

PLANT LIST & SPECIFICATIONS

QUANTITY	BOTANICAL NAME	COMMON NAME	SPECIFICATIONS
3	Quercus virginiana	LIVE OAK	8' Ht., 4' Spd., 1 1/4" Cal.
24	Acer rubrum	RED MAPLE	6' Ht., 3' Spd., 1" Cal.
4	llex opaca East Palatka	EAST PALATKA HOLLY	6' Ht., 3' Spd., 1" Cal.Min.
1	Lagerstroemia indica	CREPE MYRTLE	6' Ht., 4' Spd., 1" Cal. Min
71	Myrica cerifera	WAX MYRTLE	3'-4' Ht., 18"-24" Spd.
7	Trachycarpus fortunei	WINDMILL PALM	2'-3' Clear Trunk, 24"-36" Spd.,
3	Cycas revoluta	SAGO PALM	4 1/2" Cal. Min. 24" Spread
55	llex vomitoria	YAUPON HOLLY	1 Gal.
102	Ilex vomitoria Nana	DWARF YAUPON HOLLY	1 Gal.
14	Ligustrum sinensis Variegated	VARIEGATED LIGUSTRUM	1 Gal.
8	Ilex cornuta Burfordi	DWARF BURFORD HOLLY	24" Ht, 24" Spd.
80	Juniperus chinensis Hetz	HETZ JUNIPER	1 Ga1.
80	Juniperus chinensis Parsonii	PARSONII JUNIPER	1 Ga1
58	Urièpe muscari	MON EY GRASS	1 Gal. (SPLIT)
4,500 S.F.)	Eremochlea ophiuroides	CENTIPEDE SOD	Solid Sod. Exact quantity of soc will vary; provide unit cost for bidding.
5,000 S.F.)	Eremochlea ophiuroides	CENTIPEDE SEED	Seed and mulch as per Florida DOT specifications w/quick germinator. Exact quantity will vary; provide unit cost for bidding.

Note: Quantities shown on the plan shall take prescedence over quantities in schedule.

LANDSCAPE NOTES

- 1. All plant material shall meet the standards of Florida No. 1 or better as set forth by the latest edition of <u>Grades and Standards for Nursery Plants</u>, published by the Florida Department of Agriculture.
- 2. Install sod within ten feet (10') of building; and for two feet (2') along drives walks and fences. Seed the remainder of the areas indicated for sod/seed, inclusive of all disturbed areas of the site.
- 3. Mulch all beds and around all trees with 3" (three inches) pinestraw mulch.
- 4. Holes to receive plants shall be excavated at least 1 foot greater than the diameter of the plant
- 5. Planting backfill shall be mixed on site by using 1/2 native soils and 1/2 loamy sand topsoil.
- Access to irrigation water shall be provided to all planting areas (PIZATIVE LANN SPRINKLEIZ FOIC LANDSCAPING)
- 7. The Owner is responsible for the supervision and completion of this plan; all special conditions that apply; for compliance with all Federal, State, City and County laws applicable; and may not occupy facility until final County Environmental inspection and approval.

Sq. ft. of Lot: 159,201
Sq. ft. of Building: 25,535
Zoning of Project: Innovation Park
Proposed Use of Property: Commercial

Sq. Ft. of Interior Landscape Area:
Sq. Ft. of Vehicle Use Area:
Parking Spaces Provided:
86 Spaces

TREE PROTECTION NOTES:

The contractor shall construct tree protection barriers to protect and preserve all existing oak and other trees shown on site and landscape plan. Be are shall be constructed as per detail this page, or equal, to protect a minimum of 75% of tree dripline.

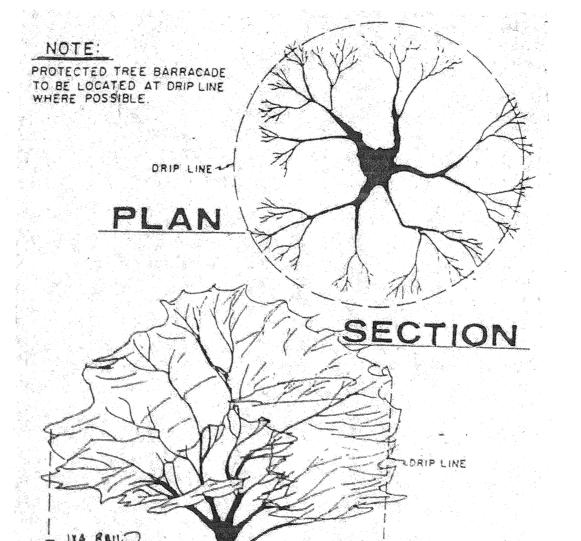
The following operations are <u>not allowed</u> within the dripline of trees to be protected:

a. Grade changes.

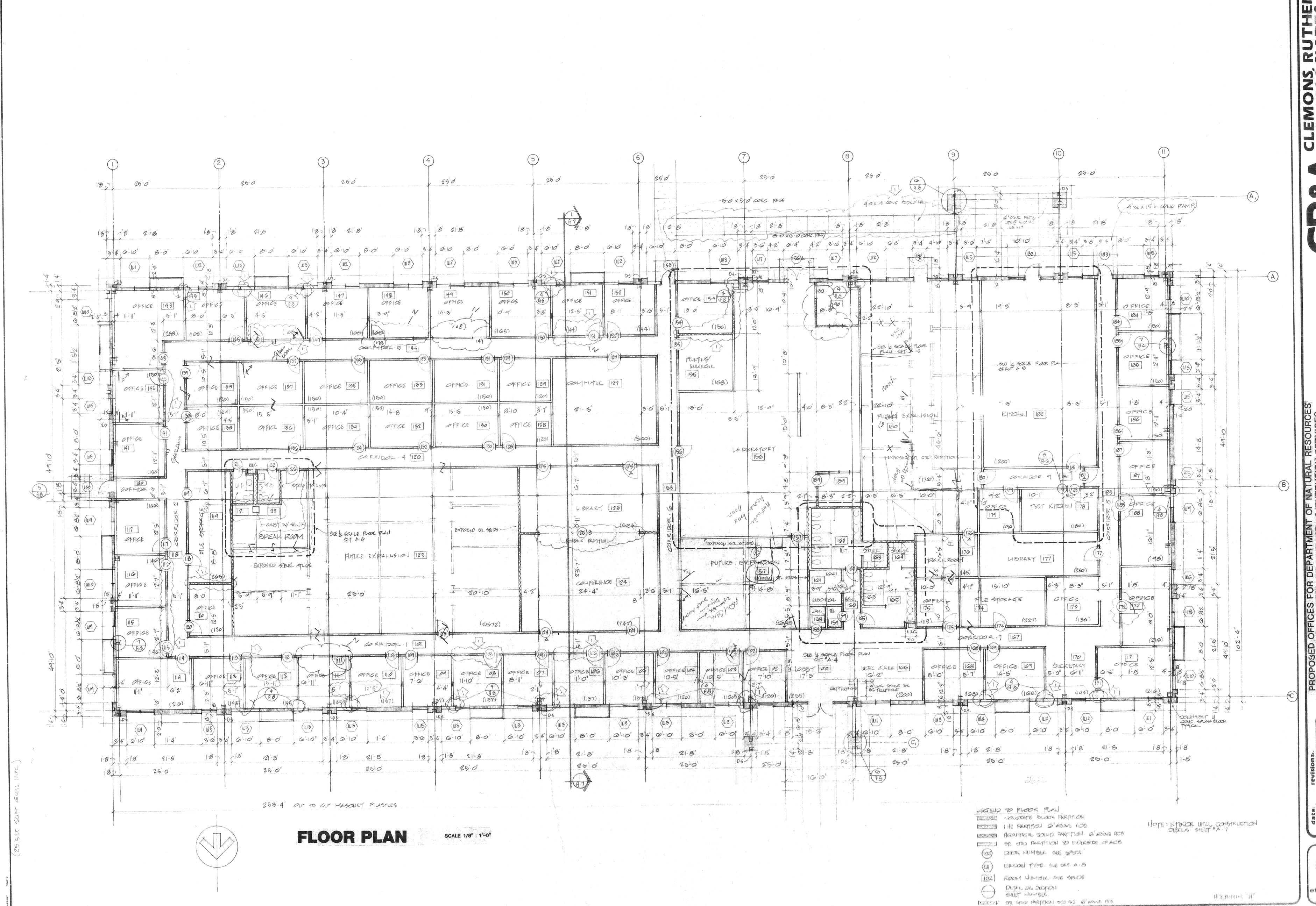
b. Mechanical excavation.

c. Stockpiling of material or equipment.

d. Driving of vehicles.



Tree Protection



CLEMONS, RUTHERFORD

RASSOCIATES, INC.

PROFIECTED PLANNER

POSED OFFICES FOR DEPARTMENT OF NATURAL RESONNES RECLAMATION AND MARKETING/EXTENSION SER

DOOKS - 178, 179, 111
AS BUILDE

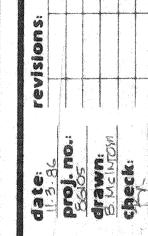
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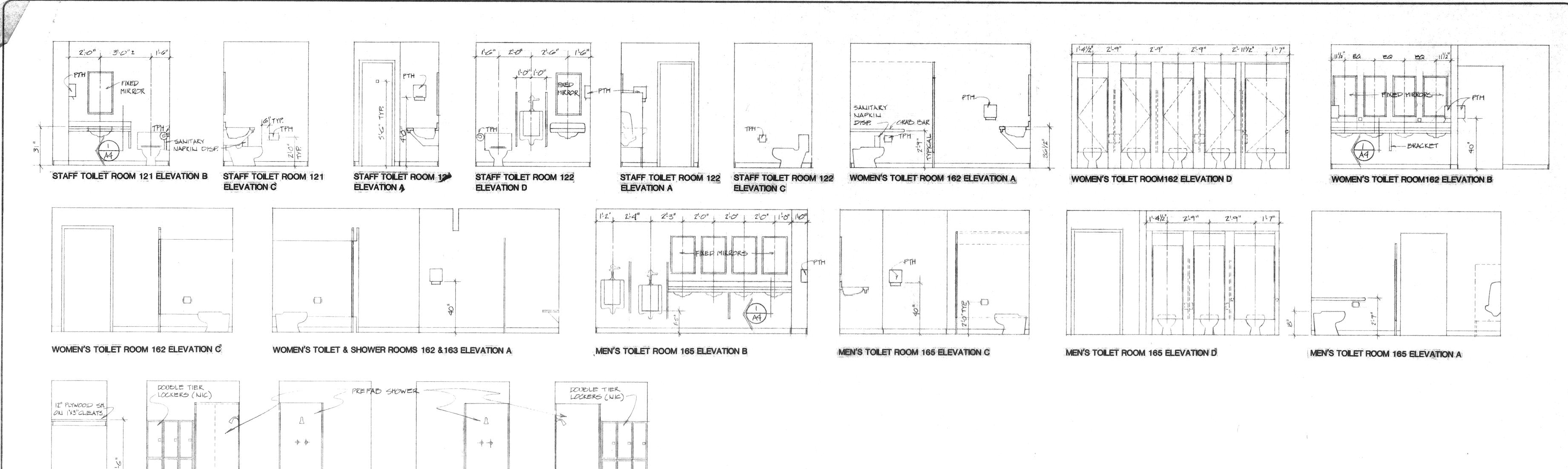
A3

CNU

LOCKERS (NIC)

-22' NIDE COUNTER /-







WOMEN'S SHOWER ROOM 163

ELEVATION C

MEN'S SHOWER ROOM 164

ELEVATION A

INTERIOR ELEVATIONS

MEN'S SHOWER ROOM 164

ELEVATION B

3/8": 1'0"

WOMEN'S SHOWER ROOM 163

ELEVATION B

JANITOR ROOM 158

ELEVATION A

CEMONS RUTHERFORD

RASSOCIATES INC.

ARCHITECTS & PLANNERS

FLORIDA

FLORID

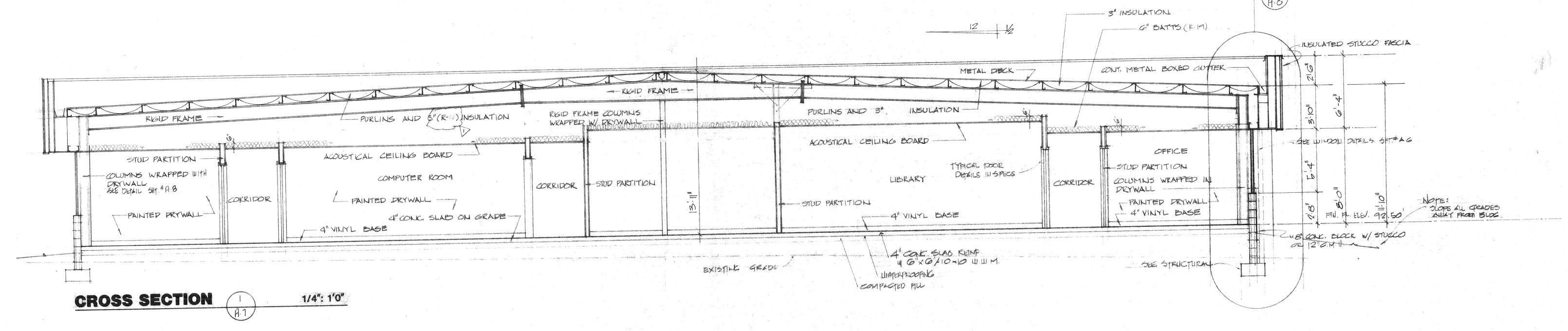
SED OFFICES FOR DEPARTMENT OF NATURAL RESOURECLAMATION AND MARKETING/EXTENSION SERVICES

J. no.:

A6

HOTE: SEE FLOOR PLAN SHEET AS TO KEY OF PARTITION LEGEND.

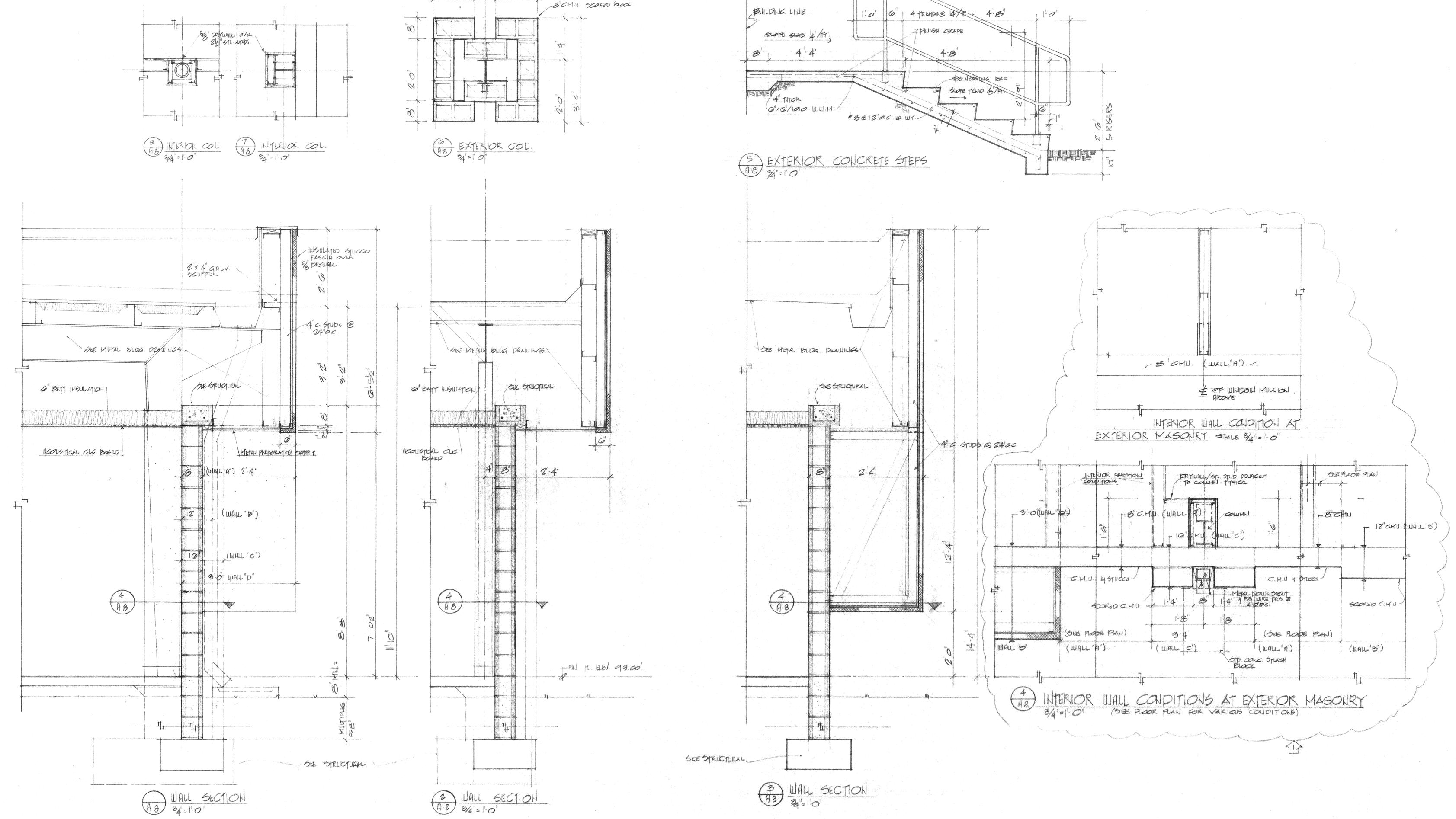
WALL PARTITIONS 12"=1"-0" (WP-add) GYPSUM ASSOCIATION FIRE RESISTANCE PESICN MANUAL, FILE NO. GALIOO

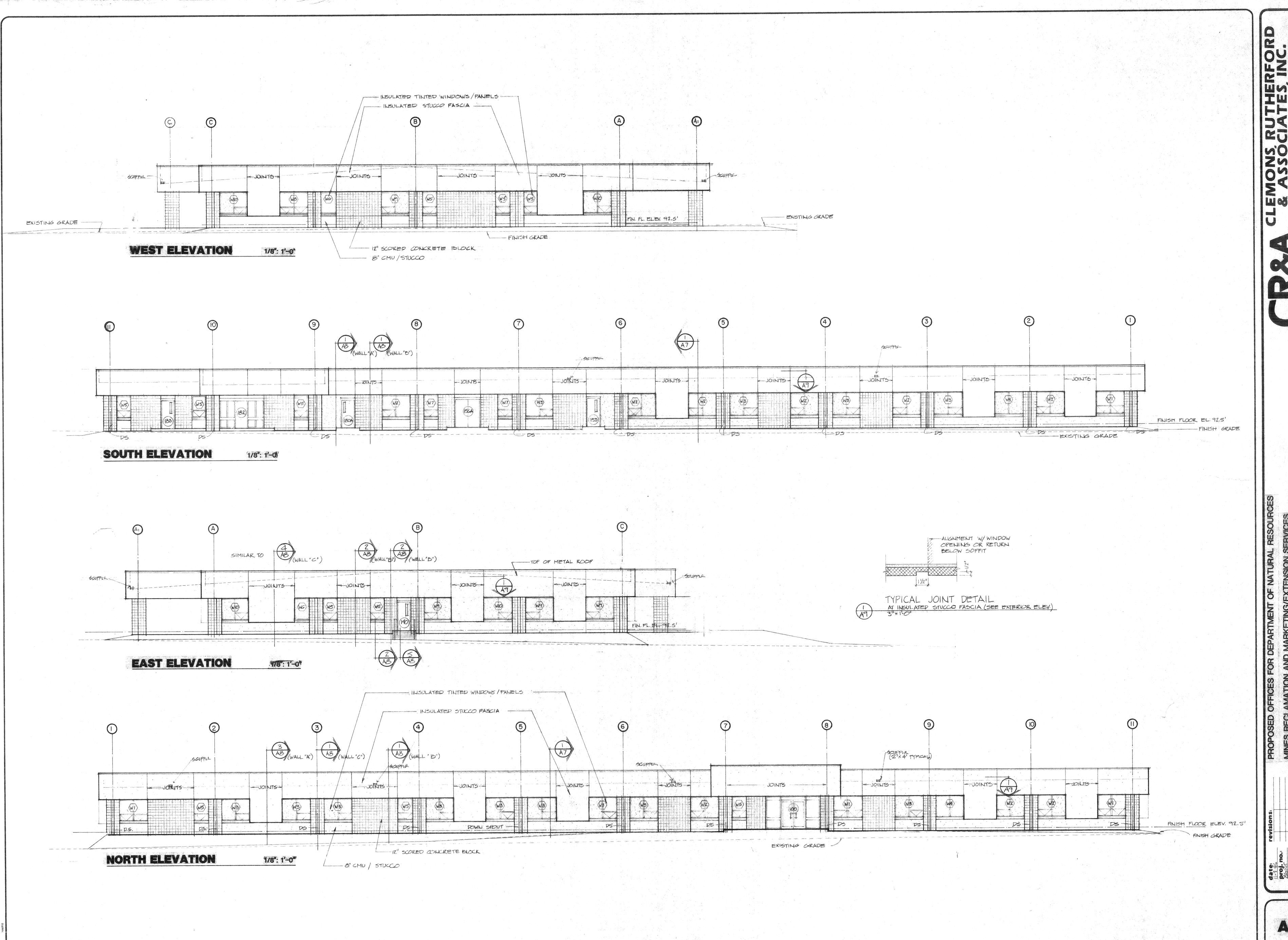


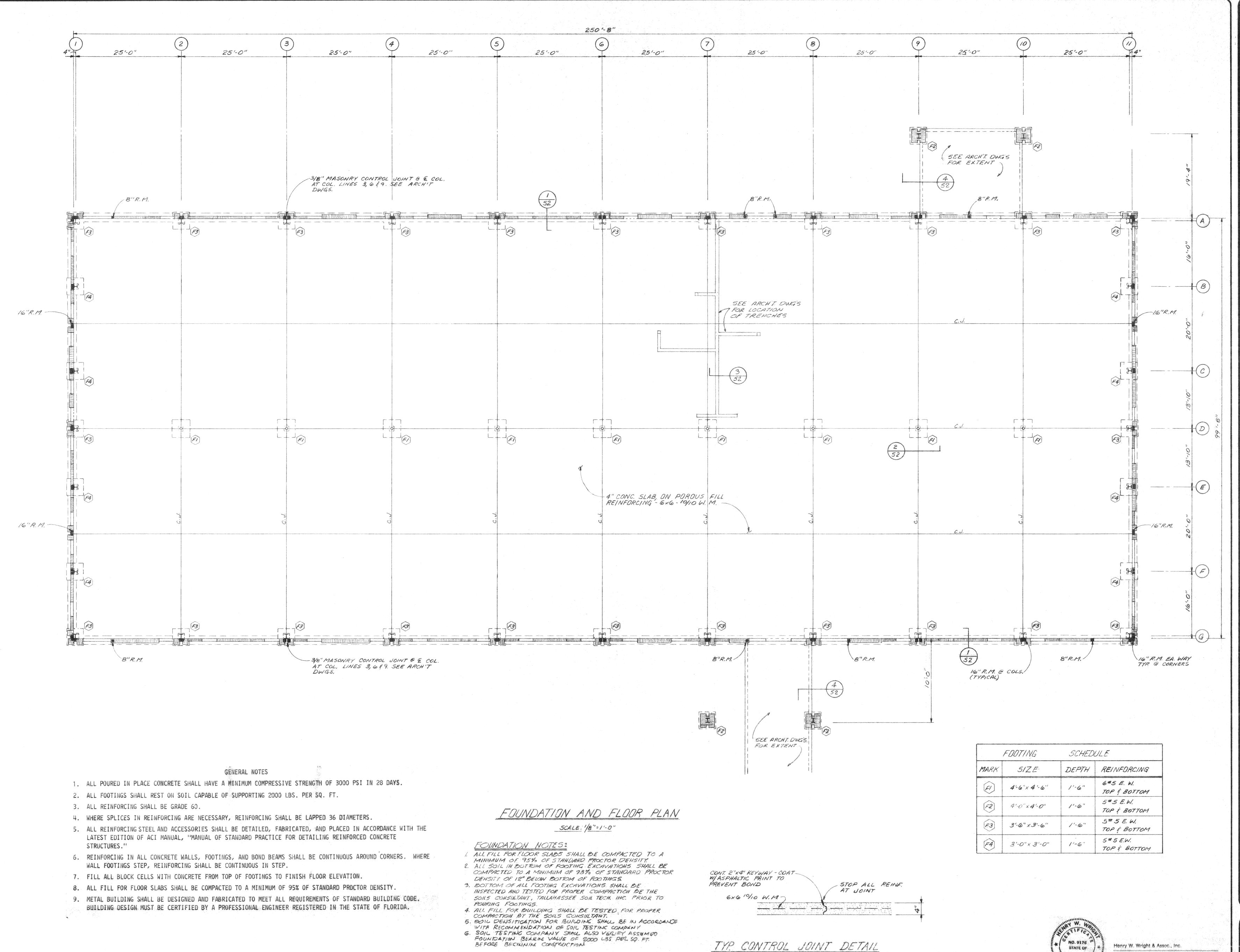
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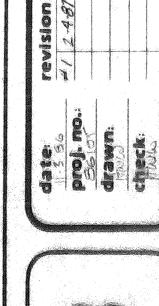






Henry W. Wright & Assoc., Inc. 706 South Foster Street Dolhan, Alabama 36301 (205) 792-9103 or 794-4451 Consulting Structural Engineers of Z of W CREA

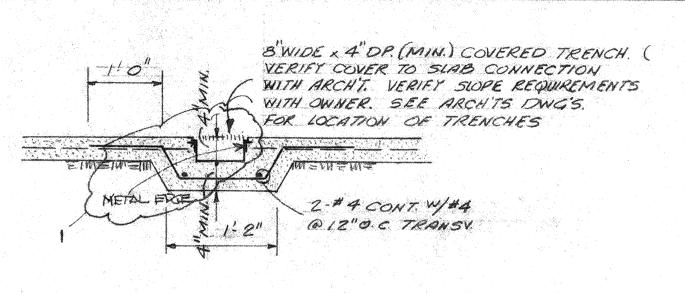
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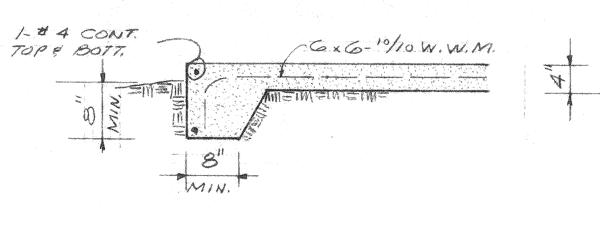


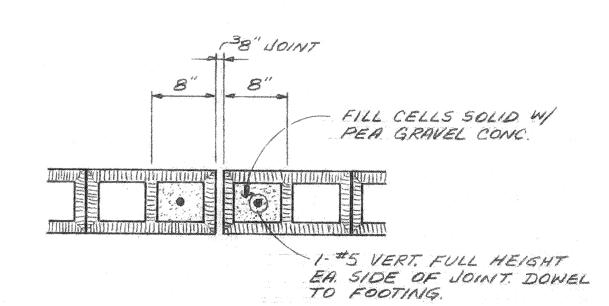


Canaulling Structural Engineers

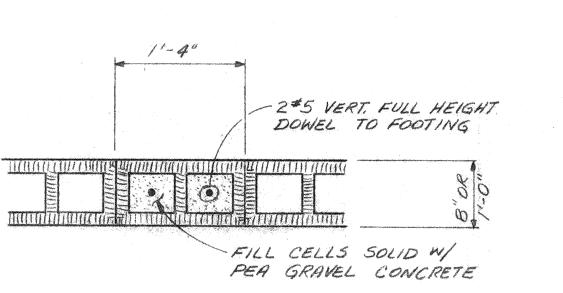
708 95mHr Püster shlagi 1980karı, Alabama 99367 1969 787-8103 ər 784-3451



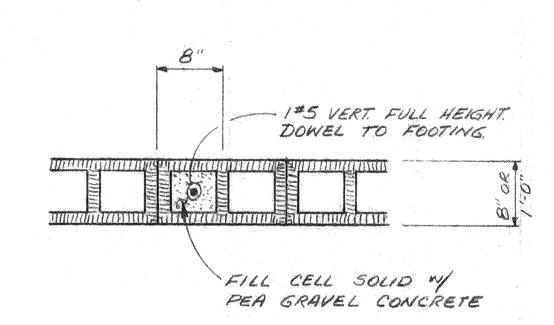




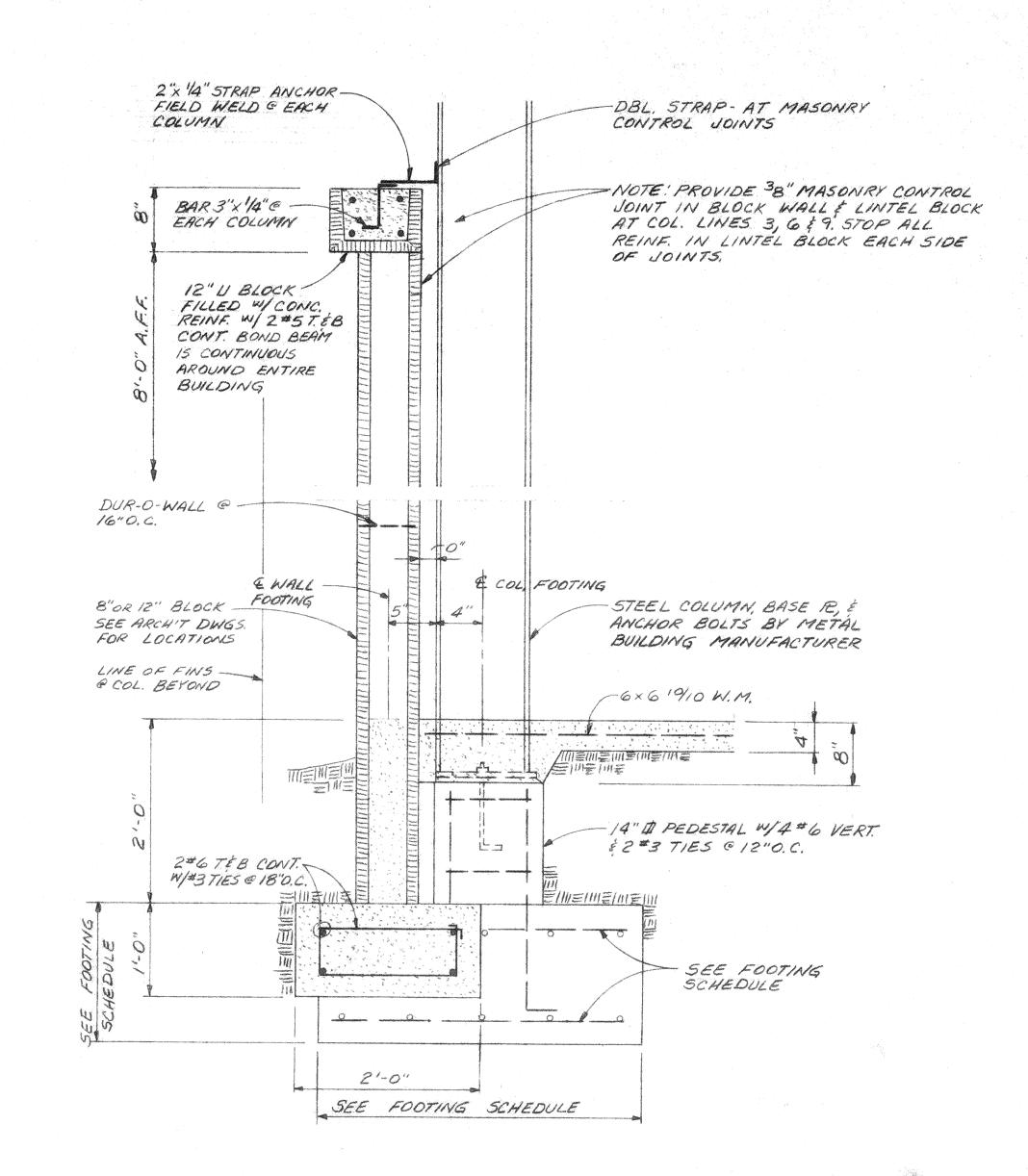
TYP MASONRY CONTROL JOINT DETAIL (EACH SIDE OF BUILDING @ COLUMN LINES 3, 6 & 9)

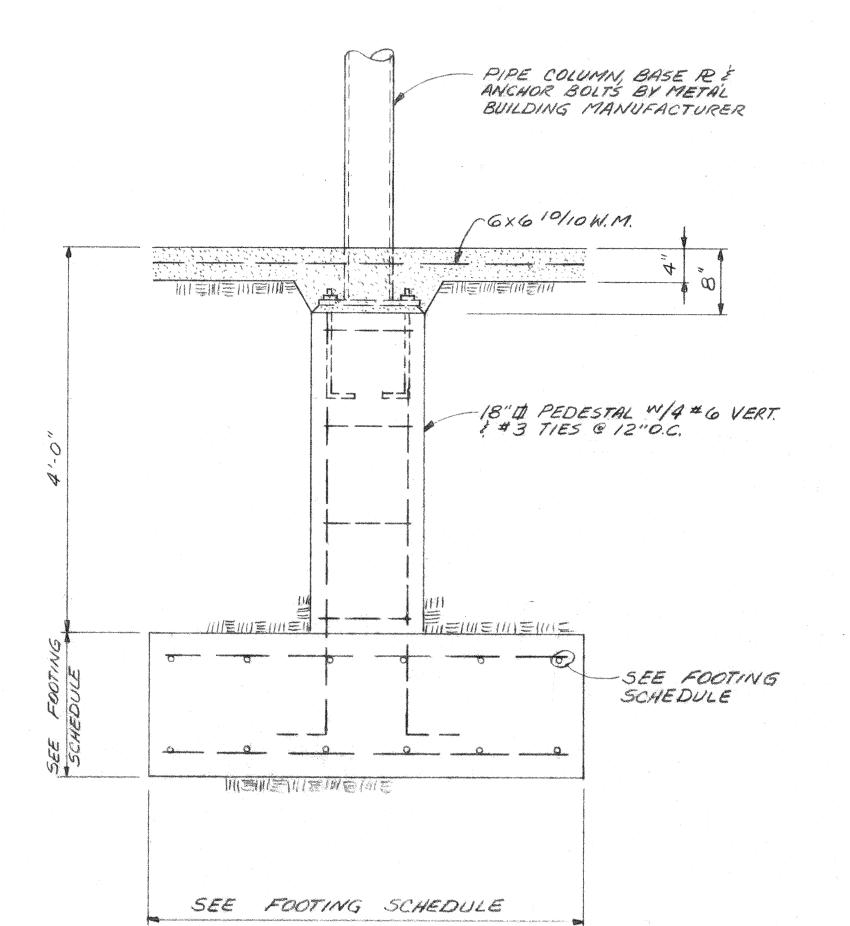


TYP. 16" REINFORCED MASONRY DETAIL



TYP. 8" REINFORCED MASONRY DETAIL





(52)

SCALE! /"=/'-0"

SECTION SCALE: /"=1'-0"

M-1

OLB Engineers, Inc.

NATURAL ARTMENT OF NARKETING/E) N PARK

 The Contractor shall not fabricate any ductwork until he has verified at the site that sufficient clearances are available for the installation of ductwork considering requirements for piping, light fixtures, ceiling system, and structure.

- Deviation from materials, methods, and procedures set forth herein must be approved in writing by the Engineer. Approval will not be given unless the Engineer is satisfied that the proposed system is superior in performance, durability, longevity, and reliability to that specified.
- Approvals must be within ten (10) working days prior to bid date.
- 4. All duct sizes shown are clear net inside dimensions.
- All ductwork shall be air tight and free of leaks, and shall be inspected for leaks prior to installation of blower-coil unit or finished ceiling system.
- Refrigerant piping shall be sized in strict accordance with the manufacturer's recommendations for liquid, vapor horizontal, and vapor risers.
- Tubing shall be installed with a moisture indicator sight glass located in the liquid line adjacent to the outdoor unit.
- 8. Thoroughly clean refrigerant pipe fittings before assembly. All joints are to be made with silver alloy braze melting above 1100 degrees F. No acid flux is to be used on any joint.
- 9. Ductwork, dampers, louvers, grilles, registers, troffers, diffusers, and other air distribution equipment and materials shall conform to the following:
 - (A) ASHRAE/ANSI
 - (B) SBCCI/ASME (C) SMACNA
 - D) NFPA
 - (E) AMCA Standards Handbook 99
 (F) Air Diffusion Council Test Code 1062R3
 (G) Any Local Codes not covered above
- 10. A complete test and balance report shall be supplied by this Contractor to Engineer in writing per SMACNA Test and Balance Report Manual; prior to job acceptance by Owner.
- 11. The submission of a bid or proposal will be construed as evidence that the Contractor has familiarized himself/herself with the plans, specifications and building site. Claims made subsequent to the proposal for materials and/or labor due to difficulties encountered will not be recognized, unless difficulties could not have been foreseen even though proper examination had been made.
- 12. All Sub-Contractors must pre-qualify with Engineer prior to bid date.
- 13. Thermostats to be programmable type as supplied by Lennox, Industries with locking covers mounted at 5' A.F.F.
- 14. Condensate drains shall terminate into french drain or dry-well located at site.
- 15. Contractor shall route refrigerant lines to shortest route possible; verify at site.
- 16. All ducts shall be galvanized metal with 2" external duct wrap.
- 17. Flexible ducts shall not exceed 6' in length; material to be Owl-Flex with no approved equal.18. UL approved fire dampers shall be installed in all fire-rated
- walls as indicated on plans with access doors.

 19. Air handling units shall be supported with threaded rods and
- 20. Float switch shall be installed in all auxiliary drain pans as required by SBCCI mechanical codes.

vibration isolators as required by Code.

- 21. UL approved smoke detectors shall be installed in all supply air plenums of AHU units.
- 22. Flexible duct connectors shall be installed at all exhaust fans.

			HEAT PUMP	SCHEDULE		
SY	/MB0L		AHU-1/AC-1	AHU-2/AC-2	AHU-3/AC-3	
LOCATION-AHU SERVICE		ON-AHU	ATTIC	MTIC	ATTIC	
		E	EDNEC	ZONEK	ZOHEL	
MA	NUFA	CTURER	LENHOX	LEHHOX	LEHHOX	
MO	DEL	AHU	CB15-1200/65	CBH17-95V	CB15-1200/6	
MC	DEL	AC	HP14-313/513Y	HP17-953V	HP14-313/513	
		C.F.M.	1600	3000	1600	
	FAN	EXT. S.P.	0.54"	0.73"	0.56"	
		H.P.	1/3	1 1/2	1/3	
AHO	ELECTRICAL	KW (STRIP)	4.5	12.6	4.5	
		V	460	480	A Part	
	LECT	ø	eg e e e e e e e e e e e e e e e e e e	25	1,1300	
	للا	HZ.	60	Loth 1	62	
		M.C.A.	233	25.6	29.6	
	Z.	V	480	460	A Que	
AC	RICA	ø	3	3	*	
~ I.	ECTRIC	HZ	60	40	60	
and the second		MCA	21.9	36.3	21.3	
ပ္	S	ENSIBLE MBTUH	34.7	65.2	34.7	
COOL ING	T	OTAL MBTUH	425	64.3	42.8	
ပ	Ε	ER 95°F	9.00	6.50	4.00	
版型:	T	OTAL MBTUH	44.9	84.5	44.9	
空 COP 47°F FRESH AIR (FM)		OP 47°F	3,05	3.00	3.05	
		AIR (GFM)	60	104	150	
0U	JTD00	R THERM.	YFS	YES	Yes	
WE	IGHT	- AHU (LESS)	343	874	343	
WE	IGHT	- AC (LES)	408	428	408	

SYMBOL LOCATION SERVICE MANUFACTURER MODEL C.F.M. EXT. S.P. EXT. S.P. COP & 47° F AMBIENT AIR °F SENSIBLE TOTAL HEATING MBTUH PAC-1 ATTIC ROOM 127 ROO	
SERVICE MANUFACTURER COIL COMPANY MODEL C.F.M. EXT. S.P. EXT. S.P. L/A COP & 47° F AMBIENT AIR °F AMBIENT AIR °F J. 35 SENSIBLE TOTAL HEATING MBTUH V 200 1 DELETE KW 9.2 KW 9.2 MCA 53.13	N. C.
MANUFACTURER MODEL C.F.M. EXT. S.P. EXT. S.P. EER @ 95°F COP @ 47° F AMBIENT AIR °F JOSEPH TOTAL HEATING MBTUH V 10 DELETE KW 9.2 KW 9.2 MCA C2A012 CANTANY ADA CA	**
MODEL C.F.M. EXT. S.P. EXT. S.P. EER @ 95°F COP @ 47° F AMBIENT AIR °F AMBIENT AIR °F SENSIBLE TOTAL HEATING MBTUH 15,766 HZ KW 4.2. MCA S3.13	
C.F.M. 8000 EXT. S.P. N/A EER @ 95°F COP @ 47° F AMBIENT AIR °F AMBIENT AIR °F SENSIBLE TOTAL HEATING MBTUH 15,766 V 200 MCA ACA S3.13	
EXT. S.P. EER @ 95°F COP @ 47° F AMBIENT AIR °F GS SENSIBLE TOTAL HEATING MBTUH 15,766 HZ KW A.2. MCA EER @ 95°F U/A 1/A 1/A 1/A 1/A 1/A 1/A 1/A	
EER @ 95°F COP @ 47° F AMBIENT AIR °F 95 3.5 SENSIBLE 17,701 HEATING MBTUH 18,766 V 206 HZ KW 9.2 MCA 53.13	
COP @ 47° F AMBIENT AIR °F J. J. SENSIBLE TOTAL HEATING MBTUH V DELETE HZ KW A.2. MCA SSIBLE 21,000 @ 72° F PB/60 17,701 DELETE MCA SSIBLE 21,000 @ 72° F PB/60 A/A 17,701 DELETE MCA SSIBLE 17,701 A DELETE A MCA SSIBLE 17,701 A DELETE A MCA SSIBLE 17,701 A DELETE A SSIBLE 17,701 A SSIBLE SSIB	
AMBIENT AIR °F 35 SENSIBLE 707AL 17,701 HEATING MBTUH V 206 HZ KW 4.2 MCA 53.13	
SENSIBLE 21,000 & 72° F 66 60° TOTAL 17,701 HEATING MBTUH 16,766 V 206 HZ 60° KW 63.2	
TOTAL 17,701 HEATING MBTUH V 200 HZ KW 47.2 MCA 53.13	
HEATING MBTUH V 206 I DELETE HZ KW A1.2	FWB
V 208	
HZ GG HZ WCA 53.13	
- KW /41.2	
- MCA 53.13	
- MCA 5313	
WCA 53.13	
MON	
FRESH AIR (CFM) NONE	
WEIGHT (LBS) 355	A second
REMARKS PROVIDE WITH MANUFACTURER OFFICIALS AS FOLLOWS: 1, 2, 3, 4,	

1.	MUMICIPIES
2.	ELECTRIC HEAT
3.	ELECTRIC REHEAT.
4.	SPACE STATUS PANEL
5,	TWO-SPEED FAN SWITCH AND THERMOSTAT
	ON SPACE WALL PLATE.
Co.	LOUVERED GRILL ASSEMBLY

		HEAT PUMP	SCHEDULE	2
SYMBO		AHU-4/16-4	AHU-5/AC-5	AHU-6/AC-6
LOCAT	ION-AHU	AFIC	ATTIC	ATTIC
SERVI	CE	ZOHE M	ZOHEH	ZONEA
MANUF	ACTURER	LEHHOX	LEHHOX	LENHOX
MODEL	AHU	CBS18-51	CBH17-136V	CE618-65
MODEL	. AC	HPIB-513	HP17-1363V	HP18-653
	C.F.M.	1600	3910	2000
NE FE	EXT. S.P.	0.62	0.62	0.62
	H.P.	1/5	1 1/2	1/8
₹	KW (STRIP)	12.6	12.6	12.6
BECTRICAL	V	480	460	450
	ø	39	3	
W	HZ.	GO.	60	allipping and many treatment of the contract o
	M.G.A.	28,5	\$5 C - 1 Z -	23.5
		480	460	A SC
일 를	ø			
	HZ	<u> </u>	40	
	MCA	12,4	28.4	14.9
ယ္ခ	SENSIBLE MBTUH	47	A PARTIES	44.5
	TOTAL MBTUH	42.6	The Harding	64.3
3	EER 95°F	9,00	£, 2, 5,	85
É	TOTAL MBTUH	44.9	114.7	584
4	COP 47°F	3.05	3.00	3,00
FRESH	AIR (LFM)	1110	290	100
OUTDO	OR THERM.	Y\$5,	YES	765
WEIGH	T - AHU (LES)	343	3-71	43
WEIGH	T - AC (LES)	468	582	458

			FAN	SCHEDU	JLE		
SYMBOL		IOL		Ef-2	EF-4,8	EF-5 THRUEF	
L	LOCATION		Pacf	Roof	ROOF	RUST	
S	ERV	ICE	TOILET EXPAIN	TOILET EXHAUST	A ELECTRICAL ROOM EXHIUNT	ATTIC VEHTILATION	
М	ANUI	FACTURER	LOREN CON	LOWEN COOK	LOREN CORE	LOKEN 400	
M	ODE		706150	100028			
	<	C.F.M.	176	452	150	615	
BLOWER DATA		S. P.	1/4	3/4	14	1/2	
		TYPE	CEHTRIFLY	CENTEIFICAL	CENTRIPLYAL	CEHTE IFLIGHT	
) B	DRIVE	PIRECT	telt	PREST	BELT	
	H.P.		Vo	1/6	1/6	1/3	
4		R. P. M.	1550	800	1550	963	
DAT	· correl	٧	120	140	120	120	
O.R.	RICAL	Ø	1	4		1	
MOT	ELECT	H Z.	60	60.	46	60	
	面	M.C.A.	1,00	1.29	1,00	2.58	
RE	MA	RKS	1,2	1,2	1/2	1/3	

1. BACKDRAFT DOWNPER 2. 7. DAY TIMER CONTROLLED 3. THEEM DOTAT CONTROLLED

SYMBOL			EF-3
L(OCA.	TION	ROOF
SI	ERV	ICE	TOILET EXHAUST
M	ANUF	ACTURER	LOREN COOK
M	ODE	L	100¢2B
	۷.	C.F.M.	532
	~ DAT	S. P.	1/4
	BLOWER DATA add add add add add add add		CEHTRIFIKIAL
	Ĭ	DRIVE	BELT
		H. P.	
ď		R. P. M.	1180
DATA		V	120
- 1	TRICAL	ø	
MOTOR	ELECT	H 2.	40
	面	MCA	
RE	REMARKS		1,2 (LE ABOVE)

SY	MBOL		AHU-14/AC-14 AHU-7/AC-7	AHU-8/AC-8	AHU-9/AC-9	
LOCATION-AHU			ATTIC	ATTIC	ATTIC	
SE	RVIC	Ē	ZONED	ZONEE	ZONEF	
MA	NUFA	CTURER	LEHNOX	LEHHOX	LEHHOX	
МО	DEL	AHU	CBS 18-31	CB518-65	CB518-65	
МО	DEL	AC	HP16-261V	HP18-653	HP18-653	
		C.F.M.	800	2250	2000	
	FAN	EXT. S.P.	0.60"	0.60	. 0.60	
		H.P.	1/3	1/3	1/3	
		KW (STRIP)	4.5	12.6	12,6	
	ELECTHICAL	V	208	480	480	
- Control of the Cont	ECI	ø	*	3	3	
		HZ .	40	60	60	
		M.C.A.	27.3	28.5	23,9	
	****	٧	206	480	420	
. P	Z	ø	1	3	3	
*		HZ	60	40	60	
eponenti de la constanta de la	CALC.	MCA	~12 &	14.9	14.9	
9	S	ENSIBLE MBTUH	[49]	445	44.5	
	T	OTAL MBTUH	24.3	64.3	643	
5	E	ER 95°F	9.50	8.55	8.55	
FAI.	Ţ	TOTAL MBTUH 22.1		55.4	58.4	
뷜	C	OP 47°F	2.94	3.00	3,00	
FR	ESH	AIR (CFM)	40	270	200	
0U	TDOC	R THERM.	765	TES	YES	
WE	IGHT	- AHU (LESS)	130	343		

			HEAT PU	MP SCHED	ULE		
SY	MBOL		AHU-10/AC-10	AHU-11/AC-11	AHU-12/AL-12	AHU-13/AC19	
LOCATION-AHU			ATTIC	AFTIC	ATTIC	ATTIC	
SE	RVIC	E	DHR/G	DNR/H	DHR/I	DNR/J	
MA	NUFA	CTURER	LEHHOX	LENHOX	LEHLOX	LEHHOX	
MO	DEL	AHU	CB518-65	CBH17-95V	CB518-51	CEGIB-51	
MO	DEL	AC	HP18-653	HP17-953V	HP18-513	HP18-513	
		C.F.M.	2000	3020	lω	ILOS	
	FAN	EXT. S.P.	0,00	0.60	060	0.60	
		H.P.	1/3	11/2	1/3	1/3	
AE		KW (MRIP)	12.6	12,6	12.6	12.6	
	RICAI	A V	480	480	480	460	
	ELECTRICAL	ø	3	3	45	3	
	ш	HZ.	60	60	60	60	
		M.C.A.	28,5	25.6	28.5	23,5	
			480	480	480	480	
AC	RICA	Ø			3	3	
-	ELECTRICA	HZ	400	60	60	60	
	Soubard	MCA	14.9	16,1	10.4	10.4	
9	S	ENSIBLE MBTUH	44.5	68.2	34.7	34.7	
COOL ING	T	OTAL MBTUH	English 3	84.3	428	42.8	
ပ	Ε	ER 95°F	8.55	8.60	· 9.00	900	
HEAT.	Т	OTAL MBTUH	58.4	ed 5	44.9	44.9	
里 COP 47°F		OP 47°F	3,00	3.00	3.05	3.05	
FF	RESH	AIR (CFM)	200	432	. 60	65	
OL	JOOTU	OR THERM.	764	YES	YES	YES	
WE	IGHT	- AHU (Lph)	343	379	343	343	
WE	IGHT	- AC (LBG)	430	423	408	408	

HUMIDISTAT CONTROL	UH	UNIT HEATER
		DUCT HEATER
ROOM THERMOSTAT	<u> </u> EF	EXHAUST FAN
THERMOSTAT FOR	RAF	RETURN AIR FAN
NOTORIZED DAMPER	HIS	NOT TO SCALE
THERMOSTAT	FA	FRESH AIR INTAKE
SMOKE DETECTOR (IN LINE)	SA	SUPPLY AIR
	H EA	EXHAUST AIR
TRESTAT	RA	RETURN AIR
RETURN/EXHAUST DUCTWORK	MUA	MAKE-UP AIR
	- DG	DOOR GRILLE
SUPPLY AIR DUCTWORK	UC	UNDER-CUT
BALANCING DAMPER	AC	AIR COND. UNIT
OPPOSED BLADE)	- AHU	AIR HANDLING UNIT
EXHAUST FAN	RTU	ROOF TOP UNIT
CEILING DIFFUSER	BD	BALANCING DAMPER
JULINO DI FOSCIO	OA	OUTSIDE AIR
SIDEWALL REGISTER	AFF	ABOVE FINISH FLOOR
	CD	CEILING DIFFUSER
VOLUME DAMPER	CR	CEILING RETURN
AIR EXTRACTOR	SWD	SIDEWALL DIFFUSER
W/ ADJUSTABLE ROD		
RECTANGULAR DUCTWORK	\mathbb{I}	DETAIL NUMBER
N/ DOUBLE TURNING VANES		SHEET ON WHICH DETAIL IS LOCATED
DUCTWORK FLEXIBLE		
CONNECTOR		SPECIFICATION SECTION
LEXIBLE DUCTWORK (NOT	XXXX	(IN SPEC. BOOK)
TO EXCEED 6' IN LENGTH)	(XX)	SPECIFIC DETAIL
SHOKE (SIBE UVADED		REFERENCE WITHIN THIS SPECIFICATION SECTION
SMOKE/FIRE DAMPER		STEGITION SECTION
TOE DAVIDED	$\langle xx \rangle$	DIFFUSER, REGISTER OR
FIRE DAMPER		GRILLE #, SEE SCHEDULE
ROOF MOUNTED EXHAUSTER		
	$\langle x \rangle$	VAV BOX TAG NUMBER
ROOF VENTILATOR INTAKE		
OUVERS AND SCREENS	1/00	NICODUATION MOTEO
RECT. DUCT, FIRST # INDICATES	11 (XX)) INFORMATION NOTES

06 N 11-03-86 CL=/5PK

OLB Engineers, Inc.

M-2

SYMBOL LOCATION		FUNCTION	CFM	NECK	SIZE (I	NCHES)	AIR	MANUF.	TYPE
$\langle XX \rangle$				VEL. (FPM)	FACE	NECK	PATTERN (#-WAY)		K«••
1	CEILING	5A	165	473	10-10	84	4	METALLIFE	A
2		≤A.	165	473	10×10	84	4	1	A
3		KA	310	3915	14×14	12" 4	- Application of the Control of the		В
4		SA	190	544	10.10	6"4	**		A
5		RA	180	108	1	9"4		erein) Yana Andreas	В
6		6A	195	559		e"+	4		A
7		RA	185	420	1040	9.4	1	METALAIRE	В
0		5A	62	316	24.24	64	4	BARBER COLEMAN	C
9		64	195	559	10×10	e'\	4	METALAIRE	A
10		RA	160	400		9"b	1	A control of the cont	В
11		SA	190	544		8"+	4.		Α
12		KA	180	400		9.4	d) jewasi	And a significant of the second of the secon	E
13		SA	190	544		0"4	4		A
14		RA	180	408	10 × 10	9"4	- Constitution	Michael (Michael Marchael)	В
15	: 3 · · · · · · · · · · · · · · · · · ·	SA	124	523	8.8	フル	4	- International Control	A
16		5A	124	523	818	7"4	4	Approximate and approximate an	A
17		RA	235	431	12×12	10"4	X	By provide American State (B
10		54	197	565	10-10	84	4		. Д
17	- magain-phicostack consistence principles and Marketing in America consistence in America	RY	190	431		9.9	4	The second secon	B
20	-	5A	197	565		8"4	4		A
21		RA	190	431		9"4	d o		ъ
22		4 A	1917	565		8"4	4		А
23		RA	190	431		9"4	4		B
24	l l	5A	197	566		8"4	4	New York Control of the Control of t	A
25	CEILING	RA	190	431	10 = 10	9"4	1	MEDALAIRE	В

SYMBOL	LOCAT	ION	FUNCTION	CFM	NECK	SIZE (I	NCHES)	AIR	MANUF.	TYPE
$\langle XX \rangle$					VEL. (FPM)	FACE	NECK	PATTERN		
26	CEILII	JG	5A	197	565	10×10	84	4	METHALIZE	A
27			KA	190	431	1	914	4		В
20			5A	197	565		8"4	4		A
29			KA	190	431		9"4	1		6
30			54	190	544		84	4		А
31		***************************************	RA.	160	408		9"4	1		B
32		gerianicalese side	54	190	544		6"4	4		A
23			RA	180	408	10,10	9°4	1	METALAIRE	B
34			ź.	38	500	24 - 24	44	4	BACKER	C
35			44	175	501	10.10	84	4	METALNEE	Ą
36			EA	170	487		8'4			E
37			54	210	602		84	4	and the second s	A
38			RA	200	454		a'4	;		B
39	And the second s		5A	210	602		64	4		A
40	The state of the s	-	RA	200	454		94		alle a distribution	B
41			5A	210	602		8'+	4	Proposition and	Α
42			EA	200	454		904	d de la constante de la consta	- income and a supplied of the	Ь
43			54	210	602		8"4	4		A
44			FA	200	454		94	Agentur		B
45			5A	175	501		84	4		A
46			KA	170	386		9"4	#g-s-s	And and a supplementary of the	B
47			4	175	501		84	4		A
48			FA	170	385		9"4	Špotos		В
49			5A.	210	602		8+	4		A
50	CEILIN	Ja	KA	200	454	10+10	4 1		METALAIGE	B

SYMBOL	LOCATION	FUNCTION	CFM	NECK VEL.	SIZE (I	NCHES)	AIR PATTERN	MANUF.	TYPE
$\langle xx \rangle$				(FPM)	FACE	NECK	(#-WAY)		
51	CRILING	5A	210	602	10×10	84	4	METALARE	A.
52		RA	200	454		9"4			В
65		5A	210	602		B'4	4		A
54		RA	200	454		9"4	· Openior · ·		В
55		- AC	210	602		84	4		A
66		RA	200	454		9"4	New York		Po
51		44	175	501		84	4		Α
58		EY	170	487	10-10	84	1		В
59		4	125	637	6.0	64	4		A
60		54	125	637	and the second s		4		A
61		RA	80	408			Application of the Control of the Co		13
lež							1		5
69		EA	80	408	8-6	64	1		8
64		5A	208	513	10×10	24	4		A
.65		RA	190	451	10-10	9"4	1		В
lda		5A	85	434	8.8	64	4		۵
61		4A	25	434		60 4	4		Α
60		EA	176	743		7"4	operator.		В
69		EA	176	743	8.8	7'4	Yeroda		, B
70		5A	380	605	12:12	10"4	4		A
7)			285		1		4		A
72			1				4		A
75			The state of the s		and the second s		4		A
74						Martin Ma			A
75	CEILING	- V	225	522	12-12	10"4	4	METALAIRE	A

-SYMBOL	LOCATION	FUNCTION	CFM	NECK	SIZE (I	NCHES)	AIR	MANUF.	TYPI
XX		~	~	VEL. (FPM)	FACE	NECK	PATTERN (#-WAY)		~~~
76	CELING	4	286	524	12×12	104	4	METALAIRE	A
77	l l	5A	289	530	12×12	10"4	4		A
76		PA.	380	420	14×14	12"4			В
79			633	453	18.18	16°4	•		B
80			633	453	15.46	16"4"			В
el ,		RA	624	453	18418	16'4			B
81		44	2 loto	600	10 × 10	9'4	4		A
එර			260	603			4		Α
84			267	605	and the second s		4		A
65							A		Α.
84							4.		A.
		-	267	605	10.10	4"4	4		A
88		RA	8#	478	20-20	184			6
69		KA	676	486	20-20	164	4	and a state of the	B
.90		⇒A,	264	599	10-10	9,4	4		A
91		RA	250	459		10'4	- Control of the Cont		B
92		34	264	599		9"4	4		A
93		KA	250	459	×	10"4	Vendous		5
94		5A.	260	699		4.7	4		A
95		RA	250	459		104	1		В
96		5A	2604	599		9"4			A
97		KA	250	459		104	1		B
10		5A	264	599		9"4	4		A
99		RA	250	451		10'4			B
100	CELLING	6 A	alex	694	10-10	94	4	METALLINE	A

DI	FFUSE	RS, RE	GIS	STEF	IS &	GRI	LLE S	CHEDU	L C
SYMBOL	LOCATION	FUNCTION	CFM	NECK	SIZE (NCHES)	AIR	MANUF.	TYPE
$\langle XX \rangle$			and the contraction of the contr	VEL. (FPM)	FACE	NECK	PATTERN (# -WAT)		
101	CEILIHG	ZA (250	459	10×10	10%	4	HEIALAIKE	В
102	1	6 A	264	5 99		914	4		A
103		RA	250	459		10°4	4	±	3
104		5A	264	599	-	94	4		À,
105	o en el constante de la consta	RA	250	459		104	Ap		В
106		3 A	264	599		9"4	4		Å
107		RV	250	459		104	- April - Apri		B
108		54	200	696		84	4		A
109		KA	198	449		9"4	1		8
110		会人	208	596		84	4		A
111		RA	198	449		96	Agricular .		8
112		54	208	596		8"4	4		A
113		KA	198	449	10-10	9"4	1		B
114		纵	400	510	14214	12"中	4		A
116		ろム	400	510			4		A
116		RA	380	484			dipense.		. B
117		RA	380	484	14×14	12"4	die.	METALARE	B
118		SA	178	510	24.24	54	4	BARER	
111			175	501		8.° p			
120			133	561		7"+		and the discount of the control of t	Į.
121		54	130	1549	24,24	714	4	2	C
122		RA	585	419	24-24	164	1	BLEGER	U
123		5A	217	622	10×10	84	4	MEALAKE	A
124		RA	206	467	10×10	9"4			В
125	CEILING	ЭA	217	622	10-10	6" t	A	METALARE	Å
									and the second s

TYPE	MANUF.	The second secon		SIZE (I		CFM	FUNCTION	LOCATION	SYMBOL
		(H-WAY)	NECK	FACE	VEL. (FPM)				$\langle XX \rangle$
В	METALAIRE	1	9'4	10×10	467	206	RA	CELLING	126
C	BARBER COLEMAN	4	84	24 - 24	622	217	54		127
D	BARDER	All services	9.4	24 224	407	206	RA		128
4	METALAIRE	4	84	Ox B	476	166	SA		129
A		4	84	6.0	475	167	SA		130
В		n na	12"4	14.14	403	316	RA		131
A		4	124	14 x14	516	405	54		132
В	de la constante de la constant	Mg min	12"4	14.14	40	305	RA		133
A		4	104	10-10	532	290	5 A		194
В		4	10"+		505	275	RA		135
A	The state of the s	4	9" 4		619	273	5A		136
В		aggiore	10'4		477	260	RA		137
A		4	94		619	273	-6A		138
В	METHALES		10"4	10 × 10	477	260	RA		139
ے	BARBER	4	9"4	24×24	646	285	SA		140
P	COLEMAN	1	104	24 × 24	496	270	KA		141
A	VIETALAIRE	A	94	10-10	646	205	54		142
A		4	9,4	10.10	646	286	3A		148
6		1	14'4	16-16	508	540	KA		144
A		4	914	10×10	646	286	5A		146
В		4	101	IDAG	495	270	RA		146
A		÷.	10"4	10.10	600	527	5A		147
В			12"4	14×14	395	310	RA.		140
A	J	B	704	Beb	Colle	146	*/		149
A	METALAICE	3	714	E a.C.	616	146	₩	CEILING	160

SYMBOL	LOCATION	FUNCTION	CFM	NECK	SIZE ((NCHES)	AIR	MANUF.	TYPE
$\langle XX \rangle$				VEL. (FPM)	FACE	NECK	PATTERN (#-WAY)		RK · ·
151	CEILING	EA	216	619	10×10	84	1	METALAIRE	В
152		EA	216	619	10×10	8 4	1		8
153		EA	150	275	8.6	7'4	A Second		В
154		3A	330	431	14×14	12"4	A		A
155		RA	322	410	1		. The same of the		B
156		4	354	425			4		A
157		RA	317	404	14214	124	1		В
158		3 A	225	510	10:10	9"4	4		A
169		RA	214	485					6
160		5 A	225	510			4	and the second s	A
161		RA	214	485			1		8
162		5A	225	5,10			4		A
165		RA	214	486			1		В
.164		5A	253	513		44	4		A
165		KA	240	440	197	1014	1		В
166		-SA	250	561		可"本	d		A
167				1					1
168		ĺ							
164									
170									
171									
172							1		
173		de.	250	567	10+10	al al			A
174		. KA	QLXXX	500	\$0 - 24	50×4	4		fg,
179	CBILING	Ġ.A.	200	e.1 %	10-10	614		HETALORE	A

SYMBOL	LOCATION	FUNCTION	CFM	NECK	SIZE (INCHES)	AIR	MANUF.	
XX		,	en de la companya de	VEL. (FPM)	FACE	NECK	PATTERN (种-NAY)		
176	CEILING	SA	200	513	10×10	かず	4	METALAKE	en annak ena
177		Î	1	1		1	1	1	NAME OF THE OWNER.
178									nghatinagal _a ngo in
174	The second secon								
160									gudulingsväns d
181		A Company of the Comp							
182								and and analysis of the control of t	and and a second
163									Sant Park
184		5A	200	573	IDALO	84	4	and manuscripturalization could be an invitation of the department of the second	ndodreka jeko v
165		KA.	2000	600	30 - 24	30×24	1		Oliosuk epidan
186		5 A,	80	408	8.0	64	4		discoverable.
187		KA	75	381	6.6	4.0			*******
186		4A	320	681	12-12	10"4	4		
169	,	<i>5</i> A	320	587			4		(Marinette San
140		5A	320	587			4		-
-141		RA	230	422			1		*********
112							T		
143									*****
194		K.	230	422					
196		44	320	581			4		
196		ŠA.	550	642	12×12	104	4		
197		ĽA,	640	449	20-10	16 4			*************
190		24	100	910	Bub	64	4		all and the latest
144		E.A.	96	455	6.8	6"4	1		

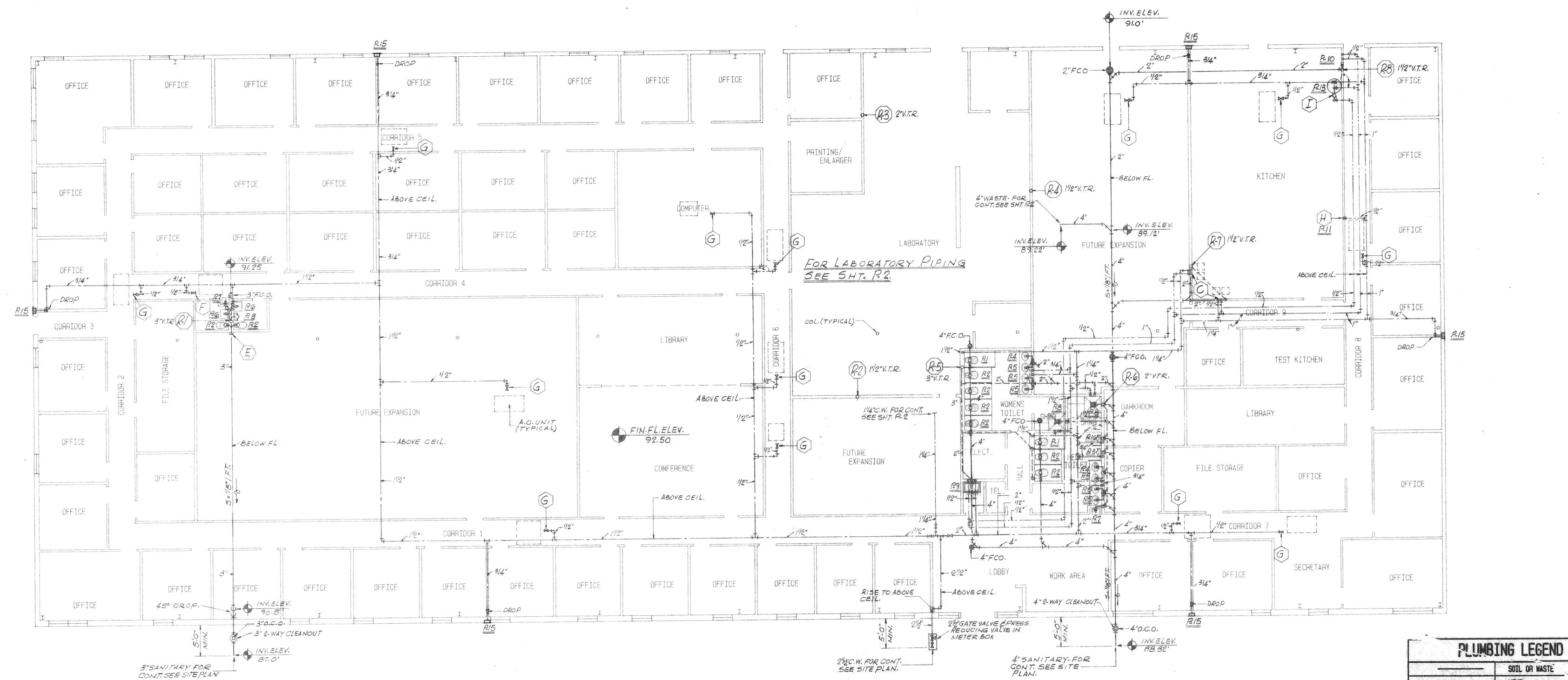
	DI	FFUSE	RS, RE	GIS	STEF	IS &	GRI	LLE S	CHEDU	JLE
,	SYMBOL	LOCATION	FUNCTION	CFM	NECK	SIZE (INCHES)	AIR	MANUF.	TYPE
	(XX)				VEL. (FPM)	FACE	NECK	PATTERN (
	201	CEILING	KA	95	485	800	64		MEMALMAE	
	202		34	90	459	8.8	44	4		
	203	CEILING	RA	65	434	8×8	64	2 ² 1	HEMAKE	13
7	204	DOOR	EA	150	225	12.0	12=0	1	METALAIRE	E
2	205,206	CEILING	4 A	330	605	12.12	104	and the second s		A
	201,208		5A	400	510	14,14	12"4	4		A
λ	209		'EA	800	453	20,20	20-90	Gramming.		В
	210, 211		EA	50	657	6.46	4	1		5
				-			The state of the s	-		

1015	(s.	TI I I I A	.)			
٨		TYPE	SINDOTE	alvie e	M. (v	CHEINA
r.	¥	17/6	KHOTE	CHENNAI	(14)	

6 - TIPE SUPPLY ONLY (BUREWER & LEMAN)

TYPE EXHAUST CARDS GRILLE ALLEGAR CHETALANES)





PLUMBING NOTES

- Plumbing drawings are diagrammatic and indicative of work to be furnished and installed under the contract; refer to architectural and structural drawings for all dimensions.
- Install all work in accordance with the Southern Standard Plumbing Code, NFPA Fire Codes, Local Plumbing Codes; where conflicts occur between codes and between the construction documents and codes the most restrictive requirements shall govern.
- The terms "provide" and "install" shall be considered synonymous with "furnish and install".
- Contractors shall pay for inspection permits, certificates, connection fees, system demand charges and license fees in connection with his work.
- 5. All work shall be installed in a workmanlike manner by experienced tradesmen.
- 6. Contractor shall maintain a clean work premise at all times and shall clean construction site of all his debris at job completion and before final payment is made.
- 7. All copper pressure pipe shall be soldered entirely with 95-5 silver solder.
- 8. All floor drains to have deep seal trap.
- 9. All hose bibbs and faucet with hose thread connection to have vacuum breaker.
- 10. Utility connections indicated on the plans are the best information available to the designers and shall be field verified by the contractor.
- 11. Furnish one marked up set of "Plumbing As Builts" to the contractor showing location of cleanouts, shut-off valves with dimensional location of all exterior utilities.
- 12. All potable water piping shall be disinfected in accordance with Section 1207 of the Standard Plumbing Code and verified by written report from the Florida State Board of Health.
- 13. The submission of a bid or proposal will be construed as evidence that the contractor has familiarized himself/herself with the plans, specifications and building site. Claims made subsequent to the proposal for materials and/or labor due to difficulties encountered will not be recognized, unless difficulties could not have been foreseen even though proper examination had been made.

PLUMBING MATERIALS

Soil, Waste, and Vent Piping

(A) Below Floor

- Service weight cast iron soil pipe and fittings with gasketed or lead and oakum joints.
- (B) Above Floor
- 1. No-hub cast iron soil pipe fittings with stainless steel no-hub bands.
- (C) PVC Option
- 1. If approved by Local Code PVC DWV pipe fittings may be substituted for cast iron.
- 2. If PVC is used, the Contractor shall be responsible to see that no PVC shall pass thru any areas used as return air plenums.

- 1. Type "K" soft copper with no joints permitted below floor.
- (B) Above Floor
- 1. Type "L" hard copper with wrot fittings and 95/5 solder

Gas, Vacuum & Compressed Air Piping

- (A) Below Floor or Grade
 - 1. Schedule 40 black steel pipe coated and wrapped with black malleable iron fittings.

(B) Above Floor 1. Schedule 40 black steel pipe with black malleable iron fittings.

- Valves 1. Install shut-off, gate or ball valve and union on all
 - equipment as indicated. A) Gate Valve NIBCO S-111 B) Check Valve NIBCO S-413
 - C) Globe Valve NIBCO S-211 D) Ball Valve NIBCO T-580

PLUMBING FIXTURE SCHEDULE

P-1 Water Closet Eljer 111-1245, Sperzel 150E seat, Delany F402-3 flush valve. P-2 Water Closet Eljer 111-1115, Sperzel 150E seat, Delany F402-3 flush valve.

P-3 Urinal Eljer 161-1030, Delany F451 flush valve.

P-4 Lavatory Eljer 052-0278, 559-1270 faucet, 803-0552 grid drain, BRASS CRAFT sweat stops with 3/8" riser, 804-1180 "P" trap. TRAP, stops & supplies shall be insulated.

P-5 Lavatory Eljer 052-0274, 552-1683 faucet, 803-0552 grid drain, BRASS CRAFT sweat stops with 3/8" riser, 804-1180 "P" trap.

Eljer 052-0174 (20x18), 552-1689 faucet, 803-0552 grid drain, BRASS CRAFT sweat stops with 3/8" riser, 804-1180 "P" trap.

NIAGARA CAB-132 point of use water heater mounted below lavatory. P-7 Electric Water Cooler Elkay ENFS-8, 804-1180 "P" trap, BRASS CRAFT sweat stop & supply.

TRAP to be wrapped with "NO-DRIP" tape. P-8 Shower Shower stall by other division of work. Shower valve "Delta" 1626 MDF. Wade W-1102-G5-1 floor drain.

P-9 Service Sink Eljer 242-0155, 749-1370 faucet, 804-1060 3" trap etandard.

P-10 Wash Machine Box Guy Gray BB-150TS.

P-11 Ice Maker Box Plastic Oddities 18-9. P-12 Emergency Shower-Eye Wash HAWS 8320. Model 8129 shower head, entire unit shall have CRP green coating.

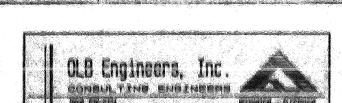
P-13 Electric Water Heater Bradford White M-I-80-12-3SF, 208V, 3 phase with combination temperature and pressure relief valve. Pipe relief valve discharge to outside of building.

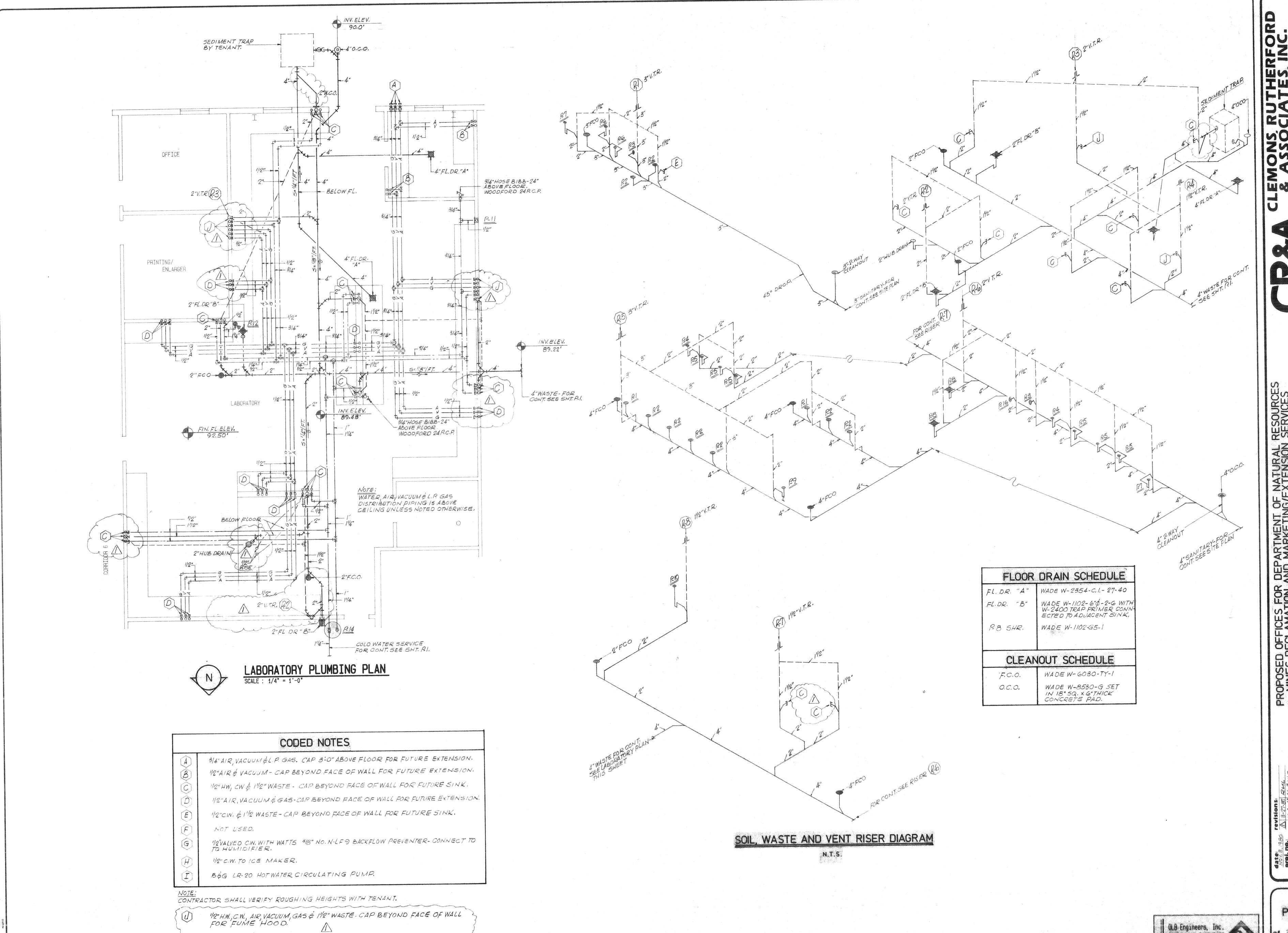
P-14 Electric Water Heater Bradford White M-I-50-6-3SF, 208V, 3 phase with combination temperature and pressure relief valve. Pipe relief valve discharge to floor drain.

Mount 18" above finished grade. P-16 Urinal
Same as P-3 except mount lip 1'-9" above floor.

	VENT
	STORM
—— GL——	GREASE LINE
<u> </u>	COLD WATER
	HOT WATER
	HOT MATER RETURN
6	GAS
o	IN LINE PUMP
—×-	GATE VALVE
	BALL VALVE
	CHECK VALVE
	UNION
S.AQ	SHOCK ABSORBER
1.P. ———	TRAP PRIMER
н.в. 🚓 -	HOSE BIBD
V.N.	WALL HYDRANT
f.O. 10	FLOOR DRAIN
F.S. ©>	FLOOR SINK
H.D. 🔷	HUB DRAIN
A.O. 🔘 ———	ROOF DRAIN
F.C.O. (0)	FLOOR CLEANOUT
0.C.O. ①——	OUTSIDE CLEANOUT
W.C.O. 1-0-	WALL CLEANOUT
G.O. 1———	END OF LINE CLEANOUT
	P-TRAP
(8)	RISER DIAGRAM NUMBER
(4)	STAL NIMBER
V.T.A	VENT THRU ROOF
N.T.S.	NOT TO SCALE
N.1.C.	NOT IN CONTRACT
	OF THE THE CTATION WHOSE

SOIL OR WASTE





of 4. of

ELECTRICAL LEGEND SYMBOL DESCRIPTION RECESSED FLUORESCENT FIXTURE, SEE LIGHTING FIXTURE SCHEDULE. HALF-SHADED FIXTURE INDICATES ADDITIONAL EMERGENCY BATTERY PACK. WALL-MOUNTED FLUORESCENT FIXTURE, SEE FIXTURE SCHEDULE. WALL-MOUNTED H.1.D. OR INCANDESCENT FIXTURE, SEE SCHEDULE. CEILING-MOUNTED (SURFACE OR RECESS) INCANDESCENT OR H.I.D. FIXTURE, SEE SCHEDULE. POLE-MOUNTED H.I.D. FIXTURE. SEE FIXTURE SCHEDULE. BOLLARD. MOUNTED ON CONCRETE BASE, SEE FIXTURE SCHEDULE. LUSH-MOUNTED SINGLE-POLE SWITCH. FLUSH-MOUNTED THREE-WAY SWITCH. FLUSH-MOUNTED DUPLEX CONVENIENCE RECEPTACLE WITH GROUND, NEMA 5-15, MOUNT 14"

A.F.F. OR AS NOTED IN OFFICE AREA; = MOUNT @ 12" ABOVE COUNTERTOP.

(WP=WEATHERPROOF, GFI INDICATES CONNECTED TO GROUND FAULT INTERRUPTER FLUSH-MOUNTED 208/240 V. RECEPTACLE. SEE PANEL SCHEDULE FOR PHASE AND AMPS. MOUNT AT 36" A.F.F. IN STRUCTURAL LAB AREA. PLUGMOLD 20-GBA 18. MOUNT AT 48" A.F.F. DEDICATED OUTLET FOR COMPUTER EQUIPMENT - PROVIDE ISOLATED GROUND. JUNCTION BOX FOR CONNECTION OF EQUIPMENT. SEE PANEL SCHEDULE. TELEPHONE OUTLET, AT 14" A.F.F.; 12" ABOVE COUNTER TOP IN KITCHEN & LAB; OR AS OTHERWISE NOTED. DISCONNECT SWITCH, SIZED FOR LOAD. TIMER, INTERMATIC 51311, SUPPLIED WITH PHOTOCELL (PC). ELECTRIC PANEL, SQUARE D OR EQUAL, NGOB, BOLT-ON. WATER HEATER - SEE PLUMBING SHEETS FOR SPECIFICATIONS. SEE MECHANICAL SHEETS FOR SPECIFICATIONS. AIR HANDLING, CONDENSING UNIT, OR UNIT HEATER. MANUAL FIRE ALARM PULL STATION. PYROTRONICS MS-5. RECESSED AT 48" A.F.F. FIRE ALARM HORN/LIGHT COMBINATION, ONE OR TWO HORNS AS INDICATED. PYROTRONICS L- HSD-24. RECESSED AT 90" A.F.F. FACE FIRE ALARM CONTROL PANEL, RECESSED. PYROTRONICS SYSTEM 3 WITH BATTERY BACK-UP EMERGENCY BATTERY LIGHT. SEE FIXTURE SCHEDULE.

1. All wiring and branch circuits are to be in accordance with the latest edition of the National Electrical Code, local codes, and the following design criteria:

A. All wiring to be installed in metallic conduit. B. PVC conduit may be used where allowed by local

C. All conduit exposed to weather shall be galvanized heavy wall steel conduit.

Wire rated at 75 degrees "C" is required for all incandescent light fixtures.

E. No wiring smaller than #12 AWG shall be used for any lighting or receptacle circuit. F. If distance from electrical panel to first fixture connected to a circuit exceeds 70 feet, use one

trade size larger, but not smaller than #10 AWG. All conductors are to be copper, type THW or THHN. H. All wiring is to be concealed within slab, walls or above ceilings. Secure raceways to overhead when installed above ceilings; do not allow raceways to be loose above ceiling. No conduit is to be

installed on exterior of building. I. N.E.C. requirements regarding pipe fill and conductor derating shall be strictly followed. Conductors inside panels shall be loosely bundled to allow for ventilation of conductors.

2. The contractor is responsible for acquiring permits for this construction and scheduling appropriate inspections during construction with the authority without having jurisdiction.

3. Contractor is to coordinate interface of electrical power system with the Local Electrical Utility Company prior to commencing work.

4. Electrical disconnect switches, meter bases, and similar equipment which interfaces directly with the Electric Utility Company must have approval of the utility company for manufacturer and type.

Provide insulated ground connection for each 120/208 volt electrical panel to ground bus in MDP. Ground conductor size is to be in accordance with NEC. Ground bus in MDP is to be connected to cold water pipe and ground rod, per N.E.C. 250-81, with conductor sizes as shown on riser diagram. Verify 5 OHMS maximum.

All disconnects, panels, junction boxes, and meter cans shall be painted to blend with the walls on which they are mounted.

ELECTRICAL NOTES

- Provide a Square D J9200-9A voltage surge protector on the line side of the incoming service.
- Contractor is to contact the local telephone company regarding installation of telephone service. Contractor is to prewire each telephone outlet.
- Provide #6 ground insulated connector to telephone backboard in telephone closet. Install ground rod per N.E.C. 250-81.
- 10. Any conduit penetrating the roof or walls, is to have water-tight flashing.
- 11. All exterior electrical equipment shall be weatherproof.
- Exterior building lights (as noted) are to be controlled by photocell on timer. Photocell is to be located at roof level, facing north. Timer to be located in Electrical Room.
- Conduit for underground electrical work to be run underground, at a minimum depth of 30", or encased in 2" of concrete.
- service) longer than 150 feet or containing more than two 90 degree bends will require pull boxes.

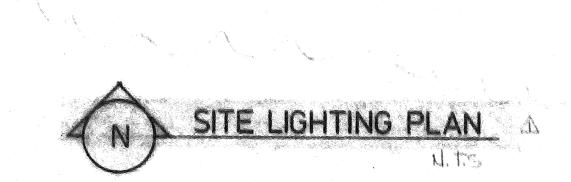
14. Any conduit (for electrical, fire alarm, or telephone

- 16. All materials are to be new and shall be listed by the Underwriters Laboratories, Inc. (UL) or National Electrical Manufacturer's Association (NEMA).
- 16. Contractor is to coordinate with mechanical contractor to avoid conflicts between locations of diffusers, light fixtures, and smoke or heat detectors. Smoke detector spacing in corridors is not to exceed 30' on centers.
- 17. At each AHU overhead in attic space, install a two-tube fluorescent fixture with switch (with pilot light) at 60" a.f.f. below. Label switch for AHU maintenance. Also install a receptacle and heat detector in attic space. Connect receptable and light to nearest 120V power
- 18. All smoke detectors and heat detectors, manual pull stations, and any other low voltage fire alarm system devices are to be interconnected to fire alarm control panel (FACP) using #14 THW or THHN in conduit.

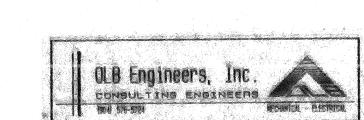
- 19. Fire alarm control panel (FACP) is to be equipped with the capability of automatic dialing up to three (3) telephone numbers to notify of an alarm. The FACP is to be properly grounded, with gas diode or similar protection. <u>Duct detectors</u> in Air Handling Units (AHU's) are to be connected to the FACP to shut down the AHU's on alarm.
- 20. Connect exit lights and fire alarm panel to line side of MDP main breaker.
- 21. The electrical contractor is to provide all low voltage control wiring for all HVAC systems, with supervision by the mechanical contractor.
- 22. Recessed light fixtures in fire rated ceilings are to be fire rated with appropriate protection in accordance with 1986 UL Fire Resistant Directory.
- 23. In general, light switches are to be centered 48" above finished floor, and receptacles 14" above finished floor (A.F.F.), unless noted.
- 24. Each panel is to be furnished with a typed directory, in accordance with panel schedules provided in these drawings.
- 25. Care must be taken to stagger installation of wall receptacle boxes so they are not back-to-back.
- 26. All light fixtures are to be equipped with lamps. All fluorescent fixtures are to be equipped with energy efficient lamps and ballasts. Lamps shall be G.E. Maxi-Miser II, or equal. Ballasts shall be G.E., Maxi-Miser, Advanced Mark II, Universal Watt Reducer, or
- 27. Main breaker at MDP to have 65,000 A.I.C. minimum rating. All other breakers in MDP to have 25,000 A.I.C. minimum rating.
- 28. The submission of a bid or proposal will be construed as evidence that the contractor has familiarized himself/herself with the plans, specifications and building site. Claims made subsequent to the proposal for materials and/or labor due to difficulties encountered will not be recognized, unless difficulties could not have been foreseen even though proper examination had been made.

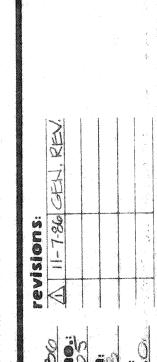
L-25, THRU PO

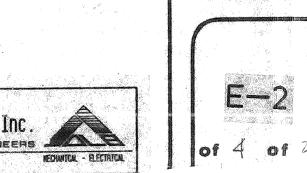
OUTSIDE X - INSIDE HOTE: SEE PAHEL SCHEDULES FOR SIZES, RATINGS, AHD MOUNTING OF PAHELS. MREWAY -4#3/0,2°C. - PANEL PE 14# 4/0, I DISCONNECT SHITCH PANEL PW 4600 V RATING, 3-POLE T 5/H, 00 AMP 3#3, 146. PANEL L PANEL ME PANEL MW PANEL C TRANSFORMER 277/480: 120/200 YVOLTS 4000 DISCONNECT 30, 4H, 150KVA 100 A 225 A 225 A 4×4/0,21/2/2. MAIN I RIGID C. - OPAG 4# 500 MCM34"C. TOWNED TOWNING SPACE 277/480 VOLT - BPAGE 30 4W ELECTRICAL 2 PARALLEL SETS -- 4 # 350 MCM, 31/C HOTES: I CONHECT FIRE AAPM STITEM (IF INSTALLED IN THIS PROJECT) AND EXIT LIGHTS TO LINE SIDE OF MOP - + SPACE SERVICE MOUND BUS 2. PROVIDE GROUND FROM EACH PAHEL TO GROUND BUS IH MDP, IH ACCORDANCE WITH HEC. 250-81. -#3/0 TO COLD WATER PIPE #3/0 TO GROUND ELECTRICAL RISER DIAGRAM

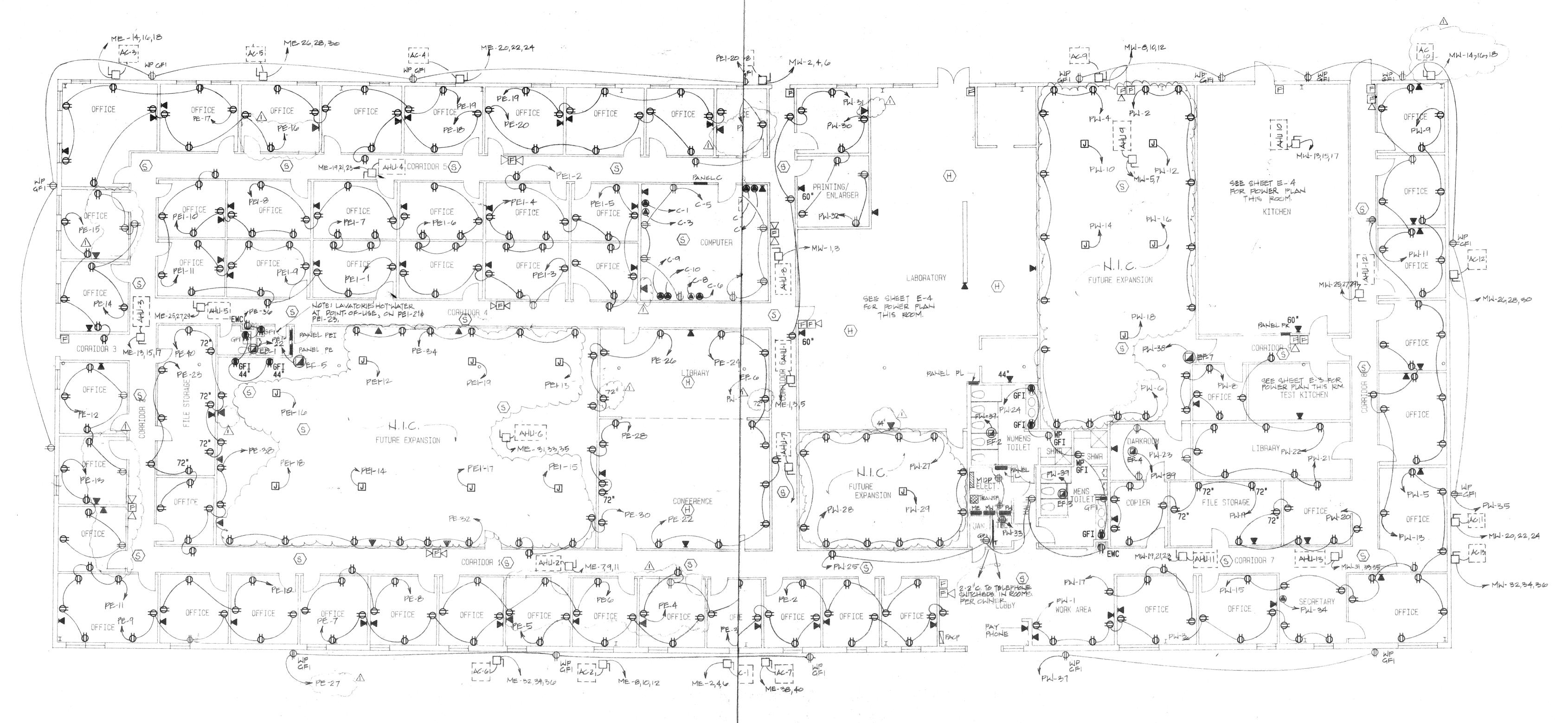


L-28, THRLI (PC)









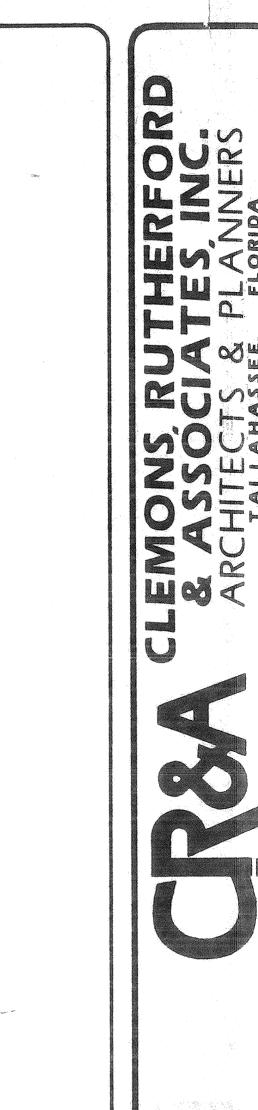
MAIN M.L.O. WAIN M.L.O. SPACES 42
VOLTS 120/200 AMPS 225 A PHASE 3 WIRE 4 CIRCUIT SCHEDULE

CKT	SERVING	WIRE	BREAKER	KVA	Ø	KVA	BREAKER	WIRE	SERVING	СКТ
1	RCPTS., H OFFICES	2#12	20	1,0	A	1.0	20	2#12	PCPF, N. OFFICES	1 2
3	PCPTS, N	2#12	20	1.0	В	1,0	20	2412	RCPTS, N "	1 4
5	RCPTS, H 11	2#12	ro	1.2	6	1.2	20	2#12	ROPTS N	6
7	RCPTS., N "	2 = 12	20	1.2	A	1.0	20	2#12	ROPTS, HE OFFICES	8
9	ropps, he offices	2412	20	1.2	В	-8	20	2#12	RCPTS., HE "	1 10
	RCPTS, HE "	2412	20 :	1.2	C	1.2	20	2 # 12	RCPS, E. OFFICES	12
13	ROPTS, HE "	2#12	20	1.0	A	1.0	20	2#12	ROPTS, GE "	14
15	ropts, SE offices	2412	20	10	B	12	బ	2#12	RCPTS & OFFICES	16
17	eapts, s offices	2412	- 20	,0	C	1.0	-	2#12	ROPTS, & OFFICES	18
19	RCPTS, S OFFICES	2412	20	1.2	A	1.2		2 # 12	POPTS, S OFFICES	20
21	RCPTS, 8 OFFICES	2 = 12	20	.8	B	1.0	-	2#12	RCPTS, CONFERENCE	22
23	RCPTS, FILE STORAGE	24/2	20	1.2	0	10	Name and Address of the Control of t	2#12	PCPTS, CONF/LIBRARY	24
25	LIGHTS, CONFERENCE	2412	20	1.0	А	1.0	20	2#12	PCPTS, LIBRARY	26
27	REPTS, OUTDOOR	2412	209	.60	В	1.0	20	2 \$ 12	ROPIS, CONFERENCE	28
29	SPACE	- Columbia	and the second		6	10	20	2412	POPTY CONF.	30
31					A	1.2	20	2412	PCPTS, FUTURE EXPAN.	32
33					В	1,2	20	2#12	PCPS, I I	34
35					C	10	20	2#12	PCPTS, RESTROOMS	36
37					A	1.0	20	2412	ROPTS., OFFICE/EXPAN	38
39					В	1,2	20	2412	RCPRO FILE/STORAGE	40
41					6				SPACE	42

NOTE, POWER TO ALL AREAS INDICATED (CLOUDED)
AS NOT IN CONTRACT (N. I.C.), FUTURE
EXPANSION, ARE TO BE OMITTED FROM
CONSTRUCTION, THIS PHASE PAHELS ARE
SIZED FOR FUTURE LOADS, CONTRACTOR
MAY OMIT BREAKERS ON CIRCUITS
IDENTIFIED "FUTURE EXPANSION" THIS
DOES HOT APPLY TO H.V.A.C. EQUIPMENT
LOCATED ABOVE THESE AREAS. SCALE : 1/8" 1'-0"

	PANEL PEI CIRCUIT SCHEDULE					M.L. 16/208 NG PI		ICES 4	THE PHASE S WIRE 4		
СКТ	SERVING	WIRE	BREAKER	KVA	Ø	KVA	BREAKER	WIRE	SERVING	СКТ	
1	RCPTS, INTERIOR OFFICES	2#12	20	1.2	A	1.2	20	2#12	ROPTS., INTERIOR OFFICES	2	
3	ROPTS, " I	24/2	20	1.2	ъ.	1:01	20	2#12	RCPTS, " "	4	
5	PLOTS, I /II	包井尼	20	1,2	10	1.2	20	2418	ROPTS, " "	6	
7	KOPTS, I / II	2#12	20	.8	Δ	1.2	20	2412	REFTS, I I	8	
9	REPTS., II II	2#12	20	1.2	В	10	20	2#12	ROPTE, I	10	
11	rupis, i i	2412	90	.6	6	1.2	20	2 + 12	J-BOX: FUTURE ROPTS	12	
13	J-BOX: FUTURE ROPPS,	2#12	20	1.2	A	12	20	2412	J-Box: HUPURE ROPTS.	14	
15	J-Box 1 . 11. 11	2412	20	12	6 7	1.2	20	2412	J-BOX: FUTURE REPTS	16	
17	J-BOX: FUTURE RCPB.	8+12	20	12	61	1.2	20	2412	J-BOX: FITURE POPTS:	18	
19	J-BOX; FUTURE KOPTS.	2 料定	20	1.2	A.	10	20 4	2412	OUTROR ROPIS.	20	
21	HATER HEATER (POLL)	2#12	20	.7	8	3.0	9,5	2+10	\$F-1, EF-5	22	
23	WATER HEATER (POUT)	2#12	20	. 7	i.		20		GARE .	24	
25	SPACE				A				SPACE	26	
11/2		1			16			1 1		-	

СКТ	SERVING	WIRE	BREAKER	KVA	Ø	KVA	BREAKER	WIRE	SERVING	СКТ	
1	POPIS, HIM OFFICES	2# 12	.20	1.2	A	1.2	20	2#12	RCPTS, FUT EXPANSION	2) in the second second
3	ROPTS, HW "	2#12	20	12.	В	12	20	2#12	REPTS, " "	Ą	FUTURE EXPANSION
5	ROPTS, W OFFICES	2412	20	1.2	6	10	20	2412	ROPTS, I I	6	
7	ROLLO MARINE	2412	20	1.0	Д	10	. W	2#12	ROPTS, " "	8	> •
9	ROPIS, SW OFFICES	2#12	20	1.2	В	12	20	2412	J-BOX: RCPTS, "	10	
11	REPTS, GW "	2#12	80	12		12	26	2相2	J-BOX: RCPPS, "	12	FUTURE EXPANSION
13	ROPTS, W OFFICES	2#12	20	1,2	A	1/2	20	2#12	J-Box ROPTS, 1	14	
15	KUPTS, HW OFFICES	2412	20	10	Ð	12	20	2#12	J-BOX ROPFS, "	16	
17	RCPTS, HW OFFICES	24/2	20	.8	.0	1.2	20	2412	J-BOX RCPTS, "	18	
19	ROPTS, COPY/FILE RMS.	24/2	20	10	Δų	1.0	20	2 #12	REPTS, OFFICE/FILES	20	
21	ACPTS, LIBRARY/DKRM.	2年12	20	10	6	.8	20	2#12	PCPTS , LIBRARY / OFFICE	22	
23	ROPE, DIRM./COPIER	2412	20	10	G	1.2	20 GF1	2412	ROPTS, BATHROOMS	24	
25	RCPTS, HALL, ENG.	8412	20	.60	A	,4	80	2+12	PCPTS, ELECT/TEL. RMS,	-	
27	POPTS, FUT, EXPANSION	2#12	20	1.2	8	1.2	20	2年12	RCPB FUT EXPANSION	28	1. FUTURE EXPANSION
29	J-BOX : FUT EXPANSION	2#12	20	12	6	1.0	20	2年12	RCPTS, PRINT/ENLARG.	30	
31	RCPTS, OFFICE, HALL	2#12	20	8	A	.4	20	2412	ROWTS, PRINT/ENLARG.	32	
33	RCPTS., TEL. RM. GHUR. 1678	各种局	20	10	B	.2	20 GF1	2412	DEDICATED: COMPLIER	34	
35	OUTDOOK ROPTS	2#12	20 G	12	C	1.0	20	2412	UICHTS, CONFERENCE	36	
37	cutocor RCPTs.	2412	204	.4	A	5.2	50	248	EF-6, EF-7	38	
39	EF-2, EF-3, EF-4	2412	20	.7	B				grace ·	40	
41	SPACE				۷	7 · ·			SPACE	42	



ARTMENT OF NATURAL RESOURCES
MARKETING/EXTENSION SERVICES
4 PARK

PROPOSED OFFICES FOR DEPARTMENT OF NAT MINES RECLAMATION AND MARKETING/EXTE INNOVATION PARK

revisions.

TYPICAL WIRING DIAGRAM
FOR 4-TUBE FLUORESCENT FIXTURE AREAS DESIGNATED AS NOT IN CONTRACT (H. I.C.) MAY BE OMITTED FROM CONSTRUCTION, THIS PHASE. PANELS SIZED FOR FUTURE LOADS, CONTRACTOR NOT INSTALL JUNICTION BOXES FOR FUTURE LIGHTING AS SHOWN, WITH EACH CIRCUIT LOADED TO 65% CAPACITY (MAX.), L-28, THRU @ ON I. LIGHTING FIXTURE SCHEDULE MEGR MODEL NO LAMPS MOUNTING REMARKS

		PANEL L CIRCUIT SCH	CHEDULE				1. L.O. 177/480 NG RE	SPAMPS 22 ECESSED FRA	PHASE 3 WIRE 4		
	СКТ	SERVING	WIRE	BREAKER	KVA	Ø	KVA	BREAKER	WIRE	SERVING	СК
		Late, NW OFFICES	2 4 12	20	2.6	A	2.6	20	2412	1975, NE OFFICES	2
	3	Lats, W OFFICES	2#12	20	2.4	B	2.3	20	2412	LATS, NE OFFICES	4
	5	LATS, W OFFICES	2412	20	2.4	C	20	20	2#12	LGTS., FUTURE OFFICES	6
FUTURE S	7	Lats, WOFFICES	2#12	20	2.3	A	2.0	20	2#12	Lats, future offices	8
EXPANSION)	9	LATE, IN OFFICES	2#12	20	23	B	2.0	20	2#12	LATS, FUTURE OFFICES	1
<u> </u>		LATS, BATHROOMS	2#12	20	.5	6	2.4	20	2#12	lats, W. OFFICES	
•	13	LGTB, KITCHEN	2#12	20	16	A	28	20	2412	LGFS, INTERIOR OFFICES	1
*	15	LOTS, KITCHEH	24/2	20	1.6	B	2.0	20	2#12	LOTS, INTERIOR OFFICES	
	17	LATS., LABORATORY	2#12	20	1.8	0	2.3	20	2#12	LATE, SE OFFICES .	- Canada
	19	Lats, LAB	2#12	20 .	18	A	11	20	2412	Late, corridor	2
	21	Lats, LAB	2412	20	2.0	В	1.7	20	24 2	Late, corridor	2
FUTURE EXPANSION	23	LOTS, FUTURE OFFICES	2412	20	2.3	6	.7	20	2012	EMERG/NIGHT LIGHTS	2
EXPANSION L	25	PARKING LOT LIGHTING.	2 412	20	2.4	A	* *	20	2#12	EXTER/SOFFIT LOTS.	2
	27	SPACE		9		В	.8	20	2#12	EXTER/WALL LUTE, POIT	21
	29		1			C		20		YARE	30
	31					A				GPACE	3
	33					B					3
	35					0					3
	37		1			Α					3
	39				4	8				4	4
	41					C					4

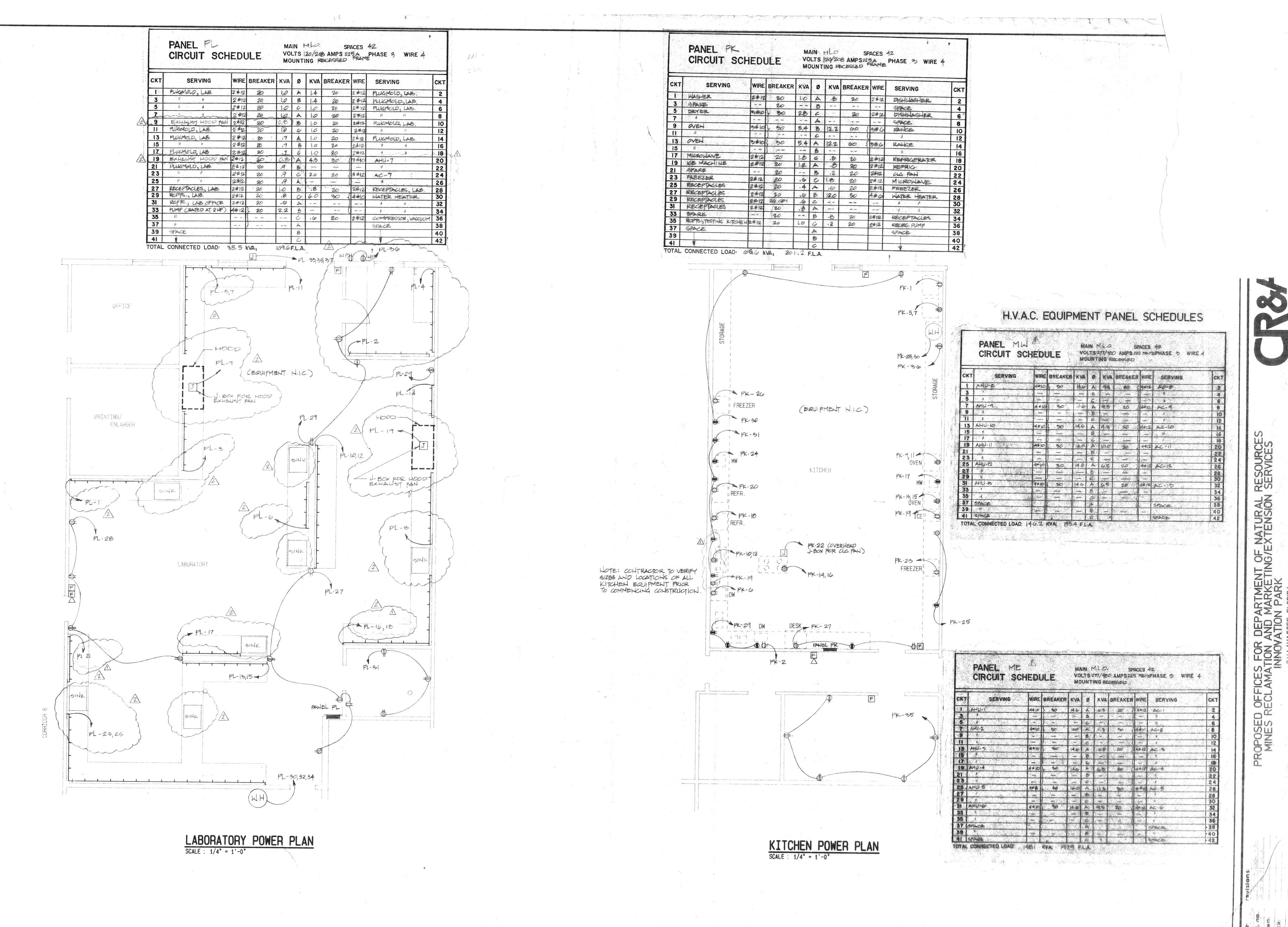
10 12 14 16	PANEL C CIRCUIT SCHEDULE MAIN M.L.O. SPACES 20 VOLTS 120/200 AMPS 100 PHASE WIRE 3 MOUNTING RECESSED										
18	СКТ	SERVING	WIRE	BREAKER	KVA	Ø	KVA	BREAKER	WIRE	SERVING	СК
22	1	DED. RCPT., TERMINAL	2#12	20	1.0	· Laboritor	1.0	20	2#12	DED. RCPT., TERMINAL	1 2
4	3	DED. RCPT., TERMIHAL	2#12	20	1.0		1,0	20	2#12		4
6	5	RECEPTALES.	2 1 12		ها.		1,0	20	2#12		6
8	7	RECEPTACLES	2#12	And the second second second	.6		1,0	20	2#12	The same of the sa	8
2	9	DED. RUPT., WORKSTATION	2#12	20	1.0		1,0	20	2#12	DED. RCPT., WORKSTATION	TI
4	Ī	DED. REPT., WORKSTATION		20	1,0		.6	20	2412	DOWN LIGHTS	1
6	13	LIGHTS	2 1 1 2	20	1.3		4.3	365	3410	SPACE 4	14
8	15	5 PX4E					Barrier .		124		
ō	17					7 sees	2,0		34/2	AC-14	11
2	19						36.3		\$(£12)		2

YMBOL	MFGR.	MODEL No.	LAMPS	MOUNTING	REMARKS	
A	LITHONIA	2GT 440 RN A12 2778	4-40W	RECESSED		
В	LITHANIA	2 CT 440 ALBH 277 BS	4-40W	RECESSED		
7	PROGRESS	Pla/blolo4	1-100 W A-19	RECESSED	ON DIMMER SWITCH	
þ	LITHONIA	267 240 ALEN 271ES	2-40 W	RECESSED	KK	
E	LITHONIA	2GT 240 PNAI2 277 B	2-40W	RECESSED	- A	\$
F	PROGRESS	P3015	2-75W	OH WALL ABOVE MIRROR		
G	PROGRESS	P7152-	1-30W	OH WALL ABOVE MIRROR OR 72" A.F.F.		
	PROGRESS	P7372	1-22	SURFACE		
J	PROGRESS	P7-10/P6624/ P8-791	1-75 N A-19	SURFACE	RECESSED HOUSING	Δ
K	4FHALL	20-20-09	I-9 W TUN TUBE	MOUNT ON WALL COLO!		Samuella and
	HALO	H275-401 P	TISH	KECESSED	IN CLG. OR SOFFIT	:
M	HI-TEK	KAS 400 MSP12/	1-400 WMH	HT.@ 25'ABOVE CHEWIND	SUPPLY TYPE 2	
N	epullinka	PHV-100 DX	1-100 W MV		277V BALLAST	
P	GPAULDIHG	KK-100PX	1-175W MH	MOUNT ON PASSIAS 12'0"	277V BALLAST	
						ma-addition-provinces
EM	PROXIRESS	P6025 WB	2-PAR-36	HALL-MOUNT® 90" AFF		And continued to the co
X	PROGRESS	P6024WB	2-20WT601/2			
and an interest of the state of	enganistra 🕭 aliande nyawa menindakan dalam kedalam pendalam kedalam pendalam penda	anger Marien or Marien over the property of the property of the Control of the Co		Seaton and the seaton of the s		

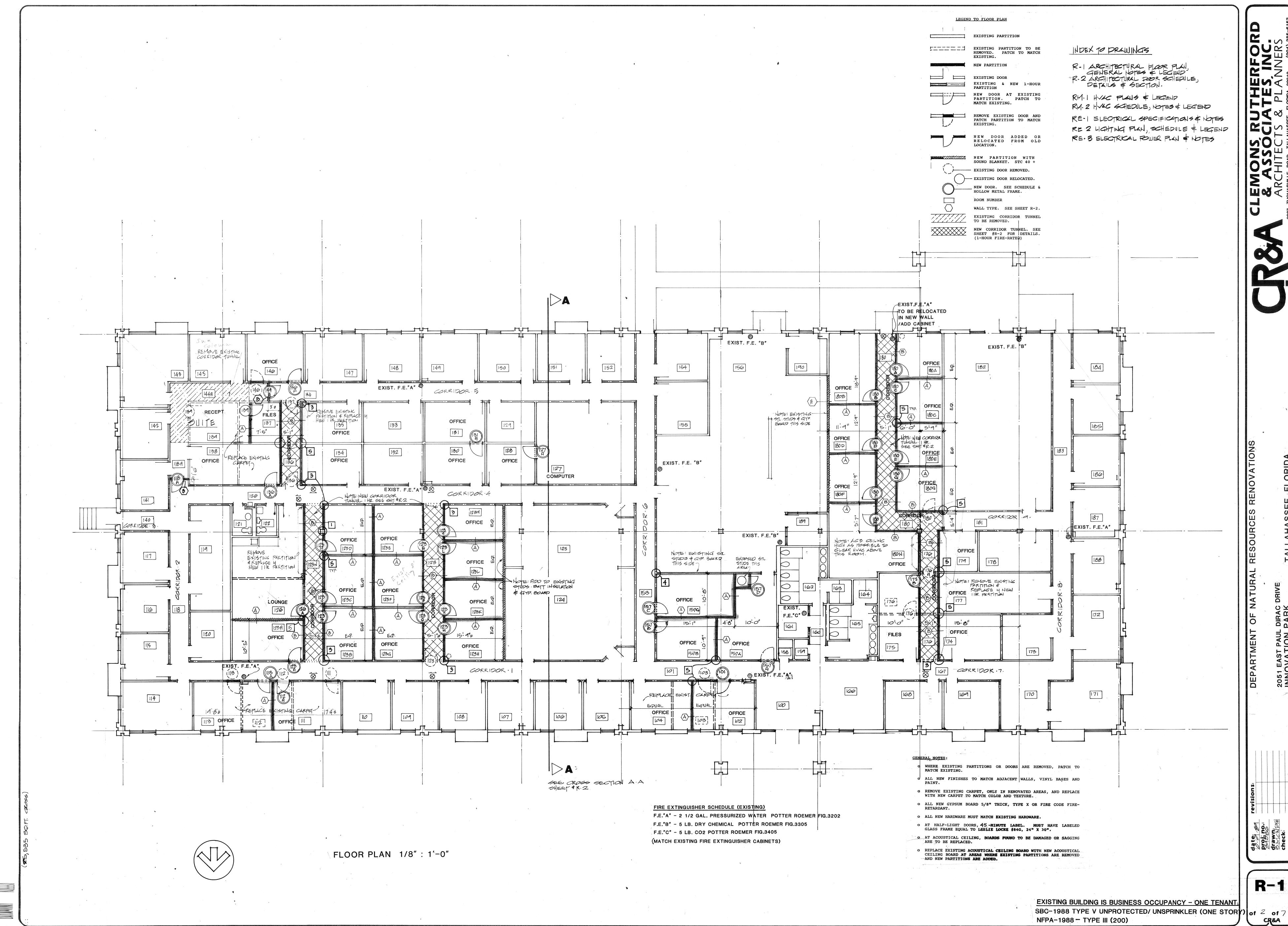
OLB Engineers, Inc.

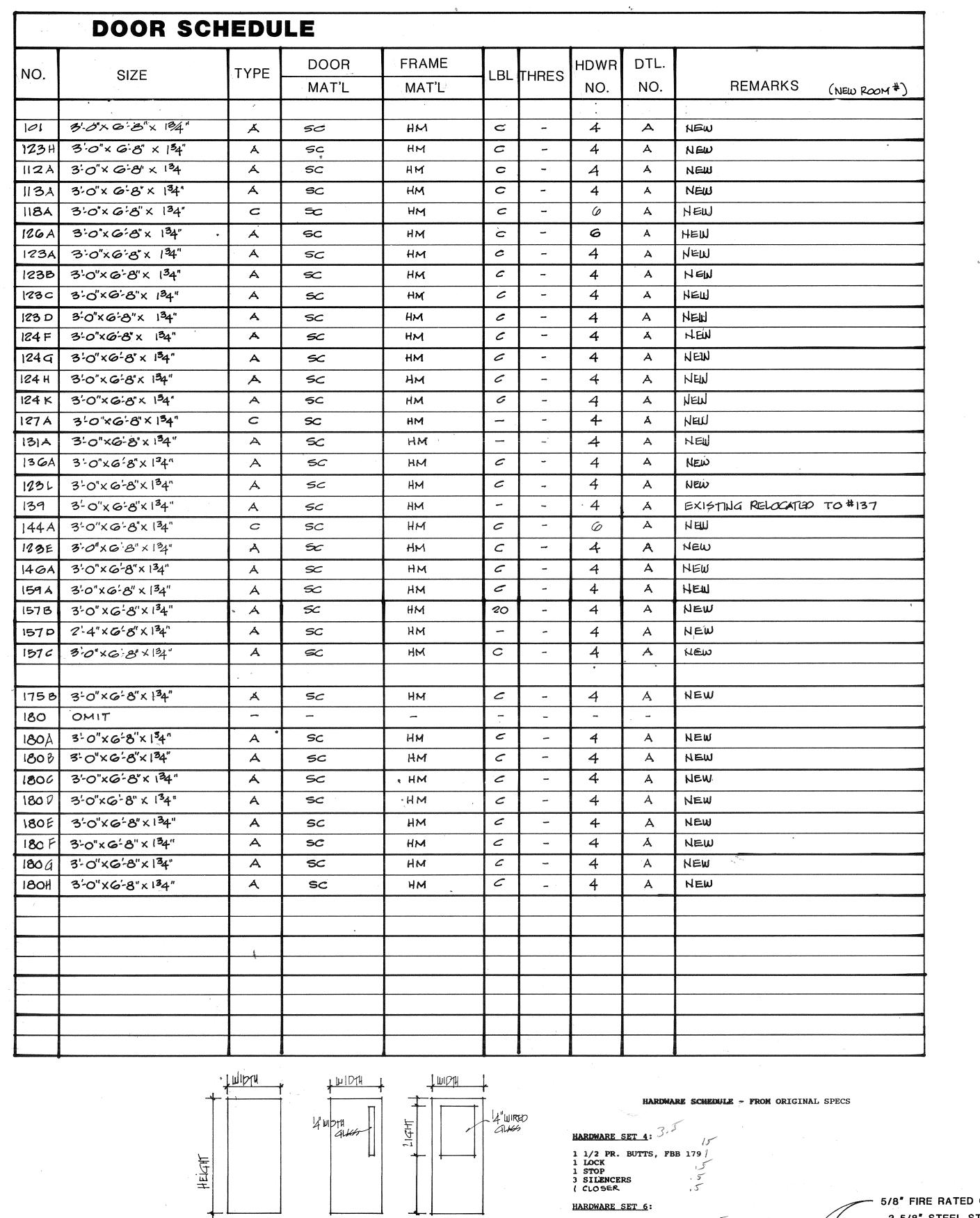
CONSULTING ENGINEERS

REMINE - SECTION



OLD Engineers, Inc.





1 LOCK 1 CLOSER

1 KICKPLATE

DOOR TYPES

HEAD

JAMB

__3 5/8" STL. STUDS Φ. 24" O.C.

---FM WIA-IHQUR & 47 STC. w 2 1/2"
BATT INSULATION

DOUBLE STUDS & JAMBSW 3-18 GA.

NOTE INTERIOR PARTITIONS-SEE LEGEND FOR LOCATION OF PARTITION TYPES ON

DOOR DETAIL

G.I.STRAPS @

EACH SIDES

HOLLOW METAL

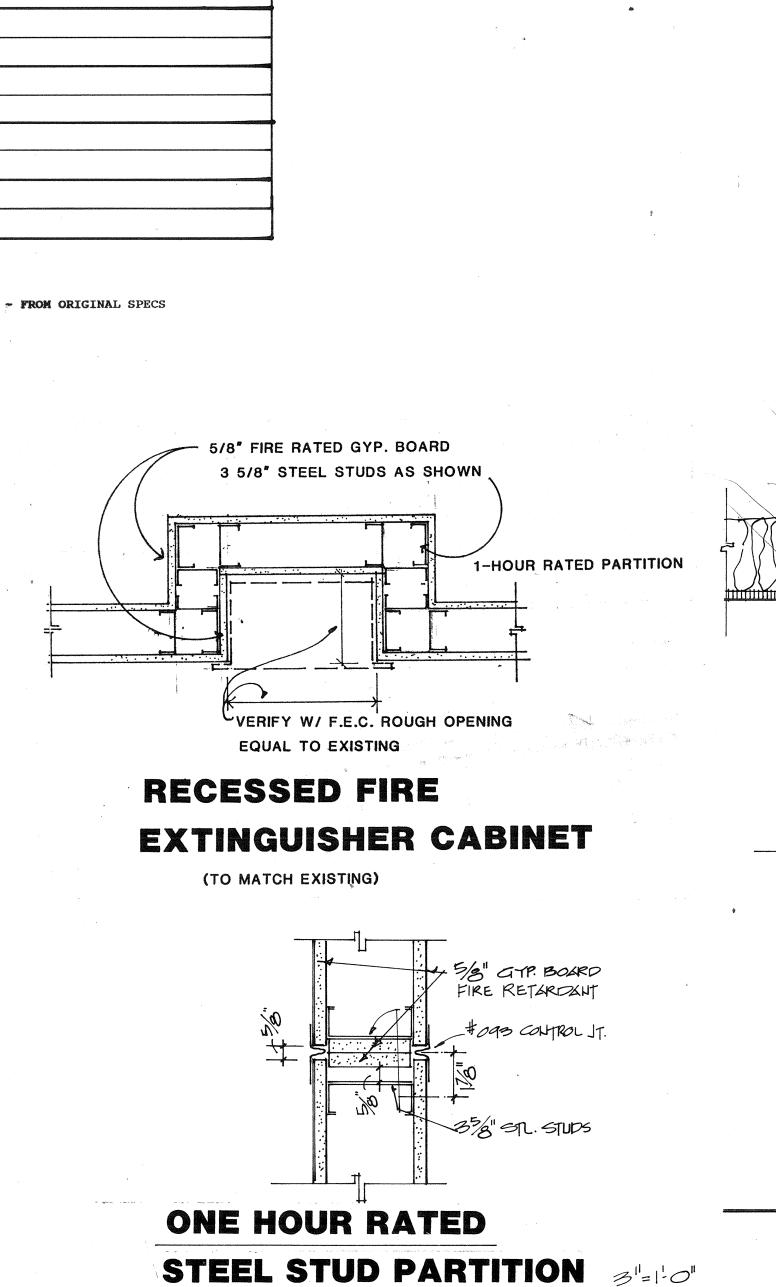
FLOOR PLANS

SCALE 3":1'-0"

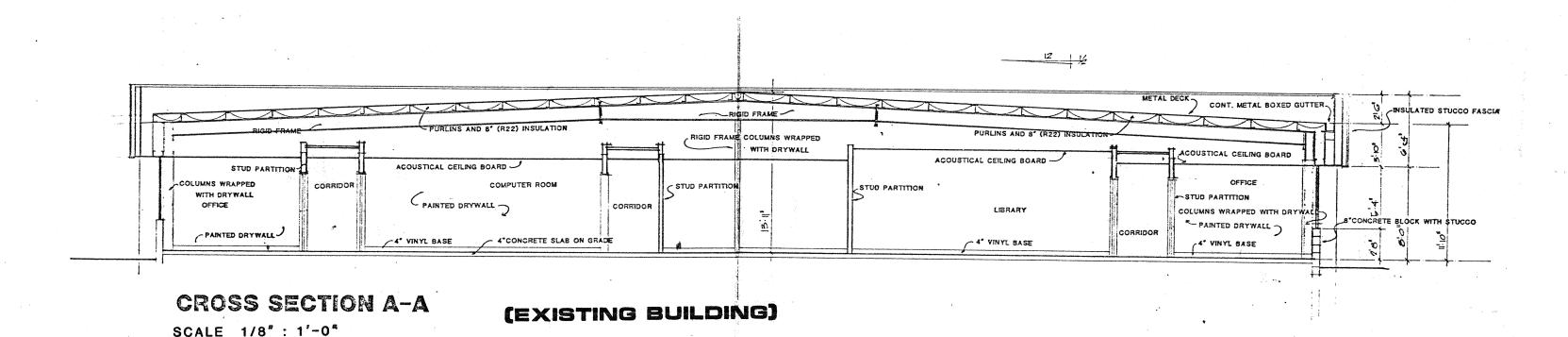
DOOR FRAME

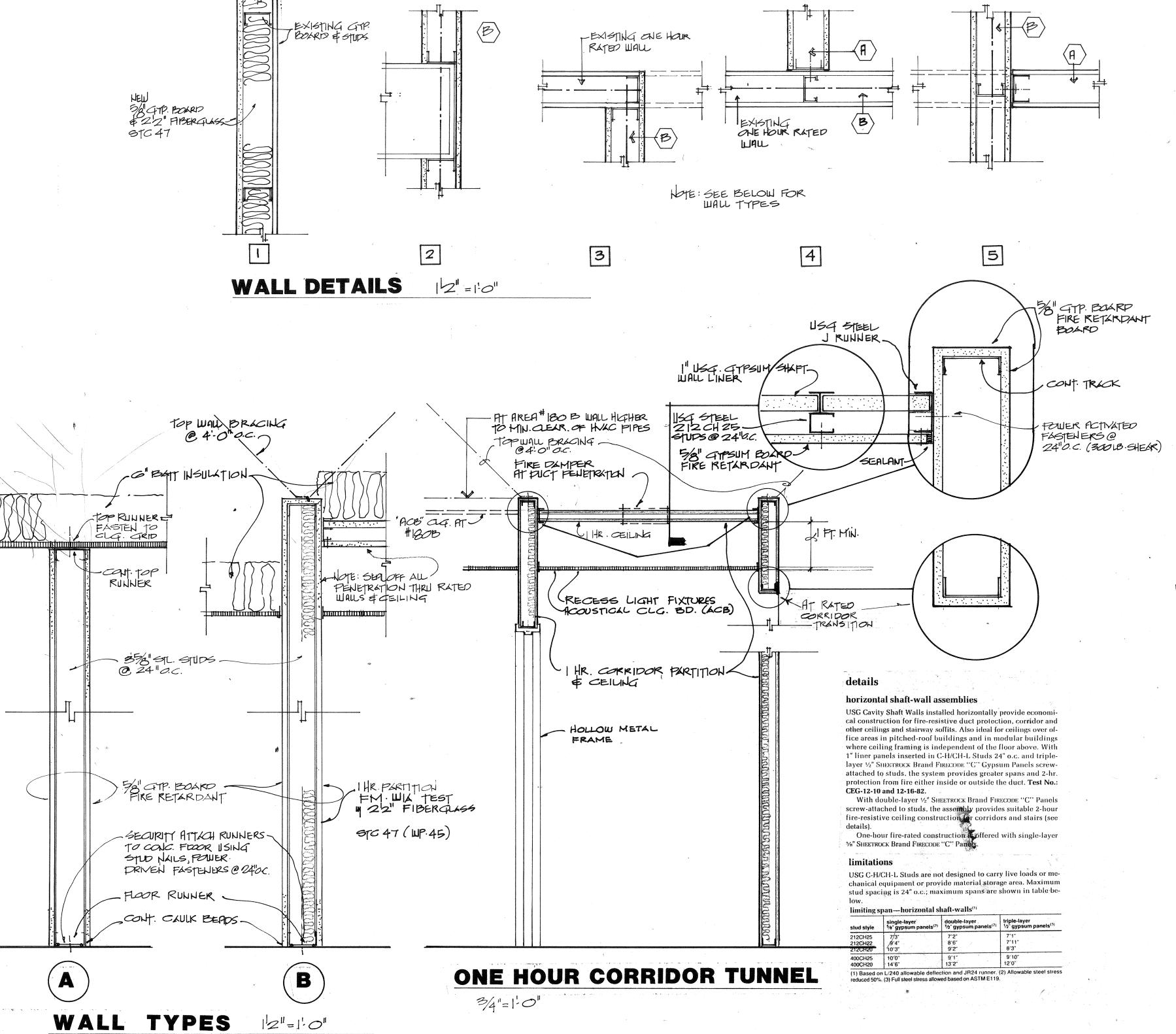
-5/8" TYPE X GYP BOARD LAYERS AS SHOWN

STL.STUD RUNNER
FASTENED w SCREWS
TO STL. STUDS



(CONTROL JOINT AT 30'-0" MAX. SPACING)





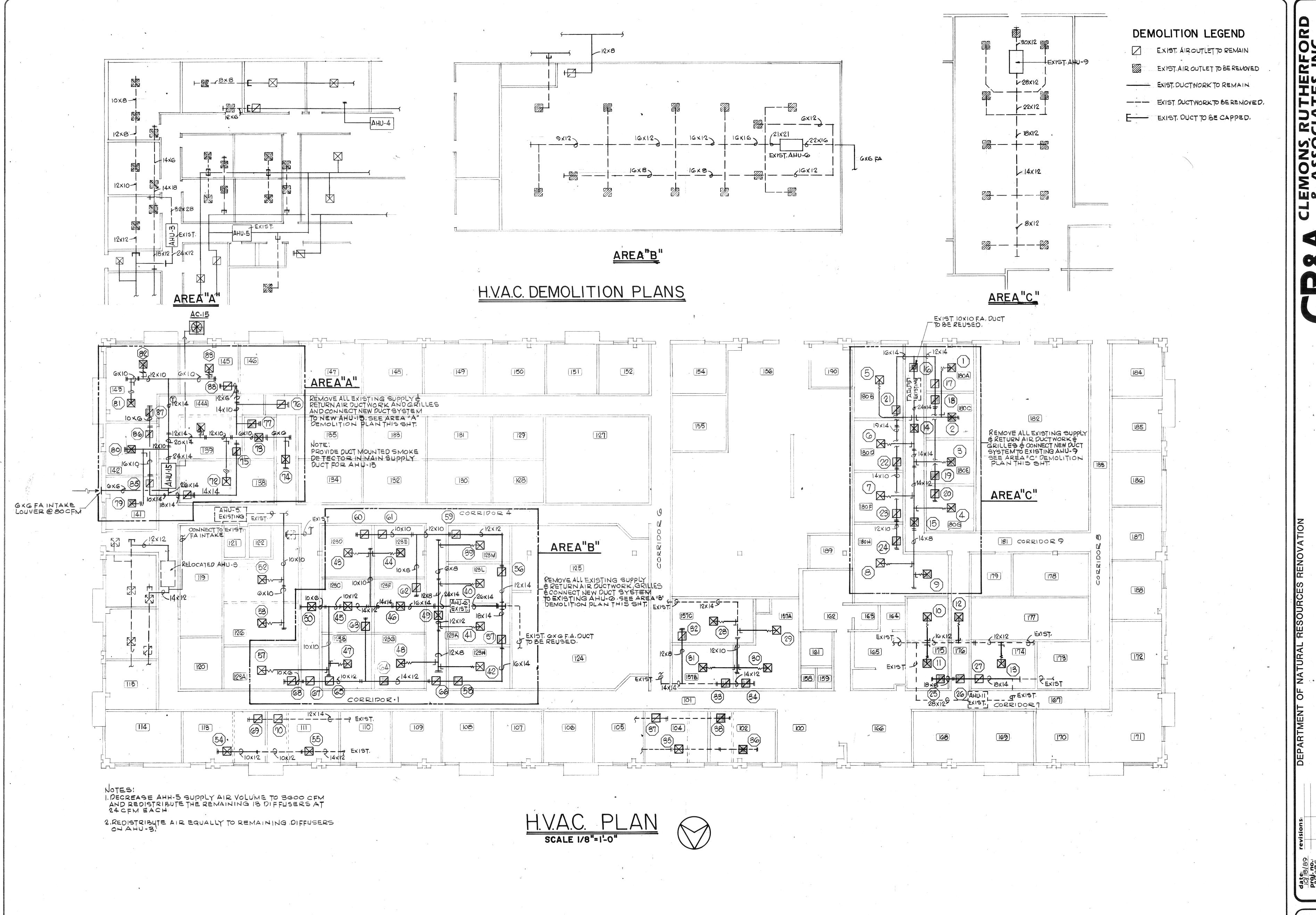
CLEMONS, I & ASSOC ARCHITECTS 2027 THOMASVILLE ROAD, TALLAHA

ST PAUL DIRAC DRIVE

2051 EAST PAUL DIR/ INNOVATION PAF

R2

of 2 of 7 CR&A



Wendle & Associates
VALDOSTA, GA (912) 245-7842
TALLAHASSEE, FL (904) 893-0855

RM-1

of Z of 7 CR&A

	DIFFUSER, REGISTER & GRILLE SCHEDULE									
F	SYMBOL	FUNCTION	LOCATION	CFM	FACE SIZE	NECK VELOCITY	.NECK SIZE	AIR PATTERN	CEILING TYPE	
	SYMBOL 1 2-4 5 6,7 8 9 10,11 12 13 14,15 16 17 18-20 21 22,23 24 25 26 27 28 29 30 31 32 33 34 35,36 37,38 39 40-42 43-48 49,50 51,52 53 54,55 56-58 59	RETURN SUPPLY SUPPLY SUPPLY SUPPLY SUPPLY SUPPLY SUPPLY RETURN RETURN	CEILING	180 155 280 170 275 120 270 250 390 170 340 180 155 280 170 395 540 250 390 270 170 175 185 270 185 345 312 312 135 155 160	9x9 9x9 12x12 9x9 12x12 9x9 12x12 12x12 15x15 9x9 10x10 8x8 8x8 10x10 8x8 12x12 12x12 12x12 10x10 12x12 12x12 10x10 12x12 12x12 10x10 9x9 9x9 9x9 10x10 8x8 10x10 12x12 10x10 9x9 9x9 9x9 9x9 9x9 9x9 9x9 9x9 9x9 9x	VELOCITY 515 580 514 487 500 506 500 460 497 487 490 405 465 504 510 475 540 450 468 500 487 500 530 485 416 497 572 450 569 580 458 527 545 560 505 465 405 490	8''\psi SIZE 8"\psi 7"\psi 10"\psi 7"\psi 10"\psi 10"\psi 10"\psi 10"\psi 10"\psi 10%	PATILRN 4-WAY 4-WAY 4-WAY 4-WAY 4-WAY 4-WAY 4-WAY 2-WAY 1-WAY	GB GB GB GB GB GB* GB* GB* GB GB* GB	
٠	60-65	RETURN	CEILING							

		DIFFUSE	ER, REG	GISTER &	GRILLE SCH	EDULE		
SYMBOL	FUNCTION	LOCATION	CFM	FACE SIZE	NECK VELOCITY	' NECK SIZE	AIR PATTERN	CEILING TYPE
SYMBOL 66,67 68 69,70 71 72 73 74 75 76 77 78 79 80 81,82 83,85 86 87 88,	RETURN RETURN RETURN SUPPLY SUPPLY SUPPLY SUPPLY RETURN RETURN RETURN RETURN SUPPLY SUPPLY SUPPLY SUPPLY SUPPLY RETURN RETURN RETURN RETURN RETURN RETURN RETURN RETURN RETURN	CEILING	125 190 396 340 280 80 100 400 135 100 300 210 200 185 210 210 200 370 210	6x6 8x8 12x12 15x15 12x12 6x6 6x6 12x12 8x8 6x6 10x10 9x9 9x9 9x9 9x9 9x9 8x8 8x8 10x10 8x8	500 430 475 433 515 410 510 400 405 400 432 600 573 530 600 472 450 530 472	6x6 8x8 12x10 12"0 10"0 6"0 6"0 12x12 8x6 6x6 10x10 8"0 8"0 8"0 8x8 8x8 10x10 8x8	1-WAY 1-WAY 1-WAY 4-WAY 4-WAY 4-WAY 1-WAY 1-WAY 1-WAY 1-WAY 1-WAY 4-WAY 4-WAY 1-WAY 1-WAY 1-WAY	68 68 68 68 68 68 68 68 68 68 68 68 68 6
	·							

*STEEL WITH 1/2HD. FIRE DAMPER

MECHANICAL NOTES

- 1. DUCTWORK, DAMPERS, LOUVERS, GRILLES, REGISTERS, DIFFUSERS AND OTHER AIR DISTRIBUTION EQUIPMENT AND MATERIALS SHALL CONFORM TO ASHRAE, SBCCI STANDARD MECHANICAL CODE, 1988 EDITION AND NFPA-90A.
- 2. A COMPLETE TEST AND BALANCE REPORT, OF AFFECTED AREAS, SHALL BE SUPPLIED BY THIS CONTRACTOR, IN WRITING, PER AABC TEST AND BALANCE REPORT MANUAL.
- 3. EQUIPMENT ON SCHEDULES ARE BASIS OF DESIGN ONLY; OTHER MANUFACTURERS MAY BE APPROVED AT REVIEW BY THE ENGINEER, HOWEVER, CONTRACTOR SHALL VERIFY AND SHOW IN WRITING THAT SUBMITTED EQUIPMENT, DIFFERENT FROM THAT SPECIFIED, WILL FIT INTO THE ALLOTED SPACE AS SHOWN ON THE PLANS.
- 4. ALL DUCT SIZES SHOWN ARE CLEAR NET INSIDE DIMENSIONS.
- 5. ALL DUCTWORK SHALL BE AIRTIGHT AND FREE OF LEAKS AND SHALL BE INSPECTED FOR LEAKS PRIOR TO INSTALLATION OF FINISHED CEILING SYSTEM.
- 6. ALL DUCTWORK TO BE GALVANIZED METAL WITH 2" EXTERNAL INSULATION.
- 7. FLEXIBLE DUCTS MUST COMPLY WITH UL 181 AND SHALL NOT EXCEED 10' IN LENGTH.
- 8. ALL DUCTS TO HAVE AIR EXTRACTORS (ADJUSTABLE TYPE) ON SQUARE, OR RECTANGULAR TAKE-OFFS WITH VOLUME DAMPERS ON ROUND TAKE-OFFS.
- 9. SQUARE/RECTANGULAR 90 DEGREE AND 45 DEGREE ELBOWS SHALL HAVE "AIR-FOIL" TYPE TURNING VANES;
- 10. REFRIGERANT PIPING TO BE SIZED IN STRICT ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATIONS.

PER SMACNA STANDARDS.

- 11. INSULATE REFRIGERANT PIPING WITH 3/4" "ARMAFLEX" OR APPROVED EQUAL.
- 12. CONTROLS AND CONTROL WIRING FOR HVAC SYSTEMS AND RELATED WORK SHALL BE UNDER THIS CONTRACTOR.
- 13. INSTALL FLEXIBLE DUCT CONNECTORS AT THE AIR MANDLING UNIT.
- 14. CONDENSATE DRAIN FOR AHU-15 TO TERMINATE INTO APPROVED FRENCH DRAIN OR DRYWELL; PER SECCI STANDARD MECHANICAL CODE.
- 15. PROVIDE BACKDRAFT DAMPERS AND BALANCING DAMPERS IN THE FRESH AIR INTAKE.
- 16. CEILING SUPPLY DIFFUSERS AND RETURN AIR GRILLES TO MATCH THE EXISTING.
- 17. THERMOSTAT TO BE HONEYWELL MODEL Y594R MANUAL CHANGEOVER THERMOSTAT/ SUBBASE PACKAGE. MOUNT THERMOSTAT 5 FEET ABOVE FINISHED FLOOR. PROVIDE A LOCKING COVER.
- 18. REINSTALL DUCT MOUNTED SMOKE DETECTORS FOR AHU-6 AND AHU-9 IN NEW MAIN SUPPLY AIR DUCTS.

М	ECHANICAL LEGEND
\boxtimes	SUPPLY DIFFUSER
	RETURN OR EXHAUST GRILLE
T	THERMOSTAT
-vv-	FLEXIBLE DUCT
	BALANCING DAMPER
	EXISTING DUCTWORK
	NEW DUCTWORK
AHU	AIR HANDLING UNIT
AC .	CONDENSING UNIT

,		OCUENIUE	
	HEAT PUMP	SCHEDULE	
SYM BOL	AH	TU-1,AC-1	
LOCATION, AHU	; çCE	CILING	
SERVICE	NE	W RENOVATION	
MAKE	TR	ANE	
MODEL AHU	TW	HO60P150A	
MODEL AC	TW	A060A300A	
FAN CFM	20	00	
EXT S.P.	.4	3	
H.P.	3/	4	
AHU KW	4.	60	
VOLTS	20		ľ
PHASE	1		
M.C.A.	27	.6	\$°
AC VOLTS	20	8	
PHASE	3		a . i La
M.C.A.	25	.2	
COOLING CAP			
TOTAL	57	•5 MBTUH	
SENSIBL E	42	.O MBTUH	
EER a95 F	8.	25	
HEATING CAP			30 See 53
TOTAL	.59	.2 MBTUH	
COP a47 F	3.	12	18
FRESH AIR (CFM)	80		6
WT. AHU	21	2 1bs	
WT. AC	31	4 1bs	

PROVIDE 24 GA AUX ORAIN PAN WITH FLOAT SWITCH

Wendle & Associates
VALDOSTA, GA (912) 245-7842
TALLAHASSEE, FL (904) 893-0855

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PART 1 - GENERAL

1.01 SCOPE OF WORK

- A. The terms "The Contractor," "The Installer," or "The Electrical Contractor" mentioned in these specifications and accompanying drawings refer to the Contractor responsible for the work included in these specifications and/or shown on the electrical drawings.
- B. The general and/or special conditions sections are a part of this specification and the Contractor shall consult them in detail for instructions pertaining to this work.
- The work under this section shall include the furnishing of all labor, material, equipment, supplies, and services necessary to construct and install the complete electrical systems as shown on the drawings and any and all materials or work that may be necessary for the complete installation as intended.

1.02 DESCRIPTION OF WORK

- The work to be done under these specifications and the accompanying drawings shall include but shall not be limited to the following items:
- A. Furnish and install all lighting fixtures as shown within the boundaries of area of work on the Lighting Plan.
- Furnish all distribution conductors, raceways, disconnect switches, devices, and other electrical hardware to modify existing electrical systems to serve new lighting, power loads, telephone systems, and computer data systems.
- C. Furnish and install telephone outlets in locations shown, with conduit and pull wire to telephone backboard for future installation of telephone system (by others).
- D. Furnish and install computer data outlets in locations shown. Outlets are to be recessed wall-mounted with conduit and pull wire to 5" ABOVI SUSTINFED CEILING.
- Provide complete testing of all electrical systems and assurance that all equipment and systems are functioning properly.

1.03 DUTIES OF CONTRACTOR

- A. The contracting firm or corporation making a bid on this project shall have all required licenses in accordance with local and state regulations which qualify them to legally perform such work.
- B. All systems shall be installed as specified hereinafter, and where not specifically indicated or specified, shall be in accord with manufacturer's standard installation procedures. Contractor shall install all equipment and circuits in accord with generally accepted standards of workmanship and shall reinstall or revise any work which in the sole opinion of the Architect or Engineer does not meet that minimum standard.
- The Contractor shall leave the premises in a clean and orderly manner during construction and upon completion of the work, and shall remove all debris that accumulates due to his work during the job.
- D. It shall be the duty of the Contractor to familiarize himself with the details of the general construction of the building and shall cooperate with other trades in making the installation of these systems as the job progresses.
- E. Before submitting bids, each bidder should visit the site and fully familiarize himself with all job conditions and shall be fully informed as to the extent of his work. No consideration will be given after bid opening date for alleged misunderstanding as to the requirements of work involved in connecting to the utilities or as to requirements of materials to be furnished. Bids should be based on written plans and specifications, and not on verbal agreements.
- F. The installation shall comply with all State and Federal laws and ordinances applicable to electrical installation and with the regulations and the latest edition of the published National Electrical Code where such regulations do not conflict with those laws and ordinances.

1.04 SUBMITTALS

The Contractor shall submit within 15 days from the contract date a list of principal materials items, giving manufacturers' names and catalog cuts. Approval of the submittal data shall be obtained from the Engineer before orders are placed. Submittal is required on the following: lighting fixtures, disconnect switches, and/or other items for which such information is required or requested by the Engineer or Architect. Seven (7) copies of all submittals are

required. Each set is to be separately bound, with Table of Contents, and a blank sheet for approval stamp.

1.05 OPERATING AND MAINTENANCE MANUALS

At completion of the work, the Contractor is to furnish three (3) copies of written operation instructions which shall include manufacturer's descriptive bulletins, operating and maintenance manuals, and parts lists of all equipment installed. Literature shall include record shop drawings, wiring diagrams, instruction sheets, warranties, contact persons, and telephone numbers for service providers for all equipment furnished by this Contractor. Also include in such instruction the specified size and capacity ratings of all equipment installed. Each set of instructions shall be assembled into a suitable loose-leaf type binder and presented to the Architect for delivery to the Owner.

1.06 GUARANTEE

- A. Contractor shall furnish written warranty that all systems have been installed complete and are functioning properly and that all materials and workmanship are free of defects.
- B. Upon completion of all test and acceptance, the Contractor shall furnish the Owner a written guarantee covering the electrical work done for a period of one (1) year from the date of acceptance. Upon notice from the Architect to the Contractor, the Contractor shall, during the guarantee period, rectify and replace any defective material or workmanship, and repair any damage caused thereby, without additional cost.

PART 2 - PRODUCTS

2.01 MATERIALS AND WORKMANSHIP

- A. All equipment of like kind shall be of one manufacturer and shall be installed in strict accordance with the manufacturer's specifications and recommendations.
- B. The Contractor shall base his proposal on the materials specified herein and on the drawings. Reference to a particular project by manufacturer, trade name, or catalog number establishes the product quality required by the Engineer.
- C. All materials and equipment installed on this project shall be <u>new</u> and shall be standard products of manufacturers regularly engaged in the manufacture of such products and shall be the manufacturer's latest design.
- D. All materials and equipment shall be listed as approved by the Underwriters' Laboratories, Inc. (UL).
- E. All exterior electrical equipment shall be weatherproof.

2.02 RACEWAYS

- A. Conduit is to be 1/2" unless indicated otherwise. Use is restricted as indicated by product. Galvanized rigid steel conduit (RSC) -- may be used
- Galvanized intermediate metallic conduit (IMC) -may be used in indoor locations not in contact with
- Galvanized electrical metallic tubing (EMT) -- may be used in indoor dry locations where it is: a. not subject to damage. not in contact with earth (at least 6" above

earth (at least 6" above earth).

- c. not in concrete slabs on grade. 4. Flexible steel conduit -- 1/2" minimum:
- a. Use in indoor final connections to mechanical equipment, not to exceed 36". b. May be used in indoor connections to mechanical equipment, not to exceed 36".
- 5. Liquid-tight flexible steel conduit -- use in outdoor final connections to mechanical equipment, not to exceed 36". Surface-mounted wiremold may be used where it is

impossible to conceal raceways under floors, in

- walls, or above ceiling. B. EMT fittings shall be compression or set-screw steel housing type.
- C. Use of the following is prohibited:
- Aluminum conduit. EMT crimp-on, tap-on, indenter-type fittings. EMT malleable iron or cast set-screw fittings.
- 4. PVC conduit.

2.03 WIRE AND CABLE

A. Includes all conductors except cables for temperature control system, telephone, and other similar low-voltage

- B. All conductors are to be copper. 1. Minimum size shall be no. 12 AWG unless specified
- 2. conductor size no. 8 and larger shall be stranded.
- C. Insulation (local codes shall apply): All conductors to be type THW or THHN. Branch circuit conductors which run through ballasts compartments of lighting fixtures shall be code-approved for such use.
- D. Install all conductors in raceway unless indicated
- E. Make splices for conductors no. 8 and smaller with steel spring wire connections. Splice larger conductors with pressure-type terminal lugs.
- F. Route circuits at own discretion; however, circuit numbers shall be according to drawings.

2.04 WIRING DEVICES

- A. Switches and Receptacles: 1. Switches and receptacles listed are 15 ampere and switches single pole, and are to be spec grade, side wired only, with screw fastener. Where 3-way, 2pole, or higher ampere switches are required, they shall be of same series as those listed.
 - 2. Approved Manufacturers Switches Receptacles 5901-2 5262-I General Electric 5262-I Hubbell 1101-I 1101-I 5262-I Leviton
- Plates: Nylon, fiberglass, or unbreakable plastic.
- Regular heavy plastic may be used only for gang plates more than 2 gang.
- Device, telephone, and switch plates shall be smooth-style and ivory in color where located on light-colored walls, and brown on dark walls unless directed otherwise by Architect. 4. Gang switches shall have gang plates.

2.05 OUTLET BOXES

- A. Concealed work -- outlet boxes for use in concealed work shall be galvanized or shearidized sheet/steel boxes, at least 1-1/2" deep and of sufficient size to accommodate devices and conductors to be installed therein. Boxes or their covers shall be mounted flush with the finished wall or ceiling. Boxes shall be as manufactured by Steel City or Raco.
- Wall switches, receptacles, and telephone outlets -- may be sectional-type switch boxes, 2-1/2" deep or deeper as required by conduits, devices, and conductors installed
- Ceiling and wall bracket outlets shall be 4" octagonal boxes not less than 1-1/2" deep.

2.06 FIXTURES

Use fixtures as specified in the Lighting Fixture Schedule on the plans.

PART 3 - EXECUTION 3.01 INSTALLATION

- A. Workmanship shall be highest quality and the Architect and/or Engineer shall determine where work is inferior; Contractor shall correct all work not approved by the Architect and/or Engineer until work is acceptable. This corrective work will be performed by the Contractor at no additional cost to the Owner.
- B. Install conduit and other raceways straight and true, aligned with other work, close to walls and/or overhead structure.
- C. Contractor is to verify all door swings with architectural drawings before roughing in switches; and verify exact location of all equipment before roughing
- D. Contractor will check all lighting fixtures for exact type mounting and space required before roughing in. Support of all lighting fixtures is the responsibility of this Contractor. Fixtures are to be supported independent of ceiling from structural members of the building. Provide plaster rings as needed for light fixtures.

3.02 MOUNTING HEIGHTS

Mount center of outlets or boxes at following heights above finish floor (A.F.F.), unless otherwise noted: Receptacles

Telephones 14" Switches

Disconnect Switches 4'-8" to top

ELECTRICAL NOTES

- 1. All wiring and branch circuits are to be in accordance with the latest editions of the National Electrical Code, NFPA, accompanying specifications, and the following design
- A. All wiring to be installed in metallic conduit. B. All conduit exposed to weather shall be galvanized heavy
- Wire rated at 90 degrees "C" is required for all incandescent light fixtures.
- No wiring smaller than #12 AWG shall be used for any lighting or receptacle circuit. E. If distance from electrical panel to any fixture
- connected to a circuit exceeds 70 feet, use one trade size larger, but not smaller than #10 AWG. F. All conductors are to be copper, type THW or THHN. G. All wiring is to be concealed within slab, walls, or
- above ceiling. Secure raceways to overhead when installed above ceiling: do not allow raceways to be loose above ceiling. H. No conduit is to be installed on exterior of building. I. N.E.C. requirements regarding pipe fill and conductors
- 2. The contractor is responsible for acquiring permits for this construction and scheduling appropriate inspections during construction with the authority having jurisdiction.

ventilation of conductors.

inside panels shall be loosely bundled to allow for

- 3. Verify that existing ground systems are maintained. Raceways are to be bonded to ground bar in each existing panel. Verify 5 ohms maximum resistance to ground. If 5 ohms resistance is exceeded, notify Architect or Engineer to repair at no additional expense to owner.
- 4. All disconnects, panels, junction boxes, and meter cans shall be painted to blend with the walls on which they are mounted. The electrical contractor is to assure that such painting is accomplished.
- 5. Contractor is to contact the local telephone company regarding installation of telephone mains. Contractor is to provide conduit and pull wire to each outlet from telephone backboard.
- 6. Any conduit penetrating the roof or walls is to have water tight flashing, and paint to restore penetration to original condition and appearance.
- 7. All exterior electrical equipment shall be weatherproof.
- 8. Verify the installation of a disconnect switch at each air handling unit and each A/C condenser per N.E.C. If not installed, one must be installed. Size and number of poles will be the same as circuit breaker in panel schedules.
- 9. All materials shall be listed by the Underwriters Laboratories, Inc. (UL).
- 10. Electrical contractor is to coordinate with mechanical contractor to avoid conflicts between locations of diffusers, light fixtures, ceiling fans, smoke/heat detectors, and/or fire sprinkler heads.
- 11. Connect exit lights to line side of main disconnect switch, through a 20 amp single pole disconnect switch.
- 12. All receptacles and light switches are to be spec grade wiring devices, side wired only, with screw fastener.
- 13. All wiring devices to match existing equipment in existing
- 14. The mechanical contractor is to provide all low voltage control wiring for all HVAC systems. Electrical contractor is to provide power source for all control systems.
- 15. Contractor is to verify all door swings with architectural drawings before roughing in switches; and verify exact location of all motors and equipment before roughing in.
- 16. The electrical contractor shall verify the exact location of counter tops and backsplashes on architectural details and/or casework shop drawings and adjust specified mounting height of wall outlets as required to avoid conflicts with counter backsplashes.
- 17. Contractor will check all lighting fixtures for exact type mounting and space required before roughing in. Support of all lighting fixtures to be the responsibility of this contractor. Fixtures to be supported independent of ceiling from structural members of the building. Provide plaster rings as needed for light fixtures.
- 18. A single neutral may be provided for three branch circuits fed from different phases.
- 19. Each panel is to be furnished with a typed directory, to reflect all changes specified in these drawings.
- 20. Care must be taken to stagger installation of wall receptacle boxes so that they are not back—to—back.
- 21. All light fixtures are to be equipped with new lamps. All fluorescent fixtures are to be equipped with energy efficient lamps and electronic ballasts. Lamps shall be G.E., Maxi-Miser II, or equal. Ballasts shall be G.E., Maxi-Miser, Advanced Mark II, Universal Watt Reducer, or equal.
- 22. Materials removed from the facility as part of this project are to be turned over to the Owner's representative.
- 23. Refer to Plans for original construction of this building, by Clemons Rutherford and Associates, Inc., November 3, 1986 Project. No. 86105.

SCOPE OF WORK

- A. Furnish and install lighting fixtures as shown within the Boundaries of Area of Work" shown on the lighting plan.
- 8. Furnish and install all distribution conductors, raceways, switches, receptacles, device boxes, junction boxes, disconnect switches, and other electrical hardware to modify existing electrical systems in accordance with these plans and accompanying specifications.
- C. Furnish and install telephone outlets in locations shown on power plan. Provide recessed outlet box, cover plate, conduit, and pull wire to telephone backboard.
- D. Furnish and install computer data outlets in locations shown on power plan. Provide recessed outlet box, conduit, and pull wire to 5" above the suspended ceiling.
- Provide complete testing of all electrical systems and assurance that all equipment and systems are functioning

HOTE: COORDINATE INSTALLATION OF COMPUTER DATA TERMINAL DUTLET BOXES WITH JACK WOODWARD TELEPHONE 488-3177

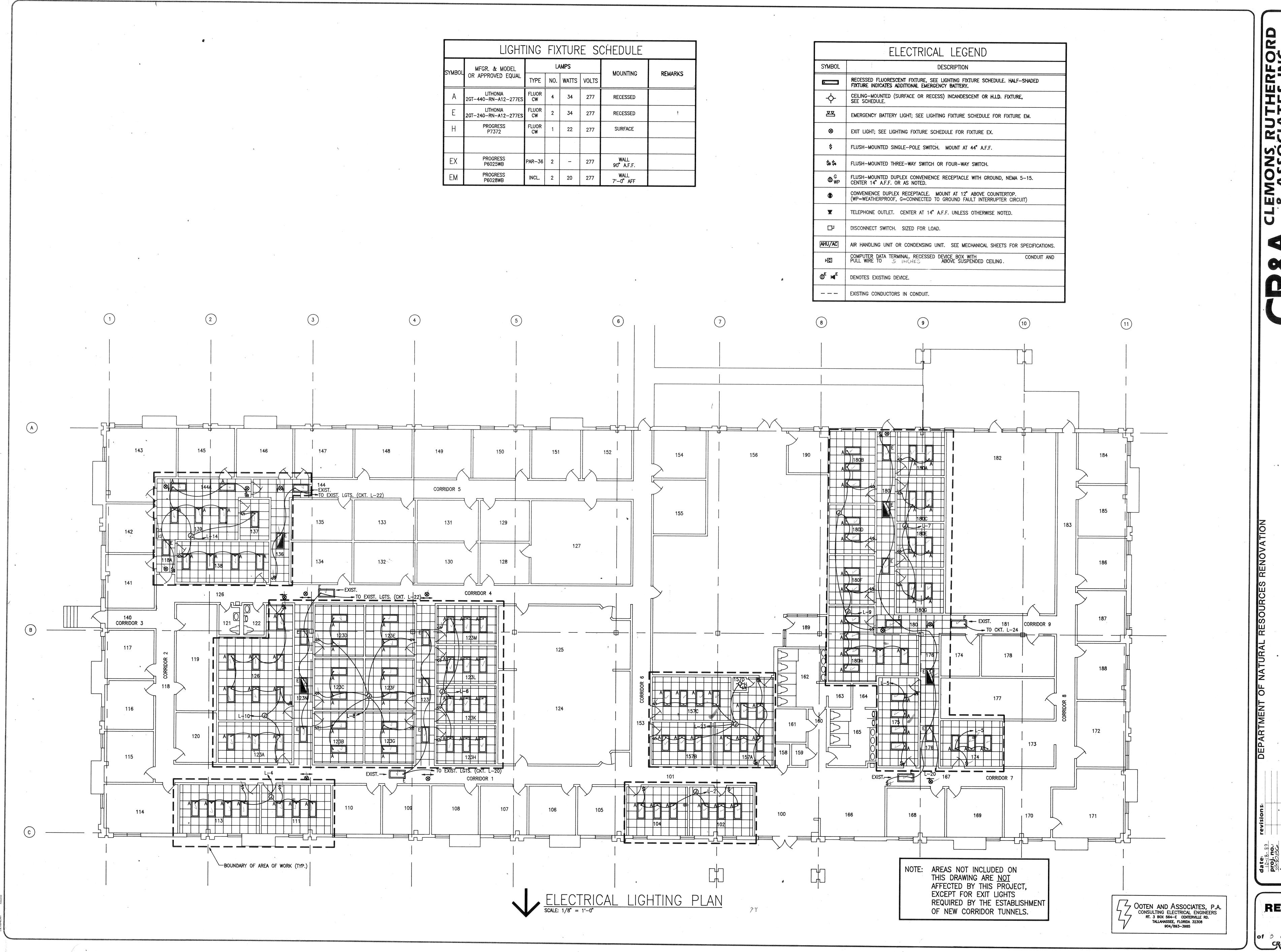
OOTEN AND ASSOCIATES, P.A. CONSULTING ELECTRICAL ENGINEERS RT. 3 BOX 564-E CENTERVILLE RD. TALLAHASSEE, FLORIDA 32308 904/893-3985

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