# UNIVERSITY HIGH SCHOOL IRVINE UNIFIED SCHOOL DISTR HIGH VOLTAGE REPLACEME 4771 Campus Dr, Irvine, CA 926

### R RAD RAR RB RCB RD gage, gauge American Society for Testing and GBBR .S.T.M. grab bar radius return air register general contractor Materials GCMU A/C AB air conditioning glaze concrete masonry units rubber base rubber carpet base anchor bolt gutter drain roof drain redwood reference above aalvanized iron ACOUST ACP ACP ACP ACT RDWD REF acoustical glued laminated beam acoustic ceiling panel avpsum plaster asphaltic concrete paving REFL REFR reflect(ed),(ive),(or) grade(ing) refrigerator register acoustical tile grout REG REINF area drain addendum aravitv vent reinforced (concrete pipe) adjacent gypsum drywall resilient RES ADJUST adiustable gypsum drywall water-resistant return AFF AGG ALT ALUM ANOD AP gypsum drywall type X above finished floor revision roofing recessed feminine napkin disposa RFG aggregate alternate nusava RFND aluminum anodized RFNS hose bibb recessed feminine napkin dispenser PROJECT TEAM RH RHB roof hatch hollow core HDBD access pane hardboard recessed hose bibb APPROX HDR HDW header roof jack approximate ARCH AUTO architect(ural) hardwar roof ladder automatic hardwood **ELECTRICAL ENGINEER:** hexagonal hollow meta rough opening roof overflow drain HEX ROD below bituminous HORIZ horizontal ROW right-of-way high point hadrail height heating heating, ventilating, and air conditioning recessed paper towel dispense FBA ENGINEERING BLDG BLK RPTR building block recessed paper towel receptacle/disposa RSCD recessed seat cover dispense blocking bench mark BLKG BM BOT BP HTG RTPD recessed toilet paper dispense RTSB rubber topset base bottom RWC HWH hot water heater rainwater conductor blank pane BRG BS BSMT BTWN BUR BW I.C.B.O. bearing both sides International Conference of Building Officials State Fire Marshal S.F.M. inside diameter 150 Paularino Ave Suite A120, Costa basement between inch square vard include(d),(ing supply air register Mesa, CA 92626 built-up roofing INSUL. insulate(d),(ing) solid core both ways interior SCB sheet cove base IPS iron pipe size SCH schedule California Administrative Code storm drain ianitor's close C.B.C California Building Code section section safety glass sheet sheathing similar skylight sealant OFFICE: (949) 852-9995 C.C.R. California Code of Regulations SFGL SHT joist cubic foot ioint conduit only kitchen cubic yard cabinet cadmium knockou SKYLT SNT KS knee space catch basir SPECS specification(s) length liquified propane gas Casework Design Series square cement L.P.G. service sink CER CGF ceramic laboratorv stainless steel ceramic granule flooring laminate(d) station CHBD chalkboard lavatory lag bolt STC sound transmission coefficient cast iron cast-in-place concrete label STL STOR live load control joint storage structural suspended STR SUSP centerline light lightweight louver chain link fence LT.WT. SYST CLG CLOS ceiling closet LVR system modified ceramic mosaic (tile) concrete masonry unit tectum acoustic panel masonr COL COMB column material(s) telephone combinatio maximum thick(ness) COMPO COMPT composition machine bolt TOGLB top of glued laminated bean compartmen medicine cabir top of parapet CONC CONN concrete MECH mechanic(al) TOS top of sheathing TOW connect(ion),(or medium top of wall CONST CONT construction MFR(S) manufacturer(s) top of plywood continuous or continue manhole toilet paper dispenser CONTR TPTN contract(or minimum toilet partition CORRUG corrugated transom carpet miscellaneous top of steel TSCD masonry opening toilet seat cover dispense course(s countersink modular television modified bitumen TYP ceramic tile MOD.BIT typical counter MOLD molding, moulding U.B.C. Uniform Building Code CTSK countersink scre mount(ed) custodian mount(ing) Underwriters' Laboratory CWP U.N.O. unless noted otherwise carpet with pad mullion undercut BL.ACT. double acting UNFIN UR MWP membrane waterproofing unfinished DEMO DET demolish, demolition urinal SYMBOL LEGEND detail North VAR drainking fountai natural varies double hung not in contract VB VCR vapor barrier NOM dimension nominal video cassette recorder/player dead load noise reduction vinyl composition tile down NRC noise reduction coefficient vertical vestibule VEST dampproofing BUILDING \_ 1◀ SECTION NUMBER oblique vinyl fabric on center(s vertical grain downspou SECTION 🔪 A2.8 🗲 SHEET NUMBER Division of the State Architect outside diameter veneer plaster REFERENCE dovetail anchor overflow drain vent stack detail overflow scupper VTS vinyl wrapped tack surface dovetail anchor slot ΄ 4 → overhead vinyl wall covering DETAIL NUMBER drywall opening DETAIL drawing drawer \A5.1 ∕← SHEET NUMBER SECTION DWR OSA Office of the State Architect width, wide Woodwork Institute REFERENCE public address system with <101<del>}</del>→ OPENING NUMBER without OPENING REFERENCE expansion bolt PART.BD. particle board WB wood base evaporative cool pre-cast concrete water closet each face pounds per cubic foot wood PCPL WDW window electric hand drye Portland cement plaste expansion joint panic hardware WG wired glass DEMOLITION KEY 3 KEY NOTE NUMBER WН elevatior wallhung parking NOTE electric(al) property line wrought iron elevatior weakened plane joint REFERENCE WKTP walk top emergenc plate glass electrical metallic PLAM plastic laminate waterproofing ( 1 😽 KEY NOTE NUMBER WPT KEY NOTE REFERENCE ENCL enclose(ure) PLAS plaster working point PLF electrical panelboar pounds per lineal foo water repellent WSCT equal PLWD plywood wainscot panel weight EQUIP EST equipment EXTERIOR 3 🔺 **ELEVATION NUMBER** WTR estimate paint(ed) water WTW wall to wall ELEVATION each way 🔪 A3.1 🖌 SHEET NUMBER electric water cooler pounds per square fool REFERENCE factory finish exhaus pounds per square incl existing point XG existing grade exposed (A3 EXT COLUMN LINE YD yard exterior paper towel dispenser COLUMN LINE PTDF pressure treated douglas fi REFERENCE LETTER/NUMBER face brick flat paint iberboar PTR FBO furnished by others paper towel receptacle OFFICE← floor drain PTS ROOM NAME ----- ROOM NAME semi-gloss paint FDN foundation polyvinyl chloride IDENTIFICATION A120 — ROOM NUMBER fire extinguishe PVM1 pavement PWJ fire extinguisher cabinet plywood web joist finish floo QT quarry tile FFE finished floor elevation NUMBER ON ELEVATION INTERIOR 3 📣 SHEET fire hydrant fire hose cabinet ELEVATION A4.1 flathead machine screw REFERENCE flathead wood screw INTERIOR ELEVATION inish(ed) FIN.FLR. SHEET NUMBER finished floor line flow line FIR ∖ 1'-2"◀ TARGET ELEVATION floor FLSH flashing TARGET ELEVATION FIUR fluorescen REFERENCE REFERENCE TO ELEVATION FND feminine napkin disposal face of concrete EQUIPMENT face of finish <1> EQUIPMENT / ACCESSORY FOM FOS **IDENTIFICATION** face of mason face of studs NUMBER REFERENCE fireproof frame(d),(ing) FRT fire-retardant foot BUILDING footing furred(ing) FTG FUR (2A┥ SIGN NUMBER SIGN FUT FWP future REFERENCE fabric-wrapped acoustic panel

**ABBREVIATIONS** 

## **GENERAL NOTES**

1. ACCESSIBILITY: THE SITE AND ALL BUILDINGS SHALL BE ACCESSIBLE TO PERSONS WITH DISABILITIES IN COMPLIANCE WITH TITLE 24 OF THE CALIFORNIA CODE OF REGULATIONS AND THE ACCESSIBILITY GUIDELINES OF THE AMERICANS WITH DISABILITIES ACT OF 1990. IT IS THE INTENT OF THESE PLANS AND SPECIFICATIONS TO PROVIDE ACCESS TO PERSONS WITH DISABILITIES.

2. COORDINATION AND CLARITY: FOR THE CLARITY OF SEPARATE ITEMS OF WORK, STRUCTURAL MECHANICAL, PLUMBING, ELECTRICAL, CIVIL AND LANDSCAPING ITEMS MAY NOT APPEAR ON THE ARCHITECTURAL DRAWINGS. THE INTENT OF THE PLANS AND SPECIFICATIONS IS TO COMPLEMENT EACH OTHER, AND WHAT IS REQUIRED BY ONE SHALL BE REQUIRED BY ALL

3. JOB SITE OBSERVATIONS: THE ARCHITECT AND CONSULTANT ENGINEERS WILL MAKE VISITS TO SITE TO OBSERVE THE WORK TO DETERMINE. IN GENERAL, IE THE WORK IS BEING PERFORMED IN A MANNER INDICATING THAT THE WORK, WHEN COMPLETED, WILL BE IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. THE JOB SITE OBSERVATIONS BY THE ARCHITECT AND CONSULTING ENGINEERS DO NOT RELIEVE THE CONTRACTOR OF ANY OF HIS RESPONSIBILITY. THE JOB SITE OBSERVATIONS BY THE ARCHITECT AND CONSULTING ENGINEERS DO NOT RELIEVE THE CONTRACTOR OF ANY OF HIS RESPONSIBILITY. THE JOB SITE OBSERVATIONS BY THE ARCHITECT AND CONSULTING ENGINEERS DO NO IN ANY WAY MEAN THAT THE ARCHITECT OR ENGINEER IS A GUARANTOR OF THE CONTRACTOR'S WORK; IN CONTROL OF THE SAFETY IN, ON, OR ABOUT THE JOB SITE; IN CONTROL OF THE SAFETY OR ADEQUACY OF ANY EQUIPMENT, BUILDING COMPONENT, SCAFFOLDING, FORMS, OR OTHER WORK AIDS; OR SUPERINTENDING OF THE WORK.

4. DEFECTS IN THE WORK: IF THE ARCHITECT OR CONSULTING ENGINEERS FIND DEFECTS IN THE WORK THEY WILL NOTIFY THE CONTRACTOR SO THAT THE DEFECT MAY BE CORRECTED. IT IS NOT THE INTENT UNDER ANY CIRCUMSTANCES. FOR THE ARCHITECT OR CONSULTING ENGINEER TO BECOME A GUARANTOR OF THE CONTRACTOR'S PERFORMANCE BY THESE ACTIVITIES. THE FACT THAT A CONSTRUCTION DEFECT OR ERROR GOES UNDETECTED DURING A JOB SITE VISIT SHALL NOT MAKE TH CORRECTION OF CONSTRUCTION DEFECTS AND ERRORS IN THE WORK, AND THE CONSTRUCTION MEANS METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES AND THE SAFETY PRECAUTIONS REQUIRED FOR COMPLETING THE WORK AS INDICATED BY THE CONTRACT DOCUMENTS

5. EXISTING UTILITIES: THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES, IF SHOWN ON THE DRAWINGS, ARE SHOWN IN AN APPROXIMATE WAY ONLY, AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE DISTRICT OR ITS REPRESENTATIVE THE ARCHITECT AND HIS CONSULTING ENGINEERS ARE NOT RESPONSIBLE FOR THE LOCATION OF

UNDERGROUND UTILITIES OR STRUCTURES, WHETHER OR NOT SHOWN OR DETAILED AND INSTALLED UNDER THIS OR ANY OTHER CONTRACTS. PRIOR TO ANY EXCAVATION UNDER THIS CONTRACT, THE CONTRACTOR SHALL:

A. REQUEST FROM THE OWNER ALL AVAILABLE RECORD DRAWINGS OF THE AREAS COVERED BY THE WORK. B. ARRANGE AND CONDUCT A MEETING WITH THE DISTRICT'S REPRESENTATIVE TO CONDUCT A SITE

REVIEW OF POTENTIAL UTILITY LOCATIONS WITH THE DISTRICT'S MAINTENANCE STAFF C. THE CONTRACTOR SHALL OBTAIN AND PAY FOR THE SERVICES OF A PRIVATE UTILITY LOCATING SERVICE, WHICH SHALL, BASED ON INFORMATION OBTAINED FROM THE ABOVE RESOURCES, AND FROM THE TOPOGRAPHIC SURVEY AND THE PRESENCE OF VISIBLE FACILITIES SUCH AS BUILDINGS, METERS, JUNCTION BOXES, PIPES LEAVING BUILDINGS, CATCH BASINS, CLEANOUTS, SPRINKLER HEADS, VALVES, ETC., LOCATE AND MARK ALL EXISTING UNDERGROUND UTILITY LINES. D. THE CONTRACTOR SHALL CONTACT UNDERGROUND SERVICE ALERT OF SOUTHERN CALIFORNIA

1800.422.4133. AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION, AND SHALL NOT EXCAVATE UNTIL VERIFICATION FROM UNDERGROUND SERVICE ALERT THAT ALL PUBLIC UTILITIES SERVING THE SITE HAVE LOCATED AND MARKED THEIR UNDERGROUND SERVICES.

THE CONTRACTOR AND ALL SUBCONTRACTORS SHALL EXERCISE EXTREME CAUTION IN EXCAVATING AND TRENCHING ON THIS SITE TO AVOID EXISTING UNDERGROUND UTILITIES, AND TO PREVENT HAZARDS TO PERSONNEL AND/OR DAMAGE TO EXISTING UNDERGROUND UTILITIES OR STRUCTURES. THESE DRAWINGS AND SPECIFICATIONS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY WHICH IS SOLELY THE RESPONSIBILITY OF THE CONTRACTOR.

6. SHOULD UNIDENTIFIED UTILITIES BE DISCOVERED BY THE CONTRACTOR IN THE COURSE OF THE WORK, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE DISTRICT, AND SHALL UNDERTAKE WHATEVER EMERGENCY PROCEDURES HE DEEMS NECESSARY TO PROTECT PEOPLE AND PROPERTY. THE DISTRICT SHALL REIMBURSE THE CONTRACTOR FOR THE COST OF SUCH REPAIRS, IN ACCORDANCE WITH THE GENERAL CONDITIONS.

7. CHANGES TO THE APPROVED DRAWINGS AND SPECIFICATIONS SHALL BE MADE BY AN THE ADDENDA OR CONSTRUCTION CHANGE DOCUMENT (CCD) APPROVED BY THE DIVISION OF THE STATE ARCHITECT AS REQUIRED BY SECTION 4-338, PART 1, TITLE 24 C.C.R., SEE DESCRIPTION BELOW.

8. ADDENDA: CHANGES OR ALTERATIONS OF THE APPROVED PLANS OR SPECIFICATIONS PRIOR TO EDITING A CONSTRUCTION CONTRACT FOR THE WORK INVOLVED SHALL BE MADE BY MEANS OF ADDENDA. ADDENDA SHALL BE MANUALLY SIGNED BY THE ARCHITECT OR ENGINEER IN GENERAL RESPONSIBLE CHARGE OF PREPARATION OF THE PLANS AND SPECIFICATIONS AND BY THE ARCHITECT OR ENGINEER DELEGATED RESPONSIBILITY FOR THE PORTION AFFECTED BY THE ADDENDA AND SHALL BE APPROVED BY THE DIVISION OF THE STATE ARCHITECT. ONE COPY IS REQUIRED FOR THE FILES OF THE DIVISION OF THE STATE ARCHITECT.

9. CONSTRUCTION CHANGE DIRECTIVES: CHANGES OR ALTERATIONS OF THE APPROVED PLANS OR SPECIFICATIONS AFTER A CONTRACT FOR THE WORK HAS BEEN LET SHALL BE MADE BY MEANS OF A CONSTRUCTION CHANGE DOCUMENT (CCD). CCDs SHALL STATE THE REASON FOR THE CHANGE AND SHALL BE ACCOMPANIED BY SUPPLEMENTARY DRAWINGS WHERE NECESSARY. ALL CCDs SHALL BE MANUALLY SIGNED BY THE ARCHITECT OR ENGINEER IN GENERAL RESPONSIBLE CHARGE OF OBSERVATION OF THE WORK OF CONSTRUCTION OF THE PROJECT AND BY THE ARCHITECT OR REGISTERED ENGINEER DELEGATED RESPONSIBILITY FOR OBSERVATION OF THE PORTION OF THE WORK OF CONSTRUCTION AFFECTED BY THE CCD AND SHALL BEAR THE APPROVAL OF THE SCHOOL BOARD AND THE DIVISION OF THE STATE ARCHITECT. ONE COPY OF EACH CCD IS REQUIRED FOR THE FILES OF THE DIVISION OF THE STATE ARCHITECT.

10. FIRE SAFETY: SEE C.F.C. CHAPTER 33 FOR FIRE SAFETY DURING CONSTRUCTION AND DEMOLITION.

11. A PROJECT INSPECTOR EMPLOYED BY XXXXXXX SCHOOL DISTRICT, APPROVED BY DSA, IN ACCORDANCE WITH THE REQUIREMENTS OR STATE OF CALIFORNIA BUILDING CODE, TITLE 24, PART1, AND QUALIFIED IN ACCORDANCE WITH DIVISION OF STATE ARCHITECT WILL BE ASSIGNED TO THE WORK. HIS DUTIES ARE SPECIFICALLY DEFINED IN TITLE 24, PART 1, SECTION 4-342. SEE SPECIFICATION FOR COMPLETE LISTING OF DUTIES.

CLASSIFICATION TO BE "CLASS 3" AND CERTIFIED BY THE DIVISION OF THE STATE ARCHITECT.

12. GRADING PLANS, DRAINAGE IMPROVEMENTS, ROAD AND ACCESS REQUIREMENTS AND ENVIRONMENTAL HEALTH CONSIDERATIONS SHALL COMPLY WITH ALL LOCAL ORDINANCES.

13. ALL WORK SHALL CONFORM TO 2016 EDITION OF TITLE 24, CALIFORNIA CODE OF REGULATIONS (C.C.R.)

14. UNLESS SPECIFIED ON STRUCTURAL DRAWINGS, ANY ALTERATIONS OF MODIFICATIONS TO A STRUCTURAL ELEMENT BY CUTTING, DRILLING, BORING, BRACING, WELDING, ETC. SHALL HAVE WRITTEN APPROVAL BY THE STRUCTURAL ENGINEER OF RECORD AND D.S.A. PRIOR TO STARTING WORK.

15. FIRE BLOCKING AND DRAFT STOPS SHALL BE PROVIDED IN ACCORDANCE WITH CBC SECTION 708

16. A DSA ACCEPTED TESTING LABORATORY DIRECTLY EMPLOYED BY THE DISTRICT (OWNER) SHALL CONDUCT ALL THE REQUIRED TESTS AND INSPECTIONS FOR THE PROJECT

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ΝΤ			EERING 541
612			RE + ENGIN Fax: (760)452-7
APPLICABLE CODES	INDE	X OF DRAWINGS	LECTUI Ste. 201, En 60)753-6800
<ul> <li>ALL WORK ON THIS PROJECT SHALL COMPLY WITH THE CALIFORNIA CODE OF REGULATIONS (C.C.R.) TITLE 19, AND THE FOLLOWING PARTS OF TITLE 24:</li> <li>PARTIAL LIST OF APPLICABLE CODES AS OF JANUARY 1, 2017</li> <li>2019 CALIFORNIA ADMINISTRATIVE CODE, PART 1, TITLE 24 C.C.R.</li> <li>2019 CALIFORNIA BUILDING CODE (C B C), PART 2, TITLE 24 C.C.R.</li> <li>(2018 INTERNATIONAL BUILDING CODE WITH 2019 CALIFORNIA AMENDMENTS)</li> <li>2019 CALIFORNIA ELECTRICAL CODE (CEC ), PART 3, TITLE 24 C.C.R.</li> <li>(2017 NATIONAL ELECTRICAL CODE AND 2019 CALIFORNIA AMENDMENTS)</li> <li>2019 CALIFORNIA MECHANICAL CODE (CMC), PART 4, TITLE 24 C.C.R.</li> </ul>	Titlesheet T.1 Electrical E0.1 E0.2 E0.3 E1.0	Title Sheet SYMBOL LIST AND GENERAL NOTES SINGLE LINE DIAGRAM ELECTRICAL DETAILS ELECTRICAL SITE PLAN	515 Encinitas Blvd. 3 Telephone: (76
<ul> <li>(2018 UNIFORM MECHANICAL CODE AND 2019 CALIFORNIA AMENDMENTS)</li> <li>2019 CALIFORNIA PLUMBING CODE (CPC), PART 5, TITLE 24 C.C.R.</li> <li>(2018 UNIFORM PLUMBING CODE AND 2019 CALIFORNIA AMENDMENTS)</li> <li>2019 CALIFORNIA ENERGY CODE (CEC), PART 6, TITLE 24 C.C.R.</li> <li>2019 CALIFORNIA FIRE CODE, PART 9, TITLE 24 C.C.R.</li> <li>(2018 INTERNATIONAL FIRE CODE AND 2019 CALIFORNIA AMENDMENTS)</li> <li>2016 CALIFORNIA GREEN BUILDING STANDARDS CODE (CALGreen), PART 11, TITLE 24 C.C.R.</li> <li>2019 CALIFORNIA REFERENCED STANDARDS, PART 12, TITLE 24 C.C.R.</li> <li>TITLE 19, C.C.R., PUBLIC SAFETY, STATE FIRE MARSHAL REGULATIONS.</li> <li>2013 ASME A17.1 SAFETY CODE FOR ELEVATORS AND ESCALATORS.</li> </ul>			Architect
PARTIAL LIST OF APPLICABLE NFPA STANDARDSNFPA 13AUTOMATIC SPRINKLER SYSTEMS2016 EDITIONNFPA 14STANDPIPE AND HOSE SYSTEMS2013 EDITIONNFPA 17DRY CHEMICAL EXTINGUISHING SYSTEMS2013 EDITIONNFPA 17AWET CHEMICAL EXTINGUISHING SYSTEMS2013 EDITIONNFPA 20STATIONARY PUMPS FOR FIRE PROTECTION2016 EDITIONNFPA 22WATER TANKS FOR PRIVATE FIRE PROTECTION2016 EDITIONNFPA 23STANDARD FOR INS & THEIR APPURTENANCES2016 EDITIONNFPA 24PRIVATE FIRE MAINS & THEIR APPURTENANCES2016 EDITIONNFPA 25STANDARD FOR INSPECTION, TESTING AND MAINTENANCE2013 EDITIONNFPA 26STANDARD FOR SMOKE CONTROL SYSTEMS2016 EDITIONNFPA 72NATIONAL FIRE ALARM & SIGNALING CODE2016 EDITIONNFPA 80FIRE DOOR AND OTHER OPENING PROTECTIVES2016 EDITIONNFPA 253CRITICAL RADIANT FLUX OF FLOOR COVERING SYSTEMS2015 EDITIONNFPA 2001CLEAN AGENT FIRE EXTINGUISHING SYSTEMS2015 EDITIONNFPA 2010CLEAN AGENT FIRE EXTINGUISHING SYSTEMS FOR2005 EDITIONAND TELESCOPING2012 EDITIONAND TELESCOPING2012 EDITIONUL 464AUDIBLE SIGNAL APPLIANCES2003 EDITION2005 EDITIONNGNALING SYSTEMS2016 CDITIONSIGNAL APPLIANCES2003 EDITIONUL 464AUDIBLE SIGNAL APPLIANCES2003 EDITION2012 EDITIONSIGNALING SYSTEMSSIGNALING SYSTEMS2015 EDITIONSIGNALING SYSTEMSSIGNALING SYSTEMS2003 EDITIONSIGNALING SYSTEMS			UNIVERSITY HIGH SCHOOL HIGH VOLTAGE REPLACEMENT IRVINE UNIFIED SCHOOL DISTRICT
SCOPE OF WORK REPLACE EXISTING HIGH VOLTAGE 5KV SWITCHES FOR BUILDINGS 600 AND 200 SUBS. REPLACE EXISTING FEEDERS TO SUBS			
REPLACE TRNASFORMERS AT ADMIN BUILDING, BUILDINGS 200, 300, 400, 500 AND 600.			
University Dr William Regional Park UNIVER SITY NL CE NTER Haved All Composition Liver and Composition Regional Park Concordia University Liver and Composition Concordia University Liver and Composition Concordia University Liver and Composition Concordia University Liver and Composition Concordia University Baseball Field Concordia University Baseball Field Concordia University Baseball Field Concordia University Baseball Field Concordia University Concordia University Concordia University Baseball Field Concordia University Baseball Field Concordia Concordia University Baseball Field Concordia Concord			Prawn:   Author   Checked:   Checker   Date:   Job:

Rev. # Description Date



### SYMBOL LIST

(ALL SYMBOLS NOT NECESSARILY USED ON THESE DRAWINGS) ALL SYMBOL DESCRIPTIONS ARE SUBJECT TO MODIFICATION

			ALL SYMBOL DESCRIPTIONS ARE SU AS NOTED ON THE	
	۹□□ مرد Fused Load air Interru	PTER SWITCH, F	PRIMARY VOLTAGE.	<b>├</b> ────────
	SECTIONALIZING SELECTO MULTIPLE 3-POLE GANG DI SWITCHWAYS, 600 AMPERE	PERATED TWO PE		•O •□
A.F.F.	ABOVE FINISH FLOOR	IN. or "	INCHES	
A.F.G.	ABOVE FINISH GRADE	IG	ISOLATED GROUND	$\left\langle \frac{2}{100} \right\rangle$
AWG	AMERICAN WIRE GAUGE	J-BOX	JUNCTION BOX	
AMP, A	AMPERE	ĸv	KILOVOLT	Ş 2, P 3, b
A.I.C.	AMPERES INTERRUPTING CAPACITY (SYMMETRICAL)	KVA	KILDVOLT AMPERES	
AF/AT	AMP FRAME, AMP TRIP	KW	KILDWATT	
AS/AF	AMP SWITCH, AMP FUSE	LCL	LONG CONTINUOUS LOAD	03
CIRC.,CKT.	CIRCUIT	L.F.	LINEAR FEET	<b>—</b>
СВ	CIRCUIT BREAKER	LTG, LTS	LIGHTING	Ŭ
С	CONDUIT	LPS	LOW PRESSURE SODIUM	\$-•
C.O.	CONDUIT ONLY.	МСВ	MAIN CIRCUIT BREAKER	
CONN	CONNECTED	MLO	MAIN LUGS DNLY	<b>—</b>
CLCB	CURRENT LIMITING CIRCUIT BREAKER	мн	METAL HALIDE	<del>~~</del>
DIA	DIAMETER	мсс	MOTOR CONTROL CENTER	$\ominus$ •
E	EXISTING EQUIPMENT DR DEVICE	МСМ	THOUSAND CIRCULAR MILS	₽
	TO REMAIN. PROTECT IN PLACE.	МСР	MOTOR CIRCUIT PROTECTOR	
EMCS	ENERGY MANAGEMENT CONTROL SYSTEM	MTD	MOUNTED	<b>□</b> -•
EMT	ELECTRICAL METALLIC TUBING	MW	MICROWAVE	WP
EWC	ELECTRIC WATER COOLER	N	NEW EQUIPMENT	
E-0-L	END-DF-LINE CIRCUIT TERMINATOR.	NEC	NATIONAL ELECTRICAL CODE	₩P ⊕•
EF	EXHAUST FAN	NC	NORMALLY CLOSED	_
FT or '	FEET	NO	NDRMALLY DPEN	J-•
FA	FIRE ALARM	NF	NDN-FUSED	J
FLA	FULL LOAD AMPS	NIC	NDT IN CONTRACT	<del>۳</del> ۹)
GFI	GROUND FAULT INTERRUPTER.	NO. or #	NUMBER	A E-1
GRD	GREUND	OFCI	DWNER FURNISHED, CONTRACTOR INSTALLED.	
HOA	HAND-OFF-AUTO	PRIMARY	DVER 600 VOLTS	
HVAC	HEATING, VENTILATING AND AIR CONDITIONING	PH. or Φ	PHASE	J-
H.,W.,D.,L.	HEIGHT, WIDTH, DEPTH, LENGTH	PROVIDE	FURNISH, INSTALL AND CENNECT.	$\sim$
HID	HIGH INTENSITY DISCHARGE	PA	PUBLIC ADDRESS	vy∨ Æur ⊡
ЦВ		10		

U.N.O. UNLESS NOTED OTHERWISE

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—— T1 ——

— P1 — —

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— D1 —

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E-1

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**REC, RECEPT** RECEPTACLE

HORSEPOWER

TWISTED (NON SHEILDED) PAIR

HIGH PRESSURE SODIUM

HP

TSE

HPS

LED STRIP DR INDUSTRIAL LIGHTING FIXTURE, SURFACE, CHAIN DR PENDANT MOUNTED DN FLUSH MOUNTED DUTLET BOX.
LIGHTING FIXTURE, SURFACE OR FLUSH MOUNTED AS INDICATED ON FIXTURE SCHEDULE, ON WALL MOUNTED DUTLET BOX, +90'. STEM INDICATES WALL MOUNTED DUTLET BOX, TYPICAL.
LIGHTING STANDARD WITH SINGLE ARM MOUNTED LUMINAIRE AND POLE SUPPORT BASE.
LIGHTING STANDARD WITH TWIN ARM MOUNTED LUMINAIRES AND POLE SUPPORT BASE.
FIXTURE SCHEDULE DESIGNATION: "2" INDICATES FIXTURE TYPE, "100" INDICATES FIXTURE TOTAL WATTAGE.
SINGLE POLE TOGGLE SWITCH, ON FLUSH WALL MOUNTED OUTLET BOX, +45". INSTALL MULTIPLE SWITCHES UNDER COMMON COVER PLATE. SUBSCRIPT OR SUPERSCRIPT AT SWITCH SYMBOL INDICATES THE FOLLOWING: 2 - DOUBLE POLE 4 - FOUR WAY M - MANUAL MOTOR STARTERS 3 - THREE WAY P - PILOT LIGHT K - KEY OPERATED R - SPDT MOMENTARY CONTACT RELAY SWITCH V - VAPOR PROOF
a,b,c,d, ETC MULTIPLE SWITCHES WITH IDENTIFICATION OF DUTLET CONTROLLED. LINE VOLTAGE LIGHTING CONTROL DCCUPANCY MOTION SENSOR ON FLUSH CEILING MOUNTED DUTLET BOX.
DUPLEX CONVENIENCE RECEPTACLE VERTICAL ON FLUSH WALL MOUNTED OUTLET BOX, +18". STEM INDICATES WALL MOUNTED OUTLET BOX, TYPICAL.
DUPLEX CONVENIENCE RECEPTACLE HORIZONTAL ON FLUSH WALL MOUNTED OUTLET BOX, +6" ABOVE COUNTER SPLASH.
DUPLEX CONVENIENCE RECEPTACLE SPLIT WIRED, ON FLUSH WALL MOUNTED OUTLET BOX, +18". DOUBLE DUPLEX (FOUR-PLEX) CONVENIENCE RECEPTACLE ON ONE FLUSH WALL MOUNTED OUTLET BOX +18".
SINGLE RECEPTACLE, NEMA CONFIGURATION PER EQUIPMENT MANUFACTURER REQUIREMENTS, ON FLUSH WALL MOUNTED OUTLET BOX, +18″.
DUPLEX CONVENIENCE RECEPTACLE WITH INTERNAL GROUND FAULT INTERRUPTER, VERTICAL ON FLUSH WALL MOUNTED DUTLET BOX +18".
DUPLEX CONVENIENCE RECEPTACLE WITH INTERNAL GROUND FAULT INTERRUPTER, HORIZONTAL ON FLUSH WALL MOUNTED OUTLET BOX, +6″ ABOVE COUNTER SPLASH.
DUPLEX CONVENIENCE RECEPTACLE, WITH INTERNAL GROUND FAULT INTERRUPTER, IN FLUSH WALL MOUNTED ENCLOSURE WITH HINGED DOOR, LOCK AND KEY, +18".
DUPLEX CONVENIENCE RECEPTACLE, WITH INTERNAL GROUND FAULT INTERRUPTER, ON FLUSH WALL MOUNTED OUTLET BOX WITH SPRING DOOR COVER, +18″.
JUNCTION BOX, FLUSH WALL MOUNTED, +18". JUNCTION BOX CONCEALED ABOVE ACCESSIBLE CEILING
INDICATES CONNECTION TO EQUIPMENT AS REQUIRED, TYPICAL.
FLOOR STANDING SWITCHGEAR ADJACENT BALLOON INDICATES EQUIPMENT DESIGNATION "DBA", SEE DRAWING E-1 FOR SINGLE LINE DIAGRAM AND/OR SCHEDULE.
CIRCUIT BREAKER STATIONARY (NON-DRAWOUT), SECONDARY VOLTAGE.
CIRCUIT BREAKER WITH ZERD SEQUENCE GROUND FAULT RELAY SYSTEM. TRANSFORMER; KVA, LINE AND LOAD VOLTAGE RATINGS AS INDICATED.
FUSED SAFETY SWITCH (DISCONNECT), HORSE POWER RATED. MOUNT ON WALL +45", OR ON EQUIPMENT +36". PROVIDE SWITCH AND FUSES SIZED PER EQUIPMENT MANUFACTURER REQUIREMENTS.
CONDUIT, INSTALLED CONCEALED IN WALL OR IN CEILING SPACE.
CONDUIT, INSTALLED CONCEALED IN OR UNDER FLOOR OR BELOW GRADE, 3/4" CONDUIT MINIMUM.
CONDUIT, INSTALLED EXPOSED. HOMERUN TO PANEL 'B' FOR CIRCUITS 5, 7, 9 WITH COMMON NEUTRAL.
UNDERGROUND CONDUIT STUBOUT, STUB 5′-O″ FROM BUILDING OR WALKWAY, CAP, MARK AND RECORD.
TELEPHONE SYSTEM 3/4"C. WITH 1 (ONE) SET OF CONDUCTORS AS SPECIFIED. T2 - 1"C. WITH 2 (TWO) SET OF CONDUCTORS AS SPECIFIED T3 - 1 1/4"C. WITH 3 (THREE) SET OF CONDUCTORS AS SPECIFIED T4 - 1 1/2"C. WITH 4 (FOUR) SET OF CONDUCTORS AS SPECIFIED
PUBLIC ADDRESS SYSTEM - 3/4°C., WITH WITH (1) SET DF CONDUCTORS AS SPECIFIED. P2 - 3/4°C., WITH TWD (2) SETS DF CONDUCTORS AS SPECIFIED. P3 - 1°C., WITH THREE (3) SETS DF CONDUCTORS AS SPECIFIED. P4 - 1°C., WITH FDUR (4) SETS DF CONDUCTORS AS SPECIFIED. P5 - 1 1/4°C., WITH FIVE (5) SETS DF CONDUCTORS AS SPECIFIED.
CLOCK SYSTEM - 3/4"C., WITH CONDUCTORS AS SPECIFIED.
INTRUSION DETECTION SYSTEM - 3/4"C., WITH CONDUCTORS AS SPECIFIED.
COMPUTER/DATA PROCESSING SYSTEM - 1"C. WITH CONDUCTORS AS SPECIFIED. D2 - 1"C. WITH CONDUCTORS AS SPECIFIED. D3 - 1"C. WITH CONDUCTORS AS SPECIFIED. D4 - 1 1/4"C. WITH CONDUCTORS AS SPECIFIED. D5 - 1 1/4"C WITH CONDUCTORS AS SPECIFIED.
COMPUTER DUTLET WITH DNE (1) COMPUTER CONNECTOR, DN FLUSH WALL MOUNTED DUTLET BOX, +18", UNLESS NOTED OTHERWISE. "C" INDICATES HORIZONTAL FLUSH WALL MOUNTED DUTLET BOX +6" ABOVE COUNTER SPLASH. PROVIDE 1" CONDUIT INTO CEILING SPACE.
COMPUTER DUTLET WITH TWD (2) COMPUTER CONNECTORS, ON FLUSH WALL MOUNTED DUTLET BDX, +18″, UNLESS NOTED OTHERWISE. ″C″ INDICATES HORIZONTAL FLUSH WALL MOUNTED DUTLET BOX + 6″ ABOVE COUNTER SPLASH. PROVIDE 1″ CONDUIT INTO CEILING SPACE.
PANELBOARD, ADJACENT LINE INDICATES PANEL FRONT. ADJACENT BALLOON INDICATES PANEL DESIGNATION 'A', SEE DRAWING E-1 FOR PANEL SCHEDULE. TERMINAL CABINET OR EQUIPMENT CABINET. ADJACENT LINE INDICATES CABINET FRONT.

MOTOR CONNECTION. PROVIDE FUSED SAFETY SWITCH (DISCONNECT), HORSE POWER RATED, WALL MOUNTED, +45' OR EQUIPMENT MOUNTED, +36'. PROVIDE SWITCH AND FUSES SIZED PER EQUIPMENT MANUFACTURER REQUIREMENTS.

15. PERFORM CUTTING AND PATCHING ON THE CONSTRUCTION WORK WHICH MAY BE REQUIRED FOR THE PROPER INSTALLATION OF THE ELECTRICAL WORK. PATCHING SHALL BE OF THE SAME MATERIAL, WORKMANSHIP AND FINISH AS SPECIFIED AND ACCURATELY MATCH SURROUNDING WORK TO SATISFACTION OF THE ARCHITECT.

16. PROVIDE ALL EQUIPMENT WITH ENCLOSURES LISTED OR LABELED FOR USE AND LOCATION WHERE SUCH EQUIPMENT IS INSTALLED.

17. PROVIDE UL LISTED FIRE STOP FOR ALL PENETRATIONS THROUGH FIRE RATED WALLS AND CEILINGS TO MAINTAIN ALL FIRE RATINGS. THE FIRE STOP MATERIALS SHALL BE RE-ENTERABLE AND REUSABLE.

18. PROVIDE COORDINATED SHOP DRAWINGS. INDICATING DIMENSIONED LOCATIONS AND SIZES OF ALL CORE DRILLS FOR REVIEW AND APPROVAL. ALL CORE DRILL LOCATIONS SHALL BE VERIFIED AND APPROVED WITH DWNERS REPRESENTATIVE, STRUCTURAL AND ARCHITECT PRIDE TO CORE DRILL. UTILIZE X-RAY EQUIPMENT TO LOCATE AND VERIFY EXISTING STRUCTUREAL ELEMENTS WITHIN SLAB.

19. GROUNDING SHALL BE EXECUTED IN ACCORDANCE WITH ALL APPLICABLE CODES AND REGULATIONS, BOTH OF THE STATE OF CALIFORNIA AND LOCAL AUTHORITIES HAVING JURISDICTION.

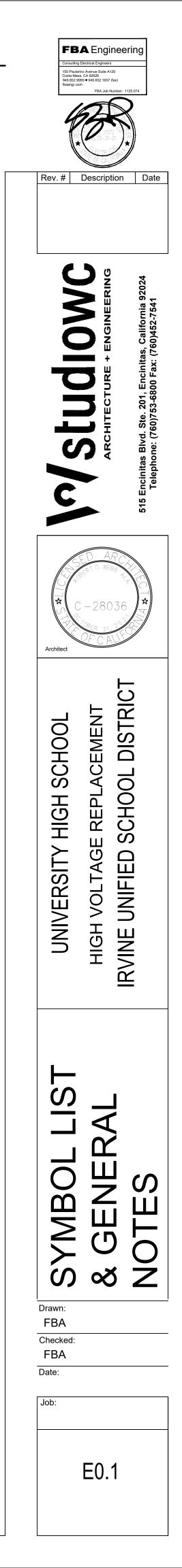
20. PROVIDE GROUND WIRE IN EACH CONDUIT CONTAINING CIRCUITS FEEDING RECEPTACLES. THE CONDUIT SHALL NOT BE PERMITTED TO SERVE AS THE DNLY ELECTRICAL GROUND RETURN PATH.

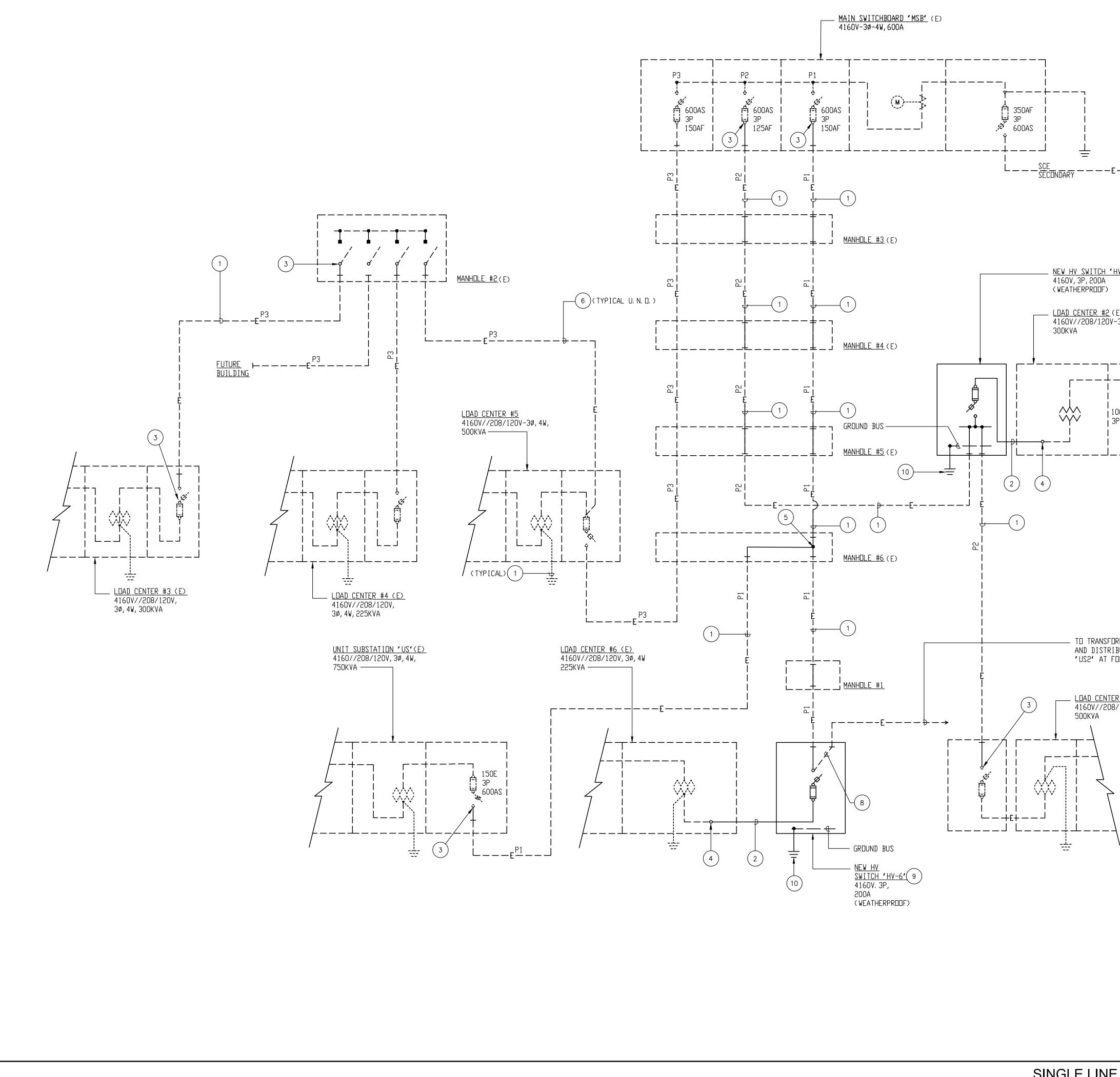
21. NOTIFY THE ARCHITECT IN WRITING WHEN INSTALLATION IS COMPLETE AND THAT A FINAL INSPECTION OF THIS WORK CAN BE PERFORMED. IN THE EVENT DEFECTS OR DEFICIENCIES ARE FOUND DURING THIS FINAL INSPECTION, THEY SHALL BE CORRECTED TO THE SATISFACTION OF THE ARCHITECT BEFORE FINAL ACCEPTANCE CAN BE ISSUED.

22. ALL REMOVED MATERIALS AND EQUIPMENT WHICH IN THE OPINION OF ARCHITECT ARE SALVAGEABLE, SHALL REMAIN THE PROPERTY OF THE DISTRICT. DELIVER SUCH SALVAGED MATERIALS AND EQUIPMENT ON PREMISES AS DIRECTED, NEATLY PILE OR STORE THEM AND PROTECT FROM DAMAGE. WHERE MATERIALS AND EQUIPMENT HAVE BEEN REMOVED AND NOT REPLACED THE EXPOSED SURFACE SHALL BE PAINTED TO MATCH SURROUNDING SURFACES. DO NOT REUSE MATERIALS AND EQUIPMENTS, UNLESS SPECIFICALLY INDICATED ON PLANS OR SPECIFIED. REMOVE FROM PREMISES AND DISPOSE OF ALL MATERIALS CONSIDERED BY ARCHITECT TO BE SCRAP.

### **GENERAL NOTES**

- 1. THESE DRAWINGS AND SPECIFICATIONS ARE INTENDED TO COVER A COMPLETE INSTALLATION OF SYSTEMS. THE OMISSION OR EXPRESSED REFERENCE TO ANY ITEM OF LABOR OR MATERIALS REQUIRED FOR THE PROPER EXECUTION OF THE WORK IN ACCORDANCE WITH PRESENT PRACTICE OF THE TRADE SHALL NDT RELIEVE THE CONTRACTOR FROM PROVIDING SUCH ADDITIONAL LABOR AND MATERIALS.
- 2. THESE PLANS, SPECIFICATIONS, AND ALL MATERIALS SHALL BE IN FULL ACCORDANCE WITH ALL LEGAL AND INDUSTRY REQUIREMENTS, AND STANDARDS INCLUDING WITHOUT LIMITATION TO THE FOLLOWING:
- a. CALIFORNIA CODE OF REGULATIONS TITLE 24, PARTS 1 AND 2 (CALIFORNIA BUILDING CODE), 2013 EDITION.
- b. CALIFORNIA CODE OF REGULATIONS TITLE 24, PART 3 (CALIFORNIA ELECTRICAL CODE), 2013 EDITION.
- c. CALIFORNIA CODE OF REGULATIONS TITLE 24, PART 6 (CALIFORNIA ENERGY CODE), 2013 EDITION.
- d. CALIFORNIA CODE OF REGULATIONS TITLE 24, PART 9 (CALIFORNIA FIRE CODE), 2013 EDITION. e. DTHER REGULATING AGENCIES WHICH MAY HAVE AUTHORITY OVER ANY
- PORTION OF THE WORK, INCLUDING THE STATE OF CALIFORNIA DIVISION OF INDUSTRIAL SAFETY, AND THOSE CODES AND STANDARDS LISTED IN THESE NOTES AND SPECIFICATIONS.
- f. THE ELECTRICAL SYSTEMS FUNCTIONALITY STANDARDS SET FORTH IN TITLE 7 OF THE CALIFORNIA CIVIL CODE (THE "RIGHT TO REPAIR ACT″).
- g, THE MANUFACTURER'S REQUIREMENTS DR RECOMMENDATIONS FOR ANY INCORPORATED PRODUCTS.
- h. THE MOST CURRENT APPROVED ISSUES OF ANY NOTED SPECIFICATIONS, CODES AND STANDARDS, INCLUDING SUPPLEMENTS, UNLESS NOTED DTHERWISE.
- 3. IN USING THE PLANS FOR BIDDING OR CONSTRUCTION PURPOSES, THE CONTRACTOR IS REQUIRED TO REVIEW ALL OF THE PROJECT'S CONSTRUCTION DOCUMENTS AS A WHOLE IN ORDER TO IDENTIFY ALL REQUIREMENTS THAT DIRECTLY OR INDIRECTLY AFFECT ITS PORTION OF THE ELECTRICAL WORK, EVEN REQUIREMENTS LOCATED IN SECTIONS DESIGNATED AS APPLICABLE TO DTHER TRADES. IN CASE OF CONFLICTS, THE CONTRACTOR SHALL EITHER DBTAIN DIRECTION FROM AN APPROPRIATE OWNER REPRESENTATIVE OR DTHERWISE APPLY THE MORE STRINGENT REQUIREMENT.
- 4. IN INTERPRETATING THE PLANS, THE FOLLOWING GENERAL RULES APPLY:
- a. WRITTEN DIMENSIONS SHALL TAKE PRECEDENCE OVER SCALED DRAWINGS.
- b. SCALED DIMENSIONS AND GRAPHICALLY SHOWN LOCATIONS ARE TO BE CONSIDERED ONLY APPROXIMATE. FIELD VERIFY DIMENSIONS PRIOR TO BID.
- 5. IN IMPLEMENTING THE PLANS, THE FOLLOWING GENERAL RULES APPLY:
- a. BECAUSE THE PLANS ARE INTENDED TO SET FORTH THE REQUIREMENTS FOR CONSTRUCTION IN ONLY AN INDUSTRY-STANDARD LEVEL OF QUALITY AND DETAIL, AND THEREFORE ARE INTENDED TO BE SUPPLEMENTED BY APPROPRIATE REQUESTS FOR CLARIFICATION AND INFORMATION, ERRORS AND DMISSIONS ARE TO BE EXPECTED AND ANTICIPATED; AND THE CONTRACTOR IS REQUIRED TO CAREFULLY REVIEW THE PLANS FOR ERRORS AND OMISSIONS AND TO BRING THESE ERRORS AND OMISSIONS TO THE ATTENTION OF AN APPROPRIATE DWNER REPRESENTATIVE IN A TIMELY MANNER AN ASSUMES THE RISK OF THE CONSEQUENCES OF FAILING TO DO SO BEFORE BIDDING OR OTHERWISE PROCEEDING.
- b. THE CONTRACTOR SHALL REVIEW AND VERIFY ALL DIMENSIONS PRIOR TO STARTING CONSTRUCTION, AND NOTIFY THE ARCHITECT IMMEDIATELY OF ANY DISCREPANCIES OR INCONSISTENCIES.
- 6. SUBMITTALS WILL BE REVIEWED BY THE ELECTRICAL ENGINEER, IF AT ALL, ONLY PURSUANT TO THE INDUSTRY STANDARD PROTOCOL SET FORTH IN A1A DECUMENT A201, AND IN NE EVENT WILL THE SUBMITTAL REVIEW PRECESS RELIEVE OR LESSEN THE SUBMITTING CONTRACTOR'S RESPONSIBILITY FOR AN INAPPROPRIATE SUBMITTAL.
- 7. IN ND EVENT WILL ANY SITE VISITS BY THE ELECTRICAL ENGINEER CONCERN CONSTRUCTION MEANS AND METHODS OR CONSTRUCTION SAFETY, AND ALL SUCH MATTERS SHALL REMAIN THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
- 8. COPIES OF THE PLANS PROVIDED IN ANY ELECTRONIC FORM ARE SUBJECT TO THE SAME PROVISIONS AS THE OTHER INSTRUMENTS OF SERVICE PREPARED BY OR ON BEHALF OF ELECTRICAL ENGINEER FOR THE PROJECT, INCLUDING WITHOUT LIMITATION THE ENGINEER'S COMMON LAW, STATUTORY OR OTHER RESERVED RIGHTS, INCLUDING COPYRIGHTS. A RECIPIENT IS GRANTED AT MOST A TRANSFERABLE NONEXCLUSIVE LICENSE TO REUSE THE PLANS SOLELY FOR PROJECT PURPOSES; AND NO RECIPIENT IS AUTHORIZED TO USE OR TO ALLOW THE USE OF ALL OR ANY PORTION OF THESE PLANS FOR ANY OTHER PURPOSE, AND ANY USE FOR ANY OTHER PURPOSE WOULD CONSTITUTE ACTIONABLE PLAGIARISM, ELECTRICAL ENGINEER PROVIDES DOCUMENTS IN AN ELECTRONIC FORM ONLY IN ITS STANDARD FORMATS AND CONVENTIONS AND WITH NO GUARANTEE OF COMPATIBILITY WITH ANY RECIPIENT'S SOFTWARE OR HARDWARE, AND ANY USE WITH OR CONVERSION TO OTHER FORMATS OR CONVENTIONS, OR THE USE WITH ANY PARTICULAR SOFTWARE OR HARDWARE, IS AT THE RECIPIENT'S SOLE RISK.
- 9. REFER TO THE DRAWINGS AND SHOP DRAWINGS OF OTHER TRADES FOR ADDITIONAL DETAILS WHICH AFFECT THE PROPER INSTALLATION OF THIS WORK.
- 10. BEFORE SUBMITTING A BID, THE CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH ALL FEATURES DF THE EXISTING SITE, WHICH MAY AFFECT THE EXECUTION OF THE WORK, NO EXTRA PAYMENT WILL BE ALLOWED FOR FAILURE TO OBTAIN THIS INFORMATION.
- 11. THE DRAWINGS INDICATE APPREXIMATE LECATIONS OF EXISTING CONDUITS. THE EXACT ROUTING SHALL BE VERIFIED IN FIELD AND LENGTH OF CONDUCTORS SHALL BE ADJUSTED TO THE LENGTH REQUIRED.
- 12. PROTECT ALL WORK, MATERIALS AND EQIPMENT FROM DAMAGE FROM ANY CAUSE WHATEVER AND PROVIDE ADEQUATE AND PROPER STORAGE FACILITIES DURING THE PROGRESS OF THE WORK. PROVIDE FOR THE SAFETY AND GOOD CONDITION OF ALL THE WORK UNTIL FINAL ACCEPTANCE OF THE WORK BY THE DWNER AND REPLACE ALL DAMAGED OR DEFECTIVE WORK, MATERIALS AND EQUIPMENT BEFORE REQUESTING FINAL ACCEPTANCE.
- 13. THE DRAWINGS INDICATE IN A DIAGRAMMATIC MANNER, THE DESIRED LOCATIONS OF ARRANGEMENT OF THE COMPONENTS OF ELECTRICAL WORK. DETERMINE EXACT CONDUIT ROUTING, CONDUIT BENDS, AUXILIARY JUNCTION BEIXES, SUPPERTS, AND UNDEFINED CENSTRUCTION DETAILS AS A JOB CONDITION TO BE INSTALLED IN ACCORDANCE WITH THE APPLICABLE CODE REQUIREMENTS. PROPER JUDGEMENT MUST BE EXERCISED IN EXECUTING THE WORK SD AS TD SECURE THE BEST POSSIBLE INSTALLATION IN THE AVAILABLE SPACE, AND TO OVERCOME LOCAL DIFFICULTIES DUE TO SPACE LIMITATIONS OR INTERFERENCE OF CONDITIONS ENCOUNTERED.
- 14. IN THE EVENT CHANGES IN THE INDICATED LOCATIONS OR ARRANGEMENTS ARE NECESSARY, DUE TO DEVELOPED CONDITIONS IN THE BUILDING CONSTRUCTION OR REARRANGEMENTOF EQUIPMENT, SUCH CHANGES SHALL BE MADE WITHOUT COST PROVIDING THE CHANGE IS ORDERED BEFORE THE CONDUIT RUNS, ETC., AND WORK DIRECTLY CONNECTED TO SAME IS INSTALLED AND NO EXTRA MATERIALS ARE REQUIRED.

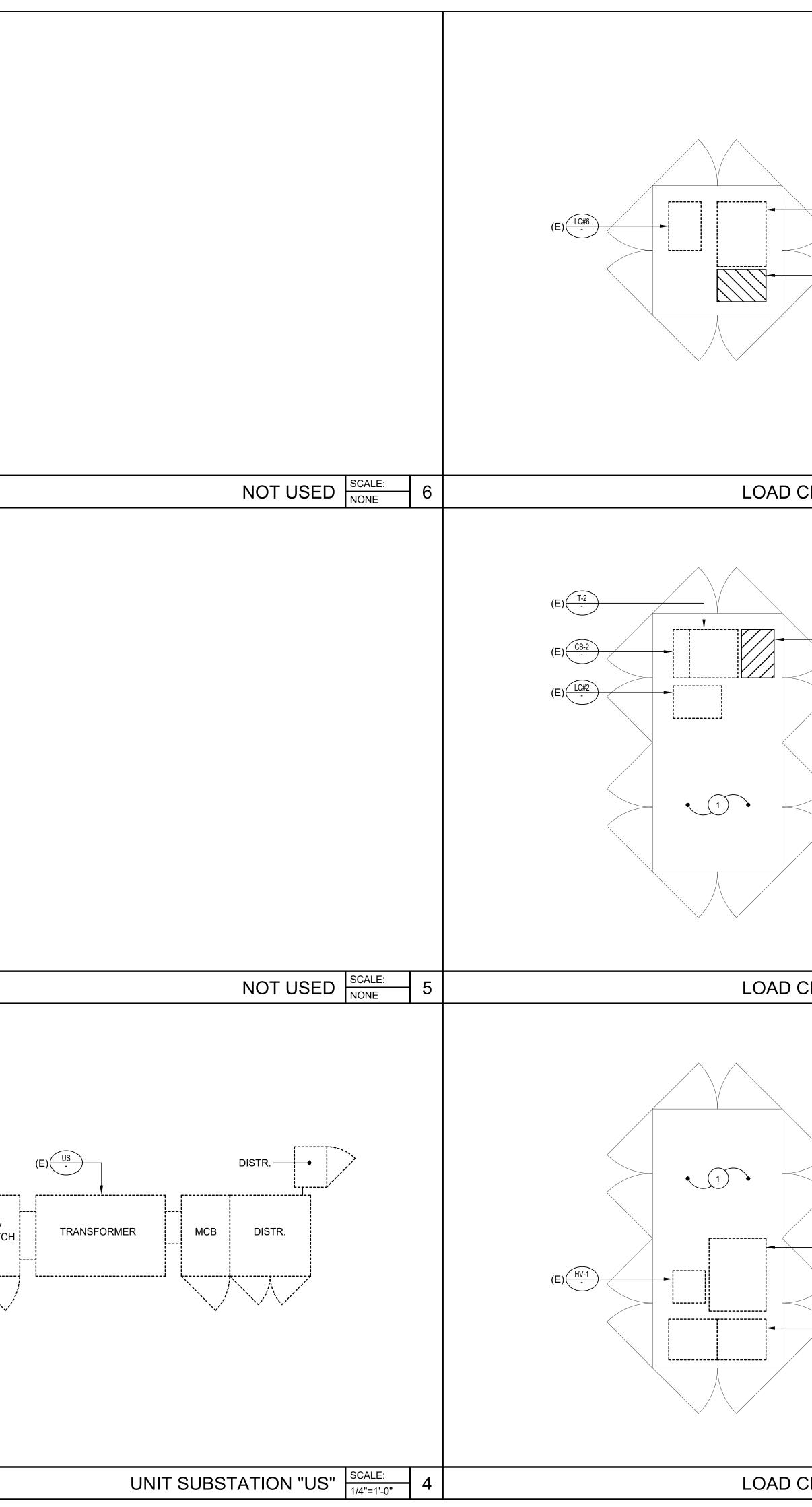




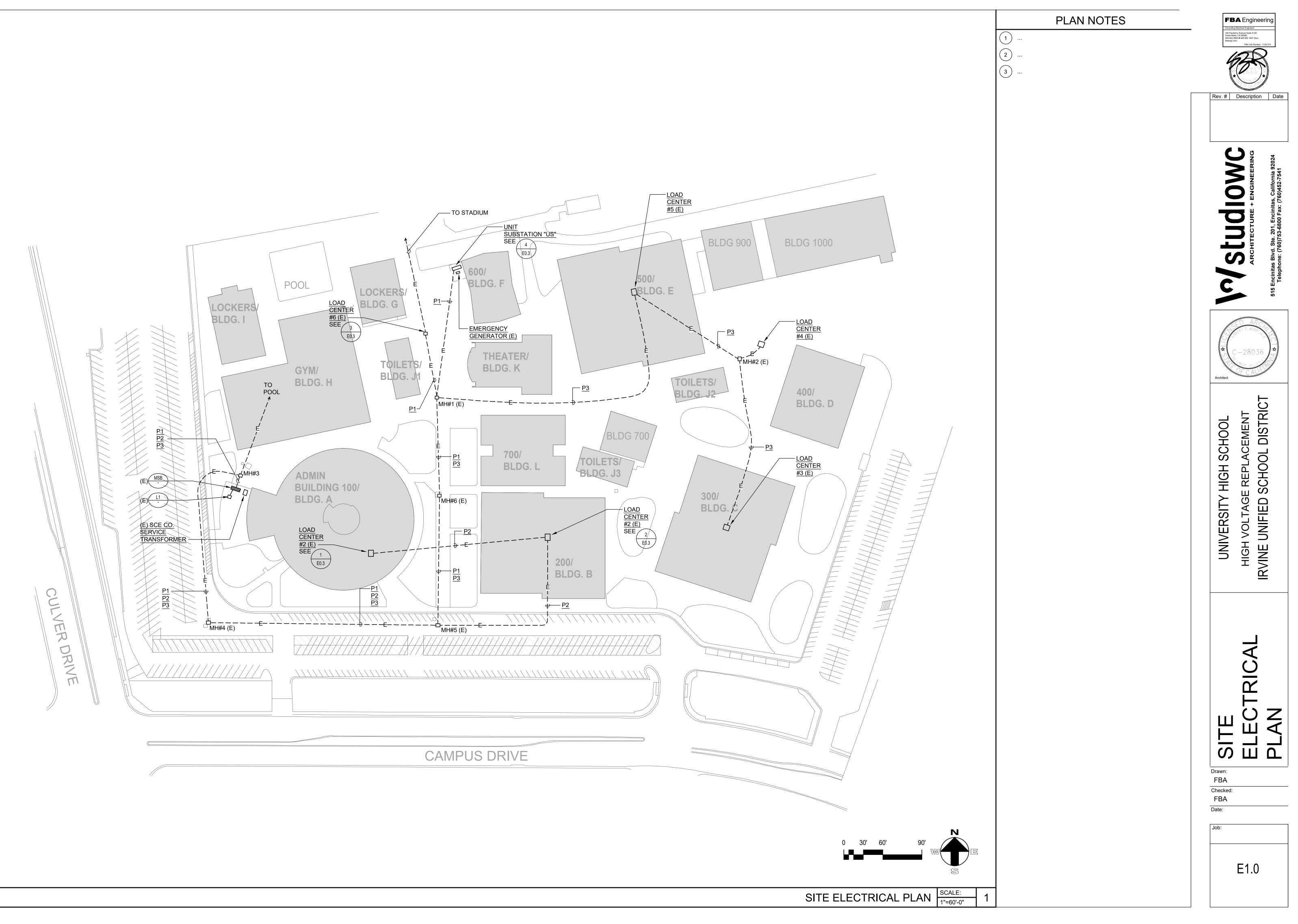
	PLAN NOTES	
	1 DISCONNECT AND REMOVE EXISTING 5KV COPPER CONDUCTORS FROM EXISTING UNDERGROUND CONDUIT. CLEAN-OUT AND MANDREL EXISTING CONDUITS FOR THE INSTALLATION OF THE NEW CONDUCTORS. PROVIDE NEW 3 # 4/0 5KV, COPPER, 133% EPR INSULATION, COPPER TAPE SHIELDED POWER CABLE AND 1 # 2 GROUND CONDUCTOR AND PULL THROUGH EXISTING CONDUITS AND MANHOLES AND TERMINATE AS INDICATED.	150 Paularino Avenue Suite A120 Costa Mesa, CA 2026         349 85:2969 + 949.852:1657 (fax)         Bargerow         BA Job Number: 1125.074
UTILITY COMPANY TRANSFORMER (E)	2 PROVIDE 3 # 4/0 5KV, COPPER, 133% INSULATION, COPPER TAPE SHIELDED POWER CABLE AND 1 # 2 GROUND CONDUCTORS IN 4" CONDUIT.	
DAF	3 TERMINATE NEW CONDUCTORS ON EXISTING 5KV SWITCH LUGS.	
	4 TERMINATE NEW CONDUCTORS ON EXISTING TRANSFORMER LUGS.	
$-\frac{SCE}{SECONDARY} E E \frac{H}{E} - \frac{SCE}{PRIMARY} - E$	5 PROVIDE NEW WATERPROOF SPLICE INSIDE EXISTING MANHOLE.	F ENGINE as, California (760)452-75
	6 EXISTING 5KV CONDUIT AND CONDUCTORS TO REMAIN.	TURE - 1, Encinit 8800 Fax:
	<ul> <li>T EXISTING GROUNDING SYSTEM TO REMAIN.</li> <li>B DISCONNECT EXISTING 5KV CONDUCTORS FROM EXISTING 5KV OIL FUSE CUT-OUT SWITCH BEING REPLACED. EXTEND EXISTING CONDUCTORS AND</li> </ul>	
<u>NEW HV SWITCH "HV-2" (9)</u> 4160V, 3P, 200A (WEATHERPROOF) <u>LOAD CENTER #2</u> (E)	RE-TERMINATE ON TO NEW 5KV SWITCH.9DISCONNECT AND REMOVE EXISTING 5KV OIL FUSE CUT-OUT SWITCH. PROVIDE NEW 5KV SWITCH AND	ARC 515 Encinitas Blvd Telephone: (7
4160V//208/120V-3ø-4W 300KVA	CONNECT AS INDICATED TO RESTORE POWER TO EXISTING 5KV TRANSFORMER EQUIPMENT.	
	(10) PROVIDE 1 # 2 GROUND AND BOND TO EXISTING TRANSFORMER GROUNDING SYSTEM.	Architect $A$ $C$ $-28036$
TD TRANSFORMER "T1" AND DISTRIBUTION SWITCHBDARD "US2" AT FOOTBALL STADIUM		UNIVERSITY HIGH SCHOOL HIGH VOLTAGE REPLACEMENT IRVINE UNIFIED SCHOOL DISTRICT
3 4160V//208/120V, 3Ø, 4W 500KVA 		Handback in the second state of the second sta
<u>NDTE:</u> ALL WORK SHOWN DASHED IS EXISTING. ALL ELSE		
SHALL BE PROVIDED AS PART OF THIS CONTRACT.		E0.2
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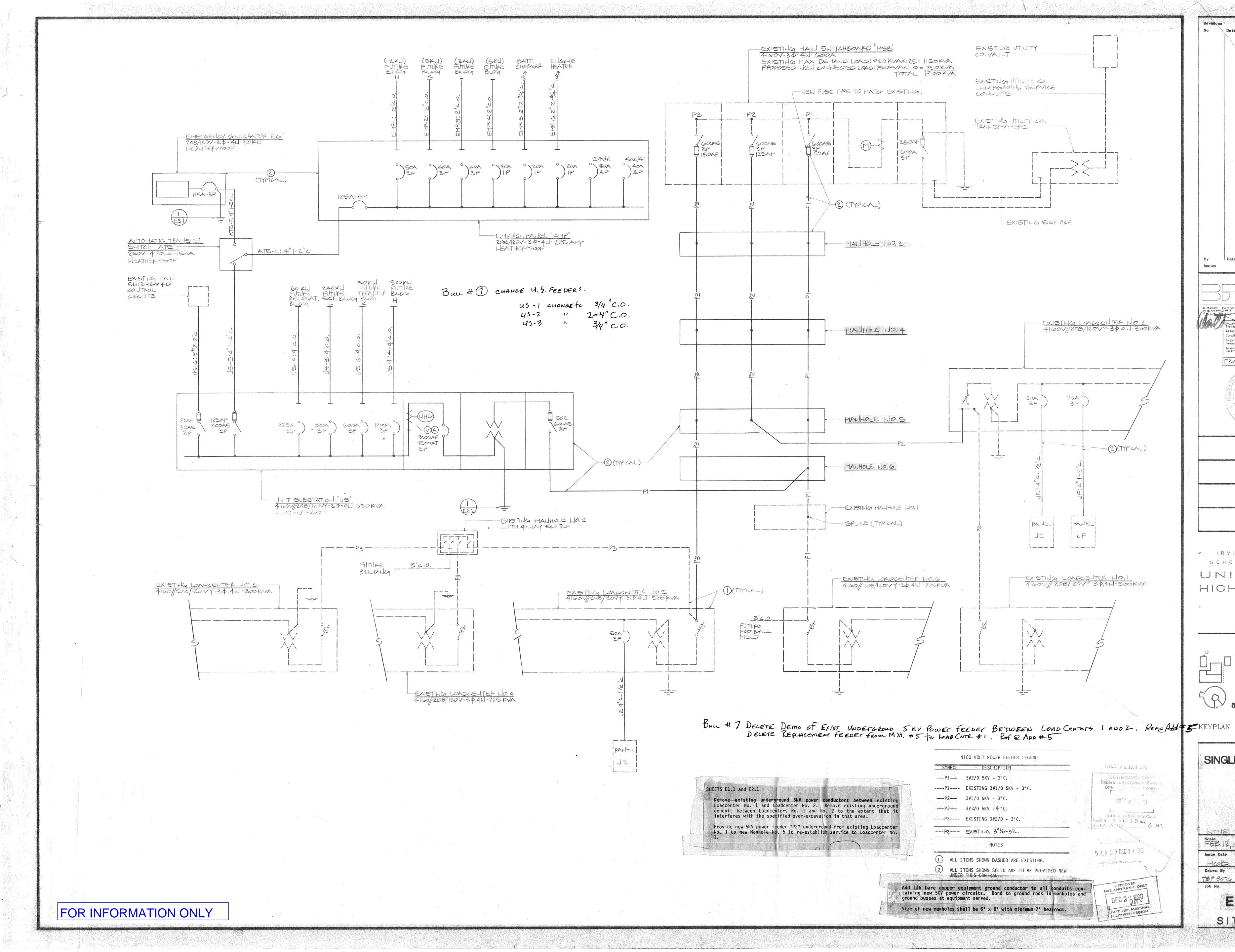
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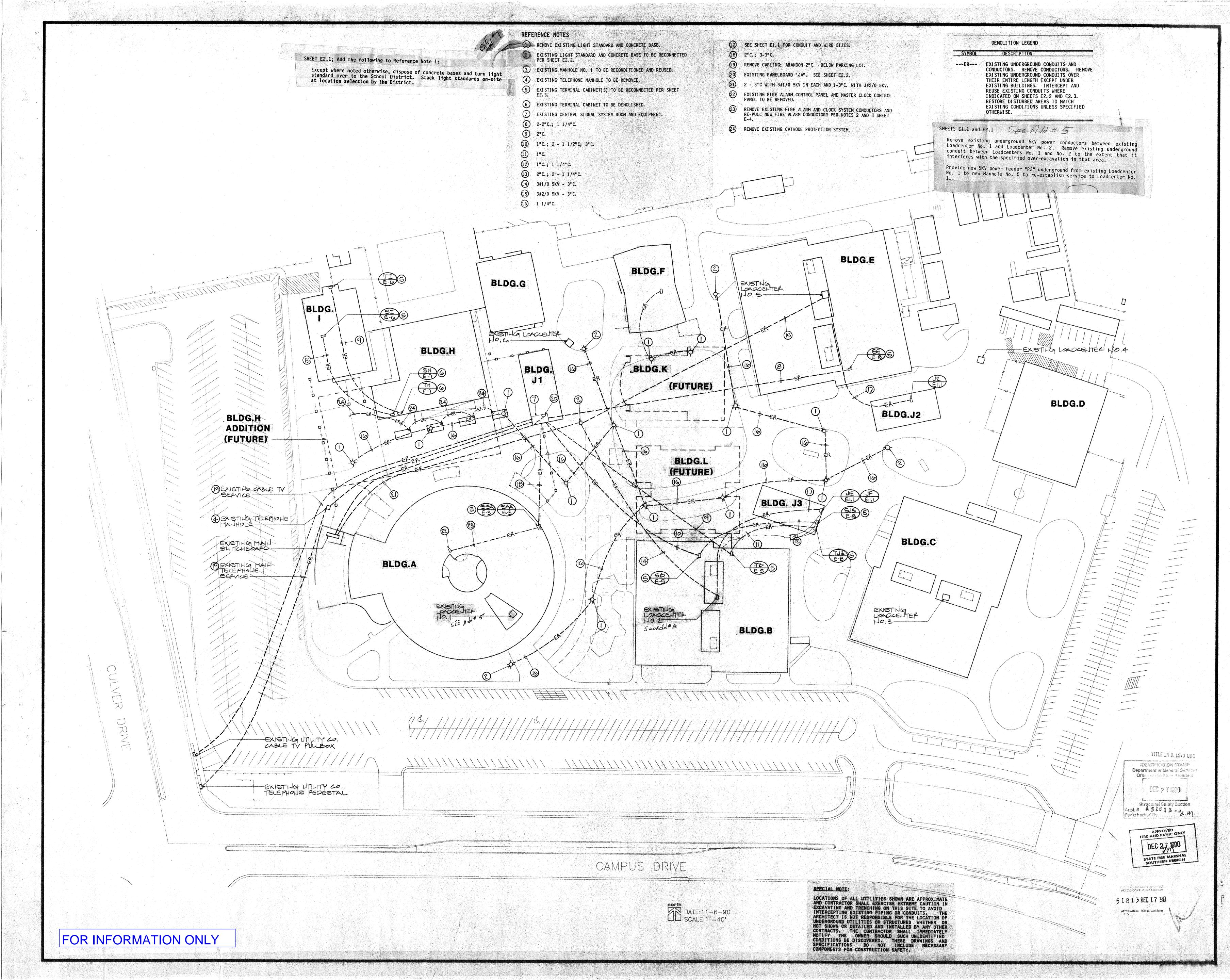


	PLAN NOTES	<b>FBA</b> Engineering
	1 EXISTING PHOTOVOLTAIC SYSTEM DISTRIBUTION EQUIPMENT TO REMAIN. PROTECT IN PLACE.	Consulting Electrical Engineers 150 Paularino Avenue Suite A120 Costa Mesa, CA 26265 949.852.9965 949.852.1657 (fax) Ibaengr.com FBA.Job Number: 1125.074
	2 DISCONNECT AND REMOVE EXISTING 5KV OIL FUSE CUT-OUT SWITCH. REPLACE WITH NEW 5KV SWITCH AND CONNECT TO EXISTING TRANSFORMER.	
	3 PROVIDE 6" THICK, REINFORCED CONCRETE HOUSEKEEPING PAD EXTENDING 4" BELOW GRADE, 2" ABOVE GRADE AND 2" BEYOND ALL FOUR SIDES OF	Rev. # Description Date
(E)	EQUIPMENT.	
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		TECTU 0)753-6800
		ARCH tas Blvd. S
CENTER #6 SCALE: 3		<b>FACHITECTURE + ENGINEERINO</b> 515 Encinitas Blvd. Ste. 201, Encinitas, California 92024 Telephone: (760)753-6800 Fax: (760)452-7541
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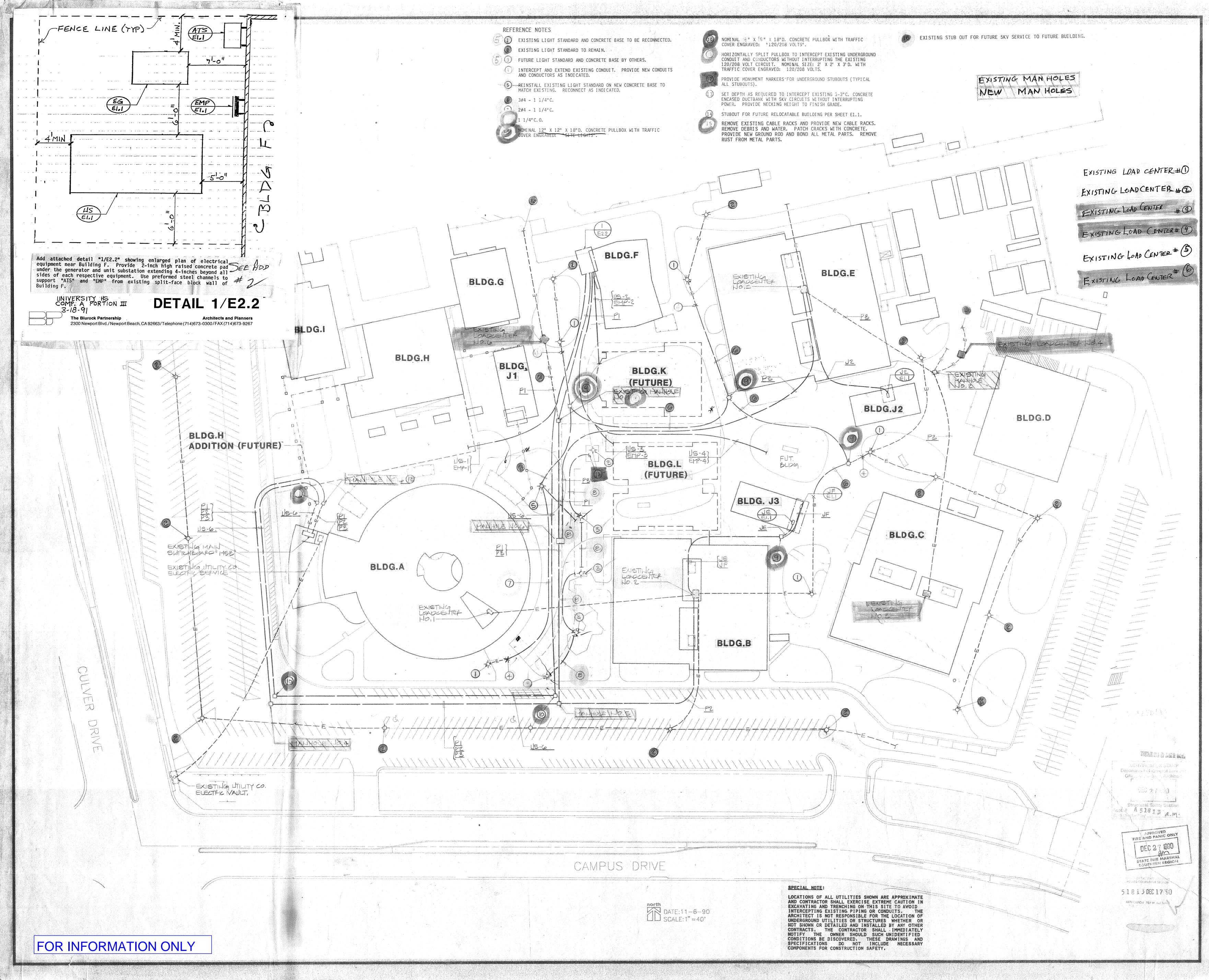




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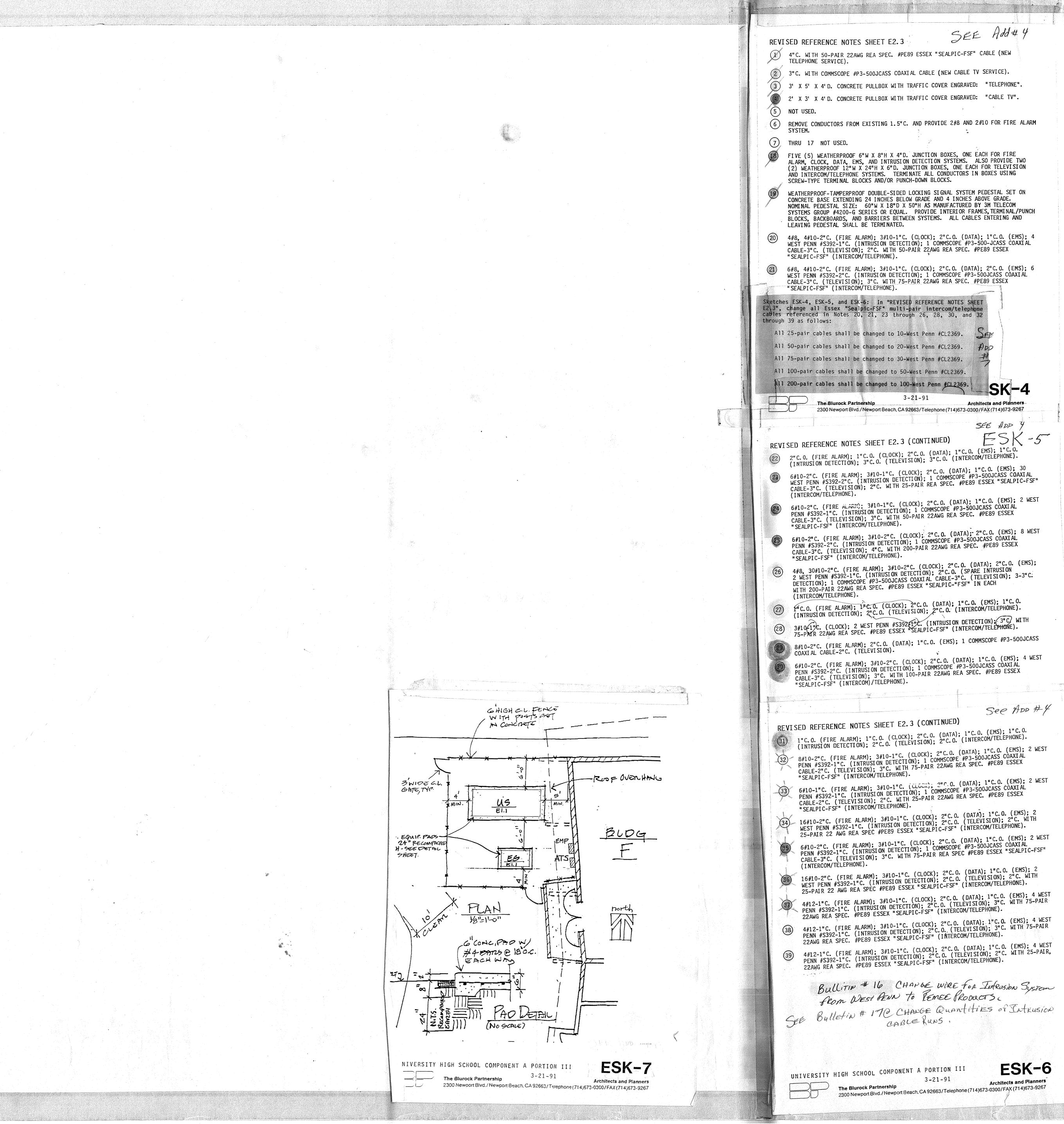
Revisions No Date Description By Date ไรรบคร The Blurock Partnership ARCHITECTS AND PLANNERS 2300 NEWPORT BEACH BOULEVARD NEVPORT BEACH, CALIF 92663 TELENO. 1214)632-0300 MARAS rederick Brown 12 Associates Consulting Engineers 3420 Irvine Avenue Newport Beach, CA 92550 Telephone (714) 852-9995 Facsimile (714) 852-1657 FBA# 112,916 Strand . KEn ● IRVINE UNIFIED ● SCHOOL DISTRICT UNIVERSITY HIGH SCHOOL KEYPLAN SITE ELECTRICAL DEMOLITION PLAN 1= 40 Scale FEB.12, 1991 Issue Date HGB Drawn By hecked B JBP BO76 Job No. Drawing No. E2.1 (FORTION IIL) SITE WORK



Revisions No. Description Date Date The Blurock Partnership ARCHITECTS AND PLANNERS EWPORT BEACH, CALIF. 92663 Frederick Brown 12 Associates Consulting Engineers 3420 Irvine Avenue Newport Beach, CA 92650 Telephone (714) 852-9995 Focsimile (714) 852-1637 FBA# 112 942 • IRVINE UNIFIED • SCHOOL DISTRICT UNIVERSITY HIGH SCHOOL KEYPLAN SITE ELECTRICAL POWER PLAN 1'=4:0'--> Scale FEB.12,199 Issue Date HOR Checked By Drawn-By C. 18820 Job No. Drewing No. E2.2 (PORTION III) SITE WORK  $\square$ 

## CALLSTING PULLER AND STATES

FOR INFORMATION ONLY



SEE Add # 4 SK-4 Architects and Planners SEE ADD See ADD #4 ESK-6 Architects and Planners 2300 Newport Blvd./Newport Beach, CA 92663/Telephone (714)673-0300/FAX (714)673-9267

$F_{\pm}$		Vieles										T T
		GENER	AL NOTES SHEE	F E2.3							T F2 3	
		1. F	PROVIDE SURFACE-N	OUNTED CLOCK, SPI	EAKER, AND INTERCOM LASSROOM BUILDINGS A	I THE MORTHERST A	AREA OF	(1)	ED REFERENCE N 4"C. WITH 50-PAIR	22AWG REA	SPEC. #PE89	ESSEX "SEALPI
			THE PROJECT. PRO AT REAR OF EACH R 3#12-0.5" CONDULT	VIDE 1 WEST PENN ELOCATABLE BUILD	#CL2369 CABLE-0.5" ING TO SERVE SPEAKER OX AT REAR OF EACH R	AND HANDSET. PF	ROVIDE ING TO	(2)	TELEPHONE SERVICE) 3"C. WITH COMMSCOF	• PE #P3-500J	CASS COAXIAL	CABLE (NEW C
		F   C	HANDSET AT SIDE O CEILINGS AND IN S	F FACH CHAIKBOAR	SPEAKER OVER EACH CH D. RUN CONDUITS CON IREMOLD PAINTED TO M	CEALED ABOVE ACCE	ETRATE	$\widetilde{}$	3' X 5' X 4'D. COM 2' X 3' X 4'D. COM	NCRETE PULL	BOX WITH TRA BOX WITH TRA	FFIC COVER EN FFIC COVER EN
		2. F	PROVIDE A TOTAL O	F SEVEN (7) SURFA	ACE-MOUNTED WEATHERPI T AREA OF THE PROJEC	I WILL I WEST PEN	NS ON	(5)	NOT USED.			۲
			CL2292 CABLE-0.5	C. TO JUNCTION E	BOX AT REAR OF EACH T	VE (12) RELOCATAB	BLE	$\sim$	REMOVE CONDUCTORS SYSTEM.		ING 1.5"C. A	WID FROM DE 27
			LASSROOM BUILDIN	GS AT THE NORTHEA LDING. RUN CONDU D WIREMOLD PAINTE	AST AREA OF THE PROJE UITS CONCEALED ABOVE ED TO MATCH WALLS.	ACCESSIBLE CEILI	NGS AND	(18)	THRU 17 NOT USE FIVE (5) WEATHERP ALARM, CLOCK, DAT	ROOF 6"W X	8"H X 4"D. INTRUSION D	UNCTION BOXES
		4. R	EMOVE EXISTING C	ONDUCTORS FROM EX "SC" IN BUILDING	KISTING 2"C. AND 1.25 GS B AND C, RESPECTIV	ELY. REMOVE EXI	SIING		ALARM, CLOCK, DAT (2) WEATHERPROOF AND INTERCOM/TELE SCREW-TYPE TERMIN	IL W A LT H	MC TERMIN	ATE ALL CONDUC
		C B	CONDUCTORS FROM E BUILDINGS B AND C	XISTING 2"C. BETW , RESPECTIVELY.	HEEN TERMINAL CABINET	rs "TB" and "Tc"	IN	(19)	WEATHERPROOF-TAMP CONCRETE BASE EXT	ERPROOF DOL ENDING 24 I	IBLE-SIDED LO	OCKING SIGNAL GRADE AND 4 1 O"H AS MANUFA
		T พ	ERMINAL CABINETS	"SI" AND "SG" IN (INTERCOM/TELEPH	WO (2) EXISTING 1.25" W BUILDINGS I AND G, HONE) PLUS 2 WEST PEN AND 3#10 IN THE OTH	RESPECTIVELY. P IN #S369 (INTRUSI	ON N		NOMINAL PEDESTAL SYSTEMS GROUP #42 BLOCKS, BACKBOARD LEAVING PEDESTAL	200-G SERIES	S OR EQUAL.	PROVIDE INTER
		( 6 R	CLOCK).	NUCTORS FROM EX	(ISTING 2"C. BETWEEN	TERMINAL CABINET	S "TC"	20	4#8, 4#10-2"C. (F	IRE ALARM)	3#10-1"C.	(CLOCK); 2"C. ON); 1 COMMSCI ATR 22AWG REA
		2 R	"C. AND 1.5"C. B ESPECTIVELY.	ETWEEN TERMINAL C	SPECTIVELY. REMOVE C CABINETS "SC" AND "SD	)" IN_BUILDINGS C	AND D,		CABLE-3"C. (TELE) "SEALPIC-FSF" (II	VISION); 2 V	EPHONE).	(CI OCK): 2"C.
		S E	YSTEM CONTROL PA XISTING ACTIVE O	NEL IN BUILDING J JTLETS. TAPE OFF	I CONDUCTORS TO EXIST I-1 AS REQUIRED TO RE AND TAG ALL SPARE C	STORE SERVICE TO CONDUCTORS.	Alexandra Andrewski (* 1998) 1999 - Alexandra Andrewski (* 1998) 1999 - Alexandra Andrewski (* 1998)		6#8, 4#10-2"C. () WEST PENN #S392-3 CABLE-3"C. (TELE) "SEALPIC-FSF" (]]	2"C. (INTRO) VTSTON): 3"	C. WITH 75-P	
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		Del	lete REFERENCE NO	TES as shown on?	Drawing and add REV ESK-4, ESK-5 and ESK	ISED REFERENCE -6.					BLDG.H	
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RE V ] (31)	1400 (		ADM) . 1"C O (CL	E2.3 (CONTINUE DCK); 2"C.O. (DAT TELEVISION); 2"C.	ED) TA); 1"C.O. (EMS); 1" .O. (INTERCOM/TELEPHO	'C. O. DNE).		61 X I				
32	8#10-2"C. PENN #S39 CABLE-2"(	. (FIRE 92-1"C. C. (TEL	ALARM); 3#10-1"	C. (CLOCK); 2"C.O CTION); 1 COMMSCO TTH 75-PAIR 22AWG	D. (DATA); 1"C.O. (EN DPE #P3-500JCASS COA) G REA SPEC. #PE89 ESS	AS); 2 WEST						1
33	6#10-1"C. PENN #S39 CABLE-2"(	. (FIRE 92-1"C. C. (TEL	ALARM); 3#10-1"( (INTRUSION DETE	C. (CLOCK); 2"C.O CTION); 1 COMMSCO TH 25-PAIR 22AWG	). (DATA); 1"C.O. (EM )PE #P3-500JCASS COA) G REA SPEC. #PE89 ESS	(IAL		- D-		>/	/	
34)	LIEST DENN	N #C302	_1"C (INTRUSTON	DETECTION: 2"C.	O. (DATA); 1"C.O. (E O. (TELEVISION); 2"C " (INTERCOM/TELEPHON	• WIIN /						
35	6#10-2"C.	(FIRE 92-1"C. C. (TEL	ALARM); 3#10-1"( (INTRUSION DETE EVISION); 3"C. W	C. (CLOCK); 2"C.O	). (DATA); 1"C.O. (EN OPE #P3-500JCASS COAX SPEC #PE89 ESSEX "SEA	(IS); 2 WEST	1			BLD(	and at the states in the	$\sim$
36	LIEST DENN	V #5302.	_1"C (INTRUSTON	DETECTION: 2°C.	O. (DATA); 1"C.O. (E O. (TELEVISION); 2"C "(INTERCOM/TELEPHON	• WIII				E-3/	<b>-</b> -•	(
37	4#12-1"C.	(FIRE	ALARM); 3#10-1"( (INTRUSION DETE(	. (CLOCK): 2"C.O	). (DATA); 1"C.O. (EM ELEVISION); 3"C. WIT	IS); 4 WEST			L			$\sim$
(38)	4#12-1"C. PENN #S39	(FIRE 92-1"C.	ALARM); 3#10-1"( (INTRUSION DETEC	(CLOCK): 2"C.O.	). (DATA); 1"C.O. (EM ELEVISION); 3"C. WIT	IS); 4 WEST H 75-PAIR	1/L					
39	4#12-1"C. PENN #\$39	(FIRE	ALARM); 3#10-1"( (INTRUSION DETEC	(CLOCK): 2"C.O	. (DATA); 1"C.O. (EM ELEVISION); 2"C. WIT	IS); 4 WEST H 25-PAIR,			X	$\bigwedge$		
						N'						
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		and the second sec				X						
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				National and the second se	· · · · · · · · · · · · · · · · · · ·		가슴 지수는 것은 사람이 있는 것을 가지 않는다.				<u> </u>	-
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FOR INFORMATION ONLY

	REVI	SED REFERENCE NOTES SHEET E2.3 (CONTINUED)	Starte Alexandre
89 ESSEX "SEALPIC-FSF" CABLE (NEW	(22)	2"C.O. (FIRE ALARM); 1"C.O. (CLOCK); 2"C.O. (DATA); 1"C.O. (EMS); 1"C.O. (INTRUSION DETECTION); 3"C.O. (TELEVISION); 3"C.O. (INTERCOM/TELEPHONE).	Sketches ESK-4 E2.3", change
IAL CABLE (NEW CABLE TV SERVICE). TRAFFIC COVER ENGRAVED: "TELEPHONE".	23	6#10-2"C. (FIRE ALARM); 3#10-1"C. (CLOCK); 2"C.O. (DATA); 1"C.O. (EMS); 30 WEST PENN #S392-2"C. (INTRUSION DETECTION); 1 COMMSCOPE #P3-500JCASS COAXIAL CABLE-3"C. (TELEVISION); 2"C. WITH 25-PAIR REA SPEC. #PE89 ESSEX "SEALPIC-FSF" (INTERCOM/TELEPHONE).	cables referen through 39 as All 25-pai
TRAFFIC COVER ENGRAVED: "CABLE TV".	24)	G#10-2"C. (FIRE ALARM); 3#10-1"C. (CLOCK); 2"C.O. (DATA); 1"C.O. (EMS); 2 WEST PENN #S392-1"C. (INTRUSION DETECTION); 1 COMMSCOPE #P3-500JCASS COAXIAL CABLE-3"C. (TELEVISION); 3"C. WITH 50-PAIR 22AWG REA SPEC. #PE89 ESSEX "SEALPIC-FSF" (INTERCOM/TELEPHONE).	All 50-pai All 75-pai All 100-pa
). JUNCTION BOXES, ONE EACH FOR FIRE	25)	6#10-2"C. (FIRE ALARM); 3#10-2"C. (CLOCK); 2"C.O. (DATA); 2"C.O. (EMS); 8 WEST PENN #S392-2"C. (INTRUSION DETECTION); 1 COMMSCOPE #P3-500JCASS COAXIAL CABLE-3"C. (TELEVISION); 4"C. WITH 200-PAIR 22AWG REA SPEC. #PE89 ESSEX "SEALPIC-FSF" (INTERCOM/TELEPHONE).	A11 200-pa
ON DETECTION SYSTEMS. ALSO PROVIDE THO DUNCTION BOXES, ONE EACH FOR TELEVISION MINATE ALL CONDUCTORS IN BOXES USING ACH-DOWN BLOCKS.	26	4#8, 30#10-2"C. (FIRE ALARM); 3#10-2"C. (CLOCK); 2"C.O. (DATA); 2"C.O. (EMS); 2 WEST PENN #S392-1"C. (INTRUSION DETECTION); 2"C.O. (SPARE INTRUSION DETECTION); 1 COMMSCOPE #P3-500JCASS COAXIAL CABLE-3"C. (TELEVISION); 3-3"C. WITH 200-PAIR 22AWG REA SPEC. #PE89 ESSEX "SEALPIC-"FSF" IN EACH	
D LOCKING SIGNAL SYSTEM PEDESTAL SET ON LOW GRADE AND 4 INCHES ABOVE GRADE. K 50"H AS MANUFACTURED BY 3M TELECOM PROVIDE INTERIOR FRAMES, TERMINAL/PUNCH WEEN SYSTEMS. ALL CABLES ENTERING AND	(27)	(INTERCOM/TELEPHONE). 1"C.O. (FIRE ALARM); 1"C.O. (CLOCK); 2"C.O. (DATA); 1"C.O. (EMS); 1"C.O. (INTRUSION DETECTION); 2"C.O. (TELEVISION); 2"C.O. (INTERCOM/TELEPHONE). (INTRUSION DETECTION); 2"C.O. (TELEVISION); 2"C.O. (INTERCOM/TELEPHONE).	
•	28	3#10-1"C. (CLOCK); 2 WEST PENN #S392-1"C. (INTRUSION DETECTION); 3"C. WITH 75-PAIR 22AWG REA SPEC. #PE89 ESSEX "SEALPIC-FSF" (INTERCOM/TELEPHONE).	
C. (CLOCK); 2"C.O. (DATA); 1"C.O. (EMS); 4 CTION); 1 COMMSCOPE #P3-500-JCASS COAXIAL O-PAIR 22AWG REA SPEC. #PE89 ESSEX	29	8#10-2"C. (FIRE ALARM); 2"C.O. (DATA); 1"C.O. (EMS); 1 COMMSCOPE #P3-500JCASS COAXIAL CABLE-2"C. (TELEVISION).	
C. (CLOCK); 2"C.O. (DATA); 2"C.O. (EMS); 6 CTION); 1 COMMSCOPE #P3-500JCASS COAXIAL 5-PAIR 22AWG REA SPEC. #PE89 ESSEX	30	6#10-2"C. (FIRE ALARM); 3#10-2"C. (CLOCK); 2"C.O. (DATA); 1"C.O. (EMS); 4 WEST PENN #S392-2"C. (INTRUSION DETECTION); 1 COMMSCOPE #P3-500JCASS COAXIAL CABLE-3"C. (TELEVISION); 3"C. WITH 100-PAIR 22AWG REA SPEC. #PE89 ESSEX "SEALPIC-FSF" (INTERCOM)/TELEPHONE).	
BLDG.G E-5 E-5 E-5 E-5		BLDG.F E-2 BLDG.F E-2 BLDG.F E-2 BLDG.E E-2 E-2 E-2 E-2 E-2 E-2 E-2 E-2 E-2 E-	
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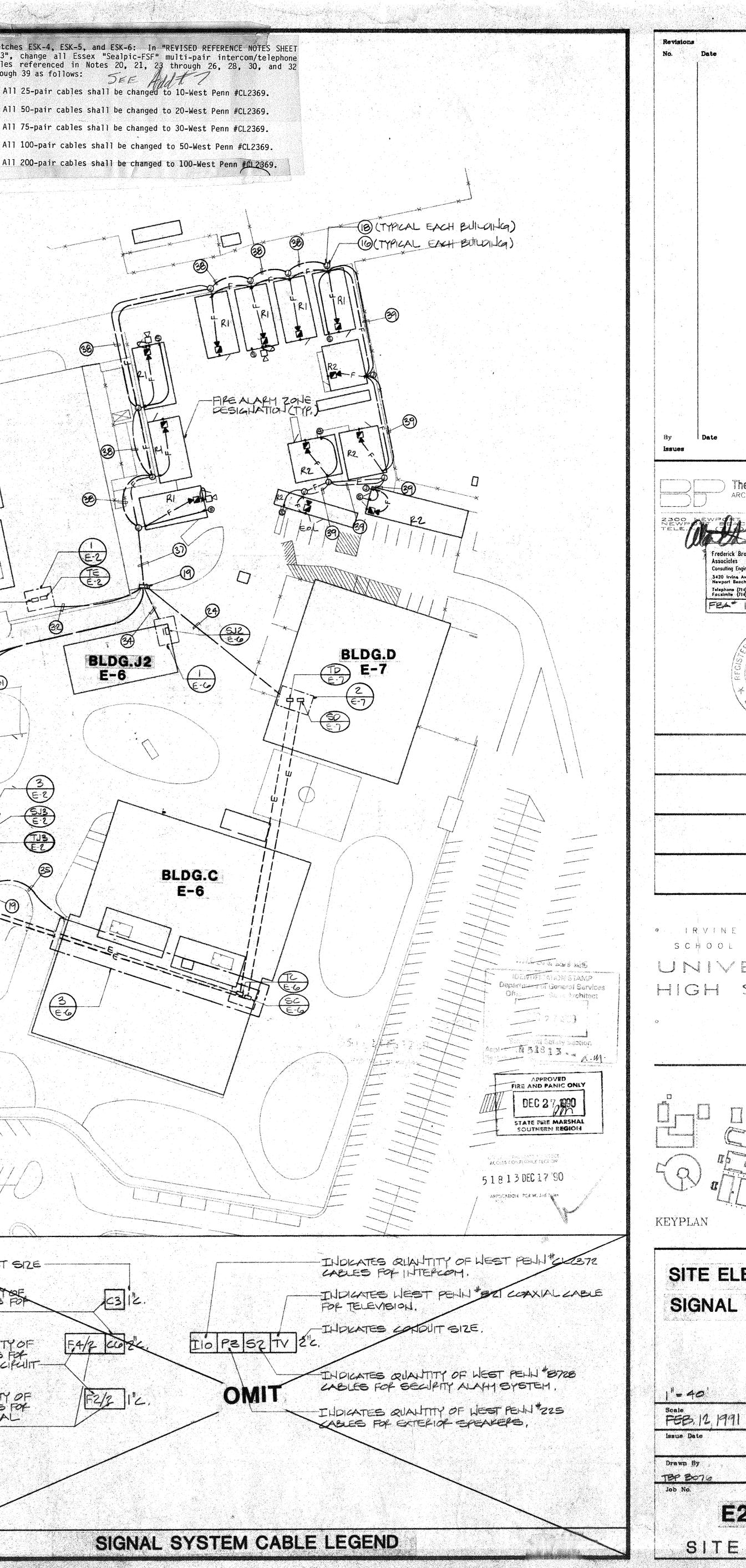
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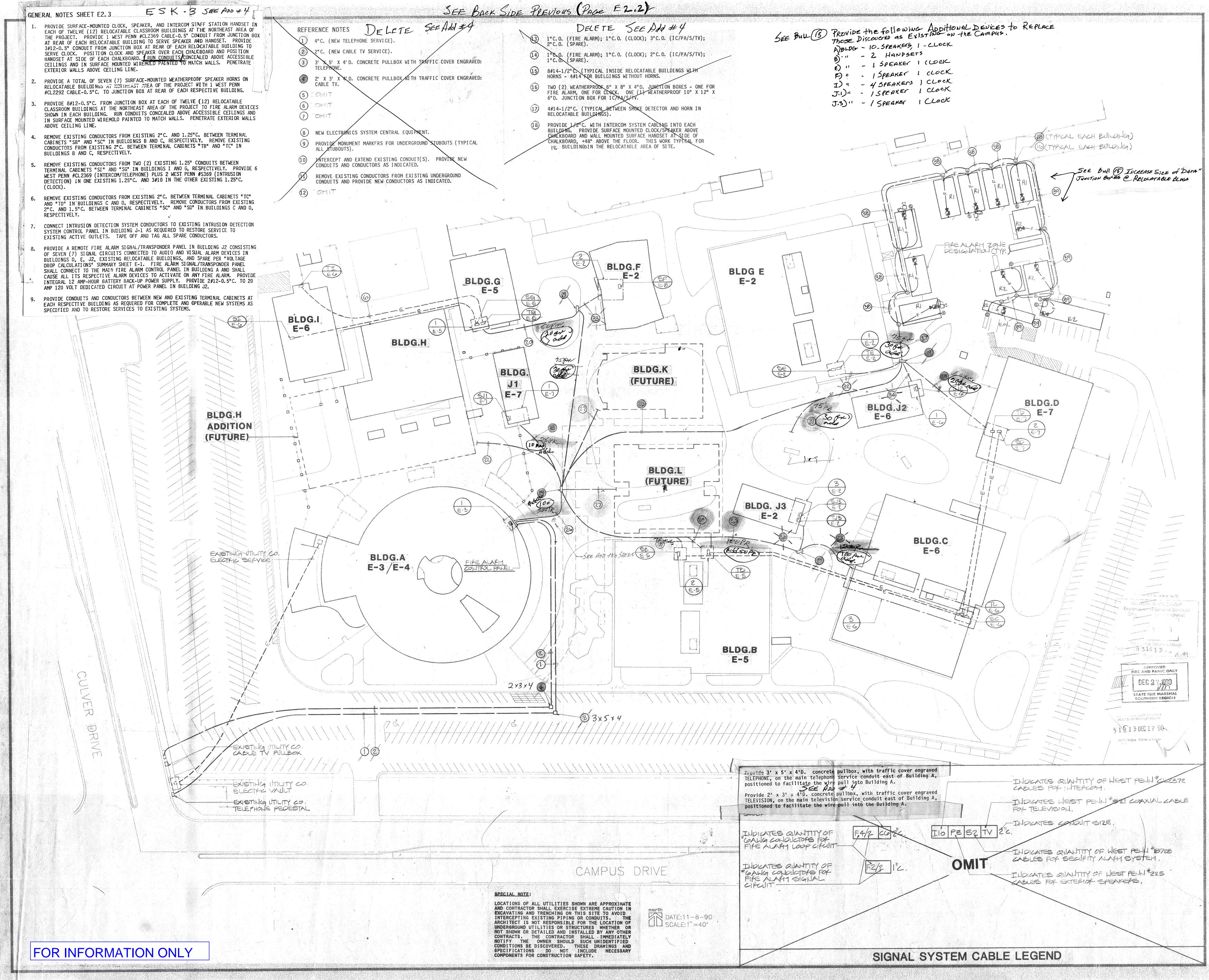
3)

(19)

## THOILATES CONDUCT SIZE THDICATES QUANTITIES INDICATES QUANTITY OF "GALIG CONDUCTORS FOF FIFE ALARY LOOP CIFULIT-لورودي والمحاولة محاد وليتكار ويستحصب ويهدا استقد والشعار متعاد الحاف INDICATES QUANTITY OF "GANG CONDUCTORS FOR FIRE ALARTI SIGNAL CIRCUIT CAMPUS DRIVE SPECIAL NOTE: LOCATIONS OF ALL UTILITIES SHOWN ARE APPROXIMATE AND CONTRACTOR SHALL EXERCISE EXTREME CAUTION IN EXCAVATING AND TRENCHING ON THIS SITE TO AVOID INTERCEPTING EXISTING PIPING OR CONDUITS. THE ARCHITECT IS NOT RESPONSIBLE FOR THE LOCATION OF UNDERGROUND UTILITIES OR STRUCTURES WHETHER OR NOT SHOWN OR DETAILED AND INSTALLED BY ANY OTHER CONTRACTS. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OWNER SHOULD SUCH UNIDENTIFIED CONDITIONS BE DISCOVERED. THESE DRAWINGS AND SPECIFICATIONS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY. DATE:11-6-90 SCALE:1"=40'



The Blurock Partnership architects and planners Frederick Brown Associates Consulting Engineers 3420 Irvine Avenue Newport Beach, CA 92550 Telephone (714) 852-9995 Facsimile (714) 852-1657 FEA\* 112.916 ARTAN 2 9. . IRVINE UNIFIED SCHOOL DISTRICT UNIVERSITY HIGH SCHOOL proper care forces received SITE ELECTRICAL SIGNAL PLAN Checked By Drawing No. E2.3 (PORTIONIL) SITE WORK



Description No. Date The Blurock Partnership ARCHITECTS AND PLANNERS Frederick Brown 12 Associates Consulting Engineers 3420 Irvine Avenue Newport Beach, CA 92550 Telephone (714) 832-9995 Focslatte (714) 832-1657 FB4 112.916 • IRVINE UNIFIED SCHOOL DISTRICT UNERSITY HIGH SCHOOL KEYPLAN SITE ELECTRICAL SIGNAL PLAN 1"=40 Scale FER. 12. 1991 Issue Date Checked By Drawn By TEP BOTO Job No. Drawing No. E2.3 (PORTION) WORR SITE

### SYSTEM WIRING NOTES

1.

REMOVE EXISTING CLOCKS, SPEAKERS, AND HANDSETS FROM THEIR RESPECTIVE BACKBOXES AND TURN OVER TO THE SCHOOL DISTRICT. PROVIDE NEW CLOCKS, SPEAKERS, AND HANDSETS IN EXISTING BACKBOXES. VERIFY IN FIELD THE ROUTING OF EXISTING CONDUITS CONNECTING BACKBOXES AND DEVICE OUTLETS TO THEIR RESPECTIVE TERMINAL CABINETS. REMOVE EXISTING CABLING AND PROVIDE NEW CABLING IN EXISTING CONDUITS AS REQUIRED TO SERVE NEW DEVICES.

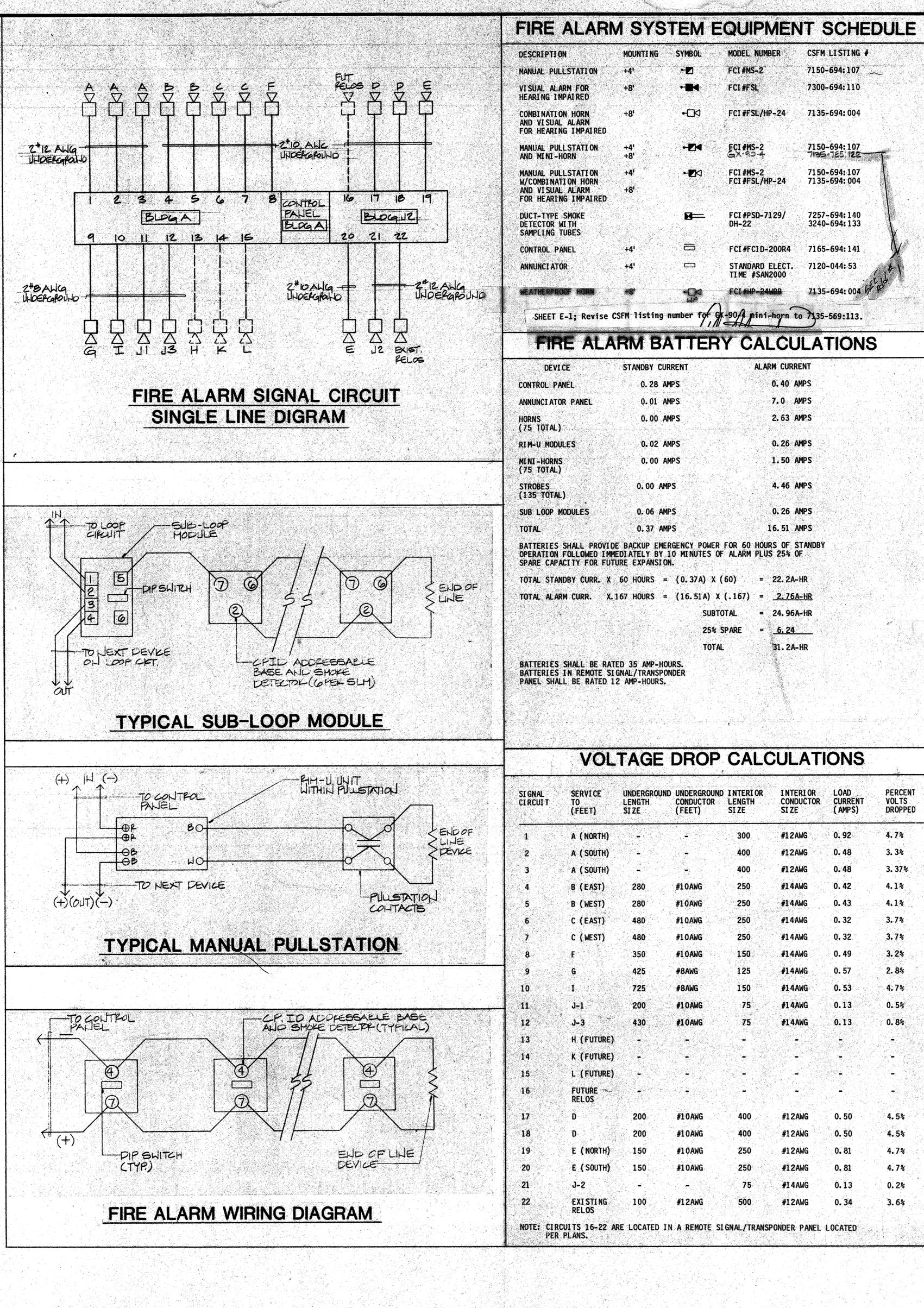
REMOVE EXISTING INTERCOM, SPEAKER, AND CLOCK 2. SYSTEM CABLING AND TERMINAL BLOCKS FROM EXISTING SOUND SYSTEM TERMINAL CABINETS. PROVIDE NEW CABLING AND TERMINAL BLOCKS AS REQUIRED TO SERVE NEW DEVICES. TAG ALL CONDUCTORS INCLUDING SPARES.

WHERE ACTIVE TELEPHONE, TELEVISION, AND 3. INTRUSION DETECTION OUTLETS EXIST, RECONNECT NEW UNDERGROUND CABLES TO EXISTING USING TERMINAL BLOCKS, SPLITTERS, AND/OR CONNECTORS AS REQUIRED TO RESTORE SERVICE.

4. SHEET E-1 SEE ADD # 2-Add "System Wiring Notes" per attached Sketch ESK-1. UNIVERSITY HS COMP. A PORTION III 3-18-91 The Blurock Partnership 2300 Newport Blvd./Newport Beach, CA 92663/Telephone (714)673-0300/FAX (714)673-9267



**R** 



SYSTE	EM EQUIPME	NT SCHEDULE		SYMBOL LIST
OUNTING SY	MBOL MODEL NUMBER	CSFM LISTING #	8=	FIRE ALARM DUCT-TYPE DETECTOR WITH SAMPLING TUBE TO BE MOUNTED ON EXISTING HVAC SYSTEM SUPPLY DUCT
	E FCI#MS=2 FCI#FSL	7150-694: 107 7300-694: 110		FIRE ALARM MANUAL PULLSTATION - SURFACE MOUNTED TEXISTING WALL AT +48" ABOVE FLOOR.
8' •	-⊡XI FCI#FSL/HP-24	7135-694:004		FIRE ALARM INDOOR HORN AND FLASHING VISUAL STROBE - SURFACE MOUNTED TO EXISTING WALL AT +8' ABOVE FLOOR.
4' ·	ECI#MS-2	7150-694:107 7155-765 122	אר אוף	FIRE ALARM OUTDOOR WEATHERPROOF HORN - SURFACE MOUNTED AT +10' ABOVE GRADE.
	FCI #MS-2 FCI #FSL/HP-24	7150-694:107 7135-694:004	<b>⊳⊿-</b> •	FIRE ALARM MANUAL PULLSTATION FLUSH MOUNTED TO EXISTING WALL AT +48" ABOVE FLOOR WITH ALARM HORN STROBE UNIT FLUSH MOUNTED AT +8' ABOVE FLOOR. PROVIDE 1/2"C. AND FIRE ALARM SYSTEM WIRING CONCEALED IN WALL BETWEEN DEVICES.
	FCI #PSD-7129/ DH-22	7257-694:140 3240-694:133		FIRE ALARM SYSTEM FLASHING VISUAL ALARM SURFACE MOUNTED TO EXISTING WALL AT +8' ABOVE FLOOR.
-4'	🗁 FCI #FCI D-200R	4 7165-694:141	•2	EXISTING FIRE ALARM MANUAL PULLSTATION TO BE REMOVED.
4	STANDARD ELECT		<b>- - E</b>	- EXISTING CONDUIT AND CONDUCTORS BELOW GRADE 8#12 3/4"C. FOR FIRE ALARM.
<b>0</b>		7135-694: 004 be pe	) (E)	NEW ELECTRONICS SYSTEM SPEAKER IN EXISTING CEILING-MOUNTED BACKBOX. SEE SYSTEM NOTES SHEET
	TERY CALC		(E)	E-1. NEW ELECTRONICS SYSTEM CLOCK AND SPEAKER, IN EXISTING WALL-MOUNTED CLOCK/SPEAKER ENCLOSURE. SEE SYSTEM WIRING NOTES SHEET E-1.
TANDBY CURREN	T ALARM CU	RRENT	Ê	NEW WALL-MOUNTED ELECTRONICS SYSTEM STAFF STATIO HANDSET IN EXISTING OUTLET BOX AT +48" ABOVE
0.28 AMPS	0.40	AMPS	а те на 1965 Г	FLOOR. SEE SYSTEM WIRING NOTES SHEET E-1. NEW DESK-MOUNTED ELECTRONICS SYSTEM ADMINISTRATI
0.01 AMPS		AMPS	<del>ک</del>	HANDSET SERVED FROM EXISTING OUTLET BOX. SEE SYSTEM WIRING NOTES SHEET E-1.
0.00 AMPS 0.02 AMPS	an a	AMPS AMPS	<b>S</b> +	NEW ELECTRONICS SYSTEM CLOCK AND SPEAKER SURFACE MOUNTED IN NEW CLOCK/SPEAKER ENCLOSURE AT +8' ABOVE FLOOR.
0.00 AMPS	1.50	AMPS	⋗	NEW ELECTRONICS SYSTEM STAFF STATION HANDSET FLU
0.00 AMPS	4.46	AMPS	▶•	MOUNTED AT +48" ABOVE FLOOR. NEW DESK-MOUNTED ELECTRONICS SYSTEM ADMINISTRATI
0.06 AMPS	0.26	AMPS		HANDSET SERVED FROM NEW FLUSH-MOUNTED OUTLET BOX AT +12" ABOVE FLOOR.
0.37 AMPS	16.51	AMPS		TERMINAL CABINET.
	ICY POWER FOR 60 HOURS OF IINUTES OF ALARM PLUS 25%		⊂ <sub>(E)</sub> ►2+	EXISTING TERMINAL CABINET. FIRE ALARM MANUAL PULLSTATION FLUSH-MOUNTED IN EXISTING WALL AT +48" ABOVE FLOOR WITH ALARM
HOURS = (0	.37A) X (60) = 22.2	la-HR		MINI-HORN UNIT FLUSH-MOUNTED AT +8' ABOVE FLOOR. PROVIDE 1/2"C. AND FIRE ALARM SYSTEM WIRING
HOURS = (1	6.51A) X (.167) = <u>2.7</u>	<u>'6A-HR</u>		CONCEALED IN WALL BETWEEN DEVICES.
	SUBTOTAL = 24.9		On the Sym clock and	bol List, add "(E)" to the symbol for new electronics system speaker in existing wall-mounted clock/speaker enclosure.
	25% SPARE = <u>6.2</u>			SEE ADD # 2
35 AMP-HOURS.	TOTAL 31.2	A-HR		

## **VOLTAGE DROP CALCULATIONS**

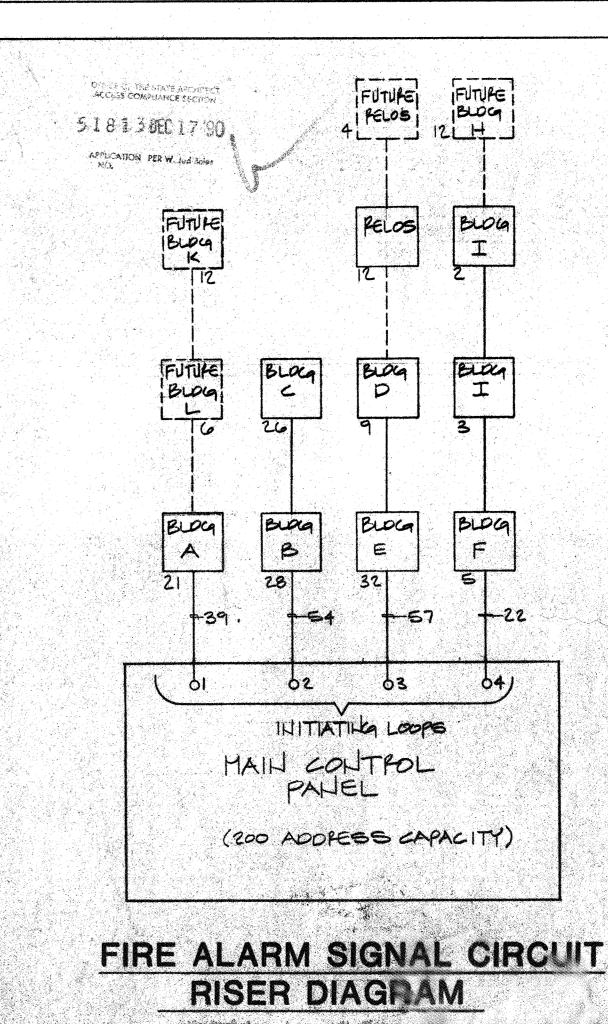
ound	UNDERGROUND CONDUCTOR (FEET)	I NTERI OR LENGTH SI ZE	INTERIOR CONDUCTOR SIZE	LOAD CURRENT (AMPS)	PERCENT VOLTS DROPPED
		300	#12AWG	0. 92	4.7%
		400	#12AWG	0.48	3. 3%
		400	#12AWG	0.48	3. 37%
	#10AWG	250	#14AWG	0.42	4.1%
	#1 OAWG	250	#14AWG	0.43	4.1%
	#10AWG	250	#1 4 AWG	0.32	3.7%
	#10AWG	250	#14AWG	0.32	3.7%
	#10AWG	150	#14AWG	0.49	3.2%
	#8AWG	125	#14AWG	0. 57	2.8%
	#8AWG	150	#14AWG	0. 53	4.7%
	#10AWG	75	#14AWG	0.13	0.5%
	#10AWG	75	#14AWG	0.13	0.8%
		-	•		
					•
		-	-		
		-			
	#10AWG	400	#12AWG	0.50	4. 5%
	#10AWG	400	#12AWG	0.50	4.5%
	#10AWG	250	#12AWG	0. 81	4.7%
	#10AWG	250	#12AWG	0. 81	4.7%
		75	#14AWG	0.13	0.2%
	#12AWG	500	#12AWG	0.34	3.6%

### FIRE ALARM SYSTEM NOTES

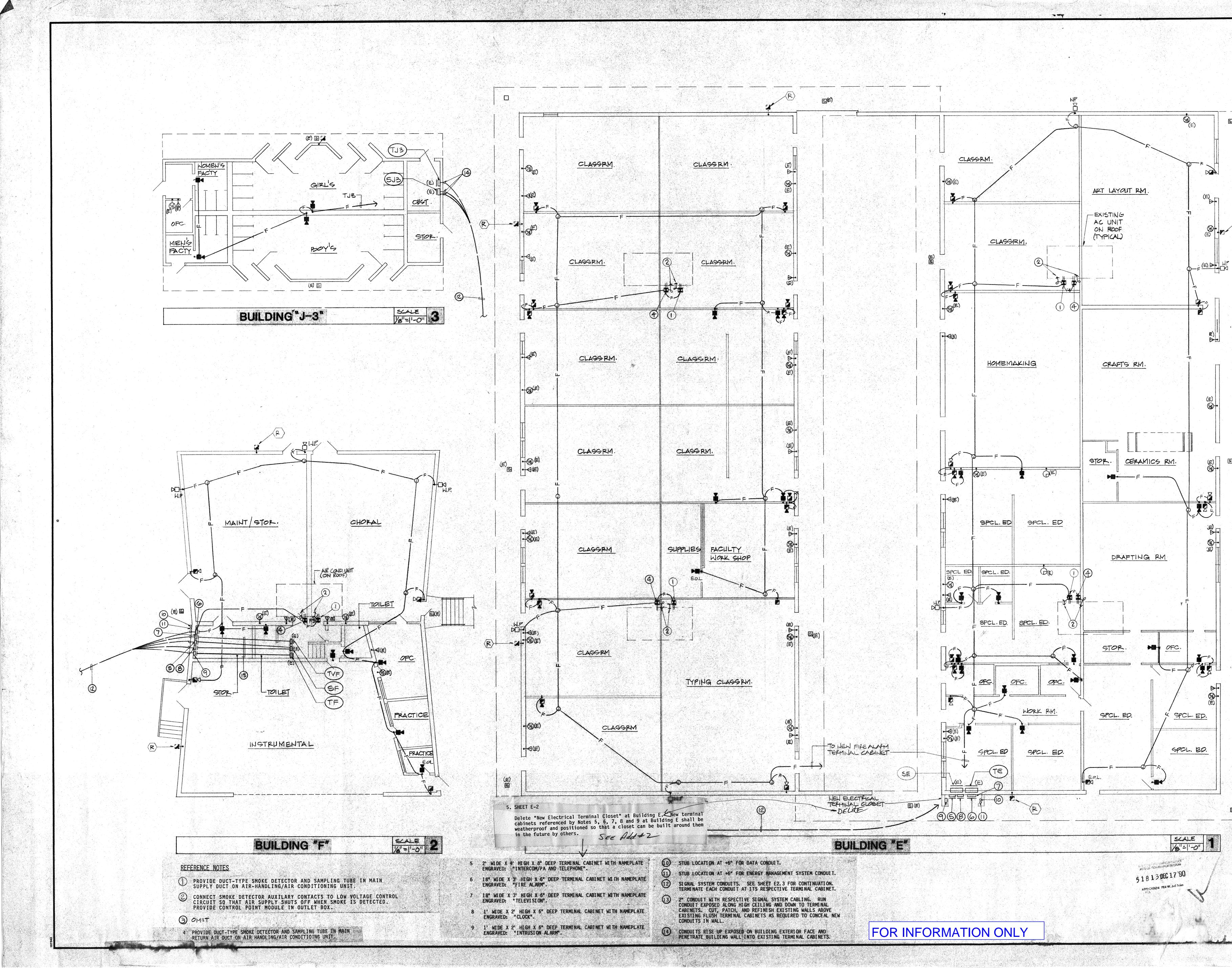
NFPA-72A.

THE FIRE ALARM SYSTEM SHALL COMPLY WITH TITLE 24, PART 2, SECTION 2-809 AND PART 3, ARTICLE 760 OF THE CALIFORNIA CODE OF REGULATIONS.

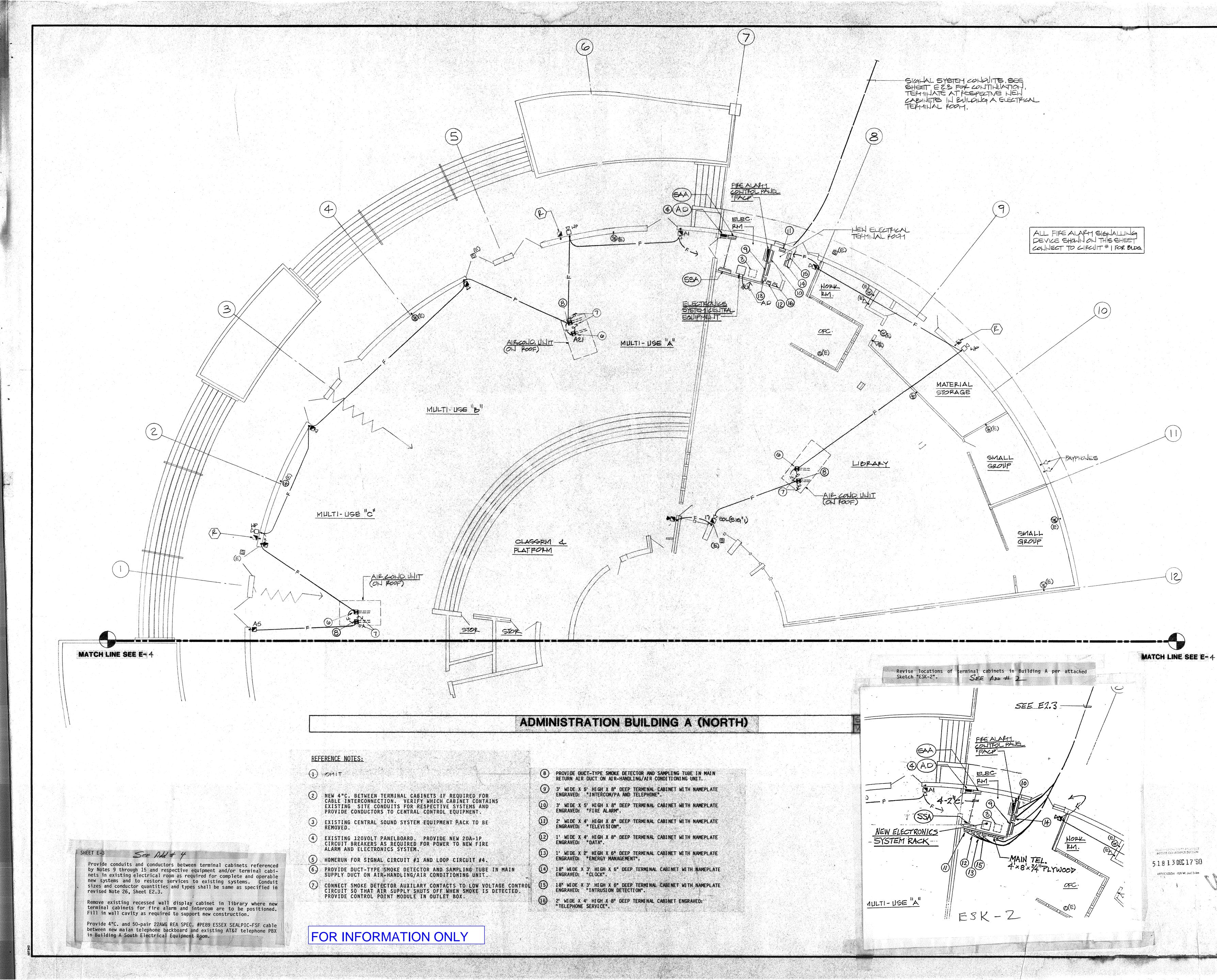
- THE FIRE ALARM SYSTEM SHALL BE POWER-LIMITED INDEPENDENT LOCAL PROTETIVE SIGNALING SYSTEM IN ACCORDANCE WITH
- THE FIRE ALARM SYSTEM SHALL INCLUDE EMERGENCY WARNING SYSTEMS FOR THE HEARING-IMPAIRED PER TITLE 24 SECTION 2-7204(a).
- 4. THE EXISTING FIRE ALARM SYSTEM SHALL BE COMPLETELY DISCONNECTED AND REMOVED SO THAT ONLY THE NEW FIRE ALARM SYSTEM SERVES THE ENTIRE SCHOOL CAMPUS.
- FIRE ALARM SYSTEM WIRING SHALL BE #14AWG OR LARGER AS INDICATED ON THE PLANS. WIRING SHALL BE IN COMPLIANCE WITH NFPA ARTICLE 760-16(b) AND ARTICLE 310. ALL WIRING SHALL BE INSTALLED IN CONDUIT OR OTHER UL-LISTED RACEWAY.
- 6 FIRE ALARM SYSTEM SHALL SOUND THE CALIFORNIA UNIFORM FIRE CODE SIGNAL WITH CONTINUOUS SOUND.
- 7 ALL AUDIBLE SIGNALING DEVICES SHALL PRODUCE THE SAME HORN-TYPE SOUND.



ING TUBE PPLY DUCT. MOUNTED TO AL STROBE TED TO \_ARM HORN/ \_OOR. [NG RADE 8#12 NG ES SHEET RAM F STATION ABOVE NI STRATI VE SEE CAL SURFACE NDSET FLUSH NISTRATIVE TLET BOX OCIATES FLOOR. S Ő system BROWN FREDERICK I CONSULTING ENGINEE CA 3420 Irvine Aven Newport Beach, (714) 852-9995 S SCHOOL ō Ш S C S **HOH** IRVI Ш. SIG > æ -0 UNIVERSI PUS  $\cap$ Ω (5 U Ę -Drawn By MORecked By SPZ HONE FEB. 12, 1991 oject Number 529.022 SHEET CALCS & NOTES E-1

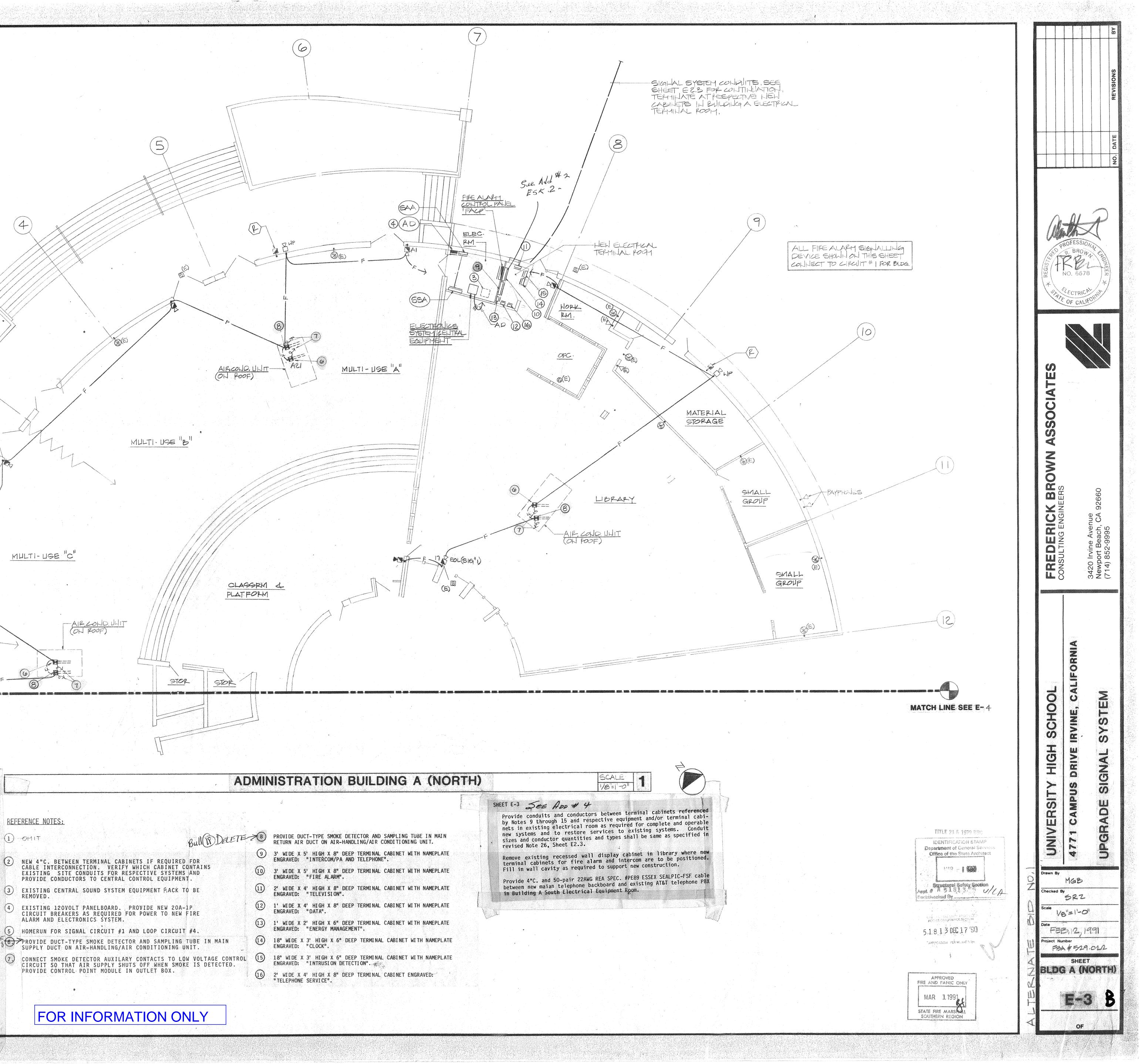


国(三) St. OF CAL SSOCIATES N BRO FREDERICK CONSULTING ENGINE ا (۲) CA 3420 Irvine Aven Newport Beach, ( (714) 852-9995 D A 0 HIGH SCHOOL DRIVE IRVINE, CALIFO SYSTEMS SIGNAL UNIVERSITY 4771 CAMPUS GRADE Drawn By RW -7 S(E) ecked By SRZ 16"=1-0" FEB. 12, 1991 oject Number FBA # 529.022 SHEET BLDGS."E","F",&"J-3 **E-2** 



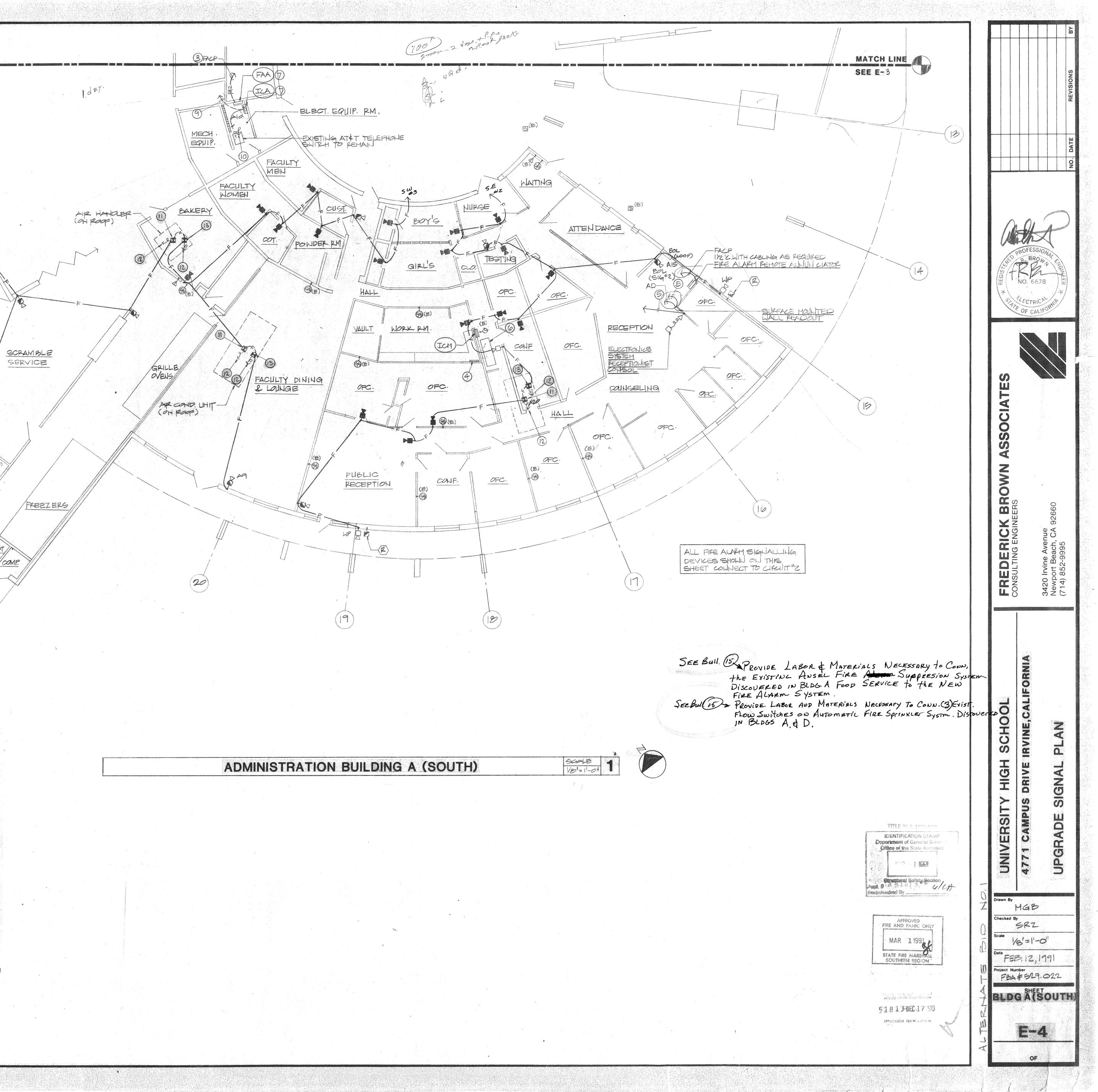
SSOCIATES 3 BRO 0 FREDERICK CONSULTING ENGINE Ö, CA 3420 Irvine Aven Newport Beach, (714) 852-9995 0 N N N 0 O SCHO VINE, S g S HOH Ш NOIS 6 E S Ш О **M** 0 C C C CINIC Drawn By MGD Checked By SRZ 10=-0" FEB,12,1991 ject Number FBA # 529.022 SHEET **BLDG A (NORTH)** E-3

(4)3 (2)MULTI-USE "C" MATCH LINE SEE E- 4 Revise locations terminal per attached Sketch "ESK-2": SEE E1.3 **REFERENCE NOTES:** (1) -OHIT (2)ELEC. G (4) SSA--(4) NEW ELECTRONICS-SYSTEM RACK (5) HOPH E  $(\overline{c})$ -MAIN TEL. 4×8×34"PLYWOOD 2)(15) · . (/3) OFC. MULTI-USE "A" Q(E)FSK-2 SEE ADD # 2 al and a second s



			nan da la kana ka kana ka dina kana kana kana kana kana kana kana k		a na na n	
	G	MATCH LINE SEE E- 3				
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			1 OMIT			
			E-2 AND NOTE 3	THIS SHEET.	CP. SEE NOTE 18 SHEET 2 CONDUCTORS TO FACP	
			UTILIZING EXIS 2 THIS SHEET.	TING CONDUIT. SEE NO	TE 18 SHEET E-2 AND NOTE ARD AND EQUIPMENT TO REMA	IN
				ING TO TERMINAL CABIN REMOVE EXISTING INTE	ET "ICA". RCOM CONTROL CONSOLE AND	
			7. PROVIDE NEW TE	RMINAL CABINET INDICA		
			9. PROVIDE ELECTR EQUIPMENT UTIL	ONICS SYSTEM CONDUCTO IZING EXISTING CONDUI	RS TO NEW CENTRAL T.	
		Bull 18 DELE	FUNCTIONS IN B	OTH SYSTEMS.	TORS. INTERFACE WITH ATION AND TELEPHONE ID SAMPLING TUBE IN MAIN IDITIONING UNIT.	
			12 CONNECT SMOKE CONTROL CIRCUI	황물의 영상 경우 친구들은 것이 모르겠어?	ITACTS TO LOW VOLTAGE SHUTS OFF WHEN SMOKE IS	
		Bull B DELA	HAIN PROVIDE DUCT	김 생각을 다 나는 것을 감독했다. 그 것 것 것 같은 것 같은 것 같이 없는 않는 것 같이 않는 것 같이 없는 것 같이 않는 것 같이 없는 것 같이 않는 않는 것 같이 않는 것 않는 것 같이 않는 것 않는 것 같이 않는 것 같이 않는 것 같이 않는 않는 것 같이 않는 것 않는 것 같이 않는 것 같이 않는 것 같이 않는 것 같이 않는 것 않는 것 같이 않는 것 않는 것 않는 것 않는 것 않 않는 않는 것 않는 않는 것 않는	TOF AND SAMPLING THE HANDLING/AIR CONDIT	E
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SERVICE CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONT						

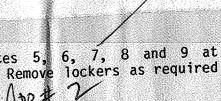
FOR INFORMATION ONLY



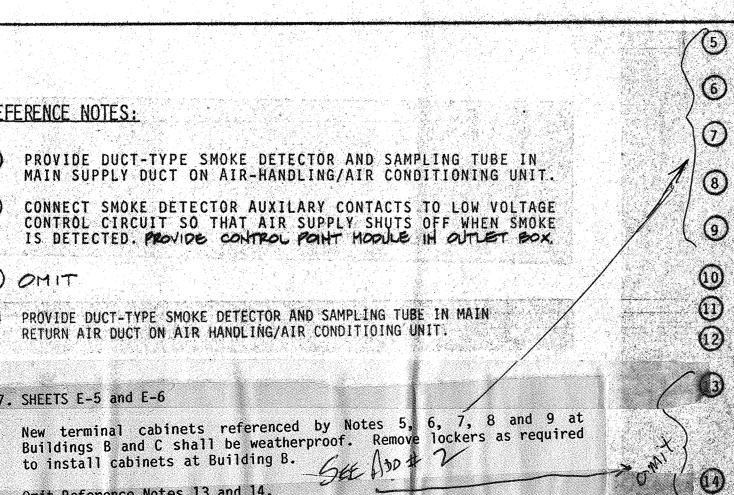
4 PROVIDE DUCT-TYPE SMOKE DETECTOR AND SAMPLING TUBE IN MAIN RETURN AIR DUCT ON AIR HANDLING/AIR CONDITIOING UNIT. 7. SHEETS E-5 and E-6 New terminal cabinets referenced by Notes 5, 6, 7, 8 and 9 at Buildings B and C shall be weatherproof. Remove lockers as required to install cabinets at Building B.  $G_{44}$  App 4  $\mathcal{V}$ remove locke. Omit Reference Notes 13 and 14.

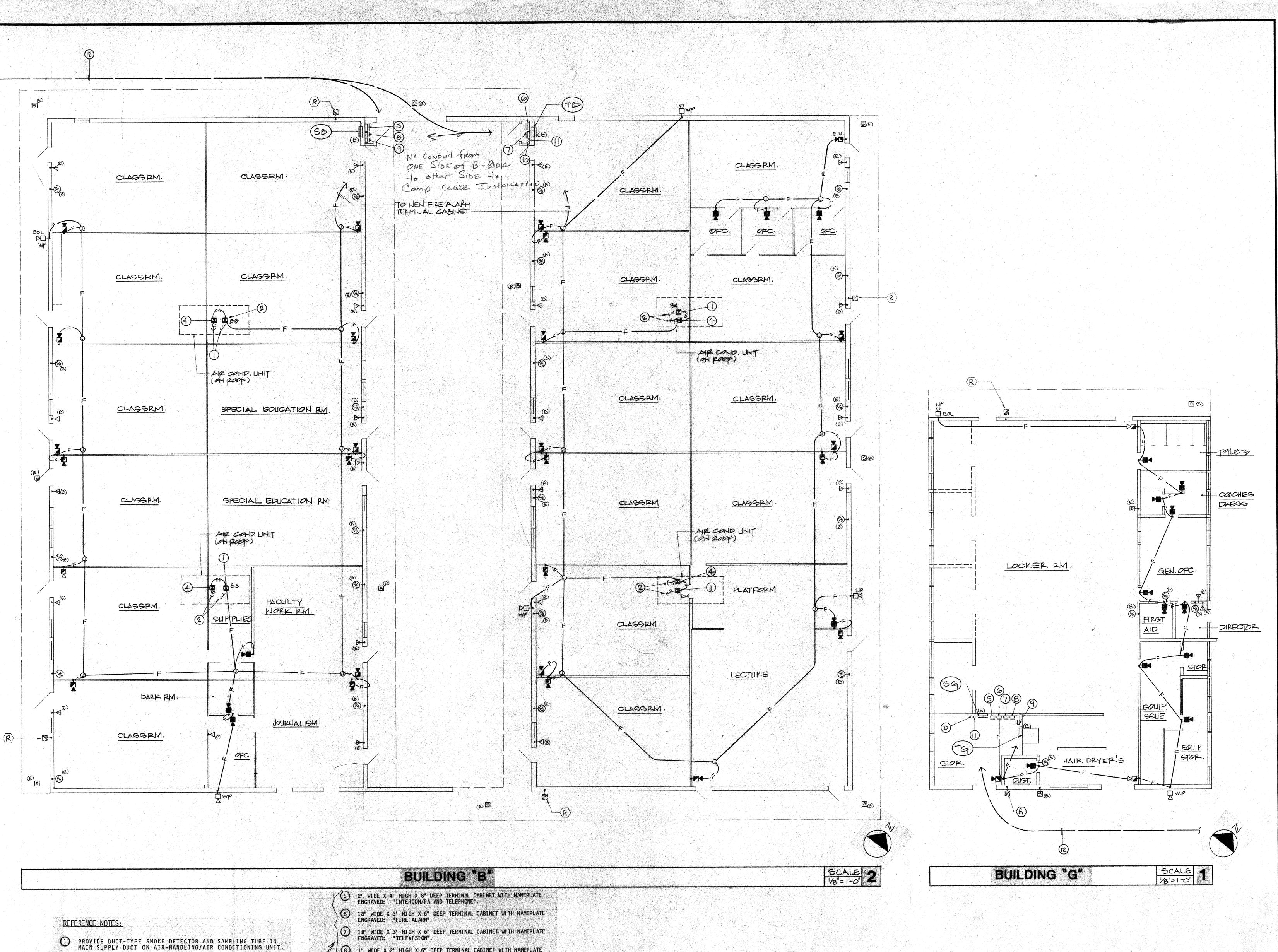
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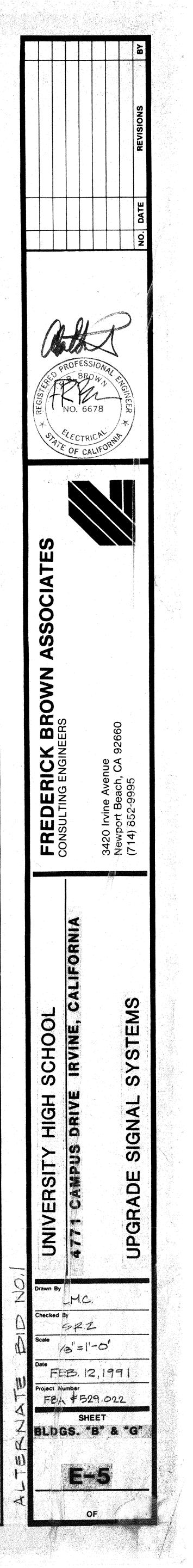


1' WIDE X 2' HIGH X 6" DEEP TERMINAL CABINET WITH NAMEPLATE ENGRAVED: "CLOCK". 9 1' WIDE X 2' HIGH X 6" DEEP TERMINAL CABINET WITH NAMEPLATE ENGRAVED: "INTRUSION ALARM". (10) STUB LOCATION AT +6" FOR DATA CONDUIT. STUB LOCATION AT +6" FOR ENERGY MANAGEMENT SYSTEM CONDUIT. 12 SIGNAL SYSTEM CONDUITS. SEE SHEET E2.3 FOR CONTINUATION. TERMINATE EACH CONDUIT AT ITS RESPECTIVE TERMINAL CABINET. 2" CONDUIT WITH RESPECTIVE SIGNAL SYSTEM CABLING. RUN CONDUIT EXPOSED ALONG HIGH CEILING AND DOWN TO TERMINAL CABINETS. CUT, PATCH, AND REFINISH EXISTING WALLS ABOVE EXISTING FLUSH TERMINAL CABINETS AS REQUIRED TO CONCEAL NEW CONDUITS IN WALL.

CONDUITS RISE UP EXPOSED ON BUILDING EXTERIOR FACE AND PENETRATE BUILDING WALL INTO EXISTING TERMINAL CABINETS.

FOR INFORMATION ONLY

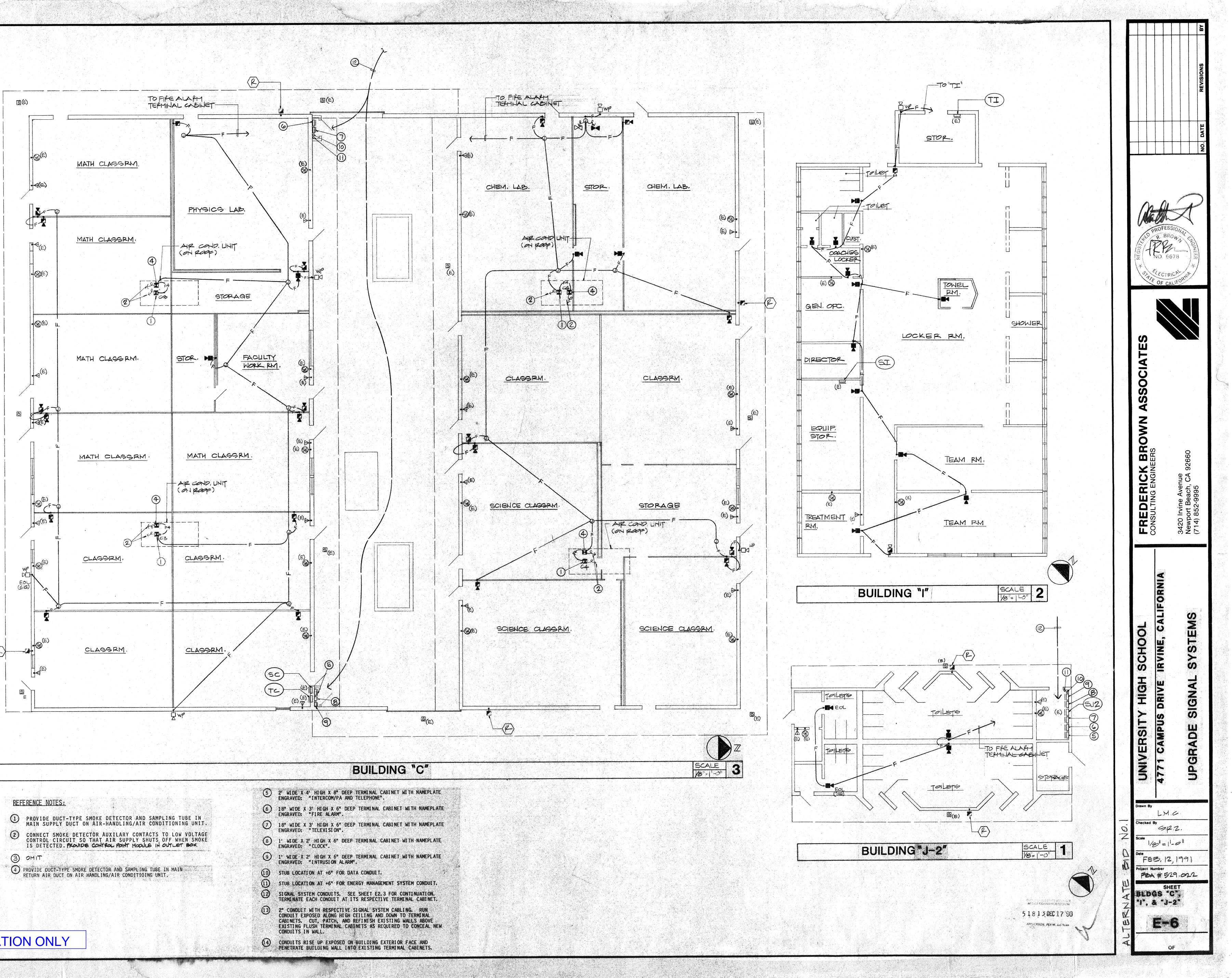
ALTER COMPLEX ELECTION 51813BEC17'90 IPPLICATION PER W. and Poles

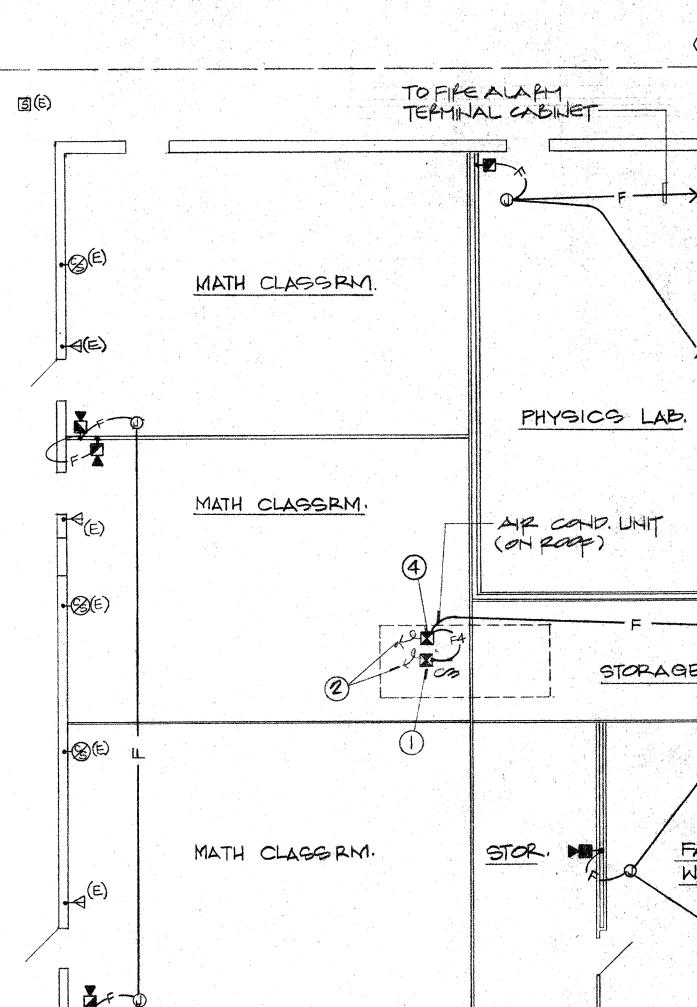


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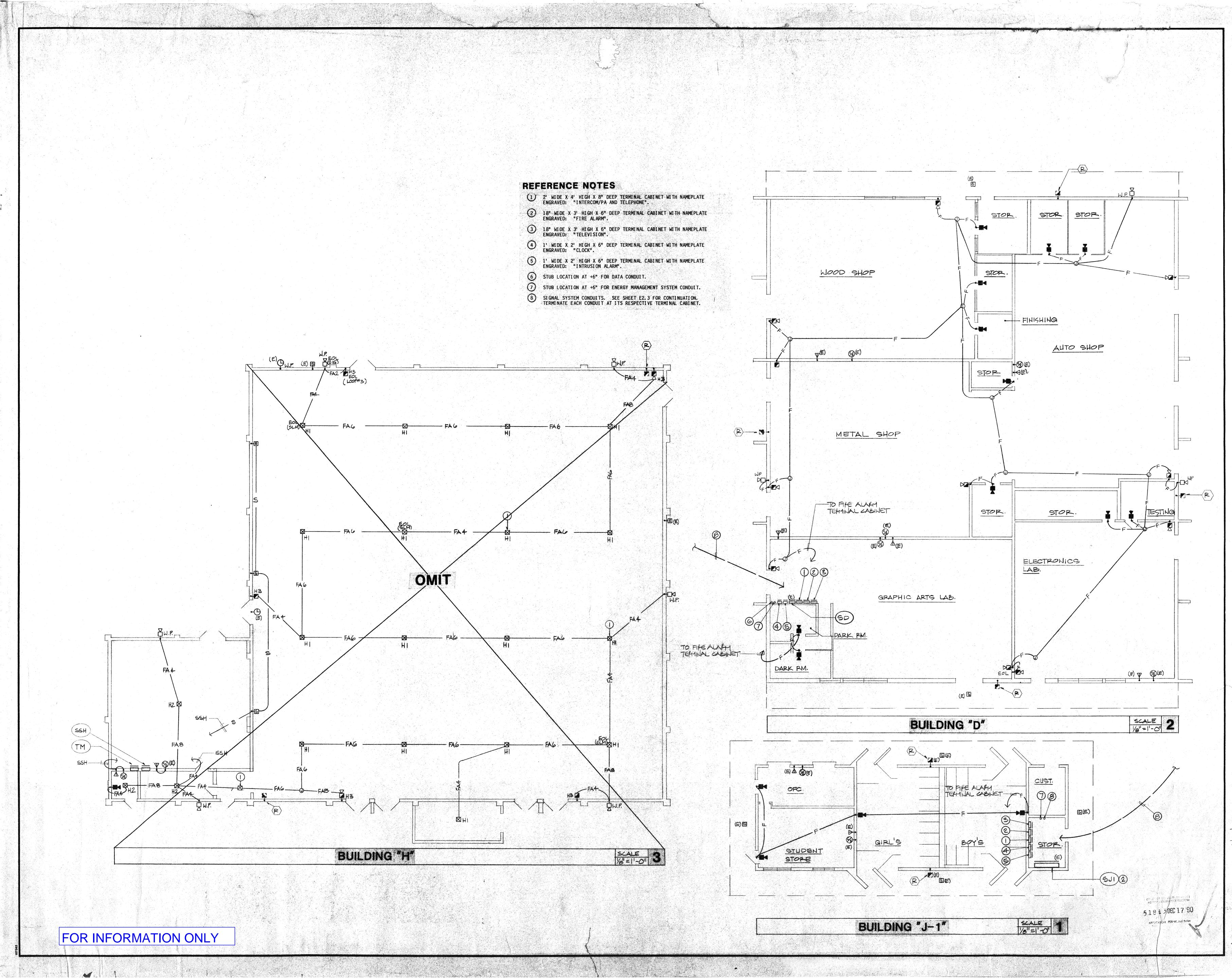
•

- PROVIDE DUCT-TYPE SMOKE DETECTOR AND SAMPLING TUBE IN MAIN SUPPLY DUCT ON AIR-HANDLING/AIR CONDITIONING UNIT. (2) CONNECT SMOKE DETECTOR AUXILARY CONTACTS TO LOW VOLTAGE CONTROL CIRCUIT SO THAT AIR SUPPLY SHUTS OFF WHEN SMOKE IS DETECTED. PROMOB CONTROL POINT MODULE IN OUTLET BOX.





5	2' WIDE X 4' HIGH X 8" DEEP TERMINAL CABINET WITH NAMEPLATE ENGRAVED: "INTERCOM/PA AND TELEPHONE".
6	18" WIDE X 3" HIGH X 6" DEEP TERMINAL CABINET WITH NAMEPLATE ENGRAVED: "FIRE ALARM".
Ø	18" WIDE X 3' HIGH X 6" DEEP TERMINAL CABINET WITH NAMEPLATE ENGRAVED: "TELEVISION".
8	1' WIDE X 2' HIGH X 6" DEEP TERMINAL CABINET WITH NAMEPLATE ENGRAVED: "CLOCK".
9	1' WIDE X 2' HIGH X 6" DEEP TERMINAL CABINET WITH NAMEPLATE ENGRAVED; "INTRUSION ALARM".
0	STUB LOCATION AT +6" FOR DATA CONDUIT.
0	STUB LOCATION AT +6" FOR ENERGY MANAGEMENT SYSTEM CONDUIT.
02	SIGNAL SYSTEM CONDUITS. SEE SHEET E2.3 FOR CONTINUATION. TERMINATE EACH CONDUIT AT ITS RESPECTIVE TERMINAL CABINET.
13	2" CONDUIT WITH RESPECTIVE SIGNAL SYSTEM CABLING. RUN CONDUIT EXPOSED ALONG HIGH CEILING AND DOWN TO TERMINAL CABINETS. CUT, PATCH, AND REFINISH EXISTING WALLS ABOVE EXISTING FLUSH TERMINAL CABINETS AS REQUIRED TO CONCEAL NEW CONDUITS IN WALL.
•	CONDUITS RISE UP EXPOSED ON BUILDING EXTERIOR FACE AND PENETRATE BUILDING WALL INTO EXISTING TERMINAL CABINETS.



BRO RE NO. 6678 THE OF CALIFU OCIATES n A FREDERICK BROWN CONSULTING ENGINEERS 660 3420 Irvine Avenue Newport Beach, CA 926 (714) 852-9995 UNIVERSITY HIGH SCHOOL 471 CAMPUS DRIVE ARVINE, CALIFORNIA VSTEMS Ċ SIGNAL UPGRADE Drawn By R.N Checked By SRZ 1/6'=1'-0" FEB. 12, 1991 Project Number FBA # 529,022 SHEET BLDGS."D""H"&"J-1" E-7 OF