





VICINITY PLAN

ARCHITECT
JOHN G. WAITE ASSOCIATES, ARCHITECTS PLLC
ALBANY AND NEW YORK, NY MECHANICAL ELECTRICAL & PLUMBING ENGINEERING PLUS GROUP CONSULTING ENGINEERS, PLLC NEW YORK, NY

CIVIL & FIRE PROTECTION ENGINEERING MACTEC ENGINEERING & CONSULTING, INC. PORTLAND, ME

DATA:

by besign bevelopment (inde i)	Construction Drawing Not Preceded	OR Date	proved by Superintendent on	Variance from Design Development (Title I)	OR Drawing No.	Development (Title I)	Prepared in Accordance with Design	



PREFERRED ALTERNATIVE SCHEMATIC DESIGN UNITED DEPARTMENT OF

MIS NO.

NATIONAL PARK SERVICE DENVER SERVICE CENTER STATES THE INTERIOR

SAGAMORE HILL NATIONAL HISTORIC SITE
REGION COUNTY STATE
NORTHEAST NASSAU NEW YORK Sagamore Hill
National Historic Site
Theodore Roosevelt House TITLE OF PROJECT

PKG. SHEET NO. SAHI 1

DRAWING NO. 25004

SHEETNUMBER TITLE OF SHEET

WEST ELEVATION

WEST ELEVATION

ACCESSIBLE ENTRANCE NORTHWEST PORCH

OFIRE PROTECTION — BASEMENT

I FIRE PROTECTION — FIRST FLOOR

FIRE PROTECTION — THIRD FLOOR

FIRE PROTECTION — ATTIC

MECHANICAL — SYMBOLS, NOTES, SCHEDULES & ABBREVIATIONS

MECHANICAL — BASEMENT PLAN

MECHANICAL — DETAILS

MECHANICAL — DETAILS

MECHANICAL — DETAILS

MECHANICAL — SYMBOLS & ABBREVIATIONS

ELECTRICAL — SYMBOLS & ABBREVIATIONS

ELECTRICAL — BASEMENT PLAN

DETAILS

ELECTRICAL — BASEMENT PLAN

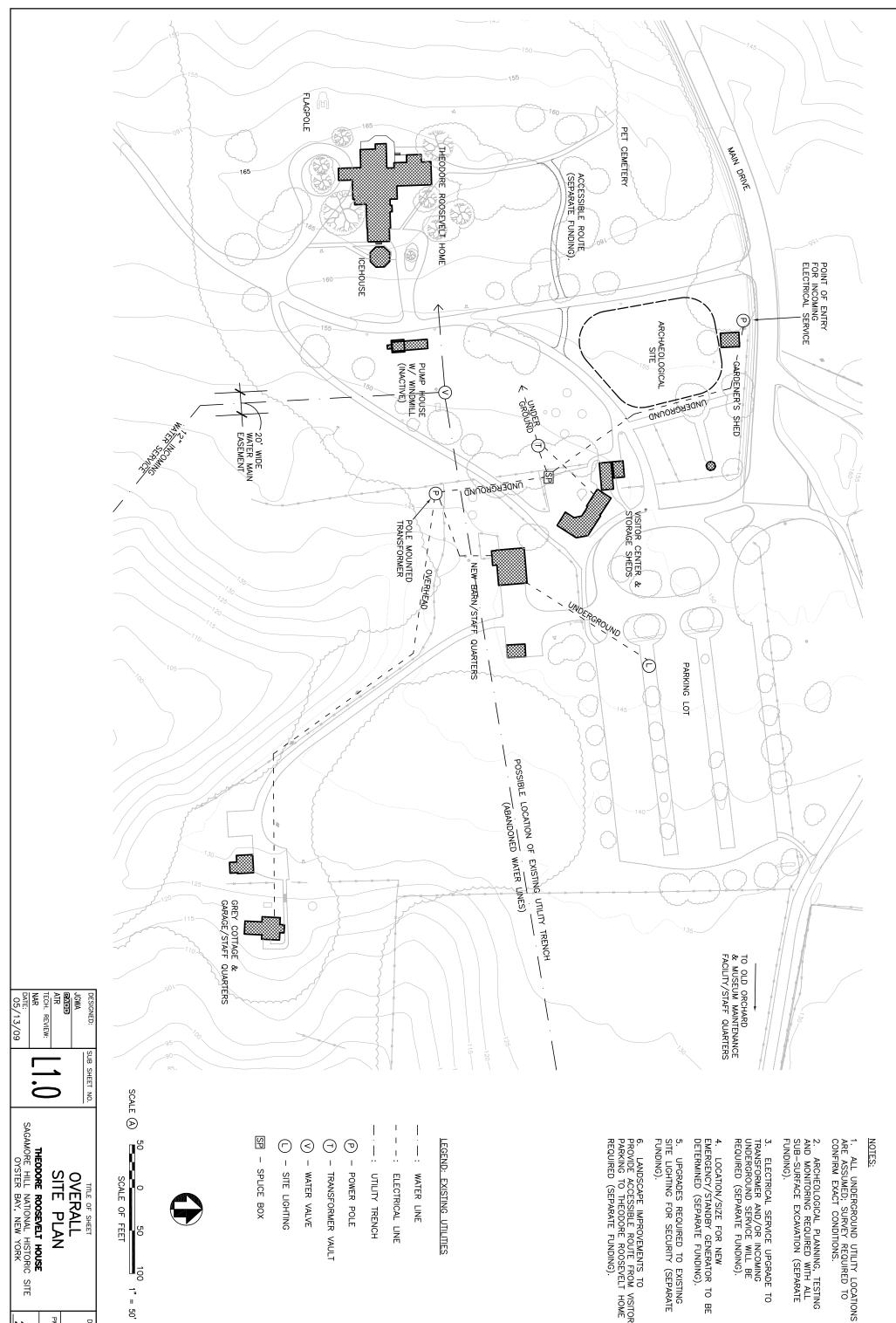
ELECTRICAL — BASEMENT PLAN

DETAILS

ELECTRICAL — BASEMENT PLAN

ELECTRICAL — POWER RISER DIAGRAM COVER SHEET
OVERALL SITE PLAN
DETAILED SITE PLAN
BASEMENT PLAN
FIRST FLOOR PLAN
SECOND FLOOR PLAN
THIRD FLOOR PLAN
ATTIC PLAN
ATTIC PLAN
ROOF PLAN
NORTH ELEVATION
EAST ELEVATION
SOUTH ELEVATION

ELECTRICAL - SCHEDULES

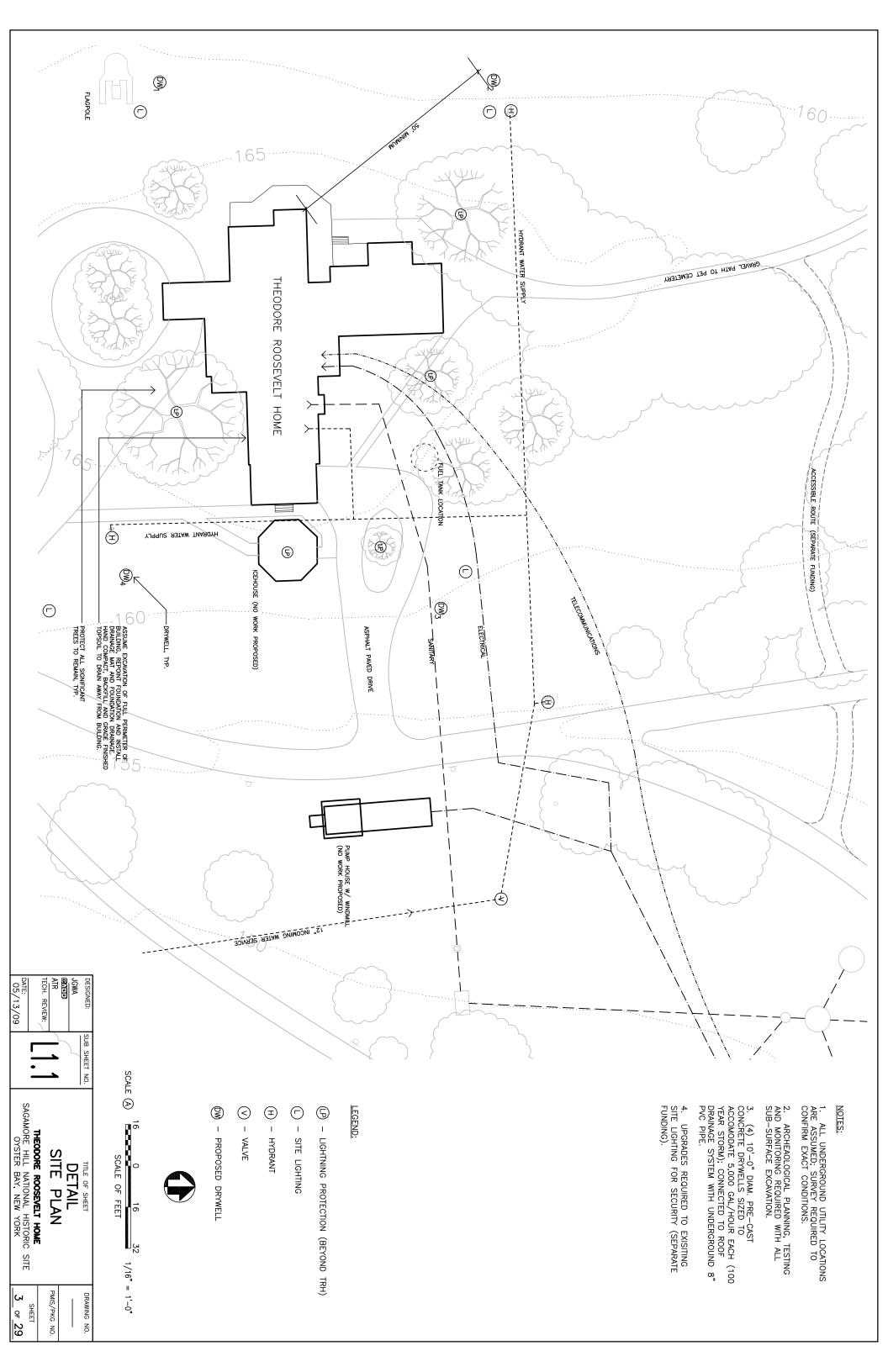


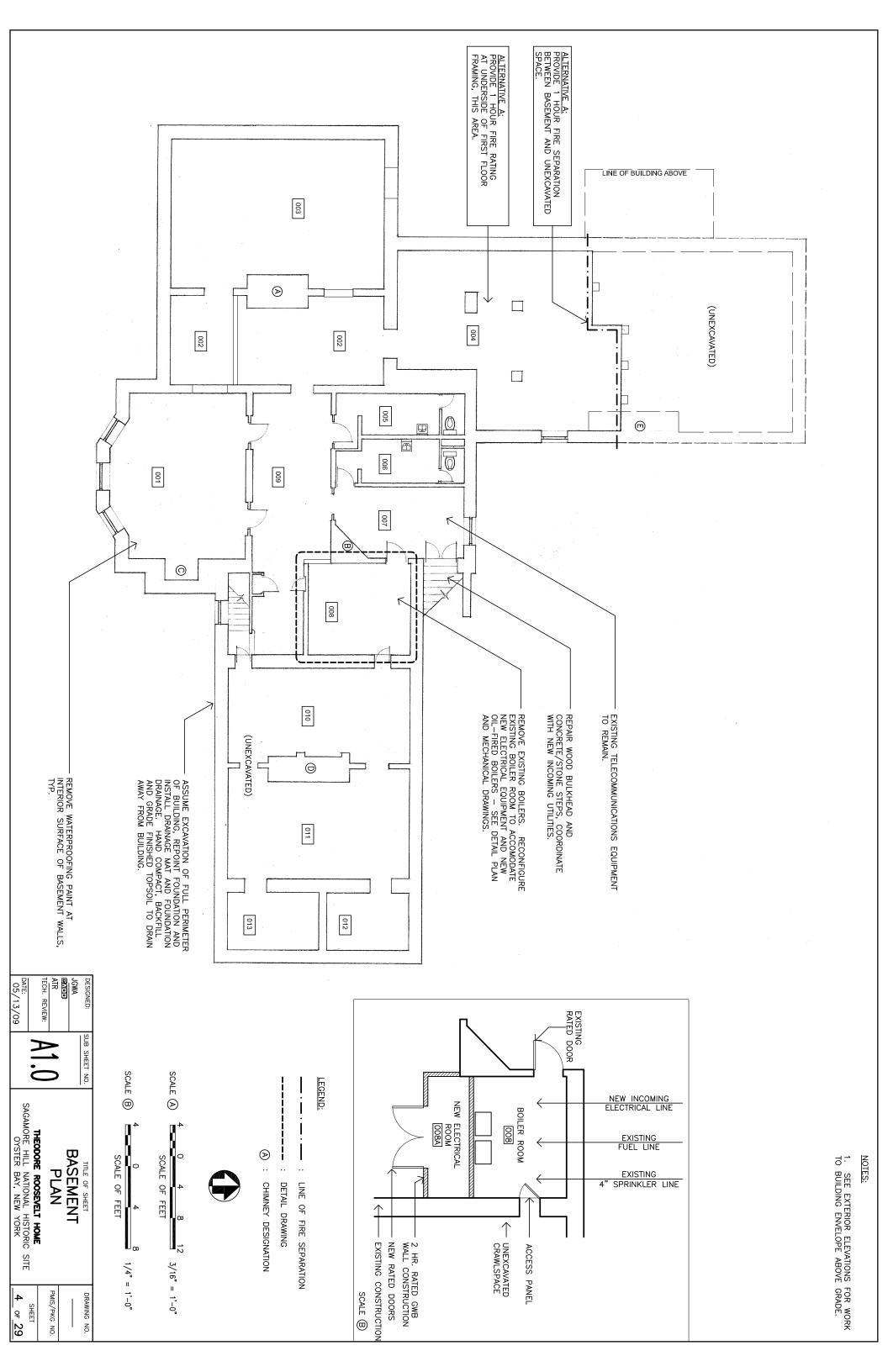
- 6. LANDSCAPE IMPROVEMENTS TO PROVIDE ACCESSIBLE ROUTE FROM VISITOR PARKING TO THEODORE ROOSEVELT HOME REQUIRED (SEPARATE FUNDING).

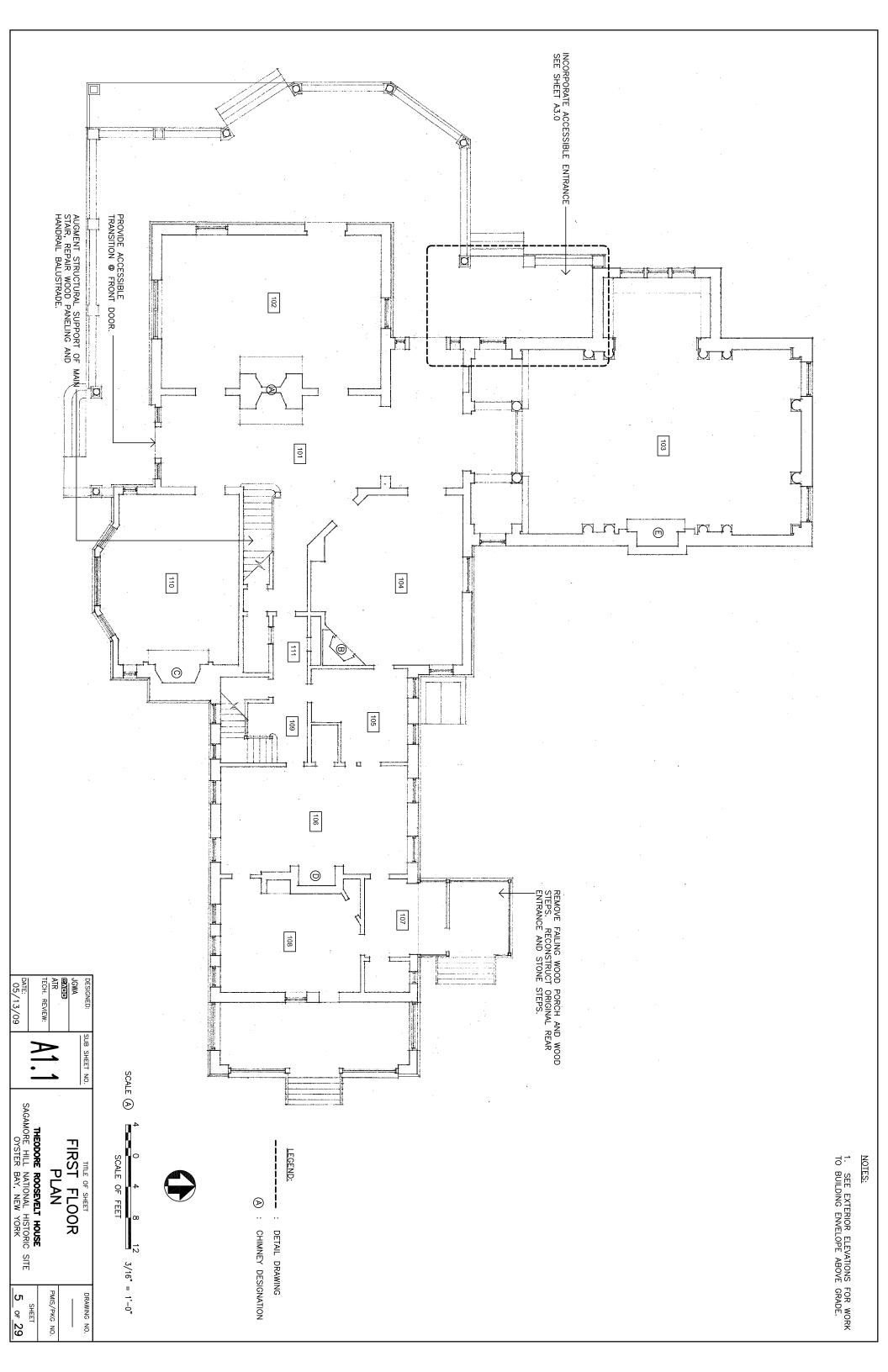


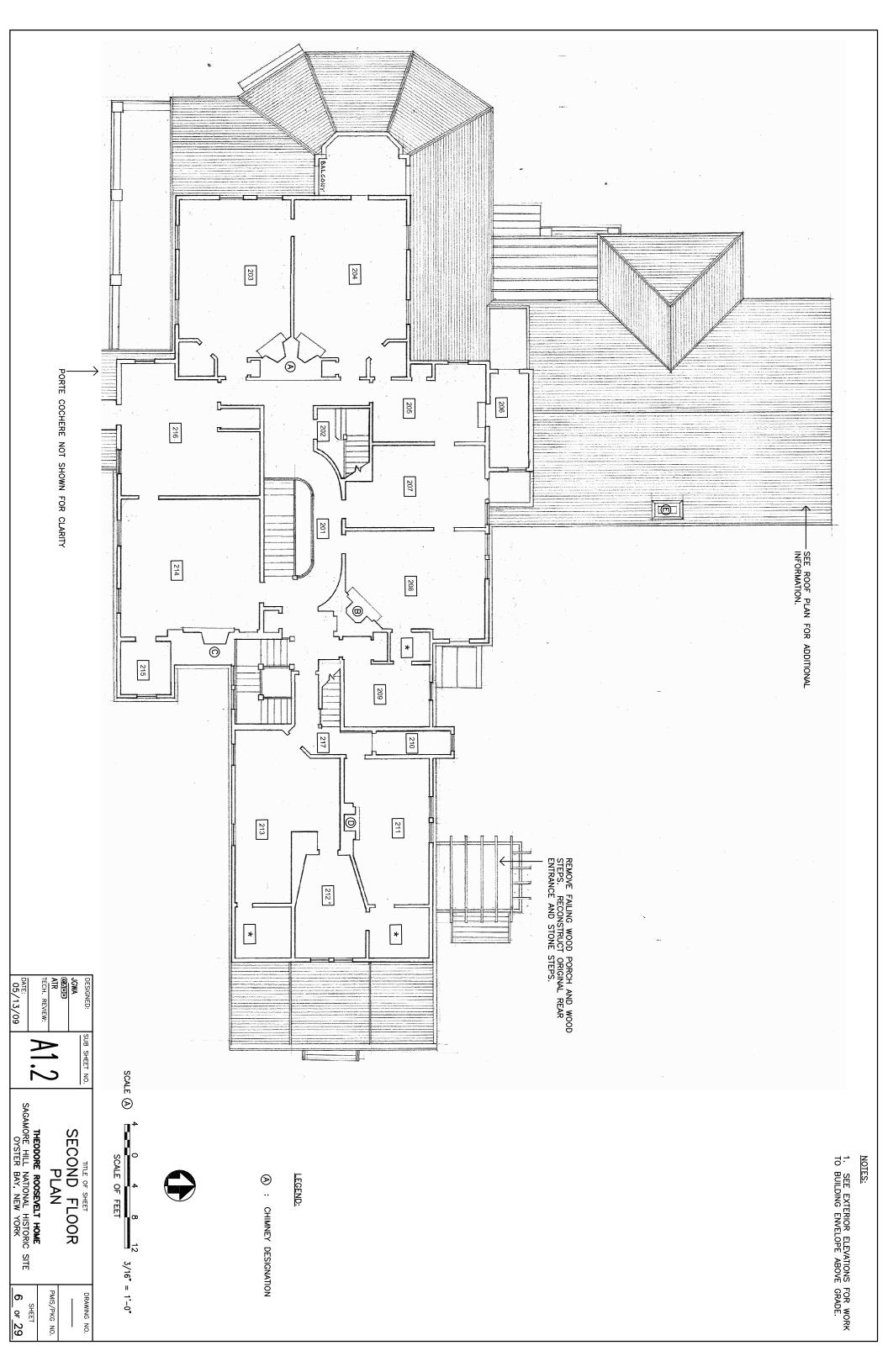
היובר אליוסולר יווטיסול טויר	HILL NATIONAL HISTORIC SITE	SHE PLAN	CVEXALL	TITLE OF SHEET
ر م	SHEET	PMIS/PKG NO.		DRAWING NO.

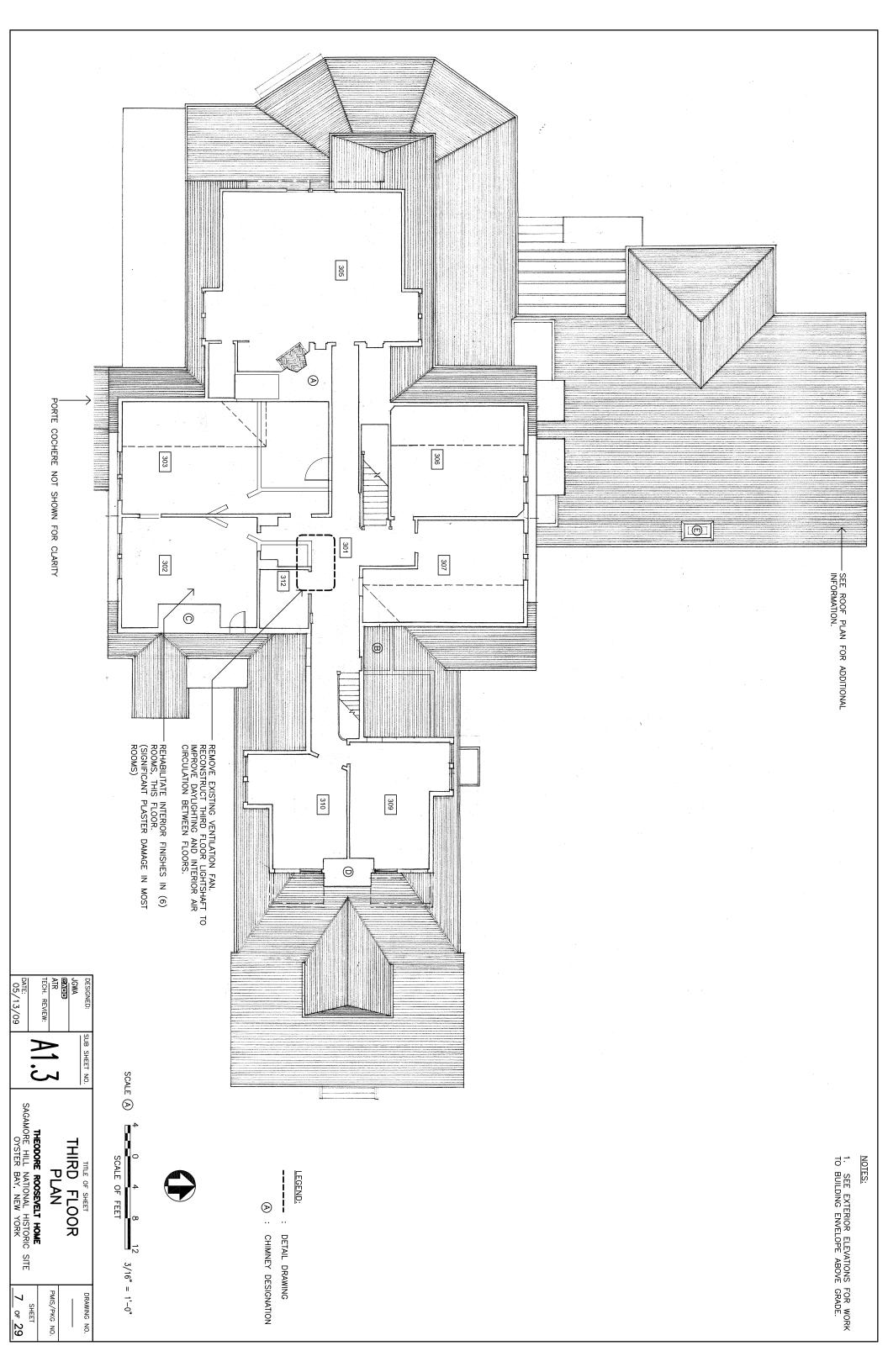
NEW YORK	ONAL HISTORIC SITE	PLAN	ALC ALC
2 or 29	SHEET	PMIS/PKG NO.	

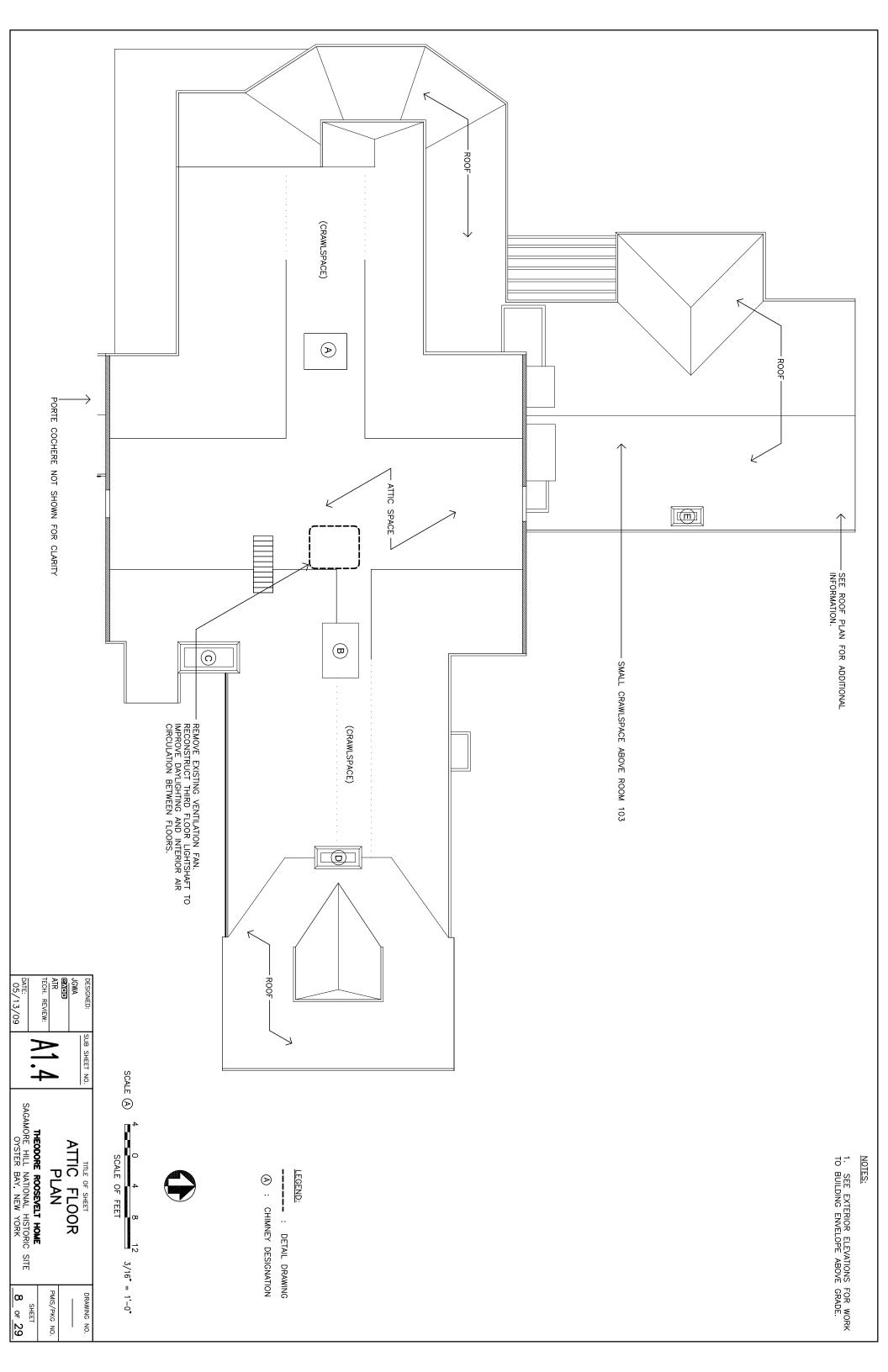


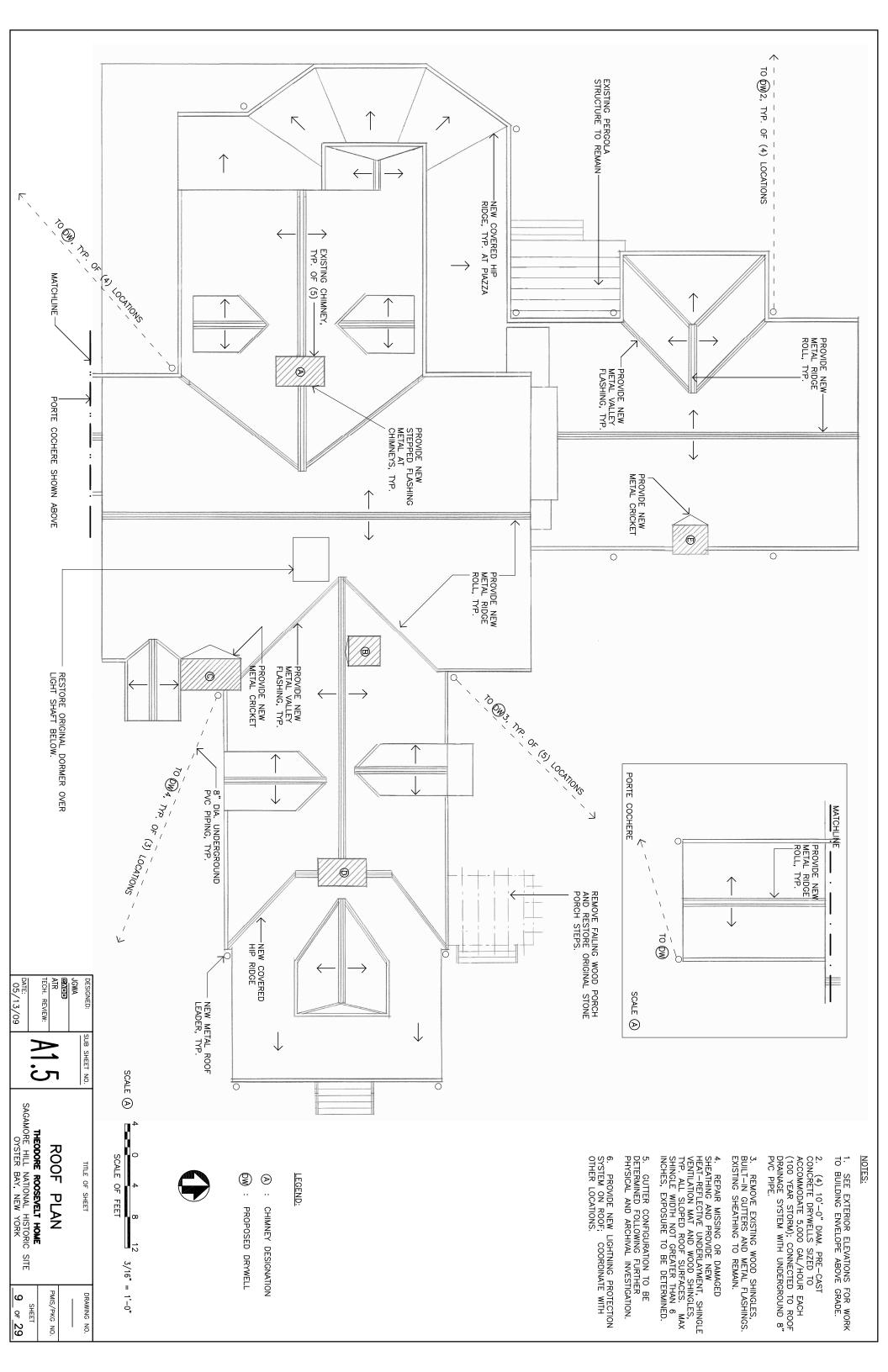


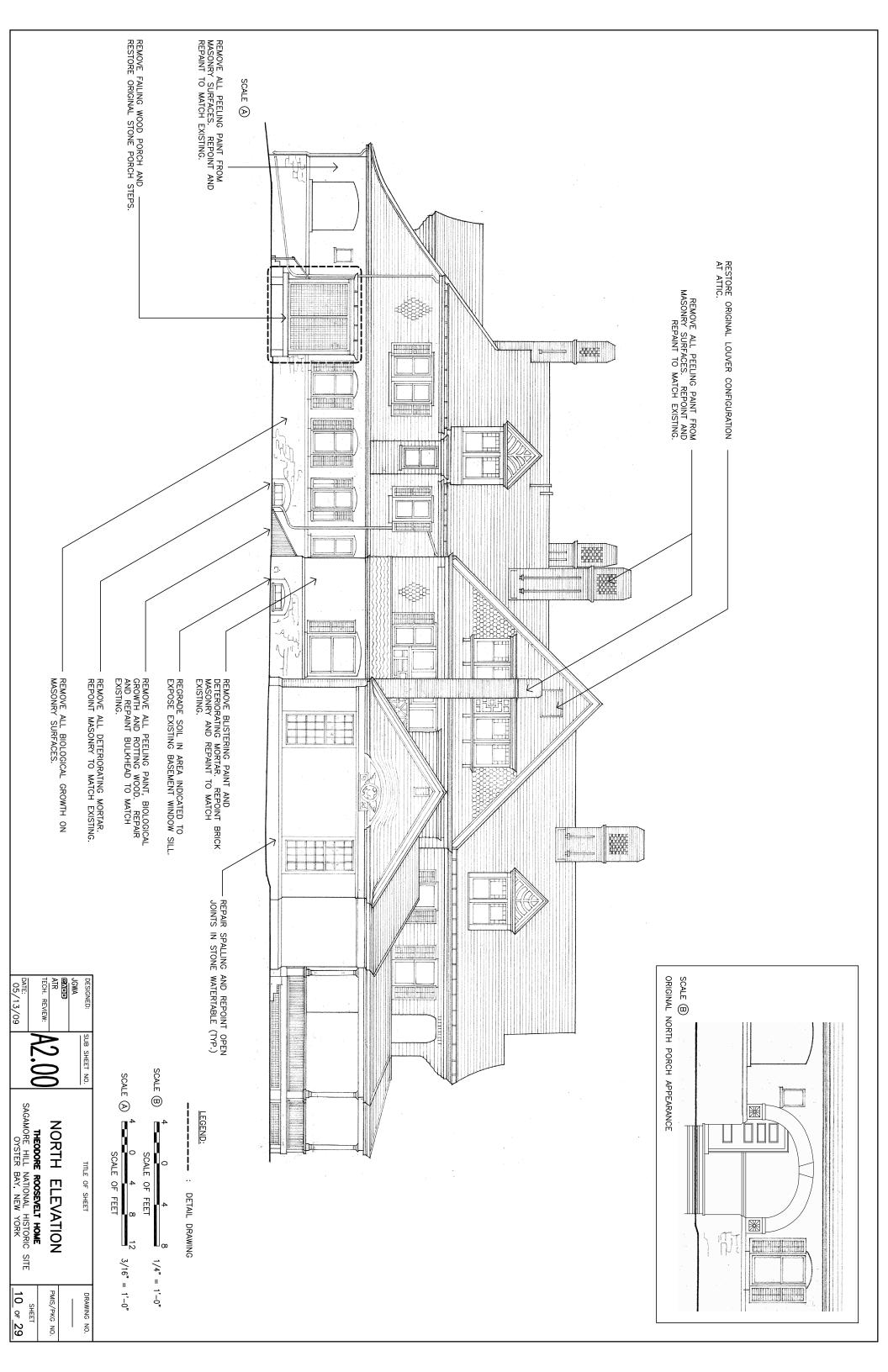


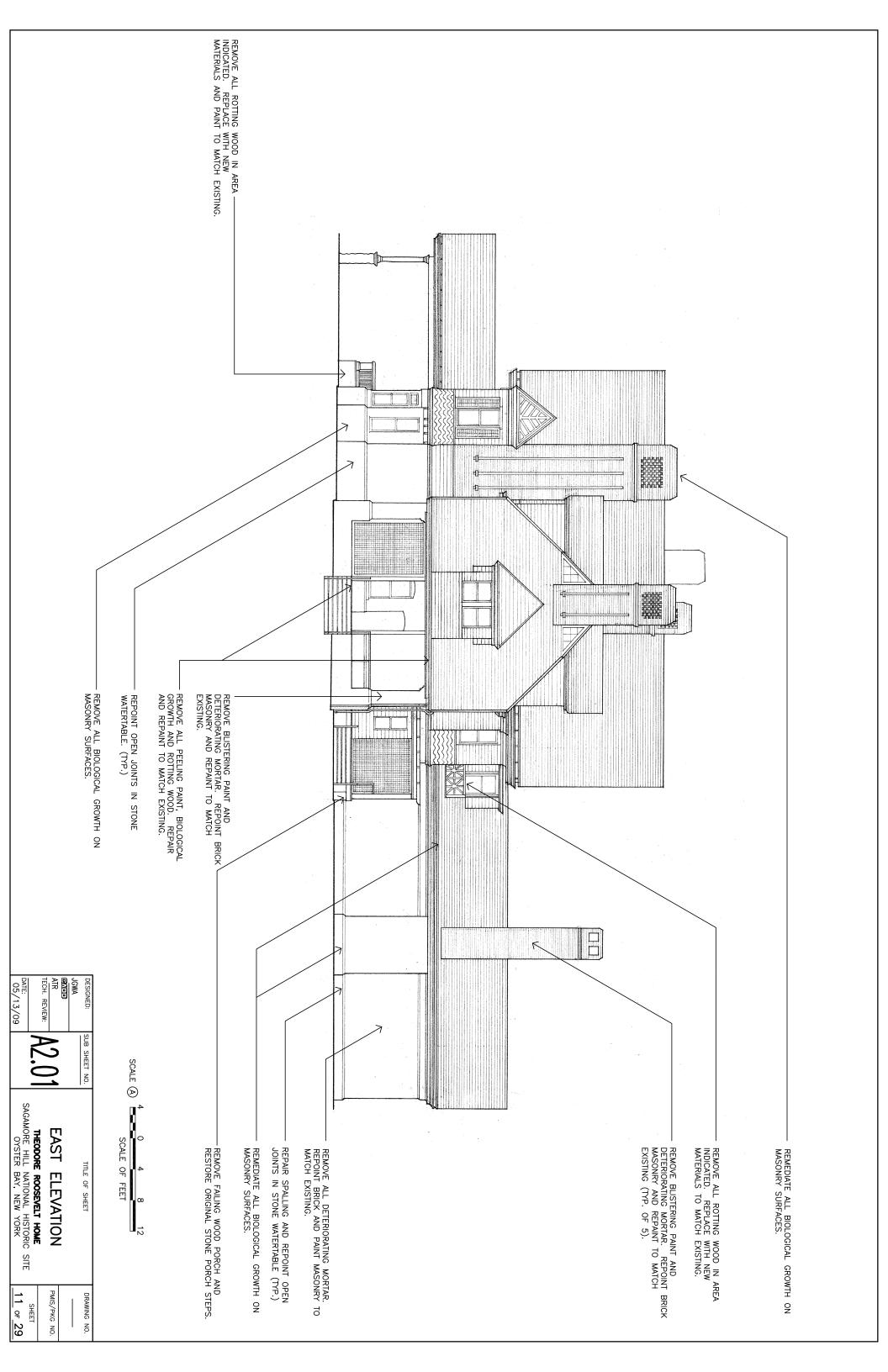


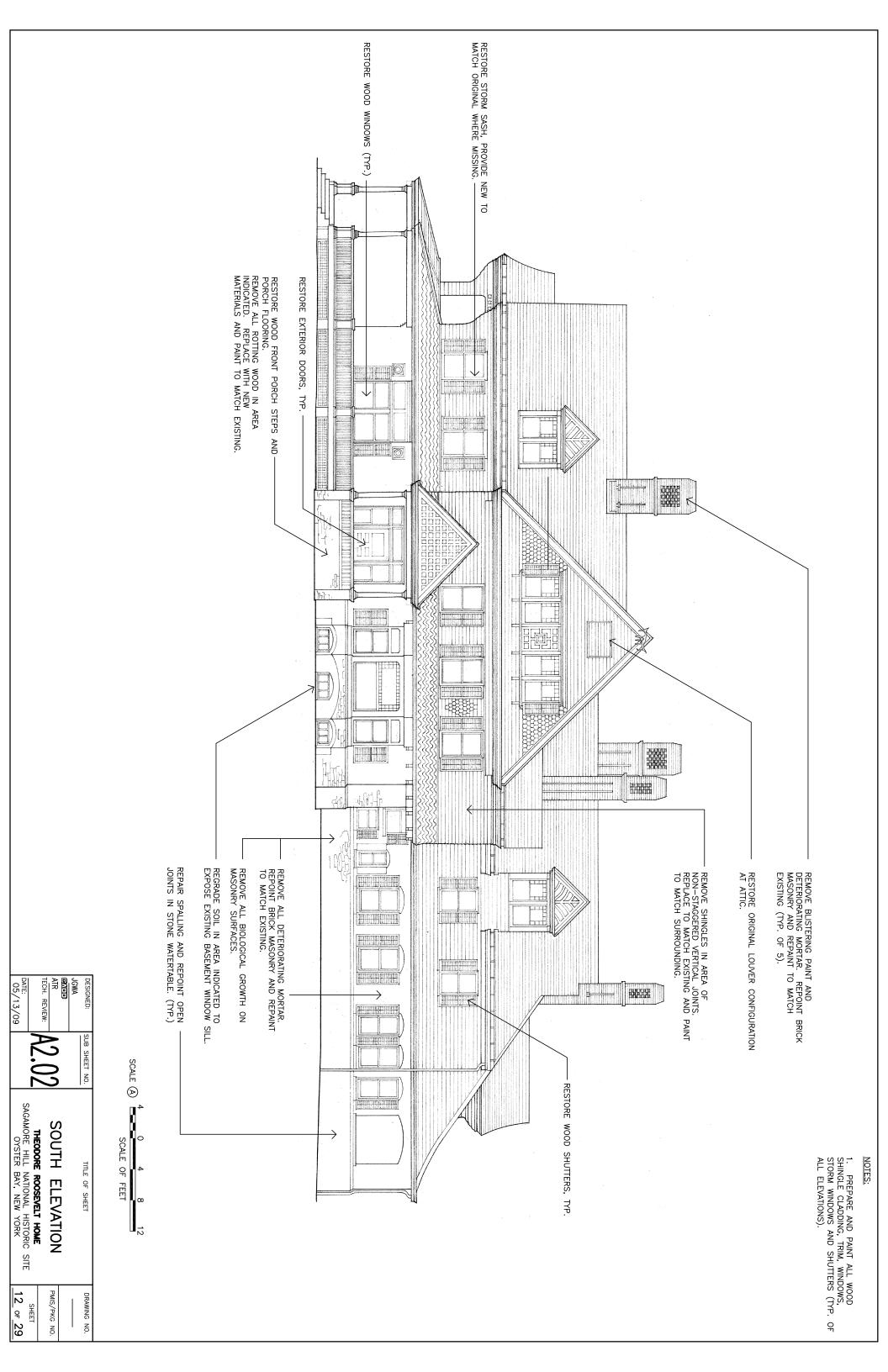


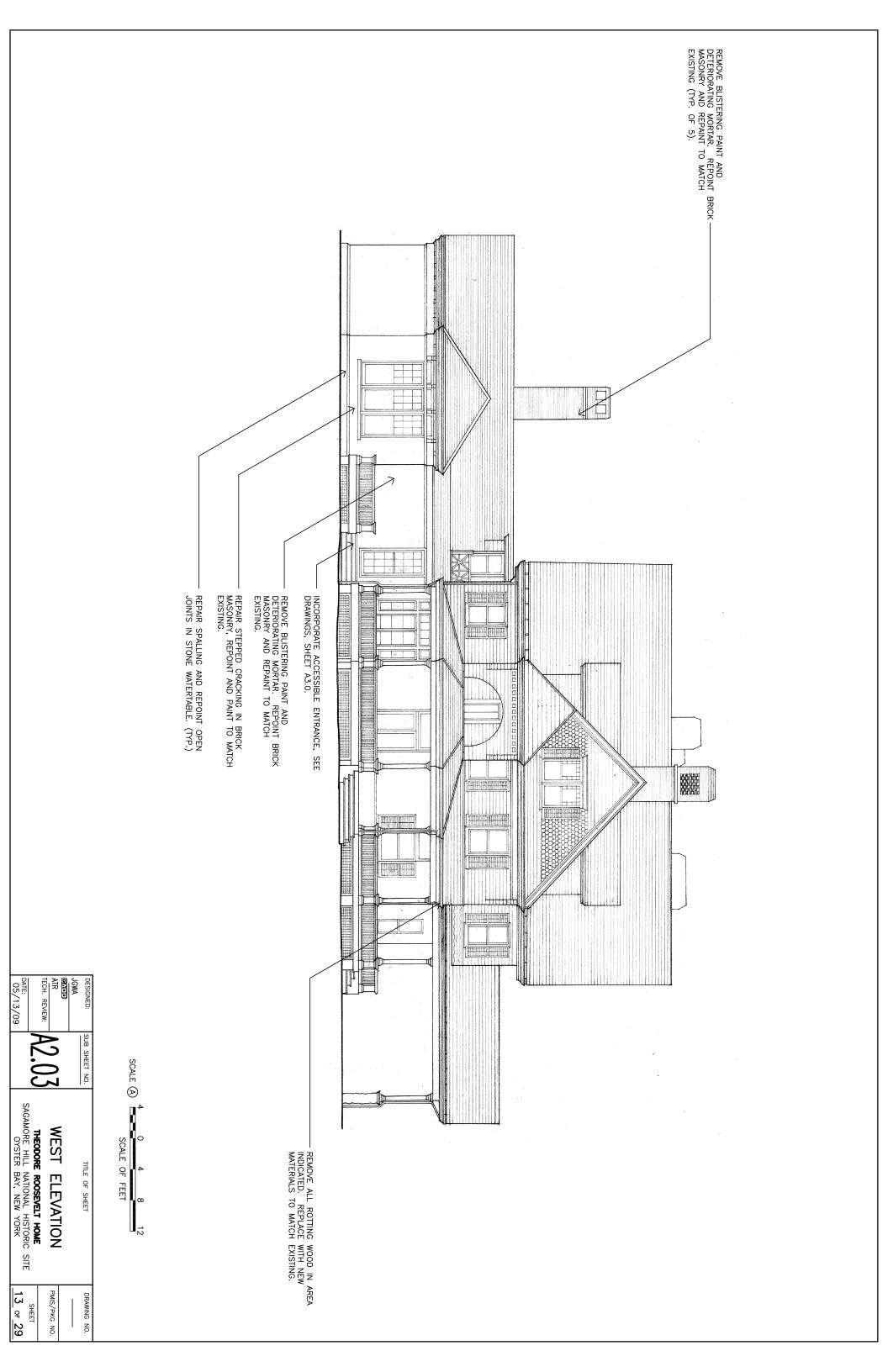


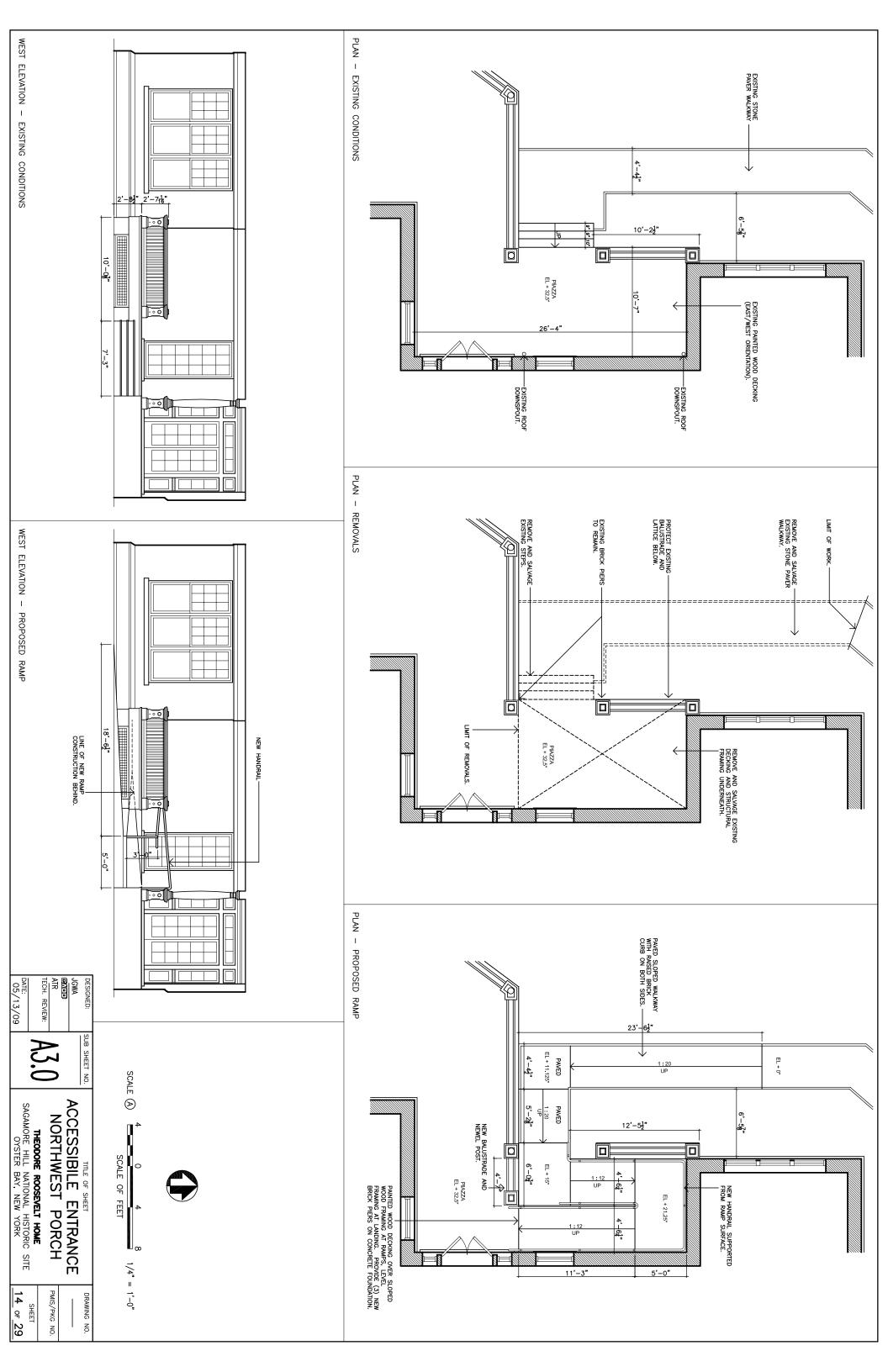


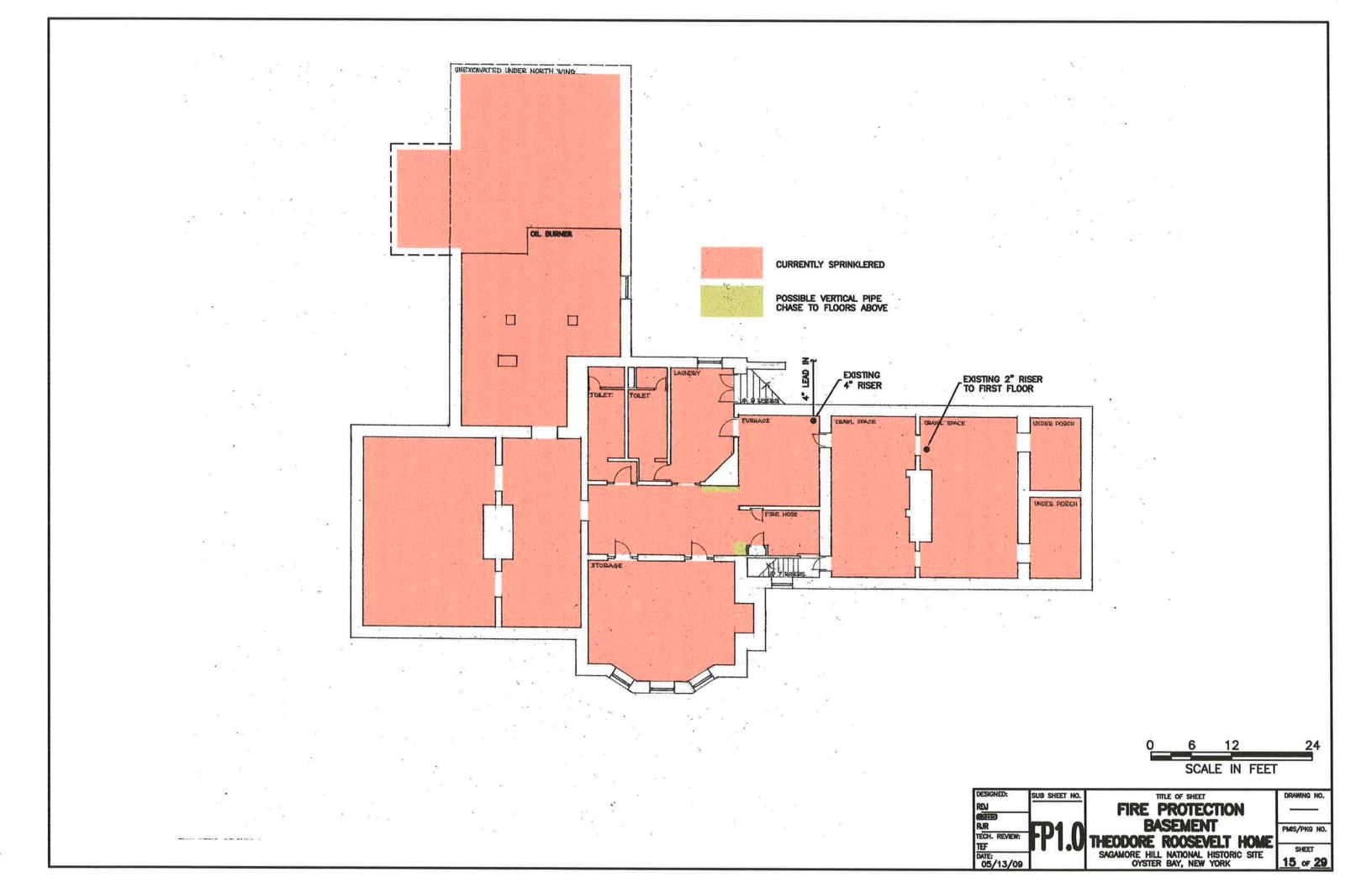


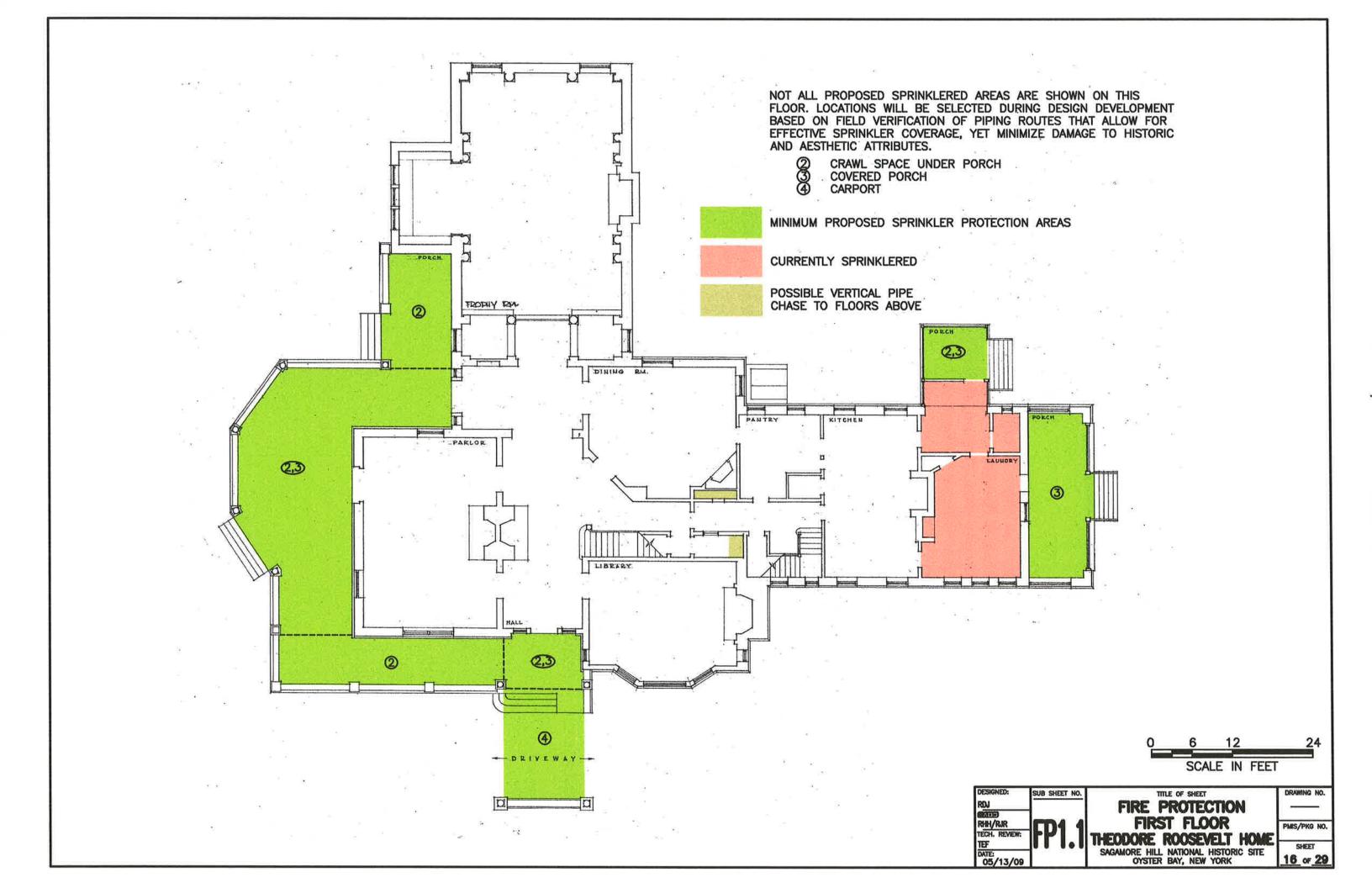


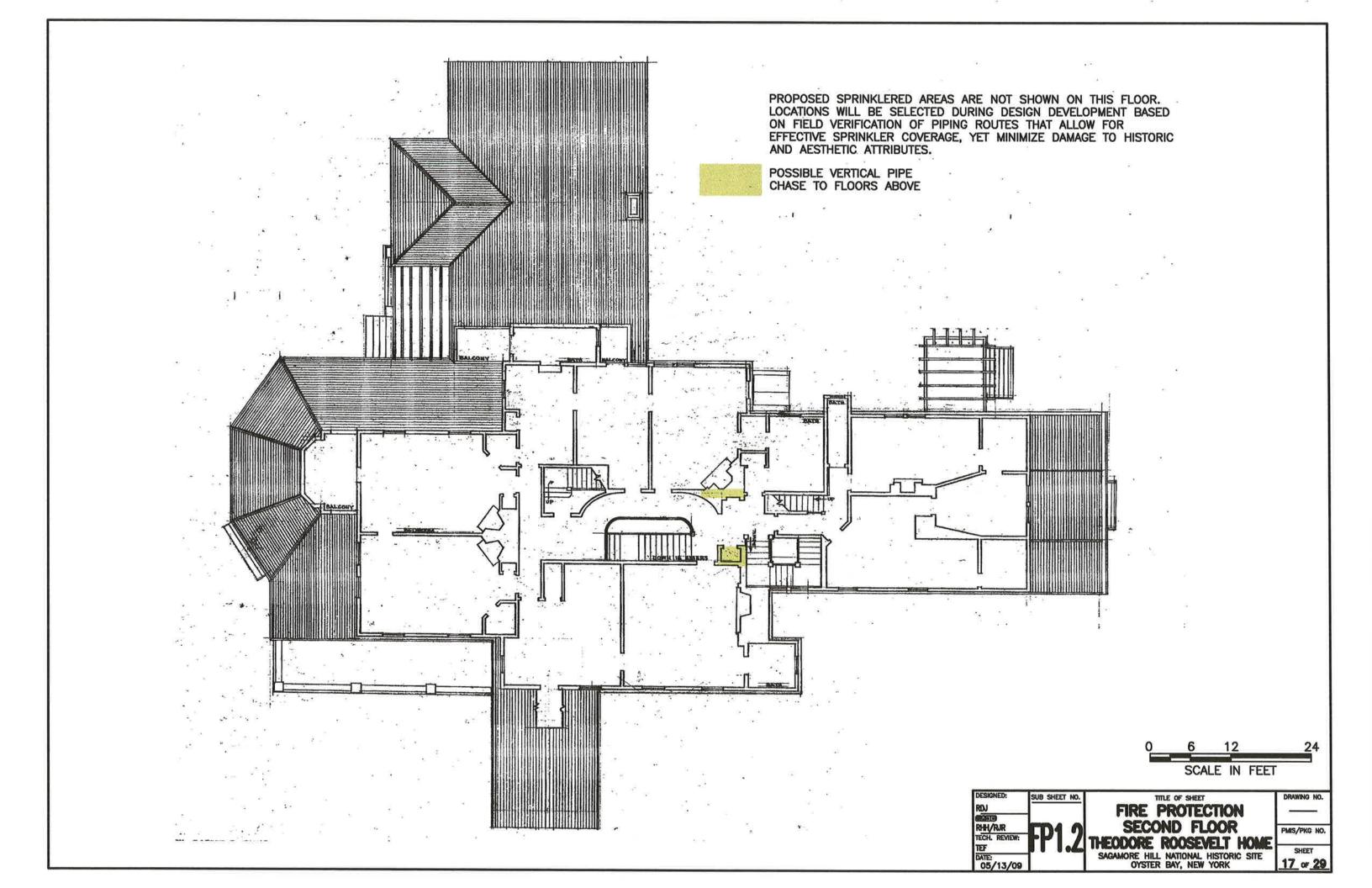


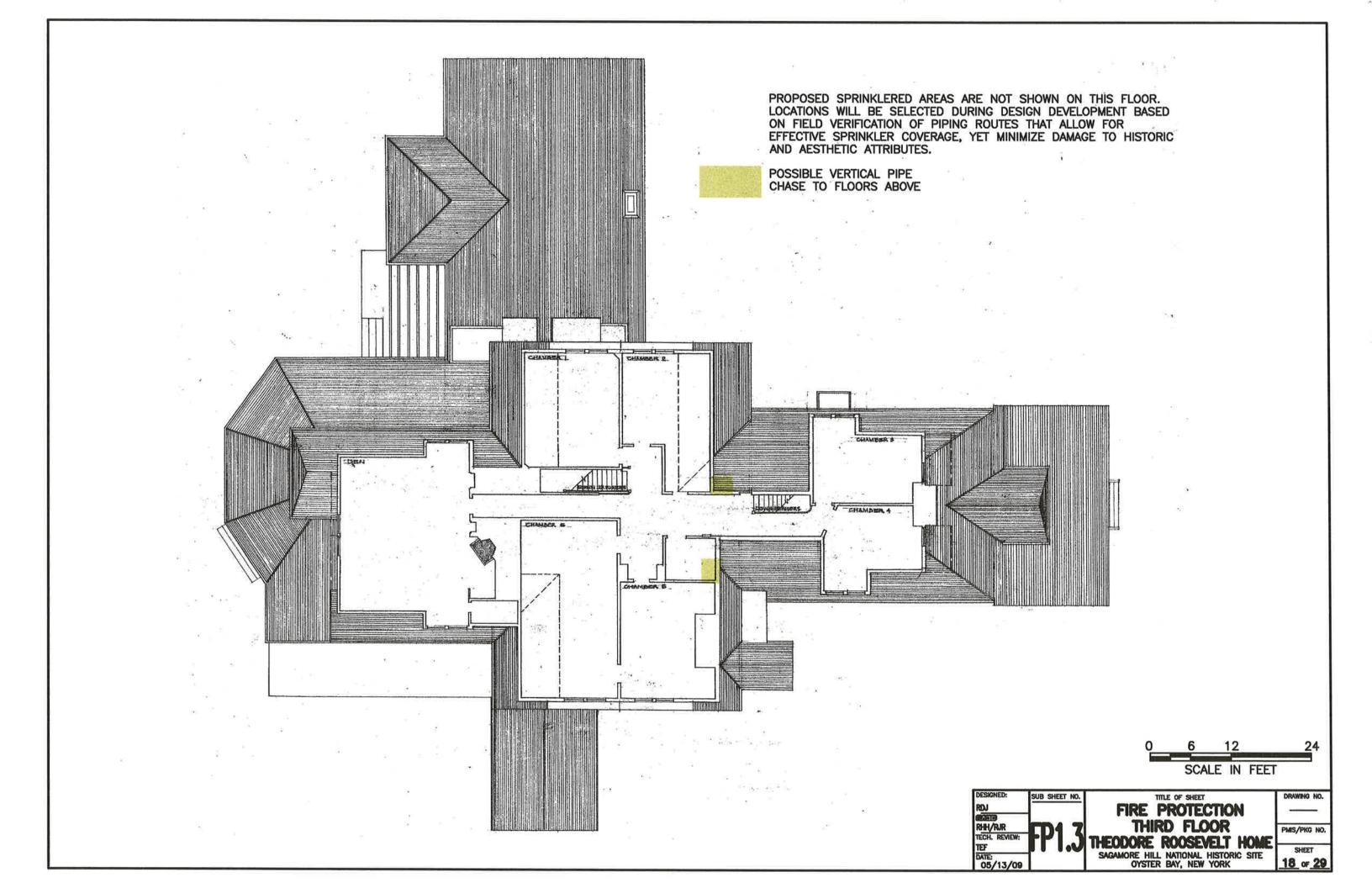


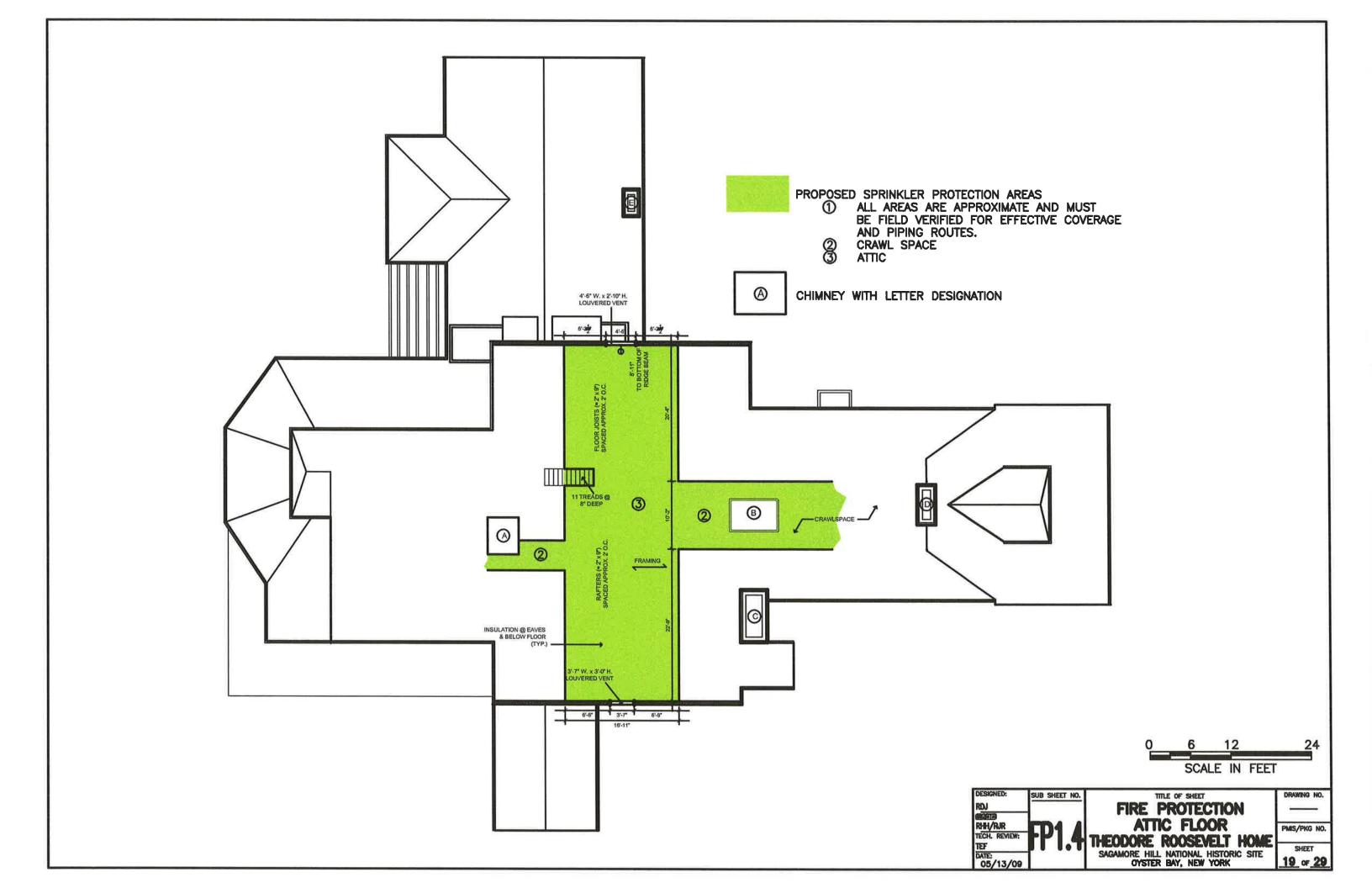












PIPING SYMBOLS

MIDOLO
DESCRIPTION
HOT WATER SUPPLY/RETURN
REFRIGERANT LIQUID PIPING
REFRIGERANT SUCTION PIPING
DOMESTIC COLD WATER MAKE-UP
DRAIN LINE
VENT LINE
ARROW INDICATES DIRECTION OF LOW
PITCH PIPE DOWN IN DIRECTION OF ARROW
PIPE ANCHOR
PIPE GUIDE
PIPE EXPANSION JOINT
EXPANSION COMPENSATOR
EXPANSION LOOP (SIZE)
FLEXIBLE BALL JOINT EXPANSION COMPENSATOR

SYMBOL	DESCRIPTION
	UNION
	CAPPED PIPE WITH GATE SHUT-OFF VALVE
<u></u>	DIRT POCKET
	'Y' TYPE STRAINER WITH BLOW-OFF VALVE
→ • • • • • • • • • • • • • • • • • • •	ELBOW TURNED UP
← → •	ELBOW TURNED DOWN
	BOTTOM PIPE CONNECTION
	TOP PIPE CONNECTION
₩	SLOPE CHANGE IN PIPE ELEVATION
	GATE VALVE
	GLOBE VALVE
	CHECK VALVE
	AUTOMATIC THREE WAY VALVE
	AUTOMATIC TWO WAY VALVE
	RELIEF VALVE
	RELIEF OR SAFETY VALVE
□●□ ⊢●⊢	BALL VALVE

SYMBOL	DESCRIPTION
STMBUL	DESCRIPTION
⊶≎⊶	VALVE IN THE VERTICAL
~ ^ ^ 	MANUAL AIR VENT
<u>↑ ^ </u> s	AUTOMATIC AIR VENT
<u> </u>	THERMOMETER
├	PIPE SENSOR WELL
Ç,	PRESSURE GAUGE AND COCK
₽ °	FLOW BALANCING STATION
├ ────ऽ	TRAP - TYPE AS NOTED
←	HEATING ELEMENT
- ≫	HEATING ELEMENT WITH AUTOMATIC CONTROL VALVE
AH 3	EQUIPMENT DESIGNATION EQUIPMENT TYPE EQUIPMENT TAG NUMBER
FTR - A 10'-0" A.L.	FIN TUBE DESIGNATION FTR TYPE ACTIVE LENGTH

DUCTWORK SYMBOLS

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	POSITIVE PRESSURE DUCT (SUPPLY) UP		SQUARE DUCT ELBOW WITH TURNING VANE
	NEGATIVE PRESSURE DUCT (RETURN OR EXHAUST) UP		RADIUS ELBOW
⊠ <u></u> ⊠—~	POSITIVE PRESSURE DUCT (SUPPLY) DOWN	西江	DUCT SPLIT
	NEGATIVE PRESSURE DUCT (RETURN OR EXHAUST) DOWN	₽ 5₹	BRANCH TAKE-OFF WITH VOLUME DAMPER
□	SLOPING RISE IN DUCTWORK		DUCT COIL HC - HEATING COIL; CC - COOLING COIL
□□	SLOPING DROP IN DUCTWORK		CEILING DIFFUSER 4 WAY, 3 WAY, 2 WAY, 1 WAY
CBAD	ACCESS DOOR IN DUCT	E	SLOT DIFFUSER
18:12	DUCT SIZE (CLEAR INSIDE DIMENSION) FIRST FIGURE INDICATES PLAN DIMESION	Ø	RETURN REGISTER OR GRILLE
18"e	ROUND DUCT DIAMETER SIZE	100	TRANSFER GRILLE ON BOTH SIDES OF PARTITION OR WALL
	FLEXIBLE CONNECTION	<u> </u>	SUPPLY TOP REGISTER OR GRILLE
0 800	BACK DRAFT DAMPER	<u> </u>	RETURN TOP REGISTER OR GRILLE
\$	VOLUME DAMPER	- L =	LOUVERED DOOR
	AUTOMATIC LOUVER DAMPER	- U =	UNDERCUT DOOR
\$ \\ \bar{\bar{\bar{\bar{\bar{\bar{\bar{	FUSIBLE LINK FIRE DAMPER WITH DUCT ACCESS DOOR		ACOUSTIC LINING IN DUCT (SIZE NOTED INDICATES CLEAR INSIDE DIMENSION)
₩750 ₩F50	FIRE SMOKE DAMPER WITH FUSIBLE LINK AND ACCESS DOOR		FIRE RATED ENCASED DUCT
₩FSD(HS) ₩FSD(HS)	FIRE SMOKE DAMPER (RESETTABLE TYPE) WITH HEAT SENSOR AND ACCESS DOOR	(TX)	RISER DESIGNATION RISER SERVICE RISER NUMBER
			1

MISCELLANEOUS SYMBOLS

SYMBOL	DESCRIPTION
A M-2	SECTION SECTION DRAWING LOCATION
\triangle	REVISION NUMBER
0	THERMOSTAT AND WIRING
19	TEMPERATURE SENSOR
€ T	HUMIDITY SENSOR
(H)	HUMIDISTAT AND WIRING
<u>\$</u>	DUCT SMOKE DETECTOR

GENERAL NOTES

- 1. WHERE PIPING, LIGHTS AND DUCTWORK CONFLICT, DUCTWORK SHALL BE COORDINATED TO SUIT CONDITIONS.
- 2. CONTRACT SHALL PROPOSE CHANGES IN DUCT SIZES AND/OR LOCATIONS WHERE NECESSARY TO CONFORM TO SPACE CONDITIONS.
- 3. ALL DUCTWORK TO BE KEPT AS HIGH AS POSSIBLE SO AS TO MAINTAIN CEILING HEIGHTS SHOWN ON ARCHITECTURAL DRAWINGS.
- 4. WHERE PIPING. LIGHTS AND DUCTWORK CONFLICT, DUCTWORK SHALL BE SET UP AND DOWN.
- 5. PROVIDE VOLUME DAMPERS ON ALL SPLITS AND TAPS FOR ALL LOW PRESSURE DUCTWORK.
- 6. ACCESS IS REQUIRED BELOW ALL DAMPERS, AC UNITS, VALVES AND TERMINAL BOXES, AND OTHER MECHANICAL EQUIPMENT.
- 7. FOR EXACT LOCATION OF CEILING DIFFUSERS AND REGISTERS, REFER TO ARCHITECT'S REFLECTED CEILING PLAN.
- 8. CONTRACTOR SHALL REVIEW ARCHITECTURAL PLANS AND SHALL BE RESPONSIBLE FOR FURNISHING ALL AIR OUTLETS WITH FRAMES AND BORDER COMPATIBLE WITH CEILING OR FLOOR CONSTRUCTION.
- 9. FOR EXACT LOCATIONS OF THERMOSTATS, HUMIDISTATS AND SWITCHES, REFER TO ARCHITECTURAL DRAWINGS.
- 10. CONTRACTOR SHALL BALANCE ENTIRE SYSTEM TO CONFORM TO AIR
- 11. PROVIDE COMBINATION FIRE/SMOKE DAMPERS (WITH ACCESS DOORS) AT THE FOLLOWING POINTS:
- $\alpha.$ Point of Passing through shaft walls to connect to vertical risers.
- b. WHERE PASSING THROUGH FLOOR OR CEILING CONSTRUCTION (NOT IN AIR
- c. WHERE PASSING THROUGH FIRE RATED PARTITIONS (REFER TO ARCHITECTURAL DRAWINGS FOR LOCATION OF FIRE RATED PARTITION).
- d. WHERE INDICATED OR REQUIRED BY CODE.

- 13. PROVIDE AUTOMATIC VENTS AT ALL HIGH POINTS OF ALL WATER SYSTEMS.
- 14. PROVIDE ON ALL MAIN BRANCH PIPING ONE (1) SHUT-OFF VALVE ON THE SUPPLY PIPE AND ONE (1) COMBINATION SHUT-OFF/BALANCING VALVE WITH PRESSURE/TEMPERATURE TAPS AND MEMORY STOP ON THE RETURN PIPE.
- 15. PROVIDE VOLUME DAMPERS IN LOW PRESSURE DUCTWORK FOR ALL SUPPLY, RETURN, AND EXHAUST OUTLETS (EXCEPT FL) PROVIDE VOLUME DAMPERS (VD) AT EVERY DUCTWORK BRANCH, TAP AND SPLIT.
- 16. PROVIDE ACCESS DOORS IN DUCTWORK OR PLENUMS WHERE INDICATED OR REQUIRED FOR ACCESS TO SYSTEM COMPONENTS INCLUDING, BUT NOT LIMITED TO THE FOLLOWING:

- a. AUTOMATIC DAMPERS.
 b. FILTER BANKS
 c. FIRE DAMPERS.
 d. COMBINATION FIRE SMOKE DAMPERS.
- 18. HOT WATER PIPING:
- o. PROVIDE MINIMUM PITCH TO INSURE ADEQUATE VENTING AND DRAINAGE.
- b. PROVIDE AS REQUIRED, AUTOMATIC AIR VENTS, MANUAL AIR VENTS AND
- 19. ALL MOTOR STARTERS LOCATED OUTDOORS OR EXPOSED TO WET OR DAMP CONDITIONS SHALL BE NEMA TYPE 4.
- 20. NO PIPING SHALL BE SMALLER THAN 3/4 INCH UNLESS OTHERWISE
- 21. FOR PIPE SIZES NOT INDICATED ON PLANS, SEE EQUIPMENT CONNECTION DETAILS.
- 22. PROVIDE FITTINGS FOR CHANGE IN PIPE SIZES FOR FINAL CONNECTIONS AS REQUIRED.

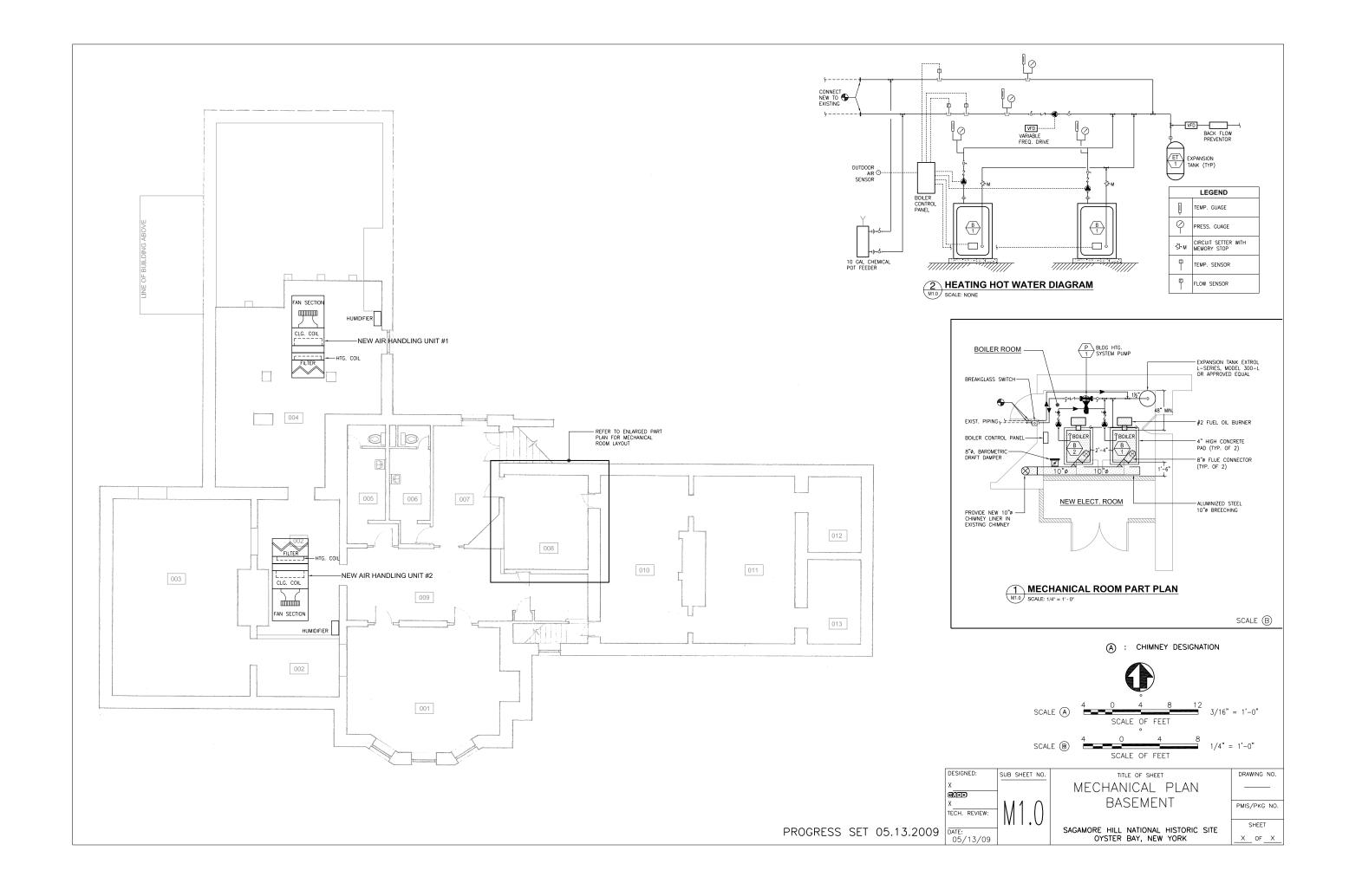
- 23. PROVIDE UNION OR FLANGED CONNECTIONS AT EACH PIECE OF EQUIPMENT AND ON BOTH SIDES OF CONTROL VALVES.
- 24. DRAINAGE PIPING PITCH NOT LESS THAN 1/8 PER FOOT.
- 25. ALL DUCT DIMENSIONS ARE CLEAR INSIDE DUCT DIMENSIONS
- 26. THE MINIMUM EXTERNAL STATIC PRESSURE NOTED ON THE AHU OR AC UNIT SCHEDULES IS EXCLUSIVE OF COMPONENTS FURNISHED BY THE UNIT MANUFACTURER AS PART OF THE UNIT INLCUDING, BUT NOT LIMITED TO, ALL COILS, ALL FILTERS (UNIT CASING, DISCHARGE PLENUM, DIFFUSION SECTION, HUMIDIFIER, SOUND ATTENUATOR, DAMPERS (INLET AND DISCHARGE), ETC.
- $\ensuremath{\mathsf{27}}.$ ALL DUCTS ELBOW SHALL BE ROUND ELBOW EXCEPT WHERE THERE IS A SPACE CONDITION.
- 28. ALL DUCTS SERVING ELEVATOR HOISTWAY FOR SMOKE VENTING SHALL BE PROVIDED WITH TWO (2) HOUR RATED ENCLOSURE.
- 17. FOR AREAS WITH INACCESSIBLE CEILINGS, VOLUME DAMPERS SHALL BE PROVIDED WITH METAL FLEXIBLE STEEL CABLE OPERATORS FOR REMOTE OPERATION INSPECTIONS AS PART OF THIS CONTRACT. MECHANICAL CONTRACTOR SHALL PROVIDE THE NAME OF A LICENSED PROFESSIONAL ENGINEER TO ARCHITECT WHEN AWARDED THE CONTRACT.
 - 30. CONTRACTOR SHALL COORDINATE LOCATION OF SERVICE CONNECTION AND SLAB PENETRATIONS WITH EQUIPMENT MANUFACTURER'S. PROVIDE FINAL CONNECTION TO EQUIPMENT PER MANUFACTURER'S RECOMMENDATION.
 - 31. PROVIDE SMOKE DETECTOR AT SUPPLY MAIN DUCT FOR A.C. UNIT WITH AIR CAPACITY MORE THAN 2000 CFM.

	DESIGNED:	SUB SHEET N
	X	
	<u> </u>	
	X	\
	TECH. REVIEW:	1 M()
)9	DATE:	11101
	05/13/09	

TITLE OF SHEET MECHANICAL SYMBOLS, NOTES, SCHEDULES & ABBREVIATIONS SAGAMORE HILL NATIONAL HISTORIC SITE OYSTER BAY, NEW YORK

PMIS/PKG NO. SHEET

PROGRESS SET 05.13.200



	AIR HANDLING UNIT SCHEDULE																											
TAG	MANUFACTURER	MODEL#	LOCATION	SERVICE	FAN			FAN DATA	ı			COOLING DATA					HEATING COIL DATA						UN	UNIT ELECTRICAL				
					TYPE	TOTAL	MIN	EXT			TOTAL	SENSIBLE	COIL	ENT	FACE				COIL ENT	COIL LVG	WAT	ER		PRESS				
						AIRFLOW	OA	SP	FAN	MOTOR	CAPACITY	CAPACITY	CONDI.	TIONS	AREA			CAPACITY	CONDITIONS	CONDITIONS	CONDI	TIONS	FLOW	DROP		MCA	MFS	
						CFM	CFM	IN. W.C.	FLA	HP	MBH	мвн	DB	WB	SQ. FT	ROWS	FINS	MBH	DB (°F)	DB (°F)	ENT °F	LVG °F	GPM	FT H ₂ O	VOLT/PH/HZ	AMPS	AMPS	LBS
AH – 1	TEMPTROL		BASEMENT	SEE PLANS	PLENUM	2500	500	1.00"		2	-	-	-	-	-	-	-	172.8	56	120	180	160	17.3	-	208/1/60	-	-	
AH-2	TEMPTROL		BASEMENT	SEE PLANS	PLENUM	5000	1000	1.25"		5	-	-	-	-	-	-	-	345.6	56	120	180	160	34.6	-	208/1/60	-	-	

- NOTES:

 1. UNIT SHALL BE FURNISHED IN SPLIT SECTION TO FACILITATE RIGGING TO BASEMENT SPACE

 2. FAN SECTION SHALL FURNISHED AS KNOCKDOWN TO FACILITATE RIGGING TO BASEMENT SPACE

 3. UNIT TO BE ASSEMBLED AT SITE AND INSTALLATION CERTIFIED BY FACTORY TRAINED TECHNICIAN

	HOT WATER BOILER SCHEDULE																											
ITEM	MANUFACTURER	MODEL	LOCATION	INPUT	OUTPUT	WATER	TEMP	WATER	PRESSURE		BURNER (FUEL OIL)					NOT TO EXCEED DIMENSIONS				ELECTRICAL DATA				OPERTING	MAX	REFLIEF	EFFICIENCY	
				#2 FUEL	мвн	ENT	LVG	FLOW RATE	DROP	MFR	MFR MODEL STAGES		ELECTRICAL			WIDTH	DEPTH	HEIGHT	FLUE					WT	WORKING	VALVE	AFUE	
				OIL GPH		°F	°F	(GPM)	FT (H20)				HP	VOLT	PH	HZ	(IN)	(IN)	(IN)	(IN DIA)	VOLTS	PH	HZ	AMPS	LBS	PRESSURE	SETING	
B-1,2	WEIL-MC-LAIN	MODEL 480	BOILER ROOM	3.4	344	160	180	35	±5 FT	RIELLO	F20	ON-OFF	1/8	115	1ø	60	30"	40"	48"	8"	120	1	60	15	1500	80 PSIG	30 PSIG	83%

- NOTES:

 1. BOILER SHALL BE PROVIDED AS KNOCK DOWN, ASSEMBLED AT SITE.

 2. BOILER SHALL BE CAPTURED SEAL DESIGN, ASME IRON AND LOW NOX OPTION.

 3. PROVIDE 5 YEARS PARTS AND LABOR WARRANTY.

	PUMP SCHEDULE														
TAG	TAG MANUFACTURER TYPE MODEL # SERVICE LOCATION FLOW RATE EFFICIENT WORKING HEAD MOTOR DATA ISOLATION NOTES														
						GPM	(%)	FLUID	(FT H20)	RPM	HP	VOLT/PH/HZ	TYPE	DEFL. (IN)	
P-1&2	TACO	INLINE	111	BOILER LOOP	BOILER ROOM	35	-	WATER	7	1725	1/8	115/1/60	SPNH	1 (IN)	
P-3	TACO	INLINE	1635	HW LOOP	BOILER ROOM	70	ı	WATER	30	1750	1.0	208/1/60	SPNH	1 (IN)	PROVIDE VFD

	AIR SEPARATOR SCHEDULE														
1			SYSTEM	PIPE	MAX.	MAX.	OPERATING	SHIPPING							
ITEM	MANUFACTURER	MODEL NO.	SERVING	SIZE	INLET	WORKING	FLOW	WT	NOTES						
1					PRESSURE	PRESSURE									
	INCH PSIG PSIG GPM LBS														
AS-1	TACO	49025AD	HOT WATER	2½"	30	125	70	60	FLANGED CONNECTIONS						

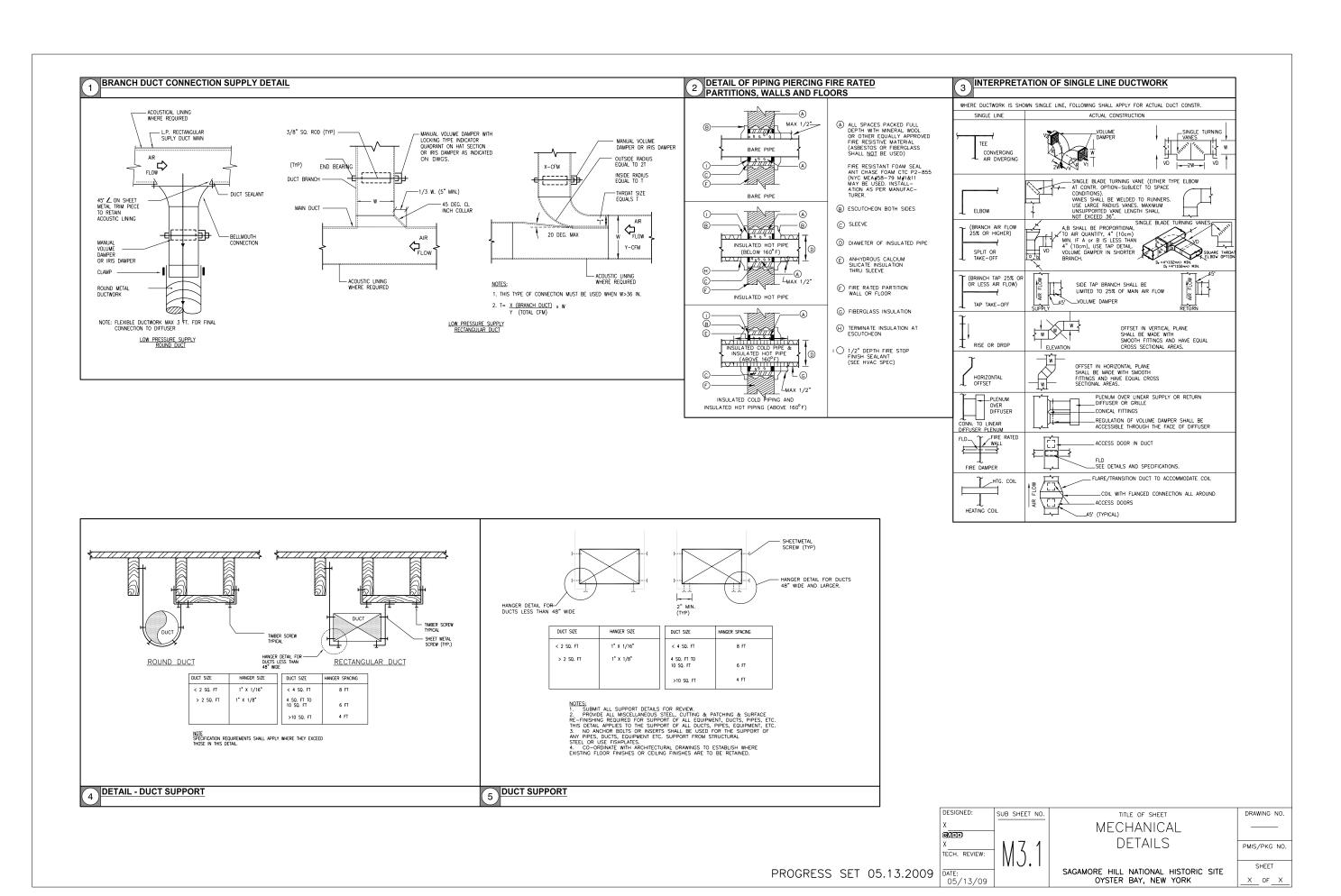
	EXPANSION TANK SCHEDULE														
TAG	SERVED ACCEPTANCE VOLUME CHARGE UNIT OPERATING WEIGHT VOLUME WATER PRESSURE PRESSURE TEMP.														
ET-1	AMTROL	300-L	BOILER ROOM	HOT WATER	GALLONS 80	GALLONS 80	52 52	24"	PSIG 12	PSIG 30	180	LBS 268	ASME RATED		

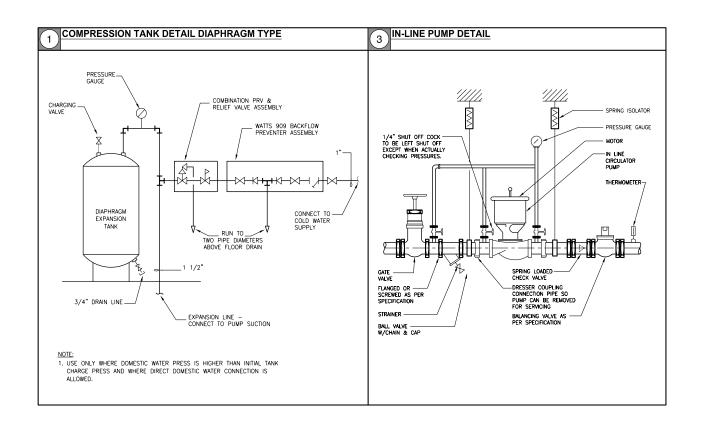
DESIGNED: SUB SHEET NO. omeo (PROGRESS SET 05.13.2009 DATE: 05/13/09

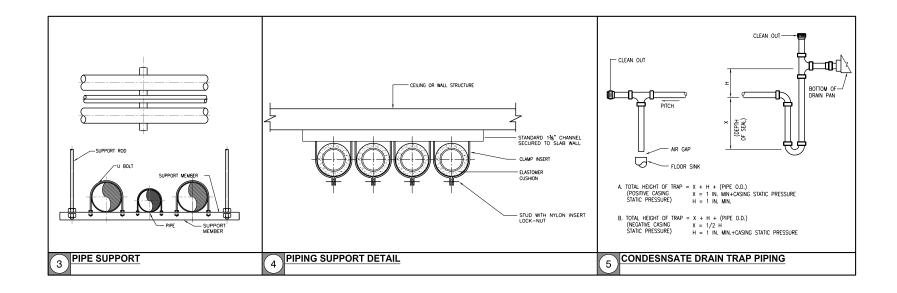
TITLE OF SHEET MECHANICAL SPECIFICATIONS

SAGAMORE HILL NATIONAL HISTORIC SITE OYSTER BAY, NEW YORK

PMIS/PKG NO. SHEET







DESIGNED: SUB SHEET NO. TITLE OF SHEET DRAWING NO. MECHANICAL 9.100 DETAILS PMIS/PKG NO. TECH. REVIEW: SAGAMORE HILL NATIONAL HISTORIC SITE OYSTER BAY, NEW YORK DATE: 05/13/09

SHEET

	WIRING DEVICES							
SYMBOL	DESCRIPTION							
3°	20A SPST TOGGLE SWITCH U.O.N. - 'o' DENOTES LIGHTING FIXTURE CONTROLLED (TYPICAL FOR ALL SWITCHES)							
33	3-WAY SWITCH							
3,	4-WAY SWITCH							
3 _D	WALL DIMMER SWITCH - RATED FOR 1500 WATTS UNLESS OTHERWISE NOTED							
-0	WALL MOUNTED SIMPLEX RECEPTACLE, 20A,125V, 2P. 3W (GROUNDED) NEMA CONFIG. 5-20R							
#	WALL MOUNTED DUPLEX RECEPTACLE, 20A,125V, 2P, 3W (GROUNDED) NEMA CONFIG. 5-20R							
-	WALL MOUNTED DOUBLE DUPLEX RECEPTACLE IN 2 GANG BOX, 20A,125V,2P, 3W (GROUNDED) NEMA CONFIG. 5-20R							
Θ	FLOOR MOUNTED SIMPLEX RECEPTACLE, 20A,125V, 2P,3W (GROUNDED) NEMA CONFIG. 5-20R							
	FLOOR MOUNTED DUPLEX RECEPTACLE, 20A,125V, 2P, 3W (GROUNDED) NEMA CONFIG. 5-20R							
IG⊞ or ⊞IG	FLOOR MOUNTED DOUBLE DUPLEX RECEPTACLE IN 2 GANG BOX, 20A, 125V,2P, 3W (GROUNDED) NEMA CONFIG. 5-20R IG - DENOTES RECEPTACLE TO BE PROVIDED WITH ISOLATED GND							
-0	WALL MOUNTED SIMPLEX RECEPTACLE, 125V, 2P, 3W (GROUNDED) LETTER DENOTES AMPERE RATING: A - (30A) NEMA CONFIG 5-30R							
□₩	DUPLEX RECEPTACLE MOUNTED IN SERVICE FITTING SECURED TO FLOOR BOX							
Ф	CEILING MOUNTED DUPLEX RECEPTACLE, 20A,125V, 2P, 3W (GROUNDED) NEMA CONFIG. 5-20R							
o q	CEILING/WALL MOUNTED OUTLET TYPE JUNCTION BOX							
	UON, FLOOR BOX CONSISTING OF THREE(3) DUPLEX RECEPTACLES AND TELECOMMUNICATION SYSTEM OUTLETS. THE BOX SHALL BE BY FSR, FL SERIES OR APPROVED EQUAL.							
	UON, CEILING MOUNTED RECEPTACLE CONSISTING OF THREE(3) DUPLEX RECEPTACLES AND TELECOMMUNICATION SYSTEM OULLETS. THE BOX SHALL BE BY FSR, FL SERIES OR APPROVED EQUAL.							
B	FLOOR BOX CONSISTING OF THREE(3) DUPLEX RECEPTACLES. THE BOX SHALL BE BY FSR, FL SERIES OR APPROVED EQUAL.							
(H)	CEILING MOUNTED RECEPTACLE CONSISTING OF THREE(3 DUPLEX RECEPTACLES. THE BOX SHALL BE BY FSR, FL SERIES OR APPROVED EQUAL.							
Ø	FLOOR JUNCTION BOX							
×	CONDUIT STUBBED UP FROM FLOOR							

REFER TO DWG E-0.2 FOR GENERAL NOTES

	POWER										
SYMBOL	DESCRIPTION										
<u>A</u> ⊠¹	COMBINATION MOTOR STARTER NUMERAL DENOTES NEMA SIZE: "A" DENOTES SWITCH/CIRCUIT BREAKER RATING "B" DENOTES FUSE SIZE/TRIP RATING										
0	MOTOR IN MECHANICAL SYSTEM EQUIPMENT										
A □	FUSED DISCONNECT SWITCH: - "A" DENOTES SWITCH SIZE - "B" DENOTES FUSE SIZE IF INDICATED										
VFD	VARIABLE FREQUENCY DRIVE										
	UNFUSED DISCONNECT SWITCH. RATING SAME AS UPSTREAM BRANCH CIRCUIT PROTECTIVE DEVICE.										
*CB	CIRCUIT BREAKER IN NEMA 1 ENCLOSURE: - 'A' DENOTES FRAME - 'B' DENOTES TRIP SETTING.										
₩	METERING AND CURRENT/POTENTIAL TRANSFORMER AS REQUIRED										
PAN	ELBOARD AND CABINETS										
SYMBOL	DESCRIPTION										
	LIGHTING AND APPLIANCE PANELBOARD										
	POWER OR DISTRIBUTION PANELBOARD										
Е	QUIPMENT IDENTIFICATION										
SYMBOL	DESCRIPTION										
APL	208/120V LIGHTING AND APPLIANCE PANEL										
PP	208/120V POWER AND DISTRIBUTION PANEL										
(A)	EQUIPMENT LEGEND SYMBOL - 'A' DENOTES EQUIPMENT NAME TAG - 'B' DENOTES EQUIPMENT LEGEND SYMBOL NUMBER										
CA	BLES & CONDUIT SYSTEMS										
SYMBOL	DESCRIPTION										
	CONDUIT TURNING UP										
•	CONDUIT TURNING DOWN										
<u> </u>	CONDUIT STUB WITH WIRE PULL AND CAP										
	PULLBOX OR JUNCTION BOX LARGE CUSTOM FABRICATED TYPES										
	CONCRETE ENCASED UNDER GROUND/UNDER SLAB CONDUIT DUCT BANK										
	CONDUIT BANK										
\boxtimes	CONDUIT BANK UP										
	CONDUIT BANK DOWN										
	MISCELLANEOUS										
	LINE TYPE REPRESENTING NEW ELECTRICAL SYSTEM EQUIPMENT, DEVICE, FEEDER ETC.										
	U.O.N., LINE TYPE REPRESENTING EXISTING ELECTRICAL SYSTEM EQUIPMENT, DEVICE, FEEDER ETC. TO REMAIN.										
XX	LINE TYPE REPRESENTING EXISTING ELECTRICAL SYSTEM EQUIPMENT, DEVICE, FEEDER ETC. TO BE REMOVED.										
E	SUBSCRIPT 'E' DENOTES EXISTING EQUIPMENT										
ER	SUBSCRIPT 'ER' DENOTES EXISTING EQUIPMENT TO BE RELOCATED										
R	SUBSCRIPT 'R' DENOTES EXISTING EQUIPMENT RELOCATED										

	EX	IT SIGNS
SYMBOL	DESCRIPTION	NOTES
⊗-1	WALL MOUNTED EXIT SIGN	APPLICATION OF SHADED QUADRANTS AND ARROWS THUS:
⊗	CEILING MOUNTED EXIT SIGN	PA INDICATE LETTERED FACE AND DIRECTIONAL ARROWS AT SYMBOLS FOR SIGNS FOR WHICH SELECTION OF SUCH FEATURES IS REQUIRED. SUBCRIPT DESIGNATIONS 'PA' INDICATE EXIT SIGN TYPE REFERENCES TO LIGHTING FIXTURE LIST.
	LIGHT	ING FIXTURES
1 PA-1	- "b" DENOTE: EM - "EM" DENOT	Fixture Otes fixture type 5 Control Zone Es emergency light fixture 5 Circuit Number

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION						
A, AMP	AMPERE DESCRIPTION	MIC	MICROPHONE						
AIC	AMPS INTERRUPTING CAPACITY	MIN	MINIMUM						
AC	ALTERNATING CURRENT	MS	MAIN SWITCHBOARD						
AFF	ABOVE FINISHED FLOOR	MTD	MOUNTED						
AP	APPLIANCE PANEL	MISC	MISCELLANEOUS						
ATS	AUTOMATIC TRANSFER SWITCH	MMV	MEDIUM VOLTAGE						
BLDG	BUILDING	NEC	NATIONAL ELECTRICAL CODE						
BMS	BUILDING MANAGEMENT SYSTEM	N N	NEUTRAL						
BFG	BELOW FINISHED GRADE	N/A	NOT APPLICABLE						
C, CDT	CONDUIT	NEMA	NATIONAL ELECT. MANUFACTURERS ASSOCIATION						
CB	CIRCUIT BREAKER	NIC.	NOT IN CONTRACT						
CKT	CIRCUIT	NL NL	ON NIGHT LIGHTING CIRCUIT						
	CLOSET	NTS	NOT TO SCALE						
CLS	CABLE SUPPORT	oc oc	ON CENTER						
		l l							
DC	DIRECT CURRENT	OCD	OVERCURRENT DEVICE						
EC	EMPTY CONDUIT	OL.	OVERLOAD						
EM	ON EMERGENCY CIRCUIT	P	POLES						
EMT	ELECTRICAL METALLIC TUBING	PB	PULL BOX						
EL	ELEVATION	PF	POWER FACTOR						
ELEC	ELECTRIC	PFC	POWER FACTOR CORRECTION						
ELEV	ELEVATOR	PH, ø	PHASE						
EP	EXPLOSION PROOF	PNL	PANEL						
EQPM	EQUIPMENT	PVC	POLYVINYL CHLORIDE						
EXIST	EXISTING	PWR	POWER						
FDR	FEEDER	RC	REMOTE CONTROL						
FIN	FINISH	REC	RECEPTACLE						
FIXT	FIXTURE	REQ	REQUIRED						
FLUOR	FLUORESCENT	RM	ROOM						
FA	FIRE ALARM	RMS	ROOT MEAN SQUARE						
FLA	FULL LOAD AMPS	SPECS	SPECIFICATIONS						
FSD	FIRE SMOKE DAMPER	SPDT	SINGLE POLE DOUBLE THROW						
FT	FEET	SPKLR	SPRINKLER						
GA	GAUGE	SPKR	SPEAKER						
GALV	GALVANIZED	SQ	SQUARE						
G, GRD	GROUND	STD	STANDARD						
GFI	GROUND FAULT INTERRUPTER	SPST	SINGLE POLE SINGLE THROW						
HGT	HEIGHT	SURF	SURFACE						
HID	HIGH INTENSITY DISCHARGE	SYM	SYMMETRICAL						
H0A	HAND-OFF-AUTOMATIC	SW	SWITCH						
HP	HORSE POWER	SWBD	SWITCHBOARD						
HTG	HEATING	SWGR	SWITCHGEAR						
HVAC	HEATING VENTILATING AND AIR CONDITIONING	TC	TERMINAL CABINET						
IG	ISOLATED GROUND	TEL	TELEPHONE						
IN	INCHES	TELCO	TELEPHONE CO.						
J, JB	JUNCTION BOX	TYP	TYPICAL						
KWH	KILOWATT HOURS	TV	TELEVISION						
KVA	KILO VOLT- AMPERE	UG	UNDERGROUND						
KW	KILO WATT	UON	UNLESS OTHERWISE NOTED						
LC	LOCK & COVER	UPS	UNINTERRUPTIBLE POWER SUPPLY						
LP	LIGHTING PANEL	US	UNIT SUBSTATION						
LTG	LIGHTING	UNF	UNFUSED						
LV	LOW VOLTAGE	V	VOLT						
LVR	LOW VOLTAGE RELAY	VA	VOLT-AMPERES						
MA	MILLIAMPS	VENT	VENTILATING						
MCC	MOTOR CONTROL CENTER	VT	VAPORTIGHT						
мсм	THOUSAND CIRCULAR CENTER	w	WATT						
MCP	MOTOR CONTROL PANEL	WP	WEATHERPROOF						
MECH	MECHANICAL	wr	WIRING TROUGH						
MER	MECHANICAL EQUIPMENT ROOM	XFMR	TRANSFORMER						
	1	1							

	DESIGNED:	SUB SHEET NO.	
	CD		FLE
	GATO CD		AN
	TECH. REVIEW:		, •
2009	DATE: 05/13/09		SAGAMO

TITLE OF SHEET

ELECTRICAL SYMBOLS

AND ABBREVIATIONS

PMIS/PKG NO.

SACAMORE HILL NATIONAL HISTORIC SITE

SHEET

GAMORE HILL NATIONAL HISTORIC SITE OYSTER BAY, NEW YORK

PROGRESS SET 05.13.2009

GENERAL NOTE

EXISTING PREMISES

B. MISCELLANEOUS ELECTRICAL SYSTEMS THE CONTRACTOR SHALL VISIT THE JOB SITE TO DETERMINE EXISTING CONDITIONS AND COMPARE SAME WITH DRAWINGS AND SPECIFICATIONS AND SATISFY HIMSELF OF ALL CONDITIONS PRIOR TO SUBMISSION OF A BID PROPOSAL. CONTRACTOR SHALL BE ACQUAINTED WITH THE EXISTING ELECTRICAL INSTALLATIONS.

- ALL PANELS, SWITCHES, ETC. SHALL HAVE SUFFICIENT GUTTER SPACE AND LUGS TO ACCOMMODATE CONDUCTORS SHOWN. ALL MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE NEC AND ALL LOCAL CODES AND REGULATIONS. APPLICABL
- WHERE WIRE SIZES ARE INDICATED ON PLANS FOR INDIVIDUAL CIRCUITS, THE WIRE SIZE INDICATED SHALL APPLY TO THE COMPLETE CIRCUIT, UNLESS OTHERWISE NOTED
- ALL PULL BOXES IN FINISHED AREAS SHALL HAVE FACTORY APPLIED PRIME COAT OF PAINT. ALL JUNCTION BOXES AND PULL BOXES SHALL BE OF CODE GAUGE AND OF REQUIRED SIZE TO ACCOMMODATE NUMBER OF CONDUCTORS SHOWN.

5

6.

- ALL PANELBOARDS SHALL HAVE DOOR IN DOOR COVER AND BE KEYED ALIKE UNLESS OTHERWISE NOTED. CONTRACTOR SHALL VERIFY THE EXACT LOCATION, QUANTITIES, AND POWER REQUIREMENTS OF ALL MECHANICAL, PLUMBING AND ALL OTHER EQUIPMENT REQUIRING ELECTRICAL CONNECTION PRIOR TO ANY WORK.
- œ ONTRACTOR SHALL EXTEND WIRING FROM ALL JUNCTION BOXES, RECEPTACLES, WITCHES, ETC. AND MAKE FINAL CONNECTION AS REQUIRED TO ALL BUILDING QUIPMENT REQUIRING ELECTRICAL CONNECTIONS.
- VERIFY LOCATIONS AND QUANTITY OF ALL ELECTRICAL EQUIPMENT WITH ARCHITECTURAL DRAWINGS OR INTERIOR DETAILS. IN CENTERING OUTLETS AND LOCATING BOXES OR OUTLETS, ALLOW FOR OVERHEAD PIPES, DUCTS, MECHANICAL EQUIPMENT, VARIATIONS IFIREPROOFING AND PLASTERING, WINDOW AND DOOR TRIM, PANELING, HUNG CEILING, ETC., AND CORRECT ANY INACCURACY RESULTING FROM FAILURE TO DO SO WITHOUT EXPENSE TO OWNER. DRAWINGS ARE DIAGRAMMATIC AND INDICATE GENERAL ARRANGEMENT OF SYSTEMS AND WORK INCLUDED. SIZES AND LOCATION OF EQUIPMENT AND WIRING ARE SHOWN TO SCALE WHERE POSSIBLE, BUT MAY BE DISTORTED FOR CLARITY ON THE DRAWINGS. FINAL LOCATION OF OUTLETS AND EQUIPMENT SHALL BE AS APPROVED BY THE ARCHITECT OR HIS REPRESENTATIVE. IT IS NOT WITHIN THE SCOPE OF DRAWINGS TO SHOW ALL NECESSARY BENDS, OFFSETS, PULL BOXES AND OBSTRUCTIONS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO INSTALL HIS WORK TO CONFORM TO THE STRUCTURE, PRESERVE HEADROOM AND KEEP OPENINGS AND PASSAGEWAYS CLEAN Z
- 10. FOLLOW DRAWINGS IN LAYING OUT WORK AND CHECK DRAWINGS OF OTHER TRADES RELATING TO WORK TO VERIFY SPACE IN WHICH WORK WILL BE INSTALLED.
- LOCATION OF LOCAL WALL SWITCHES ARE SUBJECT TO MODIFICATIONS. AT OR NEAR DOORS, INSTALL SWITCHES ON SIDE OPPOSITE TO DOOR HINGES. VERIFY FINAL LOCATIONS WITH THE ARCHITECT PRIOR TO ANY WORK.

 CONTRACTOR SHALL COORDINATE THE LOCATION OF ALL WALL OUTLET BOXES FOR SWITCHES, FIRE ALARM DEVICES, RECEPTACLES, ETC. WITH CABINETS ETC. TO AVOID CONFLICT. FINAL LOCATIONS AND MOUNTING HEIGHT TO BE COORDINATED WITH THE ARCHITECT.
- 12. WHERE ELECTRIC MOTORS, HEATERS, ETC. ARE INSTALLED IN HUNG CEILINGS, DISCONNECT SWITCH IN HUNG CEILING WITHIN REACH FROM ACCESS POINT.
- EXPOSED RACEWAYS (WHEN REQUIRED OR ALLOWED FOR INSTALLATION BY THE ARCHITECT AND OWNER) SHALL BE RUN PARALLEL WITH/OR AT RIGHT ANGLES WALLS.
- FURNISH APPROVED EXPANSION FITTINGS WHERE RACEWAY CROSSES BUILDING EXPANSION JOINTS.
- 15.
- 16. 17.
- 19.
- 15. FURNISH FISH WIRE IN EACH RACEWAY RUN OVER 10' IN LENGTH, IN WHICH PERMANENT WIRING IS NOT INSTALLED.

 16. NOT MORE THAN THREE LIGHTING OR CONVENIENCE OUTLET CIRCUITS ARE PERMITTED IN ONE CONDUIT, UNLESS OTHERWISE INDICATED.

 17. PROVIDE PULL BOXES AND CABLE SUPPORT BOXES AS REQUIRED BY CODES AND INDUSTRY STANDARDS. COORDINATE LOCATIONS OF BOXES WITH OTHER TRADES TO AVOID CONFLICT.

 18. OUTLET BOXES FOR FIXTURES RECESSED IN HUNG CEILING SHALL BE ACCESSIBLE THROUGH OPENING CREATED BY REMOVAL OF FIXTURES.

 19. SEE MECHANICAL CONTRACT DOCUMENTS FOR ADDITIONAL REQUIREMENTS FOR CONTROL PANELS, SWITCHES, VALVES, MOTORIZED DAMPERS, RELAYS, ETC. CONTRACTOR SHALL VERIFY FINAL CONTROL WIRING REQUIREMENTS WITH MECHANICAL TRADE PRIOR TO ANY WORK AND PROVIDE ALL NECESSARY DEVICES AND CONNECTIONS AS REQUIRED.

 20. ALL EXTERIOR ELECTRICAL DEVICES AND EQUIPMENT SHALL BE WEATHERPROOF TYPE.

 21. LIGHTING, POWER, TELEPHONE AND COMMUNICATIONS OUTLETS SHALL NOT BE PLACED BACK TO BACK.
- WHERE MORE THAN ONE LIGHT SWITCH OCCURS AT SAME LOCATION, SWITCHES SHALL BE MOUNTED IN A MULTIPLE GANG BOX UNDER A SINGLE COVER PLATE.

- IF THERE IS A DISCREPANCY BETWEEN THE DRAWINGS PLANS, NOTES AND SPECIFICATIONS, THE MOST STRINGENT SHALL APPLY.

 FINAL LOCATION AND MOUNTING HEIGHTS OF ALL ELECTRICAL DEVICES AND LIGHTING FIXTURES SHALL BE COORDINATED WITH THE ARCHITECT.
- FURNISH AND INSTALL WIRING FOR EQUIPMENT FURNISHED BY OTHERS, AS SHOWN ON ARCHITECTURAL, HVAC, PLUMBING AND/OR ELECTRICAL DRAWINGS. COORDINATE WITH OTHER TRADES FOR DETAILS OF INSTALLATION AND WIRING REQUIREMENTS. THE TERM "WIRING" AS USED HEREIN SHALL INCLUDE FURNISHING AND INSTALLING CONDUIT, WIRES, JUNCTION/OUTLET BOXES, DISCONNECTS, OVERCURRENT PROTECTION AND FINAL CONNECTIONS. COORDINATE FINAL CONDUCTOR SIZES, QUANTITIES, VOLTAGE REQUIREMENTS, AND OVERCURRENT DEVICE AND OUTLET RATINGS WITH ACTUAL EQUIPMENT TO BE FURNISHED TO THE SITE PRIOR TO FINALIZING WIRING INSTALLATION. MINOR ADJUSTMENTS TO WIRING REQUIREMENTS NECESSARY TO ACCOMMODATE ACTUAL FURNISHED EQUIPMENT SHALL BE PROVIDED AT NO ADDITIONAL COST TO OWNER.
- ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR ALL CONNECTION TERMINALS, IF NOT AN INTEGRAL PART OF THE EQUIPMENT, AND MEANS OF APPROVED COMPRESSION TYPE COPPER CONNECTORS. ALL WORK SHOWN ON THE DRAWINGS SHALL BE CONTRACTOR, UNLESS OTHERWISE INDICATED. TO EQUIPMENT SPLICES SHALL BE BY

FURNISHED

AND

ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR VERIFICATION OF ALL DIMENSIONS AND LOCATION OF LIGHT FIXTURES ON PLAN. SEE ARCHITECTURAL DRAWINGS FOR EXACT QUANTITY, MOUNTING ARRANGEMENTS & LOCATIONS OF LIGHTING FIXTURES.

- 30. SEE ARCHITECTURAL ELEVATIONS AND DETAILS FOR EXACT QUANTITY & LOCATIONS AND MOUNTING HEIGHTS OF RECEPTACLES AND OUTLETS FOR ELECTRICAL DEVICES, WHERE APPLICABLE.
- 31. LIGHTING AND APPLIANCE CIRCUIT NUMBERS NOTED ON PLANS ARE INTENDED AS GUIDE. FINAL NUMBERING SYSTEM TO BE NOTED ON AS—BUILT DRAWINGS AND ON TYPED PANELBOARD DIRECTORY CARDS.

 32. WHEREVER A CIRCUIT OR HOMERUN IS NOTED (I.E.. AT EACH LOCATION WHERE A JUNCTION/PULL BOX WITH A HOMERUN NOTATION IS INDICATED FOR AN ITEM OF EQUIPMENT, AT EACH LOCATION WHERE A DISCONNECT SWITCH FOR A MOTOR IS INDICATED WITH THE FEEDER SIZING PER SCHEDULE, ETC.) CONNECT THE ITEM WITHE REQUIRED CONDUIT AND WIRE FROM SOURCE TO LOAD.
- QUANTITY AND SIZE OF WIRE (CBY CODE IF NOT SPECIFICALLY MINIMUMS. INCREASE WIRE SIZE (CABLE) AND SIZE OF CONDUIT SHALL BE AS REQUIRED INDICATED, NOTED SIZES ARE FOR REFERENCE AND ARE AS REQUIRED FOR VOLTAGE DROP.
- MEMBERS AS REQUIRED FOR THE SUPPORT OF STRUCTURE. SECURE ALL SUPPORTS TO BUILDING
- 34. PROVIDE ALL AUXILIARY STEEL M ELECTRICAL WORK TO BUILDING S STRUCTURE AS REQUIRED. 35. RACEWAY ROUTING SHOWN IS DIA ROUTING MUST BE COORDINATED DIAGRAMMATIC AND INDICATES GENERAL INTENT, ACTUAL ED WITH FIELD CONDITIONS AND ADJUSTED AS REQUIRED
- UNLESS OTHERWISE INDICATED FINISHED AREAS.
- 37. RUN EXPOSED RACEWAYS PARALLEL TO OR AT RIGHT ANGELS TO WALLS. ... EXPOSED CONDUITS SHALL BE RUN AT OR CLOSE TO CEILING LEVEL U.O.N

38.

36.

- PIPE SLEEVES SHALL BE PROVIDED WHERE CONDUITS ARE ROUTED THROUGH FOUNDATION WALLS. PIPE SLEEVES SHALL BE GROUTED IN WALLS. SEALANT SHALL BE APPLIED AROUND THE CONDUIT IN THE SLEEVE IN ORDER TO PREVENT INGRESS OF MOISTURE. THE WALL PENETRATION SHALL BE COMPLETELY WATERPROOFED.

 PROVIDE ALL REQUIRED PULL, JUNCTION, OUTLET BOXES AND TROUGHS. COVERS OF JUNCTION AND PULL BOXES SHALL BE ACCESSIBLE.
- 39. 40. RATING OF DISCONNECT SWITCHES TO MATCH OVERCURRENT PROTECTIVE DEVICE U.O.N. PROVIDE ALL REQUIRED PULL, JUNCTION AND PULL BOXES S
- 42. 41. UPON COMPLETION OF ALL ELECTRICAL WORK, ELECTRICAL CONTRACTOR SHALL BALANCE ALL PANELBOARDS AFFECTED TO WITHIN 10% DEVIATION BETWEEN PHASES.

 ALL PENETRATIONS THROUGH FIRE RATED WALLS OR FLOORS SHALL BE SEALED TO PREVENT THE SPREAD OF SMOKE AND FIRE. THE FIRE RATING OF THE PENETRATION SEALING METHOD SHALL MATCH THE RATING OF THE WALL OR FLOOR. USE AN APPROVED SEALING METHOD WHICH IS ACCEPTABLE TO LOCAL JURISDICTION AND APPROVED BY UL.
- 43. PROVIDE GFI TYPE PROTECTION FOR ANY 15A OR 20A RECEPTACLE INSTALLED OUTDOOR, IN BATHROOMS, IN KITCHEN FOR COUNTER TOP APPLIANCE, IN LAUNDRY ROOMS, ON FLOORS AT OR BELOW GRADE LEVEL, ROOF TOPS AND FLOOR MOUNTED. IN ADDITION, RECEPTACLES INSTALLED OUTDOOR SHALL BE PROVIDED IN NEMA 3R ENCLOSURES WITHCOVERS AND RUBBER GASKETS AND SHALL BE RATED "WATERPROOF" SUITABLE FOR OUTDOOR INSTALLATION. EACH BRANCH CIRCUIT THAT SUPPLIES OUTLETS IN BEDROOMS SHALL BE PROTECTED BY AN ARC-FAULT CIRCUIT INTERRUPTER CIRCUIT BREAKER THAT MUST BE PROVIDED IN LIGHTING AND APPLIANCE PANEL AS REQUIRED.
- 44. FINAL OUTLET LOCATIONS, QUANTITIES, TYPES AND ASSOCIATED CIRCUITING REQUIREMENTS SHALL BE COORDINATED WITH THE ARCHITECT. IN ADDITION, COUNTERTOP AND WALL OUTLET LOCATIONS SHALL BE PROVIDED IN COMPLIANCE WITH THE NEC.
- 45. CIRCUITRY GROUND RULES:
- IN GENERAL, BRANCH
 a. UP TO EIGHT (8)
 b. SEPERATE CIRCUITS
 c. TWO (2) CIRCUITS
 d. DEDICATED CIRCUIT
 e. DEDICATED CIRCUIT
 f. ARC—FAULT CIRCUIT
 f. ARC—FAULT CIRCUIT
 g. GFI TYPE RECEPTARECEPTARECEPTACLES
 h. ONE (1) CIRCUIT H CIRCUITRY SHALL BE PROVIDED AS FOLLOWS:
) CONVENIENCE RECEPTACLE OUTLETS PER ONE CIRCUIT FOR TOILETS
 'S MINIMUM FOR KITCHEN CONVENIENCE OUTLETS
 JIT FOR EACH APPLIANCE
 UIT INTERRUPTER TYPE CIRCUIT BREAKER FOR EACH
- ACLE FOR TOILET AND COUNTERTOP KITCHEN FOR CARBON MONOXIDE/SMOKE DETECTORS
- 46. BRANCH CIRCUITS CIRCUIT BREAKERS SERVICING FLOOR OUTLETS SHALL BE PROVIDED WITH GFI TYPE

B. POWER DISTRIBUTION SYST TEM:

- UNLESS OTHERWISE NOTED OR SPECIFIED ELSEWHERE, CONTROL EQUIPMENT (MOTOR STARTERS, VFD'S, ETC.) FOR ALL HVAC AND PLUMBING SYSTEMS SHALL BE FURNISHED BY MECHANICAL CONTRACTOR AND INSTALLED AS PART OF ELECTRICAL WORK AS REQUIRED. PROVIDE SAFETY DISCONNECT SWITCH SIZED AS REQUIRED FOR EACH MECHANICAL EQUIPMENT UNLESS COMBINATION MOTOR STARTER IS PROVIDED AT EQUIPMENT LOCATION.
- REFER TO HVAC AND PLUMBING DRAWINGS FOR MORE INFORMATION REGARDING MOTOR CONTROL EQUIPMENT AND ALL MECHANICAL EQUIPMENT EXACT LOCATIONS, TYPES, SIZES, AND QUANTITIES.
- 3. FOR HARDWARED CONNECTIONS THE EQUIPMENTS MANUFACTUR WITH FLEXIBLE METALLIC COND PROVIDE DISCONNECT MEANS AS REQUIRED BY THE FINAL POWER CIRCUIT PORTION SHALL BE
- PROVIDE ALL CONVENIENCE AND SPECIAL DEDICATED OUTLETS, HARDWIRED CONNECTIONS WITH ALL ASSOCIATED CIRCUITRY AND OVERCURRENT DEVICES AS REQUIRED FOR EACH DEVICE OR EQUIPMENT THAT REQUIRES ELECTRICAL POWER.
- LOCATING AND ROUTING CIRCUITRY:

 A. ALL CIRCUITRY SHALL BE RUN CONCEALED EXCEPT AS FOLLOWS:

 1. HORIZONTALLY AT THE CEILING OF PERMANENTLY UNFINISHED SPACES WHICH ARE NOT ASSIGNED TO MECHANICAL OR ELECTRICAL EQUIPMENT.

 2. HORIZONTALLY AND VERTICALLY IN MECHANICAL EQUIPMENT ROOMS.

 3. HORIZONTALLY AND VERTICALLY IN ELECTRIC EQUIPMENT ROOMS.

 4. WHERE SPECIFICALLY ALLOWED BY THE ARCHITECT AND BUILDING OWNER.
- 6. CIRCUITRY GROUND RULES:

 A. UNLESS OTHERWISE INDICATES, EACH LIGHTING & APPLIANCE BRANCH CIRCUIT SHALL BE PROVIDED WITH CONDUCTORS (QUANTITIES AS REQUIRED FOR THE CONNECTED LOAD) IN 3/4" CONDUIT (MINIMUM) SIZED AS FOLLOWS: LIGHTING & APPLIANCE I 120V, 15A CIRCUIT --10 AWG - 75FT, 8 AWG BRANCH CIRCUIT SIZES AND MAX LENGTHS 12 AWG — 50 FT; 3 — 125 FT. SHALL BE AS FOLLOWS:

- D. NOT MORE THAN THREE (3) 20A, 120V RECEPTACLES SERVING DATA EQUIPMENT SHALL BE CONNECTED TO ONE (1) 20A, 120V CIRCUIT.
- UNLESS OTHERWISE NOTED, PROVIDE ONE (1) DEDICATED CIRCUIT FOR EACH MECHANICAL EQUIPMENT ITEM (FAN, PUMP, ELECTRICAL HEATER, ETC.) AS FOLLOWS:

 A. ELECTRICAL LOADS SMALLER THEN 1/2 HP (OR 0.5 KVA):

 -2#12+1#12G CONDUCTORS IN 3/4"CONDUIT

 -1P-20A OVERCURRENT DEVICE IN PANEL AS REQUIRED.

 B. ELECTRICAL LOADS FROM 1/2 HP (OR 0.5 KVA) UP TO 4HP (OR 4 KVA):

 -3#12+1#12G CONDUCTORS IN 3/4" CONDUIT

 -3P-20A OVERCURRENT DEVICE IN PANEL AS REQUIRED.
- C. ELECTRICAL LOADS OVER 4 HP (4 KVA):

 -AS SHOWN ON PANEL SCHEDULES OR ELSEWHERE.

 THE SERVICE DISCONNECT SWITCH SHALL BE PROVIDED WITH A GROUNDING BAR CONNECTED TO GROUND ELECTRODES.

- THE CONTRACTOR IS RESPONSIBLE FOR FURNISHING AND INSTALLING EMPTY RACEWAYS, BOXES, ETC. FOR VARIOUS LOW VOLTAGE SYSTEMS SUCH AS:

- ALL THE ABOVE SYSTEMS CENTRAL EQUIPMENT, DEVICES AND VARIOUS COMPONENTS, WIRING AND CONNECTIONS ARE FURNISHED AND INSTALLED SEPARATE FROM ELECTRICAL WORK.

D. LIGHTING SYSTEM:

- PROVIDE LIGHTING FIXTURES, EXIT SIGNS, LIGHT SWITCHES AND OTHER DEVICES AND EQUIPMENT FOR LIGHTING AND LIGHTING CONTROL SYSTEMS AS REQUIRED. FINAL LOCATIONS, TYPES AND QUANTITIES OF ALL LIGHTING SYSTEM FIXTURES, EQUIPMENT AND CONTROL DEVICES AND EQUIPMENT SHALL BE AS REQUIRED BY THE LIGHTING CONSULTANT AND ARCHITECT.

 ALL FLUORESCENT FIXTURES SHALL BE EQUIPPED WITH ENERGY EFFICIENT LAMPS AND ELECTRONIC BALLASTS.
- PROVIDE GROUND WIRE WITH ALL FLEXIBLE CONDUIT CONNECTION TO EACH LIGHTING FIXTURE. WHERE MORE THAN ONE SWITCH OCCURS IN THE SAME LOCATION, THEY SHALL BE INSTALLED IN A GANG-TYPE BOX UNDER ONE COVER PLATE.
- LIGHTING CIRCUITRY GROUND RULES:
 A. BRANCH CIRCUITING SHALL BE IN ACCORDANCE WITH CONTROL SCHEME AS SHOWN ON PLANS
 B. MINIMUM SIZE OF BRANCH CIRCUIT WIRE SHALL BE 12 AWG.
 C. COORDINATE LOCATION AND MOUNTING OF CONTROL DEVICES (SWITCHES, SENSORS)
 WITH ARCHITECT.
- DIMMED FLUORESCENT FIXTURES SHALL BE PROVIDED WITH COMPATIBLE DIMMING BALLASTS.

- UTILIZE A SEPARATE INSULATED CONDUCTOR AS THE EQUIPMENT GROUNDING CONDUCTOR FOR ALL POWER SYSTEM CIRCUITS AS REQUIRED.
- THE GROUNDING SYSTEM SHALL CONSIST OF CONDUCTORS, CONNECTORS AND ALL OTHER NECESSARY EQUIPMENT REQUIRED TO PROVIDE A COMPLETE GROUND SYSTEM FOR ELECTRICAL WORK. THE GROUND SYSTEM SHALL COMPLY WITH THE REQUIREMENTS OF THE NEC.
- ALL GROUNDING CONNECTIONS WITHIN BUILDING SHALL BE ACCESSIBLE FOR PERIODIC INSPECTIONS AND SHALL ALSO BE MADE USING SOLDERLESS CONNECTORS AS HEREIN SPECIFIED. THE GROUNDING CONDUCTOR SHALL BE SIZED EQUAL TO THE PHASE CABLE AND IN ACCORDANCE WITH THE REQUIREMENTS OF THE NEC AND THE AUTHORITY HAVING JURISDICTION.

- EACH FEEDER AND BRANCH CIRCUIT SHALL BE PROVIDED WITH NEUTRAL AND EQGROUNDING CONDUCTORS AS REQUIRED.

 PROVIDE ONE (1) 20A, 120V BRANCH CIRCUIT FOR UP TO EIGHT (8) 20A, 120V CONVENIENCE OUTLETS.

- ALL EXTRANEOUS CONDUCTING METAL WORK WITHIN THE BUILDING SHALL BE BONDED. GROUNDING CABLE SHALL BE BE DISTRIBUTED FROM THE MAIN SERVICE DISCONNECT SWITCH TO INDIVIDUAL ITEMS AND EQUIPMENT.
- PRIOR TO INSTALLATION OF ELECTRICAL EQUIPMENT, THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS WITH ROOM LAYOUTS INDICATING ACTUAL DIMENSIONS OF THE APPROVED EQUIPMENT TO ENSURE COMPLIANCE WITH CODE REQUIRED CLEARANCES.
- BRANCH CIRCUITRY COMMON NEUTRAL MAY BE USED FOR NON-DIMMED LIGHTING CIRCUITS ONLY.

 PROVIDE GFI TYPE CIRCUIT BREAKER FOR EACH BRANCH CIRCUIT FEEDING FLOOR MOUNTED RECEPTACLE OUTLETS.

C. MISCELLANEOUS LOW VOLTAGE SYSTEMS:

- TELECOMMUNICATION
 CABLE TV
- OTHER SYSTEMS AS REQUIRED. SPECIFIC REQUIREMENTS OF EACH SYSTEM SHALL BE AS OUTLINED IN RELEVANT LOW VOLTAGE SYSTEM CONTRACT DOCUMENTS.
- THE CONTRACTOR SHALL PROVIDE ALL REQUIRED POWER CIRCUITRY AS REQUIRED FOR CENTRAL EQUIPMENT AND DEVICES —— FINAL LOCATIONS AND POWER REQUIREMENTS FOR THESE ITEMS SHALL BE COORDINATED WITH RESPECTIVE CONSULTANTS AND ARCHITECT.

- WHERE MORE THAN ONE SWITCH OCCURS IN THE SAME LOCATION, THEY SHALL BE INSTALLED IN A GANG-TYPE BOX UNDER ONE COVER PLATE.
- PROVIDE GROUND WIRE WITH ALL FLEXIBLE CONDUIT CONNECTION TO EACH LIGHTING
- DIMMING AND LIGHTING CONTROL REQUIREMENTS SHALL BE COORDINATED WITH LIGHTING CONSULTANT AND ARCHITECT.
- SEE ARCHITECTURAL REFLECTED CEILING PLANS AND DETAILS TO CONFIRM EXACT QUANTITIES AND LOCATIONS OF ALL FIXTURES AND MOUNTING. SPECIFICATIONS FOR LIGHTING FIXTURE DESCRIPTIONS AND LAMPING.

- PROVIDE COMPLETE POWER SYSTEM GROUNDING SPECIFICATIONS AND THE NEC. IN COMPLIANCE WITH GROUNDING
- 7. 6. LENGTH OF GROUNDING CONDUCTORS OR JUMPERS SHALL BE KEPT AT A MINIMUM.

 BOLTED CONNECTIONS SHALL BE OF THE MULTIPLE BOLT—TYPE. BOLTS, WASHERS AND STOP NUTS SHALL BE OF THE HIGH COPPER ALLOY EVERDUR, DURIUM, DURONIZE OR SILICON BRONZE. FERROUS HARDWARE WILL NOT BE ACCEPTABLE.

- EQUIPMENT GROUNDING SHALL CONSIST OF CONNECTING ALL NON-CURRENT CARRYING METAL PARTS OF THE WIRING SYSTEM TO A GROUND SOURCE.
- ë GROUND SOURCE SHALL BE THE SERVICE EQUIPMENT. TERMINAL OF THE GROUNDED CONDUCTOR IN THE
- \circ CONDUIT GROUNDING BUSHINGS SHALL BE PROVIDED ON ALL INCOMING AND OUTGOING CONDUITS TO THE SERVICE EQUIPMENT.
- NON-CURRENT CARRYING METAL PARTS SHALL INCLUDE SUCH ITEMS AS METAL CONDUITS, RACEWAYS, OUTLET BOXES, CABINETS AND SIMILAR COMPONENT PARTS ALL ELECTRICAL AND NON-ELECTRICAL EQUIPMENT AND APPARATUS.

D.

- TESTS
- A. THE CONTRACTOR SHALL PERFORM SUCH GROUND TESTS AS ARE REQUIRED IN ORDER TO ENSURE COMPLIANCE OF THE GROUNDING SYSTEM WITH THE REQUIREMENTS OF THE N.E.C.E.C.

 SERVICE GROUND SHALL CONSIST OF CONNECTING THE NEUTRAL CONDUCTOR TO THE SERVICE EQUIPMENT TO A GROUND SOURCE. GROUND SHALL CONSIST OF CONNECTING THE NEUTRAL CONDUCTOR TO THE EQUIPMENT TO A GROUND SOURCE.

 SOURCE SHALL BE THE STREET SIDE OF THE INCOMING MAIN COLD WATER

10.

- F. SERVICE ENTRANCE
- GROUND SOURCE SHALL VALVE AND STEEL RODS.
- COMPLY WITH ALL OF THE CONTRACT DOCUMENTS, INCLUDING DRAWINGS, SCHEDULES, GENERAL AND SUPPLEMENTARY CONDITIONS, GENERAL REQUIREMENTS.
- ۶. THIS CONTRACTOR SHALL COMPLY WITH THE REQUIREMENTS OF THE UTILITY COMPANY (SERVICE LAYOUT, ETC.) AND SPECIFICATIONS FOR THE ACCURATE AND TIMELY COMPLETION OF THE SERVICE WORK. THE WORK SHALL INCLUDE ALL LABOR, MATERIALS, EQUIPMENT AND SERVICES TO FURNISH AND INSTALL NEW SERVICE EQUIPMENT AS DESCRIBED HEREIN AND SHOWN ON THE DRAWINGS.

- THIS CONTRACTOR SHALL MAKE APPLICATION FOR THE REQUIRED PERMITS AND APPROVALS, THE NEW SERVICE FACILITIES IN THE OF THE OWNER AND BEAR ALL COSTS IN RELATION TO THE INSTALLATION OF THE PERMANENT ELECTRIC SERVICE FOR THE BUILDING. THE ELECTRICAL CONTRACTOR SHALL:

 A. FURNISH AND INSTALL REQUIRED WIRING/CONDUITS TO NEW SERVICE EQUIPMENT.

 THE WORK OF THE ELECTRICAL CONTRACTOR SHALL GENERALLY BE AS FOLLOWS:

 A. BOND AND GROUND ALL CABLES, CONDUITS, AND ELECTRICAL EQUIPMENT IN ACCORDANCE WITH THE REQUIREMENTS OF THE UTILITY COMPANY, THE ELECTRICAL CODE AND ALL AUTHORITIES HAVING JURISDICTION.

 B. INSTALL ALL SERVICE AND METERING EQUIPMENT, METERING CURRENT TRANSFORMERS AND ASSOCIATED METER WIRING.

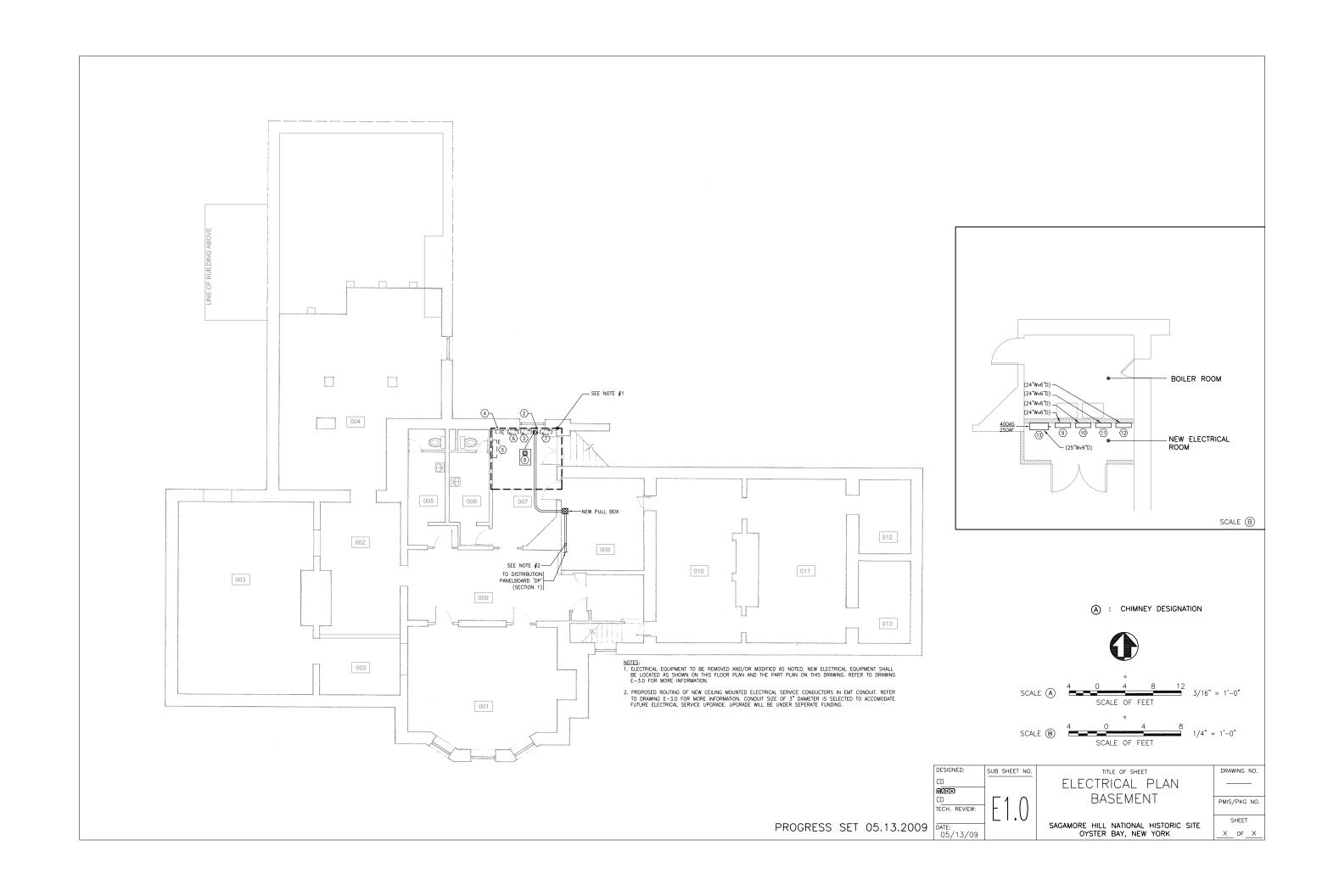
 C. INSTALL ALL MATERIALS PER UTILITY COMPANY SPECIFICATIONS.
- 6. THE CONTRACTOR SHALL, BEFORE SUBMITTING HIS BID, CONSULT WITH REPRESENTATIVE OF THE UTILITY COMPANY TO DETERMINE THE EXTENT OF HIS WORK REGARDING THE ELECTRICAL SERVICE AND THEIR REQUIREMENTS FOR INSTALLATION OF SAME. HE SHALL PAY ANY AND ALL CHARGES IN CONNECTION WITH THE ELECTRIC SERVICE AS REQUIRED BY THE UTILITY COMPANY. THE COMPLETE INSTALLATION SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE UTILITY COMPANY, THE ELECTRIC CODE AND ALL OTHER MUNICIPAL AGENCIES AND DEPARTMENTS HAVING JURISDICTION. NO ALLOWANCE WILL BE MADE IF THE CONTRACTOR FAILS TO CONSULT THE UTILITY COMPANY REGARDING SAME. PRODUCTS SHALL BE AS RECOMMENDED AND APPROVED BY UTILITY

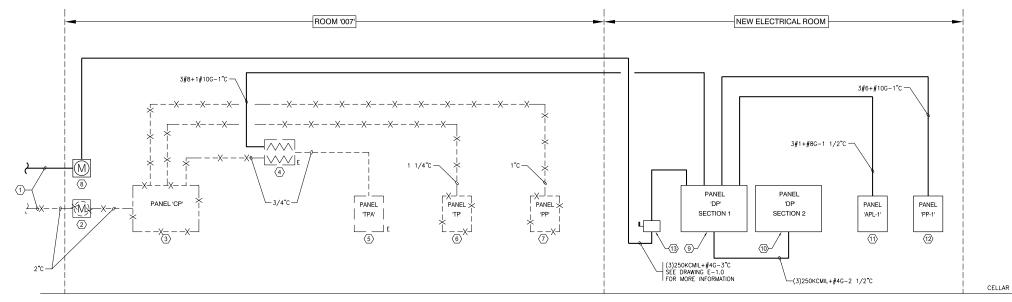
G. ELECTRICAL DEMOLITION AND TEMPORARY WORK

- ALL PRESENT MATERIAL AND EQUIPMENT IN USABLE CONDITION, WHICH IS TO BE REMOVED UNDER THIS CONTRACT, REMAIN THE PROPERTY OF THE OWNER AND/OR SHALL BE DISPOSED OF BY THE CONTRACTOR AS DIRECTED. CONTRACTOR SHALL EXAMINE EXISTING CONDITIONS AND SHALL PERFORM ALL REQUIRED DEMOLITION WORK AS WELL AS PROVISION OF ALL NEW ELECTRICAL EQUIPMENT, WIRING, ETC. AS REQUIRED FOR FULLY FUNCTIONAL SYSTEM.
- THE CONTRACTOR SHALL PROVIDE ALL TEMPORARY INSTALLATIONS AND MODIFICATIONS TO EXISTING AND/OR NEW ELECTRICAL SYSTEMS AS REQUIRED TO MAINTAIN CONTINUITY OF ALL EXISTING AND/OR NEW AND TEMPORARY ELECTRICAL SYSTEMS AND EQUIPMENT TO AREAS NOT BEING AFFECTED BY CONSTRUCTION PHASE AND AS FOLLOWS:
- A. THE TEMPORARY ELECTRICAL SYSTEMS SHALL BE COMPLETELY INSTALLED AND OPERATING AT THE EARLIEST POSSIBLE DATE. MAINTENANCE SHALL INCLUDE ALL LABOR AND MATERIAL AND PERFORMING ALL REQUIRED WORK TO A SATISFACTORY CONDITION ALL CONDUITS, CONDUCTORS, BOXES, FITTINGS, PANELBOARDS, OVERCURRENT DEVICES, LAMPS, ETC. OF THE ENTIRE TEMPORARY ELECTRICAL SYSTEMS.
- MAINTENANCE SHALL INCLUDE MOVING AND REROUTING OF TEMPORARY LIGHT AND POWER WIRING AND EQUIPMENT NECESSARY TO PERMIT ALL TRADES TO SATISFACTORILY PERFORM THE WORK. SUCH MOVING OR REROUTING OF WIRING OR EQUIPMENT SHALL BE PERFORMED AS REQUIRED.
- EXCEPT AS DIRECTED BY THE ARCHITECT AND AS SPECIFIED ABOVE, ALL TEMPORARY ELECTRICAL WIRING AND EQUIPMENT FURNISHED AND INSTALLED BY THE CONTRACTOR (INCLUDING FEEDERS, SAFETY SWITCHES, PANELBOARDS, CONDUITS, BOXES, CONDUCTORS, DROP LIGHTS, ETC.) SHALL BE DISCONNECTED AND REMOVED FROM THE PREMISES WHEN DIRECTED. SHALL BE
- INSTALLATION OF TEMPORARY ELECTRICAL CONTRACT DOCUMENTS. IN COMPLIANCE WITH THE NEC AND
- ALL CIRCUITS AFFECTED BY THE DEMOLITION WORK SHALL BE DE-ENERGIZED AT THEIR SOURCE PRIOR TO BEGINNING ANY DEMOLITION WORK IN THE BUILDING OR ON THE SITE. THE REMOVAL OF LIGHTING FIXTURES, WIRING DEVICES AND OUTLETS SHALL INCLUDE THE REMOVAL OF ALL ASSOCIATED BRANCH CIRCUIT WIRING, RACEWAYS, BOXES AND SUPPORTS
- 6 WHERE PORTIONS OF EXISTING BRANCH CIRCUITS ARE REMOVED, WIRING TO REMAINING DEVICES ON THE CIRCUIT SHALL BE RECONNECTED OR MODIFIED IN AN APPROVED MANNER AS REQUIRED TO MAINTAIN CONTINUITY OF THE AFFECTED BRANCH CIRCUIT AND OPERATION OF THE REMAINING DEVICES. THE REMOVAL OF ALL LOW VOLTAGE SYSTEMS (TELECOMMUNICATION, SECURITY, ETC.) SHALL BE IN ACCORDANCE WITH REQUIREMENTS OUTLINED IN RESPECTIVE CONTRACT DOCUMENTS AND COORDINATED WITH THE APPROPRIATE BUILDING OPERATING PERSONNEL.

CD CD TECH. REVIEW:	DESIGNED:
F	SUB SHEET NO.
GENERAL NOTES	TITLE OF SHEET
PMIS	DRA

			SUB SHEET NO
SAGAMORE HILL NATIONAL HISTORIC SITE) GENERAL NOTES	ELECTRICAL	NO. TITLE OF SHEET
X OF X	PMIS/PKG NO.		DRAWING NO.





- 1. THE FINAL ELECTRICAL SERVICE ARRANGEMENTS INCLUDING BUT NOT LIMITED TO SPLICING, SERVICE END BOX, CT CABINET, UTILITY METERING, ETC. SHALL BE COORDINATED WITH L.I.P.A..
- 2. EACH NEW PANELBOARD SHALL HAVE A GROUND BUS.
- 3. REFER TO HVAC AND PLUMBING DOCUMENTS FOR ADDITIONAL INFORMATION REGARDING FINAL LOCATIONS AND SIZES OF MOTORS AND OTHER MECHANICAL EQUIPMENT.
- 4. PROVIDE CABLE SUPPORT BOXES AS REQUIRED.
- 5. UNLESS OTHERWISE NOTED, ALL TAPS SHALL NOT EXCEED 10 FEET.
- 6. SPARES AND SPACES SHALL BE INCLUDED AS FOLLOWS:
- MINIMUM OF 15% SPARE SPACES (WITH BUS)
- 7. REPLACE EXISTING PANELS AS REQUIRED FOR CONNECTION OF NEW BRANCH CIRCUITS AND EXISTING BRANCH CIRCUITS THAT ARE TO REMAIN. PROVIDE NEW BRANCH CIRCUIT BREAKERS AS REQUIRED FOR NEW AND EXISTING BRANCH CIRCUITS. PROVIDE PANEL DIRECTORIES AS REQUIRED.

RISER LEGEND

- (1) INCOMING ELECTRICAL SERVICE, L.I.P.A. SERVICE FEEDER TO BE MODIFIED AS REQUIRED BY L.I.P.A.. THE FINAL ELECTRICAL SERVICE ARRANGEMENTS INCLUDING BUT NOT LIMITED TO MODIFICATION OF SERVICE FEEDER, METERING, ETC. SHALL BE COORDINATED WITH L.I.P.A.
- 2 EXISTING UTILITY SERVICE METER TO BE REMOVED
- (3) EXISTING 200A M.C.B., 120/240V, 3-WIRE, 1 PHASE, 42 POLE MAIN DISTRIBUTION PANELBOARD TO BE REMOVED
- 4 EXISTING TRANSFORMER TO REMAIN
- (5) EXISTING 60A M.C.B., 120/240V, 3-WIRE, 1 PHASE, 24 POLE PANELBOARD TO REMAIN FEEDING EXISTING LOW VOLTAGE LIGHTING AND RECEPTACLE LOADS
- (6) EXISTING 225A M.L.O., 120/240V, 3-WIRE, 1 PHASE, 42 POLE LIGHTING AND APPLIANCE PANELBOARD TO BE REMOVED
- (7) EXISTING 100A M.L.O., 120/240V, 3-WIRE, 1 PHASE, 12 POLE PANELBOARD TO BE REMOVED
- 8 NEW UTILITY SERVICE METER
- (9) NEW 400A M.L.O., 240/120V, 1 PHASE, 3W+G, DISTRIBUTION PANELBOARD (SECTION 1) WITH FEED-THRU LUGS FOR ADDITIONAL SECTION
- (10) NEW 400A M.L.O., 240/120V, 1 PHASE, 3W+G, DISTRIBUTION PANELBOARD (SECTION 2)
- (11) NEW 225A M.L.O., 120/240V, 3-WIRE, 1 PHASE, 36 POLE LIGHTING AND APPLIANCE PANELBOARD
- $\stackrel{\mbox{\scriptsize (1)}}{}$ NEW 100A M.L.O., 120/240V, 3-WIRE, 1 PHASE, 18 POLE POWER PANEL FOR EXISTING HVAC LOADS
- (13) NEW 400AS/250AF, 120/240V, 1 PHASE, 3 WIRE GENERAL DUTY SAFETY SWITCH SUITABLE FOR USE AS SERVICE EQUIPMENT

DESIGNED: SUB SHEET NO. 9.100 TECH. REVIEW: DATE: 05/13/09

TITLE OF SHEET ELECTRICAL POWER RISER DIAGRAM

SAGAMORE HILL NATIONAL HISTORIC SITE OYSTER BAY, NEW YORK

DRAWING NO.

PMIS/PKG NO.

SHEET

Ĭ																					
41	39	35 37	33	31	29	27	25	23	21	19	17	15	13	<u></u>	9	7	5	3	1	#	VO BU MA
		2	1	2	1	1	<u></u>		1				_		1	1	1	1	1	POLE	YOLTS: BUS RATING: MAIN: MOUNTING:
		20	,	45	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	TRIP	
																				LOAD DESCRIPTION	120/240V, 1 PH, 3W+G 400A M.L.O. SURFACE
		•	<u> </u>																	Αø	
		•																		Βø	
																				LOAD DESCRIPTION	X GROUND BUS X 100% NEUTRAL BUS
		50		100	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	TRIP	SAL BUS
		2		2		_ <u>`</u>										1	1	1		POLE	
42	40	36 38	34	32	30	28	26	24	22	20		16	14	12	10	8	6	4	2	#	

42	40	38	36	34	32	30	28	26	24	22	20	18	16	14	12	10	œ	6	4	2	#	
41	39	37	35	33	31	29	27	25	23	21	19	17	15	13	<u>-1</u>	9	7	5	3	→	#	PA VC BL MA
																					POLE	PANEL: VOLTS: BUS RATING: MAIN : MOUNTING:
																					TRIP	
																					LOAD DESCRIPTION	DP (SECTION 2) 120/240V, 1 PH, 3W+G 400A M.L.O. SURFACE
•		•				•		•		•		•									Αø	
																					Βø	
																					LOAD DESCRIPTION	OPTIONS: X GROUND BUS X 100% NEUTRAL BUS
																					TRIP	S RAL BUS
																					POLE	
42	40	38	36	34	32	30	28	26	24	22	20	1 8	16	14	12	10	œ	6	4	2	#	

4 B-2

[3 B-1]

AH-2

[1 AH-1]

6 P-2

P-3

||[12| -]

-]|[1

 $\| \mathbf{o} \|$

17	15	13	<u></u>	9	7	5	3		#	P, SBL MA
	<u></u>	٢	<u></u> ၁	7	ر د	<u></u>	<u></u>	_	POLE	ANEL: DLTS: DS RATINI AIN :
20	20	Ç	م	0.7	>	20	20	20	TRIP	PANEL: VOLTS: BUS RATING: MAIN: MOUNTING: PP-1 120/240V 100A M.L.O. SURFACE
									LOAD DESCRIPTION	40V
									Αø	
	•						•		Вø	
									LOAD DESCRIPTION	OPTIONS: X GROUND BUS X 100% NEUTRAL BUS
20	20	20	20	Ç	70	20	20	20	TRIP	AL BUS
	_	_	<u></u>	1	S	_	_	_	POLE	
18	16	14	12	10	∞	o	4	2	#	

DESCRIPTION	EQUIPA	ELEC	CTRICAL POWER RE APPLIANCE RATING	POWER	QUIR	EMENTS	# OF	CONDUIT AND WIRE SIZE	NOTES
AID LANDI NO INIT	×	X	Ŧ,	AM T	340	AMTU	THAUEU		> > >
					1				
AIR HANDLING UNIT					240		<u> </u>		$\bigcirc \bigcirc \bigcirc \bigcirc \bigcirc$
BOILER					120		_		$\langle 1 \rangle \langle 2 \rangle \langle 1 $
BOILER					120		<u> </u>		$\langle 1 \rangle \langle 2 \rangle \langle 1 $
> PUMP			1/8		120		_		
> PUMP			1/8		120		_		
> PUMP			1		240		_		
>									
>									
>									
>									
>									

EQUIPMENT LEGEND NOTES

- (1) EXTEND INDICATED POWER CIRCUIT AND CONNECT SAME TO LINE TERMINALS OF THE EQUIPMENT—— THE FINAL PORTION (NOT TO EXCEED 48" IN LENGTH)
 SHALL BE WITH FLEXIBLE METALLIC CONDUIT
- PROVIDE DISCONNECT MEANS WITH CONNECTIONS AS REQUIRED TO INTERPOSE SAME BETWEEN TERMINATION OF BUILDING WIRING AND LINE TERMINALS OF UNIT——TYPE OF DISCONNECT MEANS AND MOUNTING LOCATION TO BE IN ACCORDANCE WITH INSTRUCTIONS ISSUED BY THE MANUFACTURER OF THE UNIT NOT THE UNIT OF THE
- (4) PROVIDE CONTROL AND/OR POWER WIRING/CONDUITS BETWEEN ALL SYSTEM COMPONENTS AS REQUIRED.
- $\langle {f 5}
 angle$ connect leads of equipment located at outlets box directly to wires in same.
- (6) FINAL BRANCH CIRCUIT, OVERCURRENT DEVICE, CONNECTION TYPE, ETC. FOR THIS ITEM SHALL BE AS REQUIRED BY THE EQUIPMENT MANUFACTURER.
- (7) CONNECTED THROUGH PHASE CONVERTER VARIABLE FREQUENCY DRIVE SINGLE PHASE INPUT WITH THREE PHASE OUTPUT. SEE SPECIFICATIONS FOR MORE INFORMATION ON PHASE CONVERTER VFD.
- (8) CIRCUIT BREAKER FOR THIS ITEM SHALL BE INDICATOR TYPE TO INDICATE WHEN IT IS IN THE ON OR OFF POSITION. BREAKER SHALL BE PROVIDED WITH MEANS FOR LOCKING THE BREAKER IN THE OFF POSITION FOR MAINTENANCE.

19 21 21 25 25 27 27 29 29 33 35

13

9

7 5 3

PANEL:
VOLTS:
BUS RATING:
MAIN :
MOUNTING:

APL-1 120/240V 225A M.L.O. SURFACE

OPTIONS:
GROUND BUS
100% NEUTRAL BUS

05.13.2009 DATE: 05/13/09	CD TECH. REVIEW:	CD	DESIGNED: SUE
-			SUB SHEET NO.
SAGAMORE HILL NATIONAL HISTORIC SITE	ELECTRICAL SCHEDULES		TITLE OF SHEET
X OF X	PMIS/PKG NO.		DRAWING NO.

PROGRESS

SET