ELECTRICAL SYMBOLS LEGEND

NTS | 00N-E0101-N00-LGND | N | 12/17/13

SYMBOL	ITEM	DESCRIPTION
	RECESSED DOWNLIGHT	REFER TO LIGHT FIXTURE SCHEDULE FOR DESCRIPTION
	RECESSED DIRECTIONAL	REFER TO LIGHT FIXTURE SCHEDULE FOR DESCRIPTION
	TRACK LIGHT	REFER TO LIGHT FIXTURE SCHEDULE FOR DESCRIPTION
	FLUORESCENT STRIP	REFER TO LIGHT FIXTURE SCHEDULE FOR DESCRIPTION
	EMERGENCY FLUOR. STRIP	REFER TO LIGHT FIXTURE SCHEDULE FOR DESCRIPTION
	FLUORESCENT TROFFER	REFER TO LIGHT FIXTURE SCHEDULE FOR DESCRIPTION
	SCONCE	REFER TO LIGHT FIXTURE SCHEDULE FOR DESCRIPTION
	DECORATIVE PENDANTS	REFER TO LIGHT FIXTURE SCHEDULE FOR DESCRIPTION
	DECORATIVE LAMP	REFER TO LIGHT FIXTURE SCHEDULE FOR DESCRIPTION
	EXIT SIGN W/ DIRECTIONAL ARROWS	ARROWS OPTIONAL PER PLAN. REFER TO LIGHT FIXTURE SCHEDULE FOR DESCRIPTION.
	EMERGENCY LIGHT	REFER TO LIGHT FIXTURE SCHEDULE FOR DESCRIPTION
	EMERGENCY LIGHT, RECESSED	REFER TO LIGHT FIXTURE SCHEDULE FOR DESCRIPTION
	SCENT-AIR FRAGRANCE DISTRIBUTOR	
$	SWITCH	
$MS	SWITCH – MOTION SENSOR	HUBBELL WS1277W2 PASSIVE INFRARED, DOUBLE POLE, SINGLE THROW WALL SWITCH SENSOR WITH TWO SEPARATE RELAYS. WHITE COLOR FINISH.
$D	SWITCH – DIMMER	HUBBELL S61W, SINGLE POLE, SINGLE THROW WALL DIMMER SWITCH. WHITE COLOR FINISH.
$K	KEY – SWITCH	HUBBELL HBL1223RKL, SINGLE POLE, THREE-WAY BARRAL KEY WALL SWITCH FOR STOREFRONT ROLLING GRILLE. WHITE COLOR FINISH.
(NL)	NIGHT LIGHT	
(EM)	EMERGENCY LIGHTING FIXTURE	
	CEILING EXHAUST FAN	REFER TO MECHANICAL SCHEDULE FOR INFORMATION.
	TRAFFIC COUNTER	
RF	RADIO FREQUENCY ANTENNA	
P	ENHANCED FR PAGING SYSTEM CEILING SENSOR	
	SPEAKER/SUBWOOFER	REFER TO ARCHITECTURAL DRAWINGS FOR INFORMATION.
AN AN SD	ANALOG CAMERA/DOME	REFER TO ARCHITECTURAL DRAWINGS FOR INFORMATION.
IP IP PTZ	IP CAMERA	REFER TO ARCHITECTURAL DRAWINGS FOR INFORMATION.
SM	SECURITY VIEW MONITOR	REFER TO ARCHITECTURAL DRAWINGS FOR INFORMATION.
	SINGLE RECEPT. W/ COVERPLATE	20 AMP, 120 VOLT
	DUPLEX RECEPT. W/ COVERPLATE	20 AMP, 120 VOLT, SHALL BE WHITE UNLESS NOTED OTHERWISE
	QUAD. RECEPT. W/ COVERPLATE	20 AMP, 120 VOLT
	DUPLEX RECEPT. W/ COVERPLATE	DEDICATED DUPLEX RECEPTACLE ON ISOLATED GROUND, 20 AMP, 120 VOLT
	QUAD RECEPT. W/ COVERPLATE	DEDICATED QUAD RECEPTACLE ON ISOLATED GROUND, 20 AMP, 120 VOLT
	DUPLEX FLUSH FLOOR RECEPT.	20 AMP, 120 VOLT FLOOR BOX
	QUAD FLUSH FLOOR RECEPT.	20 AMP, 120 VOLT FLOOR BOX
	DUPLEX FLUSH FLOOR RECEPT. W/DATA	DEDICATED DUPLEX FLOORBOX ON ISOLATED GROUND, 20 AMP, 120 VOLT
	QUAD FLUSH FLOOR RECEPT.	DEDICATED QUAD FLOORBOX ON ISOLATED GROUND, 20 AMP, 120 VOLT
T	TELEPHONE OUTLET	WHITE COLOR RJ14C TELE. JACK IN SALES AND NON-SALES AREA.
	DATA/TELEPHONE OUTLET	WHITE COLOR PLATE IN SALES AND IN NON-SALES AREA.
	JUNCTION BOX	JUNCTION BOX, 4" X 4" X 2 1/8" DEEP MINIMUM
	MAGNETIC STARTER	FULL VOLTAGE STARTER IN A NEMA 1 ENCLOSURE, SIZE 1 MINIMUM
	DISCONNECT SWITCH	HEAVY DUTY, FUSIBLE AND NON-FUSIBLE PROVIDED BY EC
	DISCONNECT SWITCH	HEAVY DUTY, FUSIBLE AND NON-FUSIBLE PREINSTALLED WITH EQUIPMENT
	DELIVERY BUZZER TRANSFORMER	TRANSFORMER AT 8'-0" AFF
	DELIVERY BUZZER	REFER TO POWER PLAN FOR MOUNTING INFORMATION
	PUSHBUTTON	PUSH BUTTON UNIT
S	CEILING SMOKE DETECTOR	SYSTEM CONNECTED CEILING MOUNTED PHOTOELECTRIC TYPE SMOKE DETECTOR
S	DUCT SMOKE DETECTOR	SYSTEM CONNECTED DUCT MOUNTED PHOTOELECTRIC TYPE SMOKE DETECTOR COMPLETE WITH SAMPLING TUBES
	TWIST-LOCK RECEPTACLE	DREAMSTEAMER – (FURNISHED BY LSD&C)
	DOOR CONTACT	FOR SECURITY SYSTEM
MD	MOTION DETECTOR	CEILING MOUNTED
MD	MOTION DETECTOR	WALL MOUNTED
K	KEYPAD	KEYPAD SEE FLOOR PLAN FOR LOCATION
OS	CEILING MOUNTED OCC. SENSOR	
S	SENSOR	SINGLE GANG BOX (2"x4") FOR SENSOR WITH FACE FLUSH TO DRYWALL.
T	THERMOSTAT	SINGLE GANG BOX (2"x4") FOR THERMOSTAT WITH FACE FLUSH TO DRYWALL.
120 VAC	ELECTRONICALLY OPERATED DAMPER W/ TOGGLE DISCONNECT	REFER TO MECHANICAL DRAWINGS FOR SPECIFICATIONS.
FACP	FIRE ALARM CONTROL PANEL	INCLUDES BATTERY BACK-UP FURNISHED AND INSTALLED BY FIRE ALARM CONTRACTOR. COORDINATE WITH LANDLORD ALL FINAL SEQUENCES OF OPERATION.
FSA	FIRE ALARM REMOTE ANNUCIATOR	
F	FIRE ALARM MANUAL PULL STATION	MOUNT CENTER OF DEVICE AT 48" AFF
F	FIRE ALARM HORN/STROBE	DEVICE SHALL BE WALL MOUNTED. MOUNT BOTTOM OF DEVICE AT 80" AFF CANDELA RATING BY FIRE ALARM CONTRACTOR.
S	FIRE ALARM STROBE	DEVICE SHALL BE WALL MOUNTED. MOUNT BOTTOM OF DEVICE AT 80" AFF CANDELA RATING BY FIRE ALARM CONTRACTOR.
HS	FIRE ALARM HORN/STROBE	DEVICE SHALL BE CEILING MOUNTED. CANDELA RATING BY FIRE ALARM CONTRACTOR.
	FIRE ALARM STROBE	DEVICE SHALL BE CEILING MOUNTED. CANDELA RATING BY FIRE ALARM CONTRACTOR.
B	FIRE ALARM BELL	DEVICE SHALL BE MOUNTED ABOVE THE CEILING. RATING BY FIRE ALARM CONTRACTOR.
H	HEAT DETECTOR	
ELR	END OF LINE RESISTOR	
RELAY	FAN SHUT DOWN RELAY	
FS	FIRE ALARM WATER FLOW SWITCH	
	SPEAKER STROBE	WHITE FOR LIGHT COLOR CEILINGS. BLACK FOR DARK COLOR CEILINGS.
SS	SPEAKER STROBE	DEVICE SHALL BE WALL MOUNTED. MOUNT BOTTOM OF DEVICE AT 80" AFF CANDELA RATING BY FIRE ALARM CONTRACTOR.
GFX EYE	DIMMING CONTROL	LUTRON GRAFIK EYE DIMMING SYSTEM. SEE SHEET E05.01 FOR MORE INFORMATION.

ELECTRICAL SERVICE / DISTRIBUTION

ITEM	FURNISHED BY: LANDLORD	FURNISHED BY: CONT'R.	INSTALLED OR PERFORMED BY: LS VENDOR	INSTALLED OR PERFORMED BY: LANDLORD	INSTALLED OR PERFORMED BY: CONT'R.	INSTALLED OR PERFORMED BY: OTHER	RE-USE EXISTING	N/A	REMARKS
MAIN OVER CURRENT DEVICE IN LANDLORD'S ELECTRICAL EQUIPMENT		EC			EC				FIELD VERIFY PRIOR TO BID
METER IN LANDLORD'S OR TENANT'S SPACE (VERIFY W/ POWER PLANS, RISER)		EC			EC				FIELD VERIFY PRIOR TO BID
C/TS AND CABINET IN LANDLORD'S OR TENANT'S SPACE (VERIFY W/ POWER PLANS, RISER)		EC			EC				FIELD VERIFY PRIOR TO BID
SERVICE ENTRANCE CONDUIT(S) TO LEASE SPACE		EC			EC				FIELD VERIFY PRIOR TO BID
SERVICE ENTRANCE FEEDER(S) TO LEASE SPACE		EC			EC				FIELD VERIFY PRIOR TO BID
I.F.S. ENCLOSURE (SWITCHGEAR ASSEMBLY)			IF		EC				
277/480 VOLT PANEL			IF			IF			INSTALLED IN FACTORY
STEP DOWN LINE TRANSFORMER & MOUNTING ACCESSORIES			IF			IF			INSTALLED IN FACTORY
120/208 VOLT PANEL(S)			IF			IF			INSTALLED IN FACTORY
SMART BREAKER SYSTEM FOR LIGHTING CONTROL			IF			IF			INSTALLED IN FACTORY
LIGHTING CONTROLLER WITH POWER SUPPLY AND OVERRIDE STATION			EMS			IF			INSTALLED IN FACTORY
BREAKER LOCKS			IF		EC				AS REQUIRED BY ENGINEER

MECHANICAL / PLUMBING EQUIPMENT COORDINATION

ITEM	FURNISHED BY: LANDLORD	FURNISHED BY: CONT'R.	INSTALLED OR PERFORMED BY: LS VENDOR	INSTALLED OR PERFORMED BY: LANDLORD	INSTALLED OR PERFORMED BY: CONT'R.	INSTALLED OR PERFORMED BY: OTHER	RE-USE EXISTING	N/A	REMARKS
POWER WIRING AND CONDUIT / PULL STRING TO ALL HVAC EQUIPMENT		EC			EC				
ROOF TOP UNIT – DISCONNECT SWITCH								●	
ROOF TOP UNIT – WEATHERPROOF GFI SERVICE REC.								●	WIRED BY EC
AIR HANDLING UNIT (CV AND/OR VAV, CW WITH ELECTRIC HEAT)–DISCONNECT SWITCH/FAN CONTACTS								●	
AIR HANDLING UNIT (DX SPLIT) – DISCONNECT SWITCH / FAN CONTACTS								●	
CONDENSING UNIT (DX SPLIT) – DISCONNECT SWITCH								●	
CONDENSING UNIT (DX SPLIT) – WEATHERPROOF GFI SERVICE REC.								●	
FAN POWERED VAV / VAV SYSTEM (WITH OR WITHOUT ELECTRIC HEAT) – DISCONNECT SWITCH			AC			AC			
WATER SOURCE HEAT PUMP – DISCONNECT SWITCH								●	
TOILET EXHAUST FANS (FRACTIONAL HP) WITH DISCONNECT SWITCH			LD		WC				
ELECTRONIC CONTROL DAMPERS – DISCONNECT SWITCH								●	
DUCT HEATERS								●	
HVAC SENSOR JUNCTION BOX AND CONDUIT WITH PULL STRING		EC			EC				WIRED BY MC

LOW VOLTAGE SYSTEMS

ITEM	FURNISHED BY: LANDLORD	FURNISHED BY: CONT'R.	INSTALLED OR PERFORMED BY: LS VENDOR	INSTALLED OR PERFORMED BY: LANDLORD	INSTALLED OR PERFORMED BY: CONT'R.	INSTALLED OR PERFORMED BY: OTHER	RE-USE EXISTING	N/A	REMARKS
PAGING SYSTEM – HARDWARE			PS			PS			
PAGING SYSTEM – WIRE			PS		EC				WIRED BY EC, FINAL CONNECT. BY PS
PAGING SYSTEM – CONDUIT / PULL STRING		EC			EC				IF REQUIRED BY AHJ
BURGLAR / SECURITY SYSTEM – HARDWARE			SSV		SC				
BURGLAR / SECURITY SYSTEM – WIRE			SSV		EC				
BURGLAR / SECURITY SYSTEM – CONDUIT / PULL STRING		EC			EC				IF REQUIRED BY AHJ
RF TECHNOLOGY SYSTEM – HARDWARE			RF		RC				
RF TECHNOLOGY SYSTEM – WIRE			RF		RC				
RF TECHNOLOGY SYSTEM – CONDUIT / PULL STRING		EC			EC				
CCTV / ALARM SYSTEM – HARDWARE			SSV		SC				
CCTV / ALARM SYSTEM – WIRE			SSV		SC				
CCTV / ALARM SYSTEM – CONDUIT / PULL STRING		EC			EC				IF REQUIRED BY AHJ
MUSIC / VIDEO SYSTEM – HARDWARE (SPEAKERS/MONITORS/CONTROLLERS)			MS		EC				
MUSIC / VIDEO SYSTEM – WIRE			MS		EC				
MUSIC / VIDEO SYSTEM – CONDUIT / PULL STRING		EC			EC				IF REQUIRED BY AHJ
DELIVERY BUZZER SYSTEM – HARDWARE			LD		EC				
DELIVERY BUZZER SYSTEM – WIRE		EC			EC				
DELIVERY BUZZER SYSTEM – CONDUIT / PULL STRING		EC			EC				IF REQUIRED BY AHJ
TRAFFIC COUNTER – CONDUIT / PULL STRING		EC			EC				
TRAFFIC COUNTER – COUNTER / WIRE		LSD&C			LSD&C				

MISCELLANEOUS ELECTRICAL ITEMS

ITEM	FURNISHED BY: LANDLORD	FURNISHED BY: CONT'R.	INSTALLED OR PERFORMED BY: LS VENDOR	INSTALLED OR PERFORMED BY: LANDLORD	INSTALLED OR PERFORMED BY: CONT'R.	INSTALLED OR PERFORMED BY: OTHER	RE-USE EXISTING	N/A	REMARKS
LIGHTING FIXTURES AND LAMPS DIMMING CONTROL SYSTEM			LD		EC				
RECEPTACLES, COVERPLATES AND MOTION SENSOR LIGHT SWITCHES			LD		EC				
FLOOR BOXES, COVERS AND FLOOR BOXES DATA			LD		EC				UNLESS OTHERWISE NOTED ON PLANS
JUNCTION BOXES		EC			EC				
SENSORMATIC SYSTEM – HARDWARE			SV		EC				
SENSORMATIC SYSTEM – POWER WIRING AND CONDUIT / PULL STRING		EC			EC				
DATA AND TELEPHONE SYSTEMS – CABLE AND JACKS		TEL			TEL				
DATA AND TELEPHONE SYSTEMS – CONDUITS / PULL STRING		EC			EC				
TELEPHONE DEMARC PANEL – PROTECTION OF DURING CONSTRUCTION / RELOCATION / DEMOLITION		GC			GC				CALL LSD&C TO RELOCATE. DO NOT CUT WIRES.
DUCT SMOKE DETECTOR		FAC			MC				
MECHANICAL EQUIPMENT SHUT-DOWN RELAY		FAC			FAC				
FIRE ALARM SYSTEM		FAC			FAC				
CASHWRAP – POWER WIRING AND CONDUIT / PULL STRING		EC			EC				
ROLLING GRILLE – POWER WIRING AND CONDUIT / PULL STRING		EC			EC				
ROLLING GRILLE – INTERLOCK AND BARREL SWITCH		LSD&C			EC				
ROLLING GRILLE – DOOR AND MOTOR		LSD&C			LSD&C				
DREAMSTEAMER – POWER WIRING AND CONDUIT / PULL STRING								●	RECEPTACLE BY LD
AS-BUILT DRAWINGS		EC			EC				

ABBREVIATIONS:

AC	HVAC EQUIPMENT SUPPLIER	MC	MECHANICAL CONTRACTOR
AHJ	AUTHORITY HAVING JURISDICTION	MS	MUSIC SYSTEM VENDOR
EC	ELECTRICAL CONTRACTOR	PC	PLUMBING CONTRACTOR
EMS	ENERGY MANAGEMENT SYSTEM VENDOR	PS	PAGING SYSTEM VENDOR
FAC	FIRE ALARM CONTRACTOR	RC	RF TECHNOLOGY CONTRACTOR
GC	GENERAL CONTRACTOR	RF	RF TECHNOLOGY SYSTEM VENDOR
IF	IFS SUPPLIER	SC	SECURITY CONTRACTOR
LD	LIGHTING PACKAGE DISTRIBUTOR	SSV	SECURITY SYSTEM VENDOR
LL	LANDLORD	SV	SENSORMATIC VENDOR
LSD&C	LIMITED STORE DESIGN AND CONSTRUCTION	TEL	TELEPHONE CONTRACTOR

ANY ITEM NOT SHOWN IS THE RESPONSIBILITY OF CONTRACTOR.

ELECTRICAL RESPONSIBILITY SCHEDULE

NTS | 00N-E0101-J00-SCHD | J | 09/24/12

FIRE RATED PENETRATION SCHEDULE

TYPE OF PENETRATION	CONCRETE OR MASONRY: FLOORS UL SYSTEM #	CONCRETE OR MASONRY: WALLS UL SYSTEM #	GYPSUM BOARD/FRAME: FLOORS UL SYSTEM #	GYPSUM BOARD/FRAME: WALLS UL SYSTEM #	"SPECSEAL FIRESTOP" PRODUCTS
METAL CONDUITS MAX. 4"	CAJ1080	CAJ1080	FC1010	WL1049	SSS100 SEALANT
	CAJ1213	WJ1030		WL1088	LC150 SEALANT
	CAJ1198	CAJ1198		WL1062	PEN300 SILICONE
PVC CONDUIT 2" AND SMALLER	CAJ2031	WJ2018	FC2032	WL2093	SSS100 SEALANT
PVC CONDUITS 2" THRU 4"	CAJ2038	CAJ2038		WL2029	FIRESTOP COLLAR
	CAJ2045	CAJ2045			FIRESTOP COLLAR
	CAJ2124	CAJ2124	FC2033	WL2059	WRAP STRIPS
CABLE TRAY STEEL OR ALUMINUM	CAJ4029	WJ4021		WL4008	FIRESTOP PILLOWS
	CAJ4020	CAJ4020			FIRESTOP MORTAR
		WJ4009		WL4005	SSS100 SEALANT
ELECTRICAL BUS DUCT	CAJ6003	CAJ6003			PEN300 SILICONE
	CAJ6008	CAJ6008		WL6001	SSS100 SEALANT
CABLE BUNDLES MAX. 3"	CAJ3154	WJ3022		WL3076	SSS100 SEALANT

NOTES:

1. ALL U.L. LISTED SYSTEMS SHOWN ABOVE ARE BASED ON PROVIDING A 1 & 2 HOUR RATED FIRESTOP. WHERE 3 HOUR RATING IS REQUIRED, CONTACT FIRESTOP PRODUCT MANUFACTURER FOR DESIGN MODIFICATIONS.
2. ALL U.L. LISTED SYSTEMS SHOWN ABOVE ARE BASED ON "SpecSeal Firestop" PRODUCTS FROM SPECIFIED TECHNOLOGIES, INC. OR APPROVED EQUAL PRODUCTS FROM "3-M" OR HILTI, INC.

FIRE PENETRATION SCHEDULE

NTS | 00N-E0101-M00-SCHD | H | 08/12/11

1. FIRE ALARM SYSTEM SHALL BE UL LISTED AND APPROVED BY LOCAL FIRE OFFICIAL AND FIRE DEPARTMENT.
2. FIRE ALARM SYSTEM TO SHUT-DOWN HVAC UNITS IN CASE OF ANY ZONE ALARM.
3. FIRE ALARM CONTRACTOR SHALL FURNISH AND INSTALL RELAYS AND DRY CONTACTS FOR HVAC UNITS AS REQUIRED. RELAYS SHALL SHUT-DOWN HVAC UNITS UPON ANY ZONE ALARM.
4. TENANT'S FIRE ALARM SYSTEM SHALL BE PRETESTED PER LANDLORD'S CRITERIA AND LOCAL AUTHORITY. TENANT'S FIRE ALARM SYSTEM SHALL BE FINAL TESTED BY THE LOCAL BUILDING AND FIRE MARSHALL AND WITNESSED BY LANDLORD'S ON-SITE REPRESENTATIVE.
5. LANDLORD'S FIRE ALARM CONTRACTOR SHALL MAKE FINAL CONNECTIONS TO LANDLORD'S FIRE ALARM SYSTEM AT THE TENANT'S SOLE COST AND EXPENSE.
6. THESE PLANS MAY BE USED FOR CONSTRUCTION ONLY AFTER APPROVAL IS OBTAINED FROM THE BUILDING DEPARTMENT FIRE ALARM PLAN CHECK DIVISION AND THAT DIVISION'S STAMPED APPROVAL AND AUTHORIZED SIGNATURE APPEAR ON THE PLANS.
7. COORDINATE ALL WORK WITH ALL TRADES INCLUDED BUT NOT LIMITED TO MECHANICAL, ELECTRICAL, PLUMBING, FIRE SPRINKLER, AND STRUCTURAL CONTRACTORS. INSTALL ALL WORK TO CLEAR NEW AND EXISTING ARCHITECTURAL AND STRUCTURAL MEMBERS. NO ITEM SUCH AS PIPE, DUCT, ETC. IS TO BE IN CONTACT WITH ANY EQUIPMENT.
8. REFER TO ARCHITECTURAL DRAWINGS FOR DEMOLITION WORK AND EXACT FIXTURE LOCATIONS.
9. CONTRACTOR SHALL PROVIDE CUT SHEETS TO LSD&C FOR ALL EQUIPMENT AND DEVICES FURNISHED BY THE CONTRACTOR THAT DEVIATE FROM SPECIFIED ITEM FOR REVIEW AND APPROVAL PRIOR TO THE PURCHASE OF ANY SUCH EQUIPMENT OR DEVICES.
10. THE FIRE ALARM CONTRACTOR SHALL BE RESPONSIBLE TO FIELD VERIFY THE EXACT LOCATION OF SMOKE DETECTORS AND FIRE ALARM INTERFACE PANEL IN TENANT'S DEMISED PREMISES PRIOR TO SUBMITTING HIS OR HER BID. NO ADDITIONAL COMPENSATION WILL BE MADE FOR ANY EXTRAS DUE TO CONTRACTOR'S FAILURE TO VISIT THE JOB SITE AND/OR FAILURE TO PREDETERMINE ALL EXISTING CONDITIONS BEFORE SUBMITTING HIS OR HER BID.
11. ACCESS TO ALL COMPONENTS AND EQUIPMENT MUST BE PROVIDED TO MEET CODE AND SERVICE/MAINTENANCE EASE.
12. THE CONTRACTOR SHALL VERIFY WITH LOCAL CODES AS TO THE REQUIREMENT/INSTALLATION OF THE FIRE ALARM SYSTEM.
13. UPON COMPLETION OF THE WORK, CONTRACTOR SHALL ENSURE THE PROPER WORKING ORDER OF THE SYSTEM(S) AND MAKE ANY ADJUSTMENTS AS REQUIRED.
14. FIRE ALARM CONTRACTOR SHALL PROVIDE UL LISTED FIRE STOPPING SYSTEMS AROUND ALL CONDUIT PENETRATIONS THROUGH RATED WALLS.
15. FIRE ALARM CONTRACTOR RESPONSIBLE FOR PULLING LOW VOLTAGE PERMIT.

FIRE ALARM SPECIFICATION

NTS | 00N-E0101-F00-SPEC | F | 08/12/11

FIRE ALARM GENERAL NOTES

NTS | 00N-E0101-G00-NOTE | G | 08/12/11

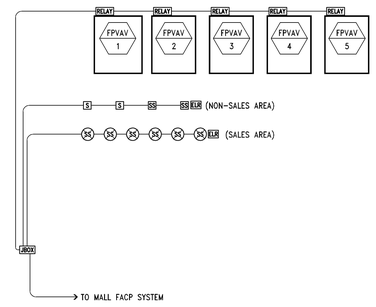
1. FIRE ALARM SYSTEM SHALL BE FURNISHED, INSTALLED AND WIRED BY THE FIRE ALARM CONTRACTOR. THIS CONTRACTOR SHALL PROVIDE A COMPLETE SYSTEM (LANDLORD APPROVED) EQUAL TO NOTIFIER SYSTEM 500 OR EQUAL OF PYROTRONICS, EDWARDS SYSTEMS TECHNOLOGIES OR SIMPLEX/GRINNELL. CONTROL PANEL SHALL BE A MICROPROCESSOR BASED SYSTEM CONTAINING 6 FIRE ALARM ZONES, INITIATING ALARM POWER MODULES FOR HORNS & STROBES, CONTROL RELAY MODULE FOR CONTROL OF H.V.A.C. EQUIPMENT, AND ALL OTHER MISCELLANEOUS ITEMS FOR A COMPLETE AND OPERATING FIRE ALARM SYSTEM. CONTROL PANEL TO BE PROGRAMMED SO THAT IF ANY ONE ZONE GOES INTO ALARM, ALL H.V.A.C. UNITS ARE TO BE SHUT DOWN.

   ZONE #1 = SMOKE DETECTORS IN NON-SALES AREA
   ZONE #2 = SMOKE DETECTOR IN SALES AREA
   ZONE #3 = MANUAL PULL STATIONS
   ZONE #4 = DUCT DETECTORS FOR H.V.A.C. UNITS
   ZONE #5 = WATER FLOW SWITCH
   ZONE #6 = SPARE

2. THE FOLLOWING PERIPHERAL DEVICES TO BE INSTALLED AS A PART OF THE FIRE ALARM SYSTEM:
   2.1. MANUAL PULL STATION, NON-CODED, NON-ACTION, UNIT, +48" A.F.F., #NBG-10.
   2.2. DUCT MOUNTED SMOKE DETECTORS, PHOTOELECTRIC TYPE WITH REQUIRED SAMPLING TUBES.
   2.3. AREA SMOKE DETECTOR, PHOTOELECTRIC TYPE #2451-B402B.
   2.4. HORN/STROBE UNIT, MINIMUM 75cd, WALL MOUNTED DEVICES SHALL BE MOUNTED SO THE ENTIRE STROBE LENS IS NOT LESS THAN 80" A.F.F. AND NOT GREATER THAN 96" A.F.F. OR PER NFPA 72, ADA, OR LOCAL JURISDICTION, WHICHEVER IS STRICTER, #WASS2475ADA.
   2.5. STROBE UNIT, MINIMUM 75cd, MOUNT DEVICE ON WALL SUCH THAT THE ENTIRE STROBE LENS IS NOT LESS THAN 80" A.F.F. AND NOT GREATER THAN 96" A.F.F. OR PER NFPA 72, ADA, OR LOCAL JURISDICTION, WHICHEVER IS STRICTER, #SS2475ADA.
3. OWNER TO PROVIDE WIRING AND CONNECTION TO "LOCAL ENERGY MUNICIPAL BOX-OUTLET". ALL FIRE ALARM CONDUCTORS TO BE AS RECOMMENDED BY MANUFACTURER.
4. ALL FIRE ALARM MATERIALS AND INSTALLATION TO BE IN CONFORMANCE WITH N.F.P.A. 72, AND A.D.A. (AMERICANS WITH DISABILITIES ACT). IN AREAS AND CORRIDORS WHERE TWO OR MORE VISUAL STROBE UNITS ARE INSTALLED, PROVIDE SYNCHRONIZED STROBE UNITS SO AS TO PROVIDE A FLASH RATE MINIMUM OF 1 Hz AND A MAXIMUM OF 3 Hz.
5. FIRE ALARM SYSTEM: ELECTRICAL CONTRACTOR SHALL VERIFY ALL NECESSARY SPRINKLER LINE POWER AND SIGNAL CONNECTIONS, I.E. FLOW SWITCH, TAMPER SWITCH, SPRINKLER BELL, ETC. SPRINKLER BELL SHOULD BE WALL MOUNTED IN DIRECT PROXIMITY TO THE SPRINKLER LINE ENTERING THE BUILDING AT APPROXIMATELY 8'-0" ABOVE FINISHED GRADE.
6. AFTER INSTALLATION, WIRING, AND CHECK-OUT OF ANY FIRE ALARM HORNS, CONTRACTOR SHALL PERFORM A SOUND LEVEL CHECK OF ALL AREAS. IN CONFORMANCE WITH NFPA 72 AND THE LOCAL AUTHORITY HAVING JURISDICTION, SOUND LEVELS PRODUCED BY FIRE ALARM HORNS TO BE 15 DBA ABOVE THE EQUIVALENT SOUND LEVEL OR 5 DBA ABOVE THE MAXIMUM SOUND LEVEL HAVING A DURATION OF AT LEAST 60 SECONDS (WHICHEVER IS GREATER) MEASURED 5 FEET ABOVE THE FLOOR IN THE OCCUPIABLE AREA. AREAS THAT ARE DETERMINED TO BE DEFICIENT TO HAVE ADDITIONAL FIRE ALARM HORN APPLIANCES ADDED TO THE TOTAL SYSTEM, AT NO ADDITIONAL COST TO THE OWNER.
7. INSTALLATION ALSO TO COMPLY WITH ALL "AMERICANS WITH DISABILITIES ACT" (ADA) REGULATIONS FOR AUDIBLE AND VISUAL ALARM DEVICES. THE FIRE ALARM SYSTEM DESIGN BEEN PROVIDED IN AN EFFORT TO COMPLY WITH ALL KNOWN REGULATIONS. ANY AREAS FOUND TO BE DEFICIENT OF AUDIBLE AND/OR VISUAL ALARM DEVICES ARE TO HAVE ADDITIONAL DEVICES ADDED SO AS TO COMPLY, WITH NO ADDITIONAL COSTS TO THE OWNER.

FIRE ALARM SINGLE LINE DIAGRAM

NTS | 00N-E0101-E00-DIAG | E | 08/12/11



NOTE:
FIRE ALARM SYSTEM SHOWN IS FOR REFERENCE ONLY. GENERAL CONTRACTOR IS TO HIRE MALL FIRE ALARM SYSTEM CONTRACTOR TO PROVIDE DEVICES TO TIE INTO MALL'S FIRE ALARM SYSTEM. FIRE ALARM SYSTEM LAYOUT AS PER MALL, CITY, NFPA CODE REQUIREMENTS, AND OTHER REQUIREMENTS FROM THE AUTHORITIES HAVING JURISDICTION OVER THIS PROJECT. FIELD VERIFY AND COORDINATE ALL RELATED REQUIREMENTS PRIOR TO BID AND WORK COMMENCEMENT.

ELECTRICAL GENERAL NOTES

NTS | 00N-E0101-C00-NOTE | C | 08/12/11

1. CIRCUITING INDICATED ON PLAN IS PARTIALLY DIAGRAMMATIC FOR CLARITY. CIRCUITING SHALL BE "THRU-WIRING" WHERE AND WHENEVER POSSIBLE.
2. FIELD VERIFY EXACT LOCATION AND ELECTRICAL REQUIREMENTS OF ALL HVAC EQUIPMENT WITH MECHANICAL CONTRACTOR PRIOR TO ORDERING RELATED ELECTRICAL EQUIPMENT.
3. ALL RECEPTACLE CIRCUITS UP TO 100'–0" SHALL UTILIZE #12 CONDUCTORS MINIMUM. ALL RECEPTACLE CIRCUITS FROM 100'–1" TO 150'–0" IN LENGTH SHALL UTILIZE #10 CONDUCTORS MINIMUM. ALL RECEPTACLE CIRCUITS 150'–1" UP TO 250'–0" IN LENGTH SHALL UTILIZE #8 CONDUCTORS MINIMUM. CIRCUITS ABOVE 250'–0" SHALL UTILIZE #6 CONDUCTORS MINIMUM.
4. PLACEMENT OF ALL RECEPTACLES IN THE SALES AREA SHALL BE INTENTIONAL (I.E. – CENTERED ON COLUMNS, WALL FEATURES OR TIGHT TO CORNERS), UNLESS OTHERWISE NOTED. IF THE RECEPTACLE IS NOT SHOWN IN A DESIRABLE LOCATION, FIELD VERIFY EXACT PLACEMENT OF RECEPTACLE WITH LS PROJECT MANAGER PRIOR TO ROUGH IN.
5. ALL RECEPTACLES AND COVERS (DUPLEX, QUADRAPLEX, ETC) SHALL BE THE COLORS AS NOTED IN THE ELECTRICAL POWER PLAN NOTES AND SCHEDULES.
6. ELECTRICAL CONTRACTOR SHALL MAKE ALL FINAL CONNECTIONS AS REQUIRED FOR A FULLY COMPLETE AND OPERABLE SYSTEM.
7. ACCESS TO ALL COMPONENTS AND EQUIPMENT MUST BE PROVIDED TO MEET CODE AND SERVICE/MAINTENANCE EASE. WHERE DRYWALL CEILINGS ARE USED IN THE "SALES" AREA, THE ELECTRICAL CONTRACTOR SHALL ARRANGE CIRCUITS TO AVOID THE USE OF JUNCTION BOXES IN INACCESSIBLE LOCATIONS. THE USE OF JUNCTION BOXES ABOVE DRYWALL CEILINGS SHALL BE LIMITED TO LOCATIONS NEAR ACCESS FRAMES USED FOR DIFFUSERS AND RETURN AIR GRILLES OR ACCESS PANELS AS LOCATED ON PLANS. IF PLAN LOCATION IS NOT ACCEPTABLE, IMMEDIATELY CONTACT LSD&C PROJECT MANAGER.
8. ELECTRICAL CONTRACTOR SHALL PROVIDE A COMPLETE FIRE ALARM SYSTEM LAYOUT AS REQUIRED BY THE AUTHORITIES HAVING JURISDICTION AND ALL APPLICABLE CODES, AND COMPATIBLE WITH THE LANDLORD'S FIRE ALARM SYSTEM. IT IS THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR TO INQUIRE WITH THE LANDLORD'S REPRESENTATIVE ON ANY FIRE ALARM SYSTEMS IN USE AT THE MALL AT THE TIME OF BID. IF THE FIRE ALARM SYSTEM IS NOT ADEQUATELY DESCRIBED ON THE PLANS, THE ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR INFORMING THE GENERAL CONTRACTOR AND INCLUDE THE COST AS A SEPARATE LINE IN BID. NO ADDITIONAL MONIES SHALL BE AWARDED FOR TIE-IN REQUIREMENTS TO A LANDLORD'S FIRE ALARM SYSTEM THAT IS IN EXISTENCE AT THE TIME OF BID, WITHOUT A SEPARATE LINE ITEM.
9. ANY PENETRATION THROUGH THE ROOF OR WALL WITH CONTROL WIRING MUST BE SLEEVED IN A CONDUIT.
10. ALL 24 VOLT COMMUNICATION AND/OR SENSOR WIRING