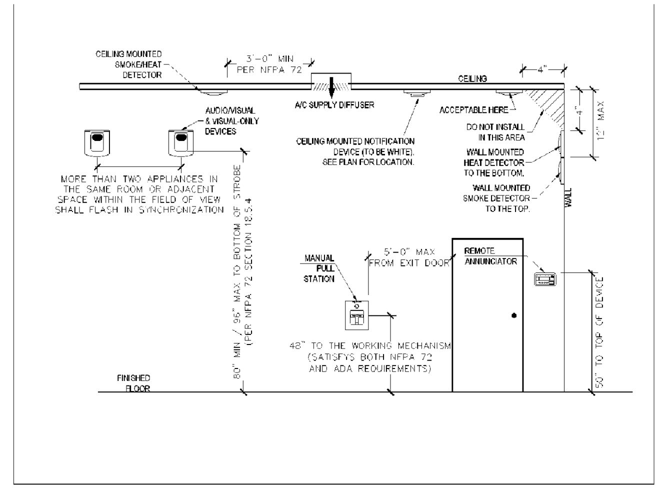
PROPOSED FIRE ALARM CONTROL MATRIX

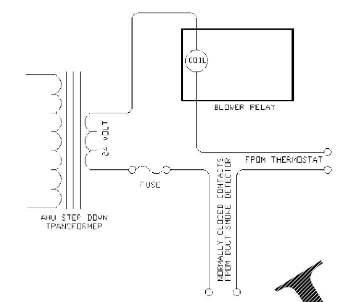
INPUTS / OUTPUTS

INPUTS		1 ALARM ANNUNCIATION	2 SUPERVISORY ANNUNCIATION	3 TROUBLE ANNUNCIATION	4	5	6	7	8 ACTIVATE OUTSIDE HORN	9 TRANSMIT TO REMOTE SUPERVISING STATION	10	11	12	13	14 SHUTDOWN HVAC UNIT	15 SHUTDOWN HVLS FANS	16	17	18	19	20
		CONTROL UNIT ANNUNCIATION							NOTIFICATION						SUPPLEMENTARY						
SMOKE DETECTOR	A	X							X	X						X					
FIRE SPRINKLER WATER FLOW SWITCH	B	X							X	X						X					
FIRE SPRINKLER VALVE TAMPER SWITCH	C		X							X											
PAINT SHOP FIRE SPRINKLER WATER FLOW SWITCH	D	X							X	X						X					
PAINT SHOP FIRE SPRINKLER VALVE TAMPER SWITCH	E		X							X											
MANUAL PULL STATION	F	X							X	X						X					
FIRE SPRINKLER BACKFLOW PREVENTER TAMPER SWITCH	G		X							X											
DUCT SMOKE DETECTORS	H		X							X					X						
	I																				
ALARM PRESSURE SWITCH	J	X							X												
HI/LO PRESSURE SUPERVISION SWITCH	K		X							X											
	L																				
FACP TROUBLE CONDITION	M			X																	
	N	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20

PROJECT SPECIFIC NOTES:

1. THIS CHART IS TO BE USED AS A BASIC PROGRAMMING GUIDE ONLY. ALL OTHER PANEL PROGRAMMING FEATURES SHALL COMPLY WITH NFPA 72 AND THE MANUFACTURERS INSTRUCTIONS.





HVAC WIRING GENERAL NOTES

1. DUCT DETECTOR RELAY WIRING SHALL BREAK 24VOLT SECONDARY CONTROL SYSTEM POWER AT THE AIR HANDLER UNIT
2. IF ADDRESSABLE DUCT DETECTORS ARE USED, THE RELAY WILL BE NORMALLY CLOSED DURING NON-ALARM CONDITIONS AND OPEN UPON ALARM TO CAUSE A POWER LOSS IN THE HVAC CONTROL CIRCUIT, RESULTING IN FAN AND COMPRESSOR SHUTDOWN
3. IF CONVENTIONAL RELAYS (NON-ADDRESSABLE) ARE USED, THE RELAY SHALL BE NORMALLY OPEN (UNPOWERED) AND SHALL BE HELD CLOSED BY THE FIRE ALARM PANEL UNTIL THE DUCT SMOKE DETECTOR IS IN AN ALARM CONDITION
4. IN SYSTEMS PROVIDED WITH A FAN SHUTDOWN CIRCUIT, A PROGRAMMABLE RELAY SHALL BE PROVIDED WITH THIS EQUIPMENT TO BREAK THE CIRCUIT ON ADDRESSABLE SYSTEMS OR PROVIDED WITH A NORMALLY OPEN RELAY THAT IS CLOSED DURING NORMALLY SYSTEM OPERATION ON CONVENTIONAL SYSTEMS

DRAWING CRITERIA

THE FOLLOWING PUBLICATIONS SHALL BE USED AS A REFERENCE FOR DESIGN OF THE FIRE ALARM SYSTEM ON THIS PROJECT.

1. BUILDING CODE OF SOUTH CAROLINA, 2018 EDITION
2. SOUTH CAROLINA FIRE CODE, 2015 EDITION
3. NFPA 70, NATIONAL ELECTRICAL CODE, 2014
4. NFPA 72, NATIONAL FIRE ALARM AND SIGNALING CODE, 2013 EDITION
5. NFPA 90A, STANDARD FOR THE INSTALLATION OF A/C AND VENTILATING SYSTEMS, 2015 EDITION

GENERAL NOTES

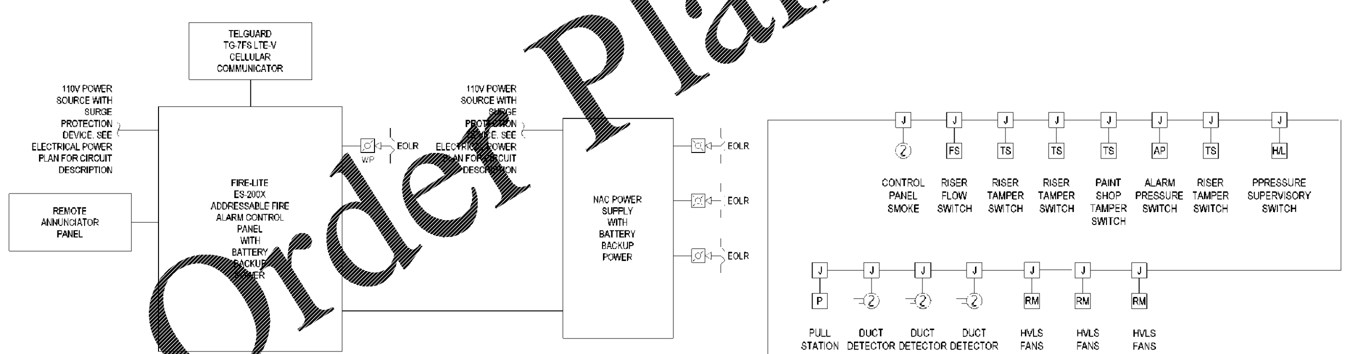
1. THE FIRE ALARM SYSTEM SHALL COMPLY WITH NFPA 72, THE SOUTH CAROLINA FIRE PREVENTION CODE, THE SOUTH CAROLINA BUILDING CODE, AND ALL LOCAL CODES AND REQUIREMENTS.
2. FINAL SYSTEM ACCEPTANCE AND APPROVAL SHALL BE CONDUCTED BY LOCAL FIRE MARSHALL AND ARCHITECT/ENGINEER. IN ACCORDANCE WITH NFPA 72.
3. THE CONTRACTOR SHALL PREPARE SYSTEM LAYOUT DRAWINGS PER NFPA 72.
4. THE FIRE ALARM SYSTEM SHOWN REPRESENTS THE DESIGN INTENT OF THE ENGINEER OF RECORD. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE INSTALLATION WITH ALL OTHER TRADES. THE CONTRACTOR SHALL PROVIDE COMPLETE FIRE ALARM LAYOUT DRAWINGS WITH ANY ADDITIONAL DEVICES, OR SYSTEM COMPONENTS AS REQUIRED FOR A COMPLETE AND OPERABLE SYSTEM AND TO AVOID CONFLICTS WITH OTHER TRADES.
5. SEE ARCHITECTURAL REFLECTED CEILING PLANS FOR CEILING TYPES, HEIGHTS, AND ALL ASSOCIATED DATA.
6. PROVIDE WIRING TO TAMPER SWITCHES ON ALL CONTROL VALVES.
7. PLENUM RATED CABLING SHALL BE PERMITTED ABOVE SUSPENDED CEILINGS AND IN OPEN CEILINGS WHERE NOT EXPOSED TO PHYSICAL DAMAGE.
8. SLEEVE AND/OR FIRESTOP ALL PENETRATIONS THROUGH RATED WALLS, CEILINGS, AND FLOORS WITH UL LISTED ASSEMBLIES. FIRESTOP ASSEMBLIES SHALL BE EQUAL OR EXCEED THE RATING OF THE WALL, CEILING OR FLOOR. SEE ARCHITECTURAL DRAWINGS FOR FINAL FINISHES. SEE FIRE RATED PIPE PENETRATION DETAILS.
9. PANEL - MS-9200UDLS HONEYWELL FIRE-LITE. 198 POINT SYSTEM, COMMONLY USED NOW BY MANY OF THE SUBS HIRED THROUGH THE GC NETWORK. THIS PANEL CAN BE POTS/CELL/IP COMMUNICATION. THE INSTALLER COULD CONNECT THIS PANEL PER WHAT IS AVAILABLE THROUGH THE LOCAL AHJ-POT/POTS, POTS/CELL, CELL/CELL, OR THE IP PATHS SHOULD CALIBER ALLOW. THIS WILL ALSO MONITOR A SPRINKLER SYSTEM AS PART OF THE WHOLE FA SYSTEM.
10. COMMUNICATOR - TG7GFS04 TELEGUARD: THIS WORK WITH HONEYWELL EQUIPMENT - THIS WILL USE CELLULAR COMMUNICATION FOR BOTH PATHS. PRIMARY AND/OR BACKUP. THIS DEVICE SERVICE PROGRAMMING NEEDS TO BE DONE ON SITE - NOT DOWNLOADED REMOTELY.

FIRE ALARM CONTRACTOR NOTE:
DEVICE QUANTITIES MAY VARY AT TIME OF FINAL ALARM SYSTEM DESIGN (BY OTHERS). DESIGN DOCUMENTS SHALL BE FORWARDED TO ENGINEER OF RECORD FOR APPROVAL BEFORE SUBMITTAL TO THE AUTHORITY HAVING JURISDICTION.

FIRE ALARM NOTE:
COMPLETE FIRE ALARM SYSTEM SHALL BE PERMITTED SEPARATELY, APPROVED, AND PLANS SUBMITTED BY A LICENSED CONTRACTOR. THE CONTRACTOR SHALL NOT BEGIN ANY WORK UNTIL SHOP DRAWINGS HAVE BEEN APPROVED BY LOCAL JURISDICTION AND THE ENGINEER OF RECORD.

OWNER NOTES:

IF REQUIRED BY THE LOCAL INSPECTOR'S INTERPRETATION OF THE INTERNATIONAL FIRE CODE, SECTION 2404.8, CONTRACTOR SHALL PROVIDE:
- **A WATER FLOW SWITCH ON THE PAINT BOOTH LOOP.**
- **UPON WATER FLOW ACTIVATION, OR IF REQUIRED ON ANY ALARM ACTIVATION, THE FIRE ALARM SYSTEM SHALL SHUT DOWN THE PAINT BOOTH AT THE PAINT BOOTH CONTROL PANEL.**
- **THE WIRING FROM THE SHUTDOWN CONTROL MODULE SHALL BE WIRED, CLASS D FAIL-SAFE SO THAT ANY LOSE OF ENERGY WILL SHUT DOWN THE PAINT BOOTH.**



NOTES
1. DEVICE QUANTITIES MAY VARY AT TIME OF FINAL ALARM SYSTEM DESIGN (BY OTHERS). DESIGN DOCUMENTS SHALL BE FORWARDED TO ENGINEER OF RECORD BEFORE PERMITTING FOR APPROVAL. FIRE ALARM SYSTEM PLANS ARE INTENDED AS A MINIMUM DESIGN BUILD CRITERIA & SCOPE DOCUMENT. CONTRACTOR SHALL PROVIDE COMPLETE DOCUMENTS, INCLUDING COMPLETE WIRING DIAGRAMS, SYSTEM CALCULATIONS, SIGN & SEALED DOCUMENTS, AS ACCEPTED AND APPROVED BY A.H.J.
2. ALL NOTIFICATION AND INITIATION WIRING SHALL BE CLASS B.

FIRE ALARM DEVICE LEGEND

SYMBOL	DEVICE TYPE	ADDITIONAL NOTES	SYMBOL	DEVICE TYPE	ADDITIONAL NOTES
FACP	FIRE ALARM CONTROL PANEL		P	MANUAL PULL STATION	INSTALL AT 48" AFF
ANN	REMOTE ANNUNCIATOR PANEL	INSTALL AT 60" AFF	(2)P	PHOTOELECTRIC SMOKE DETECTOR	
PSE	FIRE ALARM POWER SUPPLY		(2)D	DUCT SMOKE DETECTOR	COORDINATE WITH HVAC CONTRACTOR. INSTALL DETECTOR IN SUPPLY SIDE DUCT (DOWNSTREAM OF HVAC FAN UNIT) AND AT EACH SMOKE AND FIRE/SMOKE DAMPER.
	FIRE ALARM HORN / STROBE (CEILING MOUNTED)		RT	REMOTE TEST/RESET SWITCH	MOUNT ON CEILING BELOW DUCT DETECTOR. LABEL PER RTU #. PER EXISTING LOCATION.
	FIRE ALARM STROBE (CEILING MOUNTED)		RM	RELAY MODULE	
	FIRE ALARM HORN / STROBE (WALL MOUNTED)		MM	MONITOR MODULE	
	FIRE ALARM STROBE (WALL MOUNTED)		A/P	ALARM PRESSURE SWITCH	
WP	WEATHER RESISTANT HORN / STROBE (WALL MOUNTED)		H/L	HIGH / LOW PRESSURE SUPERVISORY SWITCH	
	END-OF-LINE RESISTOR (EOL)	SUPPLIED BY PRODUCT VENDOR INSTALLED AT END OF CIRCUIT LINE	FS	FLOW SWITCH	PROVIDED BY OTHERS
K	KNOX BOX	FINAL LOCATION PER FIRE MARSHAL	TS	TAMPER SWITCH	PROVIDED BY OTHERS

DRAWING LIST

FA0.1 FIRE ALARM GENERAL NOTES AND DETAILS
FA1.0 FIRE ALARM FLOOR PLAN

BID SET 10/28/2020

SOUTH CAROLINA CUHACI & PETERSON ARCHITECTS ENGINEERS PLANNERS INC No. 2997 CERTIFICATE OF AUTHORIZATION

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Architects Engineers Planners
ORLANDO • PHILADELPHIA

CLIENT NAME
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Carrollton, TX 75010

PROJECT NAME
Caliber Collision Five Forks (161)
1215 East Butler Rd.
Greenville, SC 29607

SHEET TITLE
Fire Alarm General Notes And Details

RELEASE
1 PERMIT COMMENTS RESPONSE - 09/22/2020

PROJECT NO. 2200057
DATE 07/08/2020
DRAWN PO
CHECKED AV

FA0.1

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