

ATLANTIC INTERIOR BUILD-OUT 3976 DESTINATION DRIVE UNIT A-411 OSPREY, FLORIDA

INDEX OF DRAWINGS

- A1 COVER SHEET
- A2 SLAB PLAN
- A3 FLOOR LIFE SAFETY PLAN, SECTIONS
- E1 ELECTRICAL PLAN
- E2 LIGHTING PLAN
- M1 MECHANICAL PLAN
- P1 PLUMBING PLAN

CODE SUMMARY AND LIFE SAFETY NOTES

- 1 - DESIGN PER FLORIDA BUILDING CODE 2020 7TH EDITION, NEC 2017, FFPC 2020 7TH EDITION
- 2 - MERCANTILE OCCUPANCY (33.6 OCCUPANTS)
- 3 - CONSTRUCTION TYPE IIB SPRINKLED
- 4 - MAXIMUM TRAVEL DISTANCE TO EXIT IS APPROXIMATELY 50'
- 5 - NUMBER OF EXITS = 9
- 6 - .2 INCHES PER OCCUPANT REQUIRED (14) = 2.8" - 612" PROVIDED

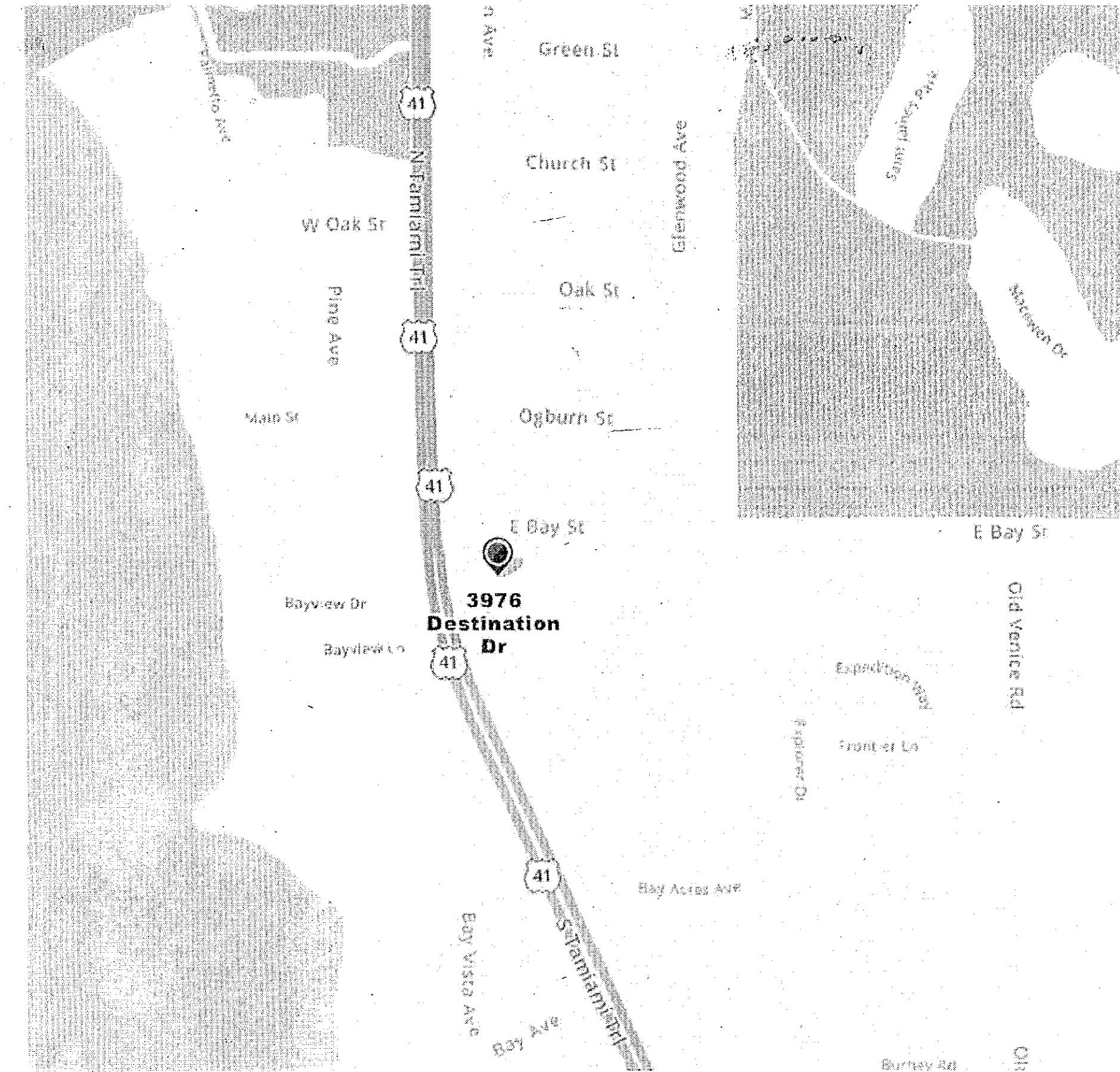
OVERALL GROSS SQ. FT. = 2,406 S.F.
STORAGE 103 S.F. @ 300 S.F. PER OCCUPANT = .34
MERCANTILE 2,018 S.F. @ 60 S.F. PER OCCUPANT = 33.6

REMAINING AREAS ARE RESTROOM AND EGRESS
TOTAL OCCUPANTS = 14 OCCUPANTS

PLUMBING ANALYSIS
ONE RESTROOM PROVIDED
NO SERVICE IS REQUIRED - LESS THEN 15 OCCUPANTS
NO DRINKING FOUNTAIN REQUIRED LESS THEN 25 OCCUPANTS

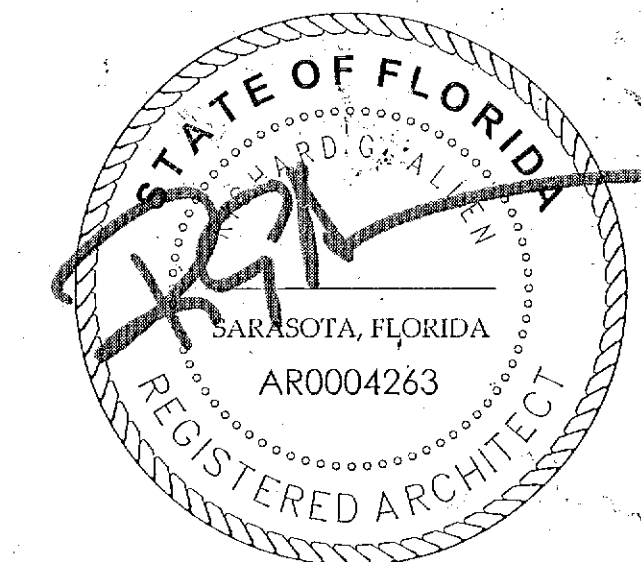
NO EXTERIOR WORK THIS PROJECT EXCEPT FOR THE INSTALLATION OF A WATER PROOF
OUTLET AND A NEW ROOF TOP A/C UNIT ON THE EXISTING CURB

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LIC. AAC000691



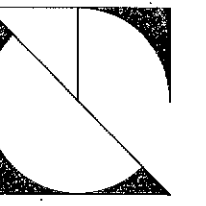
LOCATION PLAN

SCALE: NTS



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l=Sarasota,
o=Richard G Allen
Architects, Inc.,
cn=Richard G. Allen
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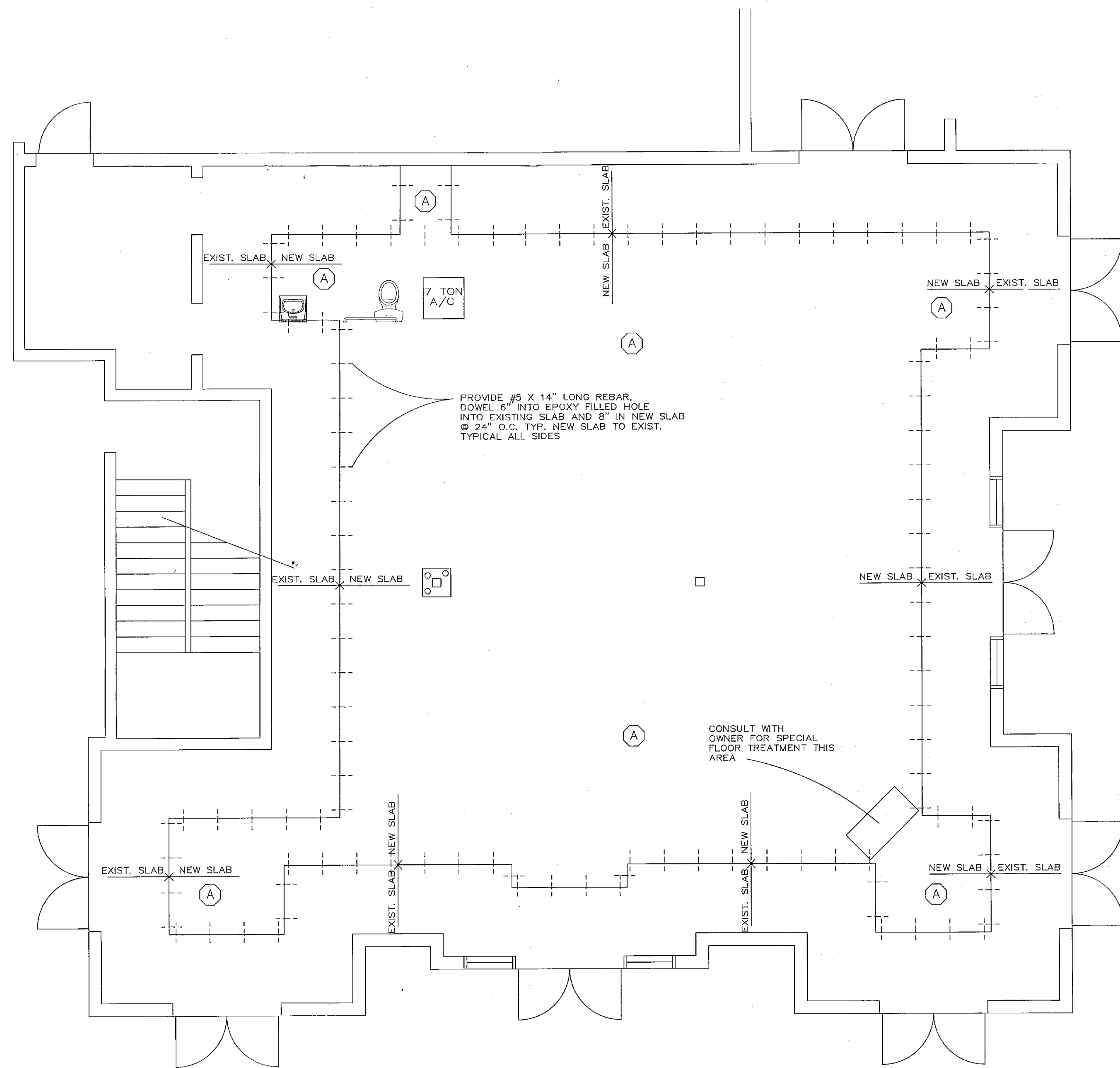
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A1
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NEW SLAB PLAN

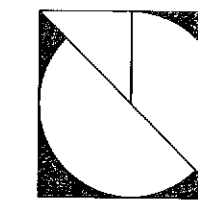
SCALE: 1/4" = 1'-0"
2,406 S.F.

(A) CONCRETE SLAB TO BE 4" THICK 3,000 PSI W/ 6X6 #10/#10 W/M OVER 6 MIL. VAPOR BARRIER OVER CLEAN COMPACTED, TREATED FILL.

FIELD VERIFY EXISTING PERIMETER CONC. SLAB

CONSULT WITH OWNER FOR SPECIAL FLOOR TREATMENT THIS AREA

PROVIDE #5 X 14" LONG REBAR, DOWEL 6" INTO EPOXY FILLED HOLE INTO EXISTING SLAB AND 8" IN NEW SLAB @ 24" O.C. TYP. NEW SLAB TO EXIST. TYPICAL ALL SIDES



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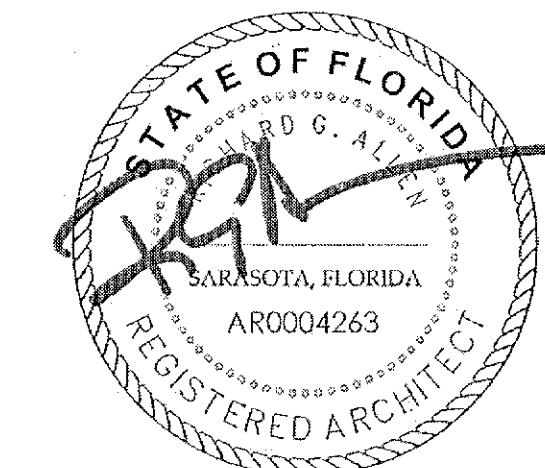
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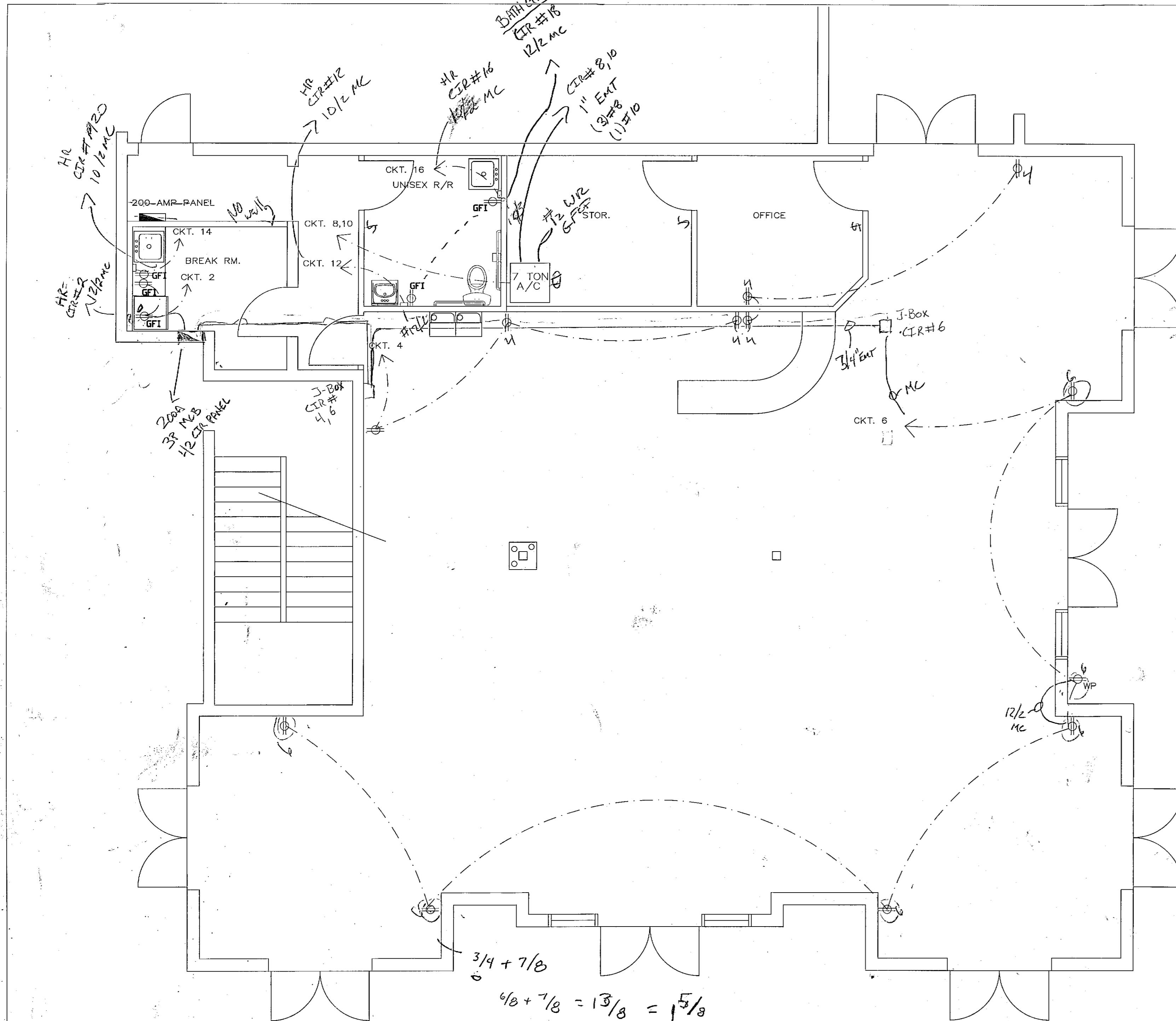
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ELECTRICAL PLAN
SCALE: 1/4" = 1'-0"

- LEGEND
- DUPLEX OUTLET
 - GROUND FORCE INTERRUPT OUTLET
 - WATER PROOF OUTLET

$3/4 + 7/8 = 13/8 = 1 5/8$

MANUFACTURER: SQUARE-D NQOD
MAIN BREAKER: AT METER
MAIN LUGS: 200
K.A.I.C.: 10
MOUNTED: FLUSH

1 PHASE
3 WIRE
120/208 VOLTS

NAME: TENANT PANEL
PROJECT NAME: LAMP STORE
PROJECT NUMBER:
FED FROM: METER (M.D. PANEL)

NOTES	CKT NO.	IDENTIFICATION	WIRE/COND	C O D E	LOAD/PHASE (KVA)			CIRCUIT BREAKER			LOAD/PHASE (KVA)			C O D E	WIRE/COND	IDENTIFICATION	CKT NO.	NOTES	
					A	B	C	TRIP	P	TRIP	A	B	C						
	3	1	LIGHTS	2#12,1#12G, 1/2"C	L	1.00			20	1	1	20	1.00			R	2#12,1#12G, 1/2"C	RECEPTACLES	2
	3	3	LIGHT/FAN	2#12,1#12G, 1/2"C	L		1.00		20	1	1	20	1.00	1.00		R	2#12,1#12G, 1/2"C	RECEPTACLES	4
	3	5	LIGHTS	2#12,1#12G, 1/2"C	L			1.00	20	1	1	20		1.00		R	2#12,1#12G, 1/2"C	RECEPTACLES	6
	3	7	LIGHTS	2#12,1#12G, 1/2"C	L	1.00			20	1	1	20	3.00			R	2#12,1#12G, 1/2"C	RECEPTACLES	8
	3	9	LIGHTS	2#12,1#12G, 1/2"C	L		1.00		20	1	2	40		3.00		C	3#8, 1#10S, 1"C	AH	10
	1	11	ROOF TOP A/C								1	30					2#12,1#12G, 1/2"C	W.H.	12
		13		3#8, 1#10G, 1"C	C	3.00		3.00	45	2	1	30	2.00				2#12,1#12G, 1/2"C	W.H.	14
		15	SPACE ONLY								1	30	2.00				2#12,1#12G, 1/2"C	W.H.	16
		17	SPACE ONLY														2#12,1#12G, 1/2"C	W.H.	18
		19	SPACE ONLY														2#12,1#12G, 1/2"C	W.H.	20
		21	SPACE ONLY														2#12,1#12G, 1/2"C	W.H.	22
		23	SPACE ONLY														2#12,1#12G, 1/2"C	W.H.	24
		25	SPACE ONLY														2#12,1#12G, 1/2"C	W.H.	26
		27	SPACE ONLY														2#12,1#12G, 1/2"C	W.H.	28
		29	SPACE ONLY														2#12,1#12G, 1/2"C	W.H.	30
		31	SPACE ONLY														2#12,1#12G, 1/2"C	W.H.	32
		33	SPACE ONLY														2#12,1#12G, 1/2"C	W.H.	34
		35	SPACE ONLY														2#12,1#12G, 1/2"C	W.H.	36
		37	SPACE ONLY														2#12,1#12G, 1/2"C	W.H.	38
		39	SPACE ONLY														2#12,1#12G, 1/2"C	W.H.	40
		41	SPACE ONLY														2#12,1#12G, 1/2"C	W.H.	42

TOTAL KVA PHASE A: 11.00
TOTAL KVA PHASE B: 8.00
TOTAL KVA PHASE C: 7.00

TOTAL CONNECTED KVA: 26.00
TOTAL CONNECTED AMPS: 72.17
TOTAL DEMAND KVA: 16.02
TOTAL DEMAND AMPS: 44.48

	CONN LOAD (KVA)	DEMAND FACTOR	DEMAND LOAD (KVA)
LIGHTING (L)	5	1.25	9.0225 *
RECEPTACLES (R)	3	NEC	3.00
A/C HEATING (H)	0	1.00	0 **
A/C COOLING (C)	6	1.00	6 **
KITCHEN EQUIPMENT (K)	0	NEC	0
LARGEST MOTOR (M)	0	1.25	0
OTHER (O)	0	1.00	0

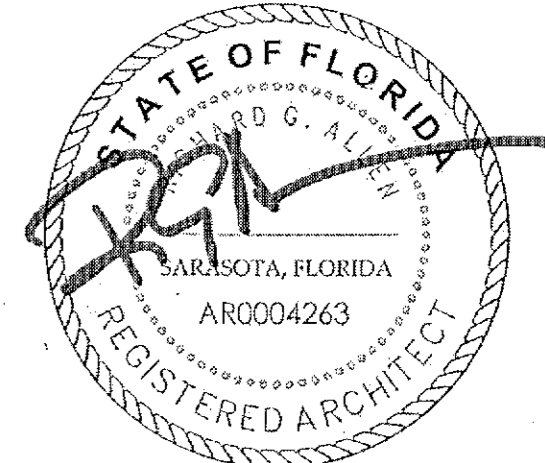
SQUARE FOOT: 2406
GENERAL LIGHTING LOAD: 3 VA/SF

* LIGHTING DEMAND LOAD IS BASED ON THE LARGER OF THE TWO (CONNECTED VS. TABLE 220.3a, NEC 2017)

** LARGER A/C LOAD: 4 KVA
(TL) LENGTH 0 KVA

- NOTES:
- 1) PROVIDE LOCKED CIRCUIT BREAKER
 - 2) PROVIDE HACR RATED CIRCUIT BREAKER
 - 3) LIGHTING SHALL BE CONTROLLED BY AN AUTOMATIC TIME CLOCK CAPABLE OF OVERRIDING A MAXIMUM OF 2 HOURS
 - 4) EXTREMELY LIGHTS SHALL BE WIRED TO A LOCAL CIRCUIT AHEAD OF ANY SWITCHES (PER I PER NEC 2017)
 - 5) FEEDER CONDUCTORS AND BRANCH CIRCUIT CONDUCTORS SHALL BE COPPER WIRE IN EMT AND MC CABLE CONDUITS
 - 6) FEEDER CONDUCTORS AND BRANCH CIRCUIT CONDUCTORS ARE DESIGNED IN COMPLIANCE W/ FBC 2020 7TH EDITION, 6TH EDITION ENERGY CONSERVATION CODE 505.7.3 AT DESIGN LOAD FOR BRANCH CIRCUITS AND 2% FOR FEEDER CONDUCTORS

ELECTRICAL CONTRACTOR SHALL FIELD VERIFY LOCATION OF SERVICE METER AND CAPACITY OF DISCONNECT.
ELECTRICAL CONTRACTOR SHALL ESTABLISH DISTANCE FROM TENANT PANEL TO SERVICE CENTER BEFORE SIZING CONDUCTOR AND GROUNDS



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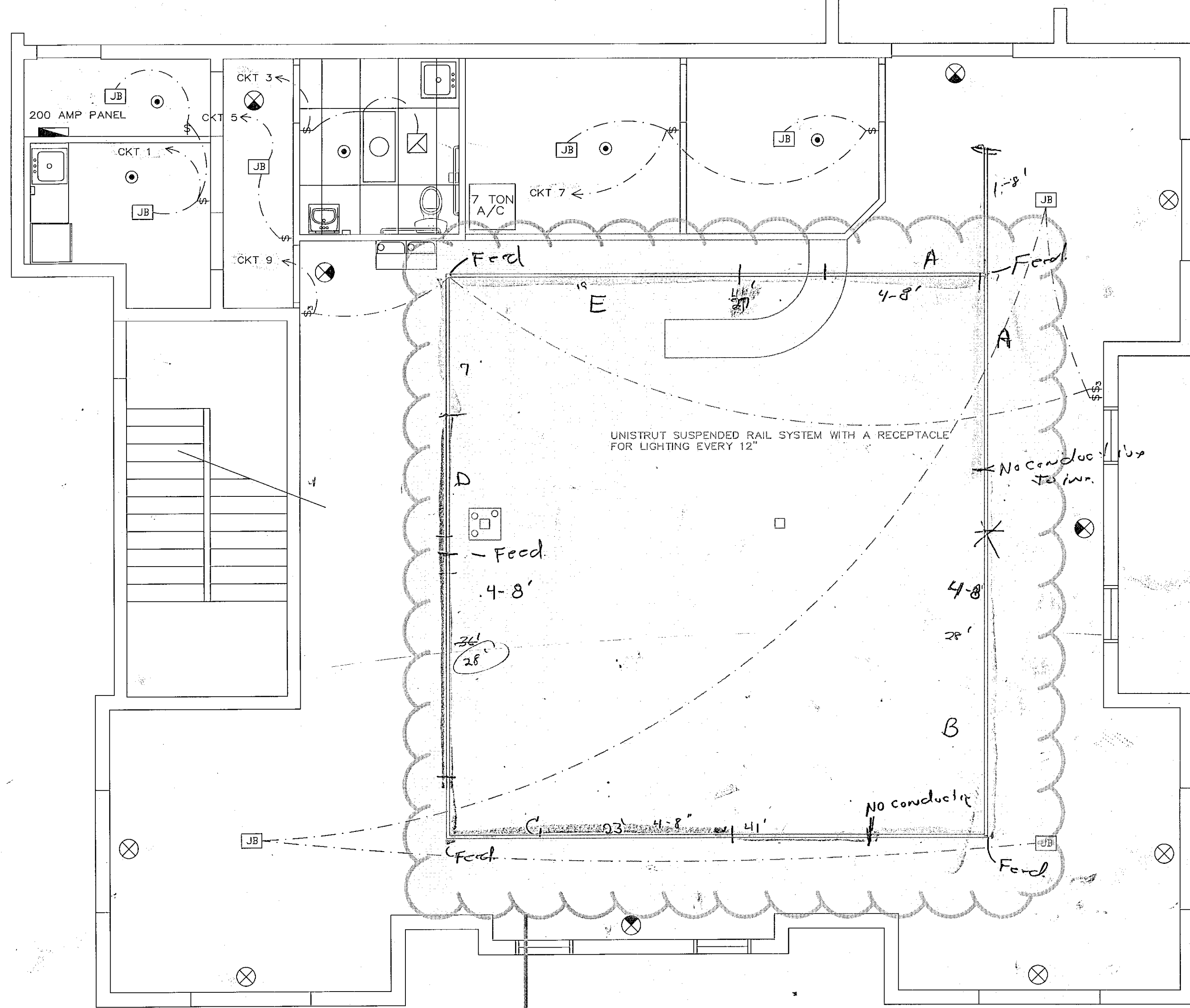
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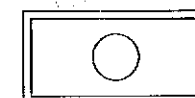
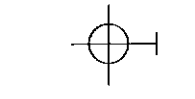




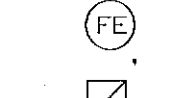
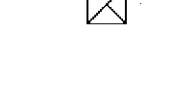
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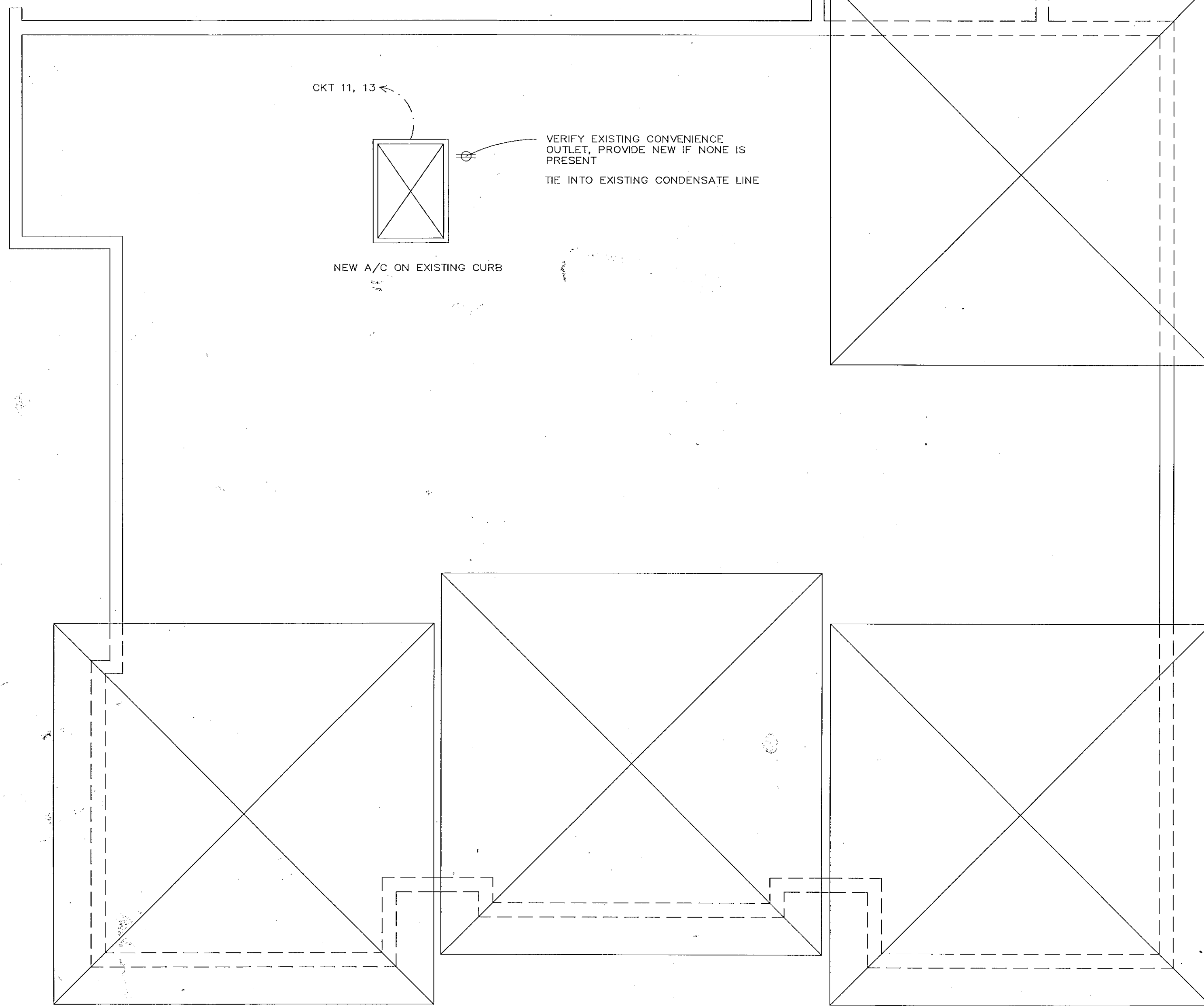
LIGHTING PLAN
SCALE: 1/4" = 1'-0"

LEGEND

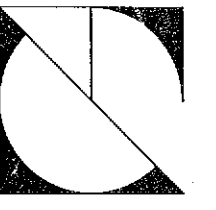
-  2 X 4 LED 4 TUBE LAY-IN LIGHT FIXTURE
-  SURFACE MOUNTED FIXTURE BY OWNER
-  JUNCTION BOX FOR OWNER SELECTED FIXTURE
-  OCCUPANCY SENSOR CEILING MOUNTED OR SWITCH CONTROLLED 30 MINUTES INACTIVITY
-  ILLUMINATED EXIT EMERGENCY LIGHT HARD WIRING W/ BATTERY BACK-UP
-  ILLUMINATED EXIT SIGNAGE
-  FIRE EXTINGUISHER 2A10 BC, 10 LB. SET @ 48" A.F.F.
-  EXHAUST FAN

To be track lighting with LED heads

SEE SPRINKLER SHOP DRAWINGS BY LICENSED SPRINKLER CONTRACTOR
SEE FIRE ALARM DEVICE SHOP DRAWINGS BY LICENSED FIRE ALARM CONTRACTOR



EXISTING ROOF PLAN
SCALE: 1/4" = 1'-0"



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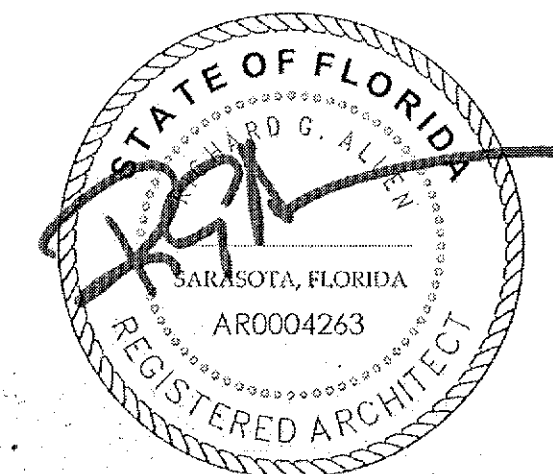
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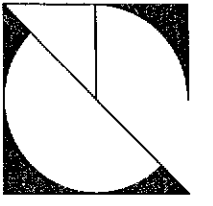
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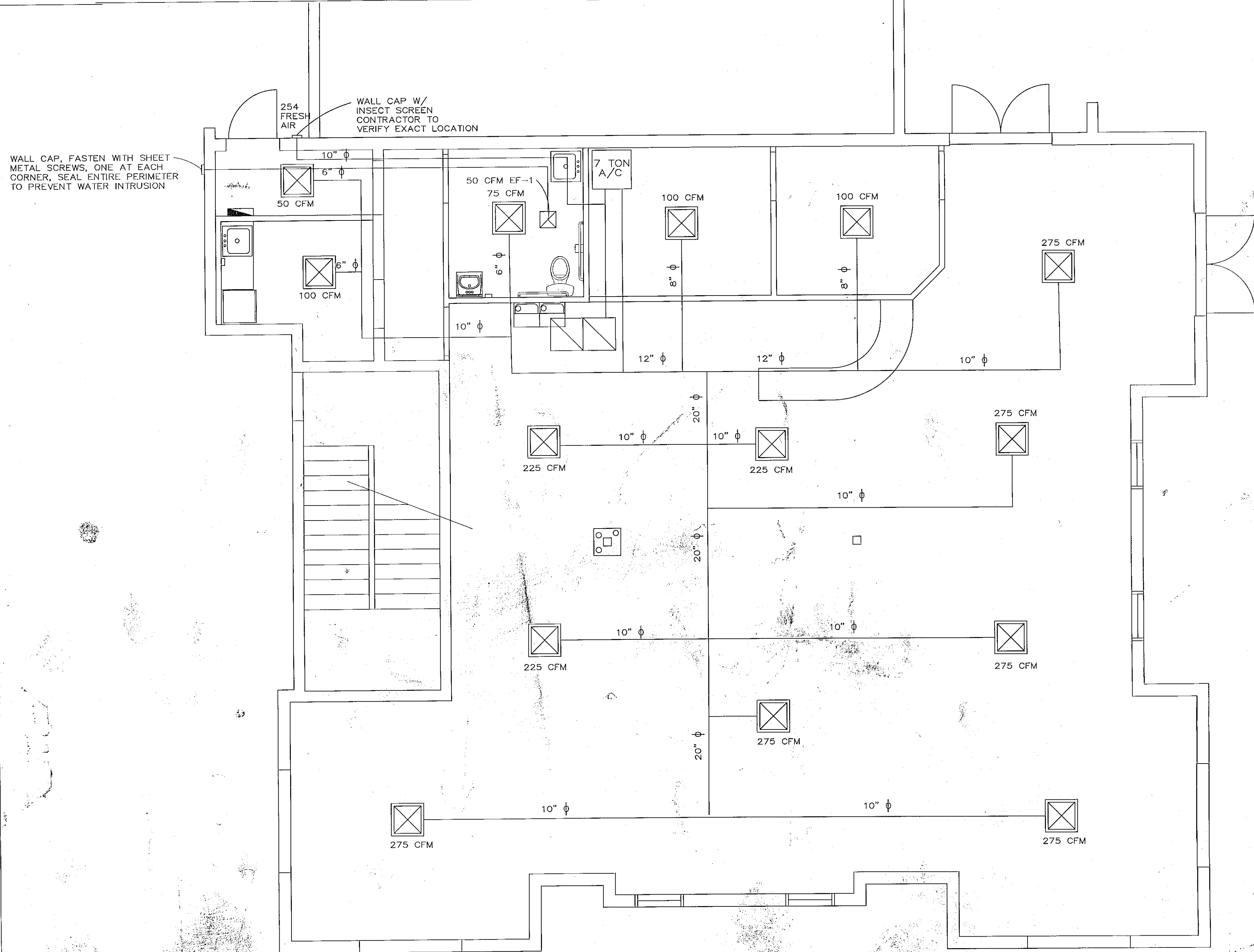
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HVAC PLAN
SCALE: 1/4" = 1'-0"

LEGEND

- 24" X 24" SUPPLY AIR VENT
- 24" X 24" RETURN
- 50 CFM CEILING MOUNT ENV. EXHAUST FAN

NOTES:
CONDENSER TO BE LOCATED ON EXISTING ROOF CURB

ALL EXPOSED DUCTWORK TO BE INSULATED SPIRAL DUCT

NCI DUCT DESIGN TABLES

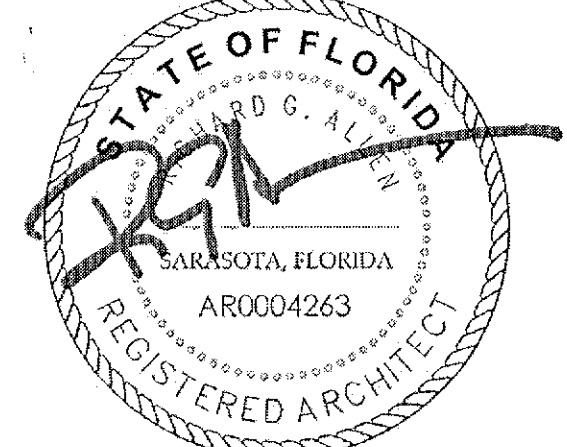
Flexible Duct		Round Metal Pipe	
Duct Size	Design Airflow	Duct Size	Design Airflow
5"	50	5"	60
6"	75	6"	85
7"	110	7"	125
8"	160	8"	180
9"	225	9"	250
10"	300	10"	325
12"	480	12"	525
14"	700	14"	770
16"	1000	16"	1200
18"	1300	18"	1500
20"	1700	20"	2000

Rectangular Duct - Net Inside Dimension in Inches							
4"	6"	8"	10"	12"	14"	16"	18"
6x4	6x6	6x8	6x10	6x12	6x14	6x16	6x18
8x4	8x6	8x8	8x10	8x12	8x14	8x16	8x18
10x4	10x6	10x8	10x10	10x12	10x14	10x16	10x18
12x4	12x6	12x8	12x10	12x12	12x14	12x16	12x18
14x4	14x6	14x8	14x10	14x12	14x14	14x16	14x18
16x4	16x6	16x8	16x10	16x12	16x14	16x16	16x18
18x4	18x6	18x8	18x10	18x12	18x14	18x16	18x18
20x4	20x6	20x8	20x10	20x12	20x14	20x16	20x18
22x4	22x6	22x8	22x10	22x12	22x14	22x16	22x18
24x4	24x6	24x8	24x10	24x12	24x14	24x16	24x18

Step One - Identify the volume of air that will be passing through the duct
Step Two - Select the duct size from the table that can carry that volume of air
Step Three - If desired airflow exceeds the CFM rating, increase to the next duct size
Step Four - Listed CFM is based on typical field results and may vary, install dampers
Step Five - If duct run exceeds 25', or has excessive transitions, increase to the next size
Step Six - Design alone is inadequate, always prove design by test and balance

RESULTS		
Vot	Minimum outdoor air intake, Vol/Ev, cfm	204
	Percent outdoor air intake, Vol/Vps	21%
Ev	System ventilation efficiency	1.00

ZONE LEVEL	Zones served by system	Zone 1		Zone 2	
		Area (sq ft)	Volume (cfm)	Area (sq ft)	Volume (cfm)
Az	Space type (select from pull-down list)	880	103	103	103
Pz	Floor area of zone, ft2	14	1	1	1
Pp	Zone population, largest # of people expected to occupy zone	7.5	0	0	0
Ra	People outdoor air rate from Table 6.1, cfm/person	0.12	0.12	0.12	0.12
Pz*Ra	Area outdoor air rate from Table 6.1, cfm/ft2	105	0	0	0
Az*Ra		105.6	12.36	12.36	12.36
Voz	Outdoor airflow to the zone corrected for zone air distribution effectiveness, (Pz*Ra + Az*Ra)/Ez, cfm	210.6	12.36	12.36	12.36
Vpz	Primary airflow to zone from air handler (intake plus recirculated air, but not local recirculation such as at mixing boxes), cfm. In VAV systems, use the design value.	2325	100	100	100
Vdz	Supply/discharge to zone including primary air Vpz and locally recirculated air, cfm. In VAV systems, use the design value.	2325	100	100	100
Vdzm	Minimum supply/discharge to zone used to calculate Ev, cfm. In CAV systems, Vdzm = Vdz. In VAV systems, Vdzm is the minimum expected value of Vdz.	2325	100	100	100
Zd	Outdoor air fraction required in air discharged to zone, = Voz/Vdzm	0.09	0.12	0.12	0.12
Ep	Primary air fraction to zone, = Vpz/Vdz (=1 for single duct and single zone systems)	1.00	1.00	1.00	1.00
Er	Fraction of secondary recirc to zone representative of system average, only applies if Ep<1. For plenum return =0. For duct return with local secondary recirc =1. Zone air distribution effectiveness, Table 6.2	0.80	0.80	0.80	0.80
Ez	Zone air distribution effectiveness, Table 6.2	1.00	1.00	1.00	1.00
Fa	Fraction of supply air to zone from sources outside zone, = Ep + (1-Ep)*Er	1.00	1.00	1.00	1.00
Fb	Fraction of supply air to zone from full mixed primary air, = Ep = Vpz/Vdz	1.00	1.00	1.00	1.00
Fc	Fraction of outdoor air to zone from sources outside zone, = 1 - (1-Ez) * (1-Er) * (1-Ep)	1.00	1.00	1.00	1.00
Ps	System population, maximum simultaneous # of occupants of space served by system	14			
D	Occupant diversity, ratio of system peak occupancy to sum of space peak occupancies, = Ps/ΣPz	0.79			
Vou	Uncorrected outdoor air intake, = D*ΣRi*Pz + ΣRa*Az, cfm	204			
Vps	Total system primary flow to all zones, Σ Voz, cfm	2000			
Xs	Mixing ratio at primary air handler of uncorrected outdoor air intake to system primary flow, = Vou/Vps	0.30			
Evs	Zone ventilation efficiency, (Fa + Xs*Fb - Z*Fc)/Fa	1.21	1.18		
Ev	System ventilation efficiency, min(Evs)	1.00			
Vot	Minimum outdoor air intake, Vou/Ev, cfm	204	21%		



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FAN SCHEDULE					
MARK	TYPE	CFM	DRIVE	SERVICE AREA	NOTES
AHU	SPLIT	2800	DIRECT	ALL AREAS	3,4
EF-1	CLC.	50	DIRECT	TOILET ROOM	1,3,4

- CEILING MOUNTED FAN
- PROVIDE BACK DRAFT DAMPER & DISCONNECT SWITCH
- INSTALLATION BY MECHANICAL CONTRACTOR
- MECHANICAL CONTRACTOR SHALL PROVIDE THE OWNER WITH OPERATION MANUAL

AIR BALANCE TABULATION						
MARK	SUPPLY AIR	RETURN AIR	OUTSIDE AIR	EXHAUST AIR	PRESSURE	SERVICE AREA
7 TON	2800	2546	204		0	ALL AREAS
EF-1				-50	-50	TOILET ROOM
M/U AIR			50		50	
TOTAL	2800			-50	0	

