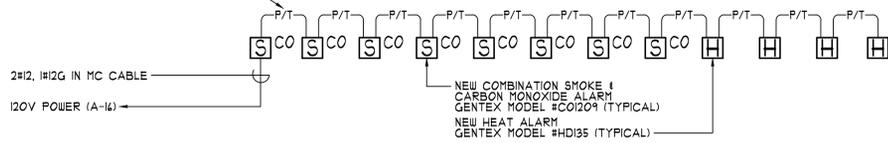


LIGHTING FIXTURE SCHEDULE					
TYPE	MANUFACTURER	CATALOG #	VOLTAGE	LAMPS	REMARKS
A	COOPER ALL-PRO	EI2012AT-ERT110	120	(1) 24W QUAD 3K	RECESSED DOWN LIGHT
A1	METALUX	BI-1-11-120V-EB8I	120	(1) 11W T8 3K	WALL MOUNTED CLOSET LIGHT (MOUNT ABOVE DOOR HEADER)
A2	METALUX	WS-332A-120V-EB8I	120	(3) 32W T8 3K	SURFACE MOUNTED IX4 WRAPAROUND
A3	RIG-A-LITE	CVPD2A-F-12-GG-C	120	(1) 24W CFL 3K	ATTIC LIGHT WITH GUARD
A4	METALUX	BI-1-11-120V-EB8I	120	(1) 11W T8 3K	BILCO HATCH LIGHT, PROVIDE WITH COLD WEATHER (0°F) BALLAST
A5	METALUX	CL-111-120V-EB8I	120	(1) 11W T8 3K	UNDERCABINET LIGHT
A6	METALUX	GC-332-DA-120V-EB8I	120	(3) 32W T8 3K	RECESSED IX4, PROVIDE DRYWALL FRAME IN KIT 1 IC RATED BOX COVER (EZ-BARRIER #EZB30-2X4)

LIGHTING FIXTURE SCHEDULE NOTES:

- ALL LIGHTING FIXTURES PENETRATING THE BUILDING THERMAL ENVELOPE SHALL BE IC RATED OR INSTALLED WITHIN A IC RATED BOX & BE SEALED WITH EITHER A GASKET OR CAULK BETWEEN THE HOUSING AND INTERIOR WALL OR CEILING COVERING AS REQUIRED PER IECC 502.4.8

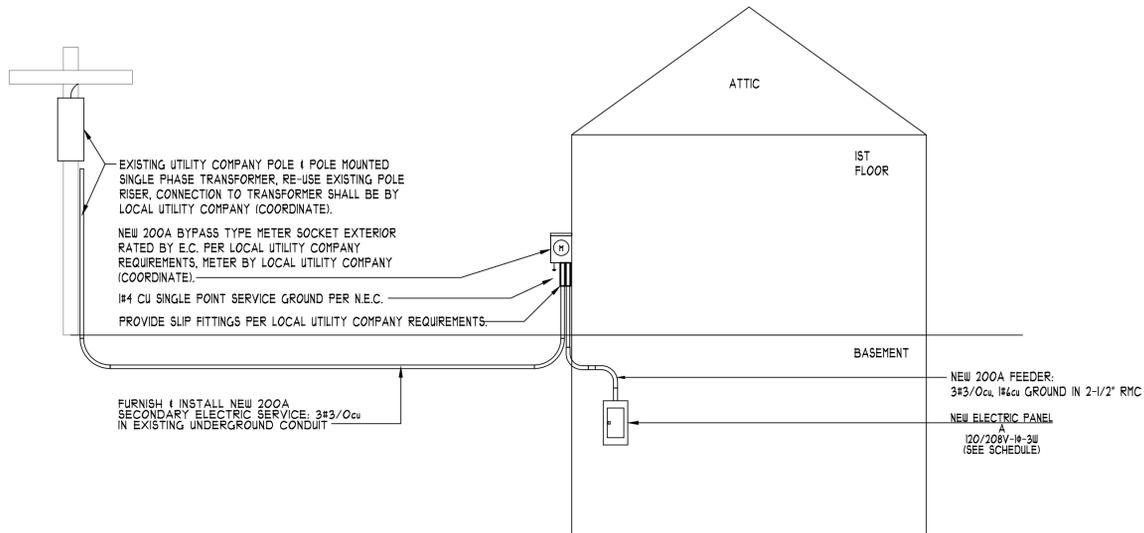
NEW POWER & TANDEM WIRING PER MANUFACTURERS RECOMMENDATIONS & REQUIREMENTS (TYPICAL)



2 SMOKE/CARBON MONOXIDE & HEAT ALARM DETAIL
Scale: N.T.S.

NOTES:

- RISER DIAGRAM DEPICTS GENERAL SYSTEM LAYOUT ONLY.
- ACTUAL WIRING AND EQUIPMENT QUANTITIES SHALL BE THE RESPONSIBILITY OF THE EQUIPMENT SUPPLIER AND CONTRACTOR.
- ALL ELECTRICAL BOXES FOR ALL SMOKE/CO & HEAT ALARMS SHALL BE COLOR CODED RED.
- THE CIRCUIT BREAKER FEEDING THE SMOKE/CO & HEAT ALARM SYSTEM SHALL HAVE RED IDENTIFICATION, SHALL BE PROVIDED WITH A BREAKER LOCK & SHALL BE IDENTIFIED AS "FIRE ALARM CIRCUIT" THE RED IDENTIFICATION SHALL NOT DAMAGE THE OVERCURRENT PROTECTIVE DEVICES OR OBSCURE THE MANUFACTURERS MARKINGS.
- ALL SMOKE/CO & HEAT ALARMS SHALL BE 120V WITH 9 VOLT BATTERY BACKUP.



1 ELECTRICAL MAIN DISTRIBUTION RISER DIAGRAM
Scale: N.T.S.

DEMOLITION NOTES	
1.	UNLESS SPECIFICALLY NOTED OTHERWISE THIS CONTRACTOR SHALL DISCONNECT & REMOVE ALL EXISTING ELECTRICAL SYSTEMS, COMPONENTS & WIRING (COMPLETE) INCLUDING BUT NOT LIMITED TO: <ul style="list-style-type: none"> REMOVE ALL EXISTING SWITCHES, COVER PLATES, WORK BOXES & ASSOCIATED WIRING TO ORIGIN. REMOVE ALL EXISTING RECEPTACLES, COVER PLATES, WORK BOXES & ASSOCIATED WIRING TO ORIGIN. REMOVE ALL EXISTING TELEPHONE OUTLETS, COVER PLATES, WORK BOXES & ASSOCIATED WIRING TO ORIGIN. REMOVE ALL EXISTING CABLE TV OUTLETS, COVER PLATES, WORK BOXES & ASSOCIATED WIRING TO ORIGIN. REMOVE ALL EXISTING INTERIOR LIGHTING FIXTURES, LAMPS, BALLASTS & ASSOCIATED WIRING TO ORIGIN. REMOVE ALL EXISTING PANEL BOARDS, BRANCH CIRCUITS & FEEDERS (COMPLETE). REMOVE ALL EXISTING BRANCH CIRCUIT WIRING (NM CABLE, BX CABLE, THHN, THWN, XHHW, ETC.) COMPLETE. REMOVE ALL EXISTING FUSED & NON FUSED DISCONNECT SWITCHES & ALL ASSOCIATED WIRING TO ORIGIN.
2.	EXISTING SECURITY SYSTEM SHALL REMAIN, RE-INSTALL EXISTING EQUIPMENT AT EXISTING LOCATIONS & RE-WIRE AS REQUIRED (MAINTAIN CONTINUITY) COORDINATE FINAL QUANTITIES & LOCATIONS OF ALL EQUIPMENT IN FIELD.
3.	LIGHTING FIXTURES IN BATHROOM SHALL REMAIN, RE-WIRE AS SHOWN ON PLANS.

GENERAL NOTES:	
1.	PROVIDE SEPARATE GROUND WIRE IN ALL CONDUIT & MC CABLE TO GROUND ALL LIGHTING FIXTURES, DEVICES AND EQUIPMENT.
2.	ALL NEW BRANCH CIRCUITS SHALL BE COPPER MC CABLE.
3.	PROVIDE A SEPARATE NEUTRAL & GROUND WIRE FOR EACH CIRCUIT.
4.	"PROVIDE" SHALL MEAN FURNISH AND INSTALL.
5.	THIS DIVISION SHALL REFER TO ALL OTHER PLANS OF OTHER DIVISIONS TO ENSURE THAT EQUIPMENT REQUIRING ELECTRICAL WORK, IF OMITTED ON ELECTRICAL PLANS, SHALL BE WIRED AND PUT IN OPERATION UNDER BASIC ELECTRICAL CONTRACT.
6.	ALL SWITCHES CONTROLLING LIGHTING FIXTURES OR SPLIT WIRED RECEPTACLES FOR PORTABLE LIGHTING EQUIPMENT SHALL BE PROVIDED WITH A NEUTRAL WIRE LOCATED IN THE SWITCH BOX FOR CONNECTION OF FUTURE ELECTRONIC LIGHTING CONTROL EQUIPMENT. NEUTRAL WIRE SHALL BE CAPPED FOR FUTURE USE, PROVIDE TAG WITH PERMANENT MARKING "NEUTRAL CONDUCTOR".
7.	OUTLETS IN DWELLING UNITS SHALL BE SPACED SO THAT NO POINT ALONG ANY WALL IS GREATER THAN 4' FROM A RECEPTACLE PER N.E.C. DWELLING UNIT FLOOR PLANS INDICATE APPROXIMATE LOCATIONS & QUANTITIES OF RECEPTACLES, IF ADDITIONAL RECEPTACLES ARE REQUIRED DUE TO STRUCTURAL MEMBERS OR INSTALLATION OF RECEPTACLE WILL CREATE A "BACK TO BACK" CONDITION WITH A RECEPTACLE IN AN ADJACENT UNIT (SEE NOTE 8) THE E.C. SHALL PROVIDE AN ADDITIONAL RECEPTACLE & RE-SPACE EQUALLY AS REQUIRED.
8.	ALL DEVICES INSTALLED BACK TO BACK IN A COMMON PARTITION (WALL, CEILING, FLOOR, ETC) SHALL BE OFFSET BY 18" MINIMUM, ADJUST OUTLET SPACING AS REQUIRED.
9.	ALL ELECTRICAL BOXES FOR ALL SMOKE/CO & HEAT ALARMS SHALL BE COLOR CODED RED.
10.	THE CIRCUIT BREAKER FEEDING THE SMOKE/CO & HEAT ALARM SYSTEM SHALL HAVE RED IDENTIFICATION, SHALL BE PROVIDED WITH A BREAKER LOCK & SHALL BE IDENTIFIED AS "FIRE ALARM CIRCUIT" THE RED IDENTIFICATION SHALL NOT DAMAGE THE OVERCURRENT PROTECTIVE DEVICES OR OBSCURE THE MANUFACTURERS MARKINGS.

ELECTRICAL ABBREVIATIONS	
ABBREVIATION	DESCRIPTION
AFF	ABOVE FINISHED FLOOR
AFCI	ARC FAULT CURRENT INTERRUPT
AL	ALUMINUM
C	CONDUIT
CF	COMPACT FLUORESCENT
CU	COPPER
E.C.	ELECTRICAL CONTRACTOR
G	GROUND
G.C.	GENERAL CONTRACTOR
GFI	GROUND FAULT CURRENT INTERRUPT
LV	LOW VOLTAGE
LED	LIGHT EMITTING DIODE
NB	MAIN BREAKER
MH	METAL HALIDE
MLO	MAIN LUG ONLY
N.E.C.	NATIONAL ELECTRICAL CODE
UM	UNIT MOUNTED
V	VOLTS
VA	VOLT AMPS
WP	WEATHER PROOF

ELECTRICAL LEGEND	
SYMBOL	DESCRIPTION
○	NEW RECESSED LIGHTING FIXTURE (SEE LIGHTING FIXTURE SCHEDULE)
⊙	NEW WALL MOUNTED LIGHTING FIXTURE (SEE LIGHTING FIXTURE SCHEDULE)
□	NEW SURFACE MOUNTED LIGHTING FIXTURE (SEE LIGHTING FIXTURE SCHEDULE)
RW ⊕	EXISTING FLOOD LIGHTING FIXTURE TO BE REWIRED
RW ○	EXISTING CEILING MOUNTED LIGHTING FIXTURE TO BE REWIRED
RW ⊙	EXISTING WALL MOUNTED LIGHTING FIXTURE TO BE REWIRED
\$	SINGLE SWITCH
⊕	MULTI-GANG SWITCH
\$ ³	THREE-WAY SWITCH
\$ ⁴	FOUR-WAY SWITCH
\$ ^M	DUAL TECHNOLOGY OCCUPANCY SENSOR SWITCH
\$ ^T	THERMAL OVERLOAD SWITCH
\$ ^{SC}	SPEED CONTROL SWITCH
\$ ^P	PILOT LIT WALL SWITCH
\$ ^{EO}	3 WAY EMERGENCY OFF SWITCH
⊕	DUPLEX RECEPTACLE (MOUNTED 18" AFF UNLESS OTHERWISE NOTED)
CL ⊕ GFI	GFCI TYPE DUPLEX RECEPTACLE FLUSH MOUNTED IN CEILING
⊕ GFI	GFCI TYPE DUPLEX RECEPTACLE (MOUNTED 18" AFF UNLESS OTHERWISE NOTED)
⊕ GFI	GFCI TYPE DUPLEX RECEPTACLE (MOUNTED ABOVE COUNTER TOP OR 42" AFF)
⊕ GFI	WEATHERPROOF GFCI TYPE DUPLEX RECEPTACLE (24" ABOVE FINISHED GRADE)
⊕	2P-50A RANGE RECEPTACLE
⊕	2P-30A DRYER RECEPTACLE
▽	TELEPHONE OUTLET MOUNTED 18" AFF
⊕	CABLE TV OUTLET MOUNTED 18" AFF
⊕	MOTOR
⊕	JUNCTION BOX WITH BLANK COVER PLATE
⊕	NEW WIRING IN MC CABLE
⊕	HOMERUN TO PANEL
⊕	FLEXIBLE CONNECTION TO EQUIPMENT
⊕	NEW 120/240V ELECTRIC PANEL (SEE SCHEDULE)
⊕	NEW COMBINATION SMOKE/CO ALARM 120V WITH BATTERY BACKUP (SEE DETAIL)
⊕	NEW HEAT ALARM, 120V WITH BATTERY BACKUP (SEE DETAIL)
⊕	NEW FAN FORCED ELECTRIC HEATER BERKO MODEL #CRA152-IF
⊕	NEW FIRESTAT FIREMATIC MODEL #TS300
⊕	GROUND PER N.E.C.
⊕	NEW METERING EQUIPMENT

ELECTRICAL PANEL A SCHEDULE							
VOLTS: 120/240V-1Ø-3W			SWITCHING BREAKER				
MAINS: 200 AMP MLO			▲ GFI TYPE BREAKER				
MOUNTING: SURFACE			★ AFCI BREAKER				
CIRCUIT DESCRIPTION	TRIP AMPS	CKT NO.	A	B	NO.	TRIP AMPS	CIRCUIT DESCRIPTION
General Lighting	15 ★	1	●	2	15 ★	General Receptacles	
Refrigerator	20	3	●	4	15 ★	General Receptacles	
Small Appliance Receptacle	20 ★	5	●	6	15 ★	General Receptacles	
Small Appliance Receptacle	20 ★	7	●	8	20	Garage Door Opener Rec	
Clothes Washer	20	9	●	10	20	Garage Door Opener Rec	
Dishwasher	20	11	●	12	20	Attic Exhaust Fan	
Basement Electric Heater	20	13	●	14	20	Boiler & Circ Pump	
Laundry Receptacle	20 ★	15	●	16	20	Smoke/CO Alarms	
Bathroom Receptacles	20	17	●	18	15 ★	Basement Lighting	
Spare	20 ★	19	●	20	15 ★	Basement Receptacles	
Spare	15 ★	21	●	22	15 ★	Basement Receptacles	
Blank For Future Use	23	●	24	●	Blank For Future Use		
Blank For Future Use	25	●	26	●	Blank For Future Use		
Blank For Future Use	27	●	28	●	Blank For Future Use		
Electric Clothes Dryer	30	28	●	30	50	Range	

Electrical Load Calculation			
Job Name: 91 Dogwood Drive, Easton CT.			
General Lighting:			
Unit Square Feet:	3026	3 Watts per Square foot	= 9078 va
		Small Appliances 1 x 3000	= 3000 va
		Laundry Receptacle 1 x 1500	= 1500 va
		Total Lighting	= 13578 va
		First 3000 @ 100%	= 3000 va
		3001 - 12000 @ 95%	= 3702.3 va
		12001 and up @ 25%	= 0 va
		Total	= 6702 va
		Refrigerator 1@ 830w	= 830 va
		Range 1@ 8000w	= 8000 va
		Clothes Washer	= 830 va
		Clothes Dryer	= 5000 va
		Dishwasher	= 1500 va
		Garage Door Opener x 2	= 1660 va
		Boiler & Circ Pump	= 830 va
		Attic Fan	= 830 va
		Basement Heater	= 1500 va
		Total Unit Load	= 27882 / 240 = 116.2 A

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CONSTRUCTION INSPECTION • GIS • WASTEWATER

1084 Cromwell Avenue, Suite A-2
Rocky Hill, CT 04867
Telephone: (860) 436-4364
Fax: (860) 436-4624
www.martinezcouch.com

PROJECT 1111 - 91 DOGWOOD DRIVE,
EASTON, CONNECTICUT 06612

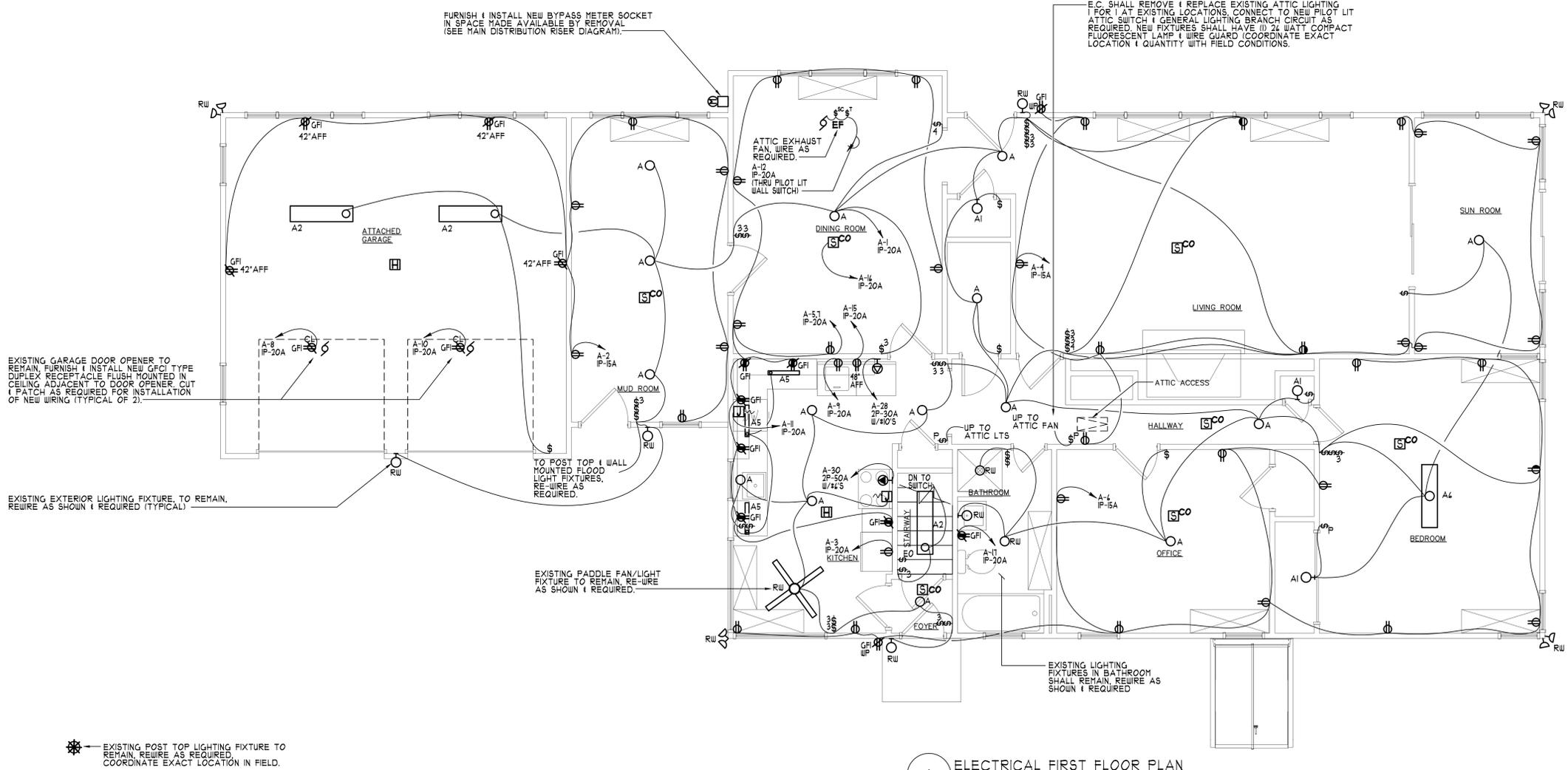
WALTER McILVEEN ASSOCIATES, INC.
CONSULTING ENGINEERS
195 WEST MAIN STREET
AVON, CT 06001-0516
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NO.	DATE	REVISIONS	BY	CHK	APPV

DRAWN BY: P.P. CHECKED BY: APM SCALE: AS NOTED DATE: 07/1/2014

ELECTRICAL
SYMBOLS, SCHEDULES,
NOTES & DETAILS

JOB NO.	DRAWING NUMBER	SHEET
33-262-1111	Electrical.dwg	EO.01



I ELECTRICAL FIRST FLOOR PLAN

- Scale: 1/4"=1'-0"
- NOTES:
- SEE SYMBOLS, SCHEDULES, NOTES & DETAILS.
 - FURNISH & INSTALL (2) NEW TYPE A3 LIGHTING FIXTURES AT EXISTING FIXTURE LOCATIONS, WIRE TO LIGHTING BRANCH CIRCUIT AS REQUIRED THRU NEW PILOT LIT WALL SWITCH IN HALLWAY.
 - FURNISH & INSTALL (1) NEW 5A DUPLEX RECEPTACLE IN ATTIC SPACE ADJACENT TO ACCESS HATCH, WIRE TO GENERAL RECEPTACLE BRANCH CIRCUIT AS REQUIRED.
 - FURNISH & INSTALL (1) NEW HEAT DETECTOR CENTERED IN ATTIC SPACE, WIRE AS REQUIRED.
 - FURNISH & INSTALL NEW TELEPHONE & TV OUTLETS AT EXISTING LOCATIONS (COORDINATE EXACT LOCATIONS & QUANTITIES IN FIELD) PROVIDE NEW WIRING TO DEMARK POINTS & CONNECT AS REQUIRED. NEW TELEPHONE CABLES SHALL BE CATEGORY 4. NEW CABLE TV WIRES SHALL BE COAXIAL PER LOCAL UTILITY COMPANY RECOMMENDATIONS FOR HIGH-DEFINITION TV SERVICE. (COORDINATE)

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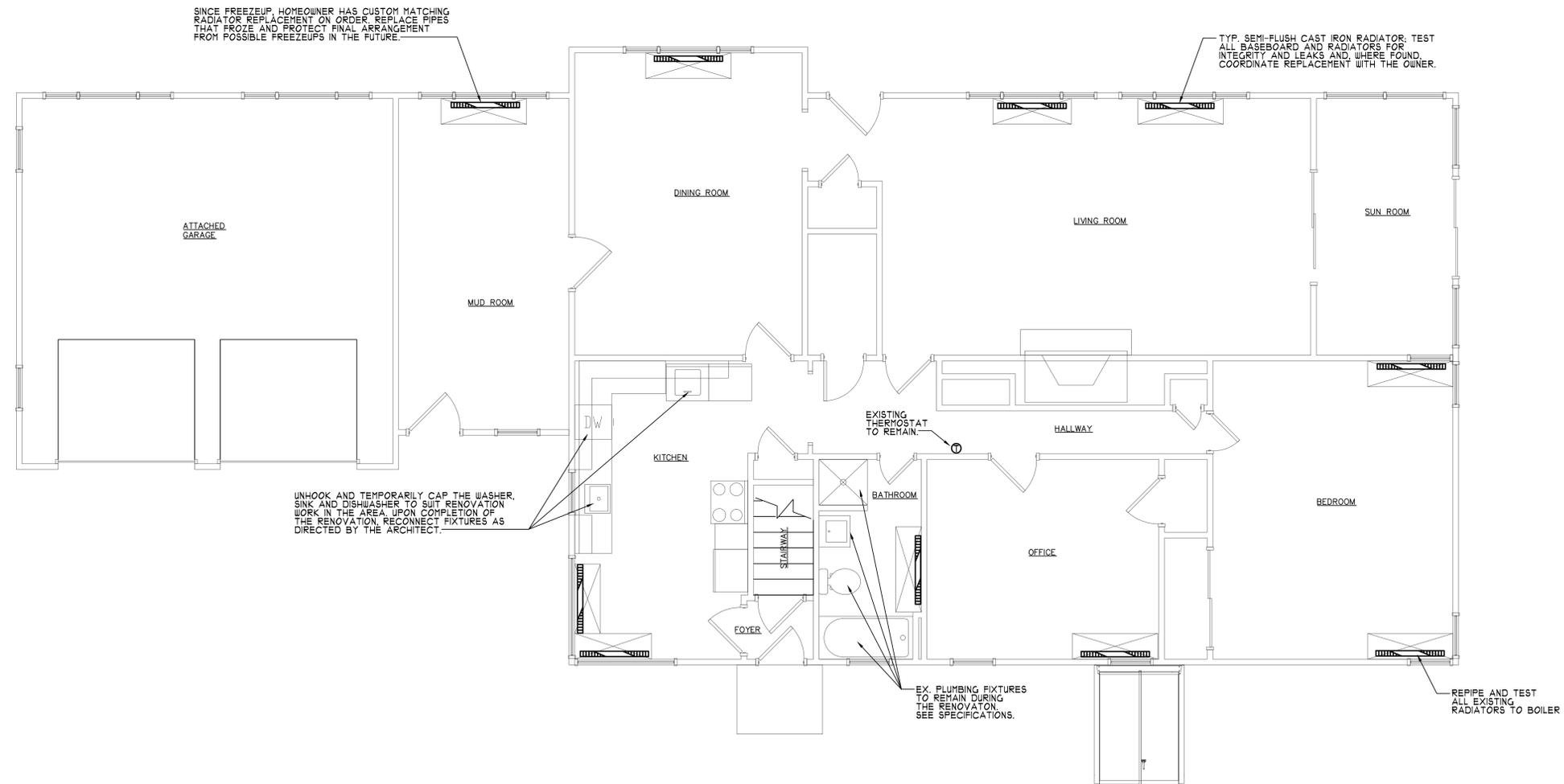
1084 Cromwell Avenue, Suite A-2
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**PROJECT 1111 - 91 DOGWOOD DRIVE,
 EASTON, CONNECTICUT 06612**

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ELECTRICAL		
FIRST FLOOR PLAN		
JOB NO.	DRAWING NUMBER	SHEET
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MECHANICAL & PLUMBING FIRST FLOOR PLAN
 Scale: 1/4"=1'-0"
 NOTES:
 1. SEE SYMBOLS, SCHEDULES, NOTES & DETAILS.

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