PANEL: A MAINS: 200A VOLTAGE/PHASE: 120/204/1ø MOUNTING: SURFACE ENTRY: TOP
FEEDER SIZE: ø-C SHORT CKT. CAPACITY: 10,000 MAIN BREAKER: NO

CKT. NO.	SERVES	LOAD (KVA) ØA	LOAD (KVA) ØB	BREAKER TRIP	BREAKER POLE	BREAKER POLE	BREAKER TRIP	LOAD (KVA) ØA	LOAD (KVA) ØB	SERVES	CKT. NO.
1	LIGHTING	0.8		20	1	1	20	1.0		RECEPTACLES	2
3	LIGHTING		1.2	20	1	1	20		1.0	RECEPTACLES	4
5	RECEPTACLES	1.0		20	1	1	20	1.0		RECEPTACLES	6
7	RECEPTACLES		1.0	20	1	1	20		1.0	RECEPTACLES	8
9	RECEPTACLES	1.0		20	1	1	20	1.0		RECEPTACLES	10
11	RECEPTACLES		1.0	20	1	1	20		1.0	GAS U.H.	12
13	RECEPTACLES	1.0		20	1	2	20	1.0		EH-2	14
15	GF-1		1.0	20	1	|	|		1.0		16
17	CU-1	2.5		60	2	2	20	1.0		EH-3	18
19			2.5	|	|	|	|		1.0		20
21	SPARE			20	1	1	20			SPACE ONLY	22
23	SPARE			20	1	1	20			SPACE ONLY	24
25	SPARE			20	1	1	20			SPACE ONLY	26
27	SPARE			20	1	1	20			SPACE ONLY	28
29	SPARE			20	1	1	20			SPACE ONLY	30
31	SPARE			20	1	1	20			SPACE ONLY	32
33	SPARE			20	1	1	20			SPACE ONLY	34
35	SPARE			20	1	1	20			SPACE ONLY	36
37	SPARE			20	1	1	20			SPACE ONLY	38
39	SPARE			20	1	1	20			SPACE ONLY	40
41	SPARE			20	1	1	20			SPACE ONLY	42
	SUB TOTAL CONNECTED	6.3	7.2					5.0	5.0	SUB TOTAL CONNECTED	

SUB TOTAL CONNECTED KA: 11.3 SUB TOTAL CONNECTED KB: 12.2 TOTAL CONNECTED: 23.5

NOTES:

PANEL: B MAINS: 400A VOLTAGE/PHASE: 120/240/1ø MOUNTING: SURFACE ENTRY: BOTTOM
FEEDER SIZE: #500CMCM SHORT CKT. CAPACITY: 22,000 MAIN BREAKER: YES (400A/2P)

CKT. NO.	SERVES	LOAD (KVA) ØA	LOAD (KVA) ØB	BREAKER TRIP	BREAKER POLE	BREAKER POLE	BREAKER TRIP	LOAD (KVA) ØA	LOAD (KVA) ØB	SERVES	CKT. NO.
1	PANEL "A"	11.3		200	2	2	200	20.0		EXIST. SERV. DIST. CEN.	2
3			12.2	|	|	|	|		20.0		4
5	SPARE			100	2	2	100			SPARE	6
7				|	|	|	|				8
9	SPARE			60	2	2	60			SPARE	10
11				|	|	|	|				12
13	SPACE ONLY			100	2	2	100			SPACE ONLY	14
15				|	|	|	|				16
17											18
19											20
21											22
23											24
25											26
27											28
29											30
31											32
33											34
35											36
37											38
39											40
41											42
	SUB TOTAL CONNECTED	11.3	12.2					20.0	20.0	SUB TOTAL CONNECTED	

SUB TOTAL CONNECTED KA: 31.3 SUB TOTAL CONNECTED KB: 32.2 TOTAL CONNECTED: 63.5

NOTES:
1. PANEL SHALL BE UL LISTED FOR SERVICE ENTRANCE USE.
2. PROVIDE NEMA 3R ENCLOSURE.

LIGHTING FIXTURE SCHEDULE

DESIGNATION	LAMPS: INCANDESCENT	LAMPS: FLUORESCENT	LAMPS: METAL HALIDE	LAMPS: HIGH PRESSURE SODIUM	QUANTITY	WATTS	MOUNTING: CEILING: RECESSED LENGTH	MOUNTING: CEILING: CLASS	MOUNTING: CEILING: RECESSED	MOUNTING: WALL: HEIGHT ABOVE FINISHED FLOOR OR GRADE	DESCRIPTION: SPECIFICATION, TYPE MATERIALS, FINISH, MOUNTING	MANUFACTURER'S PRODUCT ITEM: COMPANY	MANUFACTURER'S PRODUCT ITEM: CATALOG NO.	REMARKS
A		•			3	32	•				10" WIDE x 3" DEEP PENDANT DOWN/INDIRECT: 60% DIRECT, 40% INDIRECT	LEDALITE	8416-T03-P	3 LAMPS PER FOUR FOOT CROSS SECTION. SUSPENDED WITH SUSPENSION CONTINUOUS RUN. MOUNTING LENGTHS AS INDICATED ON LIGHTING PLAN.
B			•		1	175					UNDERCANOPY LIGHT: POLYCARBONATE LENS	LITHONIA	VRAOV-175N	
C			•		1	100					UNDERCANOPY LIGHT: POLYCARBONATE LENS	LITHONIA	VRAOV-100N	
D		•			4	32			•		2x4 GRID TROFFER, 0.125" THICK ACRYLIC LENS	LITHONIA	2SPG432A12 125	
E		•			2	32			•		2x4 GRID TROFFER, 0.125" THICK ACRYLIC LENS	LITHONIA	2SPG232A12 125	
F		•			2	70 MAX			•		2x2 GRID TROFFER, 0.125" THICK LENS	LITHONIA	2SPG2G231A12 125	

LIGHTING FIXTURE NOTES

1. FOUR FOOT T-8 LAMPS SHALL OPERATE WITH ONE OF THE FOLLOWING PROGRAMED RAPID START BALLASTS- NO SUBSTITUTIONS.

MANUFACTURER	BALLAST NO. 1 LAMP	2 LAMP	3 LAMP	4 LAMP
ADVANCE	R(V)CN-1S32-SC	R(V)CN-2S32-SC	R(V)CN-3S32-SC	R(V)CN-4S32-SC
UNIVERSAL	B232PUNVHP-A	B232PUNVHP-A	-	-
ESI	ES-2/1-T8-32/25/17-UNV-A	ES-2/1-T8-32/25/17-UNV-A	ES-3-T8-32/25-UNV-NM-PS	-
SYLVANIA	QTP1x32T8120(277) PSN-SC	QTP2x32T8120(277) PSN-SC	QTP3x32T8120(277) PSN-SC	QTP4x32T8120(277) PSN-SC

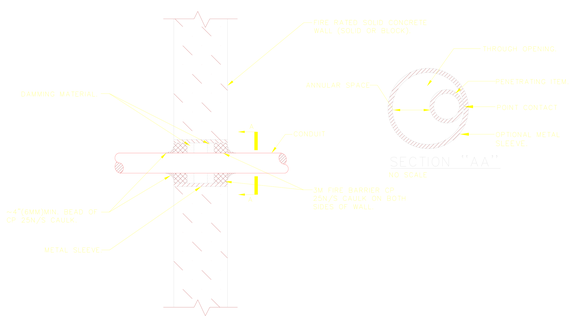
2. FOUR FOOT T-8 LAMPS SHALL BE ONE OF THE FOLLOWING, NO SUBSTITUTIONS.

MANUFACTURER	LAMPS	PRODUCT CODE
GE	F32T8/SP35/ECO	25635
SYLVANIA	FO32B835ECO/CSI/6KW	21978
PHILIPS	F32T8/TL835/AL-TD	346677-246770-2

3. SHOP DRAWINGS SHALL CLEARLY INDICATE SPECIFIC BALLAST AND LAMP, OR THEY WILL BE REJECTED.

L E G E N D

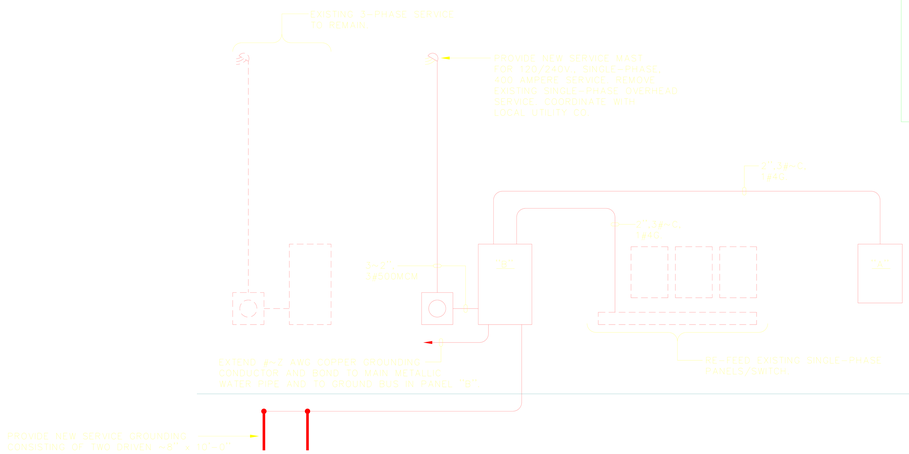
SYMBOL	DESCRIPTION
A, 3	INCANDESCENT CEILING OR COMPACT FLUORESCENT LIGHTING FIXTURE. "A" REFERS TO DESIGNATION IN THE LIGHTING FIXTURE SCHEDULE. "3" REFERS TO SWITCH CONTROL AND "1" REFERS TO CIRCUIT NUMBER.
A, 3, 1	FLUORESCENT LIGHTING FIXTURE. "A" REFERS TO DESIGNATION IN THE LIGHTING FIXTURE SCHEDULE. "3" REFERS TO SWITCH CONTROL AND "1" REFERS TO CIRCUIT NUMBER.
	WALL-MOUNTED TWIN-HEAD EMERGENCY LIGHTING FIXTURE, CONNECT TO UNSWITCHED LIGHTING CIRCUIT. MOUNT 7'-6" AFF EXCEPT NOT LESS THAN 6" BELOW CEILING. "80" BY SERVICE INDICATES WIRE GUARD TO BE PROVIDED.
	WALL-SWITCH SINGLE POLE UNLESS NOTED. "L" OR "L-AMPS" INDICATES EQUIPPED WITH PILOT LIGHT TO INDICATE WHEN SWITCH IS ON. "W" INDICATES WEATHERPROOF. "K" INDICATES KEY OPERATED SWITCH. "+48"/- ABOVE FLOOR EXCEPT IN MASONRY WALLS WHERE HEIGHT SHALL BE ADJUSTED TO HAVE BOX EDGE COMPLIANT IN MASONRY COURSE.
	EXIT SIGN. "W" INDICATES WALL MOUNTING. "C" INDICATES CEILING MOUNTING. "1" INDICATES SINGLE FACE. "2" INDICATES DOUBLE FACE. "P" INDICATES PENDANT MOUNTING. PROVIDE DIRECTIONAL ARROWS ON EXIT SIGNS AS INDICATED ON PLANS. "W" INDICATES WIRE GUARDS TO BE PROVIDED. SIGNS TO BE EQUIPPED WITH BATTERY BACK-UP.
48	DUPLEX PLUG RECEPTACLE, 120-VOLTS, 20-AMPERES, MOUNT 3" ABOVE BACKSPLASH AT WORK COUNTERS AND LAVATORIES AND +18" AFF ELSEWHERE UNLESS NOTED TO A DIFFERENT HEIGHT.
GFCI	QUADRAPLEX PLUG RECEPTACLE, 120-VOLTS, 20-AMPERES. MOUNT 3" ABOVE BACKSPLASH AT WORK COUNTERS/LAVATORIES AND +18" AFF ELSEWHERE UNLESS NOTED TO A DIFFERENT HEIGHT.
	DUPLEX PLUG RECEPTACLE, 120-VOLTS, 20-AMPERES, SHAPED CENTER. INDICATES EQUIPPED WITH BUILT-IN GROUND FAULT CIRCUIT INTERRUPTER. MOUNT 3" ABOVE BACKSPLASH AT WORK COUNTERS/LAVATORIES AND +18" AFF ELSEWHERE UNLESS NOTED TO A DIFFERENT HEIGHT. "WP" INDICATES WEATHERPROOF "WHILE IN USE" COVER. MOUNT ON EXTERIOR OF BUILDING.
4-12	HOMERUN CONDUIT AND CONDUCTORS EXTENDED TO PANELBOARD "A". CIRCUITS NO. 1 AND 2. CROSS LINES INDICATE THE NUMBER OF NO. 12 AWG CONDUCTORS. WHERE ARROW HAS NO NUMBER, THE CONDUCTOR IS A SINGLE NO. 12 AWG CONNECTED TO DIFFERENT PHASES WITHIN THE PANELBOARD. REGARDLESS OF NUMBERING INDICATED ON THE DRAWINGS.
	CONDUIT IN THE FLOOR CONSTRUCTION OR UNDERGROUND SHOWN TURNING UP.
	CONDUIT IN THE WALL OR CEILING CONSTRUCTION SHOWN TURNING DOWN.
J	JUNCTION BOX. SIZE AND USE AS REQUIRED. COVERPLATE SHALL OVERLAP THE BOX EDGE BY 1/2" WHERE RECESSED IN WALL WITH CONCEALED WIRING.
	ELECTRIC MOTOR REQUIRING DONNECTION. SIZE, USE, AND LOCATION AS INDICATED ON PLANS. VERIFY LOCATION AND CONNECTIONS REQUIRED WITH MECHANICAL TRADE PRIOR TO ROUGH-IN. USE FLEXIBLE CONDUIT WITHIN 18" OF EQUIPMENT.
	MANUAL MOTOR STARTER TO CONTROL MOTOR INDICATED. SAME MOUNTING HEIGHT AS WALL SWITCH.
	POWER DISCONNECT SWITCH. HEAVY DUTY "HD" RATED. PROVIDE NEMA 3R ENCLOSURE IN DRAWINGS.
	FIRE ALARM MANUAL PULL STATION. 48" AFF.
	FIRE ALARM HORN/STROBE COMBO. PROVIDE HORN/STROBE. 80" AFF EXCEPT NOT LESS THAN 6" BELOW CEILING. "80" BY SERVICE INDICATES WIRE GUARD TO BE PROVIDED.
AD	WALL-MOUNTED INTERCOM TELEPHONE HANDSET. SAME MOUNTING HEIGHT AS RECEPTACLE WALL SWITCH. "AD" INDICATES ADMINISTRATIVE TYPE TELEPHONE. LOCATE CLOSE TO CHALKBOARDS. CHALKBOARDS TYP.
	WALL-MOUNTED INTERCOM LOUDSPEAKER. LOCATE 7'-6" AFF. EXCEPT NOT LESS THAN 12" BELOW CEILING.
	COMPUTER OUTLET. PROVIDE 4" SQUARE BOX WITH SINGLE-GANG DEVICE RING AND COVERPLATE. INSTALL BOX AS SHOWN ON PLANS. STUBS TO ACCESSIBLE CEILING SPACE. PROVIDE 1" EMT CONDUIT. PROVIDE 2" MINIMUM BOTTOM BOX. INSTALL BOX FLUSH WITH BUILDING LOCATE BOTTOM BOX 3" ABOVE BACKSPLASH AT WORK COUNTERS AND +18" AFF ELSEWHERE UNLESS NOTED TO A DIFFERENT HEIGHT. PROVIDE CATEGORY 5E CABLING, MODULAR JACKS, FACEPLATE, ETC. SEE DRAWINGS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.
	SURFACE NON-METALIC RACE WAY BUILT-IN DIVIDER FOR SEPARATION OF POWER AND DATA/VOICE WIRING. PROVIDE DUPLEX RECEPTACLES, COMPUTER OUTLETS, AND TELEPHONE OUTLETS WHERE INDICATED ON PLANS. LOCATED 3" ABOVE BACKSPLASH AT WORK COUNTERS AND +18" AFF ELSEWHERE UNLESS NOTED OTHERWISE.
SD	FIRE ALARM DUCT SMOKE DETECTOR. FURNISHED BY ELECTRICAL. INSTALLED BY MECHANICAL. MECHANICAL CONTRACTOR TO PROVIDE SYSTEM BY ELECTRICAL. CONNECT TO SMOKE DAMPER. ALARM FURNISHED AND INSTALL REMOTE STATUS INDICATOR. FIELD VERIFY LOCATION.
	FIRE ALARM FLASHING STROBE. HORN. 80" AFF EXCEPT NOT LESS THAN 12" BELOW CEILING. "80" BY SERVICE INDICATES WIRE GUARD TO BE PROVIDED.
	CEILING MOUNTED FIRE ALARM HEAT DETECTOR.



SECTION "AA"
NO SCALE

NOTES:
1. THE FIRESTOP SYSTEM MUST BE INSTALLED ON BOTH SIDES OF THE WALL WHEN THE ANNULAR SPACE IS GREATER THAN 1"(25MM).
2. WHEN THE MAXIMUM ANNULAR SPACE IS 1"(25MM) OR LESS, A 1/2"(13MM) MINIMUM DEPTH OF CP 25N/S CONFORMING CAULK IS REQUIRED. THE CAULK MAY BE APPLIED TO BOTH SIDES OF THE WALL SURFACE.
3. WHEN THE MAXIMUM ANNULAR SPACE IS GREATER THAN 1"(25MM), A 1"(25MM) MINIMUM DEPTH OF CP 25N/S CAULK IS REQUIRED.
4. THE MAXIMUM ANNULAR SPACE TO BE FILLED WITHOUT A COVER PLATE IS 2 1/2" (64MM).
5. IF PROVIDED, SEAL THE METAL SLEEVE AND 1/2"(13MM) MINIMUM BEAD OF CP 25N/S CAULK AROUND THE PERIMETER OF THE SLEEVE.
6. POINT CONTACT IS ANNULAR SPACE WITH THE PENETRATING ITEM AND THE THROUGH OPENING IS PERMISSIBLE.
7. THE CP 25N/S CAULK FIRE RATING IS BASED ON THE WET INSTALLED DEPTH. SHRINKAGE MAY BE EXPECTED AFTER INSTALLATION.
8. THESE RECOMMENDATIONS ARE BASED ON RESULTS PERFORMED PER ASTM E-814 (UL 1479) FIRE TEST AND UL THROUGH PENETRATION FIRESTOP SYSTEM #CAJ1001.

PENETRATION THROUGH CONCRETE WALL
NO SCALE
(2 HOUR RATING)
UL SYSTEM #CAJ1001



FEEDER DIAGRAM – VOCATIONAL BUILDING
N.T.S.

PHASE TWO ADDITIONS AND RENOVATIONS
HIWASSEE DAM SCHOOL
Cherokee County, N.C.

PADGETT & FREEMAN ARCHITECTS, P.A.
ARCHITECTURE PLANNING INTERIORS
30 Choctaw Street Asheville, NC 28801 828-254-1963

Drawing
LEGENDS & SCHEDULES

Date
5-27-04

Sheet
E4

Of

Vreeland Engineers Inc.

Xrefs: (Hiwassee Dam Plans, Legends & Schedules.dwg)
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