



STATE OF NEW YORK
OFFICE OF GENERAL SERVICES
DESIGN AND CONSTRUCTION GROUP
THE GOVERNOR NELSON A. ROCKEFELLER
EMPIRE STATE PLAZA
ALBANY, NY 12242



ADDENDUM NO. 14 TO PROJECT NO. 44578

**CONSTRUCTION WORK - PLA
MAJOR BUILDING RENOVATIONS FOR THE
MANHATTAN FORENSIC
RELOCATION
MANHATTAN PSYCHIATRIC CENTER
600 EAST 125th STREET
WARDS ISLAND, NY 10035**

October 28, 2015

NOTE: This Addendum forms a part of the Contract Documents. Insert it in the Project Manual. Acknowledge receipt of this Addendum in the space provided on the Bid Form.

DIVISION 1 SPECIFICATIONS

1. Page 017423-3, Subparagraph 3.01 C.5.: Delete this Subparagraph in its entirety, and replace with the following:
 - ”5. Windows and Glass:
 - a. Wash and clean all interior and exterior glass, with the inside and outside cleaning of windows to be performed on the same day.
 - b. Open the interior casement sash and clean the blinds, interior face of exterior glass and exterior face of polycarbonate security glazing
 - c. After each washing operation, all glass shall be clean and free of dirt, grime, streaks, excessive moisture and shall not be cloudy.
 - d. Window sills, sash and woodwork about interior glass and other such surroundings shall be thoroughly wiped free of drippings and other water marks.
 - e. Cleaners shall use pads to protect window sills when placing cleaning materials on them and all such pads and/or cloths necessary to protect the property shall be furnished by the Contractor. Window sills are not to be utilized in lieu of ladders and/or step ladders.
 - f. Extreme care shall be taken in opening any and all windows, when opening them for cleaning, assume full responsibility for damage to glass and painted surfaces.”

ELECTRICAL SPECIFICATIONS

2. Page 263020-1, Article 1.1 SUMMARY: Add the following Paragraph:

”C. The scope shall include replacement of the existing generator mounted control panel for two generator units, rated 1250 kW at 0.8 PF, 4160 volts, 3 phase, 4 wire, 60 Hertz. All new components shall be manufactured by the existing engine generator manufacturer and the work shall be performed by factory authorized personnel.”

3. Page 263020-18, PART 2 PRODUCTS: Add the following Article:

“2.5 CONTROLS - GENERATOR SET MOUNTED

- A. Provide a fully solid-state, microprocessor based, generator set control. The control panel shall be designed and built by the engine manufacturer. The control shall provide all operating, monitoring, and control functions for the generator set. The control panel shall provide real time digital communications to all engine and regulator controls via SAE J1939.
- B. Environmental: The generator set control shall be tested and certified to the following environmental conditions:
1. Operating Range -40°C to +70°C.
 2. 95% humidity non-condensing.
 3. 30°C to 60°C.
 4. IP22 protection.
 5. 5% salt spray, 48 hours, +38°C.
 6. 36.8V system voltage Sinusoidal.
 7. vibration 4.3G's RMS, 24-1000Hz.
 8. Electromagnetic Capability (89/336/EEC, 91/368/EEC, 93/44/EEC, 93/68/EEC, BS EN 50081-2, 50082-2).
 9. Shock: Withstand 15G.
- C. Functional Requirements: The following functionality shall be integral to the control panel.
1. The control shall include a minimum 64 x 240 pixel, 28mm x 100mm, white backlight graphical display with text based alarm/event descriptions.
 2. The control shall include a minimum of 3-line data display
 3. Audible horn for alarm and shutdown with horn silence switch.
 4. Standard ISO labeling.
 5. Multiple language capability.
 6. Remote start/stop control
 7. Local run/off/auto control integral to system microprocessor.
 8. Cooldown timer.
 9. Speed adjust.
 10. Lamp test.
 11. Push button emergency stop button.
 12. Voltage adjust.
 13. Voltage regulator V/Hz slope – adjustable.
 14. Password protected system programming.

- D. Digital Monitoring Capability: The controls shall provide the following digital readouts for the engine and generator. All readings shall be indicated in either metric or English units
1. Engine:
 - a. Engine oil pressure
 - b. Engine oil temperature
 - c. Engine coolant temperature
 - d. Engine RPM
 - e. Battery volts
 - f. Engine hours
 - g. Engine crank attempt counter
 - h. Engine successful start counter
 - i. Service maintenance interval
 - j. Real time clock
 - k. Oil filter differential pressure
 - l. Fuel temperature
 - m. Fuel pressure
 - n. Fuel filter differential pressure
 - o. Fuel consumption rate
 - p. Total fuel consumed
 - q. Engine intake manifold temperature
 - r. Engine intake manifold pressure
 - s. Engine crankcase pressure
 - t. Air filter differential pressure
 - u. Boost pressure
 - v. Oil filter differential pressure
 - w. Engine exhaust stack temperature
 - x. Engine main bearing temperature
 2. Generator:
 - a. Generator AC volts (Line to Line, Line to Neutral and Average).
 - b. Generator AC current (Avg and Per Phase).
 - c. Generator AC Frequency.
 - d. Generator kW (Total and Per Phase).
 - e. Generator kVA (Total and Per Phase).
 - f. Generator kVAR (Total and Per Phase).
 - g. Power Factor (Avg and Per Phase).
 - h. Total kW-hr.
 - i. Total kVAR-hr .
 - j. % kW.
 - k. % kVA.
 - l. % kVAR.
 - m. Generator bearing temperature.
 - n. Generator stator winding temperature.
 3. Voltage Regulation :
 - a. Excitation voltage.
 - b. Excitation current.

- E. Alarms and Shutdowns: The control shall monitor and provide alarm indication and subsequent shutdown for the following conditions. All alarms and shutdowns are accompanied by a time, date, and engine hour stamp that are stored by the control panel for first and last occurrence:
1. Engine Alarm/Shutdown.:
 - a. Low oil pressure alarm/shutdown.
 - b. High coolant temperature alarm/shutdown.
 - c. Loss of coolant shutdown.
 - d. Overspeed shutdown.
 - e. Overcrank shutdown.
 - f. High intake manifold temperature alarm/shutdown.
 - g. High exhaust manifold temperature alarm/shutdown.
 - h. High crankcase pressure alarm/shutdown.
 - i. High air inlet temperature alarm/shutdown.
 - j. Emergency stop depressed shutdown.
 - k. Low coolant temperature alarm.
 - l. Low battery voltage alarm.
 - m. High battery voltage alarm.
 - n. Control switch not in auto position alarm.
 - o. Battery charger failure alarm.
 2. Generator Alarm/Shutdown:
 - a. Generator over voltage.
 - b. Generator under voltage.
 - c. Generator over frequency.
 - d. Generator under frequency.
 - e. Generator reverse power.
 - f. Generator overcurrent.
 3. Voltage Regulator Alarm/Shutdown:
 - a. Loss of excitation alarm/shutdown.
 - b. Instantaneous over excitation alarm/shutdown.
 - c. Time over excitation alarm/shutdown.
 - d. Rotating diode failure.
 - e. Loss of sensing.
 - f. Loss of PMG.
- F. Maintenance: All engine, voltage regulator, control panel and accessory units shall be accessible through a single electronic service tool. The following maintenance functionality shall be integral to the generator set control.
1. Engine running hours display.
 2. Service maintenance interval (running hours or calendar days).
 3. Engine crank attempt counter.
 4. Engine successful starts counter.
 5. 20 events are stored in control panel memory.
 6. Programmable cycle timer that starts and runs the generator for a predetermined time. The timer shall use 14 user-programmable sequences that are repeated in a 7-day cycle. Each sequence shall have the following programmable set points:
 - a. Day of week.
 - b. Time of day to start.

- c. Duration of cycle.
- G. Remote Communications: The control shall include Modbus RTU communications as standard via RS-485 half duplex with configurable baud rates from 2.4k to 57.6k.
- H. Local and Remote Annunciation:
 - 1. Local Annunciator (NFPA 99/110, CSA 282): Provide a local, control panel mounted, annunciator to meet the requirements of NFPA 110, Level.
 - 2. Annunciators shall be networked directly to the generator set control.
 - 3. Local Annunciator shall include a lamp test pushbutton, alarm horn and alarm acknowledge pushbutton.
 - 4. The annunciator shall provide remote annunciation of all points stated above and shall incorporate ring-back capability so that after silencing the initial alarm, any subsequent alarms will sound the horn.
 - 5. Ability to be located up to 800 ft from the generator set.
 - 6. Provide the following individual light indications for protection and diagnostics:
 - a. Overcrank.
 - b. Low coolant temperature.
 - c. High coolant temperature warning.
 - d. High coolant temperature shutdown.
 - e. Low oil pressure warning.
 - f. Low oil pressure shutdown.
 - g. Overspeed.
 - h. Low coolant level.
 - i. EPS supplying load.
 - j. Control switch not in auto.
 - k. High battery voltage.
 - l. Low battery voltage.
 - m. Battery charger AC failure.
 - n. Emergency stop.
- I. Local and Remote Annunciation: The digital voltage regulator shall be microprocessor based with fully programmable operating and protection characteristics. The regulator shall be capable of sensing true RMS in three phases of alternator output voltage, or operating in single phase sensing mode. It shall exhibit the following operational characteristics:
 - 1. Alternator output voltage maintained within +/- 0.25% at steady state conditions.
 - 2. Alternator output voltage maintained within +/- 0.25% of rated value for any load variation between no load and full load.
 - 3. Alternator output voltage drift no more than +/-0.25% of rated value at constant temperature.
 - 4. Alternator output voltage drift no more than +/- 0.5% of rated value within a 40 change over ambient temperature range of -40°C to 70°C.

5. Response time less than 20 milliseconds.
6. Voltage buildup with alternator output as low as 6 volts.
7. At full throttle engine starting, output voltage overshoot no more than 5% of its rated value, with respect to the volts/Hz curve. Meets ISO 8325-3 class G2 specifications.
8. Power dissipation 55 W at 15 amps; <100 ma at rest.
9. Telephone Influence Factor (TIF) of less than 50.
10. Electronic Interference/Radio Frequency Interference (EMI/RFI) suppressed to MIL STD 461C Part 9 and VDE 875 level N.
11. Maintain stable voltage control with 20% total harmonic distortion.
12. The regulator shall include the following features:
 - a. Voltage level rheostat to provide alternator output voltage adjustment of -10% to +10% of nominal. This shall be in addition to a programmable output voltage level of -25% to +10%
 - b. Automatic gain adjustment to provide output voltage compensation for changes in load or frequency.
 - c. Manual gain adjustment 0 - 10% to provide compensation for line losses between alternator output terminals and the load.
 - d. Reactive droop adjustment programmable to allow paralleling without interconnect wiring between alternators, with 10% minimum droop at full load and 0.8 PF.
 - e. It shall allow system parameter setup and monitoring, and provide fault alarm and shutdown information through a keyed LCD display. A PC-based user interface shall be available to allow viewing and modifying operating parameters in a windowed environment. The regulator shall be factory preset but field programmable for:
 - 1) Voltage output.
 - 2) Voltage, minimum.
 - 3) Voltage droop/crosscurrent adjustment.
 - 4) Voltage gain (IR compensation).
 - 5) Voltage gain, internal.
 - 6) Current, output.
 - 7) Field current variation.
 - 8) Sensing, single or three phase.
 - 9) Dual voltage/frequency slopes.
 - 10) Slope intersect (knee) frequency.
 - 11) Underfrequency setpoint.
 - 12) Over/under voltage trip.
 - 13) Over/under voltage trip time.

- f. In addition, the regulator shall have an optional version capable of incorporating and programming the following options:
 - 1) PF/KVAR mode selection.
 - 2) PF reference.
 - 3) KVAR reference.
 - 4) reverse power trip.
 - 5) reverse power trip time.
 - g. Alarms and fault shutdowns shall include:
 - 1) Under/over voltage.
 - 2) Overexcitation.
 - 3) Loss of Excitation.
 - 4) Rotating Diode failure.
 - 5) Instantaneous Overcurrent Trip (IST).
 - 6) Loss of Sensing.
 - 7) Loss of Frequency.
 - 8) EEPROM failure .
13. Protection shall be provided for the regulator against long term overcurrent conditions. Alternator output shall shut off when output is shorted, or excitation current exceeds normal for 15 seconds. The regulator shall not be damaged or result in unsafe operation when subjected to open or shorted input due to sensing loss, or sensing source shorted to ground or adjacent conductor.
 14. The regulator shall be capable of operating while mounted within the alternator assembly, or 300m (985 ft) from the alternator. It shall have provision for remote voltage level control, using 16 gauge-shielded wire.
 15. The regulator module sealed in a waterproof and airtight shock resistant plastic housing and shall withstand:
 16. Operating temperatures between -40°C to 70°C.
 17. Shock tolerance to 20 g's
 18. Vibration of 4.5 g's (peak) between frequencies of 18 to 2000 Hz in three perpendicular planes, and mechanical shock of 15 g's in all three planes.
 19. Salt spray resistant as described by MIL STD-810C, Method 509.1 and ASTM-B117.
 20. Pressure sealed to withstand 35 kPa (5 PSI).
 21. The regulator shall be manufactured by the manufacturer of the engine-alternator set.”

SITE SPECIFICATIONS

4. Page 323114-20, Paragraph 2.11 A.: Delete this Paragraph in its entirety and replace with the following:
- “A. Key locks as specified, and incorporate a keying schedule into the hardware schedule for approval.
1. Key changes shall be different from changes previously used at this Facility.
 2. Record key changes to avoid future unintended duplication.
 3. Furnish seven keys for each change, except as noted.
 4. Furnish extended shank keys when required.
 5. Key locks as follows:
 - a. Keyed alike Gates G-3 and G-4.
 - b. Keyed alike Gates G-22 and G-23.
 - c. Keyed alike: Each Interlock by-pass switch.
 - d. Keyed individually: Gate Control Console Power Switch.
 - e. Keyed individually: Each Maintenance Selector Switch.
 - f. Keyed individually: Gate Control Cabinet door.
 - g. Keyed alike Gates G-7, G-8, G-9, G-10 and G-11.
 - h. Keyed alike Gates G-15, G-16, G-17 and G-18.
 - i. Keyed alike Gates G-19 and G-20.
 - j. Keyed alike Gates G-21 and G-28.
 - k. Keyed alike Gates G-24, G-25, G-26, G-27 and G-31.
 - l. Keyed alike Gates G-12, G-13 and G-14.
 - m. Keyed alike Gates G-29 and G-30.
 - n. Keyed alike G-5 and G-6.
 6. Provide 7 sets of keys for each group listed above under item 5.”

TELECOMMUNICATIONS SPECIFICATIONS

5. SECTION 270526 GROUNDING AND BONDING (Revised 8/12/2015 by Addendum No. 5):
- a. Page 270526-1, Subparagraph 1.2 B.1.: Delete reference to General Contractor.
 - b. Page 270526-1, Subparagraph 1.2 B.2.: Delete reference to Telecom Contractor.
 - c. Page 270526-2, Subparagraph 1.2 B.3.: Delete reference to General Contractor and Telecom Contractor.
 - d. Page 270526-4, Paragraph 3.1 A.: Delete reference to General Contractor.
 - e. Page 270526-4, Paragraph 3.1 B.: Delete reference to Telecom Contractor.
 - f. Page 270526-4, Paragraph 3.1 C.: Delete reference to General Contractor.
 - g. Page 270526-5, Paragraph 3.1 D.: Delete reference to General Contractor and Telecom Contractor.
 - h. Page 270526-5, Paragraph 3.1 E.: Delete reference to General Contractor.
 - i. Page 270526-7, Paragraph 3.6 I.: Delete reference to Telecom Contractor.
 - j. Page 270526-7, Paragraph 3.6 J.: Delete reference to Telecom Contractor.
 - k. Page 270526-7, Subparagraph 3.8 B.1.: Delete reference to General Contractor and Telecom Contractor.
 - l. Page 270526-7, Subparagraph 3.8 B.2.a.: Delete reference to General Contractor.
 - m. Page 270526-8, Paragraph 3.8 C.: Delete reference to Telecom Contractor.
 - n. Page 270526-8, Paragraph 3.8 E.: Delete reference to General Contractor and Telecom Contractor.

6. SECTION 270528 PATHWAYS FOR COMM SYSTEMS:
 - a. Page 270528-1, Paragraph 1.2 B.: Delete reference to Telecom Contractor.
 - b. Page 270528-6, Paragraph 3.1 H.: Delete reference to Telecom Contractor.
7. SECTION 270536 CABLETRAYS:
 - a. Page 270536-1, Paragraph 1.2 B.: Delete reference to Telecom Contractor.
 - b. Page 270536-4, Paragraph 3.2 A.: Delete reference to Telecom Contractor.
8. SECTION 270544 SLEEVE AND SLEEVE SEALS:
 - a. Page 270544-1, Subparagraph 1.2 B.1.: Delete reference to Telecom Contractor.
 - b. Page 270544-1, Subparagraph 1.2 B.2.: Delete reference to Telecom Contractor.
9. SECTION 271100 EQUIPMENT ROOMS:
 - a. Page 271100-1, Paragraph 1.02 C.: Delete reference to Telecom Contractor.
 - b. Page 271100-4, Paragraph 2.03 A.: Delete reference to Telecom Contractor.
 - c. Page 271100-6, Paragraph 3.02 C.: Delete reference to General Contractor and Telecom Contractor.
10. SECTION 271300 ISP COMMUNICATIONS BACKBONE CABLING (Revised 8/12/2015 by Addendum No. 5):
 - a. Page 271300-1, Paragraph 1.02 B.: Delete reference to Telecom Contractor.
 - b. Page 271300-4, Paragraph 1.13 A.: Delete reference to General Contractor, EC and Telecom Contractor.
 - c. Page 271300-9, Paragraph 2.07 A.: Delete reference to Telecom Contractor.
 - d. Page 271300-13, Paragraph 3.03 A.: Delete reference to Telecom Contractor.
 - e. Page 271300-14, Paragraph 3.04 C.: Delete reference to General Contractor and Telecom Contractor.
 - f. Page 271300-14 ,Paragraph 3.04 D.: Delete reference to Telecom Contractor.
 - g. Page 271300-14, Paragraph 3.05 A.: Delete reference to Telecom Contractor.
 - h. Page 271300-16, Subparagraph 3.06 B.5.f.: Delete reference to Telecom Contractor.

ARCITECTURAL DRAWINGS

11. Drawing No. AF-102-2S, ROOM FINISH SCHEDULE – SECOND FLOOR (A):
 - a. Room 209A Conference Room:
 - 1) Change “LVT-3” floor type to read “C-2”.
 - 2) Chage “WB-1” base type to read “WB-4”.

HAZMAT DRAWINGS

12. Drawing No. H-103, HAZARDOUS MATERIAL ABATEMENT THIRD FLOOR: Delete this Drawing in its entirety.

FIRE PROTECTION DRAWINGS

13. Revised Drawings:
 - a. Drawing No. FP-001 noted “REVISED DRAWING 10/22/2015” accompanies this Addendum and replaces the same numbered originally issued drawing, and any same numbered previously issued Revised Drawings.

TELECOMMUNICATIONS DRAWINGS

14. Drawing No. T-001 (Revised 10/16/2015 by Addendum No. 12), TELECOM CABLE INFRASTRUCTURE AND COMPONENT INSTALLATION RESPONSIBILITY MATRIX:
Delete Line Nos. 1 and 2.

END OF ADDENDUM

Margaret F. Larkin
Executive Director
Design and Construction

LIST OF SYMBOLS:

SYMBOL	DESCRIPTION
	FIRE SERVICE PIPING
	FIRE STANDPIPE PIPING
	SPRINKLER PIPING
	DRAIN PIPING
	EXISTING WORK TO BE REMOVED
	HEAT TRACING
	HEAT WRAP
	PIPE ELBOW UP, 90° OR 45°
	PIPE ELBOW DN, 90° OR 45°
	PIPE TEE UP
	PIPE TEE DOWN
	BRANCH, TOP CONNECTION
	PIPE CAPPED
	GATE VALVE OR GENERAL SERVICE VALVE
	CHECK VALVE (ARROW INDICATES DIRECTION OF FLOW)
	PIPE SLEEVE
	PIPE REDUCER/INCRASER
	VALVE ON RISER
	HYDRAULIC NODE
	SPRINKLER FLOOR CONTROL ASSEMBLY
	WATER FLOW SWITCH
	PRESSURE GAUGE
	DOUBLE CHECK VALVE ASSEMBLY
	FIRE HOSE VALVE
	FIRE DEPARTMENT CONNECTION
	POINT OF CONNECTION
	POINT OF DISCONNECTION
	PUMP
	TAMPER SWITCH
	OS&Y VALVE W/TAMPER SWITCH

LIST OF ABBREVIATIONS:

ABD	AUTO BALL DRIP
AFC	ABOVE FINISHED CEILING
AFF	ABOVE FINISHED FLOOR
BLDG	BUILDING
BOP	BOTTOM OF PIPE
C.L.	CENTER LINE
COMB	COMBINED
CONN.	CONNECTION
CONT.	CONTINUATION
CLG	CEILING
DCDA	DOUBLE CHECK DETECTOR ASSEMBLY
DCV	DOUBLE CHECK VALVE
DN	PIPE DOWN THRU FLOOR
DR	DRAIN
DROP	PIPE DROP BETWEEN FLOORS
DWG	DRAWING
DSP	DRY SPRINKLER PIPING
EXIST	EXISTING
ELEV	ELEVATOR
F	FIRE PROTECTION WATER SUPPLY
FCVA	FLOOR CONTROL VALVE ASSEMBLY
FDC	FIRE DEPARTMENT CONNECTION
FE	FIRE EXTINGUISHER
FEC	FIRE EXTINGUISHER CABINET
FHV	FIRE HOSE VALVE
FHVC	FIRE HOSE VALVE CABINET
FIN. FL.	FINISHED FLOOR
FLR	FLOOR
FP	FIRE PROTECTION
FSP	FIRE STANDPIPE
FS	FLOW SWITCH

LIST OF ABBREVIATIONS (CONT):

FUD	FUNNEL DRAIN
GPM	GALLONS PER MINUTE
LAB	LABORATORY
LH	LIGHT HAZARD CLASSIFICATION
NAS	NO AUTOMATIC SPRINKLER
NC	NORMALLY CLOSED
NIC	NOT IN CONTRACT
NO	NORMALLY OPEN
O.C.	ON CENTER
OH-1	ORDINARY HAZARD GROUP 1 CLASSIFICATION
OH-2	ORDINARY HAZARD GROUP 2 CLASSIFICATION
PG	PRESSURE GAUGE
PIV	POST INDICATOR VALVE
PLBG	PLUMBING
PSI	POUNDS PER SQUARE INCH
QR	QUICK RESPONSE
RCV	RISER CONTROL VALVE
RISE	PIPE RISE BETWEEN FLOORS
RM	ROOM
SPEC	SPECIFICATIONS
SP	SPRINKLER (WET)
THRD	THREAD
TS	TAMPER SWITCH
TYP	TYPICAL
UP	PIPE UP THRU FLOOR
VOLT	VOLTAGE
W/	WITH

SPRINKLER DESIGN BASIS SCHEDULE

HAZARD CLASSIFICATION LOCATIONS	DESIGN BASIS	AREA OF COVERAGE PER SPRINKLER (MAX)
LIGHT HAZARD PATIENT ROOMS, OFFICES, CORRIDORS, IT ROOMS, LABORATORIES	DENSITY 0.10 GPM/SF DESIGN AREA 1,500SF	225 SQ. FT.
ORDINARY HAZARD - 1 STORAGE ROOMS, KITCHEN, FILE ROOMS, LINEN ROOMS	DENSITY 0.15 GPM/SF DESIGN AREA 1,500SF	130 SQ. FT.
ORDINARY HAZARD - 2 MECHANICAL EQUIPMENT ROOMS, SHOP AREAS AND ELECTRICAL EQUIPMENT ROOMS	DENSITY 0.20 GPM/SF DESIGN AREA 1,500SF	130 SQ. FT.

APPLICABLE CODES AND ANALYSIS:

LOCATION: WARDS ISLAND, NEW YORK
SEISMIC DESIGN CATEGORY: B

CODE REFERENCES:

- NYS OFFICE OF MENTAL HEALTH (OMH) PATIENT SAFETY STANDARDS 2012
- NYS OFFICE OF GENERAL SERVICES (OGS) DESIGN PROCEDURE MANUAL, FIRE PROTECTION GUIDE 2012
- BUILDING CODE OF NEW YORK STATE (BCNYS) 2010
- NYS UNIFORM FIRE PREVENTION AND BUILDING CODE 2010
- ENERGY CONSERVATION CONSTRUCTION CODE OF NEW YORK STATE (ESSSNYS) 2010
- NFPA 13 STANDARD FOR THE INSTALLATION OF SPRINKLER SYSTEMS 2007
- NFPA 10 STANDARD FOR POTABLE FIRE EXTINGUISHERS 2007
- NFPA 14 STANDARD FOR THE INSTALLATION OF STANDPIPE SYSTEMS 2007
- NFPA 20 STANDARD FOR THE INSTALLATION OF STATIONARY PUMPS FOR FIRE PROTECTION 2007
- NFPA 24 STANDARD FOR THE INSTALLATION OF PRIVATE FIRE SERVICE MAINS AND THEIR APPURTENANCES 2007
- NFPA 25 STANDARD FOR THE INSPECTION, TESTING AND MAINTENANCE OF WATER-BASED FIRE PROTECTION SYSTEMS 2008
- UNDERWRITERS LABORATORIES (UL)
- OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA)

FIRE PROTECTION NOTES:

- SPRINKLER AND STANDPIPE SYSTEM DESIGN SHALL BE BASED ON THE REQUIREMENTS OF NYS BC (2010), NFPA-13 (2007), NFPA-14 (2007), NFPA-20 (2007), NFPA-25 (2008) & FDNY REQUIREMENTS.
- BUILDING SHALL BE FULLY SPRINKLERED. EACH FLOOR LEVEL WILL HAVE SEPERATE ZONES MATCHING EVACUATION ZONES. A SUPPLY AND DRAIN RISER SHALL BE INSTALLED WITHIN THE BUILDING STAIRWAYS.
- SPRINKLER HEAD COVERAGE: UNLESS SPECIFIED OTHERWISE, MAXIMUM AREA PER SPRINKLER HEAD SHALL BE BASED ON 225 SQ FT FOR LIGHT HAZARD & 130 SQ FT FOR ORDINARY HAZARD.
- EACH SPRINKLER SYSTEM SHALL BE HYDRAULICALLY CALCULATED WITH AT LEAST 10 % SAFETY FACTOR.
- PROVIDE ALL HANGERS AS REQUIRED TO COMPLY WITH NFPA-13 (2007).
- COORDINATE EXACT LOCATIONS OF SPRINKLERS AND PIPING WITH CEILING, ELECTRICAL, MECHANICAL AND STRUCTURAL ELEMENTS OF BUILDING. ON TILE HUNG CEILINGS, SPRINKLER HEADS SHALL BE CENTERED ON TILES.
- PROVIDE DRAINS REQUIRED TO COMPLY WITH NFPA-13(2007).
- FLUSH AND TEST SYSTEM IN ACCORDANCE WITH NFPA-13(2007).
- FIRESTOP ALL OPENINGS THROUGH FLOORS, CEILINGS AND PARTITIONS TO RE-ESTABLISH THE FIRE RATING OF THAT FLOOR, CEILING OR PARTITION.
- INSTALL CONTROL VALVES LESS THAN 7'-0" ABOVE FINISHED FLOOR, WHERE POSSIBLE. WHERE CONTROL VALVES ARE CONCEALED IN OCCUPIED ACCESSIBLE AREAS, THEY SHALL BE MOUNTED INSIDE LOCKABLE VALVE CABINETS (PROVIDE WITH SIGN) INTENDED FOR SUCH USE. COORDINATE REQUIREMENTS OF VALVE CABINETS WITH ARCHITECTURAL PLANS AND SPECIFICATIONS.
- CONTRACTOR SHALL INCLUDE IN THEIR SCOPE TO ENGAGE A FACILITY APPROVED TESTER TO CONDUCT AN INITIAL HYDRANT FLOW TEST PRIOR TO SUBMISSION OF SPRINKLER SHOP DRAWINGS AND HYDRAULIC CALCULATIONS AND ANOTHER HYDRANT FLOW TEST PRIOR TO COMPLETION AND HANDOVER OF THE PROJECT.
- PIPE SIZES SHOWN ARE BASED ON PRELIMINARY HYDRAULIC CALCULATIONS. CONTRACTOR TO PROVIDE FINAL HYDRAULIC CALCULATIONS AND INSTALLATION OF PIPING MATCHING THOSE CALCULATIONS. CONTRACTOR SHALL NOT REDUCE ANY OF THE PIPE SIZES INDICATED ON THESE DRAWINGS.
- PROVIDE AIR RELEASE DEVICE AT TOP OF SPRINKLERS AND STANDPIPE RISERS.
- ALL FIRE PROTECTION VALVES SHALL BE INSTALLED WITH TAMPER SWITCHES.
- CLASS 1 STANDPIPE WILL BE INSTALLED, INCLUDING 2 1/2" HOSE VALVE WITH PRESSURE REGULATOR WHERE INDICATED.
- HOSE VALVES WILL BE PROVIDED AT THE FLOOR LANDINGS.
- THE HIGHEST HOSE OUTLET WILL BE DESIGNED FOR 65 PSI MINIMUM.
- HOSE VALVES WILL BE PROVIDED WITH PRESSURE REGULATORS WHERE PRESSURE EXCEEDS 175 PSI.

DEMOLITION NOTES:

- ANY EXISTING PIPING REQUIRING DRAINING TO ACCOMODATE THE WORK SHALL BE SHUT DOWN AND DRAINED BY THE CONTRACTOR.
- THE CONTRACTOR SHALL REMOVE EXISTING PIPING IN A NEAT AND ORDERLY FASHION.
- THE CONTRACTOR SHALL REMOVE ALL FITTINGS HANGERS AND VALVES ASSOCIATED WITH DEMOLITION WORK INCLUDING INSULATION AND DISCARD IN A NEAT AND ORDERLY MANNER.

GENERAL NOTES:

- PROVIDE SPRINKLER HEADS IN ALL CLOSETS.
- ALL PIPING, PIPE SLEEVES, PIPE PENETRATION LOCATION AND SIZES TO BE SUBMITTED FOR REVIEW BEFORE STARTING WORK.
- CONTRACTOR IS RESPONSIBLE TO PROVIDE TEMPORARY CORE PROTECTION SPRINKLERS AT THE ELEVATOR OPENINGS, ENTRANCES TO THE EXIT STAIRWAYS AND ALONG THE EGRESS PATHS, INCLUDING CORRIDORS CONNECTING ALL REQUIRED EXITS AND ELEVATOR LOBBIES DURING CONSTRUCTION.
- PROVIDE FIRE WATCH AS REQUIRED BY THE CODE ENFORCEMENT OFFICIAL DURING COSNTRUCTION.
- ALL FIRE PROTECTION WORK SHALL BE DONE BY A CERTIFIED SPRINKLER CONTRACTOR.

SCOPE OF WORK:

- DEMOLISH EXISTING SPRINKLER HEADS, ASSOCIATED PIPING, VALVES, SUPPORTS, HANGERS AND MISCELLANEOUS DEVICES AS SHOWN ON THE PLANS.
- PROVIDE SPRINKLER HEADS, ASSOCIATED PIPING, VALVES, SUPPORTS, HANGERS AND MISCELLANEOUS DEVICES AS SHOWN ON THE PLANS.
- PROVIDE FLOW SWITCH AND TAMPER SWITCH WITH FLOOR CONTROL VALVE ASSEMBLY IN EACH SPRINKLER ZONE.
- PROVIDE NEW FIRE STANDPIPE RISERS WITH 2 1/2" ANGLE VALVE WITH CAP AND CHAIN INSIDE FIRE HOSE VALVE CABINET.
- DEMOLISH EXISTING COMBINED FSP/SP RISER, SP DRAIN RISER AND FHV(S) AFTER THE INSTALLATION AND TESTING OF NEW FSP, DRAIN LINE AND FIRE HOSE VALVES.
- REPLACE EXISTING FCVA(S) IN BASEMENT, FIRST AND SECOND FLOORS WITH NEW FCVA(S) AFTER THE NEW SPRINKLER SYSTEM HAS BEEN INSTALLED.
- REPLACE EXISTING FCVA(S) FROM 3RD FLOOR TO 11TH FLOOR FOR FSP RISER ACROSS STAIR #3 AFTER THE SPRINKLER SYSTEM HAS BEEN INSTALLED.
- INSTALL NEW DRY PIPE VALVE ASSEMBLIES COMPLETE WITH AIR COMPRESSOR AND DESSICANT AIR DRYER.
- PROVIDE PRESSURE REGULATING VALVES FROM 11TH FLOOR AND BELOW FOR HOSE VALVES AND SPRINKLER CONTROL VALVES.
- ALL FIRE STANDPIPES NOT IN STAIRS TO BE ENCLOSED IN FIRE RATED ENCLOSURE. THIS INCLUDES HORIZONTAL OFFSETS OF STANDPIPES.
- TEMPORARY SPRINKLER/FIRE PIPING INSTALLED UNDER DEMOLITION CONTRACT TO BE MAINTAINED DURING CONSTRUCTION AND EVENTUALLY REMOVED BY THIS CONTRACT. REMOVE SPRINKLER FLOOR CONTROL VALVE ASSEMBLY ASSOCIATED WITH TEMPORARY SPRINKLER.

SPRINKLER HEAD SCHEDULE

NOTES:

- ALL TYPES OF SPRINKLER HEADS SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S RECOMMENDATION.
- SPRINKLER HEADS IN LOCATIONS THAT MAY BE SUBJECTED TO ACCIDENTAL DAMAGE INCLUDING BUT NOT LIMITED TO MECHANICAL ROOMS, STORAGE ROOMS, JANITORS CLOSETS, ELECTRICAL ROOM/CLOSETS, AND ANY LOCATION WHERE SPRINKLER HEADS ARE LESS THAN 7'-6" A.F.F. SHALL BE PROVIDED WITH SPRINKLER GUARDS.
- ADDITIONAL SPRINKLERS SHALL BE PROVIDED ABOVE AND BELOW ALL OBSTRUCTIONS, DUCTS, OR CLUSTERS OF DUCTS, PIPES OR CONDUITS OVER 48" WIDE.

- THE DRAWINGS PREPARED BY THE CONTRACTOR SHALL BE COORDINATED WITH THE OTHER TRADES. ALL EQUIPMENT THAT CAN AFFECT THE RATING OF SPRINKLER HEADS SHALL BE CLEARLY IDENTIFIED ON THE SHOP DRAWINGS PRIOR TO SUBMISSION FOR APPROVAL.
- ALL SPRINKLER HEADS SHALL BE OF THE ORDINARY TEMPERATURE RATING (165° F), EXCEPT AS FOLLOWS:
A. SPRINKLER HEADS LOCATED IN HIGHER TEMPERATURE ROOMS SUCH AS ELEVATOR MACHINE ROOMS, BOILER ROOMS, AND OTHER SIMILAR ROOMS SHALL BE OF THE INTERMEDIATE TEMPERATURE RATING (200° F).
- ALL WET SPRINKLERS SHALL BE OF THE QUICK RESEONSE TYPE.

SYMBOL	UPRIGHT	CONCEALED PENDENT	SIDEWALL	PENDENT	DRY	GENERAL LOCATION OF SPRINKLER HEADS	SPRINKLER TYPE	TEMP RATING (DEG F)	PRESSURE RATING PSI	K FACTOR	FINISH	BASIS OF DESIGN MANUFACTURER & MODEL
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	ALL AREAS WITHOUT HUNG CEILING UNLESS OTHERWISE NOTED	UPRIGHT QUICK RESPONSE	165*	175	5.6	BRONZE	TYCO TY-FRB SERIES (TY-313)
	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	BOTTOM OF ELEVATOR SHAFT	SIDE WALL QUICK RESPONSE	165	175	5.6	BRONZE	SIDE WALL TYCO TY-FRB SERIES (TY-3331) OR APPROVED EQUAL
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	UNHEATED VESTIBULE TO STAIR	DRY CONCEALED PENDENT QUICK RESPONSE	155	175	5.6	CHROME	TYCO SERIES DS-C TY3535 DRY TYPE SPRINKLER OR APPROVED EQUAL. COORDINATE BARREL LENGTH WITH SITE INSTALLATION.
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	UNHEATED STAIR	DRY UPRIGHT QUICK RESPONSE	155	175	5.6	BRONZE	TYCO SERIES DS-1 TY3135 DRY TYPE SPRINKLER OR APPROVED EQUAL. COORDINATE BARREL LENGTH WITH SITE INSTALLATION.
	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	UNHEATED VESTIBULE TO STAIR	DRY SIDEWALL QUICK RESPONSE	155	175	5.6	BRONZE	TYCO SERIES DS-1 TY3338 DRY TYPE SPRINKLER OR APPROVED EQUAL. COORDINATE BARREL LENGTH WITH SITE INSTALLATION.

* FOR MECHANICAL ROOMS, SEE NOTE 5 ABOVE

FIRE PROTECTION CABINETS, ANGLE VALVES AND ACCESSORIES

EQUIPMENT DESCRIPTION	BASIS OF DESIGN	SIZE (INCH.)	LOCATION	REMARKS
ANGLE VALVE AND EXTINGUISHER CABINET (RECESSED)	POTTER ROEMER MODEL 1880	18" x 24" x 8"	ALL LOCATIONS 12TH FLOOR & ABOVE, EXCEPT STAIRS	INSTALL ANGLE VALVE AND EXTINGUISHER CABINET PER NFPA-14 (2010)
ANGLE VALVE AND EXTINGUISHER CABINET (RECESSED, FIRE RATED)	POTTER ROEMER MODEL FRC 1880	18" x 24" x 8"	ALL LOCATIONS 12TH FLOOR & ABOVE, EXCEPT STAIRS, IN FIRE RATED SHAFTS FOR STANDPIPE RISERS	INSTALL ANGLE VALVE AND EXTINGUISHER CABINET PER NFPA-14 (2010)
ANGLE VALVE AND EXTINGUISHER CABINET (RECESSED)	POTTER ROEMER MODEL 1206	24" x 40" x 10"	ALL LOCATIONS 11TH FLOOR & BELOW EXCEPT STAIRS	INSTALL ANGLE VALVE, PRV AND DRAIN VALVE, AND EXTINGUISHER CABINET PER NFPA-14 (2010)
ANGLE VALVE AND EXTINGUISHER CABINET (RECESSED, FIRE RATED)	POTTER ROEMER MODEL FRC 1206	24" x 40" x 10"	ALL LOCATIONS 11TH FLOOR & BELOW, EXCEPT STAIRS, IN FIRE RATED SHAFTS FOR STANDPIPE RISERS	INSTALL ANGLE VALVE, PRV AND DRAIN VALVE, AND EXTINGUISHER CABINET PER NFPA-14 (2010)
ANGLE VALVE AND EXTINGUISHER CABINET (SURFACE MOUNTED)	POTTER ROEMER MODEL 1885	20" x 26" x 9 1/4"	STAIRS, 12TH FLOOR & ABOVE	INSTALL ANGLE VALVE AND EXTINGUISHER CABINET PER NFPA-14 (2010)
ANGLE VALVE AND EXTINGUISHER CABINET (SURFACE MOUNTED)	POTTER ROEMER MODEL 1256	26" x 42" x 10"	STAIRS, 11TH FLOOR & BELOW	INSTALL ANGLE VALVE, PRV AND DRAIN VALVE, AND EXTINGUISHER CABINET PER NFPA-14 (2010)
PRESSURE REGULATING VALVE (HOSE)	POTTER ROEMER MODEL 4033	2 1/2"	11TH FLOOR & BELOW	NYFD THREADS 4625 CAP
CAP & CHAIN	POTTER ROEMER MODEL 4625	2 1/2"	ALL ANGLE HOSE DRAIN VALVES	
ANGLE VALVE	POTTER ROEMER MODEL 4065	2 1/2"	12TH FLOOR UP HOSE DRAINS - ALL FLOORS	NYFD THREADS 4625 CAP
PRESSURE REGULATING VALVE (SPRINKLER)	WILKINS ZW209FP	3", 4"	11TH FLOOR & BELOW	SEE DETAILS FOR COMPLETE SPRINKLER FLOOR ASSEMBLY
FIRE DEPT. CONNECTION	POTTER ROEMER MODEL 5754	3" x 3" x 6"	EXTERIOR	FREE STANDING FIRE DEPT. CONNECTION
EXTERNAL RISER TEST DRAIN	POTTER ROEMER MODEL 4315(2#)	2 1/2"	EXTERIOR FACADE	4625 CAP
	POTTER ROEMER MODEL 5871	4"		

REVISED DRAWING 10/22/2015

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NEW YORK STATE OF OPPORTUNITY.

Office of General Services

DESIGN & CONSTRUCTION

CONSULTANTS:

RBSD | **STV** 100 Years

ARCHITECTS PC

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CONTRACT:

CONSTRUCTION

TITLE: MAJOR BUILDING RENOVATIONS FOR THE MANHATTAN FORENSIC RELOCATION

LOCATION: MANHATTAN PSYCHIATRIC CENTER, BUILDING No. 102 600 EAST 125TH STREET WARDS ISLAND, NY 10035

CLIENT: NYS OFFICE OF MENTAL HEALTH

MARK	DATE	DESCRIPTION
13	10/22/2015	ADDENDUM 13 BID DOCUMENT

PROJECT NUMBER: 44578

DESIGNED BY: TW

DRAWN BY: JR

FIELD CHECK: N/A

APPROVED: JP

SHEET TITLE:

FIRE PROTECTION ABBREVIATIONS, NOTES & SYMBOLS

BUILDING NUMBER: 102

DRAWING NUMBER: FP-001

SHEET