

#### ELECTRICAL CONSTRUCTION NOTES (NOT ALL APPLY):

DEFINED IN SECTION 1700 OF THE PROJECT MANUAL.

- ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE LATEST EDITIONS OF THE NEC, APPLICABLE LOCAL CODES, STATE CODES, SCHOOL WORKING RULES AND SCHEDULE DIRECTIVES. AND THE ENGINEER'S SPECIFICATIONS.
- THE VOLTAGE CHARACTERISTIC OF EXISTING BUILDING IS 208Y/120V, 3-PASE, 4-WIRE. THE VOLTAGE CHARACTERISTIC OF THE PROPOSED ADDITION SHALL BE 480/277V, 3-PHASE 4-WIRE WITH 208/120V DERIVED FROM STEP DOWN TRANSFORMERS., ALL EQUIPMENT SHALL BE COMPATIBLE WITH THESE CHARACTERISTICS.
- 3. THE DRAWINGS SHOW SCHEMATICALLY, THE APPROXIMATE LOCATION OF ALL EQUIPMENT, CONDUITS, DEVICES, ETC. THE EXACT LOCATION OF WHICH SHALL BE SUBJECT TO APPROVAL BY THE ARCHITECT/OWNER WHO RESERVES THE RIGHT TO MAKE PRIOR TO INSTALLATION, ANY REASONABLE CHANGES IN LOCATION INDICATED WITHOUT EXTRA COST TO THE OWNER. CONTRACTOR SHALL
- VERIFY ALL INDICATED OR APPROXIMATED DIMENSIONS DRAWN OR DENOTED. DIVISION 16 CONTRACTOR SHALL EXAMINE THE SITE TO VERIFY WORK TO BE PERFORMED AS SHOWN ON DRAWINGS AND SPECIFICATIONS BEFORE SUBMITTING HIS BID. ANY DISCREPANCY BETWEEN DRAWINGS/SPECIFICATIONS AND ACTUAL FIELD
- CONDITIONS SHALL BE BROUGHT TO ARCHITECT/ENGINEERS ATTENTION BEFORE BID SUBMITTAL. DIVISION 16 CONTRACTOR SHALL PROVIDE ALL LABOR SERVICE MATERIALS, EQUIPMENT, AND RELATED ITEMS TO COMPLETE THE WORK OF THIS DIVISION, AS REQUIRED BY THE NATIONAL ELECTRIC CODE, AND ALL STATE AND LOCAL AUTHORITIES HAVING
- 6. DIVISION 16 CONTRACTOR SHALL PROVIDE ALL ELECTRICAL HARDWARE SHOWN ON THESE DRAWINGS AND RELATED DETAIL MATERIALS NOT SPECIFICALLY SHOWN OR SPECIFIED.
- DIVISION 16 CONTRACTOR SHALL PAY ANY FEES APPLICABLE TO ELECTRICAL WORK, SUCH AS, BUT NOT LIMITED TO, THE POWER COMPANY, TELEPHONE COMPANY, CATV, CERTIFIED ELECTRICAL INSPECTORS, ALARM AND FIRE PROTECTION COMPANIES. THE DIVISION 16 CONTRACTOR SHALL REFER TO ALL OTHER DRAWINGS IN BID PACKAGE AND PERFORM THE WORK (INCLUDE IN HIS
- BID) INDICATED AS ELECTRICAL CONTRACTOR (E.C.) WORK. ALL WORK SHALL BE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND DIRECTIVES OF THE SCHOOL DISTRICT BUILDINGS AND GROUNDS DEPARTMENT.
- ALL WORK SHALL BE PERFORMED BY A LICENSED ELECTRICAL CONTRACTOR WHO SHALL OBTAIN AN INSPECTION CERTIFICATE AND PAY ASSOCIATED FEE. SUBMIT A PHOTOCOPY OF THIS CERTIFICATE TO THE ENGINEER WITH FINAL PAYMENT APPLICATION. DIVISION 16 CONTRACTOR SHALL GUARANTEE ALL MATERIALS AND THEIR INSTALLATION TO BE FREE OF DEFECTS FOR A PERIOD AS
- 12. A COMPLETE SYSTEM OF WIRING, WITH ALL FEEDERS, MAINS, AND BRANCHES AS SHOWN ON THE DRAWINGS, SHALL BE FURNISHED AND INSTALLED FROM THE MAIN DISTRIBUTION BOARD TO THE PANELS OUTLETS, MOTORS, AND APPURTENANCES. PROVIDE IDENTIFICATION FOR ALL PANEL AND MOTOR FEEDER CABLES IN PULL BOXES AND AT TERMINATIONS. ANY CONDUCTOR
- VOLTAGES HIGHER THAN 240 VOLTS SHALL BE MARKED ON DEVICES AND JUNCTION BOXES. FURNISH AND INSTALL ALL WIRING OF ANY VOLTAGE OR PURPOSE AS SHOWN ON THE DRAWINGS. ALL BRANCH CIRCUITS SHALL HAVE INDIVIDUAL NEUTRALS. SHARING COMMON NEUTRALS AMONG BUNDLED CIRCUITS IS
- SPECIFICALLY DISALLOWED UNLESS OTHERWISE NOTED. PULL/JUNCTION BOXES SHALL BE PROVIDED WHERE INDICATED OR AS OTHERWISE REQUIRED TO FACILITATE THE PROPER
- INSTALLATION OF WIRES AND CABLES. CONDUITS MAY BE INCREASED IN SIZE FOR CONSTRUCTION CONVENIENCE. FURNISH AND INSTALL ALL DISCONNECT DEVICES AND SAFETY SWITCHES AS SHOWN ON THE DRAWINGS AND/OR AS REQUIRED TO
- CONFORM WITH REQUIREMENTS 18. FURNISH AND INSTALL ALL INDICATED LIGHTING FIXTURES AND MOUNTING HARDWARE AS REQUIRED FOR A COMPLETE
- INSTALLATION. 19. DIVISION 16 CONTRACTOR SHALL PROVIDE TO SCHOOL 5 PERCENT SPARE LAMPS (MINIMUM QUANTITY 1) OF EACH TYPE SPECIFIED
- WITH NEW FIXTURES. PROVIDE ALL WIRING, PANEL BOARDS, SWITCHES, FUSES, EQUIPMENT, AND ALL INCIDENTAL MATERIALS REQUIRED TO SUPPLY TEMPORARY AND PERMANENT ELECTRICAL NEEDS FOR THE WORK INVOLVED, ALL IN ACCORDANCE WITH OSHA, LOCAL, STATE AND
- UNDERWRITERS REQUIREMENTS. ALL WIRING TO BE 1#12+1#12(N)+1#12(G)-3/4"C., OR STEEL JACKETED MC CABLE (WHERE CODE PERMITTED), UNLESS OTHERWISE SPECIFIED ON DRAWINGS. RUN BRANCH CIRCUITS IN DROPPED CEILINGS, VOIDS, & CHASES. CONDUITS MAY BE SURFACE MOUNTED IN MECHANICAL SPACES UNLESS OTHERWISE NOTED. CONDUITS IN PUBLIC AREAS SHALL BE CONCEALED IN HUNG CEILINGS, EMBEDDED IN SLAB OR MASONRY WALLS, EXCEPT WHERE SURFACE MOUNTED RACEWAY IS SPECIFIED. ALUMINUM JACKETED MC CABLE IS NOT ACCEPTABLE.
- ALL CONNECTIONS AND/OR SPLICES SHALL BE MADE ONLY IN ACCESSIBLE JUNCTION BOXES. ALL COUPLINGS AND CONNECTORS FOR USE WITH EMT SHALL BE COMPRESSION TYPE. SET SCREW TYPE OR INDENT TYPE FITTINGS
- WILL NOT BE ACCEPTED 24. ALL CONNECTIONS TO CONDUIT RUN UNDERGROUND SHALL BE MADE WATERTIGHT. ALL METALLIC CONDUIT INSTALLED IN EARTH FILL, AS WELL AS UNDERGROUND, SHALL BE PAINTED WITH (2) COATS OF ASPHALTUM PAINT OR EQUAL.

WIRING INSTALLED IN CEILINGS SHALL BE HUNG INDEPENDENT OF CEILING SYSTEM AND SECURELY TIED TO BUILDING STEEL.

- ALL LOW VOLTAGE (FIRE ALARM, PA INTERCOM, PHONE, DATA, ETC.) WIRING INSTALLED IN OPEN AREAS SHALL BE IN METALLIC RACEWAY IN MECHANICAL AREAS, GYMNASIUMS, ART ROOMS, STOREROOMS, ETC., AND IN SURFACE MOUNTED RACEWAY IN PUBLIC AREAS. LOW VOLTAGE WIRE INSTALLED IN DROPPED CEILINGS SHALL BE BUNDLED TOGETHER AND SUPPORTED BY BUILDING STEEL. LOW VOLTAGE WIRE SHALL NOT BE SUPPORTED WITH BRANCH CIRCUITS OR FEEDER CIRCUITS AND SHALL NOT BE SUPPORTED BY CONDUIT, PIPES, ETC.. LOW VOLTAGE WIRING NOT INSTALLED IN CONDUITS, SHALL BE PLENUM RATED.
- CONDUITS SHALL BE SECURED IN PLACE AND PROTECTED WHERE NECESSARY TO PREVENT DAMAGE DURING CONSTRUCTION. FURNISH AND INSTALL ALL HARDWARE TO PROPERLY SUPPORT ALL CONDUITS NOT INSTALLED IN CONCRETE SLABS OR
- UNDERGROUND. ALL CONDUITS OR MC CABLE SHALL BE EQUIPPED WITH AN INSULATING/CHAFE GUARD GROMMET AT WIRE EXIT/ENTRANCE. MC
- CABLE SHALL USE MC STYLE BUSHINGS. BX OR OTHER BUSHINGS ARE SPECIFICALLY DISALLOWED. WHERE AN EXISTING CONDUIT OR CABLE IS REQUIRED TO BE REMOVED BUT SERVES AND EXISTING PIECE OF EQUIPMENT WHICH IS TO REMAIN OPERABLE, THE DIVISION 16 CONTRACTOR SHALL REROUTE SAID CONDUIT OR CABLE OR PROVIDE A NEW SOURCE OF
- POWER (APPROVED BY ENGINEERING) TO THIS EQUIPMENT AS A PART OF THIS CONTRACT. 31. ALL PANÈLS. SWITCHES. DISCONNECT STARTERS, OR OTHER ELECTRIC SYSTEM CONTROLS SHALL BE STENCILED WITH THEIR APPROPRIATE DESIGNATION/FUNCTION. ALL CIRCUIT BREAKERS SHALL BE IDENTIFIED BY A PANEL SCHEDULE OR STENCIL ADJACENT TO THE CIRCUIT BREAKER.
- 32. ALL CIRCUIT BREAKERS POSITIONS IN ALL PANELS ARE SHOWN FOR ESTIMATE PURPOSES ONLY. EC IS RESPONSIBLE FOR LOAD
- 33. ALL DEVICES SHALL BE FASTENED IN PLACE SECURELY. GRID MOUNTING LIGHTING FIXTURES SHALL BE SECURED TO GRID WITH CLIPS LISTED FOR THE PURPOSE OR SUSPENDED FROM STRUCTURE PER NEC.
- WORK WHICH MUST BE DONE IN OCCUPIED AREAS SHALL BE DONE AT SUCH TIMES AS INDICATED IN THE PHASING OF CONSTRUCTION AND AS APPROVED BY THE SCHOOL.
- WHERE THE DIVISION 16 CONTRACTOR IS INSTRUCTED TO PROVIDE, INSTALL AND WIRE CIRCUIT BREAKER(S) TO AN EXISTING PANEL AND THAT PANEL DOES NOT HAVE THE ROOM TO INSTALL REQUIRED CIRCUIT BREAKERS. THE DIVISION 16 CONTRACTOR SHALL REMOVE (3) ADJACENT 1P CIRCUIT BREAKERS AND PROVIDE A 3P, 60A BREAKER IN THEIR PLACE FOR SUB FEED TO A SURFACE MOUNTED 100A.3~.4W.24 POLE SUB PANEL AND ESTABLISH OVERFLOW CIRCUITS IN NEW SUB PANEL. EACH WITH REQUIRED CIRCUIT BREAKERS, PROVIDE (3) 1P, AMPERAGE AS BEFORE CIRCUIT BREAKERS FOR DISCONNECTED CIRCUITS IN MAIN PANEL AND RECONNECT THEM IN SUB PANEL. SUB PANEL FEED TO BE 3#6+1#6(N)+1#10(G)-1"C.
- 36. SELECTED RECEPTACLES AS SHOWN ON DRAWINGS MAY BE GFI PROTECTED BY CONNECTING TO GFCI RECEPTACLE FIRST IN CIRCUIT. ALL RECEPTACLES THAT ARE PROTECTED FROM AN UPSTREAM GFCI UNIT SHALL BE VISABLY LABELED AS SUCH. GFCI RECEPTACLE SHALL BE SPEC GRADE AND RATED 20A, WITH OPERATING NOTIFICATION INDICATING LIGHT.
- ALL DEVICES ADDRESSED BY ADA REGULATIONS SHALL BE INSTALLED AT ADA COMPLIANT HEIGHT AND LOCATIONS. ALL NEW LIGHTING OR EXISTING LIGHTING HAVING SWITCHING REARRANGEMENT SHALL BE EQUIPPED WITH CODE COMPLIANT ENERGY CONSERVATION CONTROLS. SUCH CONTROL SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO
- 39. REMOVAL OF ELECTRICAL ITEMS INCLUDES THEIR DISPOSAL. THE EXCEPTION WILL BE TO TURN OVER TO THE OWNER ITEMS, IF ANY, THEY SPECIFY TO BE RETAINED IN THEIR INVENTORY. PCB OR ASBESTOS BEARING MATERIAL SHALL BE DISPOSED OF IN
- ACCORDANCE WITH LAWS AND REGULATIONS. 40. EC SHALL PROVIDE & WIRE WEATHERPROOF GFCI RECEPTACLES ON ALL APPLICABLE ROOFTOP UNITS AS PART OF HIS BID. SEE
- MECHANICAL EQUIPMENT SCHEDULES FOR UNITS WITH SERVICE RECEPTACLES FACTORY INSTALLED. UNLESS OTHERWISE NOTED, STARTERS AND DISCONNECTS FOR MECHANICAL EQUIPMENT SHALL BE FURNISHED BY THE MECHANICAL CONTRACTOR.. COORDINATE WITH THE MECHANICAL CONTRACTOR FOR ALL POWERED MECHANICAL EQUIPMENT. THE DIVISION 16 CONTRACTOR IS RESPONSIBLE TO INSTALL ALL MOTOR STARTERS AND ASSOCIATED POWER WIRING FROM SOURCE TO UNIT VIA STARTERS AND DISCONNECTS. THE LOCATIONS OF MOTOR STARTERS SHALL BE DETERMINED BY THE MECHANICAL CONTRACTOR IN THE FIELD AND SUBMITTED TO THE ENGINEER FOR APPROVAL UNLESS IT IS SPECIFIED ON THE DRAWINGS. THE DIVISION 16 CONTRACTOR SHALL REFER TO THE MECHANICAL DRAWINGS, EQUIPMENT SCHEDULES & NOTES AND INCLUDE IN HIS BID PRICE ALL ELECTRICAL WORK ASSOCIATED WITH THEIR INSTALLATION, .AND THE REMOVAL OF ANY STARTERS/DISCONNECTS NO

LONGER REQUIRED.

#### **DEMOLITION NOTES (NOT ALL APPLY):**

CONTRACTOR WHEN THIS IS SO.

THE ITEMS SPECIFICALLY SHOWN ON DEMOLITION DRAWING/S ARE TO BE ADDRESSED BY THE ELECTRICAL CONTRACTOR. THE

ALL ELECTRIC DEVICES, OF ANY VOLTAGE OR FUNCTION, THAT ARE TO BE DEMOLISHED ARE SAFE AND ADVISE THE DEMOLITION

- ITEMS ARE TO BE TREATED AS NOTED AND RANGE FROM DIRECT REMOVAL AND DISPOSAL, OR REMOVAL, STORAGE, AND REINSTALLATION/RELOCATION, OR TEMPORARY REMOVE/STORAGE, AND REINSTALLATION IN SAME LOCATION. MANY OTHER ELECTRIC ITEMS EXIST THAT ARE NOT SHOWN INCLUDE, BUT ARE NOT LIMITED TO, SWITCHES, RECEPTACLE, FLOOR OUTLETS, LOW VOLTAGE JACKS, LOW VOLTAGE DEVICES AND WIRING, TELEPHONE PUNCH DOWN BLOCKS, AND OUT OF SERVICE ITEMS. ALL SUCH ITEMS SHALL BE PERMANENTLY DE-ENERGIZED, DISCONNECTED, AND OTHERWISE MADE SAFE FOR DEMOLITION BY NON-ELECTRIC DEMOLITION WORKERS. THE ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR ASSURING THAT
- AFTER THE ELECTRICAL CONTRACTOR HAS DISCONNECTED ELECTRIC SUPPLIES TO ITEMS TO BE DEMOLISHED, HE SHALL ADVISE THE GENERAL CONTRACTOR OF ANY ELECTRIC ITEMS TO BE RETAINED FOR FUTURE USE AND THEREFOR NOT TO BE DEMOLISHED. THE GENERAL CONTRACTOR SHALL THEN PERFORM ALL WORK ZONE DEMOLITION. THIS MATTER APPLIES TO ALL ELECTRIC ITEMS. OF ANY VOLTAGE OR PURPOSE THE SPECIAL/SPECIFIC ITEMS SHOWN ON THE DRAWING FOR ELECTRICAL CONTRACTOR TO ACT ON WERE FOUND BY SURVEY.
- NUMEROUS LOCATIONS WERE BLOCKED BY FURNITURE, ETC. AND ADDITIONAL EQUAL TYPE ITEMS MAY BE PRESENT. THE ELECTRICAL CONTRACTOR SHALL ALLOW FOR THIS IN HIS BID PRICE AND ATTEND TO THOSE EQUAL OR SIMILAR DEVICES AS MAY
- REMOVAL ITEMS THAT ARE LISTED AS TO BE TURNED OVER TO OWNER'S INVENTORY SHALL BE DISCUSSED WITH THE DISTRICT BUILDINGS AND GROUNDS MANAGER. THOSE ITEMS THAT THE OWNER DECLINES SHALL THEN BE DISPOSED OF BY THE CONTRACTOR IN THE MANOR OF OTHER PERMANENT REMOVALS. ANY PCB BEARING FLUORESCENT FIXTURES SHALL BE DISPOSED OF PER REGULATIONS.
- RETAIN EXISTING RECEPTACLES IN WALLS THAT WILL NOT BE IN CONFLICT WITH NEW CONSTRUCTION. RETAIN LIGHT SWITCH LOCATIONS THAT WILL NOT BE IN CONFLICT WITH NEW CONSTRUCTION. INSTALL BLANKING PLATE COVERS OVER THE UNUSED PORTION OF GANG BOXES HAVING MORE GANG POSITIONS THAN NEEDED FOR NEW SWITCHES. LIGHT FIXTURES ARE TO BE REMOVED AS GENERAL, NON ELECTRIC, CONTRACTOR DEMOLITION, DIVISION 16 CONTRACTOR RESPONSIBLE TO SAFE OFF LIGHTUING CIRCUITS FOR REMOVAL BY OTHERS. NO SPECIFIC QUANTITIES OR LOCATIONS ARE
- OTHERWISE TO BE DISPOSED OF. ELECTRICAL CONTRACTOR SHALL EXAMINE FIXTURES FOR PRESENCE OF PCB'S AND SPECIAL THE ELECTRICAL CONTRACTOR SHALL COVER ALL BACK BOXES IN THE WALL THAT BECOME EXPOSED DUE TO DEVICE REMOVALS. THIS INSTRUCTION ALSO APPLIES TO EXPOSED ELECTRICAL BACK BOXES AS MAY EXIST AT THE SITE PRIOR TO THIS PROJECT. THE COVER SHALL BE BRUSHED ALUMINUM WITH CHAMFERED EDGES AND COVER THE HOLE COMPLETELY WITH AT LEAST 3/4"

SHOWN. RETURN WHATEVER QUANTITY, IF ANY, OF THESE TO OWNER'S INVENTORY IF HE SO SPECIFIES OR THEY ARE

- EXTRA MARGIN ON ALL SIDES. MOUNT THE COVER WITH SCREWS TO MATCH THE ORIGINAL PATTERN. IT IS EXPECTED THAT STRUCTURAL DEMOLITION BY THE GENERAL CONTRACTOR WILL CAUSE VARIOUS ELECTRIC SUPPLIES, OF VARIOUS VOLTAGES AND PURPOSES, TO BE CUT AND RENDER SOME DEVICES TEMPORARILY INACTIVE. IT IS THE ELECTRICAL CONTRACTOR'S RESPONSIBILITY TO RECONSTRUCT AND RECONNECT SUCH ELECTRIC SOURCES WHEN THE NEW STRUCTURE IS BUILT. NOTE THAT MOST REINSTALLED ITEMS WILL BE IN DIFFERENT LOCATIONS FROM THE REMOVAL LOCATION. THE ELECTRICAL CONTRACTOR SHALL MAKE ALL REQUIRED CIRCUIT EXTENSIONS OR MODIFICATIONS TO PROVIDE SERVICE TO A REINSTALLED ITEM AS RELOCATED. PROVIDE ALL REQUIRED CIRCUIT EXTENSIONS AS REQUIRED TO RESTORE SERVICE TO DEVICES. NOTE THAT THIS REQUIREMENT ALSO APPLIES TO THE ROOMS AND ELECTRICAL ITEMS WITHIN THAT ARE NOMINALLY NOT IN CONTRACT. SUCH RESTORATION OF SERVICE, IF NEEDED, IS SPECIFICALLY IN THE ELECTRICAL CONTRACTOR'S
- 10. IT SHALL BE THE ELECTRICAL CONTRACTOR'S RESPONSIBILITY TO PROTECT ALL ELECTRICAL DEVICES, FROM DAMAGES DURING CONSTRUCTION, WHICH ARE EITHER INDICATED TO REMAIN, AND/OR TO BE REMOVED AND REINSTALLED THROUGHOUT ALL CONSTRUCTION AREAS. DEVICES SHALL INCLUDE BUT WILL NOT BE LIMITED TO: SMOKE DETECTORS, EMERGENCY LIGHTS, EXIT SIGNS, OCCUPANCY SENSORS, SPEAKERS, LIGHT FIXTURES, SWITCHES, RECEPTACLE, ETC. IN THE EVENT OF DAMAGES INCURRED DUE TO CONSTRUCTION ACTIVITIES, THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE TO REPLACE ANY DAMAGED DEVICES AT NO ADDITIONAL COST TO OWNER.
- ALL SYSTEM ASSOCIATED WITH THE DEVICES SCHEDULED TO BE REMOVED, STORED AND PROTECTED SHALL BE TESTED BY THE MANUFACTURER'S CERTIFIED TESTING VENDOR PRIOR TO ANY DEMOLITION ACTIVITY. ANY DEVICE WHICH FAILS THE TEST SHALL BE REPLACED WITH A FORM, FIT AND FUNCTION COMPONENT PER UNIT PRICES, AND SUCH DEVICES ARE NOT INCLUDED IN THIS RESPONSIBILITY STATEMENT, BUT ALSO SUCH INSTALLATION SHALL BE IN THE ELECTRICAL CONTRACTOR'S BASE BID. THE ELECTRICAL CONTRACTOR SHALL RE-TEST ALL SUCH SYSTEM COMPONENTS BY A MANUFACTURER CERTIFIED TESTING VENDOR OF SUCH SYSTEM OF ALL PREVIOUSLY TESTED SYSTEM COMPONENTS AFTER ALL WORK BY ALL TRADES HAS BEEN COMPLETED, AND ALL SYSTEM COMPONENTS HAVE BEEN INSTALLED. ANY COMPONENT WHICH FAILS SHALL BE REPLACED, AND PROGRAMMED IF NECESSARY BY THE ELECTRICAL CONTRACTOR. ALL SUCH REPLACEMENT AND PROGRAMMING COSTS SHALL BE ELECTRICAL CONTRACTOR'S RESPONSIBILITY. ALL COSTS ASSOCIATED WITH THE TESTING OF AFFECTED SYSTEM SUCH AS BUT NOT LIMITED TO FIRE ALARM, PUBLIC ADDRESS, INTERCOM, TELEPHONE, AND SECURITY SYSTEMS SHALL BE THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR. ALL EQUIPMENT, DEVICES, WIRING AND THEIR ASSOCIATED MATERIAL SPECIFIED TO REMAIN. WHICH IS NOT STORED AND PROTECTED. SHALL BE PROTECTED DURING THE DEMOLITION ACTIVITIES. AND ALL TRADES SHALL BE INFORMED OF SUCH COMPONENTS. ANY OF SUCH COMPONENTS WHICH BECOME DAMAGED DURING DEMOLITION SHALL BE REPLACED FORM, FIT AND FUNCTION BY THE ELECTRICAL CONTRACTOR AT HIS EXPENSE.

#### **ABBREVIATIONS**

**PSEGLI** 

- EXISTING TO REMAIN

PSE&G LONG ISLAND (UTILITY CO.)

- SM, S.M. SURFACE MOUNTED
- U.O.N. UNLESS OTHERWISE NOTED
- ELECTRICAL CONTRACTOR GC, G.C.
- GENERAL CONTRACTOR
- MC, M.C. MECHANICAL CONTRACTOR
- PC, P.C. PLUMBING CONTRACTOR
- REQUIRED
- ON CENTER
- CIRCUIT AWAY FROM FLOOR
- CIRCUIT BREAKER
- RECEPTACLE ABOVE COUNTERTOP

## TEMPORARY POWER CONSTRUCTION NOTES: (NOT ALL APPLY)

- THE DIVISION 16 CONTRACTOR SHALL PROVIDE TEMPORARY POWER AND LIGHT IN THE NEW AREAS 'D', AND 'E' AND THE RECONSTRUCTED AREAS OF THE EXISTING BUILDING.
- ALL TEMPORARY POWER PANELS AND FUSED SWITCHES OUTSIDE SHALL BE NEMA 3R CONSTRUCTION AND LOCKABLE. ALL OUTSIDE RECEPTACLES SHALL BE WATERPROOF AND HAVE A COVER THAT ENCLOSES THE PLUGGED IN CORDS WHILE IN SERVICE AS INTERMATIC WP120C. NON-WATERPROOF GEAR IN A HOUSING IS NOT ACCEPTABLE.
- ALL RECEPTACLES SHALL BE GFCI PROTECTED AND MOUNTED 3'-0" ABOVE FINISHED FLOOR. PROVIDE WORK BLOCKING AS REQUIRED. ALL RECEPTACLES OUTLETS SHALL BE 2 GANG DOUBLE DUPLEX. TEMPORARY LIGHTING SHALL BE CONSTRUCTED OF SINGLE AND DOUBLE 100 WATT CLEAR INCANDESCENT LAMPS, OR
- EQUIVALENT, AND WATERPROOF RUBBER SOCKETS, SPLICED WITH WATERPROOF CONNECTORS ON FESTOONED ROMEX-TYPE WIRE. ADEQUACY OF ALL TEMPORARY LIGHTING CONFIGURATIONS SHALL BE AS DETERMINED BY THE CONSTRUCTION MANAGER. PRE ASSEMBLED TEMPORARY LIGHTING IS DISALLOWED. TAPS AND SPLICES SHALL BE MADE WITH SCOTCH LOCK CONNECTORS, RUBBER TAPE, AND THEM PVC COATED. THE CONNECTORS SHALL BE FILLED WITH PENETROX. A PLASTIC SHAPE ON CAGE/GUARD SHALL PROTECT EACH SOCKET AND LAMP. NOMINAL SPACING BETWEEN LAMP CLUSTER IS 16 FEET. MOUNT LIGHTS EIGHT FEET ABOVE FINISHED FLOOR IN TYPICAL LOCATIONS AND 10 FEET ABOVE FINISHED FLOOR IN CORRIDOR. PROVIDE NIGHT LIGHTING CIRCUIT, WHICH SHALL OPERATE CONTINUOUSLY. ALL LAMPS SHALL BE 130 VOLT, ROUGH SERVICE RATED. TEMPORARY LIGHTS SHALL BE TO OSHA STANDARDS. ALTERNATE FIXTURES SHALL BE 400W CONSTRUCTION SITE STYLE
- PROVIDE HOOK UPS TO JOB TRAILER FOR ALL TRADES. USE SITE POWER AS SOURCE. OWNER PAYS FOR POWER CONSUMPTION. WIRING SHALL BE 1#12+1#12(N)+1#12(G) ROMEX STYLE. CIRCUITS SHALL BE OPERATED A MAXIMUM OF 15 AMPS OR 1800 WATTS (18 100 WATT LAMPS), SWITCHING SHALL BE DONE VIA THE SWITCH RATED 20A, 10 CIRCUIT BREAKERS. SEGREGATE THE NIGHT
- LIGHTS AND RECEPTACLES IN THE LOWER PART OF THE POWER PANELS AND LABEL THESE "DO NOT TURN OFF". CIRCUIT HOME RUNS CONDUCTORS SHALL INCREASE ONE WIRE SIZE EVERY 100 FEET I.E. #10 CONDUCTORS. VIRING WITHIN THE ROOM AREA SHALL BE MADE WITH #12 CONDUCTORS.
- THE DIVISION 16 CONTRACTOR SHALL PREPARE EACH PANEL SCHEDULE. A LENGTH OF GREENFIELD FLEX CONDUIT AT PINCH POINTS SHALL PROTECT ALL WIRE, SUCH AS WHERE WIRING PASSED THROUGH A DOORWAY. WIRING SHALL BE SUPPORTED FROM ANCHORS INSTALLED BY THE DIVISION 16 CONTRACTOR FOR THE PURPOSE OF ATTACHMENT TO PROJECT, ALL ELECTRICAL HARDWARE SHALL BE NEW FOR THIS PROJECT.
- ALL WIRING SHALL BE INSTALLED SO AS NOT TO CAUSE TRIPPING HAZARD OR SIMILAR OBSTRUCTION. POWER PANELS SHALL BE EQUIPPED WITH 42 1P, 20A CIRCUIT BREAKERS AND ALL CIRCUIT BREAKERS NOT IN SERVICE SHALL BE
- LABELED SPARE. AT THE OWNERS OPTION PANEL AND CIRCUIT BREAKERS SHALL BE TURNED OVER TO OWNERS INVENTORY AT CONCLUSION OF THE PROJECT. ALL ELECTRICAL HARDWARE SHALL BE NEW FOR THIS PROJECT. THE DIVISION 16 CONTRACTOR SHALL BE RESPONSIBLE FOR ALL MAINTENANCE OF TEMPORARY LIGHTING AND POWER SYSTEMS DURING, AND AFTER INSTALLATION, UP TO THE TIME OF BENEFICIAL OCCUPANCY, AND TIME OF REMOVAL. REPAIRS SHALL BE MADE WITHIN 24 HOURS OF THE REPORTED OUTAGE, OR AS DIRECTED BY THE CONSTRUCTION MANAGER. DIVISION 16 CONTRACTOR SHALL COMMENCE WORK ON THIS PROJECT WITH A GROSS OF SPARE CONSTRUCTION BULBS AT HIS IMMEDIATE
- REMOVAL OF THE TEMPORARY POWER AND LIGHTING SHALL BE THE RESPONSIBILITY OF THE DIVISION 16 CONTRACTOR WHEN THE PROJECT IS COMPLETE. ALL EQUIPMENT, WIRING SUPPORTS, CONNECTORS, ETC. SHALL BE REMOVED FROM OWNER'S PROPERTY AFTER PROJECT IS COMPLETE. INCLUDE STATEMENT OF REMOVAL WITHIN CLOSE OUT DOCUMENTS, REQUIRED FOR FINAL PAYMENT
- PROVIDE THE TEMPORARY ELECTRICAL SERVICE TO THE CONSTRUCTION TRAILERS SHALL BE AS PER USERS REQUIREMENTS OF THE TRADES, TEMPORARY SERVICES ARE REQUIRED PER SPECIAL CONDITIONS OF THE PROJECT.
- ALL TEMPORARY POWER WORK SHALL BE COORDINATED WITH THE CONSTRUCTION MANAGER SPECIAL EMPHASIS SHALL BE EXERCISED FOR TERRAZZO MACHINES AND ITS ELECTRICAL REQUIREMENT.

## **FIRE STOP NOTES:**

- 1. ALL CONDUIT AND CABLE PENETRATIONS THROUGH FIRE RATED WALLS, FLOORS OR OTHER STRUCTURES SHALL BE FIRE STOPPED. 2. THE FIRE STOP MATERIALS SHALL BE HILTI TYPE FS-657 FIRE BLOCK, FS-ONE SEALANT, CP-672 JOINT SPRAY, CP-601S ELASTOMERIC SEALANT, 6P-606 FLEXIBLE SEALANT, CP-643 OR CP-642 COLLAR, CP-618 PUTTY STICK, OR FS-635 TROWEL ABLE COMPOUND, AS
- 3. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OF PRODUCTS SPECIFIED OR EQUAL.
- 4. FIRE STOP MATERIALS OTHER THAN HILTI SHALL INCLUDE FULL TECHNICAL DATA WITH SHOP DRAWINGS TO DEMONSTRATE EQUALITY WITH THE SPECIFIED FIRE STOPS AND STATEMENT FROM MANUFACTURER THAT THEY MEET OR EXCEED THE PRODUCTS SPECIFIED
- ALL SYSTEMS SHALL HAVE THEIR OWN SLEEVE THROUGH FIRE RATED WALLS. IE FIRE ALARM, PUBLIC ADDRESS, TELEPHONE, DATA, POWER AND LIGHTING.

ELECTRICAL SYMBOL LEGEND				
<b>(S)</b>	SMOKE DETECTOR - CEILING MOUNTED			
S	SPEAKER - CEILING MOUNTED			
S	SPEAKER - WALL MOUNTED			
<u> </u>	CLOCK - WALL MOUNTED			
<b>V</b>	TELEPHONE VOIP CONNCTION			
FACP	FIRE ALARM CONTROL PANEL			
PA	PUBLIC ADDRESS MAIN PANEL			

SIMILAR SYMBOLS USED ON DEMO PLANS. ALL ITEMS SHOWN ON DEMO PLAN TO BE REMOVED ENTIRELY UNLESS OTHERWISE NOTED.

\_\_\_\_\_\_

# LINE DESIGNATIONS EXISTING TO REMAIN DEVICES

DEVICES TO BE REMOVED. PULL BACK ALL ASSOCIATED CONDUIT AND WIRING AND REMOVE UNLESS OTHERWISE NOTED ON THE

**NEW DEVICES** 

REV. DATE

THESE DRAWINGS ARE BASED ON CONSTRUCTION RAWINGS NOT PREPARED BY BBS ARCHITECTS, LANDSCAP ARCHITECTS AND ENGINEERS, PC. AND, THEREFORE, MAY NOT REPRESENT THE CONDITIONS AS CONSTRUCTED AT THE TIME. ALL EXISTING CONDITIONS SHOWN ARE REPRESENTED AS SUGGESTIVE INFORMATION AS THEY MAY NOT HAVE BEEN BUILT AND DETAILED PER THE ORIGINAL DOCUMENTS OR PER

THE OWNER'S INFORMATION.

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DRWG. BY:

CHK. BY:

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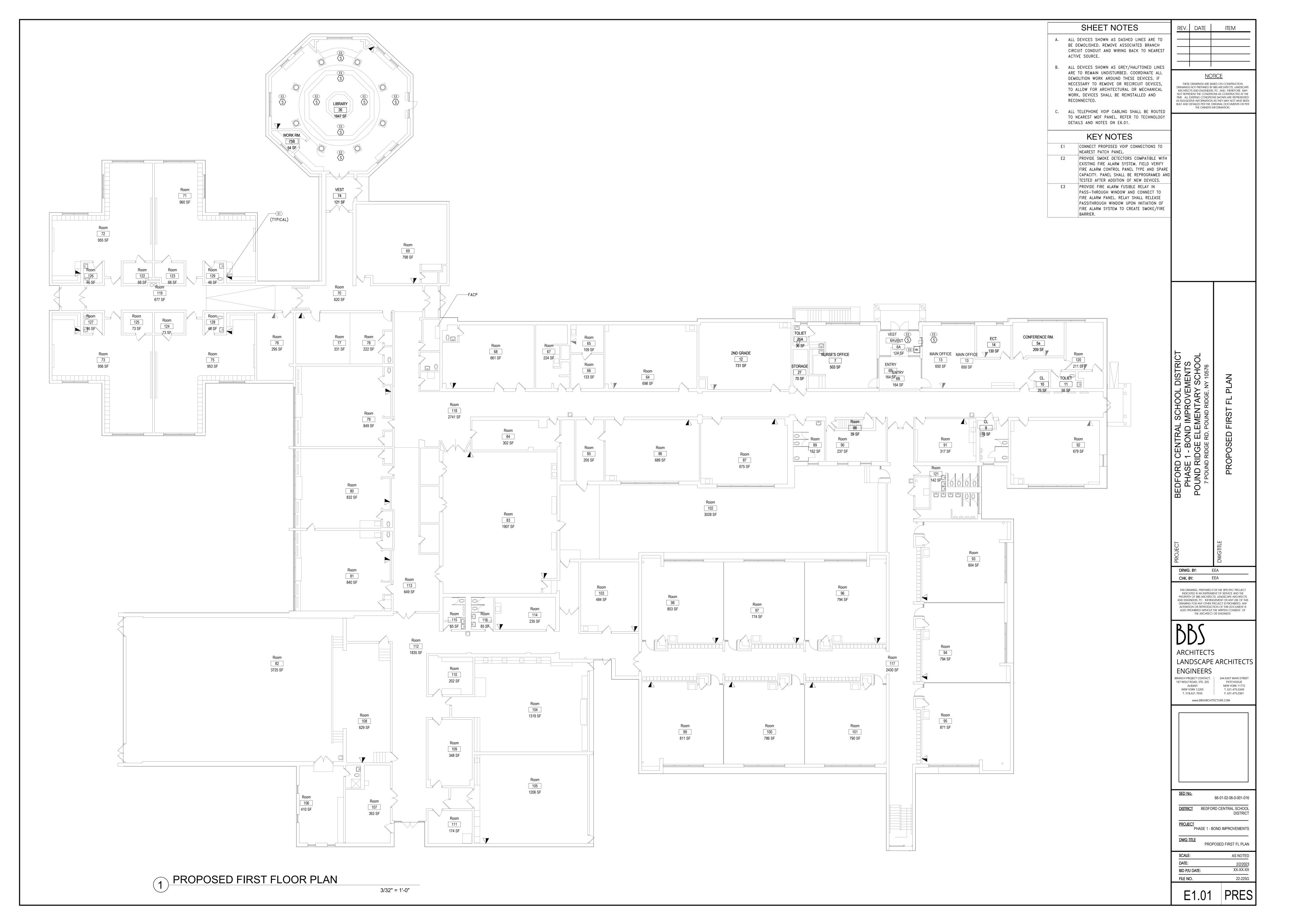
BRANCH PROJECT CONTACT: 244 EAST MAIN STREET 187 WOLF ROAD, STE. 205 PATCHOGUE NEW YORK 11772 ALBANY NEW YORK 12205 T. 631.475.0349 F. 631.475.0361 T. 518.621.7650

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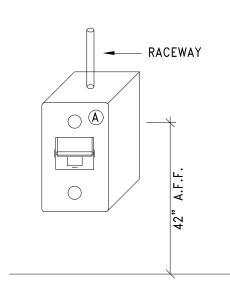
66-01-02-06-0-001-016 **DISTRICT** BEDFORD CENTRAL SCHOOL

DWG TITLE GENERAL NOTES, SYMBOLS AND ABBREVIATIONS

BID P/U DATE:



WALL MOUNT TELEPHONE						
QNTY.	PART NUMBER	DESCRIPTION	MANUFACTURER			
1	MX-WP-K6-SS	STAINLESS STEEL PHONE PLATE W/CAT6 RJ45	SIEMON			
AS NEEDED	V700	V700 METALLIC RACEWAY	WIREMOLD			
1	V5747	SHALLOW DEVICE BOX	WIREMOLD			
1	V5785	COMBINATION CONNECTOR ENTRANCE FITTING	WIREMOLD			
***	UN874049704/10	WHITE CAT 6 CABLE	COMMSCOPE			



TELEPHONE RACEWAY

SCALE: N.T.S.

1. REFER TO DRAWINGS FOR QUANTITY

		TELEPHONE WALL BOX		EMBEDDED CONDUIT
QNTY.	PART NUMBER	DESCRIPTION	MANUFACTURER	
1	MX-WP-K6-SS	STAINLESS STEEL PHONE PLATE W/CAT6 RJ45	SIEMON	
1	-	STANDARD DRYWALL BOX	_	_   <b>~</b>
***	UN874049704/10	WHITE CAT 6 CABLE	COMMSCOPE	42,

TELEPHONE WALL BOX

SCALE: N.T.S.

1. REFER TO DRAWINGS FOR QUANTITY 2. INSTALL CONDUIT AS NEEDED

#### DRAWING NOTES - CAT 6/CAT 6A:

- 1. ALL 4-PAIR UTP HORIZONTAL STATION PLENUM RATED CABLES FOR VOICE/DATA SERVICES SHALL BE HOMERUN TO THE NEAREST COMMUNICATIONS ROOM.
- 2. ROUTE COMMUNICATION CABLES THROUGH THE GYPSUM WALLS, CONCRETE BLOCK AND RACEWAY UP TO THE CEILING CAVITY. COMMUNICATIONS CABLES MAIN PATHWAY WILL BE THE HALLWAYS TO THE NEAREST COMMUNICATIONS ROOM.
- 3. REFER TO THE REFLECTED CEILING PLANS AND MECHANICAL PLANS TO COORDINATE PATHWAYS IN THE CEILINGS WITH LIGHT FIXTURES AND MECHANICAL DUCT WORK.
- 4. ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE COORDINATION OF THE ROUTING OF CABLES ABOVE THE HUNG CEILING WITH THE ELECTRICAL, MECHANICAL AND GENERAL CONTRACTORS PRIOR TO INSTALLATION.
- 5. DO NOT LAY CABLES OVER LIGHTING FIXTURES OR ELECTRICAL MACHINERY IN THE HUNG CEILING. CABLES SHALL BE PLACED AT A MINIMUM OF 12 INCHES AWAY FROM MAGNETIC INDUCING EQUIPMENT.
- 6. FURNISH AND INSTALL ADDITIONAL SLEEVES (WITH GROMMETED ENDS) AS REQUIRED FOR THE ENTRANCES INTO THE COMMUNICATIONS ROOMS AND ANY OTHER APPLICABLE AREAS. ALL SLEEVES SHALL BE FIRESTOPPED WHEN THE INSTALLATION IS COMPLETED.
- 7. PROVIDE ALL PENETRATIONS AND RATED PARTITION FIRESTOPPING EVERY TIME A PARTITION IS TRAVERSED ABOVE THE HUNG CEILING. EXISTING FIREPROOFING MATERIAL WHICH IS DISTURBED OR DAMAGED BY THE WORK UNDER THIS CONTRACT SHALL BE REPLACED AND RESTORED TO THE SATISFACTION OF THE OWNER.
- 8. FURNISH AND INSTALL TRAPEZE, BRIDAL RINGS, CADDY HANGERS, J—HOOKS AND OTHER INDUSTRY ACCEPTED METHODS REQUIRED TO SUPPORT ALL INSTALLED CABLES. DO NOT SUPPORT CABLES ON CEILING BLACK IRON, DROP CEILING GRID OR ON ANY OTHER DEVICES THAT ARE NOT INTENDED FOR THE SUPPORTING OF CABLES. EXCEPT FOR GROUPS OF 10 OR FEWER CABLES, CABLE SUPPORTS SHALL BE ANCHORED TO THE UNDERSIDE OF THE SLAB AND CLAMPED TO BUILDING STEEL.
- 9. CABLES MUST BE SUPPORTED AT A MINIMUM EVERY SIX (6) FEET AND BUNDLES MUST BE HOOK & LOOPED TOGETHER AT A MINIMUM OF EVERY THREE (3) FEET.
- 10. ALL CABLES SHALL BE INSPECTED AS THEY ARE PULLED OFF THE REEL FOR ANY OBVIOUS DEFECTS. REPORT ANY DEFECTS IMMEDIATELY TO THE ENGINEER AND HALT FURTHER USE OF THE CABLE FROM THAT REEL, PENDING A DETERMINATION OF THE QUALITY OF THE REEL BY THE MANUFACTURER.
- 11. ALL CABLES SHALL BE PULLED BY HAND AND CONTINUOUSLY MONITORED BY A TENSION METER SO AS NOT TO EXCEED THE PRESCRIBED MAXIMUM PULLING TENSION RECOMMENDED BY THE MANUFACTURER.
- 12. CONTRACTOR SHALL NOT EXCEED THE CABLE PULLING FORCE AND MINIMUM CABLE BENDING RADIUS. CABLE TERMINATIONS AT DISTRIBUTION RACKS/CABINETS FOR VOICE AND DATA SHALL BE DRESSED NEATLY AND DONE IN A WORKMANLIKE MANNER. HOOK & LOOP CABLES AND CUT TO LENGTH AT TERMINATION POINTS.
- 13. WHEN INSTALLING ENHANCED CATEGORY—6 UTP CABLE, MAKE SURE THE CABLE IS NEVER BENT BEYOND A 90 DEGREE ANGLE. A CABLE BEND RADIUS OF 4 TIMES THE DIAMETER OF THE CABLE IS RECOMMENDED. (ON A 4-PAIR CABLE, THIS IS APPROXIMATELY ONE INCH.)
- 14. ALL CABLES SHALL BE PULLED BY THE ELECTRICAL CONTRACTOR IN CONTINUOUS SPLICE-FREE RUNS, WITH NO FACTORY OR FIELD SPLICES, UNLESS OTHERWISE SHOWN ON DRAWINGS AND/OR SPECIFICATIONS.
- 15. PULLING AND LAYING CABLE ON SHARP EDGES IS NOT PERMITTED.
- 16. THE CABLE PATHS SHOWN ON DRAWINGS REPRESENT DESIGN INTENT AND APPROXIMATE ROUTING OF CABLES IN HUNG CEILING TO DROP OFF POINTS. ADJUST ACCORDINGLY TO EXISTING FIELD CONDITIONS.
- 17. QUANTITY OF CABLE IS NOT REPRESENTED. CONTRACTOR SHALL TABULATE QUANTITY BASED UPON COMMUNICATION OUTLET SYMBOLS SHOWN (TYPICAL). CONTRACTOR TO VERIFY IN FIELD AND MAKE ADJUSTMENTS AS REQUIRED.
- 18. PROVIDE A MINIMUM OF SIX (6) FEET OF SLACK AT THE STATION END FOR WORKSTATION LOCATIONS. NEATLY COIL AND CONCEAL SLACK ABOVE THE HUNG CEILING AND PROTECT FROM DAMAGE BY WORKMEN PRIOR TO EXTENDING CABLE AND INSTALLING TO VOICE/DATA WORKSTATION OUTLET.
- 19. ALL VOICE/DATA UTP STATION CABLES SHALL BE HOMERUN BACK TO THE MAIN -OR-IDF COMMUNICATIONS ROOM AS ILLUSTRATED ON THE TECHNOLOGY FLOOR PLANS. REFER TO DETAIL PLANS AND ELEVATIONS FOR THE DEMARCATION LOCATIONS OF ALL
- 20. ALL ABANDONED/NON USED CABLES TO BE REMOVED FROM PLENUM SPACES AS PER CODE.
- 21. ALL NEW EQUIPMENT TO BE GROUNDED AND BONDED AS PER CODE.
- 22. ALL TELECOMMUNICATION INFRASTRUCTURE GROUNDING SHALL BE PROVIDED IN COMPLIANCE WITH TIA 607 AND TIA TSB-162 FOR WIRELESS SYSTEM INSTALLATION.

## VOICE CONSTRUCTION NOTES:

1. PROVIDE AND INSTALL A VOICE RUN FROM NEW PHONE DROPS TO EXISTING LOCAL WIRE CLOSET. VOICE SHALL BE CATEGORY 6 CABLE TO TERMINATE AT BOTH ENDS USING CAT6 RJ45 CONNECTORS AND PATCH PANELS.

2. VOICE BACK BONE CABLE TO BE INSTALLED TO A 24 PORT PATCH PANEL. E.C. TO TERMINATE EACH PAIR TO THE BLUE PAIR OF THE PATCH PANEL. LAST PAIR TO REMAIN UN-TERMINATED. 3. ALL CABLES SHALL BE CONCEALED AND SURFACE RACEWAY SHALL BE USED AT ALL EXPOSED AREAS.

### DRAWING NOTES

- 1. MAINTAIN APPROPRIATE SEPARATION OF LINE VOLTAGE AND LOW VOLTAGE CABLE.
- 2. QUANTITY OF DROPS AS PER FLOOR PLANS.
- 3. 2 DUPLEX RECEPTACLES PER DROP UNLESS SPECIFIED OTHERWISE.
- 4. MAINTAIN 3' ON CENTER PER DROP SETUP.
- 5. CABLES BACKFED OR RACEWAY FED AS REQUIRED.

REV. DATE ITEM

THESE DRAWINGS ARE BASED ON CONSTRUCTION ARCHITECTS AND ENGINEERS, PC. AND, THEREFORE, MAY NOT REPRESENT THE CONDITIONS AS CONSTRUCTED AT THE TIME. ALL EXISTING CONDITIONS SHOWN ARE REPRESENTED AS SUGGESTIVE INFORMATION AS THEY MAY NOT HAVE BEEN BUILT AND DETAILED PER THE ORIGINAL DOCUMENTS OR PER

THE OWNER'S INFORMATION.

ORIGINAL DOCUMENTS:

KEY PLAN

NO SCALE

BEDFORD CENTRAL SCHOOL DI PHASE 1 - BOND IMPROVEME POUND RIDGE ELEMENTARY SA 7 POUND RIDGE RD, POUND RIDGE, NY

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