ARCHITECT/ENGINEER 9. VERIFY ACTUAL CEILING CONSTRUCTION TYPE AS DEFINED ON THE ARCHITECTURAL DRAWINGS AND FURNISH ALL LIGHT FIXTURES WITH THE CORRECT MOUNTING DEVICES WHETHER OR NOT SUCH VARIATIONS ARE INDICATED BY THE LIGHT FIXTURE CATALOG NUMBER. VERIFY THE DEPTH OF ALL RECESSED LIGHT FIXTURES WITH THE ARCHITECTURAL DRAWINGS PRIOR TO ORDERING LIGHT FIXTURES. ANY DISCREPANCIES THAT WOULD CAUSE THE RECESSED LIGHT FIXTURES NOT TO FIT INTO CEILING SHALL BE REPORTED TO ARCHITECT/ENGINEER PRIOR TO ORDERING. 4. LIGHT FIXTURES RECESSED IN FIRE-RATED CEILINGS SHALL BE PROVIDED WITH APPROVED FIRE-RATED ENCLOSURE WITH A FIRE RATING EQUAL TO THAT OF THE CEILING. PROVIDE A MINIMUM OF 3" CLEARANCE FROM SIDES AND TOP OF RECESSED LIGHT FIXTURES 5. MODIFY ALL LIGHT FIXTURE CATALOG NUMBERS AS REQUIRED TO COORDINATE WITH THE LIGHTING BRANCH CIRCUIT VOLTAGES INDICATED. COORDINATE THE CATALOG NUMBERS WITH THE EXACT FIXTURE MOUNTING AND TRIM REQUIRED BY THE CEILING IN WHICH EACH FIXTURE IS BEING INSTALLED. 6. ALL LIGHT FIXTURES SHALL BE PROVIDED COMPLETE WITH LAMPS, UNLESS OTHERWISE NOTED. 7. ALL EXIT LIGHTS, LIGHT FIXTURES INDICATED WITH UNSWITCHED CIRCUIT (NIGHTLIGHT N/L), EMERGENCY TWIN-HEAD FIXTURES WITH INTEGRAL BATTERY PACKS. AND BATTERY PACKS INTEGRAL TO LIGHT FIXTURES. SHALL BE WIRED AHEAD OF ANY LOCAL SWITCHING OR LIGHTING CONTROLS 8. PROVIDE UL WET LABEL OR IP67 RATED LIGHT FIXTURES FOR ALL FIXTURES LOCATED OUTSIDE OR IN PARKING GARAGES, IN SHOWERS, OR OPEN STRUCTURES. 9. EXTERIOR LIGHTING BALLASTS/DRIVERS SHALL HAVE A MINMUM STARTING TEMPERATURE OF -40 DEGREE C, AND A NORMAL AMBIENT OPERATING TEMPERATURE OF 40 DEGREE C. 10. PROVIDE FUSING FOR ALL EXTERIOR LIGHT FIXTURES. OR FIXTURES IN PARKING GARAGES OR OPEN STRUCTURES. 1. PROVIDE ALL TEMPORARY NORMAL LIGHTING, EMERGENCY LIGHTING AND EXIT SIGNS REQUIRED DURING THE PROJECT CONSTRUCTION PHASE. 12. COORDINATE EXACT FOUNDATION AND/OR COMPACTING REQUIREMENTS FOR ALL POLE MOUNTED LIGHT FIXTURES WITH MANUFACTURER'S AND/OR INSTALLER'S STRUCTURAL ENGINEER. POLE BASES SHALL MEET OR EXCEED ALL WIND LOAD RATINGS, GUST FACTORS, IMPORTANCE FACTORS, ETC. REQUIRED BY NATIONAL AND/OR LOCAL CODES, SHOP DRAWINGS SHALL INCLUDE STRUCTURAL DRAWINGS FOR ALL POLE BASES, POLE, ASSEMBLY AND OVERTURN CALCULATIONS REQUIRED IN THIS PROJECT, SIGNED AND SEALED BY A PROFESSIONAL STRUCTURAL ENGINEER REGISTERED IN THE PROJECT STATE. 3. REFER TO LIGHT FIXTURE SCHEDULE FOR LIGHT FIXTURE TYPES, DESCRIPTIONS, CATALOG NUMBERS AND ADDITIONAL INFORMATION PERTINENT TO THE LIGHT FIXTURE OR INSTALLATION THEREOF. 14. COORDINATE LIGHT FIXTURE TRIM TYPE AND FINISH COLOR WITH ARCHITECT PRIOR TO ORDERING. 15. EACH LIGHTING CIRCUIT SHALL BE PROVIDED WITH A DEDICATED NEUTRAL. ADDITIONAL PROJECT REQUIREMENTS . IN ACCORDANCE WITH NEC 517, THE GROUNDING TERMINAL BARS OF PANELBOARDS FROM DIFFERENT BRANCHES OF POWER SERVING THE SAME PATIENT VICINITY SHALL BE BONDED TOGETHER WITH AN INSULATED, CONTINUOUS, COPPER CONDUCTOR NOT SMALLER THAN #10 AWG. CONDUCTOR CAN BE BROKEN ONLY AT PANEL GROUNDING TERMINAL BAR. CONDUCTOR SHALL BE INSTALLED IN 3/4" NON-FLEXIBLE METAL CONDUIT. THIS SHALL INCLUDE DISTRIBUTION BOARDS SERVING IMAGING ROOMS. 2. IN ACCORDANCE WITH 517, PROVIDE SEPARATION BETWEEN THE LIFE SAFETY, CRITICAL, AND OTHER BRANCHES FOR RACEWAYS & BOXES. 3. IN ACCORDANCE WITH NEC 517. PATIENT CARE AREAS SHALL BE PROVIDED WITH GROUNDING VIA EQUIPMENT GROUNDING CONDUCTOR AND REDUNDANT GROUNDING VIA CONTINUOUS LISTED METAL RACEWAY. 4. ALL BRANCH CIRCUITS SHALL BE MECHANICALLY PROTECTED BY NON-FLEXIBLE METAL RACEWAYS UNLESS OTHERWISE NOTED. BRANCH CIRCUIT RACEWAYS RUN UNDERGROUND SHALL ALSO BE COATED IN BITUMASTIC. 5. IN ACCORDANCE WITH NEC 517, USE OF MULTI-WIRE BRANCH CIRCUIT CONFIGURATIONS ARE NOT PERMITTED. ALL BRANCH CIRCUITS SHALL BE PROVIDED WITH A DEDICATED NEUTRAL CONDUCTOR SIZED TO MATCH THE CORRESPONDING PHASE CONDUCTORS FOR THE BRANCH CIRCUIT. 6. CONTRACTOR SHALL PERFORM A COMPLETE EQUIPOTENTIAL GROUND TEST IN ACCORDANCE WITH NFPA 99. TEST ALL METAL CONDUCTIVE SURFACES LIKELY TO BECOME ENERGIZED WITHIN ALL PATIENT CARE AREAS. TEST ALL LARGE CONDUCTIVE SURFACES LIKELY TO BECOME ENERGIZED WITHIN A VOLUME DEFINED AS 6 FOOT FROM THE PATIENT BED HORIZONTALLY OR 7 FOOT 6 INCHES VERTICALLY AS FOLLOWS: A. LARGE METAL SURFACES NOT LIKELY TO BE ENERGIZED, WHICH DO NOT REQUIRE TESTING: WINDOW FRAMES ii. DOOR FRAMES iii. FLOOR DRAINS iv. MOVEABLE METAL CABINETS B. VOLTAGE AND IMPEDANCE MEASUREMENTS SHALL BE TAKEN WITH RESPECT TO A REFERENCE POINT, WHICH SHALL BE ONE OF THE FOLLOWING: i. THE GROUND BUS OF THE PANELBOARD OR ISOLATED POWER SYSTEM PANEL SUPPLYING THE PATIENT CARE ii. GROUNDING POINT, IN OR NEAR THE ROOM UNDER TEST, THAT IS ELECTRICALLY REMOTE FROM THE RECETPACIES. iii. GROUNDING CONTACT OF A RECEPTACLE THAT IS POWERED FROM A DIFFERENT BRANCH CIRCUIT FROM THE RECEPTACLE UNDER TEST. C. TEST METHOD: i. MEASURE VOLTAGE FROM REFERENCE POINT TO CONDUCTIVE SURFACES AND ALL RECEPTACLE GROUND CONTACTS. ii. MEASURE IMPEDANCE BETWEEN REFERENCE POINT AND RECEPTACLE GROUND CONTACTS. iii. CHECK FOR PROPER POLARITY iv. IDENTIFY THE REFERENCE GROUND FOR EACH ROOM ON THE GROUND TEST REPORT. ). MAXIMUM ACCEPTABLE VALUES: i. VOLTAGE: 20mV ii. IMPEDANCE 0.10hm FOUIPMENT i. MILLIVOLT METER WITH 1kohm IMPEDANCE AND PROPER FREQUENCY RESPONSE, IN ACCORDANCE WITH NFPA 99. ii. POLARITY TESTER GROUND TEST REPORT: i. SUBMIT COMPLETE TYPED GROUND TEST REPORT ii MAKE COPIES AVAILABLE AT THE FINAL INSPECTION iii. ENSURE METER USED FOR EQUIPOTENTIAL TESTING IS ON-SITE DURING FINAL INSPECTION TO DEMONSTRATE A SAMPLING OF TEST LOCATIONS PER AUTHORITY HAVING JURISDICATION. MEDICAL IMAGING DIAGNOSTIC/TREATMENT (RADIOLOGY) EQUIPMENT NOTES VERIFY AND COORDINATE EXACT ELECTRICAL REQUIREMENTS OF ALL EQUIPMENT WITH MEDICAL EQUIPMENT MANUFACTURER'S RECOMMENDATIONS PRIOR TO INSTALLATION. REFER TO EQUIPMENT MANUAL/CUT-SHEETS/VENDOR DRAWINGS, ETC. FOR ALL INSTALLATION REQUIREMENTS. THE INTENT IS FOR THE CONTRACTOR TO PROVIDE ANY AND ALL WORK REQUIRED FOR COORDINATION BASED ON THE AVAILABLE DOCUMENTATION. 2. ALL WORK SHOWN IS BASED ON INFORMATION INDICATED BY THE MEDICAL EQUIPMENT VENDOR(S) AT THE TIME OF DESIGN. ALL WORK SHALL BE COORDINATED WITH APPLICABLE VENDOR'S DOCUMENTATION. PROVIDE ALL PARTS, MATERIALS, LABOR, ETC AS REQUIRED BASED ON THE VENDOR'S DOCUMENT(S) WHETHER INDICATED ON THESE DRAWINGS OR NOT FOR A COMPLETE AND OPERATIONAL SYSTEM(S) 3. CONTRACTOR SHALL REFER TO THE MEDICAL EQUIPMENT VENDOR'S DOCUMENTATION FOR ALL REQUIRED ELECTRICAL WORK FOR THE EQUIPMENT: THE VENDOR INFORMATION IN CONJUNCTION WITH THESE DOCUMENTS SHALL BE THE BASIS OF I. THE MEDICAL EQUIPMENT VENDOR PLANS/DETAILS ARE INTENDED TO GIVE THE CONTRACTOR A GENERAL KNOWLEDGE OF THE WORK ASSOCIATED WITH THE INSTALLATION OF THE MEDICAL EQUIPMENT. IT IS NOT INTENDED TO INDICATE ALL CONNECTIONS, JUNCTION BOXES, ETC OR ANCILLARY COMPONENTS REQUIRED FOR THE INSTALLATION. ALL EQUIPMENT SHALL BE INSTALLED PER THE OWNER APPROVED MEDICAL EQUIPMENT MANUFACTURER'S INSTALLATION DOCUMENTS. INSTALLATION SHALL BE COORDINATED IN THE FIELD WITH THE EQUIPMENT MANUFACTURER. PROVIDE ALL ELECTRICAL CONNECTION(S) AS REQUIRED. 5. IT IS THE INTENTION OF THESE DRAWINGS THAT ALL WORK (LABOR, MATERIALS, ETC) REQUIRED FOR A COMPLETE AND OPERATIONAL SYSTEM BE PROVIDED. WHERE INDICATED ON THE VENDOR DRAWINGS AS BY "CUSTOMER/CONTRACTOR" ALL INDICATED SCOPE SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. EQUIPMENT MANUFACTURER MAY SUPPLY FIXED LENGTH CABLES, WHEREBY ALL MEASUREMENTS SHALL BE DETERMINED FROM ELECTRICAL PATHWAY RUNS INDICATED ON VENDOR DRAWINGS. ANY CHANGES TO EQUIPMENT PLACEMENT OR PATHWAY ROUTINGS IN THE FIELD WILL CAUSE THE DELIVERY OF INACCURATE AND ERRONEOUS CABLE LENGTHS. THIS MAY RESULT IN ADDITIONAL COST FOR REPLACEMENT CABLES AND DELAY EQUIPMENT INSTALLATION. THE ADDITIONAL COSTS FOR REPLACEMENT CABLES WILL BE BORNE BY THE CONTRACTOR. COORDINATE PLACEMENT OF ALL EQUIPMENT WITH MEDICAL EQUIPMENT MANUFACTURER PRIOR TO ROUGH-IN. 8. THE MEDICAL EQUIPMENT INSTALLATION SHALL COMPLY WITH THE FOLLOWING: A. REDUNDANT GROUNDING FOR THE PATIENT CARE AREA VIA THE RACEWAY SYSTEM. THE EQUIPMENT MUST BE FASTENED TO THE RACEWAY SYSTEM OR BE BONDED TO THE RACEWAY SYSTEM BY THE USE OF FLEXIBLE METAL CONDUIT OR BONDING STRAPS. B. SEPARATE RACEWAYS OR CONTINUOUS BARRIERS FOR THE SEPARATION OF INTERCONNECTING CABLES PER VOLTAGE RATING AND CLASS. POWER AND CLASS 1 CIRCUIT WIRING SHALL BE TOTALLY SEPARATE FROM CLASS 2 AND 3 CIRCUIT WIRING. GROUP ANY EXPOSED CABLES VIA DEDICATED ZIPPERTUBING AND SEPARATE BY VOLTAGE AND CLASS. PROVIDE A CHART AND/OR WIRING DIAGRAM WITH MARKED CABLES TO FACILITATE VERIFICATION OF THIS REQUIREMENT. THIS CHART MUST BE DEVELOPED BY THE EQUIPMENT MANUFACTURER'S ENGINEERING DEPARTMENT. ALL WIRING SHALL BE SEPARATED IN ACCORDANCE WITH THE NEC. 9. ALL MEDICAL EQUIPMENT SHALL BE TESTED AND DOCUMENTED FOR CHASSIS LEAKAGE IN ACCORDANCE WITH NFPA 99. PROVIDE A WRITTEN REPORT, SIGNED AND DATED BY THE PERSON SUPERVISING THE TEST FOR EACH PIECE OF EQUIPMENT. ). PROVIDE CONTROL RELAY FOR EACH RADIOLOGY "ROOM IN USE" LIGHT FIXTURE. COORDINATE INTERCONNECTION AND REQUIREMENTS WITH IMAGING VENDOR DRAWINGS. 1. BOND EACH IMAGING EQUIPMENT TO THE THE GROUND BUS OF THE NORMAL AND EMERGENCY BRANCH PANELS THAT SERVES THE ROOM VIA A DEDICATED #10 GREEN INSULATED WIRE FOR EACH PANEL. COORDINATE BONDING LOCATION WITH 2. CONTRACTOR SHALL INCLUDE IN FINAL BID A SPECIFIC ALLOWANCE OF \$50,000 FOR EACH IMAGING ROOM IN PROJECT. THIS ALLOWANCE IS TO BE USED FOR ITEMS ABOVE AND BEYOND WHAT IS SHOWN ON THESE DRAWINGS.

![](_page_25_Picture_102.jpeg)

![](_page_25_Figure_103.jpeg)

![](_page_26_Picture_0.jpeg)

LOCATION: SUPPLY FROM:			E	MOUNTING	: SURFAC : TYPE 1	E	DIST. / PHA MAX. HEIG	ASE / WIRES OHT BUSING	6: 480Y/277 6: YES	V / 3	/ 4	K.A.I.C. RATING: FEED THR MAINS TYPE: MCB RATIN	U: YES G: 225 A	4	
KN	СКТ	CIRCUIT DESCRIPTION	TRIP(A)	Р	A (I	(VA)	B (I	KVA)	C (ł	(VA)	Р	TRIP(A)	CIRCUIT DESCRIPTION	СК	
1	1				27.778	0.000		-			1	20	EXISTING	2	+
	3	ANGIO 8A006	125	3			27.778	0.000			1	20	EXISTING	4	1
	5								27.778	0.000	1	20	EXISTING	6	
	7	EXISTING	20	1	0.000	0.000					1	20	EXISTING	8	
	9	EXISTING	20	1			0.000	0.000			1	20	EXISTING	10	
	11	EXISTING	20	1					0.000	0.000	1	20	EXISTING	12	
	13	EXISTING	20	1	0.000	0.000	-				1	20	EXISTING	14	
	15	EXISTING	20	1			0.000	0.000			1	20	EXISTING	16	
	17	EXISTING	20	1					0.000	0.000	1	20	EXISTING	18	
	19	EXISTING	20	1	0.000	0.000	-				1	20	EXISTING	20	
	21	EXISTING	20	1			0.000	0.000			1	20	EXISTING	22	_
	23	EXISTING	20	1					0.000	0.000	1	20	EXISTING	24	_
	25	EXISTING	20	1	0.000	0.000					1	20	EXISTING	26	_
	27	EXISTING	20	1			0.000	0.000	0.000	0.000	1	20	EXISTING	28	_
	29		20	1	0.000	0.000			0.000	0.000	1	20	EXISTING	30	+
	31		20	1	0.000	0.000	0.000	0.000			1	20	EXISTING	32	+
	33		20	1			0.000	0.000	0.000	0.000	1	20		34	+
	30 27		20	1	0.000	0.000			0.000	0.000	1	20		20	+
	30	EXISTING	20	1	0.000	0.000	0.000	0.000			1	20	EXISTING	40	+
	<u>41</u>	EXISTING	20	1			0.000	0.000	0.000	0.000	1	20	EXISTING	40	+
	- 1	CONNECTED PHASE	E LOAD (K		27	778	27	778	27	778	+	20	EXICTING	72	
		CONNECTED PHA	SE AMPS	5 (A)	100	.280	100	).280	100	.280					
LOA	D CL	ASSIFICATION	CON	NEĆ	TED LOA	D DE	MAND FA	CTOR	DEMA	ND LOAD	)		PANEL TOTALS		_
MOT	ORS			833	33 VA		125.00%	, D	104	166 VA					
												ТО	TAL CONNECTED LOAD (KVA): 83.333		
												-	TOTAL DEMAND LOAD (KVA): 104.166		
												-	TOTAL DEMAND CURRENT (A): 125		
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KEY	OTES	6 (KN):				1						1			_
1. UF	S INP	UT BREAKER W/ SHUNT TRIP. SEE PHILIPS DRAWINGS	S FOR MO	RE	DETAIL.										
2. BR	EAKFF	R IS SHOWN FOR DESIGN INTENT AND LOAD CALCS ONL	Y. LOAD IS	SA 1	FOR 1 RFP	LACEMENT		ONAL LOAD							
IS RF		ODED TO THIS PANEL		1											

NN     KN     CRUIT DESCRIPTION     TRUE     REPLANSIG AUG6     TRUE     CRUIT DESCRIPTION     CRUIT DESCRIPTION       1     REVISIS AUG6     20     1     0.00     0.100     0.100     0.100     0.100     1     0.00     16.00     0.000     1     0.00     1     0.00     1     0.000     1     0.000     1     0.000     1     0.000     1     0.000     1     0.000     1     0.000     1     0.000     1     0.000     1     0.000     1     0.000     1     0.000     1     0.000	L SUPP	DCATION: LY FROM:		E	MOUNTING NCLOSURE	: SURFACE	Ξ	DIST. / PHA MAX. HEIC	SE / WIRES	: 208Y/120 : YES	V / 3	/4	K.A.I.C. RATING: 65 FEED TH MAINS TYPE: MCB RAT	RU: YES ING: 225/	<u>.                                    </u>
1       EV OSMOSIS BA085       20       1       0.300       0.180       Image: Constraint of the standing of the standin	и скт	CIRCUIT DESCRIPTION	TRIP(A)	Ρ	A (ľ	(VA)	B (!	KVA)	C (ř	(VA)	Ρ	TRIP(A)	CIRCUIT DESCRIPTION	СК	. 1
3       DIALYSS 8A03       20       1       Image: Sa066       1       1       20       RECEPTACLE 8A066         5       DIALYSS 8A086       20       1       0       0.800       0.380       1       20       RECEPTACLE 8A066         7       RECEPTACLE CT ROOM       20       1       0.600       0.380       1       20       RECEPTACLE 8A066         9       RECEPTACLE CT ROOM       20       1       0.600       0.600       0.600       0.600       0.860       1       20       RECEPTACLE 8A066         18       RECEPTACLE CT ROOM       20       1       0.600       0.600       0.600       0.600       0.860       1       20       RECEPTACLE 8A065         17       RECEPTACLE TROOM       20       1       0.600       0.600       0.800       1       20       RECEPTACLE 8A065         18       RECEPTACLE 8A002       20       1       0.600       0.600       0.800       1       20       RECEPTACLE 8A066         17       RECEPTACLE 8A003       20       1       0.600       0.800       1       20       RECEPTACLE 8A066         18       RECEPTACLE 8A002       20       1       0.600       0.800	1	REV OSMOSIS 8A086	20	1	0.300	0.180					1	20	RECEPTACLE 8A006	2	
5       DALYSIS AAB6       20       1       Image: Second Sec	3	DIALYSIS 8A083	20	1			1.000	0.180			1	20	RECEPTACLE 8A006	4	
P       RECEPTACLE 8A003       20       1       0.000       0.800       0.600       0.600       0.800       1       20       RECEPTACLE 8A006         11       RECEPTACLE CT ROOM       20       1       0.600       0.600       0.800       1       20       RECEPTACLE 8A006         13       RECEPTACLE CT ROOM       20       1       0.600       0.600       1       20       RECEPTACLE 8A005         16       RECEPTACLE CT ROOM       20       1       0.600       0.600       1       20       RECEPTACLE 8A005         17       RECEPTACLE 8A003       20       1       0.600       0.600       0.800       1       20       RECEPTACLE 8A005         21       RECEPTACLE 8A002       20       1       0.000       0.600       0.800       1       20       RECEPTACLE 8A005         23       RECEPTACLE 8A002       20       1       0.000       0.800       1       20       RECEPTACLE 8A005         24       RECEPTACLE 8A002       20       1       0.800       0.720       1       20       RECEPTACLE 8A005         25       RECEPTACLE 8A002       20       1       0.800       0.600       1       20       CONTROL ROOM RECEP	5	DIALYSIS 8A086	20	1					1.000	0.360	1	20	RECEPTACLE 8A006	6	
9       RECEPTACLE CT ROOM       20       1       0.600       0.360       0.800       0.800       1       20       RECEPTACLE 6A006         11       RECEPTACLE CT ROOM       20       1       0.600       0.800       0.800       1       20       RECEPTACLE 8A005         15       RECEPTACLE CT ROOM       20       1       0.600       0.600       1       20       RECEPTACLE 8A005         17       RECEPTACLE 8A02       20       1       0.600       0.800       0.800       1       20       RECEPTACLE 8A005         18       RECEPTACLE 8A02       20       1       0.600       0.800       1       20       RECEPTACLE 8A005         21       RECEPTACLE 8A02       20       1       0.600       0.800       1       20       RECEPTACLE 8A005         23       RECEPTACLE 8A002       20       1       0.600       0.800       1       20       CONTROL ROOM RECEPT 8A0058 (AUX)         26       RECEPTACLE 8A002       20       1       0.000       1.80       1       20       CONTROL ROOM RECEPT 8A0058 (AUX)         31       Spare       20       1       0.000       0.80       0.80       1       20       CONTROL ROOM RECEPT 8A00	7	RECEPTACLE 8A003	20	1	0.600	0.360					1	20	RECEPTACLE 8A006	8	
11       RECEPTACLE CT ROOM       20       1       0.800       0.800       1       20       RECEPTACLE 8A005         13       RECEPTACLE CT ROOM       20       1       0.800       0.600       0.600       1       20       RECEPTACLE 8A005         16       RECEPTACLE 8A002       20       1       0.800       1.800       0.600       0.800       1       20       RECEPTACLE 8A005         17       RECEPTACLE 8A002       20       1       0.800       1.820       0.800       0.800       1       20       RECEPTACLE 8A005         21       RECEPTACLE 8A002       20       1       0.800       1.720       1       20       RECEPTACLE 8A005         22       RECEPTACLE 8A002       20       1       0.800       0.720       1       20       RECEPTACLE 8A006         23       RECEPTACLE 8A002       20       1       0.800       0.180       1       20       CONTROL ROOM RECEPT 8A005B (AUX1)         24       RECEPTACLE 8A002       20       1       0.000       0.180       1       20       CONTROL ROOM RECEPT 8A005B (AUX1)         25       RECEPTACLE 8A002       20       1       0.000       0.180       1       20       CONTRO	9	RECEPTACLE CT ROOM	20	1	<u> </u>		0.600	0.360			1	20	RECEPTACLE 8A006	10	$\perp$
13       RECEPTACLE CT ROOM       20       1       0.600       0.600       0.600       0.600       0.600       0.600       0.800       1       20       RECEPTACLE 8A005         17       RECEPTACLE 8A02       20       1       0.600       1.620       0.600       0.800       1       20       RECEPTACLE 8A005         19       RECEPTACLE 8A02       20       1       0.600       1.620       1       1       20       RECEPTACLE 8A005         21       RECEPTACLE 8A02       20       1       0.600       0.720       1       20       RECEPTACLE 8A005         23       RECEPTACLE 8A02       20       1       0.600       0.800       1       20       RECEPTACLE 8A002       1       0.600       0.800       1       20       RECEPTACLE 8A02       1       0.600       0.800       1       20       CONTROL ROOM RECEPT 8A058 (AUX3)         27       RECEPTACLE 8A02       200       1       0.600       0.180       1       20       CONTROL ROOM RECEPT 8A058 (AUX3)         31       Spare       20       1       0.000       0.180       1       20       CONTROL ROOM RECEPT 8A058 (AUX3)         31       Spare       1       0.000	11	RECEPTACLE CT ROOM	20	1	<u> </u>				0.600	0.360	1	20	RECEPTACLE 8A006	12	
15       RECEPTACLE CROOM       20       1       0.600       0.600       1       20       RECEPTACLE 8A005         17       RECEPTACLE 8A003       20       1       0.600       0.800       1       20       RECEPTACLE 8A005         19       RECEPTACLE 8A002       20       1       0.600       0.800       0.720       1       20       RECEPTACLE 8A006         21       RECEPTACLE 8A002       20       1       0.800       0.720       1       1       20       RECEPTACLE 8A006         23       RECEPTACLE CT ROOM       20       1       0.800       0.720       1       1       20       CONTROL ROOM RECEPT 8A0058 (AUX3)         27       RECEPTACLE 8A002, A003       20       1       0.000       0.180       1       20       CONTROL ROOM RECEPT 8A0058 (AUX3)         28       SURGICALUGHT TRANSFORMER       20       1       0.000       0.180       1       20       CONTROL ROOM RECEPT 8A005B         33       Spare       20       1       0.000       0.180       1       20       CONTROL ROOM RECEPT 8A005B         33       VENT 8A001       20       1       0.000       0.800       0.528       1       51       FGL4T	13	RECEPTACLE CT ROOM	20	1	0.600	0.600					1	20	RECEPTACLE 8A005	14	
17       RECEPTACLE 84003       20       1       0.600       0.600       0.800       1       20       RECEPTACLE 84005         19       RECEPTACLE 84002       20       1       0.600       0.800       1       20       RECEPTACLE 84006         21       RECEPTACLE 84002       20       1       0.800       0.720       1       20       RECEPTACLE 84006         23       RECEPTACLE 84002       20       1       0.600       0.800       1       20       RECEPTACLE 84006         25       RECEPTACLE 84002, 84003       20       1       0.600       0.180       1       20       CONTROL ROOM RECEPT 840058 (AUX1)         27       RECEPTACLE 84002, 84003       20       1       0.000       0.180       1       20       CONTROL ROOM RECEPT 840058 SERVICE         28       SURGICAL LIGHT TRANSFORMER       20       1       0.000       0.180       1       20       CONTROL ROOM RECEPT 840058         33       Spare       20       1       0.000       0.180       1       20       CONTROL ROOM RECEPT 840058         33       Spare       20       1       0.000       0.180       1       120       CONTROL ROOM RECEPT 840056         33	15	RECEPTACLE CT ROOM	20	1			0.600	0.600			1	20	RECEPTACLE 8A005	16	
19       RECEPTACLE 8A002       20       1       0.600       1.620       1       20       RECEPTACLE 8A002         21       RECEPTACLE 8A002       20       1       0.800       0.720       1       20       RECEPTACLE 8A006         25       RECEPTACLE 5A002       20       1       0.600       0.180       1       20       RECEPTACLE 8A006         26       RECEPTACLE 6A02       20       1       0.600       0.180       1       20       CONTROL ROOM RECEPT 8A0058 (AUX3)         27       RECEPTACLE 6A02, 8A003       20       1       0.600       0.180       1       20       CONTROL ROOM RECEPT 8A0058 (AUX3)         28       SURGICAL LIGHT TRANSFORMER       20       1       0.000       0.180       1       20       CONTROL ROOM RECEPT 8A0050         33       Spare       20       1       0.000       0.180       1       20       CONTROL ROOM RECEPT 8A0050         33       Spare       20       1       0.000       0.180       1       20       CONTROL ROOM RECEPT 8A0050         33       Spare       20       1       0.800       0.000       1       20       Spare         41       Spare       20       1	17	RECEPTACLE 8A003	20	1					0.600	0.800	1	20	RECEPTACLE 8A005	18	
21       RECEPTACLE A002       20       1       0.800       0.720       I       20       RECEPTACLE A002         23       RECEPTACLE A002       20       1       0.600       0.800       0.720       I       20       RECEPTACLE A005         28       RECEPTACLE TROM       20       1       0.600       0.180       I       20       CONTROL ROOM RECEPT BA005B (AUX3)         27       RECEPTACLE A002, 84003       20       1       I       1.000       0.180       I       20       CONTROL ROOM RECEPT BA005B (AUX1)         29       SURGICAL LIGHT TRANSFORMER       20       1       0.000       0.180       I       20       CONTROL ROOM RECEPT BA005B (AUX1)         31       Spare       20       1       0.000       0.180       I       120       CONTROL ROOM RECEPT BA005B         33       Spare       20       1       0.000       0.800       0.528       1       15       FCU-1         33       VENT 8 A001       20       1       0.800       0.000       6.83       1       20       Spare         34       VENT 8A036       20       1       0.800       0.000       6.83       1       20       LIGHTING 8A006	19	RECEPTACLE 8A002	20	1	0.600	1.620					1	20	RECEPTACLE 8A006	20	
23         RECEPTACLE BA002         20         1         0.600         0.360         1         20         RECEPTACLE BA006           25         RECEPTACLE ACT ROOM         20         1         0.600         0.180         1         20         CONTROL ROOM RECEPT BA005B (AUX3)           27         RECEPTACLE BA02, BA03         20         1         0.600         0.180         1         20         CONTROL ROOM RECEPT BA005B (AUX3)           27         RECEPTACLE BA02, BA03, BA03         20         1         0.000         0.180         1         20         CONTROL ROOM RECEPT BA005B (AUX3)           23         Spare         20         1         0.000         0.180         1         20         CONTROL ROOM RECEPT BA005B (AUX1)           33         Spare         20         1         0.000         0.180         1         20         CONTROL ROOM RECEPT BA005B (AUX1)           34         VENT A BA001         20         1         0.000         0.180         0.800         0.201         1         20         CONTROL ROOM RECEPT BA005B (AUX1)           35         VENT A BA001         20         1         0.800         0.000         0.528         1         15         FCU-1           36         VENT A	21	RECEPTACLE 8A002	20	1			0.800	0.720			1	20	RECEPTACLE 8A006	22	I
25       RECEPTACLE CT ROOM       20       1       0.600       0.180       1       20       CONTROL ROOM RECEPT 8A0058 (AUX3)         27       RECEPTACLE 8A002, 8A003       20       1       1.000       0.180       1       20       CONTROL ROOM RECEPT 8A0058 (AUX3)         29       SURGICAL LIGHT TRANSFORMER       20       1       0.000       0.180       1       20       CONTROL ROOM RECEPT 8A0058 (AUX3)         31       Spare       20       1       0.000       0.180       1       20       CONTROL ROOM RECEPT 8A0058 (AUX1)         33       Spare       20       1       0.000       0.180       1       1       20       CONTROL ROOM RECEPT 8A0050         34       Spare       20       1       0.000       0.180       1       1       20       CONTROL ROOM RECEPT 8A0050         35       VENT 8 A001       20       1       0.000       0.600       0.528       1       15       FCU-1         37       VENT 8 A001       20       1       0.800       0.000       0.639       1       20       Spare         39       VENT 8 A001       20       1       0.800       0.000       0.639       1       20       LIGHTING 8A006	23	RECEPTACLE 8A002	20	1	/			1	0.600	0.360	1	20	RECEPTACLE 8A006	24	Ţ
27         RECEPTACLE 8A002, 8A003         20         1         1         1         20         CONTROL ROOM RECEPT 8A0058 SERVICE           29         SURGICAL LIGHT TRANSFORMER         20         1         0         0         1         20         CONTROL ROOM RECEPT 8A0058 (AUX1)           31         Spare         20         1         0.000         0.180         1         20         CONTROL ROOM RECEPT 8A0058 (AUX1)           33         Spare         20         1         0.000         0.180         1         20         CONTROL ROOM RECEPT 8A0058 (AUX1)           34         Spare         20         1         0.000         0.180         1         20         CONTROL ROOM RECEPT 8A0058 (AUX1)           35         VENT A 8A001         20         1         0.000         0.180         1         20         EQUIPMENT ROOM RECEPT 8A0050           37         VENT B 8A001         20         1         0.800         0.000         1         20         Spare           39         VENT 8A026         20         1         0.800         0.000         1         20         Spare           41         Spare         20         1         0.800         0.000         0.639         1	25	RECEPTACLE CT ROOM	20	1	0.600	0.180					1	20	CONTROL ROOM RECEPT 8A005B (AUX3)	26	Ţ
29         SURGICAL LIGHT TRANSFORMER         20         1         Image: Control c	27	RECEPTACLE 8A002, 8A003	20	1			1.000	0.180			1	20	CONTROL ROOM RECEPT 8A005B SERVICE	28	Ť
31         Spare         20         1         0.000         0.180         0.000         0.180         1         20         CONTROL ROOM RECEPT 8A005B           33         Spare         20         1         0.000         0.180         1         20         EQUIPMENT ROOM RECEPT 8A005B           35         VENT A 8A001         20         1         0.000         0.180         0.528         1         15         FCU-1           37         VENT B 8A001         20         1         0.000         0.000         1         20         Spare           39         VENT 8A036         20         1         0.000         0.000         1         20         Spare           41         Spare         20         1         0.000         0.639         1         20         LIGHTING 8A006           CONNECTED PHASE LOAD (KVA)         6.620         7.020         8.027         CONNECTED PHASE AMES (A)         55.167         59.013         67.407           AD CLASSIFICATION         CONNECTED LOAD         DEMAND FACTOR         DEMAND LOAD         TOTAL CONNECTED LOAD (KVA): 21.667           UIPMENT         1200 VA         100.00%         639 VA         100.00%         14428 VA         100.00%         <	29	SURGICAL LIGHT TRANSFORMER	20	1					1.200	0.180	1	20	CONTROL ROOM RECEPT 8A005B (AUX1)	30	Ť
33         Spare         20         1         0.000         0.180         0.180         1         20         EQUIPMENT ROOM RECEPT 8A005D           35         VENT 8 8A001         20         1         0.800         0.528         1         15         FCU-1           37         VENT 8 8A001         20         1         0.800         0.000         1         20         Spare           39         VENT 8A036         20         1         0.800         0.000         0.639         1         20         Spare           CONNECTED PHASE LOAD (KVA)         6.620         7.020         8.027         0.000         LIGHTING 8A006           CONNECTED PHASE AMPS (A)         55.167         59.013         67.407           DEMAND LOAD         DEMAND FACTOR         DEMAND LOAD         PANEL TOTALS           LUPMENT         1020 VA         100.00%         639 VA         100.00%         639 VA         TOTAL CONNECTED LOAD (KVA): 21.667           CONSECTED LOAD         DEMAND FACTOR         DEMAND COAD         TOTAL CONNECTED LOAD (KVA): 21.667           CONSECTED LOAD         100.00%         639 VA         100.00%         14428 VA         1001.00%         10420 VA         TOT	31	Spare	20	1	0.000	0.180					1	20	CONTROL ROOM RECEPT 8A005B	32	1
35         VENT A 8A001         20         1         0.800         0.800         0.528         1         15         FCU-1           37         VENT B 8A001         20         1         0.800         0.000         1         20         Spare           39         VENT 8A036         20         1         0.800         0.000         1         20         Spare           41         Spare         20         1         0.800         0.000         0.639         1         20         Spare           41         Spare         20         1         0.800         0.000         0.639         1         20         LIGHTING 8A006           41         Spare         20         1         0.800         7.020         8.027         0.000         0.639         1         20         LIGHTING 8A006           CONNECTED PHASE LADA (KA)         55.167         59.013         67.407         DEMAND LOAD         PANEL TOTALS           UIPMENT         1200 VA         100.00%         639 VA         100.00%         1200 VA         TOTAL CONNECTED LOAD (KVA): 21.667           TOTAL CONNECTED VA         100.00%         5400 VA         100.00%         14428 VA         100.00%<	33	Spare	20	1			0.000	0.180			1	20	EQUIPMENT ROOM RECEPT 8A005D	34	1
37       VENT B 8A001       20       1       0.800       0.000       1       20       Spare         39       VENT 8A036       20       1       0.800       0.000       0.639       1       20       Spare         41       Spare       20       1       0.800       0.000       0.639       1       20       LIGHTING 8A006         CONNECTED PHASE LOAD (KVA)       6.620       7.020       8.027         CONNECTED PHASE AMPS (A)       55.167       59.013       67.407         DAD CLASSIFICATION       CONNECTED LOAD       DEMAND FACTOR       DEMAND LOAD       PANEL TOTALS         NUPMENT       1200 VA       100.00%       639 VA       100.00%       639 VA       TOTAL CONNECTED LOAD (KVA): 21.667         SHTING       639 VA       100.00%       5400 VA       TOTAL CONNECTED LOAD (KVA): 21.667         are       14428 VA       100.00%       5400 VA       TOTAL DEMAND CURRENT (A): 60         UPMENT       14428 VA       100.00%       14428 VA       TOTAL DEMAND CURRENT (A): 60         UPMENT       14428 VA       100.00%       5400 VA       TOTAL DEMAND CURRENT (A): 60         UPMENT       14428 VA	35	VENT A 8A001	20	1					0.800	0.528	1	15	FCU-1	36	t
39       VENT & A0.36       20       1       0.800       0.000       0.639       1       20       Spare         CONNECTED PHASE LOAD (KVA)       6.620       7.020       8.027         CONNECTED PHASE AMPS (A)       55.167       59.013       67.407         OAD CLASSIFICATION       CONNECTED LOAD       DEMAND FACTOR       DEMAND LOAD       PANEL TOTALS         QUIPMENT       1200 VA       100.00%       633 VA       100.00%       633 VA       100.00%       633 VA         GECEPTACLE       5400 VA       100.00%       5400 VA       10428 VA       10428 VA       10428 VA       TOTAL DEMAND CURRENT (A): 60         Jare       Image: Complexity of the state o	37	VENT B 8A001	20	1	0.800	0.000					1	20	Spare	38	Ť
Image: Note of the second se	39	VENT 8A036	20	1			0.800	0.000			1	20	Spare	40	+
CONNECTED PHASE LOAD (KVA)         6.620         7.020         8.027           CONNECTED PHASE AMPS (A)         55.167         59.013         67.407           DAD CLASSIFICATION         CONNECTED LOAD         DEMAND FACTOR         DEMAND LOAD         PANEL TOTALS           QUIPMENT         1200 VA         100.00%         1200 VA         TOTAL CONNECTED LOAD (KVA): 21.667           GENTING         639 VA         100.00%         5400 VA         TOTAL DEMAND LOAD (KVA): 21.667           CORFICE         5400 VA         100.00%         5400 VA         TOTAL DEMAND LOAD (KVA): 21.667           Dare         14428 VA         100.00%         14428 VA         TOTAL DEMAND CURRENT (A): 60	41	Spare	20	1					0.000	0.639	1	20	LIGHTING 8A006	42	+
CONNECTED PHASE AMPS (a)         55.167         59.013         67.407           OAD CLASSIFICATION         CONNECTED LOAD         DEMAND FACTOR         DEMAND LOAD         PANEL TOTALS           QUIPMENT         1200 VA         100.00%         1200 VA         100.00%         1200 VA           GHTING         639 VA         100.00%         639 VA         TOTAL CONNECTED LOAD (KVA): 21.667           ECEPTACLE         5400 VA         100.00%         5400 VA         TOTAL DEMAND LOAD (KVA): 21.667           pare         14428 VA         100.00%         14428 VA         TOTAL DEMAND CURRENT (A): 60		CONNECTED PH/	SE LOAD (K	(VA)	6.F	320	7.	020	8.0	027		·			-
OAD CLASSIFICATION       CONNECTED LOAD       DEMAND FACTOR       DEMAND LOAD       PANEL TOTALS         QUIPMENT       1200 VA       100.00%       1200 VA       100 VA       1200 VA         GHTING       639 VA       100.00%       639 VA       TOTAL CONNECTED LOAD (KVA): 21.667         ECEPTACLE       5400 VA       100.00%       5400 VA       TOTAL DEMAND LOAD (KVA): 21.667         pare       14428 VA       100.00%       14428 VA       TOTAL DEMAND CURRENT (A): 60		CONNECTED F	HASE AMPS	(A) د	55.	.167	59	.013	67	.407	1				
QUIPMENT       1200 VA       100.00%       1200 VA         GHTING       639 VA       100.00%       639 VA         ECEPTACLE       5400 VA       100.00%       5400 VA         pare       14428 VA       100.00%       14428 VA         Image:       Image:       Image:       Image:       Image:         Image:       Image:       Image:       Image:       Image:       Image:         Image:	DAD CL	ASSIFICATION	CON	NEC	TED LOA	D DE	DEMAND FACTOR		DEMAND LOAD				PANEL TOTALS		
GHTING       639 VA       100.00%       639 VA       TOTAL CONNECTED LOAD (KVA): 21.667         ECEPTACLE       5400 VA       100.00%       5400 VA       TOTAL DEMAND LOAD (KVA): 21.667         Dare       14428 VA       100.00%       14428 VA       TOTAL DEMAND CURRENT (A): 60         Image: Ima		T		12(	.00 VA		100.00%		1200 VA						
ECEPTACLE       5400 VA       100.00%       5400 VA         pare       14428 VA       100.00%       14428 VA         Image:	GHTING			63	39 VA		100.00%	0	61	39 VA		TO	TAL CONNECTED LOAD (KVA): 21.667		
pare     14428 VA     100.00%     14428 VA	CEPTAC	 LE		54(	00 VA		100.00%	0	54	+00 VA		1	TOTAL DEMAND LOAD (KVA): 21.667		
	are			144	128 VA		100 00%		14	428 VA		-	TOTAL DEMAND CURRENT (A): 60		
Image: second	Spare				20 11		100.0070			20 111		1			
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EYNOTES (KN):	EYNOTES	; (KN):													

LIGHTING FIXTURE SCHEDULE										
				FIXT	JRE					
TYPE	DESCRIPTION	MANUFACTURER / MODEL	LAMP SOURCE	WATTAGE	W/LF	COMMENTS				
A1	2'x2' RECESSED LED, 3400 LUMENS, 4000K	METALUX 22CZ-LD5-34-S-UNV-L940-CD1	LED	24.30 W						
D1	6" ROUND DOWNLIGHT, 2000 LUMENS, 4000K	PORTFOLIO LD6C-20-9040-D010-(trim)	LED	22.63 W		TRIM TO BE DETERMINED BY ARCHITECT				
L1	2' LINEAR RECESSED LED	FOCAL POINT FSM6L-FL-375LF-940K-1C-UNV-XX-WH-2FT	LED	9.10 W	4.55 W					
L2	16'x4" LINEAR RECESSED LED, 575 LUMENS/FT, 0-10V DIMMING, 80 CRI	NEO-RAY S124RDR-S-575D-840-ETG-16F0-1-U-DD-F-W	LED	76.80 W	4.80 W	CONTINUOUS LIGHT FIXTURE COMBINED WITH L3. COORDINATE AS NEEDED.				
STD										
X1	EXIT SIGN	EMERGI-LITE LX1NRMUA-C	LED	1.40 W						
X-RAY IN USE	EDIT ME	EDIT ME	EDIT ME			EDIT ME				

![](_page_26_Picture_5.jpeg)

![](_page_26_Figure_6.jpeg)

![](_page_27_Figure_0.jpeg)

![](_page_27_Picture_3.jpeg)

# 2 ELEC ROOM 8A082 1/2" = 1'-0"

![](_page_27_Figure_5.jpeg)

# 1) ELEC ROOM 8A018 1/2" = 1'-0"

![](_page_27_Figure_7.jpeg)

![](_page_27_Figure_8.jpeg)

![](_page_28_Figure_0.jpeg)

# \_\_\_\_\_C

### **GENERAL NOTES:**

- 1. ALL FACEPLATES SHALL BE STAINLESS STEEL AND ENGRAVED WITH CIRCUIT INFORMATION.
- 2. CONTRACTOR SHALL CROSS REFERENCE PHILIPS DRAWING SET WITH ELECTRICAL DRAWING SET FOR ELECTRICAL DETAILS, CONDUIT QTY AND SIZES, PENETRATIONS AND ROUTING.
- 3. IF THERE IS A DISCREPANCY BETWEEN ELECTRICAL AND PHILIPS DRAWINGS, IT SHALL IMMEDIATELY BROUGHT TO THE ATTENTION OF THE DESIGN TEAM.
- 4. REFER TO PHILIPS ED DRAWING FOR EQUIPMENT ORDERING INFORMATION, ELECTRICAL COMPONENTS, AND RISER DIAGRAM.
- 5. SEE PANEL SCHEDULES FOR ELECTRICAL CIRCUITING.
- 6. CONTRACTOR SHALL PURCHASE AND INSTALL A 480V, 3 PHASE, TYPE D 80A CIRCUIT BREAKER WITH LONG TIME DELAY AND SHUNT TRIP. SEE ITEM CB ON PHILIPS SHEET E1.
- 7. CONTRACTOR SHALL PURCHASE AND INSTALL UL 924 DEVICE(S) FOR LIGHTS LISTED AS EMERGENCY. (SHADED) DESIGN INTENT IS FOR THESE FIXTURES TO OPERATE WITH NORMAL LIGHT SWITCH AND AUTOMATICALLY COME ON TO FULL BRIGHTNESS IN THE EVENT OF LOSS OF POWER TO THE NORMAL LIGHTING CIRCUIT.

# **KEYNOTES**

- 1. DEMOLISH EXISTING LIGHTING AND RECEPTACLES, UON. COIL POWER CABLES BACK TO NEAREST JUNCTION BOX. EXISTING POWER TO BE REUSED.
- 2. ROUTE CONDUIT FROM EQUIPMENT TO X-RAY BENEATH THE FLOOR. REFER TO PHILIPS DRAWING SET FOR ADDITIONAL INFORMATION AND DIMENSIONS.

![](_page_28_Picture_15.jpeg)

![](_page_28_Picture_23.jpeg)

![](_page_28_Picture_24.jpeg)

	SYSTEM IDENTIFICAITON CHART									
	SYSTEM COLOR COLOR NUMBER									
	COMPRESSED/INSTRUMENT AIR	BLUE	0,0,255							
	STORM DRAIN	PURPLE	128,0,128							
	MEDICAL GAS	PURPLE	255,85,255							
	DOMESTIC COLD WATER	0,0,255								
	DOMESTIC HOT WATER RETURN	PINK	255,85,85							
	DOMESTIC HOT WATER SUPPLY	BLUE	173,216,230							
	NATURAL GAS	YELLOW	255,255,0							
	SANITARY	ORANGE	170,85,0							
	SANITARY VENT	GREEN	0,128,0							
	FIRE PROTECTION	RED	255,0,0							
	UNKNOWN PIPE OR DUCT GRAY 127,127,127									
	NOTES: 1. WHERE A NEW OR EXISTING PIPE OR DU 18" SUCH THAT THE COLOR IS VISIBLE ON AL 2. MED GAS PIPING SHALL NOT BE PAINTE INSULATION PER THAT ATBLE. 3. PAINT SHALL NOT REPLACE THE NEED F	JCT PENETRATES THE FLOOR SLAB, CEILING L SIDES. D PER NFPA 99. INTALL INSULATION OR JACK OR OTHER LABELING TYPES. PAINT SHALL N	S SLAB, OR A SHAFT WALL PAINT THE FIRST XETING AROUND THE PIPING AND PAINT THE NOT OBSCURE OTHER LABELS.							
<b>GRAD</b> No Scale	GRADY PLUMBING COLOR CHART									

	PLUN	<b>IBING SPECIFICA</b>	TIONS	PLUMBIN						
1.00 - <u>G</u>	ENERAL PROVISIONS			SYMBOL						
1 01				CD						
1.02	CODES AND STANDARDS: ALL PI	LUMBING WORK SHALL BE IN STRICT COMPL	IANCE WITH THE 2017 FLORIDA PLUMBI	NG						
1.03	ALL PLUMBING WORK SHALL BE FOR ALL PERMITS AND FEES, ET	DONE IN A NEAT AND WORKMANLIKE MANNE C., REQUIRED FOR THE EXECUTION OF THIS	AY HWR HWR							
1.04	CONTRACTOR SHALL COORDINA OFFSETS AND/OR TRANSITIONS	TE HIS WORK WITH ALL OTHER TRADES BEF REQUIRED SHALL BE PROVIDED WITHOUT A	V							
1.05	COORDINATE AND INSTALL HIS V	VORK IN A TIMELY MANNER TO PREVENT DE	EQUIPMENT AND/OR MATERIAL.	510 G						
1.06	PROVIDE ALL MATERIALS REQU ADJUSTABLE TYPE AND BE SPAC COATED RING ON HANGERS FOF	RED TO PROPERLY SUPPORT ALL PIPING AN ED IN ACCORDANCE WITH THE FLORIDA PL COPPER PIPING TO PROVIDE DIELECTRIC I	NDEQUIPMENT. PIPE HANGERS SHALL B UMBING CODE. PROVIDED PLASTIC SOLATION.							
1.07	PROVIDE DIELECTRIC UNIONS O STEEL. DO NOT USE STEEL AND	R FLANGES BETWEEN COPPER AND STEEL F COPPER PIPING IN THE SAME SYSTEM WITH								
1.08	PROVIDE REDUCING FITTINGS (F	REDUCING BUSHINGS SHALL NOT BE USED) \	WHERE CHANGES IN PIPE SIZES OCCUR							
1.09	THIS CONTRACTOR SHALL SUPP TO SITE UTILITIES APPROXIMATE FIXTURES, FITTINGS, VALVING A	LY AND INSTALL ALL SERVICES THROUGHOU ELY 5'-0" OUTSIDE THE BUILDING. CONTRAC ND TRIM AND MAKE READY FOR USE ALL FIX	JT THE BUILDING AND MAKE CONNECTION TOR SHALL SUPPLY AND INSTALL TURES, EQUIPMENT, ETC.	DN FD ⊕ FS Ⅲ						
1.10	SEE ARCHITECTURAL DRAWINGS	FOR FIXTURE LOCATIONS AND MOUNTING	HEIGHTS.							
2.00 - <u>B</u>	ASIC MATERIALS AND METHODS									
2.01	DOMESTIC WATER - ABOVEGROU	JND WATER PIPE AND FITTINGS - TYPE "L" C	OPPER.							
2.02	PROVIDE UNIONS OR FLANGES I VALVES OR AT OTHER LOCATION	N ALL DOMESTIC WATER SERVICE LINES AT IS REQUIRED FOR READY DISCONNECT.	EACH PIECE OF EQUIPMENT, SPECIALT							
2.03	WATER HAMMER ARRESTORS SF STANDARD WH-201. PRODUCTS OR SIOUX CHIEF.	HALL BE INSTALLED AT THE LOCATIONS ON SHALL BE EQUAL TO THOSE MANUFACTURE	THE PLANS AND IN ACCORDANCE WITH D BY PRECISION PLUMBING PRODUCT	S K						
2.04	VALVES: PROVIDE VALVES TO IS	SOLATE EACH RISER, BRANCH LINE AND PIEC		DETAIL No.						
2.05	PROVIDE PRESSURE REDUCING VALVE AND AIR GAP CONNECTION AT DISHWASHER AS REQUIRED BY CODE AND ACCORDING TO MANUFACTURER.									
2.00	"EVERPURE OR "SYSTEMS IV".									
2.07	SANITARY WASTE (NON-PRESSURE), SANITARY VENT AND STORM PIPING - ABOVE GROUND - NO-HOB CAST IRON SOIL PIPE AND FITTINGS PER CISPI 301 WITH HEAVY DUTY SHIELDED STAINLESS STEEL COUPLINGS.									
2.08	CONDENSATE PIPING - DWV COPPER OR NO-HUB CAST IRON SOIL PIPE AND FITTINGS PER CISPI 301 WITH HEAVY DUTY PIPE SIZE — PLUMBING SYSTEM SHIELDED STAINLESS STEEL COUPLINGS.									
2.09	INSTALL GRAVITY LINES SLOPED THAT 3". VERIFY INVERT ELEVAT	) AT 1/8" PER FOOT FOR PIPE 3" AND LARGEF TON WITH EXISTING PIPING PRIOR TO ANY F	R AND 1/4" PER FOOT FOR PIPE SMALLE PIPE BEING INSTALLED.							
2.10	PROVIDE AND PROPERLY LOCAT EXPANSION AND CONTRACTION. EACH VALVE, STRAINER, AND OT	E HANGERS TO ADEQUATELY SUPPORT PIP DO NOT HANG PIPING FROM FIRE OR SMOI HER PIPING ACCESSORY, AND AT EACH CH/	ING. ARRANGE HANGERS TO PERMIT KE WALLS. PROVIDE PIPE HANGERS AT ANGE OR DIRECTION.							
2.11	THE SIZE OF HANGERS FOR NON INSULATED PIPING, THE SIZE OF INSULATION SHIELD.	I-INSULATED PIPES SHALL BE SUITABLE FOF THE HANGER SHALL BE SUITABLE FOR THE	R THE PIPE SIZE TO BE SUPPORTED. FC PIPE SIZE, PLUS THE INSULATION AND	GENERAL PRESSU						
2.12	SPACING: LOCATE PIPE SUPPOR	RTS AS INDICATED IN THE FOLLOWING TABLI	E	EXISTING CONDITIONS SHOWN ON THIS DRAWING						
		HORIZONTAL PIPE HANGER SCHEDULE		PIPING BEFORE DEMOLITION. PROVIDE ALL REQUIR COORDINATE WITH THE ARCHITECTURAL DRAWING						
	MATERIAL	PIPE SIZE	HANGER SPACING	PIPING WITH NEW WORK. PIPING CONNECTING TO DISCONNECTED UNTIL AFTER NEW PIPING IS INSTA						
	COPPER TUBING	UP TO 1 1/4 INCH 1 1/2 INCH AND ABOVE	6 FOOT CENTERS 10 FOOT CENTERS	2. ALL ITEMS REMOVED UNDER THIS PROJECT SHALL						
	CAST IRON PIPE	ALL	5 FOOT CENTERS	DISCRETION.  ALL WATER PIPING INDICATED ON THIS DRAWING IS						
3.00 - P	LUMBING FIXTURES AND TRIM			OTHERWISE, FIELD VERIFY BEFORE CONSTRUCTIO						
3.01	ALL PLUMBING FIXTURES SHALL AS PROMULGATED BY THE U.S. I	BE "FIRST QUALITY" AS DEFINED AND SET F DEPARTMENT OF COMMERCE.	ORTH IN COMMERCIAL STANDARD CS77	4. CARE MUST BE TAKEN WHEN REMOVING PIPE ARO BE DESTROYED.						
3.02	ALL FIXTURES ARE TO BE WHITE FIXTURES AND FITTINGS PROPO OR LOCATION. ESCUTCHEONS,	VITREOUS CHINA UNLESS OTHERWISE SPE SED SHALL BE FROM ONE MANUFACTURER HANDLES, ETC., ON THE DIFFERENT FIXTURI	CIFICALLY NOTED. AND OF SIMILAR CHARACTER IN ANY R( ES SHALL BE OF THE SAME DESIGN.	ARCHITECTURAL DRAWINGS FOR PATCHING DETAI						
3.03	PROVIDE FIXTURE CARRIERS AS	RECOMMENDED BY FIXTURE MANUFACTUR	ER AND/OR CONSTRUCTION METHOD.	APPLICA						
3.04	PROVIDE ACCESS PANELS TO AL ARCHITECTURAL DRAWINGS FOR	L VALVES WITHIN CHASES OR ABOVE NON-/ R CEILING TYPES.	ACCESSIBLE CEILINGS. REFER TO	A. STATE, COUNTY, AND CITY HEALTH AN B. NFPA 51B, 2019 EDITION						
3.05	FLOOR DRAIN TRAP SEALS SHALL HAVE AN APPROVED PRIMING DEVICE DESIGNED FOR THAT PURPOSE.       D. NFPA 70, 2019 EDITION         C. NFPA 70, 2019 EDITION       D. NFPA 72, 2019 EDITION									
3.06	ALL CONCEALED TRAPS, PRIMER ACCESS PANEL.	RS, VALVES, CLEANOUTS, ETC. LOCATED IN 1	FILED AREAS SHALL BE PROVIDED WITH	AN F. NFPA 90A, 2018 EDITION G. NFPA 90B, 2018 EDITION G. NFPA 99: STANDARD FOR HEALTHCARE						
4.00 - <u>IN</u>	SULATION			I. IBC 2018 EDITION, WITH GEORGIA AME J. IMC 2018 EDITION, WITH GEORGIA AME						
4.01	ABOVE GROUND COLD AND HOT 0.24 K AT 75°F. INSULATION AND SPREAD RATING OF 25 AND A MA	WATER PIPING - FIBERGLASS, 1" THICKNESS ADHESIVES INSTALLED IN RETURN AIR PLE XIMUM SMOKE DEVELOPED RATING OF 50.	S, ASJ JACKET, DOUBLE SEALING LAP JO NUMS SHALL HAVE A MAXIMUM FLAME	<ul> <li>K. IPC 2018 EDITION, WITH GEORGIA AMERI</li> <li>DINT,</li> <li>L. IEC 2015 EDITION, WITH GEORGIA SUPPIM.</li> <li>IFC 2018 EDITION, WITH GEORGIA AMERIN.</li> <li>OTHER NFPA CODES AS REFERENCED</li> </ul>						
4.02	ABOVE GROUND STORM PIPING F. INSULATION AND ADHESIVES OF 25 AND A MAXIMUM SMOKE D	- FIBERGLASS, 1/2" THICKNESS, ASJ JACKET INSTALLED IN RETURN AIR PLENUMS SHALL EVELOPED RATING OF 50.	, DOUBLE SEALING LAP JOINT, 0.24 K AT HAVE A MAXIMUM FLAME SPREAD RATI	75° O. ANSI A117.1-1992 ACCESSIBLE AND USA P. THE AMERICANS WITH DISABILITIES AC BUILDINGS AND FACILITIES - 1991 Q. 2022 FGI GUIDELINES						
4.03	ABOVEGROUND CONDENSATE P MAXIMUM FLAME SPREAD RATIN	IPING SHALL BE 1/2" FLEXIBLE UNICELLULAR G OF 25 AND A MAXIMUM SMOKE DEVELOPE	POLYOLEFIN FOAM AND SHALL HAVE A D RATING OF 50-IMCOA "IMCOLOCK".							
5.00 - <u>V</u>	ALVES AND COCKS									
5.01	VALVES 2" AND SMALLER SHALL CAST BRONZE BODY, CHROMIUN STEM SEALS, ZINC-COATED STE	BE BALL VALVES, 150 PSI SWP, 400 PSI WOO I-PLATED BRASS BALL, BRONZE NON-BLOWG EL HANDLE WITH PLASTIC COATED HAND GF	G. STANDARD PORT BALL, BRONZE TRIN DUT STEM, TEFLON SEAT, DOUBLE O-RI RIP, 90 DEGREE OPERATION FROM FULL	I, NG						

OPEN TO TIGHT SHUT-OFF - STOCKHAM S214-BR-T-T, STOCKHAM S216-BR-T-S OR EQUAL. 5.02 CHECK VALVES, ROUGH BRASS, REGRINDING BRONZE DISC - STOCKHAM B-345; B-309 OR EQUAL.

### 6.00 - STERILIZATION

0.00	
6.01	DOMESTIC WATER PIPING SHALL BE THOROUGHLY FLUSHED OUT AND STERILIZED IN ACCORDANCE WITH THE FLORIDA PLUMBING CODE.

CW	- DOMESTIC COLD WATER PIPING
HW	- DOMESTIC HOT WATER PIPING
HWR	- DOMESTIC HOT WATER RETURN PIF
S	- SANITARY WASTE PIPING
VV	- VENT PIPING
ST	- STORM DRAIN PIPING
STO	- OVERFLOW STORM DRAIN PIPING
G	- FUEL GAS PIPING
	- GLEANOUT PLUG
<u>co</u> (TS)	- WALL CLEANOUT
	- FLOOR CLEANOUT / EXTERIOR CLE
FD 🌐	- FLOOR DRAIN
FS I	- FLOOR SINK
DD III	- DECK DRAIN
	- SHUT-OFF VALVE
X	- CALIBRATED BALANCING VALVE
	- CHECK VALVE (SWING)
	- PRESSURE REDUCING VALVE
X	- SOLENOID OPERATING VALVE
	- GAS COCK
¥	- GAS PRESSURE REGULATOR
DETAIL No.	
4	
P4.101	- DETAIL REFERENCE
SHEET No. SHOWN ON	
4" S	- PIPF TAG
$\underline{\land}$	- REVISION REFERENCE
	NOTE: SOME SYMBOLS
<b>GENERAL PRESSU</b>	RE DEMOLITION N
EXISTING CONDITIONS SHOWN ON THIS DRAWING MUST BE VERIFIED PRIOR TO DEMOLITION. FIELD PIPING BEFORE DEMOLITION. PROVIDE ALL REQU COORDINATE WITH THE ARCHITECTURAL DRAWIN PIPING WITH NEW WORK. PIPING CONNECTING TO DISCONNECTED UNTIL AFTER NEW PIPING IS INST TO DEMOLITION.	GARE TAKEN FROM ORIGINAL DRAWINGS. AL CONDITIONS SHALL GOVERN. FIELD VERIFY IRED DEMOLITION WHETHER SHOWN ON THE IG FOR ITEMS NOT INDICATED. COORDINATE AREAS OUTSIDE OF RENOVATED SPACE SH ALLED. COORDINATE SYSTEM SHUT DOWNS
ALL ITEMS REMOVED UNDER THIS PROJECT SHAL DISCRETION.	L BE DISPOSED OF OR TURNED OVER TO TH
ALL WATER PIPING INDICATED ON THIS DRAWING OTHERWISE, FIELD VERIFY BEFORE CONSTRUCTI	IS LOCATED IN THE CEILING SPACE OR WALL ON.
CARE MUST BE TAKEN WHEN REMOVING PIPE ARG	DUND LOAD BEARING WALLS. THE WALL OR I
CUT AND PATCH CEILINGS, WALLS AND FLOOR SL ARCHITECTURAL DRAWINGS FOR PATCHING DETA	AB AS REQUIRED TO FACILITATE PLUMBING NILS.
APPLIC	ABLE CODES
A. STATE, COUNTY, AND CITY HEALTH AN	ND BUILDING CODES

90B, 2018 EDITION
9: STANDARD FOR HEALTHCARE FACILITIES, 2018 EDITION
01, LIFE SAFETY CODE, 2018 EDITION, GEORGIA AMENDMENTS (2020)
18 EDITION, WITH GEORGIA AMENDMENTS (2025)
18 EDITION, WITH GEORGIA AMENDMENTS (2020)
18 EDITION, WITH GEORGIA AMENDMENTS (2020)
5 EDITION, WITH GEORGIA SUPPLEMENTS AND AMENDMENTS (2020)
8 EDITION, WITH GEORGIA AMENDMENTS (2020)
NFPA CODES AS REFERENCED BY STANDARD CODES.
117.1-1992 ACCESSIBLE AND USABLE BUILDING AND FACILITIES.
IERICANS WITH DISABILITIES ACT (ADA), ACCESSIBLITY GUIDELINES FO
NGS AND FACILITIES - 1991
GI GUIDELINES

NOTES: . <u>SINK HARDWARE</u>:

# PLUMBING SYMBOLS

DESCRIPTION

- CONDENSATE DRAIN PIPING

	PLUMBING ABBREVIATIONS	
	ABBREVIATION DESCRIPTION	
<b>、</b>		
PING	AW - ACID WASTE	
NG	CB - CATCH BASIN	
URN PIPING	CFH - CUBIC FEET PER HOUR	
	CONT - CONTINUATION	
	DI - DEIONIZED WATER	
PIPING	DN - DOWN DS - DOWNSPOUT	
	EXIST - EXISTING	
NT	FCO - FLOOR CLEANOUT	
	FD - FLOOR DRAIN FOF - FUEL OIL FILL FOC FUEL OIL FACE	
	FOR - FUEL OIL RETURN	
ΙΩΡ ΩΙ ΕΔΝΩΙ ΙΤ	FOS - FUEL OIL SUPPLIT FOV - FUEL OIL VENT	
	FS - FLOOR SINK FSE# - FOODSERVICE EQUIPMENT NUMBER	
	G - GAS GPH - GALLONS PER HOUR	
	GPM - GALLONS PER MINUTE GR - KITCHEN WASTE (GREASE)	
	HB - HOSE BIBB HD - HUB DRAIN	
	HW - DOMESTIC HOT WATER HWR - DOMESTIC HOT WATER RECIRCULATING	
ALVE.	IE - INVERT ELEVATION IW - INDIRECT WASTE	
	KW - KILOWATT LBS - POUNDS	
/E	MH - MANHOLE NC - NORMALLY CLOSED	
VE	NIC - NOT IN CONTRACT NO - NORMALLY OPEN	
R	NP - NON-POTABLE WATER NTS - NOT TO SCALE	
	OD - OUTSIDE DIAMETER PRV - PRESSURE REDUCING VALVE	
	PSI - POUNDS PER SQUARE INCH PVC - POLYVINYL CHLORIDE PIPE	
	RD - ROOF DRAIN RPBP - REDUCED PRESSURE BACKFLOW PREVENTOR	
	SAN - SANITARY SD - STORM DRAIN	
	SF - SQUARE FEET SH - SHEET	
	ST - STORM STO - OVERFLOW STORM DRAIN	
	SW - SOFT COLD WATER V - VENT	
	VAC - VACUUM VC - VACUUM CLEANING	
	VTR - VENT THRU ROOF WCO - WALL CLEANOUT	
	WTR - WATER	
BOLS SHOWN ON THIS LE	GEND MAY NOT PERTAIN TO THIS PROJECT	
N NOTES	GENERAL GRAVITY DEMOLITION NOTES	
NGS. ALL EXISTING CONDITIONS VERIFY LOCATIONS OF EXISTING I ON THE PLANS OR NOT.	1. EXISTING CONDITIONS SHOWN ON THIS DRAWING ARE TAKEN FROM ORIGINAL DRAWINGS. ALL EXISTING CONDITIONS MUST BE VERIFIED PRIOR TO DEMOLITION. FIELD CONDITIONS SHALL GOVERN. FIELD VERIFY LOCATIONS OF EXISTING PIPING BEFORE DEMOLITION. PROVIDE ALL REQUIRED DEMOLITION WHETHER SHOWN ON THE PLANS OR NOT.	
PACE SHALL NOT TO BE DOWNS WITH THE FACILITY PRIOR	PIPING WITH NEW WORK. PIPING CONNECTING TO AREAS OUTSIDE OF RENOVATED SPACE SHALL NOT TO BE DISCONNECTED UNTIL AFTER NEW PIPING IS INSTALLED. COORDINATE SYSTEM SHUT DOWNS WITH THE FACILITY PRIOR TO DEMOLITION.	
R TO THE OWNER AT THE OWNER'S	2. ALL ITEMS REMOVED UNDER THIS PROJECT SHALL BE TURNED OVER TO THE OWNER, OR DISPOSED OF AT THE OWNER'S DISCRETION.	
OR WALL SPACES UNLESS NOTED	3. ALL VENT PIPING INDICATED ON THIS DRAWING IS LOCATED IN THE CEILING SPACE OR WALL SPACES UNLESS NOTED OTHERWISE, FIELD VERIFY BEFORE CONSTRUCTION.	
ALL OR FOOTING BELOW IS NOT TO	4. ALL SANITARY PIPING INDICATED ON THIS DRAWING IS LOCATED BELOW THE FLOOR SLAB OR WALL CHASE UNLESS NOTED OTHERWISE. OFFSET ALL EXISTING SANITARY AND VENT RISERS FROM FLOOR ABOVE TO WALLS ON NEW FLOOR PLAN, FIELD VERIFY EXACT LOCATION AND PROVIDE REQUIRED OFFSET TO FACILITATE OPERATION OF PLUMBING SYSTEMS TO THE FLOORS ABOVE AND BELOW.	
	5. CARE MUST BE TAKEN WHEN REMOVING PIPE AROUND LOAD BEARING WALLS. THE WALL OR FOOTING BELOW IS NOT TO BE DESTROYED.	
	6. EXISTING ROOF DRAINS AND RAIN WATER LEADER PIPING TO REMAIN UNLESS OTHERWISE NOTED. FIELD VERIFY ROUTING OF EXISTING PIPING BEFORE CONSTRUCTION BEGINS. EXISTING RAIN WATER PIPING LOCATED IN WALLS TO BE REMOVED SHALL BE REROUTED OVER HEAD TO A NEW WALL LOCATION AND RECONNECTED TO THE UNDERGROUND STORM.	
	7. CUT AND PATCH CEILINGS, WALLS AND FLOOR SLAB AS REQUIRED TO FACILITATE PLUMBING RENOVATION. SEE ARCHITECTURAL DRAWINGS FOR PATCHING DETAILS.	
S (2020)	8. EXISTING BUILDING DRAINS UNDER CONCRETE SLABS AND EXISTING BUILDING SEWERS THAT SERVES THE SYSTEM SHALL BE INTERNALLY EXAMINED TO VERIFY THAT THE PIPING IS SLOPING IN THE CORRECT DIRECTION, IS NOT BROKEN, IS NOT OBSTRUCTED AND IS SIZED FOR THE DRAINAGE LOAD OF THE NEW PLUMBING DRAINAGE SYSTEM TO BE INSTALLED.	
S (2020)		
S. Elines for		

# PLUMBING GENERAL NOTES

_	
1.	REFERENCE THE SPECIFICATIONS FOR MATERIAL AND EQUIPMENT INSTALLATION STANDARDS.
2.	THE PLUMBING INSTALLATION SHALL COMPLY WITH ALL STATE AND LOCAL CODES.
3.	UTILITIES AND SERVICES INDICATED ARE TAKEN FROM VARIOUS OLD AND NEW SURVEYS, AS-BUILT RECORDS AND FIELD INVESTIGATIONS. UNFORSEEN CONDITIONS PROBABLY EXIST AND NEW WORK MAY NOT BE FIELD LOCATED EXACTLY AS SHOWN ON DRAWINGS. COOPERATION WITH OTHER TRADES IN ROUTING AND BURIAL DEPTHS, AS DETERMINED DURING CONSTRUCTION, WILL BE NECESSARY.
4.	FIELD VERIFY EXISTING INSTALLATIONS. MODIFY EXISTING PLUMBING SYSTEMS, WHICH ARE TO REMAIN ACTIVE, TO FACILITATE RECONNECTION AND EXTENSION OF THE NEW WORK.
5.	NOTIFY OWNER AT LEAST 24 HOURS PRIOR TO INTERRUPTING EXISTING SERVICE. SCHEDULE DISCONNECTION AND TIE-INS TO MINIMIZE DISRUPTION OF SERVICES. SERVICES ARE NOT TO BE LEFT DISRUPTED DURING NON-NORMAL CONTRACTOR WORKING HOURS.
6.	PLANS ARE NOT COMPLETELY TO SCALE. PIPE ROUTING SHOWN IS SCHEMATIC AND IS NOT INTENDED TO INDICATE EXACT ROUTING. CONTRACTOR SHALL PROVIDE ANY ADDITIONAL OFFSETS AND FITTINGS REQUIRED FOR PROPER INSTALLATION AND TO MAINTAIN CLEARANCES. VERIFY STRUCTURAL, MECHANICAL AND ELECTRICAL INSTALLATIONS AND OTHER POTENTIAL OBSTRUCTIONS AND ROUTE PIPING TO AVOID INTERFERENCES.
7.	PROVIDE ALL OFFSETS AND FITTINGS AND MAKE CONNECTION TO SITE UTILITIES.
8.	CONCEAL PIPING ABOVE CEILINGS, WITHIN WALLS OR CHASES EXCEPT IN MECHANICAL ROOMS OR AS SPECIFICALLY NOTED.
9.	PROVIDE ACCESS PANELS FOR ALL VALVES CONCEALED IN WALLS OR ABOVE NON-ACCESSIBLE CEILINGS.
10.	SLEEVE AND/OR FIRESTOP ALL PENETRATIONS THROUGH RATED WALLS, CEILINGS, AND FLOORS WITH U/L LISTED ASSEMBLIES. FIRESTOP ASSEMBLIES SHALL BE EQUAL TO OR EXCEED THE RATING OF THE WALL, CEILING OR FLOOR. SEE ARCHITECTURAL DRAWINGS FOR FINAL FINISHES.
11.	FLASH AND COUNTER-FLASH ROOF PENETRATIONS.
12.	WHEN BEAM SLEEVE PENETRATIONS ARE NECESSARY, COORDINATE PENETRATIONS WITH ALL TRADES, THE ARCHITECT AND THE STRUCTURAL ENGINEER.
13.	PROVIDE FOUNDATION PAD PENETRATION SLEEVES. ALLOW 1" MINIMUM CLEARANCE BETWEEN SLEEVE INSIDE SURFACE AND PIPE EXTERIOR.
14.	SEE ARCHITECTURAL DRAWINGS FOR FIXTURE LOCATIONS AND MOUNTING HEIGHTS.
15.	PROVIDE AUTOMATIC TRAP PRIMERS FOR FLOOR DRAIN TRAP SEALS.
16.	PROVIDE AN AIR GAP, WHEN REQUIRED BY CODE, SERVING INDIVIDUAL FIXTURES, DEVICES, APPLIANCES AND APPARATUS.
17.	ALL EXPOSED PIPE AND FITTINGS IN FINISHED AREAS SHALL BE CHROME PLATED.
18.	MOUNT HOSE BIBBS 24" ABOVE FINISHED GRADE.
19.	PROVIDE CLEANOUTS IN ACCORDANCE WITH ALL STATE AND LOCAL CODES. INSTALL CLEANOUT WITH COVER FLUSH TO FINISH SURFACE.
20.	COORDINATE EXACT FLOOR DRAIN LOCATIONS WITH ARCHITECTURAL DRAWINGS. SET FLOOR DRAINS BELOW FINISHED FLOOR TO ALLOW FOR FLOOR SLOPING TO THE DRAIN.
21.	COORDINATE PIPING WITH ALL ELECTRICAL EQUIPMENT (PANELS, TRANSFORMERS, ETC.) PRIOR TO ANY INSTALLATION. DO NOT ROUTE ANY PIPING OVER ANY ELECTRICAL PANELS UNDER ANY CIRCUMSTANCES. ANY PIPING RUN OVER PANELS SHALL BE RE-ROUTED AT NO ADDITIONAL COST.
22.	ALL WALL MOUNTED LAVATORIES SHALL BE ATTACHED TO FLOOR MOUNTED CARRIER DESIGNED TO WITHSTAND A VERTICAL LOAD OF 250 POUNDS ON THE FRONT OF THE FIXTURE.
23.	PROVIDE SANITARY WASTE, VENT, DOMESTIC WATER, ETC. ROUGH-IN AND MAKE FINAL CONNECTIONS (TO INCLUDE PROVIDING ALL NECESSARY RELATED STOPS, VALVES, TRAPS, ETC. AND MAKE READY FOR USE) TO ALL EQUIPMENT, WHETHER FURNISHED BY THIS CONTRACTOR OR FURNISHED BY OTHERS.
24.	ALL MATERIALS AND EQUIPMENT INSTALLED IN RETURN AIR PLENUMS SHALL BE NON-COMBUSTIBLE AND UL APPROVED FOR USE IN A RETURN AIR PLENUM SPACE. IF MATERIALS ARE NOT NON-COMBUSTIBLE IN RETURN AIR PLENUMS, THEY SHALL BE REPLACED OR WRAPPED WITH A UL LISTED FIRE RATED FIRE WRAP (I.E. FYREWRAP 0.5 PLENUM INSULATION OR APPROVED EQUAL) AND INSTALLED IN ACCORDANCE WITH THE MANUFACTURES UL LISTED DETAILS AND RECOMMENDATIONS AT NO ADDITIONAL COST. (NOTE: REFER TO MECHAICAL DRAWINGS FOR RETURN AIR PLENUM LOCATIONS.)
25.	PIPING, INSULATION, FITTINGS, MATERIALS, COVERS AND FINISHES IN RETURN AIR PLENUM SHALL HAVE A MAXIMUM FLAME SPREAD RATING OF 25 AND A MAXIMUM SMOKE DEVELOPED RATING OF 50.

	PLUMBING DRAWING INDEX				
SHEET	DESCRIPTION				
P-001	PLUMBING SYMBOLS, LEGEND, NOTES AND INDEX				
P-101	PLUMBING PLANS				

TRAP - McGUIRE No. 8912, CHROME PLATED 17 GAUGE 1-1/2" X 1-1/2" BRASS P-TRAP WITH CLEANOUT. (ADA DEPTH SINKS SHALL HAVE OFFSET TAILPIECES McGUIRE No. 155WC/8902). SUPPLIES - McGUIRE No. 2165CC, 1/2" COMPRESSION X 3/8" COMPRESSION CHROME PLATED ANGLE SUPPLY STOPS WITH CHROME PLATED 12" FLEXIBLE RISERS AND ESCUTCHEONS.

![](_page_29_Picture_15.jpeg)

![](_page_29_Picture_16.jpeg)

![](_page_29_Picture_29.jpeg)

![](_page_29_Picture_30.jpeg)

![](_page_30_Picture_0.jpeg)

![](_page_30_Picture_1.jpeg)

![](_page_30_Picture_2.jpeg)

![](_page_30_Picture_3.jpeg)

![](_page_30_Picture_4.jpeg)

![](_page_30_Picture_5.jpeg)

![](_page_30_Picture_6.jpeg)

![](_page_30_Picture_7.jpeg)

![](_page_30_Figure_8.jpeg)

![](_page_30_Figure_9.jpeg)

![](_page_30_Picture_10.jpeg)

	PROJECT GENERAL NOTES:
1.	COORDINATE LOCATION OF EQUIPMENT, JUNCTION BOXES, OUTLETS, CONDUIT, ETC. ACCORDING TO THE PROJECT GENERAL CONDITIONS.
2.	HORIZONTAL TELECOMMUNICATIONS/DATA CABLING SHALL BE ROUTED DIRECTLY BETWEEN COMPONENTS WITH NO JUNCTIONS OR SPLICES IN CABLING AND SHALL BE LABELED ACCORDING TO TIA-606A/B STANDARDS AND SPECIFICATIONS.
3.	THE DRAWINGS INDICATE ONE ROUTING METHOD OF THE CABLING PATHWAY. CHANGES MAY BE MADE TO THE PATHWAY SYSTEM ROUTING TO ACCOMMODATE SITE CONDITIONS OR TO SIMPLIFY INSTALLATION PROVIDING THAT NOTED CONDUIT SIZE OR LARGER IS MAINTAINED AND DISTANCE LIMITATIONS LISTED BELOW ARE NOT EXCEEDED.
4.	FOR INTERIOR LOW VOLTAGE CABLING, PROVIDE EMT RACEWAY OR LADDER RACK FROM LOW VOLTAGE BACKBOX TO ACCESSIBLE CEILING SPACE, WITH J-HOOK SUPPORT TO TELECOM ROOM. CABLING SHALL BE SUPPORTED AT 5'-0" MAX INTERVALS. J-HOOK PATHWAYS SHALL BE ESTABLISHED TO SUPPORT CABLING AND PREVENT CONTACT OF THE CABLING WITH BUILDING STRUCTURE AND OTHER MECHANICAL SYSTEMS AND MECHANICAL SYSTEMS MOUNTING HARDWARE.
5.	ALL CABLING IN SLAB ON GRADE OR BELOW GRADE TO BE OUTSIDE PLANT - WET LOCATION RATED. OSP CABLING TO BE ROUTED IN METAL CONDUIT SYSTEM TO TELECOM ROOM. OSP CABLING NOT PERMITTED TO BE EXPOSED IN PLENUM SPACE.
6.	ALL CONDUITS TO BE 1" TRADE SIZE (UNLESS NOTED OTHERWISE)
7.	ALL CONDUIT INSTALLATION TO MEET REQUIREMENTS OF NATIONAL ELECTRIC CODE (NEC) CURRENT EDITION.
8.	CONDUITS SHALL BE REAMED TO ELIMINATE SHARP EDGES. METALLIC CONDUITS SHALL BE TERMINATED WITH AN INSULATED BUSHING. PULL STRINGS WITH A MINIMUM PULL RATING OF 400 POUNDS SHALL BE PROVIDED.
9.	NO CONDUIT RUN SHALL CONTAIN A SINGLE BEND GREATER THAN 90° OR AN AGGREGATE OF BENDS GREATER THAN 180° BETWEEN PULLING POINTS. NO CONDUIT RUN SHALL EXCEED 100' BETWEEN PULLING POINTS. PROVIDE JUNCTION BOXES WHERE REQUIRED TO MAINTAIN BEND AND DISTANCE REQUIREMENTS.
10.	NO SECTION OF CONDUIT SHALL EXCEED 100 FEET. RUNS IN EXCESS OF 100 FEET REQUIRE A PULL BOX / HANDHOLE / VAULT.
11.	PULL BOX SHALL NOT BE USED IN LIEU OF A BEND. CONDUITS MUST RUN STRAIGHT THROUGH A PULL BOX WITH THE BEND LOCATED EITHER BEFORE OR AFTER THE PULL BOX.
12.	PROVIDE COVERS WITH LABELING FOR JUNCTION BOXES, BACK BOXES WITHOUT FACEPLATES, AND PULL BOXES. LABELING SHALL INCLUDE THE CABLE TYPES AND THE APPLICABLE NUMBERING SCHEME FOR EACH CABLE CONTAINED WITHIN THE BOX. REFER TO SPECIFICATIONS FOR LABELING REQUIREMENTS.
13.	IN OPEN CEILINGS, NON-ACCESSIBLE CEILING SPACE, MECHANICAL SPACES, AND ELEVATOR CONTROL ROOMS, ALL SIGNAL AND LOW VOLTAGE POWER CABLE TO BE ROUTED IN EMT CONDUIT. MINIMUM SIZE SHALL BE 1". SIZE PER NEC 40% FILL REQUIREMENT.
14.	ROUTE CONDUIT WITH OTHER BUILDING SERVICES AND CONCEAL WHENEVER POSSIBLE. GROUP AND RUN PARALLEL ALONG A SINGLE BUILDING COLUMN LINE, HOLD TIGHT TO STRUCTURE AND PAINT AS DIRECTED BY THE ARCHITECT. UTILIZE STRUCTURALLY CONDUIT LEAVE OUTS IN LIEU OF ROUTING BELOW STRUCTURAL BEAMS.
15.	FOR IN-SLAB OR UNDERGROUND CONDUIT ENTERING A BUILDING, TRANSITION BACK TO METALLIC CONDUIT WITHIN 3 FEET OF THE ENTRY POINT.
16.	HORIZONTAL TELECOMMUNICATIONS/DATA CABLING SHALL MEET THE REQUIREMENTS OF ANSI/TIA568 AND SHALL NOT EXCEED 90 METERS (290 FT) OF TOTAL CABLE DISTANCE. CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD VERIFICATION OF 90 METER RULE.
17.	LOW VOLTAGE CONTRACTOR SHALL PROVIDE AND INSTALL ALL REQUIRED SLEEVES FOR ROUTING OF LOW VOLTAGE CABLING. LOW VOLTAGE CONTRACTOR TO FIRE STOP ALL PENETRATIONS TO MAINTAIN RATING OF WALL. SEE DETAILS FOR EXACT REQUIREMENTS.
18.	COORDINATE EXACT LOCATION OF VOICE/DATA, DATA, & TV OUTLETS WITH POWER RECEPTACLES.
19.	WIRELESS ACCESS POINT FINAL QUANTITIES AND LOCATIONS TO BE DETERMINED THROUGH PREDICTIVE SURVEY ANALYSIS. SURVEY ANALYSIS SHALL BE SUBMITTED TO DESIGN TEAM FOR APPROVAL PRIOR TO DEVICE INSTALLATION.
20.	COORDINATE ALL VIDEO SURVEILLANCE CAMERA LOCATIONS WITH FIELD CONDITIONS. CONTRACTOR TO VERIFY CLEAR FIELD OF VIEW AND SUBMIT RFI FOR RELOCATION DUE TO OBSTRUCTION OF VIEWS.
21.	FOR ALL EXTERIOR CAMERA LOCATIONS AND CABLING ROUTED THROUGH EXTERIOR WALLS, CONTRACTOR TO PROVIDE TRANSIENT VOLTAGE SURGE SUPPRESSION DEVICES (TVSS) FOR SIGNAL AND POWER CONDUCTORS TYPICAL TO DITEK DTK-MRJPOE AT CAMERA LOCATION AND DITEK RACK MOUNT DTK-RM12POE SURGE PROTECTOR AT ASSOCIATED TELECOM CLOSET.
22.	REFERENCE SECURITY CAMERA SCHEDULES FOR VIEWS AND MOUNTING REQUIREMENTS. POSITION CAMERAS AS NOTED ON DRAWINGS THEN ADJUST AND FOCUS CAMERA VIEW TO SATISFACTION OF OWNER. COORDINATE LOCATIONS OF ALL VIDEO SURVEILLANCE CAMERAS WITH BUILDING SYSTEMS IN ORDER TO ENSURE CLEAR FIELD-OF-VIEW.
23.	COORDINATE COMPOSITE FIBER/COPPER CABLE LOCATIONS WITH DIVISION 27. COMPOSITE FIBER CABLING REQUIRED FOR VIDEO SURVEILLANCE CAMERAS LOCATED ON LIGHTING POLES AND AT LOCATIONS EXCEEDING 100 METERS FROM IDF/TELECOM ROOMS.
24.	INTERFACE SECURITY AND ACCESS CONTROL SYSTEM POWER SUPPLIES WITH FIRE ALARM SYSTEM OUTPUTS. ALL DOORS TO RELEASE UPON FIRE ALARM SIGNAL, WHERE REQUIRED BY CODE.
25.	SECURITY CONTRACTOR TO PROVIDE ALL LOCK POWER SUPPLIES AND INTERFACE TO ELECTRONIC DOOR HARDWARE FOR CONTROL.
26.	CONTRACTOR TO COORDINATE WITH ARCHITECTURAL PLANS AND SPECIFICATIONS AS WELL AS LOCAL AHJ TO MAINTAIN EGRESS REQUIREMENTS.
27.	ALL CONDUITS ROUTED BELOW GRADE TO BE SCHEDULE 40 PVC AND ALL CONDUITS ROUTED ABOVE GRADE TO BE EMT.
28.	ALL CONDUIT INSTALLED INDOORS AND BELOW CEILING TO BE PAINTED TO MATCH DECOR.

	COMMON ABBREVIATIONS:					
AC	ALTERNATING CURRENT	MAX	MAXIMUM			
ADA	AMERICANS WITH DISABILITIES ACT	MDF	MAIN DISTRIBUTION FRAME			
AFC	ABOVE FINISHED CEILING	MECH	MECHANICAL			
AFF	ABOVE FINISHED FLOOR	MFR	MANUFACTURER			
AFG	ABOVE FINISHED GRADE	MIN	MINIMUM			
AHJ	AUTHORITY HAVING JURISDICTION	MMFO	MULTIMODE FIBER OPTIC CABLE			
ALT	ALTERNATE	MTD	MOUNTED			
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE					
ARCH	ARCHITECT, ARCHITECTURAL	NA	NOT APPLICABLE			
ASME		NEC	NATIONAL ELECTRICAL MANUEACTURER'S ASSOC NETWORK			
AUX			NATIONAL ELECTRICAL MANUFACTURER'S ASSUC. NETWORK			
AWG	AMERICAN WIRE GAUGE	NTS	ΝΟΤΤΟ SCALE			
BDA	BI-DIRECTIONAL ANTENNA	NT5	NOT TO SCILL			
BFC	BELOW FINISHED CEILING	OC	ON CENTER			
BFF	BELOW FINISHED FLOOR	OD	OUTSIDE DIAMETER			
BLDG	BUILDING	OFCI	OWNER FURNISHED CONTRACTOR INSTALLED			
BOH	BACK OF HOUSE	OFE	OWNER FURNISHED EQUIPMENT			
BOS	BOTTOM OF STRUCTURE	OFOI	OWNER FURNISHED OWNER INSTALLED			
	CONDUIT	п				
		P P/O				
	CENTER LINE	PC				
		PDU				
	CONCRETE MASONARY UNIT	PGM	PROGRAM			
COI	COLUMN	PH	PHASE			
CTRL	CONTROL	PNL	PANEL			
		POE	POWER OVER ETHERNET			
D	DEPTH, DEEP	PROC	PROCESSOR			
DAS	DISTRIBUTED ANTENNA SYSTEM	PRH	PROJECT RECEPTACLE HEIGHT			
DC	DIRECT CURRENT	PROX	PROXIMITY SENSOR			
DEG	DEGREES	PS	POWER SUPPLY			
DEMO	DEMOLITION	PSF	POUNDS PER SQUARE FOOT			
DIA	DIAMETER	PSH	PROJECT SWITCH HEIGHT			
DIM	DIMENSIONS	PSI	POUNDS PER SQUARE INCH			
		PI				
DS						
DWG	DRAWING	PWR	POWER			
EA	EACH	QTY	QUANTITY			
EC	ELECTRICAL CONTRACTOR		•			
EL	ELEVATION	R	RIGHT			
ELEC	ELECTRICAL	RCP	REFLECTED CEILING PLAN			
ENCL	ENCLOSURE	REF	REFERENCE, REFER			
EMT	ELECTRICAL METALLIC TUBING	REQ	REQUIRED			
EQ	EQUAL	REV	REVISION, REVISE			
EQUIP		RM				
EK		RPM	REVOLUTIONS PER MINUTE			
	EXISTING	S	SURFACE SECONDARY			
FA	FIRE ALARM	SOFT	SOLIARE FEET			
FB	FLOOR BOX	SIM	SIMILAR			
FLFX	FI FXIBI F	SMFO	SINGLE MODE FIBER OPTIC CABLE			
FLR	FLOOR	SPEC	SPECIFICATION			
FO	FIBER OPTIC	SQ	SQUARE			
FOH	FRONT OF HOUSE	STD	STANDARD			
FT	FEET	STP	SHIELED TWISTED PAIR			
FV	FIELD VERIFY	SURF	SURFACE			
	CROUND	SUSP	SUSPEND			
GND	GROUND	TDD				
GA	GAUGE					
L						
H7	HERTZ	TYP	TYPICAL			
112						
I/O	INPUT / OUTPUT	UL	UNDERWRITERS LABORATORIES, INC.			
ID	INSIDE DIAMETER	UNO	UNLESS NOTED OTHERWISE			
IDF	INTERMEDIATE DISTRIBUTION FRAME	UPS	UNINTERRUPTIBLE POWER SUPPLY			
IG	ISOLATED GROUND	USB	UNIVERSAL SERIAL BUS			
ISO	ISOLATED	UTP	UNSHIELED TWISTED PAIR			
IB	IUNCTION BOX	V	VOLT			
J	J	VA	VOLT-AMPRE			
KPD	KEYPAD	VERT	VERTICAL			
KW	KILOWATT	VIF	VERIFY IN FIELD			
		VOIP	VOICE OVER INTERNET PROTOCOL			
	LENGTH, LEFT					
L/R	LEFT / RIGHT	W/	WITH			
	LOCAL AREA NETWORK	W/O	WITHOUT			
		WP WT				
		VV I	WEIGHT			

	DEVICE LEGEND - TELECOM/STRUCTURED CABLING						
SYMBOL	DEVICE	ROUGH-IN BOX	MOUNTING HEIGHT	ELECTRICAL CONDUIT ROUGH-IN	CABLING QTY & TYPE	DEVICE NOTES	
⊲#	WALL MOUNT DATA OUTLET	4" SQUARE WITH SINGLE GANG TILE RING	18" AFF - UNO	FOR 1-3 CABLES PROVIDE 1" CONDUIT, FOR 4-6 CABLES PROVIDE 1.25" CONDUIT FROM BACKBOX TO ACCESSIBLE CEILING SPACE	(2) CATEGORY 6	*WHEN OUTLET IS PROVIDED WITH "C" SUBSCRIPT, OUTLET IS TO BE INSTALLED ABOVE COUNTER *WHEN OUTLET IS PROVIDED WITH NUMERICAL SUBSCRIPT, OUTLET IS TO BE INSTALLED WITH NOTED QUANTITY OF CABLES.	
⊲F	FIBER / DATA OUTLET	4" SQUARE WITH SINGLE GANG TILE RING		1" CONDUIT FROM BACKBOX TO ACCESSIBLE CEILING SPACE	(1) 4-STRAND OM-4	EXISTING DEVICE TO BE REMOVED	
$\triangleleft$ M	MONITOR DATA OUTLET	4" SQUARE WITH SINGLE GANG TILE RING		1" CONDUIT FROM BACKBOX TO ACCESSIBLE CEILING SPACE	(1) CATEGORY 6		
⊲w	WALL PHONE DATA OUTLET	4" SQUARE WITH SINGLE GANG TILE RING	48" AFF - UNO	1" CONDUIT FROM BACKBOX TO ACCESSIBLE CEILING SPACE	(1) CATEGORY 6		
TS	CENTRAK TEMPERATURE SENSOR		48" AFF - UNO			EXISTING DEVICE TO BE REMOVED	

	DEVICE LEGEND - SECURITY/ACCESS CONTROL					
SYMBOL	DEVICE	ROUGH-IN BOX	MOUNTING HEIGHT	ELECTRICAL CONDUIT ROUGH-IN	CABLING QTY & TYPE	DEVICE NOTES
CR	MULTI-TECHNOLOGY CARD READER	4" SQUARE WITH SINGLE GANG TILE RING	42" AFF - UNO	1" EMT CONDUIT ROUTED FROM DOOR FRAME TO SECURITY JUNCTION BOX IN NEAREST ACCESSIBLE CEILING SPACE.	22-18AWG, 6 CONDUCTOR TWISTED,OA-SHIELD.	
E	ELECTRIC DOOR HARDWARE			3/4" EMT CONDUIT ROUTED FROM DOOR FRAME TO SECURITY JUNCTION BOX IN NEAREST ACCESSIBLE CEILING SPACE.	18AWG, 2 CONDUCTOR & 22AWG, 4 CONDUCTOR	ELECTRONIC LOCKING HARDWARE W/INTEGRATED REQUEST TO EXIT AND TRANSFER HINGE INSTALLED BY DIV 8.
	DOOR ACTUATOR BUTTON	4" SQUARE WITH SINGLE GANG TILE RING	42" AFF - UNO		22AWG, 4 CONDUCTOR	COORDINATE WITH DIVISION 8 FOR INTERFACE TO SHUNT DOOR OPERATOR BUTTON UNTIL VALID CARD READ. SINGLE GANG TILE RING REQUIRED
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	DEVICE	LEGEND -	NURSE CALL
_			

SYMBOL	DEVICE	ROUGH-IN BOX	MOUNTING HEIGHT	ELECTRICAL CONDUIT ROUGH-IN	CABLING QTY & TYPE	DEVICE NOTES
Â	STAFF ASSIST & CODE BLUE STATION	SINGLE GANG (NON- GANGABLE), 3.5" DEEP BACKBOX WITH SINGLE GANG TILE RING	48" AFF - UNO (REFER TO ELEVATIONS)	ONE(1) - 3/4" EMT CONDUIT FROM BACKBOX TO EXISTING NURSE CALL SYSTEM CONDUIT SYSTEM IN CORRIDOR	(1) CATEGORY 6	
⊖	CORRIDOR DOME LIGHT	3.5" DEEP BACKBOX (NON- GANGABLE) WITH TWO GANG TILE RING AND CEILING SUPPORT BRIDGE	CEILING MOUNT	CONNECT BACKBOX TO NURSE CALL CONDUIT SYSTEM BY 1" FLEX CONDUIT.	18AWG, 2 CONDUCTOR	CENTER DEVICE IN CEILING ABOVE DOOR. COORDINATE BACKBOX ORIENTATION WITH NURSE CALL VENDOR.
SD	STAFF DUTY STATION W/ CODE BLUE	NON-GANGABLE 3.5" DEEP BACKBOX WITH 4 GANG TILE RING	48" AFF - UNO	ONE(1) - 3/4" EMT CONDUIT FROM BOX TO CORRIDOR ACCESSIBLE CEILING SPACE.	NURSE CALL SYSTEM PROPRIETARY CABLE	EXISTING DEVICE TO REMAIN

NOTE: WHEN DEVICE IS PROVIDED WITH "EX" SUBSCRIPT, THE DEVICE IS EX

LOW VOLTAGE SYSTEM REQUIREMENTS:

<u>GENEKAL</u>

ALL WORK SHALL BE IN ACCORDANCE WITH THE FOLLOWING:

REGULATORY REQUIREMENTS THE CURRENT EDITION OF THE NATIONAL ELECTRICAL CODE (NFPA 70) WITH 2021 GEORGIA AMENDMENTS.

THE CURRENT EDITION OF THE INTERNATIONAL BUILDING CODE WITH 2024 GEORGIA AMENDMENTS. THE CURRENT EDITION OF THE LIFE SAFETY CODE (NFPA 101), WITH 2021 GEORGIA ADMENDMENTS.

THE NATIONAL ELECTRICAL SAFETY CODE (ANSI C 2). AMERICANS WITH DISABILITIES ACT (ADA)

LOCAL CITY AND COUNTY ORDINANCES GOVERNING ELECTRICAL WORK. ANSI/TIA/EIA-568-B.1 THROUGH ANSI/TIA/EIA-568-B.3.

ANSI/TIA/EIA-606-A.

ANSI/TIA/EIA-607-A. TIA-1179.

LATEST EDITION OF BICSI TDMM. IN THE EVENT OF CONFLICTS, THE MORE STRINGENT PROVISIONS SHALL APPLY.

ALL NEW EQUIPMENT, DEVICES, AND FIXTURES SHALL CONFORM TO THE STANDARDS OF THE FOLLOWING WHERE SUCH STANDARDS ARE APPLICABLE:

NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION (NEMA).

UNDERWRITERS' LABORATORIES, INC. (UL) AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI)

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) BUILDING INDUSTRY CONSULTING SERVICES INTL (BICSI)

A. THE CONTRACTOR SHALL FURNISH AND INSTALL DEVICES AS INDICATED ON THE CONTRACT DRAWINGS, PROVIDING FULLY FUNCTIONAL SYSTEMS. ALL MATERIALS, OBVIOUSLY A F ON THE DRAWINGS, SHALL BE FURNISHED, AND INSTALLED WITHOUT ADDITIONAL CHARGE.

- B. THE CONTRACTORS SHALL USE CARE TO PROTECT EXISTING CABLES IN CEILINGS, WALLS, TELECOM ROOMS, AND EQUIPMENT RACKS. PRECAUTIONS SHALL BE TAKEN TO NOT DAMA
- C. THE LV CONTRACTOR SHALL COORDINATE ALL WORK WITH OTHER TRADES TO AVOID CONFLICTS.
- D. VERIFY THE LOCATION OF CEILING MOUNTED DEVICES WITH THE ARCHITECTURAL REFLECTED CEILING PLANS.

E. ALL PENETRATIONS OF FIRE OR SMOKE RATED CONSTRUCTION SHALL BE SEALED WITH APPROVED FIRE STOPPING MATERIALS. FIRE STOPPING MATERIALS SHALL BE LISTED FOR THE F. INSTALLER QUALIFICATIONS SHALL INCLUDE AT LEAST 3 YEARS OF SUCCESSFUL APPLICATION, INSTALLATION, AND TESTING EXPERIENCE ON THE SPECIFIED EQUIPMENT. INSTALLERS EXPERIENCE.

**FIRESTOP** 

B. REPORT TO THE GENERAL CONTRACTOR'S PROJECT MANAGER ANY EXISTING BREACHES IN FIRE OR SMOKE BARRIERS ENCOUNTERED THROUGHOUT THE PROJECT.

A. THE LV CONTRACTOR SHALL USE EZ-PATH SLEEVES FOR ROUTING LOW VOLTAGE CABLING INTO IDF CLOSETS. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING THE FIRE ASSEM

**SUBMITTALS** 

### A. CONTRACTORS SHALL PROVIDE SUBMITTALS FOR INDIVIDUAL SYSTEMS AND EQUIPMENT ASSEMBLIES THAT CONSIST OF MORE THAN ONE ITEM OR COMPONENT. SUBMITTALS SHALL **MATERIALS**

A. WHERE EQUIPMENT IS IDENTIFIED BY THE MANUFACTURER AND CATALOG NUMBER, IT SHALL BE THE BASE OF REQUIREMENTS FOR QUALITY AND PERFORMANCE. WHERE MANUFACT SUBSTITUTION.

### B. ALL COPPER CABLES AND COMPONENTS SHALL BE PROVIDED AND INSTALLED BY MANUFACTURER CERTIFIED INSTALLERS THAT SHALL PROVIDE AN EXTENDED WARRANTY OF 20 YEA DOCUMENTATION OF CERTIFICATION BY MANUFACTURER. ACCEPTABLE COPPER SOLUTION MANUFACTURERS SHALL BE THE PRODUCTS OF THE FOLLOWING MANUFACTURER -COMM

**TESTING** A. ALL CABLES AND TERMINATION HARDWARE SHALL BE 100% TESTED FOR DEFECTS IN INSTALLATION AND TO VERIFY CABLING SYSTEM PERFORMANCE UNDER INSTALLED CONDITIONS

# B. ALL TWISTED-PAIR COPPER CABLE LINKS SHALL BE TESTED FOR CONTINUITY, PAIR REVERSALS, SHORTS, OPENS, AND PERFORMANCE AS INDICATED BELOW. ADDITIONAL TESTING IS F USING A LEVEL III TEST UNIT FOR CATEGORY 6 COMPLIANCE AND PERFORMANCE UP TO 350 MHZ. THE CABLE LENGTH SHALL CONFORM TO THE MAXIMUM DISTANCES SET FORTH I

C. TEST DOCUMENTATION SHALL BE PROVIDED AS PART OF THE AS-BUILT PACKAGE. PRINTOUTS GENERATED FOR EACH CABLE BY THE WIRE TEST INSTRUMENT SHALL BE SUBMITTED A DOCUMENTATION", THE PROJECT NAME, AND THE DATE OF COMPLETION (MONTH AND YEAR). THE RESULTS SHALL INCLUDE A RECORD OF TEST FREQUENCIES, CABLE TYPE, CONDU MEMBER NAME(S). THE TEST EQUIPMENT NAME, MANUFACTURER, MODEL NUMBER, SERIAL NUMBER, SOFTWARE VERSION, AND LAST CALIBRATION DATE WILL ALSO BE PROVIDED AT SETTINGS OF THE EQUIPMENT DURING THE TEST AS WELL AS THE SOFTWARE VERSION BEING USED IN THE FIELD TEST EQUIPMENT.

### D. THE NURSE CALL CONTRACTOR SHALL PROVIDE A LETTER CERTIFYING THE NURSE CALL SYSTEM A WEEK IN ADVANCE OF THE PROJECT'S FINAL INSPECTION BY THE STATE FIRE MARS HAS THOROUGHLY TESTED THE NURSE CALL SYSTEM. INCLUDE THE PROJECT NAME, THE INSTALLATION COMPANY'S NAME ALONG WITH THE PROJECT MANAGER, THE SPECIFIC AREA REQUIREMENTS AND THE MANUFACTURER'S RECOMMENDATIONS.

# AS-BUILT DRAWINGS

A. AS-BUILT DRAWINGS SHALL ACCURATELY RECORD THE LOCATION OF ALL DEVICES. DRAWINGS SHALL INDICATE CABLE ROUTING AND IDENTIFICATION, SYSTEM FUNCTION DIAGRAM B. FURNISH AS-BUILT DRAWINGS AND DOCUMENTATION TO THE PROJECT ENGINEER FOR REVIEW AND APPROVAL. AS-BUILT DRAWINGS SHALL BE GENERATED IN AUTOCAD 2004 OR LA

# **OPERATIONS AND MAINTENANCE MANUALS**

A. AFTER COMPLETION OF THE WORK, THE CONTRACTOR SHALL FURNISH AND DELIVER TO THE ENGINEER A COMPLETE OPERATIONS & MAINTENANCE MANUAL. A SYSTEM WIRING DIA SECTIONS WITH TAB DIVIDERS TO IDENTIFY SUBSYSTEMS OF THE INTEGRATED SYSTEM.

B. PROVIDE THE FOLLOWING ADDITIONAL INFORMATION FOR EACH ELECTRONIC SYSTEM: POINT TO POINT DIAGRAMS, CABLING DIAGRAMS, CONSTRUCTION DETAILS, AND CABLING LA **TRAINING** 

A. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE TRAINING OF FACILITY PERSONNEL. TRAINING SHALL TAKE PLACE AFTER OCCUPANCY, AND SHALL INCLUDE PROGRAMS FOR ON-NOT MORE THAN TEN (10) PEOPLE, BE HELD AT THE OWNER'S SITE, AND SHALL BE OF SUFFICIENT DURATION AND DEPTH TO ENSURE THAT THE TRAINED PERSONNEL CAN OPERATE

### WARRANTY A. LV SYSTEMS IN GENERAL: ALL EQUIPMENT IS TO BE NEW AND WARRANTED FREE OF FAULTY WORKMANSHIP AND DAMAGE. THE CONTRACTOR SHALL PROVIDE THE REPLACEMENT OF EXCEPT FOR EMERGENCY CONDITIONS (SYSTEM FAILURES), WHICH MUST BE PLACED BACK IN SERVICE WITHIN EIGHT (8) HOURS OF NOTIFICATION, ALL AT NO COST TO THE OWNER. MANUFACTURER'S WARRANTIES.

B. HORIZONTAL STRUCTURED CABLING: THE LOW VOLTAGE CONTRACTOR SHALL PROVIDE A 25-YEAR MANUFACTURER WARRANTY FOR COMPONENTS USED IN THE INSTALLED STRUCTURED CABLING SYSTEM. DEFECTIVE AND/OR IMPROPERLY INSTALLED PRODUCTS SHALL BE REPLACED AND/OR CORRECTLY INSTALLED AT NO COST TO THE OWNER.

	SHEET LIST
SHEET NUMBER	SHEET NAME
LV-000	COVER PAGE
LV-200	LEVEL 8 - OVERALL FLOOR PLAN
LV-201	LEVEL 8 - DEMOLITION PLAN
LV-202	LEVEL 8 - FLOOR PLAN
LV-401	ONE-LINE DIAGRAMS
LV-501	DETAILS
LV-502	DETAILS

(ISTING.	
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PART OF THE LV SYSTEMS AND NECESSARY TO ITS PROPER OPERATION, BUT NOT SPECIFICALLY MENTIONED OR SHOWN
AGE OR DISRUPT THE OPERATION OF ANY EXISTING SYSTEM.
RATING OF THE CONSTRUCTION TO BE PENETRATED.
IS ASSIGNED TO PERFORM THE INSTALLATION LV SYSTEM AND COMPONENTS SHALL HAVE A MINIMUM OF 3 YEAR'S
MBLY RATING OF THE EZ-PATH SYSTEMS USED WHEN ROUTING CABLES.
L BE ARRANGED BY SYSTEM TYPE AND QUANTITY OF DEVICES TO BE PROVIDED.
TURERS FOR EQUIPMENT ARE IDENTIFIED BY NAME, THE CONTRACTOR SHALL PROVIDE EQUIPMENT WITHOUT
ARS FOR CERTIFIED INSTALLATIONS. MANUFACTURER SHALL PROVIDE WARRANTIES AND CONTRACTOR SHALL PROVIDE MSCOPE CABLING SYSTEM.
REQUIRED TO VERIFY CATEGORY 6 PERFORMANCE. HORIZONTAL BALANCED TWISTED PAIR CABLING SHALL BE TESTED
IN THE ANSI/TIA/EIA 568 B.1-3 STANDARD.
UCTOR PAIR (OR STRAND) AND CABLE (OR OUTLET) I.D., MEASUREMENT DIRECTION, REFERENCE SETUP, AND CREW T THE END OF THE DOCUMENT. THE TEST DOCUMENT SHALL DETAIL THE TEST METHOD USED AND THE SPECIFIC
SHALL AND THE GEORGIA DEPARTMENT OF COMMUNITY HEALTH. THIS LETTER WILL CERTIFY THAT THE CONTRACTOR A WHERE THE SYSTEM IS INSTALLED, AND CONFIRM THAT THE SYSTEM IS FULLY OPERATIONAL, MEETING BOTH DESIGN
MS, CONNECTION, AND PROGRAMMING SCHEDULES AS APPROPRIATE.
ATER.
AGRAM SHALL BE FURNISHED FOR EACH SEPARATE SYSTEM. THE MANUAL SHALL BE SUBDIVIDED INTO SEPARATE
ABELING DETAILS. TROUBLESHOOTING PROCEDURES FOR EACH SYSTEM AND EACH MAJOR SYSTEM COMPONENT.
N-SITE OPERATIONS AND MAINTENANCE OF TECHNOLOGY AND COMMUNICATIONS SYSTEMS TRAINING SHALL REFOR
THE INSTALLED SYSTEMS AND CAN PERFORM USUAL AND CUSTOMARY MAINTENANCE ACTIONS.
F DEFECTIVE EQUIPMENT AND MATERIALS AND REPAIR OF FAULTY WORKMANSHIP WITHIN 24 HOURS OF NOTIFICATION,
THE MINIMUM WARRANTY PROVISIONS SPECIFIED SHALL NOT DIMINISH THE TERMS OF INDIVIDUAL EQUIPMENT

![](_page_31_Picture_61.jpeg)

![](_page_31_Figure_62.jpeg)

![](_page_32_Figure_0.jpeg)

# **LEVEL 8 - OVERALL FLOOR PLAN** 1/4" = 1'-0"

![](_page_32_Picture_5.jpeg)

![](_page_32_Figure_6.jpeg)

![](_page_33_Picture_0.jpeg)

### GENERAL NOTES:

- A. CONTRACTORS SHALL REMOVE CABLES FOR EXISTING LOW VOLTAGE DEVICES DEMOLISHED FROM THE AREA. CABLES MUST BE COMPLETELY REMOVED FROM THE DEVICE TO THE NETWORK PATCH PANELS, OR EQUIPMENT ENCLOSURE OUTSIDE OF THE AREA. CABLES INTENDED FOR REUSE SHALL BE PULLED BACK TO A SAFE LOCATION AWAY FROM POSSIBLE CONSTRUCTION DAMAGE, COIL AND SUPPORT CABLES FROM A J-HOOK ATTACHED TO STRUCTURE. CABLES SHALL BE TAGGED WITH SYSTEM INFORMATION, FUNCTION, ORIGINATION, AND THE LOCATION NOTED ON THE AS-BUILT DRAWINGS.
- B. CONTRACTORS ARE RESPONSIBLE FOR PROTECTING EXISTING EQUIPMENT AND CABLING IN CEILINGS, WALLS, TELECOM ROOMS, AND EQUIPMENT RACKS. THIS INCLUDES TAKING ALL NECESSARY PRECAUTIONS TO AVOID DAMAGE AND DISRUPTION TO ANY OPERATIONAL SYSTEMS. ANY DAMAGE TO EXISTING INFRASTRUCTURE CAUSED BY THE CONTRACTOR WILL BE THEIR SOLE RESPONSIBILITY FOR REPAIR OR REPLACEMENT, TO THE OWNER'S SATISFACTION AND AT THE CONTRACTOR'S EXPENSE.
- C. CONTRACTORS MUST OBTAIN AN "ABOVE CEILING PERMIT" FROM THE FACILITIES DEPARTMENT BEFORE STARTING ANY WORK ABOVE THE CEILING IN AREAS OUTSIDE THE DESIGNATED WORK ZONE. BEFORE INSTALLING CABLES, CONTRACTORS MUST CONDUCT A SURVEY OF THE EXISTING AREAS INVOLVED. THIS SURVEY SHALL INCLUDE A DETAILED DIAGRAM OF THE PLANNED CABLE ROUTES, WHICH NEEDS TO BE SUBMITTED FOR OWNER APPROVAL. D. EXISTING NURSE CALL DOME LIGHTS SHALL BE REMOVED AND TURNED OVER TO THE OWNER FOR DISPOSITION.

KEY NOTES:

- EXISTING DATA OUTLET TO BE REMOVED BY CONTRACTOR. CONTRACTOR SHALL REMOVE EXISTING CABLING BACK TO THE NETWORK PATCH PANEL LOCATED IN LOCAL IDF ROOM COMM 8A016. CONTRACTOR TO FIELD VERIFY.
- EXISTING DATA OUTLET TO BE REMOVED AND RELOCATED BY CONTRACTOR. CONTRACTOR SHALL PULL EXISTING CABLING BACK TO A SAFE LOCATION AWAY FROM POSSIBLE CONSTRUCTION DAMAGE, COIL AND SUPPORT CABLES FROM A J-HOOK ATTACHED TO STRUCTURE. CABLES SHALL BE TAGGED WITH SYSTEM INFORMATION, FUNCTION, ORIGINATION, AND THE LOCATION NOTED ON THE AS-BUILT DRAWINGS.
- EXISTING ACCESS CONTROL DEVICE TO BE REMOVED AND RELOCATED BY CONTRACTOR. CONTRACTOR SHALL REMOVE EXISTING CABLING BACK TO THE ACCESS CONTROL PANEL. TURN OVER UNUSED DEVICES TO GRADY'S FACILITIES DEPARTMENT.
- EXISTING NURSE CALL DEVICE TO BE REMOVED AND RELOCATED BY CONTRACTOR. CONTRACTOR SHALL PULL  $\langle 4 \rangle$ EXISTING CABLING BACK TO A SAFE LOCATION AWAY FROM POSSIBLE CONSTRUCTION DAMAGE, COIL AND SUPPORT CABLES FROM A J-HOOK ATTACHED TO STRUCTURE. CABLES SHALL BE TAGGED WITH SYSTEM INFORMATION, FUNCTION, ORIGINATION, AND THE LOCATION NOTED ON THE AS-BUILT DRAWINGS.
- EXISTING NURSE CALL DEVICE TO BE REMOVED BY CONTRACTOR. CONTRACTOR SHALL REMOVE EXISTING CABLING BACK TO THE NURSE CALL CONTROL PANEL. TURN OVER UNUSED DEVICES TO GRADY'S FACILITIES DEPARTMENT.

![](_page_33_Picture_11.jpeg)

![](_page_33_Picture_12.jpeg)

![](_page_33_Picture_19.jpeg)

![](_page_34_Figure_0.jpeg)

GENERAL NOTES:

- A. ALL DATA CABLES TO BE ROUTED DIRECT TO TELECOM ROOM WITHOUT SPLICES. NO JUNCTIONS OR SPLICES IN CABLES ARE ACCEPTABLE.
- B. COORDINATE EXACT LOCATION AND ORIENATATION OF DATA OUTLETS WITH POWER RECEPTACLES. DATA OUTLETS TO MATCH POWER RECEPTACLE ORIENTATION AND ELEVATION SEE INSTALLATION DETAILS.
- C. COORDINATE LOCATION OF ALL DATA DROPS FOR VIDEO SURVEILLANCE CAMERAS WITH SECURITY CONTRACTOR.
- D. FOR ALL LOW VOLTAGE CABLING, PROVIDE EMT RACEWAY FROM DEVICE BACKBOX TO ACCESSIBLE CEILING SPACE, WITH J-HOOK SUPPORT TO LOCAL TELECOM ROOM. J-HOOKS TO BE INSTALLED ON 4'-0" TO 5'-0" CENTERS.
- E. ALL CONDUIT INSTALLATION TO MEET REQUIREMENTS OF NATIONAL ELECTRIC CODE (NEC) CURRENT EDITION.
- F. SUBSCRIPT "EX" REPRESENTS EXISTING DEVICES TO BE REMOVED AND REINSTALLED.

KEY NOTES:

- $\langle 1 \rangle$  EXISTING SINGLE PORT DATA OUTLET TO BE CHANGED TO A DUAL PORT DATA OUTLET.
- 2 STRUCTURED CABLING CONTRACTOR TO PROVIDE SINGLE PORT DATA OUTLET TERMINATED WITH DEDICATED CATEGORY 6 CABLE BETWEEN EQUIPMENT 8A006A AND ANGIO CONTROL 8A005B FOR PHILIPS SERVICE HUB.

![](_page_34_Picture_11.jpeg)

![](_page_34_Figure_14.jpeg)

![](_page_35_Figure_0.jpeg)

EXISTING NURSE CALL CONSOLE STATION

LEVEL 8

### **ONE-LINE DIAGRAM - DATA DISTRIBUTION** N.T.S.

![](_page_35_Figure_38.jpeg)

**ONE-LINE DIAGRAM - NURSE CALL** 

SYSTEM REQUIREMENTS:

(APPLIES TO DETAIL 1/LV-401 ONLY)

- A. THE STRUCTURED CABLING CONTRACTOR SHALL UPDATE THE WALL MOUNTED AND FRAMED 11"X 17" AS-BUILT DRAWING REFLECTING CONSOLIDATION POINTS, AND WORKSTATION OUTLETS IN EACH RESPECTIVE IDF.
- B. FACEPLATES SHALL BE COMMSCOPE UNIPRISE WHITE WITH LABELS. INCLUDE BLANK COVERS FOR UNUSED PORTS. COORDINATE WITH OWNER FOR EXACT FACEPLATE STYLE PRIOR TO ORDERING. a. 2 PORT PART # 108168469 | M12L-262 4 PORT PART # 108168584 | M14L-262 6 PORT PART # 108168584 | M16L-262 WALL PORT PART # 760100891 | M10LW4SP
- C. DATA JACKS: COLOR SHALL BE "BLUE", CATEGORY 6. PROVIDE COMMSCOPE JACK PART # UNJ600-BL.
- D. WIRELESS ACCESS DATA JACKS: COLOR SHALL BE "GREEN", CATEGORY 6A. PROVIDE COMMSCOPE UNIPRISE JACK PART # USL10G-GRN.
- E. SURVEILLANCE CAMERA JACKS: COLOR SHALL BE "RED" CATEGORY 6. PROVIDE COMMSCOPE JACK PART # UNJ600-
- F. DATA CABLES: CATEGORY 6 CABLE COLOR SHALL BE "BLUE". PROVIDE COMMSCOPE UNIPRISE PART #UN874043004/10.
- G. WIRELESS DATA CABLE: CATEGORY 6A CABLE COLOR SHALL BE "GREEN". PROVIDE COMMSCOPE UNIPRISE PART #UN874035904/10.
- H. SURVEILLANCE CAMERAS: CATEGORY 6 CABLE COLOR SHALL BE "PINK". PROVIDE COMMSCOPE UNIPRISE PART #UN874033904/10.

KEY NOTES:

- T FOR HORIZONTAL DATA CIRCUITS, PROVIDE PLENUM-TYPE 23 AWG/CATEGORY 6 COMPLIANT/4 PR. CABLE FROM CATEGORY 6 PATCH PANEL IN TELECOM ROOMS TO STATION OUTLET LOCATIONS. SEE LEGEND AND FLOOR PLANS FOR REQUIREMENTS.
- (2) REFERENCE OUTLET DETAILS FOR TERMINATION REQUIREMENTS
- COPPER PATCH PANELS TO BE SIZED AS REQUIRED TO PROVIDE CAT. 6 LINK TO ALL STATIONS OUTLETS. PROVIDE SPARE CAPACITY AS REQUIRED IN SPECIFICATIONS. PATCH PANELS TO BE CATEGORY 6, 48 PORT TYPE. PROVIDE 18" CABLE SLACK TO ALLOW FUTURE REPOSITIONING OF PATCH PANEL. CONTRACTOR TO COORDINATE WITH GRADY I.T. FOR INSTALLATION LOCATION IN EXISTING TELECOM RACK AND CONNECTIVITY TO GRADY NETWORK. PROVIDE 2-METER CATEGORY 6 & 3-METER CATEGORY 6A PATCH CORDS FOR EACH TERMINATED HORIZONTAL<br/>CIRCUIT.
- 5 FOR WIFI DATA OUTLETS, PROVIDE PLENUM-TYPE 23 AWG/CATEGORY 6A COMPLIANT/4 PR. CABLE FROM CATEGORY 6A PATCH PANEL IN TELECOM ROOMS TO ACCESS POINT OUTLET LOCATIONS. SEE LEGEND AND FLOOR PLANS FOR REQUIREMENTS.
- 6 CONTRACTOR TO TERMINATE WIFI CAT. 6A CABLING ON TO EXISTING CAT. 6A PATCH PANEL. CONTRACTOR TO COORDINATE WITH GRADY I.T. FOR EXACT TERMINATION AND LOCATION REQUIREMENTS

SYSTEM REQUIREMENTS:

- A. NURSE CALL DEVICES SHALL REPORT TO THE EXISTING NURSE CONSOLE IN NURSE STATION 7100A. DEVICES SHALL ALSO ACTIVATE THE REPORTAND ACTIVATE THE DUTY FUNCTION IN ALL DUTY STATIONS IN THE MRI SUITE. DUTY STATIONS SHALL PROVIDE REMOTE ANNUNCIATION OF NURSE CALL DEVICES VIA 4 LED'S AND 12 CALL TONES. DUTY STATION FACEPLATE LED'S SHALL MIMIC CORRIDOR LIGHT ACTIVITY FOR THE ASSIGNED NURSING AREA. CALL TONES GENERATED AT DUTY STATION MUST BE IDENTICAL AND REPEAT IN SYNCH WITH TONES PRODUCED AT CLOSEST NURSE CONSOLE. IT SHALL BE POSSIBLE TO MUTE THE CALL IN TONE, WITHOUT CANCELLING THE CALL. THE NEXT CALL IN, ASSIGNED TO THIS DUTY STATION, WILL UN-MUTE THE STATION. MUTING FEATURE MAY
- BE DEFEATED IN THOSE JURISDICTIONS THAT DO NOT ALLOW MUTING OF DUTY STATION. B. EMERGENCY PULL CORD STATIONS SHALL ALERT STAFF MEMBERS OF PATIENT CALLS WHERE PROMPT EMERGENCY HELP IS REQUIRED. PULL CORDS SHALL EXTEND TO WITHIN 2-INCHES OF THE FLOOR. EMERGENCY PULL CORD STATION SHALL BE WEST-COM MODEL # NV-WPC2/AG.
- C. CONTRACTOR TO BE RESPONSIBLE FOR PROVIDING STAFF ASSIST/ CODE BLUE STATIONS IN ALL LOCATIONS INDICATED ON THE DRAWINGS. STATION SHALL BE WEST-COM MODEL # NV-PBE2/SE/CB.
- D. THE DOME LIGHT PROVIDES THE REQUIRED VISUAL SIGNAL TO NOTIFY STAFF MEMBERS OF A ROOM'S STATUS. CORRIDOR LIGHTS SHALL CONTAIN FOUR SECTIONS, EACH LIGHTED BY A LONG LIFE, RGB LED CAPABLE OF PRODUCING 7 COLOR SELECTIONS WITH CUSTOMIZABLE LED COLORS AND FLASH RATES BASED ON CALL TYPE. EACH SECTION SHALL HAVE A DIFFUSION LENS THAT ALLOWS FOR 180-DEGREE HORIZONTAL VISIBILITY OF CALL LIGHTS. DOME LIGHTS SHALL BE MOUNTED ON THE CEILING UNLESS NOTED OTHERWISE. SEE CONTRACT DRAWINGS FOR QUANTITIES AND LOCATIONS. DOME LIGHT SHALL BE WEST-COM MODEL #NV-SIPDOME.
- THE CORRIDOR LIGHTS SHALL BE CAPABLE OF THE FOLLOWING: ALL SEGMENTS OF CORRIDOR LIGHT CAN INDICATE A CALL IN ANY OF THE FOLLOWING 7 COLORS: BLUE, RED,
- WHITE, GREEN, ORANGE, YELLOW, AND PINK. CUSTOM CALL PATTERNS (ANY COMBINATION OF LIGHT SEGMENTS, SUCH AS ALL SEGMENTS BLUE FOR CODE
- FLASH ANY SINGLE COLOR OR STROBE THE SECTIONS OF THE LIGHT IN ANY COLOR PATTERN. 4. CONFIGURABLE BUZZER FOR ANY CALL TYPE.

**GENERAL NOTES:** 

- A. ELECTRICAL CONTRACTOR SHALL PROVIDE CONTINUOUS EMT CONDUIT SYSTEM FOR THE NURSE CALL SYSTEM. NURSE CALL CONTRACTOR SHALL COORDINATE WITH THE ELECTRICAL CONTRACTOR FOR ALL CONDUIT REQUIREMENTS.
- B. CONTRACTOR SHALL CONNECT NURSE CALL DEVICES TO THE EXISTING NURSE CALL POWER CONTROL UNIT. CONTRACTOR SHALL PROVIDE A CONTINUOUS CONDUIT SYSTEMS FOR THE NURSE CALL SYSTEM. NURSE CALL C.
- VENDOR SHALL PROVIDE SHOP DRAWINGS DETAILING THE CONDUIT REQUIREMENTS INCLUDING BACKBOX TYPE, AND SIZE, AND CONDUIT ROUTING AND SIZE. CONDUIT RUNS TO NURSE CALL END POINTS SHALL BE SIZED ACCORDINGLY TO MAINTAIN A 40% FILL RATIO PER NEC REQUIREMENTS. KEY NOTES: (APPLIES TO DETAIL 2/LV-401 ONLY)
- CONTRACTOR TO REFERENCE FLOOR PLAN DRAWINGS FOR QUANTITIES AND TYPE OF ALL FIELD DEVICES. FIELD DEVICES INCLUDE CHANGING ROOM PULLCORDS, AND DOME LIGHTS, ETC.

![](_page_35_Picture_69.jpeg)

![](_page_36_Figure_0.jpeg)

![](_page_36_Figure_1.jpeg)

### F RATINGS -2, 3 AND 4 HR (SEE ITEM 5) T RATINGS - 0, 1/2 AND 2-3/4 HR (SEE ITEM 5)

### KEY NOTES:

(APPLY TO THIS DETAIL ONLY)

- FLOOR OR WALL ASSEMBLY MIN 2-1/2 IN. (64 MM) OR 4-1/2 IN. (114 MM) THICK REINFORCED LIGHTWEIGHT OR NORMAL WEIGHT (100-150 PCF OR 1600-2400 KG/M3) CONCRETE. WALL MAY ALSO BE CONSTRUCTED OF ANY UL CLASSIFIED CONCRETE BLOCKS\*. FLOOR MAY ALSO BE CONSTRUCTED OF ANY UL CLASSIFIED HOLLOW-CORE PRECAST CONCRETE UNITS\*. MAX DIAM OF OPENING IS 6 IN. (152 MM) SEE CONCRETE BLOCKS (CAZT) AND PRECAST CONCRETE UNITS (CFTV) CATEGORIES IN THE FIRE RESISTANCE DIRECTORY FOR NAMES OF MANUFACTURERS.
- 2 SLEEVE (OPTIONAL) NOM 6 IN. (152 MM) DIAM (OR SMALLER) SCHEDULE 10 (OR HEAVIER) STEEL PIPE SLEEVE, NOM 6 IN. (152 MM) DIAM (OR SMALLER) NO. 26 GA (0.022 IN. OR 0.56 MM THICK) SHEET STEEL SLEEVE WITH SQUARE ANCHOR FLANGE SPOT WELDED TO SLEEVE AT APPROX MID-HEIGHT OR NOM 6 IN. (152 MM) DIAM (OR SMALLER) SCHEDULE 40 POLYVINYL CHLORIDE (PVC) PIPE SLEEVE CAST OR GROUTED INTO FLOOR OR WALL FLUSH WITH FLOOR OR WALL SURFACES. STEEL PIPE SLEEVE MAY BE INSTALLED TO PROJECT A MAX OF 2 IN. (51 MM) BEYOND THE FLOOR OR WALL SURFACES.
- CABLES AGGREGATE CROSS-SECTIONAL AREA OF CABLES IN SLEEVE TO BE MAX 45 PERCENT OF THE CROSS-SECTIONAL AREA OF THE SLEEVE. SEE ITEM 5 FOR SPECIFIC CABLE FILL REQUIREMENTS. TIGHT BUNDLE OF CABLES TO BE INSTALLED IN THE STEEL SLEEVE. THE ANNULAR SPACE WITHIN THE FIRESTOP SYSTEM SHALL BE A MIN OF 0 IN. (POINT CONTACT) TO A MAX OF 2 IN. IN 4 HR FIRE RATED ASSEMBLIES, THE ANNULAR SPACE WITHIN THE FIRESTOP SYSTEM SHALL BE A MIN OF 1/4 IN (6 MM) TO A MAX OF 1 IN. (25 MM). CABLES TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF THE FLOOR OR WALL ASSEMBLY. ANY COMBINATION OF THE FOLLOWING TYPES AND SIZES OF CABLES MAY BE USED:
  - A. MAX 400 PAIR NO. 24 AWG (OR SMALLER) COPPER CONDUCTOR CABLE WITH POLYVINYL CHLORIDE (PVC) JACKETING AND INSULATION.
  - B. MAX 3/C NO. 2/0 AWG (OR SMALLER) ALUMINUM OR COPPER CONDUCTOR SERVICE ENTRANCE CABLE WITH PVC INSULATION AND JACKET.
  - C. MAX 3/C NO. 2/0 AWG (OR SMALLER) COPPER CONDUCTOR PVC JACKETED ALUMINUM CLAD OR STEEL CLAD TECK 90 CABLE.
  - D. MAX 3/C NO. 8 AWG (OR SMALLER) NONMETALLIC SHEATHED (ROMEX) CABLE WITH COPPER CONDUCTORS, PVC INSULATION AND JACKET.
  - E. MAX 1/C 1000 KCMIL (OR SMALLER) COPPER CONDUCTOR POWER CABLE WITH XLPE OR PVC INSULATION AND XLPE OR PVC JACKET. F. MAX RG59/U (OR SMALLER) COAXIAL CABLE WITH FLUORINATED ETHYLENE INSULATION AND
  - JACKETING. G. MAX 62.5/48 FIBER OPTIC CABLE WITH PVC INSULATION AND JACKETING.
  - H. MAX 4 PAIR NO. 24 AWG (OR SMALLER) COPPER CONDUCTOR DATA CABLE WITH PVC INSULATION AND JACKET
- THROUGH PENETRATING PRODUCT\* (NOT SHOWN) MAX 4/C NO. 2/0 AWG (OR SMALLER) STEEL OR ALUMINUM ARMORED CABLE+ OR METAL CLAD CABLE+ WITH COPPER OR ALUMINUM CONDUCTORS. DIAM OF CABLE BUNDLE (ITEM 3) INCLUDING ARMORED CABLE NOT TO EXCEED 4 IN. THROUGH PENETRATING PRODUCT TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF A FLOOR OR WALL ASSEMBLY.

### AFC CABLE SYSTEMS INC

PACKING MATERIAL - MIN 2, 3 OR 4 IN. (51, 76 OR 102 MM) THICKNESS OF MIN 4 PCF (64 KG/M3) DENSITY MINERAL-WOOL BATT INSULATION TIGHTLY PACKED INTO OPENING AS A PERMANENT FORM FOR 2, 3 OR 4 HR FIRE RATED ASSEMBLIES, RESPECTIVELY . PACKING MATERIAL TO BE RECESSED FROM TOP EDGE OF SLEEVE OR FROM TOP SURFACE OF CONCRETE IN CAST CONCRETE FLOOR ASSEMBLIES TO ACCOMMODATE THE REQUIRED THICKNESS OF FILL MATERIAL. PACKING MATERIAL TO BE RECESSED FROM BOTH EDGES OF SLEEVE OR FROM BOTH SURFACES OF ASSEMBLY IN WALLS AND IN FLOOR CONSTRUCTED WITH HOLLOW-CORE PRECAST CONCRETE UNITS TO ACCOMMODATE THE REQUIRED THICKNESS OF FILL MATERIAL.

5 FILL, VOID OR CAVITY MATERIAL\* - SEALANT OR PUTTY - MIN 1/2 IN. (13 MM) THICKNESS OF FILL MATERIAL APPLIED WITHIN THE ANNULUS FOR 2 AND 3 HR F RATINGS. MIN 3/4 IN. (19 MM) THICKNESS OF FILL MATERIAL APPLIED WITH THE ANNULUS FOR 4 HR F RATING. IN FLOORS, FILL MATERIAL TO BE INSTALLED FLUSH WITH TOP EDGE OF SLEEVE OR TOP SURFACE OF FLOOR. IN WALLS AND IN FLOOR CONSTRUCTED OF HOLLOW-CORE PRECAST CONCRETE UNITS, FILL MATERIAL TO BE INSTALLED FLUSH WITH BOTH ENDS OF SLEEVE OR BOTH SURFACES OF ASSEMBLY. F AND T RATINGS OF FIRESTOP SYSTEM ARE DEPENDENT UPON THE THROUGH OPENING SIZE, THICKNESS OF CONCRETE, SLEEVE TYPE AND PERCENT CABLE FILL, AS SHOWN IN THE FOLLOWING TABLE:

MAX OPENING DIAM	MIN CONCRETE THICKNESS	OPTIONAL SLEEVE TYPE	CABLE TYPE	PERCENT CABLE FILL	F RATING	T RATING
6 IN. (152 MM)	2-1/2 IN. (64 MM)	PVC	А ТО Н, ЗА	37	2 HR	0 HR
6 IN. (152 MM)	2-1/2 IN. (64 MM)	PVC	Н	45	2 HR	0 HR
6 IN. (152 MM)	2-1/2 IN. (64 MM)	STEEL	А ТО Н, ЗА	37	2 HR	0 HR
6 IN. (152 MM)	2-1/2 IN. (64 MM)	STEEL	Н	45	2 HR	0 HR
6 IN. (152 MM)	4-1/2 IN. (114 MM)	STEEL	А ТО Н, ЗА	34	3 HR	1/2 HR
6 IN. (152 MM)	4-1/2 IN. (114 MM)	STEEL	Н	45	3 HR	1/2 HR
2 IN. (52 MM)	4-1/2 IN. (114 MM)	STEEL	Н	40	3 HR	2-3/4 HR
2 IN. (52 MM)	4-1/2 IN. (114 MM)	STEEL	Н	40	4 HR	2-3/4 HR

SPECIFIED TECHNOLOGIES INC - SPECSEAL SERIES SSS SEALANT OR SPECSEAL LCI SEALANT. WHEN MIN FLOOR OR WALL THICKNESS IS 4-1/2 IN. (114 MM),

SPECSEAL PUTTY MAY BE USED. \*BEARING THE UL CLASSIFICATION MARK

DETAIL		`
NOT TO SCA	ALE I	

FIRESTOP SYSTEM - C-AJ-3154

![](_page_36_Figure_25.jpeg)

F RATINGS -1 AND 2 HR (SEE ITEM 1) T RATING - 3/4 HR

**KEY NOTES:** 

(APPLY TO THIS DETAIL ONLY)

- WALL ASSEMBLY THE 1 OR 2 HR FIRE RATED GYPSUM BOARD/STUD WALL ASSEMBLY SHALL BE CONSTRUCTED OF THE MATERIALS AND IN THE MANNER SPECIFIED IN THE INDIVIDUAL U300, U400 OR V400 SERIES WALL AND PARTITION DESIGNS IN THE UL FIRE RESISTANCE DIRECTORY AND SHALL INCLUDE THE FOLLOWING CONSTRUCTION FEATURES:
- A. STUDS WALL FRAMING MAY CONSIST OF EITHER WOOD STUDS OR STEEL CHANNEL STUDS. WOOD STUDS TO CONSIST OF NOM. 2 X 4 IN. (51 X 102MM) LUMBER SPACED 16 IN. (406MM) OC. STEEL STUDS TO BE MIN 3-1/2 IN. (76MM) WIDE AND SPACED MAX 14 IN. (610MM) OC.
- GYPSUM BOARD THICKNESS, NUMBER OF LAYERS, FASTENER TYPE AND SHEET ORIENTATION SHALL BE AS SPECIFIED IN THE INDIVIDUAL U300, U400 OR V400 SERIES DESIGN IN THE UL FIRE RESISTANCE DIRECTORY. MAX DIAM. OF OPENING IS 4-1/2 IN. (114MM)
- THE HOURLY F RATING OF THE FIRESTOP SYSTEM IS EQUAL TO THE HOURLY FIRE RATING OF THE WALL ASSEMBLY IN WHICH IT IS INSTALLED.
- 2 STEEL SLEEVE NOM. 4 IN. (102MM) DIAM. (OR SMALLER) STEEL ELECTRICAL METALLIC TUBING (EMT), STEEL CONDUIT OR SCHEDULE 5 (OR HEAVER) STEEL PIPE SLEEVE FRICTION-FITTED INTO WALL ASSEMBLY. SLEEVE MAY BE INSTALLED FLUSH WITH OR EXTEND UP TO 18 IN. (46 CM) BEYOND ONE OR BOTH WALL SURFACES.
- (3) CABLES AGGREGATE CROSS-SECTIONAL AREA OF CABLES IN STEEL SLEEVE TO BE MAX. 48 PERCENT OF THE AGGREGATE CROSS-SECTIONAL AREA OF THE SLEEVE. CABLES TO BE BUNDLED AND RIGIDLY SUPPORTED ON BOTH SIDES OF WALL ASSEMBLY. THE ANNULAR SPACE BETWEEN THE CABLES AND THE SLEEVE SHALL BE MIN. 0 IN. (POINT CONTACT) TO MAX. 1-1/2 IN. (38MM). ANY COMBINATION OF THE FOLLOWING TYPES AND SIZES OF COPPER CONDUCTOR CABLE MAY BE USED:
  - A. MAX 200 PAIR NO. AWG (OR SMALLER) COPPER CONDUCTOR CABLE WITH POLYVINYL CHLORIDE (PVC)
  - JACKETING AND INSULATION. B. MAX 3/C NO. 2/0 AWG (OR SMALLER) ALUMINUM OR COPPER CONDUCTOR SERVICE ENTRANCE CABLE WITH PVC INSULATION AND JACKET.
  - MAX 3/C NO. 8 AWG (OR SMALLER) NONMETALLIC SHEATHED (ROMEX) CABLE WITH COPPER CONDUCTORS, PVC INSULATION AND JACKET.
  - D. MAX 7/C NO. 2/0 AWG (OR SMALLER) MULTICONDUCTOR POWER AND CONTROL CABLES WITH XLPE OR PVC INSULATION AND XLPE OR PVC JACKET.
  - MAX. RG/U (OR SMALLER) COAXIAL CABLE WITH FLOURINATED ETHYLENE INSULATION AND JACKETING. MAX. 62.5/48 FIBER OPTIC CABLE WITH PVC INSULATION AND JACKETING.
  - G. MAX 4 PAIR NO. 24 AWG (OR SMALLER) COPPER CONDUCTOR DATA CABLE WITH PVC INSULATION AND JACKET. H. MAX. 4/C NO 2/0 ALUMINUM OR COPPER CONDUCTOR ALUMINUM OR STEEL METAL-CLAD# OR ARMORED-CLAD# CABLE.

**〈4**〉 FIRESTOP SYSTEM - THE FIRESTOP SYSTEM SHALL CONSIST OF THE FOLLOWING:

- A. PACKING MATERIAL WHEN REQUIRED (SEE TABLE IN ITEM 3B), MIN. 1 IN. (25MM) THICKNESS OF MIN. 4.0 PCF (64 KG/M3) MINERAL WOOL BATT INSULATION FIRMLY PACKED INTO EACH END OF SLEEVE AS A PERMANENT FORM. PACKING MATERIAL TO BE RECESSED FROM EACH END OF SLEEVE AS REQUIRED TO ACCOMMODATE THE REQUIRED THICKNESS OF FILL MATERIAL.
- FILL, VOID OR CAVITY MATERIAL\* SEALANT OR PUTTY FILL MATERIAL APPLIED TO APPROPRIATE THICKNESS R WITHIN STEEL SLEEVE, FLUSH WITH EDGES OF STEEL SLEEVE ON BOTH SURFACES OF WALL. MIN. 1/2 IN. (13MM) DIAM. BEAD OF SEALANT OR "ROPE" OF PUTTY SHALL BE APPLIED AROUND THE PERIMETER OF THE SLEEVE ON EACH SIDE OF THE WALL WHEN SLEEVE EXTENDS BEYOND SURFACE OF WALL. SEE TABLE BELOW FOR FILL MATERIAL THICKNESS REQUIREMENTS

SEALANT OR PUTTY TYPE	THICKNESS	PACKING MATERIAL REQUIRED	
SPECSEAL SERIES SSS SEALANT OR LCI SEALANT	1/2 IN. (13 MM)	YES	
SPECSEAL SERIES SSS SEALANT OR LCI SEALANT	1 IN. (25 MM)	NO	
SPECSEAL PUTTY	1 IN. (25 MM)	NO	

SPECIFIED TECHNOLOGIES INC - SPECSEAL SERIES SSS SEALANT OR SPECSEAL LCI SEALANT. WHEN MIN FLOOR OR WALL THICKNESS IS 4-1/2 IN. (114 MM) SPECSEAL PUTTY MAY BE USED. \*BEARING THE UL CLASSIFICATION MARK

NOT TO SCALE

FIRESTOP SYSTEM - W-L-3210

### **SYSTEM NO. W-L-3306** F RATINGS - 1 AND 2 HR T RATINGS - 0, 1/2, 3/4, 1, 1-1/2 AND 2 HR (SEE ITEM 3) L RATING AT AMBIENT - LESS THAN 1, 2.3, 6.2, 6.7 OR 7.4 CFM/DEVICE MODULE (SEE ITEM 3) L RATING AT 400F - LESS THAN 1, 2.3, 4.5, 5 OR 6.7 CFM/DEVICE MODULE (SEE ITEM 3)

![](_page_36_Figure_50.jpeg)

- 1. WALL ASSEMBLY THE 1 OR 2 HR FIRE RATED GYPSUM BOARD/STUD WALL ASSEMBLY SHALL BE CONSTRUCTED OF THE MATERIALS AND IN THE MANNER DESCRIBED WITHIN THE INDIVIDUAL U300 OR U400 SERIES WALL AND PARTITION DESIGNS IN THE UL FIRE RESISTANCE DIRECTORY AND SHALL INCORPORATE THE FOLLOWING CONSTRUCTION FEATURES: A. STUDS - WALL FRAMING SHALL CONSIST OF EITHER WOOD STUDS OR STEEL CHANNEL STUDS. WOOD STUDS TO CONSIST OF NOM 2 BY 4 IN. (51 BY 102 MM) LUMBER SPACED MAX 16 IN. (406 MM) OC. STEEL STUDS TO BE MIN 3-1/2 IN. (89 MM) WIDE AND SPACED MAX 24 IN. (610 MM)
  - OC B. GYPSUM BOARD\* - THICKNESS, TYPE, NUMBER OF LAYERS AND FASTENERS AS SPECIFIED IN THE INDIVIDUAL WALL AND PARTITION DESIGN. OPENING IN GYPSUM BOARD TO BE MAX 1/4 IN. (6 MM) LARGER THEN WIDTH AND HEIGHT DIMENSIONS OF FIRESTOP DEVICE(S). THE HOURLY F RATING OF THE FIRESTOP SYSTEM IS DEPENDENT UPON THE HOURLY RATING OF THE WALL IN WHICH IT IS INSTALLED.

FIRESTOP DEVICE\* - ONE, TWO, THREE, FOUR OR FIVE FIRESTOP DEVICE MODULES GANGED TOGETHER AND SECURED BY MEANS OF INTEGRAL HOOK AND EYE WINDOW ATTACHMENT. EACH FIRESTOP DEVICE MODULE CONSISTS OF A 4 BY 4-5/8 BY 14 IN. (102 BY 118 BY 356 MM) LONG GALV STEEL TUBE WITH AN INTUMESCENT MATERIAL LINING. SERIES 44 DEVICE MODULES HAVE SPRING LOADED STEEL RETAINER PLATES. FIRESTOP DEVICE MODULES TO BE INSTALLED IN ACCORDANCE WITH THE ACCOMPANYING INSTALLATION INSTRUCTIONS. THE SPACE BETWEEN THE FIRESTOP DEVICE MODULE(S) AND THE PERIPHERY OF THE OPENING SHALL BE MIN 0 IN. (0 MM, POINT CONTACT) TO MAX 1/8 IN. (3.2 MM). IN ROUND OPENINGS, THE SPACE BETWEEN THE FIRESTOP DEVICE AND THE PERIPHERY OF THE OPENING SHALL BE MIN 0 IN. (0MM, POINT CONTACT) TO MAX 1 IN. (25 MM). FIRESTOP DEVICE MODULE(S) SECURED IN PLACE BY MEANS OF STEEL WALL BRACKETS INSTALLED WITH GASKET MATERIAL SUPPLIED WITH PRODUCT. STEEL WALL BRACKETS INSTALLED ON BOTH SIDES OF WALL AND SECURED TO OUTERMOST DEVICE MODULES BY MEANS OF STEEL SET SCREWS PROVIDED WITH BRACKETS. WALL BRACKETS SECURED TO EACH SIDE OF WALL THROUGH PREDRILLED HOLES IN BRACKETS BY MEANS OF NOM 1/8 IN. (3.2 MM) TYPE G STEEL SCREWS. EACH FIRESTOP DEVICE MODULE IS TO BE INSTALLED WITH ENDS PROJECTING AN EQUAL DISTANCE BEYOND EACH SURFACE OF THE WALL ASSEMBLY. TO ACHIEVE AIR LEAKAGE RATINGS WITH THE SERIES 44 DEVICE MODULE ONLY, INTEGRAL HOOK AND EYE WINDOW ATTACHMENT LOCATIONS ON RIGHT AND LEFT SIDE OF SINGLE INSTALLED PATHWAYS AND GANGED PATHWAY GROUPS MUST BE SEALED USING THE STICKERS PROVIDED WITH DEVICE MODULE(S) AS AN ALTERNATE, THE MULTI-GANG STEEL WALL BRACKETS MAY BE INSTALLED DIRECTLY AGAINST THE STUDS FOR WALLS HAVING 24 IN. (610 MM) CENTER-TO-CENTER STUD SPACING PRIOR TO INSTALLATION OF THE GYPSUM BOARD LAYERS. THE STEEL WALL PLATES SHALL BE SECURED TO THE STUD BY MEANS OF STEEL SCREWS. AFTER INSTALLATION OF THE STEEL WALL PLATES AND FIRESTOP DEVICE MODULES, THE GYPSUM BOARD SHALL BE INSTALLED AS SPECIFIED IN THE INDIVIDUAL U300 OR U400 DESIGN WITH A MAXIMUM 1/8 IN. (3.2 MM) GAP BETWEEN THE FIRESTOP DEVICE MODULE AND THE CUTOUT IN THE GYPSUM BOARD. GAP BETWEEN THE FIRESTOP DEVICE MODULE AND THE CUTOUT IN THE GYPSUM BOARD MAY BE FILLED WITH GYPSUM JOINT COMPOUND OR FILL MATERIAL (ITEM 4). SPECIFIED TECHNOLOGIES INC - EZ PATH SERIES 44 OR SERIES 44+ FIRE RATED PATHWAY

2A. FIRESTOP DEVICE\* - EXTENSION MODULE - (OPTIONAL, NOT SHOWN) - MODULE ATTACHED TO ENDS OF FIRESTOP DEVICE (ITEM 2) TO INCREASE ITS LENGTH TO FACILITATE INSTALLATION IN THICKER WALLS. EACH MODULE CONSISTS OF A 4 BY 4-5/8 BY 6 IN. (102 BY 118 BY 152 MM) LONG GALV STEEL TUBE WITH AN INTUMESCENT MATERIAL LINING. EXTENSION MODULE TO BE INSTALLED IN ACCORDANCE WITH THE ACCOMPANYING INSTALLATION INSTRUCTIONS. WHEN MODULE IS USED. FIRESTOP DEVICE (ITEM 2) AND EXTENSION MODULE SECURED IN PLACE BY MEANS OF STEEL PLATES INSTALLED WITH GASKETING MATERIAL SUPPLIED WITH PRODUCT. STEEL PLATES INSTALLED ON BOTH SIDES OF WALL AND SECURED TO EACH DEVICE OR EXTENSION MODULE BY MEANS OF STEEL SET SCREWS PROVIDED WITH PLATES. FIRESTOP DEVICE AND EXTENSION MODULE ASSEMBLY TO BE INSTALLED WITH ENDS PROJECTING AN EQUAL DISTANCE BEYOND EACH SURFACE OF THE WALL ASSEMBLY.

SPECIFIED TECHNOLOGIES INC - EZ PATH SERIES 44+ EXTENSION

3. CABLES - WITHIN THE LOADING AREA FOR EACH FIRESTOP DEVICE MODULE, THE LOOSE OR GROUPED CABLES MAY REPRESENT A 0 TO 100 PERCENT VISUAL FILL. CABLES TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF THE WALL ASSEMBLY. ANY COMBINATION OF THE FOLLOWING TYPES OF CABLES MAY BE USED:

A. MAX 400 PAIR NO. 24 AWG (OR SMALLER) COPPER CONDUCTOR TELECOMMUNICATION CABLE WITH POLYVINYL CHLORIDE (PVC) OR

PLENUM-RATED JACKETING AND INSULATION. B. MAX 750 KCMIL SINGLE COPPER CONDUCTOR POWER CABLE WITH XLPE JACKET AND INSULATION.

C. MAX 7/C NO. 12 AWG COPPER CONDUCTOR CONTROL CABLE WITH PVC OR XLPE JACKET AND INSULATION.

D. MAX 3/C NO. 2/0 AWG METAL CLAD OR ARMORED CABLE WITH STEEL OR ALUMINUM JACKET.

E. MAX 3/C NO. 8 AWG NM CABLE (ROMEX) WITH PVC INSULATION AND JACKET.

F. MAX FOUR PAIR NO. 22 AWG (OR SMALLER) COPPER CONDUCTOR DATA CABLE WITH PVC OR PLENUM RATED JACKETING AND INSULATION. G. COAXIAL CABLE WITH FLUORINATED ETHYLENE OR PVC INSULATION AND JACKETING HAVING A MAX DIAM OF 5/8 IN. (16 MM). H. OPTICAL FIBER CABLE WITH PVC OR POLYETHYLENE (PE) JACKET AND INSULATION AND HAVING A MAX DIAM OF 5/8 IN. (16 MM)

I. OPTICAL FIBER RACEWAY+ - MAX 1-1/2 IN. (38 MM) DIAM (OR SMALLER) OPTICAL FIBER RACEWAY ("INNERDUCT") FORMED OF EITHER PVC OR POLYVINYLIDENE FLUORIDE (PVDF) WITH OPTICAL FIBER CABLE FILL. RACEWAYS INSTALLED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE (NFPA 70).

FOR THE SERIES 44 FIRESTOP DEVICE AND WHEN ITEM 3A IS USED, THE T RATING IS 1 HR. WHEN ITEM 3B, 3C, 3D OR 3E IS USED, THE T RATING IS 1/2 HR. WHEN ITEM 3F OR 3G IS USED, THE T RATING IS 1 AND 1-1/2 HR FOR 1 AND 2 HR RATED ASSEMBLIES RESPECTIVELY. WHEN ITEM 3H IS USED, THE T RATING IS 1 OR 2 HR FOR 1 AND 2 HR RATED ASSEMBLIES RESPECTIVELY. WHEN ITEM 3I IS USED, THE T RATING IS 3/4 HR. WHEN DEVICE IS EMPTY, THE T RATING IS 0 HR.

FOR THE SERIES 44+ FIRESTOP DEVICE AND WHEN ITEM 3A, 3B, 3C, 3D OR 3E IS USED, THE T RATING IS 1 HR. WHEN ITEM 3F OR 3G IS USED, THE T RATING IS 1 AND 1-1/2 HR FOR 1 AND 2 HR RATED ASSEMBLIES RESPECTIVELY. WHEN ITEM 3H IS USED, THE T RATING IS 1 AND 2 HR FOR 1 AND 2 HR RATED ASSEMBLIES RESPECTIVELY. WHEN ITEM 3I IS USED, THE T RATING IS 3/4 HR. WHEN DEVICE IS EMPTY, THE T RATING IS 1-1/2 HR.

FOR THE SERIES 44 FIRESTOP DEVICE, THE L RATING FOR EACH EMPTY FIRESTOP DEVICE MODULE IS 2.3 CFM AT AMBIENT AND AT 400F. WHEN ITEM 3A IS USED, THE L RATING WITH 100 PERCENT VISUAL FILL OF CABLE IS 7.4 CFM/FIRESTOP DEVICE MODULE AT AMBIENT AND 5 CFM/FIRESTOP DEVICE MODULE AT 400F. WHEN ITEM 3F OR 3G IS USED, THE L RATING WITH 100 PERCENT VISUAL FILL OF CABLE IS 6.2 CFM/FIRESTOP DEVICE MODULE AT AMBIENT AND 4.5 CFM/FIRESTOP DEVICE MODULE AT 400F.

FOR THE SERIES 44+ FIRESTOP DEVICE, THE L RATING FOR EACH EMPTY FIRESTOP DEVICE IS LESS THAN 1 CFM AT AMBIENT AND AT 400 F. WHEN ITEM 3A IS USED, THE L RATING WITH 100 PERCENT VISUAL FILL OF CABLE IS 7.4 CFM/FIRESTOP DEVICE MODULE AT AMBIENT AND 5 CFM/FIRESTOP DEVICE MODULE AT 400F. WHEN ITEM 3F OR 3G IS USED, THE L RATING WITH 100 PERCENT VISUAL FILL OF CABLE IS 6.7 CFM/FIRESTOP DEVICE MODULE AT AMBIENT AND AT 400F.

4. FILL, VOID OR CAVITY MATERIAL\* - SEALANT OR PUTTY - (NOT SHOWN) - AS AN ALTERNATE TO GYPSUM JOINT COMPOUND, THE GAP BETWEEN THE FIRESTOP DEVICE MODULE AND THE CUTOUT IN THE GYPSUM BOARD MAY BE SEALED WITH FILL MATERIAL ON EACH SIDE OF THE WALL ASSEMBLY WHEN FOUR- AND SEVEN-GANG STEEL WALL PLATES ARE INSTALLED DIRECTLY AGAINST THE WOOD OR STEEL STUDS. SPECIFIED TECHNOLOGIES INC - SPECSEAL SERIES SSS SEALANT, SPECSEAL LCI SEALANT, SPECSEAL PUTTY **+BEARING THE UL LISTING MARK** 

\*BEARING THE UL CLASSIFICATION MARK

![](_page_36_Picture_70.jpeg)

![](_page_36_Picture_71.jpeg)

![](_page_36_Figure_72.jpeg)

![](_page_37_Figure_0.jpeg)

![](_page_37_Figure_1.jpeg)

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![](_page_37_Figure_6.jpeg)

SHARED STUD TYPE

GENERAL NOTES:

A. ALL DATA OUTLETS TO BE COORDINATED WITH ELECTRICAL POWER LOCATIONS. DATA OUTLETS SHALL BE MOUNTED ADJACENT TO POWER RECEPTACLES AT SAME HEIGHT.

ADJACENT STUD TYPE

- DATA OUTLET SHALL EITHER BE MOUNTED ON OPPOSITE SIDE OF SHARED STUD AS R POWER OR DATA SHALL BE MOUNTED ON ADJACENT STUD TO POWER IN SAME WALL CAVITY.
- C. TYPICAL DATA OUTLET HEIGHT SHALL BE 18", UNLESS OTHERWISE NOTED.COORDINATE EXACT MOUNTING HEIGHTS AND ORIENTATION WITH ELECTRICAL AND ARCHITECTURAL PLAN.
- D. CONTRACTOR TO VERIFY ALL DATA OUTLETS TO BE PROVIDED WITH ADJACENT POWER RECEPTACLE. SUBMIT RFI IF CONDITION DOES NOT EXIST.

![](_page_37_Picture_13.jpeg)

![](_page_37_Picture_14.jpeg)

![](_page_37_Figure_16.jpeg)

![](_page_38_Picture_0.jpeg)

FIRE PROTECTION DESIGN DATA	FIRE PROTECTION SYMBOL LEGEND		FIRE PROTECTION NOTES
FIRE PROTECTION DESIGN CRITERIA SHALL BE AS STATED BELOW. ALL AREAS SHALL BE CONSIDERED AS LIGHT HAZARD OCCUPANCY AS DEFINED BY NFPA 13	SYMBOL           D	DESCRIPTION - DRAIN LINE	1. FINAL INSPECTION AND APPROVAL BY LOCAL FIRE MARSHAL AND ARCHITECT/ENGINEER.
<ul> <li>UNLESS SPECIFICALLY NOTED OTHERWISE OR SHOWN ON THE DRAWINGS.</li> <li><u>LIGHT HAZARD:</u></li> <li>1. DESIGN DENSITY: .10 GPM/SQFT.</li> <li>2. HYDRAULICALLY REMOTE AREA SIZE: 1,500 SQFT. REMOTE AREA SIZE MAY BE</li> </ul>	FDC FDC FM	- FIRE DEPARTMENT SIAMESE CONNECTION PIPING - FIRE MAIN - SPRINKLER MAIN - FIRE PUMP TEST HEADER PIPING	2. SPRINKLER SHOP DRAWINGS AND MATERIAL SUBMITTALS SHALL BE SUBMITTED TO THE ARCHITECT/ENGINEER AND STATE FIRE MARSH, SHALL BE APPROVED PRIOR TO ANY INSTALLATION. ELECTRONIC SUBMITTALS SHALL BE IN A SEARCHABLE FORMAT. DO NOT SUBMIT SCANNED DOCUMENTS.
<ul> <li>REDUCED AS ALLOWED BY NFPA AND OWNER'S INSURANCE UNDERWRITER.</li> <li>3. SPRINKLER ORIFICE SIZE: 1/2".</li> <li>4. DURATION OF SUPPLY: 30 MINUTES</li> <li>5. MAXIMUM COVERAGE PER SPRINKLER HEAD: 225 SQ/FT.</li> <li>6. HOSE STREAM ALLOWANCE: 100 GPM</li> </ul>	X-D X-FDC X-FDC	- EXISTING DRAIN LINE - EXISTING FIRE DEPARTMENT SIAMESE CONNECTION PIPING - EXISTING FIRE MAIN	3. PIPE ROUTING SHOWN IS SCHEMATIC ONLY. IT IS THE RESPONSIBILI THIS CONTRACTOR TO PROVIDE ANY ADDITIONAL OFFSETS REQUIR PROPER INSTALLATION AND COORDINATION WITH OTHER TRADES.
0. HOSE STREAM ALLOWANCE. 100 GPM. ORDINARY HAZARD GROUP 1: 1. DESIGN DENSITY: 15 GPM/SQET	X-SM X-TEST	- EXISTING SPRINKLER MAIN - EXISTING FIRE PUMP TEST HEADER PIPING	<ol> <li>PIPING IN AREAS WITH EXPOSED STRUCTURE SHALL BE INSTALLED HIGH AS POSSIBLE TO ALLOW THE OWNER MAXIMUM USE OF THE SI</li> <li>REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR CEILING</li> </ol>
<ol> <li>BEGIN BENGTTE THE OFFICIENT OF MILEGENT.</li> <li>HYDRAULICALLY REMOTE AREA SIZE: 1,500 SQFT.</li> <li>SPRINKLER ORIFICE SIZE: 1/2".</li> <li>DURATION OF SUPPLY: 60 - 90 MINUTES</li> <li>MAXIMUM COVERAGE PER SPRINKLER HEAD: 130 SQ/FT.</li> <li>HOSE STREAM ALLOWANCE: 250 GPM.</li> </ol>		- CONTROL VALVE W/ TAMPER SWITCH - CHECK VALVE	<ol> <li>KEI ER TO AROTITEO FORGE RELEGTED GEIEING FEARO FOR GEIEIN DESCRIPTIONS AND HEIGHTS.</li> <li>SPRINKLERS ARE TO BE COORDINATED WITH ALL DIFFUSERS, SPEA LIGHTING FIXTURES AND CEILING SYSTEMS. ALL OTHER TRADES TAI PRECEDENCE OVER SPRINKLER HEAD LOCATION UNLESS INDICATE OVER SPRINKLER DESCRIPTION OF THE DESCRIPTION OF TH</li></ol>
APPLICABLE CODES AND STANDARDS	 }⊣	- FIRE DEPARTMENT CONNECTION (WALL MOUNTED)	7. SPRINKLER HEADS SHALL BE SYMMETRICALLY LOCATED IN ROOM C
ALL WORK CONTAINED WITHIN THESE DOCUMENTS SHALL BE IN FULL COMPLIANCE WITH ALL FEDERAL, STATE AND LOCAL CODES AND STANDARDS INCLUDING, BUT	٢ ٩	- FIRE DEPARTMENT CONNECTION (SIDEWALK SIAMESE)	<ul> <li>AREA BEING PROTECTED. SPRINKLER LOCATIONS SHALL BE CENTED THE TILE. PROVIDE ARMOVER OR SWING JOINT AS REQUIRED.</li> <li>8. SPRINKLERS IN AREAS WITH EXPOSED STRUCTURE (OBSTRUCTED</li> </ul>
<ol> <li>NOT LIMITED TO THE FOLLOWING.</li> <li>INTERNATIONAL BUILDING CODE, 2018 EDITION, WITH GEORGIA AMENDMENTS INTERNATIONAL FIRE CODE, 2018 EDITION, WITH GEORGIA AMENDMENTS</li> <li>NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) 101, LIFE SAFETY CODE, 2018 EDITION WITH STATE AMENDMENTS</li> </ol>		- STANDPIPE WITH FIRE DEPARTMENT VALVE	CONSTRUCTION) SHALL BE INSTALLED WITH DEFLECTOR 1" BELOW BOTTOM OF THE BEAM (MAXIMUM 22" BELOW ROOF DECK). EXPOSE JOISTS THAT HAVE SPRAY-ON FIRE PROOFING THAT MAKES THE JOI SOLID SHALL BE TREATED LIKE A BEAM WITH THE SPRINKLERS 1" BE THE BOTTOM OF THE FIRE PROOFING.
<ol> <li>NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) 13, INSTALLATION OF SPRINKLER SYSTEMS, 2013 EDITION WITH STATE AMENDMENTS.</li> <li>NATIONAL ELECTRICAL CODE, 2023 EDITION.</li> <li>FM GLOBAL STANDARDS AND DATA SHEETS</li> </ol>		- COMBINATION RISER - DRAIN VALVE	9. SLEEVE AND/OR FIRESTOP ALL PENETRATIONS THROUGH RATED W CEILINGS, AND FLOORS WITH U/L LISTED ASSEMBLIES. FIRESTOP ASSEMBLIES SHALL BE EQUAL OR EXCEED THE RATING OF THE WAL CEILING OR FLOOR. SEE ARCHITECTURAL DRAWINGS FOR FINAL FIN
	GRATTRO	- BACKFLOW PREVENTOR	10. PROVIDE ACCESS PANELS TO ALL VALVES ABOVE NON-ACCESSIBLE CEILINGS AND CHASES.
EIRE PROTECTION CONTRACTOR SHALL DESIGN A FULLY AUTOMATIC WET-PIPE SPRINKLER SYSTEM TO THE	GRITIRATIK	- BACKFLOW PREVENTOR W/ FDC	11. PROVIDE A PERMANENTLY ATTACHED NAME TAG TO THE RISER STA THE REQUIRED DESIGN CRITERIA FOR EACH HYDRAULICALLY-DESIG SYSTEM.
<ol> <li>CRITERIA SPECIFIED UNDER FIRE PROTECTION DATA THIS SHEET AND THE FOLLOWING DESIGN CRITERIA.</li> <li>PIPING SYSTEM SHALL HAVE A MAXIMUM PIPE VELOCITY OF 20 FEET PER SECOND.</li> <li>HYDRAULIC CALCULATIONS SHALL BE BASED ON DENSITY/AREA METHOD.</li> <li>EXTENDED COVERAGE SPRINKLER HEADS ARE PROHIBITED.</li> <li>MINIMUM PIPE SIZING SHALL BE AS FOLLOWS. LARGER PIPE SIZING SHALL BE PROVIDED (AS DETERMINED BY HYDRAULIC CALCULATIONS) IF REQUIRED AT NO ADDITIONAL COST. BRANCH LINE SIZING SHALL BE ONE TO TWO SPRINKLER HEADS = 1" THREE SPRINKLER HEADS = 1-1/4" FOUR TO SIX</li> </ol>	DETAIL No.	- REVISION REFERENCE	12. PROVIDE SPRINKLERS UNDERNEATH ALL EXPOSED OBSTRUCTIONS INCLUDING DUCTWORK WHICH IS OVER 48" WIDE AND SPACE HEADS AROUND ALL OBSTRUCTIONS IN ACCORDANCE WITH NFPA 13. HEAD UNDER OBSTRUCTIONS ARE NOT INDICATED ON THE DRAWINGS BU REQUIRED AND SHALL BE PROVIDED IN ACCORDANCE WITH NFPA 13 SPRINKLER LOCATIONS UNDER AND AROUND OBSTRUCTIONS SHAL GOVERNED BY FINAL INSTALLED LOCATIONS.
<ul> <li>HEADS = 1-1/2", SEVEN OF MORE HEADS = 2". SPRINKLER MAINS SHALL BE A MINIMUM OF 3" FOR "LOOP" SYSTEMS, 4" FOR "TREE" SYSTEMS AND 2" HEADERS CONNECTED BY 1-1/2" BRANCH LINES FOR "GRIDDED" SYSTEMS.</li> <li>5. CONSULT AND INCORPORATE OWNERS INSURANCE CARRIER'S REQUIREMENTS INTO SPRINKLER SYSTEM DESIGN.</li> </ul>		- HYDRAULIC CALCULATION NODE	13. PROVIDE SPRINKLER GUARDS ON ALL HEADS IN ELECTRIC ROOMS, TELEPHONE ROOMS, MECHANICAL ROOMS, ELEVATOR ROOMS, ELE SHAFTS AND ON ANY HEADS LESS THAN 7'-0" ABOVE THE FLOOR.
	4" 	- PIPE TAG	14. IF SYSTEM PRESSURE EXCEEDS 100 PSI, ALL HANGERS ON END HEA PENDANT POSITION SHALL BE WITHIN 12" OF END OF LINE IN ACCOR WITH NFPA 13.
FIRE HYDRANT FLOW TEST	PIPE LENGTH BETWEEN NODES	- CONNECT TO EXISTING	15. COORDINATE PIPING WITH ALL ELECTRICAL EQUIPMENT (PANELS, TRANSFORMERS, ETC.) PRIOR TO ANY INSTALLATION. DO NOT ROUT PIPING OVER ANY ELECTRICAL PANELS UNDER ANY CIRCUMSTANCE PIPING RUN OVER ELECTRICAL SHALL BE REROUTED AT NO ADDITIC COST. PIPING ENTERING ELECTRICAL AND COMMUNICATION ROOMS
STATIC PRESSURE (PSI): XX DATE: XX RESIDUAL PRESSURE (PSI): XX TIME: XX FLOW (GPM): XX TEST CONDUCTED BY:	DATE: XX DUAL PRESSURE (PSI): XX V (GPM): XX V HYDRANT LOCATION: THYDRANT LOCATION		BE PROVIDED WITH INDICATING TYPE CONTROL VALVE WITH TAMPE SWITCH AND ENTER OVER ENTRY DOOR. SPRINKLER HEADS IN ELECTRICAL AND COMMUNICATION SHALL BE INTERMEDIATE TEMPERATURE.
TEST HYDRANT LOCATION:			<ol> <li>PROVIDE AUXILIARY DRAINS TO DRAIN ALL SECTIONS OF PIPING IN T BUILDING AS REQUIRED BY NFPA 13.</li> </ol>
FIRE PROTECTION DRAWING INDEX	● SEMI-RECESSED 1/2" ● 𝔅𝔅 <sup>𝔅</sup> SEMI-RECESSED 1/2"	155°QUICK5.6CHROMEVICTAULICV2708212°QUICK5.6CHROMEVICTAULICV2708	17. PAINT ALL PIPING EXPOSED TO THE PUBLIC, COORDINATE COLOR W ARCHITECT AND FACILITY STANDARDS.
SHEET         DESCRIPTION           FP001         FIRE PROTECTION SYMBOLS, LEGEND, NOTES AND INDEX           FP101         FIRE PROTECTION PLAN AND DETAILS	CORROSION RESISTANT, NICKEL COATING SEMI-RECESSED W/ GUARD 1/2"	200°     QUICK     5.6     NICKEL COATING     VICTAULIC     VC2708 HEAD WITH VC-250 FINISH       155°     QUICK     5.6     CHROME     VICTAULIC     V2708/V2724	18. THE FIRE PROTECTION SYSTEMS AND INFORMATION SHOWN WITHIN THESE DRAWINGS AND THE SPECIFICATIONS, REPRESENT THE DES INTENT OF THE ENGINEER OF RECORD. IT IS THE RESPONSIBILITY OF CONTRACTOR TO SUBMIT LAYOUT DRAWINGS TO THE AUTHORITY H JURISDICTION FOR PERMITTING AND REVIEW. THE LAYOUT DRAWING SHALL BE IN COMPLIANCE WITH NFPA 13, WORKING PLANS.
	Image: Second system         W/ GUARD         1/2"           Image: Second system         CONCEALED         1/2"           Image: Second system         UPRIGHT W/ GUARD         1/2"           Image: Second system         UPRIGHT W/ GUARD         1/2"           Image: Second system         DRY PENDANT         1/2"	155°         QUICK         5.6         WHITE         VICTAULIC         V3802           155°         QUICK         5.6         BRASS         VICTAULIC         V2704/V2722           212°         QUICK         5.6         BRASS         VICTAULIC         V2704/V2722           155°         QUICK         5.6         BRASS         VICTAULIC         V2704/V2722           212°         QUICK         5.6         CHROME         VICTAULIC         V2704/V2722	<ol> <li>ALL VALVES SHALL BE PROVIDED WITH TAMPER SWITCHES AND ALL ZONES SHALL BE PROVIDED WITH FLOW SWITCHES WIRED TO THE I ALARM SYSTEM.</li> <li>SPRINKLER HEADS LOCATED IN ELEVATOR SHAFTS AND ELEVATOR</li> </ol>
	HORIZONTAL SIDEWALL1/2"NOTE: CONTRACTOR TO PROVIDE SAMPLE O CONCEALED SPRINKLER HEADSImage: Concealed sprinkler heads	155°QUICK5.6CHROMEVICTAULICV2710COLORS AND FINISHES TO ARCHITECT FOR APPROVAL PRIOR TO ORDERING.	20. SPRINCLER HEADS LOCATED IN ELEVATOR SHAFTS AND ELEVATOR MACHINE ROOMS MUST BE INSTALLED WITHIN 2 FEET OF HEAT DETI COORDINATE CLOSELY WITH FIRE ALARM CONTRACTOR. SPRINKLEI HEADS SHALL BE INTERMEDIATE TEMPERATURE (212 DEGREE F).
FIRE PROTECTION ABBREVIATIONS			21. REFER TO PROJECT SPECIFICATIONS FOR FIRE SPRINKLER HYDRAL CALCULATIONS.
	SYMBOL AFF CONT DN DWG EXIST °F	DESCRIPTION - ABOVE FINISH FLOOR - CONTINUATION - DOWN - DRAWING - EXISTING - DEGREE FAHRENHEIT - CALLONS PER LIQUE	22. NOTIFY OWNER AT LEAST 48 HOURS PRIOR TO INTERRUPTING EXIST SERVICES. SCHEDULE DISCONNECTING AND TIE-INS TO MINIMIZE DISRUPTION OF SERVICE. SERVICES ARE NOT TO BE LEFT DISRUPTE DURING NON-NORMAL CONTRACTOR WORKING HOURS. IF DISRUPT EXCEEDS 4 HOURS CONTRACTOR SHALL PROVIDE A FIRE WATCH OF TEMPORARY UPRIGHT SPRINKLERS UNTIL ALL SERVICES ARE REST CONTRACTOR SHALL OBTAIN WRITTEN APPROVAL FROM OWNER FOR INTERRUPTION OF SERVICE.
	GPM GPM KW LBS NC NIC	- GALLONS PER HOUR - GALLONS PER MINUTE - KILOWATT - POUNDS - NORMALLY CLOSED - NOT IN CONTRACT	<ol> <li>FLEXIBLE SPRINKLER PIPING SHALL ONLY BE ALLOWED IN ROOMS APPROVED BY THE ENGINEER AND OWNER.</li> <li>SPRINKLER HEADS LOCATED WITHIN 8'-0" OF HIGH HEAT PRODUCING EQUIPMENT SHALL BE HIGH TEMPERATURE SPRINKLER HEADS.</li> </ol>
	NO NTS PRV PSI PVC	- NORMALLY OPEN - NOT TO SCALE - PRESSURE REDUCING VALVE - POUNDS PER SQUARE INCH - POLYVINYL CHLORIDE PIPE	25. SPRINKLER HEADS LOCATED WITHIN ROOMS WITH HIGH HUMIDITY, DISHWASHERS, STERILIZERS, POOL EQUIPMENT ROOMS AND ALL O WET ROOMS SHALL BE PROVIDED WITH CORROSION RESISTANT, STAINLESS STEEL SPRINKLER HEADS AND ESCUTCHEONS.
	крыр SF SH WTR ETR	- REDUCED PRESSURE BACKFLOW PREVENTER - SQUARE FEET - SHEET - WATER - EXISTING TO REMAIN	26. A MINIMUM CLEARANCE OF 4 INCHES BETWEEN ALL CONDUITS, PIPI DUCT WORK THAT ARE PARALLEL OR ADJACENT TO ALL FIRE AND FIRE/SMOKE-RATED WALLS TO FACILITATE THE INSPECTION OF THE WALL.
	NOTE: SOME SYMBOLS SHO	WN ON THIS LEGEND MAY NOT PERTAIN TO THIS PROJECT	27. PROVIDE LIGHTNING PROTECTION ON ALL VTR'S, EXHAUST PIPES, A INTAKE PIPES, WATER HEATER FLUE'S AND INTAKES THAT EXTEND ( 10" ABOVE FINISH ROOF AS REQUIRED BY CODE. COORDINATE WITH ELECTRICAL FOR ADDITIONAL INFORMATION.

![](_page_38_Picture_26.jpeg)

![](_page_38_Picture_27.jpeg)

![](_page_39_Figure_0.jpeg)

![](_page_39_Picture_2.jpeg)

![](_page_39_Picture_3.jpeg)